CHATHAM COUNTY EMERGENCY OPERATIONS PLAN

ESF – 02 ANNEX
APPENDIX 2-1

INTEROPERABLE COMMUNICATIONS

NOVEMBER 2013

SEGARRN
Southeast Georgia Regional Radio Network

CEMA

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RECORD OF CHANGES

- **New document November 2013**

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ACRONYMS

ARES	Amateur Radio Emergency Services
CC ICS	Chatham County Information Communications Services
CEMA	Chatham Emergency Management Agency
CoS IT	City of Savannah Information Technology
CTCSS	Continuous Tone Coded Squelch System
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
FAQ	Frequently Asked Question
FEMA	Federal Emergency Management Agency
GEMA	Georgia Emergency Management Agency
GETS	Government Emergency Telecommunication Services
HF	High Frequency
IAP	Incident Action Plan
ICS	Incident Command System
IT	Information Technology
LAN	Local Area Network
MAN	Metropolitan Area Network
MHz	Megahertz
NAC	Network Access Code
NAWAS	National Warning System
NCS	National Communications Systems
NIMS	National Incident Management System
NS/EP	National Security and Emergency Preparedness
P25	Project 25
PSTN	Public Switched Telephone Network
RX	Receive
SEGARRN	Southeast Georgia Radio Regional Network
SWIC	Statewide Interoperability Coordinator

TSP	Telecommunications Service Priority
TX	Transmit
VHF	Very High Frequency
UHF	Ultra High Frequency
WAN	Wide Area Network
WPS	Wireless Priority Service

DEFINITIONS

Government Emergency Telecommunication Services (GETS): Providing emergency access and priority processing in the local and long distance segments of the Public Switched Telephone Network (PSTN). (http://gets.ncs.gov/) The intention of system is to be used in an emergency or crisis situation when the PSTN is congested and the probability of completing a call over normal or other alternate telecommunication means has significantly decreased.

Metropolitan Area Network (MAN): A MAN is a computer network in which two or more computers or communicating devices or networks which are geographically separated but in same metropolitan city and are connected to each other are said to be connected on MAN. Metropolitan limits are determined by local municipal corporations; the larger the city, the bigger the MAN, the smaller a metro city, smaller the MAN. The IEEE 802-2002 standard describes a MAN as being: "A MAN is optimized for a larger geographical area than a LAN, ranging from several blocks of buildings to entire cities. MANs can also depend on communications channels of moderate-to-high data rates. A MAN might be owned and operated by a single organization, but it usually will be used by many individuals and organizations. MANs might also be owned and operated as public utilities. They will often provide means for inter-networking of local networks."

National Warning System (NAWAS): The system is a telephone party line, for protection for lightning strikes so they may be used during storms. The interconnecting lines provide some protection by avoiding local telephone switches. This ensures they are available even when the local system is down or overloaded. NAWAS has major terminals at each state Emergency Operations Center and State Emergency Management Facility. Other secondary terminals include local emergency management agencies, National Weather Service field offices and Public-Safety Answering Points.

Project 25 (P25): P25 is the national standard for Public Safety Digital Mobile Radio Communications.

Public Switched Telephone Network (PSTN): The PSTN is the aggregate of the world's circuit-switched telephone networks which are operated by national, regional, or local telephone operators, providing infrastructure and services for public telecommunication. The PSTN consists of telephone lines, fiber optic cables, microwave transmission links, cellular networks, communications satellites, and undersea telephone cables, all interconnected by switching centers, thus allowing any telephone in the world to communicate with any other.

Radio Interoperability: The ability of radio equipment assigned to one jurisdiction being able to talk to radio equipment from another jurisdiction. At the national level, the P25 standard has been mandated by the National Incident Management System (NIMS) as the digital radio protocol for use by all government agencies for public safety and disaster response.

Southeast Georgia Regional Radio Network (SEGARRN): SEGARRN is a voluntary association composed of representatives of the City of Savannah and seven southeast Georgia counties (Bulloch, Bryan, Camden, Chatham, Effingham, Glynn and Liberty).

Telecommunications Service Priority (TSP): A program which authorizes national security and emergency preparedness (NS/EP) organizations to receive priority treatment for vital voice and data circuits or other telecommunications services. As a result of hurricanes, floods, earthquakes, and other natural or man-made disasters, telecommunications service vendors frequently experience a surge in requests for new services and requirements to restore existing services. The TSP Program provides service vendors a Federal Communications Commission mandate to prioritize requests by identifying those services critical to NS/EP. A TSP assignment ensures the facility will receive priority attention by the service vendor before any non-TSP service.

Trunking: Trunking is a demand based method of exchanging information over a radio network. A trunked radio network has assets consisting of radio sites and radio channels at each radio sites. Throughout the network are subscriber units (mobile and portable radios). The system's assets are controlled by computer. Each subscriber radio is allowed certain access rights on the system. The computer keeps track of those rights.

Wireless Priority Service (WPS): An add-on feature subscribed on a per-cell phone basis which works with existing cell phones in WPS enabled cellular networks; no special phones are required. WPS provides priority for emergency calls through a combination of special cellular network features and the same "High Probability of Completion" features used by GETS. (http://wps.ncs.gov/)

TABLE OF CONTENTS

TABS

EXHIBITS

TABLES

FIGURES

I. INTRODUCTION

A. Chatham County is vulnerable to a variety of emergency or disaster events requiring dissemination of warning and/or other emergency information to county and city officials, and the general public. Emergency or disaster warnings may originate from any level of government, as well as other sources. Most forecasting resources are located with the federal government. This may include, but is not limited to watches and warnings for: floods, severe weather, tropical weather, civil disturbances, and hazardous materials incidents.

B. The sudden and unexpected nature of a catastrophic event will result in numerous requests from many agencies and all levels of government for services required to save lives, protect property, and preserve the environment.

C. The Chatham County Emergency Management Agency (CEMA) / Emergency Operations Center (EOC) staff, city and county governments, and all emergency and support agencies will have a critical need for accurate and timely information on which to base decisions and focus response actions.

D. Since widespread damage to commercial telecommunications facilities is possible, coordination through this Emergency Support Function (ESF) is crucial. At a time when the need for real time electronically processed information is greatest, the capability to produce it may be restricted or non-existent. All available telecommunication assets of the various agencies and local government will be needed immediately and proper coordination paramount.

II. PURPOSE

A. To provide guidance for rapid alerting and warning to key city and county officials and the general public regarding an impending or occurring emergency or disaster.

B. To provide guidance for organizing, establishing, and maintaining telecommunication capabilities necessary to meet the operational requirements of the county in responding to, and recovering from, emergencies and disasters.

III. SCOPE

A. This ESF will coordinate the establishment of temporary communications and the restoration of permanent communications in the areas affected by an emergency/disaster. Support will include state agency communications, local county communications, commercially leased communications and communications services provided by volunteer groups such as Amateur Radio Emergency Services (ARES), etc.

B. Jurisdictions and agencies within the county will focus on coordinating lifesaving activities concurrent with reestablishing control of the affected area.

IV. AUTHORITIES

A. This Appendix is developed in accordance with the legal references listed below, and under the authority of the Chairman of the Board of the County Commission, Chatham County, Georgia; and the Director of the Chatham Emergency Management Agency, Chatham County, Georgia. This Appendix supersedes all similar and previous versions to date.

B. FEDERAL:

1. National Response Framework, October 2007

2. Homeland Security Presidential Directive #5 – Management of Domestic Incidents

3. Robert T. Stafford Disaster Relief and Emergency Assistance Act.

C. STATE:

1. Georgia Emergency Management Act of 1981, as amended

2. Georgia Emergency Operations Plan (EOP).

D. COUNTY:

1. Chatham County EOP

2. Chapter 4, Article III, of the Chatham County Code, Emergency Management, March 24, 2006.

V. IMPLEMENTATION

A. This Appendix is implemented upon the recommendation of the Director of CEMA with the approval of the Chairman, Chatham County Board of Commissioners and concurrence of the Mayors of the Municipalities as appropriate referred within this Appendix as the Command Policy Group.

B. Telecommunications and warning support requirements which cannot be met at the Chatham County level will be referred to Georgia Emergency Management Agency (GEMA).

C. This Appendix will govern Chatham County communications and warning activities related to mitigating, preparing for, responding to, and recovering from emergencies or disasters.

D. Management of this Appendix will be coordinated through the primary coordinators of established County ESF Groups. These primary coordinators jointly make determinations necessary for the required response level to implement the plan. The Emergency Coordinators include:

1. CEMA
2. ESF-02 (Communications)
3. ESF-13 (Public Safety & Security)
4. ESF-15 (External Affairs)

VI. CONCEPT OF OPERATIONS

A. Declaration and Initial Steps

1. After an initial declaration of emergency and the establishment of the Incident Command System (ICS), ESF-02 will activate and begin the process of coordinating the related resources.

2. Jurisdictions, agencies, and the county, in conjunction with the telecommunications industry, will accomplish as much restoration and reconstruction of communications capabilities as resources and the situation permits. The county may be able to get additional assistance for restoration of communication systems when requested through CEMA.

3. Weather and other factors may impair the ability to deploy mobile or transportable telecommunication equipment into the affected area.

These documents aim to outline the procedure, assets, and key agencies needed to accomplish the tasks necessary to meet the goals of the Incident Action Plan (IAP).

B. Logistics

1. The EOC will coordinate the identification, acquisition, prioritization, and deployment of telecommunications assets as appropriate to assure continuity and consistency of county response actions.

2. Needs Identification

1) Local jurisdictions, agencies, and service organizations should identify and develop their resources, including trained personnel, primary and backup equipment, and backup power options. When necessary, the required personnel and equipment can be made available to fulfill the roles and responsibilities identified in this ESF.

2) As a minimum, all agencies, jurisdictions and organizations should expect to sustain operations for 72 hours, and have other resources programmed for use up to 14 days.

3. With a current staff and equipment list, develop plans to ensure contracts are up to date, equipment, locations and types are identified, how they are to be fixed and in which order the equipment will need to be brought back up online.

4. Staging Assets

a. Public and Private Sector partners need to have on record any “Pre-Event needs” by regular assessments of current staff and equipment.

b. With a current staff and equipment list, develop plans to ensure contracts are up to date, equipment, locations and types are identified, how they are to be fixed and in which order will the equipment need to be brought back up online.

c. ESF-02 will coordinate with the EOC Logistics Chief on locations for equipment to be staged. The information in “Tab C: Communications Assets” will assist in identifying and provisioning the available assets.

5. Deployment Assets

a. Develop and maintain an inventory of communication capabilities and resources, noting availability and response criteria, and noting any deficiencies or limitations in respect to supporting this ESF. This information is to be shared with CEMA.

b. The information in "Tab C: Communications Assets" will assist in identifying and provisioning the available assets.

C. Infrastructure Restoration: Coordinate specific locations where backup or support communications need to be established, such as hospitals, medical clinics, nursing homes, group homes, schools, daycare facilities, communities without phone service, response agencies, etc. Coordinate with Law Enforcement (ESF – 13) on placing Law Enforcement personnel at critical facilities to deter vandalism and/or theft.

D. Information on Notable County Wide System

1. Radio Systems

a. South East Georgia Radio Regional Network (SEGARRN)

1) SEGARRN connects all public safety agencies in Georgia All-Hazards Region 5 along the I-95 and I-16 hurricane evacuation corridors, and other counties in Region 3 along the I-16 hurricane evacuation corridor, on a single Public Safety Radio Network.

2) The information in "Tab C: Communications Assets" will assist understanding the SEGARRN system more clearly, as well as identifying and provisioning equipment.

3) Day to Day Interoperability

a) All Emergency First Responders and Community Services agencies within the county operate on the trunked radio system. Each entity is given talkgroups based on their operational needs and the number of users within their agency. Talkgroups are shared among the users based on access required to individual departments.

b) The Dispatch Center monitors and provides information through the use of individual dispatch talkgroups. Each agency also has "operational" talkgroups available to them so they may communicate in groups without disturbing the Dispatch traffic.

c) Operational Talkgroups for emergency operations will be determined by the EOC's Planning Phase.

4) Communications Command & Control: Identified through the IAP process.

2. ARES

a. ARES can provide two-way Very High Frequency (VHF), Ultra High Frequency (UHF) and High Frequency (HF) backup and auxiliary radio communications for first responders, hospitals, the EOC, and other emergency support agencies. ARES resources may also provide communications for extended care facilities, "at-risk" populations, and communication points for the public.

b. The information in "Tab C: Communications Assets" will assist in identifying and provisioning the available assets.

3. Telecommunications Services

a. Telephone Systems: Chatham County utilizes cable from various private sector companies to connect the government facilities. Needs of the primary phone system for County offices is coordinated through Chatham County Information Communication Services (CC ICS) and Integrated Network Solutions.

b. Wireless/Cellular

a) In Southeast Georgia, there are multiple vendors which provide wireless service to the region. Some of these vendors are Verizon/Sprint/AT&T/T-Mobile/SouthernLinc

b) Chatham County maintains a wireless communications contract. See "Tab C: Communications Assets" for more information.

c. TSP

1) Chatham County participates in this program by identifying critical facilities which need data service restored quickly. It is recommended any Government agency needs to sign up for TSP for critical facilities such as a 911 Center or the technology data center.

2) Refer to "Tab D: Standard Operating Procedures" for information on how to setup either.

3) Hotlines: Through the use of the copper, fiber and microwave networks within the county, the Chatham County Emergency Management Agency has established a system of Hot Lines from the EOC to various organizations.

E. Information Technology (IT) - Coordination of all technical services should be done through the CC ICS Chief Technical Manager and/or Help Desk Coordinator. Contact information is contained in "Tab E: Cooperative Agreements and Contacts".

1. WebEOC

a. CEMA uses the software package WebEOC for Command and Control. This system is controlled through a server within the County Emergency Operations Center. A secondary server is located within the same facility and mirrors the first for automatic backup.

b. CEMA will supply IT equipment to every workstation for each EOC Staff member.

2. Network

a. Chatham County, the City of Savannah and the Metropolitan Planning Commission maintain closed computer networks. All departments and agencies participate in the network for daily governmental operations. Those agencies which participate in the Chatham EOP and are not on the government network are granted access to the software through the Internet.

b. The County computer network is maintained by the CC ICS Department. Upon activation of the EOC, personnel from the CC ICS Department are assigned to the EOC.

c. Chatham County has, to date, granted any government agency authorization to connect to the system. It is the intention of the County to connect all municipalities, and Public Service agencies onto the system as needed during an EOC activation. Chatham County security practices must be adhered to during this period.

3. Internet Services: CEMA uses a wide variety of Internet abilities to provide services to the citizens and communications with emergency services. Internet services are provided to the EOC by the current CC ICS contract provider.

a. For redundancy, CEMA utilizes a satellite service for backup internet usage.

b. Additional redundancy is provided through CC ICS satellite infrastructure.

F. State Communications

1. For information on the State Plan, please reference GEMA's EOP; ESF-02 Annex – Communications

2. Coordinators: State Interoperable Communications

a. The Statewide Interoperability Coordinator (SWIC) position resides within GEMA and coordinates the states interoperable communication activities.

b. The SWIC oversees and implements the goals of the Georgia Statewide Communication Interoperability Plan and provides support to all Georgia based Federal, State and Local stakeholders.

3. Communications

a. State Warning Point

1) The State Warning Point primary mission is to disseminate emergency and non-emergency information to and from local governments within the territorial boundaries of the State of Georgia.

2) The State Warning Point is manned 24/7 – 365. The primary number – 1.800.TRY.GEMA

3) The State Warning Point conducts a NAWAS roll called. The call is conducted every Wednesday, times vary.

4) The State Warning Point conducts a Required Monthly Test of the Emergency Alert System on the last Wednesday of each month. Times located at www.gab.org

b. Radio Communications: GEMA has created a "Georgia National Incident Field Operations Guide" flip book which references key radio frequencies to be used in the State. These frequencies should be programmed in any radio which is set up to be a statewide interoperable radio.

1) GEMA Portable Communications Towers:

a) Interop 1 stored at the Georgia State Patrol Headquarters in Atlanta.

b) Interop 2 stored at the Georgia State Patrol Post in Brunswick

2) GEMA VHF Frequencies

Channel	Assign.	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M
GAIOP1	Multi-Disc.	151.0850	156.7	158.9850	156.7	A
GAIOP1D	Multi-Disc.	151.0850	156.7	151.0850	156.7	A
GAIOP2	Multi-Disc.	151.0700	156.7	159.0450	156.7	A
GAIOP2D	Multi-Disc.	151.0700	156.7	151.0700	156.7	A

TABLE 1.0: GEMA VHF FREQUENCIES

VII. RESPONSIBILITIES

A. County Government

1. CEMA will:

a. Develop and maintain primary and alternate contact list with local jurisdictions, other state agencies, interstate and national agencies required for mission support.

b. Develop and supervise a comprehensive countywide emergency communications program and plan.

c. Assist other local jurisdictions in developing communications plans and systems which interface with and support the countywide emergency communications system as requested.

d. Conduct training and communications system exercises to insure reliable statewide emergency communications support.

2. County agencies and organizations involved in the county emergency communications system will:

a. Develop emergency communications support plans which provide alternate or supplementary support to the state emergency communications system.

b. Develop and implement internal security procedures.

c. Conduct or participate in periodic tests or exercises to ensure responsive and reliable emergency communications support.

d. Coordinate emergency communications support plans with the ESF-02 Unit Leader.

B. Volunteer Agencies: ARES will provide primary or alternate emergency radio communications support.

C. State Government

1. The State Government will implement ESF-02 of the State Response Plan, to provide communications support to county/local jurisdictions.

2. Assistance will be discontinued when local requirements no longer exist.

D. Federal Government

1. The Federal Government will implement ESF-02 of the Federal Response Plan, to provide communications support to county/local jurisdictions.

2. Assistance will be discontinued when state or local requirements no longer exist.

VIII. APPENDIX MANAGEMENT AND MAINTENANCE

A. Executive Agent: CEMA is the executive agent for Appendix management and maintenance. The Appendix and supporting documents will be updated periodically as required to incorporate new directives and changes based on lessons learned from exercises and actual events. This section establishes procedures for interim changes and full updates of the Appendix.

B. Types and Changes: Changes include additions of new or supplementary material and deletions. No proposed change should contradict or override authorities or other plans contained in statute, order, or regulation.

C. Coordination and Approval: Any department or agency with assigned responsibilities within this Appendix may propose a change. CEMA is responsible for coordinating all proposed changes with primary agencies, support agencies and other stakeholders. CEMA will coordinate review and approval for proposed modifications as required.

D. Notice of Change: After coordination has been accomplished, including receipt of the necessary signed approval supporting the final change language, CEMA will issue an official Notice of Change. The notice will specify the date, number, subject, purpose, background, and action required, and provide the change language on one or more numbered and dated insert pages which will replace the modified pages in the appropriate document. Once published, the modifications will be considered part of the EOP for operational purposes pending a formal revision and re-issuance of the entire document. Interim changes can be further modified or updated using the above process.

E. Distribution: CEMA will distribute the Notice of Change to all participating agencies. Notice of Change to other organizations will be provided upon request. Re-issuance of the individual document or the entire EOP will take place as required. Working toward continuous improvement, CEMA is responsible for an annual review and update of the EOP to include related Appendices, and a complete revision every four years (or more frequently if the County Commission or GEMA deem necessary). The review and update will consider lessons learned and best practices identified during exercises and responses to actual events, and incorporate new information technologies. CEMA will distribute revised EOP documents for the purpose of interagency review and concurrence.

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TAB A
INTEROPERABLE COMMUNICATIONS PLAN

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TAB A: INTEROPERABLE COMMUNICATIONS PLAN

The primary communications system which will provide interoperable communications will be the 700/800 Megahertz (MHz) radio system. All Chatham County municipalities and surrounding counties have access to this system and radio resources have been reserved specifically for this purpose.

Mutual Aid / Task Force Interoperability:

Mutual Aid / Task Force Interoperability – The interoperable communications for Chatham County is designated as 16 talkgroups on the SEGARRN system. These talkgroups are outlined below:

NIMS Zone(s)

- The NIMS Zone(s) were created so there would be interoperable communications on every radio on the network.
- Channel 10 is set up on ZONE A to be NIMS Common in every radio.
- The N Zone or the last zone in the radio will be designated for NIMS.
    - NIMS COMMON.
    - Three (3) Incident Groups; CMD (1-3), OPS (1-3), LOG (1-3), PLN (1-3).
- Zones J, K, L and M will be the designated zones for Local, State and Federal channels.
    - J, K and L: Federal and State.
    - M: Local.

In each radio across the SEGARRN system, you will begin to see the NIMS zone located in the last zone of your radio. This zone is broken down in three major groups with a few reserved channels as follows:

<NIMS>1	Common 1
<NIMS>2	CMD 1
<NIMS>3	OPS 1
<NIMS>4	LOG 1
<NIMS>5	PLAN 1
<NIMS>6	CMD 2
<NIMS>7	OPS 2
<NIMS>8	LOG 2
<NIMS>9	PLAN 2
<NIMS>10	CMD 3
<NIMS>11	OPS 3
<NIMS>12	LOG 3
<NIMS>13	PLAN 3
<NIMS>14	RSRVE A
<NIMS>15	RSRVE B
<NIMS>16	RSRVE C

TABLE 1.A: NIMS ZONES

As a conceptual overview, this graphic shows the breakdown of the talkgroups differently:

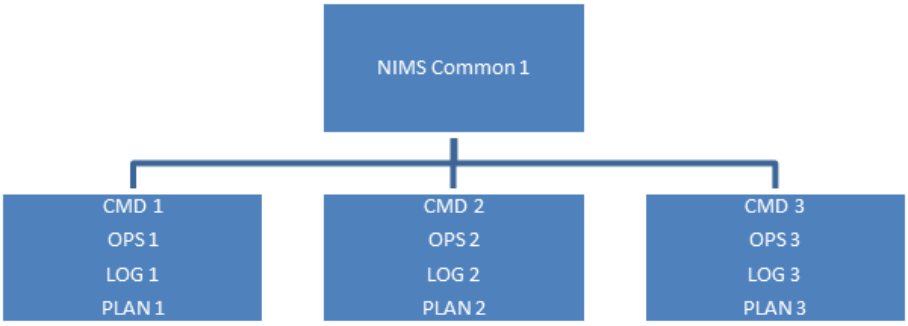

FIGURE 1.A: NIMS TALKGROUPS OVERVIEW

The NIMS zone is broken down into groups enabling 3 simultaneous incidents to utilize individual talkgroups without overlap. The groups listed for each incident are Incident Command (CMD), Operations (OPS), Logistics (LOG), and Planning (PLAN).

NOTE: The NIMS zone may be located in a different place depending on your agencies setup. Please make sure to ask where this zone is located in your radio if you are not sure.

Other means of communication

Since other forms of communication will certainly provide interoperable communications, such as cellular phones and email, each should be used where advantageous. Below we plan for the most common, but cannot cover every means of communication.

Each of the following technologies, if used, are up to the municipality and/or jurisdiction to maintain. Though, there is a central effort within CEMA to maintain a list of phone numbers for contacting others for mutual aid related coordination.

- Telephones
- Cellular phone (and text messaging)
- Email
- Social media:
    - FaceBook
    - Twitter
    - Etc.

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TAB B
FREQUENCY MANAGEMENT DISASTER PLAN

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TAB B: FREQUENCY MANAGEMENT DISASTER PLAN

Frequency Management should involve filling out the Federal Emergency Management Agency (FEMA) form ICS 205 from "Tab G:
Incident Radio Communications Plan (ICS 205)"

I. 700/800 Trunked Radio Systems – The radio systems used throughout the County are trunked systems, so coordination will be with talkgroups.
   - Talkgroup coordination – Talkgroups in the NIMS zone will be assigned for various functions.
   - Many other agencies around the area will be assigned the talkgroups regularly used during their daily operations.

II. ARES Radio Systems – In the extreme event the ARES system is utilized for daily operations, frequency control will be extremely tight. With very limited capacity and frequency management, the system use must be limited.

III. Frequency control for cellular services will be managed by our cellular provider.

Frequency/Talk Group Management:

I. For the Chatham County portion of the SEGARRN system, frequency management will be done through the IAP process and must involve the SEGARRN System Manager and the ESF-02 Coordinator. Optionally, Savannah Communications can be present to assist.

II. The ARES Radio Systems need be coordinated through the Chatham County ARES Coordinator.

III. Any specific needs for Cellular coordination must involve the respective cellular vendors.

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TAB C
COMMUNICATIONS ASSETS

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TAB C: COMMUNICATION ASSETS

The large assets utilized for communications are stored in several online databases or external supporting agencies (such as Verizon). Procedures for accessing the information are listed below.

Much of the tracking of assets assigned to personnel is tracked by the individual departments.

A. Description of Communications Systems

1. Radio Systems / System Information / Identification

a. SEGARRN:

1) SEGARRN will bring all public safety agencies in Georgia All-Hazards Region 5 along the I-95 and I-16 hurricane evacuation corridors, and other counties in Region 3 along the I-16 hurricane evacuation corridor, onto the Network. This network covers Southeast Georgia from the Georgia / South Carolina line to the Georgia / Florida line.

2) The SEGARRN operates on a mixture of 800MHz and 700MHz radio frequencies. All of the radio frequencies available on the network (currently 75 with approximately with additional under construction) are capable of operating as P25 Digital Radio Channels.

3) SEGARRN utilizes numerous “private” networks to pass all of the data necessary to control and operate the radio system. These networks consist of Microwave Radio Links, Fiber Optic connections and commercial T-1 Data lines to connect the various system components together.

4) The SEGARRN radio system utilizes what is known as “Trunking” to pass the radio traffic.

5) Day to Day Interoperability

a) The SEGARRN system allows the ability to coordinate assets from many surrounding areas.

b) All first responders and Community Services agencies within the county operate on the trunked radio system. Each entity is given talkgroups based on their operational needs and the number of users within their agency. Talkgroups are shared among the users based on access required to individual departments.

c) The Dispatch Center monitors and provides information through the use of individual dispatch talkgroups. Each agency also has "operational" talkgroups available to them so they may communicate in groups without disturbing the Dispatch traffic.

6) System Maintenance

a) Ownership of Network Assets: Unless otherwise authorized by action of the Working Group, Network components which involve the shared operation of the Network shall be inventoried and identified as the property of the City of Savannah and Chatham County.

b) All costs associated with title to and insurance of the Network site controller shall be the responsibility of the City of Savannah and Chatham County.

c) Other infrastructure and subscriber devices purchased by each member jurisdiction shall continue to be the property of the member jurisdiction, and any and all costs associated with said infrastructure and subscriber devices shall be the sole responsibility of the member jurisdiction.

7) Mutual Aid / Task Force Interoperability

a) NIMS Zone(s)

b) The NIMS Zone(s) were created so there would be interoperable communications on every radio on the network.

c) Channel 10 is set up on ZONE A to be NIMS Common in every radio.

d) Zone N will be the designated for NIMS.

e) NIMS COMMON.

f) Three (3) Incident Groups; CMD (1-3), OPS (1-3), LOG (1-3), PLN (1-3).

g) Zones J, K, L and M will be the designated zones for Local, State and Federal channels.

h) J, K and L: Federal and State.

i) M: Local.

8) Multiplex Control Units

a) The City of Savannah operates two mobile Audio Control Unit -1000 for interoperability of incoming agencies who do not have access to 800 MHz.

b) The County's 911 Dispatch Center also has a patching system.

c) This system is tied via the internet into the State's system to be able to patch channels across the internet.

d) This gives the capability of mixing 800 MHz, UHF and VHF channels with an access capacity of twelve (12) units. This unit is transported to an operational incident upon request of the Incident Commander.

2. Communications Command & Control

a. The radio and communication system supporting emergency operations within Chatham County is coordinated through an Intergovernmental Operating Agreement and managed by the Director of the City of Savannah Information Technology (CoS IT) and the Director of the CC ICS Department.

b. Authorizations to program, service, and switch to alternate systems are the responsibility of the City of Savannah Telecommunications Division. Switch to back-up systems is authorized upon the determination by the shift supervisor

within the Dispatch Center of a malfunction within the system.

c. All other decisions in regard to communications are made by the CoS IT.

3. ARES

a. ARES can provide two-way VHF, UHF and HF backup and auxiliary radio communications for first responders, hospitals, the EOC, and other emergency support agencies. ARES resources may also provide communications for extended care facilities, “at-risk” populations, and communication points for the public.

b. These resources are deployed upon request of the agency or facility needing communication support, and coordinated with CEMA. VHF and UHF radios and antennas are installed at the Primary EOC, Alternate EOC, Memorial Hospital, Candler Hospital and St Joseph Hospital. VHF antenna has been installed at the Savannah Chapter of the American Red Cross. ARES can also provide some portable and fixed location digital communications, both “point to point” and via Internet.

c. In cooperation with the Chatham County Amateur Radio Emergency Services, the 146.97 2-meter repeater is located within an Electro Magnetic Pulse protected area and provides back-up critical communications in the event of catastrophic emergencies.

d. The EOCs have two, 2-meter/440 Radios, one HF Radios and one 1.2 Gigahertz digital radio located in the two Chatham County Emergency Operations Centers.

e. ARES also has access to five 2-meter repeaters and one 70-centimeter repeater for use during emergencies. The American Red Cross also operates a 2-meter repeater which may be leveraged during emergencies.

B. Telecommunications Services

1. Chatham County utilizes cable from various private sector companies to connect the government facilities for phone services. These types of cables include:

a. Above/Below Ground Fiber: Comcast/Bellsouth/AT&T

b. Above/Below Ground Copper: Comcast/Bellsouth/AT&T

2. Wireless

a. In Southeast Georgia, there are multiple vendors which provide wireless service to the region. Some of these vendors are Verizon/Sprint/AT&T/T-Mobile/SouthernLinc.

b. The current County wireless phone provider will provide wireless mobile phones within 24hours of requesting them during an incident.

c. These phones will be distributed during an incident such as a Hurricane to units responding outside of the County such as a Bus Convoy to the Sheltering Community.

3. TSP: Chatham County participates in this program by identifying critical facilities which need data service restored quickly. It is recommended any Government agency needs to sign up for TSP for critical facilities such as a 911 Center or the technology data center.

4. GETS/WPS

a. This is a Federal program to allow subscribers to become first in the queue in the phone system when the phone systems in the area are overloaded due to large numbers of customers using the networks.

b. GETS Costs

1) Free Application

2) 7-10 cents per minute for US calls

c. WPS Costs

1) One time application fee $10 per phone

2) 75 cents per minute for US calls

3) $4.50 monthly service fee per phone

5. Hotlines

   a. Through the use of the copper, fiber and microwave networks within the county, the Chatham County Emergency Management Agency has established a system of Hot Lines from the EOC to various organizations.

   b. Chatham County 911 Dispatch Center

   c. Both EOCs have a direct ring down “red” phone at the Dispatch Supervisor’s desk.

   d. Connected thru the County’s Phone System.

   e. NAWAS

      1) Both EOCs have NAWAS phones to connect Chatham County to the State.

      2) NAWAS is operated and fully funded by FEMA.

   f. Beaufort County EMA Ringdown; Beaufort, South Carolina.

      1) This connection utilizes a microwave system and copper telephone phone lines.

      2) A “red” phone was installed in both EOCs to coordinate with one another.

C. Requesting and Tracking Assets

1. SEGARRN – predominantly, contacting the System Manager is the quickest route for immediate system changes. When assets are in question, a quick call to the System Manager is a good step, followed up by utilizing the following resources:

   a. Key Agencies with Assets

      1) Savannah Communications

      2) CoS IT mobile services

      3) CC ICS

b. Key Databases listing assets

1) National Interoperability Information eXchange - http://www.niix.org/niix/index.jsp

2) Communications Assets Survey and Mapping - https://casmtool.com/

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TAB D
STANDARD OPERATING PROCEDURES

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TAB D: STANDARD OPERATING PROCEDURES

This section will provide procedures for both standard configurations and optional features. Each procedure will start on a new page with a clear heading and can be removed for easy copying.

Configuring a Wireless Phone for Wireless Priority Service

This service must be setup through the wireless provider. Follow these steps, or newer steps provided by the wireless vendor. These steps are for Verizon as of September 26, 2013.

As of this writing, more information can be found at http://transition.fcc.gov/pshs/services/priority-services/wps.html .

How Do I Enroll?
By filling out an application and providing a point of contact for your organization. In your application, you will need to certify your mission meets national security and emergency preparedness requirements as set forth in the WPS program information. If your organization qualifies, the WPS Program Office will contact your cellular communications service provider and complete the process. WPS is an added feature to your phone; the software changes necessary are handled by the WPS Program Office. You do not need to do anything with your phone or take it to your cellular communications service provider.

What Does It Cost?
A one-time activation fee of $10, along with a monthly fee of $4.50, and charges of 75 cents per minute apply to WPS.

WPS Contacts & Support
National Communications System (NCS), Department of Homeland Security
Phone: 866-NCS-CALL (627-2255)
Phone (Washington District of Columbia Metro Area): 703-760-2255
Phone (24/7): 703-235-5080
Fax: 888-862-4222
Fax (Washington District of Columbia Metro Area): 703-848-0299
Email: wps@ncs.gov
Web: http://wps.ncs.gov
Frequently Ask Questions (FAQs: http://wps.ncs.gov/faq.html

Obtaining and Using a Government Emergency Telecommunications Service Card

As of this creation of this tab, all information needed to obtain a GETS card can be obtained from http://transition.fcc.gov/pshs/services/priority-services/gets.html. In the event this information is not accessible, the pertinent parts are copied below:

How Do I Enroll?

By filling out an application and providing a point of contact for your organization. In your application, you will need to certify your mission meets national security and emergency preparedness requirements as set out in the GETS program information. If your organization qualifies, the GETS Program Office will send GETS cards to you.

What Does It Cost?

There is no cost to apply or to obtain a GETS card. A charge of up to 10 cents a minute applies to calls made through the GETS.

GETS Operations and Administrative Support

National Communications System (NCS), Department of Homeland Security
Phone: 866-NCS-CALL (627-2255)
Phone (Washington District of Columbia Metro Area): 703-760-2255
Phone (24/7): 703-235-5080
Fax: 888-862-4222
Fax (Washington District of Columbia Metro Area): 703-848-0299
Email: gets@ncs.gov
Web: http://gets.ncs.gov
FAQs: http://gets.ncs.gov/faq.html
To report problems using GETS, call 800-818-GETS (4387) or 703-818-GETS (Washington District of Columbia Metro Area).

TAB E
COOPERATIVE AGREEMENTS AND CONTACTS

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TAB E: COOPERATIVE AGREEMENTS AND CONTRACTS

Cooperative Agreement and Contact

Company Name:

Point of Contact:

Title of Point of Contact:

Type of Resource(s):

- ☐ Telephone
- ☐ Cellular
- ☐ Radio Communications (700/800, ARES, VHF, Etc.)
- ☐ Other Voice Communications (Satellite, Etc.)
- ☐ Data Communications (Wide Area Network (WAN), MAN, Satellite, Etc.)
- ☐ Information Technology
- ☐ Emergency Management

Services Provided:

_____

_____

_____

_____

_____

_____

_____

_____

By signing this form and coordinating with Chatham Emergency Management Agency on creating a Memorandum of Agreement agree to keep this information updated with the most recent Point of Contact and adequately equip the designee(s) with the information and tools to coordinate with Chatham County to support the needs before, during and after an incident.

_____

Signature / Date

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TAB F
RELATED CHECKLISTS AND FORMS

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TAB F: RELATED CHECKLISTS AND FORMS

EXHIBIT 1: PRIORITIZATION CHECKLIST FOR EQUIPMENT

The checklist used as the order of restoration.

The order of restore should be conducted from top to bottom of each list. Though, the likelihood of simply moving from top to bottom is low. Remember this is just a guideline and to deviate as necessary to achieve the goals of the IAP.

Each of these lists relies on utilities. If the utilities in the area, Power/Phone/WAN providers, are offline, adjustments must be made to the order(s) of restore.

Savannah-Chatham SEGARRN Infrastructure

- Radio Towers and associated buildings
  - Westside Site
  - Kerry Street Site
  - Southside Site
  - Tybee Island Site
- Backhaul (Microwave/T1s)
- Radio System Master Site

Chatham County Phone System

- Campus phone switches
- Primary Rate Interface Lines
- Main campus

Commercial Telecommunications Vendors

- Cellular Voice Systems
- Cellular Data Systems
- Satellite Data and Voice (top priority if other means of communication are down)

Chatham County Data Network

- Individual workstations
- LAN for each Campus
- WAN for Campus connections to primary Datacenter
- Datacenter networking
- Datacenter Storage Area Network connected Servers
- Datacenter Servers

EXHIBIT 2: COMMUNICATIONS SYSTEM REQUEST CHECKLIST

Please put a date/time for completion of each item to assist in any follow-up in the event something goes awry.

- Using “Tab C: Communications Assets”, access the system containing the information about communications resources.
- Use the contact information provided with the resource documentation to make initial contact on resources required.
- Working with the Chief Logistics Officer, coordinate the use of the resource.

EXHIBIT 3: COMMERCIAL TELECOMMUNICATIONS PLANNED ACTIONS CHECKLIST

Commercial Telecommunications Restoration Checklist

Coordinate with supporting agencies and private industry to assist with the restoration of the commercial communications infrastructure:

- ☐ Agency: _____
- ☐ Point of Contact: : _____
- ☐ Point of Contact Phone Number(s) : _____
- ☐ 2nd Point of Contact: _____
- ☐ 2nd Point of Contact Phone Number(s) : _____
- ☐ Location(s):
    a. 1st:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    b. 2nd:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    c. 3rd:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    d. 4th:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    e. 5th:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    f. 6th:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____
    g. 7th:
        i. Address: _____
        ii. Lat / Long: : _____
        iii. Is the area clear? If not when? _____

- ☐ Ensuring access to the area: _____
- ☐ Security (personnel, vehicle and equipment)
- ☐ Fuel
- ☐ Staging for essential industry restoration crews and equipment.

Document the overall health and status of the public network as follows:

- ☐ Query carriers to determine the estimate of operating hours for critical communications equipment to help prioritize fuel delivery for onsite generators.
- ☐ Prioritize the most vulnerable infrastructure assets.
    a. _____
    b. _____
    c. _____
    d. _____
    e. _____
    f. _____
    g. _____
- ☐ Identify the resources and support (e.g., vendor access, personnel, vehicle and equipment security, fuel and other requirements) needed by the carriers to maintain their networks.

EXHIBIT 4: COMMERCIAL TELECOMMUNICATIONS RESTORATION CHECKLIST

To the left of each of the bullets, please put a date and time of completion. This will assist in determining the sequence of events if something goes awry.

- ☐ Using "Tab E: Cooperative Agreements and Contacts", make initial contact with the commercial vendor.
- ☐ Request a damage assessment to:
  - Infrastructure
  - Service levels
- ☐ Request a date/time for restoration of:
  - Infrastructure
  - Service levels
- ☐ Obtain any further contact information needed for regular updates and establish a schedule for regular updates, agreeable to both the County and the commercial vendor.
- ☐ Utilize the free-form below for updates. Be sure to include a date/time and the name of the contact giving the update from the commercial vendor:

TAB G
INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

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INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

1. Incident Name:	2. Date/Time Prepared: Date: Date Time: HHMM	3. Operational Period: Date From: Date Date To: Date Time From: HHMM Time To: HHMM

4. Basic Radio Channel Use:

Zone Grp.	Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks

5. Special Instructions:

6. Prepared by (Communications Unit Leader)**:** Name: Signature: _____

ICS 205	IAP Page	Date/Time: Date

ICS 205
Incident Radio Communications Plan

Purpose: The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders. Information from the Incident Radio Communications Plan on frequency or talkgroup assignments is normally placed on the Assignment List (ICS 204).

Preparation: The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the IAP.

Distribution: The ICS 205 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the IAP. All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.

Notes:

- The ICS 205 is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period.
- The ICS 205 serves as part of the IAP.

Block Number	Block Title	Instructions
1	**Incident Name**	Enter the name assigned to the incident.
2	**Date/Time Prepared**	Enter date prepared (month/day/year) and time prepared (24-hour clock).
3	**Operational Period** • Date and Time From • Date and Time To	Enter the start date (month/day/year) and time (24-hour clock) and end date and time for the operational period to which the form applies.
4	**Basic Radio Channel Use**	Enter the following information about radio channel use:
	Zone Group	
	Channel Number	Use at the Communications Unit Leader's discretion. Channel Number (Ch #) may equate to the channel number for incident radios are programmed or cloned for a specific Communications Plan, or it may be used just as a reference line number on the ICS 205 document.
	Function	Enter the Net function each channel or talkgroup will be used for (Command, Tactical, Ground-to-Air, Air-to-Air, Support, Dispatch).
	Channel Name/Trunked Radio System Talkgroup	Enter the nomenclature or commonly used name for the channel or talk group such as the National Interoperability Channels which follow DHS frequency Field Operations Guide (FOG).
	Assignment	Enter the name of the ICS Branch/Division/Group/Section to which this channel/talkgroup will be assigned.
	RX (Receive) Frequency (N or W)	Enter the Receive Frequency (RX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions. The name of the specific trunked radio system with which the talkgroup is associated may be entered across all fields on the ICS 205 normally used for conventional channel programming information.
	RX Tone/NAC	Enter the Receive Continuous Tone Coded Squelch System (CTCSS) subaudible tone (RX Tone) or Network Access Code (RX NAC) for the receive frequency as the mobile or portable subscriber would be programmed.
	TX (Transmit) Frequency (N or W)	Enter the Transmit Frequency (TX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions.
	TX Tone/NAC	Enter the CTCSS subaudible tone (TX Tone) or Network Access Code (TX NAC) for the transmit frequency as the mobile or portable subscriber would be programmed.
	Mode (A, D, or M)	Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation.
	Remarks	Enter miscellaneous information concerning repeater locations, information concerning patched channels or talkgroups using links or gateways, etc.
5	**Special Instructions**	Enter any special instructions (e.g., using cross-band repeaters, secure-voice, encoders, private line tones, etc.) or other emergency communications needs). If needed, also include any special instructions for handling an incident within an incident.

Block Number	Block Title	Instructions
6	**Prepared by** (Communications Unit Leader) • Name • Signature • Date/Time	Enter the name and signature of the person preparing the form, typically the Communications Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).