Engineering the Next Century

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National Engineers Week

America in 2003 looks very different from the new, developing country that it was in 1803. Going back two centuries, America had no railroads, no telegraphs, no electricity. By 1903, we had acquired all these assets, but lacked airliners, computers, and communications satellites. By 2003, we certainly have achieved these staples of modern life – yet, we might ask: What will our country look like 100 years from now? What wonders wait to be discovered in the next century that will make the people of 2103 regard us today as inhabitants of a more primitive era?

One thing is for sure: The advances that will be made in the next century will be brought about, to a great extent, by American engineers. Our nation occupies a unique position in the global marketplace – yes, we lead by example with our commtiment to freedom and free enterprise. But what gives us our vital competitive edge is our technological prowess. In short, we maintain our global economic leadership by “outinventing the world.” And what has enabled America to stay at the leading edge of technology is our extraordinary infrastructure of engineering talent and expertise. In a very real sense, the profession of engineering is at the heart of the American Dream.

National Engineers Week (February 16-22, 2003) is one way we highlight the contributions of engineers to America’s economic strength and its technological leadership. We celebrate past contributions, and we draw attention to the growing need for new talent to be brought into the engineering profession. As a matter of fact, a number of factors point to a coming shortage of qualified engineers, a situation that will bring repercussions not just in America but also throughout the world. That’s the bad news.

The good news is that engineers are problem-solvers, and we're ready to tackle the engineering shortage. As one colleague observed, “Problems are just opportunities with their sleeves rolled up.” So we are rolling up our sleeves and redoubling efforts to both energize our profession and expand the potential pool of new engineers with a variety of innovative programs for National Engineers Week 2003.

Among these is New Faces of Engineering, an initiative sponsored by Lockheed Martin and ASHRAE to spotlight the outstanding contributions of young professional engineers. We have long sought to expand the career opportunities of young people to include engineering. The problem for many is the fact that our profession has an extended "pipeline" for producing future talent. Potential engineers must be "caught" at a young age so they can begin to take the intensive math and science courses that will allow them to pursue engineering years later.

It is especially critical to reach women and minority students by middle-school age if our profession is to have greater future contributions from their ranks. Demographers have observed that, more and more in the coming century, those entering America's work force will not be native-born white males. Consequently, America has a special need for minorities and women to become engineers. As a nation, we must fully benefit from the talent represented by diverse groups of people if we are to retain our global economic leadership.

With the combined and re-energized efforts of educators, employers, professional associations and many others, 2003 promises to be a stellar year for National Engineers Week. We have a lot of work ahead of us, to be sure. But as the Honorary Chairman, I am confident we will address the range of challenges before us. I invite all of you to join in this effort, roll up your sleeves, and take this opportunity to introduce the exciting profession of engineering to a whole new generation of young people.