SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

THE FOLLOWING TERMS AND CONDITIONS SHALL PREVAIL TO THE EXTENT THEY CONFLICT WITH NG CTM-P-ST-001 OR ANY OTHER TERMS AND CONDITIONS GOVERNING THIS AGREEMENT. FURTHERMORE, THIS ADDENDUM CONTAINS ADDITIONAL UNIQUE TERMS AND CONDITIONS. ALL NON-CONFLICTING TERMS AND CONDITIONS IN THE NG CTM-P-ST-001 SHALL REMAIN IN FULL FORCE UNLESS OTHERWISE INDICATED HEREIN.

CLAUSE TITLE AND NUMBER

BAR CODING - SHIPPING LABELS	15	KITS	12
CLEANING	4	MARKING	14
CONTAINERS	8	PACKING (EXTERIOR SHIPPING CONTAINERS)	11
CUSHIONING, BLOCKING AND BRACING	7	PACKING SHEETS	16
DEFINITIONS	1	PRESERVATION	5
DIRECT SHIPMENT FROM SELLER TO THE GOVERNMENT	17	PURPOSE AND SCOPE	2
GENERAL REQUIREMENTS	3	UNIT PACKAGING	9
HAZARDOUS MATERIALS	13	WRAPPING	6
INTERMEDIATE PACKING	10		

1. DEFINITIONS.

A. Best Commercial Practice

Minimum requirements for packaging of supplies and equipment, exclusive of ammunition, explosives, or hazardous materials, as covered in Title 49 of the Code of Federal regulations. Multiple handling, shipment by any mode, storage periods of a maximum of 90 days in enclosed, climate-controlled facilities without damage to the product, and provides for package quantities suitable for redistribution without additional repackaging for marking are factors that have been considered. This practice is applicable to DoD shipments for

- (1) Items intended for immediate use;
- (2) Items for not-mission-capable supply;
- (3) Items intended for depot operational consumption;
- (4) Small parcel shipments (CONUS), not-for-stock; and
- (5) Direct vendor deliveries (CONUS ONLY).

All other DoD shipments shall be in accordance with MIL-STD-2073-1, latest revision. Refer to the latest revision of ASTM D3951 for supporting information.

B. Military Packaging

This standard covers methods of preservation to protect material against environmentally induced corrosion and deterioration, physical and mechanical damage, and other forms of degradation during storage, multiple handling, and shipment of materiel in the defense transportation system. Items for which military packaging is required to meet operational demands include:

- (1) Items delivered during wartime for deployment with or sustainment to operational units
- (2) Items that are depot level repairables
- (3) Items requiring reusable containers
- (4) Items intended for delivery-at-sea
- (5) Security Assistance/Foreign Military Sales/Grant Aid (unless otherwise directed by the destination country) Refer to the latest revision of MIL-STD-2073-1 for supporting information.
- 2. PURPOSE AND SCOPE. These terms specify requirements for packaging, packing, marking and bar coding of Products (also referred to herein as "Items") for delivery from Seller to Buyer. All Product deliveries must comply with the provisions set forth herein below unless specific packaging, packing or marking requirements are contained within applicable specifications, drawings, etc. Seller must assure package integrity throughout the shipping cycle.
- 3. GENERAL REQUIREMENTS. Products received without packaging, packing, marking and/or bar coding as set forth herein may be rejected by Buyer and returned to Seller at Seller's expense. If Seller's products receive continued rejection, Buyer maintains the right to add additional consideration at Seller's expense.
 - A. Packaging, packing, marking and labeling will conform to instructions or engineering drawings specified or provided by Buyer.
 - B. When specified in the Order, Seller shall submit packaging data to Buyer for approval prior to shipment.

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum

Northrop Grumman Systems Corporation

- C. Each package and pack shall provide physical, chemical and cleanliness protection to prevent damage to or deterioration of the Product during handling, shipment and storage under anticipated environmental conditions. All materials, fabrication techniques and workmanship shall conform to the requirements specified below in Section 3A(2) or, if not specified, otherwise meet or exceed Best Commercial Practice and/or Military Packaging quality and practice, where applicable.
- D. Seller must comply with all applicable carrier regulations, including National Motor Freight Classification and Department of Transportation Regulations.
- E. Products susceptible to Electrostatic Discharge (ESD) must be properly packaged using electrostatic dissipating and shielding packaging materials along with proper ESD handling labels.
- F. Aluminum foil in packaging material shall not contact metals other than cadmium, magnesium, aluminum or zinc in applications which may be exposed to water, including water vapor and condensate.

4. CLEANING.

- A. Any cleaning process may be used as long as no damage or harm occurs to the Product.
- B. All Products must be free of:
 - (1) Any foreign substance which may cause the Product to deteriorate.
 - (2) Any material which may reduce the effectiveness of any preservative compound used.

5. PRESERVATION.

- A. Products susceptible to corrosion or deterioration shall be protected through use of: preservative coatings; barrier protections; volatile corrosion inhibitors; desiccate packs; etc.
- B. The preservative used must:
 - (1) Not damage the mechanism, structure or function of the Product by either application, removal or use.
 - (2) Not cause an adverse reaction with the Product.
 - (3) Provide protection for the Product throughout shipment and for a minimum of 90 days indoor storage following receipt. Items stored longer than 90 days should consider Military Packaging.
- C. Unless otherwise specified on the engineering drawing, all bare ferrous surfaces and parts shall be protected per GSS4800 and EW programs. ACS program parts shall be protected per P-7000 and TM M403 "Parts Handling & Protection Handbook".
- 6. WRAPPING. A sheet of flexible material shall be applied around the Product or package to prevent contamination, protect critical surfaces and barrier material from rupture, and preserve the Product.
 - A. Wrapping material may be opaque or transparent and may possess other characteristics such as volatile corrosion inhibitor, grease-proof, heat sealable, etc.
 - B. All wrapping shall be non-toxic and shall not cause deterioration, contamination or damage to the Product. The wrapping must be of sufficient size to completely enclose the Product(s) and must be secured in place.
 - C. When required, wrapping material shall be of a type which will provide protection against field forces, such as electrostatic and electromagnetic fields.
 - D. Use of static generating wrapping materials is prohibited when packaging ESD sensitive Items.
- 7. CUSHIONING, BLOCKING AND BRACING. As required to protect the Product from physical and mechanical damage during shipping and handling, cushioning, blocking and/or bracing shall be used.
 - A. Cushioning, blocking and bracing shall meet the following requirements:
 - (1) Protect the Product from shock, vibration and abrasion.
 - (2) Control the free movement of the Product within the unit and shipping container(s).
 - (3) Convert irregular shaped Products to a configuration which may be supported within a container.
 - (4) Protect barriers and containers from ruptures by sharp edges or projections.
 - B. Loose-fill cushioning materials (i.e., Styrofoam peanuts, shredded paper, popcorn, etc.) are prohibited.
 - C. Newspaper and rags are unacceptable cushioning or dunnage materials.
 - D. Use of static generating cushioning materials is prohibited when packaging ESD sensitive Items.

8. CONTAINERS.

- A. Each container shall be of minimum weight and cube consistent with standard economical designs, sizes and materials.
- B. Each unit, intermediate and shipping container shall be constructed to permit safe removal of the Product.
- C. Seller shall select unit, intermediate and shipping containers based primarily upon Product configuration and protection required during handling, shipping and storage.
- D. Special containers shall be used for Products which require additional features to ensure adequate protection (e.g., critical Products in which abrasion, shock, vibration or distortion on any surface may render the Product unfit for use).

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

- E. Reusable containers shall be used for Products which are subject to repair or overhaul. Reusable containers shall retain usefulness with minimum maintenance through the projected life span of the Product it supports. Containers must provide for easy removal of the Product without damaging or degrading the reusable value of the container. Ownership of the containers shall be vested in Buyer at of the expiration or termination of the PO. With the agreement of the Buyer, the containers will be returned to Seller at Seller's expense.
- F. Bags and envelopes may be used as interior containers to protect Products from dust, water or water-vapor, as required. Closure of bags and envelopes (i.e., staples, tape, heat seal, etc.) shall be sufficient to ensure adequate Product restraint.
- G. Folding and set-up boxes are only permitted as interior unit or intermediate containers. They shall not be used as shipping containers since they will not withstand the rigors encountered during shipment. Closure, by means of tape, adhesive, stapling, etc., must be sufficient to ensure adequate Product restraint.
- H. Fiberboard boxes (solid or corrugated) may be used for a wide variety of products. The size, weight and type of the Product shall determine the proper style and type of fiberboard box used.
 - (1) A fiberboard box should: a.) Withstand the rigors of the shipping process; b.) Have the strength to properly protect the contents; and c.) Ensure stacking at least five layers high in transit. All corrugate cartons are required to be at least 32 ECT Test material. Depending on the part application, some cartons may exceed this standard. All cartons must carry the box manufacturer's certificate detailing its specifications. In addition, all cartons must be at least double-faced, single-wall corrugate. However, double-wall corrugate will be required for large, heavy parts (i.e. windshields and certain sheet metal parts). All carton joints should be glued or stitched.
 - (2) Structural strength of the fiberboard box may be increased by varying the interior packing and a degree of water resistance may be attained through use of weather resistant fiberboard and tapes. Closure, by means of taping; stitching; adhesive; strapping; or any combination of these methods, must ensure adequate Product restraint.
- I. Wooden boxes and crates shall be used when warranted by shipping or structural requirements based upon Product configuration, weight, or size. Closure, based upon the type of wooden box or crate used, must ensure adequate Product restraint.
- J. All other containers (i.e., metal, plastic, fiberglass, etc.), which are normally selected because of their long life and high use applications, may be used when warranted. Closure must ensure Product restraint.

9. UNIT PACKAGING.

- A. Determine the quantity of Items to be included in a unit package as follows:
 - (1) For hardware (nuts, bolts, screws, etc.), package in accordance with "Best Commercial Practice"
 - (2) As specified in the contract, Order, specification or engineering drawings.
 - (3) Based on consideration of the Products characteristics, configuration, size, weight, value, criticality, packaging economics, and Seller standards unless otherwise specified by Buyer.
- B. Any painted part, machined part or single Product weighing over one (1) Pound shall be packaged individually to prevent metal to metal contact.
- C. Adequate separation, wrapping or cushioning shall be provided between parts to preclude incurring of nicks, dents, scratches or abrasions upon Products.
- D. Products with sharp points or protrusions shall be adequately padded to prevent damage to containers or other Products.
- E. Accessory hardware shall be assembled to the Product when practical, or separately secured within the unit package.
- F. Unit package closure shall prevent accidental opening during shipment and storage.

10. INTERMEDIATE PACKING.

- A. Unit packages may be placed within intermediate packaging when additional Product protection is required or to permit consolidation of Products for ease in handling.
- B. Intermediate containers shall:
 - (1) Include a maximum of 100 unit packs within any single intermediate container.
 - (2) Prevent scratches, surface abrasions or other damage to Products by ensuring that each Item (excluding hardware) is wrapped, bagged, or interleaved when more than one Item is placed in an intermediate container.
 - (3) Be used when multiple unit packages of two (2) pounds or 200 cubic inches or less will be included in a single shipment.
 - (4) If Seller's products receive continued rejection, Buyer maintains the right to add additional consideration at Seller's expense.

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

11. PACKING (EXTERIOR SHIPPING CONTAINERS).

- A. Packing shall provide adequate protection of Products during handling, shipment and storage under anticipated environmental conditions.
- B. Packing must comply with minimum carrier requirements for design and fabrication.
- C. i. Fork lift entries (skidding, pallets, etc.) shall be provided in the base of containers:
 - (1) Weighing over 50 pounds and with dimensions exceeding a length of 48 inches and a width of 24 inches.
 - (2) Weighing in excess of 150 pounds.
 - ii. All-way fork lift entry must be provided for containers in excess of 150 pounds and with dimensions exceeding a length of 48 inches, a width of 36 inches and a height of 48 inches.
- D. Container fabrication shall not present any hazard to persons handling, loading or unloading them. They shall be securely sealed, strapped, banded, etc., to withstand anticipated transportation and storage conditions.
- E. Containers or Items shall not extend beyond any edge of the pallet or skid.
- F. Steel strapping shall not directly contact material. Corner blocking, edge protection, etc. must be placed between the material and the strapping for surface protection.

12. KITS. Items within a kit must be:

- A. Packaged for physical and mechanical protection.
- B. Identified either by part number, Item configuration, nomenclature, or individually packaged and marked.
- C. Physically separated from each other within the kit if the Items react to each other.

13. HAZARDOUS MATERIALS.

- A. If this Order involves delivery of any hazardous material, packaging and shipment of such material must be made in accordance with the Hazardous Materials Regulations, Title 49 CFR, Occupational Safety and Health Administration Regulations, Title 29 CFR, and Federal STD. 313C. The warning label required on hazardous material by 29 CFR 1910.1200 shall not be obscured by other stamps or labels.
- B. Seller shall provide a Safety Data Sheet (SDS) to Buyer as a condition of this Order. Seller must submit the most current SDS available. Unless there are changes affecting the characteristics and composition of the hazardous material previously reported, only one submission to Buyer is required. A SDS from the manufacturer will satisfy these requirements for distributors, dealers, jobbers and industrial suppliers who must comply with this clause, however, in no event shall the SDS bear an issue date earlier than twenty-four (24) months before the date of submission.
- C. When a SDS is required, Seller shall mail it separately to the address on the face of this Order to the attention of the Safety Manager.
- D. By acceptance of this Order, Seller certifies: (1) Compliance with this clause; (2) an up to date SDS will be submitted prior to delivery of any hazardous material; or (3) that no hazardous material will be delivered, as applicable.
- E. For explosives or other dangerous Products which require review and approval by the Department of Transportation (DOT), Seller must submit two copies of the classification to Buyer by mail (one to ATTN: Safety Manager and one to ATTN: Packaging Development).
- F. When special permits or DOT exemptions are required, Seller shall ensure Buyer is a party to the provision and a copy of the permit or exemption is provided to Buyer by mail (ATTN: Packaging Development).

14. MARKING.

- A. General requirements:
 - (1) Markings shall be non-fading, clear, legible, and durable (capable of lasting throughout shipment and 90 days inside storage) marking in a color which shall contrast with the color of the container.
 - (2) Use labels, tags, stamping, printing, and/or stenciling compatible with the type of container used.
 - (3) All surfaces to be marked shall be clean and free of any marks not applicable to the shipment.
 - (4) When reusing containers, unnecessary or obsolete markings must be entirely removed or covered.
 - (5) Marking shall be located on one side of the container and must not be disturbed by the opening or closing of the container. Containers which are too small for labeling on one side may extend label to an adjacent panel.
 - (6) Precautionary, handling, and hazardous material markings and labels shall be applied to assure proper handling and description of contents, as required.
- B. Shipping containers must be marked per Condition 14 below.

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

- C. Intermediate containers must be marked to show:
 - a. Quantity of Items and unit of measure;
 - b. Part No(s);
 - c. Part name or description; and
 - d. Earliest cure or expiration date, etc., if applicable.

NOTE: If different Items are shipped within a single intermediate container, comply with Condition 14, subparagraph M (6).

- D. Unit containers must be marked to show:
 - a. Seller's name;
 - b. Quantity of Items and unit of measure;
 - c. Part No(s);
 - d. Shelf-life, if applicable:
 - i. Manufacture or assembly date (e.g., MFD DATE 11/98);
 - ii. Cure date (e.g., CURE DATE 4Q 98); and/or
 - iii. Expiration date (i.e., EXP DATE 11/98);
 - e. Serial no., when applicable (e.g., S/N 1234).

15. BAR CODING - SHIPPING LABELS.

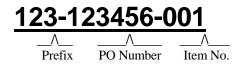
- A. Seller shall print and place bar coded shipping labels on all packages as set forth in the requirements and instructions of this Condition. Prior to first shipment, bar code must be approved by Buyer. All shipments must be bar coded when shipped to Northrop Grumman Systems Corporation.
- B. Users may consult AIM BC1 "Uniform Symbology specification Code 39" for bar code definitions and specifications. Data Identifier standards are as contained in American National Standards Institute (ANSI) MHl0.8.2-1995.
- C. Definitions.
 - (1) Bar Code Symbol An array of rectangular marks and spaces in a predetermined pattern. A bar code symbol contains a leading quiet zone, start character, data characters, stop character, and a trailing quiet zone.
 - (2) Element A generic term used to refer to either a bar or a space.
 - (3) Intercharacter Gap The space between the last element of one character and the first element of the adjacent character of a discrete bar code.
 - (4) Label A strip of paper, card, etc., marked and attached to an object to indicate its contents, ownership, and destination.
 - (5) Quiet Zone The area immediately preceding the start character and following the stop character and which contains no markings.
 - (6) Shipment An incremental delivery of one Part Number, Purchase Order (PO) and item number.
 - (7) Data Identifier One or more standard characters preceding the data in a bar code.

D. Label Characteristics.

- (1) The label must contain a minimum of five (5) rows of bar coded data. The upper left quadrant will contain the Seller's name and address who shipped the package, total weight of the PO Item being shipped, and the address where the package is to be delivered as referenced on the PO. The entire label with other associated Data Elements required is shown in Figure 1 attached.
- (2) Minimum label height must be 4.0 inches (102mm) with horizontal lines (rows), spaced 0.5 inch (13mm) to 0.94 inches (24mm) apart, that extend the full width of the label. The actual height of the rows is determined by Seller, or printer of the label, based on printer technology.
- (3) Minimum label width will be 6.0 inches (153mm). Seller, or printer of the label, determines the width based on the amount of data to be encoded and the density capabilities of the equipment to be used for printing the labels.
- (4) Labels must contain black lines and lettering with a white background.
- E. Human Readable Characteristics.
 - (1) The label's top row will contain only full width human readable print. Vertical and horizontal lines separating information are optional.
 - (2) Table 1, attached, describes the bar code human readable characteristics and minimum height of the characters.
 - (3) The data encoded in the bar code symbol must be defined in human readable characters at a minimum height of 0.01 inch (0.25mm) above the bar code symbol and left justified. The human readable print will not include the data identifier or the start/stop characters, and will start 0.0625 inches (1.588mm) from the left edge.
- F. Bar Code Characteristics. All bar codes shall be left justified in the lower half of the row and only one bar code is permitted per row. The height of all bar codes shall be a minimum of 0.5 inch (12.75mm).

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

- G. Significant and Non-Significant Zeroes.
 - (1) Significant leading/trailing zeroes are those which are part of a PO number, part number, item number or shipping document number and must be included when the bar code and/or human readable characters are printed.
 - (2) Non-significant leading zeroes in the data string must be suppressed when the bar code and/or human readable characters are printed.
 - (3) Trailing blanks on part numbers and shipping document numbers are suppressed on the bar code and at no time shall spaces be included in the bar coded data.
- H. Title. A title will be left justified and printed in the upper half of the row. The title specifies the data type (e.g., Packing List Number).
- I. Data Identifiers. Data identifiers correspond to a specific title enumerated on the PO which is per ANSI MHI0.8.2 1995. Data identifiers shall be used in all bar codes. Data identifiers will be added in human readable form directly below each title. Table 2, attached, provides data identifiers which must be included on all shipping labels.
- J. Definition of Descriptions. The following must be included on all shipping labels:
 - (1) The Prefix, PO and Item number which shall consist of a three digit numeric prefix, six digit PO and three digit item number in one bar code. Prefix, PO and Item number shall be as listed on the Northrop Grumman PO. PO suffix shall not be bar coded. Illustration 1, attached, may be used as a guide in locating the required information on Buyer's PO. Total length is fourteen characters with no zero suppression. The composition of the Prefix, PO, and Item number is as follows:



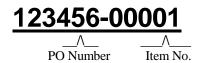
Examples: 117-912854-008

114-A68452-023

NOTE: Dashes have a significant meaning and must be bar coded.

OR

PO item shall consist of six digit PO and five digit item number in one bar code. PO and Item number shall be as listed on the Northrop Grumman PO. Total length is eleven characters with no zero suppression. The composition of the PO, and Item number is as follows:



Examples: 912854-00008 A68452-00023

NOTE: Dashes have a significant meaning and must be bar coded.

- (2) The Part Number shall be the purchased part number which contains a maximum of twenty-four (24) characters. See Illustration 1.
- (3) Total quantity and UM. The total quantity (Qty) is a maximum of eight (8) characters and the Unit of Measure (UM) is a maximum of four (4) characters as called out on the PO. The (UM) is displayed in human readable form, but is not bar coded. Table 3 contains standard UM's. See Illustration 1.
- (4) Packing List No. will contain a maximum of eight (8) characters. If the number exceeds eight characters, only the last eight characters are bar coded on the label.
- (5) No. of Container shall include the container number as well as the total number of containers in the shipment in human readable form; however, only the total number of containers is bar coded (example: bar code for container 1 of 5 would scan NQ5, bar code for container 2 of 5 would scan NQ5, etc.).

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

- K. Label Location, Shipping Instructions, and Protection. A label shall be located and affixed to the outer surface of each shipping container. (See Figure 2.) A duplicate must be included with the Packing List.
- L. Bar Code Placement.
 - (1) Rectangular Packages The bar code symbol will be located on one side panel. The bar code should be 2.0 inches above the bottom of the container, and the right edge of the bar code label shall be 2.0 inches from the side edge of the container, when possible.
 - (2) Curved Surfaces The bar code shall be placed on the lower quarter of the panel, located 1.5 inches below the top edge of the package.
 - (3) Irregular Shapes For irregularly shaped containers and bundles without a visibly suitable surface, a wired tag with the label affixed shall be attached so as to be visible from the outside.
 - (4) The leading and trailing edge of the quiet zone must be at least 0.75 inch (19mm) away from all edges of the container or wired tag.
 - (5) When shipping more than one container per PO, the bar code label shall be applied to all containers. For example, if one order consists of three (3) boxes (all same part number), the containers are bar code labeled "1 of 3," "2 of 3" and "3 of 3" in Human Readable characteristics in the container number field. The bar code contains only the total quantity of all three (3) boxes.
 - (6) Multiple PO's consolidated into one shipping container must be individually packaged and properly identified and bar coded. Each line item, whether from the same or different PO's, must be packaged separately and properly identified. If containers are too small for bar coding, labels may be affixed to the outside of the shipping container. A duplicate label shall be attached to the Packing List. One line item per Packing List.
 - (7) Labels will be protected against moisture, weathering, abrasion or other harsh environments. Clear plastic tapes, window envelopes, and clear plastic pouches are examples of acceptable protection methods.
 - (8) Labels shall be applied wrinkle-free.
- M. Scanning.
 - (1) A Visible Light Scanner will be used. The scanner is designed to read medium density bar codes.
 - (2) For optimum scanning, the leading and trailing quiet zone margin (bar code symbol to vertical box lines) will be a minimum of 0.25 inch (6.4mm).
- 16. PACKING SHEETS. Seller shall ensure that all materials shipped are accompanied by a standard commercial packing sheet. Seller's packing sheet number shall not exceed 12 characters. Seller shall include the following information on the packing sheet:
 - A. PO Number PO Line Item Number Ship Quantity Number of Cartons Part Number Part Name Traceability Data (i.e. serial number, date code/production lot#,)
 - B. Seller shall affix one packing sheet to the outside of each individual Line Item carton. For consolidation shipments, Seller shall affix all the packing sheets to the outside of the consolidation box. Seller shall include copy of Packing Sheet inside container.
- 17. DIRECT SHIPMENT FROM SELLER TO THE GOVERNMENT.
 - A. Seller shall preserve and package all Items in accordance with requirements specified in the contract including coded packaging data and Special Packaging Instructions (SPI's), as applicable.
 - B. Unless otherwise specified, Seller shall preserve and package all Products for system spares, all Products for overseas shipments, and all class 3110 anti-friction bearings in accordance with the applicable military level of preservation criteria found in Mil-Std-2073. All other Items shall be preserved and packaged in accordance per ASTM-D 3951.
 - C. Seller shall pack all Items for shipment in accordance with requirements specified in the contract. Exterior shipping containers shall comply with the level of pack required. Unless otherwise specified, the required packing levels are as follows:
 - (a) Domestic shipments (Best Commercial) None (refer to ASTM-D 3951)
 - (b) Domestic shipments (Military Packaging) (refer to Mil-Std-2073)
 - (c) Overseas Shipments per Mil-Std-2073:
 - (a) Via air, FPO, APO
 (b) Via freight forwarder
 (c) Via surface
 Level B
 Level B
 Level A
 - D. Unless otherwise specified, Seller shall mark all unit containers, intermediate containers and shipping containers in accordance with MIL-STD-129.

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum
Northrop Grumman Systems Corporation

From: TOTAL WT. 50 LB Ship To: Northrop Grumman Integrated Systems 225 East John Carpenter Freeway Irving, TX 75062-2269	No. of Containers NQ 1 OF 5			
	Packing List No. 12345678			
	Total Qty UM 7Q 60 EACH			
Prefix-PO-Item No. 123-123456-001				
Part No. P 335	5962-322AF			

Figure 1. Example of Northrop Grumman Systems Corporation — Bar Code Label

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

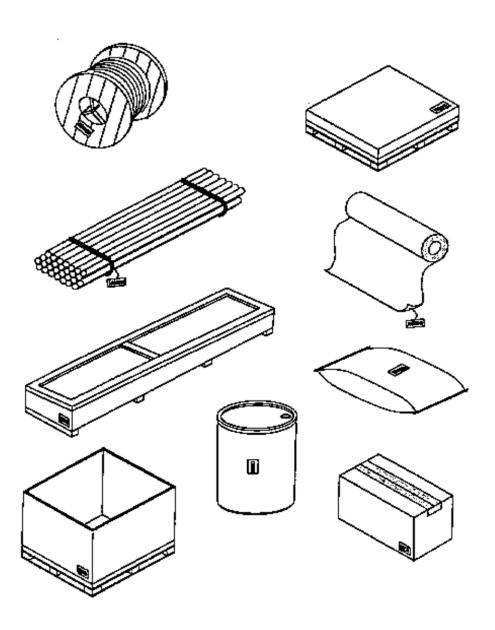


Figure 2. Bar Code Placement

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

Table 1. Bar Code Human Readable Characteristics

Data Identifier	Description	Height
	Ship To: Company and Address as Specified on PO	0.1875 inch (4.78mm)
NQ	No. of Container	0.1875 inch (4.78mm)
2K	Packing List No.	0.1875 inch (4.78mm)
7Q	Total Qty UM	0.1875 inch (4.78mm)
K	Prefix-PO-Item Number	0.250 inch (6.37mm)
P	Part No.	0.250 inch (6.37mm)

Table 2. Data Identifiers

Data Identifier	Block Title	Description	Characteristics
	From:	"From" Seller's Address	Variable Length
	Ship To:	Purchase Order "Ship To" Address	Variable Length
NQ	No. Of Container	Container Number and Total Number of Containers (e.g. 1 of 5)	3 Character Numeric – Variable
2K	Packing List No.	Packing List Number	8 Characters Alpha Numeric – Variable
7Q	Total Qty UM	Ship Quantity Unit of Measure	8 Characters Numeric – Variable 4 Characters Alpha – Fixed
K	Prefix-PO-Item	Prefix Purchase Order Number Item Number	3 Character Numeric – Fixed or NONE 6 Characters Numeric/Alpha Numeric – Fixed 3 Characters Numeric – Fixed or 5 characters numeric
P	Part No.	Part Number	24 Characters Alpha Numeric – Variable

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

Table 3. Standard Units of Measure

Table 3. Standard Units of Measure (Continued)

	dard Units of UP	
Description		DIM Code
Bag	BG	1
Bale	BA	1
Barrel	BL	1
Barrel	BR	1
Barrel	BRRL	1
Board Foot	BD	8
Board Foot	BDFT	8
Board Foot	BF	8
Bolt	BO	1
Bolt	BOLT	1
Bottle	BT	1
Boxes	BX	1
Boxes	BXES	1
Bundle	BN	1
Bundle	BNDL	1
Can	CN	1
Carboy	СВ	1
Carboy	CR	1
Carboy	CRBY	1
Carton	CT	1
Carton	CTON	1
Case	CA	1
Case	CS	1
Case	CSES	1
Centimeter	CM	1
Coil	COIL	1
Cone	CO	1
Cubic Centimeter	CC	1
Cubic Feet	CF	1
Cubic Meter	M3	1
Cylinder	CY	1
Day	D	1
Dollar	DO	1
Dozen	DZ	1
Dozen	DZEN	1
Dram	DM	1
Drum	DR	1
Drum	DRUM	1
Each	EA	1
Each	EACH	1

Description	UP	DIM Code
Equipment	EQ	1
Feet	FE	3
Feet	FEET	3
Feet	FT	3
Gallon	GA	1
Gallon	GL	1
Gallon	GLLN	1
Gallon Kit	GK	1
Gram	GM	1
Gross	GR	1
Gross	GROS	1
Hank	НА	1
Hank	HANK	1
Head Count	НС	1
Hours	HR	1
Hundred	С	1
Hundred Weight	CW	1
Inch	IN	2
Inch	INS	2
Keg	KE	1
Keg	KEGS	1
Kilogram	K	1
Kilogram	KG	1
Kit	KI	1
Kit	KITS	1
Kit	KT	1
Length	LG	1
Length	LGTS	1
Linear Meter	LM	1
Linear Meter	LMET	1
Linear Yard	LY	6
Linear Yard	LYRS	6
Liter	LI	1
Liter	LR	1
Lot	LO	1
Lot	LOT	1
Lot	LOTS	1
Lot	LT	1
Meter	MT	1
Miles	MI	1

SPECIALIZED TERMS AND CONDITIONS

Packaging, Packing, Marking and Bar Coding Addendum
Northrop Grumman Systems Corporation

		Northrop Grunnlan	Syste	ins Corporation		
Million Cubic Feet	MC	1	So	. Foot	SFET	
Month	МО	1	So	. Inch	SI	
Nut	NU	1	So	. Inch	SINS	
Nut	NUTS	1	So	. Yard	SY	
Ounce	OZ	1	So	. Yard	SYRS	
Ounce	OZS	1	Та	ınk	TK	
Package	PG	1	Tl	ousand	M	
Package	PK	1	To	n	TN	
Package	PKGS	1	To	n	TNS	
Pad	PA	1	To	n	TO	
Pad	PADS	1	Tı	oy Ounce	TR	
Pad	PD	1	Tı	oy Ounce	TROZ	
Pail	PL	1	Tı	ibe	TB	
Pail	PLS	1	Tı	be	TU	
Pair	PR	1	U	nit	UN	
Pair	PRS	1	U	nit	UNIT	
Piece	PC	1	Y	ard	YARD	
Pint	PI	1	Y	ear	YR	
Pint	PINT	1	ı		-	
Pint	PT	1				
Pound	LB	1				
Pound	LBS	1				
Quart	QT	1				
Quart	QTS	1				
Quart Kit	QK	1				
Quire	QR	1				
Quire	QRES	1				
Ream	RE	1				
Ream	REAM	1				
R	RM	1				
Roll	RL	1				
Roll	RO	1				
Roll	ROLL	1				
Sack	SK	1				
Set	SE	1				
Set	SETS	1				
Set	ST	1				
Sheet	SH	1				
Sheet	SHTS	1				
Spool	SP	1				
	1			1		

SPLS

SF

Spool

Sq. Foot

SPECIALIZED TERMS AND CONDITIONS Packaging, Packing, Marking and Bar Coding Addendum Northrop Grumman Systems Corporation

(This page intentionally left blank)