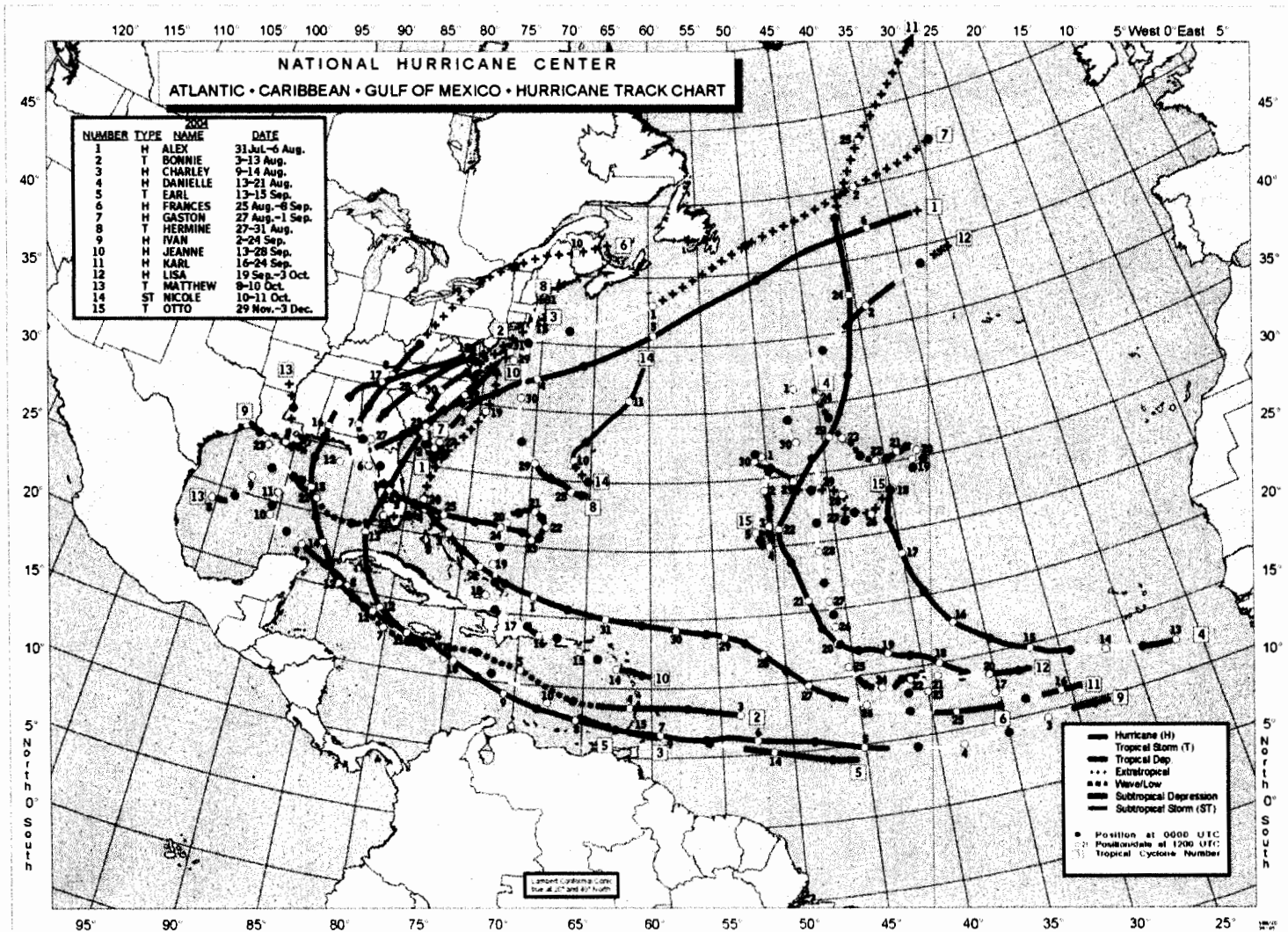


2004 HURRICANE SEASON AFTER-ACTION TEAM REPORT



**US FISH AND WILDLIFE SERVICE
MARCH 2005**

Introduction

The 2004 hurricane season was historic for many reasons, but not just because the Southeast was struck by four major hurricanes in a two month period. The season began on July 31st with Hurricane Alex and closed in early December with Tropical Storm Otto. Damages to property exceeded \$42.5 billion and over 3,000 lives were lost.¹ The U.S. Fish and Wildlife Service experienced over \$38 million in damages to federal assets and Service resources responded to four hurricanes and one major tropical storm.

Table 1: 2004 Major Hurricane Statistics

<u>Storm Name</u>	<u>Dates</u>	<u>Max Winds (mph)</u>	<u>Deaths</u>	<u>Damages</u>
Charley	9-14 Aug	150	15	\$14.0 billion
Frances	25 Aug-8 Sept	145	7	\$8.9 billion
Gaston	27 Aug-1 Sept	75	8	\$0.1 billion
Ivan	2-24 Sept	165	95	\$13.0 billion
Jeanne	13-29 Sept	120	3,000+	\$6.5 billion

The Service dispatched four incident management teams (2 Type II and 2 Type III)² to assist stations and neighboring communities in recovering from the multiple storms. An incident management team is a standardized and integrated organizational structure that may adjust equal to the complexity and demands of single or multiple occurrences, either human-caused or natural phenomena, that requires action or support by emergency services personnel to prevent or minimize loss of life or damage to property and/or natural resources, without being hindered by jurisdictional boundaries. Teams included resources from multiple Regions and interagency resources from the U.S. Forest Service, National Park Service, Bureau of Land Management and several State agencies. The total cost of incident operations was approximately \$3.3 million. The Service experienced one serious accident with one Service employee suffering a time-off injury.

¹ NOAA Tropical Weather Summary (1 Dec 2004).
http://www.nhc.noaa.gov/archive/2004/tws/MIATWSAT_nov.shtml?

² A Type 2 organization is the first level at which most or all of the Command and General Staff positions are activated. The Incident Commander and Command/General Staff must function as a team handling many aspects such as: supervising a large organization; multiple operational periods; gathering information to develop a written incident action plan; and providing logistical support including the establishment and operation of a base camp(s). (FLH)

Table 2: 2004 FWS Hurricane Response Activities

<u>Storm Name</u>	<u>Incident Commander</u>	<u>FWS Dates*</u>	<u>Peak Staffing</u>	<u>IMT Cost</u>	<u>Station Cost</u>
Charley	Jenkins	14 Aug-2 Sept	78	\$741K	\$449K
Frances	Wetzel	4-18 Sept	31	\$325K	\$319K
Gaston	Housch	30 Aug-2 Sept	3	\$4K	\$24K
Ivan	Durrwatcher	10-28 Sept	59	\$583K	\$289K
Jeanne	Ruggerio	27 Sept-9 Oct	58	\$520K	\$123K

* Dates do not necessarily coincide with hurricane landfall due to advance staging and evacuation of teams due to overlapping storms.

The Military Construction Appropriation and Emergency Supplemental Appropriations Act, 2005 (Public Law 108-324) provided \$34.8 million (91% of request) in funding to repair damages and reimburse the Service for emergency response and incident operations associated with the 2004 storms.

On November 30 and December 1, 2004 the Regional Chief convened an after-action team to review the Service response and provide recommendations for future response and recovery actions. This is the final report of this team and provides a series of recommendations for implementation. Many recommendations may be implemented immediately to prepare for the 2005 hurricane season. Others will require a long-term commitment by the Service to improve its response capabilities.

Communications

The team identified that communication issues were the largest concern for future response activities. Hurricanes provided a unique challenge due to massive infrastructure damages which effected standard communication systems like telephones, cellular phones, radio systems and e-mail. In addition, concern for Service employees impacted by the storms created a strong desire from all levels of the organization to receive rapid and continuous reports on the status of our response. The team determined that there are three communication issues that should be addressed are: (1) improving mechanical communication tools; (2) defining the role of the Regional Office and individual field stations; and (3) conceptual communication issues that may be improved by establishing protocols to ensure the need for information does not impede response activities.

Improving Mechanical Communication Tools

In 2004 the Region purchased several satellite telephones which did provide additional communication between the Incident Management Teams (IMTs), the Regional Office and local resources, but the phones were complex and do not replace the requirement for on-the-ground communication. In addition, there was a need to transfer data and the Region established a file transfer protocol (FTP)

site for teams to transmit large files (Incident Action Plans (IAPs) and digital photographs). Communication will remain an issue for disaster assistance, but there are tools available that can improve our capabilities.

- The Service should explore purchasing 1-2 radio kits, because NIFC was not willing to release radio kits from their cache to support all-risk assignments. Such kits are moderate in cost and should be located in caches at large field stations.
- The Service should explore purchasing 1-2 mobile satellite systems that can be installed on-site to provide internet and e-mail access on incidents.

The Role of the Regional Office

Line authority for the management of Service units is transferred from the Service Director through the Regional Offices to the field-level manager. With the exception of the Office of Law Enforcement, all resources within the Southeast Region report to the Regional Director in Atlanta, Georgia. All program functions utilize an assistant regional director, district supervisors and program support functions. In 2004, the Regional Director delegated authority to manage hurricane response and recovery activities to the Regional Chief of the National Wildlife Refuge System. The incident commander may be delegated different levels of authority over emergency operations based upon the type and scale of disaster operations.

The use of the Incident Command System (ICS) and Incident Management Teams (IMTs) to respond to hurricanes was determined by the Regional Chief and authority to manage these incidents was delegated by the Regional Chief to the Incident Commander. The principle reason for this decision was that hurricanes typically impact multiple stations and may span several geographic districts therefore typical line authority is not appropriate. The Regional Office does not function as an area command nor is it an IMT.

- The Regional Office acts as a component of line-supervision and provides agency representation to the IMTs. In the future, the role of the Regional Office must be limited to these two functions by providing prompt delegation of authority and general direction to incident commanders.
- The team determined that the delegation of authority provided by the Regional Office to each IMT was well-written and was provided by the appropriate level in the organization (Regional Chief to the Incident Commander). The only exception is where an incident occurs on only one FWS unit and then it would be most appropriate for the delegation to come from the station manager.

As discussed, there was a great requirement for information on the status of Service employees, the extent of damages to Service facilities, and the activities of the IMTs. There was wide variety in how the Regional Office and each IMT responded to this need for information, but in several occasions it was determined that extensive communication actually impeded the response activities of IMTs.

- The team determined that incident commanders and station managers must respect the need for this information and plan their activities accordingly.³ More information can be found below, but communication between the Regional Office, IMTs, and station managers must continue.

Establishing Information Protocols

As discussed, the Service encountered several communication issues related to the need for information. In 2004 there was an evolution in the type, number and frequency of community conference calls. These calls were lengthy (often exceeding 2 hours), included the Regional Office, IMTs and station managers, and often did not provide the information needed at any level. The team recommends several improvements to the daily communication requirements:

- Communication between the incident commander and the station manager(s) must be improved on future incidents. The team recommends that incident commanders introduce themselves and their objectives to all affected station managers. In addition, station managers should be included whenever possible in the planning process.
- The team recommends two separate conference calls (daily or as needed).
 1. The first conference call is conducted between the incident commander or delegate and the Regional Office delegate responsible for incident management.
 2. The second conference call is between the station managers and their first-line supervisor(s).

Neither call is exclusive, but only one call is mandatory. For example, a manager may wish to join the IC on a call to relay information or the Regional Office employee may need to join the manager's call to discuss

³ During the 2004 hurricane season, the Region received requests for the status of operations from the Secretary of the Interior, Service Director, Department of Homeland Security and FEMA. These requests varied from daily situation reports to direct questions about individual stations and response activities. The goal of future seasons is to limit the impact of these communications on IMTs and field stations, but, similar to media inquiries, it is impossible to completely eliminate these requests during an emergency situation.

certain issues. The end result is different forms of information getting to correct audience quickly each day.

- IMTs should include the requirement for passing along information to the Regional Office in their daily planning cycle. Below is a sample planning cycle that could be used on future incidents.

0700 – Operational period briefing
1200 – Command & general staff meeting
1300 – Regional Conference Call
1500 – Status summary to RO/Dispatch
1630 – Pre-planning
1700 – Daily planning meeting
1900 – end of shift

Creation of FWS All-Risk Team(s)

It is important to understand that the principle reason the Regional Director delegated authority for management of hurricane response to the Regional Chief was due to the existing skills and resources associated found within the wildland fire management program. The Regional Fire Management Coordinator within the National Wildlife Refuge System also acts as the Region's All-Risk Coordinator. This program function is trained in responding to emergencies and integrates the use of the Incident Command System.

The team acknowledged that: (1) The use of IMTs is not always the appropriate means to address hurricane recovery activities⁴; and (2) That the Service should prepare for and develop additional capabilities to respond when IMTs are appropriate. The use of IMTs is costly and as discussed with the delegation of authority, IMTs may not be the best tool when managing a localized incident, but where we have multiple units and/or large geographic areas affected the use of IMTs is most appropriate.

In order to improve our capabilities to respond with IMTs, the team recommends that the Service create a minimum of one All-Risk IMT and, if possible, recommends the creation of two independent All-Risk IMTs.

- The team recommends that Region 2 (Southwest), which includes the Texas coast, and Region 4 (Southeast) discuss creating joint All-Risk Teams.

⁴ The use of teams proved most effective in managing incidents where multiple Service locations were impacted simultaneously and there was a need to prioritize response activities. It was also learned that a single team was not capable of managing response activities throughout the entire eastern coast of Florida. The delegation of authority and use of teams was tenuous at isolated incidents. In future seasons, the Service will attempt to improve the use and dispatch of teams.

- For use in this document, an All-Risk Team was defined by the team to consist of Command and General Staff and select subordinate resources. This requires the commitment of eight (8) individual Service resources.⁵

Incident Commander
Information Officer
Safety Officer
Operations Section Chief
Planning Section Chief
Logistics Section Chief
Ground Support Unit Leader
Finance Section Chief

Once a team is activated the Incident Commander will submit resource orders for appropriate team membership based on the requirements of the incident. This is an important point based upon lessons learned. The damages and response activities for each hurricane incident varied significantly and it was not efficient to stage large numbers of resources on the expectation of a given response.

- Typically All-Risk teams are not NWCG qualified and cannot address wildfire situations, because NWCG requirements are time consuming and require a full-time commitment to wildland fire management. This lack of NWCG qualification allows for a diverse workforce of both fire and non-fire personnel at all levels (command and general staff through single resources), but limits the scope of the team's abilities.
 - Initially members on each team will possess NWCG qualifications for their position where applicable and whenever possible.
 - All resources ordered from outside of the agency would possess NWCG qualifications.
- The use of teams provides at minimum two critical needs specific to hurricane recovery, but existing All-Risk teams will also be useful in other disasters and significant events.
 1. Teams provide order and structure in situations that typically are categorized by disorder and great confusion.
 2. Teams provide assistance to diverse station-level requirements particularly at smaller units with fewer available local resources.

⁵ The Southern Area currently has one all-risk team. The Eastern All-Risk Team, managed by the National Park Service, consists of eight team members and one trainee.

- Additional benefit is provided by a group of Service employees dedicated to disaster assistance. Such a group would provide advocacy for needed policy and ensure that the overall Service response to incidents will improve.
- Establishment of teams requires a commitment by management to support staffing obligations, necessary training, and backfilling of personnel where needed.
- The cost of establishing a single team (as described) would be approximately \$4,000/team member to cover additional training and one team meeting each year. It is difficult to estimate the cost of backfilling, because all positions do not require backfilling and those that do will be dependant on the number and duration of assignments.

Law Enforcement Operations

The SORT team is a highly-effective organization and the team determined we should not attempt to provide any change to such a unit, but it was determined that the use of the SORT team may not be the best approach to security needs during an incident. Where appropriate the SORT team may be the best tool for accomplishing FWS objectives, but it should not be considered a necessity on all future hurricane responses.

The team recommends that the Office of Refuge Law Enforcement, in consultation with SORT team members, develop and present its roles and responsibilities in response to hurricane incidents. This would benefit the Regional Office, station managers and future IMTs.

Additional Preparations

In addition to the creation of an all-risk team, the team determined many areas where advanced planning will benefit future response efforts. Much of this may be accomplished through policy and procedures that may be written prior to June 1, 2005,⁶ but also recommends the strategic placement of equipment and supply resources in advance of June 1, 2005.

⁶ The team acknowledges that it will be difficult to draft and finalize policy documents by June 1, 2005. This was an important recommendation from station managers, incident commanders and other responders. The June 1, 2005, deadline was set to advance the next hurricane season. We will attempt to issue the most important policy documents by the deadline and hope to issue remaining policy throughout the summer.

Station-level Hurricane Action Plans

Several recommendations were provided for inclusion in all station-level hurricane action plans. The primary change recommended to station plans is that most plans address preparations for storms, but few address response activities and what is needed to get a station back on-line. It is understood that the level of response needed is measured by damage, but future station plans should include logistical support to responders and include expectations for community assistance.

- Station plans should be consolidated each year in the Regional Office and placed on the Service intranet for others to utilize. This would be useful in pre-planning by IMTs.
- There remains a lack of accessibility to station maps. Station plans should include all relevant maps and the Service intranet should include general maps of all stations in advance of storms.
- In 2004, some station plans contained comprehensive staffing rosters and detailed address information and GPS coordinates on staff residences. This was extremely useful to first responders and should be included in all station plans.

Community Assistance

✓ The team recommends further discussion and documentation of community assistance and assistance to FWS personal residences. The team agrees with the concept of both assisting neighboring communities and the need for returning additional personnel to assist with recovery, but these actions will inherently draw attention from outside observers and it is requested that appropriate actions be defined further. This may be accomplished with further information in the ✓ delegation of authority, incident objectives and by including community assistance in the Regional hurricane action plan, but such guidance is best formulated in consultation with the Regional Directorate to create standard guidelines for consistent interpretation by the Regional Office, station managers and IMTs. Particularly, the team wishes to provide what level of assistance may be provided to Service employees and when it is appropriate to offer community assistance.

Safety Officers

The safety function on a hurricane recovery assignment is extremely different from what is encountered on a wildfire. The NWCG qualifications for safety officers do not adequately cover risks associated with hurricane response. The team recommends that the Service develop guidance to existing NWCG qualified safety officers tasked with hurricane assignments, but also ensure that adequate OSHA qualified personnel are available for incidents.

Finance

The extensive recovery effort in 2004 was different than anything ever encountered by the Service and it was apparent that existing administrative policy and procedures were not adequate to support incident operations.

- The team recommends that stations develop incident business management plans, which may be drafted from a Regional incident business management plan. Such plans are applicable to all incidents (including wildfire) and provide general policy and procedure for all finance and administrative activities.
- The ABA function will research and provide recommendations for several finance and procurement issues (purchase authority on charge cards, invitational travel, and charge codes for disaster tracking).
- The Regional Hurricane Action Plan will include a section on cost accounting for incidents and include general rules for the location of incident costs in advance of any supplemental funding.
- Resource ordering procedures will be looked into further by the team, but in general IMTs did not have adequate resources in the Planning Section to ensure check-in procedures.

Staging of Resources

During the 2004 season there were several attempts made to stage resources and/or entire IMTs. Staging of resources did not work well particularly at the single-resource level, because the nature of hurricanes prevented staging resources locally and often team members were staged for extended periods in advance of a mission. The team recommends that, if necessary, staging should be limited to command and general staff only (consult listing of staff under Creation of FWS All-Risk Teams). We should not attempt to stage entire IMTs.

Property & Equipment Management

It became apparent during the 2004 hurricane season that heavy equipment resources and relief supplies were in high demand. Many relief supplies, i.e., power generators, chainsaws, pumps, are considered accountable and/or durable federal property that must be accounted for and the responsibility of the incident commander. Heavy equipment was mobilized from around the Region and in some cases was returned damaged. Future hurricane incidents will place additional importance on the use of OF-296 Vehicle/Equipment Inspection Checklist and interagency property management regulations.⁷

Critical Incident Stress Management Team

There was a serious accident on the Hurricane Charley incident where a Service employee was injured by a falling tree. This was a stressful and traumatic event for Service employees involved in the incident and the subsequent rescue operation. The Regional Office made several attempts to order a critical incident stress management team to assist employees. Orders were placed through the Employee Assistance Program (EAP), the Florida Interagency Coordination Center and Southern Area Coordination Center, but these orders were never filled.⁸ Eventually the Service located an existing National Park Service team that immediately responded.

The team recommends that the Service establish and provide training for its own critical incident stress management team. This team will act as facilitators to stimulate conversation and dialogue between individuals involved in a stressful incident. Many times this simple interaction is all an employee needs to put an incident behind them. If they need further counseling they are then referred to EAP. A team will require a point-of-contact and the training of several staff throughout the Southeast Region.

Hurricane Trailers

In 2004 the Merritt Island National Wildlife Refuge's hurricane trailer was used throughout the Region. This trailer included a variety of equipment, tools, and rations. The team recommends that the Service procure additional hurricane trailers to be placed strategically around the Region. The team recommends that the Regional All-Risk Coordinator provide a proposal to the Regional Chief on:

⁷ Interagency property regulations are synopsized in Chapter 30 of the Interagency Incident Business Management Handbook (PMS 902).

⁸ The difficulty FWS experienced in ordering a critical incident stress management team required the Southern Area Mobilization Guide (Sec. 22.9.5) be updated and existing NPS teams identified. Unfortunately the document was edited to still refer employees to EAP, but teams may now be ordered for any agency through SACC by placing an overhead resource order.

(1) the number and location of future hurricane trailers; (2) the size and contents of these trailers; (3) the cost of each trailer; and (4) the estimated recurring time commitment for upkeep of hurricane trailers.

Puerto Rico & US Virgin Islands

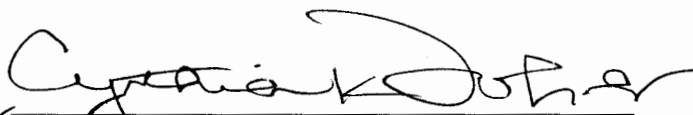
The discussion focused on response and recovery activities in the continental United States, but in 2004 Tropical Storm Jeanne dumped 21 inches of rain on Puerto Rico and all islands experienced varying degrees of damage from the heavy hurricane season. Future planning should not ignore the Caribbean, but it is likely that planning will have to be independent of other planning efforts. The team recommends that the Refuge Supervisor assigned to the Caribbean and Regional All-Risk Coordinator take steps in advance of 2005 to ensure adequate preparedness and that station-level plans include provisions for supporting IMTs.


Conclusion

There was consensus by all team members that the Service's response to the 2004 hurricane season was an overwhelming success and is a far better approach than the response in previous years. In general the team determined that operational staffing levels were commensurate with need and that additional overhead resources were needed in the Planning, Logistics and Finance sections on most incidents. The team recommends the establishment of a minimum of one FWS All-Risk IMT. Revisions are needed to the Regional and station-level hurricane action plans and various administrative policy and procedures.

Approval

I agree with the recommendations included in this report and support implementation of the included action items:


Regional Director
Southeast Region

May 16, 2005
Date 

SURNAME SHEET

Dail
Information Mgmt.

3/25/05
Date

Elizabeth Longman
Refuge Supervisor, IV

3/25/05
Date

[Signature]
Refuge Supervisor, III

4/4/05
Date

Richard P. Ingram
Refuge Supervisor, II

4/25/05
Date

Louis S. Vendo III
Refuge Supervisor, I

4/4/05
Date

[Signature]
Refuge Law Enforcement

4-25-05
Date

for Robert S. Zent
Fire & Aviation Mgmt.

4/22/05
Date

Bill Chiversa
Regional Chief, NWRS

4/26/05
Date

June M. Dewese
ARD - Ecological Services
Acting

4/27/05
Date

Richard Kelley
ARD - Fisheries

April 29, 2005
Date

[Signature]
ARD - Budget & Admin.

5-2-05
Date

James R. [Signature]
Special Agent in Charge

5-2-05
Date

[Signature]
ARD - External Affairs

5/7/05
Date

Appendix A: Action Items

	Team Lead & suggested members	Due Date
Communications		
Determine what communication equipment should be obtained for disaster response.	Terri Jenkins Roger Boykin David Lucas	5/31/05
Determine what equipment should be owned vs. ordered at the time of the incident.		6/30/05
Determine where FWS-owned equipment will be housed and dispatched.		6/30/05
Determine the role of the Regional Office.	Jon Andrew Roger Boykin	5/31/05
Determine proper lines of communication to ensure information flows smoothly both up and down without impeding response activities.	Roger Boykin Liz Souheaver Ricky Ingram	6/30/05
Prepare a formal Delegation of Authority template.		5/31/05
Determine the number of conference calls and what information will be exchanged on each. Lastly, determine who will be on (active or passive) each call?		6/30/05
Prepare SOPs for how damage assessments be completed. 1. For early report to WO; and 2. For follow up and complete documentation	David Lucas	6/30/05
FWS All-Risk Teams		
Determine the following: 1. First, are FWS teams necessary?	Tony Wilder	5/31/05

<p>2. If so, how many teams will be needed?</p> <p>3. What is the cost and estimated manpower commitment with each team?</p>		
Describe and display the configuration of each team.	Tony Wilder	5/31/05
Describe the qualifications of each team member on each team.	Tony Wilder	5/31/05
<p>Determine where the team will draw its members (fire/1261/regional/interagency).</p> <p>1. Explore short term; and</p> <p>2. Explore long term</p>	Jon Andrew	5/31/05
<i>Law Enforcement</i>		
<p>Determine the role of the Region 4 SORT Team in hurricane operations.</p> <p>1. Clarify who they report to; and</p> <p>2. How they are dispatched</p>	Rick Huffines	8/31/05
<p>Determine the role of other law enforcement resources.</p> <p>1. Clarify who they report to; and</p> <p>2. How they are dispatched</p>	Rick Huffines	8/31/05
Verify and define the legal authority for law enforcement operations during an emergency response.	Rick Huffines	8/31/05
Research and describe changes to response activities under the National Response Plan and the Service's management responsibilities under the Stafford Act (PL 93-288, as amended).	Rick Huffines	8/31/05
<i>Hurricane Supplies</i>		
Determine the appropriate number of hurricane/disaster trailers needed.	Pete Kubiak	5/31/05 for planning

<p>Describe the configuration of each trailer.</p> <p>Determine the cost of each trailer.</p> <p>Determine the location of each trailer.</p> <p>Determine the annual upkeep/re-supply cost of each trailer.</p> <p>Develop a dispatch protocol for trailers</p> <p>Are additional hurricane cache(s) needed (if so answer 1-4 above for cache(s))?</p> <p>Develop a protocol for ordering and staging resources that are not located within cache/trailers?</p>		<p>5/31/05 for re-supply of items used in 2004.</p> <p>Trailers will be procured and constructed for 2006 season.</p>
<p><i>Hurricane Action Plans</i></p>		
<p>Develop a format for station-level hurricane/disaster action plans.</p> <p>A. Prior to storm</p> <p>B. During storm</p> <p>C. After storm</p> <p>D. Appendix Items</p> <p>E. Distribution</p> <p>F. Staff contacts</p>	Liz Souheaver	<p>5/31/05 for decision on required information</p> <p>5/31/05 for new information to be included in 2006 plans</p>
<p><i>Incident Business Management Plans</i></p>		
<p>Develop and distribute Regional accounting and business management procedures.</p> <p>Provide template for station-level accounting and business management procedures.</p>	David Lucas	5/31/05
<p><i>Community Assistance</i></p>		
<p>Determine what assistance should be provided to FWS staff and under what circumstances may it be provided.</p>	Jon Andrew	5/31/05
<p>Determine what assistance should be</p>	Roger Boykin	5/31/05

<p>provided to neighboring communities and/or the general public.</p> <ol style="list-style-type: none"> 1. Provide general guidelines (contained in Delegation of Authority); 2. Determine the authority provided to manager and Incident Commanders to provide; and 3. Determine how community assistance requests will be made and transmitted to the RO and how guidance will be relayed back to refuges and Incident Management Teams. 		
<p>Safety</p>		
<p>Define the need for and role of NWCG qualified safety officers vs OSHA safety officers</p>	<p>Brian Hardison Bob Eaton</p>	<p>5/31/05</p>

Appendix B: After-action Team Members

Name	Position	ICS Position
Robert Kitchens	N/A	PSC2
Jon Andrew	Regional Chief, NWRS	THSP
Roger Boykin	Chief, Fire Management	LOFR
David Lucas	Chief, Budget/Info Mgmt.	THSP (Finance), IBA
Tony Wilder	Fire Mgmt. Officer (AL)	ICT2, OSC2
Mark Ruggerio	Fire Mgmt. Officer (TX)	ICT2
Ricky Ingram	Refuge Supervisor (MS, AL)	THSP (Agency Rep)
Louis Hinds	Refuge Supervisor (FL)	THSP (Agency Rep)
Mary Duden	Administrative Officer, MSCNWR	FSC2
Ed Buskirk	Budget & Finance Officer	N/A
Brian Hardison	Regional Safety Officer	SOF2
Jim Durrwatcher	Fire Mgmt. Officer (FL)	ICT2, OSC2, OPBD
Teri Jenkins	Fire Mgmt. Officer (GA, SC)	ICT3, OPBD
Fred Wetzel	Fire Mgmt. Officer (GA – OKE)	ICT3
Larry Richardson	Refuge Biologist, FPNWR	IOF3
Pat Boucher	Southern Area Coordination Center	EDSD
Russ Langford	Asst. Fire Mgmt. Officer (GA – OKE)	DIVS, OPBD
Heidi Hubbs	Fire Mgmt. Officer (FL – North)	DIVS, OPBD
Ron Hight	Refuge Manager, Merritt Island	AREP
Al Schriver	Refuge Manager, Miss Sandhill Crane	AREP
Harold Morrow	Refuge Manager, Lake Woodruff	AREP
Rolf Olson	Deputy Manager, Loxahatchee	SEC2
Liz Kinney	IA Incident Business Specialist (SA)	USFS
Allan Brown	Manager, Welaka NFH	AREP
James Burnett	Refuge Manager, St. Marks	N/A
Donny Browning	Refuge Manager, Cape Romain	AREP

Appendix C: After-action Team Meeting Notes

[Transition Plans – copies to team]

Charley (Jenkins) – step back a year or two; this year was quite different than prior responses (even than 03 NC Isabel); no true ICS in past; missing employee in NC – someone in RO told the employee it was okay to stay home, but on-the-ground caused concern; this year was better, but a long way to go.

Good = provide help to a community; LE personnel & SORT was needed at Sanibel; direct assistance to employees with clear mandate, which created good morale; the FWS response did make a positive difference.

Bad = communication was horrible; not a complete team & staff wore too many hats under a skeletal ICS structure; shortages were proper training for positions & IBM; shortages in logistics; traveling too far each day; what type of an ICS system is in place – lines of authority were not clear (delegation of authority; managers are integral to teams = better job communicating between IC and managers and their priorities and needs)

Future = set all-risk teams (2 or 3), identified in advance, of adequately trained personnel (can be short teams); pre-staging is advantageous (but is very tricky); human aspect of hurricanes was greatly underestimated – many people should have been at home taking care of their lives versus jumping into the response; consider trauma counselors with these incidents (maybe train within FWS); ordering resources could be better; hurricane trailers are beneficial – need more; improve equipment check-in procedures; FWS lacks in the incident business mgmt aspect – differences in FWS policy and interagency procedures – address that gap between policies (fix prior to event); improve purchasing/acquisition; funding and repayment of stations providing resources?; get non-fire personnel & equipment into ROSS and dispatch systems; communication

Closing = it was an honor

[Browning – good thing about this year, help was immediate (next day) versus weeks out in the past]

Frances (Wetzel) – Okefenokee tended to be in the near-path of almost every hurricane; depth of qualified personnel (esp again and again and again) is our greatest weakness; blend with R2; engaged Frances with a very short team; focused on stabilization of assets & homes for the next storm; team was evacuated & returned under a ICT3 team; evacuated again for Jeanne & returned to join ICT2 (Ruggerio)

Good = accomplished mission of preparing for Ivan; feels smaller team worked better; SORT team did an admirable job (maybe directed to do the wrong job?)

Bad = imposed on Merritt Island due to lack of infrastructure & communication; team was working 8 refuges and 1 hatchery over hundreds of miles (stretched already short team); 90% of the hurricane mission is logistics & we are weak in logistics; need for information in the RO/DC doesn't impede on getting the job done (feeding the beast); concerns about \$\$\$;

Future = beef up logistics; recommend training during off-season; need someone focused on human resources (local staff assistance); recommend purchasing a satellite uplink system for communication; recommend adjusting the way the SORT team is utilized; "there are two bell curves for work-load" – first is the initial response and the second is when the managers have the opportunity to survey damage; all hurricane action plans should include post-hurricane actions – most have all the preparations, but most do not address if one hits.

[Kitchens – discussion on what is a Type 2 team and are hurricanes Type 2 incidents? If we require a team (due to scope/magnitude/damage), it will require a Type 2 to respond to a hurricane incident.]

Ivan (Wilder) – need a better idea of when to transition in a Type 2 due to complexity

Good = plenty of time to prepare; experience in the team for expansion meaning they have seen many times (the "worst fire" to hit a community);

Bad = there were requests that were never answered (i.e., photographs of assets, GIS); constraints to FWS personnel – why can't we use an interagency approach?; we rely on coastal refuges for hurricane teams (then they got hit);

Future = organized interdisciplinary team (i.e., we needed a qualified engineer to inspect buildings; we needed an occupational safety person; etc.); tell teams in advance what information is needed for RO/DC (feed the beast); everyone and everything we own should be in ROSS; create interagency agreements (in advance) to share resources; use the best resources we have and let them get trained; in the future don't forget ES (hazmat, etc.)

Ivan (Durrwatcher) – took over as IC when Ivan moved towards AL/MS

Good = communication in advance and during preparation; know who to contact in advance when you reach the scene; delegation of authority went well (refine it a bit); facilities at MS Sandhill Crane were nice; pre-orders; SORT team was great (again – not the correct ones to do assessments)

Bad = want to use interagency partners; no interagency agreements; push back on “feeding the beast”; coordination with non-affected refuge managers (nearby or assisting) that felt left out during transition, etc.

Future = need someone at the field-level with true procurement authority (“gold card authority”); resource orders can be provided from SACC to the team; need to ensure we have quality equipment available; recommend we take the assistance to staff a step further – recognizes it is a thin-line, but we can go a bit further; need to complete transition plans; ICS training (fire staff can’t be the only ones – need everyone on the refuge); need some chainsaw policy; recommend creating some equipment strike teams (leader, similar pieces, mechanic, etc.)

[Boykin – it was a conscious decision to use FWS resources only at first due to fiscal concerns]

Jeanne (Ruggerio) – being the last IC he could benefit on a lot of experience and lessons learned

Good = teams had learned everything they needed to respond (self-contained); fortunate that Vero Beach had power; it was time to relieve R4 personnel due to fatigue; impressed with R4 response; amazing safety record

Bad = entire Treasure Coast (200 miles) to cover; lodging was a large concern; nationally FWS has almost no depth in Type 1 and Type 2 qualified positions; amazes Mark that we cannot pick up a BLM or NPS employee and pay them without CGS agreements; RADIO SILENCE from other Regions (except for R2) maybe because they thought it was a FEMA incident?

Future = logistics appear to be the biggest issue – prepare for lack of lodging and lack of ICP; recommend we figure out how to pick up outside assistance easier; invest in satellite technology for communication (mechanical preparedness); sidebar communications and/or intermittent communication by some made it difficult for a non R4 IC; need the “power” to back a Type 2 team with decision-making & purchasing; recommends issuing one charge code for each incident; recommend we really discuss the industrial safety issue (fire safety is different than OSHA); recommends an all-risk team between R4 and R2; recommends an assessment team versus LE SORT

Operations (Hubbs) –

Good= local help from refuges and ES was great (communications, potential dangers, etc.) which is important to crews; hurricane trailers was vital (extra supplies & equipment); crews felt good helping communities and FWS staff (community assist); small patrols were helpful to tackle all the misc spur-of-the-moment jobs; GPS units were critical; travel trailers worked well for sleeping accommodations (worked better if hooked up); it was nice to have the helicopter and do an aerial survey of damages

Bad= logistics (directions to homes, locations w/out signs) and getting equipment they needed; concerns about safety on roofs;

Future= recommend that crews and staff be ordered/dispatched with GPS and cellular; communications (cell-phones); recommend some expertise with crews in carpentry (roofing, safety, etc.); identify qualified individuals in advance of incidents; develop a list of questions in advance to ask local experts (managers & staff); recommend station-level action plans include notes to crews and quality maps; difficult to hunt down station-level action plans after the fact;

[General discussion – need to work to get station-level action plans out and available in advance (maybe on-line/CD-ROM)]

[Langford – communications are a lingering problem; recommend radio kit and staff to set it up in the trailer; recommend that multiple smaller trailers versus huge CDL transports; focus on getting crews fed, watered, and sheltered; recommend a GSUL]

[Langford – is this a refuge response or is this a national incident response? It affects the policies/procedures that are following with saws, ATVs, etc. When it is a national interagency response – we need to follow interagency policies. Need this definition in place in advance. Recommend some standards for crews so that work quality and completeness is equitable at all stations. Recommend we discuss standards for saw operators.]

[Boykin – “Heidi please explain your safety officer concern.” She feels that a safety officer must have an operational background, i.e., a Type 1 or Type 2 safety officer must be division sup qualified.]

[Langford – community assist will have long-term affects in goodwill. Administratively we need to have it in writing that it is okay for the crews to be in communities providing assistance.]

[Wetzel – we may want to contact the London, KY cache and request if they want to create hurricane cache trailers?]

Safety (Hardison) – see presentation

[Kitchens – clarification on definition of the IMT versus incident personnel. A chainsaw operator would be incident personnel versus a member of the IMT.]

ISSUE: The chainsaw issue will require national/FWS guidance, but need to resolve this issue locally too.

Planning (Kitchens) – most of the information flow was from the field to the Regional Office; Kitchen’s opinion is the information flow went well on Ivan;

Good= able to make the information flow to RO a part of the normal course of business; the formal planning process works – don’t sidestep; IAPs were good for all 4 incidents & IAPs must get into the hands of the people who need them (this was likely an issue in Frances/Jeanne); use of contingency plans when dealing with additional hurricanes; use of transition plans and/or narrative report on the incident activities (summary, recommendations, outstanding issues, etc.)

Bad= some teams weren’t using the formal process (no plans qualified staff); lack of depth in the planning section; RO was not distributing 209s and/or wasn’t understanding the information provided; Checkin/Demob procedures need to be followed (even on a “casual” FWS incident) – lot of time spent tracking O numbers;

Future= need to plan information flow around the ICS planning timetable; maybe RO and other odd support should be a separate set of numbers – what about the SORT team;

- 0700 – operational period briefing
- 1200 – command & general staff meeting
- 1300 – Regional Conference Call
- 1500 – status summary to RO/Dsp
- 1630 – Pre-planning
- 1700 – Daily planning mtg
- 1900 – end of shift

[Boykin – NWCG standards are a problem for planning section]

Agency Reps

MS Sandhill Crane (Schriver) – a bit lucky and could learn from experience of others & team staging in their backyard; first year FWS did anything for hurricanes; full-circle now; new & different because of the addition of the Regional Office; this was many people’s first time with ICS – if we are going to use (use it) – if it is a small storm (don’t use it); should have had Hardison there; not sure about the SORT team; in spite of problems it went well – ICS should become a part of the refuge training experience;

Merritt Island (Hight) – you want to be either in the storm or out; Terri & Fred did all they could, but mission was not MINWR; as the station was trying to assess damage and get things going – local resources were being used by the team and the office was consumed by the team; team was spending the night in hotels w/ catered meals – the local staff was going home to no power; doesn’t understand the SORT team’s role (needs work); when the team left they were glad; manager’s felt they weren’t being listened to – what are our needs?; impact of a team on the host unit; it was a top-down crisis mgmt scenario and Ron disengaged; his theme is that it was all top-down; working off-refuge (what is our mission? what are the limitations – need to know for the future?); move-on and make it better

Welaka (Brown) – biggest lesson learned was that he didn’t know he could ask for help or that he needed help; appreciates the help

Lake Woodruff (Harold) – overall happy with ICs and teams; initial response was everything was okay (staff & families) – damage was noticed later; thank you

Ding Darling (Jess translated by Durrwatcher) – no letter of delegation; Sanibel was the guinea pig for much of the hurricane action plan; it essentially worked well, but we'd do it differently if we could do it all over again; station-level hurricane plans need to incorporate partner/cooperator organizations (unified command);

Cape Romain (Browning) – quick action (asked one day and next day on-sight); liked the first question from the RO was "how is everyone?"; only recommendation is to not stage crews (just overhead); need to incorporate that are different levels of storms;

Loxahatchee (Olson) – need to come up with a critical stress debriefing team (EAP didn't work – used NPS team) – one week's training, because it isn't a psychological degree; IMTs were very helpful – allowed staff to focus on Lox (not Hobe); liked the way the RO assisted with storm damage assessments; close-out didn't occur w/ the IMT (it did happen with RO, but not Lox); during Charley there were two dispatch systems (RO and SACC) – think it is fixed; policy/procedure on quarters (reimbursement); conference calls were a bit overwhelming – need to be structured so that the managers get what they need to know first (other things to do)

Hobe Sound (Olson translating for Stahl) – delegation of authority removed her ability to help herself; underestimated the amount of work; differently person on site each day; refuge had to follow-up on IMT issues post; on 10/8 refuge was declared ready to go (her thought was it was not);

Savannah (Prusa/Flock translated by Jenkins) – need an equipment manager to check-in/inspect equipment prior to the incident; need to look into a check-in recorder; happy to offer assistance and will continue to

[Kitchens – discussion on the delegation of authority.]

Logistics (Wilder) – talking from Albert Kellogg's notes; some things have E# and S#s, but others didn't; determine who owns what and how to get it there – there was a lot of property;

Good=

Bad= we had O# issues; no formal documentation on trailers & rental vans; certain resources shifted incidents and did not demob/check-in;

Future= need to work on documentation and have some sort of consistent tracking mechanism (typically existing system will suffice)

Dispatch (Boucher) –

Good= liked the conference calls because she could ensure resources were being tracked properly; finance mtg w/ USDA & FEMA; those trained in ROSS were very helpful;

Bad= equipment was a big problem – too much equipment not in the system; policy (cost codes) for repairing damaged equipment;

Future= we need to pre-identify resources in ROSS; need to figure out travel arrangements for non-federal resources; starting next year supplies will be included in ROSS; work to get all equipment (possible for use) into ROSS; provide Pat with a listing of equipment (even not in ROSS); need status/check-in recorder on any hurricane incident; on FEMA (community assist) recommends starting a new cost code;

[General discussion on ROSS and adding non-IQCS employees into the database. Lou would like a regional response for the WG meeting on the next hurricane season.]

Information Officer (Richardson) – it is all about perception and how FWS was received;

Good= first it was important that we did add an information officer; ICS in general was a good move for these disasters; from a perception standpoint the community assist was great; photography was important; liked the tiered approach to damage assessment; liked that the last objective for teams was restoring operations;

Bad= part of our job should have been more inward (Ron, Margo, Jay, etc.) and we may not have done enough; communication was extremely poor (phones, but also data was very slow); Larry had to use all of his own equipment which is not good; conflicting messages (things are going well versus \$3.5 million in damages);

Future= consideration of federal, local, state presence – if FEMA is around are we doing anything that adversely affects them or are they doing anything they adversely affects us (feds are feds); need to be supporting overall FWS and NWRS mission, but how do you do it when humans are so affected by the storms (advocate for critters' message); perception should equal our mission (what they see should be what

we want them to see); the RO should provide an extra person from External Affairs on-site; we must have a FTP site available; INFO would like us to have a recognizable uniform (we are a team and credibility comes with appearing like a group); ICs should take charge of mental health of employees; the public does not separate us out (the patch is everyone in FWS) – and we don't want to change that;

[Jon Andrew – what he expected and wanted to see today. A few things came up today that he was not aware of. Many good ideas – challenge is to convert this into something useful for next year. Seven months is not very long – there are some things that can be tackled (equipment, caches, training, etc.), but others cannot be accomplished quickly (policy). Direct our attention to what we can do to get ready for the next hurricane season. Don't forget we can tap into ES and hatcheries for resources (GIS and warm bodies). Concerned about Puerto Rico and how to respond. All and all we did better than okay, but we can still do better.]

Refuge Supervisor (Ingram) – likely won't get funding for storms for next 2-3 years, because of the \$35M emergency funding; don't shift paradigm too far based on a heavy 4-storm year; is it necessary to pre-stage teams?; great need for pre-planning and team identification, but we can mobilize in 48 hours;

1. What level of prep prior to predicted storm event?
2. Do we need the SORT team (or anyone else) to stage for a 24 hour response?
3. What level of support/assistance do we need to provide to employees? Concerns about end-result of this → what if an employee in Atlanta gets damage?
4. Certain folks in the field told Ricky they felt micro-managed during the storms. Didn't come up during the manager/IC discussions → need to tell us this.

Refuge Supervisor (Hinds) – as far as Lou is concerned everything went right; do we need MOUs with all local communities during emergencies?; GIS employee's homes; close public-lands earlier; staff go home earlier;

All-Risk (Boykin) – like Lou – confident everyone was doing the best they could during the entire effort; always confusion during times of disaster – IMTs bring order to confusion; top down management is how Roger thinks this should work; there will always be gray areas, but hopefully this meeting will work to narrow this; all incidents require every function in ICS (next higher up handles the job); is an all-risk team really feasible... do we have the resources to release outside of fire? Do we really have the time for training and qualifications outside of fire?;

Damage Estimates (Lucas) – see attached notes

Finance (Duden) – her comments include each FSC and one outside FWS finance chief;

Good= Support from RO was good;

Bad= Charley started reporting at FPNWR helibase – location was difficult and wearing too many responsibilities (PUL, PTRC, etc.); resource #s were not captured – needed resource unit leader or check-in; caution stations from picking up equipment on their own (example of VCI damaged equipment); difficulty getting non-FWS or non-federal return travel; R&R issue; Frances (Bev from OKE) was concerned about charging lodging and meals on her card (move to centrally-billed later); Ivan (Rule) said we need an experienced/trained FSC – an incident is not the place to learn; Jeanne (Bass from BLM) concerned lack of knowledge on EQTR; cost tracking concerns due to ROSS; lack of FWS incident business plan; lack of I-SUITE knowledge; lack of knowledge of comp/claims; lack of IBA; lack of knowledge on close-out
Future= enter all resources in ROSS; order adequate resources for all incidents; recommend IBAs be assigned; establish policies on incident charging; policy on final close-out; Regional IBM; corporate cards should be used by designated employees on incidents; encourage FWS employees to attend training on incident business; develop and maintain adequate resources; ISUITE training; assign local staff to assist with business and check-in;

[Kitchens – general comment – we were much too short in finance and logistics. Always best to have too few than too many, but you can't have people getting run ragged.]

IBA (Kinney) – delighted to be here to learn about FWS; we can coordinate better between FS, IMTs and FWS during these incidents (buying teams, cost, finance calls); I-Suite (ICARS, IRIS, etc.) is a tool for us to use with many cost, check-in issues; sounds like there is a lot of duplication of effort and we can coordinate better; wants to move forward to disaster assistance for employees (Ocala) – should be the same for everyone; critical incident stress – thinks there is a contract working at NICC for a team; next week is

Tucson for IBS coordinators – does AD pay-plan cover the needed skill sets for all-risk; interagency training for finance/adm. (finance/hr/it from FS are going to Albuquerque – need DOI agencies to join teams in finance) – FS has a February training on I-Suite – S-360 in Tallahassee coming up; S-260 & S-261 is encouraged for everyone and is mandatory for most; her largest concern is interagency agreements for federal employees responding to a federal lands response (SACC maybe); interagency communication is vital; if we have incident business questions – contact Liz; Forest Service is pulling an after-action on FEMA response in Albuquerque in January (Boykin – interested) – may help to have someone there to discuss agency response so it isn't all FEMA;

[Wetzel – is there a way that agencies can develop an interagency project code system for non-fire disasters?]

Status of Chainsaw Investigation (Hardison) – see attached

Breakout #1 –

- Hurricane Trailer – recommends a panel/committee of a maintenance worker; safety officer; and IMT staff develops trailer guidelines. Recommend two types of trailers. The committee will determine quantity and number of trailers. There is also a need for travel trailers for sleeping accommodations – team thought the rental RVs worked best (Gigi model).
- Fire versus OSHA Safety Officers – there is a need to mesh the type functions. On a smaller incident the SOF may be sufficient with contact to the RO on occupational issues. On larger incidents that have non-typical hazards recommend that both SOF and OSHA safety expertise on-site.
- Check-off Lists – create a group that will identify needs for checklists and locate existing templates to distribute.

Breakout #2 –

- Purchase Authority (Platinum Card) – Buskirk will return to Atlanta and see how many of these cards we can have in R4 & (if) then who would be given such a card & would it be just for hurricanes?
- Invitational Travel – look to see if we can have more than one invitational account & (if) then who in the Region would have that account. There has also been discussion about more interagency agreements – include language in such agreements to mitigate. Also, we can inform dispatch centers of who to call when they have problems with return travel.
- Charge Codes – hindsight we would have done separate codes for FEMA versus on-refuge, but we need to show the costs in a code. Recommend more use of I-Suite (ICARS) for incident costing versus project codes for tracking various incident costs at whatever level is needed. Further exploration is required, but we need to figure out exactly why we need each cost element to understand the best way to capture it.
- Community Assistance – discussed the whole idea – it is a budget decision that we are going off or staying on the refuge, but the group leaned towards we should be doing community and employee assistance. Recommends written guidance on “how far” we can go off-refuge & we need to explore employee liability while working off-refuge. Guidance should be very broad (& defensible) so that we do not pinch ourselves.

Breakout #3 –

- Delegation of Authority – felt as a group the delegation of authority is pretty good and covered legalities & ICs. #5 general cleanup of FWS facilities is a bit too vague. Add template to hurricane action plans.

[Wetzel – need to include a list of items the RO wants at closeout from the IMT, i.e., transition plan, incident file location, etc.]

- Structure of All-Risk Team – yes an all-risk team is needed (maybe 2) staged in R4 and/or R2. Recommend a steering committee (RO, managers, fire personnel) to set the parameters of an all-risk team, get buyoff from rest of FWS, needs to be an all-inclusive team. Recommend that RD(s) sent out memo to establish a short all-risk team (command and general staff and maybe 1-2 select positions) and calls for nominations. Initially the team will have to be supported by fire personnel, but eventually the team will become all programs, etc. We don't really want people already committed to national teams. It needs a home-unit (Okfenokee suggested).

We felt that all command and general staff could come from within R4/R2 → remember we are not talking NWCG quals → FWS can establish its own quals for an all-risk team to manage non-fire incidents. All line officers, single resources, etc. would be ordered via the typical ROSS ordering scenario. BACKFILLING IS AN IMPORTANT CONCEPT TO THIS TEAM – often we don't have the resources to commit team members. Needs a charter. There is a lot of information already available through the NPS all-risk team.

[Wetzel – probably need to call it something besides all-risk (an almost all-risk team).]

- Ordering Issues – we would include the issue of getting all employees into ROSS in the memo on the all-risk team. It is a two-part process.... Command & general staff is set, but we will need all employees in ROSS to fill the teams.

Breakout #4 –

- Law Enforcement – we never meant that an IC couldn't order up a single resource SEC on your incident, but this may have been unclear with the SORT. All agreed that it doesn't always have to be the SORT team. Let's call it LE Team from this point forward when it is an incident → mission and objectives established in advance (courteous & include a great deal of information gathering, sharing and relaying). Major objective is to check on employees and render assistance. Next – conduct recon and preliminary assessments of situation. If necessary, fill an immediate security need. Should be in and out within 72 hours → they aren't really connected to a team → if any resources stay behind they are attached to the team and resource ordered in.

[Browning – why are we still talking about another team if we are going to do an all-risk team?]

[Burnett – need to look into just how fast the SORT team needs to get into the fray.]

- Communications (information flow & technical) – there was a lot of discussion on the number of conference calls. It was decided they must be succinct and have an agenda (information relay and listening). Calls between IC and RO (managers can listen in) and calls between Refuge Supervisor and refuge managers (IC and others can listen in). Recommend Roger B. coordinate the calls versus Lou and Ricky. Debate over content (i.e., weather via Scasny). Recommend much of the information be done on one-on-one phone calls versus making everyone listen in.
 - o Hurricane Plans – stations will capture visually photographs of facilities, major equipment, etc. & GPS location of employee residences. BEEF UP existing plans.
 - o Satellite Communication Trailer – not exactly what Fred Wetzel was recommending → minimal satellite uplink capability versus EERA.
 - o Satellite Phones – renting satellite phones and systems each year versus purchasing these units (technology advances too quick).

[Wilder – what is the role of the Regional Office in this? Kitchens... not an Area Command, but has a role because of oversight (RD).]

Closing (Boykin) – Thank you from Sam and Jon → understand it was a great commitment. Everyone has the opportunity to comment after this meeting on almost anything → provide it to the RO by December 10th to David Lucas and Roger Boykin. There will be a report (findings & recommendations & a list of action items (w/ deadline dates and names assigned). Draft of this will first be vetted by our supervisors in the RO and then distributed I draft to the team before final.