



MAGELLAN
A E R O S P A C E

Ellanef Manufacturing Corporation

97-11 50th Ave, Corona, NY 11368 718 699-4000
25 Aero Rd, Bohemia, NY 11716 631 589-2440

ELLANEF SUPPLIER QUALITY ASSURANCE REQUIREMENTS

ESQAR

Revision: **G**

IMPORTANT

All Quality Assurance requirements outlined herein are considered “Confidential” between Supplier and Ellanef Manufacturing Corporation.

Ellanef Manufacturing Corp. - PROPRIETARY

This document is considered uncontrolled once printed. Refer to the electronic copy for latest revision.

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 All previous revision changes have been archived.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

NOTE: Additions and changes are identified in Red.

Approved by: <u>Gerardo Patino</u> Director-Quality	Approval Date: 8/31/10
Approved by: <u>Folly Folly-Gah</u> Manager-Material Management	Approval Date: 8/31/10
Release Date: 9/17/10	

Table of Contents

1.0	PURPOSE.....	3
2.0	SCOPE.....	3
3.0	GENERAL REQUIREMENTS	4
4.0	QUALITY MANAGEMENT SYSTEM	9
4.1	General.....	9
4.2	Control of Documents and Electronic Data	9
4.3	Export Controlled Data.....	9
4.4	Control of Records.....	9
4.5	Configuration Management	10
5.0	MANAGEMENT RESPONSIBILITY	10
6.0	CONTRACT REVIEW	11
6.1	Contract Review	11
6.2	Review of Requirements Related to the Product	11
6.3	Material Substitutions.....	11
6.4	Control of Purchases	12
6.5	Customer Approved Suppliers	12
6.6	Control of Production and Service Provision	12
6.7	Preservation and Delivery of Product	13
6.8	Control of Monitoring and Measuring Devices	14
6.9	Ellanef Owned Tooling/Measuring Equipment	14
7.0	PARTS IDENTIFICATION AND TRACEABILITY	15
7.1	Traceability	15
7.2	Control of Critical Parts	16
7.3	Critical Parts Document Identification	16
8.0	PRODUCT ACCEPTANCE AND CERTIFICATION	16
8.1	Verification of Purchased Product.....	16
8.2	Ellanef Source Inspections.....	17
8.3	Government Source Inspection.....	17
8.4	Inspection of Product.....	17
8.5	Sampling Plans	17
8.6	First Article Inspection	17
8.7	Inspection Stamps	19
8.8	Inspection Documentation	19
8.9	Supplier Certification.....	20
9.0	CONTROL OF NONCONFORMING MATERIAL AND CORRECTIVE ACTION	22
9.1	Control of Nonconforming Product.....	22
9.2	Supplier Escapes	22
9.3	Corrective and Preventive Action	23
9.4	Continual improvement	24
10.0	SHIPPING DOCUMENTATION REQUIREMENTS.....	24
10.1	Shipping Documentation	24
	FIGURE 1- Inspection Rejection Report (IRR)	25
	FIGURE 2- Corrective and Preventive Action.....	26
	FIGURE 3- Supplier Performance Report (SPR) Part Acceptability	27
	FIGURE 4- Supplier Performance Report (SPR) Timeliness of Deliveries.....	28
	Table I- Supplier Documentation.....	29

1.0 PURPOSE

- 1.1 To establish the minimum Quality Assurance Requirements for Ellanef suppliers to ensure uniformity and quality amongst Ellanef's suppliers that deliver purchased products, materials and services to Ellanef.

2.0 SCOPE

- 2.1 This document is applicable to all Ellanef purchase orders for suppliers that supply parts or services to Ellanef Manufacturing Corporation (Henceforth: Ellanef). Unless otherwise stated in the Purchase Order this document supersedes and replaces all prior supplier flow down documents including Ellanef's "Quality Clauses".

2.2 *Applicable Documents*

AS9100/EN9100	Quality Management Systems Aerospace Requirements
AS9102	Aerospace First Article Inspection Requirements
AS9103	Variation Management of Key Characteristics
ISO9001	Quality Management Systems Certification
ESQAR-Appendix A	Ellanef Supplier Quality Assurance Requirements Appendix "A"- Customer Web-Portals

2.3 *Applicable Forms*

EMC 0135	Supplier Manufacturing Plan Review/Approval Memo
EMC 0150	Technique Sheet Request Form
QCF 1002	Inspection Rejection Report (IRR)
QCF 1076	Corrective and Preventive Action Request
7.04	Supplier Evaluation Questionnaire

2.4 *Reference Documents*

SOP 059	Supplier Performance Evaluations and Rating
QP 213	Supplier Audits
D6-1276	Control of Materials and Processes for Designated Parts and Components of Boeing Parts
D-590	Boeing D-590 Part Standards
D1-4426	Approved Process Sources (Boeing)
D6-82479	Boeing Quality Management System Requirements for Suppliers
DOC 300	Supplier and Quality Requirements
PRIDE	Process Requirements in Developing Excellence
SQAR	Supplier Quality Assurance Requirements (Northrop Grumman)
15 CFR 700	Defense Priorities and Allocations System
252.225-7014	Preference for Domestic Specialty Metals (Berry Amendment)
74A900004	Control of Fracture and Maintenance Critical Parts for the F/A-18 Aircraft
74A900054	Control of Fracture and Maintenance Critical parts for the F/A-18E/F, EA-18G & AFA18F Aircraft
PCD341	Manufacturing Sealed Process - ("AFA" Parts)
2ZZP00006	Control of JSF Air Vehicle Critical Parts, General Specification for

ANSI/NCSL Z540-1	Calibration Laboratories & Measuring & Test Equipment, General Requirements
ISO-10012-1	Quality Assurance Requirements for Measuring Equipment Part 1: Metrological Confirmation System for Measuring Equipment
ISO-17025	General Requirements for the Competence of Calibration and Testing Laboratories

**BAE/AG/QC/SCI, Parts 1 to 7 BAE Systems Aircraft Business Units
Quality Management System for Suppliers**

2.5 Definitions

SOP	Standard Operating Procedure
QP	Quality Procedure
DOD	Department of Defense
DFARS	Defense Acquisition Regulations System
ITAR	International Traffic in Arms Regulations
MFR	Manufacturer
FSCM	Federal Supply Code for Manufacturers (an old term for CAGE code)

3.0 GENERAL REQUIREMENTS

- 3.1 The Supplier is responsible for the implementation of the requirements of this document and other documentation flowed down in Ellanef Purchase Order, but not limited to any other Engineering, specifications. All reference to ESQAR shall mean Ellanef Supplier Quality Assurance Requirements. There are references to Supplier Quality Assurance Requirements that are defined within this document. These references shall be taken to mean they are related to Ellanef customer requirements which are being flowed down to an Ellanef sub-contractor, or the sub-contractors sub-tier.
- 3.2 Ellanef is a division of Magellan Aerospace. Magellan and Ellanef's requirements are not interchangeable. At no time may a Supplier apply any requirement from Ellanef to Magellan Aerospace Purchase Order / Contract, Quality / Production, or other requirement without written authority from the cognizant buying activity for applicable Magellan Division. The opposite is true that a Magellan Aerospace requirement may not be applied to an Ellanef Purchase Order / Contract, Quality / Production, or other requirement without written authority from the cognizant buying activity for applicable organization.
- 3.3 Information provided by Ellanef for the purposes of a contract or proposal bid will be considered "sensitive information," or proprietary" if marked as such. This information will not be reproduced or disclosed in whole or in part nor used for any design or manufacture, except when such user possesses direct written authorization from Ellanef. Any solicitation efforts directed at proprietary or sensitive material/information provided by Ellanef **must** be reported to Ellanef Buyer in writing.
- 3.4 Product supplied per the requirements of an Ellanef Purchase Order/Contract referencing this document must meet the requirements of this document. **No deviation from the following shall be permitted unless specifically authorized by Ellanef Quality Assurance or purchasing agent.**

- 3.5 At no time shall this document supersede any requirement of a customer to Ellanef. If there is a conflict between this document and/or any of Ellanef's Customer requirements Ellanef is to be notified in writing so that the specific customer can be informed of the difference and determination can be made as how to best proceed. Questions regarding interpretation of this document must be submitted to Ellanef Quality Assurance and/or purchasing agent in writing. Interpretation(s) provided by Ellanef will take precedence over any other interpretations, written or verbal. Conflicts between any documentation, specification, or other instruction provided to fulfill any work to an Ellanef purchase order/contract shall be handled in the same manner. Supplier shall review Ellanef purchase order, drawings and specifications to ensure a thorough understanding of all requirements and compliance to specified requirements.
- 3.6 The supplier shall be responsible for compliance with the requirements of this document and shall provide documentation as applicable for the product the supplier is contracted to make for any purchase order issued by Ellanef relative to this document or specific purchase order notes.
- 3.7 Notification of Supplier Changes
- 3.7.1 Supplier shall notify Ellanef purchasing buyer if any of the following Suppliers' items change:
- quality management
 - facility location
 - company name
 - ownership
- 3.8 Approval of Suppliers
- 3.8.1 The selection of a new/potential supplier will be based primarily on Ellanef customer's approved supplier list, the ability to meet Ellanef/Customer quality & contractual requirements, part complexity, process control and inspection capability as applicable. In the event no customer's approval is required, Ellanef will use 7.04 "Supplier Evaluation Questionnaire" to evaluate and approve suppliers that have not previously been suppliers to Ellanef. Quality Management System survey is not required for AS9100/EN9100 registered suppliers. On-site audits may be conducted as deemed necessary, based on 7.04 "Supplier Evaluation Questionnaire"
- 3.9 Dock to Stock Delegated Suppliers
- 3.9.1 Dock to Stock Delegated Supplier is a supplier of goods or services to Ellanef 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 in behalf of Ellanef's receiving inspection department.
- 3.9.2 Ellanef Manufacturing Corporation may grant supplier delegated status based on supplier performance to Ellanef purchase order requirements. The delegation may be limited to specific part number(s) or has no restrictions. The criteria for granting delegation to a supplier may be based on any of these combination criteria there of:

- part complexity
- open purchase order
- long term agreements
- total value of open purchase order
- high volume
- acceptable quality and delivery performance
- maturity of supplier's quality management system
- ISO 9001 /AS9100 registration (third party registrar)

3.9.3 Delegated Supplier is authorized to ship Dock-to-Stock and reduce the delivery of documentation based on parts complexity.

3.9.4 Prior to granting Ellanef Dock-to-Stock source delegation, suppliers must meet the following minimum requirements:

Standard Part (Hardware) Supplier

- 1) Had delivered products to Ellanef in the last twelve (12) months.
- 2) had acceptable quality rating in the last twelve (12) months in accordance with Ellanef's SOP 059 "Supplier performance Evaluation and Rating"
- 3) have their quality management system registered/certified according to ISO9001 or AS9100 (NOT mandatory if supplier is meeting any of the items a thru d)
 - a) Be D-590 approved manufacturer as required (Suppliers supporting Boeing Standards)
 - b) Be D-590 approved distributor as required (Suppliers supporting Boeing standards)
 - c) has a source controlled design approved by Ellanef customer where applicable
 - d) Be approved by prime customer (i.e., Boeing, Lockheed Martin, Northrop Grumman, etc.,) or be listed as a qualified product listing-QPL.

Machine Part Supplier with AS9100/ISO 9001 Certification

- 1) Had delivered products to Ellanef in the last twelve (12) months.
- 2) had acceptable quality rating in the last twelve (12) months in accordance with Ellanef SOP 059 "Supplier performance Evaluation and Rating"
- 3) had their quality management system registered/certified according to ISO9001 or AS9100 (third party registrar)

Machine Part Supplier with no AS9100/ISO 9001 Certification

- 1) Had delivered products to Ellanef in the last twelve (12) months.
- 2) had acceptable quality rating in the last twelve (12) months in accordance with Ellanef SOP 059 "Supplier performance Evaluation and Rating"
- 3) Assisting Ellanef in the performance of product audits and to submit results to Ellanef as required.

3.9.5 Delegate Dock-to-Stock Supplier responsibilities

3.9.5.1 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 Ellanef and/or Ellanef's 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 Ellanef purchase order and verification that all purchase order requirements are met
- 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

3.9.6 Documentation to be supplied with each shipment shall be: (See Para. 8.9.2 for details)

3.9.6.1 Ellanef 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.

3.9.7 Supplier Packing Slip (Standard Part & machine Part)

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

3.9.8 Supplier Continued Delegation

3.9.8.1 Continued supplier delegation will be based on acceptable supplier's quality performance and acceptable Quality Management system audit results as delineated in the Ellanef Supplier Quality Assurance Requirements-ESQAR

3.9.8.2 Continued supplier delegation will be based on positive results of supplier's quality performance according to Ellanef SOP 059 "*Supplier Performance Evaluation and Rating*" and on-site quality audits according to QP 213 "*Supplier Audits*".

Note: Audit frequency may be relaxed by Ellanef's Quality Assurance if supplier meets Ellanef's standards on product quality and deliveries.

3.9.8.3 Ellanef reserves the right to withdraw or interrupt temporarily the supplier delegation at any time or as requested by Ellanef's customer.

3.10 Supplier Evaluation and Rating

3.10.1 Ellanef 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.

3.10.2 The Supplier Performance Report-SPR is the means through which all Ellanef suppliers are evaluated. The SPR is actually comprised of two key metrics; Parts Acceptability and Timeliness of Deliveries.

3.10.3 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.

3.10.4 Suppliers are evaluated with regards to the following criteria:

- **Quality (parts acceptability):**

The number of **acceptable parts** received by Ellanef as a proportion of the total number of parts received.

- **Timeliness of Deliveries:**

The number of **parts received on-time** as a proportion of the total number of parts received. Ellanef 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 three (3) days after "P.O. Need Date". **"P.O. Need Date" is defined as Ellanef's On Dock date.**

RATING	QUALITY (parts accepted)	TIMELINESS (meets "Ellanef P.O. Need Date")
Acceptable	> or = to 99.5%	> or = to 95%
Not Acceptable	less than 99.5%	less than 95%

3.10.4.1 A notification may be included with a supplier's Quality Evaluation requiring a response from those suppliers who fail to meet Ellanef 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 Ellanef's Quality Standards and purchase order.

3.10.4.2 Ellanef 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 Ellanef quality and procurement management.

4.0 QUALITY MANAGEMENT SYSTEM

4.1 General

4.1.1 The Supplier shall establish and maintain a Quality Management System-QMS in accordance with the latest revision of **AS9100 standard or its European and Far East equivalent EN9100 and SJAC 9100. AS9100 certification is not a requirement. Suppliers do not have to be AS9100 certified to become Ellanef's suppliers.** Ellanef will evaluate which sections of the AS9100 will need to be implemented based on the scope of Ellanef purchase order requirements such as:

- Criticality of product
- Critical business needs

Ellanef encourages suppliers to pursue AS9100 registration of their QMS system.

4.1.2 The supplier shall maintain an English language translation of its quality manual and all supported manufacturing and process documentation such as raw material certification, manufacturing plans, inspection reports, process certifications, certification of compliance and any other documents in support of Ellanef Purchase Order requirements.

Note: It is supplier's responsibility to purchase latest revision of AS9100 Standard when performing work for Ellanef.

The Standard can be found at the following website: <http://www.sae.org/sevlets/index>

4.2 Control of Documents and Electronic Data

4.2.1 The supplier shall have a system to ensure that any changes to the electronic models, 2D drawings, specifications and purchase order/contract are reviewed and implemented upon receiving a purchase order amendment.

4.2.2 A Confirmation of receipt of all documents shall be made in writing to Ellanef via the purchasing department. The supplier is responsible for reviewing all documentation provided to complete an order under purchase order / contract. In the case of a change to the receipt documents the supplier is responsible for determining the impact of all products in manufacture to any Ellanef purchase order / contract issued to their company.

4.3 Export Controlled Data

4.3.1 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

4.4 Control of Records

- 4.4.1 The Supplier shall retain, store, retrieve, and make available to Ellanef and its customer, all records applicable to this contract or purchase order, for a minimum period of **10** years from the date of the final payment under the contract/purchase order, unless otherwise specified by purchase order. In the case of insolvency, the supplier must notify Ellanef purchasing as soon as possible. Ellanef has the right to retrieve any and all manufacturing, and quality documents as directed by the Ellanef's customer buying activity, or the Ellanef purchasing buyer upon request at no cost to Ellanef. Records are to be stored in an appropriate environment to prevent damage and deterioration
- 4.4.2 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 traveler(s)
 - Work Order(s)
 - Inspection Records
 - Nonconformance Reports
 - X Rays
 - Corrective Action
 - Audit Results
- 4.4.3 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.

4.5 Configuration Management

- 4.5.1 Supplier shall maintain a configuration management system to comply with Ellanef's purchase order. Supplier manufacturing and inspection records shall be in compliance to engineering and specification requirements as specified in the Ellanef purchase order.

5.0 MANAGEMENT RESPONSIBILITY

- 5.1 Supplier management is responsible for providing, and maintaining resources to the extent necessary to comply with Ellanef's purchase order. Supplier shall provide training to its employees to the extent necessary they can carry out and meet Ellanef's purchase order requirements. Training shall include interpretation of Ellanef requirements including Ellanef Supplier Quality Assurance Requirements (ESQAR). Supplier management shall be focus on customer satisfaction and continuous process improvement.

6.0 CONTRACT REVIEW

6.1 Contract Review

6.1.1 Supplier is required to be in possession of the necessary information and technical documents required to carry out its contractual obligations. This may include:

6.1.1.1 Access to Ellanef's customer's (Prime) Supplier Quality Assurance Requirements such as:

- Boeing – D-590, D1-4426, and D6-82479
- Goodrich Landing Gear – Doc 300
- Lockheed Martin – Appendixes QJ and QX
- Messier-Dowty – Pride
- Northrop Grumman – SQAR
- **QMS requirements for Suppliers - BAE/AG/QC/SCI, Parts 1 to 7**

6.1.1.2 To have on hand latest Ellanef's customer specifications/standards as applicable to process, finish, nondestructive testing and manufacturing. (Ellanef will provide copies of the Specification Index on a quarterly basis. Distribution is limited to sub-contract machining and special process sources).

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

6.2 Review of Requirements Related to the Product

6.2.1 Defense Priorities and Allocations System (DAPS)

6.2.1.1 Supplier is required to follow all provisions of the Defense Priorities and Allocations System (DPAS) regulation (15 CFR 700) in obtaining controlled materials, and other products, services, and materials, needed to fill this order. DOD rates orders as either of two priorities, DX or DO. Program identification symbols such as A1 for aircraft, or C9 for miscellaneous, are used with the priority rating as applicable (ex., DX-A1 or DO-C9). Ellanef will specify DOD rated orders on the purchase order where applicable.

6.3 Material Substitutions

6.3.1 Material substitutions of any type are **forbidden** by the supplier. Materials used to produce product **must** conform to the engineering defined by the Ellanef Manufacturing Corp. purchase order / contract. All requests for material substitution **must** be made to Ellanef Manufacturing Corp. in writing prior to start machining.

- 6.3.2 For Materials supplied by Ellanef Manufacturing Corp. material substitutions are **forbidden** even if the material is of the same type configuration as that of the engineering requirements per the Ellanef Manufacturing Corp. purchase order / contract without written permission from Ellanef Manufacturing Corp.
- 6.3.3 Procurement of specialty metals materials-DFAR clause 252.225-7014, Preference for Domestic Specialty Metals (ALT 1)
- 6.3.3.1 Supplier shall be aware that this clause restricts the country of origin for certain specialty metals used in products to be delivered to the US Department of Defense (DoD). The DFARS clause 252.225-7014, preference for Domestic Specialty Metals (ALT1) requires 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 clause 252.225-7014 and comply. The DFARS can be found at the following websites: <http://www.acq.osd.mil/dpap/dars/index.htm> and <http://farsite.hill.af.mil/VFDFARa.htm>

6.4 Control of Purchases

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

6.5 Customer Approved Suppliers

- 6.5.1 When Ellanef's customer requires the use of Customer approved suppliers, the supplier is responsible for using **only** those suppliers listed on customer's web portal. See ESQAR Appendix "A" for a listing of customer web portals. All suppliers purchased material or services must be obtained from Ellanef's customer (Prime) approved supplier / Qualified Parts List (where applicable).
- 6.5.2 In the event the Supplier receives an Ellanef purchase order/contract, where the customer's (i.e....Boeing Corporation, Goodrich Landing Gear, Northrop Grumman Integrated Systems ...etc) special requirements are not defined within this document then it is the Supplier's responsibility to contact Ellanef before performing any work to get a definition of what the customer special requirements are.

6.6 Control of Production and Service Provision

6.6.1 Supplier Manufacturing Plan

- 6.6.1.1 Products or processes requiring frozen planning will be defined as such on Suppliers involved in the fabrication or machining of components requiring according to Ellanef's purchase order. Manufacturing plans are to be submitted to Ellanef prior to the start of manufacturing/processing.

This includes forgings which controlled by Boeing document D6-1276. Once approved by Ellanef or its customers, revisions or variations shall not occur unless approved by Ellanef or its prime customer or, is an allowed deviation in accordance with the primary customers engineering document. The required manufacturing plans must be submitted to Ellanef for review electronically as a PDF attachment to quality.documents@magellan.aero within 30 days after receipt of order or as specified by Ellanef PO. For production operations that Ellanef customer's (Prime) require special processes to be controlled by techniques, Ellanef QE will request technique's using the EMC 0150 "Technique Sheet Request Form". See FIGURE 5 for an example of this form.

- 6.6.1.2 Part marking and serialization shall be identified in the supplier's control/manufacturing documentation for all parts.
- 6.6.1.3 Manufacturing plans requiring Ellanef approval shall be prepared in accordance with "Ellanef Manufacturing Plans Guidelines for Suppliers", latest revision.

Note: On specific programs, supplier might also be asked for Manufacturing Plans to comply with Ellanef's customer (Prime) Designed drawing specification such as but not limited to:

- D6-1276 – The Boeing Corporation
- DOC 300 - Goodrich Landing Gear
- 74A900004 - Boeing ST. Louis
- 74A900054 - Boeing ST. Louis
- PCD341 - Messier-Dowty
- 2ZZP00006 – Lockheed Martin

- 6.6.1.4 Submitted plans will be reviewed by Ellanef Manufacturing Engineering and Quality Engineering. The status of the submittal will be documented on EMC 0135 "Supplier Manufacturing Plan Review/Approval Memo" will be issued and submitted electronically as a PDF attachment to the sender e-mail address. Ellanef's approval does not imply that products manufactured or processed in accordance with the Ellanef approved planning will not be rejected upon receipt at our facility or by our customer at our facility or the customer's facility. Approval also does not imply or constitute liability for the suppliers. See FIGURE 5 for an example of this form.

6.7 Preservation and Delivery of Product

- 6.7.1 Supplier shall handle, store, pack, preserve and deliver products in accordance with the Ellanef customer designated requirements cited by the Ellanef purchase order, processing route card and/or specification requirements.
- 6.7.2 Foreign Object Debris/Damage (FOD) control and detection

6.7.2.1 Suppliers performing work on Ellanef's product shall ensure that products are free of Foreign Object Debris/Damage prior to shipment.

6.8 Control of Monitoring and Measuring Devices

6.8.1 The supplier shall have as a minimum a documented inspection and calibration system that meets or exceeds the requirements of ANSI/NCSL Z540-1, ISO-10012-1, ISO-17025 or an equivalent document.

6.9 Ellanef Owned Tooling/Measuring Equipment

6.9.1 It is not Ellanef's policy to provide measuring tools or measuring tools to suppliers.

6.9.2 In the event that Ellanef has agreed to provide tooling and/or measuring tools in support of Ellanef's PO, supplier shall maintain an accountability / property list citing at the minimum:

- the date of receipt
- tool number / identification
- purchase order to be applied too
- part number used. on
- calibration due notations, and return to Ellanef date.

This list shall include both the tooling / gage(s) supplied by an Ellanef facility, and tooling/ gage(s) fabricated by the Supplier to manufacture purchase order / contract components, but owned by Ellanef Manufacturing Corp. or Ellanef Manufacturing Corp. customer(s).

6.9.3 The supplier is responsible for:

- Returning all tooling upon request, or at the conclusion of the purchase order contract.
- Not altering, repairing, or otherwise modifying any tooling without permission from Ellanef.
- Returning gages requiring calibration a minimum of two weeks prior to expiration date.
- Maintaining the tooling / gage(s) in good working order. This is taken to mean any condition, which will degrade the usability of the tooling / gage(s) must be avoided.
- The cost of repairs, or replacement of any tooling / gage(s) after receipt by the supplier.

6.9.4 Tooling / gage(s) damaged while in the possession of the supplier will be the suppliers' responsibility. The supplier shall immediately notify Ellanef via the purchasing department of any damage, or condition which renders the tooling / gages unusable to manufacture end items to the purchase order / contract the tooling / gage(s) were provided to produce.

- 6.9.5 No tooling / gage(s) substitutions are permitted without written permission from Ellanef when the tooling / gage(s) were supplied to manufacture a specific end item to a purchase order / contract.
- 6.9.6 No tooling / gage(s) may be used for the manufacture, inspection, or any use other than the intended use the tooling / gage(s) defined by the Ellanef purchase order / contract, or other instructions received from Ellanef.
- 6.9.7 All Ellanef Manufacturing Corp. tooling / gage(s) are subject to periodic inventory audits for accountability and functional inspection as deemed necessary by Ellanef or Ellanef's customers.

7.0 PARTS IDENTIFICATION AND TRACEABILITY

- 7.1 Traceability shall be maintained from receipt of raw material through final product. Records and material shall be identified by lot number, material type, specification and revision, heat number, serial number required to maintain traceability and part marking.
- 7.1.1 Part identification shall be to Ellanef PO requirements, drawing requirements or customer specification.
- 7.1.2 If Ellanef's customer requires a specific part identification format, Ellanef PO will specify the format
- 7.1.3 Unless otherwise specified, supplier is responsible for assigning and controlling serial numbers when required by drawing or purchase order.
- 7.1.4 Serial number construction will consist of two parts. The first part is the supplier's Federal Supply Code for Manufacturers (FSCM) or Commercial and Government Entity (Cage Code). The second part is a consecutive four digits serial number beginning with 0001. In the event that the part number's dash number is "rolled", the next assigned serial number will begin with the next available ascending four digit number. Once assigned, serial numbers cannot be duplicated or reused. A horizontal dash will connect the two part construction as shown in the example shown below. In the event that the supplier does not have the FSCM or Cage Code, contact Ellanef Quality Assurance to assign a unique supplier prefix.
- 7.1.5 In the event that a manufacturing identification number (MFR) is required to be marked on the product by the Prime customers engineering requirement Ellanef's MFR number must be used. This number is 85941. The following is an example of part serialization.

ABC Co = FSCM/Cage Code number "12345" the serial number will be constructed as follows:

For part number 62-123456-1

12345-0001	12345-0002	12345-0003	12345-0004
MFR 85941	MFR 85941	MFR 85941	MFR 85941

For part number 63-654321-1

12345-0001	12345-0002	12345-0003	12345-0004
MFR 85941	MFR 85941	MFR 85941	MFR 85941

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

7.2 Control of Critical Parts

- 7.2.1 Ellanef purchase order and/or to the extent where Ellanef subcontracts work directly to processing suppliers, the route cards issued with the materials will identify customer requirements pertinent to the control of critical parts.
- 7.2.2 Suppliers who subcontract critical parts to other sub tiers shall establish and identify customer requirements pertinent to the control of critical parts.
- 7.2.3 Suppliers are responsible for controlling critical parts in accordance with Ellanef purchase order requirements and customer specification.

7.3 Critical Parts Document Identification

- 7.3.1 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 Ellanef, irrespective of what form that notification takes.

8.0 PRODUCT ACCEPTANCE AND CERTIFICATION

8.1 Verification of Purchased Product

8.1.1 Right of Entry

- 8.8.1.1 Ellanef and/or its customer(s) including regulatory agencies, reserve the right to conduct on-site reviews of all materials to verify subcontracted work, records and product at the supplier’s facility, subcontractors sub tier’s facility and have access to quality records. Suppliers and their sub tier suppliers shall provide the equipment, facilities and necessary personnel for all on-site verification of contract/purchase order requirements.
- 8.8.1.2 Ellanef Purchase Orders are subject to Inspection and Test by the Government at any time, or any of Ellanef’s customer(s). This includes source inspection conducted by the Government or any of Ellanef customer(s) as deemed necessary.

8.2 Ellanef Source Inspections

8.2.1 When Ellanef Source Inspection, at the Supplier's facility is required before delivery of a product, supplier shall contact Ellanef's Purchasing buyer as indicated in the purchase order at least 48 hours in advance to request source inspection. Source inspection does not relieve the supplier of any responsibility and/or liability for full compliance with all purchase order contract requirements. Product acceptance does not imply that the product will not be rejected upon receipt at our facility or by our customer at our facility or the customer's facility.

Note: Ellanef Quality Assurance reserves the right to waive source inspection as applicable.

8.3 Government Source Inspection

8.3.1 When Government Inspection is required, prior to the shipment of product from your facility, it shall be noted on the Ellanef purchase order / contract issued to the supplier. Suppliers and their sub tier suppliers shall provide the equipment, facilities and necessary personnel for Government Inspection activities of all contract/purchase order requirements prior to shipment.

8.4 Inspection of Product

8.4.1 All inspection of product to be delivered under any purchase order / contract issued by Ellanef **shall** be inspected 100% for all characteristics unless otherwise stated on the purchase order or when allowed by Ellanef's customer-designated requirements.

8.5 Sampling Plans

8.5.1 Supplier may use sampling plans provided the sampling plans are in accordance with Industry, Government and Military standards or Ellanef customer designated sampling inspection requirements. **Supplier shall contact Ellanef buyer prior to use of Sampling Plans.** In all cases, inspection requirements identified by engineering drawing or specification take precedence over the inspection requirements defined herein. Ellanef reserves the right to perform 100% inspection on selected engineering characteristics.

8.6 First Article Inspection

8.6.1 The FAI requirements may be satisfied by a partial (delta) FAI that addresses differences between the current configuration and prior approved configurations.

8.6.2 The supplier shall perform and submit a full FAI, or a partial (delta) FAI for affected characteristics, when any of the following events occurs:

- 1) A change in the drawing revision (e.g. Drawing, Parts List, PSDL, CAD Models, EO's, ADCN's, SPECOS, etc.)
- 2) A change that can potentially affect fit, form or function:

- a) **Manufacturing source(s)** - Use of new forging, casting, swaging supplier, or use of new processing house, that accounts for the creation of design characteristics.
 - b) **Process(s)** - Any method that effects the generation of design characteristics. This includes routing (Routers) sequence, methods of machining, or assembly and test.
 - c) **Inspection method(s)** - Gages designated by supplier to accept design characteristics features have been changed.
 - d) **Location of manufacture** - Product is not longer manufactured in its entirety at supplier facility.
 - e) **Tooling** - Supplier designed fixture that holds the part during inspection has been modified, added, removed.
 - f) **Materials** - Part is manufactured and/or processed from an optional material type than the one called out on the engineering drawing.
- 3) A change in numerical control program or translation to another media that can rotationally affect fit, form or function.
 - 4) A natural or man-made event, which may adversely the manufacturing process. Moved machinery to another location of supplier facility.
 - 5) A lapse in production for two years or as specified by the customer. Manufacturing for that item exceeded 2 years or as specified by customer from the last WO completion date.

8.6.3 The first article sample shall be produced using the material, tooling, processes, and planning to be used for subsequent deliveries. The first article report may be submitted prior to or with delivery of the product. The first article report shall be performed per SAE First Article Quality Standard AS9102 latest revision. The report shall include the engineering drawing, or model based derivative data (MBD) with numbered characteristics corresponding to the first article report and shall include all drawing characteristics, blueprint notes, and specifications. **FAIR must also include all supporting documentation such as but not limited to, material test reports, NDT test reports, where applicable. The FAIR part must be identified, tagged or package separately and forwarded with the data package to the attention of Ellanef's Quality Assurance department.**

8.6.3.1 The following optional (O) fields 12, 21, & 22 in the AS9102 FAI Report Form 1 are considered mandatory for Ellanef.

8.6.4 When the end deliverable item is an assembly, separate FAIR's shall be submitted for all detail parts, and subassemblies, that are included in the "build to print" requirements. A FAIR shall also be submitted for the top assembly.

8.6.5 When the deliverable end item is a detail, a single FAIR shall be submitted.

8.6.6 An Amended First Article Inspection Report (FAIR) is required, showing only those characteristics whose actual values have been revised by the engineering drawing or process specification. The amended FAI may be submitted prior to, or with delivery of the product. The Amended FAIR shall be performed per the SAE First Article Quality Standard AS9102. **The amended FAIR must also include all supporting documentation such as but not limited to, material test reports, NDT test reports,**

where applicable. The amended FAIR part must be identified, tagged or package separately and forwarded with the data package to the attention of Ellanef's Quality Assurance department.

8.7 Inspection Stamps

8.7.1 Supplier Inspection Stamps are required. 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.

8.7.2 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.

8.8 Inspection Documentation

8.8.1 General Requirements

8.8.1.1 The supplier shall be responsible for maintaining and supplying all documentation as objective evidence of meeting purchase order and drawing/specification requirements. Failure to provide proper documents may result in payment being withheld until proper documents have been received. Records shall be provided at no additional cost and be available within 24 hours of being requested.

8.8.1.2 Material certifications and all associated testing must contain actual test results.

8.8.1.3 Certifications with statements of belief, opinion, or point of view, are not acceptable. Certification statements shall be based **only** on facts and results.

8.8.1.4 Unless otherwise specified on the purchase order, all products shall be furnished in accordance with the engineering revision shown on the Ellanef purchase order.

8.8.1.5 The revision levels of process specifications are to be in accordance with the Ellanef Process Specification Index. The use of superseding revisions/PSD and E.O's are acceptable provided there is no cost and/or delivery schedule impact.

8.8.1.6 Process certifications for parts processed under Ellanef purchase order shall include the Ellanef PO, applicable Work Order and any outstanding non-conformance document indicated on the Ellanef issued route card.

8.9 Supplier Certification

8.9.1 Certifications shall be signed, dated and stamped by an authorized supplier quality representative, including his/her name and title.

8.9.2 All product, material, services and processes supplied or provided to Ellanef shall be accompanied by an appropriate certificate of **compliance**/conformance (C of C). The supplier shall be responsible for maintaining and supplying this documentation as objective evidence of meeting purchase order and drawing/specification compliance. The supplier shall supply the appropriate certificate for each shipment or service to Ellanef. Certificates shall contain at minimum the following:

Certificate of **Compliance**/Conformance for Detail Parts

- product conforms to purchase order requirements
- customer name (Ellanef)
- program ID
- suppliers name and address
- special process name, specifications, and revisions
- material description and specification
- part number (including dash number)
- part designation
- serial number(s) (when applicable)
- revisions of: electronic model, 2D drawing , parts list, picture sheet data list (PSDL) and any additional engineering data defined in the Ellanef purchase order
- Ellanef purchase order number, line item number
- quantity of parts shipped
- certification approval signature and date

Note: All Certificates of **Compliance/Conformance shall bare evidence that final inspection has been performed with the final inspectors stamp affixed and dated to the Certificates of **Compliance**/Conformance.**

Certificate of **Compliance**/Conformance for Assemblies

- 1) The COC shall define all details within an assembly along with the aforementioned notations for each detail unless otherwise noted. All listed certifications **must** be traceable to the actual certification listed.
- 2) The certificate of conformance for Assemblies may be accomplished as a single certificate or on multiple certificates. The required content is the same as noted in the Certificate of **Compliance**/Conformance for detail parts (Ref. Para. 8.9.2). When providing individual certifications for each detail part contained in the end item assembly, the individual certifications **must** be traceable to the certification for the end item assembly.

Certificate of **Compliance**/Conformance for Standard Hardware

- 1) Standard hardware certificate of compliance/**conformance** shall be traceable to original manufacturer and batch lot number. A certificate of **compliance**/conformance is required for all standard hardware. A packing list is an acceptable alternative to the certificate of conformance provided it includes a statement that the product conforms to all purchase order requirements. Packing list/certificate of conformance must include:
 - suitable reference to Ellanef purchase order number
 - original manufacturers
 - product number
 - batch number
 - quantity of parts shipped
- 2) For standard hardware items that are part of a Qualified Products List (QPL) or other prime customer procurement document/specification, the supplier's certificate of conformance/packing list shall certify that the manufacturer of the hardware is included in the procurement document.

Certificate of **Compliance**/Conformance for Raw Material

- 1) The certificate of conformance for raw material shall consist of a material cert containing actual results such as: mechanical test data, chemical properties, material hardness, and additional information as required by specification. The certificate shall contain the specification and revision of the material being supplied as it appears on the Ellanef purchase order. Certification shall also include the lot code of heat number and where applicable, serial numbers. When raw material requirements are derived from 2D drawings or models, the drawing number or model revisions shall be included on the certificate.
 - mechanical test data
 - chemical properties
 - material hardness
 - material specification and revision
 - serial number (when applicable)
 - heat lot number
 - revisions of electronic model, or drawing (when applicable)

Certificate of **Compliance**/Conformance for Age or Environmental Sensitive Materials

- 1) Certificate of compliance requirements for limited shelf life items shall include:

- specification number and revision
- lot/batch number of material
- date of manufacture and cure date
- shelf life expiration date
- environmental storage condition

Note: material shall not be shipped to Ellanef with less than 75% of the required remaining shelf life unless approved by Ellanef

9.0 CONTROL OF NONCONFORMING MATERIAL AND CORRECTIVE ACTION

9.1 Control of Nonconforming Product

- 9.1.1 Material that departs from the drawing, electronic model or specification shall be properly identified, segregated and controlled to prevent unauthorized use or delivery to Ellanef and / or its customers.
- 9.1.2 The supplier shall not exercise Material Review authority. Supplier dispositions are restricted to rework to drawing or MRB. At no time shall Ellanef be held liable for non-conformities produced by the supplier or the supplier's sub tiers. The final authority of the usability of non-conforming product that cannot be reworked to drawing requirements shall be determined by Ellanef's Quality Assurance department and/or Ellanef's customer. All rework shall be performed in accordance with drawing and specification requirements. Ellanef reserves the right to recover all incurred costs related to nonconforming product produced from the supplier or the supplier's sub tiers.
- 9.1.3 The supplier may request concession consideration for nonconforming material that cannot be reworked to drawing and or purchase order requirements. The supplier shall submit such requests using their internal rejection report. The nonconformance report **must** include a cause and corrective action statement for each nonconformance being considered. Ellanef **must** approve all non-conforming material submitted for concession consideration prior to shipment to Ellanef. Nonconforming product that was produced from raw material supplied by Ellanef that has been determined by Ellanef or its customer to be "scrap" shall be returned to Ellanef. Materials shall be properly identified.

9.2 Supplier Escapes

- 9.2.1 The supplier shall provide prompt notification to both the Ellanef Buyer and Quality Management if nonconforming product is identified after shipment to Ellanef 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.

9.2.2 When a nonconformance is reported by Ellanef, the supplier shall not wait until the product is returned to begin the investigation process. Nonconforming product identified upon receipt at Ellanef 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.

9.3 Corrective and Preventive Action

9.3.1 If nonconforming product escapes to Ellanef, the supplier shall take corrective action immediately regardless of where the nonconformance was identified. Where Ellanef has identified the nonconformance, the nonconformance history and impact will be reviewed. As a result of this review, it may be determined that the supplier is to provide a formally documented cause and corrective action response.

9.3.2 Ellanef will provide this notification using Ellanef’s QCF 1076 “Corrective and Preventive Action Request” form. See FIGURE 2 for an example of this form. The supplier’s response shall be directed to the documents issuer on or before the “due date” shown on the document. If the suppliers response is not received by this date, written notification will be sent to the supplier requesting an immediate response. The supplier may contact the document issuer to request an extension to the existing due date. Request for an extension does not relieve the supplier from completing the immediate investigation process, identifying the “direct cause” and containment of the discrepancy. Ellanef may elect to track the corrective action with the supplier when deemed appropriate.

9.3.3 Where a formally documented cause and corrective action response has not been requested by Ellanef, the supplier shall review the process to ensure no further discrepancies occur. This does not negate the supplier from obtaining cause and corrective action. The results shall be made available to Ellanef upon request.

9.3.4 Records for nonconforming product, dispositions, assignable causes, corrective actions and effectiveness of corrective actions shall be maintained for the period defined on the purchase order. When performing a corrective action investigation, at a minimum, the supplier shall document the following:

IMMEDIATE CORRECTIVE ACTION

- Identify the problem.
- Identify the extent of the nonconforming condition.
- Quarantine all suspected material.
- Review the discrepancy to determine the appropriate disposition
- Take action to notify all parties (at the supplier, supplier’s sub-tiers, and customer as appropriate) of the nonconformance.
- Identify the direct cause of the nonconforming condition.
- Establish a corrective action plan for the direct cause of the nonconformance that includes the actions to be taken to prevent the discrepancy from happening again in the short term.

- Establish when the direct cause corrective action plan will take effect.
- Establish the effectivity where the product will be shipped to Ellanef without the defect.

ROOT CAUSE

- Identify the root cause of the nonconformance. Note: operator error is **not** acceptable as a root cause.

ROOT CAUSE CORRECTION

- Identify the actions required to solve the identified root cause.
- Establish the projected completion dates for implementation of actions including procedural changes, training
- Establish the effectivity of when the root cause corrective action plan will be complete including the projected date that the root cause will be fixed.

CORRECTIVE ACTION VERIFICATION PLAN

- Describe the actions that will be taken to verify that the root cause corrective action plan has been implemented. This would include the completion of any committed activities such as shop changes, training performed and the creation of new and revised documents and procedures.
- Provide evidence of completed activities such as copies of shop changes, training records, creation of new and revised documents and procedures

FOLLOW-UP

- Describe when and what will be audited. Include dates and processes to be reviewed. Describe if the correction be checked annually during an internal audit or addressed during a special audit. The follow up activity must evaluate the effectiveness of the root cause correction to prevent reoccurrence of the nonconformance.

9.4 Continual improvement

- 9.4.1 Supplier shall establish a continual improvement process to improve the effectiveness of the quality management system. Supplier shall use analysis of data, internal audits, corrective and preventative actions, management reviews and Ellanef's Supplier Performance Requests SPR's.

10.0 SHIPPING DOCUMENTATION REQUIREMENTS

10.1 Shipping Documentation

- 10.1.1 Delivery documentation requirements with each shipment shall be per Table I.

Note: Suppliers who have demonstrated a high level of system and product quality have the added benefit of reduced delivery documentation requirements of Table 1. These suppliers are considered to be "Dock-to-Stock Delegated Suppliers". See TABLE 1 for actual shipping documentation requirements. (See Para. 3.9 for definition)

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

INSPECTION REJECTION REPORT (I R R)

Supplier	Work Order	
Address	PO / PS / Cert. No.	44134
	RMA/Other Ref. No.	

<u>OWNERSHIP</u>	<u>RESPONSIBILITY</u>	<u>VENDOR ACTION</u>
Ellanef	Vendor	Credit
 <u>DISPOSITION</u>		 <u>DOLLAR VALUE</u>
ELLANEF DEBIT MEMO TO FOLLOW		\$0.00

Job No.	Part No.	Part Name	Qty. Received	Qty. Rejected	Qty. Returned
3324-2	3-32323-9	HINGE	3	3	0

S/N: EMC0035, EMC0039, EMC0043
Requirements (should be):
2.6571/2.6581 DIAMETER SHOULD NOT BE SHOT PEENED.

Defect and Comments:
Rejection Code: RE2 [NOT PROCESSED TO SKETCH]
 SUBJECT DIAMETER IS SHOT PEENED.
 W/O 45913, 42059 & 45910 APPLY TO THESE PARTS.
 EMAIL IRR TO DISTRIBUTION. [HD/MRB] 08/27/03

Rejection History: (prior IRRs within the last year for the same Supplier, Part and Defect)
IRR No. Opened Qty.Rcvd. Qty.Rej. Qty.Ret. Responsible RMA CAR No Value Disposition

CAUSE AND CORRECTIVE ACTION REQUIRED: C.A.R. # 588 DATE: 08/27/2003

DATE 08/27/2003	<u>APPROVALS:</u> Inspector:
IRR AND SHIPPING MEMO NO. 9984	Quality Control: Purchasing:

FIGURE 2- Corrective and Preventive Action


		QCF 1076 - REV. 04/03 97-11 50th Avenue, Corona, New York 11368 - Area Code 718 689-4000 FAX 718 592-0722 25 Aero Road, Bohemia, New York 11716 - Area Code 631 589-2440 FAX 631 589-2767	
<h2>CORRECTIVE AND PREVENTIVE ACTION REQUEST</h2>			
Supplier: [Redacted]		FIRST REQUEST	
Date issued: 08/27/2003		PO-Cert: 44134	
IRR No: 9984		Report by: _____	
Part No: 3-32323-9		Qty. Received / Discrepant	
CAR No: 588		SIGNED: _____ QUALITY ASSURANCE	
Due Date: 08/29/2003		Q. A. Corrective Action Review / Comments	
CONDITION: SUBJECT DIAMETER IS SHOT PEENED. W/O 45913, 42059 & 45910 APPLY TO THESE PARTS. EMAIL IRR TO DISTRIBUTION. [HDMRB] 08/27/03 Serial No(s): EMC0035, EMC0039, EMC0043		C/A EXTENSION: DATE: _____ APPROVED BY: Unknown	
CORRECTIVE ACTION RESPONSE 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.		CAR RESPONSE: Satisf. w/Follow-up	
FINDING:		REVIEWED BY: sballard DATE: 08/27/2003	
IMMEDIATE CORRECTION:		COMMENTS FINDING CLOSED: <input checked="" type="checkbox"/>	
ROOT CAUSE:		FOLLOW UP: 10/10/2003	
ROOT CAUSE CORRECTION:		REVIEWED BY: sballard DATE: 10/10/2003	
CORRECTIVE ACTION VERIFICATION:		COMMENTS FINDING CLOSED: <input checked="" type="checkbox"/>	
PREVENTIVE ACTION:		FOLLOW UP:	
CORRECTIVE ACTION VERIFICATION:		FOLLOW-UP:	
PREVENTIVE ACTION:		FOLLOW-UP:	
FOLLOW-UP:		FOLLOW-UP:	
NAME: _____		DATE: _____	
TITLE: _____		SIGNATURE: _____	

FIGURE 3- Supplier Performance Report (SPR) Part Acceptability



MAGELLAN
AEROSPACE CORPORATION

ELLANEF MANUFACTURING CORPORATION

SUPPLIER PERFORMANCE REPORT (S P R)
PARTS ACCEPTABILITY

COMPANY NAME

REPORT:
Whole Year 2008

REPORT DATE: 24-Nov-08
PREPARED BY:
REVIEWED BY:

RATING:
100.00% **ACCEPTABLE**

% ACCEPTED: RATING:
99.5 TO 100 ACCEPTABLE
LESS THAN 99.5 NOT ACCEPTABLE

	JAN	FEB	MAR	1 Q	APR	MAY	JUN	2 Q	JUL	AUG	SEP	3 Q	OCT	NOV	DEC	4 Q	TOTAL
TOTAL QTY.RECEIVED:	1,860	3,588	4,182	9,630	4,048	1,120	448	5,616	557	110	439	1,106	0	0	0	0	16,352
TOTAL QTY.REJECTED:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERCENTAGE REJECTED:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PERCENTAGE ACCEPTED:	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

SUMMARY OF REJECTIONS (I R R)

DATE	JIN	PIN	QUANTITY		IRR #	PO# - CERT#	TYPE / DESCRIPTION OF REJECTION	REMARKS
			RECEIVED	REJECTED				

NOTE: For Supplier Performance Reporting purposes, the received dates are assigned when the parts were rejected.

FIGURE 4- Supplier Performance Report (SPR) Timeliness of Deliveries



ELLANEF MANUFACTURING CORPORATION

SUPPLIER PERFORMANCE REPORT (S P R)
TIMELINESS OF DELIVERIES

SUPPLIER:
[REDACTED]

ADDRESS
[REDACTED]

ATTN:
[REDACTED]

REPORT:
First Quarter 2010

REPORT DATE:
[REDACTED]

PREPARED BY:
[REDACTED]

REVIEWED BY:
[REDACTED]

RATING:
100.00% **ACCEPTABLE**

% ACCEPTED: **RATING:**
95 TO 100 ACCEPTABLE
LESS THAN 95 NOT ACCEPTABLE

	JAN	FEB	MAR	1 Q	APR	MAY	JUN	2 Q	JUL	AUG	SEP	3 Q	OCT	NOV	DEC	4 Q	TOTAL
TOTAL QTY of Parts Received:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL QTY of Parts Late/Early:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERCENTAGE LATE/EARLY:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PERCENTAGE ON TIME:	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

SUMMARY OF PURCHASE ORDERS (P O)

Month	PO	Line Rel. Item No.	Item No.	Date		Days		Quantity	
				Received / Needed		Early / Late		Early / Late	

NOTE: A delivery is considered not compliant with Ellanef's policies if received more than 3 days prior to, or 3 days after its P.O. Need Date.

Table I - Supplier Documentation

DOCUMENTATION TO BE SUPPLIED WITH EACH SHIPMENT	PRODUCT OR SERVICE CATEGORY												
	Forging/ Casting	Raw Material	Machining	Fabrication	Mech./Hydraulic Assemblies	Tooling/ Fixtures	Special Processing	Standard Catalog Hardware	Sealers, Coatings, Lubricants, chemicals, etc.	Calibration	Laboratory/ Testing Services	Design	Dock-to-Stock Delegated Supplier
Supplier's Packing Slip	X	X	X	X	X	X	X	X	X	X	X	X	X
Certificate of Conformance FL1	X	X	X	X	X	X	X	X	X	X	X	X	X
Completed First Article Inspection Report / Delta FAI in accordance with latest Rev of AS 9102 FL2 (This standard does not apply to Standard Catalog Hardware)	X	X	X	X	X	X						X	X
Raw material certification traceable to material specification and heat lot / batch number	X	X	X	X	X	X			X FL2			X	X FL3
Process Certifications	X	X	X	X	X	X	X					X	X FL3
Supplier's inspection records that reflect product review and acceptance			X	X	X	X						X	X FL3
Functional Test Report FL2					X	X						X	X FL3
Metallurgical report (chemical and mechanical analysis)	X	X	X	X	X							X	X FL3

FL1 Review Ellanef's (Prime) Customer Quality requirements as indicated in Para. 8.9 which in addition to your standard C of C, Ellanef's Customer may request that additional information is listed on Certificate of Conformance and/or referenced document.

FL2 As required (See Ellanef's PO)

FL3 To be supplied to Ellanef upon request

Note: Supplier's who have demonstrated and acceptable level of documentation performance may have the requirements of table I relaxed by Ellanef Quality Assurance.