Using the Disaster and Exercise Performance Information Collection Tool to Capture Observations during Disaster Response Operations and Exercises

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Background - DEPICT

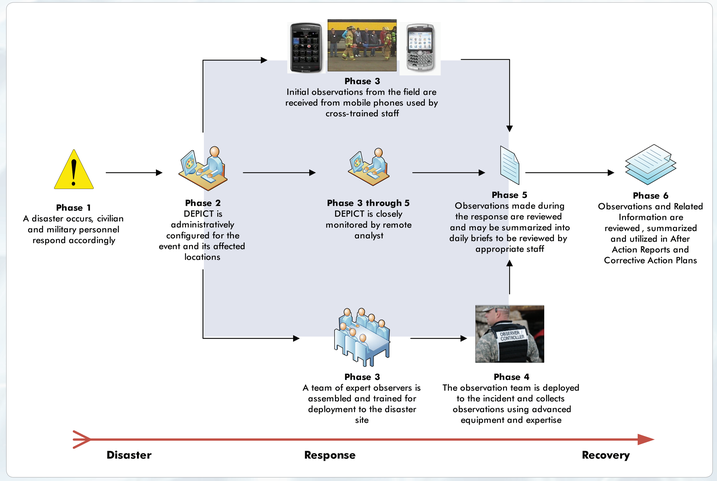
The Yale New Haven Center for Emergency Preparedness and Disaster Response (YNH-CEPDR) was tasked to research and design a process and develop a tool by which to capture observations or lessons learned from disasters and exercises by the United States Northern Command (USNORTHCOM). The resulting web-based application, known as the Disaster and Exercise Performance Information Collection Tool (DEPICT), integrates into a process that aids response organizations and furthers civilian-military integration during domestic disaster medical response. DEPICT utilizes a streamlined user-interface to reduce time and effort and aid in timely collection of valuable information that can often be overlooked during response information. Capturing, cataloguing and aggregating such information helps to develop lessons learned, after action reports and corrective action plans in a more timely and efficient manner.

Methods

As stipulated by USNORTHCOM, DEPICT was designed to allow the end-user to capture an observation in four minutes or less. In order to test the effectiveness of both the application and the process, DEPICT was introduced and integrated into three civilian-military exercises. DEPICT was initially tested at the Vigilant Guard Region VIII exercise in Montana. Results from this testing indicated several modifications and additions were necessary to enhance the effectiveness of the tool, not least of which was the annex of an images interface. The application was next tested in Buffalo, NY at the Vigilant Guard Region II Exercise in order to validate the changes from prior tests. Finally, the process and tool were implemented at the Vigilant Guard Region X exercise in Alaska. Varying weather conditions and internet connectivity at all of the exercises reinforced DEPICT's versatility during adverse conditions. During the exercises, remote office staff were able to review and compile observations and photographs collected on the ground for fast and easy reporting purposes.

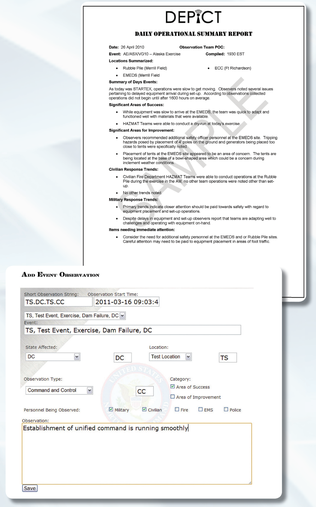
Process Statement

The success of DEPICT is heightened by its integration into an observation collection process that begins at the onset of a disaster. Because of its versatile interface, the collection of information can begin with first responders accessing the application by cellular telephone or smartphone. Simultaneously, dedicated observation teams can be prepared to deploy, and, once at the incident, collect information through more sophisticated and tailored devices. As observation collection occurs, remote staff can access the web-based observation repository and begin formulating lessons learned to further disaster response operations through summary and aggregate reporting.



Interface

In order to facilitate fast and easy data collection, DEPICT's user-interface was designed to reduce the burden of redundant input on the part of the user. The application uses a relational hierarchy that consists of Event, Event Location, Observation and Observation image-level data. As a result, users need only select an event, the location, enter an observation, and upload any corresponding images to the application. Cellular users can utilize abbreviated short codes to categorize the observation, and the application then integrates the data into the database. Further categorization of the type of observation (success/failure, area of operation, personnel observed) promotes fast and easy data aggregation and searching. All data collected with DEPICT may also be exported to Microsoft Excel or similar programs for further manipulation and reporting.



Conclusion

Through testing and integration, DEPICT has proven very useful in its designed purpose. The process has been tested successfully and the product has been delivered to USNORTHCOM. Discussions with the interagency have revealed additional utility in enhancing the application and integrating it into existing applications such as the Lessons Learned Information Sharing System. Additionally, discussions with international organizations have indicated utility in arenas beyond domestic preparedness. For more information, please contact Stewart Smith, MPH, MA, FACCP, ssmith@epr-international.com, (202) 590-0774 or visit www.ynhhs.org/cepdr.