State of Florida
Emergency Response Team

FLORIDA
EMERGENCY MANAGEMENT
EMAP Accredited
ACCREDITATION PROGRAM
First Accredited State In The Nation

State of Florida
Unified Logistics Section

"Logistics Operations and Management"
Training Course

(2-Day)

COURSE INSTRUCTORS

Chuck Hagan, Chief
State Unified Logistics Section
Florida Division of Emergency Management

Connie Nunn, Deputy Chief
State Unified Logistics Section
Florida Division of Emergency Management

"Logistics"

- Logistics is one of the worlds oldest professions
  - It is both an art and a science.
- It is that part of the resource management process that plans, purchases, implements, and manages the efficient, effective receipt, storage, shipment, transshipment and onward movement flow of goods, services, personnel and related information from the point of origin to the point of utilization.
- It is done in a unified, cost effective and accountable manner in order to meet mission requirements of having the right resources, to the right consumers, at the right time.
- We CHANGE Outcomes!
- "Failure Is Not An Option"

Course Outline

- Logistics Definition
- Course Outline
- Introduction Exercise
- Pre-Test
- Module 1 – Prior Hurricane Seasons
- Module 2 – Strategic Logistics Planning
  Module 3 – Supply Chain Management
- Module 4 – Requesting Assistance
- Module 5 – Logistics Field Facilities

Course Outline

- Module 6 – State Logistics Staging Area Operations
- Module 7 – Functions and Responsibilities in a Staging Area
- Module 8 – Staging Area Considerations
- Module 9 – Staffing Staging Areas
- Module 10 – County Points of Distribution (POD)
- Module 11 – State Emergency Resource Management Network
- Module 12 – Emergency Worker Base Camps
- Final Exam

Introduction Exercise

- Name
- Agency
- Position or responsibility during disaster events
- One objective you want to take away from this course

Pre-Test
20 Minutes

- Answer questions based on your current knowledge of the logistics field and state processes

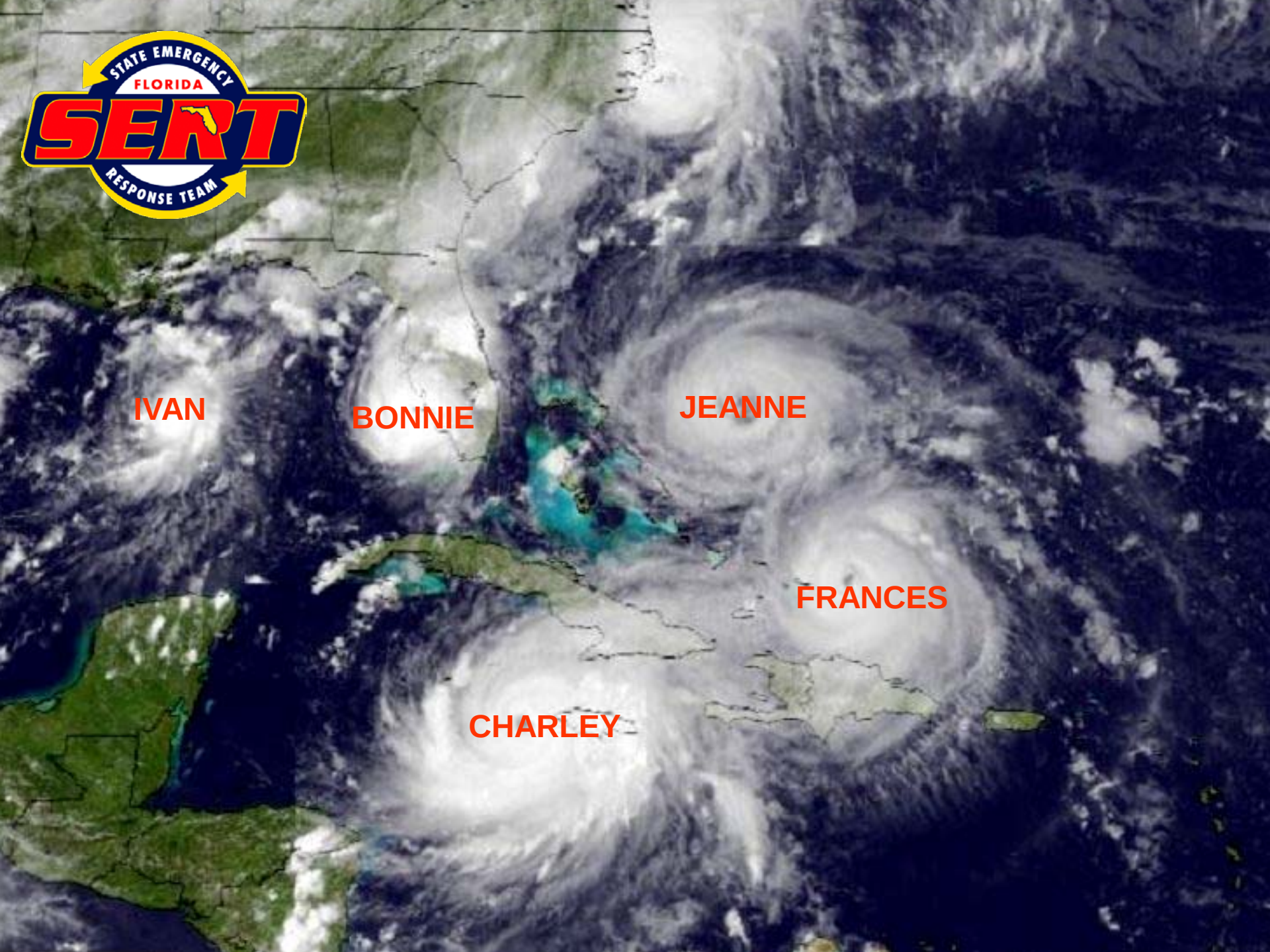
LOGISTICS
OPERATIONS
and MANAGEMENT

MODULE I

Prior

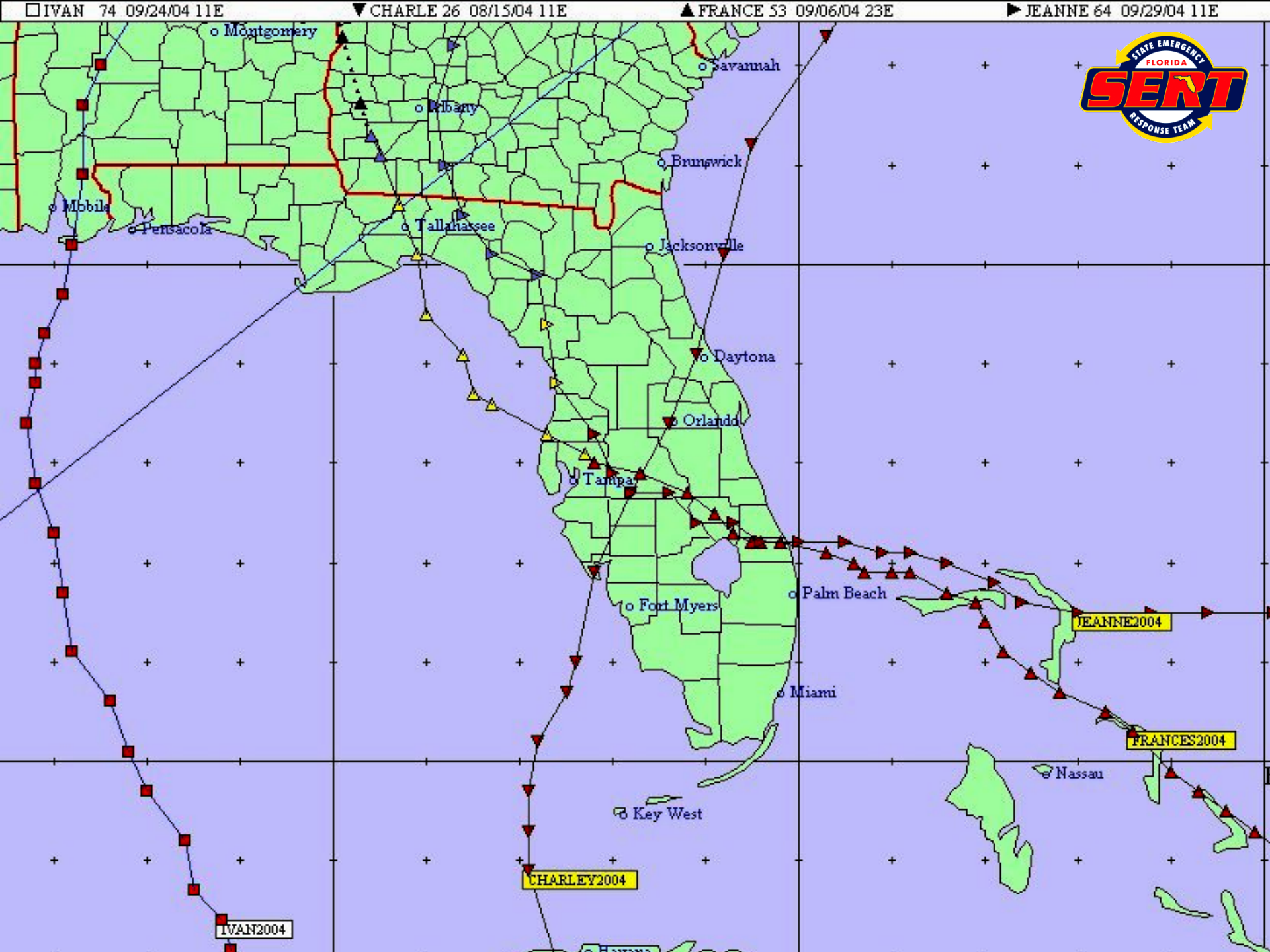
Hurricane Seasons

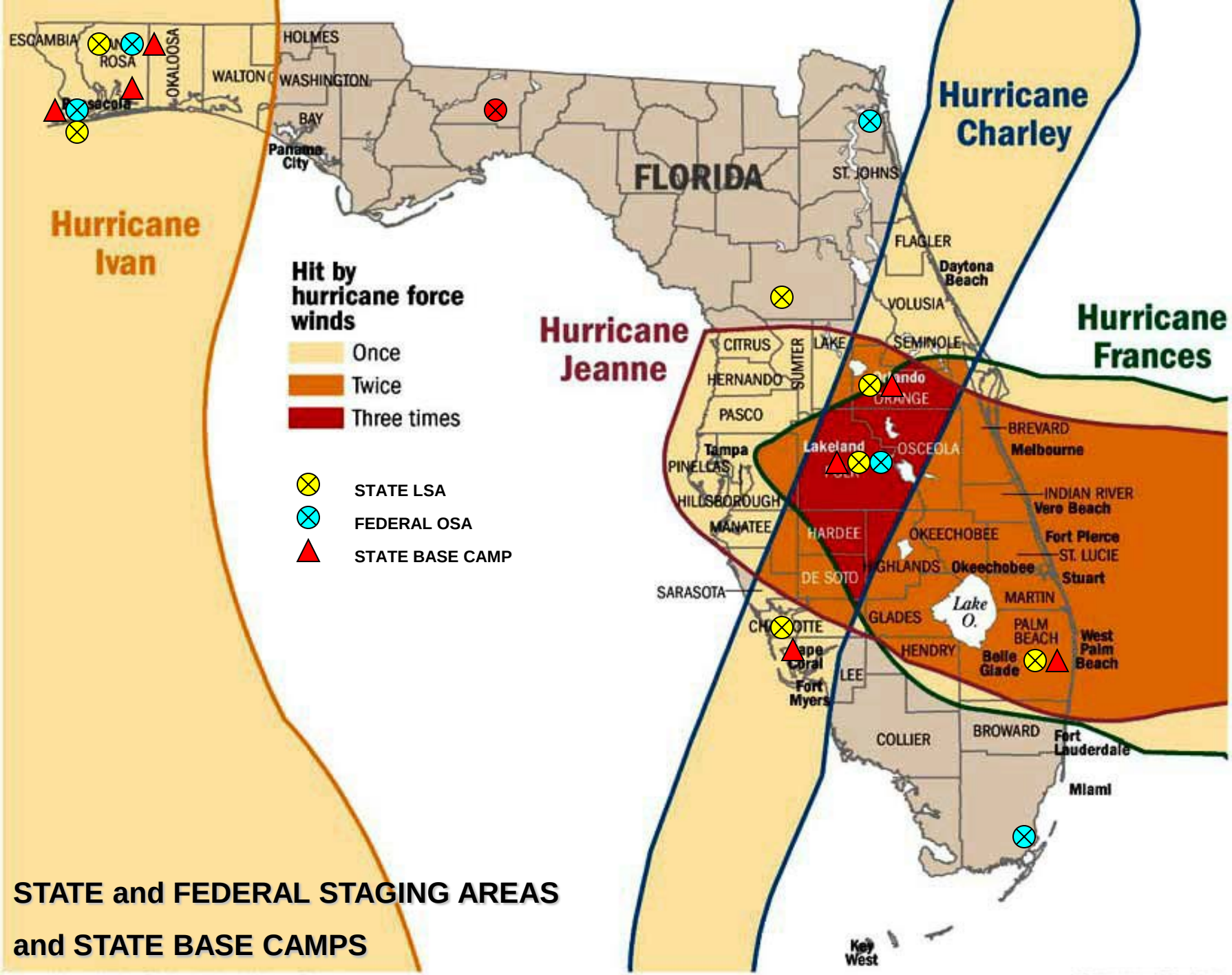
Review of Logistics Support Operations


STATE EMERGENCY
FLORIDA
SERT
RESPONSE TEAM
IVAN
BONNIE
JEANNE
FRANCES
CHARLEY

2004 Florida Hurricane Season

- Largest series of disaster relief operations in the U.S. to date until Katrina
- One Tropical Storm
  - Bonnie — Thursday, August 12, 2004
- Four Hurricanes
  - Charley — Friday, August 13, 2004 — (1-Day After Bonnie)
  - Frances — Sunday, September 5, 2004 — (22-Days After Charley)
  - Ivan — Thursday, September 16, 2004 — (11-Days After Frances)
  - Jeanne — Saturday, September 25, 2004 — (9-Days After Ivan)
- 1 in 5 Homes In Florida Were Affected
- $1.2 Billion Dollars To Date in Relief Costs
- All 67 Florida Counties Declared


IVAN 74 09/24/04 11E
CHARLE 26 08/15/04 11E
FRANCE 53 09/06/04 23E
JEANNE 64 09/29/04 11E
Montgomery
Savannah
Albany
Brunswick
Mobile
Pensacola
Tallahassee
Jacksonville
Daytona
Orlando
Tampa
Palm Beach
Fort Myers
JEANNE2004
Miami
FRANCES2004
Nassau
Key West
CHARLEY2004
IVAN2004
STATE EMERGENCY
FLORIDA
SERT
RESPONSE TEAM

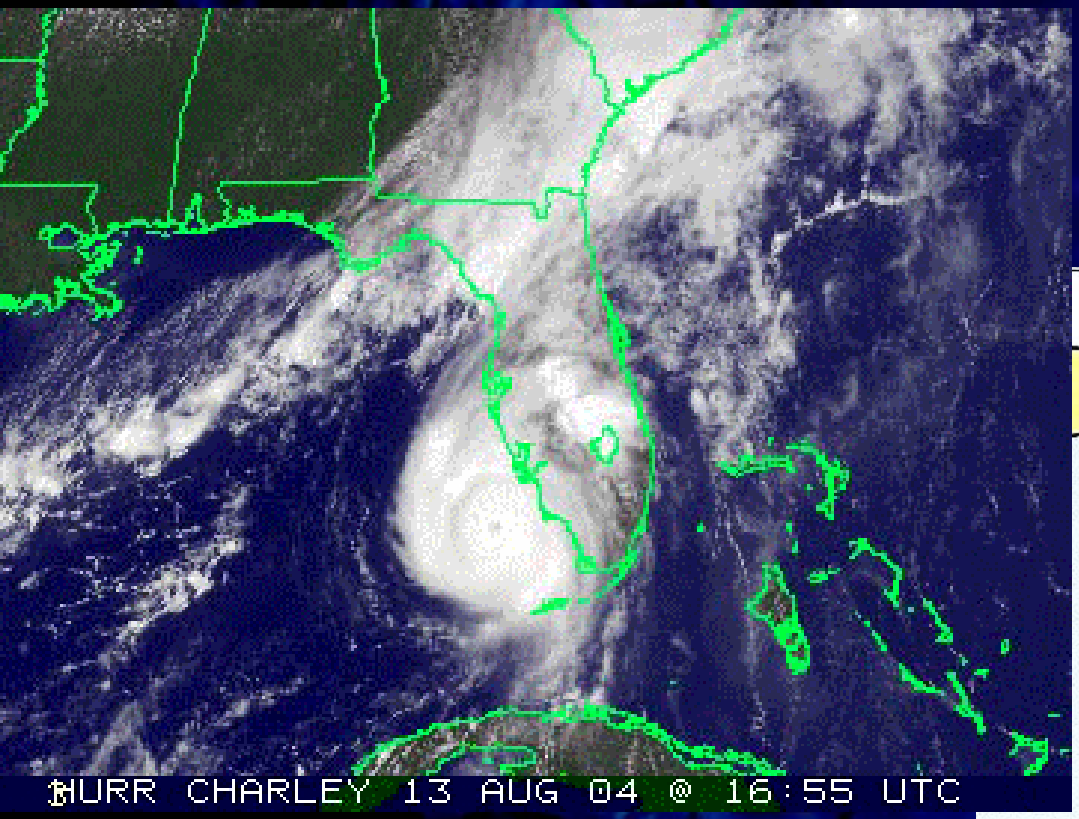


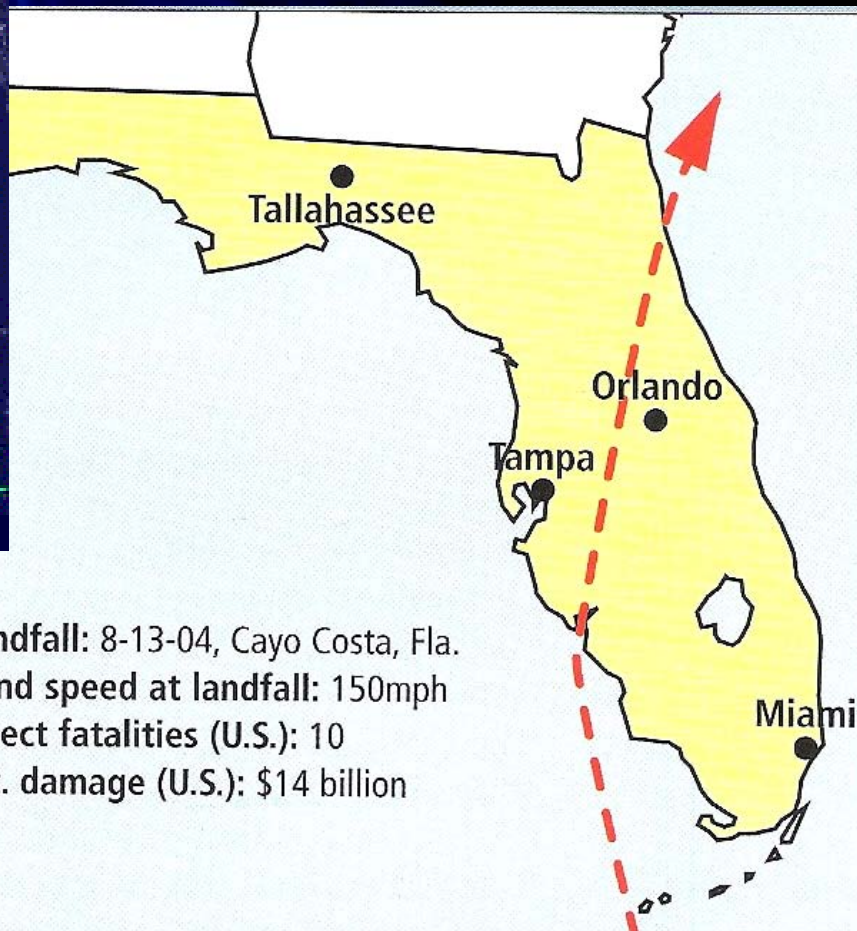
STATE and FEDERAL STAGING AREAS and STATE BASE CAMPS

Source: National Weather Service/National Hurricane Center

BRENNAN KING/Staff Artist

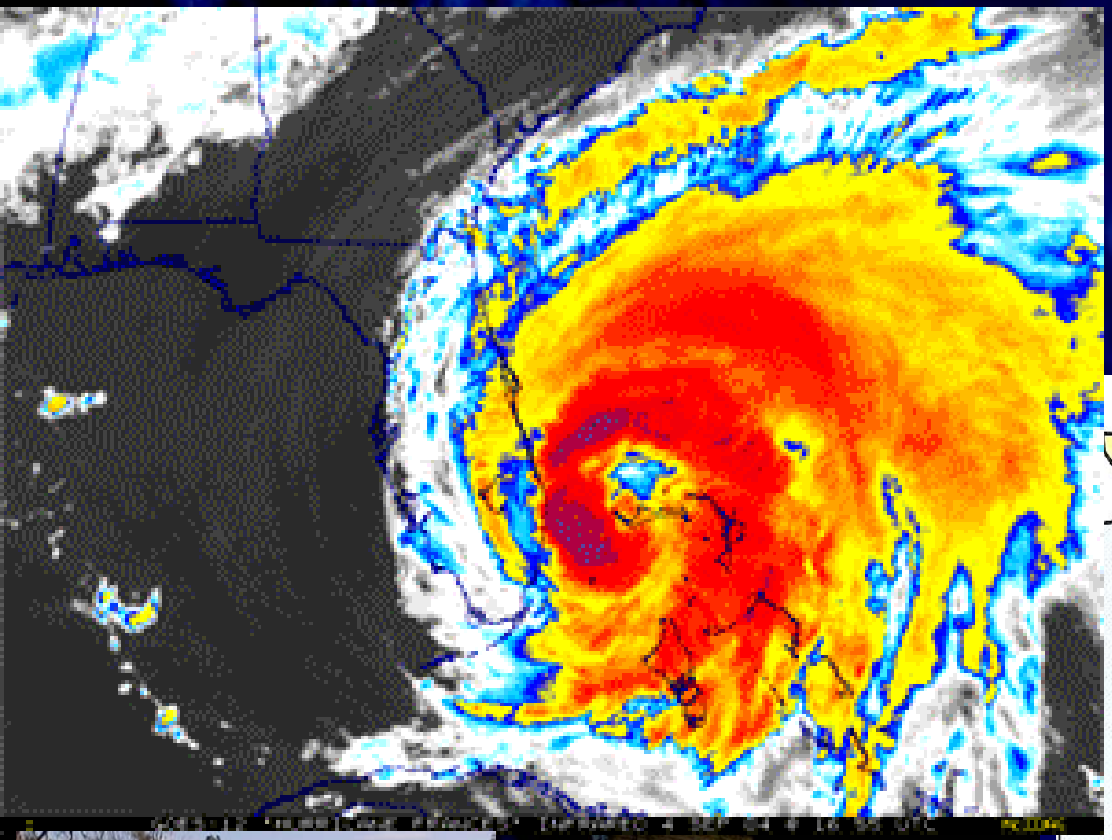
Hurricane Charley

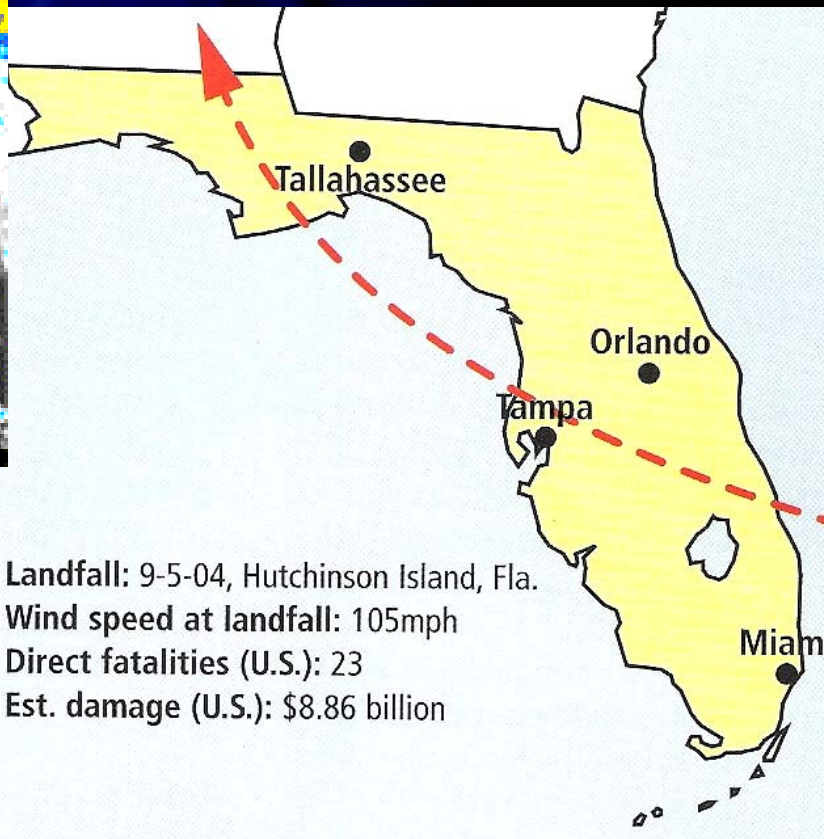




Landfall: 8-13-04, Cayo Costa, Fla.
Wind speed at landfall: 150mph
Direct fatalities (U.S.): 10
Est. damage (U.S.): $14 billion

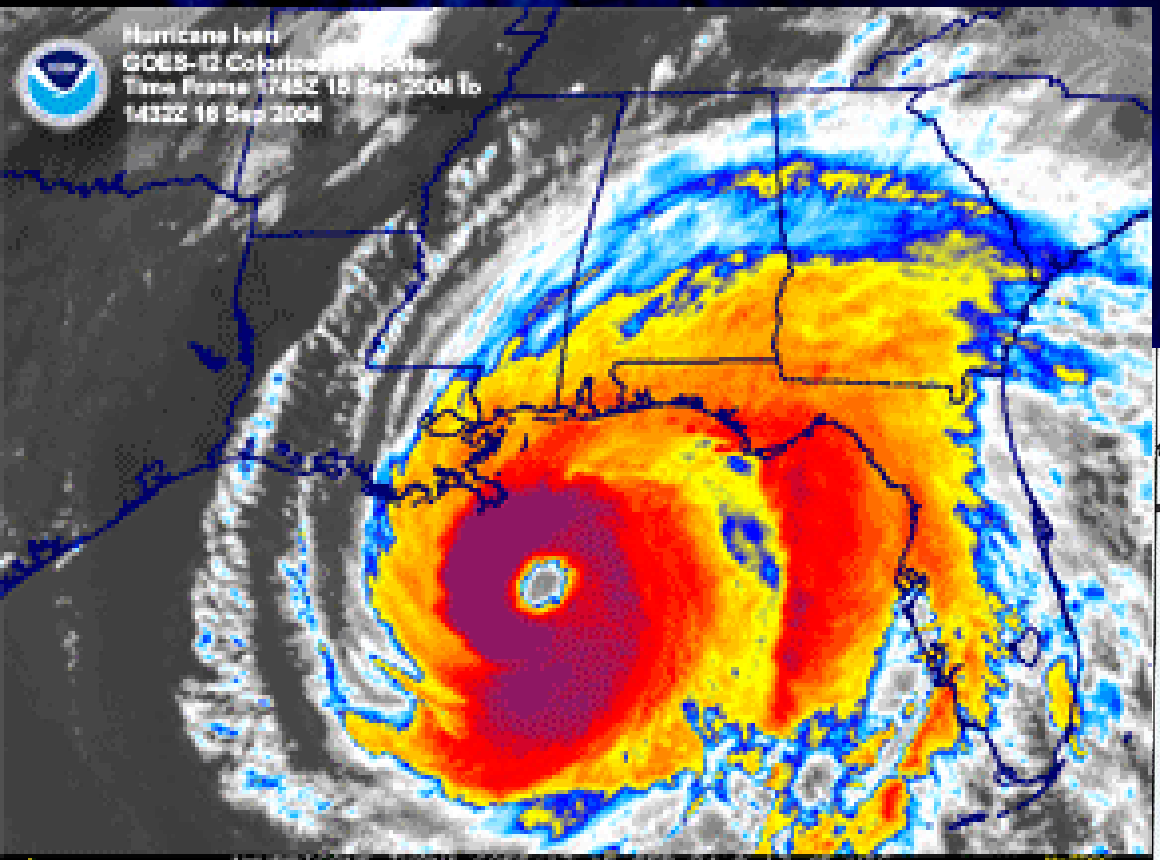
Hurricane Frances

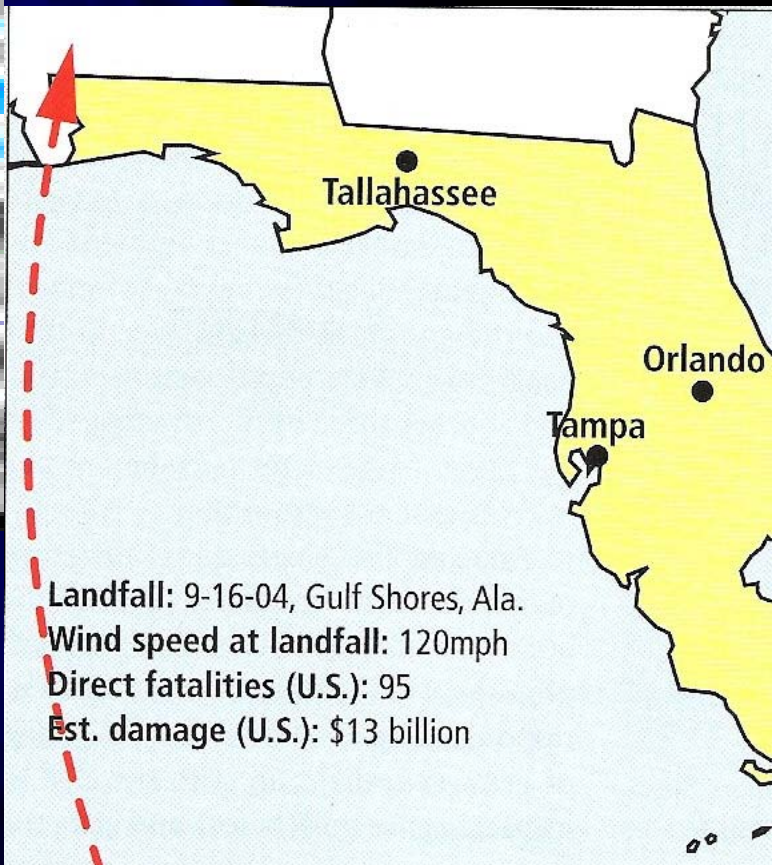




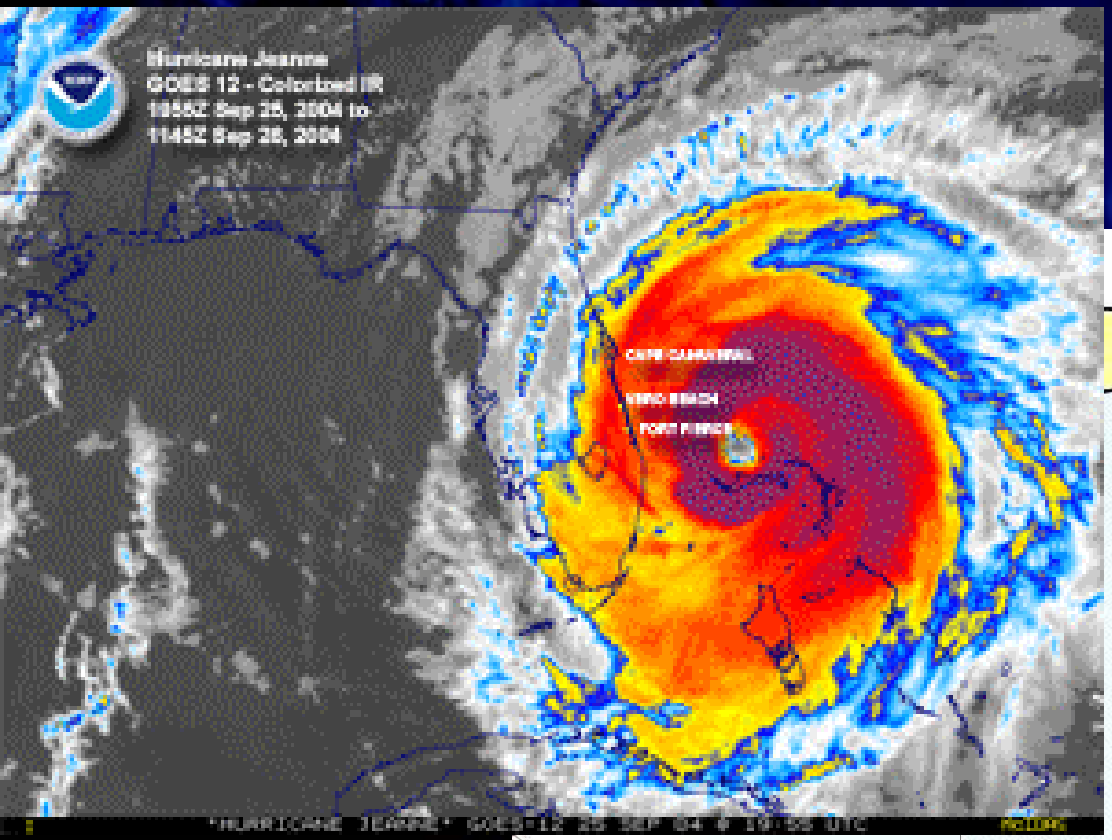
Landfall: 9-5-04, Hutchinson Island, Fla.
Wind speed at landfall: 105mph
Direct fatalities (U.S.): 23
Est. damage (U.S.): $8.86 billion

Hurricane Ivan





Hurricane Jeanne



Landfall: 9-25-04, South Hutchinson Island, Fla.
Wind speed at landfall: 105mph
Direct fatalities (U.S.): 12
Est. damage (U.S.): $6.5 billion

Source: Natl. Oceanic and Atmospheric Admin.

Florida Effects

- 9.6 Million People Evacuated
- 368,000 Persons Sheltered
- 117 Confirmed Fatalities
- 8.5 Million People Without Power
- 3.4 Million People Under “Boil Water” Orders
- 37+ Million Cubic Yards Of Debris
- 90+ Days of State EOC Level 1 Activation

Critical Facilities Destroyed

- 13 Hospitals
- 2 Mental Health Facilities
- 3 Nursing Homes
- 16 Fire Stations
- 5 Law Enforcement Facilities
- 57 Schools
- 3 Non-Public Shelters
- 2 County EOC's
- 1 Town Hall
- Communications
  - Telephone Fiber Optic Facilities
  - Cellular Towers
  - Radio Stations

2004 State Logistics Operations

Largest U.S. Civilian Logistics Operation Prior to Katrina

- **9 State Logistics Staging Areas**
  - Charlotte County (Regional Airport)
  - Lakeland (Regional Airport)
  - Palm Beach (Fairgrounds)
  - Orlando (Executive Airport)
  - Ocala (K-Mart Regional Distribution Center)
  - Tallahassee (Fairgrounds)
  - Eglin AFB (Duke Field)
  - Pensacola (Saufley Field)
  - Pensacola Air Operations (Regional Airport)
- **1 Primary State Mobilization Area (Lakeland)**
  - Primary State Receiving and Re-Distribution Center
  - Primary Air Operations Base
- **6 Base Camp Operations**
- **56 Cooling Stations**
- **Support to the elections in Charley Impact Counties**

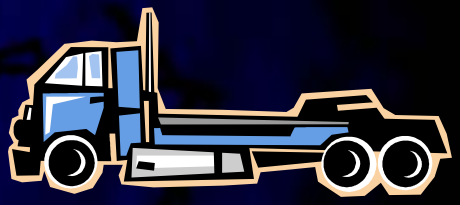
2004 Direct Public Distribution of Commodities

- **4,715 Tractor Trailer Loads of resources directly distributed to the general public**
  - 2,048 Trailers of Bottled Water
    - 9.6 Million Gallons
  - 1,786 Trailers of Bagged Ice
    - 78.5 Million Pounds
  - 614 Trailers of M.R.E.'s
    - 14,000,000 Individual Meals
  - 267 Trailers of Tarps
    - 561,000 Units

** Does NOT include shipments made directly by voluntary agencies within their own systems*

26,847 Tractor Trailer Shipments

- 1,088 Portable Generators Installed
  - 25 KW – 3.2 GW
- 46 Portable Pumps
  - 4” - 12” Diesel Self Contained
- 26 Portable HVAC Units Installed
- 327 Forklifts
  - Conventional and Extended Reach
- 672 Pallet Jacks
- 189 Portable Light Towers
- 848,000 Gallons of Bulk Fuels
- Route Deliveries
  - County Distribution Sites
  - Local Staging Areas
  - Agency Operational Sites



** Does NOT include shipments made directly by voluntary agencies within their own systems*

Daily Deliveries From State LSA's

- USDA Commodities
- Cots, Blankets, Sleeping Bags and Pillows
- Tents and Portable Sun Shelters
- Baby Food, Formula, Bottles and Diapers
- Insect Repellant and Sunscreen
- Fans, Tables and Chairs
- 128 Dry Trailers and 128 Refrigerated Trailers
  - Provided to Field Kitchens and Shelters for Mass Feeding Operations
- 12 Temporary Morgue Refrigerated Trailers
- 32 Each 6,000 Gallon Potable Water Tankers
  - Provided to Hospitals
- Bulk Fuels
  - Diesel, MOGAS, AVGAS and LPG

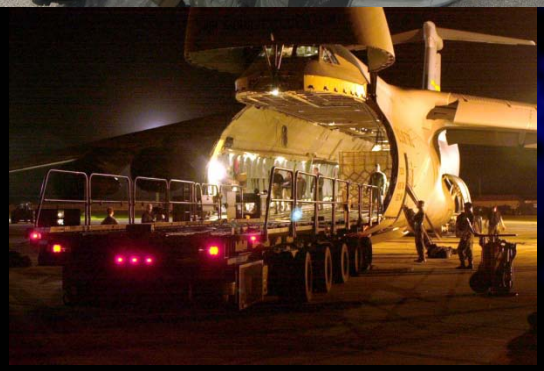
2004 Logistics Air Operations

- National Guard Assets from
  - Florida
  - Alabama
  - Texas
  - Tennessee
- DoD Air Support
- Fixed Wing
  - 4 Each C-130 Hercules
  - 6 Each C-17 Globemasters
- Rotor Wing
  - 6 Each CH-47D Chinooks
  - 20 Each UH-60 Black Hawks

2004 Logistics Air Operations

- **Air Support Missions**
  - Airlift operations were critical in the first few days following each storm in delivering essential supplies to LSA's and counties.
  - State Air Support
    - Rotor Wings Assets
    - Small Passenger Fixed Wing
    - C-130 Air Support
  - Federal Air Support
    - C-17 Air Support
    - C-130 Air Support

Sling and Internal Air Loads

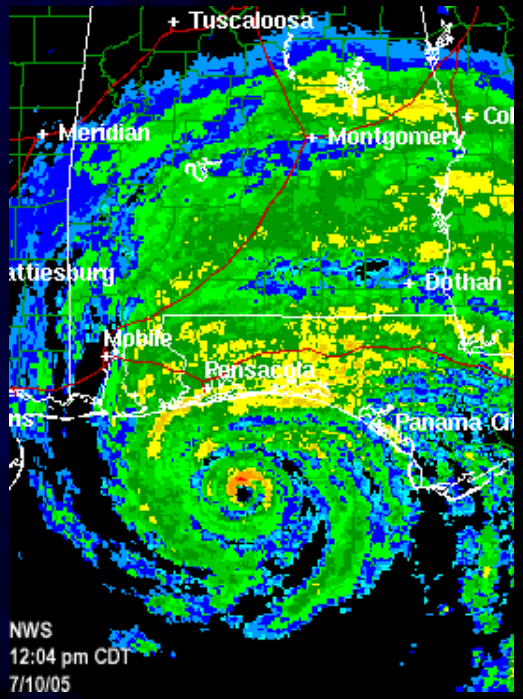


Ground Operations

- State LSA Contract Vendors
  - Pre established terms and agreement
    - Pre established equipment packages
      - Typed by incident and size
        - ❖ Type I
        - ❖ Type II
        - ❖ Type III
      - Generators, Pumps, Light Towers, Forklifts, Pallet Jacks
      - Roll Back Trucks
      - Vacuum Trucks
      - Electricians, Mechanics, Support Packages
  - Multi-Modal Transportation Services
      - Tractors, Trailers
        - ❖ Dry and Refrigerated
      - Straight Short Haul Trucks
      - Water Tankers (4,000 and 6,500 gallon)
      - Roll Back Trucks

Ground Operations

2005
Unified Logistics Section
HURRICANE DENNIS



Mobilization Of Resources

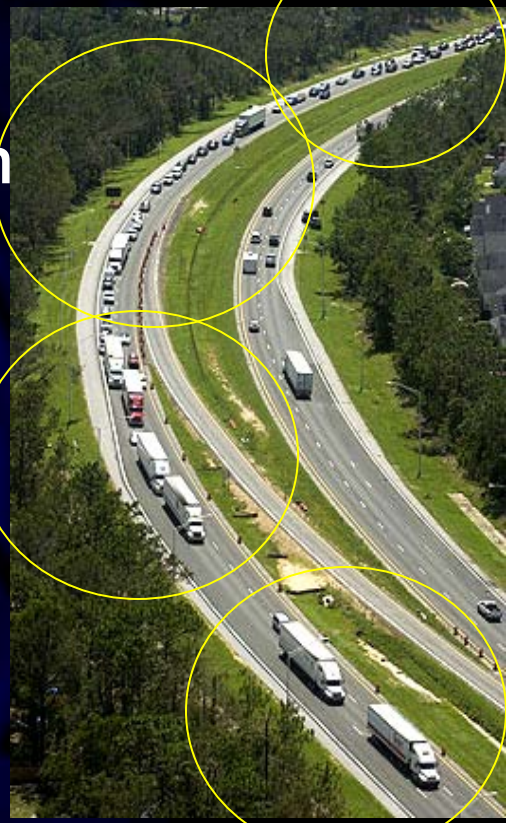
- Resources ordered on Friday, July 8th based on a Category 4 Hurricane Forecast Model
- Water and Ice (ESF-11, DOACS)
  - 350 Trucks of Water from vendor
  - 300 Trucks of Ice from vendor
  - Transferred 21 trucks of Ice from Bartow Warehouse (last year's stock)

- Generators, pumps, light towers, forklifts, pallet jacks, electricians, mechanics, refueling trucks. (FDEM)
  - 130 Generators (25 kW to 750 kW)
  - 98 Portable Light Towers (For POD's – 2 per site)
  - 80 High capacity Pumps
  - 104 Forklifts (Most for POD's)
  - 115 Pallet Jacks (Most for POD's)

- State Logistics Staging Area Transportation Assets
  - 3 refueling trucks
  - 15 Roll-back Trucks for spot delivering equipment
  - 15 Semi Trucks with various trailer for local movement (In addition to water, ice and other trucks delivering supplies)

Mobilization Of Resources

- Established State Mobilization Area at the State Farmers Market in White Springs on Saturday, July 9th
- Activated the Logistics Movement Coordination Center
  - Deployed 195 trucks with FHP escort, in 50 truck convoys, of water, ice, forklift resources at 1:00 AM on Sunday, July 10th to County Points of Distribution.
- County Points of Distribution
  - FL Department Of Military Affairs personnel (20 per site) arrived on site within 12-hours after landfall
  - Material Handling Equipment and resources arrive around 14-hours after landfall
  - Water and Ice were being distributed at most sites at 20-hours after landfall, and at all sites within 28 hours.



Summary of Distribution

- Water = 165 Trucks or 783,750 Gallons
- ICE = 107 Trucks or 535,000 Bags or 4,280,000 Pounds
- MRE's = 10 trucks or 217,440 meals
- Tarps = 12 trucks or 40,188 tarps
- Rolled Roofing Materials = 5 trucks
- Furring strips = 12 Bundles, and 4 pallets of roofing nails to support Voluntary Agency
- Generators = 30 Installed
    - Back up generators were installed at all Special Needs Shelters requesting assistance
  - **Escambia County = 5 Installed**
  - **Santa Rosa County = 21 Installed**
  - **Okaloosa County = 2 Installed**
  - **Calhoun County = 1 Installed**
  - **Bay County = 1 Installed**
- Forklifts and pallet jacks = 98
- 4000 and 6000 watt light towers = 98
- Pumps – 2 High capacity 10" Mud Pumps

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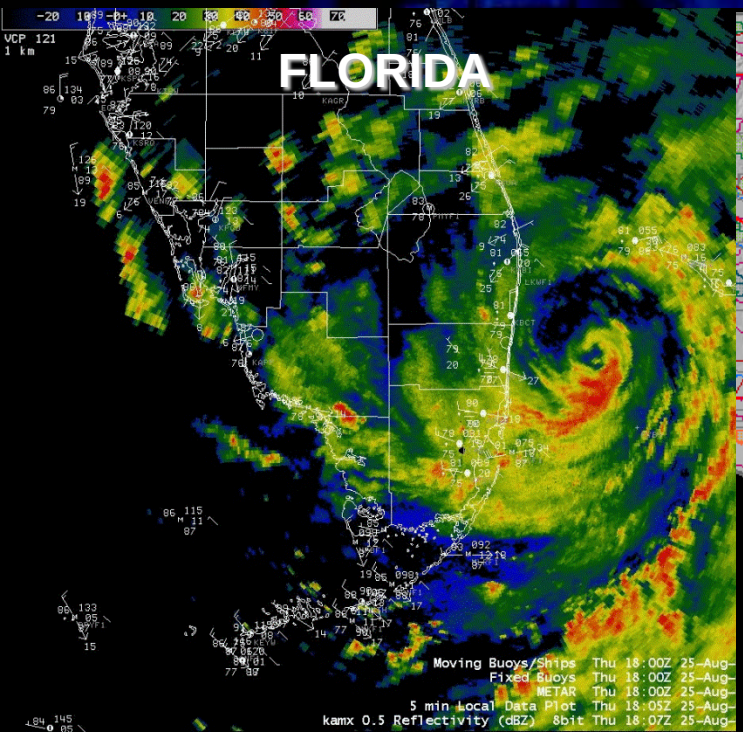
HURRICANE KATRINA



BASE REFLECTIVITY
KLIX - NEW ORLEANS, LA
08/29/2005 00:02:28 GMT
LAT: 30/20/13 N
LON: 89/49/30 W
ELEV: 138.0 FT
MODE/VCP: A / 11

ELEV ANGLE: 0.50 °
MAX: 56 dBZ
RANGE 248 NM

Legend: (Category) dBZ

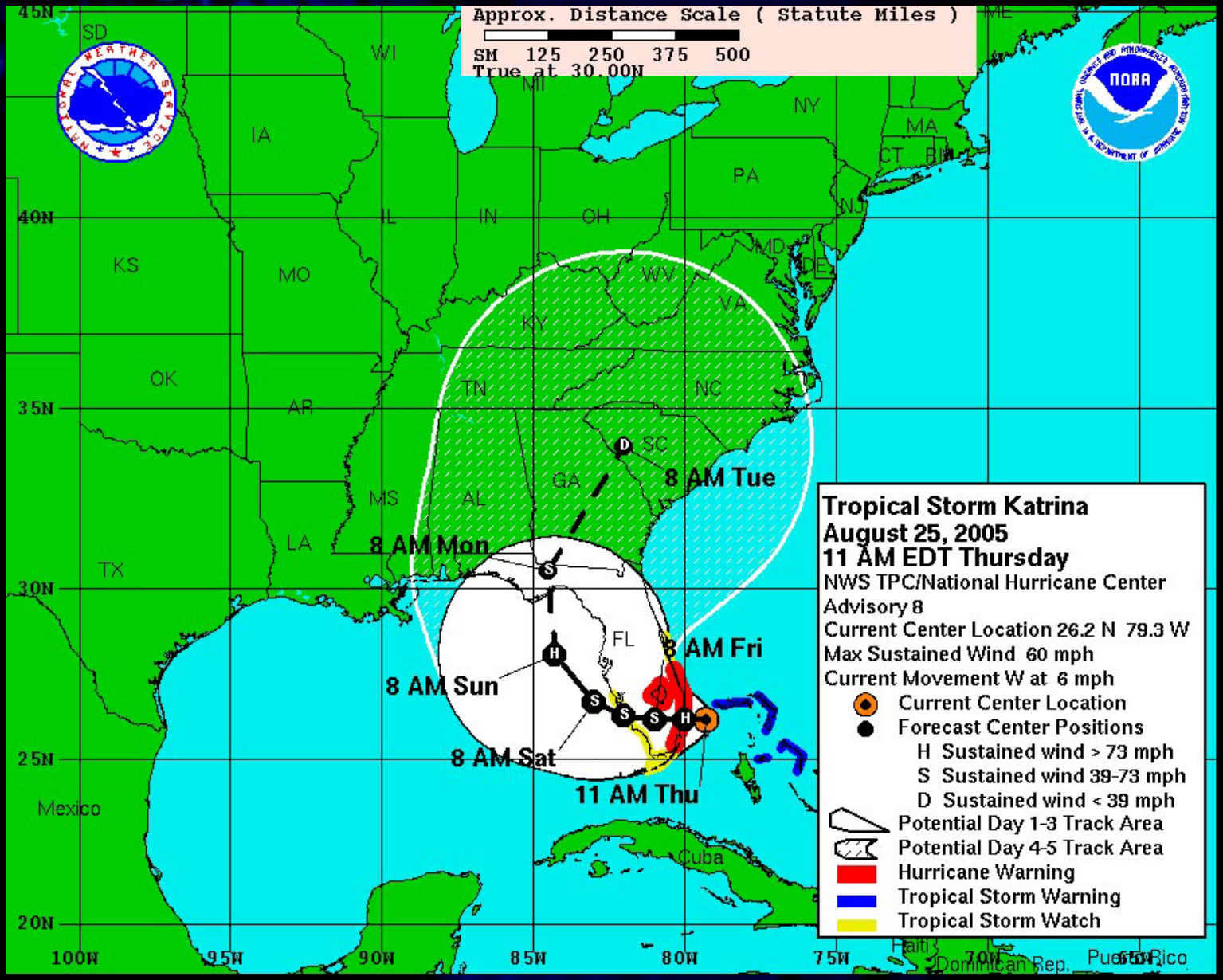
(15) 75
(14) 70
(13) 65
(12) 60
(11) 55
(10) 50
(9) 45
(8) 40
(7) 35
(6) 30
(5) 25
(4) 20
(3) 15
(2) 10
(1) 5

Unified Logistics Section

Florida In-State Operations

- State Mobilization Area at West Palm Beach Fairgrounds
  - Deployed a Type I LSA Package
    - Logistics Management and Support Team
      - FL DoF
      - FLNG
    - 45 - Generators
    - 35 - 4000 watt light tower sets
    - 98 – Forklifts
    - 120 – Pallet Jacks
    - 12 – Pumps
    - 5 – Field HVAC Units
  - Commodities
    - Water - 100 Trucks
    - Ice – 100 Trucks
  - State Mobile Command Vehicle
  - Logistics Support Units
  - 25 Truck Shuttle Fleet

Almost A Double Strike!



TASK FORCE FLORIDA
STATE EMERGENCY
FLORIDA
SERT
RESPONSE TEAM
UNIFIED INCIDENT MANAGEMENT TEAM

Unified Logistics Section

Joint Task Force Florida – EMAC to Mississippi

- Established a Unified Logistics Staging Area at Stennis NASA Facility
  - State LSA Management Team
  - Coordinated movement orders
    - Water = 964 Trucks (768 Florida purchased trucks)
    - Ice = 940 Trucks (457 Florida purchased trucks)
    - MRE's = 114 Trucks (6 Florida trucks)
    - Medical Supplies in coordination with ESF-8
  - Purchased on behalf of MS and managed
    - Shelf Stable Meals = 210,000 (7 Trucks)
    - Quick Lime = 113 tons (6 Trucks)
    - Bleach (Sodium Hypochlorite) = 6 Trucks
    - Blankets = 24,000 units
    - Administrative supplies for affected counties
    - Essential tools and equipment for affected counties
    - Computer network lease for Joint Task Force operations center at Stennis

Unified Logistics Section

Joint Task Force Florida – EMAC to Mississippi

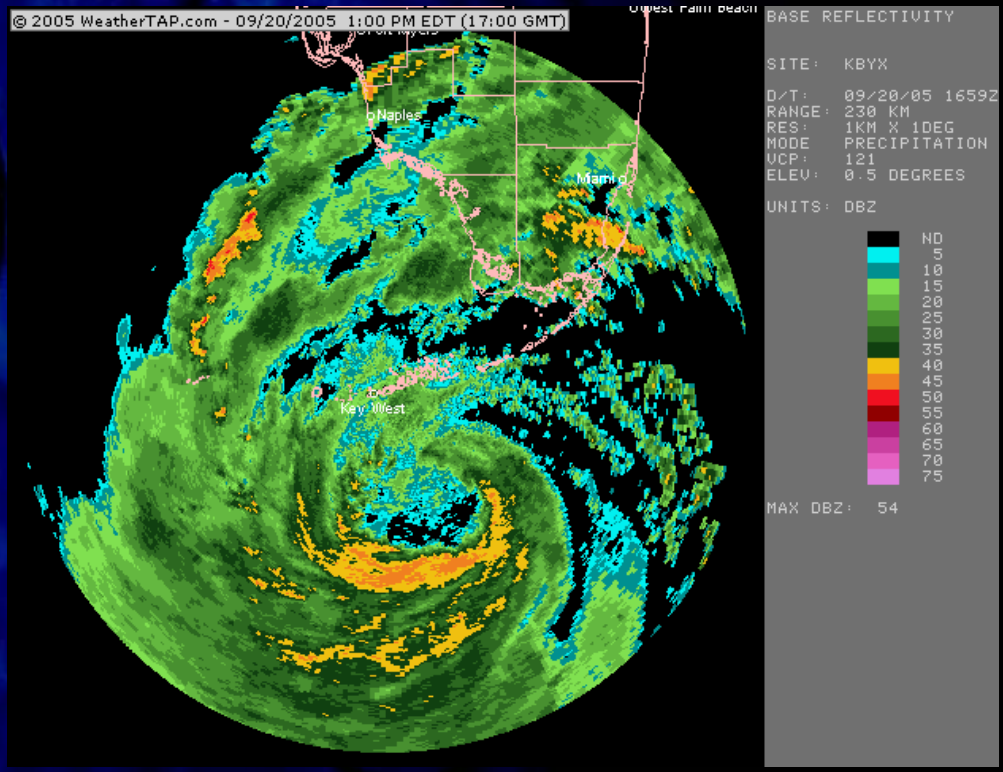
- Deployed and managed
  - Type I, 1000+ person Base Camp at Stennis NASA for emergency workers
  - Type III, 500 person Life Support Package (Catering and showers) for USaR Teams
  - Logistics Movement Coordination Center with LEO escorts
  - Deployed a Type I LSA Package
    - Logistics Management and Support Team
    - 97 - Generators
    - 93 - 4000 watt light tower sets
    - 154 – Forklifts
    - 125 – Pallet Jacks
    - 25 – Pumps
    - 5 – Field HVAC Units

Unified Logistics Section

Joint Task Force Florida – EMAC to Mississippi

- Deployed and managed continued
  - Vehicles and trailers
    - State Mobile Command Vehicle
    - Logistics Support Units
    - 25 Truck Shuttle Fleet at LSA
  - Communications and data
    - 5 FDEM Owned satellite data systems
    - 6 leased satellite data systems
    - 4 Emergency Deployable, Interoperable Communications Systems (EDICS)
    - 13 Satellite Radio/Telephone systems

2005
Unified Logistics Section
HURRICANE RITA



Unified Logistics Section

Florida Operations

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    - 120 – Pallet Jacks
    - 12 – Pumps
    - 5 – Field HVAC Units
  - Commodities
    - Water - 50 Trucks
    - Ice – 50 Trucks
    - 60,000 Shelf Stable Meals
  - State Mobile Command Vehicle
  - Logistics Support Units
  - 25 Truck Shuttle Fleet

Unified Logistics Section

Florida Operations

Established an extensive Movement Coordination Center Plan – *Although Never Executed*

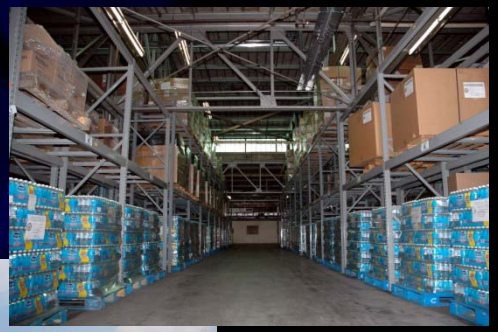
- **AVIATION AIR BRIDGE**
  - Homestead ARB, Marathon Airport and NAS Key West
  - 36 Rotor Wing
    - 6 CH-47's
    - 30 UH-60's
  - 6 Fixed Wing
    - 4 C5A Starlifters
    - 2 C-130's
- **SEA LIFT**
  - Port of Miami, Marathon Airport and NAS Key West
  - 2 Landing Craft Air Cushion Vessels (LCAC)
  - Helicopter Carrier "USS Bataan" LHD-5

Unified Logistics Section

Florida Operations

- State Logistics Staging Areas at Homestead ARB and Marathon Airport
  - Never fully activated due to minimal impact on the Keys
  - Did stage resources at marathon Airport in anticipation of Keys requirements

- **Ground Fleet**
  - Escorted convoys from LSA to Card Sound Road, to Marathon Airport to Key West



2005
Unified Logistics Section
HURRICANE WILMA

Hurricane Wilma

- 96 County Points of Distribution (POD) Across 13 Counties
- Water –
  $1.51* per gallon = $7,172.00* per truck + Transport
  - 1,701 Truck Loads = $12,199,572.00
  - 8,079,750 Gallons
- Food –
  - 556 Truck Loads =$ 3,367,980.00
  - 11,676 Shelf Stable Meals
- Ice –
  $ .20* per pound = $8,000.00* per truck + Transport
  - 1,398 Truck Loads = $11,184,000.00
  - 55,920,000 Pounds (27,960 Tons)

*** = Prices listed are average and have a wide range based on sub-contractor and point of departure**

Hurricane Wilma

- Tarps -
  - 89 Truck Loads = $7,073,260.00
  - 311,500 Individual Self Help Tarps
- **TOTAL: 3,744 Trucks of Commodities**
- **Commodities Costs: $33,824,812.00**
- **Shipping Costs: $ 5,241,600.00 +**
  detention time of about $ 8,690,000.00
- **TOTAL COSTS: $47,756,412.00**
- **Estimated Population Served: 4,863,633**
- **Total Trucking of Resources:**
  - 5,018 in the first three weeks.

Hurricane Wilma

- Critical Resources *(partial listing)*
  - Prime Power Generators 118
  - Flood Pumps 19
  - Fork-lifts 158
  - Light Plants 123
  - Pallet Jacks 180
  - HVAC Unit 3
  - Cranes 3
  - Fuel Trucks 6
  - Personnel
    - Electricians, fork-lift operators, engineers, management staff
- Costs for first four weeks: $6,630,433.36

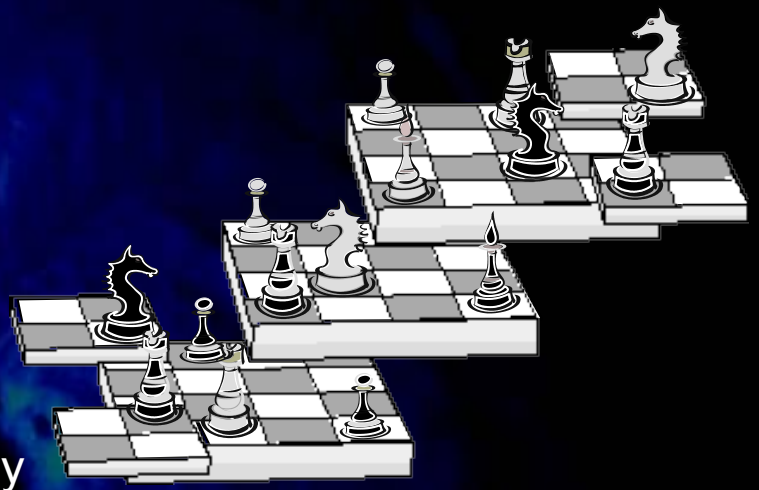
MODULE 2

Strategic Logistics Planning

Supply Chain Management, Acquisition, Staging and Distribution of Critical Resources and Commodities Following an Emergency Event

So You Want To Be A Logistician?

- **Management of Resources is a 3-Dimensional Chess Match**
- **Mission Challenges**
  - Supply Chain Management
    - Forecast Modeling
    - Pre event contracts
    - Vendor Managed Inventory
    - Developing the “Delta”
    - Working with FEMA and Federal Family
  - Field Operations
    - State Logistics Response Center Operations
    - State Logistics Staging Areas
    - Support Staffing
    - Activation of Contracts
    - State Resource Management Network
  - Sustainment & Maintenance of Operations
    - Fuels
    - Maintenance of equipment
    - Sustainment of personnel
    - Federal administrative and contract requirements



Logistics Challenges

- **Resources Defined**
  - People
  - Places
  - Equipment
  - Supplies
  - Services
- **Public Expectations**
  - Real needs
  - Perceived needs
  - Entitlement mentality
  - Previous Disasters
  - "Katrina Syndrome"

- **Resource Management**
  - Knowledge of the Supply Chain
    - Supply may not met demand
    - Transportation
    - Personnel Shortages
    - Fuel Shortages
  - Based on the local level of preparedness
    - Must be based on sound planning
    - Factor in "Perceived Needs"
    - Retail stores
      - Level of Preparedness
      - Many will reopen in 24-48 hours
    - Focus on underserved areas
  - Lack of local preparedness
    - General Public
    - Counties

Logistics Planning

- **State and Federal Logistics Planning**
  - Single events
    - Typical Category 1-3 Hurricane
    - Regional Flooding
    - Regional Tornados
    - Region Wide Wildfires
    - Domestic Terrorism Events
    - Mass Migrations
  - Catastrophic Events
    - Category 5 Hurricane on major city (Miami, Tampa)
    - Statewide Drought
    - New Madrid 7-State Earthquake
- **Current Activities**
  - FDEM has collaborated with FEMA and the USACoE to unify plans.
  - FDEM conducted a 1-week summit to consolidate all state agency support plans into one true State Logistics PURPLE Plan that incorporates all hazards and support agencies.
  - We have been continually meeting with FEMA and USACoE HQ to address issues.

Resource Management

Resources

- Resources are:
  - People
    - Individuals
    - Teams / Crews
  - Places
    - Mobilization Areas / Staging Areas
    - Warehouses
  - Things
    - Generators, Pumps, MHE, Trucks, Aircraft, Tankers
    - Food, Water, Ice
  - Services
    - Transportation
    - Repair Services
    - Base Camp Services
    - Catering Services
    - Maintenance. Electrical and Engineering Services

What Do We Need?

- **Counties need to determine their potential resource requirements based on:**
  - Hazard Assessment
  - Previous Events and Operations
  - Demographic Profiles
  - Agreed upon models
- **Developing Your Delta**
  - Determine your total resource requirements
  - Determine all local resources available
    - Organic
    - Contracts
  - The difference between the two, is your Delta
  - The Delta drives the resource requests to the SEOC.

How Do We Get It?

- Actions -
  - Once your Delta has been determined, municipalities and counties need to develop local contracts, and agreements for resources.
  - Counties need to expand beyond pre-event debris contracts to cover expendable resources, MHE, vehicles, generators, pumps, management and staffing services.
- Develop a local procedure for emergency purchasing if one does not already exist
- Define who will make up your purchasing team.
  - It take more than one person!

How Do We Get It?

- **Review all current emergency contracts**
  - Make sure both you and the contractor understand the terms and conditions
    - Capability
    - Capacity
    - Cost centers
    - Assets alone or turn-key
- **Determine your shortfalls in resources and vendors that will be able to provide them**
- **Let ITB's or RFP's contingency contracts for equipment and services.**
  - Stay away from paying any sort of retainer
- **Revisit all agreements and contracts annually for required adjustments.**

Logistics Philosophy

- **Changing Outcomes** **"It's What We Do!"**
  - Focus on the outcome you want
  - Plan the mission to achieve that outcome
  - Execute the Plan
  - Monitor the outcome and adjust
- **Push versus Pull Logistics "It's How We Work!"**
  - It's better to have too much than too little
  - Push resources into the affected areas. Do not wait for requests. Communications are down, responders impacted
  - A quick overwhelming response in the initial phase can be better than a methodical response.
    - *Does not release us from planning!*
  - If you wait until you have all the facts, it becomes harder to change the outcome

Logistics Philosophy

- **Maintain effective communications**
  - Share information vertically and horizontally in your organization and with other organizations
- **Plan ahead to affect change**
  - Anticipate actions, resources and staffing requirements 96+ hours out. Plans must support changing the outcome of a situation.
- **Maintain accountability at all levels**
  - Resources move around. Track activities and asset movement.
- **Local self-sufficiency**
  - Local communities must strive to be self-supporting for at least 72-96 hours
  - Develop local receiving and self-sufficiency plans, vendors and local resources
  - Assets take time to arrive in the beginning of an operation due to the “Pipeline Effect”.

Adjusting Resources

- **Post event actions are adjusted once further intelligence has been obtained**
  - Actual resource requirements
  - Burn Rates (how much of an item is actually being consumed) based on actual distribution through put
- **Par levels are then set for each resource to insure that critical resource levels do not fall below 1½ days of inventory**
- **Resource ordering is then based on these projections**
  - Changing Outcomes!
  - Power restoration
  - Degree of damage and residential occupancy
  - Social Services becoming available
    - Financial assistance
    - Resource Support
    - Long term recovery plan

CRITICAL PATH METHOD, SUPPLY CHAINS

and

Time Phased, Force and Deployment Data List Development

(TPFDDL)

CRITICAL PATH METHOD

- The essential technique for using CPM is to construct a model of the project that includes the following:
  - A list of all activities required to complete the project (also known as Work breakdown structure OR Time Phased Force Deployment Data List - TPFDDL)
  - The time (duration) that each activity will take to completion, and
  - The dependencies between the activities.
- Using these values, CPM calculates the longest path of planned activities to the end of the project, and the earliest and latest that each activity can start and finish without making the project longer.
- This process determines which activities are "critical" *(i.e., on the longest path)* and which have "total float" *(i.e., can be delayed without making the project longer).*

CRITICAL PATH METHOD

- In project management, a critical path is the sequence of project network activities which add up to the longest overall duration.
  - This determines the shortest time possible to complete the project.
  - Any delay of an activity on the critical path directly impacts the planned project completion date *(i.e. there is no float on the critical path).*
  - A project can have several, parallel, near critical paths.
    - e.g. Arranging transportation for multiple products and personnel
  - An additional parallel path through the network with the total durations shorter than the critical path is called a sub-critical path.
    - e.g. Making sure transportation arrives before product can be loaded
- These results allow managers to prioritize activities for the effective management of project completion, and to shorten the planned critical path of a project by pruning critical path activities, by "fast tracking" *(i.e., performing more activities in parallel),* and/or by "crashing the critical path" *(i.e., shortening the durations of critical path activities by adding resources).*

CRITICAL PATH METHOD

- Originally, the critical path method considered only logical dependencies between terminal elements.
- Since then, it has been expanded to allow for the inclusion of resources related to each activity, through processes called "activity-based resource assignments" and "resource leveling".
- A resource-leveled schedule may include delays due to resource bottlenecks (i.e., unavailability of a resource at the required time), and may cause a previously shorter path to become the longest or "resource critical" path.
- A related concept is called the critical chain, which attempts to protect activity and project durations from unforeseen delays due to resource constraints.

PURCHASE and DISTRIBUTE BOTTLED WATER

- **3-Day Process** *(Primarily due to load and drive time)*
  - Secure Vendor and place order, say 500 trucks
  - Vendor:
    - Vendor secures bottlers / distributors (2-30+)
  - Bottler / Distributor
    - Bottler secures bottles (materials)
      - Dependent upon bottle manufacturer
        - ❖ Bottle manufacturer dependent upon raw materials and transportation
    - Bottler secures product (materials)
      - Source on-site or off-site
    - Bottler bottles product (time)
      - Dependent upon personnel and machinery operating and maintenance
    - Bottler packages and palletizes product (time and materials)
      - Dependent upon personnel and having packaging materials on-hand
        - ❖ Dependent upon supply chain for materials

PURCHASE and DISTRIBUTE BOTTLED WATER

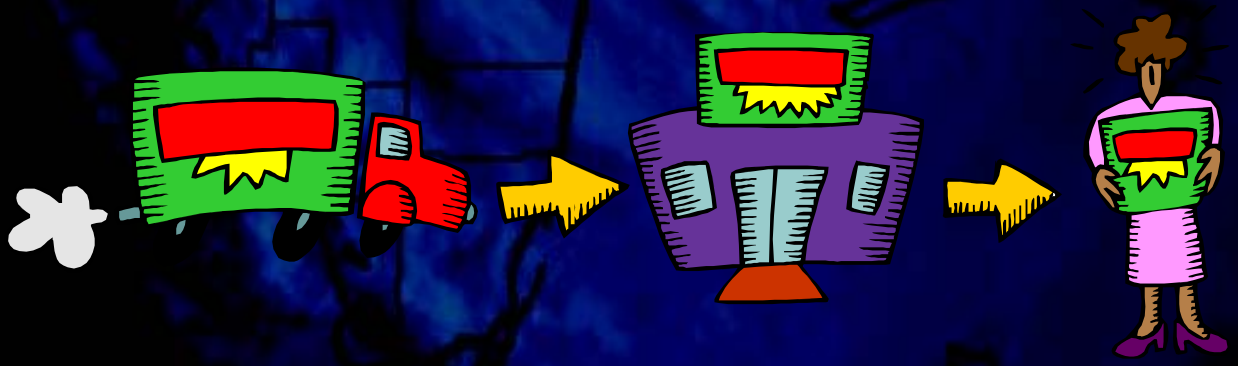
- Vendor or Distributor Secures Trucking
  - Trucker secures vehicle and trailer (materials)
    - Dependent upon available personnel, assets and maintenance
  - Trucker secures fuels (materials)
    - Dependent upon fuel sources and supply
  - Trucker drives to distributor (time)
    - Dependent upon available fuels reroute (materials)
    - Dependent upon road conditions
    - Restricted by “Hours” rules or having “Team Drivers”
  - Trucker arrives at bottler
  - Bottler loads product onto trucks
    - Dependent upon MHE, personnel and maintenance (time and materials)

PURCHASE and DISTRIBUTE BOTTLED WATER

- Trucker secures manifest
- Trucker drives to destination
  - Dependent upon available fuels reroute
  - Dependent upon road conditions
  - Restricted by “Hours” rules or having “Team Drivers”
- Driver Check-In with recipient
  - Dependent upon driver finding location correctly
- Recipient unloads product
  - Dependent upon having personnel and MHE
- Recipient distributes product
  - Dependent upon having personnel and MHE

MODULE 3

SUPPLY CHAIN MANAGEMENT



What is Supply Chain Management?

- Supply Chain Management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management activities.
- Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers.
- In essence, Supply Chain Management integrates supply and demand management within and across companies.
- More recently, the loosely coupled, self-organizing network of businesses that cooperates to provide product and service offerings has been called the Extended Enterprise.
- The following are five basic components of SCM.

#1 - Planning

- This is the strategic portion of SCM. You need a strategy for managing all the resources that go toward meeting customer demand for your product or service.
- A big piece of planning is developing a set of metrics to monitor the supply chain so that it is efficient, costs less and delivers high quality and value to customers.
- Supply Chain Modeling Software can assist in forecasting potential problems

#2 - Source

- Choose the suppliers that will deliver the goods and services you need to create your product or meet your objective.
- Develop a set of pricing, delivery and payment processes with suppliers and create metrics for monitoring and improving the relationships.
- And put together processes for managing the inventory of goods and services you receive from suppliers, including receiving shipments, verifying them, transferring them to your distribution facilities and authorizing supplier payments.

#3 - Manufacturing

- This is the manufacturing step as it pertains to our suppliers.
- Schedule the activities necessary for production, testing, packaging and preparation for delivery.
- As the most metric-intensive portion of the supply chain, measure quality levels, production output and worker productivity.

#4 - Delivery

- This is the part that many outsiders refer to as logistics, as they do not fully understand “Supply Chain Management”, and only see the transportation aspect of the process.
- Coordinate the receipt of orders from customers, develop a network of warehouses, pick carriers to get products to customers and set up an invoicing system to receive payments.

#5 – Return / Recovery

- The problem part of the supply chain.
- Create a network for receiving defective and excess products back from customers and supporting customers who have problems with delivered products.

Supply Chain Management Problems

- Supply chain management must address the following problems:
- Distribution Network Configuration:
  - Number, location and network missions of suppliers, production facilities, distribution centers, warehouses, cross-docks and customers.

Supply Chain Management Problems

- **Distribution Strategy:**
  - Including questions of operating control
    - Centralized, decentralized or shared
  - Delivery scheme
    - Direct shipment,
    - Pool point shipping (Staging Areas)
  - Cross docking
  - Closed loop shipping
    - Internal or “Shuttle Fleet”
  - Mode of transportation
    - Motor carrier
      - Including truckload
      - LTL
      - Parcel
      - Railroad
      - Intermodal, including ocean freight; airfreight);
      - Replenishment strategy (e.g., pull, push or hybrid)
      - Transportation control (e.g., owner-operated, private carrier, common carrier, contract carrier, or 3PL).

Supply Chain Management Problems

- **Information:**
  - Integration of and other processes through the supply chain to share valuable information, including demand signals, forecasts, inventory, transportation, and potential collaboration etc.
- **Inventory Management:**
  - Quantity and location of inventory including raw materials, work-in-process and finished goods.
- **Cash-Flow:**
  - Arranging the payment terms and the methodologies for exchanging funds across entities within the supply chain.
- **Supply chain execution is managing and coordinating the movement of materials, information and funds across the supply chain.**
  - The flow is bi-directional.

Activities and Functions

- Supply chain management is a cross-functional approach to managing the movement of raw materials into an organization,
  - certain aspects of the internal processing of materials into finished goods, and then the movement of finished goods out of the organization toward the end-consumer.
- As organizations strive to focus on core competencies and becoming more flexible, they have reduced their ownership of raw materials sources and distribution channels.
- These functions are increasingly being outsourced to other entities that can perform the activities better or more cost effectively.
- The effect is to increase the number of organizations involved in satisfying customer demand, while reducing management control of daily logistics operations.

Activities and Functions

- Less control and more supply chain partners led to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and improving inventory velocity.
- Several models have been proposed for understanding the activities required to manage material movements across organizational and functional boundaries. SCOR is a supply chain management model promoted by the Supply Chain Management Council. Another model is the SCM Model proposed by the Global Supply Chain Forum (GSCF).
- Supply chain activities can be grouped into strategic, tactical, and operational levels of activities.

Strategic

- Strategic network optimization, including the number, location, and size of warehouses, distribution centers and facilities.
- Strategic partnership with suppliers, distributors, and customers, creating communication channels for critical information and operational improvements such as cross docking, direct shipping, and third-party logistics.
- Product design coordination, so that new and existing products can be optimally integrated into the supply chain, load management
- Information Technology infrastructure, to support supply chain operations.
- Where-to-make and what-to-make-or-buy decisions
- Aligning overall organizational strategy with supply strategy.

Tactical

- Sourcing contracts and other purchasing decisions.
- Production decisions, including contracting, locations, scheduling, and planning process definition.
- Inventory decisions, including quantity, location, and quality of inventory.
- Transportation strategy, including frequency, routes, and contracting.
- Benchmarking of all operations against competitors and implementation of best practices throughout the enterprise.
- Milestone payments

Operational

- Daily production and distribution planning, including all nodes in the supply chain.
- Production scheduling for each manufacturing facility in the supply chain (minute by minute).
- Demand planning and forecasting, coordinating the demand forecast of all customers and sharing the forecast with all suppliers.
- Sourcing planning, including current inventory and forecast demand, in collaboration with all suppliers.

Operational

- Inbound operations, including transportation from suppliers and receiving inventory.
- Production operations, including the consumption of materials and flow of finished goods.
- Outbound operations, including all fulfillment activities and transportation to customers.
- Order promising, accounting for all constraints in the supply chain, including all suppliers, manufacturing facilities, distribution centers, and other customers.

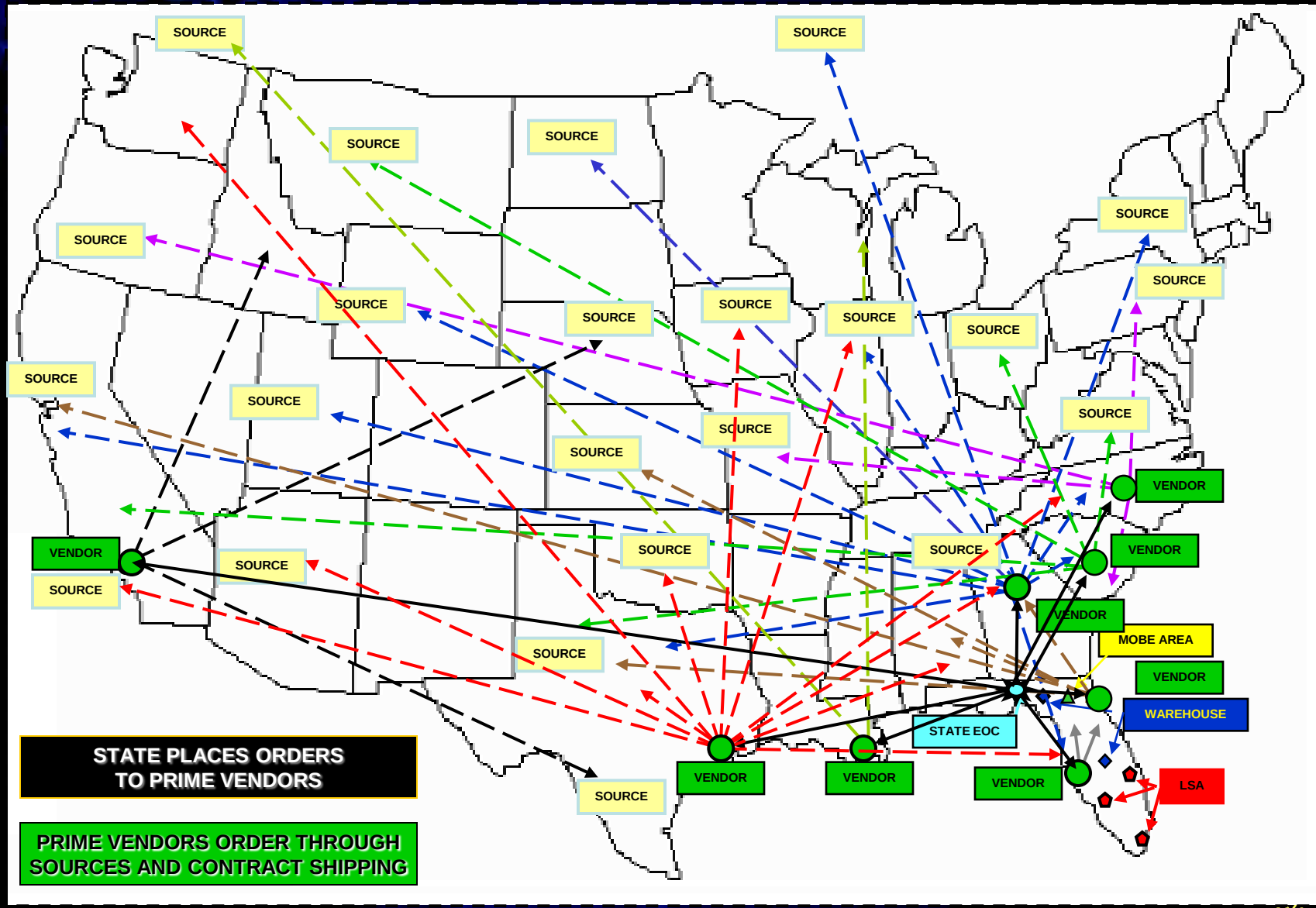
Warehouse Management System

- A warehouse management system, or a WMS, is a key part of the supply chain and primarily aims to control the movement and storage of materials within a warehouse and process the associated transactions, including shipping, receiving, put away and picking.
  - The systems also direct and optimize stock put away based on real-time information about the status of bin utilization.
- Warehouse management systems often utilize Auto ID Data Capture technology, such as barcode scanners, mobile computers, wireless LANs and potentially RFID to efficiently monitor the flow of products.
- Once data has been collected, there is either a batch synchronization with, or a real-time wireless transmission to a central database.
- The database can then provide useful reports about the status of goods in the warehouse.

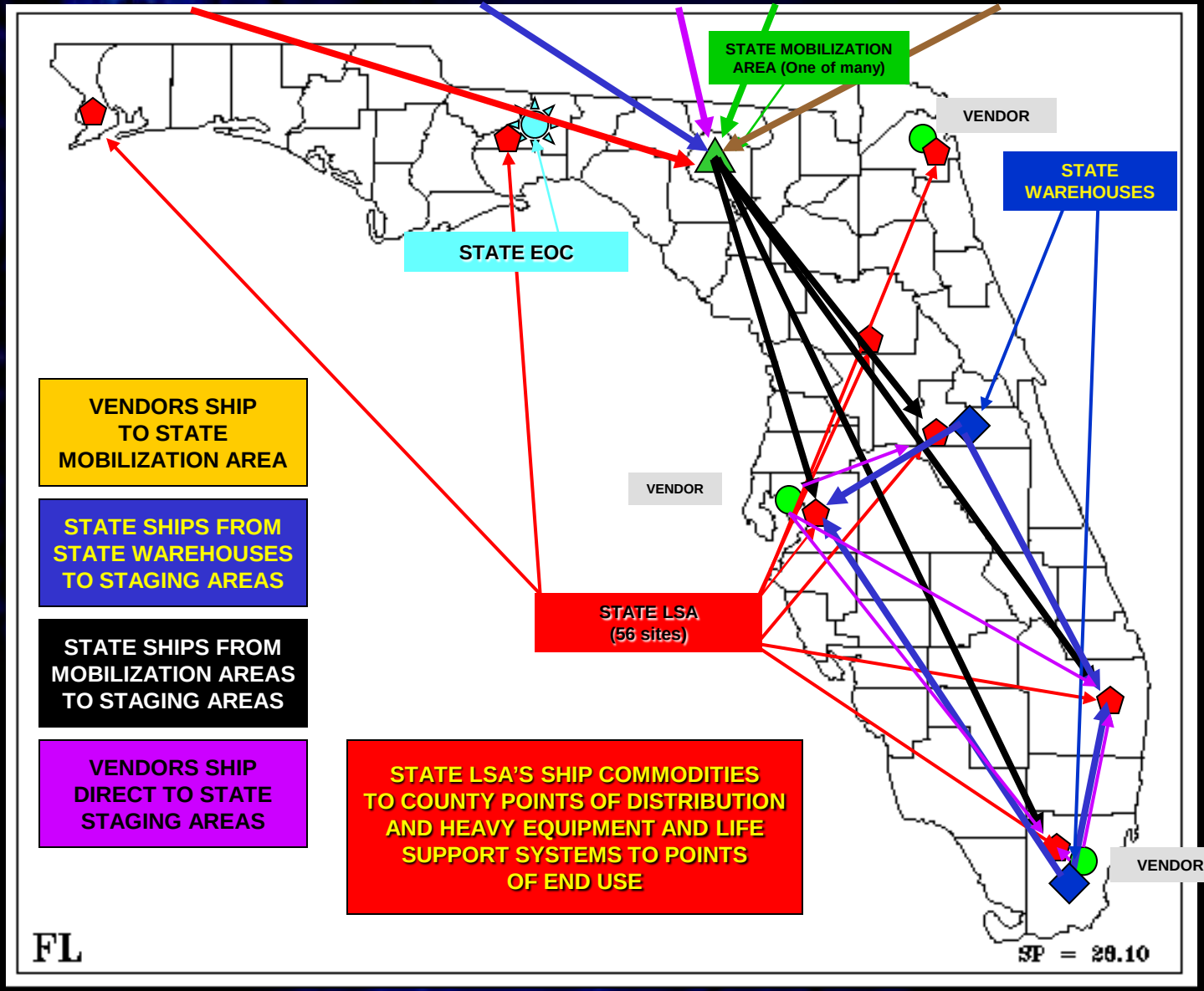
Warehouse Management System

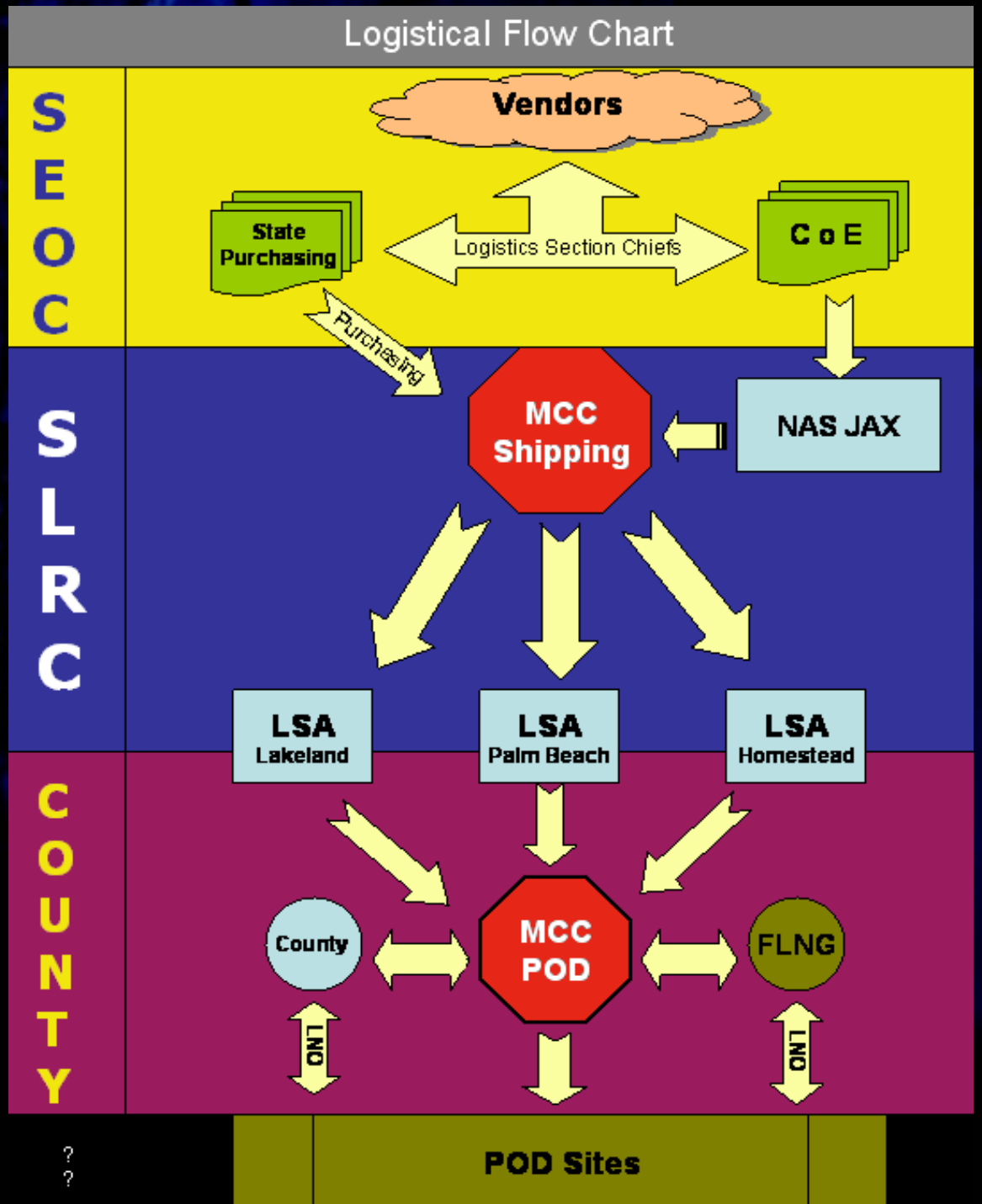
- The objective of a warehouse management system is to provide a set of computerized procedures to handle the receipt of stock and returns into a warehouse facility, model and manage the logical representation of the physical storage facilities (e.g. racking etc), manage the stock within the facility and enable a seamless link to order processing and logistics management in order to pick, pack and ship product out of the facility.
- Warehouse management systems can be stand alone systems, or modules of an ERP system or supply chain execution suite.
- The primary purpose of a WMS is to control the movement and storage of materials within a warehouse – you might even describe it as the legs at the end-of-the line which automates the store, traffic and shipping management.
- In its simplest form, the WMS can data track products during the production process and act as an interpreter and message buffer between existing ERP and WMS systems.

DISASTER SUPPLY CHAIN FLOW



DISASTER SUPPLY CHAIN FLOW




Logistical Flow Chart
SEOC
SLRC
COUNTY
Vendors
State Purchasing
Logistics Section Chiefs
C o E
Purchasing
MCC Shipping
NAS JAX
LSA Lakeland
LSA Palm Beach
LSA Homestead
County
MCC POD
FLNG
LNO
LNO
POD Sites

Time Phased Force and Deployment Data List TPFDDL

- Understanding the inter-dependencies of a supply chain –
- A Time Phased Force and Deployment Data List is a planning tool used to determine how and who will be responsible for setting in motion critical actions
- TPFDDL's should project all pre-event actions, and post event activities and resources through the first 4-7 days.
- Working backwards, determine the start time deadlines for each action, and who is responsible.
- Also determine "triggers" for each action; meaning what MUST occur PRIOR to beginning THIS action.

C:\Documents and Settings\desktop_team\Desktop\TPFDL Template.xls

STATE OF FLORIDA

State Emergency Response Team
Unified Logistics Operations
Time Phased, Force and Deployment Data Listing (TPFDDL)

Date Revised:	
By:	G Van Treese, ESF 11

FOR OFFICIAL USE ONLY

PLANNING APPLIES TO THE FOLLOWING EVENTS

DISASTERS								TERRORISM					INITIATION TIME	ACTION or RESOURCE	NIMS TYPING	PRIMARY ESF SUPPORT AGENCY	ASSET CLASS	ACTION ID	TRIGGER POINT	DTG COMPLETED
H	T	F	W	P	C	R	T	C	B	R	N	E	- / + HRS							
X		X											-80	Alert ESF 11 team members - Stand-by		ESF 11	State	DACS	Activation	
X													-72	Activate core Team members to EOC		ESF 11	State	DACS	Activation	
X		X											-72	Request food inventories from warehouses		ESF 11	1; State, vendor	DACS	Activation	
X		X											-72	Determine population affected/quantities needed (water & ice; commodities)		**ESF 5**; ESF 11	1; state,	FDEM, DACS	Activation	
X													-72	Identify pre-mobe area for delivery of water and ice		**Logistics Section**; DOF	State	FDEM, DACS	Activation	
X		X											-72	Contact vendors; determine availability of water and ice; ETAs for truckloads needed		ESF 11	1; vendors	DACS	Activation	
X													-48	GO/No Go on FPOs for water and ice.		ESF 11	1	DACS	Anticipated point of landfall	
X													-48	Prepare Field POs		ESF 11	1	DACS		
X		X											-36	Place orders-water and ice for delivery to designated pre-mobe location; establish # trucks expected per day		ESF 11	1; vendors	DACS	Anticipated point of landfall	
X		X											-36	Input food inventories into disaster inventory spreadsheet		**BFD staff**; ESF 11	1	DACS	Activation	
X		X											-36	Determine anticipated food needs; if sufficient quantities of commodities in state warehouses		**BFD staff;** ESF 11	1; state	DACS	Activation	
X		X											-24	Contact other (local) vendors; determine local availability of water and ice; maximum quantities available per day		ESF 11	1; vendors	DACS		
X													-24	Alert ESF 11 LSA team members - Stand-by; information on possible LSA location(s), if known		Logistics Section; ESF 11		DACS		
X													-24	Check/ready all LSA equipment, supplies, etc.		ESF 11		DACS		
X		X											-24	Notify SFSAs-Authorize release of USDA commodities to disaster organizations for mass/congregate feeding		ESF 11; BFD staff	1	DACS	Evacuation; shelters opening	
X		X											-24	Notify USDA SERO - releasing commodities		ESF 11; BFD staff	1	DACS	Evacuation; shelters opening	
X													-12	Identify anticipated needs for baby formula/food		**ESF 11**; DOH/WIC staff	1	DACS		
X													-12	Contact baby food & formula vendors; determine prices, etc.		ESF 11	1; vendors	DACS		
X													-12	Determine availability of water tenders; contact dairies in FL as well as vendors		ESF 11; DOF	1; state; vendors	DACS		

County Resource Exercise

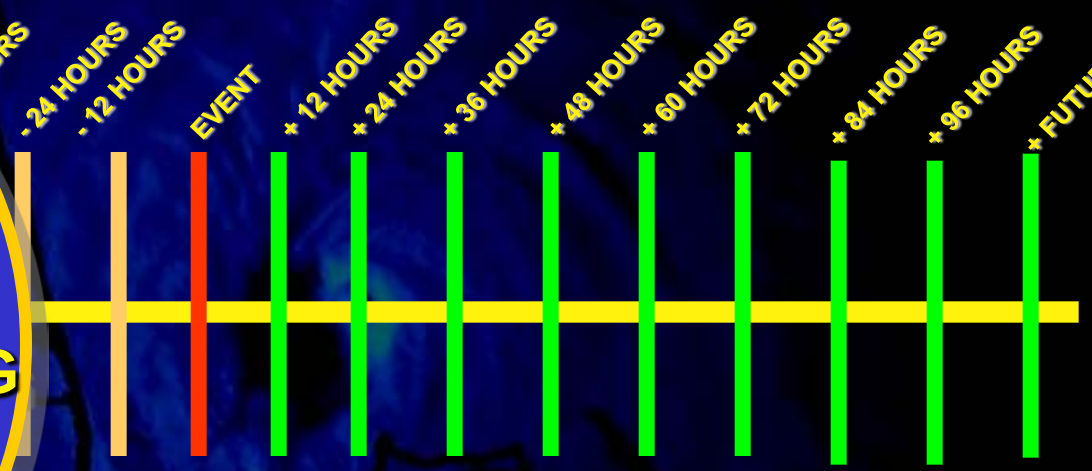
30 minutes

- **Working in your same groups, and fictitious county:**
  - Determine your potential resource requirements for a Category 3 Hurricane.
    - Mission prioritize each resource deployment using a Time Phased Force and Deployment Data List (TPFDDL)
  - Agree on how many of these resources you have available
  - Determine your Deltas in each resource category
- **Develop a Resource Management Plan for your county**
  - Develop a strategy for how you will reduce or eliminate the Delta for your county
  - Determine how these resources will be deployed to the areas requiring them, and who will be responsible
- **Select a reporter and present your findings**

Logistics Process Timeline

- 96 HOURS

NOTIFY ALL PRIME VENDORS OF IMPENDING EVENT UNDER A "WARNING ORDER"

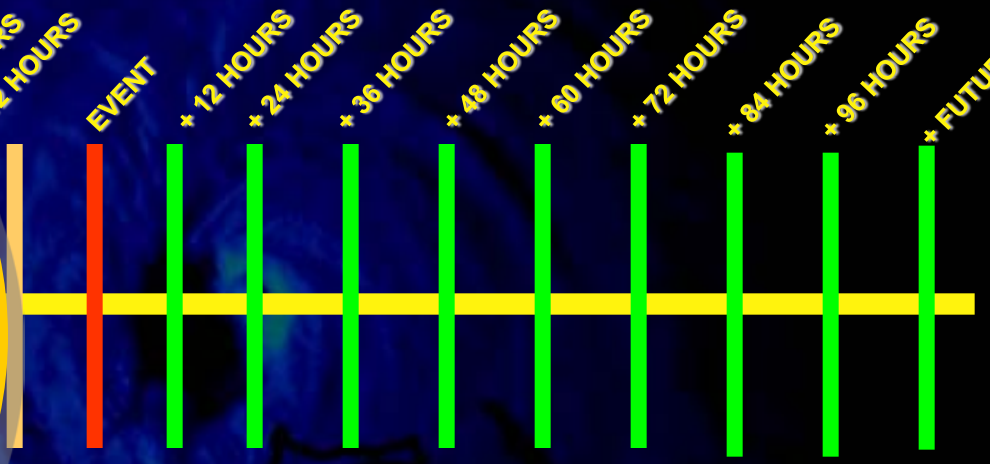


Logistics Process Timeline

- 80 HOURS

FINALIZE COMMODITY AND EQUIPMENT FORECAST MODELS.

STRUCTURE ORDERS



Logistics Process Timeline

- 72 HOURS
DEADLINE TO PLACE ORDERS WITH VENDORS

OPENING ORDER FOR HURRICANE WILMA

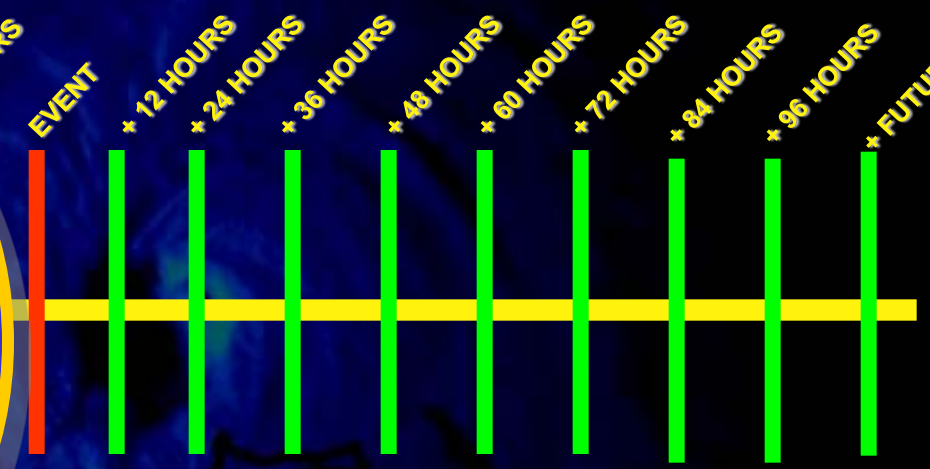
- 300 TRUCKS WATER
- 300 TRUCKS ICE
- 100 TRUCKS FOOD
- 50 TRUCKS TARPS
- 20 TRUCKS USDA COMMODITIES
- 20 TRUCKS BABY FOOD
- 10 TRUCKS DIAPERS
- 150 PORTA-POTTIES
- 100 DUMPSTERS

- 68 PRIME POWER GENERATORS
- 12 FLOOD PUMPS
- 63 WAREHOUSE FORKLIFTS
- 20 ALL-TERRAIN FORKLIFTS
- 63 FIELD LIGHT TOWERS
- 2 CRANES
- 5 HVAC SYSTEMS
- 12 FUEL TRUCKS

Logistics Process Timeline

- 60 HOURS

ACTIVATION OF LSA AND POD PERSONNEL. ACTIVATION OF MULTI-MODAL TRANSPORTATION



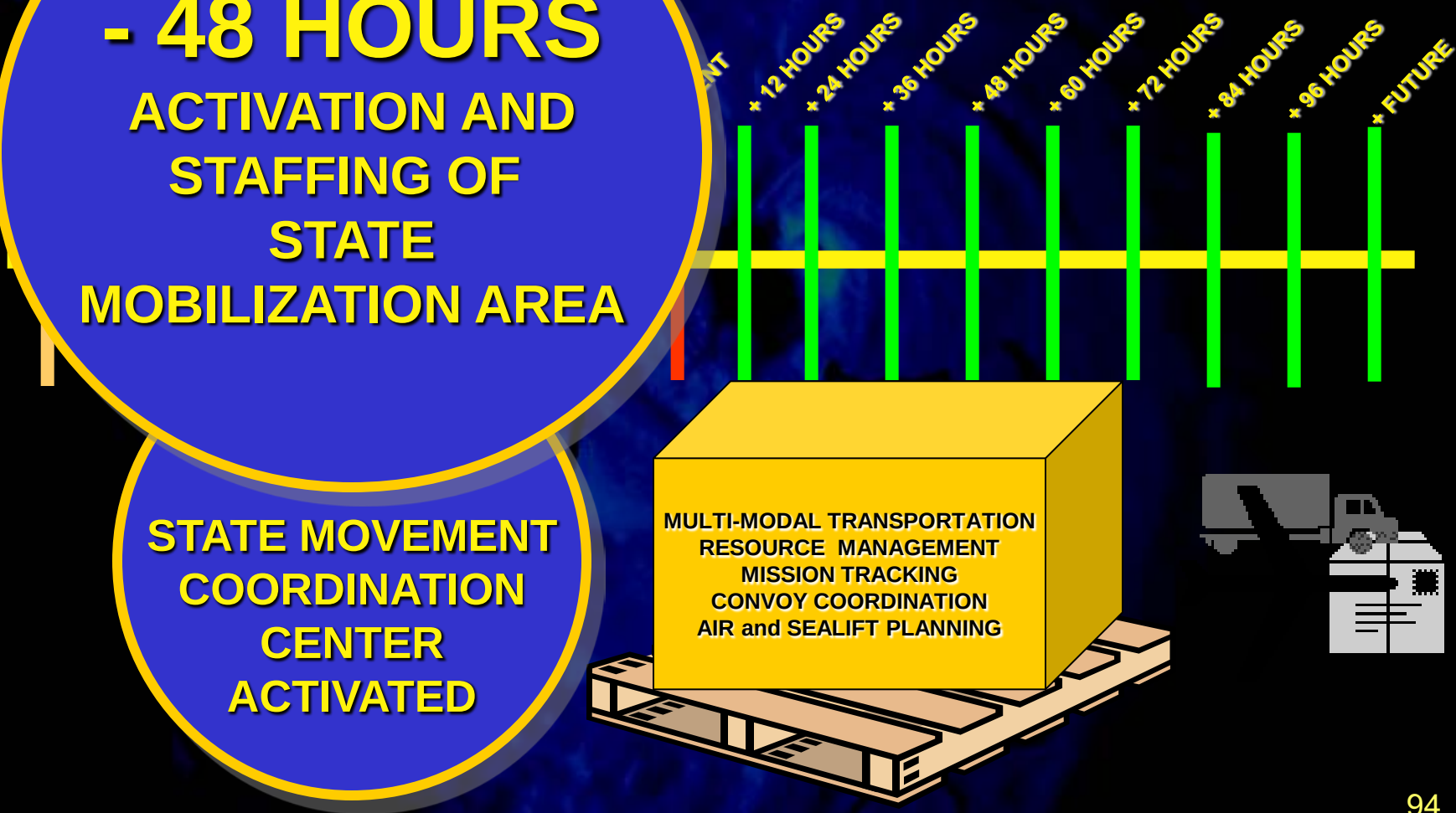
INITIAL LOGISTICS PERSONNEL FOR HURRICANE WILMA

- 560 STATE LSA PERSONNEL
- 800 FL NATIONAL GUARD PERSONNEL FOR PODS
- THREE 25 TRUCK SHUTTLE FLEETS
- VENDOR CONTRACT LIAISONS

Logistics Process Timeline

- 48 HOURS
ACTIVATION AND STAFFING OF STATE MOBILIZATION AREA

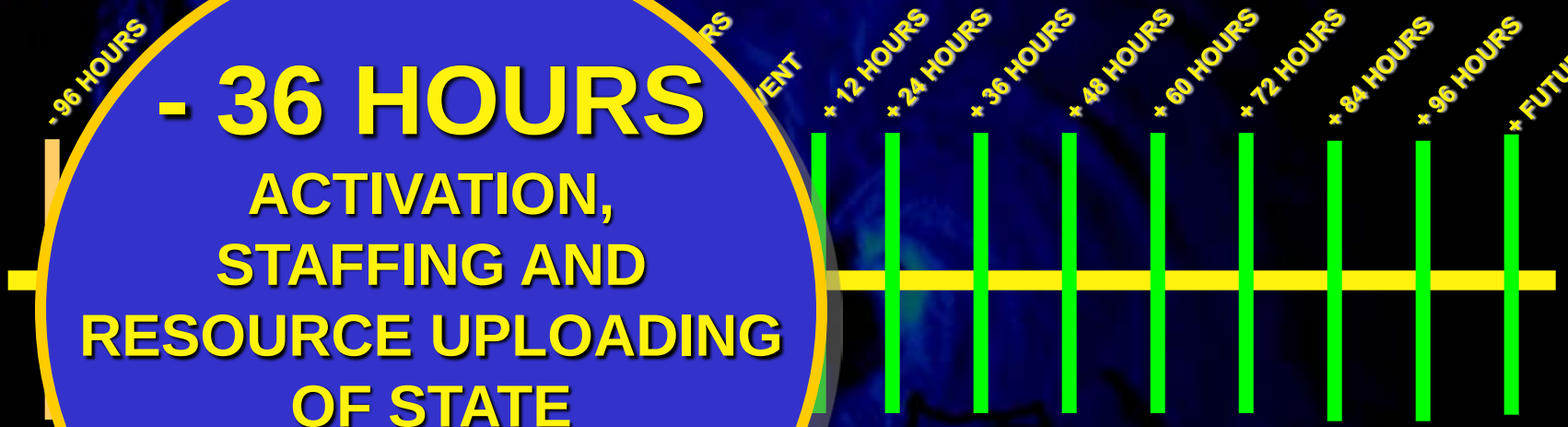
STATE MOVEMENT COORDINATION CENTER ACTIVATED



Logistics Process Timeline

- 36 HOURS

ACTIVATION, STAFFING AND RESOURCE UPLOADING OF STATE WAREHOUSE COMMODITIES



WAREHOUSE UPLOADS FOR HURRICANE WILMA

- 224 TRUCKS WATER
- 200 TRUCKS ICE
- 18 TRUCKS FOOD

- STATE RELEASE OF USDA COMMODITIES TO VOLUNTARY AGENCIES

Logistics Process Timeline

Logistics Process Timeline

- 12 HOURS

ALL RESOURCES, EQUIPMENT AND PERSONNEL MUST BE IN PLACE TO RESPOND

Logistics Process Timeline

- 96 HOURS
-84 HOURS
- 72 HOURS
- 60 HOURS
- 48 HOURS

EVENT

EVENT WINDOW RUNS FROM THE POINT OF LANDFALL THROUGH GALE FORCE WINDS EXITING THE REGIONAL AREA

URS
60 HOURS
+ 72 HOURS
+ 84 HOURS
+ 96 HOURS
+ FUTURE

Logistics Process Timeline

- 96 HOURS
- 84 HOURS
- 72 HOURS
- 60 HOURS
- 48 H
+ 72 HOURS
+ 84 HOURS
+ 96 HOURS
+ FUTURE

+ 6-12 HOURS

ALL RESOURCES, EQUIPMENT AND PERSONNEL BEGIN RESPONSE TO LOCATIONS

VIABILITY OF POD LOCATIONS VERIFIED BY FLNG UPON ARRIVAL

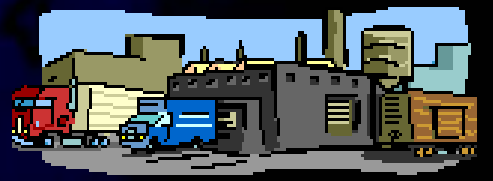
Logistics Process Timeline

- 96 HOURS
-84 HOURS
- 72 HOURS
- 60 HOURS
+ 72 HOURS
+ 84 HOURS
+ 96 HOURS
+ FUTURE

+ 18 HOURS

STATE LOGISTICS STAGING AREAS STAFFED AND OPERATIONAL ON SATELLITE COMMUNICATIONS

RECEIVING AND SHIPPING RESOURCES BASED ON MISSION ASSIGNMENTS



Logistics Process Timeline

+ 24 HOURS

ALL RESOURCES, EQUIPMENT AND PERSONNEL MUST BE IN PLACE AND OPERATIONAL

and

COUNTY POINTS OF DISTRIBUTION OPEN FOR DISTRIBUTION OF WATER

Logistics Process Timeline

+ 36 HOURS

HEAVY EQUIPMENT

(GENERATORS, PUMPS & MHE)

BEGIN TO FILL MISSIONS

COMMODITIES BACK-FILL COUNTY PODS

Logistics Process Timeline

+ 48 HOURS

STATE LSA IS FULLY OPERATIONAL

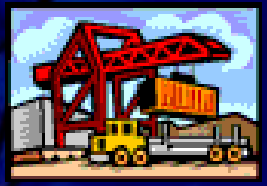
BASE CAMPS AND LSA SUPPORT PACKAGES BEGIN SETTING UP

Logistics Process Timeline

+ 60 HOURS

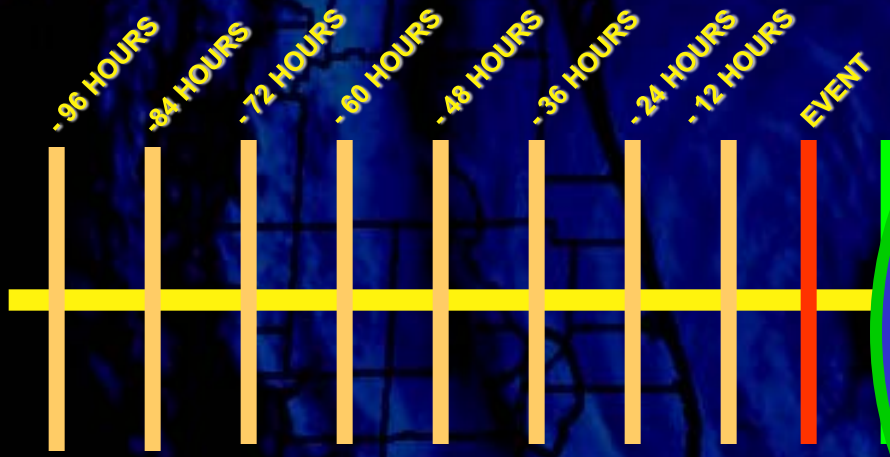
STATE LSA LIFE SUPPORT PACKAGE IN PLACE

FEDERAL RESOURCES ARRIVE IF EVENT IS DECLARED



PRIME POWER TEAMS INSTALLING GENERATORS AND PUMPS

Logistics Process Timeline

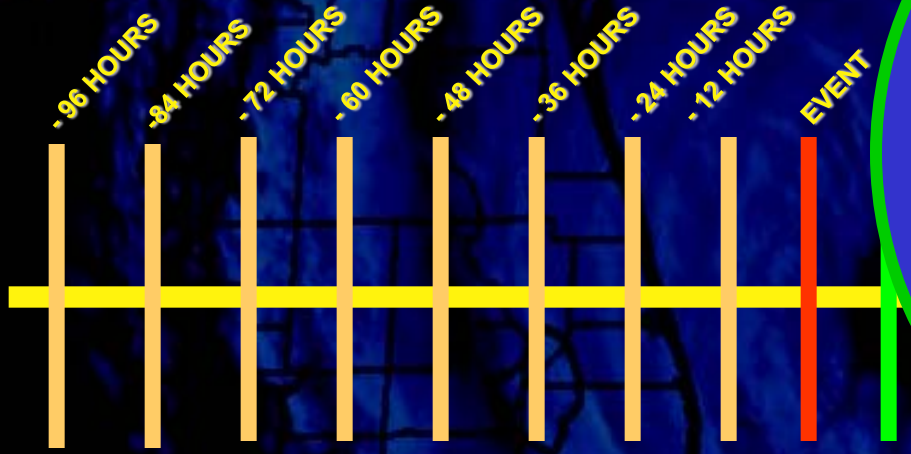


+ 72 HOURS

COUNTY PODS FULLY OPERATIONAL TO INCLUDE ICE AND FOOD

FEDERAL RESOURCES ARRIVE IF EVENT IS DECLARED

Logistics Process Timeline



+ 84 HOURS

FEDERAL RESOURCES INCORPORATED INTO FILLING MISSIONS

COUNTY POD LOCATIONS ADJUSTED

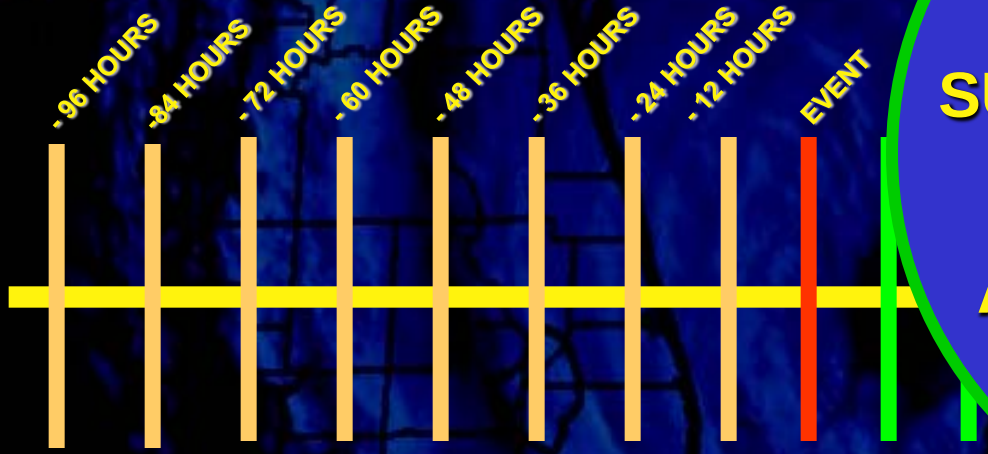
SECOND RUN OF COMMODITY FORECAST MODEL

Logistics Process Timeline

+ 96 HOURS

ORDERING CONTINUES BASED ON BURN RATES AT COUNTY PODS AND MISSION REQUIREMENTS

Logistics Process Timeline



96 HOURS +

SUSTAIN AND MAINTAIN OPERATIONS

ADJUST RESOURCES TO MEET MISSION REQUIREMENTS

BASE CAMPS OPEN FOR FIRST RESPONDERS

CRITICAL ISSUES

Critical Issues

- **Resources and Commodities**
  - Resources must be ordered at least 72-hours PRIOR to landfall in a hurricane
  - Resources come from all across the United States and Canada.
- **Transportation**
  - Nationally, ground transportation is in very short supply, and takes 72+ hours once ordered to come up to required levels
- **Personnel**
  - Personnel from various state and voluntary agencies must be pulled together to support field operations
    - FDEM, DoF, FLNG, DoH, DOACS, FDLE, DoT, DBPR, DEP,
    - ARC, TSA
    - FEMA, USACoE, FDoT, DoD

Critical Issues

- **Pre-Staging**
  - State Mobilization Areas 24-36 hours prior to landfall
    - Requires at least 72-hours
- **State Logistics Staging Areas are opened post landfall**
    - Requires at least 24-hours to establish once resources and personnel are ordered and activated
- **Extensive infrastructure must be brought in to support operations**
  - Satellite voice and data communications
  - Mobile Offices and automation equipment
  - Warehousing and material handling equipment
  - Personnel and life support systems
  - Air and Sealift as required to support operations

Critical Issues

- **County Points of Distribution**
  - Counties must pre-identify all potential sites
    - Type I through III
  - Sites will be confirmed post event for viability of use
  - FLNG must be mission tasked at least 72-hours prior to POD activation
  - Heavy equipment, communications, support resources and the commodities to be distributed, must be coordinated in about 12-hours, with PODs open in 24-hours for at least water distribution
  - Counties must assume management of sites after 72-hours
- **Finally . . . pre-disaster preparedness is a shared responsibility**
  - Citizens
  - Community
  - Municipal Government
  - County Government
  - State Government
  - Federal Government

Pre Event Planning

- Scenario Planning
  - Anticipating Requirements
    - Computer models developed by the State and adopted by FEMA and the US Army Corps of Engineers
- Mobilization Areas
- Logistics Staging Areas
  - State, Federal and County
- Resource and Commodity Identification
- Vendor Agreements for "Turn Key" Operations
- Logistics Section Support Staff
  - Florida Division of Forestry
  - Florida National Guard
  - State and voluntary agency personnel
  - Business Partners

Response Process

People – Locations – Assets

- **Coordinate within a 72-96 hour period for a typical event**
  - 1 Mobilization Area
  - 1- 4 State Logistics Staging Areas
    - Staging Areas (Type I – III)
      - 56 sites have been pre-qualified
    - Staffing
      - 180+ personnel per staging area
    - Assets
      - Critical Support Equipment
      - Commodities
      - Life Support Systems
      - Voice and Data Communication Systems

Critical Support Assets

- **Critical Assets**
  - Prime Power Generators
  - Flood Pumping Systems
  - Material Handling Equipment
  - Heavy Rescue Equipment
  - Multi-modal transportation
    - Ground Material Control (Contract, 3PL, military, passenger)
    - Air Lift (military and commercial rotor and fixed wing)
    - Sea Lift (military and commercial)
    - Rail
- **Support Packages**
  - Emergency Worker Base Camps
  - Life Support Packages
  - Satellite voice and data support systems
  - Equipment Installation and Maintenance Systems
  - Disaster Victim Transitional Housing Support

Response Commodities

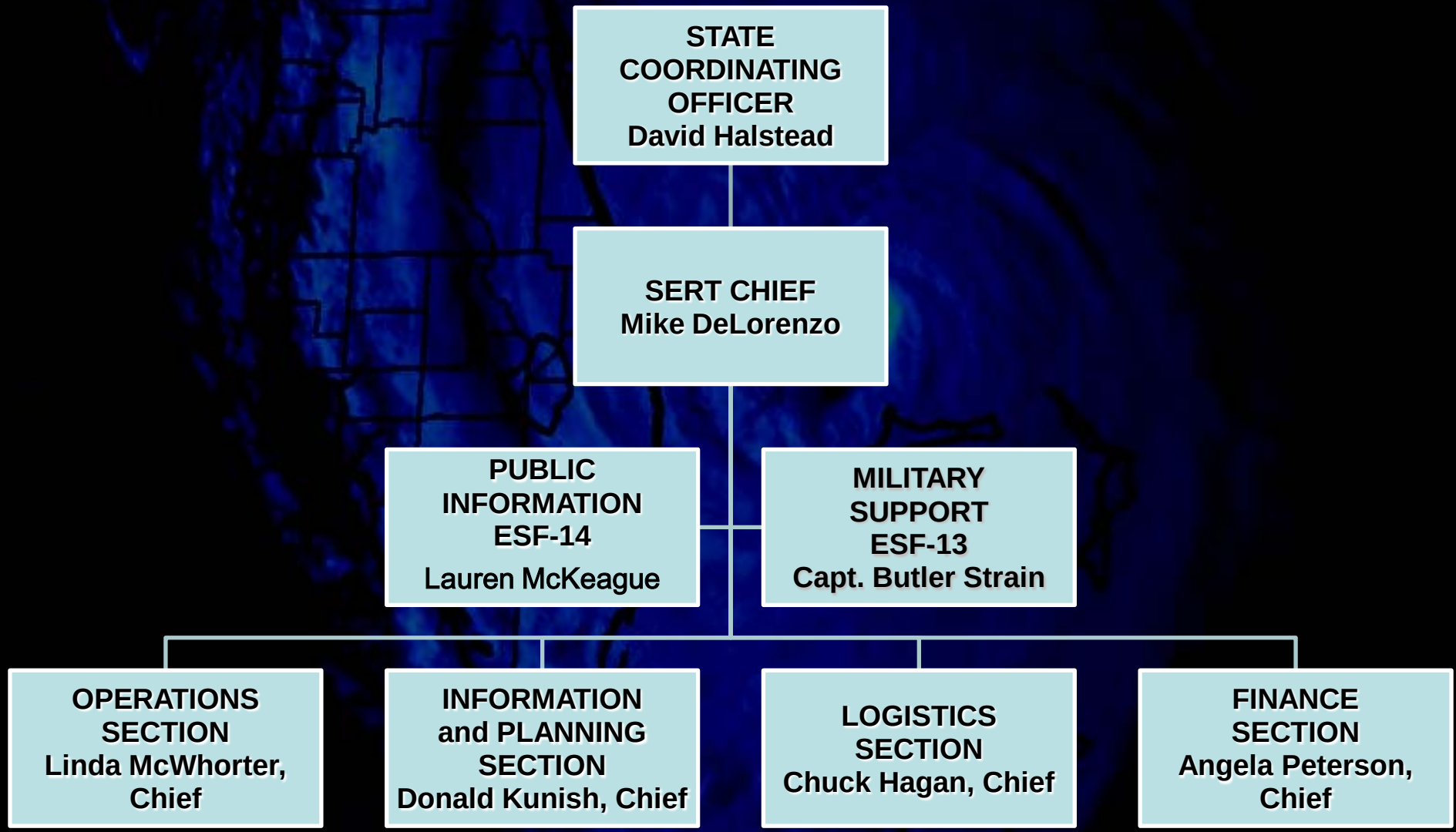
- **Bulk Distribution Commodities**
  - Bottled Water
    - 16.9 Oz, 1 Liter and 1 Gallon
  - Food (Public Distributed)
    - Shelf Stable Meals
  - Food (Managed Assets)
    - USDA Bulk Foods for Mass Feeding
    - Infant Formulas and Foods
  - Ice
    - 8 Pound Bags
  - Tarps
    - Self Help vs. USACoE Installed "Blue Roof"

MODULE 4

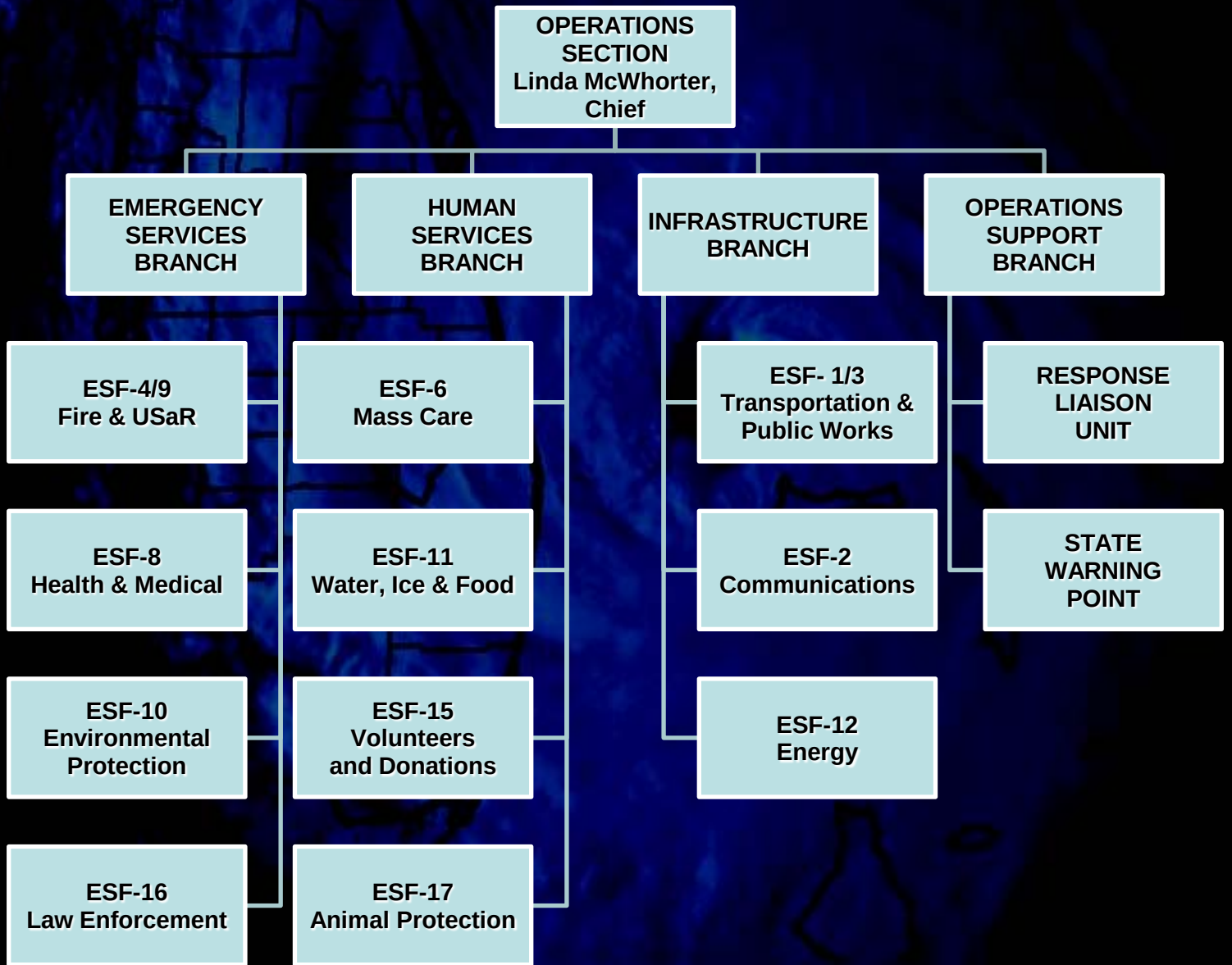
"Requesting Assistance"

Organizational Structure
State EOC

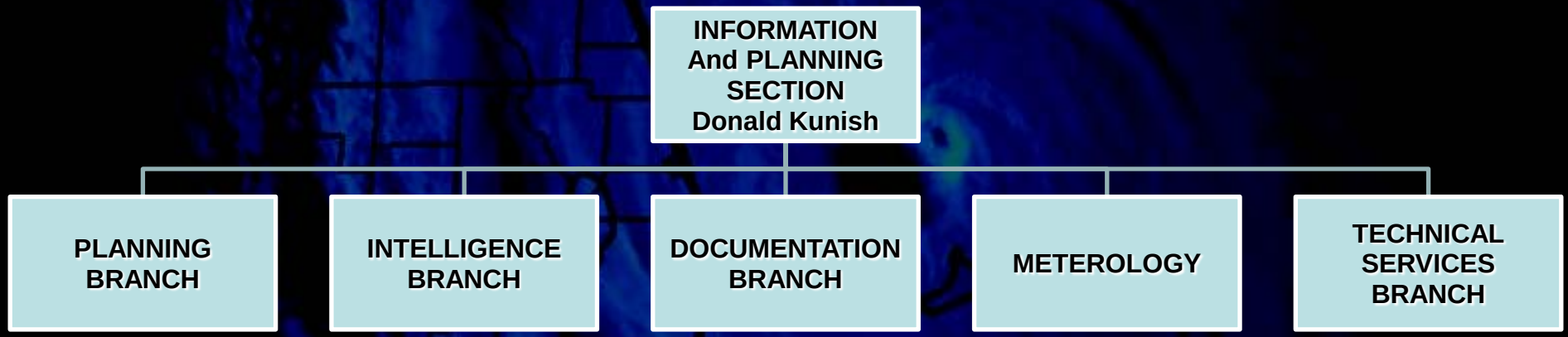
Organizational Structure
State Emergency Response Team



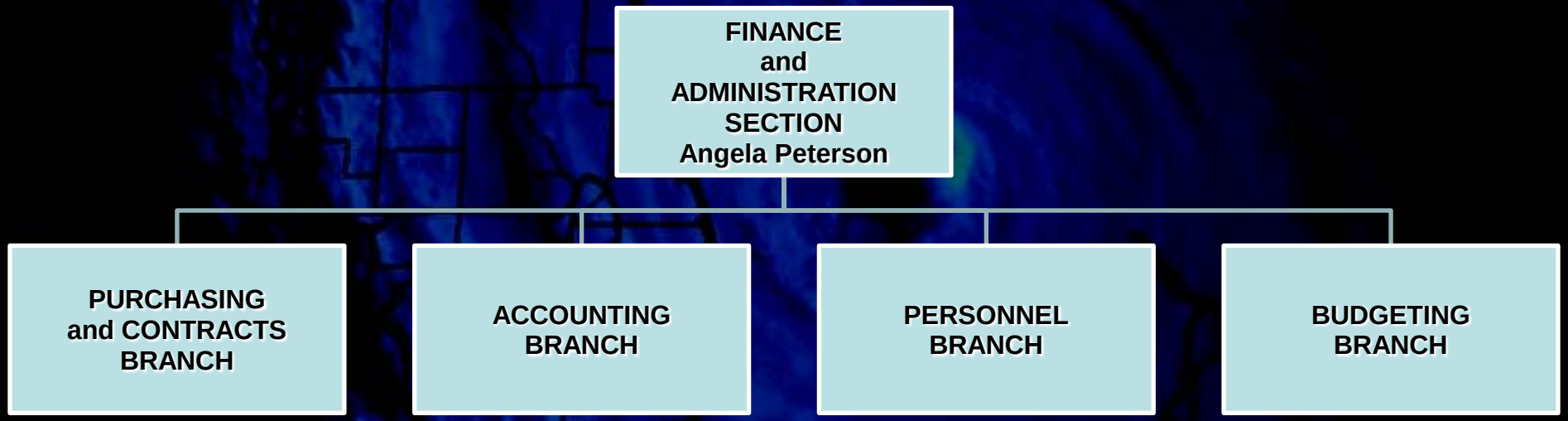
SERT Organizational Structure
Operations Section



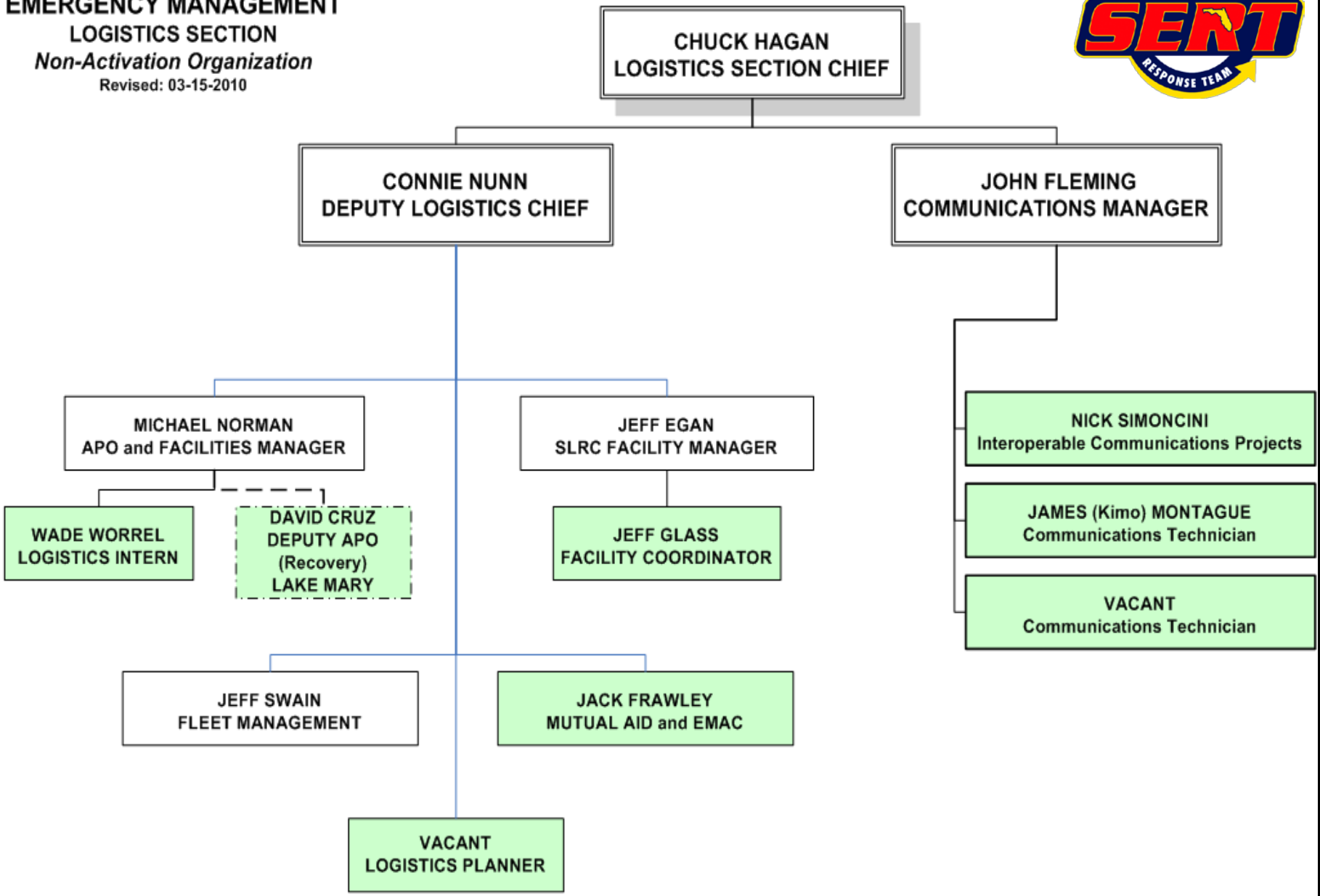
SERT Organizational Structure
Information & Planning Section



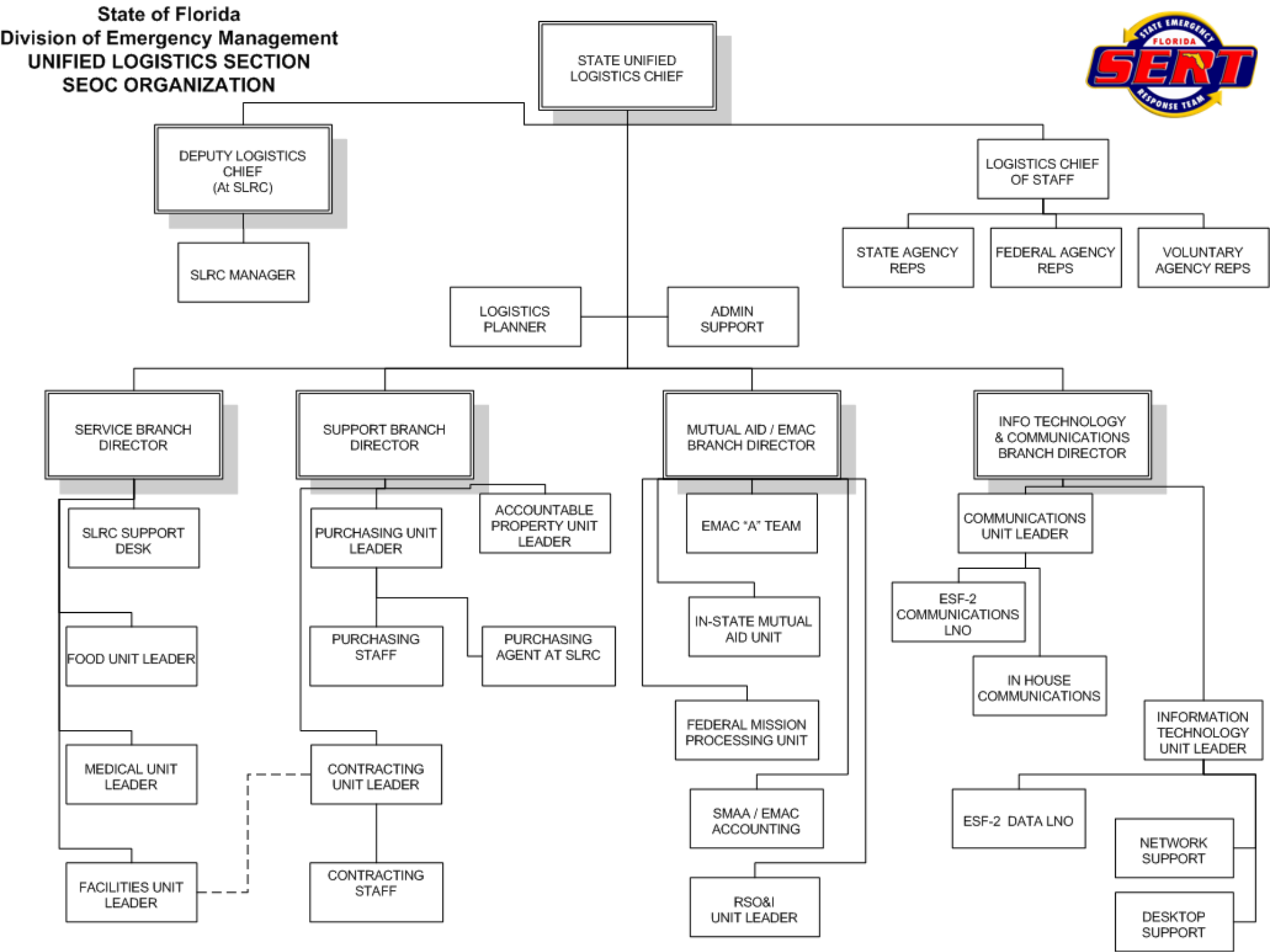
SERT Organizational Structure
Finance & Administration Section



EMERGENCY MANAGEMENT
LOGISTICS SECTION
Non-Activation Organization
Revised: 03-15-2010

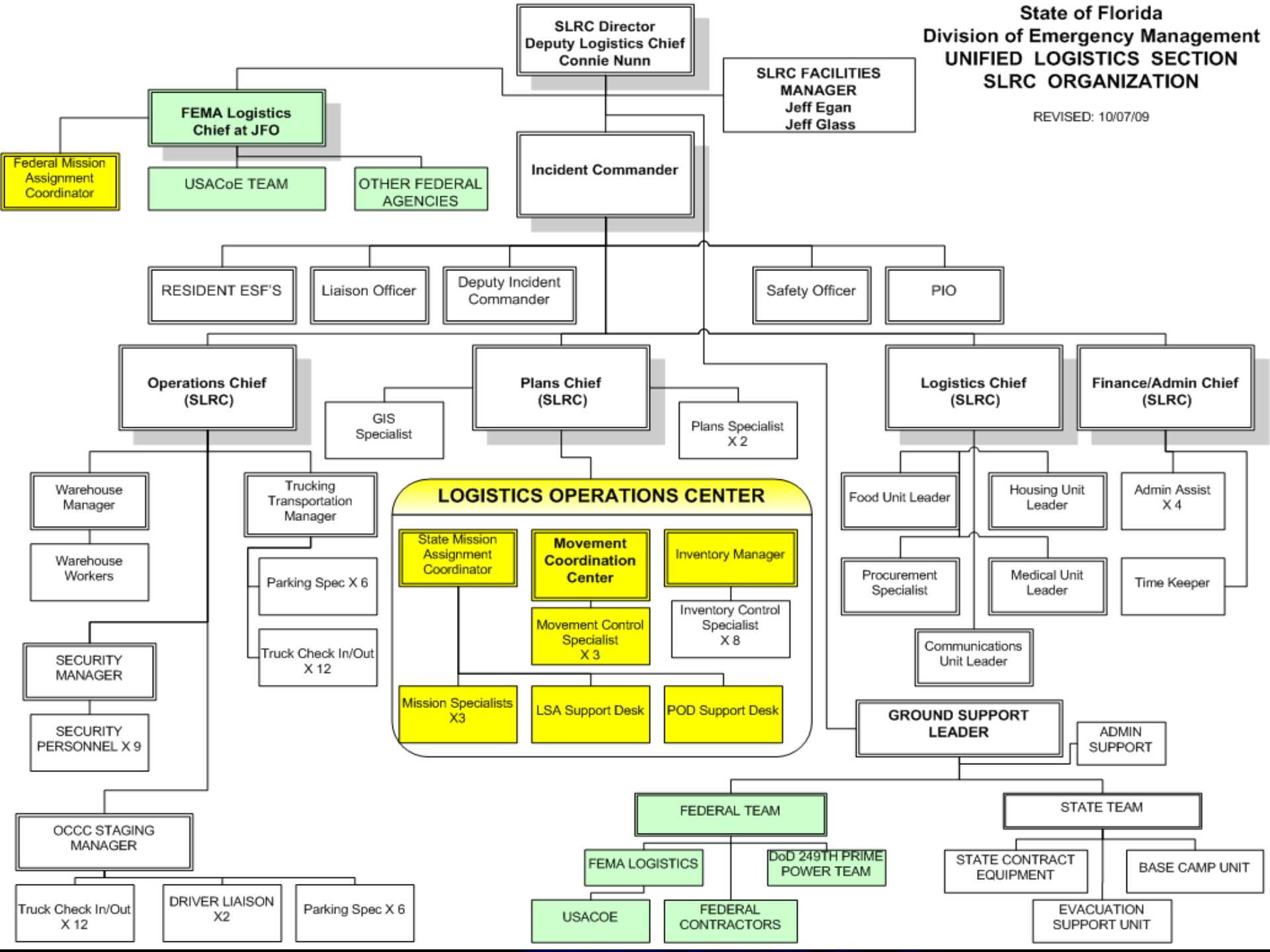


State of Florida
Division of Emergency Management
UNIFIED LOGISTICS SECTION
SEOC ORGANIZATION



State of Florida
Division of Emergency Management
UNIFIED LOGISTICS SECTION
SLRC ORGANIZATION

REVISED: 10/07/09

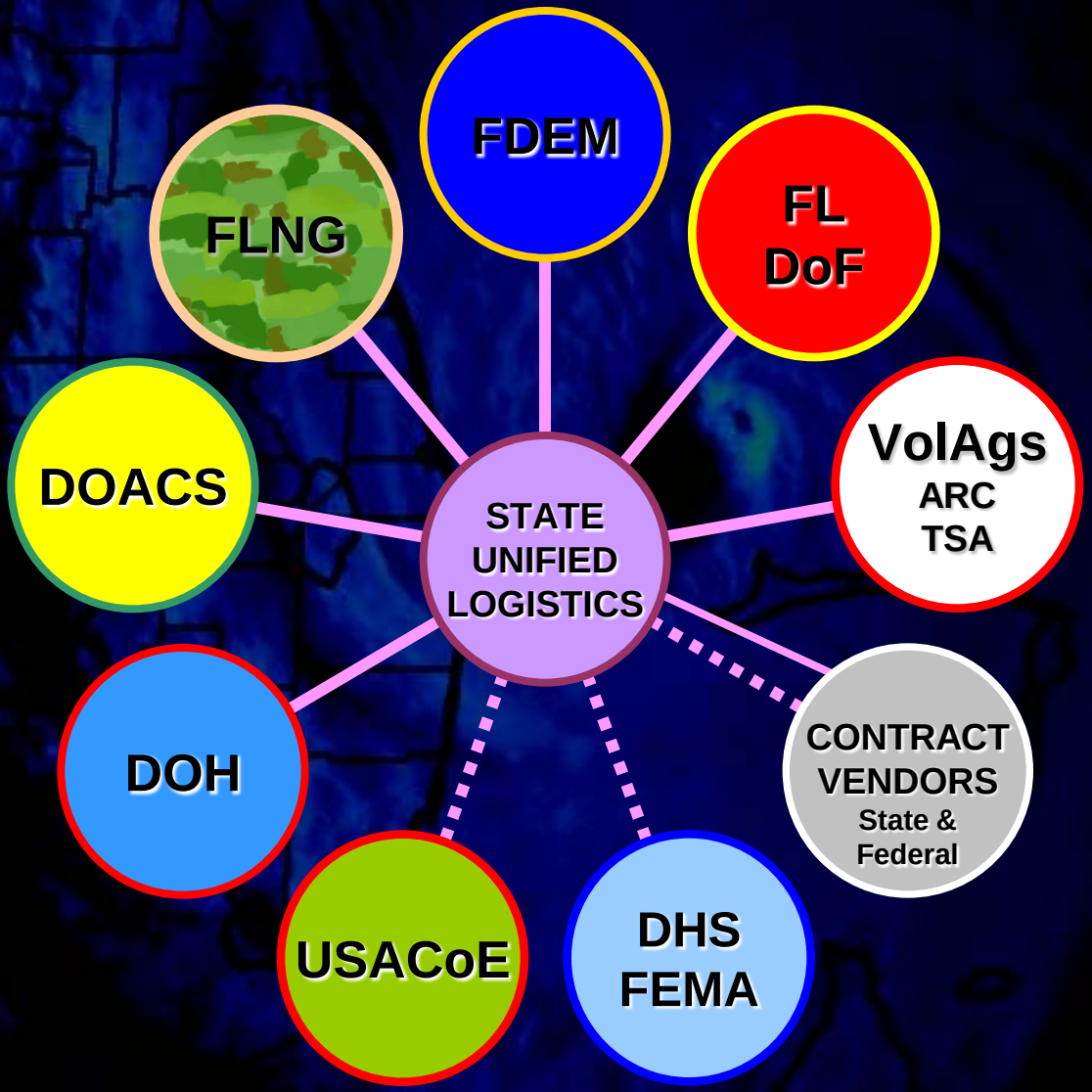


Unified Logistics Section

- Purpose:
  - Collectively work to address critical logistics issues and actions that require multi-agency efforts and response.
- Member Agencies:
  - State of Florida
    - Division of Emergency Management
    - National Guard
    - Division of Forestry
    - Department of Agriculture
    - Department of Health
    - Commission on Community Service
    - Department of Business and Professional Regulation
  - Voluntary Agencies
    - American Red Cross
    - Salvation Army
  - Federal Agencies
    - Federal Emergency Management Agency
    - U.S. Army Corps of Engineers
    - U.S. Department of Transportation

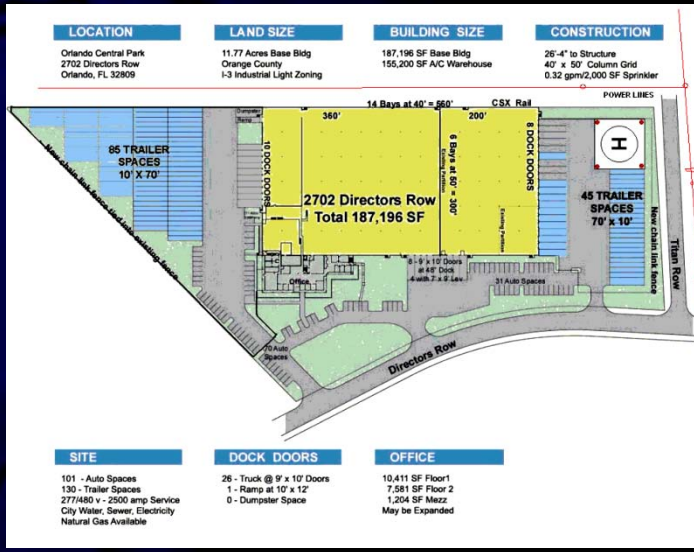
Organizational Structure

Unified Logistics Section Command Group



State Logistics Enhancements

- PART 1:
  State Logistics Response Center (SLRC) **Facility was established on February 1, 2007 in Orlando, FL by the Division**
  - Activated and used by the State and FEMA on February 3rd for the "Groundhog Day Tornadoes"
- **It is the only state level facility of its type in the United States.**
  - It has been acclaimed by FEMA and other states as a "national model" for other states to follow.
  - Critical location to support statewide operations
    - 16 possible locations were inspected prior to selecting the Orlando site
  - 12 acres of land
  - High security facility with secure perimeters
  - Helicopter Landing Zone
    - Parking for 130 loaded semi truck/trailer combinations
  - 187,196 square feet of climate controlled cross-dock warehouse facility
  - 19,196 square feet of logistics and command level operations center offices, operational areas, conference rooms and support areas
  - Affords the State with "First Strike Response" capabilities in supplying critical life saving commodities to the public as well as the center for managing those resources.

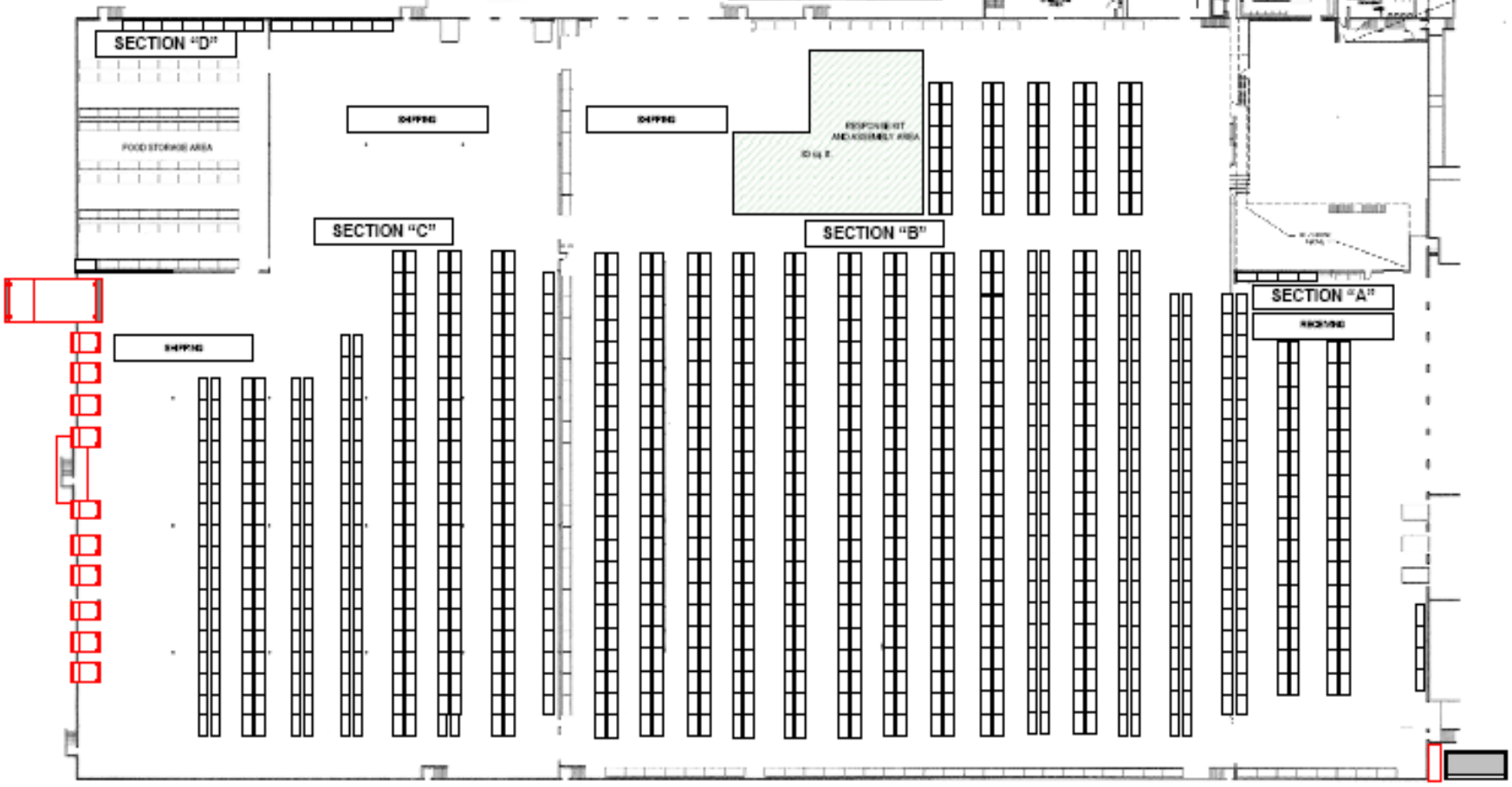


STATE OF FLORIDA
Division of Emergency Management

STATE LOGISTICS RESPONSE CENTER

2702 Directors Row, Orlando FL

FIRST FLOOR OFFICE PLAN



OVERALL FLOOR PLAN WITH PROPOSED RACK LAYOUT

FLORIDA CROWN

STATE OF FLORIDA - DIVISION OF EMERGENCY MANAGEMENT
STATE LOGISTICS RESPONSE CENTER

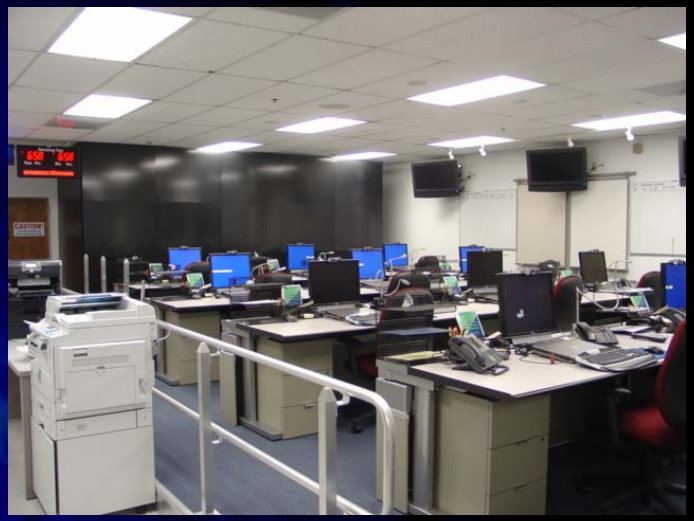
OVERALL BUILDING PLAN

PROJECT NO.
9714

A-2

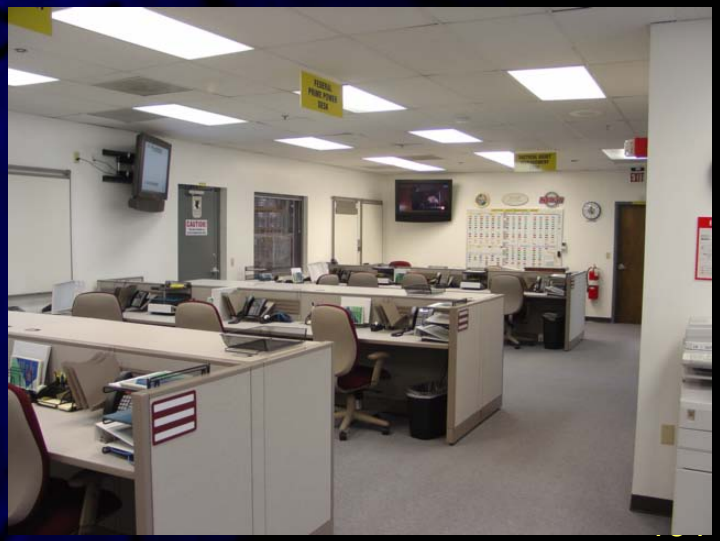
State Logistics Response Center
Resource Management Center

- **19,196 square foot, two-story office complex**
  - Logistics Operations and Management Center
  - Movement Control Center *(multi-modal transportation center)*
  - Incident Management Team operational area
  - Tactical Equipment Management operational area
  - Incident planning areas with two video teleconference systems
  - Four training areas
  - Logistics Laboratory providing advance Logistics Training for state and county personnel
    - Logistics Management
    - Inventory and accountability
    - Multi-modal transportation
    - Heavy Equipment Operation (certified training)
  - Billeting and showers for 20+ persons
  - Dining facility for 80 persons



State Logistics Response Center
Resource Management Center

- **Offices for:**
  - Division of Emergency Management
    - Full time employee
  - FL Department of Agriculture
    - Full time employee
  - FL Department of Health
    - Will be assigning a full time employee
  - FL Department of Management Services
  - FL National Guard
  - FL Division of Forestry
  - Federal Emergency Management Agency
    - Part time employee
  - US Army Corps of Engineers
  - Center For Disease Control
  - State contractors
- **Information Management Center**
- **Driver Support Area**
- **Emergency Medical Clinic**
- **Information Technology Office**



State Logistics Response Center
Warehousing Operations

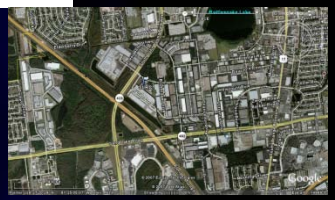
- **197,850 Square Foot, Climate Controlled Warehouse Complex**
  - Four separate warehouse areas set-up for cross-dock operations
  - 27 loading docks
  - 860 square foot Class 1 Secure Vault
  - Repair and maintenance shop
  - Full material handling equipment
  - Approved for food commodities and pharmaceuticals

State Logistics Response Center
Warehousing Operations

- Present commodities
  - 300 truck loads of bottled water = 1,455,000 Gallons
  - 54 truck loads shelf stable meals = 1,600,000 meals
  - 19 truck loads of tarps = 45,047 tarps
  - 3 truck loads roll plastic = 1,896 rolls
  - 16 pallets insect repellent
  - 1 Disaster Mortuary Team Package
  - 5,080 cots
  - 5,080 bedding kits
  - 350,000 hygiene kits
  - 2 Disaster Medical Health Screening system packages
  - Emergency Deployable, Tactical Communications System (EDICS)
  - Emergency Deployable, Wide Area Remote Data System (EDWARDS)
  - 3 Tactical satellite voice/data systems
  - 4,800 feet of commercial generator cable
  - 12 tactical generators

State Logistics Enhancements

- PART 2:
  State Resource Management Network
  A statewide resource / supply chain management system that accounts for all disaster related resources
  - Personnel, Assets and Locations
  - Procurement and Mission Tasking
  - Shipping from point of origin to final point of use
  - Satellite Tracking of all methods of transportation
  - Geo-Coded for mapping locations and tracking
  - Automated warehouse operations and field locations
    - **Wireless Bar Code System**
  - Receiving, cross-docking and reallocation of resources
  - Recovery and rehab of assets
  - Tracks in real-time financial costs for all assets
  - Fully compliant with FEMA Cost Centers and Codes, as well as compliant with all federal requirements
  - Interfaces with all other commercial and federal government system in use and will adapt to all future systems



- **The State has taken delivery of the system and in the process of refining levels of security in order to roll out to every state agency and county in Florida**
- **Bar code systems as well as three tactical field systems**
- **Counties will be able to upload all disaster assets (personnel, equipment, vehicles and commodities) for access under the Statewide Mutual Aid program during disasters.**

Logistics Feasibility Study

- From November 2004 through December 2006 Florida Division of Emergency Management officials met with wholesale, industrial and retailers representing various sectors of the industry including grocers, pharmacies, home improvement and general merchandisers as well as the private transportation industry.
- **Those associations and retailers included the following:**
  - Publix
  - Albertsons
  - Winn Dixie
  - Kash ‘n Karry
  - Harvey’s Groceries
  - Wal-Mart
  - Target
  - K-Mart
  - Home Depot
  - Lowes
  - FedEx
  - UPS
  - DHL
  - CVS Pharmacy
  - Walgreens
  - Sears
  - Bealls
  - Florida Retail Federation
  - Florida Restaurant and Lodging Association

Retail Sector Partnerships

Florida Retail Federation
THE VOICE OF FLORIDA RETAILING

Team Retail EPN
Emergency Preparedness Network

http://www.frf.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=2099

Publix
Albertsons
Winn-Dixie
the real deal
Harveys
The Savings Place
Kroger
Kash n' Karry
Wal*Mart
Always Low Prices.
Always
Walmart.com
Sam's Club
We Sell For Less
K mart
Target
Sears
Costco Wholesale
Bealls
The Home Depot
Lowe's
Home Improvement Warehouse
Improving Home Improvement
Walgreens
Rite Aid
Eckerd
Pharmacy
CVS pharmacy

Logistics Feasibility Study

- **The following set of operational standards were provided for adoption by retail establishments**
  - Participate and coordinate with the Business and Industry Emergency Support Function (ESF) 18 liaison at the county and/or the state emergency operations center.
  - Through Business and Industry ESF-18, request that local emergency management offices designate a business liaison that will work in exempting retail establishments at those levels of government.
  - Retailers working through the local emergency operations center would have local governments identify key retailers and provide access cards that allow their staff and suppliers access back into the impacted areas.
  - Retail establishments that can supply fuel and are generator ready should have an expedited permitting process and local governments should be more reasonable in additional permitting requirements.
  - Exemptions should be provided for a streamlined permitting process by local governments for businesses taking mitigation actions.

Unified Logistics Section Partnerships

- State Unified Logistics Section and ESF-18
- Florida Retail Federation assigns a representative to the State EOC.
  - Represents the entire FRF membership
  - Is the primary POC for inquiries from FRF Members
  - Participates in Daily State Logistics Section and ESF-18 Conference Calls
- Florida Retail Federation Members may participate on the daily State Logistics Section and ESF-18 Conference Calls
- Also working with the Florida Restaurant and Lodging Association on the same program, as well as recruiting professional chefs to assist in emergency mass feeding operations.

Unified Logistics Section Partnerships

- **County Emergency Management**
  - Develops relationships with regional and local store managers
  - Agreements that both will work together to meet community emergency needs
  - Stores strive to reopen as soon as possible, typically within 24-hours post event, even under emergency power
  - Make essential commodities available to the community (not free)
- **County works with the State Unified Logistics Section to establish County Points Of Distribution [PODs] in outlying areas not service by major retailers affording commodities**
- **Partnership provides a true coverage of services throughout the affected counties.**

Unified Logistics Section Partnerships

- **Conference Calls**
  - State passes on latest information on the event to corporate representatives
    - Assists with providing storm forecast models such as SLOSH to project where storm surge may affect communities and stores
  - Retail partners update State as effects to their stores post event.
    - Provides updates information on store reopening and status
      - Retailers often post this information to their web site
      - State will link to these web sites from the State www.FloridaDisaster.org web site
    - Identifies areas of critical concern that affects their operations
      - Access
      - Fuel

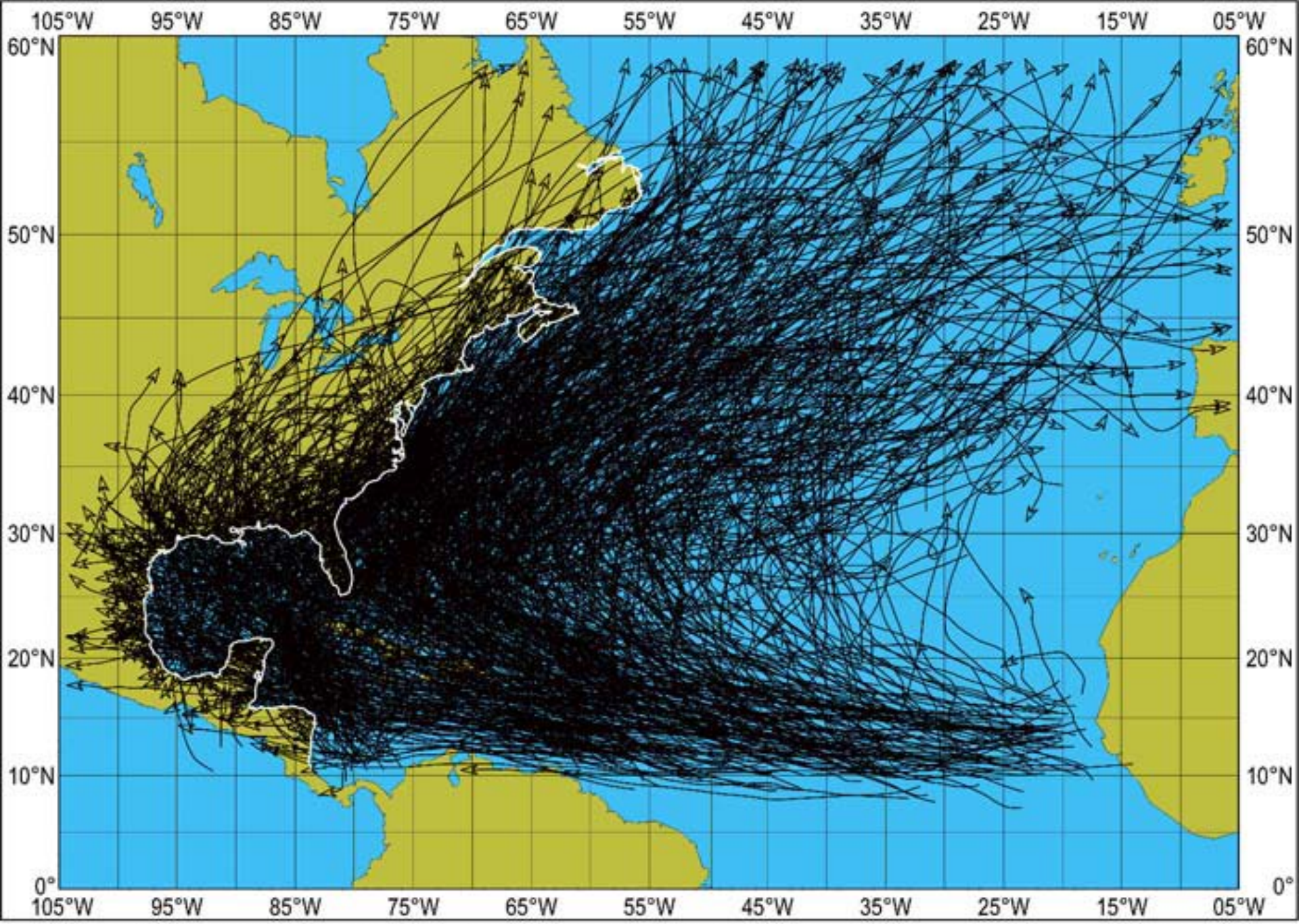
Requesting State Resource Assistance

Mission – First 72-Hours

Our Customers

1. **Disaster Clients**
   - County Public Bulk Distribution Centers
     - Water, Ice and MRE's
     - Forklifts & pallet Jacks
   - Public Shelters (General and Special Needs)
     - Cots, Blankets, Pillows, USDA Commodities, Water, Ice
   - Field Kitchens
     - Water, Ice, USDA Commodities, MRE's,
     - Generators, Light Towers, 48' Dry Trailers, 48' refrigerated trailers, forklifts & pallet jacks
     - Bulk Fuels (Diesel and LPG)
   - Comfort and Cooling Stations
     - Tents, Fans, Tables/Chairs, Ice, Water, Mosquito Repellant, Sunscreen

2. **Emergency Responders**
   - County Staging Areas
     - All types of assets and resources
     - Bulk Fuels
   - Base Camps
     - Full Contract Encampments, Bulk Water, Waste Water Contracts, Bedding, Generators, Light Towers
     - Bulk Fuels
   - County EOC's
     - Assets as requested



NORTH ATLANTIC TROPICAL STORMS AND HURRICANES, 1851-2004 (1325 STORMS)

NOAA

Challenges!

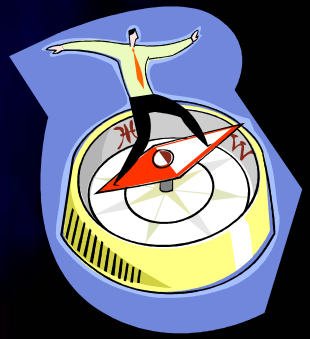
Disaster Response

- Cost Effective
- Mistake Free
- Fast

- *Pick One!*

Changing Outcomes

- Focus on the outcome you want
- Plan the mission to achieve that outcome
- Execute the plan
- Monitor the outcome and adjust



The Disaster Response Pyramid

Critical Indicators of Response

Indicator	Red	Yellow	Green
Indicators are applied County Wide	Greatest Impact – requires significant outside resources to manage	Impact requiring emergency plans to be implemented. May require some out of county resources, but majority of response requirements managed with in county resources	Normal Operations or within the County's Capability to manage under day to day operations

Critical Indicators of Response

Indicator	Red	Yellow	Green
	Closed	Open, Partial Menu	Open, Full Menu

WAFFLE HOUSE LOGISTICS!
Per year

495,264,367 Waffles
957,041,599 Cups of Coffee
1,173,838,328 Hash Brown Orders
370,545,935 Sausage Patties
786,449,152 Bacon Strips
14,899,594 Slices of Ham
1,527,602,959.24 Eggs

22,217,455 Slices of Pie
123,587,123 T-bone Steaks
115,220,427 Hamburger Quarters
479,312,699 Glasses of Coke
1,108,574,633 Order of Grits
72,567,509 Cheese n' Eggs
204,164,660 Omelets

Critical Indicators of Response

Indicator	Red	Yellow	Green
County EOC Status	Full Activation	Partial Activation	Monitoring
Local State of Emergency	Declared	Limited	None
Evacuation	Mandatory	Voluntary	None
Shelters	Open /Occupied Public Schools	Open / Standby or Occupied other than Schools	Closed
Schools	Closed	District Open, some Schools Closed	Open

Critical Indicators of Response

Indicator	Red	Yellow	Green
Electrical Power	Less than 90%	Between 90% and 98%	Greater than 98% restored
Water	No Water / low Pressure	System Restored/Boil Water Order in Effect	System Restore/Boil Water Orders Lifted
Communication	Emergency Communications Failed or limited	Emergency Communications Up, Commercial Failed or Limited including Cellular Service	Normal Operations
Debris	Emergency Debris Clearance	Emergency Debris Removal	Debris Management Plan Implemented
Major Highways	Closed	Limited / Contra Flow	Open

Key State LSA Logistics Agencies

- **Florida Division of Emergency Management**
  - LSA Management Team at Sites
- **Florida National Guard**
  - LSA Management Teams, Warehousing, Ground Operations, Air Operations, and Security
  - Florida Division of Forestry
  - Incident Management Teams
- **Florida Department of Agriculture and Consumer Services**
  - USDA Commodities (Water and Ice first week of Charley)
- **Florida Department of Health**
  - Medical Resources and Material Handling
- **Federal Emergency Management Agency**
  - Coordination of Federal Assets
- **U.S. Army Corps of Engineers**
  - Generator Support
  - Ice and Water Contract Support after week two
- **U.S. Department of Agriculture**
  - U.S. Forest Service Incident Management Teams

State Contract Vendors

Located at State LSA's and State EOC

- **Interstate Transport, LLC**
  - Multi-Modal Transportation Manager for SLRC MCC
- **Landstar Express America**
  - Multi-Modal Transportation (Truck, Air, Rail & Marine)
- **Garner Environmental Services**
  - Generators, Pumps, MHE, Light Towers
  - State Generator and Pump Installations
  - Electricians, Service Technicians, Logisticians
- **Lipsey Water Corporation**
  - Bottled Water Contract
- **IAP Worldwide Services**
  - Ice Contract
  - Federal Generator Installation
- **OK Cascade**
  - Base Camp Operations
- **Deployed Resources**
  - Base Camp Operations
- **Unlimited Resources Inc.**
  - Shower Support
  - Numerous Additional Vendors in Support Roles and Sub-Contractors
- **Kirby Tents**
  - Portable air conditioned tents / cooling stations

Federal Logistics Operations

FEMA

- 3 Federal Operational Staging Areas In Florida (FOSA)
  - Jacksonville (NAS JAX)
    - Primary Site
  - Miami (Homestead ARB)
  - Eglin AFB

- Territorial Logistics Centers (TLC's) Nationwide Supported State Operations
- FEMA Region IV Logistics Section
- FEMA HQ Logistics Section

Requesting Assistance

President
Federal

Governor
State

Chairman BoCC
County

Mayor
Municipality

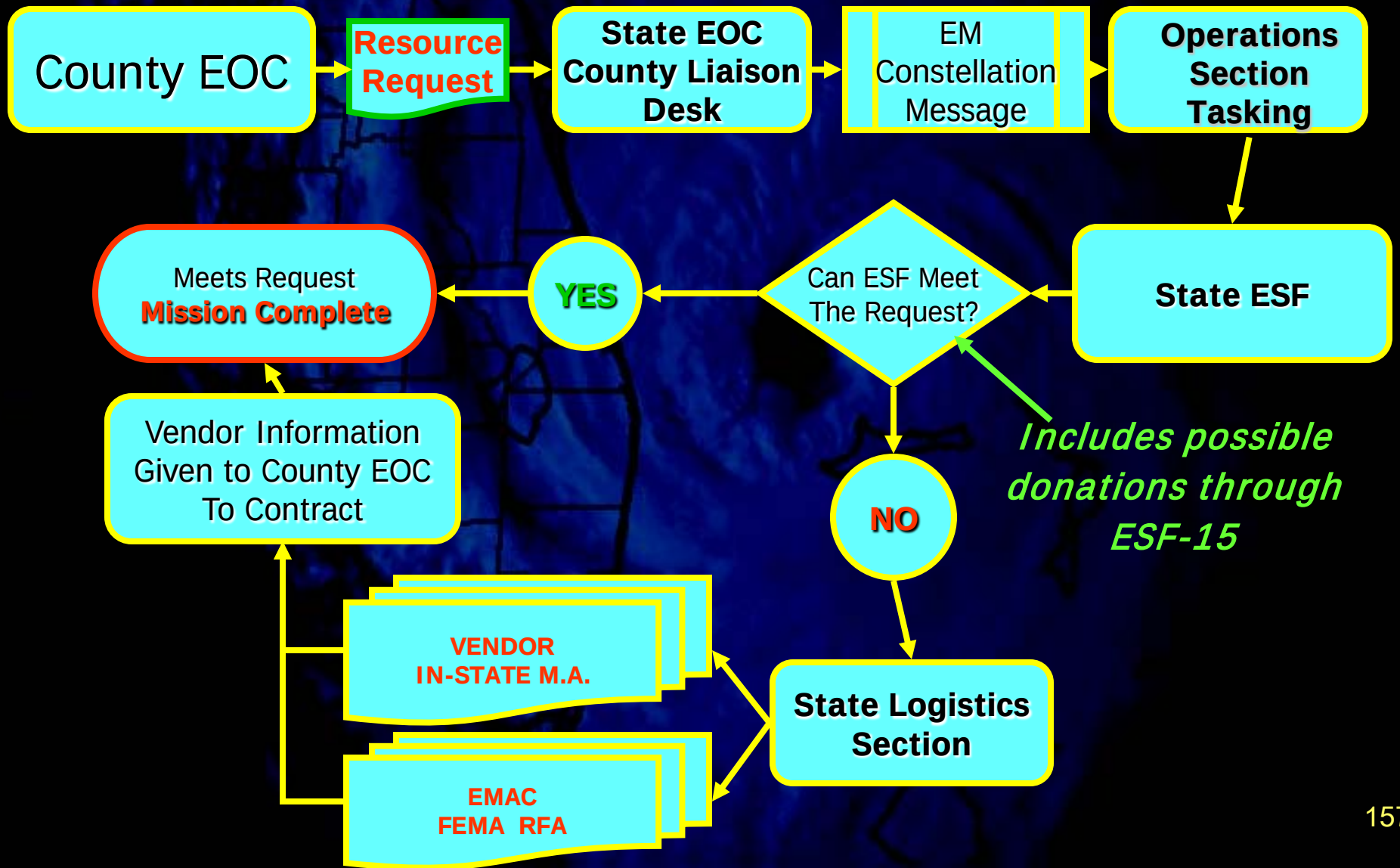
Under the Stafford Act and F.S. Chapter 252, only the Elected Leadership has the authority to Declare Emergencies. Only the Governor may request assistance from the President.

or

Incident

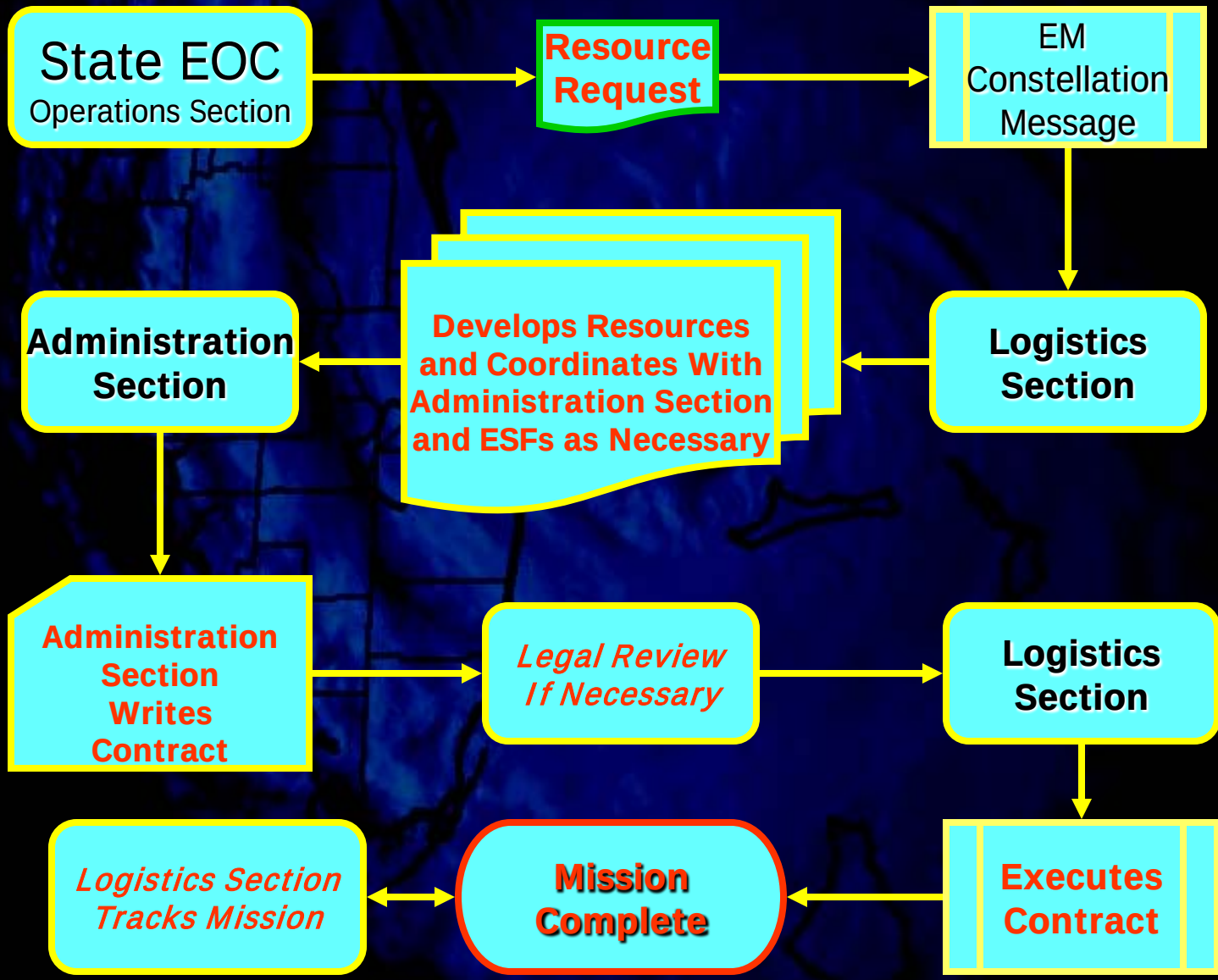
Resource Request Flow

From County



Resource Request Flow

State Contracts in SEOC



Requesting Assistance

- **For the 2008 Hurricane Season, Resource Requests should be put in via the Internet electronically**
  - The following software will be used
    - EM Constellation
    - State Emergency Resource Management Network (SERMN)
- **Resource requests must be singular in nature**
  - Do not combine dissimilar requests on one message, or mix Sit-Rep information with a Resource Request
    - Personnel, trucks and water
    - Mixed resource requests require the SEOC to re-enter the entire mission into separate messages, thus delaying the processing of the mission

Requesting Assistance

- Requests must be complete
  - POC Name and phone
  - Delivery site name and address
  - Detail specifics on the request
    - Quantity
    - Size
    - One time order or recurring for XX number of days
  - Indicate if MHE is available at the delivery site
- Place orders to cover at least 1½ to 2 days (24-hour) Operational Period
- Each operation will establish Operational Periods, with time cut-offs for orders. Orders placed beyond the cut –off time are subject to shipment the following day.

Requesting Assistance

- **Some commodities require 3-4 days lead time due to source and distance**
  - Counties will be notified that they must forecast their requirements 4 days in advance for these resources.
- **Note that there are no backorders!**
  - If an ESF, or LSA cannot fill the order completely, the balance will be canceled and not backordered
    - Back orders are impossible to manage in disaster events
  - You must place another order the next day for the next operational period
- **Recipients will be required to sign for every resource and delivery.**
  - Recipients will be held accountable for all non-expendable property

Organizational Exercise

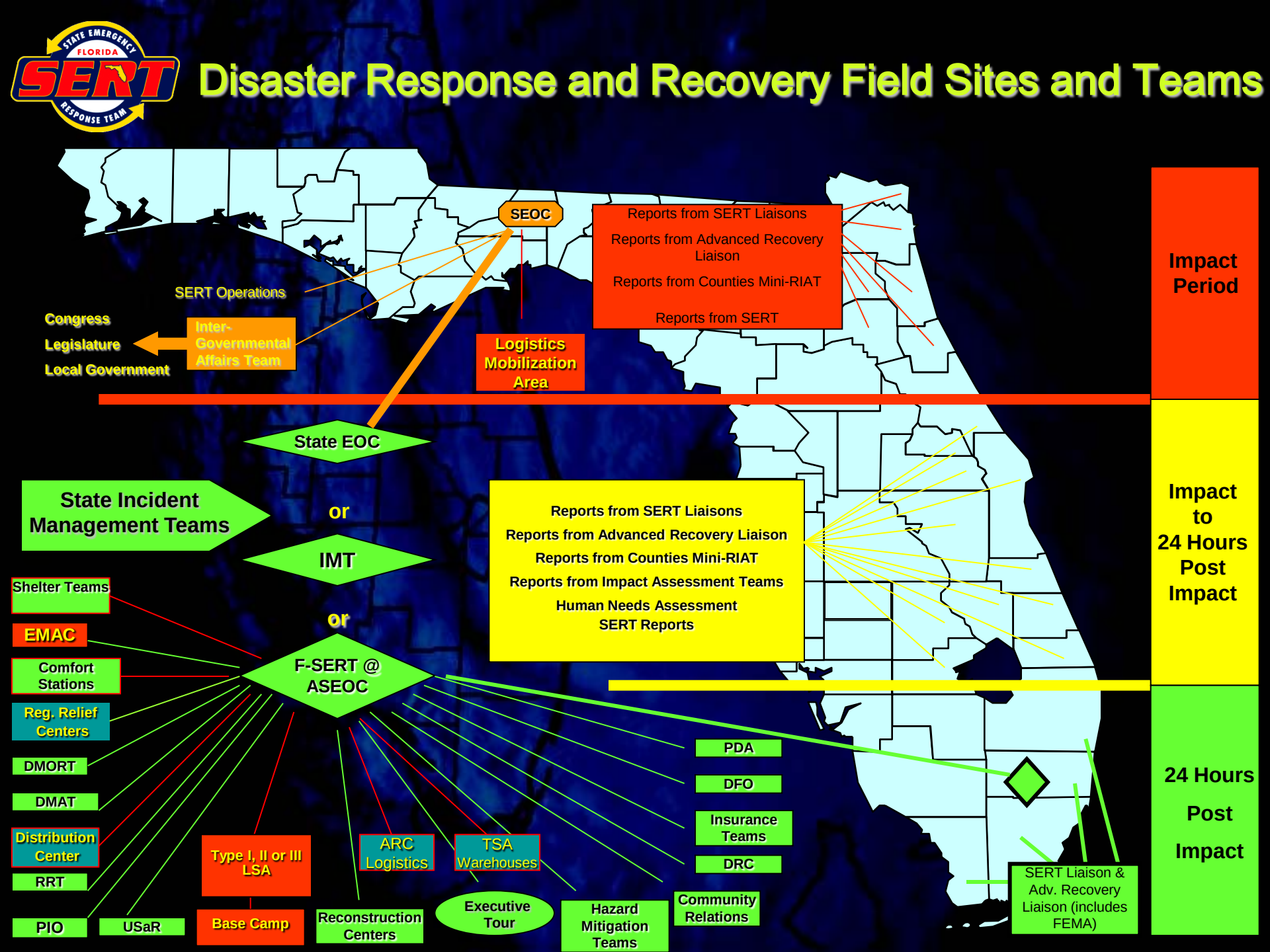
30 minutes

- Individually, develop a Logistics Section Table of Organization for your fictitious county / municipality / organization
- Utilize all potential agencies in your county as appropriate
- Apply the ICS principal:
  - Although a person may not be assigned to a function, the responsibilities of that function still exist, and fall back on the next higher person in the chain.
- Share your organization with the person next to you and compare.

MODULE 5

Logistics Field Facilities

Disaster Response and Recovery Field Sites and Teams



Field Sites – State MobArea

- **State Mobilization Areas (MobArea)**
  - Pre-staging of resources outside of a potential impact areas until post event
  - Resources are then moved forward to one or more State Logistics Staging Areas
  - MobAreas can either close or remain open as a rear area in order to accept a backlog of resources

Field Sites – State MobArea

- Location
  - On or Near Major Highway (required)
  - Near Commercial or Military Airport / Field (desired)
  - Near rail spur / head (desired)
  - Fenced or otherwise secure area
- Covered Area
  - 50,000 + square feet
  - 4 each Loading Docks minimum
  - Administrative area
  - POTS Communications available
- Hard Stand Area
  - 800,000 square feet (20 Acres)

Field Sites
Logistics Staging Areas

- **State Logistics Staging Area**
  - Field sites that manage resources
  - A managed site to receive structured resources from various sources.
  - Typically activated for a longer period of time in response to an event in close proximity to the event site, yet still out of harms way.
  - Resources can immediately deploy directly from the LSA to the requestor or site.
  - Multiple LoSA's may be needed for an event depending upon the "span of control" the site can support.
  - In MAJOR events, the impact area will be divided up into DIVISIONS each having an LSA with its each AOR.

State LSA Typical Resources

- Prime Power Task Forces
- Hydrological Relocation Task Force
- Search & Rescue Teams (USaR)
- Medical Teams
- Power Restoration Crews
- Debris Removal Crews
- Mechanized Maintenance Services
- Refueling Services

- Bulk Relief Supplies
  - USDA Food Commodities
  - Wholesale Food Service Purveyors
    - *Produce, Meats, Dairy, Bakery, Paper*
  - Potable Water and Ice
  - Plastic Sheeting *(Visqueen©)*
  - New Clothing *(sized)*
  - Cleanup Supplies
  - Shelter Supplies
  - Building Materials
  - Medical Supplies

Type I State LSA

- Location
  - Near Major Highway
  - On-site Commercial or Military Airport / Field
  - On-site rail spur / head (desired)
  - Fenced or otherwise secure area
- Covered Area
  - 150,000 + square feet
  - 8 each Loading Docks minimum
  - Administrative area
  - POTS Communications available
  - T-1 Lines required for INET and Video Conference
- Hard Stand Area
  - 800,000 square feet (20 Acres) Minimum PLUS
  - Two Helicopter Landing Zones (180,000 Square Feet)
- Worker Support (Base Camps)
  - Billeting Areas & Food Service (desired)

Type I-A State LSA
Strategic National Stockpile (SNS)

- Location
  - Near Major Highway
  - On-site Commercial or Military Airport / Field
    - Cargo 747 Capable
  - K-Loader
  - Double Fenced Secure Area
- Covered Area
  - 50,000 + square feet General Use Warehouse PLUS
  - 10,000 + square feet, Air Conditioned Medical / Pharmaceutical Warehouse (Tier II Security Zone)
  - 6 each Loading Docks minimum
  - Administrative area
  - POTS Communications available
  - T-1 Lines required for INET and Video Conference
- Hard Stand Area
  - 500,000 square feet (12 Acres) Minimum PLUS
  - Two Helicopter Landing Zones (180,000 Square Feet)
- Worker Support (Base Camps)
  - Billeting Areas & Food Service (desired)

Type II State LSA

- Location
  - On or Near Major Highway
  - Near Commercial or Military Airport / Field (Fixed Wing)
  - Rotor wing LZ on-site
  - On-site rail spur / head desired
- Covered Area
  - 100,000 + square feet
  - 6 each Loading Docks minimum
  - Administrative area
  - POTS Communications available
  - T-1 Lines required for INET and Video Conference
- Hard Stand Area
  - 500,000 square feet (12 Acres) minimum PLUS
  - Two Helicopter Landing Zones (180,000 Square Feet)
- Worker Support (Base Camps)
  - Billeting Areas & Food Service (desired)

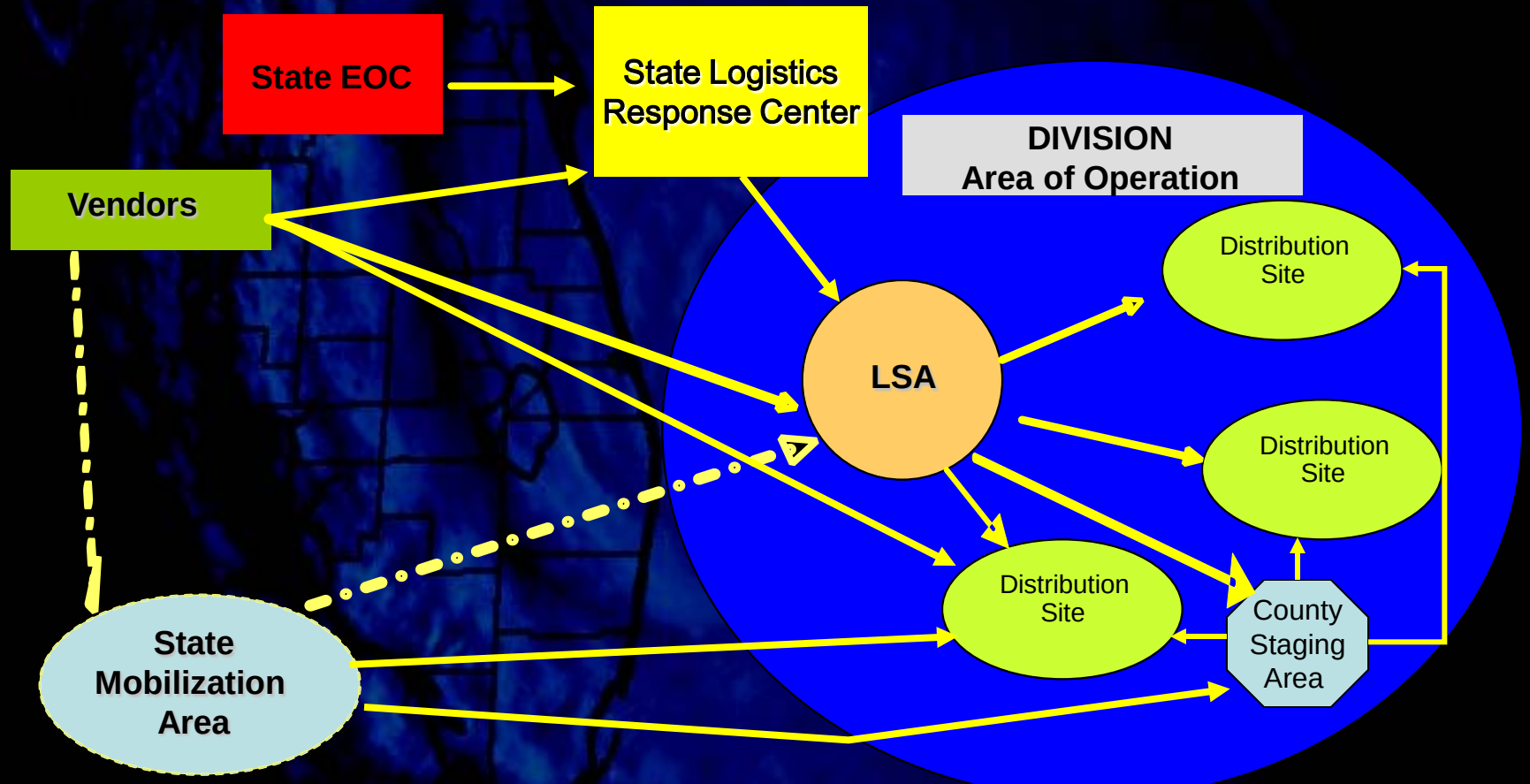
Forward Operations Base

- **FOB's are established to support small quick response teams such as:**
  - Urban Search and Rescue Teams (USaR)
  - Area Reconnaissance Teams (RECON)
  - Damage Assessment Teams
  - Disaster Medical Assistance Teams (DMAT)
  - Disaster Mortuary Teams (DMORT)
- **Only essential services are provided to support teams:**
  - Food and Water
  - Fuels
  - Health & Sanitation
- **FOB's are NOT long term sites, and are typically operated only for a few days**

MODULE 6

State Logistics Staging Area Operations

Areas of Operations (AO's) will be established by the SERT



Purpose

- The fundamental purpose for utilizing an LSA is to supplement resource deficiencies from local governments, agencies and communities, in responding to and recovering from a disaster.

Purpose

- This includes the warehousing of various commodities and supplies needed to support the disaster victims.
- The LSA can also be used to support and stage disaster relief personnel and equipment.

FDEM Responsibility

- Determining the requirement for and the location of a State LSA
- Overall management of the LSA as the “Agency Administrator”
- The contracting for, and physical establishment of the site
- Requesting additional site resources to support the site
  - Telephone and date connections through ESF-2
  - SANPACS with service through ESF-8
  - Multi-modal transportation under contract or through ESF-1
  - Security through ESF-16

FDEM Responsibility

- Recruiting and task organizing the internal operations of the LSA
- Activation of the other state agencies who operate from an LSA.
- Ordering key assets in support of the operation
  - Generator, pumps, air conditioning units, light towers
  - Material Handling Equipment
  - Contractual services
    - Cleaning
    - Catering
    - Lift Support
  - Ice, water and food through ESF-11

Logistics SOG

- The SERT will be responsible for obtaining resource needs assessment for the impacted areas.
- The Logistics Chief in concert with the SERT Chief will prioritize the acquisition and distribution policy of resources for the LSA.
- All resource requests from counties will be made through the State EOC or Forward Incident Management Team, Logistics Section.
  - Any exception to this will be an operational decision and announced to affected counties

LSA SOG

- When the LSA is declared operational, resource delivery to the LSA will begin immediately.
- The LSA will be managed under the basic concepts of the ICS for management.
- The LSA will maintain a hand count current inventory of all LSA resources, cross check against the SRMN System and insure that this information is provided to the SEOC.

Concept of Operations

- The LSA's primary mission is to supplement resource shortages throughout the impacted area. Therefore, after the existing structure (civilian, government, municipality etc.) is restored to a self sufficient state, the LSA operation is demobilized.

Resource Management

- It is imperative that accurate records are maintained regarding the receiving, inventorying, shipment and field movement of all resources. This includes expendable and non-expendable property.
- The LSA in coordination with the SEOC Logistics Section will be responsible for the tracking of all expendable and non-expendable resources.
- Counties will be held financially responsible for all accountable property deployed to them

LSA Management and Administration

- The SERT Chief will appoint a FDEM Employee as the Agency Administrator in concurrence with the Logistics Section Chief.
- The LSA(s) will be under the direction of the Agency Administrator, but managed by the Incident Commander
- The Incident Commander will have ultimate overall management responsibility for all activities conducted at that site.
- The Agency Administrator and Incident Commander both report as a team, to the Deputy Logistics Chief at the State Logistics Response Center.

State LSA Management Teams

- **Florida Division of Emergency Management**
  - Overall Management of LSA Sites
    - Primary Logistics Lead
    - Primary Finance Lead
- **Florida Division of Forestry**
  - Incident Management Teams,

  and support personnel to conduct LSA operations
- **Florida National Guard**
  - Incident Management Teams,

  and support personnel to conduct LSA operations
    - Warehousing
    - Air Operations
    - Security augmentation to law enforcement

Incident Commander

- Establish operational policy
- LSA direction and control
- Shift schedules
- Information and reporting requirements
- Briefing procedures.
- Establish the general site layout.
- Establish and maintain list of resource requirements for the LSA.
- Responsible for LSA material accountability.

Agency Administrator

- Coordinate with the SEOC Logistics Section and county EOC's to identify resource requirements, current and planned distribution site locations and status.
- Evaluating the requirement with the Incident Commander for continued LSA operations.
- Assist the Incident Commander with the demobilization of the LSA.

Agency Administrator

- Coordinate with DEM on resource and equipment support requirements, incoming equipment and supplies, current inventories, mission status, and operational and logistical problems or requirements.
- Coordinate with state and federal agency support when operating as part of the LSA.

Support Staff and Agencies

- **The LSA support staff will be assigned to support the LSA Commander.**
  - Florida National Guard
  - Division of Forestry
  - State Agencies
  - Mass Care Voluntary Agencies
  - Commercial Contractors
  - Coordination with these agencies will be initiated at the State EOC by a mission assignment.

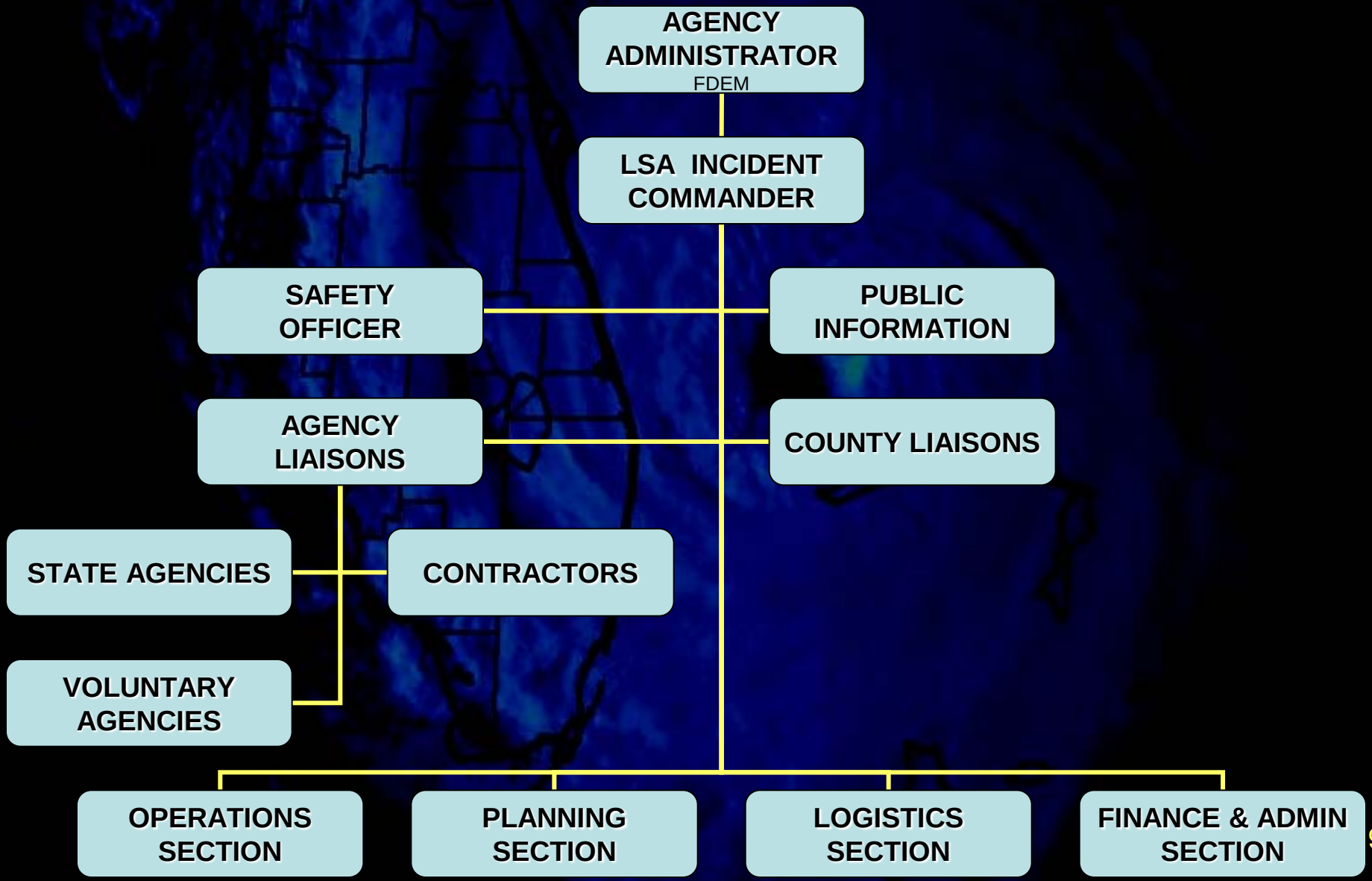
Support Staff and Agencies

Agencies that will be mission tasked to deploy management personnel or agency liaisons to an LSA

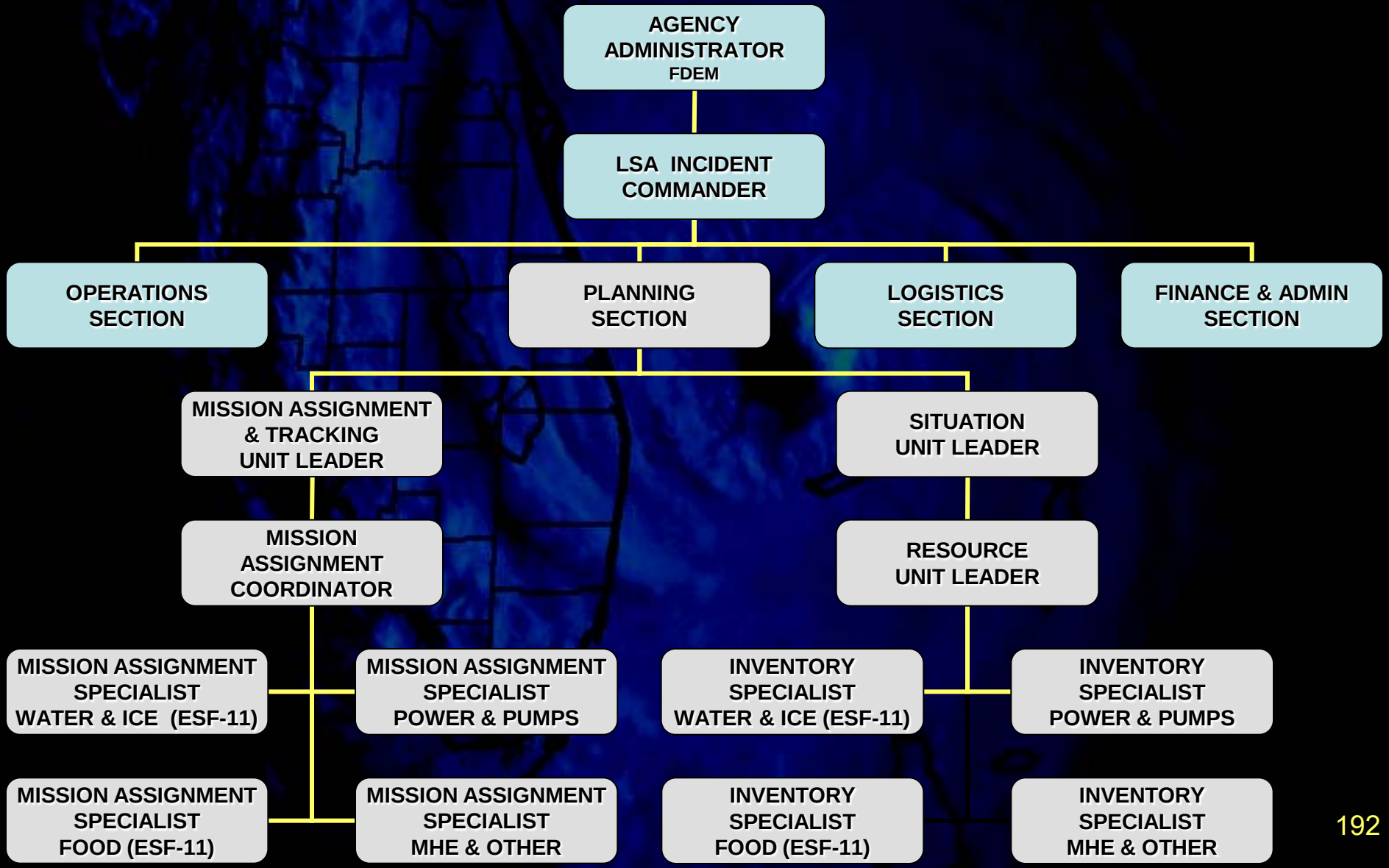
- ESF-2 Communications and Data Support
- ESF-6 Mass Care Support
  - American Red Cross
  - The Salvation Army
- ESF-8 SANPAC Management
- ESF-11 Water and Ice Management
- ESF-11 USDA Commodities Management
- ESF-13 Military Support
  - LSA Operations
  - High Water Vehicle Support
  - Aviation Support
- ESF-14 Public Information
- ESF-16 Law Enforcement Support
- ESF-17 Animal Support
  - Animal commodities
    - Livestock support will be directed through the County Extension Offices

Organizational Structure
State Logistics Staging Areas
LSA

Organizational Structure
State LSA Unified Command

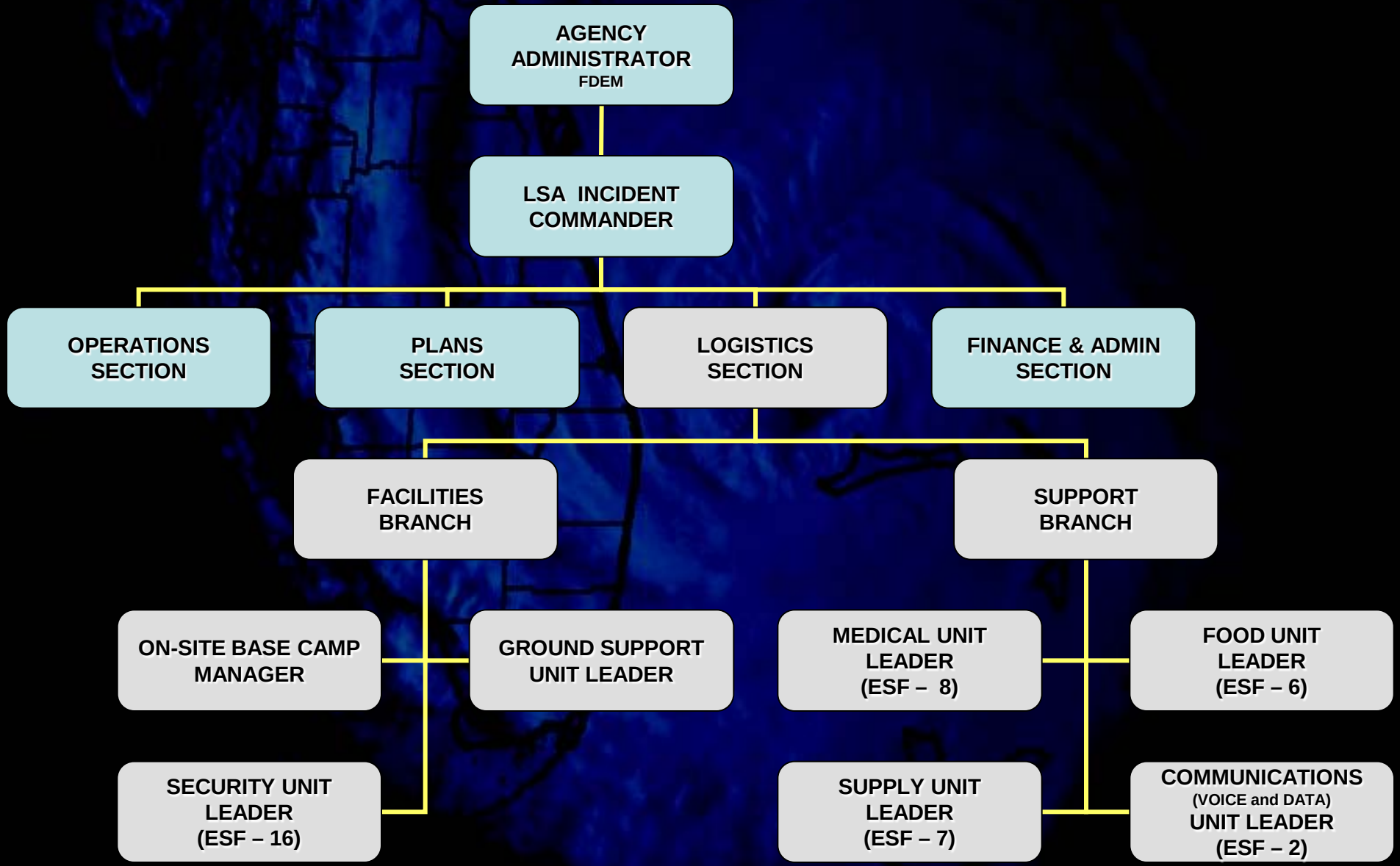


State LSA Organization
Planning Section

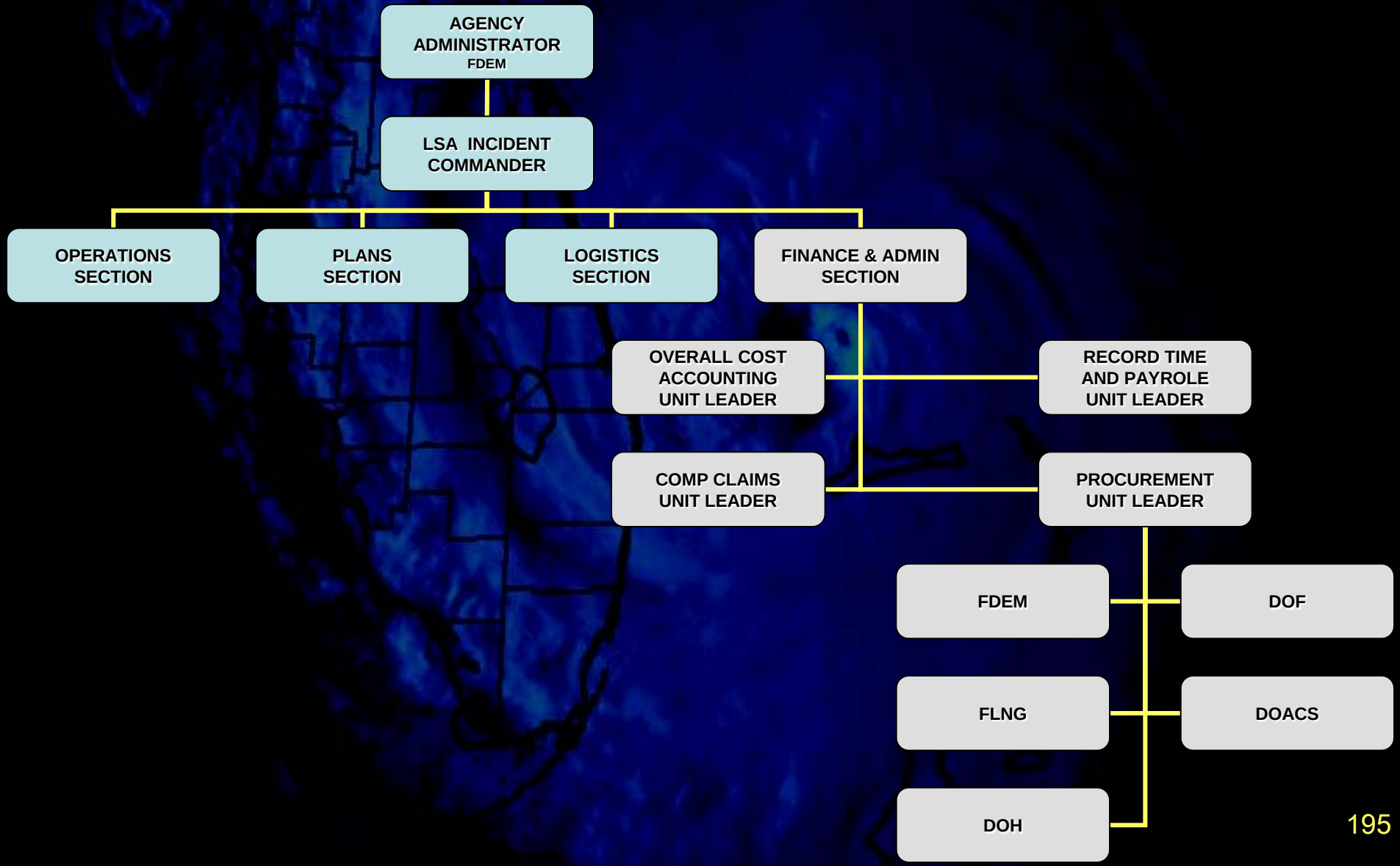


State LSA Organization
Operations Section

State LSA Organization
Logistics Section



State LSA Organization
Finance & Administration Section



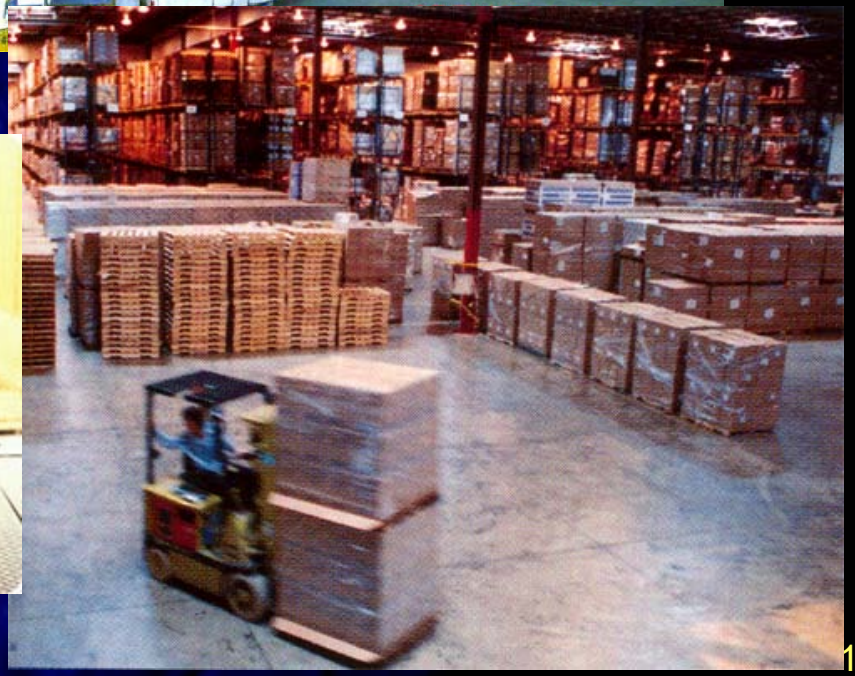
MODULE 7

Functions and Responsibilities In A Logistics Staging Area

Site Selection

Site Layout and Organization

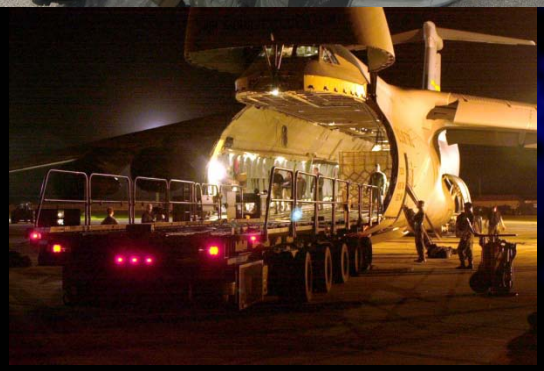
Warehousing



Ordering, Accountability and Inventory Control

Transportation and Ground Operations

Air Operations



Check-In / Check-Out

Driver Support and Relations

Driver and Site Support

FOOD SERVICES

Contract Catering

Driver and Site Support

PORTA-POTTIES

SHOWER TRAILERS

Fueling Services

Coordination with Federal, State, and County Operations Centers

- **County CSA reports to County EOC – Logistics Section**
  - Resources Received by trailer number and resource
  - Resource Shipped to PODs
  - Commodity Burn Rates
  - Reorder Quantities
  - Staffing Requirements
  - Twice Daily Inventories
  - Accountable Property Records

- **County EOC reports to State Logistics Response Center**
  - Using the SERMN If Possible
    - Resources Received by trailer number and resource
    - Resources Shipped to PODs
    - Reports Burn Rates
    - Reorder Quantities
    - Twice Daily Inventories
    - Accountable Property Records
- **State Requests Support from FEMA As Required**
  - Coordinates Logistics under the State Unified Logistics Section structure

MODULE 8

Staging Area Considerations

County Staging Areas (CSA)

- The State prefers to “direct ship” assets to the “Point Of End Use” as requested on the Mission Assignment submitted by a county.
- Municipalities must request resources through their County EOC.
- Counties who elect to establish one or more County Staging Areas (CSA), to self-manage resources contracted for directly by the County, will be assigned a State Logistics Liaison to assist in resource management.

County Staging Areas (CSA)

- County Staging Areas (CSA) must be pre-identified, and capable of receiving resources within 24-hours post event.
- Counties must provide sites with at least one fork lift and two pallet jacks to facilitate the immediate off-loading of resources.
  - The State will be able to assign additional MHE after 72-hours
- All resource requests for State logistics support assets will be made through the State EOC, Logistics Section.

CSA Site Requirements

Minimum Site Requirements:

- 250,000 sq. ft. (5 AC) outside storage/parking.
- 40-50,000 sq. ft. covered/inside storage.
- Loading dock capability.
- Telephone/communications service and fuel support.
- Office, computer, communications, and loading equipment will be required.
- One forklift and two pallet jacks, minimum on site.
- A 300’ X 300’ designated area, clear of wires, for a helicopter landing zone. (LZ)
- Secure Perimeter Area

CSA Capabilities

- Capabilities:
  - Supports multiple distribution points.
  - Close to State and local distribution sites *(expedites service to victims needs).*
  - Limited commodity handling.
  - Immediately adjust to changes in requirements (Flexibility).
  - Expedites response times to needs.
  - Partners with State representatives providing support to victims.

Staging Area Major Tasks

Major Tasks

- Select and confirm the site location for a County Staging Area (CSA)
- Assemble a team.
- Establish communications plans.
- Layout a site.
- Establish essential services.
- Receive and issue commodities.
- Inventory management and resource tracking systems.
- Develop a Demobilization Plan.

Staging Area Considerations

- Material handling equipment (MHE)
- Loading docks or ramps
- Warehouse space [1]
- Hardstand staging (truck parking)
- Area Lighting
- Signage
- Security to include fencing
- 24-hour Staffing
- Communications (voice and data)
- Resource tracking and accountability
- Transportation resources

[1] A typical 48' semi trailers requires 760 square feet of download warehouse space when offloaded.

Staging Area Site Selection

Staging Area Site Selection

Site Selection and Organization Is Critical!

From The Largest . . .

To The Smallest

Plan Your Space

Site Selection

Topics to discuss with landlord:

- Confirm GEO boundaries
- Explore overflow options
- Available Assets and On-Site Resources
- Determine restrictions
- Expectations of landlord
- Exit / entry points and parking areas (one-way traffic!)
- Lights / Lighting
- Phone lines
- Road access (Infrastructure)
- Responsibility for repairs
- Pictures
- MOU or Lease?

Laying Out a Site by Commodity and Traffic Flow

Objectives

- List requirements for:
  - check-in/check out points
  - traffic flow
  - parking areas by commodity/equip
  - emergency power
- Factors in selecting location of driver information center.
- Develop staging area rules/restrictions for driver check-in.
- Layout site by commodity and traffic flow.

Visualize Your Area When Conducting Your Initial Walk Through

Requirements for Check-in / Check-out points

- Approach
- Road Network Infrastructure
- Road surface
- Proximity to entrance point
- Situational factors
- Thru-put
- No gate
- Turn Around Area

Driver Check-In and Check-Out

- SERMN System – Bar Code
- Date of delivery or shipment
- Time of delivery or shipment
- Drivers Name (Last & First)
- Drivers Cell Phone Number
- Trailer Number
- Truck Number
- Commodity delivered/shipped
- Tasker (mission) # of shipments

Driver Check-In

Requirements for Parking Areas by Commodity or Equipment

- Segregate commodities
- Limit disruptions
- Easy identification

Space Requirements

HARD STAND AREA:

- One Tractor and Trailer requires a 12’ X 100’ Space Allocation (1,200 Square Feet)
- One Trailer Only requires a 12’ X 60’ Space Allocation (720 Square Feet)
- One Tractor Only requires a 12’ X 40’ Space Allocation (480 Square Feet)
- One Generator Trailer Pack (200 – 750 kW) requires a 10’ X 20’ Space Allocation (200 Square Feet)
- Check-In Area should accommodate at least 8 trucks at a time (9,600 Square Feet)
- Check-Out Area should accommodate at least 8 trucks at a time (9,600 Square Feet)
- 1 Acre = 42,000 Square Feet

Space Requirements

WAREHOUSE SPACE:

- One Emptied Semi Trailer, single pallet layer, requires a 12’ X 60’ Floor Space Allocation (720 Square Feet)

OFFICE SPACE ALLOCATION:

- 80 square feet per office worker
- Typical Staff of 30 Office Staff = 2,400 Square Feet
- Office Equipment Space = 500 Square Feet

Receiving and Staging the Strategic National Pharmaceutical Stockpile

10,000 Square Feet of separate and secure climate controlled warehouse

Requirements for Traffic Flow

- Safety
- One way in and one way out
- Room to maneuver
- Accountability
- Exclusive use of the gate

Requirements for Generator Yard Staging area

- Large area to work in
  - At least 5 acres of land for preparations
- Easy egress

Cones, Safety Barriers Security and Lighting

- Cones and traffic flow
- Area Lights
- Truck Parking and Safety
- POV and Agency Vehicle Parking and Safety
- Perimeter Barriers
- Site Security
- Command Post location

Driver Check-Out

Driver Information Center

- Convenient to contain drivers
- Close to driver facilities
- Situational considerations

Information Provided to Drivers

- Movement inside staging area
- Shuttle services
- Emergency contacts
- Life support facilities

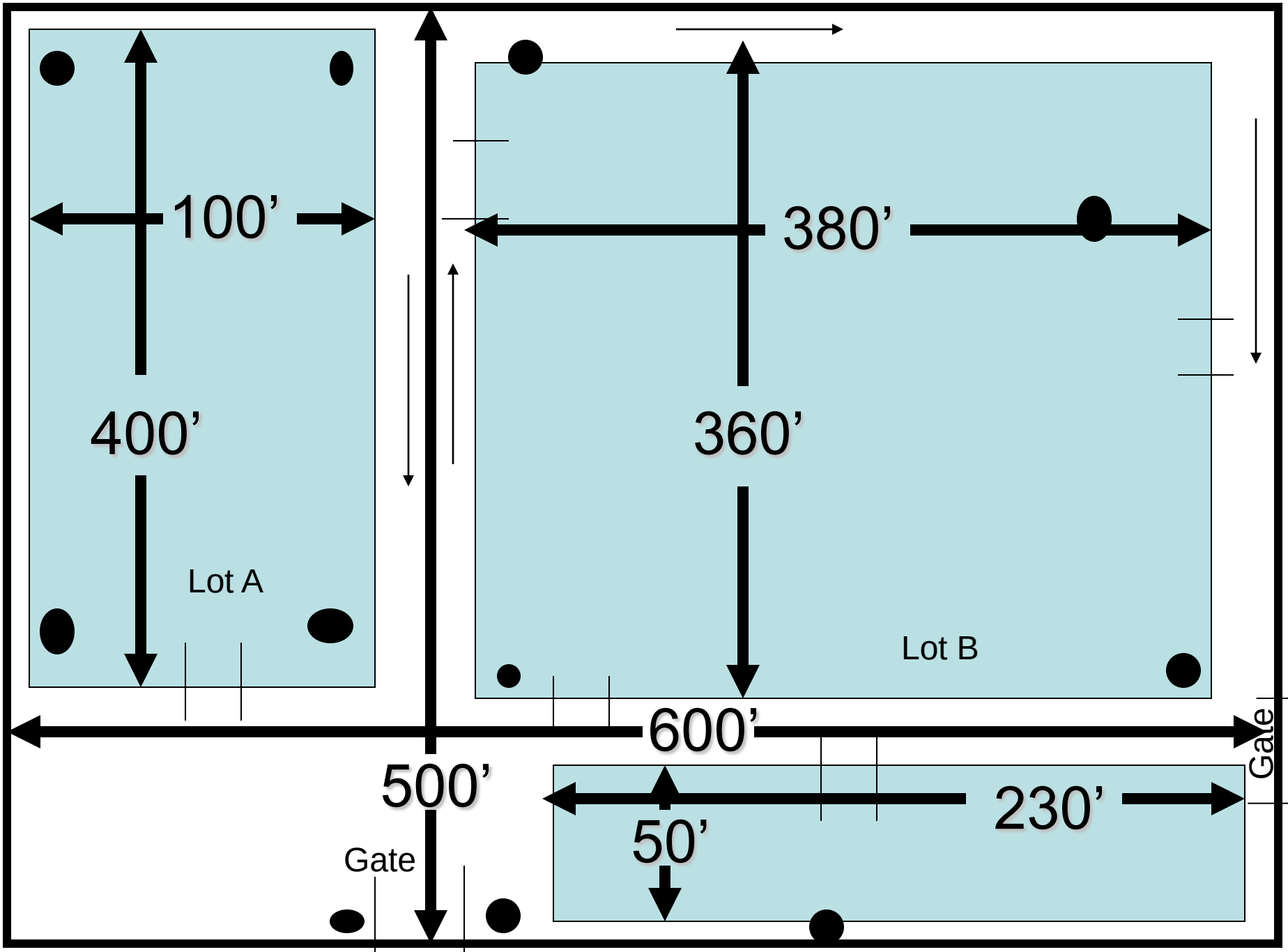
Services for CSA Staff and Drivers

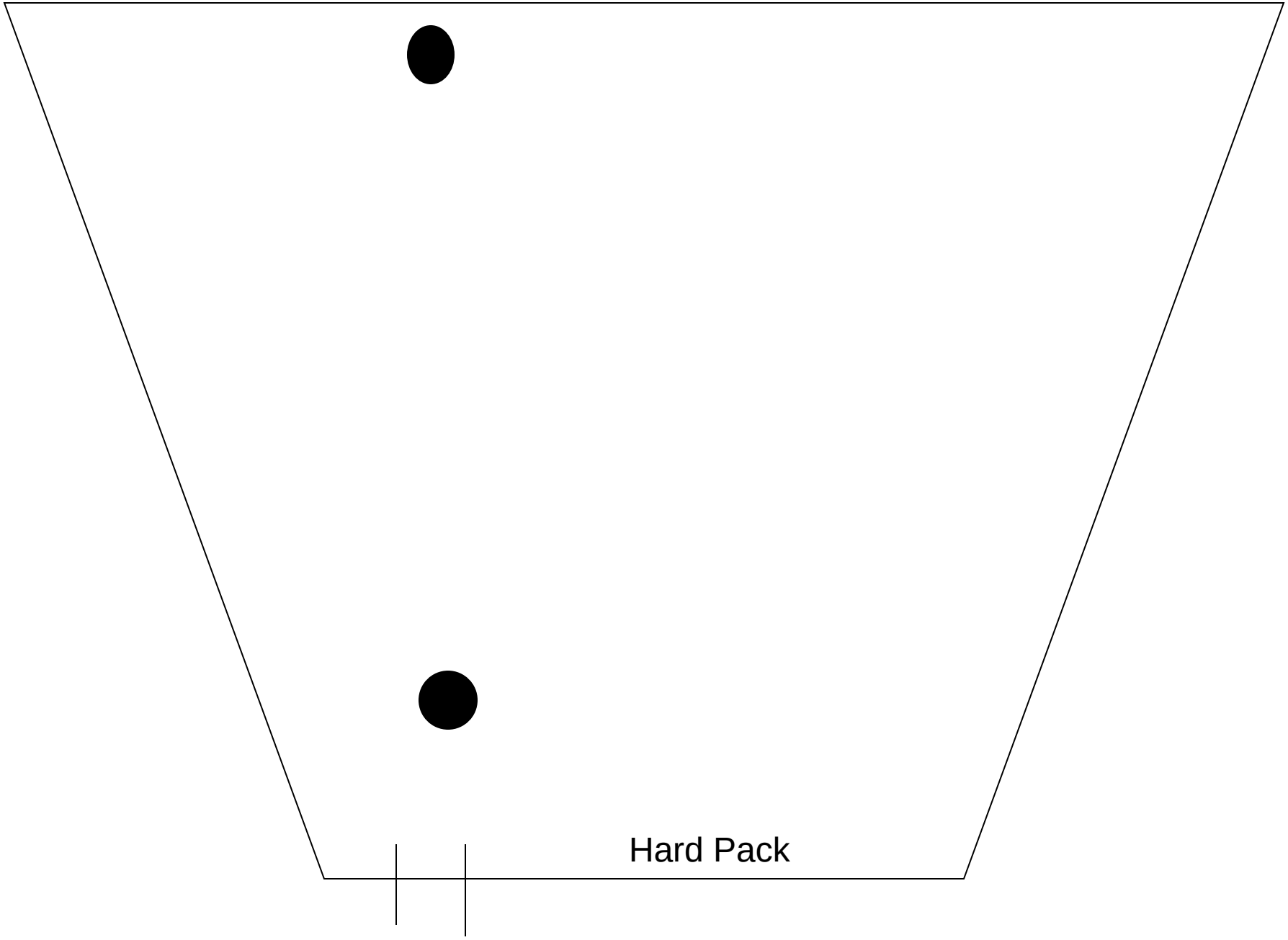
- **Food Services**
  - Contract Catering
- **Restrooms**
  - Porta-Potties or Restroom Trailers
    - Serviced Daily
- **Showers**
  - For Drivers remaining overnight
    - Serviced Daily
- **Rehab Area**
  - Covered and cooled (AC or Fans)
  - Beverages
- **Medical Area**
  - Can be part of Rehab Area
  - Must provide privacy area
- **Waste Management**
  - Dumpsters
    - Serviced Daily

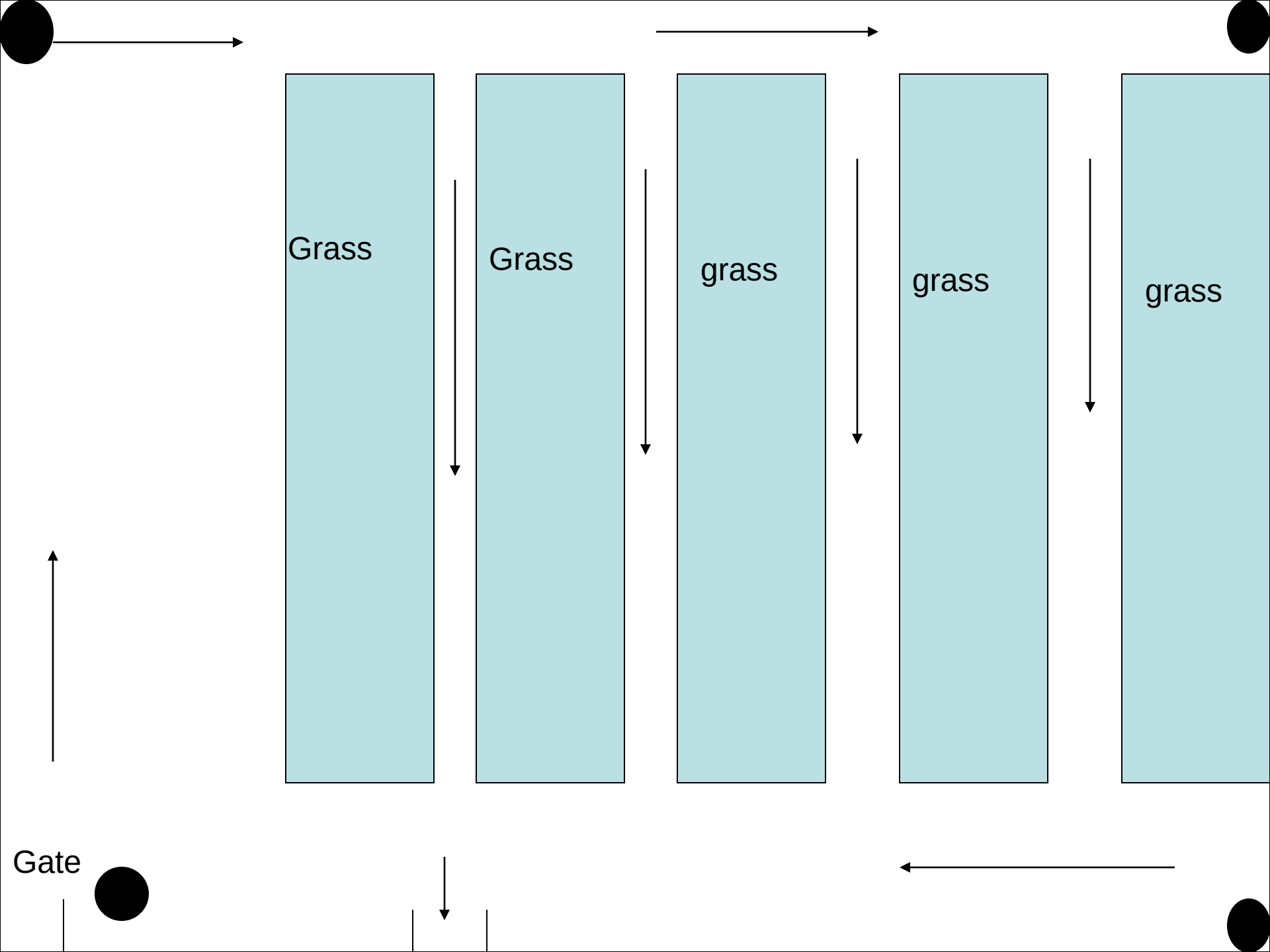
Site Layout Exercise

20 Minutes

- Refer to the three full site layout sheets
  - Each are separate CSA sites
- In your groups, determine the best allocation for trucks, driver support and command area for the spaces available.
- Remember a tractor-trailer combination requires 12’ X 100’ of area
- Trailer only requires 12’ X 60’ of area
- Determine how many trucks you can place in each staging area and where they would go
- Each site is approximately 300,000 Square Feet or 7+ acres
- 20 Minutes


100’
380’
400’
360’
Lot A
Lot B
600’
Gate
500’
230’
50’
Gate


Hard Pack


Grass
Grass
grass
grass
grass
Gate

MODULE 9

Staffing Staging Areas

Counties Must Staff The CSA

Staging Area Logistics Team:

- Manager (Trained/Experienced)
- Transportation Specialists
- Accountable Property Officer (APO)
- Material Handlers (MHE)
- Inventory Management Specialists
- Ground Support Team
- Safety Officer
- Mission Specialists
- Planning Specialist/Reports
- Ordering Specialist

Pre-deployment conference call

- In processing a team
- Develop mission briefing
- Prepare safety briefing
- Map recon
- Movement plan briefing
- Inventory equipment
- Preventive maintenance checklists
- Identify types of equip/veh available
- Identify additional asset requirements

Pre-deployment Conference Call Checklist

Conference call set-up

- Status report
- Site identification
- Personnel: Staging area management team
- Personnel: Supplemental support
- Communication channels
- Financial
- Distribution process
- Movements
- Evaluation team

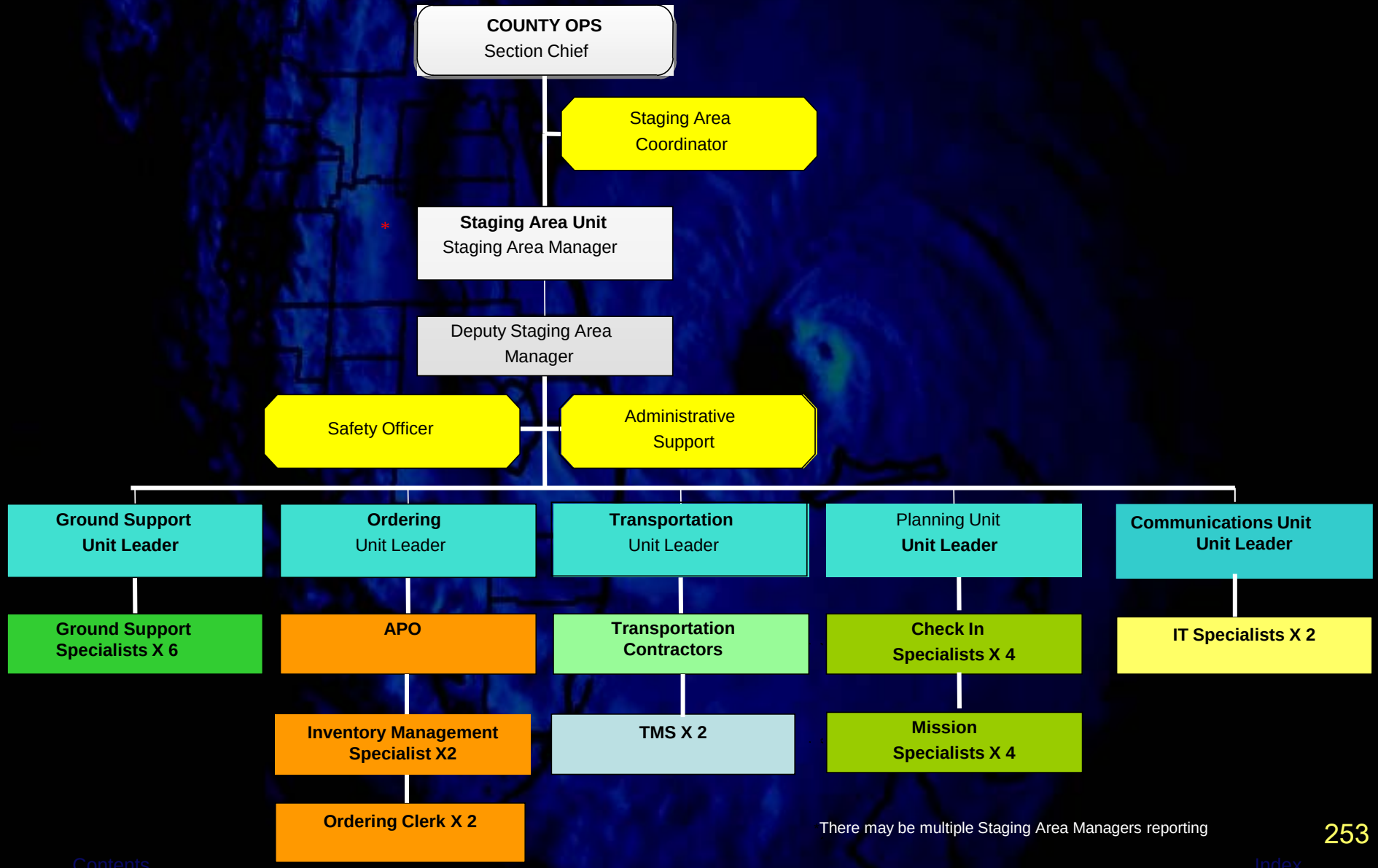
Team Briefing

- Distribute list of team by positions
- Collect info on each team member
- Situation (i.e. status of hurricane)
- Safe haven
- Commodities
- Site layout
- Command and Control (C2)
- Site owner
- Egress points
- Meetings and conference calls
- Hours of operation
- Incident Action Plan
- Reporting and times

Staging Area Team Deployment

- Execute movement plan
- Teams will assemble and deploy to the designated Staging Area location together
- Teams may operate from a building or mobile unit initially.
- A Logistics “fly away” kit will be deployed, which will consist of equipment/supply trailer & vehicle

BASIC COUNTY STAGING AREA ORGANIZATIONAL CHART



There may be multiple Staging Area Managers reporting

Staging Area Manager

- Manages resources at staging area
- Dispatches resources as directed by County Operations Section Chief through Logistics Staging Area Manager.
- Establishes staffing levels to support operational requirements.
- Maintains reporting requirements established by Ops Section Chief.
- Maintains open communications with assigned State Logistics Staging Area Manager

Ground Support

- Responsible for safe and orderly storage of assets and commodities.
- Provide space/storage for specialized items (perishables, controlled materials).
- Establish centralized receiving process at facilities.
- Conduct cross loading operations.

Ground Support

- ID Transportation requirements.
- Manages physical environment, e.g. receiving, temp storage, distribution, provides controls and procedures.
- Prepare, coordinate, and monitor retrograde transport of commodities and teams.

Ground Support

- Maintains equipment.
- Operates equipment.
- Ensures operators are trained and certified.
- Responsible for Driver Support Area
  - Driver Information Area
  - Food Services
  - Restroom
  - Showers

Ordering Unit

- Provides general financial guidance to the Staging Area Manager and staff.
- Plans for and assures the proper acquisition process is in place.
- Prepares and provides financial tracking reports.
- Identifies potential financial management concerns.
- Tracks all credit card and purchase order purchases.

Ordering Unit

- Secure funding for equipment and other essentials for operation.
- Determine funding needs for feeding/billeting.
- Establish local vendor contract for services.
- Purchase supplies.
- Plans and initiates fiscal closeout procedures for Staging Area.

Ordering Unit

- In-processing of personnel.
- Establishing building maintenance and custodial arrangements.
- Identifies and manages billeting/lodging requirements in coordination with County EOC

Accountability

- Counties will be responsible for the accountability of all assets sent by the State to a County either directly or through a County Staging Area.
- The County will maintain a current inventory of all LSA resources and insure that this information is provided to the SEOC prior to each State Logistics IAP Meeting, in order to coordinate resource support.
- Role of the APO and Inventory Specialists

Accountable Property Officer (APO)

- Ensures all accountable property received is properly marked and inventoried
- Prepares accountable property reports
- Establishes internal controls
- Issues equipment, e.g. cell phones, computers, etc.
- Establishes tracking mechanisms for recoverable accountable property.
- Conducts “wall to wall” inventory at closeout of Staging Area
- Recovers and properly disposes of property during demobilization phase

Accountable Property

- Ice, Water, Tarps, Sand Bags, Cots, Blankets, Shelf Stables Meals and MRE's are expendable supplies and are not accountable property.

- Generators, Flood Pumps, Cranes, Vehicles, Forklifts, Ramps, Light Towers, Communications Equipment are accountable property.

Accountable Property State to County

- Leased assets made by the State on behalf of a county are financially transferred from the State to the County upon delivery and issuance of a County Purchase Order to the vendor to cover the lease period.
  - E.g. If a county requests 50 generators, they will be billed for 50 generators.
- Counties will be held accountable for all physical property assigned during the operation.
- Counties will be billed the purchase / replacement price of tangible property for Leased Property not returned to the vendor of record or back to the State.
  - Leased equipment IS reimbursable
  - Purchased equipment is NOT reimbursable

Transportation Unit

- Plans for and executes all support activities of both ground and air trans.
- Conducts fueling operations.
- Coordinates traffic flow at site.
- Manages fleet vehicles.
- Provides layout and traffic control of Staging Area.
- Coordinate with State LSA on shuttle drivers.
  - **State LSA's Work Through the State Movement Coordination Center at the State EOC**

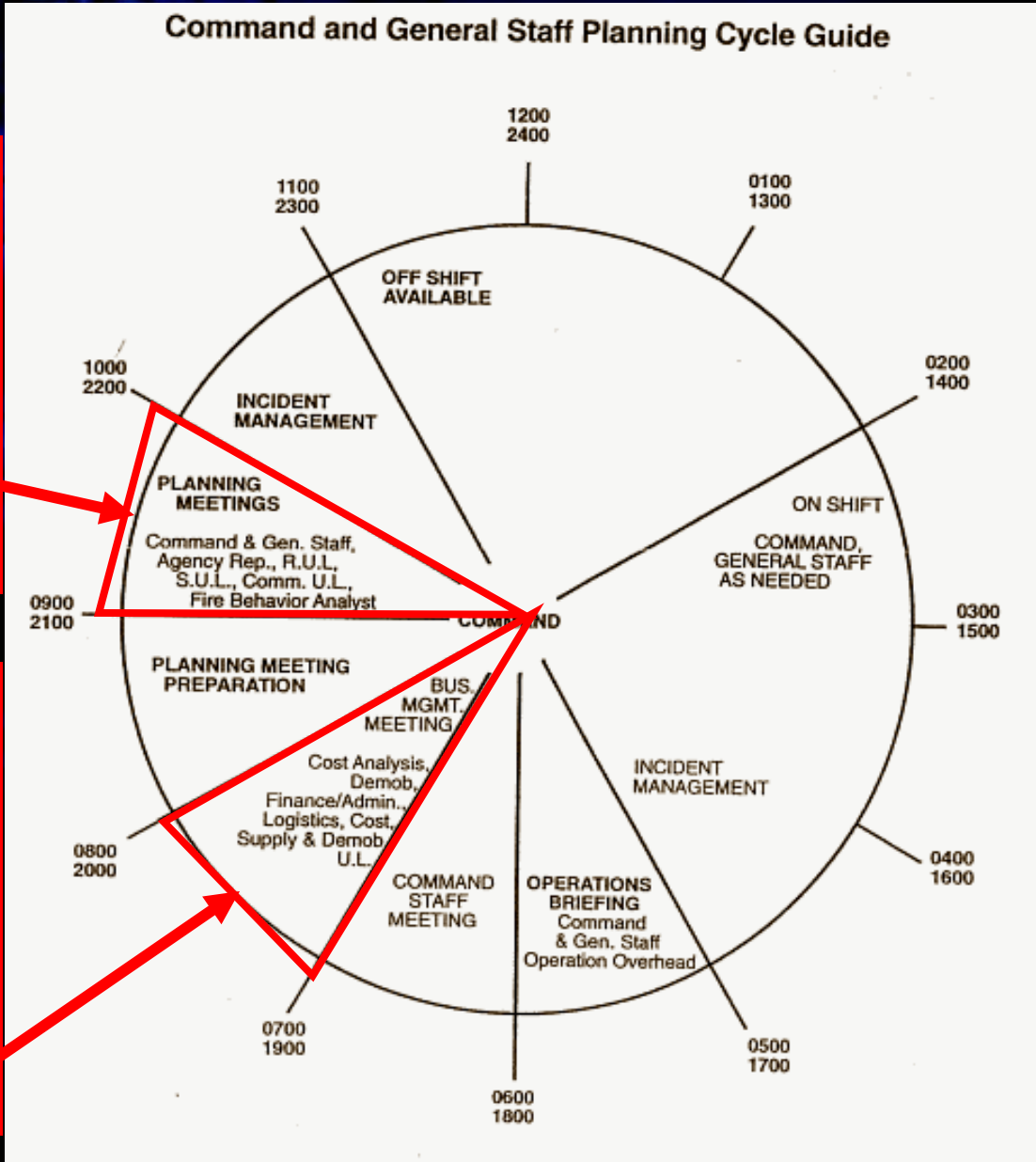
Planning Unit

- Provides receiving & distribution services for the CSA.
- Develops an operational checklist for pre and post activities.
- Provides distribution assistance in some cases
- Develops Staging Area IAP in support of the County EOC ESF-5 IAP.
- Develops and publishes shipping schedule (movement coordination).
- Also publishes safety, security, operational, plans to keep staff informed.
- Prepares demobilization plan/ transition plan.
- Conducts planning meetings for staff.

Logistics Planning Cycle

- Commodity Forecast for next 24-hours
- Staffing Requirements
- Forward reports to County EOC

- IAP
- Shipping Report
- Receiving Report
- Inventory
- Accountable Property Report
- Forward Reports to County EOC



Planning Unit Resource Tracking

- Ensures all assets are tracked moving through the system and Staging Area.
- Utilizes appropriate programs prepares asset visibility reports to management.
- Maintains current inventory of assets.
- Maintains receiving and distribution reports.

Planning Unit Reporting

- Coordinates and implements standard reporting procedures to include formats, timeframes, and methods.
- Insures that common units of measurement are consistent with the State LSA and reporting requirements
- Prepares management reports.
- Central point of collection for reports.

Reports

Twice Each Day:

- Receiving - Check-in gate log
- Shipping - Check-out Logs
- Inventory
- Accountable Property

Inventory Report

Site: Orange County CSA			Date:	10/24/05		Time:	17:00				
				PLASTIC						EMPTY	EMPTY
RESOURCE	ICE	WATER	FOOD	20x50	20x10	TARP	GEN	COTS	BLANKET	Box	Reefers
Daily Requirement	15	15	5	0	5	3	0	0	0	50	20
Desired Stock age Level	50	50	25	0	10	10	0	2	2	50	20
Received	9	3	0	0	0	0	0	0	0	8	0
Shipped	1	2	0	0	0	0	0	4	2	4	0
On-Hand-Uncommitted	75	168	4	0	15	0	6	0	1	170	13

Refer to full inventory report under your FORMS Packet tab

Communications Unit

- Provides the planning, delivery, and installation of telephone, computer and related communications equipment.
- Request telephone service.
- Provides network support.

Staging Area Safety

LOGISTICS SUPPORT

- Assign a Safety Officer to the site
- Conduct safety inspection with the Staging Area Manager
- Mark off unsafe areas
- Establish and post a safety plan for the site
- Issue safety vests to all persons working around vehicles and loading docks
- Issue gloves and hardhats to persons loading or unloading equipment or supplies
- Ensure that forklift operators are trained and certified for the rated forklift they will be operating
- Conduct daily safety brief at each of the twice daily IAP meetings

MODULE 10

County Points Of Distribution (POD)

County Points Of Distribution (POD)

- In the immediate aftermath of an event, POD's are the first line of relief operations to affected clients.
- POD sites will be used for the purpose of receiving and distributing bulk emergency relief supplies such as water, ice, food and tarps within the first 24-96 hours after an event.
- Sites are to be included in the County CEMP, with copies forwarded to FDEM.
  - These sites will be incorporated into the 2008 Statewide Hurricane Exercise.

County Points Of Distribution (POD)

- **Local Distribution and Receiving Sites**
  - In 2004 and 2005, counties that had pre-identified their primary receiving site/county LSA and public distribution sites, along with staffing requirements, were able to manage in-bound resources faster and easier.
- **MODEL:**
  - The average site can distribute commodities to between 1,080 – 1,440 cars or 3,240 – 4,320 persons per day based on models.
    - 600,000 people = 130 distribution points daily service, 65 distribution points times per week service.
    - Each Type I Site requires 32 workers

State Support

- The State will push WATER to each county pre identified POD within the first 24-hours post event.
  - Ice, food and other commodities will be provided after 48-72 hours depending upon the assessed need of the operation.
- The State will also provide minimum staffing for each POD for the first 72-hours
- The State will provide at least one forklift and two pallet jacks to each site, followed within 48-72 hours, with porta-potties and dumpsters
- The State will establish one or more State Logistics Staging Areas (LSA) within 24-36 hours to support county operations.
- Initial assets will be pushed out from State Mobilization Areas (MOBAREA) as soon as it is safe.

County Responsibility

- Counties must be able to assume management of POD's after 72-hours
  - National Guard and Division of Forestry assets will most likely NOT be available after the first 72- hours, due to other mission priorities
- Counties must provide traffic management assets (cones, barricades etc.) to the extent possible, or request additional assets through the SEOC
- Counties must provide site security, traffic control and local communications to the extent possible, or request additional assets through the SEOC

Site Security

- Counties are responsible for assigning law enforcement and traffic control personnel to each POD.
- The FLNG deployed for the purpose of establishing a POD, will NOT perform any form of security mission at PODS.
- Counties are responsible for assigning adequate law enforcement personnel to secure the site on a 24-hour basis as well as traffic management and control.
- If the county is short on law enforcement resources, they can request support through the SEOC through normal channels.
- The county may also wish to contract for private security for these sites.
- Counties must also provide for two-way communications between the PODs and the county EOC.
- Counties must provide traffic management resources
  - Cones, barricades, signs

What is wrong with this picture?
TYPE III POD

POD Location List

- PODS MUST BE PRE IDENTIFIED BY THE COUNTY AND THE LIST PROVIDED TO THE STATE LOGISTICS SECTION BY 1 JUNE EACH YEAR.
- The final selection of which PODs will be opened for a specific event must be provided by the county to the State EOC Logistics Section no later than 96-hours PRIOR to hurricane landfall.
- Post landfall, identified sites will be inspected by FLNG personnel assigned to the POD and adjustments made in coordination with the county EOC in the event the site cannot be used due to debris, flooding, road impediments or other factors.

Opening PODs

- Once PODs are open, they MUST remain open for the first 72-hours due to the level of resources, personnel and equipment that must be allocated and deployed in support of PODs.
- After 72-hours, POD locations can be jointly evaluated and moved, closed or new PODs established in the county.
- PODs take at least 24-hours to change or establish, so all location changes must have at least 36-hours advance notice.

Bulk Distribution Calculations

- **WATER:**
  - 4 liters or 1 gal per person (3.79 liters per gal)
    - 1 Case of 16.9 oz bottles = 3 gallons
  - 18,000 liters or 4,750 gal per truck
  - 20 Pallets per Truck, 900 liters per Pallet, 237 gal per Pallet, 1900 # per pallet
  - 212 Trucks = 1 Million Gal (1 Million persons)
- **ICE:**
  - 8# (1bag) per person per day
  - 40,000 # per Truck Load
  - 20 Pallets per Truck, 2000# per Pallet, 250 – 8# bags per pallet, 5,000 Bags per Truck
  - 25 Trucks = 1 million #
  - 200 Trucks = 1 Million Persons
- **Shelf Stable Meals or MRE's**
  - 1 Case Shelf Stable Meals (3 meals per case) per person, per day
  - OR . . . 2 MRE's per person, per day
  - 2,880 Cases per Truck Load / 34,560 Meals
  - 20 Pallets per Truck Load, 144 Cases per pallet, 12 Meals per Case
  - 58 Truck Loads = 2 Million Meals (1 Million Persons)

POD Site Assessment Process

- First, population base; each site must serve the resident community in which it is located.
- Referring to the three POD site plans on the following pages, a county may require one or more Type I POD's in a densely populated area, while Type II and Type III sites would serve outlying areas and special communities.
- Each POD has a projected Area Of Responsibility (AOR). Counties should refer to their census track and dot-density maps to determine population bases, then match the POD Types accordingly.
- More than one Type I site may be required in a given community due to the second factor.

POD Site Assessment Process

- Second, geography and travel distance. In "Blue Sky" planning meetings, a distance of 5—10 miles may not seem like a great distance, but in a post disaster event, it may be impossible to travel these distances due to debris, blocked traffic routes, flooding, damaged bridges or other impediments that would restrict the public from accessing a site.
- For this reason, multiple POD's of varying Type sizes, should be planned for based on known flood planes, bridges, canopy roads, and other factors. Sites should be placed on major roads that allow four lanes where possible since at least 1 lane must be dedicated for POD traffic in each direction.

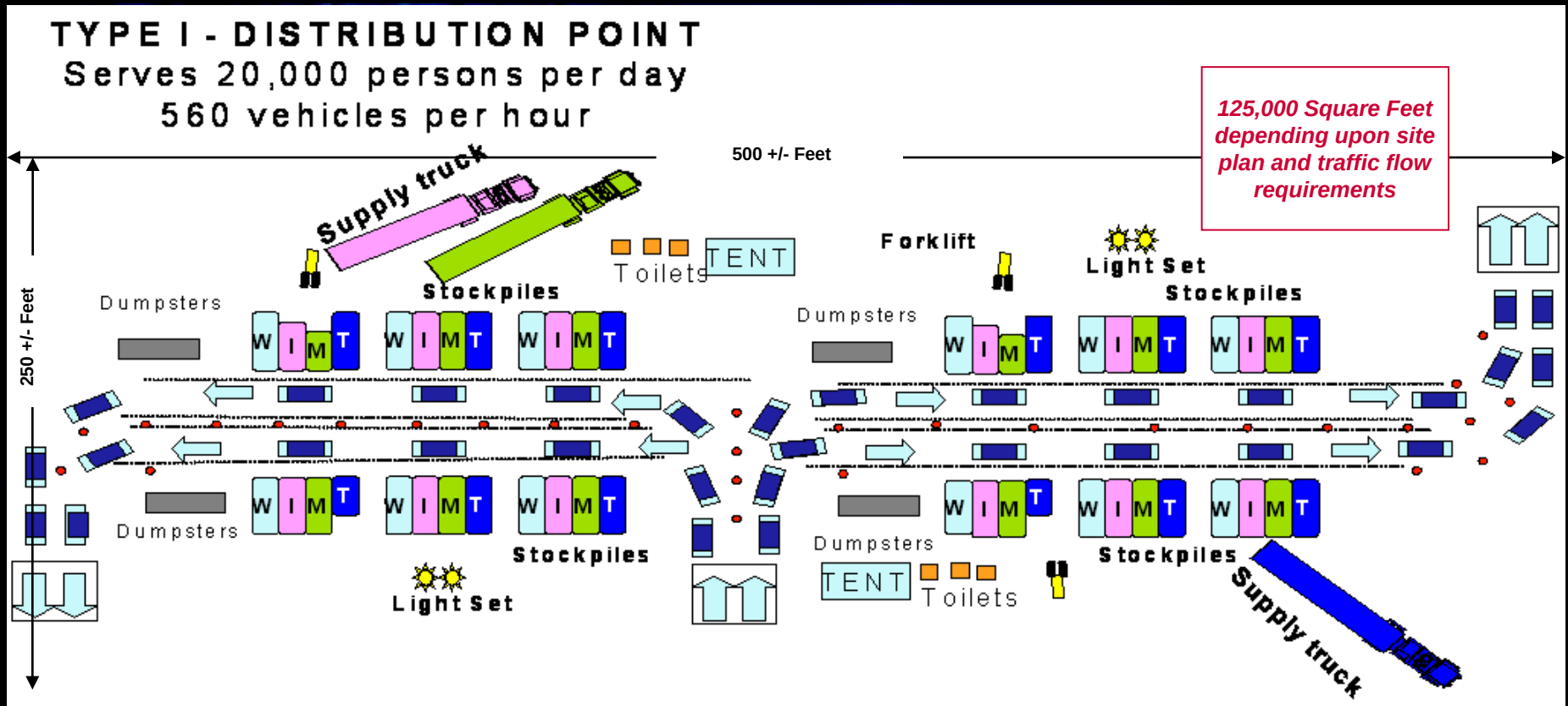
POD Site Assessment Process

- Third, remote and special communities. One cannot assume that the public will travel far from their homes to access resources.
- Type III POD's should be planned for in small communities, large sub-division development tracks, migrant worker camps, Indian reservations, low income areas, and barrier islands.
- Comfort Stations and feeding kitchens are NEVER collocated with PODS, so that traffic may flow at maximum throughput.

Mobile Distribution

- Counties should also plan for mixed load mobile distribution to isolated farms and small plantations, nursing homes, adult living facilities, the homebound and elderly, trailer and mobile home parks, special facilities such as prisons, work camps, and isolated marinas that have fewer than 100 people.
- Agencies such as the American Red Cross and Salvation Army may have the ability to conduct limited mobile distribution to these areas while conducting feeding operations, but each county must address how they will conduct mobile operations in advance based on their demographics.

Type I County Point Of Distribution (POD)



Note: Individual vehicles drive through and Ice & water is loaded into their trunks. Recommend One case water, 2 or 3 bags of ice per vehicle and 6 MRE's.

Supply trucks for Ice, Water, MRE's and Tarps are to be off-loaded promptly and returned for re-supply.

Maximum Loads per Day – Type I

Water	4
Ice	4
MRE	2
Tarp	2

Figure 3

Type I County Point Of Distribution (POD)

Type I Distribution Point
Resources Required

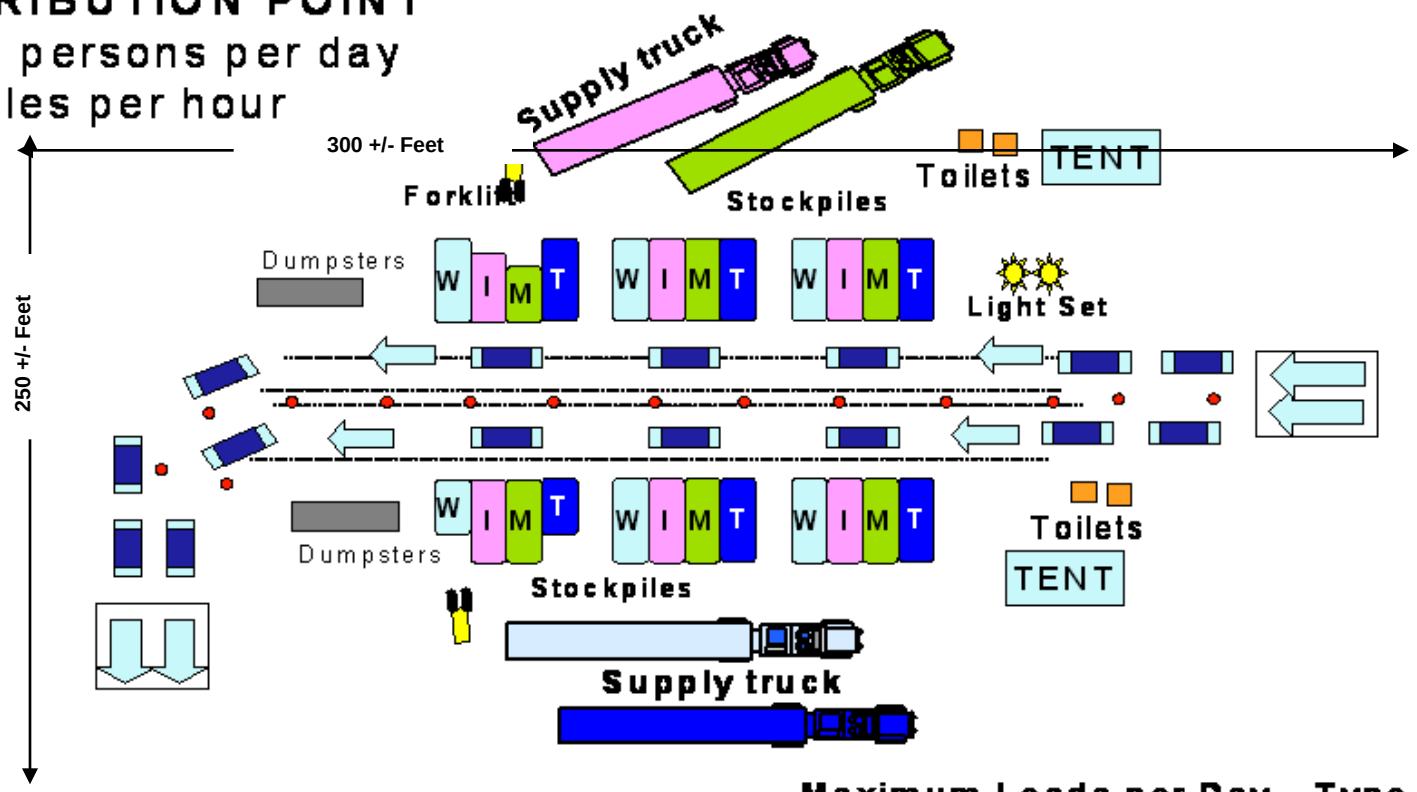
Type I Distribution Point						
Manpower					Equipment	
Type			Day	Night	Type	Number
Local Responsibility	Manager		1	0	Forklifts	3
	Team Leader		2	1	Pallet Jacks	3
	Forklift Operator		2	3	Power Light Sets	2
	Labor		57	4	Toilets	6
	Loading Point	36			Tents	2
	Back-up Loading PT	18			Dumpsters	4
	Pallet Jacks Labor	3			Traffic Cones	30
	Totals		70	9	Two-way radios	4
Others	Law Enforcement		4	1		
	Community Rel.		4	0		
Grand Total			78	10		

Figure 4

Type II County Point Of Distribution (POD)

TYPE II - DISTRIBUTION POINT

Serves 10,000 persons per day
280 vehicles per hour



75,000 Square Feet depending upon site plan and traffic flow requirements

Note: Individual vehicles drive through and Ice & water is loaded into their trunks. Recommend One case water, 2 or 3 bags of ice per vehicle and 6 MRE's

Supply trucks for Ice, Water, MRE's and Tarps are to be off-loaded promptly and returned for re-supply.

Maximum Loads per Day – Type II

Water	2
Ice	2
MRE	1
Tarp	1

Figure 5

Type II County Point Of Distribution (POD)

Type II Distribution Point
Resources Required

Type II Distribution Point						
Manpower					Equipment	
	Type		Day	Night	Type	Number
Local Responsibility	Team Leader		1	0	Forklifts	2
	Forklift Operator		1	2	Pallet Jacks	2
	Labor		28	3	Power Light Sets	1
	Loading PT	18			Toilets	4
	Back-up Loading PT	9			Tents	2
	Pallet Jacks Labor	1			Dumpsters	2
	Totals		30	5	Traffic Cones	15
Others	Law Enforcement		2	1	Two-way radios	0
	Community Rel.		2	0		
Grand Total			34	6		

Figure 6

Type III County Point Of Distribution (POD)

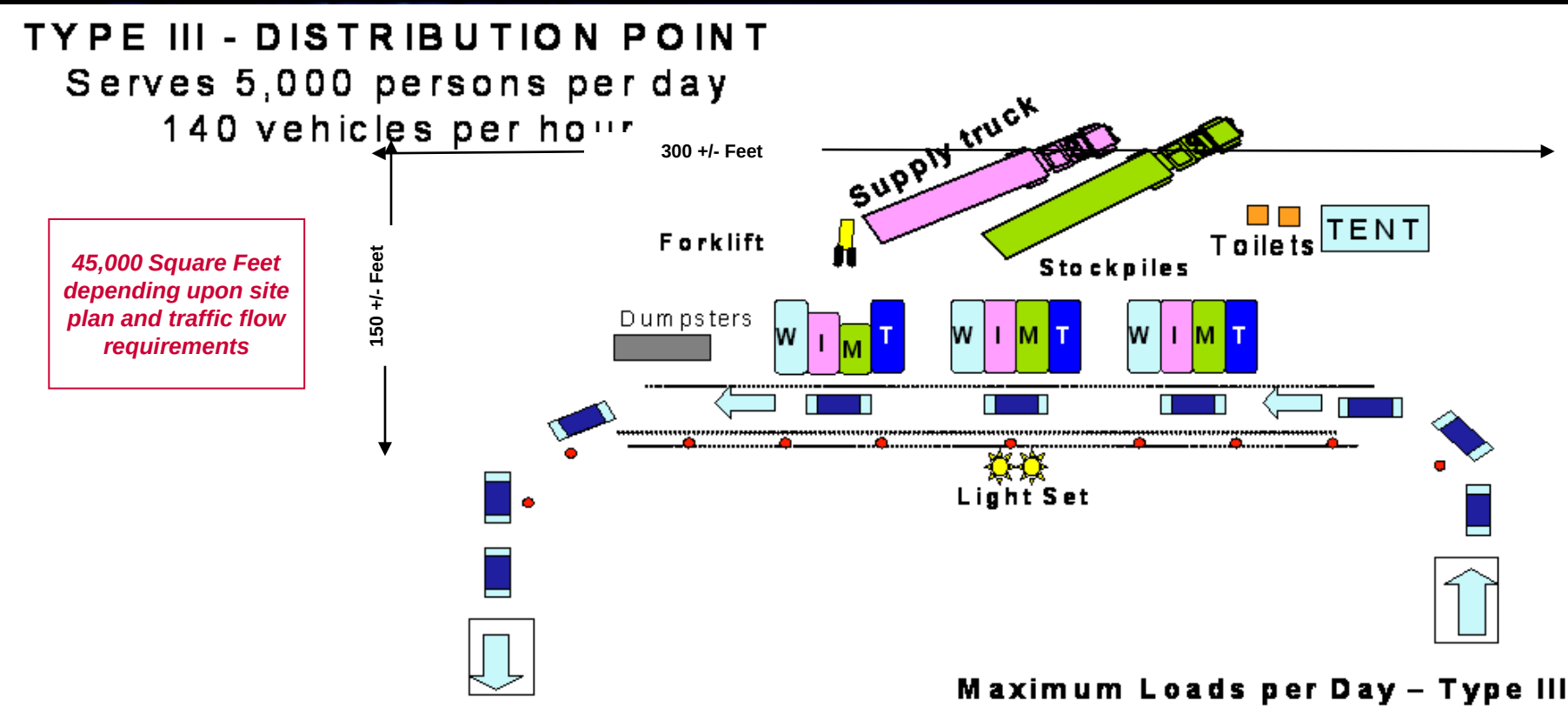


Figure 7

Type III County Point Of Distribution (POD)

Type III Distribution Point
Resources Required

Type III Distribution Point						
Manpower					Equipment	
	Type		Day	Night	Type	Number
Local Responsibility	Forklift Operator		1	1	Forklifts	1
	Labor		15	2	Pallet Jacks	1
	Loading PT	9			Power Light Sets	1
	Back-up Loading PT	5			Toilets	2
	Pallet Jacks Labor	1			Tents	1
	Totals		16	3	Dumpsters	1
Others	Law Enforcement		2	1	Traffic Cones	10
	Community Rel.		1	0	Two-way radios	0
Grand Total			19	4		

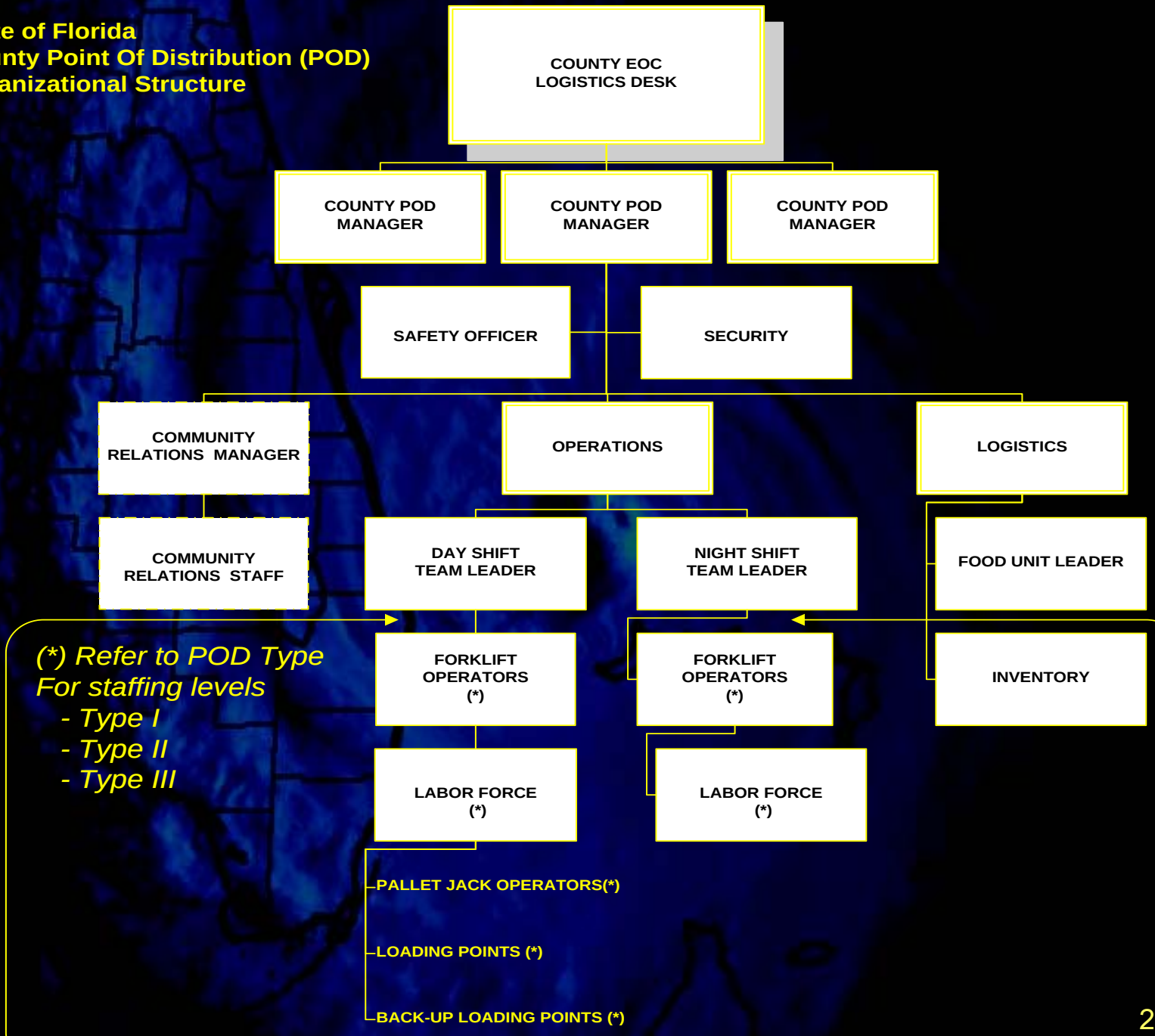
Figure 8

Hours of Operation

- **POD's operate 24 hours per day**
  - Public Distribution runs only during daylight hours for security and safety reasons.
  - All restocking and in-bound trucks deliver at night

- **Daytime deliveries will only be made in emergency situations, because this will stop all distribution operations while trucks arrive and are off-loaded.**

State of Florida
County Point Of Distribution (POD)
Organizational Structure



(*) Refer to POD Type For staffing levels

- *Type I*
- *Type II*
- *Type III*

Distribution of Commodities

- Personnel working in PODS **MUST** limit the quantity of commodities distributed to each family in the first 72-hour period due the limitation of resources.
- It is not uncommon for the State Logistics Section to push out 100% of available resources on day-1 with no back up until additional commodities arrive later in the evening.
- As such, we cannot permit PODs to over distribute early and run out later in the day.

Distribution of Commodities

- Personnel MUST be instructed not to "fill the trunk" with commodities until a strong pipeline can be assured.
- County EOC's will be advised when full distribution can commence at PODs.
- Initial distribution must be limited to the following in the first 72-hour period of operations:
  - 1 Gallon of water per person, per day (4 Liters)
  - 8 pounds of ice per person, per day (1 Bag)
  - 2 Emergency Food Rations (MRE's, Shelf-Stable Meal or equivalent) per person, per day (if available and required)
  - 1 each 20' X 25' Tarp (if available)

Burn Rates

- **On average, the follow are the calculated distribution model for each commodity.**
  - 1 truck of water (4,750 gal) = 1,500 vehicles*
  - 1 truck of ice (42,249 lbs) = 1,666 vehicles*
  - 1 truck of Shelf Stable Meals (13,600 3 Meal Cases) = 4,290 vehicles*
  - 1 truck of MRE's (20,976 ea) = 3,624 vehicles*
  - 1 truck of tarps (4,400 ea) = 4,400 vehicles*

  - *Vehicles represent 3.17 persons per household according to U.S. Census data.

POD and Commodity Model

- MS Excel POD Projection Worksheet
- Forecasts the number of PODS required based on a projected affected population and confidence level of the percentage of population that will require commodities.
  - Not always 100% due to other resources available
    - Markets open
    - VolAg distribution etc.
  - C:\Documents and Settings\desktop_team\Desktop\FL POD FORECAST MODEL.xls

COUNTY POINT OF DISTRIBUTION MODEL

HUMAN RESOURCES and COMMODITES

Enter # of people without power >>>>>>>	0
Enter percentage of people requiring resources >>>	0%
Projected # of people requiring commodities:	0

PLANNING FACTOR: 1 HOME = 3 PEOPLE

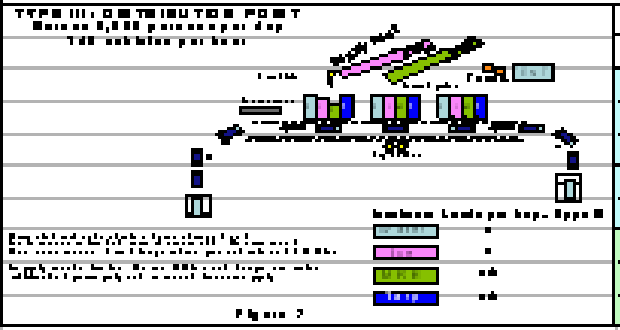
NOT ALL PERSONS REQUIRE ASSISTANCE DUE TO ALTERNATIVE SOURCES. TYPICAL PLANNING FACTOR IS 60%

PROJECTIONS IN THIS MODEL ARE FOR INITIAL RESPONSE PURPOSES

OPTION 1: ALL TYPE III PODS

HUMAN RESOURCES and LOGISTICS SUPPORT

Number of TYPE III Distribution Points Required: 0.0 Sites



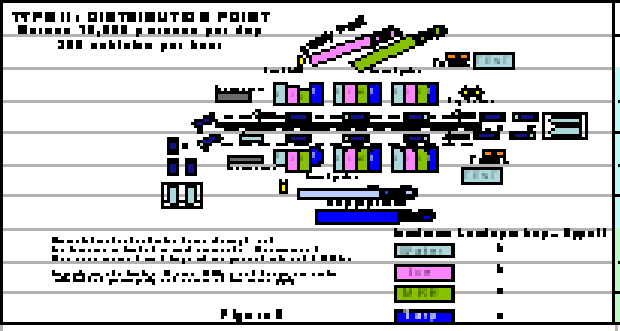
TYPE III DISTRIBUTION POINT

Manpower	Day	Night	Equipment	Cash
LOCAL STAFFING REQUIREMENT			2-Way Radios	
Team Leader	0	-	Forklifts, 4000 lb	
Forklift Operator	0	0	Pallet Jacks	
Laborers	0	0	Traffic Barrels	
SUBTOTAL	0	0	Light Stands, 4000 Watt	
Law Enforcement	0	0	Tables, or Park Pallets	
Community Relations	0	0	Tents (20x40)	
GRAND TOTAL	0	0	Dumpsters, 30 Cu Yd.	

OPTION 2: ALTERNATE USE OF TYPE II SITES

HUMAN RESOURCES and LOGISTICS SUPPORT

Reduce by HALF for TYPE II SITES: 0.0 Sites



TYPE II DISTRIBUTION POINT

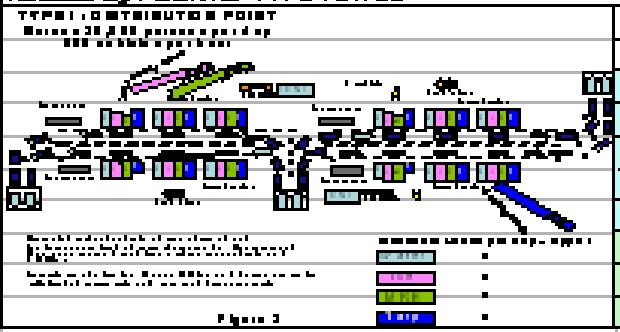
1 Type II POD = 2 Type III PODs

Manpower	Day	Night	Equipment	Cash
LOCAL STAFFING REQUIREMENT			2-Way Radios	
Team Leader	0	-	Forklifts, 4000 lb	
Forklift Operator	0	0	Pallet Jacks	
Laborers	0	0	Traffic Barrels	
SUBTOTAL	0	0	Light Stands, 4000 Watt	
Law Enforcement	0	0	Tables, or Park Pallets	
Community Relations	0	0	Tents (20x40)	
GRAND TOTAL	0	0	Dumpsters, 30 Cu Yd.	

OPTION 3: ALTERNATE USE OF TYPE I SITES

HUMAN RESOURCES and LOGISTICS SUPPORT

Reduce by FOUR for TYPE I SITES: 0.0 Sites



TYPE I DISTRIBUTION POINT

1 Type I POD = 4 Type III PODs

Manpower	Day	Night	Equipment	Cash
LOCAL STAFFING REQUIREMENT			2-Way Radios	
Team Leader	0	-	Forklifts, 4000 lb and Extended Reach	
Forklift Operator	0	0	Pallet Jacks	
Laborers	0	0	Traffic Barrels	
SUBTOTAL	0	0	Light Stands, 4000 Watt	
Law Enforcement	0	0	Tables, or Park Pallets	
Community Relations	0	0	Tents (20x40)	
GRAND TOTAL	0	0	Dumpsters, 30 Cu Yd.	

IN ADDITION TO FOOD, Commodity requirements must be taken into account for other sites such as shelters, mobile kitchens and comfort stations once they are established/stood.

SHELTERS = MIXED LOAD OF 3 PALLETS WATER, 1 PALLET ICE and 1 PALLET MRE'S PER 500 PERSON FACILITY

MOBILE KITCHENS = 2 TRAILERS WATER, 1 TRAILER ICE PER 10,000 MEALS PER DAY SITE.

NOTE: FIRST DELIVERY OF TRAILERS REMAIN THROUGH ACTIVATION FOR FIELD WAREHOUSING SUPPORT.

PROJECTED COMMODITIES TO BE ORDERED

NOTE: All figures are provided here are PROJECTIONS for logistic planning purposes only.

Once a square space is known, items can be modified and per truck will be calculated.

NO MOBILE JAM TAKES ALL FACTORS INTO CONSIDERATION

TARPS:

TRUCKS	EACH
0	0

Number of truck loads required per day for 24 days	EVENT DAY	WATER			ICE			MRE's	
		TRUCKS	LITERS	GALLONS	TRUCKS	EACH	POUNDS	TRUCKS	MEALS
	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
PROJECTED 72 Hour Planning Total >		0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
PROJECTED Next 72 Hour Planning Order >		0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
PROJECTED 10% Resupply Increase >	8	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0
PROJECTED 20% Resupply Increase >	16	0	0	0	0	0	0	0	0
	17	0	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0	0
	19	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0
	21	0	0	0	0	0	0	0	0
	22	0	0	0	0	0	0	0	0
	23	0	0	0	0	0	0	0	0
	24	0	0	0	0	0	0	0	0
Total Projected Loads		0	0	0	0	0	0	0	0
		TRUCKS	LITERS	GALLONS	TRUCKS	EACH	POUNDS	TRUCKS	MEALS
		WATER = 4,700 GALLONS PER TRUCK			ICE = 5,000 POUNDS PER TRUCK			MRE = 20,736 PER TRUCK	

Resource Modeling - Water

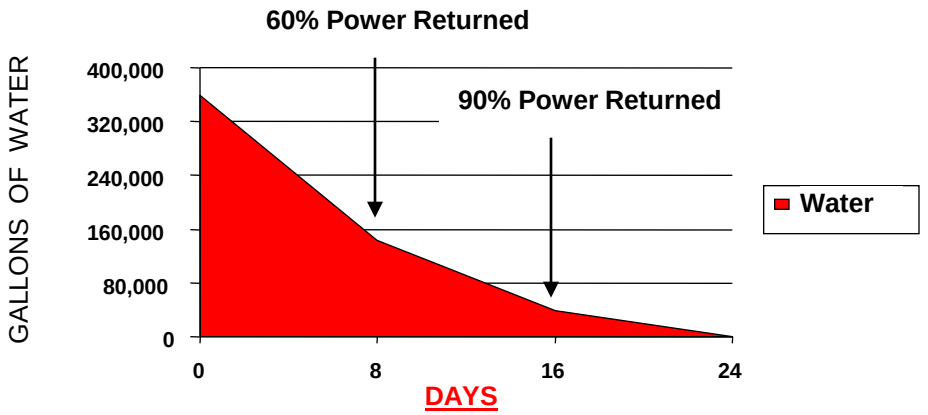
- **People without power × 0.6 = People requiring water**
- **People requiring water × 1 gallon/day = One day water requirement**

Sample Water Model: The following table shows how the number of water needed for 200,000 households (600,000 People) for the first 24 days.

Day	Gallons of Water	Truck Loads
D+1	360,000	76
D+2	347,657	73
D+3	335,314	71
D+4	322,971	68
D+5	310,629	65
D+6	298,286	63
D+7	285,943	60
D+8	273,600	58
D+9	241,843	51
D+10	214,055	45
D+11	186,268	39
D+12	158,480	33
D+13	130,693	28
D+14	102,905	22
D+15	75,118	16
D+16	51,300	11
D+17	44,888	9
D+18	38,475	8
D+19	32,063	7
D+20	25,650	5
D+21	19,238	4
D+22	12,825	3
D+23	6,413	2
D+24	0	1

Assumptions

- **Number of households w/o power:..... 200,000**
- **Number of people w/o power (households × 3)..... 600,000**
- **Number of people requiring water (people w/o power × 0.6).... 360,000**
- **D+1 gal. required (1 gallon × people requiring water)..... 360,000 gallons**



Warning: Do not base projects on this model only, but also take into consideration other factors to include distribution capabilities, other sources of water (local sources, state and volunteer efforts, etc.), and power restoration capabilities.

Resource Modeling - Ice

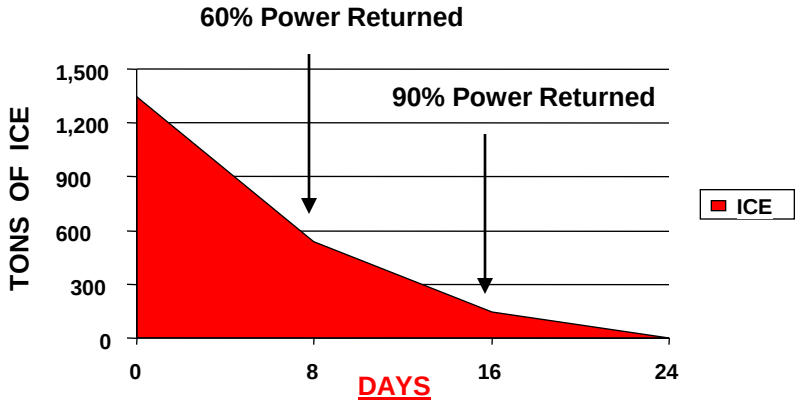
- **People without power × 0.6 = People requiring ice**
- **People requiring ice × 8 lbs/2000 lbs = One day ice requirement (tons)**

Sample Ice Model: The following table shows the amount of ice needed for 200,000 households (600,000 people) for the first 24 days.

Day	Tons of Ice	Truck Loads
D+1	1,440	72
D+2	1,399	70
D+3	1,358	68
D+4	1,317	66
D+5	1,275	64
D+6	1,234	62
D+7	1,193	60
D+8	1,152	58
D+9	1,010	51
D+10	868	43
D+11	726	36
D+12	584	29
D+13	442	22
D+14	300	15
D+15	158	8
D+16	158	8
D+17	139	7
D+18	119	6
D+19	99	5
D+20	79	4
D+21	59	3
D+22	40	2
D+23	20	1
D+24	0	0

Assumptions

- Number of households w/o power:…… .200,000
- Number of people w/o power (households × 3)…….. 600,000
- Number of people requiring ice (people w/o power × 0.6)…….. 360,000
- D+1 Tons required (8 lbs. × people requiring ice/ 2,000 lbs)…1,440 tons



Warning: Do not base projects on this model only, but also take into consideration other factors to include distribution capabilities, other sources of ice (local sources, state and volunteer efforts, etc.), and power restoration capabilities.

County CSA & POD Exercise

30 minutes

- **Working in groups, develop a fictitious county:**
  - Determine your county wide population and cultural makeup
  - Develop major city centers and populations
  - Indicate major hazards (coastal and inland)
- **Develop a logistics support plan for your county**
  - Pre identifying sites, staffing requirements, contracting for resources and management of the function
  - County Staging Areas (CSA)
    - Would your county open one? Why?
    - Contracting and management of resources
    - Staffing and management of the site(s)
  - Points Of Distribution (POD)
    - Determine the number of Type I, II and III PODS for your county
    - Determine the total staffing requirements, and possible sources of staffing
    - Determine the triggers that would indicate consolidation and final closure of POD's.
  - Determine other methods of providing the community support of commodities
- **Select a reporter and present your findings**

MODULE 11

State Emergency Resource Management Network (SERMN)

TRAINING OBJECTIVES

- Introduce and provide an overview of the State Resource Management Network (SRMN)
- Provide instructor-led and “Hands-on” training for the following SRMN software technology components
  1. ResourceVision (Emergency Response/Recovery Asset Catalogue and Management System)
  2. GTVC (Geo-mapping, Mission Planning, Asset Tracking and Incident Management System)
- Review the National Incident Management System (NIMS) aspects of Resource/Asset Management and Emergency Response/Recovery and how SRMN components facilitate an organization’s compliance with NIMS

The Problem

Homeland Security: Since 09-11, America has focused on Preparedness & Response to Illicit Events (Terrorism)

- Regulations were established to facilitate capabilities improvement at the local level
  - But, funding was slow to accompany the rules
- Each year a new hazard provided a new focus area
  - Anthrax, Smallpox, IEDs, Pandemic Influenza
- Federal Funding was provided to pay for the efforts
  - But, lack of specificity led to "tools" purchases

THE BOTTOM LINE: We quickly learned that few organizations had the in-house expertise, bandwidth, or tools to effectively prepare for, and respond to, these new emergency situations

The Problem

Natural Hazards: Based on Katrina, Our Focus Shifted to Improve the Response to Catastrophic Emergencies

- **Hurricane Katrina exposed our vulnerabilities at all levels -**
  - **Improved Collaboration needed for Incident Response & Recovery**
    - Asset identification/tracking
    - Emergency Responder Credentialing
  - **Expertise needed for Recovery/ Remediation Efforts**

THE BOTTOM LINE: "New" Requirements for Local Response emerged, including Catastrophic Event Planning & Response, Volunteer Management, and Managing Surge Capacity

Regulatory Response

Pre-Katrina

Incident Management

- ✓ No standardized organizational structure (Fire, Police, Emergency Services - All similar but different)
- ✓ Difficulty in sharing resources (Local, Municipal, County, State, Private Industry)
- ✓ No clear standards for communications (Across agencies, across boundaries)
- ✓ Numerous approaches to resource typing (a tanker, a rescue company, ambulance squad)
- ✓ Difficulty in tracking resources through an Incident (visualization of different assets working together needed)
- ✓ Varied approaches to mutual aid
- ✓ Developing standards for training & credentialing

Future

Incident Management

- ✓ National Incident Management System to standardize response terminology (HSPD – 5)
- ✓ Guided by the National Response Framework specifying how Federal, State, Local and Private Industry will work together to respond to incidents (HSPD – 5 and HSPD - 8)
- ✓ Measured against the National Preparedness Goal which establishes performance criteria and national priorities (HSPD – 8)
- ✓ Will focus on Catastrophic Event Planning and Response, including Incident Management and post-event Recovery/Remediation efforts
- ✓ "Standing Teams" of resources that can be mobilized, deployed, and managed effectively

Markets Impacted

- Municipal: Local & State Agencies
- Industrial: Chemical / Utilities
- Healthcare: Hospitals and Public Health
- Transportation: Aviation, Maritime, Rail

Regulatory Response

Creation of the National Incident Management System (NIMS):

- **A comprehensive, national approach to incident management**
- **Standardization across Emergency Service Disciplines**
- **Interoperability and Interagency Collaboration**

- **NIMS Components include:**
  - Command and management via a Common Operating Picture
  - Resource management
  - Preparedness
  - Communications and information management
  - Supporting technologies
  - Ongoing management and maintenance

Regulatory Response

Common Operating Picture

- Disseminate indications and warnings
- Make/communicate strategic decisions
- Make/execute tactical decisions at the incident site
- Prepare for requirements/requests from Incident Command
- Provide overall situational awareness / understanding of the incident

Regulatory Response

Resource Management:

- Resource Typing (Category, Kind, Components)
- Resource ordering (requesting or lending)
- Advance planning (Building Standing Teams)
- Resource activation and mobilization
- Effective resource tracking and management
- Resource deactivation and recovery
- Use of agreements (Mutual Aid, EMAC)
- Inclusion of Private Sector and NGOs
- Reimbursement procedures

Regulatory Response

Preparedness:

- Preparedness Planning
- Training and Exercises
- Personnel Qualifications , Licensing and Certification
- Equipment Certification
- Mutual Aid Agreements
- Publications Management

Tools for the SRMN

Resource Management/Logistics Tools

- **A comprehensive Emergency Resource Database and Participant Directory**
  - **A Tool to catalogue/database the Physical and Human Resources participating in an emergency incident response**
  - **FEMA, NERR, NIMS, and Custom terms and definitions provided in pre-built structures**
  - **DHS Equipment List with FEMA Cost Codes included**
  - **Integrated to a Geo-mapping / Situational Awareness tool (GTVC)**

ResponseVision
A Complete Consequence Management Solution

Physical Resources:

- Asset Category
- Asset Type
- Name and Unique Identifier
- Description
- Location
- Owner and Primary Contact for Asset
- Status (assigned, available, out of service)
- Asset Grouping (linking human and physical assets)

Human Resources:

- Name, Title, Organization, Role, Backup, Group / Task Force Assignment, Professional affiliations
- 24 X 7 Contact Information (Work Phone, Cell, Home Phone, Pager, email, fax, etc.)
- Current Status (available, assigned, vacation, etc.)
- Credentials & Certifications, Training completed, Education, Languages

ResourceVision

Resource Kind List

Click Add Kind Details or View/Edit Kind Details to manage Resource Kinds.

View	Resource Kind	Description	Add
	Aircraft	Aircraft Resources	
	Crews	Crew Resources	
	Equipment	Equipment Resources	
	Facilities	Facility Resources	
	Heavy Equipment	Heavy Equipment Resources	
	Personnel	Personnel Resources	
	Supplies	Supply Resources	
	Vehicles	Vehicle Resources	

Return

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http://volco.dyndns.org - ResourceVision - Manage Resource Category - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

ResourceVision

Edit Equipment

Edit the content of the Equipment inventory fields below.

General Equipment Information:

Category Reference:	Emergency Management Emergency Support Function - To support overall activities of th . . .
Category Desc.:	To support overall activities of the Government for domestic incident management. ESF #5 provides the core management and administrative functions in support of National Response Coordination Center (NRCC), Regional Response Coordination Center (RRCC), and Joint Field Office (JFO) operations.
Kind Reference:	Air Compressor-103
Kind Reference Desc.:	Hoses included.
Reference Structure:	NIMS
Cost Code:	8011
Specification:	Air Delivery
Capacity/Size:	103 CFM
Horse Power:	to 30
Unit of Measure:	Hour
Price/Rate:	4.7500
State Price/Rate:	
Local Price/Rate:	
Affiliation:	PW-Fleet Maint
Affiliation ID:	On Service Truck
Region:	Southeast - Region 4

ResourceVision

Supplier List

Click on an edit link to edit.

☑ Show Only Active Suppliers

	Company	City	State	Phone
Edit	A to Z Rental	Burnsville	MN	952-890-8990
Edit	Alliance	Burnsville	MN	952-892-6545
Edit	Allstar Wireless	Burnsville	MN	952-808-0060
Edit	American Veterinary Medical Center	Burnsville	MN	952-890-3730
Edit	Ames Business Center	Burnsville	MN	952-894-2514
Edit	Ames Construction	Burnsville	MN	952-435-7106
Edit	Avis	Burnsville	MN	952-736-3636
Edit	Banfield Pet Hospital	Burnsville	MN	952-898-4190
Edit	Berean Baptist Church Baptist	Burnsville	MN	952-432-7168
Edit	Best Value Inn	Burnsville	MN	952-894-3400
Edit	Budget	Burnsville	MN	952-469-3895
Edit	Burnhaven Veterinary Hospital	Burnsville	MN	952-435-7194
Edit	Burnsville Breakfast Rotary Club	Burnsville	MN	
Edit	Burnsville High School	Burnsville	MN	952-707-2100
Edit	Burnsville Honda	Burnsville	MN	952-892-1100
Edit	Burnsville Lincoln Mercury	Burnsville	MN	952-892-7788
Edit	Burnsville Lions Club	Burnsville	MN	952-894-1561
Edit	Burnsville Parkway Animal Hospital	Burnsville	MN	952-894-2870
Edit	Burnsville Sanitary Landfill	Burnsville	MN	952-890-3248
Edit	Burnsville Subaru	Burnsville	MN	952-898-1717
Edit	Burnsville Toyota	Burnsville	MN	952-435-8200
Edit	Byerly's	Burnsville	MN	952-892-5600
Edit	Byerly's	Burnsville	MN	952-892-5600
Edit	Carefree Living	Burnsville	MN	952-892-5559
Edit	Century 21 Diamond Realty	Burnsville	MN	952-224-7080
Edit	Church of Jesus Christ of Latter Day Saints Mormon	Burnsville	MN	952-435-8185
Edit	Church of the Risen Savior Catholic	Burnsville	MN	952-431-5222
Edit	Cingular Wireless	Burnsville	MN	952-435-6200
Edit	Coldwell Banker Burnet	Burnsville	MN	952-435-3030
Edit	Commercial Properties Group	Burnsville	MN	952-890-8252

Edit Supplier

Edit the content of the Supplier fields below.

Supplier ID:	49
Contact Title:	Manager
First Name:	Christopher
Last Name:	Erickson
Company Name:	A to Z Rental
Contact Pager:	
Fax:	952-890-8991
Phone:	952-890-8990
Address:	11930 12th Ave So
City:	Burnsville
State:	MN
Postal Code:	55337
Email:	chris@atozrental.com
Web Site:	www.atozrental.com
Notes:	Dozer, Backhoe, Lift, Grader

Supplier Categorie(s):

- [ ] Facilities
- [x] Equipment
- [ ] Supplies
- [x] Heavy Equipment
- [ ] Vehicles
- [ ] Aircraft
- [x] Active

Save Cancel

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Edit Personnel

Edit the content of the Personnel inventory fields below.

General Work Information:

Affiliation:	Rotary
Affiliation ID:	5651-00231
Region:	South Central - Region 6
Employer:	Techmark Medical Services
Job Title:	Emergency Medical Technician
Employment Area:	Emergency Medical
Work Address1:	11234 Rose Drive
Work Address2:	Suite 500
Work City:	Birmingham
Work State:	Alabama
Work Zip:	22042
Country:	USA
Website :	http://www.techmarkserv.com
Email:	erinh@techmarkserv.com
Work Phone: (###-###-####)	205-465-6500
Phone (Best TOD) - From / To / Priority:	8:30 AM / 5:00 PM / 1
Work Extension:	510
Work Fax: (###-###-####)	205-465-5464
Work Fax (Best TOD) - From / To / Priority:	12:00 AM / 12:00 AM / 4
Work Mobile: (###-###-####)	205-546-7575
Work Mobile (Best TOD) - From / To / Priority:	5:00 PM / 12:00 PM / 2

ResourceVision

Use links below to manage Personnel Additional Information.

Name : Erin Hook

Licenses | Certifications | Training | Skills | Education | Experience | Languages | Volunteer Availability | Volunteer Experience

Add New Certifications

Edit	Certification Name	Certification Date	Expiration Date
	Georgia State EMS	1/15/2002 12:00:00 AM	1/15/2006 12:00:00 AM
	Pediatrics EMS	8/1/2002 12:00:00 AM	8/1/2007 12:00:00 AM
	United States EMS 1000	6/30/2002 12:00:00 AM	6/30/2007 12:00:00 AM
	Unitied States Search and Rescue	5/1/2001 12:00:00 AM	5/1/2011 12:00:00 AM

Return

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Resource Configuration for - **NIMS - Air Ambulance, Fixed-Wing, Type III**

Resource | Resource Comments

Category Configure

Category Name	Structure
NIMS-ESF# 08 - Public Health and Medical Services Emergency Support Function	NIMS-ESF# 08

Kind Configure

Kind	Description
Aircraft	Aircraft Resources
Equipment	Equipment Resources
Personnel	Personnel Resources

Component Configure

Include	Component	Metrics	Quantity	Units
Assignments	Aircraft, Fixed-Wing, Ambulance, Type III	Fixed-Wing	1	
Assignments	ALS Ambulance Equipment	Care Provided	1	set
Assignments	Paramedic	Minimum Staff	2	each
Assignments	Pilot, Fixed-Wing, Non-IFR	Minimum Staff	1	each

Return Email Export to File EMAC Print Page

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Resource Name:	NIMS - Air Ambulance, Fixed-Wing, Type III
Location Name:	Burnsville Airport
Address:	1000 Airline Rd.
City:	Burnsville
State:	Minnesota
Zip:	33357
Identifier:	
Assignment:	Carlson,Daniel
Active/Assigned:	Unknown

(Mutual Aid Elibibility)

Eligibility Approval:	Pending
Assisting Agency:	City of Burnsville
Contact Person:	Daniel Carlson
Telephone #:	952-337-3000
Email:	dan.carlson@ci.burnsville.mn.us
Requesting Agency:	City of West St. Paul
Contact Person:	Mike O'Neill
Telephone #:	952-450-5565
Email:	mike@ci.wstpaul.mn.us
Date Approved:	
Eligibility Request:	State
Email:	william.olson@dem.state.mn.us
Tracking Number:	
Federal Cost:	
State Daily Cost:	$0.00
Local Daily Cost:	$0.00
Cost Variance:	
Trans. Cost Estimate:	

(Availability)

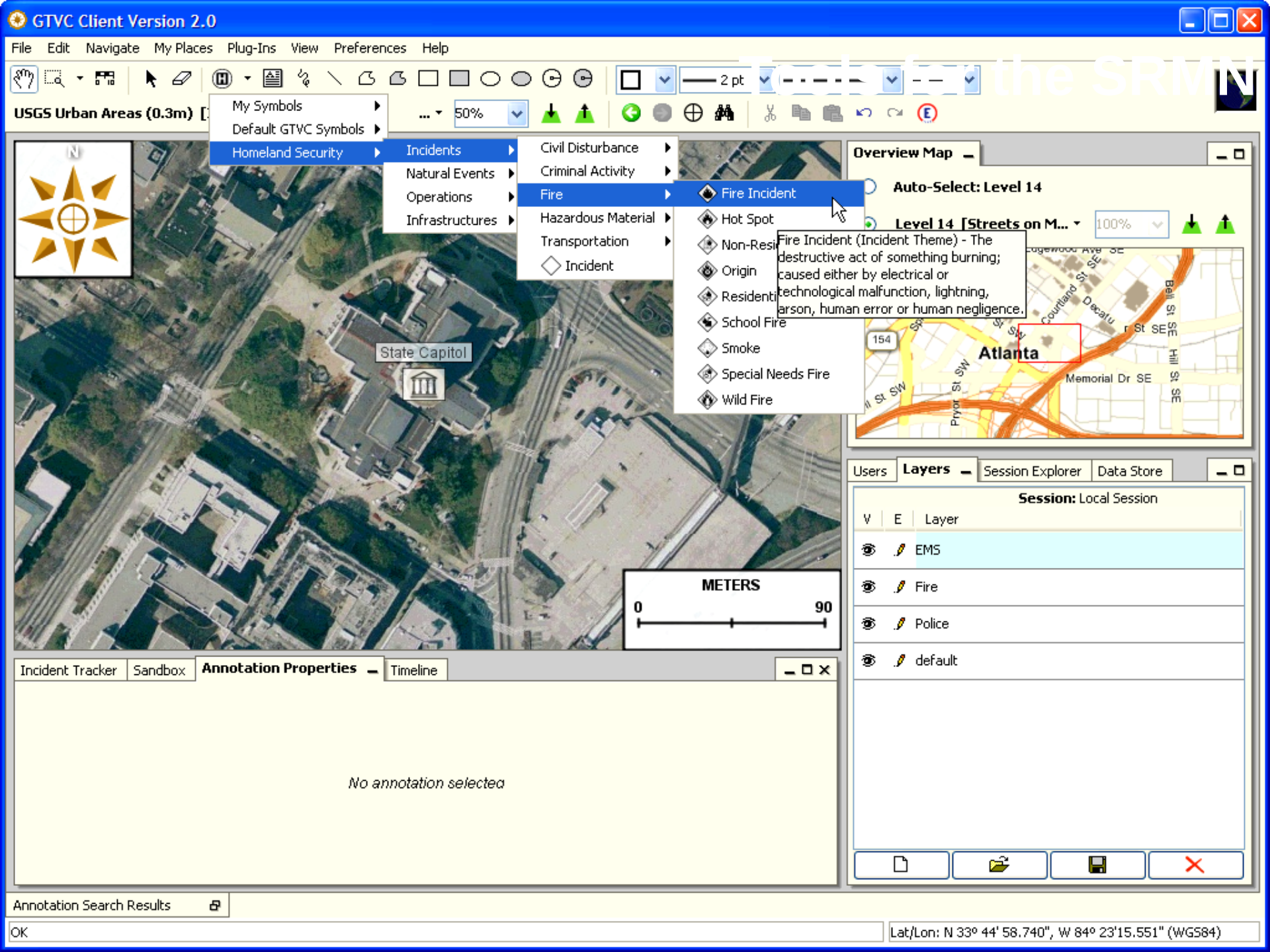
From (Date):	
From (Time):	
To (Date):	
To (Time):	

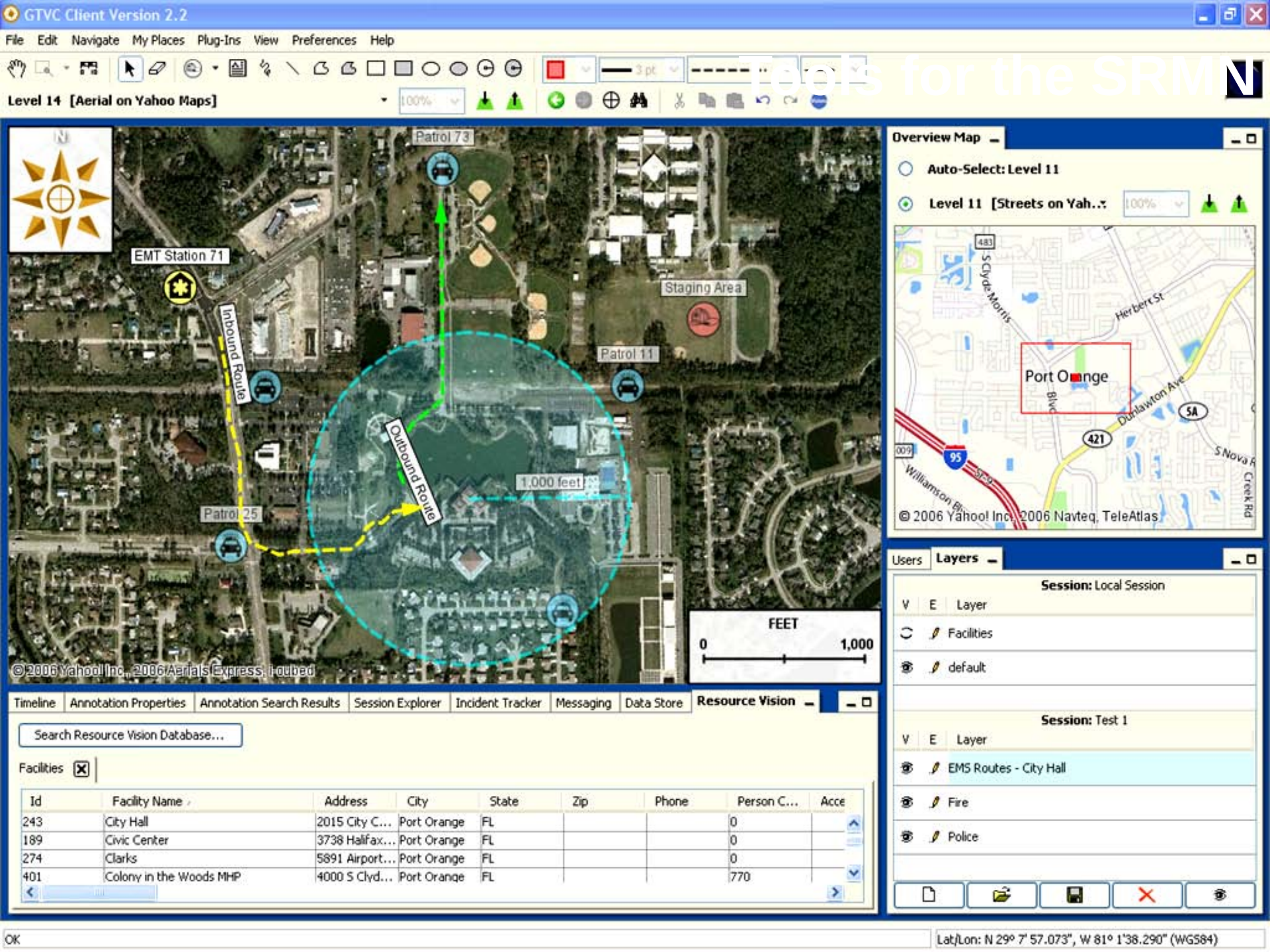
Tools for the SRMN

Operations Command & Control Tools

- **A comprehensive "Situational Awareness" tool for visualizing response/recovery efforts**
  - Robust geo-mapping and tracking of resources
  - High-resolution imagery & maps scale by view
  - Electronically maintain all markings made on map with history report (full annotation)
  - Simultaneous real-time sharing of information among multiple users
  - Full incident management capabilities
  - Transportable to the field on laptop computers

- **Possibilities …**
  - Mapping locations of emergency response resources, such as hospitals, clinics, fire departments, etc.
  - Planning of public event activities (special events)
  - Tracking of chemical plumes
  - Planning evacuation routes
  - Plotting locations of Hazardous Materials
  - Monitoring of human and animal diseases
  - Hurricane/ flood planning
  - After event review analysis


GTVC Client Version 2.0
File
Edit
Navigate
My Places
Plug-Ins
View
Preferences
Help
USGS Urban Areas (0.3m)
My Symbols
Default GTVC Symbols
Homeland Security
Incidents
Natural Events
Operations
Infrastructures
Civil Disturbance
Criminal Activity
Fire
Hazardous Material
Transportation
Incident
Fire Incident
Hot Spot
Non-Resi
Origin
Residenti
School Fire
Smoke
Special Needs Fire
Wild Fire
Fire Incident (Incident Theme) - The destructive act of something burning; caused either by electrical or technological malfunction, lightning, arson, human error or human negligence.
State Capitol
METERS
0
90
Overview Map
Auto-Select: Level 14
Level 14 [Streets on M...
Atlanta
Memorial Dr SE
Users
Layers
Session Explorer
Data Store
Session: Local Session
V
E
Layer
EMS
Fire
Police
default
Incident Tracker
Sandbox
Annotation Properties
Timeline
No annotation selected
Annotation Search Results
OK
Lat/Lon: N 33° 44' 58.740", W 84° 23'15.551" (WGS84)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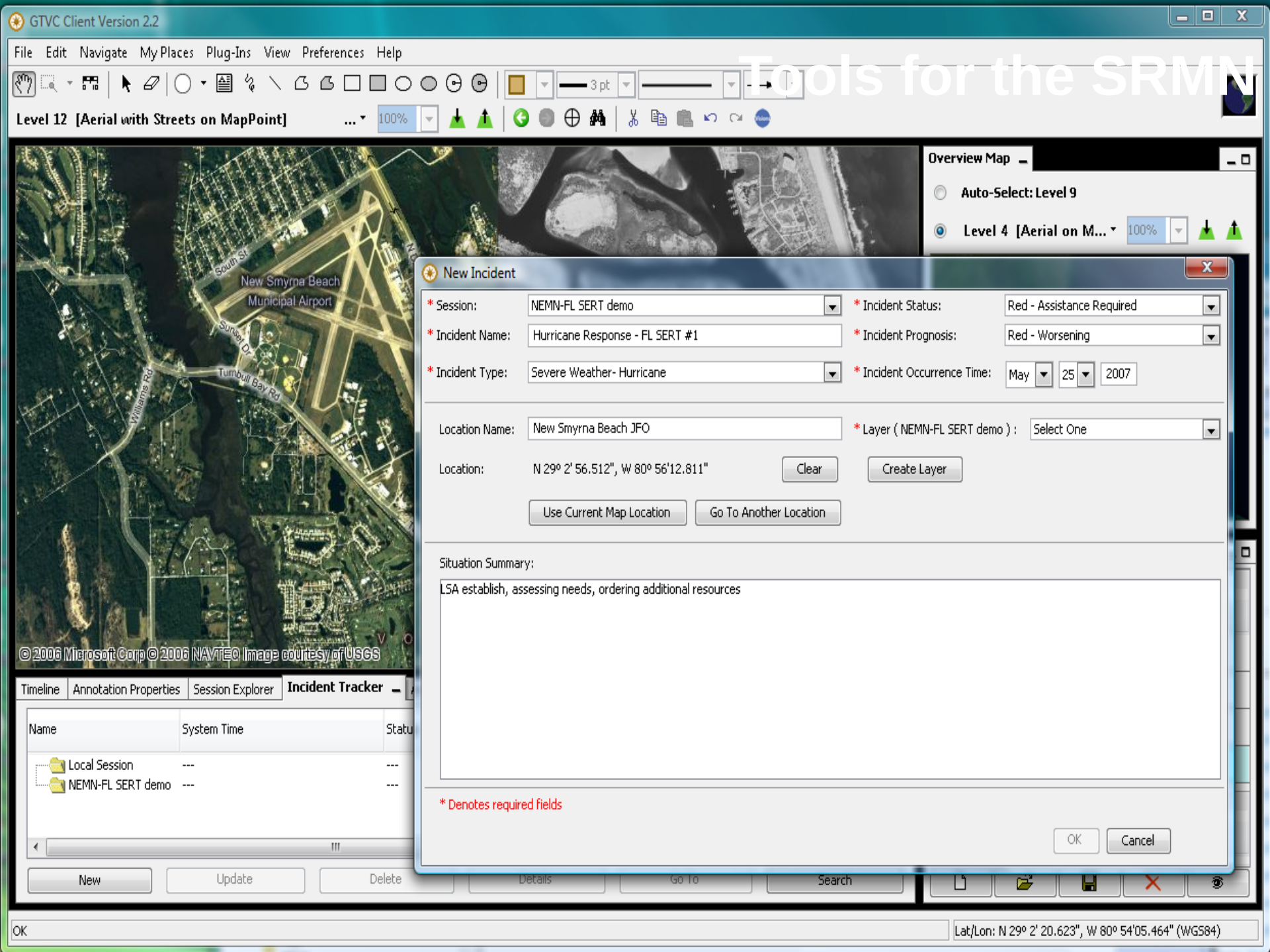
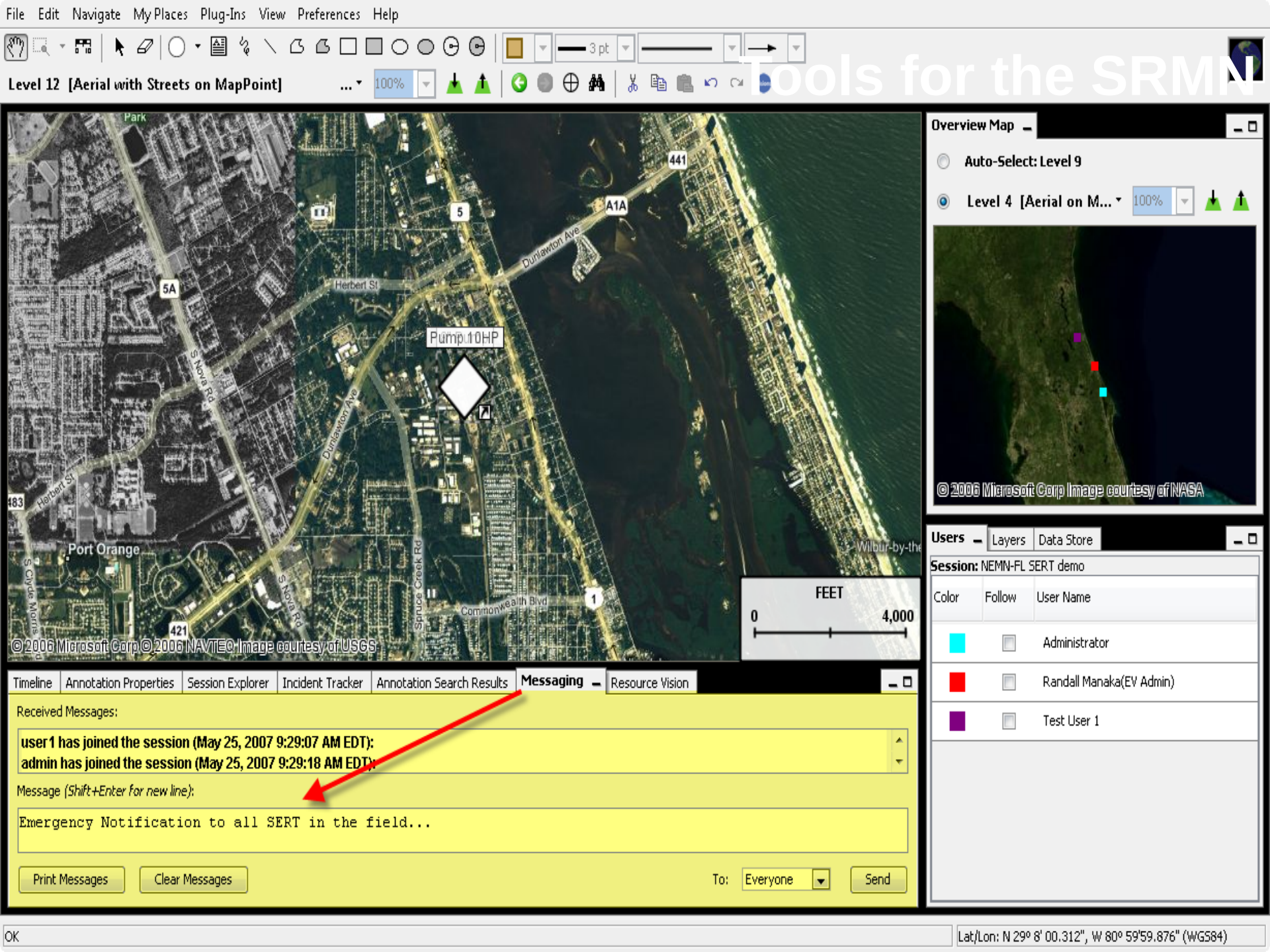
File Edit Navigate My Places Plug-Ins View Preferences Help
Level 14 [Aerial on Yahoo Maps]
Patrol 73
EMT Station 71
Staging Area
Inbound Route
Patrol 11
Outbound Route
1,000 feet
Patrol 25
FEET
0
1,000
©2006 Yahoo! Inc., 2006 Aerials Express, Inc.
Overview Map
Auto-Select: Level 11
Level 11 [Streets on Yah..
Port Orange
S Clyde Morris
Herbert St
Dunlawton Ave
S Nova Rd
Williamson Blvd
© 2006 Yahoo! Inc., 2006 Navteq, TeleAtlas
Users
Layers
Session: Local Session
V E Layer
Facilities
default
Session: Test 1
V E Layer
EMS Routes - City Hall
Fire
Police
Timeline
Annotation Properties
Annotation Search Results
Session Explorer
Incident Tracker
Messaging
Data Store
Resource Vision
Search Resource Vision Database...
Facilities
Id
Facility Name
Address
City
State
Zip
Phone
Person C...
Acce
243 City Hall 2015 City C... Port Orange FL 0
189 Civic Center 3738 Halifax... Port Orange FL 0
274 Clarks 5891 Airport... Port Orange FL 0
401 Colony in the Woods MHP 4000 S Clyd... Port Orange FL 770
OK
Lat/Lon: N 29° 7' 57.073", W 81° 1'38.290" (WGS84)


GTVC Client Version 2.2
File Edit Navigate My Places Plug-Ins View Preferences Help
Tools for the SRMN
Level 12 [Aerial with Streets on MapPoint]
Overview Map
Auto-Select: Level 9
Level 4 [Aerial on M...
New Incident
* Session: NEMN-FL SERT demo
* Incident Status: Red - Assistance Required
* Incident Name: Hurricane Response - FL SERT #1
* Incident Prognosis: Red - Worsening
* Incident Type: Severe Weather- Hurricane
* Incident Occurrence Time: May 25 2007
Location Name: New Smyrna Beach JFO
* Layer (NEMN-FL SERT demo) : Select One
Location: N 29º 2' 56.512", W 80º 56'12.811"
Clear
Create Layer
Use Current Map Location
Go To Another Location
Situation Summary:
LSA establish, assessing needs, ordering additional resources
* Denotes required fields
OK
Cancel
New Smyrna Beach
Municipal Airport
South St
Sunset Dr
Turnbull Bay Rd
Williams Rd
© 2006 Microsoft Corp © 2006 NAVTEQ Image courtesy of USGS
Timeline
Annotation Properties
Session Explorer
Incident Tracker
Name
System Time
Local Session
NEMN-FL SERT demo
New
Update
Delete
Details
Go To
Search
OK
Lat/Lon: N 29º 2' 20.623", W 80º 54'05.464" (WGS84)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Level 12 [Aerial with Streets on MapPoint]
Tools for the SRMN
Park
441
A1A
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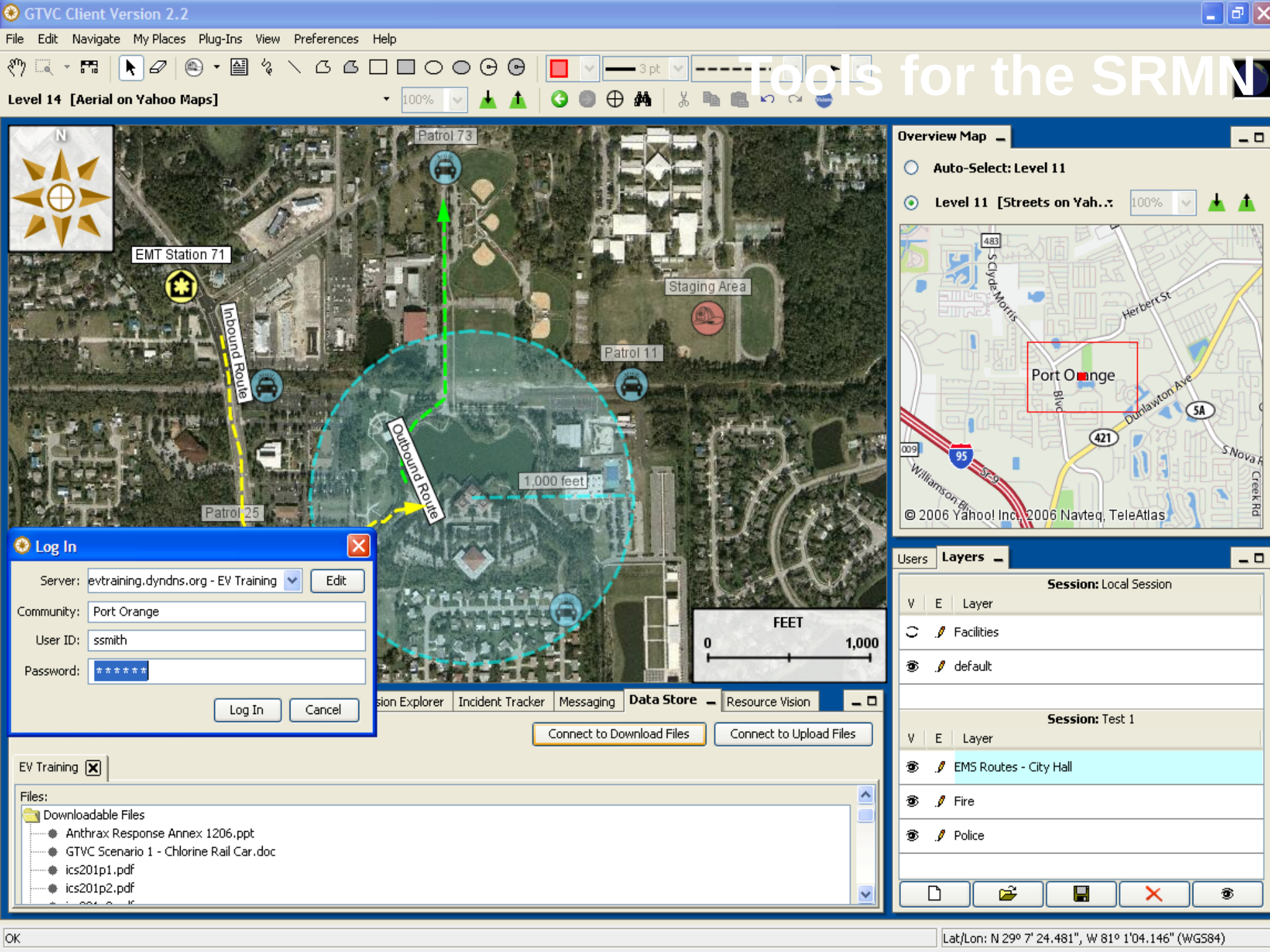
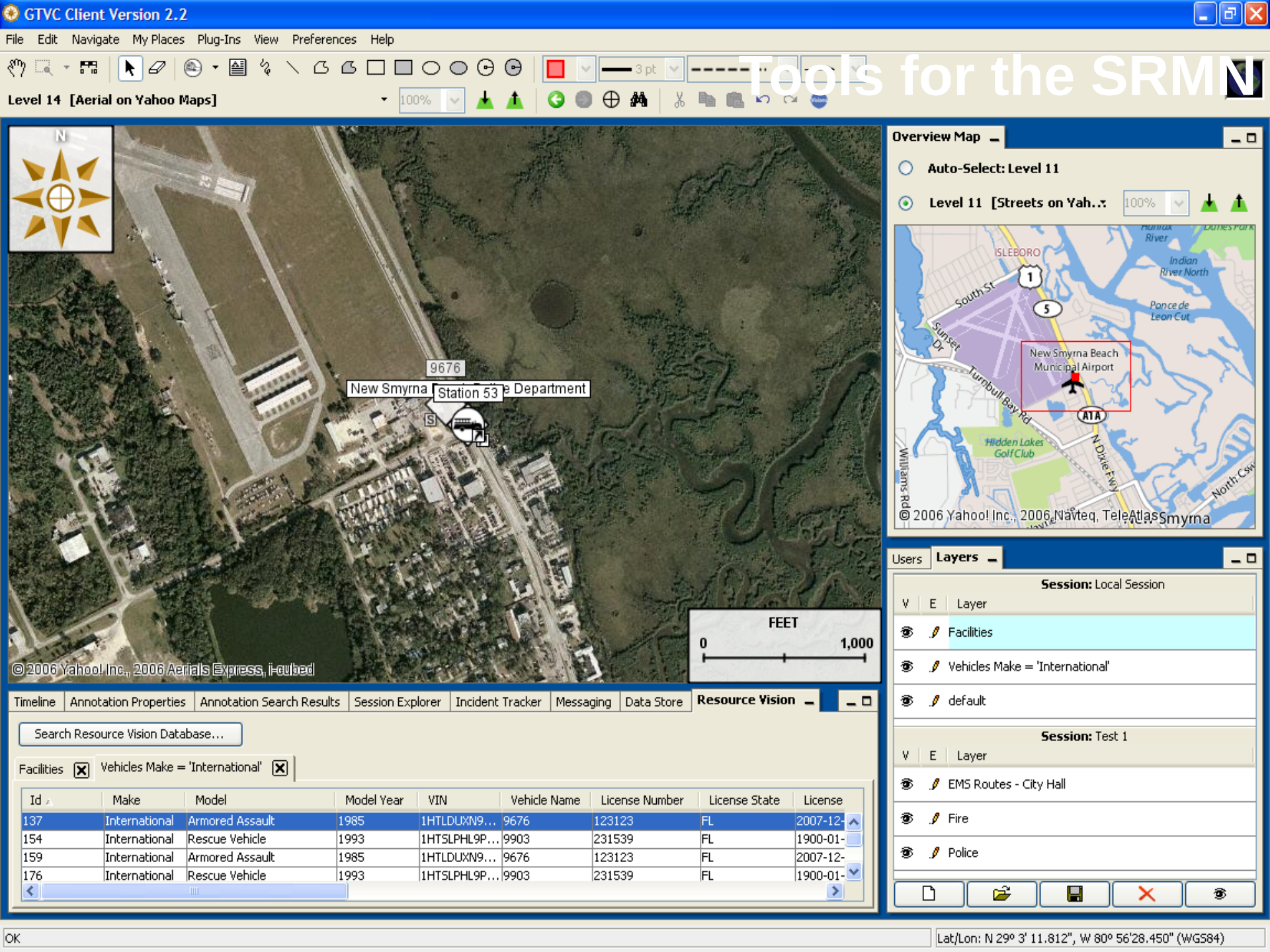
5A
Herbert St
Dunlawton Ave
Pump 10HP
S Nova Rd
Port Orange
Spruce Creek Rd
Commonwealth Blvd
421
1
FEET
0
4,000
© 2006 Microsoft Corp © 2006 NAVTEQ Image courtesy of USGS
Overview Map
Auto-Select: Level 9
Level 4 [Aerial on M...
100%
© 2006 Microsoft Corp Image courtesy of NASA
Users
Layers
Data Store
Session: NEMN-FL SERT demo
Color
Follow
User Name
Administrator
Randall Manaka(EV Admin)
Test User 1
Timeline
Annotation Properties
Session Explorer
Incident Tracker
Annotation Search Results
Messaging
Resource Vision
Received Messages:
user1 has joined the session (May 25, 2007 9:29:07 AM EDT):
admin has joined the session (May 25, 2007 9:29:18 AM EDT):
Message (Shift+Enter for new line):
Emergency Notification to all SERT in the field...
Print Messages
Clear Messages
To:
Everyone
Send
OK
Lat/Lon: N 29° 8' 00.312", W 80° 59'59.876" (WGS84)


GTVC Client Version 2.2
File Edit Navigate My Places Plug-Ins View Preferences Help
Level 14 [Aerial on Yahoo Maps]
Tools for the SRMN
Patrol 73
EMT Station 71
Staging Area
Patrol 11
Inbound Route
Outbound Route
1,000 feet
Patrol 25
FEET
0
1,000
Overview Map
Auto-Select: Level 11
Level 11 [Streets on Yah..
Port Orange
Herbert St
Dunlawton Ave
S Clyde Morris Blvd
Williamson Blvd
© 2006 Yahoo! Inc., 2006 Navteq, TeleAtlas
Log In
Server: evtraining.dyndns.org - EV Training
Edit
Community: Port Orange
User ID: ssmith
Password: ******
Log In
Cancel
Incident Tracker
Messaging
Data Store
Resource Vision
Connect to Download Files
Connect to Upload Files
EV Training
Files:
Downloadable Files
Anthrax Response Annex 1206.ppt
GTVC Scenario 1 - Chlorine Rail Car.doc
ics201p1.pdf
ics201p2.pdf
Users
Layers
Session: Local Session
V E Layer
Facilities
default
Session: Test 1
V E Layer
EMS Routes - City Hall
Fire
Police
OK
Lat/Lon: N 29° 7' 24.481", W 81° 1'04.146" (WGS84)

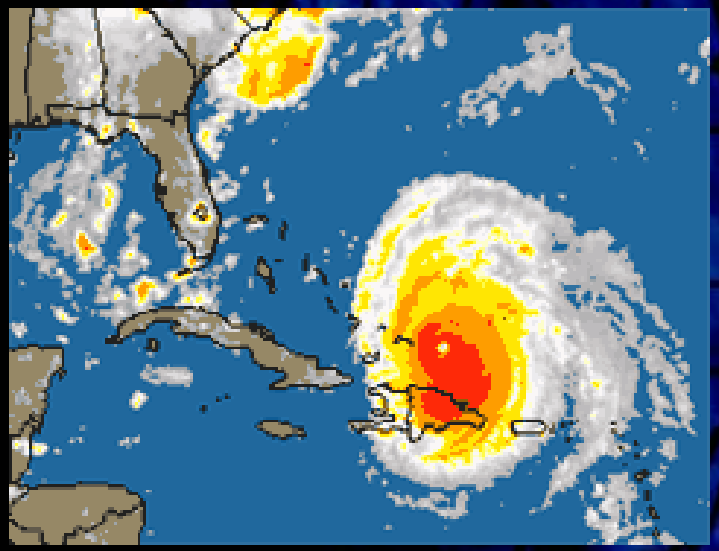

GTVC Client Version 2.2
File Edit Navigate My Places Plug-Ins View Preferences Help
Tools for the SRMN
Level 14 [Aerial on Yahoo Maps]
Overview Map
Auto-Select: Level 11
Level 11 [Streets on Yah..
9676
Station 53
FEET
0
1,000
© 2006 Yahoo! Inc., 2006 Aerials Express, i-cubed
© 2006 Yahoo! Inc., 2006 Navteq, TeleAtlas
ISLEBORO
South St
Sunset Dr
Turnbull Bay Rd
New Smyrna Beach Municipal Airport
A1A
N Dixie Fwy
Hidden Lakes Golf Club
Williams Rd
Indian River North
Ponce de Leon Cut
Timeline
Annotation Properties
Annotation Search Results
Session Explorer
Incident Tracker
Messaging
Data Store
Resource Vision
Search Resource Vision Database...
Facilities
Vehicles Make = 'International'
Id Make Model Model Year VIN Vehicle Name License Number License State License
137 International Armored Assault 1985 1HTLDUXN9... 9676 123123 FL 2007-12-
154 International Rescue Vehicle 1993 1HTSLPHL9P... 9903 231539 FL 1900-01-
159 International Armored Assault 1985 1HTLDUXN9... 9676 123123 FL 2007-12-
176 International Rescue Vehicle 1993 1HTSLPHL9P... 9903 231539 FL 1900-01-
Users
Layers
Session: Local Session
V E Layer
Facilities
Vehicles Make = 'International'
default
Session: Test 1
V E Layer
EMS Routes - City Hall
Fire
Police
OK
Lat/Lon: N 29° 3' 11.812", W 80° 56'28.450" (WGS84)

Case Studies
Florida Division of Emergency Management

State of Florida Governor Charlie Crist is joined by state officials for the ribbon cutting of the new State Logistics Response Center opened by the Florida Division of Emergency Management in Orlando.

Case Study #1: Hurricane scenario

- 0800: A Category 4 hurricane is expected to make landfall in the Collier county area within the next 72 hours



Case Studies

Case Study #1: Hurricane scenario

- 0930: The Florida State Emergency Operations Center has been activated and a "mission" to the State Logistics Response Center requesting 1,000 truckloads of water for distribution to storm victims

Case Studies

- Florida uses the SRMN Resource Management System to select water contractors to fill the order
- Using warehouse management applications, bar coding and GPS transponders, truckloads of water are tracked from across the nation to delivery in Florida for disaster survivors

ResourceVision

Supply/Consumable Inventory List

Choose search criteria below and click - Search

Kind Reference | Water | <---Select---> |

Click Add New Supply Link or View/Edit Supply links to manage Supplies/Consumables.

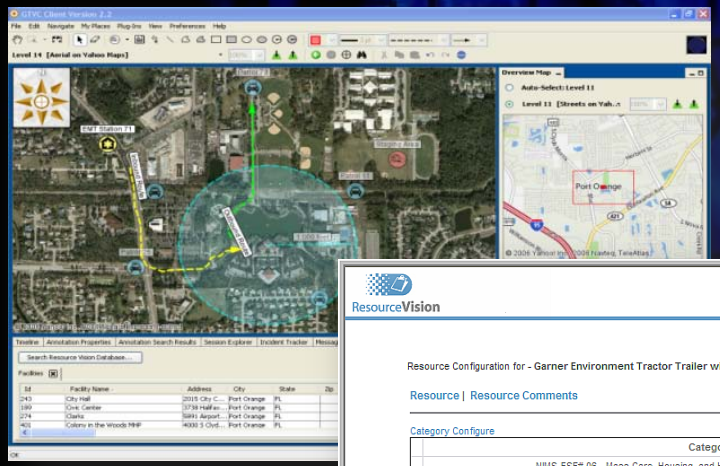
Add New Supply/Consumable

Edit	Supply/Consumable Kind	Supply/Consumable Name	Manufacturer	Make	Model	Supplier City		Additional Info.
	Water - Bottled		Coca Cola Bottling Company	Dasani		Atlanta	Delete	
	Water, Bottled,Trailerload	Water, Bottled, 28 fl oz.	Various	Various		Atlanta	Delete	

Return

Case Studies

- SRMN's geo-spatial maps show each truck in real-time as they move to State Logistics Staging Areas and then to County Point of Distribution
- The water is financially managed while it reaches the victims quickly



ResourceVision

Resource Configuration for - Garner Environment Tractor Trailer with Driver

Resource | Resource Comments

Category Configure

	Category Name	Structure
	NIMS-ESF# 06 - Mass Care, Housing, and Human Services Emergency Support Function	NIMS-ESF# 06

Kind Configure

	Kind	Description
	Heavy Equipment	Heavy Equipment Resources
	Personnel	Personnel Resources
	Supplies	Supply Resources
	Vehicles	Vehicle Resources

Component Configure

Include	Component	Metrics	Quantity	Units
Assignments	Driver, Tractor, CDL		1	1
Assignments	Generator-210		5	1
Assignments	Swat Officer		1	1

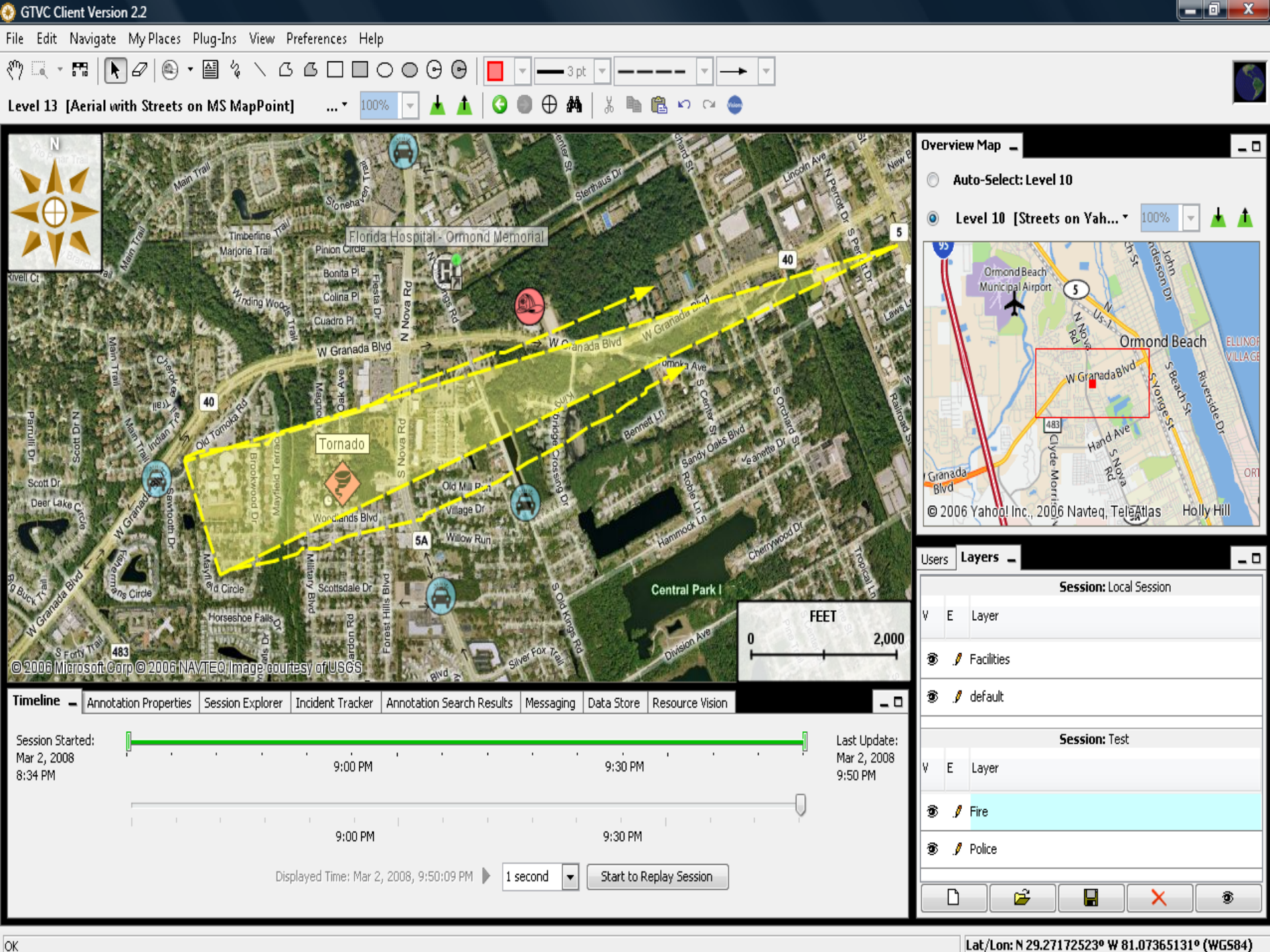
Case Study #2: Tornado scenario

- A Tornado takes out a power substation leaving 25,000 homeowners without power

- A Hospital is affected by the power loss and needs immediate assistance to manage Mass Casualties from the Tornado

Case Studies

- Emergency shelters are identified and opened near the Disaster Area for victims
- Law Enforcement blocks the roads near the Disaster, and Fire and Emergency Medical Services help victims
- From its State Logistics Response Center, Florida Division of Emergency Management organizes several short haul trucks with shelf stable meals, water, cots, and bedding kits for Mass Casualty victims
- Florida Division of Emergency Management contracts for a Power Generator, and a forklift and certified operator to restore power to the Hospital


GTVC Client Version 2.2
File Edit Navigate My Places Plug-Ins View Preferences Help
Level 13 [Aerial with Streets on MS MapPoint]
Florida Hospital - Ormond Memorial
Tornado
W Granada Blvd
N Nova Rd
S Nova Rd
Old Tomoka Rd
Woodlands Blvd
Willow Run
Central Park I
Horseshoe Falls Dr
Scottsdale Dr
Village Dr
Old Mill Run
Sandy Oaks Blvd
Hammock Ln
Cherrywood Dr
Division Ave
Silver Fox Trail
Timberline Trail
Marjorie Trail
Pinion Circle
Bonita Pl
Colina Pl
Cuadro Pl
Winding Woods Trail
Fiesta Dr
Main Trail
Slonehaven Trail
Sterhaus Dr
Lincoln Ave
N Perrott Dr
S Perrott Dr
Laws Ln
Oak Ave
Magnolia Ave
Omoka Ave
Center St
S Orchard St
Bennett Ln
Robbie Ln
Kings Bridge Crossing Dr
Brookwood Dr
Mayfield Terrace
Military Blvd
Forest Hills Blvd
Cardon Rd
Old Kings Rd
Tropical Ln
Railroad St
Indian Trl
Cherokee Trl
Parmill Dr
Scott Dr N
Scott Dr
Deer Lake Circle
Sawtooth Dr
Big Buck Trail
S Forty Trail
Mayfield Circle
Fishermens Circle
Rivell Ct
Lake Ormond Blvd
Lake Ormond Circle
Lake Ormond Dr
Lake Ormond Trail
Lake Ormond Way
Lake Ormond Woods Blvd
Lake Ormond Woods Circle
Lake Ormond Woods Dr
Lake Ormond Woods Trail
Lake Ormond Woods Way
Lake Ormond Woods Court
Lake Ormond Woods Terrace
Lake Ormond Woods Place
Lake Ormond Woods Square
Lake Ormond Woods Plaza
Lake Ormond Woods Park
Lake Ormond Woods Garden
Lake Ormond Woods Grove
Lake Ormond Woods Hill
Lake Ormond Woods Valley
Lake Ormond Woods Ridge
Lake Ormond Woods Creek
Lake Ormond Woods River
Lake Ormond Woods Lake
Lake Ormond Woods Pond
Lake Ormond Woods Island
Lake Ormond Woods Bay
Lake Ormond Woods Cove
Lake Ormond Woods Point
Lake Ormond Woods Peninsula
Lake Ormond Woods Isthmus
Lake Ormond Woods Strait
Lake Ormond Woods Channel
Lake Ormond Woods Sound
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Lake Ormond Woods Sea
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Lake Ormond Woods Kidney
Lake Ormond Woods Stomach
Lake Ormond Woods Intestine
Lake Ormond Woods Colon
Lake Ormond Woods Rectum
Lake Ormond Woods Anus
Lake Ormond Woods Penis
Lake Ormond Woods Vagina
Lake Ormond Woods Testicle
Lake Ormond Woods Ovary
Lake Ormond Woods Uterus
Lake Ormond Woods Fallopian Tube
Lake Ormond Woods Cervix
Lake Ormond Woods Prostate
Lake Ormond Woods Bladder
Lake Ormond Woods Urethra
Lake Ormond Woods Ureter
Lake Ormond Woods Kidney Stone
Lake Ormond Woods Gallbladder
Lake Ormond Woods Pancreas
Lake Ormond Woods Spleen
Lake Ormond Woods Thymus
Lake Ormond Woods Adrenal Gland
Lake Ormond Woods Pituitary Gland
Lake Ormond Woods Hypothalamus
Lake Ormond Woods Thalamus
Lake Ormond Woods Cerebrum
Lake Ormond Woods Cerebellum
Lake Ormond Woods Brainstem
Lake Ormond Woods Spinal Cord
Lake Ormond Woods Nerve
Lake Ormond Woods Muscle
Lake Ormond Woods Bone
Lake Ormond Woods Skin
Lake Ormond Woods Hair
Lake Ormond Woods Nail
Lake Ormond Woods Tooth
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Lake Ormond Woods Tongue
Lake Ormond Woods Lip
Lake Ormond Woods Nose
Lake Ormond Woods Eye
Lake Ormond Woods Ear
Lake Ormond Woods Mouth
Lake Ormond Woods Throat
Lake Ormond Woods Esophagus
Lake Ormond Woods Trachea
Lake Ormond Woods Bronchus
Lake Ormond Woods Alveolus
Lake Ormond Woods Diaphragm
Lake Ormond Woods Rib
Lake Ormond Woods Sternum
Lake Ormond Woods Clavicle
Lake Ormond Woods Scapula
Lake Ormond Woods Humerus
Lake Ormond Woods Radius
Lake Ormond Woods Ulna
Lake Ormond Woods Carpal
Lake Ormond Woods Metacarpal
Lake Ormond Woods Phalanx
Lake Ormond Woods Femur
Lake Ormond Woods Patella
Lake Ormond Woods Tibia
Lake Ormond Woods Fibula
Lake Ormond Woods Tarsal
Lake Ormond Woods Metatarsal
Lake Ormond Woods Phalanx
FEET
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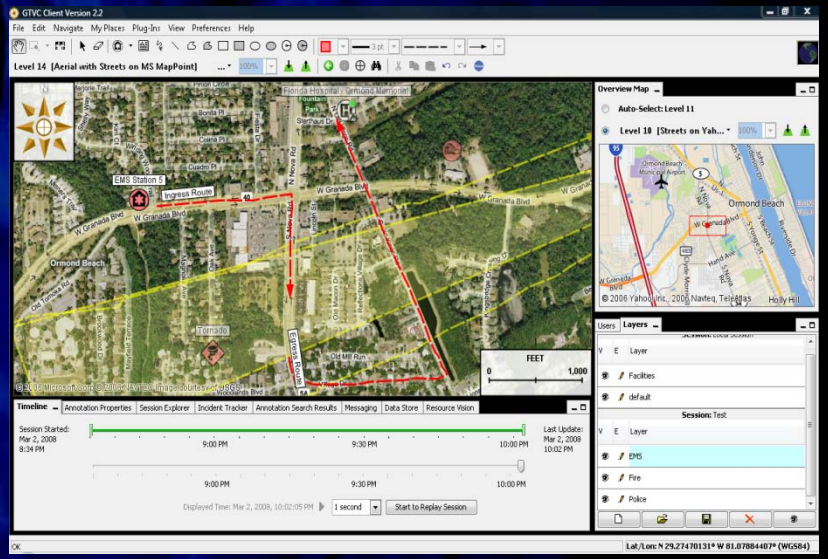
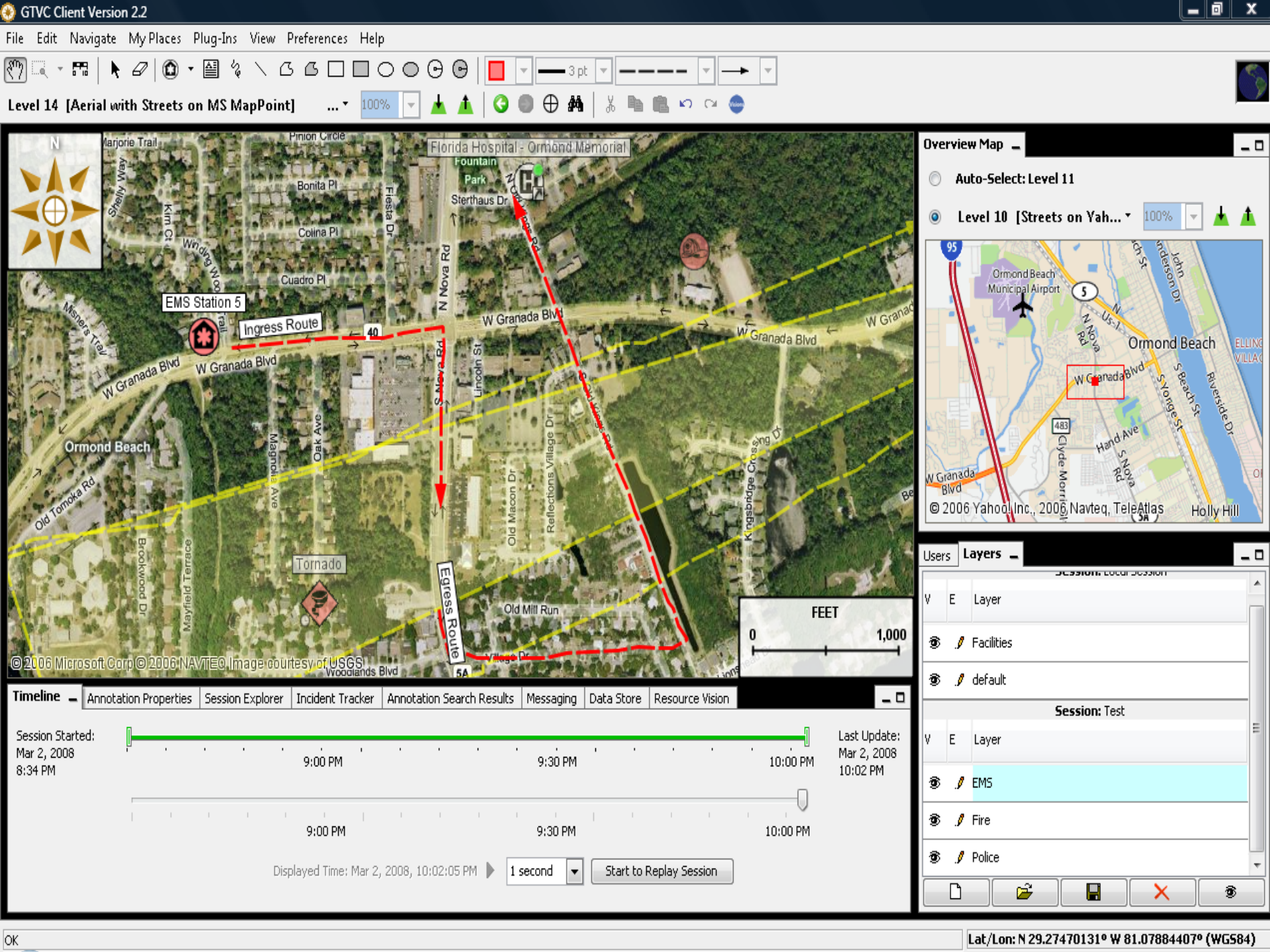
© 2006 Microsoft Corp © 2006 NAVTEQ Image courtesy of USGS
Overview Map
Auto-Select: Level 10
Level 10 [Streets on Yah...
Ormond Beach Municipal Airport
Ormond Beach
W Granada Blvd
Holly Hill
© 2006 Yahoo! Inc., 2006 Navteq, TeleAtlas
Users
Layers
Session: Local Session
V E Layer
Facilities
default
Session: Test
V E Layer
Fire
Police
Timeline
Annotation Properties
Session Explorer
Incident Tracker
Annotation Search Results
Messaging
Data Store
Resource Vision
Session Started:
Mar 2, 2008
8:34 PM
9:00 PM
9:30 PM
Last Update:
Mar 2, 2008
9:50 PM
Displayed Time: Mar 2, 2008, 9:50:09 PM
1 second
Start to Replay Session
OK
Lat/Lon: N 29.27172523° W 81.07365131° (WGS84)

Case Studies

- Emergency Medical Services establish routes to transport Disaster Victims to the nearest Hospital

- Police, Fire, EMS, and other Service Disciplines are coordinated in their Disaster Response Efforts using a Common Operating Picture




GTVC Client Version 2.2
File Edit Navigate My Places Plug-Ins View Preferences Help
Level 14 [Aerial with Streets on MS MapPoint]
Florida Hospital - Ormond Memorial
EMS Station 5
Ingress Route
Egress Route
Tornado
W Granada Blvd
N Nova Rd
S Nova Rd
Ormond Beach
Old Tomoka Rd
Old Mill Run
Woodlands Blvd
FEET
0
1,000
© 2006 Microsoft Corp © 2006 NAVTEQ Image courtesy of USGS
Overview Map
Auto-Select: Level 11
Level 10 [Streets on Yah...
Ormond Beach Municipal Airport
Holly Hill
© 2006 Yahoo! Inc., 2006 Navteq, TeleAtlas
Users
Layers
Layer
Facilities
default
Session: Test
EMS
Fire
Police
Timeline
Annotation Properties
Session Explorer
Incident Tracker
Annotation Search Results
Messaging
Data Store
Resource Vision
Session Started: Mar 2, 2008 8:34 PM
9:00 PM
9:30 PM
10:00 PM
Last Update: Mar 2, 2008 10:02 PM
Displayed Time: Mar 2, 2008, 10:02:05 PM
1 second
Start to Replay Session
OK
Lat/Lon: N 29.27470131° W 81.07884407° (WGS84)

Summary

SRMN – A Logistics-focused "Hub" for Emergency Management Information:

- The SRMN combines the capabilities of multiple software solutions into one integrated offering for Catastrophic Event Planning and Response
  - Resource Management
  - Personnel Credentialing
  - Incident Management
  - Situational Awareness and Geo-Mapping
  - Inventory Management
  - eLearning and Training

Summary

Fulfilling a regulatory need:

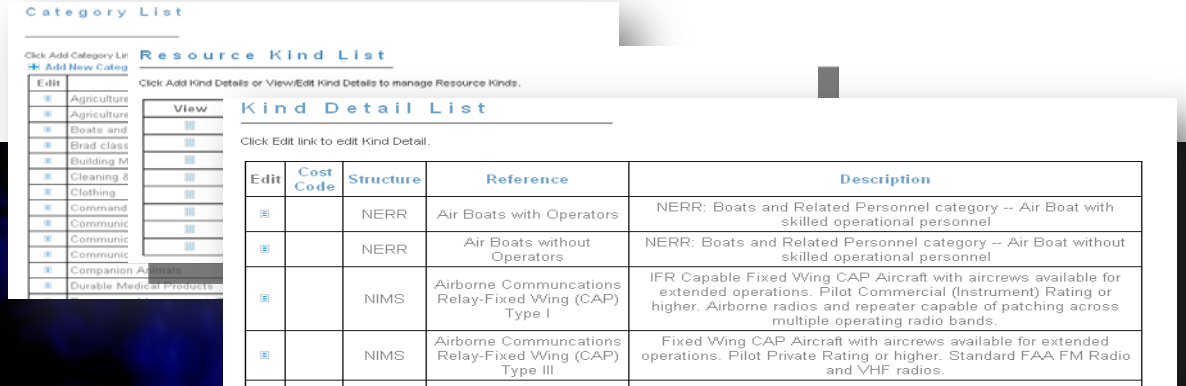
Terrorism and natural disasters prompted a regulatory response requiring national standardization across all emergency service disciplines down to the local level

- SRMN supports all national standards including NIMS, NRP, NERR, ESAR-VHP, as well as core emergency management principles and the Incident Command System
- The SRMN's logistical focus is on interagency collaboration, interoperability, and a common operating picture
- In industry terms, SRMN provides "Total Asset Visibility" to keep track of people and things using a C4I approach

Summary

A solution for Total Asset Visibility (TAV):

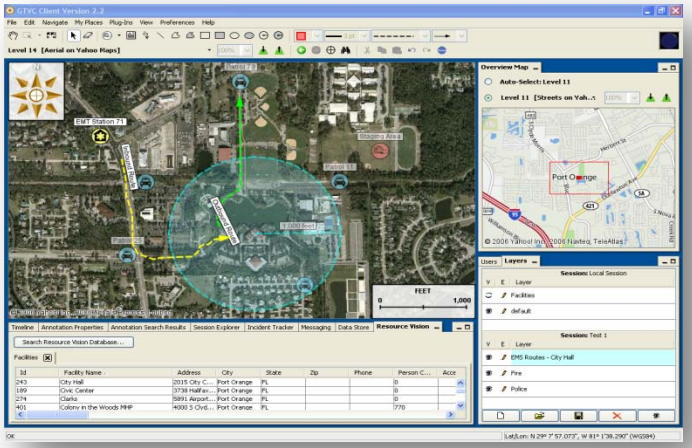
- SRMN is a **personnel management and credentialing system** designed to track human resources: name, title, organization, role, professional affiliations, all contact detail, current status, licenses, certifications, training, education, language, and other capabilities
- SRMN is a **physical asset catalog** organized by asset category, kind, and type including asset identifiers, description, location, ownership, and status
- Assets can be grouped into functional teams – linking human and physical assets together

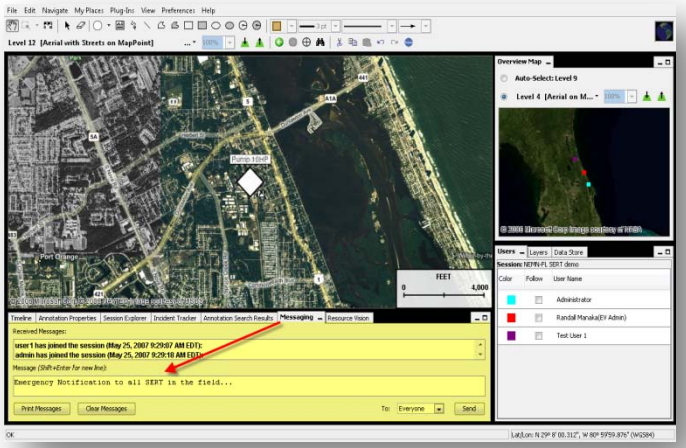


Summary

Providing a common operating picture:

- SRMN's TAV functions are integrated with a situational awareness tool for visualizing unified command and control efforts
- Transportable to the field for real-time access by first responders
- Simultaneous sharing of information among users, departments, and agencies, including suppliers and other third parties
- Inventory and warehouse management functions are included
- Logistics tracking via transponders





MODULE 12

Emergency Worker Base Camp Operations

EMERGENCY RESPONDER BASE CAMPS

2004 Base Camps

- **Base Camps**
  - 6 Base Camps Were Established

• Charlotte County	350 PAX	CONEX
• Lakeland	250 PAX	Buildings
• Palm Beach	350 PAX	Buildings
• Ocala	350 PAX	Buildings
• Eglin AFB	150 PAX	Buildings & Tents
• Pensacola	1200 PAX	CONEX & Trailers

  - Billeting
  - Food Services
  - Showers and Restrooms
  - Off-Hours Areas
- **Garner Environmental Services**
- **North American Catastrophe Inc.**
  - General Marine Leasing
- **Mobile Sleeper Company**
- **Unlimited Resources Inc.**

2005 Base Camps

- **Dennis**
  - 500 Person Camp at Eglin AFB, Duke Field
- **Katrina – FL**
  - 500 Person LSA Life Support Camp
- **Katrina – MS**
  - 1,500 Person Base Camp at Stennis (NASA)
  - 500 Person USaR Life Support Camp (Harrison County)
- **Dennis**
  - 500 Person LSA Life Support Camp (Palm Beach)
  - 250 Person LSA Life Support Camp (Homestead ARB)

Base Camp in Katrina

Base Camp Purpose

- A managed site to support emergency personnel and teams working in the disaster area or at the LSA.
- Activated when either there are insufficient hotel and food service facilities available OR when such use would displace disaster victims from such facilities and services.
- Typically activated for a period of 30 days or longer in response to an event in close proximity to the event site, yet still out of harms way.

NIMS Type Camps

- Type I = 1000 Persons
- Type II = 750 Persons
- Type III = 500 Persons
- Type IV = 250 Persons
- Type V = 150 Persons - Mobile
- Type VI = RV's and Travel Trailers

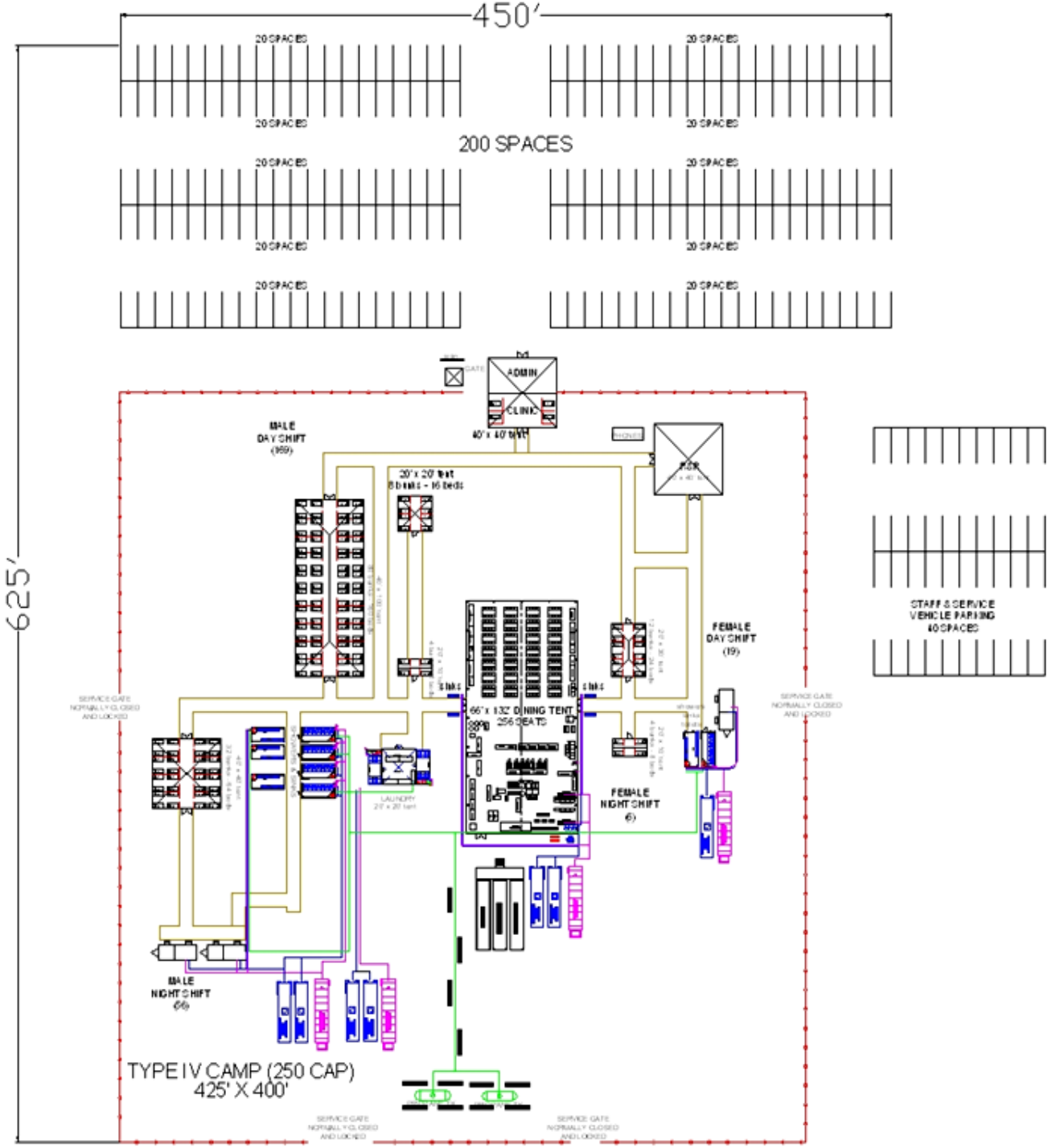
Mobilization Schedule
State of Florida

	Delivery to Site Hours from Notice											
Item	**8**	**16**	**24**	**32**	**40**	**48**	**56**	**64**	**72**	**80**	**88**	**96**
Tents												
Kitchen/Dining Tent												
Flooring												
Lighting												
Doors												
Beds/Bedding												
Kitchen Equipment												
Food Supplies												
Generators												
HVAC												
Showers												
Restrooms												
Laundries												
Fresh Water Equipment												
Gray Water Equipment												
Dumpsters												
Trucks												
Forlklifts												
DR Staff												
General Labor												

Construction Schedule
State of Florida

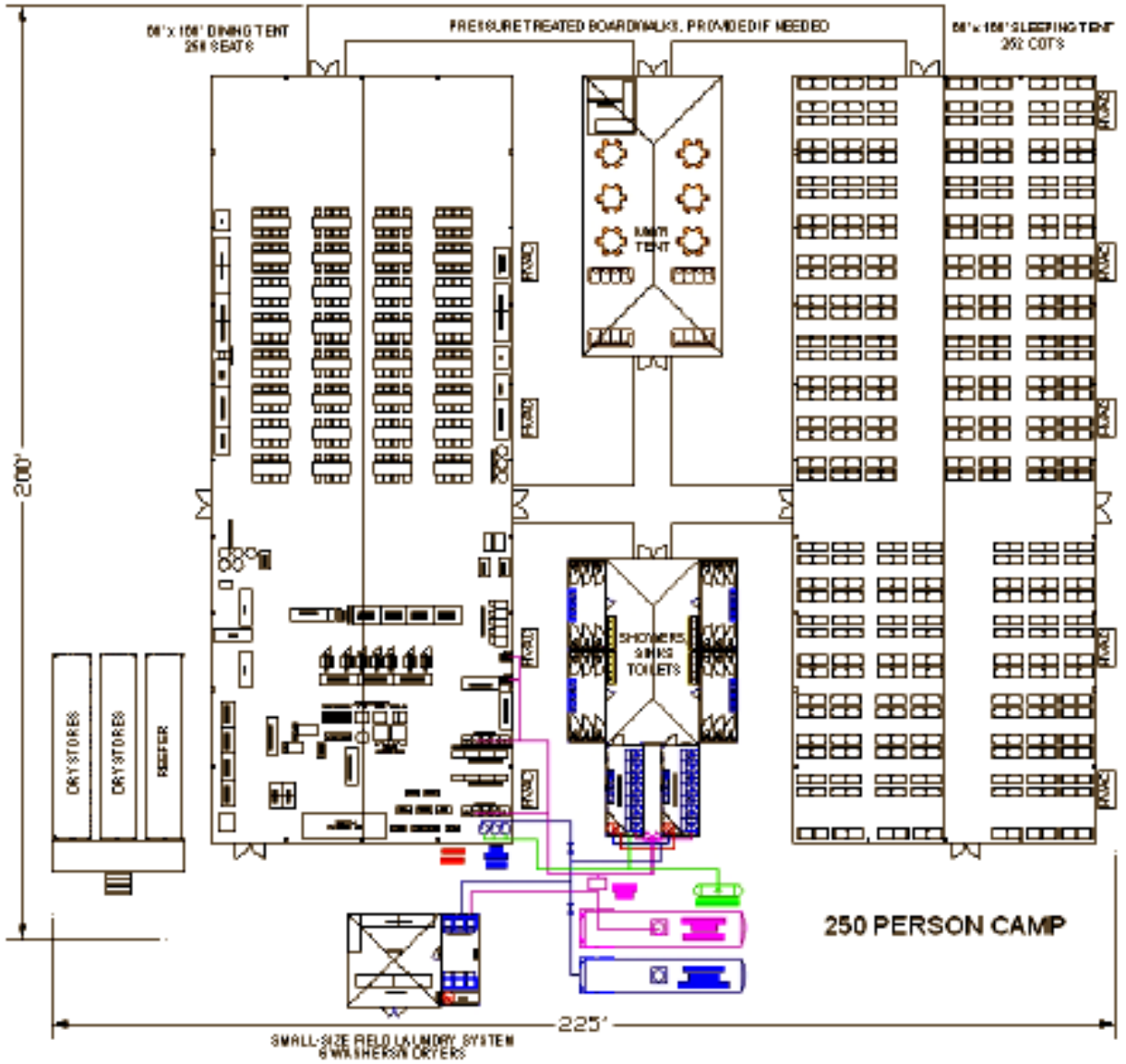
	Time of Construction											
	Hours from Notice											
Item	8	16	24	32	40	48	56	64	72	80	88	96
Tents												
Kitchen/Dining Tent												
Flooring												
Lighting												
Doors												
Beds/Bedding												
Kitchen Equipment												
Food Supplies												
Generators												
HVAC												
Showers												
Restrooms												
Laundries												
Fresh Water Equipment												
Gray Water Equipment												
Dumpsters												
Trucks												
Forlklifts												
DR Staff												
General Labor												

Type IV Base Camp



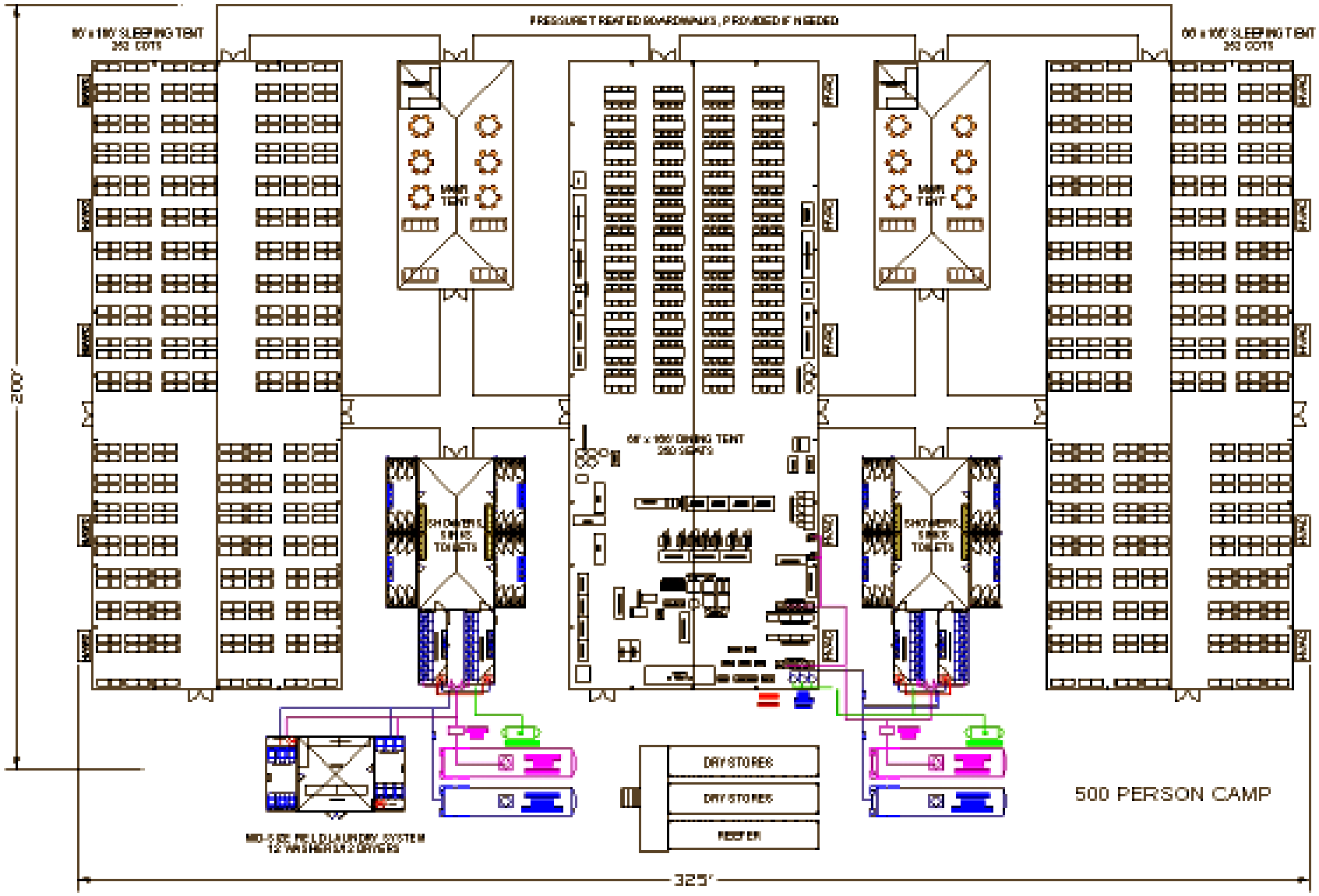
Type IV Base Camp

250 Persons Camp
General Layout



Type III Base Camp

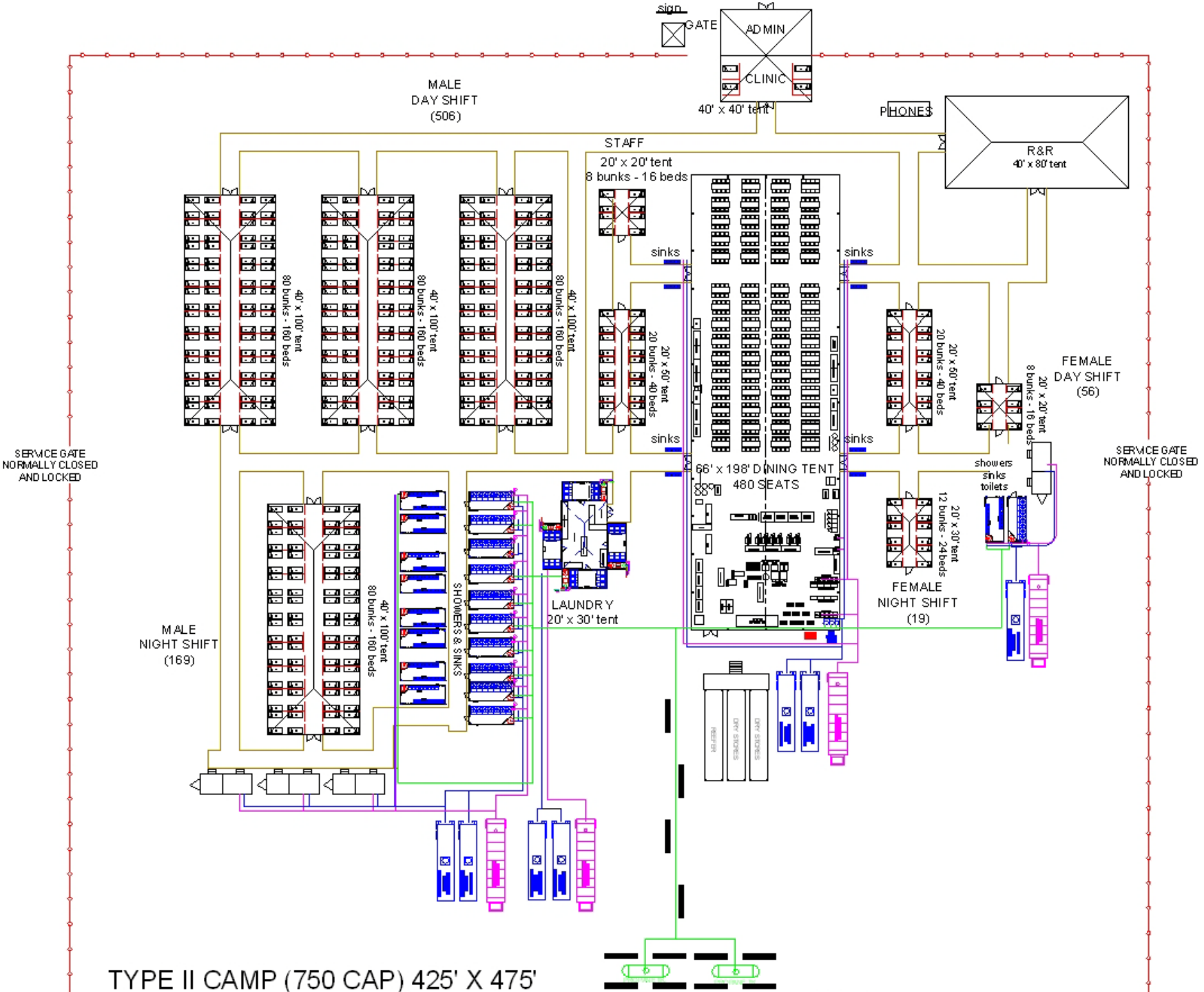
500 Persons Camp
General Layout



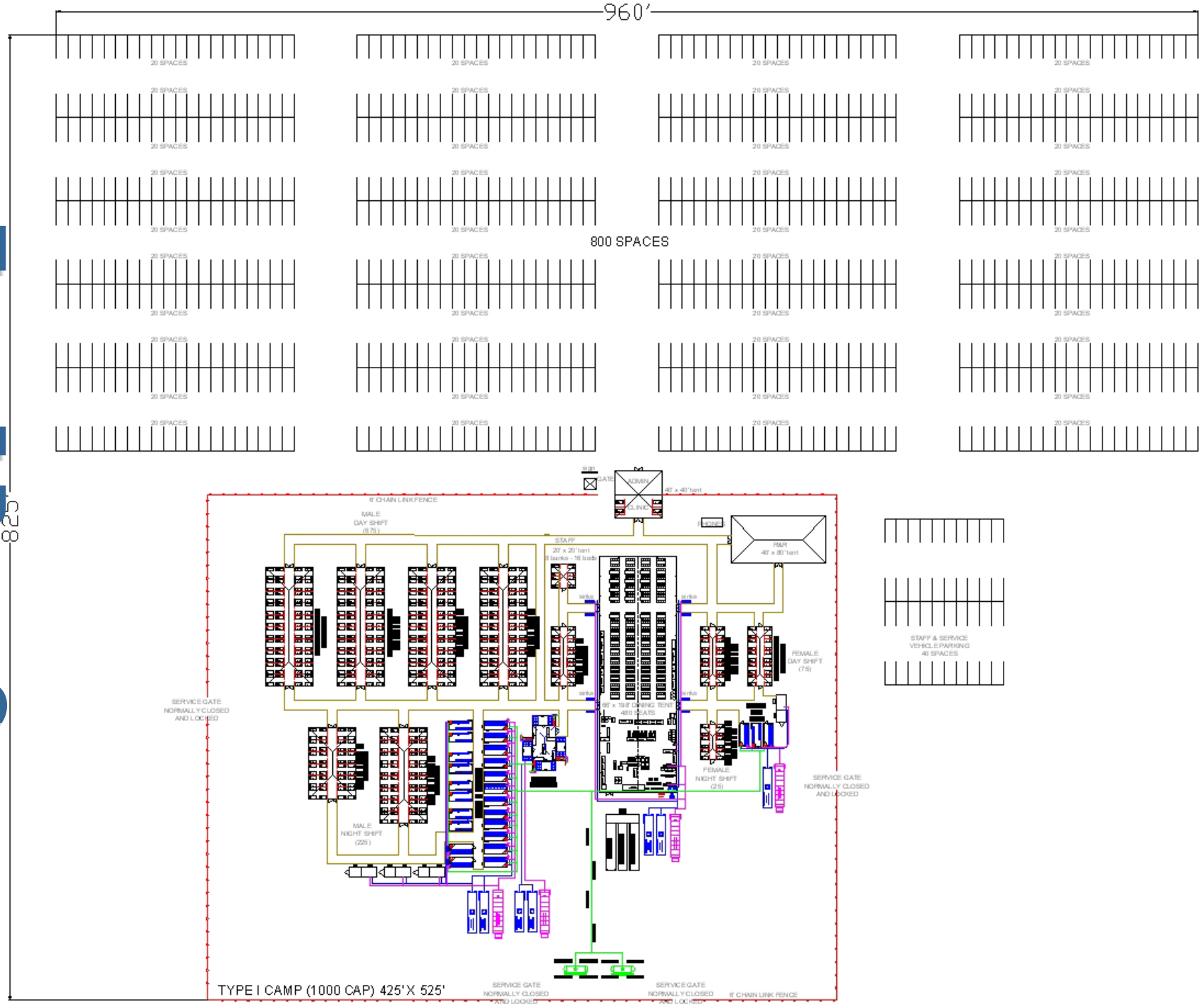
Type III Base Camp

Type II Base Camp

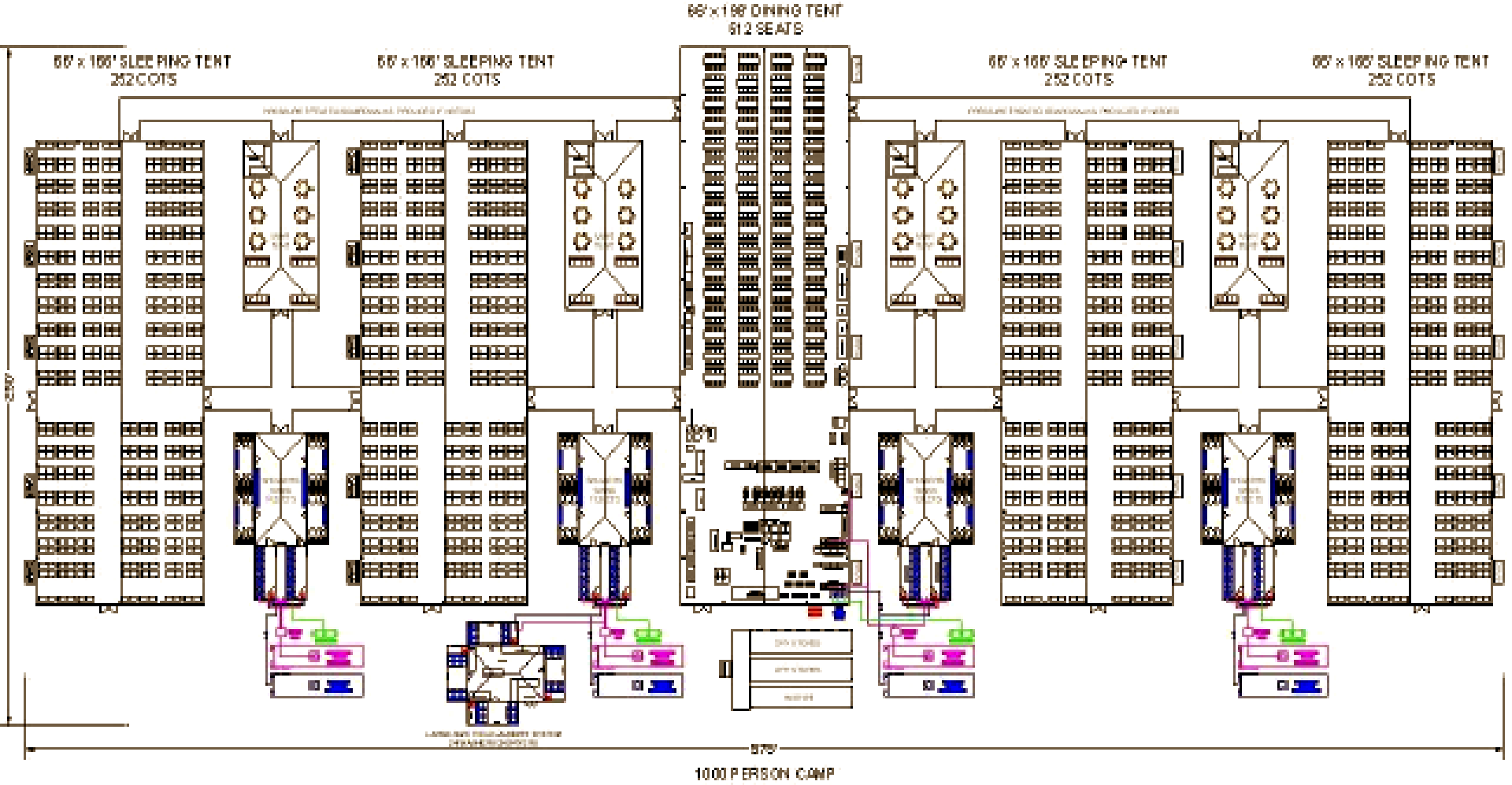
Type II Base Camp



Type I Base Camp

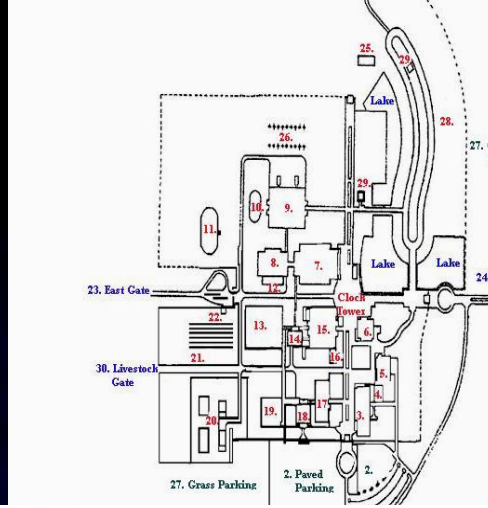


Type I Base Camp



Building Base Camps

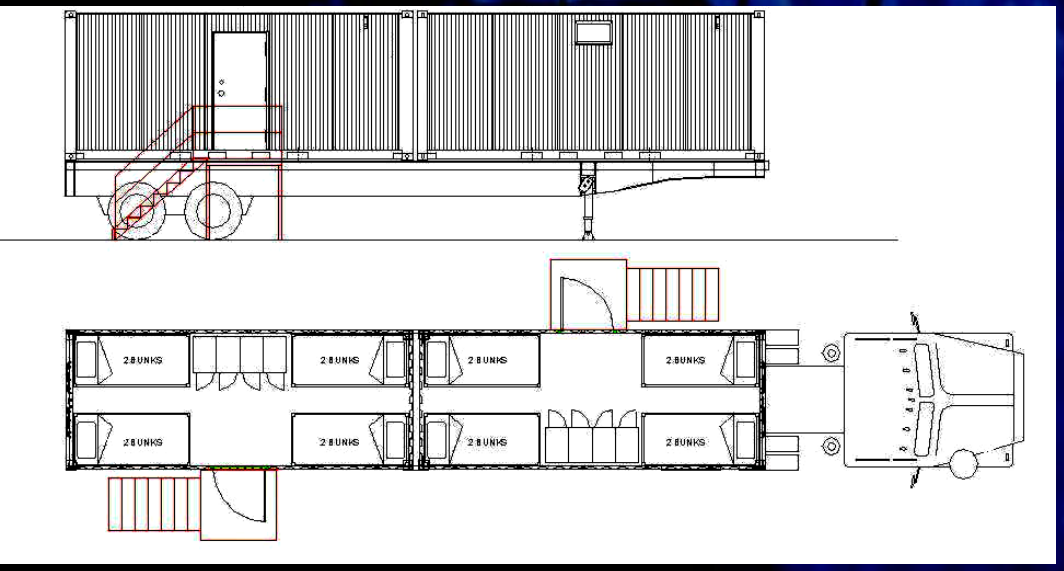
- Site Selection and Preparation
  - Utilization of Existing Facilities
  - Alternative Sites
    - Flat open space
  - Level Ground
    - Water Runoff
    - Gravel Top Coat
  - Surface or Trench Infrastructure
  - Perimeter and Site Security
  - Parking and Traffic Management



Building Base Camps

Base Camp Billeting

- **Structures**
  - Existing Buildings
  - CONEX Container Bunk Houses
  - Long Span Structures
  - Custom Semi Trailer Bunk Houses



Base Camp Billeting

CONEX CONTAINERS

LONG SPAN STRUCTURES

Base Camp Messing

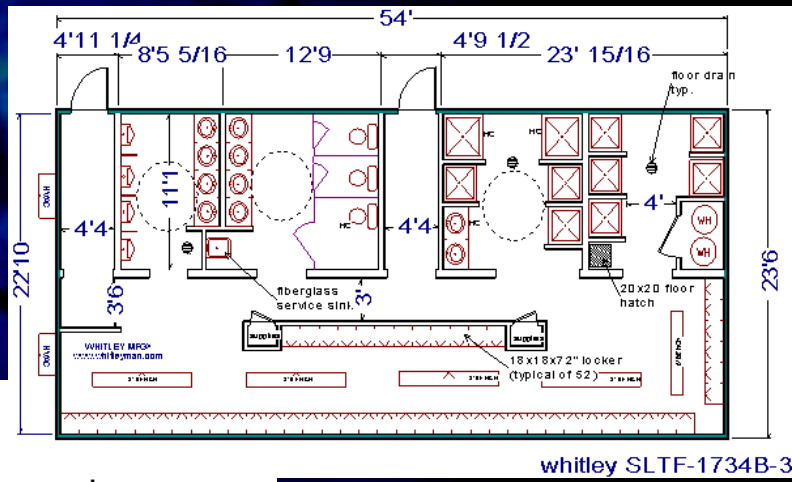
- **Food Services**
  - Trailer Mounted Field Kitchens
  - Stand Alone Kitchen Components
  - Off-Site Catering Served On-Site
  - Tented Dining Halls

SERVICE FOIL

BUNN
Coca-Cola
CLASSIC
Coca-Cola
Chilled Juice
Beverages

Base Camp Personal Hygiene

- **Restrooms and Showers**
  - Air-Conditioned Trailer Mounted Systems versus Porta-Potties for long term operations



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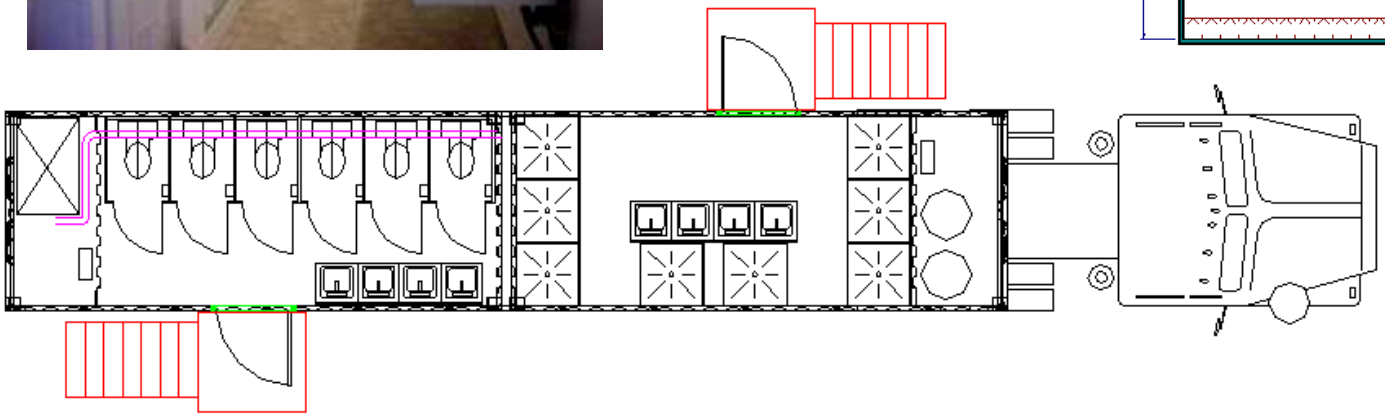
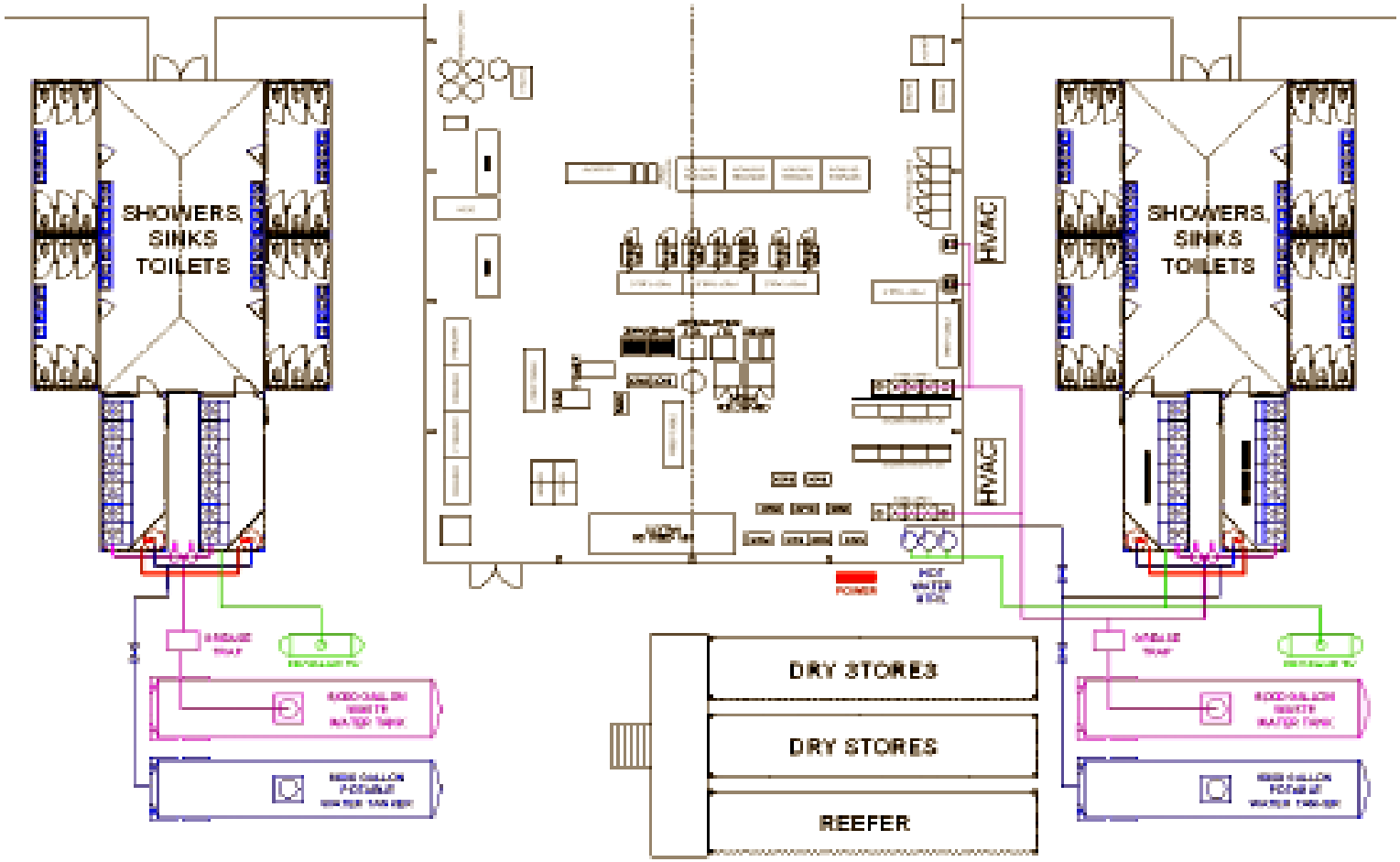
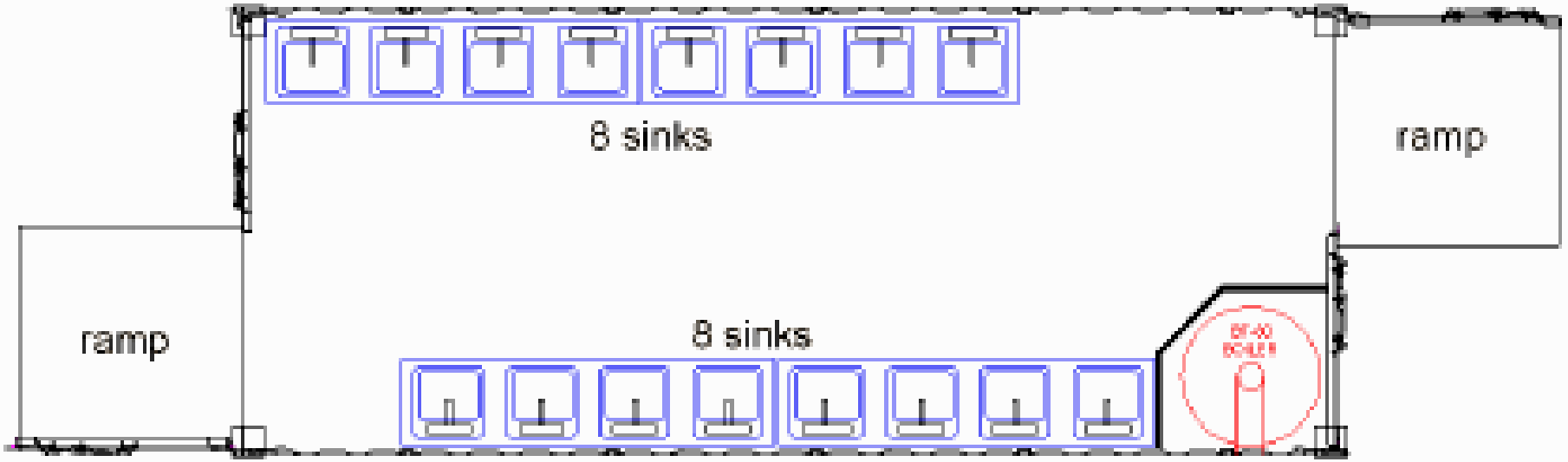


Shower/Sink/Toilet/Kitchen
General Plumbing Layout



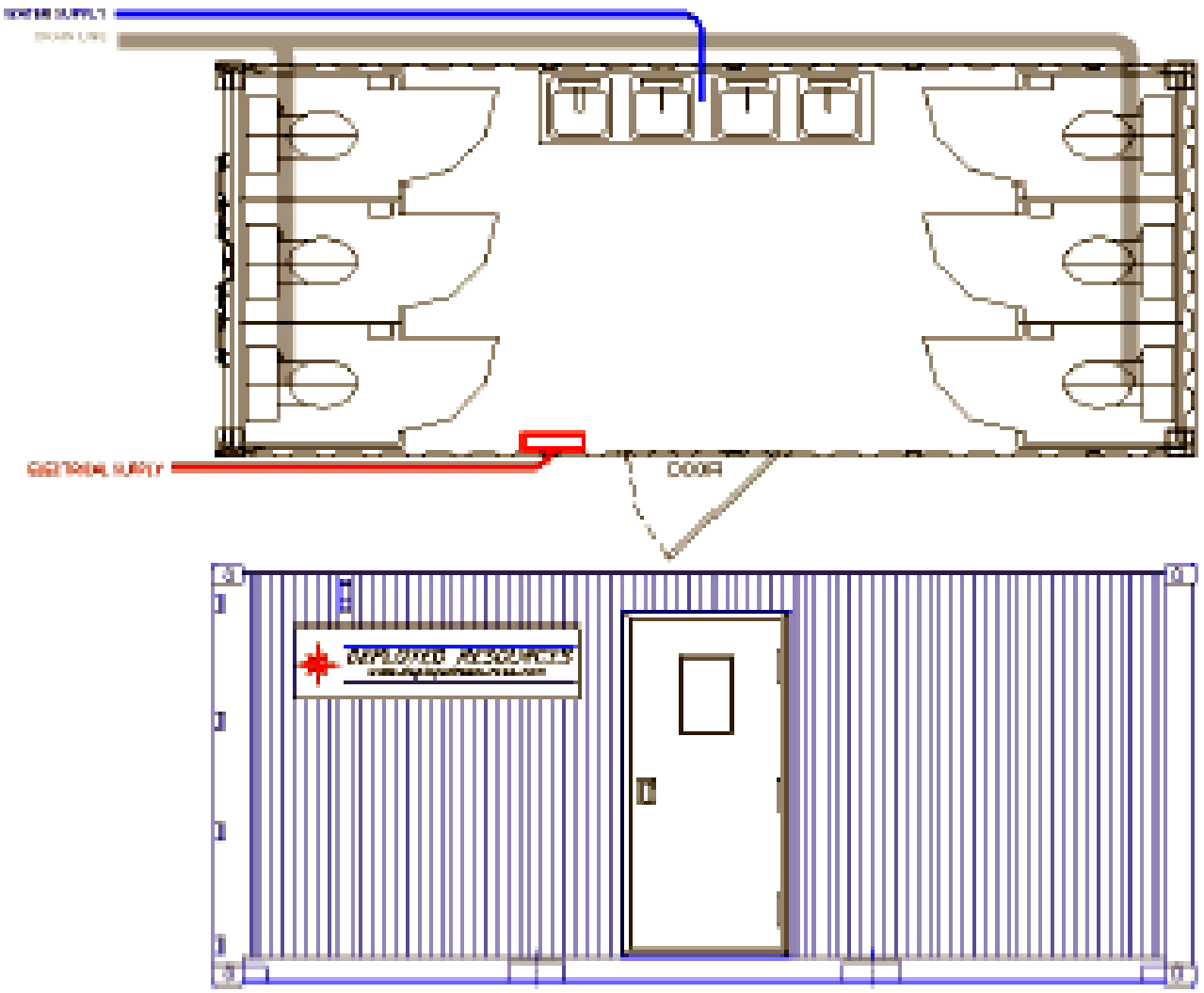
DR 216 Mobile Shave Unit



16 SINK SHAVE CONTAINER

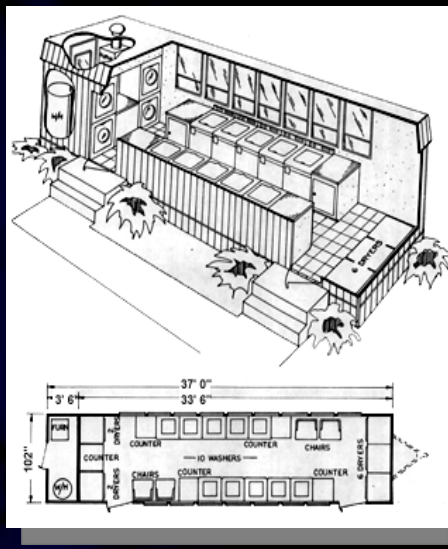
20 ISO CONTAINER
HOT & COLD WATER
MIRRORS
LIGHTS
(OPTIONAL) SCREEN DOORS

DR 206 Mobile Toilet Unit



Base Camp Ancillary Services

- **Life Safety**
  - Safety Officer
  - Fire
  - Security
  - Medical / Clinic
- **Laundry (Fluff 'n Fold)**
- **Supply Warehouse**
- **Barber Shop**
- **After-Hours Area**
  - TV
  - Cards
  - Recreation
- **Postal Services**
- **Newspaper Delivery**
- **Sundries Store**



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Building Base Camps

- **Infrastructure Support**
  - Potable Water
  - Waste Management
    - Grey Water
    - Black Water
    - Solid Waste
  - Ground Power
  - Communications
  - Fuels

Final Exam
30 Minutes

- Answer questions based on what we have covered in this training.
- Open Book!

County Logistics Training

Final Exam

Completion

- Bring up front when complete
  - Final Exam
  - Course Evaluation
- Receive Course Completion Certificate

Thank you for your participation in this training!

State of Florida
Emergency Response Team

FLORIDA
EMERGENCY MANAGEMENT
EMAP Accredited
ACCREDITATION PROGRAM
First Accredited State In The Nation

State of Florida
Unified Logistics Section
County Logistics Training Course

"ONE TEAM . . . ONE FIGHT"

COURSE INSTRUCTORS

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Florida Division of Emergency Management

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