



STATE OF CALIFORNIA
DEPARTMENT OF GENERAL SERVICES - PROCUREMENT DIVISION

CONTRACT NOTIFICATION

***** MANDATORY *****

CONTRACT NUMBER: 1-07-58-22

DESCRIPTION: UHF BAND MOBILE RADIO

CONTRACTOR: SILVERADO AVIONICS

EFFECTIVE DATES: 6/29/2007 THROUGH 6/28/2010

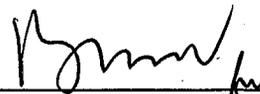
SUPERSEDES CONTRACT NO.: NONE

AREA: STATEWIDE

DISTRIBUTION:

* TAX: Add appropriate sales and use tax.
Exempt from Federal Excise Tax.

*Food contracts are tax exempt.


RITA HAMILTON, Deputy Director

Use of this agreement by all agencies is mandatory with monetary exceptions stated herein or contained in State Administrative Manual.

To obtain assistance or report non-compliance by supplier, or for any suggestions or recommendations write:

Department of General Services, Procurement Division, P.O. Box 989054, W. Sacramento, CA 95798-9054,
or call: Contract Administrator, NICOLE DELGADO 916-375-4476

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SUPPLIER ID: 32053
NAME: SILVERADO AVIONICS
ADDRESS: 2500 AIRPORT RD
NAPA, CA 94558

CONTACT: 707-255-5588 BOB SAMO
FAX NUMBER: 707-255-0114
TERMS OF PAYMENT: NET 45 DAYS
FOB: Destination
MINIMUM ORDER:

SCOPE

This contract covers the estimated requirements of the State of California and participating local agencies for UHF BAND MOBILE RADIO.

The term of the contract is for three-years at a fixed price; in addition, the contract contains two optional one-year extensions under the same terms and conditions of the awarded contract. The State and the contractor must agree on the extension via contract amendment(s). This contract is MANDATORY for use by all State of California departments and optional for local governmental agencies.

The contractor shall permit local governmental agencies to participate under this contract. For the purpose of this contract, local government agencies are defined as "any city, county, city and county, district or other governmental body or corporation, including the California State Universities (CSU) and University of California (UC) systems, K-12 schools and community colleges", empowered to expend public funds for the acquisition of products, (Public Contract Code Chapter 2, Paragraph 10298 (a) (b)). Authorization to permit a local governmental agency to participate in this contract shall come through the State's Contract Administrator.

Local governmental agencies shall have the same rights and privileges as the State under the terms of this contract. Any agencies desiring to participate shall be required to commit to the same responsibilities as do State agencies and have no authority to amend, modify or change any condition of this contract.

The Contractor performing the responsibilities of this contract is:

CONTRACTOR

Silverado Avionics
Small Business Certification #11567

The awarded certified Small Business contractor identified in this contract has been assessed by the Department of General Services (DGS) and determined to perform a commercially useful function. As a result, it is not necessary for State agencies operating under delegated authority to re-verify or document information to this fact in the procurement file when executing transactions pursuant to this contract.

CONTRACT USAGE/RULES

1. This contract is mandatory for use by all State of California departments.
2. Local governmental agency use of this contract is optional. While the State makes this contract available to local governmental agencies, each local governmental agency should determine whether this contract is consistent with its procurement policies and regulations.

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State Departments and Local Agencies are required to have a DGS billing code prior to using this contract. State agencies may obtain DGS billing codes by contacting their accounting departments. If Local agencies need help with billing codes, they may contact the DGS billing code contacts and provide the following: Local Government Agency Name, billing contact name, telephone number, and mailing address. E-mail the required information to the following contacts:

Marilyn.Ebert@dgs.ca.gov
Wilson.Lee@dgs.ca.gov

3. Prior to placing orders against this contract, State departments must have been granted purchasing authority by Department of General Services, Procurement Division (DGS/PD) for the use of State's statewide contracts. The department's current purchasing authority number must be entered in the appropriate location on each purchase document. Departments that have not been granted purchasing authority by DGS/PD for the use of the State's statewide contracts may access the Purchasing Authority Application at www.pd.dgs.ca.gov/deleg/pamannual.htm or may contact DGS/PD's purchasing Authority Management Section by e-mail at pams@dgs.ca.gov.
4. Ordering State departments must adhere to all applicable State laws, regulations, policies, best practices, and purchasing authority requirements, e.g., California Codes, Code of Regulations, State Administrative Manual, Management Memos, and Purchasing Authority Manual.

DGS ADMINISTRATIVE FEES

The DGS will bill each State department and local agency an administrative fee for use of this statewide contract. The administrative fee should NOT be included in the order total, nor remitted before an invoice is received from DGS. (You may click on "DGS Price Book" at: <http://www.ofs.dgs.ca.gov/Price+Book/P/Purchasing.htm> for current fees.)

CONTRACT ADMINISTRATOR

The State and the contractor have assigned a single point of contact (noted on Page 2 of this contract) for problem resolution and related contract issues.

State Contract Administrator: Nicole Delgado
Address: DGS/Procurement Division
707 Third Street, 2nd Floor
West Sacramento, CA 95605
Telephone: (916) 375-4476
Facsimile: (916) 375-4613
E-Mail: Nicole.Delgado@dgs.ca.gov

Silverado Avionics Contact: Robert Samo
Address: 2500 Airport Road
Napa, CA 94558
Telephone: (707) 255-5588
Facsimile: (707) 255-0114

PROBLEM RESOLUTION:

The first step in problem resolution is to call Silverado Avionics. Ordering agencies with unresolved issues after five (5) working days of first contact with Silverado Avionics, should contact the State's contract administrator immediately for resolution.

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ORDERING PROCEDURE

State agencies shall complete and submit a Purchasing Authority Purchase Order (Std. 65) directly to the contractor. The Std. 65 shall contain the following information:

1. Agency Billing Code
2. Contract Number
3. Commodity Code
4. Line Item Number
5. Description
6. Unit Price
7. Extension Price
8. Purchasing Authority number (State departments only)

Local agencies may submit a local agency purchase order following the same guidelines as described above.

Note: Contractor shall not accept purchase orders from State or local agencies without a State issued billing code.

All ordering agencies are required to forward a copy of each purchase order to the Department of General Services (DGS), Procurement Division, Data Entry, P.O. Box 989052, West Sacramento, CA 95798-9052 (IMS# Z-1).

ORDER ACKNOWLEDGEMENT/CONFIRMATION

The contractor must confirm receipt of the STD 65 within 48 hours of receipt by either e-mail or facsimile. Acknowledgement of order to each ordering agency shall include agency purchase order number, total cost of order, and delivery date of products.

Contractor shall issue unique order numbers to the users of this contract.

ORDERING METHODS

1. FACSIMILE ORDERS:

Fax Number: 707-255-0114

2. MAIL ORDERS:

List below the location to which Purchasing Authority Purchase Orders should be sent.

Company Name: Silverado Avionics
Street Address: 2500 Airport Road
City, State, Zip: Napa, CA 94558
Contract Administrator: Bob Samo

DELIVERY

Complete delivery is to be made within 60 days after receipt of order (ARO) by the contractor.

Delivery shall be made to any State or local agency within California. Contractor must notify the ordering agency and State contract administrator within 24 hours from receipt of order if delivery cannot be made within the time specified. Under no circumstance is the contractor permitted to make unauthorized substitutions, without the authorization of the State's contract administrator.

Contractor is requested to make deliveries in Los Angeles County, Orange County, San Bernardino metropolitan area, and San Diego metropolitan area during off-peak hours. Off-peak hours are 10:00 a.m. to 4:00 p.m.

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Note:

In accordance with paragraph 15 of the General Provisions entitled "Delivery", the contractor shall strictly adhere to the delivery terms and completion schedules as specified in this contract. Failure to comply with the delivery requirements as stated, may be considered a breach of contract and subject the contractor to General Provisions 26, entitled "Rights and Remedies of the State for Default".

CONTRACTOR RESPONSIBILITY

1. Contractor shall perform all deliveries to facilities in a safe and professional manner. Contractor's equipment shall be in good working order and all personnel shall be trained in safety measures to preclude accidents endangering personnel or property.
2. Contractor must commit to delivery as requested, at time stated on accepted orders, through the term of the contract.
3. Contractor shall provide office and personnel resources for responding to requests, including telephone coverage weekdays during the hours of 8:00 AM through 5:00 PM (PST).

PACKAGING

A packing slip will be included with each shipment, which will include at least the following information in no particular order:

- A. Line Item Description
- B. Quantity Ordered
- C. Quantity Included in Shipment
- D. Number of Parcels
- E. Purchase Order Number
- F. Agency Name and Department
- G. Destination
- H. All Information Contained in the Packing Label

A packing label will also be included with each order shipped and include the following items, visible on the outside of the box:

- A. Authorized Purchaser
- B. Address
- C. Department and Floor
- D. Authorized Purchaser Telephone Number

INVOICING REQUIREMENTS

Ordering agencies may require separate invoicing, as specified by each ordering organization. The invoices must use the contractor's invoice that includes at a minimum their name, address, and telephone number. The contractor will also issue invoices identifying, at a minimum, the components listed below:

1. State's contract number
2. Agency purchase order number
3. Agency billing code
4. Purchasing agency - delivery address of the order
5. Product(s) description
6. Manufacturer's product(s) number(s)
7. Price(s) per unit(s) and extended price
8. Quantities of merchandise issued
9. Date ordered
10. Date delivered
11. Prompt payment discounts/cash discounts, if applicable, shall be clearly indicated on each invoice as a written statement.
12. Totals for each order. Each invoice shall have a total for all orders, a total for all credits, and amount due from each agency.
13. Any other mutually agreed upon requirements the State may later deem necessary.

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Deviations/substitutions will not be permitted.

The State's obligation to make payment pursuant to the contract is subject to availability of appropriation funds. Receipt of a Purchasing Authority Purchase Order under this contract is proof of funds for that order.

CONTRACT VALUE AND QUANTITIES

There is no guaranteed guaranteed dollar value for this contract. The State will not be obligated to purchase contractor's excess inventory if actual purchases vary from the anticipated purchasing pattern. The estimated quantity used was based upon a twelve (12) month usage pattern and projected for a THREE (3) YEAR PERIOD.

PRICES

All prices shall be maximum for the contract period subject to the State receiving full benefit of all manufacturer's price declines effective on the date of manufacturer's announcement notice to the general public.

Justification for price changes after three years must be supplied by the contractor in a written request which must be approved in writing by the State. Such notice shall include substantiated information to support the proposed escalation (e.g., manufacturer's price list, significant changes in published market indicators for the industry, certified raw material cost data, and any other substantiating information as requested by the State.)

1. Upon receipt of such notice the State reserves the right to either:
 - a. Accept the escalation as competitive with the general market price at that time, effective 30 days after written approval from the State; or
 - b. Negotiate proposed price escalation (pursuant to PCC 6611(b)). Note: The State will notify, in writing, the contractor of its desire to negotiate. The State will have ten (10) working days to complete negotiations; or
 - c. Cancel any unpurchased balance of the contract without prejudice, effective upon written notice by the State.

Note: If negotiations fail to produce an agreement, the State reserves the right to exercise Options a or c with an effective date no later than ten (10) working days after unsuccessful negotiations.

2. No price increase shall apply to quantities ordered from the contract prior to the effective date of the price increase.
3. Accepted escalation price increase shall be maximum for a period of 180 calendar days from the effective date of the price increase. Any additional request for price increases must be submitted, in writing, to the Procurement Division not earlier than 150 calendar days from the effective date of the original or prior price increase.

When it is in the best interest of the State, the department may negotiate amendments to the terms and conditions, including scope of work, of existing contracts for goods, services, information technology, and telecommunications, whether or not the original contract was the result of competition, on behalf of itself or another State agency, PCC 6611(b).

SALES TAX

Sales tax should be added at time of invoicing. The sales tax rate applied should be based on the rate of the area where the product is to be delivered.

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FREIGHT ON BOARD (F.O.B) DESTINATION

All prices are F.O.B destination; freight prepaid by the contractor, to the ordering agencies receiving point. Responsibility and liability for loss or damage for all orders will remain with the contractor until final inspection and acceptance, when all responsibility will pass to the ordering agencies, except the responsibility for latent defects, fraud, and the warranty obligations.

MODIFICATIONS

The State expects to update the established common configurations for Portable Hand Held 700/800 MHz conventional analog and digital P25 periodically, as technology changes. This is estimated to take place approximately every twelve (12) months. The contractor is required to:

1. Support this effort throughout the life of the contract.
2. Maintain the blanket government discounts at the levels set forth in the contract, even as configurations evolve.
3. Proactively report to the State Contract Administrator at least every 12 months (or as needed) on changes in technology and make recommendations for configuration changes.

SPECIFICATION COMPLIANCE

All products must conform to the attached State of California Bid Specification Number MO-075 dated January 2007 of 16 pages. Products not meeting all specified requirements will be deemed non-compliant to specifications and will be subject to the terms set forth in the Public Safety Radio Goods Special Provisions TD-947 and General Provisions.

This contract shall comply with the attached Public Safety Radio Goods Special Provisions TD-947, Service Manual Requirements TD-927 and "Technical Training Requirements".

WARRANTY

Please refer to Page 1, Section 4 of the Public Safety Radio Goods Special Provisions TD 947 for warranty information.

PAYEE DATA RECORD

Each State accounting office must have a copy of the Payee Data Record (Std.204) in order to process payments. Agencies should forward a copy of the Std. 204 to their accounting office(s). Without the Std. 204, payment may be unnecessarily delayed.

CALIFORNIA SELLER'S PERMIT

Silverado Avionics' retailer's seller's permit number is JHF 27-623506.

Agencies can verify that permits are currently valid at the following website: www.boe.ca.gov

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USAGE REPORTS

The contractor shall provide a quarterly detailed usage report by line item and commodity code to the Contract Administrator in Excel format via e-mail or U.S. Mail on a CD. All reports are due by the 15th day following the ending of a contract quarter. Report shall contain the following elements:

- A. Contract Number with Month/Year of report
- B. Line Item Number
- C. Invoice Number
- D. Invoice Date
- E. Purchase Order Number
- F. Order Date
- G. Delivery Date
- H. Agency Bill Code
- I. State/Local Governmental Agency
- J. Agency Department Name
- K. Manufacturer Part Number
- L. Item Description
- M. Quantity
- N. Contract Price
- O. CA Certified SB/DVBE item (Yes/No)

REPORTING COMPLIANCE

Contractor shall comply with the reporting requirements as specified. If contractor fails to meet delivery times as specified for any one of the required reports, a one percent (1%) discount will be applied to the contract pricing on all future orders for 30 days or until the delinquent report(s) are delivered, whichever is greater. At the end of the thirty days or at the time of delivery of the reports, the discount will revert to the original contract price.

Contract pricing discounts for reporting non-compliance will commence 3 months after contract award. Failure to submit COMPLETED quarterly reports within the time period required may be considered a breach of contract and subject the contractor to General Provisions 26, "Rights and Remedies of State for Default".

Technical Equipment Specification

Equipment Type: Transmitter/Receiver

Mobile Radio

UHF Band

Conventional Analog and Digital P25

Specification Number: MO-075

Issue Date: January 2007

Number of Pages: 16

The bidder shall submit information about the equipment being supplied below and on the subsequent pages.

Company Name:

Equipment Brand:

Equipment Model:

1 General

- 1.1 This technical equipment specification describes a UHF mobile radio (station).
- 1.2 The station shall be used by the State of California (State) in a public safety land mobile radio system.
- 1.3 The station shall operate on the following modes upon delivery:
 - 1.3.1 Conventional analog on both wide and narrowband channels.
 - 1.3.2 Conventional digital Project 25.
- 1.4 The station shall be programmed by the State.

2 Overall Station Requirements

		Meets Requirement		Provide supporting data about the equipment
		Yes	No	
2.1	Operating Frequency Band	450 to 512 MHz	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2.2	Repeater Talk-Around Mode	Used for direct unit-to-unit communications on all receive frequencies.	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2.3	Channel Capacity (minimum)	255 transmit and receive.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2.4	Channel Spacing	12.5 kHz and 25 kHz	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2.5	Carrier Frequency Stability	±2.5 PPM	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2.6	Operating Temperature	-30° to +60° C	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2.7	Frequency Generation	Synthesizer and/or embedded microprocessor technology shall be used in the receiver, transmitter and controlled squelch.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

The station shall meet or exceed the following performance standards:

Meets Requirement Provide supporting data about the equipment
Yes No

2.8	Controlled Squelch		<input type="checkbox"/>	<input type="checkbox"/>
	Each transmit and receive channel shall be independently programmable to operate with: Tone controlled squelch (CTCSS); and Digital controller squelch (DCSS); and P25 digital network access code (NAC)		<input type="checkbox"/>	<input type="checkbox"/>
2.8.1	Encoder/Decoder	The encoder and decoder shall operate independently of each other	<input type="checkbox"/>	<input type="checkbox"/>
2.8.2	Signaling – digital	Generate/decode all P25 Network Access Codes (NAC) listed in TIA/EIA-102-BAAA.	<input type="checkbox"/>	<input type="checkbox"/>
2.8.3	Signaling - analog	Generates/decodes all CTCSS tones and CDGSS codes listed in TIA/EIA-603-B Section 1.3.5, 2.4, 3.4.	<input type="checkbox"/>	<input type="checkbox"/>
2.8.3.1	CTCSS Deviation	250 / 500 HZ (12.5 / 25 KHZ)	<input type="checkbox"/>	<input type="checkbox"/>

The station shall meet or exceed the following performance standards:

Meets Requirement
Yes No

Provide supporting data about the equipment

2.8.4 Controlled Squelch Disable

The controlled squelch programmed in any receive channel shall be capable of being disabled by the operator.

2.8.5 "AND" Squelch Configuration

The receive audio path shall be unmuted only when an on-frequency carrier is qualified by the receiver and the correct signalling is decoded.

2.9 Channel Scan

Scans any or all of the channels within the selected operating group.

2.9.1 Channel Groups

12 minimum; Operator programmable.

2.9.2 Channels per group

16 minimum

2.9.3 Dual priority scan

The station shall have 2 priority receive channels.

The station shall meet or exceed the following performance standards:

Meets Requirement
Yes No

Provide supporting data about the equipment

2.9.4 Channel priority

The priority receive channels shall have priority over the remaining scanned channels regardless of their relative signal strength or time of signal arrival at the receiver.

2.9.5 Power Off operation

The programming of the scan mode shall not be affected by the operation of either the primary power on/off switch or the vehicle ignition switch.

2.9.6 Scan Activation

Operator selectable from the control head

2.10 Remote Access

The mobile radio shall be capable of being interfaced to and controlled by a third party, multi-radio control device instead of the control head.

2.10.1 All normal control head functions shall be accessible by the control device

Functions: channel selection, group selection, scan select, set volume, etc.

2.10.2 The channel name data shall be accessible by the control

The station shall meet or exceed the following performance standards:

2.10.3 Control Port

The mobile radio shall interface to the control device via the control head cable or another control port.

Meets Requirement
Yes No

Provide supporting data about the equipment

3 Transmitter Requirements

The transmitter shall meet or exceed the following analog performance requirements:

Meets Requirement
Yes No

Provide supporting data about the equipment

3.1	Carrier Output Power Rating	25 to 40 W minimum	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Modulation Limiting	±2.5/5/5 KHZ (12.5/25 KHZ)	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Audio Distortion	3 %	<input type="checkbox"/>	<input type="checkbox"/>
3.4	FM Hum and Noise Ratio	39 / 45 dB (12.5 / 25 KHZ)	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Conducted Spurious Emissions	-70/70 dBc (12.5 / 25 KHZ)	<input type="checkbox"/>	<input type="checkbox"/>

The transmitter shall meet or exceed the following analog performance requirements:

3.6 Time-Out Timer	Meets Requirement		Provide supporting data about the equipment
	Yes	No	
3.6.1 Transmission Duration	<input type="checkbox"/>	<input type="checkbox"/>	
3.6.2 Timer Reset	<input type="checkbox"/>	<input type="checkbox"/>	

4 Receiver Requirements

The receiver shall meet or exceed the following analog performance requirements:

4.1 Reference Sensitivity (EIA 12 dB SINAD)	Meets Requirement		Provide supporting data about the equipment
	Yes	No	
4.2 Adjacent Channel Rejection	<input type="checkbox"/>	<input type="checkbox"/>	
4.3 Spurious Response Rejection	<input type="checkbox"/>	<input type="checkbox"/>	
4.4 Intermodulation Rejection	<input type="checkbox"/>	<input type="checkbox"/>	
4.5 Audio Frequency Response	<input type="checkbox"/>	<input type="checkbox"/>	
4.6 Audio Distortion	<input type="checkbox"/>	<input type="checkbox"/>	

The receiver shall meet or exceed the following analog performance requirements:

Meets Requirement
Yes No

Provide supporting data about the equipment

4.7 Squelch Tail Elimination
Eliminate the noise burst heard in the receiver at the conclusion of receiving a signal.

5 Digital Operation Requirements

The station shall meet or exceed the following digital performance requirements:

Meets Requirement
Yes No

Provide supporting data about the equipment

5.1 The station shall operate on conventional digital Project 25.

5.2 Digital Project 25 Phase I Operation

The station shall comply with the TIA 102 suite of standards.

In particular, the following standards:

5.2.1 Common Air Interface

BAAA, BAAB, BAAC, BAAD

5.2.2 Vocoder

BABA, BABB, BABC

5.3 Operation in Mixed/Dual Mode.

The station shall switch seamlessly between operation in the analog and digital P25 modes on a per call basis.

5.4 Receiver performance (minimum)

5.4.1 Sensitivity (5% BER)

0.30 uV

6 Physical Requirements

The station shall meet or exceed the following physical requirements:		Meets Requirement		Provide supporting data about the equipment
		Yes	No	
6.1	Transmitter/Receiver Assembly			
6.1.1	Station Chassis	<input type="checkbox"/>	<input type="checkbox"/>	
	Configured for mounting in the trunk of a vehicle.			
6.1.2	Installation	<input type="checkbox"/>	<input type="checkbox"/>	
	Provide a mounting bracket.			
6.2	Control Head			
6.2.1	Installation	<input type="checkbox"/>	<input type="checkbox"/>	
	Configured for mounting in a console in the front of a vehicle			
6.2.2	Function Keys/Knobs	<input type="checkbox"/>	<input type="checkbox"/>	
	5 minimum as defined below:			
	Programmable keys:			
6.2.2.1	Power On/Off	<input type="checkbox"/>	<input type="checkbox"/>	
6.2.2.2	Volume	<input type="checkbox"/>	<input type="checkbox"/>	
6.2.2.3	Transmit/Receive Channel Selector	<input type="checkbox"/>	<input type="checkbox"/>	
6.2.2.4	Home	<input type="checkbox"/>	<input type="checkbox"/>	
	Takes the operator to the home channel.			
6.2.2.5	Scan	<input type="checkbox"/>	<input type="checkbox"/>	
	Activates the scan mode.			
6.2.3	Indicators			
6.2.3.1	Power On	<input type="checkbox"/>	<input type="checkbox"/>	
6.2.3.2	Transmit/Receive	<input type="checkbox"/>	<input type="checkbox"/>	
6.2.3.3	Scan Mode	<input type="checkbox"/>	<input type="checkbox"/>	

The station shall meet or exceed the following physical requirements:

Meets Requirement
Yes No

Provide supporting data about the equipment

Requirement	Yes	No
6.2.4 Display		
6.2.4.1 Alphanumeric Data	<input type="checkbox"/>	<input type="checkbox"/>
6.2.4.2 Readable in all conditions from direct sunlight to total darkness.	<input type="checkbox"/>	<input type="checkbox"/>
6.2.4.3 Backlighting	<input type="checkbox"/>	<input type="checkbox"/>
6.2.4.4 Backlight Off Function	<input type="checkbox"/>	<input type="checkbox"/>
6.2.5 Control Cable Assembly		
6.2.5.1 Length	<input type="checkbox"/>	<input type="checkbox"/>
6.2.5.2 Cable	<input type="checkbox"/>	<input type="checkbox"/>
6.2.5.3 Termination	<input type="checkbox"/>	<input type="checkbox"/>

10 characters on a single line, minimum Unique to each channel.

Operator-adjustable
The screen shall turn completely dark.

Interconnects the station chassis and the control head.
17 feet minimum.
Round type, with a single protective outer sheath enclosing all conductors.

Both ends:
A single cable connector may be used at the station chassis for primary power and control cable assemblies.

The station shall meet or exceed the following physical requirements:

Meets Requirement
Yes No

Provide supporting data about the equipment

		Meets Requirement		Provide supporting data about the equipment	
		Yes	No		
6.3	Microphone				
6.3.1	Palm-Type Heavy-Duty, and Dynamic	<input type="checkbox"/>	<input type="checkbox"/>		
6.3.2	Hang-Up Bracket	<input type="checkbox"/>	<input type="checkbox"/>		
6.3.3	Push-to-Talk Switch	<input type="checkbox"/>	<input type="checkbox"/>		
6.3.4	Self-Retracting Coil Cord	<input type="checkbox"/>	<input type="checkbox"/>		
6.3.5	Station Connection	<input type="checkbox"/>	<input type="checkbox"/>		
6.4	Loudspeaker				
6.4.1	Speaker Type	<input type="checkbox"/>	<input type="checkbox"/>	External to the station.	
6.4.2	Audio Output Power	<input type="checkbox"/>	<input type="checkbox"/>	Permanent magnet. 10 W, minimum	
6.4.3	No active circuitry shall be contained within the external speaker housing.	<input type="checkbox"/>	<input type="checkbox"/>		
6.4.4	External Speaker Housing	<input type="checkbox"/>	<input type="checkbox"/>	Water resistant.	
6.4.5	External Speaker Installation	<input type="checkbox"/>	<input type="checkbox"/>	Provide a universal mounting bracket.	
6.4.6	External Speaker and Station Connection	<input type="checkbox"/>	<input type="checkbox"/>	Provide an interconnecting cable.	
6.5	Ignition Switch Cable Assembly	<input type="checkbox"/>	<input type="checkbox"/>	Disables primary power to both the transmitter and receiver.	

The station shall meet or exceed the following physical requirements:

Meets Requirement
 Yes No

Provide supporting data about the equipment

6.6 Metering Test Points

Test points necessary for normal servicing shall be measurable on either of the following:

- a State-supplied multimeter, or
- an integral meter, or
- a personal computer using the station software;

6.7 Installation Kit

Provide all hardware required for a complete vehicular installation.

Mounting brackets and interconnecting cables.

6.7.1 Examples of items to include:

6.7.2 Exclude the antenna and the RF coaxial cable.

7 Electrical Requirements

The station shall meet or exceed the following electrical requirements:

	Meets Requirement		Provide supporting data about the equipment
	Yes	No	
7.1 Input Power Source	<input type="checkbox"/>	<input type="checkbox"/>	
	+12 VDC nominal, negative ground.		
	(To connect to a State +12 VDC source.)		
7.2 Surge Protection	<input type="checkbox"/>	<input type="checkbox"/>	
	Fuses or other current limiting devices shall be contained within the station.		

7.3 DC Power Cable

To connect to a State +12 VDC source.

7.3.1 Wire

Two-conductor, color-coded.

7.3.2 Termination

Terminated at one end to mate with the station.

The other end shall be unterminated.

7.3.3 Length

17 feet minimum

8 Accessory Equipment

Supply the following accessory equipment in the quantities specified on the equipment order

	Meets Requirement		Provide supporting data about the equipment
	Yes	No	
8.1 Service Aid Kit	<input type="checkbox"/>	<input type="checkbox"/>	
	Provide equipment required for routine service, level setting and programming.		

Supply the following accessory equipment in the quantities specified on the equipment order:

Meets Requirement
Yes No

Provide supporting data about the equipment

8.1.1 Examples of items to include:

Tuning tools, special nonstandard trade tools, circuit card extenders and special adapters.

Microphone jack interface for accessing TX audio and external PTT.

8.2 Programming and Alignment Software

For use with a personal computer to permit programming/reprogramming of the station.

8.2.1 Computer Operating System

Compatible with Microsoft Windows 2000 and Windows XP Professional.

8.2.2 Software Media

CD

8.2.3 Provide a printed copy of the Programming Instructions.

Comply with the requirements in Form TD-947 Public Safety Radio Goods Special Provisions.

8.2.4 Software Usage/License

For use with the station's programming software.

8.3 Programming Interface

Supply the following accessory equipment in the quantities specified on the equipment order

Meets Requirement
Yes No

Provide supporting data about the equipment

8.3.1 Personal Computer Connection

USB 2.0 Port
(Vendor supplied adaptor is acceptable)

8.4 Service Manual

8.4.1 Provide a printed copy of the manual

8.4.2 Contents of the Service Manual

Complies with Form TD-927 Service Manual Requirements

8.5 Operator Manual

9 Standards

The station shall comply with the following documents and standards:

Meets Requirement
Yes No

Provide supporting data about the equipment

9.1 Form TD-947 Public Safety Radio Goods Special Provisions

9.2 MIL-STD-810E (or equivalent items in 810F)

Comply with the following Military Environmental Test Methods and Engineering Guidelines:

9.2.1 Low Pressure Operation

500.3 Procedure II

9.2.2 High Temperature Storage/Operation

501.3 Procedure I Cat A1/II Cat A1

9.2.3 Low Temperature Storage/Operation

502.3 Procedure I Cat C3/II Cat C1

The station shall comply with the following documents and standards:

Meets Requirement
 Yes No

Provide supporting data about the equipment

9.2.4	Temperature Shock	503.3 Procedure I Cat A1-C3	<input type="checkbox"/>	<input type="checkbox"/>
9.2.5	Solar Radiation	505.3 Procedure I or II	<input type="checkbox"/>	<input type="checkbox"/>
9.2.6	Humidity	507.3 Procedure II	<input type="checkbox"/>	<input type="checkbox"/>
9.2.7	Dust, Blowing	510.3 Procedure I	<input type="checkbox"/>	<input type="checkbox"/>
9.2.8	Vibration	514.4 Procedure I Cat 8 or Cat 10	<input type="checkbox"/>	<input type="checkbox"/>
9.2.9	Shock, Functional	516.4 Procedure I	<input type="checkbox"/>	<input type="checkbox"/>
9.2.10	Rain, Blowing/Dripping Water (for metal case)	506.3 Procedure I	<input type="checkbox"/>	<input type="checkbox"/>

PUBLIC SAFETY RADIO GOODS**SPECIAL PROVISIONS**

TD-947 (Rev. 02/07)

1. TECHNICAL STANDARDS

- a) Where applicable, all goods delivered shall meet or exceed the requirements contained in the Code of Federal Regulations, Title 47 Telecommunication, Chapter I Federal Communications Commission Rules and Regulations, in particular:
- i) Part 2, Subpart I, "Marketing of Radio Frequency Devices" (47CFR2.803). All goods offered shall be authorized by the FCC by the bid due date.
 - ii) Part 15, Radio Frequency Devices (47CFR15).
 - iii) Part 90, Private Land Mobile Radio Service (47CFR90).
 - iv) Part 101, Fixed Microwave Services (47CFR101).
- b) Where applicable, all goods operating in the analog mode shall meet or exceed all applicable performance standards listed in TIA/EIA-603, "Land Mobile FM and PM Communications Equipment Measurement and Performance Standards".
- i) The State will consider goods tested under comparable performance standards listed in documents EIA-152-C, "Minimum Standards for Land Mobile Communication FM or PM Transmitters, 25-866 MHz", EIA/TIA-204-D, "Minimum Standards for Land Mobile Communication FM or PM Receivers, 25-866 MHz", and EIA-220-B, "Minimum Standards for Land Mobile Communication Continuous Tone-Controlled Squelch Systems (CTCSS)", which were superseded by TIA/EIA-603.
 - ii) Specification compliance testing conducted by the State, however, will be conducted in accordance with the methods, procedures, and requirements of TIA/EIA-603. All measurements of transmitter radio frequency specifications shall be made at the transmitter chassis antenna connector. All measurements of receiver radio frequency specifications shall be made at the receiver chassis antenna connector. Measurements of received audio response and distortion shall be made at the speaker output.
 - iii) The performance requirements contained within the technical specifications further define and, in some cases, exceed the requirements contained in TIA/EIA-603. In the event of a conflict between performance requirements contained in TIA/EIA-603 and the performance requirements contained in the specification, the requirements contained in the specification shall prevail.
- c) Where applicable, all goods operating in the digital mode shall meet or exceed all applicable APCO Project 25 system standards listed in the TIA/EIA 102 series of standards, interim standards and technical bulletins.
- d) Where applicable, all goods operating within 806-809 / 821-824 MHz and 851-854 / 866-869 MHz shall comply with the recommendations set forth in the National Public Safety Planning Advisory Committee 800 MHz NPSAC Channel Regional Communications Plan for Regions 5 and 6 approved by the Federal Communications Commission (FCC) in 47CFR90.621(g).
- b) Within fifteen calendar days after contractor first receives notice of rejection, contractor shall, if requested by the State, remove rejected goods from the State's facilities. Upon failure of contractor to remove such goods from the State's facilities within the specified period, the State may forward such goods to contractor by common carrier, at contractor's expense and risk.
- c) Unless otherwise specified, and at no cost to the State, all rejected goods shall be repaired or replaced by contractor and shall be returned to the State within thirty calendar days from the date the goods are made available on, or removed from, the State's facilities, whichever occurs first.
- d) Unless otherwise specified, if contractor does not deliver goods meeting specifications within sixty calendar days from the date the goods are made available on, or removed from, State's facilities, whichever occurs first, contractor shall be deemed to be in default, and the State will terminate the purchase order in whole or in part in accordance with the Termination for Default provision contained in the General Provisions.
- e) At the State's option, contractor may be permitted to make repairs of rejected goods at the State's facilities.

4. MINIMUM GUARANTEES AND WARRANTIES

- a) Contractor is responsible for all guarantees and warranties required herein. Any guarantee/warranty offered by the original goods manufacturer shall not relieve contractor of this responsibility.
- b) If contractor is other than the manufacturer of goods delivered, contractor warrants that the manufacturer has authorized contractor to sell goods delivered. At the request of the State, written verification by manufacturer of such authorization shall be immediately provided.
- c) All goods delivered shall be guaranteed by contractor against defects for eighteen months from date of acceptance.
- d) During the guarantee period, contractor shall repair or replace, at its option and expense, all defective goods, or refund the purchase price thereof.
- e) Unless otherwise specified, if contractor has not completed guarantee repair within thirty calendar days after notification of a malfunction, the State may effect such repairs and bill contractor for material cost and labor cost at the State technician current hourly rate.
- f) Workmanship and materials provided by contractor in the performance of any installation work required shall be guaranteed for ninety calendar days after installation. Workmanship or materials which are found to be defective during this period shall be promptly corrected at contractor's expense.
- g) During the Warranty Period, Contractor shall manage the individual warranties and maintenance services (if any) of the third-party Goods. If the third-party Goods do not function as warranted during the Warranty Period, Contractor will correct the deficiency

5. DESIGN DEFECT

- a) A design defect shall be defined as identical failures occurring within five years after delivery in at least five units or five percent, whichever is larger, of identical assemblies, subassemblies, or parts supplied.
- b) Delivered goods shall be guaranteed by contractor against design defects for five years from date of delivery. Upon written notification to and confirmation by contractor of design defects evidenced within the five-year guarantee period, contractor shall take prompt corrective action, at no cost to the State.
- c) Whenever it is necessary for contractor to take corrective action of design defects, contractor shall take the same corrective action in all identical goods supplied.
- d) All parts and materials used in corrective action for design defects shall be guaranteed by contractor against defects for one year from date of such corrective action.

2. SPECIAL ORDERING PROVISIONS

During the thirty-calendar day period immediately following purchase order issuance, the State reserves the right to increase the quantity ordered by up to twenty-five percent, or as otherwise specified, at rates not to exceed those contained herein.

3. SPECIFICATION COMPLIANCE TESTING

- a) Goods may be inspected before acceptance for workmanship, appearance, and conformance to all other requirements of the specifications. The State may reject any shipment or item of a shipment that is not in compliance with specification requirements or is otherwise defective in any manner.

6. SERVICE PROVISIONS

- a) Contractor shall provide the following services that will repair or exchange, in the times indicated, all defective goods returned by the State for repair.
 - i) Emergency no-charge warranty service within five calendar days, excluding shipping time, for defective goods returned within the guarantee period.
 - ii) Non-emergency no-charge warranty service within twenty calendar days, excluding shipping time, for defective goods returned within the guarantee period.
 - iii) Emergency full-charge nonwarranty service within five calendar days, excluding shipping time, for defective goods returned after expiration of the guarantee period.

7. AVAILABILITY OF REPAIR PARTS

- a) Contractor shall notify State of the date of last manufacture for all goods delivered.
- b) For a period of seven years from the notice of last manufacture, contractor shall make available to the State exact replacement parts for use in the delivered goods.
- c) If exact replacement parts are not available, contractor may substitute equal or similar parts which do not deteriorate performance and which will continue to meet all specifications in effect at the time of purchase.

8. SOFTWARE USAGE/LICENSE REQUIREMENT

- a) The Department of General Services, Telecommunications Division, and/or the purchasing agency shall be permitted to make unlimited copies of any software required for installation and maintenance of goods supplied. Such copies shall be for the sole and exclusive use of the State designated maintenance and engineering personnel in the installation, maintenance, and operation of the delivered goods.
- b) Any need for a separate software license agreement to reflect the scope and/or limitations of this usage shall be negotiated to the mutual agreement of the parties, including Department of General Services, Procurement Division and Telecommunications Division.

Service Manual Requirements

TD-927 (Rev. 03/04)

1. Each service manual shall be current and shall include any revised and/or supplemental documentation if not published in the main service manual.
2. Each service manual shall contain a general information section as follows:
 - 2.1. A list of applicable subassemblies that comprise the specified equipment
 - 2.2. Overall description of the equipment design features, performance, and applications
 - 2.3. Equipment specifications summary
 - 2.4. Equipment installation instructions, if applicable.
3. Each manual shall contain a theory of equipment operation section which shall include the following items:
 - 3.1. Theory of operation of the standard equipment, with unique or unusual circuitry described in detail.
 - 3.2. Theory of operation reflecting any modifications to the standard equipment.
4. Each manual shall contain an equipment maintenance section which shall include the items as follows:
 - 4.1. Recommended test equipment and fixtures, or minimum operational and performance requirements for appropriate test equipment.
 - 4.2. Alignment and troubleshooting information and charts.
 - 4.3. Removal and installation procedures for replacing assemblies and subassemblies, if not obvious or if improper sequencing of steps may result in component damage.
5. Each manual shall contain an equipment replacement parts section which shall include a component parts list including electrical parts, mechanical parts, and assemblies. All semiconductors shall be identified by the supplier's numbers and, as applicable, by JEDEC numbers.
6. Each manual shall contain an equipment diagram section which shall include the following items:
 - 6.1. Schematic diagram(s) identifying all circuit components and showing normal test voltages and levels.
 - 6.2. An overall functional block diagram.
 - 6.3. Detailed interconnecting diagram(s) showing wiring between modules, circuit boards, and major components.
 - 6.4. Pictorial circuit board layout diagrams(s) showing both component placement and printed wiring detail.
 - 6.5. Diagram(s) showing location of circuit boards and other subassemblies.
 - 6.6. Exploded view diagram(s) of complex mechanical assemblies.
7. Each manual shall conform to the following physical requirements:
 - 7.1. All pages, including latest revisions, shall be securely fastened together between protective covers (loose-leaf ring binding is acceptable).
 - 7.2. No page shall be subject to fading from exposure to any normal source of ambient lighting (OZALID reproduced pages are not acceptable).
 - 7.3. On orders of twenty or more manuals, the cover or first page shall be printed to show equipment model number, State purchase order number and its date, and name of State agency for which the equipment is specified.
 - 7.4. On orders including less than twenty manuals, the cover or first page shall be marked in any manner to show the State purchase order number and date.

Technical Training Requirements

1 Objective

Given a classroom condition with the specified equipment and materials the State technical staff shall learn the information necessary to earn the manufacturer certification for maintenance and repair.

2 Quantity

The State may specify on the equipment order that the supplier conduct one or more training courses.

3 Schedule

The training course shall be conducted within 90 days after equipment delivery or at a later specified date agreed upon by the State.

4 Number of Trainees

The training course shall be designed for a group of 10 State telecommunications engineers and/or maintenance technicians per class.

5 Length of Training Course

The length of the course shall be sufficient to provide for the training objective. The training shall not exceed 8 hours on any one day and the days shall be consecutive.

6 Syllabus

The training course shall be a manufacturer certified course for the equipment specified. The training course shall include but not be limited to the following topics:

- Installation and initial check-out procedures.
- Theory of operation.
- Programming software procedures.
- Routine maintenance practices and procedures.
- Trouble-shooting techniques and procedures.

A copy of the lesson plan to be used for this class by the instructor shall be forwarded to DGS Telecommunications one week before the instruction is to begin.

7 Instructor Qualifications

The training course shall be conducted by a manufacturer trained and certified instructor. The State prefers the training be provided by a certified instructor employed by the manufacturer. If the manufacturer does not directly employ the instructor, the supplier of the equipment shall provide, upon request, to the State, proof of certification that the instructor is manufacturer trained on the specified equipment and will present the same course as if given by the manufacturer.

8 Sameness of Courses

If more than one training course is specified. All training courses ordered shall be identical.

9 Location of Courses

The training course(s) may be held at State facilities in Sacramento or, if agreed to by the State, at a supplier-provided site within the State of California. To use the State facilities in Sacramento, the supplier should contact:

George Rivera
State of California, Department of General Services
Telecommunications Division
601 Sequoia Pacific Blvd.
Sacramento, California 95814-0282
916-657-9748

10 Course Material

The supplier shall supply each trainee with the following material that is specific to the equipment ordered:

- A copy of the Operation and Maintenance manual in accordance with TD-927 Service Manual Requirements
- Documentation covering all modifications made to the equipment in compliance with the State specification.
- Programming Software
- Programming instruction manual
- A copy of the Manufacturer's training on CD or DVD format, if available, will be given to each student that attends a training class.