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## Supply Chain Excellence

Collaborating for Success



2014 EDITION



The  
**Marvin Group**



**MARVIN TEST  
SOLUTIONS**

**FLYER  
DEFENSE**

**L LAPEER  
INDUSTRIES**

**M L S  
MARVIN LAND SYSTEMS**



Dear Valued Supplier:

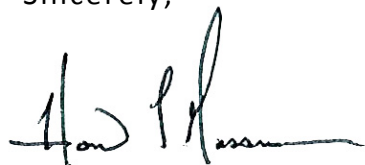
The Marvin Group is committed to building a culture of excellence into everything we do. As a supplier, you are a valued member of the Marvin Supply Chain team. Our success is the direct result of the collaborative efforts and contributions of all members of our team, including you.

Our expectations are 100% quality and delivery from our Supply Chain because the War Fighter deserves nothing less. Ninety-nine percent quality is not good enough.

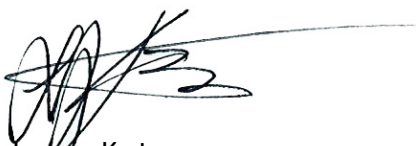
Over the past 50 years, we've distinguished ourselves in the competitive markets with a tradition of excellence, as we consistently deliver on the programs we support. From perfect program execution to meeting and/or exceeding our customer's requirements, this is what it takes to protect the War Fighter and improve the defense of our nation.

Always remember, a team effort requires everyone's commitment and we need your help to build quality products, on time, every time. As a Team, we will work together on improvements and continue collaborating for success!


Sincerely,



Howard L. Gussman  
President  
Marvin Engineering  
The Marvin Group



Larry Katz  
Corporate Vice President  
Procurement  
The Marvin Group



Lynne Kunster  
Vice President Quality Assurance  
Marvin Engineering Co., Inc.  
Marvin Land Systems



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## **Marvin's Expectations of Suppliers**

***We cannot deliver unquestionable performance to our customer without exceptional performance from you.....***

### ***Exceptional Quality***

- 100% quality performance – hardware and documentation
- Products that work the first time, every time

### ***On-time Delivery***

- 100% delivery performance

### ***Timely Responsiveness to Marvin***

- Requests for Quotation (RFQ), Supplier Corrective Action Requests (SCAR)
- Delivery Status

### ***Responsible management of your supply base***

- Supplier performance
- Flow down of Marvin's requirements

### ***Timely identification and notification of problems, concerns and issues***

- Identify problems early, not “late-breaking” news... No surprises!

### ***Continuous improvement in all your business practices***

- Look for innovative solutions that improve your quality and promote affordability

### ***3<sup>rd</sup> Party Accreditation***

- Quality, Purchasing, Production, Accounts Payable, Packing and Shipping, etc.

***Dedicated to meeting or exceeding customer expectations***

## **Marvin's Commitment to Suppliers**

### ***Timely communication of all issues.....***

- Supplier notification (SN) of nonconforming hardware
- First Article Inspection Status
- Supplier performance ratings (scorecard accuracy)
- Purchase order modifications (change orders)
- Industry concerns (GIDEP, Counterfeit Parts, FOD/FOE)
- SCAR approval/disapproval

### ***Fair treatment in determining defect responsibility.....***

- Receiving inspection defects
- Manufacturing floor rejects
- SCARs
- Customer escapes

### ***Assistance in understanding.....***

- Technical Data Package
- Purchase order notes
- Product Assurance Provisions (PAPs)
- Supplier performance ratings (Scorecard)
- Process to request adjustment to scorecard
- How to determine approved special process suppliers
- Root Cause and Corrective Action (RCCA)
- First article inspection reports
- Other general flow downs

### ***Equal opportunity/fair competition to all suppliers.....***

- RFQ
- Small business opportunities

***You can count on us to do everything in our power to meet  
the highest standards of business conduct.  
We are counting on you to do the same.***

## **AS9100 Certified Quality System**

***The competitive marketplace increasingly demands a certified quality system as a basis for future business.***

- Increased visibility as a quality supplier
- Pride of ownership for the organization
- Decisions are made based on metrics (data)
- Aids in maintaining your approved supplier status with MEC
- Federal and State technical/financial assistance is available for suppliers trying to achieve AS/ISO certifications:
  - Office of Small Disadvantaged Businesses (Federal)
  - US Department of Labor (Federal)
  - US Department of Commerce (Federal)
  - Micro Enterprise Grants (Federal)
  - Universities (State)
  - Employment Training Panel (State)

***Achieving AS9100 and/or NADCAP Certification is one of the basic requirements in doing business within the Aerospace and Defense Industry***

## **Training Materials Available to Marvin's Suppliers**

### **TR-821: SUPPLIER MANAGEMENT OVERVIEW**

This training provides a summary of Marvin's goal to drive towards a closed loop supplier quality management system to assure our products meet Marvin Engineering's highest quality standards.

### **TR-822: ROOT CAUSE AND CORRECTIVE ACTION (RCCA)**

The goals of this training presentation are:

- to provide a working understanding of the roles, responsibilities and activities associated with RCCA;
- to assist our suppliers in performing this important function when responding to a Supplier Corrective Action Request (SCAR); and
- to provide tools to our suppliers that may help in identifying and addressing defects before they are delivered to Marvin Engineering.

### **TR-823: THE 5-WHY INTRODUCTION**

This training provides an introduction to the 5-Why method to explore cause and effect relationships. It also provides an opportunity to learn about systems and processes and how to get to the potential root causes asking "Why" five times to discover why a process failed.

### **TR-824: THE 5-WHY PRACTICAL EXAMPLE**

This training enhances the 5-Why Introduction Training with a practical example.

### **TR-825: PRODUCT ASSURANCE PROVISIONS (PAPs)**

This training will provide some basic instruction on where to locate requirements within the purchase order and a more thorough exploration of individual purchase order clauses, known as Marvin Engineering's Product Assurance Provisions (PAP) that affect required supplier documentation with each delivery.

### **TR-826: AS9102 FIRST ARTICLE REPORT**

This training provides direction on how to successfully complete a First Article Inspection (FAI) using the AS9102 Forms 1, 2 and 3.

***Training Materials are located at:***  
***[http://www.marvingroup.com/index.php/supplier\\_information/](http://www.marvingroup.com/index.php/supplier_information/)***

## **Supplier Report Card**

***The supplier report card measures on-time delivery and hardware acceptance rate. The report card is calculated at the beginning of each quarter using the average of 12 months of data.***

The report card rating is a composite score combining the supplier's quality performance and delivery performance, calculated as follows:

Quality (70%) = Qty. of Lots Accepted divided by Qty. of Lots Rejected, times 100

Delivery (30%) = Qty. of On-Time Lots divided by Qty. of Lots Delivered, times 100

|   |                |                 |          |
|---|----------------|-----------------|----------|
| The following rating categories (green, yellow, red) define the rank of the supplier total performance score: |                | Supplier Rating |          |
|   |                | Rating          | Points   |
| a) Green, (Acceptable):   | 95-100 points. | Green           | 95-100   |
| b) Yellow, (Marginal):  | 80-94 points.  | Yellow          | 80-94    |
| c) Red, (Unsatisfactory):   | 0-79 points.   | Red             | 79-below |

Supplier Rating Categories

The report card rating is categorized according to the chart above. The rating category is used to determine the supplier's ability to receive future business and to determine the level of oversight required to manage the MEC work currently in place at the supplier.

***Sustained high performing suppliers are key to continued MEC success and will be rewarded with future business***



**□ QUALITY RATING**

☐ DELIVERY RATING

|   |  |                              |
|---|--|------------------------------|
| <b>Vendor ID:</b>   | <b>Company Name:</b>                                 |                              |
| <b>P.O. Number:</b>   | <b>Part Number:</b>                                  |                              |
| <b>Line Item:</b>   | <b>P.O. Delivery Date:</b>                           | <b>Actual Delivery Date:</b> |
| <b>Failed Qty:</b>  | <b>DMR Number:</b>                                   | <b>Buyer:</b>                |
| <b>Address:</b>   |  | <b>State:</b>                |
| <b>City:</b>  |  | <b>Zip Code:</b>             |
| <b>Contact Information</b>  |  |                              |
| <b>Name:</b>  | <b>Title:</b>  |                              |
| <b>Phone:</b>   | <b>Email:</b>  |                              |
| <i>To be filled out by Requester</i>  |  |                              |
| Reason for Rating Change Request (please include background data, pictures, drawings, graphics, etc. that provide additional detail and clarification): |  |                              |
|   |  |                              |
| <b>Requested by:</b>  |  | <b>Date:</b>                 |
| <i>To be filled out by Marvin Engineering</i>   |  |                              |
| <b>Supplier Quality Rating Analyst/Approver:</b>  | <b>Procurement Delivery Rating Analyst/Approver:</b> |                              |
| <b>MEC Adjustment To Supplier Rating:</b>   | <input type="checkbox"/> Completed                   | <b>Date:</b>                 |
| <b>Reason If Request Is Rejected:</b>   |  |                              |
|   |  |                              |

**All rating change requests must be documented**  
**Rating Change Request Form is located at:**  
[http://www.marvingroup.com/index.php/supplier\\_information/](http://www.marvingroup.com/index.php/supplier_information/)

## **SCAR Response Expectations**

***A Supplier Corrective Action Request (SCAR) will be issued to suppliers for discovery by MEC, MLS or Flyer Defense of any supplier escape defects, audit/assessment/survey deficiencies or any other material, system or process non-conformances.***

Upon receipt of a SCAR, the supplier should:

- Determine Defect Containment - a review of work in progress (WIP), material in stock, sub-tier items for potential defects and an estimated completion time
- Identify Root Cause - an identifiable reason that a particular non-conformance or undesirable situation is occurring
- Provide Corrective/Preventive Action - action taken to eliminate the cause of the existing non-conformance to prevent the problem from recurring or to prevent a problem before it has occurred
- Provide Objective Evidence - evidence that reflect the action(s) taken to implement corrective and preventive action

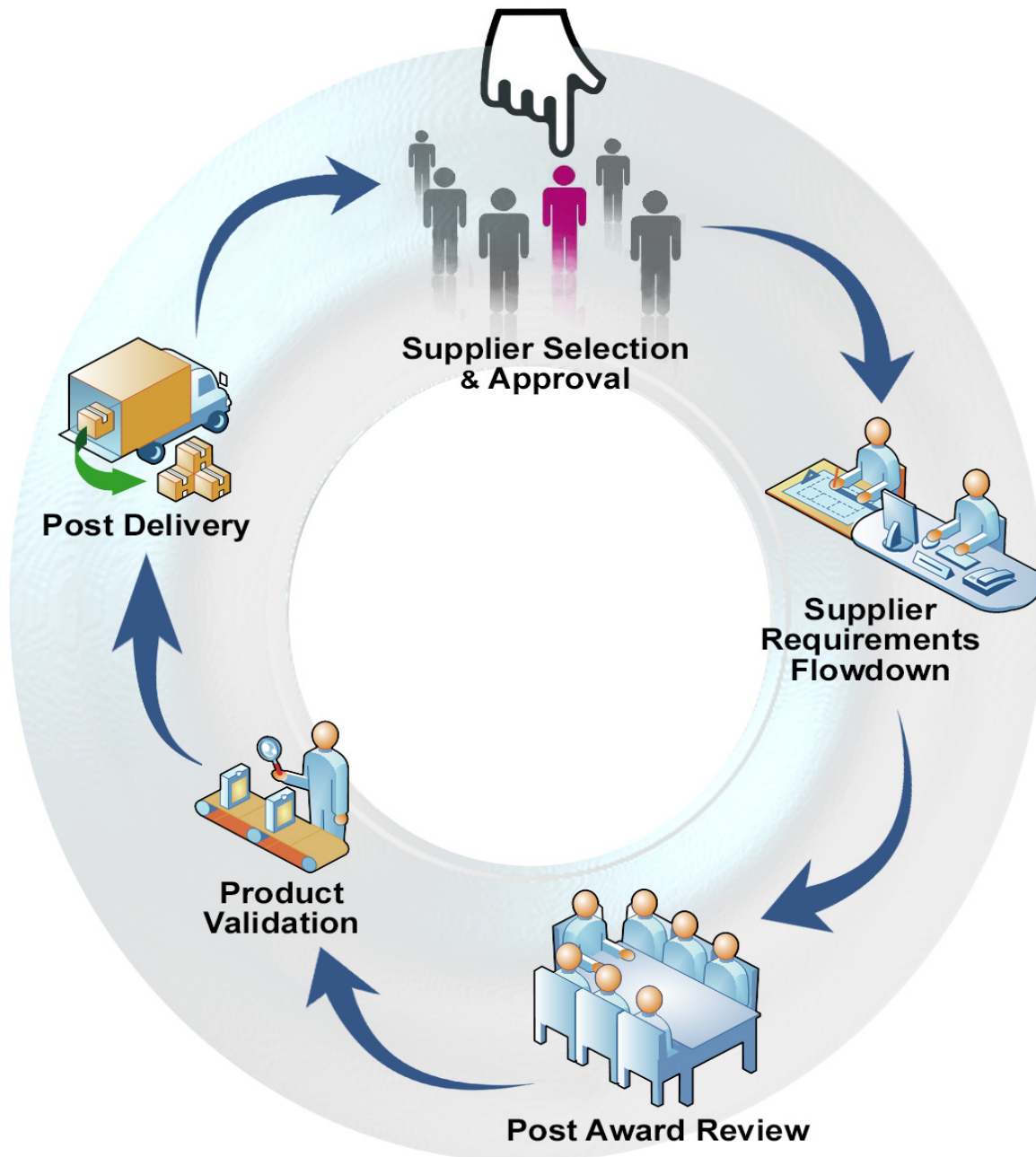
These actions should be completed within the allotted time per the original SCAR notification (generally less than 14 days). If the supplier is unable to complete these actions in that time period, Marvin's Supplier Quality may be contacted with a request for extension.

***Responsiveness to SCARs assures effective resolution of problems that impact you - the supplier, Marvin and most importantly the WAR FIGHTER***

## **Marvin's Procurement Mission Statement**

*Develop and Manage a Supply Base which delivers “Best Value”  
Products supporting all of Marvin's Contractual Requirements while  
creating mutual value for both Marvin and its Suppliers*

## **Marvin's Procurement Model**



### **Maintain Best Possible Supply Base**

- Maintain Approved Supplier List
- Commodity Based Procurement
- Source Selection Based on Best Value

### **Flow Down All Quality Requirements**

- Specific Quality and Inspection Requirements are clearly spelled out on the Purchase Orders and full requirements are defined by Web Page link
- Sales Order flow down for program specific requirements

### **Assure a Quality Product, Delivered on Time**

- Provide Status and Visibility to Programs
- Provide Technical Liaison Support
- Assess Critical Hardware Requirements Prior to Fabrication

***Proactive efforts before defects are built into products.  
The switch from oversight to insight***

## **Validate Product Quality**

- Conduct Receiving Inspection
- Validate AS9102 First Article inspection
- Developed Prescreen process for paperwork review/acceptance
- Conduct Final Inspection and/or Testing at Supplier
- Assess supplier for participation in Supplier Delegation Inspection Program

## **Supplier Quality Assurance**

- Supplier Monitoring
  - Conduct Process/Product Audits
  - Administer Supplier Performance Rating/Scorecard
    - Trending Supplier Performance and Identifying Problem Suppliers for Corrective Action
  - Perform Incoming Product Audits on Self Inspection Suppliers
  - Deliver Supplier Training
    - RCCA
    - AS9102
    - PAP Clause
    - AQL

## **Timely Response to Issues**

- Corrective Actions
  - Conduct Stock Purge
  - Initiate and Approve Supplier Corrective Action Requests (SCAR)
  - Track and Trend Rejections
    - Develop Supplier Improvement Plans

## **Supplier Delegated Inspection (SDI) Authority Program**

*The Supplier Delegated Inspection Authority Program authorizes select suppliers that have demonstrated competency in their systems and processes used to control supplied product to perform source inspection on behalf of Marvin Engineering. This program supports Marvin Engineering's philosophy of building a world-class global supply chain that demonstrates excellence as our standard and continuous improvement as our culture.*

### **Objectives**

- Provide access to a world class supply chain
- Subcontract with suppliers that provide best value
- Leverage highly qualified sources "the best suppliers"
- Build long term supplier relationships
- Provide customers with quality products, services and on-time delivery

### **Benefits**

- Increased visibility
  - Senior management
  - Report card
  - Internal and external recognition
- More business opportunities
  - Preferred supplier status
  - Improved business relationship for the benefit of all stakeholders

***SDI Suppliers receive greater exposure to additional lines of business and reduction in supplier surveillance.***

## **Industry Concerns**

### ***Counterfeit Parts Prevention***

Marvin expects their suppliers to develop and implement a counterfeit parts protection plan.

- Only buy from authorized sources and verify sources in writing from OEMs, OCMs or their approved distributors
- Conduct sampling inspections of parts for suspicious markings, packaging, labels, etc.
- Separately store parts with same part number purchased from different sources (in case of later stock screening)
- Issue GIDEPs for suspect/confirmed counterfeits
- Notify Marvin immediately of suspect /confirmed counterfeits
- Conduct awareness training with your supply base
- Hold your suppliers responsible for all costs to investigate/replace counterfeits including Marvin's costs

For more information:

- IDEA-1004-C "Electronic Components Inspection Manual", Independent Distributors of Electronics Association  
(<http://www.idofea.org>)
- Suspect / Counterfeit Items Awareness Training  
(<http://www.hss.energy.gov/CSA/CSP/sci>)
- Coalition Against Counterfeiting and Piracy (CACP) type toolkit  
(<http://www.theglobalipcenter.com/pages/coalition-against-counterfeiting-and-piracy>)
- AS5553 - Counterfeit Electronic Parts  
(<http://www.sae.org/technical/standards/AS5553>)

## **Industry Concerns**

### ***FOD Control and Prevention***

#### **What is Foreign Object Damage (FOD)?**

- Just about anything can be classified as FOD if it's not in its proper place.

#### **Why be FOD Free?**

- Estimates put the cost to the U.S. Department of Defense (DoD) at \$34.6 million/year and in the aerospace industry at \$4 billion/year. Ultimately, in our industry, the cost of FOD can be a human life.

#### **Preventing FOD**

- Prevention starts with people. Everyone must make the mission their own to help prevent FOD.

#### **Additional steps include:**

- Manufacturing process plans
- Other work control documents
- Inspection of work areas
- Work area qualification plans
- Visual aids in the workplace
- Tool organization
- Good housekeeping



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## **Useful Links**

### **CAGE Code Search:**

[http://www.dlis.dla.mil/bin/cs/begin\\_search.aspx](http://www.dlis.dla.mil/bin/cs/begin_search.aspx)

### **Root Cause Analysis information and training:**

<http://www.thinkreliability.com/>

## ***URLs for suppliers to confirm AS9100 / NADCAP certification***

**<http://www.sae.org/iaqg/>**

The IAQG is a cooperative global organization that brings aviation, space and defense companies together to deliver more value at all levels of the supply chain.

**[www.eauditnet.com/](http://www.eauditnet.com/)**

The NADCAP is a cooperative global organization that brings aviation, space and defense company awareness to special process requirements to deliver more value at all levels of the supply chain.

## **MARVIN PORTAL: Now available for Data Transmissions**

<https://207.171.3.100:4443/WebInterface/login.html>



## **Questions?**

Contact Dan Micciche at [danielm@marvineng.com](mailto:danielm@marvineng.com)

***Marvin Portal is now available for Supplier use***  
***[http://www.marvingroup.com/index.php/supplier\\_information/](http://www.marvingroup.com/index.php/supplier_information/)***

## **Submitting an Engineering Change Request**

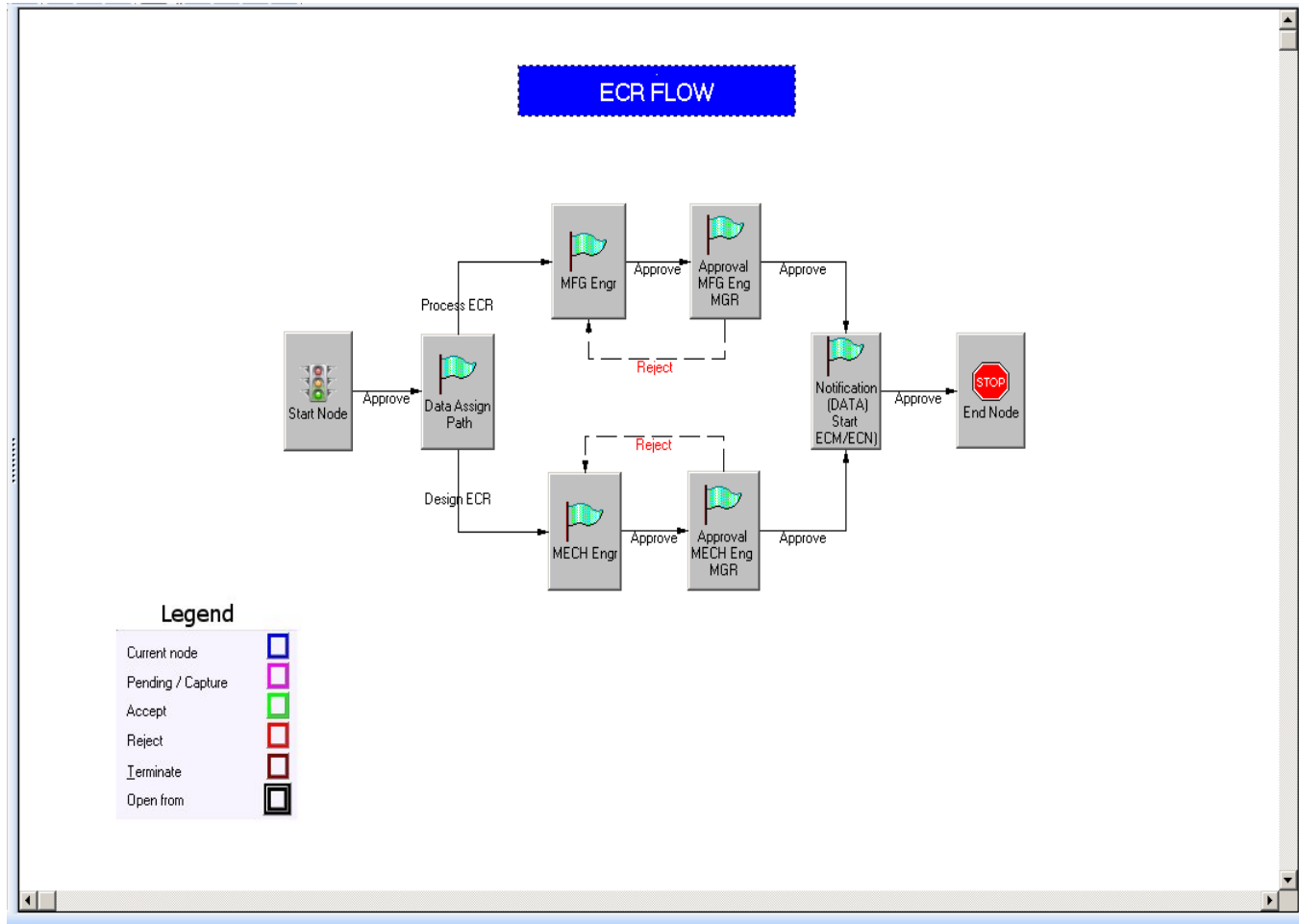
### ***Automated Engineering Request (ER) Work Flow***

#### **Form is located on the Marvin Portal**

- Your Company Name
  - Uploads for your Company
  - Uploads to MEC
  - Documents
- The Form with complete instructions will reside in the Documents Folder
  - Complete the form as per the instructions
  - Place in the Uploads to MEC folder
- Document Control at MEC will retrieve the Document
  - An automated e-mail will be received by Marvin
  - The Form will be downloaded and an automated workflow will be started
- You will receive a disposition via the Marvin Portal
- If an ECN flow is required
  - You will receive a notice that the ECN is required via the Marvin Portal
  - You will receive a disposition via the Marvin Portal within 5 days

## **Submitting an Engineering Change Request**

### ***Automated Engineering Request (ER) Work Flow***



## **Submitting a Supplier Non-Conformance Request**

### **Form is located on the Marvin Portal**

- Your Company Name
  - Uploads for your Company
  - Uploads to MEC
  - Documents
- The Form with complete instructions will reside in the Documents Folder
  - Complete the form as per the instructions
  - Place in the Uploads to MEC folder
- Data Staff (Document Control) at MEC will retrieve the Document
  - An automated e-mail will be received by Marvin
  - The Form will be downloaded and distributed to MEC Supplier Quality
- The data will be reviewed by the appropriate IPT Quality Engineer and Manufacturing Engineer, then processed through an automated work flow
- You will receive a disposition via the Marvin Portal within 10-working days



## **Marvin Group Procurement Department**



Larry Katz  
Corporate Vice President Procurement



Jesse Andrade  
Director, Procurement



Jim Caso  
Procurement Technical Liaison



Meagan Mayo  
Supply Chain Analyst



Eddie Guzman  
Receiving Manager

## **Buyers**



Sue Van Raay  
Special Projects Buyer



Chris McPherson  
Electronics Buyer



Linh Nguyen  
Hardware Buyer



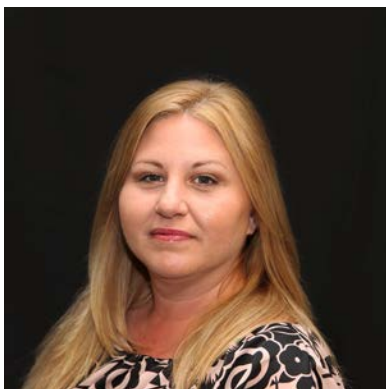
Scott Spence  
Manufacturing Buyer



Gheorghina Gruia  
Manufacturing Buyer



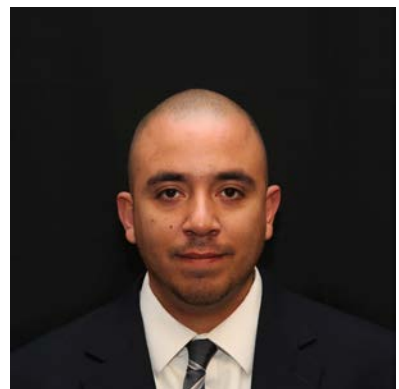
Adison Thongcharoen  
Manufacturing Buyer



Lisa Lopez  
Processing Buyer



Tony Perez  
Processing Buyer



Ricardo Ramirez  
Processing Buyer

## **Buyers**



Marsha Green  
General Supplies & Services Buyer



Chip Miller  
Buyer – Flyer Defense



Barbara Moore  
Buyer – Marvin Test Solutions

## **Procurement Liaisons**



Cristina Hernandez  
Procurement Liaison Lead



DeAndre Ellison  
Procurement Liaison



Roanne Prince  
Procurement Liaison



Heidi Venancio  
Procurement Liaison



Marisol Guillen  
Procurement Liaison



Jessica Guillen  
Data Management Administrator

## **Marvin Group Supplier Quality Department**



John Massey  
Manager, Supplier Quality



Edward Lara  
Supplier Quality Engineer



Carl Washington  
Supplier Quality Engineer

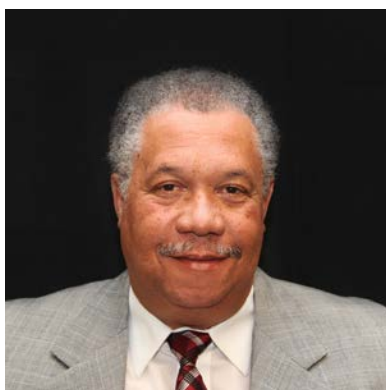
Not pictured above:

Joe Binkowsky, Quality Field Representative  
John Coates, Quality Field Representative

## **Pre-Screen**



David Katz  
Supervisor, QC Pre-Screen



Steve Newman  
QC Pre-Screen

