

Exhibit B-1 Mandatory Technical Requirements

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BIDDER INSTRUCTIONS: *Bidders may choose to submit a response to any categories/sub-categories. Each category/sub-category will be evaluated and awarded separately. Each category/sub-category includes specifications for a sample product. Bidders must indicate in the space provided whether their sample product complies with the requirement. Bidder may provide clarification or comment in the space provided. Exhibit B-1 must not be altered. Bidders not submitting a bid in a category/sub-category must indicate "NO BID" for the relevant category/sub-category. Exhibit B-1 must be completed and submitted with Bidder's response.*

Bidders may offer additional products/services in the space below provided for each category/sub-category. Bidder will be required to submit a complete list of products/services in each category/sub-category for approval within fifteen (15) days of award.

Only Radio Manufacturers who receive an award in 1.7 Sub-Category: Base Station/Repeater and Category 3: Dispatch Console may have the opportunity to offer a turnkey (complete) radio solution and advance to the next evaluation phase. A radio solution may include an upgrade to existing system or a brand new system.

"P25" or "Project 25" is defined as the suite of standards for digital radio communications for public safety as defined by the Department of Homeland Security.

Exhibit B-1 Mandatory Technical Requirements

1. CATEGORY: RADIO

1.1 RADIO SUB-CATEGORY: SINGLE -BAND PORTABLE RADIO (P25)

Sub-Category Description: *Phase I 12.5 Digital Trunking capable, backwards compatible. Software – Defined Radio Architecture.*

The following specifications and equipment configuration describe requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled “**RadioSubCategory-Single-BandPortableP25**”). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F7010S P25 VHF Conventional & Analog Portable

Product Number: F7010S

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA standards for Public Safety Radio systems, and</i>	Y	The ICOM F7010S is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Current P25 CAP compliance found at the following link, https://www.dhs.gov/science-and-technology/approved-grant-eligible-equipment, and</i>	Y	This link shows that ICOM’s F7010 Portable Subscriber has CAP compliance, https://www.dhs.gov/science-and-technology/p25-cap/icom-ic-f7010-portable-subscriber . The F7010 is ICOM’s ‘family’ name of which the F7010S is a part. The ‘S’ represents a display version with multiple programmable buttons.
3.	<i>Capable of operating on P25 Phase I trunked and/or conventional (analog/ P25) systems, and</i>	Y	Radio upgrade required at an additional cost – 1) Install Phase 1 trunking license (Item Codes: ISL-P25TR and INSTALL-MF) <i>Items codes outlined above are for F7000 series only.</i>
4.	<i>Capable of operating on Public Safety spectrum at 136 to 174 MHz for interoperability, and</i>	Y	ICOM’s F7010S operates across the range of 136-174 MHz as shown on the published link: http://www.icomamerica.com/en/products/landmobile/p25/f7010series/specifications.aspx .

Exhibit B-1 Mandatory Technical Requirements

			NOTE: F7010S radio kit includes: radio, battery, belt clip, and owner’s manual. Antenna and Rapid Charger are sold separately. Radios also require programming before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF7510, OPC2363).
5.	<i>Capable of operating using Encryption Standard (AES-256).</i>	Y	As outlined within Exhibit B3 under “Services”. ICOM F7000 series radios support the following when specified components are ordered (at additional cost) with the radio: DES-OFB & AES-256 with hardware multikey support for up to 2 sets of 16 CKR’s and includes Over-The-Air Rekeying (OTAR) support as standard feature: 1) Requires UT-134 or UT-125 FIPS-2 level encryption board; 2) Requires ISL-P25AES license to remain DHS CAP compliant; 3) INSTALL-MF. <i>Icom America only supports multi-key operation and item codes outlined above are for F7000 series only.</i>
6..	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F7010 Portable Service USB Manual (Item Code: 94417110)
7..	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a three (3) year manufacturer’s warranty with extended warranty options as outlined within the section warranty below.
8..	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	Icom America offers FOB Destination on all government orders. Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F7010S	136-174MHz P25 conventional portable without a full keypad. Purchase antenna and charger separately.
F7010T	136-174MHz P25 conventional portable with full DTMF keypad. Purchase antenna and charger separately.
F7020S 11	380-470MHz P25 conventional portable without a full keypad. Purchase antenna and charger separately.
F7020S 31	450-512MHz P25 conventional portable without a full keypad. Purchase antenna and charger separately.
F7020T 21	380-470MHz P25 conventional portable with full DTMF keypad. Purchase antenna and charger separately.
F7020T 41	450-512MHz P25 conventional portable with full DTMF keypad. Purchase antenna and charger separately.
F7040S	7/800MHz P25 conventional portable with partial keypad. Purchase charger separately.
F7040T	7/800MHz P25 conventional portable with full DTMF keypad. Purchase charger separately.
F9011B 01	136-174MHz P25 conventional portable, 6W, 512 CH, basic model, no display or keypad
F9011B 21	136-174MHz P25 Conventional portable, 6W, 512 CH, basic model, no display or keypad
F9011S 25	136-174MHz P25 Conventional portable, 6W, 512 CH, display, simple keypad
F9011T 30	136-174MHz P25 Conventional portable, 6W, 512 CH, display, full DTMF keypad
F9021B 82	450-512MHz P25 Conventional portable, 5W, 512 CH, basic model, no display or keypad
F9021B 91	380-470MHz P25 Conventional portable, 5W, 512 CH, basic model, no display or keypad
F9021S 85	450-512MHz P25 Conventional, 5W, 512 CH, display, simple keypad
F9021S 95	380-470MHz P25 Conventional portable, 5W, 512 CH, display, simple keypad

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F7010S subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F7010S subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F7010S subject radio comes standard with a factory warranty of three (3) years. 1-year extended warranty (Item Code: EXTWARR811) available for purchase. Adding this option to subject radio (ie F7010S) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F7010S subject radio comes standard with a factory warranty of three (3) years. 2-year extended warranty (Item Code: EXTWARR812) available for purchase. Adding this option to subject radio (ie F7010S) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options. NOTE: There is one more Extended Warranty option that would take the warranty to six (6) years and we added to Exhibit C for your reference (Item Code: EXTWARR813).

Exhibit B-1 Mandatory Technical Requirements

1.2 RADIO SUB-CATEGORY: SINGLE -BAND MOBILE RADIO (P25)

Sub-Category Description: *Phase I Digital Trunking capable, backwards compatible. Software – Defined Radio Architecture.*

The following specifications and equipment configuration describe requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled “**RadioSubCategory-Single-BandMobileP25**”). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS. ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F7510 P25 VHF Conventional & Analog Mobile

Product Number: F7510

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA standards for Public Safety Radio systems, and</i>	Y	ICOM’s F7510 is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Current P25 CAP compliance found at the following link, https://www.dhs.gov/science-and-technology/approved-grant-eligible-equipment, and, and</i>	Y	This link shows that ICOM’s F7510 Mobile Subscriber has CAP compliance, https://www.dhs.gov/science-and-technology/p25-cap/icom-ic-f7510-mobile-subscriber# .
3.	<i>Capable of operating on P25 Phase I trunked and/ or conventional (analog/ P25) systems, and</i>	Y	Radio upgrade required at an additional cost – 1) Install Phase 1 trunking license (Item Codes: ISL-P25TR and INSTALL-MF) <i>Items codes outlined above are for F7000 series only.</i>
4.	<i>Capable of operating on Public Safety spectrum at 136 to 174 MHz, and</i>	Y	ICOM’s F7510 operates across the range of 136-174 MHz as shown on the published link http://www.icomamerica.com/en/products/landmobile/p25/f7510series/default.aspx .
			NOTE: Radios also require programming before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF7510, OPC2363).

Exhibit B-1 Mandatory Technical Requirements

5.	<i>Capable of operating using Encryption Standard (AES-256).</i>	Y	<p>As outlined within Exhibit B3 under “Services”. ICOM F7000 series radios support the following when specified components are ordered (at additional cost) with the radio: DES-OFB & AES-256 with hardware multikey support for up to 2 sets of 16 CKR’s and includes Over-The-Air Rekeying (OTAR) support as standard feature: 1) Requires UT-134 or UT-125 FIPS-2 level encryption board; 2) Requires ISL-P25AES license to remain DHS CAP compliant; 3) INSTALL-MF.</p> <p><i>Icom America only supports multi-key operation and item codes outlined above are for F7000 series only.</i></p>
6.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F7510 Mobile Service USB Manual (Item Code: 94417112)
7.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a three (3) year manufacturer’s warranty with extended warranty options as outlined within the warranty section below.
8.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	<p>Icom America offers FOB Destination on all government orders.</p> <p>Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).</p>

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F7510	136-174MHz P25 conventional mobile with color display
F7520 11	380-470MHz P25 conventional mobile with color display
F7520 21	450-512MHz P25 conventional mobile with color display
F7540	700/800MHz P25 conventional mobile with color display
F7510	136-174MHz P25 conventional mobile with color display
F7520 11	380-470MHz P25 conventional mobile with color display
F7520 21	450-512MHz P25 conventional mobile with color display
F9511HT 21	136-174MHz 110W P25 Conventional mobile with full keypad. (No external speaker)
F9511S 01	136-174MHz P25 conventional 50W mobile
F9511T 25	136-174MHz P25 Conventional 50W mobile with keypad
F9521S 41	400-470MHz 45W P25 Conventional mobile, no keypad
F9521T 25	400-470MHz mobile with full keypad
F9521T 45	400-470MHz P25 Conventional 45W mobile, full keypad

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. 1-year extended warranty (Item Code: EXTWARR811) available for purchase. Adding this option to subject radio (ie F7510) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. 2-year extended warranty (Item Code: EXTWARR812) available for purchase. Adding this option to subject radio (ie F7510) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options. NOTE: There is one more Extended Warranty option that would take the warranty to six (6) years and we added to Exhibit C for your reference (Item Code: EXTWARR813).

Exhibit B-1 Mandatory Technical Requirements

1.3 RADIO SUB-CATEGORY: SINGLE-BAND DESKTOP RADIO (P25)

Sub-Category Description: *Phase I Digital Trunking capable, backwards compatible. Software – Defined Radio Architecture.*

The following specifications and equipment configuration describes requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled “**RadioSubCategory-Single-BandDesktop-ConsoleRadioP25**”). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F7510 P25 VHF Conventional & Analog Basestation

Product Number: F7510 + IAPS12

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA standards for Public Safety Radio systems, and</i>	Y	ICOM’s F7510 is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Current P25 CAP compliance found at the following link, https://www.dhs.gov/science-and-technology/approved-grant-eligible-equipment, and, and</i>	Y	This link shows that ICOM’s F7510 Desktop Subscriber has CAP compliance, https://www.dhs.gov/science-and-technology/p25-cap/icom-ic-f7510-mobile-subscriber# .
3.	<i>Capable of operating on P25 Phase I trunked and/ or conventional (analog/ P25) systems, and</i>	Y	Radio upgrade required at an additional cost – 1) Install Phase 1 trunking license (Item Codes: ISL-P25TR and INSTALL-MF) <i>Items codes outlined above are for F7000 series only.</i>
4.	<i>Capable of operating on Public Safety spectrum at 136 to 174 MHz, and</i>	Y	ICOM’s F7510 operates across the range of 136-174 MHz as shown on the published link: http://www.icomamerica.com/en/products/landmobile/p25/f7510series/default.aspx .
			NOTE: Radios also require programming before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF7510, OPC2363).

Exhibit B-1 Mandatory Technical Requirements

5.	<i>Capable of operating using Encryption Standard (AES-256).</i>	Y	<p>As outlined within Exhibit B3 under “Services”. ICOM F7000 series radios support the following when specified components are ordered (at additional cost) with the radio: DES-OFB & AES-256 with hardware multikey support for up to 2 sets of 16 CKR’s and includes Over-The-Air Rekeying (OTAR) support as standard feature: 1) Requires UT-134 or UT-125 FIPS-2 level encryption board; 2) Requires ISL-P25AES license to remain DHS CAP compliant; 3) INSTALL-MF (and for Desktop application must add a power supply); 4) IASPS12; 5) CONTROL STATION ASSEMBLY.</p> <p><i>Icom America only supports multi-key operation and item codes outlined above are for F7000 series only.</i></p>
6.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F7510 Mobile Service USB Manual (Item Code: 94417112)
7.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a three (3) year manufacturer’s warranty with extended warranty options as outlined within the warranty section below.
8.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	<p>Icom America offers FOB Destination on all government orders.</p> <p>Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).</p>

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F7510 + IAPS12	136-174MHz P25 conventional mobile with color display with Power Supply
F7520 11 + IAPS12	380-470MHz P25 conventional mobile with color display with Power Supply
F7520 21 + IAPS12	450-512MHz P25 conventional mobile with color display with Power Supply
F7540 + IAPS12	700/800MHz P25 conventional mobile with color display with Power Supply
F9511HT 21 + ICT CS120-30A/IC08	136-174MHz 110W P25 Conventional mobile with full keypad with Power Supply (No external speaker)
F9511S 01 + ICT CS120-20A/IC06	136-174MHz P25 conventional 50W mobile with Power Supply
F9511T 25 + ICT CS120-20A/IC06	136-174MHz P25 Conventional 50W mobile with keypad with Power Supply
F9521S 41 + ICT CS120-20A/IC06	400-470MHz 45W P25 Conventional mobile, no keypad with Power Supply
F9521T 25 + ICT CS120-20A/IC06	400-470MHz mobile with full keypad with Power Supply
F9521T 45 + ICT CS120-20A/IC06	400-470MHz P25 Conventional 45W mobile, full keypad with Power Supply

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WARRANTY OPTIONS	
<i>(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)</i>	
WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. 1-year extended warranty (Item Code: EXTWARR811) available for purchase. Adding this option to subject radio (ie F7510) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F7510 subject radio comes standard with a factory warranty of three (3) years. 2-year extended warranty (Item Code: EXTWARR812) available for purchase. Adding this option to subject radio (ie F7510) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. NOTE: There is one more Extended Warranty option that would take the warranty to six (6) years and we added to Exhibit C for your reference (Item Code: EXTWARR813).

Exhibit B-1 Mandatory Technical Requirements

1.4 RADIO SUB-CATEGORY: MULTI-BAND PORTABLE RADIO (P25) – “NO BID”

1.5 RADIO SUB-CATEGORY: MULTI-BAND MOBILE RADIO (P25) – “NO BID”

1.6 RADIO SUB-CATEGORY: MULTI-BAND DESKTOP RADIO (P25) – “NO BID”

1.7 RADIO SUB-CATEGORY: BASE STATION/REPEATER (P25) – “NO BID”

Exhibit B-1 Mandatory Technical Requirements

2. RADIO CATEGORY: CONVENTIONAL ANALOG PORTABLE (NON-P25)

2.1 RADIO SUB-CATEGORY: CONVENTIONAL ANALOG PORTABLE (NON-P25)

Sub-Category Description: *Conventional Analog Portable radio. Minimum channel capacity of 4 transmit and 4 receive. Software – Defined Radio Architecture.*

IMPORTANT NOTE: *Products in this sub-category may not qualify for federal funding.*

The following specifications and equipment configuration describes requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled “**RadioSubCategory-ConventionalAnalogPortable**”). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS. ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F1000 VHF Analog Portable

Product Number: F1000 RC

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER'S CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA-603-C standards for Public Safety Radio systems</i>	Y	ICOM’s F1000 is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Code of Federal Regulations Title 47 Telecommunications Chapter I Federal Communications Commission Rules and regulations,</i>	Y	These products meet the administrative requirements for filing under title 47
3.	<i>Part 15 Radio Frequency Devices (47CFR15) Part 90, Private Land Mobile Radio Service (47CFR90).</i>	Y	ICOM’s F1000 radio meets 47CFR15 as applicable. The F1000 radio has a grant of equipment authorization #AFJ362000
4..	<i>Output Power 1-5 Watts (adjustable minimum range)</i>	Y	The ICOM F1000 portable has a TX power 3-level variable setting range with approximate TX power of 1W, 2W, 5W as shown http://www.icomamerica.com/en/products/landmobile/portables/f1000/specifications.aspx

Exhibit B-1 Mandatory Technical Requirements

			NOTE: F1000 RC radio kit includes: radio, antenna, battery, belt clip, rapid charger and owner's manual. Radios also require programming before use. End-user may order programming support through a Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF2000, OPC478UC).
5.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F1000 Portable Service USB Manual (Item Code: 94417117)
6.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a two (2) year manufacturer's warranty with extended warranty options as outlined within the warranty section below.
7.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	Icom America offers FOB Destination on all government orders. Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F1000 RC	136-174MHz,16 CH, no display, analog portable with rapid charger
F1000S RC	136-174MHz, 128 CH, LCD, 4-key analog portable with rapid charger
F1000T RC	136-174MHz, 128CH, LCD, full DTMF keypad analog portable with rapid charger
F1100D RC	136-174MHz IDAS portable with 16 channels and no display with rapid charger
F1100DS RC	136-174MHz IDAS portable with 128 channels, display with limited keypad, and rapid charger
F1100DT	136-174MHz IDAS portable with 128 channels, display and full DTMF keypad
F2000H RC	450-512MHz, 16 CH, no display, analog portable with rapid charger
F2000L RC	400-470MHz, 16 CH, no display, analog portable with rapid charger
F2000SH RC	450-512MHz, 128 CH, LCD, 4-key analog portable with rapid charger
F2000SL RC	400-470MHz, 128 CH, LCD, 4-key analog portable with rapid charger
F2000TH RC	450-512MHz, 128CH, LCD, full DTMF keypad analog portable with rapid charger
F2000TL RC	400-470MHz, 128CH, LCD, full DTMF keypad analog portable with rapid charger
F2100DH RC	450-512MHz IDAS portable with 16 channels and no display
F2100DL RC	400-470MHz IDAS portable (5W) with 16 channels + rapid charger and no display
F2100DS 26	450-512MHz IDAS portable with 128 channels, display and limited keypad
F2100DSL RC	400-470MHz IDAS portable with 128 channels, display, limited keypad and rapid charger
F2100DT 31	400-470MHz IDAS portable with 128 channels, LCD, full DTMF keypad
F2100DT 36	450-512MHz IDAS portable with 128 channels, LCD, full DTMF keypad
F3001 03 RC	136-174MHz radio with 1900mAh Li-ion battery & rapid charger (BC-193)
F3201DEX 14	136-174MHz ATEX intrinsically safe IDAS portable
F3230DS 13	136-174MHz IDAS 128 channel MultiTrunk portable with display. Charger (BC-160) included.
F3261DT 35 RR	Railroad specific version: 136-174MHz 512 channel, IDAS waterproof portable radio with a DTMF keypad and GPS. Special railroad firmware installed.
F3360DS 11	136-174MHz waterproof IDAS radio with GPS, 512CH, 4-key
F3400D 21	136-174MHz IDAS portable with 32 channels and no display. Purchase antenna and charger separately.
F3400DS 11	136-174MHz IDAS portable with 1024 channels and a color display. Purchase antenna and charger separately.
F3400DT 01	136-174MHz IDAS portable with 1024 channels, a color display, and full DTMF keypad. Purchase antenna and charger separately.
F4001 03 RC	400-470MHz radio with 1900mAh Li-ion battery & rapid charger (BC-193)

Exhibit B-1 Mandatory Technical Requirements

F4001 43 RC	450-512MHz radio with 1900mAh Li-ion battery & rapid charger (BC-193)
F4230DS 13	400-470MHz IDAS 128 channel MultiTrunk portable with display. Charger (BC-160) included.
F4230DS 32	450-512MHz IDAS 128 channel MultiTrunk portable with display. Charger (BC-160) included.
F4261DS 90	450-512MHz waterproof IDAS radio with GPS, no DTMF keypad
F4261DT NI-1	400-470MHz nonincendive rated waterproof IDAS radio, full DTMF keypad
F4261DT NI-2	450-512MHz nonincendive rated waterproof IDAS radio, full DTMF keypad
F4400DS 11	380-470MHz IDAS portable with 1024 channels, and a color display. Purchase antenna and charger separately.
F4400DS 41	450-512MHz IDAS portable with 1024 channels and a color display. Purchase antenna and charger separately.
F4400DT 01	380-470MHz IDAS portable with 1024 channels, a color display, and full DTMF keypad. Purchase antenna and charger separately.
F4400DT 31	450-512MHz IDAS portable with 1024 channels, a color display, and full DTMF keypad. Purchase antenna and charger separately.
F52D	136-174MHz compact, IDAS, waterproof portable with 512 channels. Purchase antenna and charger separately.
F52DUL	136-174MHz intrinsically safe, IDAS waterproof portable with 512 channels. Purchase antenna and charger separately.
F62D 11	400-470MHz compact IDAS waterproof portable with 512 channels. Purchase antenna and charger separately.
F62D 21	450-512MHz compact IDAS waterproof portable with 512 channels. Purchase antenna and charger separately.
F62DUL 11	400-470MHz intrinsically safe, compact IDAS waterproof portable with 512 channels. Purchase antenna and charger separately.
F62DUL 21	450-512MHz intrinsically safe, compact IDAS waterproof portable with 512 channels. Purchase antenna and charger separately.
F80DS 31	380-450MHz P25 radio with FIPS AES installed, no DTMF keypad (<i>Not CAP certified</i>)

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F1000 RC subject radio comes standard with a factory warranty of two (2) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F1000 RC subject radio comes standard with a factory warranty of two (2) years. 1-year extended warranty (Item Code: EXTWARR211) available for purchase. Adding this option to subject radio (ie F1000 RC) would provide a total of three (3) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F1000 RC subject radio comes standard with a factory warranty of two (2) years. 2-year extended warranty (Item Code: EXTWARR212) available for purchase. Adding this option to subject radio (ie F1000 RC) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F1000 RC subject radio comes standard with a factory warranty of two (2) years. 3-year extended warranty (Item Code: EXTWARR213) available for purchase. Adding this option to subject radio (ie F1000 RC) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.

Exhibit B-1 Mandatory Technical Requirements

2.2 RADIO SUB-CATEGORY: CONVENTIONAL ANALOG MOBILE (NON-P25)

Sub-Category Description: *Conventional Analog Mobile Radio: Minimum channel capacity of 32 transmit and 32 receive. Software – Defined Radio Architecture.*

IMPORTANT NOTE: *Products in this sub-category may not qualify for federal funding.*

The following specifications and equipment configuration describes requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled “**RadioSubCategory-ConventionalAnalogMobile**”). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS. ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F5011 VHF Analog Mobile

Product Number: F5011 51

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER'S CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA-603-C standards for Public Safety Radio systems</i>	Y	ICOM’s F5011 is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Code of Federal Regulations Title 47 Telecommunications Chapter I Federal Communications Commission Rules and regulations,</i>	Y	These products meet the administrative requirements for filing under title 47
3.	<i>Part 15 Radio Frequency Devices (47CFR15) Part 90, Private Land Mobile Radio Service (47CFR90).</i>	Y	ICOM’s F5011 radio meets 47CFR15 as applicable. The F5011 radio has a grant of equipment authorization #AFJ333400.
4.	Output Power 2-30 Watts (adjustable minimum range)	Y	The F5011 has a TX power 3-level variable setting range with approximate TX power of 5W, 25W, 50W as shown http://www.icomamerica.com/en/products/landmobile/mobiles/f5011series/specifications.aspx .
			NOTE: Radios also require programming before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF3020/F5010F5020, OPC1122U).

Exhibit B-1 Mandatory Technical Requirements

5.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F5011 Mobile Service USB Manual (Item Code: 94415596)
5.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a two (2) year manufacturer’s warranty with extended warranty options as outlined within the warranty section below.
8.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	Icom America offers FOB Destination on all government orders. Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F2821D 23	400-470MHz analog mobile, upgradeable to P25 (Not CAP Certified)
F5011 51	136-174MHz mobile
F5021 51	136-174MHz mobile
F5061D	136-174MHz IDAS mobile
F5061D RR	136-174MHz IDAS radio, RR firmware installed, HM-148T included
F5121D	136-174MHz IDAS mobile
F5122DD 12	136-174MHz, 9.6k/4.8kbps, 25W, RS232 + ethernet
F5220D	136-174MHz IDAS mobile
F5400D 01	136-174MHz IDAS mobile with color display
F5400DS 11	136-174MHz IDAS mobile with numerical display
F6011 51	400-470MHz mobile
F6011 52	450-512MHz mobile
F6021 51	400-470MHz mobile
F6021 52	450-512MHz mobile
F6061D 61	400-470MHz IDAS mobile
F6061D 66	450-512MHz IDAS mobile
F6121D 67	400-470MHz IDAS mobile
F6121D 68	450-512MHz IDAS mobile
F6122DD 12	400-470MHz, 9.6k/4.8kbps, 25W, RS232 + ethernet
F6220D 11	400-470MHz IDAS mobile
F6220D 22	450-512MHz IDAS mobile
F6400D 01	380-470MHz IDAS mobile with color display
F6400D 21	450-512MHz IDAS mobile with color display
F6400DS 11	380-470MHz IDAS mobile with numeric display
F8101 33	HF 125W transceiver with ALE (automatic link establishment)

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 1-year extended warranty (Item Code: EXTWARR211) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of three (3) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 2-year extended warranty (Item Code: EXTWARR212) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 3-year extended warranty (Item Code: EXTWARR213) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.

Exhibit B-1 Mandatory Technical Requirements

2.3 RADIO SUB-CATEGORY: CONVENTIONAL ANALOG DESKTOP (NON-P25)

Sub-Category Description: *Conventional Analog Desktop Radio: Minimum channel capacity of 32 transmit and 32 receive. Software – Defined Radio Architecture.*

IMPORTANT NOTE: *Products in this sub-category may not qualify for federal funding.*

The following specifications and equipment configuration describes requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled [*“RadioSubCategory-ConventionalAnalogDesktop”*]). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: F5011 VHF Analog Basestation

Product Number: F5011 51 + ICT CS120-20AG/IC04

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA-603-C standards for Public Safety Radio systems</i>	Y	ICOM’s F5011 is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Code of Federal Regulations Title 47 Telecommunications Chapter I Federal Communications Commission Rules and regulations,</i>	Y	These products meet the administrative requirements for filing under title 47
3.	<i>Part 15 Radio Frequency Devices (47CFR15) Part 90, Private Land Mobile Radio Service (47CFR90).</i>	Y	ICOM’s F5011 radio meets 47CFR15 as applicable. The F5011 radio has a grant of equipment authorization #AFJ333400.
4.	Output Power 2-30 Watts (adjustable minimum range)	Y	The F5011 has a TX power 3-level variable setting range with approximate TX power of 5W, 25W, 50W as shown http://www.icomamerica.com/en/products/landmobile/mobiles/f5011series/specifications.aspx .
			NOTE: Radios also require programming before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSF3020/F5010F5020, OPC1122U).

Exhibit B-1 Mandatory Technical Requirements

5.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	F5011 Mobile Service USB Manual (Item Code: 94415596)
6.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a two (2) year manufacturer’s warranty with extended warranty options as outlined within the warranty section below.
7.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	Icom America offers FOB Destination on all government orders. Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
F2821D 23 + ICT CS120-20A/IC06	400-470MHz analog mobile, upgradeable to P25 (Not CAP Certified) + Power Supply
F5011 51 + ICT CS120-20AG/IC04	136-174MHz mobile + Power Supply
F5021 51 + ICT CS120-20AG/IC04	136-174MHz mobile + Power Supply
F5061D + ICT CS120-20AG/IC09	136-174MHz IDAS mobile + Power Supply
F5061D RR + ICT CS120-20AG/IC09	136-174MHz IDAS radio, RR firmware installed, HM-148T included + Power Supply
F5121D + ICT CS120-20AG/IC04	136-174MHz IDAS mobile + Power Supply
F5220D + ICT CS120-20AG/IC04	136-174MHz IDAS mobile + Power Supply
F5400D 01 + IAPS12	136-174MHz IDAS mobile with color display + Power Supply
F5400DS 11 + IAPS12	136-174MHz IDAS mobile with numerical display + Power Supply
F6011 51 + ICT CS120-20AG/IC04	400-470MHz mobile
F6011 52 + ICT CS120-20AG/IC04	450-512MHz mobile
F6021 51 + ICT CS120-20AG/IC04	400-470MHz mobile
F6021 52 + ICT CS120-20AG/IC04	450-512MHz mobile
F6061D 61 + ICT CS120-20AG/IC09	400-470MHz IDAS mobile
F6061D 66 + ICT CS120-20AG/IC09	450-512MHz IDAS mobile
F6121D 67 + ICT CS120-20AG/IC04	400-470MHz IDAS mobile
F6121D 68 + ICT CS120-20AG/IC04	450-512MHz IDAS mobile
F6220D 11 + ICT CS120-20AG/IC04	400-470MHz IDAS mobile
F6220D 22 + ICT CS120-20AG/IC04	450-512MHz IDAS mobile
F6400D 01 + IAPS12	380-470MHz IDAS mobile with color display
F6400D 21 + IAPS12	450-512MHz IDAS mobile with color display
F6400DS 11 + IAPS12	380-470MHz IDAS mobile with numeric display

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 1-year extended warranty (Item Code: EXTWARR211) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of three (3) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 2-year extended warranty (Item Code: EXTWARR212) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The F5011 51 subject radio comes standard with a factory warranty of two (2) years. 3-year extended warranty (Item Code: EXTWARR213) available for purchase. Adding this option to subject radio (ie F5011 51) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.

Exhibit B-1 Mandatory Technical Requirements

2.4 RADIO SUB-CATEGORY: CONVENTIONAL ANALOG BASE STATION/REPEATER (NON-P25)

Sub-Category Description: *Conventional Analog Base Station/Repeater: Minimum channel capacity of 4 transmit and 4 receive. Software – Defined Radio Architecture.*

IMPORTANT NOTE: *Products in this sub-category may not qualify for federal funding.*

The following specifications and equipment configuration describes requirements for a target product Mission Critical Public Safety Equipment. It is the Bidder’s responsibility to fully describe or explain how the product offered meets or exceeds each identified requirement. If more space is needed, Bidders may submit additional pages (up to a maximum equivalent of five single-sided pages – 12-point font labeled **“RadioSubCategory-ConventionalAnalogBaseStation-Repeater”**). For evaluation purposes, only one product may be offered to meet or exceed these specifications on a pass/fail basis. Bidders are encouraged to submit descriptive literature for the product offered confirming its compliance with specifications. Additional products may be offered for consideration upon award as identified below.

PROPOSED PUBLIC SAFETY RADIO EQUIPMENT MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS. ALL PROPOSED EQUIPMENT OF THE SUB-CATEGORY REQUIREMENTS BELOW ARE PASS/FAIL. PROPOSED EQUIPMENT NOT MEETING THE SUB-CATEGORY REQUIREMENTS WILL NOT BE FURTHER EVALUATED.

Manufacturer: ICOM

Product Model Name: FR5000 VHF Repeater

Product Number: FR5000 14

ITEM NO.	PERFORMANCE REQUIREMENT	BIDDER COMPLIES Y/N	BIDDER CLARIFICATIONS AND COMMENTS
1.	<i>Current TIA/EIA-603-C standards for Public Safety Radio systems</i>	Y	ICOM’s FR5000 series is designed to and meets TIA/EIA standard TIA-603-E.
2.	<i>Code of Federal Regulations Title 47 Telecommunications Chapter I Federal Communications Commission Rules and regulations,</i>	Y	These products meet the administrative requirements for filing under title 47
3.	<i>Part 15 Radio Frequency Devices (47CFR15) Part 90, Private Land Mobile Radio Service (47CFR90).</i>	Y	ICOM’s FR5000 radio meets 47CFR15 as applicable. The FR5000 radio has a grant of equipment authorization #AFJ307900.
4.	<i>Output Power 2-30 Watts (adjustable minimum range)</i>	Y	The FR5000 has a TX power variable-level setting range with approximate TX power of 50W to 5W as shown http://www.icomamerica.com/en/products/systems/IDAS/fr5000_fr6000/specifications.aspx . Requires power supply (Item Code: IASPS1220) and mounting rack (Item Code: IASMNT1102)

Exhibit B-1 Mandatory Technical Requirements

			NOTE: Repeaters also require programming and/or tuning before use. End-user may order programming support through Icom America, an Authorized Reseller or order programming equipment to perform on their own (Item Codes: CSFR5000, OPC1122U).
5.	SERVICE MANUAL - One (1) set system documentation, operations and service manuals, printed or electronic copy, for use by supporting technician.	Y	FR5000 Repeater Service USB Manual (Item Code: 94415514)
6.	WARRANTY – Minimum one (1) year (standard warranty that includes all firmware and software updates within warranty period). Parts and related software will be free from defects in material and workmanship for one year. If equipment fails because of a defect in workmanship or materials within one year from the date of shipment manufacturer shall repair or replace the equipment or part without charge to purchaser. Provide additional warranty options below.	Y	Subject radio includes a two (2) year manufacturer’s warranty with extended warranty options as outlined within the warranty section below.
7.	SHIPPING REQUIREMENTS - F.O.B. Destination. Shipping charges may be negotiated and mutually agreed between the Purchaser and the Contractor. All shipping charges will be added as a separate line item to the invoice.	Y	Icom America offers FOB Destination on all government orders. Surface shipping is at no additional cost to Client unless it is a custom-build through our Systems Division (which we are not bidding herein).

Exhibit B-1 Mandatory Technical Requirements

ADDITIONAL PRODUCTS FOR CONSIDERATION	
<i>(For informational purposes ONLY. Listed items may be considered as additional option(s) upon award and included in Bidder's offering)</i>	
PRODUCT MODEL NAME/NUMBER	DESCRIPTION
CY5000	136-174MHz IDAS analog/digital repeater with power supply
CY6001	400-470MHz IDAS analog/digital repeater with power supply
FR5000 14	136-174MHz analog/digital IDAS repeater (power supply not included)
FR5200H 51	136-174MHz 50W analog, IDAS repeater 100% duty cycle
FR5300	136-174 MHz analog/digital, 50W, IDAS Simulcast repeater
FR6000 01 2CH KIT	400-470MHz 2 channel conventional system (2 repeaters, 2 external power supplies)
FR6000 01 UR KIT	400-470MHz, 2 channel analog/digital repeater (FR6000+URFR6000 installed)
FR6000 14	400-470MHz analog/digital IDAS repeater (power supply not included)
FR6200H 61	450-512MHz 50W analog, IDAS repeater 100% duty cycle
FR6300H	450-512MHz analog/digital, 50W, IDAS repeater
FR6300L	400-470MHz analog/digital, 50W, IDAS repeater
FR9010 11	146-174MHz 110W P25 repeater
FR9020 11	440-475MHz 100W P25 repeater
IAS X-BAND 50	VHF FM & UHF FM cross band repeater
IAS X-BAND 50 AIR U	Airband AM & UHF FM cross band repeater
IAS X-BAND 50 AIR V	Airband AM & VHF FM cross band repeater
IAS X-BAND 50 UU	UHF FM & UHF FM cross band repeater
IAS X-BAND 50 VV	VHF FM & VHF FM cross band repeater
URFR5000 63	136-174MHz analog/digital repeater channel module
URFR5300	136-174MHz analog/digital IDAS repeater channel module
URFR6000 63	400-470MHz repeater module
URFR6300H	450-512MHz Repeater module
URFR6300L	400-470MHz Repeater module

Exhibit B-1 Mandatory Technical Requirements

WARRANTY OPTIONS

(Warranty options listed below and may be considered upon award and included in Bidder's offering. Costs for additional warranty options beyond the minimum one-year warranty will be captured in Exhibit C Bid Price.)

WARRANTY OPTION	DESCRIPTION
TWO-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Two-Year Warranty (Minimum one-year warranty plus one year)"</i> The FR5000 14 subject repeater comes standard with a factory warranty of two (2) years. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for this unit as well as all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
THREE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Three-Year Warranty (Minimum one-year warranty plus two years)"</i> The FR5000 14 subject repeater comes standard with a factory warranty of two (2) years. 1-year extended warranty (Item Code: EXTWARRPT1) available for purchase. Adding this option to subject radio (ie FR5000 14) would provide a total of three (3) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FOUR-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Four-Year Warranty (Minimum one-year warranty plus three years)"</i> The FR5000 14 subject repeater comes standard with a factory warranty of two (2) years. 2-year extended warranty (Item Code: EXTWARRPT2) available for purchase. Adding this option to subject radio (ie FR5000 14) would provide a total of four (4) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.
FIVE-YEAR ADDITIONAL OPTION	As further defined in Exhibit C Bid Price: <i>"Five-Year Warranty (Minimum one-year warranty plus four years)"</i> The FR5000 14 subject repeater comes standard with a factory warranty of two (2) years. 3-year extended warranty (Item Code: EXTWARRPT3) available for purchase. Adding this option to subject radio (ie FR5000 14) would provide a total of five (5) years of a manufacturer's warranty. Refer to Icom America's Warranty Schedule by Product and Extended Warranty options (if applicable) for all other products listed in our "Additional Products for Consideration" offering. Supporting Accessories hold a one (1) year warranty and not subject to extended warranty options.

Exhibit B-1 Mandatory Technical Requirements

3. CATEGORY: VEHICULAR REPEATER SYSTEMS (VRS) P25 – “NO BID”
4. CATEGORY: DISPATCH CONSOLES – “NO BID”
5. CATEGORY: MICROWAVE RADIO – “NO BID”
6. CATEGORY: INTEROPERABILITY GATEWAY DEVICES – “NO BID”
7. CATEGORY: POWER SUPPLY PRODUCTS AND SOLUTIONS – “NO BID”
8. CATEGORY: TEST EQUIPMENT – “NO BID”
9. CATEGORY: MONITORING & ALARM EQUIPMENT – “NO BID”
10. CATEGORY: FURNITURE, DISPATCH CONSOLE – “NO BID”
11. CATEGORY: EQUIPMENT SHELTERS – “NO BID”
12. CATEGORY: TOWERS – “NO BID”



Warranty Schedule by Product

Standard Warranty: 1 Year	Optional 1-year Extended	Optional 2-year Extended	Optional 3-year Extended
CY Repeater	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
CY5000-CY6000 Repeater	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
X-Band Repeater	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3

Standard Warranty: 2 Years	Optional 1-year Extended	Optional 2-year Extended	Optional 3-year Extended
F3001-F4001 Series	EXTWARR211	EXTWARR212	EXTWARR213
F1000-F2000 Series	EXTWARR211	EXTWARR212	EXTWARR213
F1100D-F2100D Series	EXTWARR211	EXTWARR212	EXTWARR213
F3201DEX-F4201DEX	N/A	N/A	N/A
F3210D-F4210D Series	EXTWARR211	EXTWARR212	EXTWARR213
F5011-F6011 Series	EXTWARR211	EXTWARR212	EXTWARR213
F5021-F6021 Series	EXTWARR211	EXTWARR212	EXTWARR213
F5121D-F6121D Series	EXTWARR211	EXTWARR212	EXTWARR213
F5122DD-F6122DD Series	EXTWARR211	EXTWARR212	EXTWARR213
F5220D-F6220D Series	EXTWARR211	EXTWARR212	EXTWARR213
FR5000-FR6000 Series	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
URFR5000-URFR6000 Series	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
FR5200H-FR6200H Series	N/A	N/A	N/A
FR5300-FR6300 Series	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
URFR5300-URFR6300 Series	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3
FR9010-FR9020 Series	EXTWARRPT1	EXTWARRPT2	EXTWARRPT3

Standard Warranty: 3 Years	Optional 1-year Extended	Optional 2-year Extended	Optional 3-year Extended
F3230D-F4230D Series	EXTWARR611	EXTWARR612	EXTWARR613
F3261D-F4261D Series	EXTWARR611	EXTWARR612	EXTWARR613
F3360D-F4360D Series	EXTWARR611	EXTWARR612	EXTWARR613
F5360-F6360 Series	EXTWARR611	EXTWARR612	EXTWARR613
F52D-F62D Series	EXTWARR611	EXTWARR612	EXTWARR613
F70D-F80D Series	EXTWARR611	EXTWARR612	EXTWARR613
F9011-F9021 Series	EXTWARR811	EXTWARR812	EXTWARR813
F5061-F6061/D Series	EXTWARR611	EXTWARR612	EXTWARR613
F1721D-F2721D Series	EXTWARR811	EXTWARR812	EXTWARR813
F9511-F9521 Series	EXTWARR811	EXTWARR812	EXTWARR813
F3400D-F4400D Series	EXTWARR811	EXTWARR812	EXTWARR813
F5400D-F6400D Series	EXTWARR811	EXTWARR812	EXTWARR813
F7010-F7510 Series	EXTWARR811	EXTWARR812	EXTWARR813