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HOMELAND SECURITY WARNINGS: LESSONS
LEARNED AND UNLEARNED*

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The intent in this paper is to examine the Homeland Security Advisory System, to point out the main reasons for its failures, and to offer an alternative approach based on what is known in the social sciences of disasters about effective warning systems.

The Homeland Security Advisory System. The Homeland Security Advisory System (HSAS, for the full description see http://www.dhs.gov/dhspublic/display?theme=29) consists of five levels of terrorist threat: Low, guarded, elevated, high, and severe, associated respectively with the colors green, blue, yellow, orange, red. Each of the five levels brings with it a set of recommended actions for federal departments and agencies. The manifest intent is to increase these agencies' readiness to respond to terrorist attacks, and to relate the level of comprehensiveness of their response to the threat to the level of severity of the threat.

Unresolved Difficulties. The reasons for the failures of this system are rooted in the unlearning or the ignoring of lessons learned over the many decades of evolution of the institution of risk management in the United States. It is ironic that this should be the case, for warning systems have attracted sustained research attention in the social sciences of disasters for a number of decades, so that by now there is a strong degree of consensus as to what makes for effective warning systems and what makes for effective warning messages. The literature on the social science of warnings is extensive (for recent summaries see Subcommittee on Natural Disaster Reduction, 2000; Tierney, 2000; Partnership for Public Warning, 2003). At the macro level, Joanne Nigg's concept of an integrated warning system incorporates this consensus. As she points out, an integrated warning system has the following parts: the creation of forecasts about the hazard;

writing the warning and disseminating the forecast; and the preparedness and response of the mass media, emergency management community, political leadership, industries and other economic actors, and the general public and its segments, to include sub categories deemed at high risk such as children and the elderly, the handicapped, and minority populations. An integrated warning system also includes public education about the threat, as well as encouraging families, business firms and public agencies, as well as communities to mitigate the threats and to establish credible response systems to alleviate the effects of disasters when they occur, for people cannot respond appropriately if they lack the means to do so. Much agreement exists about what makes for effective warning messages, and their need to be clear and understandable, accurate, frequent, credible, specific to the life situation of the intended users, giving potential victims specific instructions about the likely effect of the hazard and about what they should do to minimize their vulnerability. Even in the best of systems, how people will eventually respond depend only partly on the warnings they receive, for other matters, such as personal disabilities, previous experience and knowledge of the hazards, social memberships in social networks and cultural formations, and proximity and other physical clues to the hazard, have important impact on how people define the situations in which they find themselves and fashion their lines of action.

A Successful Warning System. Perhaps the most successful example of an integrated warning system at present is the one protecting people in the U.S. against hurricanes. It is worthwhile to outline some of its most important features:

1. The National Hurricane Center (http://www.nhc.noaa.gov), in Miami, Florida and the National Weather Service are the two main federal agencies in charge of issuing

hurricane forecasts. The Center is the home to scores of scientists and meteorologists involved in hurricane forecasts and predictions. They have established a tradition of service to the public and are a credible source of scientifically valid, reliable and effective information about hurricanes that people take very seriously.

2. The Center has developed a sophisticated methodology to word various types of warning messages which incorporates the well known Saffir-Simpson Hurricane Scale based on physical measurements, and communicate and assist relevant mass media, emergency management community, political leadership, economic sectors, and privately owned weather service organizations. It also participates in extensive public education efforts to help people understand the risk of hurricanes to the West and Gulf of Mexico coastal states and minimize their effects.

3. The place of their warnings in the larger system of localized response and mitigation efforts is well known. Thus, the local and state emergency management community works closely with the National Hurricane Center to put in operation the relevant disaster plans and establish the proper time to issue evacuation orders. The elected officials of the impacted communities are part of the emergency plan, know where they must be to make decisions to protect their communities, and have developed working relations with the emergency managers and other emergency responders. The evacuation routes are marked and well known to the local population, as are the location of public shelters, medical care facilities, and other organizations caring for the evacuees.

4. The National Hurricane Center is successful not solely because it houses experts and scientists in the various sciences concerned with hurricane forecasting and prediction, and not only because it issues effective warnings, but also because it takes

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into account the need of the users of its forecasts and predictions and because it is part of an integrated warning system in which various sub systems are also involved such as public schools, transportation departments, hospitals, and guest communities which in turn generate their own hurricane related programs and policies such as high wind building code regulation and enforcement, land use regulation and coastal development guidelines. The end result is the gradual increase in the resilience of the communities and regions exposed to the effects of hurricanes.

What the HSAS Is Not. It is useful to compare this system to the HSAS in place today:

1. The HSAS is not a warning system. The five color flags are inadequate to communicate the risk of terrorist attack (for some of the mutually contradictory messages of HSAS and the FBI terrorist alert system, as well as the misuse of HSAS on international-oriented threats see Pena, 2002a; 2002b; 2002c; the mass fears generated by HSAS and who profit from it are spelled out by Reynolds, 2003). It has not developed an appropriate methodology to word various types of warning messages about various types of terrorist threats. The advisories and the colors people make fun about apply to the entire country rather than to specific regions and communities, rendering them useless as warnings. Nor is there a methodology to communicate this information to the mass media, emergency management community, political leadership, economic sectors, and the general public. HSAS does not participate in effective public education efforts to help people understand the risk of various types of terrorist threats and what people can do to minimize their effects.

2. The place of HSAS in a larger system of localized response and mitigation efforts is not worked out. The function of local and state emergency management agencies is not specified. The function of local and state elected officials is not specified. There are no disaster plans that incorporate HSAS in a comprehensive fashion in the response to the various terrorist threats, nor are there mitigatory activities that communities could implement. The behavioral responses desired from people responding to the advisories are not specified, a fact which creates considerable anxiety in the public. Policies to combat terrorism at the basis of the HSAS need to be based on realistic scenarios regarding how citizens will react to these events. As Perry and Lindell point out (2003), it can be expected, on the basis of what is known about how people typically respond in moments of crisis, that they will be fearful but rational, proactive, and in compliance with the official recommendations they receive. Moreover, such policies must recognize that it is not possible to protect against all types of terrorist attacks, so that choices must be made about the types of attacks that will be considered.

3. HSAS does not take into account the need of the users of its predictions; it is not part of an integrated warning system in which various sub systems of the threatened communities would be involved.

The argument that terrorism presents a configuration of tasks that are so different from other hazards as to require an entirely new approach has been made, and is reminiscent of previous arguments about the uniqueness of man-made if compared to natural hazards. In a characteristic statement of the present-day emphasis, Wise and Nader (2002: 46) argue that terrorist attacks present unique tasks; they

(I)impose a new level of social, economic, and fiscal dislocation on the nation and its communities, and they involve the use of many specialized resources that go beyond the

capabilities of state and local governments…(the) potential to cause catastrophic damage quickly, and in so many different ways, using difficult to anticipate modalities requires government agencies to diagnose the threats, decide on the most effective courses of action, and respond in an integrated fashion within extremely compressed time frames…unlike floods and forest fires…(there are) more serious sources of uncertainty…(1) understanding of the performance of the various types of terrorist weapons on civilian populations…;(2) warning time; and (3) predicting public reaction and behavior to terrorist attack….

Undoubtedly, terrorist attacks are along certain dimensions different from other hazards, for example, the work in them of crime investigators and intelligence services, and the need to combine corporate and public programs, and these dimensions cannot be minimized (Trim, 2003). However, as the institution of risk management has evolved in the U.S. there is widespread consensus that, from the perspective of maximizing the effectiveness of organized efforts to protect the public, an all hazard approach is the optimum approach to use. For example, the tasks faced by federal urban search and rescue units attempting to extricate victims of volcanic explosions, earthquakes and terrorist explosions do not change because of the origin of these hazardous agents, but rather change due to the configuration of collapsed structures, access and command and control of the site, and the presence or absence of a division of labor and workable relationships of the USAR units with the local fire and police departments and other local, state, and federal actors involved in the societal response and emergency management operations. Thus, from our perspective most of the claims in the above quote are misdirected. For example, earthquakes, volcanic eruptions, hurricanes, floods, to name a few natural hazards, have the potential to have multiple catastrophic effects on large regions and often involve very limited response time, requiring federal assistance. Moreover, there is no reason to assume that people will panic or that they will respond to terrorist attacks differently than they respond to other hazards.

4. It is unclear who are the persons or entities that should respond to the warnings. The explicit intent is for federal departments and agencies to do so, but in fact local and state agencies, as well as persons in the general population receive the warnings and are urged to take unspecified protective actions. Whether intended or not, the involvement of local jurisdictions as responders in the HSAS creates important uncertainties, for the system is a federal system and until now, its attempt to incorporate local jurisdictions in its response and preparedness efforts have been ineffective (PoliceOne, 2002): following long term traditions in the political system of the country, emergency management programs and tasks are defined as local responsibilities, with federal agencies acting to support local initiatives, exemplified in the work of the Federal Emergency Management Agency, so that the HSAS represents a very drastic de facto departure from this established mode of operations.

5. In contrast to the National Hurricane Center, the Undersecretary for Information Analysis and Infrastructure Protection, responsible for creating the terrorist forecasts, operates in secrecy. By the very nature of the work of the Undersecretary, the public does not know about its operations. In practical terms, however, the real problem is less the operational secrecy of the Undersecretary than the lack of reliability of its terrorist warnings; the validity and reliability of its forecasts are doubtful--so far, not one of them has come true! Obviously, the logic of the very warnings it emits is of doubtful value, for terrorists, if compared to hurricanes, can react to the warnings and prove them incorrect, and in so doing contribute to their lack of reliability. While not usually recognized, apparently HSAS has been created not so much as a warning system than as a terrorist mitigation tool used by the federal government to discourage terrorist attacks. If

true, then the implications needs to be explored: Are there some other ways to let terrorists know that we know what they are planning or going to do?

6. Complicating this lack of reliability is the partisan political nature of the agency. It is nowadays so closely connected to the Bush administration through the person of the Attorney General of the U.S. that for many it appears as one of the tool that the administration uses to carry out its political goals to win elections and influence legislation and political life in general. An important change that is needed is for the Undersecretary--and for the Department of Homeland Security more generally--to acquire organizational independence from the White House as a branch of government service (for an extended discussion of Homeland Security from a public administration perspective see Newman, 2002; Donley and Pollard, 2002).

Summarizing some of the most important problems with HSAS, the hazards it addresses are unspecific as to their origin, the nature of the threats, their time and place configurations and what to do about them; the likely victims are unknown; the local government and emergency management response networks as well as the local and state political systems do not participate in preparing and mitigating their effects; and it lacks an accurate understanding of the social psychology of people's response to warnings, assuming instead an undifferentiated public that automatically behaves as it is told by the authorities. Moreover, it confuses warnings with mitigation and it is too closely linked to partisan political processes.

An Alternative Approach. The lessons unlearned must be learned. For decades, the US taxpayers have supported scientific research on disasters and warning systems. The resulting information is readily available and can be of great use to Homeland

Security.   HSAS needs to disappear. It is a bad idea that will not work, for it violates most of the central principles of sound warning systems. It came about under the enormous pressure of the days following the September 11th Attack, but we can do better (Herring, 2003). The need for secrecy to safeguard the national interest, inherent in anti-terrorist governmental activities, cannot be successfully reconciled with the needs of an integrated warning system, which is founded on open access and coordination among multiple agencies, organizations, and the general public.

Based on our accumulated experience in the social science of disasters, an alternative approach to the terrorist threat would use the tremendous opportunity that the present crisis created (on this point see Rubin et al., 2003) to:

1. Educate the general public about the threat of terrorism and the impact of different weapons of mass destruction to the communities and regions where they live. We need to stop taking in generalities about WMD and start educating people about what these weapons are and what people can do to protect themselves against their effects.

2. We need to stop talking about undefined terrorist threats for the entire country and start talking about the specific vulnerabilities of specific communities to specific WMD threats; what is needed is the development of likely scenarios that will personalize the threat rather than doomsday accounts that create hopelessness and mass fears.

3. The local emergency management community once again must be an integral, central part of our preparedness, response and mitigation efforts.

4. Perhaps most importantly, the present crisis is a propitious time to begin to change the culture of the society, to make it more sustainable, to change people's way of life and increase their collective resilience, not just against terrorist hazards but also

towards a number of other natural and man made risks, hazards and disasters that impact

their lives. It is in this context that we need to start providing people with assistance and

training, to encourage community development (Marsh and Buckle, 2001) that will help

them cope and survive and have happier lives

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