

MNC: 1970s GIUK Consolidated Errata/Additions List

VERSION 9-27-2011^{@2011 NWS}

UNIT DATA SHEET CORRECTIONS/ADDITIONS

The Data Sheet for the F-16A/B has incorrect load-out data for Option 1. This has been corrected and the revised sheet can be downloaded from the NWS Gaming Forums.

The USN Belknap CG Record Sheet is missing the directors for its gun mounts (the gun caliber field overwrote the director values). A corrected Record Sheet can be downloaded from the NWS Gaming Forums.

Clarification for Option 4 on UK Harrier GR.3 Data Sheet:

The GR.3 Harrier did not carry a FLIR/Designator pod and only had a "Ferranti 106 LRMTS" (also commonly called a "Laser Spot Tracker") build into the nose (which could "see" a laser spot but not designate a target). It could thus not designate (laze) a target for the GBU-10 LGB itself, and has to rely upon other units (normally selected UK infantry units) to designate targets. In game terms this means that selected UK units (equipped with laser designators) in a scenario must "laze" a target for the GR.3 if it drops the GBU-10 LGB. A portable designator normally had a range of 'T1'.

Correction for Option 2 on UK Sea Harrier FRS.1 Data Sheet:

The 1000-lb bomb load-out on the FRS.1 Sea Harrier should have a "5" Accuracy Index (AI) value, not the "9" listed. Please note that the "9" AI value on the 1000-lb bomb load-out carried on the **GR.3** is correct as the model had more advanced targeting systems.

WALLEYE II SEEKER CORRECTION:

The Walleye II PGM carried on the A-6E and A-7E in the game should **not** have an IR seeker capability: remove the "I" seeker code from the missile, it should only have the "O" (Optical) code.

"DAM/SU" ENTRY ON LAND UNIT RECORD SHEET:

The DAM/SU item is "Damage per Sub-Unit": this is how many damage points are required to destroy each sub-unit in the land unit. Section 7.5.4 explains how you damage subunits. The "DAM/SU" item is included in MNC in case you wish to simulate partial or damaged units: In the case of an SA-6 battery it has 4 launchers (each with 3 x SA-6 missiles) hence it has 4 SU (sub-units), and each individual launcher requires 0.5 damage points to knock out. If, for example, you wish to start a SA-6 battery with the loss of one launcher it would start with 0.5 damage for the single destroyed launcher.

Symbols shown after the "AN(AI)" value for SAM/ASM/SSM systems:

An * after a SAM system "AN(AI)" value indicates that the SAM has full capability to engage Sea-Skimming (SS) missiles/targets and does not sustain the SS to-hit modifier; if an * is after a ASM/SSM "AN(AI)" value of an ASM/SSM system then the ASM/SSM is sea-skimming.

If a SAM system has an ^ symbol after the "AN(AI)" value then it has full capability to engage terminal diving missiles and does not sustain the terminal-dive to-hit modifier; if an ^ symbol is after the "AN(AI)" value of an ASM/SSM then the ASM/SSM performs a terminal dive. Table 9.3.1 indicates these symbols for both SAM and ASM/SSM systems, but is not as clear as it should be.

Anti-Air and Anti-Surface Ranges for SAM and Gun systems:

For SAM/Gun ranges the value **before** the slash always indicates maximum *anti-air range*, the value **after** the slash always indicates the maximum *anti-surface range*. If either value has a "-" instead of a range value then that system cannot engage targets in that arena. For example if a SAM system has a listed range of 3/1 then it has a "3" range versus air targets and a "1" range versus surface targets. If a SAM system has a T2/- then it has a range against air targets of T2, and no range/capability against surface targets.

REFERENCE TABLE CORRECTIONS/ADDITIONS

Table 5.2.2.1: PASSIVE SONAR BDR (Errata):

This table should be labeled "Table 5.5.2.1 Passive Sonar BDR", not "Table 5.2.2.1" (as per the reference in the Rules Manual Section 5.5.2).

TABLE 5.3.2 ESM LOS (Corrected and Expanded):

A revised version of MNC Table 5.3.2 ESM LOS is available. The table is expanded to cover specific sizes of ships (*which affects the height of the ESM detectors and the radar emitters*) and also has corrections to all known typos/errors.

| TABLE 5.3.2 ESM LINE-OF-SIGHT (REVISED) | | | | | | | | | | | |
|---|--------------------|-------------|----------|----------|---------------------------|----------|----------|----------|----------|----------|--|
| Detecting Unit | | T A R G E T | | | S I Z E / A L T I T U D E | | | | | | |
| | | SHIP SIZE | | | AIRCRAFT ALTITUDE | | | | | | |
| Altitude | T/S | M | L/H | SS | Low | Med | High | V High | Ext | | |
| SURFACE | <i>T or S size</i> | 1-1-1 | 1-1-1 | 1-1-2 | 1-1-2 | 1-1-2 | 5-5-6 | 12-13-15 | 14-16-18 | 16-18-20 | |
| SHIP | <i>M Size</i> | 1-1-1 | 1-1-1 | 1-2-2 | 1-2-2 | 1-2-2 | 5-5-6 | 12-13-15 | 14-16-18 | 17-19-21 | |
| SIZE | <i>L or H size</i> | 1-1-2 | 1-2-2 | 1-2-2 | 1-2-2 | 1-2-3 | 5-6-7 | 12-14-16 | 15-17-19 | 18-20-22 | |
| AIRCRAFT | SS | 1-1-2 | 1-2-2 | 1-2-2 | 1-2-2 | 1-2-3 | 5-6-7 | 12-14-16 | 16-18-20 | 19-21-24 | |
| ALTITUDE | Low | 1-1-2 | 1-2-2 | 1-2-3 | 1-2-3 | 4-4-5 | 6-7-8 | 14-16-18 | 19-21-24 | 23-27-30 | |
| | Med | 5-5-6 | 5-5-6 | 5-6-7 | 5-6-7 | 6-7-8 | 9-11-12 | 16-19-21 | 22-25-28 | 29-33-37 | |
| | High | 12-13-15 | 12-13-15 | 12-14-16 | 12-14-16 | 14-16-18 | 16-19-21 | 23-27-30 | 30-35-38 | 39-44-49 | |
| | V High | 14-16-18 | 14-16-18 | 15-17-19 | 16-18-20 | 19-21-24 | 22-25-28 | 30-35-38 | 39-44-49 | 44-51-60 | |
| | Ext | 16-18-20 | 17-19-21 | 18-20-22 | 19-21-24 | 23-27-30 | 29-33-37 | 39-44-49 | 44-51-60 | 49-56-62 | |

Use First value if EW rating= 1, Second if EW Rating= 2-3, and Third if EW= 4

Ship Size Ratings:

T= Tiny, S= Small, M= Medium, L= Large, H= Huge

TABLE 5.5.5: The visual range (VSR) modifiers for sensors and weather are missing from Table 5.5.1 VSR Part 1.

The modifiers are as follows:

OPTICS:

O1=+2, O2= +4, O3=+6

F1= +2, F2= +4, F3= +6

F1/F2/F3 (FLIR) ignores Night penalty.

DAY/NIGHT: Day= 0, Night= -3

WEATHER: Good= 0, Fair= -2, Poor= -4, V Poor= -6

A corrected Reference Sheet O2 can be downloaded from the NWS Gaming Forums.

TABLE 9.1.4 TARGET ALLOCATION EXPANDED EXPLANATION:

Table 9.1.4 is designed to be used to determine the proportion of hits against a group of potential targets by radar-seeker anti-ship missiles or other weapon systems which generally (at least in the 1970s) cannot be easily targeted against specific individual units in the target group. Once you know how many missiles in a missile group are entering the target (25-nm-scale) hex you should roll on 9.1.4 to determine what sizes of ships are targeted by how many missiles. For example: a group of 11 anti-ship missiles enter the target hex. Rolling 1d10 on Table 9.1.4 you roll, say, a "6". Indexing the "6" roll with the "11" column gives a result of "8 L,H / 2 M / 1 S,T". This means that 8 of the missiles will attack any L (Large) or H (Huge) sized targets in the group, 2 of the missiles will attack M (Medium) sized targets, while 1 missile will attack S (Small) or T (Tiny) sized targets. You then randomly divide the missiles among individual targets of each size category. If there are no targets of the size category indicated in the group then move up to the next highest target size, etc. Once you know how many missiles are heading for each ship you would then move each missile 'sub-group' using the formation diagram towards the individual targets. This is when AAA and short-range missiles (i.e. any weapon with a "#T" range) would attack individual missiles.

TABLE 11: CORRECTED TABLES PAGE 11 NUCLEAR WEAPONS EFFECTS

In MNC Tables 11 the sentences that read "Aircraft "Kill" are radius in 25nm hexes/odds for each aircraft in..." should read "Aircraft "Kill" are radius in 5nm hexes/odds for each aircraft in..." instead. A corrected Tables Page 11 is available for download from the NWS MNC Forums.

SHEET 14 (SEARCH SHEET) INFORMATION/DETAILS:

*Below are details for use of the (optional) MNC Search Tables included with the reference sheets in the MNC boxed set: 'Sheet 14', called MNC Search Tables is intended for use with hidden movement or related Fog-of-War/abstract options that players may elect to use with the game. The primary use for the table is when you wish to deploy helicopters or aircraft to conduct a search of an area surrounding a fixed point on the map -- this fixed point could be the hex that one of one of your units occupy, or simply a particular hex on the map. The 'net information' that the table reveals is two items: **Item 1** is how many units are able to search each hex in the area (or the odds of a unit covering each hex in the area searched); the value after the slash (**Item 2**) shows either how many units are in a hex adjacent to a particular hex being searched (or the odds of a single unit being in a hex adjacent to a particular hex). This will become clearer in the below example.*

The table consists of two parts: the Upper Table which is used for a search covering a 360-degree radius around a point on the *GIUK Operational Map*, and the Bottom table which is for a search covering a single 120-degree arc from a point on the map. To use the table you index the row of how many units are conducting the search (on the left-most column) with the column that shows the radius of the search in hexes.

An example: If a player launched 4 aircraft from a Task Force to search a 2-hex 360-degree radius around a Task Force, the player would index the Upper (360-deg) Table with the row containing the number of aircraft (4) on the # Units Searching column, with the "2" column under the 360-Degree Search Radius/Adjacent Hex heading (i.e. the radius searched). The value thus indexed shows as "8-/2". The value BEFORE the slash is either the number of units searching each hex or the odds of a one unit being able to search a particular hex: if the value is a number, that is how many units can search each hex in the Search Area; if the value is a number followed by a "-" symbol, it indicates a probability of a single unit being able to search the each hex in the Search Area. In this case we see a "8-", which means that if we wish to check to determine if a single aircraft can search a particular hex in the Search Area we would roll 2D10 (2 ten-sided die) and if the total of the roll is 8 or less that hex can be searched by a single aircraft. The value shown AFTER the slash (a "2") tells us that any hex in the search area will have 2 aircraft that are in an adjacent hex, which would be useful if the aircraft in question have an appropriate sensor that can search at least 1 Operational hex (20nm) distance.

RULES MANUAL CORRECTIONS/ADDITIONS/EXPANSIONS

4.1.2 PROPORTIONAL MOVEMENT TABLE (OPTIONAL)

A new optional table, the Proportional Movement Table, has been created to allow a more detailed aircraft movement mechanic. This table can be downloaded from the NWS MNC Forum in the OFFICIAL MNC: RULES, UNIT DATA, FAQ THREAD.

5.3.1 ESM and RWR (Radar Warning Receiver)

If a unit has only an ESM rating of "1" and an EWR rating of "0", then the unit can only classify enemy units at the "Side" level (but not at Type/Class level) if using ESM only to classify the target. This reflects the fact that units with this EWR configuration only have radar-warning receivers, and thus may detect enemy radar but cannot classify it as anything but hostile or friendly.

5.4 WHEN IS IT ALLOWED TO COMBINE JAMMING EFFECTS?

The effects of multiple area jammers are **not cumulative** in the game. However, the effect of the highest-net-rating area jammer and the target's own EWR rating are cumulative. In real life the relative interplay between self-protection jammers and area-jammers is far more complex and variable than that simple solution suggests, but for game purposes it works well enough. So to summarize this, an aircraft attacking another aircraft with radar-guided AAM first has a minus [jammers OFF JAM rating +1] modifier up front, then an additional (*variable*) modifier from Table 5.4.1 based on the relative EWR ratings of the AAM and the target aircraft. For the situation you are looking at, while shooting at a Tu-16 this would be a -3 for the Tu-16H area jamming, plus an additional modifier for the relative effect of the AIM-7F versus the Tu-16 EWR rating from Table 5.4.1.

5.4 GUIDELINES AND INCREASED DETAILS ON THE USE OF AIRBORNE AREA JAMMING:

Be aware that the below rules add greater detail and realism but may slow game-play down:

- 1) All airborne jammers in the game (*EA-3B, EA-6B, EB-66E, An-12C, Tu-16H, Tu-16PP, and Tu-22P*) have full effect against all airborne radars (**both Surface-Search and Air-Search**), and all surface (ship and land-based) **Air-Search** radars. They have much less effect upon surface-based (ship & land-based) Surface-Search radars as most jammers are not specifically designed to affect those types of radars: versus Surface-search radars used by ships or land units subtract 2 from the jammers rating for its effect against these types of radars. If this reduces the jammers rating to a 0 (zero) or less then the jammer has no effect against ship/land-based Surface-search radars.
- 2) A single airborne jammer can affect radars (as per above) in a 180 degree arc each game turn. Airborne jammers will affect all such systems that are within their ESM 'horizon': use **Table 5.3.2 ESM LOS** with the altitude of the airborne jammer and the target altitude to determine this range. Any unit (friendly or enemy) past the ESM horizon is **NOT** affected by the jammer.
- 3) Airborne jammers will affect all weapon systems that are using "H", "R", or "S" seekers that are within the 180-deg arc and within ESM LOS, and will affect guns (*for AA firing only*) that use Radar directors as well. **Reduce the airborne jammers' rating by 2 against weapons using an "H" or "S" seeker code.** *If this reduces the jammers rating to a 0 or less then the jammer cannot affect these types of seekers.*
- 4) Airborne jammers (that are actively jamming) are automatically detected by all units with ESM/EWR ratings of "3" or greater out to the ESM LOS, but only if the detecting unit is in the jammed 180-deg arc. This means that the detecting unit will know the direction of the jammer unit, but not the exact distance. Air-to-air weapons with a "J" (home-on-jam) can attack active airborne jammers, but the airborne jammers Area EW rating will affect the home-on-jam weapon attacks accuracy.
- 5) Area jamming by airborne jammers lose effectiveness at longer ranges: Reduce the rating of the jammer by 1 at ranges of 6-10 hexes (120-200nm) and by 2 at ranges of 11+ hexes (220nm+). **Jammers with a "1" rating are still effective out to 7 hexes (i.e. they lose 1 point at 8+ hexes, not 6+).**

5.4.2.2 Section 5.4.2.2 EWR Use Summary:

1. The EW Rating for all ASM/SSM missiles represents the ability of the seeker to overcome the targets ECM/jamming/decoys: thus it is only used when the ASM/SSM itself is making an attack against a target.
2. For AAM/SAM missiles the EW Rating is the ability of the missile seeker to overcome the targets ECM/jamming/decoys: thus it is only used when the target has defensive EWR (aircraft and helicopters) and/or an area jammer is active.
3. For all other units (aircraft, helicopters, ships, and land units) the EW rating is purely a defensive rating and is only used when the unit is attacked.
4. For all units except missiles the units EW Rating is also its ESM ability. If the EW Rating is in () then the unit has ESM of that rating instead. If a unit only has a EWR rating in () then it only has ESM and has a zero (0) EWR ability versus attacks.

5.7.3 Identifying Enemy Units Modifiers:

Clarification for the "More than 4 units in a Task force" modifier:

If the sensor is Passive Sonar then if the number of units in the target or detecting Task force is > 4 the -1 modifier applies. If the sensor is ESM then only apply the modifier if the enemy Task Force/Group has 4+ units. This reflects the fact that it is more difficult to discriminate between multiple targets in an enemy group, and the fact that self-generated noise by your own nearby units can reduce your sensors classification ability.

6.3 Aircraft Movement and Fluid Detection (Expansion Rule):

Normally detection is performed in *Phase 2* (and movement occurs in *Phase 1*); however, since aircraft movement is far more fluid than ship movement, for aircraft combat you should check spotting ranges for each ATF (radar/IR/visual) during the movement phase to determine the distance at which each ATF can spot the enemy: if one ATF spots the other at a greater distance, and has a weapon that can take advantage of that greater range, then indeed it could make an unopposed attack first (regardless of enemy weapon ranges).

6.3 Aircraft Cruise/Intercept Speed Ratings (Clarification/Eratta):

While aircraft cruise/intercept speed is mentioned (in passing) in the Aircraft Endurance section of the Rules Manual, the specific rule statement as to which value is which on the Aircraft Data Sheets was omitted:

Add to rules Section 6.3:

Aircraft with two movement values listed have a choice of speeds that it choose to travel during each turn: the first value shown (before the slash) is the aircraft's **Cruise Speed**, the second value (after the slash) is the aircraft's **Intercept Speed**. The listed value is the maximum number of hexes the aircraft may move in a single turn when using that speed (*although they may move fewer hexes on the map, from 0 to the rated speed, if the player wishes*). Aircraft with a single movement value may only move up to that speed rating.

6.3.2 The following are official (but optional) advanced rules for flight at SS/NOE level in MNC:

All aircraft in the game can utilize the normal "1-hex-per-turn" SS flight (*see Section 6.3.2, the normal odds of crashing applies*), but **ONLY** during Daylight conditions and in Good or Fair weather conditions. If it is Night, and/or the weather is Poor/Very Poor in a scenario then only aircraft equipped with specialized terrain-following (TF) technology can utilize SS flight. All aircraft equipped with TF technology have another advantage as well: **they can fly their at their Cruise Speed each turn at SS altitude, not just a single hex**. The odds of the aircraft crashing during each turn flown at SS level are dependent upon the TF technology used by the aircraft in question (and the current environmental conditions). Each aircraft with TF technology has a TF rating of "TF1" through "TF3". The odds (for each turn spent flying at SS level) of an aircraft crashing is as follows (see Table below):

SS FLIGHT: TF CRASH ODDS TABLE

Light/Weather Combination

| TF Rating | DAY + Good | Day + Fair | Day + Poor | Day + V Poor | Night + Good | Night + Fair | Night + Poor | Night + V Poor |
|-----------|------------|------------|------------|--------------|--------------|--------------|--------------|----------------|
| 1 | - | 1 | 2 | 3 | 1 | 2 | 3 | 4 |
| 2 | - | - | 1 | 2 | - | 1 | 2 | 3 |
| 3 | - | - | 1 | 1 | - | - | 1 | 2 |

Indexed value is Odds (on 1D10) for aircraft to crash each turn flown at SS level.

Below are the list of aircraft equipped with TF systems (and their ratings) that exist in MNC: 1970s GUIK:

A-6E=TF2, A-7D/E=TF1, F-111F= TF3, SU-24A=TF1*

**Upgraded SU-24 model (1980+) has TF=2*

6.3.2 AIRCRAFT ALTITUDE CHANGE (OPTIONAL RULE):

The intent of the rules as written (see Section 6.3.2) is that players set the altitude of their aircraft to a particular level (before moving) for that game turn and must stay at that level (except for descending to SS level for one hex) for the entire turn – this makes attacks with aircraft play out rather quickly, and is uncomplicated. However as an optional rule, aircraft are allowed to adjust their altitude either once or twice during each Game Turn (the altitude change occurs before you move into the next hex). An aircraft may either move down twice, up twice, up-then-down, or down-then-up, but by no more than "X" total change in altitude levels during a single game turn. The value of "X" depends upon the

aircraft Type: If it is a Jet/VTOL Jet then X= 4, if it is a TProp/Prop then X= 3, if a Helo then X= 2. If the aircraft has an Intercept Speed of 10 or greater then add 1 to X. For example, an F-14A is a Jet with a Intercept Speed of >= 10 so it could change a total of 4+1 = 5 altitude levels (total) during a single game turn. Note that if an aircraft elects to fly at "SS" altitude level during a turn it is subject to the rules for flying at SS level under Section 6.3.2 regardless of its previous altitude.

7.4.4.1 Detailed rules for air-to-air refueling were inadvertently left out of the MNC rules print master. The below are the official rules for this subject and will be included in the next print run of the game:

7.4.4.1 Air-to-Air Refueling

Any aircraft that have the "&" symbol following the *Fuel Points* value on their Data Sheet are capable of being refueling via air-to-air refueling. Any aircraft that has the capacity to refuel another aircraft will list the number of Fuel Points it can replenish (this is its *Refuel Capacity*) either in a "Tanker" load-out option or in the *Notes* section (or both) of the Data Sheet. Any aircraft that can refuel another aircraft is (for game purposes) called a *Tanker*. To successfully refuel from a Tanker the following conditions must be met:

a) The Tanker and the aircraft to be refueled must all enter the same hex on the Operational Map. This hex is called the Refueling Hex. **b)** All aircraft involved (the Tanker and all aircraft being refueled) must remain in the Refueling Hex for the remainder of the game turn. **c)** If an enemy aircraft enters the Refueling Hex or attacks any aircraft in that hex then all refueling operations in that hex are immediately canceled and no aircraft are refueled. **d)** The Tanker must have 1 or more points remaining in its Refuel Capacity rating.

A single Tanker aircraft may refuel up to 3 aircraft in a single Turn. After all aircraft enter the Refueling Point hex the Tanker may transfer as many fuel points to each aircraft (*up to 3 aircraft per Tanker involved*) as the player desires (*not to exceed the aircrafts original Fuel Points rating*). To determine an aircraft's Current Fuel Value (**CFV**) before refueling use the following formula (*where CE= Current Endurance value, OE= Original Endurance value for the load-out carried, OFP= Original Fuel Points rating*):

$$\text{CFV} = (\text{CE}/\text{OE} \times \text{OFP})$$

Round CFV to the nearest whole number. Add the number of Fuel Points refueled by the Tanker to the aircrafts CFV. The formula to determine the new Endurance value after refueling is as follows (*round to the nearest whole number*):

$$\text{End} = (\text{CFV}/\text{OFP} \times \text{OE})$$

Record the new Endurance value for the aircraft on the aircraft Record Sheet.

Here is an example to show how the Air-to-Air Refueling Rules works:

A player wishes to refuel a flight of two F-16A fighters (that have Option 1 ATA load-out) using a KC-135R Tanker aircraft. During the movement portion of the Turn he moves all three aircraft into the same hex...this is the Refueling Hex.

First we need to determine the F-16As Current Fuel Value (CFV): Both of the F-16A's have 4 Endurance points left, so their CE value= 4. Looking at the F-16A data sheet Option 1 load-out has an original Endurance value of "9", so their OE value= 9. The F-16A's Original Fuel Points (OFP) value is given on the F-16A Data Sheet as 7. Plugging these values into the first formula we get $(4/9) \times 7 = 5.14$, or a 5 CFV value.

Let us assume that the player (for whatever reason) has the KC-135R only refuel 2 Fuel Points to each F-16A (and thus the KC-135R reduces it's Refuel Capacity by $2 \times 2 = 4$ points). Each F-16A now has a CFV value of $5 + 2 = 7$ total. To calculate the new Endurance value for the F-16s we plug the values into the second formula getting $(7/9) \times 9 = 7.00$, or a 7 current Endurance value.

9.3 SAM/GUN BATTERY AA ENGAGEMENT NOTES:

A SAM or Gun battery is assumed to attack a target at the closest hex at which the target approaches the battery (taking into account weapon maximum range and LOS). *Do not forget to apply Rule 9.3.1.2 for SAM attacks against targets that did not transverse the entire range of the SAM battery.*

If using the optional "changing altitude" rule, the altitude level used for the engagement is the altitude the target flew at for the majority of its movement within range of the attacking weapon, with a tie going to the higher altitude level. As an example: An A-10A is attacking a SAM battery with Iron Bombs. The SAM battery has a range of 3 hexes, and the A-10A starts 4 hexes from the SAM battery. At 4 and 3 hex range the A-10A is at Medium altitude, but changes to Low altitude at hex 2, and flies in at that same altitude through hexes 1 and 0 (*we count the target hex since the iron bomb attack has a range of < 1 operational hex*). Since it flew at Low altitude for 3 of the 4 hexes it moved through the SAM battery range, the SAM battery attacks the A-10A as if it were at Low altitude.

9.3.1.2 TRANSVERSING TARGET MODIFIER:

The rule (*9.3.1.2 Transversing Target Modifier*) concerning how far an aerial target flies through a SAM envelope is intended to reflect how far the target flies detected through the SAM envelope, not the actual distance it flies through the envelope. Consider this an official clarification: the number of hexes that the target flies through the SAM envelope **while it is detected by the SAM Battery's radar or visual/IR sensors** is considered to be the "number of hexes flown" for purposes of Rule 9.3.1.2.

9.6 AIRCRAFT ATTACK TIMING:

Aircraft can make their attack at any point in their flight path that is also within the maximum range of the weapon being used in the attack. This is important because when facing SAM attacks Rule 9.3.1.2 SAM Transversing Target Modifier may apply if the target only flew through part of the maximum range of the SAM battery. This may reduce the AN (Attack Number, i.e. rate-of-fire) of the SAM battery against the target since it was only able to fire at the target for part of the turn.

9.6.1 ATA-ONLY SORTIES COUNT AS "DUMB SORTIES":

ATA-only sorties count as "dumb sorties" for logistics purposes; however in some scenarios the designer may wish to limit sorties with certain ATA weapons which have more limited service numbers...scenarios using the AIM-54A for the first 2 years (early 1974 through the end of 1975) it was in service might limit how many sorties with that missile the F-14A could fly off the carrier, for example.

9.7.1 Dogfight Initiation (Optional Rule):

As per Section 9.7.1 either side may declare a dogfight if both sides have one or more ATFs in the same Operational-scale hex at the same time. If you wish to have greater detail (as an optional rule), you could switch to Tactical/Formation scale movement to determine if a dogfight can be declared: in such a case either side could declare a dogfight if an enemy ATF is within "T3" range.

9.9.5 DAMAGE TO GROUNDED AIRCRAFT (SUGGESTED HANDLING OF)

Table "9.9.4 MULTIPLE MOUNT/AIRCRAFT DAMAGE" is perfect for (and is intended by use with) determining the losses for aircraft that are in the Air Ops area on an Airbase/Airport. Here is an example:

First let us assume the area attacked is a "Large Air Ops" area (with DAM CAP ratings of 10/20/40) and there are two groups of 12 aircraft each, along with a single group of 6 aircraft 'parked' there (i.e. 30 aircraft total).

Assume the Large Air Ops area is hit for a net damage of 32 DP: This 32 DP is compared to the Large Air Ops 'DAM CAP' rating, we can see that this is sufficient to cause damage greater than the "20" DAM CAP threshold but less than the "40" DAM CAP threshold -- this results in a "Heavy" EDL result. Looking on Table 9.9.3 SYSTEM DAMAGE using the "Heavy" damage row we see that each aircraft in the area has a net "5" odds of being destroyed. We may now use TABLE 9.9.4 to resolve the losses for each individual aircraft group with a single roll for each group: we roll 2D10 for the first group of 12 aircraft on the "12 Mounts" section, indexing the result of the roll with the "5" column. This will result in the loss of from 2 to 10 aircraft for the group. We do exactly the same for the next group of 12 aircraft, and the same for the group of 8 aircraft except that we use the "8 Mount" section of the table (and the range of loss will be from 1 to 7 aircraft). This only requires 3 rolls to resolve, and gives a realistic and variable loss rate for each group.

The rate-of-loss between large and smaller-sized aircraft are (*for purposes of using both Table 9.9.4 and rolling the loss of each aircraft individually*) set to the same rate. The basic logic behind this is that while a parked "large" aircraft may require somewhat more damage to destroy, a large aircraft also presents more surface area as a target and thus is more likely to be hit by most attacks (and/or hit by more fragments or sub-munitions). Now, if you disagree with this and wish to make it more difficult to destroy large aircraft, you could declare that when rolling aircraft losses on TABLE 9.9.4 it

requires 3 "kills" to destroy 2 large-size aircraft. This gives a 1-to-1.5 loss ratio between large-sized and other aircraft, which not un-reasonable.

9.9.6 PGMs VERSUS SUB-UNITS RULE:

A single PGM could, for example, knock out a SA-6 battery: most radar-guided SAM batteries, including the SA-6A/B, have (normally a single) fire-control radar (in the case of the SA-6 this is a single "Straight Flush" radar on a command vehicle). For targets such as this you only really need to destroy the FC radar to effectively knock out the battery (*this is the same reason why a single ARM can theoretically knock out a SAM battery: it has a chance of destroying the radar boxes of the battery, thus making the battery ineffective*).

For units such as Tank Platoons and such (*whose sub-units can effectively operate independently of each other*) each single PGM can only destroy a **single** sub-unit, no matter what damage the PGM causes. Note that this is NOT the case for attacks by iron bombs or rockets or guns; those types of attacks can destroy the entire unit if they hit and deliver sufficient damage. The following land units in MNC would fall under this rule: Tank Platoon, Tank Company, All (gun) AA Batteries, Chaparral SAM Btty, Imp Chaparral SAM Btty, KS-18 Gun Btty, SA-8 SAM Btty, SA-9B SAM Btty. The (relatively small) infantry units used in MNC would not normally fall under this rule because they are not either dispersed or hardened enough to avoid wide-spread damage by large PGM's such as the Walleye II with its 2000-lb warhead. A scenario could, however, specify that certain Infantry units are dispersed or hardened and thus are subject to the above rule in the scenario.

MISCELLANEOUS ITEMS

CORRECTED GIUK OVERVIEW MAP

The "Overview Map" included on the MNC CD-ROM disc was an un-cropped pre-print version of the GIUK map. A corrected final print-version of the GIUK map can be downloaded from the NWS MNC forums.

REFERENCE TABLES SUMMARY

There is now available for download a summary of all tables included in MNC:1970s. This summary can be downloaded from the NWS MNC forums.