

NATIONAL SECURITY HEALTH POLICY CENTER

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IMPLEMENTING SHIELDING

Executive Summary.

Shielding is a relatively simple but powerful adjunct solution to the problem posed by a potential or actual bioterrorist event. It compliments existing strategies and extends the protection that can be afforded to the nation in a time of crisis. When implemented prior to an attack it provides clear guidance to civilians that may be affected by the threat, it can serve to reduce the likelihood of an attack succeeding, and can provide a sound basis on ensuring the continued functions of the nation that underpin its current success. The shielding concept can be readily understood but implementation is best achieved through clear direction from the nation's leadership and encouragement of the population to plan for a shielding effort. Shielding is a concept in which every citizen plays a role.

In an optimal implementation the shielding concept would be initiated immediately with a phased approach to its use to protect the nation. The immediate actions in implementation require that the socio-political aspects of the shielding concept is endorsed by senior leadership; this endorsement needs to include aspects of Homeland Security, Health and Human Services, Congress, and the Executive Branch. The leadership needs to describe the concept, the role of the public and through the media the public needs to be informed of the utility and strengths of shielding. The concept needs to be mentored and guided by the leaders in functional and operational aspects of homeland security – the involvement of the medical, first responder, and incident management communities must provide clear, concise guidance on shielding. There is a critical role for the media and for the business community – the media messages and the infrastructure support that businesses can uniquely provide will establish shielding as a concept that will get public support and build the trust that is so sadly lacking in the current plans for an incident. Finally, the public must be engaged to act to phase in shielding. The implementation requires nothing more than planning in the first instance – planning under conditions of calm and confidence. As the threat increases the plans shift to actions and at the time of an attack the country will be prepared and can act.

The paper provides one method for implementing shielding and a mechanism to begin constructive dialogue immediately – now is not too early to begin the process; with an increasing threat that heightens each and every day - tomorrow might just be too late. (Note: This paper is based on prior publications by CIAG on shielding¹ and the published work of Paul t'Hart².)

¹ Shielding publications:

² References: t'Hart, P., Rosenthal, U., & Kouzmin. "Crisis Decision Making." *Administration and Society*, Vol 25, May 1993, 12-15. t'Hart P. "Coping With Crisis." *Proceedings of the International Conference on Crisis Management at the National Level*, Stockholm, 1996.

Background.

The basic problem that confronts the assembly of a plan for implementing shielding, or any plan to address the threat from bioterrorist incidents, is the lack of useful/useable examples from which to derive effective plans. This is not however a unique problem – it is one faced in the management of many critical incidents. In this paper the issue of developing an implementation plan will be addressed and some suggestions made about how the plans might be examined for their utility to those charged with providing public leadership.

Our experience of crises around the world has shown that lessons can be learned about crisis management and that there are some important heuristics that can be applied to a plan for implementation of shielding. The application, and leverage, of these heuristics will enable a plan for implementation of shielding to be developed with maximum efficiency. The key issues requiring input from a United States Federal perspective are presented below:

1. Political Imperative:

Critical incidents or other situations, which are characterized as threats to national security, will tend to be dealt with from the highest political level (Svensson et al., 1997³). *Bioterrorist incidents will necessarily invoke Federal management.*

2. Strategic and Operational Management:

Paul t'Hart, of the University of Leiden⁴, maintains that responsibility for crisis management at the *strategic level* not only concerns the operational-functional aspect of crisis management, but also the socio-political context. The strategic aspect of many crisis management structures is synonymous with political structure, involving political decision-makers and political advisers as principal actors, whereas actors “in the field” represent operational levels. According to t'Hart, crisis management is often portrayed simply as a collection of technical problem solving activities, whereas in many cases it deals heavily with questions concerning power structure, legitimacy and political communication. *The management of a bioterrorist incident, using any or all of the following: quarantine, vaccination, evacuation or shielding, will require leadership at a strategic, i.e. political, level.*

³ Reference: Svensson, J.E., et al Swedish Defence Establishment FOA-R-97-00445-170-SE.1997

⁴ Reference: *Ibid.*

3. Interactive Implementation:

According to Pauchant and Mitroff⁵ (1992), crisis management can be divided into three types: *proactive*, *reactive* and *interactive*. Preparedness planning, preventive measures and mitigation constitute proactive management. Reactive crisis management is carried out after a crisis has developed and is focused on reducing damage and facilitating recovery. Finally, interactive crisis management aims at maintaining a continual learning process based on earlier experience with crisis situations or as part of preparedness planning. The term *active* crisis management refers implicitly to the actual acute phase of crisis management. *Shielding will require active management to be maximally effective.*

4. Management Features:

Leadership, co-ordination, information processes and media relations are central critical factors influencing how crises are perceived, experienced and responded to. Conversely, the nature of the crisis situation, its origin and scope -- and the degree to which it can be managed with the resources available -- are crucial for determining whether the situation should be managed from an operational-functional or a socio-political perspective. *Crisis management must acknowledge the crucial role of many factors in determining both outcome and perceived outcome of any critical incident.*

5. Implementation:

An operational-functional disposition is primarily directed towards the technical-functional aspects of command, coordination and information. This can be interpreted as the "world of the operative manual" – for those responsible, a necessary but hardly sufficient aspect of crisis management. Often, if not invariably, in order to avoid political fiasco, the socio-political disposition of the crisis manager must also express itself. According to t'Hart, this can be achieved by making the political and symbolic aspects of command and coordination explicit and distinct, and by crisis managers displaying responsible, confident roles in their dealing with media and other intermediaries. *The interactive dynamic between the operational/functional levels and the socio/political levels will be critically important in the crisis management process.*

⁵ Reference: Pauchant, T.C., & Mitroff, I.I., *Transforming the Crisis-Prone Organization*. San Francisco: Jossey-Bass, Inc., 1992.

Conclusions:

Implementing shielding will require a focus on both the operational requirements and the political (socio-political) input that will insure that the action can be properly led and effectively implemented.

When will shielding be implemented?

The process of implementing shielding must begin in advance of the incident – in fact the earlier the better – the greater the degree of planning for shielding prior to its engagement the better the public response. To that end the process of implementation should begin immediately and be ‘ramped-up’ as soon as possible. Having said that it is clearly not the case that in implementing shielding we are advocating that as of now the public begin operating in a ‘shielded’ mode – the process needs to be ‘phased’, with the early phases comprising guidance and information on the topic. With an increased threat, or over coming months, the implementation can become more focused on critical actions for each shielding unit (family, community, etc). The full implementation, requiring direct action rather than planning (and possible dry-runs) would be implemented with direction from political, scientific and medical advisors and leadership. The decision to implement needs to be conditioned by sound advice and appreciation of the particular threat or critical incident. The very act of planning for the implementation of shielding will dramatically improve our response capability and may even act as a deterrent – given the uncertainty resulting from having a population that is in part protected rather than unprotected.

Given the requirement to implement shielding in a phased manner the question of how to approach a time/action-dependent phasing needs to be addressed – in the next section a model approach is provided together with examples of how the model can be populated with useful information and tested for its utility.

The basis for the model is a matrix that cross-correlates the increasing threat of terrorist actions through to the major types of bioincident with the required actions by various sections of the population. The matrix approach permits the overall plan to be broken down into segments that can be readily addressed in isolation and then combined to provide a comprehensive overall plan for shielding. The matrix also defines the individual actions or group actions that need to be

coordinated, identifies the interrelationships between groups, and even helps define connectivity, reliance, and mutual support that can be fostered through a shielding program.

Matrix components.

Vertical Axis: This is a time dependent spectrum of a shift from threat to incident. In the case of both the threat and the incident there is a subdivision to provide for a better coordination of the shielding program. The threat portion is probably best linked to an existing threat advisory system such as that currently employed by the Nation through the Homeland Security Advisory System⁶ (HSAS). This system provides the requirements of indicating in a concise manner both the probability of an attack and its potential gravity. It also has the necessary granularity in that it can be applied to the whole country or to specific locales based on data from the relevant federal organizations. The linkage of the HSAS to shielding under the leadership of the Executive branch will ensure that there is coordination between the required agencies. Furthermore, the HSAS was launched in part to “*prompt the implementation of an appropriate set of Protective Measures. . . the specific steps an organization shall take to reduce its vulnerability or increase its ability to respond during a period of heightened alert.*” Shielding will meet both of these goals and be enhanced by linkage to the HSAS.

The actions after an incident, or presumed incident, are also subdivided – in this case according to an as yet arbitrary set of parameters that require further definition. In essence they range from ‘*stand-fast*’ (a State Department concept used in overseas deployments but very useful in shielding⁷), through ‘*all-clear*’, to ‘*action required*’, which in turn has divisions between ‘non-contagious’ and ‘contagious’ disease states. Again this granularity helps to better define the process of shielding and allows for better definition of implementation.

Horizontal Axis: This axis defines the major groups that will have roles in implementing shielding. They range from major leadership groups, through incident managers/first responders, the media, to those shielding (families, etc.) and includes those who would support and sustain shielding (business, etc.).

⁶ Reference: www.whitehouse.gov/news/releases/2002/03/print/20020312-5.html

⁷ Ambassador Howell – Personal Communication

The Intercepts: The matrix once formed needs to be populated with the types of data described below – each intercept describes roles and responsibilities for each group under each of the conditions from threat through contagious incidents. The intercepts can also be described in terms of their interrelationships, connectivity, dependence etc. The model has the benefit of simplicity but is very powerful in terms of describing the implementation of shielding in any population.

Shielding Matrix.

	Government Fed/State/local	NGO's	Media	Families	Communities	Business	
Condition							
Threat							
Low							
Guarded							
Elevated							
High							
Severe							
Incident							
Stand-fast							
All clear							
Non –contagious							
Contagious							

The Matrix Contents.

The inputs to the matrix can take many forms and serve to illuminate key areas or answer specific questions about particular actions by the ‘group’ under the designated ‘condition’. The matrix will likely take the form of a series of questions, guidelines, protocols and other data that has interactive capacity for those end-users who seek to develop its potential to guide the shielding process. There is a requirement for both the development of the types of data that would populate the matrix and a need to define how that information is best obtained – this is an undertaking that is as yet unfounded; for now this paper provides some illustrative examples and suggestions. The major inputs will include; strategic and operative crisis management, coordination/communication, information processing, and media interaction. The content will be developed by individuals, groups, and organizations either in isolation or through cooperative efforts, especially if those

efforts are supported through simulations or modeling of the critical incidents such as bioterrorist threats or simulated attacks.

One of the key parameters will be to obtain information in each of the categories that addresses the following topics: Management/Command/Leadership, Coordination, and Information. In each case the data inputs and outputs should be classified to facilitate the systematic collection and structuring of the information to enable the matrix to be used by diverse end-users. The data may be developed from the literature, through analysis of current crisis management plans, through questionnaires, or even through observing simulations and modeling. Some matrix contents require specific analysis. For example, in the important issue of the Media it will be important to subdivide the content into categories such as; Media and the Authorities, Media and Media Sources, and Media and Media Consumers.

The net result of a populated matrix will be the analysis of a large range of factors that can be interrelated and investigated for sufficiency in the face of a bioterrorist incident – presumed or real.

Simulation, Modeling and Testing the Shielding Concept: ‘Filling the Matrix’.

One of the major hurdles for the simulation, modeling and testing of the shielding concept is the absence of useful data on the type of critical incident that shielding is best suited to i.e. bioterrorism. The lack of bioterrorist events (a merciful fact) means that it is has been difficult to build up experience of how to successfully manage such types of situations. Historically, such experience would be the natural point of departure for designing training programs and developing gaming techniques for responsible authorities and groups at different societal levels. However, properly designed, gaming and training can compensate for the lack of actual experience. Also, knowledge about how people react and how decisions are made in other critical situations, and even in other countries, can partially compensate. For example, much can be learned about the issues of quarantine and even a modified form of ‘shielding’, by reviewing the data from the recent outbreak of ‘Foot and Mouth Disease’ in the United Kingdom⁸.

Crisis management techniques and the shielding concept can also be studied through creating experience by simulations and by modeling i.e. by proxy, so to speak. This can be accomplished by creating fictitious crises and scenarios in order to test the quality of already existing crisis

⁸ Reference: UK food and agriculture agency – DEFRA.

management planning, including the actors associated with this planning. This technique has already been used in the United States to study the impact of bioterrorist incidents⁹. In this case the addition of a 'shielding' component adds significant flexibility and expanded options for crisis management.

Scenarios provide decision-makers with animated, graphic portrayals of events which can aid in the analysis of possible threats and risks. The use of scenarios as an instrument for developing and training crisis management skills is not uncontroversial. Scenario builders have been criticized for not being especially good problem solvers. Indeed, Dynes¹⁰ (1996) maintains that crisis management is not a question of formulating problems but of developing structures in order to solve problems. Provided that scenarios represent events that can occur, with at least some measure of likelihood, they can be powerful instruments for studying the conditions for crisis management in the present and near future, as well as the consequences of different crisis management approaches and dispositions.

Aside from scenario and gaming techniques, the usual way to study crisis situations is to make case studies *in situ*. This is most useful when investigators wish to come into direct contact with the crisis environment and learn first hand about crisis management structure and procedures. However, when investigating crisis management procedures outside one's own native country, we must take into consideration institutional and administrative cultures – i.e. specific "rules of the game" and cultural expectations – which may differ radically from our own. This may affect the reliability of observations and, in turn, influence the interpretation of both the course of the crisis and the crisis management procedures themselves.

Dr. S. D. Prior
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⁹ Reference for exercises "TopOff" and "Dark Winter".

¹⁰ Reference: Dynes, R.R., "Comparing and Generalizing from Crisis Experiences: Pitfalls & Possibilities." *Proceedings of the International Conference on Crisis Management at the National Level*, Stockholm, 1996.