

Wild Tigers Special Operations



BASIC COMMS



Special Operations

COM/BAS-01.0

WTG WILD TIGERS 2013

INTENTIONALLY BLANK

BASIC COMMS

BASIC 1

- **ANCHOR(ED)** = Hold(ing)/Orbit(ing) at indicated beacon (or current position if no beacon is given) in indicated direction until further notice
- **ANGELS** = Altitude in thousands of feet; e.g. Angels 22 = 22,000ft
- **AS FRAGGED** = Perform maneuver as briefed
- **BLIND** = No visual contact with friendly aircraft, landmark, ...; Opposite of **VISUAL**
- **BOGEY** = Unknown traffic
- **BREAK** = Turn into indicated direction IMMEDIATELY, usually to avoid mid-air collision; e.g. TIGER 3, break right, traffic 10 o'clock
- **CHECK** = Turn to heading; e.g. TIGER 5, check left 320
- **CONTACT** = Aircraft radar contact
- **JUDY** = Aircrew has radar or visual contact on correct target and has taken over control of intercept; e.g. to reform with tanker
- **NO FACTOR** = Contact will pass in vicinity, but will not have effect on flight; e.g. TIGER 5, renegade 2 o'clock 10 miles, same level, no factor
- **POSIT** = Position request for other aircraft; e.g. LISBON Radar, TIGER 31, posit TIGER 4
- **PRESS** = Proceed direct to indicated direction or nav beacon; e.g. TIGER 5, press ESP, continue as fragged
- **PUSH** = Switch to indicated frequency or ATC station; e.g. TIGER 1, push Lisbon Approach (NOTE: briefed frequencies will not be repeated initially)
- **RENEGADE** = Civilian aircraft; e.g. TIGER 3, caution renegade 9 o'clock, 8 miles, indicating 2000ft above, no factor
- **SAME** = Own conditions are similar to last communication; e.g. TIGER 11, final, three greens, full stop => TIGER 12, same
- **SINGLETON** = Formation of one (1) aircraft; e.g. Lisbon Radar, TIGER 61, singleton over WOODY
- **(NUMBER)-SHIP** = Formation of (number) aircraft; e.g. Lisbon Radar, TIGER 1, fourship over ESP
- **VISUAL** = Sighting of a friendly aircraft, landmark, ...; Opposite of **BLIND**

BASIC 2

A-A - Air-to-air.

AAA - Anti-Aircraft-Artillery.

Aardvark - F-111.

AAI/APX - Air-to-Air Interrogator.

AAR - Air-to-Air Refueling.

AAW - Antiair Warfare.

AB - Afterburner.

ABCCC - Airborne Battlefield Command and Control Center.

ABORT - Directive to cease action/attack/event/mission.

ACA (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).

ACBT - Air Combat Training; a general term which includes (D)BFM, (D)ACM, and (D)ACT.

ACC - Air Component Commander.

Acceleration Maneuver - 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.

ACE - Airborne Command Element (AWACS/ABCCC).

ACM - 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.

ACO - 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.

ACT - Air Combat Tactics; training in the application of BFM and ACM skills to achieve a tactical air-to-air objective.

ACMI - Air Combat Maneuvering Instrumentation.

Action - The point of the initial position-to-target run where the pre-briefed maneuver is begun. Also, the Officer's Club on Friday.

Adnan 1 - Iraqi AWACS aircraft.

ADA - Air Defense Artillery.

ADIZ - Air Defense Identification Zone.

Adverse Yaw - The tendency of an aircraft to yaw away from the applied aileron while at high angles of attack.

Advisory Control - A mode of control in which the controlling agency has communications but no radar capability.

Aerodynamic Center - 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.

AEW - Airbone Early Warning.

AFAC - Airborne Forward Air Controller.

Afterburner - Acceleration over and above normal military power, achieved by spraying fuel out the back of the engine.

A-G - Air-to-Ground.

AGL - Altitude above ground level.

AGM - American designation for Air-to-Ground Missiles.

AGM-65 - An optically-guided A-G missile.

AHC - 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.

AI - Air Interdiction/Air Intercept.

Airborne Order - A command authorization for tactical flight (departure time will be specified).

Air Refueling Time - Planned lapsed time from ARCT to drop off.

Air Refueling Track - A flight path designated for air refueling.

Aileron - A trailing-edge wing control surface used to roll aircraft.

AIM - Air Intercept Missile.

Aiming Funnel - An element of the HUD display in DGFT mode.

Aiming Reticle - A visual aid to help improve probability of hitting a target. If a target is inside the reticle, you have a good chance of hitting it.

Airfoil - Curved wing or blade surface designed to produce lift when air passes over it.

Airframe - Basic construction of the aircraft.

Airspeed - The velocity of the aircraft in relation to the surrounding air.

All-aspect - Weapons which are effective at any angle to the target.

ALIC - Aircraft launcher interface computer.A

ALO - Air liaison officer.

ALPHA CHECK - Request for bearing and range to described point.

ALQ-131 - A jamming pod mounted on the underside of the F-16 designed to counter enemy radar.

ALT - Altitude above sea level.

AMRAAM - Advanced Medium Range Air-to-Air Missile.

ANCHOR - Orbit about a specific point; ground track flown by tanker. Information call indicates a turning engagement about a specific location.

Angels - Altitude of friendly aircraft in thousand of feet. „Viper is at angels 23" means that the pilot is at 23,000 feet. It is also the name of the U.S. Navy demo team.

Angle of attack - The angle formed by an aircraft's direction of flight and its longitudinal axis.

Angle of climb - The angle of the aircraft nose above the horizon.

Angle of dive - The angle of the aircraft nose below the horizon.

Angle-off - The distance, measured in degrees, between heading and the bandit's heading. This angle tells you relative fuselage alignment.

Angle of Tail (AOT) - Angle formed between the flight path of an attacking aircraft and its target.

Anti-radiation missile - A missile which homes on radio frequency radiation.

AOA - Angle of Attack.

AOB - Air Order of Battle.

A-POLE - The distance from the launching aircraft to the target when the missile begins active terminal guidance.

Apache - AH-64 attack helicopter.

Apex/Alamo - Russian-built, radar-guided missile.

APG-66 - Designator for the radar installed in the F-16.

Aphid/Archer - Russian-built, all-aspect heat-seeking missile.

AR/NWM - Air Refuel/Nose Wheel steering system.

ARCING - Cutoff in plane of target motion to decrease range to target/defender allows attacker to use cutoff.

ARM/ARMED (Safe/Hot) - Select armament (safe/hot), or armament is safe/hot.

ARCP - 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.

ARCT - Air Refueling Control Time; the planned time that the receiver and tanker will arrive over the ARCP-

ARIP - Air Refueling Initial Point; the planned point to enter the refueling track.

Armament Safety Check - Action taken by an aircrew to review armament selection switches to preclude the inadvertent -launch/release of armament (Switches Safe).

ARS - Air Rescue Service.

AS FRAGGED - Fighter, FAC, mission package, or agency will be performing exactly as stated by the air tasking order.

ASPECT - Request/comment regarding target aspect information.

ASAT - Advanced Situational Trainer.

Aspect angle - This is the angle formed by the intersection of two lines /the line from you to the target and the line through the target's longitudinal axis/. On the HUD, the aspect angle is represented by a caret on the aiming reticle. If the MiG is coming at you head on, the aspect angle is 180 deg and the indicator will be at the top of the Aiming Reticle.

ASM - Air-to-Surface Missile.

ASOC - Air Support Operations Center.

ASUW - Antisurface Warfare.

ASW - Antisubmarine Warfare.

ATO - Air Tasking Order (Frag)-Assigns air-to-air and air-to-surface targets, TOTS, and mission support information.

ATOC - Allied Tactical Operations Center (NATO).

Attack Restriction - Ingress, ordnance delivery, or egress restrictions depending on situation, i.e., threats, weather, terrain, ROE, etc.

Atoll - Russian-built, rear-aspect heat-seeking missile.

Attack geometry - The spatial relationship between an attacking pilot and his quarry.

ATTACK AXIS - An orientation direction usually thought of as an imaginary line passing through the target on some particular heading example, the range run-in heading.

AUTHENTICATE() - To request or provide a response for a coded challenge.

AUTONOMOUS - Aircrew is operating without benefit of GCI/AWACS control.

AUTONOMOUS INTERCEPT - Intercepts initiated by aircrew when no target information is being received from command and control sources.

Autopilot - A feature of the flight control computer allowing it to fly the plane.

Avionics - An aircraft's electronic systems.

AVTR - Airborne Video Tape Recorder.

AWACS - Airborne Warning And Control System.

Backfire - Tu-26.

Badger - Tu-16.

BAI - Battlefield Air Interdiction.

Ballistic - Something with the aerodynamic qualities of a rock, i. e. out of control.

Never used to describe F-16 BFM.

Bandit - A plane identified as an enemy aircraft.

Bank - To roll left or right in the air so that your lift vector is no longer vertical.

BARO - A term used synonymously used with System Altitude. (See System Altitude)

BARREL ROLL MANEUVER - A vertical rolling maneuver used to reduce aspect angle while keeping sight of the bogey and maintaining nose-tail separation.

BASE (Number) - Reference number used to indicate such information as headings, altitudes, fuels, etc.

BCE - Battlefield Coordination Element.

BDA - Bomb Damage Assessment. Summary of enemy surface targets destroyed or damaged.

BDZ - Base Defense Zone (NATO).

Bear - Tu-95.

Bear - F - Tu-142.

BEAM/BEAMER (Direction) - Aircraft maneuvering stabilized within 700 to 1100 aspect; generally given with cardinal directions: east, west, north, south.

BELLYCHECK - A momentary unloaded bank to check the blind side of a turning aircraft.

()BENT - Identified system inoperative.

BFM - Basic Fighter Maneuvers. What you do to kill the other pilot once you are in a fight. BFM implies a single plane rather than a formation.

BFM ADVANTAGE - 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.

Bingo - Fuel level is such that immediate RTB is required.

Bitchin' Betty - An electronic female voice utilized in the F-16 to warn the pilot of potentially dangerous situations.

Blackbird - SR-71A.

Black Hawk - UH-60 transport helicopter.

Blackout - A loss of vision /or consciousness/ due to pulling too many positive Gs.

Blackjack - Tu-160.

Blast fragmentation warhead - A warhead designed to explode with a large of shrapnell.

Blinder - TU-22.

Blip - The image of a radar return appearing on the REO.

BLIND - No visual contact with friendly aircraft; opposite of term "VISUAL."

BLOWTHROUGH - Directive/informational call that indicates aircraft will continue straight ahead at the merge and not turn with target/targets.

Bogey - An unidentified aircraft.

BOGEY DOPE - A request for bearing and range to bogey and as available, heading, speed, and altitude.

BOMB RANGE (BR) - The horizontal distance a bomb will travel from release to impact.

BOMB TRAIL - The distance that represents bomb drag in weapon ballistic computation.

BONE - 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.

BRA - Bearing, range, and altitude of target

BREAK AWAY - Tanker/receiver call indicating immediate vertical and nose/tail separation between tanker and receiver is required.

BOX - Groups/contacts/formations in a square or offset square.

Bracket - A maneuver in which a pilot and his wingman separate to both sides of an oncoming bandit. This forces the bandit to commit to one plane, leaving him vulnerable to attack from the other. A bracket is followed by a drag maneuver.

Break (Up/Down/Right/Left) - A defensive combat maneuver used when a plane is attacked from the rear. It is performed by turning sharply into a pursuer's line of attack in an attempt to make him overshoot.

Brewer - Yak-28.

BREVITY - Term used to denote radio frequency is becoming saturated/degraded and briefer transmissions must follow.

BROADCAST - Request/directive to switch to Broadcast Control.

BROKE LOCK - Loss of radar/IR lock-on (advisory).

Broadcast Control - A mode of control that passes target information by referencing a designated location, series of locations, or grid system.

Buffer Zone (BZ) - Airspace of defined dimension and adjacent to or near borders which may have special restrictions.

BUDDY SPIKE (Position/Azimuth/Altitude) - Receiving friendly AIRWR.

BUGOUT (Direction) - Combat separation for low fuel, loss of tactical advantages or accomplishments of mission objectives; intent is to permanently separate from that particular engagement/attack.

BULLSEYE - An established reference point from which the position of an aircraft can be determined.

BULLSEYE - 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.

BUMP/BUMP-UP - A fly-up to acquire line of sight to the target or laser designation.

BUNT - A pushover maneuver.

BURNER - Directive to select/deselect afterburner (generally to fly at maximum speed).

BUZZER - Electronic communications jamming.

BUFF - Big Ugly Fat Fucker; the nickname for the B-52.

Buy the farm - Go to the big F-16 pasture in the sky.

BVR - Beyond Visual Range.

C3 - Command, Control and Coordination.

Callsign - A codename for a particular fighter pilot.

CAP - Combat Air Patrol.

CAS - Close Air Support.

Cat 1, 2, 3 - Load Category, where Cat 1 is the lightest.

CATA - 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.

CBU - Cluster Bomb Unit.

CCA - Command and Control Agency.

C² - Command and Control.

C³ - Command, Control, and Communications.

C³CM - Command, Control, and Communications Countermeasures.

C³I - Command, Control, Communications, and Intelligence.

CCT - Combat Control Team.

CCIP - Continuously Computed Impact Point. The HUD designation for air-to-ground bombing mode using Mk84 bombs.

Center Point - The exact center of the HUD.

Central Command - Main command center in any theater.

Cell - Two or more tankers/bombers flying in formation.

Center of Gravity (CG) - That point along the horizontal axis, fore and aft of which airplane weight is equal.

CFF - Composite force training or con formal fuel tank.

Chaff - Packages of tiny foil strips dropped from F-16 that confuse radar-guided missiles.

Charlie - Cool pilot talk for „Yes" as in „That's a charlie."

CHAMPAGNE - 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.

CHANDELLE TURN - 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.

CHATTERMARK - Begin using briefed radio procedures to counter comm jamming.

CHEAP SHOT - A qualifying statement to indicate the shot had low probability of success.

CHECK () - A directive statement made to momentarily monitor (specified items/systems). No response is required if status is normal.

CHECK LEFT/RIGHT - 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.

CHECK ANGELS /FUEL - An information statement made by GCI to aircrew ng ACBT. No aircrew response required.

CHICKS - Friendly fighter aircraft.

CHRISTMAS TREE - Directive to briefly turn on exterior lights to enable visual acquisition.

CIRCLE (RIGHT/LEFT) - Flight-lead-directed defensive maneuver in which the flight establishes a circular holding pattern for mutual support.

CLEAN - No radar contacts; used to confirm a good battle damage check (i.e., no air-

to-surface ordnance remaining on the wingman's aircraft).

CLEAR - 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.

CLEARED - Requested action is authorized (no engaged/support roles are assumed).

CLEARED DRY - Ordnance release not authorized.

CLEARED HOT - Ordnance release is authorized.

CL Max - 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.

Clock Code - Description of position using the aircraft as a reference: the nose is 12 o'clock; the tail is 6 o'clock.

Close Control - A mode of control varying from providing vectors to providing complete assistance including altitude, speed, and heading.

Closure - Relative velocity of one aircraft in relation to another.

CLOSE CONTROL - The maximum degree of control that GCI can provide.

CLOSING - Bandit/bogey/target is getting closer in range.

Closure rate - The rate at which a targeted MiG is closing on your F-16 /+ number/ or pulling away /- number/.

Coalition - The combined forces arrayed against Iraq in Operation Desert Storm.

Collision Course - A flight path along which an aircraft is directed towards a point at which it will collide with another aircraft.

COMAO - Combined Air Operations. Combat Separation (AWACS) See classified

description para 4-2(b)5. Combined Multinational. Comm Jamming Attempt to interrupt communications.

Comparison Diagram - A chart comparing turn rate, radius, and excess power for two different aircraft. Also called energy/maneuvering (E/M) diagrams.

Compass Call - A C³CM platform.

Composite Force Training - 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.

COMMS - Communications.

Continuous wave radar - A radar which emits a continuous beam of energy. Also known as doppler radar.

Contrails - Trails of vapor in an aircraft's wake. They are generated by high G turns.

COLD - 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.

"COLD" SIDE - The side of the RED opposite that where collision antenna train angle occurs.

COMEBACK HIGH/ LOW/LEFT/RIGHT - Informative call requesting the addressed fighter to reposition accordingly.

COMEOFF (Left/Right/High/Low/Dry) - A directive to maneuver as indicated to either regain mutual support or to deconflict flight paths for an exchange of engaged and supporting roles. Implies both "visual" and "tally."

COMMITTED/COMMIT - Fighter intent to engage/intercept; weapons director (WD)

continues to provide information.

Condition of Vulnerability - 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.

CONNING - Leaving contrails or otherwise marking aircraft position.

CONTACT - Radar/IR contact at the stated position; should be in bearing, range, altitude (BRA), Bullseye, or geographic position format.

CONTACT - 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.

CONTINUE - Continue present maneuver; does not imply clearance to engage or expend ordnance.

Control zone - The area behind the bandit where the attacking pilot can establish a stable position from which to employ his weapons and counter any defensive move.

Coot - A - Il-20.

Corner velocity - The minimum speed at which an aircraft can pull its maximum rated Gs.

Corsair - A-7

Court-martial - A trial before a board of field grade officers for a serious breach of the UCMJ.

COUNTEROFFENSIVE MANEUVERING - 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.

COVER - Directive to assume briefed support position and responsibilities.

CR - Control and Reporting.

CRC - Control and Reporting Center.

CRP - Control and Reporting Post.

CRANK (Direction) - F-Pole maneuver; implies illuminating target at radar gimbal limits.

CROSS TURN/CROSS - A 180 heading reversal by a flight where aircraft turn into each other.

CS - Antipersonnel chemical incapacitating agent (tear gas).

CSAR - Combat Search and Rescue.

Crusader - F-8

Cub - AN-12

CUTOFF - Request for, or directive to, intercept using cutoff geometry.

DAISY CHAIN - Numerous fighters in-trail maneuvering for shots on one another.

DCA - Defensive counter air.

DEADEYE - Informative call by an airborne laser designator indicating the laser is inoperative.

DEFENSIVE (Spike/Missile/SAM/Mud/AAA) - 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.

Defensive Maneuvering - Maneuvers designed to negate the attack/ordnance of a threat.

Defensive Spiral - A descending, accelerating dive using high G and continuous roll to

negate an attack and gain lateral separation.

DEFENSIVE TURN - 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.

DEPLOY - Directive for the flight to maneuver to briefed positioning.

Dead-reckoning - Navigating without instruments.

Death Dot - CCIP HUD mode indicator showing where the bombs will hit.

Delta Sierra - Dog Shit, meaning „bad.“ „The weather is Delta Sierra.“

Delta Dagger - F-102.

Delta Dart - F-106.

DGFT - The HUD designation for air-to-air gun mode.

Diamond X - A missile-mode HUD indicator.

DISENGAGE - Discontinue the current attack.

DIVERT - Proceed to alternate mission/base.

DISC - Disconnect.

DLZ - Dynamic launch zone.

DMPI - Desired mean point of impact-.

DOLLY - Data link equipment

DOPE - Directive to "delay the engagement."

Dogfight - A maneuvering air-to-air engagement with an enemy plane.

DR - Dead reckoning; navigation technique estimating position based on last known

position, heading, speed, and time. EC

Drag factor - An index for the increase in drag caused by loading an external store.

Drag- An ACT maneuver in which one plane decoys the enemy into a chase while the other sneaks behind for the kill.

Driver - A pilot flying the plane in a two-seater; also used as a term for pilot in a one-seater like the F-16.

DUKE IT OUT - Meet the enemy head on to engage.

DUR - The HUD designation for air-to-ground bombing mode using Durandal bombs.

Durandal - A bomb that drives into an airstrip before exploding, making repairs much more difficult.

Duty Roster - The crew chief's list of available pilots.

Eagle - F-15

EBS - Electronic Battlefield Series.

EC - Electronic Combat.

ECCM - Electronic counter-countermeasures.

ECHELON (Cardinal direction) - Groups/contacts/formation with wingman displaced approximately 45 deg behind leader's wing line.

ECM - Electronic Countermeasures.

Egress - Flying out of the target area.

EID - Electronic Identification.

Elbow - Also known as „control zone." The area behind the bandit where the attacking pilot can establish a stable position from which to employ his weapons and counter any defensive move.

ELINT - Electronic Intelligence Equipment.

Element - A flight of two aircraft.

EMCON - Emission control.

Engagement - Maneuvers by opposing aircraft attempting to achieve/prevent weapons firing positions.

Engage - Commence BFM.

ELEMENT - Formation of two aircraft.

ENGAGED (FIGHTER) - 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.

Envelope - The safe or effective ranges of operation for aircraft or missile systems.

Escape window - A pilot's opportunity to successfully disengage from a dogfight.

EW radar - Early Warning radar.

E-O - Electro-Optical.

EOB - Electronic Order of Battle.

EON - AMRAAM Engagement Order Number.

EPA - Evasive Plan of Action.

E-Pole - 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.

ETA - Estimated Time of arrival.

ETAC - Enlisted Terminal Attack Controller.

EW - Electronic Warfare/Early Warning.

EXTEND (LEFT/RIGHT) - Gain energy and distance using proper energy profile with the possible objective of reentering the fight.

EXTENSION - 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.

ESTIMATE - Using information available to provide data required, implies degradation.

EXTEND (Direction) - Directive to gain energy and distance with the possible intent of reengaging.

EYEBALL - Fighter with primary visual identification (VID) responsibility.

FAC - Forward Air Controller.

FACP - Forward Air Control Post (radar station).

FCS - Fire Control System.

FADED - Previous radar contact is lost

Fagot - Mig-15.

Falcon - F-16.

Fantail - La-15.

Fargo - Mig-9.

FAST - Target speed is estimated to be 600 knots ground mach 1 or greater.

Farmer - MiG-19.

Fencer - Su-24.

FEBA - Forward edge of the battle area as set during the scenario briefing.

FEET WET/DRY - Flying over water/land.

FENCE - Boundary separating hostile and friendly area.

FENCE CHECK - Set cockpit switches as appropriate.

Feather - Yak-15, 17.

Fiddler - Tu-28P.

FIGHTER DOPE - Request for bearing and range to friendly aircraft.

Fighter jock - A slang term for a fighter pilot.

Fire and Forget - Designates a self-guided weapon.

Firebar - Yak-28.

Fishbed - MiG-21.

Fishpot - Su-9, 11.

Fitter - Su-7, 17, 20, 22.

Flagon - Su-15, 21.

Flak - Shrapnel from an AAA battery.

Flanker - Su-27.

Flanker -D - Su-33.

Flaps - A wing control surface designed to increase lift.

Flares - Magnesium-based packages designet to fool heat-seeking missiles when released from your F-16.

FLANK/FLANKING - Target with a stable aspect of 120 deg. to 150 deg.

FLARES - Flares have been detected or directive to deploy flares.

FLASH (MODE) - Temporary activation of IFF transponder on desired mode/code.

Flashlight - Yak-25.

FLIR - Forward-looking infrared.

FLOAT - Directive/informative to expand the formation laterally within visual limits to

maintain a radar contact or prepare for a defensive response.

FLOT - Forward Line of Own Troops.

Flogger-B - MiG-23.

Flogger -D,J - MiG-27.

Flora - Yak-23.

Fly the needles - Follow the ILS flight path indicators.

Fly-by-wire - A design whereby all the controls of the plane are controlled directly by the flight computer based on input from the control stick.

Fokker - German WWI fighter plane.

FOLLOW DOLLY - Follow data-link commands.

Forger - Yak-38.

FOX - Air-to-air weapons employment.

Fox one - A radio call from a friendly aircraft announcing that he is firing a radar-guided missile.

Fox Two Mike - A radio call from a friendly aircraft announcing that he is firing an AIM-9M Sidewinder.

Fox Two - A radio call from a friendly aircraft announcing that he is firing an AIM-9P Sidewinder.

FOX THREE - Simulated/actual launch of AMRAAM/Phoenix missile.

FOX FOUR - Bomber gunner has simulated firing on a target.

FOX MIKE - VHF/FM radio.

Foxbat - MiG-25.

Foxhound - MiG-31.

Foxtrot Uniform - Fucked Up. „ My radar is Foxtrot Uniform."

F-Pole - The distance from the launching aircraft to the target at missile impact.

Frag - Fragmentary Order (ATO).

Frag list - A list of military targets ordered by priority.

Freestyle - Yak-141

Fresco - Mig 17

Frogfoot - Su-25.

FSCL - Fire Support Coordination Line.

Fulcrum - MiG-29.

Furball - A frantic dogfight.

FUSELAGE REFERENCE LINE (FRL) - A basic reference line extending through the fuselage, parallel to the longitudinal axis of the aircraft.

G - Gravitation force.

G suit - A suit worn by pilots to counter the physiological effects of high G force.

GADGET - Fire control radar / Emitter of radar equipment.

GADGET SICK - Airborne FCS/ ground equipment is degraded.

GADGET BENT - Airborne FCS/ ground equipment is inoperative.

GADGET WELL - Airborne FCS/ ground equipment is working.

Gainful - SA-6 Sam.

Gazelle - SA-342, French light attack helicopter.

GBU - Guided Bomb Unit.

GCI - Ground Controlled Intercept.

GIMBAL (Direction) - Radar target is approaching azimuth or elevation limits.

Glarescreen - Term for the HUD.

Glareshield - Term for the HUD.

Glide Slope Deviation /GSD/ - Vertical deviation from the ILS beam.

GLCM - Ground Launched Cruise Missile.

GLOC - Gravity Induced Loss of Consciousness.

Good landing - One you walk away from.

GO ACTIVE - Go to briefed Have Quick net.

GOB - Ground Order of Battle.

GO SECURE - Activate secure voice communications.

GORILLA - Large force of indeterminable numbers and formation.

GPS - Global positioning system.

Grail - SA-7 shoulder-launched SAM.

Grecko - SA-8 SAM.

GREEN (Direction) - Direction determined to be clearest of enemy air-to-air activity.

GROUP - Radar target(s) within approximately 3 NM of each other.

GUN (Direction) - Visual acquisition of gunfire, AAA site, or AAA fire.

GUNS - An air-to-air or air-to-surface gunshot.

GUNS - Indicates a simulated guns shot.

GUNS BREAK - Directive call to perform a break out of the plane.

GUNS JINK or JINK (DIRECTION) - Directive call to perform gun defensive maneuvers.

HARM - High Speed Anti-Radiation Missile AGM - 88.

HARD (Direction) - High-G, energy sustaining turn.

HARD TURN - Maximum G turn sustaining energy. Whether to use AB or not is a

briefing item.

HARMONIZATION - 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.

Harrier - AV-8

HASSLE - Two or more aircraft involved in an air combat maneuver.

Have Quick - A UHF jam-resistant radio.

HAWK - Staying above the flight.

Hawkeye - E-2.

HCA - Heading Crossing Angle.

HEAD - Target with an aspect of 160 deg. to 180 deg.

HEADS DOWN - Call to inform aircrew that leader/wingman is head-down in the cockpit and wingman/leader is responsible for clearing.

HEADS UP (Direction/Altitude) - Enemy/bogey got through; no kill.

Heat signature - An infrared „portrait" of an aircraft or other object which determines its vulnerability to heat-seeking missiles.

Hercules - C-130.

HFR - High Fidelity Radar.

HIAC - HARM interface adaptor computer.

HIDACZ - High Density Airspace Control Zone.

High Angle (Snap) Shot - A gun shot made with a high track-crossing angle, normally attempted because a tracking shot was not possible or desired.

HIMAD - High- and Medium-Altitude Air Defense.

HIMEZ - High Missile Engagement Zone (NATO).

HIGH - Target above 30,000 feet MSL.

HIGH DEFLECTION GUNSHOT - 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.

HIT - Radar return in search (A/A). Weapons impact within lethal distance (air-to-ground [A/G]).

High yo-yos - An out-of-plane fighter maneuver.

Hind - Mi-24 attack helicopter.

HOLD DOWN - Directive to key transmitter for DF steer.

HOLDING HANDS - Aircraft are joined in formation, implies visual contact by all flight members.

HOOK (LEFT OR RIGHT) - Directive to perform an in-place 180 deg. turn.

HOOKING (LEFT OR RIGHT) - Directive/information call to approach target from a single/indicated side.

Home plate - Home airfield.

Horizontal axis - The line running from wingtip to wingtip of an aircraft.

Hornet - F/A-18.

Hostile - A contact positively identified as enemy in accordance with (IAW) operational command ROE.

HOTAS - Hands On Throttle And Stick.

HOT - 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).

"HOT" SIDE - The side of the REO where the collision antenna train angle is located.

HOTEL FOX - HF radio.

HOUND DOG - 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.

HUD - Head-Up Display.

Hunter-Killer - Flight mix of F-4C; Wild Weasel and other aircraft employed in SEAD operations.

IADS - Integrated Air Defense System.

ID - Directive to intercept and identify the target; also aircrew ID accomplished, followed by type aircraft.

IFF/SIF - Identification Friend or Foe/Selective Identification Feature.

IMMELMANN TURN - 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.

IMC - Instrument Meteorological Conditions.

Intercept - A phase of an air-to-air mission between the commit and engagement.

IN PLACE (Left, Right) - Perform indicated maneuver simultaneously.

IN TRAIL - Perform suggested maneuver maintaining relative position in formation.

Intruder - A-6.

I'm a dot - I'm outta here, I'm gone.

ILS beam - A composite radio beacon broadcasting the optimal landing approach to a runway.

ILS - Instrumental Landing System

Ingress - Approach to a target area.

Intel - Military Intelligence.

In-plane maneuver - A maneuver performed without leaving the horizontal plane.

I-R - Infrared.

IRCM - Infrared countermeasures.

JAAT - Joint Air Attack Team. Coordinated employment of attack helicopters and fighters employed against enemy ground vehicles and personnel.

Jamming - The act of confusing enemy radar systems with radio frequency noise.

JFACC - Joint Force Air Component Commander.

JFC - Joint Force Commander.

Jinking - Aircraft maneuvers designed to change the flight path of the aircraft in all planes at random intervals (usually to negate a gun attack).

JINKOUT MANEUVER - 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.

JMO(AIR) - Joint Maritime Operations (AIR).

Joint - US/Multi-Service.

JUDY - 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.

JUDY ANGLE - 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.

JFS - Jet Fuel Starter.

Joker - Fuel level is such that plans for egress and RTB should begin.

Kill circle - The Aiming Reticle for an A-A missile.

KILL - 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.

KNOCK-IT-OFF - Terminate any intercept/ engagement in progress.

Knife fight - A hot and heavy fight with an enemy plane at close quarters.

Knot - Short for nautical mile. A nautical mile is app. 6,076 ft.

Kts - Knots.

LADDER - Three or more groups/contacts/formations in trail.

LAG CORNER - 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.

LAG ROLL - 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.

Lag pursuit - A combat maneuver where a pursuing pilot aims the nose of his aircraft just outside his opponent's turn circle.

LANTIRN - Low-altitude navigation and targeting, infrared for night.

Lateral (Pitch) Axis - A reference line running left and right through the center of gravity of an airplane.

LCC - Land Component Commander.

Lethal Envelope - The envelope within which the parameters can be met for successful employment of a munition by a particular weapons system.

LEAD PURSUIT ATTACK - 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.

LEAD TURN - A turn which is initiated prior to passing the opponents 3/9 line.

Leading a target - Aiming a gun or unguided weapon just ahead of an enemy's flight path to allow for the distance he will travel before the bullets or missile impacts.

Lift - The force that counters the weight of the aircraft and enables it to fly.

LINE ABREAST - Two groups/contacts/formations/aircraft side-by-side.

LINE-OF-SIGHT (LOS) - An imaginary straight line from an observer's eye to a target.

Line of Sight Rate - An image's rate of movement across the canopy.

Line Up - Fighter briefing to FAC.

LGB - Laser-Guided Bomb.

LNH - Launch.

LLTR - Low-Level Transit Route (NATO).

Load factor - The highest amount of Gs that should be pulled if a given weapons system or device is installed at a particular station.

LOC - Line of Communication.

Localizer Deviation /LD/ - Horizontal deviation from the ILS beam.

Lock on - To acquire a target with radar for the purpose of firing a weapon.

Locked - A call indicating a radar lock-on or Maverick lock-on.

LOMEZ - Low Missile Engagement Zone (NATO).

Longitudinal axis - The line running from the tail to the nose of an aircraft.

LOS /Line of Sight/ rate - The rate at which a target is crossing your line of sight.

LOW - Target altitude below 10,000 feet AGL

LOW YO-YO - A maneuver, executed from an offensive position, used to close on the target aircraft by the effective use of cutoff and acceleration.

LORAN - Long-Range Navigation.

LUFBERRY - A circular stagnated fight with no participant having an advantage.

Mach - Unit of speed measurement equal to the speed of sound at sea level /about 760 ft/sec/.

Madcap - An-74.

Magic - French-built, all-aspect heat-seeking missile.

MAGNUM - launch of AGM-88 HARM.

Mainstay - IL-76, Russian AWACS aircraft.

Maneuverability - The ability to change direction and/or magnitude of the velocity vector.

Maverick - The nickname for the AGF-65.

May-A - Il-38.

MARKING - leaving contrails or otherwise marking aircraft position.

Maximum Coefficient of Lift - SeeCl Max.

MAXIMUM TURNING PERFORMANCE - Turn performance during which the maximum obtainable turn rate is achieved.

MAXIMUM PERFORMANCE - Performance near the limits of the maneuvering envelope, includes minimum speed, maximum speed, low G, and placard G.

MEDIUM - Target altitude between 10,000 feet AGL and 30,000 feet MSL.

MERGE(D) - Informative that friendlies and targets have arrived in the same visual arena. Call indicating radar returns have come together.

MIA - Missing In Action.

MICKEY - Have Quick time-of-day (TOD) signal.

MIDNIGHT - Informative call advising that command and control functions (GCI/AWACS) are no longer available.

MiG - Mikoyan/Gurevich, common designator for Russian-built fighters.

MIL (Milliradian) - An angular measurement which subtends one foot at 1.000· (17.45 mils equal 1 degree). Also, military power.

Military Crest - A position along a ridge or hill two-thirds the distance from the base to the summit.

Military power - 100% RPM /thrust/.

MINIMUM ATTACK PERIMETER (MAP) - 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.

Mirage - French-built fighter aircraft.

Missile growl - An audible cue produced by the Sidewinder seeker head.

MISS DISTANCE (MD) - The distance and direction of bomb impact from the target due

to imperfect release conditions.

Mixed Force - The employment of a single flight of different types of aircraft, performing the same tactical role, under the direction of a single flight leader.

MIW - Mine Warfare.

MEL - Directive to select military power.

MORT - Simulated kill on a friendly aircraft in ACBT.

Moss - Tu-126.

Mover - A moving target on the ground.

MRM - Medium Range Missile.

MR/MS - Mission Ready/Mission Support.

MRU - Military Radar Unit.

MSA - Minimum Safe Altitude as defined in the FLIP General Planning Document.

MSL - Mean Sea Level.

MSLS - The HUD designation for air-to-air missile mode.

MUD (Direction-Type) - Indicates unknown RWR ground threat displayed; followed normally by clock position.

MUSIC - Electronic radar jamming. On AI radar, electronic deceptive jamming.

MUTUAL SUPPORT - 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.

NCA - National Command Authority.

NCC - Naval Component Authority.

NAEW - NATO Airborne Early Warning.

NAKED - No RWR indications. Opposite of term "spike".

NAM - Normal Air Mode.

NATO - North Atlantic Treaty Organization.

Nautical mile - Nautical and aeronautical unit of distance equal to 6,076 ft.

NEGATIVE CONTACT - Lack of radar and/ or SIF contact.

Negative Gs - The force you would experience if you were swung in a circle by your ankles.

No joy - I don't see it.

NOB - Naval Order of Battle.

NORDO - No operative radio.

NOE /Nap-of-the-Earth/ flying - Flying as low to the ground as possible to avoid enemy radar.

NOTCH (Direction) - All-aspect missile defensive maneuver to place threat radar/missile near the beam.

NUDET - Nuclear Detonation.

NWS - Nose Wheel Steering.

NWSS/LGSI - Nose Wheel Steering System / Landing Gear Status Indicator.

OCA - Offensive counterair.

Offensive Maneuvering - Maneuvers against an opponent to achieve weapons parameters.

OFF (Direction) - Informative call indicating attack is terminated and maneuvering to the indicated direction.

OFFSET (Direction) - Informative call indicating maneuver in a specified direction with

reference to the target.

Off-Station - Not in position.

On-Station - In position, ready for mission employment.

On the beam - Aligned to the ILS landing beacon.

OPEC - Organization of Petroleum Exporting Countries.

Ops Check - Periodic check of aircraft systems performed by the aircrew (including fuel) for safety of flight.

OPTIMUM TURN - A turn during which energy remains constant and turn rate is maximized.

Orion - P-3 anti-submarine aircraft.

Out-of-plane maneuver - A maneuver which entails leaving the horizontal plane.

Overshoot - To fly past a pursued enemy aircraft.

PACKAGE - Geographically isolated collection of groups/contacts/formations.

PADLOCKED - Informative call indicating aircrew hqs "tally" and cannot take eyes off an aircraft/ground target without risk of losing tally/visual.

PAINT - Friendly AAI/APX interrogation return.

Painted - To be illuminated by a search radar.

Parasitic drag - Skin friction drag.

PARROT - A military IFF transponder.

PDF - Panamanian Defense Forces.

Pd - Probability of damage.

Pb - Probability of hit

PERCH - Position from which an attack can be launched.

Phantom - F-4.

Pickling - Setting a weapon to fire at one specific location, similar to a lock-on.

PICTURE - Situation briefing which includes real-time information pertinent to a specific mission.

PIGEONS (Location) - Magnetic bearing and range to a specified point.

PINCER - A tactic designed to maneuver an enemy into a defensive position by simultaneous attack from both sides of bogey.

PIPPER - A HUD symbol representing an aiming line of sight. The pipper is in the center of the reticle.

PIRQUETTING - 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.

PITCH/PITCHBACK (Left/Right) - Directive call for fighter/flight to execute a nose-high heading reversal.

Pigeons - Friendly aircraft.

Pincer - Attack bandit from opposite sides.

PIREP - Pilot-reported weather conditions.

Pitch - The movement of a plane in the vertical and longitudinal axes.

PJ - Pararescueman.

Pk - Probability of kill.

PLACARD G LIMIT - The limiting cockpit G for the particular configuration.

PLANE OF TURN - Plane defined by the flight path of an aircraft and its turn radius.

PLAYTIME - Amount of time aircraft can remain on station.

POINT - Directive for an element to turn towards each other either as a defensive

response or to reestablish a mutually supportive formation.

Point of impact - Point along the leading edge of an airfoil where the air separates and flows over the top and bottom surfaces.

POL - Petroleum, Oil, Lubricants.

POP - Starting climb for air-to-surface attack.

POPEYE - Flying in clouds or area of reduced visibility.

POSIT - Request for position; response normally in terms of a geographic landmark, or off a common reference point.

POST ATTACK (Direction) - WD transmission to indicate desired direction after completion of intercept/engagement.

POST-ATTACK (DIRECTION) - Cardinal direction weapons controller assigns a fighter for the purpose of leaving the target area.

POST-ATTACK (HEADING) - Specific heading passed by the weapons controller after aircrew has completed the attack.

POST HOLE - Rapid descending spiral.

Positive Gs - The force you would experience if swung in a circle by your wrists.

POW - Prisoner Of War.

POWER - Reminder to set the throttles appropriately considering the IR threat and desired energy state.

PRESS - 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.

Primary Force - The flight(s) that are being protected/escorted.

PRESSING - Term describing a delay resulting in releasing ordnance closer and/or lower to a target than planned.

Pre-strike-sweep - A sweep flown in advance of an attack force to clean the area of enemy fighters.

Ps - Specific excess power; Probability of survival.

Puke - An insult to another pilot. An F-16 driver could call an Eagle driver a „twin-engine puke“.

PULLING - Descriptive of the situation where the bandit is behind the one stating "I'm pulling."

Pulling lead - Purposely aiming in front of an enemy plane while figuring in the distance to target and the target's speed to insure the weapon scores a hit.

Pulse-doppler radar - A type of radar which emits a pulsed rather than continuous signal.

PUMP - A briefed maneuver to stop closure on the threat or geographical boundary while maintaining situation awareness.

Punch out - Eject.

PURE - Call indicating pure pursuit is being used or directive call to go pure pursuit.

PURE PURSUIT ATTACK - 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.

PUSH (Channel) - Go to designated frequency.

PUSHING - Descriptive of the situation where the bandit is in front of the one stating "I'm pushing".

QUARTER PLANE MANEUVER - 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.

Ra - Maximum aerodynamic missile range.

RADIAL G - The vectored sum of cockpit G and gravity.

RANCH HOUSE (Altitude) - Directive or informative indicating subject fighters will return to CAP.

RANGE WIND - That component of a wind that is parallel to the attack axis i.e., headwind or tailwind.

Radar - Radio Detection And Ranging.

Rate of Turn - Rate of change of heading, normally measured in degrees per second.

RAYGUN (Position/Azimuth/Altitude) - Radar lock-on to unknown aircraft. Request Buddy Spike/Naked reply.

RCC - Rescue Coordination Center.

RDY - Ready.

Recon - Reconnaissance.

RECCE - Reconnaissance.

RED (Risk Estimate Distances) - 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.

Redout - A loss of vision due to pulling too many negative Gs.

REFERENCE (Direction) - Directive to assume stated heading.

REFERENCE (HEADING) - Heading to fly as directed by the flight lead. Reference 270.

Relative Wind - The oncoming, instantaneous wind. For practical purposes, the direction of the relative wind is exactly opposite the flight path of the airplane.

Release cue - Cross hairs used to determine the time to release your bombs if the bombsight is not displayed in the HUD.

REO display - Radar/Electro-Optical display.

RENO - Indicates that more than one radar contact is observed and aircrew is able to distinguish the assigned target from chinks. Does not imply sorted.

REVERSAL - A counter-offensive rolling maneuver designed to reverse roles on an attacker after he overshoots.

RIFLE - AGM-65 launch.

Rhino - Unflattering nickname for the F-4 Phantom II.

Rmax - Maximum weapons range.

Rmin - Minimum weapons range.

ROCC - Regional Operations Control Center.

Rockeye (MK 20) - CBU with armor-piercing capability.

ROE - Rules of Engagement.

Roll - Rotate the aircraft around the longitudinal axis.

ROGER - Indicates aircrew understands the radio transmission; does not indicate

compliance or reaction.

ROLLING SCISSORS - 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.

Rookie - Pilot without flying experience.

ROZ - Restricted Operating Zone (NATO). Temporary area restricted from fighter aircraft due to specialized operations.

RPM - Revolutions Per Minute. The percentage of power being produced by your engine.

RTB - Return To Base.

Rudder - A vertical aircraft control surface used to turn the plane without bank.

RUMBA - Ownship maneuvering and ranging (OMAR), F-15 angle on ranging (AOR), F-16.

RUN/RUNNING (Direction) - Directive/Informative

Perform a defensive maneuver to place the threat radar/missile on the tail.

RWR - Radar Warning Receiver.

S and D - Search and Destroy.

SA - Situational Awareness.

SAC - Strategic Air Command.

SAD - Situation Awareness Display.

SAFE - Selected Area For Evasion.

SAG - Surface action group.

SAM - Situation Awareness Mode.

SAM - Surface-to-Air Missile.

Sanitize - Area clear of threats.

SANDWICH - A situation where an aircraft / element finds themselves in between opposing aircraft / element(s).

SANDWICHED - A situation where an aircraft/element finds themselves between opposing aircraft/elements.

SA-6 Gainful missile - A SAM designed in 1967, and launched from SAM sites against aircraft flying at medium heights. It is more effective than SA-2, but can be fooled occasionally by ECM and chaff.

SA-7 Grail missile - A shoulder-launched SAM designed to be used against low-flying targets.

SA-8 Grecko missile - A truck-mounted, short-range, low altitude SAM.

SAUNTER - Fly at best endurance. Loiter.

SCISSORS - A series of turn reversals designed to cause an attacking aircraft to overshoot and lose nose-tail separation.

Scooter - A-4.

SCP - Stores Control Panel.

Scramble - Takeoff as quickly as possible.

Scramble Order - Command authorization for tactical flight establishing an immediate departure time.

Screen - A type of defensive patrol. Differs from CAP in that a screen is flown between the defended area and a threat, while a CAP is flown directly above the

defended area.

SEAD - Suppression of Enemy Air Defenses.

SEARCH LEFT / RIGHT / HIGH / LOW - Search area indicated as briefed and report all contacts.

SEPARATE - 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.

SEQUENTIAL ATTACK - Swapping of roles of engaged and supportive fighters as one or the other comes into a more favorable position to achieve a kill.

Semiactive - A system wherein the receiver uses radiations or reflections from the target which has been illuminated by an outside source.

Sentry - E-3 AWACS aircraft.

Separation - Distance between an attacker and defender; can be lateral, longitudinal, or vertical.

SHACKLE - One weave; a single crossing of flight paths; maneuver to adjust/ regain formation parameters.

SHADOW - Follow indicated target.

Sharped charge - An explosive device designed to penetrate armor, concrete or other defensive shields.

Shilka - ZSU-23-4 mobile AAA battery.

SHIFT - Directive to illuminate second target with laser designator.

SHOOTER - Aircraft designated to employ ordnance.

SHOTGUN - Launch of antiradiation (SHRIKE) missile by Wild Weasel.

SHORAD - Short Range Air Defense.

Shrike - AGM-45A anti-radiation missile.

SICK - Described equipment is degraded.

Sidewinder - The nickname for the AIM-9 air-to-air missiles.

Sierra Creek - As in „up Sierra Creek without a paddle."

Sierra Hotel - Shit Hot, meaning „good." "The weather is Sierra Hotel."

SIGHT PICTURE - Term used to describe the position of the pipper at release.

SIGNAL CHARLIE - Landing area is clear; commence approach. (NAVY air operations in control of airborne jets)

SIGNAL DELTA - Landing area is foul (not clear); commence standard holding pattern. (NAVY air operations in control of airborne jets)

SIGNAL BUSTER - Use maximum speed (burner for those so equipped). (NAVY air operations in control of airborne jets)

SILENT - "GO SILENT" directive to initiate briefed EMCON procedures.

Situational Awareness - A pilot's ability to keep track of his surroundings and foresee possible actions in air combat.

Six o'clock - Rear.

Skin friction - Aircraft wind resistance.

SKIP IT - Veto of fighter commit call; used by radar facility when higher priority target is present, usually followed with further directions.

SLCM - Sea Launched Cruise Missile.

SLICE - 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.

SLICE/SLICEBACK (Left/Right) - Directive to perform a high-G descending turn in the stated direction; usually 180 deg. turn.

SLOC - Sea lines of Communication.

SLOW - Target with ground speed of less than 300 kts.

SLUFF - Slow Ugly Fat Fellow, or the A-10.

Smart weapon - An A-G weapon which can lock onto a target and guide itself to the point of impact.

Snakeye - A high-drag version of the Mk82.

SNAP SHOT - High angle off Attack or passing gun shot. Attacker's turn rate does not equal defender's LOS rate, whether intentional or unintentional.

SNAP () - An immediate vector (bearing and range) to the group described.

SNAP VECTOR - A quick vector to the requested position.

SOC - Sector Operations Center.

Soft target - A target without armour or other defensive reinforcement, such as infantry, trucks and normal buildings.

Sonic boom - The shock wave created by breaking the sound barrier.

Sortie - A mission.

Sorting - Using any available information such as radar presentation, GCI information, etc., to determine which bandit to attack.

SORTED - 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.

Sound barrier - The large increase in air resistance encountered by aircraft approaching the speed of sound.

Spad - A WWI fighter.

SPARKLE - Target marking by a gunship or FAC using incendiary rounds.

Specific Energy - Total mechanical energy per pound. Can be loosely described as an airplane's total energy resulting from airspeed and altitude.

Specific Excess Power (PS) - 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.

Spectre - AC-130U

Speed brakes - Aircraft control surface used to make a quick reduction in speed while flying or to help stop the plane after it has landed on the runway.

Split-Plane Maneuvering - Aircraft or elements maneuvering in relation to one another, but in different planes and/or altitudes.

SPIKE - RWR indication of AT threat is displayed. Add clock position, and type threat (radar/heat) if able.

SPITTER (Direction) - An aircraft that has departed from the engagement.

SPLASH - Missile time of flight is expired or missile destroyed; target or bomb impact.

Splash one MiG - Statement commonly spoken after successfully downing an enemy.

SPLIT - Request to engage a threat; visual may not be maintained, requires flight lead acknowledgement (air-to-air). Also, directive to begin briefed maneuver/attack.

Spoof - Slang term for „fooling“ an enemy missile with flares or chaff.

SPOOFING - Informative that voice deception is being employed.

SPOT - Informative that laser target designation is being received.

SQUAWK () - Operate IFF as indicated or IFF is operating as indicated.

SRM - Short Range Missile.

Stall speed - The minimum speed at which an aircraft will stall.

Stall - A loss of control of the plane due to low airspeed or radical maneuvering in high altitudes.

Starfighter - F-104

STACK - Two or more groups/contacts/formations with a high/low altitude separation in relation to each other.

STATUS - 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.

STERN - Request for, or directive to, intercept using stern geometry.

STERN ONLY - Intercept will be completed using stern geometry. A conversion to a "CUTOFF" will not be attempted.

STINGER - Formation of two or more aircraft with a single in trail.

Stick - A pilot's directional controller.

STOP - Strategic Orbit Point.

Stores - Anything which can be loaded onto an aircraft.

STRANGER - Unidentified traffic that is not a participant in the mission.

STRANGLE () - Turn off equipment indicated.

STRATFOR - SAC advisors to Tactical Air Forces (formerly SAC ADVON).

Stratofortress - B-52.

STRF - Strafe.

STT - Single Target Tracking.

STROBE - AI radar indications of noise radar jamming.

STRIKE - An attack which is intended to inflict damage, seize, or destroy an objective (nuclear operations in NATO).

Suppressor - Aircraft designated to employ ordnance against defenses.

SUNRISE - Informative call that command and control functions are available from GCI/AWACS (opposite of MIDNIGHT).

SUPPORTING - The act of assisting the engaged fighter in killing the bandit while maintaining overall battle situation awareness.

SWITCH/SWITCHED - Indicates an attacker is changing from one aircraft to another.

TAC-A (Tactical Air Coordinator-Airborne) - 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.

TACC - Tactical Air Control Center.

TACP - Tactical Air Control Party.

TACS - Tactical Air Control System.

Tactical Control - 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.

Tactical Separation - See classified description para 4-2d(l)(b)5.

Tactical Withdrawal - See classified description para 4-2d(l)(b)5.

TAF - Tactical Air Forces.

Target - Object being attacked.

TC - Transit Corridor (NATO). Air lanes established for transit in the rear area of the battle theater.

TFR - Terrain-following radar or reference to low altitudes pertaining to terrain-following radar.

TIC - Troops in Contact..

TL - Transit Level (NATO). Altitude blocks for deconfliction and identification of inbound/outbound air traffic.

Tiger - F-5.

Tigershark - F-20.

Tally /ho/ - I see it.

Target bearing - The angle of the target from the front of your F-16.

TAS - True Airspeed.

Taxiing - Steering your aircraft around while it is on the runway.

TD box - The Target Designator box on the HUD.

Terrain masking - Flying behind terrain features to prevent radar detection.

Threading the needle - Flying through the gaps in the air defense radar systems.

Threat - (GCI/AWACS) Informative that an untargeted bandit/bogey is within 10 NM of a friendly.

Thrust - RPM.

Thunderchief - F-105.

TIED - Positive radar contact with element/aircraft.

Tomcat - F-14.

Tone - An audio cue emitted by missile control systems to indicate that the target has

been acquired and is being tracked; an indication that it is time to launch a missile.

TOF - Time of flight or actual time of flight. The time from weapon release to weapon impact

TOT - Time Over Target.

Total G - Indicated G.

TRACK - A series of related contacts indicating direction of travel.

TRACKING - Stabilized gun solution.

TRAIL - Tactical formation of two or more aircraft following one another.

TRAILER - The last aircraft in a formation.

TRASHED - Informative call; missile in flight has been defeated.

TTA - AMRAAM time to active.

TTI - AMRAAM time to intercept.

Track Crossing Angle - See Angle Off.

TTP - Tactics, Techniques, and Procedures. Vc

Closure between fighter and target expressed in knots, relative velocity.

TUMBLEWEED - 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!

Turn circle - The radius of the turn circle.

Turn rate - How fast your plane is moving around its turn circle.

TWI - Threat Warning Indicator.

TWS - Threat Warning System

UCMJ - Uniform Code of Military Justice. The legal systems governing the conduct of

all members of the U.S. Armed Forces.

UNIFORM - UHF/AM radio.

UPWIND AIM POINT (UAP) - A point on the ground whose distance and direction from a target represents an adjusted aim point, usually for wind compensation in manual bombing.

VECTOR - Aircrew request / WC directive for a cutoff heading to the entity described.

Vectored thrusting - Changing the direction of an airplane engine's thrust with angled nozzles or vanes.

Vertical axis - The line perpendicular to both the longitudinal and horizontal axes.

Velocity Vector - A line representing the current direction and magnitude of the path of travel.

Vertical Rolling Scissors - A defensive descending rolling maneuver in the vertical plane executed in an attempt to achieve an offensive position on the attacker.

VIC - Three groups/contacts/formations with the single closest in range and an element in trail.

VICTOR - VHF/AM radio.

VID - Visual identification.

VISUAL - Visual contact with friendly aircraft. Opposite of "BLIND".

Vmax - Maximum possible speed for that altitude.

Vmaxp - Maximum sustainable speed for a given altitude.

VMC - Visual Meteorological Conditions.

Vmc - Practical maneuvering cruise speed.

Vmin - Slowest practical speed.

Vk - Target velocity.

Visual - I see whatever it is you are describing.

VMS - Voice Message System

Voodoo - F-101.

WALL - Three or more groups/contacts/formations line abreast/side-side.

Warthog - A-10.

Waterline - An artificial horizon line.

Wave drag - The drag caused by the shock waves created by supersonic flight speed.

Waypoint - Locations of targets as computed by the F-16's navigational computer.

WC - Weapons Controller.

WC³ - Warning, Command, Control, and Communications.

WD - Weapons Director.

Weapons System - In regard to an-airplane, weapons system refers to the combination of airplane/aircrew/ordnance/ground crew/avionics, etc.

WILLY PETE - 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.

Weapons evenlope - The area surrounding the enemy plane where you are within the correct range, aspect angle and angle-off parameters to shoot a missile or the gun.

WEAVE - Continuous crossing of flight paths by members of a formation.

WEDGE - 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.

WEEDS - Indicates that aircraft are operating close to the surface.

() **WELL** - Described equipment is functioning properly.

Whiteout - The inability to distinguish colors during the initial stages of a blackout.

WHAT LUCK - Request for results of mission/tasks.

WHAT STATE - 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.

WILCO - Will comply with received instructions.

Wild Weasel - A method of hunting SAMs by using your own aircraft as bait; also the aircraft used for this mission.

Winchester - Out of ordnance /weapons/.

Wingman /Wingie/ - Flying partner. Combat aircraft generally fly in pairs.

WOC - Wing Operations Center.

WORDS - Mission-pertinent information.

WORKING - Wild Weasel is gathering EOB on a designated emitter.

WVR - Within Visual Range.

Yaw - Movement around the vertical axis of the aircraft.

Yo-Yo - An offensive maneuver that uses vertical maneuverin to stay inside the enemy's turn radius.

Zero - zero ejection seat - Seat that will save a crew member`s life down to zero airspeed and zero altitude, as long as the aircraft is not inverted.

ZIPPER - Acknowledge radio transmissions with two clicks of the mike button.