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Improved Search and Rescue (SAR) Operations for the Hurricane Season

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Everyone remembers helicopters over New Orleans last September conducting search and rescue (SAR) in the aftermath of Hurricane Katrina. Just like 9/11, we have these images firmly ingrained in our minds as US Coast Guard- (USCG), National Guard-, and USNORTHCOM assigned helicopters accomplished the largest response to a natural disaster in American history. Although it was a heroic effort by all involved, there is room to improve effectiveness and efficiency by further integrating operations.

USNORTHCOM, National Guard Bureau (NGB), and the Mass Rescue Working Group (MRWG) (under the National SAR Committee) wasted no time gathering lessons learned and recommendations for implementation for this year's hurricane season. After-action review meetings were held in October 2005 at USNORTHCOM and in November 2005 at the NGB, the National Guard Aviation Conference, the USCG, and the MRWG. In February 2006, the White House and Congress released after action reports (AARs) on the response to Hurricane Katrina. USNORTHCOM was already well ahead in the planning and coordinating pre-scripted mission assignments for DOD resource requirements to support the Federal Emergency Management Agency (FEMA) this hurricane season. Based upon these AARs, lessons learned, and recommendations, USNORTHCOM took the initiative to hold a key interagency catastrophic conference to integrate operational planning.

On 1-2 March 2006, USNORTHCOM hosted an interagency Catastrophic Incident Rapid Response Planning Conference at the US Air Force Academy to work SAR operational planning. This conference focused on the following objectives: saving lives, sustaining lives, and initial damage assessment with particular focus on pre-incident preparation, command and control (C2), and communications. Specific gaps between local, state, National Guard, non-DOD agencies and DOD were identified. Following the conference, USNORTHCOM hosted a series of video teleconferencing (VTC) meetings to facilitate gap analyses and to integrate SAR operations concepts.

In March 2006, FEMA requested DOD planners to assist in developing a pre-storm evacuation plan for Louisiana residents in coastal region cities and parishes. Following coordination, on 5 April 2006 USNORTHCOM sent a small planning team to the joint

field office (JFO) in Baton Rouge, LA, to assist FEMA in planning. Last season's severe damage put many Louisiana citizens at higher risk this year because they live in temporary housing (trailers and mobile homes).

In May 2006, USNORTHCOM planners at the JFO facilitated key SAR planning meetings between City of New Orleans, State of Louisiana Department of Wildlife and Fisheries (LDWF) [Louisiana SAR primary agency], Louisiana National Guard (LANG), USCG, NGB, USNORTHCOM, and FEMA planners. The following key doctrinal areas were integrated: inland civil SAR, maritime SAR, close air support (CAS), urban search and rescue (US&R), and mass rescue operations. Key concepts integrated into SAR planning include: the lessons learned from Hurricane Katrina, work accomplished at the 1-2 March SAR conference, and the SAR gap analyses VTCs. The Louisiana group of local, state and federal agencies "harnessed these doctrinal concepts" to finish the work on developing a Catastrophic SAR Standard Operating Procedure (SOP). The primary draft Catastrophic SAR SOP was coordinated and delivered 31 May 2006, in time for hurricane season 2006.

Following the Catastrophic SAR SOP development, LDWF and LANG began drafting a detailed Louisiana SAR plan utilizing the Catastrophic SAR SOP as the "mother document" with an initial draft State of Louisiana SAR plan delivered 7 July 2006. LDWF continues refining this state SAR plan and conducted communications and operational SAR exercises in June and scheduled an additional SAR exercise for the first week of August. Now, let's look at some new catastrophic SAR concepts.

CATASTROPHIC SAR INNOVATION

The Catastrophic SAR SOP brings together traditional SAR procedures with innovative interagency integrating procedures linking together local, state, and federal partners and agencies. These innovations accelerate coordinated SAR response and make fully integrated air, land, and maritime SAR operations more efficient. The SOP standardizes communication architectures and frequency plans by using standard terminology and common search maps (grids) for air and ground. This SAR innovation merges the doctrine of CAS, US&R, inland civil SAR, maritime SAR, and mass rescue operational concepts.

The traditional SAR time-line of post-landfall response was migrated to a much more proactive pre-landfall stage well before the event/incident. Pre-landfall, high-interest facilities, such as hospitals, nursing homes, and marshalling areas, will be closely monitored to determine completion of evacuation and to track their status throughout the storm. Probable forward operating bases (FOBs) and SAR evacuee "lillypads" will be identified early. "Lillypads" are initial drop-off points that support follow-on evacuation. Ready-to-execute planning templates have been developed to facilitate time-critical preparation just as a hurricane approaches. Examples of pre-landfall planning templates include the Air Forces Northern (AFNORTH) Contingency Response Air Support Schedule (CRASS) and pre-incident Federal Aviation Administration (FAA) notices to airmen (NOTAMs) text and temporary flight restriction (TFR) templates.

The overall SAR process involves taking the evacuee from the hazardous danger/incident zone to safe shelter utilizing an orderly flow of a combination of air, maritime, and land SAR and transportation forces. SAR helicopters are pre-positioned and initial SAR responses are planned during the storm so interagency SAR execution can begin while winds diminish to within equipment limits from hurricane to tropical storm or lower strength. Early projected damage assessment allows SAR planners to schedule immediate response even as the storm is still approaching.

During landfall, high-interest facility tracking is updated, initial and reinforcing SAR assets are identified, immediate response SAR plans are finalized with search teams efficiently scheduled based upon their unit's SAR capabilities, and active airway monitoring is accomplished to ensure citizens can be rescued as soon as possible.

Traditionally, three types of searches are accomplished during the response phase: HASTY, PRIMARY, and SECONDARY. This year a fourth type of SAR was added, the SMART SAR, which begins well before the event/incident. The definitions for each of the SAR types are as follows:

1. SMART—

The incident commander identifies “targets” where individuals did not, or were unable to, evacuate prior to storm landfall. The locations are quickly assessed to determine if the “targets” are high-interest facilities with larger or special interest populations. Quick reaction air, maritime, and land SAR forces would be sent to save lives, to conduct rescues, and to continue to evacuate citizens.

2. HASTY—

This is a fast-paced visual inspection of the search area accompanied by vocal or audio hailing to locate victims. Hasty SAR is primarily an air effort with maritime and ground SAR forces called-in as necessary.

3. PRIMARY—

This is a walking inspection. Land SAR forces walk completely around every building and look into windows and doors accompanied by hailing to locate victims. Primary SAR may include entry into buildings within the search area. Primary SAR is predominantly a ground effort supported by air and maritime SAR forces.

4. SECONDARY—

This is the highest standard SAR. A systematic deliberate search of every room and every building is conducted. Normally this includes a forced entry. This SAR will primarily involve land forces.

In 2005, SAR resources were not assigned to meet time-driven mission objectives. Pushing resources to the incident was the focus, not time-critical efficient life-saving. This year a timeline for immediate response during post-landfall sets a timeframe for SAR based upon how long affected citizens are expected to live (survival timeframe) under the observed and expected environmental conditions. This process ensures

resources (forces) are efficiently scheduled to meet the SAR timeline and to efficiently save lives.

Post-landfall, the goal of the **immediate response phase**, includes SMART SAR completion within the first 12 hours and HASTY SAR completion within 24 hours to minimize potential evacuee duress and to save lives as soon as possible. The **deliberate response phase** leads to PRIMARY SAR beginning within 24 hours of landfall with expected completion within 4 days. Finally, traditional SECONDARY SAR follows PRIMARY SAR for a duration as long as necessary.

One important concept incorporated is persistence. Air, maritime, and land SAR forces will be scheduled across the incident zone during all phases of SAR to ensure multiple opportunities for rescue are available to potential evacuees.

This year integrated land and maritime SAR teams along with air SAR assets work pre-coordinated local or national SAR supplement grids to ensure timely pickups and drop-offs at key lily pads that have medical, food, and water supplies, and provide minimum protection from the weather elements. Air and maritime/land grid systems will be linked and distributed early. Better evacuee tracking methods and on-call SAR units are postured for the most effective and integrated SAR response. Planning continues for post-storm mass evacuation contingencies from staging areas that were unable to complete evacuation pre-storm. Now, let's examine the USNORTHCOM team that assisted in the planning.

THE USNORTHCOM TEAM

The USNORTHCOM planning team sent to support FEMA led planning in Baton Rouge, LA, consists of the core cross-sectional joint plans team (JPT) from the Standing Joint Force Headquarters-North (SJFHQ-N) at HQ USNORTHCOM. Assisting the SJFHQ-N core planners are planners from USTRANSCOM, Joint Regional Medical Planners (JRMP), and USNORTHCOM component planners from Army North (ARNORTH) and AFNORTH.

PARTNERSHIP

The LDWF, LANG, New Orleans Louisiana police (NOLA), fire, emergency medical services (EMS), and Emergency Support Function (ESF) 9 were particularly key in SAR planning, working integrated SAR solutions at the state and local levels.

The USCG played a significant role in SAR planning and the development of the SAR SOP. HQ USCG, LANTAREA, USCG District 8, Sector New Orleans, Air Station New Orleans provided many key SAR experts, facilities, and personnel to contribute to the SAR planning.

AFNORTH, USNORTHCOM's Air Component, played a key role in developing the Louisiana SAR plan. AFNORTH coordinated with the LDWF, as Louisiana State lead for SAR operations, and LANG, to ensure incorporation of airborne C2 and airspace coordination with the FAA. Integrated AFNORTH SAR planning with USCG, LDWF and

the LANG will likely preclude the challenges of integrated air, maritime, and land rescue observed during the Hurricane Katrina response.

ARNORTH, USNORTHCOM's Army Component, assisted in planning evacuation and SAR coordination with local and state agencies including the LANG. Should USNORTHCOM forces be required to execute, ARNORTH is ready to stand up a joint task force to execute operational missions in support of the State of Louisiana.

NGB provided key senior planners at the JFO Baton Rouge and provided key planning input concerning SAR operations, forces, and Emergency Management Agreement Compact (EMAC) plans.

LESSONS APPLIED

USNORTHCOM is applying the Senate's Recommendation 15 (Interagency Coordination—DOD and Department of Homeland Security [DHS] should improve their coordination) on integrated federal response to incidents from their recent "Report of the Senate Committee on Homeland Security and Governmental Affairs, May 2006." This recommendation includes but is not limited to the following:

- 1. Recommendation:** DOD should continue to provide experienced officers to assist DHS officials in incident response. **Action:** DOD has provided planners to support FEMA for this hurricane season at the JFO Baton Rouge.
- 2. Recommendation:** DOD should streamline its existing, cumbersome process for mission assignments (MAs), particularly as applied in the event of a catastrophe. **Action:** USNORTHCOM drafted 18 MAs to support FEMA in a hurricane response and Joint Staff J-3 Operations has pre-approved 16 of those MAs. Additionally, Louisiana planners have drafted 14 unique MAs to support FEMA, state, and local parishes; these are still being staffed. Four SAR-specific MAs have been identified.
- 3. Recommendation:** Key DOD personnel who may be called to participate in DOD's response efforts should receive training on the National Response Plan (NRP), the National Incident Management System (NIMS), and the Incident Command System (ICS). **Action:** SJFHQ personnel are trained in the NRP, NIMS and ICS, in order to support civil agencies. SJFHQ-N has hurricane response experience from Hurricanes Katrina and Rita.
- 4. Recommendation:** DOD and DHS should coordinate to expand the presence of DHS officials at USNORTHCOM, and as appropriate US Pacific Command (PACOM), and integrate DHS officials into USNORTHCOM's and PACOM's planning, training, and exercising, and response to incidents or disasters. **Action:** USNORTHCOM has drafted a Defense Support to Civilian Authorities (DSCA) Contingency Plan, received an approved Standing Execution Order for DSCA, and incorporated a hurricane scenario into Ardent Sentry '06 (May 06) to be better prepared for this season.
- 5. Recommendation:** DOD and DHS should develop an inventory of assets under DOD's control that are most likely to be needed in response to a disaster in order to enable expeditious deployment should they be required. **Action:** USNORTHCOM, in

coordination with DHS, has developed several force packages for future requests for forces (RFFs) including helicopters, SAR-related and communications equipment, and medical gear that can be assigned to USNORTHCOM to support FEMA in coordination with the National Guard operations.

CHALLENGES

Work continues on two challenges: C2 and communications. Large-scale and catastrophic planning has ensured C2 and communications architectures are sound. Testing through interagency exercises continues to fine tune C2 and communications planning and has resulted in notable progress. Evacuation and SAR planning is way ahead of last year's actual response. That is good news for Louisiana residents.

CONCLUSION

USNORTHCOM and FEMA planners continue to refine and exercise their planning products. They have established a baseline evacuation and SAR plan that should be exported for other states to consider. DOD and DHS have made significant progress in preparedness for this hurricane season. Future incidents will have a more fully integrated and timely response to save lives and care for our citizens. While focused on hurricane incidents, the catastrophic SAR principles 17 ALSB 2006-3 can and will be used for other hazards/incidents.

Tremendous progress has been made in Louisiana and the Interagency All- Hazards Emergency Response SOP can be used as a catastrophic SAR national template.