

"OPERATIONAL BREVITY WORDS AND TERMINOLOGY"

The following are two lists of operational brevity words and terms to provide common understanding and minimize radio transmissions while executing tactics described in this manual. This common understanding, however, is dependent on the following rules of engagement:

- These lists are not all inclusive.
- Use plain English when required.
- Words listed below should be used in lieu of words or phrases with similar definitions.
- When a flight lead makes directive calls, the wingman must respond with the directed action to the best of his ability.
- If the wingman uses a "directive" term/word, it is a request and the flight lead reserves the right to approve/deny the wingman's requested action.

Allied nations may have different meanings for some of the terms/words listed here (reference ACP 165). They are indicated by an asterisk (*) behind the term/word.

<u>ABORT</u>	Directive to cease action/attack/event/mission.
<u>ACTION</u>	Directive to initiate a briefed attack sequence or maneuver.
<u>AIRCRAFT AXIS</u>	There are three axis which are mutually perpendicular and have a common point of intersection. The aircraft longitudinal axis is parallel to the fuselage reference line. Aircraft rotation around this axis is roll or bank. The aircraft vertical axis is perpendicular to the longitudinal axis through the center of the Aircraft. Rotation around this axis is yaw. The aircraft lateral axis is perpendicular to both the longitudinal and vertical axes at the point of intersection. Rotation around this axis is pitch.
<u>ALPHA CHECK</u>	Request for bearing and range to described point.
<u>ANCHOR</u>	Orbit about a specific point; ground track flown by tanker. Information call indicates a turning engagement about a specific location.
<u>ANGLE OF ATTACK (AOA)</u>	The angle between the cord line of the wing and the relative wind.
<u>ANGLE-OFF</u>	The angular difference between the longitudinal axis of the attacker and the longitudinal axis of the defender.
<u>ANGELS</u>	Height of aircraft in thousands of feet.
<u>APEX/ALAMO</u>	Training term used to denote simulated launch of enemy, all-aspect radar missile.
<u>APHID/ARCHER</u>	Training term used to denote simulated launch of enemy, rear hemisphere heat seeking missiles.
<u>ARCING</u>	Cutoff in plane of target motion to decrease range to targetdefender allows attacker to use cutoff.

<u>ARM/ARMED (Safe/Hot)</u>	Select armament (safe/hot), or armament is safe/hot.
<u>AS FRAGGED</u>	Fighter, FAC, mission package, or agency will be performing exactly as stated by the air tasking order.
<u>ASPECT</u>	Request/comment regarding target aspect information.
<u>ASPECT ANGLE</u>	The angle between the longitudinal axis of the target (projected rearward) and the line-of-sight to the fighter, measured from the tail of the target. The attacker's heading is not a consideration. (Whenever the attacker is pointed at the bogey, angle-off and aspect are the same.)
<u>ATTACK/ATTACKING</u>	Indicates air-to-surface attack on a specific ground target.
<u>ATOLL</u>	Rear hemisphere heat-seeking missile.
<u>ATTACK AXIS</u>	An orientation direction usually thought of as an imaginary line passing through the target on some particular heading example, the range run-in heading.
<u>AUTHENTICATE</u>	To request or provide a response for a coded challenge.
<u>AUTONOMOUS</u>	Aircrew is operating without benefit of GCI/AWACS control.
<u>AUTONOMOUS INTERCEPT</u>	Intercepts initiated by aircrew when no target information is being received from command and control sources.
<u>BANDIT (Radar/Heat/Striker)</u>	Known enemy aircraft and type ordnance capability, if known.
<u>BARO</u>	A term used synonymously used with System Altitude. (See System Altitude)
<u>BARREL ROLL MANEUVER</u>	A vertical rolling maneuver used to reduce aspect angle while keeping sight of the bogey and maintaining nose-tail separation.
<u>BASE (Number)</u>	Reference number used to indicate such information as headings, altitudes, fuels, etc.
<u>BEAM/BEAMER (Direction)</u>	Aircraft maneuvering stabilized within 700 to 1100 aspect; generally given with cardinal directions: east, west, north, south.
<u>BELLYCHECK</u>	A momentary unloaded bank to check the blind side of a turning aircraft.
<u>BENT</u>	Identified system inoperative.
<u>BFM-Basic Fighter Manouvers</u>	Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turning room problems in relation to another aircraft to either attain a position from which weapons may be employed or deny the adversary a position from which weapons may be launched or defeat weapons employed by an adversary. Examples are the high speed yo-yo, quarter plane maneuver, Immelmann turn, barrel roll. BFM training builds appreciation of pursuit geometry, cutoff, radial G, rolling maneuvers and energy management.
<u>BFM ADVANTAGE</u>	The command or use of maneuvering airspace usually OUT OF PLANE OF A BANDIT'S TURN TO ALLOW the attacker to gain or maintain an offensive advantage or close to a gun solution. Requires positional and/or energy advantage.
<u>BINGO</u>	Prebriefed fuel state which is needed for recovery using prebriefed parameters.

<u>BLIND</u>	No visual contact with friendly aircraft; opposite of term "VISUAL."
<u>BLOWTHROUGH</u>	Directive/informational call that indicates aircraft will continue straight ahead at the merge and not turn with target/targets.
<u>BOGEY</u>	A radar/visual contact whose identity is unknown.
<u>BOGEY DOPE</u>	A request for bearing and range to bogey and as available, heading, speed, and altitude.
<u>BOMB RANGE (BR)</u>	The horizontal distance a bomb will travel from release to impact.
<u>BOMB TRAIL</u>	The distance that represents bomb drag in weapon ballistic computation.
<u>BONE</u>	Term used to indicate the formation will remain in a Racetrack-type holding pattern (with all wingmen's turns into lead); exit formation must be specified by lead.
<u>BOX</u>	Groups/contacts/formations in a square or offset square.
<u>BRACKET</u>	Indicates geometry where aircraft will maneuver to a position on opposing sides either laterally or vertically from the target.
<u>BREAK(Up/Down/Right/Left)</u>	Directive to perform an immediate maximum performance turn in the indicated direction. Assumes a defensive situation.
<u>BREVITY</u>	Term used to denote radio frequency is becoming saturated/degraded and briefer transmissions must follow.
<u>BROADCAST</u>	Request/directive to switch to Broadcast Control.
<u>BROKE LOCK</u>	Loss of radar/IR lock-on (advisory).
<u>BUDDY SPIKE</u> <u>(Position/Azimuth/Altitude)</u>	Receiving friendly AIRWR
<u>BUGOUT (Direction)</u>	Combat separation for low fuel, loss of tactical advantages or accomplishments of mission objectives; intent is to permanently separate from that particular engagement/attack.
<u>BULLSEYE</u>	An established reference point from which the position of an aircraft can be determined.
<u>BULLSEYE</u>	An established reference point from which the position of an aircraft can be transmitted. Sometimes referred to as "broadcast control" if more than one bullseye is used, designate by Alpha, Bravo etc.
<u>BUMP/BUMP-UP</u>	A fly-up to acquire line of sight to the target or laser designation.
<u>BUNT</u>	A pushover maneuver.
<u>BURNER</u>	Directive to select/deselect afterburner (generally to fly at maximum speed).
<u>BUZZER</u>	Electronic communications jamming.
<u>CAP/CAP(Location)</u>	An orbit at a specified location. Establish a combat air patrol at (location).
<u>CATA</u>	Collision Antenna Trail Angle. The azimuth of your radar antenna when tracking (locked on) a target that is on a collision course with your aircraft.

<u>CHAFF/ FLARE</u>	Directive to deploy CHAFF and / or FLARES and deselect AB (Situation permitting). Often added immediately after directing a flight member to do a defensive maneuver. Also informative by one using CHAFF/FLARE(S) as a reminder to his partner to use them when necessary.
<u>CHAMPAGNE</u>	An attack of three distinct groups with two in front and one behind. The leading two groups are attempting to bracket with the trailing third group flying up the middle.
<u>CHANDELLE TURN</u>	A near vertical turn up, used to attack a high bandit from a medium to front quarter aspect. Does not require as much altitude separation as the Immelmann turn. Should terminate in a rear hemisphere weapons envelope with overtake.
<u>CHATTERMARK</u>	Begin using briefed radio procedures to counter comm jamming.
<u>CHEAP SHOT</u>	A qualifying statement to indicate the shot had low probability of success.
<u>CHECK</u>	A directive statement made to momentarily monitor (specified items/systems).No response is required if status is normal.
<u>CHECK LEFT/RIGHT</u>	By GCI: Alter course () degrees left or right momentarily for airborne search positioning, then resume original heading. By Flight Lead: Alter course to new heading, 30 degrees if not specified.
<u>CHECK ANGELS /FUEL</u>	An information statement made by GCI to aircrew ng ACBT. No aircrew response required.
<u>CHICKS</u>	Friendly fighter aircraft.
<u>CHRISTMAS TREE</u>	Directive to briefly turn on exterior lights to enable visual acquisition.
<u>CIRCLE (RIGHT/LEFT)</u>	Flight-lead-directed defensive maneuver in which the flight establishes a circular holding pattern for mutual support.
<u>CLEAN</u>	No radar contacts; used to confirm a good battle damage check (i.e., no air-to-surface ordnance remaining on the wingman's aircraft).
<u>CLEAR</u>	No enemy aircraft are a threat to your rear quadrant that is, your six is clear. Also used when flight lead is authorizing change of command or role swap for wingman from supporting to engaged.
<u>CLEARED</u>	Requested action is authorized (no engaged/support roles are assumed).
<u>CLEARED DRY</u>	Ordnance release not authorized.
<u>CLEARED HOT</u>	Ordnance release is authorized.
<u>CLOSE CONTROL</u>	The maximum degree of control that GCI can provide.
<u>CLOSING</u>	Bandit/bogey/target is getting closer in range.
<u>COLD</u>	In context; attack geometry will result in a pass or roll out behind the target; or, on a leg of the CAP pointed away from the anticipated threats. Air-to-surface, dry or no-ordnance attack.
<u>"COLD" SIDE</u>	The side of the RED opposite that where collision antenna train angle occurs.
<u>COMEBACK HIGH/ LOW/LEFT/RIGHT</u>	Informative call requesting the addressed fighter to reposition accordingly
<u>COMEOFF</u>	A directive to maneuver as indicated to either

<u>Left/Right/High/Low/Dry</u>	regain mutual support or to deconflict flight paths for an exchange of engaged and supporting roles. Implies both "visual" and "tally."
<u>COMMITTED/COMMIT</u>	Fighter intent to engage/intercept; weapons director (WD) continues to provide information.
<u>CONNING</u>	Leaving contrails or otherwise marking aircraft position.
<u>CONTACT</u>	Radar/IR contact at the stated position; should be in bearing, range, altitude (BRA), Bullseye, or geographic position format.
<u>CONTACT</u>	Radar and/or IP pick-up at the stated position. Position usually stated in magnetic bearing, range, altitude (BRA), Bullseye, or geographic position format if locked on. Friend or foe unknown.
<u>CONTINUE</u>	Continue present maneuver; does not imply clearance to engage or expend ordnance.
<u>CORNER VELOCITY</u>	Minimum speed at which maximum allowable aircraft G can be attained. Minimum turn radius and maximum rate are achieved by most aircraft types at corner velocity. The F-16's unique flight control character are such that it doesn't have a corner velocity in this classic sense.
<u>COUNTEROFFENSIVE MANEUVERING</u>	Maneuvers which are performed by an aircraft under attack and which are designed to negate the present threat and proceed to an offensive position as the attacker.
<u>COVER</u>	Directive to assume briefed support position and responsibilities.
<u>CRANK (Direction)</u>	F-Pole maneuver; implies illuminating target at radar gimbal limits.
<u>CROSS TURN/CROSS</u>	A 180 heading reversal by a flight where aircraft turn into each other.
<u>CUTOFF</u>	Request for, or directive to, intercept using cutoff geometry.
<u>DAISY CHAIN</u>	Numerous fighters in-trail maneuvering for shots on one another.
<u>DEADEYE</u>	Informative call by an airborne laser designator indicating the laser is inoperative.
<u>DEFENSIVE (Spike/Missile/SAM/Mud/AAA)</u>	Aircraft is in a defensive position and maneuvering with reference to the stated condition. If no condition stated maneuvering is with respect to A/A threat.
<u>DEFENSIVE TURN</u>	A planned turn designed to prevent an attacker from entering/ remaining in the defender's vulnerable cone. This maneuver has limitations since it may allow arcing; however, done early enough and properly executed, allows defender to keep sight, makes attacker's BFM problem more difficult, and may cause attacker to overshoot.
<u>DEPLOY</u>	Directive for the flight to maneuver to briefed positioning.
<u>DISENGAGE</u>	Discontinue the current attack.
<u>DIVERT</u>	Proceed to alternate mission/base.
<u>DOLLY</u>	Data link equipment
<u>DOPE</u>	Directive to "delay the engagement."
<u>DRAG/DRAGGING (Direction)</u>	Bogey/Bandit maneuvering to 60 degrees or less aspect.

<u>DUKE IT OUT</u>	Meet the enemy head on to engage.
<u>ECHELON (Cardinaldirection)</u>	Groups/contacts/formation with wingman displaced approximately 45 deg behind leader's wing line.
<u>ELEMENT</u>	Formation of two aircraft.
<u>ENGAGED</u>	Maneuvering with the intent of achieving a kill. If no additional information is provided (bearing, range, etc.), ENGAGED implies visual/radar acquisition of target
<u>ENGAGED (FIGHTER)</u>	Indicates the fighter or element is maneuvering to attain or deny weapons release parameters or is in the visual arena maneuvering in relation to the target WC stops providing specific target information and continues with situation awareness information.
<u>EXTEND (LEFT/RIGHT)</u>	Gain energy and distance using proper energy profile with the possible objective of reentering the fight.
<u>EXTENSION</u>	A straight-line unloaded (slightly less than 1 G) acceleration maneuver. This maneuver may be interrupted by a series of checkturns so that the extending fighter can maintain sight of the attacking aircraft.
<u>ESTIMATE</u>	Using information available to provide data required, implies degradation.
<u>EXTEND (Direction)</u>	Directive to gain energy and distance with the possible intent of reengaging.
<u>EYEBALL</u>	Fighter with primary visual identification (VID) responsibility.
<u>FADED</u>	Previous radar contact is lost
<u>FAST</u>	Target speed is estimated to be 600 knots ground mach 1 or greater.
<u>FEBA</u>	Forward edge of the battle area as set during the scenario briefing.
<u>FEET WET/DRY</u>	Flying over water/land.
<u>FENCE</u>	Boundary separating hostile and friendly area.
<u>FENCE CHECK</u>	Set cockpit switches as appropriate.
<u>FIGHTER DOPE</u>	Request for bearing and range to friendly aircraft.
<u>FLANK/FLANKING</u>	Target with a stable aspect of 120 deg. to 150 deg.
<u>FLARES</u>	Flares have been detected or directive to deploy flares.
<u>FLASH (MODE)</u>	Temporary activation of IFF transponder on desired mode/code.
<u>FLOAT</u>	Directive/informative to expand the formation laterally within visual limits to maintain a radar contact or prepare for a defensive response.
<u>FOLLOW DOLLY</u>	Follow data-link commands.
<u>FOX</u>	Air-to-air weapons employment.
<u>FOX ONE</u>	Simulated/actual launch of radar-guided missile.
<u>FOX TWO</u>	Simulated/actual launch of infrared-guided missile.
<u>FOX THREE</u>	Simulated/actual launch of AMRAAM/Phoenix missile.

<u>FOX FOUR</u>	Bomber gunner has simulated firing on a target.
<u>FOX MIKE</u>	VHF/FM radio.
<u>FURBALL</u>	A turning fight involving multiple aircraft.
<u>FUSELAGE REFERENCE LINE (FRL)</u>	A basic reference line extending through the fuselage, parallel to the longitudinal axis of the aircraft.
<u>GADGET</u>	Fire control radar / Emitter of radar equipment.
<u>GADGET SICK</u>	Airborne FCS/ ground equipment is degraded.
<u>GADGET BENT</u>	Airborne FCS/ ground equipment is inoperative.
<u>GADGET WELL</u>	Airborne FCS/ ground equipment is working.
<u>GIMBAL (Direction)</u>	Radar target is approaching azimuth or elevation limits.
<u>GO ACTIVE</u>	Go to briefed Have Quick net.
<u>GO SECURE</u>	Activate secure voice communications.
<u>GORILLA</u>	Large force of indeterminable numbers and formation.
<u>GREEN (Direction)</u>	Direction determined to be clearest of enemy air-to-air activity.
<u>GROUP</u>	Radar target(s) within approximately 3 NM of each other.
<u>GUN (Direction)</u>	Visual acquisition of gunfire, AAA site, or AAA fire.
<u>GUNS</u>	An air-to-air or air-to-surface gunshot.
<u>GUNS</u>	Indicates a simulated guns shot.
<u>GUNS BREAK</u>	Directive call to perform a break out of the plane.
<u>GUNS JINK or JINK</u>	Directive call to perform gun defensive maneuvers.
<u>HARD (Direction)</u>	High-G, energy sustaining turn.
<u>HARD TURN</u>	Maximum G turn sustaining energy. Whether to use AB or not is a briefing item.
<u>HARMONIZATION</u>	The adjustment of a gun and sight of an aircraft so that when within effective range, the tracking index will indicate the impact point of the bullets.
<u>HASSLE</u>	Two or more aircraft involved in an air combat maneuver.
<u>HAWK</u>	Staying above the flight.
<u>HEAD</u>	Target with an aspect of 160 deg. to 180 deg.
<u>HEADS DOWN</u>	Call to inform aircrew that leader/wingman is head-down in the cockpit and wingman/leader is responsible for clearing.
<u>HEADS UP (Direction/Altitude)</u>	Enemy/bogey got through; no kill.
<u>HIGH</u>	Target above 30,000 feet MSL.

<u>HIGH DEFLECTION GUNSHOT</u>	Gun attack during which the fighter is firing as the bandit passes through the pipper at high angle-off. Tracking is impossible due to excessive line-of-sight rate of the bandit. High deflection gun shots normally terminate in close-in overshoots of the target's flight path by the attacker.
<u>HIGH YO-YO</u>	An out of plane offensive BFM performed to control overtake while closing from a low aspect. Also used to reduce aspect angle.
<u>HIT</u>	Radar return in search (A/A). Weapons impact within lethal distance (air-to-ground [A/G]).
<u>HOLD DOWN</u>	Directive to key transmitter for DF steer.
<u>HOLDING HANDS</u>	Aircraft are joined in formation, implies visual contact by all flight members.
<u>HOME PLATE</u>	Home airfield.
<u>HOOK (LEFT OR RIGHT)</u>	Directive to perform an in-place 180 deg. turn.
<u>HOOKING (LEFT OR RIGHT)</u>	Directive/information call to approach target from a single/indicated side.
<u>HOT</u>	In context; attack geometry will result in rollout in front of the target; or on a leg of the CAP pointing toward the anticipated threats (A/A). Ordnance employment authorized, expected, or completed (A/G).
<u>"HOT" SIDE</u>	The side of the REO where the collision antenna train angle is located.
<u>HOTEL FOX</u>	HF radio.
<u>HOUND DOG</u>	Call made by supporting fighter or a wingman indicating he has visual, tally, and a clear path to the bandit and is in an advantageous position to engage. Clock position and distance are normally added to indicate bandit position relative to the flight, or wingman position relative to the leader.
<u>ID</u>	Directive to intercept and identify the target; also aircrew ID accomplished, followed by type aircraft.
<u>IMMELMANN TURN</u>	A vertical turn up designed to solve a high angle-off and high aspect angle attack situation. Optimally performed, the Immelmann turn should terminate in the defender's 6 o'clock, within heat missile range and a relatively high energy state. Normally performed from head-on aspect with large altitude separation.
<u>IN PLACE (Left, Right)</u>	Perform indicated maneuver simultaneously.
<u>IN TRAIL</u>	Perform suggested maneuver maintaining relative position in formation.
<u>JINKOUT MANEUVER</u>	Unpredictable maneuvers to negate a gun tracking solution. A series of changes in roll, pitch, and G performed to prevent an attacker from achieving a gun tracking solution. This maneuver will not be effective against missiles.
<u>JOKER</u>	Prebriefed fuel state above Bingo at which separation/bugout/event termination should begin.
<u>JUDY</u>	Aircrew has radar/visual contact on the correct target, has taken control of the intercept and only requires situation awareness information; weapons director (WD) will minimize radio transmissions.
<u>JUDY ANGLE</u>	Call made by the fighter stating the fighter will position himself in azimuth and GCI will provide range info to the target from the fighter.

<u>KILL</u>	Directive to commit on target with clearance to fire in visual or beyond visual range; implies hostile and ROE compliance; in training, fighter call to indicate KILL ROE has been fulfilled.
<u>KNOCK-IT-OFF</u>	Terminate any intercept/ engagement in progress.
<u>LADDER</u>	Three or more groups/contacts/formations in trail.
<u>LAG CORNER</u>	A maneuver, executed from an offensive position, where excess energy is used to drive to defender's blind cone, then a high G turn is used to solve angle off. This maneuver is only effective if the attacker has an obvious turn performance advantage.
<u>LAG PURSUIT ATTACK</u>	An attack geometry that will cause the attacker to fly behind the target. The nose of the attacking aircraft remains pointed behind the defender. (At some point a successful attack will usually have to transition to pure / lead pursuit.)
<u>LAG ROLL</u>	A rolling maneuver, executed from an offensive position, performed opposite the direction of target turn in an attempt to reduce aspect angle and/ or control closure. Used to achieve rear aspect heat missile parameters.
<u>LEAD PURSUIT ATTACK</u>	An attack geometry that will cause the attacker to fly in front of the target. The nose of the attacker's aircraft remains pointed ahead of the defender's aircraft.
<u>LEAD TURN</u>	A turn which is initiated prior to passing the opponents 3/9 line.
<u>LINE ABREAST</u>	Two groups/contacts/formations/aircraft side-by-side.
<u>LINE-OF-SIGHT (LOS)</u>	An imaginary straight line from an observer's eye to a target.
<u>LOCKED (BRA/Direction)</u>	Final radar lock-on; sort is not assumed
<u>LOW</u>	Target altitude below 10,000 feet AGL
<u>LOW YO-YO</u>	A maneuver, executed from an offensive position, used to close on the target aircraft by the effective use of cutoff and acceleration.
<u>LUFBERRY</u>	A circular stagnated fight with no participant having an advantage.
<u>MAGNUM</u>	launch of AGM-88 HARM.
<u>MARKING</u>	leaving contrails or otherwise marking aircraft position.
<u>MAXIMUM TURNING PERFORMANCE</u>	Turn performance during which the maximum obtainable turn rate is achieved
<u>MAXIMUM PERFORMANCE</u>	Performance near the limits of the maneuvering envelope, includes minimum speed, maximum speed, low G, and placard G.
<u>MEDIUM</u>	Target altitude between 10,000 feet AGL and 30,000 feet MSL.
<u>MERGE(D)</u>	Informative that friendlies and targets have arrived in the same visual arena.Call indicating radar returns have come together.
<u>MICKEY</u>	Have Quick time-of-day (TOD) signal.
<u>MIDNIGHT</u>	Informative call advising that command and control functions (GCI/AWACS) are no longer available.

<u>MIL (Milliradian)</u>	An angular measurement which subtends one foot at 1.000£ (17.45 mils equal 1 degree). Also, military power.
<u>MINIMUM ATTACK PERIMETER (MAP)</u>	An imaginary circle centered on the target which depicts the distance from the target at which rollout occurs and tracking begins. The radius of this circle varies with planned delivery parameters.
<u>MISS DISTANCE (MD)</u>	The distance and direction of bomb impact from the target due to imperfect release conditions.
<u>MEL</u>	Directive to select military power.
<u>MORT</u>	Simulated kill on a friendly aircraft in ACBT.
<u>MUD (Direction-Type)</u>	Indicates unknown RWR ground threat displayed; followed normally by clock position.
<u>MUSIC</u>	Electronic radar jamming. On AI radar, electronic deceptive jamming.
<u>MUTUAL SUPPORT</u>	The coordinated maneuvering of two or more aircraft to provide combined firepower and survivability. This coordination can be achieved via position, radio, fire control system or a combination of these factors.
<u>NAKED</u>	No RWR indications. Opposite of term "spike".
<u>NEGATIVE CONTACT</u>	Lack of radar and/ or SIF contact.
<u>NO JOY</u>	Aircrew does not have visual contact with the target/bandit; opposite of term "TALLY."
<u>NOTCH (Direction)</u>	All-aspect missile defensive maneuver to place threat radar/missile near the beam.
<u>OFF (Direction)</u>	Informative call indicating attack is terminated and maneuvering to the indicated direction.
<u>OFFSET (Direction)</u>	Informative call indicating maneuver in a specified direction with reference to the target.
<u>OPTIMUM TURN</u>	A turn during which energy remains constant and turn rate is maximized.
<u>OVERSHOOT (Flight path)</u>	Attacking aircraft is forced to the outside of his intended victim's flight path while attempting to achieve a shot. In a severe overshoot, the attacker's flight path carries him forward of the defender's 3-9 line and roles can be reversed.
<u>PACKAGE</u>	Geographically isolated collection of groups/contacts/formations.
<u>PADLOCKED</u>	Informative call indicating aircrew hqs "tally" and cannot take eyes off an aircraft/ground target without risk of losing tally/visual.
<u>PAINT</u>	Friendly AAI/APX interrogation return.
<u>PARROT</u>	A military IFF transponder.
<u>PERCH</u>	Position from which an attack can be launched.
<u>PICTURE</u>	Situation briefing which includes real-time information pertinent to a specific mission.
<u>PIGEONS (Location)</u>	Magnetic bearing and range to a specified point.

<u>PINCER</u>	A tactic designed to maneuver an enemy into a defensive position by simultaneous attack from both sides of bogey.
<u>PIPPER</u>	A HUD symbol representing an aiming line of sight. The pipper is in the center of the reticle.
<u>PIRQUETTING</u>	Rolling an aircraft about its longitudinal axis while pointed up or down at low G thus effecting a rapid change in heading when higher G is again applied.
<u>PITCH/PITCHBACK (L/R)</u>	Directive call for fighter/flight to execute a nose-high heading reversal.
<u>PLACARD G LIMIT</u>	The limiting cockpit G for the particular configuration.
<u>PLANE OF TURN</u>	Plane defined by the flight path of an aircraft and its turn radius.
<u>PLAYTIME</u>	Amount of time aircraft can remain on station.
<u>POINT</u>	Directive for an element to turn towards each other either as a defensive response or to reestablish a mutually supportive formation.
<u>POP</u>	Starting climb for air-to-surface attack.
<u>POPEYE</u>	Flying in clouds or area of reduced visibility.
<u>POSIT</u>	Request for position; response normally in terms of a geographic landmark, or off a common reference point.
<u>POST ATTACK (Dir)</u>	WD transmission to indicate desired direction after completion of intercept/engagement.
<u>POST-ATTACK (DIR)</u>	Cardinal direction weapons controller assigns a fighter for the purpose of leaving the target area.
<u>POST-ATTACK (HDG)</u>	Specific heading passed by the weapons controller after aircrew has completed the attack.
<u>POST HOLE</u>	Rapid descending spiral.
<u>POWER</u>	Reminder to set the throttles appropriately considering the IR threat and desired energy state.
<u>PRESS</u>	Directive / informative call to continue the attack. Normally given by supporting fighter in response to engaged fighter's statement of intentions and means he is in a position to attack should the engaged fighter's position deteriorate.
<u>PRESSING</u>	Term describing a delay resulting in releasing ordnance closer and/or lower to a target than planned.
<u>PULLING</u>	Descriptive of the situation where the bandit is behind the one stating "I'm pulling."
<u>PUMP</u>	A briefed maneuver to stop closure on the threat or geographical boundry while maintaining situation awareness.
<u>PURE</u>	Call indicating pure pursuit is being used or directive call to go pure pursuit.
<u>PURE PURSUIT ATTACK</u>	An attack geometry that will cause the attacker to fly directly at the target. The nose of the attacker's aircraft remains pointed at the defender's aircraft.
<u>PUSH (Channel)</u>	Go to designated frequency.

<u>PUSHING</u>	Descriptive of the situation where the bandit is in front of the one stating "I'm pushing".
<u>QUARTER PLANE MAN</u>	A maneuver, executed from an offensive position, used to preserve nose-tail separation and a positional advantage for future maneuvering when presented with an impending flight path overshoot or to counter a reversal attempt by the defender. An aggressive, exaggerated rolling pull out of the bandit's plane of motion at close range to reposition the attacker's lift vector at least 90 degrees away from the bandit's plane of motion. This maneuver is often performed instead of a high yo-yo when the attacker realizes too late how quickly the aspect is increasing.
<u>RADIAL G</u>	The vectored sum of cockpit G and gravity.
<u>RANCH HOUSE (Altitude)</u>	Directive or informative indicating subject fighters will return to CAP.
<u>RANGE WIND</u>	That component of a wind that is parallel to the attack axis i.e., headwind or tailwind.
<u>RAYGUN (Pos/Azi/Alt)</u>	Radar lock-on to unknown aircraft. Request Buddy Spike/Naked reply.
<u>REFERENCE (Direction)</u>	Directive to assume stated heading.
<u>REFERENCE (HEADING)</u>	Heading to fly as directed by the flight lead. Reference 270.
<u>RENO</u>	Indicates that more than one radar contact is observed and aircrew is able to distinguish the assigned target from chinks. Does not imply sorted.
<u>REVERSAL</u>	A counter-offensive rolling maneuver designed to reverse roles on an attacker after he overshoots.
<u>RIFLE</u>	AGM-65 launch.
<u>ROGER</u>	Indicates aircrew understands the radio transmission; does not indicate compliance or reaction.
<u>ROLLING SCISSORS</u>	A series of rolling maneuvers in which each of two opposing aircraft is attempting to roll to his opponent's 6 o'clock. An energy depleting, maximum performance situation which frequently ends up in a slow speed, high AOA descent.
<u>RUMBA</u>	Ownship maneuvering and ranging (OMAR), F-15 angle on ranging (AOR), F-16.
<u>RUN/RUNNING (Direction)</u>	Directive/Informative Perform a defensive maneuver to place the threat radar/missile on the tail.
<u>SAM (Direction)</u>	Visual acquisition of a SAM or SAM launch. Should include position.
<u>SANDWICH</u>	A situation where an aircraft / element finds themselves in between opposing aircraft / element(s).
<u>SANDWICHD</u>	A situation where an aircraft/element finds themselves between opposing aircraft/elements.
<u>SAUNTER</u>	Fly at best endurance. Loiter.
<u>SCISSORS</u>	A series of turn reversals designed to cause an attacking aircraft to overshoot and lose nose-tail separation.
<u>SEARCH (L / R / High / Low)</u>	Search area indicated as briefed and report all contacts.

<u>SEPARATE</u>	Leave the fight/engagement due to loss of advantage, change of odds or situation. Similar to bugout, except bugout is usually permanent separation. May or may not reenter.
<u>SEQUENTIAL ATTACK</u>	Swapping of roles of engaged and supportive fighters as one or the other comes into a more favorable position to achieve a kill.
<u>SHACKLE</u>	One weave; a single crossing of flight paths; maneuver to adjust/ regain formation parameters.
<u>SHADOW</u>	Follow indicated target.
<u>SHIFT</u>	Directive to illuminate second target with laser designator.
<u>SHOOTER</u>	Aircraft designated to employ ordnance.
<u>SHOTGUN</u>	Launch of antiradiation (SHRIKE) missile by Wild Weasel.
<u>SICK</u>	Described equipment is degraded.
<u>SIGHT PICTURE</u>	Term used to describe the position of the pipper at release.
<u>SIGNAL CHARLIE</u>	Landing area is clear; commence approach. (NAVY air operations in control of airborne jets)
<u>SIGNAL DELTA</u>	Landing area is foul (not clear); commence standard holding pattern. (NAVY air operations in control of airborne jets)
<u>SIGNAL BUSTER</u>	Use maximum speed (burner for those so equipped). (NAVY air operations in control of airborne jets)
<u>SILENT</u>	"GO SILENT" directive to initiate briefed EMCON procedures.
<u>SKIP IT</u>	Veto of fighter commit call; used by radar facility when higher priority target is present, usually followed with further directions.
<u>SLICE</u>	An informative call for fighter to execute a nose-low heading reversal to reposition as stated. Often used to obtain a change in flight path direction while maximizing radial G and sustaining airspeed or accelerating.
<u>SLICE/SLICEBACK (L/R)</u>	Directive to perform a high-G descending turn in the stated direction; usually 180 deg. turn.
<u>SLOW</u>	Target with ground speed of less than 300 kts.
<u>SNAP SHOT</u>	High angle off Attack or passing gun shot. Attacker's turn rate does not equal defender's LOS rate, whether intentional or unintentional.
<u>SNAP</u>	An immediate vector (bearing and range) to the group described.
<u>SNAP VECTOR</u>	A quick vector to the requested position.
<u>SORTED</u>	Criteria have been met which ensure individual flight members have separate contacts; criteria can be met visually, electronically (radar) or both. Final radar lock taken.
<u>SPARKLE</u>	Target marking by a gunship or FAC using incendiary rounds.
<u>SPIKE</u>	RWR indication of AT threat is displayed. Add clock position, and type threat (radar/heat) if able.
<u>SPITTER (Direction)</u>	An aircraft that has departed from the engagement.

<u>SPLASH</u>	Missile time of flight is expired or missile destroyed; target or bomb impact.
<u>SPLIT</u>	Request to engage a threat; visual may not be maintained, requires flight lead acknowledgement (air-to-air). Also, directive to begin briefed maneuver/attack.
<u>SPLIT PLANE MANEUVERING</u>	Two or more aircraft maneuvering in different planes of motion.
<u>SPOOFING</u>	Informative that voice deception is being employed.
<u>SPOT</u>	Informative that laser target designation is being received.
<u>SQUAWK</u>	Operate IFF as indicated or IFF is operating as indicated.
<u>STACK</u>	Two or more groups/contacts/formations with a high/low altitude separation in relation to each other.
<u>STATUS</u>	Request for an individual's tactical situation; response is normally „offensive," "defensive," or "neutral" with number of targets. May be suffixed by position and heading.
<u>STERN</u>	Request for, or directive to, intercept using stern geometry.
<u>STERN ONLY</u>	Intercept will be completed using stern geometry. A conversion to a "CUTOFF" will not be attempted.
<u>STINGER</u>	Formation of two or more aircraft with a single in trail.
<u>STRANGER</u>	Unidentified traffic that is not a participant in the mission.
<u>STRANGLE</u>	Turn off equipment indicated.
<u>STROBE</u>	AI radar indications of noise radar jamming.
<u>SUNRISE</u>	Informative call that command and control functions are available from GCI/AWACS (opposite of MIDNIGHT).
<u>SUPPORTING</u>	The act of assisting the engaged fighter in killing the bandit while maintaining overall battle situation awareness.
<u>SWITCH/SWITCHED</u>	Indicates an attacker is changing from one aircraft to another.
<u>TALLY</u>	Sighting of a target/bandit; opposite of "NO JOY".
<u>TARGET</u>	Specification of sort responsibility.
<u>THREAT (Direction)</u>	Informative that an untargeted bandit/bogey is within 10 NM of a friendly.
<u>TIED</u>	Positive radar contact with element/aircraft.
<u>TRACK</u>	A series of related contacts indicating direction of travel.
<u>TRACKING</u>	Stabilized gun solution.
<u>TRAIL</u>	Tactical formation of two or more aircraft following one another.
<u>TRAILER</u>	The last aircraft in a formation.
<u>TRASHED</u>	Informative call; missile in flight has been defeated.

<u>TUMBLEWEED</u>	Describes one who is "NO JOY, " £BLIND£ and rapidly losing situation awareness, in a request for directive commentary and orientation. Colloquially NO TALLY; NO VISUAL, NO CLUE!
<u>UNIFORM</u>	UHF/AM radio.
<u>UPWIND AIM POINT (UAP)</u>	A point on the ground whose distance and direction from a target represents an adjusted aim point, usually for wind compensation in manual bombing.
<u>VECTOR</u>	Aircrew request / WC directive for a cutoff heading to the entity described.
<u>VIC</u>	Three groups/contacts/formations with the single closest in range and an element in trail.
<u>VICTOR</u>	VHF/AM radio.
<u>VISUAL</u>	Visual contact with friendly aircraft. Opposite of "BLIND".
<u>WALL</u>	Three or more groups/contacts/formations line abreast/side-side.
<u>WEAPONS ENVELOPE</u>	The area around a target aircraft from which the attacker can launch one of his weapons and expect a high probability of achieving a kill.
<u>WEAVE</u>	Continuous crossing of flight paths by members of a formation.
<u>WEDGE</u>	Tactical formation of two or more aircraft with the single in front and the other aircraft laterally displaced on either side behind the leader's wing line.
<u>WEEDS</u>	Indicates that aircraft are operating close to the surface.
<u>WELL</u>	Described equipment is functioning properly.
<u>WHAT LUCK</u>	Request for results of mission/tasks.
<u>WHAT STATE</u>	Report amount of fuel and/or armament remaining as requested; for training, repeat ordnance as follows: # Radar = number of radar missiles shots remaining. # Heat = number of IR missiles shots remaining. # Gun = Gun on-board and bullets remaining. # Fuel = pounds of fuel or time remaining.
<u>WILCO</u>	Will comply with received instructions.
<u>WINCHESTER</u>	Term used to report expenditure of all ordnance of a particular type.
<u>WORDS</u>	Mission-pertinent information.
<u>WORKING</u>	Wild Weasel is gathering EOB on a designated emitter.
<u>ZIPPER</u>	Acknowledge radio transmissions with two clicks of the mike button.

SECTION B: TERMS AND ABBREVIATIONS

<u>AAA</u>	A B C D E F G I J K L M N O P Q R S T U V W X Antiaircraft Artillery.
<u>AAI/APX</u>	Air-to-Air Interrogator.
<u>AAR</u>	Air-to-Air Refueling.

<u>AAW</u>	Antiair Warfare.
<u>ABCCC</u>	Airborne Battlefield Command and Control Center.
<u>ACA</u> (Airspace Coordination Area)	A three-dimensional box in the sky defined by grid and/or land references and an altitude block (AGL). The intent of an ACA is to allow simultaneous attack of targets near each other by multiple fire support means, one of which is air. (See Army Field Manual 6-20).
<u>ACBT</u>	Air Combat Training; a general term which includes (D)BFM, (D)ACM, and (D)ACT.
<u>ACC</u>	Air Component Commander
<u>Acceleration Maneuver</u>	An offensive or defensive maneuver, flown in the vertical plane, if possible, designed to increase or reduce distance from an object. A low Yo-Yo is an acceleration maneuver.
<u>ACE</u>	Airborne Command Element (AWACS/ABCCC).
<u>ACM</u>	Air Combat Maneuvering; training designed to achieve proficiency in element formation maneuvering and the coordinated application of BFM to achieve a simulated kill or effectively defend against one or more aircraft from a planned starting position.
<u>ACO</u>	Airspace Control Order. Document that details all approved airspace requests. The ACO will complement the ATO cycle and serve as the single planning document for airspace considerations.
<u>ACT</u>	Air Combat Tactics; training in the application of BFM and ACM skills to achieve a tactical air-to-air objective.
<u>ADA</u>	Air Defense Artillery.
<u>ADIZ</u>	Air Defense Identification Zone.
<u>Adverse Yaw</u>	The tendency of an aircraft to yaw away from the applied aileron while at high angles of attack.
<u>Advisory Control</u>	A mode of control in which the controlling agency has communications but no radar capability.
<u>Aerodynamic Center</u>	A point on the wing chord through which aircraft lift is directed. The aerodynamic center is usually defined as the point on the longitudinal axis of the airplane where the lift vector is centered. The distance between the aerodynamic center and the center of gravity is static margin, and is the major factor affecting the longitudinal static stability of the aircraft.
<u>AFAC</u>	Airborne Forward Air Controller.
<u>AGL</u>	Above Ground Level.
<u>AGM</u>	Air-to-Ground Missile.
<u>AHC</u>	Advanced or Aircraft Handling Characteristics; training designed to gain proficiency in and to exploit the flight envelope of the aircraft, consistent with operational and safety constraints.
<u>AI</u>	Air Interdiction/Air Intercept.
<u>Airborne Order</u>	A command authorization for tactical flight (departure time will be specified).

<u>Air Refueling Time</u>	Planned lapsed time from ARCT to drop off.
<u>Air Refueling Track</u>	A flight path designated for air refueling.
<u>ALIC</u>	Aircraft launcher interface computer.A
<u>ALO</u>	Air liaison officer.
<u>Angle of Attack (AOA)</u>	The angle between the mean chord line and the relative wind.
<u>Angle Off</u>	The angle formed by the extension of the longitudinal axes of two aircraft. Angle is measured from defender's 6 o'clock. Also called track crossing angle.
<u>AOB</u>	Air Order of Battle.
<u>A-POLE</u>	The distance from the launching aircraft to the target when the missile begins active terminal guidance.
<u>Arcing</u>	Flying a circular flight path which allows another aircraft the use of cutoff to gain closure.
<u>ARCP</u>	Air Refueling Control Point; the planned geographic point over which the receiver(s) arrive in the observation/precontact position with respect to the assigned tanker.
<u>ARCT</u>	Air Refueling Control Time; the planned time that the receiver and tanker will arrive over the ARCP-
<u>ARIP</u>	Air Refueling Initial Point; the planned point to enter the refueling track.
<u>ARM</u>	Antiradiation Missile.
<u>Armament Safety Check</u>	Action taken by an aircrew to review armament selection switches to preclude the inadvertent -launch/release of armament (Switches Safe).
<u>ARS</u>	Air Rescue Service.
<u>ASM</u>	Air-to-Surface Missile.
<u>ASOC</u>	Air Support Operations Center.
<u>Aspect Angle</u>	Angle between defender's longitudinal axis and the line of sight to the attacker. The angle is measured from defendees 6 o'clock. Attacker heading is irrelevant.
<u>ASUW</u>	Antisurface Warfare.
<u>ASW</u>	Antisubmarine Warfare.
<u>ATO</u>	Air Tasking Order (Frag)-Assigns air-to-air and air-to-surface targets, TOTS, and mission support information.
<u>ATOC</u>	Allied Tactical Operations Center (NATO).
<u>Attack Restriction</u>	Ingress, ordnance delivery, or egress restrictions depending on situation, i.e., threats, weather, terrain, ROE, etc.
<u>AWACS</u>	Airborne Warning and Control System.
<u>BAI</u>	Battlefield Air Interdiction.

<u>BCE</u>	Battlefield Coordination Element.
<u>BDA</u>	Bomb Damage Assessment. Summary of enemy surface targets destroyed or damaged.
<u>BDZ</u>	Base Defense Zone (NATO).
<u>BFM</u>	Basic fighter maneuvers- Training designed to apply aircraft handling skills to gain proficiency in recognizing and solving range, closure, aspect, angle off, and turning room problems in relation to another aircraft to either attain a position from which weapons may be employed, deny the adversary a position from which weapons may be launched, or defeat weapons employed by an adversary.
<u>BRA</u>	Bearing, range, and altitude of target
<u>BREAK AWAY</u>	Tanker/receiver call indicating immediate vertical and nose/tail separation between tanker and receiver is required.
<u>Broadcast Control</u>	A mode of control that passes target information by referencing a designated location, series of locations, or grid system.
<u>Buffer Zone (BZ)</u>	Airspace of defined dimension and adjacent to or near borders which may have special restrictions.
<u>BVR</u>	Beyond Visual Range.
<u>CAG</u>	Carrier Air Group.
<u>CAP</u>	Combat Air Patrol. Refers to either a specific phase of an air-to-air mission or the geographic location of the fighter's surveillance orbit during an air-to-air mission or to committing against a threat.
<u>CAS</u>	Close Air Support.
<u>CBU</u>	Cluster Bomb Unit.
<u>CCA</u>	Command and Control Agency.
<u>CC</u>	Command and Control.
<u>CCC</u>	Command, Control, and Communications.
<u>CCCCM</u>	Command, Control, and Communications Countermeasures.
<u>CCCI</u>	Command, Control, Communications, and Intelligence.
<u>CCT</u>	Combat Control Team.
<u>Cell</u>	Two or more tankers/bombers flying in formation.
<u>Center of Gravity (CG)</u>	That point along the horizontal axis, fore and aft of which airplane weight is equal.
<u>CFF</u>	Composite force training or con formal fuel tank.
<u>Chaff</u>	Chaff is a passive form of electronic countermeasure used to deceive airborne or ground-based radar.

<u>CL Max</u>	Maximum Coefficient of Lift Occurs at that angle of attack at which lift is maximum, thereby creating the maximum turn rate and maximum G loading for any condition of flight.
<u>Clock Code</u>	Description of position using the aircraft as a reference: the nose is 12 o'clock; the tail is 6 o'clock.
<u>Close Control</u>	A mode of control varying from providing vectors to providing complete assistance including altitude, speed, and heading.
<u>Closure</u>	Relative velocity of one aircraft in relation to another.
<u>Collision Course</u>	A flight path along which an aircraft is directed towards a point at which it will collide with another aircraft.
<u>COMAO</u>	Combined Air Operations.
<u>Combat Separation (AWACS)</u>	See classified description para 4-2(b)5.
<u>Comm Jamming</u>	Attempt to interrupt communications.
<u>Comparison Diagram</u>	A chart comparing turn rate, radius, and excess power for two different aircraft. Also called energy/maneuvering (E/M) diagrams.
<u>Composite Force Training</u>	Scenarios employing multiple flights of aircraft, each under the direction of its own flight leader. Requires a minimum of three different types of aircraft in three different mission roles.
<u>Condition of Vulnerability</u>	A condition with the defender in the lethal envelope of the attacker's weapon system. It is possible for combatants to arrive at a mutual condition of vulnerability, particularly during a head-on pass.
<u>Corner Velocity</u>	The minimum airspeed at which the maximum allowable aircraft G can be generated.
<u>CR</u>	Control and Reporting.
<u>CRC</u>	Control and Reporting Center.
<u>CRP</u>	Control and Reporting Post.
<u>CS</u>	Antipersonnel chemical incapacitating agent (tear gas).
<u>CSAR</u>	Combat Search and Rescue.
<u>DCA</u>	Defensive counter air.
<u>Defensive Maneuvering</u>	Maneuvers designed to negate the attack/ordnance of a threat.
<u>Defensive Spiral</u>	A descending, accelerating dive using high G and continuous roll to negate an attack and gain lateral separation.
<u>DLZ</u>	Dynamic launch zone. A
<u>DMPI</u>	Desired mean point of impact-.
<u>DR</u>	Dead reckoning; navigation technique estimating position based on last known position, heading, speed, and time.
<u>EC</u>	Electronic Combat.
<u>ECCM</u>	Electronic counter-countermeasures.

<u>ECM</u>	Actions taken to prevent or reduce the effective use of the electro-magnetic spectrum, primarily through jamming and deception.
<u>EID</u>	Electronic Identification.
<u>Element</u>	A flight of two aircraft.
<u>EMCON</u>	Emission control. A
<u>Engagement</u>	Maneuvers by opposing aircraft attempting to achieve/prevent weapons firing positions.
<u>EO</u>	Electro-optical.
<u>EOB</u>	Electronic Order of Battle.
<u>EON</u>	AMRAAM Engagement Order Number.
<u>EPA</u>	Evasive Plan of Action.
<u>E-Pole</u>	The range from a threat aircraft that a drag must be accomplished to kinematically defeat any missile the bandit could have launched or is launching.
<u>ETA</u>	Estimated Time of arrival.
<u>ETAC</u>	Enlisted Terminal Attack Controller.
<u>EW</u>	Electronic Warfare/Early Warning.
<u>FAC</u>	Forward Air Controller.
<u>FACP</u>	Forward Air Control Post (radar station).
<u>FCS</u>	Fire Control System.
<u>FEBA</u>	Forward Edge of the Battle Area.
<u>FLIR</u>	Forward-looking infrared.
<u>FLOT</u>	Forward Line of Own Troops.
<u>F-Pole</u>	The distance from the launching aircraft to the target at missile impact.
<u>Frag</u>	Fragmentary Order (ATO).
<u>FSCL</u>	Fire Support Coordination Line.
<u>GBU</u>	Guided Bomb Unit.
<u>GCI</u>	Ground Controlled Intercept.
<u>GLCM</u>	Ground Launched Cruise Missile.
<u>GOB</u>	Ground Order of Battle.
<u>GPS</u>	Global positioning system.
<u>HARM</u>	High Speed Antiradiation Missile, AGM 88.
<u>Have Quick</u>	A UHF jam-resistant radio.

<u>HCA</u>	Heading Crossing Angle; the angle formed by the intersection of the fighter's present heading, and the target's present heading.
<u>HIAC</u>	HARM interface adaptor computer.
<u>HIDACZ</u>	High Density Airspace Control Zone.
<u>High Angle (Snap) Shot</u>	A gun shot made with a high track-crossing angle, normally attempted because a tracking shot was not possible or desired.
<u>HIMAD</u>	High- and Medium-Altitude Air Defense.
<u>HIMEZ</u>	High Missile Engagement Zone (NATO).
<u>Hostile</u>	A contact positively identified as enemy in accordance with (IAW) operational command ROE.
<u>Hunter-Killer</u>	Flight mix of F-4C; Wild Weasel and other aircraft employed in SEAD operations.
<u>IADS</u>	Integrated Air Defense System.
<u>IFF/SIF</u>	Identification Friend or Foe/Selective Identification Feature.
<u>IMC</u>	Instrument Meteorological Conditions.
<u>Intercept</u>	A phase of an air-to-air mission between the commit and engagement.
<u>IR</u>	Infrared.
<u>IRCM</u>	Infrared countermeasures.
<u>JAAT</u>	Joint Air Attack Team. Coordinated employment of attack helicopters and fightersA employed against enemy ground vehicles and personnel.
<u>JFACC</u>	Joint Force Air Component Commander.
<u>JFC</u>	Joint Force Commander.
<u>Jinking</u>	Aircraft maneuvers designed to change the flight path of the aircraft in all planes at random intervals (usually to negate a gun attack).
<u>JMO(AIR)</u>	Joint Maritime Operations (AIR).
<u>Lag Pursuit</u>	An attack geometry that will cause the attacker to fly behind the target.
<u>LANTIRN</u>	Low-altitude navigation and targeting, infrared for night.
<u>Lateral (Pitch) Axis</u>	A reference line running left and right through the center of gravity of an airplane.
<u>LCC</u>	Land Component Commander.
<u>Lead Pursuit</u>	An attack geometry that will cause the attacker to fly in front of the target.
<u>Lethal Envelope</u>	The envelope within which the parameters can be met for successful employment of a munition by a particular weapons system.
<u>Line-of-Sight</u>	A line from the pilot's eye to the object (usually target) being viewed.
<u>Line of Sight Rate</u>	An image's rate of movement across the canopy.

<u>Line Up</u>	Fighter briefing to FAC.
<u>LGB</u>	Laser-Guided Bomb.
<u>LLTR</u>	Low-Level Transit Route (NATO).
<u>LOC</u>	Line of Communication.
<u>LOMEZ</u>	Low Missile Engagement Zone (NATO).
<u>Longitudinal (Roll) Axis</u>	A reference line running fore and aft through the center of gravity of an airplane.
<u>LORAN</u>	Long-Range Navigation.
<u>Lufberry</u>	A circular, stagnated fight with no participant having an advantage.
<u>Maneuverability</u>	The ability to change direction and/or magnitude of the velocity vector.
<u>Maverick</u>	AGM-65. Terminally guided air-to-ground missile.
<u>Maximum Performance</u>	The best possible performance without exceeding aircraft limitation is achieved.
<u>Military Crest</u>	A position along a ridge or hill two-thirds the distance from the base to the summit.
<u>Mixed Force</u>	The employment of a single flight of different types of aircraft, performing the same tactical role, under the direction of a single flight leader.
<u>MIW</u>	Mine Warfare.
<u>MR/MS</u>	Mission Ready/Mission Support.
<u>MRU</u>	Military Radar Unit.
<u>MSA</u>	Minimum Safe Altitude as defined in the FLIP General Planning Document.
<u>MSL</u>	Mean Sea Level.
<u>Mutual Support</u>	The coordinated efforts of two or more aircraft to provide combined firepower and survivability.
<u>NCA</u>	National Command Authority.
<u>NCC</u>	Naval Component Authority.
<u>NAEW</u>	NATO Airborne Early Warning.
<u>NOB</u>	Naval Order of Battle.
<u>NORDO</u>	No operative radio.
<u>NUDET</u>	Nuclear Detonation.
<u>OCA</u>	Offensive counterair.
<u>Offensive Maneuvering</u>	Maneuvers against an opponent to achieve weapons parameters.
<u>Off-Station</u>	Not in position.

<u>On-Station</u>	In position, ready for mission employment.
<u>Ops Check</u>	Periodic check of aircraft systems performed by the aircrew (including fuel) for safety of flight.
<u>Pd</u>	Probability of damage.
<u>Pb</u>	Probability of hit
<u>PIREP</u>	Pilot-reported weather conditions.
<u>PITCH/PITCHBACK</u>	A nose-high heading reversal to reposition as stated.
<u>PJ</u>	Pararescuer.
<u>Pk</u>	Probability of kill.
<u>POPEYE</u>	Flying in and out of clouds or area of reduced visibility.
<u>Primary Force</u>	The flight(s) that are being protected/escorted.
<u>Ps</u>	Specific excess power; Probability of survival.
<u>Pure Pursuit</u>	An attack geometry that will cause the attacker to fly directly at the target.
<u>Ra</u>	Maximum aerodynamic missile range.
<u>Radial G</u>	Effective "turning" G.
<u>Rate of Turn</u>	Rate of change of heading, normally measured in degrees per second.
<u>RCC</u>	Rescue Coordination Center.
<u>RECCE</u>	Reconnaissance.
<u>RED (Risk Estimate Distances)</u>	Reference MCM 3-1, Volume VIII. These distances are reasonable figures for employing weapons near friendly forces in combat and are not minimum safe distances for peacetime training use.
<u>Relative Wind</u>	The oncoming, instantaneous wind. For practical purposes, the direction of the relative wind is exactly opposite the flight path of the airplane.
<u>Rmax</u>	Maximum weapons range.
<u>Rmin</u>	Minimum weapons range.
<u>ROCC</u>	Regional Operations Control Center.
<u>Rockeye (MK 20)</u>	CBU with armor-piercing capability.
<u>ROE</u>	Rules of Engagement.
<u>ROZ</u>	Restricted Operating Zone (NATO). Temporary area restricted from fighter aircraft due to specialized operations.
<u>RWR</u>	Radar Warning Receiver.
<u>SA</u>	Situation Awareness/Surface Attack.
<u>SAFE</u>	Selected Area For Evasion.
<u>SAG</u>	Surface action group.

<u>SAM</u>	Surface-to-Air Missile.
<u>Sandwich</u>	A situation where the defending aircraft/element finds itself in between the attacking element.
<u>Sanitize</u>	Area clear of threats.
<u>Scissors</u>	A maneuver in which a series of hard turn reversals are executed in an attempt to achieve the offensive after an overshoot by an attacker.
<u>Scramble</u>	Takeoff as quickly as possible.
<u>Scramble Order</u>	Command authorization for tactical flight establishing an immediate departure time.
SEAD	Suppression of Enemy Air Defenses.
<u>Semiactive</u>	A system wherein the receiver uses radiations or reflections from the target which has been illuminated by an outside source.
<u>Separation</u>	Distance between an attacker and defender; can be lateral, longitudinal, or vertical.
<u>SHORAD</u>	Short Range Air Defense.
<u>SHRIKE</u>	AGM-45 antiradiation missile.
<u>SLCM</u>	Sea Launched Cruise Missile.
<u>Slice/Sliceback</u>	Maximum performance, nose-low turn. Usually performed at or near maneuver speed (corner velocity) with nose lowered sufficiently to maintain airspeed. This maneuver falls between a horizontal turn and a Split-S.
<u>SLOC</u>	Sea lines of Communication.
<u>SOC</u>	Sector Operations Center.
<u>Sorting</u>	Using any available information such as radar presentation, GCI information, etc., to determine which bandit to attack.
<u>Specific Energy</u>	Total mechanical energy per pound. Can be loosely described as an airplane's total energy resulting from airspeed and altitude.
<u>Specific Excess Power (PS)</u>	A measure of an airplane's ability to gain or lose energy in terms of altitude, airspeed, or combination there of also called energy rate and expressed in feet per second or knots per second.
<u>Split-Plane Maneuvering</u>	Aircraft or elements maneuvering in relation to one another, but in different planes and/or altitudes.
<u>STOP</u>	Strategic Orbit Point.
<u>STRATFOR</u>	SAC advisors to Tactical Air Forces (formerly SAC ADVON).
<u>STRIKE</u>	An attack which is intended to inflict damage, seize, or destroy an objective (nuclear operations in NATO).
<u>Suppressor</u>	Aircraft designated to employ ordnance against defenses.

<u>TAC-A (TacAirCoord-Airborne)</u>	An airborne agency located far enough away from threats and jamming to provide a communications relay between fighters, FACS, and ground agencies. Typically aboard a FAC aircraft, ABCCC, or AWACS.
<u>TACC</u>	TacticalAir Control Center.
<u>TACP</u>	Tactical Air Control Party.
<u>TACS</u>	Tactical Air Control System.
<u>Tactical Control</u>	A mode of control similar to Close Control with regard to type information provided except vectors are not provided to the aircrew by the WC.
<u>Tactical Separation</u>	See classified description para 4-2d(l)(b)5.
<u>Tactical Withdrawal</u>	See classified description para 4-2d(l)(b)5.
<u>TAF</u>	Tactical Air Forces.
<u>Target</u>	Object being attacked.
<u>TC</u>	Transit Corridor (NATO). Air lanes established for transit in the rear area of the battle theater.
<u>TFR</u>	Terrain-following radar or reference to low altitudes pertaining to terrain-following radar.
<u>TIC</u>	Troops in Contact..
<u>TL</u>	Transit Level (NATO). Altitude blocks for deconfliction and identification of inbound/outbound air traffic.
<u>TOF</u>	Time of flight or actual time of flight. The time from weapon release to weapon impact
<u>TOT</u>	Time Over Target.
<u>Total G</u>	Indicated G.
<u>TTA</u>	AMRAAM time to active.
<u>TTI</u>	AMRAAM time to intercept.
<u>TTP</u>	Tactics, Techniques, and Procedures.
<u>Vc</u>	Closure between fighter and target expressed in knots, relative velocity.
<u>Velocity Vector</u>	A line representing the current direction and magnitude of the path of travel.
<u>Vertical (Yaw) Axis</u>	A reference line running up and down through the center of gravity of an airplane.
<u>Vertical Rolling Scissors</u>	A defensive descending rolling maneuver in the vertical plane executed in an attempt to achieve an offensive position on the attacker.
<u>VID</u>	Visual identification.
<u>Vmax</u>	Maximum possible speed for that altitude.
<u>Vmaxp</u>	Maximum sustainable speed for a given altitude.
<u>VMC</u>	Visual Meteorological Conditions.

<u>V_{mc}</u>	Practical maneuvering cruise speed.
<u>V_{min}</u>	Slowest practical speed.
<u>V_k</u>	Target velocity.
<u>WC</u>	Weapons Controller.
<u>WCCC</u>	Warning, Command, Control, and Communications.
<u>WD</u>	Weapons Director.
<u>Weapons System</u>	In regard to an-airplane, weapons system refers to the combination of airplane/aircrew/ordnance/ground crew/avionics, etc.
<u>Wild Weasel</u>	Dedicated radar defense suppression aircraft.
<u>WILLY PETE</u>	A white phosphorus smoke, rocket, grenade, or artillery round used to provide a ground reference. Can be employed as a bomb to provide a smokescreen.
<u>WOC</u>	Wing Operations Center.
