



OPERATIONS MANUAL

ENGINEERING DATA

CHAPTER 6

MARCH 2008

GOVERNMENT INDUSTRY DATA EXCHANGE PROGRAM

ENGINEERING DATA

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CHAPTER 6

ENGINEERING DATA

6.1 INTRODUCTION

Engineering Data (ED) provides information about research materials, quality assessments, engineering tests, evaluation and qualification tests, parts and materials specifications, manufacturing, design, business practices, process controls, solder-ability, and other related engineering data on parts, components, materials, and processes. Reports pertain to both military and commercial applications. Because of the wide span of topics, the data is categorized under seven (7) document types: engineering reports, management reports, test reports, process specifications, soldering technology, computer technology documents, and facilities documents, shared with Metrology Data. These reports are generated during research, development, testing, production, procurement, and logistical operations—all phases of the acquisition life cycle.

6.2 OBJECTIVE

The Engineering Data (ED) is one of the data types in the GIDEP database. This objective of this chapter of the GIDEP Operations Manual is to describe and to provide guidance. The data fosters information for improvement in quality, design, manufacturing, schedules, and processes; development of new methods or techniques for better, leaner business practices; and avoidance of duplication efforts hence reduction of costs.

6.3 POLICY

The Government-Industry Data Exchange Program (GIDEP) is a network of people sharing data to help each other solve problems and avoid costs associated with procurement and development.

Each participant must safeguard GIDEP data, obtain permission from the document originator or the GIDEP Program Manager prior to releasing information to non-participants, and submit documents for inclusion in the GIDEP database. Refer to Chapter 2, Participation Requirements, of the Operations Manual for more details.

In order to maintain GIDEP membership, each industry or government participant must submit utilization report(s) documenting the benefits, particularly the cost avoidance, which resulted from utilizing documents during the preceding fiscal year (1 October to 30 September). Refer to Chapter 5, GIDEP Utilization Reporting, of the Operations Manual.

6.4 DEFINITIONS

Engineer Data is categorized under seven (7) document types: engineering reports, management reports, test reports, process specifications, soldering technology, computer technology documents, and facilities documents. The acronym is referred as document designator (DD) in the GIDEP database.

6.4.1 Engineering Reports (DD=ER) - Technical studies and engineering evaluations that cover a broad range of topics. These topics may include:

- Aerospace and space including aerodynamics, aeronautics, astronautics and astrophysics
- Alloys
- Applied mechanics of materials
- Attaching methods
- Automated production equipment
- Automotive sciences and engineering
- Chemistry
- Communications
-satellite
-radar
- Composites
- Containerization
- Contamination
- Controls
- Corrosion
- Cryogenics
- Electronics
- Energy related report
-cogeneration
-electrical generations
-hydro generation
-nuclear energy
-recycling generating plants
-solar energy
- Engineering analysis
- Engineering mathematics and developmental research
- Engineering simulation
- Environmental hazards
- Environmental studies
- Fracture mechanics and fatigue
- Fuels
- Heating and ventilating
- Heat transfer
- Human factors engineering
- Lasers
- Logistics engineering
- Lubricants and lubrication
- Maintenance engineering
- Manufacturing
- Materials handling
- Mechanisms
- Packaging
- Part application, manufacture and utilization
-filters
-fasteners
-diodes
-delay devices
-capacitors
-fittings
-etc.
- Physics
- Plastics
- Pollution
- Power trains
- Refrigeration
- Robotics
- Safety engineering
- Surface treatments
- Telecommunications
-fiber optics
- Thermodynamics
- Training simulators

6.4.2 Management Reports (DD=MR) - Reports and studies which include project plans, management plans, cost studies, management problems and solutions, guidelines, manufacturing facilities, procedures, and operations research. Management reports include:

- Cost studies/life cycle costs
- Design analysis and decision techniques
- Engineering practices
- Facilities and construction management
- Human resources management
- Management program plans and guides
- Safety management
- Total quality management
- Quality management practices
- Quality techniques and guidelines
- Workload management
- Waste disposal and management
- Lessons learned prior to October 1999. After October 1999, all pertaining documents have been classified under Lessons Learned (LL) under Failure Experience Data.
- GIDEP documentation prior to June 1993 including cost reduction, directives, information retrieval, operational methods, participation requirements, presentations, procedures, program implementation, promotional methods, records management, reporting to management and utilization reporting. After June 1993, all pertaining documents have been classified under GIDEP Specific Documents (GSD).

6.4.3 Test Reports (DD=TR) - Reports cover qualification and evaluation testing of parts, components, materials and related systems. This document designator includes procedures for conducting tests and may include data from the resultant test. Test reports include:

- Chemical tests
- Engineering evaluation tests
- Ergonomic tests
- Fatigue and material tests
- Final acceptance tests
- Fluid dynamics tests
- Thermal analysis
- Thermodynamic tests
- Wind tunnel tests
- Failure analysis test results prior to June 1993. After June 1993, all pertaining documents have been classified under Failure Analysis (FA) under Reliability and Maintainability Data.
- Inspection procedures
- Re-qualifications tests
- Simulated test
- Software tests
- Test procedures
- Test plans

6.4.4 Process Specifications (DD=PS) - General specifications for processes and procedures used to produce parts, components and materials. Such subjects are:

- Environmental simulation procedures
- Manufacturing procedures
- Shipping specifications
- Shipping procedures
- Preservation procedures
- Nonmilitary procurement specifications
- Parts specifications
- Test procedures
- Process control
- Parts application data
- Process and material specifications
- Process procedures
- Repair procedures
- Source control drawings and specifications
- Nondestructive testing specifications and procedures

6.4.5 Soldering Technology Library (DD=STL) - Reports on solder-ability and soldering processes and related topics. This category includes:

- Manufacturing processes and methods.
- Process controls
- Inspection methods.
- Soldering papers and publications.
- Soldering practices and methods.
- Soldering specifications and procedures.
- Joining processes
- Plastics soldering processes

6.4.6 Computer Technology Documents (DD=CTD) - General documents on computer software, hardware and management include:

- Computer science
- Computer systems
- Simulation
- Qualification and design
- Computer aided design
- Computer code
- Integrated manufacturing
- Computer interfaces
- Computer program
- Computer resources
- Network software and management
- Software procurement
- Workflow processes/procedures

6.4.7 Facilities Documents (DD=FD) - Technical documents related to design, building and managing facilities. This document type is also in the Metrology area. These documents include:

- Design
- Environmental controls
- Facilities evaluations and analysis
- Nuclear storage
- Facilities management
- Laboratory management
- Test laboratories and range
- Ammunition loading facilities
- Missile processing plants
- Space launch facilities
- Harbor facilities

6.5 RULES AND GUIDELINES

6.5.1 Criteria

Information should be widely distributed within your organization to be effective. The GIDEP representative is encouraged to be creative in getting as many departments and individuals to use the information as possible. All GIDEP members should submit appropriate engineering information for inclusion into GIDEP database and report utilization of the data to measure of GIDEP's effectiveness.

6.5.2 Data Submittal

Generally, Engineering Data does not use any GIDEP form for submitting documents. Submitters may submit electronically (preferred method) by e-mail to gidep@gidep.org or on any electronic media (e.g. CD-ROM, DVD, etc.) in standard processing formats (e.g. PDF, Microsoft Word, Microsoft Publisher, etc.). Hardcopy documents are also acceptable but must be clear contrast. Direct any electronic media or hard-copy mailing to

GIDEP Operations Center
P.O. Box 8000
Corona, CA 92878-8000

Upon submittal, documents are given a security code and GIDEP users with the same security privileges may have access to the appropriate documents. The security code is derived by the distribution statement on the document in accordance to the document originator's directives or by the direction of the submitter. GIDEP does not establish or remove the limited distribution statement. Each document is also assigned a Participant Code (PC) which identifies the submitter of a document. The PCs are searchable in the GIDEP Roster On-Line. When the submitter does not have a PC, the document will be indexed participant code of VV.

Submitters can directly control the distribution of their documents by using DD Form 2000. The content of the form summarizes the document and contains the point of contact for the document. Instructions for the form are included in Appendix C.

6.5.2.1 Reports accepted in ED should meet the following guidelines:

- 6.5.2.1.1 Reports and documents should be clear contrast sufficient for imaging. Photographs must be high contrast for good imaging.
- 6.5.2.1.2 Amended or revised reports must be resubmitted in their entirety for input into the database.
- 6.5.2.1.3 Reports submitted by automatic distribution form Contractor Data Requirements Lists, or other distribution means, if they meet the general criteria for ED reports.
- 6.5.2.1.4 Copyrighted or proprietary documents which have a release letter authorizing distribution by GIDEP. See Appendix A and B for example of release letter.

6.5.2.2 Reports are not acceptable in GIDEP include:

- 6.5.2.2.1 Commercial or industrial specifications for sale from other sources (ANSIs, ASTMs, IEEEs, etc).
- 6.5.2.2.2 Contracts and amendments to contracts.
- 6.5.2.2.3 Corrective action reports.
- 6.5.2.2.4 Classified, proprietary or sensitive documents submitted without a release letter.
- 6.5.2.2.5 Advertising materials in reports.
- 6.5.2.2.6 Incomplete or illegible documents.
- 6.5.2.2.7 Journal articles, including government journals.
- 6.5.2.2.8 Sales information or sales specification sheets.
- 6.5.2.2.9 Reports from Data Analysis Centers, except by exchange agreements or memoranda of agreement.
- 6.5.2.2.10 Test reports containing only raw parametric data (discussion and summary required).

6.6 DISTRIBUTION

GIDEP data may be distributed to all potential users within a participant's organization. See Chapter 1, Program Description, of Operations Manual for complete distribution guidelines.

GIDEP participants who use the documents and information distributed by GIDEP should exercise prudent judgment as to the accuracy of the data, statements, diagrams and conclusions. GIDEP does not verify the accuracy or applicability of the information, nor does the Program Office in any way assume any liability for the accuracy or timeliness of the information. The timeliness of the information is dependant on the submitter providing information.

6.6.1 Access

New Engineering documents submitted to GIDEP are available electronically in the GIDEP database via the internet (<https://gidep-data.gidep.org>), requiring a computer UserID and password (See Chapter 2, Participation Requirements, of Operations Manual). Also at this site, GIDEP offers other products such as the online utilization reporting, participant directory known as Roster On-line, and other connectivity.

In addition to the GIDEP data site, Members web site (<https://members.gidep.org>) contains an extensive amount of information on Engineering Data, as well as other data types, types of products, and services available only to GIDEP participants. Engineering Data webpage has updated information regarding the data like new weekly documents index, monthly index, links to other data sources, point of contact, sample Utilization Reporting, and success stories. Other services include parts batching, change request process for new GIDEP capabilities, training, GIDEP forum, Urgent Data Request (UDR) and more to come. The GIDEP Help Desk personnel are available for additional assistance Monday-Friday, 6:30 AM – 5:30 PM Pacific Time.

6.6.2 Push Mail

Push mail is generated as a convenience to GIDEP Participants to obtain an overview of information. All GIDEP Representatives are automatically eligible to receive push mail. Users may also be granted access with their Representative's approval.

6.6.3 Products

6.6.3.1 Document Format. Since November 2007, documents are available in PDF format; prior, documents are in both in PDF format and text (ASCII) format. The text file should be used as REFERENCE ONLY since it does not contain any graphics, special mathematic notations or formulas, such as pictures, schematics, or letterheads. Older ED documents processed prior to November 1994 are index descriptions containing abstracts and other information about the document. These older documents may be placed on-line upon request to GIDEP Operation Center.

6.6.3.2 Document Index. This can be received, downloaded or created to overview relevant documents. Weekly index of reports may be sent to participants via Push Mail sign-up. If a document in the listings is of interest, the corresponding document can be retrieved from the database. Monthly index are also available from the Engineering Data webpage on the Members website. Generation of special topic index can be created from report creation after a search is done on the database. See GIDEP Training Exercise Manual from Members website. All these listings may be share to others within the organization.

6.6.3.3 Urgent Data Request (UDR) is service that allows a participant to query the GIDEP community to obtain engineering data not available in GIDEP database or within participant's internal resources. UDR can provide a valuable resource for obtaining information or provide other point of contact for the information. Responses are sent directly back to requestors and remain in the GIDEP database. Procedures for UDRs are provided in Chapter 10, Urgent Data Request, of Operations Manual.

6.7 UTILIZATION REPORTING GUIDELINES

The purpose of Utilization Reporting is to document the benefits, impacts, and usage of GIDEP information along with the prevention of unplanned expenditures (PUE) accrued as a result of using information obtained from GIDEP. Utilization Reporting, Chapter 5, of the Operations Manual defines policy, definitions and reporting procedures related to Utilization Reporting. The online PURS (Participant Utilization Reporting System) helps each GIDEP user keeps track of all the downloaded documents and helps GIDEP Representatives and program managers review the benefits of organization's GIDEP participation. All GIDEP users are encouraged to utilize PURS to reports benefits. Samples of past utilization reports can be found Sample AURs or Success Stories from the Engineering Data Members webpage.

APPENDIX A

DOCUMENT AUTHORIZATION RELEASE



**COPYRIGHT DOCUMENT
LIMITED RELEASE AUTHORIZATION**

GIDEP Participant Code

Organization/Company

Point of Contact (please print last, first name)

Street Address

Telephone (please include area code)

City, State Zip

The above named organization/company authorizes the GIDEP Operations Center distribution the following copyrighted document(s) to its participants:

- _____
Document title and number
- All documents with limited distribution statement
- All copyrighted documents

To (Check one):

- GIDEP U.S. and Canada Government Agencies/Organizations only
- Department of Defense (DoD) only
- All GIDEP participants (government activities and government suppliers)
- Other _____

Authorized Signature

Date (Month, Day, Year)

PROCEDURE

1. If you are submitting a limited distribution or copyrighted documents for distribution through GIDEP, please complete this form out. Indicate the title(s) of the document(s) which you wish to be released to GIDEP Participants. Indicate the level of distribution by checking the appropriate box.

2. Please electronically forward the entire document to: gidep@gidep.org

Or to GIDEP Operations Center
 P.O. Box 8000
 Corona, CA 92828-8000

3. If you have any questions please contact GIDEP Operation Center at (951) 898-3207.

APPENDIX B

SAMPLE TRANSMITTAL LETTER

APPENDIX B
SAMPLE TRANSMITTAL LETTER

(COMPANY OR ACTIVITY LETTERHEAD)

Date

GIDEP Operations Center
Attn: Data Manager
P.O. Box 8000
Corona, CA 92878-8000

Please find enclosures (1) through () for inclusion in the GIDEP database. Documents are authorized for (limited or unlimited) distribution in accordance with distribution statement.

The GIDEP Operations Center is authorized to scan the data and abstracted data may be appended onto the on-line database.

Respectfully,

(Typed First and Last Name)
GIDEP Representative

Encl: (1) Report title and document number
(2) Report title and document number

APPENDIX C

GENERAL DOCUMENT SUMMARY SHEET

DD FORM 2000

GOVERNMENT INDUSTRY DATA EXCHANGE PROGRAM GENERAL DOCUMENT SUMMARY SHEET		Form Approved OMB No 0704-0188 1 of	
1. ACCESS NUMBER	2. COMPONENT / PART NAME		
3. APPLICATION	4. MANUFACTURER NOTIFICATION <input type="checkbox"/> Notified <input type="checkbox"/> Not Applicable	5. DOCUMENT ISSUE DATE	
6. ORIGINATOR'S DOCUMENT TITLE		7. DOCUMENT TYPE	
8. ORIGINATOR'S DOCUMENT NUMBER	9. ORIGINATOR'S PART NAME/IDENTIFICATION		
10. DOCUMENT (SUPERSEDES/ SUPPLEMENTS) ACCESS NUMBER	11. ENVIRONMENTAL EXPOSURE		
12. MANUFACTURER	13. MANUFACTURER PART NUMBER	14. INDUSTRY/ GOVERNMENT STANDARD NUMBER	
15. OUTLINE, TABLE OF CONTENTS, SUMMARY, OR EQUIVALENT DESCRIPTION			
16. KEYWORDS			
17. GIDEP REPRESENTATIVE		18. PARTICIPANT ACTIVITY AND PARTICIPANT CODE	

**PREPARATIONS INSTRUCTIONS
FOR
GENERAL DOCUMENT SUMMARY SHEET (DD FORM 2000)**

BLOCK INSTRUCTIONS
NO.

PAGE NUMBER. Enter the total number of pages in the report including summary sheet form and supplemental sheets.

1. ACCESS NUMBER. Leave blank - GIDEP Operations Center use only.
2. COMPONENT/PART NAME. Enter the nomenclature of the part, material, component or system.
3. APPLICATION. Indicate the application in which the device was used (for example, ground missile, shipboard, spacecraft).
4. MANUFACTURER NOTIFICATION. If the manufacturer is notified, check NOTIFIED and enter the manufacture's name and address into block 12. If the manufacturer is not notified, check NOT APPLICABLE.
5. DOCUMENT ISSUE DATE. Enter the date the document was written.
6. ORIGINATOR'S DOCUMENT TITLE. Enter the author's title for the document.
7. DOCUMENT TYPE. Enter ER for Engineering Report, MR for Management Reports, TR for Test Reports, PS for Process Specifications, STL for Soldering Technology Library, CTD for Computer Technology Documents, or FD for Facilities Document.
8. ORIGINATOR'S DOCUMENT NUMBER. Enter document number exactly as it appears on the document.
9. ORIGINATOR'S PART NAME/IDENTIFICATION. Enter part name and identifications as assigned by organization/agency originating the report; if not specified, enter NA (Not Applicable).
10. DOCUMENT (SUPERSEDES/SUPPLEMENTS) ACCESS NUMBER. Delete either SUPERSEDES or SUPPLEMENTS. If the document supersedes/supplements an existing GIDEP document, enter the GIDEP Access Number of the document. If the document neither supersedes nor supplements an existing GIDEP document, enter the word NONE.
11. ENVIRONMENTAL EXPOSURE. Enter the environmental exposure if applicable. If not specified, enter NA (Not Applicable)

12. MANUFACTURER and CAGE (Commercial and Government Entity) CODE. Enter the manufacturer abbreviation and CAGE listed in the Defense Logistics Agency (DLA) Cataloging Handbook. If the manufacturer is not listed, enter the phrase "SEE BLOCK 15"; enter the manufacturer's full name and division (if any) in Block 15. If more than one manufacturer, enter phrase "SEE BLOCK 15; enter additional manufacturers as appropriate. If the manufacturer is not specified, enter NA (Not Applicable).
13. MANUFACTURER PART NUMBER. Enter complete part number. If more than one part number, enter the phrase "SEE BLOCK 15" and enter additional part numbers into Block 15. If the part number is not specified, enter NA (Not Applicable).
14. INDUSTRY/GOVERNMENT STANDARD NUMBER. Enter the standard part number such as the 1N and 2N diode and transistor designators. For GIDEP purposes, any military assigned number is considered as a government standard part number.

If a part or document has (1) a manufacturer P/N, (2) a contractor P/N, (3) an industry standard P/N, and (4) a government standard P/N, the manufacturer and industry standard P/N are entered in Block 13 and 14 respectively.

If there is more than one standard number, enter the phrase "SEE BLOCK 15" and enter standard numbers into Block 15.

15. OUTLINE, TABLE OF CONTENTS, SUMMARY, OR EQUIVALENT DESCRIPTION. Briefly summarize tenet results or material detailed in the text or the document. Include any pertinent details or comments required, or proper interpretation of the material presented (e.g. peculiar environmental capabilities, unique electrical characteristics that may be "state-of-the-art", or characteristics that restrict the part usage to particular applications or any other details that may aid a prospective user of the part). If the subject matter can be categorized into more than one subject category or nomenclature, enter additional subject category or nomenclature.
16. KEYWORDS. Enter additional keywords (descriptors) or phrases which describe or summarize the document. Do not include the terms in Block 2. The keywords and phrases should be separated by semicolons. The terms in Blocks 2 and 16 are used to retrieve the reports and to categorize them in the index.
17. GIDEP REPRESENTATIVE. Enter the signature or name of the GIDEP Representative.
18. PARTICIPANT ACTIVITY AND CODE. Enter the name, city and state of the participant's activity or corporation and division submitting the document, plus the GIDEP two or three character code (e.g. X1).