



# Institute for Senior Professionals

## INDEPENDENT REPORT

ON

## OKALOOSA COUNTY RESPONSE TO HURRICANES IVAN, DENNIS, AND KATRINA

January 2006



**2005 Storms making Gulf Coast landfall**

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## **PREFACE**

The Okaloosa-Walton College's Institute for Senior Professionals (ISP) is a service organization committed to providing opportunities for retired professionals to make meaningful contributions to the community and the college through participation in problem solving and economic development of the college district.

The Institute operates with task forces on requested issues and studies authorized by the Institute as a whole. Since its inception, the ISP has participated in such projects as educational funding, government consolidation, transportation, strategic planning, enterprise zone planning, future county facility needs and city management performance criteria among others.

At the request of the Director of the Okaloosa County Department of Public Safety, an ISP project team performed an independent review of the county's response to recent hurricanes. The review was performed primarily through interviews with representatives of nine major Emergency Support Functions (ESFs) that serve in the county's Emergency Operations Center.

This report summarizes the committee's findings and includes recommendations to improve the county's response to future disasters. The committee does not know whether interviewee suggestions included in this report have already been made to the department. Nevertheless, an attempt has been made to reflect all such suggestions to help assure their appropriate consideration.

The ISP is pleased to have had the opportunity to work with the many members of the emergency response organization dedicated to the protection of Okaloosa County. The ISP expresses sincere thanks and appreciation to Mr. Randy McDaniel, his staff and all of the other members of the Emergency Operations Center for their friendly and courteous support through the duration of this study.

Mack Gay  
Chairman

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## **THE PROJECT**

At the request of the Director of Okaloosa County's Department of Public Safety, Dino Villani, the ISP agreed to prepare an after-actions report on the county's response to Hurricane IVAN. Through discussion with the department's Emergency Manager, Randy McDaniel, the project was later defined more specifically as an independent exploration of what went right and what went wrong in the actions taken in the county's Emergency Operations Center (EOC) in response to both Hurricane IVAN and the 2005 hurricanes impacting the county. This exploration was to be conducted, as a minimum, through interviews with key EOC participants.

All the ESF participants identified had already participated in after-actions reviews conducted by the department, but not on the "one-to-one" basis to be employed by the ISP. Described in terms of goals, the project would be considered a success if it did no more than confirm the department's own appraisal of its performance and the soundness of changes made since IVAN. Ideally, however, the project would produce new information and suggestions from participants and recommendations from the ISP that would lead to further improvements in the county's response to future hurricanes and other disasters.

## **METHODOLOGY**

ISP established a committee of ten members to plan the project, conduct the interviews, analyze the input, and prepare reports and recommendations for improvement. Interviews were conducted by two-member teams using, when appropriate, a series of questions developed by the committee to facilitate fact-gathering and analysis. Each team promptly prepared an interview report and, in most cases, submitted the report to interviewees for review in order to assure its accuracy. Committee members participated in all aspects of the project through meetings and e-mails. Team reports and minutes of meetings were distributed to all members so they would be fully informed. This report reflects input by the entire committee.

In all, of the eighteen ESFs stationed in the EOC, ISP team members interviewed representatives of the nine major ESFs. They represented the functions that probably have 90% of the activity and impact. This included the following:

- ESF 1 – Transportation
- ESF 3 - Public Works
- ESF 4 – Firefighting
- ESF 7 - Resource Support
- ESF 8 - Health and Medical
- ESF 14 - Public Information
- ESF 15 - Volunteers and Donations
- ESF 16 - Law Enforcement
- ESF 18 – Municipalities

Also interviewed were the former County Manager and senior officials of the Fort Walton Beach Medical Center.

## FINDINGS

The findings presented below generally follow the sequence of the questions developed by the committee.

### 1. Preparation and Training

There was such a long time between IVAN and the previous major hurricane impacting Okaloosa County that most of those who served in the EOC in IVAN did not have prior hands-on experience with hurricane response. Those who did have such experience and those who worked closely with the department in disaster planning felt well prepared for their EOC responsibilities. So did those who had participated in exercises and other training offered by the department, those who had received the most complete training by the principal representatives of their own ESFs, and those whose EOC activities most closely matched their regular jobs. Generally speaking, ESF principals were well prepared to perform their EOC responsibilities. However, the same could not always be said for other ESF team members – described collectively in this report as "backups" – especially for ESFs requiring very large teams.

Being prepared for EOC service requires participants to understand clearly what their ESFs are expected to do. There's a tab in the county's Comprehensive Emergency Management Plan (CEMP) for each of the ESFs – other than for ESF 18, Municipalities, which was included in the EOC after the CEMP was completed. Although it was not a common comment, we did hear from some interviewees that the tabs should be brought up to date, with current responsibilities and authorities clearly enumerated. We are aware that a revision of the CEMP is contemplated. We assume interviewees know this too and we view their mentioning deficiencies in the tabs as a means of emphasizing the tabs' importance.

Preparation and training clearly are closely linked. Because DENNIS occurred not very long after IVAN and KATRINA arrived soon after that, there were many more experienced and well trained participants in the EOC in DENNIS and KATRINA than in IVAN. But the interviews suggest there still remain significant gaps in training. The CEMP is an important training document available to participants and valuable training is offered in the periodic exercises and monthly lunches conducted by the department. Nevertheless, not all backups have been given access to the CEMP and it would appear that only a small percentage of backups take part in the department's exercises, lunches, and other training efforts.

Almost all the interviewees who commented on the department's training exercises were highly complimentary. However, we did hear one complaint that the exercises are not realistic, that there is minimal interest in them, and that they are not taken seriously.

Some ESFs have comprehensive emergency plans and training programs of their own, and typically these ESFs have adequate pools of fully prepared, well trained backups. One ESF described a voluminous manual it has prepared for use in the EOC that covers all the circumstances and questions it believes its representatives are likely to encounter. This is in addition to other training it provides its backups.

In summary, some ESFs see to it that all backups and potential backups are well prepared to serve in the EOC through participation in department training opportunities and/or training they provide themselves. From what we learned, however, this is not always the case.

## 2. Backup

As indicated above, backup training is spotty; with the result that at times there may be ESF representatives in the EOC who lack sufficient training. Further, for some ESFs there are not enough trained backups to avoid very long, unbroken shifts. Having support functions carried out by poorly prepared representatives is clearly unacceptable. But so is an inadequate supply of trained backups because long, unbroken shifts can well lead to fatigue and ineffective performance. These problems are especially significant in extended EOC operations, as in IVAN. This would seem to be an area meriting further attention and control.

The former County Manager did have backup, but one interviewee suggested that lack of backup for other county decision-makers, including constitutional officers, could be a problem.

## 3. What went particularly well?

The response to this question was almost unanimous: The level of cooperation and teamwork in the EOC was high and operations generally were carried out smoothly. Special praise was given to the Emergency Manager's practice of making rounds of the EOC at intervals to maintain personal contact with ESFs and to keep them informed. Almost all interviewees thought that things went more smoothly in DENNIS and KATRINA than in IVAN, partly because of correction of glitches noted in IVAN and partly because of the shorter duration and the lesser impact of the last two storms. The lone dissenter felt that the greater intensity of the IVAN effort led to a higher level of cooperation and teamwork than was exhibited in the later storms.

Looking beyond the EOC, the former County Manager observed that the curfews and roadblocks, the flexibility in contracting that was authorized, the do-what-is-necessary spirit that prevailed, and the comprehensive pre-planning were all important factors in making recovery responses more effective.

## 4. What didn't go well?

As anticipated, the shortcomings of the EOC location and facilities, as described below, were strongly emphasized by all interviewees in answer to this question. Also described below are communications problems identified by interviewees when they responded to this question. The effectiveness problems that interviewees associated with backup shortages and training deficiencies were discussed above.

Many interviewees cited persistent access problems that they generally attributed to failures of coordination and continuity involving the several groups engaged in law enforcement – mainly Sheriff's deputies, municipal police, and the National Guard. Sometimes there were problems in moving between home and the EOC or other duty stations. Other times there were problems in getting vehicles and personnel where they were needed for inspections, cleanup, supplies delivery, and other functions. It was suggested that a central authority for resolution of law enforcement issues would help to resolve coordination and continuity problems.

Several interviewees said the EM 2000 computer system was inadequate. They said it didn't work as well as it should in serving as the principal means of communication in the EOC. We were told that at times the system was so slow or otherwise deficient (e.g., in the ability to transfer misdirected calls to the proper ESF) it was not uncommon to see ESFs resorting to paper messages that they hand carried themselves to other desks. Further, it was suggested that the computer system be modified to increase its support for decision-making and to expand its data-handling capabilities (e.g. data needed to facilitate preparation of reports and billing).

High on some lists in response to this question was a charge that insufficient attention has been paid to the basic needs of emergency workers and their families, with resulting adverse impact on worker effectiveness and even on attendance. A number of those who could not evacuate to other areas because of EOC or other hurricane-response commitments had serious food, fuel, safety, and damage problems to contend with for themselves and their families. Those who made this charge feel that lack of help in dealing with these problems constitutes a significant gap in the disaster plan and its execution.

Two ESFs said that press releases issued in the EOC did not always get to ESFs that needed the information on a timely basis. It was suggested that until a better solution is worked out, all press releases should be posted or projected promptly in a prominent location in the EOC. One interviewee suggested that consideration be given to issuing press releases in Spanish. Another emphasized the need to coordinate with press releases issued by municipalities.

One interviewee identified space and access problems involving media and suggested the clarification of policies on access and control of media in the EOC.

Some interviewees cited shelter inadequacies in response to this question. We were told that facility problems were particularly severe in the county's only special needs shelter. First, Crestview was said to be the wrong place for the shelter because it proved to be difficult for south county residents to get to. Beyond that, the site was most inadequate during IVAN. The emergency generator didn't have enough power to provide air conditioning or even lights in the bathrooms and some of the corridors. Moreover, windows in the school's classrooms were not protected so just the interior hallways could be used – and only half of these had power for the lights and electric outlets. By the 2005 season, generator and window-protection problems were corrected, but size and location problems persisted.

Some of the interviewees said their ESF was asked to reply to many repetitive questions from residents that could have been answered by Citizen Information Line (CIL) responders themselves because they were asked so often and the answers were so straightforward. This was described as a problem in IVAN that persisted in 2005. It was suggested in this connection that the CIL must be assured a sufficient number of dedicated computers capable of performing this task.

Some ESFs manned by county employees expressed dissatisfaction with the record-keeping requirements imposed by the county, the state, and the federal governments. They considered current requirements to be onerous and strongly in need of simplification.



In response to this question, one interviewee spoke of a potential span-of-control problem in the EOC, with so many people involved and so much going on. The interviewee said that this potential problem has been acknowledged and consideration is being given to organizing the ESFs into four branches, each with its own coordinator. It was emphasized that if the change is made it would be for purpose of reducing stress and frustration rather than for addressing anything that did not go well.

The Fort Walton Beach Medical Center officials who were interviewed said that not having representatives in the EOC had an adverse impact on the flow of some important information. For example, at one point a nearby major hospital closed and although that affected the Medical Center's operations it was not informed of the closing. The interviewees suggested that the Medical Center be represented in the EOC in the future.

One interviewee stressed the need for improvement in the rapid needs assessment process and suggested a video link for real-time assessment of needs.

One of the interviewees spoke of supply problems, especially in the first day or so of the recovery effort. It was suggested that an adequate supply of initial supplies be maintained. It was also suggested that attention be directed to the problem of "too many layers of authority" involved in getting supplies through the state system.

#### 5. After-action reviews

The general view was that the after-action reviews conducted by the department were helpful and productive, leading to significant improvements in operations. Concern was expressed, however, that in these reviews participants sometimes withhold worthwhile suggestions to avoid saying things that might offend other participants who are present. It was suggested that at the conclusion of every event each ESF should also submit to the department a written report – more than just a log – that summarizes its activities in the event and presents suggestions for improvement.

Some interviewees stated that feedback was obtained after each event from all participants in their ESF. There was no uniformity in how these individual after-action reviews were conducted and no indication that written records were prepared and shared with the department.

#### 6. Communications.

Responses to questions about communications problems disclosed three areas that affect ESFs:

- (a) Communications within the EOC itself
  - (b) Communications between ESFs and others outside the EOC with whom the ESFs must maintain contact to be fully effective
  - (c) Communications with the public
- a. Communications within the EOC

The almost universal view that teamwork was at a high level in the EOC suggests that communications among ESFs were generally working well. But three problems discussed above – difficulties with the computer system, some slippage in the internal distribution of press releases, and the forwarding to ESFs of requests for information best handled elsewhere – indicate there is still room for improvement in this area.

Keeping county officials informed and in the decision-making loop is another important part of communications within the EOC. The interview with the former County Manager indicated that these communications worked well. He or the department head (now the County Administrator) who served as his backup briefed county commissioners and constitutional officers on a regular basis to facilitate decision-making and a smooth flow of accurate information.

A crucial aspect of EOC communications is assuring that the Emergency Manager and his deputy, the Emergency Coordinator, be informed at all times of situations requiring their attention. As discussed above, span of control has been recognized as a potential problem. There was no indication in the interviews that span of control was a problem in any of the recent hurricanes, but it would be prudent to consider alternatives to the current organization to assure that span-of-control problems do not emerge in the future.

One interviewee spoke of continuity problems that may occur within an ESF because of communication inadequacies in shift changes, and emphasized the desirability of shift-change briefings in which the retiring shift representatives pass on relevant information and offer any suggestions that will help the new shift representatives do a better job.

One interviewee referred to difficulties in communicating with state agencies and suggested that a current list of contact phone numbers for state agencies be maintained in the EOC.

#### b. Communications with other entities and locations

This area of communications presented many serious problems according to interviewees, who pointed out that the more severe the storm the worse the problems. The EOC depends primarily on land phone lines and cell phones for outside contacts, but these are very vulnerable in major hurricanes and interviewees spoke of many situations in which they were cut off from contacts they considered essential. While some interviewees suggested greater use of satellite phones, others downplayed their use because of their high cost and inherent limitations. One interviewee spoke of using citizen band radios but acknowledged that these are restricted to line-of-sight applications. Another interviewee said his cell phone server had a plan for using portable towers (towers on wheels) as a temporary replacement for downed towers, and suggested that this be explored for wider use. But the solution most often advocated by interviewees was the use of ham radio operators to the greatest extent possible consistent with their availability. Ham radio operators in each shelter, at each fire station and law enforcement duty station, in every municipal EOC, and in other key locations would go a long way towards maintaining critical outside contacts. It is clearly important to utilize all available technologies, not limited to those specifically mentioned by interviewees, to assure that the EOC is never isolated.

c. Communications with the public

Many interviewees described problems created for them because the public did not have enough basic information about what to do before, during, and after hurricanes. They especially cited lack of information about evacuating to other areas (whether, when, and where), the phone number of the Citizens Information Line and other numbers to be called directly for information and help, shelters (location, who should use, what to bring), what to do with pets, available transportation, assistance available for those with special needs, and radio and TV stations broadcasting official announcements. Interviewees also spoke of additional information that would have been helpful to the public but was not generally broadcast, such as where to find scarce items like generators, gasoline, open restaurants and pharmacies; where accommodations were most likely to be found in large-scale evacuations, and the best routes to take to get there; and where to get kidney dialysis and other medical attention when large numbers of medical offices were shut down. On the whole, communications with the public did not receive a high grade.

As many resources as possible should be used in providing critical basic information to the public. In one form or another, this information might be presented, for example, in newspaper inserts, with utility bills, in public service announcements on radio and TV, on refrigerator magnets, in telephone books, and in brochures made available in libraries and other public places. Organizations and businesses might be asked to cooperate in getting the information to their members and employees, and some businesses might even be willing to help by underwriting some of the publicity costs. Radio and TV are well positioned to provide information that can help residents cope with rapidly changing situations as they occur, and these electronic resources should be used for this purpose whenever possible. It has been suggested that the Tourist Development Council be asked to help spread information to tourists. Temporary residents may well need special help because of their unfamiliarity with the area.

One interviewee reported that an elected official had established an information network external to the EOC, causing some confusion and creating the possibility that incorrect information might be disseminated. Emphasis was placed on the importance of assuring that the established network of contacts for gathering and disseminating information be the only one permitted in an emergency.

7. Lessons learned from Hurricanes KATRINA and RITA

Interviewees were asked whether they had learned anything from Hurricanes KATRINA and RITA that would be helpful in future disasters. The general response was high praise for our county's careful planning and execution. It was suggested, however, that the CEMP be reviewed and brought up to date in light of what happened in Louisiana and Mississippi, with special attention to evacuation policies and procedures, transportation, pets, and the responsibilities and authorities of all ESFs. It was also suggested that attention be given to the possible relocation of key county facilities (e. g, the county Health Department) that are in locations with a good chance of being flooded in severe storms.

## **EMERGENCY OPERATIONS CENTER**

As indicated above all interviewees agreed that the present EOC facilities are highly inadequate. They made clear that a new EOC is needed that is larger, in a more secure location and built to withstand even the most severe hurricanes. They provided a long list of features the new EOC should include. In addition to space, equipment, and other basics, interviewees stressed the need for adequate sleep areas for participants and their families, rest areas, showers, locker rooms, well equipped kitchens, plenty of food and water, eating areas, adequate fuel supplies, and effective noise-abatement measures.

## **RECOMMENDATIONS**

The list of recommendations that follows includes both suggestions made by interviewees and others made by committee members based on their own analysis of the findings. Because the shortcomings of the EOC are so well documented, recommendations relating to EOC facilities are not included. The list is presented with full knowledge that many of the recommendations may have been made previously to the department in after-actions reviews and that some may duplicate changes the department has already considered and may already have implemented. It should be noted that the list is not in priority order.

### **GENERAL**

1. Bring the Comprehensive Emergency Management Plan up to date, giving special emphasis to the ESF tabs to assure that they clearly state current responsibilities and authorities and, when appropriate, guidelines for effective performance.
2. Require each ESF to conduct its own after-actions review following each event, with all principals and backups taking part, and to submit a summary of the review to the department with recommendations for improvement.
3. Provide training for all county decision-makers, including constitutional officers, who will participate in hurricane response, and emphasize the need for well trained alternates
4. Improve coordination with law enforcement personnel to assure that all persons conducting authorized emergency operations or delivering supplies can carry out their responsibilities without hindrance, even during curfews and in areas closed to the public.
5. Replace the special needs shelter in Crestview with one in Niceville or another location that is more readily accessible to all county residents, and include in it all features deemed necessary by the county's Public Health Department.
6. Explore ways to provide accommodations and as much assistance as feasible for families of emergency workers.
7. Develop forms and procedures and utilize available technologies to streamline record-keeping required by the county, and negotiate with state and federal agencies to reduce their paperwork requirements to the greatest extent possible.
8. Continue with the plan to test having ESF 1, Transportation, serve in its own dispatch center rather than in the EOC, with all calls for transportation going directly to that location and with the phone number of the center well publicized.
9. Encourage ESFs to prepare documents/manuals containing details of their operation in the EOC, including appropriate guidelines and enough information to enable qualified replacements to serve in an emergency.. These documents should contain suggested (or required) responses to anticipated questions and situations whenever possible.

10. Consider adding representatives of the Ft. Walton Beach Medical Center to ESF 8, Health and Medical, as suggested by hospital officials in our interview with them,
11. Consider whether current procedures provide sufficient information about people who need special help, such as those needing oxygen, kidney dialysis, or special transportation.

### **EMERGENCY OPERATIONS CENTER**

12. Improve computer capability in the EOC to eliminate reported slowdowns, increase support for decision-making, expand the ability to handle data needed for reports and billing, and facilitate automatic responses to repetitive questions.
13. Exercise greater control over use of backups to assure that each ESF is manned by well trained representatives in sufficient number to serve without excessive fatigue for as long as may be needed in major storms.
14. Establish standards for duty in the EOC that cover such matters as length of shifts, frequency of break periods, and continuity.
15. Encourage shift-change briefings in all ESFs.
16. Evaluate the issue of span of control in the EOC, and establish an intermediate layer of coordinators if found appropriate.
17. Assure that the department's training exercises are realistic and interesting, sufficient in number, and coordinated insofar as possible with training conducted by municipalities and individual ESFs.
18. Establish policies on access and control of media in the EOC.
19. Review and redesign the EOC telephone system to better support the unique requirements of each ESF. New dedicated phone numbers should be made known to the public, the media, and all agencies likely to communicate with ESFs.

### **COMMUNICATIONS**

20. Improve the procedures used to inform the public about appropriate actions to take before, during, and after hurricanes that impact our area. Information should be circulated as widely as possible and should include what every resident ought to know about preparations, response, and services available. Pertinent telephone numbers, shelter locations, and sources of official information should be given special prominence. When possible, the public should also be kept informed on other matters that can help them cope more effectively with their pre-hurricane preparations and their recovery efforts.

21. Make maximum use of new technologies and all available resources to add communications alternatives for use when telephone land lines and cell phone towers are down. To this end, explore (a) more widespread use of ham radio operators in such critical locations as all fire stations, law enforcement duty stations, shelters, and municipal EOCs; and (b) potential use of portable cell phone towers as temporary replacements for downed towers.
22. Provide Citizens Information Line operators with standard answers to standard questions.
23. Provide more information on what people should do with their pets.

### **MUNICIPALITIES**

24. Continue to work out the most effective use of municipality representatives in the EOC, using the Okaloosa County Comprehensive Plan Committee as a principal resource for this purpose.
25. Require that ESF 18, Municipalities, always be represented in the EOC by cities in both the north and south ends of the county, and reflect this requirement in the tab for ESF 18.