SUPPLIER SHIPPING INSTRUCTIONS FOR SHIPMENTS TO BUYER, SUBCONTRACTOR, OR BUYER'S NON-U.S. GOVERNMENT CUSTOMERS

Copyright © 2006 by Lockheed Martin Corporation IMPORTANT NOTICE: A hard copy of this document may not be the document currently in effect. The current version is always the released version on the Lockheed Martin Network.

Table of Contents

1.0	GENERAL					
	1.1	SCOP	E			
	1.2	COMMUNICATION				
	1.3	MENT ROUTING				
	1.4	SUPPI	LY CHAIN SECURITY			
2.0	APPLICABLE DOCUMENTS					
	2.1	SPECI	FICATIONS/STANDARDS			
3.0	DEFI	EFINITIONS				
4.0	PRESERVATION, PACKAGING AND PACKING					
	4.1	GENERAL				
	4.2 PACKAGING AND PACKING		AGING AND PACKING			
		4.2.1	PACKAGING STANDARDS			
		4.2.2	PACKAGING OF LINE ITEMS			
		4.2.3	HARDWARE PACKAGING			
		4.2.4	ELECTROSTATIC DISCHARGE (ESD) SENSITIVE ITEMS			
			PACKAGING			
			4.2.4.1 ADDITIONAL INFORMATION ON ESD			
		4.2.5	AGE CONTROL ITEMS PACKAGING			
		4.2.6	HAZARDOUS MATERIALS/DANGEROUS GOODS PACKAGING			
			4.2.6.1 TESTS/CLOSURE INSTRUCTIONS			
			4.2.6.2 CERTIFICATION/PERMITS			

4.2.6.3 CLASSIFICATION

427	RAW	STOCK	PACKA	GING
4.4.1		α		

- 4.2.8 BUYER PROCURED TOOLING PACKAGING
- 4.2.9 COMPOSITE PART PACKAGING

4.3 SHIPPING CONTAINERS

- 4.3.1 SHIPPING CONTAINERS MADE FROM REGULATED WPM
- 4.3.2 SHIPPING CONTAINERS MADE FROM NON-REGULATED WPM
- 4.3.3 REUSABLE CONTAINERS
- 4.3.4 STANDARD CONTAINERS
- 4.3.5 SPECIAL CONTAINERS
- 4.4 WATERPROOF BARRIERS
- 4.5 PROHIBITED PACKAGING MATERIALS
- 4.6 SPECIAL DESIGN PROTECTIVE EQUIPMENT RECOMMENDATION DATA

5.0 MARKING

- 5.1 CONTAINER MARKING
- 5.2 MATERIAL SAFETY DATA SHEET (MSDS) INFORMATION
- 5.3 ELECTROSTATIC DISCHARGE (ESD) SENSITIVE LABELS
- 5.4 MARKING FOR BUYER PROCURED TOOLING
- 5.5 WARNING LABELS
- 5.6 SPECIALS LABELS OR MARKINGS
- 5.7 BAR CODE MARKINGS
 - 5.7.1 BAR CODE DATA ELEMENTS FOR STANDARD PURCHASE ORDERS
 - 5.7.2 ADDITIONAL BAR CODE DATA ELEMENTS FOR F-16 BLOCK 60 SHIPMENTS DIRECT TO UAE
 - 5.7.3 LM eCat MARKING
 - 5.7.4 BAR CODE DATA ELEMENTS FOR TEAM FURNISHED EQUIPMENT PURCHASE ORDERS

- 5.8 RADIO FREQUENCY IDENTIFICATION DATA (RFID) REQUIREMENTS FOR JSF/F-35 LOW RATE INITIAL PRODUCTION (LRIP) ITEMS
- 6.0 SHIPMENT DOCUMENTATION
 - 6.1 PACKING SHEETS
- 7.0 CLASSIFIED AND COMSEC SHIPMENTS
 - 7.1 CLASSIFIED SHIPMENTS
 - 7.2 COMSEC SHIPMENTS
- 8.0 TRANSPORTABILITY
 - 8.1 TRANSPORTABILITY CRITERIA
 - 8.1.1 PHYSICAL CHARACTERISTICS OF END ITEMS

APPENDIX I STANDARD PO LABEL EXAMPLE

APPENDIX II ADDITIONAL LABEL FOR F-16 BLOCK 60 - SHIPMENTS DIRECT TO UAE OR CONUS INVENTORY ACCUMULATION (NON-PRODUCTION SUPPORT) SHIPMENTS EXAMPLE

APPENDIX III LM eCat LABEL EXAMPLE

APPENDIX IV TEAM FURNISHED EQUIPMENT LABEL

APPENDIX V RAW STOCK PACKAGING

APPENDIX VI SPECIAL MARKINGS FOR HIGH-VALUE / HIGH RISK SHIPMENTS

1.0 GENERAL

- 1.1 Scope These instructions supplement the Purchase Order ("PO") of which this document is a part and establish the packaging, packing, marking, handling, transportability and shipping instructions for shipments by Seller and shipments by Seller's subtiers at all tiers, to FORT WORTH, MARIETTA or PALMDALE or other Lockheed Martin (LM) facilities as directed by Buyer, or other supplier (other than Seller), or subcontractor, or Buyer's non-U.S. Government Customers. Seller shall ensure that each of its subtiers making any such shipment to other than Seller shall comply with PM-5010D as though it were Seller hereunder. The term PO is interchangeable with the word "Contract" as may be used elsewhere in the PO. The term "Buyer" is interchangeable with the term "LOCKHEED MARTIN" as may be used elsewhere in the PO.
- 1.2 <u>Communication</u> All communications, data, drawings, messages and correspondence shall be in the English language. Standards and cost shall be in U.S. units of measure. Packaging drawings shall be dimensioned in inches.
- 1.3 <u>Shipment Routing</u> For routing guidelines see the Carrier Selection Guide accessible via the Lockheed Martin Aeronautics Material Management home page on the Internet World Wide Web. As of the date hereof, the URL is: http://www.lockheedmartin.com/material-management/
- 1.4 <u>Supply Chain Security</u> Seller shall ensure the following processes are in place to assist Buyer in supporting the U.S. Customs and Border Protection Customs-Trade Partnership Against Terrorism (C-TPAT) initiative. The following instructions pertain to Seller's exporting, shipments to the United States.
 - A. The shipping papers shall contain accurate weight, piece count of the number of boxes shipped and value of goods in U.S. dollars as stated on the PO.
 - B. Seller shall ensure that shipments of ocean containers are secured with high security mechanical seals. Seals must be affixed at the manufacturer point of origin (loading) and shall meet or exceed the ISO guideline for high security seals ISO/PSA 17712, Freight Containers – Mechanical Seals. Seller shall record seal numbers on the shipping paperwork.
 - C. The physical integrity of the ocean container structure shall be verified prior to stuffing, to include the reliability of the locking mechanisms of the doors. The following seven-point inspection process is recommended for all containers:
 - 1. Front wall
 - 2. Left side
 - 3. Right side

- 4. Floor
- 5. Ceiling/Roof
- 6. Inside/Outside doors
- 7. Outside/Undercarriage

D. Seller shall store ocean containers in a secure area to prevent unauthorized access and/or manipulation.

2.0 APPLICABLE DOCUMENTS

The following documents in effect at the time of shipment shall form a part of this shipping instruction to the extent specified herein:

2.1 Specifications/Standards

A-A-55057 - Panels, Wood/Wood Based; Construction and Decorative

ASTM D4727 - Standard Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes

ASTM D5118 - Standard Practice for Fabrication of Fiberboard Shipping Boxes

ASTM D3951 - Standard Practice for Commercial Packaging

ISO/PSA 17712 - Freight Containers – Mechanical Seals

Tool Manufacturing Specification - Material Control - 002 (TMS-MC-002)

Tool Manufacturing Specification - Material Control - 015 (TMS-MC-015)

National Industrial Security Program Operating Manual (NISPOM), Sections 5-408 and 5-409

NSA Industrial COMSEC Manual (NSA Manual 90-1, Section 6 - latest version)

Incoterms - Uniform International Rules for Trade Terms

3.0 DEFINITIONS

Buyer's Packaging Engineering Address:

Lockheed Martin Aeronautics Company - Fort Worth P.O. Box 748
Fort Worth, TX 76101

Attn: Packaging Engineering

Mail Zone: 6888

Lockheed Martin Aeronautics Company - Marietta 86 South Cobb Drive

Marietta, GA 30063

Attn: Packaging Engineering

Mail Zone: 0664

Lockheed Martin Aeronautics Company - Palmdale

15 Street E. & Avenue P Palmdale, CA 93550 Attn: General Receiving

Site 8, Bldg. 870

Lockheed Martin Aeronautics Company - Palmdale

1011 Lockheed Way Palmdale, CA 93599

Attn: Hazardous Materials Receiving

Plant 10, Bldg. 644

LM eCat Orders: Any purchase order that is 12 characters in length and begins

with the letters "EC". An example would be "EC0000000256".

Case An exterior container within a palletized unit load or an

individual shipping container.

Item (plural Items): Refers to the supplies to be shipped in connection with the PO.

"Item" and its plural, "Items", are interchangeable with the defined word "Work" as may be used elsewhere in the PO.

Passive Radio Frequency

Identification (RFID) Tag

A RFID device which modulates and reflects a carrier

signal from an interrogator. Passive RFID tags operate without a separate external power source and obtain operating power

generated from the reader.

Palletized Unit Load The process of arranging cases or packages on a pallet, secure,

strap or fasten to the pallet so the whole palletized load is

handled as a single unit.

PM-5010D 28 MARCH 2006

Piece Part Packaging:

The process of encasing, boxing, enclosing or wrapping an individual part numbered assembly or a grouping (contained in a fiberboard box, bag, etc.) of identical consumable Items such as screws, rivets, etc. Piece part packaging can be the final packaging which is used in the shipping of said assemblies or groupings and/or it can be the package which contains said assemblies or groupings for the purposes of warehouse/supply storage and/or it can be the package which is aggregated with other such packages inside a consolidation container / crate / fiberboard boxes in accordance with ASTM-D5118 for shipping purposes.

Radio Frequency

An automatic identification and data capture technology **Identification (RFID)** comprising of one or more reader/interrogators and one or more RF transponders in which data transfer is achieved by means of suitably modulated inductive or radiating electromagnetic carriers.

Shall:

The use of "shall" express a requirement that is binding on Seller or Buyer as the case may be.

Teammate Furnished

Equipment (TFE) Teammate Furnished Equipment (TFE) is planned Items

procured by one teammate and delivered to another teammate. This includes Bill of Material (BOM) controlled items to be delivered to Northrop Grumman Systems Corporation, Lockheed Martin Corporation, and BAE SYSTEMS.

Other Types of **Teammate Furnished Hardware Items**

Other types of Team Furnished Hardware items include planned omission; traveled work, incomplete task log (ITL), flight test, mockups, test articles, tooling and contract

deliverables.

4.0 PRESERVATION, PACKAGING AND PACKING

4.1 General - This procedure establishes the requirements for effective preservation, packaging, packing and marking of all Buyer assets and those U.S. Government assets under the Buyer's control when no requirement exists to package to U.S. Government packaging specifications. Seller shall preserve, package and pack material and equipment in accordance with good commercial practice, and as noted herein, such as to afford the degree of protection necessary to prevent deterioration or damage during

shipment under normal environmental conditions and commercial modes of transportation.

4.2 Packaging and Packing

- 4.2.1 Packaging Standards Item packaging shall be in accordance with ASTM D3951-98 Standard Practice for Commercial Packaging, (except as modified herein), for shipment and storage for a minimum of ninety days from the time of receipt at destination. Unless otherwise directed by the PO, Quantity per Unit Pack (QUP) shall be in accordance with ASTM D3951-98. If the packages of this standard will not provide the protection required for the type of material being shipped, Seller shall use other materials, containers, or processes provided that they meet or exceed the applicable container requirements as specified in ASTM D3951-98.
- 4.2.2 Packaging of Line Items Seller shall individually enclose each line item (Part Number) in a carton segregating it from other line items. Consolidation of these cartons for shipment purposes is acceptable, provided there are no more than 10 line items per box. Further, the consolidation box shall be marked "Contains multiple bar coded line items inside box". The bar code labels and paperwork for each individual line item in the box should be on the outside of the consolidation box. Each individual container inside the consolidation box shall have the appropriate bar code label attached.
- 4.2.3 Hardware Packaging - Seller shall package hardware type Items, including Orings, gaskets and seals in bulk in their normal quantity of unit package, which for O-rings for example is 1 each. Seller shall then package units in intermediate packages of 25, 50 or 100 per box, depending upon the size of the parts. Seller shall mark each intermediate container depicting the quantity inside and the Buyer part number. Seller shall package rivets and other parts that have a unit of measure of pounds in one-pound packages. Any package quantities already established between Buyer and Seller shall continue unless a change in quantities is incorporated into the PO. Seller shall not exceed container weight limits. When shipping small, heavy hardware type parts, Seller shall use appropriate packaging material and containers to protect the hardware and prevent distortion and splitting of carton sides. Whenever multiple pieces make up one part, i.e. a resistor, a washer and a nut, one each shall be packaged in one bag/box; the individual packages then will be bagged in multiples of 25 if the quantity is 50 or more. If the quantity is less than 25 all shall be overboxed in one container.
- 4.2.4 Electrostatic Discharge (ESD) Sensitive Items Packaging Seller shall package electronic hardware which is sensitive to ESD so as to protect sensitive Items during shipment and storage. Seller shall individually package each Item. Seller

shall cover external connectors on equipment containing ESD sensitive hardware with conductive caps. The caps shall be black and have a maximum surface resistivity of 10E5 OHMS per square. Metal caps are also acceptable.

- 4.2.4.1 Additional information on ESD static control procedures and materials and how to eliminate and reduce generation, dissipate and neutralize charges, or protect sensitive products from ESD can be found in the Electrostatic Discharge Association website. As of the date hereof, the URL is: http://www.esda.org/
- 4.2.5 Age Control Items Packaging Seller shall clearly identify the delivery limitations, marking, special handling, and specialized equipment requirements for age control Items on the interior and exterior containers. Markings shall include the manufactured, cured, assembled or packed date (apply one date), and the expiration or inspect/test date. Seller shall notify Buyer prior to shipment where precautionary measures are required. Seller shall not pack together age control Items. Seller, for example, shall not pack O-rings having a first-quarter 2005 expiration with O-rings having a fourth-quarter 2005 expiration date.
- 4.2.6 Hazardous Materials/Dangerous Goods Packaging Seller shall package, pack and mark hazardous materials and dangerous goods for the most restrictive mode of transportation. Dangerous goods shall be packed per United Nation (UN) performance-tested specification packaging. Below are specifications/standards/publications to determine the packaging requirements for dangerous goods depending on mode of transportation:
 - International Air Transport Association's Dangerous Goods Regulations (IATA)
 - United Nation's Recommendation on the Transport of Dangerous Goods
 - International Maritime Organization's International Maritime Dangerous Goods Code (IMDG)
 - International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO)
 - Code of Federal Regulations Title 49 Transportation
 - 4.2.6.1 Tests/Closure Instructions Seller shall forward tests and closure instructions to the "Buyer's Packaging Engineering Address" to be retained on file. This includes tests and closure instructions from third-party packaging distributors. Closure instructions shall include instructions for inner packaging and receptacles, a description of the types and dimensions of closures and any other significant information.

- 4.2.6.2 Certification/Permits Seller shall forward all certifications of exemptions to Department of Transportation (DOT) Regulations to the "Buyer's Packaging Engineering Address" to be retained on file.
- 4.2.6.3 Classification For explosives or other dangerous Items which require Bureau of Explosive or DOT review and approval, Seller shall submit to the "Buyer's Packaging Engineering Address" data setting forth the proper explosive and dangerous articles classification.
- 4.2.7 Raw Stock Packaging Seller shall oil raw material sheet stock in accordance with the requirements of the Aluminum Association Standard, Protective Oil for Aluminum, or equivalent protective oil for steel, titanium and other sheet stock. Seller shall place a protective wrapping between the bottom sheet of sheet stock and the supporting skid to protect material from corrosion. The balance of packaging requirements can be found in Appendix V. Seller shall ensure material does not extend beyond the edge of the skid.
- 4.2.8 Buyer Procured Tooling Packaging Seller shall comply with the shipping and packaging requirements specified in TMS-MC-002 and TMS-MC-015.
- 4.2.9 Composite Part Packaging Seller shall individually enclose each line item (Part Number) in carton segregating it from other line items. Consolidation of these line items is not permitted. Composite edges shall be protected from bending or delaminating. Each individual container shall have the appropriate bar code label attached.
- 4.3 Shipping Containers - Container construction shall provide for handling and shall afford the Item protection. Shipping containers shall be uniform in size whenever possible and shall be of minimum tare weight and size consistent with the protection required. All containers shall meet the minimum packaging requirements of the common carriers (if so shipped) for acceptance for safe transportation at the lowest rate applicable. Disassembly of Items to conserve size is desirable when reassembly can be done by unskilled labor using common hand tools and at no risk to the finish or function of the part. Maximum use shall be made of corrugated fiberboard containers which meet or exceed those specifications of ASTM D 5118, and which shall be closed by taping or banding so they may be opened without damage. When the capacity of fiberboard containers is exceeded, Seller shall use wood packaging material "WPM", crates/pallets/skids/etc. that comply with the requirements listed in 4.3.1 and 4.3.2. Closure by use of removable fasteners such as "Klimps" or steel banding is desirable unless other means are required for Item protection. Seller shall install all inner bracing on wooden crates with Philips head wood screws.

- 4.3.1 Shipping Containers made from Regulated WPM Seller shall process or treat coniferous and non-coniferous raw wood in accordance with current version of International Standard for Phytosanitary Measures (ISPM) 15 "Guidelines for Regulating Wood Packaging Material in International Trade", document can be found at: https://www.ippc.int/IPP/En/default.htm. In conjunction with ISPM 15, Seller shall obtain certification from an accredited agency recognized by the Seller's National Plant Protection Organization "NPPO". (United States Animal and Plant Health Inspection Service "APHIS" http://www.aphis.usda.gov/ppq/wpm/).
- 4.3.2 Shipping Containers made from Non-Regulated WPM Plywood, particle board, oriented strand board or veneers are exempt from 4.3.1.
- 4.3.3 Reusable Containers Seller shall utilize reusable containers when cost effective. Container accountability, return, and maintenance for reuse shall be at Seller's expense, unless prior agreement exists with Buyer. Ownership of the containers is to be vested with Buyer at the termination of the PO of which this document is a part.
- 4.3.4 Standard Containers Seller shall make maximum use of carrier's standard containers in lieu of special design containers where possible and cost effective.
- 4.3.5 Special Containers Containers fabricated from ferrous, non-ferrous, or thermoplastic materials, or combinations thereof requiring engineering drawings for control of materials, dimensional tolerances, form fabrication and assembly. These will be used only when necessary to protect the component and when cost justifiable.
- 4.4 <u>Waterproof Barriers</u> Items suitable for shipment in open crates or without overboxing will not require protection against moisture. However, for those Items that require such protection a suitable shroud will be used. Shrouds shall be placed to avoid formation of water pockets and to permit free circulation of air. Sharp points of contact between the Item and the shroud shall be cushioned to prevent rupture or chafing.
- 4.5 <u>Prohibited Packaging Materials</u> Seller shall not use materials that endanger the product by corrosion, static damage or contamination. Seller shall not apply to the product being shipped any preservative which, when removed from such product using a standard removal technique, would cause damage to such product. Seller shall not use metal staples to secure polyethylene wrapped or bagged Items. Seller shall not use newsprint, styrene "chips", "peanuts," "popcorn" or shredded paper for wrapping or cushioning. Seller shall use Cosmoline only when required, such as for tooling. Seller shall hermetically seal small oil saturated parts such as pumps and valves in a barrier bag that

- will contain the oil, or for larger parts, Seller shall ship the items in wood boxes to prevent container saturation and degradation.
- 4.6 <u>Special Design Protective Equipment Recommendation Data</u> Seller shall submit all Special Design Protective Equipment ("SDPE") recommendation data to the Buyer's Packaging Engineering Address, Sellers format for such data is acceptable.

5.0 MARKING

- 5.1 Container Marking - Seller shall mark all shipping containers in accordance with ASTM D 3951-98 with permanent type ink or paint. Seller shall add pictorial markings on packages or containers in accordance with ASTM D5445 "Standard Practice for Pictorial Markings for Handling of Goods" when conditions warrant special handling during the unloading process. For example, Seller shall apply the pictorial marking when the center of balance is uneven on the container, or if the container is top heavy and may tip over easily. Seller shall apply two (2) person lift labels on four sides and top and include the gross weight of the contents when shipping containers weigh more than 50 pounds and less than 100 pounds. Seller shall apply a skid to facilitate the safe material handling on containers weighing more than 100 pounds and mark the total packaged weight on three sides with 1" high letters. Seller shall mark Buyer part number, serial number, markings required by paragraph 5.7, purchase order number, piece number and total number of pieces (i.e. 2 of 3) and any special markings as required by carrier rules and regulations that apply. Any items packaged individually inside a consolidated shipping container shall be identified with markings required by Paragraph 5.7 (Barcoding). Those Items which require specialized handling, caging and loading techniques and devices, which are required to protect the Item during shipment, storage, installation, or removal, shall have markings or nameplate affixed to the Item delineating precautions. Those items, which are identified as "High Value / High Risk" will require a unique mark, see Appendix VI. The mark shall be hand-written, with black or red ink and measure at least 4 inches high. Magnetic Items shall have markings, which identify the Item as being magnetic. The markings shall indicate in milligauss, at a fifteen-foot distance, the magnetic field strength of the unpackaged component. Hydraulic, fuel, and oil units including accessories shall have a tag or markings indicating the internal flushing, filling, or calibrating fluid used. The delivery limitations and handling requirements for age control Items shall be clearly identified on the interior and exterior containers, see 4.2.5.
- 5.2 <u>Material Safety Data Sheet ("MSDS") Information</u> Seller shall reference Buyer's approved MSDS number on the bar code label below the "Total Cartons per Line Item" bar code on all hazardous materials packaging. See paragraph 5.6.1.
- 5.3 <u>Electrostatic Discharge ("ESD") Sensitive Labels -</u> Seller shall apply proper ESD labels on interior and exterior containers i.e. 2x2 labels on interior and 4x4 labels on exterior containers.

- Marking for Buyer Procured Tooling Seller shall clearly mark all domestic and overseas shipping containers with instructions for freight forwarding and receiving parties to preserve the integrity of the tools and container by stenciling the following three (3) statements on all four (4) sides and top of the shipping container with the same size lettering:
 - "NOT FOR OUTSIDE STORAGE"
 - 2. "CONTAINER MUST BE COVERED AT ALL TIMES DURING SHIPPING"
 - 3. "CONTAINER IS NOT WATER TIGHT"

Note: Tooling shipping and storage containers are neither designed to be, nor intended to be water tight.

- 5.5 Warning Labels Seller shall label shipping and storage containers for cadmium, cadmium compounds, cadmium containing materials or articles (such as cadmium plated mechanical fasteners) that are capable of releasing cadmium during Buyer's manufacturing processes as required by the Occupational Safety & Health Administration regulations found in 29CFR1910.1027. As a minimum, these warning labels shall include the following information: Danger, Contains Cadmium, Cancer Hazard, Avoid Creating Dust, Can Cause Lung and Kidney Disease.
- 5.6 <u>Special Labels or Markings</u> Seller shall affix special labels or markings to the exterior of the shipping containers in accordance with Buyer's request. Special labels or markings may be used to identify program, shortages, etc. Detailed instructions will be provided from time to time by Buyer as required.
- 5.7 <u>Bar Code Markings</u> Seller shall bar code all containers. Appendix I shows example of properly bar coded shipments made against Standard Purchase Orders. Appendix II shows example of the additional bar code marking for F-16 Block 60 Shipments Direct To UAE Or Conus Inventory Accumulation (Non-Production Support) shipments. Appendix III shows an example of a bar code shipment made against an LM eCat Order received by the Seller via Exostar. Appendix IV shows an example of properly bar coded shipments made against Teammate Furnished Equipment. See definitions (Section 3.0) to determine if the order being shipped against is a normal PO or an LM eCat order. Simple bar code programs that conform to this specification are available at:

https://embastion.external.lmco.com/bar-coding/

Seller shall construct bar codes and apply markings as follows:

5.7.1 Bar code data elements for Standard Purchase Orders:

LOCKHEED MARTIN AERONAUTICS COMPANY

- A. Purchase order number
- B. Receiving PO Line Item number
- C. Packing Sheet number
- D. Line Item quantity in shipment
- E. Total cartons per Line Items
- F. MSDS Number (only if hazardous)
- G. Shipment Indicator (CSS, PSS or CCI), if applicable

Note: If the PO number is 1234567, then only 1234567 shall be displayed on the bar code; do not fill in remaining field with any leading and/or trailing characters, such as XXXXX1234567 or 1234567YYYYY.) See Appendix I for examples.

Requirements:

- a. Elements shall be printed in the order shown (A through G above) and all fields must be filled
- b. Data elements will be in a stacked array. Use of MSDS bar code is not required or value "N/A" (per instructions on LM provided bar code application) is acceptable if shipment is non-hazardous.
- c. Bar codes must be readable commercial Code 3 of 9.
- d. Bar codes will be applied by means of labels.
- e. Bar codes will be a vertical "picket fence" with minimum height of 0.25 inches.
- f. Bar coded containers may not contain more than one line item. Different bar coded containers containing different line items may be consolidated for shipping/handling purposes. The consolidation box shall be marked "Contains multiple bar coded line items inside box." The bar code labels and paperwork for each individual line item in the box should be on the outside of the consolidation box. Each individual container inside the consolidation box shall have the appropriate bar code label attached
- g. Bar codes will apply to the total quantity of a given line item regardless of the number of boxes required to contain that line item.
- h. If multiple containers are required for one line item, only the first container must be bar coded. Seller shall mark ALL remaining containers in the series with a piece number (i.e., 2 of 3, 3 of 3, etc.) and the quantity PER BOX shall be marked on each box in human readable form.
- i. If material is "non-markable", (i.e., oily raw stock, etc.) the bar codes may be placed with the packing sheet. Seller may use separate labels for each bar code in lieu of all bar codes being on one label as long as the correct order is maintained.

- 5.7.2 Additional Bar Code Data Elements for F-16 Block 60 Shipments Direct To UAE Or Conus Inventory Accumulation (Non-Production Support) Shipments Seller shall bar code the container unless deviation is granted by the Buyer. See Appendix II for an example. Seller shall construct these bar codes as follows:
 - A. Part number
 - B. Concatenated Bar Code containing the following:
 - i. CAGE Code
 - ii. Alphanumeric Identifier 1 character (used to identify type of serial number, e.g., CFE, Vendor Assigned, Locally Assigned, etc.)
 - iii. Serial Number
 - a. Date of Manufacture (Year/Julian date; example: 5022 = 22 January 2005)
- 5.7.3 LM eCat Marking The LM eCat labels must include the following data elements both bar coded and human readable. Each of the three bar code data elements below must specify the bar code description to the left of the bar code. The top of the label shall indicate "**Direct Delivery**", (in bold letters).

Bar Codes:

- 1. Order Number (LM eCat Purchase Order Number)
- 2. Packing List Number
- 3. Deliver to (building, floor and column)

Note: Additional human readable data must include User Name and Phone Number and on separate line, the deliver to: Building, Floor and Column, (in bold letters). See Appendix III for examples.

- 5.7.4 Bar code data elements for Team Furnished Equipment Purchase Orders:
 - A. Purchase order number
 - B. Receiving PO Line Item number
 - C. Packing Sheet number
 - D. Line Item quantity in shipment
 - E. Total cartons per Line Items
 - F. MSDS Number (only if hazardous material)
 - G. Shipment Indicator (CSS, PSS or CCI), if applicable
 - H. Procuring PO & Line Number

Note: If the PO number is 1234567, then list only 1234567 on the bar code; do not fill in the remaining field with any leading and/or trailing characters, such as XXXXX1234567 or 1234567YYYYY.) See Appendix IV for examples.

- 5.8 Radio Frequency Identification (RFID) Requirements for JSF/F-35 Low Rate Initial Production (LRIP) items. Seller shall affix passive RFID tags to all shipping containers containing JSF/F-35 LRIP items. Seller shall use one or more of the different data constructs, depending upon the type of passive RFID tag selected and used according to this document.
 - 5.8.1 Passive tags are categorized into 2 Classes: EPC Class 0 and Class 1. Seller shall use any one of the following RFID tags to meet JSF/F-35 LRIP item requirements:
 - a. Class 0 tags
 - Class 0 64-bit read-only
 - Class 0 96-bit read-only
 - Class 0 64-bit writeable
 - Class 0 96-bit writeable
 - b. Class 1 tags
 - Class 1 64-bit write-once read-many
 - Class 1 96-bit write-once read-many
 - 5.8.2 Construct Standards All RFID tags will have encoded data impregnated into tag. Both the Department of Defense (DOD) and Electronic Product Code (EPC) global have developed construct standards for encoding RFID tags. Construct data consist of the supplier's CAGE (Commercial and Government Entity) code, asset serial number, type of EPC Class tag (0 or 1), etc. Seller shall assure each RFID tag is unique for each shipment and can validate the tags have been encoded based on DOD or EPC global specifications.

6.0 SHIPMENT DOCUMENTATION

6.1 <u>Packing Sheets</u> - With the exception of LM eCat Orders received via Exostar, whether Seller ships material to Fort Worth, Marietta or Palmdale or other LM facilities as directed by Buyer, or other supplier (other than Seller), or subcontractor, or Buyer's non-U.S. Government Customers., Seller shall ensure that all materials shipped shall be accompanied by a standard commercial packing sheet. Packing sheet shall include the following information:

PO Number

LOCKHEED MARTIN AERONAUTICS COMPANY

PO Line Item Number Ship Quantity Number of Cartons Part Number Part Name Traceability Data

Seller shall place Packing Sheet in an envelope on the outside of container number one of each line item. Seller may include copy of Packing Sheet inside container.

7.0 CLASSIFIED AND COMSEC SHIPMENTS

- 7.1 <u>Classified Shipments</u> All classified shipments are required to follow the shipping requirements stipulated in this document. All paperwork (packing sheet, etc) will be placed on the outside of the box. The box shall be bar coded per Section 5.7. Per the NISPOM, section 5-408 and 5-409, the bar code shall include a line below the MSDS line that stipulates whether the part is Constant Surveillance Service ("CSS") or Protective Security Service ("PSS"). Further, Seller shall mark the Bill of Lading or other applicable DOT document PSS or CSS. Seller shall not mark or otherwise indicate on the outside of the box the classification of the part.
- 7.2 <u>COMSEC Shipments</u> All COMSEC shipments are required to follow the shipping requirements stipulated in this document. All paperwork (packing sheet, etc) will be placed on the outside of the box. The box shall be bar coded per Section 5.7. Per the NSA Industrial COMSEC Manual, NSA Manual 90-1, the bar code shall include a line below the MSDS line that stipulates the part is CCI. Further, Seller shall mark the Bill of Lading, or other applicable DOT document as CCI.

8.0 TRANSPORTABILITY

8.1 <u>Transportability Criteria</u> - When long Items are to be trucked, such as long skids of raw stock, Seller shall utilize flat bed trucks if at all possible to facilitate safe unloading. When special design analysis is required, then, except when TMS manuals give specific directions for tooling shipments, Seller shall submit to Buyer, for Buyer's prior approval, a complete breakdown of the packaging procedures proposed by Seller. For the purpose of this specification, specialized analysis is required when the following conditions exist:

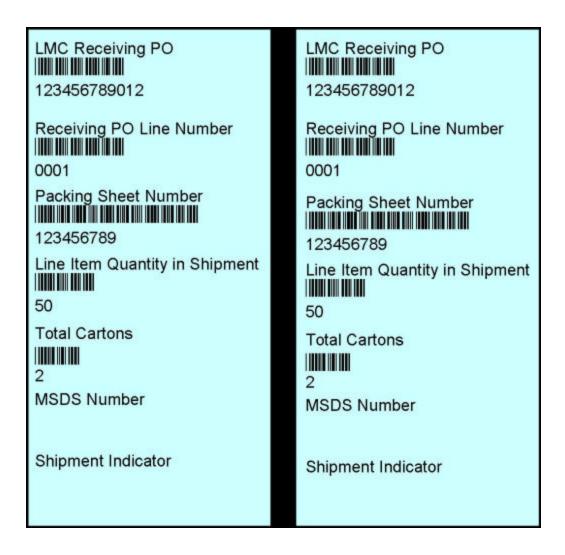
8.1.1 Physical Characteristics of End Items

A. Dimensions exceed 8 feet in height, 8 feet in width, 32 feet in length, and/or gross weight is in excess of 11,200 pounds (domestic)

- B. Dimensions exceed 7 feet in height, 6.5 feet in width, 18.5 feet in length, gross weight is in excess of 10,000 pounds (international)
- C. Item requires temperature, pressure, shock, or vibration isolation in containers and fixtures
- D. Unusual and/or abnormal Item configuration

Appendix I

Standard PO Label Example



Shipment consists of 2 line items and 5 boxes total. Item one has 2 boxes with 25 each box and the first box has a bar code showing 50 as "Line Item Qty In Shipment". Item two has 3 boxes with 20 in each box and the first box has a bar code indicating 60 as "Line Item Qty In Shipment".

Seller shall mark each box with the human readable (plain English) quantity in each box.

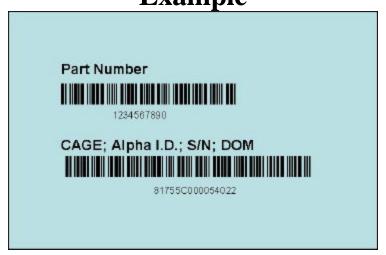
If a consolidation box is used, the box shall be marked "Contains multiple bar coded line items inside box". The bar code labels and paperwork for each individual line item in the box should be on the outside of the consolidation box. Each individual container inside the consolidation box shall have the

appropriate bar code label attached. Consolidation boxes shall be limited to no more than 10 line items per consolidation box.

Appendix II

Additional Label For F-16 Block 60 –

Shipments Direct To UAE Or Conus Inventory Accumulation (Non-Production Support) Example



Part Number: The part number may be up to 20 characters long. If the part number is less than 20 characters long the remainder of the field will be blank. If the part number is greater than 20 characters only the first 20 characters will be utilized.

CAGE Code: Seller shall use the 5-digit Commercial and Government Entity code.

Alpha ID: The identifier designates who assigned the serial number that follows. Serialized Items should use a capital "C" for this field. This designates that the supplier provided the serial number. For all non-serialized Items, a capital "N" will be used; which will indicate no serial number is available.

Serial Number. This is a 5-digit serial number field. If an Item is not serialized, the serial number field shall be zero filled (00000). For repair and return shipment, the serial number MUST be present-for both outbound and inbound shipments.

Date of Manufacture (DOM): This is a four digit Julian date. This is the Item's actual date of manufacture, if known. The date of manufacture shall always be provided if it can be determined. However, if the date of manufacture is unknown, the field will be filled with the date packaged/shipped. For repair and return shipments, the DOM should be the date packaged/shipped.

Note: For F-16 Block 60 - Shipments Direct To UAE Or Conus Inventory Accumulation (Non-Production Support) shipments, the bar code labels identified in **both** Appendixes I and Appendix II apply. If a consolidation box is used, the bar code labels specified in Appendix II should be on the outside of the consolidation box. Each individual container inside the consolidation box shall have the appropriate Appendix II bar code label attached.

Appendix III

LM eCAT Label Example

Direct Delivery

LM eCAT Order Number



Packing Sheet Number

1234567890

Deliver To Address

00050186J

User: Joe Smith

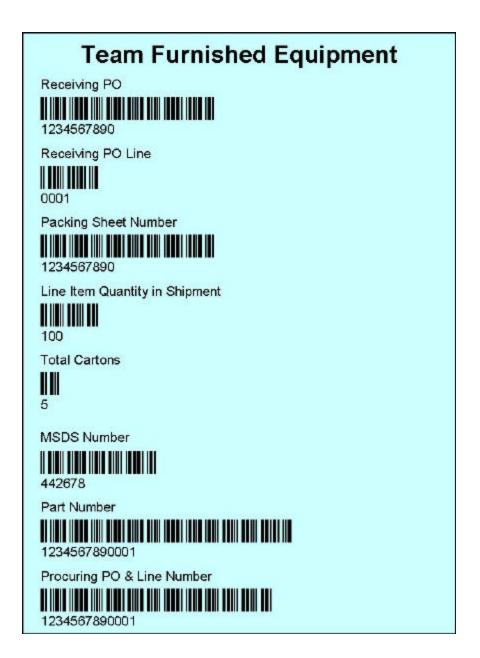
Telephone: 817-555-1234

Building: 5

Floor: 1

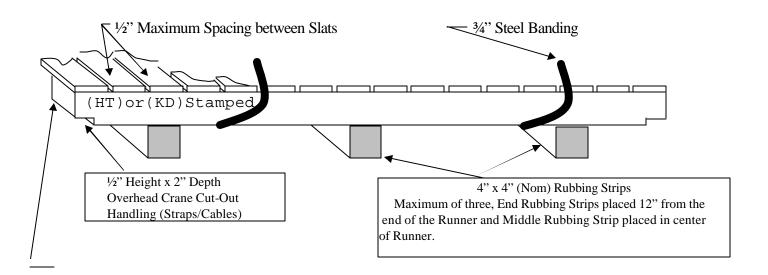
Column: 86

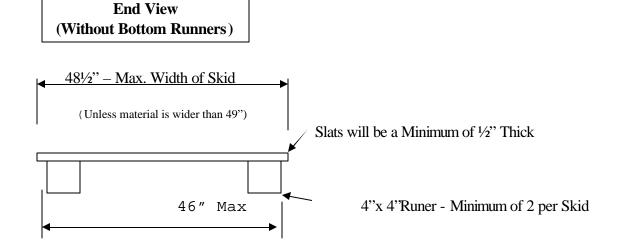
Appendix IV TFE Label Example



Appendix V Raw Stock Packaging

Side View





46" – Maximum Spread of Runners Measured from the Outside of One Runner to the Outside of the Next

External Packaging Requirements:

- Steel banding to be placed against the runners between top slats
- Steel banding shall be a minimum of 3/4" wide
- Steel banding shall be tensioned adequately to prevent damage and/or shifting of contents
- Solid wood products shall be Heat Treated (HT) or Kiln Dried (KD)
- All packing lists, text reports, etc. must be securely attached to the skid/material.
- Cut shapes to be stacked so the heat lot and purchase order number are visible from the outside without cutting the retaining bands
- Legible skid identification on each end to include, at a minimum, the following:

OCKHEED MARTIN P.O								
OCKHEED MARTIN P.O. LINE ITEM								
OCKHEED MARTIN P/N								
TY UOM								
PACKING SLIP NUMBER NO								

Appendix VI

Special Marking High-Value / High Risk Shipments



Function: To indicate the package requires special handling. This is for high value and high risk items.

Remarks: Place mark on three sides of package so it is in visible range of receiving personnel.

Dimensions: Make the mark at least 4 inches high and in red or black ink.