

# STATE OF HAWAII REQUEST FOR SOLE SOURCE

TO: Chief Procurement Officer

FROM: Transportation, Airports Division  
(Department/Division/Agency)

Pursuant to Sec. 103D-306, HRS, and Subchapter 9, Chapter 3-122, HAR, the Department requests sole source approval to purchase the following:

Description of goods, services, or construction:

Ariports Division scope of work: Augment existing Motorola XTS5000 portables and XTL5000 mobiles / base 700/800 MHz subscriber radios at Honolulu Internaitonal Airport. . Radios will have the capability to incorporate the standard ADP encryption or AES standard currently being incorporated into all DOT Airport subscriber radios. In additon to the encryption requirements, all radios will have the capability to operate on all DOT networks in the mix mode configuration and SLEC 700 MHz trunking systems statewide. Radios will be required to incorporate specified Mutual Aid channels referred to as "Must Carry" channels on all 800 MHz radio units. To achieve interoperability with first responders, an ACU interoperable console with telephone interconnect is being requested. Contractor shall be certified to complete a Electro-Magnetic Emission (EME) studies to update existing compliance requirements as issued by the Federal Communication Commission (FCC).

Name of Vendor:	Pacific Wireless Communications, LLC	Cost:	\$23,031.26
Address:	710 Kakoi St. Honolulu, Hawaii 96819		

Terms of Contract:	From:	To:	Prior Sole Source Reference No.:
	30-Jun-08	30-Mar-09	

The goods, services or construction has the following unique features, characteristics, or capabilities:

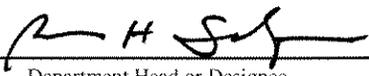
Pacific Wireless Communications is the only Authorized provider in the State of Hawaii capable of providing and upgrading Motorola 800 MHz SMARTNET Trunking Radio equipment and Motorola Digital (APCO 25 capable) 800 MHz SMARTNET Trunking Radio equipment. The portable radios require both dynamic regrouping an Multicast Voting Scan capability. During Natural disasters or emergencies, servicing of all fixed mobiles and portables equipment will require Factory Authorized Field service capabilities to be deployed from Maui service shop. In addition to the 800MHz Smartnet radio equipment, Pacific Wireless is the only authorized service provider for the ACU series interoperability console.

How the unique features, characteristics, or capabilities are essential for the agency to accomplish its work:  
 Pacific Wireless Communications is the only provider of Motorola Astro Digital equipment in the State of Hawaii and the only certified factory trained service center that can perform the required upgrades to Motorola Astro Digital equipment especially the Advanced Encryption Upgrades. Dynamic Regrouping and Multicast Voting Scan capability are a few of the required software capabilities required in the portable radios. Pacific Wireless is also the only qualified professional (CEC) Certified Service Center in the State of Hawaii. The newly proposed radios user displays and features will require mirroring existing subscriber and base units currently in use. The capability of having both 700 MHz and 800 Frequency in the radio at the same time is also required.

The following other possible sources for the goods, services, or construction were investigated but do not meet our needs because:  
 Pacific Wireless Communications, is the only licensed contractor in Hawaii that can upgrade the Motorola 800 MHz SMARTNET Trunking Radio Communications equipment and/or the Motorola Digital (APCO 25 capable) 800 MHz SMARTNET Trunking Radio equipment which has unique characteristics and/or capabilities (as explained above) which are essential to meet the needs of the State of Hawaii DOT. Pacific Wireless Communications, LLC is the ONLY Motorola Service Center in the State of Hawaii. Pacific Wireless Communications, LLC is the only certified shop located within the State of Hawaii to prepare the Electro-Magnetic Emission (EME) studies as required by the Federal Communication Commission (FCC)

Direct questions to: Martinez Jacobs Phone: 838-8702

*I certify that the information provided above is to the best of my knowledge, true, correct and that the goods, services, or construction are available through only one source.*

 APR 17 2008  
 Department Head or Designee Date  
 Deputy Director - Airports  
 Title (If other than Department Head)

POSTED: 4/28/08

Chief Procurement Officer's Comments:  
 Pursuant to Procurement Circulars 2006-07, Amendment 1, sole source and emergency procurements for \$5,000 to less than \$50,000 may be approved by the department head and do not require CPO approval or to be conducted on the HePS. However, sole source and emergency procurements \$2,500 or more are required to be posted on the Procurement Reporting System.  
 For the above reasons, this request is returned with no action required by the State Procurement Office.

Please ensure adherence to applicable administrative and statutory requirements.

Expenditure may be processed through a purchase order: Yes:  No:  . If no, a contract must be executed and funds certified.

APPROVED  DISAPPROVED

 4/29/08  
 Chief Procurement Officer Date

**DEPARTMENT OF TRANSPORTATION**  
**Airports Division - Honolulu**  
**ATTENTION: Mr. Martinez Jacobs**

ITEM	QTY	MODEL & DESCRIPTION	UNIT PRICE	EXT PRICE
<b><u>Oahu District</u></b>				
<b><u>HNL Radio Equipment for one (1) each Dodge Durango</u></b>				
<b><u>AM-VHF AIR TO GROUND RADIO</u></b>				
1	1	Icom ICA110 Mobile Unit (Air to ground) Includes: • VHF/AM Band / 20 Channels / 36 Watts • Standard Hand Mic, Power Cable • Standard Mounting Bracket • 1 Year Warranty - Parts & labor • VHF Mobile Ant Kit	\$ 1,042.58	\$ 1,042.58
<b><u>XTL 5000 MOBILE RADIO 700/800 MHz RADIO</u></b>				
2	1	XTL5000 Mobile radio Includes: • 700/800 MHz, 3 watts Model III • ADP Exncryption • Time-out-timer • Astro Digital CAI software operation • SmartZone Operation • Digital ID Display • Alphanumeric display (1 line/8 characters) • 3dB gain antenna • 05 Control Head software • 05 Control Head • Remote Mount • 5 Watt Speaker • Key Lock Mount • 2 Year Service Agreement- Parts & labor	\$ 4,658.41	\$ 4,658.41
			SUBTOTAL	\$ 5,700.99
1		Installation /Programming per Allan		\$ 700.00
			Freight	\$ 150.00
			tax (4.712%)	\$ 577.31
			TOTAL	\$ 7,128.30

**REMARKS: Prices quoted are FOB Origin: Freight quoted. Quotation good for 30 days. Delivery in approximately 60 days from acceptance of purchase order.**

**Terms: Issued Purchase Order & Net 30 days as invoiced.**

**Quote Prepared by: Brian Kitaoka for Alan Nishimura**

**Quotation date: 3.25.08**

**DEPARTMENT OF TRANSPORTATION**  
**Airports Division - Honolulu**  
**ATTENTION: Mr. Martinez Jacobs**

ITEM	QTY	MODEL & DESCRIPTION	UNIT PRICE	EXT PRICE
<u>Oahu District</u>				
<u>HNL Radio Equipment</u>				
<u>700/800 MHZ Control Station Radio</u>				
1	1	XTL5000 Control Station Radio Includes: 700/800 MHZ, 15-watts Model III • ADP Encryption • Astro Digital CAI Software Operation • SmartZone Operation • W5 Control Head • Power Supply • Desk mic • 2 Year Service Agreement - Parts & labor • 700/800 Antenna Kit	\$ 4,587.35	\$ 4,587.35
<u>XTS 5000 Portable RADIO 700/800 MHz RADIO</u>				
2	2	XTS5000 Portable Radio Includes: • 700/800 MHz, 3 watts Model III • ADP Exncryption • Time-out-timer • Astro Digital CAI software operation • SmartZone Operation • Digital ID Display • Alphanumeric display • Stubby Antenna • 2750 MAHImpres Li-ion Battery • 2-yr Service Agreement Parts & Labor • 110V Single Unit Impres Charger	\$ 4,401.32	\$ 8,802.64
			SUBTOTAL	\$ 13,389.99
			Freight	\$ 927.00
			tax (4.712%)	\$ 267.80
			TOTAL	\$ 1,318.17
1		EME Study& Installation for Control Station Radio		\$ 15,902.96

**REMARKS: Prices quoted are FOB Origin: Freight quoted. Quotation good for 30 days. Delivery in approximately 60 days from acceptance of purchase order.**

**Terms: Issued Purchase Order & Net 30 days as invoiced.**

**Quote Prepared by: Brian Kitaoka for Alan Nishimura**

**Quotation date: 3.25.08**

**COMMUNICATION EQUIPMENT MAINTENANCE REQUIREMENTS FOR  
DOT RURAL AIRPORTS**

**MINIMUM SPECIFICATIONS Rev. 1.0**

The service provider shall provide all necessary services to assure the readiness of all radio communication system equipment owned and utilized by the State of Hawaii DOT Airports. A list of all equipment to be maintained will be required.

The service provider must be qualified and must have the proper equipment to repair, service and maintain all subscriber radio communication system equipment in accordance to manufacturers specifications.

The service provider shall have all special cables, extender boards, specialized test equipment, etc., necessary to perform maintenance to manufacturer specifications for that equipment under its jurisdiction.

The service provider shall own a spectrum analyzer at each service facility covering all frequency bands utilized at each station.

The service provider shall be required to have the capability, software programs, and equipment as well as test equipment to handle the programming and repairs for all computerized (programmable) radios and consoles.

The service provider shall be required to be able to calibrate all equipment and certify all repairs to insure proper operation of the equipment.

The service provider shall be factory authorized to perform warranty work on radio equipment covered under warranty. In addition, the bidder shall have a minimum of two (2) factory trained employees certified on all Motorola fixed repeater systems, for the repair and maintenance of Motorola Mobiles, Portables, deskset and consoles. Certificate of Completion for all equipment noted above must be submitted upon request.

The service provider shall have factory certified and trained engineers to service and design all JPS wireless interoperable consoles through out the State of Hawaii.

The service provider shall have a minimum of five (5) years of experience in the repairing and maintaining of Public Safety radio systems. All repairs and maintenance work performed on the radio subscriber equipment shall be done by qualified personnel, either licensed by the FCC, Federal Communication Commission.

Minimum Specifications

In addition to a minimum of (10) full time FCC licensed professional maintenance technicians employed by the service provider and located permanently within the State of Hawaii, bidder must be prepared to demonstrate they have additional resources off the island, in the State of Hawaii, that may be applied during extreme emergencies, such as hurricanes, earthquakes and other natural disasters that require emergency radio equipment be repaired and systems be operational as soon after the disaster as possible. FCC, or applicable licenses), must be submitted with bid.

The service provider shall be prepared to show evidence that they have adequate technical resources to provide all subscriber maintenance, including that required on a 24-hour and/or emergency basis.

The service provider must also indicate that they have readily available, an inventory of commonly required repair and/or replacement parts typically needed to maintain the listed equipment and the necessary testing equipment, repair facilities and additional resources needed to complete all needed maintenance plus emergency services on a timely basis. The necessary replacement equipment shall include different types of batteries for the portable radio equipment.

Maintenance shall be done on all emergency response radio subscriber equipment on major islands including Islands of Maui, Molokai, Big Island of Hawaii, Kauai and Lanai.

# **Telecom Request for DOT Airports Honolulu**

## **Description**

Replace 16-18 year old STX and MTX/MTS portable radios with new Astro (P25 capable) XTS5000 portable and XTL5000 mobile radios to meet the DOT Airports 800 MHz statewide platform standards. All subscriber radios shall have the capability to be encrypted to the Advanced Encryption Standard or ADP standard platform required by DOT Airports Division.

All subscriber units will need to be capable of transmitting in both the 700 and 800 MHz trunking /conventional mode. All radios shall be capable of interoperability with all SLEC and DOT Airports and Highways Division 800 MHz trunking and conventional infrastructure. All subscriber radios will include the mandatory 800 "Must Carry" Fire EMS channels for on island interoperability

## **Justification**

### **Replacement**

Although the 800MHz STX and MTS/MTX and Spectra Mobile/Base subscriber radios have provided reliable service, they are on the average 16-18 years old and parts are becoming difficult to come by. The 800 MHz portable radios are analog, wide band radios and cannot be upgraded to the P25 Digital format. The State and County major Public Safety networks throughout the State are either 700 or 800 MHz. With the need for both 700 MHz and 800 MHz frequencies in the same radio, the current radios only provides for 800 mhz frequencies. The need to have a common platform will allow interoperability with all DOT Airports trunking network, interoperability with on island DOT Highways 800 infrastructure, common encryption platform with all DOT Airports statewide and flash upgrade capability to allow for future upgrades. The XTS/XTL series radio provides for our needs today and can be upgraded with software to meet our future requirements.

### **Air to Ground Radios**

New Air to Ground Radio required to replace existing crystal-type units. This new Airband mobile has ALL 760 Channel Capability compared to Six with the OLD Crystal type unit.

### **Secured Communications**

With the final replacement of the aging 800 MHz Analog radios, the XTS5000/XTL5000 will be formatted to make full use of the digital capabilities to allow operations on all DOT Airport Trunking systems statewide. Digital transmissions will be difficult to decode both in the trunking and conventional mode. Advance Encryption and ADP encryption will allow for a certain degree of privacy between digital users on all DOT Statewide Astro 800 MHz Digital (P25 capable) Trunking and conventional systems. News personnel cannot eavesdrop with out obtaining highly sophisticated scanning equipment and even then only hear bits and pieces of transmissions.

The new Astro 700/800 MHz Digital (P25 capable) systems require an advanced encryption scheme that can be digitally transmitted. The Advanced Encryption Standard is an approved Government standard that allows for commonality between law enforcement agencies at Local, State and Federal levels.

Although the Astro 800 MHz Digital (P25 capable) radio system provides a level of security between digital transmissions it can be compromised. The ADP or AES encryption provides a level of transmission security that allows for complete piece of mind. Encrypted transmissions will be secure allowing for sensitive operations to progress with complete confidence the mission will not be compromised.

The new Astro 700/800 MHz Conventional Digital (P25 capable) radios allows for both analog and digital transmissions but analog users can only talk to other analog users and digital users only to other digital users. The XTS5000 portable and XTL5000 mobile radios when fully upgraded will be able to transmit both analog and digital transmissions and hear analog transmissions while in the digital mode

### **Interagency Communications Plan**

All DOT Airports, DOT Highways and SLEC 700 and 800 subscriber units when on island will mirror the existing XTS5000 radio being proposed for the Honolulu International Airport. Phase II will require all subscriber units to be capable of accessing the Statewide SLEC 700 MHz network and future wide area DOT Airports MotoBridge ROIP radio network or future P25 Statewide interoperability switch.