

BALLISTIC MISSILE DEFENSE

GLOSSARY

Version 2.0

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DEPARTMENT OF DEFENSE BALLISTIC MISSILE DEFENSE ORGANIZATION 7100 DEFENSE PENTAGON WASHINGTON, DC 20301-7100

PREFACE AND ACKNOWLEDGMENTS

PURPOSE

The purpose of this glossary is to facilitate a common language within the Ballistic Missile Defense Organization (BMDO) and the ballistic missile defense community. This glossary supplements other existing Department of Defense (DoD) publications.

SCOPE

This glossary is not an official DoD publication; it is limited to terminology that relates to ballistic missile defense. A number of computer, software, and engineering terms are included, especially those applicable to BMD. In addition, numerous acquisition terms are included in light of BMDO's ongoing transition to a more acquisition-oriented agency. Many entries are taken from the DoD 5000-series of directives, the DoD program objective memorandums, the Joint Staff Glossary (Joint Pub 1-02), and the Defense Systems Management College Glossary. A number of outdated or seldom-used terms are also included for historical relevance, though obsolete terms are denoted.

WORLD WIDE WEB

The BMDO Glossary can be found on the BMDO World Wide Web home page at http://www.acq.osd.mil/bmdo/bmdolink/html/bmdolink.html.

FORMAT

All entries are listed in alphabetical order, including acronyms (which are cross-referenced with their corresponding definition). General terms are defined in a BMD context where appropriate. In cases where a term has more than one BMD-related meaning, multiple definitions are given. Wherever possible, organizational changes occurring since publication of the September 1994 BMDO Glossary are incorporated. Please note that abbreviations and acronyms listed herein are capitalized for ease of reference. This does not imply that they are capitalized in general usage.

GENERAL

This edition of the BMD Glossary benefited from inputs received from officials of the BMDO, the Services, and the BMD community at large. BMDO/SR wishes to thank those whose efforts and support contributed to the timeliness and relevance of this revision.

Naturally, this glossary is most useful when it is current; however, the nature of our program makes this difficult. To help keep this book a useful reference tool for everyone, please send copies of glossaries or acronym lists that your office has published in recent documents. To the extent that resources are available, we will also try to check periodically for new terms and acronyms.

BMDO Glossary, ver. 2.0 supersedes the BMDO Glossary dated 6 September 1994.

Changes or corrections may be submitted at any time to:

Ballistic Missile Defense Organization Deputy for Strategic Relations (BMDO/SR) 7100 Defense Pentagon Washington, DC 20301-7100

<u>Notes</u>

ii

A

A Spec	System Specification.
AA	See Attack Assessment.
AAA	1. Antiaircraft Artillery. 2. Assign Alternate Area. 3. AEGIS Acquisition Agent.
AABCP	Advanced Airborne Command Post.
AACC	Airborne Alternate Command Center.
AADC	Area Air Defense Commander.
AADCOM	Army Air Defense Commander.
AAE	Army Acquisition Executive.
AAFCE	Allied Air Forces Central Europe.
AASP	Advanced Airborne Sensor Platform.
AAW	Anti-Air Warfare.
AAWC	Anti-Air Warfare Commander.
A&T	Acquisition and Technology.
ABCCC	Airborne Battlefield Command and Control Center. (US C-130 aircraft)
ABE	Army Background Experiment (flew aboard the LACE spacecraft).
ABL	1. Airborne Laser. 2. Aircraft Based Laser. 3. Armored Box Launcher.
Ablative Shield	A shield made of material that vaporizes when heated, absorbing thermal energy and protecting the shielded object from heat damage.
Ablative Shock	A mechanical shock wave at the surface of an object exposed to intense pulsed electromagnetic radiation. A thin layer of the object's surface violently and rapidly boils off; the resulting vapor suddenly exerts pressure against the surface, generating a pressure wave at the surface. This shock wave then propagates through the material and can cause melting, vaporization, spallation, and structural failure of the object.
ABM	See Anti-Ballistic Missile.
ABMDA	OBSOLETE. Advanced Ballistic Missile Defense Agency.
ABM Treaty	Anti-Ballistic Missile Treaty of 1972, signed and ratified by the (former) Soviet Union and the United States, limiting deployment on each side to one site comprising 100 interceptors, 100 launchers, and several ground-based radars. The Treaty also regulates development and testing.

ABM-X-3	A terminal Soviet anti-ballistic missile (ABM) defense system using transportable phased-array radars and both long and short-range, high acceleration interceptors similar to the U.S. Sprint. This system was developed and tested in the 1970's and early 1980's.
ABNCP	Airborne National Command Post.
A/BPI	Ascent/Boost-Phase Interceptor.
ABT	Air-Breathing Threat.
ACA	Airspace Control Authority.
ACAP	Advanced Capabilities.
ACAT	Acquisition Category.
ACC	 Air Combat Command (USAF), Langley AFB, VA. Access Control Center. 3. Air Component Commander. Area Coordination Center.
ACCS	Air Command and Control System.
Accidental Launch	An unintended launch which occurs without deliberate national design as a direct result of a random event, such as mechanical failure, a simple human error, or an unauthorized action by a subordinate. (USSPACECOM)
ACCS	Automated Command and Control System (USN AN/TSQ-73)
ACE	 Anti-Radiation Missile (ARM) Countermeasure Evaluator. Aviation Combat Element. 3. Airborne Command Element (USAF). Allied Command Europe.
ACES	Arrow Continuation Experiments.
ACM	Air Combat Maneuvering.
ACOM	Atlantic Command.
ACQ	See Acquisition.
Acquire	1. When applied to acquisition radars, to detect the presence and location of a target in sufficient detail to permit identification. 2. When applied to tracking radars, to position a radar beam so that a target is in that beam to permit the effective employment of weapons. (See Target Acquisition.)
Acquisition (ACQ)	1. (Sensor) The results of processing sensor measurements to produce object reports of interest to the system. 2. (Material) The conceptualization, initiation, design, development, testing, contracting, production, deployment, logistic support, modification, and disposal of weapons and other systems, supplies or services to satisfy DoD needs in support of military missions.

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Categories established to facilitate decentralized decision making and execution Acquisition and compliance with statutorily imposed requirements. The categories Categories determine the level of review, decision authority, and applicable procedures. These are "major defense acquisition programs." 1. Acquisition Category I. They have unique statutorily imposed acquisition strategy, execution, and reporting requirements. Milestone decision authority for these programs is: (a) the Under Secretary of Defense for Acquisition and Technology -acquisition category ID; (b) if delegated by the Under Secretary, the Cognizant DoD Component Head -- acquisition category IC; (c) if delegated by the Component Head, the Component Acquisition Executive. 2. Acquisition Category II. Milestone decision authority for these programs is delegated no lower than the DoD Component Acquisition Executive. They have unique statutorily imposed requirements in the test and evaluation area The additional distinction of acquisition 3. Acquisition Category III and IV. categories III and IV allow DoD Component Heads to delegate milestone decision authority for these programs to the lowest level deemed appropriate within their respective organizations. A memorandum signed by the milestone decision authority that documents Acquisition decisions made and the exit criteria established as the result of a milestone Decision decision review or in-process review. Memorandum (ADM) The instantaneous volume viewed by the interceptor's sensor during the Acquisition process of searching its assigned volume. **Field of View** (FOV) Five phases, each preceded by a milestone or other decision point, during **Acquisition Life** which a system goes through research, development, test and evaluation, and Cycle production. The phases are Concept Exploration and Definition, Demonstration and Validation, Engineering and Manufacturing Development, Production and Deployment, Operations and Support. Process of systematically identifying and assessing logistics alternatives, Acquisition analyzing and resolving logistics deficiencies, and managing integrated logistics Logistics support throughout the acquisition process. Management of all or any of the activities within the broad spectrum of Acquisition Also includes management of the training of the defense "acquisition." Management acquisition workforce, and management activities in support of PPBS for defense acquisition systems/programs. A formal written document reflecting the specific actions necessary to execute Acquisition Plan the approach established in the approved acquisition strategy and guiding contractual implementation. (See Federal Acquisition Regulation Subpart 7.1 and Defense Federal Acquisition Regulation Supplement Subpart 207.1.)

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Acquisition Planning	The process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the need in a timely manner and at a reasonable cost. It is performed throughout the life cycle and includes developing an overall acquisition strategy for managing the acquisition and a written acquisition plan.
Acquisition Program	A directed, funded effort that is designed to provide a new or improved materiel capability in response to a validated need.
Acquisition Program Baseline (APB)	 Acquisition program baselines embody the cost, schedule, and performance objectives for the program. The APB is approved by the milestone decision authority milestone reviews as follows: Concept Baseline, approved at Milestone I, applied to the effort in Phase I, Demonstration and Validation. Development Baseline, approved at Milestone II, is applied to the effort in Phase II, Engineering and Manufacturing Development. Production Baseline, approved at Milestone III, is applied to the effort in Phase III, Production and Deployment.
	parameters. Objectives are accompanied by minimum requirements called thresholds. Once signed by the milestone decision authority, APBs may only be changed at subsequent milestone or program reviews, or with the approval of the milestone decision authority as a response to an unrecoverable baseline deviation.
Acquisition Radar	Radar that searches a spatial volume and identifies potential targets from the background and non-hostile objects.
Acquisition Risk	The chance that some element of an acquisition program produces an unintended result with an adverse effect on system effectiveness, suitability, cost, or availability for deployment.
Acquisition/ Reacquisition Time	The time required to establish or reestablish lock on the received signal. This includes carrier, symbol, frame, code, and crypto synchronization.
Acquisition Strategy	A business and technical management approach designed to achieve program objectives within the resource constraints imposed. It is the framework for planning, directing, and managing a program. It provides a master schedule for research, development, test, production, fielding, and other activities essential for program success, and, is the basis for formulating functional plans and strategies (e.g., Test and Evaluation Master Plan, Acquisition Plan, competition, prototyping, etc.).
Acquisition Strategy Report	Describes the acquisition approach to include streamlining, sources, competition, and contract types throughout the period from the beginning of Phase I, Demonstration and Validation, through the end of production.

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Acquisition Any effort that results in more efficient and effective use of resources to develop or produce quality systems. This includes ensuring that only necessary and cost-effective requirements are included, at the most appropriate time in the acquisition cycle, in solicitations and resulting contracts for the design, development, and production of new systems, or for modifications to existing systems that involve redesign of systems or subsystems.

Acquisition,The process of acquiring within a given field of view a target (or targets) andTracking andmaintaining a precision track of the same while enabling the pointing of aPointing (ATP)sensor or weapon at the target so that it may be destroyed.

ACS Airspace Control System.

ACS 1. Attitude Control System. 2. AEGIS Combat System. 3. Assistant Chief of Staff.

ACSIS AEGIS Combat System Interface Simulation.

ACTD See Advanced Concept Technology Demonstration.

- ACTEX Advanced Controls Technology Experiment.
- Active In surveillance, an adjective applied to actions or equipment which emit energy capable of being detected, e.g., radar is an active sensor.

Active Air Defense Direct defensive actions taken to nullify or reduce the effectiveness of hostile air action. It includes such measures as the use of aircraft, air defense weapons, weapons not used primarily in an air defense role and electronic warfare.

ActiveThreats to an electronic system posed by a capability to disruptCommunicationscommunications or to seize control or deny positive control of electronicSecurity Threatsystems to intended users, e.g., jamming and imitative deception.

Active Defense 1. The employment of limited offensive action and counterattacks to deny a contested area or position to the enemy. See also Passive Defense. 2. In-flight intercept and destruction of ballistic missiles and negation of their warheads.

Active Defense (TBMD) Active defense protects against theater missiles by destroying them in flight. Engagement capability is required throughout all phases of the missile's trajectory (boost, post-boost, mid-course, and terminal) to prevent saturation of point defense, to negate warhead effects, and to ensure minimal leakage in defending critical assets. Therefore, active defenses must consist of defense in depth to provide multiple engagement opportunities with differing technologies, increasing the probability of kill, and countering the enemy's counter-measure efforts. Active defenses could consist of space-, air-, ground-, and sea-based systems. If a strategic ballistic missile defense system is deployed, the active TMD should be supported by, but not limited by, those systems to increase the defense in the theater of operations. Active defense is considered one of the four pillars of TMD capability. (JCS J-38 CONOPS) Active HomingGuidance system in which both the source for illuminating the target, and theGuidancereceiver for detecting the illuminating energy reflected from the target are
carried within the missile. (See Guidance.)

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- Active Sensor One that illuminates a target, producing return secondary radiation, which is then detected to track and/or identify the target. An example is radar.
- ACTS AEGIS Combat Training System.
- ACUS Army Common User System.
- AD Air Defense.

ADA Air Defense Artillery.

ADAPT Advanced DEW Active Precision Tracker.

Adaptive Defense (Also Adaptive Preferential Defense) Adaptive defense is defense that is responsive to an actual attack in that it takes advantage of the structure or weakness of the attack to maximize a priority defense objective.

Adaptive Flexible Defense (AFD) The ability to select and prioritize in near-real time what critical civilian and military assets and functions to defend and to efficiently employ defense in response to the characteristics of the attack while effectively enforcing defense priorities. (JOSDEPS)

Adaptive Optics (ADOPT) Optical systems which can be modified (e.g., by controlling the shape of a mirror) to compensate for distortions. An example is the use of information from a beam of light passing through the atmosphere to compensate for the distortion suffered by another beam of light on its passage through the atmosphere. Used to eliminate the "twinkling" of stars in observational astronomy and to reduce the dispersive effect of the atmosphere on laser beam weapons.

Adaptive See Adaptive Defense.

Preferential Defense

ADATOC Air Defense Artillery Tactical Operations Center (USA brigade).

ADCC Air Defense Control Center.

ADCOM OBSOLETE. (U.S.) Aerospace Defense Command, Peterson AFB, CO.

- ADCP 1. Air Defense Communications Platform. 2. Air Defense Command Post.
- ADDA Air Defense Decision Aid.
- ADDS Air Defense Demonstration System.

ADI Air Defense Initiative.

ADIZ Air Defense Identification Zone.

ADM 1. See Acquisition Decision Memorandum 2. Advanced Development Model.

AdministrativeThe government contracting officer located at a contract administrative officeContractingwho is assigned the responsibility for administration of Government contracts.Officer (ACO)(Defense Systems Management College Glossary)

- ADOC See Aerospace Defense Operations Center.
- ADOCC Air Defense Operations Control Center.
- ADOPT See Adaptive Optics.

ADSAM Air-Directed Surface-to-Air Missile.

ADSI Air Force Defense Systems Integrator.

ADTOC Air Defense Tactical Operations Center.

- Advance Funding Budget authority provided in an appropriation act that allows funds to be committed to a specific purpose (obligated) and spent during this fiscal year even though the appropriation actually is for the next fiscal year. Advance funding generally is used to avoid requests for supplemental appropriations for entitlement programs late in a fiscal year when the appropriations for the current fiscal year are too low.
- Advance Authority provided in an appropriations act to obligate and disburse from the succeeding year's appropriation. The funds are added to the budget authority for the fiscal year and deducted from the budget authority of the succeeding fiscal year. Used in major acquisition programs for advance procurement of components whose long-lead time require purchasing early in order to reduce the overall procurement lead time. Advance procurement of long lead components is an exception to the DoD "full funding" policy.
- AdvancedAn integrating effort to assemble and demonstrate a significant new militaryConceptcapability, based upon maturing advanced technology(s) in a real-time operationTechnologyat a scale size adequate to clearly establish operational utility and systemDemonstrationintegrity.

Advanced LaunchOBSOLETE.This proposed system was to be a heavy launch vehicle and
appropriate ground support facilities which may have supported SDIO, USAF,
Navy and NASA space launch missions into the next century.

AdvancedThe actual demonstration of an advanced state-of-the-art system underTechnologyconditions likely to exist when in operation.Demonstration

ADWC Air Defense Warfare Center.

AE Acquisition Executive.

(ACTD)

AEDC Arnold Engineering Development Center, Arnold AFB, TN.

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AEGIS	The Navy's advanced, fast reaction, high firepower, shipboard anti-air warfare area defense system (Greek word for "shield").
Aerospace Defense (AD)	1. All defensive measures designed to destroy attacking enemy aircraft, missiles, and space vehicles after they leave the Earth's surface, or to nullify or reduce the effectiveness of such attacks. 2. An inclusive term encompassing air defense and space defense.
Aerospace Defense Operations Center (ADOC)	Existing center in Cheyenne Mountain AFB (CMAFB) which controls the Air Defense of North America mission.
Aerothermal Kill	A kill in which the thermal shielding of the target RV is damaged by the defensive system. The RV is subsequently destroyed during reentry.
AEW	Airborne Early Warning.
AFAE	Air Force Acquisition Executive.
AFCC	See Air Force Component Commander.
AFCCC	Air Force Component Command Center.
AFCS	Automatic Flight Control System.
AFD	See Adaptive Flexible Defense.
AFDSOC	Air Force Defense System Operations Center.
AFFTC	Air Force Flight Test Center, Edwards AFB, CA.
AFGWC	See Air Force Ground/Global Weather Center.
AFID	Anti-Fratricide Identification Device.
AFMC	Air Force Material Command, Wright-Patterson AFB, Ohio.
AFOTEC	See Air Force Operational Test and Evaluation Center.
AFSARC	Air Force System Acquisition Review Council.
AFSATCOM	See Air Force Satellite Communications System.
AFSB	Air Force Science Board.
AF/SC	Deputy Chief of Staff for Command, Control, Communications, and Computers, United States Air Force.
AFSCN	See Air Force Satellite Control Network.
AFSD	OBSOLETE. Air Force Space Division. (Replaced by USAF/SMC.)

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AFSPOC	See Air Force Space Operations Center.
AFSTC	1. Air Force Space Test Center, Sunnyvale, CA. 2. Air Force Space Technology Center, Kirtland AFB, NM.
AFWL	Air Force Weapons Laboratory (Phillips Lab).
AGARD	Advisory Group for Aerospace Research and Development.
AGMC	Air Force Aerospace Guidance and Metrology Center (Newark AFB, OH).
AGT	Above Ground Test.
AHIS	Agile Homing Interceptor Simulator.
AHSG	Ad Hoc Study Group.
AI	1. See Artificial Intelligence. 2. Action Item. 3. Air Interdiction.
ΑΙΑΑ	American Institute of Aeronautics and Astronautics
AID	Agile Interceptor Development.
AIDA	Artificial Intelligence Discrimination Architecture (UKMOD).
AIDPN	Architecture Investment and Deployment Planning Notebook.
Aimpoint	The specific point at which a weapon is aimed. The point may be on the earth's surface, in the atmosphere, or in space. In some cases, the specific lethal point on a target to which a weapon is aimed.
AIP	Advanced Interceptor Program (formerly Brilliant Pebbles).
Airborne Optional Adjunct (AOA)	A test program to place an infrared (IR) sensor in an aircraft. (Superseded by Airborne Surveillance Testbed (AST).)
Airborne Surveillance Testbed (AST)	A Boeing 767 aircraft with a large infrared sensor designed to address optical sensor issues.
Air-breathing	A flying vehicle that uses the oxygen in the atmosphere as the oxidizer in its propulsion system. Examples are jet aircraft and cruise missiles. This category does not include ballistic missiles.
Air Defense	All measures designed to nullify or reduce the effectiveness of hostile air action. See also active air defense, passive air defense.
Air Defense Action Area	An area and the airspace above it within which friendly aircraft or surface-to-air weapons are normally given precedence in operations except under specific conditions. See also air defense operations area.

BMDO GLOSSARY, VER. 2.0

Artillerv

Air Defense Weapons and equipment for actively combating air targets from the ground.

Air DefenseAirspace of defined dimensions within which the ready identification, location,Identificationand control of airborne vehicles are required. Commonly referred to as ADIZ.ZoneSee also air defense operations area.

Air DefenseA geographic area defining the boundaries within which procedures areOperations AreaA geographic area defining the boundaries within which procedures areOperations AreaA geographic area defining the boundaries within which procedures areOperations AreaA geographic area defining the boundaries within which procedures areOperations AreaA geographic area defining the boundaries within which procedures areOperations AreaA geographic area defining the boundaries within which procedures areAir defense areaA geographic area defining the boundaries within which procedures areAir defense areaA geographic areaAir defense areaC. Air defense identification; D. Fire power umbrella.

for use by the Air Force (Located at Kirtland AFB, NM).

Air Force Component Command Center (AFCCC)

A segment of the Command and Control Element which replicates capabilities of the CCC (BMD) segment and provides administrative and logistics support to Air Force Component Forces with the Strategic Defense System. The AFCCC was eliminated from the CCE (now C^2E) architecture during the last SAS system architecture definition update.

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Air Force Ground/Global Weather Center (AFGWC) AFGWC provides Air Force and Army with global information and products relating to past, present, and future states of the aerospace environment. Weather data is provided to the Weather Support Unit (WSU) for use by the SDS. Also provides space environmental data such as sunspots, electromagnetic storms, etc. Located at Offutt AFB, NE.

Responsible for the operational test and evaluation of systems being developed

Air Force Operational Test and Evaluation Center (AFOTEC)

Air Force Satellite Communications System (AFSATCOM)

Air Force Satellite Control Network (AFSCN)

Air Force Space Command (AFSPC) A collection of transponders on host satellites used by U.S. Strategic Command to pass emergency action messages (EAM) and damage assessment reports. AFSATCOM is also used to pass sensor data between sites and CMAFB.

A global, multi-command configuration of space vehicle command, control, and communications resources operating in concert to support DoD and other assigned space missions.

A major Air Force command and the Air Force component of United States Space Command responsible for the training, equipping, manning, administering, and funding of assigned systems. Located in Colorado Springs, CO.

Air Force Space Operations Center (AFSPOC) An AFSPACECOM center responsible for the daily tracking of events at remote operational sites. It may be updated and assigned responsibility for logistics and administrative control of assigned SDS elements. Located in Colorado Springs, CO. Airspace Control
in the CombatA process used to increase combat effectiveness by promoting safe, efficient,
and flexible use of airspace. Airspace control is provided in order to prevent
fratricide, enhance air defense operations, and permit greater flexibility of
operations. Airspace control does not infringe on the authority vested in
commanders to approve, disapprove, or deny combat operations.

Airspace ControlThe document approved by the joint force commander that provides specificPlanplanning guidance and procedures for the airspace control system for the jointforce area of responsibility.

Air Surveillance The systematic observation of airspace by electronic, visual, or other means, primarily for the purpose of identifying and determining the movements of aircraft and missiles, friendly and enemy, in the air space under observation.

- AIS 1. See Automated Information System. 2. Architecture Integration Study. 3. Airborne Intercept System.
- AIT Advanced Interceptor Technologies.
- AJ Antijam.
- AL Acquisition Logistician.
- ALARM Alert, Locate, and Report Missiles.
- ALAS Advanced Liquid Axial Stage.
- ALBCS Airborne Laser Beam Control System.
- ALC Air Logistics Center (AF).
- ALCOR ARPA/Lincoln C-band observable radar. (USAKA KREMS)
- ALCM See Air Launched Cruise Missile.
- ALE Airborne Laser Experiment.

ALERT See Attack and Launch Early Reporting to Theater.

- ALI Alpha/LAMP Integration.
- ALL Airborne Laser Laboratory.

Allocated The requirement probability that an element is available to perform its function Availability as allocated by the SDS.

Requirement

Allocation 1. An authorization by a designated official of a DoD component making funds available within a prescribed amount to an operating agency for the purpose of making allotments (i.e., the first subdivision of an apportionment). 2. The translation of the apportionment into total numbers of sorties by aircraft type available for each operation/task. BMDO GLOSSARY, VER. 2.0

Allotment	The temporary change of assignment of tactical air forces between subordinate commands. The authority to allot is vested in the commander having operational command.
Alpha Particle	A particle emitted spontaneously from the nuclei of some radioactive elements. It is identical to a helium nucleus, having a mass of four units and a charge of positive two. (See Radioactivity.)
ALPS	Accidental Launch Protection System.
ALS	See Advanced Launch System.
ALT	Airborne Laser Technology.
ALTAIR	UHF test radar at USAKA.
Alternate National Military Command Center (ANMCC)	An element of the National Military Command System (NMCS) which serves as an alternate to the NMCC. Located at Ft. Ritchie, MD.
Alternate Processing and Correlation Center (APCC)	NORAD capability in USSTRATCOM Command Post that receives, processes, and analyzes TW/AA information.
Alternate Space Defense Operations Center (ASPADOC)	The backup to the SPADOC, maintained by the Naval Space Command, at Dahlgren, VA, collocated with the NAVSPOC and NAVSPASUR.
AMC	1. Air Mobility Command, Scott AFB, IL. 2. See Army Materiel Command. 3. Midpoint Compromise Search Area.
AMDS	Active Missile Defense System.
АМЕМВ	American Embassy.
AMFB	Acquisition Management Functional Board.
AMG	Antenna mast group.
AMOR	Army Missile Optical Range.
AMOS	Air Force Maui Optical Station.
AMRAAM	Advanced Medium Range Air-to-Air Missile.
AMSAA	Army Materiel Systems Analysis Agency.
AMTL	Army Materials Technology Laboratory.

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BMDO GLOSSARY, VER. 2.0

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AN/TPS-59	USMC Firefinder radar.
ANMCC	See Alternate National Military Command Center.
ANSI	American National Standards Institute.
Antenna Area	The ratio of the power available at the terminals of an antenna to the incident power density of a plane wave from the direction polarized.
Antiair Warfare	Action required to destroy or reduce to an acceptable level the enemy air and missile threat. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface-to-air and air-to-air missiles, electronic countermeasures, and destruction of the air or missile threat both before and after it is launched. Other measures taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception, and mobility (Navy/USMC).
Anti-Ballistic Missile (ABM)	The term used for Ballistic Missile Defense (BMD) weapons developed to negate the ballistic missile threat in the late 60s and early 70s.
Anti-Ballistic Missile System	A system designed to counter strategic ballistic missiles or their elements in flight.
Anti-Radiation Missile (ARM)	A missile that homes passively on a radiation source.
Antisatellite Weapon (ASAT)	A weapon designed to destroy satellites in space. The weapon may be launched from the ground, from an aircraft, or be based in space. The target may be destroyed by either a nuclear or conventional explosion, by collision at high speed, or by a directed energy beam.
Anti-Simulation	The process of introducing random variations to the signature characteristics of an object in order to cause misidentification of the object by the sensors. The disguising of an RV to resemble a non-threatening object such as a piece of debris, a balloon, or a decoy.
AO	1. See Associated Object. 2. Action Officer. 3. Area of Operations.
AOA	OBSOLETE. See Airborne Optical Adjunct (now called AST).
AOC	Air Operations Center.
AOCC	Air Operations Control Center.
AOEC	Aero-Optic Evaluation Center, Buffalo, NY.
AOI	Active Optical Imager.
AOP	Airborne Optics Platform.
AOR	Area of Responsibility.
AOS	OBSOLETE. Airborne Optical Sensor.

A

AOSP Advanced On-Board Signal Processor.

AP Acquisition Plan.

A/P Active/Passive.

APB See Acquisition Program Baseline.

APCC See Alternate Processing and Correlation Center.

- API Ascent-Phase Intercept.
- APL Applied Physics Laboratory, Johns Hopkins University, Baltimore, MD.

APLE Average Power Laser Experiment.

APM Advanced Penetration Model.

APMA Acquisition Program Management Agreement.

- APOD Aerial Point of Debarkation.
- Application 1. (Software) It refers to a process, usually implemented as a software routine, at the highest level (Level 7) of the ISO open system architecture. 2. (SDS) It refers to such processes as the Battle Management, Navigation, Network Control, and other high level functions which may originate or receive messages over the SDS Communication network, via underlying lower-level protocols. 3. Software designed to fulfill specific needs of a user. 4. (Acquisition) The process of selecting requirements that are pertinent and cost effective for the particular materiel acquisition and contractually invoking them at the most advantageous times in the acquisition cycle.
- Apportionment 1. A determination made by the Office of Management and Budget which limits the amount of obligations or expenditures that may be incurred during a specified time period. An apportionment may limit all obligations to be incurred during the specified period or it may limit obligation to be incurred for a specific activity, function, project, object, or a combination thereof. The third of four phases of the DoD resource allocation process. 2. The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time. 3. In the general sense, distribution for planning of limited resources among competing requirements. Specific apportionments (e.g. air sorties and forces for planning) are described as apportionment of air sorties and forces for planning, etc.
- Appropriation An authorization by an act of Congress that permits Federal agencies to incur obligations and make payments from the Treasury. An appropriation usually follows an enactment of authorizing legislation. An appropriation act is the most common means of providing budget authority. Appropriations do not represent cash actually set aside in the Treasury; they represent limitations of amounts which agencies may obligate during a specified time period. See Authorization.

Approved Program	The technical and operational, schedule, and quantity requirements reflected in the latest approved USD(A) ADM, or other document reflecting a more current decision of the USD(A) or other approval authority, such as the President's Budget, the FYDP, and supporting documentation.
APS	1. Axial Propulsion System. 2. Automatic Phasing System.
APU	Auxiliary Power Unit.
АРТ	Acquisition, Pointing, and Tracking.
ARCCC	See Army Component Command Center.
ARFOR	Army Forces.
ARGUS	Advanced Real-time Gaming Universal Simulation.
Architectural Design	The process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.
Architecture Integration Study (AIS)	A study to determine the performance of alternative architectures and element designs that satisfy BMD System mission requirements, and to evaluate the effect of changing threats and advances in technology on the systems, subsystems, and components making up existing and proposed architectures.
ARDSOC	Army Defense System Operations Center.
ARE	Aerothermal Reentry Experiment.
Area Air Defense Commander	The person given overall responsibility for air defense within an overseas unified command, subordinate unified command, or a joint task force. Normally, this
(AADC)	will be the Air Force component commander.
Area Defense	will be the Air Force component commander. Defense of a broad geographical area that contains both military and civilian assets (i.e., depots, towns/cities). (USSPACECOM)
Area Defense Area of Influence	 will be the Air Force component commander. Defense of a broad geographical area that contains both military and civilian assets (i.e., depots, towns/cities). (USSPACECOM) A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under his command or control.
Area Defense Area of Influence Area of Interest (AOI)	 will be the Air Force component commander. Defense of a broad geographical area that contains both military and civilian assets (i.e., depots, towns/cities). (USSPACECOM) A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under his command or control. The area of influence and surrounding areas that are of concern to the commander for the objective of current and planned operations. This may include areas occupied by enemy forces.
Area Defense Area of Influence Area of Interest (AOI) Area of Operations	 will be the Air Force component commander. Defense of a broad geographical area that contains both military and civilian assets (i.e., depots, towns/cities). (USSPACECOM) A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under his command or control. The area of influence and surrounding areas that are of concern to the commander for the objective of current and planned operations. This may include areas occupied by enemy forces. That portion of an area of war necessary for military operations and for the administration of such operations.
Area Defense Area of Influence Area of Interest (AOI) Area of Operations ARH	 will be the Air Force component commander. Defense of a broad geographical area that contains both military and civilian assets (i.e., depots, towns/cities). (USSPACECOM) A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under his command or control. The area of influence and surrounding areas that are of concern to the commander for the objective of current and planned operations. This may include areas occupied by enemy forces. That portion of an area of war necessary for military operations and for the administration of such operations. Anti-Radiation Homing.

Α

Arms ExportAn interagency board, chaired by the Under Secretary of State for SecurityControl BoardAssistance, Science, and Technology, that serves to advise the Secretary of(AECB)State on matters relating to security assistance program levels and arms
transfer policies.

Army Brigade The Army center between the ARSPOC and the ARROC with C2 responsibilities for BMD. •

Army Component
Command Center
(ARCCC)A segment of the Command and Control Element which replicates capabilities
of the CCC (BMD) segment and provides administrative and logistics support to
Army Component Forces with the Strategic Defense System. The ARCCC was
eliminated from the CCE (now C2E) architecture during the last SAS system
architecture definition update.

Army Materiel Command (AMC) Performs the assigned materiel functions of the Department of the Army, including research and development; product improvement; human factors engineering; test and evaluation; procurement and production; new equipment training; scientific and technical intelligence production; international logistics programs; and storage, distribution, maintenance, demilitarization, and disposal for the continental United States wholesale supply and maintenance systems as well as for overseas systems. Located in Alexandria, VA.

Army SpaceThe Army Space Command Center responsible for logistically/ administrativelyOperationscontrolling assigned SDS elements and which shall also include the capability toCenter (ARSPOC)assure the BMD mission should the USCINCSPACE CCC be lost.

AROS Airborne Radar Optical System.

ARPA Advanced Research Projects Agency. (Formerly known as Defense Advanced Research Projects Agency (DARPA).

ARPANET ARPA Network.

ARROC Army Regional Operations Center.

Arrow A technology demonstration program started in 1988 and designed to meet Israeli architecture requirements for area defense of population centers against TBMs.

- ARSPOC See Army Space Operations Center.
- ARU Alignment Reference Unit (PAC-3).
- ASA Assistant Secretary of the Army.
- ASAF Assistant Secretary of the Air Force.
- ASAF (A) Assistant Secretary of the Air Force (Acquisition).
- ASARC Army Systems Acquisition Review Council.
- ASAS 1. All Source Analysis System. 2. Advanced Solid Axial Stage.

A

ASAT	See Antisatellite Weapon.
ASB	Army Science Board.
ASCC	Air Standardization Coordination Committee.
ASD	1. Aeronautical Systems Division (AF). 2. Assistant Secretary of Defense.
ASDP	Advanced Sensor Demonstration Program.
ASIC	Application Specific Integrated Circuit.
ASM	1. See Anti-Simulation. 2. Antiship Missile. 3. Air-to-Surface Missile.
ASMD	Antiship Missile Defense.
ASN	Assistant Secretary of the Navy.
ASOC	Air Support Operations Center.
ASP	1. Airborne Surveillance Platform. 2. Advanced Sensor Program. 3. Advanced Sensor Platform. 4. Annual Service Practice.
ASPADOC	The backup to the SPADOC, maintained by the Naval Space Command, at Dahlgren, VA, collocated with the NAVSPOC and NAVSPASUR.
ASPIRIS	Advanced Signal Processing for IR Sensors.
ASR	Acquisition Strategy Report.
ASROC	Antisubmarine Rocket.
Assessment	1. Appraisal of the worth of an intelligence activity, source information, or product in terms of its contribution to a specific goal, or the credibility, reliability, pertinence, accuracy, or usefulness of information in terms of an intelligence need. When used in context with evaluation, assessment implies a weighing against resource allocation, expenditure or risk. 2. An independent evaluation of a model or simulation by a BMDO-sponsored Confidence Assessment Team for a specified purpose.
Associated Object	Object that remains near a deployed reentry vehicle, decoy or chaff puff.
Assume Course Orientation	Make course attitude adjustments to the weapon platform orientation prior to engagement.
Assured Defense	Strategies and tactics that result in (specified) a high probability of kill against designated targets, regardless of the interceptors required. (USSPACECOM)
Assured Kill	This option requires defense segments to employ tactics which produce the highest probability of kill consistent with the available number of defensive resources (interceptors).

A

AST	See Airborne Surveillance Testbed.
ASWG	Architecture Systems Working Group.
ΑΤΑ	1. Advanced Test Accelerator. 2. Avionics Test Article.
ATACMS	Army Tactical Missile System.
ATAF	Allied Tactical Air Force (NATO).
АТВ	1. Allied Test Bed. 2. Analytical Tool Box.
АТВМ	Anti-Tactical Ballistic Missile.
ATD	See Advanced Technology Demonstration.
ATDL	Army Tactical Data Link.
ATDM	Adaptive Time Division Multiplexer.
ATDS	Airborne Tactical Data System.
ATE	Automatic Test Equipment.
ATHS	Airborne Target Handover System.
АТМ	Anti-Tactical Missile.
АТО	Air Tasking Order.
АТОС	Air Tactical Operations Center.
АТР	1. See Acquisition, Tracking, and Pointing. 2. Authority To Proceed. 3. Allied Tactical Publication. 4. Acceptance Test Procedures.
ATP&FC	Acquisition, Tracking, Pointing, and Fire Control.
ATTD	Advanced Technology Transition Demonstration.
Attack and Launch Early Reporting to Theater (ALERT)	An upgrade to ground station mission processing which exploits inherent satellite capability to provide theater missile warning and cueing.
Attack Assessment (AA)	An evaluation of information to determine the potential or actual nature and objectives of an attack for the purpose of providing information for timely decisions.
Attack Characterization	The process by which the parameters of an attack in progress are developed, updated and defined.

Α

Attack Operations (Counterforce)	1. Attack operations prevent launch of theater missiles by attacking all elements of the overall enemy system, including such actions as destroying launch platforms, support facilities, reconnaissance, intelligence, surveillance and target acquisition platforms, command and control nodes, and missile stocks. Attack operations can be executed by space, air, ground, maritime, and special operations forces. Attack operations are considered one of the four pillars of TMD capability. (JCS J-38 CONOPS)
Attack Price	A concept used to evaluate the performance of a BMD system that defines "price" as the number of RVs required to ensure target destruction. Target destruction is defined as a probability of target survivability using the drawdown curve.
Attack Warning/ Attack Assessment (AW/AA)	Integrated air, missile, and space defense data used to determine whether an attack is underway and, if so, what is the type and strength of the attack.
Attenuation	Decrease in intensity of a signal, beam, or wave as a result of absorption and scattering out of the path of a detector by the propagating medium, but not including a decrease in intensity due to geometric spreading (e.g., the inverse square of distance).
ATSIM	Acquisition and Track Simulation.
ΑΤν	Advanced Technology Validation.
Autonomous Acquisition Range (Max.)	The maximum range at which a target can be acquired by a sensor operating in a non-cued mode.
AV	1. Air Vehicle. 2. Audio-Visual.
Average Unit Procurement Cost (AUPC)	Design to average unit procurement cost objectives, expressed in constant dollars, are established for Milestone I, Concept Demonstration Approval. AUPC includes recurring flyaway, rollaway, sailaway costs (including nonrecurring production costs) adjusted for data, training, support equipment, and initial spares costs.
AVSCOM	Aviation Systems Command (US Army).
AW/AA	See Attack Warning/Attack Assessment.
AWACS	Airborne Warning and Control System.
AWS	AEGIS Weapons System.
Azimuth	Orientation of a vector projected onto a reference horizontal plane, relative to a reference direction in the plane.
Azimuth Angle	A positive angle measured clockwise in a reference horizontal plane from a reference direction to a given direction. For a topocentric-horizon coordinate reference frame, the reference direction is due north (true north or magnetic north, depending on the application).

A

B Spec	Development specification.
BA	Budget activity. The budget activity codes are: 01 Basic Research 02 Exploratory Development 03 Advance Technology Development 04 Dem/Val 05 EMD 06 Management Support 07 Operational Systems Development
BAA	Broad Agency Announcement.
Backbone Network	Consists of the space communications network, the ground communications network, and the interconnection between the two.
Background Rejection (Surveillance)	The suppression of background noise for the improvement of an object signal.
BAFO	Best and Final Offer.
BAI	Battlefield Air Interdiction.
Balanced Technology Initiative (BTI)	DoD's program to hasten application of advanced technology to the most critical and urgent operational needs. BTI projects are demonstrating leap- ahead capabilities enabled by emerging technologies in smart weapons, target acquisition, battlefield C^3I , active countermeasures, and ultrawide bandwidth radars and high power microwave systems.
Ballistic Coefficient	The weight of the object divided by the product of the coefficient of drag and the projected area (W/CDA), in kilograms per square meter.
Ballistic Missile (BM)	Any missile that does not rely upon aerodynamic surfaces to produce lift and consequently follows a ballistic trajectory when thrust is terminated.
Ballistic Missile Boost Intercept (BAMBI)	OBSOLETE. A late 1966 system concept that a Lockheed study group developed in anticipation of possible government interest in the development of an ABM capability.
Ballistic Missile Defense (BMD)	All active and passive measures designed to detect, identify, track, and defeat attacking ballistic missiles (and entities), in both strategic and theater tactical roles, during any portion of their flight trajectory (boost, post-boost, midcourse, or terminal) or to nullify or reduce the effectiveness of such attack.
Ballistic Missile Defense Battery	An Army operations center which operates and maintains BMD ground-based weapons and sensors.

B

Ballistic Missile Defense (BMD) Cell	This facility will be located in the USSPACECOM Consolidated Command Center (CCC) and Space Control Center (SPACC) to support the Space Force Application mission area interface between the BMD system and USCINCSPACE. The BMD Cell will provide command and decision support to USCINCSPACE.
Ballistic Missile Defense Operations Center (BMDOC)	OBSOLETE. Initially located at the NTF, and ultimately in the Cheyenne Mountain Complex, this facility supports the BMD Cell-USSPACECOM information interface. The BMDOC hosts a BM/C ³ processing suite and the operations personnel necessary to coordinate and integrate system-wide BMD activities and supports the USCINCSPACE planning and decision process.
Ballistic Missile Defense Organization (BMDO)	An agency of the Department of Defense whose mission is to manage and direct the conduct of a research program examining the feasibility of eliminating the threat posed by ballistic missiles of all ranges and of increasing the contribution of defensive systems to United States and Allied security. BMDO is the successor to Strategic Defense Initiative Organization (SDIO).
Ballistic Missile Defense Program	An architecture comprising three objectives: Theater Missile Defense (TMD), National Missile Defense (NMD), and Follow-on Research Programs.
Ballistic Missile Defense (BMD) System	The aggregate BMD BMC ³ and BMD forces that, in total, provide defense against ballistic missile attacks to North America and other areas of vital interest. (USSPACECOM)
Ballistic Missile Early Warning System (BMEWS)	Provides tactical warning of ballistic missile attacks, and is part of Spacetrack system. A two-faced phased array radar located at Thule AB, Greenland; three detection radars and one tracking radar at Clear AFS, AK; and three tracking radars at RAF Fylingdales, UK.
Ballistics	The science or art that deals with the motion, behavior, appearance, or modification of missiles or other vehicles acted upon by propellants, wind, gravity, temperature, or any other modifying substance, condition, or force.
Ballistic Trajectory	The trajectory traced after the propulsive force is terminated and the body is acted upon only by gravity and aerodynamic drag.

Balloon A spherical inflatable decoy used as a penetration aid to mask the location of reentry vehicles.

BAMBI OBSOLETE. See Ballistic Missile Boost Intercept.

Bandwidth The range of usable frequencies assigned to a channel or system; the difference expressed in Hertz between the highest and lowest frequencies of a band.

Simultaneous electronic jamming over a broad band of frequencies.

Barrage Jamming

Battery Tactical and administrative artillery unit or subunit corresponding to a company or a similar unit in other branches of the Army.

B

Battle Damage The estimate of damage resulting from the application of military force against a predetermined objective. Battle damage assessments can be applied to the use of all types of weapons systems throughout the range of military operations. BDAs are primarily an intelligence responsibility with required inputs and coordination from the operators. BDA is composed of physical damage assessment, functional damage assessment, and target system assessment.

BattlefieldAn Army liaison provided by the Army component commander to the AirCoordinationOperations Center (AOC) and/or to the component designated by the joint force
commander to plan, coordinate, and deconflict air operations. The battlefield
coordination element processes Army requests for tactical air support, monitors
and interprets the land battle situation for the AOC, and provides the necessary
interface for exchange of current intelligence and operational data.

Baseline Defined quantity or quality used as starting point for subsequent efforts and progress measurement. Can be a technical baseline or cost baseline.

BaselineA current operational system, or a composite of current operationalComparisonsubsystems, which most closely represents the design, operational, and supportSystem (BCS)characteristics of the new system under development.

Baseline The natural and human environmental conditions which are present prior to Conditions implementation of a program and against which impacts are assessed.

Baseline CostA detailed estimate of acquisition and ownership costs normally required forEstimate (BCE)high level decisions. This estimate is performed early in the program and serves
as the basepoint for all subsequent tracking and auditing purposes.

- Base Program The base program is the program described in the Future Years Defense Program base file, when updated to conform to the budget presented to Congress in January. It constitutes the base from which all current-year program changes are considered.
- Base Year A reference period which determines a fixed price level for comparison in economic escalation calculations and cost estimates. The price level index for the base year is 1.000.
- Battle Debris Battle Debris are the fragments produced by the hypervelocity collision of an interceptor with a ballistic missile, post-boost vehicle, or reentry vehicle, objects resulting from intentional fragmentation or accidental detonation of booster components, and objects normally associated with the deployment and propagation of threat objects (such as nuts, bolts, interstages, fairings, shrouds, etc.).
- Battle Group

 Domains into which the battle space is partitioned.
 A data processing approach implemented in the battle management computer which minimizes the processing load by partitioning (grouping) threat data (Virtual Battle Group).
 A group of associated system elements which operate together in a segment of the battle, based upon their capabilities and relative location to each other and the threat.

BMDO GLOSSARY, VER. 2.0

Configuration

Battle Integration Preplanning processes and/or real-time coordination that occurs to minimize resource wastage between battle tiers or battle partitions.

Battle management is comprised of two parts: (1) strategies and (2) the Management (BM) Battle management is comprised of two parts: (1) strategies and (2) the collection of tasks to be performed to successfully implement chosen strategies. Given a set of strategies, resources, and hostile asset deployment, battle management addresses the problem of choosing a specific strategy or set of strategies and performing the associated tasks which would result in the most desired outcome.

 BM/C^4 is a set of automated processes which respond to the C^2 system's **Battle** control directives. The BM/C⁴ will provide the BMD system with the capability Management/ of planning, coordinating, directing, and controlling the surveillance and Command, It will consist of a distributed engagement operations of the system. Control, arrangement of personnel, equipment, communications, facilities, and Communications, procedures that will ensure timely human control of the battle management and Computers process. BM/C⁴ consists of a battle planning function, an engagement planning (BM/C^4) function, and a battle execution function. (USSPACECOM)

Battle Manage-
ment DatabaseBattle Management data files including:
object file, track file, discrimination file, engagement file, kill assessment file,
and battle management health and status file.

BattleThe hub of the command and control process.It consists of computerManagementhardware and software that integrates elements of the command and controlSystemsystem into a synergistic operation.

Battle Manage-The battle management elements currently in the system together with theirment Systemlocations, connectivity and currently activated modes of operation.

Battle Manager The automated set of hardware and software equipment that performs the battle management functions at an element.

Battle Plan One of a set of BMD operational approaches to counter a ballistic missile attack. It contains the rules of engagement, battle strategy, and intercept tactics to be implemented by the battle management processors. It is directly responsive to the attack type (e.g., counterforce).

Battle Space A characterization of the BMD area of operation generally expressed by Tier (Boost, Post-Boost, Midcourse, and Terminal). (USSPACECOM)

Battle SpaceAssignment of management, sensing, control and firing responsibilities toPartitioningspecificplatforms/facilitieswithinthedeployedconstellationofplatforms/facilities.

BBT Booster Burn Time.

BCAS Battle Management and C³ Architecture Simulator.

BCD Baseline Concept Description.

BCE Battlefield Coordinating Element.

BCM Baseline Correlation Matrix (AF).

BCO See Broad Concept of Operations.

BCP Battery Command Post (HAWK).

BCS 1. Beam Control System. 2. See Baseline Comparison System.

BDA See Battle Damage Assessment.

BDL Battlefield Demonstration Laser.

BDS Boost Phase Detection System.

BDT See Birth-to-Death Tracking.

BE See Brilliant Eyes.

Beam Control Technologies associated with controlling the physical properties of high energy beams and steering the energy transmitted by those beams to the target vehicle; also, the management of signal or image beams within a complex sensor system.

B

Beam Width The angle between the directions, on either side of the axis, at which the intensity of the radio frequency field drops to one-half the value it has on the axis.

BEAR Beam Experiment Aboard Rocket (NPB Technology Validation Experiment).

Bell-LapadulaA formal state transition model of computer security policy that describes a setModelof access control rules.

BEP See Brilliant Eyes Probe.

BES Budget Estimate Submission.

BESC BM/C³ Element Support Center

BET Best Estimate Trajectory.

Biennial Budget The FY86 DoD Authorization Act required the submission of two-year budgets for the Department of Defense beginning with FY88/89. The department has institutionalized a biennial cycle for the Planning, Programming, and Budget System (PPBS). A biennial budget, as currently structured, represents program budget estimates for a two year period in which fiscal year requirements remain separate and distinct.

BGM Battle Group Manager.

BGV Boost Glide Vehicle.

• • •

B

BIB	Blocked Impurity Band.
BIC	OBSOLETE. Braduskill Interceptor Concept.
BIM	Ballistic Intercept Missile.
Biological Weapon	An item of material which projects, disperses, or disseminates a biological agent including arthropod vectors.
BIPS	Billion Instructions Per Second.
Birth-to-Death Tracking (BDT)	The tracking of space objects (e.g., satellites, reentry vehicles, or decoys that simulate these) from the time they are deployed from a booster or post-boost vehicle until they are destroyed.
Bistatic Radar	A radar system that has transmitters and receivers stationed at two geographically separate locations; a special case of multistatic radar.
BIT	Built-in-Test
BITE	See Built-in Test Equipment.
Bit Transfer Rate	The number of bits transferred per unit time, usually expressed in bits per second (bps).
Black Body	An ideal body which would absorb all (and reflect none) of the radiation falling upon it.
Blackout	The disabling of electronic equipment by means of nuclear explosion. The intense electromagnetic energy by a nuclear explosion obscures signals and renders many types of radar and other types of electronic equipment useless for minutes or longer.
BLADES	BMD Long Wavelength Infrared Advanced Exoatmospheric Sensor.
Blast Effect	Destruction of or damage to structures and personnel by the force of an explosion on or above the surface of the ground. Blast effect may be contrasted with the cratering and ground-shock effects of a projectile or charge that goes off beneath the surface.
Blast Wave	A sharply defined wave of increased pressure rapidly propagated through a surrounding medium from a center of detonation or similar disturbance.
BLCCE	BMDO Life Cycle Cost Estimate.
BLK	Block (system production lot)
Bik IVA	Navy Standard Missile Block IV-A.
Block	(Communication) This term is used to designate a portion of a multi-message packet which is dedicated to a message contained within the packet.

BMDO GLOSSARY, VER. 2.0

Block Check Character (BCC)	The result of a transmission verification algorithm accumulated over a transmission block, and normally appended at the end, e.g., CRC, LRC.
Blue Forces	Those forces used in a friendly role during exercises.
BM	1. See Battle Management. 2. See Ballistic Missile.
BM/C ³	See Battle Management/Command, Control, and Communications. See also CC/SOIF.
BM/C ³ I	Battle Management/Command, Control, Communications, and Intelligence.
BM/C ³ WG	BM/C ³ Working Group.
BM/C ⁴ I	Battle Management/ Command, Control, Communications, Computers, and Intelligence.
BMD	See Ballistic Missile Defense.
BMDAC	Ballistic Missile Defense Advisory Committee.
BMDAE	Ballistic Missile Defense Acquisition Executive.
BMDARC	Ballistic Missile Defense Acquisition Review Council.
BMDATC	OBSOLETE. Ballistic Missile Defense Advanced Technology Center, Huntsville, AL.
BMDCC	Ballistic Missile Defense Command/Control Center.
BMD Element Program Manager (PM)	A highly qualified individual responsible for day-to-day management and execution of a BMD element program consistent with PM authorities and responsibilities documented in DoDD 5000.1 and DoDI 5000.2.
BMD Event Assessment	An evaluation of information that determines the potential or actual nature and objectives of an attack for the purpose of providing information for timely decisions. Event assessment for ballistic missile attack begins on receipt of event assessment information and continues throughout the attack. The objective of event assessment is to determine the origin of the attack, the country and/or theater under attack, the number and type of missiles/RVs involved in the attack, and what specific targets (impact points) are under attack. This determination may be made based on attack assessment quality launch and impact messages from external systems, information generated by BMD sensors, or any combination.

B

The human evaluation of whether an observed event is real or false. It is a **BMD Event** statement of validity of a warning event determined by a human analysis of Validation equipment, operational environment, and personnel actions. The basis for this judgment is dependent on both of the following: first, in the judgment of sensor site personnel reporting the event, the data exhibits characteristics consistent with pre-determined phenomena attributed to an actual event. Site personnel actions, and hardware and software performance, are determined to be within established system operation specifications. This is a valid site report. Second, when a site report is received at the BMD operations center, it undergoes system report analysis. This process may change the valid site report based on additional factors such as other site reports, intelligence information, and other data. Only after this process has been completed can a determination be made of event validation.

BMDN Ballistic Missile Defense Network.

BMDO See Ballistic Missile Defense Organization.

BMDOC OBSOLETE. See Ballistic Missile Defense Operations Center.

- BMDSCOM OBSOLETE. Ballistic Missile Defense Systems Command (now USASSDC).
- BMEWS See Ballistic Missile Early Warning System.
- BMO OBSOLETE. Ballistic Missile Office (AF).
- BMT Ballistic Missile Threat.
- BN Battalion

Booster An auxiliary or initial propulsion system that travels with a missile or aircraft and that may or may not separate from the parent craft when its impulse has been delivered. A booster system may contain or consist of one or more units.

Booster Inventory Total force inventory.

Boost Phase That portion of the flight of a ballistic missile or space vehicle during which the booster and sustainer engines operate.

Boost Segment Defense The first phase of a ballistic missile trajectory during which it is being powered by its engines. During this phase, which usually lasts 3 to 5 minutes for an ICBM, the missile reaches an altitude of about 200 km whereupon powered flight ends and the missile begins to dispense its reentry vehicles. The other phases of missile flight, including midcourse and terminal, take up to the remainder of an ICBM's flight time of 25 to 30 minutes. (USSPACECOM)

Boost Surveillance and Tracking System (BSTS)

BORRG

Ballistic Missile Operational Requirements Review Group.

warning, tracking of ballistic missiles, and attack assessment.

OBSOLETE. An Air Force sensor system in high earth orbit used for early

B

BOSS Background Optical Suppression Sensor.

Bottom-UpA comprehensive review, initiated in March 1993, of the nation's defenseReview (BUR)Strategy, force structure, modernization, infrastructure, and foundations. The
BUR examined U.S. missile defense requirements from a perspective of
identifying options that could meet future needs at an affordable cost.

BP 1. See Brilliant Pebbles 2. See Boost Phase. 3. Battle Planning.

- BPBM Boost Phase Battle Management.
- BPHIT Brilliant Pebbles Hover Interceptor Test.
- BPI 1. Boost Phase Intercept. 2. Boost Phase Interceptor.
- BPL Boost Phase Leakage.
- BPTF Brilliant Pebbles Task Force.
- BPTS Boost Phase Tracking System.
- BRAC Base Realignment And Closure.

Brassboard An experimental device (or group of devices) used to determine feasibility and to develop technical and operational data. It will normally be a model sufficiently hardened for use outside of laboratory environments to demonstrate the technical and operational principles of immediate interest. It may resemble the end item, but is not intended for use as the end item.

BreadboardAn experimental device (or group of devices) used to determine feasibility andConfigurationto develop technical data. It will normally be configured for laboratory use to
demonstrate the technical principles of immediate interest. It may not resemble
the end item and is not intended for use as the projected end item.

- Breakout Execution of acquisition strategy to convert some parts or systems components from contractor furnished to government furnished. Rather than having prime contractor provide from its sources, government goes out to industry directly and procures items.
- Break-Up 1. In detection by radar, the separation of one solid return into a number of individual returns which correspond to the various objects or structure groupings. This separation is contingent upon a number of factors, including range, beam width, gain setting, object size, and distance between objects. 2. In imagery interpretation, the result of magnification or enlargement which causes the imaged item to lose its identity and the resultant presentation to become a random series of tonal impressions.
- Brightness The amount of power that can be delivered per unit solid angle by a directed energy weapon. As used in the BMD program, brightness is the measure of source intensity. To determine the amount of energy per unit area on a target, both source brightness and source-target separation distance must be specified.

(BCO)

Brilliant EyesSuccessor to Space-Based Surveillance and Tracking System (SSTS). BE is also(BE)known as the Space and Missile Tracking System (SMTS), and is now the LEO
element of the SBIRS. See SBIRS.

Brilliant Eyes Probe (BEP) The BE Probe is a concept for a ground launched probe version of the BE spacebased satellite, analogous to the obsolete GSTS, that would leverage heavily the applicable BE Flight Demonstration System (FDS) developed equipment. BEP could be developed and deployed on a shorter schedule and could provide interim above-the-(radar) horizon threat tracking and precommit for the interceptor. The concept requires the addition of non-FDS LWIR sensor to a sub-set of the existing sensor complement, and is part of potential Contingency Deployment Options. Also called the Ground Launched Probe (GLP).

Brilliant PebblesOBSOLETE.Proliferated singlet space-based weapon with autonomous(BP)capability.(Now a subset of the Air Force's Advanced Interceptor
Technologies (AIT) project.)

Broad Concept An approved USSPACECOM planning concept for a complete SDS. It is a topof Operations level concept that is detailed in specific Phase Concepts of Operations.

- BRV Ballistic Reentry Vehicle.
- BS 1. Battle Staff. 2. Broadcast Source.
- BSTS See Boost Surveillance and Tracking System.
- BTI See Balanced Technology Initiative.
- BTOC Battalion Tactical Operations Center (PATRIOT).
- BTRY Battery.
- BTTV Ballistic Tactical Target Vehicle.
- Budget Activity

 A budget activity is a major subdivision of a budget appropriation, generally in mission areas. It records estimates for a component function or activity to be funded by the appropriation.
 Categories within each appropriation and fund account that identify the purposes, projects, or types of activities financed by the appropriation or fund.
- Budget Authority Authority provided by law to enter into obligations which generally result in immediate or future disbursements of Government funds. It may be classified by the period of availability, by the timing of congressional action or by the manner of determining the amount available. Also known as obligational authority.
- Budget Estimate Cost estimate prepared for inclusion in the DoD budget to support an acquisition program.

Budget EstimateThe service submissions to OSD showing budget requirements for inclusion in
the DoD budget. Every other autumn (even years) for two-year budget, every
autumn of odd years for amendment to second year of previously submitted
two year budget.

Built-in TestAny device permanently mounted in the prime equipment and used for theEquipmentexpress purpose of testing the prime equipment, either independently or in(BITE)association with external test equipment.

Bulk Filter The signal processing rejection of detected signals as not being related to objects of interest. The removal of sensor observations from the track files that can be readily assessed by location or signature as non-threat (e.g., stars, boost fragments, etc.).

BUR See Bottom-Up Review.

Burden Costs which cannot be attributed or assigned to a system as a direct cost. Alternative term for overhead.

Burnout The point in time or in the missile trajectory when combustion of fuels in the rocket engine is terminated by other than programmed cutoff.

Burn Rate The monthly rate at which a contractor's funds are expended during the period of the contract.

Burn-ThroughThe distance at which a specific radar can discern targets through the externalRangeinterference being received.

Bus The platform (or "bus"), sometimes referred to as a post-boost vehicle, on a single missile which carries all the warheads on that missile. May also carry penetration aids, decoys, etc.

Bus Deployment Phase That portion of a missile flight during which multiple warheads are deployed on different paths to different targets (also referred to as the post-boost phase). The warheads on a single missile are carried on a platform or "bus" (also referred to as a post-boost vehicle), which has small rocket motors to move the bus slightly from its original path.

BV Boost Vehicle.

BVR Beyond Visual Range.

BW 1. See Biological Weapon. 2. Biological Warfare.

BY Budget Year; Base Year.

C ²	See Command and Control.
C ² E	See Command and Control Element.
C ² P	Command and Control Processor.
C2S	Command and Control System.
C ² Sims	Command and Control Simulations.
C3	Command, Control, and Communications.
C ³ CM	See Command, Control, and Communications Countermeasures.
C ³ I	See Command, Control, Communications, and Intelligence.
C ³ IIT	C ³ I Integration Test.
C ³ TED	C ³ Theater Exploitation Demonstration.
C ⁴	Command, Control, Communications, and Computer Systems.
C ⁴ i	Command, Control, Communications, Computers, and Intelligence.
C ⁴ S	Command, Control, Communication, and Computer Systems.
C Spec	Product specification.
СА	Counter Air.
CAD	Computer-Aided Design.
CADE	Combined Allied Defense Experiment/Effort.
CAE	1. Computer-Aided Engineering. 2. Component Acquisition Executive.
CAIG	Cost Analysis Improvement Group.
CALM	Characterization of Advanced LWIR Mosaic
CALS	1. Computer-aided acquisition logistic support. 2. Continuous acquisition and life-cycle support.
CAM	Computer-aided manufacturing.
Campaign Plan	A plan for a series of related military operations aimed to accomplish a common objective, normally within a given time and space.
C&DH	Communications and Data Handling.

С

- CandidateAny of the following sensors that could potentially be included in a NationalSensorsMissile Defense deployment: UEWR (BMEWS, PAVE PAWS), HAVE STARE,
COBRA DANE, Haystack/Millstone, Haystack Aux, COBRA JUDY, and
potentially other existing sensors.
- CAO Counter Air Operation.
- CAP1. Combat Air Patrol. 2. Civil Air Patrol. 3. Crisis Action Planning.4. Configuration and Alarm Panel.
- Capital Satellite A highly valued or costly satellite, as distinct from an inexpensive decoy satellite. Some decoys might be so expensive as to be considered capital satellites.
- Capstone TestA Test and Evaluation Master Plan which addresses the testing and evaluationand Evaluationof a defense system comprised of a collection of "stand alone" componentMaster Plansystems which function collectively to achieve the objectives of the defense(Capstone TEMP)system.
- CAR 1. Command Assessment Review (AF). 2. Configuration Audit Review.
- CARD See Cost Analysis Requirements Document.
- CARM Counter Anti-Radiation Missile (PATRIOT).
- **Carrier System** A means of obtaining a number of channels over a single path by modulating each channel upon a different "carrier" frequency, and demodulating at the receiving point to restore the signals to their original form.
- **Carrier Vehicle** A space platform whose principal function is to house the space-based (CV) interceptors in a protective environment prior to use.
- CAS Close Air Support.
- CASE 1. See Common Automated System Execution. 2. Computer-Aided Software Engineering
- CAT 1. Computer Aided Testing. 2. Crisis Action Team. 3. Category.
- Cat House A second-generation Soviet phased array radar that augments Moscow's existing search and target acquisition radars (Dog House). It also enhances their battle management capabilities.
- CATO 1. Combined Arms Tactical Operations (US Army). 2. OBSOLETE. Common Automated Tactical Operations.
- C-B Chemical-Biological.
- CB Chemical Biological.
- CBD 1. Commerce Business Daily. 2. CINC BM/C³ Demonstrator.

СВМ	Central Battle Management.
CBR	1. Chemical, Biological, Radiological. 2. Concurrent Budget Resolution.
CBU	1. Cluster Bomb Unit. 2. Conference Bridge Unit.
сс	See Command Center.
CCA	 Contingency Capabilities Assessment. 2. Carrier-Controlled Approach. Circuit Card Assembly.
ССВ	1. Community Counterterrorism Board. 2. Configuration Control Board.
CCC (BMD)	See Consolidated Command Center (CCC) (BMD).
CCD	1. Charge-Coupled Device. 2. Camouflage, Concealment, and Deception.
CCE	OBSOLETE. Command Center Element. Now called Command and Control Element (C ² E).
CCL	Commodity Control List.
ССМ	See Counter-Countermeasures.
CCMPS	Counter-Countermeasure Parametric Study.
CCN	1. Contract Change Notice. 2. Configuration Change Notice.
ccs	Combat Control System (AEGIS).
CC/SOIF	OBSOLETE. Command Center/System Operation and Integration Functions. (See C ² E and SOIF.)
CD	1. Concept Definition. 2. Contingency Deployment.
CDD	Concept and Development Definition.
CDI	1. Conventional Defense Initiative. 2. Compressed Data Interface. 3. Classification, Discrimination, and Identification (PATRIOT).
CDO	Contingency Deployment Option.
CDP	Contingency Deployment Planning.
CDR	See Critical Design Review.
CDRL	See Contract Data Requirements List.
CDS	Congressional Descriptive Summary.
CDSSI	Common Data Sharing System Infrastructure.
CDV	Concept Definition Vehicle.
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CE	1. Concurrent Engineering. 2. Communications Enhancements (PATRIOT). 3. Corps of Engineers/Civil Engineers. 4. Current Estimate. 5. Communications- Electronics. 6. Command Element.
Cease Engagement	In air defense, a fire control order used to direct units to stop the firing sequence against a designated target. Guided missiles already in flight will continue to intercept.
Cease Fire	A command given to refrain from firing on, but to continue to track objects. Missiles already in flight will be permitted to continue to intercept.
CEATM	Cost Effectiveness At The Margin.
CEC	Cooperative Engagement Capability.
CECOM	U.S. Army Communications Electronics Command, Ft. Monmouth, NJ.
CE/D	Concept Exploration/Definition Phase.
CED	Concept Exploration and Development.
CELV	Complementary Expendable Launch Vehicle.
CEM	Combined Effects Munition.
Centralized Command	Operational concept which specifies that critical C^2 is collected and key C^2 decisions are performed at a central location by USCINCSPACE, or his designee, to ensure continuous and positive human control over the system.
Centralized Control	The control mode whereby a higher echelon makes direct target assignments to fire units. (USSPACECOM)
Centralized Management	The concept of using a single, designated management authority. It includes system management, program/project management, and product management.
CEOI	Communications Electronics Operating Instructions.
CEP	1. See Circular Error Probable. 2. Consolidated Evaluation Process.
CERES	Center for Research Support, NTF, Falcon AFB, CO.
Certification	The technical evaluation of a system's security features, made as a part of and in support of the approval/accreditation process, that established the extent to which a particular computer system's design and implementation meet a set of specified security requirements.
CEU	Cooling Equipment Unit.
CEWG	Civil Engineering Working Group.

CFC	Combined Forces Command, Korea.
CFE	1. Conventional Forces Europe. 2. Contractor Furnished Equipment.
CFSR	Contractor Funds Status Report.
CG	 USN guided missile cruiser. Coast guard. Chairman's Guidance (JCS). Commanding General. Center of Gravity. Comptroller General.
Chaff	1. Radar confusion reflectors, which consist of thin, narrow metallic strips of various lengths and frequency responses, used to create false echoes for confusion purposes. 2. Confetti-like metal foil ribbons which can be ejected from spacecraft (or terrestrial vehicles) to reflect enemy radar signals, thereby creating false targets or screening actual targets from the "view" of radar.
Chaff Puff	Volume of space containing a relatively high density of chaff.
Chairman′s Program Assessment (CPA)	Summarizes the views of the Chairman, Joint Chiefs of Staff, on the balance and capabilities of the Program Objective Memorandum (POM) force and the support levels to attain national security levels. The CPA assists the Secretary of Defense in decisions on the FYDP subsequent to receipt of the POMs.
Change Order	Unilateral written order to a contractor to modify a contractual requirement within the scope of the contract, pursuant to the changes clause contained in the contract.
Change of Operational Control (CHOP)	The date and time at which the responsibility for operational control of a force or unit passes from one operational control authority to another.
Checkpoint	Event or point in time during the program before which decision criteria must be met. If decision criteria are not met, BMDO may decide that the program may not proceed through the checkpoint. A checkpoint may correspond to an event such as a program review, test event, or contract award; it may also correspond to a point in time, e.g. six months after contract award.
Chemical Agent	A chemical substance which is intended for use in military operations to kill, seriously injure, or incapacitate personnel through its physiological effects. Excluded from consideration are riot control agents, herbicides, smoke, and flame. See also Biological Agent.
Chemical Laser	A laser in which chemical action is used to produce the laser energy.
Cheyenne Mountain Air Force Base (CMAFB)	CMAFB provides the primary facilities for the command, operations, and processing centers which support the correlation and assessment functions of the ITW/AA system.
СНОР	1. Countermeasures Hands-On Program. Also known as the BMDO Countermeasures Skunkworks. 2. See Change of Operational Control.
CI	1. Counterintelligence. 2. See Configuration Item.

CIC	1. NORAD/USSPACECOM Combined Intelligence Center. 2. Combat Information Center. (U.S. Navy). 3. Content Indicator Code. 4. Communications Interface Controller.
CIF	CINC Initiative Fund.
CIL	Critical Items List.
СІМ	Computer-Integrated Manufacturing.
CINC	Commander-in-Chief.
CINC Decision Set	A group of decisions available to USCINCSPACE to control his forces, including determining operational state, DEFCON, hostile intent, authorizing engagement, selecting preplanned response options, withholding weapons, overriding system directives, and terminating engagement.
CIOTE	Commander's Integrated Open System Technology Evaluator.
Cipher System	A cryptographic system in which cryptography is applied to plain text elements of equal length.
Ciphertext	Unintelligible text or signals produced through the use of cipher systems.
Circular Error Probable (CEP)	An indicator of the delivery accuracy of a weapon system, used as a factor in determining probable damage to a target. It is the radius of a circle within which half of a missile's projectiles are expected to fall or there is a 50% probability that a single projectile shall impact.
CIRRIS	Cryogenic Infrared Radiance Instrumentation for Shuttle.
CIS	 Commonwealth of Independent States. 2. Common Item Support. Communications Interface Shelter.
CITIS	Contractor Integrated Technical Information Service.
CIWS	Close-In Weapon System.
CJTF	1. Commander, Joint Task Force. 2. Combined Joint Task Force.
CL	Chemical Laser.
CLEMENTINE	A flight program to demonstrate lightweight spacecraft technologies.
CLGP	Cannon-Launched Guided Projectile.
Closely Spaced Objects (CSO)	Entire or partial object clusters that cannot be resolved to individual objects due to their close proximity and/or exceeding the sensor resolution capability due to the range or the lack of suitable sensor viewing angles.
Closure	In transportation, the process of a unit arriving at a specified location. It begins with the arrival of the first element at a designated location and ends with the arrival of the last.

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Clutter	Permanent echoes, cloud, or other atmospheric echo on radar scope.
CLS	1. Command and Launch Station. 2. Contractor Logistic Support.
Clump	Two or more objects that give rise to a single observation, e.g., an extended object consisting of at least two unresolved closely spaced objects.
Cluster	1. A total collection of objects each of which is within some metric distance of at least one other object in the collection. 2. A total collection of objects each of whose image on the focal plane of a sensor is within some metric distance of the image of at least one other object in the collection. 3. A set of objects with similar state vectors (based on truth). For example, a reentry vehicle and its penaids deployed at virtually the same time from a post-boost vehicle. 4. For BM/C ³ purposes, a cluster is a group of objects any one of which can be engaged by an interceptor launched at the centroid of the cluster, possibly before the cluster is resolved into separate objects.
Cluster Dispersion	The rate of expansion of a cluster in meters/sec or angle/sec.
Cluster Set	A group of object clusters and debris that originated from a single missile.
СМ	 See Countermeasures. 2. See Configuration Management. 3. Cruise Missile. Chairman's Memorandum. 5. Control Modem
СМАҒВ	See Cheyenne Mountain Air Force Base.
CMAS	Cheyenne Mountain Air Station (replaces CMAFB).
СМС	1. Cheyenne Mountain Complex. 2. Commandant of the Marine Corps.
CMD	1. Cruise Missile Defense. 2. Command.
CMEST	Cruise Missile Engagement Systems Technology.
CMF	1. Common Mode Failure. 2. Conjugate Matched Filter.
CMI	Countermeasure Integration.
CM(N)CC	Cheyenne Mountain National Command Center.
СМОР	Counter Missile Operations Plan.
CMOS	Complementary Metal Oxide Semiconductor.
СМР	1. Configuration Management Plan. 2. Counter Military Potential. 3. Communications Message Processor.
CMTSS	Cheyenne Mountain Training and Simulation Support.
CNA	Center for Naval Analyses.
CNAD	Council of NATO Armaments Directors.

CNC	Computer Numerical Control.
CNO	Chief of Naval Operations.
CNWDI	Critical Nuclear Weapons Design Information.
со	1. Contracting Officer. 2. Change Order. 3. Commanding Officer.
COA	See Course of Action.
Cobra Ball	Modified EC130 OAMP aircraft (see Cobra Eye).
Cobra Dane	L-Band phased array radar at Shemya AFB, AK.
Cobra Eye	Modified EC-135, IR/EO sensors, Shemya AFB, AK.
Cobra Judy	Shipborne phased array radar.
coc	Combat Operations Center.
сосом	See Combatant Command.
Code Template	A software tool used to develop a module for multiple general applications.
COEA	See Cost and Operational Effectiveness Analysis.
Coherence	The matching, in space (transverse coherence) or time (temporal coherence), of the wave structure of different parallel rays of a single frequency of electromagnetic radiation. This results in the mutual reinforcing of the energy of a larger beam. Lasers and radar systems produce partially coherent radiation.
COI	1. Critical Operational Issues. 2. Combat Operations Intelligence.
Collocation	The physical placement of two or more detachments, units, organizations, or facilities at a specifically defined location.
СОМ	1. Collections Operations Management. 2. Commander.
COMAFFOR	Commander, Air Force Forces.
COMAFSPACE	Commander, Air Force Space Command.
COMARFOR	Commander, Army Forces.
COMARSPACE	Commander, Army Space Command.
Combat Area	A restricted area (air, land, or sea) that is established to prevent or minimize mutual interference between friendly forces engaged in combat operations. See also Combat Zone.

Combat Assessment (CA) The determination of the overall effectiveness of force employment during military operations. Combat assessment is composed of three major components: a) battle damage assessment, b) munitions effects assessment, and c) reattack recommendation. The objective of combat assessment is to recommend the course of military operations. The J-3 is normally the single point of contact for combat assessment at the joint force level, assisted by the joint force J-2.

CombatThe agency in a ship or aircraft manned and equipped to collect, display,Informationevaluate, and disseminate tactical information for the use of the embarked flagCenterofficer, commanding officer, and certain control agencies.Certain control,assistance, and coordination functions may be delegated by command to the
combat information center.Also called Action Information Center.

Combat Readiness Synonymous with operational readiness, with respect to missions or functions performed in combat.

Combat Ready Synonymous with operationally ready, with respect to missions or functions performed in combat.

Combat ServiceThe essential logistic functions, activities, and tasks necessary to sustain all
elements of an operating force in an area of operations. Combat service
support includes administrative services, chaplain services, civil affairs, finance,
legal services, laundry, etc.

Combat Support Fire support and operational assistance provided to combat elements. Combat support includes artillery, air defense artillery, engineer, military police, signal, and military intelligence support.

Combat SystemA collection of subsystems including weapon, sensor, and informationTest Installationprocessing equipment together with their interfaces installed for the purposes
of early testing prior to the availability of a first production item, at a test
facility designed to simulate the essential parts of the production item.

Non-transferable command authority established by title 10, United States Combatant Code, section 164, exercised only by commanders of unified or specified Command combatant commands. Combatant Command (command authority) is the (COCOM) authority of a Combatant Commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant Command (command authority) should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commander. Combatant Command (command authority) provides authority to organize and employ commands and forces as the CINC considers necessary to accomplish assigned missions. Also called COCOM. See also Combatant Commander.

CombatantA commander-in-chief of one of the unified or specified combatant commandsCommanderestablished by the President.

- CombinedFundamental principals that guide the employment of forces for two or moreDoctrinenations in coordinated actions toward a common objective. It is ratified by
participating nations.
- **Combined Force** A military force composed of elements of two or more allied nations.
- CombinedAn operation conducted by forces of two or more allied nations acting togetherOperationto accomplish a single mission.
- COMINT See Communications Intelligence.
- COMM Communications.
- **Command** For command-oriented functions, the authorization required to perform command operations.
- Command and Control (C²) The exercise of authority and direction by properly designated commanders over assigned forces to accomplish the mission. Command and control functions are performed through a hierarchical arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.
- Command andDistributed informed system consisting of processors, software, man-machineControl Elementinterfaces, and communications media that provides USCINCSPACE with the(C²E)capability to plan, command, and control BMD operations.
- Command andThe facilities, equipment, communications, procedures, and personnel essentialControl Systemto a commander for planning, directing, and controlling operations of assignedforces pursuant to the missions assigned.
- **Command Center** (CC) A facility from which a commander and his representatives direct operations and control forces. It is organized to gather, process, analyze, display, and disseminate planning and operational data and perform other related tasks.

Command,
Control, and
Communications
(C³CM)1. Counter C³ - That division of C³CM comprising measures taken to deny
adversary commanders and other decision makers the ability to command and
control their forces effectively.2. C³ Protection - That division of C³CM
comprising measures taken to maintain the effectiveness of friendly C³ despite
adversary counter - C³ actions.

Command,
Control,1. Procedures and technologies supporting command and control,
communications, and intelligence requirements, including those interfaces
affecting systems external to the Strategic Defense System. 2. One of the four
pillars of TMD capability. Coordination of other pillars and integration of the
entire TMD system into overall combat operations.

Command, Control, Communications, and Computer Systems (C ⁴ Systems)	Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander's exercise of command and control, through all phases of the operational continuum.
Command Destruct Signal	A signal used to intentionally activate the destruction system in a missile.
Commander-in- Chief United States Space Command (USCINCSPACE)	The unified commander of USSPACECOM responsible for Ballistic Missile Defense and other assigned missions e.g., Space Control, Space Support, and Space Defense.
Command Guidance	A guidance system wherein intelligence transmitted to the missile from an outside source causes the missile to traverse a directed flight path.
Command Net	A communications network which connects an echelon of command with some or all of its subordinate echelons for the purpose of command control.
Command Verification	The verification of commands from the Battle Manager or Operational Commander prior to execution to confirm the command was correctly received and properly issued.
Command Post Exercise (CPX)	An exercise in which the forces are simulated, involving the commander, his staff, and communications within and between headquarters.
COMMARFOR	Commander, Marine Forces.
Commit	The process of committing one or more interceptor vehicles against a target track.
Commitment	A firm administrative reservation of funds for future obligations by the local comptrollers. Based upon firm procurement directives, orders, requisitions, authorizations to issue travel orders, or requests.
Common Automated System Execution {CASE}	An Army segment of the Command and Control Element responsible for the SDS functions which task the associated sensors and weapons (e.g., WTA) and process the information resulting from those taskings (e.g., perform multi-sensor track function). Expected to consist of survivable computer hardware and software.
Common Integration and Tacts Execution (CITE)	An Air Force segment of the Command and Control Element that performs multi-sensor data correlation and tactics execution for space based elements. Expected to consist of survivable computer hardware and software.
Common Mode Failure	A type of system failure in which diverse components are disabled by the same single cause.

С

41

(COMINT)

CommunicationA functional character intended to control or facilitate transmission over dataControl Characternetworks. There are 10 control characters specified in ASCII which form the
basis for character-oriented communications control procedures.

CommunicationsCommunicationsdatafilesandupdatesincluding,butnotlimitedto,Data Basecommunicationsmessagefile,networkmanagementfile,informationmanagementfile,linkqualityfile,synchronizationfile,securityfileandcommunicationshealthandstatusfile.securityfileand

CommunicationsTechnical and intelligence information derived from foreign communications byIntelligenceother than intended recipients.

Communications. The protection resulting from all measures designed to deny unauthorized persons information of value which might be derived from the possession and study of telecommunications, or to mislead unauthorized persons in their interpretation of the results of such possession and study. Communications security includes (1) Cryptosecurity; (2) Transmission security; (3) Emission security; and (4) Physical security of communications security materials and information.

CommunicationsThe communications front end for all Cheyenne Mountain Air Force BaseSystem Segment(CMAFB) missions for non-common user traffic, performing circuit and message(CSS)switching.

CommunicationsCoordination of timing among communications system elements to permitSystemtransmission/reception of messages/data which may be distorted by time delaysSynchronizationand Doppler shifts between communications nodes.

CommunicationsRear part of the theater of operations (behind but contiguous to the combat
zone) which contains the lines of communications, establishments for supply
and evacuation, and other agencies required for the immediate support and
maintenance of the field forces.

COMNAVFOR Commander, Naval Forces.

COMNAV- Commander, Naval Sea Systems Command.

SEASYSCOM

COMNAV- Commander, Naval Space Command.

SPACECOM

COMOPTEVFOR Commander, Operational Test and Evaluation Force (Navy).

ComponentA single official within a DoD component who is responsible for all acquisitionAcquisitionfunctions within that Component. This includes Service Acquisition ExecutivesExecutivefor the Military Departments and Acquisition Executives in other DoDcomponents who have acquisition management responsibilities.

- ComponentThe Component Command Centers (which will contain Army and Air Force
unique capabilities) will be capable of supporting the USSPACECOM Command
CentersCentersCenter and distributed Operations Centers by functioning as "Hot Backups" to
provide for BM/C³ availability and survivability. The Component Command
Centers will be capable of executing real-time control of BMD engagement
operations.
- Component•A major defense acquisition program delegated to the Military Department ofProgramDefense Agency for management.
- **Compton Current** Electron current generated as a result of Compton processes. (See Compton Effect and Compton Electron.)
- **Compton Effect** The scattering of photons (of gamma or x-rays) by the orbital electrons of atoms. In a collision between a (primary) photon and an electron, some of the energy of the photon is transferred to the electron which is generally ejected from the atom. Another (secondary) photon, with less energy, then moves off in a new direction at an angle to the direction of motion of the primary photon. (See Scattering.)
- ComptonAn electron of increased energy ejected from an atom as a result of a ComptonElectroninteraction with a photon. (See Compton Effect.)
- Computer The totality of security safeguards needed to provide acceptable level of protection for automatic data processing (ADP) systems and the classified data processed. Includes all hardware/software functions, characteristics, features; operational, accountability, and access control procedures at the computer and remote terminal facilities; and, the management constraints, physical structures, and devices needed to provide an acceptable level of protection for classified information in any state of storage, processing, display or communication within the ADP system.
- ComputerAn aggregation of software that satisfies an end use function and is designatedSoftwareby the Government for separate configuration management. CSCIs are selectedConfigurationbased on tradeoffs among software function, size, host or target computers,Item (CSCI)developer, support concept, plans for reuse, criticality, interface considerations,need to be separately documented and controlled, and other factors.
- COMSEC See Communications Security.
- COMSOF Commander, Special Operations Forces.
- COMUSE Commander, U.S. Forces Japan.
- COMUSK Commander, U.S. Forces Korea.

ConceptThe initial phase (Phase 0) of the system acquisition process, beginning atExploration &Mission Need Determination.During this phase, the acquisition strategy isDefinitiondeveloped, system alternatives are proposed and examined, and the system
program requirements document is expanded to support subsequent phases.

C

Concept of
OperationsA verbal or graphic statement, in broad outline, of a commander's assumptions
or intent in regard to an operation or series of operations. The concept of
operations frequently is embodied in campaign plans and operation plans; in the
later case, particularly when the plans cover a series of connected operations to
be carried out simultaneously or in succession. The concept is designed to give
an overall picture of the operation. It is included primarily for additional clarity
of purpose.

Concept Plan An operation plan in concept format. Also called CONPLAN.

Concurrency Part of an acquisition strategy which combines or overlaps two or more phases of the acquisition process, or combines development T&E with operational T&E.

Concurrent A systematic approach to the integrated, simultaneous design of products and their related processes, including manufacture and support. This approach is intended to cause developers, from the beginning, to consider all elements of the system life cycle from requirements development through dispersal, including cost, schedule, and performance.

CONEX CONOPS Exerciser.

Configuration A collection of an item's descriptive and governing characteristics, which can be expressed (1) in functional terms (i.e., what performance the item is expected to achieve); and (2) in physical terms (i.e., what the item should look like and consist of when it is built).

Configuration One of the Configuration Management tasks which includes a functional configuration audit (FCA) to validate that the development of a configuration item has been completed satisfactorily and that the configuration item has achieved to specified performance and functional characteristics, and also includes a physical configuration audit (PCA) to verify that the configuration item "As Built" conforms to the technical documentation which defines the configuration item.

ConfigurationThe configuration documentation formally designated by the Government at a
specific time during a system's or configuration item's life cycle. Configuration
baselines, plus approved changes from those baselines, constitute the current
configuration baselines, namely the functional, allocated, and product baselines.

ConfigurationOne of the Configuration Management tasks that involves the systematicControlevaluation, coordination, approval, or disapproval of proposed changes to the
design and construction of a configuration item whose configuration has been
formally approved.

ConfigurationOne of the Configuration Management tasks which requires that, for everyIdentificationchange that is made to an Automated Data processing (ADP) system, the
design and requirements of the changed version of the system should be
identified.

Center (CSOC)

Size (CSIZE)

- Configuration Item (CI) An aggregation of system elements that satisfies an end use function and is designated by the Government for separate configuration management. Configuration items vary widely in complexity, size, and type. Any item required for logistic support and designated for separate procurement is a configuration item. Configuration items are traceable to the work breakdown structure (WBS).
- ConfigurationIn computer modeling and simulation, a discipline applying technical and
administrative oversight and control to identify and document the functional
requirements and capabilities of a model or simulation and its supporting
databases, control changes to those capabilities, and document and report the
changes. See also Accreditation.

CONOPS See Concept of Operations.

ConsolidatedA single command center from which USCINCSPACE/CINCNORAD can direct all
his assigned missions, to include BMD. (USSPACECOM) Located in Colorado
Springs, CO.

ConsolidatedA consolidation of intelligence watch functions within the IntelligenceIntelligenceOperations Center (IOC) consisting of the USSPACECOM ITW Center, theWatch (CIW)NORAD Aerospace Defense Intelligence Center (ADIC), and the Air Force Space
Command Space Intelligence Element (SIE).

Consolidated Series of centers at Falcon AFB, CO which operationally control and maintain **Space Operations** assigned DoD satellites.

ConsolidatedSeries of centers at Onizuka AFB, CA (Sunnyvale), which support launch andSpace Testinitial on-orbit checkout of operational satellites, operate R&D satellites, andCenter (CSTC)serves as a backup to CSOC for operational DoD satellites.

Constellation The number of satellites of a particular system placed in orbit about the earth.

Contact Fuse Device used to detonate warhead on physical contact with another object.

Contingency
Deployment Plan
(CDP)An executable plan designed to deploy an early missile defense capability and
reduce deployment time. The plan provides specific executable deployment
options and describes activities required before and after a deployment
decision. The plan also allows decision makers to have oversight on technical
progress, cost, schedule, and risks associated with a deployment system.

Continuity ofThe degree or state of being continuous in the exercise of the authority vestedCommandin an individual of the armed forces for the direction, coordination, and control
of military forces.

Continuity of The degree or state of being continuous in the conduct of functions, tasks, or duties necessary to accomplish a military action or mission in carrying out the national military strategy. It includes the functions and duties of the commander, as well as the supporting functions and duties performed by the staff and others acting under the authority and direction of the commander. See Devolution of Command.

С

ContractThe activity identified in the DoD Directory of Contract Administration ServicesAdministrationComponents assigned to perform contract administration responsibilities. It is a
general term and includes Defense Contract Management Regions (DCMRs),
Defense Contract Management Area Operations (DCMAOs), and Defense Plant
Representative Offices (DPROs). (Defense Systems Management College
Glossary)

Contract DataDocument used to order ("buy") and require delivery of data. Tells contractorRequirementswhat data to deliver, when and how it will be accepted, where to look forList (CDRL)instructions, etc.

ContractA funded effort, normally by two or more competing contractors, to establishDefinitionspecifications, to select technical approaches, to identify high-risk areas, and to
make cost and production time estimates for developing large weapons
systems.

Contract WorkThe complete WBS for a contract, developed and used by a contractor withinBreakdownthe guidelines of MIL-STD 881A, and in accordance with the contractStructurestatement of work.

Contracting A person with the authority to enter into, administer, or terminate contracts and make related determinations and findings. The term includes any authorized representatives of the CO acting within the limits of their authority. A CO whose primary responsibility is to administer contracts is an Administrative Contracting Officer. One whose primary responsibility is to terminate contracts and/or settle terminated contracts is a Termination Contracting Officer. A single contracting officer may be responsible for duties in any or all of these areas.

Control Authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations.

Control(Software) The process of extracting the essential characteristics of control byAbstractiondefining abstract mechanisms and their associated characteristics while
disregarding low-level details and the entities to be controlled.

Control andAn element of the US Air Force tactical air control system, subordinate to the
tactical air control center, from which radar control and warning operations are
conducted within its area of responsibility.

Control andAn element of the US Air Force tactical air control system, subordinate to theReporting Postcontrol and reporting center, that provides radar control and surveillance within
its area of responsibility.

Control Area A controlled airspace extending upwards from a specified limit above the Earth.

Controlled Environment

ControlThe means used to control the orderly communication of information betweenProcedurestations on a data link. Also called line discipline. (See Protocol.)

Area where entry into the radiation hazard area is controlled.

BMDO GLOSSARY, VER. 2.0

Control Station	The station on a network which supervises the network control procedures such as polling, selecting, and recovery. It also is responsible for establishing order on the line in the event of contention, or any other abnormal situation, arising between any stations on the network.
Control Zone	The space, expressed in feet or radius, that surrounds equipment that is used to process sensitive defense information and that is under sufficient physical and technical control to preclude an unauthorized entry or compromise.
CONUS	Continental United States.
Conventional Co- Production	An effort between governments to produce the same end item, or components of the same end item, in concert.
Conventional Weapon	A weapon that is neither nuclear, biological, nor chemical.
Coordinated Engagement Planning/Actions	Necessary coordination among engagement components to ensure maximum effectiveness of the SDS and resources are not wasted on targets already targeted.
Coordinating Authority	A commander or individual assigned responsibility for coordinating specific functions of activities involving forces of two or more Services or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be reached, the matter shall be referred to the appointing authority.
Co-Production	Production of a defense system in two or more countries. Involves the transfer of production technology and complex or sensitive subsystem components from the country of origin to countries producing the system. Recipient may expand production to include subsystems and components.
COR	Contracting Officer's Representative. See Contracting Officer.
Corner Reflector	1. A device, normally consisting of three metallic surfaces or screens perpendicular to one another, designed to act as a radar target or marker. 2. In radar interpretation, an object that, by means of multiple reflections from smooth surfaces, produces a radar return of greater magnitude than might be expected from the physical size of the object.
Corps SAM	OBSOLETE. See Medium Extended Air Defense System.
Correlation	1. The process of relating observations or tracks from one set of data to observations or tracks from another set of data, i.e., collecting data from different frames or sensors that presumably relate to the same target. 2. In air defense, the determination that an aircraft appearing on a radarscope, on a plotting board, or visual is the same as that on which information is being received form another source. 3. In intelligence usage, the process which associates and combines data on a single entity or subject from independent observations, in order to improve the reliability or credibility or the information.
COSMIC	NATO security category.

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47

BMDO GLOSSARY, VER. 2.0

Cost AnalysisAn organization within the office of OSD Director, PA&E which advises theImprovementDAB on all matters concerning the estimation, review, and presentation of costGroup (CAIG)analysis of future weapon systems.The CAIG also develops common costestimating procedures for DoD.

Cost AnalysisThe document describing the technical baseline which is a subset of current
system technical data and is used to generate the baseline cost estimate for an
SDS element. It includes, but is not limited to, the element description,
interfaces, operational concept quantity requirements, manpower requirements,
activity rates, schedules, research and development phasing plan, and facilities
requirements.

Cost andAn analysis of the estimated costs and operational effectiveness of alternativeOperationalmateriel systems to meet a mission need, and the associated program forEffectivenessacquiring each alternative.Analysis (COEA)acquiring each alternative.

COTR Contracting Officer's Technical Representative. See Contracting Officer.

COTS Commercial Off-The-Shelf.

Counterair A US Air Force term for air operations conducted to attain and maintain a desired degree of air superiority by the destruction or neutralization or enemy forces. Both air offensive and air defensive actions are involved. The former range throughout enemy territory and are generally conducted a the initiative of friendly forces. The latter are conducted near or over friendly territory and are generally reactive to the initiative of the enemy air forces.

Counter- Measures taken by the defense to defeat offensive countermeasures.

countermeasures (CCM)

Counterforce The employment of strategic air and missile forces in an effort to destroy, or render impotent, selected military capabilities of an enemy force under any of the circumstances by which hostilities may be initiated.

Countermeasure A design or procedural measure taken against covert or overt attacks.

Countermeasures That form of military science that by the employment of devices and/or techniques, has as its objective the impairment of the operational effectiveness of enemy activity.

Countermeasures Improvement or rejection of an object signal in the presence of Rejection countermeasures. (Surveillance)

(COA)

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1. Any sequence of acts that an individual or unit may follow. 2. A possible **Course of Action** plan open to an individual or command that would accomplish or is related to the accomplishment of his mission. 3. The scheme adopted to accomplish a job or mission. 4. A line of conduct in an engagement. 5. A plan to accomplish a mission. It describes the execution concept for BMD of North America. It will specify the engagement priorities, resource allocation and desired results by Area of Operation (AO). (USSPACECOM) 6. The scheme adopted to accomplish a task or mission. It is a product of the Joint Operation Planning and Execution System concept development phase. The supported commander will include a recommended course of action in the commander's estimate. The recommended course of action will include the concept of operations, evaluation of supportability estimates of supporting organizations, and an integrated time-phased data base of combat, combat support, and combat service support forces and sustainment. Refinement of this data base will be contingent on the time available for course of action development. When approved, the course of action becomes the basis for the development of an operation plan or operation order.

1. The ground area represented on imagery, photomaps, mosaics, maps, and Coverage other geographical presentation systems. 2. Cover or protection, as the coverage of troops by supporting fire. 3. The extent to which intelligence information is available in respect to any specified area of interest. 4. The summation of the geographical areas and volumes of aerospace under surveillance.

A covert channel in which one process signals information to another by **Covert Timing** modulating its own use of system resources in such a way that this Channel manipulation affects the real response time observed by the second process.

- Command Post. CP
- 1. Chairman's Program Assessment. 2. Closest Point of Approach. CPA
- Cost Plus Award Fee. CPAF
- Chief of Naval Operations Program Assessment Memorandum (Navy) CPAM
- Charged Particle Beam. CPB
- Cost Plus Fixed Fee. CPFF
- Cost Plus Incentive Fee. CPIF
- 1. Critical Path Method. 2. Contractor Performance Measurement. CPM
- Critical Performance Parameter. CPP
- Cost Performance Report. CPR
- 1. Consolidated Program Summary. 2. Competitive Prototyping Strategy. CPS 3. Current Program Status.
- See Command Post Exercise. CPX

CRC Control and Reporting Center.

CRG Communications Relay Groups (PATRIOT).

Critical Design Review (CDR) A review conducted to determine that the detailed design satisfies the performance and engineering requirements of the development specification; to establish the detailed design compatibility among the item and other items of equipment, facilities, computer programs, and personnel; to assess producibility and risk areas; and to review the preliminary product specifications. Conducted during Phase I, Demonstration and Validation (for prototypes) and Phase II, Engineering and Manufacturing Development.

CriticalSpecific facts about friendly intentions, capabilities, and activities vitally neededInformationby adversaries for them to plan and act effectively so as to guarantee failure or
unacceptable consequences for friendly mission accomplishment.

CriticalA threat capability or threshold established by the program, changes to whichIntelligencecould critically impact on the effectiveness and survivability of the proposedParametersystem.

Critical Issues Those aspects of a system's capability, either operational, technical, or other, that must be questioned before a system's overall suitability can be known, and which are of primary importance to the decision authority in reaching a decision to allow the system to advance into the next phase of design, development, production, or post-production.

Critical A key operational effectiveness or operational suitability issue that must be examined in operational test and evaluation to determine the system's capability to perform its mission. A critical operational issue is normally phrased as a question to be answered in evaluating a system's operational effectiveness and/or operational suitability.

Critical PathA technique that aids dependency of other activities and the time required toMethodcomplete them. Activities, which when delayed have an impact on the totalproject schedule, are critical and are said to be on the critical path.

Critical Risk The existence of a vulnerability that could cause exceptionally grave damage to the viability or the operational effectiveness of the SDS.

Critical Security The existence of a security vulnerability that, if exploited by an adversary, could cause exceptionally grave damage to the viability of the BMD or the operational effectiveness of the SDS. Critical risks assume an adversary's capability to cause major system disruption or degradation (e.g., single point failure), destruction of mission-critical components, or usurpation of system functions.

 Critical
 A technology that program management personnel consider a critical part of

 Supporting
 the program being described.

 Technology
 Technology

- CRLCMP Computer Resources Life-Cycle Management Plan.
- CRO Chemical Release Observation.

CR-UAV	Close Range Unmanned Aerial Vehicle.
CRA	1. Coordinating Review Authority. 2. Command Relationships Agreement.
CRAM	Control Random Access Memory.
CRB	Configuration Review Board.
CRC	1. Control and Reporting Center. 2. Circuit Routing Chart. 3. CONUS Replacement Center.
CRWG	Computer Resource Working Group.
Cryocoolers	Cryogenic Coolers.
Cryogenic	Of or related to cryogens (substances which are used to obtain low temperatures).
Crypto	A designation or marking which identifies classified operational keying material, and which indicates that this material requires special consideration with respect to access, storage and handling.
Cryptographic System	The documents, devices, equipment, and associated techniques that are used as a unit to provide a single means of encryption (enciphering or encoding).
Cryptology	The science that deals with hidden, disguised, or encrypted communications. It includes communications security and communications intelligence.
CSA	Chief of Staff of the Army.
CSAF	Chief of Staff of the Air Force.
CSIP	Current Systems Improvement Program.
csc	Computer Software Component:
CSCI	See Computer Software Configuration Item.
CSI	1. Critical Safety Item. 2. Critical Sustainability Item.
CSIZE	See Constellation Size.
CSO	See Closely Spaced Objects.
CSOC	See Consolidated Space Operations Center.
CSS	 Cooperating Space System. See Communications System Segment. Contractor Support Services.
CSSO	Computer Systems Security Officer.
CSTC	See Consolidated Space Test Center.

ст	1. Counterterrorism. 2. Communications Terminal. 3. Control Telemetry.
CTAPS	Contingency Theater Automated Planning System (USAF).
стсс	Critical Technology Coordinating Committee.
СТD	Communications Test Driver.
CTF	Controlled Test Flights.
стос	Corps Tactical Operations Center.
СТР	1. Critical Technical Parameters. 2. Communication Tasking Plan. 3. Consolidated Targets Program.
СТРР	Consolidated Targets Program Plan.
стт	Commander's Tactical Terminal (US Army).
сти	Control Test Vehicle.
Cued Operation	The directing of one sensor based upon the data received from another sensor.
Cueing Command	The command within a tactic which specifies the sensor element's coverage volume.
Cueing Data	Cueing data is a subset of object tracks within a sensor element's coverage volume.
cv	1. See Carrier Vehicle. 2. USN Aircraft Carrier. 3. Curriculum Vitae.
CVBG	USN aircraft carrier battle group.
CVISC	Combat Visual Information Support Center.
CVN	USN nuclear powered aircraft carrier.
cw	1. Continuous Wave. 2. Chemical Weapon/Warfare. 3. Carrier Wave.
CWAR	Continuous Wave Acquisition Cycle (Hawk).
CWBS	Contract Work Breakdown Structure.
CWDD	Continuous Wave Deuterium Demonstrator.

D Spec	Process specification.
DA	 Department of the Army. 2. Department of Administration. Decision Analysis. 4. Developing Agency/Activity. 5. Data Administrator. Direct Action. 7. Data Adapter.
DAASAT	Direct Ascent Anti-Satellite.
DAB	See Defense Acquisition Board.
DACS	Divert and Attitude Control System.
DADS	Distributed Air Defense Study (1993).
DAE	See Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary.
DAI	Damage Assessment Indicator (targets).
DAL	See Defended Asset List.
DANASAT	Direct Ascent Nuclear Anti-Satellite.
DARO	Defense Aeronautical Reconnaissance Office (OSD).
DARPA	OBSOLETE. Defense Advanced Research Projects Agency. See ARPA.
DART	OBSOLETE. Defense Acquisition Review Team.
DASD	OBSOLETE. Deputy Assistant Secretary of Defense.
DASO	Demonstration and Shakedown Operation.
Data Integrity	The state that exists when computerized data is the same as that in the source documents and has not been exposed to accidental or malicious alteration or destruction.
Datalink	1. The means of connecting one location to another for the purpose of transmitting and receiving data. 2. A particular path between two nodes over which data is transmitted. It includes not only the transmission medium, but digital to analog converters, modems, transmission equipment, antennas, etc., associated with this path. In the SDS backbone network, it was a path between two SDS elements. In space these datalinks were microwave or laser. On the ground, they could have been wireline, microwave, or optical fiber.
DAU	Defense Acquisition University.
Dazzling	The temporary blinding of a sensor by overloading it with an intense signal of electromagnetic radiation (e.g., from a laser or a nuclear explosion).
DBMDO	Director, Ballistic Missile Defense Organization.

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DBMS	Database Management System.
DBOF	Defense Business Operations Fund.
DCA	1. Defensive Counter Air. 2. OBSOLETE. Defense Communications Agency. (Now known as Defense Information Systems Agency (DISA)).
DCAA	Defense Contract Audit Agency.
DCDS	Distributed Computer Design/Development System.
DCI	1. Director of Central Intelligence. 2. Dual Channel Interchange.
DCINC	Deputy Commander-in-Chief.
DCM	See Defensive Counter Measures.
DCN	Document Change Notice.
DCPG	Digital Clock Pulse Generator.
DCS	Deputy Chief of Staff.
DCSOPS	Deputy Chief of Staff for Operations and Plans (Army).
DC-X	Delta Clipper Experimental.
DDCI	Deputy Director of Central Intelligence.
DDG	USN guided missile destroyer.
DDL	Disclosure authority letter.
DDN	Defense Data Network.
DDR&E	Director, Defense Research and Engineering.
DDDR&E	Deputy Director, Defense Research and Engineering.
DE	1. See Directed Energy. 2. Delay Equalizer.
Decentralized Control	In air defense, the normal mode whereby a higher echelon monitors unit actions, making direct target assignments to units only when necessary to ensure proper fire distribution or to prevent engagement of friendly aircraft.
Decentralized Execution	The distributed and integrated implementation of USCINCSPACE direction by the BMD forces. (AFSPACECOM)
Decommissioning	The removal or the rendering useless of obsolete or no longer needed components of the BMD system from service.
Decrement	A directed funding level reduction for an acquisition program.

Dedicated ModeA mode of operation where all users of the AIS possess the required personnelof Operation (ADPsecurity clearance or authorization, formal access approval (if required), and aSecurity)Need-to-Know for all data included in the AIS.

Deep Space (DS) The region of outer space at altitudes greater than 3,000 nautical miles (about 5,600 kilometers) above the earth's surface.

DEFCON See Defense Readiness Conditions.

Defended AssetA ranked listing of facilities, forces, and national political items that requireList (DAL)protection from attack or hostile surveillance. The list is compiled from Federal
departments and agencies, Unified and Specified Commands, and the Armed
Services to ensure National Security Emergency Preparedness functions.

The senior DoD acquisition review board chaired by the Under Secretary of Defense Defense for Acquisition. The Vice Chairman of the Joint Chiefs of Staff is the **Acquisition Board** Other members of the Board are the Deputy Under Secretary of Vice-Chair. (DAB) Defense for Acquisition and Technology, Service Acquisition Executives of the Army, Navy, and Air Force; the Director of Defense Research and Engineering; the Assistant Secretary of Defense for Program Analysis and Evaluation; the Comptroller of the Department of Defense; the Director of Operational Test and Evaluation; the appropriate Defense Acquisition Board Committee Chair; and the Defense Acquisition Board Executive Secretary. Other persons may attend at the invitation of the Chair. (See DoD Directive 5000.49, "Defense Acquisition Board.")

Defense Advisory review groups subordinate to the Defense Acquisition Board. The Acquisition Board Committee Committee is determined by the Under Secretary of Defense for Acquisition. The purpose of the Committee is to review DoD Component programs prior to a Defense Acquisition Board review in order to make an independent assessment and recommendation to the Board regarding the program. (See DoD Directive 5000.49, "Defense Acquisition Board.")

DefenseThe principal advisor to the Secretary of Defense on all matters pertaining to
the Department of Defense Acquisition System. The USD(A) is the DAE and
the Defense Procurement Executive (DoD Directive 5134.1).

DefenseThe DAE's principal mechanism for tracking programs between milestoneAcquisitionreviews. Includes programs subject to the Selected Acquisition Report (SAR),Executiveand any non-SAR programs subject to review by the Defense Acquisition Board.

DefenseEngagement strategy provided to USSPACECOM component forces to achieve
specific military objectives against a ballistic missile attack. It defines hostile
target priorities, provides assets to defend, and allocates SDS resources to be
employed. A number of DEOs may reside in a particular Preplanned Response
Option (PRO). However, default DEOs (those believed to be best suited to
counter the threat initially) will be automatically processed and executed when
Defense Activation Authority (DAA) is given by USCINCSPACE.

DefenseAn Acquisition program designed to streamline the acquisition process byEnterprisewaiver of selected regulatory requirements.

Program (DEP)

Summary (DAES)

Defense In-Depth Locating mutually supportive defense positions in such a manner as to absorb and progressively weaken an attack, prevent initial observations of the entire position by the enemy, and allow the commander to maneuver his reserve.

D

DefenseSatellites designed to meet unique military requirements for weatherMeteorologicalinformation. Used to detect and observe developing cloud patterns and followSatellite Programexisting weather systems. Visible and infrared imagery are used to form three-
dimensional cloud-plural analyses of various weather conditions.

Defense Planning and Resources Board (DPRB) A board, chaired by the Deputy Secretary of Defense, established to facilitate decision making during all phases of the planning, programming, and budgeting system process. Board members include the Secretaries of the Military Departments, the Chairman of the Joint Chiefs of Staff, the Under Secretaries of Defense for Acquisition and Technology, and Policy, the Assistant Secretary of Defense for Program Analysis and Evaluation, and the Comptroller of the Department of Defense.

Defense Planning
Guidance (DPG)Document issued by SECDEF to DoD components providing strategic
framework for developing the Service POMs. Result of planning effort by Joint
Staff, OSD, and Services. Until 1986, issued annually in January. In
connection with two-year budget process, is issued every other (even) year.

Defense Priority
and AllocationThe implementation of a statutory requirement where contracts in support of
national defense must be accepted and performed on a priority basis over all
other contracts, and which requires the allocation of materials and facilities in
such a manner as to promote the national defense. See "DO" and "DX."

DefenseA uniform system of progressive alert postures for use between the ChairmanReadinessof the Joint Chiefs of Staff and the commanders of unified and specifiedConditionscommands and for use by the Services.Defense readiness conditions are(DEFCON)graduated to match situations of varying military severity (status of alert).Defense Readiness Conditions are identified by the short title DEFCON (5), (4), (3), (2), and (1), as appropriate.

Defense Satellite Communications Systems (DSCS) Advanced communications satellites in synchronous orbit around the earth. Provides high-capacity, super high-frequency (SHF) secure voice and data links for the Worldwide Military Command and Control System (WWMCCS). They support terminal deployments for contingencies; restoration of disrupted service overseas; presidential travel; global connectivity for the Diplomatic Telecommunications Services; and transmission to the continental United States of some surveillance, intelligence, and early warning data.

Defense Satellite A device that is intended to defend satellites by destroying attacking ASAT (DSAT) Weapon weapons.

Defense SupportA system of satellites in geostationary orbits, fixed and mobile groundProgram (DSP)processing stations, one multi-purpose facility, and a ground communications
network (GCN). DSP's primary mission is to provide tactical warning and
limited attack assessment of a ballistic missile attack.

DefenseTemporary or transient degradation of the performance of a defensive systemSuppressionbelow the level needed to fulfill its mission objectives, by an opposing force.
(USSPACECOM)

- The arranging of a defensive system to correlate with the phases of a ballistic **Defense Tier** missile trajectory; i.e., boost, post-boost, midcourse, and terminal. Actions taken to eliminate an ASAT attack. **Defensive Counter** Measures (DCM) A committee, generally known as the "Fletcher Panel" after its Chairman, Defensive appointed by (former) President Reagan to investigate the technologies of Technologies potential BMD systems. Study Team (DTST) Defense Special Missiles and Astronautics Center, Ft. Meade, MD. DEFSMAC The inaccuracy associated with a given weapon system resulting in a dispersion **Delivery Error** of shots about the aiming point. See also Circular Error Probable. A numerical index of the maneuverability of a satellite or rocket. It is the **Delta-V** maximum change in velocity which a spacecraft could achieve in the absence of a gravitational field. Altitude at which object of interest (decoy, chaff, etc.) no longer performs its **Demise Altitude** desired function (matching RV characteristics, screening RV, etc.) The acquisition phase when major program characteristics and product designs Demonstration are refined through extensive study and analysis, hardware development, test, and Validation and evaluations. The objective is to validate the choice of alternatives and to (Dem/Val) provide the basis for determining whether or not to proceed into Engineering and Manufacturing Development (EMD). An action to hinder or deny the enemy the use of space, personnel, or facilities. **Denial Measure** It may include destruction, removal, contamination, or erection of obstructions. See Defense Employment Option. DEO A single uniform system whereby all equipment, facilities, and services are Department of planned, designed, developed, acquired, maintained, and disposed of within the Defense Department of Defense. ' The system encompasses establishing and enforcing Acquisition policies and practices that govern acquisitions, to include documenting mission System needs and establishing performance goals and baselines; determining and prioritizing resource requirements for acquisition programs; planning and executing acquisition programs; directing and controlling the acquisition review process; developing and assessing logistics implications; contracting; monitoring the execution status of approved programs; and reporting to Congress. (See DoD Directive 5134.1, "Under Secretary of Defense (Acquisition).")
 - Deployment
 1. The placement of force elements in battle positions to obtain a higher state of readiness.
 2. The movement required to place force elements in battle positions.
 3. Fielding the weapons system by placing it into operational use with units in the field/fleet.
 4. To arrange, place, or move strategically.

57

Deployment Planning	1. The development and maintenance of plans required to initially deploy, maintain, and evolve the operational system in accordance with schedules and priorities. It includes factors such as launch facility availability and planning for the availability of other required elements such as trained personnel or units. In addition, it identifies the impact of deployment on operational readiness and any testing constraints associated with deployment. 2. Encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging areas, and holding areas.
Deployment Testing	The testing and/or simulation of system assets in the physical and operational environment in which they are expected to perform.
DepOpsDep	Service Deputy Operations Deputies.
Depressed Trajectory	Trajectory with an apogee below that of the minimum-energy trajectory.
Derivative Classification	A determination that information is in substance the same as information currently classified and the application of the same classification marking.
DES	Data Encryption Standard.
Design Constraints	Boundary conditions within which the developer must remain while allocating performance requirements and/or synthesizing system elements.
Design Parameters	Qualitative, quantitative, physical, and functional value characteristics that are inputs to the design process, for use in design tradeoffs, risk analyses, and development of a system that is responsive to system requirements.
Design Phase	A period of time in the software life cycle during which the designs for architecture, software components, interfaces, and data are created, documented, and verified to satisfy requirements.
Design-to-Cost (DTC) Goal	Management concept wherein rigorous cost goals are established during development, and the control of systems costs (acquisition, operating, and support) to these goals is achieved by practical tradeoffs between operational capability, performance, costs, and schedule. Cost, as a key design parameter, is addressed on a continuing basis and as an inherent part of the development and production process. A DTC goal should be in the form of average unit flyaway cost. Also, DTC parameters for operation and support will be selected-parameters that are design-controllable, significantly affect O&S costs, and can be measured during test and evaluation. Parameters may be expressed in dollars or by other measurable factors, e.g., manpower, reliability, or maintainability. Firm goals and thresholds will be established no later than entry into EMD (Milestone II). This is an in-house goal, almost contractual in nature, between the PM (Service) and the SECDEF. Allocations from this goal will become the contractual DTC goals for contractors supporting the program.
DETEC	Defense Technology Evaluation Code.

- Detector A passive IR, visible, UV detector turns photons into an electrical signal. The IFOV of the detector is its solid angular subtense. There is sometimes confusion between the detector subtense (size) and the pixel (picture element size). They are the same for a staring sensor, but in a scanner it depends on the array offset and number of samples per dwell. A pixel area is often only one-sixth or one-eighth of a detector angular area.
- **Development Test** I (DT I) A series of tests conducted during the demonstration and validation phase. Components, subsystems, or the total (or full) system are examined to determine whether the system is ready for EMD. State-of-the-art technology is addressed in DT I.
- Development Test II (DT II) A series of tests, normally during EMD, which provide the technical data necessary to assess whether the system is ready for low-rate initial or full production. It measures the technical performance and safety characteristics of the item and evaluates its associated tools, test equipment, training package, and maintenance test package as described in the development plan. DT II addresses accomplishment of engineering design goals and the fulfillment of contract specifications.
- Development Test Tests conducted during production.
- III (DT III)
- Development Test and Evaluation (DT&E) Test and evaluation conducted to measure progress, usually of component/subsystems, and the proofing of manufacturing processes and controls and to assist the engineering design and development process and verify attainment of technical performance specifications and objectives. Usually conducted under controlled or laboratory conditions. Can be conducted before or after production begins.
- **Development Test** Test conducted by the development test organization to achieve specified test **(DT)** objectives. It may be a complete test, a subtest, or a phase of a test.
- **Deviation Criteria** Limits established beyond which a Program Manager may not trade-off cost, schedule, or performance without authorization from the milestone decision authority. Acquisition Program Baseline (APB) thresholds represent these parameters.
- **Devolution of Command** Minimal essential operational capability to perform C2 provided in an orderly and timely fashion to a duly authorized successor.
- DEW 1. See Directed Energy Weapon. 2. Directed Energy Warfare.
- DEW/D Directed Energy Weapon/Discrimination.
- DEWG,O Directed Energy Weapon Ground, Orbital
- DEWL Directed Energy Weapon, Laser (thermal or impulse).
- DEWP Directed Energy Weapon, Particle Beam (neutral or charged).
- DF₂ Deuterium Fluoride.

DEARS	Defense Federal Acquisition Regulation Supplement.
	Dete Euclen Knowledge Based System.
DF-KB5	
DG	OBSOLETE. Defense Guidance. See Defense Planning Guidance.
DIAC	Defense Intelligence Analysis Center.
Diameter	(Optics) The unit of measure of the light gathering power of a lens.
DID	Data Item Description.
Diffraction	The spreading out of electromagnetic radiation as it leaves an aperture. The angle of spread, which cannot be eliminated by focusing, is proportional to the ratio of the wavelength of radiation to the diameter of the aperture.
Digital Processing	The most familiar type of computing, in which problems are solved through the mathematical manipulation of streams of bits.
Dip	A period of significantly decreased RCS signatures of an RV at low altitude (6 to 12 km) between wake termination and desheathing.
DIPS	Dynamic Isotope Power System (which provides up to 10 kW of power).
Direct Air Support Center	A subordinate operational component of a tactical air control system designed for control and direction of close air support and other tactical air support operations, and normally collocated with fire support coordination elements.
Direct Cost	Any cost that is specifically identified with a particular final cost objective. Is not necessarily limited to items that are incorporated into the end product as labor or material.
Direct Labor	Labor specifically identified with a particular final cost objective. Manufacturing direct labor includes fabrication, assembly, inspection and test for constructing the end product. Engineering direct labor consists of engineering labor such as reliability, quality assurance, test, design, etc., that is readily identified with the end product.
Directed Energy (DE)	 Energy in the form of atomic particles, pellets, or focused electromagnetic beams that can be sent long distances at, or nearly at, the speed of light. An umbrella term covering technologies that relate to the production of a beam of concentrated electromagnetic energy or atomic or subatomic particles.
Directed Energy Device	A system using directed energy primarily for a purpose other than as a weapon. Directed energy devices may produce effects that could allow the device to be used as a weapon against certain threats, for example, laser rangefinders.
Directed Energy Weapon (DEW)	A system using directed energy primarily as a direct means to damage or destroy enemy equipment, facilities, and personnel.
DIRLAUTH	Direct Liaison Authorized.
DIRNSA	Director, National Security Agency.

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D

DIS	1. Distributed Interactive Simulation. 2. Defense Investigative Service.
DISA	Defense Information Systems Agency, Washington, DC. (Formerly known as Defense Communications Agency).
Discretionary Judgment	The authority given USCINCSPACE or his duly authorized representative to perform actions not covered by the ROE.
DLA	Defense Logistics Agency, Alexandria, VA.
DMA	Defense Mapping Agency, Fairfax, VA.
DMI	Dual-Mode Interceptor.
DMSO	Defense Modeling and Simulation Office (OSD).
DMSP	See Defense Meteorological Satellite Program.
DMU	Disk Memory Unit.
DNA	Defense Nuclear Agency, Alexandria, VA.
DO	The lowest rating under the DPAS. All "DO" orders take preference over unrated orders to meet a required delivery date.
Doctrine	Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in the application. See also Combined Doctrine.
DoD Component Acquisition Executive	A single official within a DoD Component who is responsible for all acquisition functions within that Component. This includes Service Acquisition Executives for the Military Departments and Acquisition Executives in other DoD Components who have acquisition management responsibilities.
DoD Components	The Office of the Secretary of Defense; the Military Departments; the Chairman, Joint Chiefs of Staff and Joint Staff; the Unified and Specified Commands; the Defense Agencies; and DoD Field Activities.
DoDD	DoD Directive.
DoD Directive 5000.1	"Defense Acquisition." The principal DoD directive on acquisition. It establishes policies, practices and procedures of governing the acquisition of defense acquisition programs.
DoDI	DoD Instruction.
DoD Instruction 5000.2	"Defense Acquisition Management Policies and Procedures." Implements DODD 5000.1.
DoDIIS	DoD Intelligence Information System.
DoDISS	DoD Index of Specifications and Standards.

DoD-M	DoD Manual.
DoE	Department of Energy.
DOF	Degrees of Freedom.
Dog House	A large Soviet A-frame radar used as a component of the Moscow ABM system having a detection range of approximately 3000 km. It is believed to provide battle management for the totality of Moscow defenses.
Doppler Effect	The phenomenon evidenced by the change in the observed frequency of a sound or radio wave caused by a time rate of change in the effective length of the path of travel between the source and the point of observation.
DOT&E	Director, Operational Test & Evaluation.
DOTH	Defense of the Homeland.
Down Select	To reduce the number of contractors working on a program by eliminating one or more for the next phase.
DPA	Defense Production Act.
DPAS	See Defense Priority and Allocation System.
DPAT	Dynamic Program Analysis Tool.
DPB	Defense Policy Board.
DPG	See Defense Planning Guidance.
DPM	Deputy Program Manager.
DPR	Defense Performance Review.
DPRB	See Defense Planning and Resources Board.
DPRO	Defense Plant Representatives Office.
DPSSL	Diode-Pumped Solid State Laser.
DRAM	Dynamic Random Access Memory.
Drawdown Curve	A method used to encapsulate the overall performance of a BMD system that plots the probability of survival on the vertical axis versus the number of attacking RVs on the horizontal axis. Used in conjunction with attack price, they are the most important expressions of a BMD capability.
DRB	Defense Resources Board.
Drift	In ballistics, a shift in projectile direction due to gyroscopic action that results from gravitational and atmospherically induced torques on the spinning projectile.

Drone	A land, sea, or air vehicle that is remotely or automatically controlled. See also Remotely Piloted Vehicle.
DS	See Deep Space.
DSAA	Defense Security Assistance Agency (OSD).
DSAT	See Defense Satellite Weapon.
DSB	Defense Science Board.
DSCS	See Defense Satellite Communications Systems.
DSN	Defense Switched Network.
DSP	1. Defense Support Program. 2. Defense Standardization Program.
DST	Defense Suppression Threat.
D Star	Measure of infrared sensor sensitivity.
DSTAR	Defense Strategic and Tactical Array Reproducibility.
DT	1. Discrimination Technique. 2. See Development Testing. 3. See Development Test I, II, III.
DT&E	See Development Test and Evaluation.
DTC	See Design-to-Cost.
DTIC	Defense Technical Information Center, Alexandria, VA.
DT/OT	Developmental Test/Operational Test.
DTR	1. Demonstration Test Round. 2. Development Test Round.
DTSA	Defense Technology Security Administration.
DTSE&E	Director, Test Systems Engineering and Evaluation.
DTST	See Defensive Technologies Study Team.
DTT	Design-To Threat
Dual Source	Two contractors producing the same components or end items for the same program.
D/V	See Demonstration and Validation.
DX	The highest rating under the DPAS. It takes preference over all other rated and not rated orders on a contractor's production line. The BMD program carries a "DX" rating.

E ² I	See Endo-Exoatmospheric Interceptor.
E ² SRD	Effectively Two System Requirement Document.
E ³	1. Electromagnetic Environmental Effects. 2. Electrical, Electronic, and Electromechanical.
E Spec	Materiel Specification.
EA	1. See Environmental Assessment. 2. Engagement Authorization. 3. Executing Agent. 4. Evolutionary Acquisition.
EAC	Estimated Cost at Completion.
EAD	1. Engineering Analysis and Design. 2. Extended air defense.
EAD/D	Engineering, Analysis, Design and Development.
EADSIM	Extended Air Defense Simulation.
EADTB	Extended Air Defense Test Bed. An object-oriented simulation tool allowing users to model military response to airborne and ballistic missile threats.
EADTBP	Extended Air Defense Test Bed Program.
EAGLE	Extended Airborne Global Launch Evaluator.
EAM	Emergency Action Message.
Early Operational Assessment	An operational assessment conducted prior to, or in support of, Milestone II.
Early User Test (EUT)	A test employing representative users to examine materiel concepts, training or logistics planning, or inter-operability issues. EUT can be accomplished during DEM/VAL on brassboard configurations, experimental prototypes, or surrogates to provide data leading to the decision to enter full-scale development.
Early Warning	 Early detection of an enemy ballistic missile launch, usually by means of surveillance satellites and long range radar. Early notification of the launch or approach of unknown weapons or weapon carriers.
Earth Limb	The apparent outer edge of the earth as viewed from space.
Eastern Test Range (ETR)	Beginning at Patrick AFB, FL, this range stretches half-way around the globe where it meets the Western Test Range. An array of launch complexes, sensors, and tracking sites make up the Eastern Test Range. The ETR is now operated by AFSPACECOM as shown in WTR definition.
EC	1. Electronic Combat. 2. Error Control. 3. OBSOLETE. European Community. Now known as the European Union (EU).
ECAC	Electromagnetic Compatibility Analysis Center.

ECCM	Electronic Counter-Countermeasures.
ECDs	See Element Control Directives.
ECM	Electronic Countermeasures.
ECO	Engagement Control Orders.
ECP	1. See Engineering Change Proposal. 2. Emergency Command Precedence.
ECS	Engagement Control Station (PATRIOT).
ECU	Environmental Control Unit.
EDGES	Electronic Data/Guidelines for Element Survivability.
EDM	Engineering Development Model.
EDR	Embedded Data Recorder (PATRIOT).
EDWA	Engagement Determination and Weapons Assignment (PATRIOT).
EED	Electro-Explosive Device.
EEFI	Essential Elements of Friendly Information.
EEI	Essential Elements of Information.
EEU	Electronic Equipment Unit.
EFEX	Endo-Aeromechanics Flight Experiment.
Effective Damage	That damage necessary to render a target element inoperative, unserviceable, nonproductive, or uninhabitable.
Effluent Plume	The pathway of movement of effluents through surface water or air.
EGP	End Game Processor.
EHF	Extremely High Frequency.
EIA	1. Environmental Impact Assessment. 2. See Electronic Industries Association.
EIAP	Environmental Impact Analysis Process.
EIP	Exoatmospheric Interceptor Propulsion.
EIS	1. See Environmental Impact Statement. 2. Explosive Initiation System.
EKV	1. Electromagnetic Kill Vehicle. 2. Exoatmospheric Kill Vehicle.

- Elastic Range The stress range in which a material will recover its original form when the force (or loading) is removed. Elastic deformation refers to dimensional changes occurring within the elastic range.
- **Electromagnetic** A condition when all electromagnetic emissions from electronic, electro-**Compatibility** magnetic, and electro-optical components of a system interact without (EMC) interfering with one another.

Electromagnetic Signals transmitted as radiation through the air, through a vacuum, or through **Emanations** conductors.

- Electromagnetic An electric or magnetic field or combination of the two, as in an electromagnetic wave. Created by electric charges in motion, having both electric and magnetic components oriented at right angles to one another and containing a definite amount of energy.
- **Electromagnetic** A gun in which the projectile is accelerated by electromagnetic forces rather than by an explosion, as in a conventional gun.
- **Electromagnetic Interference (EMI)** Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics/electrical equipment. It can be induced intentionally, as in some forms of electronic warfare, or unintentionally, as a result of spurious emissions and responses, intermodulation products, and the like.
- Electromagnetic Pulse (EMP) The electromagnetic radiation from a nuclear explosion caused by Comptonrecoil electrons and photoelectrons from photons scattered in the materials of the nuclear device or in a surrounding medium. The resulting electric and magnetic fields may couple with electrical/electronic systems to produce damaging current and voltage surges. May also be caused by non-nuclear means.
- Electromagnetic Radiation (EMR) 1. A form of propagated energy, arising from electric charges in motion, that produces a simultaneous wavelike variation of electric and magnetic fields in space. The highest frequencies (or shortest wavelengths) of such radiation are possessed by gamma rays, which originate from processes within atomic nuclei. As one goes to lower frequencies, the electromagnetic spectrum includes x-rays, ultraviolet light, visible light, infrared light, microwaves, and radio waves. 2. Radiation made up of oscillating electric and magnetic fields and propagated with the speed of light. Includes gamma radiation, X-rays, ultraviolet, visible, and infrared radiation, and radar and radio waves.
- Electromagnetics Application of electrical, electronic, and magnetic phenomena to develop devices used in system/subsystem design, excluding employment in the RF spectrum.

Electromagnetic The range of frequencies of electromagnetic radiation from zero to infinity. It is **Spectrum** divided into 26 alphabetically designated bands.

Electronic That division of electronic warfare involving actions taken to insure friendly effective use of the electromagnetic, optical, and acoustic spectra despite the enemy's use of electronic warfare to include high power microwave techniques. (ECCM)

BMDO GLOSSARY, VER. 2.0

Electronic Countermeasure (ECM)

Association (EIA)

Electronic

Industries

Electronics

Intelligence

Electronics

(ELINT)

That division of electronic warfare involving actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum.

A standards organization specializing in the electrical and functional characteristics of interface equipment.

Technical and geolocation intelligence derived from foreign non-communications electromagnetic radiations emanating from other than nuclear detonations or radioactive sources.

The protection resulting from all measures designed to deny unauthorized persons information of value that might be derived from their interception and study of noncommunications electromagnetic radiations, e.g. radar.

Electronic Warfare (EW)

Security (ELSEC)

Any military activity involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. The three major subdivisions are:

 Electronic attack -- Involves the use of electromagnetic or directed energy to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability. Also known as EA. Includes: 1) actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum, such as jamming and electromagnetic deception, and 2) employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams).

 Electronic protection -- Involves actions taken to protect personnel, facilities, and equipment from any effects of friendly or enemy employment of electronic warfare that degrade, neutralize, or destroy friendly combat capability. Also called EP.

 Electronic warfare support -- Involves actions tasked by, or under direct control of, an operational commander to search for, intercept, identify, and locate sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition. Thus, electronic warfare support provides information required for immediate decisions involving electronic warfare operations and other tactical actions such as threat avoidance, targeting, and homing. Also called ES.

ElectronicElectronic warfare environments result from radar and communications jammingWarfare (EW)and other related electromagnetic countermeasures and counter-Environmentscountermeasures. Currently, radar jamming is the sole EW threat for the NMD system.

Electro-Optics Technologies/techniques employed by optical sensors in the wavelength Infrared (EO/IR) spectrum slightly longer than visible but shorter than radio.

Element Control Directives (ECDs) The command and control data instructions to control the conduct of the engagement. ECDs are developed by command and control software based upon variable parameter input by the operators (both pre-planned and real time), and operator defined rule sets embedded in the software. The individual battle management processors use these instructions to accomplish the assigned tasks from the operations order. ECDs are contained within a Task and represent the form of parameter values that influence that resource management processes of Weapon Target Assignment (WTA), Sensor Resource Management (SRM), and Communications Management (CM). There will be numerous ECDs per Task.

Е

Element An Air Force operations center which operates and maintains a BMD weapon or Operations sensor suite. (USSPACECOM)

Center (EOC)

- ELF Extremely Low Frequency.
- ELIAS Earth Limb Infrared Atomic Structure.
- ELINT See Electronics Intelligence.
- ELS Earth Limb Sensor.
- ELSEC See Electronics Security.

ELSI Enhanced Longwave Spectrometer Imager.

ELV Expendable Launch Vehicle.

EmanationsThe protection that results from all measures designed to deny unauthorizedSecuritypersons information of value that might be derived from intercept and analysis(EMSEC)of compromising emanations.

EMC 1. See Electromagnetic Compatibility. 2. Early Midcourse.

EMCON See Emission Control

EMD See Engineering and Manufacturing Development (previously referred to as FSD).

- EMF See Electromagnetic Field.
- EMG See Electromagnetic Gun.
- EMI See Electromagnetic Interference.

EMIP See Exoatmospheric Midcourse Interceptor Program.

EmissionThe selective and controlled use of electromagnetic, acoustic, or other emittersControlto optimize command and control capabilities while minimizing: a) detection by(EMCON)enemy sensors, and b) mutual interference among friendly systems. EMCON
can also be involved in military deception plans. Also called EMCON.

68

EML Electromagnetic Launcher. A device used to launch hypervelocity particles.

EMP Electromagnetic Pulse.

EMR See Electromagnetic Radiation.

EMRLD Excimer Moderate Power Raman-Shifted Laser Device.

- EMSEC See Emanations Security.
- EMV Electromagnetic Vulnerability.
- Enclave Isolated resource an SDS asset which has lost connectivity with other SDS assets with which it normally has connectivity, but is still capable of coordinating with SDS assets to conduct ballistic missile defense. Various combinations of connectivity losses are possible; for example, (1) an operations center has lost connectivity with Higher Authority, yet can still provide sufficient C2 and can still connect with sufficient weapons and sensors to conduct an engagement and (2) an operations center has loss of connectivity with another operations center with which it normally shares data, but can still conduct an engagement.
- Endgame FOV The field of view of the interceptor's sensor during its final maneuvers after target acquisition to intercept the target. May be less than the acquisition FOV.
- End Item The final production product when assembled, or completed, and ready for issue/deployment.
- Endoatmospheric Within the earth's atmosphere; generally considered to be altitudes below 100 km. An endoatmospheric interceptor reaches its target within the atmosphere.

Endo-A ground-based interceptor capable of engaging RVs either endoatmospheric orExoatmosphericexoatmospheric.(Successor to High Endoatmospheric Defense InterceptorInterceptor (E²I)(HEDI).)

ENDOSIM Endoatmospheric Simulation.

Endurance The time an aircraft can continue flying, or a ground vehicle or ship can continue operating, under specified conditions, e.g. without refueling.

- Engage 1. In air defense, a fire control order used to direct or authorize units and/or weapon systems to fire on a designated target. 2. In air intercept, a code meaning, "Attack designated contact."
- Engagement 1. A period of hostilities beginning when the first ballistic missile target undergoes fire from the first defensive weapon. 2. A period beginning whenever any hostile object is identified (designated) as hostile and ending after the last hostile object has been attacked. 3. In air defense, an attack with guns or air-to-air missiles by an interceptor aircraft, or the launch of an air defense missile by air defense artillery and the missile's subsequent travel to intercept.
Surveillance

Engagement The authorization given by USCINCSPACE to use weapon and sensor systems **Authorization** under previously coordinated and authorized rules, procedures, and conditions.

Engagement Control

 That set of coordination, assessment, decision, and direction functions normally implemented automatically to execute the selected battle plan, military strategy and tactics within partitioned battle spaces (i.e., a spatial/functional subdivision of battle management). Includes the determination of: (1) what specific objects to intercept in order to implement the selected military strategy, and (2) which specific interceptors to assign to each attacker to implement the selected tactics within the rules of engagement.
 In air defense, that degree of control exercised over the operational functions of an air defense unit that are related to detection, identification, engagement, and destruction of hostile targets.

EngagementA set of rules and parameters to be used in developing weapon-targetPlanningassignments and for sensor resource management. (USSPACECOM)

Engagement The surveillance required to support RV negation in the midcourse tier.

Engagement Time The time that a weapon takes while engaging a given target. This includes not only firing at the target but all other necessary weapon functions involved that are unique to that particular target.

Engineering and Manufacturing Development (EMD) The third phase in the acquisition process, following Milestone II. The system and its supporting items are fully developed, engineered, designed, fabricated, tested, and evaluated. The intended output is a preproduction system that closely approximates the final product, the documentation necessary to enter the production phase, and the test results demonstrating that the production product will meet stated requirements.

Engineering A proposal to the responsible authority recommending that a change to an original item of equipment be considered, and the design or engineering change be incorporated into the article to modify, add to, delete, or supersede original parts.

EngineeringA funding category including those development programs being engineered forDevelopmentservice use but which have not yet been approved for procurement or
operation. Money under budget activity 6.4.

EngineeringAn advanced prototype used during the Engineering and ManufacturingDevelopmentDevelopment phase (EMD) to resolve design deficiencies, demonstrate maturingModelperformance, and develop proposed production specifications and drawings.

EnvironmentalA concise public document whose primary purpose is to provide sufficientAssessment (EA)analysis of environmental effects of an action to determine whether to prepare
an environmental impact statement or a finding of no significant impact.

Environmental A detailed written statement analyzing the environmental effects of a major Impact Statement Federal action.

(EIS)

EnvironmentalA specialized form of physical security that prevents technical penetration, e.g.,Securitypenetration by waves of electron beams.

- **Environments** The media, conditions, and/or physical objects in which a BMD asset is immersed or surrounded. For BMD systems and elements, the comprehensive environments definition consists of natural, hostile, induced, and storage, transportation and handling categories.
- EO 1. Electro-Optical. 2. Engagement Operations. 3. End Office. 4. Eyes Only.
- EOA Early Operational Assessment.
- EOB 1. Enemy Order of Battle. 2. Electronic Order of Battle.
- **EOC** 1. See Element Operations Center. 2. Emergency Operations Center
- EOCT Element Operations Center Test Bed.
- EO/IR See Electro-Optics Infrared.
- EOM End of Message.

EP 1. See Engagement Planning. 2. Evaluation Plan

Ephemeris/1. A table showing the positions of an object in space at regular intervals ofEphemeridestime.2. A publication giving the computed places of the celestial bodies for
each day of the year or for other regular intervals.

- EPITS Essential Program Information Technology and Systems.
- EPP Electric Power Plant (PATRIOT).

EquipmentThe status of an item of equipment in the possession of an operating unit thatOperationallyindicates it is capable of fulfilling its intended mission and in a systemReadyconfiguration that offers a high assurance of an effective, reliable, and safeperformance.

- ERADCOM OBSOLETE. Army Electronics Research and Development Command. (Now Laboratory Command (LABCOM), Adelphi, MD.)
- ERINT OBSOLETE. Extended Range Interceptor. Now referred to as PAC-3.

ERIS OBSOLETE. Exoatmospheric Reentry Vehicle Interceptor Subsystem. (Predecessor to Ground-Based Interceptor (GBI).)

ERIS(F) OBSOLETE. ERIS Farm.

- ERS 1. Early Release of Submunitions. 2. Emergency Response System.
- ESA Electronically Scanned Array.
- ESC Electronic System Center (AFMC), Hanscom AFB, MA.

E

ESCN	Existing Systems and Center Notebook.
ESD	OBSOLETE. Electronic Systems Division. (Now Electronic Systems Center, Hanscom AFB, MA.)
ESM	1. Electronic Warfare Support Measures. 2. Electronic Support Measures.
ESMC	Eastern Space and Missile Center, Patrick AFB, FL.
ETA	Estimated Time of Arrival.
ETC	1. Electro-Thermal Chemical. 2. Estimated Time-to-Completion.
ETD	1. Estimated Time of Departure. 2. Electronic Transfer Device.
ETERTS	End-to-End Real Time Simulator.
ETI	Estimated Time of Intercept.
ETIC	Estimated Time for Completion.
ETR	1. See Eastern Test Range. 2. Environmental Test Round. 3. Estimated Time to Repair.
EUCOM	European Command. See USEUCOM.
EUT	See Early User Test.
EVA	Extravehicular Activity.
Evasive MRV	A reentry vehicle which maneuvers for the purpose of evading defensive weapons.
Event Based Contracting	Support "event driven acquisition strategy" by linking specific contractual events to the "exit criteria" for the acquisition phase, or to intermediate development events established for the acquisition strategy.
Event Driven Acquisition Strategy	An acquisition strategy that links program decisions to demonstrated accomplishments in development, testing, and production.
Event Validation	A sensor element internal process that results in a determination by the operator that the sensor is healthy and the event reported is real.
Event Verification	The process by which it is decided, from SDS external data, that the event reported is real.
Evolutionary Acquisition	An approach in which a core capability is fielded, and the system design has a modular structure and provisions for future upgrades and changes as requirements are refined. An evolutionary acquisition strategy is well suited to high technology and software intensive programs where requirements beyond a core capability can be generally, but not specifically, be defined.

Evolutionary Requirements Definition	Mission needs are first expressed in broad operational capability terms, then progressively evolved to system specific performance requirements.
EVPA/TEVS	Experimental Version Performance Assessment Test Environment System.
EW	1. See Electronic Warfare. 2. Early Warning.
EW/AA	Early Warning and Attack Assessment.
EWCC	Expanded Weapons Control Computer (PATRIOT).
EWN	Early Warning Net.
EWR	Early Warning Radar.
EWO	Electronic Warfare Officer.
EXCEDE	Electron Accelerator Experiment.
Excimer	A contraction for "excited dimer"; a type of lasant. A dimer is a molecule consisting of two atoms. Some dimers (e.g., xenon chloride and krypton fluoride) are molecules which cannot exist under ordinary conditions of approximate thermal equilibrium but must be created in an "excited" (e.g., energized) condition by special "pumping" processes in a laser.
Excimer Laser (EXL)	A laser in which emission is stimulated when a gas is shocked with electrical energy and the excited medium emits light when returning to a ground state.
Executable Program	A program is executable if the PM has adequate near-term approved funding.
Executing Agent	The individual within the executing element assigned responsibility for managing BMDO funded programs.
Executing Elements	Agencies or organizations (DoD or non-DoD) that are managing BMD-related programs.
Executing Responsibility	Program Manager responsibility.
Exercise	A military maneuver or simulated wartime operation involving planning, preparation, and execution. It is carried out for the purpose of training and evaluation. It may be a combined, joint, or single-Service exercise, depending on participating organizations. See also Command Post Exercise.
Exit Criteria	Program specific accomplishments that must be satisfactorily demonstrated before an effort or program can progress further in the current acquisition phase or transition to the next acquisition phase. Exit criteria may include such factors as critical test issues, the attainment of projected growth curves and baseline parameters, and the results of risk reduction efforts deemed critical to the decision to proceed further. Exit criteria supplement minimum required accomplishments and are specific to each acquisition phase.

E

EXL	See Excimer Laser.
Exoatmospheric	Outside the Earth's atmosphere; generally considered to be altitudes above 100 km.
Exoatmospheric Reentry Vehicle Interceptor Subsystem (ERIS)	OBSOLETE. Interceptor designed to provide functional test validation of GBI.
Exoatmospheric Test Bed (XTB)	Flight qualified and range integrated vehicle to support other programs such as GBI-X.
Exo Decoy	A decoy that matches RV signature exoatmospherically. Exo decoys can use radar and/or optical means to deceive sensors.
Expert Systems	Software programs which use artificial intelligence techniques to capture and apply the non-algorithmic knowledge and procedures of human experts.
Expired Appropriation	An appropriation that is no longer available for new obligation but is still available for disbursement to liquidate existing obligations. Under current legislation no disbursement may be recorded or paid after a five year expiration period. Maintains all original accounting identity, e.g. FY, appropriation, PE, etc.
EXPLAN	Exercise Plan.
Explicit Coordination	A battle management technique which communicates results, decisions or command from one battle manager to another, usually from a higher command to a lower command.
Extended Planning Annex	A document providing program guidance for an additional 10 years beyond the POM.

E

FA	1. Field Artillery. 2. Feasibility Assessment.
FAAD	Forward Area Air Defense (US Army).
FAAWC	Fleet/Force Anti-Air Warfare Commander.
FAB	Fly Along Probe.
FAD	1. Force Activity Designator. 2. Feasible Test Date.
Fairing	Structure to protect the payload during ascent phase.
FAIT	Fabrication Assembly, Inspection/Integration, and Test.
FAR	See Federal Acquisition Regulation.
Far Field	The region far from an antenna compared to the dimensions of the antenna and the wavelength of the radiation.
Fast-Burn Booster (FBB)	A ballistic missile that burns out much more quickly than current versions, possibly before exiting the atmosphere entirely. Such rapid burnout complicates a boost-phase defense.
Fault Tolerance	The ability of a processor to maintain mission effectiveness after some subsystems have failed.
FAS	Fly Away Sensor (TCMP).
FAT	1. First Article Testing. 2. Factory Acceptance Test.
FBB	See Fast-Burn Booster.
FBM	Fleet Ballistic Missile.
FBP	Forward Based Probe.
FCA	See Functional Configuration Audit.
FCN	See Fully Connected Network.
FCRC	OBSOLETE. Federal Contract Research Center.
FCS	Fire Control Section.
FCT	Foreign comparative testing.
FD	First Deployment.
FDG	Foreign Disclosure Guide.
FDR	Final/Formal Design Review.
FDS	1. Flight Demonstration System. 2. Fault Detection System.

 \mathbf{F}

FDT&E See Force Development Test and Experimentation (US Army).

FEA See Functional Economic Analysis.

Feasibility Study A study of the applicability or desirability of any management or procedural system from the standpoint of advantages versus disadvantages in any given case.

FEBA Forward Edge of the Battle Area.

FederalThe primary regulation for use by federal executive agencies for acquisition of
supplies and services with appropriated funds. It directs the defense program
manager in many ways, including contract award procedures, acquisition
planning, warranties, and establishing guidelines for competition. The FAR is
supplemented by the Military Departments and by DoD. The DoD supplement
is called DFARS (Defense FAR Supplement).

FEL See Free Electron Laser.

Fenced Funding An identified aggregation of resources reviewed, approved, and managed as a distinct entity. The proposed program must be implemented within specified resources. Examples of fences areas are: Intelligence and Security, Support to Other Nations.

FER Financial Execution Review.

FET Field Effect Transistor.

FEWS Follow-on Early Warning System.

- FFH Fast Frequency Hopping.
- FFP Firm Fixed Price.

FFRDC Federally Funded Research and Development Center.

FGEP See Fixed Ground Entry Point.

Field of View The angular measure of the volume of space within which the system can (FOV) respond to the presence of a target.

Fighting Mirror Part of the GBL System. The low orbit mirror which receives laser energy and (FMIR) reflects it to the target.

Figure of Merit The numerical value assigned to a measure of effectiveness, parameters, or **(FOM)** other figure, as a result of an analysis, synthesis, or estimating technique.

FIP Federal Information Processing.

Fire Control The control of all operations in connection with the application of fire on a target.

BMDO GLOŞSARY, VER. 2.0

Fire Control System A group of interrelated fire control equipment and/or instruments designed for use with a weapon or group of weapons.

A measure employed by land or amphibious commanders to facilitate the rapid

engagement of targets and simultaneously safeguard friendly forces.

Fire Support Coordinating Measure

Fire Support Coordinating Line (FSCL) A line established by the appropriate ground commander to ensure the coordination of fire not under the commander's control but may affect current tactical operations. The fire support coordination line is used to coordinate fires of air, ground, or sea weapons systems using any type of ammunition against surface targets. The fire support coordination line should follow well defined terrain features. The establishment of the FSCL must be coordinated with the appropriate tactical air commander and other supporting elements of the FSCL without prior coordination with the ground force commander provided the attack will not product adverse effects on or to the rear of the line. Attacks against surface targets behind this line must be coordinated with the appropriate ground force commander.

Firing Doctrine The ratio and manner of assigning numbers of interceptors against given attackers. Alternatives include: One-on-one, salvo, shoot-look-shoot, shootfail-shoot, etc. The doctrine will be driven by the priority of targets being defended and the number of interceptors available relative to the number of attackers.

Firing Rate The number of missiles fired per site per minute.

FIRMR Federal Information Resources Management Regulation.

First Article First article includes preproduction models, initial production samples, test samples, first lots, pilot models, and pilot lots. Approval involves testing and evaluating the first article for conformance with specified contract requirements before or in the initial stage of production under a contract.

First Strike The first offensive action of a war (generally associated with nuclear operations).

First Unit The scheduled date an end item and its support elements are issued to the initial operational capability unit and training in the new equipment training plan has been accomplished.

Fiscal Guidance The annual guidance issued by the SECDEF in the Defense Guidance which provides the fiscal constraints that must be observed by the DoD Components in the formulation of force structures and the FYDP, and by the OSD in reviewing proposed programs.

Fixed Costs Costs that do not vary with the volume of business, such as property taxes, insurance, depreciation, security, and minimum water and utility fees.

Fixed Ground The subset of GEPs which are not transportable. GEPs provide the communications interfaces between the SDS space orbital/sub-orbital elements (FGEP) and the C²E.

 \mathbf{F}

Fixed GroundAll hardware, software, and facilities located at a fixed ground site necessary toStationreceive, process, support, and analyze mission status and data, anddisseminate operational messages.

FLAGE OBSOLETE. Flexible Lightweight Agile Guided Experiment. (Predecessor program to Extended Range Interceptor (ERINT).)

Operating at ultra high frequency (UHF), FLTSATCOM allows relatively low-cost **Fleet Satellite** terminals with simple antennas for use on highly mobile platforms. It has a Communications relatively small capacity because of its much lower operating frequency. lt System provides a satellite communication system for high-priority communication (FLTSATCOM) requirements for the Navy and Air Force that encompasses almost the entire It consists of satellites in It supports other DoD needs as well. world. geosynchronous equatorial orbit, each with 23 communication channels in the The Navy has exclusive use of 10 channels for UHF and SHF bands. communication with its land, sea, and air forces. The Air Force uses 12 others as part of its AFSATCOM system for command and control of nuclear capable The system has one 500 KHz channel allotted to the national forces. command authorities.

FlexibleThe capability of military forces for effective reaction to any enemy threat or
attack with actions appropriate and adaptable to the circumstances existing.

Flight Path The line connecting the successive positions occupied, or to be occupied, by an aircraft, missile, or space vehicle as it moves through air or space. (It is more commonly referred to as trajectory for space vehicles, especially ICBMs.)

Flight Readiness A missile system test of short duration conducted with the propulsion system operating while the missile is secured to the launcher. Such a test is performed to determine the readiness of the missile system and launch facilities prior to flight test.

Flight Test Test of an aircraft, rocket, missile, or other vehicle by actual flight or launching. Flight tests are planned to achieve specific test objectives and gain operational information.

Flight TestPrototype of airborne or spaceborne hardware used to validate a technologyVehicle (FTV)concept.

FLIR Forward Looking Infrared Radar.

FLHER Funds and Labor Hours Expenditure Report.

FLOT Forward Line of Own Troops.

FLTSATCOM See Fleet Satellite Communications System.

Fluence (orThe product (or integral) of particle (neutron or photon) flux and time,Integrated Flux)expressed in units of particles per square centimeter. The absorbed dose of
radiation (in rads) is related to the fluence. (It should be specified whether this
is incident or absorbed fluence).

Flyaway Cost	The total cost related to the production of a usable end item of military hardware. Flyaway cost includes the cost of procuring the basic unit (airframe, hull, chassis, etc.), a percentage of basic unit cost for changes allowance, propulsion equipment, electronics, armament, and other installed government- furnished equipment, and nonrecurring production costs. Flyaway cost equates to Rollaway and Sailaway cost.
FM	1. Flare Multiunit. 2. Frequency Modulation. 3. Functional Manger. 4. Force Module(s). 5. Field Manual.
FMA	Foreign Military Acquisition.
FMC	Flexible Manufacturing Cell.
FMP	Foreign Materiel Program.
FMIR	See Fighting Mirror.
FMS	1. Flight Mission Simulator (PATRIOT), Huntsville AL. 2. See Foreign Military Sales.
FO	Force Operations (PATRIOT).
FOB	Forward Operations Base.
FOBS	Fractional-Orbital Bombardment System.
FOC	See Full Operational Capability.
Focal Plane	The plane, perpendicular to the optical axis of the lens, in which images of points in the object field of the lens are focused.
Focal Plane Array (FPA)	An FPA is a matrix of photon sensitive detectors which, when combined with low noise preamplifiers, provides image data for the signal frequencies of interest.
FOL	Forward Operating Location.
Folded Optics	Any optical system containing reflecting components for the purpose of reducing the physical length of the system or for the purpose of changing the path of the optical axis.
Follow-On Operational Test and Evaluation (FOT&E)	That test and evaluation that is necessary during and after the production period to refine the estimates made during operational test and evaluation, to evaluate changes, and to reevaluate the system to ensure that it continues to meet operational needs and retains its effectiveness in a new environment or against a new threat.
FOM	See Figure of Merit.
FON	Fiber Optic Network.

1. An estimated area of possible reentry or the solid angle of a detector or Footprint linear area of a detector at a certain location. 2. Geographic area in which a focused satellite down-link can be received. Field of Regard. FOR The point in time when a supported commander determines that sufficient **Force Closure** personnel and equipment are in the assigned area of operations to carry out assigned tasks. Tests employing representative users to examine definition of materiel Force Developrequirements or support/assess development of doctrine, training, organization, ment Test and and logistics for system acquisition. (U.S. Army). Experimentation The operational management of the forces. **Force Direction** Army individual assigned to ODCSOPS to serve as HQDA user representative **Force Integration** Provides continuous coordination necessary for for a specific system. Staff Officer integration of a new system into the Army force structure. The assessment of the effectiveness of the defense forces throughout an Force engagement and adjustment of tactics and the system configuration as Management necessary to effectively allocate resources to satisfy mission objectives. The percentage of the missile force that will successfully detonate within 3.5 **Force Reliability** CEPs of the target. Foreign Disclosure Technical Information System. FORDTIS Information that is (1) provided to the United States by a foreign government or Foreign governments, an internal organization of governments, or any element thereof Government with the expectation, expressed or implied, that the information, the source of Information the information, or both, are to be held in confidence; (2) produced by the United States pursuant to or as a result of a joint arrangement with a foreign government or governments or international organization of governments requiring that the information, the arrangement, or both, are to be held in confidence. That portion of U.S. security assistance authorized by the Foreign Assistance Foreign Military Act of 1961, as amended, and the Arms Export Control Act, as amended. The Sales (FMS) recipient provides reimbursement for defense articles and services transferred from the U.S. Includes case sales from stocks (inventories, services, training) by the DoD defense services. A mathematically precise statement of a security policy. To be adequately **Foreign Security** precise, such a model must represent the initial state of a system, the way in Policy Model which the system progresses from one state to another, and a definition of a "secure" state of the system. Technical data pertaining to items, components or processes for the purpose of Form, Fit, and identifying source, size, configuration, mating and attachment characteristics, **Function Data** functional characteristics and performance requirements.

FormalA systems level configuration audit conducted after system testing isQualificationcompleted to ensure that performance requirements have been met.Review

Formerly Information removed from the RESTRICTED DATA category upon joint determination by DoE (or antecedent agencies) and DoD that such information relates primarily to the military utilization of atomic weapons and that such information can be adequately safeguarded as classified defense information.

Forward Edge of the Battle Area (FEBA) The foremost limits of a series of areas in which ground combat units are deployed, excluding the areas in which the covering or screening forces are operating, designated to coordinate fire support, the positioning of forces, or the maneuver of units.

Forward Funding Carry-over of RDT&E funding into second year of appropriations availability. Requires permission from high authority.

- FOS Family of Systems (TMD).
- FOT Follow-On Technologies.
- FOT&E See Follow-On Test & Evaluation.

Fourth Generation A programming environment that produces both screen and report utilities for use by lower-level programming environments.

- FOV See Field of View.
- FP Focal Plane.
- FPA See Focal Plane Array.
- FPI Fixed Price Incentive.
- FOR Formal Qualification Review.

Fragmentation A warhead which releases small solid objects to damage or destroy its targets. Warhead

Free Electron A type of laser which generates radiation by the interaction of an electron beam with a static magnetic or electric field. Loosely speaking, free-electron laser technology resembles and evolved from that used by particle accelerators ("atom smashers"). Lasers which are not free electron lasers are bound electron lasers.

Free Rocket A rocket not subject to guidance or control in flight.

Frequency The act of allocating frequencies, or bandwidths to a telecommunications system, necessary to minimize the potential interference between transmitting/receiving devices. Approval of authorized use of a particular frequency, frequencies, or bands are controlled by governing agencies and international agreement.

FROG	Free Rocket Over Ground.
FRN	Force Requirement Number.
FS ³	Future Strategic Strategy Study.
FSC	1. Fire Solution Computer. 2. Fire Support Coordination.
FSCL	Fire Support Coordination Line.
FSD	OBSOLETE. Full Scale Development Phase. See EMD.
FSE	Fire Support Element.
FT	Flight Test.
FTD	OBSOLETE. Foreign Technology Division (USAF), Wright-Patterson AFB, OH. See NAIC.
FTV	1. Functional Technology Validation. 2. See Flight Test Vehicle.
FTX	Field Training Exercise.
FU	Fire Unit (PATRIOT).
FUE	First Unit Equipped.
Full Mission Capable	Material condition of an aircraft or training device indicting that it can perform all of its missions. Also called FMC.
Full Operational Capability (FOC)	The full attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics, which is manned and operated by a trained, equipped, and supported military unit or force.
Full Rate Production	Production of economic quantities following stabilization of the system design and prove-out of the production process.
Fully Configured End Item	The final combination of end products, component parts, and/or materials which is fully ready for its intended operational use. Normally all production units are fully configured. Research and development units may be considered fully configured if they are or are planned to become operationally equivalent to the production units.
Fully Connected Network (FCN)	A network in which each node is directly connected with every other node.
Functional Analysis	An approach to the solution of a problem, in which the problem is broken down into its component function, such as intelligence, firepower, or mobility. Each relevant function is then further analyzed and broken down into smaller functional components until a level of molecularity suitable for solution of the problem is attained.

Functional Baseline	1. Established after the system requirements analysis/design activity has completed the definition of the system functions and associated data, interface characteristics, functional characteristics for key configuration items, and tests required to demonstrate achievement of each specified characteristic. This baseline is normally controlled by the Government. 2. In configuration management, the initial approved technical documentation for a configuration item. 3. Documentation describing a system's functional characteristics and the verification required to demonstrate the achievement of requirements.
Functional Configuration Audit (FCA)	The formal examination of functional characteristics test data for configuration item, prior to acceptance, to verify that the item has achieved the performance specified in its functional or allocated configuration identification.
Functional Economic Analysis (FEA)	A structured proposal that serves as the principal part of a decision package for enterprise leadership. It includes an analysis of functional process needs or problems; proposed solutions, assumptions, and constraints; alternatives; life- cycle costs; benefits and/or cost analysis; and investment risk analysis. It is consistent with, and amplifies, existing DoD economic analysis policy in DoD Instruction 7041.3.
Functional Kill	The destruction of a target by disabling vital components in a way not immediately detectable, but which nevertheless prevents the target from functioning properly. An example is the destruction of electronics in a guidance system by a neutral particle beam. Also referred to as "soft kill."
Functional Support	Systematized methodologies and procedures, or a common set of standards, applied to materiel acquisition programs.
Functional Technology Validation (FTV)	Program with the intent of proving or disproving a technology is useful for a given application.
Functional Testing	The portion of testing in which the advertised features of a system are tested for correct operation.
Funding Profile	Program funding, usually displayed in columnar spread sheet format by years, starting with previous year through current year and out-years.
Future Years Defense Program (FYDP)	The official DoD document that summarizes forces and resources associated with programs approved by the Secretary of Defense. Its three parts are the organizations affected, appropriations accounts and the 11 major force programs (strategic forces, airlift, R&D, etc.). Under the biennial PPBS cycle, the FYDP is updated in even years in April (POM); October (budget); and then in January (President's budget) of odd years. The primary data element in the FYDP is the Program Element (P.E.). Formerly known as the Five Years Defense Program.
FYDP	See Future Years Defense Program.

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GaAs	Gallium Arsenide.
Galosh	The Soviet Anti-Ballistic Missile system built to defend Moscow from missile attack.
Gamma-Ray	Electromagnetic radiation resulting from nuclear transitions. Although incorrect, high-energy radiation, particularly "bremsstrahlung," is sometimes referred to as gamma radiation.
Gamma-Ray Laser	A laser which generates a beam of gamma rays; also called a "graser." A gamma-ray laser, if developed, would be a type of x-ray laser; although it would employ nuclear reactions, it need not (but might) employ nuclear fission or fusion reactions or explosions.
G&A	General and Administrative costs.
G&C	Guidance and Control.
GARDIAN	General Area Defense Integrated Anti-missile Laser System.
Gateway	An element that contained a node on the SDS backbone network as well as on some other network(s) and would have performed protocol and format conversions necessary to accept messages from one network and retransmit them on the other.
GBFEL	Ground-Based Free Electron Laser.
GBHE	Ground-Based Hypervelocity Gun Experiment.
GBHRG	Ground-Based Hypervelocity Rail Gun.
GBI	OBSOLETE. See Ground-Based Interceptor.
GBI-X	Ground-Based Interceptor Experiment.
GBKV	Ground-Based Kinetic Kill Vehicle.
GBL	Ground-Based Laser.
GBLD	Ground-Based Launcher Demonstration.
GBLRS	Ground-Based Laser Repeater Station.
GBM	Global Battle Managers.
GBMD	Global Ballistic Missile Defense.
GBMI	Ground-Based Midcourse Interceptor.
GBOS	Ground-Based Optical System.
GBPST	Ground-Based Passive Signal Tracking.

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GBR	See Ground-Based Radar.
GBRI	Ground-Based Rocket Interceptor.
GBRT	See Ground-Based Radar Terminal.
GBR-X	The experimental version of the GBR.
GBS	Ground-Based Sensor.
GCA	Guidance, Control, and Avionics.
GCCS	Global Command and Control System.
GCI	Ground Control Intercept.
GCN	Ground Communications Network.
GCS	Ground Control Station.
GEDI	Ground-Based Electromagnetically-Launched Defensive Impactors.
GEM	See Guidance Enhancement Missile (PATRIOT).
General Manager (GM)	OBSOLETE. A senior military official (3-star) reporting to the BMDAE with delegated execution responsibility for overall BMD system acquisition.
General Manager Program Management Directive (GPMD)	OBSOLETE. The primary document used by the GM to direct the Service BMD PEO on the specific actions necessary to fulfill BMD program requirements.
General Specifications	A general specification covers requirements common to two or more types, classes, grades, or styles of products, services or materials; this avoids the repetition of common requirements in detail specifications. It also permits changes to common requirements to be readily affected. General specifications may also be used to cover common requirements for weapons systems and subsystems.
GEO	Geosynchronous Earth Orbit.
GEP	OBSOLETE. Ground Entry Point. See IFICS.
GES	Ground Engineering System.
Geostationary Orbit (GSO)	An orbit 35,784 km above the equator. A satellite placed in such an orbit revolves around the earth once per day, maintaining the same position relative to the surface of the earth. It appears to be stationary, and is useful as a communications relay or as a surveillance post.
GFE	Government Furnished Equipment. See Government Furnished Property.

GFI Government Furnished Information.

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GFM Government Furnished Material.

- **Ghosting** This condition occurs when two or more targets reside close to the same plane also containing two sensors viewing the targets so they are within experimental determination of having the same hinge angle F. Thus, ghosting depends on LOS error and positions.
- GIP Ground Impact Point.

GITIS Government Integrated Technical Information System.

GLCM Ground-Launched Cruise Missile.

GLP Ground Launched Probe. See Brilliant Eyes Probe.

Global The ISTC Global Environment is responsible for the creation, propagation, and Environment maintenance of test scenario common knowledge, how subsets of this information will be determined, and how common knowledge will be disseminated to the various element representations (nodes). The Global Environment performs functions which are common to the scenario such as timing, health, status, state vectors of objects, and effects models.

- Global Positioning System (GPS) The NAVSTAR Global Positioning System is a space-based radio navigation network providing precise positioning and navigation needs of all the military services. In the fully operational configuration, there will be 18 satellites in six orbital planes with an orbit period of 12 hours at 10,900 nautical miles altitude. Each satellite transmits three L-band, pseudo-random noise-coded signals, one S-band, and one ultra high frequency for spacecraft-to-spacecraft data relay.
- Global Protection Against Limited Strikes (GPALS) OBSOLETE. GPALS was an architecture denoting an anti-missile system designed to provide protection against limited ballistic missile strikes, be they deliberate, accidental or unauthorized--whatever their source. GPALS was composed of three interrelated segments: (1) theater ballistic missile defenses, and associated space-based sensors, to protect U.S. forces deployed abroad, and our friends and allies; (2) ground-based defenses, with space sensors, to protect the entire United States against long-range ballistic missiles; and (3) interceptors based in space -- Brilliant Pebbles -- capable of providing continuous, global coverage by intercepting enemy ballistic missiles with ranges greater than several hundred miles.

Global Protection
Against LimitedOBSOLETE. The GPALS Program consisted of six Major Defense AcquisitionPrograms:GPALS System/BMC³, National Missile Defense (NMD), GlobalStrikes (GPALS)Missile Defense (GMD), Upper Tier Theater Missile Defense (UTTMD), CorpsProgramSAM, and PATRIOT. Army PEO GPALS was redesignated PEO Missile Defensesin 1992.

GLOW Gross Lift-Off Weight.

- GLS Ground-Launched Sensor.
- GM 1. Guided missile. 2. See General Manager.

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GMAOC	Ground Mobile Alternate Operations Center.
GMCC	Ground Mobile Command Center.
GMCP	Ground Mobile Command Post.
GMD	Global Missile Defense.
GMROC	See Ground Mobile Regional Operations Center.
GMTT&C	Ground Mobile Tracking, Telemetry, and Control.
GN&C	Guidance, Navigation, and Control.
GOCO	Government Owned, Contractor Operated.
GOES	Geostationary Operational Environmental Satellite.
GOI	Government of Israel.
GOJ	Government of Japan.
GOSG	General Officer Steering Group.
GOTS	Government Off-the-Shelf.
Government Furnished Property	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.)
Government Furnished Property GP	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group.
Government Furnished Property GP GPALS	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes.
Government Furnished Property GP GPALS GPC	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes. Global Protection Center.
Government Furnished Property GP GPALS GPC GPMD	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes. Global Protection Center. See General Manager Program Management Directive.
Government Furnished Property GP GPALS GPC GPMD GPS	Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes. Global Protection Center. See General Manager Program Management Directive. 1. See Global Positioning System. 2. Global Protection System.
Government Furnished Property GP GPALS GPC GPMD GPS Graceful Degradation	 Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes. Global Protection Center. See General Manager Program Management Directive. 1. See Global Positioning System. 2. Global Protection System. A condition in which a system continues to operate, providing service in a degraded mode rather than failing completely or catastrophically.
Government Furnished Property GP GPALS GPC GPMD GPS Graceful Degradation GRASER	 Property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor. (See FAR 45.101.) Group. See Global Protection Against Limited Strikes. Global Protection Center. See General Manager Program Management Directive. 1. See Global Positioning System. 2. Global Protection System. A condition in which a system continues to operate, providing service in a degraded mode rather than failing completely or catastrophically. Gamma-Ray Amplification by Stimulated Emission of Radiation. (See Gamma-Ray Laser.)

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Ground-Based Interceptor (GBI)	A kinetic energy exoatmospheric interceptor with long flyout range to provide, where possible, a multiple engagement capability for defense of the U.S. with a relatively small number of missile launch locations. It is designed to engage post-boost vehicles and/or RVs in the midcourse phase of flight. (USSPACECOM) (Successor to Exoatmospheric Reentry Vehicle Interceptor Subsystem (ERIS).) See EKV.
Ground-Based Interceptor Experiment (GBI-X)	Designed to infuse advanced technology and promote competitive environment for GBI.
Ground-Based Radar (GBR)	A taskable, modular, multi-function, phased-array radar that provides surveillance, tracking and engagement planning data in post-boost, midcourse, and terminal flight phases within its capabilities. It also provides target discrimination, in-flight target updates (IFTUs), and target object maps (TOMs) to interceptor vehicles. See THAAD. (USSPACECOM)
Ground-Based Radar Terminal (GBRT)	The sensor for the NMD system. An X-band, ground-based, phased array radar capable of detecting, tracking, and providing discrimination information to a ground-based interceptor.
Ground-based Surveillance and Tracking System (GSTS)	A fast-response rocket-launched sensor which can support the SDS midcourse sensor suite by employing multiple Long Wavelength Infrared (LWIR) wavebands and a visible waveband sensor to provide tracking and discrimination of potentially lethal targets.
Ground Entry Point (GEP)	OBSOLETE. GEPs provide the communications interfaces between the SDS space orbital/sub-orbital elements and the C ² E. See IFICS.
Ground Mobile Regional Operations Center (GMROC)	Transportable ground segment of the Regional Operations Center.
Ground Zero	The point on the surface of the earth at, or vertically below or above, the center of a planned or actual nuclear detonation.
GSE	1. Ground Support Equipment. 2. Government Support Equipment.
GSFC	Goddard Space Flight Center, Greenbelt, MD.
GSM	Ground Station Module.
GSO	See Geostationary Orbit.
GSR	Ground Station Radar.
GSTS	OBSOLETE. See Ground-based Surveillance and Tracking System.
GSTS(F)	GSTS Farm.

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GTA	Ground Test Accelerator.
GTF	Guided Test Flights.
GTM	Global Track Manager.
GTSF	Guidance Test and Simulation Facility (PATRIOT), Huntsville, AL.
GTV	Guided Test Vehicle.
Guidance	1. Direction, altitude control, and navigation (where appropriate) of sensors or interceptor vehicles. 2. The entire process by which target intelligence information received by a guided missile is used to effect proper flight control to cause timely direction changes for effective target interception.
Guidance Enhanced Missile (GEM)	A companion program to PATRIOT PAC-2 which includes enhancements to the radar to increase intercept range and performance.
Guidance System (Missile)	A system which evaluates flight information, correlates it with target data, determines the desired flight path of the missile, and communicates the necessary commands to the missile flight control system.
Guided Missile	An unmanned vehicle moving above the surface of the earth, whose trajectory or flight path is capable of being altered by an external or internal mechanism.
GVSC	Generic VHSIC (Very High Speed Integrated Circuit) Spaceborne Computer.
GWEN	Ground Wave Emergency Network.

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- HABE High Altitude Balloon Experiment.
- HADS High Altitude Defense System.

HALE UAV High Altitude Long Endurance Unmanned Aerial Vehicle.

Half-ValueThe thickness of a given material which will absorb half the gamma radiationThickness (HVT)incident upon it. This thickness is inversely proportional to its density and also
depends on the energy of the gamma rays.

- HALO High Altitude Observatory.
- Handoff This occurs when information on positions, velocities and tracks are given by one sensor or system to another and the first sensor or system continues to track the objects.
- Handover This occurs when information is passed on to another sensor or system in which the first does not continue to track.
- H&S See Health and Status.
- HAP High Altitude Probe.
- Hard Kill (HK) Destruction of a target in such a way as to produce unambiguous visible evidence of its neutralization.
- Hardening Design and manufacturing process and other measures which may be employed to render military assets less vulnerable.
- Hardness A property of a target; measured by the power needed per unit area to destroy the target. A hard target is more difficult to kill than a soft target.

Hardware-in-the-
Loop (HWIL)Tests in which BM/C³ computer and communication test systems will be in
communication with some of the hardware test facilities developed for other
BMD technology programs.

- Hardware Security Computer equipment features or devices used in an ADP system to preclude unauthorized access to data or system resources.
- HARM High Speed Anti-Radiation Missile.
- HATMD High-Altitude Theater Missile Defense. (U.S. Army)
- HAWK See Homing All-the-Way Killer.
- HCT See Mercury Cadmium Telluride.
- HE 1. High Explosive. 2. High Energy.

Health and Status (H&S)	Health and Status pertains to a unit's ability to assess the conditions of its subsystem functions. The term H&S is used for units in remote locations, such as satellites, where ground controls must interface with BITE to determine operational status of the satellite and its equipment.
Heavy Replicas (HREPS)	Decoys which by virtue of shape, size, and mass, closely approximate an RV's signature. HREPS have significant off- load penalty.
HEDI	OBSOLETE. See High Endoatmospheric Defense Interceptor.
HEDR	High Endoatmospheric Defense Radar.
HEDS	High Endoatmospheric Defense System.
HEI	High Endoatmospheric Interceptor.
HEL	High Energy Laser.
HELKS	High Energy Laser Kill System.
HELSTF	High Energy Laser Systems Test Facility.
HELWS	High Energy Laser Weapon System.
НЕМР	High Altitude Electromagnetic Pulse.
HEMTT	Heavy Expanded Mobility Tactical Truck (US Army prime mover).
Hen House	A Soviet area defense radar used as a component of the Moscow ABM system that provides VHF coverage of space to monitor orbiting satellites and early warning of ICBMs launched from the U.S.
HEO	See High Earth Orbit.
HERA	An improved surrogate TBM test target.
HESP	High Efficiency Solar Panel.
HERO	Hazards of Electromagnetic Radiation to Ordnance (SM-2 Bk IVA).
HF	1. High Frequency. 2. Hydrogen fluoride.
HF/DF	1. High Frequency/Direction Finding. 2. Hydrogen Fluoride/Deuterium Fluoride. (Chemicals used in IR chemical lasers).
HFE	Human Factors Engineering.
HgCdTe	Mercury Cadmium Telluride.
HIBREL	High Brightness Relay.
ніс	See Human-in-Control.

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BMDO GLOSSARY, VER. 2.0

High Density Aerospace Control Zone. HIDACZ

An orbit about the earth at an altitude greater than 3,000 nautical miles (about High Earth Orbit 5,600 kilometers). (HEO)

That portion of the earth's atmosphere, generally above 40 km altitude. High

Endoatmosphere

Interceptor (HEDI)

Hiah

Defense

OBSOLETE. Interceptor concept designed to engage RVs within the (upper or high endo) atmosphere. (Predecessor to Endo-Exoatmospheric Interceptor Endoatmospheric $(E^2I).)$

Airspace designated in an airspace control plan or airspace control order, in High Density which there is a concentrated employment of various weapons and users. A Aerospace Control HIDACZ has defined dimensions, that usually coincide with geographical Zone (HIDACZ) features or navigational aides. Access to a HIDACZ is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapons status within the HIDACZ.

Policy, strategy, doctrine, readiness conditions, and rules of engagement from **Higher Authority** higher authorities for use by the defense system in conducting system Interface operations including specific orders specifying actions such as testing, defense enabling, pre-delegation of authority, etc. Also the reporting of situation assessment and system readiness to higher authority.

A programming language that requires little knowledge of the computer on which a program will run, can be translated into several different machine **High Order** Language (HOL) languages, allows symbolic naming of operations and addresses, provides features designed to facilitate expression of data structures and program logic, and usually results in several machine instructions for each program statement.

Human In-the-Loop. HIL

High to Medium Altitude Air Defense. HIMAD

High Altitude Missile Engagement Zone. HIMEZ

Hot Isostatic Processing. HIP

High Resolution Infrared Auroral Measurements. HIRAM

See Hard Kill. HK

Hit to Kill Vehicle. HKV

Heavy Lift Launch Vehicle. HLLV

(Predecessor program to Homing Overlay Experiment. OBSOLETE. Exoatmospheric Reentry Vehicle Interceptor Subsystem (ERIS).) HOE

See High Order Language. HOL

Homing All-the-
Way Killer1. Upgrades to the HAWK interceptor and radar system to provide the Marine
Corps with a mobile point theater ballistic missile defense capability.2. A
mobile air defense artillery, surface-to-air missile system that provides non-
nuclear, low to medium altitude air defense coverage for ground forces.
Designated as MIM-23.

Homing Device A device, mounted on a missile, to aid its guidance to a target. The homing device uses sensors to detect the position of, or to help predict the future position of a target, and then directs the missile to intercept it. The homing device usually provides frequent target position updates during the flight of the missile.

Homing Guidance A system by which a missile steers itself towards a target by means of a selfcontained mechanism which is activated by some distinguishing characteristics of the target, such as an infrared signature.

HOMS Homing Overlay Mission Simulation.

HOST Hardened Optical Sensor Testbed.

HostileThose environments that result from a BMD system engagement of an enemyEnvironmentthreat or collateral conditions resulting from deliberate hostilities. Hostile
environment categories currently applicable to National Missile Defense are
Nuclear, Battle Debris, and Electronic Warfare.

Host Installation A designated DoD facility that provides non peculiar SDS support to SDS elements.

Hostile Track The classification assigned to a track that, based upon established criteria, is determined to be an enemy threat.

Host Interface The interface between a communications processor and a host computer.

Host NationCivil and/or military assistance rendered by a nation to foreign forces within itsSupportterritory during peacetime, crisis or emergencies, or war based on agreements
concluded between nations.

HPG Homopolar Generator.

HPI High Power Illuminator (Hawk).

HPM High Power Microwave.

HREPS See Heavy Replicas.

HSI See Human Systems Integration.

HTK Hit-to-Kill.

HTS 1. High Temperature Superconducting. 2. Hawaii Tracking Station.

HUD Heads Up Display.

- Human Factors A body of scientific facts about human characteristics. The term covers all biomedical and psychosocial considerations; it includes, but is not limited to, principles and applications in the areas of human engineering, personnel selection, training, life support, job performance aids, and human performance evaluation.
- Human FactorsThe design of man-made devices, systems, and environments to enhance theirEngineeringuse by people. Also called human engineering, human factors, and ergonomics.
- Human-in-Control Human-in-Control provides for the positive control of automated system processes. This is accomplished by requiring human action to provide essential high-level commands such as initiate, terminate, and interrupt. With regards to BMD, 10 USC 2431, Section 224 states that: "No agency of the Federal Government may plan for, fund, or otherwise support the development of command and control systems for strategic defense in the boost or post-boost phase against ballistic missile threats that would permit such strategic defenses to initiate the directing of damaging or lethal fire except by affirmative human decision at an appropriate level of authority." (USSPACECOM)

HumanA category of intelligence derived from information collected and provided byIntelligencehuman sources.

(HUMINT)

Human Systems Integration The human considerations (human factors engineering, manpower, personnel, training, and safety and health hazards) that are integrated into the design effort for the defense system to improve total system performance and reduce costs of ownership by focusing attention on the capabilities and limitations of the soldier, sailor, airman, or Marine.

- HUMINT See Human Intelligence.
- HVAA High Value Airborne Assets.
- HVG See Hypervelocity Gun.

HVL Hypervelocity Launcher (Gun).

- HVM See Hypervelocity Missile.
- HVT See Half-Value Thickness.
- HWCI Hardware Configuration Item.
- HWIL See Hardware-in-the-Loop.

Hypervelocity A gun that can accelerate projectiles to 5 km per second or more; for example, **Gun (HVG)** an electromagnetic or rail gun.

Hypervelocity A missile that can operate at a velocity greater than 4 km per second. **Missile (HVM)**

HYWAYS Hybrids with Advanced Yields for Surveillance.

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1/0	Input/Output.
I&T	Integration and Test.
1&W	Indications and Warning.
A	Information Architecture.
IACF	Industrial College of the Armed Forces.
IADS	Integrated Air Defense System.
ΙΑΤ	Integrated Assembly Test.
IA&T	Installation, assembly, and test.
IATACS	Improved Army Tactical Communications System.
IAW	In Accordance With.
IBC	Impurity Band Conduction.
IBID	Integrated BMC ³ Infrastructure Demonstration
IBPA	Industrial Base/Producibility Analysis.
IBSS	Infrared Background Signature Survey.
IC	1. Intelligence Community. 2. Integrated Circuit.
ICAO	International Civil Aviation Organization.
ICBM	See Intercontinental Ballistic Missile.
ICC	Information and Coordination Central (PATRIOT).
ICD	Interface Control Document/Drawing.
ICE	See Independent Cost Estimate.
ICEDEFFOR	United States Forces Iceland.
ICP	Interface Change Proposal.
ICR	See Integrated Contracting Report.
ICU	Interface Control Unit.
ICWG	Interface Control Working Group.
ID	1. Interactive Discrimination. 2. Identification.

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IDA	Institute for Defense Analysis.
IDB	Integrated Data Base.
IDD	Interface Design Document.
IDEA	Integrated Dose Environmental Analysis.
IDIP	Integrated Development and Initial Production.
IDR	Initial Design Review.
IDS	1. Interface Design Standards. 2. Intrusion Detection System.
IED	Intrinsic Event Discrimination.
IEMP	Induced Electromagnetic Pulse.
IEP	Integrated Evaluation Plan.
IER	See Independent Evaluation Report.
IFF	Identification, Friend or Foe.
IFHV	In-Flight Homing View.
IFICS	In-Flight Interceptor Communications System. IFICS provides the communications link between the ground and the space based NMD assets. The generic term IFICS replaces the obsolete design specific communications system term GEP.
IFOG	Interferometric Fiber Optic Gyroscope.
IFOV	Instantaneous Field of View.
IFT	Integrated Flight Test.
IFTU	See In-Flight Target Update.
IGEMP	Internally Generated Electromagnetic Pulse.
IGSM	Interim Ground Station Module (JSTARS).
IGT	Integrated Ground Test.
IGU	Inertial Guidance Unit.
11	See Impulse Intensity.
IIP	Interoperability Improvement Program.
IIR	1. Intelligence Information Report. 2. Imaging Infrared.

- llities The operational and support requirements a program must address (e.g., availability, vulnerability, producibility, reliability, maintainability, logistics supportability, etc.).
- Illumination Non-interfering impingement of electromagnetic energy on Red, Blue, or Gray satellites and Red ballistic missiles in test.
- ILS See Integrated Logistics Support.
- ILSP See Integrated Logistics Support Plan.
- IM See Information Management.

Imagery Collectively, the representations or objects reproduced electronically or by optical means on film, electronic display devices, or other media.

ImageryIntelligence derived from the exploitation of collection by visual photography,Intelligenceinfrared sensors, lasers, electro-optics, and radar sensors (such as synthetic(IMINT)aperture radar) wherein images of objects are reproduced optically or
electronically on film, electronic display devices, or other media.

- Imaging The process of obtaining a high quality image of an object.
- IMINT See Imagery Intelligence.

IMIP Industrial Modernization Incentives Program.

Immediate Kill A kill mode in which the target is immediately catastrophically destroyed by impact with the KV or KED.

Impact PointPrediction of the point on the earth's surface where a specific RV will impact,Prediction (IPP)usually specified in terms of the circular error probable. The estimate includes
the perturbing effects of the atmosphere and resultant uncertainties.

ImplicitMany independent battle managers (computers) use the same algorithms to
derive a common calculated result. Decisions resulting from these calculations
will be identical even though the calculated results may not be identical.
Decisions or results are not communicated between Battle Managers.

Impulse A mechanical jolt delivered to an object. Physically, impulse is a force applied for a period of time, and the System Internationale Unit of impulse is the newton-second (abbreviated N-s). (See Impulse Intensity.)

ImpulseMechanical impulse per unit area. The System Internationale unit of impulseIntensity (II)intensity is the pascal-second (abbreviated Pa-s). A conventionally used unit of
impulse intensity is the "tap", which is one dyne-second per square centimeter;
hence, 1 tap = 0.1 Pa-s.

Impulse Kill The destruction of a target, using directed energy, by ablative shock. The intensity of directed energy may be so great that the surface of the target violently and rapidly boils off delivering a mechanical shock wave to the rest of the target and causing structural failure.

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IMU Inertial Measurement Unit.

IN 1. Air Force component intelligence officer (staff). 2. Instructor. 3. Impulse Noise.

Inclination The inclination of an orbit is the (dihedral) angle between the plane containing the orbit and the plane containing the earth's equator. An equatorial orbit has an inclination of 0° for a satellite traveling eastward or 180° for a satellite traveling westward. An orbit having an inclination between 0° and 90° and in which a satellite is traveling generally eastward is called a prograde orbit. An orbit having an inclination of 90° passes above the north and south poles and is called a polar orbit. An orbit having an inclination of more than 90° is called a retrograde orbit.

Incremental The provision (or recording) of budgetary resources for a program or project based on obligations estimated to be incurred within a fiscal year when such budgetary resources will cover only a portion of the obligations to be incurred in completing the program or project as programmed. This differs from full funding, where budgetary resources are provided or recorded for the total estimated obligations for a program or a project in the initial year of funding.

IdentificationA system using electromagnetic transmissions to which equipment carried byFriend or Foe (IFF)friendly forces automatically responds, fro example by emitting pulses, thereby
distinguishing themselves from enemy forces.

Imagery The mutual relationship between the different signatures on imagery from Correlation different types of sensors in terms of position and the physical characteristics signified.

Independent An analysis of program cost estimates conducted by an impartial body disassociated from the management of the program. (See Title 10, United States Code, Section 2434, "Independent Cost Estimates; Operational Manpower Requirements.")

Independent Cost A cost estimate prepared by an impartial body outside the chain of authority Estimate (ICE) responsible for acquiring or using the goods or services.

Independent Evaluation Report (IER) Documents the independent evaluation of the system and is based on test data, reports, studies, and simulations. The IER contains the independent evaluator's assessment of key issues, supporting analyses, major findings, and a position on the future capability of the system to fulfill approved requirements. The IER is provided to the DAB to support the MS III decision production decision. An IER may also be used to support LRIP decisions. (U.S. Army)

IndependentEffort by industry that is not sponsored by, or required in performance of, a
contract and which consists of projects falling within the areas of (1) basic and
applied research, (2) development, and (3) systems and other concept
formulation studies. Also, discretionary funds which industry can allocate to
projects. (See FAR 31.001.)

Indium Antimonide

Verification and validation performed by a contractor or Government agency Independent Verification and Validation (IV&V)

that is not responsible for developing the product or performing the activity being evaluated. IV&V is an activity that is conducted separately from the software development activities.

Infrared sensing material.

A test of predetermined critical items to verify their operational characteristics Individual prior to assembly into subsystems. Waivers to this requirement, such as using Acceptance Test the end item acceptance tests, are not recommended as a production expediency.

Induced environments are defined at the system level as the disturbances in the Induced natural environments caused by BMD system influences on other BMD assets Environments (Self-Induced..e.g., GBR radar energy impacting and effecting a GBI in flight) or the influence of other systems external to BMD on BMD assets (Externally-Induced..e.g., high power electric line electromagnetic field effects on C^2E electronic equipment).

Radioactivity produced in certain materials as a result of nuclear reactions, Induced particularly the capture of neutrons, which are accompanied by the formation Radioactivity of unstable (radioactive) nuclei. In a nuclear explosion, neutrons can induce radioactivity in the weapon materials, as well as in the surroundings (e.g., by interaction with nitrogen in the air and with sodium, manganese, aluminum, and silicon in soil and sea water).

A quick-turnaround or a detailed analysis of industrial and/or specific factory Industrial capabilities to determine the availability of production resources required to **Resource Analysis** support SDS. These resources include capital (including machine tools and (IRA) special tooling/test equipment), materiel, and manpower needed to meet the range of SDS requirements. IRA includes the results of feasibility studies, producibility analyses, and technology assessments. Shortfalls discovered in IRAs are assessed for risk levels, based on the reasons for the risks, and become issues listed in the BMDO Producibility Programming and Issues **Resolution Strategies (PPIRS) document.**

A guidance system designed to project a missile over a predetermined path, Inertial wherein the path of the missile is adjusted after launching by devices wholly Guidance within the missile and independent of outside information. The system measures and converts accelerations experienced to distance traveled in a certain direction.

A guidance mechanism designed to project a missile over a predetermined path, Inertial wherein the path of the missile is adjusted after launching by devices wholly **Measurement Unit** within the missile and independent of outside information. The unit measures (IMU) and converts accelerations experienced to distance traveled in a certain direction.

Integrated Effects Tests for Survivability. INETS

99

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In-Flight Target A data report which contains updated, predict ahead target position, time, and Update velocity for interceptor weapons to use in making midcourse correction. (USSPACECOM)

T

Information A description of the information that is needed to support command and control decision making and battle management, where it comes from, the processing that must be performed to provide it, and the resulting behavior. The description provides the invariant framework for interoperability, operational and design flexibility, coping with the unexpected, extensibility, and reusability.

InformationThe planning, budgeting, organizing, directing, training, promoting, controlling,Resourcesand management activities associated with the burden, collection, creation,Managementuse, and dissemination of information by agencies and includes the
management of information and related resources, such as FIP resources.

InformationThose measures and administrative procedures for identifying, controlling, and
protecting against unauthorized disclosure of classified information or
unclassified controlled information, which includes export-controlled technical
data and sensitive information. Such measures and procedures are concerned
with security education and training, assignment of proper classifications,
downgrading and declassification, safeguarding, and monitoring.

Infrared (IR) Electromagnetic radiations of wavelength between the longest visible red (7,000 Angstroms or 7 x 10E4 millimeter) and about 1 millimeter. (See Electromagnetic Radiation.)

Infrared (IR) Technologies/techniques employed by optical sensors in the wavelength Electro-Optics spectrum slightly longer than visible but shorter than radio.

Infrared Imagery That imagery produced as a result of sensing electromagnetic radiations emitted or reflected from a given target surface in the infrared position of the electromagnetic spectrum.

Infrared Sensor A sensor designed to detect the electromagnetic radiation in the wavelength region of 1 to 40 microns.

Initial Operational Capability (IOC) The first attainment of the capability to employ effectively a weapon, item of equipment, or system of approved specific characteristics, and which is manned or operated by a trained, equipped, and supported military unit or force.

Initial OperationalAll operational test and evaluation conducted on production or productionTest andrepresentative articles, to support the decision to proceed beyond low-rateEvaluationinitial production. It is conducted to provide a valid estimate of expected(IOT&E)system operational effectiveness and operational suitability.

In-Line 1. A unit which is operational, not dormant, and is participating with on-going functions. See On-line.

In-Process Review Review of a project or program at critical points to evaluate status and make (IPR) recommendations to the decision authority; also called Interim Program Review.

INS 1. Internal Navigation System. 2. Insert code.

INSCOM U.S. Army Intelligence and Security Command.

InSb See Indium Antimonide.

IntegratedA quarterly report of BMD contracts which defines the roles, relationships, andContractinginterfaces among contracts, contractors, and programs, and provides aReport (ICR)mechanism for strengthening BMDO contracting oversight (formerly known asIntegrated Contracting Plan or ICP).

Integrated FireA system which performs the functions of target acquisition, tracking, dataControl Systemcomputation, and engagement control, primarily using electronic meansassisted by electromechanical devices.

Integrated Logistics Support (ILS) 1. A disciplined, unified, and iterative approach to the management and technical activities necessary to integrate support considerations into system and equipment design; develop support requirements that are related consistently to readiness objectives, to design, and to each other; acquire the required support; and provide the required support during the operational phase at minimum cost. 2. A composite of all the support considerations necessary to assure the effective and economical support of a system for its life cycle. It is an integral part of all other aspects of system acquisition and operation.

Integrated Logistics Support (ILS) Elements

- 1. <u>Maintenance Planning</u>. The process conducted to evolve and establish maintenance concepts and requirements for the lifetime of a materiel system.
- 2. <u>Manpower and Personnel</u>. The identification and acquisition of military and civilian personnel with the skills and grades required to operate and support a materiel system over its lifetime at peacetime and wartime rates.
- Supply Support. All management actions, procedures, and techniques used to determine requirements to acquire, catalog, receive, store, transfer, issue, and dispose of secondary items. This includes provisioning for initial support as well as replenishment supply support.
- 4. <u>Support Equipment</u>. All equipment (mobile or fixed) required to support the operation and maintenance of a materiel system. This includes associated multi-use end items, ground-handling and maintenance equipment, tools, meteorology and calibration equipment, test equipment, and automatic test equipment. It includes the acquisition of logistics support for the support and test equipment itself.
- 5. <u>Technical Data.</u> Recorded information regardless of form or character (such as manuals and drawings) of a scientific or technical nature. Computer programs and related software are not technical data; documentation of computer programs and related software are. Also excluded are financial data or other information related to contract administration.
- 6. <u>Training and Training Support</u>. The processes, procedures, techniques, training devices, and equipment used to train civilian and active duty and reserve military personnel to operate and support a materiel system. This includes individual and crew training; new equipment training; initial, formal, and on-the-job training; and logistic support planning for training equipment and training device acquisitions and installations.
- 7. <u>Computer Resources Support.</u> The facilities, hardware, software, documentation, manpower, and personnel needed to operate and support embedded computer systems.

101

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8. <u>Facilities.</u> The permanent, or semi-permanent, or temporary real property assets required to support the materiel system, including conducting studies to define types of facilities or facility improvements, locations, space needs, utilities, environmental requirements, real estate requirements, and equipment.

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- Packaging, Handling, Storage, and Transportation. The resources, processes, procedures, design considerations, and methods to ensure that all system, equipment, and support items are preserved, packaged, handled, and transported properly, including environmental considerations, equipment preservation requirements for short- and long-term storage, and transportability.
- 10. <u>Design Interface</u>. The relationship of logistics-related design parameters, such as reliability and maintainability, to readiness and support resource requirements. These logistics-related design parameters are expressed in operational terms rather than inherent values and specifically related to system readiness objectives and support costs of the materiel system.

IntegratedThe formal planning document for logistics support. It is kept current through
the program life and sets forth the plan for operational support, provides a
detailed ILS program to fit with the overall program, provides decision-making
bodies with necessary ILS information to make sound decisions in system
development and production, and provides the basis for ILS procurement
packages/specifications RFPs, SOWs, source selection evaluation, terms and
conditions, and CDRLs.

Integrated Priority List A list of a combatant commander's highest priority requirements, prioritized across Service and functional lines. The list defines shortfalls in key programs that, in the judgment of the combatant commander, adversely affect the capability of the his forces to accomplish their assigned mission. The integrated priority list provides the combatant commander's recommendations for programming funds in the Planning, Programming, and Budgeting System process. Also called IPL.

IntegratedA document prepared by the supporting staff or review forum of the milestone
decision authority to support Milestone 1, II, III, and IV reviews. It provides an
independent assessment of a program's status and readiness to proceed into
the next phase of the acquisition cycle.

Integrated A DoD Component document prepared and submitted to the milestone decision Program Summary (IPS) A DoD Component document prepared and submitted to the milestone decision authority in support of Milestone I, II, III, and IV reviews. It succinctly highlights the status of a program and its readiness to proceed into the next phase of the acquisition cycle.

Integrated Tactical Warning and Attack Assessment (ITW/AA) ITW/AA is the integration of ballistic missile warning, space warning, and atmospheric warning with intelligence information for synthesis of all attack warning information, strategic and tactical.

Integrated The conduct of a military operation in any combat environment wherein Warfare opposing forces employ non-conventional weapons in combination with conventional weapons.

1. The combination of separate systems, capabilities, functions, etc. in such a Integration way that individual elements can operate singly or in concert without adversely affecting other elements. (USSPACECOM) 2. Act of putting together as the final end item various components of a system. 1. The product, resulting from the collection, evaluation, analysis, integration Intelligence and interpretation of all available information concerning foreign countries or areas. 2. Information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding. Classified or unclassified actions or information obtainable by an adversary that, Intelligence when properly interpreted, can provide information about friendly capabilities Indicators and intentions. An organization term for all intelligence activities in Cheyenne Mountain AFB. Intelligence The IOC includes the Consolidated Intelligence Watch (CIW), Operational Operations Intelligence Elements, and the Joint SPACECOM Intelligence Center (JSIC) Center (IOC) Cheyenne Mountain Node (JCN). An analytical methodology employed to reduce uncertainties concerning the Intelligence enemy, environment, and terrain for all types of operations. Intelligence Preparation of the preparation of the battlespace builds an extensive data base for each potential **Battlespace** area in which a unit may be required to operate. The data base is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process. Also called IPB. A specific report of information usually on a single item, made at any level of Intelligence command in tactical operations and disseminated as rapidly as possible in Report (INTREP) keeping with the timeliness of the information. An identification of known and potential adversary capabilities to collect and Intelligence exploit information from a given or similar operation. Threat The amount of energy of any radiation incident upon (or flowing through) unit Intensity area, perpendicular to the radiation beam, in unit time. The intensity of thermal radiation is generally expressed in calories per square centimeter per second falling on a given surface at any specific instant. As applied to nuclear radiation, the term intensity is sometimes used, rather loosely, to express the exposure (or dose) rate at a given location. Interactive response data on tracked objects to assist in their classification. Interactive Responses A group of objects which are within divert capability of a deployed interceptor. Interceptor Cluster A function or ability of a sensor to accurately detail an interceptor's position Interceptor Track and velocity in three dimensions. The maximum range at which a sensor can perform the interceptor track Interceptor Track function on a single interceptor in a normal (non-man-made) environment. Range (Max)

Ι

Interchangeability A condition which exists when two or more items possess such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being exchanged one for the other without alteration of the items themselves or of adjoining items, except for adjustment, and without selection for fit and performance.

Interconnection The linking together of interoperable systems.

IntercontinentalA ballistic missile with a range from about 3,000 to 8,000 nautical miles. The
term ICBM is used only for land-based systems to differentiate them from
submarine-launched ballistic missiles. (See SLBM.)

Interface 1. A shared boundary defined by common physical interconnection characteristics, signal characteristics, and meanings of interchanged signals. 2. A device or equipment making possible interoperation between two systems, e.g., a hardware component or a common storage register. 3. A shared logical boundary between two software components. 4. A common boundary or connection between persons, or between systems, or between persons and systems.

Interface ControlThe technical documentation, generated by each party to an interface controlDocument (ICD)agreement, that presents that party's interface and interfacing requirements.
The ICD may be in the form of a drawing or a specification.

Interface A document that sets forth the interface requirements for a system or system Requirements component.

Interference The phenomenon of two or more waves of the same frequency combining to form a wave in which the disturbance at any point is the algebraic or vector sum of the disturbances due to the interfering waves at that point.

A ballistic missile having a range capability of 1,500 to 3,000 nautical miles.

Intermediate Range Ballistic Missile (IRBM)

International

Cooperative

Logistics

Document (IRD)

Cooperation and mutual support in the field of logistics through the coordination of policies, plans, procedures, development activities, and the common supply and exchange of goods and services arranged on the basis of bilateral and multilateral agreements with appropriate cost reimbursement provisions.

I

(ISAR)

- International Logistics The negotiating, planning, and implementation of supporting logistics arrangements between nations, their forces, and agencies. It includes furnishing logistic support to, or receiving logistic support from, one or more friendly foreign governments, international organizations, or military forces, with or without reimbursement. It also includes planning and actions related to the intermeshing of a significant element, activity, or component of the military logistics systems or procedures of the United States with those of one or more foreign governments, international organizations, or military forces on a temporary or permanent basis. It includes planning and actions related to the utilization of United States logistics policies, systems, and/or procedures to meet requirements of one or more foreign governments, international organizations, international organizations, international organizations, international organizations, international organizations, or military forces on a temporary or permanent basis. It includes planning and actions related to the utilization of United States logistics policies, systems, and/or procedures to meet requirements of one or more foreign governments, international organizations, or forces.
- International The provision of military logistic support by one participating nation to one or Logistic Support more participating nations, either with or without reimbursement.
- Interoperability The ability of systems, units, or forces to provide services to or accept services from other systems, units, or forces and to use the services so exchanged to operate effectively together.
- Intruder Operation An offensive operation by day or night over enemy territory with the primary object of destroying enemy aircraft in the vicinity of their bases.
- Inventory Control Point An organizational unit or activity within a DoD supply system that is assigned the primary responsibility for the materiel management of a group or items either for a particular Service or for the DoD as a whole. Materiel inventory management includes cataloging direction, requirements computation, procurement direction, distribution management, disposal direction, and, generally, rebuild direction.
- Inverse Square The law that states when thermal or nuclear radiation is uniformly emitted from a point source, the amount received per unit area at any given distance from the source, assuming no absorption, is inversely proportional to the square of that distance.

Inverse Synthetic A type of radar similar to a synthetic aperture radar, which uses information **Aperture Radar** from the motion of targets to provide high resolution.

- IOC1. See Initial Operational Capability.2. See Intelligence Operations Center.3. Integrated Optics Chip.
- Ionization The process of producing ions by the removal of electrons from, or the addition of electrons to atoms or molecules.
- Ionizing Radiation Electromagnetic radiation (gamma rays, x-rays, extreme ultraviolet (EUV)) or particulate radiation (alpha particles, beta particles, neutrons, etc.) capable of producing ions, e.g., electrically charged particles, directly or indirectly, in its passage through matter. (See Nuclear Radiation.)
- Ionosphere The region of the atmosphere, extending from roughly 70 to 500 kilometers altitude, in which ions and free electrons exist in sufficient quantities to reflect electromagnetic waves.
| IOU | Input/Output Unit. |
|-------------------|---|
| IOT&E | See Initial Operational Test and Evaluation. |
| IP | 1. Instructor Pilot. 2. Initial Point. 3. Initial Position. |
| IPA | See Integrated Program Assessment. |
| IPB | Intelligence Preparation of the Battlefield or Battlespace. |
| IPL | Integrated Priority List. |
| IPP | 1. See Impact Point Prediction. 2. Industrial Preparedness Program. |
| IPPD | Integrated Process and Product Development. |
| IPR | 1. See In-Progress Review. (Also called Interim Program Review). |
| IPS | See Integrated Program Summary. |
| IPSRU | Inertial Pseudo-Star Reference Unit. |
| IPT | 1. Integrated Product Team. 2. Integrated Process Team. 3. Integrated Planning Team. |
| IR | See Infrared. Information Requirement. Incident Report. Information Rate. |
| IRA | See Industrial Resource Analysis. |
| IR&D | Independent Research and Development. (Also called IRAD). |
| IRAS | Infrared Astronomical Satellite. |
| IRBM | See Intermediate Range Ballistic Missile. |
| IRBS | 1. Infrared Background Sensor. 2. Intermediate-Range Booster System. |
| IRD | See Interface Requirements Document. |
| IR Electro-Optics | Technologies/techniques employed by optical sensors in the wavelength spectrum slightly longer than visible but shorter than radio. |
| IRFPA | Infrared Focal Plane Array. |
| IRINT | Infrared Intelligence. |
| IRIS | Infrared Instrumentation System. |
| IRR | Internal Requirements Review. |
| IRS | Interface Requirements Review. |

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IRSS	Infrared Sensor System (EAGLE).
IRST	Infrared Search and Track.
IS	See Information System.
ISA	Interservice Agreement.
IS&T	1. Invite, Show and Test. 2. Innovative Science and Technology.
ISAR	See Inverse Synthetic Aperture Radar.
ISE	Integrated SATKA Experiments.
ISO	International Standards Organization.
Isotropic	Independent of direction; referring to the radiation of energy, it means "with equal intensity in all directions" (e.g., omnidirectional).
Isotropic Nuclear Weapon	A nuclear explosive which radiates x-rays and other forms of radiation with approximately equal intensity in all directions. The term "isotropic" is used to distinguish them from nuclear directed energy weapons.
ISM	Industrial Security Manual.
ISP	Integrated Support Plan.
Issue Cycle	A process followed during OSD review of the POM. It begins in early June and
	extends into July.
Issue Papers	extends into July. OSD documents defining issues raised during review of the POM.
Issue Papers IST	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test.
Issue Papers IST ISTC	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability.
Issue Papers IST ISTC ISV	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle.
Issue Papers IST ISTC ISV ISWG	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group.
Issue Papers IST ISTC ISV ISWG ITAR	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group. International Traffic in Arms Regulations.
Issue Papers IST ISTC ISV ISWG ITAR ITB	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group. International Traffic in Arms Regulations. 1. Integrated Test Bed. 2. Israeli Test Bed.
Issue Papers IST ISTC ISV ISWG ITAR ITB Item Manager	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group. International Traffic in Arms Regulations. 1. Integrated Test Bed. 2. Israeli Test Bed. An individual within the organization of an inventory control point or other such organization assigned management responsibilities for one or more specific items of materiel.
Issue Papers IST ISTC ISV ISWG ITAR ITB Item Manager	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group. International Traffic in Arms Regulations. 1. Integrated Test Bed. 2. Israeli Test Bed. An individual within the organization of an inventory control point or other such organization assigned management responsibilities for one or more specific items of materiel. Improved Tactical Events Reporting System.
Issue Papers IST ISTC ISV ISWG ITAR ITB Item Manager ITERS ITL	extends into July. OSD documents defining issues raised during review of the POM. 1. Innovative Science and Technology. 2. Integrated System Test. Integrated System Test Capability. Interceptor Sensor Vehicle. Integration Support Working Group. International Traffic in Arms Regulations. 1. Integrated Test Bed. 2. Israeli Test Bed. An individual within the organization of an inventory control point or other such organization assigned management responsibilities for one or more specific items of materiel. Improved Tactical Events Reporting System. Integrate, Transfer, Launch

107

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ITV	1. Integrated Technology Validation. 2. Instrumented Test Vehicle
ITW/AA	See Integrated Tactical Warning and Attack Assessment.
IV&V	See Independent Verification and Validation.
IWCD	Integrated Wavefront Control Demonstration.
IWG	Interagency Working Group.
IWSM	Integrated weapons system management.

J

J-SEAD See Joint Suppression of Enemy Air Defenses.

JAAT Joint Air Attack Team.

JADO Joint Air Defense Operations.

Jammers Radio transmitters accompanying attacking RVs and tuned to broadcast at the same frequency as a defensive radar. The broadcasts add "noise" to the signals reflected from the RVs and received by the radar. Susceptibility to jamming generally decreases with increasing radar frequency, with decreasing altitude, and with increasing radar power.

- JAO Joint Area of Operations.
- JDA Japan Defense Agency.
- JDC 1. Joint Doctrine Center. 2. Joint Deployment Community.
- JDN Joint Data Net.
- JEM Joint Exercise Manual.
- JETTA Joint Environment for Testing, Training, and Analysis.
- JEWC See Joint Electronic Warfare Center.
- JEZ Joint Engagement Zone.
- JFACC Joint Force Air Component Commander.
- JFC Joint Force Commander.
- JFET Junction Field Effect Transistor.
- JFLCC Joint Force Land Component Commander.
- JFMCC Joint Forces Maritime Component Commander.
- JFSOCC Joint Forces Special Operations Component Commander.
- JHU Johns Hopkins University, Baltimore, MD
- JHU/APL Johns Hopkins University/Applied Physics Laboratory, Laurel, MD.
- JIC 1. Joint Intelligence Center. 2. Jet Interaction Controls.
- JIEO Joint Interoperability and Engineering Organization.
- JINTACCS Joint Interoperability of Tactical Command and Control Systems.

JIOP Joint Interface Operational Procedures.

JIOP-MTF Joint Interface Operational Procedures - Message Text Forms.

J

JITC Joint Interoperability Test Center.

JLC Joint Logistics Commanders.

JLOTS Joint Logistics Over-The-Shore.

JMC 1. Joint Movement Center. 2. Joint Military Command.

JMCIS Joint Maritime Command Information System.

JMO Joint Maritime Operations.

JOA Joint Operations Area.

JOB Joint Operations Board.

JOC Joint Oversight Council.

Joint Activities, operations, organizations, etc., in which elements of more than one Service of the same nation participate. When all services are not involved, the participating Services shall be identified, e.g., Joint Army-Navy.)

Joint Doctrine Fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and Joint Staff. See also Chairman, Joint Chiefs of Staff.

Joint Doctrine A forum to include representatives of the Services and combatant commands with the purpose of systematic addressal of joint doctrine and joint tactics, techniques, and procedures (JTTP) issues such as project proposal examination, project scope development, project validation, and lead agent recommendation. The Joint Doctrine Working Party meets under the sponsorship of the Director, Operations Plans and Interoperability.

Joint ElectronicElectronic Security Command (ESC) team at Kelly AFB, TX, responsible forWarfare Centerinvestigating and locating the cause of MIJI either against satellites or ground(JEWC)systems.

Joint Force A general term applied to a force composed of significant elements, assigned or attached, of the Army, the Navy or Marine Corps, and the Air Force, or two or more of these Services, operating under a single commander authorized to exercise operational control. See also Joint Force Commander.

Joint Force Air Component Commander (JFACC) The commander within a unified command, subordinate unified commander for making recommendations on the proper employment of air forces, planning and coordinating air operations, or accomplishing such operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFACC will normally be the commander with the preponderance of air forces and the requisite command and control capabilities. Commander (JFC)

called JFC.

capabilities.

Joint Force

A general term applied to a commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also

Joint Force Land Component Commander (JFLCC) The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of land forces, planning and coordinating land operations, or accomplishing such operational missions as may be assigned. The joint force land component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFLCC will normally be the commander with the preponderance of land forces and the requisite command and control

Joint Force Maritime Component (JFMCC) The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of maritime forces and assets, planning and coordinating maritime operations, or accomplishing such operational missions as may be assigned. The JFMCC is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFMCC will normally be the commander with the preponderance of maritime forces and the requisite command and control capabilities.

The commander within a unified command, subordinate unified command, or **Joint Force** joint task force responsible to the establishing commander for making Special recommendations on the proper employment of special operations forces and Operations assets, planning and coordinating maritime operations, or accomplishing such Component operational missions as may be assigned. The JFSOCC is given the authority Commander necessary to accomplish missions and tasks assigned by the establishing (JFSOCC) The JFSOCC will normally be the commander with the commander. preponderance of special operations forces and the requisite command and control capabilities.

Joint Operational Planning and Execution System (JOPES) A continuously evolving system that is being developed through the integration end enhancement of earlier planning and execution systems: Joint Operation Planning System and Joint Deployment System. It provides the foundation for conventional command and control by national and theater level commanders and their staffs. It is designed to satisfy their informational needs in the conduct of joint planning and operations. JOPES includes joint operation planning policies, procedures, and reporting structures supported by communications and automated data processing systems. JOPES is used to monitor, plan, and execute mobilization, deployment, employment, and sustainment activities associated with joint operations.

Joint Operating Procedures (JOPs) These documents identify and describe detailed procedures and interactions necessary to carry out significant aspects of a joint program. Subjects for JOPs may include Systems Engineering, Personnel Staffing, Reliability, Survivability, Vulnerability, Maintainability, Production, Management Controls and Reporting, Financial Control, Test and Evaluation, Training, Logistics Support, Procurement and Deployment. The JOPs are developed and negotiated by the Program Manger and the participating Services.

J

Joint OperationsThat area of conflict in which a joint force commander conducts militaryAreaoperations pursuant to an assigned mission and the administration incident to
such military operations. Also called JOA.

J

Joint Program Any defense acquisition system, subsystem, component, or technology program that involves formal management or funding by more than one DoD Component during any phase of a system's life-cycle.

Joint A council, chaired by the Vice Chairman, Joint Chiefs of Staff, that conducts requirements analyses, determines the validity of mission needs and develops recommended joint priorities for those needs it approves, and validates performance objectives and thresholds in support of the Defense Acquisition Board. Council members include the Vice Chiefs of the Army, Navy, and Air Force, and the Assistant Commandant of the Marine Corps.

Joint SPACECOM Intelligence Center (JSIC) A USSPACECOM Intelligence Center responsible for producing operational intelligence for USSPACECOM missions and for space intelligence production for the DoD and intelligence community. Delegated Space Intelligence production includes: Space Order of Battle (OB), Space Object Identification (SOI), and Satellite Reconnaissance Advance Notices (SATRAN). Located at CMAFB.

Joint StrategicA special staff located at USSPACECOM Headquarters responsible forDefense Planningintegrated strategic defense planning and for integration of strategic defensiveStaff (JOSDEPS)and strategic offensive operations.The USCINCSPACE serves as Director,Joint Strategic Defense Planning Staff.

Joint StrategicA JCS organization located at Offutt AFB responsible for planning, developing,
coordinating, and producing the Single Integrated Operations Plans (SIOP).Staff (JSTPS)Also responsible for producing the National Strategic Target List (NSTL). The
Commander in Chief, USSTRATCOM is also the Director, Joint Strategic Target
Planning Staff.

Joint SuppressionA broad term that includes all suppression of enemy air defenses activitiesof Enemy Airprovided by one component of the joint force in support of another. Also calledDefenseJ-SNEAD.

Joint TacticalA joint service, jam-resistant, secure communications system that permits theInformationinterchange of essential tactical information between aircraft, surface vessels,Distributionand mobile or fixed-base land stations.

Joint Tactics, Techniques, and Procedures (JTTP) The actions and methods which implement joint doctrine and describe how forces will be employed in joint operations. They will be promulgated by the Chairman, Joint Chiefs of Staff, in coordination with the combatant commands, Services and Joint Staff. Also called JTTP.

Joint Test andT&E conducted jointly by two or more DoD components for systems to beEvaluationacquired by more than one component or for a component's systems which
have interfaces with equipment of another component.

System (JTIDS)

An OSD program for Joint T&E, structured to evaluate or provide information Joint Test and on system performance, technical concepts, system requirements or Evaluation improvements, systems interoperability, improving or developing testing Program methodologies, or for force structure planning, doctrine, or procedures. Joint Maritime Command Information System (USN). **JMCIS** Joint Munitions Effectiveness Manual. JMEM 1. Joint Multi-TADIL Standards Working Group. 2. Joint Interoperability **JMSWG** Message Standards Working Group. Joint Oversight Board. (TMD COEA) JOB Joint Operations Center. JOC Joint Operating Procedures. JOP See Joint Operational Planning and Execution System. JOPES See Joint Strategic Defense Planning Staff. JOSDEPS Joint Publication. JP Jet Propulsion Laboratory, Pasadena, CA. JPL Joint Planning Net. JPN Joint Program Office. JPO Joint Project -- Ornate Impact JPOI Joint Project -- Optic Needle. **JPON** Joint Precision Reporting Net. **JPRN** See Joint Requirements Oversight Council. JROC Joint Strategic Capabilities Plan. **JSCP** See Joint SPACECOM Intelligence Center. JSIC Joint Special Operations Command. **JSOC** Joint Services Operating Requirement. **JSOR** Joint Strategic Planning Document. **JSPD** Joint Strategic Planning System. **JSPS** Joint Surveillance and Target Attack Radar System. **JSTARS** See Joint Strategic Target Planning Staff. **JSTPS**

J

JTAGS	Joint Tactical Ground Station.
JT&E	Joint Test and Evaluation.
JTF	Joint Task Force.
JTIDS	See Joint Tactical Information Distribution System.
JTL	Joint Target List.
JTMBPO	Joint Theater Ballistic Missile Defense Program Office.
JTMD	Joint Theater Missile Defense.
ЈТОС	Joint Targets Oversight Council.
JTR	Joint Travel Regulations.
JTRP	Joint Telecommunication Resources Board.
JWAN	Joint Wide Area Net.
JWC	Joint Warfare Center.
JWG	Joint Working Group.
JWID	Joint Warrior Interoperability Demonstration

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КА	See Kill Assessment.
KBS	Knowledge Based System (UKMOD).
KBSF	Knowledge Based Sensor Fusion.
KDEC	Kinetic Energy Weapon Digital Emulation Center, Huntsville, AL.
KDS	Kwajalein Discrimination System.
KE	See Kinetic Energy.
KED	Kill Enhancement Device.
Keep-Out Zone	A volume around a space asset, which is off limits to parties not owners of the asset. Keep-out zones could be negotiated or unilaterally declared. The right to defend such a zone by force and the legality of unilaterally declared zones under the Outer Space Treaty remain to be determined.
KEI	Kinetic Energy Intercept.
KEV	Kinetic Energy Vehicle.
KEW	See Kinetic Energy Weapon.
KEWC	Kinetic Energy Weapon, Chemical (propulsion).
KEWE	Kinetic Energy Weapon, Electromagnetic (propulsion).
KEWG	Kinetic Energy Weapon, Ground.
KEWO	Kinetic Energy Weapon, Orbital.
Key	A type of dataset used for encryption or decryption. In cryptography, a sequence of symbols that controls the operations of encryption and decryption.
K Factor	The relative measure of a sensor's ability to distinguish one object from another. Theoretically (but not in practice) it is the distance between the mean locations of two observed objects given normal distributions and standard deviations for both objects.
KHILS	Kinetic Kill Vehicle Hardware in-the-Loop Simulator, Eglin AFB, FL.
кніт	Kinetic Kill Vehicle Hardware Integrated Test.
Kill Assessment (KA)	An evaluation of information to determine the result of a ballistic missile/RV intercept for the purpose of providing information for defense effectiveness and re-engagements. (USSPACECOM)
Kill Enhancement Device	A device that improves an interceptor's lethality.

Kinematic Battlespace	The planned engagement region in space of an interceptor given the sensor timeline, kinematic capabilities of the interceptor, engagement timeline, and operational constraints.
Kinetic Energy (KE)	The energy from the momentum of an object, i.e., an object in motion.
Kinetic Energy Weapon (KEW)	A weapon that uses kinetic energy, or energy of motion to kill an object. Examples of weapons which use kinetic energy are a rock, a bullet, a nonexplosively armed rocket, and an electromagnetic rail gun.
Kinetic Kill Vehicle (KKV)	A weapon using a non-explosive projectile moving at very high speed to destroy a target on impact. The projectile may include homing sensors and on-board rockets to improve its accuracy, or it may follow a preset trajectory (as with a shell launched from a gun).
Kinetic Kill Vehicle Integrated Technology Experiment (KITE)	A series of test flights at WSMR to demonstrate HEDI technologies.
KITE	1. Kuiper Infrared Technology Experiment. 2. See Kinetic Kill Vehicle Integrated Technology Experiment.
кки	See Kinetic Kill Vehicle.
KKVWS	Kinetic Kill Vehicle Weapon System.
КМСС	Kwajalein Mission Control Center.
KMR	Kwajalein Missile Range.
KREMS	Kiernan Reentry Measurement System.
KSC	Kennedy Space Center, FL.
ктс	Kwajalein Test Center, Kwajalein Atoll, Marshall Islands.
KTF	Kauai Test Facility, Barking Sands, HI.
КТР	1. Key Technical Partner. 2. Key Test Partner 3. Key Technical Parameters.
ĸv	Kill Vehicle.
kw	Kilowatt.

L

L2SS	Level 2 System Simulator, NTF.
LAAFB	Los Angeles Air Force Base, CA.
LABCOM	Laboratory Command.
LABM	Local Area Battle Manager.
LABP	Look Ahead Battle Planner
LACE	Laser Atmospheric Compensation Experiment (an SDIO/NRL satellite launched February 1990 and turned off July 1993).
LADAR	See Laser Detection and Ranging.
Laddering Down	A hypothetical technique for overcoming a terminal phase missile defense. Successive salvos of salvage-fused RVs attack. The detonations of one salvo disable local ABM abilities so that following salvos are able to approach the target more closely before being, in turn, intercepted. Eventually, by repeating the process, the target is reached and destroyed.
LAMP	Large Advanced Mirror Program.
LAN	Local Area Network.
L&TH	Lethality and Target Hardening.
LANL	Los Alamos National Laboratory, NM.
LAO	Limited Attack Option.
LARC	Langley Research Center, Hampton, VA.
Large Optics	The technology of constructing and employing mirrors over 1 m aperture to direct and control high power beam weapons/systems with large coverage, or to provide high resolution or high sensitivity for detection and/or imaging.
Lasant	A material that can be stimulated to produce laser light. Many materials can be used as lasants; these can be in solid, liquid, or gaseous form (consisting of molecules including excimers or atoms) or in the form of a plasma (consisting of ions and electrons). Lasant materials useful in high energy lasers include carbon dioxide, carbon monoxide, deuterium fluoride, hydrogen fluoride, iodine, xenon chloride, krypton fluoride, and selenium, to mention but a few.
LASE	LIDAR Acquisition and Sizing Experiment.
Laser	An active electron device that converts input power into a very narrow, intense beam of coherent visible or infrared light; the input power excites the atoms of an optical resonator to a higher energy level, and the resonator forces the excited atoms to radiate in phase. Derived from Light Amplification by Stimulated Emission of Radiation and classified from Class I - Class IV according to its potential for causing damage to the eye.

LASERCOM Laser Communications.

Laser DetectionA technique analogous to radar, but which uses laser light rather than radio orand Rangingmicrowaves.The light is bounced off a target and then detected, with the(LADAR)return beam providing information on the distance and velocity of the target.

Laser Designator A device that emits a beam of laser energy to mark a specific place or object.

Laser GuidedA weapon that uses a seeker to detect laser energy reflected from a laserWeaponmarker/designated target and, through signal processing, provides guidance
commands to a control system. The control system then guides the weapon to
the point from which the laser energy is being reflected.

Laser ImagingA technology whereby a laser beam can be used in a way similar to the use ofRadara radar beam to produce a high-quality image of an object.

Laser Optics Technology associated with the use and control of laser beams with flux greater than 1 watt/cm².

Laser Seeker A device based on a direction sensitive receiver that detects the energy reflected from a laser designated target and defines the direction of the target relative to the receiver. See also laser guided weapon.

Laser TargetA system that is used to direct (aim or point) laser energy at a target. TheDesignatingsystem consists of the laser designator or laser target marker with its displaySystemand control components necessary to acquire the target and direct the beam of
the laser energy thereon.

Laser Tracker A device that locks on to the reflected energy from a laser marked/designated and defines the direction of the target relative to itself.

Laser Weapons Devices, such as photon generators, that produce a narrow beam of coherent radiated power greater than 1 MW.

LATS Long Wave Infrared Advanced Technology Seeker/Sensor.

Launch Azimuth Missile launch location measured in degrees clockwise from the local northpointing longitude line at the launch site. (USSPACECOM)

Launch Detection Initial indication by any one of a variety of sensors that a booster has been launched from some point on the surface of the earth, with initial characterization of the booster type. (USSPACECOM)

Launch PointWith computer methods, uses missile track observation to estimate the point onDeterminationthe earth's surface from which the missile was launched, expressed in terms of
circular error probable.

Launch UnderExecution by National Command Authorities of Single Integrated OperationalAttack (LUA)Plan forces subsequent to tactical warning of strategic nuclear attack against
the United States and prior to first impact.

Launch Verification	Confirmation of a detection of a booster launch by receiving a report from a sensor separate and independent of the sensor that initially detected a specific booster launch.
Layered Defense	A defense that consists of several sets of weapons that operate at different phases in the trajectory of a ballistic missile. Thus, there could be a first layer (e.g., boost phase) of defense with remaining targets passed on to succeeding layers (e.g., midcourse, terminal).
LBL	Lawrence Berkeley Laboratory, Berkeley, CA.
LBM	Localized Battle Management/Manager(s).
LBTS	Land Based Test Site.
LCC	1. See Life-Cycle Cost. 2. Launch Control Center.
LCF	Launch Control Facility.
LCM	Life Cycle Management.
LCS	Laser Crosslink System.
LDS	1. Layered Defense System. 2. Lexington Discrimination System. 3. Limited Defense System.
LE	Lethality Enhancer (PAC-3).
Lead Component/ Service	The DoD Component designated by SECDEF to be responsible for management of a system acquisition involving two or more DoD Components in a joint program.
Leakage	The allowable threat objects passing through a BMD system expressed as a percentage of the threat. To ensure overall system performance, permitted leakage is "budgeted" among individual BMD phases and functions.
Leakage (Max)	The maximum allowable threat objects passing through a BMD system expressed as a percentage of the design-to threat. To ensure overall system performance, permitted leakage is "budgeted" among individual BMD phases and functions.
LEAP	Lightweight Exoatmospheric Projectile.
LEASAT	Leased Satellite.
Least Privilege	This principle requires that each subject in a system be granted the most restrictive set of privileges (or lowest clearance) needed for the performance of authorized tasks. The application of this privilege limits the damage that can result from accident, error, or unauthorized use.
LED	1. Low Endoatmospheric Defense. 2. Light Emitting Diode.
LEDI	Low Endoatmospheric Defense Interceptor.

L

L

LEDS Low Endoatmospheric Defense System.

LEI Low Endoatmospheric Interceptor.

LEO See Low Earth Orbit.

Level of Effort Effort of a general or supportive nature that does not produce definite end (LOE) products or results, e.g. contract man-hours.

- Leverage 1. The advantage gained by boost-phase intercept, when a single booster kill may eliminate many RVs and decoys before they are deployed. This could provide a favorable cost-exchange ratio for the defense and would reduce stress on later tiers of the SDS. 2. In general, the power to act or influence to attain goals.
- LF 1. Landing Force. 2. Low Frequency.
- LFT&E Live Fire Test and Evaluation.
- LIDAR See Light Detection and Ranging.
- Life Cycle 1. The total phases through which an item passes from the time it is initially developed until the time it is either consumed or disposed of as being excess to all known materiel requirements. 2. (Software). All the states a software or software related product passes through from its inception until it is no longer useful.
- Life-Cycle CostThe total cost to the Government of acquisition and ownership of that system(LCC)over its useful life. It includes the cost of development, acquisition, support
and, where applicable, disposal.
- Life-CycleProcess for administering an automated information system or hardwareManagementsupport system over its whole life, with emphasis on strengthening early
decisions which shape costs and utility.
- Life-Cycle Model A framework containing the processes, activities, and tasks involved in the development, operation, and support of the system, spanning the life of the system from the definition of its requirements to the termination of its use.

Life Cycle of a All phases of the system's life including research, development, test and evaluation, production, deployment (inventory), operations and support, and disposal.

Life Jacket The life support storage container for a Brilliant Pebbles singlet. The life jacket contains subsystems that perform power, communications, and environmental protection functions.

Light DetectionA precision probing instrument used to measure concentrations of differentand Ranginggasses or particulates in a given amount of atmosphere.

Light Replicas Decoys that, by virtue of shape, closely approximate an RV's signature with (LREP) little off-load penalty.

(LIDAR)

Limited Attack An attack on the U.S. and its allies which provides a stressing timeline, and is geographically distinct. Not an all-out attack or mass wave.

Limited Defense System (LDS) The development of systems, components, and architectures for a deployable anti-ballistic missile system (as described in section 232(a)(1) of the 1991 Missile Defense Act, as revised) capable of providing a highly effective defense of the United States against limited ballistic missile threats, including accidental or unauthorized launches or Third World attacks, but below a threshold that would bring into question strategic stability.

LimitedA point in time when the first set of sensors and weapons are able to beOperationalemployed to provide a limited protection system.

Capability (LOC)

- Limited The initial production of a system in limited quantity. Part of an acquisition Production Strategy to be used in test and evaluation for verification of design maturity, manufacturing process final proofing, and product engineering and to verify a factories capabilities prior to a decision to proceed with production. Decision usually made near the end of EMD or at Milestone IIIA or equivalent. (Also called Low-Rate Initial Production or Pilot Production.)
- Limited TestThe bilateral Treaty signed and ratified by the United States and the (former)Ban TreatyU.S.S.R. in 1963 which prohibits nuclear tests in all locations except
underground, and prohibits nuclear explosions underground if they cause
radioactive debris to be present outside the territorial limits of the state under
whose jurisdiction or control the test would be conducted.

Linear Accelerator.

Line Item (Budget) A specific program end item with its own identity (e.g., B-1B Bomber).

Line of Sight The line from sensor to target necessary for the commencement of the detection, acquisition, track, and identification of a target.

Line ReplaceableAn essential support item removed and replaced at field level to restore endUnit (LRU)item to an operationally ready condition. (Also called Weapon Replacement
Assembly and Module Replaceable Unit).

Link Quality This testing of links to create bit error estimates and monitors natural or Evaluation induced link interference.

Live Fire Test And Evaluation (LFT&E) Survivability testing and lethality testing required before full-scale production. Must be conducted on ACAT I and II programs for: (a) A covered system (a conventional weapon system designed to provide some degree of protection to the user in combat); (b) a major munition or missile program; (c) a product improvement program that will significantly affect the survivability of a covered system.

LGM 1. Laser Guided Missile. 2. Loop Group Multiplexer.

LIC Low Intensity Conflict.

LIMDIS Limited Distribution.

LL	1. Lincoln Laboratory, Lexington, MA. 2. Legislative Liaison.
LLNL	Lawrence Livermore National Laboratory, Livermore, CA.
LMC	Late Midcourse.
LNA	Low Noise Amplifier.
LNO	Liaison Officer.
LOA	Letter of Agreement.
LOAD	Low Altitude Defense.
LOC	1. Lines of Communication. 2. Lines of Code. 3. See Limited Operational Capability.
Local Assessment of Engagement	The assessment of an engagement by the high resolution fire control sensors.
Local Environment	The ISTC Local Environment contained within each node simulates the element to the degree necessary to generate a realistic input to the Element Processor of Element Processor Emulation and provide a realistic response to the Element Processor or Element Processor Emulation.
Lock On	Signifies that a tracking or target-seeking system is continuously and automatically tracking a target in one or more coordinates (e.g., range, bearing, elevation).
LODE	Laser Optics Demonstration Experiment.
LODTM	Large Optics Diamond Turning Machine.
LOE	1. Level of Effort. 2. Letter of Evaluation (AF).
Lofted Trajectory	Trajectory with an apogee greater than the minimum-energy trajectory to the same range.
Logistics	The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, it includes those aspects of military operations which deal with: (1) design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materials; (2) movement, evacuation, and hospitalization of personnel; (3) acquisition or construction, maintenance, operation, and disposition of facilities; and (4) acquisition or furnishing of services.
Logistics Support	The supply and maintenance of materiel essential to proper operation of a system in the force.
Logistics Supportability	The degree to which planned logistics support (including test, measurement, and diagnostic equipment; spares and repair parts; technical data; support facilities; transportation requirements; training; manpower; and software support) allow meeting system availability and wartime usage requirements.

LogisticsThe selective application of scientific and engineering efforts undertaken during
the acquisition process, as part of the systems engineering process, to assist
in: causing support considerations to influence design; defining support
requirements that are related optimally to design and to each other; acquiring
the required support; and providing the required support during the operational
phase at minimum cost.

Logistics SupportA formal tool under MIL-STD 1388-2A that uses records/forms to document
operations and maintenance requirements, RAM, task analyses, technical data,
support/test equipment, facilities, skill evaluation, supply support, ATE and
TPS, and transportability. LSAR is the basis for training, personnel, supply
provisioning and allowances construction, support equipment acquisition,
facilities construction and preparation, and for maintenance.

LOI 1. Letter of Instruction. 2. Letter of Intent.

LOMEZ Low Altitude Missile Engagement Zone.

Long Lead Items Those components of a system for which the times to design and fabricate are the longest, and, therefore, to which an early commitment of funds may be desirable in order to meet the earliest possible date of system completion.

Long WavelengthThermal radiation emitted by a source in the electromagnetic spectrumInfrared (LWIR)encompassing infrared wavelengths of 6 to 30 microns.

LOS 1. See Line of Sight. 2. Large Optical Segment.

LOTS Logistics Over-The-Shore.

Low Earth Orbit
(LEO)These satellites are at altitudes between 100 and 400 nautical miles. They
have short duration revolutions (about 90 minutes), short visibility envelopes
(2.5 minutes up to 10 minutes over a tracking station), short life spans, and are
most subject to orbital perturbations due to atmospheric drag and earth
gravitational anomalies.

Low That portion of the earth's atmosphere, generally below 40 km altitude.

Endoatmosphere

LOW Launch on Warning.

Low-Rate InitialThe production of a system in limited quantity to provide articles for operational
test and evaluation, to establish an initial production base, and to permit an
orderly increase in the production rate sufficient to lead to full-rate production
upon successful completion of operational testing.

LPAR Large Phased Array Radar.

LPE 1. Liquid Phase Epitaxy. 2. Launch point estimate.

- LPI Low Probability of Intercept.
- LPS Limited Protection System.

171

LRB	Liquid Rocket Booster.
LRC	Lewis Research Center, Cleveland, OH.
LREP	See Light Replicas.
LRINF	Longer Range Intermediate Nuclear Forces.
LRIP	See Low-Rate Initial Production.
LRU	1. Line Replaceable Units. 2. Line Replacement Units.
LS	Launching Stations (PATRIOT).
LSA	See Logistics Support Analysis.
LSAP	Logistics Support Analysis Program.
LSAR	Logistics Support Analysis Record.
LSAT	Laser Satellite.
LSI	Large Scale Integration (circuits).
LST	1. Laser Spot Tracker. 2. Landing Ship, Tank.
LTBT	Limited Test Ban Treaty.
LTD	Laser Target Designator.
LTH	Lethality and Target Hardening.
LTV	Launch Test Vehicle.
LUA	See Launch Under Attack.
LUP	Limited U.S. Protection.
LUT	Limited User Test.
LW	Laser Weapons.
LZ	Landing Zone.
LWIR	See Long Wavelength Infrared.

ΜΑΑ	See Mission Area Analysis.
MAAG	Military Assistance Advisory Group.
MAC	OBSOLETE. Military Airlift Command. See AMC.
MACCS	Marine Corps Air Command and Control System.
МАСОМ	Major Army Command.
MAD	1. Mission Area Deficiency. 2. Mutually Assured Destruction.
MAGTF	Marine Air-Ground Task Force.
Main Beam	The primary directional EMR emitted from radar transmitters.
Maintainer	An individual responsible for retaining the major defense system in or restoring it to a specified condition. Maintenance activities include inspection, testing, servicing, classification as to serviceability, repair, rebuilding, and reclamation.
Maintenance Concept/Plan	A description of maintenance considerations and constraints for system/equipment under development. A preliminary maintenance concept is developed and submitted as part of the preliminary system operational concept for each alternative solution candidate by the operating command with the assistance of the implementing and supporting commands. A major driver in design of the system/equipment and support planned for it.
Maintenance Operations	The corrective and preventive maintenance operations that do not require a deployment decision; it includes correction and subsequent validation testing and the update of relevant status configuration, maintenance, and inventory data bases.
Maintenance Planning	The process conducted to evolve and establish maintenance concepts and requirements for the lifetime of a material system; one of the principal elements of ILS.
MAISRC	See Major Automated Information System Review Council
MAJCOM	Major Command (USAF).
Major Automated Information	The Senior DoD information management acquisition review board chaired by the Assistant Secretary of Defense for Command, Control, Communication, and

System Review Council (MAISRC)

Intelligence. See DoD Directive 8120.2.

Major Defense

Acquisition

Program

An acquisition program that is not a highly sensitive classified program (as determined by the Secretary of Defense) and that is: 1. Designated by the Under Secretary of Defense for Acquisition and Technology as a major defense acquisition program, or 2. Estimated by the Under Secretary of Defense for Acquisition and a) An eventual total expenditure for research, development, test, and evaluation of more than \$200 million in fiscal year 1980 constant dollars (approximately \$300 million in fiscal year 1990 constant b) An eventual total expenditure for procurement of more than \$1 billion in fiscal year 1980 constant dollars (approximately \$1.8 billion in fiscal year 1990 constant dollars).

A modification that in and of itself meets the criteria of acquisition category I or Major II or is designated as such by the milestone decision authority. Major modifications require a Milestone IV decision unless the decision to modify Modification results from one of the alternatives considered as part of the Milestone I decision process. Upgrades are part of the Milestone O decision process.

Technology to require:

dollars), or

- A combination of elements that will function together to produce the Major System capabilities required to fulfill a mission need, including hardware, equipment, software, or any combination thereof, but excluding construction or other improvements to real property. A system shall be considered a major system if it is estimated by the Under Secretary of Defense for Acquisition and Technology to require:
 - 1. An eventual total expenditure for research, development, test, and evaluation of more than \$75,000,000 in fiscal year 1980 constant dollars (approximately \$115,000,000 in fiscal year 1990 constant dollars), or
 - 2. An eventual total expenditure for procurement of more than \$300,000,000 in fiscal year 1980 constant dollars (approximately \$540,000,000 in fiscal year 1990 constant dollars).

A means of restricting access to objects based on the sensitivity (as represented by a label) of the information contained in the objects and the Mandatory Access Control formal authorization of subjects to access information of such sensitivity.

Missile and Launch Control. M&LC

1. Materials and structures. 2. Modeling and Simulation. M&S

1. A reentry vehicle capable of performing preplanned flight maneuvers during the reentry phase. The reentry vehicles deploy fins or other aerodynamic Maneuverable surfaces when they enter the atmosphere, allowing them to turn and dodge **Reentry Vehicle** rather than fall ballistically. They have no ability to maneuver in space. (MARV)

Manpower Authorizations

The billets in the manpower requirements structure that are planned to be filled. An estimate of the number of personnel who will operate, maintain, support,

and train for the acquisition upon full operational deployment. The Services Manpower prepared the estimates, and the SECDEF submits them to Congress 30 days **Estimate Report** (MER) prior to approval for EMD or production.

Safety (MPTS)

Integration Laboratory (MODIL)

Manpower,The human dimension of the complete defense weapon system. The termPersonnel,MPTS also encompasses the concepts and disciplines of human factorsTraining, andengineering and health hazard prevention.

Manpower,
Personnel,A description of human dimensions and constraints involving a major system
throughout the system life cycle. This includes, but is not limited to,
descriptions and categorizations of occupations, aptitudes, individual skills and
demographics, training system characteristics and components, potential
system hazards, and other issues affecting the performance and welfare of
operators, maintainers, and personnel that support existing, modified or new
systems.

- MANPRINT Manpower and Personnel Integration (US Army).
- MANTECH See Manufacturing Technology.

Manufacturing (or
Production)Preproduction planning and operation analysis applied to specific product
designs. The functions of planning, specifying, and coordinating the application
of required factory resources including: performing analyses of production
operations, processes, and systems; applying new manufacturing methods,
tooling, and equipment; controlling the introduction of engineering changes,
and employing cost control and quality techniques from the factory viewpoint.

ManufacturingAn SDS-peculiar integration mechanism to link product technology developmentOperations,concurrently with manufacturing process and control development for a cost-Development, andreducing effective SDS development.

Manufacturing Manufacturing technology refers to any action which has as its objective the timely establishment or improvement of the manufacturing processes, techniques, or equipment required to support current and projected programs, and the assurance of the ability to produce, reduce lead time, ensure economic availability of end items, reduce costs, increase efficiency, improve reliability, or to enhance safety and anti-pollution measures. MANTECH, per se, is the specific DoD program in this area.

MAOPR Minimum Acceptable Operational Performance Requirements.

MAP Minimum Acquisition Program.

Marine Air Command and Control System A US Marine Corps tactical air command and control system that provides the tactical air commander with the means to command, coordinate, and control all air operations within an assigned sector and to coordinate air operations with other Services. It is composed of command and control agencies with communications-electronics equipment that incorporates a capability from manual through semiautomatic control.

Mark/Markup Line by line review and approval/disapproval/modification of the defense budget by congressional committees.

Μ

MARS	Multiwarfare Assessment and Research System.
MARSYSCOM	US Marine Corps Systems Command, Quantico, VA
MARV	See Maneuverable Reentry Vehicle.
MARVIS	Mid-Apogee Reentry Vehicle Intercept System.
MASINT	Measurement and Signature Intelligence.
MASPAR	Massive Parallel Processors (TMD-GBR).
Mass Raid	Many Red ballistic missiles launched toward CONUS from several launch areas. A mass ASAT raid consists of several ASATs attacking Blue satellites.
Material Fielding Plan	Plan to ensure smooth transition of system from developer to user.
Materials Science	The science of developing/altering and applying materials to obtain a resultant molecular structure with desirable physical properties and performance characteristics. (See Structures.) Also includes applying state-of-the-art advanced materials in the design of new SDS components and end items.
MATHSFA	Manufacturing and Testing of LWIR Hardened Seeker FPA Assemblies.
MATTR	Mid And Terminal Tiers Review.
Maximum Attrition	Maximum attrition is employed in a target-rich environment to destroy the maximum number of RVs, regardless of the type, by using all available or allocated intercentors. This option may not satisfactorily defend specific or
	required assets.
MBA	required assets. Multi-Beam Antenna.
MBA	Multi-Beam Antenna. Molecular Beam Epitaxy.
MBA MBE MBRV	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle.
MBA MBE MBRV MC	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase.
MBA MBE MBRV MC MCAS	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station.
MBA MBE MBRV MC MCAS MCBM	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station. Midcourse Battle Manager.
MBA MBE MBRV MC MCAS MCBM MCC	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station. Midcourse Battle Manager. Mission Control Complex/Center/Console.
MBA MBE MBRV MC MCAS MCBM MCC MCCDC	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station. Midcourse Battle Manager. Mission Control Complex/Center/Console. Marine Corps Combat Development Center.
MBA MBE MBRV MC MCAS MCBM MCC MCCDC MCCR	 allocated interopreter time options of a required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station. Midcourse Battle Manager. Mission Control Complex/Center/Console. Marine Corps Combat Development Center. Mission Critical Computer Resources.
MBA MBE MBRV MC MCAS MCBM MCC MCCDC MCCR MCG	required assets. Multi-Beam Antenna. Molecular Beam Epitaxy. Maneuvering Ballistic Reentry Vehicle. 1. Mission Control. 2. See Midcourse phase. Marine Corps Air Station. Midcourse Battle Manager. Mission Control Complex/Center/Console. Marine Corps Combat Development Center. Mission Critical Computer Resources. Midcourse Guidance.

 \mathbf{M}

MCM	Multi-Chip Module.
MCPDM	Marine Corps Program Decision Making.
MCRDAC	Marine Corps Research, Development & Acquisition Command.
MCSS	1. Midcourse Surveillance System. 2. Military Communications Satellite System.
MCTE	Mission, Course of Action, Task, and Element Control Directives.
MCTL	Militarily Critical Technologies List.
MCTR	Missile Control Technology Regime.
MCV	Mission Capable Vehicle.
MDA	1. Missile Defense Act. 2. Milestone Decision Authority.
MDAP	Major Defense Acquisition Program.
MDART	Missile Defense Activities Review Team.
MDC	Midcourse Data Center, Advanced Research Center, Huntsville, AL.
MDCI	Multi-Discipline Counterintelligence.
MDDC	Missile Defense Data Center, USASSDC, Huntsville, AL.
MEADS	See Medium Extended Air Defense System.
Mean Time Between Failures (MTBF)	A measure of the reliability of an item. Defined as the total functioning life of an item divided by the total number of failures within the population during the measurement interval. The definition holds for time, rounds, miles, events, or other measures of unit life. MTBF is a basic measure of reliability.
Mean Time To Repair (MTTR)	The total elapsed time for corrective maintenance divided by the total number of corrective maintenance actions during a given period of time. A basic measure of maintainability.
Mean Time to Restore System (MTTRS)	A measure of the system maintainability parameter related to availability and readiness. The total corrective maintenance time associated with downing events, divided by the total number of downing events, during a stated period of time. (Excludes time for off-system maintenance and repair of detached components.)
Measure of Effectiveness (MOE)	The quantitative expression (sometimes modified by subjective judgment) of the success of a system in achieving a specified objective.

Medium Earth
Orbit (MEO)Space vehicles characterized by orbits between 400 and 10,000 nautical miles,
longer duration revolution (2 to 12 hours), longer visibility envelopes (10
minutes up to approximately 1 hour), and generally longer lifetimes. This
region contains the Van Allen radiation belts where electronic components need
special protection.

Medium ExtendedA lightweight, highly transportable, low-to-medium altitude air defense and
theater missile defense system designed to protect critical fixed and
maneuverable corps assets. MEADS superseded the Corps SAM program in
1995.

Medium PowerLasers that radiate power less than 1 MW, normally used to detect, identify,Laserstrack, and designate a target vehicle.

Medium Range A ballistic missile with a range from about 600 to 1,500 nautical miles.

Ballistic Missile (MRBM)

Infrared (MWIR)

MediumThermal radiation emitted by a source in the electromagnetic spectrumWavelengthencompassing infrared wavelengths of 3 to 6 microns.

MEF Marine Expeditionary Force.

Memorandum of Agreement (MOA) 1. In contract administration, an agreement between a program manager and a Contract Administration Office, establishing the scope of responsibility of the Contract Administration Office with respect to the cost and schedule surveillance functions and objectives, and/or other contract administration functions on a specific contract or program. 2. Any written agreement in principle as to how a program will be administered.

Memorandum of
Understanding
(MOU)Official agreements concluded between the defense ministries of NATO nations
and ranking below government level international treaties. De facto, such
agreements are generally recognized by all partners as binding even if no legal
claim could be based on the rights and obligations laid down in them.

- MEO See Medium Earth Orbit.
- MER See Manpower Estimate Report.

Mercury Cadmium Infrared sensing material.

Telluride (HCT)

MESAR Multifunction Electronically Scanned Adaptive Radar (UK).

MESFET Metal Schottky-Gate Field Effect Transistor.

Mesosphere The portion of the atmosphere from about 30 to 80 kilometers above the earth.

Methods Engineering	The technique that subjects each operation of a given piece of work to close analysis to eliminate every unnecessary element or operation and to approach the quickest and best method of performing each necessary element or operation. It includes the improvement and standardization of methods, equipment, and working conditions; operator training; the determination of standard times; and occasionally devising and administering various incentive plans.
Metric	(Software). An indicator which measures some specific attribute of the software development process.
Metrology	The science of measurement, including the development of measurement standards and systems for absolute and relative measurement. Used to determine conformance to technical requirements including the development of standards and systems for absolute and relative measurements.
MEZ	Missile Engagement Zone.
MFEL	Medical Free Electron Laser.
MFLOPS	Million Floating Point Operations Per Second.
MFP	Major Force Program.
MFSIM	Multifunction Simulation (PATRIOT), Huntsville, AL.
MGEP	See Mobile Ground Entry Point.
MGLI	Midcourse Ground Launched Interceptor.
MHD	Magneto-Hydro-Dynamic.
мну	See Miniature Homing Vehicle.
MIC	Management Information Center (BMDO).
МІСОМ	U.S. Army Missile Command, Redstone Arsenal, AL.
Midcourse Guidance	The guidance applied to a missile between termination of the boost phase and the start of the terminal phase of flight.
Midcourse (MC) Phase	That portion of a ballistic missile's trajectory between the boost phase and the reentry phase when reentry vehicles and penaids travel at ballistic trajectories above the atmosphere. During this phase, a missile releases its warheads and decoys and is no longer a single object, but rather a swarm of RVs and penaids falling freely along present trajectories in space.
Midcourse Space Experiment (MSX)	Designed to provide demonstrations of midcourse acquisition and tracking from space, technology integration of optics, focal plane arrays, signal processing, etc., and collect background phenomenology measurements and target signature measurements.
MIJI	Meaconing, Intrusion, Jamming, and Interference.

M

Requirements

in-in-the-Loop.

MILCON Military Construction.

MilestoneThe individual designated in accordance with criteria established by the UnderDecision AuthoritySecretary of Defense for Acquisition and Technology to approve entry of an
acquisition program into the next phase.

Milestones (MS) Major decision points that separate the phases of an acquisition program.

Military Capability The ability to achieve a specified wartime objective (win a war or battle, destroy a target set). It includes four major components: a). Force Structure -- Numbers, size and composition of the units that compromise our Defense forces; b) Modernization -- Technical sophistication of forces, units, weapon systems, and equipment; c) Readiness -- The ability of forces, units, weapon systems, or equipment to deliver the outputs for which they were designed; d) Sustainability -- The ability to maintain the necessary level and duration of operational activity to achieve military objectives. Sustainability is a function of providing for and maintaining those levels of ready forces, materiel, and consumables necessary to support military effort.

Military The formal expression of a military need, the response to which results in -Operational development or acquisition of items, equipment, or systems.

MilitaryAn established need justifying the timely allocation of resources to achieve aRequirementcapability to accomplish approved military objectives, missions, or tasks.

Military Satellite A satellite used for military purposes, such as navigation or intelligence (MILSAT) gathering.

Military StrategyThe determination of: (1) what targets to defend and their priorities in order to
achieve the selected national strategy, and (2) the type of attackers (and/or
their corridors) to be intercepted.

- Military Utility The military worth of a system performing its mission in a competitive environment, including versatility (or potential) of the system. It is measured against the operational concept, operational effectiveness, safety, security, and cost/worth. Military utility estimates form a rational basis for making management decisions.
- MILSAT See Military Satellite.
- MILSATCOM Military Satellite Communications.
- MILSPEC Military Specification.

MILSTAR Military Strategic and Tactical Relay (satellite system).

Homing An air-launched direct-ascent ("pop-up") kinetic energy anti-satellite weapon.

Miniature Homing Vehicle (MHV)/ Miniature Vehicle (MV)

Minimum Acceptable Operational Requirement	The value for a particular parameter that is required to provide a system capability that will satisfy the validated mission need. Also known as the performance threshold.
Minimum Energy Trajectory	The trajectory that produces maximum range for a given amount of energy.
Minimum Required Accomplishments	Necessary tasks that must be completed during an acquisition phase prior to the next milestone decision review. Applies to all acquisition categories and highly sensitive classified programs.
MIPR	Military Interdepartmental Purchase Request.
MIRACL	Mid Infrared Advanced Chemical Laser.
MIRV	Multiple Independently Targetable Reentry Vehicle.
MIS	Management Information System.
Missile Defense Warning Condition	A situation of peril declared by the competent military commander, that a ballistic missile attack is probable (Missile Defense Warning Yellow), imminent or in progress (Missile Defense Warning Red), or improbable (Missile Defense Warning White).
Missile Destruct	Intentional destruction of a missile or similar vehicle for safety or other reasons.
Missile Guidance System	A system that evaluates flight information, correlates it with target data, determines the desired flight path of a missile, and communicates the necessary commands to the missile flight control system.
Missile Intercept Zone	That geographical division of the destruction area where surface-to-air missiles have primary responsibility for destruction of airborne objects.
Missile Release Line	The line at which an attacking aircraft could launch an air-to-surface missile against a specific target.
Missile Warning Center (MWC)	Located in CMAFB, the MWC is operated by USSPACECOM to fulfill ballistic missile TW/AA responsibilities of USCINCSPACE to external users to whom there are commitments. The MWC manages the ballistic missile sensors and reporting system in support of timely, accurate, and unambiguous warning of missile attack worldwide. MWC personnel, in coordination with other centers, validate and confirm report events. The Launch Correlation Unit (LCU) of the MWC ensures all domestic and cooperative launches are coordinated and reported so that they are not construed as hostile in accordance with the "Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War" between the US and USSR.

M

- Mission
 1. The task, together with the purpose, which clearly indicates the action to be taken and the reason therefor.
 2. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task.
 3. Missions are statements of the objective to be accomplished for a given situation. Missions will describe the situation and will include who, what, when, where, why, and how the BMD system will perform. They contain employment direction and procedures to BMD forces for a given situation to achieve specific defense objectives. (USSPACECOM)
- Mission Area A segment of the defense mission as established by the Secretary of Defense. Each DoD component has a mission area (i.e. Navy - sea control) for which it must equip its forces.

Mission Area Analysis (MAA) Continuous analysis of assigned mission responsibilities in the several mission areas to identify deficiencies in the current and projected capabilities to meet essential mission needs, and to identify opportunities for the enhancement of capability through more effective systems and less costly methods.

- Mission CapableMaterial condition of an aircraft indicating it can perform at least one and(MC)potentially all of its designated missions. Mission capable is further defined as
the sum of full mission capable and partial mission capable. Also called MC.
- Mission Critical Automated data processing equipment or services if the function, operation, or use: (1) involves intelligence activities; (2) involves cryptologic activities related to national security; (3) involves command and control of military forces; (4) involves equipment which is an integral part of a weapon or weapons system; or (5) is critical to direct fulfillment of military or intelligence missions.
- Mission CriticalA system whose operational effectiveness and operational suitability areSystemessential to successful completion or to aggregate residual combat capability.If this system fails, the mission likely will not be completed. Such a system
can be an auxiliary or supporting system, as well as a primary mission system.
- Mission Element A segment of a mission area critical to the accomplishment of the mission area objectives and corresponding to a recommendation for a major system capability as determined by the DoD Component.
- Mission NeedAssesses alternatives in an operational context, identifying what forceAnalysiscapabilities would be gained by pursuing any of a designated set of
alternatives. Assesses the strengths and weaknesses of a military force when
confronting a postulated threat in a specified scenario or set of circumstances.
- Mission Need
 Statement (MNS)
 A nonsystem specific statement of operational capability need, prepared IAW format in DoD 5000.2-M. Developed by DoD components and forwarded to the Joint Requirements Oversight Council (JROC) for validation and approval (major efforts), or just notification (minor efforts). The JROC also assesses all MNSs for joint service potential. MNSs go to the milestone decision authority for a determination on whether or not to convene a Milestone O review.
 A statement of operational capability required to perform an assigned mission or to correct a deficiency in existing capability to perform the mission.

M

Mission Reliability	The probability that the system will perform mission essential functions for a period of time under the conditions stated in the mission profile.
MIST	Mosaic Infrared Sensor Technology.
MIT/LL	Massachusetts Institute of Technology / Lincoln Laboratory, Bedford, MA.
МК	Mark (version).
МК∨	1. Miniature Kill Vehicle. 2. Multiple Kill Vehicle.
MLCP	Mission Launch Control Processor.
MLRS	Multiple Launch Rocket System.
MLV	1. Missile Launch Vehicle. 2. Medium Life Vehicle.
MMI	Man-Machine Interface.
MMIC	Monolithic Microwave Integrated Circuit.
MMM	Multi-Mode Missile.
MMS	Multi-Mode Seeker.
MMU	Man Maneuvering Unit.
MMW	Millimeter Wave.
MNS	See Mission Need Statement.
ΜΟΑ	1. See Memorandum of Agreement. 2. Military Operating Area.
мов	Main Operations Base.
Mobile Ground Entry Point (MGEP)	The subset of GEPs which are transportable. GEPs provide the communications interfaces between the SDS space orbital/sub-orbital elements and the C^2E .
MOCVD	Metal Organic Chemical Vapor Deposition.
Mock-up	A model, built to scale, of a machine, apparatus, or weapon. It is used in examining the construction of critical clearances, in testing a new development, or in teaching personnel how to operate or maintain the actual item.
MOD	1. Ministry of Defense. 2. Modification.
Modes	Situational conditions or categories under which selective Rules of Engagement apply. Examples include: Peacetime: Day to day operation when training, exercises, and routine maintenance and operations occur. Prior to crisis or war. Crisis: The transition state between peacetime and war. War: Self- explanatory.

Μ

MODIL	See Manufacturing Operations, Development, and Integration Laboratory.
Modularity	The degree to which a system, computer program (or component) is composed of discrete components such that a change to one component has minimal impact on other components.
MOE	See Measure of Effectiveness.
MOLNIYA Orbit	This is a highly eccentric orbit with high apogee (.71 to .74) in the northern hemisphere and low perigee in the southern hemisphere. For a specific set of orbital parameters, this orbit has a changing velocity and altitude, which, when combined with the earth's rotation, keeps the orbiting satellite within view for very long periods (96%) above a designated point on earth.
мом	Measure of Merit.
Monostatic Radar	A radar system in which the receiver and transmitter are collocated.
Mono Track	Data on the location and movement of an object in space, that can be derived by a single sensor.
МОР	Memorandum of Policy.
мора	Master Oscillator Power Amplifier.
MOR	Memorandum of Record.
MOS	Metal Oxide Semiconductor.
Moscow BMD System	The Soviet exoatmospheric system using the Dog House and Cat House phased-array radars for long-range acquisition. The system might also use the Hen House early warning radars for long-range acquisition. Target and interceptor tracking is performed by mechanically-steered dish antennas.
MOSHED	Multiplanar Organic Scintillator High Energy Detector.
MOTIF	Maui Optical Tracking and Identification Facility, HI.
MOTR	Multiple Object Tracking Radar.
MOU	Memorandum of Understanding.
MPP	Massively Parallel Processor.
MPS	 Multiple Protective Shelters (once to be used for basing MX). Main Propulsion System.
МРТ	Manpower, Personnel, and Training.
MPTS	See Manpower, Personnel, Training, and Safety.
MR	1. Milliradian. 2. Mobile Reserve.

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M

MRBM	See Medium Range Ballistic Missile.
MRDA	Mission Requirements and Definition Analysis.
MRC	Major Regional Contingency.
MRSS	Mobile Range Safety System.
MRTFB	Major Range and Test Facility Base.
MR∨	Maneuverable Reentry Vehicle.
MRVIS	Mid-Apogee Reentry Vehicle Intercept System.
ms	Milliseconds.
MS	See Milestones.
MSC	1. Military Sealift Command. 2. Mission Support Configuration. 3. Major Subordinate Command.
MSE	Mobile Subscriber Equipment (PATRIOT).
MSEL	Master Scenario Events List.
MSFC	Marshall Space Flight Center, Huntsville, AL.
MSI	Multi-Spectral Imagery.
MSIC	Missile and Space Intelligence Center (DIA), Redstone Arsenal, AL.
MSL	1. Mean Sea Level. 2. Master Station Log.
MSLS	Multi-Service Launch System (Minuteman).
MSR	Missile Site Radar.
MSS	1. Midcourse Surveillance System. 2. Multi-Satellite System. (ARPA)
MSTI	Miniature Sensor Technology Integration satellite.
MSX	See Midcourse Space Experiment.
MTBF	See Mean Time Between Failures.
MTCR	Missile Technology Control Regime.
МТІ	Moving Target Indicator.
мтмс	Military Traffic Management Control.
МТОЕ	Modified Table of Organization and Equipment.

pair.
bair.

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MTTRS See Mean Time to Restore System.

MTTV Maneuvering Tactical Target Vehicle.

Multilateration A type of multistatic radar usually employing one transmitter and several receivers for target detection and tracking.

Multilevel Device A device that is used in a manner that it simultaneously permits access by users with different security clearances and needs-to-know, but prevents users from obtaining access to information for which they lack authorization.

Multilevel Secure A class of system containing information with different classifications that simultaneously permits access by users with different security clearances and needs-to-know, but prevents users from obtaining access to information for which they lack authorization.

Multilevel(ADP Security) A mode of operation using an operating system which providesSecurity Modea capability that permits various levels and categories or compartments of
material to be concurrently stored and processed in an ADP system.

MultipleA reentry vehicle carried by a delivery system that can place one or moreIndependentlyreentry vehicles over each of several separate targets.

Independently Targetable Reentry Vehicle (MIRV)

Multiple Intercept Capability to make two or more intercepts per target or targets defended.

Defense

Defense

MultipleObservations of potential targets by means of different physical principles and
different sensor systems. In the case of sensor systems, the use of multiple
phenomenology makes it more difficult for an adversary to deceive them.

Multiple ReentryA reentry vehicle of a delivery system which places more than one reentryVehiclevehicle over an individual target.

Multiple Silo Capability to defend two or more silos.

Multi-ServiceFundamental principals that guide the employment of forces of two or moreDoctrineServices in coordinated action toward a common objective. It is ratified by two
or more Services, and is promulgated in multi-Service publications that identify
the participating Services. See also Joint Doctrine.

Multiservice T&E T&E conducted by two or more DoD Components for systems to be acquired by more than one DoD Component, or for a DoD Component's systems that have interfaces with equipment of another DoD Component.

 Multi-Spectral
 The image of an object obtained simultaneously in a number of discrete spectral

 Imagery
 bands.

Multistatic Radar	A radar system with a transmitter and several receivers, all separated. A special case is bistatic radar. An advantage of multistatic radar over monostatic radar is that even if transmitters, which might be detected by the enemy when operating, are attacked, receivers in other locations might not be noticed and might thereby escape attack.
Multi-Year Appropriation	Congressional appropriation available for incurring obligations for a definite period in excess of one fiscal year; i.e., for two or more years. (See Multi-Year Procurement.)
Multi-Year Procurement (MYP)	A procurement of more units than the current year requirement. The total purchase is divided into segments which are annually budgeted and funded; however, the contractor is protected from cancellations through clauses in contracts.
MUX	Multiplex.
mV	Millivolt.
MV	See Miniature Vehicle.
MW	1. Mega-Watt (millions of watts). 2. Microwave. 3. Missile Warning.
MWC	See Missile Warning Center.
MWIR	See Medium Wavelength Infrared.
мх	Formerly an experimental missile; newest addition to U.S. ICBM arsenal; also called "Peacekeeper."

 \mathbf{M}

NADC	Naval Air Development Center.
NAE	Navy Acquisition Executive.
NAF	1. Nonappropriated Fund. 2. Naval Air Facility.
NAIC	National Air Intelligence Center (DIA), Wright-Patterson AFB, OH.
NAS	1. National Academy of Sciences, Washington, DC. 2. Naval Air Station.
NASA	National Aeronautics and Space Administration, Washington, DC.
NASP	National Aerospace Plane.
National Command Authorities (NCA)	The President and the Secretary of Defense or their duly deputized alternates or successors.
National Emergency Airborne Command Post (NEACP)	One of four specially equipped Boeing 747s that during a national emergency, would allow the President and top military leaders to stay airborne for up to 12 hours while linked to ground and space forces.
National Military Command Center (NMCC)	The primary location for JCS command and control of all U.S. and Combined Forces. Located at the Pentagon, Arlington, VA.
National Military Command System (NMCS)	The priority component of the Worldwide Military Command and Control System (WWMCCS) designed to support the National Command Authorities and Joint Chiefs of Staff in the exercise of their responsibilities. The NMC provides the means by which the President and the Secretary of Defense can receive warning and intelligence upon which accurate and timely decisions can be made, the resources of the Military Departments applied, military mission assigned, and by which direction can be given to CINCs or the commanders of other commands established by the NCA. The NMCS must be capable of providing information so that appropriate and timely responses can be selected and directed by the NCA and implemented. In addition, the NMCS supports the Joint Chiefs of Staff in carrying out their responsibilities.
National Missile Defense (NMD) System	A ground-based anti-ballistic missile system designed to protect the U.S. against limited ballistic missile threats. It consists of four elements: ground-based interceptors (GBI); a ground-based radar (GBR); a battle management command, control, and communications (BM/C^3) system; and a constellation of Space and Missile Tracking System (SMTS) (a.k.a. Brilliant Eyes) satellites.

N

i N

National A Department of Defense Agency tasked to ensure that the United States has Reconnaissance Office (NRO) A Department of Defense Agency tasked to ensure that the United States has the technology, spaceborne, and airborne assets needed to acquire intelligence worldwide, including support to such functions as monitoring arms control agreements, indications and warning, and the planning and conducting of military operations. This mission is accomplished through research and development, acquisition, and operation of spaceborne and airborne intelligence data collection systems.

National Strategy Selection The determination of (1) when it is in the national interest to activate and employ defense resources (i.e., the balance between responsiveness and crisis control), and (2) given an activation/employment decision, what should be the basic objective (e.g., force survival, survival of selected population centers, etc.).

National Test Bed (NTB) A number of geographically separated simulation and test facilities that are linked through communications to simulate various portions of the ballistic missile defense (BMD) system for testing and validating operational and technical concepts and technologies.

National Test BedA Joint Service organization established to manage the NTF and execute theJoint ProgramNTB program for BMDO.Office (NTBJPO)

National TestA large, modeling, simulation and test facility located on Falcon AFB inFacility (NTF)Colorado which serves as the central control, coordinating, and computing
center for the NTB and as the primary integration and test facility of the BMD
SE&I contractor.

National Warning
Center (NWC)Center in CMAFB which activates the radio, TV, and sirens that warn the U.S.
population of impending ballistic missile attack. Also assists with national
disaster relief, forest fires, and other events assigned.

NATOPS Naval Air Training and Operating Procedures Standardization.

Natural Ground and Atmospheric Environments The environments which exist in the sensible atmosphere and on the surface of the earth. These include meteorological, seismic, biological and related natural conditions. This environment is applicable to ground-based assets and groundlaunched interceptors in the atmospheric portions of flight, and it effects the propagation of radar and communications signals.

Natural SpaceThe natural environment which exists above the sensible atmosphere. SpaceEnvironmentbegins approximately 100 km and above. This environment is applicable to
orbiting space craft, to interceptors in the exoatmospheric portions of flight,
and it affects the propagation of radar and communications signals.

NAVAIDS Navigational Aids.

NAVAIR-SYSCOM Naval Air Systems Command.
(NAVSPOC)

SYSCOM

Naval Space Command (NAVSPACE- COM)	The naval component of USSPACECOM. Responsible for day-to-day operation of FLTSATCOM, NAVSPASUR, etc. Responsible for BMD elements that may be operated by the Navy. Located in Dahlgren, VA.
Naval Space Operations Center	Existing Navy component command center at Dahlgren, VA, responsible for logistical and administrative support of forces assigned to them.

NAVDSOC Navy Defense System Operations Center.

NAVFOR Navy Forces.

NAVMIC Naval Maritime Intelligence Center, Suitland, MD.

NAVSAT Navigation Satellite.

NAVSEA- Naval Sea Systems Command.

NAVSPACECOM See Naval Space Command.

NAVSPASUR Naval Position of SPASUR.

NAVSPOC See Naval Space Operations Center.

NAWC Naval Air Warfare Center.

NBC Nuclear, Biological, Chemical.

NBS National Bureau of Standards.

NCA See National Command Authorities.

NCC NORAD Command Center, Colorado Springs, CO.

NCCOSC Naval Command, Control, and Ocean Surveillance Center, San Diego, CA.

NCDCS Narrow Band Coherent Data Collection System.

NCP See NORAD Command Post.

NCS 1. National Communications System. 2. Net Control Station. 3. Naval Control of Shipping.

NDC Naval Doctrine Command.

NDEW See Nuclear Directed Energy Weapon.

NDEWG Nuclear Directed Energy Weapon - Ground-Based.

NDI 1. See Non-Developmental Item. 2. Non-Destructive Inspection.

N

NDP	National Disclosure Policy.
NDS	1. National Defense Stockpile 2. National Defense System.
NEA	1. Northeast Asia. 2. Northeast Asia campaign scenario.
NEACP	See National Emergency Alternate Command Post (E-4 aircraft).
Near Real Time	Pertaining to the timeliness of data or information that has been delayed by the time required for electronic communication and automatic data processing. This implies that there are no significant delays.
Negate Early Warning	The use of any technique that precludes the use of, renders useless, or degrades an early warning capability.
Negation	RV destruction or other actions which prevent damage to the defended area from conventional, nuclear, chemical, or biological effects.
NEMP	Nuclear Electromagnetic Pulse.
NEP	1. Nuclear Electric Propulsion. 2. Nuclear Environment Protection.
NEPA	National Environmental Policy Act.
Neutral Particle Beam (NPB)	An energetic beam of neutral particles that is generally used to damage electronics.
NEW	Net Explosive Weight.
NFL	New Foreign Launch.
NH&S	Nuclear Hardening and Survivability.
NHMT	Nuclear-Hardened Mosaic Technology.
NHTF	National Hover Test Facility, Edwards AFB, CA.
NIE	National Intelligence Estimate.
NIU	NATO Interface Unit.
NISC	OBSOLETE. Naval Intelligence Support Center. (Now Naval Maritime Intelligence Center (NAVMIC).)
NIST	National Institute of Standards and Technology, Gaithersburg, MD. (Formerly NBS (National Bureau of Standards)).
Nitze Criteria	A reference to Paul Nitze, the Reagan Administration's chief arms control negotiator, and his vocalization of the goal of the SDS as the achievement of raising the attack price where the defense cost is measured at the margin, not the total cost. Congress established the Nitze criteria as conditions of deploying an SDS in Section 222 of the National Defense Authorization Act for FY 1986.

Ν

N

NKEW	Nuclear Kinetic Energy Weapon.
NLT	1. Navy Lower Tier (Missile Defense). 2. Not Later Than.
NMC	Not Mission Capable.
NMCC	See National Military Command Center.
NMCS	See National Military Command System.
NMD	National Missile Defense.
NMD/TRP	National Missile Defense Technology Readiness Program.
NMM	NMD Maturity Matrix.
NMSD	National Military Strategy Document.
NNAG	NATO Naval Armaments Group.
NNK	See Non-Nuclear Kill.
NOAA	National Oceanic and Atmospheric Administration, Washington, DC.
Node	A set of equipment and processes which performs the communications functions at the end of the datalinks which interconnect those elements which are resident on the network.
NOIC	Naval Operational Intelligence Center.
Noise	In the most general terms, noise is the undesired part of the process being observed or measured. Its complement, the desired part, is usually referred to as the signal.
Non- Developmental Item (NDI)	 Any item of supply that is available in the commercial marketplace; or Any previously developed item of supply that is in use by a department or agency of the United States, a state or local government, or a foreign government with which the United States has a mutual defense cooperation agreement; or
	 Any item of supply described in definition 1 or 2, above, that requires only minor modification in order to meet the requirements of the procuring
	 4. Any item of supply that is currently being produced that does not meet the requirements of definition 1, 2, or 3, above, solely because the item is not yet in use or is not yet available in the commercial marketplace.
Non Material Solution	Solutions to mission needs (warfighting, deficiencies) that can be satisfied by changes in doctrine, tactics, operational concepts, training, or organization.
Non-Nuclear Kill (NNK)	A kill that does not involve a nuclear detonation.

Nonrecurring Costs	1. Costs that are not proportional to the number of units produced. 2. A one time cost that will occur on a periodic basis for the same organization. Nonrecurring costs include (a) preliminary design effort; (b) design engineering; (c) all partially completed reporting elements manufactures for tests. 3. Training of service instructor personnel.
NOP	Nuclear Operations.
NORAD	See North American Aerospace Defense Command.
NORAD Command Post (NCP)	A center in CMAFB responsible for controlling ACC, Canadian, and other assigned forces for designated atmospheric missions in defense of North America.
North American Aerospace Defense Command (NORAD)	A binational command of Canadian and U.S. forces responsible for defense of North America from bomber and ALCM/SLCM attack. Located in Colorado Springs, CO.
NOSC	OBSOLETE. Naval Ocean Systems Center, San Diego, CA. See NCCOSC.
NPB	See Neutral Particle Beam.
NPG	Nuclear Planning Group.
NPR	National Performance Review.
NRaD	Naval Research and Development Division (NCCOSC), San Diego, CA.
NRL	1. Nuclear Referral List. 2. Naval Research Laboratory, Washington, DC.
NRO	See National Reconnaissance Office.
NRT	Near Real Time.
NSA/CSS	NSA Central Security Service.
NSC	1. See National Security Council. 2. National Security Center.
NSCID	National Security Council Intelligence Directive.
NSD	National Security Directive.
NSDD	OBSOLETE. National Security Decision Directive. Replaced by National Security Directive (NSD).
NSEN	NMD System Engineering Notebook.
NSFS	Naval Surface Fire Support.
NSNF	Non-Strategic Nuclear Forces.

Ν

N

- NSOC
 1. National Signals Intelligence Operations Center.
 2. Navy Satellite Operations Center.

 NSSC
 National Space Surveillance Center, CMAFB.
- NSWC DD Naval Surface Warfare Center, Dahlgren, VA.
- NTACS Navy Tactical Air Control System.
- NTB See National Test Bed.

NTB/WAN National Test Bed/Wide Area Network.

- NTC The National Test Center, located at Ft. Irwin, CA. A large maneuver area that serves as the Army's primary testing center for Army maneuver forces. Friendly forces are pitted against "enemy" forces to validate proposed procedures and doctrine.
- NTIC 1. Navy Tactical Intelligence Center. 2. National Technical Information Center.
- NTF See National Test Facility.
- NTM National Technical Means.
- NTU New Threat Upgrade.

The deposit and/or absorption of residual radioactive material or biological or chemical agents on or by structures, areas, personnel, or objects.

- <u>Nuclear Contamination</u>. Residual radioactive material resulting from fallout or rainout, and residual radiation from a system produced by a nuclear explosion, and persisting longer than one minute after burst.
- <u>Biological Contamination</u>. Microorganisms and toxins that cause disease in humans, plants, or animals or cause deterioration of material.
- <u>Chemical Contamination</u>. Chemical substances intended for use in military operations to kill, seriously injure, incapacitate, or temporarily irritate humans.

The capability of a system and its crew to withstand a NBCC environment and relevant decontamination without losing the ability to accomplish the assigned mission. A NBCC survivable system is hardened against NBCC and decontaminates; it can be decontaminated, and it is compatible with individual protective equipment.

- <u>Hardness</u>. The capability of material to withstand the material -damaging effects of NBCC and relevant decontamination.
- <u>Decontamination</u>. The process of making personnel and materiel safe by rendering harmless or removing radioactive, chemical, or biological material.
- <u>Compatibility</u>. The capability of a system to be operated, maintained, and resupplied by persons wearing individual protective equipment, in all climates for which the system is designed, and for the period specified in the operational requirements document.

Nuclear Cloud

Nuclear,

Chemical

(NBCC)

Nuclear, Biological, and

Chemical Contamination

Survivability

Biological, and

Contamination

See Radioactive Cloud.

Nuclear DirectedA directed energy weapon for which the source of energy is a speciallyEnergy Weapondesigned nuclear device.(NDEW)

Nuclear The environment which results from the detonation of nuclear weapons. Some components of this environment are directly emitted by the nuclear weapon and other collateral effects are created by the interaction of the emitted nuclear radiation with the earth's atmosphere, the earth's surface and the earth's magnetic field. The nuclear environment consists of radiation, blast, shock, thermal, electromagnetic pulse (EMP), emissions from radioactive debris, trapped electrons, and disturbances to the atmosphere and to the propagation paths for radar and communications. The nuclear environment exists in the exoatmospheric, atmospheric and ground BMD operational regimes.

- Nuclear Hardness A quantitative description of the resistance of a system or component to malfunction (temporary and permanent) and/or degraded performance induced by a nuclear weapon environment. Hardness is measured by resistance to physical quantities such as overpressure, peak velocities, energy absorbed, and electrical stress. Hardness is achieved through adhering to appropriate design specifications and is verified by one or more test and analysis techniques.
- Nuclear Radiation Particulate and electromagnetic radiation emitted from atomic nuclei in various nuclear processes. The important nuclear radiations, from the weapons standpoint, are alpha and beta particles, gamma rays, and neutrons. All nuclear radiations are ionizing radiations, but the reverse is not true; x-rays, for example, are included among ionizing radiations, but they are not nuclear radiations since they do not originate from atomic nuclei. (See Ionizing Radiation and X-Rays.)
- Nuclear A quantitative description of the system features needed to meet its survivability requirements. Such system features include those design, performance, and operational capabilities used to limit or avoid the hostile environment, architectures that minimize the impact of localized damage to the larger wartime mission, as well as physical hardening to environment levels which cannot be mitigated otherwise. Survivability characteristics include proliferation, redundancy, avoidance, reconstitution, deception, and hardening.

NUDET Nuclear Detonation.

NUICCS NORAD and USSPACECOM Integrated Command and Control System.

- NUT Navy Upper Tier (Missile Defense).
- NVG Night Vision Goggles.

NWC 1. See National Warning Center. 2. National War College. 3. Naval War College. 4. Nuclear Weapons Council. 5. Naval Weapons Center.

NWP Naval Warfare Publication.

NWS National Weather Service.

NWSC Naval Weapons Support Center.

Ν

OAMP	See Optical Airborne Measurement Program.
O&M	Operations and Maintenance.
O&O Plan	Operational & Organizational Plan (Army).
O&S	Operations and Support.
OAR	Chairman of the Joint Chiefs of Staff Operation Plans Assessment Report.
OASD	Office of Assistant Secretary of Defense.
OASP	On-Array Advanced Signal Processing.
ОВ	Operating Budget.
Object-Oriented	A software development approach that organizes software as a collection of objects containing both data structure and behavior.
Object-Oriented Analysis	The process by which a real-world problem is examined in terms of a collection of objects to understand requirements, without planning the implementation.
Object Rate (Max)	The maximum rate (per second) that a sensor can acquire RVs, decoys, AOs, or fractionated missile/PBV debris.
Objects in FOV (Max)	The maximum number of RVs, decoys, AOs, or fractionated missile/PBV debris that a sensor can acquire at one time.
Obligation	A duty to make a future payment of money. The duty is incurred as soon as an order is placed, or a contract is awarded. The placement of an order is sufficient. An obligation "legally" encumbers a specified sum of money that will require outlays or expenditures in the future.
Obligation Authority	1. A congressional authorization to procure goods and services within a specified amount by appropriation or other authorization. 2. The administrative extension of such authority, as by apportionment of funding. 3. The amount of authority so granted.
Obscurant	A material (e.g., smoke or chaff) used to conceal an object from observation by a radio or optical sensor. Smoke may be used to conceal an object from observation by an optical sensor, and chaff may be used to conceal an object from observation by a radio sensor (e.g., radar).
Observable	A measurable target attribute.
OCA	Offensive Counterair.
OCM	Overt Countermeasure.
OCU	Operators Console Unit (THAAD).
OD	Optical Disk (PATRIOT).

ODCS	Office, Deputy Chief of Staff.
ODES	Operational and Developmental Experiments Simulator.
Offense/Defense Coordination	The coordination of the strategic defense system operations with unified/specified strategic offense commands to achieve overall U.S. and Allied strategic mission objectives.
Off the Shelf	Procurement of existing system or equipment without an RDT&E program or with minor development to make the system suitable for DoD needs. May be commercial system/equipment or one already in DoD inventory. See Non- Developmental Item.
Off-the-Shelf Item	An existing item, system, or equipment, determined by a material acquisition decision process review (DoD, Military Component, or subordinate organization as appropriate) to be available for acquisition, without an RDT&E program or with mission development, to satisfy an approved requirement.
Offensive Counter Air Operation	An operation mounted to destroy, disrupt, or limit enemy air power as close to its source as possible.
OIS	Orbital Insertion Stage.
TLO	On-the-Job Training.
OLA	Office of Legislative Affairs (Navy).
OLC ²	Operational Level Command and Control.
ОМВ	Office of Management and Budget.
омт	Other Military Targets.
οΜυ	Orbital Maneuvering Unit.
OMV	Orbital Maneuvering Vehicle.
ON	Optic Needle.
On-Line	A unit that is operational, not dormant, but is not participating with on-going functions.
ONR	Office of Naval Research, Arlington, VA.
OOMS	On-Orbit Maintenance/Servicing.
OP	1. Optical Processing. 2. Orthogonal Polarization.
OPCC	OBSOLETE. Offut Processing and Correlation Center. (Now Alternate Processing and Correlation Center (APCC).)
OPCOM	Operational Command (NATO).

BMDO GLOSSARY, VER. 2.0

OPCON See Operational Control.

Operate Commands and data distributed throughout the SDS to operate the system.

Commands

Operating Budget An operating budget is the annual budget of an activity stated in terms of Budget Classification Code, functional/subfunctional categories, and cost accounts. It contains estimates of the total value of resources required for the performance of the mission, including reimbursable work or services for others. It also includes estimates of workload in terms of total work units identified by cost accounts.

Operating Costs Those program costs necessary to operate and maintain the capability. These costs include Military Personnel, and Operations and Maintenance.

- **Operating System** Software that controls the execution of computer programs. It may provide scheduling, debugging, input and output control, accounting, storage assignment, data management, and related service. Sometimes called supervisor, executive, monitor, or master control program depending on the computer manufacturer.
- Operation 1. The intentional changing of an object in any of its physical or chemical characteristics. 2. The assembly or disassembly of parts or objects. 3. The preparation of an object for another operation, transportation, inspection, or storage. 4. Planning, calculating, or the giving or receiving of information. 5. Military action using deployed forces. 6. A military action or the carrying out of a strategic, tactical, service, training, or administrative military mission; the process of carrying on combat, including movement, supply, attack, defense, and maneuvers needed to gain the objectives of any battle or campaign.

Operation andDescribes how an Army system will be integrated into the force structure,Organizationaldeployed, operated and supported in peacetime and wartime.

Organizational Plan (O&O Plan)

Operation Order A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. Also called OPORD.

Any plan, except for the Single Integrated Operational Plan, for the conduct of **Operation Plan** military operations. Plans are prepared by combatant commanders in response to requirements established by the Chairman of the Joint Chiefs of Staff and by (OPLAN) commanders of subordinate commands in response to requirements tasked by the establishing unified commander. Operation plans are prepared in either a complete format of an OPLAN or as a concept plan (CONPLAN). a) OPLAN. An operation plan for the conduct of joint operations that can be used as a basis for development of an operation order (OPORD). An OPLAN identifies the forces and supplies required to execute the CINC's Strategic Concept and a movement schedule of these resources to the theater of operations. The forces and supplies are identified in time-phased force deployment data flies. OPLANs will include all phases of the tasked operation. b) CONPLAN. An operation plan in an abbreviated format that would require considerable expansion or alteration to convert it into an OPLAN or OPORD. A CONPLAN contains the CINC's Strategic Concept and those annexes and appendixes deemed necessary by the combatant commander to complete planning.

Operational An evaluation of operational effectiveness and operational suitability made by Assessment an independent operational test activity, with user support as required, on other than production systems. The focus of an operational assessment is on significant trends noted in development efforts, programmatic voids, areas of risk, adequacy of requirements, and the ability of the program to support adequate operational testing. Operational assessments may be made at any time using technology demonstrators, prototypes, mockups, engineering development models, or simulations but will not substitute for the independent operational test and evaluation necessary to support full production decisions.

- OperationalThe degree, expressed in terms of 1.0 as the highest, to which one can expectAvailabilityan equipment or weapon system to work properly when it is required. The
equation is uptime over uptime plus downtime, expressed as Ao. It is the
guantitative link between readiness objectives and supportability.
- OperationalThe measure of the results of the mission, given the condition of the systemCapabilityduring the mission (dependability).
- Transferable command authority that may be exercised by commanders at any Operational echelon at or below the level of combatant command. Operational control is Control (OPCON) inherent in Combatant Command (command authority) and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.
- Operational The overall degree of mission accomplishment of a system when used by representative personnel in the environment planned or expected (e.g., natural, electronic, threat, etc.) for operational employment of the system considering organization, doctrine, tactics, survivability, vulnerability, and threat (including countermeasures, initial nuclear weapons effects, nuclear, biological, and chemical contamination (NBCC) threats).
- Operational Evaluation The test and analysis of a specific end item or system, insofar as practicable under Service operating conditions, in order to determine if quantity production is warranted considering: a) the increase in military effectiveness to be gained; and b) its effectiveness as compared with currently available items or systems, consideration being given to: (1) personnel capabilities to maintain and operate the equipment; (2) size, weight, and location considerations; and (3) enemy capabilities in the field.

Operational Level of War	The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide a means by which tactical successes are exploited to achieve strategic objectives.
Operational Mode	The configuration of the defense system element or segment. Refers to the operational environment of system, i.e., test configuration or training configuration.

OperationalThe capability of a unit/formation, ship, weapon system or equipment toReadinessperform the missions or functions for which it is organized or designed. May
be used in a general sense or to express a level or degree of readiness.

OperationalThe reliability of a system or software subsystem in its actual use environment.ReliabilityOperational reliability may differ considerably from reliability in the non-
operational or test environment.

OperationalNavy document which describes major characteristics of the alternativeRequirementselected by OPNAV. It is submitted as originating document for all Navy newstarts (less than major programs)--ACATs II, III, IV.

OperationalDocuments the user's objectives and minimum acceptable requirements forRequirementsoperational performance of a proposed concept or system. Format has beenDocument (ORD)standardized across all DoD components by DoDI 5000.1 and DoD 5000.2-M.

Operational The degree to which a system can be placed satisfactorily in field use with consideration given to availability, compatibility, transportability, interoperability, reliability, wartime usage rates, maintainability, safety, human factors, manpower supportability, logistics supportability, natural environmental effects and impacts, documentation, and training requirements.

Operational Test and Evaluation (OT&E) That T&E conducted to estimate a system's military utility, operational effectiveness, and operational suitability, as well as the need for any modifications. It is accomplished by operational and support personnel of the types and qualifications expected to use and maintain the system when deployed, and is conducted in as realistic an operational environment as possible.

Operationally1. Capable of performing the missions or functions for which organized or
designed (as applied to a unit, ship or weapon system). Incorporates both
equipment readiness and personnel readiness. 2. Available and qualified to
perform assigned missions or functions (as applied to personnel).

Operations andThose resources required to operate and support a system, subsystem, or aSupport (O&S)major component during its useful life in the operational inventory.Costs

Operations Profile	An identification of all participants in an operation, their actions, and the time those actions occur in the operation. Includes assessment of operational procedures to ascertain whether stereotyped or predictable patterns are discernible.
Operations Security (OPSEC) Survey	The method of evaluating the protection afforded a given operation. It is composed of multiple functional outlines that identify possible weaknesses or inefficiencies of an operation that could, if exploited, degrade operational effectiveness.
OPEVAL	Operational Evaluation (Navy).
OPLAN	Operation Plan.
Ops	Operations (employment).
OPINE	Operation in Nuclear Environment.
OPLAN	See Operation Plan.
OPNAV	Office of the Chief of Naval Operations.
OPNAVINST	Chief of Naval Operations Instruction.
OPORD	Operation Order.
OPS	Operations.
OPSDEPS	Service Operations Deputies.
OPTEC	Operational Test and Evaluation Command, Alexandria, VA. (U.S. Army)
ΟΡΤΕΜΡΟ	Operating Tempo.
OPTEVFOR	Operational Test and Evaluation Force. (U.S. Navy)
Optical Airborne Measurement Program (OAMP)	A program involving an aircraft-mounted research platform to conduct surveillance experiments that can be used to design future defensive systems. (Also known as Cobra Eye.)
Optical Coating	Layers of materials that alter/protect the physical/electronic properties of the material to which they are applied.
Optical Processing	A type of analog processing in which the behavior of light beams, passed through optical systems, is used in problem solving.
OR	 Operations Research. Operational Requirement (Navy). Operational Readiness
Orbital Elements	Any set of several parameters (e.g., semi-major axis, eccentricity, inclination, etc.) used to specify the position and motion of a satellite. Six independent orbital elements are required to unambiguously specify the position of a satellite

in a Keplerian orbit at a particular time.

Orbital Maneuvering Vehicle (OMV)	NASA program to provide capability to perform satellite on-orbit servicing. Operates from shuttle and Space Station.
Orbiting Debris	Term referring to all earth-orbiting objects except active satellites.
ORD	See Operational Requirements Document.
Order of Battle	The identification, strength, command structure, and disposition of the personnel, units, and equipment of any military force.
Order Wire Message	A communications support function for internal control of communications elements.
Organic	Assigned to and forming an essential part of a military organization. Organic parts of a unit are those listed in its table of organization for the Army, Air Force, and Marine Corps, and are assigned to the administrative organizations of the operating forces for the Navy.
ORNL	Oak Ridge National Laboratory, TN.
OR/SA (ORSA)	Operations Research/Systems Analysis.
ORU	Orbital Replacement Unit.
ORWG	Operational Requirements Working Group.
os	1. Operational Suitability. 2. Operating System.
OSC	Optical Signature Code.
OSI	Operator System Interface.
OSTP	Office of Science and Technology Policy.
OSIWG	Operating Systems Interface Working Group.
от	Operational Test.
ΟΤΑ	 Office of Technology Assessment, Washington, DC. Operational Test Agency. Office of Technology Applications, BMDO.
OT&E	See Operational Test and Evaluation.
OTF	Object Track Profile.
отн	Over the Horizon.
отн-т	Over-The-Horizon Targeting.
ото	Operational Test Organization.

ОТР	Outline Test Plan.
отv	Orbital Transfer Vehicle.
OUSD (A)	OBSOLETE. See OUSD (A&T).
OUSD (A&T)	Office of the Under Secretary of Defense (Acquisition & Technology).
Outer Space Treaty of 1967	A multilateral treaty signed and ratified by both the United States and the (former) Soviet Union. Article IV of the Outer Space Treaty forbids basing nuclear weapons or other weapons of mass destruction in space.
Outlays	Actual expenditures. Checks issued, interest accrued on the public debt, or other payments, net of refunds and reimbursements. Total budget outlays consist of the sum of the outlays from appropriations and funds in the budget, less receipts.
Out of Band Laser Flux	(Sensor) Laser energy directed at a sensor that is intended to damage or disrupt the sensor and is outside the sensor's bandwidth.
Out-Years	Normally, six years beyond the year being worked in the upcoming POM/budget.
Overlay BMD System	An advanced exoatmospheric defense system oriented toward defense of ICBMs, consisting of missile-borne, passive infra-red sensors and non-nuclear homing interceptors.
OWG	Operating Working Group.

p ² NRTA&A	Pre-Planned Near-Real-Time Assessment and Adaptation.
P ³ I	See Preplanned Product Improvement.
PAC	1. PATRIOT Advanced Capability. 2. Program Assessment Center. (BMDO)
PAC-2/-3	PATRIOT Advanced Capability, Level 2/Level 3. Formerly called ERINT.
PAC-3 SIM	PAC-3 Simulation (PATRIOT), Huntsville, AL.
Packaging, Handling, Storage, and Transportation (PHS&T)	The resources, processes, procedures, design considerations, and methods to ensure that all system, equipment, and support items are preserved, packaged, handled, and transported properly, including environmental considerations, equipment preservation requirements for short- and long-term storage, and transportability.
Packet Switching (PSW)	A data transmission process, utilizing addressed packets, whereby a channel is occupied only for the duration of transmission of the packet. In certain data communication networks the data may be formatted into a packet or divided and then formatted into a number of packets (either by the data terminal equipment or by equipment within the network) for transmission and multiplexing purposes.
PACOSS	Passive and Active Controls of Space Structures.
PAM	Pulse Amplitude Modulation.
Pancake Altitude	Altitude at which the trailing edge of a chaff puff/cloud effectively catches up to the leading edge because of atmospheric slowdown.
P&M	1. Producibility and Manufacturing. 2. Procure and Manufacture. 3. Pulse Acquisition Radar.
PAR	 Phased-Array Radar. Perimeter Acquisition Radar. (See Phased Array.) Preprocessing Analysis Report.
Parallel Processing	In parallel processing multiple processors (CPUs) divide up a large task into smaller ones and each CPU acts on the subdivided task simultaneously so that much higher effective processing speeds can be attained.
Parametric Cost Estimate	A cost estimating methodology using statistical relationships between historical costs and other program variables such as system physical or performance characteristics, contractor output measures, manpower loading, etc. Also referred to as a top-down approach.
PARCS	See Perimeter Acquisition Radar and Attack Characterization System.
PARPRO	Peacetime Application of Reconnaissance Programs.
Partial Mission Capable	Material condition of an aircraft or training device indicating that it can perform at least one, but not all, of its missions. Also called PMC. See also Full Mission Capable.

P

ParticipatingA military Service that supports the lead Service in the development of a jointServiceacquisition program by its contribution of personnel and/or funds.

Particle BeamHigh energy beam made up of atomic/sub-atomic particles (electrons, protons,(PB)or neutrons) accelerated to near the speed of light.

Particle BeamA weapon that relies on the technology of particle accelerators (atom-
smashers) to emit beams of charged or neutral particles which travel near the
speed of light. Such a beam could theoretically destroy a target by several
means, e.g., electronics upset, electronics damage, softening/melting of
materials, sensor damage, and initiation of high explosives.

POET Advanced Submunition Study.

Passive In surveillance, an adjective applied to actions or equipment which emit no energy capable of being detected.

Passive AirAll measures, other than active air defense, taken to minimize the effectivenessDefenseof hostile air action. These measures include deception, dispersion, and the use
of protective construction.

PassiveThreats to electronic systems posed by a capability to obtain intelligenceCommunicationsThreats to electronic and evaluating intentional and inadvertent electromagneticSecurity Threatsemanations from electronic components of the system; e.g. communications
interception and direction finding.

Passive Defense 1. Measures taken to reduce the probability of and to minimize the effects of damage caused by hostile action without the intention of taking the initiative. 2. Passive defense minimizes the probability and effects of theater missile attack by reducing an enemy's ability to target friendly assets, reducing the vulnerability of critical forces and infrastructure, and improving the potential to survive and resume operations after an attack. Passive measures might include counter-surveillance, deception, camouflage and concealment, hardening, electronic warfare, mobility, dispersal, and redundancy. Passive defense is considered one of the four pillars of TMD capability. (JCS J-38 CONOPS)

Passive Sensor A sensor that detects naturally occurring emissions from a target for tracking and/or identification purposes.

PAT Process Action Team.

PAT&E Production Acceptance Test and Evaluation.

PATHS Precursor Above-the-Horizon Sensor.

PATRIOT See Phased Array Tracking Radar Intercept On Target (missile).

PAVE PAWS Position And Velocity Extraction Phased Array Warning System. Phased array SLBM warning system. Four sites:

- a. East Otis ANG Base, MA
- b. West Beale AFB, CA
- c. Southeast Robins AFB, GA
- d. Southwest Goodfellow AFB, TX

Payload (Missile)	 The warhead, its container, and activating devices in a military missile. The satellite or research vehicle of a space probe or research missile.
Payload Build-up (Missile and Space)	The process by which the scientific instrumentation (sensors, detectors, etc.) and necessary mechanical and electronic subassemblies are assembled into a complete operational package capable of achieving the scientific objectives of the mission.
Payload Integration (Missile and Space)	The compatible installation of a complete payload package into the spacecraft and space vehicle.
PB	 See Particle Beam. 2. Post-Boost. 3. See President's Budget. Program Baseline.
PBCRAW	Post-Boost Control Reaction Altitude Wafer.
PBCS	Post-Boost Control System.
PBD	Program Budget Decision.
PBI	Post-Boost Intercept.
PBP	See Post-Boost Phase.
PBV	See Post-Boost Vehicle.
PBW	See Particle Beam Weapon.
PC	1. Printed Circuit. 2. Personal Computer. 3. Principals Committee.
PCA	See Physical Configuration Audit.
РСВ	Printed Circuit Board.
PCL	Pulsed Chemical Laser.
PCM	1. Pulse Code Modulation.
PD	 Presidential Directive. 2. Procedures Description. 3. Probability of Damage. Probability of Detection. 5. See Preconditions for Defense.
PDB	Post Deployment Build (PATRIOT).
PDC	Plume Data Center, AEDC, TN.
PDM (I or II)	See Program Decision Memorandum (First or Second).
PDR	See Preliminary Design Review.
PDSL	See Process Data Sensitivity Label.

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PCR	1. Program Change Request.	2. Procurement Center Representative.
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PD 1. Program Director (AF). 2. Production/Deployment.

PE Program Element.

Peak GammaThe maximum rate (per second) of gamma radiation that the system couldDose Ratesurvive and continue functioning.

PEC 1. Program Element Code. 2. See Pre-authorized Engagement Criteria.

PEELS Parametric Endo-Exo Lethality Simulation.

PEIS Programmatic Environmental Impact Statement.

PEM Program Element Monitor (AF).

Penaid(Formerly an acronym for Penetration Aid.)Techniques and/or devices(Penetration Aid)employed by offensive aerospace weapon systems to increase the probability of
penetrating enemy defenses.

Penetration The portion of security testing in which the penetrators attempt to circumvent the security features of the system. The penetrators may be assumed to use all system design and implementation documentation, which may include listings of system source code, manuals, and circuit diagrams. The penetrators work under no constraints other than those that would be applied to ordinary users.

PEO See Program Executive Officer.

PEO-MD Program Executive Officer, Missile Defense. (U.S. Army)

PEO (TAD) Program Executive Officer, Theater Air Defense. (U.S. Navy)

PEO (TAD)-B Program Executive Officer, U.S. Navy Theater Ballistic Missile Defense Program Office.

PEP Producibility Engineering and Planning.

PEPP See Producibility Engineering and Production Planning.

Peregrine An Air Force boost-phase interceptor concept under development at USAF/SMC.

Performance Those operational and support characteristics of the system that allow it to effectively and efficiently perform its assigned mission over time. The support characteristics of the system include both supportability aspects of the design and the support elements necessary for system operation.

PerformanceA requirement that specifies a performance characteristic that a system orRequirementsystem or system component must possess; for example, speed, accuracy,frequency.

Performance Specification	 A specification that sets forth the performance requirements for a system or system component. Synonymous with requirements specification.
Perimeter Acquisition Radar and Attack Characterization System (PARCS)	AN/FPQ-16 phased array radar at Cavalier AFS, ND, used for early warning and attack assessment.
Period (nodal)	Time for a satellite to travel once around its orbit.
Permeability	Having the ability to diffuse through or penetrate something.
PERT	Program Evaluation and Review Technique.
PERT Chart	A graphic portrayal of milestones, activities, and their dependency upon other activities for completion, and depiction of the critical path.
PET	1. Pilot-Line Experiment Technology. 2. Production Environmental Test.
PFC	Prototype Flight Cryocooler.
PFS	Pre-Feasibility Study (UKMOD).
PGM	Precision Guided Munition.
Phased Array	The arranging of radiating and/or receiving elements that, although physically stationary, are electronically steerable and can switch rapidly from one target to another (e.g., phased array radar).
Phased Array Tracking Radar Intercept On Target (missile) (PATRIOT)	A point or limited area defense system originally built to intercept aircraft. PAC-3 improvements, which will give it greater capability against theater ballistic missiles, include upgrades to the radar and selection of an improved missile, either PATRIOT Multimode Missile or ERINT.
Phased Deployment	The sequential steps of element deployments leading to a designated system capability that is realizable with fiscal and technological constraints.
Phase One Engineering Team (POET)	OBSOLETE. An FFRDC providing technical support to the Phase I Program Office. Now referred to as POET.
Phenomenology	The topological classification of a class of phenomena. Phenomenology efforts collect and analyze optical and radar signature data, and model phenomena required by systems developers to design and evaluate SDS elements.
Photochemical	A chemical reaction resulting from exposure to radiant energy or light.
Photoelectric Effect	The process whereby a gamma ray (or x-ray photon) with energy somewhat greater than that of the binding energy of an electron in an atom, transfers all its energy to the electron which is consequently removed from the atom. Since it has lost all its energy, the photon ceases to exist. (See Photon.)

Photon A unit or "particle" of electromagnetic radiation, carrying a quantum of energy which is characteristic of the particular radiation.

PHS&T See Packaging, Handling, Storage, and Transportation.

PHST See Packaging, Handling, Storage, and Transportation.

Physical Agents Descriptive term that includes non-ionizing EMR, static electric and magnetic fields, ionization radiation, energy beams, noise, explosions, de-orbiting debris, and extreme cold.

PhysicalPhysical examination to verify that the configuration item(s) "as built" conformsConfigurationto the technical documentation that defines the item. Approval by the
government program office of the CI product specification and satisfactory
completion of this audit established the product baseline. May be conducted
on first full production or first LRIP team.

PI See Program Integrator.

Picture ElementThe smallest element of a display space that can be independently assigned(PIXEL)color and intensity; the finest detail that can be effectively reproduced on a recording medium.

Pilot Production Production line normally established during EMD to test new manufacturing methods and procedures. Normally funded by RDT&E until the line is proven. Not the same as long range initial production.

PIMS Programmable Implantable Medication System.

PIP1. Predicted Impact Point.2. See Predicted Intercept Point.3. Product Improvement Proposal/Program.

0. Thousand and the second second

PIXEL See Picture Element.

Pk Probability of Kill.

PKO Peacekeeping Operations.

Pkss Probability of kill -- single shot.

PL 1. Probability of Leakage. 2. Phillips Laboratory, Kirtland AFB, NM. 3. Public Law.

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P

Planning, Programming, Budgeting System (PPBS)	The primary resource allocation process of DoD. One of three major decision- making support systems for defense acquisition. It is a formal, systematic structure for making decisions on policy, strategy, and the development of forces and capabilities to accomplish anticipated missions. PPBS is a cyclic process containing three distinct, but interrelated phases: planning, which produces the Program Objectives Memorandum (POM) for the Military Departments and Defense Agencies; and budgeting, which produces the DoD portion of the President's Budget. DoD PPBS is a biennial process starting in January of each odd numbered year with a national security guidance to initiate the planning phase, and ending in January of the next odd numbered year with the President's budget submission to Congress. (Defense Systems Management College)
PLCCE	Program Manager's Life Cycle Cost Estimate.
PLRS	Position Location Reporting System.
Plume Data Center	AEDC, Arnold AFB, TN.
PLV	Payload Launch Vehicle.
PM	See Program Manager.
РМА	See Program Management Agreement.
PMD	1. Program Management Document. 2. Program Management Directive (AF).
РМО	Program Management Office.
PMR	1. Program Management Review. 2. Pacific Missile Range.
PMRF .	Pacific Missile Range Facility, Barking Sands, Kauai, Hl.
РМТС	Pacific Missile Test Center, Pt. Mugu, CA.
PMWG	Producibility and Manufacturing Working Group.
POA&M	Plan of Actions and Milestones.
POC	1. See Point of Contact. 2. Proof of Concept.
POC/ET	Proof of Concept/Experimental Test (e.g., modular USSTRATCOM ground mobile command post).
POCT	Passive Optical Component Technology.
POD	1. Plan of the Day. 2. Probability of Detection. 3. Port of Debarkation.
POE	1. Program Office Estimate. 2. Projected Operating Environment.

POET	A consortium of scientist and engineers from FFRDCs providing technical support to the BMDO. (Formerly referred to as the Phase One Engineering Team.)
Point Defense	The defense or protection of special vital elements and installations; e.g., command and control facilities, air bases, etc.
Point Defense System	A terminal defense system using radars and large numbers of guided projectiles to defend ICBMs. This concept was considered in the early 1980s.
Pointing	The aiming of sensors or defense weapons at a target with sufficient accuracy either to track the target or to aim with sufficient accuracy to destroy it. Pointing and tracking are frequently integrated operations.
POL	Petroleum, Oil, and Lubrication.
POLAD	Political Advisor.
РОМ	See Program Objectives Memorandum.
POMCUS	Pre-positioning Of Materiel Configured to Unit Sets.
Portability	(Software) The extent to which a software component originally developed on one computer or operating system can be used on another computer or operating system.
Port Covers	Mechanism for thrust termination of solid-propellant systems.
POS	 Primary Operating Stocks. Probability Of Success. Position.
POST	Portable Optical Sensor Tester.
Post-Attack	The period following the attack, prior to the next wave.
Post-Attack Post-Attack Period	The period following the attack, prior to the next wave. In nuclear warfare, that period which extends from the termination of the final attack until political authorities agree to terminate hostilities.
Post-Attack Post-Attack Period Post-Boost Phase (PBP)	The period following the attack, prior to the next wave. In nuclear warfare, that period which extends from the termination of the final attack until political authorities agree to terminate hostilities. That portion of the trajectory of a ballistic missile between the end of powered flight and release of the last RV. Applies only to multiple-warhead ballistic missiles. (USSPACECOM)
Post-Attack Post-Attack Period Post-Boost Phase (PBP) Post-Boost Vehicle (PBV)	 The period following the attack, prior to the next wave. In nuclear warfare, that period which extends from the termination of the final attack until political authorities agree to terminate hostilities. That portion of the trajectory of a ballistic missile between the end of powered flight and release of the last RV. Applies only to multiple-warhead ballistic missiles. (USSPACECOM) The portion of a rocket payload that carries multiple warheads and which has the maneuvering capability to independently target each warhead on a final trajectory toward a target. Also referred to as a "bus."
Post-Attack Post-Attack Period Post-Boost Phase (PBP) Post-Boost Vehicle (PBV)	 The period following the attack, prior to the next wave. In nuclear warfare, that period which extends from the termination of the final attack until political authorities agree to terminate hostilities. That portion of the trajectory of a ballistic missile between the end of powered flight and release of the last RV. Applies only to multiple-warhead ballistic missiles. (USSPACECOM) The portion of a rocket payload that carries multiple warheads and which has the maneuvering capability to independently target each warhead on a final trajectory toward a target. Also referred to as a "bus." OBSOLETE. Phase One Threat Specification.
Post-Attack Post-Attack Period Post-Boost Phase (PBP) Post-Boost Vehicle (PBV) POTS PP	 The period following the attack, prior to the next wave. In nuclear warfare, that period which extends from the termination of the final attack until political authorities agree to terminate hostilities. That portion of the trajectory of a ballistic missile between the end of powered flight and release of the last RV. Applies only to multiple-warhead ballistic missiles. (USSPACECOM) The portion of a rocket payload that carries multiple warheads and which has the maneuvering capability to independently target each warhead on a final trajectory toward a target. Also referred to as a "bus." OBSOLETE. Phase One Threat Specification. 1. Parallel Processing. 2. Principal Polarization. 3. Post Processing. 4. Program Plan.

Criteria (PEC)

P

PPIRS See Producibility Programming and Issues Resolution Strategies.

PPP Program Protection Plan.

PPQT Pre-Production Qualification Test.

PPS Precision Positioning System.

PPU Prime Power Unit (THAAD).

PR Procurement Request.

PRB 1. Planning and Resources Board. 2. Program Review Board.

PRC Program Review Committee.

Pre-AllocatedA preplanned decision to designate a specific number of defensive assets to be
used against a specific target or set of targets or to defend a specified asset or
set of assets. The defense will select the best tactic to use based on the
number of interceptors available, their probability to kill, the number of targets
under attack to be defended, and the scope of the attack.

Pre-Attack A period of time immediately prior to an attack, usually hours to minutes to tipoff.

Pre-AuthorizedPre-specifiedquantitativeoperationalparameterthresholdswhichwhenEngagementsurpassedcauseautomatedengagementstobeenabled.

Precedence 1. A designator which indicates the order in which a number of messages shall be served. Four precedence levels are provided for SDS, with one being the highest and four the lowest. Messages with precedence level one are served first and those with level four last. These correspond to the four precedence levels, Flash, Immediate, Priority, and Routine respectively. 2. (Reconnaissance) A letter designation, assigned by a unit requesting several reconnaissance missions, to indicate the relative order of importance, within an established priority, of the mission requested.

Precision Decoys Decoys that precisely match RV characteristics either exoatmospherically or endoatmospherically, or both, and seek to deceive the defense into intercepting them.

Pre-CommitA tactic in which defense weapons are fired without being individuallyStrategycommitted to specific targets. Target commitment would occur relatively latein the defensive weapon's trajectory.

Preconditions for Defense (PD) PDs are NCA preapproved criteria, authorities, and procedures that delineate circumstances under which USCINCSPACE BMD forces will initiate or continue combat engagements and operations against hostile ballistic missile attacks directed at the United States, its Allies, or U.S. interests during peace, crisis, and war. **BMDO GLOSSARY, VER. 2.0**

Predicted Intercept Point (PIP)

Offense

The calculated position in space where the target and interceptor coincide.

PreferentialPreferential defense is the a-priori assignment of defensive assets to protectDefensegiven facilities or capabilities.

Preferential A tactic used as part of the SDS strategy to optimize the use of weapons and sensors by selecting high value targets for engagement by the defense while temporarily allowing less important targets to pass. This strategy forces the offense to attack with several times as many RVs as the defense has interceptors. Since preferential defense demands precise impact point prediction, the strategy is placed at a disadvantage if targets are closely spaced, if RVs can maneuver or if the defense intercepts ICBMs in the boost phase.

Preferential The concentration of offensive assets on a subset of targets.

Pre-LaunchThe probability that a delivery and/or launch vehicle will survive an enemySurvivabilityattack under an established condition of warning.

Preliminary Design Review (PDR) A review conducted on each configuration item to evaluate the progress, technical adequacy, and risk resolution of the selected design approach; to determine its compatibility with performance and engineering requirements of the development specification; and to establish the existence and compatibility of the physical and functional interfaces among the item and other items of equipment, facilities, computer programs, and personnel. Conducted during Phase I, Demonstration and Validation (for prototypes), and Phase II, Engineering and Manufacturing Development.

PreplannedPlanned future evolutionary improvement of developmental systems for which
design considerations are effected during development to enhance future
application of projected technology. Includes improvements planned for
ongoing systems that go beyond the performance envelope to achieve a needed
operational capability.

Preplanned Response Options (PRO) Ballistic Missile Defense (BMD) reactions which have been preplanned, analyzed, and preapproved, for specific ballistic missile threats. The PRO, equivalent to an operations plan, consist of a number of Defense Employment Options (DEO) which provide force employment objectives to Component forces based upon the world situation, national objectives/guidance, BMD asset status, and the intent of the threat. PRO are automatically processed with real-time human oversight and control when USCINCSPACE directs execution.

PreproductionAn article in final form employing standard parts, representative of articles to bePrototypeproduced subsequently in a production line.

Р

- PreproductionThis is a test of design-qualified hardware that is produced using production
tooling and processes which will be used to produce the operational hardware.
No production hardware should be accepted prior to satisfactory completion of
this test. Test objectives include: gaining confidence that production hardware
is going to work; that it will be reliable; that it can be maintained and supported
by the user; and that it is not overdesigned.
- Preset Guidance A technique of missile control wherein a predetermined flight plan is set into the control mechanism and cannot be adjusted after launching.

President'sThe Federal Government's budget for a particular fiscal year transmitted in
January (first Monday after January 3rd) to the Congress by the President in
accordance with the Budget and Accounting Act of 1921, as amended.
Includes all agencies and activities of the executive, legislative and judicial
branches (For FY 88/89, two-year budget for DoD submitted in January 1987.)

- PRF Pulse Repetition Frequency.
- PRG Program Review Group.

Prime Contractor A contractor having responsibility for design control and delivery of a system or equipment such as aircraft, engines, ships, tanks, vehicles, guns and missiles, ground communications and electronic systems, ground support equipment, and test equipment.

Prioritize Targets To identify and rank targets in priority fashion, based upon criteria such as type, predicted impact point, and predicted time of impact.

PRN Pseudo Random Noise.

PRO 1. See Preplanned Response Options. 2. Plant Representative Office.

Probability ofThe probability that damage will occur to a target expressed as a percentage orDamageas a decimal.

Probability of1. The probability that the search object will be detected under given conditionsDetectionif it is in the area searched.2. The probability an object will be detected given
all known error and noise sources.

Probability of Discrimination This is the probability that an object which is threatening will be correctly identified. The ability to discriminate between a potential target and a decoy is quantified by a "K" factor, in which the higher the numeric the greater the probability of discrimination (thus, a "O" K factor implies that the target is indistinguishable from the decoy).

- Probability of1. For a single sensor this is the probability that an object will be detectedProbability of1. For a single sensor this is the probability that an object is present.False Alarmwhen no object is present.2. For discrimination, this is the probability that an object which is not a threatening object will be identified as one.
- Probability of Kill The lethality of a weapon system. Generally refers to armaments (i.e. missiles, ordnance, etc.) Usually the statistical probability that the weapon will detonate close enough to the target with enough power to disable the target. (Defense Systems Management College)

BMDO GLOSSARY, VER. 2.0

Probe	The air vehicle of the GSTS.
Process Data Sensitivity Label (PDSL)	The sensitivity label for data contained in a process.
Procuring Contracting Officer (PCO)	The individual authorized to enter into contracts for supplies and services on behalf of the government by sealed bids of negotiations who is responsible for overall procurement of the contract.
Producibility	The relative ease of manufacturing an item or system. This relative ease is governed by the characteristics and features of a design that enable economical fabrication, assembly, inspection, and testing using available manufacturing techniques.
Producibility, Engineering, and Planning (PEP)	Applies to production engineering tasks to ensure a smooth engineering transition from development into production. PEP, a systems and planning engineering approach, assures that an item can be produced in the required quantities and in the specified time frame, efficiently and economically, and will meet necessary performance objectives within its design and specification constraints. As an essential part of all engineering design, it is intended to identify potential manufacturing problems and suggest design and production changes or schedule trade-offs which would facilitate the production process.
Producibility, Programming, and Issues Resolution Strategies (PPIRS)	A semi-annual document put out by the BMDO P&M community listing all the medium and higher P&M risk issues as prioritized and coordinated by the BMDO P&M Working Group.
Producibility Review	A feasibility review of the design of a specific hardware item or system to determine the relative ease of producing it using available production technology considering the elements of fabrication, assembly, inspection, and test. This is a generic term for the concurrent engineering portions of MIL-STD 1521 system design reviews.
Product Baseline	 Established by the detailed design documentation for each configuration item. Normally includes Process baseline (type D spec), Material baseline (type E spec), type C spec, and drawings. In configuration management, the initial approved technical documentation (including, for software, the source code listing) defining a configuration item during the production, operation, maintenance, and logistic support of its life cycle.
Product Configuration Identification	The current approved technical documentation which defines the configuration of a configuration item during the production, operation, maintenance, and logistics support phases of its life cycle and which prescribes that necessary for: (1) fit and function characteristics of a CI (Configuration Item); (2) the selected functional characteristics for production acceptance; and (3) the production acceptance test.

ProductEffort to incorporate a configuration change involving engineering and testingImprovementon end items and depot repairable components, or changes on other than
developmental items to increase system or combat effectiveness or extend
useful military life. Usually results from user feedback.

ProductionT&E of production items to demonstrate that items procured fulfill theAcceptance Testrequirements and specifications of the procuring contract or agreements.and Evaluation

Production andNormally the fourth phase in the acquisition process following Milestone III.DeploymentSystems are procured, items are manufactured, operational units are trained,
and the systems are deployed.

ProductionThe Acquisition Program Baseline (APB) approved at Milestone III, applicable toBaselinethe effort in Phase III, Production and Deployment.

ProductionThe procedure of planning, routing, scheduling, dispatching, and expediting theControlflow of materials, parts, subassemblies, and assemblies within the plant from
the raw state to the finished product in an orderly and efficient manner.

ProductionThe likelihood that a system design concept can be produced using existingFeasibilityproduction technology while simultaneously meeting quality, production rate,
and cost requirements.

Production Qualification Test (PQT) A technical test conducted post MS III to ensure the effectiveness of the manufacturing process, equipment, and procedures. This testing also serves the purpose of providing data for the independent evaluation required for materiel release so that the evaluator can address the adequacy of the materiel with respect to the stated requirements. These tests are conducted on a number of samples taken at random from the first production lot, and are repeated if the process or design is changed significantly, and when a second or alternative source is brought on line. Program funding category --Procurement.

Production The state or condition or preparedness of a system to proceed into production. Readiness A system is ready for production when the producibility of the production design and the managerial and physical preparations necessary for initiating and sustaining a viable production effort have progressed to the point where a production commitment can be made without incurring unacceptable risks that will breach thresholds of schedule, performance, cost, or other established criteria.

ProductionA formal examination of a program to determine if the design is ready forReadiness Reviewproduction, production engineering problems have been resolved, and the(PRR)producer has accomplished adequate planning for the production phase.Performed toward the end of FSD. (Defense Systems Management College)

Product Manager The individual, designated by a materiel developer, who is delegated authority and assigned responsibility for centralized management of a development/ acquisition program that does not qualify for system/program/project management.

Product Security (PRODSEC)	That physical security provided for selected DoD products (major, high cost, politically sensitive systems with significant military value) at Department of Defense contractor facilities to mitigate the risk of the government as a self-insurer. Defining and instituting product security during production are essential to the delivery of uncompromised systems.
Prograde Orbit	An orbit having an inclination of between 0° and 90° with the object moving in an easterly direction. (See Retrograde Orbit.)
Program	 A DoD acquisition program. As a verb, schedule funds to meet requirements and plans. A major, independent part of a software system. A defined effort funded by RDT&E and/or procurement appropriations with the express objective of providing a new or improved capability in response to a stated mission need or deficiency.
Program Acquisition Cost	The estimated cost of development (RDT&E), procurement, and system specific military construction (MILCON) necessary to acquire the defense system. RDT&E costs shall be accumulated from the point in time when the DoD acquisition program is designated by title as a program element or major project within a program element. MILCON costs shall include only those projects that directly support and uniquely identify with the system.
Program Baseline	See Acquisition Program Baseline.
Program Budget Decision (PBD)	Secretary of Defense decision documents that affirm or change dollar amounts or manpower allowances in the services' budget estimate submissions.
Program Change Decision	A decision by SECDEF issued in a prescribed format that authorizes changes in the structure of the FYDP.
Program Change Request	Prepared in a prescribed format, it is a proposal for out-of-cycle changes to data recorded in the approved FYDP.

Program Cost
 1. <u>Research. Development. Test. and Evaluation</u>. Appropriations to fund the efforts performed by contractors and government activities, including procurement of end items, weapons, material, components, materials and services required for the development of equipment, material, computer application software, and its development and initial operational test and evaluation. RDT&E also funds the operation of dedicated R&D installations activities for the conduct of R&D programs.

- 2. <u>Procurement</u>. Appropriations to fund those acquisition programs that have been approved for production, and all costs integral and necessary to deliver a useful end item intended for operational use or inventory upon delivery.
- 3. <u>Operations & Maintenance</u>. Appropriations to fund expenses such as civilian salaries, travel, minor construction projects, operating military forces, training and education, depot maintenance, stock funds, and base operations support.
- 4. <u>Military Personnel</u>. Appropriations to fund costs of salaries and other compensation for active and retired military personnel and reserve forces based on end strength.
- 5. <u>Military Construction</u>. Appropriations to fund major projects such as bases, schools, missile storage facilities, maintenance facilities, medical/dental clinics, libraries, and military family housing.

Costs budgeted in the O&M and Military Personnel appropriations are considered expenses. Costs budgeted in the Procurement and Military Construction appropriations are considered investments. Costs budgeted in the RDT&E and Family Housing appropriations include both expenses and investments.

Program DecisionSECDEF's approval of Military Department or Defense Agency POM with
tentative specific guidance. Issued in July every two years during biennial
(PDM)(PDM)PPBS.

Program Element (PE) The 11 major force elements are subdivided into Program Elements. The program element is the basic building block of the FYDP. It is defined as "an integrated combination of men, equipment and facilities which together constitute an identifiable military capability of support activity." It identifies the mission to be undertaken and the organizational entities to perform the mission. Elements may consist of forces, manpower, materiel, services, and/or associated costs. The PE consists of seven digits ending with a letter indicating appropriate service.

Program ElementPerson within HQ USAF office who is directly responsible for a given programMonitor (PEM)and all documentation needed to harmonize the program in the budget.

ProgramA technique for management of a program through to completion byEvaluation Reviewconstructing a network model of integrated activities and events andTechniqueperiodically evaluating the time/cost implications of progress.

A military or civilian official who has primary responsibility for directing several Program acquisition category I programs and for assigned Acquisition Category II, III, and Executive Officer IV programs. A Program Executive Officer has no other command or staff (PEO) responsibilities within the Component, and only reports to and receives guidance and direction from the DoD Component Acquisition Executive. The process whereby a single leader and team are responsible for planning, Program organizing, coordinating, directing, and controlling the combined efforts of Management participating/assigned civilian and military personnel and organizations in authority, program objectives. Provides centralized accomplishing responsibility, and point of contact for a specific acquisition program. The guiding agreement between the BMDAE and the SAEs covering the broad Program objectives, funding, and expectations of each Service with respect to a specific Management BMDO-funded activity. Agreement (PMA) The document developed and issued by the program manager which shows the Program integrated multi-functional time-phased actions and resources required to Management complete the task. Plan A military or civilian official who is responsible for managing an acquisition **Program Manager** (PM) program. Pertaining to the cost, schedule, and performance characteristics of an Programmatic acquisition program. An annual memorandum in prescribed format submitted to the SECDEF in May Program by the DoD Component Head, which recommends the total resource Objectives requirements and programs within the parameters of the SECDEF's fiscal Memorandum A major document in the PPBS; it ultimately becomes the auidance. (POM) Component's budget. The BMDO staff member assigned responsibility for integrating all tasks within Program/Project a project. Single point-of-contact for information and activities involving a Integrator (PI) BMDO technology, NMD planning, or a TMD acquisition project. The projection of activities to be accomplished and the resources that will be Programming required for a specified period in the future. The process of preparing a program, especially in terms of quantitative, physical requirements, manpower, materiel, and facilities. The process of establishing and maintaining a program.

- PROGRUS Program Update Studies.
- Project 1. Synonymous with program in general usage. 2. Specifically, a planned undertaking having a finite beginning and ending, involving definition, development, production, and logistics support of a major weapon or weapon support system or systems. A project may be the whole or a part of a program. Within the Navy, a Designated Project is a project which, because of its importance or critical nature, has been selected for intensified project management. 3. A planned undertaking of something to be accomplished, produced, or constructed, having a finite beginning and a finite ending.

Project Office	The office of the program manager and the point of contact with industry, government agencies, and other activities participating in the system acquisition process. (USASSDC) (Note: USAF uses the term System Program Office).
Project Planning Guidance (PPG)	High level summary document that defines the work to be performed by each Executing Agent in support of the BMD program.
Project Summary Work Breakdown Structure (WBS)	A summary WBS tailored to a specific defense materiel item by selecting applicable elements from one or more summary WBSs or by adding equivalent elements unique to the project (MIL-STD-881A).
Proliferation (Nuclear Weapons)	The process by which nations sequentially come into possession of, or acquire the right to determine the use of, nuclear weapons, thus enabling each to launch a nuclear attack upon another nation.
Proof of Principle (POP)	Technical demonstration and troop experimentation conducted with brassboard configuration, subsystems, or surrogate systems, using troops in a realistic field environment. The process examines the organization and operational concept, provides data to improve requirements and evaluation criteria, and provides data on which to base the decision to enter EMD (Army).
Proprietary Right	A broad contractor term used to describe data belonging to the contractor. This data could be intellectual property, financial data, etc. This category is not recognized by the Government when referencing technical data. (Defense Systems Management College Glossary)
Protection Priorities	The aggregated value for each impact point prediction specifying the order of protection.
PRR	See Production Readiness Review.
PSC	Principle Subordinate Command.
PSE	Peculiar Support Element.
PSN	Packet Switching Node.
PSP	Program Support Plan.
PSYOP	Psychological Operations.
PSW	Packet Switching.
PSS	Passive Sensor System.
PtSi	Platinum Silicide.
PTWG	Producible Technology Working Groups.
Pulse Duration	In radar, measurement of pulse transmission time in microseconds, that is, the time the radar's transmitter is energized during each cycle.

Pulse RepetitionIn radar, the number of pulses the occur each second. Not to be confused withFrequencytransmission frequency which is determined by the rate at which cycles are
repeated within the transmitted pulse.

Pulsed PowerRadiated fields that have very high instantaneous peak field strengths or powerEMRdensity but significantly lower average values.

Pumping The raising of the molecules or atoms of a lasant to an energy state above the normal lowest state to produce laser light. This results when they fall back to a lower state. Pumping may be done using electrical, chemical, or nuclear energy.

Purchase OrderA contractual procurement document used primarily to procure supplies and
nonpersonal services when the aggregate amount involved in any one
transaction is relatively small (e.g., not exceeding \$10,000).

PV HCT Photovoltaic Mercury Cadmium Telluride.

PVO (PVO Strany) Russian organization formerly responsible for the air and space defense of their homeland.

pW Picowatt.

PWBS Program Work Breakdown Structure.

PY Prior Year.

Pyrotechnic A mixture of chemicals which, when ignited, is capable of reacting exothermically to produce light, heat, smoke, sound, or gas, and may be also used to introduce a delay into an explosive train because of its known burning time. The term excludes propellants and explosives.

·P

QA	Quality Assurance.
QC	Quality Control.
QFR	Question for Record.
QM	1. Queen Match. 2. Quartermaster.
QRA	1. Quartz Resonant Accelerometer 2. Quick Reaction Alert.
QRC	Quick Reaction Capability.
QRM	Quick Response Missile.
QRP	Quick Response Program (PATRIOT).
QRS	Quartz Resonant Sensor.
Qualification Test	This test simulates defined environmental conditions with a predetermined safety factor, the results indicating whether a given design can perform its function within the simulated environment of a system. The test usually is not conducted on models using production tooling and processes.
Query	A request for identification of a set of assets, expressed in terms of a set of criteria which the identified item must satisfy.
Queue	A store for a sequence of packets, or messages, which are waiting to be processed. A transmit queue for instance is a store of packets waiting to be transmitted.

Q

Section (RCS)

R² 1. Recovery and Reconstitution. 2. Reporting Responsibility.

R2P2 Rapid-Retargeting/Precision Pointing (simulator).

RAA See Risk Approval Authority.

RAD 1. Radiation Absorbed Dose. 2. Radiation Accumulated Dose.

Radar (Formerly an acronym for Radio Detection and Ranging.) A technique for detecting targets in the atmosphere or in space by transmitting radio waves (e.g., microwaves) and sensing the waves reflected by objects. The reflected waves (called "returns" or "echoes") provide information on the distance to the target and the velocity of the target, and also may provide information about the shape of the target.

Radar Beacon A receiver-transmitter combination which sends out a coded signal when triggered by the proper type of pulse, enabling determination of range and bearing information by the interrogating station or aircraft.

Radar Cross Area of an object as scanned by a radar; measured in square meters.

Radar Netting The linking of several radars to a single center to provide integrated target information.

RADC 1. Region Air Defense Commander. 2. OBSOLETE. Rome Air Development Center. (Now called Rome Laboratory.)

RADHAZ 1. Electromagnetic Radiation Hazard. 2. Hazards form electromagnetic radiation.

Radiant Exposure The total amount of thermal radiation energy received per unit area of exposed surface; it is usually expressed in calories per square centimeter.

Radiation 1. The emission and propagation of waves transmitting energy through space or through some medium; for example, the emission and propagation of electromagnetic, sound, or elastic waves. 2. The energy transmitted by waves through space or some medium; when unqualified, usually refers to electromagnetic radiation. Also known as radiant energy. 3. A stream of particles, such as electrons, neutrons, protons, alpha-particles, or high-energy photons, or a mixture of these. (See Ionizing Radiation, Nuclear Radiation, and Thermal Radiation.)

RadiationProtection of a particular system, subsystem, or component from functional
damage due to the effects of nuclear (or other) radiation by shielding the
vulnerable components from the radiation, or using other passive techniques in
manufacturing effects of nuclear (or other) radiation.

RADINT Radar Intelligence.

Radioactive (or
Nuclear) CloudAn all-inclusive term for the volume of hot gases, smoke, dust, and other
particulate matter from the nuclear weapon itself and from its environment,
that is carried aloft in conjunction with the rising fireball produced by the
detonation of a nuclear weapon.

Radioactivity The spontaneous emission of radiation, generally alpha or beta particles, often accompanied by gamma rays, from the nuclei or an unstable isotope.

Radio BlackoutThe complete disruption of radio (or radar) signal over large areas caused by the
ionization accompanying a high altitude nuclear explosion, especially above
about 40 miles.

RADOT Recording Automatic Digital Optical Tracker.

Rail Gun (RG) A weapon using metallic rails and electromagnetic energy to fire hypervelocity projectiles.

RAM 1. See Reliability, Availability, and Maintainability. 2. Random Access Memory

R&D Research and Development.

R&M See Reliability and Maintainability.

Random Defense Engagement of RVs uniformly without any reference to type or destination. This implies taking the best shot possible in terms of increasing probability to kill.

Range Resolution The difference between the true distance (from sensor) to target and the calculated distance to target based on sensor data, at maximum sensor range.

RAPTOR Responsive Aircraft Program for Theater Operations. A high-altitude, long endurance airborne sensor platform.

RAPTOR/TALON A technology demonstration program to demonstrate critical technologies for an unmanned airborne weapons system providing a boost phase intercept capability.

Rationalization Any action that increases the effectiveness of allied forces through more efficient or effective use of defense resources committed to the alliance. Rationalization includes consolidation, reassignment of national priorities to higher alliance needs, standardization, specialization, mutual support or improved interoperability, and greater cooperation. Rationalization applies to both weapons/materiel resources and non-weapons military matters.

RB Reentry Body.

RBO See Radio Blackout.

- RCM 1. Reliability Centered Maintenance. 2. Requirements Correlation Matrix (AF).
- RCS See Radar Cross Section.

R

RCSR	Radar Cross Section Reduction.
RCU	1. Rate Changes Unit. 2. Remote Control Unit.
RCVR	Receiver.
RDA	Research, Development and Acquisition.
RDEC	Research, Development, and Engineering Center.
RDS	See Regional Defense System.
RDT&E	See Research, Development, Test, and Evaluation.
RDT&E Program Categories	 The five divisions the comprise Major Force Program 06 (R&D) in the FYDP. They are: 6.1 Basic Research 6.2 Exploratory Development 6.3 Advanced Development 6.4 Engineering Development 6.5 Management and Support. Operational System development, not a designated category, is funded in RDT&E appropriations but not in Major Force Program 06.
Reaction Decoy	A decoy deployed only upon warning or suspicion of imminent attack.
Readiness Postures	A specific status defining the relative responsiveness of BMD assets and personnel to perform a USSPACECOM BMD mission.
Real Time	1. Pertaining to the processing of data by computer in connection with another process outside the computer according to time requirements improved by the outside process. This term is used to describe systems operating in conversational mode, and processes that can be influenced by human intervention, while they are in progress. 2. Pertaining to the actual time during which a physical process transpires, for example, the performance of a computation during the actual time that the related physical process transpires, in order that results of the computation can be used in guiding the physical process.
Real World Data	Data derived from physical experimentation concerning phenomenology associated with technical functioning of SDS, particularly regarding target signatures, background observables, sensor functions, weapon functions, and survivability.
Real World Data Collection	The provision, to SEIC users, of access to real world data, in fashion timely and otherwise suitable to meet users' needs (e.g. for validation of a test bed).
Rescission	An action by the President canceling budget authority previously appropriated but not yet obligated or spent. If both Houses of Congress do not approve the proposed rescission within 45 days, the President must obligate the BA as intended by Congress.

R
R

RECCE	Reconnaissance.
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Reclama A formal appeal to the service comptroller of SECDEF's tentative budget decision on the service budget estimates.

RECON Reconnaissance.

- **Reconciliation** Directives to standing committees contained in congressional budget resolutions calling for certain dollar savings and a deadline for reporting legislation to achieve the savings. Omnibus reconciliation bill incorporating these changes is introduced and acted on in both houses.
- **Reconstitute** To restore, during periods of hostile engagements or during peacetime, military forces or elements as closely as possible to a desired state of readiness for combat.
- Red/BlueA process to identify and define potential countermeasures that would degradeExchangeaspects of ballistic missile defense. The process -- akin to a wargame -- pits aRed team fielded by DSIM and a Blue team fielded by AQ. A senior reviewpanel acts as the referee.
- Redout The degradation of infrared sensor resolution due to high-altitude nuclear bursts. Radiation from these bursts causes fluorescence-emission of light from air molecules. The emitted light lies within the long-wave IR spectrum so the atmosphere below appears to the sensor to glow more brightly than usual.
- **Redundancy** The inclusion of duplicate or alternate system elements to improve operational reliability by ensuring continued operation in the event that a primary element fails.
- **Reengineering** The process of examining, altering, and re-implementing an existing computer system to reconstitute it in a new form.
- Reentry The return of objects, originally launched from earth, into the atmosphere.
- Reentry Angle Elevation angle of velocity vector relative to local horizontal plane when reentering object reaches 92km.
- **Reentry Phase** That portion of the trajectory of a ballistic missile or space vehicle where there is a significant interaction of the vehicle and the earth's atmosphere.
- Reentry Vehicle 1. Reentry vehicles are objects containing nuclear warheads. They are released from the last stage of a booster rocket or from a post-boost vehicle early in the ballistic trajectory. They are thermally insulated to survive rapid heating during the high velocities of reentry into the atmosphere, and are designed to protect their contents until detonation at their targets. 2. That part of a space vehicle designed to re-enter the Earth's atmosphere n the terminal portion of its trajectory.
- Regional DefenseThat portion of the SDS that provides defense for a specific geographic region,System (RDS)such as the European Theater.

Regional Operations Center (ROC) A group of fixed and/or mobile centers with OPCON over allocated ground based sensors and weapons.

Regional Operations Control Center (ROCC)

Time

The command function for CONUS, Canadian and Alaska NORAD Regions, referred to as "regions." In the Alaska NORAD region, the ROCC is also the central intelligence, communications and operations control center established for the purpose of supervising and coordinating the combat effort of all air defense forces made available to the Alaska NORAD region commander. Under normal operating conditions (not degraded), the ROCC is responsible for the identification function and for air and ballistic missile defense of North America.

- Regrade To determine that certain classified information requires, in the interests of national security, a higher or lower degree of protection against unauthorized disclosure than currently provided, coupled with a changing of the classification designation to reflect such higher or lower degree.
- Relay Mirror Part of a ground-based laser system.

Reliability andReliability and maintainability design parameters are key factors in the design ofMaintainabilityaffordable and supportable systems.R&M parameters provide inputs into the(R&M)design and LSA processes that quantitatively link system readiness to the ILSelements.One of the principal elements of ILS.

Reliability, Availability, and Maintainability (RAM) Those requirements imposed on acquisition systems to ensure they are operationally ready for use when needed, will successfully perform assigned functions, and can be economically operated and maintained within the scope of logistics concepts and policies. RAM programs are applicable to materiel systems, test measurement and diagnostic equipment, training devices, and facilities developed, produced, maintained, procured, or modified for use. (See individual definitions for Reliability, Availability, and Maintainability.)

- Remotely PilotedAn unmanned vehicle capable of being controlled from a distant locationVehicle (RPV)through a communication link. It is normally designed to be recoverable. See
also Drone.
- **Repairability** The probability that a failed system will be restored to operable condition within a specified active repair time.
- **Repeater-Jammer** A receiver transmitter device that amplifies, multiplies and retransmits the signals received, for purposes of deception or jamming.
- Report Back Information returned from system elements that verify that directions have been received and carried out. Also includes information regarding system effectiveness.

Reprogrammable Time required to retarget an alert missile.

Reprogramming The transfer of funds between program element or line items within an appropriation for purposes other than those contemplated at the time of appropriation. Reprogramming is generally accomplished pursuant to consultation with and approval by appropriate congressional committees.

Request forA solicitation used in negotiated acquisition to communicate governmentProposal (RFP)requirements to prospective contractors and to solicit proposals.

Request forA solicitation used in negotiated acquisition to communicate governmentQuotationrequirements to prospective contractors and to solicit a quotation. A response
to an RFQ is not an offer. It is informational in character.

RequiredOBSOLETE.A document stating need and specific operational capability.OperationalReplaced by the Operational Requirements Document (Army, USMC).SeeCapability (ROC)Operational Requirements Document.

RequiredSystem parameters that are primary indicators of the system's capability to beOperationalemployed to perform the required mission functions, and to be supported.Characteristics

Required Quantitative system performance parameters, approved by the DoD Technical Component, that are selected as primary indicators of technical achievement of engineering thresholds. These might not be direct measures of, but should always relate to, a system's capability to perform its required mission function and to be supported. Required technical characteristics are usually tested and evaluated by developmental testing and evaluation (DT&E) to ascertain achievement of approved goals and thresholds for these characteristics. Critical technical characteristics selected for a DAB program baseline are reviewed and further approved through the DAB process.

Requirements An analysis to determine and document the need for resources to perform the **Analysis** agency's mission.

RequirementsA document that sets forth the requirements for a system or systemDocumentComponent; for example, a software configuration item. Typically included are
functional requirements, performance requirements, interface requirements,
design requirements, and development standards.

RESA Research, Evaluation, and Systems Analysis simulation facility (USN), San Diego, CA.

Research and Development Costs Those program costs primarily associated with R&D efforts including the development of a new or improved capability to the point where it is ready for use. They include equipment costs funded under RDT&E appropriations and related military construction appropriation costs. They exclude costs that appear in the military personnel, operation and maintenance, and procurement appropriations.

Research,Activities for the development of a new system that include basic andDevelopment,exploratory research, advanced and engineering development, development andTest, andoperational testing and the evaluation of test results. Also, an appropriationEvaluationcategory that includes funds allocated to the FYDP major force program 6.(RDT&E)(Defense Systems Management College)

Resident Space Object which is currently on-orbit and whose element set parameters are maintained by the Cheyenne Mountain Complex.

R

1. The ability of a sensor to measure the separation of an image into its Resolution constituent objects so that single objects are visible and distinguishable. 2. A measurement of the smallest detail that can be distinguished by a sensor system under specific conditions. The continual comparison of the nature of the observed threat with the defense **Response Plan** system capabilities and selects the best way to attack the threat in accordance Selection with established priorities and specified strategy. The threat after taking into account modernization and countermeasures **Responsive Threat** introduced to offset the capabilities of the SDS. The process of determining the true planimetric position of objects whose Restitution images appear on photographs. The ability of the system to recompute the direction of sensors and/or weapons **Re-Targeting** to intercept a target that was missed on the first attempt, or that was superseded by a higher priority target. Action taken to modify inservice equipment. **Retrofit Action** An orbit having inclination of 0 to 90 degrees (See Prograde Orbit). **Retrograde Orbit** The process of analyzing a computer system's software to identify components Reverse and their interrelationships. Engineering The time that elapses between successive observations of an object from a **Revisit Interval** single sensor. 1. See Radio Frequency. 2. Response Force. RF 3. Radio Frequency 1. Request for Issue. 2. Request for Information. RFI Interference. Radio Frequency Linac. RFL Resonant Fiber Optic Gyro. RFOG Request for Proposal. RFP Radio Frequency Quadrupole (Accelerator). RFQ 1. See Rail Gun. 2. Review Group. RG Reverse Illuminated Blocked Impurity Transducer. RIBIT Retro Intercontinental Ballistic Missile. RICBM Unintentional Radiation Intelligence. RINT Reduced Instruction Set Computers. RISC **RISC Ada Environment.** RISCAE

Risk Approval Authority (RAA)	An individual designated by the Director, BMDO who makes risk acceptance decisions. The RAA evaluates trade-offs between threats and such factors as cost, security, survivability, and safety to achieve a functionally operational, affordable, and secure system.
Risk Assessment	The process of subjectively determining the probability that a specific interplay of performance, schedule, and cost as an objective, will or will not be attained along the planned course of action. (Defense Systems Management College)
RISTA	Reconnaissance, Intelligence, Surveillance, and Target Acquisition.
Rivet Joint	RC-135 reconnaissance aircraft.
RL	Rome Laboratory, Griffiss AFB, NY. (Formerly called Rome Air Development Center.)
RLG	Ring Laser Gyro.
RLRIU	Routing Logic Radio Interface Unit (PATRIOT).
RME	1. Relay Mirror Experiment (a satellite launched February 1990 and which reentered the atmosphere in May 1993). 2. Remote Multiplexer Encoder.
RMI	Republic of the Marshall Islands.
RMO	Reflectivity.
RMP	Risk Management Plan.
RMS	1. Remote Manipulator System. 2. Root Mean Square.
ROB	Remote Operating Base.
ROBS	Rapid Optical Beam Steering (system).
Robust	Used in describing a system; indicates its ability to endure and perform its mission against a responsive threat. Also used to indicate system ability to survive under direct attack.
Robustness	1. The ability to produce correct results despite input errors. 2. The existence of coordinated, multiple capabilities that perform the same broad task/mission. Provides the BMD warfighter with sufficient flexibility to negate the specified threat with application of a variable mix of ground and space-based systems. (USSPACECOM)
ROC	1. See Regional Operations Center. 2. Required Operational Capability.
ROCC	See Regional Operations Control Center.
ROD	Record of Decision.
ROE	See Rules of Engagement.

R

ROM	Rough Order of Magnitude
ROW	Rest-of-World.
RP	1. Repetitive Pulse. 2. Readiness Posture.
RPV	Remotely Piloted Vehicle.
RS	Radar Set (PATRIOT).
RSI	Rationalization, Standardization, and Interoperability.
RSO	See Resident Space Object.
RST	Radar System Test (THAAD-GBR)
RSTA	Reconnaissance, Surveillance, and Target Acquisition.
RSTER	Radar Surveillance Technology Experimental Radar (UHF).
RSU	Remote Switching Unit.
R/T	Receive/Transmit.
RTC	Report to Congress.
RTD	Radar Technology Demonstration.
RTG	Radioisotope Thermoelectric Generator.
RTIM	Radar Technology Identification Methodology.
RTO	Responsible Test Organization.
Rules of Engagement (ROE)	Directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered.
RV	See Reentry Vehicle.
RVAO	Reentry Vehicle Associated Objects.
RV Complex	A reentry vehicle and its associated objects.
RV Temperature	The temperature of the heat given off by the RV, that allows sensors to acquire them.
RWPD	Real Time Waveform Processing Demonstration.
RWR	Radar Warning Receiver.
RX	1. Receive. 2. Receiver.

R

S ³ E	Space-Based KEW System Simulator/Emulator.
SA	1. Situation Awareness 2. Secretary of the Army.
SAAWC	Sector Anti-Air Warfare Coordinator (USMC).
SAC	OBSOLETE. Strategic Air Command (see USSTRATCOM).
SACEUR	Supreme Allied Command, Europe.
SACLANT	Supreme Allied Command, Atlantic.
SA/BM	OBSOLETE. Systems Analysis/Battle Management.
SADA	Standard Advanced Dewar Assembly.
SADM	System Acquisition Decision Memorandum (Army).
SAE	See Service Acquisition Executive.
SAFEGUARD	A U.S. midcourse and terminal phase defense for ICBMs, deployed in 1975 and deactivated in 1976 due to its limited cost effectiveness.
SAFSCOM	OBSOLETE. SAFEGUARD System Command.
SAG	Senior Advisory Group.
Saint	A satellite inspector system designed to demonstrate the feasibility of intercepting, inspecting, and reporting on the characteristics of satellites in orbit.
SALT	Strategic Arms Limitation Talks.
	here the standard by
Salvage Fusing	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense.
Salvage Fusing SAM	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile.
Salvage Fusing SAM SAMD	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division.
Salvage Fusing SAM SAMD SAMMES	 The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment.
Salvage Fusing SAM SAMD SAMMES SAMP	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan
Salvage Fusing SAM SAMD SAMMES SAMP SAMS	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan Spacecraft Assembly, Maintenance and Servicing Study.
Salvage Fusing SAM SAMD SAMMES SAMP SAMS SAMTEC	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan Spacecraft Assembly, Maintenance and Servicing Study. OBSOLETE. Space and Missile Systems Test Center, Vandenberg AFB, CA.
Salvage Fusing SAM SAMD SAMMES SAMP SAMS SAMTEC SAMTO	 The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan Spacecraft Assembly, Maintenance and Servicing Study. OBSOLETE. Space and Missile Systems Test Center, Vandenberg AFB, CA. OBSOLETE. Space and Missile Test Organization, Vandenberg AFB, CA.
Salvage Fusing SAM SAMD SAMMES SAMP SAMS SAMTEC SAMTO S/N	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan Spacecraft Assembly, Maintenance and Servicing Study. OBSOLETE. Space and Missile Systems Test Center, Vandenberg AFB, CA. OBSOLETE. Space and Missile Test Organization, Vandenberg AFB, CA. Signal to Noise.
Salvage Fusing SAM SAMD SAMMES SAMP SAMS SAMTEC SAMTO S/N S&T	The means by which a warhead detonates when it is structurally attacked by an interceptor. Generally used as a device for disruption of the defense. Surface-to-Air Missile. Security Assistance Management Division. Space Active Modular Materials Experiment. Single Acquisition Management Plan Spacecraft Assembly, Maintenance and Servicing Study. OBSOLETE. Space and Missile Systems Test Center, Vandenberg AFB, CA. OBSOLETE. Space and Missile Test Organization, Vandenberg AFB, CA. Signal to Noise. Science and Technology.

S&TI	Scientific and Technical Intelligence.
SAO	Security Assistance Organization.
SAP	Special Access Program.
SA/PDL	Strategic Defense Ada Process Description Language.
SAR	1. See Synthetic Aperture Radar. 2. Selected Acquisition Report. 3. Special Access Required. 4. Search and Rescue.
SAS	1. Shoot-Assess-Shoot. 2. System Architecture Study (SDI).
SASS	Space Assets Support System.
SAT	Surveillance, Acquisition and Tracking.
SATCOM	Satellite Communications.
Satellite and Missile Surveillance	The systematic observation of aerospace for the purpose of detecting, tracking, and characterizing objects, events, and phenomena associated with satellites and in-flight missiles, both friendly and enemy.
Satellite Reconnaissance	Intelligence gathered through collection systems involved in assessing the capabilities, methods of operation, signal intercept, photo reconnaissance, and
	other intelligence indications and warnings that will provide information for obc assets.
SATKA	other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment.
SATKA SAW	 other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning.
SATKA SAW SAWAFE	 other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment.
SATKA SAW SAWAFE SAW/V	 other intelligence indications and warnings that will provide information for ober assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification.
SATKA SAW SAWAFE SAW/V SBA	 other intelligence indications and warnings that will provide information for ober assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification. 1. Space-Based Assets. 2. Small Business Administration.
SATKA SAW SAWAFE SAW/V SBA SBAS	 other intelligence indications and warnings that will provide information for oberassets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification. 1. Space-Based Assets. 2. Small Business Administration. 1. See Space-Based Architecture Study. 2. Space-Based Acquisition System.
SATKA SAW SAWAFE SAW/V SBA SBAS SBCL	 other intelligence indications and warnings that will provide information for ober assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification. 1. Space-Based Assets. 2. Small Business Administration. 1. See Space-Based Architecture Study. 2. Space-Based Acquisition System. Space-Based Chemical Laser.
SATKA SAW SAWAFE SAW/V SBA SBAS SBCL SBD	 other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification. 1. Space-Based Assets. 2. Small Business Administration. 1. See Space-Based Architecture Study. 2. Space-Based Acquisition System. Space-Based Chemical Laser. Site BMC3 Demonstration.
SATKA SAW SAWAFE SAW/V SBA SBAS SBCL SBD SBES	 other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification: Space-Based Assets. 2. Small Business Administration. See Space-Based Architecture Study. 2. Space-Based Acquisition System. Space-Based Chemical Laser. Site BMC3 Demonstration. Space-Based Experimental System.
SATKA SAW SAWAFE SAW/V SBA SBAS SBCL SBD SBES SBFEL	 other intelligence indications and warnings that will provide information for obe assets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification. 1. Space-Based Assets. 2. Small Business Administration. 1. See Space-Based Architecture Study. 2. Space-Based Acquisition System. Space-Based Chemical Laser. Site BMC3 Demonstration. Space-Based Free Electron Laser.
SATKA SAW SAWAFE SAW/V SBA SBAS SBCL SBD SBES SBFEL SBHE	 other intelligence indications and warnings that will provide information for oberassets. Surveillance, Acquisition, Tracking, and Kill Assessment. 1. Surface Acoustic Wave. 2. Satellite Attack Warning. Satellite Attack Warning and Assessment Flight Experiment. Satellite Attack Warning and Verification: Space-Based Assets. 2. Small Business Administration. See Space-Based Architecture Study. 2. Space-Based Acquisition System. Space-Based Chemical Laser. Site BMC3 Demonstration. Space-Based Free Electron Laser. Space-Based Hypervelocity Gun Experiment.

1. Space-Based Interceptor. (Replaced by Brilliant Pebbles (BP).) 2. Special SBI Background Investigation. OBSOLETE. Space-Based Interceptor - Carrier Vehicle. SBI-CV 1. Space-Based Infrared. 2. Small Business Innovative Research. SBIR Space Based Infrared System. SBIRS 1. Space-Based Imaging Satellite. 2. Space-Based Interceptor System. SBIS Space-Based Kinetic Energy Weapon. SBKEW OBSOLETE. Space-Based Kinetic Kill Vehicle. SBKKV Space-Based Kill Vehicle. SBKV Space-Based Laser. SBL Space-Based Battle Manager. SBM Space-Based Neutral Particle Beam. SBNPB Space-Based Neutral Particle Beam Weapon. **SBNPBW** Space-Based Particle Beam. SBPB Space-Based Radar. SBR Space-Based Surveillance System. SBSS Space-Based Warning System. SBWAS 1. See System Center. 2. System Concept. 3. Simulation Center. 4. System SC Controller. A mathematical relationship which permits the effects of a nuclear (or atomic) Scaling Law explosion of given energy yield to be determined as a function of distance from the explosion (or from ground zero), provided the corresponding effect is known as a function of distance for a reference explosion (e.g., of 1-kiloton energy yield). In an electro-magnetic or acoustic search, one complete rotation of the Scan antenna. The diversion of radiation, including radio, radar, thermal, and nuclear, from its Scattering original path as a result of interactions (or collisions) with atoms, molecules, or larger particles in the atmosphere or other medium between the source of the radiations (e.g., a nuclear explosion) and a point at some distance away. As a result of scattering, radiation (especially gamma rays and neutrons) will be received at such a point from many directions instead of only from the direction of the source.

Scan Type	The path made in space by a point on the radar beam; for example, circular, helical, conical, spiral, or sector.
SC/BM	System Concepts/Battle Management.
SCCB	See System Configuration Control Board.
SCC	Space Control Center.
SCDL	Surveillance Control Data Link.
SCE	Submunition Chemical Experiment.
SCF	Satellite Control Facility.
SCG	Security Classification Guide.
SCMP	Software Configuration Management Board.
SCN	 Specification Change Notice. 2. Ship Construction and Conversion (Navy). Space Communications Network.
SCOPA	Survivable Concentrating Photovoltaic Array.
SCORE	Scientific Cooperative Research Exchange (US-UK). A science exhange to investigate theater missile defense related issues.
SCP	See System Concept Paper.
SCUD	Surface-to-Surface Missile System.
SDB	System Design Board.
SDCC	Strategic Defense Command Center.
SDB	System Design Board.
SDCV	Shuttle Derived Cargo Vehicle.
SDD	System Description Document.
SDF	Self Defense Force.
SDI	OBSOLETE. Strategic Defense Initiative.
SDIAE	OBSOLETE. SDI Acquisition Executive. (Retitled BMD Acquisition Executive (BMDAE).)
SDIARC	OBSOLETE. Strategic Defense Initiative Acquisition Review Council.
SDII	OBSOLETE. SDI Institute.

SDIO	OBSOLETE. Strategic Defense Initiative Organization. (Predecessor organization to Ballistic Missile Defense Organization (BMDO).)
SDIP	OBSOLETE. Strategic Defense Initiative Program. (Predecessor program to Ballistic Missile Defense Program.)
SDISM	OBSOLETE. SDI Simulation.
SDL	Software Development Library.
SDLS	Satellite Data Link Standard(s).
SDP	Software Development Plan.
SDR	See System Design Review.
SDS	See Strategic Defense System.
SDS-CC	Strategic Defense System - Command Center.
SDSD	Strategic Defense System Description.
SDS Element	A stand alone system (e.g., a weapon or satellite) which is the smallest entity capable of performing a designated function with specified results within the Strategic Defense System.
SDS-OC	Strategic Defense System - Operations Center.
SE	See Systems Engineering.
SE&I	Systems Engineering and Integration.
SEAD	Suppression of Enemy Air Defenses.
Search, Active	Illuminate an assigned volume of space with electromagnetic energy and collect reflected radiation.
Search, Passive	Collect radiation from an assigned volume of space.
SECC	See Survivable and Enduring Command Center.
SECNAV	Secretary of the Navy.
SECNAVINST	Secretary of the Navy Instruction.
Secondary Station	A station that has been selected to receive a transmission from the primary station. The assignment of secondary status is temporary, under control of the primary station, and continues for the duration of a transmission.
Second Strike Capability	The ability to survive a first strike with sufficient resources to deliver an effective counterblow (generally associated with nuclear weapons).

Security Architecture	The portion of the baseline SDS architecture that is responsible for preserving the confidentiality, integrity, and assured service of any of the sensitive, system-valued functions and information elements (assets).
Security Criteria	The set of requirements that should be met so the security system can provide a maximum degree of effective deterrence at the lowest cost.
Security Level	The combination of hierarchical classification and a set of non-hierarchical categories that represents the sensitivity of information.
Security Policy	The set of laws, rules, and practices that regulate how an organization manages, protects, and distributes sensitive information.
Security Policy Model	An informal presentation of a formal security policy model.
Security Program	The implementation of formal security policies and procedures established by DoD and other departmental publications to secure vital components of weapon systems and essential direct support systems from enemy hostile operations and other forms of ground attack.
Security Relevant Event	Any event that attempts to change the security state of the system. Also, any event that attempts to violate the security policy of the system.
Security Subsystem	That part of a weapon or defense system which is added specifically for the performance of security functions and not categorized as components of other subsystems.
Security System	The aggregate of all mechanical and electronic equipment countermeasures in a system which contributes to its security from intelligence gathering and clandestine or overt attack, including organized system function and procedures, as well as the security subsystem.
Security Testing	A process used to determine that the security features of a system are implemented as designed and that they are adequate for a proposed application environment.
SEDS	System Engineering Detailed Schedule
SEE	Software Engineering Environment.
SEER	Sensor Equipment Evaluation and Review.
SEFC	See Space Environment Forecast Center.
Segment	A grouping of elements that are closely related and often physically interface. It consists of CIs produced by several contractors and integrated by one.
SEIC	Systems Engineering and Integration Contractor.
Selected Acquisition Reports (SAR)	Standard, comprehensive, summary status reports on major defense acquisition programs (ACAT I) required for periodic submission to Congress.

Selective,Selective, adaptive defense assigns interceptors to RVs based upon defendedAdaptive Defenseasset values, the number of arriving RVs and time to impact.

Selective Kill Assigns interceptors to targets on the basis of missile type, launch area, impact area, time of launch/arrival or predicted threat utility (e.g., SS-18 or its follow-on).

Selectivity Refers to choosing a subset of targets either for attack or defense. (See Preferential Defense and Preferential Offense.)

SEMA Special Electronics Mission Aircraft.

Semi-Active A system of homing guidance wherein the receiver in a missile utilizes Homing Guidance radiations from a target which has been illuminated by an outside source.

Semi-Active One that does not generate radiation itself, but that detects radiation reflected by targets when they are illuminated by other BMD components. Such devices are used for tracking and identification and can operate without revealing their own locations.

SEMP See Systems Engineering Management Plan.

SEMS System Engineering Management Schedule.

SeniorThe senior official responsible for management direction of the Service
procurement system, including implementation of unique procurement policies,
regulations, and standards. The Senior Procurement Executive for all non-
Service DoD Components is the Under Secretary of Defense for Acquisition and
Technology, who has delegated many of these functions to the Heads of
Defense Agencies including the Director, BMDO.

SENSCOM Sentinel System Command.

Sensor Data Measurement information. For a passive sensor it is usually irradiance time, and LOS. For an active sensor it may include range, doppler, cross section, etc., as well.

Sentinel ABM system designed for light area defense against a low level ballistic missile attack on the United States. Developed into the Safeguard system in late 1960's.

- SEO Survivability Enhancement Option.
- SEP Signal Entrance Panel.

Separation Objects expelled during payload separation sequence.

SEPRD System Element Production Readiness Demonstration.

S

Hardware

Sequestration	The reduction or cancellation of new budget authority; unobligated balances, new loan guarantee commitments or limitations; new direct loan obligations, commitments, or limitations; spending authority; and obligation limitations. As delineated in the Budget Enforcement Act of 1990, sequestration is necessary if legislation is enacted that would cause spending in any appropriations category to exceed a specified cap.
Service Acquisition Executive (SAE)	See definition of DoD Component Acquisition Executive.
Service BMD Program Executive Officer (PEO)	A senior official responsible for execution of Service PMAs and for providing guidance and Service-related direction to subordinate Program Managers. The PEO will also serve as a deputy to the GM. (Consistent with PEO authorities and responsibilities documented in DoDD 5000.1 and DoDI 5000.2.)
Service Component Command	A command consisting of the Service component commander and all those individuals, units, detachments, organizations and installations under the command that have been assigned to the unified command.
Service Life Extension Program (SLEP)	Modification(s) to fielded systems undertaken to extend the life of the system beyond what was previously planned.
Service Test	A test of an item, system, or technique conducted under simulated or actual operational conditions to determine whether the specific military requirements or characteristics are satisfied.
SETA	Scientific, Engineering, and Technical Assistance.
SETAC	Systems Engineering and Technical Assistance Contractor.
SETP	Solar Electric Aircraft Test Platform.
SEWS	Satellite Early Warning System.
SFC	See Space Forecast Center.
SFS	Shoot-Fail-Shoot.
SGEMP	System/Source Generated Electromagnetic Pulse.
SGLS	Space/Ground Link Subsystem.
SHAPE	Supreme Headquarters Allied Powers Europe.
SHF	Super High Frequency.

Shielding	Any material or obstruction which absorbs (or attenuates) radiation and thus tends to protect personnel or materials from the effects of a nuclear explosion. A moderately thick layer of any opaque material will provide satisfactory shielding from thermal radiation, but a considerable thickness of material of high density may be needed for nuclear radiation shielding. Electrically continuous housing for a facility, area, or component, attenuates impinging electric and magnetic fields.
Shoot-Back	The technique of defending a space asset by shooting at an attacker.
Shoot-Look-Shoot (SLS)	A tactic used to achieve Defense Engagement Options (DEOs), such as assured kill by shooting at the target, looking to see if it was killed, and shooting again, if necessary, to achieve the kill.
SHORAD	Short-Range Air Defense.
Short Range Ballistic Missile (SRBM)	A ballistic missile with a range capability of 30 km to 1,000 km. (USSPACECOM)
Short Wavelength Infrared (SWIR)	Thermal radiation emitted by a source in the electromagnetic spectrum encompassing infrared wavelengths of 0.75 to 3 microns.
Shrouded RVs	Reentry vehicles enclosed in a material designed to shield its thermal and other characteristics.
SIC	Standard Industrial Classification.
Sidelobes	Residual EMR surrounding the main beam, which is of weaker power than the main beam.
SIE	SATKA Integrated Experiment.
SIF	1. System Integration Facility; 2. Selective Identification Feature
Signals Security (SIGSEC)	The overall program for communication and electronic security.
Signal-to-Noise Ratio (S/N) (SNR)	Relative power of the signal to the noise in a channel; usually measured in decibels.
Signature	1. Distinctive type of radiation emitted or reflected by a target, which can be used to identify that target; 2. The characteristic pattern of a target displayed by detection and identification equipment.
Signature Histories	A list of observed target signature characteristic parameter values as a function of missile flight time used for target discrimination and kill assessment.
SIGSEC	See Signals Security.
SIL	Systems Integration Laboratory; Sunnyvale, CA.

(SIOP)

Simple SecurityA Bell-LaPadula security model rule allowing a subject read access to an objectConditiononly if the security level of the subject dominates the security level of the object.

Simulation A simulation is a method for implementing a model. It is the process of conducting experiments with a model for the purpose of understanding the behavior of the system modeled under selected conditions or of evaluating various strategies for the operation of the system within the limits imposed by developmental or operational criteria. Simulation may include the use of analog or digital devices, laboratory models, or "testbed" sites. Simulations are usually programmed for solution on a computer; however, in the broadest sense, military exercises and wargames are also simulations.

- Simulator A generic term used to describe a family of equipment used to represent threat weapon systems in development testing, operational testing, and training. A threat simulator has one or more characteristics which, when detected by human senses or man-made sensors, provide the appearance of an actual threat weapon system with a prescribed degree of fidelity.
- SINCGARS Single-Channel and Airborne Radio System.

Single Integrated Plan by which the nuclear strategic offensive forces will retaliate when directed Operational Plan by the NCA.

Single-LevelA device that is used to process data of a single security level at any one time.DeviceSince the device need not be trusted to separate data of different security
levels, sensitivity labels do not have to be stored with the data being
processed.

Singlet A space vehicle, such as a Brilliant Pebble, which contains only one intercept vehicle.

SIOP See Single Integrated Operational Plan.

SIRE Space Infrared Experiment.

SIRMR Senior Information Resources Management Representative.

SIT System Integration Test.

SituationThe determination of the extent to which observed event(s) constitute a threatAssessment(e.g., isolated event, mass attack, etc.), using the attack characterizationinformation.

Six Year Defense Program (SYDP) The official DoD document which summarizes forces and resources associated with programs approved by SECDEF. Its three parts are the organizations affected, appropriations accounts (RDT&E, operations & maintenance, etc.), and the 10 major force programs (strategic forces, airlift/sealift, R&D, etc.). R&D is Program 6. Under the annual PPBS cycle, SYDP is published normally three times: October, January and May. The primary data element in SYDP representing aggregation of organizational entities and related resources is the program element. **Size of Threat** (LxWxAltitude) A volume of space in which a particular group of RVs would **Corridor** occupy, defined by launch location and designated target area.

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SKKP (Former) Soviet system of outer space monitoring.

Skunkworks A separate program management operation established to operate outside the normal process, either to expedite development or because of high security classification.

- SL Sea Level.
- SLAM Stand-off Land Attack Missile.
- SLAR Side Looking Airborne Radar.
- Slave A remote system or terminal whose functions are controlled by a central "master" system. It is similar in concept to a host system in that it responds to remotely generated requests, but unlike a host system, is usually capable of performing a limited range of operations.
- SLBD Sea Lite Beam Director.
- SLBM See Submarine-Launched Ballistic Missile.
- SLC Space Launch Complex.
- SLCM Sea-Launched Cruise Missile.
- SLD System Link Designator.

Slew Time The time needed for a weapon/sensor/antenna to move from point to point.

- SLKT Survivability, Lethality, and Key Technology.
- SLOC Sea Line of Communication.
- SLS See Shoot-Look-Shoot.

SM-2 Standard Missile-2. (U.S. Navy)

Small Optics Precision mirrors or refractors, less than 1 meter, and related technology, for precise pointing and tracking from/to relatively small vehicles separated by large distances.

- Smart Munitions Munitions that "think for themselves" and have the self-contained ability to search, detect, acquire and engage targets.
- SMATH Space Materials Advanced Technology for Hardness.
- SMC Space and Missile System Center.
- SMD Strategic Missile Defense.

194

SMES	Super Conducting Magnetic Energy	yy Storage.
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SMMW Submillimeter Wave.

SMS See Standard Mobile Segment.

SMTS See Space and Missile Tracking System (formerly called Brilliant Eyes).

S/N 1. See Signal-to-Noise Ratio (Also called SNR). 2. Serial Number.

SNDM Secretary of the Navy Decision Memorandum.

SNDV Strategic Nuclear Delivery Vehicle.

SNF Strategic Nuclear Forces.

SNIPE OBSOLETE. SDI System Network Processor Engine.

SNL Sandia National Laboratory, Albuquerque, NM.

SSN Space Surveillance Network.

SNR See Signal-to-Noise Ratio (Also called S/N).

SOA 1. State-of-the-Art. 2. Speed of Advance.

SOF 1. See Strategic Offense Forces. 2. Special Operations Forces.

SOFA Status of Forces Agreement.

Software Architecture The implementation of solutions to the problems in the domain. It becomes a model for constructing applications and mapping requirements from the domain model to reusable components. A generic architecture provides a high-level generic design for a family of related applications as well as a set of components intended for any instance of that application. The generic design eliminates the need to develop a high-level design for each application within the domain. As a result, domain developers use these representations as specifications for reusable components.

Software
 Development
 Cycle
 The period of time that begins with the decision to develop a software product and ends when the product is delivered. This cycle typically includes a requirements phase, design phase, implementation phase, test phase, and sometimes, installation and checkout phase. Contrast with software life cycle.
 The period of time that begins with the decision to develop a software product and ends when the product is no longer being enhanced by the developer.

Software Technical data or information, including computer listings and printouts, in human-readable form, that describe or specify the design or details, explain the capabilities, or provide operating instructions for using the software to obtain desired results from a software system. (See Documentation.)

- Software
 Engineering
 A discipline whose objectives are to define, create, and apply a well-defined methodology that addresses a software life cycle of planning, development, and maintenance.
 The application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software, that is, the application of engineering to software.
- Software Life The period of time that begins when a software product is conceived and ends when the software is no longer available for use. The software life cycle typically includes a concept phase, requirements phase, design phase, implementation phase, test phase, operation and maintenance phase, and, sometimes, retirement phase.
- Software Support The sum of all activities that take place to ensure that implemented and fielded software continues to fully support the operational mission of the system. Software support includes pre-deployment software support and post-deployment software support.
- Software Test A set of automated tools, firmware devices, and hardware necessary to test software. The automated tools may include but are not limited to test tools such as simulation software, code analyzers, test case generators, path analyzers, etc. and may also include those tools used in the software engineering environment.
- **SOI** 1. Silicon-on-Insulator. 2. See Space Object Identification.

SOIF See System Operation and Integration Functions.

Soldier-MachineConsiderations through system analysis and psychophysiology of equipmentInterfacedesigns and operational concepts, to ensure they are compatible with
capabilities and limitations of operators and maintainers.

Sole SourceA contract for the purchase of supplies or services that is entered into aAcquisitionproposal to be entered into by an agency after soliciting and negotiating only
one source.

- SOP See Standard Operating Procedure.
- SOS Silicon-on-Sapphire.

Source Selection The official designated to direct the source selection process, approve the selection plan, select the source(s), and announce contract award.

Source SelectionA group of military and/or government civilian personnel, representingEvaluation Boardfunctional and technical disciplines. It is charged with evaluating proposals and
developing summary facts and findings during source selection.

Source Selection Plan (SSP) A formal written document which sets forth the source selection organization and management chain for a specific acquisition. It provides a guide for evaluators on how to conduct the evaluation, it details the criteria to be used to evaluate the offers received in a competition procurement, and it establishes a basis upon which to distinguish between proposals and to make an award. The SSP is written by the Program Office and approved by the SSA. SOW See Statement of Work.

SPACC See Space Command Center.

Space and MissileSpace-based satellite sensors for surveillance, tracking, and discrimination ofTracking Systemenemy objects during post-boost and midcourse phases. These sensors support(SMTS)ground-based interceptors for both theater and national defense.

Space-BasedA 1989 study to review the space-based elements of the Phase I SDSArchitecturearchitecture, with emphasis on Space-Based Interceptor (SBI), Brilliant PebblesStudy (SBAS)(BP), and the Space Surveillance and Tracking System (SSTS), to define and
justify a recommended architecture for Phase I and beyond.

Space-BasedOBSOLETE. A distributed set of low earth orbit satellites that may provideInterceptor (SBI)launch detection and booster tracking, and that serve as kinetic or kinetic
energy interceptors of boosters, PBVs, and/or RVs. (USSPACECOM)

Space-Based A system that provides global above-the-horizon surveillance to detect and track PBVs, object clusters (RVs and penaids), and resolved midcourse objects, as well as below-the-horizon tasked hot spot detection of boost phase missiles when cued by a space-based weapon or *a priori* knowledge. It provides surveillance data for use in situation assessment, operational intelligence collection, and for cueing other sensor and weapon elements. During midcourse, sensors discriminate and track RVs and associated objects to support midcourse engagements. (USSPACECOM)

Space-Based
Surveillance and
Tracking System
(SSTS)OBSOLETE. A satellite-borne electro-optic tracking and surveillance system in
medium earth orbit. The satellites would track targets from medium earth
orbits against a cold space background and near the earth limb. Individual
objects' state vectors would be generated from correlated information from two
or more sensors. (Predecessor to Brilliant Eyes (BE).)

Space CommandA USSPACECOM center located on Peterson AFB, CO, in Building 147(1). It isCenter (SPACC)the primary command facility for USSPACECOM providing USCINCSPACE with
the information necessary to perform assigned missions.

Space Control Operations Operatio

Space Defense The defensive aspect of space control operations which includes all active or passive measures planned or taken to defeat attacks against friendly space systems or enemy attacks from space.

Space DefenseA center in CMAFB responsible for monitoring and reporting of ASAT attacksOperations Centeron Blue satellites, negating designated satellites, and reconstituting and(SPADOC)protecting designated satellites.

197

Space Detection and Tracking System (SPADATS)	A network of space surveillance sensors operated by the U.S. Air Force.
Space Environment Forecast Center (SEFC)	Center at Peterson AFB, CO that supplies terrestrial and solar weather to the CMAFB Weather Support Unit (WSU) and designated USSPACECOM units.
Space Forecast Center (SFC)	Center at Falcon AFB, CO that supplies solar and space environmental warnings, analyses, and forecasts to USSPACECOM, NORAD, and DoD customers.
Space Mines	Devices that can track and follow a target in orbit, with the capability of exploding on command or by pre-program to destroy the target.
Space Object Identification (SOI)	Use of radar, imaging, and other collection resources to determine size, shape, ephemeris, and identity of space objects.
Space Power	Generation and control of electrical energy in space, from various originating sources (e.g., nuclear, chemical, solar).
Space Support Operations	Operations required to ensure that space control and support of terrestrial forces are maintained. They include activities such as launching and deploying space vehicles, maintaining and sustaining space vehicles while on orbit, and recovering space vehicles if required.
Space Surveillance (SPASUR)	An operational space surveillance system with the mission to detect and determine the orbital elements of all man-made objects in orbit of the earth. The mission is accomplished by means of a continuous fan of continuous wave energy beamed vertically across the continental United States, and an associated computational facility. It is the Navy portion of the North American Aerospace Defense Command Space Detection and Tracking System.
Space Surveillance Center (SSC)	A center in CMAFB responsible for maintaining the satellite catalog, laser clearinghouse, collision and RFI avoidance, and Tracking and Impact Prediction (TIP).
Spacetrack	USSPACECOM global system of radar, optical, and radiometric sensors linked to a computation and analysis center in the Space Surveillance Center. The Spacetrack mission is detection, tracking, and cataloging of all man-made objects in orbit about the earth.
Space Transportation System (STS)	A national asset that provides routine access to space for both civil and defense users. Elements of the STS include the Space Shuttle, upper stages, Spacelab, launch and landing facilities, simulation and training facilities, and mission control facilities. The STS is a reusable system capable of deploying a wide variety of scientific and applications satellites. It can carry payloads weighing up to 65,000 pounds.
SPADATS	See Space Detection and Tracking System.

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SPADCCS	Space Defense Command and Control System.
SPADOC	See Space Defense Operations Center. (U.S. antisatellite mission control).
Spartan	Nuclear-armed, long range mid-course interceptor used in SAFEGUARD/Sentinel systems.
SPAS	Space Power Architecture Study.
SPASUR	See Space Surveillance.
SPAWAR	Naval Space and Warfare Commend.
SPC	1. Statistical Process Control 2. Special Program Center. 3. See Special Programs Center.
SPE	See Senior Procurement Executive.
SPEAR	Space Power Experiments Aboard Rocket.
SPEC	Specification.
Special Data Commands	Special, non-routine commands distributed for surveillance battle management, and fire control.
Special Programs Center	National center for threat modeling and production. Located in the National Test Facility at Falcon AFB, CO.
Special Test Equipment (STE)	Single or multipurpose integrated test units engineered, designed, fabricated, or modified to accomplish special purpose testing. Such testing units comprise electronic, hydraulic, pneumatic, mechanical, or other items interconnected so as to become a new function entity, causing the individual item or items to become interdependent and essential in the performance of special purpose testing in the development or production of particular supplies or services.
Specification	A document (or other media) that specifies, in a complete, precise, verifiable manner, the requirements, design, behavior, or other characteristics of a system or component, and often, the procedures for determining whether or not these provisions have been satisfied.
Specification Language	A language, often a machine-processable combination of natural and formal language, used to specify the requirements, design, behavior, or other characteristics of a system or system component.
Specified Command	A command that has a broad continuing mission and that is established and so designated by the President through the Secretary of Defense with the advice and assistance of the Joint Chiefs of Staff.
SPFE	Special Projects Flight Experiments.
SPICE	Space Integrated Controls Experiment.
SPINE	Shared Program Information Network.

SPIRE	Space Performance in Radiation Environments.
SPIRIT	Space Infrared Imaging Telescope.
SPO	See System Program Office. (Air Force)
SPOD	Seaport of Debarkation.
SPOE	Seaport of Embarkation.
Spoofing	Any technique by which sensitive information or commands may be substituted or stopped without the knowledge of the authorized personnel involved.
SPOT	Systeme Probatoire d'Observation de la Terre - French observation satellite
SPP	System Performance Parameters.
SPR	 Secretarial Program Review (AF). Secretarial Performance Review (OSD). Sponsor's Program Review (Navy).
Sprint	Nuclear-armed, short range interceptor used in SAFEGUARD/Sentinel systems.
SPRN	(Former) Soviet system for missile attack warning.
SPY-1	AEGIS radar.
SRA	See System Requirements Analysis.
SRAM	Short-Range Attack Missile.
SRB	Solid Rocket Booster.
SRBM	See Short Range Ballistic Missile.
SRD	Systems Requirement Document.
SREMP	Source Region Electromagnetic Pulse.
SRF	Strategic Rocket Forces.
SRHIT	OBSOLETE. Small Radar Homing Intercept Technology. Predecessor program to Flexible Lightweight Agile Guided Experiment (FLAGE).
SRIM	Short-Range Intercept Missile.
SRINF	Short Range Intermediate Nuclear Force.
SRL	1. Site Readiness Level. 2. System Readiness Level. 3. See Superradiant Laser.
SRMSC	Stanley R. Mickelsen SAFEGUARD Complex site.
SRR	See System Requirements Review.

SRS	1. Site/System Requirements Study. 2. Software Requirements Specification
SRT	Strategic Red Team.
SRU	Shop Replaceable Unit.
SRV	Single Reentry Vehicle.
SS-18	Largest ICBM in former Soviet inventory credited with carrying 10 RVs, but capable of holding many more.
SSA	see Source Selection Authority.
SSB	Single Side Band.
SSBN	Ballistic Missile Submarine (nuclear).
SSC	1. See Space Surveillance Center. 2. Scan-to-Scan Correlation. 3. Strategic Systems Committee.
SSD	OBSOLETE. Space Systems Division. (Now USAF/SMC.)
SSDA	Solid State Demonstration Array.
SSEB	Source Selection Evaluation Board.
SSGM	Strategic Scene Generation Model.
SSDR	Subsystem Design Review.
SSE	1. See System Security Engineering. 2. Space Surveillance Experiment.
SSGM	Strategic Scene Generation Model.
SSIMU	Solid State Inertial Measurement Unit.
SSL	Solid State Laser.
SSM	Surface-to-Surface Missile.
SSMP	See System Security Management Plan.
SSMS	See Standard Survivable Message Set.
SSMTR	Sary Shagan Missile Test Range.
SSP	See Source Selection Plan.
SSPK	Single Shot Probability of Kill.
SSPM	1. Solid State Photo Multiplier. 2. Software Standards and Procedures Manual.
SSPO	Strategic Systems Program Office. (U.S. Navy)

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SSR	Software Specification Review.
SSRT	Single Stage Rocket Technology.
SSS	1. Space Sensor System. 2. System/Segment Specification.
SSTS	OBSOLETE. See Space-Based Surveillance and Tracking System.
SSWG	System Safety Working Group.
ST	Simulation Tool.
STA	Significant Technical Accomplishments.
Stage	An element of the missile or propulsion system that generally separates from the missile at burnout or cut-off. Stages are numbered chronologically in order of burning.
STANAG	Standardization Agreement (NATO).
Standard Missile	A shipboard, surface-to-surface/air missile.
Standard Mobile Segment (SMS)	SMS is to be the standard for all future ground mobile, air transportable command centers.
Standard Survivable Message Set (SSMS)	Message set which contains the standard format used by ITW/AA data sources.
Standardization	The process by which DoD achieves: (1) the closest practicable cooperation among forces; (2) the most efficient use of research, development, and production resources; and (3) agreement to adopt on the broadest possible basis the use of: (a) common or compatible operational, administrative, and logistics procedures and criteria; (b) common or compatible technical procedures and criteria; (c) common, compatible, or interchangeable supplies, components, weapons, or equipment; and (d) common or compatible tactical doctrine with corresponding organizational compatibility.
STAR	See System Threat Assessment Report.
STARS	Strategic Target System.
START	Strategic Arms Reduction Treaty.
STASS	Space Transportation Architecture System Study.
Statement of Work (SOW)	That portion of a contract that establishes and defines all nonspecification requirements for contractors efforts either directly or with the use of specific cited documents.

The process of evaluating a program without executing the program. See also Static Analysis desk checking, code audit, inspection, static analyzer, walk-through. Contrast with dynamic analysis. Surveillance Test Bed. STB SHAPE Technical Center. STC System Technology Demonstration. STD See Special Test Equipment. STE A technique used to frustrate discrimination that uses the decoy shape and Stealth material content to reduce the reflected IR, radar, optical or acoustic crosssection to the defensive sensor. A system wherein a guided missile may follow a predetermined course with **Stellar Guidance** reference primarily to the relative position of the missile and certain preselected celestial bodies. Surveillance and Tracking Experiment Program. STEP The unit of measure of solid angles equal to the angle subtended at the center Steradian of a sphere of unit radius by unit area on its surface. Using two or more sensors. Stereo Physical process by which an excited molecule is induced by incident radiation Stimulated to emit radiation at an identical frequency and in phase with the incident Emission radiation. Lasers operate by stimulated emission. Scientific Technological Information. STINFO Significant Technical Milestone. STM These environment categories cover the applicable free field or ambient Storage, environments which the system assets must be capable of withstanding during Handling, and storage, handling and transportation. They include the full array of applicable Transportation atmospheric and ground environments to which BMD assets will be exposed Environments during these non-operational aspects of system deployment such as pressure, shock and vibration environments, among others. A surrogate TBM target. STORM 1. System Test Plan 2. Sensor Task Plan. STP HATMD System Training Plan. STRAP Strategic Command. STRATCOM All active and passive measures to detect, identify, assess, degrade and defeat Strategic Defense ballistic missile, air, and space threats to North America, including measures to nullify or reduce the effectiveness of such attacks.

Emergency

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Strategic Defense Declaration that attack is imminent or taking place.

Strategic DefenseA generic descriptor which refers to all architectural elements of the evolvingSystem (SDS)ballistic missile defense system.

Strategic Level ofThe level of war at which a nation or group of nations determines national orWaralliance security objectives and develops and uses national resources to
accomplish those objectives.

StrategicThose forces under the command of the Commander in Chief, USSTRATCOM,
the Commander in Chief, Atlantic Command, the Commander in Chief, Pacific
Command, and other forces assigned to execute the Single Integrated
Operations Plan (SIOP). These forces include but are not limited to B-52s, B-
1s, FB-111s, Minuteman IIs and IIIs, Peacekeepers, Poseidons, and Tridents.

Strategic Reserve That quantity of material that is placed in a particular geographic location due to strategic considerations or in anticipation of major interruptions in the supply distribution system. It is over and above the stockage objective.

Strategic Warning A warning prior to the initiation of a threatening act.

Strategic WarningThat time between the receipt of strategic warning and the beginning ofLead Timehostilities. This time may include two action periods: strategic warning pre-
decision time and strategic warning post-decision time.

Strategic Warning
Post-DecisionThat time which begins after the decision, made at the highest levels of
government(s) in response to strategic warning, is ordered executed and ends
with the start of hostilities or termination of the threat. It is that part of
strategic warning lead time available for executing pre-hostility actions to
strengthen the national strategic posture; however, some preparatory actions
may be initiated in the pre-decision period.

Strategic Warning Pre-Decision Time That time which begins upon receipt of strategic warning and ends when a decision is ordered executed. It is that part of strategic warning lead time available to the highest levels of government(s) to determine the strategic course of action to be executed.

Structured An attack in which the arrival of warheads on their diverse targets is precisely timed for maximum strategic impact.

Structured Design A disciplined approach to software design that adheres to a specified set of rules based on principles such as top-down design, stepwise refinement, and data flow analysis.

- Structured A program constructed of a basic set of control structures, each one having Program one entry point and one exit. The set of control structures typically includes: sequence of two or more instructions, conditional selection of one of two or more instructions, conditional selection of one of two or more instructions or sequences of instructions, and repetition of an instruction or a sequence of instructions.
- STRV Space Technology Research Vehicle.

STS	See Space Transportation System.
ST/STE	Special Tooling/Special Test Equipment.
STU	Secure Telephone Unit.
stw	Strike Warfare.
STWC	Strike Warfare Commander.
STWG	Simulation Tools Working Group.
Subassembly	Two or more parts joined together to form a unit, capable of disassembly, which is only a part of a complete machine, structure, or other article.
Subcontractor	A contractor who enters into a contract with a prime contractor.
Subject Security Level	A subject's security level is equal to the security level of the objects to which it has both read and write access. A subject's security level must always be dominated by the clearance of the user and with the associated subject.
Submarine- Launched Ballistic Missile (SLBM)	A ballistic missile launched from a submarine, with a range of 3,000 to 6,000 miles.
SUBROC	Submarine Rocket.
Subsystem	A functional grouping of components that combine to perform a major function within an element, such as attitude control and propulsion.
Subtractive Defense	First come first engaged as long as weapons last.
Succession of Command	The planned or actual sequence in which subordinate commanders, in turn, become de facto commanders of a senior organization. Devolution of command is a synonymous term.
Sunk Costs	The costs of resources already committed or spent. In comparing two alternatives, such costs are "non-additive," and they are not germane to decisions about future use of resources.
Super	Survivable Solar Power Subsystem Demonstrator.
Superradiance	The process used by a superradiant laser to generate or amplify a laser beam in a single pass through a lasant material, or, in the case of a free electron laser, through an electric or magnetic field in the presence of an electron beam. Superradiance is actually a form of stimulated emission. Also known as superfluorescence, or amplified spontaneous emission.

Superradiant Laser (SRL)	A laser in which the beam passes through the lasant only once; mirrors are not required for the operation of such a laser, as they are with more conventional lasers which are sometimes called "cavity lasers" to distinguish them from superradiant lasers. Free electron lasers may also be superradiant; the laser beam of a superradiant free electron laser would pass once through the electric or magnetic field (instead of a lasant) in the presence of an electron beam.
Supervisory Programs	Computer programs that have the primary function of scheduling, allocating, and controlling system resources rather than processing data to produce results.
Supplemental Appropriation	An appropriation enacted as an addition to a regular annular appropriation act.
Support Equipment	All system equipment required to support the ground and flight phases of the mission. Support equipment includes aerospace ground equipment (AGE), maintenance ground equipment (MGE), transportation and handling (T&H) equipment, and equipment used to support system deployment (i.e., assembly tools and fixtures, test and checkout equipment, personnel support and protection equipment).
Support Personnel	Individuals, in addition to operators, trainers, and maintainers, who are directly associated with an operational system(s), and who are critical to its continuous operation. Examples include program management offices, security, supply, administrative support, and the like.
Support Software	Software that aids in the development or maintenance of other software, for example compilers, loaders, and other utilities.
Suppression	Temporary or transient degradation of the performance of a weapons system, below the level needed to fulfill its mission objectives, by an opposing force.
Surge Production	An increased rate of production necessary to meet demands for defense items due to a need for accelerated production to meet a threat or for a wartime or mobilization situation. This increased rate can be obtained by having excess production capacity available or by utilizing multiple shifts of normal capacity measures.
Surveillance	An observation procedure that includes tactical observations, strategic warning, and meteorological assessments, by optical, infrared, radar, and radiometric sensors on space-borne and terrestrial platforms.
Surveillance Requirements	Requirements are requests for surveillance, including relative priorities for coverage and sensitivity levels, based on operational orders, selected response options and current surveillance system availability.
Surveillance, Satellite and Missile	The systematic observation of aerospace for the purpose of detecting, tracking, and characterizing objects, events, and phenomena associated with satellites and inflight missiles, friendly and enemy.
Surveillance System Configuration	The sensor types and locations and the modes of operation currently activated in the surveillance system.

BMDO GLOSSARY, VER. 2.0

Survivability Operating Modes	The operating modes not including but in addition to the self-defense modes that all the elements can use to protect themselves against direct enemy attack.
Survivable and Enduring Command Center (SECC)	The USSTRATCOM mobile C ² facility.
Sustainer	Propulsion stage of a missile usually operating after the booster cutoff.
SWA	Southwest Asia.
SWA-N	Southwest Asia North Campaign Scenario.
SWA-S	Southwest Asia South Campaign Scenario.
SWC	Strike Warfare Commander.
Sweep Jamming	A narrow band of jamming that is back and forth over a relatively wide operating band of frequencies.
SWIL	Software-in-the-Loop.
SWIR	See Short Wavelength Infrared.
SWSC	Space and Warning System Center.
SYDP	See Six Year Defense Program.
Synchronization	For data streams, the process whereby a received set of data is placed in one to one correspondence with the data assumed to have been transmitted.
Synthesis	The automatic generation of a runnable system from a specialized design where each module description has associated implementations.
Synthetic Aperture Radar (SAR)	A radar technique that processes echoes of signals emitted at different points along a satellite's orbit. The highest resolution achievable by such a system is theoretically equivalent to that of a single large antenna as wide as the distance between the most widely spaced points along the orbit that are used for transmitting positions. In practice, resolution will be limited by the radar receiver's signal processing capability or by the limited coherence of the radio signal emitted by the radar transmitter.
SYSCOM	Systems Command.
System	1. The organization of hardware, software, materials, facilities, personnel, data, and services needed to perform a designated function with specified results, such as the gathering of specified data, its processing, and delivery to users. 2. A combination of two or more interrelated equipment (sets) arranged in a functional package to perform an operational function or to satisfy a requirement.

BMDO GLOSSARY, VER. 2.0

SystemThat set of coordination, assessment, decision, direction and control functionsActivationimplemented to enable defense weapons, and to initiate the automated, real-
time aspects of Battle Management, Engagement Control, and Weapon System
Control.

SystemThe structure and relationship among the components of a system. The systemArchitecturearchitecture may also include the system's interface with its operational
environment. A framework or structure that portrays relationships among allthe
elements of missile defense systems.

System CenterA center in CMAFB responsible for the scheduling of maintenance for(SC)worldwide sensors and supporting equipment as well as maintenanceresponsibility of equipment in CMAFB.

System Concept Paper (SCP) OBSOLETE. For a major program, was used to summarize the results of the concept exploration phase up to Milestone I and to describe the acquisition strategy, including the identification of the concepts to be carried into the demonstration and validation phase and the reasons for elimination of other concepts. Now an Integrated Program Summary (IPS).

SystemThe senior SDS configuration control board. The SCCB will manage theConfigurationsystem-level configuration of the SDS and the interfaces between elements ofControl Boardthe SDS.

System Control Function or task of monitoring the maintenance status of assigned sensors and computer systems.

System-Critical A function that is necessary for the successful accomplishment of the system's **Function** mission.

System Delivery of the completed production system to the using activity.

Deployment

(SCCB)

System Design 1. The process of defining the hardware and software architectures, components, modules, interfaces, and data for a system to satisfy specified system requirements. 2. The result of the system design process.

System DesignAn idea expressed in terms of general performance, capabilities, andConceptcharacteristics of hardware and software oriented either to operate or to be
operated as an integral whole in meeting a mission need.

System Design Evaluates the optimization, correlation, completeness, and risks associated with **Review (SDR)** the allocated technical requirements.

SystemThe measure of the extent to which a system may be expected to achieve a setEffectivenessof specific mission requirements. It is a function of availability, dependability,
and capability.

System Families A collection or grouping of interrelated software systems in the domain that share a set of common characteristics.

Concept

- System Generated Electromagnetic Pulse (SGEMP) Transient electromagnetic radiation caused by the photoelectron emission of the surface of an object subjected to a pulse of photon energy. Although local fields close to the object surface may reach quite high values (kilovolts), the primary disturbance mechanism is the flow of replacement current through the object in order to produce charge equalization.
- System A live flight system-level test utilizing actual system command and control, Integration Test sensors, and weapon hardware.
- System Manager A general term of reference to those organizations directed by individual managers, exercising authority over the planning, direction, and control, of tasks and associated functions essential for support of designated weapons or equipment systems.

SystemA formal document that describes the intended purpose, employment,Operationaldeployment, and support of a system.

- System Operation
and IntegrationThe automated activities of tracking, communications, asset management, and
battle plan execution which are executed under the guidance of the Command
and Control Element. The allocation of these functions (and sub-functions) to
the system elements will be specified in the architecture(s).
- System Posture A USSPACECOM system of graduated readiness steps to bring the strategic BMD system to fully generated alert, similar to the USSTRATCOM concept of posturing aircraft and missile forces to reduce reaction time.
- System ProgramThe office of the program manager and the point of contact with industry,Office (SPO)government agencies, and other activities participating in the system
acquisition process. (U.S. Army uses term "Project Office.")
- System Readiness System Readiness includes the development of OPLANs necessary to carry out the assigned mission, using strategy and guidance provided by higher authority along with knowledge of current system performance and planned capabilities. It includes peacetime tests and exercises to maintain the system in an operational state, and the demonstration and evaluation of alternate tactics and the verification of system performance, to the extent practicable. It provides for the continued training and exercise of personnel in operating the system under realistic conditions, and provides for control of other system test functions necessary to keep the system operating. It provides for detection of anomalies and for corrective action. It also provides for maintenance schedule control, historical maintenance data retention, maintenance training, and test results status reporting.
- System Readiness Objective A criterion for assessing the ability of a system to undertake and sustain a specified set of missions at planned peacetime and wartime utilization rates. System readiness measures take explicit account of the effects of reliability and maintainability system design, the characteristics and performance of the support system, and the quantity and location of support resources. Examples of system readiness measures are combat sortie rate over time, peacetime mission capable rate, operational availability, and asset ready rate.

SystemAn analysis of the operational system requirements, as defined in the SystemRequirementsConcept Paper and other approved requirements documents, used to determineAnalysis (SRA)specific system functional and performance requirements.

SystemConducted to ascertain progress in defining system technical requirements.RequirementsDetermines the direction and progress of the systems engineering effort and the
degree of convergence upon a balanced and complete configuration.

System Security Engineering (SSE) An element of system engineering that applies scientific and engineering principle to identify security vulnerabilities and minimize or contain risks associated with these vulnerabilities. It uses mathematical, physical, and related scientific disciplines, and the principles and methods of engineering design and analysis to specify, predict, and evaluate the vulnerability of the system to security threats.

System SecurityThe contractor shall establish a SSE program to support economical
achievement of overall program objectives. To be considered efficient, the SSE
program: (1) enhances the operational readiness and mission success of the
defense resource; (2) identifies and reduces potential vulnerabilities to the
resource from sabotage, theft, damage, destruction, etc.; (3) provides
management information essential to system security planning and (4)
minimizes its own impact on overall program cost and schedule.

System Security Management Plan (SSMP) A formal document that fully describes the planned security tasks required to meet system security requirements, including organizational responsibilities, methods of accomplishment, milestones, depth of effort, and integration with other program engineering, design and management activities, and related systems.

Systems An interdisciplinary approach to evolve and verify an integrated and life-cycle balanced set of system product and process solutions.

SystemsThis plan documents: (1) Management of the systems engineering process,Engineering(2) Integration of the required technical specialties; (3) Performance measuresManagement Plandevelopment and reporting, including intermediate performance criteria, and (4)(SEMP)Key engineering milestones and schedules.

Systems Test The combination of SDS elements tests to reflect SDS performance Integration and contribution.

System ThreatRequired by DoD 5000.2 and validated by DIA. Establishes the threat (to aAssessmentService's Mission Area) and is part of basis for considering mission deficiencyReport (STAR)and potential program new start. Updated to support a DAB Milestone or when
the threat changes significantly.

System-ValuedA system element/component, function, or information element which is criticalAssetto the proper operation and well-being of the SDS.

210

Coordination

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ТА	Threat Assessment.
T&E	Test and Evaluation.
ΤΑΑ	Technical Assistance Agreement.
TAADCOM	Theater Army Air Defense Commander.
TAAF	Test, Analyze and Fix.
TACAIR	Tactical Air.
TACC	Tactical Air Command Center.
TACCSF	Tactical Air Command and Control Simulation Facility.
TACDAR	Tactical Detection and Reporting.
TACON	Tactical Control.
TACS	Theater Air Control System.
TACSAT	Tactical Satellite.
Tactical Air Doctrine	Fundamental principles designed to provide guidance for the employment of air power in tactical air operations to attain established objectives.
Tactical Air Operation	An air operation involving the employment of air power in coordination with ground or naval forces.
Tactical Air Operations Center	A subordinate operational component of the Marine Air Command and Control System designed for direction and control of all en route air traffic and air defense operations in an assigned sector.
Tactical Air Support	Air operations carried out in coordination with surface forces and which directly assist land or maritime operations.
Tactical Area of Responsibility (TAOR)	A defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support.
Tactical Ballistic Missile (TBM)	A land-based missile generally having a range of <3000 miles that can be employed within a continental theater of operations.
Tactical Concept	A statement, in broad outline, which provides a common basis for future development of tactical doctrine.
Tactical Control	The detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned.
Tactical Data Information link	A netted link in which one unit acts as a net control station and interrogates each unit by roll call. Once interrogated, that unit transmits its data to the net. This means that each unit receives all the information transmitted.

211

Tactical Level ofthe level of war at which battles and engagements are planned and executed toWaraccomplish military objectives assigned to tactical units or task forces.

TacticalThat area between the fire support coordination line and the rear operationsOperations Areaarea where maximum flexibility in the use of airspace is needed to assure(TOA)mission accomplishment.

TacticalA physical grouping of those elements of an Army general and special staffOperations Centerconcerned with the current tactical operations and the tactical support thereof.

Tactical Warning (TW)

 A warning after initiation of a threatening or hostile act based on an evaluation of information from all available sources.
 In satellite and missile surveillance, a notification to operational command centers that a specific threat event is occurring. The component elements that describe threat events are: country of origin, event type and size, country under attack, and event time.

TacticalA composite term. See separate definitions for Tactical Warning and for AttackWarning/AttackAssessment.

Assessment (TW/AA)

(TOC)

TAD1. Tactical Air Defense.2. Theater Air Defense.3. Technical AcceptanceDemonstration.

TADAP Theater Air Defense Asset Planner.

TADC Tactical Air Direction Center.

TADIL Tactical Digital Information Link.

TADIXS Tactical Data Information Exchange System.

TADL Tactical Data Link.

TADS Tactical Air Defense System.

TADSIM Theater Air Defense Simulation.

TAF Tactical Air Force.

TAI International Atomic Time.

TAIS Technology Applications Information System.

TALON Theater Application Launch-on-Notice. A kinetic kill, high-velocity interceptor (under development).

TALON SHIELD An effort using stereo DSP processing to provide ballistic missile burnout vector and impact prediction for interceptor cueing, counterforce tasking, and passive defense.

212

T&E	See Test and Evaluation.
Tank	Final Propulsion Stage (used interchangeably with sustainer).
Tank Debris	Hardware associated with tank.
Tank Fragmentation	The breakup of a tank, either intentionally to serve as a penaid or naturally as a result of aerodynamic loads and heating upon reentry.
ТАОС	Tactical Air Operations Center.
ТАОМ	Tactical Air Operations Module.
TAR	1. The NMD Threat Assessment Report. 2. Threat Activity Report.
Target Acquisition	The detection and initiation of track on a target in the surveillance coverage region of a sensing system.
Target Classification and Type	Identification of the estimated target category based on surveillance, discrimination, and intelligence data.
Target Discrimination	The ability of a surveillance or guidance system to identify or engage any one target when multiple targets are present.
Target Object Map (TOM)	A data set which contains three-dimensional position estimates for target and other objects predicted to be in a weapon interceptor's field of view for use in target designation. (USSPACECOM)
Target Resolution	The splitting of a single target into two or more targets.
Target Signature	1. The characteristic pattern of a target displayed by detection and identification equipment. 2. In naval mine warfare, the variation in the influence field produced by the passage of a ship or sweep.
Tasks	The required actions to accomplish all or part of a COA. Tasks contain guidance to the Battle Management/Command, Control and Communications (BM/C ³) engagement planning function concerning resource allocation, constraints, and required performance.
TASM	Tactical Air-to-Surface Missile.
TAV	Transatmospheric Vehicle.
TAWG	Threat Accreditation Working Group.
ТВА	Theater Battle Arena.
TBIG	TMD BM/C ³ Integration Group.
ТВМ	See Tactical Ballistic Missile/Theater Ballistic Missile.

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TBMD	Theater Ballistic Missile Defense.
TCCF	Tactical Communications Control Facility.
TCE	Three Color Experiment.
TCF	Tactical Combat Force.
TCMD	Theater Cruise Missile Defense.
ТСМР	Theater (Missile Defense) Countermeasures Mitigation Program.
TD	1. Test Director. 2. Technical Data. 3. Technical Director.
TDA	Table of Distribution and Allowance.
TDAS	Theater Defense Architecture Study.
TDASS	Theater Defense Architecture Scoping Study.
TDI	Target Data Inventory.
TDM	Time Division Multiplexed.
TDNS	Theater Defense Netting Study.
TDP	1. See Technical Data Package. 2. Test Design Package. 3. Threat Design Program.
TDR	Terminal Defense Radar.
TDRSS	Tracking and Data Relay Satellite System.
TDSSPA	Technology development for Solid State Phased Arrays.
TDUGS	1. Target Data Uplink Ground Station. 2. Target Data Update Ground Station.
TE	1. Thermo-electric 2. Test Engineer 3. Training Element 4. (BMC3) Test Exerciser.
TEAS	Test and Experiment Activity Summary.
Technical Data	Scientific or technical information recorded in any form or medium (such as manuals and drawings). Computer programs and related software are not technical data; documentation of computer programs and related software are. Also excluded are financial data or other information related to contract administration.

- Technical Data A technical description of an item adequate for supporting an acquisition strategy, production, engineering, and logistics support. The description defines the required design configuration and procedures to ensure adequacy of item performance. It consists of all applicable technical data such as drawings, associated lists, specifications, standards, performance requirements, quality assurance provisions, and packaging details.
- TechnicalThe study, investigation, or test and evaluation by a developing agency toEvaluationdetermine the technical suitability of materiel, equipment, or a system, for usein the military services.(See Development Test and Evaluation.)
- **Technical** The "target" values for the development effort when insufficient data is **Objectives** available for stating binding technical requirements.

Technical A selected subset of the system's technical metrics tracked in Technical Parameters (TPs) A selected subset of the system's technical metrics tracked in Technical Performance Measurement. Critical technical parameters are identified from risk analyses and contract specification or incentivization, and are designed by management.

- Technical Describes all the activities undertaken by the government to obtain design status beyond that treating schedule and cost. TPM is defined as the product design assessment which estimates, through tests the values of essential performance parameters of the current design of WBS product elements. It forecasts the values to be achieved through the planned technical program effort, measures differences between achieved values and those allocated to the product element by the system engineering process, and determines the impact of these differences on system effectiveness.
- TechnicalA detailed description of technical requirements stated in terms suitable to formSpecificationthe basis for actual design development and production.

TechnicalIntelligence gathering methods in which clandestine listening, photographic orSurveillanceemanations gathering instruments are placed within SDS facilities, or otherwise
targeted against SDS assets to gain access to denied information.

TechnologyThe Service or agency (DoD or non-DoD) that has been delegated managementExecuting Agentresponsibility for a particular critical supporting technology by BMDO or
Executing Agent.

TechnologyThe generic description of the applicable supporting technology or criticalProgramsupporting technology.

Description

- TECOM Test and Evaluation Command.
- TED Technology Exploitation Demonstration.

TEL Transporter-Erector-Launcher.

Telemetry,Functions performed by the satellite control network to maintain health andTracking, andstatus, measure specific mission parameters and processing over time aCommand (TT&C)sequence of these measurement to refine parameter knowledge, and transmitmission commands to the satellite.

- **Teleprocessing** The combining of telecommunications and computer operations interacting in the automatic processing, reception, and transmission of data and/or information.
- TELINT Telemetry Intelligence.

TEMP See Test and Evaluation Master Plan.

- **TEMPEST** TEMPEST is an unclassified short name referring to investigation and studies of compromising emanations. It is often used synonymously for the term "compromising emanations," e.g. TEMPEST tests, TEMPEST inspection. (See Compromising Emanations.)
- TENCAP Tactical Exploitation of National Capabilities.
- TEP Test and Evaluation Plan.
- TERC Test and Evaluation Resource Committee.
- TERCOM Terrain Contour Matching.
- **Terminal Guidance** The guidance applied to a guided missile between midcourse and arrival in the vicinity of the target.
- **Terminal Phase** That final portion of a ballistic missile's trajectory between the midcourse phase and trajectory termination.
- Terminal PhaseA ground-based interceptor designed to intercept and destroy RVs in theInterceptorterminal phase of flight. It may also be assigned to intercept and destroy
enemy PBVs and RVs in the midcourse phase. (USSPACECOM)
- **Terminator** Transition from sunlight to earth's shadow in space.
- TERS Tactical Event Reporting System.
- TES Tactical Event System.
- TESP Test and Evaluation Security Plan.
- **Test and Control** The ISTC Test and Control provides the human interface for testing system hardware and software. The Test and Control will consist of the necessary consoles, processors, and storage devices in order to be able to control all operations of the ISTC such as configuring the system, running a scenario, analyzing data, generating reports, and testing system hardware and software.

Evaluation (T&E)

Test and

Process by which components or systems are tested and the results evaluated to assess progress of design, performance, supportability, etc. There are three types of T&E -- Development (DT&E), Operational (OT&E), and Production Acceptance (PAT&E)--occurring during the acquisition cycle. DT&E is conducted to assist the engineering design and development process, to proof manufacturing processes and control and to verify attainment of technical performance specifications and objectives. OT&E is conducted to estimate a needed identify operational effectiveness and suitability, modifications, and provide information on tactics, doctrine, organization, and PAT&E is conducted on production items to personnel requirements. demonstrate that those items meet the requirements and specifications of the OT&E is further subdivided into two procuring contracts or agreements. phases--Initial Operational (IOT&E) and Follow-on Operational (FOT&E). IOT&E must be conducted before the production decision (Milestone III) to provide a credible estimate of operational effectiveness and suitability. Therefore, IOT&E conducted on a production representative system in an operationally realistic environment, by typical user personnel and includes use is a field test of realistic threats. FOT&E is conducted on the production system to verify operational effectiveness and suitability, to fill data voids from the IOT&E, or to verify correction of deficiencies in materiel, training, or concepts.

Test and An overall test and evaluation plan, designed to identify and integrate objectives, responsibilities, resources, and schedules for all test and evaluation to be accomplished prior to the subsequent key decision points. Prepared as early as possible in the acquisition process, it is updated as development progresses.

Test and Evaluation Working Group (TEWG) The TEWG is the forum in which T&E coordination for test requirements, planning, execution, and reporting, is accomplished among members of the Acquisition Team. The primary purpose of the TEWG is to optimize the use of test data, instrumentation, facilities, and models/simulations to achieve test integration and reduce program costs. The TEWG is established by the program sponsor to integrate test requirements, resolve cost/scheduling problems, facilitate TEMP development, assist in preparation of RFPs and related contractual documents, and assist in evaluating contractor proposals when there are T&E implications.

TestbedA system representation consisting partially of actual hardware and/or software
and partially of computer models or prototype hardware and/or software.

Test Criteria Standards by which test results and outcome are judged.

Test IntegrationA working group designed to facilitate the integration of test requirements in
order to minimize development time and cost and preclude duplication between
developmental and operational testing.

Test PlanA document prescribing the approach to be taken for intended testing activities.The plan typically identifies the items to be tested, the testing to be performed,test schedules, personnel requirements, reporting requirements, evaluationcriteria, and any risk requiring contingency planning.

Test Validity The degree to which a test accomplishes its specified goal.

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TEWG See Test and Evaluation Working Group.

TFIM Technical (Architecture) Framework for Information Management

TFR Terrain Following Radar.

TFOV Theoretical Field of View.

THAAD See Theater High Altitude Area Defense System.

Theater The geographical area outside the continental United States for which a commander of a unified or specified command has been assigned.

Theater Attack Attack on a geographical area outside the continental United States.

Theater BallisticThe aggregate TMD C3I and TBMD forces that, in total, provide defenseMissile Defenseagainst ballistic missile attacks within an overseas theater of operations.(TBMD) System(USSPACECOM)

Theater MissileA consultative body for considering TMD family of systems planning and
programming issues; chaired by an Assistant to the BMDO Deputy for
Acquisition/TMD, membership includes BMDO TMD Directors, representatives
of each applicable Service Program Executive Officer, and TMD Executive
Agents and Program Managers.

Theater HighA ground-based, air transportable interceptor system that will provide wide areaAltitude Areadefense capability by intercepting longer range missiles at higher altitudes andDefense Systemat greater distances. Will provide an overlay or upper tier to point defenses(THAAD)such as PATRIOT.

Theater MissileA theater missile (TM) is a ballistic missile (BM), cruise missile (CM), or air-to-
surface guided missile (ASM) whose target is within a theater or which is
capable of attacking targets in a theater.

Theater MissileThe strategies and tactics employed to defend a geographical area outside theDefense (TMD)continental United States against attack from short-range, intermediate-range,
or medium-range ballistic missiles.

Theater MissileA ground-based, air transportable sensor that provides search, tracking andDefense Ground-discrimination capabilities for the THAAD interceptor system. Also referred toBased Radaras THAAD Radar.

Theater MissileAn initiative under which all DoD theater and tactical missile defense activitiesDefense Initiativeare carried out. Section 231 of the National Defense Act for Fiscal Year 1993(TMDI)(Public Law 102-484) directed establishment of a TMDI office within the DoD.

Thermal Energy Electromagnetic energy emitted as thermal radiation. The total amount of thermal energy received per unit area at a specified distance is generally expressed in terms of calories per square centimeter.

Thermal Imagery Imagery produced by sensing and recording the thermal energy emitted or reflected from the objects which are imaged.

(TMD-GBR)

Thermal Kill The destruction of a target by heating it, using directed energy, to the degree that structural components fail.

ThermalTechnologies/techniques associated with the control and management ofManagementthermal energy, its generation, dissipation, and recovery.

- **Thermal Radiation Electromagnetic radiation emitted (in two pulses from a nuclear air burst) from** the fireball as a consequence of its very high temperature; it consists essentially of ultraviolet, visible, and infrared radiations.
- Thermal X-Rays The electromagnetic radiation, mainly in the soft (low energy) x-ray region, emitted by the nuclear weapon residue by virtue of its extremely high temperature; it also is referred to as the primary thermal radiation. It is the absorption of this radiation by the ambient medium, accompanied by an increase in temperature, which results in the formation of the fireball (or other heated region) which then emits thermal radiation. (See X-Rays.)
- The atmospheric shell extending from the top of the mesosphere to outer space; it is a region of more or less steadily increasing temperature with height, starting at 40 to 50 miles (70 to 80 kilometers); the thermosphere includes, therefore, the exosphere and most or all of the ionosphere.

Threat An assessment of the nature, magnitude and intent of an attack in progress.

Characterization

- Threat Corridor A tube containing all the objects originating from launch sites and aimed at (Threat Tube) A tube containing all the objects originating from launch sites and aimed at targets whose spacing is close enough to permit the tube around the object trajectories to be represented by a single trajectory in battle management computation.
- Threat Scenario A hypothetical example of the employment of threat systems against ballistic missile defenses for the purpose of analysis and evaluation of those defensive systems and architectures.
- Threshold Performance capability or characteristic level in terms of a minimum acceptable value (threshold) required to satisfy the mission need and a performance objective.

ThresholdA defense strategy that concedes that the target can be destroyed at a priceDefensethat is not prohibitive, but the presence of the defense is thought to require the
offense to mount a relatively large and complex attack.

- Throw Weight All weight in an interceptor, above the sustainer, which serves as the kill vehicle.
- Thrusted ReplicasConical decoys equipped with a miniature rocket device.Generally used to(TREPS)change the decoy's optical signature to resemble that of an RV in the reentry
phase.
- TIARA Tactical Intelligence and Related Activities.

TIBS Theater Information Broadcast Service.

219

тіс	1. Thermionic Integrated Circuit. 2. Technical Information Center.
TIE	1. Technology Integration Experiments. 2. Technical Independent Evaluation.
Tier	An integrated set of SDS elements that addresses a particular phase of the threat (e.g. , boost phase).
Tiered Defenses	The use of defensive systems at different phases of the missile trajectory.
ТІМ	Technical Interchange Meeting.
Time-Phased Force and Deployment List	Appendix 1 to Annex A of the operation plan. It identifies types and/or actual units required to support the operation plan and indicates origin and ports of debarkation or ocean area.
Time of Flight (Max)	The maximum time for a booster or vehicle to perform its function from time of launch.
Time on Station	The time the sensor is in its operating position.
Time Sensitive Targets	Those targets requiring immediate response because they pose (or will soon pose) a clear and present danger to friendly forces or are highly lucrative, fleeting targets of opportunity.
Time to Station	The time required to move a sensor to its operating position.
TIP	TOPAZ International Program.
TIR	OBSOLETE. Terminal Imaging Radar. (Predecessor to Ground-Based Radar Terminal (GBRT).)
TIRS	Telemetry, Instrumentation and Range Safety
TIU	TIBS/Tactical Interface Unit.
TIWG	Test Integration Working Group. (U.S. Army)
TL	Team Leader.
TLAM	Theater land Attack Missile.
TLV	Target Launch Vehicle.
TLX	Teletype.
тм	1. See Theater Missile. 2. Technical Manual.
TMD	See Theater Missile Defense.
TMDAS	Theater Missile Defense Architecture Study.
TMDC	Theater Missile Defense Council.

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Those assets that provide connectivity be	etween	and among	TBMD	forces.

TMD-GBR See Theater Missile Defense Ground-Based Radar.

TMDI See Theater Missile Defense Initiative.

TMDSE Theater Missile Defense System Exerciser.

- TOA Total Obligation Authority.
- TOC Tactical Operations Center.

TOE Table of Organization and Equipment.

TOF Time of Flight.

TOI Track of Interest.

Tolerance The ability of a system to provide continuity of operation under various abnormal conditions.

- TOM See Target Object Map.
- TOO Target of Opportunity.
- Top-Down Pertaining to an approach that starts with the highest level component of a hierarchy and proceeds through progressively lower levels; for example, top-down design, top-down programming, top-down testing. Contrast with bottom-up.
- Top-DownThe process of designing a system by identifying its major components,Designdecomposing them into their lower level components, and iterating until the
desired level of detail is achieved.
- **Top-Down Testing** The process of checking out hierarchically organized programs, progressively, from top to bottom, using simulation of lower level components.
- **TOPAZ** A project to demonstrate the transfer of Russian thermionic space nuclear power technology to U.S. BMD applications.

TOR Terms of Reference.

TOT Time on Target

Total ObligationalA DoD financial term which expresses the value of the direct program for aAuthority (TOA)given fiscal year.

Total QualityA management philosophy committed to a focus on continuous improvement tomanagementproduct and services with the involvement of the entire workforce.

(TQM)

TOTS Target Oriented Tracking System

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Toxicity	The kind and amount of poison or toxic produced by a microorganism, or possessed by a chemical substance not of biological origin.
TPALS	Theater Protection Against Limited Strikes.
ТРВМ	Terminal Phase Battle Manager.
TPEC	THAAD Performance Evaluation Center.
TPFDD	Time-Phased Force Deployment Data.
TPFDL	Time-Phased Force Deployment List.
ТРМ	See Technical Performance Measurement.
ТРО	1. Test Planning Organization. 2. THAAD Program Office
TPR	1. Terminal Phase Radar. 2. Trained Personnel Requirements. 3. Target Performance Report.
TPS	Thermal Protection System.
трт	Theater Planning Tool.
TPWG	Test Planning Working Group. (U.S. Air Force)
T/R	Transmit/Receive.
Traceability	1. The characteristic of software systems or designs or architectures or domain models that identifies and documents the derivation path (upward) and allocation/flowdown path (downward) of requirements and constraints. 2. The degree to which a relationship can be established between two or more products having a predecessor-successor or master-subordinate relationship to one another.
Track	1. A series of related contacts displayed on a plotting board. 2. To display or record the successive positions of a moving object. 3. To lock onto a point of radiation and obtain guidance therefrom. 4. To keep a gun properly aimed, or to point continuously a target-locating instrument at a moving target. 5. The actual path of an aircraft above, or a ship on, the surface of the earth.
Track Assessment	The Track Assessment looks for anomalies in an object's track data. An anomaly in the track may indicate a hit.
Track, Birth to Death	The maintenance of an associated track through all phases of flight (i.e., boost to reentry).
Track Correlation	The combining of track information for identification purposes, using all available data.
Track Extension	This term usually applies to improvements in track estimates by use of new data. It is sometimes used to describe a process of target extrapolation to a future time or place (e.g., reentry).

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Track File	A target's stated estimate, confidence, covariance matrix, and associated LOS measurements with irradiances with confidence of association; or some subset of the above.
Track File-Track History	A set of individual track reports on a particular object, which taken together produce useful approximation of that object's future position in space.
Track Formation	The process of determining the track or tracks of detected objects. It is usually a three-step process of data association, track initialization, and track improvement by filtering.
Tracking	The act of generating and maintaining a time history of an object's position and any other features of interest.
Tracking and Pointing	Once a target is detected, it must be followed or "tracked". When the target is successfully tracked, a weapon is "pointed" at the target. Tracking and pointing are frequently integrated operations.
Tracking Range (Max)	The maximum line of sight distance at which a sensor can maintain track of an object.
Track Initiation	The formation of the first or initial estimate for a sensor system of the state vector of an object. The process typically requires observation from a number of frames.
Track Production Area	An area in which tracks are produced by one radar station.
Track Symbology	Symbols used to display tracks on a data console or other display device.
Track Telling	The process of communicating air surveillance and tactical data information between command and control systems or between facilities within the systems. Telling may be classified into the following types: back tell; cross tell; forward tell; lateral tell; overlap tell; and relateral tell.
TRADEX	Target Resolution and Discrimination Experiment.
TRADOC	Training and Doctrine Command, Ft. Monroe, VA. (U.S. Army)
Traffic Capability Maximum	The maximum number of objects per unit time which the sensor system can maintain track files.
Traffic Decoy	Decoy that matches RV characteristics in the exoatmosphere and high endoatmosphere.
Train	Threat geometry with objects placed in a line (string) along the velocity vector of reentry.
Trajectory	The curve described by an object moving through space.
Trajectory Histories	Trajectory information on targets recorded over a period of time.

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Trans-Attack Period from first tactical indication of attack until termination started, i.e., postattack.

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- TRANSEC See Transmission Security.
- Transition The period in which the world strategic balance would shift from offensedominance to defense-dominance.
- Transition toA risk reduction process during which the program shifts (passes) fromProductiondevelopment to production. It is not an exact point, but is described as a
process consisting of disciplined engineering and logistics management to
ensure the system is ready for manufacture. (See DoD 4245.7-M.)

TransmissionThat component of security which results from all measures designed to protectSecuritycommunications transmissions from interception and traffic analysis.(TRANSEC)COMSEC.)

- **Transonic** Of or pertaining to the speed of a body in a surrounding fluid when the relative speed of the fluid is subsonic in some places and supersonic in others. This is encountered when passing from subsonic to supersonic speeds and vice versa.
- Transponder A receiver-transmitter that will generate a reply signal upon proper interrogation.
- TRAP Tactical Receiver and Related Applications.
- Trap Door A hidden software or hardware mechanism that permits system security mechanisms to be circumvented.
- Traveling Wave Tube (TWT) An electronic tube in which a stream of electrons interact continuously or repeatedly with a guided electromagnetic wave moving substantially in synchronism with it, in such a way that there is a net transfer of energy from the stream to the wave; the tube is used as an amplifier or oscillator at frequencies in the microwave region.
- Traverse 1. To turn a weapon to the right or left on its mount. 2. A method of surveying in which lengths and directions of lines between points on the earth are obtained by or from field measurements, and used in determining positions of the points.
- **Traverse Level** That vertical displacement above low-level air defense systems, expressed both as a height and altitude, at which aircraft can cross the area.
- TRD Technical Requirements Document.
- TRE Tactical Receive Equipment.
- TREA Transmit/Receive Element Array (THAAD).
- TREE Transient Radiation Effects on Electronics.
- TREPS See Thrusted Replicas.

224

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TRI-TAC Tri-Service Tactical Digital Communications System.

TRMP Test Resources Management Plan.

- **Trojan Horse** A computer program with an apparently or actually useful function that contains additional (hidden) functions that surreptitiously exploit the legitimate authorizations of the invoking process to the detriment of security or mission performance.
- TROPO Tropospheric Scatter.
- **Tropopause** The imaginary boundary layer dividing the stratosphere from the lower part of the atmosphere, the troposphere. The tropopause normally occurs at an altitude of about 7.62km to 13.71km in polar and temperate zones, and at 16.76km in the tropics. (See Stratosphere, Troposphere.)
- **Troposphere** The region of the atmosphere, immediately above the earth's surface and up to the tropopause, in which the temperature falls fairly regularly with increasing altitude, clouds form, convection is active, and mixing is continuous and more or less complete.
- TroposphericThe propagation of electromagnetic waves by scattering as a result ofScatterirregularities in the physical properties of the troposphere.
- TRPC Technology Readiness Planning Committee.
- TRR Test Readiness Review.

Trusted Computer A system or its software that employs sufficient hardware and software System/Software integrity measures to allow its use for processing sensitive or classified information.

- Trusted Path A mechanism by which a person at a terminal can communicate directly with the Trusted Computing Base. This mechanism can only be activated by the person of the Trusted Computing Base and cannot be imitated by untrusted software.
- TS 1. Terminal Service. 2. Top Secret.
- TSA Technology Security Analysis.
- TSD Tactical Surveillance Demonstration.
- TSDE Tactical Surveillance Demonstration Enhancement.
- TSEU Technology Seeker Evaluation Unit.
- TSM TRADOC System Manager.
- TSP Target Support Plan.
- TSR Target System Requirements.

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TSRD	Target System Requirements	Document.
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TSS Terminal Surveillance Sensor.

TSWG Target Signature Working Group.

TT&C See Telemetry, Tracking and Command.

TT&E Technical Test and Evaluation (Army).

TTBM Terminal Tier Battle Manager.

TTP Tactics, Techniques, and Procedures.

- TTY Teletype.
- TVC Thrust Vector Control.
- TVE Technology Validation Experiment.
- TVM Track-via-Missile.
- TW See Tactical Warning.
- TW/AA See Tactical Warning/Attack Assessment.
- TWG Technical Working Group.
- TW/SD Tactical Warning and Space Defense.
- TWT See Traveling Wave Tube.

Type A - SystemStates all necessary requirements in terms of performance, including testSpecificationprovisions to assure that all requirements are achieved. Essential physical
constraints are included. Type A specifications state the technical and mission
requirements of the system as an entity.

Type B -States all necessary requirements in terms of performance. Essential physical
constraints are included. Type B specifications state requirements for the
development of items other than systems. They specify all of the required item
functional characteristics and the tests required to demonstrate achievement of
those characteristics.

- Type C ProductProduct specifications are applicable to any item below the system level, and
may be oriented toward procurement of a product through specification of
primarily function (performance) requirements or fabrication (detailed design)
requirements. Type C specifications are intended to be used for the
procurement of items including computer programs.
- **Typing** The act of recognizing objects by measuring a set of observables, computing a set of characteristics, and associating the characteristics with a specific class of objects (i.e., SS-18, SS-24).

UAV	Unmanned Aerial Vehicle.
UCP	Unified Command Plan.
UDS	Universal Documentation System.
UE	Unit Equipment.
UEWR	Upgrade Early Warning Radar.
UGT	Under Ground Test.
UHF	Ultra High Frequency.
UIC	Unit Identification Code.
UKAS	1. UK Architecture Study 2. UK Associate Studies.
UKEADTB	UK Extended Air Defense Test Bed.
ИКТВ	United Kingdom Test Bed.
Ultraviolet (UV)	Electromagnetic radiation of wavelength between the shortest visible violet (about 3,850 Angstroms) and soft x-rays (about 100 Angstroms).
UMD	Unit Manning Document.
UNAAF	Unified Action Armed Forces.
UNC	United Nations Command.
Unconventional Warfare	A broad spectrum of military and paramilitary operations conducted in enemy- held, enemy-controlled or politically sensitive territory. Unconventional warfare includes, but is not limited to, the interrelated fields of guerrilla warfare, evasion and escape, subversion, sabotage, and other operations of a low visibility, covert, or clandestine nature.
Unified Action Armed Forces	A publication setting forth the principles, doctrines, and functions governing the activities and performance of the Armed Forces of the United States when two or more Services or elements thereof are acting together.
Unified Command	A command with a broad continuing mission under a single commander and composed of significant assigned components of two or more Services, and which is established and so designated by the President, through the Secretary of Defense with the advice and assistance of the Joint Chiefs of Staff.
United States Army Space Command (USARSPACE)	The Army component command of USSPACECOM. Responsible for the Army elements of the SDS system. Located in Colorado Springs, CO.

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United States Space Command (USSPACECOM)

United States

Strategic

Command (USSTRATCOM) The unified command responsible for planning and conducting ballistic missile defense. Located in Colorado Springs, CO.

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The DoD unified command responsible for carrying out directed nuclear and non-nuclear strategic air, intercontinental ballistic missile, and sea-launched ballistic missile offensive combat strikes. Located at Offutt AFB, NE.

United States Transportation Command (USTRANSCOM) The DoD unified command responsible for providing air, land, and sea transportation for the Department of Defense, both in time of peace and time of war. It is also responsible for providing airlift, sealift, surface transport, and terminal services, and commercial air, land, and sea transportation, including as needed to support the deployment, employment, and sustainment of U.S. forces on a global basis, as directed by the Secretary of Defense. Located at Scott AFB, IL.

Unresolved Objects so closely spaced with respect to the sensor focal plane as to be indistinguishable from a single object.

- UNSC United Nations Security Council.
- UOES See User Operational Evaluation System.
- UPD Unconventional Passive Discrimination.
- UPS Uninterruptible Power Source.
- USA 1. United States Army. 2. Under Secretary of the Army.
- USAAE U.S. Army Acquisition Executive.
- USACOM United States Atlantic Command, Norfolk, VA.
- USAF United States Air Force.
- USAFE U.S. Air Forces in Europe.

USAFLANT U.S. Air Force, U.S. Atlantic Command.

USAF/SMC U.S. Air Force Space and Missile Systems Center, Los Angeles AFB, CA.

- USAKA U.S. Army Kwajalein Atoll.
- USAMICOM U.S. Army Missile Command, Redstone Arsenal, AL.
- USAMSIC see MSIC.
- USAOEC U.S. Army Operational Evaluation Command, Alexandria, VA.
- USARCENT U.S. Army Forces, U.S. Central Command.
- USAREUR U.S. Army Forces, U.S. European Command.

228

USARLANT	U.S. Army Forces, U.S. Atlantic Command.
USARPAC	U.S. Army Forces, U.S. Pacific Command.
USARSPACE	See United States Army Space Command.
USASSDC	U.S. Army Space and Strategic Defense Command, Huntsville, AL.
USC	U.S. Code.
USCENTAF	U.S. Central Command Air Forces.
USCENTCOM	United States Central Command, MacDill AFB, FL.
USCINCCENT	Commander in Chief, U.S. Central Command.
USCINCEUR	U.S. Commander in Chief, Europe.
USCINCLANT	Commander-in-Chief, U.S. Atlantic Command.
USCINCPAC	Commander-in-Chief, U.S. Pacific Command.
USCINCSPACE	Commander-in-Chief, U.S. Space Command.
USCINCTRANS	Commander in Chief, U.S. Transportation Command.
USD(A&T)	Undersecretary of Defense (Acquisition and Technology).
USDAO	U.S. Defense Attaché Office.
USDELMC	U.S. Delegation to the NATO Military Committee.
USD(P)	Under Secretary of Defense for Policy.
USDR&E	Under Secretary of Defense for Research and Engineering.
User Friendly	Primarily a term used in automatic data processing (ADP); it connotes a machine (hardware) or program (software) that is compatible with a person's ability to operate it successfully and easily.
User Operational Evaluation System (UOES)	Prototypical system developed and tested as part of the early phases of the development process. A UOES has two objectives: (1) testing, evaluation, and training for a system proceeding through the normal acquisition process; and (2) contingency defense capability should the need arise prior to completion of the normal acquisition cycle.
USEUCOM	United States European Command, Stuttgart-Vaihingen, Germany.
USFJ	U.S. Forces Japan.
USFK	U.S. Forces Korea.
USFK/CFC	CSFK Combined Forces Command.

U

USG	U.S. Government.
USLANTFLT	U.S. Atlantic Fleet.
USMAR-FORCENT	U.S. Marine Component, U.S. Central Command.
USMAR-FORLANT	U.S. Marine Component, U.S. Atlantic Command.
USMAR-FORPAC	U.S. Marine Component, U.S. Pacific Command.
USMC	United States Marine Corps.
USMILREP	U.S. Military Representative.
USN	United States Navy.
USNAVCENT	U.S. Naval Forces, U.S. Central Command.
USNAVEUR	U.S. Naval Forces, U.S. European Command.
USPACAF	U.S. Air Forces, U.S. Pacific Command.
USPACOM	United States Pacific Command, Pearl Harbor, HI.
USPACFLT	U.S. Pacific Fleet.
USREPMC	U.S. Representative to the Military Committee (NATO).
USSOCOM	United States Special Operations Command, Tampa, FL.
USSOUTHCOM	United States Southern Command, Panama Canal Zone, Panama.
USSPACECOM	See United States Space Command.
USSTRATCOM	See United States Strategic Command.
USTRANSCOM	See United States Transportation Command.
UT	Universal Time.
UTC	Unit Type Code.
UTM	Universal Transverse Mercator.
UTTMDS	Upper Tier Theater Missile Defense System. See THAAD System.
UV Electro-Optics	Technologies/techniques employed by optical sensors in the wavelength spectrum shorter than visible (e.g., less than 4,000 A).
UW	Unconventional Warfare.

U

L

V&H Vulnerability and Hardening.

V&V Verification and Validation. (See Verification, Validation, and IV&V.)

VAFB Vandenberg Air Force Base, CA.

Validation Confirmation that the processes and outputs from a test resource parallel real world processes and are realistically sensitive to change in the environment, tactical situation, system design, tactics, and threat.

Variability The manner in which the probability of damage to a specific target decreases with the distance from ground zero; or, in damage assessment, a mathematical factor introduced to average the effects of orientation, minor shielding, and uncertainty of target response to the effects considered.

- VBO Vertical Burn-Out (velocity).
- VCC Voice Communications Circuit.
- VDC Volts Direct Current.
- VDU Visual Display Unit.
- VE Value Engineering.
- VECP Value Engineering Change Proposal.

Verification 1. Confirmation that all data inputs, logic, calculations and engineering representations of a T&E resource accurately portray the characteristics, calculations, logic, and interactions of the system under evaluation. 2. The process of evaluating a system or component during or at the end of the development process to determine whether it satisfies specified requirements.

- VHF Very High Frequency.
- VHSIC Very High Speed Integrated Circuit.

VINSON Encrypted Ultra High Frequency Communications System.

Visibility Range (or Visibility) The horizontal distance (in kilometers or miles) at which a large dark object can just be seen against the horizon's sky in daylight. The visibility is related to the clarity of the atmosphere ranging from 170 miles (280 kilometers) for an exceptionally clear atmosphere to 0.6 mile (1.0 kilometer) or less for dense haze or fog. The visibility on an average clear day is taken to be 12 miles (19 kilometers).

- Visible Electro-Technologies/techniques employed by optical sensors in the visible portion ofOpticsthe wavelength spectrum.
- VLF Very Low Frequency.
- VLOS Vertical Line of Sight.

VLS	Vertical Launch System.
VLSI	Very Large Scale Integration.
VLSIC	VLSI Circuits.
VLWIR	Very Long Wavelength Infrared.
vox	Voice Actuation.
νтс	Video Teleconference.
VTOL-UAV	Vertical Takeoff and Landing Unmanned Aerial Vehicle.
VUE	Visible Light/Ultraviolet Experiment.
VV&A	Verification, Validation, and Accreditation.

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WAA	Wide Aperture Array.	
WALEX	Warfare Analysis Laboratory Exercise.	
WAM	1. Worldwide Military Command and Control System (WWMCCS). 2. Wide Area Munition. 3. Wide Area Mine. 4. Wide Area Missile.	
WAP	Wide Azimuth Probe.	
War Game	A simulation, by whatever means, of a military operation involving two or more opposing forces, using rules, data, and procedures designed to depict an actual or assumed real life situation.	
Warhead	A weapon, usually thermonuclear, contained as the payload of a missile.	
Warhead Mating	The act of attaching a warhead section to a rocket or missile body, torpedo, airframe, motor, or guidance section.	
Warhead Section	A completely assembled warhead including appropriate skin sections and related components.	
WARM	See Wartime Reserve Modes.	
Warning of Attack	A warning to national policymakers that an adversary is not only preparing its armed forces for war, but intends to launch an attack in the near future.	
Warning Order	A preliminary notice of an order or action that is to follow.	
Wartime Reserve Modes (WARM)	Characteristics and operating procedures of sensor, communications, navigation aids, threat recognition, weapons, and countermeasures systems that (1) will contribute to military effectiveness if unknown to or misunderstood by opposing commanders before they are used, but (2) could be exploited or neutralized if known in advance. Wartime reserve modes are deliberately held in reserve for wartime or emergency use and seldom, if ever, applied or intercepted prior to such use.	
Wastage (Max)	The maximum number of defense weapons which, when used, will be ineffective in contributing to the defeat of the offense.	
WB	Wideband.	
Watch Condition (WATCHCON)	Series of readiness conditions used by the intelligence community to alert staffs to watchfulness without raising DEFCON.	
Wave	Time grouping of offensive Reentry Vehicles constrained by launcher inventories.	
Wavelength	The distance between two points having the same phase in two consecutive cycles of a periodic wave, along a line in the direction of propagation.	
WBM	Weapons Battle Manager(s).	
WBS	See Work Breakdown Structure.	

W

WCC	1. See Wing Control Center. 2. Weapons Control Computer.
WCP	Weapon Control Processor.
wcs	Weapons Control System.
Weapon Enabling	The set of control functions without which defense weapons cannot be launched.
Weapon Engagement Zone	In air defense, airspace of defined dimensions within which the responsibility normally rests with a particular weapon system.
Weapons Allocation	Designation of a certain weapon to attack a certain threat after Engagement Authorization is given.
Weapons Assignment	In air defense, the process by which weapons are assigned to individual air weapons controllers for use in accomplishing an assigned mission. Assignment of a particular interceptor to a particular target.
Weapons Commitment	Authorization to allocate certain weapons to designated targets thus permitting checklist actions to be taken.
Weapons Control	The varying degree of formal control an area air defense commander exercises over all air defense weapons in his area of responsibility.
Weapons Enablement	Authorization to place a weapon into its most ready state but prior to release.
Weapons Free	A weapon control order imposing a status whereby weapons systems may be fired at any target not positively recognized as friendly.
Weapons Hold	A weapon control order imposing a status whereby weapons systems may be fired in self-defense or in response to a formal order.
Weapons Initiation	State when a weapon system is to be placed in the highest state of readiness shy of weapon allocation. It is possible to go direct to weapons allocation or release without first initiation or allocation.
Weapons of Mass Destruction (WMD)	In arms control usage, weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people.
Weapons Readiness State	The degree of readiness of air defense weapons which can become airborne or be launched to carry out an assigned task. Weapons readiness states are expressed in number of weapons and number of minutes.
Weapons Release Authority (WRA)	The order that gives weapon controllers the authority to fire. (USSPACECOM)

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Items that can be used directly by the armed forces to carry out combat Weapons System missions and that cost more than \$100,000 or for which the eventual total That term does not include procurement cost is more than \$10,000,000. commercial items sold in substantial quantities to the general public. That set of assessment, decision, and direction functions normally implemented Weapon System automatically to assure that individual weapons are pointed, fired, and guided Control as necessary to intercept the designated attackers. The assignment of an interceptor to a particular threat object. In Midcourse, a Weapon Target WTA requires in-flight communication between the Battle Manager and an in-Assignment flight interceptor. To ensure the Battle Manager maintains the ephemeris of the (WTA) interceptor, the WTA will constraint the interceptor's flight error. A weapon control order imposing a status whereby weapons systems may be Weapons Tight fired only at targets recognized as hostile. A description in broad terms, based on established outline characteristics, of Weapons System the application of a particular equipment or weapon system within the Employment framework of tactical concept and future doctrines. Concept Beginning at Vandenberg AFB, CA, this range stretches half-way around the Western Test globe where it meets the Eastern Test Range. An array of launch complexes, Range (WTR) sensors, and tracking sites makes up the Western Test Range. It is operated by the Space and Missile Test Organization (SAMTO), a unit of AFSPACECOM as of 1 October 1990. Weapon Engagement Zone. WEZ Wallops Flight Facility, Wallops Island, VA. WFF Wide Field of View. WFOV A second Space Wing center that logistically/administratively controls Wing Control operational satellite systems operated by them at worldwide locations. Center (WCC) WWMCCS Information System. WIS 1. A term used in a pre-planned response option (PRO) to identify the Withhold withholding of part of the space or ground weapon inventory against detected threat launches, in anticipation of follow-on attacks. 2. (Nuclear) The limiting of authority to employ nuclear weapons by denying their use within specified geographical areas of certain countries. Wright Laboratory, Wright-Patterson AFB, OH. WL Weapons of Mass Destruction. WMD War and Mobilization Plan. WMP Warning Notice - Intelligence Sources or Methods Involved. WNINTEL Wing Operations Center. WOC

W

111

Work Breakdown
 Structure (WBS)
 A product-oriented family tree division of hardware, software, services, and other work tasks which organizes, defines, and graphically displays the product to be produced, as well as the work to be accomplished to achieve the specified product.
 A hierarchical diagram used to depict the tasks, capital, and resources required during the development of a product.

W

Work Packages Detailed short-span jobs, or material items, identified by the contractor for accomplishing work required to complete the contract.

WorldwideA confederation of national, unified, and specified command and otherIndicationsintelligence centers and facilities.The primary mission of the WWIMS systemMonitoringis to monitor, maintain, and report on Indications and Warning (I&W) activity.System (WWIMS)

- The system that provides the means for operational direction and technical World-Wide administrative support involved in the function of command and control of U.S. Military The system comprises: The NMCS - The command and military forces. Command and control systems of the unified and specified commands - The WWMCCS-related **Control System** management/information systems of the headquarters of the Military (WWMCCS) Departments - The command and control systems of the headquarters of the service component commands - The command and control support systems of DoD agencies. The system furnishes a multi-path channel of secure communications to transmit information from primary sources to those who must make decisions (including the President) and to transmit their decisions (in the form of military orders) to subordinates.
- WPAFB Wright-Patterson AFB, Dayton OH.
- WPD Work Package Directive.
- WRA See Weapons Release Authority.
- WRM War Reserve Materiel.
- WRSK War Reserve Spares Kit.
- WSE Weapon Support Equipment.
- WSI Wafer-Scale Integration.
- WSMC Western Space and Missile Center, Vandenberg AFB, CA.
- WSMR 1. White Sands Missile Range, NM 2. Western Space and Missile Range.
- WTA Weapon Target Assignment.
- WTP Weapon Test Plan.
- WTR Western Test Range.
- WWIMS See Worldwide Indications Monitoring System.
- WWMCCS See World-Wide Military Command and Control System.

XCVR Transceiver.

XDS Exoatmospheric Defense System.

XO Executive Officer.

X-Ray Laser A laser that generates a beam or beams of x-rays. Also called an "X-raser."

(XRL)

X-Rays Electromagnetic radiation of high energy which results from either the release of energy from electrons changing orbits about the nucleus (discrete) or the inelastic collision of charged particles with the electromagnetic field of the nucleus. X-rays have wavelengths shorter than those in the ultraviolet region, e.g., less than 10E-6 cm or 100 Angstroms. Materials at very high temperatures (millions of degrees) emit such radiations; they are then called thermal x-rays. As generally produced by x-ray machines, they are "bremsstrahlung" resulting from the interaction of electron of 1 kiloelectron-volt or more energy with a metallic target. (See Electromagnetic Radiation and Thermal X-Rays.)

XRL See X-Ray Laser.

Yield (or Energy Yield) The total effective energy released in a nuclear (or atomic) explosion. It is usually expressed in terms of the equivalent tonnage of TNT required to produce the same energy release in an explosion. The total energy yield is manifested as nuclear radiation, thermal radiation, and shock (and blast) energy, the actual distribution being primarily dependent upon the medium in which the explosion occurs, as well as the type of weapon and the time after detonation.

Zero Point The location of the center of a burst of a nuclear weapon at the instant of detonation. The zero point may be in the air or on or beneath the surface of land or water, dependent upon the type of burst; it is thus to be distinguished from ground zero.

ZULU

Time Zone Indicator for Universal Time.

Units of Measurement

Keyword/Symbol		ol	Unit Name	Aspect Measured
ſ	А	1	ampere	electric current
ŗ	angstrom	i	angstrom	length
ſ	h	i	bit	binary digit 0 or 1
t T	hns	i	bit per second	bit transfer rate
L F	Dp3	i	coulomb	electric charge
L T		r L	curie	radioactivity
l		L L	calorie	energy
ļ		1		energy per area
l	cal/sq cm	J	centimeter	
r	chan	1	channel	frequency path
ı r	om	i	centimeter	length
ł	CIII	L L	cubic centimeter	volume
l	cu cm	3	decibel	signal strength
l	dB	1	degree	plane angle
I	deg	ļ	degree Kolvin	temperature
[deg K	1	degree, Keivin	plane angle change rate
I	deg/s]	degree per second	slew acceleration
[deg/s/s]	degree per second	SIEW acceleration
•	diama	1	diameter	length
ł	diam	1	dyne	force
ļ	ayn	l r	electron-volt	energy
ļ	ev	j 1		magnetic flux density
l	G	J	1) 9 808 meters per sec-	1) gravitational accelera-
L	g	1	ond per second; 2) gram	tion constant; 2) mass
ſ	CH7	1	gigahertz	frequency
L T	GUZ	1	grav	absorbed dose
L T	Gy b	נ ו	hour	time
L r	11 Ll-r	1	hertz	frequency
L r		1	ioule	energy
l	. Ј , Т	J 1	Joule -Thomson	temperature change
ļ	J-1	j 1	Kelvin	temperature
ł	ĸ	l r	kiloampere	electric current
l	kA]	kilobit	binary digit
1	kb	J	kilobit per second	velocity (binary digit)
[kb/s	1	kilopit per second	energy
[KeV]	Kiloelectron-voit	pressure
[kg/sq m]	kilogram per square meter	picasulo
	KU-	ı	kilobertz	frequency
ļ	KHZ	L L	kiloioule	energy
ļ	KJ	J	kilojoule per kilo-	specific energy
l	KJ/Kg]	gram	•
I	kJ/sq cm]	kilojoule per square centimeter	laser lethality
ſ	km	1	kilometer	length
L F	km/s	í	kilometer per second	velocity
L T	. K.T.	í	kiloton	yield
l		1	kilovolt	electromotive force
ļ	K V /\A/	ן ו	kilowatt	power
ļ	KVV	J 1	kilowatt per kilogram	specific power
l	KVV/KG	i	Kilottatt por thing.	· .

Keyword/Symbol		1	Unit Name	Aspect Measured
T	kW/m	1	kilowatt per meter	thermal transport
ſ	kW/sa.cm	i	kilowatt per square	energy flux
L	Reflect on the		centimeter	
r	m	1	meter	length
ſ	Mbns	i	megabit per second	bit transfer rate
r	MeV	i	megaelectron-volt	energy
r	MELOPS	i	million floating point	processing performance
L		,	operations per second	
ſ		1	megahertz	frequency
l r	mioro	1	micro	a one-millionth part
L T	mioron	1	micrometer	length
L T	milli	1	milli	a one-thousandth part
l	min	1 1	minute	time
i		1 L	million instructions	processing speed
L	mps	1	ner second	
r		ı	menajoule	energy
1	MJ	l l	millimeter	length
l	mm	1 I	million operations	processing performance
L	mops	1	ner second	• –
,		1	milliradian	plane angle
l	mrad	1	meter per second	velocity
l	m/s	j 1	millisecond	time
l	ms NAT	l I	megaton	vield
ļ		1 1	megavolt per meter	electric field strength
ļ	IVIV/m	J	megawatt	power
I		j	megawatt ner steradian	laser brightness
ļ	MVV/sr	1	negawatt por storation	force
l	N-S	l	neposecond	frequency
1	ns	J	nanosecono	astronomical distance
l	parsec	j	passel	pressure
I	Pa-s	1	pascal-second	radiation dose
[R	Ţ	roenigen	absorbed dose
ľ	RAD	1	radion	plane angle
[radian	ļ		angular drift
[rad/s	ł		efficiency
I	ratio	1	percentage	ionizing radiation
[rem	1	rem	time
[S	1	second	area
Ι	sq m	1	square meter por vear	area per time
[sq m/yr]	square meter per year	absorbed radiation dose
I	sr	1	steradian	plane angle
[mrad]	microradian	electromotive force
[V]	Volt	nower
[W]	watt	specific power
[W/kg]	watt per kilogram	beat flux
[W/sq cm]	watt per square	nout nux
			centimeter	energy flux
	W/sq m]	watt per square meter	radiant intensity
1	W/sr]	watt per steradian	radiance
1	[W/sr sq m]	watt per steradian	
			square meter	time
	í vr]	year	

239


