

*Executive Summary***Why Was Boston Strong?****Lessons from the Boston Marathon Bombing¹**

On April 15, 2013, at 2:49 pm, an improvised explosive device (IED) detonated near the finish line of the Boston Marathon. Three people died, and more than 260 others needed hospital care, many having lost limbs or suffered horrific wounds. Those explosions began about 100 hours of intense drama that riveted the attention of the nation. The response by emergency medical, emergency management, and law enforcement agencies and by the public at large has now become known colloquially as “Boston Strong.”

This report, through analysis of selected aspects of the Marathon events, seeks lessons that can help response organizations in Boston and other locales improve preparation both for emergencies that may occur at “fixed” events like the Marathon and for “no notice” events like those that began with the murder of Officer Collier at MIT and concluded the next day with the apprehension of the alleged perpetrators in Watertown. The report is primarily based on a series of intensive interviews conducted in the summer and fall of 2013 with senior leaders of major law enforcement, emergency management, and emergency medical organizations who candidly shared their experiences in and insights about these events.²

Viewed as a whole, the events following the Marathon bombing posed enormous challenges. The response spanned geographic boundaries, levels of government (local, state, and federal), professional disciplines, and the public and private sectors, bringing together in both well-planned and spontaneous ways organizations with widely varying operating norms, procedures, cultures, sources of authority, perspectives, and interests.

The research points strongly to the fact that the emergency response following the bombing in Boston and the events in Cambridge and Watertown at the end of the week were shaped to a substantial degree by the multi-dimensional preparedness of the region. Response organizations have undertaken detailed and careful planning for the many fixed events like the Marathon that are staged annually in the Boston area. They have seen to the development of both institutional and personal relationships among response organizations and their senior commanders, ensured the adoption of formal coordination practices, regularly held intra- and cross-organization drills and exercises, and generated experience during actual events. Importantly, the senior commanders of these organizations seem to have internalized the “mindset” of strategic and operational coordination.

The research also suggests that the major contributing factors to much of what went well – and to some of what went less well – were *command* and *coordination* structures, relationships, and processes

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² This report also benefited significantly (1) from a half-day conference in February 2014 with most of the interviewees who vetted the facts and critiqued the provisional conclusions of an early draft and (2) from a day-long “expert dialogue” in March 2014 with about 100 participants from the Boston region, other parts of the United States, and a number of other countries.

through which responding organizations were deployed and managed. The response organizations – particularly at senior levels – demonstrated effective utilization of the spirit and core principles of the National Incident Management System (NIMS), mandated by Congress in 2002 but still a work in progress in many areas of the country. But the many highly positive dimensions of inter-organizational collaboration in the Boston response are juxtaposed with some notable difficulties in what might be termed “micro-command,” i.e., the leadership and coordination at the street level when individuals and small teams from different organizations suddenly come together and need to operate in concert. The integration of NIMS into the practices and cultures of emergency response agencies is a work in progress – very promising but still incomplete, particularly at the tactical level of operations.

Recommendations

Strategic Command

- **Senior leaders should participate in a unified command at the strategic level and avoid being pulled back into making tactical decisions and directly overseeing basic operations.** While some engagement with rapidly evolving tactical matters is necessary, top commanders should concentrate on working with their peers in other organizations to establish an integrated, cross-agency, policy perspective that looks at the big picture context and a longer time frame.
- **Senior response officials (i.e., those directly under top commanders) should be carefully prepared *in advance* through training, exercises, and actual experience to assume responsibility for intra-organizational tactical management during crises.**
- **To help ensure leaders’ strategic focus and opportunity for effective coordination with peers, contingency plans for fixed events like the Marathon should provide for well-equipped, secure facilities for top commanders to work together in the event of an emergency.** This command post should be close to but separate from the location of subordinates who manage tactical operations.
- **Organizations must develop sufficient depth of leadership so that they can rotate personnel regularly during extended events; otherwise, they will inevitably falter from fatigue.** By Friday evening, many of the people managing the overall event had been awake for 36 or more hours and, more generally, had been sleep deprived since Monday’s bombing. Both they and their deputies had been more than fully deployed throughout the event, leaving no unused (rested) capacity in the system. Failure to provide for sufficient downtime for senior officials inevitably degrades their judgment, ability to comprehend information, and performance of even normal tasks. Allowing for regular rotation requires creating more personnel depth in these leadership positions.
- **Senior leaders should not be unduly exposed to the enormous flow of raw information, lest their attention be diverted from strategic issues and problems.** In an event with 24/7 news and social media saturation, there is an enormous amount of information circulating at any given time, much of which is misleading or wrong. This stream of data needs to be filtered and organized for top level leaders so they can concentrate on interpretation and strategic issues.

Tactical/Local Command

- **Response organizations must develop procedures and practices to better control “self-deployment” by individual personnel to the scene of emergency action.** Dangerous situations that threatened both responders and bystanders developed at the scene of the Thursday night shootout

and Friday apprehension of the second suspect in Watertown, in part because of an overload of individual public safety officers operating as individuals rather than in disciplined units.

- **Public safety organizations should develop improved doctrine, better training, and practice through exercises to ensure effective “micro-command” in crises.** While officers typically look for command authority when operating at a scene with groups from their own agencies, they are less likely to do so when they have deployed as individuals and arrive at an emergency site on their own. Except for situations when near-instantaneous action is required to preserve life, doctrine should be developed and officers should be trained to look for authority at a scene of mass action, even if command is taken by someone from another organization.
- **Improved discipline and training is needed to control weapons fire when public safety officers from many organizations are present.** Control over fields of fire and authorization to fire is another critical micro-command issue in any rapidly-evolving, high-stress, emotion-laden event. It is dramatically more complicated when a “sudden team” of people from different agencies are thrown together under circumstances where there is no pre-determined command structure.
- **Improved protocols and control systems for parking emergency vehicles at an actual or potential emergency site must be developed and effectively communicated/emphasized to officers by dispatchers and on-scene commanders during an event to prevent obstruction of further movement that may be required.**
- **In complex, multi-agency events, teams of responders in the field should be structured to take advantage of both the local knowledge of conditions that the “home” organization possesses and the quantity and specialized resources that outside reinforcements can bring.**

Public Communication

- **Maintaining regular and open communication with the public – through traditional and social media – should be a high priority for senior officials, even when confidential investigations are ongoing.** When accurate, frequent, official communications were absent, news and social media filled the gap, sometimes with speculation and misinformation. Development of protocols for crisis communication, incorporating utilization of social media, should be part of the planning for fixed events. This should include improving practices for dispelling widely disseminated, inaccurate information or rumors.
- **Systems for coordinating and communicating information to families of individuals missing or injured in a crisis need to be improved,** perhaps including revision of HIPAA rules governing the release of personal information about patients receiving care during public safety emergencies.

Preparation for Future Crises

- **Robust development, practice, exercise, and application of incident management processes and skills (codified in the NIMS system) greatly enhance the ability of emergency responders to operate in complex, multi-organizational, cross-jurisdictional crises.** The great value of common systems and the understanding that these produce among responders who have never previously met or worked together should not be under-estimated. They can literally be life savers for responders and others at a crisis scene.
- **“Fixed” or planned events can be effective platforms for practicing incident management skills even when no emergency occurs, and they are highly useful if emergency contingencies**

materialize at a fixed event as happened at and after the 2013 Boston Marathon. Skills honed at such events can also prepare responders and response organizations to perform more effectively even in “no notice” emergencies that may occur at other times.

- **Because coordinating multiple agencies and disciplines will be particularly difficult in “no notice” events,** senior commanders should
 - Themselves form a unified command structure to make decisions and implement them,
 - Identify a separate staging area to which deploying individuals and organizations should report and await before undertaking field operations.
 - Establish protocols for the formation of “sudden” teams composed of individuals from different organizations that may not have previously worked together.
- **Community resilience should be systematically developed and celebrated.** In the face of the bombing, Boston showed strength, resilience, even defiance – and these were key drivers of the overall outcomes ... that is, of “Boston Strong.” These qualities are latent in many communities in the United States and elsewhere. Celebrating examples of community resilience – both local examples and from farther afield – may help to cultivate a culture of confidence and self-reliance.