

# Engineering Requirements Flowdown Guide

**October 2015**



# Overview



**This document was developed as a guide to represent the process of flowing down Lockheed Martin Aeronautics engineering requirements to suppliers and processors. The guide is an aid for any supplier/subcontractor processing parts or building hardware to an Aero design.**

**This data is provided as a guide, and does not necessarily consist of all embedded requirements.**

**Remember – All item(s)/material(s) on your Purchase Order must be manufactured in accordance with the latest engineering drawing with the exception of spares and repairs. If you do not have the latest revision, please contact your Lockheed Martin Aeronautics Buyer immediately.**

# Index



## Subject

## Slide #

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#### (EDCS – Enterprise Data/Collaborative System)

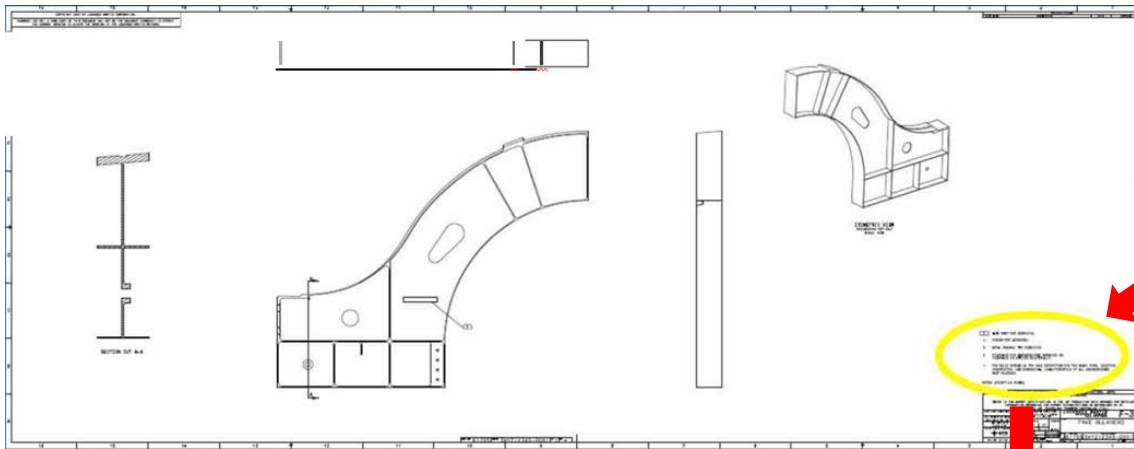
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- Where to find the Lockheed Martin Aeronautics Specifications & Listings

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# Lockheed Martin Aeronautics Engineering Drawing



**Process  
Specifications  
located here**

- 34 REMOVE FINISH ON SELECTED SURFACES FOR BONDING. FINISH IN FILLETS IS ACCEPTABLE. RESTORE CORROSION PROTECTION PER ABCDEFG00001
- 33 ORIENT NUTPLATE SO THAT REMOVAL CLIP END FACES UP.
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# Lockheed Martin Purchase Order (PO)



Purchase Order: 1234567

Amendment Number: 00000002

Order Date: 02/17/2014

FORT WORTH	TX 76108	US
<b>FOB</b>		
Payment Method:	Prepaid (by Seller)	
FOB (Transportation):	Origin (Shipping Point) See PO text for routing URL	
FOB (Title Passage):	FOB/INCO terms provided here apply unless superseded by terms per line item	
Risk of Loss:	;	
<b>Tax</b>		
Tax ID Number:	TBD	
Tax Location Qualifier:		
Tax Location ID:		
Exemption Desc:		
<b>Notes</b>		
Item text:		
*		
Letters & Notes: *** Quality Terms & Conditions ***		
*		
Quality Text====Description =====:		
A83	FLOW OF ENG SPEC RQMTS: LM DESIGN ONLY	
BA	BUYER ACCEPT AT SOURCE	
QX+	QUALITY APPENDIX QX DATED 20 AUGUST 2012 - AS9100 REQU	
*		
Letters & Notes: *** Quality Definition: A83 ***		
*		
You must review the text for A83 located on the Lockheed Martin external		
webpage located at: <a href="http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html">http://www.lockheedmartin.com/us/aeronau</a>		
tics/materialmanagement.html under "Engineering" then "A83"		
*		

**A83 Incorporated into Purchase Order at line item level**

**Instructions to get A83 Requirements**

**A83 NOTE, "ENGINEERING SPECIFICATION REQUIREMENTS"**

(a) SELLER shall comply with the engineering specifications and other requirements set forth in this A83 Note. SELLER shall comply with latest revision, as of the effective date of this Contract, for all specifications or other document incorporated herein, unless a specific revision number is referenced. If a specific revision number is referenced SELLER shall comply with the specified revision. The requirements set forth in the databases, specification or other documents herein are incorporated into this Contract by reference.

(b) SELLER shall comply with all specifications and other documents set forth herein in the performance of its obligations under this Contract.

(c) The databases, specifications and other documents incorporated herein are LOCKHEED MARTIN Proprietary Information and as such are protected in accordance with the Proprietary Information Agreement (PIA) executed between the parties.

(d) SELLER shall include the requirements of this A83 Note in lower tier subcontracts for the delivery of items that will be included in or furnished as Work to LOCKHEED MARTIN.

(e) The following requirements are only applicable to LOCKHEED MARTIN Designed Parts

**i. Engineering Materials and Approved Products (EMAP):**

Applicability: All programs with the exception of F-16, F-2 and T-50.

Location: LOCKHEED MARTIN external web page:

<http://www.lockheedmartin.com/aeronautics/materialmanagement/> under 'Engineering' then 'Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)'.

**ii. Process Specifications:**

Applicability: All programs

Location: LOCKHEED MARTIN external web page:

<http://www.lockheedmartin.com/aeronautics/materialmanagement/> under 'Engineering' then 'Material & Process Specifications – All Programs'

**iii. Preferred Parts Handbook (PPH) - Volumes 1-5**

Applicability: C-130, C-27, C-5, P-3, S-3 and F-22

Location: The Preferred Parts Handbook (PPH), Volumes 1-5, Document is not on-line and shall be obtained from the LOCKHEED MARTIN Procurement Representative.

**iv. Design Support Database (DSD)** (Formerly Preferred Parts Handbook - PPH Volume 6 Section 99) Applicability: C-130, C-27, C-5, P-3 and S-3  
Location: LOCKHEED MARTIN external web page:  
<http://www.lockheedmartin.com/aeronautics/materialmanagement/> under 'Engineering' then 'Engineering Materials and Approved Products (EMAP) Design Support Database (DSD)'

**v. Design Support Database (DSD) – Parts F-22 Program** (Formerly Parts Procurement Manual - PPM)  
Applicability: F-22  
Location: LOCKHEED MARTIN external web page:  
<http://www.lockheedmartin.com/aeronautics/materialmanagement/> under 'Engineering' then 'Engineering Materials and Approved Products (EMAP) Design Support Database (DSD)'

(f) The following requirements are applicable to Standard Hardware or when the drawing specifies the following note:

*Approved sources for this part are listed in the F-35 Parts Classification and Management Database maintained by LOCKHEED MARTIN Aeronautics F-35 Components Engineering. Items procured to the standard from sources other than those listed in the F-35 Parts Classification and Management Database are considered non-compliant.*

**(i) Approved Manufacturer List for Standard Parts – Specification Document 2GNA00001**

Applicability: F-35

Location: LOCKHEED MARTIN JDL:

<https://edcs.jsf.lmaeronautics.com/jsf/livelink/> search for 2GNA00001

The approved manufacturers for parts for the F-35 Program are set forth in 2GNA00001. The approved manufacturers listed are approved only for the listed source or part number. Sources or manufacturer part numbers other than those listed are not approved. The sources or manufacturer part numbers are approved only when made by the manufacturer listed to the drawing revision specified. If the source or manufacturer part number is manufactured by an entity other than the one that appears in this list, it is unapproved. Callout part numbers that do not appear in this list are not approved for use on the program and have no approved sources. If intermediaries, such as distributors, are used to acquire parts, the actual manufacturer of the parts in question still must be an approved manufacturer.

# Lockheed Martin Purchase Order (PO)



Purchase Order: 1234567

Amendment Number: 00000002

Order Date: 02/17/2014

FORT WORTH		TX 76108	US
FOB			
Payment Method:	Prepaid (by Seller)		
FOB (Transportation):	Origin (Shipping Point) See PO text for routing URL		
FOB (Title Passage):	FOB/INCO terms provided here apply unless superseded by terms per line item		
Risk of Loss:	;		
Tax			
Tax ID Number:	TBD		
Tax Location Qualifier:			
Tax Location ID:			
Exemption Desc:			
Notes			
Item text:			
* Letters & Notes: *** Quality Terms & Conditions ***			
* Quality Text---Description -----			
A83	FLOW OF ENG SPEC REQTS: LM DEF		
BA	REQUIRE ACCEPT AT SOURCE		
QX+	QUALITY APPENDIX QX DATED 10 AUGUST 2012 - AS9100 REQ		
* Letters & Notes: *** Quality Definition: A83 ***			
* You must review the text for A83 located on the Lockheed Martin external			
webpage located at: <a href="http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html">http://www.lockheedmartin.com/us/aeronau</a>			
tics/materialmanagement.html under "Engineering" then "A83"			

Reference to Quality Appendix "QX"

Letters & Notes: \*\*\* Qu

WHEN THIS PURCHASE ORDER

THAT DOCUMENT CAN BE FOU

Reference to Quality Appendix "QX"

Website location noted at line item

Letters & Notes: \*\*\* Quality Definition: QX+ \*\*\*

\* WHEN THIS PURCHASE ORDER, OR CONTRACT CALLS FOR QUALITY APPENDIX "QX", THAT DOCUMENT CAN BE FOUND ON THE BUYER'S WEBSITE FOUND AT:

\* [HTTP://WWW.LOCKHEEDMARTIN.COM/US/AERONAUTICS/MATERIALMANAGEMENT.HTML](http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html)

\* UNDER QUALITY REQUIREMENTS -> QUALITY APPENDICES INFORMATION.

\* IN ADDITION, THE "+" INDICATES THE REQUIREMENT FOR A THIRD PARTY AS910 APPROVED QUALITY SYSTEM.

\*



# **Preferred Parts Handbook (PPH)**



# What is the Preferred Parts Handbook (PPH)?

- The Preferred Parts Handbook (PPH), Volume 6, Section 99 is the official Engineering source for Engineering procurement requirements of standard parts for Lockheed Martin Aeronautics-Marietta purchase orders (excluding F-22 program). PPH specifies the approval sources and contains specific information that suppliers and Lockheed Martin Aeronautics Receiving and Inspection must follow. PPH also includes stocking and usage instructions for superseded parts.

## Who needs it and why?

- Subcontractors/suppliers of Lockheed Martin Aeronautics designed assemblies for C-130, C-27, C-5, P-3, and S-3.
- Information in the PPH, Volume 6 Manual, shall be used by Lockheed Martin Aeronautics and its subcontractors/suppliers for the procurement and receipt of component parts used in the production of Lockheed Martin Aeronautics-Marietta designed assemblies (excluding F-22 program).
- After access is granted, navigation instructions will be emailed.

# How do I get there?



1) [http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html](http://www.lockheedmartin.com/us/aeronautics/materialmanagement/scm-engineeri)

2) Engineering

3) Engineering Materials & Approved Products (EMAP)

Home → Aeronautics → Supply Chain Management → Engineering

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Engineering Materials &  
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(DSD)

Material & Process  
Specifications - All Programs  
SPAR

F-35 Fighter Production System

P-3 Life Extension Program

Quality Requirements

Shipping

Terms & Conditions

T&C Archives

Configuration Management

Demonstration Centers

## Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

8+1 0

Share 0

Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

ENGINEERING MATERIALS AND APPROVED PRODUCTS (EMAP) / DESIGN  
SUPPORT DATABASE (DSD) WEBSITES

ENGINEERING MATERIALS AND APPROVED PRODUCTS - EMAP

The Engineering Materials and Approved Products (EMAP) database is a compilation of the Engineering controlled portion of the Marietta, Fort Worth and Palmdale engineering materials.

The EMAP database is not applicable to the F-16 and F-2 Programs.

EMAP DATABASE ACCESS INSTRUCTIONS

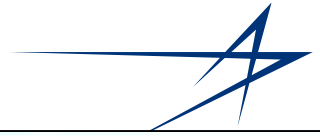
Access to EMAP is a two-step process requiring a completed Proprietary Information Agreement (PIA) and new user registration.

First:

An EMAP/DSD site specific PIA is required for access approval. Each individual requesting access to the EMAP or DSD-Parts sites must complete and sign this PIA.

PIA Document

# How do I get there?



http://www.lockheedmartin.com/us/aeronautics/materialmanagement/scm-engineeri... Engineering Materials & Ap...

Click on "Register Me" in the upper right hand corner

**Mid-way down the EMAP page, you will find the DSD-PPH link**

**DESIGN SUPPORT DATABASE-PARTS (DSD – formerly Preferred Parts Handbook)**

The DSD –Parts database is a compilation of the Engineering requirements for the purchasing of all standard component parts used for Lockheed Martin Aeronautics Marietta Core Programs: C-130, C-27, C-5, P-3, S-3 and F-22. DSD does not support F-35, F-16, F-2 or T-50.

The DSD Website is located at <https://elli.lmtas.com/eps/esnn2010/aspfiles/logon.asp>

There are two separate sites-please specify which site:

DSD-Parts Core Marietta Programs –C-130, C-27, C-5, P-3 and S-3 (formerly known as the Preferred Parts Handbook – PPH)

AND

DSD-Parts F-22 Program (formerly known as the Parts Procurement Manual \_PPM)

**DESIGN SUPPORT DATABASE-PARTS ACCESS INSTRUCTIONS**

Access to DSD-Parts is a two-step procedure.

First:

Copy and paste the list below to an email adding the information requested and send to: [lynne.pierce@lmco.com](mailto:lynne.pierce@lmco.com).

1. Company name and complete address
2. Requestor's first and last name
3. Email address
4. Telephone number
5. Cage Code
6. Program (C-130, F-22 etc.)
7. Lockheed Martin Aeronautics buyer
8. Lockheed Martin Aeronautics supplied Seller Code
9. User id - Create your own User ID that does not exceed 7 characters, is Alpha/Numeric, and starts with an "F" for F-22 or a "C" for Core Programs)

**Remaining instructions on how to access**

Second:

An EMAP/DSD site specific Proprietary Information Agreement (PIA) is required for access approval. Each individual requesting access to the EMAP or DSD-Parts sites must complete and sign this PIA.

[PIA Document](#)

[PIA completion instructions](#)

Send the completed PIA to [lynne.pierce@lmco.com](mailto:lynne.pierce@lmco.com)



# **Engineering Materials & Approved Products (EMAP)**

**Lockheed Martin Aeronautics  
Approved Material Suppliers**

# What is EMAP



- **EMAP Contains all materials required by engineering drawings, process specifications, process bulletins, design standards and purchase order for the manufacture of Lockheed Martin Aeronautics designed parts.**
- **EMAP also contains references to material specifications, approved raw material manufacturers and their products, a cross reference for superseded and current specifications, and additional requirements above and beyond the specification requirements.**

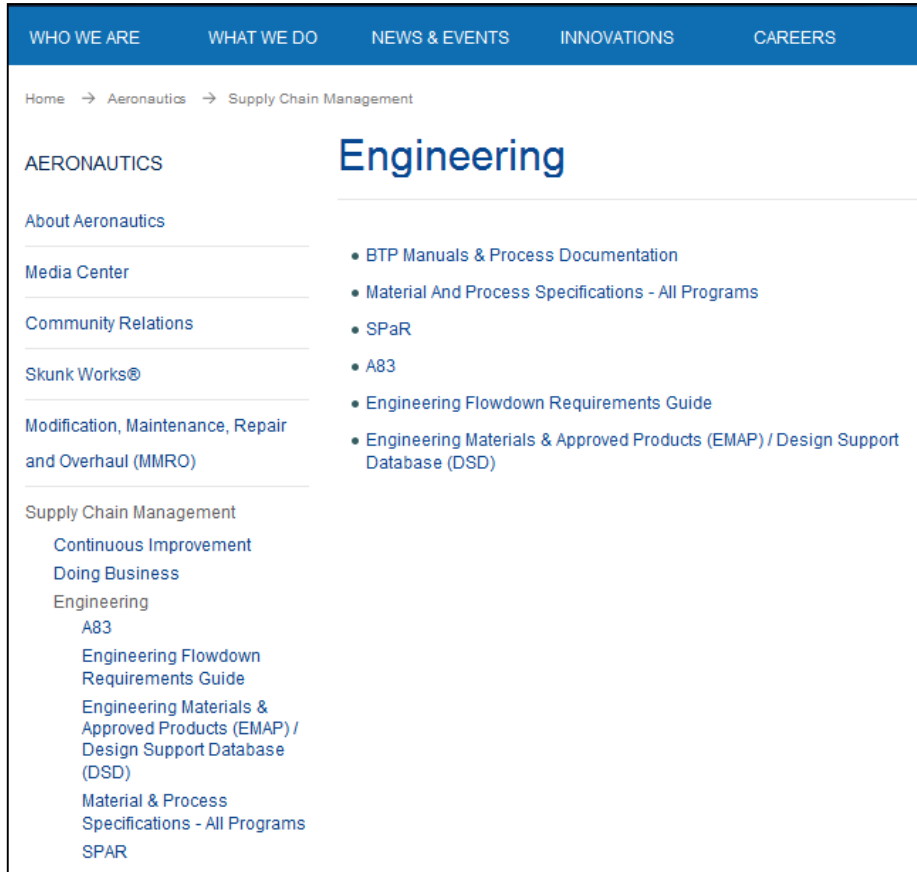
**Note: EMAP is applicable to all programs  
with the exception of F-16, F-2, and T-50 Programs**

# Who needs it and why?



- **Suppliers and/or processors who supply Lockheed Martin Aeronautics designed parts need access to EMAP. Lockheed Martin Aeronautics suppliers and distributors must comply to the EMAP requirements for selling/supplying engineering materials to Lockheed Martin Aeronautics.**
- **The information in EMAP is used by Lockheed Martin Aeronautics and its subcontractors for the procurement and receipt of materials used in the production of Lockheed Martin Aeronautics designed parts, whether fabricated or purchased.**
- **LMA-D0006 Defines the Contents and Usage of EMAP. This document should be used as a reference to understand the various columns in the EMAP database.**
- **The EMAP sections are specific to the Engineering Designed Site, e.g.; Marietta designed parts must use the Marietta section, Fort Worth designed parts use the Fort Worth section, etc. If there is any question regarding site, please contact the Buyer that issued the purchase order.**

# How do I get there?



- **EXTERNAL WEBSITE:  
Located on the External  
Material Management  
Homepage under the  
“Engineering” link**

<http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html>

# How do I get there?



1) [http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html](http://www.lockheedmartin.com/us/aeronautics/materialmanagement/scm-engineeri)

2) Engineering

3) Engineering Materials & Approved Products (EMAP)

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Specifications - All Programs  
SPAR

F-35 Fighter Production System

P-3 Life Extension Program

Quality Requirements

Shipping

Terms & Conditions

T&C Archives

Configuration Management

Demonstration Centers

## Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

8+1 0

Share 0

Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

ENGINEERING MATERIALS AND APPROVED PRODUCTS (EMAP) / DESIGN  
SUPPORT DATABASE (DSD) WEBSITES

ENGINEERING MATERIALS AND APPROVED PRODUCTS - EMAP

The Engineering Materials and Approved Products (EMAP) database is a compilation of the Engineering controlled portion of the Marietta, Fort Worth and Palmdale engineering materials.

The EMAP database is not applicable to the F-16 and F-2 Programs.

EMAP DATABASE ACCESS INSTRUCTIONS

Access to EMAP is a two-step process requiring a completed Proprietary Information Agreement (PIA) and new user registration.

First:

An EMAP/DSD site specific PIA is required for access approval. Each individual requesting access to the EMAP or DSD-Parts sites must complete and sign this PIA.

PIA Document



# How do I get there?



Instructions on  
how to access

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## Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

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Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

ENGINEERING MATERIALS AND APPROVED PRODUCTS (EMAP) / DESIGN SUPPORT DATABASE (DSD) WEBSITES

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First:

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PIA Document

PIA completion instructions

Send the completed PIA to [lynne.pierce@lmco.com](mailto:lynne.pierce@lmco.com)

Second:

Go to <https://elli.lmtas.com/eps/eea2010/asfiles/logon.asp>

Click on Register new user

Fill out form with the specific information requested. The use of 'n/a' 'various' 'all' 'multiple' etc. will require further correspondence and will delay your access approval

Click on "Register Me" in the upper right hand corner

Click to Register

Read "PIA completion  
instructions" prior to  
submitting a PIA.

# How do I register & get access?



Browser address bar: <https://elli.lmtas.com/eps/> External EMAP Access



Select "Register New User"

**Logon ID**   
**Password**   
**Login**  
**Register New User**  
**Change Password**

**EMAP LOGON**  
External EMAP Access

**LOCKHEED MARTIN**

**Site Administrator:**  
**Lynne Pierce**  
**Change Image**

This system is the property of this Corporation/organization, and is intended for the use of authorized users only. All activities of individuals using this computing system with or without authority, or in excess of their authority, may be monitored and recorded by system personnel. If any such monitoring reveals evidence of criminal activity or is in violation of foreign or U.S. state or federal law, such evidence may be provided to law enforcement officials and/or used for further legal action by this Corporation and/or the organization's Information Protection group. Unauthorized use of this system is prohibited and may result in revocation of access, disciplinary action and/or legal action. The company reserves the right to monitor and review public messages.

Browser status bar: <https://elli.lmtas.com/eps/eea2010/aspfiles/eeaRegistration.asp>

# How do I register & get access?



**Registration** Clear Register Me

\*User ID

**Establish Password**

\*Password

\*Confirm

**Company Information**

\*Company Name  \*Country

\*Address

Address (line 2)

\*City  \*State  \*Zip

**Additional Information**

\*LM Buyer  \*Supplier Code  \*Cage Code

\*Program  \*Build To Print Part Number

\*Justification For Access  
Reason:

**Personal Data**

\*First Name  \*Last Name

\*Phone  \*Email

**For LM Employees Use Only**

\*Dept  \*Site Location

**Personal Data**

\*First Name  \*Last Name

\*Phone  \*Email

**For LM Employees Use Only**

\*Dept  \*Site Location

(\*) Required Field - Input must be supplied by the requestor.

**Information for Suppliers**

**User ID & Password Requirements**

User id and passwords:

Please establish your own User ID and Password. User ID's and Passwords are case sensitive and should include both alpha and numeric characters. The User ID must have a minimum of 6 characters with a maximum of 9. The Password should be a minimum of 6 characters and a maximum of 50.

Use of profanities and/or off color names will not be accepted. Your application will be deleted and you will be notified to reregister using only appropriate language. Passwords are visible to the site Administrator.

**Completing the Registration Form:**

When filling out the registration form please include the specific information requested. The use of 'N/A', 'all', 'don't know' 'various' etc will require further correspondence and will delay your access approval to EMAP.

**Lockheed Martin Aeronautics Employees:**

To register for access to the external EMAP site please use your NT User ID.  
NOTE: **DO NOT USE NT PASSWORD.**



# LMA-D0006



**LMA-D0006 Defines the Contents and Usage of EMAP. This document should be used as a reference to understand the various columns in the database.**

The screenshot shows a web browser window with the URL <https://elli.lmtas.com/eps/eea2010/aspfiles/start.asp>. The page title is "EXTERNAL EMAP ACCESS BULLETIN BOARD (Microsoft Internet Explorer)".

On the left side, there is a menu with the following items:

- 1179 SECONDS
- EXIT SYSTEM
- HOME
- ADMIN
- SEARCH
- HELP

The main content area is divided into sections:

- Welcome to the EEA Web Site.**  
If you have questions, please e-mail ...  
Site Administrator: [Lynne Pierce](#)
- Attention**  
For instructions please refer to [LMA-D0006](#).
- For HELP**  
See the HELP button on the left menu for how-to instructions and examples.
- Comprehensive Search**  
Comprehensive Search (CS) is designed to search the scope of the entire database schema. Because it searches the entire database, response time is much slower than the main Search function and should only be used if the main Search does not provide desired results.  
CS was built as an alternative to the Classic and Category Searches that were available with previous External EMAP versions.  
Features include:
  - Phrase Search - Just surround your phrase by double quotes (e.g. "polysulfide sealant")
  - Exclusionary - (i.e. give me everything but ...) Just place an ! in front of the word or phrase. (e.g. G40 !polysulfide returns G40 items excluding polysulfide.)Search for material/note nos, PIOS part number, material code, specification, etc.  
CS is the text window above the menu with a red "Go" button to the right. Just enter your search text in the window and select Go. The search engine will search portions of the database and return you record counts based on context. Simply select the button you want to explore to see the results. Finally select the item of interest and a results page will display the appropriate information.

# LMA-D0006



The LMA-D0006, “Engineering Materials and Approved Products”, describes the EMAP database.



# EMAP Search



Browser address bar: <https://elli.lmtas.com/eps/eea2010/aspfiles/start.asp> EEA Interface

File Edit View Favorites Tools Help

Conferencing Services - H... Supply Chain Managemen... LMP2P - B2B Website SAP Training History (Detail) R... Suggested Sites SL

Go

1192 SECONDS  
EXIT SYSTEM  
HOME  
ADMIN  
**SEARCH**  
HELP

**CATEGORY SEARCH** Query Previous Clear

**Use tabs to search by Category, Specification, Description, or by POIS Part Number/Material Code**

Section Material

Active Item Yes

Updated Since

Date

**General Information**

Description  
Specification  
Reason

**Product Information**

Mfg Name  
Trade Name  
Product Code  
Cage Code  
MSDS No.

**Shelf Life Information**

Shelf Life  
Renewable  
Shelf Life Required?  
Start Shelf Life  
Storage Temp

**Hazardous Class Information**

Hazardous Class

Click here to search



# EMAP Search Results



1177 SECONDS

Go

EXIT SYSTEM

HOME

ADMIN

SEARCH

HELP

## CATEGORY SEARCH RESULTS

Report
Fields
Widths
Export
All Recs
return

Description		Shelf Life	Approvals	Header	Changes
SELECTION	Section	Item/Vers	Active Item	Specification	Description
SEL 1	G40	0005 Version 2	YES	COMMERCIAL	CATALYZED MERCAPTON EPOXY CURING AGENT (LIGHT COLORED, LOW ODOR)
SEL 2			YES		POUNDS (FOR USE ON F-35)
SEL 3	G40	0025 Version 4	YES	2ZZZ00023	FASTENER FILLER, ELASTOMERIC, ELECTRICALLY CONDUCTIVE (FOR USE ON F-35)
SEL 4	G40	1005 Version 1	YES	COMMERCIAL	SEALANT, GAP FILL, ELECTRICALLY CONDUCTIVE, SILVER PLATED NICKEL FILLED, SILICONE
SEL 5	G40	135 Version 16	YES	MIL-PRF-8516 G (1)	POTTING COMPOUND, FOR ELECTRICAL CONNECTORS AND ELECTRICAL SYSTEMS - (SPECIFY TYPE AND CLASS)
SEL 6	G40	1351 Version 4	YES	LAC C-40-968B (2)	COMPOUND, SEALING ELECTRICAL, HIGH TEMP. RESISTANT, 500 DEGREE F
SEL 7	G40	1352 Version 4	YES	LAC C-40-968B (2)	SEALANT, ELECTRICAL, HIGH TEMP. RESISTANT, 500 DEGREE F

**Material Description**

**Version #**

**Specification(s)**

# EMAP Search Results

EMAP Item, Version, and Revision Date



1184 SECONDS

EXIT SYSTEM

HOME

ADMIN

SEARCH

HELP

Cat
S/MC | SLED | Multi | Results | Prev | Get Notes

**Internal Requirements**

**Int. Req.**

**Specification(s)**

**Additional Requirements**

**SEARCH RESULT**

**G40.58 Version: 44**  
Approved: 1/13/2012

**MPI - Lockheed Martin Proprietary Information**

Description	Int. Req.	Specifications	Add. Req.	Vendors
SEALANT, FUEL RESISTANT, BRUSHABLE GRADE, A-2	G40.XXX	MIL-S-8882A CLASS A TYPE II	G40.9004 G40.9006 G40.9015 G40.9024 G40.9030 G40.9043 G40.9053 G40.9064 G40.9065 G40.9067 G40.9072 G40.9080	<p><b>XYZ Company</b> <b>Class xxx</b> <b>Prod Code: N/A</b> <b>LMAS MSDS: 0123456</b></p>
HAZARD CLASS (SEE N G00.99H2)	G40.XXX			
	G40.XXX			
	G40.XXX			
	G40.XXX			
			G00.99HM	

**Approved Source & Product Information**

**Superseded Specifications**

MIL-S – xxx

EPS40.xx

STP500-xx

EPS23.xx

STP401.xx

**Superseded specifications and EMAP Numbers**

Reason





# **QCS-001**

**Lockheed Martin Aeronautics  
Controlled Processes & Approved Processors**

# What is it?



- **QCS-001** – A directory for Lockheed Martin Aeronautics Controlled Processes and Approved Processors
- **Controlled Process** – An operation performed on an item where the operation is not readily inspectable subsequent to its conclusion. Controlled processes have verifiable controls inherent to the process i.e. heat treat, plating, nondestructive testing, etc. The controlled processes listed in QCS-001 are not applicable to standard hardware (nuts, bolts, washers, etc.) that are ordered to military, federal or industry specifications or industry standards (e.g.; MS, AN, NAS, etc.). Controlled processed are not applicable to metallic raw material (plate, sheet, bar, extrusion, etc.) until the manufacturer begins processing the raw material to our design requirements.

# How do I get there?



1) <http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html>

WHO WE ARE WHAT WE DO NEWS & EVENTS INNOVATIONS CAREERS

Home → Aeronautics → Supply Chain Management

AERONAUTICS

- About Aeronautics
- Media Center
- Community Relations
- Skunk Works®
- Modification, Maintenance, Repair and Overhaul (MMRO)
- Supply Chain Management
  - Continuous Improvement
  - Doing Business
  - Engineering
  - F-35 Fighter Production System
  - P-3 Life Extension Program
  - Quality Requirements
    - Clauses
    - Control Specs
    - Corrective Action
    - Forms
    - Information
    - Quality Appendices
    - Supplier Quality Management System
  - Shipping
  - Terms & Conditions
  - T&C Archives
  - Configuration Management

Quality Requirements

- Clauses
- Control Specs
- Corrective Action
- Forms
- Information
- Quality Appendices
- Supplier Quality Management System

2) Quality Requirements

3) Supplier Quality Management System

# How do I get access?



Home → Aeronautics → Supply Chain Management → Quality Requirements

## AERONAUTICS

About Aeronautics

Media Center

Community Relations

Skunk Works®

Modification, Maintenance, Repair  
and Overhaul (MMRO)

Supply Chain Management

Continuous Improvement

Doing Business

Engineering

F-35 Fighter Production System

P-3 Life Extension Program

Quality Requirements

Clauses

Control Specs

Corrective Action

Supplier Quality  
Management System

Shipping

Terms & Conditions

T&C Archives

Configuration Management

Demonstration Centers

Laboratories

Enterprise Operations Center

## Supplier Quality Management System

To access the Supplier Quality Management System, click on this link: [Supplier Quality Management](#) - Please see the information below if you do not have an account.

Once you have accessed your account, you will be able to perform any of the following functions:

- Access and review QCS-001 Directory for LM Aero Controlled Processes and Approved Processors
- Create and submit QCS-001 90 day usage reports via QCS access and usage instructions. (PDF, 318 KB)
- Create and submit an electronic Supplier Problem and Resolution (eSPaR) to obtain LM Aero requirement clarifications.
- Create and submit an electronic Supplier Quality Assurance Report (eSQAR) to obtain LM Aero Material Review Board (MRB) disposition
- Create and submit an electronic Supplier Disclosure Letter to notify LM Aero of delivered nonconformances in accordance with Appendix QX.
- Create and submit an electronic Supplier Perishable Tooling Record (SPTR) to request a Material Review disposition from Lockheed Martin Aeronautics regarding purchased perishable tools.
- Create and submit an electronic Supplier Aircraft Tooling Record (SATR) to request a Material Review disposition from Lockheed Martin Aeronautics regarding purchased aircraft tooling.

If you do not have an account:

- Suppliers may **request an account** if they do not have one.

Please remember the requirements for an account:

- The person requesting the account **MUST** be listed as a "contact" for their company in PQN. This is done by the LM Aero Quality & Mission Success (Q&MS) Supplier Quality Management (SQM) representative or Buyer.
- The requesting person's email address is what the system matches on to create the accounts. This email address must match **EXACTLY** what the requestor submits on their account request.
- The person's account will be inactivated if the system has not been accessed and the User ID/Password utilized in a 75-day period.
- All external user accounts are subject to annual deactivation pending justification for continued access.

Information on the [Supplier Quality Rating](#) is available and if you have any questions regarding this rating, please contact your Buyer or Supplier Quality Management representative.

Select "Request an Account"

Review account  
requirements

# New Account Request Form



## Supplier Quality Management SQM Request Account

### Request A New Account

This system is the property of this corporation/organization, and is intended for the use of authorized users only. All activities of individuals using this computing system with or without authority, or in excess of their authority, may be monitored and recorded by system personnel. If any such monitoring reveals evidence of criminal activity and is in violation of state and federal law, such evidence may be provided to law enforcement officials for further legal action by this Corporation's/ organization's Information Protection group.

Reminder: Information transmitted to a foreign person on this network may be subject to US Export Control laws. Contact your Export Coordinator for assistance.

**\*Email address must match the email that Lockheed Martin Aeronautics has on file as a contact.**

**Complete and submit  
Registration Form**

First Name:	<input type="text"/>
Last Name:	<input type="text"/>
US Citizen:	<input type="checkbox"/> I am a United States citizen.
Email Address:	<input type="text"/>
Phone Number:	<input type="text"/> - <input type="text"/> - <input type="text"/>
Enter your LM Aero Supplier Number:	<input type="text"/>
Your LM Aero Buyer's Email Address:	<input type="text"/>
<input type="button" value="Next &gt;"/>	

# QCS-001 Directory



Query by:

- Specification Index
- Processor Name
- Process Code
- Process Name

[Home](#) [QCS001 Home](#)



[Log Out](#)

LM Aero QCS-001  
QCS-001 Directory

## QCS-001 Queries

- [Specification Index](#)
- [Query by Processor \(Vendor\) Name](#)
- [Query by Process Code](#)
- [Query by Process Name](#)

QCS-001 90 Day Usage Reporting  
-Report QCS-001 Usage  
-Instructions for Usage Reporting

## QCS-001 Changes

- [Specification Index Changes](#)
- [Process Sources Added](#)
- [Process Sources Deleted](#)
- [List of Changes to Approved Sources](#)

## QCS-001 90 Day Usage Reporting

(Only for use by LMAero Suppliers with Login ID)

- [Report QCS-001 Usage](#)
- [Instructions for Usage Reporting](#)

## QCS-001 Documentation

- [QCS-001 Requirements Document](#)
- [Control Specs](#)

QCS-001 Changes:

- Specification Index Changes
- Process Sources Added/Deleted
- List of Changes to Approved Sources

QCS-001 Documentation  
-QCS-001 Requirements Document  
-Control Specs



# **Lockheed Martin Aeronautics Specifications & Listings**

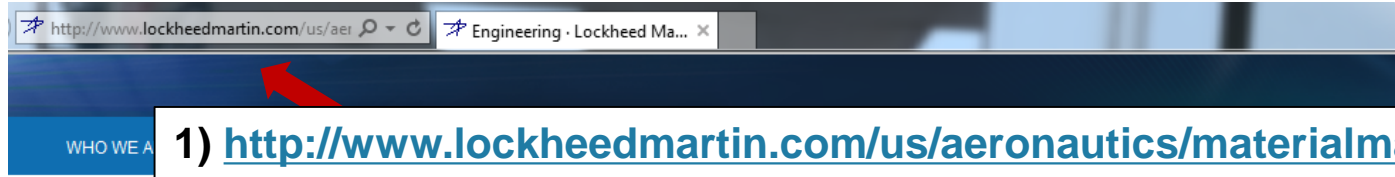
# What is it?



- **EDCS – Enterprise Data/Collaborative System**
  - A place for Lockheed Martin Suppliers/Processors to view Material & Process Specifications for ALL Lockheed Martin Aeronautics programs
  - Access is set up for each individual user (not a company-wide account)
  - EDCS access is only available for US persons (US citizen or permanent resident)
  - Access must be approved by Lockheed Martin Aeronautics Buyer or Supplier Quality Management (SQM) Representative who can verify the user's need to know, and that the appropriate Proprietary Information Agreement (PIA's) are in place.



# How do I get there?



Home → Aeronautics → Supply Chain Management

## AERONAUTICS

About Aeronautics

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Community Relations

Skunk Works®

Modification, Maintenance, Repair  
and Overhaul (MMRO)

Supply Chain Management

Continuous Improvement

Doing Business

Engineering

A83

Engineering Flowdown  
Requirements Guide

Engineering Materials &  
Approved Products (EMAP) /  
Design Support Database  
(DSD)

Material & Process  
Specifications - All Programs  
SPAR

F-35 Fighter Production System

P-3 Life Extension Program

Quality Requirements

Shipping

Terms & Conditions

T&C Archive

## Engineering

- BTP Manuals & Process Documentation
- Material And Process Specifications - All Programs
- SPaR
- A83
- Engineering Flowdown Requirements Guide
- Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)

f Like 1

+1 0

in Share 0

**2) Engineering**

**3) Materials & Process  
Specifications – All Programs**

# How do I get there?



http://www.lockheedmartin.com/us/aeronautics/materialmanagement/scm-engineerir... Material & Process Specific... X

Home → Aeronautics → Supply Chain Management → Engineering

**AERONAUTICS**

- About Aeronautics
- Media Center
- Community Relations
- Skunk Works®
- Modification, Maintenance, Repair and Overhaul (MMRO)
- Supply Chain Management
  - Continuous Improvement
  - Doing Business
    - Engineering
      - A83
        - Engineering Flowdown Requirements Guide
        - Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)
        - Material & Process Specifications - All Programs
        - SPAR
    - F-35 Fighter Production System
    - P-3 Life Extension Program
    - Quality Requirements
    - Shipping
    - Terms & Conditions
    - T&C Archives
    - Configuration Management
  - Demonstration Centers
  - Laboratories
  - Enterprise Operations Center

## Material & Process Specifications - All Programs

[CLICK HERE TO ACCESS LIVELINK AND RDL](#)

Materials and processes specifications, including Fort Worth, Marietta, and Palmdale specifications, may be accessed on EDCS/ Livelink. For EDCS access, download the appropriate Access Request Form below (click link and select the "Save" option). Requestors should fill out the form electronically and email it to their **LM Procurement representative**, who will verify the requestor's need to know, and that the appropriate LM Proprietary Information Agreement(s) (PIA) are in place with the requestor's company.

Each individual requestor must complete an access request, since access is granted on an individual (not company) basis. The Procurement representative will forward the request to the appropriate contact listed below so that a Livelink supplier account can be set up. Once an account is set up, instructions for accessing Livelink will be emailed directly to the individual requestor.

NOTE: DOD Classified Specifications are not available through Livelink. Hard copies are available through the specific program offices. Please contact your buyer.

For access to M&P specifications for programs **other than F-22**, requestors must complete the **Access Request Form (EDCS)** and email it to their LM Aero Procurement representative for approval. The Procurement representatives forward the approved requests to **Lyle Garton** or fax hand-signed requests to 817-762-6316.

Questions, comments or requests for general information regarding access to Livelink should be directed to: **Eduardo Arcos**.

### F-35 JSF DATA LIBRARY (JDL)

For access to F-35 JSF specifications, requestors must download and complete the appropriate JDL Access form below (click link and select the "Save" option). The access form (Word document) should be filled out electronically and emailed to **their LM Procurement representative**. The Procurement representative will forward approved requests to the contact listed on the form. Once an account is set up, instructions for accessing the JSF Data Library (JDL) will be emailed directly to the individual requestor.

[Access Request Form \(JDL\)](#)  
[Access Request Form \(JDL\) for non-US persons](#)  
[Access Request Instructions \(JDL\)](#)

### F-22 RAPTOR DATA LIBRARY (RDL)

For access to F-22 specifications, contact [f-22.edcs-admin.fc-aero@lmco.com](mailto:f-22.edcs-admin.fc-aero@lmco.com) to request access.

Questions, comments or requests for general information regarding access to the Raptor Data Library on Live Link should be directed to **Carolee J. Johnson**.

**Select this link after access has been granted**

**EDCS Access Request Form (except F-35, F-22)**

**F-35 Access Request Forms**

**F-22 Access Request Form**

**Note: Submit all Access Requests to your LM Aero Buyer for approval**

# EDCS - Material & Process Specifications



Home → Aeronautics → Supply Chain Management → Engineering

## AERONAUTICS

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  - A83
  - Engineering Flowdown Requirements Guide
  - Engineering Materials & Approved Products (EMAP) / Design Support Database (DSD)
  - Material & Process Specifications - All Programs
  - SPAR
  - F-35 Fighter Production System
  - P-3 Life Extension Program
  - Quality Requirements
  - Shipping
  - Terms & Conditions
  - T&C Archives
  - Configuration Management

Demonstration Centers

Laboratories

## Material & Process Specifications - All Programs

CLICK HERE TO ACCESS LIVELINK AND RDL

Materials and processes specifications, including Fort Worth, Marietta, and Palmdale specifications, may be accessed on EDCS/ Livelink. For EDCS access, download the appropriate Access Request Form below (click link and select the "Save" option). Requestors should fill out the form electronically and email it to their LM Aero Procurement representative for approval. The Procurement representatives forward the approved requests to Lyle Garton or fax hand-signed requests to 817-762-6316.

For access to M&P specifications for programs **other than F-22 or F-35 JSF** (See instructions below regarding access requests for those programs), requestors must complete the [Access Request Form \(EDCS\)](#) and email it to their LM Aero Procurement representative for approval. The Procurement representatives forward the approved requests to [Lyle Garton](#) or fax hand-signed requests to 817-762-6316.

Questions, comments or requests for general information regarding access to Livelink should be directed to: [Eduardo Arcos](#).

### F-35 JSF DATA LIBRARY (JDL)

For access to F-35 JSF specifications, requestors must download and complete the appropriate JDL Access form below (click link and select the "Save" option). The

Windows Security

The server edcs01.lmtas.com at EDCS01 requires a username and password.

User name

Password

☐ Remember my credentials

OK Cancel

Enter the Username & Password that Lockheed Martin Aeronautics provided to you

# EDCS - Material & Process Specifications



Enterprise Workspace:  
**Data Library**

EDCS-LM Aero for | All Words | | | | From Here | Advanced Search | Go

Personal | Enterprise | Tools | Help

My Workspace Favorites | Workspace Users & Groups | Settings | Contents For This Page

EDCS News & Updates: [Need help? Check out the User Support area](#)

**Data Library**

**EDCS Aeronautics**

**User Forms & Processes**

**User Support**  
[Data Access Request Form \(LM Users Only\)](#)

(All item types) | Search in name

**Detail View**

Copy | Move | Delete | Zip & Download | Print | Collect

Type	Name	Size	Modified
Folder	<b>PROGRAM ASSOCIATES</b>	140 Items	01/06/2015 07:50 PM
Folder	User Forms & Processes	9 Items	10/03/2014 09:26 AM
Folder	User Support	3 Items	10/12/2012 12:29 PM

Copy | Move | Delete

**Select "Program Associates"**

3 items

# EDCS - Material & Process Specifications



Enterprise Workspace:  
**PROGRAM ASSOCIATES**

EDCS-LM Aero for All Words From Here Advanced Search

POWERED BY  
**Livelink**

Personal Enterprise Tools Help

My Workspace Workspace Settings Contents For This Page

Favorites Users & Groups

Data Library > PROGRAM ASSOCIATES

Materials & Processes Specifications

(All item types) Search in name

Detail View

Copy Move Delete Zip & Download Print Collect

Type	Name	Size	Modified
	Materials & Processes Specifications		01/07/2013 01:22 PM

Copy Move Delete Zip & Download Print Collect

1 item

Select "Materials & Processes Specifications"

# EDCS - Material & Process Specifications



**Detail View**

Copy Move Delete Zip & Download

Type	Name
<input type="checkbox"/>	F-16 Program Specifications
<input type="checkbox"/>	F-2 Program Specifications
<input type="checkbox"/>	F-22 Program Specifications
<input type="checkbox"/>	F-35 Program Specifications
<input type="checkbox"/>	LMA Specifications
<input type="checkbox"/>	Marietta Specifications

Copy Move Delete Zip & Download Print Collect

6 items

**Select specific Program**  
**-You will only see the**  
**programs that you have a**  
**valid Proprietary**  
**Information Agreement**  
**(PIA) in place**

(All item types) Search in name

Size	Modified
12 Items	07/28/2010 12:33 PM
4 Items	02/15/2006 04:27 PM
15 Items	11/17/2008 02:27 PM
5 Items	05/13/2014 03:15 PM
6 Items	07/17/2009 01:53 PM
10 Items	02/09/2010 04:37 PM

# EDCS - Material & Process Specifications



F-16 Program Specifications

File Edit View Favorites Tools Help

Enterprise Workspace:  
F-16 Program Specifications

Arcos, Eduardo (test) A. (testarcos)  
Wednesday, 02/04/2015 03:30 PM CDT

POWERED BY Livelink

EDCS-LM Aero for All Words From Here Advanced Search Go

Personal Enterprise Tools Help

My Workspace Favorites Workspace Users & Groups Log-out Settings Contents For This Page

MATERIALS and PROCESSES F-16 Program Specificatio...

(All item types) Search in name

Detail View

Copy Move Delete Zip &

Type Name Size Modified

<input type="checkbox"/>	16PR Documents	3 Items	06/21/2012 02:59 PM
<input type="checkbox"/>	B Standards	0 Items	02/16/2006 03:16 PM
<input type="checkbox"/>	F-16 FMS Material Spec Listing		02/16/2006 03:52 PM
<input type="checkbox"/>	F-16 FPS Process Spec Listing		02/16/2006 03:52 PM
<input type="checkbox"/>	FMS	131 Items	03/21/2011 08:59 AM
<input type="checkbox"/>	FPS	236 Items	12/09/2014 10:13 AM
<input type="checkbox"/>	FQML	301 Items	03/31/2014 04:51 PM
<input type="checkbox"/>	FQPL	40 Items	12/09/2014 10:24 AM
<input type="checkbox"/>	NDTS	19 Items	10/30/2009 09:39 AM
<input type="checkbox"/>	P Standards	177 Items	07/10/2012 03:16 PM

Copy Move Delete Zip & Download Print Collect

**Select Specification Document (FMS, FPS, FQML, FQPL, NDTS, etc)**



# Points of Contact



# Contact Information



## Purchase Order (PO)

- *Contact your Lockheed Martin Aeronautics Buyer*

## Preferred Parts Handbook (PPH)

- *Contact your Lockheed Martin Aeronautics Buyer*

## Engineering Materials & Approved Products (EMAP)

- *Lynne Pierce*
- [lynne.pierce@lmco.com](mailto:lynne.pierce@lmco.com)

## QCS-001 (Controlled Processes & Approved Processors)

- *Earl Pruett*
- *(817) 777-0348*
- [earl.j.pruett@lmco.com](mailto:earl.j.pruett@lmco.com)

## Material & Process Specifications (EDCS-Enterprise Data/Collaborative System)

- *Eduardo Arcos*
- *(817) 935-1176*
- [eduardo.a.arcos@lmco.com](mailto:eduardo.a.arcos@lmco.com)

