DISCUSSION GROUP 4
Agency Integration and Cooperation

Chair

Rear Admiral Robert C. North, *U.S. Coast Guard*

Panelists

Lillian C. Borrone, *Port Authority of New York and New Jersey*
Todd Bridges, *U.S. Army Corps of Engineers*
Gus Elmer, *SeaRiver Maritime, Inc.*
Nancy Foster, *National Oceanic and Atmospheric Administration*
Alexander C. Landsburg, *Maritime Administration*
Douglas L. Slitor, *Minerals Management Service*
John Torgan, *Save the Bay*
Craig Vogt, *Environmental Protection Agency*

Description/Objectives

The federal agencies charged with various aspects of the marine transportation safety and regulatory regime are seeking ways to measure and quantify the level of risk in any waterway and the risk reduction value of various safety interventions. Several risk assessment models are in use or are planned for use soon. This session addresses some of these plans, their goals and objectives, their methodology and data requirements, their strengths and weaknesses, and the underlying policy that supports them.

SUMMARY

Presented by Jeffrey P. High for Rear Admiral Robert C. North

Rear Admiral North, leader of this panel, sends his regrets this morning. He would love to have been here, but pressing business drew him away.

The panel consisted of the federal members you heard from yesterday, with additional participation of Tom Wakeman of the Port of New York and New Jersey, Gus Elmer of SeaRiver Maritime, and John Torgan from Save the Bay.

Admiral North opened the session by referring to the remarks of the federal panel and the lunchtime speaker Vice Admiral Card. Then Admiral North led a group discussion by posing the following questions:

• How do we begin to build risk-based culture where none exists?
• How do we get the Prince William Sound risk management back on track?
• How should we document lessons learned? Best practices?
• How should we treat very low-probability/high-consequence accidents?
• Should risk models focus on narrow or broad issues or both?
• How often should risk analysis be reviewed/updated?

• What kind of protections/encouragement should we have for vessel owners to participate in near-miss incident tracking?

• How can we use risk when a catastrophe occurs and public pressure is intense?

• What are some other examples of risk assessment and lessons learned?

After the discussion session, Admiral North and I were deputized to take our discussion topics and divide them into three categories: tools and data, management approaches, and policy. Because we had some other good thoughts to capture, we added a category called discussion and observations.

Tools and Data

• Definition and standardization/tools and compare results,

• Methods to obtain accurate/honest data (data quality objectives),

• Standards for data collection,

• System to deal with uncertainty of data values (variability),

• Broadly focused tools (mission impacts and business interpretations), and

• Look at other databases (National Safety Council, OCIMF condition reports, Department of Energy data).

A lot of things here are very similar to what you heard before. We had a lot of comments about data standardization. The data ought to be standardized; we have to find some way to make them more accurate; there must be some definition to them. We have heard these themes this morning. For the purposes of getting the tools right, for getting the terms right, for comparing results, we needed to have some standardization or methodology.

We also talked about a system to deal with uncertainty of data values. The problem is that when data points are averaged they tell one story, but the picture may be different when you look at specific data. Sometimes, the data values vary considerably. We have to find better ways to compare things.

Broadly Focused Tools

We concluded that we need something that can help us look at mission impacts and business interruptions, something a little bit broader. We need a tool set that will give us broad as well as narrow indicators.

Looking at Other Databases

The data group did a great job listing various databases. We had another—OCIMF, the Oil Carriers In-

ternational Maritime Forum. I think the data group had all the others. The Department of Energy has some data as well.

Management Approaches

• Local coordinating committees (area committees), nonregulatory guidance;

• Measures of effectiveness;

• Investigate concept of index (positive) based on a set of criteria; and

• Refocus risk from avoiding loss to enhancing performance (anchor to vision).

We talked about a number of potential management approaches. This is a list of just a few. One of the things we talked about, and this is a theme that came from the Marine Transportation System (MTS) national conference that keeps coming up, we need some sort of local coordinating committee—an area committee or a harbor safety committee. We need some sort of scheme that helps folks at the local level and gets all the stakeholders involved to come together and talk about common issues. Another thing we talked about is that it would be great to have nonregulatory guidance coming from these groups. It does not have to be a government entity—state, local, federal, or whatever—giving out regulations; it should be the real stakeholders, if we can identify them, who come up with the guidance.

We talked about measures of effectiveness. We talked about investigating a concept of an index—an index to get us at 20,000 ft and looking down. And maybe a positive index instead of a negative index. There is a fear of always citing problems. That index ought to be based on some sort of criteria. We did not have a scheme on how to do that. That would be difficult. Nevertheless, we talked about that as something we ought to have.

Then we talked about refocusing the discussion from avoiding a loss, the negative, to enhancing performance, a positive. For example, there is a vision statement for the MTS that has a very positive tone to it. Perhaps we need to use that as our objective. Those are the management approaches we discussed.

Policy Implications

• Emphasize International Marine Incident Safety System (IMISS), confidentiality (capture all), use third party;

• Long-term waterways management through continuous updates;

• Cooperative reviews;

• Identify a responsible and accountable party (champion) to focus on data integration, provide resource support;

- Address ongoing operational environment;
- Consider environmental issues up front;
- Consider more complete record keeping and disclosure—for example, incident response forms should be fully filled out, and traffic should be reported periodically (monthly-daily);
- Risk assessment for all federally significant plans (Environmental Impact Statement trigger);
- Risk assessment to enhance competitiveness worldwide;
- Teach risk assessment (or the positive version of it) to all in the industry—for example, a U.S. Coast Guard roadshow to all harbor safety committees.

Again, there is no specific order to our policy ideas. These were the things that resulted from the brainstorming. For example, the IMISS—the whole idea of finding ways to capture information and providing confidentiality (and all those things you need to do to try to get the information that they enjoy on the aviation side, as we heard earlier in this symposium).

We need to use a third party. Maybe even NASA is a place to do that. We need someone who can be trusted to provide confidentiality.

We talked about managing the waterways over the long term by using some sort of continuous update to risk assessments. In other words, it is not just a specific assessment and then it is over and done with. You must keep after these things to determine trends.

Cooperative reviews means that we ought to involve all the right players. We talked about identifying some responsible and accountable party, perhaps a champion but, more than that, someone who is going to actually take this job and focus on integration of the data. That doesn't mean own the data, it doesn't mean do the job, and it doesn't mean it has to be a federal entity. But it also doesn't mean that it must be a commercial activity. This simply means someone has to be responsible and accountable. Because the Coast Guard was mentioned, I'll let you know that the Coast Guard has a strategy that says that we wouldn't mind being an "information broker." However, we understand that there are lots of players—for example, the National Oceanic and Atmospheric Administration and the Corps of Engineers—who are providing data. We're not out to capture any parts of those organizations or to capture any commercial activities. But we see this as a responsible role. It will not be cheap, as someone said earlier, so there are some resources that have to go with that.

We discussed the idea of addressing the ongoing operational environment. It is not just the catastrophes. We also need to focus on the constant risk management and risk assessments of what is happening on a daily basis.

Then we wanted to reemphasize an MTS national conference recommendation that environmental issues need to be considered up front. After the fact is too late. We want to find them in the beginning.

One specific suggestion was related to availability of the data—who gets them. We need to make data more complete and to disclose them more widely. A specific idea was to fill out the incident response forms more fully and maybe even provide traffic data to some of the players other than the ports and the shippers. For example, maybe people with environmental interests would like to see this information more frequently.

Risk assessment for the federally significant plans was another specific point. The idea here is that events like Environmental Impact Statements might trigger the need to do a specific risk assessment.

Next we discussed the idea of using risk assessment at the very grandest scale to enhance U.S. competitiveness around the world. Again, no answers about how to do that, but that is certainly something we thought someone should be looking at.

Our group also discussed teaching risk assessment, the whole idea, to the public and to industry. Someone suggested that the Coast Guard take a road show out to the harbor safety committees—another great idea and it can be done. In fact, the Coast Guard is looking at resources in future budgets to try to make sure we can handle things like that.

Observations and Discussion

- Research on double hulls (structures and alternatives),
- Tell the public what we are planning to do on risk assessment,
- Dialogue on overall risk assessment (determining priorities on MTS),
- Need to foster commitment to the process (national and local), and
- Liability (civil and criminal) in marine industry inhibits data gathering.

Admiral North and I pulled these things out as additional observations and discussion items. My sense was that the group did not quite reach consensus on all these points, but they are worthy of discussion. Again, these are in no particular order. For example, we talked about needing risk-related, but relatively specific, research on double hulls. I thought this was kind of a special item.

We talked about telling the public, in general terms, what we are planning to do with risk assessment. That is a little more than just educating people about how it works; it includes pointing out that we are going to go and apply these kinds of tools out there. That is something we should be doing.

The third point—dialogue on overall risk assessment—means the whole idea of discussing what it means from an overall national perspective to have, perhaps, 300 deepwater ports around the country. We are not advocating that any of the government agencies, or anyone really, should be in the business of deciding who is going to have what kind of port. We are not talking about that. But, we are suggesting that maybe there should be some groups who get together and talk about national issues. Maybe we need some dialogue on that. I'm not sure we had consensus on that.

Of course, we need to foster commitment. Again, I heard this in other sessions. If we are going to use risk assessment, if we are going to apply a process, and if we are going to have some common definitions, then we need some commitment to this process. Then when we apply it, we have some basis for making decisions. So, that is a key. That requires education. It requires trust, and I think it is the key to success.

Finally, something we have talked about a lot—the liability issue. There are no limits on liability in the marine industry. Aviation has some limits. There are criminal as well as civil liabilities, and that certainly inhibits the data gathering, and so we talked about that as an observation.

That concludes my briefing, and I'll be happy to address your questions. I also invite the other members of my group, and/or anyone in the audience, to address any of these additional observations.

QUESTIONS AND ANSWERS AND DISCUSSION

Comment: The notion of giving some sort of immunity for industry reporting on near-miss and other casualty data has come up in everyone's panel so far, and I think there may be a perception that there are folks out there to get these shippers—people or other companies. I can say, at least on behalf of my group, we absolutely support some sort of amnesty or immunity in that a reporting system should come through a third party or independent agency. If data are given anonymously, they are not disclosed in a way that would affect competitive practices and reliability for prosecution. Getting a creative strategy like that might actually get the data we are talking about. That is one point where I think there would be consensus. There should be no disagreement about the fact that it is a freedom that should be afforded to the industry.

The other thing is that there was some sort of discussion about whether risk assessment comes as a nonregulatory advisory set of guidelines or whether risk assessment is mandated in the process in one way or another. I heard in our panel that local and regionally specific risk management is key to a particular port situation and that some sort of enforceability and some sort of guidelines for risk assessment are needed. There is also a demand for risk assessment lessons learned, which come from planning projects or which come after a major collision incident or grounding. For it to be really effective, it needs to have some enforceable provisions, but it should be incorporated into the planning process on a local or regional level.

Comment: That is a very helpful statement. I would also like to add—and maybe Alex Landsburg will comment on this too—we should make a distinction between so-called hazardous condition reporting (where no one has been injured, no life has been lost, no oil has been spilled, or something like that) and some actual incident or accident in which obviously you don't have a blanket immunity if something has actually happened. I would also like to suggest this: just as the aviation people have NASA to be the honest broker, the maritime industry needs something like that. I don't know that much about it, but the National Transportation Safety Board has a separate charter that allows them to do some things in a different way. They also have marine activity there, which has improved a great deal and is very helpful to the industry. That might be the consideration to draw them into the discussion.

Comment: The concept of the IMISS system is to be anything that is not already reported, such as accidents or incidents, to gather the entire scope of things including some safety thing that somebody identifies or believes in their mind is important.

Comment: Anyone who walks around at an industrial application or on a ship or a terminal or something like that can see hazardous conditions that nobody is doing anything about. That is the very thing that is needed. Liability-free reporting of incidents is a very positive way to do it—to encourage that to happen, just as it is happening in aviation.

Comment: From the harbor safety committee point of view, I thought your point about having environmental issues looked at earlier on, up front, really makes sense. It certainly did for us, and I think others here from the harbor safety committees will agree. It is very valuable having that kind of input and back and forth going on early on.

Comment: I request that Jerry Aspland share with us, if you can, a vision of how to engage the mariners in this process. Are we looking at government regulations through the Coast Guard or that type of thing?

Comment: To the gentleman in the back, you can do risk assessment in your port area today without all the numbers and things. If you sit with a group of people who, in fact, believe in protecting your port area and you get people from all aspects, and you very carefully look at your

area, you can pick out those places where you have problems from a risk standpoint. It has worked a lot. It works a lot in California, and it has worked in the state of Washington. And, believe it or not, it also worked in the state of Alaska for a while. So, you can bring people together if you come with the right attitude to sit down and put these things together. It is not that difficult.

Comment: There is one thing we talked about yesterday but haven't heard too much about elsewhere, and that is the other level of risk management that exists. We can call it the micro level. There are individuals who do risk management every day as part of their job. It is not just pilots—there is certainly the captain of the port and there are people in the nuclear reactor facilities. They follow the model that we have been talking about here for larger types of risk assessment and risk management. They collect data. They analyze data. They assess the risk and evaluate the risk, and they choose an appropriate course of action from among the alternatives. One of the things we are seeing is that in the training of individuals who do this type of work, we are trying to get them to think about what they do in terms of risk management. They are not really doing anything they didn't do before other than looking at issues in a different light. Frankly, I don't know if there is a value in that. But, that is where we are going—to think about what they do in terms of managing risk.

Comment: If you can explain what people do in a different light, maybe they can see things more clearly. If we apply what is taught in the mariner's resource management courses, it will reinforce the idea that they assess the quality of the resources of the ship from the moment they head out to a ship. That is a technique they have used all their careers. If they think about it in a different way now and think about other techniques, they will be able to improve other practices as well.

Comment: It would be helpful if there were some standard terminology or a standard way of looking at things, even informal kinds of things. If everyone thinks in the same terms, it is easier to share information.

Comment: The big issue is to teach tactical risk decision methods and risk analyses. All the things people talk about appear to focus very much on detailed quantitative risk analyses, but we need to apply our risk analysis to all the different types of decisions we need to make. On the model from the chemical industry, they are not doing detailed quantitative risk analyses on all the processes. They are using more informal things where they bring subject matter excellence to people who run the units and maintain the units, capturing their information. I think that is going to be a good model for the marine industry as we look for a broad spectrum.

Comment: I want to clarify one point on the cooperative reviews. You had that under policies. When I brought it up in the discussion, it was more in the context of a proactive tool that might be used. Just to give you a quick context, it refers to an existing program. We challenged the industry to develop a safety and environmental management program and to develop some components that would be useful for them to manage their industry in a safe manner. It wasn't a regulation. They wanted to stay away from that. They did that. API came out with RP75, and it was a good document. People used that to model a safety management program. Well, we also didn't want it to just sit on a shelf. So we got together with some of the companies and we said, "Let's try to do some cooperative reviews. We are a regulator and we will not give you any penalties or infractions or anything like that. We will go to a facility that doesn't know we are going to go there, we will work with the platform foremen, we will walk through the entire process there—looking at how they communicate and how they deal with hazardous operations and all the other components in there." That has been a very useful experience for both our agency and the industry itself. They have found out a world of information. They were assuming certain things that were just incredible. To be able to actually talk about it and see how it worked in their facility has been a great benefit.