

Raytheon Missile Systems Company

PURCHASE ORDER ATTACHMENT T-RAM SVRP
(January 1995)

SUPPLIER VARIABILITY REDUCTION PROGRAM

1. The purpose of this attachment is to encourage a commitment from Hughes Missile Systems Company's (HMSC) critical and major RAM suppliers in implementing a variability reduction program. The objective of a variability reduction program is to assist the Seller in achieving the highest quality products at the lowest overall cost through the use of process control techniques. Seller is strongly encouraged to use such tools as pareto analysis, DOE, QFD, SPC (with emphasis on variables data) and other pro-active tools in the pursuit of higher quality and lower cost. HMSC is committed to long term relationships with those suppliers who show the most cooperation and improvement in establishing process control/variability reduction efforts.

2. As evidence of our commitment to SPC, HMSC offers to team with suppliers to: 1) provide training in the tools of variability reduction; 2) assist in flow charting production processes; 3) assist in identifying key characteristics for application of process controls; 4) determine the appropriate data to gather, analyze, and share; and 5) assist in the establishment of a pro-active defect prevention and variability reduction program.

3. Per the definitions below, Seller shall identify the critical processes, key characteristics or process parameters, and types of controls (P Chart, X-Bar R Chart, etc.) necessary to produce a "best value" product.

Basic Process: Those manufacturing processes which define the basic manufacturing capabilities of a minifactory or supplier.

Critical Process: The application of a basic process whose degree of variability has a high potential of impacting a specific product's performance.

Key Characteristics: Those distinctive product attributes for which reasonably anticipated variation could significantly affect a product's performance, quality, cost, or delivery schedule.

Key Parameters: Process variables that are machine-controlled to assure the key product characteristics are also controlled.

Seller shall implement SPC and (a) maintain a continuous effort to monitor and improve all critical processes to a Cpk goal of 1.33 or better or (b) create a formalized plan (agreed to by HMSC) for maintaining the requisite quality for those critical processes with a Cpk of less than 1.33. Seller shall maintain SPC records to track progress, which will be made available to HMSC on a periodic basis for on-site review. The intent of this requirement is not to dictate the methodology of the Seller's variability reduction program, but to establish principles of long term process improvement. 4. HMSC will assess Seller's progress toward variability reduction goals on a quarterly basis. The results of this evaluation will be included as one of the criteria considered in making a "best value" source decision. Seller will be provided with this information via the "Supplier Report Card" which is published quarterly so that they may see the impact of their efforts on the "best value" source selection process

4. HMSC will assess Seller's progress toward variability reduction goals on a quarterly basis. The results of this evaluation will be included as one of the criteria considered in making a "best value" source decision. Seller will be provided with this

information via the "Supplier Report Card" which is published quarterly so that they may see the impact of their efforts on the "best value" source selection process