

# **Greensburg Kansas Tornado FEMA Assist**

**FEMA 1699DR-KS**

**KS-FEM-000197**

## **Final Narrative**

**“Lessons Learned”**

**May 7 to June 12, 2007**

**Prepared By  
Boise Incident Management Team**





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**Greensburg Kansas Tornado FEMA Assist  
Davis Park Base Camp  
KS-FEM-000197**

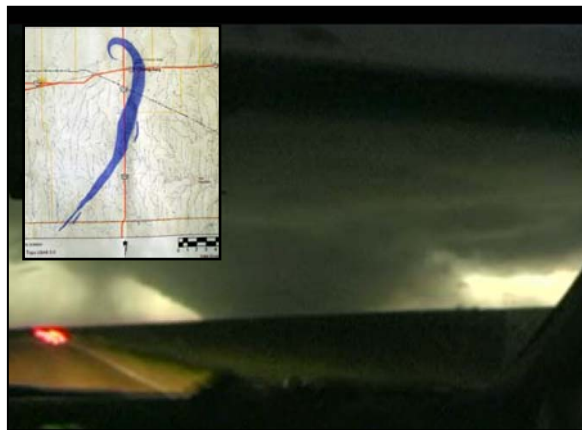
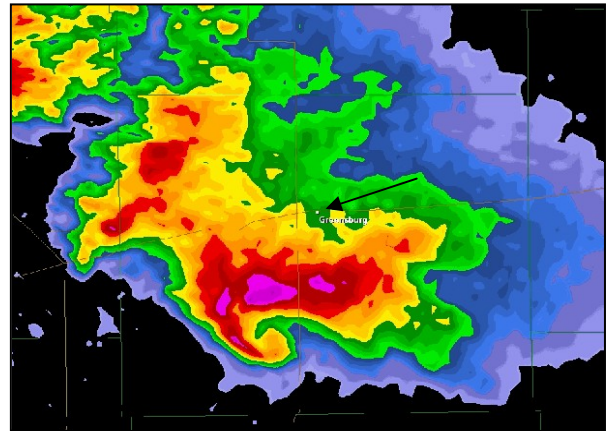
**Table of Contents**

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Introduction.....	3
Mission Assignment.....	5
Mobilization.....	5
In-Briefing.....	6
Operational Objective.....	6
Core Values.....	6
Commander’s Intent.....	6
Priorities.....	7
Organizational Effectiveness .....	7
Demobilization.....	8
Evacuation Planning and Implementation .....	9
Base Camp Operations and Cost Containment Measures.....	10
Training Program – Building Capability and Capacity .....	14
City of Greensburg – Success Stories.....	15

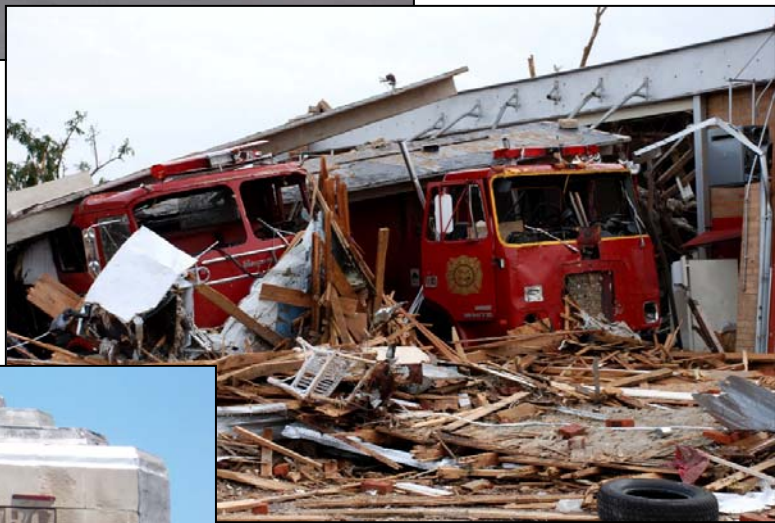
## Introduction

According to the National Oceanic and Atmospheric Administration (NOAA), a weekend of severe weather battered southwest Kansas, beginning May 4, 2007. At 2138 hours the Dodge City National Weather Service Office reported a “wedge tornado with a satellite tornado and rope tornado” in Kiowa County. Forecasters in Dodge City issued two Tornado Warnings. One at 39 minutes prior to impact and a second approximately 10 minutes before the 1.7 mile wide wedge tornado hit the town of Greensburg, Kansas. The EF-5 tornado passed through Greensburg with winds in excess of 200 miles per hour causing loss of life and significant damage to the community.

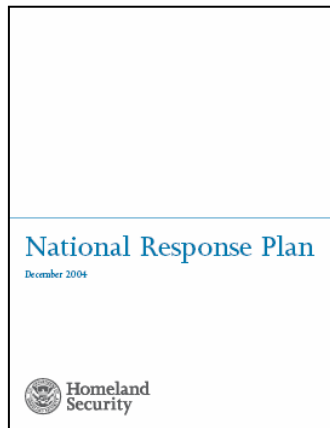


- 10 fatalities
- 95% of Greensburg destroyed
- 961 single family homes destroyed
- 105 homes with major damage
- 67 homes with minor damage
- 11 homes affected
- 110 businesses destroyed
- 24 businesses damaged
- Greensburg High School destroyed
- Delmer Day Elementary School destroyed
- Valley View Christian School destroyed





## Mission Assignment



Through the authorities of the National Response Plan, the Federal Emergency Management Agency (FEMA) tasked the U.S. Forest Service Rocky Mountain Region (R-2) ESF-4 with organizing and establishing a base camp in support of 300 emergency responders in the Greensburg, Kansas (Kiowa County) area. On May 6, 2007, FEMA Branch Chief Bryon Grable approved Mission Assignment (MA) #1509-66911 for a full service base camp with an Incident Management Team (IMT) for an initial period of 60 days and an estimated cost of \$4,000,000. The base camp was to provide responders with quality logistical support including safety, lodging, meals, hygienic facilities (hand wash stations, showers), toilet facilities and laundry services.

The assigned mission was achieved May 8, when the first meals were served. The scope, complexity and necessity to support emergency responders remained steadfast throughout the 35-day assignment.

A supplemental task was developed May 21, to lease and provide five buses with drivers for evacuation of emergency workers in the event of severe weather in Greensburg, Kansas. After the initial three day period May 21 to 23, the buses were on a recall status subject to National Weather Service forecasts. This supplemental added the authority to spend an additional \$50,000.

## Mobilization

Aaron Gelobter, Incident Commander for the National Incident Management Organization (NIMO) Boise Incident Management Team (IMT), received notification of a pending IMT order from the National Interagency Coordination Center (NICC) May 6, at 1700 hours. By 1800 hours the Southern California Geographic Area Coordination Center was advised of a possible activation. At 2000 hours there was still no order placed through the Resource Ordering and Status System (ROSS). Notification of the ROSS order was received by the Los Padres National Forest Emergency Coordination Center at 2200 hours. Because the 24-hour emergency travel service was unavailable, Boise team members made their own flight arrangements through the Fed Traveler service. Travel for the team was delayed, and eventually the caterer and shower units would be 24 hours behind schedule due to the timing of the Mission Assignment approval.

The Boise IMT Operations Section Chief (Boise OSC) was the first to arrive at the Greensburg Tornado IMT Incident Command Post on May 7. On-going communication and coordination was maintained between the Boise IMT Incident Commander (Boise IC) and Logistics Section



Chief (Boise LSC), as well as Regional Forester's Representative Joe Hartman, while en route to the incident. Conversations centered on specific logistical needs, and base camp specifications and standards. Direction from the Boise IC to Boise OSC was to meet with Joe Hartman and FEMA personnel to establish a timeline for the In-Briefing and issuance of the Delegation of Authority and Mission Assignment.

Upon arrival at 1700 hours the Boise OSC made contact with Joe Hartman. Introductions were made with local government officials and FEMA personnel. Davis Park was surveyed with Joe Hartman and FEMA Logistics Section Chief Dick Harrington for feasibility as a base camp site. The park was selected for the camp with an understanding that specific portions of the park were off limits. The IC and most of the Command General Staff arrived at 2100 hours. Coordination with ESF-4 and the Regional Forester's Representative occurred later than anticipated.

The Boise LSC made contact with Pueblo Dispatch about five hours after departing for Greensburg. Dispatchers provided excellent intelligence regarding the assignment and pre-orders were placed to expedite establishment of the base camp. Contact was made with Byron Grable to advise him of the IMT arrival time. Grable advised that communications equipment would be provided and there was no need to order a radio kit. A discussion with Pueblo Expanded Dispatch clarified the number of meals that had been ordered for feeding the first meal. Adjustments in the number of meals needed were made with the caterer to account for the transit delay. The cache van was order while en route.

## **In-Briefing**

On May 7, 2007, an in brief was held with Joe Hartman and Dick Harrington in Greensburg; and the Delegation of Authority and Mission Assignment were issued. From these documents the Boise IC prepared the following statements.

## **Operational Objective**

- Complement and support the multi-agency response in providing emergency assistance by establishing and operating a base camp to support 300 emergency responders.

## **Core Values**

- Responder Safety is the #1 priority.
- Public Safety – We will be proactive in facilitating safety within the base camp.
- 100% Effort – We will engage the mission with all of our expertise.
- Open Communication – Direct, respectful, and 2-way communications is the key to our success.

## **Commander's Intent**

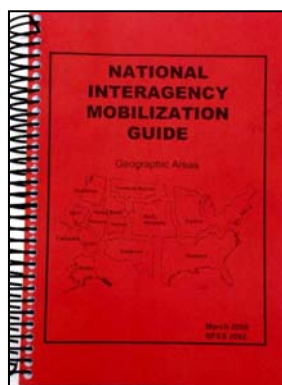
This mission is to operate a base camp for emergency responders supporting tornado relief efforts in Greensburg, Kansas. The purpose of this base camp is to provide responders with

quality logistical support including safety, meals, lodging, and hygienic facilities. The intent is for emergency responders utilizing the camp to maintain health and strength to accomplish the response mission.

## Priorities

1. Facilitate the security and safety of emergency responders while utilizing camp facilities.
2. Provide quality meals that are nutritionally balanced and pleasing to the pallet.
3. Provide lodging that allows for quiet and restful sleeping conditions.
4. Provide hygienic services including hand wash stations, showers, toilet facilities, and laundry services.
5. Provide a training opportunity to build ICS capability and capacity for the San Juan IHC.
6. Coordinate with Americorp concerning the community use of the Red and White tarp adjacent to the base camp in Davis Park.

## Organizational Effectiveness



The 2007 National Mobilization Guide outlines the mobilization process for NIMO Incident Management Teams. Due to the nature of incidents, team configuration is negotiated by National Multi Agency Coordination (NMAC), NIMO Incident Commander, and the requesting Geographic Area Coordination Center. To increase personnel capacity and capability, trainees, apprentices, and/or technical specialists may be ordered for any or all positions.

NIMO Teams are available for any type of assignment. When an incident occurs, NMAC considers the criteria listed in the Mob Guide to determine which team is appropriate for assignment - a NIMO Team or a National IMT. NMAC considers All-Hazard and long duration assignments as likely incidents to be managed by NIMO.

Strength of the Boise IMT lies in its ability to tailor the organizational response based on the needs of the incident. For this incident, the team responded with the seven Command and General Staff positions, which were supplemented by a pre-order placed by Pueblo Dispatch for several Logistics and Finance Unit Leader positions. In a study of the most effective organization, the optimal organization was determined to be seven to nineteen positions. As the incident developed part of the Boise IMT's approach was to be "Special Forces" where each member took on duties beyond the normal scope of their positions. For example, the Finance Section Chief took on Demob and Resource duties and Operations completed Situation and Human Resource tasks. The following lists the most favorable base camp organization:

- Incident Commander (NIMO - ICT1)
- Deputy IC and Human Resource Specialist (NIMO - OSC1)
- Public Information (NIMO – PIO1; Release early due to workload)
- Safety Officer (NIMO – SOF1)
- Planning Section (NIMO – PSC1; Covered all Unit Leaders Positions)

- Finance Section (NIMO – FSC1; Covered all Unit Leaders Positions)
  - Equipment Time Recorder
- Logistic Section (NIMO – LSC1)
  - Facilities Unit Leader
    - Base Camp Manager (3)
    - Security Manager
  - Medical Unit Leader (EMT 1)
  - Supply Unit Leader
    - Ordering Manager
  - Ground Support Unit Leader
  - Food Unit Leader
  - Communication Unit Leader

## Demobilization

Under Unified Command, the Boise IC participated in meetings with FEMA FCO, Kansas State SCO and local government Greensburg IMT on an as needed basis. These meetings coordinated the long term base camp needs and outcomes for finishing the mission assignment in a timely and cost efficient manner.

On May 28, FEMA and the Greensburg IMT reevaluated the need to continue the response phase of the operations. Gas leaks, water contamination and limited power supply were issues persistent within the city limits. The decision was for 140 responders to remain through June 4, based on the need to secure the infrastructure of the community.

Options discussed at the May 28, meeting included:

- Transition management of the base camp operations to FEMA.
- If FEMA does not assume command for the incident, resize the staffing needs to a Type 3 organization.
- Change the configuration of the base camp to long-term contracts for services. Reduce the caterer specifications to meal proportions more suited to caloric needs in a non-fire work environment, thus reducing meal costs.
- Maintain status quo.

The outcome of the meeting was to maintain status quo.

**Lessons Learned:** A lost opportunity and suggestion for the next FEMA incident is for FEMA to send a cadre of personnel to be trained in command, staff and unit leader positions for mentoring by the NIMO IMT. In the future the NIMO Incident Commander, Regional Forester's Representative and ESF-4 representatives ought to set this in motion. These actions will serve to increase the incident management capability and capacity nation-wide.

FEMA and the Greensburg IMT again re-evaluated the situation on May 30<sup>th</sup>. This evaluation determined that the demobilization of local workers and remobilization of the National Guard would occur June 4.

A week later, on June 6<sup>th</sup>, FEMA and the Greensburg IMT decided to extend the base camp for emergency workers until June 11. This decision was made due to no housing options available, causing the need to continue to support over 50 emergency workers.

Greensburg IMT, through an IAP objective, stated that the response phase would end June 30 and the recovery phase would be transferred to Kiowa County and the City of Greensburg on July 1.

## Evacuation Planning and Implementation

While en route to the assignment on May 7, the potential for severe weather was evident. Severe weather with ¾ inch hail, 60 mph winds, lightning, and tornados are common this time of year in the Midwest. Evacuation planning was a priority upon arrival at the ICP. The initial Evacuation and Accountability Plan was prepared in collaboration with the Incident Meteorologist and completed on May 9. Due to the large number of responders in the area and limited storm shelters identified, avoidance was chosen as the evacuation tactic.

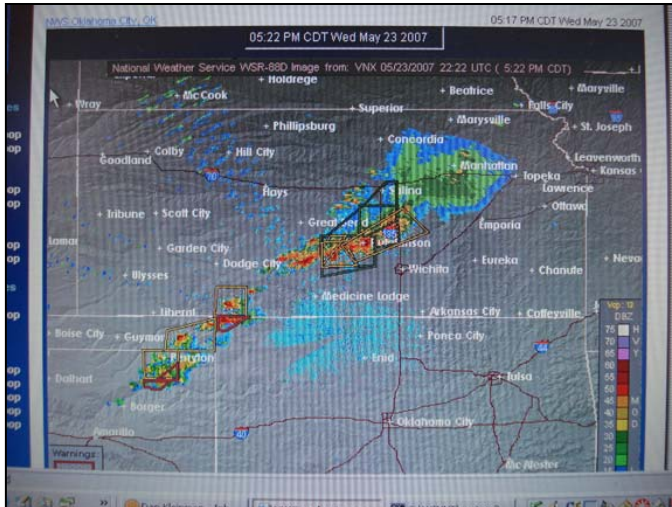


On May 19, the meteorologist predicted severe weather watch for the May 22 and 23. Responder population in town decreased while the population of residents in the base camp increased. Coordination with the Greensburg IMT was established, shelters were evaluated and established, a new evacuation plan was written. The plan was updated to ensure command and control, and to mitigate the potential life hazards. Buses were ordered to accommodate all base camp personnel. Residents and Base Camp

personnel were briefed and given a one page Evacuation Protocol.

On Wednesday May 23, at approximately 2300 hours, a Severe Weather Watch was issued by the Incident Meteorologist. At approximately 0100 hours on the May 24 a Severe Weather Warning was declared and evacuation of the base camp was initiated. The winds were 30 to 50 mph with heavy rain. The evacuation of 268 camp personnel took approximately 20 minutes and was an orderly process. The shelter was shared with approximately 20 personnel from the community during the 1.5 hours in the shelter. An “All Clear” was given to the evacuees by the Incident Meteorologist and everyone returned to camp at 0300 hour.





On May 31, the Incident Meteorologist declared at a Weather Watch for potential severe weather at 1730 hours. All base camp personnel were notified and reminded of their responsibilities associated with an ordered evacuation. The watch was terminated at 2300 hours.

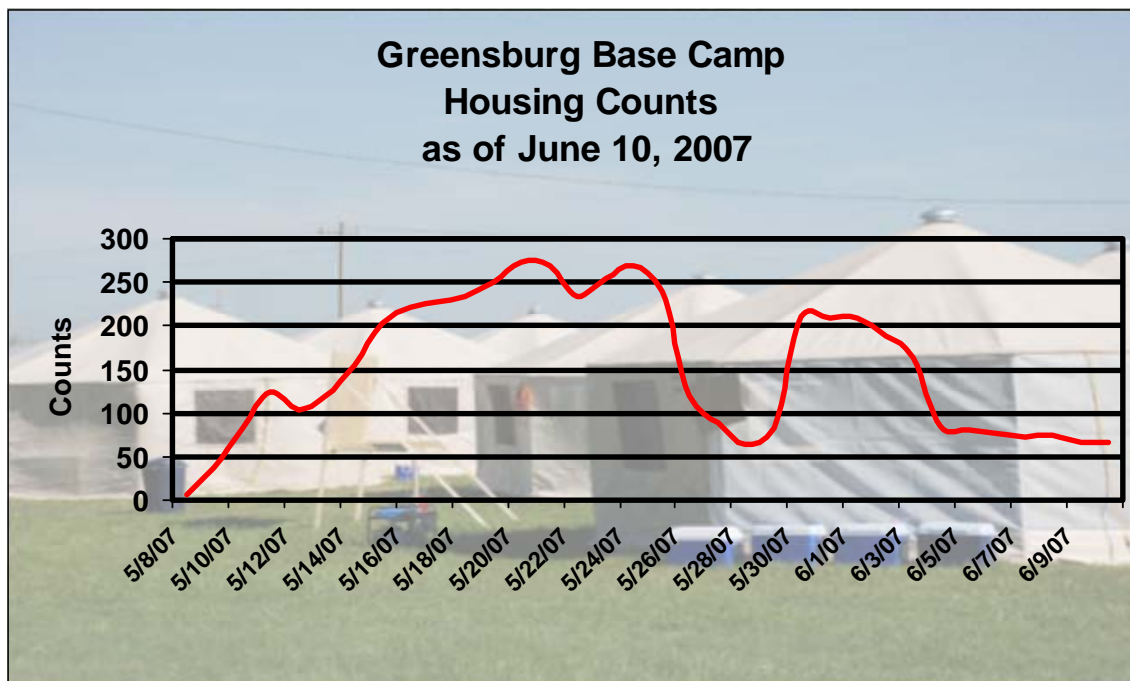
On June 5, an addendum to the plan was developed to modify the bus transportation and travel route. With the decrease in base camp residents the need for contract buses was eliminated as there were sufficient vehicles in camp to safely

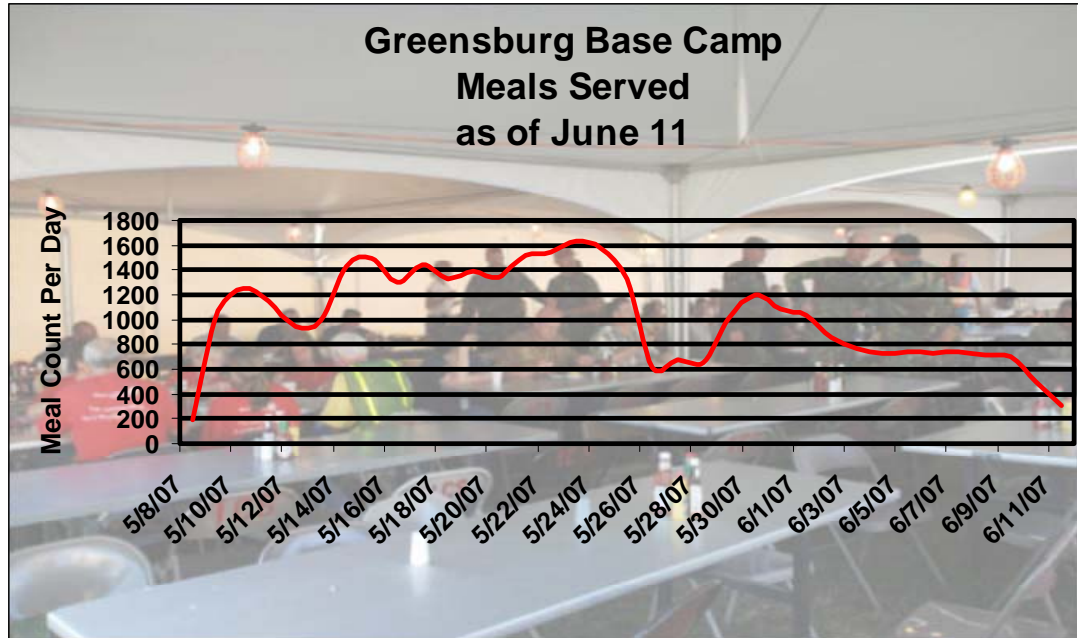
accommodate all personnel. The evacuation route was adjusted due to road block being constructed along the established evacuation travel route to prevent tourists from traveling through Greensburg. The new evacuation route was communicated to all base camp personnel.

There were no additional Severe Weather Watches or Warnings initiated beyond May 31.

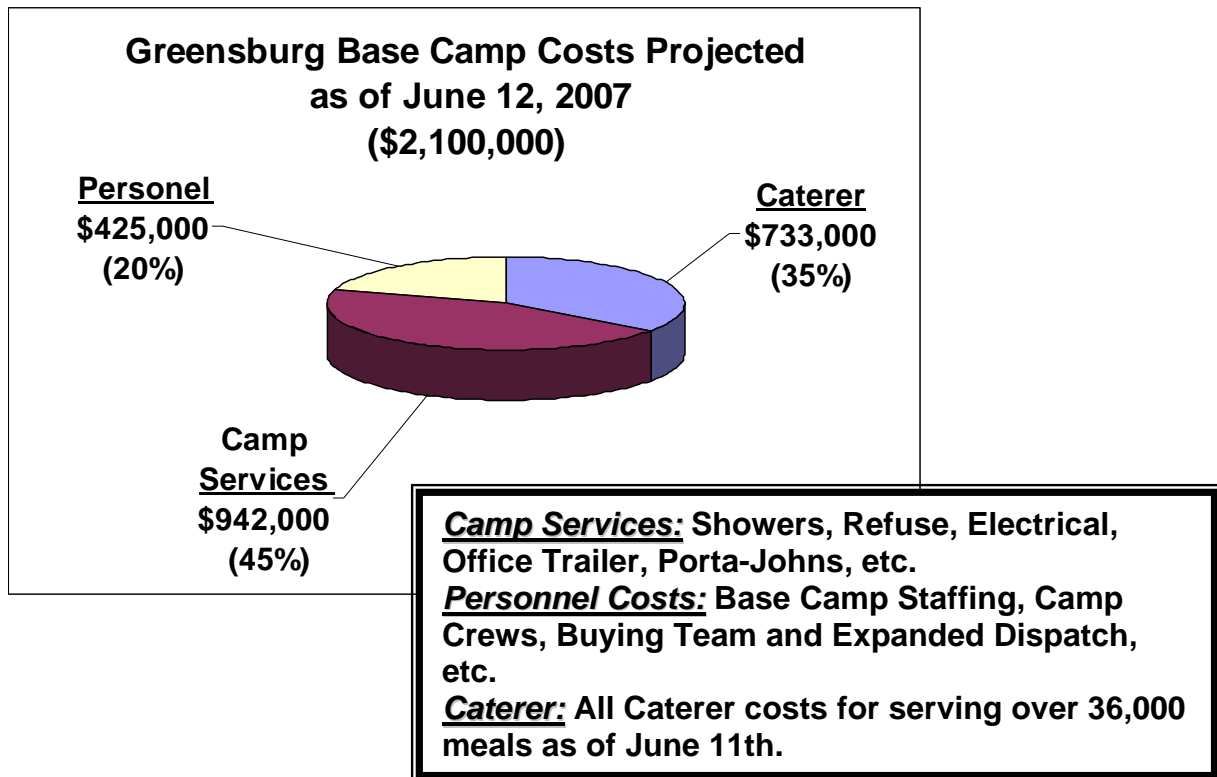
## Base Camp Operations and Cost Containment Measures

Over 4,000 resident stays were recorded throughout the duration of the incident. The task was to provide 10,000 resident days. The base camp was only housing at 38% of the capacity.





The base camp served over 36,000 meals; averaging 1,000 meals per day. The task was to serve 300 Emergency Responders or 900 meals per day. The actual feeding exceeded the capacity by 20%.



## Cost Containment Measures, Actions and Considerations

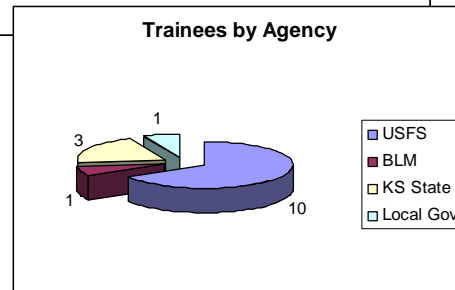
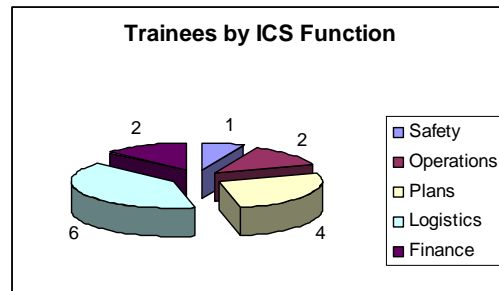
<u>Action</u>	<u>Result</u>	<u>Estimated Cost Savings</u>
IMT Rotation	Mobilized with a seven person IMT, only filled in where needed to successfully accomplish the mission as tasked by FEMA. Considerable use of state/regional resources reducing mobilization/demobilization costs.	
	Traditional members of a Type 1 IMT X daily costs X days on assignment = 44 T1 IMT X \$448 daily rate X 35 days =	<b>\$689,920</b>
	NIMO IMT + additional needed resources X daily costs X days on assignment = (7 NIMO + 12 additional resources) X \$448 X 35 days =	<b><u>\$297,920</u></b>
		<b>Savings = \$392,000</b>
IMT Duration	One IMT for duration of incident, cost savings from mobilization of second team, approx \$73,818 and 3 days of overlapping salary \$75,264	
	Loss time due to learning curve – priceless!!	<b>Savings = \$149,100</b>
Minimal Facilities	Functional areas grouped up in trailers, as opposed to each functional area having a trailer(s). Supply and Security no cost alternative.	
	Full Facility EERA	\$182,500
	Minimal Facility	<u>\$ 1,200</u>
		<b>Savings = \$181,300</b>
	EERA mobile offices \$650/day X 4 X 35 days =	\$ 91,000
Non EERA mobile office \$300/month X 4 =	<u>\$ 1,200</u>	
	<b>Savings = \$ 89,800</b>	

<u>Action</u>	<u>Result</u>	<u>Estimated Cost Savings</u>
	Release of contract tents as resident population diminished	\$ 3,500
	No Cost Land Use Agreement	\$ 35,000
	No Copy Service or large high speed copier, used IMT's printer/copiers	\$ 1,200
	Local laundry service vs. EERA laundry service	\$ 7,800
	EERA Generators vs. Local Rentals	\$ 31,000
	Light Stands donated for by National Guard \$400/day X 35 days	\$ 14,000
	Turning down added assignments, such as Saw Squad to clear debris 10 day X \$5,700	<u>\$ 57,000</u>
		<b>Savings = \$149,500</b>
	<b>Total Estimated Savings</b>	<b>\$961,700</b>

## Training Program – Building Capability and Capacity

This assignment facilitated training for 12 personnel with 14 Position Task Books from four agencies. Seven of the trainees completed task books and were recommended for qualification. Seventy-nine percent of those trainees came from federal agencies, 14% from Kansas State Forest Service and 7% from local government. Listed below are contributing agencies:

- San Juan National Forest
- Sierra National Forest
- Gifford Pinchot National Forest
- Stanislaus National Forest
- Bureau of Land Management, Boise
- Kansas State Forest Service
- Fairmont Fire Protection District



The Boise IMT initiated a new national wildland fire leadership training program with the San Juan Hotshots. Eleven of the San Juan Hotshots were paired with and worked along side Boise IMT personnel for exposure to gain an understanding of day-to-day command and control functions.

This was a unique opportunity to initiate a pilot leadership training program and to spark interest in firefighters and mid-level crew managers to pursue command and general staff qualifications.



San Juan Hotshots participating in a planning meeting with the Boise IMT Command and General Staff



Planning Section Chief working with a San Juan Hotshot in preparing the Incident Action Plan



Hotshots facilitating daily planning meeting

**NIMO Key Recommendation #3 –  
 Building Capability and Capacity**

## City of Greensburg – Success Stories

The NIMO Boise Incident Management Team established an open and effective working relationship with city of Greensburg officials and the other agency partners.

After the Davis Park Base Camp had been completely set up and operational, base camp resources were provided, as available, to assist the city and others with events and activities that were taking place within the Base Camp and Davis Park area.

Some community involvement examples included:

Base Camp resources assisted the city setup their first “town hall community meeting” since the May 4 tornado leveled the city.

The San Juan Hotshots helped with setting up seating and provided water for the nearly 1,000 people who attended the Friday, May 11 town hall meeting.

On Sunday, May 13, a community-wide non-denominational church service was held in Davis Park.



San Juan Hotshot helping unload flowers during community church service in Greensburg

This was also well attended (nearly 1,000 people), and the San Juan Hotshots and other camp personnel helped with disabled parking, provided water, setup chairs, and directed traffic.

On Wednesday, May 9, President George Bush and FEMA Director R. David Paulison made a visit to Greensburg to see first hand the tornado’s incredible destruction.

They toured the community, meet with residents, and visited with emergency responders.



President Bush and FEMA Director David Paulison meet with emergency responders in Greensburg.

They were also briefed by city and other state and federal officials on the progress of cleanup and future needs for the city’s reconstruction. FEMA Director Paulison personally thanked the Boise IMT for their efforts in establishing and operating the vital base camp supporting the emergency responders.

Friday, May 18, Debbie Pugh, District Director for Senator Pat Roberts visited the base camp.

She was briefed on the camp's operations, services and accomplishments, and provided with a tour of the facilities.

An essential operation within the Davis Park complex was the Americorp volunteers.

They became an extension of the base camp and were provided logistical support with water and daily maintenance as needed.

Several teams of Americorp volunteers were brought in and assigned the task of coordinating the hundreds of volunteers who wanted to help the citizens of Greensburg with community recovery efforts.

Working with the city and other emergency responders, they signed up and matched citizen volunteers with identified tasks and projects.

Volunteers contributed over 34,700 hours of work, labor, and donated materials and equipment.

Over Memorial Day weekend, a community service was held at the Greensburg Cemetery to honor veterans and those who died in the May 4 tornado.

As time progress during the incident assignment, the community and others involved in the response and recovery work soon began to recognize the significant involvement that the Base Camp operation and their personnel contributed to the overall efforts in Greensburg, Kansas.



Debbie Pugh, Senator Pat Roberts' district director meets with IC Aaron Gelobter at Davis Park Base Camp.



Americorp volunteers coordinate hundreds of citizen volunteers wishing to help community of Greensburg with tornado cleanup efforts



Memorial Day ceremony at the Greensburg Cemetery