

Advanced Assault

IV. Air Operations

Rule 38: Close Air Support

Close Air Support, or CAS, provides the player with the ability to call in airstrikes on enemy positions or perceived positions. CAS use UGBUs (Unguided Bomb Units), GBUs (guided bomb units), AGM (air-to-ground missile) and internal guns to attack targets and hexes. GBUs can attack hexes, units and bridges. AGM are used against installations (units in entrenchments, bunkers and hull down positions), and all vehicles. Guns can be used against all units. Each aircraft is considered to be 1 plane for direct fire and opportunity fire. See Appendix A. Sequence of Play for the Air Phase.

A. Flight: Aircraft move similar to helicopters in that they do not pay terrain costs and can enter any hex regardless of terrain. All aircraft have unlimited movement (The AV-8B Harrier has special movement rules and is covered separately). Aircraft are always considered to be in combat formation. Aircraft may enter from any map edge and exit from any map edge. All aircraft (except the AV-8B) must exit the map in the same air phase in which they entered it.

1. Facing: Aircraft are placed on the map facing a hexside. The nose of the aircraft is its front.

2. Turning Radius: Even though aircraft have unlimited movement (class ∞), they do have a turn rate. (Except the AV-8B). Fighter-Bomber and Multi-role aircraft turn by moving two hexes forward, and then turn one hexside; Attack Aircraft turn by moving one hex forward, and then turn one hexside.

3. Spotting: Normal spotting rules apply to spotting aircraft. All spotting attempts are against a moving unit (except the AV-8B). Radar will detect any aircraft, just like with a Helicopter, automatically, given a clear LOS. Aircraft will fly at different altitudes depending upon the type. Consult the Aircraft Data Chart in the Charts & Tables section for specifications

a. Low Altitude: Aircraft fly at 1 level above the highest terrain in the hex.

b. Medium Altitude: Aircraft fly at 2 levels above the highest terrain in the hex.

c. High Altitude: Aircraft fly at 3 levels above the highest terrain in the hex.

4. Stacking: CAS aircraft may not enter a hex containing another aircraft but may enter a hex with a helicopter.

B. Availability: CAS may be canceled for a number of reasons. Enemy air superiority and weather may limit the number of sorties available. See Rule 40 on weather.

1. Air Superiority: In game terms, this means local air superiority and it only affects the availability of CAS missions. It is variable and could change each turn. At the beginning of each turn players roll the die. The player with the highest roll has local air superiority for the current air phase and may conduct CAS missions for the current air phase. The losing player may not conduct CAS missions (Air Superiority of the winning side prevented the CAS aircraft from reaching the target area. If both players roll the same number, then both players may conduct CAS missions. Each player rolls for Air Superiority whether he has CAS missions available or not. Air Superiority does not affect Helicopter Operations

2. Determining available CAS Missions: Prior to starting the game, each player secretly determines which CAS mission or missions are available for the game.

1. Procedure: Consult the Availability Modifiers for each modifier available. Add all modifiers together. Roll one die and add the die roll modifier to determine the appropriate column on the Mission Availability chart. This will determine the type and number of CAS Aircraft available. Multi-role Aircraft as identified on the Aircraft Data Chart may be selected as either Attack or Fighter Bomber.

2. Countries: Roll once for each country, applying all modifiers. If a country does not have a particular type aircraft (Denmark for example has no ATT (attack aircraft) but does have a FB (Fighter-bomber), then that specific mission is not available. Multi-role (MR) class aircraft may substitute for ATT or FB class aircraft.

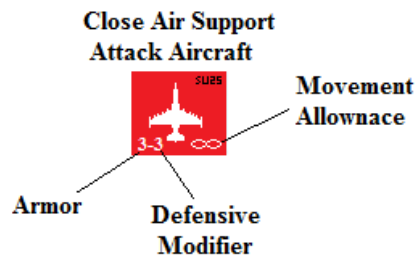
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3. Strike Package Selection: Players may select weapons to be carried on CAS aircraft hard-points as with helicopter pylons. Each unit has an Aircraft Data Card that identifies the types of weapons that may be carried on board. Weapons without a “p” or “r” after it in the Ammo Supply column of the Unit Data Card, are integrated systems that are always assigned to the type aircraft and do not take up a pylon. Each weapon pod takes up 1 hard point.

a. Sorties: A player may conduct 1 sortie per air phase per aircraft. The player may conduct sorties in as many air phases as he wants as long as the aircraft has ordinance (ammunition) and it is not damaged.

C. Combat

1. Anti-aircraft fire: To be attacked, an aircraft must be spotted. Aircraft have two factors that are used in anti-aircraft combat. The first factor is the unit’s armor rating. The second factor is the unit’s defensive modifier versus missile attack. The defensive modifier is utilized in a similar manner as the Helicopter IR signature modifier. For example, if a Stinger missile is fired at a WP SU-25 from 10 hexes away, the base hit chance of 3 is added to the SU-25 defensive modifier of 3 to give a base chance of 6.



2. Hit confirmation: If the aircraft is hit then the armor value is subtracted from the penetration value of the anti-aircraft weapon. Roll one die and if the roll is equal to or less than the difference, the ammunition penetrates the aircraft. The aircraft is removed from play and can make no further sorties. If the aircraft is firing a AGM or dropping a GBU that is being laser designated by another unit and is hit by anti-aircraft fire at the same time, the AGM or GBU combat still occurs, regardless of the fate of the aircraft.

3. Weapons: The player announces what type of weapon is used in each sortie prior to entering the map. An aircraft may not change weapon types during the current air phase, but may select a different weapon type in subsequent phases. In other words, the player may announce a GBU attack for the current phase. Thus, the player may not change to an AGM or gun attack until the next air phase.

4. Opportunity Fire: Opportunity fire may occur versus aircraft during an aircraft’s ingress or egress to the target, just like helicopters with some minor changes. Only Air Defense units (units whose primary weapon systems have a ** or † indicated on the Direct Fire Data Chart may engage in opportunity fire versus CAS aircraft. Opportunity fire results against aircraft are applied at the instant they are obtained.

a. Tracking: An aircraft must be tracked for a number of hexes by the firing unit before opportunity fire takes place. Low Altitude Aircraft must be tracked for 6 consecutive hexes. Medium Altitude and High Altitude aircraft must be tracked for 4 consecutive hexes. Normal opportunity fire combat occurs at any time after the aircraft completes the tracking requirement for the engaging air defense unit.

5. Target Defensive Fire: The target unit may conduct defensive fire with any weapon marked with an *, **, or †, as long as it did not opportunity fire at any other aircraft. The target unit may not engage in direct fire in the current turn’s Fire phase if it fires in the Target Fire versus aircraft portion of the Air Phase. Any Air Defense unit (i.e., weapon systems marked by an ** or †) may fire at the aircraft during Target Fire if it is adjacent to, or stacked with, and did not opportunity fire at any aircraft during aircraft movement.

6. Air-Ground Combat: There are four types of air-to-ground combat. Bomb (Guided Bomb Unit GBU or Unguided Bomb Unit UGBU), Air-to-Ground Missile, HARM (Anti-radar) and Gun (SCAP and SCHE) attacks. To be attacked by AGM or Gun the target must be spotted prior to the aircraft ingress to target. A UGBU attack is made against a hex just like HE indirect fire, a GBU attacks specific targets that are designated by OPs, FIST or any unit capable of laser designating targets including the attacking aircraft itself.

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Observation Posts and FISTs act as the Forward Air Controller (FAC) for aircraft. During the Artillery Plot Phase, an OP/FIST must observe a target hex or enemy unit for a CAS strike to be conducted in the ensuing Air Phase (an Air unit may conduct a strike mission against active RADAR units without an OP/FIST if armed with HARM ammunition). AIRCRAFT MAY FIRE UP TO THE AMMUNITION SUPPLY OF THE SPECIFIC WEAPON BEING USED IN A FIRE PHASE. For example, if the aircraft carries 4 GBUs, it may use all 4 in a combined attack against a single target or hex. Therefore, the ROF of a given weapon system is the available ammunition supply.

a. Bomb Attack: There are two weapon classifications under Bomb Attack.

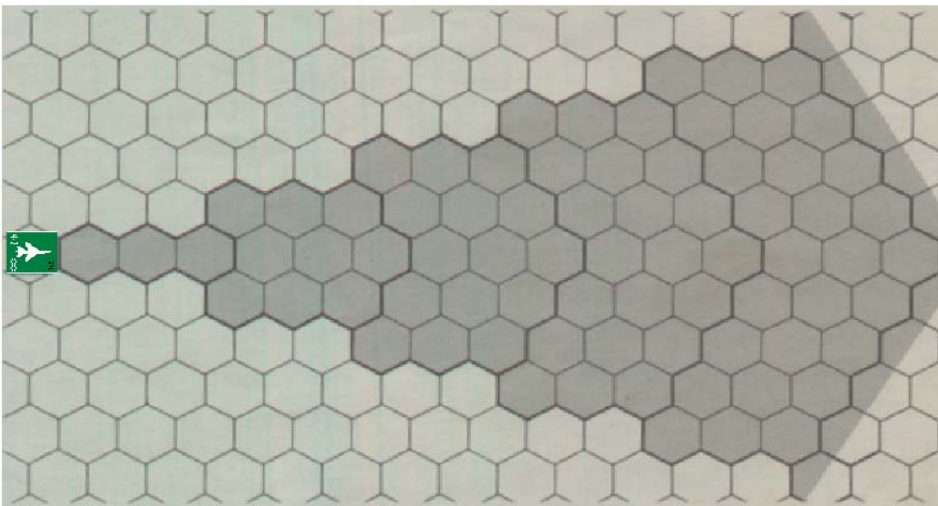
1. Un-guided Bomb Unit (UGBU) A UGBU mission does not have to be under observation since the attack is against the hex. The UGBU attacks as an HE conventional attack. UGBUs have a +2 modifier to the Conventional Fire Combat Results Table Die Roll.

2. Guided Bomb Unit (GBU) A GBU is used against a specific target similar to an AGM. A FIST may designate for a specific target unit (that way the attack can still strike the target hex if the aircraft suffers loss during the Target Fire) or the aircraft can designate the target for itself. GBUs have a -3 modifier to the Conventional Fire Combat Results Table Die Roll versus all units; EXCEPTION: GBUs have a +3 modifier to the Conventional Fire Combat Results Table Die Roll versus SHTORA equipped vehicles. Multiple GBUs may be combined into one attack or used against single targets in the same hex.

b. AGM/Gun Attack: A target unit may only be attacked by an AGM or Gun CAS mission if the unit has been spotted prior to the Air Phase. Both these attacks are resolved as direct fire attacks versus the target.

c. HARM Attack: Any target unit within the forward arc of the attacking aircraft that is utilizing surface to air radar may be attacked by a HARM missile. If the attacking aircraft successfully hits the unit utilizing surface to air radar, it is destroyed.

d. Firing Arc: An aircraft may only fire or drop its weapons in its forward arc, similar to a helicopter in march formation firing. See Diagram below:



Rule 39: AV-8B Harrier

The AV-8B, unlike other jet aircraft, has the ability to hover and loiter over the battlefield similar to a helicopter. Therefore, AV-8B are not required to exit or egress from the target area and may remain on the map, at the discretion of the owning player. AV-8Bs are treated the same as helicopters and can conduct operations in

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all movement phases (of the owning player) and the Air Phase. The AV-8B may not use more than one weapon type and may only fire once per fire segment (i.e. opportunity fire, direct fire, etc.).

A. Combat: The AV-8B can fire any of its (but only one type) while hovering except the GBU. The GBU can only be dropped (fired) in the air phase and only if the AV-8B is making a strike run (moving towards) the target hex. The AV-8B may perform popups just like a helicopter except that it may not fire the GBU. **The Harrier unit does not require an OP/FIST to select a target hex but may select any spotted targets.**

B. Movement: AV-8Bs have no turning radius and may turn in any direction at any time. The AV-8B has unlimited movement allowance class ∞ . The AV-8B may not enter a hex containing other CAS aircraft or helicopters. It may occupy a hex containing only ground units.

C. Removal: An AV-8B is removed from the game, if it suffers damage or it expends all the ammunition in its Strike Package.

Rule 40: Weather

Weather is determined prior to the start of the game. Roll once on the month table to determine the month. Then roll once on the weather table to determine the specific weather for the game. Consult the Availability modifiers list for the specific weather type modifier to the Mission Availability die roll. Weather only affects the availability of CAS.

Rule 41: Counter Rocket, Artillery and Mortar (C-RAM)

C-RAM is the U.S. anti-rocket, artillery, and mortar defensive system. The unit is available in scenarios after 2010. It is built around the U.S. NAVY CIWS Phalanx. The land based version, Centurion, is mounted on a lo-boy trailer, and can engage in-coming indirect fire and aircraft. The C-RAM is radar guided.

- A. Range:** The C-RAM can engage helicopters and aircraft from 0 to 14 hexes in opportunity or direct fire. The C-RAM can provide protection from incoming indirect fire in a radius of 10 hexes. Normal line of sight restrictions for radar apply.
- B. Combat:** The C-RAM must be deployed to engage targets. The C-RAM must be in combat formation to deploy and deploys in a manner identical to SPGs; a Deployed marker is placed on the C-RAM unit once deployed. Prior to moving again the C-RAM must un-deploy. Un-deploying takes one movement phase. Operations Point expenditure is the as for SPGs. C-RAM may fire once per Indirect and Direct fire phase up to the limit of the ammunition supply.
1. C-RAM engages aerial targets in the same manner as other radar guided anti-aircraft guns (See Rule 38.C). C-RAM may not engage enemy aerial targets if they are in the same hex as friendly units.
 2. Incoming indirect fire of any type or direct fire by mortars may be intercepted by the C-RAM. One is added to the Indirect Fire resolution die roll for each round of C-RAM SCAP fired up to the C-RAM ROF (10). For example; the Soviets have fired a mortar attack against a U.S. Infantry unit that is 6 hexes from the C-RAM. The attack will take place on the 2:1 column of the Conventional Fire Combat Results Table. The U.S. player decides to intercept the incoming mortar attack by firing the C-RAM 5 times. The Soviet player rolls a 3. A 5 is added to the 3 and the result is 8 which is NE. The expenditure of five rounds of C-RAM SCAP ammunition is recorded on the Ammunition Supply log.

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Rule 42: UAVs (Unmanned Aerial Vehicles)

UAVs are unmanned aircraft utilized for intelligence gathering, artillery spotting and limited attack. UAV development began in the 1950s with the more modern systems such as the US Predator entering service in 1995. UAV counters are available for NATO and WP. In simulations taking place after 1995, ground based MI (Military Intelligence) company 1 UAV available.

A. Intelligence/Artillery: NATO and WP UAVs function as reconnaissance units equipped with thermal imaging and laser designators for spotting and directed artillery fire. NATO UAVs have a spotting range of 2 hexes per each level of height and WP UAVs have a spotting range of 1.5 (round down) per each level of height; as determined by the owning player to be flying at. This is recorded at the beginning of each Record Artillery Mission by each player. Maximum altitude is level 15. Therefore, the maximum spotting range for a NATO UAV is 30 hexes for an UAV flying at level 15. Terrain blocking rules apply.

1. Organic UAVs- UAVs assigned as part of an Observation Post (OP) platoon (unit) function as an airborne extension of that specific OP. In order to use its' UAV, the OP must deploy by not moving for 1 movement phase. A deploy marker is then placed on the OP. Beginning with the next movement phase following deployment, the UAV assigned to the OP is placed in the map in the same hex as the OP. This UAV may then move no more than 16 hexes from the deployed OP. Altitude is determined in the same manner described in (A) above. Organic UAVs DO NOT carry a weapons pylon. The OP may call for, and adjust artillery fire from the UAV's vantage point.

B. UAV COMBAT

1. ANTI-AIRCRAFT FIRE vs UAV COMBAT: The biggest obstacle to attacking the UAV is the small size of some UAVs and the built-in stealth capabilities. There is no auto-spot vs UAV. All units must attempt to spot the UAV including radar equipped units. UAVs are always considered in clear terrain not under cover. Maximum spotting range vs an UAV is 15 hexes and Level 15 altitude by units equipped with radar, 10 hexes and Level 10 altitude by infrared missile equipped units (including MANPADs) and 5 hexes and Level 5 altitude by all other units. Radar **equipped units add 3** to the base spotting chance die roll; Infrared missile units add 5 and all other units add 7. Once spotted UAVs may be attacked by anti-aircraft fire; appropriate modifiers apply.



Rule 43: Airborne Operations

In the original Assault series, scenarios with airborne units began in the post drop phase. This optional set of rules allows players to simulate the actual drop itself. There is a chance that a unit will suffer casualties in the actual drop through loss of personnel, equipment and vehicles in accidents that occur outside of actual combat.

A. Airborne Transport Aircraft

Airborne capable units are transported via Airborne Transport Aircraft. Special Forces and Ranger units may conduct air drop operations via helicopter. Each ATA counter consists of several C-130 or

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AN-12 type aircraft. See the ATA Transport Capability Chart in the Transport Reference Guide of the Charts and Tables page. Airborne Transport Aircraft may be attacked by anti-aircraft fire. If ATA suffers adverse anti-aircraft fire result it and transported para units are removed from play. ATA fly at medium altitude. ATA performing Low Altitude Parachute Extraction System (LAPES) fly at low altitude. Heli-borne aircraft fly at low altitude. The player conducting Airborne Operations must have Air Superiority to conduct Air Drop Operations (See Rule 38.B.1 Air Superiority).

1. **ATA Availability:** Players roll for Air Superiority (See Rule 38.B.1). Next determine the number of ATA available per turn by rolling the die and cross referencing the result on the ATA availability table on the Transport Reference Guide Chart. The number of ATA available is per turn. The player determines the type of ATA as needed; i.e. either Air Drop or LAPES.



Vehicles with frontal armor of 10 or less and un-armored vehicles may be deployed by either the LAPES or air-dropped. Units may not Air Drop into a hex that contains an Alpine Hexside.

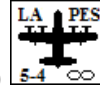
Vehicles may not carry passengers while conducting air drops or LAPES. Vehicle crews are considered to drop in close proximity to their vehicles. (See Rule 44. C. for Soviet exception)

I. Air Drop Procedure

1. Determine weather: (Use weather chart in CAS Availability Table)
2. Determine wind and wind direction (Use the wind table on the Conventional and Indirect Fire Chart)
 - a. **Light wind**-no drift unit lands in march formation in designated Drop Zone (DZ) hex.
 - b. **Moderate wind** drift- Designate the Drop Zone hex that the unit is to land in. Roll the die and divide by 2. This is the number of hexes that the unit will drift from the Drop Zone in the direction of the wind. Conduct a morale check. The unit is suppressed in march formation if the morale check is failed.
 - c. **Strong wind** drift-Designate the Landing Zone hex that the unit is to land in. Roll the die and divide by 2. Add +2 to this number. This is the number of hexes that the unit will drift from the Landing Zone in the direction of the wind. No morale check is conducted. The unit is placed in the final DZ hex suppressed in march formation.
 - d. The player conducting the air drop determines the orientation of each unit.
3. Adverse weather in Moderate and Strong Winds; adds an additional +2 for rain, +4 for fog, and +6 for snow to all landing zone drift die rolls. For Light Wind roll for wind direction and move unit +1 hexes in direction of wind for rain and +3 hexes for Fog and +5 for snow.
4. Air drops occur in the Non-phasing player Airmobile movement phase. No suppressed air dropped units may rally until the Friendly 2nd Movement Phase following the air drop. Unsuppressed units may move in Friendly 1st Movement Phase after the air drop.
5. Units that land in woods or marsh hexes lose 1 step if full strength 2 step unit; and are broken if it is a 1 step unit. Air-dropped Artillery and Air-dropped vehicles

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(non-LAPES) are eliminated if landing in woods hex or marsh hex. All units are eliminated if landing in full sea or lake hexes.



C. Low Altitude Parachute Extraction System (LAPES)

- I. **LAPES Procedure-** LAPES ATA must fly 4 consecutive hexes at low altitude in clear non-slope terrain before depositing transported unit in 4th hex. Units cannot be LAPeD into a slope hex.
 1. Determine the landing status:
 - a. On a roll of 1-3 the LAPE unit loses 1 step and is suppressed. A 1 step unit is eliminated.
 - b. On a roll of 4-6 the LAPE unit lands suppressed.
 - c. On a roll of 7-10 the LAPE unit lands in march formation.
 - d. The player conducting the LAPES determines the facing of the unit.
 2. LAPES is not affected by weather conditions or wind drift.
 3. No passengers may be carried by vehicles deploying via LAPES
 4. No suppressed LAPES unit may rally until the Friendly 2nd Movement Phase following the LAPES.



D. Soviet Airborne BMD-3 Units

Soviet Airborne units that are equipped with the BMD-3 may air drop with passenger units loaded on board the BMD-3. Loaded passengers do not count toward the ATA transport capacity limits. This is the only exception to loaded vehicle restriction. Loaded BMD-3 may only deploy via air drop. Unloaded BMD-3 may still deploy via LAPES if desired. The passenger unit suffers the same damage as the transporting BMD-3 from the air drop procedure.



E. AC-130 Spectre Gunship

The AC-130 Spectre Gunship is an American C-130 Hercules modified for Close Air Support (CAS). The AC-130H is armed with two 20mm M-61 Vulcan cannon, one 40mm Bofors L/60 cannon and one M-102 105mm howitzer. The Spectre is also equipped with thermals, Low Light Level TV and laser ranging/designating equipment.

1. The AC-130 is available as a U.S. CAS aircraft. It may be selected in place of a Fighter Bomber aircraft on the CAS availability chart only if U.S. units are available. Only 1 AC-130 may be substituted for a CAS aircraft.
2. The AC-130, like the AV-8B, is not required to exit the map at the end of a strike mission and may continue to operate in all friendly movement, fire and CAS phases.
3. The AC-130 flies at 4 levels above the highest terrain in the hex and conducts movement as an Attack Aircraft in regards to the turning radius.
4. The AC-130 is subject to anti-aircraft (SAM, AAM, and Gun), opportunity and direct fire from units capable of *, **, and † fire.
5. The AC-130 may not conduct opportunity fire.
6. The AC-130 may laser designate targets for other aircraft, missile and artillery strikes.

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7. All weapons may be fired simultaneously at the same target or individually at separate targets, up to the maximum rate of fire of each weapon system.
8. The AC-130 has a restricted firing arc 4-10 hexes to the left of the aircraft orientation. No weapon may fire into the 0-3 hex dead zone. The AC-130 conducts what is called a “pylon turn” to deliver continuous fire to a single point. See below:

