



**MAGELLAN**  
A E R O S P A C E

**Magellan Aerospace New York, Inc.**

97-11 50<sup>th</sup> Avenue, Corona, NY 11368 718 699-4000

25 Aero Road, Bohemia, NY 11716 631 589-2440

# SQAR SUPPLIER QUALITY ASSURANCE REQUIREMENTS

Revision: I

Magellan Aerospace, New York, Inc.

**PROPRIETARY**

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Revision	Date	Change Description
F	May 29, 2009	Reformatted and revised in its entirety. Revisions are too extensive to post. All previous revision changes have been archived.
G	July 29, 2010	Revised Para. 2.3, 2.4, 3.8.1, 3.10.4, 4.1.1, 4.4.1, 6.1.1.1, 6.7.2.1, 8.6.3, 8.6.6, 8.8.1.6, 8.9.2. Revised Figure 4
H	July 18, 2012	Revised Process owner. Revised Table of Contents. Revised applicable documents Revised Para. 2.2, 2.3, 2.4, 3.8.1, 3.10.2, 3.10.4, 4.1.2, 6.1.1, 6.6.1.1, 6.6.1.3, 6.9, 8.6, 8.6.2, 8.8.1.5. 8.9 Added definition of Counterfeit Parts to Para. 2.5 Added Para. 3.11, 6.4.2, 6.6.2, 6.6.2.1, 6.9.8, 6.10, 6.10.1., 6.8.2 & 6.8.3, 9.2.3 Revised Figures 3 & 4 Added Figures 5 and 6. Revised Table 1-Supplier Documentation Added Table 2- Certificate of Compliance
I	March 26, 2015	Changed company name from Ellanef Manufacturing Corporation/Ellanef to Magellan Aerospace, New York, Inc. Changed ESQAR to SQAR due to company name change SQAR is now an appendix to Q7.4.1-3-Corporate Magellan Aerospace Supplier Quality Requirements Manual Reformat and re-sequence sections to agree with Q7.4.1-3 Corporate Magellan Aerospace Supplier Quality Requirements Manual.

<p>Approved by: <u>Gerardo Patino</u>      On-File      Approval Date: 5/8/2015                  Director-Quality</p>
<p>Approved by: <u>Constance Hudson</u>      On-File      Approval Date: 5/8/2015                  Purchasing Manager</p> <p style="text-align: right;">Release Date: 5/11/2015</p>

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## 1.0 Purpose and Scope

- This SQAR supplements Magellan Aerospace, Q7.4.1-3- Magellan Aerospace Supplier Quality Requirements Manual.
- Herewith the Word “MANY” as it appears in this document, it shall be understood and treated as Magellan Aerospace, New York, Inc.
- This SQAR invokes additional Quality Assurance Requirements for MANY suppliers. Only those sections of the manual that have additional MANY requirements will be noted in this document.
- Suppliers shall meet the requirements of the latest revision of Q7.4.1-3 Magellan Aerospace Supplier Quality Requirements Manual for each element plus any additional MANY requirements as stated in this SQAR.
- Suppliers can obtain a copy of Q7.4.1-3-SQRM available on external Magellan site under Supply Chain navigation bar: <http://magellanaerospace.com/>

## 2.0 Definitions

- *Authorized Distributor (AS5553)*  
Distributor when they perform Authorized Distribution
- *Authorized Reseller (AS6174)*  
An entity that has a legally binding relationship with the legally authorized source, but does not provide direct product support to the customer
- *Counterfeit Materiel (AS6174)*  
Fraudulent materiel that has been confirmed to be a copy, imitation or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right with intend to mislead, deceive or defraud
- *Counterfeit Part (AS5553)*  
Fraudulent part that has been confirmed to be a copy, imitation or substitute that has been represented, identified, or marked as genuine, and/or altered by a source without legal right with intend to mislead, deceive or defraud
- *Counterfeit Work*  
Means that work contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. The term also includes work that has reached a design life limit or has been damaged beyond possible repair, but is altered and misrepresented as acceptable.
- *Dock-to Stock Delegated Supplier*  
A supplier of goods or services to the MANY, Inc. who has demonstrated a high level of system and product quality and has been fully or partially delegated to verify that products, processes, or services meet the required quality level on behalf of MANY, Inc. receiving inspection department.

**This document is considered uncontrolled. Refer to the electronic file for the latest revision.**

- *Materiel (AS6174)*  
Materiel refers to material, parts, assemblies, and other procured items (except for electronic parts, which are covered by AS5553)
- *Product(s)*  
The term “product” shall encompass detail parts, standard hardware, assemblies and sub-assemblies and services, or any other item to be incorporated into a deliverable end-item to MANY, Inc. customer contract/purchase order.
- *Work*  
Consist of parts delivered under contract that are the lowest level of separately identifiable items. (e.g., articles, components, standard hardware, goods, raw materials and assemblies).

### 3.0 Related Documents and Applicable Forms

Additional MANY requirements:

- *Applicable Documents and Industry Standards*

AS9100/EN9100	Quality Management Systems-Requirements for Aviation, Space and Defense Organizations.
AS9103	Variation Management of Key Characteristics
ISO9001	Quality Management Systems - Requirements
AS5553	Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition
AS6174	Counterfeit Material; Assuring Acquisition of Authentic and Conforming Material
Q7.4.1-3	Magellan Aerospace Supplier Quality Requirements Manual
- *Applicable MANY, Forms*

EMC 0135	Supplier Manufacturing Plan Review/Approval Memo
EMC 0161	Quality Alert
QCF 1002	Inspection Rejection Report (IRR)
- *Reference Documents: MANY, Customer, Regulatory Standards*

D6-1276	Control of Materials and Processes for Designated Parts and Components of Boeing Parts
D950-11059-1	Boeing Defense System-BDS Seller Special Tooling Requirements
D33200-1	Boeing Suppliers Tooling
D6-51991	BCAG Quality Assurance Standards for Digital Product Definition for Boeing suppliers.
D6-82479	Boeing Quality Management System Requirements for Suppliers
DOC 300	Supplier and Quality Requirements
SCREQ-001	Process Requirements in Developing Excellence (PRIDE)
SQAR	Supplier Quality Assurance Requirements (Northrop Grumman)
15 CFR 700	Defense Priorities and Allocations System
252.225-7008	Restriction on Acquisition of Specialty Metals

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252.225-7009	Restriction on Acquisition of Certain Articles Containing Specialty Metals
252.225-7012	Preference for Certain Domestic Commodities
BAE/AG/QC/SCI, Parts 1 to 7	BAE Systems Aircraft Business Units Quality Management System for Suppliers
Appendix QJ	Seller Quality Requirements QCS-001 Processing Sources
Appendix QX	Supplier Quality Requirements

## 4.0 Quality Management System

### 4.2.3 Control of Documents

Additional MANY requirements:

- Export Controlled Data

Suppliers who are handling technical data identified as “Export Controlled” must control the data in accordance with international traffic in arms regulations (ITAR) title 22, sub-chapter “M”. [http://epic.org/crypto/export\\_controls/itar.html](http://epic.org/crypto/export_controls/itar.html)

### 4.2.4 Control of Records

Additional MANY requirements:

- The Supplier shall maintain records for a minimum period of 10 years, from the date of shipment under each applicable order for all product/part numbers unless otherwise specified by purchase order. In the case of insolvency, the supplier must notify MANY purchasing as soon as possible. MANY has the right to retrieve any and all manufacturing, and quality documents as directed by MANY customer buying activity, or the MANY Purchasing Agent upon request at no cost to MANY.
- Supplier shall maintain the following type of records, but not limited to:
  - First Article Inspection Report (FAIR)
  - Material Certification(s)
  - Process certification(s)
  - Calibration record(s)
  - Fabrication/ Work order traveler(s)
  - Inspection and test Records
  - Nonconformance Reports
  - Nondestructive certifications
  - Corrective Action
  - Audit Results
- All entries on any Quality Records shall be entered using ink only. No liquid correction fluid (white-out) is permitted. If a correction is needed, a neat single line shall be drawn through the incorrect entry. The correct information shall be entered next to the incorrect information. The person authorizing the change shall enter his/her initials and enter the date.

## 5.0 Management Responsibility

No Additional MANY requirements.

## 6.0 Resource Management

No Additional MANY requirements.

## 7.0 Product Realization

### 7.1 Planning of Product Realization

Additional MANY requirements:

- Material Substitutions - Applies to all Suppliers

Material substitutions of any type are forbidden by the sub-tier supplier. Materials used to produce product must conform to the engineering defined by the MANY purchase order / contract. All requests for material substitution must be made to MANY Purchasing Agent in writing prior to start machining.

- Supplier Manufacturing Plan submittal requirements - Applies to Build-to-Print suppliers including processing, and Machining Suppliers less processing only.

Manufacturing plans requiring MANY approval shall include the minimum engineering data references (specification, flag note, etc.) necessary to control and produce the parts and include all of the machining, processing, test and inspection operations necessary to complete the parts to the purchase order and engineering requirements. This includes applicable satellite plans and techniques from sub tier suppliers and processors as applicable.

Note: Manufacturing plan guidelines and other similar information are available from MANY, Quality Engineering department, upon request.

Prior to start of production, the supplier shall submit to MANY a Manufacturing Plan for all parts (exceptions will be noted on Suppliers P.O.), including Forgings that are controlled by Boeing document D6-1276. MANY and/or MANY Customer will review it and approve it if acceptable. If the Plan is considered unacceptable, the supplier will be required to resubmit with the changes embodied. Once approved by MANY or its customers, revisions or variations shall not occur unless approved by Magellan Aerospace, New York, or its prime customer, except for Dock-To-Stock machining suppliers as noted in the bullet below.

- Supplier Manufacturing Plan re-submittal requirements: Applies to Dock-To-Stock Machine Suppliers Only.

Dock-To-Stock machine suppliers are required to submit initial manufacturing plan for review and approval as noted above, except subsequent revisions to the manufacturing plan after initial MANY approval are not required to be re-submitted for approval unless stated on EMC 0135 "Supplier Manufacturing Plan Review/Approval Memo".

- Supplier Technique Sheets

**This document is considered uncontrolled. Refer to the electronic file for the latest revision.**

For production operations that MANY customer's (Prime) require special processes to be controlled by techniques, MANY QE will request technique's using the EMC 0150 "Technique Sheet Request Form". See FIGURE 5 for an example of this form.

- Electronic submission of Manufacturing plans

The manufacturing plan must be submitted to MANY for review and approval. The file must be sent as a PDF attachment to [quality.documents@magellan.aero](mailto:quality.documents@magellan.aero) within 30 days after receipt of order.

Note: Manufacturing plans shall not be submitted to purchasing agents. If plans are submitted to purchasing agents or by any other means such as mail, fax, etc., they will not be reviewed and shall be rejected back to the supplier for re-submittal.

Submitted plans will be reviewed by MANY Manufacturing Engineering and Quality Engineering. The review will be documented on EMC 0135 "Supplier Manufacturing Plan Review/Approval Memo". EMC0135 will be issued and sent electronically as a PDF attachment to the supplier sender e-mail address. See FIGURE 4 for an example of this form.

Note: MANY approval does not relieve the supplier of their responsibilities to comply and provide conforming parts according to MANY purchase order requirements.

## 7.2 Customer Related Processes

### 7.2.2 Review of Requirements Related to the Product

Additional MANY requirements:

- Purchase Order Review  
Supplier is required to be in possession of MANY customer's (Prime) Supplier Quality Assurance Requirements such as:
  - Boeing D6-82479
  - UTC Aerospace Systems - Doc 300
  - Lockheed Martin - Appendixes QJ and QX
  - Messier Bugatti Dowty - SCREQ-001 Pride
  - Northrop Grumman - SQAR
  - BAE Systems - BAE/AG/QC/SCI, Parts 1 to 7

To have on hand; latest MANY customer specifications and standards as applicable to process, finish, nondestructive testing and manufacturing and a copy of MANY Specification Index. Specification Index will be distributed to Build-to-print, machining and special process suppliers.

Note: Customer specifications and customer standards will be furnished by Magellan Aerospace, New York Quality Engineering when requested by supplier. Supplier is responsible for acquiring and maintaining non customer specification and standards (MIL, SAE, ASTM, AMS, ANSI, NAS, etc.). MANY will not be furnishing these specifications/standards to suppliers.



## 7.4 Purchasing

### 7.4.1 Purchasing Process

Additional MANY requirements:

- Dock to Stock Delegated Suppliers

Delegate Dock-to-Stock Supplier responsibilities

Delegate supplier responsibilities shall include, but not limited to, the following:

- Examination and review of all required documentation for completeness, correctness, and legibility
- Verification that all committed changes have been incorporated for product being shipped
- Verification that recorded nonconformance are cleared by MANY and/or MANY customer for authorization to ship when applicable
- Verification that First Article Inspection (FAI) requirements are current and on file.
- Review and approval of all First Article Inspection (FAI) reports
- Review of MANY purchase order and verification that all purchase order requirements are met
- Subcontract Machine part suppliers with no ISO9001 or AS9100 certification shall have all submitted Certificates of Conformance bare evidence that final inspection has been performed by supplier Quality Assurance Inspection and the inspection stamp affixed and dated to the Certificate of Conformance

MANY reserves the right to request required documentation as deemed necessary in support of Customer request or as part of an audit verification for compliance of the Dock-to-Stock delegation.

- Supplier Packing Slip (Standard part & machine part)

The supplier will enter in their packing slip the following statement: **“MANY DOCK-TO-STOCK DELEGATED SUPPLIER”** To show evidence acceptance of products, an employee from the supplier quality assurance organization must sign, QA stamp and date the packing slip.

- Supplier Evaluation and Rating

MANY Quality Assurance management is responsible for limiting or suspending the use of suppliers or subcontractors whose quality system and/or performance is consistently deemed unacceptable.

The Supplier Performance Report-SPR is the means through which all MANY suppliers are evaluated. The SPR is actually comprised of two key metrics; Quality Acceptance and On-time Delivery.

The results of each metric are reported separately and are not combined to establish the overall supplier rating. Suppliers are grouped into four different categories such as Raw Material, Special Process, Hardware, and Subcontracting Machining. The frequency of evaluation is based on supplier category and open purchase orders.

- Suppliers are evaluated with regards to the following criteria:

The rating will be based on a 12-month rolling.

- Quality Acceptance:  
The number of acceptable parts as a proportion to the total number of parts received last 12-months
- On-Time Delivery: The number of parts received on-time as a proportion of the total number of parts scheduled based on “Need Date” last 12-months  
MANY is using a receive time window to establish if parts are delivered early or late to the “Purchase order Need Date”. A delivery is considered early if parts are received more than three (3) days from the “P.O. Need Date” and they are considered late if they are received one (1) day after “P.O. Need Date”. “P.O. Need Date” is defined as Magellan On-Dock date.

Note: MANY reserve the right to relax the on-time delivery window for Emergent Market suppliers.

- Quality and Delivery Rating

<b>GREEN</b>	<b>ACCEPTABLE</b>	<b>QUALITY- 100%-99% Acceptance DELIVERY: 100%-95% On Time</b>
<b>YELLOW</b>	<b>NEED IMPROVEMENT</b>	<b>QUALITY- 98.9%-98% Acceptance DELIVERY: 94.9%-90% On Time</b>
<b>RED</b>	<b>UNACCEPTABLE</b>	<b>QUALITY- &lt; 98% Acceptance DELIVERY: &lt; 90% On Time</b>
	<b>NO RATING (NR)</b>	<b>NO ACTIVITY</b>

See FIGURE 2 and 3 for a SPR sample and explanation

A notification may be included with a supplier’s Quality Evaluation requiring a response from those suppliers who fail to meet MANY standards on Product Quality and deliveries. Such notification is intended for the supplier to correct existing problems and to prevent future difficulties, all in the pursuit of meeting MANY Quality Standards and purchase order.

MANY reserves the right to conduct on-site audits on those suppliers that reflect an upward or continued trend of quality and delivery issues, as evidenced by the results from the supplier’s quality performance or as deemed necessary by MANY quality and procurement management.

7.4.2 Purchasing Information

Additional MANY requirements:

- Notification of Supplier Changes

Supplier shall immediately notify MANY, Purchasing Agent in writing if any of the following Suppliers' items change:

- quality system status resulting in the loss of the 3<sup>rd</sup> party registrar's certification
  - quality management representative with assigned responsibility and authority for the quality system
  - manufacturing facility location of the contracted part number
  - company name
  - ownership
- Q7.4.1-3 and SQAR Flow Down

Supplier is responsible to flow down to the supply chain the applicable requirements including customer requirements of Q7.4.1.-3 Magellan Aerospace Supplier Quality Requirements Manual and MANY-SQAR.

- Specification Index. Apply to Build-to-Print, Machining and Special Process suppliers only.

The purpose of the Specification Index is to provide the latest customer specification revision and requirements. Unless otherwise specified or as noted below, the supplier shall use the specification revision levels listed on the specification Index. However, the supplier may use a later revision specification, as long as there is no cost or schedule impact to MANY, Inc.

The Specification Index is set up by customer. Each section contains all applicable specifications for that customer. The specifications listed in the index are primarily regarding to process, finish, nondestructive testing and manufacturing. Specifications other than customer specifications (MIL, Federal, NAS, MS, ASTM, etc.) are listed in the MISCELLANEOUS section. MANY, Inc. does not furnish Military and Industry specifications (AMS, MIL, etc.). Supplier is responsible to obtain copies as required to support MANY purchase order.

- Specification Index revisions and distribution.

MANY Quality Engineering will update and issue the Specification Index every three months to affected suppliers. Suppliers will receive only the applicable customer specification section to support purchase order. Suppliers are required to acknowledge receipt and return via e-mail to Quality engineering. Any questions concerning the Specification Index should be directed to the Quality Engineering Department. The Specification Index should not be duplicated for it is a controlled document.

- Raw Material Suppliers and Distributors.

Raw Material distributors shall deliver raw material according to MANY purchase order/contract specified size, condition and material specification. The material has to be traceable to the original material producer. All requests for material substitution and/or deviation must be made to MANY Purchasing Agent in writing prior to accepting the Request for Quote and/or Purchase Order and prior to delivering the

material. Deviations shall be clearly stated and substantiated by the distributor at the quoting process. MANY will review deviation request against customer engineering requirements and will request authorization from MANY customer as required prior to authorize the deviation.

- Validation of Raw Material Test Reports.

When Supplier utilizes test reports to accept purchased raw material, the following requirements apply:

Test reports shall be checked 100% against Supplier flowdown requirements and applicable specifications.

Validation test requirement: Supplier shall periodically validate test reports for raw material accepted on the basis of test reports. That validation shall be accomplished by Supplier or other independent party through periodic, scheduled tests of raw material samples. Schedules for frequency of tests will be established by Supplier based on historical performance of the raw material supplier.

Supplier shall retain test reports provided by the raw material supplier, as well as Suppliers validation test results as quality records traceable to the conformance of Goods, as specified elsewhere in this Contract.

- Restriction on Acquisition of Specialty Metals -DFAR clauses 252.225-7008, 252.225-7009, 252.225-7012 - Military Programs Only

Supplier shall be aware that these clauses restrict the country of origin for certain specialty metals used in products to be delivered to the US Department of Defense (DoD). The DFARS clauses 252.225-7008/-7009/-7012 Restriction on Acquisition of Specialty Metals require that any specialty metals incorporated into articles to be delivered to the DoD shall be melted in the United States its possessions or Puerto Rico or in certain qualifying countries. Supplier is required to obtain a copy of the DFARS clauses 252.225-7008/-7009/-7012 and comply.

#### 7.4.3 Verification of Purchased Product

Additional MANY requirements:

- Counterfeit Parts/Materiel Prevention

Supplier shall establish and maintain a Counterfeit Parts / Materiel Prevention and Control Plan using AS5553 (Ref. elements of Section 4) and/or AS6174 (Ref. elements of Section 3) to ensure that Counterfeit Work is not delivered to MANY. The purpose of the Plan shall be to develop a robust process to prevent the delivery of counterfeit commodities and control commodities identified as counterfeit.

- a) For purposes of this clause, Work consists of those commodities delivered under this Contract that are the lowest level of separately identifiable items (e.g., articles, components, standard hardware, goods, raw materials and assemblies).
- b) Supplier should only purchase product to be delivered or incorporated as Work to MANY whenever possible, directly from the Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEM) or from manufacturer's

authorized distributor chain, or authorized reseller. These products shall have verification that Work is traceable to OCM/OEM; OCM/OEM authorized distributor chain, aftermarket Manufacturer, or Authorized Reseller that identifies the name and location of all supply chain intermediaries from the part manufacturer to the direct source of the product for the seller. Supplier must use customer approved sources when such sources are required by the customer or indicated on the customer's purchase order. The supplier must have a certification from the OCM/ OEM, and that certification shall be delivered with each lot/ shipment.

- c) Suppliers that deliver next higher assemblies shall flow this requirement down on their purchase order to all their sub-tier suppliers to prevent the inadvertent use of counterfeit parts and materiel's.

- Key Characteristics

If MANY flows down a key characteristic(s), the supplier must control these key characteristics in accordance with AS9103 and provide evidence of control when requested. MANY supplier is also required to flow to its sub-tier suppliers the applicable requirements in the MANY purchase documents to the lowest tier, including the key characteristics where required.

- Customer Approved Suppliers

When MANY customer requires the use of Customer approved suppliers, the supplier is responsible for using only those suppliers listed on customer's web portal. All suppliers purchased material or services must be obtained from MANY customer (Prime) approved supplier / Qualified Parts List (where applicable). Refer to Magellan Purchase order note for specific customer portal information.

## 7.5 Production and Service Provision

### 7.5.1 Control of Production and Service Provision

Additional MANY requirements:

#### 7.5.1.1 (1) Vii. Production Process Verification

It also encompasses consumable materials (e.g. sealant, paint, part mark ink, etc.) The drawing and related specifications will define material requirements, and allowed substitution.

- MANY, Quality Alert Flow Down to Suppliers

Compliance to Quality Alerts requirements is contractually required upon being issued by MANY, or as per point of effectivity date listed in the Quality Alert. Suppliers shall:

- Review the requirements listed on the Quality alert
- Determine contractual effect (if any) of the Quality alert
- Notify the applicable MANY Purchasing Agent of the impact (if any)

- Take necessary actions to ensure compliance to requirements of the Quality alert
- Acknowledge and return Quality Alert when requested

### 7.5.3 Identification and Traceability

Additional MANY requirements:

- Part identification shall be to MANY PO requirements, drawing requirements or customer specification.

If MANY customer requires a specific part identification format, MANY, PO will specify the format.

Unless otherwise specified, supplier is responsible for assigning and controlling serial numbers when required by drawing or purchase order.

- Serial number consists of an alpha-Numeric format.

The first part is the supplier identification letters. Suppliers can use up-to three letters.

If not already done, supplier shall provide this information to MANY Quality Engineering before they can start using the format. Supplier's alpha prefix will be stored in MANY, Approved Supplier Database.

The second part consists of four up-to six digits. The serial starts from 0001.

Note: Serial Number once assigned to a Part Number it cannot be duplicated or reused for the same part number.

- Part Marking

When part marking is required to be marked on the product as specified in the engineering drawing/model, it must follow example below.

When this format is in conflict with a customer contractual requirement, it will be noted on MANY Purchase Order.

In the event that a manufacturing identification number (MFR) is required to be marked on the product as specified in engineering drawing, the notation (MFR) followed by the suppliers CAGE number shall be marked below the design activity's identifying numbers as follows:

81205-6546366-1 (CAGE, dash and part number) FL1

MFR XXXXX (Suppliers' CAGE number) FL2

Or (if serialization is required)

81205-6546366-1 (CAGE, dash and part number) FL1

ABCXXXX (Suppliers Prefix and number) FL3

MFR XXXXX (Supplier's CAGE number) FL2

FL1: CAGE and dash not required for Boeing Commercial Programs.

FL2: If manufacturer does not have a GAGE Code, MFR 85941 must be used.

FL3: The prefix should consist of one (1) to three (3) letters (e.g. ABC) which identifies the supplier's of the part and four (4) to six (6) numbers (e.g. starting at 0001) which indicates the unique number.

Marking should be applied in the format shown. If part configuration does not permit compliance with format, marking may be varied as long as the intent of identifying the part is accomplished.

In the event that space constraints do not permit the full markings to be applied, contact MANY, Quality Assurance for alternate instructions.

- Control of Critical Parts

MANY purchase order and/or to the extent where MANY subcontracts work directly to processing suppliers, MANY Processing route cards issued with the parts will identify customer requirements pertinent to the control of critical parts.

Suppliers who subcontract critical parts to other sub tiers shall establish and identify customer requirements pertinent to the control of critical parts.

Suppliers are responsible for controlling critical parts in accordance with MANY purchase order requirements and customer specification.

- Critical Parts Document Identification

The terms "Fracture Critical", "Maintenance Critical", "Fracture Critical Traceable", "Fatigue Critical", "Safety/Mission Critical", Designated Parts, Critical Parts, or other similar terms as specified by specific customer classification shall be prominently posted on all documents pertaining to these parts. That is, Purchase Orders, Manufacturing Plans, Work Orders, Inspection Reports, Certifications, Shipping Documents, NDT written procedures and Discrepancy Reports. These requirements shall be defined on the purchase order / contract, or by other communication from MANY, irrespective of what form that notification takes.

## 7.6 Control of Monitoring and Measuring Equipment

Additional MANY requirements:

- Supplier supporting Boeing Programs- Apply to Build to Print, Machining, Forging, and Castings Suppliers Only.

Suppliers which are performing work for Boeing using Digital Product Definition-DPD shall comply with D6-51991, BCAG Quality Assurance Standards for Digital Product Definition for Boeing suppliers. Suppliers will be required to complete DPD checklist and return to MANY along with supportive evidence for review. Depending of supplier DPD supplied procedures and supportive objective evidence, compliance to checklist and

scope of work, MANY will decide if an initial on-site audit will be required to further assess Supplier compliance with D6-51991. Subsequent on-site audits will be scheduled to verify supplier continued compliance to requirements.

- MANY Furnished Tooling  
MANY Owned Tooling, Customer-Government Owned Tooling and Measuring Equipment-  
It is not MANY policy to provide measuring tools or tooling to suppliers.

In the event that MANY has agreed to provide MANY and/or Customer-Government owned tooling and/or measuring tools in support of MANY purchase order, the supplier shall maintain an accountability of tooling in their possession to monitor activity and location. Tooling is subject to MANY audits. Supplier will return MANY tooling upon completion of the contract. Supplier will contact Purchasing agent for directions.

- Supplier Manufactured Tooling

If Supplier is required to manufacture tooling to support MANY purchase orders and the tooling becomes MANY property. Supplier shall contact purchasing agent for required part marking and identification guidelines. The supplier shall maintain an accountability of MANY tooling in their possession to monitor activity and location. Tooling is subject to MANY audits. Supplier will return MANY tooling upon completion of the contract. Supplier will contact Purchasing agent for directions.

- Boeing IDS D950-11059-1 and D33200-1 ST-Special Tooling requirements

These documents apply to all Government- and Boeing-owned ST used by MANY and its subcontractors with ST responsibilities in the performance of purchase contracts from Boeing Integrated Defense Systems and Boeing Commercial.

When imposed contractually, Subcontractors shall comply with the requirements of this document. Subcontractor shall maintain adequate documented procedures and training to implement and maintain these requirements.

Suppliers will be required to complete Tooling checklist and return to MANY along with supportive evidence for review. Depending of supplier tooling supplied supportive procedures and objective evidence, compliance to checklist and scope of work, MANY will decide if an initial on-site audit will be required to further assess Supplier compliance with D950-11059-1 and D33200-1. Subsequent on-site audits will be scheduled to verify supplier continued compliance to requirements.

## 8.0 Measurement, Analysis and Improvement

### 8.2.3 Inspection Status and Records

Additional MANY requirements:

- Inspection Stamps



Supplier Inspection Stamps are required for Build to Print, Machining and Forging/Casting Suppliers, optional for all others. Each stamp shall be identified with a unique number assigned to only one individual. The stamp recipient is the only person permitted to use the assigned stamp. Supplier is responsible for issuing, maintaining, and controlling inspection stamps.

Product acceptance will be indicated by the application of the suppliers inspection stamp applied to the product (size permitting), or on tags, labels, packaging where size constraints exist. The supplier's inspection stamp shall also be applied to all required documents being shipped with the product.

- Delegation of Product Verification

If the supplier decides to delegate product verification, the supplier shall conform to the requirements of AS9015, "Supplier Self Verification Process Delegation Programs". MANY reserves the right to conduct surveillance at supplier's facility to determine that the supplier's Quality system conforms to the requirements of AS9015.

#### 8.2.4 Release Documents

Additional MANY requirements:

- MANY, Specification Index.

Unless otherwise specified or as noted below, the supplier shall use the specification revision level listed on the MANY Specification Index, Processing Route Card and/or Purchase Order when manufacturing and/or processing MANY part numbers; however, the supplier may use a later revision specification, as long as there is no cost or schedule impact to MANY Manufacturing Corp. Any exception to this requirement will be noted on supplier PO.

Supplier is responsible for flowing down to their sub-tier suppliers drawing revision levels and process specification revision levels including all mandatory and requirement changes (Addendum, Amendment, Deviation, PSD, SSD, PSO, EO, etc.) applicable to the specification.

Suppliers Process certifications must reflect specification revision level and outstanding mandatory PSD's and Addendum, Amendment, Deviation, PSD, SSD, PSO, EO, etc. applicable to the specification. These PSD's and deviations are an integral part of the specification revision.

Process certifications for parts processed under MANY purchase order shall include the MANY Purchase order, and applicable Work Order. Process certifications must reflect specification revision level and outstanding mandatory PSD's and deviations and any outstanding non-conformance document indicated on the MANY issued processing route card.

### 8.2.5 First Article Inspection

Additional MANY requirements:

- Build-to-Print, Machining, Forging, and Castings Suppliers must submit an FAI to MANY for each Part Number produced.
- FAI submittals should be as follows:
  - 1) First Article Requirements for Boeing Commercial Programs.  
Unless otherwise specifically authorized in writing by MANY Inc., suppliers that deliver Boeing Commercial part numbers shall document the FAI's within the Boeing licensed Net-Inspect Software.
  - 2) First Article Submittal Requirements for non-Boeing Commercial Programs.  
The required FAI must be submitted to MANY for review electronically as a PDF attachment to [Ellanef.FAI@magellan.aero](mailto:Ellanef.FAI@magellan.aero)

Note: FAI submitted to any destination other than noted above will be rejected back to the supplier for re-submittal.

### 8.3 Control of Nonconforming Product

Additional MANY requirements:

- Supplier Escapes

The supplier shall provide prompt notification to both the MANY Buyer and Quality Management if nonconforming product is identified after shipment to MANY has taken place. The notification shall include part numbers, purchase order numbers, traceability (serial or lot numbers), ship dates and quantities as well as a description of the nonconformance. The supplier shall take immediate action to determine if the condition exists on any other in-process work, in stores at the supplier's location, or in prior shipments. Containment shall take place prior to the next shipment of the affected part number.

When a nonconformance is reported by MANY, the supplier shall not wait until the product is returned to begin the investigation process. Nonconforming product identified upon receipt at MANY will be provided by notification using QCF 1002 "Inspection Rejection Report (IRR)" form. The affected product may be returned to the supplier at the suppliers cost and liability. See FIGURE 1 for an example of this form.

If the nonconforming product is returned to the supplier for rework and the supplier reworks, accepts and returns the parts to MANY, the Inspection Rejection Report number shall be referenced on supplier certification for traceability.

## 8.5 Improvement

Additional MANY requirements:

### 8.5.2 Corrective Action

Corrective Action Requests may be documented using Corrective Action Request, Form 7.04(d), OEM equivalent or MANY CAR form QCF1076. See FIGURE 6 for an example of QCF1076.

## 9.0 Environmental, Health and Safety Requirements

No Additional MANY requirements.

FIGURE 1- Inspection Rejection Report (IRR)


	QCF 1002 - REV. 06/03 97-11 50th Avenue, Corona, New York 11368 - Area Code 718 699-4000 FAX 718 592-0722 25 Aero Road, Bohemia, New York 11716 - Area Code 631 589-2440 FAX 631 589-2767																					
<b>INSPECTION REJECTION REPORT ( I R R )</b>																						
Supplier Address	Work Order                      126160 PO, Rel, LN                      118818, 0, 6 Cert. No.                          13-14/134 RMA/Other Ref. No.																					
<b>RESPONSIBILITY</b>																						
Vendor																						
<b>DISPOSITION</b>																						
Rework/Scrap-See QA Notes																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Job No.</th> <th>Part No.</th> <th>Part Name</th> <th>Qty. Rec'd</th> <th>Qty. Rej'd</th> <th>Qty. Ret'd</th> <th>Qty. Rework</th> <th>Qty. Scrap</th> </tr> </thead> <tbody> <tr> <td>3170-18</td> <td>161A6122-6</td> <td>LINK UPPER, UPLOCK, MLG.</td> <td>20</td> <td>3</td> <td>0</td> <td>0</td> <td>3</td> </tr> </tbody> </table>	Job No.	Part No.	Part Name	Qty. Rec'd	Qty. Rej'd	Qty. Ret'd	Qty. Rework	Qty. Scrap	3170-18	161A6122-6	LINK UPPER, UPLOCK, MLG.	20	3	0	0	3						
Job No.	Part No.	Part Name	Qty. Rec'd	Qty. Rej'd	Qty. Ret'd	Qty. Rework	Qty. Scrap															
3170-18	161A6122-6	LINK UPPER, UPLOCK, MLG.	20	3	0	0	3															
S/N    N/A  <u>Requirements (should be):</u> FINISH MACHINE PARTS COMPLETE AS PER DWG. # 161A6122-6 AND PER P/O REQUIREMENTS  <u>Defect and Comments:</u> Rejection Code: SF17 [TOOL MARKS] TOOL DIG MARKS AND LEG THICKNESS 0.200+/- 0.010 IS UNDERSIZE (MEASURING 0.002 - 0.006) PARTS SCRAPPED AT QUEST AND NOT RETURNED TO MAGELLAN NEW YORK. REFERENCE QUEST NCR 0127 & 0134 (SEE LINKED DOCUMENTS)  <u>Rejection History:</u> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>IRR No.</th> <th>Opened Responsible</th> <th>Qty.Rcvd. RMA</th> <th>Qty.Rej. CAR No</th> <th>Qty.Ret. Value</th> <th>Qty.Rew. Value</th> <th>Qty.Scrp. Disposition</th> </tr> </thead> <tbody> <tr> <td>113434</td> <td>02/07/2013</td> <td>34</td> <td>1</td> <td>0</td> <td>0</td> <td>1</td> </tr> <tr> <td></td> <td>VENDOR</td> <td></td> <td></td> <td>\$0.00</td> <td></td> <td>Rework/Scrap-See QA Notes</td> </tr> </tbody> </table>		IRR No.	Opened Responsible	Qty.Rcvd. RMA	Qty.Rej. CAR No	Qty.Ret. Value	Qty.Rew. Value	Qty.Scrp. Disposition	113434	02/07/2013	34	1	0	0	1		VENDOR			\$0.00		Rework/Scrap-See QA Notes
IRR No.	Opened Responsible	Qty.Rcvd. RMA	Qty.Rej. CAR No	Qty.Ret. Value	Qty.Rew. Value	Qty.Scrp. Disposition																
113434	02/07/2013	34	1	0	0	1																
	VENDOR			\$0.00		Rework/Scrap-See QA Notes																
CAUSE AND CORRECTIVE ACTION REQUIRED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																						
DATE 05/01/2013  IRR AND SHIPPING MEMO NO. <b>113472</b>	APPROVALS: Inspector:  Quality Control: Purchasing:																					
Page 1 of 1																						

FIGURE 2- Supplier Performance Report (SPR) Quality

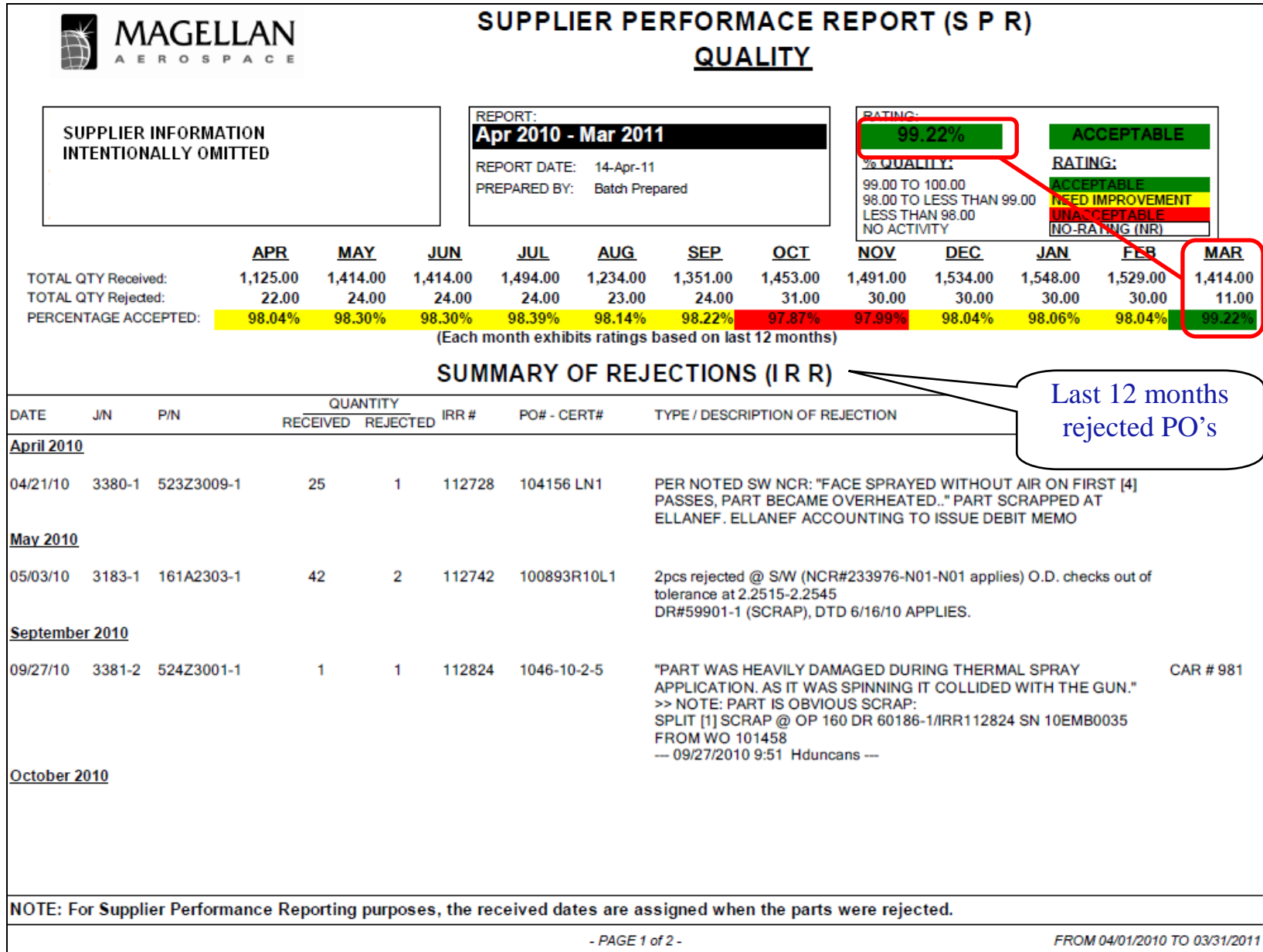


FIGURE 3- Supplier Performance Report (SPR) On Time Delivery

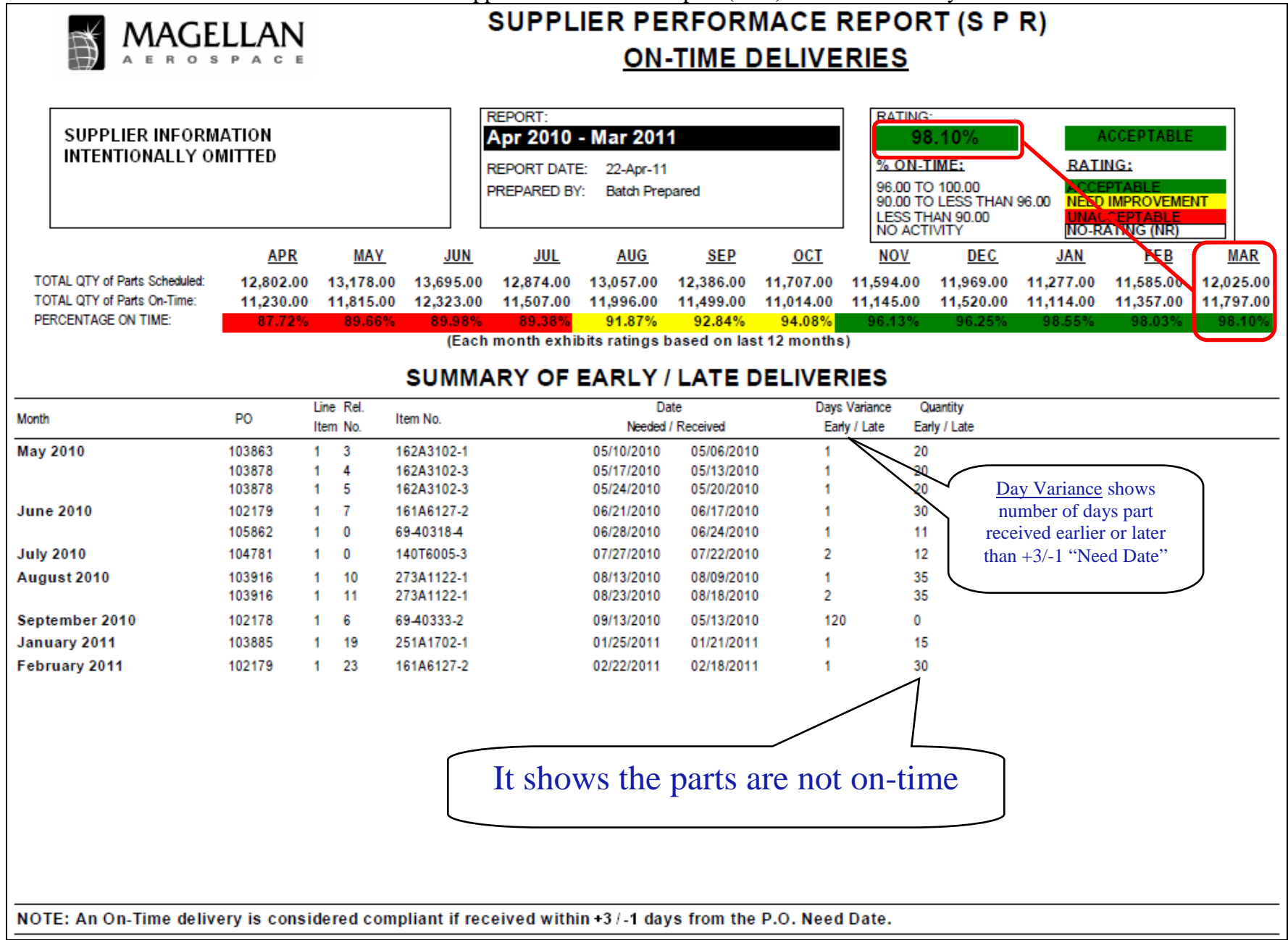


FIGURE 4- Supplier Manufacturing Plan Review/Approval Memo


		<b>Magellan Aerospace, New York, Inc.</b> 97-11 50 <sup>th</sup> Avenue, Corona, NY 11368 718 699-4000 25 Aero Road, Bohemia, NY 11752 631 589-2440	
<b>Supplier Manufacturing Plan Review/Approval Memo</b>			
Job Number:		Memo ID:	
Supplier Name:		Supplier Code:	
Part Number:			
Part Name:			
Date Submitted	Manufacturing Plan Revision	Manufacturing Plan Date	
Submittal Status	<input type="checkbox"/> Approved <input type="checkbox"/> Conditionally Approved <input type="checkbox"/> Rejected		
Comments:          			
<i>This Manufacturing Plan has been Reviewed by Magellan Aerospace, New York, Inc. and Quality personnel. Once approved, no changes to this Manufacturing Plan may be made without prior approval of Magellan Aerospace, New York, Inc.</i>			
Department	Reviewed By	Approval Date	
Manufacturing Engineering			
Quality Engineering			
Distribution: Supplier. QE File			
EMC0135 Rev D 1/4/13			

FIGURE 5 - Technique Sheet Request



		<b>Magellan Aerospace, New York, Inc.</b> 97-11 50 <sup>th</sup> Avenue, Corona, NY 11368 718 699-4000 25 Aero Road, Bohemia, NY 11752 631 589-2440	
<b>TECHNIQUE SHEET REQUEST</b>			
Date Requested:		Date Required:	
Company Name:			
Attention:			
From:			
Customer:			
Customer Prime:			
Program:		Program Manager:	
Enclosure:			
<i>Please generate technique sheet(s) for noted part number(s). Unless otherwise specified, technique(s) are to be submitted to Magellan Aerospace, New York, Inc. Quality Engineering. If you have any questions, please contact the originator or program manager.</i>			
Job #		Part #	
Part Name:			
Process Name:			
Process Spec:			
Customer-Designed Drawings Specifications:			
Remarks:			
EMC0150 Rev A 2/6/13			



FIGURE 6- Corrective Action Request- QCF1076

		QCF 1076 - REV. 04/03 97-11 50th Avenue, Corona, New York 11368 - Area Code 718 699-4000 FAX 718 592-0722 25 Aero Road, Bohemia, New York 11716 - Area Code 631 589-2440 FAX 631 589-2767	
CORRECTIVE AND PREVENTIVE ACTION REQUEST			
Supplier: [REDACTED]	Date issued: [REDACTED] IRR No: [REDACTED] Part No: [REDACTED] Qty. Received / Discrepart [REDACTED]	PO-Cert: [REDACTED] Report by: [REDACTED]	<b>Q. A. Corrective Action Review / Comments</b> C/A EXTENSION: DATE: [REDACTED] APPROVED BY: [REDACTED]
CAR No: [REDACTED]      Due Date: [REDACTED]	SIGNED: _____ QUALITY ASSURANCE		CAR RESPONSE: REVIEWED BY: [REDACTED]      DATE: [REDACTED] COMMENTS FINDING CLOSED: <input type="checkbox"/>
<b>CONDITION:</b>  Serial No(s): [REDACTED]		FOLLOW UP: REVIEWED BY: [REDACTED]      DATE: [REDACTED] COMMENTS FINDING CLOSED: <input type="checkbox"/>	
<b>CORRECTIVE ACTION RESPONSE</b> STATE BELOW ACTION TO PREVENT RECURRENCE OF ABOVE STATED CONDITION(S) AND POINT OF EFFECTIVITY (SER.NO. OR DATE) OF SUCH ACTION. RETURN A COMPLETED ORIGINAL OF THIS REPORT C/O QUALITY ENGINEERING ON OR BEFORE DUE DATE.			
<b>FINDING:</b>  [REDACTED]		<b>IMMEDIATE CORRECTION:</b>  [REDACTED]	
<b>ROOT CAUSE:</b>  [REDACTED]		<b>ROOT CAUSE CORRECTION:</b>  [REDACTED]	
<b>CORRECTIVE ACTION VERIFICATION:</b>  [REDACTED]	<b>PREVENTIVE ACTION:</b>  [REDACTED]	<b>FOLLOW-UP:</b>  [REDACTED]	
<b>NAME:</b> [REDACTED]	<b>TITLE:</b> [REDACTED]	<b>SIGNATURE:</b> [REDACTED]	<b>DATE:</b> [REDACTED]