

The Round-up



Group Perspectives

Jim Lincrome
Executive Vice President
and General Manager

Voting: A Community and Motorola Responsibility

Traditionally, voter turnout is sparse in special elections and therefore, unfortunately, decisions affecting millions can be made by only 15 or 20 percent of the population. Voter apathy has been particularly noteworthy in Arizona, where voter turnout and registration are far below the national averages.

Next week, each of us has the privilege and responsibility to exercise the power of our individual vote in two critical elections, one as a resident of Maricopa County and the other as an employee of Motorola, Inc.

On Nov. 3, Maricopa County voters will be asked to approve or disapprove a property tax increase of up to 25 cents per \$100 assessed valuation -- about \$16 annually for an \$80,000 home -- to help fund the Rio Salado Project. The tax increase would raise \$1.3 billion over the next 25 years of the project.

After conducting employee information sessions at both GEG and SPS facilities in the Valley and listening to what you and/or your fellow employees had to say, Motorola has decided not to take a position on the Nov. 3 election. However, I will supply some background information about Rio Salado as was suggested by the participating employees.

Basically, Rio Salado is a \$3 billion project to create a public park and recreational area flanked by commercial, residential and industrial development along the Salt River from Mesa to Phoenix.

Backers of the project hope to transform the "jagged, ugly, dried out scar cutting across a beautiful valley" into 17 miles of continuous regional park, "an oasis across the desert floor." They say that, like Mission Bay in San Diego, Central Park in New York City, River Walk in San

Antonio, and the Mall in Washington, D.C., Rio Salado will come to be identified as the jewel of the Valley of the Sun. Supporters assert that Rio Salado will represent a boost to the entire Valley's economy and quality of life, much like Scottsdale's Indian Bend Wash reclamation and development.

Opponents of Rio Salado point to the absence of a detailed master plan and the many questions that remain unanswered. What will be done to protect the public from hazardous wastes in at least 54 legal and illegal landfills and chemical ponds along the Salt River? Is there a guaranteed water supply to fill Rio Salado's more than 3,000 planned acres of lakes and streams? Why encourage development in a flood-prone area?

Each of us must consider the arguments both for and against the Rio Salado Project. Is it the beginning of the realization of a dream to improve the quality of life for ourselves and future generations? Or is it the start of a nightmare where we'll watch our tax money wash down the river? We should not let an issue of such importance be decided by a few. On Nov. 3, I urge each of you to cast your vote in the Rio Salado Tax Authorization Measure Special Election.

I would also like to take this opportunity to reinforce my message in last issue's Perspectives. During the week of Nov. 2, each of us as Motorolans should exercise our voting privilege in the Profit Sharing Election. Several changes to the Profit Sharing Plan require a majority vote of Profit Sharing participants. I encourage you to review these changes which are explained in more detail in the brochure that you were given at the recent Benefits meetings and to visit the Benefits tables located outside the cafeteria at each facility. It is our best judgement that these changes will clearly result in an improved financial position for all Motorolans, both short-term and long-term. Keeping in mind that the Profit Sharing Amendment must pass in order for the Profit Sharing and Pension Plan provisions to take effect, I urge you to vote "YES" in this critical election.

As insignificant as it may sometimes seem, your vote is important and can make a difference. I hope that each of us, as concerned and caring members of both the Valley and Motorola communities, votes next week.

Quality Corner

What is Six Sigma

by Jeanne Forbis

Six Sigma is Motorola's term describing near-perfect performance in everything employees do. The term focuses on approaching zero defects and refers to how often customers will find a defect or error in the products and services Motorola provides.

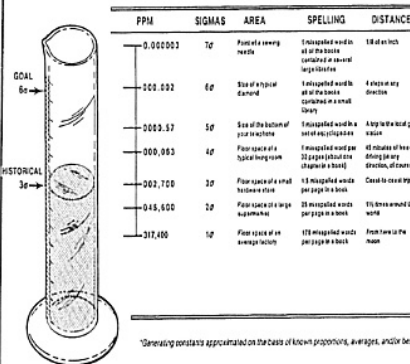
"Sigma" comes from statistics and is the Greek letter used to represent a way of thinking about how likely it is something will happen. "Six Sigma means that a defect will occur only about 3.4 times for every million opportunities of creating defects at the parts level," said Mikel Harry, Principal Staff Engineer, Advanced

People expect Six Sigma or better performance in these products and so many others. They would not be 99 percent performance and neither: Motorola customers.

Motorola's goal is to design product that will accept reasonable variations component parts and to develop manufacturing processes that will be minimum variations in the final output product, thus preventing defects.

Based on Six Sigma capability at parts level, a product with 1,200 step manufacturing process where a defect would be expected to have on

UNDERSTANDING SIX SIGMA QUALITY



*Generating constants approximated on the basis of known proportions, averages, and/or data.

Why Six Sigma?

"When the number of sigma units or 'σ's' is small, say two, product quality is not very good; e.g., the number of defects per million opportunities for defect would be intolerable. When the number of σ's is large, say six, quality would be excellent; e.g., the number of defects per million opportunities would be extremely small. In general, the bigger the number the better. In this sense, the quality σ's are like water graduations on a glass beaker - you know, like chemists use to measure the volume of a l. So think of quality like water in a beaker, the more quality we have in the product, the more fluid there is in the beaker," -- Mikel Harry

1988 Benefits Changes: Get Your Answers at Information Days

If you still have questions regarding how the new Pension Plan and the proposed Profit Sharing Plan changes affect you, don't forget to take advantage of "Bennie," the computer printout available in Personnel. Or you can visit one of the Benefits Workshops being held at each plant. As part of Benefits Information Days, which began Oct. 20, Motorolans will be available at the times and locations below to discuss the Pension, Profit Sharing and PMP changes that Bob Galvin, Chairman of the Board, announced earlier this month. Pick a time, then get the answers to your individual questions so you will be informed and ready to vote in the Profit Sharing Election during the week of Nov. 2.

Chandler -- Front of Cafeteria
Friday, Oct. 30 6 - 8 a.m.
11 a.m. - 1 p.m.
Monday, Nov. 2 11 a.m. - 1 p.m.
Tuesday, Nov. 3 11 a.m. - 1 p.m.
Wednesday, Nov. 4 11 a.m. - 1 p.m.
Thursday, Nov. 5 11 a.m. - 1 p.m.
Friday, Nov. 6 11 a.m. - 1 p.m.

Hayden -- Outside Cafeteria
Thursday, Oct. 29 11 a.m. - 1 p.m.
Friday, Oct. 30 11 a.m. - 1 p.m.
Monday, Nov. 2 6:30 - 8 a.m.
11 a.m. - 1 p.m.
4 - 5:30 p.m.
Tuesday, Nov. 3 11 a.m. - 1 p.m.
Wednesday, Nov. 4 6:30 - 8 a.m.
11 a.m. - 1 p.m.
4 - 5:30 p.m.

Roosevelt -- Cafeteria
Thursday, Oct. 29 11 a.m. - 1 p.m.
Monday, Nov. 2 11 a.m. - 1 p.m.
Wednesday, Nov. 4 6 - 8 a.m.
Friday, Nov. 6 11 a.m. - 1 p.m.

Elliot -- Outside Cafeteria
Thursday, Oct. 29 11 a.m. - 1 p.m.
4 - 6 p.m.
Friday, Oct. 30 11 a.m. - 1 p.m.
Monday, Nov. 2 11 a.m. - 1 p.m.
Tuesday, Nov. 3 11 a.m. - 1 p.m.
Wednesday, Nov. 4 6 - 8 a.m.
11 a.m. - 1 p.m.
Thursday, Nov. 5 11 a.m. - 1 p.m.
4 - 6 p.m.
Friday, Nov. 6 11 a.m. - 1 p.m.

See inside for more info on the new Pension Plan and the proposed Profit Sharing changes.

Quantitative Research Laboratory, Communications Division.

"By achieving Six Sigma capability levels, Motorola employees increase total customer satisfaction because the customer will almost never see a defective Motorola product or service," said Mikel.

Six Sigma is much more than just a measure of defect levels. It represents a continuous process of eliminating defects in our jobs and assuring that our work promotes total customer satisfaction and Motorola profit improvement.

"Six Sigma is not yet absolutely zero," emphasized Bill Weisz, Vice Chairman and Chief Executive Officer, "but it does signify from 99.5 percent to 99.9 percent perfect for completed products and services."

"Some may think that 95 or even 99 percent is 'good enough,'" explained Bill. But consider the following examples of 99 percent quality yield:

- At least 200,000 wrong drug prescriptions each year.
- More than 30,000 newborn babies accidentally dropped by doctors or nurses each year.
- Unsafe drinking water almost four days each year.
- No electricity, water or heat for about 15 minutes each day.

defects per unit. This means that 994 out of 1,000 would go through the entire manufacturing process without a defect.

Six steps comprise the Six Sigma process: identifying your product, identifying your customers and their needs, identifying your needs, defining the process for creating products, designing work in a manner that eliminates waste and defects, and measuring, analyzing and controlling.

The Six Sigma concept can be applied to tasks ranging from the manufacturing of products to a salesperson's ability to deliver free order to the shipment of products to customers.

"While the Six Sigma concept is relatively easy to understand in product process activities," Bill continued, "it will be a little more difficult to relate to in personal endeavor. Commit your Six Sigma. Be willing to modify your modus operandi and your personal operating system, so as to eliminate and reject in your personal work process."

GEG Training and Development offers a series of Statistical Process Control (SPC) classes. For more information, call Veronika Stanton on 897-5101 or Ma Timmarsh on 990-5252.