



**SUPPLEMENTAL/BID BULLETIN NO. 2**

**SUPPLY, DELIVERY, AND INSTALLATION OF BAGGAGE X-RAY MACHINES  
AND WALK-THROUGH METAL DETECTORS FOR PORTS AND OFFICES**

**T O** : All Prospective Bidders  
: Members, HO-BAC-PGCS  
: Others Concerned

Relative to the Bid Documents issued by the BAC-PGCS for the Supply, Delivery, and Installation of Baggage X-Ray Machines and Walk-Through Metal Detectors for Ports and Offices (BAC-PGCS-011-2019), please be informed of the following amendments thereto, to wit:

**" I. ON THE SCHEDULE OF PRE-BID CONFERENCE IN THE BID DATA SHEET**

9.1 The Procuring Entity will hold a Pre-Bid Conference for this Project on 17 May 2019 at 11:00 a.m. at Function Room, 7<sup>th</sup> Floor, PPA Building, Bonifacio Drive, South Harbor, Port Area, Manila.

**II. ON THE SCHEDULE OF THE SUBMISSION AND OPENING OF BIDS IN THE BID DATA SHEET**

21. xxx xxx xxx

The deadline for submission of bids is on 31 May 2019 at 9:00 a.m.

24.1 xxx xxx xxx

The date and time of bid opening is on 31 May 2019 at 10:00 a.m.

**III. ON THE TERMS OF REFERENCE (TOR)**

The attached Terms of Reference (TOR) is hereby incorporated as an integral part of the Bid Documents for the Supply, Delivery, and Installation of Baggage X-Ray Machines and Walk-Through Metal Detectors for Ports (BAC-PGCS-011-2019).

**IV. ON SECTION V. SPECIAL CONDITIONS OF CONTRACT (SCC) OF THE BID DOCUMENTS**

xxx xxx xxx xxx xxx xxx

11.3 Payment will be made to the Supplier upon completion of the project as per the Schedule of Requirements in Article V of the Terms of Reference (TOR).

Partial payment may be allowed, only upon completion of installations as per PPA cluster below:

1. Northern Luzon
2. Southern Luzon
3. Visayas
4. Northern Mindanao
5. Southern Mindanao

The amount payable shall be the total quantity deployed per cluster.

xxx      xxx      xxx                      xxx      xxx      xxx

17.3 xxx      xxx      xxx

For the first year of warranty, the obligation for the warranty shall be covered by, at the Supplier's option, either retention money in an amount equivalent to five percent (5%) of every progress payment for the Baggage X-ray Machines and Walk-Through Metal Detectors, or a special bank guarantee equivalent to at least five percent (5%) of the Contract Price of the Baggage X-ray Machines and Walk-Through Metal Detectors.

One half of the retained amount shall only be released after the lapse of the first year of the warranty period specified. The remaining half shall only be released after the lapse of the second year warranty period.

17.4 The period for the repair and replacement of defective goods or parts is seven (7) calendar days from receipt of notice.

**V. ON SECTION VII. TECHNICAL SPECIFICATIONS OF THE BID DOCUMENTS**

**TECHNICAL SPECIFICATIONS**

Item	Specification	Statement of Compliance		
		xxx	xxx	xxx
<b>GENERAL REQUIREMENTS</b>				
1	All units shall be of the same brand and model. Each set of baggage X-ray machine and walk-through metal detector shall include:			


	<ul style="list-style-type: none"> <li>• In/Out rollers, exit rollers</li> <li>• Operator's Desk</li> <li>• Stand for monitors</li> <li>• Keyboard</li> <li>• Ramp</li> <li>• Uninterruptible Power Supply (UPS), and</li> <li>• Heavy-duty printer</li> </ul>	
2	The equipment shall have dual-view technology with dual-energy functions for material discrimination. It should effectively eliminate the uncertainty caused by overlapping object, even without repositioning.	
3	Must have low x-ray leakage dose rate and guarantee the safety of the environment as well as the operators and passengers.	
4	Must have the ability to archive images on a removable hard drive. Hard drive capacity must be at least 1 Terrabyte.	
5	The system must be able to provide a function that automatically detects organic substances highlighting a region or the system that may display organic substances through color distinction.	
6	The system must be capable of identifying dense areas and apply the high penetration feature only to the dense areas of the bag.	
7	The system should be capable of categorizing materials as (a) organic/non-organic, (b) metals, (c) explosives, (d) others - as may be programmed, through at least 3-color imaging.	
8	Threat Image Protection (TIP): The system shall be capable of automatic projection of threat images to enhance the alertness of the system operators.	
9	Does not require warm-up.	
10	Must be included in the Transportation Security Administration (TSA) Qualified List and has undergone a formal TSA-sponsored test process and is deemed qualified for screening operations and/or its European equivalent standard.	

**BAGGAGE X-RAY MACHINE AND ITS ACCESSORIES**

<b>PHYSICAL REQUIREMENTS</b>			
	xxx	xxx	xxx
	xxx	xxx	xxx
	xxx	xxx	xxx
<b>COMPUTER SPECIFICATIONS</b>			
	xxx	xxx	xxx
24.3	<p>Open Source Operating Systems - It is understood that open source operating systems are released under a license where the copyright holder allows others to study, change as well as distribute the software to other people.</p> <p>Updates must be free for the next five (5) years from acceptance.</p>		
	xxx	xxx	xxx
	xxx	xxx	xxx
	xxx	xxx	xxx."

Issued this 09<sup>th</sup> day of May 2019

THE BIDS AND AWARDS COMMITTEE:  
By

  
**MRK JON S. PALOMAR**  
 Chairperson, HO-BAC-PGCS

**Supply, Delivery, and Installation of Baggage X-Ray  
Machines and Walk-Through Metal Detectors for  
Ports and Offices**

**TERMS OF REFERENCE**

**I. DEPLOYMENT**

<b>AREA OF DEPLOYMENT</b>		<b>NO. OF UNITS</b>
<b>1</b>	<b>PPA Head Office</b>	
	Head Office Bldg. (new)	1
<b>2</b>	<b>PMO NCR North</b>	
	PMO Admin. Bldg. (new)	1
<b>3</b>	<b>PMO NCR South</b>	
	PMO Admin. Bldg. (new)	1
	Port of Pasig, PTB (new)	1
	South Cruise Terminal Bldg.(new)	1
<b>4</b>	<b>PMO Bataan/Aurora</b>	
	PMO Admin. Bldg. (new)	1
<b>5</b>	<b>PMO Northern Luzon</b>	
	PMO Admin. Bldg. (new)	1
<b>6</b>	<b>PMO Batangas</b>	
	PMO Admin. Bldg. (new)	1
<b>7</b>	<b>PMO MarQuez</b>	
	Port of Balanacan PTB(additional)	1
	Port of Lucena PTB (additional)	1
<b>8</b>	<b>PMO Mindoro</b>	
	PMO Admin. Bldg. (new)	1
	Port of Calapan PTB (additional)	1
<b>9</b>	<b>PMO Bicol</b>	
	PMO Admin. Bldg. (new)	1
	Port of Matnog PTB (additional)	1
	Port of Virac (new)	1
	Port of San Andres (new)	1

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10	<b>PMO Masbate</b>	
	PMO Admin. Bldg. (new)	1
11	<b>PMO Palawan</b>	
	PMO Admin. Bldg. (new)	1
	Port of Palawan PTB (additional)	1
12	<b>PMO Panay/Guimaras</b>	
	PMO Admin. Bldg. (new)	1
13	<b>PMO Negros Oriental /Siquijor</b>	
	PMO Admin. Bldg. (new)	1
	Port of Larena PTB (new)	1
14	<b>PMO Western Southern Leyte</b>	
	PMO Admin. Bldg. (new)	1
	Port of Naval PTB (new)	1
	Port of Ormoc PTB (additional)	1
15	<b>PMO Negros Oriental/Bacolod/Banago/Bredco</b>	
	Port of Banago PTB (new)	1
16	<b>PMO Eastern Leyte Samar</b>	
	PMO Admin. Bldg. (new)	1
	Port of Maguino-o PTB (new)	1
	Port of San Isidro PTB (new)	1
17	<b>PMO Bohol</b>	
	PMO Admin. Bldg. (new)	1
	Port of Tagbilaran PTB (additional)	1
	Port of Tubigon PTB (additional)	1
	Port of Jagna PTB (additional)	1
	Port of Catagbacan (new)	1
18	<b>PMO Misamis Oriental/CDO</b>	
	PMO Admin. Bldg. (new)	1
19	<b>PMO Lanao Del Norte/Iligan</b>	
	PMO Admin. Bldg. (new)	1
	Port of Iligan PTB (additional)	1
20	<b>PMO Misamis Occ./Ozamiz</b>	
	PMO Admin. Bldg. (new)	1
	Port of Plaridel PTB (new)	1
21	<b>PMO Agusan</b>	
	PMO Admin. Bldg. (new)	1
	Port of Butuan PTB (new)	1

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22	<b>PMO Surigao</b>	
	PMO Admin. Bldg. (new)	1
	Port of Del Carmen PTB (new)	1
23	<b>PMO Zamboanga del Norte</b>	
	PMO Admin. Bldg. (new)	1
	Port of Sindangan PTB (new)	1
24	<b>PMO Davao</b>	
	PMO Admin. Bldg. (new)	1
	Port of Babak PTB (new)	1
25	<b>PMO Socsargen</b>	
	PMO Admin. Bldg. (new)	1
26	<b>PMO Zamboanga</b>	
	PMO Admin. Bldg. (new)	1
	Port of Isabela PTB (new)	1
<b>TOTAL</b>		<b>50</b>

## II. GENERAL REQUIREMENTS

1	<p>All units shall be of the same brand and model. Each set of baggage X-ray machine and walk through metal detector shall include:</p> <ul style="list-style-type: none"> <li>• In/Out rollers, exit rollers</li> <li>• Operator's Desk</li> <li>• Stand for monitors</li> <li>• Keyboard</li> <li>• Ramp</li> <li>• Uninterruptible Power Supply (UPS), and</li> <li>• Heavy-duty printer</li> </ul>
2	The equipment shall have dual-view technology with dual-energy functions for material discrimination. It should effectively eliminate the uncertainty caused by overlapping objects, even without repositioning.
3	Must have low x-ray leakage dose rate and guarantee the safety of the environment as well as the operators and passengers.
4	Must have the ability to archive images on a removable hard drive. Hard drive capacity must be at least 1Terrabyte.
5	The system must be able to provide a function that automatically detects organic substances highlighting a region or the system that

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	may display organic substances through color distinction.
6	The system must be capable of identifying dense areas and apply the high penetration feature only to the dense areas of the bag.
7	The system should be capable of categorizing materials as (a) organic/non-organic, (b) metals, (c) explosives, (d) others – as may be programmed, through at least 3-color imaging.
8	Threat Image Protection (TIP): The system shall be capable of automatic projection of threat images to enhance the alertness of the system operators.
9	Does not require warm-up.
10	Must be included in the Transportation Security Administration (TSA) Qualified List and has undergone a formal TSA-sponsored test process and is deemed qualified for screening operations and/or its European equivalent standard.

### III. TECHNICAL SPECIFICATIONS

#### BAGGAGE X-RAY MACHINE AND ITS ACCESSORIES

PHYSICAL REQUIREMENTS	
	Minimum Tunnel Size:
1.1	· Width 600 mm
1.2	· Height 400 mm
	Minimum System Dimensions:
2.1	· Width 1000 mm.
2.2	· Length 2000 mm.
2.3	· Height 1000 mm
3	Maximum Conveyor Height: 900mm Minimum Conveyor height: 700mm
4	Conveyor Load: Conveyor must support a minimum load of 150 kgs. evenly distributed;
5	Conveyor Speed: Minimum of 0.20 meters per second in both directions;
6	Conveyor Direction: Bi-Directional conveyor;
7	Conveyor Motor: Sealed drum, maintenance free
8	Conveyor Type: Belt

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9	Conveyor tunnel guard mounted at the entry and exit points
10	Entry Roller: 1 meter
11	Exit Roller: 2.0 meters with stopper
12	The system shall be mounted on heavy-duty castors for ease of movement.
13	It shall be fixed in place by means of adjustable screw jack leveling feet.
<b>X-RAY GENERATORS</b>	
14	Beam Direction: Upward and Sideward (Dual View)
15	Anode voltage minimum: 160 kV cp (operated)
16	Cooling/housing - Hermetically or Di-electric sealed oil bath/single tank for each generator.
17	Anode current: not more than 1mA.
<b>DETECTION SYSTEM</b>	
18	Multi Energy (2 detector arrays; high and low energy)
19	No. of photo diodes (x-ray detectors): minimum of 1400 photo diodes x 2 sets (dual view)
<b>OPERATION, PENETRATION, &amp; SENSITIVITY</b>	
20	Minimum Penetration (Manufacturer's Test Piece (MTP): 35 mm steel (View 1 and view 2)
<b>MINIMUM RESOLUTION (Wire recognition)</b>	
21	36 AWG wire
<b>DUTY CYCLE</b>	
22	100%, no warm-up procedure required
<b>VIDEO DISPLAY</b>	
Must be capable of real time image scrolling:	

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
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23.1	(As the bag passes through the x-ray beam, the bag image is constructed on the monitor and appears scrolling visually in the same direction as the conveyor movement. No delay of scanned image in the monitor.)
23.2	Minimum Display Technology: TFT/LCD/LED Monitors
23.3	Minimum Monitor Size: 19-inch TFT/LCD/LED Monitor
<b>COMPUTER SPECIFICATIONS</b>	
System controller with built-in media bay to house various data storage modules:	
24.1	The main hard drive should have a minimum of 500GB.
24.2	USB Port 2.0/3.0 for downloading scanned images.
24.3	Open Source Operating Systems - It is understood that open source operating systems are released under a license where the copyright holder allows others to study, change as well as distribute the software to other people.  Updates must be free for the next five (5) years from acceptance.
<b>CONSTANT VOLTAGE TRANSFORMER (CVT)</b>	
25	Minimum of 5KVA with surge protection
<b>UNINTERRUPTIBLE POWER SUPPLY (UPS)</b>	
26.1	Minimum of 5kVA, Input voltage: 220 VAC, Output Voltage: 220VAC+/- 2%, Input Range: 165-275 VAC
26.2	Minimum of 30 minutes' back-up time
26.3	· With full operational load – 10mins
26.4	· With load on standby mode – 30mins

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<b>OPERATOR IMAGE ANALYSIS</b>	
27.1	Must have automatic threat and contraband detection of explosives and drugs (operator assist software or equivalent):
	<i>(Capability to directly indicate and recognize, in real time, potential explosives and drugs. This is threat identification operator alert software package that automatically screens for potential explosives and other threats by utilizing advanced material classification and atomic density analysis by drawing marking around the area of suspicion. If multiple threats are perceived in a single image, the system will draw multiple markings in the suspect areas. The Operator assist software is designed to assist vigilant operators in locating and identifying threats.)</i>
27.2	Must have automatic dense area detection capability to automatically identify dense area and apply high penetration feature only to the dense area of the bag:
	<i>(This is to detect hidden objects behind dense material. The detected area is analyzed by means of special enhancement filter software. The dark area is highlighted locally.)</i>
27.3	Material classification:
	<i>Recognition of items inside a piece of luggage by distinguishing material of different origins. Material information is evaluated by means of the multi-energy method, where high and low energy radiation signals obtained after penetration of the object are compared. Organic, inorganic/metallic, indeterminate substances shall be differentiated by three (3) colors. Impenetrable items shall be represented as black. Maximum of four (4) colors (including black), for efficient differentiation.</i>
<b>OPERATING ENVIRONMENT</b>	
28.1	Must be designed to operate under actual Philippine atmospheric conditions
28.2	Humidity: Up to 90% Non-condensing;
28.3	Operating Temperature: Up to 40°C;
28.4	Storage Temperature: Up to 50°C.

<b>ELECTRICAL/POWER</b>	
29	Power Supply: Must be designed to operate at 220VAC 60 Hz
<b>HEALTH &amp; SAFETY</b>	
	Must comply with published international health and safety standards:
30.1	<i>(Must comply with published international health and safety standards including the U.S. F.D.A. Centre for Devices and Radiation Health Standards for Cabinet X-Ray Devices (Federal Standard 21-CFR 1020.40) and/or any European equivalent standard and specifications)</i>
30.2	System should be provided with emergency stop buttons on both ends with cover. Emergency stop is also available in the controlled keyboard.
30.3	Maximum Radiation Dose Per Inspection: Not More Than 0.5 mR
	Leakage radiation: below 5uSv/h (0.5mR/h)
30.4	<i>(Radiation emitted shall not exceed an exposure of 0.5 mill roentgen in one hour at any point five centimeters outside the external surface)</i>
30.5	Systems should be provided with "System Energized" and "X-Ray on" indicators at both ends of the X-Ray tunnel and on the operator Workstation
30.6	Film safety guaranteed up to ISO 1600 (33 DIN)
30.7	System shall be manufactured in an ISO 9001: 2008 (Quality Management System) and ISO 14001: 2004 + Cor 1: 2009 (Environmental Management System) Certified facility.
<b>FUNCTIONS/CAPABILITIES</b>	
31.1	Function that allows insertion of date/time, luggage counter, user ID number, luggage marking system (acoustic), display of operating mode, review feature, programmable priority keys.
31.2	Function that allows electronic stepless zoom enlargement up to 64x, pixel interpolation, and permanent display of a miniature image overview with zoom positioning.
31.3	Function that allows review of minimum 5 images of previously scanned objects at real time. Image processing functions can be operated simultaneously.
31.4	Function that facilitates the identification of low absorbing objects.

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31.5	Negative image function.
31.6	Function that suppresses all non-organic material from the image. Objects made of organic material are emphasized.
31.7	Function that suppresses all organic material from the image. Objects made of non-organic material are emphasized.
31.8	Function that allows X-ray operators to select arrange or absorption. Only objects whose absorption degrees are within the selected range are displayed. They must be displayed with highly increased contrasts while all other objects are suppressed.
31.9	Function that supports the operator in evaluating X-ray images with optimum contrast throughout the image, improving recognition of single objects like plastic weapons, explosives and drugs. Such objects must be clearly identified even if metal sheets cover them.
31.10	Function that automatically alerts screeners of the presence of high absorbing material by drawing a mark around such objects.
31.11	Function that further refines detection of organic materials with the automatic detection of organic substances
31.12	One button image magnification to fit screen size.
31.13	Function that allows users to save, archives, and organize X-Ray images.
31.14	Function, which allows users to select and print on any standard printer any, saved images.
31.15	Function that allows the alarm system to be triggered by suspicious baggage or which can be initiated by the operator to identify suspicious baggage emerging from the inspection chamber
31.16	Threat image projection: system that projects fictional threats on a random basis over real X-ray images of scanned baggage. System must allow for configuration by high level users, where parameters such as type of threats, frequency of projection, etc. can be configured.
31.17	Networking support - The system must be integrated into such network solutions that allow for:
	a. Image evaluation at remote workstation
31.18	b. Central image data archive
31.19	c. Centralized system management server
31.20	d. Threat image projection and operator training system

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31.21	Function that provides self-diagnostics. Must have self-diagnostics that allows users to monitor their machine health status, thus greatly increasing the system lifespan.
<b>REGULATORY APPROVAL/S</b>	
32	The system/technology equipment/model must be included in the "TSA or ECAC QUALIFIED TECHNOLOGIES LIST" which means that it has undergone formal TSA/ECAC sponsored test process and have been deemed qualified for screening operations.

### WALK-THROUGH METAL DETECTOR

<b>SPECIFICATIONS</b>		
33	Passage Height	Maximum - 2,050mm
34	Passage Width	720mm - 820mm
35	Overall Height	Maximum - 2,255mm
36	Overall Width	Maximum - 935mm
37	60 localization zones	
38	20 vertical zones	
39	3 lateral zones	
40	With left, center, and right indication	

<b>FEATURES &amp; CAPABILITES</b>	
41	3-Level Password and hardware key access protection
42	Automatic Operational Functional Verification (OFV)
43	Automatic Channel Search (CS)
44	Automatic Floor Gain Adjustment (FGA)

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45	Automatic Technical Functional Verification (TFV)
46	Automatic Environmental Noise Compensation (ENA)
47	With Anti-tamper ON/OFF Switch
48	With embedded battery charger and under-voltage protection
49	Wide volume control especially for very noisy environments
50	Allows settings of the security level without the need of programming the entire device.

#### IV. OTHER TERMS AND CONDITIONS

The following certifications/undertaking form part of the technical requirements, to be submitted during the opening of bids:

1. **Authorized Distributorship.** The Supplier shall be an authorized distributor of the equipment. This certificate shall have been issued by the Manufacturer of the equipment.
2. **Brand-new Units.** The units shall have been manufactured in the year 2019 onwards. A certification by the manufacturer to this effect shall be presented.
3. **Warranty.** Each unit shall be free from defects in materials and workmanship. This shall cover a period of at least two (2) years from the date of receipt of the equipment by the PPA, wherein all costs for any repairs and/or replacement of parts of the equipment shall be for the account of the Supplier.
4. **After-Sales Services.** The Supplier shall have a minimum of five (5) service engineers or technicians, certified by the manufacturer, who can perform preventive and corrective maintenance on-site at any requested time.

The Supplier shall provide for technical support, either through phone-in hotline or on-site visits, if necessary.

Phone-in concerns to the Supplier's technical support group shall be resolved within five (5) hours from the call. Any request for an on-site inspection/work on the equipment shall be done within 24 – 72 hours from the time of such request.

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5. **In-Country Service and Maintenance.** The supplier must have an established/existing reliable in-country Maintenance and After Sales Service for the last five (5) years with qualified service technician certified by the Manufacturer.

6. **Availability of Spare Parts.** The supplier must undertake to make available spare parts within the next 10 years from delivery and acceptance of the equipment by the PPA.

7. **Training/Orientation.** The supplier shall provide an undertaking that it will provide training/orientation on the use and maintenance of the equipment for concerned PPA personnel. Schedule of training shall be in coordination with the Port Police Department.


8. **Track Record.** A certification that the equipment has been marketed and supplied in the Philippines for the last five (5) years shall be submitted.

9. **Equipment Brochure.** A brochure for the equipment offered (baggage x-ray and walk-through metal detector) shall be submitted. All specifications as per the brochure shall conform to the specifications and features of the equipment in this Terms of Reference.

## V. SCHEDULE OF REQUIREMENTS

The winning bidder at the areas specified in the Deployment List as specified in Article I hereof. The winning bidder shall complete installation of the sets of equipment within the timeline below:

ITEM NUMBER	DESCRIPTION	QUANTITY	DELIVERY PERIOD
1	Baggage X-ray Machines	50 units	Within 180 days from receipt by the winning bidder of the Notice to Proceed.
2	Walk-Through Metal Detector	50 units	
3	Accessories (Monitors, UPS, etc.)	50 sets	





**VI. APPROVED BUDGET FOR THE CONTRACT (ABC)**

The approved budget for the contract is in the amount of Three Hundred Fifty Million Pesos Only (Php350,000,000.00).


**VII. PAYMENT**

Payment will be made to the supplier upon completion of the project as per the Schedule of Requirements in Article III.

Partial payment may be allowed, only upon completion of installations as per PPA cluster below:

1. Northern Luzon
2. Southern Luzon
3. Visayas
4. Northern Mindanao
5. Southern Mindanao

The amount payable shall be the total quantity deployed per cluster.



**CORDELIA C. SIDON**  
Acting Manager  
Administrative Services Department



**HANES LOUISE M. ALIVIO**  
Acting Manager  
Property Management Division  
Administrative Services Department



**FROILAN U. CATURLA**  
Acting Manager  
Port Police Department

