

Summary of Remarks
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What Does It Take To Make Good Things Happen?

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Here we--an assembly of fire researchers and users of fire research--are all fresh and ready to go and the keynote speaker raises the question, "what does it take to make good things happen?" The program is full of interesting papers, many of which report new work, why then this question? That is not the issue, the issue is not for us to appreciate what we have done and are currently doing. The "good thing" I would like to see happen is sufficient support for fire research and whatever else is necessary to achieve cost-effective fire safety, and do so within the next decade. My concern is with getting the communities we serve to better understand the value to them of what we do. What I wish to focus upon is what can we do to help make this "good thing" happen.

In this context, that is from the viewpoint of the beneficiaries of our work, "fire risk and hazard assessment" and even "performance-based codes and standards" are at best a means to their ends and it is in focussing on the ends that we are best able to get the right/best means of achieving them. And that, we have not yet done.

This is a Symposium of research application, yet the focus is primarily on the tools and not the needs to which the tools are to be applied. Therefore, let us step back and take a closer look at the needs. Only then are we likely to be assured we are doing the right research, developing the right tools, making the best applications of them, and guiding policy makers to cost-effective fire safety.

Consider the following:

- Earlier this year, a representative of the National Association of State Fire Marshals (NASFM) testified at the United States Fire Administration's (USFA) authorization hearings that NIST fire research is not responsive to the needs and concerns of the fire

service community, and that the priorities for NIST fire research should be set by the USFA on the advice of the fire services. He did not say what the nation needs is fire risk and hazard assessment . . .

- Dave Lucht, Head of the Fire Safety Engineering program at Worcester Polytechnic Institute testified before the President's Commission on Critical Infrastructure Protection and urged them to include fire safety in their deliberations and make the President aware that more cost effective means can be found to protect the nation's infrastructure and population and further urged them to support the USFA, NIST, the National Science Foundation, and professional organizations such as the Society of Fire Protection Engineers (SFPE) to promote more cost-effective fire safety. He did not say, what the nation needs is fire risk and hazard assessment . . .
- Vahid Motevalli presented a paper at the National Fire Protection Association's (NFPA) Annual Meeting in Los Angeles in May on "The Need for a National Review of the Federal Fire Safety Research and Development Issues and Activities". He noted that there has been considerable progress since release of the Presidential Commission on Fire Prevention and Control report, "America Burning" in 1971 and 1994 when he did his analysis. He reminded his audience of the National Fire Research Strategy Conference in 1982 which was sponsored by NFPA, USFA and NIST to develop a national agenda for fire research. He reviewed subsequent efforts of the federal government in fire research and then noted there is considerable unfinished business. He went on to argue for smarter fire safety regulation, a second national commission on fire prevention and control, and a comprehensive national approach to fire safety research and development. He did not say, what the nation needs is fire risk and hazard assessment . . .
- In April, I visited George Miller and Art Cote of NFPA and shared with them the rather bleak outlook I saw for federal support of fire research based on a talk I had just given to the NIST fire research staff, in which I noted that "it appears that for us the Fire Act (National Fire Prevention and Control Act of 1974) is dead, that no one really cares any more whether or not such work is done or understands the need for it." Their response was, "so?" They did not say, what the nation needs is fire risk and hazard assessment . . .
- Last year's keynoter to this Symposium was Tom Castino, President of Underwriters Laboratories. Tom had just seen the movie Apollo 13 and he made a major point of the fact that in responding to that crisis, the NASA folks had a plan. They were highly motivated and dedicated themselves and their resources to getting the job done, they really had a plan. After commenting on the situation confronting the fire safety professions, he noted that we too need a plan. He urged formation of a task force to chart a course and develop a plan. He suggested that organizations such as NFPA, NFPRF, SFPE, NIST provide the leadership to make it happen. He made it abundantly clear that we did not have our corporate act together. He did not say, what the nation needs is fire risk and hazard assessment . . .

Each of these events relate to needs that are not being met, needs for something bigger more profound and more end-user oriented than application of fire risk and hazard assessments. Yet, every one of us appreciates that such tools are essential in meeting these needs. Tom's challenge of last year plopped. We did not act on it. That is too bad. He was right, a plan is needed and he named the right organizations to get the ball rolling. So, what is it going to take for us to do it? What does it take to make good things happen?

It seems to me that for us to be successful in making the "good thing" cost-effective fire safety happen, we need to raise our sights and focus first on ends then on the means, to focus on ends that are very important to the publics and industries we serve in terms they understand. To do this, we must pull together, since none of us can do it alone. If we do, I believe the communities we serve will take up our cause as only they can do. Only then are we likely to get the means right. For us to do this, we need to work on five (5) imperatives: attitude, vision, motivation, sufficiency, and persistence. I would like to spend a few moments on each of them then close with a challenge to each of us here at this Symposium.

First Imperative: Attitude. (Openness to change). Earlier, I mentioned Tom Castino's keynote from last year and his reference to the Apollo 13 effort. Now, they had an attitude - they were intensely motivated and focussed. They worked together as a team. They made an extraordinary collective effort. They exhibited none of this "it can't be done", "it has never been done before", "we can't change the way we are" stuff. No. They simply put their shoulders to the task and made good things happen.

Some years ago, Ronny Coleman, now California's State Fire Marshal published an article in which he commented on how different people relate to change in which he described a few as "pioneers", and another small group at the other extreme as "fossils" and the large mass in the middle as "sheep." What does it take to make leaders out of sheep, to transform fossils to followers, or even leaders? The question for us is "what sort of attitude do we need to develop?" What sort of attitude does it take to make fire safety cost-effective?

Second Imperative: Vision. (Something very desirable). By vision, I mean a destination, a place or state we see for those we serve that they will want to go to, be in, or achieve. Note, the emphasis is on a place for them, not for us.

Recently, I have been involved with the Construction Industry Institute an organization of mostly very large facility owners and the contractors with which they work. They have a strategic plan. They are concerned about competitiveness, about globalization of their markets. To achieve their objectives, they see the need for reduced cycle time in provision of constructed facilities and for fully integrated and automated project processes. Towards achieving their vision they already are moving from the traditional sequential models of design-bid and design-build to integrated processes aimed at life cycle cost effectiveness of facilities, to processes in which the designer is the builder, operator, and maintainer of the facility.

The National Association of Home Builders and its members have vision. They care about first cost, and about making and selling homes. What do home buyers, renters, and homeowners seek?

What is their vision? Product manufacturers care about sales, about profitability and about minimizing their risk, and their liability exposure. Does this sound like what these end users need from us is risk and hazard assessment? Or, performance based codes and standards? The question for us is, what should our vision be and to whom should it appeal? Have we made clear what “cost-effective,” “engineered,” or “assured” fire safety would mean to those we serve, those who pay our bills?

Third Imperative: Motivation. (The customer is willing to pay the price). Medical research suggests that both gain and fear produce motivation, and that these stimuli can be additive. How much excitement should we expect when we offer to help folks “meet the code,” or “pass the minimum requirements,” regardless of whether we recommend a prescriptive or performance based route? What if we helped folks find the most profitable routes/solutions for them? For example, I suspect that Sonny Scarff and the wonders he worked at Marriott Corporation by showing his management that it was simply good business sense to sprinker all Marriott’s hotel and motel guest rooms and the ruinous litigation resulting, for example, from the disastrous MGM Grand and Dupont Plaza hotel fires, had much more to do with the fact that virtually all hotels and motels are sprinklered today than has the federal legislation relating to this subject. The question for us is what are we doing to motivate those we serve, to energize them to act in our behalf and want more from us?

Fourth Imperative: Sufficiency (Is it feasible). The point here is simply have all the conditions necessary for success been met? This is mostly an issue of resources. Do we have the right technology, the right people, the right facilities, tools, models, data, etc.? For large and complex issues like cost-effective fire safety at the corporate, community or national levels, this is not a trivial set of issues. Trust and mutual respect also become critical as we confront large complex issues that require many people from vastly different perspectives to work together. Most of the papers to be presented at this meeting fall into this category. The question for us in reflecting on them is are we fully exploiting the opportunities that are open to us?

Fifth Imperative: Persistence. (Doing whatever is needed/hanging in there). Big “good things” do not come easily, they take time and persistent effort, typically with many defeats or failures along the way. Examples that come to mind include the effort that George Miller and Art Cote and many others have put in over a number of years to make the relationship with the newly formed International Code Council (ICC) work. Another is the career-long drive by Bud Nelson to deliver “engineered” fire safety. How many of you have read the book, “Why do bad things happen to good people?” The answers include to build character, strength, and prepare them for even bigger more crucial challenges in the future. In 1982, even many of our own staff at NIST said “it couldn’t be done” when we proposed developing HAZARD I as a prototype hazard assessment method. Now, such methods are in wide use as attested by the many fascinating applications to be presented here today. The question for us is are we investing for the long haul or simply staying comfortable. Where is the stretch?

My thesis is that if we truly focus on these five imperatives in responding to the communities we serve, diverse as they may be - we, nonetheless, will find we have common needs for data, predictive tools and models, for knowledge of fire and fire behavior of materials and products, for

fire fighting and fire protection technologies, for fire risk and hazard assessment methods, and for means to relate fire safety measures to business, economic and social goals and objectives in quantitative terms.

Recognizing this, it only makes sense that we act, as Tom Castino urged last year, to band together and build the synergy needed to develop a strategy and plan. The timing is exquisite. The combined forces of emerging pressures for global markets; economic pressures on industry, insurance, fire services, communities forcing new openness to change; of global consensus on the elements needed for conformity assessment within and between nations; and the recent development of the ICC and the National Evaluation Service (NES) Building Innovation Center (BIC) - all point to the need for decisive action now. All these influences suggest a concerted effort on our part to develop a roadmap to cost-effective fire safety is likely to be successful.

In summary, I have noted that fire risk and hazard assessment are means not ends and that neither of these tools--by themselves--are sufficient to meet the needs or expectation of those we serve. I have argued that it is critical for us to band together to develop a plan to deliver the tools needed and demonstrate the value added of cost-effective fire safety strategies and technologies to those who would use them. I have outlined five imperatives for doing so: attitude, vision, motivation, sufficiency and persistence.

The challenge to each of us at this meeting is what more is needed by the end user to achieve cost-effective fire safety? What tools must we provide? What infrastructure? What research? The door is open. The opportunity of a century is before us. Let's seize it.