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MIL-HDBK-1812
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DEPARTMENT OF DEFENSE HANDBOOK

TYPE DESIGNATION, ASSIGNMENT AND METHOD FOR OBTAINING

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DEPARTMENT OF DEFENSE
WASHINGTON DC 20301-8000

TYPE DESIGNATION, ASSIGNMENT AND METHOD FOR OBTAINING

1. This military standard is approved for use by all Departments and Agencies of the Department of Defense.

1.1. This standard is mandatory for use by the Departments of the Army, the Navy, and the Air Force for designating photographic materiel of the type formerly identified by MIL-STD-155A, Joint Photographic Type Designation System.

1.2. This standard is mandatory for use by the Department of the Air Force for designating aerospace vehicle propulsion engines, aeronautical equipment, support equipment, and in association with MIL-STD-196 for electronic materiel.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document, should be addressed to: ASD/ENES, Wright-Patterson AFB OH 45433-6503 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

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FOREWORD

This standard has been created to consolidate documentation concerning type designation assignment and to standardize procedures for obtaining nomenclatures. Contract End Item Numbers and Configuration End Item Numbers are not replacements for official military systems of type designations used throughout the Department of Defense. This standard establishes the requirements for obtaining official assignment of nomenclature and conformation of existing nomenclature for items of photographic, electronic, aeronautical equipment, and support equipment acquired by the Department of Defense.

The data contained herein supersedes data formerly contained in MIL-STD-155, MIL-STD-815, MIL-STD-842(USAF), MIL-STD-875, MIL-STD-879, MIL-STD-1557, and MIL-N-7513(USAF).

This requirement provides for on-line guidance and off-line instruction for the instructor/operator and

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1. SCOPE

1.1 Purpose. The purpose of this standard is to provide type designation systems and procedures for use by the Department of Defense to standardize the identification of Photographic Equipment, Aerospace Vehicle Propulsion Engines, Aeronautical Equipment, Support Equipment, and Electronic Materiel. In addition, this standard defines the method for obtaining nomenclatures and type designations.

1.2 Objectives. The type designation systems shall be flexible and broad enough in scope to cover present types of equipment and equipment to be developed in the future; yet, shall be stable enough to permit the assigned type designation to continue to identify the equipment throughout its entire life. Further, these systems shall be designed to accomplish the following.

1.2.1 Simplify the identification of equipment and provide a means of readily identifying items designated.

1.2.2 Define and identify similar items to insure that any significant differences between the user's viewpoint and that of the item's designed use and purpose shall be readily distinguishable.

1.2.3 Provide a means of identifying items on nameplates, specifications, drawings, and technical data.

1.2.4 Provide an indication of interchangeability and substitutability.

1.2.5 Provide an unclassified means of identifying equipment in correspondence and other communications.

1.2.6 Provide a means to disseminate unclassified technical data to activities within the Departments and Agencies of the Department of Defense that justify a need.

2. APPLICABLE DOCUMENTS

2.1 Government documents

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

STANDARDS

MILITARY

MIL-STD-12	Abbreviations for Use on Drawings, Specifications Standards & In Technical Documents

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MIL-STD-196 Joint Electronics Type Designation System

DoD-STD-280 Definitions of Item Levels, Item Exchangeability, Models, and Related Terms

2.1.2 Other Government Documents, Drawings, and Publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues shall be those cited in the solicitation.

DoD 5220.22M Department of Defense Industrial Security Manual for Safeguarding Classified Information

DoD 5200.1R Defense Information Security Program Regulation

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. DEFINITIONS

3.1 Definitions. For the purpose of this standard the following definitions apply:

3.1.1 Aerospace vehicle. Any air vehicle which qualifies for assignment of a mission-design-series designation, i.e., aircraft, missile, etc.

3.1.2 Basic assignment. A type designation assigned to identify the general design of the equipment, group, or unit. It consists of a type designation with an empty parentheses directly following the model number.

3.1.3 Complement item. Items or groups that make up the equipment or group to be nomenclatured. This item shall be part of the equipment or group and must be issued automatically with the equipment or group of which it is a part.

3.1.4 Definitive equipment, groups and units. Definitive equipment, groups, and units shall be those having a specific assemblage as defined in MIL-STD-280.

3.1.5 Departmental Control Point (DCP). The activity within a Department authorized to obtain type designations from the DoD Control Point.

3.1.6 Department of Defense Control Point (DoDCP). The official activity responsible for the assignment of type designations within the systems.

a. As used herein, for nonelectronic materiel, the DoDCP shall be the Aeronautical Systems Division, ATTN: ASD/ENES, Wright-Patterson AFB OH 45433-6503.

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b. For electronic materiel, the DoDCP shall be the U.S. Army Communications-Electronics Command, ATTN: AMSEL-LC-LM-LC-J, Fort Monmouth NJ 07703-5000.

3.1.7 Development activity. Activity responsible for the development of an item.

3.1.8 Development assignment. A type designation assigned by the development activity to identify a development equipment, group, or unit after first obtaining a basic assignment from the DoDCP. It consists of the basic assignment and the appropriate development organization-indicator followed by a numeral.

3.1.9 Electrical interchangeability. The new item's capability of operation being equal to the old item without requiring any modifications to the existing power facilities, change to, or rewiring of connectors, etc.

3.1.10 Equipment. An equipment shall be defined as a set, central, or system level of hardware, which requires an A/ or AN/ level of type designation.

3.1.11 Functional interchangeability. The new item's capability of performing, without additional assistance, all the operational capabilities covered by the previous item.

3.1.12 Hybrid. A propulsion device which employs characteristics of both liquid and solid propellant rocket systems (liquid-solid rocket).

3.1.13 Item. For purposes of this standard, an item shall be any level of hardware eligible for assignment of nomenclature.

3.1.14 Item name. Name assigned by the activity authorized within the Department for assignment of item names.

3.1.15 Maintenance (repair) parts interchangeability. The capability of installing and operating a maintenance part in a new item in lieu of a like part in an old item without the use of additional tools or modifications to the existing item or mounting facilities and with no appreciable effect on performance or ratings either electrical or mechanical.

3.1.16 Mechanical interchangeability. The new item's capability of being physically installed and operated in the position previously occupied by the old item without requiring modifications as to mounting holes, etc. Switches, meters, indicators, connectors, etc., shall be located as on the previous model, within allowable tolerances. The center-of-gravity of the new item shall be the same as in the old article, within allowable tolerances.

3.1.17 Model number. A number sequentially assigned for different items requiring the same combination of letters forming a type designation.

3.1.18 Modification letters. A letter assigned in alphabetical sequence starting with the letter A to show a modification where interchangeability has been maintained to the extent defined. The letters "I" and "O" shall not be used.

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3.1.19 Nomenclature. The combination of approved item name and military type designation, as assigned by the DoDCP.

3.1.20 Part of

a. An item which is required to enable an equipment to fulfill its assigned function shall be part of that equipment.

b. An item which is physically attached to and essential to the operation of another item shall be considered part of the item to which it is attached.

c. The item shall be issued automatically and in all instances with the equipment or item of which is be a part.

3.1.21 Production assignment. A type designation assigned to identify a production equipment, group, or unit. It shall consist of the basic type designation assignment modified by deleting the empty parentheses for the initial production item.

3.1.22 Requesting activity. Any activity preparing or forwarding DD Forms 61.

3.1.23 Rocket engine. A non-air-breathing reaction propulsion device that consists essentially of an injector, thrust chamber(s) and exhaust nozzle(s), and utilizes liquid fuels and oxidizers at controlled rates from which hot gases shall be generated by combustion and expanded through a nozzle(s).

3.1.24 Rocket motor. A non-air-breathing reaction propulsion device that consists essentially of a thrust chamber and exhaust nozzle and that carries it's own solid oxidizer-fuel combination from which hot gases shall be generated by combustion and expanded through a nozzle.

3.1.25 Rocket motor cluster. A grouping of two or more rocket motors fastened together and designed to function as a single propulsion unit.

3.1.26 Type designation. A combination of letters and numerals arranged in a specific sequence to provide a short significant method of identifying the equipment, group, or unit by type.

3.1.27 Unit. In addition to the definition in MIL-STD-280, the following applies: A line replaceable unit (LRU) or weapon replaceable assembly (WRA), normally the lowest level of hardware assigned a nomenclature.

3.1.28 Used with but not part of

a. An item which extends the use of an equipment beyond its assigned functions and is be issued for use with that equipment only under special circumstances shall be considered as used with but not part of that equipment.

b. An item which may be essential to the operation of another item but is not an integral part thereof, and not permanently attached thereto, shall be considered as used with but not part of the second item.

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3.1.29 Variable equipment. Variable equipment shall be those having a variable assemblage that exists under at least one of the following conditions:

a. Those assemblages described as capable of performing more than one function with the functions performed being dependent upon readily exchangeable equipment, groups, units, or combinations thereof, chosen for that installation. Installations may differ by configuration or function, but each installation must be capable of easy and ready conversion to the same function as any other installation. A majority of the items comprising the assemblage, or combinations thereof, must be common to all installations.

b. Those assemblages which differ between installations due to configuration differences, and may include changes in the quantity or use of items, such as interconnecting boxes, mounting, or controls. All such assemblages, though physically different, must be functionally and electrically interchangeable.

c. Those assemblages whose scope of function may be extended or contracted through the addition or deletion of equipment, groups, units, or combinations thereof.

3.1.30 Variable groups and units. A group or unit whose capabilities or functions may be extended or contracted through the addition or deletion of assemblies, subassemblies, parts, or combinations thereof.

3.2 Acronyms. The acronyms used in this standard shall be defined as follows:

3.2.1	ACO	Administrative Contracting Officer
3.2.2	DCP	Departmental Control Point
3.2.3	DoDCP	Department of Defense Control Point
3.2.4	LRU	Line Replaceable Unit
3.2.5	PCO	Procurement Contracting Officer
3.2.6	WRA	Weapon Replaceable Assembly

4. GENERAL REQUIREMENTS

4.1 Nomenclature assignment. The requesting activity shall obtain and use nomenclature (item name and type designation) in accordance with this standard. Definition of item levels shall be in accordance with this standard and MIL-STD-280.

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4.1.1 Photographic items. Nomenclature shall be required for preproduction and production models of photographic equipment, groups, units, accessories, and attachments of photographic items within the scope of paragraph 5.1 and subparagraphs, of this standard. The type designations shall be assigned in accordance with paragraph 5.1 and subparagraphs and shall not apply below the unit level. Accessories and attachments shall be considered units herein.

4.1.2 Aeronautical equipment and support equipment. Nomenclature shall be required for preproduction and production models of aeronautical and support equipment, units and groups, within the scope of paragraph 5.2 and subparagraphs, of this standard. The type designations shall be assigned in accordance with paragraph 5.2 and subparagraphs and shall not apply below the unit level.

4.1.3 Aerospace vehicle propulsion engines. Engine designations shall be required for preproduction and production models of propulsion engines and motors of all types, within the scope of paragraph 5.3 and subparagraphs, of this standard. The engine designations shall be assigned in accordance with paragraph 5.3 and subparagraphs and shall not apply below the complete engine level. Unit level items attached to engines shall be identified following procedures of paragraph 5.2 and subparagraphs of this standard, (such as fuel pumps, generators, oil pumps).

4.1.4 Electronic items. Nomenclature shall be required for preproduction and production models of electronic equipment, groups, and units including plug-in units, in accordance with MIL-STD-196, and shall not apply below the unit level.

4.2 Nomenclature usage. Only nomenclature assigned by the DoDCP shall be used. The appearance of nomenclature for items covered by this standard in invitations for bids, contracts, specifications, drawings and associated documents, shall not constitute official assignment. Prior to the use of such nomenclature (including suffix letters), the requesting activity shall obtain official assignment or confirmation of nomenclature. Assignment of official nomenclature on previous contracts shall not relieve activities of the requirements of this specification. Under no condition shall the manufacturer assume or otherwise receive nomenclature except by official assignment through the procedures outlined herein.

4.2.1 Limitation of nomenclature approval. The assignment of photographic, electronic, or aeronautical and support system nomenclature shall not constitute approval of any item of equipment, nor approval for the use of any particular item in a specific equipment and shall not waive any requirement of the contract involved.

4.3 USAF nomenclature meeting. For U.S. Air Force acquisitions, after the award of contract (normally prior to PDR) a nomenclature meeting shall be scheduled with the acquisition activity. The meeting may include representation from the Departmental Control Point for nomenclature as deemed necessary by the acquisition activity. Procedures to be followed in the preparation of nomenclature descriptions and the application for and assignment of nomenclature shall be discussed. No nomenclature descriptions shall be prepared prior to the meeting. The acquisition activity shall have the final decision regarding items to be nomenclatured.

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4.4 Application. A DD Form 61 (see 6.4) shall be prepared and submitted for each new configuration item (CI) requiring a type designation, such as equipment, groups, and units. A separate DD Form 61 shall be used to request assignment of a new type designation, modification letter, description change, security classification change, or a cancellation. A DD Form 61 shall also be submitted upon modification of a CI by an approved engineering change proposal (ECP) which requires a change in type designation. Requests for modification (suffix) letters shall indicate the differences and specify the degree of electrical, mechanical, and functional interchangeability with preceding assignment(s).

4.4.1 Identification of requests. The requesting activity shall serially number each request for nomenclature in the upper right corner of the DD Form 61. This serial number shall consist of the requestor's initials or abbreviated name plus a number starting with one (1) and continuing consecutively to completion of nomenclature action on each contract. Any revision to a request that has been submitted to the Government shall retain the original basic serial number followed by a letter designation, such as 1A, 1B, 1C.

4.4.2 Correctness of request. Every effort shall be made by the requesting activity to provide proper recommendations to preclude erroneous assignments. Incomplete or incorrect requests for nomenclature shall require clarification from the requesting activity with resulting delays.

4.5 Nomenclature confirmation requests. If the equipment, group, or unit is an interchangeable item with one previously supplied by the same or another contractor, a letter with a statement to this effect, listing both the former and current contract numbers, the item name, type designation, design activity, and part number, shall be submitted in lieu of a DD Form 61 (see 6.4) when specified on the CDRL.

4.6 Notification of assignment

4.6.1 Contractor notification. The contractor shall be notified of the official nomenclature assignment by the Government Contracting Officer. The Government Contracting Officer may be either the Procurement Contracting Officer or the Administrative Contracting Officer.

4.6.2 DoD activity notification. The DoD activity shall be notified of the official nomenclature assignment by the Departmental Control Point.

4.7 Coordination. Any action requested by a requesting activity against an existing type designated item under design congnizance of another activity shall be coordinated with the original activity for concurrence before making the assignment or confirmation. Internal coordination within the respective activities shall be accomplished prior to submission to the DoDCP.

4.7.1 Modification letters. Requests by a Department for modification letters to type designations for items which were assigned type designations at the request of another Department shall be coordinated by the requesting activity with the original Department for concurrence before the modification letter shall be assigned.

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4.8 Cancellation. Nomenclature and designations shall be cancelled upon request by the originating Department when the following conditions exist:

a. There has been no procurement of the item.

b. No experimental models exist.

c. No further use of the type designation is required for developmental purposes.

d. The item is no longer in a service inventory.

4.8.1 Reissue. A nomenclature or designation cancelled in accordance with paragraph 4.8 of this standard, shall not be reissued to identify another item.

4.8.2 Reactivation of nomenclature and designations. Cancelled nomenclature and designations shall not be reactivated except upon request of, or coordinated approval of, the Department that originally requested the nomenclature or designation.

4.9 Justification of designations. Each type designation shall be justified on the basis of a description which shall contain electrical, mechanical and reference data to distinquish the item described from all other items. The same type designation shall not be used to identify items which differ in operational, electrical, or mechanical characteristics.

4.9.1 Description. All requests for the assignment of type designations shall contain a description of the item (see 6.4). The descriptive data shall consist of the technical and functional description and other informational data required under the heading Technical Data (Block 14 thru 24) on the DD Form 61. The descriptive data shall convey condensed factual data relating to the principle descriptive and identifying characteristics and particulars of the item concerned. The data required shall be informational rather than instructional and, to the extent and detail specified herein, shall be complete without reference to other publications for essential details.

4.9.1.1 Technical description. The technical description shall consist of the technical and specification characteristics and features that directly or indirectly convey and contribute to an accurate interpretation and recognition of the item submitted. The technical data submitted shall support the item name selected for the item. The type designation shall be determined by the technical characteristics of the item and not by its assigned item name.

4.9.1.2 Functional description. The functional description shall be presented in paragraph form and shall support the recommended type designation.

4.10 Changes to type designation. Whenever an engineering change, or other modification which affects a substitute item or interchangeable item status (as defined in MIL-STD-280) is to be implemented in a type designated preproduction or production model, the type designation shall be changed and the requesting activity shall obtain and use the changed type designation in accordance with the following.

4.10.1 Type designation change when a modified unit is not interchangeable with a previous unit. When the modified unit is not an interchangeable item with the previous unit, a new type designation shall be assigned.

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4.10.2 Type designation change when a modified unit becomes a substitute item for all previous units. When the modified unit becomes a substitute item for the previous unit, a suffix letter shall be added to the type designation. For example, a KA-63A would become KA-63B; a RT-635/APN would become RT-635A/APN; and an AAU-34/A would become AAU-34A/A.

4.10.3 Type designation change to higher level elements when modified. Whenever a type designated unit is modified in accordance with 4.10.1 or 4.10.2, the type designation of its next higher element and all progressively higher elements shall be changed, up to and including the element where interchangeability or substitutability is maintained. If interchangeability or substitutability of the higher element is maintained, the type designation shall be changed by adding a suffix letter to indicate that a modification has been made below the higher element.

4.10.4 Nomenclature assignment requests for previously nomenclatured items which are modified. Modifications to units which have been assigned nomenclature shall require the submittal of a DD Form 61 for each unit modified including a DD Form 61 for the group and equipment, as applicable, of which the unit is a part. The above applies only to modifications which affect substitute or interchangeable item status as defined in MIL-STD-280.

4.10.5 Nomenclature requests for items modified after delivery. DD Forms 61 shall be submitted by the requesting activity for items which are modified as described in 4.10, provided such items require nomenclature in accordance with this standard.

4.11 Consecutive numbering

4.11.1 The skipping of numbers in type designation assignments shall not be permitted.

4.11.2 Reservation of blocks of numbers shall not be permitted.

4.12 DD Form 61 security

4.12.1 Determination of responsibility. The requesting activity shall be responsible for determining the security classification for each DD Form 61.

4.12.2 Unclassified requests. Unclassified requests for nomenclature shall be submitted whenever possible. Data contained on the DD Forms 61 shall be tailored to accurately describe the item, however, a conscientious effort shall be made by the requestor to preclude inclusion of classified data on the requests. Departmental control points shall establish procedures in coordination with the DoD Control Point to process requests which contain limited technical descriptions in order to preclude processing of classified requests.

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4.12.3 Security. All classified requests for nomenclature shall be prepared and maintained in accordance with DoD 5220.22M, Department of Defense Industrial Security Manual for Safeguarding Classified Information or DoD 5200.1R, Defense Information Security Program Regulation as applicable.

4.12.4 Nomenclature security. The item name, type designation, and combination of, shall be unclassified.

4.12.5 Regrading existing technical data. Regrading of existing classified type designation technical data shall be accomplished through the submission of a new DD Form 61, by the requesting activity. All regrading submissions shall include the appropriate downgrading and declassification markings required by the documents specified in 4.12.3.

4.13 Retroactive application. The type designation systems covered by this standard shall not be retroactively applied to items already type designated under other systems. Requests for nomenclature, DD Form 61, shall not be submitted retroactively for the assignment of approved nomenclature (item name and type designation) to equipment already in the supply inventory and where a federal stock number has already been assigned. The previously assigned nomenclature shall be used until the physical items have been attrited from the supply system. This shall not preclude the assignment of nomenclature to revised or modified equipment.

4.14 One identification. One individual type designation shall be assigned to each item covered by this standard. Once a type designation has been assigned, it shall not be used to identify any other item, even if the original assignment is cancelled.

4.15 Type designation usage and abbreviations. Type designations assigned by the DoDCP shall be used strictly as assigned. At the discretion of the responsible Department, abbreviations conforming to MIL-STD-12 shall be used where space is not sufficient for spelling out an item name. However, the basic noun or noun phrase shall be spelled out.

4.16 Request for basic assignment. Requests for basic assignments may be submitted at any time, but preferably at the time that a research and development project reaches the end of the study and investigation phase of the technical program.

4.16.1 Basic assignment. A type designation shall be assigned to identify the general design of the equipment, component, or unit. It shall consist of a type designation with an empty parentheses directly following the model number. Examples: A/S32P-5( ), SVG-7( )/A24G-6, or SUU-9( )/A.

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4.16.2 Development assignment. A type designation shall be assigned by the development activity to identify a development equipment, group, or unit after first obtaining a basic assignment from the DoDCP. It shall consist of the basic assignment and the appropriate development organization-indicator (see Appendix A) followed by a numeral placed within the empty parentheses of a basic assignment. These numerals shall be assigned in sequence starting with -1 for each basic assignment. Examples of development assignments are: AN/ARC-123(XA-1), A/S32P-5(XA-1); R-765(XA-1)/A, SUU-9(XA-1)/A for the first development model and AN/ARC-123(XA-2), A/S32P-5(XA-2) etc., for the second development model. The assigning and recording of specific numerals after an experimental indicator, within the parentheses of a type designation, shall be the development activity's responsibility without reference to the DoD control point.

4.16.3 Production assignment. A type designation shall be assigned to identify a production equipment, group, or unit. It shall consist of the basic type designation modified by deleting the empty parentheses for the initial production item. Examples: A/S32P-5, RT-1234/ARC-123, etc.

4.17 Revisions. When the description of the item is no longer technically correct, the requesting activity shall submit a revised request containing the data that accurately reflects the item being procured. In addition, the revised request shall include a statement, in Block 24 of the DD Form 61, that no items were produced and delivered to the Government as described under the basic or preceding request. If otherwise, the request shall indicate the differences in the models and shall specify the degree of interchangeability or substitutibility of each model as compared with the basic and every preceding model. This request shall indicate the serial number of the first item affected by the change.

4.18 Reservations. Only the DCP shall be allowed reservations for type designations. The need for type designations shall be an emergency or high priority requirement, as determined by the requesting activities, for which information is available for item name and type designation recommendation. The following procedures shall apply.

4.18.1 The request shall be submitted to the DoD Control Point by teletype or telephone, depending upon urgency of request, citing source request number, item name and proposed type designation.

4.18.2 When available, the manufacturer's drawing number, part number, or model number shall be supplied.

4.18.3 Confirming and supporting paperwork (DD Form 61) or notification of disposition, such as cancellation, shall normally be submitted within 30 days after the reservation is obtained.

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4.19 Canadian Integration

4.19.1 Canadian nomenclature assignments. Canadian request for type designations shall be assigned and registered by the Canadian Forces Headquarters (CFH), Department of National Defence, Canada, in conformance with the policies contained in this standard.

4.19.1.1 Notification. CFH shall notify the assigning activity of all assignments and that body shall confirm such assignments. Where an American assignment has previously been made, the Canadian assignment shall be cancelled in favor of the previous assignment.

4.19.1.2 Distribution. CFH shall transmit to the assigning activity copies of the descriptive details of each Canadian unclassified type designation assignment on the Canadian equivalent of the DD Form 61.

4.19.1.3 U.S. modifications to Canadian items. Requests by United States activities for modification letter assignments to Canadian equipment shall be coordinated with CFH and shall be assigned from the Canadian register.

4.19.1.4 Canadian modifications to U.S. items. Requests by Canadian agencies for modification letter assignments to United States equipment shall be coordinated by the assigning activity with the cognizant Service and shall be assigned from the United States register.

4.19.1.5 Distribution of technical data. CFH shall be on the official distribution list for unclassified technical data.

4.19.1.6 Confidential and secret items. Type designation assignments for confidential and secret items shall be made known, but classified descriptive details shall be passed only upon approval of requests on an individual basis.

4.19.1.7 Copies of technical data. CFH shall be furnished the required number of copies of unclassified technical data for distribution within the Canadian Department of National Defence.

4.19.1.8 Equipment numbers. The block of model numbers from 500 to 599 and 2500 to 2599 shall be used by CFH in the assignment of equipment nomenclature.

4.19.1.9 Group and unit numbers. The block of group and unit numbers from 5,000 to 5,999 and 25,000 to 25,999 shall be used by CFH in the assignment of group and unit type designations.

4.20 Responsibilities of the DoD Control Point (DoDCP). The DoDCP for type designations covered by these systems shall be responsible for the following.

4.20.1 Assign type designations.

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4.20.2 Prepare and distribute to all concerned, unclassified type designation technical data for each assigned, revised, or cancelled type designation. Distribution of this technical data shall be made every 4 months and limited to those activities justifying a need. Requests for classified information shall be submitted to the requesting activity.

4.20.3 Formulate and coordinate procedures and correspondence media for use by activities in requesting assignment of type designations.

4.20.4 Investigate each request for type designation assignment to avoid duplication.

4.20.5 Establish and maintain a master file of type designation numbers assigned, and the descriptive data supporting the assignment.

4.20.6 Initiate correspondence on all outstanding type designation reservation requests (see 4.18.3).

4.20.7 Prepare and distribute to current recipients of existing type designation technical data, a "Security Information Letter" containing downgrading and declassification instructions for published type designation (nomenclature) cards, previously distributed.

4.21 Responsibilities of requesting activities. Activities requesting type designations shall be responsible for the following.

4.21.1 Comply with established policies and procedures of this standard.

4.21.2 Recommend assignments, changes, or cancellations of designations, when appropriate, to the Departmental Control Point for submission to the DoDCP.

4.21.3 Determine and assure the technical adequacy and accuracy of all requests submitted for type designation action.

4.21.4 Assign and record the specific developmental indicators and numerals, when appropriate, within the parentheses of a type designation without notification to the DoDCP.

5. DETAILED REQUIREMENTS

5.1 Photographic equipment. This section covers type designation of conventional film type photographic equipments. It does not include electro-optical or other imaging techniques which shall be in accordance with section 5.4 herein and MIL-STD-196.

5.1.1 Photographic nomenclature. The type designations assigned under this system shall be used with the approved item name to form the complete nomenclature. In each instance, the item name shall precede the type designation.

5.1.2 Application of photographic type designations. Photographic type designations shall be assigned to the following:

a. Complete items, groups, sets or systems of photographic equipment designed for military use.

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b. Components, accessories, and attachments for photographic equipment designed for military use.

c. Commercial photographic articles adopted for military use.

5.1.3 Categories. For the purpose of this type designation system, photographic equipment shall be divided into three categories, as follows:

a. picture-taking equipment

b. picture-processing equipment

c. picture-using equipment

5.1.4 Type designation. The type designations shall consist of five parts and a dash. These shall be the two letter code, the dash, the model number, the suffix letter, and when required, the production issue number. Figure 1 shows a graphical illustration breakdown of a designation.

5.1.5 Modifications. Modification or improvements which affect electrical, physical, or functional interchangeability shall require the next number available for that particular two letter combination, provided the mission shall not be changed; otherwise an entirely new type designation shall be assigned under the applicable two letter combination.

5.1.6 Submission of requests for type designation action

5.1.6.1 Submission by departmental activities to department control points. Requests for type designation actions by requesting activities shall be submitted to the applicable Departmental Control Points as follows:

a. For the Department of the Army, all requests shall be submitted to the U.S. Army Communications-Electronics Command, ATTN: AMSEL-LC-LM-LC-J, Fort Monmouth NJ 07703-5000.

b. For the Department of the Navy, all requests shall be submitted to the Commanding Officer, Naval Air Engineering Center, ATTN: SESD (Code 5312), Lakehurst NJ 08733-5000.

c. For the Department of the Air Force, all requests shall be submitted to ASD/ENES, Wright-Patterson AFB OH 45433-6503.

5.1.6.2 Submission by department control points. Department control points shall submit requests to the DoD control point.

5.1.7 Centralized administration

5.1.7.1 DoD control point. The Engineering Documents Division, ATTN: ASD/ENES, Wright-Patterson AFB OH 45433-6503 shall be designated as the DoD control point, for items type designated under this system.

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KA-	7	( )	A	1
Two letter code	Model number	Basic assignment 1/	Suffix letter	Production issue number

The two letter code. Each category is assigned a letter designation, indicating major item, accessory, attachment, or component. Likewise, the general mission or function of each item shall be assigned a letter designation. The category letter and the mission letter together shall form the two letter code portion of the type designation (see Appendix B).

Model numbers. Each two-letter combination shall have a separate series of model numbers assigned in sequence, beginning at "1", i.e. KA-1, KA-2.

Basic assignment. Following the model number for each basic assignment shall be an empty parentheses, denoting the assignment is a basic assignment. The basic assignment shall not identify a specific equipment, but shall identify all equipment of the same general design.

Suffix letters. The suffix letter "A" is assigned to the type designation, in lieu of the empty parentheses, to indicate the first production assignment. Suffix letters shall be assigned in alphabetical sequence.

Production issue numbers. Production issue numbers, when required, are assigned to a given model number and suffix letter when a manufacturer uses different maintenance parts. Interchangeability is required for an issue number. All versions of a given suffix letter must be interchangeable.

1/ Only used on experimental or developmental assignments when complete technical data is not available.

Figure 1. Breakdown of photographic type designations.

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Examples of type designation sequence:

KA-1( )	Basic assignment.
KA-1A	First production assignment.
KA-1A1	Second production assignment (Different maintenance parts only from KA-1A).
KA-1A2	Third production assignment (Different manufacturer, utilizing different maintenance parts lists for either KA-1A or KA-1A1).
KA-1B	Subsequent production assignment. (Manufacturer modification of KA-1A, including one way progressive substitutability with the A-1A).
KA-1B1	Subsequent production assignment. (Different maintenance parts for KA-1B).

Figure 1. Breakdown of photographic type designations - continued.

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5.2 Aeronautical equipment and support equipment

5.2.1 Aeronautical and support equipment nomenclature. The type designations assigned under this system shall be used with the item name to form the complete nomenclature. In each instance, the item name shall precede the type designation.

5.2.2 Application of aeronautical and support equipment type designations. Aeronautical and support equipment type designations shall be assigned to the following.

5.2.2.1 Complete equipment, groups, and units designed for the military departments.

5.2.2.2 Commercial equipment, groups, and units where military identification shall be required for use by Government activities.

5.2.3 Categories within the aeronautical and support system. Aeronautical and support material covered by this system shall be divided into three categories: equipment, groups, and units; with the manner of assigning type designations differing somewhat for each category.

5.2.4 Equipment type designations. These designations shall consist of an A/ to denote assignment in the aeronautical and support type designation system; an installation letter, a two-digit numerical type-of-equipment indicator, a purpose letter followed by a dash (-), a numerical model number, and modification letter when applicable. Figure 2 shows a graphical illustration breakdown of an equipment designation.

5.2.5 Designation changes. Changes to equipment designations shall occur only as follows:

5.2.5.1 When a complete equipment is modified or improved and it maintains functional, electrical, and physical interchangeability, the equipment shall be identified by the assignment of a new suffix letter.

5.2.5.2 When a complete equipment is modified or improved to the extent that either its electrical, physical, or functional interchangeability is affected, the equipment shall be assigned the next model number available for that particular installation-type-purpose combination.

5.2.5.3 When the installation of an equipment, the type of an equipment, or the purpose of an equipment is changed, a new type designation shall be assigned.

5.2.6 Group type designation. All groups shall be identified by a two-letter code selected from Appendix D, followed by a G, a dash, a model number, a slant bar and an equipment designator. Applicable equipment indicator letters following the slant bar shall be selected from Appendix C after considering the potential of the group for multiple or peculiar application (such as SVG-7/A, SVG-7/A24, SVG-7/A24A, or SVG-7/A24A-3).

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A/	S	32	P-	5	( )	A
Aero/support system	Installation letter	Type indicator	Purpose letter	Model number	Basic assignment 1/	Suffix letter

The installation letter. Each installation shall be assigned a distinctive letter designation to indicate where the equipment shall be installed (see Appendix C, Table C-I, column 1).

The type indicator. Each type-of-equipment indicator shall be assigned a distinctive two-digit designation to indicate the type of equipment (see Appendix C, Table C-I, column 2).

The purpose letter. Each purpose shall be assigned a distinctive letter designation to indicate the purpose of the equipment (see Appendix C, Table C-I, column 3).

Model numbers. Each installation, type-of-equipment, and purpose letter combination shall have a separate series of model numbers assigned in sequence, beginning at "1" (such as A/S32P-1).

Suffix letters. A suffix letter shall be assigned when the equipment is modified in a manner that interchangeability is maintained. Suffix letters shall be assigned in alphabetical sequence (such as A/S32P-5A or A/A24B-5B).

Basic assignment. Following the model number for each basic assignment shall be an empty parentheses, denoting the assignment is a basic assignment. The basic assignment shall not identify a specific equipment, but shall identify all equipment of the same general design.

1/ Only used on experimental or developmental assignments when complete technical data is not available.

Figure 2. Breakdown of an equipment designation.

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5.2.7 Unit type designations. Units shall be designated by a two-letter code taken from Appendix D, followed by the letter U, a dash, a model number, a slant bar, and an equipment designator. Applicable equipment indicator letters following the slant bar shall be selected from Appendix C after considering the potential of the unit for multiple or peculiar application (i.e., SVU-5/A, SVU-5/A24, SVU-5/A24A, or SVU-5/A24A-3).

5.2.8 Changes to group or unit designation. A group or unit shall be physically, electrically, and functionally interchangeable in order to maintain its original identity.

5.2.8.1 Group interchangeability. When subassemblies, and units, are no longer interchangeable, but the group itself remains physically, electrically, and functionally interchangeable with the unmodified item, a suffix letter shall be assigned.

5.2.8.2 Group or unit noninterchangeability. When a group or unit is modified or improved to the extent that either its electrical, physical, or functional interchangeability is affected, then the group or unit shall be assigned the next model number available for that particular two-letter code.

5.2.8.3 Groups or units that are part of two or more equipments. Groups or units that are part of two or more equipments shall be identified in the usual manner, except that after the slant bar, there shall appear the appropriate installation-type-purpose indicator codes without an equipment model number. Thus, a servomechanism group or unit that is part of the A/A24G-5, A/A24G-7, and A/A24G-15 would be identified as SVG-16/A24G or SVU-8/A24G.

5.2.9 Equipment designed for training. Equipment designed for training purposes shall be assigned type designations dependent upon their relationship to functional equipment.

5.2.9.1 Equipment to provide training on a specific basic equipment. Equipment designed to provide training on specific equipment shall be assigned the specific equipment type designation, followed by a dash, the letter T, and a number. Example: Automatic Pilot Trainer A/A24G-6-T1 would be the first training equipment for Automatic Pilot A/A24G-6.

5.2.9.2 Equipment to provide training on general equipment. Equipment designed to provide training on general types of equipment shall be assigned the general equipment indicators followed by a dash, the letter T, and a number. Example: Automatic Pilot Trainer A/A24G-T1 would be the first equipment for general automatic pilot training.

5.2.9.3 Miscellaneous training equipment. Complete equipment designed to provide training on types of equipment not covered by this system, (such as aircraft engines) shall be designated as follows: A/ applicable installation letter, type indicators, and the purpose letter U followed by a -T1, -T2, -T3, and so on (from Appendix C). Example: Trainer, Aircraft Engine A/E32U-T1.

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5.2.10 Units and groups designed for training. Training versions of units and groups shall be identified by the letter T followed by a version dash number, enclosed in parentheses and placed between the type number and the slant bar. For example, the first training version of the ACU-99/A34 would be identified as ACU-99(T-1)/A34, the second version ACU-99(T-2)/A34. Similarly, the third training version of the GEG-75/E24A would be identified as GEG-75(T-3)/E24A.

5.2.11 Variable type designation. Complete equipment, groups, and units with variable component lists shall be assigned type designations in the same manner as for definitive equipment, components, and units, except the letter V, enclosed in parentheses, shall be added to the type designation immediately following the model number (e.g., A/F42P-5(V), RYG-59(V)/U, SDU-35(V)/P).

5.2.12 Specific configurations of variable items. Variable equipment, groups, and units shall have a number assigned following the parenthetical V (V) when further identification is required to identify specific configurations of a variable item (such as A/F42P-5(V)1, A/F42P-5(V)2, RYG-59(V)1/U, RYG-59(V)2/U, SDU-35(V)1/P, SDU-35(V)2/P).

5.2.13 Ordnance items. The following exceptions shall apply to the assignment of type designations to ordnance items.

5.2.13.1 Nonnuclear ordnance designations. All air-dropped nonnuclear items shall be type designated as units in accordance with 5.2.7. Equipment designations and group designations shall not be applied to air-dropped nonnuclear ordnance items.

5.2.13.2 Type and purpose indicator. Only the installation letter (Appendix C, column 1) shall be utilized following the slant bar. The type and purpose indicators shall not be applied to air-dropped nonnuclear ordnance items, (such as BLU-97/B).

5.2.14 Dummy and training versions of live munitions. Test, practice, and training versions of live munitions shall be categorized as either dummy or training.

5.2.14.1 Dummy versions of live munitions shall be completely inert. Dummy munitions shall be used for display purposes, testing, and training operations (assembly, loading, handling, and dry-run operations).

5.2.14.2 Training versions of live munitions shall not be inert. Munitions classified as training include some type of explosive, burning, or smoke producing element for ground impact marking or other training purposes in association with firing, flying, prepositioning, and dropping operations.

5.2.14.3 Identification of dummy versions of live munitions. Dummy versions of live munitions shall be identified in a similar manner to training versions, except the letter D shall be used in place of the letter T and the number following the letter D shall have a single specific meaning as follows.

a. D-1 Parent inert: An inert version of the operational munition.

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b. D-2 Load Crew: Of the same diameter and shape as the parent inert. It shall have a capability of duplicating every action required during the loading of the parent munition. Internal hardware shall not be necessary, except as may be required for checkout. The weight shall be within 10 percent and the center-of-gravity shall be within 2 percent of the parent munition.

c. D-3 Explosive ordnance disposal (EOD): Identical to the inert parent munitions except that easily replaceable parts shall be built into or on the munition where EOD procedures indicate destructive type of work shall be needed in EOD training.

d. D-4 Ballasted: An inert dispenser or end item munition body, ballasted to 90 to 100 percent of weight of the parent munition, and true to shape and center-of-gravity (within 2 percent) of the parent munition. External and internal aircraft/munition interface and checkout during loading or handling and shall utilize parent munition technical order for loading. It shall be compatible with applicable service loading and handling equipment.

e. D-5 Miscellaneous: Any dummy application not covered by one of the four standard categories.

5.2.14.4 Identification of training versions of live munitions. Training versions of live munitions shall be identified by the letter T followed by a version dash number, enclosed in parentheses, and placed between the type number and the slant bar. A separate sequence of version numbers shall be used for training munitions, each starting at -1 for each type designated item. For example, the first training version of the BLU-99/B would be identified as BLU-99(T-1)/B, the second version BLU-99(T-2)/B. Similarly, the third training version of the BLU-75/B would be identified as BLU-75(T-3)/B.

5.2.15 Dummy and training versions of munitions with no live counterparts. Training and dummy versions of munitions for which there is no live munition (parent), or when any association between the actual live munition with its test and training shape is classified, shall be identified by the appropriate (T) or (D) identifier in the same manner enumerated in 5.2.14.1 or 5.2.14.2.

5.2.16 Submission of requests for type designation action

5.2.16.1 Submission by Departmental activities to Department Control Points. Requests for type designation actions by Departmental activities shall be submitted to the applicable Departmental Control Points as follows:

a. For the Department of the Army: all requests shall be submitted to the U.S. Army Communications-Electronics Command, ATTN: AMSEL-LC-LM-LC-J, Fort Monmouth NJ 07703-5000.

b. For the Department of the Navy: all requests shall be submitted to Commanding Officer, Naval Air Engineering Center, ATTN: SESD (Code 5312), Lakehurst NJ 08733-5000.

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c. For the Department of the Air Force: all requests shall be submitted to ASD/ENES, Wright-Patterson AFB OH 45433-6503.

5.2.16.2 Submission by department control points. Department control points shall submit requests to the DoD control point.

5.2.17 Centralized administration

5.2.17.1 DoD control point. The Engineering Documents Division, ATTN: ASD/ENES, Wright-Patterson AFB OH 45433-6503 shall be designated as the DoD control point, for items type designated under this system.

5.3 Aerospace vehicle propulsion engines

5.3.1 New designations. A new engine designation shall be assigned when, in the judgement of the assigning Service, any one of the following conditions shall be met:

a. A need (either administrative or technical) exists for reference to, or definition of, a particular engine configuration or design which has not previously been assigned a designation. Normally, this shall occur as a result of new engine development programs, or upon the initial entry into the Services inventory of off-the-shelf engines, and shall involve a newly assigned type indicator.

b. An engine configuration or design with an existing designation shall be so revised that interchangeability of the complete engine in an aircraft shall be affected, or there shall be a significant change in performance or installation, and the change shall not be made immediately retroactive to all engines of the same designation previously delivered. Ordinarily, this shall involve the assignment of a new model number only. However, when the design change alters the engine fundamentally, a new type indicator may be assigned.

c. Design changes shall be made to an engine, with an existing designation, to the extent that a substantial number of parts or subassemblies (or both) shall be no longer interchangeable with the corresponding parts or subassemblies furnished in accordance with the approved parts list for the original model engine, but the changes shall not affect the performance, installation, or interchangeability of the complete engine in an aircraft. Ordinarily, this shall involve only the addition or change of the suffix letter in the model indicator, although change of the model number may be indicated if the quantity of parts affected is sufficiently large.

5.3.2 Application of aerospace vehicle propulsion engine type designations. The procedures set forth in this standard shall be applicable to developmental, pre-production, and production propulsion devices. The type designation shall always apply to one specific propulsion device or subsequent models thereof, as indicated by the model number.

5.3.3 Assigned designation. A specific propulsion device configuration or design shall have only one designation. Should one Department desire to use a propulsion device developed by another Department without change, the original designation assigned shall be used. In the case where production changes are required, the type indicator and manufacturer's indicator shall remain unchanged. The model indicator shall be in accordance with Figure 3.

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5.3.4 Numeric designations. A new numerical designation shall be assigned when an engine design is new or so revised that a significant change in performance, flight safety, installation, or interchangeability of the complete engine shall be affected, and the change shall not be made retroactive to all engines of the same model previously delivered.

5.3.5 Former engine designation assignments. An engine initially designated in accordance with the former Air Force-Navy Aeronautical system (now cancelled) shall retain the designation assigned for the remainder of its in-service life. Designation changes to engines so designated shall be permitted only to the extent specified in 5.3.6 or 5.3.10.

5.3.6 Mixed designation. If a new model number is required for an engine, the new model number shall be assigned as described in this standard or, at the option of the issuing Department, the initial model number in the new series shall consist of the last model number added to the base starting number of the range assigned to the issuing Department. Thereafter, subsequent model designations shall be assigned in consecutive order.

5.3.7 Special designation. The letters "X" and "Y" may be used at the discretion of the Services for the purpose of signifying development engines, as applicable. Generally, the prefix letter ""X" shall be used to denote an engine under development which has not reached the stage of successfully completing the official preliminary flight rating tests, and the prefix "Y" shall be used to denote an engine still in the development category, but which has been cleared for limited flight use by successfully completing the preliminary flight rating tests. When used, such letters shall precede the designation arrangement described herein.

5.3.8 Manufacturer's and contractor's code symbol. The manufacturer's and contractor's code symbol shall be a two letter designation which identifies the manufacturer or contractor (see Appendix E). These letter symbols shall not be confused with those codes established by the Federal Supply Code for Manufacturers, H4, which covers code identification symbols of principal manufacturers of equipment and parts.

5.3.9 Special manufacturers' or contractors' symbols. In special cases, such as where two manufacturers or contractors are operating in a joint effort, a special manufacturers' or contractors' symbol may be assigned which combines a letter of each of the two individual manufacturer's or contractor's symbols. Engines produced by one of the two manufacturers or contractors shall use only that manufacturer's or contractor's symbol.

5.3.10 Suffix letters. Suffix letters shall be assigned consecutively, starting with the letter A. The letters I and O shall be skipped to preclude confusion with the numerals 1 (one) and 0 (zero). The letter W is reserved for use on engines equipped with water injection.

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5.3.11 Major categories. For purposes of this standard, all aerospace propulsion devices shall be included within two major categories, Airbreathing and Non-Airbreathing.

a. The airbreathing category shall include reciprocating, turbo (turbojet turbofan, and turboshaft), and any other devices which utilize atmospheric oxygen for combustion.

b. The nonairbreathing category shall include rocket motors and engines and hybrids and any other devices which do not utilize atmospheric oxygen for combustion.

5.3.11.1 Airbreathing engine designations. Airbreathing engine designators shall consist of a type indicator, manufacturer's indicator, and the model indicator. Prefix and suffix letters shall be added as necessary (see 5.3.7 and 5.3.10). Figure 3 shows a graphical illustration breakdown of an airbreathing engine designation:

5.3.11.1.1 Assignment responsibility. Each Service shall be responsible for the assignment of the airbreathing engine designations within the scope of this standard. When a designation is assigned, the assigning Service shall notify the other two Services of this action and include a definitive description of the engine so designated. Notification letters shall be forwarded as follows:

Commander
US Army Aviation Systems Command
ATTN: DRDAV-ERS
4300 Goodfellow Blvd
St Louis MO 63166

Commanding Officer
Naval Air Systems Command
ATTN: AIR-5360D1
Washington DC 20360

ASD/ENES
Wright-Patterson AFB OH 45433-6503

5.3.11.1.2 Use of assigned type designation. The authorized type designation shall be used strictly as assigned. An assignment may be changed upon the request of the initiating activity, provided that such a change shall not be contrary to established policy. Where necessary, item names may be omitted from identification markings on equipment at the discretion of the responsible Department.

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F100	-PW	-100	A
Type Indicator	Manufacturer's or Contractor's Indicator	Model Indicator	Suffix letter

Type indicator. The type indicator part of the engine designation shall consist of the appropriate type letter symbol selected from Appendix E, Table E-I, together with a type numeral. The type numerals used in connection with the type letter shall be assigned consecutively by the Services, and shall begin with the number 100 for the Air Force, the number 400 for the Navy, and the number 700 for the Army. The type numbers shall be arbitrary, and shall not represent any characteristics of the units involved.

Manufacturer's and contractor's indicator. The manufacturer's or contractor's indicator shall consist of a dash and a manufacturer's code selected from Appendix E, Table E-III.

Model indicator. The model indicator shall consist of a dash and a model number. The model number shall be assigned for a specific configuration of a given type engine. Air Force model numbers for each type of engine shall begin with -100 and shall continue with consecutive numbers. Navy model numbers for each type of engine shall begin with -400 and shall continue with consecutive numbers. Army model numbers for each type of engine shall begin with -700 and shall continue with consecutive numbers.

Suffix letter changes to designated engines. When an engine with an existing designation requires the addition of a suffix letter as a result of minor design changes, the engine shall continue to use the type indicator and model number initially assigned. The change shall be reflected by the addition of the suffix letter A or the next consecutive suffix letter for the specific engine, except for the letters I, O, and W. (Example: When modified, the R100-PW-100 would become the R100-PW-100A, the F110-GE-100A would become the F110-GE-100B.

a. The letters "I" and "O" shall not be used.

b. The letter W shall be used with the basic model numeral, or numeral and suffix letter, to indicate engines equipped with water injection. When so used, the letter W shall precede any other suffix letter assigned in the model indicator.

Figure 3. Breakdown of an airbreathing engine designation.

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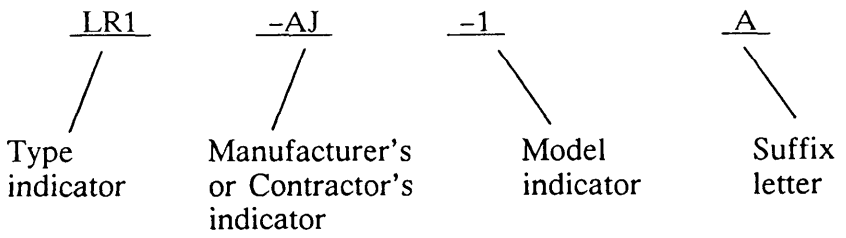

Type indicator. The type indicator of the designation shall consist of two parts: the letter symbol and the type number. The letter symbol shall be selected from Appendix E, Table E-II, indicating the type of propulsion device. The type number shall be assigned progressively by the DoDCP. The type number shall be arbitrary and shall not represent any characteristics of the propulsion device involved. These numbers shall begin with the lowest number not previously assigned to a propulsion device.

Manufacturer's and contractor's indicator. The manufacturer's or contractor's indicator shall consist of a dash and letter(s) as follows: (a) for liquid propellant rocket engines the manufacturer's or contractor's symbol shall indicate the engine manufacturer; (b) for solid propellant rocket motors, the manufacturer's or contractor's symbol shall indicate the motor manufacturer or propellant loader; and (c) for hybrid propellant rockets the manufacturer's or contractor's symbol shall indicate the manufacturer or contractor having the prime propulsion contract. Manufacturer's and contractor symbols shall be as listed in Appendix E, Table E-III.

Model indicator. The model indicator shall consist of a dash and a number indicating the model of that particular type of propulsion device. The model number shall be assigned progressively by DoDCP. These model numbers shall be for each type of propulsion device beginning with 1 and continuing consecutively as requests are received.

Suffix letter changes to designated engines. When an engine with an existing designation requires the addition of a suffix letter as a result of minor design changes, the engine shall continue to use the type indicator and model number initially assigned. The change shall be reflected by the addition of the suffix letter A or the next consecutive suffix letter for the specific engine, except for the letters I, O.

Figure 4. Breakdown of a typical non-airbreathing (rocket) type designation.

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5.3.11.2 Nonairbreathing engine designations. The type designations shall consist of three parts. These shall be the type indicator, the contractor's indicator, and the model indicator. Prefix and suffix letters shall be added as necessary (see 5.3.7 and 5.3.10). Figure 4 shows a graphical illustration breakdown of a typical rocket type designation.

5.3.11.2.1 Submission of request for designation. Request for assignment of rocket designators shall be submitted on DD Forms 61. When applicable to the Department of the Air Force, the completed form shall be submitted directly to the DoDCP. Requests from other Departments shall be submitted as follows:

a. Department of the Army. All requests to be forwarded to Commanding General, U.S. Army Material Command, ATTN: AMCRD-C, Washington DC 20360.

b. Department of the Navy. All requests to be forwarded to Chief, Naval Material, Department of the Navy, ATTN: Code MAT-233, Washington DC 20360.

c. Each DCP shall forward these requests to the Aeronautical Systems Division, ATTN: ASD/ENES, Wright-Patterson Air Force Base OH 45433-6503. This activity, as the official assigning agency for the DoD, shall be responsible for the assignment of designations for all rocket devices and shall be identified herein as DoDCP.

5.4 Electronic equipment

5.4.1 Detailed requirements. Detailed requirements for type designation of electronic equipment shall be as specified in MIL-STD-196.

5.4.2 Departmental control points. All departments have established control points for submission of nomenclature requests. The DoD Control Point shall not process requests which have not been processed through a Departmental Control Point.

5.4.3 DoD Control Point for electronic equipment. U.S. Army Communications Electronics Command, ATTN: AMSEL-LC-LM-LC-J, Fort Monmouth NJ 07703-5000.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This standard establishes the requirements for obtaining official assignment of nomenclature and conformation of existing nomenclature for items of photographic, electronic, aeronautical equipment, and support equipment acquired by the DoD.

6.2 Issue of DoDISS. When this standard is used in acquisition, the applicable issue of the DoDISS shall be cited in the solicitation (see 2.1.1 and 2.2).

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6.3 Keywords

Nomenclature

Item name

Type designation

6.4 Data requirements. The following Data Item Descriptions (DID's) shall be listed, as applicable, on the Contract Data Requirements List (DD Form 1423) when this standard is applied on a contract, in order to obtain the data, except where DoD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

Reference Paragraph	DID Number	DID Title	Suggested Tailoring
4.4, 4.5, and 4.9.1	DI-E-7194	Request for Nomenclature (DD Form 61)	---
4.5	CMAN-80194	Description of Item	---

The above DID's were those cleared as of the date of this standard. The current issue of DoD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), shall be researched to ensure that only current, cleared DID's are cited on the DD Form 1423.

6.5 International interest. Paragraphs 4.19 thru 4.19.1.9 of this standard has been agreed to by the U.S. Departments of Defense and the Canadian Department of National Defence. The acceptance of these paragraphs are contained in OASD(AR) Memorandum for ASD(AFSC) dated 12 October 1969, Subject: Canadian Forces Participation in Type Designation Systems for Equipment and Supplies - Aircraft and Photographic. When change notice, revision, or cancellation of this standard is proposed that shall modify the international agreement concerned, the preparing activity shall take appropriate action through international standardization channels, including departmental standardization offices, to change the agreement or make other appropriate accommodations.

6.6 Supersession Data. The following documents are superseded.

MIL-STD-155	Joint Photographic Type Designation System
MIL-STD-815	Type Designation System for Rocket Engines, Motors, and Hybrids
MIL-STD-842(USAF)	Uniform Procedures for Type Designation and Item Identification

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MIL-STD-875	Type Designation System for Aeronautical and Support Equipment
MIL-STD-879	Designation of Aircraft Propulsion Gas Turbine Engines
MIL-STD-1557	Designation of Aircraft Propulsion Reciprocating Engines
MIL-N-7513(USAF)	Nomenclature Assignment, Contractor's Method for Obtaining

Custodians:
Army - FM
Navy - AS
Air Force - 11

Review activities:
Army - CR, MI
Navy -
Air Force - 13, 15, 19, 68, 99

International interest (See 6.5)

Preparing activity:
Air Force - 11

(Project MISC-0111)

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DEVELOPMENT INDICATORS FOR IDENTIFICATION OF DEVELOPMENT ACTIVITIES

10. SCOPE

10.1 Scope. This appendix lists the development indicators which are to be used to identify a development equipment, group, or unit for the preparation of nomenclature or type designation requests.

20. APPLICABLE DOCUMENTS

This section does not apply.

30. DEFINITIONS AND ACRONYMS

This section does not apply.

40. GENERAL REQUIREMENTS

40.1 The following tables list the development indicators which are to be used to identify a development equipment, group, or unit (4.16.2).

a. Table A-I Air Force development indicators for developing activities

b. Table A-II Army development indicators for developing activities

c. Table A-III Navy development indicators for developing activities

d. Table A-IV Other (NSA and Canada) development indicators for developing activities

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Table A-I. Air Force development indicators for developing activities.

AIR FORCE	
XA	Aeronautical Systems Division, Wright-Patterson AFB OH 45433-6503
XD	Electronics Systems Division, Hanscom AFB MA 01731
XI	Munitions Systems Division, Eglin AFB, FL 32542
XV	Air Force Weapons Laboratory, Kirtland AFB NM 87117
XW	Rome Air Development Center, Griffiss AFB NY 13441
XBS	Ballistic Systems Division, Norton AFB CA 92409
XSS	Space Systems Division, Los Angeles AFB CA 90009-2960
The following Air Force designators are to be used for assigning additional designations to previously type designated items. For all new equipment use XA.	
XH	Aerial Reconnaissance Laboratory, Wright-Patterson AFB OH 45433
XK	Flight Control Laboratory, Wright-Patterson AFB OH 45433
XQ	Aeronautical Accessories Laboratory, Wright-Patterson AFB OH 45433
XS	Electronic Component Laboratory, Wright-Patterson AFB OH 45433
XY	Weapons Guidance Laboratory, Wright-Patterson AFB OH 45433
Inactive	
XCC	Air Force Missile Test Center, Patrick AFB FL 32925

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Table A-II. Army development indicators for developing activities.

ARMY	
XC	U.S. Army Communications-Electronics Command (CECOM), Fort Monmouth NJ 07703-5006
XO	U.S. Army Missile Command (MICOM) Redstone Arsenal AL 35898-5000
XT	U.S. Army Intelligence & Security Command (INSCOM) Arlington Hall Station VA 22212
XAV	U.S. Army Aviation Research & Development Command (AVRADA), Fort Monmouth NJ 07703
XER	U.S. Army Electronics Research & Development Command (ERADCOM) Adelphi MD 20783
XME	U.S. Army Mobility Equipment Research & Development Command (MERADCOM) Fort Belvoir VA 22060
Inactive	
XE	U.S. Army Electronics Laboratory, Fort Monmouth NJ 07703
XF	Frankford Arsenal, Philadelphia PA 19104
XL	U.S. Army Signal Electronics Research Unit, Mountain View CA 94042
XM	U.S. Army Signal Engineering Laboratories, Hexagon, Fort Monmouth NJ 07703
XAE	U.S. Army Research & Development Activity, For Huachuca AZ 85613
XBB	U.S. Army Electronics Command, Proc & Prd Div., Fort Huachuca AZ
XDD	U.S. Army Signal Air Defense Engineering Agency, Fort George C. Meade MD 20755
XLW	U.S. Army Limited Warfare Laboratories, Aberdeen Proving Ground MD 21005
XPM	U.S. Army Project Michigan, Ypsilant MI

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Table A-III. Navy development indicators for developing activities.

NAVY	
XB	Naval Research Laboratory, Washington DC 20375
XG	Naval Ocean Systems Center, San Diego CA 92152
XJ	Naval Air Development Center, Warminster PA 18974
XN	Department of the Navy, Washington DC 20360
XU	Naval Underwater Systems Center, New London Laboratory, New London CT 06320
XAN	Naval Avionics Center, Indianapolis IN 46218
XCA	Naval Weapons Support Center, Crane IN 47522
XCL	Naval Weapons Center, China Lake CA 93555
XDV	Naval Surface Weapons Center, Dahlgren VA 22448
XGS	Ground Support Equipment Division, Naval Air Engineering Center, Lakehurst NJ 08733
XIH	Naval Ordnance Station, Indian Head MD 20640
XMG	Pacific Missile Test Center, Point Mugu CA 93042
XUC	Naval Undersea Center, San Diego CA 93132
XPC	Naval Coastal Systems Laboratory, Panama City FL 32407
XWH	Naval Weapons Station, Earle, NJ (Mail Address) Colt Neck NJ 07722
XWO	Naval Surface Weapons Center, White Oak Laboratory, Silver Spring MD 20910
Inactive	
XCR	Naval Weapons Center, Corona Laboratory, Corona CA 91720
XZ	Bureau of Naval Weapons Activities

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Table A-IV. Other development indicators for developing activities.

	NSA
XR	National Security Agency, Fort George G. Meade MD 20755
	CANADA
XP	Canadian Department of Defense, Ottawa, Canada

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PHOTOGRAPHIC CODES

10. SCOPE

10.1 Scope. This appendix lists the photographic codes which are to be used to identify photographic equipment for the preparation of nomenclature or type designation requests.

20. APPLICABLE DOCUMENTS

This section does not apply.

30. DEFINITIONS AND ACRONYMS

This section does not apply.

40. GENERAL REQUIREMENTS

40.1 The following tables list the photographic codes which are to be used to identify photographic equipment (see Figure 1, Note 1).

a. Table B-I Photographic codes for picture taking equipment (cameras).

b. Table B-II Photographic codes for picture processing equipment.

c. Table B-III Photographic codes for picture using equipment.

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Table B-I. Photographic codes for picture taking equipment (cameras).

Category Letter	*Mission Letter*
K--Camera	A--Reconnaissance
L--Accessories Attachments or components for cameras	B--Strike Recording
	C--Aerial Mapping
	D--Scope Recording
	E--Still Picture--Not otherwise classified
	F--Motion Picture--Not otherwise classified
	G--Special Purpose (including instrumentation)
	M--Miscellaneous (Applying to more than one of the above types--Used only with accessory letters).
	S--Set or System

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Table B-II. Photographic Codes for picture processing equipment.

Category Letter	*Mission Letter*
E--Processing Equipment	H--Processing Machines
F--Accessories, Attachments or components for Processing Equipment	J--Developers
	K--Washers
	L--Driers
	N--Printers (including rectifying printers Motion picture printers, contact printers and projection printers).
	M--Miscellaneous (Applying to more than one of the above types--Used only with accessory letters.
	S--Set or System

Table B-III. Photographic codes for picture using equipment.

Category Letter	*Mission Letter*
A--Using Equipment	P--Projectors--Still
B--Accessories, Attachments or components for Using Equipment	Q--Projectors-Motion Picture
	R--Viewing Devices
	M--Miscellaneous (Applying to more than one of the above types -- Used only with accessory letters).
	S--Set or System

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EQUIPMENT INDICATORS

10. SCOPE

10.1 Scope. This appendix lists the equipment indicators which are to be used to identify equipment for the preparation of nomenclature or type designation requests.

20. APPLICABLE DOCUMENTS

This section does not apply.

30. DEFINITIONS AND ACRONYMS

This section does not apply.

40. GENERAL REQUIREMENTS

40.1 The following table lists the equipment indicators which are to be used to identify equipment (see Figure 2).

a. Table C-I Equipment indicators.

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Table C-I. Equipment Indicators.

INSTALLATION (1st Indicator)	TYPE OF EQUIPMENT (2nd Indicator)	PURPOSE (3rd Indicator)	Miscellaneous Identification
A - Aerospace Vehicle (Installed in or on vehicle. Not mission expendable)	22 - Apparel	A - Aerospace Vehicle Support	T - Training
B - Aerospace Vehicle (Mission expendable)	23 - Chemical	B - Bombing or Fire Control or Both (Nonelectronic)	(V) - Variable Configuration
C - Combination (Ground and Airborne)	24 - Electrical	C - Air Conditioning	
E - Ground, Not Fixed	25 - Explosive	D - Detection	
F - Ground, Fixed	26 - Gaseous	E - Destruction	
M - Ground, Self-contained (Movable, includes vehicle but not self-propelled)	27 - Hydraulic	G - Flight Control or Navigation or Both (Nonelectronic)	
N - Aircraft or Missile Transported (Not installed in or on vehicle, not mission expendable)	28 - Materials, Pliable (fabric, rubber, etc.)	H - Loading and Cargo Handling	
	29 - Materials, Rigid (metals, wood, etc.)	J - Indicating	
	32 - Mechanical	K - Munitions Handling	
	33 - Nuclear	L - Lubricating	
	34 - Pneumatic	M - Maintenance, Aerospace Vehicle	
	35 - Optical		
	36 - Opti-mechanical		
	37 - Electromechanical		
	38 - Invisible Light (Infrared)		
	39 - Inertial		
	40 - Electro Optical		
	41 - Pneumatic-Mechanical		
	42 - Electrohydraulic		
	43 - Manual		
	44 - Internal Combustion		
	45 - Biological		
	46 - Pneumatic-Hydraulic		
	47 - Electropneumatic		
	48 - Hydromechanical		

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Table C-I. Equipment Indicators - Cont'd

INSTALLATION (1st Indicator)	TYPE OF EQUIPMENT (2nd Indicator)	PURPOSE (3rd Indicator)	Miscellaneous Identification
P - Personal Use Held or worn by individual) S - Ground, Self-propelled (Includes vehicle) U - Multi-installation W - Water (Surface or Submerged)	49 - Gunnery 82 - Mobile Deployment (Bare Base) - Miscellaneous 83 - Mobile Deployment (Bare Base) - Medical including dental, surgical, x-ray, etc. 84 - Mobile Deployment (Bare Base) -- Billeting/ Administration 85 - Mobile Deployment (Bare Base) -- Shop facilities - all types except electronics 86 - Mobile Deployment (Bare Base) -- Food Servicing including kitchen, dining, etc. 99 - Miscellaneous Note: Where more than one type number applies use the one most applicable.	P - Protection Q - Reconnaissance (Nonelectronic) R - Refueling S - Personnel Support T - Testing U - Special, Not Otherwise Covered, or Combination of Purposes V - Maintenance, Other than Aerospace Vehicle W - Graphic Art X - Identification Y - Dissemination	

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GROUP OR UNIT INDICATORS - BASIC PORTION

10. SCOPE

10.1 Scope. This appendix lists the group or unit indicators which are to be used to identify group or units for the preparation of nomenclature or type designation requests.

20. APPLICABLE DOCUMENTS

This section does not apply.

30. DEFINITIONS AND ACRONYMS

This section does not apply.

40. GENERAL REQUIREMENTS

40.1 The following table lists the group or unit indicators for the first two of three letter combination used to identify a group or unit (see 5.2.6 and 5.2.7).

a. Table D-I Group or unit indicators - basic portion.
First two of three letter combination.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination.

Indicator		Examples of use
AA	Altitude Indicating Instruments	---Altimeter, rate of climb indicators
AB	Flight Instruments	---Accelerometer; free air temperature indicators; aircraft clocks; and other flight instruments not otherwise covered
AC	Compressors, Air	---Air compressors; excludes oxygen or other specific gaseous compressors; may or may not include prime mover
AD	Adapting Items	---Items used to adapt one item to another (Do not use when CD applies)
AE	Engine Instruments	---Engine instruments not otherwise covered
AG	Pressure Indicating Instruments	---Cabin pressure, hydraulic pressure, etc. (Excludes engine instruments EG)
AH	Handling Items	---Miscellaneous items used in ground handling, pry and tow bars, etc.
AL	Position Indicating Instruments	---Rudder, trim, tabs, etc.
AM	Ground Vehicle Maintenance Items	---Brake bonders, lifts, jacks, etc. for use on ground vehicles
AP	Miscellaneous Autopilot Components	---Any of the components that make up an autopilot
AQ	Navigational Instruments	---Sextants, compass; any other instruments not otherwise covered
AR	Attitude Indicating Instruments	---Attitude, pitch and yaw, roll turn and slip

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
AS	Amplifiers, Signal	---Amplifiers between data source and instruments (Not associated with communications equipment)
AT	Actuating Items	---Devices which provide mechanical actuation for the operation of other items
AV	Speed Indicating Instruments	---Speed, Mach No., etc.
BA	Aircraft Arresting System Components	---Any of the components that make up an arresting system
BB	Explosive Items	---Such as bursters, igniters, gas generators, spotting charges, boosters, squibs, etc. (Not otherwise covered by other indicators.)
BC	Battery Chargers	---Any style battery charger
BD	Bomb, Simulated	---Disposable simulated bombs used for test and/or training purposes. May contain live explosive or pyrotechnic components.
BG	Bags	---Flyers, briefcases, carrying cases, etc.
BL	Bomb	---Any individual item of nonnuclear ordnance designed to be dropped
BN	Buoys	---Navigation, channel marking, marking, etc.
BP	Assessing and Briefing Items, Projection	---Items projecting an image to a screen; used for graphic arts purposes 1/
BR	Bomb Racks and Shackles	---Includes all types of internal and external bomb racks and shackles

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
BS	Munitions Stabilizing and Retarding Devices	---Includes fin assemblies, bomb retarders, and aerodynamic stabilizers
BT	Batteries	---Used to start vehicles and support equipment, i.e., thermal, lead acid, nicad, etc. (Does not include primary/secondary power source for electronic equipment)
BV	Assessing and Briefing Items, Viewing	---Items presenting an image directly; used for graphic arts purposes 1/
CA	Cabinets, Miscellaneous	---Miscellaneous types and styles of cabinets and similar items
CB	Cluster Bomb	---Any clustered or dispenser munition carried on internal or external aircraft bomb racks and comprised of a clustering device or munitions dispenser (SUU) and a number of aircraft bombs (BLU/BDU)
CC	Cartridges	---Propellant or explosive device for actuating various other mechanisms. Do not use if more specific indicator exists
CD	Clustering Devices	---A clustering device containing small bombs or missiles to be dispensed from munition dispensers (SUU). May or may not be required for compatibility of bombs (BLU/BDU) in dispensers (SUU)
CE	Crushers, Ice	---Ice crushers for crushing any type ice; dry, cube, flake, etc.
CF	Cartridge, Photoflash	---An explosive device designed to produce a short duration light source for night photo reconnaissance missions (excludes illumination units LU)

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
CG	Cargo Tiedown Items	---Devices used in mooring cargo, i.e., tiedowns, cables, fittings, etc.
CH	Cushions	---Seat cushions - life-preserver and other types
CJ	Cartridges, Jet Engine Starter	---Pyrotechnic cartridges used to initiate energy to start jet engines
CK	Catapult, A/C Ejection Seat	---An item designed to propel an ejection seat with personnel from a vehicle
CL	Calibrating Items	---Items used in calibrating operational equipment
CM	Clothing, Miscellaneous	---Miscellaneous types of clothing, such as rubber suits for bailout over water, tree jump, protection from chemical and biological agents, etc. (Other clothing not otherwise covered)
CN	Containers, Miscellaneous	---Various containers, excludes tank type and aerial delivery containers. Includes empty containers for survival kits
CP	Computing Items	---Computing devices, mechanical or electrical or both
CQ	Breathing Air Items	---Cylinders, regulators, valves, and fittings (for breathing air only)
CR	Oxygen Items	---Cylinders, regulators, valves, fittings, etc. (for oxygen only)
CS	Clothing, Special	---Clothing worn for protection from high altitude and "G" forces (excludes headgear, handwear, and footwear)

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
CT	Containers, Aerial Delivery	---Containers for aerial delivery of equipment and supplies
CV	Covers	---Miscellaneous types and styles of covers, heated or not heated
CW	Clothing, Warmth	---Clothing worn for warmth; jackets, trousers, coveralls, etc. (excludes headgear, handwear, and footwear)
CX	Charge, Smoke, Impact Marking	---A chemical substance for use in warheads, rockets, bombs, and guided missiles as a signal. When ignited smoke is produced.
CY	Cartridge Case	---Gun ammunition cartridge cases, primed or unprimed.
DC	Vehicle Control Devices	---Various types of vehicle control devices
DD	Demolition and Destructive	---Explosive devices intended for demolition and destructive purposes. Includes items designed to prevent the enemy from obtaining usefulness of captured equipment
DE	Dehumidifying Items	---Desiccators, dehumidifiers, etc.
DH	Detecting Items	---Hydrophones, magnetometers, etc.
DP	Duplicating Items	---Dry-developing machines, copying machines, etc; used for graphic arts purposes 1/
DS	Target Detecting Devices	---Major components of a proximity fuze; an electrical or electro-optical assembly

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
DT	Timing Devices	---Intervalometers, timers, nonaircraft clocks, watches, etc. 1/
EA	Performance Indicating Instruments, Engine	---Engine analyzers, cruise control indicators, etc.
EC	Electrical Conversion Items	---Conversion of electrical current, frequency, etc., to some other form of electrical energy
ED	Eye Protective Devices (Separate Items or Units)	---Eye protective devices which are designed for use independent of headgear or helmets. Includes those devices which can be used with or independent of headgear. Goggles, sunglasses, face shields, etc.
EE	Eye Protective Devices for Headgear	---Eye protective devices which are designed only for attachment onto headgear, helmets, or other items covered under HG (i.e., face shields, sunshields, or goggles)
EF	Fuel Measuring Instruments	---Rate-of-flow gages and fuel remaining gages
EG	Pressure Measuring Instruments, Engine	---Engine pressure, all types
EH	Temperature Indicating Instruments, Engine	---Engine temperature indicating instruments, all types
EM	Electrical Power Supply Items, Ground (with prime mover)	---Ground electrical power supply items, generators, power plants, etc.
EP	Electrical Power Supply Items, Ground (without prime mover)	---Ground electrical power supply items, generators, power plants, etc.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
ER	Tachometers, Engine	---All types of engine tachometers
ET	Engine Transportation and Handling Devices	---Stands, dollies, racks, etc., for engine transportation and handling during maintenance and change
FD	Direction Indicating Instruments	---Directional gyros, directional indicators, etc.
FE	Fire Extinguishers	---Any type of fire extinguishers
FF	Fuel Filters	---All types
FL	Inflating Equipment	---For inflating liferafts and similar equipment
FM	Fuzes, Munitions	---Any type or style munition fuze (excludes FS)
FN	Fuel Tanks, Vehicle, Internal	---Internal installed fuel tanks, includes auxiliary tanks for temporary installation
FP	Fuel Tanks, Pylon-Mounted	---External pylon or rack-mounted tanks (jettisonable)
FR	Refrigerators	---Mechanical refrigerators
FS	Munitions Fuze Safety-Arming Device	---A mechanism which prevents or allows the warhead train of explosives to operate
FT	Fuel Tanks, Vehicle, External	---External, vehicle, fuel tanks (excludes FP)
FW	Footwear	---Shoes, boots, mukluks, etc.
FZ	Munitions Fuze-Related Items	---Fuze related items such as delay elements, leads, arming shafts, fuze arming drive assemblies, arming wires, or lanyards, etc.
GA	Guns, Airborne	---Applicable to airborne guns

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
GB	Guided Bombs	---Nonself-propelled vehicles with guidance systems
GC	Gaseous Converters, Chargers and Rechargers	---For items which convert liquid to gas, charge gas containers, cartridges, etc.
GD	Dummy Guided Missiles	---Dummy versions of guided missiles designed to provide training in missile assembly, handling, loading, etc.
GE	Generators, Electrical, Vehicle	---Vehicle electrical generating equipment
GF	Gun Related Items	---Ammunition feeders, loaders, storage drums, etc. (does not include pods, tanks, or ammunition)
GG	Generator, Gaseous	---Oxygen, CO_2 nitrogen generators, etc.
GL	Engines, Ground	---Engines used to power ground equipment
GM	Gages, Miscellaneous	---Rate-of-flow gages, pressure; and any other gages not otherwise covered
GP	Gun Pod Unit	---A combination of a gun, airborne (GAU) and store suspension unit (SUU) that is carried and fired from internal or external stations
GR	Ground Refueling Items	---Hoses, nozzles, etc.
GS	Ground Support Items	---For miscellaneous ground support items not otherwise covered
GT	Weapon Turrets	---Any type or style weapon turret. Excludes gun pod units (GPU)

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
GU	Guns	---Applicable to guns, other than for airborne
HA	Handwear	---Gloves, inserts, mittens, etc.
HB	Harnesses and Belts, Safety	---For use in restraining, etc.
HC	Cargo Handling Items	---For items used in loading and handling cargo
HD	Heating devices	---Space, ovens, immersion, etc.
HG	Headgear	---Helmets, caps, etc.
HL	Hoisting Items	---Lifts, slings, etc.
HP	Personnel Aerial Delivery Items	---Items for low level air delivery of personnel
HR	Electrical Harnesses and Cables	---Used as hookup or connection for various other equipment
HS	Hose, Oxygen, Breathing	---Flexible hose for connecting oxygen breathing masks (MB) to fixed or rigid oxygen source. (Excludes bulk hose)
HT	Hose, Air Breathing	---Flexible hose for connecting air breathing masks (MC) to a fixed or rigid breathing air source. (Excludes bulk hose)
JA	Initiator, Cartridge Actuated	---An item designed to provide gas pressure for activation of various components such as canopy removers, thrusters, catapults, etc.
JE	Electrical Distribution, Junction and Interconnecting Boxes and Devices	---Installed in vehicle or used on the ground

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
KA	Unfilled Clustering Device	---Various types of devices to effect clusters for dropping small bombs and missiles. May or may not be required for compatibility of bombs (BLU) in dispensers (SUU)
KB	Cluster Bomb Unit, Simulated	---Any simulated cluster bomb or dispenser munition, designed for test and/or training purposes. May contain live pyrotechnic components
KD	Clustering Devices, Simulated	---Any clustered or dispenser munition, designed for test and/or training purposes only. May contain live pyrotechnic components
KM	Kits, Miscellaneous	---For kits not designatable as sets, groups, or units
LA	Launching Mechanisms, Vehicle Installed	---Vehicle installed launchers (do not use if SU or PW applies)
LB	Lubricating Devices	---Lubricators, lubrication spray guns, etc.
LE	Lighting Items, Ground	---Floodlights, spotlights, extensions, explosion-proof inspection lights
LK	Links for Ammunition	---For carrying or feeding ammunition to automatic weapons
LM	Launching Mechanisms, Ground	---Ground launchers for rockets, missiles, targets
LN	Lights (Navigation)	---For navigation in mine counter-measures missions. May be flashing or steady beacon
LP	Life Preservers	---Any style or size life preserver
LR	Liferafts	---Any style or size liferaft

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
LT	Vehicle Installed Lights	---Lights installed in or on vehicles
LU	Illumination Unit	---Air ordnance items such as flares, searchlights, or other visible light devices used to provide illumination of battle areas and photo reconnaissance targets (also includes signal flares)
LW	Laser Weapons	---High power lasers used to destroy materiel. (Not to include laser used to designate targets)
MA	Miscellaneous Armament Items	---Not otherwise covered (excludes bomb racks and shackles)
MB	Masks, Breathing Oxygen	---Used only for breathing oxygen masks
MC	Masks, Breathing Air	---Used only for breathing air face masks (excludes oxygen masks)
MD	Miscellaneous Munitions, Simulated	---Simulated practice munitions, where the simulated live munition is not identified in the designation system
MH	Munitions Handling Items	---Not otherwise covered, dollies, slings, etc.
MJ	Munition-Countermeasures	---Any loaded dispenser munition-type device dropped from vehicle for the purpose of confusing or misleading enemy forces
ML	Miscellaneous Munitions, Live	---Live munitions not otherwise provided for
MM	Vehicle Maintenance Items	---Not otherwise covered, i.e., vehicle jacks, tools, etc.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
MP	Masks, Protective	---For protective face masks, other than breathing air or oxygen, i.e., tree jump, environmental protective, etc.
MS	Maintenance Stands	---Stands, platforms, etc.
MT	Mounts	---Any style mount
MX	Miscellaneous	---Items not otherwise covered
NC	Nonstereo-Charting Items	---Chart and map compilation items utilizing principles other than stereoscopic projection and viewing; used for graphic arts purposes 1/
NM	Nuclear Measuring Items	---Radiometers, Geiger counters, etc.
NR	Miscellaneous Nitrogen items	---Includes cylinders, regulators, valves, and associated items for nitrogen use only
PA	Munitions Dispensing Devices, External	---External pods, tanks, clip-ins, or other devices for dispensing munitions, launching rockets, dispensing B-C materials - mounted external of vehicle (excludes SU)
PC	Parachute Components	---Canopies, harnesses, packs, pilot chutes, etc. (Complete parachute assembly is designated by an equipment-designation)
PD	Printed Data for Dispensing	---Prepackaged leaflets and miscellaneous printed data dispensed directly from vehicle
PE	Panel, Electrical	---Control panels, etc.
PF	Propellent Control Items	---Used to identify components utilized in rocket propellent flow control
PG	Gun Ammunition	---All types of gun ammunition

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
PJ	Projectiles	---Projectiles, including as appropriate, fuzing, explosive, incendiary, penetration, tracer, etc.
PL	Plotting Devices	---Table, scales, charts, holders, etc. 1/
PM	Pumps	---Various types of pumps
PP	Printing Items	---Printing presses, etc.; used for graphic arts purposes 1/
PR	Protective Items	---Armor, vests, kits, etc.
PT	Power Units, Auxiliary	---Auxiliary power units that operate aircraft equipment while on the ground
PV	Primer	---Percussion or electrically initiated component of cartridge case for initiation of propellant
PW	Munitions Dispensing Devices,	---Nonexpendable empty pods, tanks, clip-ins, or other devices for dispensing munitions, launching rockets, dispensing B-C materials - mounted inside of vehicle (excludes SU)
RA	Remover, Canopy	---An item designed to jettision the canopy from an aerospace vehicle to provide an exit for personnel
RB	Rocket and Launcher Units	---A combination of a launcher (LAU) and conventional ordnance type rockets (RLU) that is carried and functioned from external stations. Excludes cluster bomb units (CBU)
RD	Rockets, Simulated	---A self-propelled, noncontrollable (after firing) rocket (dummy or practice) used for test and training purposes

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
RE	Rescue Devices	---Baskets, towing ropes, etc.
RF	Inflight Refueling Items	---Nozzles, hose, etc., used for inflight refueling
RG	Regulating Items, Electrical Items	---Devices used to regulate electrical current, voltage, frequency, etc.
RH	Reconnaissance Interpretation	---Film plotting table, stereoscopes, magnifier, etc., used for graphic arts purposes 1/
RL	Rockets, Live (Complete Round)	---A self-propelled, noncontrollable (after firing) live, conventional ordnance type rocket
RM	Reels and Reeling Mechanisms	---Mechanisms used for reeling cable, towrope, wire, etc., in or out (excludes the cable, towrope, wire, etc., see TQ)
RV	Re-entry Vehicle (Dummy)	---Dummy or practice types of re-entry vehicles
RW	Re-entry Vehicle	---Actual re-entry vehicle, that portion of a space vehicle designed to re-enter the earths atmosphere in the terminal portion of its trajectory
RY	Relays, Electrical	---Any electrical relay
SA	Sights	---All types of optical bomb, gun, and rocket sights
SB	Stabilizing Items	---Gyroscopes, etc.
SC	Stereo-Charting Items	---Items used in compiling charts and maps utilizing the principles of stereoscopic projection and viewing; used for graphic arts purposes 1/

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
SD	Signal Devices	---Signal lights, hand held and otherwise warning devices including vehicle installed
SE	Seats	---Seats; pilots, crew members, and passengers (excludes ejection seats)
SG	Starters, Ground	---Starting units used on the ground to start engines (Not installed on the engine being started)
SH	Shelters	---Structures used for maintenance, storage, and miscellaneous uses
SJ	Seats, Ejection	---Pilots and crew members ejection seats
SK	Seat Kits	---Rigid or soft type for integration into ejection seats (complete kits only; for empty containers only see CN)
SM	Simulators	---Items which simulate operation of operational equipment
SP	Sweeping Items (Mines)	---Floats, otters, depressors, cutters, etc.
SR	Survival Items	---Sustenance kits and components of sustenance kits, knives, etc.
ST	Starters, Installed	---Any type of starter installed on engine
SU	Suspension and Release Unit Stores (Munitions) Dispenser)	---An item carried internally or externally on bomb racks and used to transport and deliver and/or function smaller nonnuclear ordnance items to include bombs and guns. (Also a CBU less BLU's)

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
SV	Servomechanisms and Components	---Servos, drum and brackets, motor and drive, etc.
SW	Switches, Electrical	---Various electrical switches and similar items
SX	Scoring Devices	---Items used in determining miss distances and firing error indication. Normally installed in targets.
TA	Training Aids	---A visual training aid. Does not normally provide "Hands on" training for students
TC	Thruster, Cartridge Actuated	---An item operated by gases generated by firing of a cartridge. Provides thrust for opening or closing latches, hatches, etc.
TD	Target Devices	---Various types and styles of targets, tow, winged, etc. (Excludes drones)
TE	Transformers, Electrical	---Any size or style transformer associated with vehicle or support equipment
TH	Target Handling Items	---Cables, cutters, etc
TK	Tracking Equipment	---Target tracking, nonelectronic
TL	Tools	---Tools not otherwise covered
TM	Tanks, Miscellaneous	---Oxygen, fuel, sampling, etc. (excludes vehicle fuel tanks)
TQ	Miscellaneous Towing Devices	---Tow cables, wire, and other items related to towing components and devices. Do not use when RM is more applicable.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
TR	Transmitters, Instrument	---Signal transmission to instruments, rate-of-flow, compass, pressure, etc.
TT	Test Items	---Any test item not otherwise covered
TW	Tape Units	---Preprogrammed with operational test and checkout data (excludes magnetic tape units)
VA	Valves	---Various types of valves. Do not use where CQ and CR apply.
VC	Chassis, Vehicle	---All types of vehicle chassis. (Complete vehicle is designated by an equipment designation.
VS	Viewing Devices	---Viewing items such as binoculars, telescopes, periscopes, etc. (excludes bomb-gun-rocket sights SA)
WA	Warhead Section	---An item consisting of a portion of the outer aerodynamic case (shell or skin) of a guided missile, rocket, or like vehicle, plus a warhead, either inert or loaded, which is removable from the outer case of the vehicle. Do not use if WD, WE, and WT apply. 2/
WB	Body Section	---Items which comprise a portion of the outer aerodynamic shell or skin of a guided missile, or other vehicle, and when used in conjunction with other sections (warhead sections, propulsion sections, and the like) forms a complete guided missile or other vehicle. Do not use when WA, WG, WN, or WP apply.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
WC	Control Section	---Items which comprise a portion of the outer aerodynamic shell or skin of a guided missile, or other vehicle. It includes the items (actuators, internal power sources, umbilical connectors, and the like) necessary to effect flight control and stability. Do not use if WA, WG, WP, etc., apply.
WD	Warhead, Explosive	---An explosive loaded item designed to be mounted in or on a guided missile, rocket, or the like. The configuration may form a portion of the outer case of the delivery vehicle when this portion of the case is designed not to be removed from its contents. Excludes WA, WE, WD, and WT. 2/
WE	Warhead, Empty	---Empty warheads
WF	Warhead	---Any warhead other than explosive, i.e., penetrator. Excludes WA, WE, and WT. 2/
WG	Guidance Section	---Items which comprise a portion of the outer aerodynamic shell or skin of a guided missile, and which includes all or a major portion of the necessary electrical and/or electronic equipment or items used to effect guidance of the missile in flight.
WM	Weather Devices (Nucleating)	---Used for atmospheric application; such as catalyist generators, etc.

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Table D-I. Group or unit indicators - basic portion.
First two of three letter combination - Cont'd.

Indicator		Examples of use
WN	Nose Section	---Items which form the extreme forward aerodynamic portion of a guided missile, or other vehicle, may contain instrumentation, spotting charges, and/or fuzing or arming devices and the like. Do not use when WA, WC, or WG apply. (Excludes WD, WE, and WT)
WP	Propulsion Section	---Items which comprise a portion of the outer aerodynamic shell or skin of a guided missile, or other vehicle. It contains or is designed to contain one or more engines or motors. May include movable control surfaces, stabilizing fins, or a combination of these, and other items.
WT	Warhead, Training Dummy, or Practice	---Dummy, practice, and training warheads. Excludes WA, WD, and WE(for nonnuclear items, follow guidance contained in section 6)

1/ Not to be used if photographic indicators are applicable.

2/ Not applicable where another DoD identification system applies.

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SYMBOLS FOR PROPULSION ENGINES

10. SCOPE

10.1 Scope. This appendix lists the symbols which are to be used to identify propulsion engines for the preparation of nomenclature or type designation requests..

20. APPLICABLE DOCUMENTS

This section does not apply.

30. DEFINITIONS AND ACRONYMS

This section does not apply.

40. GENERAL REQUIREMENTS

40.1 The following tables list the symbols which are to be used to identify air breathing and non-air breathing engines (see Figures 3 and 4).

a. Table E-I Type letter symbols for air breathing engines

b. Table E-II Type letter symbols for non-air breathing engines

c. Table E-III Manufacturer's and contractor's symbols for propulsion engines

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Table E-I. Type letter symbols for air breathing engines.

Letter Symbols	Engine Type
J	Turbojet
T	Turboshaft, Turboprop
F	Turbofan
O	Opposing
R	Radial
V	Vee
C	Rotating Combustion
P	Any type not listed

Table E-II. Letter symbols for non-air breathing engines.

Letter symbol	Type
LR	Liquid propellant rocket engine
SR	Solid propellant rocket motor
LSR	Hybrid propellant rocket engine (liquid-solid)

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Table E-III. Manufacturer's and contractor's symbols.

Manufacturer's and Contractors's Name	Letter Symbol
Aerodyne Corp.	AE
Aerojet-General Corp	AJ
Aeronutronics Corp.	AN
AiResearch Division, Garrett Corporation	GA
Allegany Ballistics Lab.	AB
Allison Div., General Motors Corp.	AD
AMOCO Chemicals Corp.	AC
Astropower, Inc.	AI
Astrosystems, Inc.	AS
Atlantic Research Corp.	AR
Bell Aerosystems Co.	BA
B.F. Goodrich Co.	BG
Continental Aviation and Engineering Corporation	CA
Curtiss-Wright Corp.	CW
General Electric Co.	GE
Hercules Powder Co.	HP
Hughes Tool Co.	HT
Lockheed Propulsion Co.	LP
Marquardt Corporation	MA
Naval Missile Center	NM
Naval Weapons Center	NW
Naval Propellant Plant No. 5	NP
North American Rockwell Corp. (Rocketdyne)	NA
Northrup Carolina Corp.	NC
Olin Mathieson Co.	OM
Picatinny Arsenal	PA
Pratt & Whitney Acft Div., United Aircraft Corp.	PW
Reaction Motors Div., Thiokol Chemical Corp.	RM
Rocketdyne (now Rockwell/Hercules)	RD
Rocket Power, Inc.	RP
Rocket Research Corp.	RC
Rolls Royce, Ltd	RR
Sunstrand Power Systems	SP
Thiokol Chemical Corp.	TC
TRW Systems	TR

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Table E-III. Manufacturer's and contractor's symbols - Cont'd.

Manufacturer's and Contractors's Name	Letter Symbol
United Aircraft of Canada, Ltd.	CP
United Aircraft of West Virginia	WV
United Technology Center	UT
Williams Research Corporation	WR
Any contractor not currently listed or development where contractor is not identified.	ZZ

NOTE: If this code is used, the designation must be revised when the contractor's code is developed or the contractor is selected.