

RESOLUTION NO. 10-353

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, APPROVING THE EXTENSION OF THE ATTACHED INTERLOCAL AGREEMENT BETWEEN THE CITY AND MONROE COUNTY SHERIFF'S OFFICE FOR SHARED USE OF 800 MHZ BANDWIDTH FOR DEPARTMENT OF TRANSPORTATION RADIO COMMUNICATIONS, FOR AN ADDITIONAL FOUR YEARS, RETROACTIVE TO OCTOBER 1, 2009; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, in Resolution No. 06-012, the City Commission approved an Interlocal Agreement among the Monroe County Sheriff's Office (MCSO), Keys Energy Services and the Florida Keys Aqueduct Authority for shared radio use by the Department of Transportation; and

WHEREAS, the City Commission desires to extend the interlocal agreement for the first of two four-year term renewals, as provided in Section 13, retroactive to October 1, 2009;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

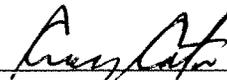
Section 1: That a four-year extension of the attached Interlocal Agreement is hereby approved.

Section 2: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 7 day of December, 2010.

Authenticated by the presiding officer and Clerk of the Commission on December 8, 2010.

Filed with the Clerk December 8, 2010.



CRAIG CATES, MAYOR

ATTEST:



CHERYL SMITH, CITY CLERK

EXECUTIVE SUMMARY



To: Jim Scholl, City Manager

cc: James Fitton, Port and Transit Director

From: Myra Wittenberg, Manager / KWDoT

Date: November 10, 2010

Subject: Resolution – Approving Extension Of The Interlocal Agreement With Monroe County Sheriff's Office (MCSO) for Shared Radio Use (City of Key West Department of Transportation / KWDoT)

Action Statement:

The City of Key West Department of Transportation requests approval to extend the Interlocal Agreement for Shared Radio Use with the Monroe County Sheriff's Office (MCSO) as provided for in Resolution 06-012, for an additional four (4) year term, from October 1, 2009 through September 30, 2013.

Project History:

The City of Key West Department of Transportation extended routes and services to Marathon, Florida, in 2005, with the start up of the Lower Keys Shuttle service. At the same time the City of Key West repeater and antenna system located on the roof of the City Hall building began to fail and required a great deal of maintenance; particularly after Hurricane Wilma in October, 2005 resulting in a failed communications system for public transit.

In light of the fact that public transit participates at a county level with hurricane and other emergency related evacuations, both in county and outside of the county, it was deemed appropriate to enter into an interlocal agreement with Monroe County Sheriff's Office to share the use of their County-wide radio system. Resolution 06-012 was approved, radios were purchased and continue to operate on the 800 MHZ system today.

The resolution of request before you today is merely the formal mechanism to provide for an extension of the terms noted in paragraph 13, Term of Agreement, of the original resolution 06-012. The dates for the renewal term extension under the first of two (2), four (4) year term renewals that are available to the City of Key West will date back to the October 1, 2009. This request is late due to our initial letter of request submitted to MCSO receiving no replies as a result of former Sheriff Roth preparing to retire at that time while the new sheriff was being elected and took office leading to a transitional period under the new sheriff. Our second letter of request did receive a reply from the late Mark Willis, legal representative for MCSO, who accepted the letter of request for extension on behalf of the Sheriff's Department, and in accordance with Paragraph 13, Term of Agreement. Attached are the letters of communication and the original agreement with Resolution 06-012 for details.

All other terms and conditions of the Agreement will remain status quo at this time. Please note that adequate funds are budgeted and approved to pay related service fees associated with this Agreement and renewal request.

Funds are budgeted in the following accounts:

4401.41	\$1,253.00
4402.41	2,923.00
4405.41	<u>1,670.00</u>
Total	\$5,846.40

Options / Advantages / Disadvantages:

Option one (1) would see the City approve the renewal period of four (4) years, from October 1, 2009 through September 30, 2013, providing for continued communications for the public transit system operations.

Advantages include a proven product that works throughout the entire county area, ability to locate drivers in emergency situations and the ability to have shared, mutual aid communications via the 800 MHZ system, County-wide for emergency situations.

There are no disadvantages for option one (1).

Option two (2) would be that the City not approve the extension request for the Interlocal Agreement to continue through September 30, 2013, which would cripple the communications of all public transit vehicles from Key West to Marathon.

The disadvantage to this is severe in that it would limit accountability, detrimentally affect safety in operations and transport activities, and would probably require a cell phone allowance be instituted to have a common means of communication with all drivers, in all areas of service.

There are no advantages to option two (2).

Fiscal Impact / Budget:

The fiscal impact noted above is \$17.40 / month / unit as a user fee to Monroe County Sheriff's Office (MCSO) for repair and maintenance of the 800 MHz radio system, as a whole system. These monies are budgeted and approved at this time and all invoices are paid through current period.

Recommendation:

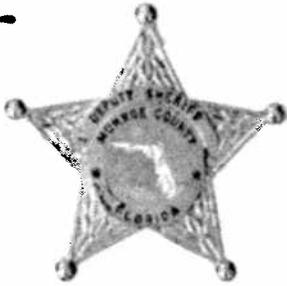
City of Key West DoT recommends the City Commission approve extension of the Interlocal Agreement between City of Key West DoT and Monroe County Sherriff's Office (MCSO) via Resolution 06-012 to exercise the option of the first of two, four (4) year renewal terms through September 30, 2013.

/mhw

Attachments: Resolution 06-012
Agreement (MCSO / KWDOT)
Letter to Extend - June 2009 and July 2010

Executive Summary (Interlocal Agreement, MCSO, Thru 09-30-2013) RADIO SHARED USE

Sheriff



Monroe County Sheriff's Office

Robert P. Peryam, Sheriff

5525 College Road

Key West, Florida 33040

(305) 292-7000 FAX: (305) 292-7070 1-800-273-COPS

www.keyssso.net

SUBSTATIONS

Freeman Substation
20950 Overseas Hwy.
Cudjoe Key, FL 33042
(305) 745-3184
FAX (305) 745-3761

Marathon Substation
3103 Overseas Hwy.
Marathon, FL 33050
(305) 289-2430
FAX (305) 289-2497

Islamorada Substation
86800 Overseas Hwy.
Islamorada, FL 33036
(305) 664-6480
FAX (305) 852-5254

Roth Building
50 High Point Road
Tavernier, FL 33070
(305) 853-3211
FAX (305) 853-3205

DETENTION CENTERS

Key West Det. Center
5501 College Road
Key West, FL 33040
(305) 293-7300
FAX (305) 293-7353

Marathon Det. Facility
3981 Ocean Terrace
Marathon, FL 33050
(305) 289-2420
FAX (305) 289-2424

Plantation Det. Facility
53 High Point Road
Plantation Key, FL 33070
(305) 853-3266
FAX (305) 853-3270

SPECIAL OPERATIONS

P.O. Box 500975
Marathon, FL 33050
(305) 289-2410
FAX (305) 289-2498

AVIATION DIVISION

10100 Overseas Hwy.
Marathon, FL 33050
(305) 289-2777
FAX (305) 289-2776

COMMUNICATIONS

2796 Overseas Hwy.
Marathon, FL 33050
(305) 289-2351
FAX (305) 289-2493

July 15, 2010

Myra Wittenberg, Manager
Department of Transportation
City of Key West
P.O. Box 1078
Key West, FL 33040

Re: Interlocal Agreement – Shared Use of 800 MHz Radio System

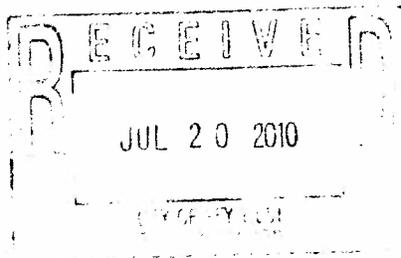
Dear Ms. Wittenberg:

On behalf of Sheriff Peryam, I am pleased to acknowledge acceptance of the City's request to renew its participation in this Interlocal Agreement for an additional four (4) years through September 13, 2013.

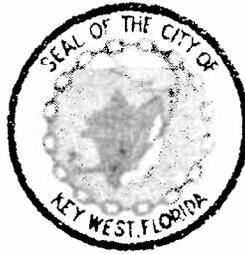
Sincerely,

Mark L. Willis
General Counsel

MLW/vam
cc: Laura White



Myra Wittenberg
Director
City of Key West
Department of Transportation



www.keywestcity.com
mwittenb@keywestcity.com

P.O. Box 1078
Key West, FL 33040
Phone: (305) 809-3910
Fax: (305) 292-8285

June 23, 2010

Mr. Bob Peryam
Monroe County Sheriff's Office
5525 College Road
Key West, FL 33040

Dear Mr. Peryam:

The purpose of this letter is to request the first of two (2) - four (4) year renewal periods available to the City of Key West per Section 13: Term of Agreement in the Interlocal Agreement between the Monroe County Sheriff's Office (MCS) and the City of Key West Department of Transportation (KWDoT) for shared use of the 800 MHz Radio System.

Section 13 references the original term of the agreement as May 1, 2005, through September 30, 2009, which is three (3) to four (4) months from now which has prompted our action and purpose in submitting this letter of request for renewal to your office in hopes of a favorable response.

We respectfully request renewal of the Shared Radio Use Agreement, as noted above, to extend the term another four (4) years or through September 30, 2013.

Should you require additional information or discussion on this issue please feel free to call me at your convenience.

Thank you in advance for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Myra Wittenberg", is written over the typed name.

Myra Wittenberg, Manager
Department of Transportation
CITY OF KEY WEST

rl/mhw

2nd request

Myra Wittenberg
Director
City of Key West
Department of Transportation



P.O. Box 1078
Key West, FL 33040
Phone: (305) 809-3910
Fax: (305) 292-8285

www.keywestcity.com
mwittenb@keywestcity.com

June 1, 2009

Mr. Rick Ramsey, Undersheriff
Monroe County Sheriff's Office
5525 College Road
Key West, FL 33040

Dear Mr. Ramsay:

The purpose of this letter is to request the first of two (2) - four (4) year renewal periods available to the City of Key West per Section 13: Term of Agreement in the Interlocal Agreement between the Monroe County Sheriff's Office (MCS) and the City of Key West Department of Transportation (KWDoT) for shared use of the 800 MHz Radio System.

Section 13 references the original term of the agreement as May 1, 2005, through September 30, 2009, which is three (3) to four (4) months from now which has prompted our action and purpose in submitting this letter of request for renewal to your office in hopes of a favorable response.

We respectfully request renewal of the Shared Radio Use Agreement, as noted above, to extend the term another four (4) years or through September 30, 2013.

Should you require additional information or discussion on this issue please feel free to call me at your convenience.

Thank you in advance for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Myra W. Wittenberg".

Myra Wittenberg, Director, Department of Transportation
CITY OF KEY WEST

ri/mhw

No replies

RESOLUTION NO 06-012

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, APPROVING THE ATTACHED INTERLOCAL AGREEMENT AMONG THE MONROE COUNTY SHERIFF'S OFFICE, KEYS ENERGY SERVICES, THE FLORIDA KEYS AQUEDUCT AUTHORITY AND THE CITY OF KEY WEST FOR SHARED RADIO USE BY THE DEPARTMENT OF TRANSPORTATION, PROVIDING FOR AN EFFECTIVE DATE

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS

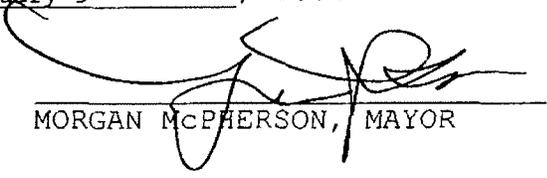
Section 1 That the attached Interlocal Agreement is hereby approved, subject to final draft approval by the City Manager

Section 2 That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the presiding officer and the Clerk of the Commission

Passed and adopted by the City Commission at a meeting held this 4 day of January, 2006

Authenticated by the presiding officer and Clerk of the Commission on January 5, 2006

Filed with the Clerk January 5, 2006


MORGAN McPHERSON, MAYOR

ATTEST


CHERYL SMITH, CITY CLERK

EXECUTIVE SUMMARY



To Julio Avel, City Manager

From. Myra Hernandez-Wittenberg, Manager / KWDoT
David Fernandez, Director / KWDoT & Utilities

Date: December 14, 2005

Subject Resolution – Authorizing the City Manager to Execute An Interlocal Agreement With The Monroe County Sheriff's Office (MCSO) for Radio System Use (Public Transit)

A handwritten signature in cursive script, appearing to read "Myra A. W.", is written in black ink to the right of the "From" field.

Action Statement

KWDoT has requested approval from the Florida Department of Transportation (D6 / Public Transportation Office) to use grant funds under Contract No AI254, for capital purchase of radio equipment and installation services for a completely new radio system that would be used under the proposed Monroe County Sheriff's Office (MCSO) 800 MHz radio network, via an Interlocal Agreement

Purchase authorization of the actual radio units and other equipment is provided for your review and approval under a separate item at the January 4, 2006, commission meeting. This summary is a request for approval of the Interlocal Agreement only.

Project History

KWDoT has operated on a repeater and antenna system that provides communication radio to radio within a fifteen (15) mile radius for 25 years. With recent expansion of bus services to Marathon, Florida, we are not able to communicate via radio with our drivers, which has presented a hardship and safety issue requiring a temporary cell phone allowance for those contract drivers as an interim solution to provide for communication.

In order to resolve this issue KWDoT staff held meetings with MCSO officials to negotiate an Interlocal Agreement (along with the Florida Keys Aqueduct Authority and KEYS Energy) that allows us to become a user group on the McCoy's 800 MHz system.

There is a monthly user fee for each unit (radio) for repair and maintenance of the radio services as well as support services of the entire system. That fee is currently quoted at \$18.00 / unit, which represents a maximum annual fee of \$6,048 / per year, using 28 units at maximum capacity, which will not happen initially but KWDoT has provided for expansion and future growth should it become necessary.

At this time KWDoT proposes to start up this project with 22 units in use, for an annual cost of \$4,752. Those 22 units consists of 17 mobile units for vehicles, 3 portable units for staff and supervisory personnel and 2 base units.

However, because there is a one time fee to upgrade software to the MCSO radio system that is also being split at a pro-rata amount based on number of units requested for use, MCSO will waive the first year's fee in exchange for the software improvement cost, which is broken out below for your information, and will be covered by grant funds.

Options / Advantages / Disadvantages

Option one (1) sees the city approving the Interlocal Agreement to provide for state of the art communicate systems for all city buses and public transit services.

Advantages include a proven product that works throughout the entire county area, ability to locate drivers in emergency situations, and discontinuing the temporary cell phone allowance to the contract drivers, as they will now have radio communications.

There are no disadvantages for option one (1).

Option two (2) would be that the city not approve of the Interlocal Agreement and we remain in a status quo position as to communication at this time.

The disadvantage to this is that it limits our accountability and safe operations in transportation, just to mention one major concern.

There is no advantage to option two (2).

Fiscal Impact / Budget

The fiscal impact noted above is \$18.00 / month / unit as a user fee to Monroe County Sheriff's Office (MCSO) for repair and maintenance of the 800 MHz radio system, as a whole system. The first year user fees will be waived as a trade off for software and channel improvements required to upgrade the system.

The one time upgrade charge for software improvements and channel additions totals \$16,538.99, but will be provided for out of the FDOT grant funds as part of the radio and equipment purchases. There will be no cost to the city for the first year.

The following are those fees for system upgrades as broken down by unit use and agency as required for the MCSO network to allow additional user support

- Genesis Software Upgrade \$6,038 99
- Channel Upgrade (West Summerland Site) \$9,100 00
- Programming / \$50 / radio unit X 28 units \$1,400 00

Please refer to the Interlocal Agreement for additional details on costs

Recommendation

KWDoT recommends the city manager be approved and directed to execute the Interlocal Agreement with the Monroe County Sheriff's Office (MCSO) on behalf of the City of Key West by the city commission at this time, providing for radio use on the 800MHz system for Key West Department of Transportation

EDF/mh

INTERLOCAL AGREEMENT

For

Shared Use of 800 MHz Trunked Radio System

THIS INTERLOCAL AGREEMENT, made and entered into this ^{13th} day of ~~January~~ 200~~6~~ by the Monroe County Sheriff's Office, a political subdivision of the State of Florida ("MCSO"), the Florida Keys Aqueduct Authority, a political subdivision of the State of Florida ("FKAA"), Utility Board of the City of Key West, d/b/a Keys Energy Services, a political subdivision of the State of Florida ("KEYS"), and the City of Key West Department of Transportation ("KWDOT") (FKAA, KEYS, and KWDOT are also referred to collectively or individually as "Shared Users" or "Shared User" in this Agreement)

WITNESSETH:

WHEREAS, MCSO has purchased and is operating an 800 MHz trunked radio system that meets the needs of MCSO, other law enforcement agencies, and departments of county government, and has the capacity to meet the needs of Shared Users, and

WHEREAS, MCSO, FKAA, KEYS, and KWDOT have determined that the ability to provide interoperable communications is critical to the effective and efficient provision of public safety and general government services, and

WHEREAS, the parties have determined that shared use of MCSO's radio system will result in ongoing cost savings for each party and for the citizens and customers served by them, in addition to providing the public safety benefit of interoperability, and

WHEREAS, Section 163 01, Florida Statutes, permits public agencies to enter into Interlocal Agreements to jointly exercise any power, privilege or authority which such agencies share in common and which each might exercise separately,

NOW THEREFORE, in conjunction with the mutual covenants, promises and representations contained herein, the parties hereto agree as follows.

SECTION 1: PURPOSE AND DEFINITIONS

1 01 The purpose of this Agreement is to set forth the parameters under which MCSO will make access to its 800 MHz trunked radio system ("System") available to Shared Users. This Agreement identifies the conditions of use, the cost of access and on-going use, and the ability of Shared Users to participate in the operational decisions relating to the 800 MHz System.

1 021 Common Countywide Talk Groups Talk groups established on MCSO's communications system that are made available to Shared Users and other non-County agencies.

1 022 Shared User Equipment. Also know as “agency radios”, are Shared User-owned 800 MHz handheld and mobile radios and control stations that have the ability to be programmed and used on MCSO’s 800 MHz trunked radio system

1 023 T1’s Communications to route audio and control signals between sites in a multi-site communications system

1 024 Prime Site The location of MCSO’s SmartZone™ Controller

1 025 SmartZone Controller. The SmartZone Controller is the central computer that manages and controls the operation of MCSO’s 800 MHz trunked radio system. The SmartZone Controller manages access to system features, functions, and talk-groups

1 026 System The 800 MHz trunked radio system funded, purchased, installed, maintained and owned by MCSO. The system includes fixed transmitting and receiving equipment, T-1 telephone lines for communicating between sites, system control and management equipment, dispatch consoles, a SmartZone controller located at the prime site, and other related equipment.

1 027 System Administrator The person designated by MCSO as responsible for administration of the System and serving as designated contact person pursuant to various sections of this Agreement

1 028 Shared User Representative The person designated by a Shared User as designated contact person pursuant to various sections of this Agreement

SECTION 2 SYSTEM ADMINISTRATION AND USE PROCEDURES

2 01 MCSO is charged with responsibility for administering shared use of the System. MCSO does not provide radio engineering, repair, or maintenance services. MCSO currently receives these services from the Monroe County Emergency Communications Division, as well as from Motorola under a maintenance contract

2 02 The System Administrator, after consultation with Shared Users, will develop policies, procedures and standard operating procedures. Shared Users agree to comply with any enforcement actions required by these policies and procedures for misuse or abuse of the System

2 03 The System Administrator may permit new Shared Users to access the system but only after

- Consultation with existing Shared Users,

- Execution of a written agreement between existing Shared Users and proposed new Shared User regarding reimbursement to existing Shared Users for the costs of acquisition of usage monitoring software and the additional channel at West Summerland Tower as described in Section 6, and

-Issuing a written report to existing Shared Users that granting access to the new Shared User will not impair system functionality for MCSO and existing Shared Users

2 04 Maintenance costs as described in Section 6 will be reallocated on the first day of October after a new Shared User gains access to the System

2 05 The System Administrator will convene regular meetings with Shared User Representatives to discuss issues of mutual concern

SECTION 3: SHARED USER EQUIPMENT AND RESPONSIBILITIES

3 01 All Shared User equipment will be 800 MHz mobile, portable, and control station equipment programmed for use on the System. The equipment used shall be Motorola 800 MHz SmartZone communications systems equipment. Shared Users are required to keep their equipment in proper operating condition. Shared Users are solely responsible for maintenance of their radio equipment.

3.02 Within 15 days of the execution of this Agreement, each Shared User must designate a Representative who will serve as the Shared User's single point of contact for matters relating to this Agreement.

3 03 Within 15 days of the execution of this Agreement, each Shared User must provide MCSO with a list of persons who are authorized to request programming changes to existing units and programming of new units. Shared Users will not program radios without approval of the System Administrator.

3 031 Written authorization from the System Administrator and Shared User Representative are required for the Monroe County Emergency Communications Division to program talk groups into Shared User radios. Shared Users may not request that other User's talk groups be programmed into their radios without written authorization of the other Shared User Representative.

3 04 Shared Users will be required to program the Common Countywide Talk Groups that reside on the System for use by Shared Users or interagency communications into its radios. These calling talk groups, in addition to one operational talk-group for the applicable discipline, shall be required as a minimum. Shared Users may include additional Common Talk Groups as necessary to meet their operational requirements. These talk groups shall be in addition to the mutual aid channels required by the Florida Region Plan.

3 05 Shared Users are solely responsible for the performance and the operation of Shared User equipment and any damages or liability resulting from the use thereof. Should MCSO identify malfunctioning Shared User equipment, MCSO will request the Shared User Representative to discontinue use of the specific device until repairs are completed. If a device is causing interference to the system, MCSO may disable the equipment from the system after written notification to the Shared User Representative. In the case of stolen or lost equipment, a Shared User Representative will notify MCSO in writing or via e-mail authorizing MCSO to disable the equipment. The Shared User Representative will provide the Radio ID number and the serial number of the radio. MCSO will advise back via e-mail.

when the radio has been disabled. Disabled radios will be reactivated only upon written request from a Shared User Representative.

3 06 As of this time, the System does not support the use of roaming, private call, or telephone interconnect. In the future MCSO may activate some or all of these features should the loading of the system allow. Shared Users may not program these features into their radios. If roaming, private call, or telephone interconnect are allowed on the System in the future, Shared Users may, at their own expense, reprogram Shared User radios. MCSO will provide an amendment to this Agreement defining the uses and required programming should these features become available on the System.

3 07 Shared Users will be required to provide to MCSO an initial inventory of the radios to be programmed on the MCSO system. Shared Users will provide the following information to MCSO:

- 1 Radio manufacturer and model numbers
- 2 Radio serial numbers
- 3 Requested aliases to be programmed
- 4 List of any requested radio programming changes
- 5 Talk groups required
- 6 Common talk groups required
- 7 Other agency talk groups required

MCSO will compile this information and transmit back to Shared Users a matrix of the approved talk groups, aliases, and radio ID numbers prior to Shared User's radios being programmed into MCSO's 800 MHz system. Shared Users will be responsible for adhering to the talk group and radio ID allocations set up by MCSO. The talk group and radio ID allocations set up by MCSO will be distributed to Shared Users.

3 08 Nothing in this Agreement shall represent a commitment by MCSO or shall be construed as intent by MCSO to fund any portion of Shared User's equipment.

SECTION 4. MCSO RESPONSIBILITIES

4 01 MCSO shall be responsible for operation of the System. MCSO or the Monroe County Emergency Communications Division will notify Shared User Representatives in advance of scheduled maintenance that will impact System Users.

4 02 MCSO shall be responsible for all permitting, licensing, and fees associated with the operation of the System.

4 03 MCSO and the Monroe County Emergency Communications Division shall maintain radio coverage within Shared User's coverage boundaries as described in the Motorola contract throughout the term of this Agreement except for times of scheduled preventative maintenance, where it will be required to disable portions of the network for a pre-determined length of time or during times of system failures.

4 04 MCSO or the Monroe County Emergency Communications Division will provide notifications of system problems and time for system restoration to Shared User Representatives

4 05 MCSO shall be responsible for talk group and fleet mapping management

SECTION 5: FREQUENCIES

5 01 Upon execution of this Agreement, Shared Users agree to allow MCSO to co-channel license any 800 MHz frequencies now licensed to or later acquired by a Shared User, which could be used as part of MCSO's 800 MHz voice or data systems. At the request of MCSO, a Shared User will request the Federal Communications Commission and other pertinent regulatory bodies to permit MCSO to license Shared User's 800 MHz frequencies at MCSO's 800 MHz tower sites. MCSO will be responsible for all engineering, coordination, and licensing costs required to implement the frequency or frequencies. During the term of this Agreement, MCSO will be responsible for the licensing and administration of the Shared User's frequencies. MCSO may use these frequencies for any lawful purpose it deems appropriate during the term of this Agreement. The Shared User will be required to cease using the frequencies during the time the Agreement is in effect unless otherwise agreed in writing with MCSO. Upon termination of this Agreement, MCSO will relinquish the co-channel licenses and remove the frequencies from service from MCSO's equipment or request the licensing of new frequencies as defined in Section 5 02. The Shared User will then be allowed to resume use of its own or alternate frequencies for its communication needs.

5 02 If MCSO is utilizing a Shared User's frequencies at the time of termination as defined in Section 5 01, MCSO may require the Shared User to accept an alternate frequency to avoid a disruption of the existing network. MCSO will assist Shared Users in the required engineering, coordinating, licensing, and implementation of any alternate frequency, if required. The Shared User may remain on MCSO's system until the Federal Communications Commission (FCC) grants the frequency license. Upon issuance of the license by the FCC, the Shared User may use the frequency for an additional 90 days. After 90 days, the Shared User may no longer use the frequency.

SECTION 6: ACQUISITION OF USAGE MONITORING SOFTWARE AND ADDITIONAL CHANNEL AT WEST SUMMERLAND TOWER

6 01 To prepare the System for shared use, radio usage monitoring software must be acquired and an additional radio channel installed at the West Summerland Key tower.

6 02 MCSO will acquire Genesis radio usage monitoring software in preparation for Shared User access to the System. The cost of the software is \$50,246 00. A description of the software and cost breakdown is attached as Exhibit A.

6 03 MCSO will acquire an additional channel for the West Summerland tower in preparation for Shared User access to the System. The cost of the additional channel is \$75,725 00. A description of the equipment and services involved and cost breakdown is attached as Exhibit B.

6 04 Shared Users will reimburse MCSO all of the stated costs of acquiring usage monitoring software and the additional channel at the West Summerland Tower in proportional shares as follows

KEYS	90 subscriber radios	\$47,636 09
FKAA	120 subscriber radios	63,514 79
KWDOT	<u>28</u> subscriber radios	<u>14,820 12</u>
Total	<u>238</u>	<u>\$125,971.00</u>

6 05 Shared User reimbursement is due no more than 30 days after rendition of invoice by MCSO

SECTION 7: ONE-TIME SYSTEM ACCESS CHARGE

7 01 The Monroe County Emergency Communications Division will collect a one-time access charge of \$50 00 for each subscriber unit from Shared Users. The charge is intended to defray the cost of programming and system configuration. Each subscriber unit added to MCSO System will be charged the same amount at the time the unit is programmed for system access.

7 02 Shared Users will pay a fee of \$25 00 per subscriber unit for any subsequent reprogramming of radio talk groups.

7 03 One-time access charges and reprogramming charges will be reviewed each year, beginning FY2007, and may be adjusted for the following fiscal year. If these charges are adjusted, MCSO will send written notice to Shared Users no later than the first day of April preceding the next fiscal year. One-time access and reprogramming charges will be the same for all Shared Users.

7 04 A list of current system users is attached as Exhibit C. The maintenance costs of public safety users (law enforcement, fire, and emergency medical services) is paid by the Sheriff's Office, and not considered in determining the proportional cost shares of Shared Users.

7 05 In the event of any termination of this Agreement, access and reprogramming charges will not be reimbursed.

SECTION 8. MAINTENANCE COSTS

8 01 MCSO relies upon the Monroe County Emergency Communications Division and a maintenance contract with Motorola to secure routine and preventative maintenance on the System. This maintenance includes trouble shooting and making all repairs on a 24/7/365 basis as well as performing preventive maintenance on the entire System, including, but not limited to, radio equipment, control, management, and alarm systems, towers and equipment shelters, backup power generators, and air conditioners.

8 02 Shared Users will pay no maintenance costs to MCSO until October 1, 2006. On that date, Shared Users will pay maintenance costs one year in advance at the rate of \$208 73.

per unit. The annual cost of maintenance will be reviewed each year. Future maintenance costs may be adjusted for the following fiscal year. If future maintenance costs are adjusted, MCSO will send written notice to Shared Users no later than the first day of April before the next fiscal year. Maintenance costs will be shared on a pro rata basis based on the number of radios Shared Users are authorized to use on the System as of April 1 of each year.

8 03 A list of current system users is attached as Exhibit C. The maintenance costs of public safety users (law enforcement, fire, and emergency medical services) is paid by the Sheriff's Office, and not considered in determining the proportional cost shares of Shared Users.

8 04 In the event of termination of this Agreement by MCSO and with no fault of a Shared User, the Shared User will be reimbursed the pro rata share of maintenance fees based on the date of termination. In the event of termination by a Shared User, no maintenance fees will be reimbursed.

SECTION 9: BILLING SCHEDULE

9 01 During the first year this Agreement is in effect, Shared Users will pay only access and any reprogramming charges as described in Section 7, and costs of acquisition of usage monitoring software and additional channel at West Summerland tower described in Section 6.

9 02 Access and reprogramming charges are due in full, regardless of the time of the year that the additional unit is added to the System or reprogrammed. These fees will not be prorated from the time of programming.

9 03 When this Agreement has been in effect for one year, System Users will pay maintenance charges as described in Section 8. Maintenance charges are due each October 1, one year in advance.

9 04 Upon receipt of any invoice, Shared Users will immediately review it and report any discrepancies to MCSO within 10 days of receipt. Payment will be due to MCSO within 30 days of receipt of the invoice. Payments will be sent to

Radio System Administrator
Monroe County Sheriff's Office
5525 College Road
Key West, Florida 33030

Attn: 800 MHz Interlocal Agreement

SECTION 10: ANNUAL BUDGET INFORMATION TO BE PROVIDED

10 01 MCSO may review and update the fees and charges as identified in Sections 7 and 8 before April 1st of each year for the following fiscal year beginning October 1st. These revised fees and charges will be applicable for the upcoming fiscal year and will automatically become a part of this Agreement on October 1st of the applicable year.

10 02 Each Shared User is responsible for estimating the number of units that it intends to have on the system for the upcoming fiscal year and budgeting accordingly

SECTION 11: INDEMNIFICATION AND LIABILITY

11 01 MCSO makes no representations about the design or capabilities of the MCSO System Each Shared User has decided to enter into this Agreement and use MCSO's system based on its review of the system design, system coverage, manufacturing and installation details contained in MCSO's contract with Motorola and subsequent field measurements and testing data that may exist. MCSO and the Monroe County Emergency Communications Division will use their best efforts to provide Shared Users with the use of the system described in this Agreement, but makes no guarantee as to the continual, uninterrupted use of the radio communication system, or its fitness for the communication needs of Shared Users

11 02 The parties to this Agreement and their respective officers and employees shall not be deemed to assume any liability for the acts, omissions, and negligence of the other party Nothing in this Agreement shall be construed as a waiver of sovereign immunity by any party under Section 768 28, Florida Statutes

11 03 The terms and conditions of this Agreement incorporate all the rights, responsibilities, and obligations of the parties to each other The remedies provided herein are exclusive MCSO and Shared Users waive all remedies, including but not limited to, consequential and incidental damages

SECTION 12: OWNERSHIP OF ASSETS

Shared User Equipment will remain assets of the Shared User at all times Any asset now owned by MCSO will remain MCSO's despite the Shared User's financial contribution to their maintenance, renewal, and replacement Any asset later incorporated into the System, including, without limitation, usage monitoring software and equipment for the additional channel at the West Summerland Key tower, will be owned by MCSO, regardless of cost reimbursement by a Shared User

SECTION 13. TERM OF AGREEMENT

The initial term of this Agreement begins May 1, 2005 and ends September 30, 2009 KEYS and KWDOT shall have no financial obligation to MCSO until after rendition of the invoices described in Sections 6 and 7 The Agreement may be renewed between MCSO and any Shared User for two (4) year terms thereafter with the written approval of a Shared User and MCSO

SECTION 14 TERMINATION

14 01 Any party to this Agreement can terminate its obligations under the Agreement, with or without cause Any termination shall be effective only on October 1st of any year and shall be with a minimum of six months written notice In the event of termination,

repayment of financial contributions made by the Shared User to MCSO will be made according to the applicable sections of this Agreement

14.02 In the event of catastrophic failure of the System, MCSO may terminate this Agreement at any time after consultation with all Shared Users and reasonable advance written notice

SECTION 15. ANNUAL BUDGET APPROPRIATIONS

Performance and obligations to pay pursuant to this Agreement are contingent upon annual appropriation for its purpose by the Board of County Commissioners and the governing body of each Shared User

SECTION 16 APPLICABLE LAW

The laws of the State of Florida govern this Agreement

SECTION 17: FILING

A copy of this Agreement may be filed with the Clerk of the Circuit Court in and for Monroe County

SECTION 18. ENTIRE AGREEMENT

This Agreement and any Exhibits attached hereto and forming a part thereof as if fully set forth herein, constitute all agreements, conditions and understandings between MCSO and Shared Users concerning the System. All representations, either oral or written, shall be deemed to be merged into this Agreement, except as herein otherwise provided, not subsequent alternation, waiver, change or addition to this Agreement shall be binding upon MCSO or Shared Users unless reduced to writing and signed by them

SECTION 19. DELEGATION OF DUTY

Nothing contained herein shall be deemed to authorize the delegation of the Constitutional or statutory duties of the Sheriff of Monroe County, the Board of County Commissioners of Monroe County, the Florida Keys Aqueduct Authority, Utility Board of the City of Key West, or the City of Key West Department of Transportation

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed

Signature page follow

ACCEPTED BY:
MONROE COUNTY SHERIFF'S OFFICE

BY Richard Al Ruth

TITLE _____

DATE 12/19/05

APPROVED:
UTILITY BOARD - CITY OF KEY WEST

BY Robert R. Peden

TITLE _____

DATE _____

ACCEPTED:
MONROE COUNTY SHERIFF'S OFFICE

BY: Richard A. Ramsey
TITLE: Undersheriff
DATE: Jan. 23 20/06

APPROVED:
CITY OF KEY WEST
(Department of Transportation)

BY: [Signature]
TITLE: City Mgr.
DATE: 1/2/06

General Quotation

The Genesis Group



MAIL-----
 601 Shelley Drive, Suite 101
 Tyler, Texas, USA, 75701
 Voice- 903 561 6673
 Fax- 903 561 6228 [www GenesisWorld.com](http://www.GenesisWorld.com)
 eMail- genesis@genesisworld.com

SHIPPING-----
 601 Shelley Drive
 Suite 101
 Tyler, Texas, USA, 75701
 Voice- 903 561 6673
 Fax- 903 561 6228

FOR: Monroe County, FL

Attn: Patricia Almeda - Via - Email

Quotation Date:

08/30/2005

Quotation Valid Until:

10/30/2005

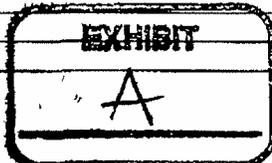
Quote#-

Monroe83005B

Summary- This is for a (1) zone SmartZone system with GenSZAI Enterprise and NetVista Genesis to supply hardware

HARDWARE SPECIFICATIONS

1	GenSZAI MAIN READER Computer Includes - Dell Dimension 2400 with Pentium 4 processor (2.8 GHz), 40 GB Hard Drive 7200RPM, CD Drive, 2 NIC Cards, 56K Modem, Windows XP Pro, 3 year next business day service, no monitor, keyboard, mouse **Genesis has specified purchasing only 1 monitor, mouse and keyboard for both readers and Data Processor / Database Server computers and using a KVM switch to save space**	1	937	937
2	GenSZAI MAIN DATA PROCESSOR & DATABASE SERVER Computer Includes - Dell PowerEdge 2850 Rack mount Server with 2.8 GHz / 512 Xeon, Dual Processor, 2.8 GB DDR SDRAM, RAID with (4) 73 GB 10k RPM Ultra 320 SCSI Hard Drives, Dual on board NICs, 56k modem, 24x IDE CD-ROM, Windows 2003 Server, Rapid Rails for Rack Mount, Redundant Power Supply, 3Year Next Business Day Service	1	5851	5,851
3	NetVista Workstation Includes - Dell Precision Workstation with Intel Pentium 4 processor 2.8GHz, 512 MB DDR SDRAM, Writable DVD, 80GB Hard Drive, keyboard, mouse, 17" monitor (17" Flat Panel can be added for \$250), graphics card, speakers Windows XP Pro, MS Office, Norton Antivirus NOTE: If the client owns workstation(s) that meet the minimum specifications for the NetVista workstations, client will not need to purchase new workstations	1	2040	2,040
4	8 port Router (Specifics to be determined upon final approval)	1	120	120
5	4 Port KVM Switch	1	150	150
6	USB 2.0 External Hard Drive	1	170	170
7	MS SQL 2000 Server	1	1500	1,500



General Quotation

The Genesis Group



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 Tyler, Texas, USA, 75701
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 Fax- 903 561 6228 www.GenesisWorld.com
 eMail- genesis@genesisworld.com

SHIPPING-----

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 Suite 101
 Tyler, Texas, USA, 75701
 Voice- 903 561 6673
 Fax- 903 561 6228

	Hardware Total			10,768
SOFTWARE SPECIFICATIONS / PRICING				
8	GenSZAI MAIN ATIA Reader	1	6000	6,000
9	GenSZAI MAIN Data Processing Module	1	6500	6,500
10	GenSZAI MAIN Database Server Module	1	6000	6,000
11	NetVista Monitoring and Reporting Software	1	18000	18,000
12	Additional 5 NetVista Licenses	1	1500	1,500
13	GenSZAI / NetVista Total Support & Maintenance - 9.5% of software cost) Price includes all telephone consulting, upgrades, web and pcAnywhere connection for system analysis and support for 1 year. It does not cover training of new employees. On site work will be performed at cost of travel, lodging and meals.	1	2738	2,738
14	Software and Support and Maintenance Total			39,238
INSTALLATION & TRAINING / PRICING				
15	Pre-installation Setup, configuration and testing of client hardware at Genesis Headquarters	1	1000	1,000
16	Installation, Set up & training on GenSZAI & NetVista with (1) Genesis representative on site- est 3 days	3	925	2,775
17	ESTIMATED Travel, lodging, meals, transportation for on site training	1	1500	1,500
18	SUBTOTAL			55,281
19	PACKAGE DISCOUNT			(5528)
20	Additional 5 NetVista Licenses @ No Charge			(1500)
21	ESTIMATED Shipping of Hardware from Genesis to Client	1	500	500
	PLEASE SEE TERMS AND CONDITIONS FOR SHIPPING POLICIES AND PROCEDURES			
22	Totals.....			60,000



MOTOROLA

Address Reply To
789 International Parkway Bldg A
Sunrise, Florida 33325
(954) 723-8927
(954) 723-8779 Fax

September 1, 2005

Monroe County Sheriff's Office
5525 College Road
Key West, Florida 33040
ATTN Patricia Almeda

Dear Trish

Motorola is pleased to present our proposal to add a single channel to the West Summerland IR Site. This channel is being added to provide the additional capacity that will be required to allow the Florida Keys Aquaduct and the Keys Energy Service to participate on your 800 MHz Smartzone System.

We have included a System Description, Statement of Work, Equipment List and Pricing information for your review.

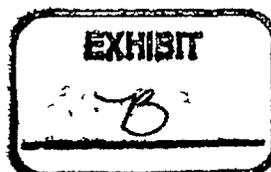
This project and its scope of work were completed with the idea that it would be accomplished at the same time as the Keys Energy Services subscribers and control stations would be installed. We anticipate that after the FCC license is received and the equipment is shipped, the complete installation will take approximately one (1) week to complete.

Please call if you require any additional information or have questions regarding our proposal.

Motorola appreciates your interest in our company, products and services. We look forward to implementing this project and maintaining a continued long-term relationship.

MOTOROLA

STEPHEN J WURSTER
Senior Account Manager
Government & Enterprise Mobility



General Quotation

The Genesis Group



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Suite 101
Tyler, Texas, USA, 75701
Voice- 903 561 6673
Fax- 903 561 6228

These Terms and Conditions are to be considered as an integral part of the pricing on the previous page(s).

NOTES:

- 1- **PRICES:** All prices are expressed in U S Dollars and are payable in U S Dollars Please make all checks and wire transfers payable to GenCore Candco Ltd Contact Genesis for Bank Wire Transfer Instructions
- 2- **PAYMENT TERMS** Scheduled percentages based on Software Agreement that is to be supplied after quotation acceptance In general, unless otherwise noted, we require 30% down payment if there is hardware on the order
- 3- **DELIVERY TERM** If quotation is accepted, items must be shipped within 30 days of the date of this quotation
- 4- **SHIPPING:** All prices are F O B Tyler, Texas, USA. Customer will be billed for all shipping and insurance costs Customer is directly responsible for any and all import taxes, local taxes, customs fees and any other governmental fees assessed to get Genesis products into country of ultimate destination All international orders will be shipped via Federal Express or DHL unless otherwise noted
- 5- **QUOTATION TERM** All quotations, unless otherwise noted, are good for 60 days from quotation date
- 6- **SUPPORT:** Annual software support contracts are required for all customers and will automatically be renewed each year throughout the duration of the client's use of all Genesis software Failure to maintain support contract will result in \$190US / hour charges for all support. Genesis reserves the right to charge any additional fees necessary for support if customer is not able to supply and maintain a high speed connection for Genesis to support the installation
- 7- **TRAVEL.** For any on site work (installation, training, etc), the customer is responsible for the following expenses travel, lodging, meals, transfers, transportation and basic communication back the Genesis corporate office
- 8- **WAIT TIME.** If, due to network connections not being ready, hardware issues, or any other reason that is out of Genesis' control, we are required to wait on site until these issues are resolved before completing our installation, setup or training or any other task that has been set out, Genesis reserves the right to charge a day rate plus additional travel costs that might be incurred
- 9- **ORDER REQUIREMENT** System IDs are required for all software orders to be valid
 - a **CUSTOM WORK** This quotation does not include custom programming Custom Reports- GenSZA1 NetVista2, Tno and GenWatch3 include a large selection of canned reports that Genesis has designed to work with the GenSZA1, Trio and GenWatch3 databases and Microsoft Office Pricing of custom reports greatly depends on the complexity, output format, etc If other Genesis customers can use a requested report, there is a greatly reduced price for this
 - b NV2 and Tno does include up to 3 custom reports The customer is permitted to have Genesis design up to three custom reports of Level1 complexity, two Level2 complexity reports, or one Level3 complexity report.
 - c GenWatch3 Report Module includes up to 2 custom reports The customer is permitted to have Genesis design up to two custom reports of Level1 complexity, or one Level2 complexity
 - d ~~Custom Reports Level Definitions~~
 - e **Level1 Reports-** Custom Reports that take less than one hour to create and test
 - f **Level2 Reports-** Custom Reports that take less than one day to create and test.
 - g **Level3 Reports-** Custom Reports that take apx three days to create and test
 - h Genesis reserves the right to determine the level of custom reports being requested
- 10- **ESTIMATED CHARGES.** Items that have been estimated for quotation purposes may differ from actual prices Genesis reserves the right to bill client for additional charges incurred for those line items
- 11- **TAX & DUTIES** This quotation does not include any applicable taxes and import duties that must be paid directly by the customer

****I hereby agree to the above stated prices, terms and conditions set forth by The Genesis Group ****

General Quotation

The Genesis Group



MAIL-----

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Tyler, Texas, USA, 75701
Voice- 903 561 6673
Fax- 903 561 6228 [www GenesisWorld.com](http://www.GenesisWorld.com)
eMail- genesis@genesisworld.com

SHIPPING-----

601 Shelley Drive
Suite 101
Tyler, Texas, USA, 75701
Voice- 903 561 6673
Fax- 903 561 6228

Customer Signature

Date

Please FAX ALL pages back to The Genesis Group to indicate your acceptance We will then contact you regarding payment terms and desired date for shipping and installation

Monroe County Sheriff's Office Shared Costs for 800 mhz radio system

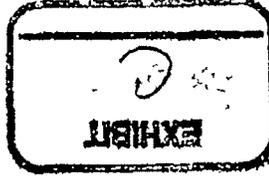
Warranty (system only) \$65,362
 Master Site Rent \$3,078
 Site telephone \$2,545
 T1 and analog service \$69,094
 Electric \$22,765
 Administrative costs \$10,400
 total \$173,244

total cost per (826) user per year/month
 Annual Cost Per User \$210
 per month per user \$17

Monroe County Communications Maintenance will be charging a one time fee of \$50 per radio to program and activate in system. There will be a charge of \$25 for any additional programming changes thereafter.

List of Radio Users

	Number of Subscribers per Agency (as of 8/7/05)	Annual Cost Per Agency
Sheriff's Office/Public Safety	342	\$71,817.56
KCB	6	\$1,259.86
Key West Fire Dept	36	\$7,559.74
Key West P D	147	\$30,868.95
County Communications	11	\$2,309.92
Monroe County Fire Rescue	4	\$839.97
Monroe County Public Works (Jail)	9	\$1,889.94
Probation & Parole	7	\$1,489.95
County Social Services	26	\$5,459.81
Key West Code Enforcement	4	\$839.97
Florida Keys Aqueduct	120	\$25,199.14
Keys Energy	85	\$17,849.39
City of Key West Transit Authority (Buses)	28	\$5,879.80
total	825	\$173,244.12
		Public Safety Cost to Sheriff
		<u>\$118,015.99</u>



Statement of Work

Monroe County – West Summerland IR Site

Single Channel Expansion

September 1, 2005

This Statement of Work (SOW) outlines the services required to perform the radio system upgrade and expansion for the Monroe County West Summerland IntelliRepeater (IR) site as depicted and summarized below. It describes the deliverables to be furnished to the county and the tasks to be performed by Motorola, its subcontractors, and Monroe County to implement the solution described in this proposal.

Motorola is proposing a one (1) channel expansion at the County's West Summerland IR site. The expansion will include addition of one 821 MHz Quantar Base Station, replacement of the existing 4 channel transmitter combiner with a new 5 channel transmitter combiner and expansion of the existing receiver multi-coupler network.

This SOW provides:

- A description of the responsibilities for both Motorola and Monroe County
- The qualifications and assumptions taken into consideration during the development of this proposal

Motorola's System Integration support and coordination services will be provided at a level consistent with the complexity of this project. In general, these services include the following:

- Contract/Project Initiation
- Order Entry and Processing
- Manufacturing and Shipping Coordination
- Installation Coordination
- Optimization and Testing
- Project Finalization

Responsibilities

A successful project requires responsibilities to be managed by both Motorola and Monroe County. The Motorola and Monroe County responsibilities are outlined throughout this proposal.

Motorola Responsibilities:

- Provide equipment described in the attached equipment list
- Receive, inventory and transport equipment from the local MSS to the West Summerland IR Site
- Remove existing 4 channel transmitter combiner
- Install new 5 channel transmitter combiner
- Expand existing receiver multi-coupler to accommodate new 800 MHz Quantar Base Station
- Install and cable Quantar Base Station
- Verification/optimization/programming of Quantar Base Station
- Program SmartZone Controller
- Verification of proper call processing
- Programming and optimization of Tensr channel bank
- Conduct a Florida Regional Interference Plan (FRIP) compatibility study for the new 821 MHz frequency. This includes engineering time for the evaluation of the expansion frequency at the West Summerland Site

Monroe County Responsibilities:

- Ensure that the West Summerland equipment shelter supplies sufficient air conditioning to maintain a normal operating temperature per equipment specifications
- Provide necessary 120 VAC electrical outlets inside the West Summerland Site
- Assign project manager to work with Motorola to coordinate installation, site access, and approve completed work
- Coordinate with user community to plan for system down-time during the upgrade
- Make all necessary modifications to existing 800 MHz license application
- Work with Motorola to select the expansion frequency at West Summerland Site

Assumptions / Comments

- This project will be considered complete upon installation, programming and optimization.
- All installation efforts will be done in accordance with Motorola's R56 Quality Standards, with consideration given to existing conditions
- All licensing requirements, if necessary, must be completed by Monroe County prior to the start of any programming or optimization efforts by Motorola
- Motorola and its subcontractors will perform all work and tasks required to implement and optimize the new equipment supplied by this contract. All manufacturers' recommendations will be strictly adhered to for the assembly of this equipment
- Motorola has identified in the equipment proposal all equipment required to implement the outlined system. If the Customer desires to supply substitute equipment, said equipment must be approved by Motorola as being compatible with the overall system design and integrity
- Motorola will commence work at the customer location when all equipment has been received, all pre-tests have been performed, and the site is ready for equipment to be installed. The start of this work will be coordinated with the Customer Project Manager. Normal installation costs have been quoted in this proposal, however, any changes to the physical system's final layout or design may require a Change Order of this Statement of Work
- Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.
- All work will be done during normal working hours Monday through Friday (8 - 5 PM)

System Description

System Overview

The following System Description has been designed for the Monroe County Sheriff's Office to present specific equipment and services that will add additional channel capacity to the Monroe County Sheriff's Office 800 MHz ASTRO SmartZone Radio System. This additional capacity is needed to allow the Keys Energy Service and the Florida Keys Aqueduct Authority to be a part of the system. Within the proposal, Motorola has included the QUANTAR™ base station/repeater channel addition at the West Summerland Site along with specific SmartZone system features.

System Network Description

The West Summerland IntelliRepeater communication site will be impacted as a result of the proposed one (1) QUANTAR™ base station/repeater addition.

West Summerland is a standalone IntelliRepeater site which serves as the central site controller, known as the active master. It performs site trunking functions, links the local site components to the SmartZone Controller, and relays all site information to the SmartZone Controller. While in site trunking mode, the active master processes all site functions and call processing.

The existing four (4) QUANTAR™ base stations/repeaters provide the link between the subscriber units and the radio system infrastructure. One (1) additional QUANTAR™ Base Station/Repeater will be incorporated to increase channels to support additional system traffic. The frequency sensitive equipment to be provided by this proposal is based on the assumption that the appropriate regulatory approvals are obtained. However, the one (1) new 800 MHz frequency selection, analysis, licensing and intermodulation have not been finalized.

New ¼" LDF Superflex and ½" LDF Superflex with the associated connectors will be provided and implemented from the new QUANTAR™ Stations to the newly replaced CELWAVE Combiner and expandable TXRX Multicoupler to support a total of five (5) channels.

QUANTAR™ Base Station/Repeater

The QUANTAR™ base station/repeater is one of Motorola's most sophisticated wireless infrastructure components. The QUANTAR™ station supports a variety of system configurations. For conventional and IntelliRepeater trunked systems it is able to support both analog and ASTRO digital operation.



QUANTAR™ Development

The QUANTAR™ was designed to offer a digital platform solution that is Association of Public Safety Communications Officials-International (APCO) Project 25 compliant. The APCO Project 25 committee created documents for standardization on protocols between multi-vendor systems. Incorporating digital technology into the QUANTAR™ product line has improved system performance. The digital operation of QUANTAR™ offers consistent audio quality throughout more of the coverage area, equal audio quality for encrypted and clear voice, display of caller identification on radios and consoles, and continuous emergency validation.

Advantages of the QUANTAR™

- ❖ **System reliability** - QUANTAR™ meets the highest level of component and workmanship quality, ensuring maximum up time. The QUANTAR™ has a rugged design, shielded modules, and all metal construction. The station has been designed and tested to withstand vibration and dust environments which many fixed installations experience.
- ❖ **Technology migration capability** - With QUANTAR™, you can build the system you need today and easily add new modules or modify the software to migrate your system to meet future requirements and in most design situations without replacing the system or its components. QUANTAR's modular, software-driven design provides system configuration flexibility. Depending on the software installed, QUANTAR™ can support both conventional and trunking operations. It can be reconfigured from analog to digital, from a conventional single-site radio to multi-site wide-area trunked systems, and from wide channel spacing to narrow channel spacing.
- ❖ **Easy maintenance** - QUANTAR's modularity also makes troubleshooting, maintenance, and repair efficient and effective. QUANTAR™ performs internal diagnostics and self-corrects minor discrepancies. Its minimal maintenance and service requirements result in a highly reliable, easy to maintain station.
- ❖ **Efficient use of space** - A QUANTAR™ requires much less space than a traditional sized repeater, and it weighs only 55 pounds. The QUANTAR™ fits into a standard 19-inch rack and is only 8.75 inches high and 14.2 inches deep.

QUANTAR™ Features

These general features apply to all configurations of the QUANTAR™ base station/repeater and outlined below for review

- ❖ **Self-test Diagnostics** – Benefit is Faster Repair Time. On power-up and during operation, the QUANTAR™ station automatically initiates self-tests without interfering with communications. It writes station alarm messages and self-diagnostic test results to an error log. The service technician can determine the station's status from LEDs on the module's front panels and use a PC running Motorola's Radio Service Software (RSS) to access the test results and alarm messages.
- ❖ **Convenient Connection Access** – Benefit is Quick & Easy Maintenance. Technicians can install and maintain QUANTAR's quickly and easily. All the primary installation connectors are located on the rear of the station. Routine service ports are on the front of the station. During maintenance or repair, all modules can be removed from the front of the station.
- ❖ **Station Control Module (SCM)** – Benefit is Upgrade costs are lower than they would be with a traditional type of station that requires extensive hardware replacement. The Station Control Module contains the microprocessor, station-operating software, and codeplug that define the station's capabilities. Upgrading a station is simple, in many cases, only requiring software modifications.
- ❖ **Continuous Duty Operation** – Benefit is Constant Performance. QUANTAR™ operates continuously at full-rated power. This means that the station may be used in intermittent or continuous service without fear of failure or reduced performance.
- ❖ **Advanced, Computerized Transmitter** – Benefit is Lower costs by reducing manual tuning adjustments at installation. An internal, calibrated wattmeter continuously monitors output power. The wattmeter output feeds a power control loop that continually adjusts and maintains the desired output power on each channel. All deviation and power adjustments are electronically controlled and set.
- ❖ **Digital Receiver** – Benefit is Consistent audio quality. The station's receive circuitry features multiple bandwidth (12.5/25/30 KHz) capability, as well as ASTRO digital operation. The frequency synthesizer circuitry, which is electronically controlled by the SCM, generates the injection signals for the first and second mixers. QUANTAR™ receives and digitizes all receive signals before sending them to the SCM.
- ❖ **Built-in Single Circulator** – Benefit is Interference Reduction. RF energy from other stations can mix in the final stages of a transmitter, causing intermodulation interference. The built-in circulator minimizes unwanted RF energy entering the transmitter, reducing but not necessarily eliminating intermodulation interference.

- ❖ **Mixed Mode – Benefit is System Flexibility** The QUANTAR™ is capable of both analog and ASTRO digital signals. This allows a system to operate with both analog and ASTRO digital mobile and portable units. Although mix mode is not part of this QUANTAR™ replacement quote, it does provide the capability of a migration plan for future analog system to an ASTRO digital platform.
- ❖ **Modular Construction – Benefit is Maximize System Up-Time** The QUANTAR™ is divided into multiple modules. These modules are self-contained functional blocks with module-specific alarms. This design facilitates the field replaceable unit concept of field repair to maximize system up-time.
- ❖ **External Reference Capability – Benefit is High Audio Quality in Simulcast Systems** This provides a means for use of an external frequency reference to synthesize transmitter frequencies. The external reference standard improves the signals stability at the center frequency, which is a key component in simulcast systems.
- ❖ **Frequency Stability – Benefit is Interference Reduction & Better Coverage.** With very low frequency drift (0.1 PPM), the QUANTAR™ is able to improve audio quality and reduce the likelihood of interference by transmitting at near center frequency.
- ❖ **Synthesized Frequency Generation – Benefit is Better audio quality due to no drifting of frequencies as with crystal stations.** Earlier generations of base stations were designed with fixed frequency crystals. Current technology base stations, such as QUANTAR™, allow synthesized frequencies to be programmed via software in the base station.
- ❖ **FLASHport Upgrades – Benefit is Easy migration and lower cost (hardware stays, functionality changes).** Depending on the design criteria, FLASHport Upgrades can be used to add features to an existing station or upgrade the station to a different system type. By purchasing these upgrades, existing stations can be modified instead of replaced.
- ❖ **APCO Project 25 CAI Compliant – Benefit is Standards Based Equipment.** The ASTRO QUANTAR is designed to facilitate an open system protocol of the Common Air Interface (CAI). This protocol allows for interoperability with those agencies who also implement systems utilizing this Public Safety Standard technology.

Pricing

West Summerland IR Site – 1 Channel Expansion

Equipment per the attached equipment List	\$32,107 00
Program Management, Engineering, Upgrade Operations, Installation, Freight, Optimization and FRIP details for submission of new frequency.	\$43,618 00

TOTAL SYSTEM: **\$75,725.00**

Terms: Net 30 Days, items as shipped on equipment
Net 30 Days on Installation and Final
Acceptance

Equipment List

1	C99ED	QUANTAR/QUANTRO FAMILY
1	001C	QUANTAR STATION
1	X750	ADD 800 MHZ BAND RX 805-825 MHZ/TA
1	X898 A	ENH SZ IR ASTRO CAI QTAR ADD 2' ETHERNET CABLE 10 BASE 2
1	X844	
1	X843	ADD IR SITE TERMTN HDW
1	X889	ADD ASTRO W/L INTFC V.24 ADD POWER CORD 12 FT AC QTAR
1	U752	
1	X287	DEL FUNCTIONAL MANUAL
1	X153	ADD HARDWARE RACKMOUNT
1	CDN8579	1/2" N MALE PLATED S FLEX 1/2" SUPERFLEX POLY JKT PER FOOT
25	L1702	
1	CDN8579	1/2" N MALE PLATED S FLEX
1	TDN9714	1/4" CONN N MALE S FLEX PLTD 1/4" SUPERFLEX POLY JKT PER FOOT
25	L1700	
1	TDN9714	1/4" CONN N MALE S FLEX PLTD
1	DSWIJD86206S	COMB WAV-G 851-860 8CH 7/16 ANT, 15 RX MULTICOUPLER EXP KIT 4 PORTS
1	DQ759005	
3	DS830101	TERMINATIONS