



---

***QUAD CITIES / ROCK ISLAND COUNTY  
EMERGENCY ACTUALIZATION PLAN***

Version 1.1\_Draft

03/31/2014

## TABLE OF CONTENTS

<b>1. EXECUTIVE SUMMARY .....</b>	<b>2-1</b>
1.1 Project Charter.....	2-1
1.2 Project Tasks .....	2-1
1.3 RePort Approach .....	2-3
1.4 Summary of recommendations.....	2-3
<b>2. ROCK ISLAND COUNTY STORM/DISASTER ANALYSIS REPORT.....</b>	<b>2-1</b>
<b>3. ROCK ISLAND COUNTY PSAP / EOC SITE SURVEY REPORT .....</b>	<b>3-1</b>
<b>4. ROCK ISLAND COUNTY PSAP ALTERNATIVES REPORT .....</b>	<b>4-1</b>
<b>5. ROCK ISLAND COUNTY COMMUNICATIONS PLAN .....</b>	<b>5-1</b>

## **1. EXECUTIVE SUMMARY**

### **1.1 PROJECT CHARTER**

Rock Island County was the lead applicant for a planning grant from the State of Illinois for federal dollars received by the State due to the disasters which negatively impacted the State and the country in 2008. The municipalities of East Moline, Milan, Moline, Rock Island and Silvis also participated in the grant. The grant funded actualization plan will address future emergency response needs as identified in the Rock Island County Comprehensive and Hazard Mitigation Plans.

The actualization plan will ensure next steps and projects will move the six participating jurisdictions toward hardened emergency facilities for safety response and the most efficient Illinois Quad City system of emergency communications ensuring all populations are well served.

### **1.2 PROJECT TASKS**

#### **Task 1: Participate in at least six public outreach meetings:**

- 1.1 At least two initial input meeting and project onset
- 1.2 At least two milestone meetings to discuss alternatives
- 1.3 At least two meetings to discuss recommendations and present the Emergency Communication Actualization Plan

#### **Task 2: Analyze the impacts of the 2008 disasters and identify affected areas and groups:**

- 2.1 Determine impacts of 2008 flood and affected areas/populations
- 2.2 Determine impacts of 2008 straight line wind storm and affected areas/populations

#### **Task 3: Review current emergency operations at the six PSAP centers and two EOCs to document the following:**

- 3.1 Management and organizational structure, including staffing levels and unions
- 3.2 Operational services provided and policies and procedures

#### **Task 4: Develop alternatives:**

- 4.1 Identify alternatives to mitigate impacts of affected areas and population
- 4.2 Identify alternative to improve emergency communications Identify geographic location and operational improvements for emergency service/communication centers that are protected from disaster impacts including potential consolidation and back-up needs
- 4.3 Identify potential costs for improvements at least by order of magnitude including equipment needs and coordination

#### **Task 5: Assist in recommendation selection for local government participants:**

- 5.1 Determine a recommended approach selected as the most appropriate by the participants with no, lower and higher cost implementation steps
- 5.2 Identify sensitive population improvement activities and policy structures
- 5.3 Identify facility improvement needs and costs
- 5.4 Identify an emergency service operational design
- 5.5 Identify equipment needs for the preferred design
- 5.6 Identify and implementation/transition plan from the existing operations to the new operations
- 5.7 Propose an emergency services governing structure

**Task 6: Funding Options:**

- 6.1 Prepare a document which identifies alternative methods for providing project funding which will include:
  - 6.1.1 Cost distribution among the participants
  - 6.1.2 Budget development process/guidelines
  - 6.1.3 Use of grant funding should it be available
  - 6.1.4 Capital budgets versus operational budgets
- 6.2 Present cost and benefit alternatives. The alternatives will also consider interfaces with other agencies and laying out a recommended phasing plan for migration to the recommended alternative. .

**Task7: Emergency Operation Center (EOC) Management Options:**

- 7.1 Identify an implementation/transition plan from existing emergency communication operations facilities to the recommended operations facilities
- 7.2 Propose an emergency services governing structure
- 7.3 Prepare a document which identifies alternative scenarios regarding joint services/facilities build-out including discrete areas of the EOC to house functions such as dispatch, record keeping and general communications
- 7.4 Propose the general platform(s) for radios that may be needed

**Task8: Emergency Communication Plan Document:**

- 8.1 Draft the Emergency Communication Plan Document and disseminate the document to participants for review and comment
- 8.2 Present that draft plan at a minimum of two public meetings as determined by the participants

- 8.3 Prepare a final document with requested revisions and provide twenty five (25) hard copies of the final document along with an electronic copy to participants

### **1.3 REPORT APPROACH**

This document complies all the individual reports that were generated as they related to the specific tasks of this project. Section 1.2 of this compilation document list all the tasks that were completed as part of this project.

The public meetings required in Task 1 of the project were held at two different time periods. RCC traveled to Rock Island County the week of November 18<sup>th</sup> 2013 and attended open regularly scheduled Commission meetings of all participating jurisdictions as well as an additional open to the general public meeting that was held in East Moline at the local UAW hall. Additional public meetings will be held once the final draft of this document is completed.

Task 2 findings can be found in Section 2 of this document, Task 3 findings can be found in Section 3 of this document, Task 4, 5, 6 and 7 findings can be found in Section 4 of this report and finally Task 8 findings can be found in Section 5 of this report.

Each section of this report is in essence a standalone report given the fact that each report topic merits a high level of detail and attention. The “reports” do have some interdependencies but for the most part are not dependent of the other sections of this overall compilation report.

### **1.4 SUMMARY OF RECOMMENDATIONS**

RCC’s has developed the following recommendations based upon its through analysis of the Rock Island County’s current state of operations as it relates to Emergency Communications, Disaster Preparedness, PSAP operations and EOC operations:

- **Uniform Radio Communications Platform** - Rock Island County regional partners would benefit greatly from having a unified radio communications platform. This process is well underway as all agencies with the exception of the Sheriff’s office is currently operating on the 800 MHz Raycom system or is currently working on moving to that system. Current users include Moline, East Moline, Silvis, Village of Milan, Arsenal and Scott County IA.
- **Single Consolidated PSAP and EOC** - The Rock Island County regional partners should adopt a long-term goal of fully consolidating the existing PSAPs into a single consolidated PSAP. The single-PSAP consolidation configuration alternative has the maximum potential for improving public safety call taking and dispatching services in the County. Formal adoption of the goal is recommended to establish a commitment to the principles of improving public safety services in the region and formally continuing the process of building consensus among the partners through additional discussions and planning.
- **Two PSAP Facilities and a Renovated EOC** - As a short-term goal, Rock Island County regional partners should consider consolidation into two PSAPs as an interim step to full consolidation (1. RICSO moves into RIPD, 2. Centre Station and Silvis PD move into Milan PD). This process could put in place a governance structure to support future consolidation configurations.

- **Regional Governance Structure** - The regional partners should proceed with establishing a governance structure that is representative of the participating regional governments. Acknowledging that this structure will serve other regional interests, the oversight and management of the consolidated PSAP should fall to a standing committee or task force and should be representative of the public safety agencies that participate in the consolidated PSAP(s). Additional committees and/or task forces should also be established with appropriate representation to address specific technical and operational requirements that are common to all agencies served by the consolidated PSAP.

## **2. ROCK ISLAND COUNTY STORM/DISASTER ANALYSIS REPORT**



---

***QUAD CITIES / ROCK ISLAND COUNTY  
EMERGENCY ACTUALIZATION PLAN***  
**ROCK ISLAND COUNTY STORM/DISASTER  
ANALYSIS REPORT**

---

Version Number: 1.1

Version Date: 02/14/2014

---

# TABLE OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>2</b>
<b>2. WEATHER IMPACT ON ROCK ISLAND COUNTY.....</b>	<b>2</b>
2.1    Climatological Data .....	2
2.2    Weather Data By Type .....	3
2.2.1    Floods .....	4
2.2.2    Federal Disaster and Emergency Declarations for Flood Related Events.....	5
2.2.3    Hail .....	5
2.2.4    Heavy Rain .....	5
2.2.5    Lightning .....	6
2.2.6    Thunderstorm Winds .....	6
2.2.7    Tornados .....	6
<b>3. WEATHER IMPACTS FROM YEAR 2008 TO 2013 .....</b>	<b>7</b>
3.1    Impact of Weather Events Year 2008.....	7
3.1.1    Watertown Flooding.....	7
3.2    Impact of Weather Events Year 2009.....	12
3.3    Impact of Weather Events Year 2010.....	15
3.4    Impact of Weather Events Year 2011.....	21
3.5    Impact of Weather Events Year 2012.....	26
3.6    Impact of Weather Events Year 2013.....	27
<b>4. FEMA DISASTER DECLARATIONS .....</b>	<b>28</b>

## 1. INTRODUCTION

This document details RCC's project team findings with regards to the impacts of the disasters/weather events that have taken place in the Rock Island County area between the years of 2008-2013. This document is the deliverable for Task 2 of the project which is:

**Task 2: Analyze the impacts of the 2008 disasters and identify affected areas and groups:**

- 2.1 Determine impacts of 2008 flood and affected areas/populations
- 2.2 Determine impacts of 2008 straight line wind storm and affected areas/populations

## 2. WEATHER IMPACT ON ROCK ISLAND COUNTY

The unique geographic location of Rock Island County is an important factor when conducting the analysis of the weather's impact on the population, critical facilities, and public safety agencies.

Determining what is normal for the county provides the data to apply to hazard mitigation strategies as well as emergency operations plans to respond to weather related events and disasters.

Often, weather events to the North and East of Rock Island County will impact the county as does the position of the jet stream which creates the ability for frequent weather systems to pass near or over Rock Island County.

When analyzing the weather's impact, historical weather events, actions taken to mitigate damage related costs, and emergency operations plans are included.

### 2.1 CLIMATOLIGICAL DATA

The polar jet stream often is located near or over Illinois, especially in fall, winter, and spring, and is the focal point for the creation and movement of low-pressure storm systems characterized by clouds, winds, and precipitation. The settled weather associated with high pressure systems is generally ended every few days by the passage of low-pressure.<sup>1</sup>

The Quad-Cities area has climate with a wide temperature range throughout the year. On average, below zero readings occur 17 days a year with a record of 43 days in 1977-1978. Precipitation is usually well distributed throughout the year with the greatest amounts falling during the 177 day average crop-growing season. Rarely

---

<sup>1</sup> Climate of Illinois, 2003, Dr. Jim Angel, State Climatologist, Illinois Water Survey

does snowfall equal or exceed 6 inches in a day but does occur about once every 2 years. March and April are the windiest months of the year and June is the wettest.<sup>2</sup>

**Table 1 Quad Cities IA/IL - Yearly Averages from 1981 to 2010<sup>3</sup>**

Average Temperature	51 degrees
Average High Temperature	61 degrees
Average Low Temperature	41 degrees
Average Precipitation	38 inches
Average Snowfall	32 inches

## 2.2 WEATHER DATA BY TYPE

The weather events types researched for their effect on Rock Island County are floods including flash flooding, hail storms, heavy rain, lightning, thunderstorm winds, and tornados and incorporate all of Rock Island County keeping in mind that a single weather event record may include all weather types in one category listed and not in all event categories.

From January 1, 1996 to April 30, 2013, Rock Island County experienced 235 Storm Events that lasted 120 days resulting in 3 deaths, 8 injuries, over \$4,894,000 in property damage and \$137,000 in crop damage.<sup>4</sup>

**Table 2 Rock Island County Weather Events from 1996 to 2013**

Event Types	Number of Events	Deaths	Injuries	Property Damage	Crop Damage
Floods	47	1	0	\$3,018,670	0
Hail	63	0	0	\$562,000	0
Heavy Rain	14	0	0	\$8,000	0
Lightning	8	2	1	\$64,000	0
Thunderstorm Winds	99	0	7	\$1,232,200	\$137,000
Tornados	4	0	0	\$10,000	0
<b>TOTALS</b>	<b>235</b>	<b>3</b>	<b>8</b>	<b>\$4,894,870</b>	<b>\$137,000</b>

*REFER TO APPENDIX A*

<sup>2</sup> NOAA / Adapted from the National Climatic Data Center

<sup>3</sup> NOAA / National Weather Service Forecast Office Quad Cities IA/IL

<sup>4</sup> NOAA / NATIONAL CLIMATIC DATA CENTER

### 2.2.1 Floods

Since the county is located at the confluence of the Rock and Mississippi Rivers, river flooding and flash flooding can be classified as a regular occurring and expected weather event.

Since the routine causes of river floods and flash floods are the heavy rains and or melting snow, the two have been combined.

#### **FLOOD HISTORY**

The most notable river floods effecting Rock Island County occurred in 1965, 1969, 1973, 1975 , and the summer of the “Great Flood of 1993”.

The more recent notable floods occurred in 2009, 2010, and 2011.

From January 1, 1996 to April 30, 2013, Rock Island County experienced 47 flood events that resulted in 1 death and over \$3,018,670 in property damage. Of the 47 flood events, 16 resulted in property damage.

The fatality occurred on April 3, 1999 when a 39 year old male drove from dry ground into the flooded intersection of 5th Avenue and 40th Street in Rock Island. The victim’s car began floating and became lodged underneath a railroad viaduct, at which time he left his vehicle and was swept away. The water depth underneath the railroad viaduct was estimated at six to seven feet.

The most notable recent flash flood recorded began on June 12, 2008 and ended June 13, 2008 and resulted in \$500,000 in property damage. A strong cold front moved through eastern Iowa, northeast Missouri, and northern Illinois from June 12 through midday June 13 bringing very heavy rain of 1 to 5 inches, flash flooding, large hail, and damaging wind gusts estimated over 58 miles per hour to much of the region.

This event resulted in Rock Island County being included in a FEMA Major Disaster Declaration (1771) which was declared on June 24, 2008.

*Refer to Appendix B*

**2.2.2 Federal Disaster and Emergency Declarations for Flood Related Events**

**Table 3 Rock Island County Federal Flood Disaster Declarations**

Federal Disaster Declarations		
DECLARATION	DATE	CAUSE
<a href="#">4116</a>	5/10/2013	<a href="#">SEVERE STORMS, STRAIGHT –LINE WINDS AND FLOODING</a>
<a href="#">1771</a>	6/24/2008	<a href="#">SEVERE STORMS AND FLOODING</a>
<a href="#">1368</a>	5/9/2001	<a href="#">FLOODING</a>
<a href="#">997</a>	7/9/1993	<a href="#">FLOODING, SEVERE STORMS</a>
<a href="#">735</a>	3/29/1985	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">583</a>	4/30/1979	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">438</a>	6/10/1974	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">373</a>	4/26/1973	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">262</a>	6/6/1969	<a href="#">FLOODING</a>
<a href="#">194</a>	4/25/1965	<a href="#">TORNADOS, SEVERE STORMS, FLOODING</a>

**EFFECTS OF FLOODING ON FACILITIES**

There are no reports of damage to critical facilities by this flood.

**2.2.3 Hail**

From January 1, 1996 to April 30, 2013, Rock Island County Experienced 63 hail storms resulting in \$563,000 in property damage with no crop damage reported to NOAA.

**EFFECTS OF HAIL ON FACILITIES**

There are no reports of damage to critical facilities by hail.

*Refer to Appendix D*

**2.2.4 Heavy Rain**

From January 1, 1996 to April 30, 2013, Rock Island County experienced 14 heavy rain events reported to NOAA. However, heavy rain events occurred in most all other types of weather events reported and included in thunderstorms, floods, flash floods, etc.

**EFFECTS OF HEAVY RAIN ON FACILITIES**

There are no reports of damage to critical facilities by heavy rain.

*Refer to Appendix E*

### **2.2.5 Lightning**

From January 1, 1996 to April 30, 2013, Rock Island County experienced 8 lightning events reported to NOAA. However, lightning occurred in other types of weather events reported included in thunderstorms, etc. Lightning resulted in 2 deaths and 1 injury along with a reported \$64,000 in property damage.

In Milan on 6/10/1999, a man and woman were struck and killed by lightning while fishing along the Rock River just east of the U.S. 67 highway bridge. The couple was fishing underneath a tree when the storm rolled in.

In Milan on 6/23/2010, four adults were shocked by a nearby lightning strike at the KOA campground at 4:54 pm CDT. The Boy Scout leaders were attempting to hold down an awning when the lightning struck. One person complained about difficulty hearing and was transported to a hospital.

#### **EFFECTS OF LIGHTNING ON FACILITIES**

There are no reports of damage to critical facilities by lightning.

*Refer to Appendix F*

### **2.2.6 Thunderstorm Winds**

From January 1, 1996 to April 30, 2013, Rock Island County experienced 99 thunderstorms with high winds resulting in 7 injuries, \$1,232,200 in property damage and \$137,000 of reported crop damage.

#### **EFFECTS OF THUNDERSTORM WINDS ON FACILITIES**

Silvis Police Department reported that high winds caused roof damage and the loss of their radio antenna tower in 2008 (UNKNOWN WHICH STORM) that resulted in \$30,000 damage. Moline experienced a loss of utility power due to damage from high winds to critical infrastructure.

*Refer to Appendix G*

### **2.2.7 Tornadoes**

From January 1, 1996 to April 30, 2013, Rock Island County experienced 4 confirmed tornadoes resulting in \$10,000 in property damage.

#### **EFFECTS OF TORNADOS ON FACILITIES**

No damage to critical facilities has been reported due to tornadoes.

*Refer to Appendix H*

### **3. WEATHER IMPACTS FROM YEAR 2008 TO 2013**

For an analysis of more recent weather events in Rock Island County, this section will cover the details of floods and straight-line wind impacts on the County. This analysis is to be considered updated information since the Rock Island County Multi-Jurisdictional Local Hazard Mitigation Plan was developed and approved by FEMA in 2009.

There have been 27 flood events and 47 thunderstorm wind events recorded by the NOAA National Climatic Data Center since 2008. As an added note, there was one EF0 Tornado reported on 6/12/2008 that resulted in no damage reported.

Floods have resulted in \$2,366,670 damage to property and winds resulted in \$121,200 property damage.

#### **3.1 IMPACT OF WEATHER EVENTS YEAR 2008**

There were 8 significant flood events in 2008 caused by heavy rains, ice jams, and severe thunderstorms. On March 6, 2008, a record breaking flood occurred on the Rock River near Moline and Milan. The river crested at 16.38 feet breaking the record set in 1973 causing citizens to be rescued from 100 homes.

A strong cold front moved through eastern Iowa, northeast Missouri, and northern Illinois from June 12 through midday June 13 bringing very heavy rains of 1 to 5 inches, flash flooding, large hail, and damaging wind gusts to much of the region.

Heavy rain resulted in flash flooding across much of Rock Island County during the evening of June 12. In Andalusia, ten inches of flood waters covered all the streets in town. The town received about 3.5 inches of rain in an hour. In Moline, flash flood waters about two feet deep stranded some concert goers in the parking lot of the I Wireless Center. Also, the 500 block of 1st Street and the 500 to 1100 blocks of 4th Street were closed due to sink holes. In downtown Rock Island, most of the streets were flooded with the flood waters about 1 foot deep. Near Illinois City, County Road 59 was washed out downhill from the Loud Thunder Forest Preserve entrance. In Milan, flash flooding forced the closure of numerous roads including Route 67 and 4th Street W between 1st Avenue and 10th Avenue.

Wind gusts estimated to be 65 mph blew down several trees and power lines in Moline at 7:47 pm on June 12.

A tornado was spotted by a law enforcement official about one mile west of Taylor Ridge at 7:26 pm that was 25 yards wide and .1 of a mile long.

From June 6th through July 21st, the county experienced significant thunderstorm winds ranging from 60 mph up to 94 mph.

##### **3.1.1 Watertown Flooding**

It was reported by local officials that during one of the local heavy flooding events that happened in the Watertown area that there was some breakdown in communications. The PSAP received multiple calls reporting flooding in the area but little thought was given to this since it was a “normal” event and it was assumed that nothing was different this time. As it turns out this was not just a typical road level

flash flood event caused by local heavy down pour. Exceptional amounts of rain up river leading up to this event had the Mississippi River expected to reach record levels. Under this set of circumstances the local government was told by the U.S. Army Corps of Engineers to close the local flood gates and turn off all bilge pumps as to not add additional waters to the already flooding Mississippi River.

This caused what would normally be just street level flooding event into a major disaster. Luckily no lives were lost or serious injuries were reported just loss of use and temporary shelter overcrowding as the residents displaced from this flood event looked for shelter. New SOPs have been put in place by the local officials as a result of this event in hopes that this situation will not be duplicated in the future. A couple of the measures in acted included video surveillance of the area, regularly schedule patrols of the area during times of possible flooding and an increased level of communications between public works and the public safety communities.

**Table 4 Impact of Weather Events Year 2008**

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
2/17/2008	Flash Flood	Ice Jam	Heavy rains of 1 to 2 inches fell. This caused some flooding of farm fields and creeks. A portion of Interstate 280 near Moline was closed due to a flash flood that covered the road. The flash flood occurred on Mill Creek. Interstate 280 at mile marker 15 was closed due to water covering the road. Water was flowing 9 inches deep over a 100 foot section of both the east and west bound lanes.
3/2/2008	Flash Flood	Ice Jam	An ice jam along with snowmelt occurred on Mill Creek near Moline. The water covered a portion of Interstate 280 at mile marker 15 up to 3 feet deep over both the east and west bound lanes with the road closed from late in the afternoon on March 2 until the morning of March 3.
3/6/2008	Flood	Ice Jam	Record flooding occurred on the Rock River near Moline and Milan. The river was already experiencing major flooding due to the combination of snow melt and heavy precipitation a few days earlier. The stage at the Moline river gage rose to a record crest of 16.38 feet at 8:30 am CST on March 6, 2008. The previous record was 16.15 feet on April 26, 1973. The main ice jam formed on the newly constructed Veterans Memorial Bridge, or the extension to the Milan Beltway. Nearly 100 homes were quickly evacuated, in some cases by boat because of the already high river levels.
4/1/2008	Flood	Heavy Rain	Major to near record flooding occurred during the month of April 2008. Flooding continued at some locations from events that began in March, and into May. This particular

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
			<p>flood event for most of the region was the worst since 1997. Although the Flood of 2001 saw higher crests on the Mississippi River, that flood affected primarily the Mississippi River itself and only a few of its tributaries. This year's flood event affected the Mississippi River as well as many of its tributaries.</p> <p>A series of moderate to record high rainfall events continued the flooding at many locations that set flooding in motion at other locations. The most notable heavy rainfall event occurred from April 24-25 when 5 or more inches of rain fell from north central Iowa into southern Wisconsin. The Iowa, Cedar, Wapsipinicon and Maquoketa River basins received the heaviest rainfall. With soil moisture at or above the 95th percentile for that time of year, much of the rainfall became runoff and quickly ran into streams and creeks. The initial result was flash flooding especially across northeast Iowa. The event then transitioned to a river flood event, with major to near record crests experienced on the Cedar, Wapsipinicon and Maquoketa Rivers. The Mississippi River also experienced major flooding. All forecast points on the Mississippi River from Dubuque to Keokuk topped flood stage.</p>
5/1/2008	Flood	Heavy Rain	<p>Heavy rains during the second half of April caused several area rivers including the Mississippi River between Rock Island, Illinois and Keokuk, Iowa to not only surpass their respective flood stage, but also go over their major river stage level. At the beginning of May, locations from Rock Island to Burlington were over their major flood stage level. All of these locations fell below their respective major flood stage level between May 4 and May 9.</p> <p>The Mississippi River at Illinois City was over its major flood stage level from 12:00 am May 1 until 5:00 pm May 5. The Mississippi River at Muscatine was over its major flood stage level from 12:00 am May 1 until 4:00 am May 5.</p>
5/13/2008	Hail	Thunderstorm	<p>A cold front moving into a warm and unstable air mass triggered severe thunderstorms across portions of the region. Several reports of nickel to quarter size hail were received from trained spotters in extreme eastern Iowa and northwest Illinois. A trained spotter estimated hail the size of pennies near Illinois City.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
6/1/2008	Flood	Heavy Rain	<p>Major to record flooding occurred during the month of June 2008 with most forecast points above flood stage for the majority of the month. This flood was the most prolific flood event since 1997. Persistent heavy rain from late May into early June resulted in record crests on the Cedar and Iowa Rivers in Iowa as well as other tributary rivers to the Mississippi River in eastern Iowa and southern Wisconsin. This resulted in record flooding on parts of the Mississippi River, even exceeding flood levels reached during the Great Flood of 1993 in some locations. Both the Mississippi River and the Rock River rose above flood stage at most locations around June 10th. The Mississippi River was most affected downstream of New Boston Lock and Dam 17. Many roads in eastern Iowa and northwestern Illinois sustained severe damage from the flooding. A levee breach on the Illinois side of the river resulted in the flooding of Gulfport, IL and the closure of the US Hwy 34 bridge.</p>
6/6/2008	High Wind	Thunderstorm	<p>A line of thunderstorms moved eastward across eastern Iowa, northeast Missouri, and northern Illinois during the early morning hours of June 6 ahead of an approaching cold front.</p> <p>A 62 mph wind gust was measured by the Automated Surface Observing System at the Quad City International Airport in Moline, IL at 4:14 am June 6.</p>
6/8/2008	High Wind	Thunderstorm	<p>Thunderstorms moved across parts of northwest and west central Illinois producing widespread tree damage, a few large hail stones, and heavy rain resulting in some isolated flash flooding</p> <p>At 9:10 pm June 8, the automated surface observing system at the Quad City International Airport in Moline, IL measured a wind gust of 60 mph.</p>
6/12/2008	Flash Flood High Wind Tornado	Heavy Rain	<p>A strong cold front moved through eastern Iowa, northeast Missouri, and northern Illinois from June 12 through midday June 13 bringing very heavy rains of 1 to 5 inches, flash flooding, large hail, and damaging wind gusts to much of the region.</p> <p>Heavy rain resulted in flash flooding across much of Rock Island County during the evening of June 12. In Andalusia, ten inches of flood waters covered all the streets in town. The town received about 3.5 inches of rain</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
			<p>in an hour. In Moline, flash flood waters about two feet deep stranded some concert goers in the parking lot of the I Wireless Center. Also, the 500 block of 1st Street and the 500 to 1100 blocks of 4th Street were closed due to sink holes. In downtown Rock Island, most of the streets were flooded with the flood waters about 1 foot deep. Near Illinois City, County Road 59 was washed out downhill from the Loud Thunder Forest Preserve entrance. In Milan, flash flooding forced the closure of numerous roads including Route 67 and 4th Street W between 1st Avenue and 10th Avenue.</p> <p>Wind gusts estimated to be 65 mph blew down several trees and power lines in Moline at 7:47 pm June 12.</p> <p>A tornado was spotted by a law enforcement official about one mile west of Taylor Ridge at 7:26 pm that was 25 yards wide and .1 of a mile long.</p> <p>Dime-sized hail fell in Rock Island at 7:40 pm.</p> <p><b>PROPERTY DAMAGE: \$525,000</b></p>
7/21/2008	High Wind	Thunderstorm	<p>A bowing line of severe thunderstorms, known as a Derecho, raced across Iowa and Illinois during the early morning hours of July 21 producing widespread wind damage in about a 60 mile wide swath just south of Interstate 80. Winds gusting over 70 mph toppled trees, ripped siding and shingles off homes and businesses, and left much of the region without power. A tree fell onto a tent at the Indian Trails Resort in Colona, IL killing two children and a dog and injuring 4 other children.</p> <p>Wind gusts estimated to be 60 mph blew several items off a porch of a residence in Illinois City at 5:48 am July 21.</p> <p>Wind gusts estimated to be 70 mph blew down several trees and branches on 26th Street in Rock Island at 6:00 am July 21.</p> <p>Wind gusts estimated to be 60 mph blew down a large tree branch in Moline at 6:11 am July 21. A power outage was also observed.</p> <p>Wind gusts estimated to be 80 mph snapped numerous trees off in the vicinity of the Quad City International Airport in Moline at 6:15 am July 21.</p> <p>A wind gust measuring 81 mph was recorded by the Automated Surface Observing System (ASOS) at the</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
			Quad City International Airport in Moline at 6:10 am July 21.
9/13/2008	Flash Flood	Heavy Rain	<p>A cold front stalled out across eastern Iowa while remnants from Pacific Hurricane Lowell and moisture from the remnants of Hurricane Ike moved across the region. Heavy rain was the result over much of the Midwest. Widespread rainfall totals of 1.50 to 3.00 inches fell across the area with a band of heavier rains of 4 to 8 inches stretching from northeast Missouri to Chicago. Flash flooding was observed across Missouri, southeast Iowa, and Illinois.</p> <p>Heavy rains caused flash flooding of parts of Milan and areas just west of the Quad City Airport on September 13. During the early morning hours, areas mainly north of 10th St in Milan were affected by the flood waters. During the early evening, flood waters about a foot deep covered Interstate 280 just west of mile marker 15 near the Quad City Airport forcing its closure.</p> <p>PROPERTY DAMAGE: \$100,000</p>

**3.2 IMPACT OF WEATHER EVENTS YEAR 2009**

**Table 5 Impact of Weather Events Year 2009**

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/1/2009	Flood	Heavy Rain	Heavy rains on March 24th resulted in the Rock River at Joslin and Moline going above their respective moderate flood stage levels during the last week of March. They were still in moderate flooding at the beginning of April. The stage at Joslin fell below its 14 foot moderate flood stage level around midday on April 5th. The stage at Moline fell below its 13 foot moderate flood stage level around midday on April 4th.
4/5/2009	Hail	Thunderstorms	A strong upper level disturbance and cold air aloft produced some instability showers and thunderstorms during the morning of April 5th. Some of the stronger showers and storms produced hail up to three quarters of an inch in diameter.

5/1/2009	Flood	Heavy Rain	<p>Heavy rains during the last week of April resulted in the Rock River at Joslin and Moline going above their respective moderate flood stage levels during the first few days of May. The Rock River at Joslin surpassed its moderate flood stage level of 14 feet on May 1 around 6 pm. It crested around 14.5 feet around 12 am May 3. It fell back below its moderate flood stage level around 6 pm on May 4. The Rock River at Moline surpassed its moderate flood stage level of 13 feet on May 2 around 3 pm. It crested around 13.14 feet around 3 pm May 3. It fell back below its moderate flood stage level around 9 am on May 4.</p> <p>PROPERTY DAMAGE: \$166,670</p>
5/8/2009	High Wind	Thunderstorm	<p>A cold front moved across parts of eastern Iowa and northwest Illinois during the evening of May 8th sparking some showers and thunderstorms. Some of the storms were severe, producing wind gusts over 58 mph, quarter-sized hail, and a tornado. Wind gusts estimated to be 65 to 70 mph were observed 4 miles west of Illinois City at 7:48 pm on May 8th. Pea-sized hail was also observed.</p>
Date	Event Type	Cause	IMPACT ON THE COMMUNITY
6/18/2009	Hail  High Winds	Thunderstorm	<p>An upper level disturbance moved through the region during the morning and early afternoon hours of June 18th sparking some showers and thunderstorms across the area. Some severe storms produced damaging winds and large hail. Heavy rains were also common with the storms which resulted in some flash flooding.</p> <p>Quarter to golf ball-sized hail fell for about five minutes in Coal Valley, IL around 12:20 pm June 18th. ¾ inch hail was reported in Moline. Quarter-sized hail fell at the intersection of John Deere Road and 41st Street in Rock Island at 12:31 pm. One and a half inch diameter hail fell at the Wal-Mart in Moline around 12:32 pm.</p> <p>A wind gust estimated to be 65 mph blew a semi trailer outside of its traffic lane about 2 miles north of Coal Valley, IL around 12:31 pm June 18th.</p>

6/19/2009	Flash Flood  Heavy Rain  High Winds	Thunderstorms	<p>A cold front pushed through Iowa and Illinois during the afternoon and evening of June 19 bringing severe thunderstorms and flooding to much of the area. After seeing generally sunny skies for much of the day, thunderstorms developed and raced east across the area during the late afternoon and early evening hours. Winds in excess of 70 mph were reported with some of the storms as they sped through the area toppling trees and causing some structural damage. In addition to the high winds, torrential downpours were common with the storms as they dumped anywhere from three quarters of an inch to over 3 inches of rain in only an hour or two. Heavy rain resulted in flash flooding of some streets just west of the Quad City Airport in Milan during the early evening. Heavy rains resulted in flash flooding of some streets in Moline during the early evening.</p> <p>72 mph winds were recorded at Moline Quad City Airport. Wind gusts estimated to be 65 mph blew down some 5 to 6 inch diameter tree branches in Cordova around 5:52 pm. Wind gusts estimated to be 65 mph blew down several tree branches in Moline around 6:00 pm.</p> <p>PROPERTY DAMAGE: \$75,000</p>
-----------	---	---------------	---

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
6/22/2009	Flood	Heavy Rain	<p>Heavy rains during the middle of the month resulted in the Rock River at Joslin going above the moderate flood stage level of 14 feet on June 22nd around 12 am. It crested around 14.73 feet around 830 pm on June 23rd. It fell below the moderate flood stage level around 5 pm around 5 pm June 24th.</p> <p>PROPERTY DAMAGE: \$250,000</p>
7/10/2009	Flash Flood	Heavy Rain	<p>Heavy rains resulted in some flash flooding in Milan during the afternoon hours. A portion of Highway 67 was flooded with about 1 foot of water over the road.</p>

7/24/2009	Flash Flood	Heavy Rain	<p>A cold front from Lake Superior across northwest Iowa coupled with an upper level low over southwest Ontario with an associated short wave dropping across southern Minnesota sparked the development of thunderstorms during the afternoon and evening of July 24th. Severe storms producing copious amounts of large hail up to the size of a tennis ball and damaging wind gusts between 60 and 90 mph were common. An isolated tornado touched down near Princeton, IL around 9:50 pm.</p> <p>Heavy rains resulted in flash flooding of some streets including Highway 67 in Milan during the late evening.</p>
-----------	-------------	------------	--

**3.3 IMPACT OF WEATHER EVENTS YEAR 2010**

Heavy rains, high winds, and resulting floods were the main weather events in 2010. These events resulted in \$1,073,000 in property damage and 7 injuries.

**Table 6 Impact of Weather Events Year 2010**

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/4/2010	Hail	Thunderstorm	<p>An upper level disturbance triggered several severe thunderstorms with hail up to the size of a golf ball reported in Cordova, IL, with several reports of 1 inch diameter hail in Muscatine, Scott, and Whiteside counties.</p>
4/6/2010	Hail	Thunderstorm	<p>A warm front extending from northeast Kansas along the Missouri and Iowa border to northern Indiana lifted to the north on April 6th resulting in the development of some showers and thunderstorms. Some storms were severe, producing large hail and damaging winds.</p> <p>Quarter sized to just under golf ball sized hail fell about 6 miles west southwest of Erie, IL at 5:44 am.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
5/15/2010	Flood	Heavy Rain	<p>Heavy rains during the second week of May resulted in moderate flooding on the Rock River. At Joslin, the river level surpassed the moderate flood stage level of 14 feet on May 15 around 10 am. It crested around 14.5 feet around 1 pm May 16. It fell below the moderate flood stage level around 1 pm May 17.</p> <p>At Moline, the river level surpassed the moderate flood stage level of 13 feet on May 15 around 7 am. It crested around 13.3 feet around 7 am May 16. It fell below the moderate flood stage level around 1 am May 18.</p> <p>PROPERTY DAMAGE: \$250,000</p>
5/25/2010	Hail		<p>Daytime heating ignited some scattered showers and thunderstorms across parts of the Mid-Mississippi Valley. Some of the stronger thunderstorms produced hail. Quarter-sized hail fell in Andalusia at 213 pm.</p>
6/18/2010	High Winds  Lightning	Thunderstorm	<p>A frontal system over the area brought two rounds of showers and thunderstorms to the mid Mississippi Valley. The first was during the midday to early afternoon hours, quickly followed by the second round in the late afternoon and evening. There were scattered reports of hail, heavy rain and damaging winds across much of the area. As a result of the torrential rains, flash flooding was rather widespread. Rainfall totals through mid evening were widely varied, ranging from a couple tenths of an inch to well over 2 inches in some locations. A few lightning strikes also caused some damage. 80 mph winds were reported.</p> <p>Several vehicles at a campground, Illiniwek Park, suffered damage from falling tree limbs.</p> <p>In Port Byron, a roof was torn from a building and tossed onto nearby power poles, causing one of the poles to fall and smash the attached transformers into a passing van and setting the van on fire. The occupants of the van escaped without major injury</p> <p>In Hampton, lightning struck a house, setting fire to the attic.</p> <p>60 mph winds were reported in Moline at 7:38 pm with wind gusts of 60 to 70 mph northeast of East Moline at 7:49 pm. INJURIES:6 PROPERTY DAMAGE: \$42k</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
6/23/2010	High Winds  Lightning	Thunderstorm	<p>A line of showers and thunderstorms moved across parts of eastern Iowa and Illinois during the afternoon and evening of June 23. These storms produced rainfall amounts of 1 to 2 inches and strong winds of 60 to 80 mph. The storms produced heavy rains which flooded some roads in Muscatine, Iowa. Quarter-sized hail in fell in Scott County Iowa. The showers and thunderstorms tapered off as a cold front pushed through the region during the late evening and overnight hours.</p> <p>Wind gusts measured to be 63 mph were observed by the ASOS at the Quad City Airport in Moline at 4:36 pm.</p> <p>Four adults were shocked by a nearby lightning strike at the KOA campground in Rock Island at 4:54 pm CDT June 23. The Boy Scout leaders were attempting to hold down an awning when the lightning struck. One person complained about a difficulty hearing and was transported to a hospital.</p> <p>Wind gusts estimated to be 65 mph snapped off a 6 inch tree limb onto a power line about 2 miles east northeast of Coyne Center around 5:30 pm.</p> <p>INJURIES: 1 PROPERTY DAMAGE: \$1,000</p>
7/7/2010	Flash Flood  High Winds	Heavy Rain	<p>Showers and thunderstorms produced heavy rains and high winds during the afternoon and evening of July 7. Some flash flooding resulted from the heavy rains.</p> <p>Heavy rains resulted in flash flooding of parts of Rock Island County during the afternoon and early evening of July 7. Street flooding was observed near 15th Avenue and 7th Street as well as on Highway 92 at the Silvis-Moline border, where the flood waters were about 1 foot deep.</p> <p>Wind gusts estimated to be 60 mph were observed in Cordova at 3:02 pm CDT July 7.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
7/23/2010	High Winds	Thunderstorm	<p>In association with a stationary front, a large complex of thunderstorms travelled generally along and south of the Interstate 80 corridor during the afternoon and early evening of the 23rd. The storms moved across eastern Iowa and into northwest Illinois during the afternoon, intensifying as they moved east and became more organized. By the time the thunderstorm complex crossed the Mississippi River, wind gusts approached 70 mph. Extensive damage was reported across portions of Henry, Bureau, and Putnam Counties in Illinois from these storms.</p> <p>Wind gusts estimated to be 50 to 60 mph were observed about 4 miles southeast of Muscatine, IA or about 6.5 miles west southwest of Illinois City, IL at 3:35 pm CDT July 23.</p> <p>A wind gust measured to be 59 mph was observed by the ASOS at the Quad City Airport in Moline at 3:57 pm CDT July 23.</p>
7/25/2010	Flood	Heavy Rain	<p>Heavy rains during the fourth week of July resulted in the Rock River at Joslin going above the moderate flood stage level of 14 feet around 8 pm CDT July 25. It crested around 17.4 feet around 7 pm CDT July 27. It remained above the moderate flood stage level through the end of the month. There was moderate flooding on the Mississippi River from Rock Island to Gregory Landing.</p> <p>At Rock Island, it crested around 17.2 feet around 1 pm July 27. At Illinois City, it crested around 17.0 feet around 7 am July 28. At Muscatine, it crested around 18.5 feet around 1 pm July 28. At New Boston, it crested around 18.3 feet around 1 pm July 28. At Keithsburg, it crested around 16.9 feet around 1 am July 29. At Gladstone, it crested around 13.6 feet around 7 am July 29. At Burlington, it crested around 17.74 feet around 7 pm July 29. At Keokuk, it crested around 18.2 feet around 7 pm July 29. At Gregory Landing, it crested around 19.36 feet around 1 pm July 30.</p> <p>PROPERTY DAMAGE: \$375,000</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
7/27/2010	Flood	Heavy Rain	<p>Heavy rains during the fourth week of July resulted in the Rock River at Moline going above the moderate flood stage level of 13 feet around 3 am CDT July 27. It crested around 14.2 feet around 1 pm CDT July 28. It remained above the moderate flood stage level through the end of the month.</p> <p>PROPERTY DAMAGE: \$400,000</p>
9/5/2010	High Wind	Thunderstorm	<p>A warm front and an upper level disturbance sparked some showers and thunderstorms during the evening of September 5. Some damaging winds knocked down trees and power lines in parts of Rock Island County, but for the most part severe weather remained far north of the area in central Wisconsin.</p> <p>Wind gusts estimated to be 65 mph blew a power pole down across a road about 2 miles northwest of Taylor Ridge, IL around 9:50 pm CDT September 5.</p> <p>A 69 mph wind gust was measured by the ASOS at the Quad City Airport in Moline at 10:07 pm CDT September 5.</p> <p>Wind gusts estimated to be 65 mph blew a tree down near the Toys R Us store about 1 mile north of the Quad City Airport in Moline around 10:14 pm CDT September 5.</p> <p>Wind gusts estimated to be 70 mph blew down several trees in Coal Valley, IL around 10:23 pm CDT September 5.</p> <p>PROPERTY DAMAGE: \$5,000</p>
9/21/2010	High Wind	Thunderstorm	<p>During the afternoon of September 21, a cold front pushed a line of showers and thunderstorms across eastern Iowa, northwest Illinois and northeast Missouri. Hail up to the size of a golf ball fell in and around Cedar Rapids and wind gusts in excess of 60 mph were observed in areas along and north of Interstate 80.</p> <p>Wind gusts estimated to be 60 mph blew down a 3 inch diameter tree branch across a road in Hampton, IL around 3:35 pm CDT September 21.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
10/2/2010	Flood	Heavy Rain	<p>The runoff from very heavy rains that fell in southern and eastern Minnesota and western Wisconsin on September 22-23, 2010 flowed down the Mississippi River during late September and into the first half of October. Minor to moderate flooding occurred from Dubuque, Iowa southward to Gregory Landing, Missouri. Crests along this portion of the river were generally 2 to 3 feet above flood stage. At Dubuque the river rose above flood stage on September 29 and fell below flood stage on October 11. At Burlington the river rose above flood stage on October 2 and fell below flood stage on October 16. Interesting to note that this was only the 3rd or 4th time (depending on location) since 1862 that the Mississippi River has flooded during the fall season.</p> <p>The river rose above flood stage at Rock Island LD15 on October 2 at 7:08 pm CST and fell below flood stage on October 12 at 9:00 pm CST. Moderate flooding occurred with the crest reaching 16.97 feet on October 6 at 9:00 pm CST. Flood stage is 15 feet.</p> <p>The river rose above flood stage at Illinois City LD16 on October 4 at 8:00 am CST and fell below flood stage on October 10 at 11:30 pm CST. Moderate flooding occurred with the crest reaching 16.09 feet on October 6 at 7:00 pm CST. Flood stage is 15 feet.</p>

### 3.4 IMPACT OF WEATHER EVENTS YEAR 2011

A flood and thunderstorm winds created \$320,000 in property damage in 2011. Thunderstorms and heavy rain continue to be the primary weather events causing damage and threatening public safety.

**Table 7 Impact of Weather Events Year 2011**

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/3/2011	Hail	Thunderstorms	<p>A warm front lifted northward across the region during the morning of April 3 allowing for strong southerly winds behind the front to bring warmer air into the region. Showers and thunderstorms spread into the area during the afternoon and evening as a cold front tracked across the area. Some storms were severe, producing large hail and damaging winds. High temperatures were well above normal, ranging from the upper 60s in northeast Iowa and northern Illinois to the upper 70s in southeast Iowa, western Illinois and northeast Missouri.</p> <p>Quarter sized hail fell in Andalusia at 8:44 pm CDT.                      Quarter sized hail fell in Rock Island at 8:50 pm CDT.                      Quarter sized hail fell in East Moline at 8:57 pm CDT.                      Quarter sized hail fell 2 miles south of East Moline at 9:01 pm CDT. Ping pong ball sized hail fell at the Quad City Airport in Moline, IL at 9:11 pm CDT.</p>
4/9/2011	Hail	Thunderstorm	<p>Non-severe hail fell in Rock Island during the early morning hours of April 9 estimated at .75 inches in diameter.</p>
4/10/2011	Hail	Thunderstorm	<p>A cold front moved through the area during the evening of April 10 sparking a line of thunderstorms. A few of the storms surpassed severe thresholds, producing one inch diameter hail and damaging winds. Quarter sized hail fell near the Quad City Airport at 8:50 pm.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/16/2011	Flood	Heavy Rain Snow Melt	<p>Water from snow-melt in the upper Midwest moved south through the Mississippi River basin causing major flooding along the Mississippi River.</p> <p>Snowfall in eastern Iowa, northwest Illinois, and northeast Missouri totaled 35 to 65 inches, which was 10 to 20 inches above normal.</p> <p>The snow-melt flood crest reached Dubuque on April 19 and was finally south of the Burlington area by April 25. The crest levels ranked 4th through 8th depending on the location, when compared to historical crests.</p> <p>Rock Island surpassed its 18.0 foot major flood stage level around 3:20 pm CDT 4/16. It crested around 20.71 feet around 10:00 pm CDT 4/22. It fell below the major flood stage level around 4:31 pm CDT 4/29.</p> <p>Illinois City surpassed its 18.0 foot major flood stage level around 8:47 pm CDT 4/17. It crested around 20.74 feet around 400 am CDT 4/23. It fell below the major flood stage level around 11:13 am CDT 4/30.</p> <p><b>PROPERTY DAMAGE: \$250,000</b></p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
5/29/2011	High Wind	Thunderstorm	<p>A warm front stretching from southwest Kansas to northern Ohio pushed humid air into eastern Iowa, northeast Missouri, and northwest Illinois during the early morning hours of May 29. By mid morning showers and thunderstorms developed as the warm front lifted into the region. Heavy rains of over an inch fell at Parnell, Keosauqua, Annawan, Morrison, Erie and the Davenport Municipal Airport. In addition to the heavy rain, some storms produced large hail and damaging winds.</p> <p>Wind gusts estimated to be 60 mph blew a large tree down across 18th Ave in Rock Island around 10:40 am CDT May 29.</p> <p>A 60 mph wind gust was measured by the ASOS at the Quad City Airport in Moline at 10:40 am CDT May 29.</p> <p>Wind gusts estimated to be 60 mph blew a trampoline across a street into a neighbor's house about 3 miles south southwest of Rock Island at 10:40 am CDT May 29.</p> <p>Wind gusts estimated to be 60 mph blew down several large tree branches in Rock Island, IL at 10:45 am CDT May 29.</p> <p><b>PROPERTY DAMAGE: \$20,000 IN MILAN</b></p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
6/9/2011	High Wind	Thunderstorm	<p>Showers and thunderstorms, some severe, moved eastward across parts of eastern Iowa and northwest Illinois during the predawn hours of June 9. The stronger storms produced damaging winds and torrential rains, along with a few large hail stones.</p> <p>Wind gusts estimated to be 60 to 70 mph were observed near the Rock Island Arsenal bridge in Moline at 5:20 am CDT June 9.</p> <p>Wind gusts estimated to be 75 mph were observed in Moline at 5:26 am CDT. Some huge tree limbs were blown down in Moline.</p> <p>Hail was reported in the Rock Island measuring .75 inches.</p> <p>Wind gusts estimated to be 75 mph blew down a tree onto a car and house in Coal Valley around 5:30 am CDT.</p> <p>A 60 mph wind gust was recorded about 6 miles northeast of East Moline at 5:34 am CDT.</p> <p><b>PROPERTY DAMAGE: \$50,000</b></p>
6/26/2011	High Winds	Thunderstorm	<p>During the late evening of June 26 and early morning of June 27, a line of severe thunderstorms moved into parts of southeast Iowa, northeast Missouri, and west central Illinois as a warm front lifted northward into the area. Winds in excess of 70 mph and torrential rains accompanied the storms. Rainfall amounts quickly tapered off to between a trace and a third of an inch across areas to the north.</p> <p>Wind gusts estimated to be 60 mph blew down a large tree limb on the 3200 block of 14th Avenue in Rock Island around 11 pm CDT.</p>
8/7/2011	High Winds	Thunderstorm	<p>A disturbance that moved from the northern plains into the Mid Mississippi Valley on August 7, 2011 helped to generate thunderstorms that moved through eastern Iowa and northwest Illinois. Strong winds were the main threat associated with these storms.</p> <p>Wind gust of 58 mph were measured at the RWIS site on the I-74 Bridge 3 miles northeast of Rock Island.</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
8/8/2011	Heavy Rain	Thunderstorm	<p>A disturbance moving through northwest flow aloft brought several rounds of thunderstorms to northwest Illinois from the early afternoon through the early evening hours. The initial round of thunderstorms developed in eastern Iowa during the late morning hours and moved into northwest Illinois where heavy rains were the main threat. Another round of thunderstorms developed in the late afternoon and early evening as the disturbance approached the Mississippi River with wind, hail, and heavy rain being the main threats. Rain fell over the course of a 30 minute period.</p>
8/23/2011	Flash Flood	Thunderstorm	<p>The remnants of a thunderstorm complex that developed in the early morning hours of August 23rd brought widespread heavy rain and winds of 40 to 50 mph in eastern Iowa. Heavy rainfall and flash flooding continued as the thunderstorms moved into northwest Illinois. Rainfall totals ranged from 1.00 inches in Cambridge Illinois to 2.25 inches in Rock Island.</p> <p>Cars stalled with water partly above the bottom of car doors at 11th street and 18th avenue. Flash flooding also on 9th street between 18th and 19th avenues.</p>

### 3.5 IMPACT OF WEATHER EVENTS YEAR 2012

Thunderstorms with high winds and some hail were the main events reported in 2012 and there are no estimates of property damage from any of these storms.

**Table 8 Impact of Weather Events Year 2012**

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/14/2012	High Winds	Thunderstorm	<p>A warm front lifting northward across the region on April 14, 2012 brought a round of severe thunderstorms during the late afternoon through much of the evening hours. Large hail and damaging winds were reported across eastern Iowa and western Illinois. Three aircraft were damaged at the Quad Cities International Airport near Moline. A house was partially unroofed near the airport and a highway sign was also blown over. The automated wind sensor recorded 78 mph winds at the airport.</p> <p>A dome of a former church was blown off at 700 22nd street near the Quad Cities International Airport. The dome fell onto a house causing some damage.</p>
5/15/2012	High Wind	Thunderstorm	<p>A disturbance associated with a cold front diving southeastward across the region pushed a line of showers and thunderstorms from eastern Iowa into northwest Illinois during the early evening. One of the thunderstorms became severe in eastern Iowa and continued into northwest Illinois producing thunderstorm wind damage in Rock Island and Henry Counties along with pea sized hail.</p> <p>A trained spotter reported a 5 inch tree limb down in Rock Island.</p> <p>In the Hilltop area, 4 to 5 mulberry tree branches were downed by a thunderstorm wind gust.</p>
5/26/2012	Hail	Thunderstorm	<p>A storm system moved from the Central Plains into the Mid Mississippi Valley overnight and brought scattered showers and thunderstorms to northwest Illinois. Severe thunderstorms developed by late in the evening on May 25th and moved into northwest Illinois after midnight on May 26th mainly north of Interstate 80. These thunderstorms moved eastward through Illinois producing pea to penny sized hail.</p>
5/28/2012	High Winds	Thunderstorm	<p>A cold front swept across the Mid Mississippi Valley during the late afternoon and early evening hours on May 28. Scattered showers and thunderstorms developed ahead of this cold front producing severe hail and wind as they</p>

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
			<p>moved through northwest and west central Illinois. These thunderstorms produced quarter to half inch hail in Rock Island, Whiteside, and Lee Counties. Strong winds associated with the thunderstorms knocked down trees in Rock Island, Henry, and McDonough Counties.</p> <p>A trained spotter reported a 4 foot diameter tree down. The spotter estimated the wind speed at 70 mph.</p> <p>Law enforcement reported several blocks with numerous trees down in Port Byron.</p>

**3.6 IMPACT OF WEATHER EVENTS YEAR 2013**

There is one flood event recorded for 2013 due to heavy rains with no estimate of property damage.

Table 9 Impact of Weather Events Year 2013

Date	Event Type	Cause	IMPACT ON THE COMMUNITY
4/18/2013	Flood	Heavy Rain	<p>Heavy rains of 3 to 7 inches that fell across Eastern Iowa, Northwest Illinois, and Northeast Missouri on April 17th and 18th resulted in major river flooding on several area tributary rivers as well as parts of the Mississippi River during the last two weeks of April. This flood event ended 4/26/2013</p>

#### 4. FEMA DISASTER DECLARATIONS

There have been 52 federal major disaster declarations and 7 emergency declarations in Illinois. Of those, 12 included Rock Island County. Of those, 11 were major disaster declarations and 1 was an emergency declaration.

**Table 10 All Rock Island County Federal Flood Disaster Declarations**

FEMA Major Disaster Declarations		
<a href="#">4116</a>	5/10/2013	<a href="#">Severe Storms, Straight-Line Winds and Flooding</a>
<a href="#">1960</a>	3/17/2011	<a href="#">Severe Winter Storm and Snowstorm</a>
<a href="#">1771</a>	6/24/2008	<a href="#">Severe Storms and Flooding</a>
<a href="#">1368</a>	5/9/2001	<a href="#">Flooding</a>
<a href="#">997</a>	7/9/1993	<a href="#">Flooding, Severe Storms</a>
<a href="#">735</a>	3/29/1985	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">583</a>	4/30/1979	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">438</a>	6/10/1974	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">373</a>	4/26/1973	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">262</a>	6/6/1969	<a href="#">FLOODING</a>
<a href="#">194</a>	4/25/1965	<a href="#">TORNADOS, SEVERE STORMS, FLOODING</a>
FEMA Emergency Declarations		
<a href="#">3230</a>	9/7/2005	<a href="#">Hurricane Katrina Evacuation*</a>

\*Hurricane Katrina Evacuation: Incident period: August 29, 2005 to October 1, 2005.

The Emergency Declaration declared on September 7, 2005 was for Federal disaster aid to be made available to Illinois to supplement its efforts to assist evacuees from areas struck by Hurricane Katrina.

Refer to Appendix I

#### STRATEGIES DESIGNED TO MITIGATE OR MINIMIZE FUTURE DAMAGE FROM NATURAL DISASTERS

Second, together with the future emergency response needs as identified in the Rock Island County Comprehensive and Hazard Mitigation Plans, it will support the initial planning and formulation of possible emergency service models based on successes and challenges derived from lessons learned

# **Appendix A: Rock Island County Weather Database**

DRAFT

All weather events from the NOAA – National Climatic Data Center database for Rock Island County are listed in Table A-1. The locations in the table are hyperlinked to the database allowing you access by clicking on the location

**Table A - 1 ALL ROCK COUNTY WEATHER EVENTS FROM 1/1/1996 TO 04/30/2013**

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">CORDOVA</a>	5/10/1996	1:50	Thunderstorm Wind	75 kts.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/19/1996	16:00	Lightning		0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	2/20/1997	16:00	Flash Flood		0	0	550.00K	0.00K
<a href="#">EAST MOLINE</a>	5/18/1997	19:05	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	5/18/1997	19:05	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	5/18/1997	19:08	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	5/18/1997	19:11	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	5/18/1997	19:25	Hail	3.00 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	5/18/1997	19:41	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/21/1997	4:45	Thunderstorm Wind	70 kts.	0	0	5.00K	0.00K
<a href="#">EAST MOLINE</a>	7/19/1997	14:40	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	7/19/1997	14:40	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	7/27/1997	16:10	Tornado	F0	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/3/1997	14:58	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">(MLD QUAD CITY ARPT)</a>	8/3/1997	15:06	Thunderstorm Wind	69 kts.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/3/1997	15:15	Thunderstorm Wind	70 kts.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	8/3/1997	15:18	Thunderstorm Wind	79 kts.	0	0	250.00K	0.00K
<a href="#">EAST MOLINE</a>	3/27/1998	19:15	Thunderstorm Wind		0	0	3.00K	0.00K
<a href="#">MOLINE</a>	3/27/1998	19:20	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	4/15/1998	14:45	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	6/18/1998	16:00	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/18/1998	16:25	Hail	3.00 in.	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	6/18/1998	16:40	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/28/1998	1:30	Thunderstorm Wind		0	0	5.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/29/1998	14:26	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">COUNTYWIDE</a>	7/21/1998	22:57	Flood		0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	10/17/1998	15:48	Flash Flood		0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/3/1999	10:50	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/3/1999	11:25	Flood		1	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/4/1999	14:00	Lightning		0	0	1.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/4/1999	14:15	Thunderstorm Wind	56 kts.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/6/1999	13:32	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/10/1999	14:42	Lightning		2	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	7/23/1999	18:00	Flood		0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	7/27/1999	23:25	Thunderstorm Wind		0	0	1.00K	0.00K
<a href="#">ROCK IS</a>	8/23/1999	15:20	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	8/23/1999	15:30	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	8/23/1999	15:30	Flood		0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	4/16/2000	17:35	Hail	0.50 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/18/2000	13:35	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	5/18/2000	13:58	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	5/18/2000	14:00	Thunderstorm Wind	52 kts. E	0	0	2.00K	0.00K
<a href="#">ROCK IS</a>	5/31/2000	12:45	Flood		0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	6/13/2000	15:25	Thunderstorm Wind		0	0	1.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/24/2000	10:00	Flood		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	9/11/2000	20:05	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	2/24/2001	9:00	Flood		0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	5/10/2001	20:11	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">PORT BYRON</a>	5/10/2001	21:11	Thunderstorm Wind		0	0	30.00K	0.00K
<a href="#">PORT BYRON</a>	6/12/2001	9:42	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	13:09	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	14:15	Flash Flood		0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/14/2001	16:45	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/14/2001	16:46	Flash Flood		0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ROCK IS</a>	6/14/2001	17:00	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	17:00	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	7/8/2001	11:45	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	7/8/2001	11:50	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	7/21/2001	5:45	Flood		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/2/2001	15:05	Lightning		0	0	50.00K	0.00K
<a href="#">ANDALUSIA</a>	8/9/2001	17:34	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	10/22/2001	22:15	Flood		0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	3/9/2002	3:00	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	3/9/2002	3:10	Thunderstorm Wind	52 kts. E	0	1	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/3/2002	17:20	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/3/2002	18:05	Flood		0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/26/2002	18:40	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	4/30/2003	3:30	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	4/30/2003	3:36	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">JOSLIN</a>	4/30/2003	3:55	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	4/30/2003	19:35	Hail	1.00 in.	0	0	20.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2003	19:46	Hail	1.75 in.	0	0	500.00K	0.00K
<a href="#">PORT BYRON</a>	7/5/2003	2:35	Thunderstorm Wind	52 kts. EG	0	0	50.00K	10.00K
<a href="#">ROCK IS</a>	7/8/2003	10:30	Heavy Rain	1.25	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	7/20/2003	22:30	Heavy Rain	2.08	0	0	2.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/20/2003	23:27	Thunderstorm Wind	59 kts. MG	0	0	100.00K	20.00K
<a href="#">COUNTYWIDE</a>	7/20/2003	23:27	Thunderstorm Wind	65 kts. EG	0	0	200.00K	100.00K
<a href="#">CARBON CLIFF</a>	7/27/2003	9:25	Heavy Rain	1.5	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	7/27/2003	9:35	Heavy Rain	1.2	0	0	2.00K	0.00K
<a href="#">ANDALUSIA</a>	7/27/2003	9:35	Thunderstorm Wind	52 kts. EG	0	0	50.00K	5.00K
<a href="#">PORT BYRON</a>	7/27/2003	9:37	Thunderstorm Wind	52 kts. EG	0	0	30.00K	2.00K
<a href="#">ROCK IS</a>	7/27/2003	9:40	Hail	0.88 in.	0	0	20.00K	0.00K
<a href="#">ROCK IS</a>	5/7/2004	3:22	Hail	0.88 in.	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">LOUD THUNDER PARK</a>	5/22/2004	4:08	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	5/30/2004	6:52	Heavy Rain		0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2004	5:55	Lightning		0	0	1.00K	0.00K
<a href="#">REYNOLDS</a>	3/30/2005	13:43	Thunderstorm Wind	57 kts. EG	0	0	1.00K	0.00K
<a href="#">CORDOVA</a>	9/13/2005	16:00	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	3/12/2006	19:48	Thunderstorm Wind	57 kts. EG	0	0	10.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	3/12/2006	19:48	Thunderstorm Wind	93 kts. MG	0	0	300.00K	0.00K
<a href="#">MOLINE QUAD CITY ARP</a>	3/12/2006	19:49	Thunderstorm Wind	70 kts. EG	0	0	10.00K	0.00K
<a href="#">MOLINE</a>	3/12/2006	19:53	Flash Flood		0	0	50.00K	0.00K
<a href="#">SILVIS</a>	3/12/2006	19:53	Thunderstorm Wind	70 kts. EG	0	0	50.00K	0.00K
<a href="#">CARBON CLIFF</a>	3/12/2006	19:54	Thunderstorm Wind	57 kts. EG	0	0	1.00K	0.00K
<a href="#">ILLINOIS CITY</a>	3/12/2006	20:06	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:20	Tornado	F0	0	0	5.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:29	Tornado	F1	0	0	5.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:44	Hail	1.00 in.	0	0	5.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:46	Hail	1.75 in.	0	0	10.00K	0.00K
<a href="#">ANDALUSIA</a>	4/13/2006	20:46	Hail	1.00 in.	0	0	5.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2006	15:26	Hail	1.00 in.	0	0	2.00K	0.00K
<a href="#">MILAN</a>	4/30/2006	15:30	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	15:30	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	15:34	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2006	15:44	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	4/30/2006	15:46	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	16:30	Heavy Rain		0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	5/27/2006	13:18	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/6/2006	6:09	Lightning		0	0	10.00K	0.00K
<a href="#">MOLINE</a>	7/19/2006	12:55	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
<a href="#">EAST MOLINE</a>	7/19/2006	13:05	Thunderstorm Wind	57 kts. EG	0	0	2.00K	0.00K
<a href="#">CARBON CLIFF</a>	7/19/2006	13:10	Thunderstorm Wind	52 kts. EG	0	0	1.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">CARBON CLIFF</a>	8/25/2006	16:20	Heavy Rain		0	0	0.00K	0.00K
<a href="#">MILAN</a>	9/11/2006	21:35	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	3/31/2007	16:53	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:26	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:27	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">TAYLOR RIDGE</a>	6/1/2007	12:30	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:45	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:45	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	6/7/2007	20:09	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	6/7/2007	20:09	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/21/2007	19:20	Thunderstorm Wind	52 kts. EG	0	0	1.00K	0.00K
<a href="#">MOLINE</a>	7/4/2007	3:00	Flash Flood		0	0	25.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	7/4/2007	4:00	Flash Flood		0	0	25.00K	0.00K
<a href="#">CARBON CLIFF</a>	7/4/2007	4:39	Flash Flood		0	0	1.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/10/2007	14:11	Thunderstorm Wind	57 kts. MG	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	8/23/2007	16:43	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	8/24/2007	2:00	Flood		0	0	0.00K	0.00K
<a href="#">JOSLIN</a>	8/28/2007	3:00	Flood		0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	9/30/2007	19:40	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">MILAN</a>	2/17/2008	20:30	Flash Flood		0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	3/2/2008	17:30	Flash Flood		0	0	0.00K	0.00K
<a href="#">MILAN</a>	3/6/2008	0:50	Flood		0	0	0.00K	0.00K
<a href="#">MOLINE</a>	4/1/2008	0:00	Flood		0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	5/1/2008	0:00	Flood		0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	5/1/2008	0:00	Flood		0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	5/13/2008	14:06	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	6/1/2008	0:00	Flood		0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	6/6/2008	3:14	Thunderstorm Wind	54 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	6/8/2008	20:10	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">TAYLOR RIDGE</a>	6/12/2008	18:26	Tornado	EF0	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/12/2008	18:40	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/12/2008	18:47	Thunderstorm Wind	56 kts. EG	0	0	25.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/12/2008	18:50	Flash Flood		0	0	500.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/21/2008	4:48	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	7/21/2008	5:00	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:10	Thunderstorm Wind	70 kts. MG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	7/21/2008	5:11	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">OAK GROVE</a>	7/21/2008	5:12	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:15	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:15	Thunderstorm Wind	82 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	9/13/2008	5:21	Flash Flood		0	0	100.00K	0.00K
<a href="#">ROCK IS</a>	4/1/2009	0:00	Flood		0	0	0.00K	0.00K
<a href="#">MOLINE</a>	4/5/2009	9:48	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/1/2009	17:00	Flood		0	0	166.67K	0.00K
<a href="#">ILLINOIS CITY</a>	5/8/2009	18:48	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	6/18/2009	11:20	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	6/18/2009	11:28	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/18/2009	11:28	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	6/18/2009	11:31	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">FRUITLAND</a>	6/18/2009	11:31	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">FRUITLAND</a>	6/18/2009	11:32	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/19/2009	16:44	Flash Flood		0	0	50.00K	0.00K
<a href="#">MOLINE QUAD CITY ARP</a>	6/19/2009	16:45	Thunderstorm Wind	63 kts. MG	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	6/19/2009	16:52	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/19/2009	17:00	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/19/2009	17:00	Flash Flood		0	0	25.00K	0.00K
<a href="#">SILVIS HGTS</a>	6/22/2009	23:00	Flood		0	0	250.00K	0.00K
<a href="#">MILAN</a>	7/10/2009	12:05	Flash Flood		0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">MILAN</a>	7/24/2009	21:15	Flash Flood		0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	4/4/2010	17:13	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">HILLSDALE</a>	4/6/2010	4:44	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/15/2010	6:00	Flood		0	0	250.00K	0.00K
<a href="#">ANDALUSIA</a>	5/25/2010	13:13	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">ILLINIWEK PARK</a>	6/18/2010	12:45	Thunderstorm Wind	70 kts. EG	0	3	20.00K	0.00K
<a href="#">PORT BYRON</a>	6/18/2010	12:45	Thunderstorm Wind	75 kts. EG	0	3	20.00K	0.00K
<a href="#">HAMPTON</a>	6/18/2010	13:00	Lightning		0	0	2.00K	0.00K
<a href="#">MOLINE</a>	6/18/2010	18:38	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">RAPIDS CITY</a>	6/18/2010	18:49	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	6/23/2010	15:36	Thunderstorm Wind	55 kts. MG	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/23/2010	15:54	Lightning		0	1	0.00K	0.00K
<a href="#">INDIAN BLUFF PARK</a>	6/23/2010	16:30	Thunderstorm Wind	56 kts. EG	0	0	1.00K	0.00K
<a href="#">ROCK IS</a>	7/7/2010	13:50	Flash Flood		0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	7/7/2010	14:02	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/23/2010	14:35	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	7/23/2010	14:57	Thunderstorm Wind	51 kts. MG	0	0	0.00K	0.00K
<a href="#">SILVIS HGTS</a>	7/25/2010	19:00	Flood		0	0	125.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/25/2010	21:30	Flood		0	0	250.00K	0.00K
<a href="#">ROCK IS</a>	7/27/2010	2:00	Flood		0	0	400.00K	0.00K
<a href="#">TAYLOR RIDGE</a>	9/5/2010	20:50	Thunderstorm Wind	56 kts. EG	0	0	5.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	9/5/2010	21:07	Thunderstorm Wind	60 kts. MG	0	0	0.00K	0.00K
<a href="#">FRUITLAND</a>	9/5/2010	21:14	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	9/5/2010	21:23	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">HAMPTON</a>	9/21/2010	14:35	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	10/2/2010	19:08	Flood		0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	10/4/2010	8:00	Flood		0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	4/3/2011	19:37	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	4/3/2011	19:44	Hail	1.00 in.	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">EDGINGTON</a>	4/3/2011	19:48	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	4/3/2011	19:50	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">SILVIS HGTS</a>	4/3/2011	19:57	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">SILVIS HGTS</a>	4/3/2011	20:00	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">SILVIS HGTS</a>	4/3/2011	20:01	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	4/3/2011	20:11	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	4/9/2011	2:54	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	4/10/2011	19:50	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/16/2011	14:00	Flood		0	0	250.00K	0.00K
<a href="#">ROCK IS</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">MILAN</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. EG	0	0	0.20K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	5/29/2011	9:45	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:20	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:25	Thunderstorm Wind	55 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:26	Thunderstorm Wind	65 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:26	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:29	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:30	Thunderstorm Wind	65 kts. EG	0	0	50.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:34	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/26/2011	22:00	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/7/2011	1:22	Thunderstorm Wind	51 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/8/2011	15:35	Heavy Rain		0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	8/8/2011	15:59	Heavy Rain		0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	8/23/2011	7:10	Flash Flood		0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	8/23/2011	11:00	Heavy Rain		0	0	0.00K	0.00K
<a href="#">HILLSDALE</a>	8/23/2011	11:25	Heavy Rain		0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	4/14/2012	23:52	Thunderstorm Wind	68 kts. MG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	4/14/2012	23:54	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ROCK IS</a>	5/15/2012	17:20	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	5/15/2012	17:20	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	5/26/2012	0:06	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	5/28/2012	16:38	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	5/28/2012	16:38	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/18/2013	13:30	Flood		0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/19/2013	18:00	Flood		0	0	0.00K	0.00K
<b>Totals:</b>					3	8	4.894M	137.00K

*Wind speeds are noted as EG for estimated gusts and MG for measured gusts.*

## Appendix B:Flood Data

DRAFT

The most notable Mississippi River floods effecting Rock Island County have occurred in the spring of 1965, 1969, 1973, 1975 and the summer of the “Great Flood of 1993”. The 1993 flood damaged 507 structures resulting in \$4.9 million dollars of damage. The effects of flooding events are projected to be reduced by the construction of levee systems, floodwalls and a lock and dam system by the Corps of Engineers along with some residences being elevated.<sup>1</sup>

From June to August 1993, greater than 24 inches of rain fell on the eastern Dakotas, southern Minnesota, eastern Nebraska, Wisconsin, Kansas, Iowa, Missouri, Illinois, and Indiana. As much as 38 inches fell in east-central Iowa. From April 1 to August 31, precipitation amounts approached 48 inches in east-central Iowa. The saturated soil overflowed streams and river channels causing flooding to begin in Minnesota and Wisconsin and eventually reached the Mississippi river.

A number of levees failed or overtopped: 12 of 73 Rock Island Federal Levees, 19 of 185 Rock Island Non-Federal Levees.<sup>2</sup>

More recent flood events have created the concern to review the continuing effort to mitigate flood hazards to public safety and the protection of property. The most notable have been in 2009 and 2010 which resulted in \$400,000 damage.

**Table B - 1 ROCK COUNTY FLOOD EVENTS FROM 1/1/1996 TO 04/30/2013**

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">COUNTYWIDE</a>	2/20/1997	Flash Flood	0	0	550.00K	0.00K
<a href="#">COUNTYWIDE</a>	7/21/1998	Flood	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	10/17/1998	Flash Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/3/1999	Flood	1	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	7/23/1999	Flood	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	8/23/1999	Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/31/2000	Flood	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/24/2000	Flood	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	2/24/2001	Flood	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	Flash Flood	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/14/2001	Flash Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	7/21/2001	Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	10/22/2001	Flood	0	0	0.00K	0.00K

<sup>1</sup> Rock Island County Zoning and Building Safety Department

<sup>2</sup> USGS, The Great Flood of 1993 on the Upper Mississippi River – 10 Years Later

Location	Date	Type	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">MILAN</a>	6/3/2002	Flood	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	3/12/2006	Flash Flood	0	0	50.00K	0.00K
<a href="#">MOLINE</a>	7/4/2007	Flash Flood	0	0	25.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	7/4/2007	Flash Flood	0	0	25.00K	0.00K
<a href="#">CARBON CLIFF</a>	7/4/2007	Flash Flood	0	0	1.00K	0.00K
<a href="#">MOLINE</a>	8/24/2007	Flood	0	0	0.00K	0.00K
<a href="#">JOSLIN</a>	8/28/2007	Flood	0	0	0.00K	0.00K
<a href="#">MILAN</a>	2/17/2008	Flash Flood	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	3/2/2008	Flash Flood	0	0	0.00K	0.00K
<a href="#">MILAN</a>	3/6/2008	Flood	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	4/1/2008	Flood	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	5/1/2008	Flood	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	5/1/2008	Flood	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	6/1/2008	Flood	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/12/2008	Flash Flood	0	0	500.00K	0.00K
<a href="#">ROCK IS</a>	9/13/2008	Flash Flood	0	0	100.00K	0.00K
<a href="#">ROCK IS</a>	4/1/2009	Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/1/2009	Flood	0	0	166.67K	0.00K
<a href="#">MILAN</a>	6/19/2009	Flash Flood	0	0	50.00K	0.00K
<a href="#">MOLINE</a>	6/19/2009	Flash Flood	0	0	25.00K	0.00K
<a href="#">SILVIS HGTS</a>	6/22/2009	Flood	0	0	250.00K	0.00K
<a href="#">MILAN</a>	7/10/2009	Flash Flood	0	0	0.00K	0.00K
<a href="#">MILAN</a>	7/24/2009	Flash Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/15/2010	Flood	0	0	250.00K	0.00K
<a href="#">ROCK IS</a>	7/7/2010	Flash Flood	0	0	0.00K	0.00K
<a href="#">SILVIS HGTS</a>	7/25/2010	Flood	0	0	125.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/25/2010	Flood	0	0	250.00K	0.00K
<a href="#">ROCK IS</a>	7/27/2010	Flood	0	0	400.00K	0.00K
<a href="#">ROCK IS</a>	10/2/2010	Flood	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	10/4/2010	Flood	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/16/2011	Flood	0	0	250.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	8/23/2011	Flash Flood	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/18/2013	Flood	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/19/2013	Flood	0	0	0.00K	0.00K
<b>TOTALS</b>			<b>1</b>	<b>0</b>	<b>\$3,018,670</b>	<b>0</b>

## Appendix C:Hail

DRAFT

From January 1, 1996 to April 30, 2013, Rock Island County Experienced 63 hail storms resulting in \$563,000 in property damage with no crop damage reported to NOAA.

**Table D - 1 Rock Island County Hail Events from 1996 to 2013**

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">EAST MOLINE</a>	5/18/1997	19:05	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	5/18/1997	19:05	Hail	1.50 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	5/18/1997	19:08	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	5/18/1997	19:11	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	5/18/1997	19:25	Hail	3.00 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	5/18/1997	19:41	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	4/15/1998	14:45	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">EAST MOLINE</a>	6/18/1998	16:00	Hail	1.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/18/1998	16:25	Hail	3.00 in.	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	6/18/1998	16:40	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/3/1999	10:50	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">MILAN</a>	6/6/1999	13:32	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	4/16/2000	17:35	Hail	0.50 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/18/2000	13:35	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	5/18/2000	13:58	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	9/11/2000	20:05	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	13:09	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/3/2002	17:20	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	6/26/2002	18:40	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	4/30/2003	3:30	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	4/30/2003	3:36	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">JOSLIN</a>	4/30/2003	3:55	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	4/30/2003	19:35	Hail	1.00 in.	0	0	20.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2003	19:46	Hail	1.75 in.	0	0	500.00K	0.00K
<a href="#">ROCK IS</a>	7/27/2003	9:40	Hail	0.88 in.	0	0	20.00K	0.00K
<a href="#">ROCK IS</a>	5/7/2004	3:22	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">LOUD THUNDER PARK</a>	5/22/2004	4:08	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	3/12/2006	20:06	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:44	Hail	1.00 in.	0	0	5.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:46	Hail	1.75 in.	0	0	10.00K	0.00K
<a href="#">ANDALUSIA</a>	4/13/2006	20:46	Hail	1.00 in.	0	0	5.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2006	15:26	Hail	1.00 in.	0	0	2.00K	0.00K
<a href="#">MILAN</a>	4/30/2006	15:30	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	15:34	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">OAK GROVE</a>	4/30/2006	15:44	Hail	0.75 in.	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	5/27/2006	13:18	Hail	0.88 in.	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	3/31/2007	16:53	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:26	Hail	1.00 in.	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:27	Hail	1.00 in.	0	0	0.00K	0.00K



## Appendix D: Heavy Rain

DRAFT

**Table E - 1 Rock Island County Heavy Rain Events from 1996 to 2013**

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ROCK IS</a>	7/8/2003	10:30	Heavy Rain	1.25	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	7/20/2003	22:30	Heavy Rain	2.08	0	0	2.00K	0.00K
<a href="#">CARBON CLIFF</a>	7/27/2003	9:25	Heavy Rain	1.5	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	7/27/2003	9:35	Heavy Rain	1.2	0	0	2.00K	0.00K
<a href="#">CARBON CLIFF</a>	5/30/2004	6:52	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	15:30	Heavy Rain		0	0	0.00K	0.00K
<a href="#">MILAN</a>	4/30/2006	15:46	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	4/30/2006	16:30	Heavy Rain		0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	8/25/2006	16:20	Heavy Rain		0	0	0.00K	0.00K
<a href="#">MILAN</a>	9/11/2006	21:35	Heavy Rain		0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/8/2011	15:35	Heavy Rain		0	0	0.00K	0.00K
<a href="#">(MLD QUAD CITY ARPT</a>	8/8/2011	15:59	Heavy Rain		0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	8/23/2011	11:00	Heavy Rain		0	0	0.00K	0.00K
<a href="#">HILLSDALE</a>	8/23/2011	11:25	Heavy Rain		0	0	0.00K	0.00K
<b>TOTAL</b>					0	0	\$8,000	0

## Appendix E:Lightning

DRAFT

**Table F - 1 Rock Island County Lightning Events from 1996 to 2013**

Location	Date	Time	Type	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ROCK IS</a>	8/19/1996	16:00	Lightning	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/4/1999	14:00	Lightning	0	0	1.00K	0.00K
<a href="#">MILAN</a>	6/10/1999	14:42	Lightning	2	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/2/2001	15:05	Lightning	0	0	50.00K	0.00K
<a href="#">MOLINE</a>	6/14/2004	5:55	Lightning	0	0	1.00K	0.00K
<a href="#">MOLINE</a>	6/6/2006	6:09	Lightning	0	0	10.00K	0.00K
<a href="#">HAMPTON</a>	6/18/2010	13:00	Lightning	0	0	2.00K	0.00K
<a href="#">MILAN</a>	6/23/2010	15:54	Lightning	0	1	0.00K	0.00K
<b>TOTALS</b>				2	1	\$64,000	0

## Appendix F: Thunderstorm Wind

DRAFT

**Table G - 1 Rock Island County Thunderstorm Wind Events from 1996 to 2013**

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">CORDOVA</a>	5/10/1996	1:50	Thunderstorm Wind	75 kts.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/21/1997	4:45	Thunderstorm Wind	70 kts.	0	0	5.00K	0.00K
<a href="#">EAST MOLINE</a>	7/19/1997	14:40	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	7/19/1997	14:40	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/3/1997	14:58	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	8/3/1997	15:06	Thunderstorm Wind	69 kts.	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/3/1997	15:15	Thunderstorm Wind	70 kts.	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	8/3/1997	15:18	Thunderstorm Wind	79 kts.	0	0	250.00K	0.00K
<a href="#">EAST MOLINE</a>	3/27/1998	19:15	Thunderstorm Wind		0	0	3.00K	0.00K
<a href="#">MOLINE</a>	3/27/1998	19:20	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/28/1998	1:30	Thunderstorm Wind		0	0	5.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/29/1998	14:26	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	6/4/1999	14:15	Thunderstorm Wind	56 kts.	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	7/27/1999	23:25	Thunderstorm Wind		0	0	1.00K	0.00K
<a href="#">ROCK IS</a>	8/23/1999	15:20	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">BARSTOW</a>	8/23/1999	15:30	Thunderstorm Wind	52 kts.	0	0	0.00K	0.00K
<a href="#">SILVIS</a>	5/18/2000	14:00	Thunderstorm Wind	52 kts. E	0	0	2.00K	0.00K
<a href="#">PORT BYRON</a>	6/13/2000	15:25	Thunderstorm Wind		0	0	1.00K	0.00K
<a href="#">PORT BYRON</a>	5/10/2001	20:11	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">PORT BYRON</a>	5/10/2001	21:11	Thunderstorm Wind		0	0	30.00K	0.00K
<a href="#">PORT BYRON</a>	6/12/2001	9:42	Thunderstorm Wind		0	0	2.00K	0.00K
<a href="#">ILLINOIS CITY</a>	6/14/2001	16:45	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	6/14/2001	17:00	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/14/2001	17:00	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	7/8/2001	11:45	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">COUNTYWIDE</a>	7/8/2001	11:50	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	8/9/2001	17:34	Thunderstorm Wind	52 kts. E	0	0	0.00K	0.00K
<a href="#">REYNOLDS</a>	3/9/2002	3:00	Thunderstorm Wind	61 kts. E	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	3/9/2002	3:10	Thunderstorm Wind	52 kts. E	0	1	0.00K	0.00K
<a href="#">PORT BYRON</a>	7/5/2003	2:35	Thunderstorm Wind	52 kts. EG	0	0	50.00K	10.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ILLINOIS CITY</a>	7/20/2003	23:27	Thunderstorm Wind	59 kts. MG	0	0	100.00K	20.00K
<a href="#">COUNTYWIDE</a>	7/20/2003	23:27	Thunderstorm Wind	65 kts. EG	0	0	200.00K	100.00K
<a href="#">ANDALUSIA</a>	7/27/2003	9:35	Thunderstorm Wind	52 kts. EG	0	0	50.00K	5.00K
<a href="#">PORT BYRON</a>	7/27/2003	9:37	Thunderstorm Wind	52 kts. EG	0	0	30.00K	2.00K
<a href="#">REYNOLDS</a>	3/30/2005	13:43	Thunderstorm Wind	57 kts. EG	0	0	1.00K	0.00K
<a href="#">CORDOVA</a>	9/13/2005	16:00	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
<a href="#">MOLINE</a>	3/12/2006	19:48	Thunderstorm Wind	57 kts. EG	0	0	10.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	3/12/2006	19:48	Thunderstorm Wind	93 kts. MG	0	0	300.00K	0.00K
<a href="#">MOLINE QUAD CITY ARP</a>	3/12/2006	19:49	Thunderstorm Wind	70 kts. EG	0	0	10.00K	0.00K
<a href="#">SILVIS</a>	3/12/2006	19:53	Thunderstorm Wind	70 kts. EG	0	0	50.00K	0.00K
<a href="#">CARBON CLIFF</a>	3/12/2006	19:54	Thunderstorm Wind	57 kts. EG	0	0	1.00K	0.00K
<a href="#">MOLINE</a>	7/19/2006	12:55	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
<a href="#">EAST MOLINE</a>	7/19/2006	13:05	Thunderstorm Wind	57 kts. EG	0	0	2.00K	0.00K
<a href="#">CARBON CLIFF</a>	7/19/2006	13:10	Thunderstorm Wind	52 kts. EG	0	0	1.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:45	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/1/2007	12:45	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	6/7/2007	20:09	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	6/7/2007	20:09	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	6/21/2007	19:20	Thunderstorm Wind	52 kts. EG	0	0	1.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/10/2007	14:11	Thunderstorm Wind	57 kts. MG	0	0	0.00K	0.00K
<a href="#">ANDALUSIA</a>	8/23/2007	16:43	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">CARBON CLIFF</a>	9/30/2007	19:40	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	6/6/2008	3:14	Thunderstorm Wind	54 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	6/8/2008	20:10	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/12/2008	18:47	Thunderstorm Wind	56 kts. EG	0	0	25.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/21/2008	4:48	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	7/21/2008	5:00	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:10	Thunderstorm Wind	70 kts. MG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	7/21/2008	5:11	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">OAK GROVE</a>	7/21/2008	5:12	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:15	Thunderstorm Wind	70 kts. EG	0	0	0.00K	0.00K
<a href="#">(MLD) QUAD CITY ARPT</a>	7/21/2008	5:15	Thunderstorm Wind	82 kts. MG	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">ILLINOIS CITY</a>	5/8/2009	18:48	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	6/18/2009	11:31	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE QUAD CITY ARP</a>	6/19/2009	16:45	Thunderstorm Wind	63 kts. MG	0	0	0.00K	0.00K
<a href="#">CORDOVA</a>	6/19/2009	16:52	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">MOLINE</a>	6/19/2009	17:00	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">ILLINIWEK PARK</a>	6/18/2010	12:45	Thunderstorm Wind	70 kts. EG	0	3	20.00K	0.00K
<a href="#">PORT BYRON</a>	6/18/2010	12:45	Thunderstorm Wind	75 kts. EG	0	3	20.00K	0.00K
<a href="#">MOLINE</a>	6/18/2010	18:38	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">RAPIDS CITY</a>	6/18/2010	18:49	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	6/23/2010	15:36	Thunderstorm Wind	55 kts. MG	0	0	0.00K	0.00K
<a href="#">INDIAN BLUFF PARK</a>	6/23/2010	16:30	Thunderstorm Wind	56 kts. EG	0	0	1.00K	0.00K
<a href="#">CORDOVA</a>	7/7/2010	14:02	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	7/23/2010	14:35	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	7/23/2010	14:57	Thunderstorm Wind	51 kts. MG	0	0	0.00K	0.00K
<a href="#">TAYLOR RIDGE</a>	9/5/2010	20:50	Thunderstorm Wind	56 kts. EG	0	0	5.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	9/5/2010	21:07	Thunderstorm Wind	60 kts. MG	0	0	0.00K	0.00K
<a href="#">FRUITLAND</a>	9/5/2010	21:14	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">COAL VLY</a>	9/5/2010	21:23	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">HAMPTON</a>	9/21/2010	14:35	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">MILAN</a>	5/29/2011	9:40	Thunderstorm Wind	52 kts. EG	0	0	0.20K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	5/29/2011	9:45	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:20	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:25	Thunderstorm Wind	55 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:26	Thunderstorm Wind	65 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:26	Thunderstorm Wind	56 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:30	Thunderstorm Wind	65 kts. EG	0	0	50.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/9/2011	4:34	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
<a href="#">ROCK ISLAND CO.</a>	6/26/2011	22:00	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	8/7/2011	1:22	Thunderstorm Wind	51 kts. MG	0	0	0.00K	0.00K
<a href="#">(ML) QUAD CITY ARPT</a>	4/14/2012	23:52	Thunderstorm Wind	68 kts. MG	0	0	0.00K	0.00K

Location	Date	Time	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
<a href="#">BLACKHAWK STATE PARK</a>	4/14/2012	23:54	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">ROCK IS</a>	5/15/2012	17:20	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">BLACKHAWK STATE PARK</a>	5/15/2012	17:20	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	5/28/2012	16:38	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
<a href="#">PORT BYRON</a>	5/28/2012	16:38	Thunderstorm Wind	60 kts. EG	0	0	0.00K	0.00K
<b>TOTAL</b>					0	7	\$1,232,200	\$137,000

EG=ESTIMATED GUST, MG=MEASURED GUST

## Appendix G:Tornados

DRAFT

**Table H - 1 Rock Island County Tornado Events from 1996 to 2013**

<b>Location</b>	<b>Date</b>	<b>Time</b>	<b>Type</b>	<b>Magnitude</b>	<b>Deaths</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Crop Damage</b>
<a href="#">COAL VLY</a>	7/27/1997	16:10	Tornado	F0	0	0	0.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:20	Tornado	F0	0	0	5.00K	0.00K
<a href="#">ILLINOIS CITY</a>	4/13/2006	20:29	Tornado	F1	0	0	5.00K	0.00K
<a href="#">TAYLOR RIDGE</a>	6/12/2008	18:26	Tornado	EF0	0	0	0.00K	0.00K
<b>Totals:</b>					0	0	\$10,000	0

# **Appendix H:FEMA Federal Major Disaster and Emergency Declarations**

DRAFT

**Table I - 1 FEMA Major Disaster and Emergency Declarations for Rock Island County**

<b>FEMA Major Disaster Declarations</b>		
<a href="#">4116</a>	5/10/2013	<a href="#">Severe Storms, Straight-Line Winds and Flooding</a>
<a href="#">1960</a>	3/17/2011	<a href="#">Severe Winter Storm and Snowstorm</a>
<a href="#">1771</a>	6/24/2008	<a href="#">Severe Storms and Flooding</a>
<a href="#">1368</a>	5/9/2001	<a href="#">Flooding</a>
<a href="#">997</a>	7/9/1993	<a href="#">Flooding, Severe Storms</a>
<a href="#">735</a>	3/29/1985	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">583</a>	4/30/1979	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">438</a>	6/10/1974	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">373</a>	4/26/1973	<a href="#">SEVERE STORMS, FLOODING</a>
<a href="#">262</a>	6/6/1969	<a href="#">FLOODING</a>
<a href="#">194</a>	4/25/1965	<a href="#">TORNADOS, SEVERE STORMS, FLOODING</a>
<b>FEMA Emergency Declarations</b>		
<a href="#">3230</a>	9/7/2005	<a href="#">Hurricane Katrina Evacuation</a>

### **3. ROCK ISLAND COUNTY PSAP / EOC SITE SURVEY REPORT**



---

***QUAD CITIES / ROCK ISLAND COUNTY  
EMERGENCY ACTUALIZATION PLAN  
PASP/EOC SITE SURVEY REPORT***

---

Version Number: 1.1

Version Date: 03/31/2014

---

# TABLE OF CONTENTS

<b>INTRODUCTION</b> .....	<b>3</b>
1.1    Project Team and Schedule.....	3
<b>2. ROCK ISLAND COUNTY PSAPS AND EOC</b> .....	<b>4</b>
2.1    System Configuration .....	5
<b>3. ROCK ISLAND COUNTY PSAP</b> .....	<b>6</b>
3.1    Management and Organizational Structure .....	7
3.2    Operational services provided and policies and procedures .....	7
<b>4. RICOMM (CITY OF ROCK ISLAND PSAP)</b> .....	<b>9</b>
4.1    Management and Organizational Structure .....	10
4.2    Operational services provided and policies and procedures .....	10
<b>5. CENTRE STATION (MOLINE/EAST MOLINE PSAP)</b> .....	<b>11</b>
5.1    Management and Organizational Structure .....	12
5.2    Operational services provided and policies and procedures .....	12
<b>6. SILVIS PSAP</b> .....	<b>13</b>
6.1    Management and Organizational Structure .....	14
6.2    Operational services provided and policies and procedures .....	14
<b>7. ROCK ISLAND ARSENAL PSAP</b> .....	<b>16</b>
7.1    Management and Organizational Structure .....	17
7.2    Operational services provided and policies and procedures .....	17
<b>8. VILLAGE OF MILAN PSAP</b> .....	<b>18</b>
8.1    Management and Organizational Structure .....	19
8.2    Operational services provided and policies and procedures .....	19
<b>9. ROCK ISLAND COUNTY EOC</b> .....	<b>20</b>
9.1    Management and Organizational Structure .....	21
9.2    Operational services provided and policies and procedures .....	21
<b>APPENDIX A: COMPLETED SURVEY FORMS</b>	
Rock Island County	
RICOMM (City of Rock Island)	
Centre Station (Moline/East Moline Combined)	
Silvis	
Rock Island Arsenal	
Village of Milan	

**APPENDIX B: INTERVIEW NOTES**

General Information:

July 15, 2013 - Rock Island County PSAP (Lt. Hart, Brian Nelson)

July 15, 2013 - Rock Island City (Wayne Sharer, Brian Nelson)

July 16, 2013 - Moline/East Moline (Centre Station) (Nanette Anderson)

July 16, 2013 - Silvis (Chief Brasche, Ed Leibovitz, Lori Anderson)

July 14, 2013 – Rock Island Arsenal (Cheif. McMaster, Angie Scriven)

July 19, 2013 – Milan (Tammy Bedford, Chief Johnson, Steve Seiver)2

July 18, 2013 – Rock Island County EOC (Jerry Shirk)

July 18, 2013 – Airport

July 18, 2013 – Scott County Consolidated PSAP/EOC (Brian, David Donovan)

DRAFT

## 1. INTRODUCTION

This documents details RCC’s project team findings with regards to the six PSAPs and Rock Island County’s EOC facilities that were visited the week of July 14<sup>th</sup>. This document is the deliverable for Task 3 of the project which is:

### Task 3: Review current emergency operations at the six PSAP centers and two EOCs

#### To document the following:

- Management and organizational structure, including staffing levels and unions
- Operational services provided and policies and procedures

This information is provided in the subsequent sections of this report and the attached survey forms.

### 1.1 PROJECT TEAM AND SCHEDULE

RCC’s project team included Chris Monzingo, Clint Huggins, Mike Weins and Kevin Lombardo. The RCC project team was accompanied by Brian Nelson and/or Rich Schipper to each of the PSAP locations and the County’s EOC facility. Both, Brian and Rich work for the Emergency Telephone System Board (ETSB) as Technology Specialist. Brian and Rich both provided invaluable details on the technical setup and operation of each of the PSAPs visited.

The following table provides the names of people RCC’s project team spoke with at each of the PSAPs and EOC.

PSAP/EOC	Interview Participants
Rock Island County	Lieutenant Darren Hart, Brian Nelson
City of Rock Island (RICOMM)	Wayne Sharer, Brian Nelson
Centre Station	Nanette Anderson, Brian Nelson, Rich Schipper
Silvis	Chief Brasche, Ed Leibovitz, Lori Medina, Brian Nelson, Rich Schipper
Rock Island Arsenal	Chief McMaster, Angie Scriven, Brian Nelson
Village of Milan	Chief Johnson, Tammy Bedford, Steve Seiver, Brian Nelson,
Rock Island County EOC	Jerry Shirk, Brian Nelson

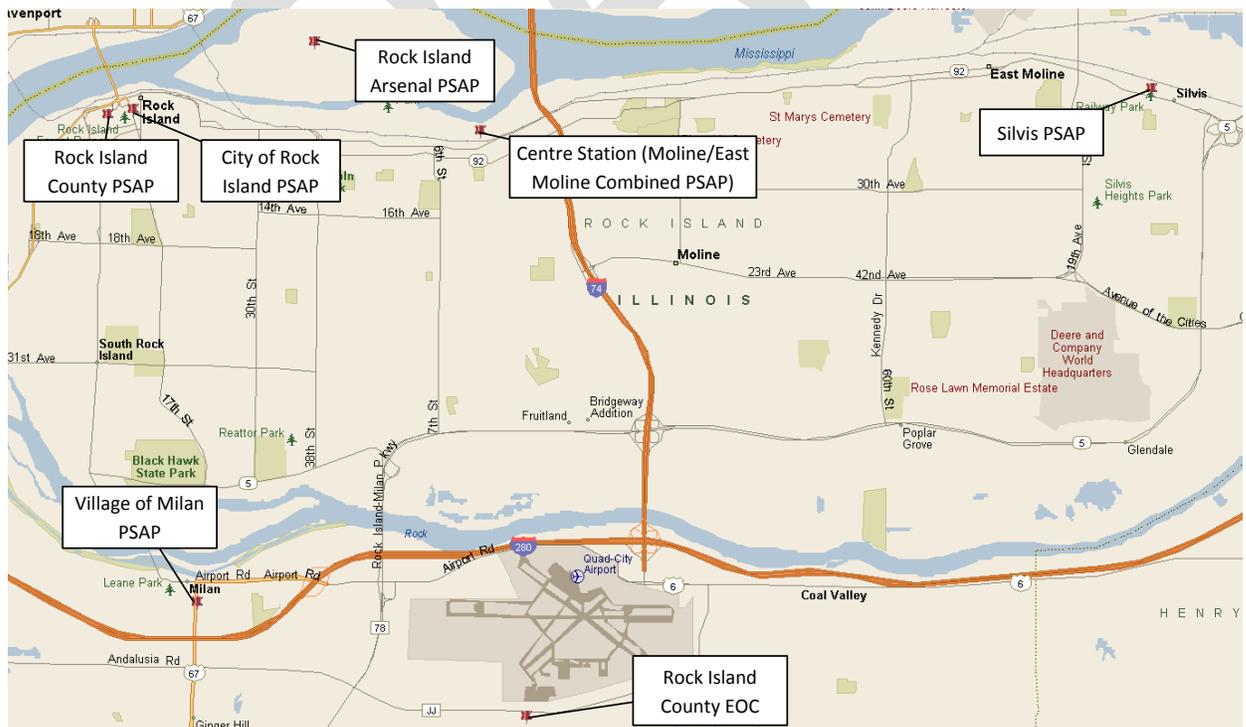
	DATE: July 15, 2013	DATE: July 16, 2013	DATE: July 17, 2013	DATE: July 18, 2013	DATE: July 19, 2013
TIME	Location	Location	Location	Location	Location
8:00-11:00	Rock Island Co. PSAP Visit	Moline/East Moline PSAP Visit	Rock Island Arsenal PSAP Visit	Rock Island Co. EOC Visit	Milan PSAP Visit
11:30 - 12:30	Lunch	Lunch	Lunch	Lunch	Lunch
1:00 - 4:00	Rock Island PD PSAP Visit	Silvis PSAP Visit	Kickoff Meeting	Scott Co. EOC Visit	OPEN

## 2. ROCK ISLAND COUNTY PSAPS AND EOC

Rock Island County is served by six PSAPs and one EOC they are Rock Island County, City of Rock Island (RICOMM), Centre Station (Moline/East Moline Combined Dispatch), Silvis, Rock Island Arsenal and the Village of Milan. The County’s Emergency Management Agency runs and operates an EOC; no other formal EOC is operated by other area agencies.

PSAP/EOC	Address
Rock Island County	1317 3 <sup>rd</sup> Ave. Rock Island, IL
City of Rock Island RICOMM	316 16 <sup>th</sup> St. Rock Island, IL
Centre Station	1200 River Dr. Moline, IL
Silvis	1040 1 <sup>st</sup> Ave. Silvis, IL
Rock Island Arsenal	Rodman Ave. Rock Island Arsenal
Village of Milan	405 1 <sup>st</sup> St. East Milan, IL
Rock Island County EOC	6120 78 <sup>th</sup> Ave. Milan, IL

Rock Island County PSAP and EOC Locations

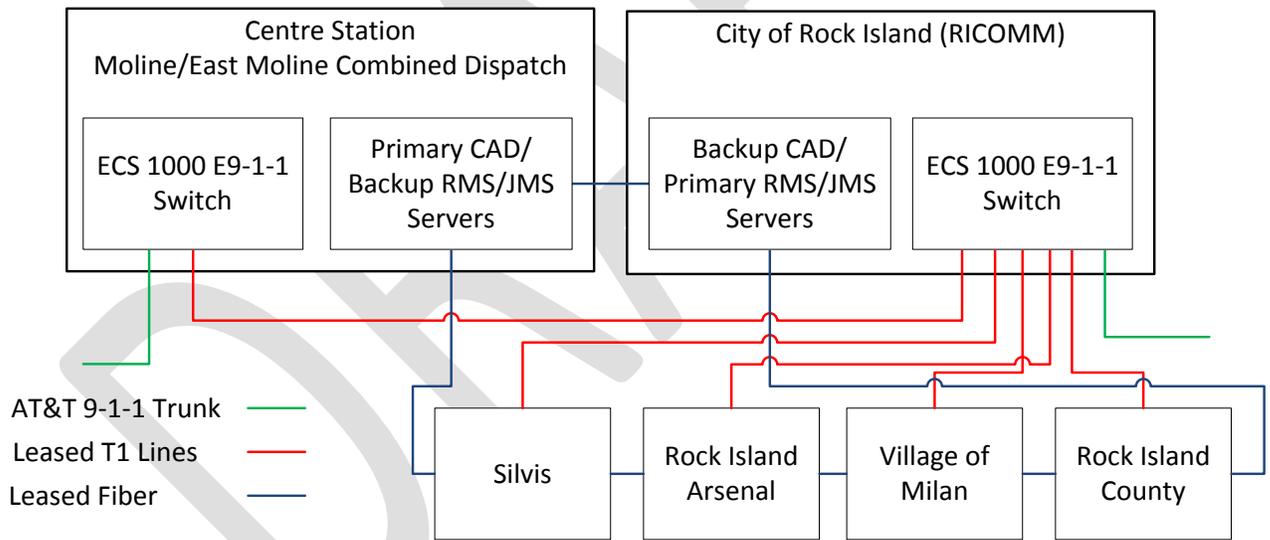


## 2.1 SYSTEM CONFIGURATION

All agencies are partially funded and maintained by the County Emergency Telephone System Board (ETSB). The ETSB manages and maintains the shared CAD, RMS/JMS system with the primary CAD server located at Centre Station and the backup server located at RICOMM, the primary RMS/JMS server is located at RICOMM with the backup server located at Centre Station. All locations are currently connected via leased fiber with the ETSB working to move the network to a private loop protected fiber network.

There are two ECS1000 9-1-1 switches that manages all calls with one being located at the RICOMM and the second is located at Centre Station. Each switch is connected to a dedicated AT&T 9-1-1 trunk line. The Two switches are connected together via a leased T1 line that allows each switch to back up the other in the event one was to fail. The RICOMM switch handles all calls to the RICOMM PSAP as well as calls to Silvis, Rock Island Arsenal, Village of Milan and Rock Island County. These PSAPS are connected to the ECS1000 via leased T1 connections.

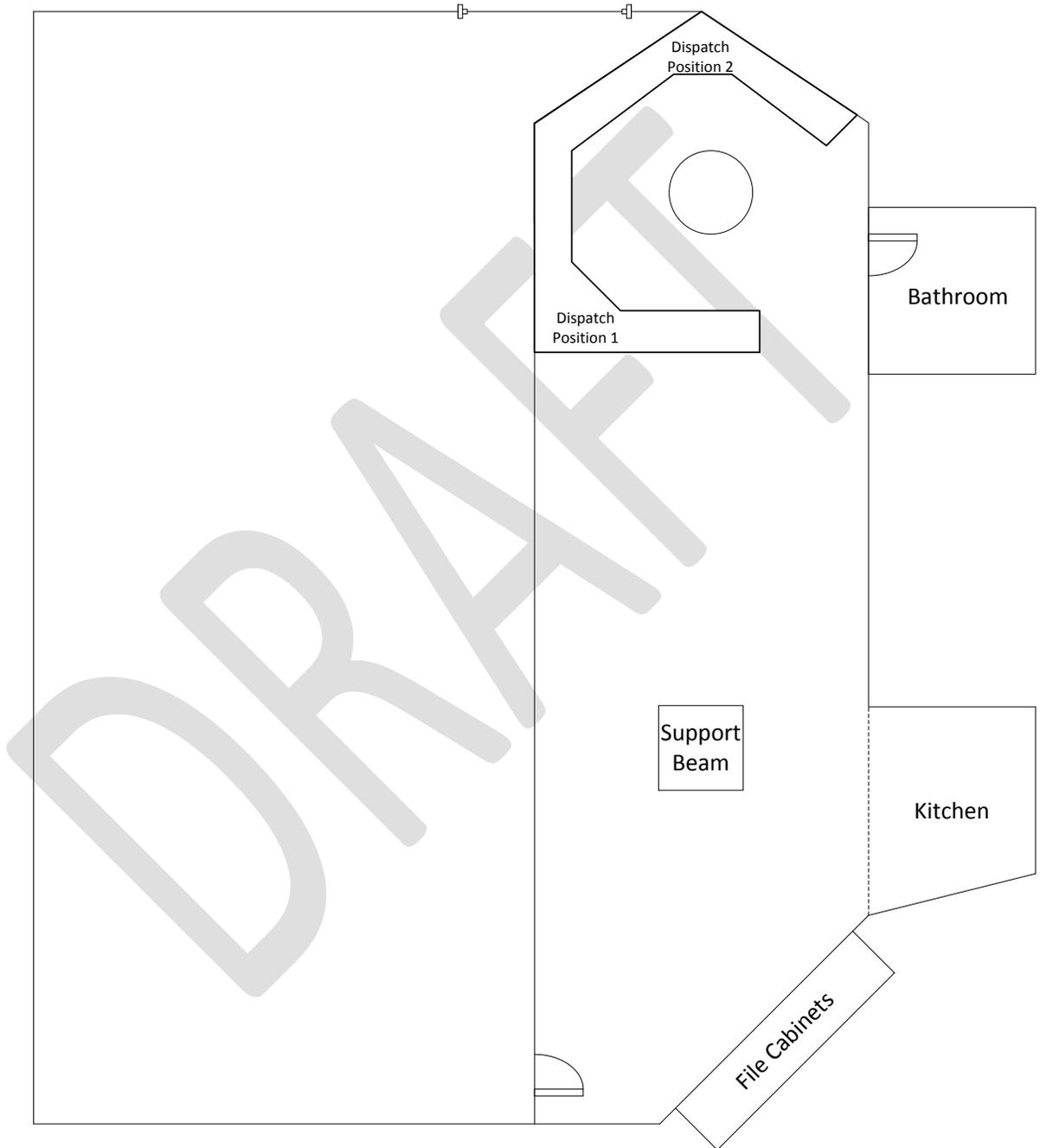
The Centre Station switch handles all calls for Moline and East Moline. Below is a high level diagram of how all systems are currently connected together.



System Configuration

### 3. ROCK ISLAND COUNTY PSAP

The Rock Island County PSAP is located on the ground floor of the County Jail facility. The PSAP is a small area which is a portion of a larger room that is partitioned off with a cubicle wall with two dispatch positions.



Rock Island County PSAP

**3.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

Rock Island County is authorized for nine full time positions seven of which are telecommunicators, two are supervisors. Dispatchers are unionized and are members of the AFSCME sworn officers are unionized and are members of the FOP. Full staffing is two dispatchers per shift and the minimum staffing is one dispatcher per shift.



Rock Island County PSAP Org. Chart

**3.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

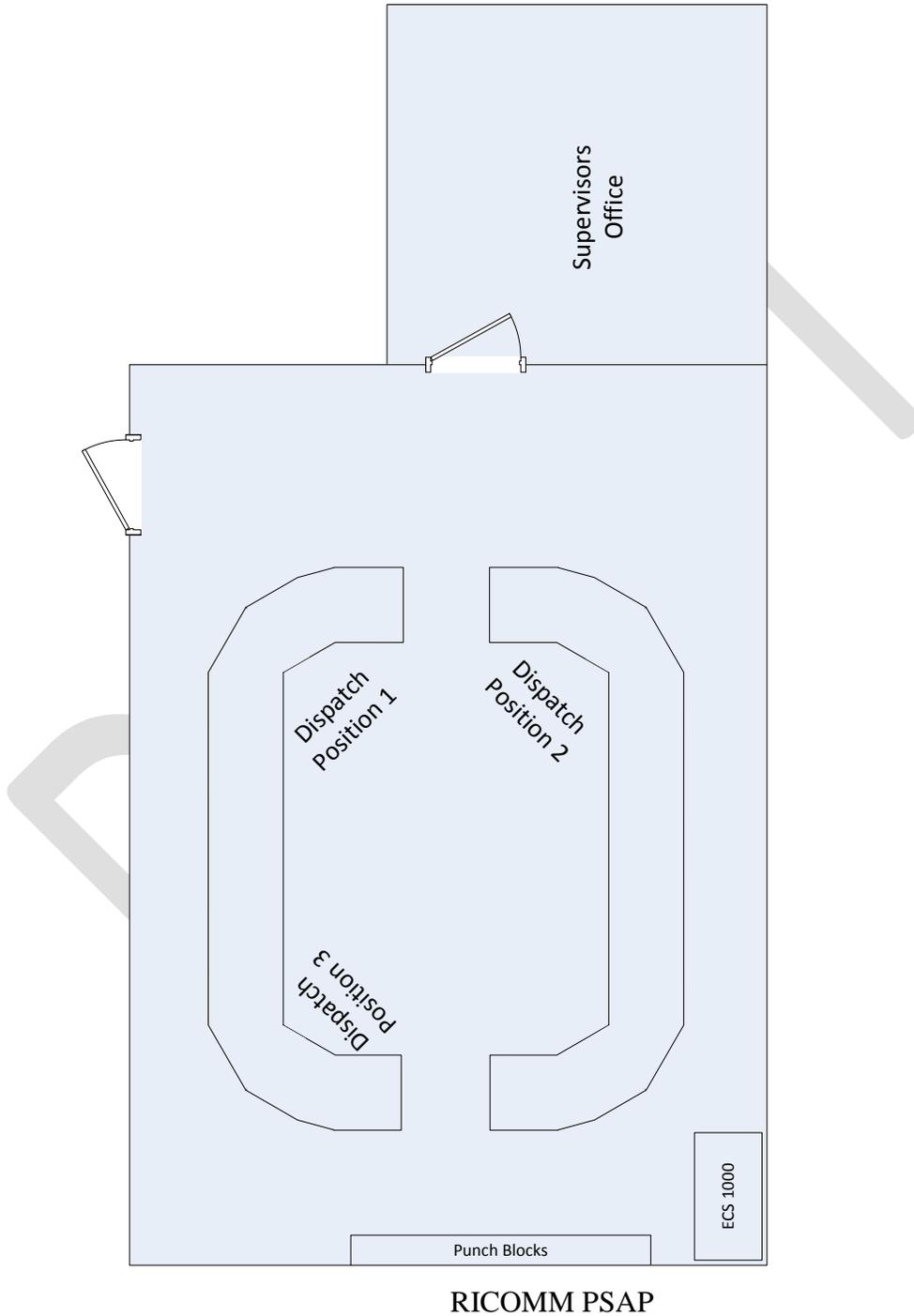
The Rock Island County PSAP is the primary dispatch for the Sheriff’s Office. They also dispatch multiple other County agencies along with other ancillary duties. The tables below give the agencies dispatched and some of the ancillary duties performed by the County Dispatchers.

<b>Agencies Dispatched by Rock Island County</b>
Cordova FD
Port Byron FD
Hillsdale FD
Hillsdale PD
Coal Valley FD
Coal Valley PD
Coyne Center Fire/ Amb.
Reynolds FD
Andalusia Fire/ Amb.
Illinois City FD
Buffalo Prairie FD
Quad City International Airport PD

<b>Ancillary Duties</b>	<b>Time Spent Per Day</b>
Warrant entry to include cancelations, sending hit responses and filing	6 hrs.
Order of Protection entry to including cancelations, modifications and filing	1.5 hrs
ISP Racial Profiling entry	0.5 hrs.
CCH Inquiries for Adult Probation	0.5 hrs.
Validate LEADS Records	2 hrs.
Update RMS/ Address/ Decease Subjects	0.5 hrs.
Answer NARS Phone (Nuclear Plant)	0.25 hrs.
Answer Airport Phone	0.25 hrs.
CAD PSAP Maintenance	0.25 hrs.
Update "Outlaw TV" 10-99 list	0.25 hrs.
Fire Dept. "Test Pages"	0.25 hrs.
Answer Administrative Calls	24/7

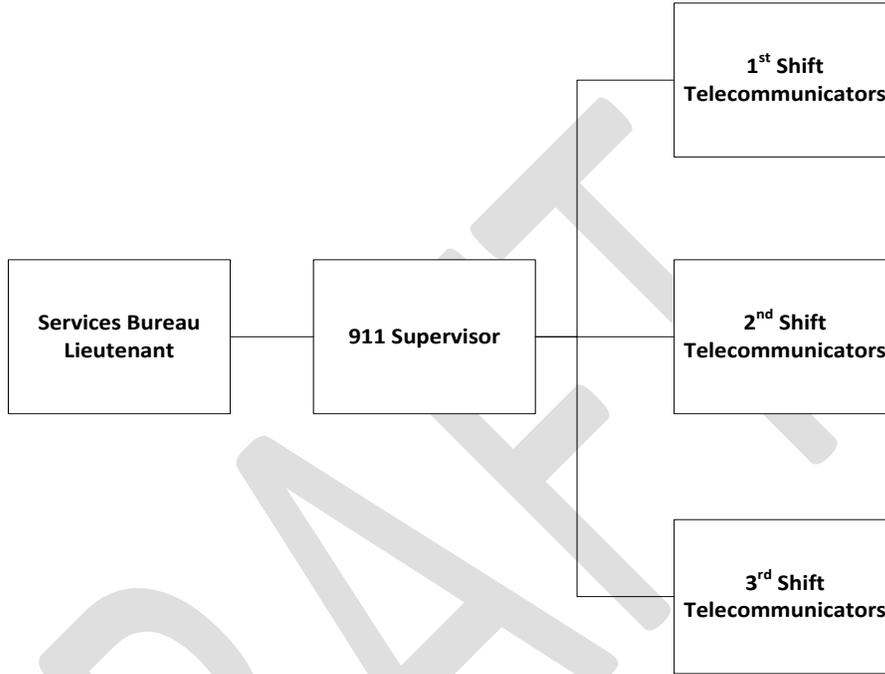
#### 4. RICOMM (CITY OF ROCK ISLAND PSAP)

The City of Rock Island PSAP (RICOMM) is located on the second floor of the Police Station. The PSAP is an adequately sized dedicated room with four positions. Currently only three positions are setup for call taking/dispatching. The City is currently planning the construction of a new Police Department which will also house a new dispatch facility.



**4.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

RICOMM is authorized for thirteen full time positions twelve of which are telecommunicators and one supervisor. Telecommunicators are unionized and are members of the AFSCME the supervisor position is non-union. Full staffing is four dispatchers per shift and the minimum staffing is two dispatchers per shift.



RICOMM PSAP Org. Chart

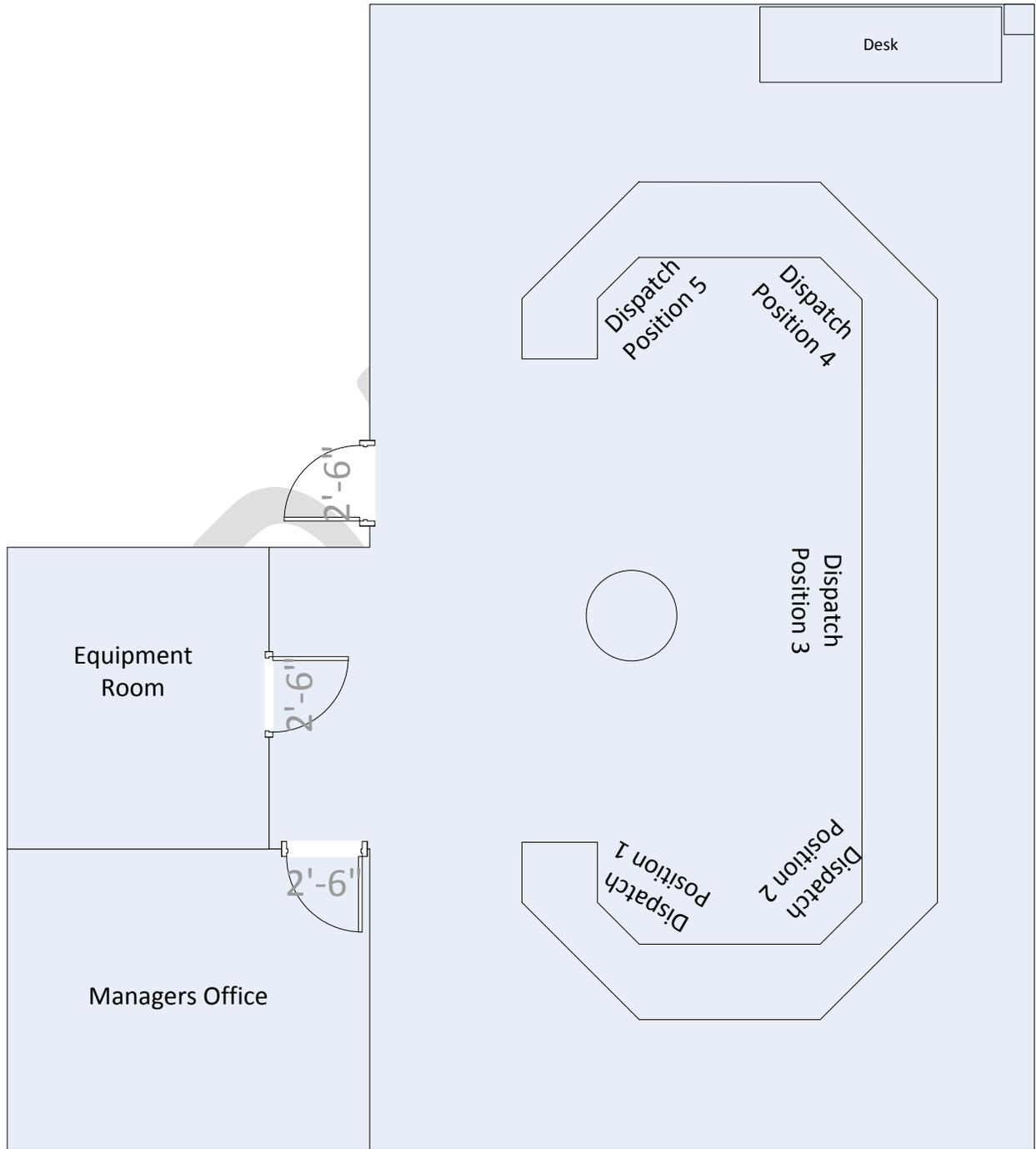
**4.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

RICOMM is the primary dispatch for the City of Rock Island Police and City of Rock Island Fire/EMS. RICOMM does not dispatch any other agencies. Dispatchers do some data entry such as traffic tickets and racial profiling mainly on 3<sup>rd</sup> shift. .

Ancillary Duties	Time Spent Per Day
Data entry at console	1 hr.
Answer Administrative Calls	We have internal admin lines answered 24/7 but we do not take outside admin calls

## 5. CENTRE STATION (MOLINE/EAST MOLINE PSAP)

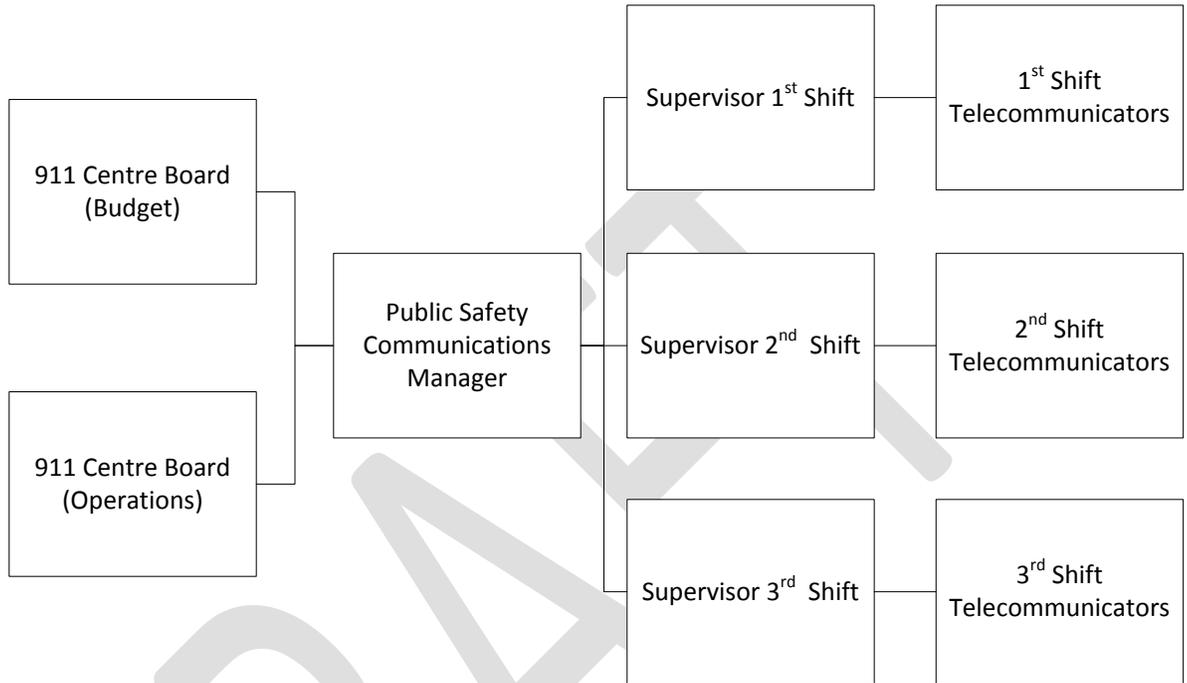
Centre Station is the main hub for the local bus system. The PSAP facility is on the first floor and is located adjacent to a major rail line. The PSAP is an adequately sized dedicated room with five positions. The positions include one law for Moline, one law for East Moline, one Fire/EMS combined, one call taker and one training position.



Centre Station PSAP

**5.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

Centre Station is authorized for twenty full time positions sixteen of which are telecommunicators, three supervisors and one PSAP manager. Telecommunicators and supervisors are unionized and are members of the AFSCME union. The manager position is non-union. Full staffing is four dispatchers per shift and the minimum staffing is three dispatchers per shift.



Centre Station PSAP Org. Chart

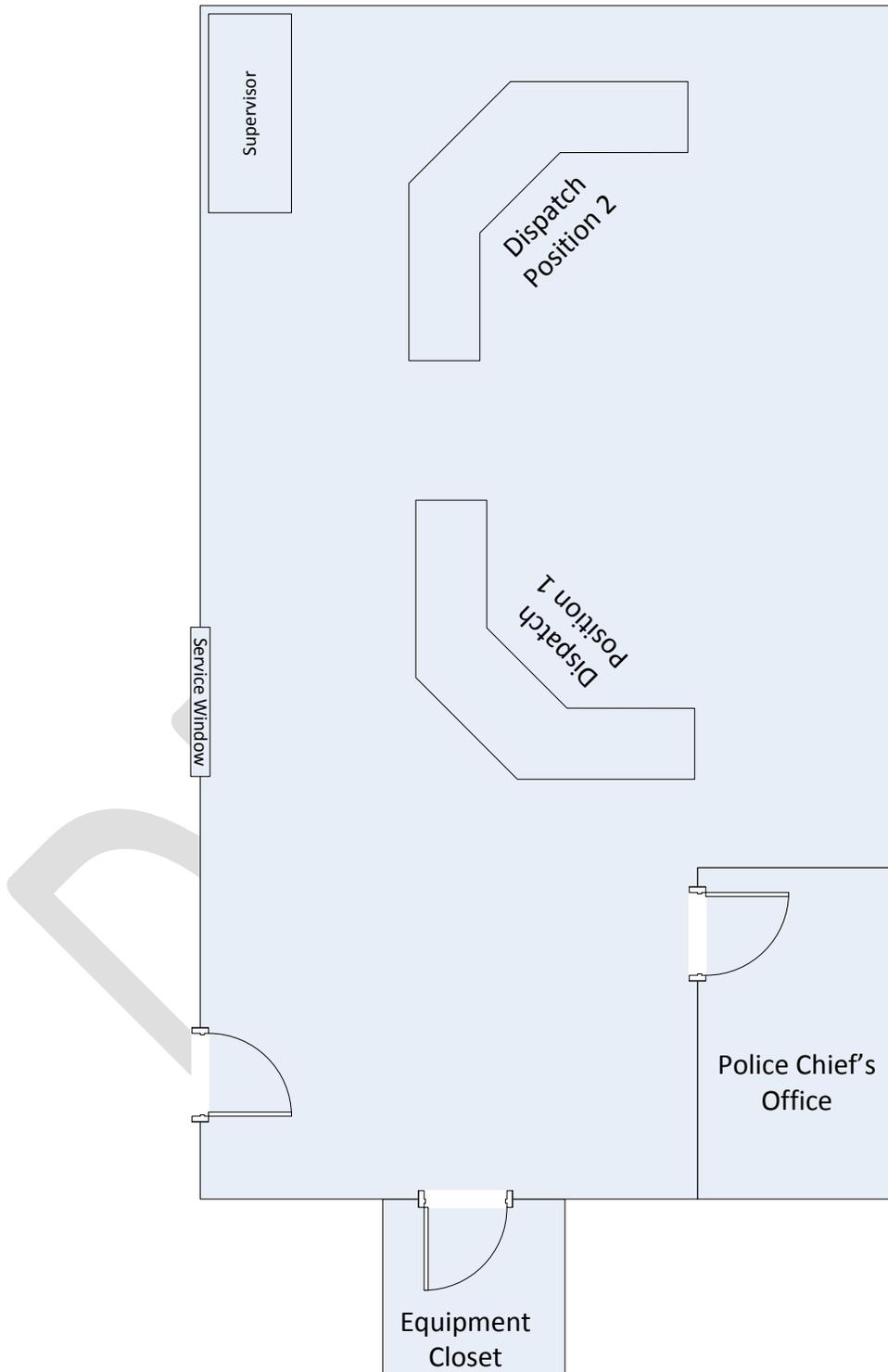
**5.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

The Centre Station PSAP is the primary dispatch for the Moline Police and Fire Departments, East Moline Police and Fire Departments and the East Moline EMS through a secondary PSAP MedCom. Centre Station does not dispatch any other agencies. The table below gives some of the ancillary duties performed by the Centre Station Dispatchers.

Ancillary Duties	Time Spent Per Day
CAD File Maintenance	3 hrs.
Radio LID Updates	1 hr.
QA CAD Checks	3 hrs.
Answer Administrative Calls	24/7

## 6. SILVIS PSAP

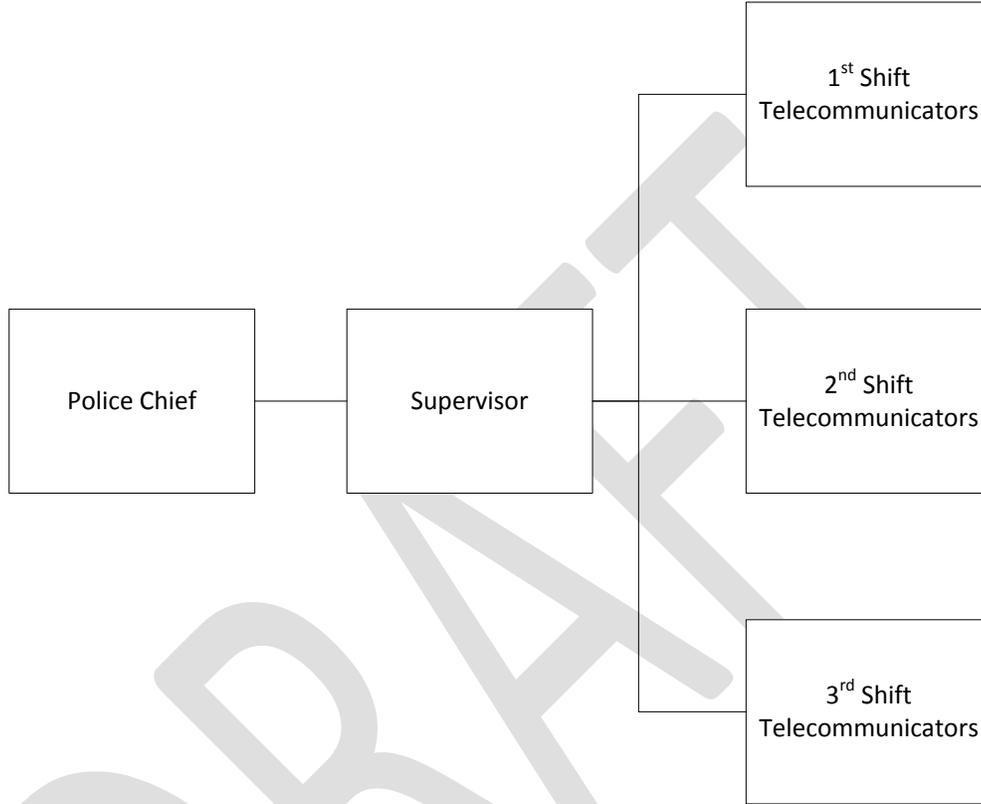
The Silvis PSAP is located on the ground floor of the local Police station. The PSAP is a small area at the entrance of the building with two dispatch positions.



Silvis PASP

**6.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

Silvis is authorized for six full time positions five of which are telecommunicators and one supervisor. Telecommunicators and the supervisor position are unionized and are members of the AFSCME sworn officers are unionized and are members of the FOP. Full staffing is one dispatcher per shift with the supervisor working the first shift as well.



Silvis PSAP Org. Chart

**6.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

The Silvis PSAP is the primary dispatch for Silvis Police and Fire Departments. They also dispatch several other smaller local agencies along with other ancillary duties. The tables below give the agencies dispatched and some of the ancillary duties performed by the Silvis Dispatchers.

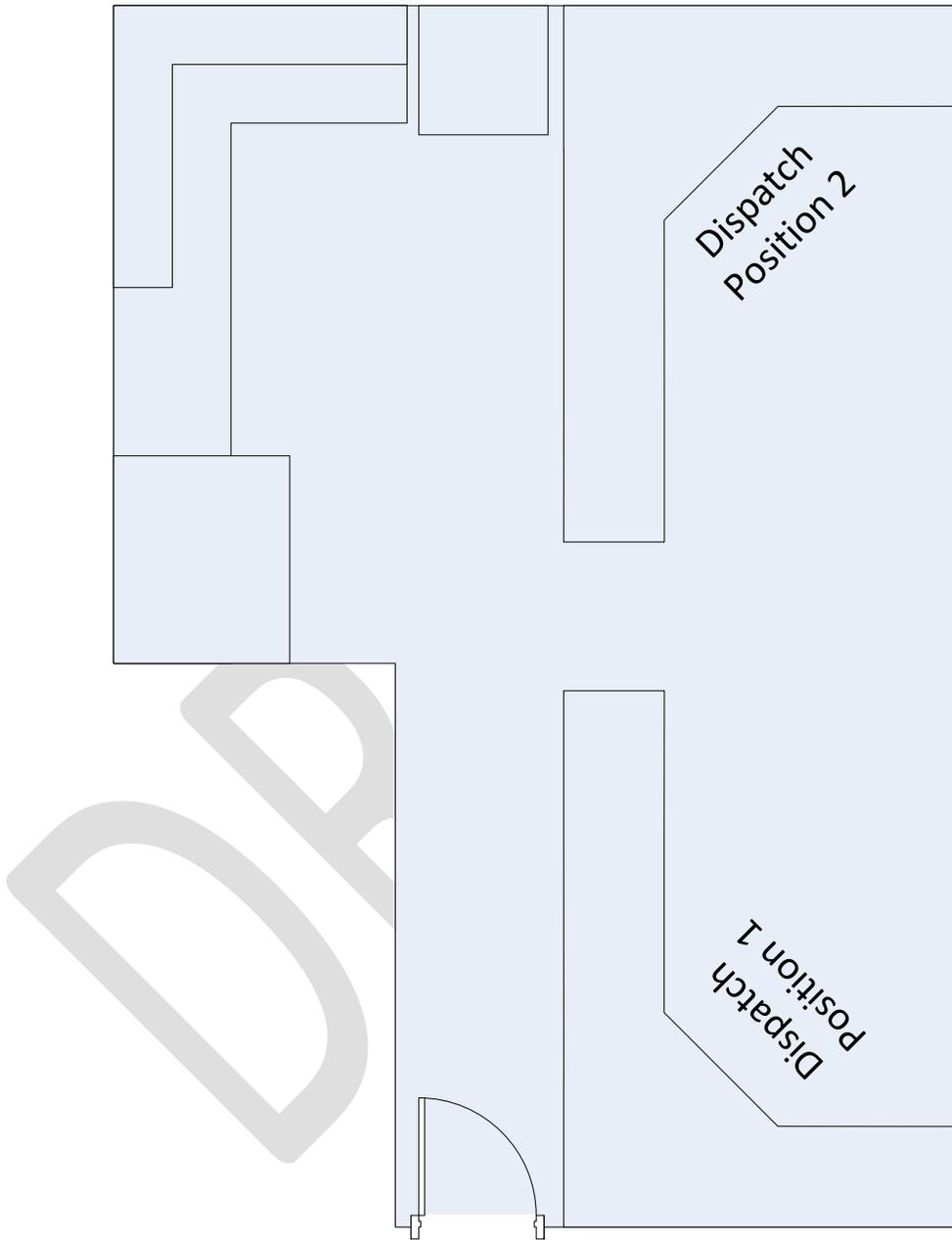
<b>Agencies Dispatched by Silvis</b>
Hampton Police
Hampton Fire
Carbon Cliff – Barstow Fire District

<b>Ancillary Duties</b>	<b>Time Spent Per Day</b>
Greet public at station entry	Not Given
Accept payments for fines and fees	Not Given
Process/file records	Not Given
Answer Administrative Calls	24/7

DRAFT

## 7. ROCK ISLAND ARSENAL PSAP

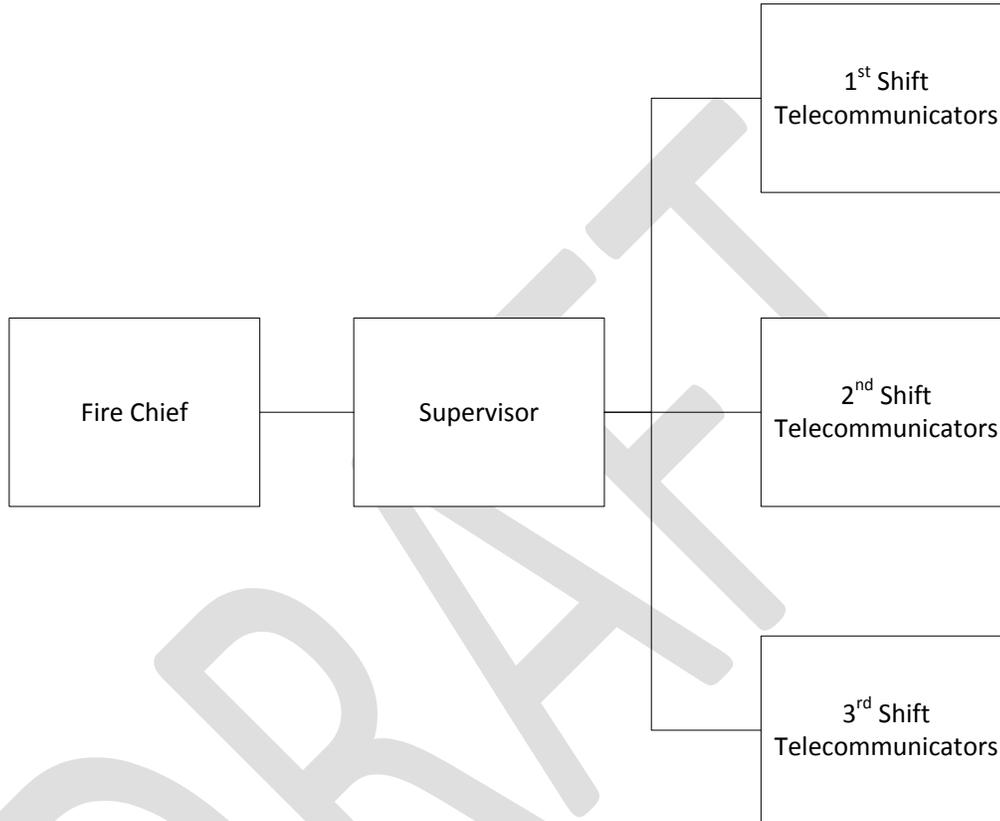
The Rock Island Arsenal PSAP is located on the ground floor at the local Fire Station. The PSAP is a small area with two dispatch positions.



Rock Island Arsenal PSAP

**7.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

Rock Island Arsenal is authorized for eleven full time positions ten of which are telecommunicators and one supervisor. Telecommunicators are unionized and are members of the AFGE the supervisor position is a non-union position. Full staffing would be two telecommunicationrs per shift with a minimum staffing of one.



Rock Island Arsenal PSAP Org. Chart

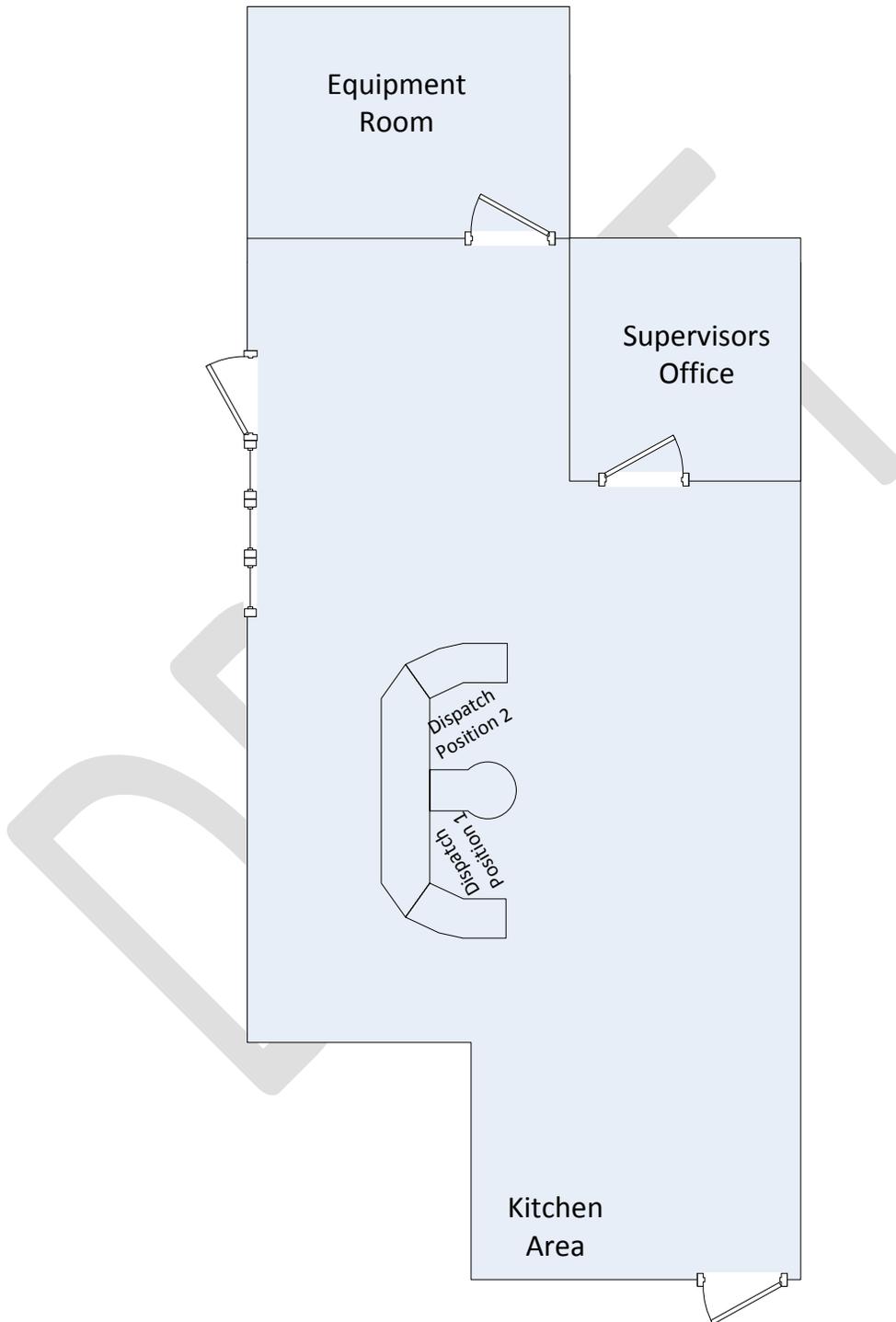
**7.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

The Rock Island Arsenal PSAP is the primary dispatch for the Rock Island Arsenal Fire, Police and Ambulance Services. They do not dispatch any other agencies. The table below gives some of the ancillary duties performed by the Arsenal Dispatchers.

Ancillary Duties	Time Spent Per Day
Greet public / walk ins	1 hr
Monitor alarms for fire and entry alarm systems	24/7
Answer Administrative Calls	24/7

## 8. VILLAGE OF MILAN PSAP

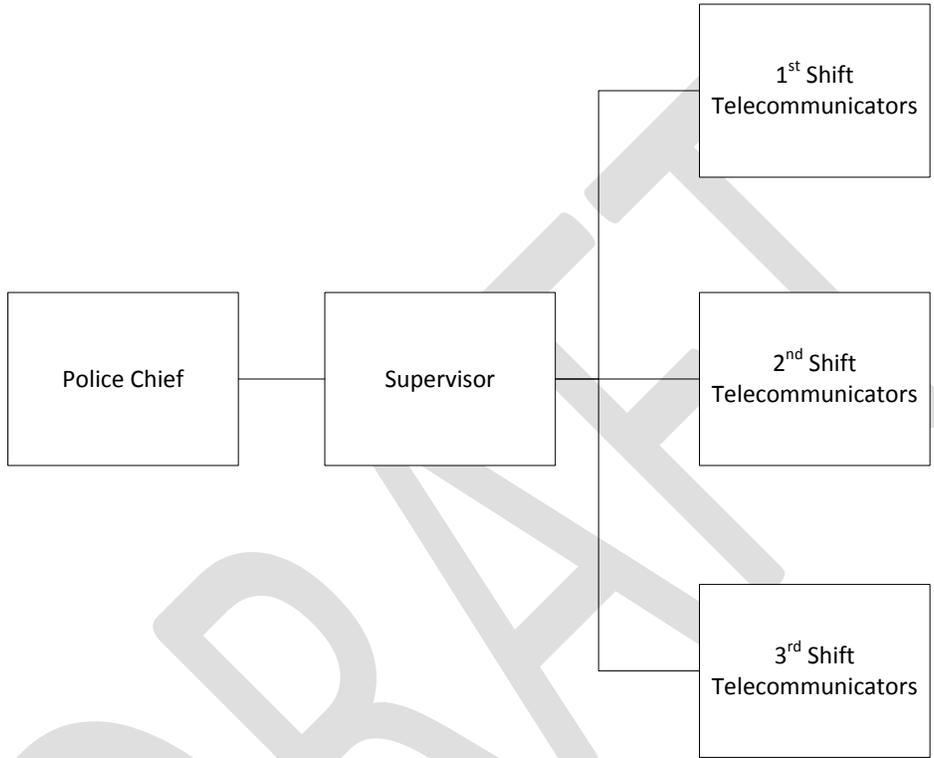
The Village of Milan PSAP is located on the second floor of the Police Station/Village Administration Building. The PSAP is an adequately sized dedicated room with two positions and is capable of expanding to four.



Village of Milan PSAP

**8.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

The Village of Milan is authorized for five full time positions four of which are telecommunicators and one supervisor. Telecommunicators and the supervisor position are unionized and are members of the AFSCME sworn officers are unionized and are members of the FOP. Full staffing is one dispatcher per shift with the supervisor working the first shift as well.



Village of Milan PSAP Org. Chart

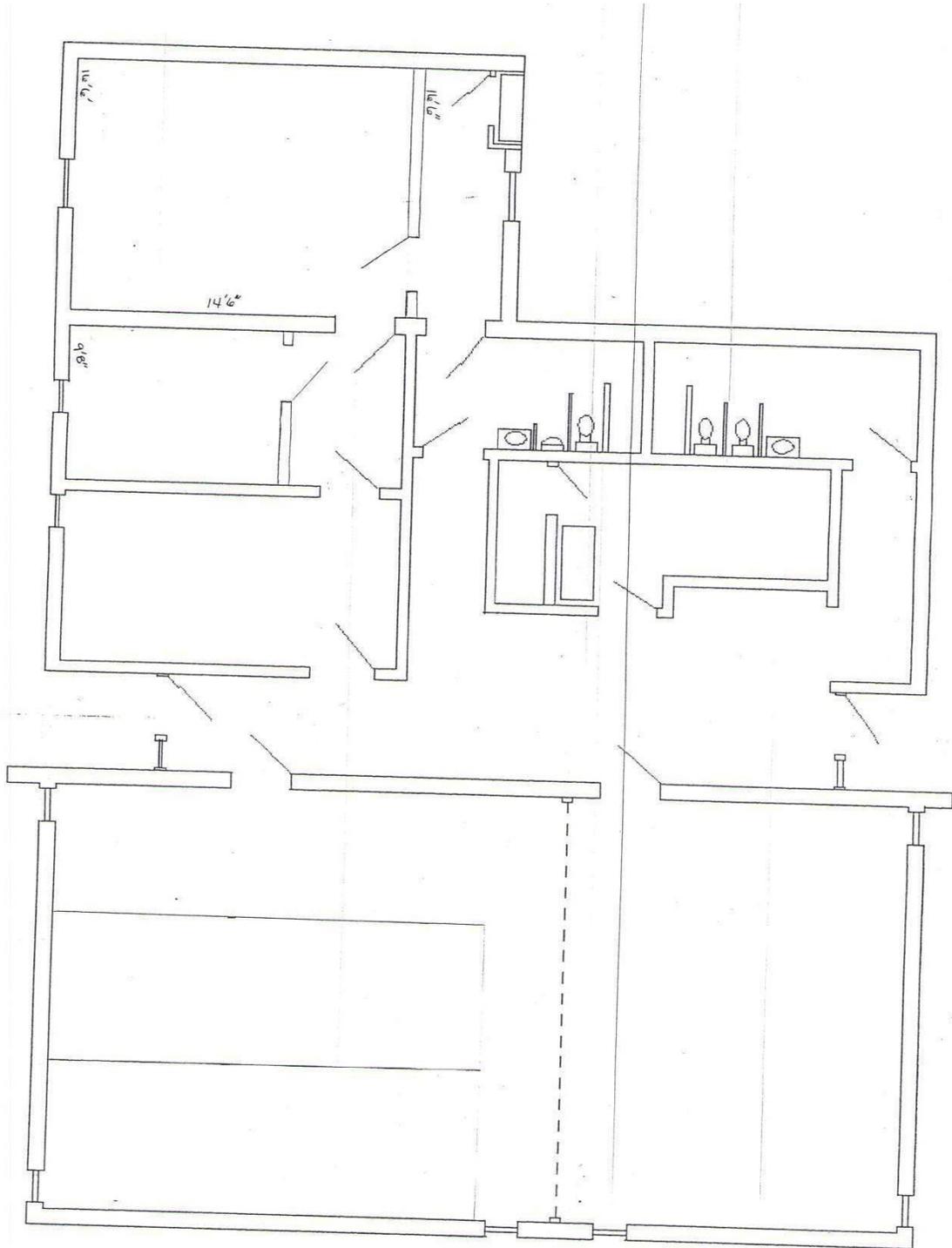
**8.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

The Village of Milan PSAP is the primary dispatch for the Milan Police and Blackhawk Fire Departments. They do not dispatch any other agencies. The table below gives some of the ancillary duties performed by the Milan Dispatchers

Ancillary Duties	Time Spent Per Day
Duties vary based on shift see Milan’s attached survey for detail information	N/A.
Answer Administrative Calls	24/7

## 9. ROCK ISLAND COUNTY EOC

The Rock Island County EOC is a dedicated building located on the south side of the airport near the Indian Bluff Golf Course. There are two small self-supporting towers located on the property.



Rock Island County EOC

## **9.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE**

The Rock Island County EOC is authorized for one full time position which is Deputy Director Jerry Shirk. The EOC staffing is 30 hours per week with an approximate \$100k annual operating budget. The EOC also typically receives donations from the Exelon Power Plant to fund repair and upgrade projects not covered in the County's operating budget.

## **9.2 OPERATIONAL SERVICES PROVIDED AND POLICIES AND PROCEDURES**

The Rock Island County EOC typically is activated one to two times per year primarily for County/State activities, Exelon power plant events. The EOC is the primary conduit to order additional resources from State and Federal agencies if needed.

The EOC has radio communications on all frequency bands along with radios on the Raytheon 800MHz trunked radio network and StarCom the Illinois state wide radio network. However, they do not have connectivity to the CAD/RMS system as all other PSAPS do.

The EOC has a major full scale exercise every two years involving FEMA and has smaller multi-agency exercises yearly. With the greatest threat to the area outside of weather events being the Exelon Nuclear Power Plant facility which is located in the northern part of the County.

**APPENDIX A: COMPLETED SURVEY FORMS**  
**ROCK ISLAND COUNTY**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



*RCC CONSULTANTS, INC.*

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

*Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.*

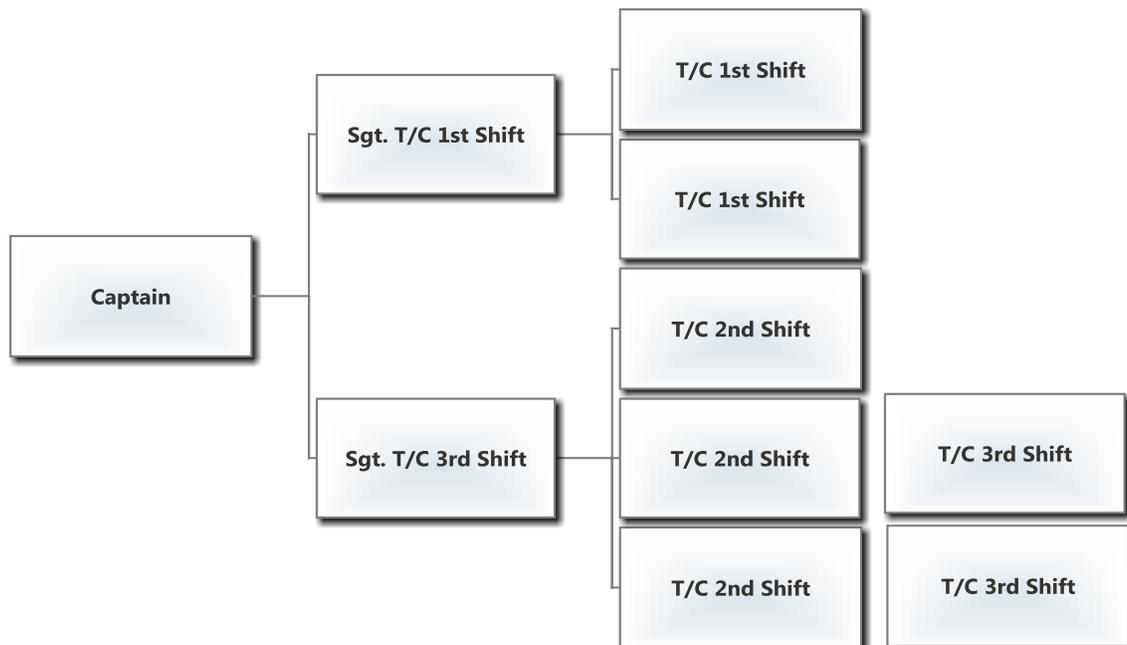
## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	Rock Island County Sheriff's Office
Responsible Agency:	Rock Island County Sheriff's Office
Date:	07/22/2013
Your Name:	Darren Hart
Rank/Title:	Lieutenant
Phone:	309-558-3429
Email:	dhart@ricosheriff.org

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center.



## PSAP/Communications Center Survey

List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Rock Island County Sheriff's Office
B.
C.
D.
E.
F.
G.
H.
I.
J.
K.

### 2. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
A. Cordova FD	Marginal	\$1,700.00
B. Port Byron FD	Marginal	\$1,700.00
C. Hillsdale FD	Marginal	\$1,700.00
D. Hillsdale PD	Marginal	\$1,137.00
E. Coal Valley FD	Marginal	\$1,700.00
F. Coal Valley PD	15%	\$11,000.00
G. Coyne Center Fire/ Amb.	Marginal	\$1,700.00
H. Reynolds FD	Marginal	\$1,700.00
I. Andalusia Fire/ Amb.	Marginal	\$1,700.00
J. Illinois City FD	Marginal	\$1,700.00
K. Buffalo Prairie FD	Marginal	\$1,700.00
L. Quad City International Airport PD	Marginal	\$1,700.00

## PSAP/Communications Center Survey

### Staffing:

3. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:	9
Full Time Telecommunicators (Call Takers and Dispatchers)	7
Part Time Telecommunicators	0
Full Time Supervisors	2
Part Time Supervisors	0
Technicians	2- (ETSB I.T.)
B. Current Total PSAP Personnel:	9
Full Time Telecommunicators	7
Part Time Telecommunicators	0
Full Time Supervisors	2
Part Time Supervisors	0
Technicians	2- (ETSB I.T.)
C. Current No. Entry Level Telecommunicators (In Training):	0
D. Current No. Entry Level Telecommunicators (Not Training):	2
E. Current No. Advanced/Second Level Telecommunicators:	7
F. Are Telecommunicators Unionized (Y/N)?	Y
G. Are Telecommunicators Sworn (Y/N)?	N
H. Are Supervisors Unionized (Y/N)?	Y
I. Are Supervisors Sworn (Y/N)?	N
J. Are Supervisors Working Supervisors?	Y
K. Are Sworn Personnel Used to Augment Staff (Y/N)?	N
L. Current PSAP Training Staff (hours/day)	0
M. Is Training Staff Dedicated Solely To Training (Y/N)?	N/A
N. PSAP Administrative Staff (hours/day)	N/A
O. Telecommunicator Turnover Rate (%)	10%
P. Population Served	26787
Q. Total PSAP Annual Budget	\$640,450 (FY13)

## PSAP/Communications Center Survey

4. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary	\$47,544.00	\$61,988.00
Telecommunicator Benefits Percentage	\$68,000.00	\$74,000.00
B. Supervisor Annual Salary	\$67,641.00	\$70,428.00
Supervisor Benefits Percentage	\$86,216.48	\$89,577.00
C. Sworn Officer Annual Salary	N/A	N/A
Sworn Officer Benefits Percentage	N/A	
D. Communications Manager Annual Salary	N/A	
Com Manager Benefits Percentage	N/A	
E. IT/Technician Annual Salary	\$75,000.00 (ETSB I.T.)	\$75,000.00 (ETSB I.T.)
Com Technician Benefits Percentage	N/A	
F. Annual Telecommunicator Salary Cost (WO Benefits)	\$48,272.64-\$61,988.08	
G. Annual Supervisor Salary Cost (WO Benefits)	\$65,811-\$69,056	
H. Annual IT/Technician Salary Cost (WO Benefits)	\$75,000.00	

5. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours/day)	13 hrs.
B. Radio Technical Support (hours/day)	.5 hrs.
C. 9-1-1 CPE Technical Support (hours/day)	N/A
D. Data Network Technical Support (hours/day)	13 hrs.
E. Other: Ref: A	13 hrs.
F. Other:	
G. Other:	

6. **Telecommunicator** Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	84 (av.)

## PSAP/Communications Center Survey

C. Annual hours taken for vacation time (Avg)	96
D. Annual hours taken for sick leave (Avg)	66
E. Annual hours for training (Avg)	12
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	0
H. Annual overtime hours worked (Avg)	Total budget \$300
<b>Total Annual Telecommunicator Hours Available</b>	<b>1822</b>

### 7. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	112
C. Annual hours taken for vacation time (Avg)	180
D. Annual hours taken for sick leave (Avg)	97
E. Annual hours for training (Avg)	12
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	0
H. Annual hours for Compensatory Time (Avg)	N/A
I. Annual overtime hours worked (Avg)	Total budget \$300
<b>Total Annual Supervisor Hours Available</b>	<b>1679</b>

### 8. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	12271	13188	13602	13869
B. 9-1-1 Wireless Calls Received	N/A	N/A	N/A	N/A
C. Incoming Admin Calls	21950	19922	17850	16689
D. Outgoing Admin Calls	4557	4823	5561	5276
E. TDD Calls	?	?	?	?
F. 9-1-1 Calls Transferred In (not counted above)	N/A	N/A	N/A	N/A
G. NCIC Queries (from PSAP)	?	?	?	35516

## PSAP/Communications Center Survey

Total Annual Traffic	2009	2010	2011	2012
H. Police Calls Dispatched	51197*	39031	43998	44605
I. Fire Calls Dispatched	1410	1522	1498	1570
J. EMS Calls Dispatched	943	1006	963	946

K. Average 9-1-1 Call Duration	1:10 sec. (average)
L. Average Admin Call Duration	1:10 sec. (average)
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	8 minutes
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	Unknown
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	Unknown
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	20 sec.
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	No policy, answer as quickly as possible
R. Admin Call pickup policy (allowed to ring for how long?)	No policy, answer as quickly as possible

9. Busy-Hour Call Activity. (No distinction between normal or busy for PSAP)

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received				
B. 9-1-1 Wireless Calls Received				
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls				
F. 9-1-1 Calls Transferred (not counted above)				
G. NCIC Queries (from PSAP)				
H. Police Calls Dispatched				
I. Fire Calls Dispatched				
J. EMS Calls Dispatched				

## PSAP/Communications Center Survey

10. Identify events or seasonal fluctuations that result in predictable call volume changes. (Add sheets as necessary.)

<u>Date Range</u>	<u>Event</u>
Winter Months	Snow/ Ice events regionally creating increased accident rpts.
Spring Months	Flooding/ Home Evacuations along Rivers (Mississippi/Rock Rivers)
Summer	Holiday Weekends, Local Festivals
Misc.	Special Details (i.e. Warrant Sweep, Sex Offender Validations, etc.)

11. Telecommunicator Responsibilities.

A. List Ancillary Duties Performed by Telecommunicators (greet public, process/file records, matron, etc.)	Total Hours per day ( <i>if two telecommunicators file records for 1 hour, enter 2 hours</i> )
Warrant entry to include cancelations, sending hit responses and filing	6 hrs./day
Order of Protection entry to including cancellations, modifications and filing	1.5 hrs./ day
ISP Racial Profiling entry	.5 hrs./ day
CCH Inquiries for Adult Probation	.5 hrs./ day
Validate LEADS Records	2 hrs./ day
Update RMS/ Address/ Decease Subjects	.5 hrs./ day
Answer NARS Phone (Nuclear Plant)	.25 hrs./ day
Answer Airport Phone	.25 hrs./ day
CAD PSAP Maintenance	.25 hrs./ day
Update "Outlaw TV" 10-99 list	.25 hrs./ day
Fire Dept. "Test Pages"	.25 hrs./ day
B. When do Telecommunicators Answer Administrative Calls (i.e., 24/7, after business hours, etc.)	24/7

## PSAP/Communications Center Survey

### 12. Current Daily Staffing.

<b><u>AVERAGE DAY</u></b>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers	N/A	N/A	N/A
B. Number of Dispatchers	N/A	N/A	N/A
C. Number of Call Taker/Dispatchers Combo	1	1	1
D. Number of Supervisors	1	N/A	1
E. Sworn Personnel (hours/shift)	N/A	N/A	N/A
F. PSAP Management (hours/shift)	8A-4P	N/A	N/A
G. Telecommunicator Overtime (hours/shift)	Budget is \$500 for FY2013-12	N/A	N/A
H. Supervisor Overtime (hours/shift)	N/A	N/A	N/A
I. Shift Hours (0700-1500, 1500-2300, etc.)			
J. Number of "Average Days" per Week	4		

<b><u>BUSY DAY</u></b>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers	N/A	N/A	N/A
L. Number of Dispatchers	N/A	N/A	N/A
M. Number of Call Taker/Dispatchers Combo	1	1	1
N. Number of Supervisors	1	N/A	1
O. Sworn Personnel (hours/shift)	None	None	None
P. PSAP Management (hours/shift)	8A-4P	N/A	N/A
Q. Telecommunicator Overtime (hours/shift)	Budget is \$500 for FY2012-13	N/A	N/A
R. Supervisor Overtime (hours/shift)	N/A	N/A	N/A
S. Number of "Busy Days" per Week	3		

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 13. Basic Training Course Use

	<b>X</b>
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	X
D. Course Developed In-House	
E. Basic Course includes EMD?	X Powerphone
F. Basic Course Length (Hours)	6 months w/ CTO
G. NCIC Certification	Yes- LEADS

#### 14. Other Training Programs

	<b>X Mandatory</b>	<b>X Optional</b>
A. Basic Local Police Academy		
B. Local Firefighting School		
C. Local EMT/Paramedic School		
D. Basic Course Refresher		
APCO Courses		
E. Telecommunicator I		
F. Telecommunicator Instructor		
G. Communications Center Supervisor		
H. Communications Center Training Officer		
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts		
L. Fire Communications		
M. Liability Issues		
N. PSAP Personnel Management		
O. Instructional Design for Trainers		

## PSAP/Communications Center Survey

	<b>X Mandatory</b>	<b>X Optional</b>
P. NENA Courses		
Q. ENP Certification		
R. Leadership in 9-1-1 Centers		
S. Introduction to PSAP Technology		
T. Managing the 9-1-1 Center		
U. Disaster Planning for 9-1-1 Centers		
V. Liability issues in 9-1-1 Centers		
W. Introduction to VoIP for PSAPs		
Others (list below)		

15. Please identify any known issues with current systems or dispatching policies.  
(Add sheets as required.)

Current policies are undergoing a complete revision. No timeline is available on when this project will be completed. Version currently was last updated in 1999.

## PSAP/Communications Center Survey

### Facilities & Equipment

#### 16. Workstation Quantities.

	<b>Quant</b>
A. Call Taker positions	0
B. TDD Workstations	0
C. Police Dispatcher positions	0
D. Fire Dispatcher positions	0
E. EMS Dispatcher positions	0
F. Combined Dispatcher positions (PD/FD/EMS)	2
G. Call Taker/Dispatcher Combo positions	2
H. Call Taker/Dispatcher Training Positions	0
I. Supervisor positions	No
J. Teletype positions	No
K. Administrator Workstations	1
L. Backup (off-site) Call Taker Positions	No
M. Backup (off-site) Dispatcher Positions	No
N. Mobile Command Call Taker Positions	No
O. Mobile Command Dispatcher Positions	2 (UCP)
Others (list below)	
UCP: Unified Command Post Vehicle	

#### 17. Telephone Information.

	<b>Quantity</b>
A. Wireline 9-1-1 Trunk Lines	4
B. Wireless 9-1-1 Trunk Lines	N/A
C. Non-Emergency (Admin) Trunk Lines	4
D. Ring-Down Lines	4
E. Direct Connect Alarms	None

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	
1- Quad City International Airport	
1- Quad Cities Nuclear Station (Exelon)	

G. Is this location a Primary PSAP or Secondary PSAP	Primary
H. E9-1-1 is Phase II (Y/N)?	Yes
I. 9-1-1 CPE Manufacturer	Cassidian Comm.
J. 9-1-1 CPE Model	ESC1000
K. 9-1-1 CPE Implementation Date	1999
L. 9-1-1 CPE Owner or Leased	Owner
M. Annual Maint. Contract Cost (\$)	(See Centre Station Info.)
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	No
O. 9-1-1 Call Status Display in Use (Y/N)?	No
P. Reverse 9-1-1 Manufacturer	Everbridge
Q. Reverse 9-1-1 Model	N/A
R. Reverse 9-1-1 Trunks Dedicated	N/A
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	No
T. 3-1-1 System Manufacturer	
U. 3-1-1 System Model	
V. EMD System Used	Yes, Powerphone
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.
Tie Line T1	1- RIPD

## PSAP/Communications Center Survey


### 18. Systems.

A. CAD System Manufacturer	Sungard/OSSI
B. CAD Release/Version	10.5.2.147
C. CAD Install Date	3/1999
D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.	Dell Precision T3500 Purchased 5/19/2011 Warranty Expires 5/19/2016
E. Annual CAD Maintenance Contract Cost (\$)	\$67,033.34
F. GIS Mapping in Use (Y/N)?	Y
G. GIS File Format (ESRI, etc.)	ESRI
H. Estimated GIS Accuracy (%)	98%
I. Who maintains GIS files/database?	Rock Island County
J. <u>CAD to RMS Interface (Vendor)</u>	<u>Department (Agency)</u>
1. SunGard/ OSSI	All agencies in consortium
2.	
3.	
4.	
5.	
6.	
7.	
K. Mobile Data System in Use (Y/N)?	Y
L. Mobile Data Network Commercial or Owned?	Commercial
M. Mobile Data Software Vendor	Verizon
N. Mobile Data Application Version	9.4.2.67
O. Mobile Data System Install Date	2000 (approx.)
P. Mobile Data System Annual Maintenance Cost (\$)	\$31,815.34

## PSAP/Communications Center Survey

19. Recording Devices. Is there a master recording device?  Yes  No

A. Master Recorder Manufacturer	Eventide
B. Model	VR725
C. Year Installed	2007
D. Annual Maint. Contract Cost (\$)	\$25,935.43
E. Channel Capacity	56
F. Owned / Leased	Owned
G. Telephone Recorded Per Position / Per Channel?	
H. Radio Recorded Per Position / Per Channel?	
I. Recording Media	DVD-RAM/ Hard drive
J. Instant playback available to Call Takers/Dispatchers (Y/N)?	Yes, via software (Mediaworks)

20. Radio Information.

A. # Radio console positions	2
B. Radio console manufacturer	Zetron
C. Radio Band(s) Used (UHF, VHF, 800, etc.)	UHF, VHF, 800, StarCom
D. Annual Maint. Contract Cost (\$)	\$14,000
E. Age of existing radio consoles	13 years, but upgraded PC's 2012
F. # Dispatch channels (routine use)	8
G. # Non-dispatch transmit channels	16
H. # Monitor-only channels	4
I. Share primary dispatch channel(s) with other centers? (Y/N)	N
J. Rent Telco R/T lines to off-site equipment? (Y/N)	Y
K. # Fire stations/houses supported	No
L. Fire Station Alerting In Use?	None RF VHF Pagers

## PSAP/Communications Center Survey

21. Please identify any known issues with current systems (CAD, CPE, Radio, Mobile Data Radio,).

<u>System</u>	<u>Issue</u>
	Applies to all (See Centre Station)

22. How do communications center consoles connect with remote base station sites?

	<b>X</b>
RF Control Station	
Leased Telephone Lines	X
If Leased Telephone Lines, are redundant lines available? (Y/N)	N
Point-to-Point Microwave	
Loop Protected Microwave	
If point-to-point Microwave, are hot standby radios in use? (Y/N)	
Others: (list)	

## PSAP/Communications Center Survey

23. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	X
Hard wired voice amplification	
CAD to fire station "Rip and Run"	
Radio tone and voice amplification	X
Outside coded sounding device	
Mobile Data	
Others: (list)	

24. Facilities.

A. Age of PSAP Building (years)	27 yrs.
B. Fire resistant construction?	Yes
C. Sprinkled/HALON/Alarmed?	Sprinkler and Alarmed
D. Separate rooms for communications and equipment	Portioned from main clerical area
E. Separate HVAC for communications?	Yes
F. 2-hour fire rating for communications room	No
G. Raised floor?	Yes
H. Square feet available for dispatch floor expansion	N/A
I. Kitchen?	No
J. # Men Bunks	No
K. # Women Bunks	No
L. # Men Showers	No
M. # Women Showers	No
N. # Men Lockers	12 total available for M/W

## PSAP/Communications Center Survey

O. # Women Lockers	12 total available for M/W
P. Exercise Room?	No
Q. Quiet Room / Decompression Room?	No
R. Total square feet of dispatch room	500 sq. ft.
S. Total square feet of communications equipment room	N/A

25. Please provide any existing PSAP blueprints, room layouts, measurements, etc.

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

26. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	No
27. Does the PSAP/Center have redundant HVAC systems? (Y/N)	Yes
28. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	No
29. Does the PSAP have an emergency backup generator? (Y/N)	Yes
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Diesel
b. Capacity:	12 KVA
c. Duration of fuel supply (hours)	14 hours
d. Entire building powered (Y/N)	Yes
e. Only Communications Systems powered (Y/N)	Yes
f. HVAC System powered (Y/N)	Yes
g. Automatic Start and Transfer (Y/N)	Yes
h. How often is the generator tested/exercised?	One time per week (30 min. test cycle)
i. Is there a redundant backup generator available?	No
30. Is there an Uninterrupted Power Supply (UPS) System?	Yes
a. How long will the UPS batteries power essential communications equipment?	30 minutes
b. List systems connected to the UPS:	CAD/ 911/ Radio and core systems
31. Are portable radios available in the center for emergency dispatch purposes?	Yes

## PSAP/Communications Center Survey

32. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue?
Utilize RIPD PSAP located approximate .25 mile from Sheriff's Office for continued communication operations. Additionally EMA (Emergency Management Agency) has limited communication equipment available as an alternate option.

33. Please provide LAN/WAN network diagrams.

Provided by Rich Schipper



## **PSAP/Communications Center Survey**

### **Survey Return Information**

**Clint Huggins**

**RCC Consultants, Inc.**

**E-Mail: [chuggins@rcc.com](mailto:chuggins@rcc.com)**

**Tel: (850) 481-0025**

If you need additional space, please feel free to include additional sheets. Thank you for your assistance in this important project.

**RICOMM (CITY OF ROCK ISLAND)**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



*RCC CONSULTANTS, INC.*

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

*Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.*

## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	RICOMM
Responsible Agency:	Rock Island Police Department
Date:	07/12/2013
Your Name:	Wayne L. Sharer
Rank/Title:	911 Supervisor
Phone:	(309)732-2510
Email:	Sharer.wayne@rigov.org

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center

RICOMM is supervised by one 911 Communications Supervisor and staffed with 12 full time Telecommunicators. The 911 Supervisor reports to the Services Bureau Lieutenant.

## PSAP/Communications Center Survey

2. List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Rock Island Police
B. Rock Island Fire / EMS
C.
D.
E.
F.
G.
H.
I.
J.
K.

3. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
A. None		
B.		
C.		
D.		
E.		
F.		
G.		
H.		
I.		
J.		

## PSAP/Communications Center Survey

### Staffing:

4. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:	13
Full Time Telecommunicators (Call Takers and Dispatchers)	12
Part Time Telecommunicators	0
Full Time Supervisors	1
Part Time Supervisors	0
Technicians	2 ETSB
B. Current Total PSAP Personnel:	13
Full Time Telecommunicators	12
Part Time Telecommunicators	0
Full Time Supervisors	1
Part Time Supervisors	0
Technicians	ETSB
C. Current No. Entry Level Telecommunicators (In Training):	0
D. Current No. Entry Level Telecommunicators (Not Training):	0
E. Current No. Advanced/Second Level Telecommunicators:	0
F. Are Telecommunicators Unionized (Y/N)?	Y
G. Are Telecommunicators Sworn (Y/N)?	N
H. Are Supervisors Unionized (Y/N)?	N
I. Are Supervisors Sworn (Y/N)?	N
J. Are Supervisors Working Supervisors?	N
K. Are Sworn Personnel Used to Augment Staff (Y/N)?	N
L. Current PSAP Training Staff (hours/day) PER YEAR	300
M. Is Training Staff Dedicated Solely To Training (Y/N)?	N
N. PSAP Administrative Staff (hours/day)	8
O. Telecommunicator Turnover Rate (%) <u>1 PERSON IN 5 YEARS</u>	0
P. Population Served	39,000
Q. Total PSAP Annual Budget	\$1,063,669.00

## PSAP/Communications Center Survey

5. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary	\$33,238.00	\$51,562.00
Telecommunicator Benefits Percentage	24.5%	
B. Supervisor Annual Salary	\$46,227	\$71,717
Supervisor Benefits Percentage	21.7%	
C. Sworn Officer Annual Salary	N/A	N/A
Sworn Officer Benefits Percentage		
D. Communications Manager Annual Salary	N/A	N/A
Com Manager Benefits Percentage		
E. IT/Technician Annual Salary	\$75,000	\$75,000
Com Technician Benefits Percentage		
F. Annual Telecommunicator Salary Cost (WO Benefits)		
G. Annual Supervisor Salary Cost (WO Benefits)		
H. Annual IT/Technician Salary Cost (WO Benefits)	\$75,000.00	

6. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours/day) PER WEEK	13.3
B. Radio Technical Support (hours/day) PER WEEK	2
C. 9-1-1 CPE Technical Support (hours/day) PER WEEK	2
D. Data Network Technical Support (hours/day)	
E. Other:	
F. Other:	
G. Other:	

7. **Telecommunicator** Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	64
C. Annual hours taken for vacation time (Avg)	120

## PSAP/Communications Center Survey

D. Annual hours taken for sick leave (Avg)	32
E. Annual hours for training (Avg)	16
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	120
H. Annual overtime hours worked (Avg)	92
<b>Total Annual Telecommunicator Hours Available</b>	

### 8. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	64
C. Annual hours taken for vacation time (Avg)	120
D. Annual hours taken for sick leave (Avg)	8
E. Annual hours for training (Avg)	80
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	120
H. Annual hours for Compensatory Time (Avg)	0
I. Annual overtime hours worked (Avg)	0
<b>Total Annual Supervisor Hours Available</b>	

### 9. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	30,800	31,255	30,593	30,924
B. 9-1-1 Wireless Calls Received	Included in above amount			
C. Incoming Admin Calls	74322	75611	70602	72564
D. Outgoing Admin Calls	44861	45286	41015	43598
E. TDD Calls				
F. 9-1-1 Calls Transferred In (not counted above)				
G. NCIC Queries (from PSAP)				120,755
H. Police Calls Dispatched	53,600	48168	51,067	51,540
I. Fire Calls Dispatched	6,106	5,964	6,214	6,252
J. EMS Calls Dispatched	Included in above amount			

## PSAP/Communications Center Survey

K. Average 9-1-1 Call Duration	55 SEC.
L. Average Admin Call Duration	1 MIN 42 SEC
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	2 MIN 30 SEC
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	2 MIN 30 SEC
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	2 MIN 30 SEC
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	50 SEC.
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	2
R. Admin Call pickup policy (allowed to ring for how long?)	None

### 10. Busy-Hour Call Activity.

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	?	?	?	?
B. 9-1-1 Wireless Calls Received	?	?	?	?
C. Incoming Admin Calls	?	?	?	?
D. Outgoing Admin Calls	?	?	?	?
E. TDD Calls	?	?	?	?
F. 9-1-1 Calls Transferred (not counted above)	?	?	?	?
G. NCIC Queries (from PSAP)	?	?	?	?
H. Police Calls Dispatched	3207	3022	3136	3119
I. Fire Calls Dispatched	327	317	307	328
J. EMS Calls Dispatched	?	?	?	?

## PSAP/Communications Center Survey

11. Identify events or seasonal fluctuations that result in predictable call volume changes. (Add sheets as necessary.)

<u>Date Range</u>	<u>Event</u>
	Traffic Grants
	Parades
	DISTRICT Events
	Runs

12. Telecommunicator Responsibilities.

A. List Ancillary Duties Performed by Telecommunicators (greet public, process/file records, matron, etc.)	Total Hours per day ( <i>if two telecommunicators file records for 1 hour, enter 2 hours</i> )
Data entry done at console	1
B. When do Telecommunicators Answer Administrative Calls (i.e., 24/7, after business hours, etc.)	We have internal admin lines answered 24/7 but we do not take outside admin calls.

13. Current Daily Staffing.

<b><u>AVERAGE DAY</u></b>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers	0	0	0
B. Number of Dispatchers	0	0	0
C. Number of Call Taker/Dispatchers Combo	3	3	3

## PSAP/Communications Center Survey

D. Number of Supervisors	1		
E. Sworn Personnel (hours/shift)			
F. PSAP Management (hours/shift)	0630-1500		
G. Telecommunicator Overtime (hours/shift)			
H. Supervisor Overtime (hours/shift)	0	0	0
I. Shift Hours (0700-1500, 1500-2300, etc.)	0615-1545	1515-2245	2215-0645
J. Number of "Average Days" per Week			

<b><u>BUSY DAY</u></b>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers	0	0	0
L. Number of Dispatchers	0	0	0
M. Number of Call Taker/Dispatchers Combo	4	4	4
N. Number of Supervisors	0	0	0
O. Sworn Personnel (hours/shift)	0	0	0
P. PSAP Management (hours/shift)	0630-1500		
Q. Telecommunicator Overtime (hours/shift)			
R. Supervisor Overtime (hours/shift)	0		
S. Number of "Busy Days" per Week	FOUR		

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 14. Basic Training Course Use

	<b>X</b>
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	
D. Course Developed In-House	<b>X</b>
E. Basic Course includes EMD?	<b>X</b>
F. Basic Course Length (Hours)	640
G. NCIC Certification	<b>X</b>

#### 15. Other Training Programs

	<b>X Mandatory</b>	<b>X Optional</b>
A. Basic Local Police Academy		
B. Local Firefighting School		
C. Local EMT/Paramedic School		
D. Basic Course Refresher		
APCO Courses		
E. Telecommunicator I		
F. Telecommunicator Instructor		
G. Communications Center Supervisor		<b>X</b>
H. Communications Center Training Officer	<b>X</b>	
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts		
L. Fire Communications		<b>X</b>
M. Liability Issues		<b>X</b>
N. PSAP Personnel Management		
O. Instructional Design for Trainers		
P. NENA Courses		
Q. ENP Certification		<b>X</b>



## PSAP/Communications Center Survey

### Facilities & Equipment

#### 17. Workstation Quantities.

	<b>Quant</b>
A. Call Taker positions	3
B. TDD Workstations	3
C. Police Dispatcher positions	N/A
D. Fire Dispatcher positions	N/A
E. EMS Dispatcher positions	N/A
F. Combined Dispatcher positions (PD/FD/EMS)	3
G. Call Taker/Dispatcher Combo positions	3
H. Call Taker/Dispatcher Training Positions	0
I. Supervisor positions	0
J. Teletype positions	0
K. Administrator Workstations	1
L. Backup (off-site) Call Taker Positions	1
M. Backup (off-site) Dispatcher Positions	1
N. Mobile Command Call Taker Positions	0
O. Mobile Command Dispatcher Positions	0
Others (list below)	

#### 18. Telephone Information.

	<b>Quantity</b>
A. Wireline 9-1-1 Trunk Lines	7
B. Wireless 9-1-1 Trunk Lines	N/A
C. Non-Emergency (Admin) Trunk Lines	4
D. Ring-Down Lines	2
E. Direct Connect Alarms	0

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	

G. Is this location a Primary PSAP or Secondary PSAP	PRIMARY
H. E9-1-1 is Phase II (Y/N)?	SEE NANETTE OR BRIANS REPORTS
I. 9-1-1 CPE Manufacturer	
J. 9-1-1 CPE Model	
K. 9-1-1 CPE Implementation Date	
L. 9-1-1 CPE Owner or Leased	
M. Annual Maint. Contract Cost (\$)	
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	N
O. 9-1-1 Call Status Display in Use (Y/N)?	N
P. Reverse 9-1-1 Manufacturer	EVERBRIDGE
Q. Reverse 9-1-1 Model	N/A
R. Reverse 9-1-1 Trunks Dedicated	N/A
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	N
T. 3-1-1 System Manufacturer	N/A
U. 3-1-1 System Model	N/A
V. EMD System Used	
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.

## PSAP/Communications Center Survey


19. Systems.

A. CAD System Manufacturer	SUNGARD OSSI
B. CAD Release/Version	10.5.2.147
C. CAD Install Date	3/1999
D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.	
E. Annual CAD Maintenance Contract Cost (\$)	%67,033.34
F. GIS Mapping in Use (Y/N)?	Y
G. GIS File Format (ESRI, etc.)	ESRI
H. Estimated GIS Accuracy (%)	98%
I. Who maintains GIS files/database?	ROCK ISLAND COUNTY
J. <u>CAD to RMS Interface (Vendor)</u>	<u>Department (Agency)</u>
1. Sungard/OSSI	Rock Island Police / Fire
2. FireHouse	S/A
3.	
4.	
5.	
6.	
7.	
K. Mobile Data System in Use (Y/N)?	Y
L. Mobile Data Network Commercial or Owned?	Commercial
M. Mobile Data Software Vendor	Verizon
N. Mobile Data Application Version	9.4.2.67
O. Mobile Data System Install Date	2005
P. Mobile Data System Annual Maintenance Cost (\$)	\$21,900.00

## PSAP/Communications Center Survey

20. Recording Devices. Is there a master recording device?  Yes  No

A. Master Recorder Manufacturer	EVENTIDE
B. Model	VR725
C. Year Installed	2007
D. Annual Maint. Contract Cost (\$)	\$25,935.00
E. Channel Capacity	56
F. Owned / Leased	OWNED
G. Telephone Recorded Per Position / Per Channel?	BOTH
H. Radio Recorded Per Position / Per Channel?	BOTH
I. Recording Media	DVD /RAM / HARD DR.
J. Instant playback available to Call Takers/Dispatchers (Y/N)?	Y

21. Radio Information.

A. # Radio console positions	3
B. Radio console manufacturer	ZETRON
C. Radio Band(s) Used (UHF, VHF, 800, etc.)	FIRE – VHF POLICE – UHF
D. Annual Maint. Contract Cost (\$)	\$12,000.00
E. Age of existing radio consoles	6 YEARS
F. # Dispatch channels (routine use)	POLICE 2 FIRE 2
G. # Non-dispatch transmit channels	POLICE 3 FIRE 2
H. # Monitor-only channels	0
I. Share primary dispatch channel(s) with other centers? (Y/N)	NO
J. Rent Telco R/T lines to off-site equipment? (Y/N)	NO
K. # Fire stations/houses supported	4
L. Fire Station Alerting In Use?	YES

## PSAP/Communications Center Survey

22. Please identify any known issues with current systems (CAD, CPE, Radio, Mobile Data Radio,).

<u>System</u>	<u>Issue</u>
	NONE

23. How do communications center consoles connect with remote base station sites?

	<b>X</b>
RF Control Station	
Leased Telephone Lines	<b>X</b>
If Leased Telephone Lines, are redundant lines available? (Y/N)	
Point-to-Point Microwave	
Loop Protected Microwave	
If point-to-point Microwave, are hot standby radios in use? (Y/N)	
Others: (list)	

## PSAP/Communications Center Survey

24. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	
Hard wired voice amplification	X
CAD to fire station "Rip and Run"	X
Radio tone and voice amplification	X
Outside coded sounding device	
Mobile Data	X
Others: (list)	

25. Facilities.

A. Age of PSAP Building (years)	50 YRS/ NEW BUILDING PLANNED
B. Fire resistant construction?	UNK
C. Sprinkled/HALON/Alarmed?	N
D. Separate rooms for communications and equipment	Y
E. Separate HVAC for communications?	Y
F. 2-hour fire rating for communications room	Y
G. Raised floor?	N
H. Square feet available for dispatch floor expansion	
I. Kitchen?	N
J. # Men Bunks	0
K. # Women Bunks	0
L. # Men Showers	0
M. # Women Showers	0
N. # Men Lockers	0

## PSAP/Communications Center Survey

O. # Women Lockers	12
P. Exercise Room?	NO
Q. Quiet Room / Decompression Room?	NO
R. Total square feet of dispatch room	
S. Total square feet of communications equipment room	

26. Please provide any existing PSAP blueprints, room layouts, measurements, etc.

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

27. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	Y
28. Does the PSAP/Center have redundant HVAC systems? (Y/N)	N
29. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	N
30. Does the PSAP have an emergency backup generator? (Y/N)	Y
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Natural Gas
b. Capacity:	KVA
c. Duration of fuel supply (hours)	N/A
d. Entire building powered (Y/N)	N
e. Only Communications Systems powered (Y/N)	N
f. HVAC System powered (Y/N)	Y
g. Automatic Start and Transfer (Y/N)	Y
h. How often is the generator tested/exercised?	Weekly
i. Is there a redundant backup generator available?	N
31. Is there an Uninterrupted Power Supply (UPS) System?	Y
a. How long will the UPS batteries power essential communications equipment?	30 MINS.
b. List systems connected to the UPS:	CAD PHONES RADIO CORE SYSTEMS
32. Are portable radios available in the center for emergency dispatch purposes?	Y
33. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue?	
911 calls will automatically transfer to Centre and Telecommunicators with	

## PSAP/Communications Center Survey

Mobile and portable radios will be dispatched to a secondary PSAP

34. Please provide LAN/WAN network diagrams.

PROVIDED BY RICH AND BRIA



**CENTRE STATION (MOLINE/EAST MOLINE COMBINED)**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



*RCC CONSULTANTS, INC.*

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

*Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.*

## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	911 Centre Communications
Responsible Agency:	911 Centre Communications (Serves Cities of East Moline/Moline)
Date:	7/11/2013
Your Name:	Nanette Anderson
Rank/Title:	Public Safety Communications Manager
Phone:	309-524-2129
Email:	<a href="mailto:andersnl@moline.il.us">andersnl@moline.il.us</a>

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center

911 Centre Budget Board

911 Centre Board (Operation

911 Centre Manager

911 Centre Supervisors

Telecommunicators

## PSAP/Communications Center Survey

2. List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Moline Police Department
B. Moline Fire Department
C. East Moline Police Department
D. East Moline Fire Department
E. East Moline EMS through secondary PSAP MedCom
F.
G.
H.
I.
J.
K.

3. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
L.		
M.		
N.		
O.		
P.		
A.		
B.		
C.		
D.		
E.		

## PSAP/Communications Center Survey

### Staffing:

4. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:	20
Full Time Telecommunicators (Call Takers and Dispatchers)	16
Part Time Telecommunicators	0
Full Time Supervisors	3
Public Safety Communications Manager	1
Technicians	2*
B. Current Total PSAP Personnel:	20
Full Time Telecommunicators	19
Part Time Telecommunicators	0
Full Time Supervisors	3
Public Safety Communications Manager	1
Technicians	2*
C. Current No. Entry Level Telecommunicators (In Training):	1
D. Current No. Entry Level Telecommunicators (Not Training):	2
E. Current No. Advanced/Second Level Telecommunicators:	16
F. Are Telecommunicators Unionized (Y/N)?	Y
G. Are Telecommunicators Sworn (Y/N)?	N
H. Are Supervisors Unionized (Y/N)?	Y
I. Are Supervisors Sworn (Y/N)?	N
J. Are Supervisors Working Supervisors?	Y
K. Are Sworn Personnel Used to Augment Staff (Y/N)?	N
L. Current PSAP Training Staff (all hours per year)	640
M. Is Training Staff Dedicated Solely To Training (Y/N)?	N
N. PSAP Administrative Staff (hours/day)	8
O. Telecommunicator Turnover Rate (%)	5%
P. Population Served	64,792
Q. Total PSAP Annual Budget	\$1,709,564

## PSAP/Communications Center Survey

5. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary	\$65,499.72	\$93,020.93
Telecommunicator Benefits Percentage*	50% to 40%	
B. Supervisor Annual Salary	\$69,399.72	\$96,660.97
Supervisor Benefits Percentage	50% to 40%	
C. Sworn Officer Annual Salary	N/A	
Sworn Officer Benefits Percentage		
D. Communications Manager Annual Salary	\$86,386.01	\$124,966.39
Com Manager Benefits Percentage	42% to 35%	
E. IT/Technician Annual Salary		
Com Technician Benefits Percentage		
F. Annual Telecommunicator Salary Cost (WO Benefits)	\$43,666.48 - \$66,443.52	
G. Annual Supervisor Salary Cost (WO Benefits)	\$46,266.48- \$69,043.552	
H. Annual IT/Technician Salary Cost (WO Benefits)	\$75,000	

\*Benefits to include health insurance, IMRF, FICA, Medicare

6. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours per week)	13.3
B. Radio Technical Support (hours per week)	2
C. 9-1-1 CPE Technical Support (hours per week)	2
D. Data Network Technical Support (hours/day)	Ref 6. A.
E. Other:	
F. Other:	
G. Other:	

7. **Telecommunicator** Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	96
C. Annual hours taken for vacation time (Avg)	80

## PSAP/Communications Center Survey

D. Annual hours taken for sick leave (Avg)	125
E. Annual hours for training (Avg)	16.33
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	21.45
H. Annual overtime hours worked (Avg)	58.56
<b>Total Annual Telecommunicator Hours Available</b>	1799.79

### 8. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	96
C. Annual hours taken for vacation time (Avg)	80
D. Annual hours taken for sick leave (Avg)	125
E. Annual hours for training (Avg)	16.33
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	21.45
H. Annual overtime hours worked (Avg)	58.56
<b>Total Annual Supervisor Hours Available</b>	1799.79

### 9. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	36,423	37,567	39,248	40,498
B. 9-1-1 Wireless Calls Received	NA	NA	NA	NA
C. Incoming Admin Calls	114,234	108,116	98,514	96,521
D. Outgoing Admin Calls	38,106	34,739	32,324	32,742
E. TDD Calls	?	?	?	337
F. 9-1-1 Calls Transferred In (not counted above)	NA	NA	NA	NA
G. NCIC Queries (from PSAP)	?	?	175,249	172,381
H. Police Calls Dispatched	78,451	71,805	71,286	73,662
I. Fire Calls Dispatched	1,055	1,990	1,943	2,046
J. EMS Calls Dispatched	6,038	6,288	6,368	6,303

## PSAP/Communications Center Survey

K. Average 9-1-1 Call Duration	
L. Average Admin Call Duration	
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	7:54
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	8:07
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	9:33
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	20 seconds
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	3 maximum
R. Admin Call pickup policy (allowed to ring for how long?)	3 whenever possible

### 10. Busy-Hour Call Activity.

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received				
B. 9-1-1 Wireless Calls Received	NA	NA	NA	NA
C. Incoming Admin Calls	?	?	?	?
D. Outgoing Admin Calls	?	?	?	?
E. TDD Calls	?	?	?	?
F. 9-1-1 Calls Transferred (not counted above)	NA	NA	NA	NA
G. NCIC Queries (from PSAP)	?	?	?	?
H. Police Calls Dispatched	5,043	4,728	4,413	4,457
I. Fire Calls Dispatched	146	153	158	136
J. EMS Calls Dispatched	358	387	394	363

\*apply the 3.6 to determine busy hour

## PSAP/Communications Center Survey

11. Identify events or seasonal fluctuations that result in predictable call volume changes. (Add sheets as necessary.)

<u>Date Range</u>	<u>Event</u>
Spring through fall	Traffic grant enforcement
	Festivals
	Foot Races
	Parades

12. Telecommunicator Responsibilities.

A. List Ancillary Duties Performed by Telecommunicators (greet public, process/file records, matron, etc.)	Total Hours per day ( <i>if two telecommunicators file records for 1 hour, enter 2 hours</i> )
CAD File Maintenance	3
Radio LID Updates	1
QA CAD Checks	3
B. When do Telecommunicators Answer Administrative Calls (i.e., 24/7, after business hours, etc.)	24/7

13. Current Daily Staffing.

<b><u>AVERAGE DAY</u></b>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers	0	0	0
B. Number of Dispatchers	0	0	0
C. Number of Call Taker/Dispatchers Combo	3	3	3

## PSAP/Communications Center Survey

D. Number of Supervisors	1	1	1
E. Sworn Personnel (hours/shift)	0	0	0
F. PSAP Management (hours/shift)	1	0	0
G. Telecommunicator Overtime (shift)	0	1	0
H. Supervisor Overtime (hours/shift)	NA	NA	NA
I. Shift Hours (0700-1500, 1500-2300, etc.)	0700-1500	1500-2300	2300-0700
J. Number of "Average Days" per Week			

<b><u>BUSY DAY</u></b>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers	0	0	0
L. Number of Dispatchers	0	0	0
M. Number of Call Taker/Dispatchers Combo	4	4	4
N. Number of Supervisors	1	1	1
O. Sworn Personnel (hours/shift)	0	0	0
P. PSAP Management (hours/shift)	1	0	0
Q. Telecommunicator Overtime (hours/shift)	0	1	1
R. Supervisor Overtime (hours/shift)	NA	NA	NA
S. Number of "Busy Days" per Week	2		

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 14. Basic Training Course Use

	<b>X</b>
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	
D. Course Developed In-House	<b>X</b>
E. Basic Course includes EMD?	<b>X</b>
F. Basic Course Length (Hours)	680
G. NCIC Certification	<b>X</b>

#### 15. Other Training Programs

	<b>X Mandatory</b>	<b>X Optional</b>
A. Basic Local Police Academy		
B. Local Firefighting School		
C. Local EMT/Paramedic School		
D. Basic Course Refresher		
APCO Courses		
E. Telecommunicator I		
F. Telecommunicator Instructor		
G. Communications Center Supervisor		
H. Communications Center Training Officer		
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts		
L. Fire Communications		
M. Liability Issues		
N. PSAP Personnel Management		
O. Instructional Design for Trainers		
P. NENA Courses		<b>X</b>
Q. ENP Certification		

## PSAP/Communications Center Survey

	<b>X Mandatory</b>	<b>X Optional</b>
R. Leadership in 9-1-1 Centers		
S. Introduction to PSAP Technology		
T. Managing the 9-1-1 Center		
U. Disaster Planning for 9-1-1 Centers		
V. Liability issues in 9-1-1 Centers		
W. Introduction to VoIP for PSAPs		
Others (list below)		
E, G,H, J, L, M, R, S, V, W Are all Classes we use at Centre, but not the APCO classes per se		

16. Please identify any known issues with current systems or dispatching policies.  
(Add sheets as required.)

Transferring 911 calls to PSAPs on other side of the river & generally outside of the county, we lose all ani/ali
Communications between PSAPs takes longer simply because there is always a transfer or phone call to be made between PSAPs
Radio communications between agencies due to different technology AND lack of SOP

## PSAP/Communications Center Survey

### Facilities & Equipment

#### 17. Workstation Quantities.

	<b>Quant</b>
A. Call Taker positions	2
B. TDD Workstations	0
C. Police Dispatcher positions	2
D. Fire Dispatcher positions	0
E. EMS Dispatcher positions	0
F. Combined Dispatcher positions (FD/EMS)	1
G. Call Taker/Dispatcher Combo positions	1
H. Call Taker/Dispatcher Training Positions	0
I. Supervisor positions	0
J. Teletype positions	0
K. Administrator Workstations	1
L. Backup (off-site) Call Taker Positions	3
M. Backup (off-site) Dispatcher Positions	3
N. Mobile Command Call Taker Positions	0
O. Mobile Command Dispatcher Positions	0
Others (list below)	

#### 18. Telephone Information.

	<b>Quantity</b>
A. Wireline 9-1-1 Trunk Lines	4
B. Wireless 9-1-1 Trunk Lines	NA
C. Non-Emergency (Admin) Trunk Lines	11
D. Ring-Down Lines	4
E. Direct Connect Alarms	0

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	
Reverse battery	7

G. Is this location a Primary PSAP or Secondary PSAP	Primary
H. E9-1-1 is Phase II (Y/N)?	Y
I. 9-1-1 CPE Manufacturer	Cassidian Communications
J. 9-1-1 CPE Model	ECS-1000
K. 9-1-1 CPE Implementation Date	1999
L. 9-1-1 CPE Owner or Leased	Owned
M. Annual Maint. Contract Cost (\$)	<b>\$80,496.00 *</b>
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	N
O. 9-1-1 Call Status Display in Use (Y/N)?	N
P. Reverse 9-1-1 Manufacturer	Everbridge
Q. Reverse 9-1-1 Model	N/A
R. Reverse 9-1-1 Trunks Dedicated	N/A
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	N
T. 3-1-1 System Manufacturer	N/A
U. 3-1-1 System Model	N/A
V. EMD System Used	PowerPhone Flip Chart
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.
	911 Centre Communications

\*This section is entire county

## PSAP/Communications Center Survey

### 19. Systems.

A. CAD System Manufacturer	Sungard/OSSI
B. CAD Release/Version	10.5.2.147
C. CAD Install Date	3/1999
D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.	Dell Precision T3500 Purchased 5/19/2011 Warranty Expires 5/19/2016
E. Annual CAD Maintenance Contract Cost (\$)	\$67,033.34
F. GIS Mapping in Use (Y/N)?	Y
G. GIS File Format (ESRI, etc.)	ESRI
H. Estimated GIS Accuracy (%)	98%
I. Who maintains GIS files/database?	RICO GIS
J. CAD to RMS Interface (Vendor)	<u>Department (Agency)</u>
1.Sungard/OSSI	Moline, East Moline
2.Firehouse	Moline, East Moline
3.	
4.	
5.	
6.	
7.	
K. Mobile Data System in Use (Y/N)?	Y
L. Mobile Data Network Commercial or Owned?	Commercial
M. Mobile Data Software Vendor	Verizon
N. Mobile Data Application Version	9.4.2.67
O. Mobile Data System Install Date	2000 (approx.)
P. Mobile Data System Annual Maintenance Cost (\$)	\$31,815.34

### 20. Recording Devices. Is there a master recording device? Yes No

A. Master Recorder Manufacturer	Eventide
B. Model	VR725

## PSAP/Communications Center Survey

C. Year Installed	2007
D. Annual Maint. Contract Cost (\$)*	\$25,935.43
E. Channel Capacity	56
F. Owned / Leased	Owned
G. Telephone Recorded Per Position / Per Channel?	
H. Radio Recorded Per Position / Per Channel?	
I. Recording Media	DVD-RAM-Hard Drive
J. Instant playback available to Call Takers/Dispatchers (Y/N)?	Yes, via software

\*cost for all RI County PSAPs

### 21. Radio Information.

A. # Radio console positions	5
B. Radio console manufacturer	ZETRON
C. Radio Band(s) Used (UHF, VHF, 800, etc.)	700/800MHZ
D. Annual Maint. Contract Cost (\$)	UPGRADED THIS YEAR
E. Age of existing radio consoles	14
F. # Dispatch channels (routine use)	40
G. # Non-dispatch transmit channels	5
H. # Monitor-only channels	1
I. Share primary dispatch channel(s) with other centers? (Y/N)	THREE CIRCUITS TO MOLINE FIRE HEADQUARTERS
J. Rent Telco R/T lines to off-site equipment? (Y/N)	Y
K. # Fire stations/houses supported	ZETRON MODEL 60 SYSTEM
L. Fire Station Alerting In Use?	ZETRON

## PSAP/Communications Center Survey

22. Please identify any known issues with current systems (CAD, CPE, Radio, Mobile Data Radio,).

<u>System</u>	<u>Issue</u>
CAD	Currently Upgrading our CAD, going through some issue resolution

23. How do communications center consoles connect with remote base station sites?

	<b>X</b>
RF Control Station	<b>X</b>
Leased Telephone Lines	<b>X</b>
If Leased Telephone Lines, are redundant lines available? (Y/N)	
Point-to-Point Microwave	
Loop Protected Microwave	
If point-to-point Microwave, are hot standby radios in use? (Y/N)	
Others: (list)	

## PSAP/Communications Center Survey

24. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	X
Hard wired voice amplification	
CAD to fire station "Rip and Run"	
Radio tone and voice amplification	X
Outside coded sounding device	
Mobile Data	
Others: (list)	

25. Facilities.

A. Age of PSAP Building (years)	16
B. Fire resistant construction?	Y
C. Sprinkled/HALON/Alarmed?	Y
D. Separate rooms for communications and equipment	Y
E. Separate HVAC for communications?	Y
F. 2-hour fire rating for communications room	?
G. Raised floor?	N
H. Square feet available for dispatch floor expansion	?/1-2 consoles
I. Kitchen?	Y
J. # Men Bunks	Y
K. # Women Bunks	Y
L. # Men Showers	N
M. # Women Showers	N
N. # Men Lockers	N
O. # Women Lockers	N

## PSAP/Communications Center Survey

P. Exercise Room?	N
Q. Quiet Room / Decompression Room?	N
R. Total square feet of dispatch room	
S. Total square feet of communications equipment room	

26. Please provide any existing PSAP blueprints, room layouts, measurements, etc.

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

27. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	Y
28. Does the PSAP/Center have redundant HVAC systems? (Y/N)	N
29. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	Y
30. Does the PSAP have an emergency backup generator? (Y/N)	Y
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Propane
b. Capacity:	KVA
c. Duration of fuel supply (hours)	72
d. Entire building powered (Y/N)	Y
e. Only Communications Systems powered (Y/N)	N
f. HVAC System powered (Y/N)	Y
g. Automatic Start and Transfer (Y/N)	Y
h. How often is the generator tested/exercised?	monthly
i. Is there a redundant backup generator available?	N
31. Is there an Uninterrupted Power Supply (UPS) System?	Y
a. How long will the UPS batteries power essential communications equipment?	30
b. List systems connected to the UPS:	Radio, Computer, Phones
32. Are portable radios available in the center for emergency dispatch purposes?	Y
33. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue?	

## PSAP/Communications Center Survey

See attached

34. Please provide LAN/WAN network diagrams.

Rich Schipper provided



**SILVIS**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



***RCC CONSULTANTS, INC.***

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

***Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.***

## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	Silvis Police Department
Responsible Agency:	Silvis Police Department
Date:	15 July 2013
Your Name:	Lori Medina
Rank/Title:	T/C Supervisor
Phone:	309-792-1841
Email:	lmedina@silvispd.org

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center

Police Chief

T/C Supervisor

Telecommunicators

## PSAP/Communications Center Survey

2. List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Silvis Police
B. Silvis Fire
C.
D.
E.
F.
G.
H.
I.
J.
K.

3. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
A. Hampton Police		
B. Hampton Fire	20%	\$22,578.60
C. Carbon Cliff - Barstow Fire District	10%	6,000.00
D.		
E.		
F.		
G.		
H.		
I.		
J.		

## PSAP/Communications Center Survey

### Staffing:

4. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:	
Full Time Telecommunicators (Call Takers and Dispatchers)	5
Part Time Telecommunicators	0
Full Time Supervisors	1
Part Time Supervisors	
Technicians	2
B. Current Total PSAP Personnel:	
Full Time Telecommunicators	4
Fill-in Part-Time Telecommunicators	4
Full Time Supervisors	1
Part Time Supervisors	0
Technicians	
C. Current No. Entry Level Telecommunicators (In Training):	+ 0
D. Current No. Entry Level Telecommunicators (Not Training):	—
E. Current No. Advanced/Second Level Telecommunicators:	—
F. Are Telecommunicators Unionized (Y/N)?	Y
G. Are Telecommunicators Sworn (Y/N)?	N
H. Are Supervisors Unionized (Y/N)?	Y
I. Are Supervisors Sworn (Y/N)?	N
J. Are Supervisors Working Supervisors?	Y
K. Are Sworn Personnel Used to Augment Staff (Y/N)?	N
L. Current PSAP Training Staff (hours/day) per year	720
M. Is Training Staff Dedicated Solely To Training (Y/N)?	N
N. PSAP Administrative Staff (hours/day)	
O. Telecommunicator Turnover Rate (%)	↓
P. Population Served	12000
Q. Total PSAP Annual Budget	\$280,000.00

O. In the last three years we have only been full-staff for three months

## PSAP/Communications Center Survey

### 5. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary	\$39,000.00	\$53,200.00
Telecommunicator Benefits Percentage	\$10,500.00	
B. Supervisor Annual Salary		\$55,700.00
Supervisor Benefits Percentage	\$10,500.00	
C. Sworn Officer Annual Salary	\$55,700.00	\$73,000.00
Sworn Officer Benefits Percentage	\$10,500.00	
D. Communications Manager Annual Salary	_____	_____
Com Manager Benefits Percentage	_____	
E. IT/Technician Annual Salary	\$75,000.00	\$75,000.00 each
Com Technician Benefits Percentage		
F. Annual Telecommunicator Salary Cost (WO Benefits)	\$39,000.00	\$53,200.00
G. Annual Supervisor Salary Cost (WO Benefits)	\$55,700.00	
H. Annual IT/Technician Salary Cost (WO Benefits)	\$75,000.00	

### 6. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours/day)	13 hrs
B. Radio Technical Support (hours/day)	
C. 9-1-1 CPE Technical Support (hours/day)	
D. Data Network Technical Support (hours/day)	ref A.
E. Other:	
F. Other:	
G. Other:	

### 7. Telecommunicator Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	paid
C. Annual hours taken for vacation time (Avg)	120

## PSAP/Communications Center Survey

D. Annual hours taken for sick leave (Avg)	75
E. Annual hours for training (Avg)	
F. Annual hours testifying in court (Avg)	—
G. Annual hours for meals and break time (Avg)	—
H. Annual overtime hours worked (Avg)	110
<b>Total Annual Telecommunicator Hours Available</b>	

### 8. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	80
C. Annual hours taken for vacation time (Avg)	240
D. Annual hours taken for sick leave (Avg)	24
E. Annual hours for training (Avg)	
F. Annual hours testifying in court (Avg)	—
G. Annual hours for meals and break time (Avg)	—
H. Annual hours for Compensatory Time (Avg)	
I. Annual overtime hours worked (Avg)	118
<b>Total Annual Supervisor Hours Available</b>	

### 9. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	4317	3964	4164	4053
B. 9-1-1 Wireless Calls Received				
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls				
F. 9-1-1 Calls Transferred In (not counted above)	—			
G. NCIC Queries (from PSAP)				
H. Police Calls Dispatched	11009	10668	10517	11990
I. Fire Calls Dispatched	482	546	588	560
J. EMS Calls Dispatched	773	782	851	879

*Rich's*

## PSAP/Communications Center Survey

K. Average 9-1-1 Call Duration	1:09
L. Average Admin Call Duration	
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	8 min
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	30 min
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	3 min
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	20 sec
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	3 max
R. Admin Call pickup policy (allowed to ring for how long?)	N/A

### 10. Busy-Hour Call Activity.

*RCC will answer*

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received				
B. 9-1-1 Wireless Calls Received				
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls				
F. 9-1-1 Calls Transferred (not counted above)	<del>_____</del>			
G. NCIC Queries (from PSAP)				
H. Police Calls Dispatched				
I. Fire Calls Dispatched				
J. EMS Calls Dispatched				

## PSAP/Communications Center Survey

11. Identify events or seasonal fluctuations that result in predictable call volume changes. (Add sheets as necessary.)

<u>Date Range</u>	<u>Event</u>
Summer	TPC (Golf)
	Parade
	Special events at Businesses
	Fiesta

12. Telecommunicator Responsibilities.

A. List Ancillary Duties Performed by Telecommunicators (greet public, process/file records, matron, etc.)	Total Hours per day (if two telecommunicators file records for 1 hour, enter 2 hours)
Greet public to assess what is needed -	
Accept payments for fines and fees	
process/file records	
B. When do Telecommunicators Answer Administrative Calls (i.e., 24/7, after business hours, etc.)	24/7

13. Current Daily Staffing.

<u>AVERAGE DAY</u>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers	<u>          </u>	<u>          </u>	<u>          </u>
B. Number of Dispatchers	<u>          </u>	<u>          </u>	<u>          </u>
C. Number of Call Taker/Dispatchers Combo	1	1	1

## PSAP/Communications Center Survey

D. Number of Supervisors	1	—	—
E. Sworn Personnel (hours/shift)			
F. PSAP Management (hours/shift)	1		
G. Telecommunicator Overtime (hours/shift)			
H. Supervisor Overtime (hours/shift)			
I. Shift Hours (0700-1500, 1500-2300, etc.)	0700-1500	1500-2300	2300-0700
J. Number of "Average Days" per Week	5	5	5

<u>BUSY DAY</u>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers	—	—	—
L. Number of Dispatchers	—	—	—
M. Number of Call Taker/Dispatchers Combo	1	1	1
N. Number of Supervisors	1	—	—
O. Sworn Personnel (hours/shift)	4-5	2-3	2-3
P. PSAP Management (hours/shift)	1		
Q. Telecommunicator Overtime (hours/shift)			
R. Supervisor Overtime (hours/shift)			
S. Number of "Busy Days" per Week	1	4	2

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 14. Basic Training Course Use

	X
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	X
D. Course Developed In-House	X
E. Basic Course includes EMD?	—
F. Basic Course Length (Hours)	720
G. NCIC Certification	X

#### 15. Other Training Programs

	X Mandatory	X Optional
A. Basic Local Police Academy	X	
B. Local Firefighting School	X	
C. Local EMT/Paramedic School	—	—
D. Basic Course Refresher		X
APCO Courses		
E. Telecommunicator I		
F. Telecommunicator Instructor		
G. Communications Center Supervisor		
H. Communications Center Training Officer		X
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts		
L. Fire Communications		
M. Liability Issues		
N. PSAP Personnel Management		
O. Instructional Design for Trainers		
P. NENA Courses		
Q. ENP Certification		

## PSAP/Communications Center Survey

	X Mandatory	X Optional
R. Leadership in 9-1-1 Centers		
S. Introduction to PSAP Technology		
T. Managing the 9-1-1 Center		
U. Disaster Planning for 9-1-1 Centers		
V. Liability issues in 9-1-1 Centers		
W. Introduction to VoIP for PSAPs		
Others (list below)		

16. Please identify any known issues with current systems or dispatching policies.  
(Add sheets as required.)

transferring calls to other PSAP's

## PSAP/Communications Center Survey

### Facilities & Equipment

#### 17. Workstation Quantities.

	Quant
A. Call Taker positions	1
B. TDD Workstations	1
C. Police Dispatcher positions	1
D. Fire Dispatcher positions	1
E. EMS Dispatcher positions	1
F. Combined Dispatcher positions (PD/FD/EMS)	2
G. Call Taker/Dispatcher Combo positions	2
H. Call Taker/Dispatcher Training Positions	1
I. Supervisor positions	1
J. Teletype positions	0
K. Administrator Workstations	1
L. Backup (off-site) Call Taker Positions	3
M. Backup (off-site) Dispatcher Positions	
N. Mobile Command Call Taker Positions	0
O. Mobile Command Dispatcher Positions	0
Others (list below)	

#### 18. Telephone Information.

	Quantity
A. Wireline 9-1-1 Trunk Lines	3
B. Wireless 9-1-1 Trunk Lines	NA
C. Non-Emergency (Admin) Trunk Lines	4
D. Ring-Down Lines	5
E. Direct Connect Alarms	0

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	

G. Is this location a Primary PSAP or Secondary PSAP	Primary
H. E9-1-1 is Phase II (Y/N)?	Y
I. 9-1-1 CPE Manufacturer	Cassidian Communications
J. 9-1-1 CPE Model	ECS-1000
K. 9-1-1 CPE Implementation Date	1999
L. 9-1-1 CPE Owner or Leased	Owned
M. Annual Maint. Contract Cost (\$)	*
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	N
O. 9-1-1 Call Status Display in Use (Y/N)?	N
P. Reverse 9-1-1 Manufacturer	Everbridge
Q. Reverse 9-1-1 Model	N/A
R. Reverse 9-1-1 Trunks Dedicated	N/A
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	N
T. 3-1-1 System Manufacturer	N/A
U. 3-1-1 System Model	N/A
V. EMD System Used	calls transferred directly to Ambulance service
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.
X	
X	Tie Line - 1

## PSAP/Communications Center Survey


**19. Systems.**

<b>A. CAD System Manufacturer</b>	
<b>B. CAD Release/Version</b>	
<b>C. CAD Install Date</b>	
<b>D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.</b>	<i>Center info to all agencies applies</i>
<b>E. Annual CAD Maintenance Contract Cost (\$)</b>	
<b>F. GIS Mapping in Use (Y/N)?</b>	
<b>G. GIS File Format (ESRI, etc.)</b>	
<b>H. Estimated GIS Accuracy (%)</b>	
<b>I. Who maintains GIS files/database?</b>	
<b>J. <u>CAD to RMS Interface (Vendor)</u></b>	<b><u>Department (Agency)</u></b>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
<b>K. Mobile Data System in Use (Y/N)?</b>	
<b>L. Mobile Data Network Commercial or Owned?</b>	
<b>M. Mobile Data Software Vendor</b>	
<b>N. Mobile Data Application Version</b>	
<b>O. Mobile Data System Install Date</b>	
<b>P. Mobile Data System Annual Maintenance Cost (\$)</b>	

## PSAP/Communications Center Survey

20. Recording Devices. Is there a master recording device?  Yes  No

A. Master Recorder Manufacturer	Eventide
B. Model	VR 725N
C. Year Installed	2007
D. Annual Maint. Contract Cost (\$)	*
E. Channel Capacity	
F. Owned / Leased	owned
G. Telephone Recorded Per Position / Per Channel?	
H. Radio Recorded Per Position / Per Channel?	
I. Recording Media	DVD-RAM-Hard drive
J. Instant playback available to Call Takers/Dispatchers (Y/N)?	Y

21. Radio Information.

A. # Radio console positions	2
B. Radio console manufacturer	Zetron
C. Radio Band(s) Used (UHF, VHF, 800, etc.)	800 police VHF-Fire
D. Annual Maint. Contract Cost (\$)	N/A
E. Age of existing radio consoles	15 years
F. # Dispatch channels (routine use)	4
G. # Non-dispatch transmit channels	3
H. # Monitor-only channels	1
I. Share primary dispatch channel(s) with other centers? (Y/N)	2
J. Rent Telco R/T lines to off-site equipment? (Y/N)	
K. # Fire stations/houses supported	
L. Fire Station Alerting In Use?	

## PSAP/Communications Center Survey

22. Please identify any known issues with current systems (CAD, CPE, Radio, Mobile Data Radio).

System	Issue

*Refer to Central  
into applies to all*

23. How do communications center consoles connect with remote base station sites?

	<b>X</b>
RF Control Station	
Leased Telephone Lines	X
If Leased Telephone Lines, are redundant lines available? (Y/N)	Y
Point-to-Point Microwave	X
Loop Protected Microwave	X
If point-to-point Microwave, are hot standby radios in use? (Y/N)	Y
Others: (list)	

*Racom Police*

## PSAP/Communications Center Survey

24. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	X
Hard wired voice amplification	
CAD to fire station "Rip and Run"	
Radio tone and voice amplification	X
Outside coded sounding device	
Mobile Data	
Others: (list)	

25. Facilities.

A. Age of PSAP Building (years)	91 yrs
B. Fire resistant construction?	no
C. Sprinkled/HALON/Alarmed?	no
D. Separate rooms for communications and equipment	yes
E. Separate HVAC for communications?	
F. 2-hour fire rating for communications room	?
G. Raised floor?	no
H. Square feet available for dispatch floor expansion	
I. Kitchen?	no
J. # Men Bunks	0
K. # Women Bunks	0
L. # Men Showers	1
M. # Women Showers	1
N. # Men Lockers	20
O. # Women Lockers	2

## PSAP/Communications Center Survey

P. Exercise Room?	yes
Q. Quiet Room / Decompression Room?	no
R. Total square feet of dispatch room	
S. Total square feet of communications equipment room	

26. Please provide any existing PSAP blueprints, room layouts, measurements, etc.

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

27. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	NO
28. Does the PSAP/Center have redundant HVAC systems? (Y/N)	NO
29. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	N
30. Does the PSAP have an emergency backup generator? (Y/N)	Y
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Natural
b. Capacity:	KVA
c. Duration of fuel supply (hours)	
d. Entire building powered (Y/N)	N
e. Only Communications Systems powered (Y/N)	Y
f. HVAC System powered (Y/N)	N
g. Automatic Start and Transfer (Y/N)	Y
h. How often is the generator tested/exercised?	weekly
i. Is there a redundant backup generator available?	N
31. Is there an Uninterrupted Power Supply (UPS) System?	Y
a. How long will the UPS batteries power essential communications equipment?	30 min.
b. List systems connected to the UPS:	Radio, computers phones
32. Are portable radios available in the center for emergency dispatch purposes?	Y
33. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue? <i>Command bus,</i>	

*HFD for toning of fire dept., re-route phones*

## PSAP/Communications Center Survey


34. Please provide LAN/WAN network diagrams.

~~Given~~ provided by Rich  
to RCC



# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **EMERGENCY OPERATIONS CENTER REQUIREMENTS SURVEY**

July 2013



***RCC CONSULTANTS, INC.***

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

***Material appearing in this survey form is PROPRIETARY – NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.***

RCC Facility Assessment Form

Location And Contact Information	
1) Jurisdiction:	City of Silvis
2) Department/Agency:	Silvis Police Department
3) Facility Designator:	<del>0000</del>
4) Street Address:	1040 1st Avenue
5) Street Address:	
6) City, State, Zip:	Silvis, IL 61282
7) Latitude (DMS or Decimal):	
8) Longitude (DMS or Decimal):	
9) Contact Name:	Chief William Brasche
10) Contact Telephone Number:	309 792 1841
11) Contact E-Mail Address:	bbrasche@silvispd.org
12) Survey Date & Time:	

Facility Assessment	
This section examines the physical features of the facility: site, structure, critical infrastructure and, space.	
<b>1) Structure Type:</b>	
Single Use Facility: <input type="checkbox"/>	Multi-Use Facility: <input checked="" type="checkbox"/>
If Multi-use, list all uses for facility: PD, FI, EOC/Dispatch	
Single Story: <input type="checkbox"/> On Grade <input type="checkbox"/> Below Grade	
Multi Story: Number Floors On & Above Grade:	2
Number Floors Below Grade: 1	
Year Constructed: 1922	
Years of Major Additions or Changes (List Year and Description):	
Main floor & basement 2000 - Remodel of	

<b>2) Facility Construction Type:</b>	
<input type="checkbox"/>	Fire Resistive – buildings where the exterior walls, floors and roof are constructed of masonry or fire-resistive materials
<input checked="" type="checkbox"/>	Masonry Non-Combustible – buildings where the exterior walls are constructed of masonry materials such as adobe, brick, concrete, gypsum block, hollow concrete block, stone, tile or similar materials, with floors and

RCC Facility Assessment Form

<input type="checkbox"/>	roof of metal or other non-combustible materials.
<input type="checkbox"/>	<b>Joisted Masonry</b> – buildings where the exterior walls are constructed of masonry materials such as adobe, brick, concrete, gypsum block, hollow block, stone, tile or similar materials, and where the floors and roof are combustible.
<input type="checkbox"/>	<b>Frame, Brick Veneer</b> – buildings where the exterior walls are wood or other combustible materials, including construction where combustible materials are combined with other materials (such as brick veneer, stone veneer, wood-iron clad, stucco on wood).

<b>3) Facility Site</b>	
<b>A. Legal Description</b>	
Total Land Area of Site in Acres:	
Site <input checked="" type="checkbox"/> Owned	<input type="checkbox"/> Leased by Client
If Leased, Lessor's Legal Name:	
Street Address:	
Street Address:	
City, State, Zip:	
Zoning Designation of Site:	
Conditional Use Permit or Zoning Variance <input type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, Describe:	
Surrounding Terrain:	
	<input type="checkbox"/> Costal
	<input type="checkbox"/> Open Field
	<input type="checkbox"/> Suburban
	<input checked="" type="checkbox"/> Urban
Topography:	<input checked="" type="checkbox"/> Flat or gently undulating
	<input type="checkbox"/> Hillside or ridge
	<input type="checkbox"/> Promontory or cliff
Distance Site Is Set Back From Roadway (In Feet): 20	
Distance Site Is Set Back From Parking (In Feet):	
Is Parking Open To Public: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Is Facility Entrance Accessible Via Vehicle: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is There A Loading Dock or Loading Entrance To Facility: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Number of Parking Spaces Permanently Assigned To Facility: 10	
Is Center located close to public transportation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, what type and how far: City Bus / metro 1mk -	

RCC Facility Assessment Form

<b>B. Hazard Assessment – Indicate which of the following are located within 1-mile of the facility:</b>			
<input checked="" type="checkbox"/> Places of Public Gatherings	<input checked="" type="checkbox"/> Airport Flight Path	<input checked="" type="checkbox"/> Rail Line	<input checked="" type="checkbox"/> Industrial/Manufacturing
<input checked="" type="checkbox"/> Interstate or Elevated Highway			
<b>C. Environmental -</b>			
Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Site Is Prone To Seismic Activity
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Site Is Prone To Severe Weather
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Site Is Prone To Flooding (Attach 100 Year Flood Plain Map)
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Site Is In or Near High Crime Area
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Known Mining Activity In Area
<input checked="" type="checkbox"/>	<input type="checkbox"/>		Known Hazardous Waste Dumps In Area
What is The Direction of the Prevailing Winds: <u>Westerly</u>			
Potable water is supplied by <input type="checkbox"/> Well On Site <input type="checkbox"/> Well Off Site <input checked="" type="checkbox"/> H2O Treatment Facility			
Waste water is: <input type="checkbox"/> On Site Septic <input type="checkbox"/> On Site Treatment Facility <input checked="" type="checkbox"/> Locality Waste Water Treatment			
Storm Water is <input type="checkbox"/> Retained On Site In Retention Pond <input checked="" type="checkbox"/> Collected In Storm Sewer			
Distance From Site To Closest Fire Hydrant (In Feet):		Size of Water Main:	
If No Hydrant, Closest Water Source For Firefighting:			
<b>D. Loss or Damage History</b>			
Indicate if there has been any loss or damage to the facility resulting from a natural or manmade event:			
<u>Year</u>	<u>Description</u>	<u>Economic Value</u>	
2008	Roof Damage - R1070 Tower lost	Blown over 30K	



**B. Emergency Back-up Power**

Is there an emergency backup generator?  Yes  No

If yes, type:

Diesel  LPG  Natural Gas  Fuel Cell

Capacity: \_\_\_\_\_ KVA

What circuits are supported by the generator?

Entire Building \* emergency lighting only

EOC & Equipment, including HVAC only

EOC critical equipment circuits but not HVAC systems

Other: \_\_\_\_\_

Duration of fuel supply: \_\_\_\_\_

In the event of a power failure, does the emergency power start automatically?  Yes  No

How often is the emergency power tested? Monday - Weekly

Is the test conducted under a simulated load?  Yes  No

How is the test conducted?  Automatically  Person is responsible

Name of person responsible for testing: \_\_\_\_\_

How long is the test run? 30 minutes

Is there a redundant backup generator available?  Yes  No

If yes, indicate the following

Diesel  LPG  Natural Gas  Fuel Cell

Capacity: \_\_\_\_\_ KVA

What circuits are supported by the generator?

Entire Building

EOC & Equipment, including HVAC only

EOC critical equipment circuits but not HVAC systems

Other: \_\_\_\_\_

Name of person responsible for testing: \_\_\_\_\_

How long is the test run? \_\_\_\_\_ minutes

If No to a above,

Is an auxiliary generator hook-up available?  Yes  No

RCC Facility Assessment Form

Duration of fuel supply: \_\_\_\_\_

In the event of a power failure, does the emergency power start automatically?  Yes  No

How often is the emergency power tested? \_\_\_\_\_

Is the test conducted under a simulated load?  Yes  No

How is the test conducted?  Automatically  Person is responsible

Name of person responsible for testing: \_\_\_\_\_

How long is the test run? \_\_\_\_\_ minutes

a. Is there an Uninterrupted Power Supply (UPS) System?  Yes  No

If yes, provide the following:

What systems are connected to UPS:

\_\_\_\_\_ 911 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How long will the batteries power the essential communications equipment connected to the UPS? \_\_\_\_\_ minutes

Is a redundant UPS system installed?  Yes  No

If yes, indicate the following:

What systems are connected to UPS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How long will the batteries power the essential communications equipment connected to the UPS? \_\_\_\_\_ minutes

**C. Roof Envelope**

Indicate the geometry of the roof:

- Flat
- Gable
- Hip
- Other (Describe)

What is the primary roof support system (supported at the exterior walls)?

- Reinforced Concrete
- Steel Beam
- Steel Truss
- Open Web Steel Joist
- Tapered Steel Beam
- Wood Truss, Beam or Rafter
- Other (Describe)

RCC Facility Assessment Form

Is there a positive anchorage system (e.g., hurricane straps) connecting the roof system at the exterior walls?  Yes  No  Don't Know

What materials are used for the roof deck?

- Cast-In-Place Concrete Slab
- Precast Concrete
- Metal Deck
- Plywood
- Wood Close Boarding/Skip Sheathing
- Other (Describe)

What type of roof covering is used?

- Built-Up Roof W/ Gravel
- Standing Seam Metal Roof
- Metal Profiled Sheets
- Asbestos Cement Sheets
- Single-Ply Membrane
- Tile Roof
- Timber Singles
- Asphalt Singles
- Other (Describe) Tar gravel

What is the age of the roof covering?

- Less Than 5 Years
- 5 to 10 Years
- 11 to 15 Years
- 16 to 20 Years
- Greater Than 20 Years
- Don't Know

Are there any skylights or ventilators on the roof?  Yes  No

**D. Wall Envelope**

What is the primary vertical load resisting system at the exterior walls?

- Reinforced Concrete
- Steel
- Reinforced Masonry
- Unreinforced Masonry
- Wood
- Other (Described)

What is the primary type of wall cladding used?

- Reinforced Concrete Block Masonry
- Unreinforced Concrete Block Masonry
- Precast Concrete Elements
- Stone Panels
- Metal Panels
- Wood
- Other (Describe)

RCC Facility Assessment Form

Estimate the percentage of wall area covered by glass or mesh or open blocks?

0% to 5%

6% to 20%

21% to 60%

Greater Than 60%

Is the glass or mesh or open blocks blast and/or bullet resistant?

Yes

No

Is the glass or mesh or open blocks protected with permanently installed Shutters?

Yes

No

Indicate the type of external doors in the building?

Metal Panels

Solid Wood

Hollow-Core Plywood

Solid-Core Plywood

Other (Describe)

Are there awnings, canopies, covered walkways, or carports?

Yes

No

Is there potential of debris from metal or wooden buildings, trees, loose material or roofing within a 300 ft radius of the center?  Yes  No

**ROCK ISLAND ARSENAL**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



*RCC CONSULTANTS, INC.*

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

*Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.*

## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	Rock Island Arsenal 9-1-1
Responsible Agency:	Rock Island Arsenal
Date:	08/06/2013
Your Name:	Angie Scriven
Rank/Title:	Dispatch Supervisor
Phone:	309-782-5552
Email:	angela.l.scriven2.civ@mail.mil

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center

Fire Chief  
(Terry McMaster)

Dispatch Supervisor  
(Angie Scriven)

Public Safety Dispatchers  
(10 full-time positions-currently have 8)

## PSAP/Communications Center Survey

2. List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Rock Island Arsenal Fire Department
B. Rock Island Arsenal Fire Department Ambulance Service
C. Rock Island Arsenal Police Department (police and guards)
D.
E.
F.
G.
H.
I.
J.
K.

3. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
A. N/A		
B.		
C.		
D.		
E.		
F.		
G.		
H.		
I.		
J.		

## PSAP/Communications Center Survey

### Staffing:

4. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:	
Full Time Telecommunicators (Call Takers and Dispatchers)	10
Part Time Telecommunicators	0
Full Time Supervisors	1
Part Time Supervisors	0
Technicians	2 ETSB IT
B. Current Total PSAP Personnel:	
Full Time Telecommunicators	8
Part Time Telecommunicators	0
Full Time Supervisors	1
Part Time Supervisors	0
Technicians	2 ETSB IT
C. Current No. Entry Level Telecommunicators (In Training):	0
D. Current No. Entry Level Telecommunicators (Not Training):	0
E. Current No. Advanced/Second Level Telecommunicators:	0
F. Are Telecommunicators Unionized (Y/N)?	Y
G. Are Telecommunicators Sworn (Y/N)?	N
H. Are Supervisors Unionized (Y/N)?	N
I. Are Supervisors Sworn (Y/N)?	N
J. Are Supervisors Working Supervisors?	N
K. Are Sworn Personnel Used to Augment Staff (Y/N)?	N
L. Current PSAP Training Staff (hours/day)	
M. Is Training Staff Dedicated Solely To Training (Y/N)?	N
N. PSAP Administrative Staff (hours/day)	0
O. Telecommunicator Turnover Rate (%)	less than 10%
P. Population Served	8,500 M-F
Q. Total PSAP Annual Budget	\$950,000

## PSAP/Communications Center Survey

5. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary	\$33,979	\$44,176
Telecommunicator Benefits Percentage		
B. Supervisor Annual Salary	\$37,631	\$48,917
Supervisor Benefits Percentage		
C. Sworn Officer Annual Salary		
Sworn Officer Benefits Percentage		
D. Communications Manager Annual Salary		
Com Manager Benefits Percentage		
E. IT/Technician Annual Salary	\$75K/each/year	
Com Technician Benefits Percentage		
F. Annual Telecommunicator Salary Cost (WO Benefits)		
G. Annual Supervisor Salary Cost (WO Benefits)		
H. Annual IT/Technician Salary Cost (WO Benefits)		

6. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours/week)	13 hours
B. Radio Technical Support (hours/week)	Less than 1 hour
C. 9-1-1 CPE Technical Support (hours/week)	Less than 1 hour
D. Data Network Technical Support (hours/day)	Same as A
E. Other:	
F. Other:	
G. Other:	

7. **Telecommunicator** Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
---	------

## PSAP/Communications Center Survey

B. Annual hours taken for holidays	80
C. Annual hours taken for vacation time (Avg)	80
D. Annual hours taken for sick leave (Avg)	
E. Annual hours for training (Avg)	10
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	0
H. Annual overtime hours worked (Avg)	80
<b>Total Annual Telecommunicator Hours Available</b>	<b>2330</b>

### 8. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	80
C. Annual hours taken for vacation time (Avg)	60
D. Annual hours taken for sick leave (Avg)	24
E. Annual hours for training (Avg)	16
F. Annual hours testifying in court (Avg)	0
G. Annual hours for meals and break time (Avg)	0
H. Annual hours for Compensatory Time (Avg)	0
I. Annual overtime hours worked (Avg)	0
<b>Total Annual Supervisor Hours Available</b>	<b>2260</b>

### 9. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received				
B. 9-1-1 Wireless Calls Received				
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls				
F. 9-1-1 Calls Transferred In (not counted above)				
G. NCIC Queries (from PSAP)				4881
H. Police Calls Dispatched		14,197	16,756	14,681

## PSAP/Communications Center Survey

Total Annual Traffic	2009	2010	2011	2012
I. Fire Calls Dispatched		2,868	2,070	1,877
J. EMS Calls Dispatched		268	329	325

K. Average 9-1-1 Call Duration	
L. Average Admin Call Duration	
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	4:30
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	6:00
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	5:28
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	20 seconds
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	3 maximum
R. Admin Call pickup policy (allowed to ring for how long?)	As soon as possible

### 10. Busy-Hour Call Activity.

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received				
B. 9-1-1 Wireless Calls Received				
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls				
F. 9-1-1 Calls Transferred (not counted above)				
G. NCIC Queries (from PSAP)				
H. Police Calls Dispatched				
I. Fire Calls Dispatched				
J. EMS Calls Dispatched				



## PSAP/Communications Center Survey

<b><u>AVERAGE DAY</u></b>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers			
B. Number of Dispatchers			
C. Number of Call Taker/Dispatchers Combo	2	2	2
D. Number of Supervisors	1	0	0
E. Sworn Personnel (hours/shift)	0	0	0
F. PSAP Management (hours/shift)	8	0	0
G. Telecommunicator Overtime (hours/shift)	0	0	0
H. Supervisor Overtime (hours/shift)	0	0	0
I. Shift Hours (0700-1500, 1500-2300, etc.)	0600-1400	1400-2200	2200-0600
J. Number of "Average Days" per Week	5		

<b><u>BUSY DAY</u></b>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers			
L. Number of Dispatchers			
M. Number of Call Taker/Dispatchers Combo	2	2	2
N. Number of Supervisors	1	0	0
O. Sworn Personnel (hours/shift)	0	0	0
P. PSAP Management (hours/shift)	8	0	0
Q. Telecommunicator Overtime (hours/shift)	0	0	0
R. Supervisor Overtime (hours/shift)	0	0	0
S. Number of "Busy Days" per Week			

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 14. Basic Training Course Use

	<b>X</b>
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	
D. Course Developed In-House	X
E. Basic Course includes EMD?	X
F. Basic Course Length (Hours)	160
G. NCIC Certification	X

#### 15. Other Training Programs

	<b>X Mandatory</b>	<b>X Optional</b>
A. Basic Local Police Academy		
B. Local Firefighting School		
C. Local EMT/Paramedic School		
D. Basic Course Refresher		
APCO Courses		
E. Telecommunicator I AND II	X	
F. Telecommunicator Instructor		
G. Communications Center Supervisor		
H. Communications Center Training Officer		
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts	X	
L. Fire Communications	X	
M. Liability Issues	X	
N. PSAP Personnel Management		
O. Instructional Design for Trainers		
P. NENA Courses		X
Q. ENP Certification		

## PSAP/Communications Center Survey

	<b>X Mandatory</b>	<b>X Optional</b>
R. Leadership in 9-1-1 Centers		
S. Introduction to PSAP Technology	X	
T. Managing the 9-1-1 Center		
U. Disaster Planning for 9-1-1 Centers	X	
V. Liability issues in 9-1-1 Centers	X	
W. Introduction to VoIP for PSAPs	X	
Others (list below)		

16. Please identify any known issues with current systems or dispatching policies.  
(Add sheets as required.)

Outdoor QC area weather policy—being in middle of river not sure who’s policy to follow and exactly when or when not to sound sirens
Radio communications between other centers-No standard SOP
Units moving from one city to another-no standard SOP
Hostage negotiations-no standard SOP for surrounding centers

## PSAP/Communications Center Survey

### Facilities & Equipment

#### 17. Workstation Quantities.

	Quant
A. Call Taker positions	3
B. TDD Workstations	3
C. Police Dispatcher positions	
D. Fire Dispatcher positions	
E. EMS Dispatcher positions	
F. Combined Dispatcher positions (PD/FD/EMS)	2
G. Call Taker/Dispatcher Combo positions	
H. Call Taker/Dispatcher Training Positions	2
I. Supervisor positions	
J. Teletype positions	2
K. Administrator Workstations	
L. Backup (off-site) Call Taker Positions	
M. Backup (off-site) Dispatcher Positions	
N. Mobile Command Call Taker Positions	
O. Mobile Command Dispatcher Positions	
Others (list below)	

#### 18. Telephone Information.

	Quantity
A. Wireline 9-1-1 Trunk Lines	4
B. Wireless 9-1-1 Trunk Lines	0
C. Non-Emergency (Admin) Trunk Lines	4
D. Ring-Down Lines	
E. Direct Connect Alarms	

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	
One phone line for personal calls only-not recorded	1

G. Is this location a Primary PSAP or Secondary PSAP	Primary
H. E9-1-1 is Phase II (Y/N)?	Y
I. 9-1-1 CPE Manufacturer	Cassidian Communications
J. 9-1-1 CPE Model	ECS-1000
K. 9-1-1 CPE Implementation Date	
L. 9-1-1 CPE Owner or Leased	Owned
M. Annual Maint. Contract Cost (\$)	
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	N
O. 9-1-1 Call Status Display in Use (Y/N)?	N
P. Reverse 9-1-1 Manufacturer	Communicator NXT
Q. Reverse 9-1-1 Model	
R. Reverse 9-1-1 Trunks Dedicated	
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	
T. 3-1-1 System Manufacturer	
U. 3-1-1 System Model	
V. EMD System Used	Powerphone Flip Charts
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.
	Rock Island County PSAPs
	Scott County (SECC)
X. T1 tie line from RIA to Rock Island City	1

## PSAP/Communications Center Survey


19. Systems. **\*\*SEE CENTRE SHEET FOR SAME INFORMATION\*\***

A. CAD System Manufacturer	
B. CAD Release/Version	
C. CAD Install Date	
D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.	
E. Annual CAD Maintenance Contract Cost (\$)	
F. GIS Mapping in Use (Y/N)?	
G. GIS File Format (ESRI, etc.)	
H. Estimated GIS Accuracy (%)	
I. Who maintains GIS files/database?	
J. <u>CAD to RMS Interface (Vendor)</u>	<u>Department (Agency)</u>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
K. Mobile Data System in Use (Y/N)?	
L. Mobile Data Network Commercial or Owned?	
M. Mobile Data Software Vendor	
N. Mobile Data Application Version	
O. Mobile Data System Install Date	

## PSAP/Communications Center Survey

P. Mobile Data System Annual Maintenance Cost (\$)	
--	--

20. Recording Devices. Is there a master recording device?  Yes  No

A. Master Recorder Manufacturer	Evantide
B. Model	
C. Year Installed	1999
D. Annual Maint. Contract Cost (\$)	Approx \$20,000
E. Channel Capacity	48
F. Owned / Leased	Owened
G. Telephone Recorded Per Position / Per Channel?	All
H. Radio Recorded Per Position / Per Channel?	All
I. Recording Media	Hard drive with cd disks
J. Instant playback available to Call Takers/Dispatchers (Y/N)?	Yes, via software

21. Radio Information.

A. # Radio console positions	2
B. Radio console manufacturer	Zetron model 4000
C. Radio Band(s) Used (UHF, VHF, 800, etc.)	800MHZ interoperability VHF and UHF channels
D. Annual Maint. Contract Cost (\$)	\$10,000 approx.
E. Age of existing radio consoles	13 years
F. # Dispatch channels (routine use)	14
G. # Non-dispatch transmit channels	0
H. # Monitor-only channels	2
I. Share primary dispatch channel(s) with other centers? (Y/N)	N
J. Rent Telco R/T lines to off-site equipment? (Y/N)	N
K. # Fire stations/houses supported	1
L. Fire Station Alerting In Use?	Same building PA system & radio



## PSAP/Communications Center Survey

24. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	X
Hard wired voice amplification	
CAD to fire station "Rip and Run"	
Radio tone and voice amplification	X
Outside coded sounding device	
Mobile Data	X
Others: (list)	

25. Facilities.

A. Age of PSAP Building (years)	6 YEARS
B. Fire resistant construction?	Y
C. Sprinkled/HALON/Alarmed?	Y
D. Separate rooms for communications and equipment	Y
E. Separate HVAC for communications?	Y
F. 2-hour fire rating for communications room	
G. Raised floor?	N
H. Square feet available for dispatch floor expansion	0
I. Kitchen?	Y
J. # Men Bunks	N
K. # Women Bunks	N
L. # Men Showers	N
M. # Women Showers	N
N. # Men Lockers	Y
O. # Women Lockers	Y

## PSAP/Communications Center Survey

P. Exercise Room?	Y
Q. Quiet Room / Decompression Room?	N
R. Total square feet of dispatch room	SEE ATTACHED PDF
S. Total square feet of communications equipment room	

26. Please provide any existing PSAP blueprints, room layouts, measurements, etc.



20130722110636772  
.pdf

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

27. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	Y
28. Does the PSAP/Center have redundant HVAC systems? (Y/N)	N
29. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	Y
30. Does the PSAP have an emergency backup generator? (Y/N)	Y
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Propane
b. Capacity:	KVA
c. Duration of fuel supply (hours)	
d. Entire building powered (Y/N)	Y
e. Only Communications Systems powered (Y/N)	N
f. HVAC System powered (Y/N)	Y
g. Automatic Start and Transfer (Y/N)	Y
h. How often is the generator tested/exercised?	Monthly
i. Is there a redundant backup generator available?	N
31. Is there an Uninterrupted Power Supply (UPS) System?	Y
a. How long will the UPS batteries power essential communications equipment?	30 MINS
b. List systems connected to the UPS:	Radio, computers, phones
32. Are portable radios available in the center for emergency dispatch purposes?	Y
33. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue?	
See contingency plan below	

## PSAP/Communications Center Survey

34. Please provide LAN/WAN network diagrams.

Rich Schipper provided.

# PSAP/Communications Center Survey

Additional Comments.

Ref continuity of operations and/or disaster recovery plan: this is not updated as of now.

## CONTINGENCY PLAN

- A. Building Evacuation – In case of a bomb threat, fire, or other problem that would require Telecommunicators to evacuate the building the following steps shall be taken:
1. Notify police and fire using radio and paging system of evacuation and intended location.
  2. Log out of all 911 phones, this will transfer our calls to Rock Island. Call RICOMM and notify them of the incident and give them the Racom’s cell number (309-314-3302).
  3. Obtain portable radio from dispatch center, and if time allows, retrieve additional portable radio from Dispatch Supervisor’s office.
  4. Obtain Racom’s cell phone and charger from dispatch center.
  5. Pick up red contingency plan bag located on the top shelf of the coat rack in the Dispatch Center.
  6. Initial relocation is building 102, 3<sup>rd</sup> floor. Secondary location will be determined by OIC. If escort is not available, use a POV to reach designated command post.
  7. When advised by OIC that the incident is secure, telecommunicators may return to the dispatch center.
- B. Loss of 911 Service – In the event that 911 service is lost, do the following:
1. Flip the 911 switch located at the police console to “transfer”.
  2. Notify RICOMM, in case they are not already aware of the loss of service.
  3. Notify ATT Resolution center, 1-888-424-3911, in case they are not already aware of the loss of service.
  4. Notify Brian Nelson @ 563-508-1332 and/or Travis Stender @ 618-222-9110.
  5. When service is restored, flip the 911 switch back to “normal” and notify RICOMM, ATT Resolution Center, Brian Nelson and Travis Stender.



**VILLAGE OF MILAN**

DRAFT

# **Bi-State Regional Commission**

## **Illinois Quad Cities/Rock Island County Emergency Actualization Plan: Emergency Communication and Facilities Analysis**

### **PUBLIC SAFETY COMMUNICATIONS CENTER REQUIREMENTS SURVEY**

July 2013



***RCC CONSULTANTS, INC.***

**2927 Habersham Drive  
Tallahassee, FL 32308**

***NOTICE:***

***Material appearing in this survey form is PROPRIETARY -- NOT FOR PUBLIC RELEASE. Use outside of this consulting project is expressly forbidden.***

## PSAP/Communications Center Survey

### PSAP Information:

PSAP Name:	Milan Police Department
Responsible Agency:	Milan Police Department
Date:	August 9, 2013
Your Name:	Tammy Bedford
Rank/Title:	Communications Manager
Phone:	309 787 8720
Email:	tammybedford@milan.il.us

### PSAP/Communications Center Organization:

1. Describe (draw) organizational structure of PSAP/Communications Center

## PSAP/Communications Center Survey

2. List agencies dispatched by this PSAP (Contract agencies in #3 below).

A. Milan Police Department
B. Blackhawk Fire Department
C.
D.
E.
F.
G.
H.
I.
J.
K.

3. List Contract agencies dispatched by this PSAP

Contract Agency	% of PSAP Call Load	Annual Contract Fee Paid
A. None		
B.		
C.		
D.		
E.		
F.		
G.		
H.		
I.		
J.		

## PSAP/Communications Center Survey

### Staffing:

4. Indicate the staffing profile of the PSAP/Communications Center

A. Total Authorized PSAP Personnel:		
Full Time Telecommunicators (Call Takers and Dispatchers)		4
Part Time Telecommunicators		4
Full Time Supervisors		1
Part Time Supervisors		0
Technicians		2 ETSB IT
B. Current Total PSAP Personnel:		
Full Time Telecommunicators		4
Part Time Telecommunicators		4
Full Time Supervisors		1
Part Time Supervisors		0
Technicians		2 ETSB
C. Current No. Entry Level Telecommunicators (In Training):		
D. Current No. Entry Level Telecommunicators (Not Training):		
E. Current No. Advanced/Second Level Telecommunicators:		4 / FT    4 / PT
F. Are Telecommunicators Unionized (Y/N)?		Yes FT
G. Are Telecommunicators Sworn (Y/N)?		No
H. Are Supervisors Unionized (Y/N)?		Yes
I. Are Supervisors Sworn (Y/N)?		No
J. Are Supervisors Working Supervisors?		Yes
K. Are Sworn Personnel Used to Augment Staff (Y/N)?		No
L. Current PSAP Training Staff (hours/day)		n/a
M. Is Training Staff Dedicated Solely To Training (Y/N)?		No
N. PSAP Administrative Staff (hours/day)		n/a
O. Telecommunicator Turnover Rate (%)		0
P. Population Served		5300
Q. Total PSAP Annual Budget		

## PSAP/Communications Center Survey

5. Communications Staff Salaries.

	Start (\$)	Top (\$)
A. Telecommunicator Annual Salary 2013	34,320	48,610
Telecommunicator Benefits Percentage		
B. Supervisor Annual Salary		
Supervisor Benefits Percentage		
C. Sworn Officer Annual Salary		
Sworn Officer Benefits Percentage		
D. Communications Manager Annual Salary	same as T/C with	
Com Manager Benefits Percentage	<del>.47 more per hour</del>	
E. IT/Technician Annual Salary	75,000/each ETSB IT	
Com Technician Benefits Percentage		
F. Annual Telecommunicator Salary Cost (WO Benefits)		
G. Annual Supervisor Salary Cost (WO Benefits)		
H. Annual IT/Technician Salary Cost (WO Benefits)		

6. Technician Utilization. Please enter the average quantity of Technician hours expended per day per system.

A. CAD Technical Support (hours/day)	ETSB IT/RICO wide
B. Radio Technical Support (hours/day)	
C. 9-1-1 CPE Technical Support (hours/day)	
D. Data Network Technical Support (hours/day)	
E. Other:	
F. Other:	
G. Other:	

7. **Telecommunicator** Availability (Per Person).

A. Annual Available hours for Duty (2080 Typical)	2080
B. Annual hours taken for holidays	88
C. Annual hours taken for vacation time (Avg)	136

## PSAP/Communications Center Survey

D. Annual hours taken for sick leave (Avg) 2012	75 1/4 each
E. Annual hours for training (Avg)	
F. Annual hours testifying in court (Avg)	
G. Annual hours for meals and break time (Avg)	on duty
H. Annual overtime hours worked (Avg) 2012	153 each/FT PT year total 540
<b>Total Annual Telecommunicator Hours Available</b>	

### 8. Supervisor Availability.

A. Annual Available hours for Duty (2080 Typical) 2012	2080
B. Annual hours taken for holidays	88
C. Annual hours taken for vacation time (Avg)	120
D. Annual hours taken for sick leave (Avg)	20 1/2
E. Annual hours for training (Avg)	80
F. Annual hours testifying in court (Avg)	
G. Annual hours for meals and break time (Avg)	on duty
H. Annual hours for Compensatory Time (Avg)	40 1/4
I. Annual overtime hours worked (Avg)	76 1/2
<b>Total Annual Supervisor Hours Available</b>	

### 9. Annual Call Activity.

Total Annual Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	COMBINED WITH WIRELESS CALLS			
B. 9-1-1 Wireless Calls Received	4035	3859	3841	3952
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls	0	0	0	0
F. 9-1-1 Calls Transferred In (not counted above)	901	843	803	800
G. NCIC Queries (from PSAP)	PROVIDED BY RICH			
H. Police Calls Dispatched	16406	16195	18292	18272
I. Fire Calls Dispatched	851	867	844	877
J. EMS Calls Dispatched	COMBINED WITH FIRE			

## PSAP/Communications Center Survey

K. Average 9-1-1 Call Duration	1 min 30 sec
L. Average Admin Call Duration	
M. Average Dispatcher Time spent on PD Dispatches (Include wrap-up)	
N. Average Dispatcher Time spent on FD Dispatches (Include wrap-up)	
O. Average Dispatcher Time spent on EMS Dispatches (Include wrap-up)	
P. Average Dispatcher Time spent on NCIC Queries (Include wrap-up)	
Q. 9-1-1 Call pickup policy (allowed to ring for how long? i.e. 6 seconds)	ASAP
R. Admin Call pickup policy (allowed to ring for how long?)	ASAP

### 10. Busy-Hour Call Activity.

During <u>BUSY-HOUR</u> Traffic	2009	2010	2011	2012
A. 9-1-1 Wireline Calls Received	COMBINED WITH WIRELESS			
B. 9-1-1 Wireless Calls Received	1.7	1.6	1.6	1.6
C. Incoming Admin Calls				
D. Outgoing Admin Calls				
E. TDD Calls	0	0	0	0
F. 9-1-1 Calls Transferred (not counted above)	.4	.4	.3	.3
G. NCIC Queries (from PSAP)				
H. Police Calls Dispatched	7	7	8	8
I. Fire Calls Dispatched	.4	.4	.3	.4
J. EMS Calls Dispatched	COMBINED WITH FIRE			

## PSAP/Communications Center Survey

11. Identify events or seasonal fluctuations that result in predictable call volume changes. (Add sheets as necessary.)

<u>Date Range</u>	<u>Event</u>
July 3	Milan Fireworks
Aug 30/Sept 1	Labor Day Weekend/Indian Fest

12. Telecommunicator Responsibilities.

A. List Ancillary Duties Performed by Telecommunicators (greet public, process/file records, matron, etc.)	Total Hours per day (if two telecommunicators file records for 1 hour, enter 2 hours)
SEE ATTACHED LIST	
B. When do Telecommunicators Answer Administrative Calls (i.e., 24/7, after business hours, etc.)	24/7

13. Current Daily Staffing.

<u>AVERAGE DAY</u>	1st Shift	2nd Shift	3rd Shift
A. Number of Call Takers			
B. Number of Dispatchers			
C. Number of Call Taker/Dispatchers Combo	1	1	1

## **JOB DESCRIPTION**

**TITLE: COMMUNICATION MANAGER**

**SUB TITLES: SA (SYSTEM ADMINISTRATOR) FOR**  
SA CAD (COMPUTER AID DISPATCH)  
SA PISTOL RMS (REPORT MANAGEMENT SYSTEM)  
SA MOBILE DATA UNITS (COMPUTERS IN SQUAD CARS)  
LEADS COORDINATOR/LAC

Communication Manager is responsible for the whole running of the Dispatch Office. Making sure that all the jobs are designated and done and filling in for dispatchers off on 1<sup>st</sup> Shift Monday – Friday and also running Radio on Thursday (see list of jobs)

### **SA FOR CAD, RMS DATA**

SA trained for the CAD & RMS Systems and has one of the highest privileges in all of these systems so that changes can be made as needed. Will attend all meetings for CAD & RMS and be on the Committee of these two groups. Also will attend the monthly RMS Consortium and 911 meetings held the first Tuesday of every month at the Bi-State building in Rock Island.

Reports in RMS are checked to make sure they have been entered correctly. Report any problems to the RMS Committee meetings.

Also routine checks in the CAD system are done making sure that we have no non geo verified address etc. Report any problems to the CAD Committee meeting. See SOPS for CAD SA.

### **LEADS COORDINATOR/LAC**

LEADS Coordinator is responsible for making sure that all the LEADS Rules and Regulations are followed by all of the Police Department. See list attached stating what the LEADS Coordinator/LAC responsibilities are for this job title.

## **DISPATCH JOBS**

Communication Manager

Geo, RMS, Mapping, CAD, Mobile Maintenance  
Accident/General Reports/Parking Ticket Monies Report to Front Office every month.  
Sex Offender Update in LEADS  
Review files and file away  
Pull old files and file away upstairs  
Go through old files and reports to be destroyed when applicable  
LEADS Validations and requirements  
Expunging Records  
Attending Monthly meetings for 911 & RMS  
Attending Monthly meetings for Combined CAD & RMS  
Changing Recorder DVD's and burning copies of DVD's as needed  
No Contest  
Law Enforcement Training & Standards Forms  
Ordering of office supplies  
911 Call Box testings 2 times a year  
Monthly report for Council  
Scheduling and Shift Bids  
Sex Offenders Files  
MABAS

1st Shift—Sat--Weds

UCR Stats & Monthly Report  
Monthly Council Meeting Report  
Email Copies of Arrest Reports to Janet Leone Court Services  
Run Daily Bulletin (Monday, Tuesday & Wednesday)  
Run Arrest Bulletin( Saturday, Sunday, Monday, Tuesday & Wednesday)  
Update Business after hours numbers in computer and card file  
Set off Tornado Alarm 1st Tuesday of every month at 10:00 AM  
Stop Cards

2nd Shift (4--2nds, 1--1st Shifts)

Copy all related paperwork ref Court Notices and distribute to Officers  
Keep file ref Ordinance cases/warrants and run copies of them for court  
Run Daily Bulletin (Friday)  
Run Arrest Bulletin (Friday)  
Stop Cards & Stop Cards Monthly Check

3rd Shift—Mon--Fri

No Contest Warrants  
COPS  
Dispositions

Swing Shift (3--2nd, 2--3rd Shifts)

Copies of Accident reports to State and File away  
Property Recovery Cards  
Parking tickets

**All TC's** could and should do any of the following any time they see it needs to be done.

1. Any time you use the last of something or notice we are getting low on supplies leave a note for Com. Manager so it can be ordered.
2. Update books that we have numbers in that we give out such as Accident # etc.
3. Be sure if business cards are updated that any information is passed onto 1<sup>st</sup> Shift TC or Com. Manager so the computer can be updated
5. Enter all accident report, citations, make sure that files are made and copies made for the files, SA office etc.
6. Clean and dust the dispatch office, the cleaning service does limited cleaning in here and it is up to us to keep the rest of it cleaned. Also make sure dishes are washed and put away on a regular basis and kitchen area, microwave and refrigerator kept clean. Also pay close attention to any officers coming in and making a mess, it is your office and your are responsible for its condition so don't feel you can't say anything to them just because they are an officer.

## PSAP/Communications Center Survey

D. Number of Supervisors	1		
E. Sworn Personnel (hours/shift)			
F. PSAP Management (hours/shift)			
G. Telecommunicator Overtime (hours/shift)			
H. Supervisor Overtime (hours/shift)			
I. Shift Hours (0700-1500, 1500-2300, etc.)	0700/ 1500	1500/ 2300	2300/ 0700
J. Number of "Average Days" per Week	5		

<b><u>BUSY DAY</u></b>	1st Shift	2nd Shift	3rd Shift
K. Number of Call Takers			
L. Number of Dispatchers			
M. Number of Call Taker/Dispatchers Combo	1	1	1
N. Number of Supervisors	1		
O. Sworn Personnel (hours/shift)			
P. PSAP Management (hours/shift)			
Q. Telecommunicator Overtime (hours/shift)			
R. Supervisor Overtime (hours/shift)			
S. Number of "Busy Days" per Week	2		

## PSAP/Communications Center Survey

### Training Programs for Telecommunicators

#### 14. Basic Training Course Use

	<b>X</b>
A. APCO	
B. NENA Telecommunicator	
C. State Developed Course	
D. Course Developed In-House	<b>X</b>
E. Basic Course includes EMD?	<b>No</b>
F. Basic Course Length (Hours)	<b>480</b>
G. NCIC Certification	

#### 15. Other Training Programs

	<b>X Mandatory</b>	<b>X Optional</b>
A. Basic Local Police Academy		
B. Local Firefighting School		
C. Local EMT/Paramedic School		
D. Basic Course Refresher		
APCO Courses		
E. Telecommunicator I		
F. Telecommunicator Instructor		
G. Communications Center Supervisor		
H. Communications Center Training Officer		
I. APCO CTO Instructor		
J. Customer Service & Team Building		
K. EMD Concepts		
L. Fire Communications		
M. Liability Issues		
N. PSAP Personnel Management		
O. Instructional Design for Trainers		
P. NENA Courses		
Q. ENP Certification		



## PSAP/Communications Center Survey

### Facilities & Equipment

#### 17. Workstation Quantities.

	Quant
A. Call Taker positions	
B. TDD Workstations	
C. Police Dispatcher positions	
D. Fire Dispatcher positions	
E. EMS Dispatcher positions	
F. Combined Dispatcher positions (PD/FD/EMS)	
G. Call Taker/Dispatcher Combo positions	2
H. Call Taker/Dispatcher Training Positions	
I. Supervisor positions	
J. Teletype positions	
K. Administrator Workstations	1
L. Backup (off-site) Call Taker Positions	
M. Backup (off-site) Dispatcher Positions	
N. Mobile Command Call Taker Positions	
O. Mobile Command Dispatcher Positions	
Others (list below)	

#### 18. Telephone Information.

	Quantity
A. Wireline 9-1-1 Trunk Lines	3
B. Wireless 9-1-1 Trunk Lines	combined with A
C. Non-Emergency (Admin) Trunk Lines	3 dedicated of 15 max
D. Ring-Down Lines	0
E. Direct Connect Alarms	0

## PSAP/Communications Center Survey

F. List Other Trunk Lines Supporting Communications:	N/A

G. Is this location a Primary PSAP or Secondary PSAP	Primary
H. E9-1-1 is Phase II (Y/N)?	Yes
I. 9-1-1 CPE Manufacturer	
J. 9-1-1 CPE Model	ECS 1000
K. 9-1-1 CPE Implementation Date	1999
L. 9-1-1 CPE Owner or Leased	Owned
M. Annual Maint. Contract Cost (\$)	80,496 for entire county
N. Queuing Announcer Used For Busy 9-1-1 Calls (Y/N)?	No
O. 9-1-1 Call Status Display in Use (Y/N)?	No
P. Reverse 9-1-1 Manufacturer	Everbridge
Q. Reverse 9-1-1 Model	
R. Reverse 9-1-1 Trunks Dedicated	
S. Incoming 9-1-1 Trunks Diversity (Y/N)?	at the CPE (Rock Island)
T. 3-1-1 System Manufacturer	N/A
U. 3-1-1 System Model	
V. EMD System Used	
W. List PSAPs 9-1-1 Calls are transferred To.	List PSAPs 9-1-1 Calls are transferred From.
X. T1 line from Milan to Rock Island City	

## PSAP/Communications Center Survey


19. Systems.      APPLIES TO ALL AGENCIES      CENTRE PROVIDED INFO

A. CAD System Manufacturer	
B. CAD Release/Version	
C. CAD Install Date	
D. Make/model/manufacture year of current CAD/RMS workstation PCs at dispatch positions.	
E. Annual CAD Maintenance Contract Cost (\$)	
F. GIS Mapping in Use (Y/N)?	
G. GIS File Format (ESRI, etc.)	
H. Estimated GIS Accuracy (%)	
I. Who maintains GIS files/database?	
J. <u>CAD to RMS Interface (Vendor)</u>	<u>Department (Agency)</u>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
K. Mobile Data System in Use (Y/N)?	
L. Mobile Data Network Commercial or Owned?	
M. Mobile Data Software Vendor	
N. Mobile Data Application Version	
O. Mobile Data System Install Date	
P. Mobile Data System Annual Maintenance Cost (\$)	

## PSAP/Communications Center Survey

24. Indicate what methods are available to dispatch the Fire Departments/companies:

	<b>X</b>
Voice or Alphanumeric Pagers	VOICE
Hard wired voice amplification	No
CAD to fire station "Rip and Run"	No
Radio tone and voice amplification	
Outside coded sounding device	No
Mobile Data	
Others: (list)	

25. Facilities.

A. Age of PSAP Building (years)	5
B. Fire resistant construction?	Yes
C. Sprinkled/HALON/Alarmed?	Yes
D. Separate rooms for communications and equipment	Yes
E. Separate HVAC for communications?	Yes
F. 2-hour fire rating for communications room	Yes
G. Raised floor?	Yes
H. Square feet available for dispatch floor expansion	7000
I. Kitchen?	Yes
J. # Men Bunks	
K. # Women Bunks	
L. # Men Showers	Yes
M. # Women Showers	Yes
N. # Men Lockers	Yes
O. # Women Lockers	Yes

## PSAP/Communications Center Survey

P. Exercise Room?	Yes
Q. Quiet Room / Decompression Room?	Yes
R. Total square feet of dispatch room	
S. Total square feet of communications equipment room	

26. Please provide any existing PSAP blueprints, room layouts, measurements, etc.

## PSAP/Communications Center Survey

### Continuity of Operations & Disaster Recovery

27. Does the PSAP/Communications Center have a written continuity of operations and/or disaster recovery plan? (If yes, attach a copy of the plan as an exhibit to this survey)	No
28. Does the PSAP/Center have redundant HVAC systems? (Y/N)	Yes
29. Is there a kitchen available capable of supporting staff for extended periods? (Y/N)	No
30. Does the PSAP have an emergency backup generator? (Y/N)	Yes
If yes, list:	
a. Type (Diesel, LPG, Natural Gas, Fuel Cell, Other):	Cat Diesel
b. Capacity:	150 KVA
c. Duration of fuel supply (hours)	48 hrs
d. Entire building powered (Y/N)	No
e. Only Communications Systems powered (Y/N)	Yes & some emergency circuits
f. HVAC System powered (Y/N)	Heating&Fans yes A/C no
g. Automatic Start and Transfer (Y/N)	Yes
h. How often is the generator tested/exercised?	Weekly
i. Is there a redundant backup generator available?	No
31. Is there an Uninterrupted Power Supply (UPS) System?	Yes
a. How long will the UPS batteries power essential communications equipment?	180 minutes
b. List systems connected to the UPS:	phones radio computers
32. Are portable radios available in the center for emergency dispatch purposes?	Yes
33. In the event of a mandatory evacuation of the PSAP/Communications Center, how will operations continue? RICO Command Bus	

## PSAP/Communications Center Survey


34. Please provide LAN/WAN network diagrams.



## APPENDIX B: INTERVIEW NOTES

### GENERAL INFORMATION:

- Six Primary PSAPs (no Secondary PSAPs)
- All agencies use OSSI CAD, RMS and mobile client. Direct access to RMS from mobiles is provided using Citrix client (remote desktop)
- All agencies use ECS1000 9-1-1 switch (located at primary data centers at Rock Island and Center Station).
- New version of OSSI ONESolution tested. Performance problems being worked out, primarily believed to be database related. Same user look and feel maintained as much as possible.
- Moline, East Moline, Milan and Arsenal are all currently on 800 MHz (EDACS). Silvis will be on 800 MHz within the next few days.
- EMD is performed using paper cards. Integration with OSSI CAD was not well accepted. All agencies perform EMD except Silvis – transfer to 3<sup>rd</sup> party Genesis/Ilini
- All agencies use light post to indicate radio/telephone activity except Silvis (number of lights and colors vary by agency)
- Instant Recall Recording and Voice Logging Recorder provided by E-9-1-1 Board using Eventide solution (solution implemented by Nelson Radio contractor)
- The overall CAD system administration is performed by Nanette Anderson. Wayne Sharer (Rock Island City) is the assistant CAD administrator. Lt. Hart (Rock Island County) is the RMS administrator.
- Generally dispatchers run queries for officers, rather than officers running on MDCs. Keep officer focus on situational awareness, and hear voice (exception is \_\_\_\_\_). See separate Excel report for query volumes.
- All agencies reported providing EMD except Silvas (Rock Island County reports performing but common to have only 1 dispatcher). No EFD or EPD.
- Firehouse used by Moline/E. Moline, Rock Island Moline also uses IAMRESPONDING
- All agencies have siren system, but system activation and alerting is inconsistent and redundant
- County GIS performs map updates for all PSAPs, with individual input from agencies for agency specific map data.

**JULY 15, 2013 - ROCK ISLAND COUNTY PSAP (LT. HART, BRIAN NELSON)**

- the agency has working supervisors
- a total of nine dispatchers, two sergeants (one day/1 3rd shift) Capt. Oversees all. A 10<sup>th</sup> dispatch position was eliminated approximately 2 years ago due to budget cuts
- Mondays are busy days you can transport of inmates and court activities
- after 10 rings phone calls will rollover to the city PSAP. This is rare to occur
- the agency dispatches for fire, EMS, Sheriff's office, two city police departments, nine volunteer fire departments, to hospitals and the airport
- there is also a nuclear power plant, and a chemical plant in the jurisdiction as well as rail lines
- Agencies use MABIS – mutual box alarms, for Fire dispatching
- CAD/RMS/mobile applications are provided by SunGard OSSI
- dispatchers are unionized AFSME, sworn officers are unionized FOP
- the agency is fully staffed dispatchers are well-paid – \$65-\$70,000 for dispatchers, 60,000 telecommunications officers
- the facility is cramped, old, noisy, not secure, billed as an afterthought with a lot of foot traffic
- the backup facility is the unified command center for dispatch but does not take 911 calls
- the radio system is UHF/VHF conventional
- the county is approximately hundred and 15 miles long and thin
- coverage issues exist in some locations in particular the bluffs at the West end and northern most corner of the county
- there are three tower sites into repeater sites, license WPM978
- repeaters in cars provide additional coverage
- city is also VHF, but most agencies are 800 MHz
- interoperability and mutual aid is provided by Gateway/patch
- radio consoles provided by ZETRON
- the logging recorder provided by Eventide
- significant events for the agency include:
  - TUGFEST
  - John Deere golf
  - County fair
  - Fourth of July

- additional events must be approved by the agency
- the County utilizes AVL and patrol vehicles. GPS is included in the Panasonic Toughbook mobile computers which include Verizon embedded modems. Verizon coverage is good throughout the county. A state rate of \$37 per month provides unlimited data for 3G and 4G
- messaging between agencies provided by the OSSI applications
- a common CAD and records system is used by all of the PSAPs. This provides the ability to share events and unit information
- the primary server is located Rock Island city Police Department. The backup server is located in central dispatch (Moline/East Moline)
- the network architecture is currently a hub and spoke configuration with leased fiber provided by MediaCOM. There is a plan for a new fully redundant fiber architecture using a 96 strand private fiber network ring. The core network is at the County jail.
- A new Rock Island City facility is planned. Room is available for expanding the size of the PSAP, but design requirements need to be completed early next year. Note that PSAP and equipment should be located on 2<sup>nd</sup> floor or higher.
- The phone system utilizes to ECS 1000 switches with a dedicated T-1 between the two facilities (Rock Island and Center Station)
- issues identified include numerous and sometimes multiple call transfers from wireless cell phones, cell misroutes due to the Iowa/Illinois border, as well as calls from unincorporated areas within the County. Calls transferred between states lose Ani/Ali information.
- EMD is performed by some agencies including the County, Arsenal, Moline/East Moline, in the city
- Arsenal is the only PSAP dispatch and for the military. Need to keep separate facility for Arsenal
- a virtual PSAP configuration is already in place, however, issues include the analog phone and non-compatible radio systems (ACU 1000)
- there is a need for standardization of training and standard operating procedures between agencies
- the 911 board provides primarily hardware management for CAD/RMS and the phone system. The board does not pay for any radio equipment
- Arsenal requires a dedicated LAN, line
- Rock Island City is the busiest PSAP
- one consideration would be for MILAN and Silvas to shut down at night and transfer their calls to another agency
- there is a need for overall governance among the agencies

- there is a command bus available for all of the agencies to use. The bus has two positions for dispatching. The buses stored in a County facility
- the County EOC has phones but no CAD positions
- the Moline city EOC has CAD and provide the backup capability
- Verizon mobile computers are still mostly 3G
- the Verizon connection is provided by the FES network. Which does not require a VPN. T-1 connection uses static IP addressing. A change to an Internet connection is being contemplated.
- There is a T-1 connection to the state for NCIC
- There is a T-1 to Verizon
- there is a T-1 between the ECS 1004 (backup only)
- there is a T-1 to each of the PSAPs
- there are approximately 1 50 mobile data computers
- the CAD configuration at each PSAP includes 3 CAD screens (CAD, map, RMS PISTOL), a 9-1-1 (Sentinel) screen and a radio screen (Zetron). The 9-1-1 and radio screens are touchscreen.
- An additional monitor provides units status, locations, weather alerts
- a single keyboard and mouse is provided for all CAD operations. A separate mouse is provided for radio operations
- wired headsets are utilized because of battery issues with wireless headsets (battery lasts only 3 to 4 hours)
- there are two dedicated phone lines, one for NARCS to the nuclear plant, and the second crash phone to the airport
- EMD is performed using powerphone cards. The integration of EMD with the CAD was not successful due to operational issues
- there are four 9-1-1 trunk lines that provide both wired and wireless calls
- paging is provided using a third-party application called PageNet. The application is integrated with CAD, and provides paging via SMTP and SMS, however paging delivery is not guaranteed. The agency is working with Verizon on a guarantee delivery solution within the Verizon network
- a tornado warning system provided by Exelon. Tornado warnings are activated with specific criteria are met, or warnings are provided by the National Weather Service.
- EMNET provides Amber alerts, weather alerts using a combined terrestrial and satellite network.

**JULY 15, 2013 - ROCK ISLAND CITY (WAYNE SHARER, BRIAN NELSON)**

- 4 console positions, PD/FD/CT/Other (4<sup>th</sup> position is not equipped for call taking or dispatching)
- mobile data terminals were introduced in 2005 to all vehicles
- there is very little turnover of staff, many over 20 years, some lost due to higher pay at other agencies
- Rock Island city is one of the busiest PSAPs, high crime, bars open till 3 AM (other jurisdictions bars close at 1:00 AM)
- the facility is old, but a new facility is pending with the plan to break ground in October this year
- population has dropped off significantly. A population of approximately 53,000 in the early 80s is now down to 39,000 now. PSAP staff is the same.
- Milan and Silvas fire dispatchers from Rock Island part-time to fill staffing needs.
- A radio upgrade is in progress with the desire to implement 800 MHz P 25 solution
- Rock Island Police Department currently use UHF in the fire uses VHF conventional
- there are approximately 200 mobile and portable radios (voice)
- There are 3 console positions and 12 dispatchers total, 4 people per shift
- Top pay is \$51K (lower than average for area PSAPs)
- IT provides consistent technology across agencies (Dell preferred)
- There is a 15 week training period for dispatchers. 9-1-1 Board pays for training
- The CAD system also provides a test and training database
- MABIS box alarms are used (MABIS 39 for volunteers, MABIS 43 for paid)
- EMD is performed. Medical calls are pre-alerted to Fire Station
- Minimum of two positions always staffed
- Operationally there is a PD, FD and CT position, but all positions are able to perform all functions
- Fire Department is paid position in City
- Weather alerts are provided via page to City employees
- Everbridge provides Reverse 9-1-1 capability as well as notification/paging. All PSAPs have this system, but use varies widely (overall low participation). The MSAG database feeds the Everbridge database (landline only) with updates 1x per year.

- Working with Verizon on guaranteed delivery of page messages (currently pages are not guaranteed)
- CTO (communications training officer) position is an “informal” supervisor. There is 1 CTO per shift.
- Sgt. do not take calls
- Rollover on busy calls is to Centre
- There is no mandatory Dispatcher training in IL. Moline and Rock Island (City) are considered to have good training programs
- There is a dedicated training position in the training room. 8 portable workstations can be set up for training at any facility.
- Additional dispatcher duties include data entry of traffic tickets and racial profiling statistics into state system (estimate approx.. 30 minutes per shift, mostly 3<sup>rd</sup> shift)
- Center Station is used for backup of dispatch. Prime equipment is at City and serves several smaller agencies
- Command bus available for use by all agencies (housed in County facility). Command bus has two CAD positions installed.
- Primary issue identified is need for unified radio system
- GIS updates are performed by the County for all agencies. Individual street layers and agency specific layers are provided by the individual agencies.
- Pictometry – flyovers every two years, web access by all agencies, local access also provided.
- Hot spots are available at key “safe” locations in the City
- NetMotion is used for roaming between networks
- Panasonic Arbitrator used for in-car video. Separate wireless network allows for uploading of video in station.
- Due to large file size for mobile software updates, a physical touch of each device is required (issue for agency)
- Alternatives discussed include Consolidation (not likely), Co-Location (more likely). Issues identified include unions, unequal pay and benefits, and satisfaction with current dispatchers based on training, high volume calls (risk other dispatchers may not be as good).
- Average police staffing – 9 per shift (Mon-Fri: 5, Weekend: 9, 3<sup>rd</sup> Shift: 9-11). Special Assignments can involve as many as 20 units.
- Several large events throughout year increase population from 5-7,000 for small events, to 20,000 for large events. One additional dispatcher added for events. Command bus can also be deployed
- Dispatchers in AFSCME union (all but Chief)

- Dispatchers have access to cameras including PTZ. Cameras are provided for additional information but monitoring is not a required function. 4 building cameras, 9 City cameras
- Shifts are 8 ½ hours, 15 minute offset from Police shifts (PD is 8 hour shift). All dispatchers go to police roll call briefings. Builds good rapport between dispatchers and Police.
- Both secure and unsecure WiFi is available
- Common Windows login is used for all dispatch personnel, but a unique CAD login is used.
- NCIC queries are primarily performed by dispatchers. See separate report for number of queries by agency. Dispatcher queries are preferred due to logging of voice traffic, as well as ability for other units to hear verbally
- Wired headsets are preferred (single ear). Wireless headsets were used but battery life was inadequate to last for a full shift (typical 3-4 hours)
- Kitchen facility desired
- NO TV is allowed in Center while on floor (no TV monitors, even for news/weather)
- Complex daily reports require manual effort to generate (identified during Moline interviews).

**JULY 16, 2013 - MOLINE/EAST MOLINE (CENTRE STATION) (NANETTE ANDERSON).**

- The PSAP is located in a bus station, in close proximity to a train line, and underneath a major highway overpass. Sounds from the train are moderate in the PSAP due to bullet resistant glass, but louder in the adjoining conference rooms and offices.
- One dispatch channel is used for Fire/EMS, then individual talk groups are used for fire ground communications. Patches are provided for mutual aid.
- Medical calls are transferred to MEDCOM Genesis (Illini Ambulance), a private EMS firm. No ANI/ALI or caller information is transferred with the call. MEDCOM/Genesys on 800 MHz radio
- Due to close proximity to the river, transfer of wireless calls was more common, and the issue of disparate telephone companies with no transfer of caller information was more pronounced here.
- The center staff we spoke with recognized the potential benefits of consolidation (since they are in a partially consolidated center) and were generally in favor of consolidation.
- The PSAP has 5 positions and 19 dispatchers (12 Moline and 7 East Moline). Supervisors are working supervisors (Ideal preference is to make supervisors non working). Minimum staffing is 3, with at least 4 working if there is any event. Positions include 1 Law ( Moline), 1 Law (E. Moline), 1 Fire/EMS dispatch, 1 call take, 1 training
- Dispatch center staff retention was reported as very good, and much improved in the recent past. One reason cited was a stable dispatch schedule, with no rotation. Currently they are fully staffed, with one person in training. However, it was reported that “floaters” or part time staff are needed when short staffed. This can be a union issue, and causes issues with maintaining skills of temp workers.
- Training for CTO is 16 weeks. Generally recognized as a good training program.
- Overtime is minimal based on schedule rotation
- Personnel were happy with the technology, and felt that they worked well with other agencies.
- Pay is good (comparable with other agencies)
- Call volumes busy (similar to Rock Island City)
- Two different unions (variants of AFSCME) with different benefits between Moline/E. Moline
- Calls roll to Rock Island City
- All PSAPs except Moline/E. Moline go through Rock Island phone switch
- Only PSAP separate from Police Department. Dispatchers not as close to first responders?

- Call volumes are relatively stable – increases attributable to additional wireless calls
- Fire staffed with paramedics, but do not transport patients
- NCIC queries run by dispatchers, hit notification to all positions
- Additional duty for PSAP staff
- Checking SOR registry (update based on new job, moves, etc.)
- Internet provided to allow for search of people (common officer request)
- Data entry of traffic stop, (no racial profiling done in Moline)
- Building cameras in PSAP but not a required monitoring duty. Able to open doors remotely.
- Tactical dispatchers trained to go in field to dispatch remotely from portables or command vehicle. Extra radios available for this function, and tactical dispatchers are NIMS trained).
- Strong education program for outreach to schools
- No standard reports run, system can create CAD reports, but most run on demand as unique reports
- Everbridge used for notification for admin, notifications, primarily internal
- Fire are all paid, no rip & run, but use MDCs for info. 7 fire stations
- Spectracom time standard to phone and CAD, NTP to other workstations
- Planer Touchscreens for 9-1-1 and radio. Typically use touch for 9-1-1 and mouse for radio. Good performance and response
- ITS traffic cameras available for viewing over network. Visual info only.
- No fire alarm panels in PSAP
- VARDA alarms – installed by PD for high threat locations
- Delay in radio system (~1 second, but inconsistent) reported as problem. Being investigated by RACOM radio vendor
- Moline has requirement for in-building BDA's (identified during County EOC interview)

**JULY 16, 2013 - SILVIS (CHIEF BRASCHE, ED LEIBOVITZ, LORI ANDERSON)**

- 2 positions in center. Small staff easily overwhelmed if call volume increases. Typical staffing is two positions, ramp up to 5 for special events.
- 4 full time dispatch staff, 5 is full staff, supervisor additional
- 15 sworn Silvis officers incl. chief
- 7 sworn Hampton officers, most part time, 2 FT
- Barstow – volunteer fire, except paid for training
- Fire – 5 stations (2 Silvis, 1 Cliff/Barstow, 1 Hampton)
- Fire Radio is VHF, Minitor paging, cell phones
- NFIRS reporting through state (web based). Call times obtained from hard copy print via network.
- Frequently short-staffed. Use other agencies to support staffing needs
- NO EMD performed (transfer calls out to 3<sup>rd</sup> party, but requires repeat of information since none is transferred)
- Currently migrating to new radio system
- Radio consoles currently stand-alone monitors, but being migrated into consoles
- Close relationship with PD, FD and dispatchers
- Desire to keep services local, knowledge of local issues and 7x24 public service due to large transient activities late evening/night
- Partial consolidation (shut down at evening) not seen as viable by chief. “all or nothing”
- Roll over to Rock Island City after 6 rings
- 2 FD stations, FD failover to Hampton
- Illini Genesis provides EMS
- Failover to command bus, able to dispatch (limited) from MDCs, need training
- Dispatch duties:
  - Staff handle walk-ins from public through window
  - Data entry, traffic citations,
  - RMS/reports,
  - Payments, fines
  - Fingerprints
  - 7x24 support but officer called in after hours
- Union AFSCME (same as Moline). PD all union except Chief
- AVL in PD vehicles (no AVL in FD)

- Police use pool cars
- TDD – none
- On-star alarms – via phone only (no ASAP)
- Higher volume events:
  - Moonlight parade – last Sat in Aug
  - Tugfest – Aug 9/10
  - Political events, presidential elections (Iowa)
- Dispatch shifts same as PD
- Briefings performed on radio
- Training – 1 primary trainer, burnout due to frequent training (frequent trainee dropouts). 4 month training cycle, minimal continuing education for dispatchers
- 3 phone trunks (combined - not separate wired/wireless)
- Everbridge available for reverse 9-1-1/alerting, but rarely used.
- Pagegate – used by PD
- IAMRESPONDING – used by FD
- Sirens – yes – large influx of phone calls after siren alerts
- Large Hispanic population, some French, Indian, Vietnamese. Use Language Line for translation services
- Interface between OSSI and New World (IOWA Scott County PSAP) is web-based, slow and inefficient.
- Regional initiatives – Metro Enforcement Group – undercover drugs, IL State Police, Gang task force, Gaming (gambling/casinos)
- 2008 activities – lost radio tower, no generator, major outage – need to look at hardening of facilities and support systems

**JULY 14, 2013 – ROCK ISLAND ARSENAL (CHEIF. MCMASTER, ANGIE SCRIVEN)**

- Requirements for access to government systems will require federal employees and separate networks to be part of staffing and network solution. Intrusion detection, security and CCTV are government systems that cannot be addressed by normal PSAP environment.
- Previous attempts to run CAD on Army network failed due to delays in getting information pushed to mobile computers
- 5 PD and 7 FD vehicles. Mobile users currently use Verizon Aircards
- Current funding model for ETSB equipment allows government to buy hardware with ETSB funding.
- Currently Arsenal pays County for HW, SW and services. In August, a flat fee will be paid to County for a level of service (3 years, \$150K/yr)
- Fire Department provides mutual aid both on and off the island. FD is paid service. FD uses MABIS.
- Police provide services on island only.
- Radio systems on 800 MHz, with links in command vehicle using ACU-1000
- EMS provides medical response. AMD (Trinity) provides private response. Issues communicating with Trinity on radio channels.
- Vendor training (OSSI) is seen as good, but TTT becomes noticeably weaker.
- Staffing is for 10 people, currently 9 filled, reduced to 8 next week. Normally full staff. FY 15 will increase staffing to 12 positions
- Two positions are 7x24
- Civilian positions do not require security clearance.
- Salary ranges from \$33.9K - \$46K based on OPM guidelines
- FD runs PSAP
- Due to lower call volumes, agency workload is light. Experienced Dispatchers who retire from other agencies often come to Arsenal to work
- Population of island during business hours – 8-10,000. At night/weekend, population drops to less than 100.
- Major issue is parking violations. There are 50,000 non-emergency calls, 1000 9-1-1 calls
- Primary service provided is customer service – speeding, building alarms, hot work permits. All movements are entered into CAD
- PD increasingly perform NCIC checks from MDC. FD use MDC frequently
- EMS provide ALS/BLS and transport. Due to large amount of factory work, injuries, chemicals, etc. are common.

- Dispatchers in AFGE union. FD in IAFF, excludes supervisors and above. PD in AFGE, but a different branch (supervisors and above)
- FD specialized teams for HazMat, confined spaces
- When FD dispatched, there is no move up/cover plan for backfilling units
- 9-1-1 call backup rolls to Rock Island City (10 rings). Also physical failover move to RIC
- Facility has good backup capabilities (generator, diesel, UPS). Hydro-electric power generates 15-30% of electricity
- Flooding has not been an issue. Minimal risk
- Utilities services provided from Illinois. Phone lines are underground.
- Facility produces own water supply
- Pagegate is used for paging
- Communicator is used for reverse 9-1-1 and notification of weather alerts, ad-hoc notifications, etc. (Everbridge is not used)
- “The Big Voice” (Federal Signal) is used for audio alerts and mass notification throughout island. 5 tower speakers also perform weather alert siren function.
- A separate Government message system (Ad HOC) provides pop up messages, text, e-mail and phone. This is also connected to the Federal Signal alerting system.
- The Arsenal has facility space available that could be leased and is readily available. Existing facilities could be refurbished. This space provides a good level of security, limited access, minimal risk of flooding, and plenty of secure space.
- A web-based MABIS spreadsheet is used in conjunction with Rock Island and Center PSAPs
- Small influx of visitors to see National Cemetery, public golf course, Memorial Day celebrations
- All facilities have both building number and street address. Building numbers are commonly referred to by Arsenal personnel, and info is included in map common place (or business) names
- Since there are no cell phone towers on the island, all cell phone calls are transferred.
- Office phone information is maintained in a separate SALI database
- Arsenal accesses RMS through a remote desktop VPN connection on a secure network. Dedicated workstations are also available for some users
- All data center equipment is separately maintained
- Arsenal uses Firehouse RMS

- Some Fire alarms are still provided over old Fisher Fire Alarm box, but this is being eliminated.
- Simplex Fire Alarm system provides location graphically along with building information
- A separate terminal is provided for JSIDS police alarms. This is being replaced by ICIDS, but will still be a separate terminal.
- Intrusion Detection System (IDS) is provided on a stand-alone monitor. This government system is separate and must remain separate.
- PSAP staff have access to CCTV cameras (gate, building) including PTZ capabilities. Cameras are recorded.
- Arsenal has several secure Army EOC's on the island. FD and EOC staff use WebEOC for coordinated operations (unclassified). (**Recommend Rock Island EOC use WebEOC for coordination as well.**)
- Clearcom intercom provides communications between each desktop at Army EOC for both classified and unclassified operations. This appears to be a good tool to facilitate communications. A similar capability should be available for any large County PSAP.
- EOC also includes state and local positions if needed for coordinated operations

**JULY 19, 2013 – MILAN (TAMMY BEDFORD, CHIEF JOHNSON, STEVE SEIVER)**

- Migrated to 800 MHz approx. 12 years ago. Monthly fee is ~\$20/user.
- FD uses VHF. Blackhawk Fire dispatched, utilize a repeater on water tower
- Medic calls are transferred to third party AMT (Advanced Medical Transport) – voice only
- ACU-1000 available for patches
- IOWA - statewide wireless backhaul changed approx. 1 year ago, transfer is now a 10-digit transfer
- Center has two positions, can expand up to 4 for future growth
- Staffing is 1 position minimum. 9-1-1 phone also in bathroom due to minimal staffing
- Staff includes 4 FT, 1 supervisor (working), 3 PT positions (PT usually from full time pool from other agencies)
- Ancillary duties include data entry, records, and admin phone (call takers provide main PD admin support)
- Staff turnover is reported as low. It is difficult to keep part time personnel busy, and difficult to maintain skills unique to Milan.
- There is no formal training program for dispatchers (agency would benefit from universal training program)
- Call volume is low. Calls roll over to Rock Island City.
- It was noted that acceptable response times vary by agency.
- Status of each telephone position (logged on, busy, etc.) is available, but not easy to pull up to see (**recommend display of position status similar to BWI**)
- Union is AFSCME. Excludes Chief and Captains
- Pay is lower than other agencies but does not require additional costs for medical. Hourly rate varies from \$17.04 to \$24.13 based on time
- Population is approx.. 5,000
- Building is locked after hours, but intercom provides 7x24 access (usually Police presence for after hours)
- Preference for consolidation is to enter a “new environment” rather than be absorbed by an existing agency. (Concern of E. Moline in Center Station)
- Stated Goals:
  - Service to the public
  - Eliminate multiple call transfers
  - Maintain close relationship between dispatchers and officers

- The Milan PSAP has a third floor available for buildout that would provide substantial space for a consolidated PSAP.
- Milan population is relatively stable. More daytime activity due to industrial/commercial base. Some low income housing, trailer parks.
- Typical 2-3 units in field with mobile computers/AVL, 12 hour shifts.
- Higher volume events:
  - 4<sup>th</sup> of July Fireworks (15-18,000 people, 2 additional dispatchers)
  - Labor Day festival (3 days)
  - Craft fair
- Facility uses VoIP phones (boom mics used since there is an issue with the interface from VoIP to headsets)
- Weather alerts use same system as Moline
- Lightning Detection system – monitor and alert for lightning strikes, provide notification and all clear from dispatch (sets off local alert in parks)
- PageGate is not used for paging (notification via phone as primary means)
- Everbridge system is used somewhat for community alerts, but minimal use
- Volunteer FD personnel are toned out through radio, no feedback provided to dispatchers. Also tone out as medical first responders.
- Agencies work well together. Good, scalable technology in place. Common platforms and interoperability in place.
- No single JPA or IGA agreement exists. Numerous specialty agreements are in place.
- Radio system grounding is performed when cables enter data room (should be at entry to building)
- 5 monitors at each position. Supervisor also has weather PC and keycard Access.
- Supervisor position is able to take calls and has access to CAD.

**JULY 18, 2013 – ROCK ISLAND COUNTY EOC (JERRY SHIRK)**

- EOC activations – typically 1-2x per year, primarily for County/State activities, Exelon power plant events, FEMA exercise every 2 years. Partial activations throughout the year 5-10x
- Multi-agency exercises 1-2x per year. Communications issues common. County dispatcher available to monitor radio traffic.
- Outfitted with radio equipment (VHF/UHF/800 MHz/ACU-1000 for patching), one radio per system, no CAD, no RMS, no LEADS terminals. Need improved radio systems and connectivity.
- StarCom radio system costs are \$34/user/month
- Patching is combination of pre-configured patches and manual patches
- EMA staffing is 30 hours per week. Budget approx. \$100K. Additional funding received from grants and Exelon power plant (typically \$10-15K).
- Primary risk – Exelon nuclear power plant nearby
- EOC activated during 2008 flood events. EOC is NOT in flood plain.
- If a storm were to knock down trees, EOC site could easily be isolated due to limited access and heavily treed location.
- 24 phone lines available, MediaCom and ATT provide lines and Internet connectivity (split between both providers). Also NARS phone (Nuclear Accident Reporting System)
- Backup generator is in place
- There is a connection to the County WAN. No access to fiber anticipated in near term (none in close proximity). Other options could include leasing or microwave. Due to elevation of facility, a number of water towers are visible line of sight.
- Plan to upgrade phones to VoIP.
- WebEOC is used by State, but not by County
- Local Emergency Planning Committee (LEPC) has access to Tier 2 Haz-Mat information, MSDS data sheets and state web site. Plans for County buildings, nursing homes (9) also available, and local cities
- No access to County outdoor siren system (PSAP only)
- If activated, participants include the various Cities and agencies, Mid America Energy, regional school superintendent (busses, shelter), Red Cross, RICO SO, Public Works, ISP and PHD
- EOC “customers” include both paid and volunteer Fire, Cities, ambulance/EMS (Fire department and private EMS), hospitals
- Assessment of long term EOC plans is needed (keep where is, move, consolidate?) Facility is old, needs new roof, new furnace

- Pictometry access available via web. Public cameras available via web.

### **JULY 18, 2013 – AIRPORT**

- Test call to 9-1-1 went to call center in Canada, and was then routed to Moline
- Incident reporting system is web-based Quad City International Airport. No interface with other systems
- Dispatch log, unit status maintained in Excel spreadsheet
- No MDCs, no GPS/AVL for units
- No location of airport courtesy phones
- Separate PD/FD phones in dispatch
- All first responders are both FD and LE (sworn) qualified. One EMT/paramedic on staff.
- 4 FT dispatchers, multiple part time. 4-5 first responders, typically one in terminal, 1 roaming
- FD utilizes MABIS
- Facility uses Starcom radio system. Need to be part of unified radio solution.
- Crash phone in dispatch (receive only)
- Tower closes at 10:30 PM unless late arriving flights. Calls roll to Chicago

**JULY 18, 2013 – SCOTT COUNTY CONSOLIDATED PSAP/EOC (BRIAN, DAVID DONOVAN)**

- Facility consolidated Scott County Sheriff, Davenport Police and Fire, Bettendorf Police and Fire and several suburban and rural police and fire agencies, along with the not-for profit MEDIC EMS services. A total of 37 agencies are dispatched, with approx.. 1500 users.
- There are a total of 23 console positions, 13 call take/dispatch, 6 medic and 4 training positions.
- The project began as more of a co-location. Initial strategy included common call takers, with dispatchers for each respective agency. Process is migrating to fully consolidated call center with common dispatchers as additional training is provided.
- Agencies were migrated to the new center over a period of weeks, with 1-2 weeks between agencies.
- New World is the CAD/RMS/MDC provider for the center. The private MEDIC uses a separate reporting system. Fire records is mostly provided by Firehouse with a 1-way push to FRMS.
- Most mobile users are utilizing Verizon Aircards for connectivity, but varies by agency. Coverage is generally good. Some agencies also use hot spots and NetMotion for mobile hotspots and roaming
- Radio system also uses Harris EDACS (36 channels) and RACOM as radio contractor
- Need co-location of EOC and PSAP for synergy
- 4 training positions (separate but connected room) can be added to live environment if needed for overflow
- Building is designed for expansion. Room for growth of 6 consoles in existing space.
- EOC and 9-1-1 rated for F5 tornado. Rest of facility rated to 150 MPH winds
- Data center in facility is very robust, with excellent back up and redundancy in place. Backup servers are located downtown with dual fiber connections.
- A backup center includes 6 call take/dispatch positions, 7 radio positions, and the backup Positron servers
- Positron (Viper) provides the phone system. The system is sized such that it could provide service for the entire Quad Cities area.
- Overtime was budgeted for 9-10%, running at ~5% (overall reduction in OT)
- Staff turnover has been low (~5%). Typical is 20%.
- IOWA is a right to work state. All dispatchers were hired for the center. “Red Circle” employees were grandfathered in to protect wage/benefits until others

catch up. This was contingent on employee being an “outstanding” employee until the end of their contract with the previous employer.

- A new union was created for the center. Same pay and benefits, but with right to work state, minimal benefit to joining union, thus membership is low.
- Training for call taker/dispatcher positions is 40 hours basic training. Training manager oversees CTOs and performs Q&A.
- No Admin calls are handled by call take staff. A ring-down phone is located at the front desk.
- Consoles have access to a video monitor, but are not required to monitor it as a core duty.
- There are no external alarms for call takers to monitor
- 10-digit cell phone calls is a problem on both sides of the river, requiring calls to be transferred to PSAPs across state lines. Call transfers do not contain ANI/ALI information. 10 digit transfers are transferred to the PSAP emergency line and are transferred on CAMA trunks
- Agency uses Eventide for logging recorders
- NCIC queries are primarily performed by users in the field and not dispatchers.
- Shift changes for PSAP staff coincide with Police shift changes
- Scott County GIS – good base map, individual agencies feed changes to County for incorporation.
- Reverse 9-1-1 is performed by each agency and not by Scott County (tools utilized include Code Red)
- EMA and Health Department have need for reverse 9-1-1 mass notification. Countywide notifications performed by Sheriff’s office using NIXLE
- FD uses paging from CAD, PD does not utilize.
- Each position has a 32” monitor at the top position. Users are able to pull up video, TV, or any of the CAD screens
- Evans provide consoles. Zetron provides radio console
- ProQA is integrated with the NWS CAD. Agency uses EMD/EPD and EFD
- There are no RACES (Amateur radio) positions in center.
- The center also uses a light pole (configured differently than other PSAPs) for alerting of active operations on phone or radio
- The two medic positions are considered secondary PSAP positions
- Warrants are a separate section at the end of the room
- Data center provides key access to racks, limiting access by department or agency based on functions and security
- Racks are primarily 220 Volt power

- DataCenter Expert (APC application) provides a significant amount of information including monitoring of smoke, leaks, voltage, current, temperature and humidity. Application provides robust alerting capabilities.
- Data center (and facility) is video recorded.

DRAFT

## **4. ROCK ISLAND COUNTY PSAP ALTERNATIVES REPORT**



---

***PSAP CONSOLIDATION ALTERNATIVES***  
**ROCK ISLAND COUNTY, IL**  
**PSAP ALTERNATIVES REPORT**

---

Version Number: Draft

Version Date: 3/27/14

## Table of Contents

1	Executive Summary.....	6
1.1	Summary of Recommendations.....	8
1.2	Summary of Consolidation Alternatives Costs.....	10
2	Analysis Scope.....	12
2.1	Purpose of the PSAP Consolidation Study .....	12
3	Analysis of Current Conditions.....	12
3.1	Current Center Operations/Staffing, Service Levels, Call Volumes .....	12
3.1.1	Current Center Operations .....	12
3.1.2	Service Levels, Call Volumes .....	14
3.2	Technical Systems .....	20
3.2.1	E9-1-1/CAD/RMS Systems.....	21
3.3	Facilities.....	21
3.3.1	Site Characteristics.....	22
3.3.2	Continuity of Operations.....	24
3.3.3	Existing PSAP Characteristics .....	25
4	Feasibility of Consolidation.....	29
4.1	Strategic Considerations .....	29
4.2	Consolidation Objectives .....	31
4.3	Consolidation Approach.....	32
4.3.1	Consolidation Models .....	32
4.3.2	Consolidation Alternatives.....	35
4.4	Backup PSAP Considerations .....	36
4.4.1	Single Consolidated PSAP Backup (Alternatives 1 & 2).....	36
4.4.2	Two-PSAP Consolidated PSAP Backup (Alternatives 3 & 4).....	36
4.5	Service Provisioning .....	37
4.5.1	Service Level Expectations .....	37
4.5.2	Consolidated PSAP Services and Service Levels.....	38
4.6	Staffing the Consolidated PSAP .....	46
4.6.1	Strategic Staffing .....	46
4.6.2	Total Staff Needed for a Consolidated PSAP.....	50

4.6.3 Commitment to Quality Service..... 55

4.7 Consolidated PSAP Facility..... 58

4.7.1 Basic Design Criteria for a Consolidated PSAP Facility..... 58

4.7.2 Spatial Descriptions of Common Areas..... 65

4.7.3 Consideration of Retrofitting an Existing PSAP or Building a New Consolidated PSAP ..... 67

4.7.4 Rock Island County Consolidated PSAP Facilities Requirements ..... 67

4.7.5 EOC Facility Considerations..... 73

5 Governance ..... 75

5.1 Governance is Key to Regional Interoperability ..... 75

5.1.1 Governance Structure ..... 76

5.1.2 Governance Model..... 76

5.2 Consolidation Cost Considerations ..... 78

5.2.1 Telecommunicator/Supervisor Salary Cost – Current vs. Consolidated ..... 78

5.2.2 Consolidated PSAP(s) Estimated Salary Cost Summary ..... 80

5.2.3 One-Time Consolidation Costs..... 80

5.2.4 PSAP Operating Costs..... 80

5.2.5 One-Time EOC Facility Costs ..... 80

6 Consolidation Benefits and Best Practices..... 81

6.1 Benefits of Consolidation ..... 81

6.2 Best Practices (NENA, APCO, NFPA, RCC experience)..... 83

7 Funding Options ..... 86

7.1 Capital and Operating Budgets ..... 86

7.1.1 Cost of Consolidation and Allocation of Costs ..... 86

7.1.2 Assumption of Consolidation Costs ..... 86

7.1.3 Budgeted Appropriations..... 87

7.2 Cost-Benefit Analysis ..... 89

7.3 Cost Distribution Models ..... 91

7.3.1 Proportional Call Volume ..... 92

7.3.2 Proportional Population..... 92

7.3.3 Assessed Valuation ..... 92

7.3.4 Console Minutes ..... 93

7.3.5 Pay for Direct Positions ..... 93



7.3.6 Reaching a Weighted Cost Allocation Formula..... 93

7.4 Budget Development Process and Guidelines..... 93

7.4.1 Fiscal Overview & Budget Summary ..... 94

7.4.2 Planning..... 95

7.4.3 Legislative Deliberation..... 95

7.4.4 Gubernatorial Review ..... 96

7.5 Potential Grants That May Be Used to Fund the Selected Alternative..... 96

7.5.1 AFG Grant..... 96

7.5.2 Edward Bryne Memorial Justice Assistance Grant Program (JAG) ..... 97

7.5.3 The State Homeland Security Grant Program..... 97

7.6 Potential Phased Approaches to Complete the Migration to the Selected Alternative..... 97

7.6.1 Seek Commitment to Consolidate ..... 98

7.6.2 Implement a Governance Structure ..... 98

7.6.3 Implement Working Groups ..... 99

8 APPENDIX A - GOVERNANCE AGREEMENTS IN PUBLIC SAFETY INFORMATION SHARING PROJECTS .... 101

## List of Figures

Figure 1- Arsenal Fire Station 1/PSAP .....	25
Figure 2 – Arsenal PSAP .....	26
Figure 3 – Centre Station PSAP .....	26
Figure 4 – Centre Station PSAP .....	27
Figure 5 – RICOMM PSAP.....	28
Figure 6 – Silvis PD PSAP .....	28
Figure 7 – Milan PD PSAP.....	29
Figure 8 - Emergency Call Lifecycle.....	40
Figure 9 - Typical Distribution of 9-1-1 Calls Over 24 Hours.....	41

## List of Tables

Table 1 – PSAP Salaries Comparison Summary.....	11
Table 2 – One-Time Consolidation Facilities Cost Estimates .....	11
Table 3 – One-Time EOC Facilities Cost Estimates.....	11
Table 4 – Agencies Dispatched, Authorized Staffing .....	13
Table 5 - Call Activity of Existing PSAPs.....	15
Table 6 – Communications Traffic of Existing PSAPs .....	18
Table 7 - Centre Station Staffing .....	26
Table 8 - Centre Station Communications Workstations.....	26
Table 9 - RICSO Staffing.....	27
Table 10 - RICSO Communications Workstations .....	27
Table 11 - RICOMM Staffing.....	27
Table 12 - RICOMM Communications Workstations .....	27
Table 13 - Silvis PD Staffing .....	28
Table 14 - Silvis PD Communications Workstations.....	28
Table 15 - Milan PD Staffing.....	29
Table 16 - Milan PD Communications Workstations .....	29
Table 17 – Average Call Processing/Service Times .....	49
Table 18 – Telecommunicator Availability: Comparison of Existing PSAPs and Industry Experience .....	51
Table 19 – Communication Traffic Projections.....	51
Table 20 – Required Telecommunicator Staffing at a Single Consolidated PSAP.....	52
Table 21 – Required Telecommunicator Staffing for the Alternative 3 PSAPs .....	52
Table 22 – Total Required Telecommunicator Staffing for the Alternative 3 PSAPs .....	52
Table 23 – Required Telecommunicator Staffing for the Alternative 4 PSAPs .....	53
Table 24 – Total Required Telecommunicator Staffing for the Alternative 4 PSAPs .....	53
Table 25 – Total Required Telecommunicator Staffing for the Alternative PSAPs .....	53
Table 26 – Total Required Supervisor Staffing for the Alternative PSAPs .....	54
Table 27 – Total Required Admin Staffing for the Alternative PSAPs.....	54

Table 28 – Description of Typical PSAP Console Types..... 63

Table 29 - Significance of Noise and Reverberation ..... 65

Table 30 - Spatial Requirements for a Consolidated PSAP ..... 66

Table 31 - Spatial Requirements for Parking ..... 67

Table 32 – Required Telecommunicator Positions for the Alternative PSAPs..... 67

Table 33 – Required PSAP Facilities for Alternatives 1 & 2..... 67

Table 34 – Required PSAP Facilities for Alternative 3 – Rock Island PD PSAP and Centre Station ..... 69

Table 35 – Required PSAP Facilities for Alternative 4 – Rock Island PD PSAP ..... 70

Table 36 – Required PSAP Facilities for Alternative 4 – Milan PD PSAP ..... 72

Table 37 - Spatial Requirements for a Consolidated PSAP ..... 73

Table 38 - Spatial Requirements for Parking ..... 74

Table 39 – Required EOC Facilities for a Joint PSAP/EOC ..... 74

Table 40 – PSAP Salaries Comparison ..... 79

Table 41 – PSAP Salaries Comparison Summary ..... 79

Table 42 – One-Time Consolidation PSAP Facilities Cost Estimates ..... 80

Table 43 – One-Time EOC Facilities Cost Estimates ..... 80

Table 44- PSAP Operating Costs..... 87

Table 45 - Existing Call-Taker/Dispatcher Salary Ranges ..... 88

Table 46 - Median Wages for Police, Fire, EMS Dispatchers ..... 89

Table 47 – Telecommunicator/Supervisor Salaries Comparison ..... 90

Table 48 – Administration Salary Cost Estimates ..... 90

Table 49 – Consolidated PSAP(s) Salary Cost Estimates ..... 91

## 1 Executive Summary

In June 2013, RCC Consultants, Inc. (RCC) was retained by Rock Island County, IL on behalf of itself and four other regional partners to analyze the County's Public Safety Answering Points (PSAPs). The analysis examined the PSAP operations and technologies utilized in the County; Cities of Rock Island, Moline, Milan, and Silvis; and the Arsenal with the goal of determining the feasibility of optimizing the operations and improving services provided at these facilities in a more efficient and effective manner.

Feasibility, for the purpose of this analysis and study, is intended to assess the viability of consolidating similar services provided by regional partners to achieve efficiencies in services and costs. It is intended to help answer the question: Are the PSAPs configured to provide the best service in a way that makes sense for the region? This study provides a thorough analysis of the business opportunity, including an examination of the possible roadblocks that may impede the cooperative success of consolidation, and addresses the question of whether consolidation would provide operational efficiencies and/or improve the delivery of services to the emergency response organizations and the citizens. The outcome of the study is intended to help the regional partners make informed decisions about their participation in consolidation.

After the initial site visits, interviews and preliminary data analysis, a variety of alternatives were identified in order to improve efficiency and optimize the operational environment for Rock Island County. The RCC project team evaluated the various alternatives and made recommendations regarding the alternatives that seemed to be the most likely to be successful. The recommendations, along with the pros and cons of each alternative, were reviewed with the County. At that point a determination was made to evaluate each of the approved recommendations in more detail.

The following consolidation alternatives are considered in this analysis:

1. Single new consolidated PSAP to provide call taking and dispatching operations provided by all the participating agencies (Centre Station, Milan PD, RICOM, RICSO, and Silvis PD).
2. Single consolidated PSAP in the remodeled 3<sup>rd</sup> floor of Milan PD.
3. Two Consolidated PSAPs: Consolidate RICOM, RICSO, and Milan PD into the Rock Island PD facility and Consolidate Silvis PD into Centre Station facility.
4. Two Consolidated PSAPs: Consolidate RICOM and RICSO into the Rock Island PD facility and Consolidate Silvis PD, Milan PD and Centre Station into the remodeled 3<sup>rd</sup> floor of Milan PD.

Various elements relative to the existing PSAPs were examined, including PSAP operations, services provided, technologies used, operational costs, staffing levels, service levels, and geographic distribution.

Each PSAP has a unique character, set of customers, and individualized operating environment. Even so, they share many common operating parameters and functions and have a long history of working closely together on a daily basis. The following summarizes the findings that are detailed in this report.

**PSAP Operations** – There is a strong commonality among the PSAPs that would aid in the potential transition to a consolidated PSAP. Differences in the types and levels of service are small and can easily be overcome through the development of unified policies and procedures.

The Arsenal PSAP must stay in place so that Arsenal personnel and services can be dispatched by personnel on the Island. This is a US military/federal requirement. For this reason, the Arsenal's telephone and radio traffic was not considered for consolidation alternatives off the Arsenal.

The Arsenal does provide a potential location for a consolidated PSAP, providing a secure and independent location with facility space readily available. If a full consolidation were to take place on the Arsenal Island, the Arsenal PSAP could be added back into the consolidation equation resulting in increased benefits and cost savings. The Arsenal is not prone to flooding, and provides inherent security since it is on a military facility. The type of space that is available is primarily office or administrative space, which may require additional hardening. The cost was estimated at \$16 per SF annually, and this includes all utilities, janitorial, garbage, and snow removal.

However, access risks need to be evaluated among other considerations if the location is to be seriously considered. One issue specifically identified was gaining access with firearms, as would routinely be required by law enforcement personnel. Another issue is the limit on lease agreements. Currently the Rock Island Arsenal Development Group can only execute leases through September, 2017. They are working to pass legislation that will allow extended leases to operate beyond the current contract, but at this time only a relatively short term lease would be available.

**Customers** – The PSAPs currently service law enforcement, fire and EMS agencies. Transitioning to a consolidated PSAP would only expand the current geographic footprint of the PSAP. More importantly, it would improve operations across all public safety agencies. Consolidation would enable Fire/EMS agencies in the region to be dispatched on common radio channels and would provide the telecommunicator staff needed to support on-scene operations. It would eliminate the need for many PSAP-to-PSAP call transfers and dispatching of mutual-aid resources between PSAPs within the County.

**Staffing, Service Levels, and Call Volumes** – The PSAPs are currently authorized for 70 full- and part-time Telecommunicator staff positions. Combined, they handle more than 94,000 9-1-1 telephone calls 312,000 Admin telephone calls, and 577,000 dispatches of emergency response agencies each year. The PSAPs also support a wide variety of administrative and other ancillary duties that cannot be measured.

**Cost/Budgets** – Numerous factors play into developing costs and budgets for a potential consolidation or realignment of PSAPs. Using data supplied by the current PSAPs, a baseline can be established. Cost should be a factor in making a decision to consolidate, but should not be the overall driving force. Cost savings may be realized over the long term, but improved efficiency and level of service can usually be achieved early in the consolidated process.

Total costs will also be impacted by the decision to add dedicated management and technical staff, changes/modifications to technology systems or the acquisition of new technology systems. Depending on the consolidation model and governance structure, the PSAP(s) may also need to budget for certain

support costs (e.g., human resources, facility rent and management, legal and fiscal services) that are currently provided by their respective municipalities and which are not reflected in the PSAP's existing budget but must be considered in the budget of a consolidated facility.

**Technology Systems** - There are typically four significant technology considerations, with potential cost implications, that must be considered in a consolidation: 9-1-1 systems; radio system and console equipment; Computer Aided Dispatch (CAD) and records management systems including mobile computing; and recording systems. Of these four key considerations, the County is well-positioned to support technology consolidation.

**Feasibility of Consolidation** – Overall, there appears to be significant support for consolidation of PSAPs among most of the regional partners.

The recent success of the Scott Emergency Communications Center (SECC) in Scott County, Iowa provides an example of a successful PSAP consolidation. Providing services for the Scott County Sheriff, Davenport Police and Fire, Bettendorf Police and Fire and several suburban and rural police and fire agencies, along with the not-for profit MEDIC EMS services, the SECC initially combined the agencies into a single new facility, essentially a co-location, and slowly integrated communications and operations into a consolidated PSAP. SECC has seen the advantages of consolidation including better service; quality assurance; better and more consistent training for all dispatchers serving Scott County; and leadership through professionals. In addition, cost savings are being realized as a result of savings in avoided capital costs by having one facility and shared equipment.

The facility was built to support the primary PSAP call taking and dispatching functions, as well as Emergency Operations and training. The facility is designed to allow growth and expansion, including the use of training positions that can be added to the operational floor when needed for high volume events. It is a hardened facility, with key areas rated for 150 MPH winds. This facility is the “gold standard” for the area, and is a model for successful PSAP consolidation.

**Consolidation Model Selection** – Several consolidation models are discussed and presented for consideration in this study. There are strong technical merits to each of the consolidation models, any of which could be applied in Rock Island County. Any consolidation model will require a strong governance structure to allow the proper level of oversight, as well as management and the equitable representation of regional partners. Based on the results of this analysis and the consultant's observations during the site visits and interviews, the full consolidation of the existing PSAPs into a single consolidated PSAP is the best choice for the regional partners. Full consolidation increases the number of telecommunicators on each shift without having to add additional employees. The recommended staffing structure provides more opportunity for a career path for telecommunicators than separate PSAPs. And the cost of operating a fully consolidated PSAP is considerably less than the costs of operating multiple separate PSAPs.

## 1.1 Summary of Recommendations

The consultants have made a number of recommendations throughout the report. The following summarizes these recommendations.

**Recommendation: The Rock Island County regional partners should adopt a long-term goal of fully consolidating the existing PSAPs into a single consolidated PSAP.** The single-PSAP consolidation configuration alternative has the maximum potential for improving public safety call taking and dispatching services in the County.

Formal adoption of the goal is recommended to establish a commitment to the principles of improving public safety services in the region and formally continuing the process of building consensus among the partners through additional discussions and planning.

**Recommendation: As a short-term goal, the County should consider consolidation into two PSAPs as an interim step to full consolidation (1. RICSO moves into RIPD, 2. Centre Station and Silvis PD move into Milan PD).** This process could put in place a governance structure to support future consolidation configurations.

**Recommendation: Establish a regional governance structure that is representative of the partners and public safety agencies the consolidated PSAP will serve.**

The regional partners should proceed with establishing a governance structure that is representative of the participating regional governments. Acknowledging that this structure will serve other regional interests, the oversight and management of the consolidated PSAP should fall to a standing committee or task force and should be representative of the public safety agencies that participate in the consolidated PSAP(s). Additional committees and/or task forces should also be established with appropriate representation to address specific technical and operational requirements that are common to all agencies served by the consolidated PSAP.

**Recommendation: Operate the consolidated PSAP to a recognized service level and establish service level agreements with emergency response agencies.**

The consolidated PSAP should adopt a published standard for answering 9-1-1 calls and for dispatching emergency responders, and staff the PSAP to meet the desired level of service. The National Fire Protection Association 1221 standard is an internationally recognized standard and should be adopted. Staffing levels should be established to meet this standard at all hours of the day. Service level agreements that describe the type and quality of services, the special procedures to be performed, and the processes for addressing grievances should be negotiated and executed with each emergency response agency served by the consolidated PSAP.

**Recommendation: Establish governance and management for new consolidated PSAP(s) for effective long-term management and supervision of the PSAP.** Each consolidated PSAP should have a full-time professional PSAP manager to provide the leadership and management of the PSAP. These managers should report to the established governance structure and be responsible for implementing the policies of the governing body. Supervisors should be appointed and assigned to each shift working in the PSAP. Supervisors will provide the leadership, coaching and supervision that is necessary for the effective operation of a PSAP.

**Recommendation: Develop a plan to address the transition of current ancillary duties performed by PSAP staff.**

There are many functions being performed by the PSAP personnel in each center that will need to be reassigned, modified, or eliminated upon consolidation. Activities such as administrative filing and responding to public walk-in requests will still need to be performed at the existing facilities. Other duties such as warrant checks will be assimilated into the consolidated PSAP. Additional staffing may be required both at the consolidated PSAP and at the facilities where the work was previously performed by PSAP personnel. The ancillary tasks performed by telecommunicators vary at each center, and a plan for continuance of duties at the existing center, or migration of the tasks to the new center will need to be made.

Specific agency solutions for the myriad administrative and clerical functions currently performed by PSAP personnel is beyond the scope of this study. While some agencies may decide to alter the service hours available for certain functions, other agencies may reassign staff or create new positions. The local cost of resources should be considered when evaluating the overall financial impact of consolidation.

**Recommendation: Existing technology systems should be expanded and reused in the consolidated PSAP to the greatest extent possible.**

To operate at peak efficiency, meeting established service levels, the consolidated PSAP will need to operate unified communications technologies. Many of the systems used in the existing systems are common and maintained by the County, minimal expense will be required to reconfigure the systems for the chosen consolidation configuration.

## 1.2 Summary of Consolidation Alternatives Costs

In addition to the operational benefits that result from the decision to reduce the number of PSAPs in a region, there are also financial benefits that can be achieved. While the reason for consolidation should not be based on economic factors alone, there is typically a benefit that can be achieved through economies of scale and efficiencies that allow for reduction in the number of staff required to operate the center. Since staffing costs are generally a large percentage of a PSAP's operating budget, these savings can be significant. In addition, the staffing budget is a recurring cost, so savings are achieved year after year assuming other factors remain constant.

It is important to note that since several centers appeared to be understaffed, operating with only a single telecommunicator during slow periods, the actual savings projections are not as significant as may be expected. The staffing levels in the proposed consolidated centers are increased to proper levels, providing a greater ability to respond to spikes in call volumes and provide the required staffing levels to support enhanced services such as Emergency Medical Dispatch.

Recognizing that consolidation can save money, it must be recognized that consolidation has short term costs, and net benefits from an economic standpoint may take several years before they are realized.

The consolidation alternatives referenced throughout this analysis are as follows:

1. Single new consolidated PSAP to provide call taking and dispatching operations provided by all the participating agencies (Centre Station, Milan PD, RICOM, RICSO, and Silvis PD).
2. Single consolidated PSAP in the remodeled 3<sup>rd</sup> floor of Milan PD.
3. Two Consolidated PSAPs: Consolidate RICOM, RICSO, and Milan PD into the Rock Island PD facility and Consolidate Silvis PD into Centre Station facility.
4. Two Consolidated PSAPs: Consolidate RICOM and RICSO into the Rock Island PD facility and Consolidate Silvis PD, Milan PD and Centre Station into the remodeled 3<sup>rd</sup> floor of Milan PD.

The following summarizes the Consolidation Alternatives cost analyses.

*Table 1 – PSAP Salaries Comparison Summary*

Alternative	Annual Salaries	% Current Cost
Current PSAP Configuration <sup>1</sup>	\$2,965,850	
Alternative 1 & 2	\$2,115,324	71.3%
Alternative 3 & 4	\$3,145,246	106.0%

It should be noted that the costs identified above are direct annual salary costs, and do not include benefits, which can increase the effective savings on the order of 25-70% depending on the benefits provided by each agency.

*Table 2 – One-Time Consolidation Facilities Cost Estimates*

	PSAP Construction/Renovation Costs
Alternative 1 – New PSAP construction	\$2,780,088
Alternative 2 – Renovate Milan PD 3 <sup>rd</sup> Floor	\$1,940,972
Alternative 3 – Utilize RIPD Comm Center and Renovate Centre Station	\$531,972
Alternative 4 – Utilize RIPD Comm Center and Renovate Milan PD 3 <sup>rd</sup> Floor	\$2,073,965

*Table 3 – One-Time EOC Facilities Cost Estimates*

	One-Time Costs
New EOC Facility	\$2,054,366
Renovated EOC Facility	\$1,400,696

<sup>1</sup> Management costs at Silvis, Milan and the Sheriff’s Office are not included in these costs.

## 2 Analysis Scope

### 2.1 Purpose of the PSAP Consolidation Study

The purpose of the PSAP Consolidation Analysis study is to conduct an assessment of the issues related to restructuring (e.g., consolidating, realigning and/or combining operations into a regional center) the five PSAPs currently operating in the region. The project includes a requirement to examine the impact that consolidating would have on the cost of operating the PSAP and identify and examine whether any proposed consolidation will provide operational efficiencies and/or improve the delivery of services to the public and the public safety agencies serving them.

This analysis is a preliminary investigation into the potential benefits associated with undertaking a PSAP consolidation. The analysis and study will consider all factors associated with a consolidation and determine if the investment of time and other resources will yield a desirable result.

Some of the reasons for conducting an analysis include:

- Gives focus to the project and outlines alternatives
- Narrows alternatives
- Identifies opportunities through the investigative process
- Identifies reasons to proceed or not to proceed
- Enhances the probability of success by addressing and mitigating factors early
- Provides quality information for decision making
- Provides documentation that the project was thoroughly investigated
- Helps in securing potential funding

A successful PSAP consolidation typically strives to achieve the following:

- Ongoing operational cost savings
- Operational efficiencies
- Improved level of performance and service
- Enhanced technology

## 3 Analysis of Current Conditions

This section of the report looks at and documents the operational characteristics and physical spaces of the existing structure and current conditions of the PSAPs in the County. This includes communication center operations, services, technologies, operational costs, staffing levels, service levels, and geographic distribution.

### 3.1 Current Center Operations/Staffing, Service Levels, Call Volumes

#### 3.1.1 Current Center Operations

As would be expected, each of the existing PSAPs has a unique character, set of customers and individualized operating environment. However, there are also many common operating parameters

and functions that are shared by the PSAPs and a long history of working closely together on a daily basis.

All of the PSAPs under consideration (Centre Station, RICSO, RICOMM, Silvis, and Milan) are recognized PSAPs in the State of Illinois and operate 24 hour per day, 365 day per year.

The PSAPs are configured as follows:

*Table 4 – Agencies Dispatched, Authorized Staffing*

<b>PSAP</b>	<b>Agencies Dispatched</b>	<b>Authorized Telecommunicator Staff</b>	<b>Population Served</b>
Centre Station	Moline PD/FD East Moline PD/FD East Moline EMS via 9-1-1 transfer	19*	64,792
RICSO	Rock Island County Sheriff's Office Cordova FD Port Byron FD Hillsdale PD/FD Coal Valley PD/FD Coyne Center FD/EMS Reynolds FD Andalusia FD/EMS Illinois City FD Buffalo Prairie FD Quad City International Airport PD	7	26,787
RICOMM	Rock Island City PD/FD/EMS	12	39,000
Silvis PD	Silvis City PD/FD Hampton PD/FD Carbon Cliff-Barstow FD	5	12,000
Milan PD	Milan PD Blackhawk FD	5**	5,300
	Total	48	147,879

\*Includes 3 working supervisors

\*\*Includes 1 working supervisor

Additional common operational characteristics and observations include:

- All PSAPs handle call-taking and processing of landline 9-1-1 calls, wireless 9-1-1 calls, and some agency administrative phone calls.
- The 9-1-1 system used in these PSAPs is provided by the Emergency Telephone System Board and is interconnected via dedicated fiber optic ring.
- The CAD/RMS/JMS system used in these PSAPs is provided by the Emergency Telephone System Board and is interconnected via dedicated fiber optic ring.

### 3.1.2 Service Levels, Call Volumes

Determining the appropriate staff requirements to support a defined level of service and workload of a consolidated PSAP is one of the most challenging and controversial elements of a consolidation effort. Understanding the current staff positions within each of the existing PSAPs and also defining the services and levels of activity supported by those staff is an essential starting point to this consolidation analysis. Utilizing data reports of 9-1-1 call volume, administrative call volume, radio traffic volume, and CAD records from each of the current PSAPs is a typical starting point and becomes one of the key drivers of the staffing needs of the consolidated PSAP.

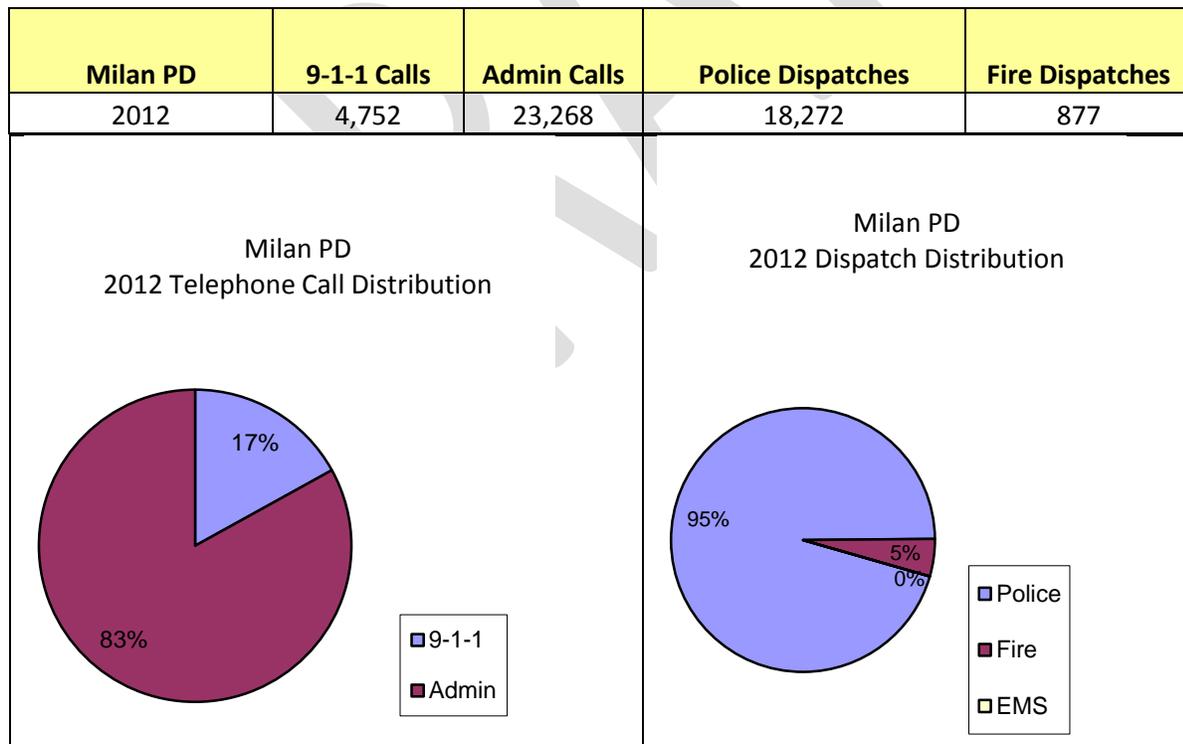
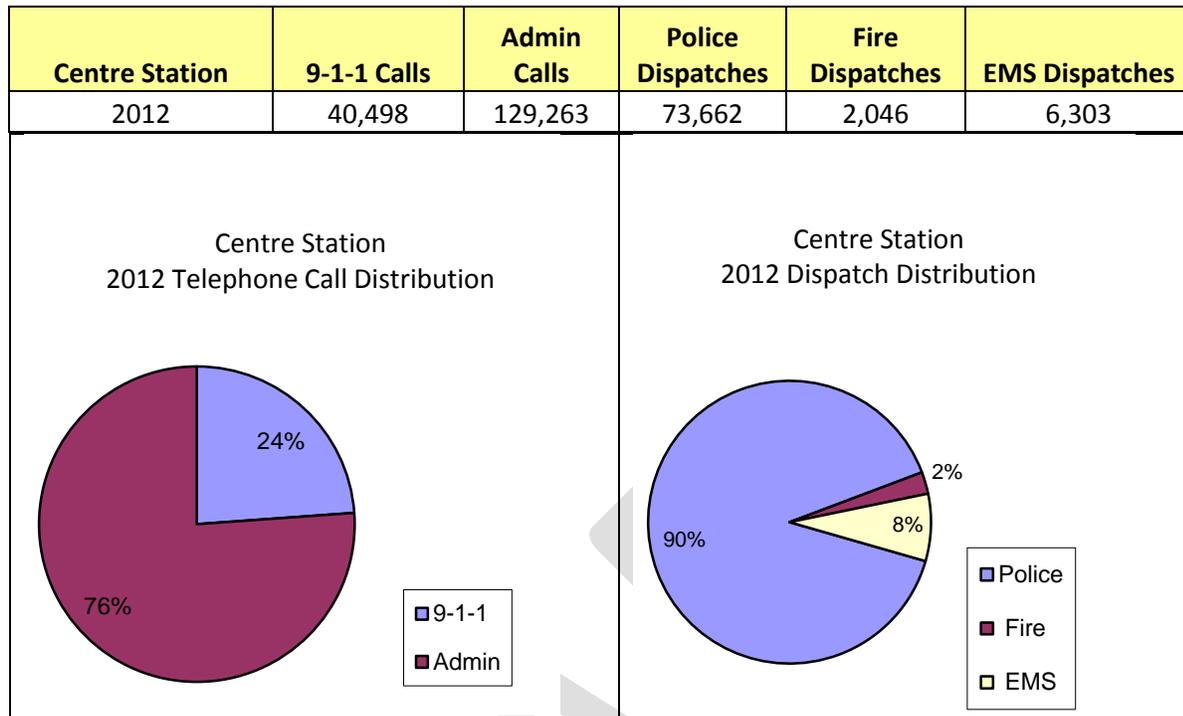
Typical PSAP staffing is established to ensure a level of service or grade of service (GOS) so that public does not experience a delay in reaching emergency services. Obviously, a high GOS is desired to serve the public's needs to answer 9-1-1 calls quickly. Many PSAPs across the country, including some national professional organizations such as the National Emergency Number Association and the Association of Public Safety Communications Officials International claim that a GOS known as P.01 is the appropriate standard for public safety. P.01 means that one in every 100 calls may become blocked (queued).

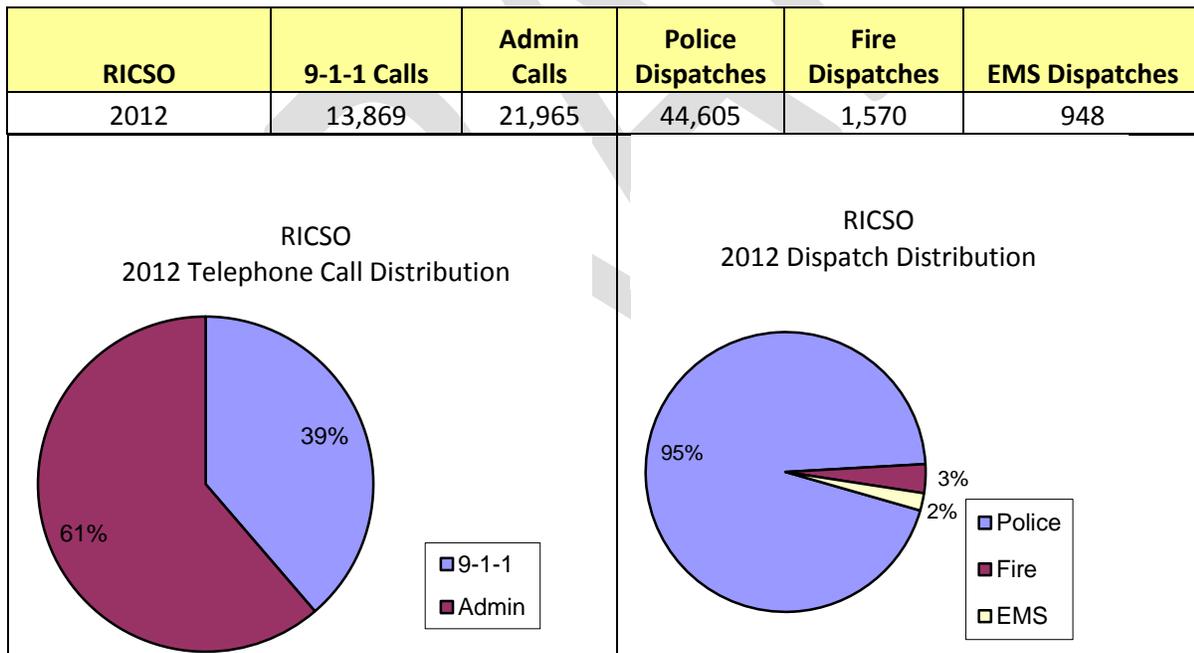
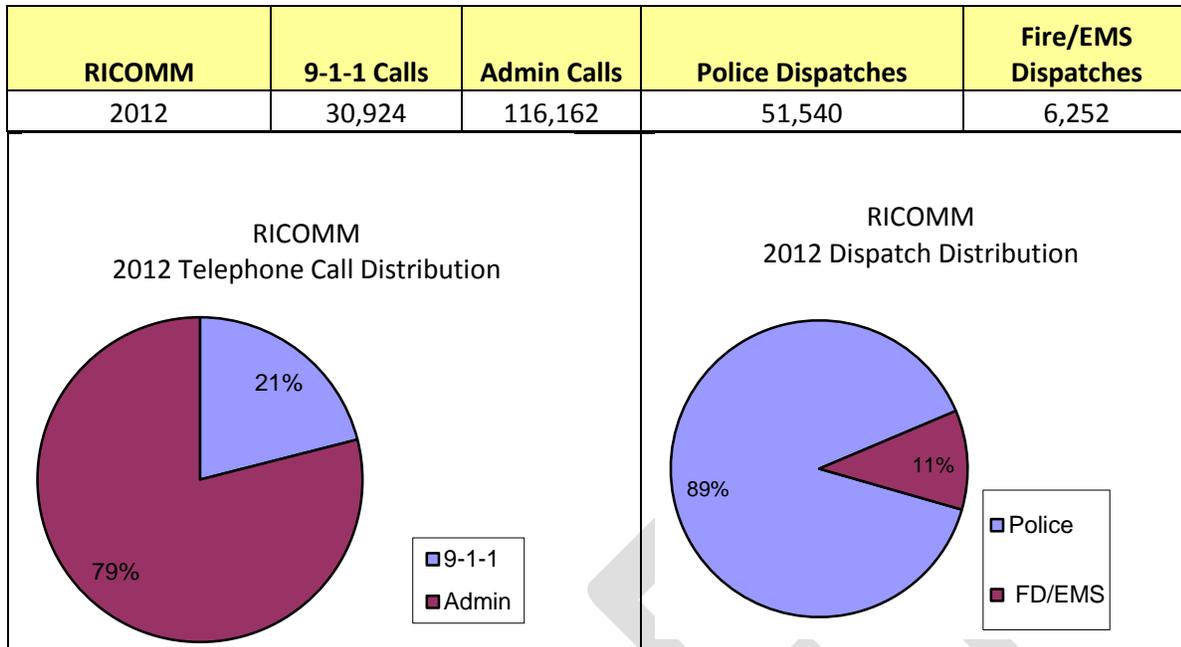
RCC uses an Erlang-C analysis to predict the minimum staffing requirements that provide a GOS of P.01 (for 9-1-1 calls) for each alternative. Traffic of one Erlang refers to a single resource, in this case a call taker, being in continuous use, or two call takers being at fifty percent use. The Erlang-C formula assumes an infinite population of calls, but if all the call takers are busy when a request arrives from a source, the request is queued.

Table 5 reflects call volume data provided by each PSAP. The data reflect calls going as far back as 2009 and are projected out to 2023 to predict the future call volume group that can be expected in the consolidated PSAP. Communications traffic volume was projected to 2023 by calculating individual agency call growth trends for the data provided by the agencies (2009-2012).

DRAFT

Table 5 - Call Activity of Existing PSAPs





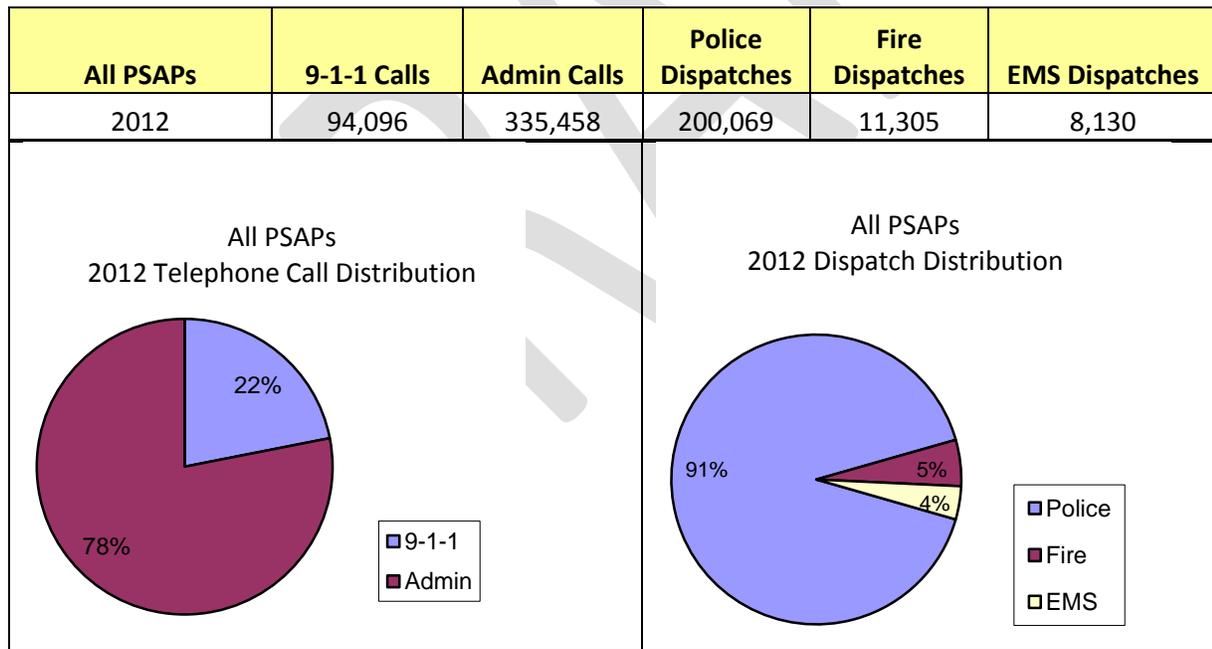
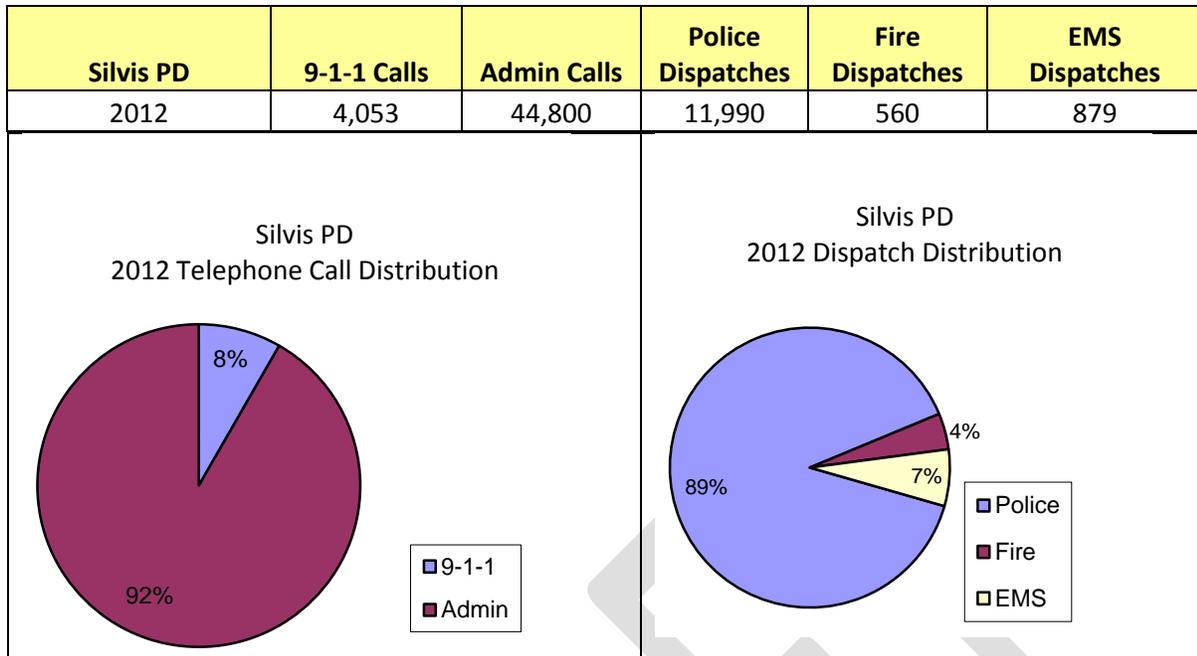


Table 6 – Communications Traffic of Existing PSAPs

Communications Traffic Projection - Centre Comm							
	2009	2010	2011	2012	2013	2018	2023
Wireline 9-1-1 Calls	36,423	37,567	39,248	40,498	41,956	50,072	59,758
Wireless 9-1-1 Calls							
Total 9-1-1 Calls	36,423	37,567	39,248	40,498	41,956	50,072	59,758
Incoming Admin Calls	114,234	108,116	98,514	96,521	91,290	69,090	52,290
Outgoing Admin Calls	38,106	34,739	32,324	32,742	31,160	24,326	18,990
Total Admin Calls	152,340	142,855	130,838	129,263	122,450	93,416	71,280
TDD Calls				337	349	417	497
PD Dispatches	78,451	71,805	71,286	73,662	74,623	79,622	84,955
FD Dispatches	1,055	1,990	1,943	2,046	2,076	2,233	2,402
EMS Dispatches	6,038	6,288	6,368	6,303	6,395	6,877	7,396
Total Dispatches	85,544	80,083	79,597	82,011	83,095	88,732	94,753
Out of Service Calls	60,759	59,339	59,490	54,478	52,969	44,742	37,793
Data Calls			175,249	172,381	180,073	214,906	256,479

Communications Traffic Projection - Milan PD							
	2009	2010	2011	2012	2013	2018	2023
9-1-1 Calls	4,035	3,859	3,841	3,952	3,926	3,801	3,680
Transfer In 9-1-1 Calls	851	843	803	800	789	738	690
Total 9-1-1 Calls	4,886	4,702	4,644	4,752	4,716	4,539	4,370
Incoming Admin Calls							
Outgoing Admin Calls							
Total Admin Calls				23,268	22,957	21,468	20,075
TDD Calls	0	0	0	0			
PD Dispatches	16,406	16,195	18,292	18,272	19,445	26,541	36,226
FD Dispatches	851	867	844	877	883	911	940
EMS Dispatches							
Total Dispatches	17,257	17,062	19,136	19,149	20,327	27,451	37,166
Out of Service Calls	9,371	9,898	8,262	7,463	6,519	5,507	4,651
Data Calls				11,153	11,081	10,728	10,385

Communications Traffic Projection - RICSO							
	2009	2010	2011	2012	2013	2018	2023
Wireline 9-1-1 Calls	12,271	13,188	13,602	13,869	14,450	17,744	21,788
Wireless 9-1-1 Calls							
Total 9-1-1 Calls	12,271	13,188	13,602	13,869	14,450	17,744	21,788
Incoming Admin Calls	21,950	19,922	17,850	16,689	15,235	9,657	6,121
Outgoing Admin Calls	4,557	4,823	5,561	5,276	5,558	7,208	9,348
Total Admin Calls	26,507	24,745	23,411	21,965	20,792	16,865	15,470
TDD Calls				72	75	92	113
PD Dispatches	51,197	39,031	43,998	44,605	43,169	36,654	31,122
FD Dispatches	1,410	1,522	1,498	1,570	1,628	1,955	2,347
EMS Dispatches	943	1,006	963	946	948	958	968
Total Dispatches	53,550	41,559	46,459	47,121	45,746	39,567	34,438
Out of Service Calls	30,678	29,022	27,242	28,243	26,941	22,757	19,222
Data Calls				35,516	37,005	45,438	55,794

Communications Traffic Projection - RICOMM							
	2009	2010	2011	2012	2013	2018	2023
Wireline 9-1-1 Calls	30,800	31,255	30,593	30,924	30,969	31,198	31,428
Wireless 9-1-1 Calls							
Total 9-1-1 Calls	30,800	31,255	30,593	30,924	30,969	31,198	31,428
Incoming Admin Calls	74,322	75,611	70,602	72,564	72,053	69,553	67,140
Outgoing Admin Calls	44,861	45,286	41,015	43,598	43,280	41,726	40,228
Total Admin Calls	119,183	120,897	111,617	116,162	115,334	111,279	107,368
TDD Calls					0	0	0
PD Dispatches	53,600	48,168	51,067	51,540	50,992	48,338	45,823
FD Dispatches	6,106	5,964	6,214	6,252	6,304	6,568	6,844
EMS Dispatches							
Total Dispatches	59,706	54,132	57,281	57,792	57,296	54,907	52,667
Out of Service Calls	104,678	100,980	102,542	98,126	89,160	75,313	63,616
Data Calls				120,755	120,933	121,824	122,723

Communications Traffic Projection - Silvis PD							
	2009	2010	2011	2012	2013	2018	2023
Wireline 9-1-1 Calls	4,317	3,964	4,164	4,053	3,975	3,605	3,270
Wireless 9-1-1 Calls							
Total 9-1-1 Calls	4,317	3,964	4,164	4,053	3,975	3,605	3,270
Incoming Admin Calls	43,865	39,600	36,500	34,600	31,975	21,553	14,528
Outgoing Admin Calls	12,775	12,410	11,315	10,200	9,468	6,524	4,495
Total Admin Calls	56,640	52,010	47,815	44,800	41,443	28,077	19,023
TDD Calls					0	0	0
PD Dispatches	11,009	10,668	10,517	11,990	12,369	14,454	16,891
FD Dispatches	482	546	588	560	590	768	999
EMS Dispatches	773	782	851	879	918	1,140	1,415
Total Dispatches	12,264	11,996	11,956	13,429	13,878	16,362	19,305
Out of Service Calls	2,839	3,471	3,224	3,168	2,825	2,386	2,016
Data Calls				18,563	18,204	16,512	14,977

Figures in italics are projected. Regular text is agency- provided data. Common operating practices and procedures within the public safety PSAP industry are evolving and can aid in providing operational improvements when a PSAP consolidation takes place. Not surprisingly, current operations have variations between the PSAPs depending on the operational policies in place within the specific law enforcement and Fire/EMS agency served from the PSAP. Defining and migrating to a common set of operating protocols and procedures is an issue that can cause difficulty in a consolidation effort.

CAD systems can allow for agency-specific rules for response protocols and the use of a unified CAD system in the consolidated PSAP will help to reconcile any differences in operating procedures that may exist after consolidation amongst partners. It is, however, recommended that serious discussions regarding operational procedures and policies take place as the consolidation project proceeds. Some of the operational policies that differ between PSAPs can include what type of events require multi-unit response, what fire pages/alerts are sent and how response is verified, what type of events constitute the creation of an incident report, and others.

Some additional staffing/human resources considerations include:

- **Employment Agreements/Collective Bargaining Agreements** – Policies and contract provisions for the relocation of staff from the employment of the existing PSAPs to a consolidated PSAP under new employment will need to be addressed. Consolidation of these PSAPs under a common bargaining agreement may provide some ease of transition. However, depending on the final consolidation configuration and governance model selected, it is likely that new contract arrangements will be needed. Such discussions will have to address separation/retirement contingencies for current employees, benefit packages and seniority rights.
- **Uniform Training and Competency Testing** – Each of the existing PSAPs has different requirements for training and certification. Prior to consolidation, the training of all staff that will migrate to a consolidated center will have to be examined. Supplemental training will be necessary to bridge any deficiencies and to level the education of all consolidated PSAP staff.
- **Additional Management/Supervision and Support Services** – While a consolidation may allow for a reduction in overall staff levels, this is not always possible. While the consolidated PSAP will require fewer operational staff (call-takers/dispatchers) than the separate PSAPs, new positions will be required to achieve appropriate management, supervision and support services for the consolidated center. Each of the existing PSAPs is managed as a function of the City or public safety agency. These agencies use existing command staff to provide oversight and management of the PSAP. This limits direct supervision in the PSAP by supervisors and managers specially trained for this unique environment and it limits the career path available to PSAP staff. In consolidated PSAPs, the organizational structure typically expands to a degree. Larger PSAPs will have a dedicated manager that is responsible for overseeing the operation of the PSAP. There will likely be dedicated supervisors assigned to each shift that have only management responsibilities. Additional technical staff will provide special services in such areas as training, Geographical Information Systems database management, CAD and other systems maintenance responsibilities. The duties and responsibilities of these other functions described here can be divided among the PSAP manager and working supervisors and through the use of outside maintenance contracts for the technical systems.

Effective staff levels are addressed in more detail in later parts of this study. It is believed that the expansion of the organizational structure of the consolidated PSAP has two key benefits. First, the addition of a PSAP manager and supervisors who are responsible for management, training and quality assurance will improve the level of service and reduce human error. Second, the expanded structure may provide a career path for employees, and can help increase employee retention and reduce the costs associated with hiring and training new staff.

### 3.2 Technical Systems

One of the potential major cost drivers of a PSAP consolidation is the cost of technology upgrades or expansion needed to support the consolidated PSAP. During the site visit process, a review of existing systems and technology was done to set a baseline for the current equipment in use with the existing PSAPs. One of the challenges of consolidation is to standardize and/or integrate all communications, applications and data from existing centers into a new consolidated center. Technologies such as CAD,

radio console systems, radio systems, 9-1-1 systems and recording systems must accommodate multiple jurisdictions and agencies, and numerous call types. These systems may also be required to interface to other jurisdictions and local sub-systems such as mapping, mobile computing systems, fire station alerting, paging, and others. State and federal databases and various third-party software providers, such as law enforcement and Fire/EMS records management systems (RMS) are also important design considerations. When possible, relocation and reuse of existing equipment is an economical and responsible choice. However, issues can arise and the following need to be considered.

- The system's age, make, model and software version. The vendor's technology roadmap (upgrades and technology changes) must also be considered.
- The ability of the system to expand and accommodate the functionality and size needed in the larger consolidated PSAP.
- Connectivity to other systems. With technology and standards changing at such a rapid pace, the manner in which equipment connects or interfaces with each other can change dramatically in a short period of time. Older systems may still function well but may no longer be able to interface with current technology that a consolidated PSAP may require.
- Older systems may be more susceptible to damage when moved or they may simply fail to operate after they have been turned off, moved and the restarted.
- Costs to upgrade older systems may not be effective and new systems may, in the long run, be less expensive.

The following describes the technical systems currently used in each of the existing PSAPs.

### 3.2.1 E9-1-1/CAD/RMS Systems

The agencies and PSAPs under consideration for consolidation are already sharing common E9-1-1, CAD, and RMS systems. These systems would require minor adjustments to support any of the consolidation alternatives considered in this analysis.

The E9-1-1 system would have to be adjusted to route calls to the proper PSAP based on caller location (Emergency Service Zones).

The CAD system would have to be adjusted to include all field units in their respective PSAPs. Response plans would have to be reviewed and updated for runs near the PSAPs' borders.

## 3.3 Facilities

During the site assessment visits an initial investigation was conducted of the primary physical space and facilities currently available to provide for the consolidated PSAP function. This included documenting the current physical spaces for the primary dispatch area plus associated spaces for equipment, supervisory staff, break room and locker storage space, restrooms, conference spaces, and other adjacent space. Other factors associated with the facilities such as the availability of emergency uninterruptible and back-up generation power sources, physical security, site vulnerabilities, employee parking availability and potential expansion space for future growth or hosting of a consolidated PSAP were also investigated.

Because physical space is a primary cost consideration in the initial capital costs associated with a consolidated environment, in this section of the report we provide a broad discussion of the facility characteristics that should be considered. A detailed analysis of the existing facilities and site requirements can be found in Section 4.7.4 of this report.

### 3.3.1 Site Characteristics

#### 3.3.1.1 Building Options

There are generally two options for a consolidated PSAP facility. These include:

**Existing Site** – Use an existing site/building and adapt or expand it for use as the consolidated PSAP. The top floor of the Milan PD is a viable candidate for expansion to accommodate the consolidated PSAP. This site would have to be minimally modified to accommodate PSAP operations, including buildout of the third floor to accommodate required office and communications center operations, support facilities, and hardening of the facility to include such things as secure parking for PSAP personnel.

**New Site and New Building** – Acquire new property and build a new purpose-built facility. This is the most expensive alternative but would allow complete flexibility in choosing the most acceptable site and creating spaces designed specifically to meet the needs of a consolidated PSAP.

#### 3.3.1.2 Site Characteristics

**Size** – Use of an existing facility will need to have enough space to accommodate the appropriate number of dispatch work stations and associated equipment, supervisory and support staff, offices, break rooms, locker storage, and lavatory facilities. A newly designed space should be large enough to accommodate the main communications functions, emergency back-up power and fuel storage, and a communications antenna tower. It should also allow for enough employee parking for the on-duty staff and staff reporting for duty, administrative and support staff, visitors, specialty vehicles like a mobile command post, and other vehicles and temporary structures required for maintenance or in disaster operations.

**Safety** – The site should, to the extent possible, be free from potential hazards, such as overhead power transmission lines, trees, flooding, wild-fires, vehicle off-road accidents, underground pipelines, and transportation routes that carry hazardous materials.

**Access** – The site should ideally be centrally located so that employees and participating agencies have short driving times to the PSAP. It should be convenient to mass-transportation to provide easy access for employees. Roads leading to the consolidated PSAP should be free of major potential obstructions in time of natural disasters to prevent isolation of the PSAP.

**Communications** – An ideal site should have current or easily installed access to communications links, including the public switched telephone network, fiber-optic and/or broadband networks, commercial wireless networks, existing radio system networks and microwave radio networks. The site should be capable of hosting an antenna tower to provide wireless communications connections for primary systems and for back-up systems.

**Future Growth** – The site and the facility should be sized to permit future growth of the consolidated PSAP. This includes sufficient space within the facility to undertake technology refreshes and the addition of a reasonable number of dispatch positions and support positions without undertaking a major renovation. The site should be size and arranged to allow future additions to the facility to accommodate additional growth and the potential for additional future partners.

**Utilities** - The facility should have access to existing public switched telephone network and other communications systems, water lines, power, and a sanitary sewer. The capability for dual entry points for electrical and communications services both of which should be protected from hazards occurring from natural or man-made disasters. The facility's critical electrical needs should be supplied through an uninterruptible power supply (UPS) and should be supplemented by an emergency back-up generator that has a fuel capacity that will sustain continuous operations for a minimum of 5 days. An automatic transfer switch should be installed with the generator to provide for the automatic switching to generator power when the electric utility is lost. A redundant means of generator power should be provided. This can be through a redundant generator (two generators installed) or through the use of an installed generator connector to permit a trailered generator to be connected to the facility.

**Facility Layout and Furniture** – The arrangement of the dispatch area should emphasize functionality, ease of communications and should promote easy interaction between telecommunicators working in the PSAP. The arrangement of the workstations and other furniture and electronics in the dispatch area should take into consideration:

- Necessity to communicate visually and verbally between telecommunicators
- Isolation of noise between adjacent positions
- Adjacency to files and other reference sources
- Adjacency to electronic equipment and systems
- Proper lighting
- Glare from window or other openings
- HVAC and humidity control
- Access control
- Traffic patterns and work flows

**Security Considerations** – The security considerations that should be addressed include:

- **Access Security** – The consolidated PSAP should provide security to prevent unauthorized persons from entering the site and the facility. Access should be controlled by a computer-controlled, keyless access control system. Interior doors to the dispatch area, equipment areas, and other sensitive areas should include access control entry points. CCTV cameras should be installed to monitor outside entry points and key points around the site (e.g., parking lot, entry gate, etc.).
- **Building Security** – The site should include perimeter fencing and have landscape designed to minimize and hiding or blind spots where persons or vehicles are obscured from anyone inside the facility or the CCTV cameras. Antenna towers or structures should be located so that the

facility is located outside of the tower's collapse zone. Consideration should be given to protecting exposures such as windows, doors, fan openings, cable ports, and other penetrations from breach or from the advancement of fire. Public access should be controlled and outside of the security areas of the facility.

- **Cyber Security** – Computer systems and critical IT infrastructure should be located in secured equipment areas and not accessible to unauthorized persons. Management and IT service providers should adopt accepted data security measures to limit access to systems and to keep pace with software system upgrades and patches, data retention, and password policies. Links to other systems should only be to authorized and known locations that terminate in a secure location. Mobile computing devices should be kept secure and the use of mobile storage devices should only be used by authorized personnel using devices that are known to be safe. Cyber security policies should be adopted and used within the consolidated center.

**Environmental Considerations** – The following environmental considerations must be considered in choosing or planning a consolidated PSAP:

**Lighting** – There should be ambient and console task lighting in the dispatch area. The lighting circuitry should be planned to prevent a lighting failure to a large area of the building and should be included on the emergency back-up power circuitry. Lighting should be planned to minimize glare on computer monitors and to minimize telecommunicator fatigue.

**HVAC** – Heating, Ventilation and Air Conditioning (HVAC) should be designed to provide a sufficient flow of fresh, not recirculated, air to the dispatch area, to filter the air to remove contaminants including pollen, mold, dust and mildew, to provide sufficient humidification during dry periods to prevent the buildup of static electricity, and to provide for the comfort of the telecommunicators and other staff working in the facility. Conditioned areas must be designed to meet the heating and cooling loads produced by equipment and staff. This is particularly important in equipment rooms where heat loads are higher and where cooling is often required even in winter months. Consideration should be given to providing redundant HVAC systems to maintain the operability of the facility in the event of a failure of the HVAC system.

### 3.3.2 Continuity of Operations

Consolidated PSAP management and regional partners will need to develop plans for the continuity of operations of the consolidated PSAP. As we describe later in this report, all alternatives for a consolidated PSAP facility face significant vulnerabilities from threats that cannot be eliminated or easily protected against. As such, there must be an alternate facility where emergency 9-1-1 call-taking and dispatch functions can be resumed. The alternate facility should have the same capabilities and access to the same systems used in the consolidated PSAP.

Continuity of operations planning should examine ways of geographically distributing important electronic systems such as the CAD, consoles, recording, and 9-1-1 systems. Should something happen to the facility that necessitates the relocation of operations, all that is necessary to re-establish 9-1-1

services is the network connection and 9-1-1 phones. Call-taking could be resumed in another facility connected to the system. True continuity of operations should include access to all systems used in the PSAP.

This can be accomplished by working with another PSAP in the region (but outside of the immediate area) who has space to house the equipment and provide console access for the Consolidated PSAP staff to work from. Or, the partners could mirror the systems and capabilities in another facility within the region where operations could be quickly relocated and resumed in the event the primary PSAP has to be evacuated.

### 3.3.3 Existing PSAP Characteristics

#### 3.3.3.1 Arsenal PSAP

The Arsenal PSAP is collocated with the Arsenal Fire Department/Station 1. The Arsenal PSAP is responsible for dispatching Police/Fire/EMS for the whole Arsenal Island. This PSAP also dispatches military resources to various Island incidents. The military requires that its dispatches be performed by a PSAP that is physically on the Arsenal Island. For this reason, the Arsenal PSAP was not considered in the consolidation alternatives in this analysis. The Arsenal Island was considered a viable location for location of a consolidated PSAP, with inherent security, available facilities (estimated at \$16/square foot) and minimal risk of flooding, but concerns regarding access during emergencies, as well as complications for routine access of armed law enforcement personnel have reduced the desirability of this location.



Figure 1- Arsenal Fire Station 1/PSAP



Figure 2 – Arsenal PSAP

**3.3.3.2 Centre Station PSAP**

Centre Station dispatches Police/Fire resources for the City of Moline. EMS calls are routed to the secondary PSAP: MedCom. According to the US Census Bureau, the City has a total area of 16.43 square miles and a population of 43,259.

Centre Station Staffing	
Authorized FT Telecommunicators: 16	Current FT Telecommunicators: 16
Authorized PT Telecommunicators: 0	Current PT Telecommunicators: 0
Authorized FT Supervisors: 3	Current FT “Working” Supervisors: 3

Table 7 - Centre Station Staffing

Centre Station Workstations	
Call Taker Positions: 2	PD Dispatch Positions: 2
FD/EMS Dispatch Positions: 1	Supervisor Positions: 0
Call Taker/Dispatcher Positions: 1	Training Call Taker/Dispatcher Positions: 0

Table 8 - Centre Station Communications Workstations

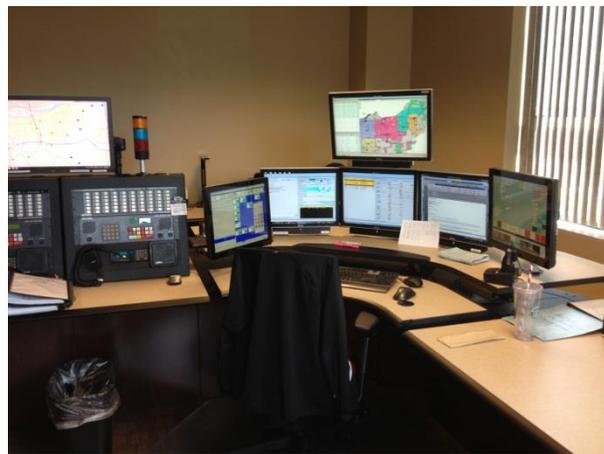


Figure 3 – Centre Station PSAP

**3.3.3.3 Rock Island County Sheriff's Office PSAP (RICSO)**

RICSO dispatches Sheriff's Office resources plus 12 other public safety agencies via contract agreement.

RICSO Staffing	
Authorized FT Telecommunicators: 7	Current FT Telecommunicators: 7
Authorized PT Telecommunicators: 0	Current PT Telecommunicators: 0
Authorized FT Supervisors: 2	Current FT Supervisors: 2

Table 9 - RICSO Staffing

RICSO Workstations	
Call Taker Positions: 0	PD Dispatch Positions: 2
Call Taker/Dispatcher Positions: 2	Supervisor Positions: 0

Table 10 - RICSO Communications Workstations



Figure 4 – Centre Station PSAP

**3.3.3.4 Rock Island PD PSAP (RICOMM)**

RICOMM dispatches Police/Fire/EMS resources for the City of Rock Island. EMS calls are routed to the secondary PSAP: MedCom. According to the US Census Bureau, the City has a total area of 16.85 square miles and a population of 38,920.

RICOMM Staffing	
Authorized FT Telecommunicators: 12	Current FT Telecommunicators: 12
Authorized PT Telecommunicators: 0	Current PT Telecommunicators: 0
Authorized FT Supervisors: 1	Current FT Supervisors: 1

Table 11 - RICOMM Staffing

RICOMM Workstations	
Call Taker/Dispatcher Positions: 3	Training Call Taker/Dispatcher Positions: 0
Supervisor Positions: 0	

Table 12 - RICOMM Communications Workstations



Figure 5 – RICOMM PSAP

**3.3.3.5 Silvis PD PSAP**

Silvis PD dispatches Police/Fire resources for the City of Silvis plus Hampton PD/FD, and Carbon Cliff-Barstow FD via contract agreement. EMS calls are routed to the secondary PSAP: MedCom.

Silvis PD PSAP Staffing	
Authorized FT Telecommunicators: 5	Current FT Telecommunicators: 4
Authorized PT Telecommunicators: 0	Current PT Telecommunicators: 4
Authorized FT Supervisors: 1	Current FT Supervisors: 1

Table 13 - Silvis PD Staffing

Silvis PD Workstations	
FD/EMS Dispatch Positions: 1	Supervisor Positions: 0
Call Taker/Dispatcher Positions: 2	Training Call Taker/Dispatcher Positions: 1

Table 14 - Silvis PD Communications Workstations



Figure 6 – Silvis PD PSAP

**3.3.3.6 Milan PD PSAP**

Milan PD dispatches PD resources for the City of Milan and Blackhawk FD.

Milan PD PSAP Staffing	
Authorized FT Telecommunicators: 4	Current FT Telecommunicators: 4
Authorized PT Telecommunicators: 0	Current PT Telecommunicators: 0
Authorized FT Working Supervisors: 1	Current FT Working Supervisors: 1

Table 15 - Milan PD Staffing

Milan PD Workstations	
Call Taker/Dispatcher Positions: 2	Supervisor Positions: 0
Training Call Taker/Dispatcher Positions: 0	Administrator Workstations: 1

Table 16 - Milan PD Communications Workstations



Figure 7 – Milan PD PSAP

## 4 Feasibility of Consolidation

### 4.1 Strategic Considerations

Many local governments are considering the benefits of consolidating public safety communications centers to save money and improve services. The current fiscal environment is forcing local governments to look for innovative ways to do business. Less funding is available at the federal and state levels and local revenue sources are constrained because of the current economic slowdown. Pressure from increasing operational costs such as health benefits, energy costs, and technology costs are growing faster than local tax bases can support them. And the added pressure of constituents that are also demanding more and better services are all forcing government to find innovative ways to provide more efficient services and better costs.

Consolidation of public safety communications centers is one way for local governments to act more proactively in meeting the challenges of providing better services more efficiently. Consolidation, when executed in a carefully planned manner, can offer many benefits including: improved regional decision making, improved interoperability, enhanced service delivery, resource sharing, standardized

technology usage, more efficient procurement and contracting, and increased efficiencies in upgrading infrastructure and equipment.

Those stakeholders from the participating municipal governments and the public safety agencies in the region must be aware of common strategic issues that can become barriers to consolidation if not properly addressed. The following represent some of the more common issues seen in consolidating PSAPs and many of which were raised during our data collection interviews. This report attempts to answer all of these questions.

### **How will consolidation affect local autonomy?**

Many public safety agencies considering consolidation of services raise concerns over the loss of local agency autonomy. Law enforcement, fire and EMS agencies often believe that the delivery of their services is so unique that no one else could provide the same level of dispatching services.

Local agency autonomy and flexibility must be respected in the design and governance of a consolidated communications center. In this plan, local agency autonomy is ensured through a carefully planned governance structure and through service level agreements and operational policies.

### **How will consolidation of 9-1-1 and dispatch functions transform service delivery and constituent engagement?**

The way in which public safety services are delivered is a concern of public safety and government leaders. The consolidated communications center will play an integral role in the delivery of these services. How well the consolidated center performs is dependent on the delivery of services that are of high quality, delivered by well-trained professionals who respond to the public's needs and the needs of its constituent agencies quickly and effectively.

The delivery of quality services by highly trained communications professionals is incorporated in the framework for the consolidated communications center. Ensuring that the public's needs and the needs of public safety agencies are addressed quickly and effectively are incorporated into the governance structure of the consolidated communications center.

### **Will Consolidation Save Money?**

While cost savings are possible, there are two important points to consider. First, not all consolidations will result in significant cost savings. A common misconception is that consolidating public safety communications will result in large reductions in staff. Many public communications centers often suffer from understaffing conditions and are unable to maintain high grades of service delivery required. They often don't have the specialized technical staff needed to operate and maintain specialized systems in the communications center. Real cost savings also result from the elimination of redundant and expensive technology systems such as computer aided dispatch systems (CAD), 9-1-1 systems, logging recorder systems, and radio dispatch systems. The reduction of procuring, operating and maintaining separate systems can be significant. This is not the case in Rock Island County: all the County PSAPs

already share networked 9-1-1 and CAD/RMS systems (and technical support operations). So consolidation will not provide a significant cost reduction in the area of PSAP systems.

Second, where cost savings through consolidation are achievable, the actual realization of the savings may not occur for several years. The process of consolidating public safety communications centers can be expensive and generate substantial one-time start-up and capital costs for a facility and technology needs. These costs can delay any actual cost savings.

### **How Will Accountability be Ensured?**

The potential for meeting government, public safety, and the public's needs when agencies participate in a consolidated communications center depends, in part, on how clearly the expectations of service delivery and performance are defined. A successful consolidation must incorporate standards for accountability that are built into the tools that are used in forging the relationship among constituent agencies. That is, the plan for consolidation must incorporate considerations regarding mutual expectations and the contracts, reports, audits and one-to-one contacts that reflect those expectations. This consolidation plan incorporates accountability at two levels: hierarchical accountability; and mutual accountability.

Hierarchical accountability occurs at the government level through laws establishing regional municipal government governing bodies. This forms the primary governance structure. Mutual Accountability is achieved through the establishment of service level agreements between the consolidated communications center and its constituent agencies, adoption of formal procedures and practices agreed upon by constituent agencies, adoption of formal processes to investigate and mitigate grievances and by regularly reporting performance against agreed upon service levels.

### **How will the Harmonization of Labor Arrangements and Costs be Addressed?**

Consolidations sometimes lead to higher human resources costs because it produces larger organized labor forces and requires the harmonization of labor arrangements (including labor contracts) that tend to incorporate the highest compensation and benefits rates and the least productive work rules.

The impact of reconciling differences in these labor arrangements will be minimized by ensuring that the human resource needs of the consolidated center are carefully planned with the involvement of human resource specialists and government managers.

## **4.2 Consolidation Objectives**

The following objectives are important factors in considering the feasibility of consolidating the PSAPs of Rock Island County from its multiple centers into one or two consolidated public safety PSAPs utilizing common systems and serving multiple law enforcement, fire, and EMS agencies.

1. Improved Service Levels
  - a. Reduction in the time necessary to process incoming 9-1-1 calls and the transferring of 9-1-1 calls between PSAPs, resulting in faster processing, faster dispatching of

- emergency responders, and reduced response times, as well as reducing the potential for dropped calls, information loss on transfer and confusion to the callers.
- b. Improved and more consistent service levels and standard operating procedures (SOPs) across the region.
  - c. Improved quality of service by increasing capacity to handle emergency call traffic, ability to provide new services such as Emergency Medical Dispatch, and ability to support law enforcement and fire/EMS dispatching needs more efficiently.
  - d. Improved utilization of staff and workload levels, reducing staffing fluctuations caused by time off, illness, or other absences, creating an opportunity to provide sufficient staff to provide Emergency Medical Dispatch and support for other critical dispatching activities.
2. Cost Savings through Economies of Scale
    - a. Coordination of support activities such as training, public education, common technology systems (e.g., CAD, 9-1-1, GIS standards, etc.).
    - b. Achieve long-term cost efficiencies from eliminating duplication of expensive technology purchases and/or upgrades and duplication of operations and maintenance costs.
    - c. Potential reduction of costs associated with the total number of 9-1-1 circuits needed.
  3. Improved Interoperability
    - a. Improvement in the coordination of emergency response and the effectiveness of inter-agency communications.
    - b. Improved records and information sharing between participating agencies
    - c. Enhanced resource management during large-scale multi-agency/multi-jurisdictional response incidents from a single point of control.
  4. Equity and Fairness in the Process and Outcomes
    - a. Strong governance structure that assures equitable representation and inclusion in the decision-making processes.

## 4.3 Consolidation Approach

### 4.3.1 Consolidation Models

The form of consolidating PSAPs varies throughout the United States and there is little scholarly guidance available describing accepted or best-practice forms of PSAP or public safety communications center consolidation. While most municipal consolidation efforts focus on combining multiple municipal governments or services (e.g., school districts, public service authorities, police departments, fire departments) into a single government or service serving multiple municipalities, consolidation of PSAPs and public safety communications centers can take different forms.

Regional stakeholders in Rock Island County have discussed and have formed an initial impression of consolidating the existing PSAPs into one or two PSAPs serving all the municipalities. We believe, however, that it would be beneficial to the stakeholders to have a general understanding of all available forms of PSAP consolidation to help guide them in making a final decision on the consolidation form. The following describes the various forms of consolidating PSAPs that the consultants have encountered in our experience.

### **Full/Physical Consolidation**

In this form of consolidation, all existing 9-1-1 call-taking and dispatch functions are combined into a single PSAP with a single point of governance. Participants in full consolidations can include municipalities inside a single county boundary or a combination of a county plus multiple municipalities within that county. Regional consolidations have occurred where PSAPs across multiple counties have been consolidated into a single regional PSAP.

There are a number of advantages and disadvantages associated with full consolidation. These include:

#### *Advantages*

- A more cost-effective solution due to potential for sharing capital and operations and maintenance costs of technology systems and facilities.
- Improved staffing capabilities, training and standard operating procedures.
- Reduction of duplicated services and unnecessary redundancy.
- More efficient response to all emergencies and improved situational awareness for emergency responders through improved information sharing.

#### *Disadvantages*

- Higher start-up costs associated with facility construction or modifications, new technology purchases, initial training, harmonization of pay and benefits among PSAP staff, etc.
- Lack of political support to close existing dispatch centers.
- Where consolidated into a single PSAP: Potential reduction in back-up and disaster recovery due to consolidation of all operations in a single facility. Requires careful continuity of operations and disaster recovery planning.

It is, we believe, also important for a fully consolidated PSAP to support a strong service culture. Research has indicated that organizations that promote a strong service culture tend to have customers that perceive that they receive generally superior service and the employees of the organization experience positive outcomes.<sup>1</sup> Law enforcement, Fire and EMS agencies being dispatched by the consolidated PSAP must have input into the SOPs used to dispatch their responders and have some reasonable assurances of how these services will be developed through customer service agreements.

### **Co-Located Consolidation**

In this model, multiple PSAPs share a common physical space. An example of this is the McConnell PSTOC in Fairfax County, Virginia where the Fairfax County PSAP, Virginia State Police 7<sup>th</sup> Division Dispatch, and the Virginia Department of Transportation Northern District Smart Traffic Center all share a common facility.

Employees of participants in a co-located consolidation are retained by their respective governments and all authority remains with the employee's hiring entity. Some sharing of technology systems (e.g., telephone systems, CAD, and radio systems) may occur.

The advantages and disadvantages of this consolidation model include:

#### *Advantages*

- Potential for cost savings through sharing electrical, HVAC, emergency power and other facility costs as well as in sharing technical systems.
- Technical systems such as CAD, RMS, and radio systems can remain separate if the partners do not wish to share systems.
- The co-location of PSAP staff can improve interoperability and situational awareness, which enhance emergency response.

#### *Disadvantages*

- Co-location of staff from different organizations can prevent the development of a cohesive organizational culture and will likely develop into microcultures that form around the individual agencies. This could lead to tensions arising from the differences in pay, workloads and other organizational differences among the participating agencies.
- Less potential for cost savings by retaining separate organizations resulting in duplication of some services.
- Potential reduction in back-up and disaster recovery due to consolidation of all operations in a single facility. Requires careful continuity of operations and disaster recovery planning.
- Possible duplication of dispatch personnel and supervisory staff.

#### **Virtual Consolidation**

Virtual consolidation is a term that has been used in the public safety industry for at least two decades and means that participating agencies retain their existing locations and organizational structures but share technology systems such as CAD, E9-1-1, logging recorders, GIS systems, RMS, and radio systems.

Now that all of the systems mentioned above are IP-based technologies, virtual consolidation is much easier and more effective than before. Each participating agency can configure and operate on each of these systems just as if it were their own private system (virtual systems) but can share the capital and maintenance costs of the system with other participants. Because they are common platforms, the sharing of data across users is easier and more efficient.

The Rock Island County PSAPs currently use common 9-1-1/CAD/RMS systems that would support a virtual consolidation.

The 9-1-1 system is a good example of the ability to virtualize individual service but allow for interoperation. A shared 9-1-1 system can route 9-1-1 calls to the individual PSAPs just as it is done today. But at times when staffing may be short or there is a transient increase in the number of incoming 9-1-1 calls, the 9-1-1 system diverts 9-1-1 calls going unanswered in the busy PSAP to another PSAP on the network. This configuration is a virtually consolidated 9-1-1 call answering operation (the dispatch operation remains diverse). This allows for the prompt answering of 9-1-1 calls and, if the

participants are sharing CAD and other systems, that call can be taken at the secondary center and entered into the CAD system, which sends the call back to the proper PSAP for dispatch.

To be a true virtually consolidated configuration, all dispatchers at all the connected sites would be capable of dispatching all the participating agencies' field resources. Call takers would field the 9-1-1 calls and enter the call data into the CAD. The CAD would distribute the incident to an available dispatcher (at any PSAP).

Outside of virtualizing technology systems, a virtual consolidation can also share other essential services such as training, quality assurance measurement, GIS maintenance, technology system maintenance, public information and education, and even SOP development.

The advantages and disadvantages of this consolidation model include:

#### *Advantages*

- Potentially a more cost-effective solution due to sharing of capital and operations and maintenance costs associated with technology systems and through some personnel reductions.
- Improved back-up and disaster recovery capabilities through separation of physical locations. Assumes that individual PSAPs are planned with excess capacity to host affected PSAP in a continuity of operations situation.
- Less costly than undertaking a major facility renovation or the construction of a new facility.
- Shared technical support and shared systems may increase interoperability and situational awareness.

#### *Disadvantages*

- Duplication of dispatch personnel and supervisory/management staff.
- Network (cyber) security concerns.
- Increased costs for an appropriately sized and scalable broadband network to interconnect facilities.

### **4.3.2 Consolidation Alternatives**

The following consolidation Alternatives are considered in this analysis:

1. Single new consolidated PSAP to provide call taking and dispatching operations provided by all the participating agencies (Centre Station, Milan PD, RICOM, RICS0, and Silvis PD).
2. Single consolidated PSAP in the remodeled 3<sup>rd</sup> floor of Milan PD.
3. Two Consolidated PSAPs: Consolidate RICOM, RICS0, and Milan PD into the Rock Island PD facility and Consolidate Silvis PD into Centre Station facility.
4. Two Consolidated PSAPs: Consolidate RICOM and RICS0 into the Rock Island PD facility and Consolidate Silvis PD, Milan PD and Centre Station into the remodeled 3<sup>rd</sup> floor of Milan PD.

#### 4.4 Backup PSAP Considerations

Any planned PSAP consolidation plan should include backup PSAP facilities, systems and operations. The following points are provided for consideration:

- Backup PSAP operations/facilities are vital for providing continued public safety services to citizens.
- Backup PSAP operations can be housed in a permanently dedicated facility, a facility converted into a PSAP when required, or a mobile command vehicle.
- A backup PSAP facility can be used and funded by multiple agencies. For example, one centrally located facility could support all the counties/agencies in a region.
- Generator/UPS systems must be installed and maintained at the backup PSAP.
- Data connections back to permanent PSAPs are required for maintaining DCS data (i.e., CAD, GIS, etc.). Data should be periodically refreshed. Data refresh AFTER PSAP evacuation may be impossible.
- The backup PSAP should be comfortable for telecommunicators including restroom facilities and a place to rest during break periods.
- 9-1-1 Trunks must be available prior to or immediately upon activation.
- Backup PSAP activation procedures should be properly developed and maintained. PSAP personnel should be thoroughly trained and practiced on backup activation procedures.

##### 4.4.1 Single Consolidated PSAP Backup (Alternatives 1 & 2)

The single consolidated PSAP alternatives will require the implementation of a backup PSAP facility in case the primary facility becomes unusable. The backup PSAP should be equipped with furniture and system hardware/software (9-1-1/CAD/radio) to support temporary PSAP operations.

Backup dispatch facilities could be provided by the Scott Emergency Communications Center (SECC) in Davenport, IA. During discussions regarding this arrangement, RCC was informed that routing 9-1-1 traffic across the state line could be a problem; further research is required to determine the feasibility of using SECC as Rock Island County's PSAP backup.

If Consolidation Alternative 1 (newly constructed PSAP) is chosen for implementation, the County could consider setting up the backup PSAP in the Milan PD 3<sup>rd</sup> Floor or in one of the PSAPs currently in use (i.e., Centre Station).

##### 4.4.2 Two-PSAP Consolidated PSAP Backup (Alternatives 3 & 4)

The two-PSAP Consolidation Alternatives better facilitate backup PSAP operations. Each PSAP could be equipped with furniture and system hardware/software (9-1-1/CAD/radio) to support temporary backup PSAP operations.

## 4.5 Service Provisioning

### 4.5.1 Service Level Expectations

PSAPs are labor-intensive operations driven by high standards to receive and process emergency calls quickly and efficiently. Technology systems used in the receipt of emergency calls and the dispatching of emergency resources, call center workloads, staffing levels and adequate training most directly affect service levels.

Determining appropriate service level specifications is a crucial foundation for a successful consolidated PSAP. By agreeing to join a consolidated communications center, emergency response agencies (e.g., law enforcement and Fire/EMS agencies) are agreeing to turn over ownership of critical emergency response functions to leverage the consolidated center's expertise, economies of scale and access to resources.

It is, therefore, important to these customers that there is a clear understanding and agreement about the services, priorities, responsibilities, guarantees, and warranties being provided by the consolidated PSAP. This is typically accomplished through the use of service level agreements (SLAs) established between the governing authority of the consolidated PSAP and the participating emergency response agencies.

SLAs are contracts that include provisions that address: a definition of services to be provided, performance measurement, problem management, customer duties, warranties, disaster recovery mechanisms and procedures for terminating the agreement. These can be legally binding contracts or informal contracts between the participating governments.

Service level is a measure of the performance of a system. Certain goals for performance are established against which operations are measured as a means of reporting compliance with established service levels. Performance management contributes to accountability of the consolidated PSAP by ensuring responsiveness to the needs of the public, emergency response agencies and elected officials through production and reporting of information. Greater dissemination of performance information supports citizens in holding governments accountable for the delivery of public services. If citizens see more evidence of government performance, public agencies may gain trust from these external stakeholders and receive additional political and budgetary support on which these agencies depend.

The consolidated PSAP can also use performance management as part of their overall strategy to: evaluate, control, budget, motivate, promote, celebrate, learn and improve (Behn, 2003).<sup>ii</sup>

However structured, we recommend that SLAs be developed as part of the consolidation effort in Rock Island County. These SLAs play two vital roles in considering consolidation. They ensure accountability on the part of the consolidated communications center and they determine the cost of consolidation based on the desired level of service.

The following examines the top performance measures commonly associated with personnel and the processes in today's public safety communications center. The standard categories of service, quality, efficiency, and profitability will be used as the basis for the guide.

## 4.5.2 Consolidated PSAP Services and Service Levels

### 4.5.2.1 PSAP Services

"PSAP" and "public safety communications center" are terms that are often used interchangeably. A public safety communications center can be a PSAP and a PSAP can also be a public safety communications center but they can also be separate entities. It is possible for a community to have a stand-alone public safety answer point, staffed by 9-1-1 call-takers, that receives all incoming 9-1-1 calls and then transfers the calls to a public safety dispatch center – often separate public safety dispatch centers for the law enforcement agency and the Fire/EMS agency. It is also common for a combined public safety communications center (combined in the sense that it serves the municipality's law enforcement and Fire/EMS agency) to also be the designated PSAP for the municipality.

The consolidated PSAP(s) will be primarily responsible for delivering the following services to the participating emergency response agencies:

- 9-1-1 Call-Taking and Non-Emergency Call-Taking
- Law Enforcement and Fire/EMS Radio Dispatching
- Audio and Digital Recording of Phone, Radio and Digital Images Associated with Call-Taking and the Dispatching of Emergency Responders
- Providing a Common Computer Aided Dispatch System to Initiate Public Safety Calls for Service, Dispatch, and Maintain the Status of Responding Resources
- Providing Emergency Notifications
- Other Services as Agreed

This section of the report describes these major services and describes the level of service the regional partners would expect to receive from a consolidated PSAP.

#### 4.5.2.1.1 9-1-1 Call-Taking and Non-Emergency Call-Taking

##### 9-1-1 Call Taking

The receipt of incoming 9-1-1 calls is perhaps the most important function of a PSAP, and in the eyes of the citizen, the efficiency of a PSAP is measured by the timely response to reported incidents. How well incoming calls to the PSAP are answered and processed impacts the speed of emergency responders reaching the scene of the incident. Emergency response time may also determine whether the outcome is ultimately successful in terms of a reduction in property damage and/or lives saved. Delays in the processing of emergency calls for service usually lead to criticism and can result in a high public profile incident.

Although a focus on public accountability is important and vital to the adoption of performance management, a focus that is too narrow can "crowd out" other vital (and complementary) objectives

such as enhanced operational decision making and resource allocation in public organizations (Jett & Kim, 2011)<sup>iii</sup>.

Performance management methodologies for fire services and emergency medical services are well documented in industry research. But how these standards are measured is often inconsistent, making it difficult to assess performance across the industry.

The definition of “response time” depends on the perspective from which one approaches the data, and prompts several questions:

1. When does fire and/or EMS response actually begin?
  - a. From the time the law enforcement, fire or EMS resources are alerted after the call has been received and processed in the communications center?
  - b. From the time the location of the emergency has been verified?
  - c. From the time the emergency call enters the PSAP?
2. When does response time end?
  - a. At the time the emergency responders arrive at the street address or reported location of the call?
  - b. After police officers and/or emergency crews have arrived at the scene of the emergency?
3. Is the average response time of all calls a suitable measure or should a percentage target of all calls be the measure?

The lifecycle of an emergency response consists of five components: public access to emergency services, call processing and dispatch, emergency response, emergency operations and return to service. 9-1-1 call-taking and dispatch impacts three of these components. See Figure 8 for a graphical representation of these components.

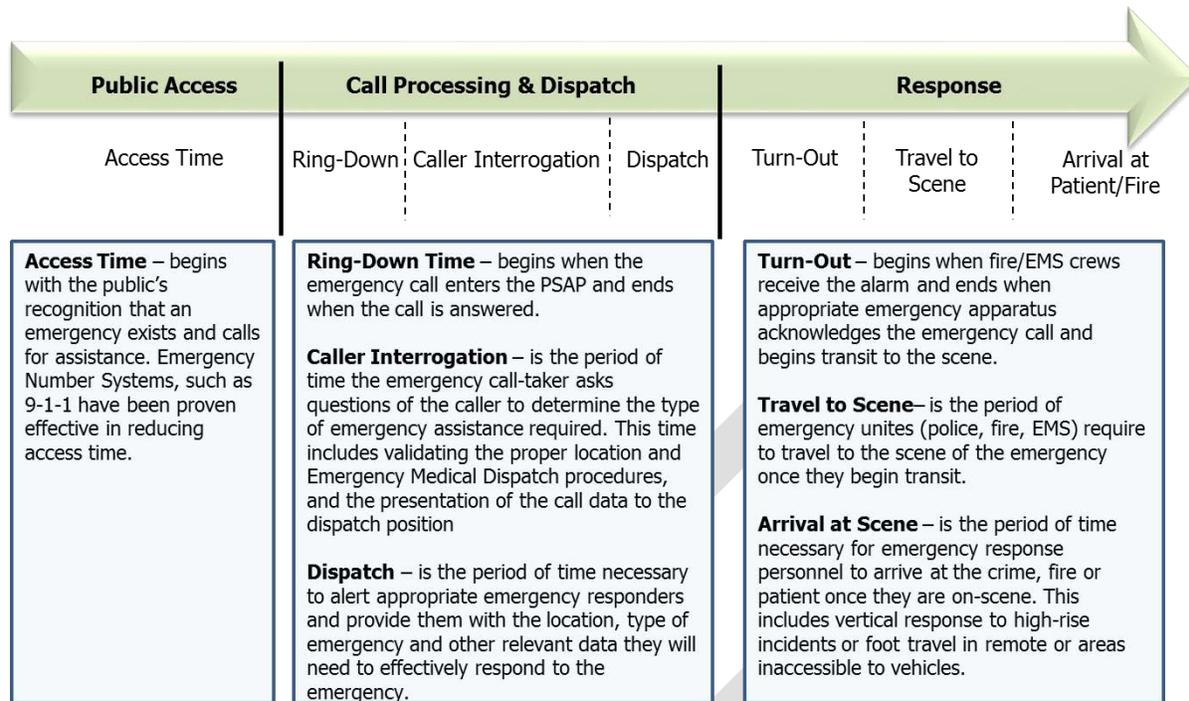


Figure 8 - Emergency Call Lifecycle

Our discussion for this study focuses on the call-processing and dispatch phase and more specifically only on the ring-down time and caller interrogation components of the call-processing and dispatch phase.

Standards for the answering and processing of 9-1-1 calls vary widely within the industry. One of the most common standards used by PSAPs is known as the P.01 grade of service. This standard establishes the goal of immediately answering 99% of all incoming 9-1-1 calls when received (statistically, 1 out of 100 calls may be queued for a delayed answer). Some states have established this standard as a criterion for receiving wireline and wireless 9-1-1 surcharge funding collected by the state 9-1-1 boards. Many other PSAPs throughout the United States claim that they have adopted a P.01 grade of service for answering 9-1-1 calls.

The only published standards for answering 9-1-1 calls and the dispatch of emergency responders are those of the National Fire Protection Association (NFPA). These standards describe telephone answering standards different from those of the P.01 grade of service. NFPA recommends that 95% of incoming emergency calls be answered in no more than 15 seconds and that 99% of all incoming emergency calls should be answered in no more than 40 seconds. Excepting those call types discussed below, 80% of alarm [emergency call] processing should be completed within 60 seconds and 95% of alarm [emergency call] processing shall be completed within 106 seconds. The exempted alarm types include emergency medical dispatch, calls requiring language translation, calls requiring the use of a TTY/TDD device or audio/video relay services, calls of criminal activity that require information vital to emergency responder safety prior to dispatching units, hazardous materials incidents, and technical rescue. In these

situations, emergency alarm processing shall be completed within 90 seconds 90% of the time and within 120 seconds 99% of the time (NFPA 1221).<sup>iv</sup>

Figure 9 represents the distribution of incoming 9-1-1 calls for a typical public safety center over a 24-hour period. Call volumes generally begin to increase around 6 o'clock in the morning and continue a steady climb to their peak around 6 o'clock in the evening. Calls begin to diminish in the early evening hours and reach their lowest levels in the early morning hours between 3AM and 5 AM. The same pattern is usually seen even on Friday and Saturday nights, when the number of calls typically increases.

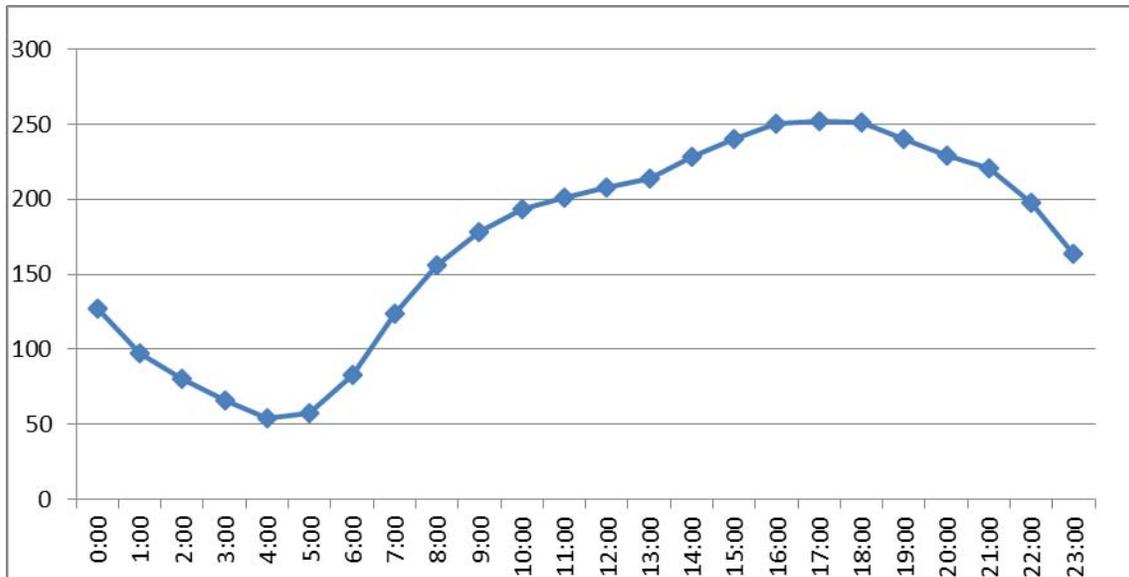


Figure 9 - Typical Distribution of 9-1-1 Calls Over 24 Hours

Another important 9-1-1 related service that impacts staffing in a PSAP is the provision of Emergency Medical Dispatch (EMD) Services. The invention of EMD is generally attributed to Dr. Jeff Clawson, a physician practicing in the United States in the 1970s. EMD is a criteria-based EMS dispatch system that relies on a standard set of chief complaint/incident type protocols designed to help call-takers efficiently and quickly interrogate callers to obtain vital information about the patient’s status and scene conditions. This information is then used to aid in prioritizing the severity of the emergency used to configure an appropriate response of EMS resources.

An additional benefit of EMD is the inclusion of standard medically relevant pre-arrival and post-dispatch instructions. Many in the EMS community, including associations such as the National Association of EMS Physicians (a U.S.-based professional organization of physicians and other EMS professionals) believe that the intervention process of a trained dispatcher with an emergency caller is an integral part of the EMS response system. Thus emergency medical dispatch is sometimes referred to as Dispatcher Life Support in conjunction with Basic Life Support and Advanced Life Support components of EMS.

Today, EMD is widely regarded as an important service offering of PSAPs. Accepted training and certification programs are offered by the National Academies of Emergency Dispatch (NAED) based in

Salt Lake City, Utah and the Association of Public Safety Communications Officials International (APCO). NAED maintains the Medical Priority Dispatch System program and provides training and certification of program users.

Inclusion of the EMD program in a consolidated PSAP is highly recommended but will require that a minimum of two telecommunicators be on duty and available at all times.

### **Non-Emergency Call-Taking**

Many PSAPs, especially those serving small to mid-size municipalities, often perform a number of non-emergency call-taking functions. This might include answering public information numbers or departmental telephones after normal business hours.

There is no reason why this practice must be discontinued as a result of consolidation. The answering of non-emergency telephone lines can continue by agreement and as part of any SLAs developed with participating agencies.

It is imperative that any such agreements consider the impact of answering non-emergency telephone calls on the service level objectives established for taking the more important 9-1-1 calls. Answering non-emergency telephones will consume the valuable resources of the PSAP (the telecommunicators). No matter how hard a call-taker might try to put a non-emergency call on hold, the process will take precious time away from whatever 9-1-1 processing time standard is established.

#### **4.5.2.1.2 Law Enforcement and Fire/EMS Radio Dispatching**

A critical factor of the emergency response system is the ability to get emergency responders and equipment to the scene of the emergency in a timely manner. As we described in Figure 8, the PSAP plays an integral role in the response and is responsible for receiving the emergency call, determining the type of emergency and the need for emergency responders and processing the call through the dispatch function.

The dispatching of law enforcement, fire and EMS emergency responders occurs via a land mobile radio system. Once the 9-1-1 calltaker has received sufficient information (the location and type of emergency, the caller's name and contact information), it is entered in the CAD system and is then ready for dispatch. For law enforcement, patrol and other specialty units (e.g., detectives) are routinely on patrol and monitoring their radios. The dispatcher calls the appropriate unit and provides the location, type of event and other pertinent information. When equipped with mobile computers, the patrol car also receives the CAD information on his/her mobile computer. Once the officer receives and acknowledges the call, the dispatch event is concluded.

Fire and EMS dispatching contain a few extra steps. For a fire call, the dispatcher must determine the run assignment, which is a preplanned list of fire apparatus that are to be dispatched and is dependent upon the type of call (e.g., a structure fire, vehicle accident, chemical spill, technical rescue, etc.). Such information is typically provided by the CAD system and is quickly available. Once the run assignment is known, the dispatcher must provide a pre-response alert via a paging system and then announce the

location and type of call. An EMS dispatch is similar to a fire dispatch in that there is typically a pre-dispatch alert issued. The dispatch phase is concluded once the fire and/or ambulance acknowledge that they have received the call and are responding to the emergency.

Once the dispatcher has made the initial dispatch of emergency responders, their duties continue as they must still monitor the radio system and provide support to the emergency responders during their transit to the emergency and while they are on scene. This may mean making emergency notifications, handling the dispatch of additional resources, contacting supporting agencies, and similar duties. This is all being done while they are dispatching and supporting other responders on other calls and taking additional 9-1-1 calls.

Consolidation of PSAPs can be more complicated when disparate radio systems are involved and require a dedicated radio dispatch position. It is not uncommon for small PSAPs that can only staff one telecommunicator on duty at any given time to divide the telecommunicator's attention between taking 9-1-1 and non-emergency calls, handling all radio dispatching, and other duties that may be assigned to the telecommunicator. In small consolidated centers, that dispatch more than one emergency response agency operating on disparate radio systems, one telecommunicator is required to monitor multiple separate radio systems. While the consultants have not identified any specific research that suggests the maximum number of radio systems that one telecommunicator can effectively manage, our experience suggests that the risk of a mistake or a missed call occurring that could endanger an emergency responder increases when a telecommunicator is required to multi-task in such an intensive environment.

In addition to the dispatching of emergency calls, telecommunicators monitoring voice radio systems also provide a wide range of support for the emergency responders. This might include verifying that a driver has a valid driver's license, checking for wanted or stolen records, making service calls or emergency notifications.

Use of a unified radio system reduces the difficulties associated with the radio dispatching of consolidation partners using disparate radio systems. For example, the unified radio system would permit all law enforcement agencies to operate on a common Talk-Group. The radio dispatcher would only have to monitor one Talk-Group rather than multiple separate Talk-Groups. All Fire/EMS agencies could be dispatched on and carry out daily radio communications on a single Talk-Group and switch to separate fire ground Talk-Groups during the response.

#### 4.5.2.1.3 Audio and Digital Recording of Phone, Radio and Digital Images Associated with Call-Taking and the Dispatching of Emergency Responders

In the PSAP, all incoming and outgoing telephone lines and all radio channels are traditionally recorded by a logging recorder system. The central recording system of a consolidated PSAP seamlessly captures voice, video and other data from a combination of radio, CAD and telephone system interactions for risk management and evidentiary purposes. In addition, these recordings can be used to monitor the quality of PSAP performance and help improve service delivery.

#### 4.5.2.1.4 Providing a Common Computer Aided Dispatch System to Initiate Public Safety Calls for Service, Dispatch, and Maintain the Status of Responding Resources

The CAD system is an enterprise computer system that aids telecommunicators in receiving, processing, and dispatching emergency response agencies faster and more efficiently. It is used to initiate public safety calls for service, dispatch emergency response agencies, and maintain the status of responding resources. A CAD system can interface with other technology systems such as the logging recorder system, automatic vehicle location systems, and mobile computing systems. As next generation 9-1-1 services become available, the CAD system will play a central role in managing the text, images and video inputs.

Currently, the PSAPs in Rock Island County use a multi-site networked OSSI/Sungard CAD system. This configuration is well-suited to support a consolidated PSAP arrangement. The CAD system software configuration would have to be modified to properly track the units for the responsible PSAP(s), recommend the proper response units, and route calls to the correct dispatchers.

The CAD system must be capable of providing for rapid response times, reliability and capable of expansion to meet future needs. The CAD system should also support other activities that assist in the effective use of public safety resources, including

- Law Enforcement Dispatch
- CAD System Administrators
- Support Services
- Call Management and Management Reporting
- Interfaces to Records Management, Mobile Computing, and Other MIS Systems
- EMS Dispatch
- Fire Dispatch
- Intelligent Transportation
- Properties

#### 4.5.2.1.5 Providing Emergency and Non-Emergency Notifications, Emergency Responder Support Services

Some of the least glamorous but necessary functions of the PSAP are making emergency and non-emergency notifications and call-outs and supporting law enforcement and Fire/EMS units while at the scene of an emergency call. These activities range from calling a tow-truck for an automobile accident to making a mass notification of an impending emergency. It also includes running queries in the NCIC system and performing notifications for multi-alarm fire calls, hazardous materials incidents, bomb threats, office involved shootings, and other incidents that require special notifications.

All of these activities, while not directly related to the receiving and processing of emergency calls, are necessary and important functions of the consolidated PSAP. What is important to remember is that all of these activities require the time of a telecommunicator and while they are occupied in these activities they are not available to take and process emergency calls or they may be delayed in being available to attend to emergency calls. From a service level perspective, the determination of appropriate staffing

levels in a consolidated PSAP must take these types of activities into consideration to ensure that there is sufficient staff to answer and process 9-1-1 calls in a timely fashion, attending to the radio dispatching needs of law enforcement and Fire/EMS agencies, and providing adequate support to the emergency responders in the field.

One important way of minimizing the workload impact of these activities is the effective utilization of the technology systems. The CAD system can be pre-programmed with call lists that are based on the incident type and can make automated telephone and paging system calls based on protocols established for the call type. As law enforcement and Fire/EMS agencies expand their use of mobile computing systems, field units will be able to take more control over notification and NCIC queries relieving the workload of the consolidated PSAP.

Service level agreements developed for each emergency response agency should describe the types of emergency and non-emergency notifications and/or call-outs that are required for that agency and a protocol developed for these notifications and call-outs.

#### 4.5.2.1.6 Other Services as Agreed (Ancillary Duties)

PSAP personnel are often required to perform other duties that are not directly related to call-taking and dispatching functions of answering 9-1-1 calls for service, dispatching emergency response agencies, responding to requests from field personnel and documenting responder actions in the CAD system. These ancillary duties vary widely and, in our experience, are more prevalent in PSAPs serving small jurisdictions.

Typical ancillary duties performed by telecommunicators include:

- Warrants Entry/Filing
- Public Records Requests
- Civilian Fingerprinting
- Monitor CCTV Security Cameras
- Monitor Burglar/Fire Alarms
- Jail Monitoring/Searches
- Animal Control Log Maintenance
- Accept Cash for Bonds, Fines, etc.
- Incident Report Entry
- Warrant and NCIC Entry and Maintenance
- Answer Admin Telephone Calls
- Walk-up Public Access Window

The amount and types of ancillary duties can have a significant impact on the decision to consolidate PSAPs. Decision makers must ask the question; who will pick up these services and at what cost? Sometimes these ancillary duties can be performed by a competent person in a lesser pay grade and without the specialized investment in training a highly specialized public safety telecommunicator, but

the “soft” dollar cost of those functions must ultimately be considered as part of the consolidation decision.

Considerations must also be given to the impact these ancillary duties will have on the core duties of the PSAP. The important functions of taking and processing 9-1-1 calls and the dispatching of emergency response agencies carries the burden of meeting important service time objectives in order to maintain a suitable grade of service. Each of these ancillary duties has the potential for taking time away from the important duties of 9-1-1 call-taking and dispatching and must, therefore, be factored into the personnel needs of the consolidated PSAP.

The regional partners will have to reach consensus as to which, if any, of these ancillary duties will be carried over to a consolidated PSAP and how the duties will be divided among staff. Further, the allocation of costs for additional staff and/or technical systems (if necessary) will have to be considered and agreement reached among the partners.

## 4.6 Staffing the Consolidated PSAP

### 4.6.1 Strategic Staffing

Staffing needs and actions must be defined on a proactive basis and the process to hire and training staff should begin early to ensure that a consolidated PSAP will be appropriately staffed to meet service level objectives. History has taught us that we cannot assume that all the staff needed to operate the communications center at the service level objectives will be readily available and can be recruited, developed, and deployed quickly and easily. Staffing constraints such as background investigations, psychological testing, and the rigorous training necessary to hiring staff have to be considered in the staffing plan.

#### 4.6.1.1 Basis for Staffing Requirements

In the United States, more than 6,000 Public Safety Answering Points (PSAPs) provide 9-1-1 call taking and emergency service dispatch functions. According to the U.S. Bureau of Labor Statistics, police, fire and emergency medical service dispatchers held 99,900 positions in 2008, and employment in this job category is expected to increase at an annual rate of 18% through 2018.

PSAPs face a number of staffing implications with a significant impact on required capabilities, staffing levels or both. These include:

**Job categories that are critical to the strategic operation of the center.** This includes a decision to deploy standalone 9-1-1 call-takers or deploy positions that are both call-takers and dispatchers, or the need to staff a radio dispatch position for each separate radio system.

**Job categories in which required staffing levels need to change based on changes in workload.** This includes adding staff to meet increasing 9-1-1 call volume or the addition of regional partners that bring increased call volumes and radio dispatch requirements.

**Positions that have long learning curves and thus should be filled well in advance of actual need.**

Communications staff routinely are required to undergo aptitude testing, a background investigation,

psychological testing, long classroom training followed by peer observation before they can fill a position. These processes can take many months to complete before a candidate can become a contributing employee.

**Staffing needs should be based on the achievement of clear performance goals and productivity standards.** For example, goals could be the percent of calls that will be answered within a certain number of seconds, the number of calls staff should handle per hour, or the percent of calls dispatched to emergency responders within a specified time frame.

**Staff should be deployed so that staffing levels closely align with the emergency call volume.** That is, more staff should be assigned when call volume is high, and fewer staff should be assigned when call volume is low.

**Staffing requirements must consider experience with non-working time such as leave, training and other periods when staff are not available for work.** In other words, to compensate for staff absences, staffing levels should be multiplied by a factor that incorporates all of the time that staff are not available for work.

**Staffing estimates should incorporate methods for achieving staff minimums when unexpected conditions occur.** For example, staffing plans should include mechanisms for meeting high call volumes resulting from unexpected events or to fill in for high sick leave or other unexpected absences.

Inclusion of the EMD program in a consolidated PSAP is highly recommended but will require that a minimum of two telecommunicators be on duty and available at all times. When an EMD call is in process, the telecommunicator is essentially committed to the call until it is complete, and is unable to put the caller on hold or perform other ancillary duties that may be possible with other types of calls.

#### **4.6.1.2 Essential Staffing Requirements**

The process for determining the proper staffing of a PSAP is complicated by the fact that much of the PSAP workload is out of the PSAP's control. The 9-1-1 and other incoming call arrive whenever citizens and others decide to place a call. While this variability in call load can be examined after the fact (e.g., measuring the variability of calls for the previous year from telephone system statistical reports), future variability can never be accurately predicted.

Determining the optimal deployment of PSAP staff that meets service level targets and is economically feasible is both part experience and science. This section of the feasibility study examines the staffing requirements of the consolidated PSAP alternatives.

##### **4.6.1.2.1 Consolidated PSAP Call-Takers**

All of the activities involved in answering and processing emergency calls to a service level objective create many challenges for the consolidated PSAP in maintaining the right number of properly trained operators in their seats at the right times of day to ensure that incoming calls are answered within the service level objective.

Staffing the proper number of operators to receive and process emergency calls within the service level objectives is based on several key factors including:

- **Traffic Demand** – the number of calls received per time period (e.g., per hour)
- **Call/Dispatch Processing Time** – how long it takes, on average, to handle each call/dispatch and perform any required wrap-up duties.
- **Service Level Objective** – the grade of service for incoming calls and the amount of time calls are allowed to ring before they are answered (“Service Time”).

### **Traffic Demand**

Changes in call volume will increase or decrease the number of call-takers needed to answer incoming calls within the specified service level. For example, if the number of calls entering the PSAP increases in any hour, the number of call-takers needed to answer a given percentage of those calls within a specific time frame will increase. If the incoming calls are handled more quickly, the number of staff needed to answer the calls will decrease. If the service level objective for the consolidated PSAP is to answer calls faster than the 15-second NFPA standard, more call-takers would be needed.

We assume that the emergency call traffic demand in the consolidated PSAP will follow a pattern that is commonly observed in PSAPs. Emergency calls typically do not arrive in an orderly fashion, with one right after another. This variability of call arrival can be attributed to many factors.

### **Call/Dispatch Processing Time**

Call processing time is a reflection of how long it takes the operator to interrogate the caller to obtain an accurate location, details of the nature of the emergency, complete the CAD event record and other activities such as providing pre-arrival care advice using EMD. The mode of operation can also affect the call processing time.

Every incoming emergency call is unique and cannot be handled in exactly the same manner, resulting in varying call durations. Many calls are processed within a few seconds while others may require much longer periods to process due to their complexity or established protocols for a particular type of call. There is little research available that specifically examines call processing times in PSAPs. The research that is available has varying results and is not directly comparable.

Table 17 lists the average call/dispatch processing times that were used in the staffing analysis.

DRAFT

Table 17 – Average Call Processing/Service Times

Call Type	Processing Time (s)	Service Time (s)
9-1-1 Calls	71	12
Admin Calls	60	18
Police Dispatches	60	6
Fire Dispatches	240	6
EMS Dispatches	60	6
NCIC Queries	28	6
Out of Service Calls	10	6

### Service Level Objective

Service level objectives have been described in detail earlier in this report. RCC recommends that the County PSAPs adopt the NFPA standards for processing all 9-1-1 calls, which is a grade of service of P.01 (statistically, only one call out of every 100 may be blocked or queued).

#### 4.6.1.3 Erlang-C Traffic/Staffing Analysis

Staffing analysis for PSAP telecommunicator staffing is generally performed using a statistical analysis based on a number of factors including the number of calls (both 9-1-1 and administrative), average call durations, ring times (how many rings are acceptable), and time spent with the first responders on the radio. These calculations also vary depending on if dedicated call takers and dispatchers are used instead of multi-function call takers and dispatchers. Times also vary depending on the types of calls (Law Enforcement, Fire and EMS). Police has the highest percentage of calls, averaging approximately 90% of the call volume. Fire and EMS calls account for the remaining 10%, with the allocation varying by agency. The significance of these numbers is that Fire calls usually involve a greater number of transmissions between the dispatch and first responder, and the length of each transmission is longer. As a result, Fire calls, while fewer in number, are more involved and can take a greater percentage of the dispatchers time than a corresponding Police call.

RCC utilizes Erlang-C analysis to define the minimum staffing requirements that provide a Grade of Service (GOS) of P.01 (for 9-1-1 calls) for each alternative. Traffic of one Erlang refers to a single resource, in this case a call taker, being in continuous use, or two call takers being at fifty percent use. The Erlang-C formula assumes an infinite population of calls, but if all the call takers are busy when a request arrives from a source, the request is queued. Call durations, number and quantity of push-to-talk transactions, and calls by agency (Police/Fire/EMS) are based on reported statistics or averages extrapolated from the information provided. Future calls are based on the trends that were identified from the preceding four years (2009-2012).

The Erlang-C formula calculates the probability of queuing of offered traffic and is the formula most often used in emergency communications center staffing analyses. The Erlang-C formula is provided below for reference:

$$P_w = \frac{\frac{A^n}{N!} \frac{N}{N-A}}{\sum_{i=0}^{N-1} \frac{A^i}{i!} + \frac{A^n}{N!} \frac{N}{N-A}}$$

According to the Erlang model, the minimum number of call-takers an emergency communications needs at various times of the day is based on the following factors:

**Demand** – the number of calls received per time period (e.g., per hour)

**Processing Time** – how long it takes, on average, to handle each call

**Service Level** – the percent of incoming calls to be answered within a given number of seconds

#### 4.6.2 Total Staff Needed for a Consolidated PSAP

##### 4.6.2.1 Telecommunicator Staff

All of the operational positions that we have described for the consolidated PSAP are considered as the minimum number of full-time equivalents needed to staff these critical positions 24 hours per day. In every organization, there is a certain amount of downtime scheduled for each employee and additional unplanned downtime can be expected. The staffing plan must therefore incorporate an adjustment that takes into account the fact that the actual availability or productivity of each person is something less than one full-time equivalent.

We call this a Personnel Staffing Factor (PSF) that factors the reductions in productive time. Such factors include:

- Vacation leave
- Sick days
- Training time
- Paid breaks
- Meetings and other assigned duties

Table 18 reflects the total annual availability reported by the existing PSAPs and contrasts it with what the consultants have observed in other PSAPs.

DRAFT

Table 18 – Telecommunicator Availability: Comparison of Existing PSAPs and Industry Experience

	Centre Station PSAP	Milan PD PSAP	RICSO PSAP	RICOMM PSAP	Silvis PD PSAP	Average (Hrs/Person)	Industry Average
Holiday	96	88	84	64	80	82	80
Vacation	80	136	96	120	120	105	122
Sick Leave	125	75.25	66	32	75	75	70
Training	16.33	80	12	16	40	29	36
Testifying in Court	0	0	0	0	0	0	4
Meals/Breaks	21.45	0	0	120	130	45	209
Annual Hours Per Position	2,080	2,080	2,080	2,080	2,080	2,080	2,080
Availability Without OT	1,741	1,701	1,822	1,728	1,635	1,756	1,560
Annual Overtime	59	153	42	92	110	89	207
Total Available Hours	1,800	1,854	1,864	1,820	1,745	1,845	1,766
FTE per Position (w/OT)	4.867	4.726	4.700	4.813	5.020	<b>4.747</b>	4.959
FTE per Position (wo/OT)	5.031	5.151	4.808	5.069	5.358	<b>4.988</b>	5.616

Each required PSAP position requires 8,760 hours of personnel coverage (365 days x 24 hours). Based on the average annual personnel availability in

Table 18 above, each PSAP position requires between four and five full time equivalent (FTE) staff. 4.747 telecommunicators are needed per position when 89 annual hours of overtime are worked and 4.988 telecommunicators are needed per position when no overtime hours are worked. **Therefore, 5.0 FTEs per required position is a good budgetary number for the participating PSAP agencies.**

**4.6.2.2 Calculated Telecommunicator Staffing – Rock Island Alternatives**

Telecommunicator staffing was calculated using the required FTE calculations above and the following communication traffic quantities in Table 19 below. Communication traffic was projected out to the year 2023 to accommodate required facility growth.

Table 19 – Communication Traffic Projections

	2009	2010	2012	2013	2018	2023
Total 9-1-1 Calls	88,697	90,676	94,096	96,066	107,158	120,614
Total Admin Calls	354,670	340,507	312,190	300,019	249,637	213,141
PD Dispatches	210,663	185,867	200,069	200,599	205,609	215,016
FD Dispatches	9,904	10,889	11,305	11,481	12,435	13,532
EMS Dispatches	7,754	8,076	8,128	8,261	8,975	9,780
Total Dispatches	228,321	204,832	219,502	220,341	227,019	238,328
Out of Service Calls	208,325	202,710	200,760	191,478	178,414	150,704
Data Calls	0	0	358,368	367,295	409,409	460,358

**4.6.2.3 Alternatives 1 & 2 – Single Consolidated PSAP**

Telecommunicator staffing for Alternatives 1 & 2 are the same because both alternatives specify a single consolidated PSAP. Table 20 presents calculated required telecommunicator staffing at a single consolidated PSAP.

Table 20 – Required Telecommunicator Staffing at a Single Consolidated PSAP

	2012	2013	2018	2023
Call Takers	13.36	13.23	12.87	12.83
Dispatchers	5.28	5.29	5.37	5.47
<b>Total</b>	<b>18.64</b>	<b>18.52</b>	<b>18.24</b>	<b>18.30</b>
Required Staff	30.99	30.79	30.33	30.42
Required Staff w/OT	29.49	29.30	28.86	28.95

**4.6.2.4 Alternative 3 – Two Consolidated PSAPs (RIPD and Centre Station)**

Alternative 3 consolidates RICOM, RICSO, and Milan PD operations into the Rock Island PD Facility (3A) and consolidates Silvis PD into the Centre Station PSAP (3B).

Table 21 – Required Telecommunicator Staffing for the Alternative 3 PSAPs

3A – RIPD Staffing	2012	2013	2018	2023
--------------------	------	------	------	------

<b>Call Takers</b>	10.28	10.26	10.16	10.11
<b>Dispatchers</b>	4.15	4.13	4.12	4.14
<b>Total</b>	<b>14.43</b>	<b>14.39</b>	<b>14.29</b>	<b>14.25</b>
<b>Required Staff</b>	<b>23.99</b>	<b>23.92</b>	<b>23.75</b>	<b>23.69</b>

<b>3B – Centre Station Staffing</b>	<b>2012</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Call Takers</b>	10.66	10.57	10.05	9.81
<b>Dispatchers</b>	3.97	4.01	4.15	4.39
<b>Total</b>	<b>14.64</b>	<b>14.58</b>	<b>14.20</b>	<b>14.20</b>
<b>Required Staff</b>	<b>25.34</b>	<b>25.25</b>	<b>24.59</b>	<b>24.58</b>

Table 22 – Total Required Telecommunicator Staffing for the Alternative 3 PSAPs

<b>Alternative 3 Totals</b>	<b>2012</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Call Takers</b>	20.95	20.83	20.21	19.92
<b>Dispatchers</b>	8.12	8.14	8.27	8.53
<b>Total</b>	<b>29.07</b>	<b>28.97</b>	<b>28.49</b>	<b>28.44</b>
<b>Required Staff</b>	<b>49.34</b>	<b>49.17</b>	<b>48.34</b>	<b>48.27</b>
<b>Required Staff w/OT</b>	<b>45.99</b>	<b>45.84</b>	<b>45.08</b>	<b>45.01</b>

**4.6.2.5 Alternative 4 – Two Consolidated PSAPs (RIPD and Milan PD)**

Alternative 4 consolidates RICOM and RICSO into the Rock Island PD Facility (4A) and consolidates Silvis PD, Milan PD and Centre Station into the Milan PD PSAP (4B).

Table 23 – Required Telecommunicator Staffing for the Alternative 4 PSAPs

<b>4A – RIPD Staffing</b>	<b>2012</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Call Takers</b>	10.23	10.21	10.12	10.07
<b>Dispatchers</b>	4.01	3.99	3.95	3.94
<b>Total</b>	<b>14.24</b>	<b>14.20</b>	<b>14.07</b>	<b>14.01</b>
<b>Required Staff</b>	<b>23.69</b>	<b>23.61</b>	<b>23.40</b>	<b>23.29</b>

<b>4B – Milan PD Staffing</b>	<b>2012</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Call Takers</b>	10.72	10.62	10.09	9.96
<b>Dispatchers</b>	4.11	4.14	4.36	4.62
<b>Total</b>	<b>14.83</b>	<b>14.77</b>	<b>14.45</b>	<b>14.57</b>
<b>Required Staff</b>	<b>25.60</b>	<b>25.49</b>	<b>24.95</b>	<b>25.16</b>

Table 24 – Total Required Telecommunicator Staffing for the Alternative 4 PSAPs

<b>Alternative 4 Totals</b>	<b>2012</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Call Takers</b>	20.95	20.83	20.21	20.03

<b>Dispatchers</b>	8.12	8.13	8.31	8.55
<b>Total</b>	<b>29.07</b>	<b>28.96</b>	<b>28.52</b>	<b>28.58</b>
<b>Required Staff</b>	<b>49.29</b>	<b>49.10</b>	<b>48.35</b>	<b>48.45</b>
<b>Required Staff w/OT</b>	<b>46.00</b>	<b>45.83</b>	<b>45.14</b>	<b>45.22</b>

**4.6.2.6 Summary – Required Telecommunicator Staffing**

Table 25 summarizes the calculated staffing requirements for each consolidation alternative and compares that to the current total authorized telecommunicator staff in Rock Island County.

*Table 25 – Total Required Telecommunicator Staffing for the Alternative PSAPs*

<b>Required Telecommunicator Staff Totals</b>	<b>2013</b>	<b>2018</b>	<b>2023</b>
<b>Alternative 1 &amp; 2</b>	30.79	30.33	30.42
<b>Alternative 3</b>	49.17	48.34	48.27
<b>Alternative 4</b>	49.10	48.35	48.45
<b>Current Total Authorized Staff</b>	<b>48*</b>		

\*Includes Working Supervisors

**4.6.2.7 Supervision in the Consolidated PSAP**

Supervision of personnel deployed 24-hours per day is a necessary and complex undertaking. There are widely varying theories on the span of control and management styles.

As it relates to staffing, shift supervision involves several broad areas including: administration, supervision, quality control and training. No matter what style of management is employed, the shift supervisor plays an important role in seeing that their shift provides the best service possible.

Mid-size to large PSAPs often provide for a single shift supervisor who has the supervisory and management responsibilities for a shift ranging from a few to more than 10 staff. The shift supervisor is normally not intended to act as a telecommunicator, but can provide assistance when call volumes increase or unexpected circumstances arise. In most cases, there are only three or four supervisor positions authorized for the entire PSAP. Span of control relationships of 1:10 or 1:15 are not uncommon.

Small PSAPs often deploy working supervisors on each shift. The term working supervisor means that a suitable telecommunicator is promoted to supervisor and responsible for all supervisor functions but also acts as a telecommunicator responsible for taking calls, radio dispatch, and the ancillary activities required of all other telecommunicators.

It is recommended that the Rock Island Consolidated PSAPs employ a single shift supervisor per shift. Assuming supervisor availability similar to the telecommunicators, five supervisor staff would be needed at each consolidated PSAP.

Table 26 – Total Required Supervisor Staffing for the Alternative PSAPs

Required Supervisor Staff	
Alternative 1 & 2	5
Alternative 3	10
Alternative 4	10

**4.6.2.8 Consolidated PSAP Administrative Staff**

The consolidated PSAP will require an administrative staff to manage day-to-day operations. At a minimum, the administrative staff will include a PSAP manager, and assistant manager, and clerical staff that will report to the PSAP governance body established by the participating agencies (PSAP Governance is addressed in Section 5). In a two-PSAP configuration, one manager could oversee both PSAPs with an assistant manager and clerical staff assigned at each PSAP.

Table 27 – Total Required Admin Staffing for the Alternative PSAPs

Required Admin Staff	PSAP Manager	Assistant Manager
Alternative 1 & 2	1	1
Alternative 3	1	2
Alternative 4	1	2

**4.6.2.9 Backfill Admin Clerk**

Currently, telecommunicators perform various administrative tasks within each agency (i.e., greet public, sell records, collect fines, etc.). In a consolidated configuration, each agency would have to hire personnel to backfill these services. The costs of these services would vary significantly among each participating agency based on the duties performed by the current telecommunicator staff. The Warrants verification function is currently performed by RICSO personnel and would continue to be performed by RICSO personnel with a consolidated PSAP configuration.

**4.6.2.10 Technical Support Staff Requirements**

Several specific technical support functions are recommended to operate and maintain the telecommunications systems and networks that support the consolidated PSAP. Each of the functions described below fulfills system-specific requirements that are necessary to the operational readiness of these systems.

Technical support staff positions are important to the operation of a consolidated communications center. A description of the responsibilities of each of these technical positions follows.

**Systems Analyst** – This function plays an important role in maintaining the operational efficiency of the telecommunications systems used in the consolidated center (9-1-1 telephone system, CAD, console equipment, and other management information systems operating in the center). This function interacts with equipment and system vendors, and with public safety customers. It is the Systems Analyst who will generate and prepare the system reports management and supervisory staff needs to monitor

quality. As an added benefit, this function could also work with law enforcement agencies to provide crime mapping reports and other related services. This function also maintains accurate geographic mapping and routing data, as well as Emergency Service Zone boundaries utilizing both a tabular and graphic mapping product. Routine interaction with police, fire, and emergency medical service customers is necessary to develop and maintain functional emergency responses. Various types of reports will be generated on a daily/monthly/yearly basis and provided to management and supervisory staff.

**Training Coordinator** – The Training Coordinator function is responsible for developing basic and continuous training programs for operational personnel. The Training Coordinator will maintain training records for all operational and supervisory staff. The Training Coordinator will perform much of the instruction, but will also coordinate adjunct faculty from among the center supervisory staff, law enforcement agencies, fire and EMS agencies in the region.

#### 4.6.3 Commitment to Quality Service

A strong commitment to quality creates a quality-oriented culture that is shared by everybody – from the PSAP manager down to the individual call-taker/dispatcher. This culture is reflected on everything the consolidated PSAP has or does: quality services; quality facilities, and quality people and management. The extent of that culture will extend outside of the PSAP to its partners and stakeholders.

The best way for the PSAP to build a quality-oriented culture is to attain accreditation of the consolidated PSAP. Although accreditation does not guarantee quality service, it does reflect the quality by which the PSAP conducts its business and it speaks to a sense of trust and professional quality.

The Commission on Accreditation for Law Enforcement Agencies, Inc., (CALEA) and the Association of Public Safety Communications Officials International (APCO) offer the only accreditation program for public safety communications centers. The CALEA Communications Accreditation Program provides a communications center, or the communications unit of a public safety agency, with a process to systematically review and internally assess their operations and procedures. Since the first CALEA Communication Accreditation Award was granted in 1999, the program has become the primary method for a communications agency to voluntarily demonstrate their commitment to excellence.

CALEA Accreditation requires the communications center or unit to develop a comprehensive, well-thought out uniform set of written directives. This is one of the most successful methods for reaching administrative and operational goals, while also providing direction to personnel.

According to CALEA, accreditation offers the following benefits:

- CALEA Accreditation standards provide the necessary reports and analyses a CEO needs to make fact-based, informed management decisions.
- CALEA Accreditation requires a preparedness program be put in place – so a communications center is ready to address natural or man-made unusual occurrences.

- CALEA Accreditation is a means for developing or improving upon a communications center's relationship with the community or the agencies it services.
- CALEA Accreditation strengthens an agency's accountability, both within the agency and the community, through a continuum of standards that clearly define authority, performance, and responsibilities.
- Being CALEA Accredited can limit a communications center's liability and risk exposure because it demonstrates that internationally recognized standards for public safety communications have been met, as verified by a team of independent outside CALEA-trained assessors.
- CALEA Accreditation facilitates an agency's pursuit of professional excellence.

The CALEA accreditation process takes approximately two years.

#### **4.6.3.1 Functional Metrics**

The key to assessing program effectiveness is measuring the right things. Performance measures should capture the most important aspects of a program's mission and priorities. Appropriate performance goals should: 1) include both performance measures and targets; 2) focus on outcomes, but use outputs when necessary; and 3) include both annual and long-term measures and targets.

Characteristics of good performance goals include:

- **Quality over Quantity** - Performance goals should be relevant to the core mission of the program and to the result the program is intended to achieve. However, the PSAP should not feel compelled to collapse complex activities to a single measure, particularly if that measure is a proxy for the true objective.
- **Importance to Budget Decisions** - Performance goals included in the plan should provide information that helps make budget decisions. Performance goals such as the speed of answer of 9-1-1 calls in the consolidated PSAP are directly linked to the number of call-takers that are needed at any given time to meet the performance goal. Service-focused strategies must reflect the need to provide an expected level of performance with the cost of achieving that level of performance.
- **Clarity of Purpose** - Performance goals should be understandable to the users of what is being measured. Users of the PSAP's services must be involved in the development of performance goals and have a clear understanding of those goals and costs of meeting those goals. Performance goals also impact the citizens of the area. While it is much more difficult to create clarity of purpose with such a diverse constituency, public education materials must strive to clearly define the purpose of the PSAP's programs and what level of service they can expect from these services.
- **Feasibility** - Performance goals should be feasible, but not the path of least resistance. Performance goals must be based on the relevancy of the outcomes.
- **Collaboration** - The PSAP and its constituent partners (e.g., governments, law enforcement, fire and EMS agencies) need to work together to ensure high-performance services.

When performing objective assessments of performance goals, the PSAP should follow a set of principles to develop service level targets to meet the needs of the stakeholder needs. There are numerous service level metrics that can be measured as part of the assessment of program effectiveness. Service levels and dispatch time are important metrics but there are others that provide a complete picture of how well the consolidated center is performing. The following are some of the important 9-1-1 call metrics that should be monitored and reported:

- Caller Abandon Rate
- Call Hold Time
- Queuing Rate
- Call-Taker Occupied Time
- Call Volume Per Hour
- Personnel Utilization

9-1-1 telephone system manufacturers offer management information systems (MIS) as part of the system or as an add-on package. These systems offer several features for enhancing the center's ability to gather, organize, data-mine, and report on communications center performance metrics.

Functional assessments must also include a professional peer review focused on professional performance, with a view to improving service quality. Each shift in the consolidated PSAP will be led by a supervisor. Supervisors are expected to understand and be able to assume any role in the communications center. They have five key supervisory roles: educator, sponsor, coach, counselor and director.

The supervisor is an integral component in the quality measurement process through their role as educator and coach. The supervisor should regularly monitor activities of call-takers/dispatchers and other staff in the communications center during his/her shift. Such monitoring of work provides an opportunity to monitor adherence to policies, procedures and performance metrics and to offer encouragement, education, or corrective measures as they occur.

Some programs such as Emergency Medical Dispatch (EMD) programs require a targeted quality assurance program in which a sample of the EMD calls are submitted for peer review by medical professionals and by communications center staff.

#### ***4.6.3.2 How Often Should Performance Be Measured***

Measurement of functional standards will occur on a daily, weekly and annual basis. MIS systems provide the ability for the center to generate reports such as GOS measurements on a daily basis. Other metrics can be measured over a longer term. Each year, the PSAP should publish a comprehensive quality service report describing adherence to each metric.

### **4.7 Consolidated PSAP Facility**

The consolidated PSAP facility is the protected site location where emergency 9-1-1 and other telephone calls for law enforcement, fire and emergency medical services are received and the coordinated responses of appropriate emergency response organizations are directed. It is designed and equipped to

provide staff support to call-takers, dispatchers and other command staff in receiving emergency calls and dispatching of emergency responders.

#### 4.7.1 Basic Design Criteria for a Consolidated PSAP Facility

Prior to a discussion of the space required by the mission of a consolidated PSAP, several basic criteria are highlighted that establish the quantity and configuration of space. The major areas of discussion include:

- Vulnerability
- Public Image
- Flexibility
- Durability
- Expandability

**Vulnerability** - The consolidated PSAP will house the 9-1-1 public safety answering point, and the law enforcement and fire/EMS dispatch operations for emergency responders. The damage or destruction of the PSAP or the interruptions of emergency response assistance for any reason could place the entire community at great risk. The structure and its human and equipment resources must be afforded a level of protection that reduces the risk of damage or destruction to the maximum extent possible.

A high level of protection consistent with the U.S. General Services Administration (GSA) Interagency Security Committee (ISC) Security Design Criteria is the design goal. Security must be an integral part of the building and site planning, starting at the earliest phase and continuing throughout the process.

Modifications and adaptations to these general GSA requirements will be considered for the project specific needs of the consolidated PSAP. The extent of the PSAP's vulnerability cannot be determined until a final site determination has been selected.

The principal areas of vulnerability include:

- 1) Site Access
- 2) Parking Areas
- 3) Service Zones
- 4) Entrances and Emergency Exits
- 5) Glazing Protection
- 6) Roof Penetrations
- 7) Building Structure
- 8) Air Intake and Ventilation Points
- 9) Antenna towers, antennas and Satellite Dishes
- 10) Connections to External Utility Systems
- 11) Building Layout

The design responses to these and other areas of vulnerability should be addressed in the schematic design phase of a new building project or the renovation of an existing facility. However, the following provides a notional response that can impact space requirements.

**1. Site Access**

- A minimum defended standoff distance of 50 feet. Greater standoff is preferred. Standoff is defined as the distance from the communications center building to the nearest point of access by unchecked vehicles. Bollards, planter, berms or other vehicle barriers that define the standoff distance shall protect the site perimeter.
- A minimum defended standoff distance of 20 feet (greater is preferred) from cleared employee vehicles on the site.
- Controlled vehicular access onto the site.
- Pan-Tilt-Zoom (PTZ) camera surveillance of the site.

**2. Parking Areas**

- No public parking or vehicular access within 50 feet of the center.
- Security lighting of three (3) to five (5) foot-candles should be provided.
- On-site parking areas should have controlled access by cleared vehicles only.
- Camera surveillance should be provided.

**3. Service Zones**

- Surface-mounted retractable barriers.
- Service vehicle yard.
- Overhead doors.
- High intensity light levels.
- PTZ camera surveillance.
- Direct supervision from center.

**4. Entrances and Emergency Exits**

- Limited to one public, one staff, and emergency exits by code.
- Access controlled.
- Security vestibule.
- PTZ camera surveillance.
- Direct and casual supervision from center.
- Decorative barriers.

**5. Glazing Protection**

- Exterior glazing should not exceed 40% fenestration of the exterior wall surfaces measured column to column and floor to floor in any given structural bay.
- All windows shall be inoperable (fixed).
- Exterior glazing should be blast resistant in compliance with GSA Security Criteria. Glazing should be laminated glass. Glazing, frames, and anchorage designs should be balanced.
- Forced entry ballistic resistance as well as blast resistance should be provided in selected areas (e.g., at the entrance lobby). The level of protection will be determined

in the Schematic design but will probably be rated at National Institute of Justice (NIJ) level 3 or better.

6. **Roof Penetrations**
  - Limited in number.
  - Lockable.
7. **Building Structure**
  - Cast-in-place reinforced concrete construction with a minimum compressive strength of 4,000 psi.
  - Vandal resistant materials.
  - Inaccessible by public.
8. **Air Intake and Ventilation Points**
  - Locate at the highest levels possible (The roof is preferred).
  - High intensity lighted area.
  - Security grille over openings.
  - Inaccessible from public areas.
  - Air quality detection devices.
9. **Antenna and Satellite Dishes**
  - Inaccessible from public areas.
  - As low profile as possible.
  - Fenced and secured access to ground-based towers or antennas.
10. **Connection to Public Utilities**
  - Limited number of junction boxes.
  - Lockable manhole covers.
  - Control over access to the utility chases, tunnels or corridors.
  - Emergency cut-offs.
  - Redundancy in all major mechanical, electrical and operating systems.
  - Diverse feeds from Telephone and Power Utilities.
11. **Building Layout**
  - Set backs.
  - Landscaping that limits hiding places.
  - Use of decorative fencing to define zones.
  - Use of bollards to prevent unauthorized vehicle use of pedestrian walks.
  - Number of levels above ground should be fewer than 5.

The reduction in vulnerability of the PSAP will be a combination of architectural barriers, structural hardening, electronic intrusion detection, policies and procedures, and training.

**Public Image** - Although the consolidated communications center should be one of the most secure public buildings in the area, it need not be invisible nor obscure. As a contrast to the high degree of controlled access that will define the daily operation of the center, escorted and some self-directed public tours of portions of the building will occur on a scheduled basis. The structure should reinforce

the public's confidence that emergency communications is a high priority government service and that the human and technological resources that respond to the public's call for support are valued.

The aesthetics of the center will be defined in the subsequent schematic design phase, but the visualization of the center through the building programming process has been of a facility that depicts security, mission, reliability, durability, and affordability. Although the center is a public facility, virtually all visits by the general public will be scheduled and organized tours. Even with this more limited public access, the public must feel confidence that the Government understands the importance that is attached to appropriate response to emergencies.

Normal building materials that are used for other institutional or educational structures will be appropriate reflecting a higher degree of security and durability. While the building should be pleasing to the visiting public, at the same time, the public should be aware that access to the structure is in effect "by invitation."

**Flexibility** - Due to the nature of the mission, the systems and some of the spaces will be in flux. For the foreseeable future, the center will be a "console-based" operation and will be largely dependent upon the technological advances that change the manner in which calls are taken and responses given. Most of these changes will simply mean replacing one console item with another of like dimension. Some, however, could mean changes in adjacencies, equipment support areas, and numbers of staff to manage the systems.

Throughout the program, space designations should be based upon currently envisioned methods of operation. To the extent possible, acoustical privacy is expected to be achieved through sound management techniques and not floor-to-ceiling walls.

Flexibility should be incorporated into the program through the sizing of spaces for reasonable growth and the multiple functions that can be achieved in a single space. Although each space has a primary mission and should be designed accordingly, a secondary function has also been envisioned for many large gathering spaces. This will permit internal expansion without altering the exterior configuration.

**Durability** - The need for low maintenance surfaces should not conflict with the security requirements of the PSAP. Since the PSAP is a 24-hour, 365-days-per-year operation, interruptions from maintenance and cleaning personnel should be limited. This requires the deliberate selection of finishes and materials that resist the wear and tear of a structure that is continuously in use. While the staff will be instructed in how to use the structure and systems to accomplish the mission, employees of the center and an undetermined number of annual visitors will place daily demands on the structure.

**Expandability** - No public building should be planned without some idea of how expansion could occur, other than replacement. The program represented in this document exceeds the space requirements of initial opening, so that increases in the number of console/personnel positions and technology refreshes can occur without the disruption of internal construction. The planning target for forecasting space requirements was accomplished by sizing critical areas, such as the PSAP, dispatch areas, and

administrative offices for a 20-30% increase through internal expansion. Also, the co-location of certain spaces will allow for easy expansion into adjoining areas.

As a planning guideline, the site chosen for the center should permit a 50% floor area expansion horizontally and/or vertically. Considerations for horizontal expansion must account for the required standoff for the facility. Vertical expansion must account for the structural hardening requirements of the facility.

#### **4.7.1.1 Benchmarks for Programming**

While other new PSAPs exist throughout the state and the nation, as would be expected, the size and complexity of mission varies. Most of the representatives from the partner agencies are likely to have visited or are familiar with other PSAPs. Some basic spatial data used in the design of similar PSAPs in which we have been involved has been used in the space planning of the consolidated PSAP.

**Call Volumes** - The size of a PSAP is driven by the number of call-takers and dispatch staff in conjunction with the concomitant support spaces. The number of call-takers and dispatchers is a reflection of calls for service/assistance, personnel efficiency, and electronic dependability. The variable that has driven the determination of the number of call-taker and dispatcher consoles is the volume of calls that is likely to be managed and the standard by which these calls will be received and processed.

**Building Efficiency** - As a basis of comparing the PSAP to other building types, building efficiency is considered. Building efficiency is the ratio of net square feet to gross square feet expressed as a percentage. The design community is accustomed to using building efficiency, defined in their terms as a measure of assignable areas to gross building area, as an important benchmark measure.

Government building design standards typically establish building efficiency ratios based on the type of building being designed. For example, office buildings can have a building efficiency ratio design goal of 70% to 90% depending upon the building type (portioned office vs. open office layout). Engineering/Laboratory buildings and Hospitals will typically see building efficiency ratio goals of from 60% to 72%. What is important to understand in the design of a consolidated PSAP is that the building efficiency ratio will be lower than the typical architectural design manual goals.

Building efficiency ratios of 55% to 70% are often seen in these types of buildings. It is a result of the need for redundant mechanical spaces, and large equipment spaces to support communications and telecommunications equipment.

**Console Configuration** - The "form-giver" in a communications center is the call and dispatch platform represented by the communications consoles and the immediately adjacent support areas. This center is the visual focus of public safety communications in the region and will serve as the nerve center for all emergency communications. The benchmark for this component is the size of the console and the circulation space to support that console. The exact configuration of the console will result from the more detailed study of the system architecture in a subsequent Schematic Design phases of the project. However, for the purpose of future space programming, a summary of popular consoles are described in Table 28.

Table 28 – Description of Typical PSAP Console Types

Type of Console	Description
9-1-1 Call-Taker	A "cockpit" type workstation designed to minimize reach and focal distances for the call-taker. Based on a modular furniture concept, the console should provide a sit to stand adjustable work surface capable of supporting four 21" monitors. The workstation should provide integrated storage compartments for CPUs and distributed electrical power. A 100% circulation factor should be added to the 80 SF net area for four-sided circulation.
Radio Dispatch	A "cockpit" type workstation designed to minimize reach and focal distances for the dispatcher. Based on a modular furniture concept, the console should provide a sit-to-stand adjustable work surface capable of supporting five 21" monitors. The workstation should provide integrated storage compartments for CPU's and distributed electrical power. Additional workstation surface area should be provided to support radio system management and alarm terminals and printers. A 100% circulation factor should be applied to the net area.
Supervisor	A "cockpit" type workstation designed to minimize reach and focal distances for the supervisors. Based on a modular furniture concept, the console should provide a sit-to-stand adjustable work surface capable of supporting six 21" monitors. The workstation should provide integrated storage compartments for CPUs and distributed electrical power. Additional workstation surface area should be provided to support radio system management and alarm terminals and printers. Additional console space will be provided to support radio system management terminals, alarm and control terminals, printers and other network devices. A 100% circulation factor should be applied to the net area.

The actual arrangement of the PSAP space will be dependent on many variables, but should be guided by several key operational objectives:

- The ability of the Supervisors to observe consoles within their span of control.
- The ability of the call-taker to see the dispatch consoles for visual communication.
- The ability of any wall-mounted or ceiling-suspended graphic displays to be observable from all console positions.
- Immediate adjacency of communications and telecommunication electronic equipment areas to the console positions.
- Visibility into the PSAP/Dispatch area from a public gallery.
- Close proximity of redundant systems.

**Support Spaces** - Other spaces within the consolidated center are traditional in format, such as offices, conference rooms, lockers, etc. Several methods were used to select the appropriate space standard for these spaces including the following:

- Office sizes based upon typical grade classifications of public facilities.
- Interviews with managers and staff as part of the programming process.
- National experience of the consulting team in programming a variety of Governmental buildings.

**Acoustics** - Few spaces are as dependent upon noise control as the PSAP. Daily, life-threatening conditions will be addressed by call-takers and dispatchers that will depend upon clear, audible

communication. A number of important factors should be considered in the planning of the communications center.

The determination of noise levels should address the level (expressed in decibels [dBA]), the reverberation time (expressed in seconds), and sound absorption (expressed in Sabins). The later design stages must evaluate the quality of sound by addressing volume, acoustical materials, and background "white" noise. Several guidelines are offered for the later design stages but are so important to the operational objectives of the consolidated center that selected benchmarks are noted in the programming stage.

During the design phase, each space should be analyzed to define acoustical tolerances for sound transmission as opposed to reverberation and vibration noise. The area of the consolidated PSAP most sensitive to noise transmission is the PSAP/Dispatch area. Care should also be exercised in the horizontal and vertical adjacencies of the mechanical room and personnel support areas such as kitchens and locker rooms.

Table 29 demonstrates the significance of the time for noise to "decay" expressed in seconds reverberation time and noise in dBA. For example, using this table for a guide in the initial planning of the PSAP/Dispatch area suggests that the objective should be less than one second for reverberation time and below 60 dBA for the ambient noise level.

*Table 29 - Significance of Noise and Reverberation*

Reverberation Time Range	Significance
Over 2.0 Seconds	Extremely live. Poor speech intelligibility.
Between 1.5 and 20 Seconds	Live. Fair speech intelligibility.
Between 1.0 and 1.5 Seconds	Fairly dead. Good speech intelligibility.
Below 1.0 Seconds	Dead. Excellent speech intelligibility.
Noise Level	Significance
Over 80 dBA	Extremely noisy. Communication nearly impossible.
70 dBA	Noisy. Communication requires raised voice level.
60 dBA	Moderate noise level. Communication in normal voice level.

All materials absorb sound to some extent, but the most effective acoustical materials are porous, but must be quite thick or have an air space to absorb low frequency sound effectively.

These design conditions may not be possible in the design of the consolidated PSAP so careful study of the wall, floor, and ceiling materials should define the Noise Reduction Coefficient (NRC) for all possible building materials.

**Cost Guidelines** - Another important benchmark is the cost per square foot compared to other institutional building types. Based on recent similar construction projects, RCC uses \$300 per square foot for new PSAP facilities construction and \$200 per square foot for facility renovations for PSAP operations.

Many other factors will impact the final cost estimate such as new structure vs. retrofit of existing spaces, site characteristics, utility infrastructure, and the bidding climate at the time the center is being bid.

#### 4.7.2 Spatial Descriptions of Common Areas

The square footage of a PSAP is driven by the number of telecommunicator positions, but there are many additional factors that need to be considered when designing or selecting a potential PSAP facility or location. For the purpose of clarity, a discussion of key functional areas is provided below:

**Break Rooms** – A Consolidated PSAP should include an appropriately sized break room with kitchen appliances.

**Conference Rooms** - A Consolidated PSAP should include an appropriately sized conference room in the facility. Teleconferencing and audiovisual (AV) equipment should be installed in the executive conference room. No cost has been budgeted for AV equipment in the conference rooms, as the requirements have not yet been defined.

**Copy and File Room** - There is one copy/file room in the dispatch and operations area. This room is designed to contain a heavy-duty copier, a fax machine, document assembly area, office supplies, and file cabinets.

**Equipment Rooms** – These areas will contain 9-1-1, administrative telephone, CAD, AVL, Radio, Microwave, and MDCS equipment.

**Equipment Repair and Maintenance Room** - This area will be used for 9-1-1 telephone, CAD, AVL, and MDCS equipment maintenance. Work surfaces in this area should be 40 inches above the finished floor (AFF).

**Lockers and Showers** – There are two rooms (men’s and women’s) in the dispatch center model, each equipped with showers and lockers. Final locker and space allocation for men’s and women’s lockers should be determined during the final design.

**Training Room** - This shared room, which is located inside the center contains consoles and equipment used in the training of telecommunicators. The consoles in this room can be used as substitutes for consoles “out-of-service” for maintenance, and as an overflow area for high call-volume periods.

Considering all of the factors described in this section of the report, Table 30 provides an estimate of the total spatial requirements for the consolidated PSAP. It should be noted that these are recommendations based on our experience and they assume the construction of a purpose-built facility for a consolidated PSAP. The regional partners should retain the services of a qualified and experienced architectural firm to conduct a detailed space program and develop schematic designs for the renovation of one of the existing PSAPs or a new facility, should the partners agree on building a new facility.

Table 30 - Spatial Requirements for a Consolidated PSAP

Space Designation	Approximate Square Footage
PSAP Manager	400
Assistant PSAP Manager	225
Call Taker/Dispatch/Supervisor Position	150
Kitchen/Break Room	200
Large Conference Room	240
Small Conference Room	120
Copy/File Room	320
Equipment Room (Servers, Radio Equip, etc.)	400
Rest Room/Lockers/Showers	500
Training Room	300
Supervisor's Office	200

Parking is also an important consideration for the consolidated PSAP.

Table 31 describes the parking space requirements for the consolidated PSAP.

DRAFT

Table 31 - Spatial Requirements for Parking

Space Designation	Approximate Square Footage
Parking Spaces	270
ADA Vehicle Spaces	420
Parking Circulation	15%

**4.7.3 Consideration of Retrofitting an Existing PSAP or Building a New Consolidated PSAP**

An additional choice for the decision makers in Rock Island County is whether or not to retrofit existing facilities to house consolidated PSAPs (Alt 2 & 4 - 3<sup>rd</sup> Floor Milan PD, Alt-3 Centre Station).

**4.7.4 Rock Island County Consolidated PSAP Facilities Requirements**

The following sections provide estimated facility requirements for the respective consolidated PSAP alternatives. Facility requirements are estimated using staffing calculations for peak traffic projections for 2023. Peak traffic is calculated by multiplying the average traffic quantities by 3.6. Statistically, call traffic during the busy-hour is equal to 15% of the day’s traffic. The shift with the highest required number of positions is used for the facility requirement.

Table 32 – Required Telecommunicator Positions for the Alternative PSAPs

Required Telecommunicator Positions Totals	2023 Peak Positions	Supervisor Positions
Alternative 1 & 2 (Single Facility)	11	2
Alternative 3A (RIPD Facility)	8	2
Alternative 3B (Centre Station)	8	2
Alternative 4A (RIPD Facility)	8	2
Alternative 4B (Milan PD 3 <sup>rd</sup> Floor)	9	2

**4.7.4.1 Alternatives 1 & 2 Facilities Requirements**

Table 33 – Required PSAP Facilities for Alternatives 1 & 2

Alternatives 1 & 2 Facilities			
Area	Quantity	Size (Sq. Ft.)	Total
Manager's Office	1	400	400
Assistant Manager's Office	1	225	225
Call Taker/Dispatcher Positions	11	150	1,650
Supervisor Positions	2	150	300
Break Room	1	200	200
Large Conference Room	1	240	240
Small Conference Room	1	120	120
Copy and File Room	1	320	320

Equipment Room	1	400	400
Equipment Repair and Maintenance Room	1	255	255
Lockers and Showers	2	500	1,000
Training Room	1	300	300
Supervisor's Office	1	200	200
Total			5,610
Building Circulation 15%			842
Building Services 10%			561
Gross Building Spaces			<b>7,013</b>

Alternatives 1 & 2 Parking Lot Requirements			
Description	Number of Employees	Parking Spaces Required	Space (Sq. Ft.)
Telecom/Supervisor Positions	13	26	7,020
Management/Tech/Admin	5	5	1,350
Miscellaneous		4	1,080
Total Vehicles		35	9,450
ADA Vehicle Spaces		3	1,260
Parking Spaces		38	10,710
Parking Circulation 15%			1,607
Parking Lot space			<b>12,317</b>

New Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
New Facility Construction	7,013	\$300	\$2,103,750
Parking Lot	12,317	\$20	\$246,330
Total Facility Cost			\$2,350,080
Architectural and Engineering Cost 10 %			\$235,008
Dispatch Console Furniture	13	\$15,000	\$195,000
Grand Total			<b>\$2,780,088</b>

Renovated Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
Renovated Facility Construction	7,013	\$200	\$1,402,500
Parking Lot	12,317	\$15	\$184,748
Total Facility Cost			\$1,587,248
Architectural and Engineering Cost 10 %			\$158,725
Dispatch Console Furniture	13	\$15,000	\$195,000
<b>Grand Total</b>			<b>\$1,940,972</b>

**4.7.4.2 Alternative 3 Facilities Requirements**

Add four Call Taker/Dispatcher positions at RIPD and Centre Station

Table 34 – Required PSAP Facilities for Alternative 3 – Rock Island PD PSAP and Centre Station

Alternative 3 Facilities – Rock Island PD/Centre Station Renovations			
Area	Quantity	Size (Sq. Ft.)	Total
Manager's Office	0	400	0
Assistant Manager's Office	0	225	0
Call Taker/Dispatcher Positions	4	150	600
Supervisor Positions	0	150	0
Break Room	0	200	0
Large Conference Room	0	240	0
Small Conference Room	0	120	0
Copy and File Room	0	320	0
Equipment Room	0	400	0
Equipment Repair and Maintenance Room	0	255	0
Lockers and Showers	0	500	0
Training Room	0	300	0
Supervisor's Office	0	200	0
Total			600
Building Circulation 15%			90
Building Services 10%			60
Gross Building Spaces			<b>750</b>

Alternatives 3 Parking Lot Requirements			
Description	Number of Employees	Parking Spaces Required	Space (Sq. Ft.)
Telecom/Supervisor Positions	4	8	2,160
Management/Tech/Admin	0	0	0
Miscellaneous		0	0
Total Vehicles		8	2,160
ADA Vehicle Spaces		0	0
Parking Spaces		8	2,160
Parking Circulation 15%			324
Parking Lot space			<b>2,484</b>

Renovate Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
New Facility Construction	750	\$200	\$150,000
Parking Lot	2,484	\$15	\$37,260
Total Facility Cost			\$187,260
Architectural and Engineering Cost 10 %			\$18,726
Dispatch Console Furniture	4	\$15,000	\$60,000
<b>Grand Total</b>			<b>\$265,986</b>

The Centre Station PSAP is currently purposed for Public Safety Dispatch operations. Renovation required for bringing in the Silvis PD PSAP operation would be minimal. Also the new Rock Island PD facility is being built and purposed for Public Safety Dispatch Operations. At the time of this report the size and capacity of the new facility was still unclear. The true additional costs required to expand this new facility could vary considerably from the numbers presented based upon what the actual final design of that facility is.

**4.7.4.3 Alternative 4 Facilities Requirements**

Table 35 – Required PSAP Facilities for Alternative 4 – Rock Island PD PSAP

Alternative 4 Facilities – Rock Island PD PSAP			
Area	Quantity	Size (Sq. Ft.)	Total
Manager's Office	0	400	0
Assistant Manager's Office	0	225	0
Call Taker/Dispatcher Positions	4	150	600
Supervisor Positions	0	150	0
Break Room	0	200	0
Large Conference Room	0	240	0
Small Conference Room	0	120	0

Copy and File Room	0	320	0
Equipment Room	0	400	0
Equipment Repair and Maintenance Room	0	255	0
Lockers and Showers	0	500	0
Training Room	0	300	0
Supervisor's Office	0	200	0
<b>Total</b>			<b>600</b>
Building Circulation 15%			90
Building Services 10%			60
<b>Gross Building Spaces</b>			<b>750</b>

Alternatives 4A Parking Lot Requirements			
Description	Number of Employees	Parking Spaces Required	Space (Sq. Ft.)
Telecom/Supervisor Positions	4	8	2,160
Management/Tech/Admin	0	0	0
Miscellaneous		0	0
Total Vehicles		8	2,160
ADA Vehicle Spaces		0	0
Parking Spaces		8	2,160
Parking Circulation 15%			324
Parking Lot space			2,484

Renovated Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
Renovated Facility Construction	750	\$200	\$150,000
Parking Lot	2,484	\$15	\$37,260
<b>Total Facility Cost</b>			<b>\$187,260</b>
Architectural and Engineering Cost 10 %			\$154,043
Dispatch Console Furniture	4	\$15,000	\$60,000
<b>Grand Total</b>			<b>\$265,986</b>

*The new Rock Island PD facility is being built and purposed for Public Safety Dispatch Operations. At the time of this report the size and capacity of the new facility was still unclear. The true additional costs required to expand this new facility could vary considerably from the numbers presented based upon what the actual final design of that facility is.*

Table 36 – Required PSAP Facilities for Alternative 4 – Milan PD PSAP

Alternative 4 Facilities – Renovate Milan PD PSAP			
Area	Quantity	Size (Sq. Ft.)	Total
Manager's Office	1	400	400
Assistant Manager's Office	1	225	225
Call Taker/Dispatcher Positions	9	150	1,350
Supervisor Positions	2	150	300
Break Room	1	200	200
Large Conference Room	1	240	240
Small Conference Room	1	120	120
Copy and File Room	1	320	320
Equipment Room	1	400	400
Equipment Repair and Maintenance Room	1	255	255
Lockers and Showers	2	500	1,000
Training Room	1	300	300
Supervisor's Office	1	200	200
<b>Total</b>			<b>5,310</b>
Building Circulation 15%			797
Building Services 10%			531
<b>Gross Building Spaces</b>			<b>6,638</b>

Alternatives 4B Parking Lot Requirements			
Description	Number of Employees	Parking Spaces Required	Space (Sq. Ft.)
Telecom/Supervisor Positions	11	22	5,400
Management/Tech/Admin	5	5	1,350
Miscellaneous		4	1,080
Total Vehicles		31	8,370
ADA Vehicle Spaces		3	1,260
Parking Spaces		34	9,630
Parking Circulation 15%			1,445
Parking Lot space			<b>11,075</b>

Renovated Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
Renovated Facility Construction	6,638	\$200	\$1,327,500
Parking Lot	11,075	\$15	\$166,118
Total Facility Cost			\$1,493,618
Architectural and Engineering Cost 10 %			\$149,362
Dispatch Console Furniture	11	\$15,000	\$165,000
<b>Grand Total</b>			<b>\$1,807,979</b>

**4.7.5 EOC Facility Considerations**

If the County chooses to build or renovate a consolidated PSAP facility, it should consider adding adjacent facilities for the County’s EOC. Facility considerations for a new EOC should include the following functional areas:

**EOC Manager’s Office** – Office for managing day-to-day EOC operations.

**EOC Command/Operations Room** - This is the central command and control point for managing emergency operations. The room should accommodate at least fifty persons using phones, radios and PC’s. The workstations should be arranged in u-shaped conference style, with large projection screens for AVL display, CAD Status and commercial TV (for news and weather broadcasts) on both sides of the room for ease of visual access. A budget for these video displays and associated TV antenna system has not been developed.

One wall should provide write-on surfaces and areas to mount maps and charts. The EOC area should have at least a raised floor system, allowing for flexibility regarding the use of communications, computing equipment, and cabling to the CAD hardware equipment room. The room should be equipped with a variable lighting control system.

**EOC Support Work Areas** – Support areas in the EOC used by support personnel.

**EOC Media Room** – This room has limited access to the EOC and is intended to be used by media personnel.

*Table 37 - Spatial Requirements for a Consolidated PSAP*

Space Designation	Approximate Square Footage
EOC Manager’s Office	225
Command/Operations Room	2,500
Breakout Room/Support Area	450
Media Room	450

Table 38 - Spatial Requirements for Parking

Space Designation	Approximate Square Footage
Parking Spaces	270
ADA Vehicle Spaces	420
Parking Circulation	15%

**4.7.5.1 EOC Facilities Requirements**

Table 39 – Required EOC Facilities for a Joint PSAP/EOC

EOC Facilities			
Area	Quantity	Size (Sq. Ft.)	Total
Manager's Office	1	225	225
Command/Operations Room	1	2500	2,500
Breakout Room/Support Area	2	450	900
Media Room	1	450	450
<b>Total</b>			<b>4,075</b>
Building Circulation 15%			611
Building Services 10%			408
<b>Gross Building Spaces</b>			<b>5,094</b>

EOC Parking Lot Requirements			
Description	Number of Employees	Parking Spaces Required	Space (Sq. Ft.)
EOC Personnel	50	50	13,500
ADA Vehicle Spaces		3	1,260
Parking Spaces		53	14,760
Parking Circulation 15%			2,214
Parking Lot space			16,974

New EOC Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
New Facility Construction	5,094	\$300	\$1,528,125
Parking Lot	16,974	\$20	\$339,480
<b>Total Facility Cost</b>			<b>\$1,867,605</b>
Architectural and Engineering Cost 10 %			\$186,761
<b>Grand Total</b>			<b>\$2,054,366</b>

Renovated Facility Construction Description	Size (Sq. Ft.)/ Quantity	Price	Subtotal
Renovated Facility Construction	5,094	\$200	\$1,018,750
Parking Lot	16,974	\$15	\$254,610
Total Facility Cost			\$1,273,360
Architectural and Engineering Cost 10 %			\$127,336
<b>Grand Total</b>			<b>\$1,400,696</b>

## 5 Governance

### 5.1 Governance is Key to Regional Interoperability

Administration of shared public safety services and systems that improve regional interoperability requires the collaboration and participation of public safety stakeholders in the region. Creating the capacity to work collectively among and between agencies, levels of government, and a variety of disciplines means overcoming established barriers to cooperation. Representatives of the various agencies, disciplines and levels of government must come together to formulate and agree on a unified strategy for achieving interoperability.

Barriers to cooperation are not exclusively technical issues that can be addressed by purchasing and installing compatible communications systems. To the contrary, planning for and implementing integrated interoperable systems is a complicated process that involves an array of political, organizational, legal, technical, cultural and personal issues that must be addressed and agreed upon. Because of the inherent complexity of these issues, a formal organizational structure is a necessary first step to ensure that the principal participants, stakeholders and users are intimately involved in the process.

Defining a governing body that establishes a mission, membership, decision making, structure and direction is one of the key components to planning and implementing a successful interoperability strategy in a region. The governance structure ensures a place at the table for all relevant agencies and users, and formalizes and upholds equality in decision making (e.g., all participating jurisdictions have an equal vote in decisions). It is the vehicle through which agencies, stakeholders and users participating in or using interoperable systems:

- Articulate a united vision and determine the scope and focus of interoperability
- Identify legal, policy, administrative, funding and technical requirements and any obstacles to achieving interoperability
- Garner support from other regional, state and federal decision makers
- Monitor planning, implementation and management activities
- Define interoperability requirements
- Oversee systems acquisition
- Resolve obstacles to implementation

- Review system performance and make recommendations concerning systems improvements, enhancements, and next phases

### 5.1.1 Governance Structure

Local governments working together to improve interoperability have structured their governing bodies in different ways, such as interlocal agreements, contracts, and legislatively. Regarding interoperability, the U.S. Department of Homeland Security provides guidance in interoperability governance through the SAFECOM program. SAFECOM identifies the following three components of interoperability governance:

- Governing Body
- Authority
- Partnerships

### 5.1.2 Governance Model

Governance relates to decisions that define expectations, grant power, and verify performance. For the consolidated PSAP, governance is consistent management, cohesive policies, processes and decisions for 9-1-1 dispatch and interoperable communications services for Rock Island County.

A White Paper written by the Integrated Justice Information Systems (IJIS) Public Safety Technology Standards Committee entitled "GOVERNANCE AGREEMENTS IN PUBLIC SAFETY INFORMATION SHARING PROJECTS" has been included in Appendix A for additional information and guidance.

#### 5.1.2.1 Management by a Participating Agency

There is perceived risk in consolidating an organization and relinquishing management control of such a critical process in the delivery of public safety services. If in fact control of the center is vested in one agency, each participating agency should/would establish an agreement that would include a Service Level Agreement identifying the quality and level of support to be provided by the managing agency.

#### 5.1.2.2 Independent Board

This option is a very common approach to providing oversight for joint public safety operations. The primary authority of this independent board would be derived from the contractual agreements executed between the participating agencies.

RCC would suggest that the composition of the board include, at a minimum:

- A Police representative of the municipal Police departments
- A Fire representative of the municipal Fire departments
- At least one elected official representing the served municipalities
- The manager of the communications center (in a non-voting capacity) and possibly a member of the staff of the center.

RCC would suggest that the membership of the board change on an annual basis, but that the dates of personnel rotation be staggered.

### 5.1.2.3 Membership

Participation in the consolidated PSAP will be determined initially by each individual jurisdiction based on the perceived benefits and risks of the consolidation. Once this determination is made, a process to add members, renew membership or withdraw from the center must be established. Costs of participating, including the allocation of costs, will be affected by the number and size of participants, and therefore a commitment is needed from each agency. Typically a multi-year commitment will be needed initially, with annual renewals and advance notification of intent to leave.

Membership in the consolidation would be open to any jurisdiction in the geographical area in accordance with the terms of the agreement adopted by the governing bodies of all participating agencies.

### 5.1.2.4 Roles and Responsibilities

The Board will face numerous issues that it must contend with during the planning, implementation, management and future enhancement of interoperable communications systems. Key issues the Board must address include on-going strategic planning, organizational forms and structures, leadership and decision making, division of roles and responsibilities, addressing conflicts and issues, ensuring proper participation from stakeholders, and evaluating process and their impacts.

Much of the specialized work of the board will be accomplished by board committees. Board committees are used as a means to provide highly focused advice and recommendations about specific program activities.

The Board, by resolution, may designate one or more committees. Committee membership shall be chosen from among the member political subdivisions or other such organizations or groups designated by the Board. Committees may be formed:

- When it is apparent that issues are too complex and/or numerous to be handled by the entire Board
- To support ongoing, major activities; for short-term activities, or as ad hoc committees that cease when their specific activities are completed
- To recommend policy for approval by the entire Board

An executive director will help the Board successfully manage and uphold its values. The Board is responsible for establishing the policies and strategic direction of the PSAP. The Executive Director is in the best position for ensuring the effective functioning of the Board.

### 5.1.2.5 Authority

The Board will be given all powers necessary or appropriate to carry out the business of the PSAP, including the powers to:

- Adopt bylaws for the regulation of its affairs and the conduct of its business
- Have perpetual succession

- Maintain offices as such places as it may designate
- Acquire, establish, construct, enlarge, improve, maintain, equip, operate and regulate any structures, facilities and other property incidental to its business
- Construct, renovate, install, maintain and operate facilities for the location of dispatching services, necessary equipment and administration space
- Apply for and accept gifts, grants of money, grants or loans of other property or other financial assistance from, or borrow money from or issue bonds
- Appoint, employ or engage such officers, employees, architects, engineers, attorneys, accountants, financial advisors, investment bankers, and other advisors, consultants, and agents as may be necessary or appropriate to fix their duties and compensation
- Establish personnel rules
- Own, purchase, lease, obtain options upon, acquire by gift, grant or bequest or otherwise acquire any property, real, personal or intangible
- Sell, lease, grant options upon, exchange, transfer, assign, or otherwise dispose of any property real or personal, or any interest therein
- Make, assume and enter into all contracts, leases, and arrangements necessary or incidental to the exercise of its powers, including contracts for the management or operation of all or any part of its facilities
- Adopt, amend and repeal rules and regulations for the use, maintenance and operation of its facilities and governing the conduct of persons and organizations using its facilities and to enforce such rules and regulations and all other rules, regulations, ordinances, and statutes relating to its facilities
- Purchase and maintain insurance and provide indemnification on behalf of any person who is or was a director, officer, employee, or agent of the PSAP against any liability asserted against or incurred by him in any such capacity or arising out of his status as such

## 5.2 Consolidation Cost Considerations

### 5.2.1 Telecommunicator/Supervisor Salary Cost – Current vs. Consolidated

Staffing costs are calculated below for the existing PSAP configuration, as provided by management for each PSAP.

“Average Salary” and “75% Salary” figures are presented in Table 40 below. For the baseline staffing cost analysis, the 75% Salary is used for current personnel in place at the PSAPs. (This assumes that the majority of the current staff are senior and make more than the average salary.)

This discussion of the cost of operating a consolidated PSAP is intended to serve as a blueprint for detailed budget planning that must occur. The budget provides a high-level opinion of the annual operating costs of the consolidated PSAP.

Table 40 – PSAP Salaries Comparison

	Qty	Salary	Salary Cost	%Current Cost
Alt 1 Telecommunicators	31	53,329	\$1,653,199	
Alt 1 Non-working Supervisors	5	58,425	\$292,125	
Alt 1 Manager	1	100,000	\$100,000	
Alt 1 Assistant Manager	1	70,000	\$70,000	
<b>Alt 1 Total</b>	<b>36</b>		<b>\$2,115,324</b>	<b>71.3%</b>
Alt 2 Telecommunicators	31	53,329	\$1,653,199	
Alt 2 Non-working Supervisors	5	58,425	\$292,125	
Alt 2 Manager	1	100,000	\$100,000	
Alt 2 Assistant Manager	1	70,000	\$70,000	
<b>Alt 2 Total</b>	<b>36</b>		<b>\$2,115,324</b>	<b>71.3%</b>
Alt 3 Telecommunicators	49	53,329	\$2,613,121	
Alt 3 Non-working Supervisors	5	58,425	\$292,125	
Alt 3 Manager	1	100,000	\$100,000	
Alt 3 Assistant Manager	2	70,000	\$140,000	
<b>Alt 3 Total</b>	<b>54</b>		<b>\$3,145,246</b>	<b>106.0%</b>
Alt 4 Telecommunicators	49	53,329	\$2,613,121	
Alt 4 Non-working Supervisors	5	58,425	\$292,125	
Alt 4 Manager	1	100,000	\$100,000	
Alt 4 Assistant Manager	2	70,000	\$140,000	
<b>Alt 4 Total</b>	<b>57</b>		<b>\$3,145,246</b>	<b>106.0%</b>
Current Config Telecommunicators	47		\$2,579,895	
Current Config Working Supervisors	4		\$235,976	
Current Config Managers	2		\$149,979	
<b>Current Config Total<sup>2</sup></b>	<b>51</b>		<b>\$2,965,850</b>	<b>100%</b>

Table 41 – PSAP Salaries Comparison Summary

Alternative	Annual Salaries	% Current Cost
Current PSAP Configuration <sup>3</sup>	\$2,965,850	
<b>Alternative 1 &amp; 2</b>	<b>\$2,115,324</b>	<b>71.3%</b>
<b>Alternative 3 &amp; 4</b>	<b>\$3,145,246</b>	<b>106.0%</b>

<sup>2</sup> Management costs at Silvis, Milan and the Sheriff’s Office are not included in these costs.

<sup>3</sup> Ibid

**5.2.2 Consolidated PSAP(s) Estimated Salary Cost Summary**

**Error! Reference source not found.** Table 41 summarizes salary cost estimates for the consolidated PSAP alternatives. **These figures are not presented for direct comparison with the current operations’ salary costs because some administrative functions currently provided by the PSAP agencies ARE NOT accounted for in the analysis. The only direct comparison should be with telecommunicator and working supervisor salaries contained in Table 40.**

**5.2.3 One-Time Consolidation Costs**

The following are estimated one-time facility costs for each consolidation alternative.

*Table 42 – One-Time Consolidation PSAP Facilities Cost Estimates*

	PSAP Construction/Renovation Costs
Alternative 1 – New PSAP construction	\$2,780,088
Alternative 2 – Renovate Milan PD 3 <sup>rd</sup> Floor	\$1,940,972
Alternative 3 – Utilize RIPD Comm Center and Centre Station	\$531,972
Alternative 4 – Utilize RIPD Comm Center and Renovate Milan PD 3rd Floor	\$2,073,965

There would also be cost associated with reconfiguring and relocating the 9-1-1 and CAD system components. Further investigation (and vendor participation) would be required to properly estimate these expenses. PSAP logging recorder systems may also require modifications to accommodate additional recorded audio circuits and additional software licensing for additional call taker/dispatcher workstations

**5.2.4 PSAP Operating Costs**

Although not calculated for the various alternatives in this analysis, Countywide operating costs for fewer PSAPs would obviously be lower. Operating costs include: building utilities, building maintenance, systems maintenance, operations management, etc.

**5.2.5 One-Time EOC Facility Costs**

The following are estimated one-time costs for combining the EOC with a consolidated PSAP facility:

*Table 43 – One-Time EOC Facilities Cost Estimates*

	One-Time Costs
New EOC Facility	\$2,054,366
Renovated EOC Facility	\$1,400,696

## 6 Consolidation Benefits and Best Practices

### 6.1 Benefits of Consolidation

Regional partners were consistent in their comments that the level of service provided by a consolidated PSAP must be equal to but preferably better than the services being provided today. As we have described throughout this report, there are several opportunities to improve services and reduce costs to the citizens of Rock Island County and to emergency responders in the Region. These include:

- **Improved 9-1-1 Call Taking** – Consolidation will reduce the need to transfer calls between PSAPs. We have seen a higher number of misrouted 9-1-1 calls as the use of cellular telephones has become more prevalent. This is primarily due to the types of location technologies used by cellular companies. With the differences in technologies, it is quite common for a cellular call that is being placed through a cell tower near a municipal boarder to be misrouted to the wrong PSAP, requiring the receiving PSAP to redirect the call to the proper PSAP. PSAP Consolidation will not eliminate the potential for misrouted calls, but it will reduce the number of occurrences in the region.
- **Improved Citizen/Officer Safety** - Telecommunicators are similarly trained to provide consistent service to the public and public safety response unit personnel.
- **Increased staffing to handle peaks in Call/Dispatch Load** - Reduces likelihood of a single PSAP being overwhelmed by peaks in activity.
- **Minimized 9-1-1 Call Transfers** - 9-1-1 calls from a region would be answered by a common group of call takers in a consolidated operation. This would reduce transfers (and their associated life threatening delays) of 9-1-1 calls that roll over from PSAPs with busy call taker staff.
- **Improved Multi-Agency Response Coordination** – Agencies are better able to work together with increased knowledge of the incident as well as overall staffing and resource availability.
- **Inherent Backup PSAP Capabilities** - Each regional PSAP is capable of taking over operations for a disabled PSAP.
- **Implementation of Consistent Service Levels and Standard Operating Procedures Across the Region** – PSAP consolidation will foster consistent service levels and standardized procedures, which are particularly important during multi-jurisdictional events such as severe weather, flooding, major fires, pursuits and major crimes. A single governance structure for a consolidated PSAP would provide an environment for building consensus on standardization of procedures and services levels across the region.
- **Improved Staffing Efficiencies** – Combining staff from the existing PSAPs can create staffing and workload levels that will ensure a consistently high grade of service and that will eliminate staffing gaps due to short-notice absences, vacations, and other planned absences. The increased staff will also provide greater flexibility to meet planned or unplanned needs.
- **Maintenance of Community Rapport and Local Personal Touch** – Consideration of consolidation often raises concerns over the potential loss of the close familiarity that naturally occurs between PSAP staff and the local emergency responders and the customized services that have been incorporated into the services offered by the PSAP. Dispatchers and emergency

responders develop strong bonds and a familiarity with one another that enhances the overall emergency response mission. Often, services provided by the PSAP, many of which are discussed in this report, supporting law enforcement, fire and EMS agencies becomes highly customized. It is also not uncommon for the PSAP to also serve as a 24-hour citizen access point for the community.

These are legitimate concerns that can only be address with time and through sound guidance at the policy/governance level. Some of the specialized services described in Section 4.5.2.1.6 could be carried over into a consolidated PSAP. No doubt, however, that some of these services will not be transferrable and each respective agency will have to make separate plans for how to provide these services after consolidation. How and which of these services will be incorporated into the consolidated center will be determined by the governing board and its technical committees.

- **Improved and More Consistent Training** – Establishing a consolidated PSAP will eliminate differences in training methods and programs. Standardized training reduces service level disparities and contributes to more consistent service delivery across the region.
- **Improved Emergency Responder Safety** – While the idea that consolidating PSAPs would improve emergency responder safety is subjective, there is no question that a properly staffed and equipped consolidated communications center will be able to focus more intently on emergency responders due to improved work-flow processes and greater staffing flexibility, which reduces the likelihood of the PSAP being overwhelmed during busier times.
- **Improved Interoperability and Situational Awareness** – Next generation public safety communications systems and other technology advances have greatly improved the ability to share critical information between PSAPs and among emergency responders. Utilization of a single CAD system in a consolidated PSAP will greatly improve information sharing among public safety agencies in the region. Having all dispatchers in the same room will eliminate the need for interagency coordination by telephone between PSAPs and consolidate all emergency communications for the region in a single facility.
- **Improved Preparation for Future Technologies** – Next generation public safety communications systems are becoming more reliant on expensive core technologies including 9-1-1 telephone systems, mobile data, land mobile radio systems, console systems, recording systems, CAD systems, and other IT systems. These technologies are advancing at a rapid pace, with the average technological life expectancy of only about 7 years. A consolidated center is better able to meet the demands of technological advances than multiple centers would be on their own.
- **Cost Savings** – An important issue in any discussion of consolidating PSAPs is the potential for cost savings and more efficient use of budget resources. Local governments nationwide are searching for opportunities to reduce costs while preserving critical services as they face more economic pressures. Because much of the costs of operating the separate PSAPs were not identifiable, we are not able to provide a definitive estimate of the cost savings that consolidation would bring to Rock Island County. We believe, however, that the region will realize savings through the elimination of duplicated technology systems and facility operations

costs. Streamlining the network of circuits, trunks and voice and data transport methods will also result in reduced operational costs.

## 6.2 Best Practices (NENA, APCO, NFPA, RCC experience)

Consolidation of PSAPs provides numerous opportunities for improved safety, consistent operations and improved staffing efficiencies. As consolidations have become prevalent throughout the country, the following public safety communications benefits are being realized:

Despite the fact that each consolidation project is unique in its own set of specific circumstances, all consolidation projects share a set of common decision parameters and analytical processes. These common constraints, standards, and formulas will combine with the specific circumstances in determining the required staffing, which in turn is a major determinant of the relative economic value of the consolidation itself. The ability to perform valid staffing calculations is a function of the data available, so agencies that can provide accurate information are better positioned to obtain accurate results. Call volumes (both 9-1-1 as well as administrative calls), call durations, and Push-To-Talk activities between dispatcher and first responders are all needed to determine an accurate staffing profile. Public safety communications centers require a high Grade of Service (GOS) to serve the public's needs to answer E9-1-1 calls and dispatch response units.

There are a number of other certifications and standards for PSAPs that tend to be implemented in larger centers, thus differentiating larger consolidated PSAPs from smaller agencies. A brief description of some of these certifications are as follows:

- PSAP Certification<sup>4</sup>. The Commission on Accreditation for Law Enforcement Agencies, Inc., (CALEA®) was created in 1979 as a credentialing authority through the joint efforts of law enforcement's major executive associations. The purpose of CALEA's Accreditation Program is to improve the delivery of public safety services, primarily by maintaining a body of standards, developed by public safety practitioners, covering a wide range of up-to-date public safety initiatives; establishing and administering an accreditation process; and recognizing professional excellence. The CALEA Accreditation Process is a proven management model.

A critical component of achieving CALEA accreditation is related to established policies and procedures. Transitioning to a consolidated PSAP with the expectation of achieving CALEA accreditation will require planning and preparation. CALEA Accreditation requires the communications center to develop a comprehensive set of written directives. CALEA will systemically review and assess these operations and procedures. While the actual accreditation may not occur until the center is operational, policies and procedures can be put in place in advance.

- Emergency Dispatching<sup>5</sup>. The National Academies of Emergency Dispatch (NAED) is a non-profit standard-setting organization promoting safe and effective emergency dispatch

---

<sup>4</sup> <http://www.calea.org/>

<sup>5</sup> <http://www.emergencydispatch.org/>

services world-wide. Comprised of three allied Academies for medical, fire and police dispatching, the NAED supports first-responder related research, unified protocol application, legislation for emergency call center regulation, and strengthening the emergency dispatch community through education, certification, and accreditation.

Priority Dispatch Systems™ are recognized as an essential component of effective emergency dispatch. Certification courses developed by the NAED's Boards of Curriculum cover basic to advanced concepts that promote a safe, effective, and professional program. Participants completing the separate courses in medical, fire, or police dispatching are eligible for certification through the National Academies (or International Academies) of Emergency Dispatch®.

The new consolidated dispatch center allows for new capabilities such as Emergency Medical Dispatching. While the addition of EMD could be performed at any time, the process takes time and requires planning and training in advance of actual implementation. If a determination is made to implement EMD, the transition to the new facility provides a good opportunity to include this capability in the transition planning.

- **Interoperability.** New tools and standards are available to assist in sharing information between PSAPs and systems. The National Information Exchange Model (NIEM), the use of Information Exchange Package Documentation (IEPD), and the Justice Reference Architecture (JRA) can be used to replace custom proprietary interfaces between disparate systems. Data exchanges that use NIEM have a common understanding of the data being exchanged and the data is formatted and structured in a consistent manner. Reusable components are constructed as an Information Exchange Packages (IEP). These packages are built upon the NIEM data model using XML, a machine readable format for exchanging information from one agency to other agencies, between systems within an agency, or between a user client and a server.

Similarly, the Justice Reference Architecture is a service-oriented reference architecture for justice and public safety information sharing.

A standard interface methodology supports information exchanges required for day-to-day operations, and can enable jurisdictions to more effectively share information during critical incidents allowing interoperability and access to timely information. As new systems and interfaces are upgraded or replaced, the use of these standards will provide increased access to information, more seamless integration, and enhanced information exchange.

- **NENA standards and documents<sup>6</sup>.** The National Emergency Number Association (NENA) provides a number of documents and guides to assist in PSAP operations. Documents include: standards, recommendations, and informational documents addressing both technical and operational considerations. Operational documents include information on Accessibility, Contingency Planning, Human Resources, Standard Operating Procedures, Next Generation 9-1-1 and Voice over Internet Protocol (VoIP). Technical documents include guidance in: Data, Networking, Customer Premise Equipment (CPE), Non-Traditional Communications, Voice over Internet Protocol (VoIP), and Packet data, as well as Next Generation 9-1-1 systems and standards. NG9-1-1 System and PSAP Operational Features

---

<sup>6</sup> <http://nena.org/>

and Capabilities Requirements (NENA 57-750, June 14, 2011) is intended to be a guide for use in developing and finalizing standards in preparation for implementation of standards-based NG9-1-1 systems. It contains a list of operational capabilities or features that are expected to be supported in a standards-based NG9-1-1 system. The capabilities described within this document represent both the minimum levels of functionality, as well as desirable features. These capabilities should be developed around common, standard IP-based messaging and telecommunications interfaces to allow interoperability between the NG9-1-1 system and public telecommunications systems, regardless of vendor or service provider. Also available are the Detailed Functional and Interface Specifications for the NENA i3 Solution - NENA 08-003, dated June 14, 2011.

- NFPA Standards and Documents<sup>7</sup>. The National Fire Protection Association (NFPA) is a leading advocate of fire prevention and an authoritative source on public safety. NFPA develops, publishes, and disseminates more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks. One of the documents that establishes PSAP installation and performance standards is NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems. The purpose of this standard is as follows:

(1) To specify operations, facilities, and communications systems that receive alarms from the public (2) To provide requirements for the retransmission of such alarms to the appropriate emergency response agencies (3) To provide requirements for dispatching of appropriate emergency response personnel, and (4) To establish the required levels of performance and quality of installations of emergency services communications systems. A related NFPA Standard is NFPA 1561, which provides guidance on the Emergency Services Incident Management System. This standard shall contain the minimum requirements for an incident management system to be used by emergency services to manage all emergency incidents. The standard applies to organizations and agencies that provide rescue, fire suppression, emergency medical care, special operations, and law enforcement.

By the time the Region decides to physically consolidate 9-1-1 technology will be in the process of being implemented. NG9-1-1 will completely transform the system requirements of 9-1-1 to data networks to send/receive voice, data, photographs, videos, etc., an Emergency Services IP Network (ESInet). This 9-1-1 technology update will facilitate the Region's transition to a physically consolidated PSAP configuration.

Existing equipment loses value rapidly, so even relatively new computers (1-2 years old) have little value in this marketplace. Due to the limited lifespan of computer equipment, it is common for agencies who are moving into a consolidated center to obtain new workstations and servers, as the transition serves as an opportunity to upgrade and transition at the same time.

Consolidation can prove to be a cost effective solution for providing dispatch services. It has been successfully deployed throughout the country, often improving services to citizens and responder safety while at the same time saving money.

---

<sup>7</sup> <http://www.nfpa.org/>

## 7 Funding Options

This section of the report focuses on funding and implementing a consolidated PSAP. Discussions include the costs associated with operating a PSAP, possible sources of funding as well as potential savings that can result from consolidation. The report also addresses operating costs, a variety of cost distribution models, the budget process, information on several grant opportunities that can be utilized, and a discussion of phased approaches to achieving consolidation.

### 7.1 Capital and Operating Budgets

Since many of the PSAPs operate as an entity within an existing municipal facility, the cost to operate the center is primarily associated with staffing of telecommunicators and supervisors. Capital costs such as CAD, Records, mobile data, logging recorders and radio systems are minimized by the shared operating environment. All of the agencies share a common CAD and Records system. Several agencies use a common radio system, or are migrating toward a common platform. Much of the capital funding is provided by the ETSB, which also provides technical support for these systems.

#### 7.1.1 Cost of Consolidation and Allocation of Costs

This discussion of the cost of operating a consolidated PSAP is intended to serve as a blueprint for detailed budget planning that must occur. The budget provides a high-level identification of the operating costs associated with a consolidated PSAP. Since these costs were not able to be identified in the individual PSAP budgets, the cost elements are identified but a quantitative comparison is not available.

The budget elements reflect the costs in functional areas for the consolidated PSAP. All costs described in this budget are based on the expense of providing the services of the consolidated PSAP as a self-sustaining entity.

The individual agencies already have a great deal of communications infrastructure in place with CAD and Records systems on a common operating platform, and several radio systems are scheduled to be upgraded before the consolidated communications center would be implemented.

#### 7.1.2 Assumption of Consolidation Costs

The budget items presented in this report provide the anticipated cost elements to operate the consolidated communications center. Table 44 provides a description of the cost elements commonly required for operation of a consolidated PSAP. Many of the operational costs attendant to operating a consolidated PSAP were not reflected in the budgets provided by the existing PSAPs because these services were built into operating budgets of the PSAPs and/or their local governments.

The labor costs for a PSAP generally account for 60-90% of the overall budget. Based on the projected staffing costs, and a refined operating expense component in the 25-33% range as indicated below, the total budget for a single consolidated PSAP should be in the \$3 - \$3.3M range, and \$4.5 - \$5M for two consolidated PSAPs.

Table 44- PSAP Operating Costs

Operating Expenses		% of Budget
Facility Operations		
	Telephone	2.0 - 3.0%
	Utilities	1.0 - 5.0%
	Custodial	0.4%
	Maintenance & Repair	1.0%
	Security	0.4%
	Health & Safety	0.2%
	Facility Rent	10%
	Office Equipment	1.0%
	Materials/Supplies	0.5%
	Memberships &	0.2%
	Postage & Shipping	0.1%
	Insurance	1.0 - 2.0%
	Employee Uniforms	0.5%
Contract Services		
	Human Resources	0.5%
	Payroll	0.5%
	Accounting	0.3%
	Legal	1.0%
	Professional	.5-1.0%
Technology Maintenance and		
	CAD Maintenance	3.0 – 4.0%
	Essential Equipment	.5 – 1.0%
	Internet Service	.25 - .5%
	Cable/DirectTV	.25 - .5%
Nominal Range		25% - 33%

### 7.1.3 Budgeted Appropriations

The expenditures for the consolidated PSAP are budgeted in four (4) major spending categories: Personnel (salary and benefits); operating expenses; contract services; and technology systems maintenance and support.

Personnel – Staffing costs for the consolidated PSAP were developed using available budgetary data. These costs are based on direct salary, and do not include benefits or internal charges. Where budgetary data was not available, national averages from sources such as the U.S. Bureau Labor Statics were used to create a personnel budget category for initial discussions. On average, salaries and benefits make up approximately 76% of the total estimated budget.

Personnel requirements for the consolidated PSAP include call-taker/dispatchers, shift supervisors, the PSAP manager and assistant PSAP manager. The technical support positions are currently funded by the ETSB and are not factored into personnel costs.

Call-Taker/Dispatchers – A staffing analysis determined the number of call-taker dispatchers required to staff fixed positions within the consolidated center.

There are currently 49 authorized FTE dispatcher positions, 3 supervisor positions and 2 manager positions in the five participating PSAPs as reported. Published salary ranges reported by each participating jurisdiction are contained in Table 45.

Table 45 - Existing Call-Taker/Dispatcher Salary Ranges

Telecommunicators	Minimum Salary	Maximum Salary	Average Salary	75% Salary	Authorized staff	Salary Cost
Centre	\$ 43,659.00	\$ 66,456.00	\$ 55,057.50	\$ 60,756.75	19	\$ 1,154,378.25
Milan	\$ 34,320.00	\$ 48,610.00	\$ 41,465.00	\$ 45,037.50	6	\$ 270,225.00
RICSO	\$ 37,772.00	\$ 62,129.00	\$ 49,950.50	\$ 56,039.75	7	\$ 392,278.25
RICOMM	\$ 33,328.00	\$ 51,562.00	\$ 42,445.00	\$ 47,003.50	12	\$ 564,042.00
Silvis	\$ 39,000.00	\$ 64,079.00	\$ 51,539.50	\$ 57,809.25	5	\$ 289,046.25
Average	\$ 37,615.80	\$ 58,567.20	\$ 48,091.50	\$ 53,329.35		
TOTAL					49	\$ 2,669,969.75
Supervisors	Minimum Salary	Maximum Salary	Average Salary	75% Salary	Authorized staff	Salary Cost
Milan	\$ 35,298.00	\$ 49,587.00	\$ 42,442.50	\$ 46,014.75	1	\$ 46,015.00
RICSO	\$ 42,000.00	\$ 66,934.00	\$ 54,467.00	\$ 60,700.50	2	\$ 121,401.00
Silvis	\$ 39,000.00	\$ 78,414.00	\$ 58,707.00	\$ 68,560.50	1	\$ 68,560.50
Average	\$38,766.00	\$ 64,978.33	\$51,872.17	\$ 58,425.25		
TOTAL					3	\$ 235,976.25
Managers	Minimum Salary	Maximum Salary	Average Salary	75% Salary	Authorized staff	Salary Cost
Centre	\$ 60,835.00	\$ 92,567.00	\$ 76,701.00	\$ 84,634.00	1	\$ 84,634.00
RICOMM	\$ 46,227.00	\$ 71,717.00	\$ 58,972.00	\$ 65,344.50	1	\$ 65,344.50
Average	\$ 53,531.00	\$ 82,142.00	\$ 67,836.50	\$ 74,989.25		
TOTAL					2	\$ 149,978.50

Source: Reported by Participating Jurisdictions

For comparison, the U.S. Bureau of Labor Statistics report of median wages for police, fire and EMS dispatchers is presented in

Table 46. Current salary ranges fall within the 25% and 50% percentiles below the median on the low end of the range and between the 75% and 90% percentile above the median on the high end of the range.

DRAFT

Table 46 - Median Wages for Police, Fire, EMS Dispatchers

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$10.34	\$12.94	\$16.19	\$20.22	\$24.73
Annual Wage	\$21,510	\$26,910	\$33,670	\$42,060	\$51,440

Source: U.S. Department of Labor Statistics

Overtime expenditures in public safety communications centers vary wildly across the country. A recent Chicago Sun-Times article reported that one of the Chicago call-takers earned \$90,000.00 in overtime last year. While such cases are not the norm, it is common for public safety communications center staff to earn more than \$10,000 per year in overtime pay.

There are no benchmarks upon which to predict the overtime costs of a public safety communications center. Most overtime costs are generated because the center is not properly staffed to begin with. Many centers will include a small overtime line item in their budget requests but their actual overtime expenditures can be much higher.

**Operating Expenses** – Operating expenses are the costs associated with operating the consolidated PSAP. At this early stage of planning, assumptions of costs are highly variable. Final decisions of the regional partners as to the form of governance the location of the consolidated PSAP, the proffering of in-kind services and the rates for services at the time of consolidation, will affect these estimates.

**Contract Services** – Currently most of the staffing support is provided by the respective municipality, however, as a transition to an independent PSAP is considered, these services would need to be procured independently or else contracted with one of the municipalities. Contract services could be negotiated as part of the respective agencies' investment into the PSAP, either on a one-time or preferably a recurring basis.

**Technology Systems** - There are typically four significant technology considerations, with potential cost implications, that must be considered in a consolidation: 9-1-1 systems; radio system and console equipment; Computer Aided Dispatch (CAD) and records management systems including mobile computing; and recording systems. Of these four key considerations, the County is well-positioned to support technology consolidation.

## 7.2 Cost-Benefit Analysis

Since many of the PSAPs operate as centers within a municipal facility, budgets for discretionary items are difficult to obtain data for. As a result, two sources of information for comparison purposes include the Scott County ECC and the Centre Station PSAP, both of which operate independently. While these two sites provide the two extremes (SECC is larger than the planned consolidated PSAP, and Centre Station is smaller), they provide data points for comparison.

Typically the largest cost of operating a PSAP is in staffing, and the projected staffing costs from the PSAP Alternatives Report is shown in the following table, along with the expected reduction based on consolidation:

Table 47 – Telecommunicator/Supervisor Salaries Comparison

Alternative	Annual Salaries	% Current Cost
Current PSAP Configuration <sup>8</sup>	\$2,965,850	
Alternative 1 & 2	\$2,115,324	71.3%
Alternative 3	\$3,145,246	106.0%
Alternative 4	\$3,145,246	106.0%

“Average Salary” and “75% Salary” figures are presented in Table 40 above. For the baseline staffing cost analysis, the 75% Salary is used for current personnel in place at the PSAPs. (This assumes that the majority of the current staff are senior and make more than the average salary.) Annual Salaries are direct costs only, and do not include benefits. Actual savings associated with staff reductions (Table 40) will actually be greater when the appropriate benefits factor is added for each agency.

Currently the staffing at each existing PSAP varies widely, both in the number of telecommunicators and supervisors as well as support staff. As a result, the addition of a PSAP Manager, Assistant Manager(s), QA/Training and clerical personnel was added to the both of the proposed consolidation alternatives. Administrative Staff salary costs are estimated in the table below, and were based on similar positions at the Scott County Emergency Communications Center (SECC).

Table 48 – Administration Salary Cost Estimates

	Qty	Salary	Salary Cost
Manager	1	\$100,000	\$100,000
Assistant Manager	1	\$70,000	\$70,000
QA/Training Supervisor	1	\$55,000	\$55,000
Clerical	1	\$40,000	\$40,000
<b>Alternatives 1 &amp; 2 Total Admin Salary</b>			<b>\$265,000</b>
Manager	1	\$100,000	\$100,000
Assistant Manager	2	\$70,000	\$140,000
QA/Training Supervisor	2	\$55,000	\$110,000
Clerical	2	\$40,000	\$80,000
<b>Alternatives 3 &amp; 4 Total Admin Salary</b>			<b>\$430,000</b>

Table 49 summarizes salary cost estimates for the consolidated PSAP alternatives. **These figures are not presented for direct comparison with the current operations’ salary costs because some administrative functions currently provided by the PSAP agencies ARE NOT accounted for in the analysis. The consolidated PSAP costs now also include non-working supervisors (not performing call taker/dispatcher functions) on each shift as well as management at each facility. The only direct comparison should be with telecommunicator and working supervisor salaries (Table 40).**

<sup>8</sup> Management costs at Silvis, Milan and the Sheriff’s Office are not included in these costs.

Table 49 – Consolidated PSAP(s) Salary Cost Estimates

	Qty	Salary		Salary Cost
<b>Alternatives 1 &amp; 2</b>			<b>Total</b>	<b>\$2,210,324</b>
Manager	1	\$100,000		\$100,000
Assistant Manager	1	\$70,000		\$70,000
Clerical	1	\$40,000		\$40,000
Telecommunicators	31	\$53,329		\$1,653,199
Non-working Supervisors	5	\$58,425		\$292,125
QA/Training Supervisor	1	\$55,000		\$55,000
<b>Alternatives 3 &amp; 4</b>			<b>Total</b>	<b>\$3,657,371</b>
Manager	1	\$100,000		\$100,000
Assistant Manager	2	\$70,000		\$140,000
Clerical	2	\$40,000		\$80,000
Telecommunicators	49	\$53,329		\$2,613,121
Non-working Supervisors	10	\$58,425		\$584,250
QA/Training Supervisor	2	\$70,000		\$140,000

Since the agencies already benefit from a variety of shared systems including CAD and Records, there will be no additional benefit from a licensing perspective, however, several components of support including training can be realized in a consolidated center.

### 7.3 Cost Distribution Models

Cost allocation is one of the most challenging aspects of consolidating public safety communications centers and systems. To be successful, participating jurisdictions will need to decide which factors are most important in determining an equitable allocation of costs. There are many methodologies for allocating costs used in funding similar consolidated communications centers. Some of the more popular methodologies are discussed below.

A proportional formula method of allocating the fixed and variable costs of the consolidated dispatch center is typically used to ensure the equitable allocation of cost among the participating jurisdictions. The proportional formula method can allocate costs based on the share of certain factors associated with serving the consolidated communications center's customers (law enforcement, fire and EMS agencies). Common factors include measures of fiscal capacity and the demand for services (or consumption of 9-1-1 call taking and dispatch services). These and other inputs are common components in many formulas; however, the manner in which they are operationalized and combined does differ.

Factors used in weighted formulas vary widely across the Country. Our experience indicates that consolidated communications centers rely on one or a combination of the following criteria in determining the weighted formula:

- A. Proportional Call Volumes
- B. Proportional Population

- C. Assessed Valuation
- D. Console Minutes
- E. Pay for Direct Positions

### 7.3.1 Proportional Call Volume

Proportional Call Volume is the most frequent basis for cost allocations. It is generally regarded as the simplest criterion to explain and is representative of the activity load created by each user agency of the consolidated dispatch services (e.g., law enforcement, fire and EMS agencies).

One draw-back to the proportional call volume is the lack of a common method of defining a call. For example, a public safety agency may consider every emergency responder assigned to an event a call (e.g., one traffic accident could become five calls if 2 police officers, 1 fire truck, 1 rescue truck, and 1 ambulance are dispatched). Such a strategy could result in a higher use factor in the formula and, thus, an increase in the cost allocation to that agency. That agency would likely change their operations to reduce their burden in the cost allocation formula. In some consolidations of public safety communications centers, public safety agencies have changed the way they characterize a call in order to manipulate the weighted formula in their favor.

### 7.3.2 Proportional Population

Proportional Population is also frequently used but is more difficult to apply. Agencies in areas where there are large fluctuations in populations (e.g., seasonal or daytime/nighttime fluctuations) find it difficult to utilize this criterion in funding formulas to distinguish the population and population density.

There have been numerous research studies into the effect of population (population density, population demographics and/or population socioeconomic status) on emergency services. Even though their conclusions may differ, they agree that some or all of these efforts have an impact on emergency services and, by extension, on the consolidated communications center workload.

RCC believes that population should be a criterion for determining the allocation of costs. It is recognized that agreeing on what the population is for each participating jurisdiction and how to consider population factors (e.g. population density or population fluctuations) will be difficult. Additionally, there are a number of agencies in the County that provide specialized services Countywide that would be difficult to identify the correct population. Also there are a number of agencies that are dispatched for, but only provide a subset of services for a geographic area (police dispatch is provided by one municipality, but fire dispatch is provided elsewhere). This further complicates the ability to allocate costs based upon population.

Sources are available to serve as the basis for population figures (e.g., U.S. Census Bureau and Planning Departments of each jurisdiction).

### 7.3.3 Assessed Valuation

Assessed Valuation can be considered a predictor of the participating jurisdiction's ability to pay its share of the costs. The calculation is based on the total assessed value of all property located within the boundaries of the participating jurisdiction (as determined by the Assessor's Office). Each participating

jurisdiction's total assessed value is divided by the total assessed value of all participating jurisdictions to determine the percentage of the total valuation.

#### **7.3.4 Console Minutes**

Console minutes are usually determined by measuring the traffic of the radio system the console is controlling (similar to determining the number of calls). Measuring console time in a trunked radio system is usually done by a system management application that is part of the radio system. Not all public safety agencies in the region use a centralized system controller and, while not impossible, measuring the actual console minutes would be difficult. All of the emergency response agencies in the region are, however, transitioning to the 800 MHz radio system, which is capable of accurately measuring console minutes. Unfortunately, it would take at least a full year of operation by all regional partners to collect enough data to be useful.

#### **7.3.5 Pay for Direct Positions**

The Pay for Direct Positions approach is a useful criterion when the consolidated communications center must provide dedicated resources to support the operations of one of the center's constituent agencies. For example, if each participating agency desired to maintain a dedicated dispatcher for their police dispatching services, we can determine the number of FTEs necessary to support each console position and the costs of maintaining this level of support. Each agency can be assessed the actual costs of maintaining this dedicated position. Costs for shared services within the consolidated center can be apportioned based on a weighted formula. Costs for shared services within the consolidated center can be apportioned based on a weighted formula.

#### **7.3.6 Reaching a Weighted Cost Allocation Formula**

The distribution of costs between participating jurisdictions in a fair and equitable manner is the cornerstone to any successful consolidation. There are a variety of other measures that can be utilized to identify or measure the proportional workload and subsequent allocation of costs to each participating agency.

A combination of factors may be combined to establish a weighting criterion that is then utilized for cost allocation. For example, the volume of radio transmissions as reflected by the number of Push to Talks (PTTs) can be combined with the call volumes that occur to reach a weighted formula for cost allocation.

At this early stage of the consolidation project it is not possible to reach a final decision on the cost allocation formula that best suits Rock Island County. It is recommended that once the agencies who will be participating in the consolidated PSAP are identified, the direct and indirect costs to operate each of the PSAPs should be determined. At that time a variety of allocation schemas can be tested to determine which model or combination of models best replicates the appropriate allocation scheme.

### **7.4 Budget Development Process and Guidelines**

The process of identifying a budget begins at the grass roots level of identifying all of the individual cost elements. Normally this would be performed by analyzing the individual cost elements at each of the PSAPs, and then factoring a reduction associated with consolidation efficiency. Individual cost elements, as identified in Section 7.1, provide a starting point for the various cost elements to be included. Since

many of the costs for these services are built into operating budgets of the PSAPs and/or their local governments, they may be difficult to obtain directly. As a result, a detailed analysis of the total operating budget for the stand-alone PSAPs (Centre Station, SECC) should provide insight into the types of costs to include as well as budgetary estimates for these services.

These same PSAPs can also provide information on their respective budget process, since they follow a similar methodology. Budgetary planning can be a time consuming process, especially in the early years when no historical information is available. Over time, the cost elements, budgetary amounts, cost growth and unplanned expenditures become better established. Large capital purchases such as technology systems can be planned for over their expected lifetime. A current CAD system should be expected to have a lifecycle of at least seven to ten years, but hardware such as workstations and servers will likely need replacement in three to five years. Money can be budgeted for replacement every year in order to avoid the large spike in funding requirements when a replacement is needed. This more consistent budget planning approach keeps from having to extend the life of an antiquated system beyond its useful timeframe because “money isn’t available”.

For more routine purchases, including hardware and services, cooperative purchase agreements provide an effective method to obtain the items with the advantage of competitive pricing. Agreements that may already be in place, for example a hardware or services contract with a local municipality, can allow other agencies to purchase the same item or service off the existing contract. This enables you to obtain competitive pricing without having to repeat the entire process, thus saving time, and may also save money since the combined contract “pools” buyers together in order to obtain a more competitive price. Regional (multi-agency or state contracts) as well as federal contracts (GSA) make this process easier for a large number of items.

The overall budget process for Illinois is well established, and is broken down into several planning phases, along with incremental steps and guidance for each individual component. These phases are summarized in the following sections<sup>9</sup>.

#### **7.4.1 Fiscal Overview & Budget Summary**

The Illinois Constitution requires the Governor to prepare and present a State budget recommendation for the state to the General Assembly. The Constitution also requires that the proposed budget be balanced and include recommended spending levels for state agencies, estimated funds available from tax collections and other sources, and state debt and liabilities. The Governor’s Office of Management and Budget (GOMB) estimates revenues in consultation with the Department of Revenue and GOMB subsequently develops budget recommendations that reflect the Governor’s programmatic and spending priorities.

---

<sup>9</sup> Northern Illinois University website, [http://www.niu.edu/statebudget/budget\\_process/index.shtml](http://www.niu.edu/statebudget/budget_process/index.shtml).

### 7.4.2 Planning

Planning for the next fiscal year begins each fall, typically in the September through January timeframe. During the planning phase, the following activities occur:

- Agencies work with GOMB and the Governor's Office to refine strategic priorities, develop initiatives to achieve those priorities, and evaluate actual performance compared to benchmarks from comparable states or other peer entities;
- GOMB and agency staff identify and estimate potential spending for the coming fiscal year, including both the costs of current and potential programs and the value of expansion, modification or elimination of various programs;
- Working with the Council of Economic Advisors, GOMB and the Department of Revenue review economic forecasts and make preliminary revenue estimates;
- GOMB, the Department of Central Management Services and agencies review statewide trends and administrative processes to find and reduce inefficiencies and propose reallocation of resources to improve efficiency and promote better government;
- Based on targets, assumptions and materials provided to agencies by GOMB, agencies prepare, and GOMB reviews, preliminary budget materials;
- GOMB, the Governor's Office and agencies meet to review and discuss available revenue, anticipated spending and program priorities to develop budgets that reflect the core priorities of the agency;
- Periodically, GOMB reviews revenue and spending estimates, resulting in review and reprioritization of agency and state priorities;
- When final budget options are developed, they are presented to the Governor for review and approval before they are drafted in legislative form. GOMB then produces the budget book, a narrative explaining the budget and providing complete budget table forms;
- The Governor announces and describes the budget in the annual Budget Address; and
- GOMB drafts appropriation bills to implement the Governor's budget recommendations.

### 7.4.3 Legislative Deliberation

After the Governor's Budget Address in February, legislative review of the Governor's budget recommendations begins almost immediately with hearings before House and Senate appropriation committees. During this period, the following activities occur:

- Appropriation committees may adopt amendments to change the funding level recommended by the Governor;
- Once passed by the first committee, an appropriation bill moves to the full House or Senate for consideration, amendment and a vote. Following passage in the first legislative chamber, the appropriation bill moves to the second chamber, where a similar process takes place. Changes made in either chamber must ultimately be accepted in identical form by both chambers for the bill to pass and be presented to the Governor;
- As the budget moves through the legislature, GOMB monitors any amendments as well as substantive legislation to identify potential fiscal impacts;

- By statute, and if requested, any proposed amendments to the budget and any substantive legislation with fiscal or revenue impacts must be accompanied by a fiscal note to describe such impacts; and
- Final approval of the budget usually occurs at the end of the legislative session, typically by the end of May. The Illinois Constitution requires a simple majority vote of the General Assembly for a bill passed on or before May 31 to take effect immediately. On or after June 1, a three-fifths super majority vote of the General Assembly is required in order for a bill to take effect for the upcoming fiscal year.

#### 7.4.4 Gubernatorial Review

Once the General Assembly passes the budget, the Governor must sign appropriation bills before funds can be spent. If the Governor chooses not to approve a specific appropriation, he may either veto a specific line item or reduce it. The rest of the appropriation bill is unaffected by these vetoes and becomes effective. Line items that have been vetoed or reduced must be reconsidered by the General Assembly during the fall session. The General Assembly may return an item to the enacted level by simple majority vote in both chambers in the case of a reduction veto and by a three-fifths super majority vote in the case of a line item veto. If additional resources beyond those initially approved in the budget become necessary, a supplemental appropriation bill may be passed any time the General Assembly is in session.

### 7.5 Potential Grants That May Be Used to Fund the Selected Alternative

Below are three federal grant programs currently funded and operating that seem most in line with the goals of this project. This is not an exhaustive list. It is important to note that this has been the most unusual grant environment seen in decades due to the ever-changing atmosphere in the federal government. Grants can change with little notice and RCC monitors these changes on a daily basis. It is safe to say many more grant opportunities could arise during the lifecycle of the consolidation project. Grants covering construction are highly unlikely.

Some of the grants RCC normally works with have not received funding this year. A more thorough research effort can be made to identify potential state and private foundation grants which could cover more costs. This should serve as a basic representation of the opportunities available. Significant portions of their project may be eligible for grant funding. There is unlikely to be a single grant source that will cover the entire funding amount needed. A larger list of grant opportunities has been published by Safecom but they may not meet eligibility requirements for example, border protection, UASI Areas or Tribal Areas.

#### 7.5.1 AFG Grant

The primary goal of the AFG program is to meet the firefighting and emergency response needs of fire departments and non-affiliated emergency medical service organizations. AFG funds have helped fire departments and EMS organizations obtain funding for interoperable communications equipment.

These grants have an open solicitation once per fiscal year. Typically these grants are available sometime between March-July. By having fire departments partner together and form mini-regions in your area, multiple AFG grants can be obtained with proper planning. Award amounts for this type of application are often in the amount of \$1M but can go as high as \$3M depending on population.

### **7.5.2 Edward Bryne Memorial Justice Assistance Grant Program (JAG)**

JAG grants support all aspects of the criminal justice system including interoperable communications equipment. JAG grants are normally due in May of each year. Award amounts vary by year. This grant is primarily used for law enforcement agencies. Award amounts are based on a pre-determined amount each fiscal year.

### **7.5.3 The State Homeland Security Grant Program**

The State Homeland Security Grant Program provides funds to enhance capabilities at the state and local level and to implement the goals and objectives included in the state homeland security strategies and initiatives included in their State Preparedness Report. Grant funds are available each fiscal year and require coordination with your State Administering Agency. Grant awards vary depending on funds allocated each fiscal year.

## **7.6 Potential Phased Approaches to Complete the Migration to the Selected Alternative**

Transition to a consolidated PSAP or PSAPs will require significant additional planning over a period of perhaps a year or more. Reducing the number of PSAPs can be performed in a phased approach, where the initial consolidation uses existing facilities such as Centre Station, and candidate facilities such as the new Rock Island City facility (planned construction) or Milan (with space available on the third floor for buildout). This approach will minimize initial costs and incrementally reduce the number of PSAPs down to two, with longer term plans of migration to a single PSAP in the future. This implementation plan will provide guidance in the steps the regional partners should consider as they move toward implementing the consolidation. Broadly, the main areas the regional partners should focus on include:

- Obtain a commitment from those interested in moving forward with consolidating PSAPs.
- Agree upon and implement a governance (legal and operational structure) model that addresses leadership, organizational structure, and financial needs and abilities.
- Implement working groups to focus on governance, facility, human resources, policy, and technology systems.
- Agree on the facility location(s), and if a new facility or facility renovation is required, retain the services of an architect to conduct an analysis and design of the facility.
- Determine the specific technology system requirements of all users and develop a plan for moving, expanding or replacing systems to meet consolidation needs.

This section of the report focuses on establishing a unified approach across multiple jurisdictions and disciplines that will aid in the effectiveness and overall support for consolidated PSAPs. It provides the framework in which regional partners can continue to collaborate and build the consensus necessary to making informed decisions that reflect a common consolidation objective.

### 7.6.1 Seek Commitment to Consolidate

All aspects of the PSAP consolidation (e.g., governance, facility, technology systems, cost) hinge on which regional partners will commit to participation in the consolidated environment. A commitment to participate must be determined to finalize plans. At this early stage, especially as concerns are still being address and consensus is being built, the commitment can be informal and non-binding as further planning is conducted. Commitments may also hinge on the associated partnerships in a multi-PSAP environment. Which agencies will be grouped together and where will the facilities be located? These are critical questions to answer in order to obtain agency commitment.

### 7.6.2 Implement a Governance Structure

The form of governance of the consolidated PSAP is a key to the successful implementation. It ensures the participation of regional partners, formalizes and upholds equality in decision making, and is the vehicle to provide regional partners with a voice in how the PSAP is managed and operated. This report described in Section 0 several potential governance models that have worked in similar consolidations around the country.

Decisions must be made regarding the management and support of the consolidated PSAP. Partners will need to decide if the consolidated PSAP will be managed by a dedicated full-time manager and if so, what responsibilities and duties this position will carry. The hiring of the PSAP Manager and key administrative personnel should be performed early in order to be involved in governance and other key decision making processes. The manner of specialized support (e.g., training, GIS and systems management) will have to be decided, specifically whether or not the consolidated PSAP will employee staff, assign responsibility to qualified existing staff, or contract for these services.

Governance herein is defined as the system, process, and organization put in place to provide all aspects of oversight on the new PSAP(s). It should cover:

- mission and definition of responsibilities of the PSAP
- legal incorporation
- composition of the oversight board of directors
- internal voting and decision making on operations
- quality assurance
- communications with other public safety organizations
- public information strategy to secure approval

The governance group should consider the development of its end products as the result of an iterative process:

- Developing a general notion of the corporate entity sufficient to gain legislative approval and public support
- Drafting documentation appropriate for legal enablement
- Drafting a public communications plan
- Upon approval, returning to the issue of governance to develop the specific details of governance of operations through a series of operating sub-committees

The group developing the governance plan should be comprised of the political leadership of participating municipalities. It should naturally have legal expertise, residing either in the principals/members or brought in. This group would be empowered to form sub-committees of operations heads and technical subject matter experts who would engage in setting up the operations plans, procedures, and policies. Once the general strategy is developed and the legislation is written, public involvement would begin.

### 7.6.3 Implement Working Groups

Several working groups will be necessary to continue the consolidation planning process. A main working group should be responsible for ensuring that the consolidation planning is moving forward and that sub-groups are addressing their specialty areas. Working groups should be formed to address governance, policy, organizational structure and finance; human resources and labor relations; the facility; technology systems; and operations and training. Each working group should include representation from the partner agencies and should represent the emergency response agencies. Working groups should meet regularly and report their work. Depending on the governance structure chosen, some of these working groups may have a continuing role in the governance of the consolidated PSAPs. The sub-committees will have a number of tasks to accomplish, and could be organized around general subject areas:

- **Personnel:** There are a number of human resources and labor issues that one or more working groups will need to address. This committee would have as its first responsibility addressing the disparities in hiring policies, wages, benefits, seniority rules and privileges, union contracts, overtime, assignment of tours, etc. It would next develop a consensus on policies for each area and define the steps necessary to conciliate all differences. Further work is necessary on determining which of the existing staff will transition to the consolidated PSAP or PSAPs, and how that transition will occur. Existing employment contracts will have to be examined to ensure that the transition of employees does not violate any provision of the contract. From this group would be drawn those managers who would be involved in union bargaining for the new entity. Pay and benefits require further study but can only occur after the decision is made on the number and configuration of staff (e.g., the use of working supervisors and if and how part-time employees will be utilized). Discussions with union representatives and the potential negotiation of a new contract should be done early in the consolidation process.

- **Operations:** A working group should examine the development of consolidated policies and procedures for use in the consolidated PSAP. Existing policies and procedures will need to be examined, and then the group can begin the process of creating a single set that incorporates the needs of consolidated center(s). This committee would be responsible to reconcile differences in operations, dispatch terminology and practices and operating protocols. This group would also develop the Service Level Agreements between dispatched agencies (i.e. PD and FD agencies) and the center. A common baseline of knowledge and skills are required for each position, and it is likely that additional training will also be needed to ensure that all personnel are qualified to perform to the levels established. Inclusion of EMD as a service offered by the consolidated PSAP will require additional specialized training. The committee would develop the SOPs and standards of performance for the newly consolidated PSAP. The group would also be charged with developing oversight policies to ensure standards are enforced. Typically, Police and Fire Chiefs play a critical role in the decisions of this committee.
- **Technology:** A working group will need to assess the systems, and determine what systems need to be expanded or modified. This analysis should include an examination of user needs and investigation of the capability of the systems to be expanded to support additional users and potential new uses (e.g., accommodate for Next Generation 9-1-1). Decisions will have to be made regarding what, if any, new equipment/systems will be needed and how those should be procured. This committee would consist of operating personnel and those with technical expertise in systems that will be affected by the consolidation. Typically these would be the CAD/RMS systems, telephone/9-1-1 systems, the radio systems, and the logging recorder systems. As previously indicated the CAD/RMS systems are already well positioned for a consolidation. Telephony and logging recording systems will also be affected. Since these systems are provided by the ETSB, there will be involvement on their part with this committee. This committee would be charged with the details of developing specifications and vendor RFPs that may be needed.
- **Facility:** Another working group should address the facility requirements and help the partners reach a final decision on the location of the consolidated PSAP or PSAPs. The group would identify candidate PSAP facilities or locations. A new facility as well as a renovated facility will need an architectural examination to study the suitability of the site to meet the needs of the consolidated PSAP and how that facility can be designed to provide the space and meet the criteria of a critical facility.

Many of these working groups, in particular Operations and Technology, will continue to exist and provide service to the consolidated PSAP once it has been established. Additional groups may be formed for specific activities or research, and dissolved when they have completed their function.

Overall it is believed that a consolidated PSAP will provide better service to the public as well as the first responders, and be able to do so in a more efficient and cost effective manner.

## **8 APPENDIX A - GOVERNANCE AGREEMENTS IN PUBLIC SAFETY INFORMATION SHARING PROJECTS**

DRAFT



**IJIS Institute**

# GOVERNANCE AGREEMENTS IN PUBLIC SAFETY INFORMATION SHARING PROJECTS



***IJIS Institute***

**IJIS Public Safety Technical  
Standards Committee (IPSTSC)**

August 17, 2012

*Principal Contributor*

Becky Ward, Communications International

*Contributors*

Nathan Daniels, FATPOT

Tom Dewey, Advanced Justice Systems

Jim Dundas, Northrop Grumman

Rick Meggison, Avaya

Scott Parker, IJIS Institute

David Rodgers, ShotSpotter

Jerry Schlesinger, City of Portland

Mike Weins, RCC Consultants

Kathy Wendt, SRA

## **ACKNOWLEDGEMENTS**

The IJIS Institute would like to thank the following sponsoring companies for supporting the creation of this document:

Advanced Justice Systems  
Avaya Government Solutions  
Communications International  
FATPOT  
IJIS Institute  
Northrop Grumman  
The City of Portland, Oregon  
RCC Consultants  
ShotSpotter  
SRA

## **FEEDBACK**

If you have feedback or suggestions, please email the NISS Help Desk at:

[NISShelp@ijis.org](mailto:NISShelp@ijis.org)

The Help Desk will forward your comments to the appropriate person(s).

**U.S. Department of Justice**  
**Office of Justice Programs**  
810 Seventh Street, NW.  
Washington, DC 20531

The Honorable Eric H. Holder, Jr.  
*Attorney General*

The Honorable Mary Lou Leary  
*Acting Assistant Attorney General*

The Honorable Denise E. O'Donnell  
*Director, Bureau of Justice Assistance*

---

**Office of Justice Programs**  
**World Wide Web Home Page**  
[www.ojp.usdoj.gov](http://www.ojp.usdoj.gov)

---

**Bureau of Justice Assistance**  
**World Wide Web Home Page**  
[www.ojp.usdoj.gov/BJA](http://www.ojp.usdoj.gov/BJA)

---

**For grant and funding information contact:**  
**U.S. Department of Justice, Office of Justice Programs**  
**Funding Opportunities**  
<http://www.ojp.usdoj.gov/funding/funding.htm>

This project was supported by **Grant No. 2010-DJ-BX-K083** awarded by the *Bureau of Justice Assistance*. The Bureau of Justice Assistance is a component of the Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime. Points of view or opinions in this document are those of the author and do not represent the official position or policies of the United States Department of Justice.

## CONTENTS

Acknowledgements.....	i
Feedback.....	i
INTRODUCTION.....	1
OVERVIEW.....	1
Purpose .....	2
BEST PRACTICES.....	2
PRACTICAL ISSUES.....	3
Technical Details .....	3
Operational Details.....	4
DEFINITIONS & MODELS.....	4
Intergovernmental Agreement.....	4
Joint Powers Agreements.....	4
COMPONENTS OF AGREEMENTS.....	6
CONCLUSIONS.....	14
GLOSSARY .....	15
ABOUT THE IJIS INSTITUTE.....	15
LINKS TO MORE INFORMATION .....	16

## LIST OF TABLES

Table 1. Intergovernmental Agreements vs. Joint Powers Agreements.....	5
--	---

## INTRODUCTION

The accelerating trend toward regionalization, consolidation and information sharing in public safety, as well as a desire for more efficiency and effectiveness in operations, has led to higher numbers of formal Agreements between participating agencies being created to provide structure and legality to information sharing partnerships. The demand for inter-agency assistance and collaboration has expanded the need for inter-agency information and resource sharing.

Today's Agreements must reflect these emergent considerations not fully addressed in the past. This paper outlines two types of common Agreements, best practices, and components of modern information and resource sharing Agreements.

## OVERVIEW

The IPSTSC Committee's white paper, [\*Data Sharing between Computer Aided Dispatch Systems\*](#), released in late 2011, provoked many questions about governance.

This paper was developed in response to those questions. It is intended to be read and used by an audience of managerial, technical and operational practitioners, as well as legal advisors involved in the development of Agreements between agencies to share information, systems or services.

Effective Agreements must: clearly define the relationship, expectations and responsibilities among participants and users from different organizations; define governance mechanisms regarding decision making and control of the system; allocate risks; and, create functional mechanisms for payments or reimbursements.

Information and resource sharing Agreements should deal with the operational, technical, financial, and data ownership understandings between the parties to the Agreement. Each of these areas will be impacted by a situational change to the Agreement.

### Suggested Components of Agreements

- ♦ Recital
- ♦ Definitions
- ♦ Statement of Purpose
- ♦ Administration of the Agreement
  - Voting
  - Meetings
  - Other Responsibilities
  - Committees, Boards, Teams
  - Finance and Budget
- ♦ Ownership of Property
- ♦ Employees
- ♦ Retained Powers
- ♦ Withdrawal by Agencies
- ♦ Withdrawal Duration
- ♦ Termination of Agreement
- ♦ Amendments
- ♦ Notifications
- ♦ Insurance
- ♦ Hold Harmless
- ♦ Data Integrity
- ♦ Data Security
- ♦ Privacy Policy
- ♦ Record of Meetings
- ♦ Media Policy
- ♦ Dispute Resolution and Penalties

## Purpose

Advancements in public safety computer aided dispatch (CAD), records management systems (RMS), and other associated systems have made it efficient and safe for multiple agencies to share the administration and support of these systems. Meanwhile, the development and wide adoption of the National Information Exchange Model (NIEM) standard have made it technically easier to share data. Additionally, diminishing budgets have made it necessary for agencies to pool and share their resources. Inter-agency Agreements are needed to document the “rules of exchange and resource sharing,” as well as the conditions associated with the non-technical components of the Agreement.

This white paper will assist practitioners who need to craft Agreements between representatives of jurisdictions and/or agencies in order to share information, systems or services. This paper will also set forth some basic best practices and components to consider as a starting point, and will describe typical Agreement sections, as well as commonly omitted sections.

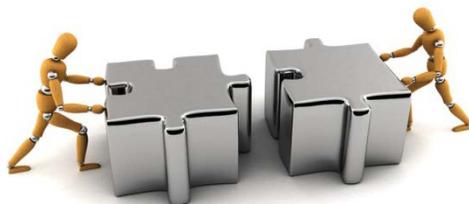
This document is intended to provide guidance for agencies to follow before implementing an information or resource sharing compact. Not all elements of this paper will be relevant to specific circumstances, but all should be considered for incorporating into the Agreement.

### Common sharing scenarios that benefit from a well-thought-out governance perspective:

- ❖ *Resource sharing Agreements*, such as mutual aid or automatic aid
- ❖ *Common platform utilization*, in which one service provider delivers the application that is used by all participants (e.g. a shared CAD system or RMS)
- ❖ *Disparate platforms*, which deliver data to a data warehouse
- ❖ *Data exchange systems*, such as CAD-to-CAD

## BEST PRACTICES

Best practices are time-tested recommendations that, when followed, normally produce superior results to other approaches. Crafting any inter-agency Agreement should be approached as a project with project management principles being followed. Below are suggestions that emerged from recent interviews with leaders from current interoperability projects.



### Learn all you can about change management

Effective change management will provide a strong communications plan among all stakeholders, support the creation of a strong Agreement, and ensure project success over time.

### Search out and confer with similar project leaders

Ask them to share their Agreement with you and to advise you on unanticipated problems they had encountered that could have been addressed in a governance Agreement.

### Secure real support from all stakeholders in leadership positions

The up-front time taken with conferences, calls and consensus in crafting the Agreement is well spent. Leadership must allocate sufficient time and resources for formulating and supporting the Agreement.

### Agree upon a vision

It is essential for a shared vision for the end result of your project to be endorsed by all affected participants' executive leadership.

### Review existing inter-agency Agreements for inconsistencies

This should be done with a fresh look at the data sharing project to ensure that no inconsistencies exist, and that no manual processes limit or contradict the data sharing efforts.



### Plan to deal with cost allocation issues early

Cost sharing is a major component of sharing Agreements. The potential impacts of a new system should be discussed, cleared with participants and budgeted well in advance of the impact date.

### Involve legal advisors

Allow enough time for the Agreement to be reviewed by the legal advisors of the various stakeholder agencies. It is likely that they will have an opinion and that the Agreement will undergo revisions.

### Assure independence and impartiality

There must be a perception of fairness in all aspects of the Agreement.

## PRACTICAL ISSUES

The Agreement itself will usually not address *technical* details but should provide a forum and authority for making decisions in this area. It should cover *global operational* and *financial* details. At the most basic level, the Agreement must provide firm guidelines on duties and responsibilities, including financial commitments.

### *Technical Details*

Generally, a subcommittee will be given the authority to construct guidelines on the *technical* details, including how the data exchange or information and resource sharing will function, the model it will employ, the phases of the implementation, and the data types and formats. Exchange definitions should adopt national standards such as the [NIEM](#), the [Global Federated Identity and Privilege Management \(GFIPM\)](#), and the [Global Reference Architecture \(GRA\)](#). Other technical issues to be determined include maintenance procedures, backup, audit, deletion, and disaster recovery.

## Operational Details

As to *operational* details, the reason for developing an interagency Agreement ultimately revolves around operational needs. While the Agreement is not intended to capture all of the detailed operational nuances for each agency, the general purpose and guidelines should be described. Often captured in the recital section, the document should identify the goals and objectives that are generally independent of the participating agencies. For example, if the Agreement is to govern data sharing, the operational goal might be the desire to share information for the purpose of regional interoperability and mutual aid, with the express consent to use the information for purposes of public safety.

With respect to financial details, cost allocations are usually addressed early, and may entail population figures, call volume, number of personnel or some other metric. Three items are often overlooked: change control, data ownership and asset ownership. As with any project, change control is critical to ensure that potential changes are formally reviewed and approved. In the case of a governance document, change often involves the addition or removal of participating agencies, as well as change to or enhancements of the software. Since these changes can impact the cost and value of the services and sharing being provided, it is important to have a defined formal process with the participating agencies involved. In addition to the normal process, it is common to identify an accelerated process to deal with emergency situations that may arise. As to the change control process, the ownership of information and/or physical assets that are provided to the enterprise need to be specified. When a participating agency leaves the partnership, the rights associated with their contribution (*e.g.* data and equipment) needs to be understood.

## DEFINITIONS & MODELS

No matter how large the scope of the plan to share resources and/or data, a governance Agreement is required to clearly establish the roles and responsibilities of the participating agencies. A number of governance models exist, but the two main ones are *Intergovernmental Agreement (IGA)* and *Joint Powers Agreement (JPA)*.

### **Intergovernmental Agreement**

An *Intergovernmental Agreement* is an Agreement (or contract) between government agencies that contains specific terms and conditions of how the agencies will interact and govern their dealings with each other. IGAs are also known as Memoranda of Understanding (MOU), Mutual-Aid Agreements, and Automatic Aid Agreements.

### **Joint Powers Agreements**

The Law.com dictionary defines a *Joint Powers Agreement* as “a contract between a city, a county and/or a special district in which the city or county agrees to perform services, cooperate with, or lend its powers to the special district or other government entity.” The result of a JPA is the formation of an independent “Joint Powers Authority” (agency) whose powers are granted to it by the JPA. The JPA is totally autonomous from the agencies that create it and typically has its own staff, its own facilities, and its own equipment and computer



resources. Whereas the systems, data and other resources used in an IGA continue to be owned by the agencies that participate in the IGA and that contributed to it, in a JPA, the systems, data and other resources used in the daily business of the JPA are owned by the agency/authority created through the JPA.

Table 1 below summarizes the typical uses of the two different types of Agreements, as well as their advantages and disadvantages.

**TABLE 1. INTERGOVERNMENTAL AGREEMENTS VS. JOINT POWERS AGREEMENTS**

	AGREEMENT TYPE	
	Intergovernmental Agreement (IGA)	Joint Powers Agreement (JPA)
<b>TYPICAL USES</b>	CAD/Dispatch consortiums in which one agency provides 9-1-1 call receipt and dispatching for several member agencies	Dispatch consortiums in which a separate agency is created to provide 9-1-1 call receipt and dispatching services for the participating agencies
	RMS in which one or more agencies collaborate to share a single RMS	Regional RMS in which a separate agency is created to manage a single RMS for all participating agencies
	Automatic Aid Agreement in which two or more public safety agencies agree to dispatch each other’s emergency resources	Fusion centers in which a separate agency is created to manage a regional data warehouse with an interface to each participating agency for uploading its information.
	CAD-to-CAD data sharing in which two or more public safety dispatch centers agree to exchange CAD incident information	
<b>ADVANTAGES</b>	A new administrative entity does not have to be created – existing resources are donated or shared among the participating agencies	Autonomy of operations – the new entity is free to operate in a manner that is most efficient to its charter
	Legally less complex	Requires a formal, legal agreement to transfer authority from the member agencies to the new entity
	Lower costs	
	May be governed by an informal agreement	
<b>DISADVANTAGES</b>	Autonomy of operations is difficult to obtain	Legally complex to establish.
	Decisions may be unduly influenced by the requirements of one agency	Not universally available – some states do not allow JPAs or limit the types that can be established
		Higher costs due to administrative and other overhead

## COMPONENTS OF AGREEMENTS

Existing Agreements should be reviewed for contradictions, inconsistencies and omissions. Historically, many Agreements were formulated before the concept of automated information sharing or data exchange technology was fully actuated in the past 10 years. Older Agreements should also be reviewed against newer best practices, and practices that were discovered or evolved from ineffective practices or experiences of other agencies.



Agreements should generally include the following sections:

- ♦ Recital
- ♦ Definitions
- ♦ Statement of Purpose
- ♦ Administration of the Agreement
- ♦ Voting
- ♦ Frequency of Meetings and *ad hoc* Meeting Procedures
- ♦ Other Responsibilities
- ♦ Other Committees, Boards and Teams
- ♦ Finance and Budget
  - Authority
  - Funding
  - Fiscal Period
  - Budget
  - Cost Allocations and Formula
- ♦ Ownership of Property
- ♦ Employees
- ♦ Retained Powers of Participating Agencies
- ♦ Withdrawal by Agencies
- ♦ Withdrawal Duration
- ♦ Termination of Agreement
- ♦ Amendments
- ♦ Notifications
- ♦ Insurance
- ♦ Hold Harmless Clause
- ♦ Data Integrity Responsibilities
- ♦ Data Security
- ♦ Privacy Policy
- ♦ Record of Meetings
- ♦ Media Policy
- ♦ Dispute Resolution and Penalties

### Recital

The Recital section at the beginning should fully describe the intent or purpose of the Agreement. It should include a general statement that summarizes what the participating agencies are agreeing to collaboratively achieve. Typically, the Recital is structured as a set of goals that will be accomplished through the Agreement and is followed by a general set of desired functions, capabilities and/or actions resulting from the Agreement.

### Definitions

This section contains a set of terms, along with agreed upon definitions for each term, and should immediately follow the recital section of the Agreement. The definitions section is critical and should clarify all of the potentially ambiguous terms used in the document, and should sufficiently explain each term to eliminate any ambiguity in the interpretation of the terms by all Agreement participants. The definitions should be one of the first sections to be approved by the Agreement participants.

## Statement of Purpose

The Statement of Purpose section clearly defines the purpose of the Agreement. For example:

- ❖ If a User Board is being established to govern the system of shared information, then the roles and responsibilities of the board should be established in this section.
- ❖ If the Agreement is to share data, then this section should describe the data to be shared and how it will be accomplished.

## Administration of the Agreement

Most IGAs and JPAs are governed through an administrative body or Governance Board, sometimes called a Steering Committee. This administrative body provides input, planning, and guidance and sets policy and procedures. The establishment of the Board and the authority to make decisions or make recommendations should be clearly stated. The structure of the organization should be specified [e.g. how many Board members are allocated to each agency (often one member from each participating agency)]. It is important that the Agreement delineate the roles and responsibilities of the Board in the operation and management of the endeavor. For example:

- ❖ Does the Board establish, review, recommend, or approve the annual operational budget of the enterprise governed by the Agreement?
- ❖ How is the Board involved in resolving issues?
- ❖ Does the Board review and approve new members to the Agreement?
- ❖ Does the Board have officers and, if so, how are they elected?
- ❖ How are Board members designated by the member agencies?
- ❖ How long do Board members serve on the Board?

Whether alternates are allowed and how they participate in the Board's business should also be addressed. One often overlooked factor is whether meetings of the Board are subject to public meeting laws. Specifying whether this is a requirement at the outset can prevent issues later on, especially if contentious decisions are subject to media and public review. The typical items addressed in this general section. Include:

- ♦ Voting
- ♦ Frequency of Meetings and Ad-Hoc Meeting Procedures
- ♦ Other Responsibilities
- ♦ Other Committees, Boards and Teams

### *Voting*

This section should clearly define the authority of the member agencies and how decisions are made, including:

- ❖ Which agencies/members participate in decision making. This should be addressed either by explicitly identifying the agencies or through a discussion of membership roles, such as full member, associate member, contributing agency, etc.
- ❖ If one participant agency has more control/power than one or more of the others.

- ❖ Whether decisions are made via majority vote or some other format.

Any other aspects of decision making and member agency organizational structure should also be fully described in this section of the Agreement.

Often overlooked is the procedure for resolution of tied votes; the Agreement needs to be structured so that votes cannot be tied or it should address what happens if a tie occurs:

- ❖ How votes are weighted must also be described – Is it a straight vote (*i.e.* one agency, one vote) or weighted vote (*i.e.* larger agencies votes may count more by a predetermined weighting factor)?
- ❖ How many participants need to be present for decisions to be made?
- ❖ Is proxy voting allowed?
- ❖ Can alternates vote?

These and other voting decisions need to be addressed in the Agreement. Subcommittee voting and decision making should be covered as well.

#### *Frequency of Meetings and Ad-Hoc Meeting Procedures*

It is a good idea to indicate in the Agreement how often the Governance Board meets (*e.g.* monthly, bi-monthly, quarterly, etc.). There should be a procedure for calling *ad hoc* meetings if one or more member agencies have a pressing issue that needs to be addressed. Who can call emergency meetings of the Board and how much notice is required should be included in the Agreement, as well.

#### *Other Responsibilities*

The Administrative Body's responsibilities might also address the establishment of policies related to the system, such as privacy, security and data quality issues. The Administrative Body may also review and provide input and guidance on various plans, such as the Strategic Plan, the Technology Plan, and the Finance Plan. When there is a major controlling agency, the plans are usually derivatives of that agency's plans, and the Administrative Body is a reviewer and contributor.

#### *Other Committees, Boards and Teams*

This section of the Agreement can be complex and should be carefully reviewed. The Agreement can identify several standing or permanent committees in addition to the Administrative Body. These committees relieve the Administrative Body from the responsibility of providing expertise in all areas. Standing committees usually include, but are not limited to:

- ◆ Technical Advisors
- ◆ Policy
- ◆ Customer/User/Citizen
- ◆ Finance/Budget
- ◆ Project Management

This section should also specify the ability to create “as needed” committees for a particular purpose or study. As-needed committees may be permanent or temporary in their existence.

Standing and as-needed committees are created according to a set of identified or explicit rules contained in the Agreement. The Agreement should: lay out the rules for committee membership; establish voting rules/procedures; identify the length of committee existence; and, identify requirements for reporting findings. An Administrative Body member may also be a member of another committee, while a committee member is generally another member from a participating agency with the appropriate skills for the committee. In any case, the Agreement should specify who is allowed to serve on one or more committees.

The Administrative Body sub-section should identify the committee’s chairperson and co-chair by position or title.

## **Finance and Budget**

This section should document the structure for fiscal responsibility and oversight needed to operate and fulfill the Agreement’s obligations. Its purpose is to describe the processes and procedures necessary to ensure strict accountability of all funds, including tracking of receipts and disbursements. Generally, the following sections are included:

- ◆ Authority
- ◆ Funding
- ◆ Fiscal Period
- ◆ Budget
- ◆ Cost Allocations and Formula

### *Authority*

Documents who is authorized to act as the fiscal agent(s) and perform tasks such as: identifying, pursuing and obtaining funding; preparing and approving the budget; approving and expending funds; and, preparing and providing fiscal reports. Authority may be shared across members, or members may be appointed to act in specific roles, such as treasurer or auditor.

### *Funding*

Describes what funding sources are authorized to be pursued and used. These include grants, membership fees or like-kind donations of equipment, resources and personnel. The fiscal contribution of each participant should be described, as well as how funding will be adjusted upon the addition or departure of participants.

### *Fiscal Period*

Documents the fiscal year that will be used for budget and reporting purposes.

### *Budget*

The overarching fiscal plan for anticipated revenue and expenses. The Agreement typically does not contain an actual budget, but defines the budget preparation responsibilities and approval process, including:

- ❖ Who prepares the budget (*e.g.* finance subcommittee, specific member agencies, director)
- ❖ How, when and to whom is the budget submitted
- ❖ Who is authorized to approve the budget (*e.g.* all members equally or weighted voting based on factors such as longevity of membership or percentage of fiscal contribution)
- ❖ How is approval defined (*e.g.* simple majority or two-thirds majority) if the approval process differs from the normal voting processes.

As a side note, when the actual budget is prepared, do not overlook maintenance and support, costs for new assets, and planning for emergency/unexpected costs.

When there is a controlling agency, the Financial Plan will usually determine user fee structure and special usage fees, based upon type of agency membership. The Agreement may allow some control over (or input into) capital appropriations and operation funding. The Agreement should allow the pursuit of grants and other funding that is available for a shared effort as represented by the Agreement which otherwise would not be available to individual agency.

#### *Cost Allocations and Formula*

Cost allocation is a critical component of any Agreement, especially since many multi-agency Agreements are put in place primarily to save money. As a result, the formula for cost sharing must be identified before entering into the Agreement, and any decisions reached regarding cost allocations should be documented in the Agreement. The Agreement should contain a clearly defined method for allocating the costs of the annual budget (see above) among the participating agencies. The Agreement should also describe how the cost allocation formulas can be changed and how changes are implemented.

There are many ways to allocate costs, with several common examples based on population, staffing, tax basis, or services rendered (*e.g.* call volume) from the respective agencies. These allocations may change over time. Cost allocations may include grant funding contributions, matching components, in-kind materials (*e.g.* system hardware or software), or other tangible contributions. The contributions need to be able to be fairly assessed in order to properly perform a cost allocation among agencies. Cost allocations are typically annualized, with a fiscal year start date specified. Partial or pro-rated cost allocation may be provided for a partial year. Billing policies should also be identified, specifying if monthly or annual payments are allowed, payment due dates, and late payment penalties.

A proportional formula method of allocating the fixed and variable costs is typically used to ensure the equitable allocation of cost among the participating agencies. The proportional formula method can allocate costs based on the share of certain factors associated with serving the customers or agencies. Common factors include measures of fiscal capacity and the demand for services. These and other inputs are common components in many formulas; however, the manners in which they are operationalized and combined may differ.

#### **Ownership of Property**

The Agreement should describe the ownership of assets, including intellectual property, person(s) responsible for maintenance and support of assets, as well as disposition of assets when the group is

disbanded, participating agencies exit from the Agreement, or the assets become obsolete. Any retained responsibility and authority should be delineated.

### **Employees**

The Agreement may identify administrative staff in a JPA, but an IGA typically has no employees. Depending on the Agreement, this section would address all human resources: who pays them, who covers administrative and overhead, and who pays for employee benefits. Employees of any agency, board, body, or commissions created by an IGA or JPA, if compensated, may be paid by the created body either by fees it generates by its existence or by fees and/or taxes levied against the “customers” of that body.

### **Retained Powers of Participating Agencies**

This section deals with the authority or power the principals specify that they intend to keep. Principals of the authority (*i.e.* agency, board, commission) may retain for themselves special powers to operate and manage their organization according to the prevailing laws of the host state or jurisdiction. These powers may include the creation; adoption; or diminution of rules, policies and regulations. The rights to issue Requests for Proposals (RFPs), make purchases and expenditures, issue bonds, and encumber debt and credit may be specified. The exact nature of the powers retained by the principals should be expressly detailed in the authority’s governance document.

### **Withdrawal by Agencies**

The thought and planning for this possible event is often neglected as Agreements are being constructed, but it is important to address the very real possibility of agencies withdrawing. This section should address issues such as whether advanced notice is required (*e.g.* the number of days of notice before a trigger date), and if the agency is entitled to reimbursement or whether it must pay for services (*e.g.* removing its data from the shared database).

Participants of the administrative board or, in a JPA, key staff, may be terminated, resign or retire from their positions. The Agreement should spell out how these actions are handled with respect to advanced notice requirements, form of notice, and to whom the notice is addressed.

### **Withdrawal Duration**

The period of performance related to the Agreement (*i.e.* perpetual or actual end date) should be specified. It is important to identify minimum durations for participation because the period of performance related to the Agreement should be specified. It is important to identify minimum durations for participation because costs can vary significantly as agencies are added or removed. There may be a minimum period of participation, followed by an annual opt-out with a specified notification period, typically some number of days or months before renewal. If needed, additional clarification should be provided to specify calendar days or business days. For simplicity, the Agreement may renew on an annual date common for all participants, regardless of when they actually joined. Take care to ensure that directives in this section do not contradict language in the Termination section.

### **Termination of Agreement**

This section should address the actions and activities that will occur if the Agreement is to be terminated—when and how the issue is voted upon, when it is effective, how financial obligations for the termination are handled, and what happens to any hardware, software or human assets owned by

the participants or consortium. This section must be consistent with any other section that may address some or all of these questions.

This section of the Agreement must also address the following:

- ❖ Transfer of authority for operations if the purpose of the Agreement is to remain, including all aspects of the terminating authority's organization, responsibilities and obligations, assets, and employees. This plan must also include a transition schedule for a timely and coordinated transfer.
- ❖ How to terminate the purpose/object of the Agreement, including addressing the transfer and/or dissolution of assets, human resources, financial obligations, data and information technology, property, vehicles, and facilities. The process of terminating operations should be spelled out in the governance document. This section of the Agreement should specify who makes the decision to terminate operations, what percentage of the majority ratifies the decision, who else approves the decision, how the decision is communicated across the Agreement's membership, and, if appropriate, alternative forms of dissolution that may be available.

### **Amendments**

The Agreement should specify how it (the Agreement) can be modified and how potential amendments are presented and voted upon. Amendments to a governance document may add, modify or discontinue rules or policies. Amendments may provide additional detail, qualification, or clarification to a governance principle in the organization's body of rules and regulations. The governance document should specify: who is authorized to propose amendments; how amendment proposals are vetted; who approves amendments; and, the voting procedures for their adoption.

### **Notifications**

Notifications may be required for any activities that affect the Agreement with respect to any of the participating parties. This includes meeting dates, and any potential changes to the Agreement, such as: the addition or withdrawal of a participating party; notices of termination; changes in terms and conditions; cost allocation formulas; amendments; and, changes in notification personnel. The Agreement should specify the method for notifying the participating members (e.g. certified letter, e-mail) for different types of actions, each member agency's notification contact (by name, title and mailing address), and any advance notice that is required.

### **Insurance**

The Agreement should specify whether insurance coverage is required to cover indemnification and liability that may be incurred through the performance of the Agreement. Depending on the type of Agreement and the agencies involved, insurance may not be needed, as coverage may be provided by an existing policy, through either the hosting agency or participating agencies. If the Agreement creates a separate entity, though, then it is likely that a separate insurance policy will be required.

### **Hold Harmless Clause**

This section should contain language that specifies the level of indemnification provided, included and/or required in the Agreement; for example, the section may require the consortium or participants

to defend, indemnify and hold the partner agencies and staff members harmless from a variety of legal actions.

### **Data Integrity Responsibilities**

The Agreement should specify the level of accuracy required for data contributed by participating agencies, and the timeframe and responsibilities for correcting any identified data integrity issues. The Agreement should acknowledge that the information contained in the shared databases may not be accurate and that participating agencies should use their best efforts to make it as accurate as possible. If appropriate, the contributor of erroneous information should be relieved of any liability for use of that information beyond agreeing to perform/participate in a periodic audit process to compare their current information to that contained in the shared environment.

Depending on the sharing model, the Agreement should specify whether the entity maintaining the shared data must use specific information technology practices to assure continuity of access, avoidance of data corruption, and timely restoration of the data in case of equipment failures.

### **Data Security**

In many cases, state and federal security standards serve as a starting point for data security standards. The Agreement should specify the level of security that participating agencies should employ to maintain and enforce the integrity and security of information contained in shared databases. This includes internal security of records and related technical support for security, and appropriate vetting of personnel with access to the information, including such measures as background checks, fingerprint checks, and individual compliance Agreements. The procedures and guidelines in *FIPS 140-2*, *28 CFR Part 23 Criminal Intelligence Systems Operating Policies* or the *FBI CJIS Security Policy* may be appropriate to review and reference in the Agreement in some cases.

### **Privacy Policy**

As previously mentioned, astute consortiums should endeavor to follow the latest guidelines that pertain to privacy. The agreement may want to address the privacy information within the data and the privacy information that may be collected on users of the system. Be aware that additional privacy rules may be implicated as medical or child services become involved. The data integrity efforts may need to allow for redress and other privacy actions depending on whether the information is used, stored and/or aggregated. Whether privacy needs a separate section of the Agreement or not is up to the participants; however, it is generally considered a good idea to state and demand adherence to identified best practices and to include any such requirements in the Agreement. Such guidance and/or best practices may be placed in an appendix.

### **Record of Meetings**

The Agreement should contain guidelines as to: how to capture the substantive discussion of meetings; who will take ownership of this task; where this information is stored, to whom it should be reported; and, how to respond if someone outside the committee asks for these records. Some states have “Sunshine Laws” that mandate meeting and minutes, so it is good to obtain legal guidance if this section is included.

### **Media Policy**

In most cases, member agencies will be required by public disclosure requirements to acknowledge entry to an Agreement with other agencies. Beyond that, the Agreement may specify who within the consortium should speak for the agencies participating in the Agreement. It may be desirable for the consortium to have a single voice and, if that is the case, the Agreement should specify how that is achieved.

### **Dispute Resolution and Penalties**

In general, parties to the Agreement should adhere to the old adage, “Hope for the best but plan for the worst.” There should be dispute resolution language either in a specific section about non-adherence to the Agreement, as well as a penalty section in which the penalty for non-compliance is spelled out; for example, the Agreement should specify what happens if a member agency does not meet its financial obligations in a timely manner, or what happens if data errors are not appropriately addressed. This section may also address laxity and indifference, misbehavior, or even penalties for bad behavior. The Agreement should include a severability clause in case one party challenges the entire Agreement or a section of the Agreement is found to be illegal or unenforceable.

## **CONCLUSIONS**

There are a variety of types of Agreements between agencies that specify how they are to share services and/or provide automatic or mutual aid. The ability to automate these processes has made data sharing Agreements more complex; however, a consortium formulated with good intentions and a well-thought-out governance as a foundation is ahead of the game. Starting an Agreement from scratch can be quite time-consuming—the more parties involved, the more unwieldy and protracted the process of crafting an Agreement can become. Agencies should be able to draft strong Agreements that avoid typical pitfalls by considering the components discussed above. It has been said that “good contracts make good friends” —it is important to be as well prepared as possible when considering any sharing scenario.

Overall, key lessons learned from recent projects go well beyond the creation of written governance documents. Trust is an essential element; and, to gain and retain trust, there have to be transparency and accuracy on both sides. Realistic expectations regarding timelines, costs, savings, and benefits must be communicated among all stakeholders.

The importance of achieving buy-in cannot be overstated. Anticipate that there will be issues and plan for how to mitigate them. A focus on the people and relationships in an environment of trust and fairness built upon realistic expectations will enable information sharing to work as expected and benefit all participating agencies, as well as the public.

## GLOSSARY

ACRONYM, ABBREVIATION OR TERM	DEFINITION
CAD	Computer Aided Dispatch
GFIPM	Global Federated Identity and Privilege Management
GRA	Global Reference Architecture
Governance	– The process for decision making, granting of power or the verification of performance.
IEPD	Information Exchange Package Documentation – A specification for a data exchange that defines a particular exchange of information.
IGA	Intergovernmental Agreement – A document that defines terms, conditions, responsibilities, participation and interaction between agreeing parties.
JPA	Joint Powers Agreement – Yields the formation of a separate government entity that agrees to perform services, cooperate with, or lend its powers to the special district or another government entity.
MOU	Memoranda of Understanding
NIEM	National Information Exchange Model. – XML-based information exchange framework designed to develop, disseminate, and support enterprise-wide information exchange standards and processes that foster automatic Information Sharing.
RMS	Records Management System

## ABOUT THE IJIS INSTITUTE

The IJIS Institute unites the private and public sectors to improve critical information sharing for those who provide public safety and administer justice in our communities. The IJIS Institute provides training, technology assistance, national scope issue management, and program management services to help government fully realize the power of information sharing.

Founded in 2001 as a 501(c)(3) nonprofit corporation with national headquarters on The George Washington University Virginia Science and Technology Campus in Ashburn, Virginia, the IJIS Institute has grown to nearly 200 member and affiliate companies across the United States.

The IJIS Institute does its valuable work through the contributions of its member companies. The IJIS Institute thanks the Emerging Technologies Advisory Committee for their work on this document.

The IJIS Institute also thanks the many companies who have joined as members that contribute to the work of the Institute and share in the commitment to improving justice, public safety, and homeland security information sharing.

For more information about The IJIS Institute, please visit: <http://www.ijis.org>

## LINKS TO MORE INFORMATION<sup>1</sup>

### NCR (National Capital Region) Net

- ♦ <http://www.ncrnet.us/>
- ♦ [http://www.ncrnet.us/fileshare/files/3/exchanges/CAD\\_Exchange/NoVA\\_CAD\\_Charter\\_web\\_version.pdf](http://www.ncrnet.us/fileshare/files/3/exchanges/CAD_Exchange/NoVA_CAD_Charter_web_version.pdf)

### Information Sharing Environment (ISE)

- ♦ *Governance Building Blocks* – <http://ise.gov/building-blocks/governance#item=determine-the-need-tid-341>

### National Criminal Justice Reference Service (NCJRS)

- ♦ <https://www.ncjrs.gov/index.html>
- ♦ *Mission Possible: Strong Governance Structures for the Integration of Justice Information Systems* – <http://www.ncjrs.gov/pdffiles1/bja/192278.pdf>
- ♦ *Governance in Interoperability is Key to Success NCJ 224531* – <http://www.justnet.org/TechBeat%20Files/Governance.pdf>
- ♦ *Effective Police Communications Systems Require New "Governance"* – <http://www.ncjrs.gov/pdffiles1/nij/222362.pdf>

### NENA

- ♦ [http://www.nena.org/resource/collection/88EE0630-CA27-4000-BAA7-24FFA3F9029A/NENA\\_53-506\\_Intra-Agency\\_Agreements.pdf](http://www.nena.org/resource/collection/88EE0630-CA27-4000-BAA7-24FFA3F9029A/NENA_53-506_Intra-Agency_Agreements.pdf)

### For more information about privacy and security information:

- ♦ <http://www.it.ojp.gov/>
- ♦ <http://www.itl.nist.gov/fipspubs/by-num.htm>

---

<sup>1</sup> These links are current at the time of publication. Please recognize that links to reference documents may change.

## References

---

<sup>i</sup> The service organization: Climate is Crucial, Benjamin Schneider, *Organization Dynamics*, Volume 9, Issue 2, Autumn 1980, Pages 52–65

<sup>ii</sup> Behn, R. D. (2003). Why Measure Performance? Different Purposes Require Different Measures. *Public Administration Review* • September/October 2003, Vol. 63, No. 5.

<sup>iii</sup> Jett, Q., & Kim, T. H. (2011). *Performance Management as Strategy for Learning: Measurement and Feedback for Public-Service Innovation*. Newark, NJ: Rutgers, State University of New Jersey.

<sup>iv</sup> NFPA 1221; Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems, 2013 Edition; National Fire Protection Association.

DRAFT

## **5. ROCK ISLAND COUNTY COMMUNICATIONS PLAN**



---

***QUAD CITIES / ROCK ISLAND COUNTY  
EMERGENCY ACTUALIZATION PLAN  
COMMUNICATIONS PLAN***

---

Version Number: Draft  
Version Date: 01/22/2014

# TABLE OF CONTENTS

- 1. ROCK ISLAND COUNTY EMERGENCY COMMUNICATIONS PLAN.....2**
  - 1.1 Overview.....2
  - 1.2 RICECP Objectives .....2
  - 1.3 Day-to-Day Communications Capabilities.....2
    - 1.3.1 The Rock Island Tactical Interoperability Communications Plan (TICP) .....3
  - 1.4 The “Platinum Ten Concept” .....8
    - 1.4.1 Background .....8
    - 1.4.2 The “Platinum 10” Concept of Operations.....9
    - 1.4.3 Implementing the “Platinum 10” Process .....9
  - 1.5 Expanding Communications Beyond Day-to-Day Operations..... 10
  - 1.6 Recommendations for Channel Assignments for Significant Regional, State, or National Events ..... 11
    - 1.6.1 Recommendations for Channel Assignments Type 1 and Type 2 Events or Recovery mode of Operations ..... 14
  - 1.7 RICECP Summary of Recommendations..... 16
  - 1.8 National Incident Management System(NIMS) Incident Typing..... 17

# 1. ROCK ISLAND COUNTY EMERGENCY COMMUNICATIONS PLAN

## 1.1 Overview

The Department of Homeland Security worked with stakeholders to develop the National Emergency Communications Plan (NECP). The NECP established a goal for demonstrating response-level emergency communications within “*one hour*” for routine events involving multiple jurisdictions and agencies.

Research and operational experience has shown many agencies operate with the opinion most incidents are routine and don’t expand beyond the initial resources dispatched. Day-to-day methods of establishing communications for initial responding agencies including routine mutual aid resources rarely will be expanded to a more complex communications plan. The belief that a complex communications plan must be developed after the type of incident is determined. Once the initial incident command structure is established and once a resource is established to manage communications has been proven to be inaccurate and ineffective. Most large-scale incidents will require effective command, control, and communications within minutes and the goal of “one hour” and this is not realistic.

The primary objective of the Rock Island County Emergency Communications Plan (RICECP) is to standardize a procedure for using available communications resources to establish command, control, and communications (C<sup>3</sup>) in the “*first ten minutes*” of a recognized multi-jurisdictional, multi-disciplinary incident.

## 1.2 RICECP Objectives

1. The objective of the RICECP is to standardize a procedure for using available communications resources to establish command, control, and communications (C<sup>3</sup>) in the “*first ten minutes*” of a recognized multi-jurisdictional, multi-disciplinary incident.
2. Utilize “*available*” technology to meet operational requirements and not modify operational requirements to meet the existing technology.
3. Integrate communications and interoperability into incident management that expands with the Incident Action Plan (IAP) while meeting all the requirements of NIMS and ICS.
4. Interoperability for all-hazards from daily routine incidents up to significant national or catastrophic disasters.

## 1.3 Day-to-Day Communications Capabilities

History has traditionally dictated the number and locations of dispatch centers and the creation of public safety agencies based on growths in population. Small towns develop into municipalities and incorporated towns or cities.

The evolution and growth in Rock Island County has resulted in 6 PSAPS or Dispatch Centers managing calls for service providing day-to-day communications for 13 Law Enforcement Agencies, 17 Fire Departments, and 5 agencies providing Emergency Medical Services. The coordination required between dispatch centers is accomplished by a point-to-point, VHF channel (155.370) for dispatcher to dispatcher calls only by a dedicated fiber optic network called QCIC NET.

**1.3.1 The Rock Island Tactical Interoperability Communications Plan (TICP)**

In November of 2010, Rock Island County completed its Tactical Interoperability Communications Plan (TICP). The county recognized the need for immediate interagency communications interoperability for response and recovery of natural and man-made incidents. The RICECP is developed as the next phase of the that effort to provide all first responders with a tool to implement immediate, effective, and efficient interoperable communications capabilities for incidents that escalate beyond the routine daily operational capabilities. An Incident Communications Plan (ICS-205) is required for Type 1 through Type 3 incidents and is recommended for Type 4 incidents.

*Table 1 - Agencies Dispatched by Each Dispatch Center*

911 CENTRE COMMUNICATIONS		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
East Moline PD	East Moline FD	Moline FD
Moline PD	Moline FD	

ROCK ISLAND COUNTY DISPATCH		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
Coal Valley PD	Andalusia FPD	Illini Ambulance
Cordova PD	Carbon Cliff FD	Trinity Ambulance
Hillsdale PD	Coal Valley FPD	Coyne Center Fire and EMS
Port Byron PD	Cordova FD	
Quad City Airport Public Safety Dept	Coyne Center Fire and EMS	
Rock Island CO SO	Edgington FPD	
	Hillsdale FD	
	Illinois City FPD	
	Rapids City FD (Port Byron Fire)	
	Reynolds FD	

MILAN DISPATCH		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
Milan PD	Black Hawk FPD	

ROCK ISLAND ARSENAL 911 CENTER		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
Rock Island Arsenal Force Protection	Rock Island Arsenal FD	

ROCK ISLAND CITY DISPATCH (RICOMM)		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
Rock Island PD	Rock Island FD	Rock Island FD

SILVIS DISPATCH		
LAW ENFORCEMENT AGENCIES	FIRE SERVICE AGENCIES	EMS AGENCIES
Hampton PD	Barstow FD	
Silvis PD	Hampton FD	
	Silvis FD	

Approximately 35 Public Safety Agencies operate on or across 19 shared radio systems which are also used by a number of public works departments, other local government agencies, and non-government agencies. Incorporating private ambulance services into day-to-day communications becomes a difficult task due to private companies or hospital based ambulance services being responsible for their own communications systems and capabilities. In some cases, contracted EMS services change due to competition between corporations. It is strongly recommended to provide communications capabilities between Incident Commander and all EMS Agencies for providing command and control for day-to-day and major incident communications.

The table of Shared Radios Systems and Shared Channels indicates that planning shared systems and channels was limited to the areas and municipalities being served and focused on the PSAPS providing dispatch services to the agencies. There are approximately 30 console patches and several repeaters in place throughout the county to provide the current level of day-to-day communications capabilities.

*Table 2 – Shared Radio Systems and Shared Channels*

EAST MOLINE AND MOLINE SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
East Moline - RACOM	EMPD+FD / 1469	East Moline FD East Moline PD
	EMDISP / 1410	Black Hawk College PD (Moline Campus) East Moline FD East Moline PD Milan PD Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD
	EMEVENT / 1466	East Moline FD East Moline PD East Moline PW
	EMANNEX / 1461	East Moline PD East Moline FD East Moline PW

RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
Moline - RACOM	ECC / 1585	East Moline FD East Moline PW Moline FD Moline PD Moline PW
	MABAS 43 / 1441	East Moline FD Moline FD Rock Island Arsenal FD Rock Island FD
	MO C2C / 1441	Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD
	MOC2C1 / 1413	Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD
	MOCITYAD / 1450	Moline FD Moline PD Moline PW
	MODISP / 1409	Black Hawk College PD (Moline Campus) Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD
	MOEMFDSP / 1435	East Moline FD Moline FD Rock Island Arsenal Fire Department Rock Island FD
	MOEMINFO / 1411	Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD
	MOEVENT / 1419	Moline FD Moline PD Moline Public Works
	MOEVENT2 / 1421	Moline FD Moline PD Moline Public Works
	MOEVENT4 / 1423	Moline FD Moline PD Moline Public Works
	MOFDALRT / 1434	East Moline FD Moline FD Rock Island Arsenal FD Rock Island FD
	MOPDUHF / 1418	Moline PD Rock Island Arsenal Force Protection (PD) Rock Island PD

MILAN SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
Milan - RACOM	MILAN PD / 1681	East Moline FD Milan PD Moline PD Rock Island Arsenal Force Protection PD Rock Island CO SO Rock Island PD
	PUBWORKS / 1599	Milan PD Milan PW
Black Hawk Fire Radio	Black Hawk	Black Hawk FPD Rock Island FD

ROCK ISLAND ARSENAL SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
Rock Island Arsenal - RACOM	QC NET / 1953	East Moline PD Moline PD Rock Island Arsenal Force Protection (PD) Rock Island CO SO Rock Island PD
	RIA ES / 1970	Rock Island Arsenal FD Rock Island Arsenal Force Protection (PD)
	RIA EVEN / 1962	Rock Island Arsenal FD Rock Island Arsenal Force Protection (PD)
	RIA FGR1 / 1959	East Moline FD Moline FD Rock Island Arsenal FD Rock Island CO SO Rock Island FD
	RIA PD2 / 1955	Rock Island Arsenal FD Rock Island Arsenal Force Protection (PD)
	RIA TNG1 / 1963	Rock Island Arsenal FD Rock Island Arsenal Force Protection (PD)
	RIAFDISP / 1956	East Moline FD Moline FD Rock Island Arsenal FD Rock Island Arsenal Force Protection (PD) Rock Island CO SO Rock Island FD

ROCK ISLAND CITY (RICOMM) SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
RICOMM – UHF	RIPD1	Rock Island PD Rock Island County SO
	RIPD2	Rock Island PD Rock Island County SO

ROCK ISLAND COUNTY SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
Andalusia Fire Protection District - UHF	UHF-458.5375	Andalusia FPD Edgington FPD
Andalusia Fire Protection District - VHF	VHF-153.9650	Andalusia FPD Edgington FPD
Carbon Cliff Radio System	Ccliff Village	Carbon Cliff FD Carbon Cliff Public Works
Coal Valley Fire Radio System	Coal Valley Fire Repeater	Coal Valley FPD Coyne Center Fire and EMS District Quad City International Airport Public Safety Dept.
Illini Hospital Radio System	ILINIDISP	Illini Ambulance MedForce Medic EMS
	ILLINI MC	Illini Ambulance MedForce Medic EMS
	MED CAST	Illini Ambulance MedForce Medic EMS
Port Byron Fire Radio System	Port Byron Repeater	Barstow FD Cordova FD Rapids City FPD (Port Byron Fire)
Quad Cities International Airport Public Safety – UHF	Airport	Quad Cities International Airport Public Safety Dept. Rock Island County SO
Rock Island County Sheriff - UHF	Airport	Quad City International Airport Public Safety Dept. Rock Island CO SO
	RI PD 1	Rock Island CO SO Rock Island PD
	RI PD 2	Rock Island CO SO Rock Island PD
	Silvis PD	Rock Island CO SO Silvis PD
Rock Island County Sheriff Radio - VHF	RI CO #2	Coal Valley PD Cordova PD Hillsdale PD Quad City International Airport Public Safety Dept. Rock Island CO SO
	RI-CO Main	Coal Valley PD Cordova PD Hillsdale PD Quad City International Airport Public Safety Dept. Rock Island CO SO

SILVIS SHARED SYSTEMS AND CHANNELS		
RADIO SYSTEM	NAME/ CHANNEL	AGENCIES SUPPORTED
Silvis Fire Radio - VHF	Silvis Fire1	Barstow FD Hampton FD Silvis FD
	Silvis Fire2	Barstow FD Hampton FD Silvis FD
Silvis PD	Silvis PD	Silvis PD Rock Island CO SO
Hampton Police - VHF	Hampton PD	Hampton PD Rock Island Co. SO
Silvis - RACOM	SilvHamp PD / 560	Silvis PD Hampton PD

A day-to-day communications plan is already being utilized by each municipality that would apply to all agencies that is neither developed nor capable of being utilized as a countywide communications plan due to the number of radio systems and the fact that agencies operate on UHF, VHF, and 800 MHz. One plan would not meet the needs of all agencies.

**1.4 The “Platinum Ten Concept”**

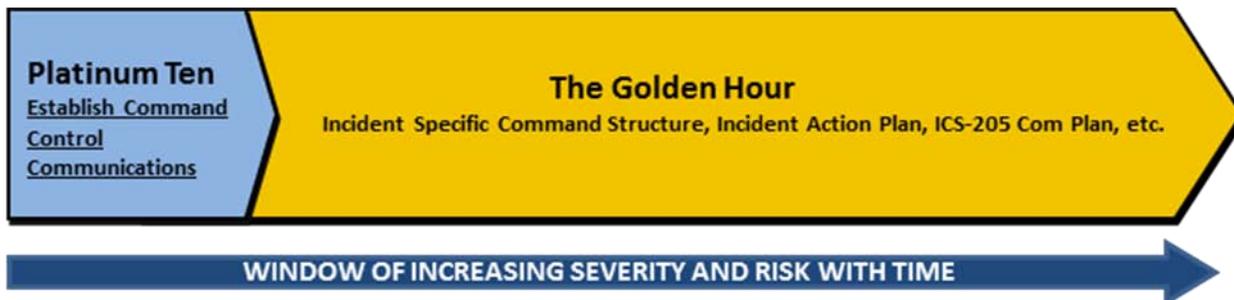
**1.4.1 Background**

Through our research and real-world operational experience, RCC has developed a new vision relative to mission critical preparedness and response capabilities related to command, control and communications (C3). With the lessons learned from the After Action Reports of so many recent incidents of national significance, it has become clear that anything less than a virtually immediate solution to C3 further compounds an already traumatic situation.

We have come to find that many agencies still struggle with the notion of such an immediate solution because, in their opinion, they cannot predict what an incident will require. Therefore, many believe there is a need to build a response on a case-by-case basis each time an incident occurs. The challenges of such an approach are serious –the number of casualties, including citizens and first responders, increases in severity and magnitude as a function of the time it takes for the response to become organized in establishing command, control, and communications. Indeed, for this very reason the National Emergency Communications Plan (NECP) Goals set forth certain time benchmarks for establishing response-level emergency communications under different scenarios of incident complexity. However, RCC is seeking to exceed the NECP Goal benchmarks significantly. First, exceeding the NECP Goals equates to higher probabilities for saving more lives, faster incident stabilization, and better protection of property and the environment. Lessons learned from the After Action Reports of September 11th and other incidents of national significance validate these already quite obvious conclusions. Second, we seek to exceed the NECP Goals because it is possible.

While we concur that most expanding incidents will reveal certain unique response and management requirements, we are strong in our conviction that through proper planning and practice, a default concept of operations (CONOPS) has merit in reducing the window of increasing vulnerability with elapsed time from incident notification.

### 1.4.2 The “Platinum 10” Concept of Operations



The Platinum 10 Concept of Operations is based on these guiding principles:

1. Operations can and must drive technology requirements
2. A universal concept of operations can be developed
3. All incidents begin as a local, and at best Type 3, response due to the mobilization times of most Type 2 or Type 1 teams
4. Improving the time to organize a command, control, and communications response will reduce the magnitude and severity of the impact to life safety, incident stabilization and damage to property and the environment

The Platinum Ten CONOPS focuses on establishing Command, Control, and Communications in the first ten minutes of a recognized multi-jurisdictional, multi-disciplinary incident. It also provides a communications plan for complex incidents, incidents that cover a large geographical area, incidents that will require a complex incident command structure and incidents that will require multiple operational periods for extended periods of time.

This concept requires supporting a minimum of five preplanned communications nets at the discretion of the IC.

When an incident occurs that will exceed a local jurisdictions initial response capability, the appropriate incident management plan must be deployed to match the complexity of the incident. Multiple disciplines and jurisdictions will normally be required for this level of complexity and rapidly implementing interoperability is essential to the success of the operation. This level of event will require a Communications Plan (ICS-205).

### 1.4.3 Implementing the “Platinum 10” Process

1. First on-scene assumes Incident Command and establishes the Command Net.
2. The IC orders appropriate resources (Law, Fire, and EMS) and designates reporting location for resources.

3. At the discretion of the IC, a Level II Staging Area along with a Staging Net may be established. If the Staging Area is established, all responding resources report to the Staging Area Manager (may be face-to-face) as directed by the IC when resources are ordered. All resources responding to or in the Staging Area will monitor the Staging Net.

At the discretion of the IC or Operations Section, each discipline (Law, Fire, and EMS) is assigned a TAC channel when given a tactical assignment. A minimum of a Law Tac, Fire Tac, and EMS Tac is established and when units are given assignments, they are notified to switch from the Staging Net to the appropriate Functional Tac.

### 1.5 Expanding Communications Beyond Day-to-Day Operations

A communications plan that expands to include regional mutual aid, state resources, and federal resources must meet the requirements of the Illinois State Communications Interoperability Plan (SCIP) and the National Emergency Communication Plan (NECP). This task must be preplanned.

The communications plan must support the following NETS or TACS at a minimum to be available for the Incident Commander to establish as required:

<b>Command Net</b>	Utilized by IC, Command Staff, and General Staff positions when established by the IC IC directs all staff positions already established and operating on scene to switch to the Command NET
<b>Staging Net</b>	Utilized by responding and on-scene unassigned resources Resources already responding or in the staging area are directed to switch to the Staging NET by the Staging Officer or IC
<b>Law Net</b>	Utilized when law enforcement resources are deployed from staging to a tactical position or assignment Law Enforcement resources already on scene and deployed switch to the Law Tac when directed
<b>Fire Net</b>	Utilized when fire resources are deployed from staging to a tactical position or assignment Fire resources already on scene and deployed switch to the Fire Tac when directed
<b>EMS Net</b>	Utilized when EMS resources are deployed from staging to a tactical position or assignment EMS resources already on scene and deployed switch to the EMS Tac when directed

*Table 3 – Illinois Incident Typing*

Incident Type	Incident Description	Incident Communications Interoperability
Type 1 -	Significant National WMD or Catastrophic Disaster Event	State Assets Supported by Federal Assets, (MERS, MATTS, Etc.), Incident Communications Plan Required (ICS-205)
Type 2 -	Significant State WMD or Disaster Event	Additional State Deployed Communications Assets (MACC), Incident Communications Plan Required (ICS-205)
Type 3 -	Significant Regional Event	Local Capabilities Plus State Deployed Assets (ITECS, Unified Command Centers, (MAT Trailer) Incident Communications Plan Required (ICS-205)
Type 4 -	Significant Local Event	Daily Operational Capability and Mutual Aid Channels Enhanced with VHF Interoperability Incident Communications Plan Recommended (ICS-205)
Type 5 -	Routine Local Event	Daily Operational Capability Enhanced with Normal Mutual Aid Channels

The National Incident Management System (NIMS) further explains incident typing and that information is provided in the final section of this document.

**1.6 Recommendations for Channel Assignments for Significant Regional, State, or National Events**

Once it has been determined an incident is expanding beyond local capabilities with some mutual aid resources, the incident is a Type 3 incident or a significant county or regional event requiring Type 3 communications interoperability. You may be using local resources with the addition of some limited State resources to manage the incident such as ITECS, Unified Command Center, MAT trailers, etc. This level of incident requires an Incident Communications Plan (ICS-205).

It is recommendation to utilize the wide-area networking capabilities provided by the RACOM system as well as available console patches and Gateways to establish the following communications nets:

*Table 4 – TYPE 3 RICECP COM NETS*

COMMUNICATIONS NET	TALKGROUP/CHANNEL NAME	DECIMAL ID
1. COMMAND NET	QUAD CITIES NET	1953
2. STAGING NET	QUAD CITIES EVENT TAC	1422
3. LAW NET	QUAD CITIES ALL COPS TAC	1425
4. FIRE NET	QUAD CITIES FIRE TAC	1441
5. EMS NET	ILLINIHI EVENT TAC	1407

The Incident Communications Plan (ICS-205) below is an example for a Type 3 incident.

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name <b>ROCK ISLAND COUNTY INCIDENT</b>			Date/Time Prepared		Operational Period Date/Time	
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
1	COMMAND	QUAD CITIES NET	COMMAND, COMMAND STAFF, GENERAL STAFF	RACOM	RACOM	RACOM	RACOM	A	DEC-1953
2	STAGING	QUAD CITIES EVENT TAC	STAGING / UNASSIGNED UNITS ENROUTE	RACOM	RACOM	RACOM	RACOM	A	DEC-1422
3	LAW BRANCH	QUAD CITIES ALL COPS TAC	LAW ENFORCEMENT BRANCH	RACOM	RACOM	RACOM	RACOM	A	DEC-1425
4	FIRE BRANCH	QUAD CITIES FIRE TAC	FIRE BRANCH	RACOM	RACOM	RACOM	RACOM	A	DEC-1441
5	EMS BRANCH	ILLINI EVENT TAC	MEDICAL BRANCH	RACOM	RACOM	RACOM	RACOM	A	DEC-1407
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
Prepared By (Communications Unit)					Incident Location County    State    Latitude    Longitude				

**1.6.1 Recommendations for Channel Assignments Type 1 and Type 2 Events or Recovery mode of Operations**

As incidents continue to escalate and become Type 2 or Type 1 events or enter the recovery mode of operation, the communications plan will require expansion to include the response of regional, state, and federal resources. The Illinois State Interoperability Plan (SCIP) has identified statewide interoperability channels to be utilized for this level of event. These channels are available for use on the STARCOM21 Statewide System. The use of gateways and console patches may be utilized for connectivity between local agencies and state assets including the Rock Island City ACU1000 and Rock Island County ACU-T. The radio caches from East Moline PD and the Rock Island County Sheriff’s Department may be required to be deployed along with the Mobile Command Unit (MCU-09).

*Table 5 – TYPE 1 AND TYPE 2 RICECP COM NETS*

COMMUNICATIONS NET	TALKGROUP/CHANNEL NAME
1. COMMAND NET	INCDNT 1 / STARCOM21
2. STAGING NET	INCDNT 2 / STARCOM21
3. LAW NET	ISPERN / STARCOM21 PATCHED TO VHF / 155.4750
4. FIRE NET	IFERN / 154.2650 / 210.7
5. EMS NET	MERC400 / 155.4000
6. EMERGENCY MANAGEMENT	IESMA / STARCOM 21

The Incident Communications Plan (ICS-205) below is an example for a Type 1 and Type 2 incident.

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name NORTHWEST ILLINOIS INCIDENT	Date/Time Prepared				Operational Period Date/Time		
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	
1	COMMAND	INCIDENT 1	INCIDENT COMMAND, COMMAND STAFF, GENERAL STAFF	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D		
2	STAGING	INCIDENT 2	REGIONWIDE STAGING TAC	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D		
3	LAW BRANCH	ISPERN	REGIONWIDE LAW TAC	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D	PATCHED TO VHF 155.4750	
4	FIRE BRANCH	IFERN	REGIONWIDE FIRE TAC	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D		
5	EMS BRANCH	MERCI400	REGIONWIDE EMS TAC	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D		
6	EMA BRANCH	IESMA	REGIONWIDE EMERGENCY MANAGEMENT	STARCOM21	STARCOM21	STARCOM21	STARCOM21	D		
7	ROCK ISLAND COUNTY COMMAND	QUAD CITIES NET	ROCK ISLAND COUNTY COMMAND, COMMAND STAFF, GENERAL STAFF	RACOM	RACOM	RACOM	RACOM	M	DEC-1953	
8	ROCK ISLAND COUNTY STAGING	QUAD CITIES EVENT TAC	STAGING / UNASSIGNED UNITS ENROUTE	RACOM	RACOM	RACOM	RACOM	M	DEC-1422	
9	ROCK ISLAND COUNTY LAW BRANCH	QUAD CITIES ALL COPS TAC	LAW ENFORCEMENT BRANCH	RACOM	RACOM	RACOM	RACOM	M	DEC-1425	
10	ROCK ISLAND COUNTY FIRE BRANCH	QUAD CITIES FIRE TAC	FIRE BRANCH	RACOM	RACOM	RACOM	RACOM	M	DEC-1441	
11	ROCK ISLAND COUNTY EMS BRANCH	ILLINIH EVENT TAC	MEDICAL BRANCH	RACOM	RACOM	RACOM	RACOM	M	DEC-1407	

## 1.7 RICECP Summary of Recommendations

The development and adoption of a countywide emergency communications plan requires coordination and planning to develop. The following recommendations are made:

- Recommendation 1 - The Rock Island regional partners should adopt a long-term goal to develop and adopt a countywide emergency communications plan.
- Recommendation 2 – Establish a County Governance Structure to include a Communications Working Group made up of subject matter experts (SMES) that have the knowledge of local and regional communications system capabilities.
- Recommendation 3 – The Communications Working Group should adopt the “Platinum 10” Concept of Operations and agree to implement the communications plan in this document for all municipalities and agencies in the county.
- Recommendation 4 – The Governance Structure should include a Training Working Group that would work with municipalities and County Emergency Management to establish a yearly training schedule that would include table-top and full scale training exercises to evaluate and improve the RICECP.
- Recommendation 5 – The Governance Structure should work to identify Federal and State grant funding to exercise the RICECP for not only improving the county plan but provide a continued effort to improve statewide interoperability with state agencies during a major disaster.

**1.8 National Incident Management System(NIMS) Incident Typing**

Type 1	<ul style="list-style-type: none"> <li>• This type of incident is the most complex, requiring national resources for safe and effective management and operation.</li> <li>• All command and general staff positions are filled.</li> <li>• Operations personnel often exceed 500 per operational period and total personnel will usually exceed 1,000.</li> <li>• Branches need to be established.</li> <li>• A written incident action plan (IAP) is required for each operational period.</li> <li>• The agency administrator will have briefings, and ensure that the complexity analysis and delegation of authority are updated.</li> <li>• Use of resource advisors at the incident base is recommended.</li> <li>• There is a high impact on the local jurisdiction, requiring additional staff for office administrative and support functions.</li> </ul>
Type 2	<ul style="list-style-type: none"> <li>• This type of incident extends beyond the capabilities for local control and is expected to go into multiple operational periods. A Type 2 incident may require the response of resources out of area, including regional and/or national resources, to effectively manage the operations, command, and general staffing.</li> <li>• Most or all of the command and general staff positions are filled.</li> <li>• A written IAP is required for each operational period.</li> <li>• Many of the functional units are needed and staffed.</li> <li>• Operations personnel normally do not exceed 200 per operational period and total incident personnel do not exceed 500 (guidelines only).</li> <li>• The agency administrator is responsible for the incident complexity analysis, agency administration briefings, and the written delegation of authority.</li> </ul>
Type 3	<ul style="list-style-type: none"> <li>• When incident needs exceed capabilities, the appropriate ICS positions should be added to match the complexity of the incident.</li> <li>• Some or all of the command and general staff positions may be activated, as well as division/group supervisor and/or unit leader level positions.</li> <li>• A Type 3 IMT or incident command organization manages initial action incidents with a significant number of resources, an extended attack incident until containment/control is achieved, or an expanding incident until transition to a Type 1 or 2 IMT.</li> <li>• The incident may extend into multiple operational periods.</li> <li>• A written IAP may be required for each operational period.</li> </ul>
Type 4	<ul style="list-style-type: none"> <li>• Command staff and general staff functions are activated only if needed.</li> <li>• Several resources are required to mitigate the incident, including a task force or strike team.</li> <li>• The incident is usually limited to one operational period in the control phase.</li> <li>• The agency administrator may have briefings, and ensure the complexity analysis and delegation of authority is updated.</li> <li>• No written IAP is required but a documented operational briefing will be completed for all incoming resources.</li> <li>• The role of the agency administrator includes operational plans including objectives and priorities.</li> </ul>
Type 5	<ul style="list-style-type: none"> <li>• The incident can be handled with one or two single resources with up to six personnel.</li> <li>• Command and general staff positions (other than the incident commander) are not activated.</li> <li>• No written IAP is required.</li> <li>• The incident is contained within the first operational period and often within an hour to a few hours after resources arrive on scene.</li> <li>• Examples include a vehicle fire, an injured person, or a police traffic stop.</li> </ul>