

REQUEST FOR PROPOSALS

FEASIBILITY STUDY FOR THE

**EXPANDED MAINTENANCE, REPAIR, AND OVERHAUL FACILITY FOR
PAKISTAN INTERNATIONAL AIRLINES**

Submission Deadline: **4:00 PM**

LOCAL TIME IN PAKISTAN

December 15, 2010

Submission Place: M. Salim Sayani
Deputy Managing Director
Pakistan International Airlines
PIA Building Jinnah International Airport
Karachi, 72500

SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

REQUEST FOR PROPOSALS

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Section 1: INTRODUCTION

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US\$864,002 to Pakistan International Airlines (the "Grantee") in accordance with a grant agreement dated August 25, 2010 (the "Grant Agreement"). Pakistan International Airlines (PIA), Pakistan's flagship airline, currently operates a Maintenance, Repair, and Overhaul (MRO) facility to service its own aircraft, but is now seeking to expand this facility to service engines, landing gear, airframes, and aircraft components for domestic and foreign customers. Consequently, PIA seeks a Feasibility Study to assess the market opportunity, develop a business plan, recommend necessary technical requirements, training needs and cost estimates of expanding the MRO facility. A well-qualified and experienced U.S. Contractor is needed to undertake this important Feasibility Study.

1.1 BACKGROUND SUMMARY

Established in 1954, PIA is Pakistan's flagship air carrier servicing 36 international destinations and 25 domestic routes. It is the 31st largest airline in Asia with main offices in Karachi, Lahore and Islamabad. PIA is subsidized by the government and has over 18,000 employees. PIA owns 40 airplanes, 21 of which are Boeing (737s, 747s and 777s) powered by GE engines. The remainder of PIA's fleet includes twelve Airbus A310s and seven ATR 42 twin turboprops. PIA is in the market for 27 new aircraft in the short term, all of which will require engine purchases. Further, PIA currently operates a direct flight from New York to Lahore.

The Pakistani government has expressed strong support to expand PIA airline service routes and complementary operations such as the MRO business. PIA believes that its pool of qualified, low-cost engineers will make it competitive for an MRO thus enabling it to capture a significant portion of the market. As such, PIA has requested USTDA Feasibility Study funding support to assess the MRO market opportunity, identify the technical requirements, and prepare a business plan to facilitate PIA's desire to provide MRO services domestically and to foreign customers.

PIA plans to establish an MRO facility that would service engines, landing gear, airframes, and aircraft components. The operation would service both Boeing and Airbus aircraft, as well as engines from major manufacturers. PIA plans to integrate the facility within its existing operation in Karachi at Jinnah International Airport, its main hub. This USTDA funded study will: examine the market opportunity for a Pakistan based MRO; develop a marketing strategy and business plan; develop an appropriate organizational structure for the new venture; assess the technical and legal/regulatory requirements for establishment and operation; prepare an implementation plan; and examine potential partnerships with U.S. companies for equipment and services.

1.2 OBJECTIVE

The purpose of this Feasibility Study is to conduct project preparatory activities for the proposed expansion of the MRO facility for Pakistan International Airlines. It will examine the market for similar MRO facilities in the Middle East and South Asia region and worldwide, develop a marketing strategy and business plan for entering the market, develop an appropriate organizational structure for the new venture, assess the technical and legal/regulatory requirements for establishing and operating the facility, prepare an implementation plan, and examine potential partnerships with U.S. companies for equipment and services. In addition, the study will examine any environmental issues associated with the proposed project location at Jinnah International Airport in Karachi, as well as any social/developmental impacts. At the conclusion of the study, the Grantee will be presented with a comprehensive analysis of the MRO market and the items needed in order to move forward with the Project. In addition, the study will enable the Grantee to benefit from U.S. expertise for the development of an advanced facility which would be able to service a range of aircraft, engines, and related components.

The Feasibility Study deliverables are generalized as follows:

- Complete Business Plan that encompasses all elements of Maintenance Repair Overhaul business
- Excel and Access based financial modeling of MRO business capable of running 'what if' scenarios with varying assumptions
- Organization Structure
- Legal requirements to setup a separate independent 'Separate Business Unit' of PIA
- Technical Requirement to acquire various Repair Station certifications and approval from EASA, FAA, Pakistan CAA, and other regulatory agencies.
- Implementation Plan
- Examine and evaluate potential partnership with various US companies
- Comprehensive market analysis of regional and International MRO business
- Detail plans feasibility of improving the existing facilities and new development as such as hangars, shops, test cell etc. to meet the MRO future needs
- Examine environmental impact and issues
- Examine Social Development Impact
- Complete human resource and training requirement
- Evaluate and recommend various financing options
- Review Government policies and procedures and Tax structures that may potentially obstruct MRO growth and recommend changes.

The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US\$864,002. **The USTDA grant of \$US864,002 is a fixed amount. Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted.** Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

1.4 CONTRACT FUNDED BY USTDA

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US\$864,002 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

Section 2: INSTRUCTIONS TO OFFERORS

2.1 PROJECT TITLE

The project is called Expanded Maintenance, Repair, and Overhaul Facility for Pakistan International Airlines.

2.2 DEFINITIONS

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.

The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

2.3 DEFINITIONAL MISSION REPORT

USTDA sponsored a transportation sector Definitional Mission (DM) for Pakistan to address technical, financial, sociopolitical, environmental, and other aspects of the proposed project. A copy of the report is attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

2.4 EXAMINATION OF DOCUMENTS

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

2.5 PROJECT FUNDING SOURCE

The Feasibility Study will be funded under a grant from USTDA. The total amount of the grant is not to exceed US\$864,002.

2.6 RESPONSIBILITY FOR COSTS

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

2.7 TAXES

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

2.8 CONFIDENTIALITY

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

2.9 ECONOMY OF PROPOSALS

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

2.10 OFFEROR CERTIFICATIONS

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

2.11 CONDITIONS REQUIRED FOR PARTICIPATION

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3.

2.12 LANGUAGE OF PROPOSAL

All proposal documents shall be prepared and submitted in English, and only English.

2.13 PROPOSAL SUBMISSION REQUIREMENTS

Mr. M. Salim Sayani of Pakistan International Airlines will provide offerors with instructions to maintain a record of receipt of their proposal if electronic delivery is required or allowed.

The **Cover Letter** in the proposal must be addressed to:

M. Salim Sayani
Deputy Managing Director
Pakistan International Airlines
PIA Building Jinnah International Airport
Karachi, 72500

Phone: 92-21-9940-4091

Fax: 92-21-3457-1976

An Original and eight (8) copies of your proposal must be received at the above address no later than 4:00 PM Local Time in Pakistan, on December 15, 2010.

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

2.14 PACKAGING

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including "original" or "copy number x"; the original and eight (8) copies should be collectively wrapped and sealed, and clearly labeled.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

2.15 AUTHORIZED SIGNATURE

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

2.16 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for ninety (90) days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

2.17 EXCEPTIONS

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

2.18 OFFEROR QUALIFICATIONS

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

2.19 RIGHT TO REJECT PROPOSALS

The Grantee reserves the right to reject any and all proposals.

2.20 PRIME CONTRACTOR RESPONSIBILITY

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

2.21 AWARD

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all

proposals received and, in all cases, the Grantee will be the judge as to whether a proposal has or has not satisfactorily met the requirements of this RFP.

2.22 COMPLETE SERVICES

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

2.23 INVOICING AND PAYMENT

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

Section 3: PROPOSAL FORMAT AND CONTENT

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US\$864,002, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

- Transmittal Letter,
- Cover/Title Page,
- Table of Contents,
- Executive Summary,
- Company Information,
- Organizational Structure, Management Plan, and Key Personnel,
- Technical Approach and Work Plan, and
- Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

3.1 EXECUTIVE SUMMARY

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

3.2 COMPANY INFORMATION

For convenience, the information required in this Section 3.2 may be submitted in the form attached in Annex 6 hereto.

3.2.1 Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information requested in sections 3.2.5 and 3.2.6 below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers.
2. Year established (include predecessor companies and year(s) established, if appropriate).
3. Type of ownership (e.g. public, private or closely held).
4. If private or closely held company, provide list of shareholders and the percentage of their ownership.
5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.
6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).
7. Project Manager's name, address, telephone number, e-mail address and fax number.

3.2.2 Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

3.2.3 Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.
2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

3.2.4 Offeror's Representations

If any of the following representations cannot be made, or if there are exceptions, the Offeror must provide an explanation.

1. Offeror is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.
3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.
5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

3.2.5 Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.
2. Year established (include predecessor companies and year(s) established, if appropriate).

3.2.6 Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the Subcontractor must provide an explanation.

1. Subcontractor is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____ . The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Feasibility Study and to perform the Feasibility Study. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

3.4 TECHNICAL APPROACH AND WORK PLAN

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

3.5 EXPERIENCE AND QUALIFICATIONS

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project. The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offeror and any subcontractor, including the following information:

- Project name,
- Name and address of client (indicate if joint venture),
- Client contact person (name/ position/ current phone and fax numbers),
- Period of Contract,
- Description of services provided,
- Dollar amount of Contract, and
- Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to or larger in scope than the Feasibility Study as described in this RFP.

Section 4: AWARD CRITERIA

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

- 1) Technical Approach and Work Plan (40% weighting)**
- 2) Qualifications (40% weighting) of each of the eight key personnel, which must be supported with:**
 - a. Detailed resumes for each of the individuals; and,
 - b. Supporting project and/or country examples of relevant work activities to the proposed assignment as described in the TOR and within the section on Contractor Qualifications, and a description of how these project and/or country examples provide evidence of competence and/or expertise as related to the proposed assignment and Contractor Qualifications.
- 3) Experience working with government, state-run organizations and/or the private sector in developing nations, preferably in Pakistan, South Asia, and/or other Asian countries on similar projects/activities (20%)**

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

ANNEX 1

FEDBIZOPPS ANNOUNCEMENT

Grantee Contact: M. Salim Sayani, Deputy Managing Director, Pakistan International Airlines, PIA Building Jinnah International Airport, Karachi, 72500, Phone: 92-21-9940-4091, Fax: 92-21-3457-1976

Project Title: Expanded Maintenance, Repair, and Overhaul Facility for Pakistan International Airlines; Appropriation Nos.: 119/101001 and 1110/111001; Activity No.: 2010-31060A; Reservation No.: 2010310077; Grant No.: GH2010310023

POC: Nina Patel, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009. EXPANDED MAINTENANCE, REPAIR, AND OVERHAUL FACILITY FOR PAKISTAN INTERNATIONAL AIRLINES. The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to assess the market opportunity, develop a business plan, recommend necessary technical requirements, training needs and cost estimates of expanding Pakistan International Airlines' MRO facility.

BACKGROUND SUMMARY

Established in 1954, Pakistan International Airlines (PIA) is Pakistan's flagship air carrier servicing 36 international destinations and 25 domestic routes. It is the 31st largest airline in Asia with main offices in Karachi, Lahore and Islamabad. PIA currently operates an MRO facility servicing its own aircraft but is looking to expand operations and target business from other carriers both domestic and foreign. PIA plans to establish a comprehensive facility that would service engines, landing gear, airframes, and aircraft components. The operation would service both Boeing and Airbus aircraft, as well as engines from major manufacturers. PIA plans to integrate the facility within its existing operation in Karachi at Jinnah International Airport, its main hub. PIA believes that its pool of qualified, low-cost engineers will make it more competitive for an MRO, relative to others in the region, thus enabling it to capture a significant portion of the market. As such, PIA has requested USTDA funding for a Feasibility Study to: examine the market opportunity for a Pakistan based MRO; develop a marketing strategy and business plan; develop an appropriate organizational structure for the new venture; assess the technical and legal/regulatory requirements for establishment and operation; prepare an implementation plan; and examine potential partnerships with U.S. companies for equipment and services.

The U.S. firm selected will be paid in U.S. dollars from a \$864,002 grant to the Grantee from the U.S. Trade and Development Agency (USTDA).

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and a background definitional mission/desk study report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: <https://www.ustda.gov/businessopps/rfpform.asp>. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the

request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 4:00 PM local time in Pakistan, December 15, 2010 at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

ANNEX 2

**PORTIONS OF THIS DEFINITIONAL MISSION REPORT HAVE BEEN
INTENTIONALLY REDACTED**

**ONLY RELEVANT PORTIONS OF THIS DEFINITIONAL MISSION REPORT
PERTAINING TO EXPANDED MAINTENANCE, REPAIR, AND OVERHAUL FACILITY
FOR PAKISTAN INTERNATIONAL AIRLINES FEASIBILITY STUDY ARE INCLUDED
HEREIN.**



PAKISTAN: TRANSPORTATION SECTOR DEFINITIONAL MISSION

PROJECT NO: 2009-91004A

FINAL REPORT

SUBMITTED TO:

**U.S. TRADE AND DEVELOPMENT AGENCY
1000 WILSON BOULEVARD, SUITE 1600
ARLINGTON, VA 22209
TELEPHONE: (703) 875-4357**

SUBMITTED BY:

**TERA INTERNATIONAL GROUP, INC. (TERA)
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INTERNET: WWW.TERAINT.COM**

JUNE 4, 2010



This report was funded by the U.S. Trade and Development Agency (USTDA), an export promotion agency of the United States Government. The opinions, findings, conclusions, or recommendations expressed in this document are those of the contractor and do not necessarily represent the official position or policies of USTDA.

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The U.S. Trade and Development Agency

The U.S. Trade and Development Agency (USTDA) advances economic development and U.S. commercial interests in developing and middle income countries. The agency funds various forms of technical assistance, feasibility studies, training, orientation visits and business workshops that support the development of a modern infrastructure and a fair and open trading environment.

USTDA's strategic use of foreign assistance funds to support sound investment policy and decision-making in host countries creates an enabling environment for trade, investment and sustainable economic development. Operating at the nexus of foreign policy and commerce, USTDA is uniquely positioned to work with U.S. firms and host countries in achieving the agency's trade and development goals. In carrying out its mission, USTDA gives emphasis to economic sectors that may benefit from U.S. exports of goods and services.

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SECTION A: EXECUTIVE SUMMARY**BACKGROUND**

While Pakistan's economy has been significantly affected by several factors, including domestic security concerns, the global economic crisis and a weakened currency, it has recently posted robust rates of economic growth. Today, Pakistan ranks as one of the fastest growing emerging markets in the world. The government is enacting a range of measures to spur private sector growth including promoting upgrades to national infrastructure, including the transportation sector. As a result, new opportunities for private sector participation are emerging that were not available only a few years ago. Government-owned companies in the sector are having to become more market and customer oriented, and one of the forces behind this change is that they also have to reverse their losses because the public budget cannot support these indefinitely. Progress is underway but inefficiencies still exist in the sector and need to be rectified. In order to identify possible projects in the transportation sector for possible USTDA funding, a Definitional Mission (DM) was commissioned in 2009. TERA International Group, Inc. (TERA) was selected to implement the DM.

While recent political instability has discouraged U.S. commercial interest, these projects represent tangible opportunities for U.S. commercial involvement, both in terms of significant exports of U.S.-manufactured equipment as well as subsequent investment opportunities, and firms that could potentially benefit have expressed their support. These projects also represent development priorities of their respective project sponsors. A brief summary of each project is presented below:

Feasibility Study and Business Plan for Expanded Maintenance, Repair and Overhaul Facility for Pakistan International Airlines

Pakistan International Airlines (PIA) is Pakistan's state-owned flag carrier, with service to 36 international destinations as well as 25 domestic routes. It currently maintains a fleet of 40 airplanes, 21 of which are Boeing, and is planning on acquiring an additional 27 aircraft in the short to medium term. In addition to fleet expansion; however, PIA also hopes to enter the MRO business, which it views as a growing and profitable sector in Asia. PIA currently operates an MRO facility primarily to service its own aircraft but is looking to dramatically expand the capabilities of this operation in order to target business from other carriers. U.S. companies have been active in MRO operations in Asia and worldwide, and major U.S. aviation companies – most notably Boeing and GE – have expressed interest in the project, as they view it as a mechanism to help increase near-term sales of aircraft/engines. In addition, there is also a burgeoning market for MRO developers, operators and suppliers – typically engineering firms which specialize in MRO facilities and services, including AAR, CH2M Hill, MACTEC and Triumph Aviation, to name a few (all of these have also expressed interest). PIA plans to establish a comprehensive facility that would be able to service engines, landing gear, airframes, and aircraft components. The operation would have a capability to service both Boeing and Airbus aircraft, as well as engines from all major manufacturers. PIA plans to integrate the facility within its existing operation in Karachi at Jinnah International Airport, its main hub. This proposed study would develop a market assessment and business plan for the expanded MRO facility, as well as the technical requirements and cost estimates needed to move forward. While the Project would benefit both U.S. and non-U.S. manufacturers, TERA believes that U.S. support would benefit U.S. companies to a greater extent than the foreign competition, given that PIA will be gauging the level of support among Boeing and Airbus when finalizing its aircraft purchase plans. TERA recommends a grant to PIA in the amount of \$864,002 for this study.

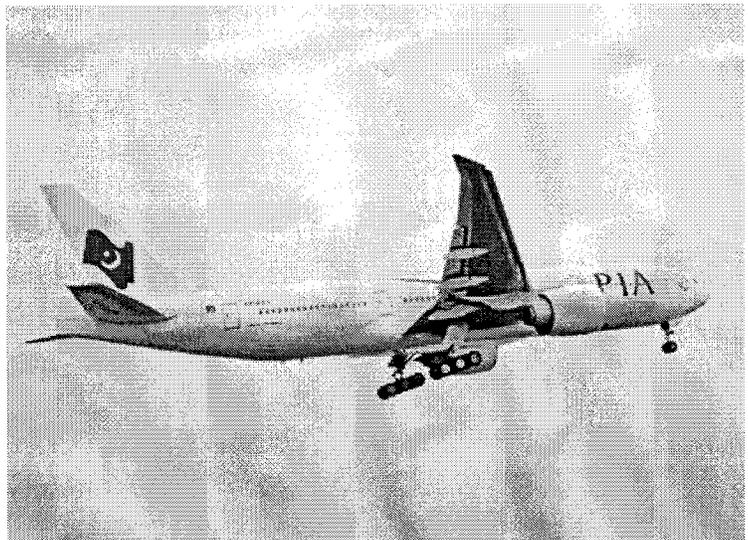
Feasibility Study and Business Plan for Expanded Maintenance, Repair and Overhaul Facility for Pakistan International Airlines

Project Description

Pakistan International Airlines (PIA) is Pakistan's flag carrier and operates service to 36 international destinations as well as 25 domestic routes. The government owns a majority (87%) share, with the Ministry of Defense exercising operational control (private shareholders own the remainder). The Minister of Defense, currently Ahmad Mukhtar, serves as the Chairman of the Board. PIA has not been profitable since 2004 and has been subsidized by the government. In 2008, PIA reported a net loss of over 35 million Rs., although this was an aberration to previous years due to higher fuel costs and a weakened Pakistani Rupee (losses have averaged approximately 10 million Rs. Over the last three years). While there had been discussions on privatization since the early 1990's, it appears that there are no serious plans for the government to divest its majority share.

PIA currently maintains a fleet of 40 airplanes, 21 of which are Boeing. This includes six 737s, six 747s and nine 777s (extended range and long range). It made a major purchase in 2002, in which it bought eight new 777s from Boeing in addition to an additional six used 747s from Cathay Pacific. PIA utilizes the long range capabilities of the 777 LR for non-stop flights from Karachi, Lahore and Islamabad to Toronto. It also hopes to begin non-stop flights to New York. Safety issues have also plagued the airline, and in 2007 the European Commission temporarily banned PIA from operating in EU territory (this ban has since been lifted). All of the Boeing aircraft are powered by GE engines, and according to GE the value of the engines utilized for the 2002 purchase of 777s exceeded \$400 million. The remainder of PIA's fleet includes twelve Airbus A310s and seven ATR 42 twin turboprops. PIA is planning on acquiring an additional 27 aircraft in the short to medium term, and it is looking at both Boeing and Airbus for new aircraft as well as leasing options. The main obstacle has been financing, but PIA aims to complete a deal in 2010.

A PIA Boeing 777 LR in Flight



Source: Boeing

In addition to fleet expansion, PIA also hopes to enter the maintenance, repair and overhaul (MRO) business, which it views as a growing and profitable sector in Asia. PIA currently operates an MRO facility to service its own aircraft but is looking to dramatically expand the capabilities of this operation in order to target business from other carriers. MRO facilities in Asia have become extremely profitable in recent years with the number of aircraft entering service, and the market has already exceeded \$9 billion per year. On average, an aircraft needs an advanced maintenance check every 12-18 months, and this service typically costs approximately \$500,000-\$600,000, with the larger aircraft exceeding \$1 million.

U.S. companies have been active in MRO operations in Asia and worldwide. Several MRO facilities in the region which are currently in operation or in the planning stage – including Dubai, Singapore, Malaysia, Thailand, Turkey, India and China – were developed with U.S. investments.

Boeing announced funding for an \$185 million MRO facility in Nagpur, India (which would only service airframes), and also concluded a joint venture agreement for a facility in Shanghai. GE and Pratt & Whitney, through their Engine Alliance partnership, have already teamed with Emirates Airlines for an MRO facility in Dubai. Pratt & Whitney also partnered with Turkish Airlines on an engine MRO in 2008. In Singapore, Honeywell has maintained an MRO facility since 1978. In addition to airlines and equipment providers, there is also a burgeoning market for MRO developers, operators and suppliers – typically engineering firms which specialize in MRO facilities and services, including AAR, CH2M Hill, MACTEC and Triumph Aviation, to name a few. AAR and Triumph, for example, were involved in the development of the MRO facilities in Malaysia and Thailand, respectively. Despite these investments, however, industry analysts believe there is still room for growth: worldwide MRO spending is expected to increase 4.3% on a compounded annual basis over the next decade, an increase from the current \$50 billion industry to over \$68 billion.¹ Spending in Asia, which already accounts for approximately one quarter of the global MRO market, is expected to outpace all other regions in the coming years. PIA believes that its pool of qualified, low-cost engineers will make it more competitive relative to other providers, thus enabling it to capture a significant portion of the market. In an environment of rising costs, especially related to rising jet fuel prices, PIA's low labor costs could position it well in the market moving forward.

Another emerging area of development stems from the introduction of a new generation of airframes and aircraft technologies. Many airlines in the region have placed significant orders for the Airbus A380 and Boeing 787, both of which have significantly greater electronic complexity and sophistication in both cockpits and cabins. In addition, the composite structure of the 787 will also present new challenges for MRO facilities as they will need to adapt and develop new maintenance and repair techniques.

PIA plans to establish a comprehensive facility that would be able to service engines, landing gear, airframes, and aircraft components. The operation would have a capability to service both Boeing and Airbus aircraft, as well as engines from all major manufacturers. PIA plans to integrate the facility within its existing operation in Karachi at Jinnah International Airport, its main hub. This proposed study would develop a market assessment and business plan for the expanded MRO facility, as well as the technical requirements and cost estimates needed to move forward.

Project Sponsor's Capabilities and Commitment

While, as noted, PIA's financial situation is not ideal for a costly expansion such as the proposed project, it continues to receive substantial financial assistance from the government. Given the airline's status within the country, this is not likely to change. The Pakistani government has expressed strong support for not only its continued operation at existing levels of service, but also its plans to expand both in terms of routes and complementary operations such as the MRO business. PIA is strongly committed to the development of the facility, and it expressed to the DM team that it intended to move forward in the short term. With the backing of the government, it appears PIA will have no significant issues (financial, regulatory or otherwise) moving forward. During the DM Contractor's discussions with PIA on a range of topics and potential projects, the MRO facility was continually raised as PIA's top priority.

Airlines typically develop their own MRO facilities with limited approval needed from national governments, aside from obtaining sufficient space at international airport hubs and ensuring that the facility complies with internationally accepted civil aviation authority safety and environmental

¹ Team SAI Consulting Services. Presentation by Christopher Doan, President and CEO, at the North American MRO Convention (April 2008). Available online at http://www.teamsai.com/newsfiles/2008_TeamSAI_Global_MRO_Forecast_FINAL_080416.pdf.

standards. As the government maintains a majority stake in PIA, the company is fully authorized to develop the MRO facility.

Implementation Financing

TERA estimates that it will cost PIA approximately \$250 million to expand its MRO operations to its envisioned level of service. While PIA's current financial situation is not ideal, with government backing it appears that it will have no significant issues with respect to financing. While to the DM Contractor's knowledge no requests have been made to either Boeing or Airbus regarding potential investment in the facility, it is reasonable to assume that some discussions have taken place, and that PIA would to a certain extent view each company's level of commitment towards the MRO facility in light of the upcoming aircraft purchase. It does not appear that external financing, aside from this investment, will be necessary.

U.S. Export Potential

As noted, the global MRO market exceeds \$50 billion, with U.S. companies providing over \$15 billion in equipment and services to MRO facilities worldwide. According to industry analysts, the spin-off economic effects translate to a total impact on the U.S. economy of approximately \$39 billion per year, and the United States currently enjoys a \$2.4 billion trade surplus in the sector.² Nearly 4,200 firms are involved in the sector, 85 percent of which are small or medium-sized enterprises. Total employment in the sector is estimated at over 200,000 people.

The civil MRO market is divided into four distinct areas: airframe heavy maintenance, engine overhaul, component MRO and line maintenance. Airframe heavy maintenance involves a detailed inspection of the airframe and components, including applicable corrosion prevention measures, as well as a comprehensive structural inspection and overhaul of the aircraft. Engine overhaul refers to any off-wing repair and replacement of parts to restore the engine to designed operational condition (i.e., to the manufacturer's established guidelines). Typically, the engine is disassembled and inspected, and any parts which are deemed defective or past their operational life are either repaired or replaced. Component MRO involves aircraft components which provide for aircraft functionality, including control and navigation systems, communications, surface movement controls, cabin air conditioning/lighting, electrical power and braking systems. Finally, line maintenance refers to the regular maintenance checks to ensure that the aircraft is fit for flight, including troubleshooting, defect rectification, overnight replacement and component replacement.

U.S. export potential for this project can be divided into three parts: (1) equipment/services needed for initial startup, (2) equipment/services and spare parts needed for continued operation, and (3) the related sale of aircraft and aircraft engines to PIA. In addition, revenues from a potential partnership with a U.S. firm could plausibly be counted as a services export, given that a significant portion of the expertise would be from the United States and profits would be repatriated.

In terms of initial startup, most of the services would involve construction and civil works, and while not typically an area of significant U.S. exports, given the specialized requirements of projects of this nature, U.S. involvement may be possible. In this case, the involvement of a U.S. company at the feasibility study stage may position it well as airlines tend to form partnerships with international engineering firms which specialize in the MRO business. U.S. companies such as AAR (Wood Dale, IL), MACTEC (Dallas, TX), CH2M Hill (Englewood, CO) and Triumph (Wayne, PA), all of which have expressed interest in both the Study and the Project, could stand to benefit. Equipment providers

² AeroStrategy Management Consulting Press Release: "AeroStrategy Study Shows U.S. is a Major Net Exporter of Aviation Maintenance Services with a Trade Surplus in Excess of \$2B." September 2009. Available online at http://www.aerostrategy.com/news_events/press_releases/september_2009_arsa_press_release.

such as Honeywell, which provides testing/diagnostic equipment to MRO operations worldwide, could also benefit during the initial startup phase, as well as other parts suppliers noted below.

In terms of continued operation of the facility, the firms noted above could potentially be involved if a long-term contract for such services were attained; however, in this case, PIA is more likely to run the facility given its internal capabilities and cost competitiveness. However, it would still need to procure equipment from external sources for both testing and spare parts. There are two different segments of suppliers of the equipment necessary for this purpose: original equipment manufacturers (OEMs) and independent producers. In addition, the airlines themselves often supply services in-house.

For airframe maintenance services, the largest OEMs – Boeing and Airbus – have a minimal role in the MRO market. However, regional jet manufacturers such as Cessna, Hawker Beechcraft and Gulfstream provide services for their own aircraft. Independent suppliers, or maintenance firms which are not related to either OEMs or airlines, provide the majority of the services in this category, and include firms such as ATS (Everett, WA), AAR and Timco (Greensboro, NC). Airlines such as American Airlines and United perform MRO functions at their own facilities but would likely not be involved in the PIA facility. Parts suppliers can include OEMs as well as a diverse market of Part Manufacturer Approval (PMA) holders, which receive license from OEMs. U.S. companies such as Heico (Hollywood, FL), Wencor (Hartland, WI), Regent (Valencia, CA) and Alcoa Fastening Systems (Torrence, CA) fall into this category.

For engine overhaul, OEMs are the largest providers of services. GE Aviation (Cincinnati, OH), Pratt & Whitney (East Hartford, CT) and Honeywell (Morristown, NJ) are the primary OEMS, while independent firms include Standard Aero (Springfield, IL), Dallas Airmotive (Dallas, TX), Timco and TSI Aviation (Miramar, FL). While major airlines such as United and American have their own capabilities, most outsource to OEMs or independent firms. Other parts suppliers include Heico, Wencor, Chromalloy (Atlanta, GA), and Aeroturbine (Miami, FL). GE indicated that equipment and tools for an engine test facility alone could exceed \$100 million.

Component MRO include repairs and replacement of wheels/brakes, avionics, auxiliary power systems, fuel systems, hydraulic power systems, flight controls, thrust reversers, landing gear and electrical systems. OEMs include Honeywell, Goodrich (Charlotte, NC), Hamilton Sundstrand (Windsor Locks, CT), Rockwell Collins (Cedar Rapids, IA), Parker Aerospace (Irvine, CA), GE Aviation, Eaton Aerospace (Cleveland, OH), Woodward (Fort Collins, CO) and B/E Aerospace (Wellington, FL). Independent vendors include Triumph, AAR, Aviall (Dallas, TX) and NORDAM (Tulsa, OK).

Finally, with respect to line maintenance: although SPS and Alcoa Fastening provide some equipment in this area, little product aside from minor materials, chemicals and solvents is utilized in this process. There is limited if any U.S. export potential in this area.

In total, approximately \$200 million in equipment and services exports could be sourced from U.S. suppliers during the initial establishment of the facility. Most of these exports would supply the engine overhaul and component MRO segments. In addition, as one of the main objectives of the study would be to position Boeing and GE favorably with respect to PIA's upcoming aircraft purchase, the study could increase the likelihood that PIA selects Boeing aircraft. Selection of Boeing for a portion of the overall purchase could translate into exports of over \$5 billion for Boeing and GE or another U.S. engine manufacturer such as Pratt & Whitney.

Foreign Competition and Market Entry Issues

While there are no market entry issues, significant foreign competition exists in all of the segments noted above. The following provides a list of major suppliers for each segment:

Airframe Heavy Maintenance: SR Technics (Switzerland), ST Aerospace (Singapore)

Engine Overhaul: Vector Aerospace (Canada), SR Technics, Turbomeca (France), SNECMA (France)

Component MRO: Thales (France), SAFRAN (France), Meggitt (U.K.), Zodiac (France), Liebherr (Germany), Aveos (Canada)

Line Maintenance: N/A

Most of these companies are active internationally; however, none appears to be actively engaging PIA with respect to the Project. Some of these companies have been involved in operations in Asia and likely would be interested in the Project. For example, Liebherr has been involved in MRO facilities in both Singapore and the Philippines, SR Technics in Japan and China, and Meggitt in Singapore and China.

As noted, Airbus is competing with Boeing for the sale of additional aircraft, and it is likely receiving substantial support from various EU governments. In addition, Rolls Royce is also competing with GE/Pratt & Whitney for the aircraft engines which would be conducted as a separate tender.

It is important to note that the Project would benefit both U.S. and non-U.S. companies; however, U.S. support for the Project is expected to swing the "benefit" balance more toward U.S. companies, in particular Boeing and GE. PIA will likely purchase aircraft from both Boeing and Airbus (and thus engines from GE and Rolls Royce, and perhaps others); however, the exact makeup of their upcoming purchase has not been determined. One of the goals of U.S. involvement in the Project; therefore, is to encourage PIA to consider Boeing-manufactured aircraft for the majority of its updated fleet. There is no such thing as an MRO facility which services only Boeing or Airbus aircraft – and PIA clearly wants the Project to be as comprehensive as possible. Therefore, it is inevitable that U.S. involvement in the Project would indirectly provide benefits to Airbus and other non-U.S. manufacturers.

Developmental Impact

The establishment of an MRO facility would lead to substantial developmental benefits to Pakistan, most notably in the Human Capacity Building and Technology Transfer/Productivity Improvement sectors. The facility itself could employ upwards of 300 people, many of whom in highly skilled jobs such as mechanics and safety inspectors. The TOR for the study includes a training/capacity building program, and the Contractor would also work with the Grantee to develop a mechanism for continued training following the conclusion of the study. In terms of technology transfer, advanced aviation safety/testing technologies would be introduced, either through direct purchase or through licenses with the respective equipment manufacturers.

Impact on the Environment

As the facility would be located in an area of an existing airport, no significant environmental impacts are envisioned. Local requirements in terms of land use will need to be followed, and the terms of reference include a preliminary environmental review to ensure that the project is developed in compliance with these regulations. As external financing from multilateral development banks is highly unlikely, the feasibility study contractor need not examine these requirements.

Impact on U.S. Labor

The MRO business is relatively localized, given that international airlines operate out of their own hubs and generally utilize their own MRO facilities or those in their region. In addition, most U.S. carriers perform this function in the United States due to requirements stipulated in union contracts. Therefore, there is not expected to be a negative impact on U.S.-based MRO operators in terms of lost business. Any impact on the U.S. labor market is expected to be positive, given both the initial purchase of U.S.-made equipment, subsequent purchases of spare parts from U.S. suppliers, as well as potential services exports related to the potential for a partnership in the management and operation of the Project.

Qualifications

For this activity, the Contractor team is envisioned to be comprised of eight international experts for a total of 20 person-months. The following provides a breakdown of estimated expertise and time requirements:

MRO Facility Planner/Engineer (Team Leader): 4 months;
MRO Facility Operations Specialist: 3 months;
MRO Facility Logistics Specialist: 2 months;
Civil Engineer: 3 months;
Mechanical Engineer: 2 months;
Electrical Engineer: 2 months;
Civil Aviation Institutional Specialist: 2 months;
Economic/Financial Analyst: 2 months.

MRO Facility Planner/Engineer (Team Leader)

- Team Leadership: Demonstrated experience leading consulting teams on multiple projects.
- MRO Operations: At least 15 years of experience in the development and management of MRO facilities which service a range of aircraft, engines and related components.
- Country/Regional Experience: Experience in aviation sector projects either in Pakistan or the Asia region preferred.
- Education: Advanced engineering degree is required, preferably coupled with a degree in business administration or a related field in the aviation sector.

MRO Facility Operations Specialist

- MRO Operations Management: At least 15 years of experience in the management of an MRO facility(ies) which serviced a diverse range of aircraft, aircraft engines and related components.
- Education: Engineering and/or business administration or a related field in the aviation sector.

MRO Facility Logistics Specialist

- MRO Logistics Management: At least 15 years of experience in the management of logistics issues at an MRO facility(ies) which serviced a diverse range of aircraft, aircraft engines and related components.
- Education: Engineering and/or business administration or a related field in the aviation sector.

Civil Engineer

- MRO Engineering: At least 10 years of experience as a civil engineer in the MRO/aviation sector, including work on new facilities and/or expansion projects.
- Education: Advanced degree in civil engineering or a related field.

Mechanical Engineer

- MRO Engineering: At least 10 years of experience as a mechanical engineer in the MRO/aviation sector, including work on new facilities and/or expansion projects.
- Education: Advanced degree in mechanical engineering or a related field.

Electrical Engineer

- MRO Engineering: At least 10 years of experience as an electrical engineer in the MRO/aviation sector, including work on new facilities and/or expansion projects.
- Education: Advanced degree in electrical engineering or a related field.

Civil Aviation Institutional/Regulatory Specialist

- Institutional/Regulatory Analysis: At least 10 years of international experience in institutional analysis and policy formulation in the aviation sector, preferably working with both governments and air carriers, and experience as an airworthiness inspector.
- Education: Advanced degree or equivalent experience in public administration/policy, business administration, or a related field.

Economic/Financial Analyst

- Economic/Financial Analysis: At least 10 years of experience in economic and/or financial analysis in the aviation sector, preferably with experience in the development and/or management of MRO operations.
- Education: Advanced degree or equivalent experience in economics and/or business administration, or a related field.

Justification

While PIA is capable of funding the study using its own resources, USTDA support may help to insert a U.S. commercial presence into the operation of the facility, both in terms of the equipment that will be needed once the facility is operational, as well as management services. In addition, given the strategic priority of the expanded facility to PIA, U.S. involvement may have the secondary effect of steering PIA towards selecting a greater amount of Boeing-made aircraft over rival Airbus for its upcoming purchase, which is expected to be a highly competitive tender. As PIA has previously raised the issue of Boeing support for the facility, it has also likely engaged in similar discussions with Airbus and the EU on potential financial support. Therefore, a combined U.S. government-Boeing-GE package could help to level the playing field. In addition, the strong support shown by Boeing and GE highlights the importance of this sale to their commercial interests in both Pakistan and the region. Finally, the establishment of a profitable MRO enterprise for PIA could substantially increase the airline's revenues, thus improving its financial position and enabling it to move ahead with additional aircraft purchases in the future.

Terms of Reference

PIA shall be referred to hereinafter as "Grantee." To perform the Feasibility Study, Grantee shall select an independent consultant, "Contractor", in competitive bidding under USTDA guidelines.

The Terms of Reference for the Request for Proposal for the Feasibility Study can be found in Annex 5.

Estimated Budget

The estimated budget for the PIA MRO feasibility study is \$864,002, of which labor accounts for \$624,000 and other direct costs \$240,002. A detailed budget breakdown is provided in Table C.1 below.



Table C.1: PIA MRO Budget

Task	MRO Planner / Engineer (TL)	Operations Management Specialist	Logistics Specialist	Civil Engineer	Mechanical Engineer	Electrical Engineer	Economic / Financial Analyst	Institutional / Regulatory Specialist
1 Market Assessment/Business Plan	19	25					17	
2 Technical Requirements	37	37	37	63	40	40		24
3 Organizational/Institutional Structure	5						15	
4 Economic Analysis	7						15	
5 Financial Analysis	4							
6 Environmental Assessment	7	3	3	3	3			
7 Regulatory Analysis	3							15
8 Developmental Impacts	3							3
9 U.S. Sources of Supply	3							
10 Implementation Plan	9	8	7	7	7	7		5
11 Final Report	7	5	5	5	5	2	5	5
Total Labor Days	104	78	52	78	52	52	52	52
Daily Rate	\$1,300	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,100	\$1,100
Total Labor Cost	\$135,200	\$93,600	\$62,400	\$93,600	\$62,400	\$62,400	\$57,200	\$57,200

Other Direct Costs	Unit	Number	Unit Cost	Total
International Air	Trips	16	\$2,500	\$40,000
Domestic Air (Karachi-Islamabad)	Trips	4	\$500	\$2,000
Ground Transport	Days	520	\$30	\$15,600
Per Diem (Karachi)	Days	510	\$310	\$158,100
Per Diem (Islamabad)	Days	10	\$110	\$1,100
Reproduction/Binding	Lump Sum			\$2,000
Courier Services	Lump Sum			\$2,000
Visas	Per Trip	8	\$180	\$1,440
Communications	Months	4	\$500	\$2,000
Project Office Operations	Months	4	\$1,000	\$4,000
Medex Insurance (\$27/person 1-10 days)	10-day	52	\$27	\$1,404
DBA Insurance (\$1.66 per \$100 labor)	Lump Sum			\$10,358
Total Other Direct Costs				\$240,002

Total Labor Cost	\$624,000
Total Other Direct Costs	\$240,002
Total Project Cost	\$864,002

SECTION B: BACKGROUND

DM Focus and Structure

The Islamic Republic of Pakistan is located at the crossroads of South Asia, the Middle East and Central Asia. It has a 1,046 km coastline along the Arabian Sea and Gulf of Oman in the south, and is bordered by Afghanistan and Iran in the west, India in the east and China in the far northeast. It also lies very close to Tajikistan, but is separated by the narrow Wakhan Corridor. The total area of Pakistan is 796,095 km², including 770,875 km² of land area and 25,220 km² of sea territory.

The estimated population of Pakistan in 2008 is over 166,040,000, making it the world's sixth most-populous country. Pakistan has a multicultural and multi-ethnic society and hosts one of the largest refugee populations in the world, as well as a young population. Approximately 1.7 million Afghan refugees remain in Pakistan. The annual growth rate is 2.2%. The total number in the labor force is about 50.58 million people, with 43% of the labor force engaged in agriculture. Average life expectancy is 65 years.

Pakistan's GDP was about \$168.3 billion in 2008, or roughly \$1,046 per capita. GDP growth rose steadily from 2% in 2000-2001 to 9% in 2004-2005. It has since been declining reflecting the worsening security situation, the global financial crisis and internal macroeconomic imbalances. The latter includes rising fiscal deficits resulting from a narrow tax base, weak tax administration, considerable tax exemptions, subsidies for a range of items including for certain energy items such as CNG, and operating losses for a number of government-owned enterprises such as Pakistan Railways and PIA (losses for government-owned enterprises totaled about 2.1% of GDP in 2007-2008) As GDP growth slowed and fiscal inflows declined, public expenditures and investment programs continued, with the effect that general subsidies on food and fuel have been or are being withdrawn, and a more targeted direct income support for the poor has been implemented with endorsement by the IMF. Compounding and contributing to the macroeconomic imbalances, the rise in commodity prices especially for imported energy and worsening terms of trade¹ led to a dramatic decline (about 19.3%) in the Rupee:Dollar exchange rate in 2008, and a sharp rise in the inflation rate from 7.9% in 2007 to 13.4% in 2008.

Despite these structural problems, the economy has weathered the recent global financial crisis surprisingly well, with GDP growth of 2.4% for 2008 and over 6.4% for 2009, thus making it one of the fastest growing emerging markets worldwide. Moreover, continued attention is being given to supporting private sector participation and encouraging private investment including in the privatization of government-owned enterprises. Although this does not include PIA and Pakistan Railways, it does include toll roads operated by private sector companies and electricity suppliers. Clearly however, for economic growth to return to its recent higher rates, fiscal discipline and resolving the security situation are necessary prerequisites.

¹ In November 2008, Pakistan entered an IMF Stabilization Program after its international liquidity had declined to an import cover of only several weeks.

Transportation Sector in Pakistan

Pakistan has a reasonably developed transport infrastructure with a nationwide system of roads, including national highways and motorways, which are currently under construction, civil aviation, railways and ports. It provides over 6% of employment in the country and receives 12 to 16% of the annual Federal Public Sector Development Program (PSDP). Government agencies and companies dominate key subsectors such as aviation, railways, ports and shipping, and to a lesser extent, trucking. Key components include:

- Roads (total 258,350 kilometers [kms], of which 162,675 kms are paved, and 2,207 kms are expressways).
- Railways (total route 7,791 kms, of which, 7,479 kms of 1.676 meter gauge— of which, 293 kms are electrified).
- International Ports (Karachi, Muhammad bin Qasim, Gwadar).
- Airports (total 145, paved 98 with 16 having runway at least 3,000 meters in length).

Road transport is the backbone of Pakistan's transport system. The 9,574 km long National Highway and Motorway network (3.65% of the total road network), carries 80% of Pakistan's total traffic. Over the past ten years, road traffic, both passenger and freight, has grown significantly faster than the national economy. Currently, it accounts 91% of national passenger traffic and 96% of freight.

Table B.1 shows the major role that roads play in the transport sector and the relatively diminishing role for railways. Table B.2 shows the number of vehicles on the road, with over half accounted for by motorcycles and motor scooters.

Table B.1: Passenger and Freight Traffic

Fiscal Year	Passenger Traffic (million pkm)				Freight Traffic (million tkm)			
	Road	%Change	Rail	%Change	Road	%Change	Rail	%Change
1996-97	163,751	5.9	19,114	1.1	84,345	5.6	4,607	-9.3
1997-98	173,857	6.2	18,774	-1.8	89,527	6.1	4,447	-3.5
1998-99	185,236	6.5	18,980	1.1	95,246	6.4	3,967	-10.8
1999-00	196,692	6.2	18,495	-2.6	101,261	6.3	3,753	-5.4
2000-01	208,370	5.9	19,590	5.9	107,085	5.7	4,520	20.4
2001-02	209,381	0.5	20,783	6.1	108,818	0.2	4,573	1.2
2002-03	215,872	3.1	22,306	7.3	110,172	1.2	4,830	5.4
2003-04	222,779	3.2	23,045	3.3	114,244	3.7	5,336	10.7
2004-05	232,191	4.2	24,238	5.2	116,327	1.8	5,532	3.6
2005-06	238,099	2.5	25,621	5.7	117,035	0.6	5,916	6.9
2006-07			26,446	3.2			5,453	-7.8
2007-08	--	--	24,731	-6.5	--	--	6,178	13.3
July-Mar 2008-09*			19,677	7.5	88,023		4,520	19.38

Note: *=Estimated.

Source: Ministry of Railways and Ministry of Communications.

Table B.3 shows the length and routes of main highways. Considerable resources have been allocated to the development of the highway network over the last two decades,

including through funding from international financing institutions such as the World Bank and ADB. Currently there are efforts to increase private sector participation through concessioning toll roads in order to provide revenues for maintenance.

Table B.2: Motor Vehicles on the Road (000s)

Year	Mcy/ Scooter	Motor Car	Jeep	Stn. Wagon	Tractor	Buses	M.Cab Taxi	Motor Rck	D. Van	Trucks	Pickup	Ambu- lance	Tankers		Others	Total
													Oil	Water		
1991-92	971.80	429.10	31.60	43.60	275.30	45.00	33.50	42.40	61.40	75.80	30.20	1.70	4.00	0.60	49.50	2,095.50
1992-93	1,165.50	465.80	35.60	48.80	353.00	51.70	40.00	46.70	69.80	84.20	39.50	2.00	4.30	0.70	52.70	2,460.00
1993-94	1,287.30	493.70	38.00	52.70	376.60	56.40	44.50	50.50	74.00	92.00	44.10	2.30	4.70	0.70	73.60	2,690.40
1994-95	1,482.00	516.80	41.30	56.00	399.80	60.90	47.90	53.40	78.20	98.30	47.10	2.70	5.10	0.80	60.70	2,951.60
1995-96	1,481.90	538.40	43.00	59.00	424.80	64.50	51.40	58.70	81.30	104.20	50.50	3.30	5.60	0.90	63.70	3,000.20
1996-97	1,576.00	564.50	43.50	62.00	439.80	68.20	54.10	65.60	84.30	110.30	50.20	3.70	6.10	1.10	66.50	3,195.80
1997-98	1,691.40	593.00	45.50	65.00	463.60	72.50	57.30	74.60	87.60	117.10	56.10	4.30	6.80	1.30	69.70	3,405.80
1998-99	1,833.70	731.30	47.80	60.60	489.80	84.40	68.50	56.70	51.70	121.00	56.40	1.50	6.80	0.70	74.70	3,651.70
1999-00	2,010.00	815.70	16.70	73.90	528.40	92.80	69.80	59.90	55.50	127.40	61.60	1.70	7.00	0.70	78.80	3,997.20
2000-01	2,218.90	928.00	17.00	93.80	579.40	86.60	79.80	72.40	72.40	132.30	68.40	1.70	7.20	0.80	89.00	4,471.00
2001-02	2,481.10	1,040.00	18.30	122.70	630.50	96.60	96.40	80.80	116.90	145.00	78.30	4.10	7.60	0.90	71.50	5,016.80
2002-03	2,656.20	1,110.00	43.40	126.40	663.20	98.30	104.10	80.90	120.30	146.70	80.60	4.30	7.60	0.90	71.40	5,315.00
2003-04	2,882.50	1,193.10	47.80	132.40	722.70	100.40	112.60	81.00	121.30	149.20	84.40	4.40	7.60	0.90	71.30	5,711.20
2004-05	3,063.00	1,264.70	51.80	140.50	778.10	102.40	120.30	81.30	121.90	151.80	87.60	4.50	7.70	0.90	69.40	6,048.30
2005-06	3,791.00	1,999.20	65.70	140.80	822.30	103.60	122.10	77.80	143.30	151.80	93.50	4.50	7.70	0.90	60.20	7,084.50
2006-07	4,463.80	1,682.20	85.40	169.10	877.80	108.40	119.10	79.00	148.90	173.30	104.50	4.60	7.80	0.90	38.50	8,063.60
2007-08	5,037.01	1,853.46	82.87	163.22	900.52	109.10	129.80	89.34	163.50	177.80	115.30	5.20	8.80	1.00	40.80	8,878.50
Jul-Mar 2008-09 *	5,367.86	2,029.16	79.02	155.58	911.69	111.06	138.57	88.40	167.20	181.90	125.50	5.65	9.70	1.20	41.40	9,413.80

Notes: * = Estimated

Source: National Transport Research Center.

Table B.3: List of National Highways of Pakistan

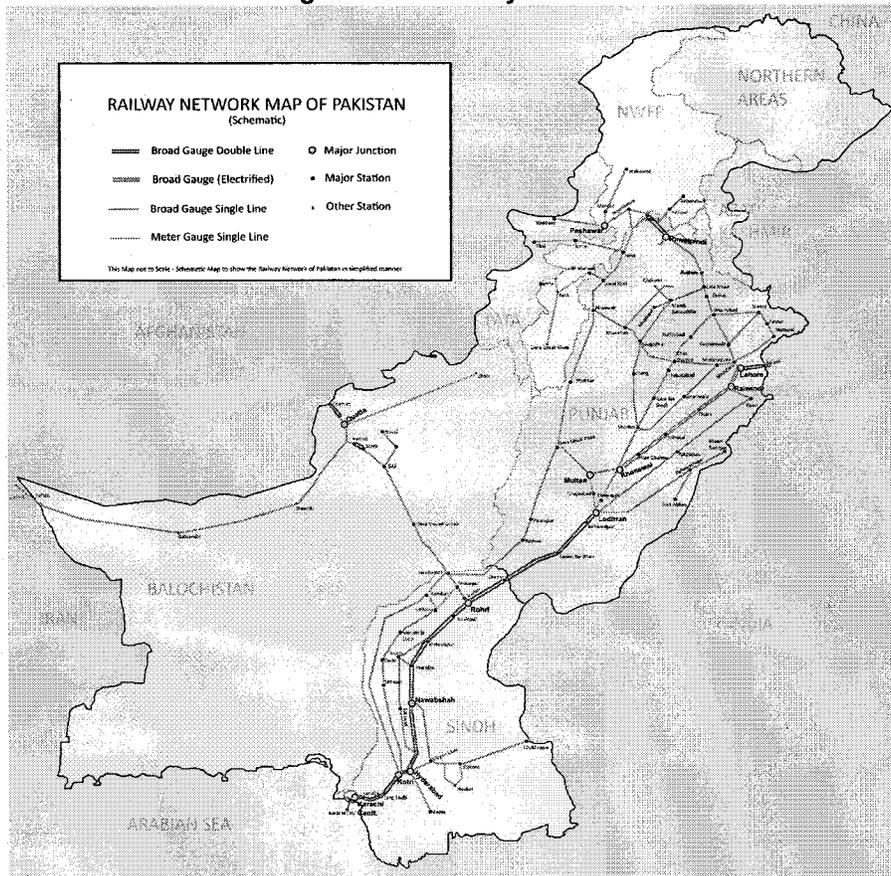
Number	Route	Total Length (km)
N-5	Karachi to Torkham via Hyderabad, Multan, Lahore, Rawalpindi and Peshawar	1,756
N-10	Karachi to Gwadar (Makran Coastal Highway) along the Arabian Sea	653
N-15	Manshera to Chilas via Naran and Jalkhand	240
N-25	Karachi to Chaman (RCD Highway) via Bela, Khuzdar, Kalat and Quetta	813
N-35	Hasan Abdal to Khunjerab (Karakoram Highway) via Abbottabad, Thakot and Gilgit	806
N-40	Quetta to Taftan via Naukundi to Zahedan, Iran	610
N-45	Nowshera to Chitral via Dir	193
N-50	Kuchlak to Dear Ismail Khan via Zhob	332
N-55	Karachi to Peshawar (Indus Highway) via Kotri, Shikarpur, Dera Chazi Khan and Kohat	1,264
N-65	Sukkur to Saryab via Sibi	385
N-70	Qila Saifullah to Multan via Loralai and Dera Ghazi Khan	447
N-75	Islamabad to Kohala (Murree Expressway) via Satra Mile, Lower Topa and Murree	90
N-80	Tarnol to Kohat	144
N-85	Hishab to Surab via Pangjur, Nag and Basima	487
N-90	Kwaskhela to Besham via Alpuri	90
N-95	Chakdara to Kalam via Mingora, Manglour, Kwawakhela, Madyan and Bahrain	135
S-1	Gilgit to Skardu	167
S-2	Kohala to Muzaffarabad	40
S-3	Muzaffarabad to Chakothe	55
E-3	Wazirabad to Pindi Bhattian	100
E-4	Faisalabad to Khanewai	184
E-5	Khanewal to Lodhran	100
Total Length		9,091

For railways, the operating company, Pakistan Railways, is government owned. As noted above, the railway subsector has been losing market share to roads. Several factors have caused this to occur:

- The primary focus has been on carrying passengers and fares have been subsidized, which is common practice around the world but this means that the railway is not recouping its expenditures;
- The freight business, which could earn net revenues, has suffered as rolling stock is allocated to passenger service and some rolling stock has deteriorated because of lack of funds for spares and maintenance
- Similarly, some track sections have deteriorated and only recently has the purchase of new signaling and communications systems been approved—collectively, this means that there are speed orders (restrictions) for certain track sections; and
- The railway has not been responsive to potential freight customers.

In the last several years, the World Bank and ADB have provided funds for reforming the railway. These efforts include privatizing certain repair and maintenance facilities, and the adoption of a new railway law that allows for independent operators that will pay track access charges. However, the reform efforts are still in their early stages, and how they progress will largely determine the railway's future. The simple fact is that the railway needs to increase its freight business and increase revenues to reinvest in the network.

Figure B.1: Railway Network



With respect to civil aviation, Karachi is Pakistan's main airport but significant levels of both domestic and international cargo are also handled at Islamabad and Lahore. Pakistan International Airlines (PIA) is government-owned, and is facing competition from two recently established privately-owned airlines, JetBlue and Shaheen Air. PIA, Air Emirates and Qatar Airways are important international carriers.

Table B.4 shows air traffic at the largest airports in 2007. Air cargo is reportedly under-serviced by domestic airlines, with international air cargo planes handling most of it. Interestingly, the Sialkot Chamber of Commerce initiated the program to develop an airport in that city to handle cargo. Utilizing considerable private sector resources, the airport construction began in 2001, flights began in 2005, and the airport was completed in 2007. The airport facilities are being expanded, and it is now handling about 40,000 tons of cargo per year. Passenger flights have also begun from Sialkot.

Table B.4: Major Air Traffic Flows, 2007

Airport	Aircraft Movements (number)	Passengers (International & Domestic)	Cargo Handled (million tons)	Mail Handled (million tons)
Jinnah International Airport - Karachi	52,990	6,081,448	169,124	2,953.13
Benazir Bhutto International Airport - Islamabad	48,110	3,035,966	53,950	579.67
Allama Iqbal International Airport - Lahore	39,634	3,091,590	74,664	1,683.79
Peshawar International Airport - Peshawar	13,234	890,942	10,537	47.98
Quetta International Airport - Quetta	2,736	284,829	1,513	32.42
Multan International Airport - Multan	19,379	240,573	1,273	49.52
Gwadar International Airport - Gwadar	1,507	29,379	63	1.15
Faisalabad International Airport - Faisalabad	2,832	189,339	971	30.7

Source: Pakistan Civil Aviation Authority.

Aside from the new airport being built in Islamabad to accommodate increasing traffic (Louis Berger is assisting CAA with this project), Pakistan is currently only planning moderate expansion/upgrade projects to its existing airport infrastructure. For example, Turbat Airport is planning the construction of a new airport lounge and control tower, Jinnah (Karachi) Airport is installing more e-check in and ticketing systems, and Quetta Airport is upgrading portions of its terminal. TERA does not see significant U.S. commercial opportunities for new airport development/upgrades at this time.

Port traffic in Pakistan has grown at 8 % annually in recent years. Two major ports, Port Karachi and Port Qasim, handle 95 % of all international trade. Port Gwadar, which was inaugurated in March 2007 and is being operated by Singapore Port Authority, is aiming to develop into a central energy port in the region. The Port of Pasni is located in Pasni City in Balochistan province of Pakistan. The facilities include modern fish harbor, port and a naval base for Pakistan Navy.

Tables B.5 and B.6 show cargo handled at Karachi and Port Qasim. Both operate under port authorities that set fees and handle overall administration of the ports. Port Qasim has one primary port terminal operator and Karachi has three. Both ports are expanding. Karachi Port Trust is planning for a new Karachi port that will require over \$ 2 billion in investment.

Table B.5: Cargo Handled at Karachi Port (000 tons)

Year	Imports	%Change	Exports	%Change	Total	%Change
1996-97	18,362	-1.9	5,113	5.2	23,478	-0.4
1997-98	17,114	-6.8	5,570	8.9	22,686	-3.4
1998-99	18,318	7	5,735	3	24,063	6
1999-00	17,149	-0.9	5,613	-2.1	22,759	-1.2
2000-01	20,064	10.5	5,918	5.4	25,998	9.3
2001-02	20,330	1.3	6,362	7.5	26,701	2.7
2002-03	19,609	-3.5	6,273	-1.4	25,877	-3.1
2003-04	21,732	10.8	6,081	-3.1	27,821	7.6
2004-05	22,100	1.7	6,515	7.1	28,624	2.9
2005-06	25,573	15.7	6,697	2.8	32,289	12.8
2006-07	23,329	-8.77	7,517	12.24	30,849	-4.41
2007-08	25,517	9.38	11,675	55.31	37,257	20.57
2008-09 (Jul-Jan)	13,512	-10.46	7,874	44.34	21,420	4.09

Source: Karachi Port Trust.

Table B.6: Cargo Handled at Port Qasim (000 tons)

Period	Imports	%Change	Exports	%Change	Total	%Change
1997-98	13,823	39	1,144	65	15,071	41
1998-99	12,191	-12	1,742	52	13,973	-7
1999-00	13,238	9	1,703	-2	14,948	7
2000-01	11,841	-11	1,747	3	13,580	-11
2001-02	10,932	-8	2,385	36	13,345	-2
2002-03	11,980	10	3,129	31	15,150	13
2003-04	11,264	-6	2,859	-9	14,108	-7
2004-05	16,006	42	3,431	20	19,499	37
2005-06	17,588	10	3,985	16	21,599	11
2006-07	19,511	11	4,839	21	24,382	13
2007-08	21,502	10	4,922	2	26,436	9
July-Mar						
2007-08	16,146		3,654		19,800	
2008-09	14,243	-12	3,773	3	18,007	-9

Source: Port Qasim Authority.

While there are positives regarding the transportation sector, Pakistan nevertheless faces a number of issues with respect to its transportation sector, mainly due to consistent under-funding with respect to construction, rehabilitation, and maintenance of infrastructure. This has resulted in high transportation costs, and thus hampers its competitiveness with respect to international trade. Only 56% of the national highway network is in good condition, and provincial and local roads are in a similar state. Truck overloading is widespread and a frequent cause of accidents. Railways accounted for over 70% of freight traffic in the 1950s, but the network and rolling stock have been allowed to deteriorate to the point that the network now carries less than 5%. Shipping is also problematic with long delays in moving cargo reported in the port of Karachi. The Civil Aviation Authority is both a regulatory and an operating agency (for PIA). A draft national transport policy has been presented at the urging of international financial institutions, which has meant that coordination and cooperation for intermodal and logistics development has been lacking. Thus, while the status of the transportation sector is less than ideal, there appear to be some optimistic signs emerging.

In 2005, the government launched a north-south National Trade Corridor Improvement Program with the private sector, which assisted in the development of intermodal and logistics services and enabled a focusing of investments on main corridor routes. It is estimated that the National Highway Authority's plan to upgrade the network including the trade corridors will cost about \$8 billion by 2015; however, the government hopes that the private sector will contribute about 7% of the capital for the upgrade (an important point because it indicates that the private sector is finally being tapped to participate in operations and maintenance). Also important regarding this initiative is that it specifically targets improving regional connectivity, especially with Afghanistan, as evidenced by the inclusion of the proposed upgrade of the road between Peshawar and Torkham/Landi Kotal. Currently, there is very limited but increasing traffic between Central Asia and Pakistan, although Karachi is the closest port for these countries, which reflects the problems in Karachi port mentioned above as well as the fact that priority had not been given to establishing transit links. In addition to the road infrastructure, there is an increasing emphasis being given to improving logistics and transit processing times. The aim of the program is to reduce by half the transit time between Peshawar and Karachi, which is currently 72 hours for the 1,700 kms trip (about 24 km/hour) to 36 hours (48 km/hour).

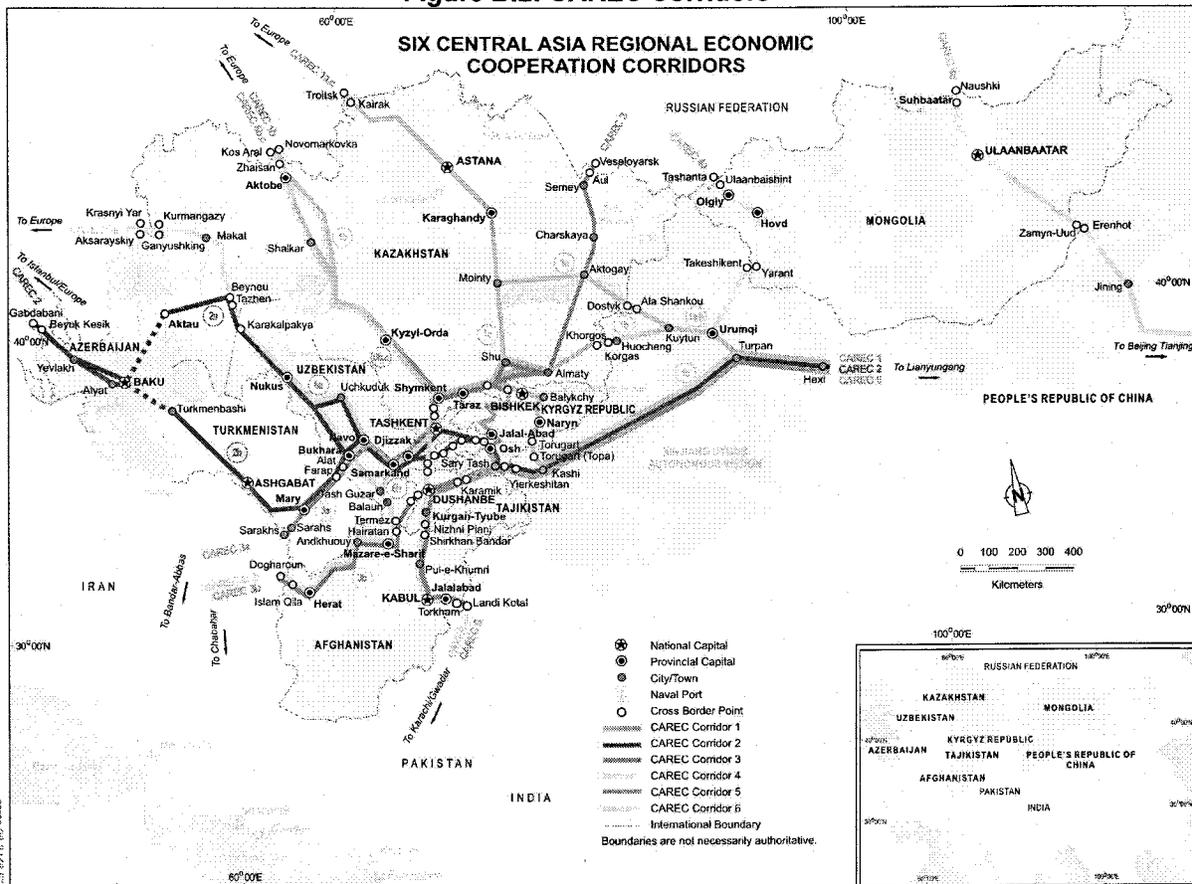
Pakistan's "corridor development" programs complement neighboring Afghanistan, which is a member of ADB's Central Asia Economic Cooperation group, or "CAREC." While current instability may constrain trade in the near term, it is increasing and holds considerable promise as an economic growth engine in the region, and the Central Asian countries hope to be able to utilize Pakistan as an important outlet to the sea as well as a trading partner in the future. ADB's CAREC corridors are shown in Figure B.2 below and indicate the prominence of both countries.

For railways, there has been recognition that efficiencies of operations must be drastically improved. Set for implementation in 2009 under an ADB loan is a technical assistance project to assist the government in implementing a strategy to revitalize Pakistan Railways (PR). The strategy will involve the corporatization of elements of PR, including introducing professional management and private investment, with the goal of (i) converting manufacturing units (MUs) into Public Limited companies, (ii) facilitating the fulfillment of the government objective to offload the railway budget from non-core activities, (iii) facilitating the capability of MUs to have autonomous entities to seek business from private enterprises, (iv) preparing a strategy for the MUs to convert these private enterprises into viable commercial companies, and (v) preparing corporate plans and feasibility studies for their future operations and implementation strategy. The MUs to be looked at under this Project include: the carriage factory in Islamabad; the locomotive factory in Risalpur; and concrete sleeper factories in Sukkur, Khanewal, Kotri, and Kohat.

Also included under this loan package is a technical assistance project to assist the Ministry of Railways (MOR) to formulate policy for the rail sector to enable public-private partnerships in the sector. The focus of the project will be on freight and passenger trains and railway infrastructure, which will include railway real estate, joint ventures, dry ports and other allied activities. With an aim to promote economic growth and reduce poverty, this project will help to design appropriate mechanisms that will allow the development of the railway system to accelerate through increased private sector financing in Pakistan.

Collectively, these initiatives clearly demonstrate a commitment to changing the operating culture of the railways and developing a more modern system of management and operations. Whether the railways are able to regain modal share from the road subsector remains to be seen. However, these initiatives have to be recognized as significant progress given the past performance of the rail subsector. Moreover, the reforms that are also occurring in the road subsector as well as the new focus on logistics and border crossings indicate that the transport sector may be provided an opportunity to begin to evolve and incorporate market demand for services, and thereby increase the efficiencies of operations.

Figure B.2: CAREC Corridors





END OF DEFINITIONAL MISSION STUDY

ANNEX 3



**U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-2131**

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

NATIONALITY:

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.



subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.



SOURCE AND ORIGIN:

1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

3) Definitions

“Source” means the country from which shipment is made.

“Origin” means the place of production, through manufacturing, assembly or otherwise.

Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.



ANNEX 4
GRANT AGREEMENT

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GRANT AGREEMENT

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and Pakistan International Airlines Corporation ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US\$864,002 ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the proposed Expanded Maintenance, Repair, and Overhaul Facility for Pakistan International Airlines ("Project") in Pakistan ("Host Country").

1. USTDA Funding

The funding of the USTDA Grant to be provided under this Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee ("Contractor") under which the Contractor will perform the Study ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

2. Terms of Reference

The Terms of Reference for the Study ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials, and commercial entities, in their respective countries. The parties to this Grant Agreement and the Contractor shall observe these standards, which include not accepting payment of money or anything of value, directly or indirectly, from any person for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study.

4. Grantee Responsibilities

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support.

5. USTDA as Financier

(A) USTDA Approval of Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities* (www.fedbizopps.gov). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

(B) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the Study. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the Study. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected.

(C) USTDA Approval of Contract Between Grantee and Contractor

The Grantee and the Contractor shall enter into a contract for performance of the Study. This contract, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing. To expedite this approval, the Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 17 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract.

(D) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the Contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the Contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the

Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

(E) Grant Agreement Controlling

Regardless of USTDA approval, the rights and obligations of any party to the contract or subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and any contract or subcontract funded by the Grant Agreement, the Grant Agreement shall be controlling.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

(B) Contractor Invoice Requirements

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

7. Effective Date

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature.

8. Study Schedule

(A) Study Completion Date

The completion date for the Study, which is December 15, 2011, is the date by which the parties estimate that the Study will have been completed.

(B) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

9. USTDA Mandatory Clauses

All contracts funded under this Grant Agreement shall include the USTDA mandatory clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA mandatory clauses, except for clauses B(1), G, H, I, and J.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(B) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

11. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

12. Taxes

USTDA Grant provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

13. Cooperation Between Parties and Follow-Up

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report (as defined in Clause I of Annex II), the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project.

14. Implementation Letters

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by the Grant Agreement. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by the Grant Agreement.

15. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the Study and the Grant Agreement adequate to demonstrate implementation of its responsibilities under the Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement of the USTDA Grant by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

16. Representation of Parties

For all purposes relevant to the Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by the Managing Director. The parties hereto may, by written notice, designate additional representatives for all purposes under the Grant Agreement.

17. Addresses of Record for Parties

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through a wire or electronic medium which produces a tangible record of the transmission, such as a telegram, cable or facsimile, and will be deemed duly given or sent when delivered to such party at the following:

To: M. Salim Sayani
Deputy Managing Director
Pakistan International Airlines Corporation
PIA Building Jinnah International Airport
Karachi, 72500

Phone: 92-21-9940-4091
Fax: 92-21-3457-1976

To: U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.: 119/101001
Activity No.: 2010-31060A
Reservation No.: 2010310077
Grant No.: GH2010310023

18. Termination Clause

Either party may terminate the Grant Agreement by giving the other party thirty (30) days advance written notice. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the written notice of termination.

19. Non-waiver of Rights and Remedies

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

20. U.S. Technology and Equipment

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

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IN WITNESS WHEREOF, the Government of the United States of America and Pakistan International Airlines Corporation, each acting through its duly authorized representative, have caused this Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the
United States of America

For Pakistan International
Airlines Corporation

By: Paul W. Patterson

By: [Signature]

Date: Aug. 25, 2010

Date: 25 Aug 2010

Witnessed:

Witnessed:

By: Christian R. De Angelo

By: [Signature]

Annex I – Terms of Reference

Annex II -- USFDA Mandatory Clauses

Annex I

Terms of Reference

The Study will include preparatory activities for the proposed expansion of the maintenance, repair and overhaul (MRO) facility (Project) for the Grantee. The Study will examine the market for similar MRO facilities in the Middle East and South Asia region and worldwide, develop a marketing strategy and business plan for the Grantee, develop an appropriate organizational structure for the new venture, assess the technical and legal/regulatory requirements for establishing and operating the Project, prepare an implementation plan, and examine potential partnerships with U.S. companies for equipment and services. At the conclusion of the Study, the Grantee will be presented with a comprehensive analysis of the MRO market and the items needed in order to move forward with the Project. In addition, the Study will enable the Grantee to benefit from U.S. expertise for implementation of the Project.

Task 1: Market Assessment and Business Plan

- 1.1 The Contractor shall examine the worldwide MRO market, as well as aspects specific to the MRO market in the Middle East and South Asia region. This analysis shall include both the current status and growth projections for at least the next 15 years. The Contractor shall also examine existing MRO facilities in these regions (and planned new developments) in order to assess the region's overall capacity and need with respect to current and projected MRO demand.
- 1.2 The Contractor shall assess the current operations of the Grantee-operated MRO facility, identifying current capabilities, projected demands based on the Grantee's business growth, regional demands that the facility could help meet as well as current strengths that could be further expanded.
- 1.3 The Contractor shall assess the capabilities of MRO facilities in the region identifying competing strengths, weaknesses and areas in which the proposed Project could help meet current or future demands. The Contractor shall provide a comparative analysis of the Grantee's current MRO facility and the other regional MRO facilities.
- 1.4 The Contractor shall provide an assessment of expected changes in the industry, sector and host country that would affect the Project, e.g., projected growth rates in the aviation sector in the region (including MRO facilities), growth of domestic and regional carriers, and host country economic and political changes which could affect the industry overall and PIA specifically.
- 1.5 The Contractor shall assess the potential role for the Project. The Contractor shall develop a marketing strategy and business plan for the Project. These documents shall include a detailed assessment of potential customers to be targeted and a strategy for attracting these customers' business interests. The Contractor shall also examine new entrants into the market and devise a strategy for attracting

their business. The Contractor shall examine potential partnership arrangements with other MRO operations in the region and worldwide. The Contractor shall work with representatives from the Grantee's marketing team to develop preliminary marketing materials.

Task 2: Technical Requirements

- 2.1 The Contractor shall review the Grantee's preliminary goals for the Project, including the types of aircraft and equipment that it expects to service once the Project is implemented. The Contractor shall work closely with the Grantee to determine what is technically feasible for the Project, based on a review of Grantee resources and the Marketing Strategy/Business Plan developed in Task 1. The Contractor shall identify the technical requirements for the Project based upon the facility operations and MRO services that could be offered within the Project.
- 2.2 The Contractor shall assess the technical requirements for the Project, including both the necessary infrastructure and equipment.
 - 2.2.1 Infrastructure/Civil Engineering. The Contractor shall identify all infrastructure requirements for the Project, including buildings/hangars, roads including any road structures such as bridges, culverts, and drainage, water/sewerage, security requirements. The Contractor shall prepare a conceptual facilities plan for the Project, which shall at a minimum include a conceptual layout, descriptions of major infrastructure elements, cost estimates and Project schedule.
 - 2.2.2 Infrastructure/Electrical Engineering. The Contractor shall identify all infrastructure requirements with respect to power needs. The Contractor shall ensure that power transmission/distribution infrastructure is identified and appropriately integrated into the overall plan.
 - 2.2.3 Equipment Requirements. The Contractor shall determine requirements for overhaul and testing equipment and spare parts. This shall include an analysis of the Project's inventory values to support the planned airplane types as well as the level of maintenance undertaken (e.g., "A," "C" and "D" checks). The Contractor shall work closely with representatives from U.S. industry with a direct interest in the Project, including but not limited to Boeing and GE Aviation, during this subtask.
 - 2.2.4 Labor Requirements. The Contractor shall determine the labor needed both during the construction and operation phases. This subtask shall include an examination of the skilled and unskilled labor needed to construct the Project, as well as the skilled and unskilled labor needed to maintain operations at the level necessary to adhere to established quality and safety standards. Within this subtask, the Contractor shall describe all

provisions for major facilities construction that will be required (i.e., contractual and logistics).

- 2.3 The Contractor shall describe and incorporate standards and best practices from international organizations such as the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), as well as the U.S. Federal Aviation Administration (FAA) and European Aviation Safety Administration (EASA) in the development of the technical requirements for the Project.
- 2.4 The Contractor shall assess the availability of potential U.S. sources of supply for the Project, including but not limited to overhaul and testing equipment, spare parts, and services. As part of this task, the Contractor shall examine partnerships with U.S. companies for the operation of the facility. The Contractor shall include each business' name, point of contact, address, telephone, email and fax number for the U.S. companies contacted.

Interim Report:

The Contractor shall prepare a draft Interim Report which outlines all technical requirements related to the Project per Task 2.

Task 3: Organizational and Institutional Structure

- 3.1 The Contractor shall assist the Grantee in developing an appropriate organizational and institutional structure for the MRO operation. The Contractor shall analyze the current capabilities of the Grantee, to undertake the Project. In addition, the Contractor shall analyze the corporate structure of the Grantee, paying particular attention to opportunities that will most likely result in Project implementation. (Note: The Grantee has proposed managing the Project through a separate entity or subsidiary company).
- 3.2 The Contractor shall recommend an organizational and institutional structure which would efficiently utilize existing staff and resources, while also allowing the MRO facility to operate with autonomy.
- 3.3 The Contractor shall identify key training needs of the Grantee, and develop training programs for Grantee staff including, but not limited to, technical areas such as repair and overhaul of new generation engines, landing gear, line maintenance and other areas identified by the Grantee.

Institutional Analysis:

The Contractor shall prepare a draft report which outlines recommendations for an MRO organizational structure per Task 3.

Task 4: Regulatory Analysis

- 4.1 The Contractor shall conduct review and describe all regulatory issues that impact the Project's viability to move forward. This description shall include an analysis of all issues at the national level (i.e., through the Civil Aviation Authority, the airport operator), as well as provincial or local regulations.
- 4.2 The Contractor shall develop a plan to introduce inspectors, from the Host Country Civil Aviation Authority (CAA), to the expanded capabilities of the Project. Further the Contractor shall provide a detailed description of the steps required and processes needed for the Grantee to comply with the Host Country CAA safety oversight regulations and international safety standards.

Regulatory Analysis:

The Contractor shall prepare and deliver to the Grantee a report which lists the regulatory issues related to the Project, all regulatory requirements that need to be addressed, as well as any recommendations for overcoming potential obstacles.

Task 5: Economic Analysis

- 5.1 The Contractor shall conduct a comprehensive economic analysis of the Project. The Contractor shall estimate costs for all equipment, civil works, labor, and items needed during both construction and operational phases. In addition, the Contractor shall tabulate and describe commercial benefits to the Grantee, i.e., revenues obtained through Project operations, as well as identify non-monetary benefits to the Grantee (e.g., human resources development through staff training, and developmental impacts described within Task 8).
- 5.2 The Contractor shall assess the economic viability of the Project and develop the economic internal rate of return (EIRR) on the basis of non-incremental and incremental economic benefits and economic costs (including economic capital, operation and maintenance costs) in constant economic prices.

Task 6: Financial Analysis

- 6.1 The Contractor shall identify potential sources of equity and debt financing from both public and private sources. The Contractor shall compute price contingencies, interest, and financing charges for the Project.
- 6.2 The Contractor shall conduct a sustainability analysis, which shall examine both financial implications and implementation capacity.
- 6.3 Utilizing projected construction and operating costs, the Contractor shall prepare a 15-year financial forecast model, including balance sheet, income statement and cash flow statements. The Contractor shall estimate the Project's financial internal rate of return (FIRR) and calculate the weighted average cost of capital

(WACC). Both the FIRR and WACC shall be computed on an after-tax basis in real terms using constant prices. The Contractor shall convert the cost estimates and financial projections from nominal to real terms by removing the projected effects of foreign and domestic inflation and currency fluctuations. The Contractor shall derive incremental costs and benefits by evaluating the financial position under with-Project and without-Project scenarios, in which the without-Project scenario shall account for lost revenue from domestic and international airlines.

- 6.4 The Contractor shall identify risk factors, conduct a sensitivity analysis, and propose mitigating measures. For the sensitivity analysis, the Contractor shall vary charges, costs, implementation delay, and volume. As part of this sub-task, the Contractor shall provide a realistic (based on industry norms) margin of error around every significant variable, and produce an analysis of the effect of variations within that margin.
- 6.5 Based on the FIRR calculated as part of this task, the Contractor shall assess the likelihood of attracting private investors to the Project.

Economic and Financial Analysis:

The Contractor shall prepare and deliver to the Grantee a report which provides all economic and financial analysis related to the Project per Tasks 5 and 6.

Task 7: Initial Environmental Impact Assessment

- 7.1 The Contractor shall conduct a preliminary review of the Project's anticipated impact on the environment, with reference to all pertinent national, provincial and/or local requirements. The Contractor shall take into account Pakistani regulations in this area. This review shall identify potential negative impacts, discuss the extent to which they can be mitigated, and develop plans for an environmental impact assessment as may be required by Pakistan law if and when the Project moves forward to the implementation stage. This task shall also identify the steps, which the Grantee will need to undertake, subsequent to the Study's completion and prior to Project implementation.
- 7.2 The Contractor shall also examine potential measures that can be instituted in order to reduce pollution and energy usage, such as regular hydraulic system maintenance (to avoid hydraulic leakages) and enhanced waste management procedures.

Task 8: Developmental Impact Assessment

- 8.1 The Contractor shall analyze developmental impacts related to Project implementation. The Contractor shall focus on key factors such as infrastructure, human capacity building, technology transfer/productivity improvement, and market-oriented reform, which are intended to provide the Project's decision-

makers and interested parties with a broader view of the Project's potential effects on the Host Country. The analysis shall focus on what development impact is likely if the Project is implemented according to Study recommendations. While specific focus shall be paid to the immediate impact of the Project, analysis shall also include any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects.

In terms of the key factors, the Contractor shall in particular examine the following:

Infrastructure: The Contractor shall examine infrastructure improvements at the Project site and surrounding area. In addition, the Contractor shall examine any potential related infrastructure upgrades at Jinnah International Airport, which can be viewed as complementary or attributable to the Project.

Technology Transfer and Productivity Improvement: The Contractor shall assess the extent to which the introduction of advanced technologies, and improvement of processes that stimulate greater economic productivity, would be introduced as a result of the Project.

Human Capacity Building: The Contractor shall estimate the number of new job opportunities, and sustained employment, which may result from Project implementation. In addition, the Contractor shall analyze any advanced training for Grantee personnel, including complementary training, which may be sustained following the conclusion of the study.

Market-Oriented Reforms: While the Project is not expected to lead directly to market-oriented reforms, the Contractor shall examine the Project's potential for changes in this area. For example, the Contractor may examine the results of a successful Project on potential privatization of the industry.

Other/Spin-off Effects: The Contractor shall examine all other developmental benefits derived from the Project including, for example, enhanced aviation safety.

Task 9: Implementation Plan

- 9.1 The Contractor shall develop an implementation plan, which shall clearly outline the anticipated next steps needed to implement the Project successfully. This plan shall include detailed steps in the areas of financing, facilities construction, civil works, equipment procurement, and synchronization of the Project with existing Grantee operations.
- 9.2 The Contractor shall develop a tentative schedule highlighting milestones that could be achieved.

Implementation Plan:

The Contractor shall present a draft implementation plan to the Grantee for review and comment, and shall incorporate any appropriate feedback into the final version.

Task 10: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

- (1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.
- (2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.
- (3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and Pakistan International Airlines Corporation ("Client"), dated _____ ("Grant Agreement"). The Client has selected _____ ("Contractor") to perform the feasibility study ("Study") for the Expanded Maintenance, Repair, and Overhaul Facility for Pakistan International Airlines project ("Project") in Pakistan ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(2) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility

or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Reporting Requirements

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, and fax number. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

H. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of an approved Final Report in accordance with the specifications and quantities set forth in Clause I below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For a mobilization payment (if any):

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(ii) For contract performance milestone payments:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(iii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(b) Client's Approval of the Contractor's Invoice

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

I. USTDA Final Report

(1) Definition

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

(2) Final Report Submission Requirements

The Contractor shall provide the following to USTDA:

(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of

USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

J. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

K. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is December 15, 2011, is the date by which the parties estimate that the Study will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

L. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

M. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:

Appropriation No.: 119/101001
Activity No.: 2010-31060A
Reservation No.: 2010310077
Grant No.: GH2010310023

N. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.



ANNEX 5

TERMS OF REFERENCE

Annex I

Terms of Reference

The Study will include preparatory activities for the proposed expansion of the maintenance, repair and overhaul (MRO) facility (Project) for the Grantee. The Study will examine the market for similar MRO facilities in the Middle East and South Asia region and worldwide, develop a marketing strategy and business plan for the Grantee, develop an appropriate organizational structure for the new venture, assess the technical and legal/regulatory requirements for establishing and operating the Project, prepare an implementation plan, and examine potential partnerships with U.S. companies for equipment and services. At the conclusion of the Study, the Grantee will be presented with a comprehensive analysis of the MRO market and the items needed in order to move forward with the Project. In addition, the Study will enable the Grantee to benefit from U.S. expertise for implementation of the Project.

Task 1: Market Assessment and Business Plan

- 1.1 The Contractor shall examine the worldwide MRO market, as well as aspects specific to the MRO market in the Middle East and South Asia region. This analysis shall include both the current status and growth projections for at least the next 15 years. The Contractor shall also examine existing MRO facilities in these regions (and planned new developments) in order to assess the region's overall capacity and need with respect to current and projected MRO demand.
- 1.2 The Contractor shall assess the current operations of the Grantee-operated MRO facility, identifying current capabilities, projected demands based on the Grantee's business growth, regional demands that the facility could help meet as well as current strengths that could be further expanded.
- 1.3 The Contractor shall assess the capabilities of MRO facilities in the region identifying competing strengths, weaknesses and areas in which the proposed Project could help meet current or future demands. The Contractor shall provide a comparative analysis of the Grantee's current MRO facility and the other regional MRO facilities.
- 1.4 The Contractor shall provide an assessment of expected changes in the industry, sector and host country that would affect the Project, e.g., projected growth rates in the aviation sector in the region (including MRO facilities), growth of domestic and regional carriers, and host country economic and political changes which could affect the industry overall and PIA specifically.
- 1.5 The Contractor shall assess the potential role for the Project. The Contractor shall develop a marketing strategy and business plan for the Project. These documents shall include a detailed assessment of potential customers to be targeted and a strategy for attracting these customers' business interests. The Contractor shall also examine new entrants into the market and devise a strategy for attracting

their business. The Contractor shall examine potential partnership arrangements with other MRO operations in the region and worldwide. The Contractor shall work with representatives from the Grantee's marketing team to develop preliminary marketing materials.

Task 2: Technical Requirements

- 2.1 The Contractor shall review the Grantee's preliminary goals for the Project, including the types of aircraft and equipment that it expects to service once the Project is implemented. The Contractor shall work closely with the Grantee to determine what is technically feasible for the Project, based on a review of Grantee resources and the Marketing Strategy/Business Plan developed in Task 1. The Contractor shall identify the technical requirements for the Project based upon the facility operations and MRO services that could be offered within the Project.
- 2.2 The Contractor shall assess the technical requirements for the Project, including both the necessary infrastructure and equipment.
 - 2.2.1 Infrastructure/Civil Engineering. The Contractor shall identify all infrastructure requirements for the Project, including buildings/hangars, roads including any road structures such as bridges, culverts, and drainage, water/sewerage, security requirements. The Contractor shall prepare a conceptual facilities plan for the Project, which shall at a minimum include a conceptual layout, descriptions of major infrastructure elements, cost estimates and Project schedule.
 - 2.2.2 Infrastructure/Electrical Engineering. The Contractor shall identify all infrastructure requirements with respect to power needs. The Contractor shall ensure that power transmission/distribution infrastructure is identified and appropriately integrated into the overall plan.
 - 2.2.3 Equipment Requirements. The Contractor shall determine requirements for overhaul and testing equipment and spare parts. This shall include an analysis of the Project's inventory values to support the planned airplane types as well as the level of maintenance undertaken (e.g., "A," "C" and "D" checks). The Contractor shall work closely with representatives from U.S. industry with a direct interest in the Project, including but not limited to Boeing and GE Aviation, during this subtask.
 - 2.2.4 Labor Requirements. The Contractor shall determine the labor needed both during the construction and operation phases. This subtask shall include an examination of the skilled and unskilled labor needed to construct the Project, as well as the skilled and unskilled labor needed to maintain operations at the level necessary to adhere to established quality and safety standards. Within this subtask, the Contractor shall describe all

provisions for major facilities construction that will be required (i.e., contractual and logistics).

- 2.3 The Contractor shall describe and incorporate standards and best practices from international organizations such as the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), as well as the U.S. Federal Aviation Administration (FAA) and European Aviation Safety Administration (EASA) in the development of the technical requirements for the Project.
- 2.4 The Contractor shall assess the availability of potential U.S. sources of supply for the Project, including but not limited to overhaul and testing equipment, spare parts, and services. As part of this task, the Contractor shall examine partnerships with U.S. companies for the operation of the facility. The Contractor shall include each business' name, point of contact, address, telephone, email and fax number for the U.S. companies contacted.

Interim Report:

The Contractor shall prepare a draft Interim Report which outlines all technical requirements related to the Project per Task 2.

Task 3: Organizational and Institutional Structure

- 3.1 The Contractor shall assist the Grantee in developing an appropriate organizational and institutional structure for the MRO operation. The Contractor shall analyze the current capabilities of the Grantee, to undertake the Project. In addition, the Contractor shall analyze the corporate structure of the Grantee, paying particular attention to opportunities that will most likely result in Project implementation. (Note: The Grantee has proposed managing the Project through a separate entity or subsidiary company).
- 3.2 The Contractor shall recommend an organizational and institutional structure which would efficiently utilize existing staff and resources, while also allowing the MRO facility to operate with autonomy.
- 3.3 The Contractor shall identify key training needs of the Grantee, and develop training programs for Grantee staff including, but not limited to, technical areas such as repair and overhaul of new generation engines, landing gear, line maintenance and other areas identified by the Grantee.

Institutional Analysis:

The Contractor shall prepare a draft report which outlines recommendations for an MRO organizational structure per Task 3.

Task 4: Regulatory Analysis

- 4.1 The Contractor shall conduct review and describe all regulatory issues that impact the Project's viability to move forward. This description shall include an analysis of all issues at the national level (i.e., through the Civil Aviation Authority, the airport operator), as well as provincial or local regulations.
- 4.2 The Contractor shall develop a plan to introduce inspectors, from the Host Country Civil Aviation Authority (CAA), to the expanded capabilities of the Project. Further the Contractor shall provide a detailed description of the steps required and processes needed for the Grantee to comply with the Host Country CAA safety oversight regulations and international safety standards.

Regulatory Analysis:

The Contractor shall prepare and deliver to the Grantee a report which lists the regulatory issues related to the Project, all regulatory requirements that need to be addressed, as well as any recommendations for overcoming potential obstacles.

Task 5: Economic Analysis

- 5.1 The Contractor shall conduct a comprehensive economic analysis of the Project. The Contractor shall estimate costs for all equipment, civil works, labor, and items needed during both construction and operational phases. In addition, the Contractor shall tabulate and describe commercial benefits to the Grantee, i.e., revenues obtained through Project operations, as well as identify non-monetary benefits to the Grantee (e.g., human resources development through staff training, and developmental impacts described within Task 8).
- 5.2 The Contractor shall assess the economic viability of the Project and develop the economic internal rate of return (EIRR) on the basis of non-incremental and incremental economic benefits and economic costs (including economic capital, operation and maintenance costs) in constant economic prices.

Task 6: Financial Analysis

- 6.1 The Contractor shall identify potential sources of equity and debt financing from both public and private sources. The Contractor shall compute price contingencies, interest, and financing charges for the Project.
- 6.2 The Contractor shall conduct a sustainability analysis, which shall examine both financial implications and implementation capacity.
- 6.3 Utilizing projected construction and operating costs, the Contractor shall prepare a 15-year financial forecast model, including balance sheet, income statement and cash flow statements. The Contractor shall estimate the Project's financial internal rate of return (FIRR) and calculate the weighted average cost of capital

(WACC). Both the FIRR and WACC shall be computed on an after-tax basis in real terms using constant prices. The Contractor shall convert the cost estimates and financial projections from nominal to real terms by removing the projected effects of foreign and domestic inflation and currency fluctuations. The Contractor shall derive incremental costs and benefits by evaluating the financial position under with-Project and without-Project scenarios, in which the without-Project scenario shall account for lost revenue from domestic and international airlines.

- 6.4 The Contractor shall identify risk factors, conduct a sensitivity analysis, and propose mitigating measures. For the sensitivity analysis, the Contractor shall vary charges, costs, implementation delay, and volume. As part of this sub-task, the Contractor shall provide a realistic (based on industry norms) margin of error around every significant variable, and produce an analysis of the effect of variations within that margin.
- 6.5 Based on the FIRR calculated as part of this task, the Contractor shall assess the likelihood of attracting private investors to the Project.

Economic and Financial Analysis:

The Contractor shall prepare and deliver to the Grantee a report which provides all economic and financial analysis related to the Project per Tasks 5 and 6.

Task 7: Initial Environmental Impact Assessment

- 7.1 The Contractor shall conduct a preliminary review of the Project's anticipated impact on the environment, with reference to all pertinent national, provincial and/or local requirements. The Contractor shall take into account Pakistani regulations in this area. This review shall identify potential negative impacts, discuss the extent to which they can be mitigated, and develop plans for an environmental impact assessment as may be required by Pakistan law if and when the Project moves forward to the implementation stage. This task shall also identify the steps, which the Grantee will need to undertake, subsequent to the Study's completion and prior to Project implementation.
- 7.2 The Contractor shall also examine potential measures that can be instituted in order to reduce pollution and energy usage, such as regular hydraulic system maintenance (to avoid hydraulic leakages) and enhanced waste management procedures.

Task 8: Developmental Impact Assessment

- 8.1 The Contractor shall analyze developmental impacts related to Project implementation. The Contractor shall focus on key factors such as infrastructure, human capacity building, technology transfer/productivity improvement, and market-oriented reform, which are intended to provide the Project's decision-

makers and interested parties with a broader view of the Project's potential effects on the Host Country. The analysis shall focus on what development impact is likely if the Project is implemented according to Study recommendations. While specific focus shall be paid to the immediate impact of the Project, analysis shall also include any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects.

In terms of the key factors, the Contractor shall in particular examine the following:

Infrastructure: The Contractor shall examine infrastructure improvements at the Project site and surrounding area. In addition, the Contractor shall examine any potential related infrastructure upgrades at Jinnah International Airport, which can be viewed as complementary or attributable to the Project.

Technology Transfer and Productivity Improvement: The Contractor shall assess the extent to which the introduction of advanced technologies, and improvement of processes that stimulate greater economic productivity, would be introduced as a result of the Project.

Human Capacity Building: The Contractor shall estimate the number of new job opportunities, and sustained employment, which may result from Project implementation. In addition, the Contractor shall analyze any advanced training for Grantee personnel, including complementary training, which may be sustained following the conclusion of the study.

Market-Oriented Reforms: While the Project is not expected to lead directly to market-oriented reforms, the Contractor shall examine the Project's potential for changes in this area. For example, the Contractor may examine the results of a successful Project on potential privatization of the industry.

Other/Spin-off Effects: The Contractor shall examine all other developmental benefits derived from the Project including, for example, enhanced aviation safety.

Task 9: Implementation Plan

- 9.1 The Contractor shall develop an implementation plan, which shall clearly outline the anticipated next steps needed to implement the Project successfully. This plan shall include detailed steps in the areas of financing, facilities construction, civil works, equipment procurement, and synchronization of the Project with existing Grantee operations.
- 9.2 The Contractor shall develop a tentative schedule highlighting milestones that could be achieved.

Implementation Plan:

The Contractor shall present a draft implementation plan to the Grantee for review and comment, and shall incorporate any appropriate feedback into the final version.

Task 10: Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

- (1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.
- (2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.
- (3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and Pakistan International Airlines Corporation ("Client"), dated _____ ("Grant Agreement"). The Client has selected _____ ("Contractor") to perform the feasibility study ("Study") for the Expanded Maintenance, Repair, and Overhaul Facility for Pakistan International Airlines project ("Project") in Pakistan ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(2) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility

or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Reporting Requirements

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, and fax number. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

H. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of an approved Final Report in accordance with the specifications and quantities set forth in Clause I below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For a mobilization payment (if any):

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

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"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

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"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

I. USTDA Final Report

(1) Definition

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(2) Final Report Submission Requirements

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(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of

USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

J. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

K. Study Schedule

(1) Study Completion Date

The completion date for the Study, which is December 15, 2011, is the date by which the parties estimate that the Study will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

L. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

M. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:

Appropriation No.: 119/101001
Activity No.: 2010-31060A
Reservation No.: 2010310077
Grant No.: GH2010310023

N. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.



ANNEX 6

COMPANY INFORMATION

A. Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers:
2. Year established (include predecessor companies and year(s) established, if appropriate).
3. Type of ownership (e.g. public, private or closely held).
4. If private or closely held company, provide list of shareholders and the percentage of their ownership.
5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.
6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).
7. Project Manager's name, address, telephone number, e-mail address and fax number .

B. Offeror's Authorized Negotiator



Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

C. Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.
2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

D. Offeror's Representations

Please provide exceptions and/or explanations in the event that any of the following representations cannot be made:

1. Offeror is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of _____. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.
3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or



destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.
5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

Signed: _____
(Authorized Representative)

Print Name: _____

Title: _____

Date: _____



E. Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.
2. Year established (include predecessor companies and year(s) established, if appropriate).

F. Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the subcontractor must provide an explanation.

1. Subcontractor is a corporation [*insert applicable type of entity if not a corporation*] duly organized, validly existing and in good standing under the laws of the State of _____ . The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Feasibility Study and to perform the Feasibility Study. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.



5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

Signed: _____
(Authorized Representative)

Print Name: _____

Title: _____

Date: _____