



HURRICANE IAN

Incident Review and After-Action Report

This Category 4 hurricane was the largest to hit Southwest Florida in Decades

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Preface

This review is created to review events, systems used during all phases of the event. This report is created to be used as a historical, quality improvement and reference tool. This work is not an accusatory or to be intended as a punitive in any way shape or form.

Preparation

Narrative

The storm developed and monitored from its formation and development by Florida Department of Emergency Management, (FDEM) and the National Weather Service, (NWS). The Upper Captiva Fire and Rescue District, (UCFRD), Fire chief receives regular daily, updates until the storm is either deemed no longer a threat to the state of Florida, or develops to the point that multiple daily updates are warranted.

The storm being tracked was named “IAN” on September 23, 2022. Updates from the above sources began to arrive on September 22, 2022.

Department wide notifications are made internally to ascertain the availability of potential staff and status of staff members that are unavailable. Department checklists are reviewed and incident file began. Storm preparation was initiated on September 24, 2022.

Social Media posts through Facebook and the district websites began to alert the community of a pending storm on September 23, 2022. Information tidbits to encourage the community to review their plans, supplies and preparation methods for the pending event. Live weather is part of the district’s web page to offer all visitors real time conditions and public advisories as related to weather.

Lee County Department of Emergency Management was activated and began to send out advisories related to the pending event. Lee County Fire Chief’s Association increased interdepartmental communications to provide statuses of each department and address needs. Information sharing as to EOC systems was also shared for event command and control throughout the incident.

Island Chiefs from Fort Myers Beach, Pine Island, Sanibel, Captiva, Upper Captiva, Useppa and Boca Grande began communications as information continued to update and the threat to the barrier islands in regard to wind, storm surge, and overall size of the pending storm continued to grow, and add to the level of pending threats to the barrier islands.

Of particular concern to the barrier island chiefs was the prediction of storm surge as its related impact to each department's island. Chief discussion was conducted to review barrier island procedures for sheltering, evacuations if ordered, and transition from individual to geo division command structure.

On September 23, 2022, the information given from Lee County Emergency Management, (LCEOC) notified all departments that the storm would indeed impact the county with wind and storm surge, along with heavy rain. LCEOC also advised that they had been opened in a full status to address the pending storm. This move activated the Lee County EOC command structure, the NIMS system, FEMA system, and the FDEM system. All systems activated are used to information share, and establish an incident command system that functions from the department level to the federal level.

Governor DeSantis declared a state of emergency on September 23, 2022. This was the formal initiation of emergency measures throughout the state of Florida. This changed the pre-storm preparation from passive and awareness to an active state that involved securing of all district assets, and equipment collection for storm operations. This declaration-initiated storm response planning that spanned from manpower needs, equipment protection and placement, interface with adjacent departments, and constant monitoring of weather events and orders that began to arrive from LCEOC.

Chiefs and department heads continued to make preparations for the storm, while waiting for LCEOC to order mandatory evacuations for at risk areas within Lee County. It was anticipated that the barrier islands would be the first group to receive that order, along with low lying areas at risk for the most severe impacts.

On September 27, 2022 at 0700 Lee County EOC issued mandatory evacuation orders for the barrier islands and flood zone A within Lee County. Chief Martin contacted Chaplain David Bolme immediately to issue the warning via web page and email list. Chief Martin issued the warning via Facebook at the same time.

Shift staff finalized shelter and protective measures at the station and prepared vital equipment, documents, and medications for evacuation. Lee Control was advised by base station that UCFRD was evacuating the island, and island operations will cease until conditions permit.

Shift staff travelled to Pineland marina and placed Marine 191 on the trailer. The unit was then towed to Pine Island station 3 for staging per county operations procedure.

After Action Review

The after-action review of the preparation phase revealed the following:

- Notification on the incoming storm and development was adequate
- Social media methods functioned as intended
- Protective/shelter methods of district equipment and facilities were successful
- Islander accountability failed. Identities and locations were not taken by the UCFRD
- Notification to the public regarding the mandatory evacuation order was late in being issued

This caused critical delays in the barrier island communities, especially North Captiva Island and Useppa. North Captiva Island residents were cut off as island taxis had suspended operations the evening before, and no water craft were available to evacuate the morning that the order was given.



Initial Damage air survey by USAR and UCFRD Chief 1

Hurricane Ian

Once UCFRD units were withdrawn. Operations continued per the Lee County Emergency action plan as pertains to fire and rescue agencies. All island agencies were ordered into the mainland areas, and back again from the western most positions further inland as the storm's size and severity became clearer.

Final island staging and command post was set up at Lee Convenient Care located at Del Prado and Pine Island Rd in Cape Coral. This was the shelter and command location for Pine Island, Useppa, and the UCFRD. Chief staff from the islands then set up a command post with internet, video, radio and cellular means to interface with the Lee County EOC located in Fort Myers.

Response planning was conducted using and sharing available manpower and units to gain access into Pine Island, and work in a west direction to allow for access to the island communities. Logistics plans and resource requesting began at this point. Radio monitoring was constant as Lee Control would announce all district's calls for service, and each was responsible to log and respond to each call once conditions allowed for a response.

Planning and resource ordering were conducted throughout the storm. As conditions improved, planning then shifted to reentry with equipment and manpower to size up damage and formulate response options once a visual assessment was obtained.

After Action Review

The after-action review of the storm phase revealed the following:

- Manpower was sufficient given the timeline of the event. Manpower present were held up due to conditions, but was stressful for the staff as they waited and worried for families and property.
- Interagency planning was key. No single agency had enough chief level staff to complete all tasks required to address needs prior to moving into the response phase of the storm.
- Planning considerations were vast in scope. From projected impacted areas and population, to anticipated rescue and infrastructure problems. Resource needs

spanned from sanitary to provisions, to specialized equipment and manpower needs.

- Work/Rest cycles must be created and adhered to. Many instances were discovered with responders working for 24+ hours in an attempt to continue forward progress of the operations. This led to exhaustion and at times, inefficient use of the resources that were arriving and available to relieve the in-place manpower
- Mechanics would be very valuable to have in close proximity to operations center to handle equipment service issues. Many tires were lost due to debris and other hazards.
- Power company presence would have been valuable to assure area safety access and assist with planning for mitigation and share potential restoration plans



Morning after the storm passed with winds steady at 40 mph

Post Storm Response

Once survey and response operations were underway. The progress out of Cape Coral went well, but once units crossed Burnt Store Rd, progress slowed to a crawl. Downed primary powerlines and debris of every type was obstructing the road and water ways.

Air rescue units had been ordered for North Captiva Island during the storm phase as it was anticipated that immediate access to the island was impossible, and with known persons on the island, rescue would be likely and assessment vital for response.

After Action Review

The after-action review of the Response phase revealed the following:

- Response from EOC regarding resources was overwhelmed, increasing time from ordering to delivering.
- Volume of massed requests resulted in delays to smaller jurisdictions. Islands were last to receive assistance until issue was taken to EOC Command and rectified approximately 48 hours into the response phase.
- Critical orders for resources were denied without explanation. Explanation from desk that denied the request would assist in requesting agency to plan with reasons in mind, and assist in alternative parameters in accomplishing missions.
- Rescue and Accountability of responders and estimated populations must be assured. Numbers of population cannot be verified. Therefore, complete accountability measures are required to ensure that no one is left behind or uncared for.
- Rescues made to civilians, deceased, injured or not, must be counted for tracking purposes. Focus on individual rescues must be made as soon as allowable. Until this is appropriate, disaster protocols and triage must be utilized and followed.
- Delivery of critical provisions and drinking water are priority and must be delivered in adequate quantities and resupplied indefinitely

- Fuel for response use, as well as civilian use for needs is also a close second in priority
- Communications, including internet are required while units are forward into the communities to be able to promptly relay assessments and request resources.
- Public information sharing is critical. Updates and advisories are most important to avoid additional health or physical hazards, as well as share information on available assistance for the community.
- Locations must be opened for all available community needs. These include medical care, provisions, communications, water of drinking and utility types. Shelter, to include climate controls for at risk citizens, and information for public sharing and use.
- Creation or position of shower/bathroom area for those without sewer and water would be most valuable



Urban Search and Rescue with National Guard arrive to drop supplies and conduct search ops



Coast Guard units conducting search and rescue across the barrier islands



UCFRD station at time of reentry and beginning of operations

Recovery

The recovery phase began once the rescue missions were complete. Damage assessments, infrastructure needs and department needs need to be evaluated and reported to LCEOC for reporting and resource needs allocation.

Information from LCEOC was critical to UCFRD as to the status of the county situation so measures can be identified and created to expedite the community's recovery. Communications was critical to maintain between the island, the UCFRD, LCEOC and the county board of commissioners planning section.

After Action Review

The after-action review of the Recovery phase revealed the following:

- Recovery phase planning must be started while still in the response phase
- Recovery planning cannot be assigned to response phase personnel to be effective and to ensure that response operations do not falter
- Recovery operation planning and execution must have continuous and secure communications loop
- Public entity stake holders must be enlisted to assist, once they are able to do so
- Information sharing must be maintained and updated almost hourly
- Constant evaluation of communication and relief measures are necessary to ensure optimum performance
- Forethought planning necessary for not only 24 cycles, but also weeks ahead and months need to be part of the planning
- Jurisdictional limits and capability education is needed to ensure that department staff, commercial partners, and citizens understand the expectations placed on the UCFRD by higher governing agencies.
- Balance between public presence and work performance must be considered to cover a more complete view of the recovery process.
- Keep in mind that recovery phase is the longest phase in the incident. Patience, support and forward progress monitoring is important as to keep operations moving forward and not halt due to other circumstances

- Assist the pertinent entities with communications and assistance as needed. Realize that the UCFRD has little impact or authority as pertains to recovery, however monitoring and requests for assistance and direction will be likely.
- Prompt opening of RPA through FEMA must be initiated to ensure that the district has post incident financial assistance available



Surge Damage in Fort Myers

Overall Review and Learning Points

This is the largest hurricane to hit SW Florida in decades. Many lessons were learned from the state level down to the UCFRD.

Positive points included:

1. Ability to reach out via email and social media to update readers with available information. This was unprecedented as compared with previous hurricanes
2. Intact Command and Control allowed for real time planning and immediate future planning.
3. Available resources were sent from across the nation and staged to be able to respond as needs were realized.
4. Air resources were vital to obtain first chance search and rescue to the island. These resources were able to facilitate that mission as soon as conditions allowed.
5. Availability of water and provisions was prompt and deliveries were only delayed due to number of mission requests submitted to accomplish these tasks.
6. Staging of UCFRD marine unit along with ALS equipment allowed for response work to begin as soon as conditions allowed.
7. Staffing was accomplished with the help of part-time staff willing to fight obstacles to arrive at a staging point to begin work.
8. Station was quickly opened for operations with internet and serviceable equipment. Staffing was quickly increased to 125% with the help of the part-time staff to ensure a full and capable response to any needs on the island and surrounding waters.
9. Sustained and reoccurring resupply of food and water ensured that residents and persons on the island had basic needs met.
10. Protective measures regarding the districts property and equipment were successful with only minor flooding damage sustained. All equipment were quickly flushed of salt water and were made serviceable.
11. Mutual aid units were present in sufficient quantities and in specialty to address any unforeseen situation on the island.
12. Donations and citizen support for each other lessened storms impact and assisted with the short term needs of those on the island.
13. Formation of a task group consisting of commercial partners and citizens made organization of recovery efforts more efficient and effective.
14. Use of local resources was vital for re-opening of access ways and venues, as well as moving heavy items as needed.

15. Monitoring threats on the island in regard to damage, debris, or fire hazards and increase of manning and patrols to minimize community risk.

Points to improve were:

1. Improve communication throughout the event between the UCFRD and the public. While social media was helpful, it proved difficult to maintain while cell and internet services were absent. More layers and resilience need to be created to ensure a more reliable system remains in place.
This includes pre-storm warnings and information, as well as continuing communication into the recovery phase. The response phase was chaotic due to priority search and rescue measures underway, and lack of manpower to keep communications open with the public. Creation of a public information officer will allow this stream of communication and information to remain intact.
More “on the ground” attention needs to be given to use on shift manpower resources to interact with the community not only post storm, but pre storm to ensure that the public is aware and questions can be addressed if they are present.
2. Interface with the Upper Captiva Civic Association, Safety Harbor Club, and the property managers will be most valuable pre-event. Planning with them to organize tasks, responsibilities, and resources will only serve to increase recovery and information sharing through the entire event.
3. Coordination with water taxis and available resources to ensure that vessels are not placed under shelter until evacuation measures are concluded. Clear and priority information sharing with all of those entities must be intact to make sure that everyone has every chance to evacuate.
4. Long term considerations need to be addressed in regard to housing, debris collection and removal, and restoration of essential services. Pre planning with agencies responsible may be possible in the future and should be taken advantage if available.
5. Clear and concise scopes of authority, mission requirements, and boundaries of the UCFRD needs to be shared with the public. Communicating these to the community can clarify many issues and allow other partners in the community to focus on needs outside the scope of the UCFRD’s authority and jurisdiction.
6. Consider a manpower resource to remain on the mainland to facilitate tasks for the island community. Fuel allocation, light equipment, available vessel allocation and

other humanitarian needs could be handled more promptly having manpower on the mainland to conduct these tasks.

7. Develop and use an accountability system between the residents and other who choose to remain on the island in event of a mandatory evacuation order.
8. Investigate use of fire board commissioners to act as liaisons and administrative persons to open and maintain communication at the elected official level. This, along with tracking, communications, and other potential areas of assistance would greatly assist the island in not becoming "lost in the pile". Having a commissioner assist with the public information aspect would be invaluable.
9. Investigate an emergency fuel resource. Fuel for generators was a concern and need that could possibly be mitigated in the future. Fuel in all grades would be most useful.
10. Stress the vital nature of early mandatory evacuation orders from Lee County EOC. EOC must understand and take into consideration the time and effort it takes to evacuate barrier islands, especially the bridgeless islands of North Captiva and Useppa. This events order was tardy and caused last minute rushes from the barrier island departments to put evacuation measures into effect. It is likely that an earlier order and declaration could have saved lives on some islands more adversely affected.
11. Affect faster initiatives in patrolling, much more interface with citizens once critical department needs are met. Visual presence of the UCFRD was seen to assuage some of the public concern regarding the aftermath of the storm.
12. Public has a large need for constant and up to date information. Development of a dedicated person or persons to facilitate this can greatly assist the UCFRD as well as the entire community during the event. Verified and factual information is vital for the community as a whole. To have dedicated staff with this mission in mind, offers solid communication, as well as a venue for the public to offer questions or support for the community good throughout the event.

Conclusion

This landmark storm tested every facet of our society. From the broadest governmental entity to individual households, no one who calls southwest Florida home was unaffected. In comparison to the other communities within Lee County, North Captiva Island has much to be thankful for.

This storm showed the entire staff of the UCFRD the wide scope of response and recovery aspects as it effects such a small and isolated community. Needs were similar to everyone within the disaster area. However, the delivery of relief resources proved to be taxing for response agencies tasked with logistics.

The UCFRD realized and accepts that critical improvements are needed to assure citizen accountability for those who chose to remain on the island. Warning methods also need to be reviewed and sourced from other entities with similar challenges. These need to be studied and adjusted to fit our unique community. While the list presented covers many topics to review and improve on, this is by no means all inclusive. As time passes and we move deeper into the recovery phase of this event, new facets may come to light and then can be addressed.

The recovery phase of this storm will likely take years. The size and scope of this storm cannot be overstated. I offer the UCFRD's commitment to patience, compassion, and willingness to continue to work within the community as the community shared resource it was designed to be.

