Strategic Operations

(Version 3.02)

The following is a compiled rules errata for the first printing of *Strategic Operations* as of 6 August, 2020.

There have been two printings of *Strategic Operations* to date: 2009 and 2011—you can check page 7 of the book to see which one you have. All errata and page number references here are for the first printing (2009) unless specified otherwise. NOTE: This document was slightly updated in 2022 to reflect changes in printing plans.

This section combines all previously issued errata with the new additions of versions 3.0, 3.01, and 3.02, so that every ruling is in order and in one place. Please note that, in the interests of brevity, typo and minor formatting corrections have not been listed unless they affect an understanding of the rules.

General Rules

Armor Diagram (p. 12)
Replace the "Capital-Scale Armor" paragraph with the following:

   Capital-Scale: JumpShips, WarShips and Space Stations track armor and structural integrity using capital scale (10 x standard-scale). To help differentiate capital-scale from standard-scale, these record sheets use squares for each armor and structural integrity point, instead of circles.

Abstract Ground Support (p. 19)
Under "Movement", at the end of the first paragraph insert the following:

Players should pick a starting Altitude for units on the Radar map when they enter play. Units moving to the central zone to engage ground units can use an available zone movement point to raise or lower that Altitude by 1. For example, a light fighter that can move two zones in a turn can use one to move to the center zone and one to drop one Altitude.

Abstract Ground Support (p. 19)
Under "Movement", at the end of the section insert the following new paragraph:

   An aerospace unit using abstract movement never suffers random movement. If they would do so and are not already out of control, they go out of control instead.

Landing Roll (p. 23)
Second paragraph (first text on the page), last sentence

In both instances, a successful roll result indicates the unit lands in the target hex at the end of the Movement Phase.
<u>Change to:</u>
In both instances, a successful roll result indicates the unit lands in the target hex at the end of the Movement Phase with any facing desired.

Failed Landing Damage (p. 23)
   1)   *Under "Stacking", first sentence*

         in this case, use the direction of the original target hex to determine the direction of movement for any displacement that might occur.
         <u>Change to:</u>
         in this case, use the direction from the original target hex to determine the direction of movement for any displacement that might occur.

2) *Under "Stacking", at the end of the paragraph add:*

If a unit cannot be displaced (for example, all the adjacent hexes are prohibited terrain), the unit is destroyed.

Recommended Fighter Squadron Formation Table (p. 28) (also p. 439)
Add the following new entry:

Free Worlds League   6

Maximum Damage Threshold [example text] (p. 29)

1) *Left column, fourth example paragraph*

He decides to equip each fighter with a single Anti-Ship Missile (equal to 6 bomb slots) and 1 HE Bomb.
<u>Change to:</u>
He decides to equip each fighter with a single Anti-Ship Missile (equal to 5 bomb slots) and 1 HE Bomb.

2) *Right column, first paragraph*

Finally, for Bombs: 1 AS Missile and 2 HE Bomb.
<u>Change to:</u>
Finally, for Bombs: 1 AS Missile and 1 HE Bomb.

3) *Right column, replace the second paragraph with the following:*

Finally, Joel mentally notes that the Maximum Damage Threshold of each bay is equal to the Attack Value for each weapon bay. He then fills in the AV Each column with these values for ease of reference: 12 for the Nose LRM-15 w/Artemis bay, 10 for the Nose ER PPC bay, 8 for the Nose light Gauss rifle bay, 5 for the Wing ER medium laser bay, 6 for the Wing medium pulse laser bay, 3 for the Aft ER small laser bay, 30 for the AS Missiles and 10 for the HE Bombs.

Heat Sinks [example text] (p. 29)
Replace the paragraph with the following:

Joel adds all the heat sinks of his six fighters to find the total value for his squadron and comes up with 84 heat sinks (11 doubles for each Shade, 18 doubles for each Rusalka and 13 doubles for each Striga). He writes that value down on the record sheet, in the Squadron Data section, as well as the fighter squadron's total heat capacity, which is 168, and then checks the double heat sinks box. If any of the fighters mounted single heat sinks, Joel would have needed to track the double and single heat sinks separately for purposes of damage and heat dissipation.

Fighter Squadron Attacks (p. 30)
Fourth paragraph, third sentence

The number of weapon attacks a fighter squadron unit can make depends on how many squadron weapon bays are available in the firing arc in which the target is located (remembering that a fighter squadron cannot overheat when firing bays), as well as the range to the target.
<u>Change to:</u>
The number of weapon attacks a fighter squadron unit can make depends on how many squadron weapon bays are available in the firing arc in which the target is located, as well as the range to the target.

Fighter Squadron Record Sheet [example illustration] (p. 30)
Make the following changes:

- Under Squadron Data, HE Bombs' Starting #/Current # should be "6/6"
- Total Heat Capacity (Current) should be 84 (168)
- All fighter entries should have 1 HE Bomb each instead of 2
- The Shade entries should have Thrust ratings of 9 (7) Safe and 14 (11) Max
- The "Rusalkas" entries should read "Rusalka"
- The "Strigas" entries should read "Striga"
- The Rusalka entries should have Thrust ratings of 7 (5) Safe and 11 (8) Max
- The Striga entries should have Thrust ratings of 6 (4) Safe and 9 (6) Max

Fighter Squadron Attack [example text] (pp. 31-32)
Replace the entire example text with the following, with specific fixes noted in bold:

Joel is in the thick of a battle and his fighter squadron is targeting an enemy Achilles DropShip that has just entered the fray during Turn 3. He's already lost one fighter (the Shade in Slot 2) and so his squadron of six has become a squadron of five. He already launched all his external stores, so those are not available to him. **Additionally, the Shade in Slot 1 has taken two armor hits, three heat sink hits and a Wing weapon critical hit, so the ER medium laser bay on that Fighter generates only 10 heat and 10 damage (as opposed to the standard 20 heat and 20 damage).**

The DropShip is at medium range and in the fighter squadron's front arc, and so Joel opens up with as many weapon bays as he can without overheating. **With damage, the 84 starting double heat sinks are now 70 double heat sinks, giving him a total heat capacity of 140.** After playing with numbers quickly, Joel decides not to fire the ER PPC bay, and the medium pulse laser bay is out of range, leaving him with the LRM-15 w/Artemis, ER medium laser and light Gauss rifle bays, which will add up to 111 heat (remembering that the Shade in Slot 1 is only generating 10 heat for its ER medium laser bay); **this is inside the 140** maximum heat the fighter squadron can generate per turn.

He makes an attack with all three weapon bays; he misses with the LRM 15 w/ Artemis, but both the other two bays strike the target! Looking at his fighter squadron sheet, Joel notes that the ERML Wing bay has 18 lasers still active. As such, Joel rolls 2D6 on the 18 column of the Cluster Hits Table, with a result of 9, meaning 14 of the 18 ER medium lasers strike the target. Adding the Attack Values for the fourteen ER medium lasers that did strike the target creates a final Attack Value of 70 (14 x 5 AV = 70). Joel then rolls for a hit location on the appropriate column of the Aerospace Units Hit Location Table and comes up with a result of 9: Left Side, which translates into a Left Wing for an Aerodyne DropShip. The controlling player of the Achilles DropShip assigns 70 points of standard-scale damage as a single hit to that location, **reducing the damaged armor from 250 down to 180**. The Damage Threshold of the armor in that location on the Achilles was 26; since the Maximum Damage Threshold of the ER Medium Laser bay is only 5, there is no potential for a critical hit due to exceeding that location's Damage Threshold.

Joel then **fires** the bay of 6 light Gauss rifles and so he rolls on the 6 column of the Cluster Hits Table. He gets a result of 5. He consults the 6 column of the Cluster Hits Table (number of active light Gauss rifles) and sees that only three rifles (one fighter's worth) struck the target. Multiplying the AV Each value of 8 by 3 he gets a total Attack Value of 24. Joel rolls a 10 for hit location, resulting in 24 points of damage being assigned to the Left Wing again, reducing the armor from 180 to 156. Even though they are playing with Variable Damage Thresholds, the current Threshold of that location is 18, which is well below the MDT of 8 for a light Gauss rifle bay, and so there is no potential for a critical hit for damage exceeding that location's Damage Threshold.

During Turn 4, Joel's fighter squadron remains in the same condition from last turn and once again he sets his sights on the Achilles DropShip. The DropShip is in the fighter squadron's front arc and this time the direction of attack is on the already damaged Left Side, but the range is long, meaning that the powerful ER medium laser bay is out of range. Joel fires the ER PPC bay this time, along with the LRM-15 w/Artemis and the light Gauss rifle bays. The total heat is 51, well within the squadron's **140** heat capacity. The ER PPC bay fails to hit, but Joel strikes the DropShip with the LRM-15 w/Artemis and light Gauss rifle bays.

Joel decides to determine the light Gauss rifle bay first; he already knows to roll 2D6 on the 6 column of the Cluster Hits Table. He gets a result of 11; all six rifles strike the target! He then rolls a 7 on the Hit Location Table, and the controlling player of the DropShip applies the 48 Attack Value of the six rifles (AV Each of 8 times 6 light Gauss rifles) as a single block against the Left Wing, **taking its 156 armor down to 108**. As before, the 8 Maximum Damage Threshold of the light Gauss rifle bay means it cannot potentially cause a critical hit through exceeding the Damage Threshold of that location.

Joel then looks at the squadron record sheet to determine that there are three active fighters with an LRM-15 w/Artemis bay (in slots 1, 3 and 4). He rolls 2D6 with a result of 7, and consults the 3 column of the Cluster Hits Table; two fighters struck the target. He then adds the Attack Value of the LRM-15 w/Artemis from the fighters in slots 1 and 3, providing a final Attack Value of 24. Joel rolls for location and gets a 6: the Left Wing again! **The controlling player reduces that location's 108 armor to 84. This time, however, the current Damage Threshold of the DropShip's Left Wing at the time the LRM-15 w/Artemis bay's Attack Value is assigned is 12 [108 (current Armor Value) ÷ 10 = 11]. As 12 is the Maximum Damage Threshold of the LRM-15 w/Artemis bay, and that value exceeds the current Damage Threshold, Joel has a chance to cause a critical hit by exceeding the Damage Threshold of that location!**

Attacks Against Fighter Squadrons [example text] (p. 33)

1) *Right column, first paragraph*

   Shade in Slot 1 has taken 2 points of capital-scale damage in previous turns.
   <u>Change to:</u>
   Shade in Slot 1 has taken 8 points of capital-scale damage in previous turns.

2) *Right column, second paragraph*

   …AC/20/Gauss rifle bay and a 2 LRM-20 w/Artemis bay (another natural 12 to-hit roll result). Though it won't matter for damage purposes, all the attacks struck the fighter squadron's right side (important to know for any critical hits assigned).
   <u>Change to:</u>
   …AC/20/Gauss rifle bay, a 2 LRM-20 w/Artemis bay (another natural 12 to-hit roll result), and 2 medium pulse lasers. Though it won't matter for damage purposes, all the attacks struck the fighter squadron's right side.

3) *Right column, third paragraph*

   (the fighter was already down 2 armor squares).
   <u>Change to:</u>
   (the fighter was already down 8 armor squares).

4) *Right column, seventh paragraph*

   For the AC/20/Gauss rifle bay (capital-scale Attack Value 4), the opponent rolls a 2. Because that fighter was previously destroyed, he rolls again with a result of 4; Joel marks off 4 damage points on the Rusalka in that location. Once again, because that was more than 2 points of armor, the opponent rolls a possible critical hit, but with a 6 result comes up short.
   <u>Change to:</u>
   For the AC/20/Gauss rifle bay (capital-scale Attack Value 4), the opponent rolls a 4. Joel marks off 4 damage points on the Rusalka in that location. Once again, because that was more than 2 points of armor, the opponent rolls a possible critical hit, but with a 6 result comes up short. The Medium Pulse bay also hits the Rusalka in slot 4 for one point."

Fuel Consumption (All Units) (p. 35)
Replace the third paragraph with the following paragraphs:

Combat Vehicles that require fuel consume an amount equal to 2 percent of their engine mass per scenario or search and rescue operation (see *Search and Rescue*, p. 45), or 1 percent if not involved in combat during the current Maintenance/Repair Cycle. Their fuel tank capacity is 10 percent of the engine mass. Like Support Vehicles, Combat Vehicles will not be available for duty if they run out of fuel.

Jump, motorized, and mechanized conventional infantry units have a fuel capacity of 2% of their total mass (do not round) and burn up .25 tons of fuel per Maintenance/Repair Cycle (see *Time*, p. 166)—which must be replenished for the next battle or they are relegated to operating as foot infantry.

Morale Ratings Table (p. 40)
Under "Other," the values for "Force has suffered desertions" and "Force has suffered mutineers" should be –1 and –3, respectively.

Search and Rescue Modifiers Table (p. 46)
1) Invert the values of all table entries (i.e., change all plusses to minuses)
2) Add an asterisk to the end of "SAR force has Improved Sensors" and "SAR force has Active Probe"

Actions (p. 47)
Replace the next-to-last sentence with the following:

Each player may give one action to each Unit (usually a company or Trinary, though players may, if they all agree, use lances and Stars instead) in his or her Force, and no Element ('Mech, vehicle, infantry platoon and so on) may be given more than one order in a Strategic Turn.

Battle Scenario Table & Raid Scenario Table (p. 49)
For both tables, change the five rows for "Defender Campaign Score" as follows:

< –4.5 / –4 to –1 / –0.5 to 0.5 / 1 to 4 / 4.5+

Random AeroSpace Assignment Table: Inner Sphere 1 (p. 51)
Under DropShips, House Kurita, change Nekohono`o (3057) to Nekohono`o (3067)
Under DropShips, House Marik, change Merlin (3057) to Merlin (3067)
Under DropShips, House Marik, change Merlin (3057) to Merlin (3067)

Random AeroSpace Assignment Table: Inner Sphere 2 (p. 52)
Under DropShips, ComStar, change Model 96 'Elephant' (3057) to Model 96 'Elephant' (3075)

Random Aerospace Assignment Table: Minor States 1 (p. 54)
Third paragraph

(PU) is *Record Sheets: Phoenix Upgrade*;
<u>Change to:</u>
(3085-PP) is *Record Sheets: 3085 Project Phoenix*;

RANDOM ASSIGNMENT TABLE ('MECH) CORRECTIONS

Free Rasalhague Republic, Medium
GRF-6S - 3085-PP
WVR-8K - 3085-PP

Free Rasalhague Republic, Heavy
ARC-2K - 3039

Magistracy of Canopus, Light
WSP-3L - 3085-PP
STG-6L - 3085-PP (both occurrences)
LCT-5V - 3085-PP

Magistracy of Canopus, Medium
PXH-4L - 3085-PP
SHD-7M - 3085-PP

Magistracy of Canopus, Heavy
OSR-4L - 3085-PP
MAD-5L - 3085-PP

Magistracy of Canopus, Assault
LGC-12C - 3085-PP

Marian Hegemony, Light
LCT-1V2 - 3085-PP (both occurrences)

Marian Hegemony, Medium
PXH-1 - 3039
WHT-1H - Should be WTH-1H
WVR-6M - 3039

Marian Hegemony, Heavy
MAD-3R - 3039
WHM-8D - 3085-PP
TDR-9M - 3085-PP
ARC-8M - 3085-PP

Marian Hegemony, Assault
GOL-2H - 3085-PP
LGB-12C - 3085-PP
MAD-4H - 3085-PP

Mercenary, Medium
GRF-6S - 3085-PP
SHD-2H - 3039
WVR-8K - 3085-PP

Mercenary, Heavy
RFL-3N - 3039
MAD-9M2 - 3085-PP
WHM-8D - 3085-PP
ARC-8M - 3085-PP

Mercenary, Assault
MAD-4A - 3039

Nova Cats, Light
AF1A Arctic Fox - 3060
Jenner IIC 4 - 3055

Nova Cats, Medium
WVR-8K - 3085-PP

Nova Cats, Assault
Warhammer IIC 4 - 3085-PP

Outworlds Alliance, Light
WSP-1A - 3039
STG-3R - 3039
LCT-1V - 3039

Outworlds Alliance, Medium
PXH-3K - 3085-PP
WVR-6R - 3039
WTH-1 - 3039
SHD-2H - 3039
GRF-1N - 3039
WFT-1 - 3050U

Outworlds Alliance, Heavy
MAD-3R - 3039

Pirates, Light
LCT-1V - 3039
STG-5R - 3085-PP
STG-3R - 3085-PP
LCT-5M - 3085-PP
WSP-3L - 3085-PP

Pirates, Medium
GRF-1N - 3039
PXH-1 - 3039
WVR-6R - 3039
WHT-1H - Should be WTH-1H

Pirates, Heavy
TDR-9M - 3085-PP
OSR-2C - 3039
WHM-8D - 3085-PP
MAD-3R - 3039
ARC-2R - 3039
OTL-6D - 3085-PP
ARC-8M - 3039

Pirates, Assault
GOL-2H - 3085-PP
LGB-0W - 3039
BLR-1G - 3039
MAD-4H - 3085-PP

Taurian Concordat, Light
STG-5R - 3085-PP
WSP-3L - 3085-PP
COM-2D - 3039
LCT-5V - 3085-PP
VLK-QD1 - 3085-PP

Taurian Concordat, Medium
PXH-4L - 3085-PP
SHD-7M - 3085-PP

Taurian Concordat, Heavy
TDR-5S - 3039
ARC-6W - 3085-PP
MAD-5L - 3085-PP
WHM-8D - 3085-PP
OSR-4C - 3085-PP

Random AeroSpace Assignment Table: Minor States 1 (p. 56)
Under Light Aerospace Fighters, die roll 7 Marian Hegemony column, change S-27 Sabre to SB-27 Sabre

Advanced Aerospace Movement

Advanced Movement (p. 66)
After "Lateral and Deceleration Movement" insert the following new section:

ANGLES OF ATTACK

When using these advanced movement rules, Angle of Attack to-hit modifiers (see p. 237, *TW*) are calculated from the units' thrust vectors, not their relative facings.

Docking (p. 67)
At the end of the section insert the following paragraph:

Space Stations: Space Stations with KF Booms occupy one JumpShip collar per 50,000 tons (rounded up). They take 1 hour to dock and to undock for every 1,000 tons of the station's mass (rounded up). In campaign play, round hours up to the nearest whole day. The JumpShip need only be present for the last half (round up) of the docking time or first half of the undocking time. During docking, a Space Station may not expend thrust, fire weapons or launch/recover other units.

Engine Status (p. 72)
At the end of the third paragraph insert the following:

To use weapons, a unit's Engine Status must be Hot.

Landing and Liftoff (Expanded) (p. 72)
Before "Vertical Landing and Liftoff", insert the following new section:

FUEL USE FOR LANDING AND TAKEOFF

When launching from transport bays (per p. 86, *TW*), an aerospace fighter or small craft expends no fuel or thrust for the launch process, having been ejected from the carrier with a speed and heading equal to that of the carrier. As noted in *Total Warfare*, all of the launched vehicle's thrust is available for use on the turn of launch. This also applies to any large craft undocking maneuvers (see p. 66) and the use of flight decks on a support vehicle.

When recovering to transport bays (see p. 86, *TW*), an aerospace fighter or small craft expends no thrust or fuel points for the recovery process other than the thrust points required to match the heading and speed of the carrier (including any thrust points spent by the carrier during the 5 turns of the recovery process.) This also applies to any large craft docking maneuvers (see p. 66).

When landing on a ground map using a horizontal, rolling landing (see p. 87, *TW*), an aerospace fighter, conventional fighter, aerodyne small craft, or aerodyne DropShip expends no extra thrust or fuel points other than those required to reach the altitude and speed required for landing. This also applies to conventional fighters with VSTOL making a shortened landing run.

When landing on a ground map vertically, any vehicle expends 1 thrust point and fuel point per 0.5Gs of local gravity, rounded up (see p. 55, *TO*). These thrust points are not available for other maneuvers in that turn. This also applies to vehicles landing on a flight deck of a support vehicle, which is generally performed at high thrust levels in case of a failed landing, and to aerodyne DropShips and small craft attempting to shorten their landing run (see p. 87, *TW*).

When taking off from a ground map using a horizontal, rolling liftoff (see p. 88, *TW*), an aerospace fighter, conventional fighter, aerodyne small craft, or aerodyne DropShip expends 1 thrust point and fuel point to put the vehicle on the appropriate hex of the atmospheric map moving at 1 hex per turn. The vehicle may not expend additional thrust that turn, representing the low-and-slow nature of aircraft at the moment of takeoff.

When taking off from a ground map using a vertical liftoff (see p. 88, *TW*), any vehicle expends 1 thrust point and fuel point per 0.5Gs of local gravity, rounded up, and is placed on the appropriate hex of the atmospheric map in a hover (0 hexes per turn). The vehicle may not expend additional thrust that turn, representing thrust being constrained to avoid damaging the vehicle with backblast from the ground during launch.

Vertical Landing and Liftoff (p. 72)
1) *First paragraph, first sentence*

   Under Standard Rules, aerodyne DropShips and aerodyne Small Craft may not conduct vertical landing maneuvers in any type of atmosphere;

Change to:
Under standard rules, aerodyne DropShips may not conduct vertical landing maneuvers in any type of atmosphere;

2) *Second paragraph, first sentence*

Under these advanced rules, aerodyne DropShips and aerodyne Small Craft may conduct a vertical landing
Change to:
Under these advanced rules, aerodyne DropShips a may conduct a vertical landing

Hyperspace Travel (p. 86)
In the Proximity Point Distance Table and Distance to Zenith/Nadir Jump Point Table box, add the following line to the bottom of the box:

All distances given are in billions of kilometers.

Jump Calculations (During Game Play) (p. 88)
First paragraph

which must both be valid jump points.
Change to:
which must both be valid jump points (see pp. 133-135).

Jump Process (Outside of Game Play) (p. 89)
1) *Replace the second paragraph ("There is no limit …") with the following:*

Routes plotted to or from other non-standard and transient points are only valid for 20 minutes. Those calculated for a moving unit must be for a pre-determined position on its route. After that time, orbital movement makes the calculations useless and the process must begin again.

2) *After the third paragraph ("Once a unit is committed…") insert the following new paragraph:*

At this point the jump occurs, taking the K-F drive-equipped unit along with any successfully docked external vessels (provided they have a K-F Boom and used a Docking Collar). K-F Booms only work when connected directly to the unit with the K-F Drive; otherwise, treat the vessel as if it's a ground unit landed on the hull, as per below.

Advanced Anti-Aircraft (pp. 94, 96)
Delete this entire section, including the example provided for it.

Advanced Point Defense Weapons (p. 97)
Replace the "Capital Missiles" paragraph with the following:

Capital Missiles: Only point-defense weapon bays (2 or more weapons) can affect capital missiles; a single PDW has no effect. When firing at missiles, convert the damage from a PDW bay to capital-scale damage. If this damage is insufficient to destroy a targeted missile (which occurs when a missile takes capital-scale damage equal to its Attack Value), the missile suffers a +1 to-hit penalty for each point of capital-scale damage it sustained from PDW bays.
Capital Missile Bays: For the purposes of PDW fire, treat all missiles fired from a single bay as a single combined missile (i.e. PDW fire damages and inflicts to-hit penalties on the entire group, not against individual missiles). Similarly, the damage value of the missile flight is not reduced unless the entire flight is destroyed by PDW fire.

Ammunition (p. 98)
Under "Ammunition Explosions", change the end of the last sentence

roll 1D6 to determine the number of tons of ammunition involved

Change to:
roll 1D6 to determine the number of tons of ammunition involved (for weapons with ammunition weighing more than one ton per shot, round tonnage up to the nearest whole shot)."

Advanced Aerospace Combat

Orbit-to-Surface Fire (p. 103)
After the sixth bullet point insert the following new bullet point:

If the attack misses, the distance scattered is equal to the MoF x 2 hexes.

Orbit to Surface Fire [example text] (p. 106)
First paragraph, third through fifth sentences.

and rolls 2D6 with a result of 11; the Margin of Failure is 1 and so the attack scatters 1D6. The controlling player first rolls 1D6 to determine the direction of the scatter, with a result of 3—two hexsides to the right of the numbered hexside. The controlling player then rolls 1D6 to determine how far it scatters, with a result of 6—the orbit-to-surface attack scatters 6 hexes to Hex B.
Change to:
and rolls 2D6 with a result of 9; the Margin of Failure is 3 and so the attack scatters (3 MoF x 2 hexes) 6 hexes. The controlling player first rolls 1D6 to determine the direction of the scatter, with a result of 3—two hexsides to the right of the numbered hexside. The orbit-to-surface attack scatters 6 hexes to Hex B.

Damaging ECM/ECCM (p. 112)
In the third paragraph, change "FCS" to "CIC."

ECM/ECCM [example text] (p. 112)
Eighth paragraph, first sentence

A straight +1 modifier is applied for Hex D because of ECM from the DropShip in Hex I).
Change to:
A straight +1 modifier is applied for Hex I because of ECM from the DropShip in Hex I.

ECM/ECCM [example text] (p. 113)
In the second paragraph (first full), change the first line to

Once again, as a Large Craft, the Aurora *ignores the enemy fighter in Hex F.*
Change to:
Once again, as a Large Craft, the Aurora ignores the enemy fighter in Hex H.

Large Craft and Sensor Shadows (p. 114)
Immediately before the "Electronic Warfare" paragraph, add a new paragraph with the following text:

Sensor shadows are only applicable on the space map (or the space portion of a High-Altitude Map).

Capital Weapons Detailed Ranges Table (p. 115)
1) *The three Mass Driver entries, Heat column*

Light Mass Driver	30/60
Medium Mass Driver	60/100
Heavy Mass Driver	90/140

Change to:

Light Mass Driver	30
Medium Mass Driver	60
Heavy Mass Driver	90

2) Light SC-Cannon: change the Range brackets to 1-8 / 9-16 / 17-24 / 25-32

3) Heavy NPPC: change the Long Range Value for the from "27-36" to "27-39"

Over-Penetration Weapons Fire Table (p. 116)
6 - WarShips with an SI 30 or less and any JumpShips, Space Stations or DropShips apply over-penetration rules*
<u>Change to:</u>
6 - WarShips with an original SI 30 or less and any JumpShips, Space Stations or DropShips apply over-penetration rules*

Tele-operated Missiles (Expanded) (p. 117)
In between the "Targeting Capital Missiles" and "Variable Damage Thresholds" sections, insert the following new section:

TELE-OPERATED MISSILES (EXPANDED)
The following rule provides an additional option for tele-operated missiles. Unless specifically stated otherwise, all standard tele-operated rules are still in effect (see p. 251, *TW*).

A single launcher may fire and operate more than one active tele-operated missile at one time, though only a single tele-operated missile may be launched in a single turn.

At the start of any turn in which a player wishes to fire a tele-operated missile from a launcher already controlling an active tele-operated missile (or missiles), a capital bay or two standard bays must be declared "inactive" (the bay(s) can be located anywhere on the ship).

An inactive bay cannot be fired until it is activated again.

To determine when a bay can be activated again, use the following rules:

At the end of every turn, the player counts up the number of active (i.e. that have not been destroyed, used up their fuel, or left the playing area) tele-operated missiles being controlled beyond the first missile by a single launcher.

- If the number is equal to the number of inactive bays, nothing happens.
- If the number if less than the number of inactive bays, the player nominates the difference in bays he wishes to activate (either 1 capital bay or two standard bays); the "activated" bays can be fired and used normally starting on the following turn.

Point Defense Bays and Screen Launchers: Neither Point Defense Bays or Screen Launchers count towards bay totals and cannot be "subtracted" to allow for the firing of additional tele-operated missiles.

At the start of a turn, a Nekohono'o-class DropShip has 5 active tele-operate kraken missiles on the playing area, 3 operating from one launcher and 2 operating from another launcher. Since that's 3 missiles beyond the first being controlled by the same launchers, and the DropShip has no capital bays, Jacob previously made the MRM and SRM bays in the nose, and the MRM and PPC bays in the FL/FR arcs inactive (a total of 6 bays).

Jacob wants to fire three more tele-operated missiles this turn. Since one of those missiles is the first active missile controlled by the third launcher, there's no penalty. However, the other two launchers are already controlling multiple launchers, so he must nominate four more bays to make them inactive: he chooses the ER PPC bays in the FL/FR arcs, as well as the SRM bays in the AL/AR arcs, and fires during the turn, giving him 8 tele-operated missiles on the playing area.

At the end of the turn, however, 4 of the 8 missiles have either run out of fuel, left the playing area or been destroyed. He subtracts the number of active missiles beyond the first for each launcher resulting in 1 [4 (active tele-operated missiles beyond the first) – 3 (number of launchers). Jacob then compares that number with the number of inactive bays he has, which leaves him with a difference of 3 [4 (8 inactive standard bays / 2) – 1 [active tele-operated missiles beyond the first) = 3]. This means he may activate all but 2 of his bays; he leaves the MRM and SRM bays in the nose inactive.

Advanced Sensors (p. 118)
1) *Between the "Detection Check" and "Active Probes" subsections, insert the following new paragraph:*

An unmanned unit makes a Detection Check based upon the amount of Communications Equipment (or its equivalency) it mounts (see p. 212, *TM*). The Base Target Number starts at 7. For every two tons of Communications Equipment (or its equivalency), drop the number by 1 (round down). For example, an unmanned DropShip without any additional Communication Equipment has an equivalency of 3 tons, meaning the Detection Check is made with a Modified Target Number of 6 [7 (Base Target Number) –1 (3 tons of equivalent Communication Equipment / 2 = 1.5, rounded down to 1) = 6]. If it had mounted 3 tons of additional Communications Equipment, the Modified Target Number would 4 [7 (Base Target Number) –3 (6 tons of

Communication Equipment and/or its equivalency / 2 = 3) = 6]. The modifiers for Active Probes and Naval Comm-Scanner Suites (see below) apply as is to unmanned Detection Checks.

2) *Under "Naval Comm-Scanner Suite", replace the entire entry with the following:*

Naval Comm-Scanner Suite: Double the sensor range for a Small NCSS and apply a −1 modifier to any Detection Check to detect a given unit; triple the sensor range for a Large NCSS and apply a −2 modifier to any Detection Check to detect a given unit (see p. 332, *TO*). NCSS does not affect sensor ranges for emergence wave detection. For other detection types, either modify the maximum listed range and/or modify the range used to calculate penalties as appropriate.

Zero-G Ground Unit Combat on Large Aerospace Units (p. 120)
*Insert the following between the headings "**BATTLEMECH**" and "**WEAPON ATTACKS**":*

ZERO-G GROUND UNIT COMBAT ON LARGE AEROSPACE UNITS
Ground Units on a Large Aerospace Unit Hull may engage in combat using the "Ground Scenario" rules with the following modifications:

- All units are treated as ground units, using ground combat ranges.
- Only Biped units may move
- Jump capable units have an MP of Jump −1
- Non-jump capable units have an MP of Walk/Cruise −2
- In any turn a unit moves it must make a Piloting Skill Roll. If it fails, it comes off the hull.
- If the Aerospace unit the ground units are on changes its heading or velocity, all units on the hull must make a Piloting Skill Roll.
- Any unit that fails a Piloting Skill Roll is removed from the playing field. It has lost its hold on the hull and floats away. It must make a new landing attempt.

An exception to this rule are tracked combat units operating on Large Aerospace units that have had their hull modified to support tracked combat units operating on special tracks. This must be declared prior to the scenario start. When the mapsheets are laid out, the player controlling the aerospace craft may place 50 track hexes on each map sheet. Track hexes must all be connected. The tracked vehicles may only move on these track-designated hexes, and only at Cruising speed.

Aerospace Technologies
Quick Charging (p. 125)
Example: a habitable planet for a yellow is about ten times closer to the star than the jump points.
<u>Change to:</u>
Example: a habitable planet for a yellow star is about ten times closer to the star than the jump points.

JumpShip Gymnastics (p. 131)
Third paragraph, last sentence

There's a brief period for the drive controller to accept certain feedback, like recognizing a gravity-distorted field or damage in the core from quick-charging.
<u>Change to:</u>
There's a brief period for the drive controller to accept certain feedback, like recognizing a gravity-distorted field via the Brandt Recoil effect or damage in the core from quick-charging.

Fuel (p. 140)
In the last line of this page, change "atomic mass 2" to "molecular mass 2".

Advanced Aerospace Construction

Advanced Aerospace Unit Record Sheet Table (p. 145)
Under "JumpShip", "Weapon Arcs", delete "Broadside Left/Right,"

Allocate Weight for Structural Integrity (p. 146)
After the first sentence insert the following:

Advanced aerospace units possess capital-scale Structural Integrity (SI): each point is equal to 10 points of standard-scale SI.

Determine Fuel Capacity (p. 147)
In the last sentence of the first paragraph, change "(rounded up to the nearest half-ton)" to "(rounded up to the nearest ton)".

Add Control/Crew Systems (p. 149)
In the second line in the **Crew** paragraph, replace the page reference to "(see p. 150)."

Additional Crew table (p. 150)
Remove the Mobile Field Base entry.

Special Enhancements (p. 151)
Replace the paragraph with the following:

   Some Space Stations are equipped to be carried by JumpShips. Such stations are limited to 100,000 tons and must be equipped with a KF Boom. They replace the Space Station cost multiplier of x1.25 (see p. 158) with x20.

Step 4 – Add Armor (p. 152)
Second column, first paragraph

Structural Integrity weight
<u>Change to:</u>
Structural Integrity value

Advanced Aerospace Unit Armor Table (p. 152)
Under "Space Stations"

Structural Integrity Mass ÷ 3
<u>Change to:</u>
Structural Integrity Mass ÷ 3 + 60

Step 4 – Add Armor [example text] (p. 153)
Alliance space station example, first sentence

[…] Joel finds that the maximum armor he can install on the unit is 333 tons (1,000 tons of Structural Integrity ÷ 3 = 333.33, round down to 333).
<u>Change to:</u>
[…] Joel finds that the maximum armor he can install on the unit is 393 tons (1,000 tons of Structural Integrity ÷ 3 + 60 = 393.33, rounded down to 393).

Step 4 – Add Armor examples (p. 153)
In the example text for the *McKenna*, it should allocate 132 points to its Aft facing.

Advanced Aerospace Unit Weapon Bays and Firing Arcs (p. 154)
Add "MML" to the list of weapon bay classes.

Step 5: Add Weapons, Ammunition and Other Equipment (p. 155)
1) *Under "Crew Quarters", first paragraph, third sentence*

Alternative quarters, may be installed to save on weight, reflecting a more spartan arrangement, such as applying steerage-quality quarters to all crew and passengers, or even allocating crew quarters in the form of a dedicated infantry bay, where the crew sleeps in cramped bunks with no private space whatsoever.
<u>Change to:</u>
Alternative quarters, may be installed to save on weight, reflecting a more spartan arrangement, such as applying steerage-quality quarters to all crew and passengers.

2) *Under "Fire Control Systems", second sentence*

To determine the weight of these systems, divide the number of weapons mounted in any firing arc that exceeds its weapon limits (12 for JumpShips, 20 for Space Stations and WarShips) by the limit value,
<u>Change to:</u>
To determine the weight of these systems, divide all weapons mounted in any firing arc that exceeds its weapon limits (12 for JumpShips, 20 for Space Stations and WarShips) by the limit value,

3) *Under "Transport Bays and Doors", second paragraph, eleventh and twelfth lines, delete the following:*

(in which case, 1 ton of food and water covered the needs of 200 people for 1 day)

4) *Under "Transport Bays and Doors", third paragraph, last sentence*

Personnel transported in cargo bays use 1 ton of consumables per 10 people per day.
<u>Change to:</u>
Personnel transported in cargo bays use 1 ton of consumables per 5 people per day.

Advanced Aerospace Unit Structural Costs And Availability Table (p. 158)
1) Change Introduction date of Standard Core from 2107 to 2300.
2) Change Introduction date of Compact Core from 2300 to 2107.

Advanced Aerospace Unit Costs Tables (p. 159)
Delete the entire Crew Quarters line.

Maintenance, Repair, Supply, and Customization
Technical Personnel (p. 168)
Right column, first paragraph, last sentence

Two teams cannot work simultaneously on the same task, but they can divide the tasks between them to save time.
<u>Change to:</u>
Multiple teams working on the same task can reduce its difficulty, but not the time required.

Crew (p. 168)
First paragraph, at the end add the following sentence:

Crew performing maintenance uses the skill modifiers for their experience rating.

Support Personnel Experience Table (p. 168)
For each listed Experience Level, lower the Base Skill Target of each value in the "Technical" column by 1 (the new values would be 8+/6+/5+/4+)

Maintenance (p. 169)

1) *Add to the end of the final paragraph before the "Conventional Infantry" paragraph heading:*

Maintenance checks are run every week in the field, or once every four weeks when in garrison conditions (not in the field or in combat). Garrison conditions includes when being transported between systems for ground units and small aerospace units.

2) *Replace the "Conventional Infantry" paragraph with the following:*

Infantry units perform their own maintenance and repairs under normal conditions. Foot infantry using weapons with a Tech Rating of C or lower do not require maintenance. Units using other motive types or more advanced weapons require maintenance checks.

Era Modifiers (Optional) table (p. 170)
Adjust the values shown on this table to what is shown. Any columns not shown are left as is.

Faction	AoW	RW	SL	1SW	2SW	3SW	4SW	Clan	Jihad
Capellan Confederation					+1	+2	+2	+1	
Chaos March					—	—	—	+0	
ComStar					+0	+0	+0	+0	
Clans					+0	+0	+0	+0	
Draconis Combine					+1	+2	+2	+0	
Federated Suns					+1	+2	+2	+0	
Free Worlds League					+1	+2	+2	+0	
Free Rasalhague Republic					—	—	—	+1	
Lyran Commonwealth					+1	+2	+2	+0	
Terran Hegemony					—	—	—	—	
Word of Blake					—	—	—	+0	
Outworlds Alliance					+1	+2	+2	+1	
Taurian Concordat					+1	+2	+2	+1	
Magistracy of Canopus					+1	+2	+2	+1	
Rim Worlds Republic					—	—	—	—	
Periphery (Other)					+2	+3	+3	+2	
Mercenary					+1	+2	+2	+1	

Location Modifiers subtable (p. 171)
Replace all entries and footnotes with the following:

Location	Modifiers
Improvised*	+2
Field Workshop**	+1
Facility – Basic†	0
Facility – Maintenance‡	−2
Factory Conditions§	−4

*Tools and access gantries are improvised or nearly non-existent, minimal protection against elements, poor lighting.

**Basic tool access, dedicated maintenance vehicle mounting Salvage Arm, Lift Hoist, and so on, but still variable lighting and minimal protection against the elements; the Mobile Field Base equipment (p. 142, *TO:AUE*) automatically applies this modifier without the need for the unit mounting that equipment to also mount a salvage arm, lift hoist and so on, as described.

†Complete shelter. Ideal lighting, all standard tools and unit-appropriate gantries. Includes transport bays specific to that unit type.

‡Complete shelter. Ideal conditions, available at any major base. Cannot build all parts from scratch, but enough resources are available to perform superior levels of jury-rigging.

§Complete shelter. All equipment needed to build from scratch any part appropriate to the unit types undergoing maintenance/repair (factory must be designed to build the unit type in question; i.e. if the factory doesn't build an aerospace unit, then it would only be considered a maintenance facility for that unit type).

Technician Type Modifiers table (p. 171)
*To a maximum of 3 teams per unit; maintenance on WarShips, JumpShips, Space Stations, DropShips and Large Naval Vessel Support Vehicles cannot be augmented with additional Technical Teams.
Change to:
*To a maximum of 3 teams per unit; use the highest team experience as the base experience level; extra teams must be at full strength, no more than one experience level lower and must have the appropriate Technician skill to help; does not apply to maintenance on Large Naval Vessel Support Vehicles and aerospace units larger than Small Craft.

Team Casualty Modifiers table (p. 171)
*For simplicity, the Technician/Doctor is always as assumed to be the last individual to be eliminated.
Change to:
*The Technician/Doctor is always assumed to be the last individual eliminated.

Maintenance Check Table (p. 172)
1) Column A, Row MoF 7+

   "Destroyed"
   Change to:
   "(4)"

2) In the table, DELETE:

   "Destroyed: Unit has been rendered inoperative"

3) Change the results of the MoS rolls to the following:

4	Q-B	Q-C	—	—	—	—
5	Q-C	Q-D	Q-D	Q-E	—	—
6+	Q-D	Q-E	Q-E	Q-E	Q-F	*

Mostly Dead Vs. Truly Dead (p. 176)
Under "Battle Armor", third paragraph, second sentence

If it can be repaired and somebody can be found to wear it, the suit can be pressed back into service
Change to:
If it is salvaged and somebody can be found to wear it, the suit can be pressed back into service

Diagnosis (p. 177)
Under 'Mechs, "Weapons and Other Equipment" paragraph

Any weapons or equipment are rendered inoperative by a critical hit or destruction of the location in which they are situated. Players can attempt to repair weapons and equipment that have received a critical hit. When a location is destroyed, the weapons and equipment located there may be damaged beyond repair. For each destroyed item, roll 2D6. On a result of 10 or more, the item can be repaired; otherwise, it must be replaced.
Change to:
Any weapons or equipment rendered inoperative may be damaged beyond repair. Items that received a critical hit and also located in a destroyed location are automatically considered destroyed. For each item destroyed by a critical hit or

located in a destroyed location, roll 2D6. On a result of 10 or more, the item can be repaired; otherwise, it must be replaced.

Obtaining Replacement Parts (p. 178)
Add the following paragraph before the example:

Aerospace Units: For parts on aerospace units without costs or tonnage, the cost is 2,000 x total tonnage on small units and 2,000 x control tonnage on Large Craft.

Fabrication (p. 179)
Third paragraph

The purchase price of a fabricated part is half that of a new component.
Change to:
The purchase price of a fabricated part is half the sale price of a new component.

Fuel Availability & Cost Table (p. 179)
Add a dagger (†) to the "Cost (per ton)" column head. At the end of the table, add a second footnote, reading

† The values above are for delivery to forward military bases. Outside of battle zones, these prices can vary from 0.5 to 2× the listed values, and hydrogen may be as inexpensive as 500 C-bills/ton.

Obtaining Replacement Personnel (Optional) (p. 181)
First paragraph, last sentence

use the values provided by the Support Personnel Experience Table (see p. 187)
Change to:
use the values provided by the Support Personnel Experience Table (see p. 168)

Replacement [example text] (p. 182)
First paragraph, ninth and tenth lines

(30 minutes per armor point in this case)
Change to:
(10 minutes per armor point in this case)

Special Rules (p. 182)
1) *Under "Extra Time", first paragraph*

   To increase the potential for a successful repair/ replacement, a player may spend extra time on a repair or replacement job.
   Change to:
   To increase the potential for a successful maintenance, repair or replacement job, a player may spend extra time on it.

2) *Under "Extra Time", second paragraph, second sentence*

   The repair time may be doubled multiple times (to a maximum of 4 times the standard time),
   Change to:
   The repair time may instead be tripled or quadrupled (each additional time increase provides a cumulative –1 modifier; maximum –3),

Master Repair Table (p. 183)

1) *Change the Time values for the following 'Mech items as follows:*

CASE/CASE II	120
Heat Sink (per location; treat Engine as 1 location)	90

2) *Change the Time value for the following Vehicles items as follows:*

CASE/CASE II	90

3) *Add the following lines to the "Vehicles" section:*

Engine	0	—	—	360
Heat Sink	−2	—	—	20
Motive System	0	—	—	360

4) Change the "Aerospace" heading to "Large Craft"

Master Repair Table (p. 184)

1) Change the "Aerospace, continued" heading to "Large Craft, continued"

2) Change the Aerospace / Large Craft time for Heat Sinks from "90" to "1 hour per 50 sinks". Also, move the Heat Sinks line up so it's properly sorted alphabetically (just above the "Landing Gear" line)

3) Add a new heading group "Aerospace (Small Units)", with a footnote mark to explain this includes fighters, small craft, satellites, fixed-wing craft, and airships:

Destroyed Location	+3	—	—	240
Armor (per location)§§	−2	—	—	5 per circle
Ammunition Critical	−2	1	Can only carry half standard quantity of ammo (round down)	120
CASE/CASE II	−1	—	—	60
Engine	−1	1	+1 Heat Point/turn	360
Gyro	0	2	+1 Piloting modifier	200
Heat Sinks	−2	—	—	20
Jump Jet	0	—	—	60
Life Support	−1	—	—	180
Sensors	0	—	—	260
Turret	−1	—	—	160
Weapons and Other Equipment	0	—	—	120
OmniFighter Pod (per location)	−2	1	Double repair time	30†

Master Repair Table (p. 185)

Under "Vehicles", insert the following new entries:

Sensors 0 — — 65

Engines 0 — — 90

Customization (p. 189)

This entire section from Refit Kits up to and including Customization, ending with (and not including) the FrankenMechs section was rewritten and included in the revised version (2nd printing and later) of *Campaign Operations*.

FrankenMechs (Optional) (p. 189)
In the "Engine" subsection, add the following paragraph after the first:

The engine does not have to come from the 'Mech torso parts being used on the FrankenMech, and there are no restrictions on its type and rating (other than the standard engine restrictions for IndustrialMechs or BattleMechs) as long as it grants at least one Walking MP to the final 'Mech.

FrankenMechs (Optional) (p. 190)
Under "Jump Jets", at the end of the entry insert the following:

All jump jets must be of the same type.

Internal Structure Distribution Table (p. 190)
Change "Clan Endo Steel" to "Clan Endo Steel/IS & Clan Endo-Composite"

Salvage (p. 191)
1) *Second paragraph*

   Each 'Mech or vehicle can recover one unit (for 'Mechs, see *Dragging a 'Mech*, p. 99, *TO*), though the unit must be of equal or lesser tonnage than the dragging unit.
   <u>Change to:</u>
   Each two 'Mechs or vehicle can together recover one unit (for 'Mechs, see *Dragging a 'Mech*, p. 99, *TO*), though the unit must be of equal or lesser tonnage than the dragging units.

2) *Fourth paragraph, first sentence*

   and the Salvage Modifiers Table (see p. 192)
   <u>Change to:</u>
   and the Salvage Modifiers Table (see right)

Ammunition Quality Table (p. 192)
1) *Quality Rating C*

   Weapon jams on to-hit roll of 2*
   <u>Change to:</u>
   Weapon jams on to-hit roll of 2†

2) *Under footnotes*

   *Gauss ammunition does not explode.
   <u>Change to:</u>
   *Gauss and plasma ammunition does not explode.

Accurate Weapon (p. 193)
At the end of the entry insert the following:

If the "weapon" deals 0 damage (such as TAG), the cost is 2 points.

Battle Computer (5 Points) (p. 193)
Second sentence

Each turn the unit is on the battlefield and the MechWarrior or crew is conscious, their battle force receives a +2 modifier to all Initiative rolls.
<u>Change to:</u>
Each turn one or more such units are on the battlefield and the MechWarrior or crew is conscious, their battle force receives a +2 modifier to all Initiative rolls.

Command BattleMech (2 Points) (p. 193)
Second sentence

During each turn that one or more Command BattleMechs are present on the battlefield, a battle force receives a +1 modifier to all Initiative rolls.
<u>Change to:</u>
Each turn one or more such units are on the battlefield and the MechWarrior is conscious, their battle force receives a +1 modifier to all Initiative rolls.

Positive Quirk Table (p. 194)

1) Add the § footnote symbol to the last column header (JumpShip/WarShip/Space Station)

2) Improved Life Support: should read "No" for Battle Armor and "Yes" for Fighter/Small Craft.

3) Narrow/Low Profile: change the cost from 3 to 2.

4) Between "Reinforced Legs" and "Searchlight" insert the following new row:

    | Scout Bike | 2 | No | Yes†† | No | No | No | No |

5) Add the ‡‡ footnote symbol to "Searchlight"

6) Delete the entire Trailer Hitch row.

Positive Quirk Table (p. 194)
Footnotes

1) ‡Includes Fixed-Wing Support Vehicle
    <u>Change to:</u>
    ‡Includes Fixed-Wing Support Vehicles and Airships

2) ††Combat Wheeled and Tracked Vehicles only
    <u>Change to:</u>
    ††Combat Hover and Wheeled Vehicles only

3) *Add new footnote:*
    ‡‡ BattleMechs and Combat Vehicles only

Extended Torso Twist (p. 194)
At the end of the entry insert the following new paragraph:

   Quad 'Mechs normally cannot torso twist at all. However, a quad 'Mech with this quirk can perform a normal (not extended) torso twist.

Fast Reload (p. 194)
At the end of the entry insert the following:

This quirk can be assigned to individual weapons, locations on a 'Mech (such as the right torso), or the entire 'Mech. Regardless of the option chosen, the cost for this quirk is the same.

Improved Communications (p. 195)
Replace the entry with the following:

The unit has an exceptionally powerful communications suite. The unit automatically ignores the first level of ghost targets (see p. 101, *TO*) used against it. Additionally, if a BattleMech, it can always attempt a BattleMech Satellite uplink (see p. 194, *TO*) without being forced to give up its movement and combat actions.

Improved Life Support (p. 195)
At the end of the entry insert the following:

This quirk doubles the cockpit's standard life support time, from four days to eight.

Improved Sensors (3 Points) (p. 195)
Change the first sentence to read

A unit with this quirk is treated as if it has an active probe (range 4 for Inner Sphere units, range 5 for Clan units).

Improved Targeting (3, 4, or 5 points) (p. 195)
Replace the second sentence of the paragraph with

The quirk can be applied up to three times, but can be taken only once per range bracket. The cost of the quirk varies with the range bracket chosen as indicated on the Positive Quirk Table (see p. 194).

Internal Bomb Bay (p. 195)
Replace the entry with the following:

The unit can use its internal cargo capacity as an internal bomb bay, using one ton of cargo per bomb slot used. The unit can release up to 6 bombs each turn (regardless of their size). However, in the turn that ordnance is dropped, there is a danger that ground fire will hit the exposed bay. On a roll of 10+, damage received from ground fire will strike the open bay and detonate all bombs remaining. The resulting damage is applied directly to the unit's SI.

Modular Weapons (p. 195)
Replace the last sentence with the following:

When using the *Customization* rules (see p. 188), half the time is required.

On some units, only certain weapons are modular. In this case, the specific weapon(s) with the modular quality must be noted, but this does not reduce the quirk's cost.

Narrow/Low Profile (3 Points)
Replace the entry with the following:

Designs such as the *UrbanMech*, *Vulcan*, and *Lancelot* have a narrow or low profile that makes them harder to hit at range.

If the Margin of Success for a weapon attack made against a narrow/low profile 'Mech is 0 or 1, the hit is considered a glancing blow. For example, if you need to roll a 9 or better to hit the target, a result of 9 or 10 would be a glancing blow.

A glancing blow inflicts half the normal damage (rounded down); for weapons that roll on the Cluster Hits Table, instead apply a −4 modifier to the Cluster roll result (with a minimum result of 2). Additionally, apply a −2 modifier when rolling on the Determining Critical Hits Table any time a glancing blow yields the possibility of a critical hit; if using the *Advanced Determining Critical Hits* rule (see p. 83, *TO:AR*), apply a −4 modifier instead.

This quirk has no effect versus non-weapon attacks, such as falls or physical attacks. It also has no effect versus all-or-nothing weapon attacks, such as Streak missile launchers.

If using the *Linking Weapons* rule (see p. 83, *TO:AR*), the entire linked group is considered a glancing blow.

If also using the *Glancing Blow* rule (see p. 78, *TO:AR*), the effects stack (1/4 damage is dealt). Any subtractive damage reduction effects (such as ferro-lamellor armor) are applied after all other damage reduction effects.

Searchlight (p. 196)
At the end of the entry insert the following new paragraph:

If design quirks are used in a game, assume all BattleMechs and Combat Vehicles not possessing this quirk to have hand-held searchlights (see p. 237, *TM*). For the effects of searchlights on gameplay, see *Tactical Operations*, pages 57-59.

(p. 196)
1) Delete the entire "Trailer Hitch" quirk.
2) Add the following new quirk to the top of the column, above the "Searchlight" and "Stable" quirks:

> **Scout Bike (2 Points)**
> *Hover or Wheeled Combat Vehicles up to 10 tons only.* Some smaller Combat Vehicles are built with the agility of lighter recreational vehicles, allowing them to navigate dense terrain. Vehicles with this quirk may enter Light Woods hexes.

Ammunition Feed Problem (p. 196)
Replace the entry with the following:

The ammunition feed for one ballistic or missile weapon or bay has a tendency to jam at inconvenient moments. On an unmodified attack roll of 2 with such a weapon, roll 2D6. On a result of 10+, the weapon jams and cannot be fired again in this battle. On a roll of 12, the new round of ammunition will explode in the weapon for normal damage. Per normal rules, Gauss weapon ammunition will not explode, but the weapon itself does.

Bad Reputation (p. 196)
Replace the entry with the following:

While perfectly sound, this 'Mech has acquired an unwarranted bad reputation (for example, the *Blackjack* during the Succession Wars). As a result, it is worth only half the normal resale value, unless 'Mechs are particularly rare for a given era and/or location (for example, in the late Third Succession War era, 'Mechs are remarkably hard to come by, and few would turn up their nose at even the most unpopular of machines).

Designs that are second-line or merely somewhat unpopular (such as the *Watchman* or *UrbanMech*) should likely not receive this quirk. Additionally, a 'Mech may have a Bad Reputation at one point in its career, but lose it later (such as the *Battle Hawk*).

The Clans do not really have the same sort of economic model when it comes to BattleMechs. Instead, if a Clan 'Mech has the Bad Reputation quirk and if the optional *Clan Honor* rules are in effect (see p. 273, *TW*), the MechWarrior begins the battle with 1 *dezgra* point. The 'Mech will still fetch its full value if ever sold on an Inner Sphere market.

Note that when buying a 'Mech with a Bad Reputation, players generally still must pay its full price.

Cooling System Flaws (p. 196)
Replace the entry with the following:

A flaw in the design can result in the unit generating excess heat. Whenever the unit executes or receives a physical attack, falls, or is forced to make a Piloting Skill roll because it received 20 points or more damage, roll 2D6. On a result of 10+ the unit will generate 5 points more heat each turn for the rest of the battle. This can only occur once a battle.

Cramped Cockpit (p. 196)
Replace the entry with the following:

The poorly designed cockpits of units like the *Wolverine* and *Stinger* are very cramped. The unit receives a +1 Piloting Skill Roll modifier. This quirk cannot be applied to 'Mechs with a Small Cockpit.

Negative Quirk Table (p. 197)
1) Change the cost for EM Interference from 1 to 1 or 2
2) Change the cost for both Poor Targeting, Medium and Poor Targeting, Long to 2
3) Change the cost for Sensor Ghosts from 2 to 3

EM Interference (p. 198)
Change the point cost for this quirk to "1 or 2 points", then replace the entry with the following:

An energy weapon is insufficiently shielded and interferes with delicate electronics. The turn after the weapon has been fired, the following equipment aboard the 'Mech will not function: any ECM, any Active Probe, Artemis IV FCS, Artemis V FCS, Blue Shield PFD, any C^3, Chameleon LPS, Cockpit Command Console, Electronic Warfare Equipment, MASC, MRM FCS, NARC, Null Signature System, Stealth Armor, Streak Launchers, Supercharger, Targeting Computer, and Void Signature System.

Alternatively, this quirk can be purchased for the unit itself, in which case the problem occurs whenever any energy weapon on the unit is fired. The cost for this version of the quirk is 2 points, but this version can only be purchased if the unit has more than one energy weapon.

Exposed Weapon Linkage (p. 198)
Replace the entry with the following:

Some designs such as the *Cygnus* have the mechanics of a weapon dangerously exposed. When a location that holds such a weapon is hit, roll 2D6. On a roll of 10+, that weapon is unable to fire for the remainder of the game.

This quirk can be taken only once and only for a single weapon type, and affects all weapons of that type on the 'Mech (for example, all AC/20s, all ER PPCs).

Poor Life Support (p. 198)
Add the following sentence:

This quirk halves the cockpit's standard life support time, from four days to two.

Poor Targeting (p. 199)
Change the cost from 2, 3 or 4 Points to 2 Points

Poor Workmanship (p. 199)
Second sentence

This unit is one quality step lower than normal.
<u>Change to:</u>
This unit is one quality step lower than normal (see p. 167).

Sensor Ghosts (p. 199)
Change the cost from 2 Points to 3 Points

Aerospace Operations
Air (pp. 256-257)
Fifth paragraph, last sentence on the page

The typical fighter life support system is only meant to last about 96 hours, including oxygen and some drinking water, though most fighters can install extra oxygen tanks.
<u>Change to:</u>
The typical fighter (or 'Mech) life support system is only meant to last about 96 hours, including oxygen and some drinking water (a small cockpit on a 'Mech reduces this to 48 hours), though most units can install extra oxygen tanks.

System Transit (p. 259)
Fourth paragraph

500 million kilometers in an astronomical unit
<u>Change to:</u>
150 million kilometers in an astronomical unit

BattleForce

Both the Standard Rules and Advanced Rules sections were essentially rewritten, and then relocated to *Interstellar Operations: BattleForce* (2022). See that book for the latest incarnation of these rules.

Warfare Symbology

DIAGRAM TWO — FORMATION SIZE SYMBOL AND EQUIVALENCY TABLE (p. 337)
In the Footnote, change "These units are 150-200% larger" to "These units are 50-100% larger"

DIAGRAM FOUR – COMPREHENSIVE SYMBOLOGY (p. 340)
Change the beginning of the footnote to read "The vertical line on the left…"

Miniatures Rules

Atmospheric Movement (p. 392)
Under "Landing and Lift-off", second paragraph, first sentence

Landing strips for horizontal landings must be 10 inches wide by 40 inches long for DropShips,
Change to:
Landing strips for horizontal landings must be 6 inches wide by 40 inches long for DropShips,

Index

S (p. 413)
Change the "Squadron(s)" page references to "27-34, 326-28".

Tables

Capital Weapons Detailed Ranges Table (p. 442)
Change the Long Range Value for the Heavy NPPC from "27-36" to "27-39".