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*Though this article on Performance Management Teams was written many years ago, I decided to republish it because it can serve as a benchmark for companies that want to vigorously attack the ISO 9001:2008 standard's requirements for managing through measurable objectives. Lockheed Martin Electronics and Missiles Group was a customer when I was with Clifton Precision/Litton Special Devices division. Charged with the responsibility of implementing the division's new strategic plan, our team successfully modeled our team-based TQM system upon the Lockheed benchmark.*

Lockheed Martin Electronics, Information and Missile Group - Production Operations, located in Orlando, Florida, is a major US defense contractor involved in the manufacture of the Patriot missile and the LANTIRN Navigation System. In keeping with its Commitment To Excellence Program the company inaugurated the Performance Management Teams system in July 1986. The brainchild of Robert J. Keymont, Vice President of Production Operations at Lockheed Martin, Performance Management Teams: "...are the cornerstone of employee involvement at (Lockheed) Martin...".

From a pilot program of twelve (12) teams in 1986, it has grown to over one hundred (100) teams and includes SPC stations measuring over 200 characteristics.

Lockheed Martin's Commitment to Excellence (CTE) program began in 1983 with its executives publicly pledging to actively work toward attaining excellence in all the company's endeavors. They were trained in the principles and techniques of quality management at the nearby Philip Crosby Associates' Quality College. But the training did not extend down through the organization to the production floor, so it had little positive impact on the company's performance. In fact, a Production and Quality Systems audit conducted in 1985 yielded over one hundred (100) findings of system inadequacy: hardly an indicator of excellence.

Performance Management Teams (PMT) energized that commitment by empowering the entire organization to move, as a unit, toward that goal. The results have been startling. By 1989, a re-audit of the Production and Quality Systems yielded no findings of deficiency.

Furthermore: Production yields improved by 11.5% Scrap losses were reduced by 41.7% Manufacturing Reworks were reduced by 72.1% Overall performance improved by 47.1% Overtime expenditures were reduced by 70.5%

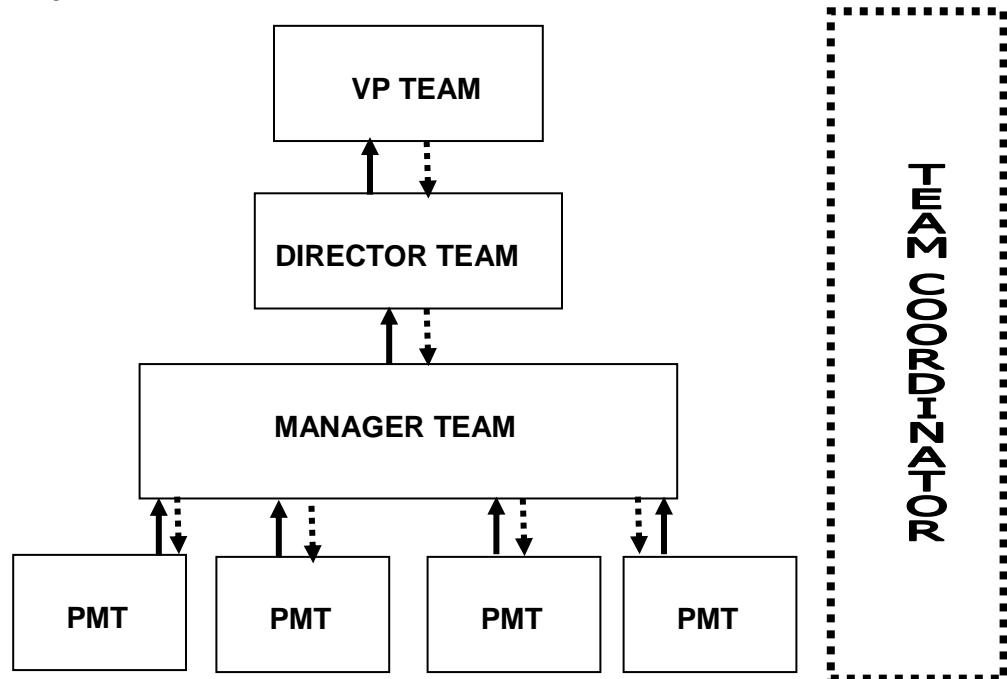
Keymont's approach to employee involvement is unusual, if not unique, in that it accommodates the reality of the fundamental differences that exist between US and Japanese business management styles: directive rather than supportive, authoritarian rather than participative, short term rather than long term focus. A no-nonsense approach, it uses existing chain-of-command structures, reinforces the leadership role of the first line supervisor, clearly defines the roles' teams will (and will not) play, sets current operational goals -- in finite terms -- and provides highly visible measurements of quality, cost and schedule performance. It also contains built in counter-measures



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against the erosion of management commitment, the reason most employee involvement efforts fail, by inextricably tying management into the process.

The PMT system framework is comprised of a hierarchy of teams working within the existing organizational structure. Teams start at the natural work unit on the factory floor and proceed upward through each of three higher levels (the Manager, Director and Vice President Levels). Teams at each level are connected, in link pin fashion, to each adjoining level through a common member. The first line supervisor/Team Leader is the common member of the unit and manager teams. In this way, the Team is linked to the Manager, the Manager to the Director and the Director to the Vice President.



The roles, responsibilities and authority of each team and team member are explicitly defined and well documented. For example, problems which may be addressed by the work unit team are limited to those which are within the scope of their work area. Company policy or bargaining unit issues are out of bounds. Although the team is empowered to address its own problems, the PMT system recognizes that the solution to those problems is not always within the team's control. When that situation exists, the problem is "bubbled up" to the next higher level team for resolution.

This structure is further tied together by Coordinators. They act as liaison between the teams and the Director, represent teams at the Senior (VP) level, monitor teams' progress, assist teams in setting and measuring goals, coach team leaders, facilitators and team members, resolve problems outside the teams' control and communicate ideas and information among the teams to enhance the problem solving process. Linking, the formal "bubble up" process and the Coordinators all insure that management remains continuously and meaningfully involved in and committed to the process.



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The core of each first line team is made up of those workers who form the natural work unit. **The first line supervisor is the Team Leader** just as he/she is the leader of the unit on the factory floor. The PMT system recognizes the importance of first line

supervisors and reinforces that importance by expanding their role. As Keymont puts it: "Ownership belongs to the first line supervisor."

It must be understood, though, that PMT in no way increases or modifies the scope of responsibilities for any person or group. Since most work requires input, assistance or oversight by various support groups, Lockheed Martin concluded that members of the key support groups must also be integral parts of each team. At the first line team level, the Production Engineering, Industrial Engineering, Quality Engineering, Quality Inspection, Planning & Control and Test groups are each represented and form a part of the working team. Participation is mandatory. If a support group member is missing, that employee's manager must stand in.

Darrell A. Katz, Lockheed Martin's Manager of TQM/PMT, Production Operations, who was involved with the program since its inception, said many support groups initially resisted, objecting to the "additional responsibilities". But they became more responsive when he explained they would only be getting involved with problems that would ultimately have come to them anyway through the chain of command. Here, they would be exposed to them sooner and be better positioned to reach the ultimate objective: problem avoidance.

A common complaint about employee involvement efforts is the length of time it takes for teams to become productive. An inordinate amount of time is spent deciding what problems the team should tackle and in what order. But at Lockheed Martin, the business, itself, tells the teams what its problems are.

Prior to their formation, management predetermined that teams would focus their attention on:

- quality yield,
- rework,
- scrap,
- audit result,
- cost performance,
- schedule/cycle time,
- lost time/overtime,
- customer satisfaction, and
- action items which could have a positive impact on product service quality and reliability, cost performance, productivity, safety, schedule delivery, cycle time, or customer satisfaction.

(The availability of timely data at the individual team level is critical to the PMT system.) Goals were established for each of these criteria. By the second team meeting,



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members are prepared to begin recording, charting and analyzing the data from their area. Not only does the team know, in advance, what is important to management but it can see where the major problem areas are. As a result, teams do not waste time debating what problems they should solve. The team immediately becomes productive.

Each team meets for at least one hour per week and reports its progress using simple graphs and a summary Action Item List. An Action Item is any item having a definite

impact on product quality, cost performance, safety, or scheduled delivery. In addition to identifying the action needed, the list spells out who is responsible for its completion and when it must be completed. Here, for example, is where "bubbled up" items will appear and be tracked. The graphs and the Action Item List are arranged for public display and posted in the work area. The simplicity of the overall report gives a quick and informative overview of a team's progress.

Recognition is a key part of the PMT system. In addition to team competition, where a Team of the Month and a Team of the Year are chosen, accomplishments are published in "POST", the Production Operation's newsletter. Further, banquets and award ceremonies are held and high performing teams are given the opportunity to make presentations to Senior Management, to customers and to outside groups.

Core team members are given no training prior to team formation. All their training takes place in the team environment and centers mostly on charting and problem solving skills. But Supervisors, support people, Managers, Directors, Coordinators and Vice Presidents receive up to 56 hours of instruction in such areas as Problem Solving (24 Hrs), Communications Skills (16 Hrs), Coaching and Reinforcing (8 Hrs), Team building Techniques (4 Hrs) and Roles, Responsibilities and Metrics (2 Hrs).

Performance Management Teams are succeeding at Martin Marietta primarily because the system uses the existing organizational structure, keeping "culture shock" to a minimum, provides local management data, demands upper management commitment, provides for total visibility of action items in a simple uncomplicated fashion and cultivates accountability and ownership at the work unit level. At least one of Lockheed Martin's suppliers, Litton Special Devices, has adopted the PMT concept and is in the process of adapting it to its own total quality effort.

Mr. Katz's suggestion for anyone who wants to embark upon PMT is to begin slowly. Starting with twelve teams, as they did, seemed like a good idea until the typical "settling in" problems began to surface. In retrospect, he would rather have limited it to no more than six teams. A smaller organization should consider a pilot test program of no more than two or three teams. Because PMT works within the existing organizational structure it can be implemented on a very controlled basis without impacting the rest of the organization. During the early phases, train Facilitators should guide team meetings and assist in training team members on appropriate tools. As the supervisor/team leader gains more experience in his/her role, the Facilitator can be phased out.

Performance Management Teams represent a pragmatic approach to employee involvement in organizations that are not already working in a participative environment.



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It allows one to proceed in a very conservative, controlled fashion, does not foster "culture shock" and is results oriented. It is a "bottom line friendly" way to begin a Total Quality Management effort.