Some say the world is getting smaller. That depends on your perspective; from my point of view the world is getting larger and is continuing to grow. The days are gone when public agencies, such as port authorities, could isolate themselves behind a fence line or inside an office. The transportation industry has become the transportation system, and the marine transportation system is rapidly expanding as requirements grow in a globally competitive marketplace.

It has also been said that all politics are local; that may be true but they are also global. The issues we face today in the United States are the same worldwide and include maritime jobs, the health of the tourism and fishing industries, environmental quality, waterway safety, public access, and traffic congestion on highways while we push more cargo and more people through coastal and inland gateways. Although these issues have become focused on the port complex as terminal expansion and throughput pressures grow, the entire national transportation system is being affected by these rapid changes. The scope of each harbor improvement and waterway activity must be examined in the context of regional and national transportation policies and planning to secure the opportunities being offered.

Last year's regional listening sessions and the subsequent national Marine Transportation System Conference began a process to address this evolving milieu. During the listening sessions, the maritime community repeatedly voiced its position that cooperation and communication, between the federal agencies working with one another as well as with local harbor interests, are key to ensuring that the concept of a marine transportation system becomes a reality.

Participants emphasized recognition of multiple values and stakeholder interests. All wanted to see the environment sustained, business competitive, and waterway risks minimized. At the national conference, a new paradigm for the system was established when a multifaceted vision statement was formulated. This vision provides a clear goal for the maritime future. The statement and the conference discussions dealt with systemwide attributes that form the context for today's maritime activities: security, the environment, safety, infrastructure, and competitiveness. Integration of these varied attributes highlights our need to move beyond single-issue planning and actions into a systems approach. The U.S. Coast Guard, Maritime Administration, and other maritime stakeholders have embarked on a process to achieve that objective.

To be successful in ensuring proper examination and evaluation of the maritime system so that it functions as an effective component of the global transportation system, we must address risks. We must develop attitudes, methods, and skills to recognize and to manage both the opportunities and the risks being faced. This conference was organized by the National Research Council (NRC) to assist us in that process and I offer my comments to help stir your thoughts as the work of the next 2 days begins.

The NRC has been involved with risk issues for many years. After the Exxon Valdez accident, the Prince William Sound Steering Committee asked the NRC to conduct a peer review of their risk assessment study. The NRC's Marine Board established a panel to evaluate the study and
published the results last year. The panel reviewed the study's modeling approaches, use of data, treatment of human factors, risk reduction measures, and applicability to other locations. The panel offered several conclusions and recommendations, including the statement that further work to enhance general applicability was needed. Particularly important to the panel was incorporating an overarching study framework, considering human factors in future risk assessments, and analyzing sensitivities and uncertainties. Our task is to build on previous efforts of the Marine Board and provide additional recommendations as warranted. Before this determination can proceed, we should agree on our overall process, educate ourselves about the issues, and explore management approaches.

Typically, the term risk assessment defines application of analysis to one of three broad categories: financial losses, natural disasters, and accidents. In the past, we focused almost exclusively on how to minimize potential losses. Public agencies have been preoccupied with administrative processes and control in risk management programs. In today's competitive context, however, the focus is shifting to systems performance with a desire to enhance the outcomes of our activities. In fact, various federal civil service reforms implemented during the past decade, such as the Reinventing Government Program and the Government Performance and Results Act, which was passed by Congress, have attempted to tilt the balance more toward results. These and similar programs are configured to promote performance as well as to evaluate outcomes.

I propose that we use performance and outcomes as the point of departure for discussions of the three broad risk categories. After all, our performance and the results of our actions dictate the relative success of our organizations. Quite often the industry focus, particularly for frontline managers, is limited to business risks and, to a lesser degree, operational risks. But as competition for market share increases, the maritime industry must move beyond avoiding risk to improving performance. We must now use a systems methodology and look at the issue of risk management. Indeed, successful achievement of this symposium's purpose and objectives may help us reconceptualize risk management as a systems improvement tool.

The concept of risk has two elements: (a) the likelihood of something happening, and (b) the consequences if it does happen. For most managers, though, the issue is not really the concept of risk but rather what must be done to identify and manage specific risks and, perhaps more problematically, to establish some practical measure to gauge the amount of risk they are willing to take. This piecemeal approach to risk management lacks cohesion and effectiveness in reaching performance-based objectives.

The NRC (1983) has defined risk management as "the process of weighing policy alternatives and selecting the most appropriate ... action, by integrating the results of risk assessment with engineering data and with social, economic, and political concerns to reach a decision." On the basis of this definition, how should we proceed to influence and achieve our desired outcome of an informed decision? At my homeport, we have identified three essential elements the Port Authority considers critical to a successful risk management program. These elements are not unique to the program; indeed, they are common to many other performance-based programs. Their value is in their implementation and application.

First, there must be a strong commitment to a shared risk management program from senior management, which means the program begins at the top. Managing risk is a necessary part of the way individual industry and agency executives think about their day-to-day organizational tasks. The risk profile can vary, but the broad guidance to managers, regardless of whether they are in the public or the private sector, is to seek to achieve full "value" for time and money invested. This translates to achieving effective performance at least cost.

Guidelines, instructions, and monitoring requirements should aim to return maximum value instead of minimum risk taking. We should stress the desirability of developing a mindset of being conscious of managing risks in relation to every decision without reacting to risk as a barrier to maximizing performance. It is critical for executives to be committed to the risk management process, but it is equally important for that commitment to be in place throughout the organization. Risk management should be an issue that every individual within an agency or firm supports.

Second, industry and government must actively foster open communication. This is key to removing barriers, building synergies, and ensuring the highest probability of success. Success in a risk management program requires a joint effort, with a team approach aimed at maximizing results and minimizing costs. Part of this approach is to recognize that neither industry nor government has the resources today for extensive program reviews or comprehensive risk assessment audits—nor can anyone afford to delay decisions. It is imperative for people to be able to work together as a team to establish preventative measures that allow industry to conduct business efficiently while providing government with adequate safeguards. We need to achieve the right balance between industry responsibility and government oversight.

At the Port Authority, we are working closely with federal and state government counterparts to build greater understanding of individual organizational objectives and needs. There are two examples of this policy at work in the Port Commerce Department. Recently, a U.S. Coast Guard lieutenant completed a 6-month industry training within our department. During his sabbatical, he gained a regional government perspective on waterways manage-
RISK MANAGEMENT IN PUBLIC AGENCIES

Risks do not observe political, agency, or geographic boundaries. The ability to look at risk from multiple and different perspectives can generate significant benefits. We must continue efforts to work together to remove barriers and improve processes that yield improved performance. It is through these kinds of partnerships that we can move to a risk management process that is reasonable in its application, well understood, and reinforced throughout government and industry.

The third element is that a risk management program must be proactive in its implementation. Because prevention is better than cure, being well informed and proactive is the key to any risk management approach. Risk management is an iterative process. Continual monitoring and review are necessary for success because not only do risks change over time, but their relative significance may also change. Further, the tools and mechanisms available to manage risks efficiently and effectively also change over time. Constant vigilance is essential for avoiding loss or less than satisfactory use of resources.

Proactive risk management requires exercising judgment about the appropriate weight or balance to be struck in terms of costs and benefits. Balance is relatively simple in principle but it is quite complicated in practice, particularly when there are different perceptions and measurements of accountability. Therefore, it is not surprising that ambiguity has emerged concerning control of process and achievement of required outcomes. A proactive program enhances the definition of tradeoffs and clarifies degrees of accountability. It can foster a transparent process and improve metrics used in determining the appropriate balance to be struck when there is pressure on resources because of constrained budgets or simply the existence of many competing demands.

It is important to remember that, as we progress in developing risk management programs, there will be setbacks. To be successful, we must avoid turning managers into scapegoats when mistakes happen. A correct attitude encourages managers to think proactively about the risk to their activities and to optimize their performance against those risks instead of dealing with problems on an ad hoc basis.

I have discussed several elements that I consider essential for a successful risk management program in today’s marine transportation system:

• A strong commitment in the organization, beginning with senior management, to a shared risk management program;
• Open communication and teaming among government and industry partners in order to promote successful implementation of these programs; and
• Being proactive in implementation to improve performance and outcomes.

In summary the keys to our success can be found in these simple steps. Risk management can no longer mean public agencies overstressing administrative procedures, regulatory controls, and action avoidance. It should mean being able to systematically assess our circumstances; being prepared to make informed judgments about policy, operations, financial, and political situations; and being willing to act. We need to look at each attribute of the marine transportation system while we are building a new context for assessing value and making judgments.

Regardless of whether you perceive the world of marine transportation as shrinking or growing, I hope you agree that a shared risk management program must be incorporated. To achieve that goal, I believe your active participation is crucial, and I solicit that participation.

REFERENCE