

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

FINANCE COMMITTEE

May 11, 2017

9:00 a.m.

Chair: Cari Gerlicher

Conference Call

Dial in: 1-888-742-5095

Code: 2786437892#

MEETING AGENDA

Call Meeting to Order

Approval of Agenda

Approval of Previous Meeting's Minutes

- March Meeting Minutes

Action Items/Discussion

- Request from Steering to hire RFCC for Federal Partner's Use of ARMER as Primary Radio System at a cost of \$5,000.00 *Action Item*
- Marshall County Request for ARMER Migration Grant *Action Item*

Old Business

New Business

Adjourn

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

FINANCE COMMITTEE

March 9, 2017

Conference Call; Dial-in: 1-888-742-5095; Code: 2786437892#

MEETING MINUTES

Member/Alternate

Cari Gerlicher, Chair/vacant – Minnesota Department of Corrections
Mukhtar Thakur/Tim Lee – Director, Minnesota Department of Transportation
Blake Huffman/George McMahon/**Jill Rohret**, Metropolitan Emergency Services Board
Ron Antony/Rick Anderson – Southwest Emergency Communications Board
Jack Swanson/Cody Hempel – Northwest Emergency Communications Board
Micah Myers, Vice Chair/vacant – Central Minnesota Emergency Services Board
Vacant/vacant – Minnesota Indian Affairs Council
*Members attending are marked with yellow highlight.

Guests:

Name	Representing
Jackie Mines	DPS/ECN
Randy Donahue	DPS/ECN
Troy Tretter	MESB
Sheriff Verbrugge	Rock County
Dustin Leslie	DPS/ECN

CALL TO ORDER

Chair Gerlicher calls the meeting to order at 9:10 a.m.

APPROVAL OF AGENDA

Swanson makes a motion to approve the agenda as amended.

Rohret seconds the motion.

The motion carries.

APPROVAL OF PREVIOUS MEETING'S MINUTES

Rohret makes a motion to approve the February meeting minutes.

Swanson seconds the motion.

The motion carries.

AMENDMENT TO 2017 SECB FUNDING ALLOCATION

Mines reports that Rock County's original request submitted for the 2017 SHSP grant did not have the full amount of the costs as the vendor failed to provide those to the county. The request before the group is to amend their allocation to include half of the missing amount. ECN staff reviewed the County's new proposal and the equipment that was missing is necessary. Mines received the approval of the Grants workgroup. Mines requests approval to update the grant allocation to Rock County.

Rohret makes a motion to accept the SHSP grant.

Myers seconds the motion.

The motion carries.

Discussion:

Mr. Swanson asks the Sheriff why the console needed to be upgraded. Sheriff Verbrugge identifies that the equipment was 12 years old and they were having issues with the equipment and decided it was important to purchase the upgraded equipment.

Mr. Swanson asks the Sheriff if this was happening all across the southern region of the state. Sheriff Verbrugge identifies that there are a few that purchased consolettes instead of the MCC 7500 console when they migrated but that the equipment was 12 years old and given technology changing so rapidly, he felt this was way too long to wait to upgrade essential equipment.

Mr. Swanson states there is a need for education to county commissioners of the upgrade cycle and asks Director Mines if this is being done. Mines identified that there was a study completed last year and shared with regions and on the ECN website addressing all equipment in the PSAP. This information has also been shared with the MN Sheriff's Association (MSA). The standard lifecycle upgrade is approximately 5-10 years depending on the equipment. This information is communicated to the regions however, not always disseminated by meeting attendees to the county boards. This is also dependent on what counties are purchasing and how old that equipment is which the state does not have insight or control over. ECN will ask the RICs to distribute the information again.

Vote is taken and motion passes.

ADJOURN

Rohret makes a motion to adjourn.

Swanson seconds the motion.

The motion carries.

Meeting is adjourned at 9:27 a.m.

**Statement of Need for a Study Examining
SECB Options for Handling Demand for ARMER by
Entities that Do Not Provide a 911 Response**

The Minnesota Department of Public Safety (DPS) Emergency Communication Networks (ECN), in support of the Steering Committee of the Statewide Emergency Communication Board (SECB), believes that a study is necessary to examine options for the SECB for handling demand for ARMER by entities that do not provide a 911 response. RFCC (Rey Freeman Communications Consulting) has agreed to provide this study to the State of Minnesota for a fee of \$5,000.

Historical Information

The ARMER 800 MHz radio system provides exceptional radio communications service to Minnesota's public safety entities. Of Minnesota's 87 counties, 86 have designated ARMER as their current or planned primary public safety communications tool. Today, 82 of those 86 counties use ARMER as their primary law enforcement communications tool and the remaining four are in varying stages of transition to ARMER.

The ARMER backbone was built in phases over several years and at a significant cost to the state. According to MnDOT's March 1, 2017 ARMER Project Status report, the amount spent to build ARMER totals over \$409 million.

At a state level, the annual cost to operate and maintain the ARMER system is approximately \$16.2 million. Of this total cost, \$9.6 million is paid for by 911 funds generated through a wireline and wireless telephone fee in the amount of 95¢ per line per month. The remaining costs are funded Trunk Highway Funds appropriations and miscellaneous lease and partnership agreement fees. Any end-of-budget surplus funds are assigned to tower replacements and upgrades.

The original ARMER participants were in the Twin Cities metropolitan area and were governed the Metropolitan Radio Board. As the ARMER radio network built out statewide, so did regional governance bodies. Early ARMER users entered into a Subscriber Agreement with MnDOT or their regional governance body for use of the ARMER system. Participation plans were not at the time required and responsibility for local system administration and training was not well documented.

During this time of development many peripheral public safety entities were given access to ARMER. These types of agencies supported public safety but were not first responders to 911 calls. Examples included the Federal Bureau of Investigations (FBI), US Marshals Service, US Customs and Border Patrol, Transportation and Security Administration (TSA), and law enforcement units of the Veterans Administration and the Federal Reserve Bank of Minneapolis.

Other types of entities were also approved to use ARMER under the umbrella of a city or county's Participation Plan or Subscriber Agreement. Examples of these types of entities include schools and transit providers.

Statement of Need for a Study Examining SECB Options for Handling Demand for ARMER by Entities that Do Not Provide a 911 Response

Since 2011, ARMER Standard 1.10.0 has dictated that an entity desiring participation on ARMER must file a Participation Plan with and their participation be approved by the SECB. The standard identifies three types of ARMER participation:

- Full: an entity whose primary voice communications are fully integrated into the ARMER backbone.
- Limited: an entity whose primary voice communications are integrated with the ARMER system via patches, audio gateways, or other means.
- Interoperability: an entity who desires access to the ARMER system, via subscriber equipment, for purposes of interoperability and not as the entity's primary voice communication system. Interoperability participants may be authorized to maintain and operate subscriber equipment programmed to talk groups, in accordance with State Standards adopted by the Statewide Emergency Communications Board (SECB).

Application of these standards has been at times inconsistent in that circumstances that would seem to best fit the definition of an Interoperability Participation Plans were sometimes approved as Limited Participation Plans or "Limited Interoperability" Plans. Many Interoperability Participation Plan holders were issued talk groups, something that seems counterintuitive to an Interoperability Participation Plan.

Another type of ARMER participant are those who are "sponsored" by another participant. ARMER Standard 1.10.2 provides that certain entities may sponsor a non-public safety/non-public service entity to be an authorized ARMER user. The standard provides examples of these entities as railroads, utilities, pipelines, refineries, hazmat response contractors, vehicle recovery contractors, towing companies, commercial aviation, and educational institutions. The standard requires that the sponsor hold an FCC license for the ARMER system suggesting that to sponsor one must have some investment in ARMER and be more than just an end user.

Concurrent with the rollout of ARMER was the development of the Cross Spectrum Interoperability System (a/k/a the VHF Overlay). This was a network of 109 fixed RF sites containing VHF interoperability resources. Because it was never anticipated that so many counties would so quickly adopt ARMER, the network was envisioned as a tool to link ARMER and VHF systems. Today this network is fully developed but is seldom used.

Also concurrent with the rollout of ARMER and the building of the Cross Spectrum Interoperability System was the investment in cache radios. Today there are 330 aging Strategic Technology Reserve portable ARMER radios and over 300 agency-owned portable ARMER radios in seldom-used caches throughout the state.

Problem Statement

Recently, two additional federal law enforcement entities and two railroad police entities have expressed interested in participating on ARMER. Their requests illustrate the potential problem facing the SECB.

- Food and Drug Administration Criminal Investigations: This federal law enforcement entity informally asked about utilizing ARMER. The option to apply as an Interoperability Participant was explained and was contrasted with the option of

**Statement of Need for a Study Examining
SECB Options for Handling Demand for ARMER by
Entities that Do Not Provide a 911 Response**

interoperating with ARMER users by way of the VHF Cross Spectrum Interoperability System and/or cache radios. This entity chose to stay with their federal VHF radio system, not to request Interoperability Participation, and to interoperate with ARMER users through the VHF Cross Spectrum Interoperability System and/or cache radios.

- Internal Revenue Service Criminal Enforcement: This federal law enforcement entity informally asked about utilizing ARMER. The option of applying as an Interoperability Participant was explained, and was contrasted with the option of interoperating with ARMER users through the VHF Cross Spectrum Interoperability System and/or cache radios. The IRS was not interested in either of the options but instead asked about full-time participation and no longer maintaining their own radio system.
- CN Rail: This railroad law enforcement entity informally asked about utilizing ARMER. The option of apply as an Interoperability Participant was explained and was contrasted with the option of interoperating with ARMER users through the VHF Cross Spectrum Interoperability System and/or cache radios. This entity chose to file an Interoperability Participation Plan with the SECB and was approved. The entity operates day-to-day on their own channels but can now directly access ARMER regional and statewide hailing and interoperability talk groups to interoperate with ARMER users.
- CP Rail: This railroad law enforcement entity informally asked about utilizing ARMER. The option of apply as an Interoperability Participant was explained and was contrasted with the option of interoperating with ARMER users through the VHF Cross Spectrum Interoperability System and/or cache radios. What is interesting here is that CP Rail's hazardous material response team was already approved to use ARMER as a sponsored entity of the City of Bloomington. The entity knew that but wanted to add in its law enforcement as full time ARMER users.

The question of how to respond to the IRS should they make a formal request for ARMER participation is what prompted the need for this research.

Issues to be addressed in this study should include:

- Existing ARMER user agencies utilize the system at no cost, as the operational and maintenance fees associated with the system are covered by 911 surcharge funds and Trunk Highway Funds. This is appropriate for the Minnesota state, county, city and other local agencies because they are incorporated into the overall revenue process and intended use of this system. However, the Federal and other agencies identified in this outline are not included in these funding mechanisms or processes. Should a revenue recovery process (User Fee) be established for these agencies?
- Most of the Federal and other non-state-based agencies now using the system were admitted to the system primarily for Interoperability purposes, which again is an appropriate use of the system. However, some agencies have transitioned from an Interoperability use to full daily operations use of the system. This likely has happened because the performance of the ARMER system greatly surpasses the performance of these agencies' systems as implemented within Minnesota. Is this an appropriate use of

**Statement of Need for a Study Examining
SECB Options for Handling Demand for ARMER by
Entities that Do Not Provide a 911 Response**

the ARMER system? Have these agencies exceeded their intended use of the system? Should they be allowed to continue using the system in this manner?

- Beginning in 2011 new ARMER participants needed to apply for participation using a Participation Plan. Most existing ARMER users came on to ARMER prior to 2011 and did not file a Participation Plan. While it is clear that most counties that joined ARMER prior to 2011 joined as Full Participants, it is not always clear how peripheral public safety entities were intended to use ARMER.
- The concept of “sponsorship” needs exploration. How is sponsorship different from amending a Full Participants Participation Plan to add the entity? Should an entity in one geographical region of the state—with or without an FCC license to operate on ARMER—have the authority to allow another entity to operate in another region of the state?
- Many Interoperability Participants were issued their own talkgroups. This seems contrary to the intent of Interoperability Participants in Standard 1.10.0.
- Many entities that may be considered non-911 responders are already under the umbrella of a Full Participation Plan. In many cases the non-911 responder is a governmental entity like a public works or a health department. In some cases it is a quasi-public entity like a transit authority.
- The amount of airtime consumed by a non-911 responder operating under another’s full participation plan is not apparent. Airtime is measured by the parent entity, not the sub entities.
- Some ARMER users from non-911 response entities are more familiar with a smartphone and may rather carry a smartphone than a radio.
- Communication tools presently exist that could carry non-essential public safety communications. While these tools ride on public cellular networks they are a very attractive alternative for non-911 responders from ARMER and for providing connectivity for administrative staff supporting 911 responders.
- FirstNet in some shape or form appears likely to be built and should provide data connectivity to public safety. It is very plausible that FirstNet could serve as a tool for carrying non-essential voice communications much like existing commercial services.
- Minnesota’s Cross Spectrum Interoperability System is underutilized. Network hardware will likely require a updating.
- Minnesota’s cache radios are underutilized and aging.

Request

The ECN requests that RFCC provide its Steering Committee a comprehensive report that considers the above Problem Statement and issues and provide guidance regarding:

- Methods and options for categorizing current and interested ARMER users.
- Suggestions for measuring usage/consumption of ARMER.

**Statement of Need for a Study Examining
SECB Options for Handling Demand for ARMER by
Entities that Do Not Provide a 911 Response**

- Alternative tools available for non-critical day-to-day communications for peripheral users. Connectivity options to these tools. Methodology for determining who may be best to migrate to these tools.
- Evaluating the significant investment made in a VHF overlay and cache radios as well as costs to maintain these tools as current and future interoperability resources.

RCC should draw upon the following:

- Known documents such as ARMER standards, the ARMER Plan, and statute 403.
- ARMER operational and maintenance cost data, along with long-term planning.
- Profession knowledge.
- ARMER, MnDOT, and other Engineering and Technical resources.
- A review of how these issues are being address in other states with radio systems and circumstances similar to Minnesota.

This report will be due within 90 days of entering into a contract for this report.

DRAFT

Alcohol
and Gambling
Enforcement

Bureau of
Criminal
Apprehension

Driver
and Vehicle
Services

Emergency
Communication
Networks

Homeland
Security and
Emergency
Management

Minnesota
State Patrol

Office of
Communications

Office of
Justice Programs

Office of
Traffic Safety

State Fire
Marshal

Emergency Communication Networks

445 Minnesota Street • Suite 137 • Saint Paul, Minnesota 55101-5137

Phone: 651.201.7547 • Fax: 651.296.2665 • TTY: 651.282.6555

www.ecn.state.mn.us

DATE: 5/4/2017

TO: Finance Committee

FROM: Grants Workgroup and Jackie Mines, Director DECN

SUBJECT: 2017 ARMER Migration Grant for Marshall County

Dear Finance Committee,

On behalf of the Grant's workgroup, the Division of Emergency Communication Networks (DECN) is seeking approval from the Finance Committee and Statewide Emergency Communications Board (SECB) to provide an ARMER Migration Grant to Marshall County. Migration grants have been made available to counties in the past requesting connection to the ARMER backbone.

The Grants Workgroup under the Finance Committee met and approved the following grant to the NW Emergency Communications Board (NW RECB) in the amount of \$37,750.30, a 44.78% match of the project's total cost of \$84,301.70.

Respectfully,

Jackie Mines, Director
Emergency Communication Networks

2017 ARMER Migration Grant
APPLICATION INFORMATION SHEET

Grant Program Title: 2017 ARMER Migration Grant

Applicant: Northwest Emergency Communications Board

Name: Marshall County, Minnesota

Address: 208 East Colvin Avenue

Warren, MN 56762

Phone: 218-745-5411

Applicant Contact (must be an individual of the representative County/Tribal Government)

Name: Sheriff Jason Boman

Address: 208 East Colvin Avenue

Warren, MN 56762

Phone: (218) 745-5411

e-mail: Jason.Boman@co.Marshall.mn.us

Application Date: April 27, 2017

Total Cost of Project: \$ 84,301.70

Requested Allocation (44.78% Match of Total Cost): \$37,750.30

Amount Approved: _____

- The amount approved is based upon the project proposal submitted to ECN. Changes cannot be made to the project unless a new application is submitted and approved by the grants work group.

Preliminary proposal from vendor is needed.

1. Project Overview

This project is a migration of the Marshall County Emergency Communications Center from their current VHF system to the Minnesota 800 MHz ARMER System. The project includes only upgrades required in the Marshall County PSAP / Dispatch Center.

The Marshall County Dispatch Center will be a control station, wireless solution and does not include direct connection to the ARMER Backbone. Project costs identified are for radio equipment to enhance Marshall County's current dispatch consoles, 800 MHz control stations, and a consolette to be installed for backup and redundancy purposes.

Marshall County is ready to proceed upon obtaining SECB grant funding and has secured support from the Marshall County Board of Commissioners for the match portion of the project.

2. Detailed Narrative Description of Proposed Project(s) Include detailed project timelines.

The project includes \$25,436.23 for console equipment (gateway and interface hardware, software, and licensing), radio room installation equipment (cabling, rack and hardware), installation and labor.

\$42,107.41 for 8 control stations, mounting hardware and labor, and installation fees.

\$13,258 for a backup consolette to be installed in the dispatch center.

\$3,500 for Marshall County Dispatcher training on newly installed equipment and ARMER operations.

3. Milestones for the project.

Licensing and software agreements.

Substantial completion of installation.

Final testing.

Dispatcher Training

Project completion is anticipated to be fully operational in 2017.

4. Project Objectives

The project objectives are to fully migrate the Marshall County Dispatch Center to the Minnesota ARMER System to effectively achieve emergency communications on ARMER in Marshall County and to better support interoperability with Marshall County Public Safety and surrounding law enforcement, fire, and EMS resources around the region and statewide.

5. Alignment with Statewide Emergency Communications Board strategic plan

The project is the full migration of Marshall County Dispatch Center to integrate into Minnesota's 800 MHz ARMER system. Marshall County is a full voting Joint Powers Member of the Northwest Emergency Communications Board which is a part of the Minnesota Statewide Emergency Communications Board and its governance structure. Marshall County has been a strong and engaged partner in Minnesota's SECB Governance System.

Marshall County is ready to proceed immediately with migrating all law enforcement to ARMER. Marshall County Fire Departments are actively seeking grant and other funding sources to migrate to ARMER. A significant portion of EMS providing service in Marshall County are already on ARMER. The remaining services are actively seeking grant and other funding to fully migrate.

6. Impact Upon Public Safety Interoperability

Marshall County is one of the last Minnesota Counties to migrate to ARMER. A much greater level of interoperability will be achieved with this migration in times of day-to-day operations and large-scale operations involving Marshall County and the Northwest Region of Minnesota. Every Minnesota County that borders Marshall County has already migrated to the ARMER System (Kittson, Roseau, Pennington, Beltrami, and Polk). The project will also enhance interoperability with area task forces, the Minnesota State Patrol and DNR, and the US Customs and Border Patrol who Marshall County relies upon for support and additional resources in serving the Citizens of Marshall County, visitors, and Minnesota Residents.

2017 ARMER Migration Grant

APPLICATION INFORMATION SHEET

Continued

1) *Project Budget Elements:*

The project consists of four major components (See Vendor Quote for details on items 1-3)

1.) **Console Equipment** **\$25,436.23**

(gateway and interface hardware, software, and licensing), radio room installation equipment (cabling, rack and hardware), installation and labor

2.) **Control Stations** **\$42,107.41**

8 control stations, mounting hardware and labor, and installation fees.

3.) **Backup Console** **\$13,258.06**

Backup console to be installed in the dispatch center, power supply, rack and tower install labor.

4.) **Dispatcher Training** **\$3,500.00**

Marshall County Dispatcher training on newly installed equipment and ARMER operations. Training to be provided by NW Regional Emergency Communications Board Approved Trainer up to \$3500 amount requested.

Marshall County Sheriff
Jason Boman
Jason Boman

STONE'S

Mobile Radio Incorporated

1550 47th Ave South Grand Forks, ND 58201 Tel: (701) 772-6691

Sales Quotation

Quotation #: 02024605

Quote Valid For : 30 Days

Date: 4/20/2017

Acct Rep: Ryan Schmidt

From:

Stone's Mobile Radio, Inc
1550 47th Ave S

Grand Forks, ND 58201

Telephone: (701) 772-6691

Fax : (701) 772-7096

PO Reference Number:

Acct#: MARCOS

MARSHALL COUNTY SHERIFF
208 E. COLVIN AVE.

#1

WARREN MN 56762

Telephone: 218-745-5411

Contact : JASON BOWMAN

QTY	DESCRIPTION	UNIT PRICE	TOTAL
1.00	QUOTE 2024421 CONSOLE EQUIPMENT	25,436.23	25,436.23
1.00	QUOTE 2024373 CONTROL STATIONS	42,107.41	42,107.41
1.00	QUOTE 2024422 BACKUP CONSOLETTTE	13,258.06	13,258.06
1.00	QUOTE 2025018 APX MOBILE RADIOS	105,565.32	105,565.32
1.00	QUOTE 2025027 APX PORTABLES	75,094.50	75,094.50

80,801.70

Subtotal: ~~261,461.52~~

Sales Tax: 0.00

Quotation Total: ~~261,461.52~~

Terms: NET 30

Warranty:

Notes:

RADIO SYSTEM ENHANCEMENT OVERVIEW



Mobile Radio Incorporated

1550 47th Ave South Grand Forks, ND 58201 Tel: (701) 772-6691

Sales Quotation

Quotation #: 02024421

Quote Valid For : 30 Days

Date: 4/20/2017

Acct Rep: Ryan Schmidt

From:

Stone's Mobile Radio, Inc
1550 47th Ave S

Grand Forks, ND 58201

Telephone: (701) 772-6691

Fax : (701) 772-7096

PO Reference Number:

Acct#: MARCOS

MARSHALL COUNTY SHERIFF
208 E. COLVIN AVE.

#1

WARREN MN 56762

Telephone: 218-745-5411

Contact : JASON BOWMAN

QTY	DESCRIPTION	UNIT PRICE	TOTAL
4.00	MAX MSB RADIO GATEWAY HARDWARE	2,650.00	10,600.00
8.00	MOTOROLA APX 7500 INTERFACE LICENSE	325.00	2,600.00
8.00	MAX RADIO GATEWAY TO XTL 5000 / APX 7500	130.00	1,040.00
2.00	DUAL UNIT RACK MOUNT OPTION	160.00	320.00
1.00	BLOCK OF 10 RADIO CHANNEL LICENSES	3,185.00	3,185.00
1.00	CABINET (RADIOS & CONSOLE)	1,114.95	1,114.95
1.00	FREIGHT	250.00	250.00
5.00	10FT CAT-5E YELLOW INDOOR RJ45M-RJ45 MAL	4.45	22.25
5.00	10FT CAT-5E RED INDOOR RJ45M-RJ45 MALE	4.45	22.25
1.00	16GA 2 CONDUCTOR BLACK ZIP CORD/ 500 FT	73.20	73.20
1.00	ALUMINUM FRAME DOOR WITH SMOKE GRAY PLAS	373.52	373.52
1.00	10" EXHAUST FAN	167.36	167.36
5.00	FUSE, 3 AMP	5.00	25.00
64.00	LABOR CONSOLE & RADIO INSTALL	98.00	6,272.00
280.00	MILEAGE 4 TRIPS	0.59	165.20
4.00	MAX PC UPGRADE	245.00	980.00
1.00	STONE'S DISCOUNT	(1,774.50)	(1,774.50)

Subtotal: 25,436.23

Sales Tax: 0.00

Quotation Total: 25,436.23

Terms: NET 30

Warranty:

Notes:

ZETRON MAX CONSOLE SYSTEM ENHANCEMENT

STONE'S

Mobile Radio Incorporated

1550 47th Ave South Grand Forks, ND 58201 Tel: (701) 772-6691

Sales Quotation

Quotation #: 02024373

Quote Valid For : 30 Days

Date: 4/20/2017
Acct Rep: Ryan Schmidt

PO Reference Number: APX 7500 O5

From:
Stone's Mobile Radio, Inc
1550 47th Ave S

Grand Forks, ND 58201
Telephone: (701) 772-6691
Fax: (701) 772-7096

Acct#: MARCOS
MARSHALL COUNTY SHERIFF
208 E. COLVIN AVE.
#1
WARREN MN 56762
Telephone: 218-745-5411
Contact: JASON BOWMAN

QTY	DESCRIPTION	UNIT PRICE	TOTAL
8.00	APX7500 SINGLE BAND 7/800	2,133.75	17,070.00
8.00	ADD: ASTRO DIGITAL CAI OP	386.25	3,090.00
8.00	ENH: SMARTZONE OPERATION	1,125.00	9,000.00
8.00	ADD: P25 TRUNKING SOFTWARE	225.00	1,800.00
8.00	ADD: O5 CONTROL HEAD	324.00	2,592.00
8.00	ADD: DASH MOUNT	93.75	750.00
8.00	ADD: 3 YEAR SERVICE FROM	168.00	1,344.00
1.00	DES-OFB W/ MULTIKEY	746.75	746.75
8.00	TRAY BASE SPECTRA	77.00	616.00
5.00	OPEN RACK EQUIPMENT SHELF	54.10	270.50
100.00	FSJ1-50A CABLE: 1/4" SUPE	2.25	225.00
12.00	F1TNM-HC 1/4" TYPE N MALE	27.25	327.00
12.00	F1MU 1/4" MINI UHF MALE S	18.00	216.00
2.00	RF SPD, 125-1000MHZ DC BL	80.00	160.00
50.00	CABLE: 1/2" SUPERFLEX POL	4.70	235.00
2.00	1/2 TYPE N MALE PLATED C	61.00	122.00
2.00	806-866MHZ 6DB FIBERGLASS OMNI	199.09	398.18
2.00	UNIVERSAL SIDE ARM	275.00	550.00
1.00	UNIVERSAL GROUND BAR	75.92	75.92
16.00	LABOR TOWER WORK	98.00	1,568.00
16.00	SHOP SUPPLIES	6.86	109.76
70.00	MILEAGE	0.59	41.30
8.00	RADIO PROGRAMMING	100.00	800.00

Subtotal: 42,107.41

Sales Tax: 0.00

Quotation Total: 42,107.41

Terms: NET 30

Warranty: 36 MOS

Notes:

PROVIDE AND INSTALL ARMER COMPATIBLE P25 TRUNKED APX 7500s TO BE INTERCONNECTED TO ZETRON MAX CONSOLE SYSTEM ENHANCEMENT AND EXISTING HYBRID BASE STATION COMBINER

STONE'S

Mobile Radio Incorporated

1550 47th Ave South Grand Forks, ND 58201 Tel: (701) 772-6691

Sales Quotation

Quotation #: 02024422

Quote Valid For : 30 Days

Date: 4/20/2017
Acct Rep: Ryan Schmidt

PO Reference Number:

From:
Stone's Mobile Radio, Inc
1550 47th Ave S

Grand Forks, ND 58201
Telephone: (701) 772-6691
Fax: (701) 772-7096

Acct#: MARCOS
MARSHALL COUNTY SHERIFF
208 E. COLVIN AVE.
#1
WARREN MN 56762
Telephone: 218-745-5411
Contact: JASON BOWMAN

QTY	DESCRIPTION	UNIT PRICE	TOTAL
1.00	APX7500 CONSOL. DUAL BAND	3,415.50	3,415.50
1.00	ADD: ASTRO DIGITAL CAI OP	386.25	386.25
1.00	ENH: SMARTZONE OPERATION	1,125.00	1,125.00
1.00	ADD: P25 TRUNKING SOFTWARE	225.00	225.00
1.00	ADD: LIMITED FRONT PANEL	360.00	360.00
1.00	ADD: 3 YEAR SERVICE FROM	168.00	168.00
1.00	MCD 5000 DESKSET	1,500.00	1,500.00
1.00	POWER SUPPLY	100.00	100.00
1.00	ADD: 7/800MHZ PRIMARY BAN	0.00	0.00
1.00	ADD: VHF MP SECONDARY BAN	300.00	300.00
1.00	ADD: ENABLE DUAL BAND OPE	450.00	450.00
1.00	806-866MHZ 6DB FIBERGLASS OMNI	199.09	199.09
1.00	152-156MHZ 3DB FIBERGLASS OMNI	248.01	248.01
2.00	UNIVERSAL SIDE ARM	275.00	550.00
300.00	LDF4-50A CABLE: 1/2" LDF	3.50	1,050.00
2.00	L4TNM-PSA TYPE N MALE PS	28.50	57.00
2.00	L4TNF-PSA TYPE N FEMALE P	28.50	57.00
3.00	SNAPSTAK HANGER 1/2IN CAB	35.00	105.00
2.00	HOISTING GRIP, 1/2"	33.20	66.40
1.00	40417 CABLE TIES NYLON (1	19.75	19.75
1.00	SEC-412 SNAP-SEAL ENTRY C	52.00	52.00
4.00	SG12-12B2U, SUREGROUND KI	27.00	108.00
2.00	RF SPD, 125-1000MHZ DC BL	80.00	160.00
50.00	CABLE: 1/2" SUPERFLEX POL	4.70	235.00
2.00	1/2 TYPE N MALE PLATED C	61.00	122.00
1.00	CAT5, 1000' CAT5E PLENUM	280.00	280.00
16.00	LABOR TOWER WORK	98.00	1,568.00
2.00	RADIO PROGRAMMING	100.00	200.00
16.00	SHOP SUPPLIES	6.86	109.76
70.00	MILEAGE	0.59	41.30

Subtotal: 13,258.06

Sales Tax: 0.00

Terms: NET 30

Warranty: 36 MOS

Quotation Total: 13,258.06

Notes:

STANDALONE CONSOLETT FOR DISPATCH BACKUP - CAPABLE OF OPERATING VHF/PAGING AND THE 800MHZ ARMER SYSTEM