

WHY AN AEA?  
AN  
INTRODUCTION TO THE  
AMERICAN ENGINEERING ASSOCIATION, INC.

PREPARED FOR THE  
ALFRED P. SLOAN FOUNDATION

by Richard F. Tax  
V.P. AEA  
July 8, 1996

DEDICATED TO THE ENHANCEMENT OF THE ENGINEERING PROFESSION  
AND US ENGINEERING CAPABILITIES.

# Table of Contents

1. Introduction
2. Why do we need the AEA?
3. What is AEA?
4. What has AEA done?
5. What will AEA do?
6. Conclusion

## Appendix

- A. Excerpt from AEA's By-Laws
- B. Many People Don't Feel Like Celebrating Engineers Week - Ronald Kohl, *MACHINE DESIGN* Feb. 12, 1993

## PRECISELY SAID

"In managerial technique I emphasize the necessity of the scientific approach; this affects men, tools and methods. Many associate the word scientific with physics. But it means a constant search for the facts—the true actualities—and their intelligent, unprejudiced analysis. Spend any proper amount of money to get the facts. Only by increased knowledge can we progress, perhaps I had better say survive."

—Alfred P. Sloan, Jr.

## 1. INTRODUCTION

Speaking from a historical background we already know that the typical old line engineering societies in the United States have not been successful in improving the conditions in the engineering community. The immigration issue is one example where imported engineers have displaced U.S. engineers, reduced wages, deprived our young engineering graduates of opportunities, and also made yesterdays immigrant today's victim. Today's immigrant will be tomorrows victim. Detrimental immigration legislation was supported by Engineer Shortage Propaganda (ESP) fabricated by the National Science Foundation. The engineering community did not rebut NSF's lies in time or have the clout to protect ourselves from this travesty.

With the exception of the Institute of Electrical and Electronics Engineers (IEEE) and our American Engineering Association I do not know of any other engineering organization engaged in the political arena. This simplifies the issue of "Why an AEA?" to the involvement of only our AEA and the IEEE.

IEEE has an IEEE-USA group operating under the guidance of their United States Activities Board (USAB). Cumbersome and complex, USAB runs the IEEE-USA office in Washington, D.C. with a budget of some six million dollars per year, a paid staff of 25, and has been operating for over 20 years. This supports five councils, more than thirty (30) committees and some three (300) hundred volunteers. Some of these committees and volunteers are Problem Producers and not problem solvers. Some of these volunteers are paid by their employers to participate in IEEE activities to enhance their employers economic position. Some work for the federal government.

On the other hand IEEE has a dedicated group of volunteers spread out across the country that are part of the Professional Activities Committee for Engineers (PACE). These PACE members, and most are engineers, get little if any support from USAB, have no input to USAB, and are virtually and conveniently isolated from each other. Usually, each IEEE Section has a PACE representative. Having been active in PACE and IEEE's Manpower committee, I know these people and their concerns, problems and frustrations. This is exactly why I became involved in the American Engineering Association.

With all this funding and support IEEE-USA does not have a monthly publication for the 200,000 U.S. members that support it.

Now with this history out of the way, and the assumption that the engineering profession needs genuine representation let's proceed.

## 2. WHY DO WE NEED THE AEA?

- We need the AEA to educate the public, elected representatives and the engineering community and provide them with the facts. —  
AEA and its representatives have a reputation to uphold. It is unblemished with our membership, our representatives and the trade press. They count on us for the truth. We present the facts and use them in the solution of problems.
- We need the AEA to protect the engineering profession from the fabrications and false or erroneous reports that demean its members and deprive them of opportunities to practice their profession. —  
As an example; AEA will never support the unfounded fabrications of North Eastern University (NEU) that claimed engineers are obsolete at age 35; IEEE did! I and two other PACE engineers of the North Jersey Section of the IEEE critiqued the North Eastern Study and found it to be "A shoddy piece of workmanship that reeks of deception and age discrimination." The trade press followed up on our critique and challenged the NEU researches. NEU could not verify their findings. IEEE's *The Institute* officials gave us a hard time.
- We need the AEA to protect the engineering profession, the public and our students from Engineer Shortage Propaganda (ESP) and its affects . —  
AEA members have always opposed unfounded ESP; IEEE has increased ESP visibility and credibility by giving it free space in IEEE's *Spectrum* and their other leading publication *The Institute*.
- WE need the AEA to provide the members of the engineering profession with a forum to express their concerns. —  
AEA's publication, *American Engineer*, presently in its infancy will provide a forum for our entire membership.
- We need the AEA to monitor activities/legislation and endorse or oppose activities/legislation that affects our industries and the engineering community in a timely fashion. —  
Bill Reed, AEA's president, and members have done this in the past and without much success because we have severe limits in visibility, support and funding. We hope to overcome this with growth.
- We need AEA to unite all disciplines of the engineering community to provide the political clout necessary to influence the issues. —  
Divided by discipline the largest U.S. body of engineers is IEEE's U.S. membership of about 200,000. AEA expects to double this number. The Aircraft Owners and Pilots Association (AOPA) is successful with 330,000 members.

### 3. WHAT IS AEA?

- AEA, the American Engineering Association, Inc. is a non-profit corporation filed under the Internal Revenue Code, Section 501 (C)(6).
- AEA has a set of By-Laws that specifically covers its purpose. See appendix A
- AEA is an organization well respected by members of the profession and the trade press. See appendix B.
- AEA is virtually invisible, which is bad, and has a current membership of about 800 members.
- AEA has an annual budget of about \$23,000 derived exclusively from membership fees of only \$30 per year.
- AEA's activities are directed by a handful of engineers that volunteer their time to make AEA function.
- AEA has a "Metro Office Management Group" to answer our telephone and handle some administrative chores for a minimum fee.
- AEA has the ability to enlist a cadre of engineers across the country to carry out AEA's mission once funding is available to support their efforts. Many of these engineers will come from IEEE's frustrated PACE membership.

### 4. WHAT HAS AEA DONE?

- AEA has published the *American Engineer* since 1991. The *American Engineer* is sent to all AEA members and complimentary issues have also been sent to members of the U.S. Congress, the trade press and other friends of the engineering community.
- AEA brings the issues to our Congress and other officials through our *American Engineer*. — Congressional committee representatives have responded by asking for additional information and help. Limited funding prevents more activity.
- AEA has and will publish articles that are not found in the IEEE or other engineering society publications. — For years we have tried to give visibility to issues through IEEE publications without success. IEEE keeps problem visibility in check by censorship.
- AEA has supported U.S. corporations when government contracts were, unfairly, given to foreign companies. — AEA supported Schweizer Aircraft Corp. in 1992 to prevent the Enhanced Flight Screener A/C from going to the British.
- AEA members have rebutted reports demeaning engineers and claims of false engineering manpower shortages. — We have been fighting ESP since 1975.
- AEA has published "Legislative Alerts" seeking specific action on critical issues.

## 5 WHAT WILL AEA DO?

- AEA will continue to do what we have done in the past and:
- AEA will increase membership and unite the engineering community.
- AEA will recognize engineers for their accomplishments and contributions.
- AEA will support and provide educational programs to enhance engineering skills.
- AEA will open and staff a full time office in the vicinity of Washington D.C.
- AEA will publish the *AMERICAN ENGINEER* to keep readers informed and use other timely methods of communication for urgent matters and legislative alerts.
- AEA will provide a comprehensive benefit package to assure a large membership.
- AEA will address legislation that affects engineering and U.S. productivity.
- AEA will seek incentives to encourage manufacturing and production in the U.S.

## 6. CONCLUSION

I believe the engineering community needs: genuine representation, freedom of expression, the opportunity to bring our case directly to our representatives without interference, and the ability to reach a large percentage of the engineering community with facts about issues in a timely fashion.

I believe the members of the engineering community should have the opportunity to join, participate and support an engineering society genuinely concerned about their profession, and enjoy the benefits of association with engineers of all disciplines.

I believe we need a professional society dedicated to the enhancement of the engineering profession and U.S. engineering capabilities; a society whose mission cannot be altered.

I believe our engineering community, our representatives, our government and the people of our great nation will all benefit from the influence of our American Engineering Association. I also believe that we do not have another engineering society in the United States dedicated to our mission.

It's time for a change and its time for AEA and our engineering community to take an active part in the development of America's future.

***If we always do  
what we always did,  
we will always get  
what we always got.***

**For more about AEA go to: [www.aea.org](http://www.aea.org).**

## Appendix A

### WHAT IS AEA's PURPOSE?

AEA is the American Engineering Association, Inc. which is a non-profit corporation filed under the Internal Revenue Code, Section 501 (C)(6).

The purpose of AEA is to educate the general public, the engineering community and the elected representatives about issues of concern to the engineering community....

We are dedicated to the enhancement of the engineering profession and U.S. engineering capabilities.

The following is excerpted from SEC. 1, ART. 1 of the BY-LAWS of the AMERICAN ENGINEERING ASSOCIATION, INC.

Specifically, AEA is organized to:

- a. develop, foster and promote policies which
  1. renew and strengthen the engineering and technical capability of the United States;
  2. assure the United States can meet the challenge of global competition through technical leadership;
  3. foster and promote policies which strengthen the engineering and technical community of the United States;
  4. explore the issues of supply and demand of engineers and technicians;
- b. identify those areas which weaken the technical capability of the United States;
- c. promote, encourage and foster strengthening the capabilities and quality of the engineering and technical workforce of the United States;
- d. provide information on government programs and programs in the private sector of interest to the engineering and technical community;
- e. disseminate information through a newsletter or other publications (*AMERICAN ENGINEER*) on matters of concern to the engineering and technical community;
- f. promote and foster discussions on issues of fundamental importance to the nation's engineering and technical community;
- g. work with other organizations and with legislators and their staffs to assure the success of the nation's engineering and technical community;
- h. serve as a referral service to assist organization that contribute to the advancement of the engineering and technical community;
- i. do any and all lawful acts that may be necessary, useful, suitable or proper for the furtherance of the objectives of the Corporation, including the promotion of any other similar activity.

EDITORIAL

**MANY PEOPLE DON'T FEEL LIKE  
CELEBRATING ENGINEERS' WEEK**

Two recent pieces of mail have made a strong impression on me. Both concern engineering, but their tone and tenor are almost diametrically opposed. One is a press release about National Engineers Week, to be held February 14 to 20. It comes from the public relations department of the Institute of Electrical and Electronic Engineers, the "lead sponsor" of the event. There are numerous other organizations involved, and they form a long list of prestigious technical societies, influential government organizations, and large corporations. The group represents the closest thing we have to an engineering establishment.

The other piece of mail is the most recent copy of a newsletter called *American Engineer*, published by a nonprofit group called The American Engineering Association. The guiding lights of this organization are a small group of engineers, some working and some unemployed, whose names and affiliations do not exactly place them at the epicenter of industrial, governmental, or academic power.

The IEEE press release tells how National Engineers Week will celebrate the contributions engineering makes to American life. "Our future depends upon the minds and hands of engineers," it proclaims. The pronouncement then goes on to describe "a series of major events designed both to highlight the achievements of engineers' minds and hands, and to enlist them in furthering the education of tomorrow's technological pioneers."

The message continues in this vein, sounding rather bombastic and out of touch with the real world, especially the one portrayed by articles in *American Engineer*. Reading that publication on a regular basis suggests that a lot of engineers, rather than "celebrating their contributions" to national well-being, are more inclined to be thinking of immediate and less lofty wolf-at-the-door concerns.

The dose of reality in issue after issue of the newsletter makes it clear that many engineers represent a beleaguered force suffering from any number of adversities. These include the collapse of formerly blue-chip corporations, bone-and-muscle cuts in defense spending, all topped off by what looks like subtle or even blatant age discrimination.

Maybe National Engineers Week is fundamentally a good thing. But somewhere in the celebration there should be room to talk about engineering as well as manufacturing jobs being sent offshore. And it should at least mention what hollow victories automotive transplants represent because they don't do much to help engineering employment.

Sponsors might even ponder whether or not youngsters should be encouraged to seek technical careers. Perhaps a shortage of engineers would be good for the profession overall.

Instead of conducting a Pollyanna-type event, the establishment ought to consider taking a cold look at what has happened to engineering as a career in the past 20 years. The sense of travail portrayed in *American Engineer* seems to reflect reality more accurately than the call for celebration from the IEEE public relations department.

*Ronald Khol, Editor-*

FEBRUARY 12, 1993 MACHINE DESIGN 3