
Fort Lauderdale-Hollywood International Airport

Active Shooter Incident and
Post-Event Response

January 6, 2017

After-Action Report

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EXECUTIVE SUMMARY

On January 6, 2017, a lone gunman intentionally discharged a firearm at the Fort Lauderdale-Hollywood International Airport (FLL) killing five and wounding six innocent bystanders. Approximately 90 minutes after the initial incident, speculation of additional firearms discharged in other areas within FLL caused panic and led to a chaotic self-evacuation of persons throughout the airport. On behalf of the Broward County Aviation Department (BCAD), the purpose of this report is to describe the response to those events, constructively evaluate and assess strategic and tactical operations, and identify issues and challenges specific to this event.

This AAR was developed in accordance with the U.S. Department of Homeland Security's Homeland Security Exercise and Evaluation Program (HSEEP). Pursuant to HSEEP, identifying relevant and accepted response objectives and capabilities is the first step in the review process to allow analysis of outcomes through a framework of specific action items derived from the National Preparedness Goal. The following objectives and capabilities were identified to support an effective review of actions taken during the events of Friday, January 6, 2017:

- Objective 1 – Airport-Wide Response: Implement those capabilities necessary to save lives, protect property and the environment, stabilize the incident, and support transition to recovery after an incident has occurred.
 - Capability 1.1 – Interoperable Communications: Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, state, and local first responders.
 - Capability 1.2 – Evacuation/Shelter-in-Place Operations: Establish physical access and resources to support effective evacuation and/or shelter-in-place operations.
 - Capability 1.3 – Public Information and Warning: Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the transition to recovery.
- Objective 2 – Emergency Management and Operational Coordination: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
 - Capability 2.1 – Mobilization: Mobilize all critical resources and establish command, control, and coordination structures within the BCAD Emergency Operations Center (EOC).
 - Capability 2.2 – Command and Control: Enhance and maintain command, control, and coordination structures, consistent with the National Incident Management System (NIMS), to meet evolving needs, stabilize the incident, and transition to recovery.
 - Capability 2.3 – Operational Coordination: Establish lines of communication and coordination between the Airport Operations Control Center (AOCC), BCAD EOC, BSO EOC/ICP, County EOC, Federal Aviation Administration (FAA) Air Traffic Control, and other stakeholders (i.e. airline, tenant, concession, general aviation, traffic management, non-profits, etc.) to maintain situational awareness, to identify response needs, and to coordinate mutual aid.
- Objective 3 – Recovery and Post Event Activities: Implement capabilities necessary to support customer care and employee wellness, to restore and maintain a healthy and safe environment, and to assist stakeholders in resumption of operations.
 - Capability 3.1 – Customer Care: Mobilize resources and work with outside agencies to support general customer care, counseling and mental health services among impacted stakeholders including customers, airline, concessionaire, and BCAD employees, and others as needed.
 - Capability 3.2 – Personal Item Retrieval: Establish processes and resources to collect and secure personal items left behind, to identify owners, and to transmit items to their owners.
 - Capability 3.3 – Operational Resumption: Implement operational continuity plans and resources necessary to resume operations within the impacted area including airlines, concessionaires, and other airport services.

After defining objectives and capabilities, the After-Action Review Team (Ross & Baruzzini) developed and administered stakeholder questionnaires to collect data, performed document review to identify the response and recovery posture prior to the event, and performed interviews to gather additional information. Data and

information identified during interviews and in questionnaires and in review of incident-specific reports were correlated with existing procedures to assess compliance and to identify potential procedural additions or modifications to improve response capabilities. Recommendations are provided in Chapter 3, Observations and Analysis; appendices provided in this document include:

- **Appendix A: Improvement Plan** – Provides a list of recommendations, agency points of contact, and targeted timeline for completion of recommended actions.
- **Appendix B: Lessons Learned** – Provides information regarding the Department of Homeland Security's (DHS) Lessons Learned Information Sharing (LLIS.gov) system, which serves as a means of sharing post-exercise lessons learned with the emergency response community.
- **Appendix C: Acronyms and Abbreviations** – Provides a list of acronyms and abbreviations used throughout this document.

Major Strengths

Five major strengths identified are as follows:

- During the initial event, first responders used available communication resources to summon law enforcement and emergency medical resources to the Terminal 2 baggage claim area;
- The Joint Information Center (JIC) was established near the Broward Sheriff's Office (BSO) Incident Command Post (ICP) following the shooting and was supported by the Southeast Regional Domestic Security Task Force;
- The BCAD EOC was activated quickly and BCAD established initial communication with BSO, Customs and Border Protection (CBP), FAA, Transportation Security Administration (TSA), and other agencies on the airport;
- BCAD and Broward County leadership established a continual and open line of communication through the County EOC with regular updates; and
- BCAD quickly mobilized resources to support personal belongings recovery operations and utilized a contractor (BMS CAT) identified during training which occurred prior to the event.

Primary Opportunities for Improvement

Analysis of events indicated several opportunities for improvement to support effective response to a similar incident. Five major opportunities for improvement are summarized below:

- Coordination and communication between the BSO ICP and the BCAD EOC were limited and use of the Incident Command System (ICS) was not evident;
- Contingency plans for evacuation and sheltering are lacking and the FLL Terminal Evacuation Plan (TEP) should be updated in light of the lessons learned from this event;
- Unified Command was never established causing confusion as to who was in charge. Due to the lack of Unified Command, a common operating picture was not developed resulting in a lack of information regarding resource needs and disjointed, misinformed, and conflicting mission development;
- A more comprehensive and formalized Family Assistance and Customer Care Plan is needed. Family assistance is traditionally assumed by air carriers and guidelines focus on aircraft accident scenarios; however this event is a clear indication of the need for BCAD to lead family assistance and customer care duties under specific scenarios. The Plan should include a family reunification section; and
- Operational continuity tasks which should have been left to the BCAD EOC and the County EOC to coordinate were circumvented by BSO via a pronounced extension of security efforts.

Recommendations

Recommendations, based on analysis described in Chapter 3, Observations and Analysis, are provided below:

Objective 1: Airport-Wide Response

Capability 1.1 – Interoperable Communications

Category 1.1.1 – Emergency Planning

1.1.1.1 – Within the BCAD Airport Emergency Plan (AEP), clarify the assignment of the Incident Commander and address how BSO Incident Commanders should interact with the BCAD Seniority of Personnel stated on page Basic-1 of the AEP.

1.1.1.2 – Within the BCAD AEP and Continuity of Operations Plan (COOP), clarify roles, responsibilities, authorities, communication requirements, and reporting structure of BSO staff (both law enforcement and Aircraft Rescue and Fire Fighting (ARFF)) during airport emergencies.

1.1.1.3 – Within the BCAD AEP and other pertinent emergency response plans, clarify participants and communication responsibilities between the ICP, the BCAD EOC, and the County EOC.

1.1.1.4 – Within the BCAD AEP, address mutual aid response by law enforcement agencies similar to Basic Page 2 of the AEP which addresses mutual aid deployment and staging of fire/rescue agencies.

1.1.1.5 – Consider developing a Tactical Communications Plan for first responders during high volume events when radio and cell phones are busy, not working or overwhelmed.

1.1.1.6 – Within the BCAD AEP, clarify the role of the Federal Bureau of Investigation (FBI) and coordination protocols with BCAD during an active shooter event as it relates to criminal investigation, logistical needs, holding and release of airport passengers including those on aircraft, and arrival and departure of aircraft after the event.

1.1.1.7 – Within the BCAD AEP and in coordination with BSO, review and update procedures for establishing and maintaining an ICP.

1.1.1.8 – Within the BCAD AEP, address EOC staffing for events anticipated to extend past twelve (12) hours and which require multiple shifts.

1.1.1.9 – Develop a Risk Communication Plan to support accurate and consistent messaging to tenants, the public, and the media and to convey clear methods of contacting BCAD. The plan should address: 1) Displaced and sheltering passengers; 2) Passengers and crew on aircraft that are being held on a ground stop; 3) In-bound aircraft that have to be diverted and associated communications with the airlines and airports affected; 4) First responder radio systems including use of earpieces in lieu of open microphones; 5) Airline and non-airline tenant management and employees working throughout the airport (rental cars companies, concessionaires, ground transportation providers, FBOs, etc.); 6) Airline corporate operations centers; 7) Private sector ambulance companies; 8) Airports impacted by diverting flights; and 9) Cruise lines, local and corporate.

1.1.1.10 – Review and update the mass notification system groups to include all key tenants and stakeholders (concessionaires, rental cars, ground transportation entities, and tenants outside the terminal area).

Category 1.1.2 – Training and Exercises

1.1.2.1 – Develop a mandatory initial and recurring ICS training course for all potential Incident Commanders for FLL events and include a thorough overview of the AEP.

1.1.2.2 – Conduct joint BSO and BCAD training and exercises regarding Unified Command.

1.1.2.3 – Conduct joint exercises between BCAD, Port Everglades and the Emergency Management Division (EMD) including scenarios that impact both FLL and Port Everglades.

Category 1.1.3 – Resourcing

1.1.3.1 – Review and budget for improvements to the public notification systems including visual paging and portable systems that could be used outdoors.

1.1.3.2 – Consider acquiring earpieces for law enforcement personnel to prevent the inadvertent broadcast of unconfirmed information over the radio to non-law enforcement personnel.

1.1.3.3 – Review and evaluate the performance of the 800 Megahertz (MHz) radio system and cellular capabilities to identify if system enhancements are warranted. Consider including cellular providers in assessment of communications and assess the need for digital antenna systems to support both radio and cellular service.

Category 1.1.4 – ICP/EOC Operations

1.1.4.1 – Develop structured methods to ensure communication between ICPs, EOCs, and the JIC and among all agencies including BCAD, BSO, County agencies, the FBI, and Port Everglades to support a common operating picture and situational awareness.

1.1.4.2 – Develop communication protocols between BCAD, BSO, and TSA at checkpoints to ensure that they are not evacuated for unsubstantiated reasons yet still address personnel safety around the checkpoint.

1.1.4.3 – Develop procedures to identify critical essential non-law enforcement employees and to allow access to ICPs and EOCs during an incident.

1.1.4.4 – Develop a process to ensure that the EOC and ICP receive food and beverages during an extended operations.

Capability 1.2 – Evacuation/Shelter-in-Place

Category 1.2.1 – Emergency Planning: Update the TEP and Formalize a Family Assistance and Customer Care Plan

1.2.1.1 – Coordinate TEP and sheltering procedure modifications with the American Red Cross (ARC).

1.2.1.2 – Include rental car operations in procedures regarding evacuation and sheltering operations.

1.2.1.3 – Develop procedures to account for airport shuttle bus and other ground transportation operations when airport access and the roadway is impacted.

1.2.1.4 – For active shooter scenarios, develop procedures for coordinated sweeps in impacted areas to ensure the safety of people evacuated and sheltered and include procedures for documenting and communicating areas swept with the ICP and BCAD EOC.

1.2.1.5 – Among BCAD, BSO, and other airport stakeholders, clarify roles and decision-making authority in relation to the County Comprehensive Emergency Management Plan (CEMP) as it relates to evacuation and sheltering.

1.2.1.6 – Provide links within the TEP and the Family Assistance and Customer Care Plan to the County CEMP and ensure that personnel understand procedures to transport people off of the airport.

1.2.1.7 – Work with the TSA to revisit the run/hide/fight strategy based on lessons learned from the spontaneous evacuation and codify procedures for all personnel in the TEP.

1.2.1.8 – Develop strategies to communicate with people evacuated and/or sheltered and account for location (inside/outside, public areas/restricted areas, offsite, etc.).

1.2.1.9 – Evaluate evacuation routes for an active shooter event in contrast with evacuation for natural hazards.

1.2.1.10 – Develop procedures to provide restrooms and relief supplies to those evacuated or sheltered and consider locations (inside/outside, public areas/restricted areas, offsite, etc.).

1.2.1.11 – Develop procedures to repatriate people evacuated or sheltered in an orderly manner.

1.2.1.12 – Develop procedures to care for passengers and crew in held aircraft.

1.2.1.13 – Develop procedures to quickly resolve the status of aircraft and airport operations to expedite take-off or deplaning of held aircraft and clarify the role of local law enforcement in making the decision to hold or release aircraft.

1.2.1.14 – Develop procedures for managing people with medical needs and persons with disabilities including provisions for standing up First Aid station(s) for displaced passengers.

1.2.1.15 – Develop procedures to acquire translators for sheltering operations.

1.2.1.16 – Develop procedures to manage minors traveling alone during evacuation and/or shelter operations. Airlines should consider identifying unaccompanied minors via bracelet, RFID tag, or other method and include family phone numbers should authorities need to contact them.

1.2.1.17 – Include customer care planning at Port Everglades and address customer needs (food, water, blankets, translators, chargers, diapers) and security and credentialing (also see 2.2.3 for additional Port Everglades recommendations).

Category 1.2.2 – Training and Exercises

1.2.2.1 – Ensure that BCAD and other stakeholders are trained regarding TEP and sheltering procedures.

1.2.2.2 – Conduct multi-agency (BCAD, BSO, etc.) exercises (tabletop exercise/functional exercise) to address procedural changes, to practice coordination among all agency ICPs and EOCs, and to practice multi-agency coordination via unified command using an evacuation and sheltering scenario.

1.2.2.3 – Through drills, practice focused evacuation and sheltering procedures to develop competencies while minimizing the impact to operations.

Category 1.2.3 – Resourcing

1.2.3.1 – Assess the need for additional labor resources among agencies and tenants to support planning, training, and exercises.

1.2.3.2 – Assess the need for additional equipment and infrastructure, such as overhead announcement, visual paging, and portable speaker systems, to improve communications in support of evacuation and sheltering.

1.2.3.3 – Work with the EMD and Emergency Support Function (ESF) #6 to develop a list of shelter supplies and determine those available via maintained stockpiles and those which may require expedited acquisition authority based on the event.

Capability 1.3 – Public Information and Warning

Category 1.3.1 – Risk Communication Planning. Develop a Risk Communication Plan which:

1.3.1.1 – Identifies a Public Information Officer (PIO) and lead spokesperson for FLL during airport events (tiered if necessary based on the level of event).

1.3.1.2 – Provides linkage to the CEMP to clarify who speaks for the county so that all responding agencies understand by whom messages will be released at the County level.

1.3.1.3 – Clarifies the approval process for messages in an ICS context both at the BCAD level and via expanded operations in which BCAD may not be the lead response agency.

1.3.1.4 – Clarifies the role and operation of a JIC and how BCAD will participate in a JIC.

1.3.1.5 – Ensures that Health Insurance Portability and Accountability Act privacy rules are considered during communication development.

1.3.1.6 – Addresses interaction with PIOs from the FBI and other federal agencies.

1.3.1.7 – Identifies processes for communicating with BCAD and airport employees, County employees, the traveling public, and the general public and media.

Category 1.3.2 – Training and Exercises

1.3.2.1 – Develop training to introduce the Risk Communications Plan to those with assignments in the Plan and a general orientation for all BCAD and airport employees.

1.3.2.2 – Conduct exercises to evaluate the Risk Communication Plan and to develop competencies among assigned employees.

Category 1.3.3 – Resourcing

1.3.3.1 – Consider development/relocation of the BCAD EOC and include communications capabilities to accommodate response to an event of this magnitude.

1.3.3.2 – Review and budget for improvements to public notifications systems including visual paging, overhead announcements, and mass notification systems.

1.3.3.3 – Work with the EMD to include use of the reverse 911 system in the BCAD Risk Communications Plan and ensure that assignees to the plan are able to authorize its use for airport events.

Category 1.3.4 – County-wide Communication Operations

1.3.4.1 – Reinforce communication responsibilities under the County CEMP.

1.3.4.2 – Develop a clear understanding among all agencies of triggers for JIC operations and the need for multi-agency coordination of public communications.

1.3.4.3 – During events of this scale, work with all relevant local, state, and federal agencies to coordinate public messaging through the County EOC and/or a JIC.

1.3.4.4 – Among county leadership, redress and reinforce jurisdictional responsibilities for coordinating message development, releasing public information, and who will serve as the public spokesperson under specific scenarios.

Objective 2: Emergency Management and Operational Coordination

Capability 2.1 – Mobilization

Category 2.1.1 – Emergency Planning

2.1.1.1 – Formalize a Family Assistance and Customer Care Plan which includes provisions for: 1) Assisting persons with disabilities and special needs; 2) Language translators; 3) Family reunification procedures; 4) Adequate restroom facilities for various levels of events; 5) Resource support for transport, food, water, medical needs, shelter, and other relief supplies; and 6) Support for persons on delayed aircraft.

2.1.1.2 – Develop an Emergency Traffic Plan to support bussing, traffic control, employee access, and law enforcement escorts. The plan must have provisions for emergency access badges (credentials) to allow airport access for key personnel during an emergency.

2.1.1.3 – Develop a Staging Plan in coordination with emergency responders to ensure that response vehicles are accommodated, to control self-deployment, and to support deployment of resources per ICS guidelines.

Category 2.1.2 – Training and Exercises

2.1.2.1 – Per HSEEP guidelines, perform training and exercises regarding the Family Assistance and Customer Care Plan in cooperation with the EMD, ESF #6 and ESF #8 representatives, the ARC, and other relevant stakeholders.

2.1.2.2 – Per HSEEP guidelines, perform training and exercises regarding the Emergency Traffic Plan in cooperation with the EMD, ESF #1 and ESF #16 representatives, and other relevant stakeholders.

2.1.2.3 – Per HSEEP guidelines, perform training and exercises regarding the Staging Plan in cooperation with the EMD, ESF #1, ESF #6, ESF #8, and ESF #16 representatives, and other relevant stakeholders.

Category 2.1.3 – Resources

2.1.3.1 – Work with other response stakeholders to evaluate the need for additional resources to support transporting people with disabilities.

2.1.3.2 – Work with other response stakeholders to evaluate the need for a Public Address (PA) system on the ramps.

2.1.3.3 – Work with the EMD and Port Everglades to develop joint airport/port emergency support plans, to identify existing and desired resources for emergency preparedness, and to establish emergency communications procedures.

2.1.3.4 – Consider storing certain non-perishable shelter resources on the airport to support expedited deployment.

2.1.3.5 – Evaluate all available communications capabilities within the airport to identify additional communication resources for large-scale events.

Category 2.1.4 – EOC Operations

2.1.4.1 – Work with the EMD and internal BCAD Logistics Section personnel to define available resources, mutual aid agreements, and resourcing procedures.

2.1.4.2 – Develop defined roles for all personnel within the BCAD EOC (i.e. a reason to be in the room) and ensure that each representative understands their role.

2.1.4.3 – Provide all BCAD EOC representatives with communication capabilities, resources to support situational awareness, and consider technology to improve use of cell phones.

Capability 2.2 – Command and Control

Category 2.2.1 – Emergency Planning

2.2.1.1 – Revise the AEP, or create a companion policy document, to include a Concept of Operations for command and control consistent with ICS principles. The Concept of Operations should include procedures to develop an Incident Action Plan (IAP) which includes objectives, assignment, timelines, and resource requirements and provisions to support Unified Command.

2.2.1.2 – Revise the AEP, or create a companion policy document, to include hazard-specific procedures and protocols including active shooter events, mass evacuation, and mass care.

2.2.1.3 – Consider using the ongoing Threat and Hazard Identification and Risk Assessment to inform development or modification of hazard- and threat-specific procedures.

2.2.1.4 – Codify use of conference calls between the BCAD EOC, the County EOC, and ICPs during response operations in BCAD emergency response plans to support and maintain situational awareness.

Category 2.2.2 – Training and Exercises

2.2.2.1 – BCAD should identify ICS assignees and backups to participate in ICS 300 and ICS 400 training which includes discussion of development of IAPs and Unified Command.

2.2.2.2 – Command and control should be consistent with principles set forth in NIMS/ICS. BCAD assigned responders should participate in operations-based exercises to provide assignees a full understanding of their roles.

2.2.2.3 – In the context of an HSEEP-compliant multi-year training and exercise plan, BCAD and the EMD should work together to develop multi-agency response training and exercises including an overview of airport operations and the overall airport facility.

Category 2.2.3 – EOC Operations

2.2.3.1 – BCAD should consider adoption and use of WebEOC to support situational awareness and resource management including requesting, deploying and tracking.

2.2.3.2 – Agencies assigned to serve in ESF roles in the County EOC, or who may participate in other agency EOCs, should be encouraged to provide trained and knowledgeable staff representatives as soon as practical after EOC activation to provide a communication link to their respective agencies.

2.2.3.3 – Agencies should be encouraged to establish communications among active EOCs during joint response to develop and maintain a common operating picture and situational awareness.

Category 2.2.4 – Port Everglades

2.2.4.1 – At the County level, determine if the Port, or other currently undesignated facility, should serve as a designated shelter/mass care facility.

2.2.4.2 – If designated, revise the CEMP and other related documents, as necessary, to include Port-specific procedures.

2.2.4.3 – If designated, provide Port assignees with appropriate ICS and plan-specific training and exercises.

2.2.4.4 – Develop an all-hazards emergency response plan which addresses ICS activation and EOC operations.

2.2.4.5 – Consider developing a Memorandum of Understanding (MOU) with the Port for specific emergency preparedness needs.

Category 2.2.5 – County Level Policy Review/Redress

2.2.5.1 – Among all agencies with assignments in the CEMP, formal redress should occur regarding when Unified Command and multiagency coordination is necessary and how it is to occur.

2.2.5.2 – Among all agencies with assignments in the CEMP, formal redress should occur regarding establishment and use of standard NIMS/ICS facilities including ICPs and Staging Areas. Instruction should also be provided to those agencies regarding establishment of communications between ICPs, EOCs, and Staging Areas.

2.2.5.3 – Staging Area policies should be reviewed to ensure that: 1) Procedures exist to support deployment, positioning and accounting of resources; 2) Provisions are codified to support Staging Area managers who should be assigned to check-in all incoming resources, to provide directions/instruction to responding resources, and to dispatch resources to fulfill resource requests; and 3) Provisions exist to minimize and control self-deploying resources.

2.2.5.4 – Among all agencies with assignments in the CEMP, review and adjust JIC policies, as needed, and communicate through training when activation of a JIC is necessary and the procedures under which a JIC is to operate.

2.2.5.5 – Among all agencies with assignments in the CEMP, formal redress should occur regarding the role of the County Administrator and County Mayor as the overall coordinators of County emergency response operations and CEMP policies as to when communication with executives and policy makers is required.

Capability 2.3 – Operational Coordination**Category 2.3.1 – Emergency Planning**

2.3.1.1 – Within BCAD emergency plans, validate use of designated staging areas and ensure that stakeholders are aware of the designated staging areas and their purpose in supporting response operations.

2.3.1.2 – Evaluate the need for BCAD incident-specific plans and coordinate/reconcile those needs with existing plans under the County CEMP.

2.3.1.3 – Ensure that emergency plans define clearly the parameters regarding airport closure.

2.3.1.4 – Ensure that emergency plans define how to coordinate with airlines to manage grounded flights and passenger resourcing for extended periods of time.

Category 2.3.2 – Training and Exercises

2.3.2.1 – Conduct joint training among emergency management, law enforcement, fire and rescue and other relevant stakeholders to build and understanding of response capabilities and relationships among agency personnel.

2.3.2.2 – Evaluate various command structures via exercises.

2.3.2.3 – Perform additional operational exercises (drills) to build operational and coordination competencies among field responders.

Category 2.3.3 – Resources

2.3.3.1 – Consider an updated modern BCAD EOC to facilitate more robust communication and technology capabilities and to accommodate multiagency participation (individual stations for participants).

2.3.3.2 – BCAD EOC planning should include consideration of facility siting to support ease of access among potential BCAD EOC participants.

2.3.3.3 – Consider the following resources to assist customers and people with special needs: 1) Visual displays for hearing impaired; 2) Multi-language abilities for both audio and visual services; and 3) Capabilities for expedited movement of people with special needs.

Category 2.3.4 – Coordination

2.3.4.1 – Develop and test tactical communication between EOCs, ICPs and field elements (responders) to ensure that missions are transmitted at the tactical level.

2.3.4.2 – Develop strategies and relationships to support coordination between law enforcement and BCAD regarding disposition of passengers during extended response operations.

2.3.4.3 – Develop (or redress) procedures among all emergency responders to use radio discipline to control messaging and to prevent radio traffic overload.

2.3.4.4 – Evaluate capabilities within FLL to message passengers and employees regarding directions and/or options such as transportation.

Category 2.3.5 – County Level Policy Review/Redress

2.3.5.1 – Evaluate various multiagency coordination models (Unified Command, Incident Complex, and Area Command) and work with response agencies and stakeholders to build capabilities to operate using these command and coordination principles.

2.3.5.2 – Consider conducting workshops among CEMP assignees to ensure a consistent understanding of incident-specific planning processes as outlined in the Federal Emergency Management Agency (FEMA) Incident Management Handbook.

2.3.5.3 – Through planning, training, and exercising and as a matter of strict policy, ensure that agencies coordinate large scale incident action planning efforts to prevent duplication of effort, to ensure adequate and accurate resource estimation, to ensure that all stakeholders concur with tactical recommendations, and to ensure that all CEMP stakeholders understand their roles, responsibilities, and limitations as well as those of other stakeholders.

2.3.5.4 – During events of this scale, coordinate with the appropriate state agencies and the Governor's Office, as necessary, for resource support.

Objective 3: Recovery and Post Event Activities

Capability 3.1 – Customer Care

Category 3.1.1 – Emergency Planning: Formalize a BCAD Family Assistance and Customer Care Plan which includes:

3.1.1.1 – Procedures for family reunification;

3.1.1.2 – Procedures for airport employees to serve as authorized teams to support customer care objectives;

3.1.1.3 – Procedures to support displaced passengers with a special emphasis on persons with disabilities and special needs passengers;

3.1.1.4 – Procedures which clearly describe roles and responsibilities of employees to assist passengers during emergencies which include: 1) Identification of safe haven areas; 2) Identification of an Family Assistance Center (FAC) Manager and a Customer Care Manager with assigned roles in the ICS/BCAD EOC; 3) Provisions for and procurement of "Go Kits" for customer care teams to include radios, vests, bullhorns, flashlights, and other equipment as needed; 4) Maps identifying critical assets such as first aid stations, defibrillators, PA systems, safe exits, and escape route; 5) Training for active shooter, tornado, and hurricane response plans; and 6) Storage facilities for resources such as non-perishable food, baby supplies, blankets, and other basic essential needs.

Category 3.1.2 – Customer Care Program

3.1.2.1 – BCAD should develop the Customer Care Program using a community approach and coordinate use of airport tenants that have knowledge of the airport, aircraft, and other technical knowledge to support crowd control, to guide evacuees to designated safe haven areas, and to distribute resources and supplies.

3.1.2.2 – The Customer Care Program should be included or referenced in BCAD emergency plans; it is recommended to codify personnel, training, communication, and roles and responsibilities within an ICS structure as a branch under the Operations Section. The Customer Care Branch should focus on tactics to achieve customer care objectives while providing situational awareness of evacuee status to the BCAD EOC. To ensure that the Customer Care Program can be implemented, terminal tenants should be identified and trained to implement the program.

Category 3.1.3 – Resourcing

3.1.3.1 – Working with the EMD, BCAD should consider developing or resourcing a three (3) day supply of critical care stores positioned in close proximity to terminals for timely access.

3.1.3.2 – Consideration should be given to the stock rotation, inventory and replenishment process.

Capability 3.2 – Personal Item Retrieval

3.2.1 – Building on the success of the personal item retrieval operation, codify personal item retrieval procedures in the Family Assistance and Customer Care Plan and/or COOP Plan to support collection and management of personal belongings in partnership with airlines.

3.2.2 – Include provisions for law enforcement support for securing items collected before transfer to a sorting process.

3.2.3 – Include procedures to identify a location in each terminal to collect personal belongings.

3.2.4 – Include procedures for airline personnel to sort and manage baggage and goods for each of their customers.

3.2.5 – Provide for scalability to accommodate one (1) or four (4) terminals.

3.2.6 – Consider including the on-call contractor for this type of specialty service in periodic training and exercises to ensure that written procedures are achievable, functional, and practical.

Capability 3.3 – Operational Resumption**Category 3.3.1 – Planning**

3.3.1.1 – In collaboration with the Broward County EMD, BCAD should revise the COOP Plan to include three key elements: 1) Resilience provisions that identify critical operational functions and supporting infrastructure with procedures to ensure that they are not affected by relevant disruptions, for example through redundancy and spare capacity; 2) Recovery provisions that allow restoration of critical operational functions that fail under duress; and 3) Contingency provisions that allow FLL to establish capabilities via backup sites which address landside, terminal, and airside operations to the extent practical.

3.3.1.2 – As indicated previously, BCAD should establish emergency access protocols and communicate them among all BCAD and law enforcement stakeholders to ensure that access is provided to essential personnel during response and recovery operations.

3.3.1.3 – Consistent with ICS principles, BCAD should establish a recovery branch in the BCAD EOC that focuses on assessing impacts, defining recovery objectives, and assigning responsibilities to support recovery operations.

3.3.1.4 – BCAD should work with tenants that have knowledge of the airport, aircraft, and other technical airport knowledge to serve as force multipliers during extreme events to support control crowd, evacuee and safe haven management, and distribution of resources and supplies.

Category 3.3.2 – Training and Exercises

3.3.2.1 – BCAD should establish a training and exercises that focus specifically on recovery plans and include: 1) Communication with first responders and stakeholders; 2) Phased planning for recovery and operational resumption; and 3) Financial considerations for operational continuity.

3.3.2.2 – As with all emergency exercising, recovery planning and implementation should be performed using a tiered approach, in compliance with HSEEP, beginning with discussion-based exercises (workshops and tabletop exercises) and progressing to operations-based exercises (drills, functional exercises, and full-scale exercises).

3.3.2.3 – Recovery planning during exercises should start at the early stage of an incident and transition to full recovery.

CHAPTER 1 INTRODUCTION

On January 6, 2017, a lone gunman intentionally discharged a firearm at the Fort Lauderdale-Hollywood International Airport (FLL) resulting in five fatalities and six wounded airport patrons. Speculation of additional firearm discharges in other areas within FLL caused an uncontrolled self-evacuation throughout the airport. The self-evacuation of people into secure areas led to the complete closure of FLL, passenger delays, traffic control issues, and personal property claim issues. On behalf of the Broward County Aviation Department (BCAD), this After-Action Report (AAR) summarizes the event, provides analysis of response actions, and provides recommendations to improve response and recovery capabilities.

1.1 Purpose

The purpose of this report is to describe the response to the events of Friday, January 6, 2017, constructively evaluate and assess strategic and tactical operations, and identify unique issues and challenges faced by the multitude of responders. The goal of this report is to provide practical recommendations to support future emergency preparedness and response, incident management, and recovery. This report does not address law enforcement response to the actual shooting event, apprehension of the suspect, or the crime scene investigation.

It is not the intent of this report to transcribe every detail or element related to the gunman or to speculate on the possible motive for his actions. While it is human nature to desire to know the specific reasons why such a tragedy occurred, the motive is beyond the scope of this review. It is also not the intent of this AAR to question or second guess any actions or decisions of responders on scene that day. The response actions of January 6, 2017 were made in a dynamic and extraordinary environment, under extreme duress, and in the face of a multitude of challenges and dangers. Law enforcement response mitigated the threat in less than 80 seconds. The apprehension of the suspect may have prevented further loss of life and is a testament to the professionalism, training, and bravery of the officers and other first responders who responded to the shooting on that day.

Analysis and lessons learned documented herein are intended to provide BCAD, stakeholders, and the broader aviation community with an understanding of the challenges caused by an active shooter incident in the public, pre-screening areas of an airport. It is also intended to convey thoughtful recommendations for possible improvements in response to incidents that may require rapid, large-scale, multi-agency response and recovery.

1.2 Scope and Methodology

The scope of services performed to develop this AAR includes a review of information relevant to the shooting that transpired on Friday, January 6, 2017 as well as actions that occurred in the hours following the event to facilitate full resumption of operations. In addition to addressing response and recovery, information provided herein includes a summary of FLL's preparedness activities for such an event.

It is not within the scope of this document to assess staffing numbers for law enforcement operations or other response operations; a separate and independent staffing assessment is being conducted as a separate task. In general, deployment of law enforcement and others in response to the initial shooting and the subsequent events appears to have been adequate. Beyond staffing numbers, critical focal points within the analysis provided herein relate to specific capabilities relevant to response needs which include procedural development and coordination among stakeholders, competencies gained through training and exercises, and physical resources to support certain tasks. Policies regarding weapons and right-to-carry issues are also outside of the scope of this report.

The review and this resulting AAR were conducted and developed consistently with guidelines set forth in the U.S. Department of Homeland Security (DHS) Homeland Security Exercise and Evaluation Program (HSEEP) to support the "evaluate/improve step" in the Preparedness Cycle provided in Figure 1. As part of the AAR, HSEEP requires an Improvement Plan (Appendix A) which includes recommendations developed based on lessons learned during the

Figure 1 – Preparedness Cycle



review process. Recommendations provided in the Improvement Plan are based on capability targets premised on best practices and relevant government guidelines including the National Preparedness Goal as well as other relevant sources.

Also consistent with HSEEP, Appendix B, Lessons Learned, summarizes general lessons learned which can be shared with the broader aviation and homeland security communities. The DHS maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-event lessons learned with relevant stakeholders.

Steps used to conduct the review include:

1. Identifying objectives and capabilities;
2. Identifying and consulting with participants in the review; and
3. Information gathering and analysis.

These steps are described in more detail below.

1.2.1 Objectives and Capabilities

As an initial step in the review process, identifying relevant and accepted response objectives and capabilities allows analysis of outcomes through a framework of specific action items derived from the National Preparedness Goal. The objectives and capabilities provided below form the foundation for evaluation criteria to support effective review of actions taken during the events of Friday, January 6, 2017. Relevant objectives and capabilities used to support the review process are provided below:

- Objective 1 – Airport-Wide Response: Implement those capabilities necessary to save lives, protect property and the environment, stabilize the incident, and support transition to recovery after an incident has occurred.
 - Capability 1.1 – Interoperable Communications: Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, state, and local first responders.
 - Capability 1.2 – Evacuation/Shelter-in-Place Operations: Establish physical access and resources to support effective evacuation and/or shelter-in-place operations.
 - Capability 1.3 – Public Information and Warning: Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the transition to recovery.
- Objective 2 – Emergency Management and Operational Coordination: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
 - Capability 2.1 – Mobilization: Mobilize all critical resources and establish command, control, and coordination structures within the BCAD Emergency Operations Center (EOC).
 - Capability 2.2 – Command and Control: Enhance and maintain command, control, and coordination structures, consistent with the National Incident Management System (NIMS), to meet evolving needs, stabilize the incident, and transition to recovery.
 - Capability 2.3 – Operational Coordination: Establish lines of communication and coordination between the Airport Operations Control Center (AOCC), BCAD EOC, BSO EOC/ICP, County EOC, Federal Aviation Administration (FAA) Air Traffic Control, and other stakeholders (i.e. airline, tenant, concession, general aviation, traffic management, non-profits, etc.) to maintain situational awareness, to identify response needs, and to coordinate mutual aid.
- Objective 3 – Recovery and Post Event Activities: Implement capabilities necessary to support customer care and employee wellness, to restore and maintain a healthy and safe environment, and to assist stakeholders in resumption of operations.
 - Capability 3.1 – Customer Care: Mobilize resources and work with outside agencies to support general customer care, counseling and mental health services among impacted stakeholders including customers, airline, concessionaire, and BCAD employees, and others as needed.
 - Capability 3.2 – Personal Item Retrieval: Establish processes and resources to collect and secure personal items left behind, to identify owners, and to transmit items to their owners.

- Capability 3.3 – Operational Resumption: Implement operational continuity plans and resources necessary to resume operations within the impacted area including airlines, concessionaires, and other airport services.

1.2.2 Participants

Identifying a robust and inclusive list of stakeholders to participate in the review was vital to obtaining specific information regarding the event and to support identification of lessons learned. Through consultation with BCAD, the following stakeholders were identified and participated in the review:

- Airlines;
- American Red Cross (ARC);
- Broward County Administration;
- Broward County Aviation Department (BCAD);
- Broward County Emergency Management Division (EMD);
- Broward County Office of Regional Communications and Technology/911;
- Broward County Port Everglades;
- Broward County Transit (BCT);
- Broward Sheriff's Office (BSO) (law enforcement and fire);
- City of Fort Lauderdale Fire Department;
- Concessionaires at FLL (food, parking, rental cars, transportation);
- Customs and Border Protection (CBP);
- Federal Aviation Administration (FAA);
- Federal Bureau of Investigation (FBI); and
- Transportation Security Administration (TSA).

1.2.3 Information Gathering and Analysis

The information gathering and analysis process involved three primary tasks to support a full understanding of events as they occurred and to allow assessment of actions:

- Stakeholder Questionnaires – Questionnaires were developed and sent to a representative sample of airport stakeholders to allow collection of data and perspectives regarding response and recovery actions;
- Document Review – BCAD response and recovery policies and procedures, past AARs, and other relevant agency policies and procedures were reviewed to identify the response and recovery posture prior to the event and to assess how policies and procedures were used; and
- Stakeholder Interviews – To augment responses received via Stakeholder Questionnaires and to gather information from additional stakeholders, interviews were conducted in person and via telephone to allow stakeholder representatives an opportunity to provide more detail and to allow the review team to pose relevant questions to specific stakeholders.

Data and information identified during interviews and incident-specific reports were reviewed and correlated with existing procedures to assess compliance with those procedures and to identify potential procedural additions or modifications necessary to improve response capabilities. Recommendations are provided in Chapter 3, Observations and Analysis. Emergency plans and procedures reviewed to support analysis of response to this event include:

- Airport Certification Manual, Fort Lauderdale-Hollywood International Airport, approved June 24, 2016;
- Airport Emergency Plan, Fort Lauderdale-Hollywood International Airport, approved June 24, 2016;
- Continuity of Operations Plan, Fort Lauderdale-Hollywood International Airport, 2016;
- Terminal Evacuation Plan, Fort Lauderdale-Hollywood International Airport, January 2016; and

- Comprehensive Emergency Management Plan, Broward County Emergency Management, September 15, 2015.

Actions taken on the day of the event were analyzed in relation to these plans. In addition, the standards and guidelines below were used to assess the extent of planning and to identify planning needs:

- Guidance on Planning for Integration of Functional Needs Support Services in General Population Shelters, U.S. Department of Homeland Security, November 2010;
- National Incident Management System (NIMS), U.S. Department of Homeland Security, 2008;
- Homeland Security Exercise and Evaluation Program, U.S. Department of Homeland Security, April 2013;
- National Infrastructure Protection Plan, U.S. Department of Homeland Security, 2013;
- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide 101, Developing and Maintaining Emergency Operations Plans, U.S. Department of Homeland Security, November 2010;
- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide 502, Considerations for Fusion Center and Emergency Operations Center Coordination, U.S. Department of Homeland Security, September 2009;
- National Response Framework, U.S. Department of Homeland Security, June 2016;
- National Disaster Recovery Framework, U.S. Department of Homeland Security, June 2016;
- Public Area Security National Framework, U.S. Department of Homeland Security, May 2017; and
- Report 112, Airport Terminal Incident Response Planning, Airport Cooperative Research Program, National Academy of Sciences, 2014.

1.3 Incident Overview

On Friday, January 6, 2017 at approximately 12:54 PM, a male passenger, arriving on a flight from Minneapolis, obtained a handgun from his claimed baggage and discharged the weapon in the baggage claim area of Terminal 2 at FLL. Of the eleven (11) people who were shot, six (6) were wounded, and five (5) were killed. Closed Circuit Television (CCTV) video indicates travellers rushing out of the terminal to restricted tarmac areas while law enforcement officers were responding to the scene. The actual shooting event lasted less than 80 seconds and ended when the perpetrator ran out of ammunition, laid down on the ground, and surrendered to law enforcement officers at the scene. Of the six people injured in the shooting, three were admitted to intensive care units. Law enforcement indicated that approximately 40 others were injured in the panic during the shooting event, herein referred to as the first incident. Terminals 1, 3, and 4 remained operational at this time.

The second incident started at approximately 2:22 PM with radio communications indicating unsubstantiated reports of additional shots fired in Terminal 1 and the Hibiscus Garage. As a result of radio transmissions, response among passengers, tenants, and airport employees triggered uncontrolled and unmanaged self-evacuation of personnel, many of whom ran into secured areas and onto active aprons. Some received minor injuries during the self-evacuation.

Due to the breach of restricted areas on the airfield during the self-evacuation and the ongoing investigation of the actual crime scene in Terminal 2, law enforcement began sweeping and clearing each of the four (4) terminals at FLL to ensure that all areas were clear of any threats and to re-establish secure areas. Because of the incurrence into secure zones, the FAA issued a ground stop notice closing FLL to all but emergency flights. Subsequently, airport operations were officially terminated at approximately 2:24 PM and all airport roadways were closed to incoming traffic at 2:52 PM. Law enforcement continued clearing the rest of the airport until approximately 8:30 PM at which time the final aircraft returned to Terminals 1, 3, and 4; however, the crime scene investigation continued at Terminal 2.

At approximately 5:48 PM, BCAD redirected the focus on recovery operations by establishing a hotline to allow friends and family obtain information about travelers. Within the BSO Incident Command Post (ICP), a plan was devised and coordinated with the BCAD EOC to move displaced passengers to Port Everglades, Terminal 4 for temporary shelter. At approximately 6:48 PM, passengers with personal vehicles were permitted to retrieve vehicles and exit the airport. Passenger transport to Port Everglades continued through the evening hours and a plan was implemented to reopen FLL Terminals 1, 3, and 4 the following day at 5:00 AM on January 7, 2017. Authorized

employees were allowed to re-enter all terminals, except Terminal 2, starting at 4:00 AM. Phone numbers and procedures for returning personal effects were also established and communicated to the public via social media.

Port Everglades, staffed by the ARC, assisted approximately 10,000 passengers who were bused to Port Everglades for food and shelter and to connect to other means of transportation. The airport remained closed for the remainder of the day but reopened to commercial flights early the following day. As result of the chaos that ensued following the shooting, more than 20,000 personal items were left unclaimed at the airport.

BCAD, with support from the Broward County EOC, continued recovery operations until 11:00 AM on January 11, 2017.

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CHAPTER 2 BACKGROUND

This Chapter provides background information regarding the physical layout of the airport, a description of operations, and the sequence of events which occurred on January 6, 2017. This background information was gathered to support analysis of response actions and recommendations provided in Chapter 3.

2.1 Airport Orientation

Fort Lauderdale-Hollywood International Airport (FLL) is located in Broward County, approximately three miles southwest of Fort Lauderdale and is bounded by Fort Lauderdale, Hollywood and Dania Beach. It is located near Port Everglades, a cruise line terminal which is popular among tourists bound for the Caribbean. FLL is operated by the Broward County Aviation Department (BCAD) which is a self-supporting department of the Broward County Board of County Commissioners. FLL is located in South Florida in the heart of Greater Fort Lauderdale's Gold Coast.

The Airport is ranked 21st in the United States in total passenger traffic and 15th in domestic origin and destination passengers. With more than 700 flights a day, the Airport offers nonstop service to more than 70 U.S. cities and international service to Canada, the Bahamas, the Caribbean, Mexico, Latin America, Europe and the Middle East. In 2016, the airport processed 29,205,002 passengers, up 8.4% from 2015, including 6,055,415 international passengers, up 10.1%. An aerial view of FLL is provided in Figure 2.

Figure 2 – Fort Lauderdale-Hollywood International Airport



2.2 Operational Overview

BCAD employs 544 employees to support FLL airside and landside operations. Law enforcement and fire services are provided via a contract agreement with the BSO. Mutual aid agreements support staffing levels during emergencies utilizing nearby county and other jurisdictional resources.

FLL has four terminals. The shooting incident took place in Terminal 2 which has one concourse and nine (9) gates and is used by Delta, Delta Connection, Air Canada, and Air Canada Rouge. Figure 3 provides an overview of the FLL terminal orientation.

Figure 3 – Terminal Orientation

2.3 Sequence of Events

Within approximately nineteen (19) minutes of the actual shooting on January 6, 2017, the BCAD EOC was activated and continued operations through January 11, 2017 to support recovery efforts. The sequence of events provided below was developed using information obtained from BCAD EOC reports, Broward EOC Situation Reports and Incident Action Plans (IAP), and stakeholder interviews and questionnaires. With the exception of the County EOC, Incident Command System (ICS) forms were not utilized to document activities; therefore, the exact timing of certain functions cannot be confirmed and all times are approximate.

January 6, 2017

- 12:15 PM.....Gunman deplaned Delta Flight 2182 via Gate D-5 jet bridge.
- 12:27 PM.....Gunman retrieved bag from carousel 2 in the Terminal 2 baggage claim area.
- 12:46 PM.....Gunman walked to the men’s restroom (west end of the Terminal 2 baggage claim area).
- 12:52 PM.....Gunman exited the restroom walking east through the Terminal 2 baggage claim area.
- 12:53 PM.....Gunman fired first shot in Terminal 2 baggage claim area.
- 12:54 PM.....Gunman engaged by BSO deputy; gunman surrenders and is apprehended.
- 12:54 PM.....Incident reported to BCAD Operations.
- 12:55 PM.....Additional BSO deputies arrived, established a perimeter, and assisted victims.
- 12:55 PM.....Aircraft movement at Terminal 2 and on the North side of airport was suspended.
- 12:55 PM.....Spontaneous evacuation of passengers/persons from Terminal 2 onto secured area ramp commenced.
- 12:59 PM.....BSO Aircraft Rescue and Fire Fighting (ARFF) arrived on-scene to begin triage.
- 01:05 PM.....BSO ARFF began treating victims; transport of casualties to medical facilities was initiated shortly thereafter.

01:07 PM.....Everbridge notices were released to BCAD personnel to report to the BCAD EOC.

01:08 PM.....Access to the lower level airport roadway was closed for law enforcement traffic only.

01:13 PM.....BCAD EOC activated.

01:40 PM.....Broward Health deployed personnel to FLL Family Assistance Center (FAC); ARC activated.

01:47 PM.....Hospital deployed to Terminal 4 Family Room.

01:47 PM.....All services were temporarily suspended at FLL.

01:51 PM.....Advised Palm Beach, Miami International, and regional airports of the incident.

02:03 PM.....Passengers were moved upstairs in Terminal 2.

02:22 PM.....A report of shots fired at the Palm Garage was communicated by law enforcement. Additional reports of shots fired occurred between 2:24 PM and 3:24 PM; none of the additional shots fired were substantiated.

02:24 PM.....FLL closed.

02:43PM.....BSO notified the Florida Highway Patrol of road closures at the following locations: 1) 1-595 exits to Dania Beach and FLL; 2) Northbound Federal Highway at Griffin Road; and 3) SR 84 and 22nd Street by the US Post Office.

02:47 PM.....Gate 100 was opened to let passengers/employees out of the secure area.

02:52 PM.....Airport roadways were closed to all incoming vehicles.

03:00 PM.....BSO Twitter account indicates: "Active search: Unconfirmed reports of additional shots fired on airport property.

03:25 PM.....Press conference held and included BSO, BCAD, and FBI representatives to communicate current status; first live press conference with media.

03:40 PM.....Family Room opened to support customer care operations.

04:19 PM.....A man was detained who dropped a bag trying to jump the fence.

04:25 PM.....BSO will detonate bag dropped by man who jumped the fence at 5:00 PM.

04:30 PM.....Stakeholder Conference Call held to provide a situational report

05:00 PM.....BSO detonated the bag.

05:15 PM.....Situation Report:
BSO continues to actively work on clearing Terminals beginning with Terminal 1, Terminal 3, and Terminal 4. Terminal 2 is an active crime scene.
The first priority is to make certain campus is safe.
Terminal 1 has a specific safe zone (once all clear is received).
Approximately 1,000 bags need to be retrieved.

05:30 PM.....Governor Rick Scott held a press briefing.

05:40 PM.....Conference call conducted to discuss the airline's plans for operations into throughout the rest of the day.

05:48 PM.....A hotline for information about friends and family was established. The public was not allowed on airport property at this time.

05:59 PM.....Announcement was broadcasted over the Public Address (PA) system that all persons should Shelter in- Place until further notice.

06:08 PM.....The AOCC was advised that passengers are to be bused to Port Everglades.

06:48 PM.....Critical airplanes were scheduled to come in first at Terminal 1 and Terminal 3 as Terminal 4 was not cleared at this time. Passengers without transportation were instructed to get on a bus on the upper levels of Terminals 1, 3, or 4 and were bused to Port Everglades Terminal 4 to obtain a taxi or other accommodation. Those with transportation were directed to the garage.

07:03 PM.....Passengers were directed to Terminal 1 for bus evacuations to Port Everglades.

07:13 PM.....BCAD Operations personnel were sent to an emergency perimeter gate to bring buses to the hangar where people were sheltered.

07:34 PM.....FLL Terminal 4 was cleared to accept aircraft.

08:31 PM.....Aircrafts that were on the airfield have returned to gates. JetBlue International was the last aircraft at Terminal 4.

09:30 PM.....Stakeholder Conference Call was held to provide a situational report – Passengers are still being transported to Terminal 4 Port Everglades. FBI is conducting an investigation. Airport will reopen at 5:00 AM for Rental Car Center (RCC), Terminal 1, Terminal 3, and Terminal 4 only. Employees are allowed in at 4:00 AM except for Terminal 2. Phone number and procedure will be posted on social media concerning retrieving personal items.

09:50 PM.....Situation Report: Personnel are still working at Terminal 4 Port Everglades to support sheltering and customer care services.

January 7, 2017

12:37 AM.....AOCC Manager requested airline personnel to report to Port Everglades to support customer care operations

12:00 AM.....GA and cargo operations resumed.

02:47 AM.....Advised that BCAD and TSA employees are allowed to return to the airport.

03:19 AM.....Employees will be allowed into the airport, with the exception of Terminal 2, at 04:00 AM; buses will be functioning.

04:27 AM.....Keolis was advised to begin bus operations at Port Everglades.

04:30 AM.....Seven (7) shuttle buses began Port Everglades passenger pickup operations.

04:44 AM.....All airport roadways are open for passengers and employees.

05:00 AM.....Completed retrieval of 20,000 personal items estimated left by passengers.

07:30 AM.....Tenant briefing (teleconference) to discuss lodging and customer care operations.

08:00 AM.....Operational Briefing held in County EOC.

09:15 AM.....Terminal 4 Port Everglades FAC stood down.

10:20 AM.....Decontamination/sterilization of Terminal 2.

11:00 AM.....BC EOC stand down.

12:00 PM.....Tenant Briefing (teleconference).

12:20 PM.....EAP Counselor on site at Terminal 4 conference room C.

01:40 PM.....Terminal 2 upper level resumed operations.

January 8, 2017

08:00 AM.....Two (2) mobile Department of Motor Vehicles units commenced issuing drivers licenses at GTA2 for those who had lost their identification.

08:00 AM.....Baggage sorting commenced at Victory Hangar.

12:22 PM.....Report is issued of TMZ having video of shooter; upon review of the video, it was evident that a recording device was used to capture the CCTV footage from a PC.

12:56 PM.....Employee recall issued for customer support in front of terminals.

08:00 PM.....Call center established at BCAD EOC.

January 9, 2017

07:00 AM.....Call center operations continued.

08:35 AM.....Plan to deliver bags to customers developed and initiated by BCAD:
Five (5) people with trucks and GPS utilized for delivery.
Five (5) maintenance staff members were utilized to assist with loading.
Two (2) additional staff members were utilized to call patrons with delivery information once items were located.

1100 AM-1200 PM.....A Delta flight used Terminal 2, Carousel 3 baggage belt for the first time since the incident.

7:00 PM.....Personal items delivery suspended for the day.

CHAPTER 3 OBSERVATIONS AND ANALYSIS

This section provides analysis of response performance in relation to relevant objectives, capabilities and expected activities, tasks, and outcomes. Observations are organized by objectives and associated capabilities. Each capability is followed by related observations, analysis, and recommendations. Observations are based on questionnaires, interviews, and review of existing emergency response plans and procedures.

3.1 Airport-Wide Response

3.1.1 Capability: Interoperable Communications

Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, state, and local first responders.

3.1.1.1 Observations

When the suspect began shooting in the baggage claim area of Terminal 2 at FLL, reports of shots fired were communicated to BCAD authorities and first responders. The volume of communications during the initial event was high but manageable with existing radio communication systems and related cellular service. Approximately 90 minutes later, the second event began with reports of additional shots fired in other airport locations and the subsequent spontaneous evacuations occurred. As a result of the second event, many additional law enforcement resources deployed to the airport and radio and cellular systems became saturated and periodically overwhelmed. Due to the periodic saturation of 800 Megahertz (MHz) radio and cellular systems, communication between first responders and command elements was hindered and negatively impacted response operations.

First responders have historically used radio systems as their primary means of communication. Current technology can improve signal clarity and the number of channels available. However, a limiting factor among all radio systems that cannot be overcome by technology is that only one person can talk at one time on a specific channel or frequency. In an event of this magnitude with hundreds of responders, multiple channels and/or frequencies have to be used in pre-established protocols for 800MHz radio systems to be effective; however, the more channels used, the more difficult it is for those listening to maintain situational awareness. For responders using cellular devices, battery life and charging capability hindered their use as the event progressed. Alternative methods of communication should be explored to support events of this magnitude and to add capacity to the system.

Positive attributes regarding interoperable communications are summarized below:

1. During the initial shooting event, first responders used available communication resources to summon law enforcement and emergency medical resources to the Terminal 2 baggage claim area in a timely manner;
2. BCAD personnel were quickly notified via formal (AOCC) and informal (cellular calls) communication methods;
3. The BCAD EOC was activated quickly, personnel summoned responded rapidly to the EOC, and BCAD established initial communication with BSO, CBP, FAA, TSA, and other agencies;
4. BCAD recognized the need to notify the ARC quickly based on the magnitude of the event and the need for passenger care support;
5. Tactical teams responded and established effective communications between their leadership and the BSO ICP; and
6. BCAD and Broward County leadership established a continual and open line of communication through the County EOC with regular updates.

Opportunities for improvement regarding interoperable communications are summarized below:

1. Coordination and communication between the BSO ICP and the BCAD EOC were limited and use of ICS was not evident. The BCAD EOC requested a BSO liaison to report to the BCAD EOC to coordinate response operations, but BSO did not respond despite the role defined in the Airport Emergency Plan (AEP);

2. None of the people interviewed, including personnel in the BSO ICP, had a clear understanding of who the Incident Commander was throughout the event which hindered communications, situational awareness, and management of response operations;
3. Communication with and instructions to responding law enforcement resources responding after the second event were inadequate. Estimates of up to 2600 law enforcement officers from the region responded to FLL with no designated staging area to support deployment and assignment of duties. As a result, self-deployed law enforcement resources having no knowledge of the airport hindered the response and prevented employees with valid security badges from getting to their workplace to support legitimate response operations. The issue of resource management, including law enforcement officers, is discussed further in Section 3.2.1, Capability: Mobilization;
4. Communications in the BSO ICP were hampered due to the confined space, location of the mobile command post (landside, lower roadway), and poor cellular phone reception. Cellular-based communications were also hindered by battery life and radio communications were at capacity;
5. Initially, at least three ICPs were activated by BSO, BSO Department of Fire, Rescue, and Emergency Services, and the FBI. Multiple ICPs and a lack of communication among them and with the BCAD EOC and County EOC hindered response coordination. Some agencies summoned to the ICPs did not have instructions on where to report;
6. The BSO ICP did not have awareness as to the number, location, or capacity of law enforcement and non-law enforcement resources available. Many of the BSO officials in the ICP were unfamiliar with BCAD capabilities and tenant resources available. Likewise, most of the law enforcement personnel who responded lacked clear instructions, objectives, and roles. In addition, most of the law enforcement officers who responded were unfamiliar with the airport and airport security rules including the type of security badges which allow access to certain areas. As a result, responding BCAD employees were initially denied access to areas to which access was required to support response operations;
7. Responders to the event lacked an understanding of the meaning of “closing the airport,” specifically regarding the impacts to landside, terminal, and airside operations as well as requirements to resume airport operations.
8. The BSO ICP and BCAD EOC requested resources from the County EOC simultaneously without coordination resulting, in some cases, in conflicts regarding similar resources (buses, shelter space, etc.);
9. The BSO ICP did not provide information to the Joint Information Center (JIC) on a regular basis throughout the incident;
10. The BSO ICP did not communicate regular status reports to other first responding agencies to support accurate and timely situational awareness;
11. Unsubstantiated reports of additional firearm discharges broadcasted over law enforcement radios led to members of the public and airport workers overhearing these transmissions assisted in the uncontrolled public reaction;
12. Situational awareness procedures and roles in the BCAD EOC among section chiefs are ill-defined resulting in the inability to formulate clear priorities and tasks;
13. Public safety stations, most notably BSO and ARFF, in the BCAD EOC are not equipped with the same communication equipment as other positions (no land-line phones or computers) and, due to lack of distributed antenna systems to amplify the signals, handheld radios do not work well within the BCAD EOC;
14. Some tenants were not familiar with procedures to contact the BCAD EOC or were unable to get through;
15. Law enforcement who were clearing the airfield were unaware of how to communicate with people in aircraft;
16. Communication of the role, authority, and logistical needs of the FBI was lacking among decision makers in the BSO ICP and BCAD EOC. Specific areas of confusion include:
 - a. In what elements of the event was FBI the lead agency;
 - b. Who was responsible for controlling and clearing held aircraft and passengers; and
 - c. What aspects of the event, such as clearing potential witnesses and releasing information to the media, required FBI oversight;
17. The mass notification system does not provide complete and adequate coverage throughout the airport which hindered the ability to inform passengers and employees of travel options and instructions;

18. Methods for communicating with displaced and sheltering passengers and employees were inadequate;
19. Communication methods and protocols between BCAD and the airlines (locally and at the corporate level) require clarification and should be coordinated with the FAA who did conduct conference calls with airlines;
20. Communication methods and protocols with the non-airline tenants and cruise lines (locally and at the corporate level) are lacking;
21. BCAD emergency plans should include the RCC and other key tenants outside of the terminals. People sheltering in the RCC had little or no contact with BCAD or BSO and employees in the RCC indicated that they did not receive evacuation training prior to the event;
22. Communication methods and protocols with parking and ground transportation providers were not established and hindered ground transportation;
23. Law enforcement resources performing perimeter security and monitoring duties lacked knowledge of the role ground transportation entities provide at the airport and often denied them access during the event;
24. Visual paging in several areas was not working or not utilized to help communicate in this event;
25. BSO first responders did not establish a protocol for communicating with private sector ambulance crews that do not operate on first responder radio frequencies; and
26. When Port Everglades officials were first contacted by the BSO ICP, a clear mission was not communicated and the number of people Port Everglades was requested to accommodate was inaccurate (900 versus an actual number of approximately 10,000).

3.1.1.2 Analysis

Spontaneous, uncontrolled evacuations of this magnitude in large public settings are rare, thus many lessons can be learned to support emergency preparedness within the aviation industry and other large public venues. As a result of the attacks of September 11, 2001, the prohibited items list for carry-on items was significantly expanded and the passenger screening function was transferred from private sector companies employed by the airlines to the newly formed TSA. After a few years and periodic review and modification of procedures, airport operators and the TSA improved communication and protocols to the point that checkpoint breaches and terminal dumps are virtually non-existent. Recommendations provided below and throughout this AAR are a reflection of a changing threat environment and not a negative reflection on the hard-working and dedicated personnel of BCAD, BSO and other agencies that responded.

Regarding interoperable communications capabilities, shortfalls in radio capacity were evident during response operations. However, analysis indicates that the problem is as much a personnel resource management issue as a radio or cellular capacity issue. Stated another way, proper staging and written instructions for deploying resources could have reduced the amount of radio traffic and limited interruptions in service. Moreover, pre-planning, training, and exercises among all County agencies is necessary to support interoperability among various agencies.

Training and exercises are recommended in this section and throughout this AAR to build competencies among assignees, to build relationships among airport stakeholders, and to test plans, resources, and personnel. Because training and exercises are an important aspect of emergency preparedness, a brief explanation of the Homeland Security Exercise and Evaluation Program (HSEEP) is warranted. HSEEP is a national program initiated by DHS to support emergency preparedness initiatives in the aftermath of the terrorist attacks which occurred on September 11, 2001. Training and exercises recommended throughout this AAR should be conducted consistently with procedures and guidelines defined in HSEEP.

HSEEP consists of guidelines to support the strategic management of training and exercise programs as well as the development and conduct of training and exercises. Training and exercise opportunities should be based on prioritized core capabilities defined in consultation with airport stakeholders.

Core Capabilities are distinct critical elements necessary to achieve the specific emergency preparedness mission areas of prevention, protection, mitigation, response, and recovery. Core Capabilities provide a common vocabulary that describes the significant functions required to deal with threats and hazards that must be developed and executed to ensure preparedness.

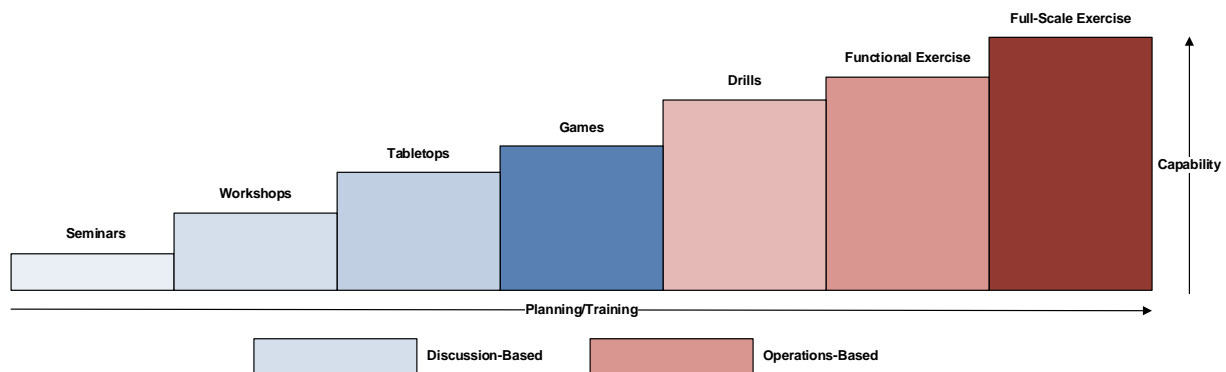
HSEEP also provides an important “lessons learned” component to the development and conduct of exercises. Under HSEEP policy and guidance, exercises lead to tangible preparedness improvements, and provide participants with valuable opportunities to practice emergency response functions. Training and exercises are developed and conducted in phases:

- **Design and Development:** This process focuses on identifying objectives, designing the scenario, creating documentation, coordinating logistics, planning exercises, and selecting an evaluation and improvement methodology;
- **Conduct:** After design and development steps are complete, the exercise takes place. Exercise steps include setup, briefings, facilitation/control/evaluation, and wrap-up activities;
- **Analysis:** This phase involves analyzing and documenting strengths and weaknesses observed during exercises. The evaluation phase for all exercises includes a formal exercise evaluation, integrated analysis, and an After Action Report/ Improvement Plan (AAR/IP) that identifies action items to track throughout the subsequent improvement planning phase; and
- **Improvement Planning:** During improvement planning, the action items identified in the evaluation phase are assigned with due dates to responsible parties, tracked to implementation, and validated during subsequent exercises.

This process provides an opportunity for tangible improvement in response procedures, resources, and capabilities.

Seven types of exercises are defined in HSEEP including discussion-based and operations-based exercises. Discussion-based exercises familiarize participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures. Operations-based exercises validate plans, policies, agreements and procedures; clarify roles and responsibilities; and identify resource gaps in an operational environment. HSEEP uses a building block approach to ensure that exercise participants’ progress at a logical pace. Figure 4 indicates the building block approach including both discussion-based and operations-based exercises.

Figure 4 – HSEEP Building Block Approach



Discussion-based exercises include the following:¹

- **Seminar** - An informal discussion, designed to orient participants to new or updated plans, policies, or procedures;
- **Workshop** – Resembles a seminar but is employed to build specific products such as a draft plan or policy;
- **Tabletop Exercise** - Involves key personnel discussing simulated scenarios in an informal setting and can be used to assess plans, policies, and procedures; and

¹ Homeland Security Exercise and Evaluation Program, Department of Homeland Security, April 2013, pg. 2-4.

- Game – A simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation.

Operations-based exercises include the following:²

- Drill – A coordinated, supervised activity usually employed to test a single specific operation or function within a single entity;
- Functional Exercise – Examines or validates coordination, command, and control among various multi-agency coordination centers (e.g., emergency operation center, joint field office, etc.) and does not require “boots on the ground” (i.e., first responders or ICS management responding to an incident in real time); and
- Full-Scale Exercise – A multi-agency, multi-jurisdictional, multi-discipline exercise involving functional (e.g., emergency operation centers) and boots on the ground responses.

For BCAD purposes, three primary types of exercises are recommended: 1) tabletop exercises; 2) drills; and 3) full-scale exercises. Tabletop exercises and drills generally involve a limited number of personnel (<25), are focused on a particular function, and are cost effective to develop and conduct. Full-scale exercises require advanced planning (> 6 months), are costly to perform, and require a large number of personnel. Full-scale exercises are recommended only periodically (i.e. every three years); tabletop exercises and drills can be conducted much more frequently (i.e. quarterly/bi-annually). Drills provide the opportunity to build competencies in a step-wise manner while reducing the impact on day-to-day operations; tabletop exercises can be used to team-building among command staff and airport stakeholder senior managers.

3.1.1.3 Recommendations

The following recommendations are provided to improve communications capabilities:

1. Emergency Planning:
 - a. Clarify the assignment of the Incident Commander and address how BSO Incident Commanders should interact with the BCAD Seniority of Personnel stated on page Basic-1 of the AEP;
 - b. Within requisite BCAD emergency response plans, clarify roles, responsibilities, authorities, communication requirements, and reporting structure of BSO staff (both law enforcement and ARFF) during airport emergencies;
 - c. Within requisite BCAD emergency response plans, clarify participants and communication responsibilities between the ICP, the BCAD EOC, and the County EOC;
 - d. Address mutual aid response by law enforcement agencies similar to Basic Page 2 of the AEP which addresses mutual aid deployment and staging of fire/rescue agencies;
 - e. Consider developing a Tactical Communications Plan for first responders during high volume events when radio and cell phones are busy, not working or overwhelmed;
 - f. Clarify the role of the FBI and coordination protocols with BCAD during an active shooter event as it relates to criminal investigation, logistical needs, holding and release of airport passengers including those on aircraft, and arrival and departure of aircraft after the event;
 - g. In coordination with BSO, review and update procedures for establishing and maintaining an ICP;
 - h. Address EOC staffing for events anticipated to extend past twelve (12) hours and which require multiple shifts;
 - i. Develop a Risk Communication Plan to support accurate and consistent messaging to tenants, the public, and the media and to convey clear methods of contacting BCAD. The plan should address:
 - i. Displaced and sheltering passengers;
 - ii. Passengers and crew on aircraft that are being held on a ground stop;

² Homeland Security Exercise and Evaluation Program, Department of Homeland Security, April 2013, pg. 2-5.

- iii. In-bound aircraft that have to be diverted and associated communications with the airlines and airports affected;
 - iv. First responder radio systems including use of earpieces in lieu of open microphones;
 - v. Airline and non-airline tenant management and employees working throughout the airport (rental cars companies, concessionaires, ground transportation providers, FBOs, etc.);
 - vi. Airline corporate operations centers;
 - vii. Private sector ambulance companies;
 - viii. Airports impacted by diverting flights; and
 - ix. Cruise lines, local and corporate;
 - j. Review and update the mass notification system groups to include all key tenants and stakeholders (concessionaires, rental cars, ground transportation entities, and tenants outside the terminal area);
2. Training and Exercises:
- a. Develop a mandatory initial and recurring ICS training course for all potential Incident Commanders for FLL events and include a thorough overview of the AEP;
 - b. Conduct joint BSO and BCAD training and exercises regarding Unified Command; and
 - c. Conduct joint exercises between BCAD, Port Everglades and the EMD including scenarios that impact both FLL and Port Everglades;
3. Resourcing:
- a. Review and budget for improvements to the public notification systems including visual paging and portable systems that could be used outdoors;
 - b. Consider acquiring earpieces for law enforcement personnel to prevent the inadvertent broadcast of unconfirmed information over the radio to non-law enforcement personnel; and
 - c. Review and evaluate the performance of the 800 Megahertz (MHz) radio system and cellular capabilities to identify if system enhancements are warranted. Consider including cellular providers in assessment of communications and assess the need for digital antenna systems to support both radio and cellular service.
4. ICP/EOC Operations:
- a. Develop structured methods to ensure communication between ICPs, EOCs, and the JIC and among all agencies including BCAD, BSO, County agencies, the FBI, and Port Everglades to support a common operating picture and situational awareness;
 - b. Develop communication protocols between BCAD, BSO, and TSA at checkpoints to ensure that they are not evacuated for unsubstantiated reasons yet still address personnel safety around the checkpoint;
 - c. Develop procedures to identify critical essential non-law enforcement employees and to allow access to ICPs and EOCs during an incident; and
 - d. Develop a process to ensure that the EOC and ICP receive food and beverages during extended operations.

3.1.2 Capability: Evacuation/Shelter-in-Place Operations

Establish physical access and resources to support effective evacuation and/or shelter-in-place operations.

3.1.2.1 Observations

FLL has a Terminal Evacuation Plan (TEP) dated January 2016 that focuses on an orderly exit from the terminal for fires and other events. However, the TEP does not presume spontaneous evacuations by the public and employees in multiple adjoining facilities such as terminals, parking garages and rental car facilities. The nature and magnitude of the events at FLL on January 6, 2017 exceeded the provisions of the existing TEP. The secondary event occurred quickly and led to spontaneous evacuations and sheltering in place in a very short period of time at multiple facilities in the airport terminal area.

Positive attributes regarding evacuation and shelter-in-place operations are summarized below:

1. Several concessionaires and airlines provided food and liquids to people who had evacuated or where sheltering;
2. Employees of several airlines and concessionaires took the initiative to care for the needs of passengers by providing food, water, and access to restrooms
3. While sheltering in place, one concession manager asked everyone in the room to write their name on a piece of paper with their location, took a picture of it, and sent it to BSO;
4. The County EOC provided 50 cell phones to Port Everglades to help relocated people communicate;
5. BSO coordinated with concession managers to return to evacuated areas and remove cash from their registers; and
6. BCAD quickly mobilized resources to support personal belongings recovery operations utilizing a contractor (BMS CAT) identified during training which occurred prior to the event.

Opportunities for improvement regarding evacuations/shelter-in-place operations are summarized below:

1. Contingency plans for evacuation and sheltering are lacking and the FLL TEP should be updated in light of the lessons learned from this event;
2. It is unclear whether the BSO ICP or the BCAD EOC was leading evacuation, sheltering, and recovery efforts;
3. TSA's nationally recognized run-hide-fight training exasperated the negative effects of the spontaneous evacuations. BCAD and TSA should work together to develop a modified training plan that better addresses this scenario including recovery of checkpoint operations after a disruption;
4. For aircraft being held on the ground with passengers on board, clarity is needed in response plans regarding who is responsible for communicating with and caring for these aircraft and the people on them;
5. For passengers gathered on the curb for several hours, medical and First Aid needs should be addressed to aid those customers with medical needs.
6. Capabilities to support passengers with disabilities and special needs are lacking;
7. The County EOC and EMD were not utilized to the degree necessary to support evacuation and sheltering operations and Emergency Support Function (ESF) #6, Mass Care, should have been fully activated; and
8. At Port Everglades, an ICS structure was not established which hindered communication and coordination between Port Everglades and the BCAD EOC, BSO ICP, JIC, and County EOC in support of transportation, mass care, and sheltering operations.

3.1.2.2 Analysis

A growing number of terrorist and criminal acts are occurring in public places or so called "soft spots" (i.e. London and Manchester, United Kingdom, Times Square in New York City) and methodologies are lacking to stop or control spontaneous evacuations. Thus, FLL and the aviation sector can learn from this event to accommodate evolving emergency preparedness needs. In addition, effective evacuation and sheltering requires consideration of customer care needs, safety, and transportation.

The BSO ICP lacked situational awareness of the 22 aircraft holding on the ground; caring for their needs and working to get them airborne or off the aircraft was not prioritized in the ICP and was further hampered by a lack of coordination between the ICP and BCAD EOC. This lack of attention to passengers stranded on aircraft due to the length of time it took tactical law enforcement teams to clear the terminals caused considerable customer care problems relating to food, water, and medical needs. This outcome indicates a need for BCAD and BSO to understand their responsibilities under the Broward County Comprehensive Emergency Management Plan (CEMP), to train and exercise response, and to coordinate during response operations.

The transportation plan developed in the ICP to transport FLL passengers to Port Everglades Terminal 4 lacked coordination with the proper agencies and was not fully developed prior to implementation. The number of people to be transported to Port Everglades communicated was incorrect by an order of magnitude and the County EOC lacked information on the mission to thoroughly support the transportation plan. While BSO is the lead agency for ESF #16, Law Enforcement, the Broward County Transportation Department is the lead agency for ESF #1, Transportation, and has considerable resources to support mass transportation operations. In addition, more robust coordination of the plan with the BCAD EOC is recommended as a support agency to ESF #1 with expertise in ground

transportation planning and resources. The ESF #1 expertise of the ground transportation providers at the airport was not sufficiently utilized to plan, develop, or execute a transportation plan.

Lack of coordination was exacerbated by the fact that BSO staff who reported to Port Everglades to assist in transportation and mass care operations were unfamiliar with Port Everglades operations and the layout of the facility. Customer care planning at Port Everglades was hampered by a lack of structure and understanding of customer needs, such as food, water, blankets, translators, chargers, and diapers, which were managed on an ad hoc basis. Following initial contact with law enforcement, several groups of evacuated/sheltered persons did not know who to contact for updated information and some had no cellular service and lacked any means of communication.

In this type of large scale, multi-jurisdictional event, both BSO ICPs and the BCAD EOC require support and a clear delineation of responsibilities. The opportunity exists going forward to clarify the roles with respect to the CEMP and, additionally, to clarify the role of the County EOC as both a support mechanism for coordination and resourcing and as a lead for certain functions as defined in the CEMP.

3.1.2.3 Recommendations

1. Emergency Planning: Update the TEP and formalize a Family Assistance and Customer Care Plan to address the following areas:
 - a. Coordinate TEP and sheltering procedure modifications with the ARC;
 - b. Include rental car operations in procedures regarding evacuation and sheltering operations;
 - c. Develop procedures to account for airport shuttle bus and other ground transportation operations when airport access and the roadway is impacted;
 - d. For active shooter scenarios, develop procedures for coordinated sweeps in impacted areas to ensure the safety of people evacuated and sheltered and include procedures for documenting and communicating areas swept with the ICP and BCAD EOC;
 - e. Among BCAD, BSO, and other airport stakeholders, clarify roles and decision-making authority in relation to the County CEMP as it relates to evacuation and sheltering;
 - f. Provide links within the TEP and the Family Assistance and Customer Care Plan to the County CEMP and ensure that personnel understand procedures to transport people off of the airport;
 - g. Work with the TSA to revisit the run/hide/fight strategy based on lessons learned from the spontaneous evacuation and codify procedures for all personnel in the TEP;
 - h. Develop strategies to communicate with people evacuated and/or sheltered and account for location (inside/outside, public areas/restricted areas, offsite, etc.);
 - i. Evaluate evacuation routes for an active shooter event in contrast with evacuation for natural hazards;
 - j. Develop procedures to provide restrooms and relief supplies to those evacuated or sheltered and consider locations (inside/outside, public areas/restricted areas, offsite, etc.);
 - k. Develop procedures to repatriate people evacuated or sheltered in an orderly manner;
 - l. Develop procedures to care for passengers and crew in held aircraft;
 - m. Develop procedures to quickly resolve the status of aircraft and airport operations to expedite take-off or deplaning of held aircraft and clarify the role of local law enforcement in making the decision to hold or release aircraft;
 - n. Develop procedures for managing people with medical needs and persons with disabilities including provisions for standing up First Aid station(s) for displaced passengers;
 - o. Develop procedures to acquire translators for sheltering operations;
 - p. Develop procedures to manage minors traveling alone during evacuation and/or shelter operations;
 - q. Airlines should consider identifying unaccompanied minors via bracelet, RFID tag, or other method and include family phone numbers should authorities need to contact them; and
 - r. Include customer care planning at Port Everglades and address customer needs (food, water, blankets, translators, chargers, diapers) and security and credentialing (also see Section 3.2.2.3 for additional Port Everglades recommendations);

2. Training and Exercises:
 - a. Ensure that BCAD and other stakeholders are trained regarding TEP and sheltering procedures;
 - b. Conduct multi-agency (BCAD, BSO, etc.) exercises (tabletop exercise/functional exercise) to address procedural changes, to practice coordination among all agency ICPs and EOCs, and to practice multi-agency coordination via unified command using an evacuation and sheltering scenario;
 - c. Through drills, practice focused evacuation and sheltering procedures to develop competencies while minimizing the impact to operations;
3. Resourcing:
 - a. Assess the need for additional labor resources among agencies and tenants to support planning, training, and exercises;
 - b. Assess the need for additional equipment and infrastructure, such as overhead announcement, visual paging, and portable speaker systems, to improve communications in support of evacuation and sheltering operations; and
 - c. Work with the EMD and ESF #6 to develop a list of shelter supplies and determine those available via maintained stockpiles and those which may require expedited acquisition authority based on the event.

3.1.3 Capability: Public Information and Warning

Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the transition to recovery.

3.1.3.1 Observations

Messaging to the traveling public and employees was difficult due to the number of locations, tenants, and patrons impacted. Among BCAD employees, the primary system used was the mass notification system *Everbridge*. While useful, it is not used universally on the airport and therefore not complete in its reach among airport stakeholders. During this event, the traveling public was informed primarily via the public announcement system within terminals, word of mouth outdoors, and social media messages. With approximately 12,000 people displaced, opportunities to improve public messaging should be considered.

Positive attributes regarding public information and warning are summarized below:

1. The JIC was established near the BSO ICP following the shooting and was supported by the Southeast Regional Domestic Security Task Force;
2. Several press conferences were held by BSO and the BCAD Director communicating with the media; and
3. The Florida Department of Transportation updated highway messages to update travelers in the area by the impacted roadways.

Opportunities for improvement regarding public information and warning are summarized below:

1. It is not clear who approved public messaging prior to release; communication between the BSO ICP and the BCAD and County EOCs was sporadic at best and discrepancies have been noted in the accuracy of information released as noted during interviews. An agreement among leadership within all County agencies regarding how risk communication occurs is needed including how messages are developed, approved and released; and
2. Public messaging at Port Everglades and through the media about Port Everglades operations was not coordinated. In particular, a message provided to the media to have people pick up friends and family at Port Everglades was not coordinated with Port Everglades and exacerbated a difficult traffic situation.

3.1.3.2 Analysis

Risk Communication Plans among public agencies should evolve with changing threats (soft targets), the prevalence of social media, and the pervasive nature of media. NIMS and ICS provide strategies to manage messaging, either through a single Incident Commander or through Unified Command. While social media is challenging because of its pervasive nature, a Public Information Officer (PIO) or PIOs coordinating through a JIC, can work through the command structure to develop timely and accurate messaging to correct or confirm social media reports. It is

important that all leadership and elected officials throughout Broward County agree to the process for public message development, approval, and release.

3.1.3.3 Recommendations

1. Risk Communication Planning – Develop a Risk Communication Plan which:
 - a. Identifies a PIO and lead spokesperson for FLL during airport events (tiered if necessary based on the level of event);
 - b. Provides linkage to the CEMP to provide direction as to who speaks for the county so that all responding agencies understand by whom messages will be released at the County level;
 - c. Clarifies the approval process for messages in an ICS context both at the BCAD level and via expanded operations in which BCAD may not be the lead response agency;
 - d. Clarifies the role and operation of a JIC and how BCAD will participate in a JIC;
 - e. Ensures that Health Insurance Portability and Accountability Act privacy rules are considered during communication development;
 - f. Addresses interaction with PIOs from the FBI and other federal agencies; and
 - g. Identifies processes for communicating with BCAD and airport employees, County employees, the traveling public, and the general public and the media;
2. Training and Exercises:
 - a. Develop training to introduce the Risk Communications Plan to those with assignments in the Plan and a general orientation for all BCAD and airport employees; and
 - b. Conduct tabletop exercises and drills to evaluate the Risk Communication Plan and to develop competencies among assigned employees;
3. Resourcing:
 - a. Consider development/relocation of the BCAD EOC and include communications capabilities to accommodate response to an event of this magnitude;
 - b. Review and budget for improvements to public notifications systems including visual paging, overhead announcements, and mass notification systems; and
 - c. Work with the EMD to include use of the reverse 911 system in the BCAD Risk Communications Plan and ensure that assignees to the plan are able to authorize its use for airport events;
4. County-wide Communication Operations:
 - a. Reinforce communication responsibilities under the County CEMP;
 - b. Develop a clear understanding among all agencies of triggers for JIC operations and the need for multi-agency coordination of public communications;
 - c. During events of this scale, work with all relevant local, state, and federal agencies to coordinate public messaging through the County EOC and/or a JIC; and
 - d. Among county leadership, redress and reinforce jurisdictional responsibilities for coordinating message development, releasing public information, and who will serve as the public spokesperson under specific scenarios.

3.2 Emergency Management and Operational Coordination

The basis for analysis of the emergency management and operational coordination objective is premised primarily, but not exclusively, on the following sources:

- National Incident Management System (NIMS), U.S. Department of Homeland Security, 2008;
- Homeland Security Exercise and Evaluation Program, U.S. Department of Homeland Security, April 2013;
- National Infrastructure Protection Plan, U.S. Department of Homeland Security, 2013;
- Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide 101, Developing and Maintaining Emergency Operations Plans, U.S. Department of Homeland Security, November 2010;
- National Response Framework, U.S. Department of Homeland Security, June 2016; and

- Report 112, Airport Terminal Incident Response Planning, Airport Cooperative Research Program, National Academy of Sciences, 2014.

These sources provide criteria for establishing emergency management and command and control procedures in a multi-agency, complex response environment. Observations, analysis, and recommendations are provided for each of the capabilities under this objective which include *mobilization*, *command and control*, and *operational coordination*.

3.2.1 Capability: Mobilization

Mobilize all critical resources and establish command, control, and coordination structures within the BCAD Emergency Operations Center.

3.2.1.1 Observations

Law enforcement resources mobilized to FLL on January 6, 2017 to support apprehension of the suspect and the subsequent crime scene investigation. As additional reports of shots fired were heard and the spontaneous evacuations occurred, resource needs escalated and required support for crowd control and eventually for mass care support in the form of ground transportation, shelter, food, water and medical needs. Positive attributes regarding response mobilization are summarized below:

1. Within 80 seconds of the shooting, law enforcement responded to apprehend the suspect and established control of the scene;
2. Medical treatment and transport resources were summoned and arrived to support care of casualties;
3. The BCAD EOC was activated and functional nineteen (19) minutes after the initial notification of shots fired;
4. After the reports of additional shots fired, estimates of up to 2600 law enforcement officers responded through mutual aid;
5. The Broward County EMD communicated with BCAD at 1:06 PM and the EOC activated to Level 2 at approximately 3:00 PM to provide resource support via ESF #1, Transportation, ESF #6, Mass Care, ESF #8 Health and Medical, and ESF #16, Law Enforcement;
6. In response to the need to move people out of the airport, buses were staged just outside the airport perimeter and in-service buses were pulled from weekday service and inserted directly into shuttle operations;
7. The ARC deployed proactively (prior to being activated) to the County EOC and mobilized to provide food, water, and other resources to passengers at Port Everglades;
8. The 311 Call Center was mobilized to support property reunification for passengers who had abandoned items during the self-evacuation;
9. The Broward County Health Department worked with CVS and Walgreens to supply maintenance medications;
10. Approximately 12,000 people were evacuated from the airport;
11. Through the County EOC, water, 2500 blankets, and 50 cell phones were resourced to Port Everglades;
12. The ARC acquired meals for 1100 people and support staff to provide additional pharmaceuticals, baby food, and diapers;
13. Port Everglades serves as an asset to support sheltering;
14. BCT coordinated movement of 41 buses to support transportation of people from the airport to Port Everglades;
15. BCAD staff worked around the clock to restore operations throughout the airport and particularly in Terminal 2; and
16. BCAD engaged a contractor to support property-passenger reunification which expedited the process greatly.

Opportunities for improvement are summarized below:

1. In general, mission identification was hampered by lack of coordinated management of response operations. The lack of Unified Command (see Section 3.2.2, Capability: Command and Control) and proliferation of various command posts did not allow fully vetted IAPs and missions to be developed;
2. Mission identification was hampered by an inaccurate accounting of passengers in need of support which impacted logistics and resourcing;
3. The presence of fully loaded aircraft stranded on the airfield should have been communicated to the ICP much earlier to address passenger needs (food, water, etc.) and to determine the disposition of those aircraft;
4. Staging areas for response resources and instructions for responding agencies were not established;
5. Response, including passenger transport and logistics, was hindered by the lack of a fully developed traffic plan;
6. Law enforcement cars were parked on the roadway and left running which caused congestion; subsequently, those cars ran out of fuel and had to be refueled which caused more congestion;
7. Access to the airport was blocked and the airport entrance was closed for several hours which hindered the ability of responders to support response operations. The FLL Assistant Director of Operations was denied the ability to leave the airport grounds to get to the County EOC for over one hour. Clearance was provided by ESF #16 through the County EOC. Buses were also denied access to the airport;
8. Relief personnel had trouble reporting to work because of blockades and staff recall to support response operations was difficult;
9. Radio communication with private ambulance companies was unavailable because they are on a different frequency (capability exists through County EOC);
10. Communication with Port Everglades was sporadic and the resource requests were inaccurate;
11. FAC staffing was hindered because airport staff were blocked from leaving the airport. The ARC staffed the FAC until a second FAC was set up at Port Everglades Terminal 4 which was staffed by County Administration and the Port PIO in conjunction with the ARC.

3.2.1.2 Analysis

While the initial shooting, apprehension of the suspect, and crime scene investigation each have a clear law enforcement mission and jurisdiction, the greater response effort for this event spans many ESFs and jurisdictions. The proliferation of various ICPs, Incident Commanders, and EOCs, the massive deployment of disparate mutual aid resources, and the lack of Unified Command and/or communication among agency administrators hindered the ability to create coherent, defined, and achievable missions among response agencies and stakeholders. To mobilize resources efficiently and effectively, missions must be defined and include tasks, assignees, physical resources, quantity of resources needed, and relevant procedures, if applicable. During this event, assignees and physical resources weren't accessible and the quantities of resources needed were unknown due to the lack of communication and coordination among agency administrators.

Command and control capabilities are addressed more fully in Section 3.2.2, however it is important to point out that initial resource mobilization is critical to controlling and/or minimizing the impact of an emergency and relies on the ability of multiple agencies to respond in a coordinated and coherent manner. Interviews with personnel deployed to the BCAD EOC during the event indicated a lack of understanding among those in the BCAD EOC of the number of law enforcement officers who had deployed to the airport. There was little communication between the various ICPs and the BCAD EOC as to what actions were underway. Multiple factors contributed to the lack of a common operating picture within the BCAD EOC which hindered BCAD's ability to communicate resource needs to the County EOC resulting in resource shortfalls with respect to transportation, food, water, shelter, and other resource needs.

3.2.1.3 Recommendations

The following recommendations are provided to improve mobilization capabilities:

1. Emergency Planning:
 - a. Formalize a Family Assistance and Customer Care Plan which includes provisions for:
 - i. Assisting persons with disabilities and special needs;
 - ii. Language translators;

- iii. Family reunification procedures;
 - iv. Adequate restroom facilities for various levels of events;
 - v. Resource support for transport, food, water, medical needs, shelter, and other relief supplies; and
 - vi. Support for persons on delayed aircraft;
 - b. Develop an Emergency Traffic Plan to support bussing, traffic control, employee access, and law enforcement escorts. The plan must have provisions for emergency access badges (credentials) to allow airport access for key personnel during an emergency; and
 - c. Develop a Staging Plan in coordination with emergency responders to ensure that response vehicles are accommodated, to control self-deployment, and to support deployment of resources per ICS guidelines;
2. Training and Exercises:
 - a. Per HSEEP guidelines, perform training and exercises regarding the Family Assistance and Customer Care Plan in cooperation with the EMD, ESF #6 and ESF #8 representatives, the ARC, and other relevant stakeholders;
 - b. Per HSEEP guidelines, perform training and exercises regarding the Emergency Traffic Plan in cooperation with the EMD, ESF #1 and ESF #16 representatives, and other relevant stakeholders; and
 - c. Per HSEEP guidelines, perform training and exercises regarding the Staging Plan in cooperation with the EMD, ESF #1, ESF #6, ESF #8, and ESF #16 representatives, and other relevant stakeholders;
3. Resources:
 - a. Work with other response stakeholders to evaluate the need for additional resources to support transporting people with disabilities;
 - b. Work with other response stakeholders to evaluate the need for a PA system on the ramps;
 - c. Work with the EMD and Port Everglades to develop joint airport/port emergency support plans, to identify existing and desired resources for emergency preparedness, and to establish emergency communications procedures;
 - d. Consider storing certain non-perishable shelter resources on the airport to support expedited deployment; and
 - e. Evaluate all available communications capabilities within the airport to identify additional communication resources for large-scale events;
4. EOC Operations:
 - a. Work with the EMD and internal BCAD Logistics Section personnel to define available resources, mutual aid agreements, and resourcing procedures;
 - b. Develop defined roles for all personnel within the BCAD EOC (i.e. a reason to be in the room) and ensure that each representative understands their role; and
 - c. Provide all BCAD EOC representatives with communication capabilities, resources to support situational awareness, and consider technology to improve use of cell phones.

3.2.2 Capability: Command and Control

Enhance and maintain command, control, and coordination structures, consistent with the National Incident Management System, to meet evolving needs, stabilize the incident, and transition to recovery.

3.2.2.1 Observations

Response operations during this event involved hundreds of responders and stakeholders from local, state, and federal agencies as well as the private sector and non-governmental organizations. Effective management of a response operation of this magnitude requires a substantial command and control element. Positive attributes regarding command and control are summarized below:

1. BCAD activated the BCAD EOC nineteen (19) minutes after notification of an active shooter;

2. Planning functions occurred in the BCAD EOC with a common goal of getting the airport open and operating again;
3. Communication between the BCAD EOC and the County EOC was established and maintained;
4. A BCAD representative reported to the County EOC under ESF #1 to accommodate agency-to-agency communication;
5. Conference calls between the BCAD EOC and County EOC provided information and opportunities to coordinate resources; and
6. Other agencies including the ARC, BCAD, Broward County Health Department, Broward Sheriff's Office, and BCT reported to the County EOC to staff their respective ESFs.

Opportunities for improvement are summarized below:

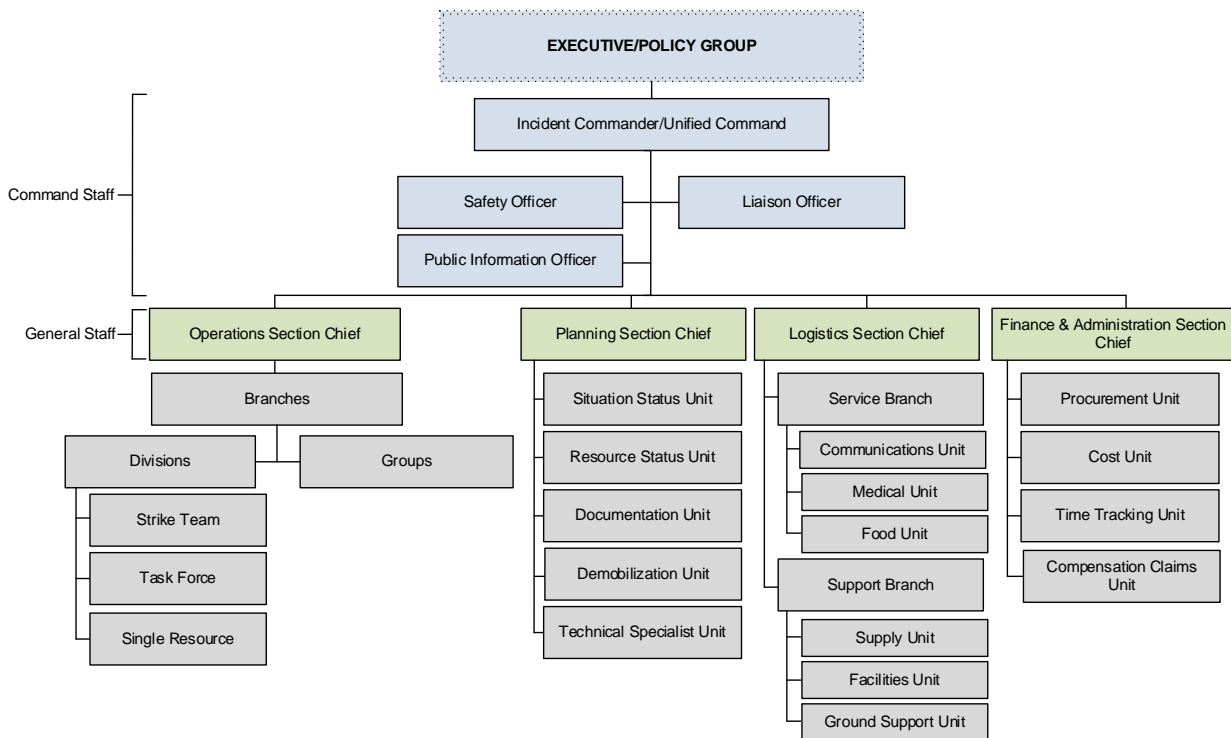
1. Use of relevant plans to support this type of event was not evident and the plans are insufficient to support this scale of event as indicated below:
 - a. AEP – Lacks procedures to support command and control, active shooter events, evacuation, and mass care;
 - b. COOP Plan – Does not address response issues relevant to this event and should be reviewed in the context of ICS;
 - c. Terminal Evacuation Plan – Lacks sufficient detail to support evacuation, particularly a large airport-wide event, has insufficient links to external agencies, and is not compliant with the ICS;
2. BCAD EOC operations did not adhere to ICS principles. Objectives, timelines, and resource requirements to support coherent IAPs were not developed and ICS forms were not utilized;
3. A shift schedule was not developed for the BCAD EOC and many staff members worked 16 or more hours; while their dedication is admirable, fatigue greatly impacts decision-making;
4. Issuance of specific task assignments in accordance with ICS principals was not evident. Random resource requests and tasks were assigned to personnel or entities who lacked the authority to fulfill request;
5. Unified Command was never established causing confusion as to who was in charge;
6. Due to the lack of Unified Command, a common operating picture was not developed resulting in a lack of information regarding resource needs and disjointed, misinformed, and conflicting mission development;
7. Consistent and actionable communication was not established between multiple ICPs and the BSO EOC and the BCAD EOC or County EOC;
8. The BSO command staff officer most knowledgeable about airport operations left the ICP after higher ranking BSO representatives arrived and several BSO officials in the ICP were unfamiliar with the airport or airport operations and regulations;
9. Planning occurred in silos among approximately five ICPs, the BCAD EOC, the County EOC and the BSO EOC;
10. Staging Areas for resources deploying to the airport were not established which contributed to command and control shortcomings;
11. Until this event, the County EOC had never been activated for an airport-centered response, during a real event or during an exercise;
12. Port Everglades did not establish an incident command structure or stand up an EOC, thus objectives were not established which caused confusion among Port Everglades personnel, BSO, and Broward County in trying to solve problems and provide care; and
13. Port Everglades would benefit from ICS training, development of an "all-hazards" incident command structure, and an exercise program which includes regional partners.

3.2.2.2 Analysis

Command and control during emergency response events should be consistent with principles set forth in the NIMS, specifically through the use of the ICS. BCAD employees assigned responsibilities under the AEP have participated in

Independent Study (IS) 100, 200, and 700 training courses³ which are available online via FEMA. However, these online IS courses are insufficient to support a thorough understanding of the operational use of ICS at FLL, particularly among Command and General Staff positions identified in Figure 5. These positions, as well as other key ICS positions in the Planning, Logistics, and Finance and Administration Sections, should be exposed to operational training such as ICS 300, Intermediate ICS for Expanding Incidents for Operational First Responders, and ICS 400, Advanced ICS for Command & General Staff, Complex Incidents, and Multiagency Coordination Systems for Operational First Responders, as well as operations-based exercises to provide assignees a full understanding of their roles.

Figure 5 – ICS Structure, Command and General Staff



With respect to Incident Command, it is understood that the actual shooting event, suspect apprehension, and crime scene investigation are strictly law enforcement operations. However, the subsequent notifications of shots fired and the resulting self-evacuation yielded response needs that fall under the jurisdiction of multiple agencies including BCAD, the EMD, and ESFs #1, #6, and #8 and require use of Unified Command. The failure to institute Unified Command directly contributed to inaccurate and inadequate mission identification, development, and resourcing. It is vital that those agencies with potential response assignments within the airport understand and utilize Unified Command, receive an overview of airport operations, and be provided the opportunity to become familiar with the overall airport facility. In addition, it is important to establish communications among agency EOCs and, during large-scale events, to develop and maintain a common operating picture and situational awareness through the County EOC.

In addition to the need for Unified Command and consistent communication with EOCs, it is equally important to establish standard NIMS/ICS facilities to support operational response including ICPs and Staging Areas and to communicate the existence of those facilities to responders, stakeholders, and EOCs. Staging Areas are established to enable positioning and accounting of resources and may include temporary feeding, fueling, and sanitation services.

³ IS-100 Introduction to the Incident Command System, IS-200 ICS for Single Resources and Initial Action Incidents, and IS-700 National Incident Management System

Staging Area managers should also be assigned to check-in all incoming resources, to provide directions/instruction to responding resources, and to dispatch resources to fulfill resource requests. Lack of adequate and proper staging contributed to traffic congestion and inconsistencies in mission assignments for mutual aid responders. The lack of direction among those monitoring the airport perimeter inhibited legitimate responder traffic from entering and exiting the airport. This lack of direction also impacted buses attempting to enter the airport to support passenger movement and airport management attempting to travel to the County EOC and other off-airport locations.

As the extent of the need for temporarily sheltering of passengers became more evident, multiple plans for relocating passengers were contemplated among various agencies in the County EOC, BCAD EOC, and ICPs. As the plan for movement of passengers to Port Everglades was developed, no clear command and control structure was evident at the Port to support such a large mass care operation. While the Port provides space to support sheltering and mass care operations during an emergency, the decision to serve those roles in the future should be determined by those with the proper authority. If the Port is identified as a designated mass care site, it should be included as such in the Broward County CEMP and other related documents. Specific Port procedures including those for command and control should be developed and Port assignees should be provided with appropriate ICS and plan-specific training and exercises.

Tactical communications benefited by having the FLL Assistant Operations Director assigned to ESF #1 at the County EOC. Direct contact between a BCAD representative and other County responders allowed direct communication of situational awareness and resource needs. To provide further benefit and connection to the County EOC, BCAD should consider adoption and use of WebEOC to support situational awareness and resource management including requesting, deploying and tracking. In addition, conference calls between the BCAD EOC and the County EOCs at regular intervals during response operations validate existing conditions and resource needs. These practices should be considered for all agencies who may serve in multi-agency emergency response operations.

Regarding public communications, some agency PIOs who had a role in the JIC were not invited to participate initially when the JIC was activated. As a coordination point for PIOs, JICs serve a role in support of consistent, accurate, and expedited public messaging. Because Unified Command was not activated, many agencies involved in response operations monitored news media to gain situational awareness. The lack of coordination with the JIC led to inconsistent messaging and contributed to the lack of situational awareness among response agencies and officials. Utilizing multiple PIOs and shared resources, a JIC can provide resources to support accurate, consistent, timely, and scheduled release of public messaging. See Section 3.1.3, Capability: Public Information and Warning, for additional information.

Information provided to executives and policy makers is another opportunity for improvement in county-wide planning and response. Per the CEMP, the Board of County Commissioners has delegated to the County Administrator executive authority for all emergency operations and powers of emergency government. The County Administrator or designee, in conjunction with the County Mayor serves as the authorized representative of the Board of County Commissioners and is the chief executive responsible for the overall coordination of County emergency response operations.⁴ In part due to the lack of Unified Command, the lack of coordination with the JIC, and the lack of coordination among ICPs and EOCs, a common operating picture and situational awareness was not maintained consistently between responding agencies, the County EOC, and County Administration. As the lead agency for ESF #14, Public Information, the Broward County Office of Public Communications serves as the coordination point during multi-agency response operations.⁵ Once the County EOC activation occurred, a properly coordinated and fully staffed JIC consisting of all impacted agencies' PIOs would have provided support in both public messaging and in maintaining an accurate and consistent flow of information to policy makers.

⁴ Comprehensive Emergency Management Plan, Broward County Emergency Management, September 15, 2015, page 37, County Administrator.

⁵ Comprehensive Emergency Management Plan, Broward County Emergency Management, September 15, 2015, page 54, ESF #14 – Public Information.

Another concern that emerged during the interview process regarding mutual aid support is the lack of familiarity of the airport environment. During the events of January 6, 2017, this lack of familiarity may have resulted in confusion and a lack of understanding of airport needs.

3.2.2.3 Recommendations

The following recommendations are provided to improve command and control capabilities:

1. Emergency Planning:
 - a. Revise the AEP, or create a companion policy document, to include a Concept of Operations for command and control consistent with ICS principles. The Concept of Operations should include procedures to develop an IAP which includes objectives, assignment, timelines, and resource requirements and provisions to support Unified Command;
 - b. Revise the AEP, or create a companion policy document, to include hazard-specific procedures and protocols including active shooter events, mass evacuation, and mass care;
 - c. Consider using the ongoing Threat and Hazard Identification and Risk Assessment (THIRA) to inform development or modification of hazard- and threat-specific procedures; and
 - d. Codify use of conference calls between the BCAD EOC, the County EOC, and ICPs during response operations in BCAD emergency response plans as an action to maintain situational awareness;
2. Training and Exercises:
 - a. BCAD should identify additional ICS assignees and backups to participate in ICS 300 and ICS 400 training which includes discussion of development of IAPs and Unified Command;
 - b. Command and control should be consistent with principles set forth in NIMS/ICS. BCAD assigned responders should participate in operations-based exercises to provide assignees a full understanding of their roles; and
 - c. In the context of an HSEEP-compliant multi-year training and exercise plan, BCAD and the EMD should work together to develop multi-agency response training and exercises including an overview of airport operations and the overall airport facility;
3. EOC Operations:
 - a. BCAD should consider adoption and use of WebEOC to support situational awareness and resource management including requesting, deploying and tracking;
 - b. Agencies assigned to serve in ESF roles in the County EOC, or who may participate in other agency EOCs, should be encouraged to provide trained and knowledgeable staff representatives as soon as practical after EOC activation to provide a communication link to their respective agencies; and
 - c. Agencies should be encouraged to establish communications among active EOCs during joint response to develop and maintain a common operating picture and situational awareness;
4. Port Everglades:
 - a. At the County level, determine if the Port, or other currently undesignated facility, should serve as a designated shelter/mass care facility;
 - b. If designated, revise the CEMP and other related documents, as necessary, to include Port-specific procedures;
 - c. If designated, provide Port assignees with appropriate ICS and plan-specific training and exercises;
 - d. Develop an all-hazards emergency response plan which addresses ICS activation and EOC operations; and
 - e. Consider developing a Memorandum of Understanding (MOU) with the Port for specific emergency preparedness needs;
5. County Level Policy Review/Redress:
 - a. Among all agencies with assignments in the CEMP, formal redress should occur regarding when Unified Command and multiagency coordination is necessary and how it is to occur;
 - b. Among all agencies with assignments in the CEMP, formal redress should occur regarding establishment and use of standard NIMS/ICS facilities including ICPs and Staging Areas. Instruction should also be provided to those agencies regarding establishment of communications between ICPs, EOCs, and Staging Areas;
 - c. Staging Area policies should be reviewed to ensure that:

- i. Procedures exist to support deployment, positioning and accounting of resources;
- ii. Provisions are codified to support Staging Area managers who should be assigned to check-in all incoming resources, to provide directions/instruction to responding resources, and to dispatch resources to fulfill resource requests; and
- iii. Provisions exist to minimize and control self-deploying resources;
- d. Among all agencies with assignments in the CEMP, review and adjust JIC policies, as needed, and communicate through training when activation of a JIC is necessary and the procedures under which a JIC is to operate; and
- e. Among all agencies with assignments in the CEMP, formal redress should occur regarding the role of the County Administrator and County Mayor as the overall coordinators of County emergency response operations and CEMP policies as to when communication with executives and policy makers is required.

3.2.3 Capability: Operational Coordination

Establish lines of communication and coordination between the Airport Operations Control Center, BCAD EOC, County EOC, FAA Air Traffic Control, and other stakeholders (i.e. airline, tenant, concession, general aviation, non-profits, etc.) to maintain situational awareness, to identify response needs, and to coordinate mutual aid.

3.2.3.1 Observations

In spite of adverse command and control issues described previously, collaboration among disparate responders and stakeholders occurred to support care of stranded passengers and to return the airport to normal operations. Positive attributes regarding operational coordination are summarized below:

1. Following the unprecedented self-evacuation and the challenges it caused, FLL was open by 5:00 am on January 7, 2017 with the exception of Terminal 2;
2. 12,000 people were evacuated and 23,000 personal items were located, moved, processed, and returned to owners;
3. Coordination between BCAD and the EMD was accommodated through BCAD's participation as an ESF #1 representative in the County EOC and through direct communications;
4. The Office of Public Communications coordinated with the media and used social media to communicate externally;
5. Call Center and emergency hotline operations were activated quickly and provided information to callers via a multitude of County volunteer staff;
6. Communication between BCAD, CBP, FAA, TSA, and other agencies on the airport was established;
7. Initial notification of stakeholders by BCAD was performed quickly;
8. BCAD management as well as airline and concession managers kept passengers in place and calm during the initial notification;
9. The overall response operation coordinated transportation for over 10,000 people from FLL terminals to Terminal 4 at Port Everglades and provision of food, water, blankets, pillows and phones for people via the ARC, the County EOC, and other agencies;
10. Additional resources deployed include:
 - a. 2500 blankets and pillows from the County Human Services Department shelter stockpile;
 - b. A truckload of water from the State Logistics Resource Center;
 - c. 50 emergency cell phones; and
 - d. 41 buses provided by BCT performed shuttle operations on January 6 and 19 buses continued shuttle operations through Saturday morning;
11. First responders from the City of Fort Lauderdale Fire Department were equipped with tactical gear enabling them to partner with law enforcement tactical teams to assist casualties if needed in unsecure zones; and
12. Response coordination occurred between the Broward Health Hospital and emergency medical teams to transfer casualties to the hospital. BHH received approximately 100 patients.

Opportunities for improvement in operational coordination are summarized below:

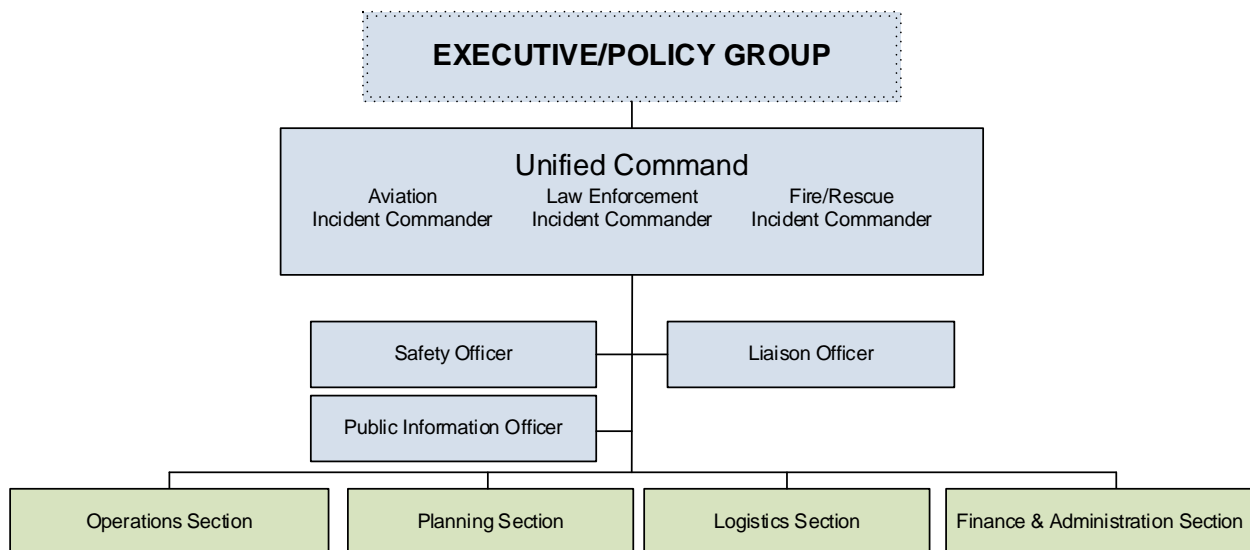
1. TSA personnel indicated that no one within their chain of command communicated any direction;
2. Pre-designated staging areas identified in AEP were not used; mutual aid entered Construction Gate 7;
3. Inadequate and inaccurate communication between the BCAD EOC and a BSO ICP hindered coordination of evacuation planning. Two plans for evacuation and FAC operations were developed simultaneously, one to occur at the Renaissance Hotel and the other to occur at Port Everglades. The plan to use Port Everglades, developed within a BSO ICP, was not communicated to the BCAD EOC until it was being executed. At that point, the BCAD EOC shifted tactically to implement the ICP's plan;
4. Lacking a full customer care plan, the BCAD EOC worked to support food, water, and transportation requests, but inaccuracies in mission as to quantity of resources needed and location hindered resource identification;
5. Efforts to obtain additional transportation services at the airport were not coordinated with BCT at the County EOC, thus conflicting missions were created;
6. Communication between the ICP and BCAD EOC to law enforcement at the perimeter were inconsistent and the officers were not up to date on current missions and bus routing;
7. Procedures are necessary among all emergency responders regarding radio discipline to control messaging and to prevent radio traffic overload;
8. Communication and technology resources as well as space to accommodate multiagency response within the BCAD EOC are lacking;
9. Access to the BCAD EOC was hindered by its location in relation to the Terminals; in addition, the BCAD EOC was on lockdown by order of BSO and officials were unable to leave to perform important functions;
10. The County Mass Care Incident Plan should have been implemented;
11. Salvation Army resources were offered to Broward County via the State, but were not utilized; and
12. Coordination of services for those with special needs was difficult due to a lack of accommodations.

3.2.3.2 Analysis

In the immediate aftermath of the actual shooting at 12:54 PM in Terminal 2, tactical response among all agencies was seemingly conducted within expected parameters and per County policies. When the reports of additional shots fired were communicated to the BCAD EOC approximately 90 minutes after the original incident, development of tactical plans was underway to: 1) support restoration of Terminal 2 following completion of crime scene investigation; and 2) return the airport to normal operations with the exception of Terminal 2. Reports of additional shots fired, heard by the general public as well as response personnel, had a detrimental impact on emergency response operations and precipitated the self-evacuation of thousands of airport patrons. The self-evacuation ultimately resulted in the long term airport closure, the stranding of passengers, and the need for transportation, shelter, and mass care. This analysis focuses on operational response following the reports of additional shots fired and the subsequent self-evacuation.

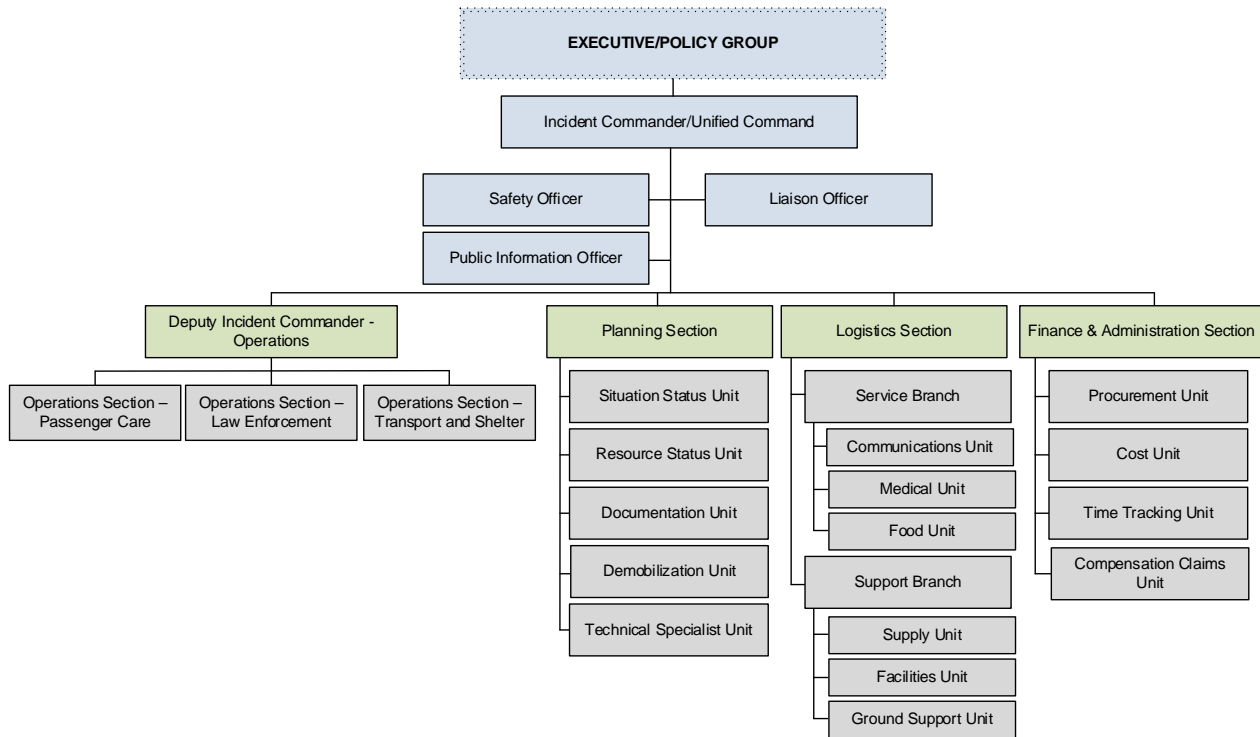
Incident Management

During the post-self-evacuation phase of emergency operations, incident management between law enforcement operations and mass care operations was not coordinated sufficiently. Three organizational command structures, Unified Command, Incident Complex, and Area Command, are presented as examples. The examples presented in Figure 6-8 could have been used to support multiple response operations and organize resources.

Figure 6 – Unified Command

Under Unified Command:

- Policies, objectives and strategies are established jointly by each jurisdiction/agency authority in advance of tactical operations;
- Organization consists of the various jurisdictional or agency on-scene senior representatives (agency Incident Commanders) operating within a Unified Command structure;
- Resources are supplied by the jurisdictions and agencies that have functional or jurisdictional responsibility;
- Operations are directed by one person, the Operations Section Chief, who controls tactical resources and unity of command is maintained; and
- Resources (personnel and equipment) stay under the administrative and policy control of their agencies. Operationally, they respond to mission assignments under the coordination and direction of the Operations Section Chief.

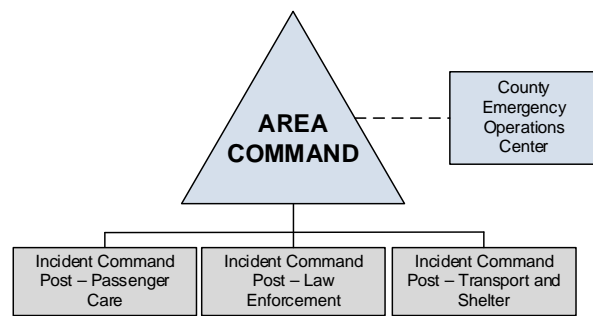
Figure 7 – Incident Complex

Characteristics of an Incident Complex are described below:

- To maintain span of control, a Deputy Incident Commander for Operations is assigned and one or more operations sections are assigned to manage disparate and geographical separated operations;
- Two or more individual response operations are located in the same general proximity that are assigned to a single Incident Commander or Unified Command to facilitate management;
- Large number of tactical and support resources are needed to order, track, and manage;
- Incidents must be close enough to be managed by the same incident management team;
- Multiple operational periods are required and written IAPs are produced;
- Transfer of command is likely; and
- Planning, Logistics, and Finance/Administration Section activities can be adequately provided by a single management team. If planning and logistics needs are disparate among operations, additional sections/resources should be added.

Under the structure in Figure 8, Area Command oversees the management of multiple incident operations and may be unified with other agencies in addition to working with Incident Commanders at individual ICPs. ICPs perform tactical-level, on-scene incident command functions and are directed by an Incident Commander at the ICP. The EOC (County EOC) coordinates information and resources to support local incident management activities. Other characteristics of Area Command are described below:

Figure 8 – Area Command



- Area Command is used to:
 - Manage multiple incidents under an ICS organization or a very large incident that has multiple incident management teams assigned to it;
 - Provide agency or jurisdictional authority for assigned incidents;
 - Ensure a clear understanding of agency expectations, intentions, and constraints;
 - Establish critical resource use priorities between various incidents;
 - Ensure that incident management team personnel assignments and organizations are appropriate;
 - Maintain contact with officials in charge and other agencies and groups; and
 - Coordinate demobilization or reassignment of resources between assigned incidents;
- Advantages of Area Command:
 - Assists in interagency coordination;
 - Ensures efficient resource use; and
 - Ensures that agency policies, priorities, constraints, and guidance are being made known to the Incident Commanders and implemented consistently across incidents;
- Area Command should be established when:
 - Several active incidents are in close proximity;
 - Critical life-saving or economic impacts are at risk due to incidents;
 - Incidents will continue into the next operational period;
 - Incidents are using similar and/or limited critical resources; and
 - Difficulties are encountered with inter-incident resource allocation and coordination.

Properly implemented, any of these structures could have provided more cohesive incident planning and mission creation, improved situational awareness, and provided more coordinated tactical and public communications. These structures also allow for better coordination during transfer of command as response needs shifted.

Operational Plans/Planning

As described previously, Concept of Operations planning for emergency response establishes command, control, and administrative functions to support effective response operations and operational coordination. In addition, pre-event incident specific planning (i.e. Mass Care Plans) and incident-specific IAP development support operational tactics during emergency response. As identified during interviews, at least two IAPs for relocating passengers were developed on January 6, 2017 with planning entities unaware of the separate ongoing planning efforts. Thus, efforts and resources were used inefficiently and ineffectively. In the final analysis, it is important to note that the County has a CEMP, hazard-specific plans, Functional Annexes, Standard Operating Procedures, and Policy and Procedures Manuals to support specific operational responses. Absent agency-specific plans, agencies should defer to the CEMP and associated documents to support response, resourcing, and communications. In addition, understanding the

intended planning process under the ICS can support more effective incident-specific planning (i.e. IAPs). The process for IAP development based on operational periods is depicted in Figure 9 and is addressed in previously recommended ICS courses. For each step in the Planning P, each Command and General Staff position has specific duties which should be carried out to advance the planning process.

Coordination with Law Enforcement

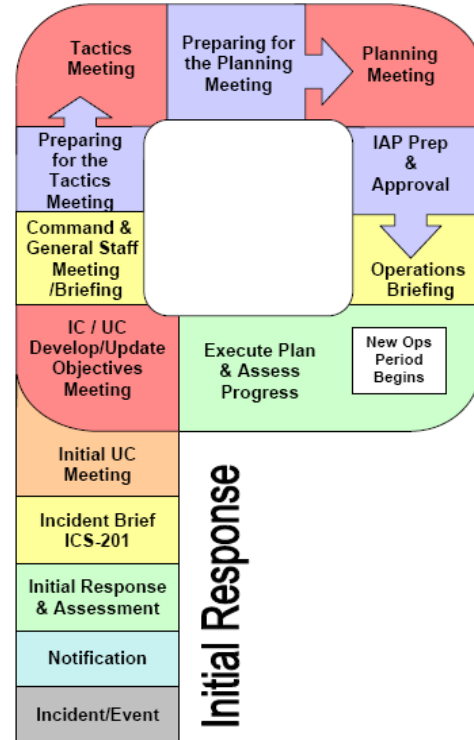
Twenty-two (22) planes were stranded on the airfield, some for over seven (7) hours. The primary reason identified for the seven-hour hold on the airfield was a law enforcement directive that planes could not leave because they may hold potential witnesses. During the review, it was determined that passengers on those planes were unlikely to have witnessed the shooting as they were enplaned while the shooting occurred or shortly thereafter. Compounding the problem is the decision to hold them on the airfield in lieu of deplaning passengers and holding them in a designated facility with bathroom resources and better access to food and water. While the importance of the crime scene investigation is understood, coordination between law enforcement and BCAD regarding disposition of passengers should have occurred to protect the innocent and to convey an adequate level of customer care. The airport lockdown made it difficult for BCAD officials to perform critical duties to support response operations.

3.2.3.3 Recommendations

The following recommendations are provided to improve operational coordination capabilities:

1. Emergency Planning:
 - a. Within BCAD emergency plans, validate use of designated staging areas and ensure that stakeholders are aware of the designated staging areas and their purpose in supporting response operations;
 - b. Evaluate the need for BCAD incident-specific plans and coordinate/reconcile those needs with existing plans under the County CEMP;
 - c. Ensure that emergency plans define clearly the parameters regarding airport closure; and
 - d. Ensure that emergency plans define how to coordinate with airlines to manage grounded flights and passenger resourcing for extended periods of time;
2. Training and Exercises:
 - a. Conduct joint training among emergency management, law enforcement, fire and rescue and other relevant stakeholders to build and understanding of response capabilities and relationships among agency personnel;
 - b. Evaluate various command structures via exercises; and
 - c. Perform additional operational exercises (drills) to build operational and coordination competencies among field responders;
3. Resources:
 - a. Consider an updated modern BCAD EOC to facilitate more robust communication and technology capabilities and to accommodate multiagency participation (individual stations for participants);
 - b. To facilitate a fully operational BCAD EOC, it should be sited to allow ease of access among potential BCAD EOC participants; and
 - c. Consider the following resources to assist customers and people with special needs:
 - i. Visual displays for hearing impaired;

Figure 9 – ICS Operational Period Planning “P”



- ii. Multi-language abilities for both audio and visual services; and
 - iii. Capabilities for expedited movement of people with special needs;
4. Coordination:
 - a. Develop and test tactical communication between EOCs, ICPs and field elements (responders) to ensure that missions are transmitted at the tactical level;
 - b. Develop strategies and relationships to support coordination between law enforcement and BCAD regarding disposition of passengers during extended response operations;
 - c. Develop (or redress) procedures among all emergency responders to use radio discipline to control messaging and to prevent radio traffic overload; and
 - d. Evaluate capabilities within FLL to message passengers and employees regarding directions and/or options such as transportation;
 5. County Level Policy Review/Redress:
 - a. Evaluate various multiagency coordination models (Unified Command, Incident Complex, and Area Command) and work with response agencies and stakeholders to build capabilities to operate using these command and coordination principles;
 - b. Consider conducting workshops among CEMP assignees to ensure a consistent understanding of incident-specific planning processes as outlined in the FEMA Incident Management Handbook;
 - c. Through planning, training, and exercising and as a matter of strict policy, ensure that agencies coordinate large scale incident action planning efforts to prevent duplication of effort, to ensure adequate and accurate resource estimation, to ensure that all stakeholders concur with tactical recommendations, and to ensure that all CEMP stakeholders understand their roles, responsibilities, and limitations as well as those of other stakeholders; and
 - d. During events of this scale, coordinate with the appropriate state agencies and the Governor's Office, as necessary, for resource support.

3.3 Recovery and Post Event Activities

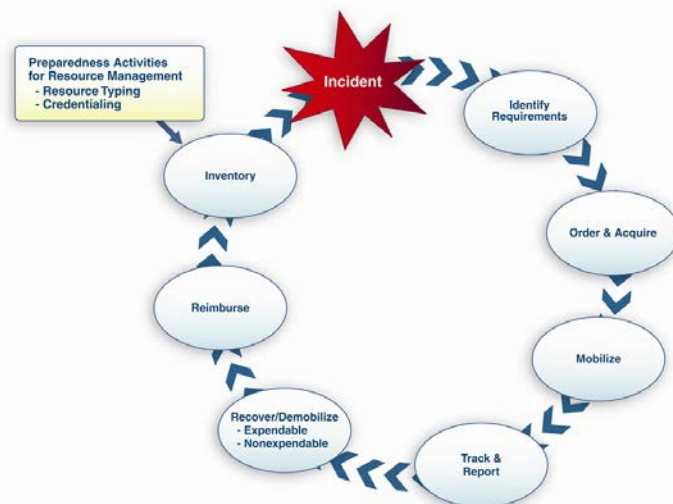
The federal government requires airports and airlines to care for passengers and victims. FAA requirements outlined in Title 14, Code of Federal Regulations 139.325, Airport Emergency Plan, and guidance provided in Advisory Circular 150/5200-31B, clearly indicate the importance of customer care through a process of determining needs, obtaining resources, and distributing resources utilizing ICS. Figure 10 indicates a typical preparedness cycle for resource management during response and recovery operations.

This Section provides analysis of customer care, personal item retrieval, and operational continuity and resumption capabilities exhibited on January 6, 2017 and continuing through January 11, 2017.

3.3.1 Capability: Customer Care

Mobilize resources and work with outside agencies to support general customer care, counseling and mental health services among impacted stakeholders including customers, airline, concessionaire, and BCAD employees, and others as needed.

Figure 10 – Resource Management for Response and Recovery



3.3.1.1 Observations

The events of January 6, 2017 indicate several gaps in FLL passenger evacuation and recovery plans relating to customer care. The events included the simultaneous evacuation of all terminals, numerous sheltering among landside, terminals, and airside facilities of both employees and passengers. Existing plans only address short-term evacuation (i.e. for a severe weather warning) and do not include procedures to care for evacuees during prolonged periods.

Customer care operations were also hindered by a lack of situational awareness due to inadequate communication among agency leadership. In addition, FLL does not have an airport-wide mass notification system and the existing PA system lacks the capability to reach the majority of evacuated passengers outside of the terminals. BCAD has dedicated customer service staff, however a majority were at an off-airport event or were forced by law enforcement to stay in their offices. A customer service representative should be a normal participant in the BCAD EOC to assist in developing customer care objectives, to provide operational support, and to offer situational awareness of passenger status. Failures in customer care extended to held aircraft, some of which were delayed for over seven (7) hours fully loaded. To support communication with parked aircraft, the FAA tower channelled all communication to one operations person on the airfield who was quickly overwhelmed with status reports.

Positive attributes regarding customer care include:

1. Employees of several airlines and concessionaires took the initiative to care for the needs of passengers by providing food, water, and access to restrooms;
2. The ARC responded proactively with resources; and
3. Passengers in various shelter areas assisted each other by exchanging supplies and other essentials.

Opportunities for improvement in customer care are summarized below:

1. A comprehensive formalized Family Assistance and Customer Care Plan is needed. Family assistance is traditionally assumed by air carriers and guidelines focus on aircraft accident scenarios; however this event is a clear indication of the need for BCAD to lead family assistance and customer care duties under specific scenarios. The Plan should include a family reunification section;
2. The ICP and BCAD EOC did not develop an objective to address customer care; and
3. Information gathered during interviews indicated that the Logistics Section within the BCAD EOC and the ICP did not have the resources to support customer care objectives for an event of this magnitude, particularly in the first eight hours of the event.

3.3.1.2 Analysis

The Family Assistance and Customer Care Plan should provide tactics and means for customer care to displaced personnel via trained employees. To define recommended specific tasks for inclusion in the Family Assistance and Customer Care Plan, a discussion of existing Federal regulations and guidance is provided below.

The Aviation Disaster Family Assistance Act of 1996 (Act), Section 703, *Air Carrier Plans to Address Needs of Families of Passengers Involved in Aircraft Accidents*, defines the required minimum contents of a Family Assistance Plan. Those requirements include:

1. A plan for publicizing a reliable, toll-free telephone number and for providing staff to handle calls from the families of the passengers;
2. A process for notifying the families of the passengers before providing any public notice of the names of the passengers;
3. An assurance that the notice described in paragraph 2 will be provided to the family of a passenger as soon as the air carrier has verified that the passenger was aboard the aircraft (whether or not the names of all of the passengers have been verified) and, to the extent practicable, in person;
4. An assurance that the air carrier will provide to the director of family support services and to the organization designated for the accident (see the Act, Sections 1136(a)(1) and 1136(a)(2)) immediately upon request, a list (which is based on the best available information at the time of the request) of the names of the passengers aboard the aircraft (whether or not such names have been verified), and will periodically update the list;

5. An assurance that the family of each passenger will be consulted about the disposition of all remains and personal effects of the passenger within the control of the air carrier;
6. An assurance that if requested by the family of a passenger, any possession of the passenger within the control of the air carrier (regardless of its condition) will be returned to the family unless the possession is needed for the accident investigation or any criminal investigation;
7. An assurance that any unclaimed possession of a passenger within the control of the air carrier will be retained by the air carrier for at least 18 months;
8. An assurance that the family of each passenger will be consulted about construction by the air carrier of any monument to the passengers, including any inscription on the monument;
9. An assurance that the treatment of the families of nonrevenue passengers (and any other victim of the accident) will be the same as the treatment of the families of revenue passengers;
10. An assurance that the air carrier will work with any organization designated under Section 1136(a)(2) of the Act on an ongoing basis to ensure that families of passengers receive an appropriate level of services and assistance following each accident;
11. An assurance that the air carrier will provide reasonable compensation to any organization designated under Section 1136(a)(2) of the Act for services provided by the organization;
12. An assurance that the air carrier will assist the family of a passenger in traveling to the location of the accident and provide for the physical care of the family while the family is staying at such location; and
13. An assurance that the air carrier will commit sufficient resources to carry out the plan.

The Act applies directly to air carriers, the National Transportation Safety Board, other federal agencies, and the American Red Cross. However, given the breadth and scope of this incident, an airport-wide, BCAD-led Family Assistance and Customer Care Plan is recommended to support airport-wide incidents, to avoid duplication of effort, and to facilitate efficient, effective coordination. In addition to the needs indicated above, customer care needs, adapted from the National Response Framework, ESF #6 Annex are indicated below:

- Mass Care: Includes sheltering, feeding operations, emergency first aid, and collecting and providing information on victims to family members;
- Emergency Assistance: Assistance required by individuals and families to ensure that immediate needs are addressed including support for evacuation (including registration and tracking of evacuees); reunification of families; provision of aid and services to special needs populations; coordination of donated goods and services; and coordination of voluntary agency assistance; and
- Human Services: Includes assisting victims in property retrieval, coordination of travel, financial support, language services, and other services to assist in getting passengers to their desired location.

Consolidating these concepts into a single Family Assistance and Customer Care Plan yields the following recommended missions to be included in the Plan:

1. Evacuation Tracking – Procedures to account for evacuees to facilitate safety and security (should be coordinated with the TEP);
2. Victim/Injury Tracking – Monitor search and recovery operations and offer assistance as needed; determine the status and location of injured victims and assist in the notification of their families as needed;
3. Evacuee Sheltering – Identification of a facility or facilities to accommodate the number of evacuees;
4. Evacuee Transportation – Identification and tasking of transportation resources to re-locate evacuees to a shelter;
5. Family Communication – Provide capabilities for evacuees to notify family members; for victims, provide procedures for notifying family members based on manifest documents and other available information;
6. Intervention Services – Provide crisis intervention, logistical support, and services to victims and their family members and arrange for a memorial service, if desired by families;
7. Victim Briefings – Provide daily briefings to families on the progress of recovery efforts, identification of victims, the investigation, and other areas of concern; maintain contact with victims and their families to provide continuous updates regarding the progress of the investigation and other related matters, both at the accident location and once the families have returned home;
8. Evacuee Briefings – Provide periodic briefings to evacuees regarding the status of the incident;

9. Personal Item Retrieval – Provide for the return of personal effects to evacuees and families of victims;
10. Food, Water, and Medication – Within shelters, provide food, water, medicine, emergency first aid, and accommodations for special needs;
11. Emergency Assistance – Provide support for family reunification, aid and services to special needs populations, coordination of travel, financial support, language services, and other services to assist in getting passengers to their desired location.

Efforts were made by several entities to comfort passengers via supplies on hand. Other attempts were made by the airport to coordinate ARC assistance which was hindered by the traffic jam at the entry point to the airport. A formalized Family Assistance and Customer Care Plan will facilitate effective, coordinated services.

Given the lack of official communications with evacuees, most passengers with mobile devices and access to the internet reverted to receiving information via social media. Social media is often an unreliable source of information given the distributed sourcing and sporadic nature of updates. In addition to the confusion passengers experienced, the lack of communication between responding agencies contributed to mismanagement of evacuees. Many passengers and tenants complained of little information regarding the status of the airport. Tenants that usually received information via the mass notification system did not receive information during the event. Finally, interviews indicated that many airport employees are unfamiliar with the TEP and, in some cases, didn't know that it existed.

Access to employees at airports that are familiar with the airport dynamic environment and aircraft operations is an advantage over non-aviation organizations. Undoubtedly, airport employees are the biggest asset to customer care during incidents. Airline employees are trained to manage their own passengers during irregular operations and major incidents and most airlines have a dedicated emergency managers that can serve as a liaison with BCAD and assist in employee training.

3.3.1.3 Recommendations

The following recommendations are provided to improve customer care capabilities:

1. Emergency Planning: Formalize a comprehensive BCAD-focused Family Assistance and Customer Care Plan which includes:
 - a. Procedures for family reunification;
 - b. Procedures for airport employees to serve as authorized teams to support customer care objectives;
 - c. Procedures to support displaced passengers with a special emphasis on persons with disabilities and special needs passengers;
 - d. Procedures which clearly describe the roles and responsibilities of employees to assist passengers during emergencies which include:
 - i. Identification of safe haven areas;
 - ii. Identification of an FAC Manager and a Customer Care Manager with assigned roles in the ICS/BCAD EOC;
 - iii. Provisions for and procurement of "Go Kits" for customer care teams to include radios, vests, bullhorns, flashlights, and other equipment as needed;
 - iv. Maps identifying critical assets such as first aid stations, defibrillators, PA systems, safe exits, and escape route;
 - v. Training for active shooter, tornado, and hurricane response plans; and
 - vi. Storage facilities for resources such as non-perishable food, baby supplies, blankets, and other basic essential needs;
2. Customer Care Program:
 - a. BCAD should develop the Customer Care Program using a community approach and coordinate use of airport tenants that have knowledge of the airport, aircraft, and other technical knowledge to support crowd control, to guide evacuees to designated safe haven areas, and to distribute resources and supplies;

- b. The Customer Care Program should be included or referenced in BCAD emergency plans; it is recommended to codify personnel, training, communication, and roles and responsibilities within an ICS structure as a branch under the Operations Section. The Customer Care Branch should focus on tactics to achieve customer care objectives while providing situational awareness of evacuee status to the BCAD EOC. To ensure that the Customer Care Program can be implemented, terminal tenants should be identified and trained to implement the program; and
 3. Resourcing:
 - a. Working with the EMD, BCAD should consider developing or resourcing a three (3) day supply of critical care stores positioned in close proximity to terminals for timely access; and
 - b. Consideration should be given to the stock rotation, inventory and replenishment process.

3.3.2 Capability: Personal Item Retrieval

Establish processes and resources to collect and secure personal items left behind, to identify owners, and to transmit items to their owners.

3.3.2.1 Observations

As a result of this event, approximately 12,000 passengers were located in the four FLL terminals when the first shooting incident occurred. Shortly after the evacuation of Terminal 2, reports of shots fired caused a stampede and self-evacuation of all terminals, both airside and landside. As a result, many passengers and tenants were forced to leave personal belongings scattered behind in all areas of the terminals. Removal of personal belongings following an evacuation of this magnitude is complex. Prior to the event, BCAD management contemplated how to successfully execute personal item retrieval on a large scale and contracted with a third party to support this capability. Passengers left behind personal valued items including mobile phones, identification, wallets, medications, and clothing which must be collected and accounted for.

Positive attributes regarding customer care include:

1. Prior to the event, BCAD had contemplated personal item retrieval on a large scale and identified a contractor specializing in this type of operations; and
2. BCAD expedited contracting and provided support to the contractor in identifying a centralized location for personal item collection.

Opportunities for improvement in customer care are summarized below:

1. Prioritize an objective to clear evacuated passengers and release them to avoid prolonged sheltering of passengers, children, and the elderly;
2. The press was over exuberant in their efforts to identify the central collection location for personal items which was kept secret to avoid an onslaught of people showing up to collect their items; and
3. The operation to return personal items was costly.

3.3.2.2 Analysis

The principal objective of recovery was clearing the terminals for next day operations; the biggest immediate challenge was collecting and moving the massive number of personal belongings spread among all four terminals to a central location. Airport management was determined to match personal belongings with evacuated passengers, but with the number of evacuees and their sporadic locations, it was overwhelming to accomplish such task within the same day. Instead BCAD activated an on-call contractor to collect all the personal belongings from all four terminals and moved them to a hanger. The contractor managed the process to organize, to identify owners, and to ship items directly to homes in the days following the incident. The entire task required a tremendous effort by the contractor and BCAD and was accomplished at a significant cost. The effort included creation of a hotline by the county to which customers could call to claim items. The effort also included extensive sorting and an online process.

The process by which an airport has to use to collect personal belongings from each of the terminals is a concern. This situation left many overnight without essential needs such as critical medications and identification. Once collection of items has been approved by the ICP, airline staff employed at the airport can be utilized to collect items with laws enforcement and take possession to match with passengers.

3.3.2.3 Recommendations

The following recommendations are provided to improve personal item retrieval capabilities:

1. Building on the success of the personal item retrieval operation, codify personal item retrieval procedures in the Family Assistance and Customer Care Plan and/or COOP Plan to support collection and management of personal belongings in partnership with airlines;
2. Include provisions for law enforcement support for securing items collected before transfer to a sorting process;
3. Include procedures to identify locations to collect personal belongings;
4. Include procedures for airline personnel to sort and manage baggage and goods for each of their customers;
5. Provide for scalability to accommodate one (1) or four (4) terminals; and
6. Consider including the on-call contractor for this type of specialty service in periodic training and exercises to ensure that written procedures are achievable, functional, and practical.

3.3.3 Capability: Operational Continuity and Resumption

Implement operational continuity plans and resources necessary to resume operations within the impacted area including airlines, concessionaires, and other airport services.

3.3.3.1 Observations

On January 6, 2017, operational continuity efforts at FLL required as a result of the event included transportation planning, evacuation, sheltering, and operational resumption efforts. Because of the self-evacuation into secure areas, operational resumption efforts included security sweeps to secure terminals for flight resumption. Extended recovery activity was also necessary in the Terminal 2 baggage claim area where the actual shootings occurred. While the event was serious and complicated, apprehension of the suspect took less than 80 seconds and partial resumption of airport operations took less than sixteen (16) hours including collection of items and cleaning of facilities.

Positive attributes regarding operational continuity and resumption include:

1. The BCAD operations and maintenance staff worked very hard to restore facilities to operational condition despite the lack of tactical communications and the complexity of the incident;
2. BCAD was able to open the airport for certain operations at 5:00 AM on January 7, 2017, despite the command and control challenges discussed previously;
3. Despite challenges in communication, the BCAD EOC worked through the night in coordination with BSO to resume operations via the following actions:
 - a. BCAD coordinated with BSO and TSA to conduct security sweeps of all terminals;
 - b. BCAD coordinated with a contractor (BMS CAT) to clear all personal belongings from the terminals and to consolidate them in one location;
 - c. BCAD deployed maintenance crews and concessionaires to clean facilities; and
 - d. BCAD coordinated with airlines to develop a re-open plan and time on January 7, 2017.

Opportunities for improvement in operational continuity and resumption are summarized below:

1. Challenges in communication and coordination of transportation operations ultimately led to poor utilization of busing contractors and traffic control issues that delayed efforts and prolonged passenger waiting;
2. Operational continuity tasks should have been left to the BCAD EOC and the County EOC to coordinate. Given the number of law enforcement officers that responded to the airport, their involvement and support of customer care, transportation, and recovery operations were noticeably absent and, in some cases, hindered recovery operations via unnecessary traffic; and
3. A lack of recovery planning, training and exercising occurred among FLL stakeholders as evidenced by the lack of communication and confusion regarding use and availability of resources to expedite recovery.

3.3.3.2 Analysis

The concepts of emergency preparedness and resilience at airports have been highlighted periodically through the occurrence of natural disasters such as fires, floods, and blizzards, as well as technological and man-made disasters such as aircraft accidents, server crashes or virus infections, terrorism events, and active shooter events. Operational continuity is a fundamental part of emergency planning and preparedness. For airports, operational continuity procedures identified in a COOP Plan are vital. Closing any airport for hours at a time tremendously impacts airlines potentially causing flight delays across the world, revenue loss for service providers, disruption of critical operations, and negative impacts on passengers. The COOP Plan should include procedures to support continuing operations during an incident as well as recovery objectives within an expedited timeframe to reduce the impact of operational interruptions.

Airport resilience is a challenge for airport management during extreme occurrences and unforeseen disasters. FLL may increase its workforce capacity during an incident by coordinating use of tenant employees who have knowledge of the airport, aircraft, and other technical knowledge to support crowd control, to guide evacuees to designated safe havens, and to distribute resources and supplies. A key component of this concept is to establish a training and exercise program to evaluate recovery plans and communication with first responders and stakeholders. The COOP Plan should include a phases approach to recovery and operational resumption. Scenarios to be considered during planning efforts should include relevant natural hazards, malevolent threats, and technological or man-made hazards.

Facilitating resiliency in a COOP Plan requires identifying critical assets and infrastructure including but not limited to water and power supply lines, navigational aids, internet assets, critical buildings, and internet supply. Most airport systems are prominently dependent on power supplies, such as flight information display systems, baggage information display systems, cell phones, PA systems, vertical movement systems, airlines operations, passenger screening, etc. Once critical assets and systems are identified, COOP Plans should include procedures and provisions to protect them from disruption via redundancies or alternatives. In conjunction with all airport stakeholders, FLL should conduct a comprehensive assessment of all assets and capabilities to identify critical dependencies, to define roles and responsibilities for critical dependencies, and to identify potential capital improvement needs to facilitate resiliency.

As indicated previously, emergency access protocols should be employed and policies regarding their use should be communicated among all BCAD, law enforcement, and other FLL stakeholders. These steps should be implemented to ensure that access is provided to essential personnel during response and recovery operations. During the events of January 6, 2017, certain essential personnel, such as airport operations staff, were stopped by law enforcement and not allowed to proceed because the responding law enforcement agencies lacked recognition of the airport badge system. Credentialing for COOP purposes should include a critical and known icon for trained essential personnel to staff critical positions during a crisis.

While failures in communication are a major critical factor in hindering response operations on January 6, 2017, another factor identified during the review is a lack of training in a community approach to response and recovery. During interviews and in questionnaires, many stakeholders cited the need to be included in airport emergency planning, preparedness and recovery efforts. Coordinated planning, training and exercising with a wide variety of stakeholders is an effective method to create competencies, develop relationships, and minimize disruptions.

To support customer care, airport operations, and community economic vitality, maintaining airport operations and the ability to resume operations as quickly as possible is vital to effective airport management. In addition, it is important to understand that airport closures have a domino effect across the airport system both nationally and internationally. Events at FLL on January 6, 2017 indicate the importance of operational continuity planning and weaknesses which exist in recovery planning.

3.3.3.3 Recommendations

The following recommendations are provided to improve operational continuity and resumption capabilities within BCAD and among airport stakeholders:

1. Planning:
 - a. In collaboration with the Broward County EMD, BCAD should revise the COOP Plan to include three key elements:

- i. Resilience provisions that identify critical functions and supporting infrastructure with procedures to ensure that they are not affected by relevant disruptions, for example through redundancy and spare capacity;
 - ii. Recovery provisions that allow restoration of critical functions that fail under duress; and
 - iii. Contingency provisions that allow FLL to establish capabilities via backup sites which address landside, terminal, and airside operations to the extent practical;
 - b. As indicated previously, BCAD should establish emergency access protocols and communicate them among all BCAD and law enforcement stakeholders to ensure that access is provided to essential personnel during response and recovery operations;
 - c. Consistent with ICS principles, BCAD should establish a recovery branch in the BCAD EOC that focuses on assessing impacts, defining recovery objectives, and assigning responsibilities to support recovery operations;
 - d. BCAD should work with tenants that have knowledge of the airport, aircraft, and other technical airport knowledge to serve as force multipliers during extreme events to support control crowd, evacuee and safe haven management, and distribution of resources and supplies;
2. Training and Exercises:
 - a. BCAD should establish a training and exercises focusing specifically on recovery plans including:
 - i. Communication with first responders and stakeholders;
 - ii. Phased planning for recovery and operational resumption; and
 - iii. Financial considerations for operational continuity;
 - b. As with all emergency exercising, recovery planning and implementation should be performed using a tiered approach, in compliance with HSEEP, beginning with discussion-based exercises (workshops and tabletop exercises) and progressing to operations-based exercises (drills, functional exercises, and full-scale exercises); and
 - c. Recovery planning during exercises should start at the early stage of an incident and transition to full recovery.

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CHAPTER 4 TASK-BASED RECOMMENDATIONS

The analysis and recommendations provided in Chapter 3 and in the Improvement Plan (Appendix A) are presented in the context of objectives and target capabilities identified as part of the HSEEP AAR process. In this Chapter, recommendations are presented based on the tasks required to fulfill each recommendation including 1) Emergency Planning; 2) Training and Exercises; 3) Resourcing; 4) ICP/EOC Operations; and 5) County-Wide Preparedness. This Chapter is provided to assist BCAD management in addressing recommendations systematically.

4.1 Emergency Planning

Emergency planning recommendations are characterized below.

4.1.1 General Emergency Planning

Either within the BCAD AEP or in function- or hazard-specific annexes to the AEP, address the following issues:

1. Clarify the assignment of the Incident Commander and address how BSO Incident Commanders should interact with the BCAD Seniority of Personnel stated on page Basic-1 of the AEP;
2. Revise the AEP, or create a companion policy document, to include a Concept of Operations for command and control consistent with ICS principles. The Concept of Operations should include procedures to develop an IAP which includes objectives, assignment, timelines, and resource requirements and provisions to support Unified Command;
3. Clarify roles, responsibilities, authorities, communication requirements, and reporting structure of BSO staff (both law enforcement and ARFF) during airport emergencies;
4. Address mutual aid response by law enforcement agencies similar to Basic Page 2 of the AEP which addresses mutual aid deployment and staging of fire/rescue agencies;
5. Clarify the role of the FBI and coordination protocols with BCAD during an active shooter event as it relates to criminal investigation, logistical needs, holding and release of airport passengers including those on aircraft, and arrival and departure of aircraft after the event;
6. Address EOC staffing for events anticipated to extend past twelve (12) hours and which require multiple shifts;
7. Review and update the mass notification system groups to include all key tenants and stakeholders (concessionaires, rental cars, ground transportation entities, and tenants outside the terminal area);
8. Revise the AEP, or create a companion policy document, to include hazard-specific procedures and protocols including active shooter events, mass evacuation, and mass care;
9. Codify use of conference calls between the BCAD EOC, the County EOC, and ICPs during response operations in BCAD emergency response plans to support and maintain situational awareness;
10. Validate use of designated staging areas and ensure that stakeholders are aware of the designated staging areas and their purpose in supporting response operations;
11. Ensure that emergency plans define clearly the parameters regarding airport closure;
12. Ensure that emergency plans define how to coordinate with airlines to manage grounded flights and passenger resourcing for extended periods of time;
13. Establish a recovery branch to work in the BCAD EOC that focuses on assessing impacts, defining recovery objectives, and assigning responsibilities to support recovery operations;
14. Work with tenants that have knowledge of the airport, aircraft, and other technical airport knowledge to serve as force multipliers during extreme events to support control crowd, evacuee and safe haven management, and distribution of resources and supplies;
15. Develop emergency traffic procedures to support bussing, traffic control, employee access, and law enforcement escorts. The plan must have provisions for emergency access badges (credentials) to allow airport access for key personnel during an emergency;
16. Develop staging procedures in coordination with emergency responders to ensure that response vehicles are accommodated, to control self-deployment, and to support deployment of resources per ICS guidelines; and

17. Develop tactical communication procedures for first responders during high volume events when radio and cell phones are busy, not working or overwhelmed.

4.1.2 Family Assistance and Customer Care Plan

As a stand-alone annex to the AEP, formalize Family Assistance and Customer Care Plan which includes:

1. Provisions for: 1) Assisting persons with disabilities and special needs; 2) Language translators; 3) Family reunification procedures; 4) Adequate restroom facilities for various levels of events; 5) Resource support for transport, food, water, medical needs, shelter, and other relief supplies; and 6) Support for persons on delayed aircraft;
2. Procedures which clearly describe roles and responsibilities of employees to assist passengers during emergencies which include: 1) Identification of safe haven areas; 2) Identification of an FAC Manager and a Customer Care Manager with assigned roles in the ICS/BCAD EOC; 3) Provisions for and procurement of "Go Kits" for customer care teams to include radios, vests, bullhorns, flashlights, and other equipment as needed; 4) Maps identifying critical assets such as first aid stations, defibrillators, PA systems, safe exits, and escape route; 5) Training for active shooter, tornado, and hurricane response plans; and 6) Storage facilities for resources such as non-perishable food, baby supplies, blankets, and other basic essential needs;
3. Codification of personnel, training, communication, and roles and responsibilities within an ICS structure as a branch under the Operations Section. The Family Assistance and Customer Care Branch should focus on tactics to achieve customer care objectives while providing situational awareness of evacuee status to the BCAD EOC. To ensure that the Customer Care Program can be implemented, terminal tenants should be identified and trained to implement the program;
4. Links in the Family Assistance and Customer Care Plan to the County CEMP and ensure that personnel understand procedures to transport people off of the airport;
5. Procedures to support coordination between law enforcement and BCAD regarding disposition of passengers during extended response operations;
6. Coordination procedures with the County EOC and the ARC;
7. Procedures to acquire translators for sheltering operations;
8. Procedures to manage minors traveling alone during evacuation and/or shelter operations.) Airlines should consider identifying unaccompanied minors via bracelet, RFID tag, or other method and include family phone numbers should authorities need to contact them;
9. Procedures to identify locations in each terminal to collect personal belongings;
10. Procedures for airline personnel to sort and manage baggage and goods for each of their customers; and
11. Scalability to accommodate one (1) or four (4) terminals.

4.1.3 Terminal Evacuation Plan

As a stand-alone annex to the AEP, develop a TEP which includes:

1. Evacuation routes for an active shooter event in contrast with evacuation for natural hazards;
2. Links to the Family Assistance and Customer Care Plan to the County CEMP and ensure that personnel understand procedures to transport people off of the airport;
3. Strategies to communicate with people evacuated and/or sheltered and account for location (inside/outside, public areas/restricted areas, offsite, etc.);
4. Procedures to repatriate people evacuated or sheltered in an orderly manner; and
5. Provisions to include rental car operations in evacuation procedures.

4.1.4 Risk Communication Plan

As a stand-alone annex to the AEP, formalize a Risk Communication Plan which includes:

1. Identifies a PIO and lead spokesperson for FLL during airport events (tiered if necessary based on the level of event);
2. Provides linkage to the CEMP to clarify who speaks for the county so that all responding agencies understand by whom messages will be released at the County level;

3. Clarifies the approval process for messages in an ICS context both at the BCAD level and via expanded operations in which BCAD may not be the lead response agency;
4. Clarifies the role and operation of a JIC and how BCAD will participate in a JIC;
5. Ensures that Health Insurance Portability and Accountability Act privacy rules are considered during communication development; and
6. Identifies processes for communicating with BCAD and airport employees, County employees, the traveling public, and the general public and media.

4.1.5 Continuity of Operations Plan

In collaboration with the Broward County EMD, revise the COOP Plan to include three key elements:

1. Resilience provisions that identify critical functions and supporting infrastructure with procedures to ensure that they are not affected by relevant disruptions, for example through redundancy and spare capacity;
2. Recovery provisions that allow restoration of critical functions that fail under duress; and
3. Contingency provisions that allow FLL to establish capabilities via backup sites which address landside, terminal, and airside operations to the extent practical.

4.2 Training and Exercises

BCAD should develop a Multi-Year Training and Exercise Plan in accordance with HSEEP and which addresses the following:

1. Mandatory initial and recurring ICS training course for all potential Incident Commanders for FLL events and include a thorough overview of the AEP;
2. Multi-agency response training which includes an overview of airport operations and the airport facility;
3. Joint multi-agency training and exercises with BSO, EMD, Port Everglades and other airport stakeholders regarding Unified Command and multi-agency coordination;
4. Training of all relevant airport stakeholders regarding the contents of plans develop or modified pursuant to Section 4.1;
5. Hazard- and function-specific drills regarding active shooter events, evacuation, sheltering, and other hazards and threats pursuant to the THIRA;
6. Assignment of BCAD ICS positions and backups to participate in ICS 300 and ICS 400 training;
7. Participation of ICS assignees in operations-based exercises to provide a full understanding of their roles; and
8. Use of a tiered approach beginning with training and discussion-based exercises (workshops and tabletop exercises) and progressing to operations-based exercises (drills, functional exercises, and full-scale exercises) to support a logical and sustainable progression of competency building.

4.3 Resourcing

Suggested resourcing to support emergency preparedness and response includes the following:

1. Assess the need for additional equipment and infrastructure, such as overhead announcement, visual paging, and portable speaker systems, to improve communications in support of evacuation and sheltering;
2. Consider acquiring earpieces for law enforcement personnel to prevent the inadvertent broadcast of unconfirmed information over the radio to non-law enforcement personnel;
3. Review and evaluate the performance of the 800 Megahertz (MHz) radio system and cellular capabilities to identify if system enhancements are warranted. Consider including cellular providers in assessment of communications and assess the need for digital antenna systems to support both radio and cellular service;
4. Assess the need for additional labor resources among agencies and tenants to support planning, training, and exercises;
5. Work with the EMD and ESF #6 to develop a list of shelter supplies and determine those available via maintained stockpiles and those which may require expedited acquisition authority based on the event;

6. Consider an updated modern and relocated BCAD EOC to facilitate more robust communication and technology capabilities and to accommodate multiagency participation (individual stations for participants);
7. Work with the EMD to include use of the reverse 911 system in the BCAD Risk Communications Plan and ensure that assignees to the plan are able to authorize its use for airport events;
8. Work with other response stakeholders to evaluate the need for additional resources to support transporting people with disabilities;
9. Work with other response stakeholders to evaluate the need for a Public Address (PA) system on the ramps;
10. Work with the EMD and Port Everglades to develop joint airport/port emergency support plans, to identify existing and desired resources for emergency preparedness, and to establish emergency communications procedures;
11. Consider storing certain non-perishable shelter resources on the airport to support expedited deployment; and
12. Working with the EMD, BCAD should consider developing or resourcing a three (3) day supply of critical care stores positioned in close proximity to terminals for timely access. Consideration should be given to the stock rotation, inventory and replenishment process.

4.4 ICP/EOC Operations

Suggested ICP/EOC operational needs includes the following:

1. Develop structured methods to ensure communication between ICPs, EOCs, and the JIC and among all agencies including BCAD, BSO, County agencies, the FBI, and Port Everglades to support a common operating picture and situational awareness;
2. Develop communication protocols between BCAD, BSO, and TSA at checkpoints to ensure that they are not evacuated for unsubstantiated reasons yet still address personnel safety around the checkpoint;
3. Develop procedures to identify critical essential non-law enforcement employees and to allow access to ICPs and EOCs during an incident;
4. Develop a process to ensure that the EOC and ICP receive food and beverages during an extended operations;
5. Work with the EMD and internal BCAD Logistics Section personnel to define available resources, mutual aid agreements, and resourcing procedures;
6. Develop defined roles for all personnel within the BCAD EOC (i.e. a reason to be in the room) and ensure that each representative understands their role;
7. Provide all BCAD EOC representatives with communication capabilities, resources to support situational awareness, and consider technology to improve use of cell phones;
8. Consider adoption and use of WebEOC to support situational awareness and resource management including requesting, deploying and tracking;
9. Encourage agencies assigned to serve in ESF roles in the County EOC, or who may participate in other agency EOCs, to provide trained and knowledgeable staff representatives as soon as practical after EOC activation to provide a communication link to their respective agencies;
10. Encourage agencies to establish communications among active EOCs during joint response to develop and maintain a common operating picture and situational awareness;
11. Reinforce communication responsibilities under the County CEMP;
12. Develop a clear understanding among all agencies of triggers for JIC operations and the need for multi-agency coordination of public communications;
13. During events of this scale, work with all relevant local, state, and federal agencies to coordinate public messaging through the County EOC and/or a JIC; and
14. Among county leadership, redress and reinforce jurisdictional responsibilities for coordinating message development, releasing public information, and who will serve as the public spokesperson under specific scenarios.

4.5 County-Wide Preparedness

Suggested measures to improve county-wide preparedness are provided below.

4.5.1 County Level Policy Review/Redress

County-level policy review and re-validation with assigned agencies is recommended as describe below:

1. Among all agencies with assignments in the CEMP, formal redress should occur regarding when Unified Command and multiagency coordination is necessary and how it is to occur;
2. Among all agencies with assignments in the CEMP, formal redress should occur regarding establishment and use of standard NIMS/ICS facilities including ICPs and Staging Areas. Instruction should also be provided to those agencies regarding establishment of communications between ICPs, EOCs, and Staging Areas;
3. Staging Area policies should be reviewed to ensure that: 1) Procedures exist to support deployment, positioning and accounting of resources; 2) Provisions are codified to support Staging Area managers who should be assigned to check-in all incoming resources, to provide directions/instruction to responding resources, and to dispatch resources to fulfill resource requests; and 3) Provisions exist to minimize and control self-deploying resources;
4. Among all agencies with assignments in the CEMP, review and adjust JIC policies, as needed, and communicate through training when activation of a JIC is necessary and the procedures under which a JIC is to operate;
5. Among all agencies with assignments in the CEMP, formal redress should occur regarding the role of the County Administrator and County Mayor as the overall coordinators of County emergency response operations and CEMP policies as to when communication with executives and policy makers is required;
6. Evaluate various multiagency coordination models (Unified Command, Incident Complex, and Area Command) and work with response agencies and stakeholders to build capabilities to operate in these using the command and coordination principles;
7. Consider conducting workshops among CEMP assignees to ensure a consistent understanding of incident-specific planning processes as outlined in the FEMA Incident Management Handbook;
8. Through planning, training, and exercising and as a matter of strict policy, ensure that agencies coordinate large scale incident action planning efforts to prevent duplication of effort, to ensure adequate and accurate resource estimation, to ensure that all stakeholders concur with tactical recommendations, and to ensure that all CEMP stakeholders understand their roles, responsibilities, and limitations as well as those of other stakeholders; and
9. During events of this scale, coordinate with the appropriate state agencies and the Governor's Office, as necessary, for resource support.

4.5.2 County-Level Coordination

Recommendations to support county-wide coordination include:

1. Develop and test tactical communications between EOCs, ICPs and field elements (responders) to ensure that missions are transmitted at the tactical level; and
2. Develop (or redress) procedures among all emergency responders to use radio discipline to control messaging and to prevent radio traffic overload.

4.5.3 Port Everglades

Recommendations specific to Port Everglades include:

1. At the County level, determine if the Port, or other currently undesignated facility, should serve as a designated shelter/mass care facility;
2. If designated, revise the CEMP and other related documents, as necessary, to include Port-specific procedures for sheltering and mass care;
3. If designated as a shelter/mass care facility, provide Port assignees with appropriate ICS and plan-specific training and exercises;

4. Develop an all-hazards emergency response plan which addresses ICS activation and EOC operations; and
5. Consider developing an MOU with the Port for specific emergency preparedness needs.

APPENDICES

Appendix A – Improvement Plan

Appendix B – Lessons Learned

Appendix C – Acronyms and Abbreviations

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Appendix A – Improvement Plan

This Improvement Plan was developed specifically for BCAD as a result of events which took place on January 6, 2017 at FLL. Recommendations provided herein are based on information compiled in Chapter 3, Observations and Analysis, and will be implemented by the Agency Point of Contact as assigned by BCAD.

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
Objective 1: Airport-Wide Response				
Capability 1.1 – Interoperable Communications: Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, state, and local first responders.				
1.1.1 – Emergency Planning				
	1.1.1.1 – Within the BCAD AEP, clarify the assignment of the Incident Commander and address how BSO Incident Commanders should interact with the BCAD Seniority of Personnel stated on page Basic-1 of the AEP.			
	1.1.1.2 – Within the BCAD AEP and Continuity of Operations Plan (COOP), clarify roles, responsibilities, authorities, communication requirements, and reporting structure of BSO staff (both law enforcement and ARFF) during airport emergencies.			
	1.1.1.3 – Within the BCAD AEP and other pertinent emergency response plans, clarify participants and communication responsibilities between the ICP, the BCAD EOC, and the County EOC.			
	1.1.1.4 – Within the BCAD AEP, address mutual aid response by law enforcement agencies similar to Basic Page 2 of the AEP which addresses mutual aid deployment and staging of fire/rescue agencies.			
	1.1.1.5 – Consider developing a Tactical Communications Plan for first responders during high volume events when radio and cell phones are busy, not working or overwhelmed.			
	1.1.1.6 – Within the BCAD AEP, clarify the role of the FBI and coordination protocols with BCAD during an active shooter event as it relates to criminal investigation, logistical needs, holding and release of airport passengers including those on aircraft, and arrival and departure of aircraft after the event.			
	1.1.1.7 – Within the BCAD AEP and in coordination with BSO, review and update procedures for establishing and maintaining an ICP.			
	1.1.1.8 – Within the BCAD AEP, address EOC staffing for events anticipated to extend past twelve (12) hours and which require multiple shifts.			

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
	1.1.1.9 – Develop a Risk Communication Plan to support accurate and consistent messaging to tenants, the public, and the media and to convey clear methods of contacting BCAD. The plan should address: 1) Displaced and sheltering passengers; 2) Passengers and crew on aircraft that are being held on a ground stop; 3) In-bound aircraft that have to be diverted and associated communications with the airlines and airports affected; 4) First responder radio systems including use of earpieces in lieu of open microphones; 5) Airline and non-airline tenant management and employees working throughout the airport (rental cars companies, concessionaires, ground transportation providers, FBOs, etc.); 6) Airline corporate operations centers; 7) Private sector ambulance companies; 8) Airports impacted by diverting flights; and 9) Cruise lines, local and corporate.			
	1.1.1.10 – Review and update the mass notification system groups to include all key tenants and stakeholders (concessionaires, rental cars, ground transportation entities, and tenants outside the terminal area).			
1.1.2 – Training and Exercises				
	1.1.2.1 – Develop a mandatory initial and recurring ICS training course for all potential Incident Commanders for FLL events and include a thorough overview of the AEP.			
	1.1.2.2 – Conduct joint BSO and BCAD training and exercises regarding Unified Command.			
	1.1.2.3 – Conduct joint exercises between BCAD, Port Everglades and the EMD including scenarios that impact both FLL and Port Everglades.			
1.1.3 – Resourcing				
	1.1.3.1 – Review and budget for improvements to the public notification systems including visual paging and portable systems that could be used outdoors.			
	1.1.3.2 – Consider acquiring earpieces for law enforcement personnel to prevent the inadvertent broadcast of unconfirmed information over the radio to non-law enforcement personnel.			
	1.1.3.3 – Review and evaluate the performance of the 800 Megahertz (MHz) radio system and cellular capabilities to identify if system enhancements are warranted. Consider including cellular providers in assessment of communications and assess the need for digital antenna systems to support both radio and cellular service.			
1.1.4 – ICP/EOC Operations				
	1.1.4.1 – Develop structured methods to ensure communication between ICPs, EOCs, and the JIC and among all agencies including BCAD, BSO, County agencies, the FBI, and Port Everglades to support a common operating picture and situational awareness.			
	1.1.4.2 – Develop communication protocols between BCAD, BSO, and TSA at checkpoints to ensure that they are not evacuated for unsubstantiated reasons yet still address personnel safety around the checkpoint.			
	1.1.4.3 – Develop procedures to identify critical essential non-law enforcement employees and to allow access to ICPs and EOCs during an incident.			

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
1.1.4.4 – Develop a process to ensure that the EOC and ICP receive food and beverages during an extended operations.				
Capability 1.2 – Evacuation/Shelter-in-Place Operations: Establish physical access and resources to support effective evacuation and/or shelter-in-place operations.				
1.2.1 – Emergency Planning: Update the TEP and Formalize a Family Assistance and Customer Care Plan				
1.2.1.1 – Coordinate TEP and sheltering procedure modifications with the ARC.				
1.2.1.2 – Include rental car operations in procedures regarding evacuation and sheltering operations.				
1.2.1.3 – Develop procedures to account for airport shuttle bus and other ground transportation operations when airport access and the roadway is impacted.				
1.2.1.4 – For active shooter scenarios, develop procedures for coordinated sweeps in impacted areas to ensure the safety of people evacuated and sheltered and include procedures for documenting and communicating areas swept with the ICP and BCAD EOC.				
1.2.1.5 – Among BCAD, BSO, and other airport stakeholders, clarify roles and decision-making authority in relation to the County CEMP as it relates to evacuation and sheltering.				
1.2.1.6 – Provide links within the TEP and the Family Assistance and Customer Care Plan to the County CEMP and ensure that personnel understand procedures to transport people off of the airport.				
1.2.1.7 – Work with the TSA to revisit the run/hide/fight strategy based on lessons learned from the spontaneous evacuation and codify procedures for all personnel in the TEP.				
1.2.1.8 – Develop strategies to communicate with people evacuated and/or sheltered and account for location (inside/outside, public areas/restricted areas, offsite, etc.).				
1.2.1.9 – Evaluate evacuation routes for an active shooter event in contrast with evacuation for natural hazards.				
1.2.1.10 – Develop procedures to provide restrooms and relief supplies to those evacuated or sheltered and consider locations (inside/outside, public areas/restricted areas, offsite, etc.).				
1.2.1.11 – Develop procedures to repatriate people evacuated or shelters in an orderly manner.				
1.2.1.12 – Develop procedures to care for passengers and crew in held aircraft.				
1.2.1.13 – Develop procedures to quickly resolve the status of aircraft and airport operations to expedite take-off or deplaning of held aircraft and clarify the role of local law enforcement in making the decision to hold or release aircraft.				
1.2.1.14 – Develop procedures for managing people with medical needs and persons with disabilities including provisions for standing up First Aid station(s) for displaced passengers.				
1.2.1.15 – Develop procedures to acquire translators for sheltering operations.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
1.2.1.16 – Develop procedures to manage minors traveling alone during evacuation and/or shelter operations.) Airlines should consider identifying unaccompanied minors via bracelet, RFID tag, or other method and include family phone numbers should authorities need to contact them.				
1.2.1.17 – Include customer care planning at Port Everglades and address customer needs (food, water, blankets, translators, chargers, diapers) and security and credentialing (also see 2.2.3 for additional Port Everglades recommendations).				
1.2.2 – Training and Exercises				
1.2.2.1 – Ensure that BCAD and other stakeholders are trained regarding TEP and sheltering procedures.				
1.2.2.2 – Conduct multi-agency (BCAD, BSO, etc.) exercises (tabletop exercise/functional exercise) to address procedural changes, to practice coordination among all agency ICPs and EOCs, and to practice multi-agency coordination via unified command using an evacuation and sheltering scenario.				
1.2.2.3 – Through drills, practice focused evacuation and sheltering procedures to develop competencies while minimizing the impact to operations.				
1.2.3 – Resourcing				
1.2.3.1 – Assess the need for additional labor resources among agencies and tenants to support planning, training, and exercises.				
1.2.3.2 – Assess the need for additional equipment and infrastructure, such as overhead announcement, visual paging, and portable speaker systems, to improve communications in support of evacuation and sheltering.				
1.2.3.3 – Work with the EMD and ESF #6 to develop a list of shelter supplies and determine those available via maintained stockpiles and those which may require expedited acquisition authority based on the event.				
Capability 1.3 – Public Information and Warning: Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the transition to recovery.				
1.3.1 – Risk Communication Planning. Develop a Risk Communication Plan which:				
1.3.1.1 – Identifies a PIO and lead spokesperson for FLL during airport events (tiered if necessary based on the level of event).				
1.3.1.2 – Provides linkage to the CEMP to clarify who speaks for the county so that all responding agencies understand by whom messages will be released at the County level.				
1.3.1.3 – Clarifies the approval process for messages in an ICS context both at the BCAD level and via expanded operations in which BCAD may not be the lead response agency.				
1.3.1.4 – Clarifies the role and operation of a JIC and how BCAD will participate in a JIC.				
1.3.1.5 – Ensures that Health Insurance Portability and Accountability Act privacy rules are considered during communication development.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
1.3.1.6 – Addresses interaction with PIOs from the FBI and other federal agencies.				
1.3.1.7 – Identifies processes for communicating with BCAD and airport employees, County employees, the traveling public, and the general public and media.				
1.3.2 – Training and Exercises				
1.3.2.1 – Develop training to introduce the Risk Communications Plan to those with assignments in the Plan and a general orientation for all BCAD and airport employees.				
1.3.2.2 – Conduct exercises to evaluate the Risk Communication Plan and to develop competencies among assigned employees.				
1.3.3 – Resourcing				
1.3.3.1 – Consider development/relocation of the BCAD EOC and include communications capabilities to accommodate response to an event of this magnitude.				
1.3.3.2 – Review and budget for improvements to public notifications systems including visual paging, overhead announcements, and mass notification systems.				
1.3.3.3 – Work with the EMD to include use of the reverse 911 system in the BCAD Risk Communications Plan and ensure that assignees to the plan are able to authorize its use for airport events.				
1.3.4 – County-wide Communication Operations				
1.3.4.1 – Reinforce communication responsibilities under the County CEMP.				
1.3.4.2 – Develop a clear understanding among all agencies of triggers for JIC operations and the need for multi-agency coordination of public communications.				
1.3.4.3 – During events of this scale, work with all relevant local, state, and federal agencies to coordinate public messaging through the County EOC and/or a JIC.				
1.3.4.4 – Among county leadership, redress and reinforce jurisdictional responsibilities for coordinating message development, releasing public information, and who will serve as the public spokesperson under specific scenarios.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
Objective 2: Emergency Management and Operational Coordination				
Capability 2.1 – Mobilization: Mobilize all critical resources and establish command, control, and coordination structures within the BCAD Emergency Operations Center (EOC).				
2.1.1 – Emergency Planning				
2.1.1.1 – Formalize a Family Assistance and Customer Care Plan which includes provisions for: 1) Assisting persons with disabilities and special needs; 2) Language translators; 3) Family reunification procedures; 4) Adequate restroom facilities for various levels of events; 5) Resource support for transport, food, water, medical needs, shelter, and other relief supplies; and 6) Support for persons on delayed aircraft.				
2.1.1.2 – Develop an Emergency Traffic Plan to support bussing, traffic control, employee access, and law enforcement escorts. The plan must have provisions for emergency access badges (credentials) to allow airport access for key personnel during an emergency.				
2.1.1.3 – Develop a Staging Plan in coordination with emergency responders to ensure that response vehicles are accommodated, to control self-deployment, and to support deployment of resources per ICS guidelines.				
2.1.2 – Training and Exercises				
2.1.2.1 – Per HSEEP guidelines, perform training and exercises regarding the Family Assistance and Customer Care Plan in cooperation with the EMD, ESF #6 and ESF #8 representatives, the ARC, and other relevant stakeholders.				
2.1.2.2 – Per HSEEP guidelines, perform training and exercises regarding the Emergency Traffic Plan in cooperation with the EMD, ESF #1 and ESF #16 representatives, and other relevant stakeholders.				
2.1.2.3 – Per HSEEP guidelines, perform training and exercises regarding the Staging Plan in cooperation with the EMD, ESF #1, ESF #6, ESF #8, and ESF #16 representatives, and other relevant stakeholders.				
2.1.3 – Resources				
2.1.3.1 – Work with other response stakeholders to evaluate the need for additional resources to support transporting people with disabilities.				
2.1.3.2 – Work with other response stakeholders to evaluate the need for a Public Address (PA) system on the ramps.				
2.1.3.3 – Work with the EMD and Port Everglades to develop joint airport/port emergency support plans, to identify existing and desired resources for emergency preparedness, and to establish emergency communications procedures.				
2.1.3.4 – Consider storing certain non-perishable shelter resources on the airport to support expedited deployment.				
2.1.3.5 – Evaluate all available communications capabilities within the airport to identify additional communication resources for large-scale events.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
2.1.4 – EOC Operations				
2.1.4.1 – Work with the EMD and internal BCAD Logistics Section personnel to define available resources, mutual aid agreements, and resourcing procedures.				
2.1.4.2 – Develop defined roles for all personnel within the BCAD EOC (i.e. a reason to be in the room) and ensure that each representative understands their role.				
2.1.4.3 – Provide all BCAD EOC representatives with communication capabilities, resources to support situational awareness, and consider technology to improve use of cell phones.				
Capability 2.2 – Command and Control: Enhance and maintain command, control, and coordination structures, consistent with NIMS, to meet evolving needs, stabilize the incident, and transition to recovery.				
2.2.1 – Emergency Planning				
2.2.1.1 – Revise the AEP, or create a companion policy document, to include a Concept of Operations for command and control consistent with ICS principles. The Concept of Operations should include procedures to develop an IAP which includes objectives, assignment, timelines, and resource requirements and provisions to support Unified Command.				
2.2.1.2 – Revise the AEP, or create a companion policy document, to include hazard-specific procedures and protocols including active shooter events, mass evacuation, and mass care.				
2.2.1.3 – Consider using the ongoing Threat and Hazard Identification and Risk Assessment to inform development or modification of hazard- and threat-specific procedures.				
2.2.1.4 – Codify use of conference calls between the BCAD EOC, the County EOC, and ICPs during response operations in BCAD emergency response plans to support and maintain situational awareness.				
2.2.2 – Training and Exercises				
2.2.2.1 – BCAD should identify ICS assignees and backups to participate in ICS 300 and ICS 400 training which includes discussion of development of IAPs and Unified Command.				
2.2.2.2 – Command and control should be consistent with principles set forth in NIMS/ICS. BCAD assigned responders should participate in operations-based exercises to provide assignees a full understanding of their roles.				
2.2.2.3 – In the context of an HSEEP-compliant multi-year training and exercise plan, BCAD and the EMD should work together to develop multi-agency response training and exercises including an overview of airport operations and the overall airport facility.				
2.2.3 – EOC Operations				
2.2.3.1 – BCAD should consider adoption and use of WebEOC to support situational awareness and resource management including requesting, deploying and tracking.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
	2.2.3.2 – Agencies assigned to serve in ESF roles in the County EOC, or who may participate in other agency EOCs, should be encouraged to provide trained and knowledgeable staff representatives as soon as practical after EOC activation to provide a communication link to their respective agencies.			
	2.2.3.3 – Agencies should be encouraged to establish communications among active EOCs during joint response to develop and maintain a common operating picture and situational awareness.			
2.2.4 – Port Everglades				
	2.2.4.1 – At the County level, determine if the Port, or other currently undesignated facility, should serve as a designated shelter/mass care facility.			
	2.2.4.2 – If designated, revise the CEMP and other related documents, as necessary, to include Port-specific procedures.			
	2.2.4.3 – If designated, provide Port assignees with appropriate ICS and plan-specific training and exercises.			
	2.2.4.4 – Develop an all-hazards emergency response plan which addresses ICS activation and EOC operations.			
	2.2.4.5 – Consider developing a Memorandum of Understanding (MOU) with the Port for specific emergency preparedness needs.			
2.2.5 – County Level Policy Review/Redress				
	2.2.5.1 – Among all agencies with assignments in the CEMP, formal redress should occur regarding when Unified Command and multiagency coordination is necessary and how it is to occur.			
	2.2.5.2 – Among all agencies with assignments in the CEMP, formal redress should occur regarding establishment and use of standard NIMS/ICS facilities including ICPs and Staging Areas. Instruction should also be provided to those agencies regarding establishment of communications between ICPs, EOCs, and Staging Areas.			
	2.2.5.3 – Staging Area policies should be reviewed to ensure that: 1) Procedures exist to support deployment, positioning and accounting of resources; 2) Provisions are codified to support Staging Area managers who should be assigned to check-in all incoming resources, to provide directions/instruction to responding resources, and to dispatch resources to fulfill resource requests; and 3) Provisions exist to minimize and control self-deploying resources.			
	2.2.5.4 – Among all agencies with assignments in the CEMP, review and adjust JIC policies, as needed, and communicate through training when activation of a JIC is necessary and the procedures under which a JIC is to operate.			
	2.2.5.5 – Among all agencies with assignments in the CEMP, formal redress should occur regarding the role of the County Administrator and County Mayor as the overall coordinators of County emergency response operations and CEMP policies as to when communication with executives and policy makers is required.			

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
Capability 2.3 – Operational Coordination: Establish lines of communication and coordination between the Airport Operations Control Center (AOCC), BCAD EOC, BSO EOC/ICP, County EOC, Federal Aviation Administration (FAA) Air Traffic Control, and other stakeholders (i.e. airline, tenant, concession, general aviation, traffic management, non-profits, etc.) to maintain situational awareness, to identify response needs, and to coordinate mutual aid.				
2.3.1 – Emergency Planning				
2.3.1.1 – Within BCAD emergency plans, validate use of designated staging areas and ensure that stakeholders are aware of the designated staging areas and their purpose in supporting response operations.				
2.3.1.2 – Evaluate the need for BCAD incident-specific plans and coordinate/reconcile those needs with existing plans under the County CEMP.				
2.3.1.3 – Ensure that emergency plans define clearly the parameters regarding airport closure.				
2.3.1.4 – Ensure that emergency plans define how to coordinate with airlines to manage grounded flights and passenger resourcing for extended periods of time.				
2.3.2 – Training and Exercises				
2.3.2.1 – Conduct joint training among emergency management, law enforcement, fire and rescue and other relevant stakeholders to build and understanding of response capabilities and relationships among agency personnel.				
2.3.2.2 – Evaluate various command structures via exercises.				
2.3.2.3 – Perform additional operational exercises (drills) to build operational and coordination competencies among field responders.				
2.3.3 – Resources				
2.3.3.1 – Consider an updated modern BCAD EOC to facilitate more robust communication and technology capabilities and to accommodate multiagency participation (individual stations for participants).				
2.3.3.2 – BCAD EOC planning should include consideration of facility siting to support ease of access among potential BCAD EOC participants.				
2.3.3.3 – Consider the following resources to assist customers and people with special needs: 1) Visual displays for hearing impaired; 2) Multi-language abilities for both audio and visual services; and 3) Capabilities for expedited movement of people with special needs.				
2.3.4 – Coordination				
2.3.4.1 – Develop and test tactical communication between EOCs, ICPs and field elements (responders) to ensure that missions are transmitted at the tactical level.				
2.3.4.2 – Develop strategies and relationships to support coordination between law enforcement and BCAD regarding disposition of passengers during extended response operations.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
	2.3.4.3 – Develop (or redress) procedures among all emergency responders to use radio discipline to control messaging and to prevent radio traffic overload.			
	2.3.4.4 – Evaluate capabilities within FLL to message passengers and employees regarding directions and/or options such as transportation.			
2.3.5 – County Level Policy Review/Redress				
	2.3.5.1 – Evaluate various multiagency coordination models (Unified Command, Incident Complex, and Area Command) and work with response agencies and stakeholders to build capabilities to operate using these command and coordination principles.			
	2.3.5.2 – Consider conducting workshops among CEMP assignees to ensure a consistent understanding of incident-specific planning processes as outlined in the FEMA Incident Management Handbook.			
	2.3.5.3 – Through planning, training, and exercising and as a matter of strict policy, ensure that agencies coordinate large scale incident action planning efforts to prevent duplication of effort, to ensure adequate and accurate resource estimation, to ensure that all stakeholders concur with tactical recommendations, and to ensure that all CEMP stakeholders understand their roles, responsibilities, and limitations as well as those of other stakeholders.			
	2.3.5.4 – During events of this scale, coordinate with the appropriate state agencies and the Governor’s Office, as necessary, for resource support.			

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
Objective 3: Recovery and Post Event Activities				
Capability 3.1 – Customer Care: Mobilize resources and work with outside agencies to support general customer care, counseling and mental health services among impacted stakeholders including customers, airline, concessionaire, and BCAD employees, and others as needed.				
3.1.1 – Emergency Planning: Formalize a BCAD Family Assistance and Customer Care Plan which includes:				
3.1.1.1 – Procedures for family reunification;				
3.1.1.2 – Procedures for airport employees to serve as authorized teams to support customer care objectives;				
3.1.1.3 – Procedures to support displaced passengers with a special emphasis on persons with disabilities and special needs passengers;				
3.1.1.4 – Procedures which clearly describe roles and responsibilities of employees to assist passengers during emergencies which include: 1) Identification of safe haven areas; 2) Identification of an FAC Manager and a Customer Care Manager with assigned roles in the ICS/BCAD EOC; 3) Provisions for and procurement of “Go Kits” for customer care teams to include radios, vests, bullhorns, flashlights, and other equipment as needed; 4) Maps identifying critical assets such as first aid stations, defibrillators, PA systems, safe exits, and escape route; 5) Training for active shooter, tornado, and hurricane response plans; and 6) Storage facilities for resources such as non-perishable food, baby supplies, blankets, and other basic essential needs.				
3.1.2 – Customer Care Program				
3.1.2.1 – BCAD should develop the Customer Care Program using a community approach and coordinate use of airport tenants that have knowledge of the airport, aircraft, and other technical knowledge to support crowd control, to guide evacuees to designated safe haven areas, and to distribute resources and supplies.				
3.1.2.2 – The Customer Care Program should be included or referenced in BCAD emergency plans; it is recommended to codify personnel, training, communication, and roles and responsibilities within an ICS structure as a branch under the Operations Section. The Customer Care Branch should focus on tactics to achieve customer care objectives while providing situational awareness of evacuee status to the BCAD EOC. To ensure that the Customer Care Program can be implemented, terminal tenants should be identified and trained to implement the program.				
3.1.3 – Resourcing				
3.1.3.1 – Working with the EMD, BCAD should consider developing or resourcing a three (3) day supply of critical care stores positioned in close proximity to terminals for timely access.				
3.1.3.2 – Consideration should be given to the stock rotation, inventory and replenishment process.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
Capability 3.2 – Personal Item Retrieval: Establish processes and resources to collect and secure personal items left behind, to identify owners, and to transmit items to their owners.				
3.2.1 – Building on the success of the personal item retrieval operation, codify personal item retrieval procedures in the Family Assistance and Customer Care Plan and/or COOP Plan to support collection and management of personal belongings in partnership with airlines.				
3.2.2 – Include provisions for law enforcement support for securing items collected before transfer to a sorting process.				
3.2.3 – Include procedures to identify locations in each terminal to collect personal belongings.				
3.2.4 – Include procedures for airline personnel to sort and manage baggage and goods for each of their customers.				
3.2.5 – Provide for scalability to accommodate one (1) or four (4) terminals.				
3.2.6 – Consider including the on-call contractor for this type of specialty service in periodic training and exercises to ensure that written procedures are achievable, functional, and practical.				
Capability 3.3 – Operational Resumption: Implement operational continuity plans and resources necessary to resume operations within the impacted area including airlines, concessionaires, and other airport services.				
3.3.1 – Planning				
3.3.1.1 – In collaboration with the Broward County EMD, BCAD should revise the COOP Plan to include three key elements: 1) Resilience provisions that identify critical functions and supporting infrastructure with procedures to ensure that they are not affected by relevant disruptions, for example through redundancy and spare capacity; 2) Recovery provisions that allow restoration of critical functions that fail under duress; and 3) Contingency provisions that allow FLL to establish capabilities via backup sites which address landside, terminal, and airside operations to the extent practical.				
3.3.1.2 – As indicated previously, BCAD should establish emergency access protocols and communicate them among all BCAD and law enforcement stakeholders to ensure that access is provided to essential personnel during response and recovery operations.				
3.3.1.3 – Consistent with ICS principles, BCAD should establish a recovery branch in the BCAD EOC that focuses on assessing impacts, defining recovery objectives, and assigning responsibilities to support recovery operations.				
3.3.1.4 – BCAD should work with tenants that have knowledge of the airport, aircraft, and other technical airport knowledge to serve as force multipliers during extreme events to support control crowd, evacuee and safe haven management, and distribution of resources and supplies.				
3.3.2 – Training and Exercises				
3.3.2.1 – BCAD should establish a training and exercises that focus specifically on recovery plans and include: 1) Communication with first responders and stakeholders; 2) Phased planning for recovery and operational resumption; and 3) Financial considerations for operational continuity.				

Objective/Capability	Recommendations	Agency Point of Contact	Start Date	Completion Date
	3.3.2.2 – As with all emergency exercising, recovery planning and implementation should be performed using a tiered approach, in compliance with HSEEP, beginning with discussion-based exercises (workshops and tabletop exercises) and progressing to operations-based exercises (drills, functional exercises, and full-scale exercises).			
	3.3.2.3 – Recovery planning during exercises should start at the early stage of an incident and transition to full recovery.			

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Appendix B – Lessons Learned

While this After-Action Report includes recommendations which support development of specific corrective actions, additional more general lessons learned were identified which can be shared with the broader aviation and homeland security communities. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-event lessons learned with relevant stakeholders. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned for sharing on *LLIS.gov*. For reference, the following are the categories and definitions used in *LLIS.gov*:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Notes:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

The following lessons learned are provided to support preparedness within the aviation sector and among aviation stakeholders:

- Ongoing periodic Incident Command System training and exercises, conducted in accordance with the Homeland Security Exercise and Evaluation Program, support capabilities-based planning, coordination with airport stakeholders, and development of competencies among airport personnel to support critical incident response.
- Airport Emergency Plans should be updated and reviewed at least annually and/or when changes in resources, personnel, or threats occur.
- Airport Emergency Plans and/or companion response plans should address a full range of hazards and threats, identify a concept of operations in an Incident Command System context, and address all areas of the airport including public areas and auxiliary properties, such as rental car facilities.
- Building relationships with external response partners through advanced planning, training and exercises is vital to support a common understanding of roles, responsibilities, resources, facility design and layout, and communication procedures under single or unified command conditions.
- Coordination between airports and jurisdictional (city/county/state) emergency management agencies supports emergency response operations through effective communications, resourcing and resource management.
- Airports should consider developing a written description of airport operations and airport physical layout specifically for external emergency responders who may respond to airport emergencies. Periodic tours for external emergency responders are also recommended to support an effective understanding of resources, evacuation plans, and other potential response needs.
- Exercises conducted at airports should include active shooter scenarios as well as other locally-relevant hazard and threat scenarios identified in the local THIRA (consult local emergency management agencies for THIRA details).

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Appendix C – Acronyms and Abbreviations

AAR.....	After-Action Report
AEP.....	Airport Emergency Plan
AOCC.....	Airport Operations Control Center
ARC.....	American Red Cross
ARFF.....	Aircraft Rescue and Fire Fighting
BCAD.....	Broward County Aviation Department
BCT.....	Broward County Transit
BSO.....	Broward Sheriff's Office
CBP.....	Customs and Border Protection
CCTV.....	Closed Circuit Television
CEMP.....	Comprehensive Emergency Management Plan
COOP.....	Continuity of Operations Plan
DHS.....	U.S. Department of Homeland Security
EMD.....	Emergency Management Division
EOC.....	Emergency Operations Center
ESF.....	Emergency Support Function
FAA.....	Federal Aviation Administration
FAC.....	Family Assistance Center
FBI.....	Federal Bureau of Investigation
FEMA.....	Federal Emergency Management Agency
FLL.....	Fort Lauderdale-Hollywood International Airport
HSEEP.....	Homeland Security Exercise and Evaluation Program
IAP.....	Incident Action Plan
ICP.....	Incident Command Post
ICS.....	Incident Command System
IS.....	Independent Study
JIC.....	Joint Information Center
MHz.....	Megahertz
NIMS.....	National Incident Management System
PA.....	Public Address
PIO.....	Public Information Officer
RCC.....	Rental Car Center
TEP.....	Terminal Evacuation Plan
THIRA.....	Threat and Hazard Identification and Risk Assessment
TSA.....	Transportation Security Administration

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