

COMMUNICATIONS PLAN

[Primary and Backup Systems]



Purpose

This plan is in place in the event that qualified Brighton Volunteer Ambulance (BVA) Communications Officers are not available to address either day to day or emergency communications operations. This plan should be consulted whenever an unscheduled absence of the Communications representatives may impact operations. During periods of scheduled absence, a designee will be assigned if the Communications Rep will be unreachable.

Designee

Unless otherwise noted, the Deputy Chief, then Chief will handle communications related matters in the event the Communications Officer is unavailable. In a prolonged absence, the Deputy Chief will coordinate filling the role.

Executive Summary

BVA is a subscriber agency of the Emergency Communications Department, who is the primary dispatcher for all Monroe County Emergency Services. As such, BVA operates on the 700Mhz P25 Compliant Trunked Radio System put in place by Monroe County. Further, BVA utilizes equipment supplied by the County, such as Mobile Data Terminals, Harris Radio Products, and in some aspects, paging service. As such, only 700Mhz hardware and components and the Mobile Data Terminal are considered Mission Critical and receive priority attention in event of failure. Other communication equipment is secondary and will receive at will attention in event of failure.

Any new work to the Communications System at BVA will be attached as an addendum to the end of this document.

Scope

Brighton Volunteer Ambulance has nine (9) means of communications.

Monroe County Mobile Data Terminal/Computer Aided Dispatch

The Mobile Data Terminal (MDT) is a fixed position computer supplied by the City of Rochester. This unit will always be located in BVA's Dispatch room. BVA may troubleshoot problems but does not repair this unit. However, BVA is responsible for its upkeep.

700Mhz Base Station "Harris CS700 Control Station"

This CS7000 is a fixed location "base radio" for use with the digital trunked radio system from BVA's base of Operations. The CS7000 is independently owned by BVA and maintained accordingly. This radio is part of the primary communications system.

700 Mhz Mobile Radios "Harris XG75M"

The XG75M is a mobile radio installed in BVA fleet vehicles for communications with the Emergency Communications Department (ECD) while performing EMS responsibilities. These radios are provided to BVA by Monroe County free of subscriber/user fees. BVA is responsible to ensure their upkeep and security. These radios are part of the primary communications system.

700 Mhz Portable Radios “Harris XG25”

The XG25 is a portable radio installed in BVA fleet vehicles for communications with the Emergency Communications Department (ECD) while performing EMS responsibilities. These radios are provided to BVA by Monroe County free of subscriber/user fees. BVA is responsible to ensure their upkeep and security. There are two of these radios in each ambulance, to be carried by crew members while working. Further, BVA independently owns two of these units, located in Medic 30 and Medic 31. These radios are part of the primary communications system.

APX 7000 Dual Band Mobile Radios

Two of these units are independently owned by BVA and mounted in the BVA Fleet, Medic 30 and Medic 31. These radios are a part of our primary communications system.

APX 7000 Dual Band Portable Radios

BVA independently owns eight of these units, issued to BVA Operations Officers. These radios are a part of our primary communications system.

VHF Portables “Motorola XTS 2500”

BVA owns a number of Motorola XTS 2500 portables on the VHF system that are kept in warm storage in the Communications Cage. These radios are stored in the event there is an expanded event or need to operate independent of the Trunked radio system. These are a part of a secondary system.

VHF Mobile Radios

BVA owns a variety of various brand and model VHF Mobile radios. These are currently mounted in the BVA fleet. They are kept in live service and will be transferred to replacement vehicle's until no longer serviceable.

Communications Rack

BVA maintains a secure communications room with radio rack. This contains a Motorola VHF MTR2000 (unused) with an effective radiated power of 110 watts, two Motorola VHF CDM1250 (unused for primary communications) as a previous backup to the MTR2000 which is currently used as a courtesy transmitter to scanners, three CDM750 receive only radios. Additionally, there is a Tait radio mounted which is a part of the MDT system, and is exclusively for that operation. Any issues with this unit are to be directed to the ECD Supervisor.

Station Alerting

BVA has a redundant station alert system. Primary is the Bryx Station Alerting, which is dependent on send receive internet availability. This system is comprised of voice, light, and visual components to alert crews when there is a call for service. Secondary to this, there is a VHF engaged Federal Alerter which will alarm in the event of a Bryx failure.

Immediate Emergency Support

In the event that the Command Staff determines any communications problem is of the highest priority, the Radio Center shall be contacted via the ECD supervisor. This is for catastrophic failures likely to not be able to be resolved in house or in the immediate future by listed vendors.

Notification System

This section describes “optimal operation” of the BVA primary communications system.

Step	Action	Result
1	911 dispatches call	BVA Bryx and MDT activate in station
2	BVA Acknowledges call	CS7000 base radio functions, dispatch acknowledges
3	Crew responds in ambulance	XG75M mobile radio functions, dispatch acknowledge
4	Crew working on scene	XG25 portable radio functions, dispatch acknowledges
5	Crew transports and returns in service	XG75M mobile radio functions, dispatch acknowledge
6	Crew obtains call information	MDT system provides updates

Detailed Information

Each communications device requires different support and operation. The following is detailed information on each type of radio and services.

Monroe County Mobile Data Terminal/Computer Aided Dispatch

BVA is responsible to maintain a clean unit. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, issues are referred to the "MDT Helpline" at 585-528-2251. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention. The equipment is owned by Radio Center.

Equipment Type: Dispatch

Of Note: One (1) MDT is owned by Radio Center, and it is located in dispatch.

700Mhz Base Station "Harris CS700 Control Station"

BVA is the owner of this unit and responsible to maintain all aspects of this unit. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA 700Mhz

Of Note: One (1) CS7000 is owned by BVA. It is located in dispatch.

700 Mhz Mobile Radios "Harris XG75M"

BVA is responsible to maintain the safety and security of these items. These units are owned by Monroe County. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: County 700Mhz

Of Note: Five (5) XG75M's are owned by Monroe County. These are located in Fleet Ambulances.

700 Mhz Portable Radios "Harris XG25"

BVA is responsible to maintain the safety and security of these items. These units are owned by Monroe County. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA 700Mhz & County 700Mhz

Of Note: Two (2) XG25's are owned by BVA. These are located in Medic 30 and Medic 31.

Ten (10) XG25's are owned by Monroe County. These are located in the Fleet Ambulances.

APX 7000 Dual Band Mobile Radios

BVA is the owner of this unit and responsible to maintain all aspects of these units. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA 700Mhz

Of Note: Two (2) APX 7000's are owned by BVA. They are located in Medic 30 and Medic 31.

APX 7000 Dual Band Portable Radios

BVA is the owner of this unit and responsible to maintain all aspects of these units. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA 700Mhz

Of Note: Eight (8) APX 7000's are owned by BVA. They are located in Medic 30 and Medic 31.

VHF Portables "Motorola XTS 2500"

BVA is the owner of this unit and responsible to maintain all aspects of these units. These units are maintained in warm storage and currently unused. They may be issued in the event of a large scale BVA operation. It is the Communication Officer's responsibility to issue these items.

Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered non-critical as a portion of the secondary communications plan and will receive at-will attention.

Equipment Type: BVA VHF

Of Note: Sixteen (16) XTS2000's are owned by BVA. They are located in warm storage

VHF Mobile Radios

BVA is the owner of this unit and responsible to maintain all aspects of these units. These units are maintained in warm storage and currently unused. They may be issued in the event of a large scale BVA operation. It is the Communication Officer's responsibility to issue these items.

Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered non-critical as a portion of the secondary communications plan and will receive at-will attention.

Equipment Type: BVA VHF

Of Note: Six (6) XTS2000's are owned by BVA. They are located in warm storage, and Fleet Ambulances

VHF Motorola "MTR200"

BVA is the owner of this unit and responsible to maintain all aspects of this unit. At present (2018), Monroe County is not utilizing VHF equipment for EMS Operations, and this is effectively stored, unused, in the communications rack.

Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered non-critical as a portion of the secondary communications plan and will receive at-will attention.

Equipment Type: BVA VHF

Of Note: One (1) MTR2000 is owned by BVA. It is located in the Communications Rack.

VHF Motorola "CDM1250"

BVA is the owner of these units and responsible to maintain all aspects of these units. At present (2018), Monroe County is not utilizing VHF equipment for EMS Operations, and this is effectively stored, unused except for scanner feed, in the communications rack.

In the event of a failure, this is a transmit/receive unit which will work on VHF channels if operated from the communications cage.

Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered non-critical as a portion of the secondary communications plan and will receive at-will attention.

Equipment Type: BVA VHF

Of Note: Two (2) CDM1250's are owned by BVA. They are located in the Communications Rack.

VHF Motorola “CDM750”

BVA is the owner of these units and responsible to maintain all aspects of these units. At present (2018), Monroe County is not utilizing VHF equipment for EMS Operations, and this is effectively stored, unused, in the communications rack.

Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered non-critical as a portion of the secondary communications plan and will receive at-will attention.

Equipment Type: BVA VHF

Of Note: Three (3) CDM750's are owned by BVA. They are located in the Communications Rack.

Bryx Station Alerting

BVA is the owner of this unit and responsible to host the receiver. BVA maintains a contract with Bryx for forever young technology and service. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact Bryx. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA Dispatch

Of Note: One (1) Bryx Station Alerter is owned by BVA. It is located in the communications rack.

Federal Informer

BVA is the owner of this unit and responsible to host the receiver. Equipment failures should be reported to the Shift Supervisor. The Shift Supervisor will briefly troubleshoot and report findings to the Communications Officer. If issues can not be resolved locally, they will contact an approved vendor. This device is considered mission critical as a portion of the primary communications plan and will receive priority attention.

Equipment Type: BVA Dispatch

Of Note: One (1) Federal Informer is owned by BVA. It is located in the communications rack.

Vendors

Equipment Type	Vendor	Contact
Dispatch	Radio Center	528-473-6989
BVA Dispatch	Bryx	585-765-4230
BVA 700Mhz	Radio Max (Harris) Skywave (Motorola)	585-456-1976 Carl Bourke 585-278-7254 (cbourke@skywave.org)

County 700Mhz	Radio Center	585-528-2234 (Via ECD Supv.)
BVA VHF	Not currently serviced (2018)	Contact Chief
Antennas	Patriot Tower	585-889-3391 (Non-emergency) 800-746-7167 (Emergency)

Digital Pagers

BVA maintains Critical Response digital pagers for Operations Officers and Crew use. Currently BVA owns fourteen (14) M1503 pagers. Any issues with these are handled through Radio Center.

Federal Communications Commission

BVA holds a license to operate on any applicable frequency to perform our mission. At current (2018), the license is valid until 2024, at which time it will need to be renewed.

Attached Images

1. BVA Antenna Array
2. Feedline Demarcation
3. Antenna Plan
4. Communications Rack

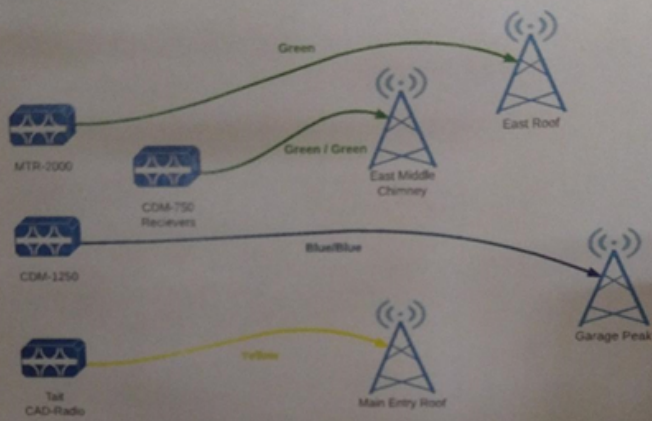
1. BVA Antenna Array



2. Feedline Demarcation



3. Antenna Plan



Brighton Ambulance
1551 South Winton
Antenna Farm

4. Communications Rack



Addendum: 700Mhz Antenna for CS7000	28 December 2017
(Insert Picture)	

Addendum: 700Mhz Channel Design	28 December 2017
Zone: EMS	
1: EMS 295	9: EMS 340
2: EMS Ops East	10: EMS 175
3: EMS Ops West	11: Fire 5
4: EMS Ops Central	12: Fire 2
5: Brighton	13: Fire 3
6: 3rd Battalion	14: Fire 4
7:	15: Interop
8:	16: EMS 295
Bold Indicates Scan Channel	
Zone: EMS Fire	
1: Fire 5	9: EMS 340
2: EMS Ops East	10: EMS 175
3: EMS Ops West	11: EMS 295
4: EMS Ops Central	12: Fire 2
5: Brighton	13: Fire 3
6: 3rd Battalion	14: Fire 4

7:	15: Interop
8:	16: Fire 5

Zone: County 16	
1: RFD 1	9:
2:	10: EMS 295
3:	11:
4: Fire 5	12: EMS 340
5: Fire 3	13:
6: Fire 4	14:
7:	15: Interop
8:	16:

Zone: EMS Tac	
1: EMS 295	9: Tac 9
2: Tac 2	10: Tac 10
3: Tac 3	11: Tac 11
4: Tac 4	12: Tac 12
5: Tac 5	13: Tac 13
6: Tac 6	14: Tac 14
7: Tac 7	15: Tac 15
8: Tac 8	16: EMS 295

Zone: Direct	
1: EDIRECT	9: 8TAC93D
2: 8CALL90	10: 8TAC94

3: 8CAL90D	11: 8TAC94D
4: 8TAC91	12: 7TRV70D
5: 8TAC91D	13: 7CAL50D
6: 8TAC92	14: 7MED65D
7: 8TAC82D	15: 7MED66D
8: 8TAC93	16: 7AG88D

Zone: BU EMS (Same as EMS, just labeled "BU")

1: Fire 5	9: EMS 340
2: EMS Ops East	10: EMS 175
3: EMS Ops West	11: EMS 295
4: EMS Ops Central	12: Fire 2
5: Brighton	13: Fire 3
6: 3rd Battalion	14: Fire 4
7:	15: Interop
8:	16: Fire 5