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California Transportation Security Summits, MTI Report S-01-04

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MTI

Norman Y. Mineta
International Institute for
Surface Transportation Policy Studies
Created by Congress in 1991

California Transportation Security Summits

Mineta Transportation Institute
San José State University
San Jose, CA 95192-0219

MTI Report S-01-04

California Transportation Security Summits

March 28 and 29, 2002

a publication of the
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Mineta Transportation Institute
College of Business BT-550
San José State University
San Jose, CA 95192-0219
Tel (408) 924-7560
Fax (408) 924-7565
E-mail: mti@mti.sjsu.edu
<http://transweb.sjsu.edu>

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The Mineta Transportation Institute would like to thank the following individuals and organizations for their assistance in organizing and delivering the 2002 Transportation Security Summits in Oakland and Los Angeles on March 28 and 29, 2002.

- California Department of Transportation, and Director Jeff Morales
- United States Department of Transportation Research and Special Programs Administration (RSPA)
- San Francisco Bay Area Metropolitan Transportation Commission (MTC)
- Southern California Council of Governments (SCAG)
- Metropolitan Transportation Authority (MTA)

The conference featured the most up-to-date research on counter-terrorism measures by Brian Jenkins; Dr. Frances Edwards-Winslow, Director of Emergency Services, San Jose, CA.; and San José State University's Dr. Larry Gerston. Other speakers included:

- Dr. Sherrie Anderson, Program Manager, U.S. Department of Treasury, Office of Intelligence and Security
- Sandy Covall-Alves, Emergency Services Coordinator, Sonoma County/Operational Area Emergency Services
- Mortimer L. Downey, pbConsult, Parsons Brinckerhoff
- Ellen G. Engleman, Administrator, U.S. Department of Transportation Research and Special Programs Administration
- Nancy Houston, Senior Associate, Booz Allen Hamilton
- Greg Hull, Director of Operations Security and Safety, American Public Transportation Association
- Steve Vaughn, Assistant Chief, Enforcement Services Division, California Highway Patrol

Thanks to the MTC in Oakland and the MTA in Los Angeles for providing meeting space. Additional thanks to MTC's Nancy Okasaki, Maria Leon, Norma White and Betty Cecchini in Oakland, and MTA's Jeanine Henderson, Velma C. Marshall, Ava Jordan and Donna Deverall in Los Angeles for their time and effort in bringing this ambitious project to fruition.

Thanks also to MTI staff including Research Director Trixie Johnson, Research and Publications Assistant Sonya Cardenas, Communications Director Leslee Hamilton, Office Manager Amy Yan, Transcriber Noelle Major, Editorial Associates Catherine Frazier and Steve Hallmark, Student Graphic Designers Shun Nelson, Cedric Howard, Emily Kruger, Tseggai Debrezion and volunteer Rosemary Barnes for organizing, staffing and publishing the proceedings.

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FOREWORD

It is my pleasure to present the edited transcript of the California Transportation Security Summits which were co-sponsored by the Mineta Transportation Institute, the California Department of Transportation, the United States Department of Transportation, Research and Special Programs Administration, the San Francisco Bay Area Metropolitan Transportation Commission, and the Metropolitan Transportation Authority. Held on March 28 and 29, 2002, the summits featured numerous regionally and nationally-recognized experts on surface transportation security measures and disaster response and were attended by transportation and security officials from throughout California.

Identical programs were presented in Oakland and Los Angeles to encourage statewide participation by leaders in the surface transportation industry.

For MTI to become involved in these conferences is a natural. We have been at the forefront of research on surface transportation security issues since 1995, having conducted two national security symposia and three in-depth research reports examining surface transportation terrorism on a global scale. Additionally, we are fortunate to have Brian Michael Jenkins, a world-renowned expert on counter-terrorism measures, as a researcher and author of several publications. His previous work for MTI includes *Protecting Surface Transportation Systems and Patrons from Terrorist Activities*, and *Protecting Public Surface Transportation Against Terrorism and Serious Crime: Continuing Research on Best Security Practices*. Jenkins has also presented at numerous symposia and conferences, including the National Transportation Security Summit, which was held in Washington, D.C. in the fall of 2001. Jenkins and his team presented their latest research both days of the summit.

I would like to take this opportunity to thank the following introducers, speakers, and panelists who participated in the event:

- John Allison, Division Chief, New Technology and Research, Caltrans
- Dr. Sherrie Anderson, Program Manager, U.S. Department of Treasury, Office of Intelligence and Security
- John Catoe, Deputy CEO, MTA
- Sandy Covall-Alves, Emergency Services Coordinator, Sonoma County/Operational Area Emergency Services

- Mortimer L. Downey, former U.S. DOT Deputy Secretary; pbConsult, Parsons Brinckerhoff and Science Applications International Corporation (SAIC)
- Ellen Engleman, Administrator, U.S. DOT, Research and Special Programs Administration
- Steve Heminger, Executive Director, MTC
- Nancy Houston, former DOT Assistant Secretary of District Operations, Senior Associate, Booz Allen Hamilton
- Greg Hull, Director of Operations Security and Safety, American Public Transportation Association (APTA)
- Randy Iwasaki, District 4 Director, Caltrans
- Thom Niesen, Acting Deputy Director for Maintenance and Operations, Caltrans
- Bob Sassaman, District 7 Director, Caltrans
- Roger Snoble, Chief Executive Officer, MTA
- Steve Vaughn, Assistant Chief, Intelligence and Security, California Highway Patrol

Special thanks are due MTI's counter-terrorism research team: Brian Michael Jenkins; Dr. Frances Edwards-Winslow, Director of Emergency Services, San Jose, CA.; and Dr. Larry Gerston, SJSU.

The transcript of the presentations has been edited for sensitive security issues. It will still be of benefit to surface transportation officials and organizations who wish to begin a dialogue toward updating their security measures in the wake of the September 11th tragedy.



Rod Diridon

Executive Director

EXECUTIVE SUMMARY

OVERVIEW OF TRANSPORTATION SUMMIT

Purpose

The purpose of the March 2002 California Transportation Security Summits was to provide members of the transportation community from Northern and Southern California with current, reliable information on the terrorist threat and how America's surface transportation systems can effectively respond to this threat.

Rationale

In the aftermath of September 11, it became undeniably clear that terrorists target civil transport systems and are willing to use transport systems as weapons of mass destruction as well as targets. In response to this threat, America's transportation community must adopt more effective measures to insure the safety of the millions of passengers and employees who use or work in transit facilities every day. To meet this heightened responsibility, leaders of the transportation community need high-quality information and appropriate policy guidance.

Approach

To help meet this need, the Mineta Transportation Institute (MTI)—a leader in transportation terrorism research since the mid-1990s—invited California transportation officials to regional summits on surface transportation security during the spring of 2002. Participants were able to interact with some of the nation's foremost experts on the terrorist threat to transportation, asking them the vital questions that local officials need to ask as they prepare for an uncertain future. This innovative local summit was modeled on MTI's successful national summit on transportation security, held in Washington, D.C. just six weeks after 9/11.

Sponsors

- California Department of Transportation (Caltrans)
- United States Department of Transportation, Research and Special Programs Administration (RSPA)

- Metropolitan Transportation Commission (MTC)—Northern California session (Oakland)
- Metropolitan Transportation Authority (MTA)—Southern California session (Los Angeles)
- Mineta Transportation Institute (MTI)

SUMMARY OF PRESENTATIONS

The summits in Oakland and Los Angeles consisted of eight panel presentations, each presented twice—once in Oakland and once in Los Angeles, plus the keynote address by RSPA Administrator Ellen Engleman, also presented twice. Transcripts of both days' presentations, edited for sensitive material, are available on MTI's website. However, the following precis consolidate the dual presentations on the same subject into a single summary. While each precis follows the approximate order of the original presentations, the material has sometimes been rearranged and subtitles added for clarity. Technical terms and concepts have also been rephrased (and sometimes expanded) as an additional aid to the reader. The Q & A sessions following each panel are also summarized.

WELCOMING REMARKS, OAKLAND, MARCH 28¹

Participants to the Oakland summit session were welcomed by:

- Rod Diridon, Executive Director of the Mineta Transportation Institute (MTI)
- Steve Heminger, Executive Director of the San Francisco Bay Area Metropolitan Transportation Commission (MTC)
- Randy Iwasaki, District 4 Director, Caltrans
- Thom Niesen, Acting Deputy Director for Maintenance and Operations for the California Department of Transportation (Caltrans)

Rod Diridon acknowledged MTC staff members Steve Heminger, Ann Flemer, Betty Cecchini and Nancy Okasaki for arranging the meeting rooms at the Metropolitan Transportation Center and MTI staff members Amy Yan and Rosemary Barnes for preparing the presenter resumes and handout material distributed to participants.

Handout Material

Diridon requested participants to complete the topmost item in the handout material, a research survey for John Allison (Division Chief, New Technology Research, Caltrans) seeking participant ideas for future research on surface transportation security and emergency response. Thom Niesen promised confidentiality to all respondents, underscoring the importance of this survey to the future of transportation security, indicating that the results would be used not only by California, but by the American Association of State Transportation Officials' (AASHTO) transportation security research committee.

Other handout material included:

- Background material on MTI and its programs (including the latest newsletter featuring MTI Board of Trustees member Celia Kupersmith—who is also Executive Director of the Golden Gate Bridge and

¹Not a verbatim transcript. Housekeeping arrangements, sensitive security information and biographical material appearing elsewhere in this report have also been deleted.

Transportation Highway District and Chair-elect of the American Public Transit Association).

- Summary (with sensitive material deleted) of MTI's October 30, 2001 National Transportation Security Summit in Washington, D.C. The summit was conducted for the U.S. Department of Transportation (U.S. DOT), American Public Transportation Association (APTA), and AASHTO.
- Overview of 9 vulnerability assessments and 11 case studies of terrorist actions directed against surface transportation targets around the world.
- MTI's chronology of every known terrorist action directed against surface transportation targets since the 1920s.

Managing Sensitive Information Regarding Terrorism

Diridon announced that, while this was technically a public meeting (and that therefore no one could be legally stopped at the doorway), everyone present at the summit had been positively identified as pre-registered. The media had intentionally not been invited. Those members of the media who had, nonetheless, found out about the summit had been persuaded not to attend in order to protect a supervening public interest—free discussion of transportation security issues by the nation's pre-eminent experts.

Based on the trustworthiness of the audience, Diridon announced that MTI would share sensitive information not included in the written handouts. He urged participants to discuss this information and transportation security issues frankly, confident that they could do so without risking wide dissemination of threats and concerns that might unduly alarm the general public or disclosing potentially dangerous new ideas to terrorists.

Diridon reminded participants that the official transcript of the summit would be carefully edited to remove sensitive information of potential value to terrorists or the public interest. He enjoined those taking notes to do so in such a way that they could not be used for destructive ends if they fell into the wrong hands.

Thom Niesen thanked MTI for its prompt response to September 11 by holding a National Transportation Security Summit on October 30, and he acknowledged MTC and U.S. DOT for co-sponsoring this Oakland Summit. He also acknowledged Caltrans Director Jeff Morales, who—inspired by MTI's support of the October 30 Summit—"worked so hard to encourage MTI

to arrange similar convocations in Oakland today and Southern California tomorrow.”

Niesen urged participants to recall how September 11 and earlier terrorist incidents had changed the way business interacted with the transportation community over the past 6-10 years. “In what ways is our interaction and involvement with the police, investigation and intelligence forces and our businesses really different from the way we operated in the past?” To illustrate his point, Niesen cited the increasing use of building passes by workers in many industries, predicting a similar use of identification techniques for access to transportation in the future.

Niesen underscored Caltrans’ financial commitment to transportation security—\$25 million in security-focused infrastructure investment within the past 6 months (not counting staff time and administrative overhead); these funds were allocated to actual hardware designed to improve transportation security in California. Niesen also emphasized the strategic shift in top-level transportation goals for California, citing the transportation security motivation behind a heightened focus on motorists’ safety and system reliability. In Niesen’s view, this shift represents a commitment to enhancing transportation user’s safety, “regardless of what mode of transportation they chose to use.”

Randy Iwasaki emphasized the new threat environment created by September 11, which he summarized by quoting a published report,² stating:

The United States transportation system was designed to serve an open society in a market economy. The emphasis is on efficiency, speed and reliability. The features that tie transportation to the way of life in the U.S., however, also make the system vulnerable to attack.

As he put it, “In California we’re used to dealing with a lot incidents—earthquakes, fires, floods and, in the Bay Area, we have a lot of bomb threats to the two bridges.” He noted that his own office had previously had a specific plan—the Delta Plan—to deal with bomb threats to the Golden Gate or Bay Bridge. But when Jeff Morales called on September 11 to ask, “What are you doing in the Bay Area?”, Iwasaki had no specific plan on hand to deal with the reported threat that one of the hijacked planes was on its way to San Francisco.

² AASHTO Surface Transportation Security Report

Iwasaki reported that his post-September 11 response to this new threat included a heightened concern about transportation tunnels.

We built these facilities over the last 100 years. How do we close down everything from a terrorist attack, yet allow public access? How can we use innovative technology like ITS (Intelligent Transportation Systems) to provide better prevention and response to terrorism? We're talking about the IT world—computers, loops, cameras—and how to integrate all of this data into an integrated monitoring system.

Iwasaki speculated that the IT monitoring system of the future could notify managers “when there is a parked car out there that shouldn't be there—or a pedestrian where there shouldn't be a pedestrian.”

Iwasaki was also concerned with protecting transportation structures that might be terrorist targets because they were landmarks, particularly in the Bay Area and emphasized steps that had been taken to improve coordination.

We're partnering with partners we never had before. I didn't know who the FBI person was from San Francisco. Now I do. We are working closer with the California Highway Patrol (CHP) and the National Guard. We are involved in Governor Davis' State Strategic Committee on Terrorism...we all need to work together with the intelligence agencies and law enforcement communities. We need to be clear about our roles and responsibilities, so that we are not duplicating efforts. We need to work as a team. And we need to share information between organizations about what we are doing. MTI has assembled a panel of experts to help us address some of these issues, and I am grateful about that.

Steve Heminger added MTC's welcome to MTC's Metro Center, thanking Rod Diridon and MTI for sponsoring this event and for the high quality of MTI's research. Noting that most previous attacks on public transportation had occurred on foreign soil, Heminger expressed particular surprise with MTI's finding that there had been as many as 850 such attacks on transportation facilities since 1970.

Heminger felt that the foundation for the Bay Area's response to potential terrorist attacks on transportation should be the existing base of earthquake planning, including the Trans-Response Plan and its annual exercises. He cited MTI's research and “lessons learned” in New York City and Washington demonstrating that advance training and practice drills had been a major factor

in minimizing casualties and damage to transportation on 9/11. Heminger cited the oft-quoted anecdote (“How do you get to Carnegie Hall? Practice, practice, practice!”), pointing out that you need to know the name of the person from the FBI that you have to deal with during a transportation terrorist attack beforehand—and that you need to practice your emergency response.

I hope, at the very least, that what these events have done ... is to motivate us to rededicate ourselves to the training and practice we’ve been doing in earthquake planning—and to add the terrorist threat and other kinds of threats to our transportation infrastructure to that training. We need to learn all we can today about these new threats that, unfortunately, we are going to have to deal with.

WELCOMING REMARKS, LOS ANGELES, MARCH 29³

Participants at the Los Angeles summit session were welcomed by:

- John Allison, Division Chief, New Technology and Research, California Department of Transportation (Caltrans)
- John Catoe, Deputy CEO of the Los Angeles County Metropolitan Transportation Authority (MTA)
- Rod Diridon, Executive Director of the Mineta Transportation Institute (MTI)
- Bob Sassaman, District 7 Director, Caltrans

Rod Diridon began the session by thanking participants and acknowledging MTA's Executive Director John Snoble and Snoble's deputy, John Catoe (who represented MTA at the L.A. session). Diridon also thanked MTA staff members who had arranged for the Los Angeles meeting space. Following John Allison's welcoming remarks, Diridon thanked Allison and Wes Lum of Caltrans for coordinating Caltrans strong collaborative relationship with MTI. Diridon closed the welcoming session by describing handout materials provided to participants:

Handout Material

- List of MTI research projects already completed or underway; Diridon stressed that many MTI projects were related to transportation security and that all are available in HTML and PDF formats at MTI's website.
- Background material on MTI graduate programs and two recent newsletters—including one featuring MTI Board of Trustees member Celia Kupersmith (who is also Executive Director of the Golden Gate Bridge and Transportation Highway District as well as Chair-elect of the American Public Transit Association).
- Caltrans questionnaire requesting participants to identify research needs regarding terrorism and disaster response. Diridon urged a prompt response, as answers would be compiled immediately and discussed in the afternoon and evening sessions by an American Association of State

³Not a verbatim transcript. Housekeeping arrangements, sensitive security information and biographical material appearing elsewhere in this report have also been deleted.

Highway and Transportation (AASHTO) committee. His request was reiterated by Caltrans' John Allison, who was responsible for the survey.

- Resumes of all presenters, which participants were urged to read so that oral introductions could be abbreviated to save time.

Diridon expressed his special gratitude to MTI's research and publications assistant Sonya Cardenas and office assistant Amy Yan for driving overnight from Oakland to Los Angeles to bring handout materials, after having worked all day at the Oakland session.

John Catoe welcomed participants on behalf of MTA and briefly described MTA's efforts to upgrade the safety of L.A.'s light rail and subway systems—systems he characterized as already “the safest environment in Los Angeles County.” Catoe thanked the L.A. police department and county sheriff's department for working closely with MTA's security chief, Paul Lennon, to help make MTA as safe as possible. Based on the recommendations of the L.A. police chief, Catoe reported that MTA planned to replace the current barrier-free system with a barrier system in order to enhance security. He also indicated additional MTA steps to protect transit users in Los Angeles, including renegotiating security contracts and investing in capital improvements. Catoe told participants that “There is no question in my mind that this is a war that we're involved in—a war to disrupt the American way of life. And we can't let that happen.” He urged participants to help protect transportation facilities in this country by “listening, learning and acting” on the ideas shared by the experts at the L.A. summit session because “We need to stop the attacks before they occur, not just respond to them.”

Caltrans' John Allison thanked Rod Diridon and MTI terrorism specialist Brian Jenkins for having the foresight to propose transportation security research several years before 9/11. Allison was proud that Caltrans helped to fund that early research, and he also praised Diridon and Jenkins for quickly putting together a national transportation security conference in Washington, D.C. just six weeks after 9/11. Caltrans' director, Jeff Morales, had spoken at the Washington meeting, finding the session so valuable that he had given Caltrans' strong support for holding this summit for local transportation officials in both L.A. and the Bay Area, California.

Bob Sassaman of Caltrans added his welcome to the summit, reiterating Caltrans' thanks to Rod Diridon and MTA, as well as to Caltrans' Jeff Morales for arranging the summit. Sassaman briefly described Caltrans' pre-9/11

preparations and experience in dealing with emergency events affecting transportation, including earthquakes, floods, forest fires, HazMat spills and major vehicle accidents. He also mentioned Caltrans' pre-9/11 anti-terrorism preparations for the 1984 Olympics, the 1994 World Cup, the opening of Highway 105 (the Century Freeway) attended by the first President Bush, as well as the 2000 Democratic National Convention. Despite this prior experience dealing with security issues, Sassaman felt that 9/11 raised new challenges for transportation system providers and operators:

- How to change the design and operations of facilities;
- How to employ innovative technologies such as intelligent transportation systems to provide better protection and responses to terrorism; and
- How to protect landmarks and other potential targets such as the Vincent Thomas Bridge, the Golden Gate Bridge, the Bay Bridge, the Coronado Bridge, transit systems, airports—and the roads that lead to these facilities.

Sassaman then described protective steps that Caltrans had already taken:

- Joining multi-agency security assessment teams to recommend enhancements to structures;
- Working with California Highway Patrol (CHP) and National Guard to post armed personnel at key locations, including the Mexican border;
- Joining Governor Davis' state-level strategic committee on terrorism, working closely with its transportation subcommittee and the CHP to identify ways to protect transportation assets;
- Planning both active and passive security enhancements for selected bridges and tunnels; active enhancements would include cameras and motion detectors; passive measures would include fences, locks, removing of "blind spots;"
- Reviewed and updated emergency preparedness plans for emergency operations center and transportation magnet centers; and
- Worked with national effort to expand transportation security research.

Sassaman urged participants and the organizations they represented to consider taking additional measures to enhance transportation security such as working more closely with intelligence agencies and the law enforcement community, focusing on areas of organizational competence and expertise to avoid duplication of effort. He also felt that the transportation community should

work harder on improving inter-organizational communication and sharing communication. Sassaman believes that these policy issues should also be addressed at the federal level and thanked MTI for “assembling a panel of some of the best experts to help us address some of these issues.”

MORNING PANEL: “PROTECTING PUBLIC TRANSPORTATION SYSTEMS AGAINST TERRORISM”

Moderated by MTI Executive Director Rod Diridon

Diridon characterized the morning panelists as the distinguished experts on surface transportation terrorism. Brian Jenkins, a former White House Commissioner on Airline Safety and Security, as well as MTI’s principal investigator on terrorism, opened the morning panel with a provocative situation briefing describing current research on the severity and nature of the terrorist threat. At the Oakland session, he was followed by the emergency services coordinator of Sonoma County, California, Sandy Covall-Alves, who discussed planning for emergency response. (At the Los Angeles session, Dr. Frances Edwards-Winslow, Director of Emergency Preparedness for the City of San Jose, California, replaced Sandy Covall-Alves for the emergency response presentation.) The final morning panelist at both sessions was San José State University professor, MTI researcher and KNTV political commentator, Dr. Larry Gerston, who discussed the political and economic fallout, both international and domestic, caused by the U.S. response to 9/11.

BRIAN JENKINS: NATURE AND SEVERITY OF THE TERRORIST THREAT

Jenkins reviewed pre-9/11 research on terrorism, including his own experience as a security consultant to the World Trade Center after the 1993 attack, followed by analysis of lessons learned from the 9/11 attack itself. Jenkins believes that the probability of future attacks remains very high. He described the changing federal role in transportation security, including expanding the current focus on airline security to include other modes of transportation. He spoke briefly about the lessons of the 25-year IRA terrorist campaign in Great Britain and the 1995 Sarin nerve gas attack on the Tokyo subway system. Jenkins concluded by emphasizing that surface transportation systems are not only potential terrorist targets, they can also provide shelter or evacuate thousands of people.

What We Knew Before 9/11

Jenkins contended that credible research on terrorism and transportation was well underway prior to 9/11. As evidence, he cited the ability of MTI to quickly put together the Washington, D.C. National Transportation Security

Summit on transportation and terrorism within weeks of 9/11. As early as 1974, Jenkins' himself had written a paper identifying the World Trade Center (WTC) as "a likely target for a major terrorist event" because of the role the twin towers played as symbols of America's global power.

After the first WTC bombing in 1993, Jenkins helped design new security measures for the complex. Planners had considered the possibility of a plane crashing into the buildings, designing them to "withstand a direct hit by a 747 jet." However, the buildings could not take "the burning fuel...which melted the steel...which caused the collapse." Despite the possibility of an attack from the air, consultants had concluded that defensive measures, such as placing anti-aircraft weapons on the roof of the WTC were not feasible.

However, the '93 WTC security review did result in correcting ventilation problems in the evacuation stairwells, revealed by observing videotapes of people "coming out of the building choking, their faces black with smoke." Building occupants were encouraged to take part in stairwell evacuation drills. As a consequence of these rehearsals and other preparations, 25,000 people did get out of the WTC on September 11.

Jenkins also reported analyst concerns shared at a Washington meeting on terrorism he attended just three weeks before 9/11. "We reviewed lessons learned from the past 30 years and looked ahead to the challenges we thought we faced in the near future." Less than a month before the WTC attack, senior terrorism specialists had predicted that a catastrophic attack killing not simply hundreds, but thousands of people was likely. The biggest threat they foresaw was from the Middle East; the use of biological, chemical, or radiological dispersal weapons could not be ruled out.

We knew that Al-Qaida was a threat. We knew Al-Qaida could coordinate synchronized intercontinental operations. We knew that a plot by one of the '93 WTC bombers—Ramsy Yousef—to drop 11 U.S. wide-bodied airplanes in the Pacific, which would have killed several thousand people, had been narrowly thwarted in the Philippines.

According to Jenkins, one trend of particular concern to terrorism specialists has been the steady escalation in the magnitude of terrorist attacks over the decades. Casualties have risen from "the tens" during the 1970s to multiples of 10 in the 80s and 90s and now up to the thousands as of 9/11. At a recent meeting, Jenkins reported exploring plausible terrorist attack scenarios that could produce hundreds of thousands of casualties in Washington.

Jenkins' background prepared him to grasp the magnitude of 9/11 while it was still underway. When notified about the incident about six minutes after the first WTC crash—

I knew this wasn't an accident. My second conclusion was "there's a second plane, a third plane, a fourth plane, a fifth." I thought there were six out there. What was at the back of my mind was the [recollection that] synchronized attacks that had been talked about by terrorists back in the mid-'90s.

Lessons Learned From 9/11

One dramatic change since 9/11, is that Jenkins no longer has to convince his listeners that the terrorist threat is real. This was not always so. He recounted his experience while serving on the White House Commission on Aviation Safety and Security in 1996-97, attempting to persuade Congress to devote more resources to aviation security.

I remember being asked repeatedly, "Mr. Jenkins, when was the last hijacking we had in this country?" (It had been about ten years before.) "Well, why are we going to be putting in these new measures, which are going to cost a lot, when there is no apparent threat." It was a tough sell...After September 11, that's no longer an issue.

Another lesson underscored by 9/11, Jenkins says, is that "In some cases... you need to throw out the procedures." On 9/11, the subway attendant working beneath the World Trade Center ordered incoming passengers to remain on the trains, rather than allowing them to get off. As many additional passengers as possible were crammed aboard and the trains ordered to move out. By the time the buildings fell, the station had been empty for 40 minutes. This was accomplished because a low-level subway employee had been delegated the authority to suspend normal procedures as a result of lessons learned in the '93 WTC bombing.

Bioterrorism

While Jenkins does not believe that the author of the anthrax letters took orders from Osama bin Laden, "The fact is that [after 9/11] bio-terrorism is now a reality." He pointed out that even the experts had failed to anticipate the crippling impact of such incidents. "All the gaming that we did with bio-terrorism missed one critical thing: Long-term, persistent contamination can

close down a building or transit system for a long time.” As Jenkins put it, having health authorities declare that contamination has been reduced to a “manageable level of spores” may not convince public transit riders to climb aboard.

Another problem not fully anticipated by Jenkins and his fellow experts was the extraordinary cascading effects of a terrorist attack:

The effects were not just on New York, but throughout the country. We grounded every plane in the country. We shut down the borders. We had trucks backed up for two hundred miles south of the Mexican border. ...With “just-in-time” inventories, if you shut down the bridges for 18 hours... you start shutting down the production lines in this country.

This means, Jenkins says, that transportation security measures must minimize the disruptive impact of security on people who use public transportation. “Otherwise, we are going to create a tremendous drag on our economy and we are going to create some tension between the authorities and the public on these issues.”

Threat Level Remains Very High

Jenkins believes that complacency is very dangerous now. He believes we are already seeing a desperate desire on the part of the American people to return to normality, leading many to hope that September 11 was a “one-time anomaly.”

Jenkins strongly disagrees. “I think there were two plans on September 10. One was for the September 11 attacks. The second was the business continuity plan for Al-Qaida.” Jenkins is certain that the terrorists knew they were going to get hit—and that they took measures to protect their operations and finances. As evidence, he reminded his listeners that “a lot of Al-Qaida supporters disappeared just before September 11, or just after.” While thousands of arrests have been made world-wide, “about half have already been released.” Paradoxically, Jenkins points out, while mass arrests may disrupt some operations, it also means that security forces temporarily “go blind.” Prior to arrest, many of the suspects had already been under close surveillance to track their actions and contacts. Now that they are incarcerated, security forces cannot use them to find other suspects.

In Jenkins’ view, the war against terrorism:

...is an open-ended contest...that is going to go on for years: We know that large-scale terrorism is their goal... They have stated it. They have demonstrated it... The documents found in Afghanistan confirm it.

As Jenkins sees it, Al-Qaida was built over 15-20 years, and it will “take us ten years to rip this thing apart.” However, he also emphasizes that we don’t yet have evidence of acquisition of weapons of mass destruction:

What we have is evidence of such aspirations. We know they seek such weapons. With their mindset, if they get their hands on unconventional weapons, they will use them.

Even if Al-Qaida is “kept on the run and can’t regroup,” Jenkins believes we can expect a shift to smaller scale operations by local cells that do not require centralized coordination. If that happens, he speculated that Americans might even come to tolerate smaller scale operations that occasionally “bring down an airplane somewhere.”

Such tolerance is unlikely for large-scale attacks:

But another 9/11, we cannot afford. Not a year from now, not two years from now, not five years from now, not ten years from now. I begin to sound like Senator Cato in the ancient Roman Senate, who finished every speech with “And furthermore, Carthage must be destroyed.” And furthermore, Al-Qaida must be destroyed.

If a decentralized Al-Qaida does decide to focus on smaller, less-defensible targets, Jenkins believes that many are likely to be transportation-related, because transportation targets offer “concentrations of people in confined environments where you can enhance the effects of explosives or chemical weapons or biological substances.” However, Jenkins contends that these attacks, so far, have not focused on actually destroying transportation systems themselves. When the new breed of religiously-motivated terrorists do go after surface transportation, their objective is usually not to disrupt, but to kill.

Transportation systems make a good “killing field” for terrorists because they kill more people.

Overall, terrorism generally results in 21 percent fatalities [fatalities occur in one out of five incidents]. In surface transportation attacks, about 37 percent involve fatalities. When you move to transportation, the lethality

level goes up. Seventy-four percent of these fatal attacks involve multiple fatalities—and 23 percent involved 10 or more fatalities.

Jenkins reports that attacks on transportation over the years appear to be “about evenly split” between buses and bus terminals on one hand, and subways, trains, and train stations on the other. The disruptive impact of actual attacks is significantly compounded by the use of bomb threats. Only one-tenth of one percent of transportation-related incidents involve actual attacks. “About 99.999 percent involve bomb threats” that disrupt systems without an actual attack.

Shifting Focus Away From Airlines

Jenkins believes that “the pressure is on” for government to go beyond the current preoccupation with aviation security toward enhancing security for all modes of transportation. However, he does not share the view of some transportation leaders that the same kind of security measures that now confront airline passengers should automatically be extended to bus terminals, railroad stations, and cruise ships.

That’s not going to work so easily. And I am not sure I know how to do that easily. We have 450 commercial airports in this country, and it is going to take us several years just to deploy the explosive detection technology needed to cover these airports.

Jenkins is also concerned that the current level of publicity given to “egregious lapses of performance” of transportation security operations (such as airport screeners who miss weapons in luggage or magnetometers that are left unplugged), while well-intentioned, may be counterproductive. While no security system is 100 percent effective, even a “50 or 60 percent” detection rate can have a deterrent effect. For the would-be adversary, “these are lousy odds. You wouldn’t play Russian Roulette with three bullets in a revolver.” Security is always part illusion and part reality. If we destroy the illusion by over-emphasizing our security lapses, we may entice rather than deter potential attackers.

Increasing Federal Role/Advanced Technology

An increased federal role in transportation security is virtually certain, Jenkins says. But he questions congressional proposals that call for deploying federalized guards at nuclear power stations, airports, and train stations. We

don't have enough National Guardsmen, Jenkins says. And federalizing the two million people now employed by the private security industry would create a federal force "larger than our armed forces during the height of the Cold War, at enormous cost." Jenkins opposes what he calls castles and cops security strategies that emphasize concrete barriers and adding more guards, an approach he feels could permanently hobble the U.S. economy.

What we will see instead, he predicts, is an increased federal role in the deployment of advanced technology. Jenkins warns that there are no technological silver bullets. "Technology still has to be operated by human beings." He reminded listeners that putting explosive detection machines at all airports will require up to 15,000 additional personnel "and no one has budgeted for these people yet." He also counseled that we have yet to effectively use the technology already deployed at airports. "We don't have an integrated system at airports. What we have is an accumulation of 25 years of individual security measures and hardware...they are not connected with one another."

Despite the inherent limits of technology, Jenkins sees significant potential value in what he calls "smart solutions."

We can't inspect every container coming into the country. We can't inspect every vehicle coming across a bridge. But we can put new technologies and procedures in place at points of inspection, to increase the odds that we will detect terrorist weapons before they can be deployed.

Some technology options would require the public to accept new limits on freedom of movement. Jenkins believes that we "are obliged to explore things like national identity cards" and consider architectural design solutions whenever building or retrofitting transportation facilities. As an illustration of a design solution, he cited the off-site baggage check-in at the Tokyo Central Air Terminal. Passengers deposit luggage at a remote site before proceeding to the airport proper. Baggage can be examined without disrupting the flow of passengers, who remain separated from their luggage until they arrive at their final airport destination.

Lessons Learned From the IRA and Tokyo Subway Attacks

Jenkins urged his listeners to study the historical research included in their handout materials. To illustrate the value of these materials, he pointed to the handout analyzing 25 years of IRA attacks on London's public transit system.

The large number of IRA attacks over the years ultimately made it easier for the British to analyze patterns and install countermeasures. Today, five thousand cameras and a very alert public keep watch over the London Tube. “British authorities are convinced that any suspicious object will be reported to them within minutes.” Unfortunately, the American public is not currently providing this level of support to our transportation security officials.

Jenkins also described the 1995 Sarin nerve gas attack on Tokyo’s subway system. The dispersal method was crude: Five attackers dropped eleven plastic bags containing Sarin on the floor in five subway trains, puncturing each bag with the sharpened end of an umbrella. To avoid exposure to nerve gas, attackers tried to leave the trains quickly, although each had self-administered atropine with them in the event they were exposed (as some of them were). Fortunately, Sarin is heavier than air and therefore remained low to the ground. Had the agent risen higher, to mouth or nose level, Jenkins believes there would have been hundreds or even thousands dead.

Even so, 5,500 sick people (some of them dying) spilled off the trains during rush hour and out into the streets, creating chaos. This underscores a major point that U.S. transportation officials should ponder: Of the 5,500 people with symptoms during the Tokyo attack, only 1,200 had actually been exposed to nerve gas; the other 4,300 were suffering from anxiety attacks—asthma, heart attacks, or psychosomatic, hysteria-induced illnesses. Panic is likely to be a major component of any future chemical or biological attack on U.S. transportation. Consider what might happen, Jenkins suggested, if some scientist went on the air during a biological attack and said, “watch out for flu-like symptoms.” 55 million Americans get flu-like symptoms every year. The U.S. health care system would be overwhelmed. Jenkins also emphasized that the Tokyo attack was exacerbated by the unwillingness of transportation officials to close the system down; the trains kept running, exposing more and more people to the toxic agent.

Transportation as a Civil Defense Resource

Jenkins concluded his prepared remarks by discussing the use of transportation to actually bolster civil defense during a terrorist attack. Alluding to possible “dirty bombs” and other weapons of mass destruction, Jenkins noted, “We cannot think about transportation solely as a target.” For certain kinds of scenarios, he observed, it may be desirable to move people into subway tunnels to protect them. Transportation is also essential for evacuation. During the 9/11 attack, mass transit quickly moved hundreds of thousands of people to safer

locations in both Washington, D.C. and New York. Public transportation also played a major logistical support role by moving emergency personnel and supplies to where they were needed.

**SANDY COVALL-ALVES AND FRANCES EDWARDS-WINSLOW:
EMERGENCY PREPAREDNESS AND POST-ATTACK RECOVERY
PLANNING**

California emergency preparedness coordinators Sandy Covall-Alves and Frances Edwards-Winslow discussed emergency preparedness and post-attack recovery programs in two separate presentations, one at each of the two summit sessions. Their respective comments in Oakland (Covall-Alves) and L.A. (Edwards-Winslow) followed approximately the same outline and are integrated as a single precis for this summary.

Both presenters consider advance planning for terrorist threats to be a subset of advance planning for all threats, an approach they call All-Hazard Emergency Preparedness. With slight variations, both presenters discussed emergency preparedness under seven subheadings: (1) Threat Analysis; (2) Coordination with Partners; (3) Use of Existing Plans; (4) Written Plans; (5) Emergency Operations Centers; (6) Training Exercises, and (7) Dual Use.⁴

Covall-Alves emphasized that how well disaster agencies respond to an emergency is not only critical to saving lives, reducing injuries, and limiting property damage, it is also critical to restoring the public trust and expediting financial recovery. The longer it takes emergency responders to restore services, “the longer it will take for everybody else to get back in business.” The key to an effective emergency response, in her view, is thorough planning and preparedness.

Edwards-Winslow concurred, observing that many lives were saved on 9/11 because:

The transit workers knew what to do. They knew to get the trains and the passengers away from harm. There were people in the building (WTC) who had participated in evacuation drills. And they knew when to leave

⁴A term of art for using the same basic approach for all emergencies, both large and small. This approach helps to familiarize staff with emergency protocols by using even minor events as a rehearsal for “the big one.”

when there was a problem. And so we can probably credit thousands of saved lives to previous training and planning.

Edwards-Winslow also emphasized the importance of an emergency plan for restoring the public trust, noting that the average citizen watching television on 9/11 was heartened by the obvious competence and courage of front-line service personnel (police, fire, rescue workers, environmental protection workers). The public was also impressed by the quick flow of disaster workers to New York City from all over the country. This happened because plans were in place: New York City had a plan; the State of New York had a plan; and the Federal government had a plan.

Seven Components of Emergency Preparedness Planning

1. Threat Analysis

California has been called “America’s disaster theme park.” Covall-Alves believes that threat analysis (sometimes called risk assessment) is the first step in emergency planning. Because natural and human-caused disasters share common characteristics, she urged the case for “all-hazard” emergency planning, reciting the long list of natural hazards she had to prepare for, including earthquakes, floods, fires, “and even tsunamis” (tidal waves)—as well as human-caused hazards, ranging from power-outages to terrorism. The range of possible hazards, in her view, mandates an inclusive approach.

Edwards-Winslow agreed, adding the caveat that disaster planners should not focus “too much on one kind of emergency.” Planners must prepare for all possibilities, including those that are “out of fashion.” A recent catastrophe may temporarily stimulate a higher level of interest in one type of threat, “but as memory fades, interest tails off.” Both speakers made the point that the probability of a particular kind of event varies considerably, even within a single service area. Contingency plans for a regional response must therefore take into account the total range of possible threats to the entire service area.

2. Planning Committee

Covall-Alves strongly advocates creating such a regional planning committee, led by a professional emergency planner. This committee should include representatives from all functional areas (police, fire, medical, public health, etc.) and should have the visible and active support of top level executives and managers. “In the Bay Area we have ABAG—the Association of Bay Area

Governments, MTC and BATWING—the Bay Area Terrorism Working Group.”

Edwards-Winslow concurred. You need a regional planning committee because:

No matter how brilliant one person may be, they still have a limited view. Managing and recovering from a major disaster requires the expertise of all the professions. A professional planner should play a leading role, because that person has a full-time commitment to making sure that emergency preparedness happens.

3. Planning Partners

Covall-Alves insisted that the government’s planning committee must also work in partnership with utility companies (power, water systems, communications) and other non-government stakeholders. Steps must also be taken to make sure that all facets of a region’s transportation system are explicitly included in the emergency planning process.

Edwards-Winslow agreed, stating that partners are needed from all the functional areas that will have to work together in a disaster, including utilities. She was especially concerned that employee unions are represented, because “If they are not at the table from the beginning, they can become a tremendous opponent for you.” Edwards-Winslow emphasized the need to integrate and coordinate across jurisdictional boundaries, echoing Covall-Alves point about the need for highly visible support by executive management.

4. Multi-Functional Plans

Covall-Alves discussed California’s Standardized Emergency Management System (SEMS), which coordinates the functions of multiple agencies during an emergency. It is imperative, she says, for emergency operations plans to address accountability by establishing a clear-cut chain-of-command. In California, all cities and counties use the same planning template to specify how they plan to assure continuity of leadership when government operations are disrupted. This command and control structure coordinates fire, police, medical, public works and other local government functions, plus volunteer resources such as the Red Cross and amateur radio. California’s contingency plans also include specific annexes, such as a Multi-Casualty Incident Plan, a

Weapons of Mass Destruction Plan, a Bioterrorism Plan and plans for flood, earthquake, fire, civil unrest, HazMat or a tsunami.

Edwards-Winslow also spoke about California's SEMS program, adding the caveat that transportation might itself be a terrorist target. She reiterated the need for a well established chain-of-command in advance of an attack so that all elected officials and policy-makers would know what their role would be during an emergency

5. Emergency Operations Center

Covall-Alves urged listeners to make sure that their jurisdiction not only had an Emergency Operations Center (EOC), but also that their specific agency had an EOC. "That's where all your key personnel come together to coordinate response and recovery." She also urged participants to make sure they had an emergency communications infrastructure in place, including a public relations plan. People must be trained in advance to work with the media and key media contacts should be lined up in advance. Agencies should also have backup records and logistical support available so that a facility can quickly move to a new location and promptly get back in business.

Edwards-Winslow emphasized the need to coordinate with neighborhood groups as well as government agencies during an emergency: "When you have bus and transit problems, use these networks to get people to carpool."

6. Training Exercises

Covall-Alves felt that the key to effective emergency preparedness is to hold training exercises, urging agencies to conduct three kinds of exercises: (1) annual tabletop exercises to introduce or review functional procedures; (2) annual controlled simulations for EOCs, including "partnership" review exercises where representatives of all agencies and functions, including non-government agencies, can evaluate and review their plans together. These exercises should include transit representatives. Finally, (3) hold a full-scale field exercise, including active responders, every two years.

Edwards-Winslow emphasized that it was essential to include transit agencies in training exercises. "When we did a study in the Bay Area, we learned that in an earthquake 1,400 road segments could be taken down." Only by planning ahead with transit agencies can planners come up with the substitutions and rerouting needed to cope with a large-scale incident.

7. Dual-Use

Covall-Alves suggested using contingency planning for small planned events (a scheduled mass demonstration, sporting events) as exercises to test an agency's ability to handle a larger, unplanned emergency. These events allow agencies to practice working together, update communications plans (phone numbers and radio frequencies) and build trust with each other and the media.

Edwards-Winslow agreed, adding that using special events or celebrity visits as practice exercises, allows staff members from different agencies to get acquainted on a face to face basis, so that in an emergency people will know whom to call. "They will have confidence in each other because they have worked together in the past."

DR. LARRY GERSTON: POLITICAL AND PUBLIC POLICY ASPECTS OF TERRORISM AFTER 9/11

Dr. Gerston characterized the general impact of any crisis on politics and public policy as a "three-act play," beginning with (I) the immediate crisis, moving through (II) the political and policy response to the crisis and finally, (III) the polity's reaction to this response. With respect to 9/11, Gerston believes the U.S. is now "straddling" Acts I and II. He outlined four political and policy challenges to dealing with terrorism: (i) institutional disarray, (ii) restrictions on civil liberties, (iii) the mounting costs of the U.S. response, and, finally, (iv) how governmental responsibility for dealing with terrorism should be apportioned among federal, state and local levels of government. His conclusion was that the ultimate cost of 9/11, both fiscal and political, will be "staggering," irrevocably changing the way we live.

"Three Act Play"

Act I—The Crisis

According to Gerston, the first political and policy consequence of any major crisis is that it shatters the political equilibrium, generating some kind of call to action. Such a crisis need not be a political event; a major earthquake can disturb a regional political system. In the case of 9/11, the immediate demand for action by the political system was immense and the expected scale of government's response will be correspondingly large.

Act II—Policy Response

The second phase consists of government's response begins with the need to forge some kind of consensus for action among policy makers at all levels. This will result in a new political equilibrium. In the case of 9/11, America's response could not be antiseptic, modest, or neutral. The magnitude of this response virtually guarantees that some political stakeholders benefit, while others will be hurt. Winners and losers can be expected to respond accordingly. 9/11 has altered America's political system forever.

Act III—Reaction to New Policies

New policies generate reactions from various political stakeholders—the public, interest groups, and from the policy-makers themselves “who have their necks on the line.” These responses, in turn, become new inputs to the policy process, generating further adjustments in government's response. “So the policy making process...is sort of like a Ferris wheel. It's ongoing. Some issues get on there and stay on for a long time and never quite get resolved.” With respect to 9/11, Gerston believes that we are somewhere between Act I and Act II. The initial days of “flags everywhere” are over; the “edges of that consensus are beginning to fray with each passing day.”

In Gerston's view, international support for the U.S. is waning and “many of us do not realize the extent to which we're boxed in by our partners.” As examples he cited Saudi Arabia's reluctance to let us use their bases; Malaysia, with its huge fundamentalist population; Indonesia, Russia, Pakistan and even France, which opposes U.S. plans to seek the death penalty for captured terrorists. Gerston also reminded his listeners about the oil factor: “70 percent of the world's oil reserves lie in the Middle East. You couple that with the fact that almost 60 percent of America's oil is imported and you've got yourself a recipe for disaster.”

Four Political Challenges

(i) Institutional Disarray

Simply ordering the Office of Homeland Security into existence and appointing Tom Ridge director, with instructions to supervise the terrorism related activities of 200 agencies and organizations, does not automatically guarantee that anything will happen. “You can't just impose or superimpose a bureaucracy.” That is why Gerston says, “Six months after the fact [9/11], this country remains in institutional disarray.” No one knows exactly what to do, and until Congress creates a mandated authority, Ridge's ability to direct

homeland security efforts “is based truly on his ability to persuade and little more.” In terms of specific issues yet to be resolved, Gerston spoke of the need to clarify the responsibilities of the CIA and the FBI. The traditional division of labor (outside U.S.—CIA; inside U.S.—FBI) cannot be used when dealing with international terrorists operating inside the U.S. He also specifically mentioned the need to clarify how the INS and Customs Service (including the Border Patrol) should coordinate activities.

Gerston believes that 9/11 has created a crisis for American federalism, the way national, state, and local governments interact with one another. Which level of government is supposed to respond to what? Is the federal government going to take on all the responsibilities (and costs) related to terrorism? What about terrorist activities that involve more than one state—who has responsibility? Gerston says all of these issues must be worked out; “We’re writing the book every day. The ink is still wet!”

(ii) Civil liberties

The Attorney General and state police organizations have been given expanded powers (wiretaps, electronic surveillance, getting into e-mail and the Internet)—all new and some say long overdue. Detention and search warrants are easier to obtain. How do we deal with this? At first, everybody said, “Good idea. Go get the bad guys.” Now many are having second thoughts. But if we curtail these new powers, won’t that allow the bad guys to get back where they were? These issues are not easy; either way the nation chooses to go will be “yet another crack in the unity pavement.”

(iii) How do we pay for all of this?

Gerston estimated that the federal government had already spent \$100 billion in response to 9/11. These are not one-time expenses. Gerston believes that many of the emergency expenditures (\$20 billion for homeland security, \$4 billion for airport security, \$13 billion more for defense) will have to be repeated annually for the foreseeable future. 9/11 has already brought about the first federal deficit since 1997, and added \$31 billion in additional expenditures for unemployment, creating new pressures to use the Social Security surplus. Coupled with the current recession, the costs of the anti-terrorism efforts have serious political consequences.

(iv) Impact on State and Local Government

Gerston contends that, “As of now, the Federal government is not providing nearly enough money to the states for security.” As proof, he cited last November’s National Governor’s Association estimate that, by June 2002, 9/11 would have cost the states \$15 billion. California Highway Patrol Commissioner Spike Helmick estimates that law enforcement agencies in California alone have post—9/11 needs of more than \$2 billion. “Some people estimate that it’s going to cost us \$300 million just to safeguard the state’s waterways.” California has already requested reimbursement for \$350 million in terrorism-related expenses; so far Washington has only offered \$100 million; that’s one-quarter of a billion dollars short—and California already had a \$12-15 billion deficit.

Gerston estimates that the combined deficit of the 50 states exceeds \$50 billion for this fiscal year. It is not clear at all where they can get the \$15-20 billion they need for security. Gerston asked,

Who will be responsible for the protection of train stations, highway systems—including bridges and tunnels—and key power plant installations? And what about protecting America’s 100 nuclear power plants, not to mention water facilities, waterways, major public buildings, and antiterrorism facilities?

If we’re short on funds already...where is it all going to come from?

Changing the Way We Live

“Terrorism is not merely the first war of the 21st century,” Gerston concluded. “It is likely to be an ongoing war with no end in sight.” And this war, he believes, will require a major shift in American values and alter our relationship with the rest of the world; it will require restrictions on civil liberties; and it will have huge financial consequences. As a consequence, he expects 9/11 to fundamentally reshape our political system. From here on out, all government at all levels will have to include major security expenditures as a permanent part of their budgets. “The cost of fully protecting American society will be staggering. But more than that, the cost of fully protecting American society will change the way we live.”

Rod Diridon closed the March 29, 2002, Los Angeles morning panel with the observation that, “Every time I hear these three, I kind of gulp and imagine the

train wreck we are about to face in terms of the huge financial costs of protecting ourselves and preparing a response program.”

That “train wreck” would be exacerbated, Diridon said, by the growing level of complacency.

“We were absolutely frantic after 9/11; now we are beginning to grumble about airport delays and the other inconveniences. Yet we’re going to be hit again. It isn’t a maybe. It’s rather how and when.” He summed up his reaction to the morning panel by observing that the most important task ahead was keeping the public’s concern at a high enough level to support appropriate counter measures. “That’s why we are here. It’s to let you know that the situation is dire—and to give you the tools to do the job.”

SUMMARIZED QUESTIONS & ANSWERS FOR MORNING PANEL

OAKLAND SUMMIT SESSION, MARCH 28, 2002

MIKE DUNCAN, SUISUN CITY, SOLANO COUNTY

What is being done for rail and passenger security, since virtually every major metropolitan area has major rail lines and the potential for “dirty bombs” seems great?

BRIAN JENKINS

Different threats require different responses:

(1) Detecting explosives or Weapons of Mass Destruction (WMD) aboard freight cars. Researchers are exploring better ways to track containerized freight at every stage of shipment, from point of origin all the way to the final recipient along the lines pioneered by UPS and FedEx. Containers could be tracked via GPS, providing real-time location; new technology could also be used to detect tampering during transit. However, improved freight security will also require physical redesign to harden containers to resist breaking open if derailed (as has already been done in the case of HazMat tank cars).

(2) Protecting passengers on trains. Unless major incidents occur, we are unlikely to screen passengers and baggage at train stations at the level now required at airports; with respect to commuter rail, with no advanced ticket sales and lots of passengers getting on and off, strict screening is not feasible.

(3) Protecting the track itself. Historically terrorists derail trains to kill people, rather than disrupt lines of communication. Advanced surveillance technology can be deployed to help monitor the integrity of rail systems; however protecting “long lines,” whether pipelines, power lines or rail lines—is extraordinarily difficult. Near term, the best we can expect are modest improvements in container tracking and the transport of hazardous materials.

Fast Track Border Crossing

Jenkins then reported on his recent trip to the U.S.-Canadian border to evaluate a new “fast-track” system that lets established shippers speed through customs

by completing paperwork in advance. Unrecognized or unregistered shippers receive closer scrutiny. However, screening drivers remains a major problem: Driving a truck across the border is an entry-level position for many Canadian immigrants of dubious origin, who, nonetheless, continue to drive big trucks into the United States.

SHERRIE ANDERSON

At Secretary Mineta's direction, U.S. DOT has been looking at rail and freight security very closely since 9/11, consulting with experts and national laboratories about possible technology solutions. The Secretary is especially concerned about freight containers going through high-density neighborhoods. U.S. DOT study groups are also considering credentialing rail and bus passengers and other forms of transportation ID. U.S. DOT has partnered with the Customs Service, and the Association of American Railroads (which is working closely with railroad police), to make sure rail shipments are safe. However, Anderson warns, "we don't have any quick solutions."

Even before 9/11, U.S. DOT had been working with the FAA (which has done a lot of testing of this kind of equipment) to evaluate possible technologies for screening passengers in the rail environment. U.S. DOT has also been evaluating portable, hand-held explosives detector. This technology is still under review, however Homeland Security's Governor Ridge recently convened a two-day industry summit to explore this technology option and others.

DAVID SAIA, CALIFORNIA DOT

Please expand on the point about "institutional disarray."

LARRY GERSTON

"Well, this disarray is going to be straightened out...but it's not going to happen immediately."

Institutions are, by definition, conservative. It takes time to work out new organizational relationships. For example, if Homeland Security becomes a cabinet department, new lines of authority must be drawn throughout the government. The relationship between the FBI and CIA will have to be changed. Better and faster ways to coordinate the vertical relationships

between similar federal, state, and local activities may be required. The 9/11 crisis has precipitated a lot of very serious thinking. Right now, the new institutional relationships are informal. In the next six to twelve, maybe 18 months, expect some of these relationships to be formalized.

BRIAN JENKINS

There are three forces promoting institutional disarray: organizational confusion, rising direct costs, and mounting indirect costs.

The U.S. has yet to replace the institutional arrangements constructed to fight the Cold War with new structures tailored to the challenges that emerged after the collapse of the Soviet Union. These new challenges include not only the growth of terrorism, but also drug trafficking, organized crime and a growing concern about proliferation of WMD. Prior to 9/11 none of these threats was seen as serious enough to warrant an urgent response by government. Instead of stimulating innovative approaches, these new threats initially provoked a proliferation of commissions, panels, committees and working groups, which were simply “stacked on top of” existing arrangements.

9/11 changed the ground rules. Billions of dollars are at stake. Instead of interagency committees, the Federal government is creating new cabinet departments and changing fundamental relationships among long-established institutions. “Watching that process from the outside you sometimes get the impression that Osama bin Laden is only Public Enemy Number Two; Enemy Number One is across the hall.” Jenkins believes that by 2007 the United States will have significantly reorganized the structures of government to deal with this new threat.

ROD DIRIDON

(To Brian Jenkins) You indicated that it may take five years to put new security protections in place. Are we going to become complacent and begin opposing the inconvenience and costs of these protections?

BRIAN JENKINS

Absent another major terrorist event, the public’s willingness to pay the actual dollar cost and the hidden cost (in terms of lost time, inconvenience, and other intrusions) is going to diminish very, very fast. In order to be effective, security

measures must become far more efficient. What is needed are “smart” innovations like using identity systems to fast-track frequent flyers, or redesigning security systems to deal more effectively with peak traffic hours. We can’t “strip search everyone before they get on an airplane...if it comes to that, we’re going to shut our economy down.” To avoid the dangers of complacency, we have to make significant improvements and come up with smarter systems.

STEVE HEMINGER, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA MTC

The real Public Enemy Number One is complacency. Americans get tired of long-term issues. We can only take them in “half hour doses”; then we want to go on to the next show. In the case of terrorism, we’re really talking about massive, costly investments in infrastructure over many years as well as significant restrictions on some of our traditional liberties. “We are not used to making these major shifts.” Unless there is some major terrorist incident, people are going to be saying a year from now “can’t we go on to something else?” That is why our leaders must instill in us, at every turn possible, “not so much the fear factor, but serious awareness.” From now on out, anti-terrorism must be a permanent line item, like education, roads, or water systems. Not just day after day, month after month, or year after year, but decade after decade. That’s why complacency is a very, very serious problem.

PATRICK DUFFY, REGIONAL PLANNER, ABAG

9/11 revealed our economic vulnerability due to the lack of a diverse national transportation system. Has this created any impetus or momentum toward a national rail system, or regional rail systems, for passengers and freight?

ROD DIRIDON

It has! Immediately after 9/11, rail travel in the Northeast corridor was up sharply. Once passengers began to factor in travel time to the airport, waiting time at the airport, airport security checks, and how long they have to wait for their luggage at their destination, rail became a more attractive proposition. Another plus: although rail systems are vulnerable to sabotage, you can’t drive a train into a skyscraper. So there is an upper limit to potential casualties. Switching to rail would also benefit the environment and reduce energy consumption. It may very well make strategic and economic sense to have a

more diverse transportation system that includes fast rail service. Unfortunately, rail systems cost a lot of money; I am not sure the federal government is going to invest in this alternative.

Another response to 9/11 is that a lot of corporations are substituting videoconferencing for business travel, although this may also be a response to economic conditions. Businesses are considering new strategies. With today's advanced communications systems, does it really make business sense to physically move people around the country to attend meetings?

LARRY GERSTON

Ironically, the trend right now is away from expanding rail. Amtrak has had a bad year; there is very serious talk about cutting back because Amtrak is not self-supporting. "There are only so many dollars in the pie." If the federal government were to make rail a national priority, what would have to be cut elsewhere? We are going through a fundamental reassessment right now. There is no way we can continue to slice up the pie the same way as in the past.

ROD DIRIDON

National security considerations could make a difference in the future transportation mix. After all, the need to mobilize and move large armies to frontiers was a major driving force in the expansion of European rail systems at the end of the 19th and beginning of the 20th century. In fact, double tracking for military purposes is one of the reasons Europe has a better rail system than we do today.

STEVE HEMINGER

(To Brian Jenkins) If airport-level security is not feasible for public transit, what level is appropriate? Are we looking at the London model, with a lot more video surveillance and active participation in security by passengers? What is your approach for improving public transit security?

BRIAN JENKINS

The need for a common vocabulary, a standardized system for communicating threat information to America's 18,000 local and state police departments, was clear after 9/11. We had President Bush saying, "Everybody should go about

their business as normal,” while Attorney General Ashcroft was yelling, “We’re all going to die by Tuesday.” The British created a four-tier Threat Condition index called VELLUM that summarized the best available terrorist threat information, without getting into details about sources and methods of collection. This threat information was disseminated broadly to local police departments, transport operators, shopping malls and the like. VELLUM is a national system but does not require that the entire country be assigned the same threat status. Based on intelligence, airports and surface transportation or particular cities might be placed in a higher threat condition than the rest of the country.

The London model has several noteworthy features: public involvement, intensive closed-circuit TV (CCTV) surveillance (which has proven to be extremely effective), and rapid response by the authorities in order to minimize disruption and ensure public safety. The London authorities keep detailed month-to-month records of how much time is lost as a result of security-related incidents. London rail has 5,000 cameras—not counting the cameras on London streets—and the number is expanding steadily. The London model produces a collateral benefit: while street crime has been going up, crime on British rail and the tube has gone down.

“Public involvement” in the London model means far more than posting signs asking transit passengers to report their suspicions to authorities. It requires a support infrastructure that makes reporting easy. Call boxes are readily available in all bus terminals and train stations. Each call box is monitored by multiple cameras, which show the face of the caller (to deter hoaxes) as well as the circumstances around the caller at that location. All cameras have pan, tilt, and zoom capabilities. Heavy camera coverage also makes it easier to conduct bomb searches. Public involvement and rapid response on the London model requires a major capital investment.

This investment has paid off. In response to tight surveillance, IRA attacks moved away from Central London stations to less-covered suburban stations. As more surveillance was added to suburban stations, the IRA was forced to shift its bombs again, this time down the tracks, away from the stations, which reduced potential casualties. While the London model won’t necessarily prevent a suicide bomber, it clearly raises the bar for entry-level terrorists. London is not the only model we can learn from. Paris has a similar system. One difference is that the French are willing to flood the transit system with gendarmes and military troops who have little concern for individual rights.

“Under French democracy, the arm of the state quickly becomes the fist of the law.”

Based on the terrorist threat alone, it may be hard to justify installing elaborate security systems like these in the United States. Even if the likelihood of a major attack on transit somewhere in the United States is high, the probability of an attack on a given transit system or particular station is remote. That’s where citing the side-benefits of reducing crime, making riders feel safer, or cutting down on graffiti can help. Another cost factor to consider, Jenkins noted, is that it is far more expensive to deploy a London-style system in an older infrastructure, like New York, “where you have girders every 15 feet, requiring 150 cameras per station.” It is much cheaper to build security in when a new system is designed.

UNIDENTIFIED PARTICIPANT

I am with Caltrans and work on the Bay Area Security Enhancements Team, which is putting up approximately 250 cameras on tunnels and bridges. Would you please address the civil liberties implications of using cameras? What about the use of biometrics, such as retinal scans?

BRIAN JENKINS

Television monitoring of public areas is not an invasion of privacy. There are other possible issues, such as TV monitoring of public rest rooms, but no civil liberties questions. A television camera is no different than a cop on a beat. It’s just another pair of eyes watching. In terms of biometrics, there is no question that we are headed in that direction. We will increasingly apply biometrics to the normal ID things we carry anyway, such as driver’s licenses. We could end up with a national identity card, but I do not advocate linking up 5,000 databases so one card accesses medical records, social security information and your credit rating. You are basically only interested in three things in a national ID card...

ROD DIRIDON

(completes Jenkins answer)...Only three things: (1) Who you are—you’re not someone pretending to be someone else—it’s you; (2) You are here in the U.S. legally; and (3) You are not, at the moment, being sought as a terrorist or dangerous fugitive. A national ID card should not be used to make people pay

traffic tickets or child support payments. National ID should be a separate system—don't link databases. My nine years experience with a private investigative company taught me that many databases are riddled with inaccuracies.

Absent an official national ID card, Diridon recommends establishing a national biometrically-based standard for the current surrogate national ID, a state-issued driver's license. Another alternative is the "Trusted Traveler" approach, with frequent travelers voluntarily providing identity information (including biometrics) to a database, allowing them to be fast-tracked through (but not exempted from) security checkpoints. Trusted Traveler is already being tested at European airports; it could be extended to surface transportation. If we create a biometrically confirmed Trusted Traveler card with photo ID, it will become a surrogate national ID. We will use it for everything from financial transactions to boarding airplanes. Trusted Traveler will probably use thumbprints or hand scans, rather than cumbersome to administer iris scans. (By the way, facial recognition technology that can identify a target's face in a crowd at the Super Bowl is probably a long way off.)

LARRY GERSTON

I agree with Brian that cameras in public places do not raise a civil liberties issue; however, I have some reservations about the National ID card issue. First, there are some detection technologies, such as Orlando airport's body scans, which display a revealing whole body outline to scanners. This does raise serious privacy issues. There is an inherent tension between maximum freedom and maximum security. There will almost certainly be a serious debate about a National ID card—and there should be. However I predict that the frequency and severity of future terrorist attacks, rather than logical argument will determine the outcome of this debate.

I also question whether any National ID can be restricted to 3-5 pieces of information. There are smart people out there with the ability to evade protection protocols and merge databases. We need to expect unintended negative consequences. Quite frankly, technology is moving much faster than our ability to understand it, so I anticipate we will be talking a lot about civil liberties issues for years to come.

ROD DIRIDON

As it often happens at meetings like this, the Q & A period tends to pass without questions directed to the Disaster Response Expert. Yet, in the event of an attempted terrorist attack, “recovery” is more likely than “preventing.” So I’d like to ask Sandy to make a closing comment.

SANDY COVALL-ALVES

The one thing I’d like to stress about what we learned in Washington and New York on 9/11, is that disasters are local. So when you go back home, make sure your house is in order—that you have access to all the local numbers and contacts you need. When something happens, it happens at the local level. FEMA alone won’t be able to save us.

WES LUM

In terms of County Disaster Planning Operations, how do you insure that all the appropriate players are included in discussions about planning and strategy, as well as recovery and response?

SANDY COVALL-ALVES

Speaking for Sonoma County (where I work), we coordinate via two groups, our Emergency Coordinator’s Forum and our Emergency Council. Both organizations have broad representation from all types of agencies, including transportation—especially the Coordinator’s Forum, which meets quarterly to discuss better ways to do response, recovery and mitigation. However, every county has its own unique forum for coordinating and nobody is perfect. So look around at the agencies represented here. If you identify a type of agency you are not in contact with, back in your city or county, take it upon yourself to establish contact when you go home. If you represent an agency that is not included in the planning process back home, demand a seat at the table.

LOS ANGELES SUMMIT SESSION, MARCH 29, 2002

DAN COWDEN, MTA

Some terrorist actions have been thwarted in the past. Do we have enough data about incidents to identify any meaningful trends? What are some of the things that have been successful in thwarting attacks?

ROD DIRIDON

With respect to the available data there are some significant analytical problems. First, it is very hard to count events that don't occur. We do not know how many attacks have been thwarted. We are limited to analyzing the smaller universe of incidents that we knew were planned and didn't happen. Terrorists are constantly planning attacks; only some plans are implemented. "Even when we have good intelligence sources inside the terrorist organization, they are constantly reporting back that terrorists are talking about this or that, or contemplating doing these other things." This creates a high volume of noise. "It is hard to somehow connect the dots to make sense of it all."

In some cases we have clear evidence that a planned attack has been prevented, such as planned attacks in New York City after the 1993 WTC bombing or the thwarted attempt by domestic terrorists to carry out attacks on propane farms in California.

How have attacks been thwarted? In some cases, it is intelligence. When intelligence is precise (such as captured documents or videotapes) it allows for the arrest of individuals. Even if the intelligence is imprecise, it may allow for countermeasures sufficient to thwart or postpone an attack, such as closing an embassy or stepping up security. We also know from interrogations of captured terrorists that physical security sometimes thwarts attacks. However, physical security by itself cannot prevent terrorism. If you protect one set of targets, you are only "pushing the threat around" to another, less secure, target.

BRIAN JENKINS

Let me underscore Rod's point about pushing the threat around. Physical security only displaces the risk; it won't end the threat. When the NY Port Authority asked us, after the World Trade Center bombing in '93, "how much security is enough?", I said, half jokingly, "We have to get enough security so the next bomb will be across the street at the World Financial Center. That's somebody else's property." The World Financial Center heard about that, actually, and invited us to come and look at their facility. It turned out to be a terrific marketing tool.

With the right kind of training, alert individuals can prevent an attack. For example, an alert customs agent on the Canadian border asked a traveler a question and her instincts told her something was not right with his answer. So she asked a second question and a third...until the nervous would-be terrorist took off running. Some Puerto Rican terrorists were captured in Chicago because a passerby thought it was suspicious to see people wearing jogging clothes smoking and called authorities. The British public is so alert to possible terrorist attacks, that British authorities are confident they will be notified about suspicious happenings within two or three minutes. So we do want to educate the public, although we should anticipate cranks calling up to tell us "My neighbor is a spy for Saddam Hussein."

Finally, you sometimes end up with spontaneous public intervention, as demonstrated in the Richard Reed shoe bomb case. "Probably the greatest improvement in security on airplanes since 9/11 is the fact that any would-be terrorist will be beaten senseless by terrified passengers."

PAMELA MURANO, LOS ANGELES MTA

Aside from intelligence, I would think a primary indicator of a possible terrorist attack would be the purchase of instruments or tools for the attack. Do we have sufficient controls and reporting requirements in place for chemicals? I know the gentleman they picked up in Las Vegas with anthrax had apparently ordered botulism from the Centers for Disease Control—and CDC mailed it to him. I am wondering, 1) if there are reporting requirements and, 2) if there is an adequate inventory kept for chemicals and biomaterials?

BRIAN JENKINS

For explosives, probably not—especially ammonium nitrate fertilizers and diesel fuel. Hundreds of million of tons of ammonium nitrate fertilizer are used in agriculture in this country every year. There are no controls on the purchase of fertilizer and other potential explosives or incendiaries that have ordinary commercial uses. One would hope, however, that suppliers would tip off authorities if a stranger pulled up in a rental truck and ordered several tons of fertilizer (or that flying school instructors would inform on students who were not interested in takeoffs or landings.)

There are some controls for chemical and biological materials, but they are completely inadequate. The National Commission on Terrorism has recommended increasing controls on certain types of chemicals—and even more importantly—certain types of pathogens. As we discovered during last September’s anthrax investigation, lots of people have access to anthrax spores with little in the way of record keeping. Controls are completely inept.

FRANCES EDWARDS-WINSLOW

Let me share my own experience with hazardous material control at the local government level. It is cheap and easy to get access to all kinds of hazardous materials and relatively easy—with a modest amount of knowledge—to construct effective terrorist weapons in your home. I know, from conducting on-site inspections for my city, that undocumented strangers can walk into facilities and gain easy access to hazardous materials without being challenged. I even know of a company that repackages hazardous materials shipped in bulk on railcars that keeps no records whatsoever on people who purchase small packages of hazardous materials that fall below the legal threshold requiring controls.

With respect to laboratory materials, university labs are open to virtually anyone at all. Graduate students have keys; they work nights and weekends, bringing undocumented friends along to keep them company. UCI’s labs in the city of Irvine were my greatest nightmare. Graduate students were creating polymers that never existed before. My HazMat team would have had no idea how to respond to an unknown substance. How careful are students when they dispose of these experimental materials?

I worked in a hospital lab myself for four years, and I can tell you that hospitals also have no security. In fact, there are a number of documented cases where

hospital employees obtained pathogens from the lab where they worked and used them on people. In one Oregon case, two nurses filled spray bottles with pathogens and visited local salad bar restaurants as part of a scheme to sway the outcome of an election. They made over 700 people sick; 400 sought medical care. “How hard was that? Not at all.”

Strangers can actually obtain dangerous biological materials from universities or hospitals by mail. I know of two FBI agents who took university fundraising letters from a dumpster to obtain letterhead and then wrote official-looking letters addressed to “Dear Culture Collection Person.”

My partner has 10 years in the Marine Corps. One evening he and I went down to Orchard Supply and bought a shopping basket with \$79 worth of stuff. We used it to construct 19 explosive devices. We bought pipe pieces, plastics, nails, wire, all kinds of stuff. But to the average clerk that doesn’t mean anything. What can we do to protect transit agencies from these threats? Maybe we provide more intensive training. If someone brings in an odd-looking package, maybe the operator should feel comfortable in saying, “Excuse me sir, you can’t bring that on.” But what about the lady with 17 shopping bags? Would you stop a shoebox from coming on a bus?

MIKE WEISS, AMTRAK INSPECTOR GENERAL’S OFFICE

(to Brian Jenkins) We’ve seen lots of money spent on elaborate security systems. No disrespect here, but nobody checked my ID coming in here and I’m armed. People obviously get complacent. What is an effective way to provide oversight for a security system after it’s set up?

BRIAN JENKINS

We can make near-perfect machines, but God does not make perfect people. Most lapses are not technological failures; they are performance failures. Magnetometers don’t work well if you don’t plug them in. What can be done? First, we need more rigorous testing of these systems under realistic conditions. The only way to maintain high performance is to constantly test. It is easy to poke fun at screeners, but this is an extraordinarily tough job. It can be mind-numbing in terms of the boredom it causes.

In the past, when testing was unrealistic, performance rates were artificially high. With more rigorous testing, the scores will actually go down, but that’s all right. The perpetrator is making calculations too. A detection score of 70

percent may be unacceptable in a certain sense. But it still has a deterrent effect. Would you take on a mission with only a 30 percent chance of success? Also, as we step up testing we should take care to avoid making these systems the object of public scrutiny and criticism. The illusion of security is an important deterrent. I am in favor of having a lot of visible systems to keep potential terrorists in mystery about the probability of being caught.

We also need to upgrade the job of screening. Creating a federal service would be useful, because it creates the possibility of a national profession, with possibilities of promotion, accumulation of points, even inter-airport, inter-team competitions. If screeners fail to find contraband, they need more training. If they do a good job, reward them. “Let’s put a medal on the best guy’s pockets. Let’s put chevrons on their sleeves. Let’s really turn it into something where people are going to want to take pride in their performance, instead of a crummy job with low pay.”

DAN JARVIS, L.A. COUNTY SHERIFF’S DEPARTMENT AND CHIEF OF POLICE SERVICES, ORANGE COUNTY TRANSPORTATION AUTHORITY

These discussions have been quite frank; the press is excluded. How do we, as safety and security providers, make use of this information for public presentations, without creating public hysteria—or to justify our fiscal and staffing needs at hearings open to the public?

ROD DIRIDON

We have kept these discussions closed because we want to speak freely, not because we are sharing national secrets. We also want to avoid having specific comments publicized out of context. Having the media here would just inhibit discussion. We will probably publish the essence of these sessions in a public document, without including all the colorful detail. You can describe the threats, concerns and issues in the public domain. Just leave off some of the details, on either the threat side or the security side.

BRIAN JENKINS

Sometimes I think that we experts are all bureaucrats in one way or another. We think our job is to implement what we know. And there is a lot of truth in that. In addition to implementing what we know, we also have a responsibility

to use our expertise to participate in the public dialogue, to work in concert with others to make sure that people are aware of the issues.

LARRY GERSTON

Brian has a point. We can't go around talking about things people don't need to know, but there are plenty of threat situations out there that call for a response from the experts: Bridges that need to be protected better, waterways that need to be protected better. I was driving to San Jose Airport this morning and saw all those massive jets, just thirty feet away, on the other side of this dinky little fence. We can't all be vigilantes about this, although we can certainly write our members of Congress and others. But through organizations like those represented here, we can make comments, we can make statements, we can make demands. If the people who know something about the problem don't speak up, who will?

FRANCES EDWARDS-WINSLOW

As someone who has had to justify a request for money at a televised city council meeting, I am familiar with this issue. One thing that helped me a lot, was our city attorney's ruling that the Brown Act did not apply to sensitive security information. So I scheduled a closed session with the city council, where I could share confidential details and answer all their questions in a secure environment. Then, in my legally required public presentation on my budget, I substituted examples from 9/11 already known to the public, rather than reveal sensitive information about our local security situation. If any of you are in a similar position, I'd be happy to share my generic PowerPoint presentation, which may give you some ideas of how to walk the delicate line between the public's need to know and avoiding the disclosure of sensitive information.

ERIC POLKA, FTA, LOS ANGELES METROPOLITAN OFFICE

This morning you talked about needing unique solutions for every situation, and mentioned the example of having representatives of MTA, Amtrak, commuter rail, subways, tunnels and buses all working together in one facility. You were talking about New York, but at first I thought you were talking about the MTA, right here in Union Station. There are obviously similarities with respect to inter-organizational cooperation in these two cities. Can you comment on what we can do in L.A. to take advantage of this synergy?

ROD DIRIDON

My only response is that, first of all, Los Angeles County is probably exemplary. There are few places in the country that are ahead of L.A. in terms of bringing all the agencies, departments, and various operators together in the same room. One reason, clearly, is that we've had all kinds of disasters here in Southern California, so we have to put things together. What we can do to take advantage of the potential for synergy is to "exercise, exercise, exercise." Use tabletop exercises, drills, and simulations. This is especially important in an area like L.A., where you have such complex interaction among many jurisdictions and modes of transportation.

BRIAN JENKINS

One other thing, and this is a real issue for governance in America. We tend to react to new problems with turf wars over which group will be in control. I know you can't turn an aircraft carrier around on a dime. But as we face the crisis of America's 87,000 federal, state and local governments having to get along like they've never done before, it's the crisis of 9/11 that will be responsible for ending the bureaucratic battles. Sooner or later, the various agencies that fight for turf will have to come to terms. It may take state or federal legislation, but we no longer have the luxury of every agency dancing to its own tune.

ROD DIRIDON

Let me add one admonition. Our biggest enemy is not Al-Qaida. It is complacency. Nothing has happened for a while, and we are slipping back into a sense of false security. Six months from now you are going to have a hard time getting funding for your programs or attention from your policy leaders for possible threats that absolutely require a response. So you need to convince your policy leaders about the seriousness of the issues we face. We did invite policy leaders to this session; there are a couple here. But most of them sent you, the security leadership people. It will be up to you to remind your policy leadership people that the threat has not gone away; "The threat situation could actually be more serious, because we now have a more cautious, more educated adversary."

KEYNOTE ADDRESS: ELLEN G. ENGLEMAN

Administrator Engleman characterized the September 11th attack on the World Trade Center as an attack on America's "cherished freedom of mobility" and therefore a threat to economic prosperity as well as security. Citing lessons learned from the way transportation employees and organizations responded on 9/11, she underscored the crucial role advance training played in reducing casualties. Engleman therefore urged a strategic response that emphasized even more training, as well as the development and deployment of advanced technology. Engleman also believes that the elevated threat of terrorist attacks requires significant organizational changes all levels of government, some of which are already underway. Foremost among these changes is the need to significantly improve cross-jurisdictional cooperation and coordination before, during, and after an emergency.

Transportation Vital to U.S. Economy

Acknowledging that any security measures must be consistent with the need for both safety and personal freedom, Engleman pointed to the central role of transportation in the U.S. economy. She reiterated President Bush's State of the Union goals (winning the war at home and abroad, protecting our homeland, and reviving our economy), citing U.S. Transportation Secretary Norman Mineta's Congressional testimony that linked achieving these three goals to the protection, maintenance, and expansion of America's transportation system. To illustrate the economic importance of transportation, Engleman described the mission of the Office of Pipeline Safety (part of her own agency), which is responsible for monitoring the nation's 2.2 million miles of oil and natural gas pipelines—"the economic backbone of this nation."

Prior Training Saves Lives

The response to 9/11 by transportation organizations and employees proves that advance training saves lives. As one example, Engleman cited the effective response of Federal Transit Agency (FTA) and New York City Transit employees stationed in the metro station beneath the WTC. Training exercises for a variety of emergencies had proved that even low level transit employees must be given the authority to make on-the-spot decisions. "So when the tower was hit, the station manager...did not call up the chain of command." Instead, he pulled out a card in his shirt pocket and followed emergency instructions. As a result of his action and the actions of other employees, "tens of thousands

of lives were saved.” Engleman also praised the Washington Metropolitan Area Transit Authority, the U. S. Coast Guard, and U.S. DOT’s own staff for using what they had learned in training exercises to save thousands of lives at risk on 9/11.

No Technological Silver Bullet

No single technological “silver bullet” can assure transportation security, Engleman warned; instead, we need a broad approach using “whatever technology is out there.” When RSPA put out a call for new ideas just two weeks after September 11, industry responded with more than 600 white papers, proposing new security technology than ranged from “the most exotic biometrics to the most basic advanced materials applications.”

Organizational Changes

Engleman noted that the Administration and Congress had already created the Transportation Security Administration (TSA) within U.S. DOT prior to 9/11. TSA’s mission is to improve security for rail, highways, transit, maritime, pipeline, and containers as well as at our borders and ports. Within days of the 9/11, Secretary Mineta created an additional organization, the National Infrastructure Security Committee (NISC), which has six Direct Action Groups (DAGs), each assigned to a specific mode of transportation. Each DAG is working closely with industry representatives to develop specific recommendations to enhance security for their particular mode. Engleman also discussed the operations of RSPA’s Crisis Management Center (CMC), which has been in continuous operation since September 11.

Improving Cross-Jurisdictional Coordination

RSPA’s administrator stressed the need for improved coordination and communication, saying that even though there are operational jurisdictional issues “Safety has no jurisdiction...” She went on to emphasize that, “We’re all in this together. If something happens, the American public doesn’t care which agency or alphabet soup committee was supposedly in charge, because we are all responsible.” Engleman concluded by noting that the U.S. transportation community must expand its traditional definition of safety to encompass security, because “Security is a subset of safety.” Quoting Coast Guard Commandant Admiral Loy’s dictum that “Preparation equals performance,” she observed that key to responding to the challenges ahead is “training, planning, preparation.”

AFTERNOON PANEL: “SELECTED NATIONAL SURFACE TRANSPORTATION AND DISASTER RESPONSE TRAINING PROGRAMS”

The panel was introduced by former U.S. DOT Deputy Secretary Mort Downey, who currently serves as principal consultant for advanced transportation technology programs at pbConsult, a unit of Parsons Brinkerhoff. Other presenters were: Dr. Sherrie Anderson, program manager for the Office of Intelligence and Security at U.S. DOT; Steve Vaughn, deputy chief of intelligence and security for CHP; Nancy Houston, a senior associate with Booz Allen Hamilton; and Greg Hull, director of operations security and safety for APTA.

MORT DOWNEY: OVERVIEW OF SURFACE TRANSPORTATION RESPONSES TO TERRORISM

Downey framed the afternoon panel discussions as a description of possible organizational, technological, and training responses to the terrorist threat described by the morning panel. For Downey, the morning session could be summed up by two paragraphs from the 1999 book *Preventive Defense*, co-authored by Ashe Carter of the Kennedy School and Bill Perry, former Clinton Secretary of Defense:

Someday, in the not too distant future, Americans will be attacked with deadly agents, just as the Japanese were in the infamous Tokyo subway attacks. We do not know when the first attack on U.S. soil will take place. And we do not know where. But like the attack on Pearl Harbor, an incident of catastrophic terrorism will divide our past and our future into before and after.

Today we are in the “after” period—when our efforts to respond to terrorism reflect the wisdom of hindsight. “Additional terrorist acts are being planned,” Downey warned, “So we need to be able to respond.” One factor that will help us respond, he observed, is that public confidence in government has “not been this high since the Kennedy Administration.” Downey therefore urged government at all levels to take advantage of this support to secure additional resources for the anti-terrorism fight.

One reason to step up our response, Downey observed, is that the negative effects 9/11 on the U.S. economy (described by Dr. Gerston in the morning

session) are likely to get worse. For example, excess liability insurance premiums for the airline industry have jumped from \$50 million per year to \$950 million per year. “You are going to see that in your airfares,” Downey warned, “You are going to see that in shaky finances for airlines.” Sharply higher insurance costs are likely to impact other modes of transportation as well. Rating agencies and bankers are going to protect their transportation investments, Downey asserted, by demanding that operators make significant additional investments in security. The insurance consequences of future attacks could cripple entire industries. What would happen, Downey speculated, following a WTC-level event involving a freight container with a weapon of mass destruction inside?

If we decided to bring the freight system to a halt to check all containers, it would take about 50 days to check the containers that come in one day. At that point, we are 50 days behind in delivering the goods to run the national economy. That’s not going to work.

Budgetary Implications

Downey told his audience to expect a severe economic impact from 9/11 on their own agency budgets as well. Washington can print money, he noted, “But state and local governments can’t. They’re going to have to squeeze this new priority in, among everything else.” He also cautioned listeners about the potential revenue consequences of terrorism for transportation, noting that the “shadow of terrorism” kept ridership down on the Paris subway system for years. When requesting additional funds, Downey advised making the argument that paying for preparedness now is a lot cheaper than paying for recovery later. Downey also suggested emphasizing that investments in transit security can potentially improve operations. Investing in tracking systems for cargo containers, for example, “will, in fact, be efficiency measures...that will pay off in the long run.”

Good Communications

One security investment with a particularly high payoff is better communications. “Communications adequate to handle a terrorist incident,” Downey said, “are going to be useful every day in dealing with the kinds of things that happen every day in our transportation world.” These events include fire fighting, evacuations during a natural disaster, and securing stations and facilities as a deterrent to crime.

Response Capability

Downey defined “doctrine and protocol” (working out the specifics of what to do under very specific conditions and training to implement these plans) as “a critical part of responding.” He cited evacuation as an example of the need for a planned response: “When do we evacuate? When do we move trains, if there’s been an explosion or a chemical attack? How do we use the ventilation system in our subways? To bring air in to fight a fire or bring air out to fight a fire? Do we bring air in if we have had a chemical attack or do we flush air out? “We need to know, we need to respond instantly, and we need to have our people trained to react appropriately.”

Evacuation Plans

While on the subject of evacuation, Downey commended Washington D.C.’s metro system for doing a “terrific job” getting frightened people out of town on 9/11—and worrying later about how people would get to a preferred final destination. Metro told passengers “we’ll get you out of town.” Meanwhile Metro rerouted buses to suburban stations in order to transport passengers to shopping malls where families could pick them up later. Downey believes that America’s cities should benefit from Washington’s experience and develop their own well-thought out evacuation capability, which can be used “not just for terrorism, but for hurricanes.”

Technology

Shifting to the subject of technology and terrorism, Downey asserted that we don’t need, “another widget to make things more complicated.” Instead, we should be asking operators and security people how new technologies (like biometrics or sensors) might make the system safer and more secure. What we need, he insisted, is a public-private partnership that makes use of the best available knowledge and expertise in or out of government. What would be especially helpful, Downey believes, are technological innovations that “allow us to pre-screen people and goods to manage them appropriately.”

Training

We also need to make better use of technology to improve training. Even though training is already one of America’s greatest assets for dealing with terrorism, more is required. As an example of linking technology with training, Downey described a new use for a mountain tunnel in West Virginia that had

been constructed for an interstate highway that was never completed. This tunnel had been already been converted into a highway design test bed to study airflow, fire, and emergency use. Now it is being used as a national response facility to train personnel to deal with such emergency situations as tunnel fires and crashes under real world conditions. The facility is now being upgraded to add an underground subway station where training exercises can be conducted.

SHERRIE ANDERSON: REVIEW OF LAND TRANSPORTATION TERRORISM TRAINING PROGRAMS

When Anderson's agency—U.S. DOT's Office of Intelligence and Security—was created in response to the bombing of Pan Am Flight 103 over Lockerbie, Scotland in 1990, its initial focus was naturally on airline security. Anderson joined the office (which then employed just 16 people) in 1991, with instructions to add land transportation security to her agency's portfolio. Her assignment was to develop a comprehensive land security program that included transit buses, inter-city motor coaches, rail (both passenger and freight) and cargo security. Concern for land transportation security, Anderson acknowledged, still lags far behind the priority given to airline security. Land transportation, for example, has yet to implement even a modest version of the kind of mandated security check-in procedures long required at America's airports. Although this policy could change dramatically down the road, Anderson emphasized that land transportation security policy remains in flux.

Land Transportation as a Terrorist Target

Anderson reported the results of a 1998 research study, conducted by her office that emphasized the possibility of terrorists targeting land transportation. The vulnerability of transportation was very clearly demonstrated on 9/11—and by the earlier foiled plots against New York bridges and tunnels. Land transportation is a “soft target,” the more so because so much effort is being expended to strengthen aviation security. As Anderson put it, land transportation is vulnerable because,

... it's open and we invite people in to use our system. It's user-friendly. It's an attractive target because we have millions of people going through the system daily. And it would be a mass disruption and destruction if terrorists were able to penetrate our system. So we must work hard to prevent it from happening.

Anderson is worried that before transportation security procedures come up to speed, the nation may yet slip back into complacency. She cited her own experience, prior to 9/11, trying to convince colleagues and partners within U.S. DOT that “security is just as important as safety.” Anderson is convinced that land transportation security is vital to the nation’s defense. She reminded her listeners that America remains at war: “We know the terrorists train, and train—and train some more...we know they can get driver’s licenses...they know our system better than we do.”

Security Training Saves Lives

Anderson reiterated the recurring conference theme that “training saves lives,” citing two specific land transportation cases. One involved MTA police officers in NY, whose security training had enabled them to foil a terrorist plot to blow up the city’s subway system in 1997. In another incident, a maintenance worker’s security training enabled him to detect an explosive device in a trash receptacle at New York’s Grand Central terminal. This second example underscores the need to train all surface transportation employees in security awareness.

Anderson contrasted these reassuring instances in which training surface transportation employees saved lives, with the Sarin nerve agent attack on Tokyo’s subway, where lack of training (and a reluctance to challenge normal operating procedures) increased the number of casualties. Conforming to an ill-conceived commitment to stay in operation even though they knew something was seriously amiss, subway personnel kept trains containing lethal sarin moving back and forth through the system for several hours. A clean-up crew committed to pristine floors no matter what, actually swept up the Sarin debris, spreading the impact of the toxic agent. However, even in the Tokyo incident, a security-trained maintenance worker (who discovered an additional device planted in a washroom) was able to prevent a second incident from occurring.

Training is particularly important, in Anderson’s view, when new security technology is being introduced. Very high technology is being introduced at U.S. airports (explosive detection technology, x-ray machines), “but these people really don’t know how to operate them.” She confessed to a similar oversight on her own part, back in the 1980’s, while traveling overseas for DOD to arrange for installation of new security equipment. “We forgot the most important element: training the person who would be monitoring.”

LAND TRANSPORTATION ANTI-TERRORISM TRAINING PROGRAM (LTAP)

With the case for training underlined by these examples, Anderson then discussed the Land Transportation Anti-Terrorism Training Program (LTAP) jointly developed by her office and the Federal Law Enforcement Training Center (FLETC) in Glenco, Georgia. LTAP, she said, was a response to the “outcry of law enforcement and security officials that there was a need.” Similar pleas had been made by the transportation industry.

The decision to partner with FLETC represented a commitment to avoid duplication of effort. U.S. DOT also approached FLETC because the center was already providing some anti-terrorism training for 70 federal agencies, and thus had practical experience in this area. Finally, establishing LTAP at FLETC leveraged the impact of the course, by allowing counties to purchase training for their employees with non-designated federal funds, rather than relying on DOT’s limited funding.

To develop the new LTAP course, U.S. DOT also consulted with the Transportation Safety Institute and the National Transit Institute. “Partnering is very important,” Anderson noted, “not just with other federal agencies, but also with state and local officials.” Reflecting this commitment to partnering, U.S. DOT held a curriculum development conference (funded, in part, by the National Institute of Justice) inviting representatives from the railroad and transit industries, as well as FLETC, AMTRAK, and U.S. DOT’s Operating Administration. Some California agencies (MTA, the Los Angeles Sheriff’s Department) also participated.

Local Law Enforcement and Security—First Line of Defense

While U.S. DOT wants to promote safety and security, it does not directly operate transit systems. That’s why LTAP targets law enforcement and security officials, who actually do work on or near surface transportation systems: “They are our first line of defense...the one’s we refer to as our first responders.” While the course was developed for law enforcement and security personnel, other transportation personnel also participate in LTAP, including general managers, senior officials, and budget officers. Budget officials are particularly important because, prior to 9/11, they had very little awareness of the severity of the terrorist threat—and of the need for more funding. As Anderson put it, we can use the budget to “pay up front—or pay later.”

LTAP Course Instructors

The LTAP course was “fully up and running” in 1999, and by 2000, the program had lined up high quality instructors drawn from many agencies:

- FBI—usually from the local FBI office
- CIA
- Department of Energy and Argon Labs—research on chemical detection and biological agents
- U.S. DOT’s Office of Intelligence and Security—provides an intelligence analyst who gives the threat overview
- FLETC staff officers—bomb squad
- The Modis System in Atlanta—covered special event planning for the 1996 Atlanta Olympics
- The NYPD transit bureau

Course of Instruction

Anderson briefly went over the course curriculum, which uses a case-study method, based on actual incidents. (At the Los Angeles session, Anderson underscored the importance of using bomb-threat examples, given how frequently threats occur.) The course material stresses “dual-use,” the fact that protecting transit customers from routine criminal acts (like pick-pocketing) by deploying highly visible patrols and security cameras also deters terrorist acts. Anderson cited her early experience as a Department of Defense physical security specialist, where she learned to focus on “the little things” that keep a system or facility safe—“good training, procedural security, the whole process.”

Contingency Planning

Being prepared means having a plan. What should be in a contingency plan? Who do we communicate with? What is our role? Who’s in charge? What phone numbers do we need to have on hand? Have we been coordinating with the right people? Are we in touch with the FBI? This phase of the course also discusses crisis and post-crisis management and the “incident command system”—all the critical areas for recovery after an incident happens. As part of the contingency plan unit, participants are given a current threat overview

and a segment on media relations, emphasizing the need to develop a good working relationship with the media in advance of an incident. Anderson emphasized that simply having a good plan was not enough; you need to take that plan and “Train, train, train, and train some more.”

Physical Security Overview

This phase of the curriculum involves identifying vulnerabilities and what to do about them. One approach is to piggy-back on the concept of Crime Prevention through Environmental Design (CPTED) by security concerns. “CPTED gives you the principles and techniques you need to develop a robust security program,” says Anderson, who cited the example of cutting hedges around windows to deter entry by thieves in order to also deter terrorists from planting a bomb in that location. The basic point, she says, is to design security in, whenever you are planning a new facility or retrofitting an existing one.

Transportation System Vulnerabilities

“We all know that our systems are vulnerable,” Anderson said, “but how vulnerable are they—and which vulnerabilities can be managed?” To deal with these issues, course participants are trained to recognize pre-incident indicators, such as target surveillance. It is well known that terrorists spend years surveying potential targets. “If you see someone sitting across the street, taking pictures...you might want to report that.” As part of the course, students also study actual incidents, both in the U.S. and overseas. One extra benefit of this segment is that it helps trainees return to their agencies with a better understanding of how to plan special events, such as an IMF or World Bank meeting.

Weapons of mass destruction, of course, are of particular concern. The threat of nuclear, chemical, biological, and radiological events are covered in the course, as well as how to manage and respond to them.

The final phase of the four and one-half day course is an integrated practical exercise in which participants practice the new skills they have learned.

Anderson Requests Continued Support for LTAP

While there is a demonstrated need for the LTAP course, it is not free; tuition can range from \$300 to \$700, depending on where the course is offered and whether instructor travel expenses are included. Presenters do not receive a

salary. Anderson concluded her remarks by appealing to her audience for continued support of the LTAP program. “Right now, four courses are being offered yearly. We are hoping, if there is a need, to increase that number to five courses, and if we get responses from you, in terms of need, that will give me momentum to ask for more funding.”

STEVE VAUGHN: SECURITY OF CALIFORNIA’S TRANSPORTATION INFRASTRUCTURE

California Highway Patrol (CHP) Deputy Chief Steve Vaughn detailed the State of California’s efforts to protect the security of transportation infrastructure, post-9/11. In Vaughn’s opinion, California “is light-years ahead” of many other states in terms of emergency response planning and the California Highway Patrol (CHP) plays a significant role in carrying out these plans. CHP is responsible for patrolling 104,000 miles of roadway and provides security for 240 state agencies, including 4,450 state facilities. California Governor Davis has also tasked CHP with assisting local police and other state agencies in providing additional security for 1,391 dams and more than 660 miles of aqueduct. This adds up to a formidable challenge for CHP’s relatively small force of 7,000 officers.

Immediate Response to 9/11

Within hours of 9/11, Governor Davis and key members of his cabinet had been swiftly relocated (according to plan) to the pre-designated California state emergency center at the CHP academy. Upon arrival, one of the governor’s first actions was to create a task force to protect California’s infrastructure. The task force was asked to identify possible transportation targets and come up with a long-range plan to protect them. The task force’s first concern was to determine which structures were most critical to protecting citizens and keeping the economy going—and which of these structures were most vulnerable.

Designating Critical Structures

At the end of its evaluation process, the task force designated sixteen of the most critical transportation facilities in the state as Priority One targets. This short list includes major toll road bridges and bridges controlling access to ports essential to the defense and economy of California. (Vaughn explained that the definition of “critical” included high-profile symbolic targets like the Golden Gate Bridge and the San Francisco Bay Bridge—not absolutely vital in

the economic or security sense, but absolutely necessary to defend because of their political significance).

Priority Two targets include bridges and interchanges serving California's Strategic Highway Network (STRAHNET), the critical transportation network serving California's large number of military bases, ports and defense installations, as well as additional roads and bridges vital to the state's economy. A total of 4,287 structures were initially designated as Priority Two, however, facilities that could be easily repaired and put back into service were later reassigned a lower priority. The final adjusted Priority Two list designated 1,233 structures as critical, including bridges, tunnels, and interchanges. These installations were chosen in part, because they would be needed as evacuation routes during a mass emergency. "As many of you are aware," Vaughn stated, "we have contingency plans, such as those for earthquakes, that require us to eliminate freeway traffic in one direction in order to turn the highway into a one-way evacuation route."

Priority Three targets were bridges that happen to cross over, (but are not part of) STRAHNET highways. "Obviously, if these bridges come down on top of a STRAHNET highway, they've interrupted the STRAHNET flow." Priority Four targets were bridges on the U.S. national highway system that are, nonetheless, not part of STRAHNET. Priority Five includes bridges not in categories 1-4, but which, nonetheless, cross over interstate highways.

Survey Teams

Once priority structures had been identified, the next step was to have the eight regional CHP field divisions send out survey teams to take an on-site look at structures in their respective areas of responsibility. All 4,200 plus structures initially identified as Priority Two targets were examined. Vaughn provided each field division with a list of possible survey team candidates. Suggested team members included experts from the California and U.S. Departments of Transportation, the U.S. Coast Guard (because they work with bridges and waterways), and military explosive ordinance personnel. "I thought, if you are going to take down a bridge," said Vaughn, "Who is going to do it? People with explosives. And who better to ask about probable terrorist techniques than a team of Navy Seals?" The suggested list of team members also included state engineers from Caltrans, researchers from the Lawrence Livermore Laboratory, as well as experts from the State Office of Emergency Services and the Federal Highway Administration.

Each team started out by looking for the obvious: blind spots, lack of outdoor lighting, unlocked doors, and whether or not structures were fenced off. “We looked for ‘No Trespassing’ signs—not because they would stop people from entering—but because passers-by would be more likely to call the police if they saw suspicious activity.”

(Increased public awareness, says Vaughn, is a good thing. “We are getting calls from motorists about people stopped near fences or taking pictures.” But, Vaughn added, post-9/11, “We are also getting calls every time some tourist wants to photograph the Golden Gate Bridge.”)

Survey Recommendations

The initial district surveys led to immediate changes in security procedures at many sites. Most modifications were simple, such as adding guards, locking doors, or installing security fences and lighting. However, Vaughn noted, other suggestions (such as installation of video monitors, pressure sensitive switches, motion sensors, intrusion alerts, contact alarms, glass breakage sensors, and infrared or thermal imaging) will take longer to implement.

Some of these advanced systems have already been installed; however, Vaughn declined to discuss details for security reasons. Vaughn also indicated that each of the more than 4,000 sites surveyed was unique, “So we’re going to have to have a slightly different plan of attack for each one.” As an example, Vaughn discussed the special security requirements of bridges built in salt-water locations, “The salt will damage a lot of the equipment we want to put in there to monitor. We can do it. There is some equipment out there that has been designed for that, but it’s extremely expensive.”

The uniqueness of each site underscores, in Vaughn’s view, the need for empowering “the folks down at the levels that are going to be dealing with security. Let them develop the plan, let them work the plan.” (Unique local conditions were another reason why the governor’s task force decided to assign the vulnerability survey to regional CHP survey teams.)

Using Traffic Management Centers

Vaughn made the point that California had an advantage over other states with respect to surface transportation security. Once sensors are installed at critical sites, he pointed out, they can be tied into the state’s system of Traffic Management Centers (TMC), which are manned 24/7. A motion sensor can be

tied into video camera so that it alerts the dispatcher, i.e., a red light will go off on “a particular screen that’s showing an image that we need to look at.”

Additional Specific Actions

According to Vaughn, the CHP has increased patrols by car, on foot, and in the air since 9/11. Air operations have been extended from 14-15 hours per day to 24/7. (He conceded that this is costing “millions and millions” in overtime.) Commercial vehicle inspection facilities in California also now operate 24/7, with particular attention being given to fuel tankers or hazardous material tankers; this is an area of particular concern to Governor Davis, who has created a special task force on safe fuel delivery.

Vaughn reported that his task force was actively trying to “think outside the box” to come up with security solutions for difficult cases. As an example of out-of-the-box thinking, the task force considered parking mothballed U.S. Navy vessels near bridge pillars to protect bridges against ramming by a hijacked ocean vessel. “Although we’re not doing this yet in California, I understand that New York and New Jersey may already have made these moves or are considering it.”

Vaughn is particularly pleased with California’s existing system of Memorandums of Understanding (MOUs) among the various units of government. “MOUs are fantastic, because they let everyone know what their role is.” These agreements can also help develop personal relationships across jurisdictional lines, by making sure that everyone has up-to-date, accurate phone numbers for the people they would need to work with during an emergency. For this to happen, he reminded participants, it is essential that responsibility for responding, monitoring and funding be explicitly included in these MOUs.

Projected Costs of Security Enhancements

Vaughn provided rough estimates of the projected cost of protecting California’s surface transportation infrastructure: San Francisco-Oakland Bay Bridge-\$4.4 million; Richmond-San Rafael Bridge-\$4.2 million; Antioch-\$1.7 million. Projected costs in Southern California are also high. “You can see, as we go down the list,” Vaughn noted, “that the amount needed to retrofit major structures in Bay Area alone is \$22 million. And that’s got to come out of Caltrans’ budget.” These costs were being proposed during a year when all state agencies have been directed to cut their budgets.

NANCY HOUSTON: EMERGENCY TRANSPORTATION OPERATIONS PREPAREDNESS AND RESPONSE WORKSHOPS

Booz Allen and Hamilton senior associate Nancy Houston framed her role on the panel as representing Dr. Christine Johnson, head of the Operations Core Business Unit at U.S. DOT's Federal Highway Administration (FHWA), for whom Booz Allen is developing and presenting a series of Emergency Transportation Operations Preparedness and Response Workshops.

Booz Allen is currently under contract with FHWA to develop 12 interactive two-day workshops designed to improve transportation operations during and after an emergency. These workshops will encourage participants to emulate best-practice responses based on real emergency situations through interactive tabletop exercises by using lessons learned from dealing with real emergency situations. Unlike other training programs mentioned during the summit, these workshops would be offered to participants at no cost. Booz Allen is also preparing a related guidebook and checklist on emergency operations preparedness for FHWA.

Description of Project

Houston reported that the workshop project, which began on February 19, 2002, just six weeks prior to these summit presentations, was still in the very early stages, but "moving rapidly." She emphasized that the workshops would be interactive because "we want people to be able to learn from one another as well as learn from the experiences of people around the country who have had to deal with these issues." The workshops would be "invitation only" because each presentation would be geared to the specific location where it would be held, with the intention that participants would be a good cross-section of the people in that area who would have to work together in an actual crisis.

Subject Matter Experts

Houston was proud of the quality of the subject-matter experts Booz Allen had recruited to help develop the workshops. Team members include Sam Raines of Booz Allen (terrorism); Rick Lane, formerly with FEMA (response and recovery); Officer David Lubis of the Fairfax County police (law enforcement) and Robert Stevenson, who is with Montgomery County emergency services (fire, rescue, EMS). Additional experts include Dr. Howard Leviton, MD (medical response to chemical/bacteriological attacks); Tony Heredia, Booz Allen's expert on public service wireless networks (communication); and

Rebecca Brewster of American Trucking Association Foundation, which operates the National Incident Management Coalition.

“State of the Practice” Assessment

Houston reported that part of Booz Allen’s assignment is to assess the “state of the practice” (best practices) among units of government across the country as they prepare for possible terrorist attacks. Booz Allen will evaluate response plans for 20 jurisdictions, selected for diversity of size, location, and level of experience in emergency response. Major states and metropolitan areas will be included, as well as sites selected because of special conditions, such as the presence of large chemical stockpiles. Special sites considered included Silicon Valley and Detroit (potential for major disruption of an entire industry) and sites near a FEMA regional headquarters (different kind of coordination plan required) or major military installations, which may provide important resources for response and recovery as well as be targets themselves.

Houston emphasized that Booz Allen had intentionally included team members with top secret security clearances to facilitate obtaining emergency response information from jurisdictions understandably reluctant to share their plans. As Houston explained, these team members would be able to translate classified plan specifics into generic descriptions outlining best practices in a way that would still be useful to other jurisdictions.

Workshop Program

The workshop agenda will vary somewhat by location. One of the 12 currently scheduled workshops will be in a rural area; another near a border crossing. The latter was specifically requested by American Public Transportation Association (APTA). As Houston described it, the program would emphasize “sharing lessons learned from previous disasters,” primarily through case studies. Some of the presenters will be veterans of actual disasters, “able to share life experiences on a one-to-one basis.” Each day’s session will begin with a speaker, followed by case studies and the tabletop exercise followed by discussion and feedback. Participants will spend some of the time working in small groups.

Tabletop exercises, Houston emphasized, “are totally different than field exercises or on-site drills.” Everyone is gathered around a table to work through a disaster scenario as part of a team. Each scenario will be location-specific, and realistic, down to including referral to local points of contact

likely to be involved in a real emergency by name. Houston mentioned that FHWA had specifically asked her team to “build in a quarantine situation” for one exercise, as few first responders have ever had to deal with that kind of situation. “This is one of the reasons we have Dr. Leviton in our group,” Houston said.

Day One will emphasize pre-incident planning and what to do during the incident itself. Four case studies (which are being researched by the Volpe Transportation Center) will be discussed: New York City 9/11; The Pentagon and Washington, D.C., 9/11; the Baltimore tunnel fire; and the Northridge earthquake. After reviewing the case studies, the group will participate in a tabletop exercise on what to do before and during an incident. How do you get ready? What do you need to do? What do you need to have in place before the incident occurs? ...Now it’s happened—what do you do in the first 5 minutes? The first 5 hours? In the first 24 hours?

The first day will also focus on getting the group used to working together. As Houston pointed out, transportation people may be accustomed to working with the Highway Patrol, but they are not likely to know the disaster planner at the local hospital or local FBI person. The objective here, said Houston is to know whom we will be dealing with during a disaster, and to develop a trust relationship with them. Another key objective is to make sure everyone is clear about who is responsible for what during an incident.

Day Two’s tabletop focuses on recovery. The scenario tentatively selected for the tabletop is the Northridge earthquake, precisely because there was so much damage to the transportation system. Houston expressed her concern that most of the current attention on recovery overemphasizes physical recovery. This program emphasizes the role of people in restoring transit operations after an event. “The incident has created a lot of problems for you, in terms of your transportation infrastructure. What kind of processes do you need to have in place,” Houston asked, “to be able to begin that recovery and continue to get your system up and running?”

The most important part of Day Two, Houston asserted, is the “identification and discussion of actions” that takes place toward the end of the day. While participants will spend most of their workshop time in small groups, in this segment the entire group is assembled to ask itself “What have we learned? What do we need to do back in our agencies? Who is going to be responsible for taking the next actions?” This final section is designed to motivate participants take what they learned home and put it into action.

Workshop Participants

Houston stressed that the invitation list for this workshop extended beyond “the usual transportation suspects” to include a wide range of federal and local people: the National Guard, FBI, disaster planners from hospitals, Joint Terrorism Task Force, military freight people, and public information staff, “who are quite often overlooked.” She discussed her own experience of how vital the media can be by citing what happened one 4th of July weekend during the wildfire season when she worked at Florida DOT. The Florida Highway Patrol called and said “Shut down I-95 from Daytona Beach to Jacksonville.” That’s 165 miles of I-95. “So communicating with the media was absolutely critical.” (The other unexpected communication problem she ran into that weekend was that public calls for information and hits on the website overloaded the system.)

Guidebook and Checklist

Houston described the guidebook and checklist as “not a cookie cutter, not the solution to everything.” This was important, she said, to avoid producing a document that would have to be classified, and thus not very useful. “There is a fine line between getting you useful information and not making it too detailed.” Instead, the guidebook would emphasize ideas planners should consider, and point out questions they should be asking themselves and the people they work with. She mentioned that some work had already been done by AASHTO, primarily points emphasizing initial planning and response. Booz Allen planned to take this work and build on it.

Other Developments

Houston then described other recent developments of possible interest to her listeners. She mentioned that FHWA has appointed a program manager for security and is presently in discussion with AASHTO about providing security training for highway maintenance workers, “the people out there who are the eyes and ears that provide information.” She also mentioned using Intelligent Transportation Systems (ITS) to monitor infrastructure.

Houston gave special emphasis to security developments in freight transportation, both rail and trucking. The air cargo project of the American Trucking Foundation, for example, is designed to handle the chain of custody for cargo from the manufacturer’s shipper through to the receiving air cargo facility at the customer’s location, basically by using a Smartcard to track the

shipment. She also mentioned a new security system based on ion-detection technology that monitors shipments from point of inspection, through all seaports, land border crossings and on through to the container's final destination. This system uses an E-Seal (a radio frequency device that signals as it passes reader devices), displaying information indicating whether or not the card has been tampered with. Houston also described the Asset Cargo Tracking Project, launched led the American President Lines in cooperation with Union Pacific Railroad, PAR government systems and Tran Centric. This system tracks the chassis that containers ride on, anywhere in the United States.

Finally, Houston described the "511" Traveler Information System, accessible to the public from any telephone. While people are not used to this information number yet, experience during the winter Olympics at Salt Lake City, where 511 was publicized, indicates that people who are desperate for information will use 511, if they know about it. Unfortunately, phone systems, like websites getting "zillions of hits," can quickly become overloaded. Overloading 511 is one issue FHWA wants to look at in order to evaluate how the Traveler Information System could be used during an emergency.

GREG HULL: TRANSIT INDUSTRY RESPONSE TO TERRORISM, BEFORE AND AFTER 9/11

The American Public Transit Association's Director of Operations Security and Safety, Greg Hull, described APTA as a 100-year old non-profit association created, run, and operated for the benefit of the transit industry. APTA is composed of 1,400 transit systems (most of the systems in North America) plus a wide-range of business members including: planning, design and construction firms; service providers; academic institutions; transit associations; and departments of transportation. APTA's activities include public advocacy (primarily targeting government) and the promotion of advanced technology and business opportunities—sometimes through the establishment of partnerships with other organizations and institutions. APTA also provides an essential forum for communication, networking, and professional development.

Hull reviewed transit industry responses to the threat of terrorism, both before and after 9/11. The industry had already established a terrorism coordinating committee prior to 9/11 and had a sophisticated safety audit program, including a security component, well underway for some time. The transit industry also had been sharing best practices in safety and security among its

members for a number of years, offering a significant number of training courses dealing with specific security concerns. Following 9/11, the industry significantly expanded all of these activities, reaching out to non-transit agencies to coordinate disaster response planning and creating new, highly-focused training programs and guidelines designed to help transit agencies deal with specific security-related concerns.

APTA and the Transit Industry

Hull pointed out that one reason security is a major challenge to the transit industry, is that “public transit is by design and nature an open infrastructure” and therefore harder to defend. This vulnerability is compounded by the sheer scale of an industry with 400,000 employees operating 135,000 transit vehicles that provide some 9.5 billion passenger trips per year (2001), or about 15 times the number of passenger trips per year provided by the airlines.

PRE 9/11 TRANSIT RESPONSES TO TERRORIST THREAT

Organizational Responses

According to Hull, America’s transit industry already had a significant number of inter and intra-organizational committees to coordinate and share information on security prior to 9/11, as well as offering conferences, seminars and workshops. These efforts included a committee on public safety (COPS) with the assignment to “directly interface” with various components of U.S. DOT.

Training Programs

Hull highlighted several pre-9/11 training programs, including the Land Transportation Anti-Terrorism Training Program (LTAP) offered by FLETC (discussed earlier by Sherrie Anderson). Hull also mentioned workshops and seminars offered at industry conferences as well as specific course offerings of the Transportation Safety Institute (TSI) in Oklahoma City, which is funded by the federal government (including RSPA).

While financially supported by the federal government, TSI courses are jointly developed by the industry and TSI and taught by industry-provided instructors. These offerings are quite specific to transportation security: Transit System Security; Transit Explosives Incident Management; Threat Management in Response to Bus Hijacking; Responses to Weapons of Mass Destruction;

Crime Prevention Through Environmental Design; Threat Management and Emergency Response to Rail Hijacking. All were available pre-9/11.

Safety Audits

According to Hull, transit system safety audits have been available to rail transit systems since the mid-1980s. When the industry requested APTA to recommend a common standard for system safety, APTA responded by modifying military standard 882C (originally developed for use by state governments), simplifying the military standard and adding best practices in use by the private sector. The result was the Rail Safety Audit Program, which measures 24 specific factors. Hull reminded his audience that “What gets measured gets done.” The rail safety audit program has two components: (1) to be approved, a newly developed audit program must address all 24 factors; and (2), once approved, the new system must be subject to audit. At least four of the 24 audit factors are directly concerned with security: security, training, emergency response planning, and preparedness.

The rail transit audit program was voluntary when it began in the 1980s. However, in 1995 the Federal Transit Administration made compliance mandatory. From that time forward, all rail transit systems have been required to implement a system safety program conforming to APTA guidelines.

The nation’s 19 commuter railroads now employ a similar audit program developed by APTA in cooperation with the Federal Railroad Administration (FRA). However, the commuter rail audit program (which has increased the number of audit factors from 24 to 29) is still voluntary, as is APTA’s adaptation of the same basic audit framework for use by the bus industry. Twenty-eight bus systems across the country now conduct these audits, including 8 in California. Hull reminded his audience that bus operations constitute 64 percent of the U.S. transit industry.

Hull believes the bus audit program will remain voluntary; however, he noted that FTA and National Transportation Safety Board continue to press for a more uniform national standard for bus safety. He expects FTA to urge all bus operations to develop a system safety plan covering six basic areas: “how you train; how you maintain; how you deal with accidents; how you manage your drug and alcohol program; and—guess what—security.” Hull reported that APTA, along with AASHTO and the Community Transportation Association of America (CTAA), is now collaborating with FTA to encourage participation in this voluntary program.

The FTA has continued its pre-9/11 policy of providing security audits upon request, Hull said. “Quite a number of transit systems took advantage of that, and these audits are still available.” Hull also pledged APTA’s support to his summit listeners, offering APTA-organized peer reviews to help their transit agencies evaluate specific problems or incidents, including those involving security. Hull stated that, “We gather people who are subject matter experts in the industry, and they will come out to your property.”

Hull feels that the safety audit program strongly supports another pre-9/11 transit industry effort that can bolster security, the sharing of best practices. “Because of our involvement with audit programs we are able to look at all aspects of transit agencies, both commuter rail and bus...and advise [agencies] as to what seems to be working well throughout the industry.” Hull announced the launch of a secure FTA website that will share transit security best practices identified by the audit program.

Resource Materials

In addition to sharing best practices, Hull informed his listeners that APTA’s website also has a safety and security forum, which operates a list serve function allowing web users to forward their safety and security questions to other transit industry sites. “If you are wondering if someone has a program, you can pose your question to the industry. If you have an incident, and wonder if anyone else has had something like this (and how they dealt with it) you can pose your query to the industry.”

APTA also provides other resources, including a CD-ROM on emergency response plans that was developed prior to 9/11. For security reasons, this CD contains only generic information, “but it gives you a good basis on which to build an emergency response plan that covers bus, rail, and commuter rail.” Hull also mentioned that APTA is working closely with FTA and the Volpe Center to develop security plan guidelines. These guidelines are available through the FTA’s website.

POST 9/11 TRANSIT INDUSTRY RESPONSE

Request for Federal Support

APTA’s first action after 9/11, said Hull, was to meet with FTA and FRA to convey “what we felt were the immediate needs of the industry,” in terms of capital, operating and R&D expenses. These requests were also shared with

Congress. The total estimated cost for these additional security investments, according to Hull, was \$6 billion.

Industry Meetings

APTA's 2001 annual meeting was held as scheduled at the end of September in Philadelphia, just weeks after 9/11. Over 600 people at the meeting attended a major forum entitled Under Attack, Transit Responds. (This presentation is accessible on APTA's website.) Hull also reminded his audience that APTA had partnered with RSPA and AASHTO to support the Mineta Transportation Institute's October 30, 2001 symposium on transportation security, which became a model for the current California summit.

Security Task Force

APTA responded organizationally to 9/11 by creating an executive committee security task force to provide strategic direction and avoid duplication of effort. "We wanted," said Hull, "to reach out to other associations and other partners." Additional partners mentioned by Hull include the U.S. Conference of Mayors and the National Association of Counties. Hull also reported that APTA planned to work with international transportation associations during the summer of 2002 to create a new forum for exchanging information and collaborating on programs.

TCRP Research

Hull indicated that the Transportation Research Board (TRB) had allocated some \$2 million specifically for security-related research via the Transit Cooperative Research Program (TCRP). The new executive committee security task force will provide oversight and, via the work of two sub-committees (in coordination with TRB), help identify appropriate projects.

The first TCRP project to be approved was a \$300,000 program for two-day security workshops targeting CEOs and senior security executives of transit agencies. Three of the four planned workshops were to focus on rail transit; the fourth targeted bus operations. To add realism, transit terrorism experts from London Transport and Tel Aviv were invited to share their knowledge and experience.

The workshop relies heavily on "what if" scenarios, inviting the attending CEOs and heads of security to "put on bad-guy hats" to help identify major

vulnerabilities in specific tactical situations. Participants then switch to “good-guy hats” and suggest how to respond to the vulnerabilities they have just identified. The plan, Hull said, was to complete the workshop series by May 2002, and then publish a written document (edited for security reasons) reflecting the collective wisdom of participants to share with transit agency leaders unable to attend the live sessions.

Transit Safety Planning Guide

Another project “underway right now,” said Hull, was an update of the Transit Safety Security Program Planning Guide and Security Handbook. This update will focus on “lessons learned” from 9/11 with respect to security-related training and communications, not just in New York and Washington, DC, but in all the other cities affected by 9/11, including those that had to deal with “white powder scares.” At the request of transit agencies “both large and small,” APTA has also developed a generic checklist for emergency response planning. This simple, two-page checklist is based on industry best practices and can be accessed on APTA’s website.

Communications Training Guidelines

An APTA review of lessons learned on 9/11, particularly with respect to anthrax scares and other biochemical issues (primarily hoaxes), concluded that transit agencies need better information on how to manage communications with customers during an emergency. “The industry,” he said, “would respond by developing guidelines for staff communications training.”

Intrusion Detection for Transportation Facilities

Hull indicated that a number of transit agencies were putting advanced intrusion detection technology in place, but that results so far were mixed. He feels the industry needs to evaluate “what is out there right now for intrusion detection and what’s working.” A related research concern, he said, was determining whether portable explosive detection devices (which exist right now) are effective. Hull also mentioned exploring the possible use of dogs for explosives detection in the transit environment.

Emergency Response Mobilization Guidelines

Hull announced that “one of the major projects that we are undertaking” is the development of Emergency Response Mobilization Guidelines for transit. One

issue the guidelines will address is the role of transit in evacuation with respect to other agencies. “We need to look at evacuation not just as a transit entity, but at how we work with all our partners and stakeholders—all the first responders,” including, he added, the Office of Emergency Management and FEMA.

Communicating “Soft” Threats

Hull believes that transit agencies need to create a new mechanism for sharing “soft” information regarding security threats with other agencies, including the FTA, the Transportation Security Agency and Homeland Security. It is important, he asserted, not just to share hard information regarding a major security threat or incident, but also the collective wisdom of experienced transit employees with respect to their intuitive sense of what’s going on, or subtle trends they may have picked up. In order to benefit from this kind of input, FTA and other agencies need a mechanism that plugs directly into DOT’s Transportation Information Operations Center.

OTHER RECENT PROJECTS

Vulnerability Assessments

In the final segment of his presentation, Hull described other post 9/11 government responses to the terrorist threat, primarily those undertaken by FTA’s Office of Safety and Security. This office is currently conducting vulnerability assessments to identify major security gaps underway for 32 transit agencies. Assessment results for specific agencies will remain confidential. However, FTA will use the aggregated results to identify general areas where additional federal support may be needed.

Chemical and Bio Agent Guidelines

FTA has recently developed specific guidelines for dealing with chemical and biological agents in transit and transit tunnel environments. These guidelines were developed in collaboration with industry and have been sent to all rail transit agencies. Hull suggested that some of these guidelines might be transferable to highway environments. However, this is a security-controlled FTA document, and Hull suggested that those who believe they need access should make a direct request to FTA.

Emergency Preparedness Workshops

Hull described 15 regional emergency preparedness workshops, scheduled to begin in May 2002, that target mid-size and smaller agencies and first-responders that work with these agencies. These workshops were specifically intended, Hull said, to provide smaller agencies with training at a level comparable to that already available to larger cities.

Emergency Preparedness Drills

Just a few weeks prior to this summit, the FTA Office of Safety and Security announced that funding and technical support for preparedness drills would be made available to state and local agencies on a request basis. This support, Hull observed, was based on FTA's recognition that "Drills cost money. They cost money to pay people for overtime and to get the equipment out there."

Need for Better Links between Transit Industry and Government

Hull believes that it is essential for the transit industry to develop better links with FTA, TSA, and Homeland Security. As an example of the need, he cited the apparent confusion surrounding Homeland Security's "Threat Advisory" announcements." What do the various threat levels specifically mean to transit agencies? To help clear up this confusion, Hull said that APTA is "working with FTA and TSA right now" to find out how to apply each threat level to transit operations and to other modes of transportation. Hull also reminded his listeners of the need to lobby Washington for additional security support—as well as technical and training support—in the next reauthorization of TEA-21.

Clearinghouse for Security Technology

Hull spoke about the need to create some kind of clearinghouse to help sort through the barrage of marketing material promoting new security technology. Hull acknowledged his own difficulty in evaluating competing claims, admitting, "I don't know what's really good." Recent meetings between APTA and Homeland Security indicated that many other agencies and organizations are having similar difficulties. One possible resource for advice regarding new technology, Hull advised his listeners, is the Technical Support Working Group (TSWG) at the Department of Defense, whose mission is to coordinate research to combat terrorism.

As his final point, Hull repeated, “what we have heard so often here,” the need to “drill, drill, drill.”

SUMMARIZED QUESTIONS & ANSWERS FOR AFTERNOON PANELS

OAKLAND SUMMIT SESSION, MARCH 28, 2002

WARREN WEBER, CALIFORNIA DOT

What is the panel's reaction to an American Association of Railroads (AAR) proposal to foil would-be terrorists by removing railcar logos that identify hazardous contents, such as chlorine or sulfuric acid?

GREG HULL

The consensus at a recent transit industry meeting (which AAR attended) is that this proposal is impractical because it would place first responders in peril; they would not know what hazards they were dealing with; this proposal will therefore not move forward. However "less visible" means of identifying hazardous materials (such as bar codes) should be explored.

CATHERINE SHOWALTER

More public involvement could mitigate the threat of complacency cited by several speakers. How do we get the word out to the public as to how they can get involved?

STEVE HEMINGER

Use every medium available: Play taped messages on the telephone while callers to your agency are on hold; use billboards; ask association magazines to run your messages; and advertise on your websites.

SHERRIE ANDERSON

Coordination across an entire region is not only possible, it can make a difference. Transcom, a greater NY area group of transportation professionals, helped facilitate transportation operations throughout the Northeast on 9/11. Group members relayed the latest traffic flow information from the Emergency Operations Center in NYC to their own transportation organizations and others as far north as Maine and as far south as Delaware.

STEVE HEMINGER

Most major transit systems already use public address announcements to enroll passengers as additional “eyes and ears” to report suspicious packages. The web is another key resource. Public web inquiries to New York City Transit hit 1 million per day immediately after 9/11 and have continued at a high level.

NANCY OKASAKI, MTC

MTC has a Memorandum of Understanding (MOU) with major transit operators in the Bay Area, including Caltrans (as well as CHP) to support California’s state Office of Emergency Services’ role as a public information clearinghouse during earthquakes. This MOU could also apply to terrorist attacks as well; I invite you to contact me for more information.

UNIDENTIFIED PARTICIPANT

If community groups were willing to invite speakers, would CHP or other agencies be willing to come?

STEVE HEMINGER

Absolutely. Speaking at public forums is a command responsibility of your CHP area commanders; they welcome requests. I encourage your organization to contact your local CHP.

LOS ANGELES SUMMIT SESSION, MARCH 29, 2002**HERB COKA, FTA METRO OFFICE LOS ANGELES**

(to Nancy Houston) You said that only one FHWA-sponsored emergency preparedness workshop focusing on ports of entry is currently funded. I hope you will add more because the issues at various ports of entry vary considerably.

NANCY HOUSTON

I agree. We are attempting to get additional funding because the demand is great. We are also trying to ensure as much geographic coverage as possible. FHWA is coordinating with FTA to make sure that our respective workshops

are held in different locations. The president has also committed to a more open U.S.-Mexican border, so federal motor carrier safety people are also planning additional activities.

UNIDENTIFIED PARTICIPANT

Two other DOT agencies very much involved with ports and border crossings, are the Coast Guard and the Maritime Administration, which have recently launched a port security program, initially funded at \$90 million. Also, the president's commitment to opening up the U.S.-Mexican border has clearly put a burden on DOT's motor carrier administration to expand its border programs.

DARREN WANG, CALIFORNIA DOT

After hearing today's presentation, I have a question: How secure do we want to be? How much do we want to spend in terms of security?

SHERRIE ANDERSON

We want a secure system, yet we do not want to impair mobility. We want potential terrorists to perceive that something is being done; yet we know that regardless of how much we spend there is no absolutely secure system that "will prevent a bad guy from getting into your system." We are not trying to create a "Fort Knox" in the transportation arena, but we have to do something in order to protect the system.

GREG HULL

We could make our system 100 percent safe, but if we do, nothing is going to move. People will not be transported. Today we are moving 9.5 billion passengers a year. A certain level of risk exposure is unavoidable. The challenge, I believe, is to be able to demonstrate diligence.

ABBREVIATIONS AND ACRONYMS

511 system	Traveler Information System
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ABAG	Association of Bay Area Governments
Al-Qaida	Established by Osama bin Laden in the late 1990s to bring together Arabs who fought in Afghanistan against the Soviet invasion. Helped finance, recruit, transport and train Sunni Islamic extremists for the Afghan resistance
APTA	American Public Transportation Association
BATWING	Bay Area Terrorism Working Group
Caltrans	California Department of Transportation
CCTV	Closed Circuit TV
CHP	California Highway Patrol
CMC	Crisis Management Center
COPS	Committee on Public Safety
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
CTAA	Community Transportation Association of America
DAG	Direct Action Group
DOD	Department of Defense
DOT	Department of Transportation
EOC	Emergency Operations Center
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
HazMat	Hazardous Materials

FLETC	Federal Law Enforcement Training Center
ICS	Incident Command System
ITS	Intelligent Transportation Systems
LTAP	Federal Law Enforcement Training Program
MOU	Memorandum of Understanding
NISC	National Infrastructure Security Committee
NY-MTA	New York Metropolitan Transportation Authority
PATH	Port Authority Trans Hudson Rail System
PIO	Public Information Officer
RSPA	Research and Special Programs Administration
SARIN	Colorless, odorless gas that is 20 times more lethal than potassium cyanide
SEMS	Standardized Emergency Management System
STRAHNET	Strategic Highway Network
TSA	Transportation Security Agency
TSI	Transportation Safety Institute
TSWG	Technical Support Working Group
USAR	Urban Search and Rescue
WMATA	Washington Metropolitan Area Transit Authority