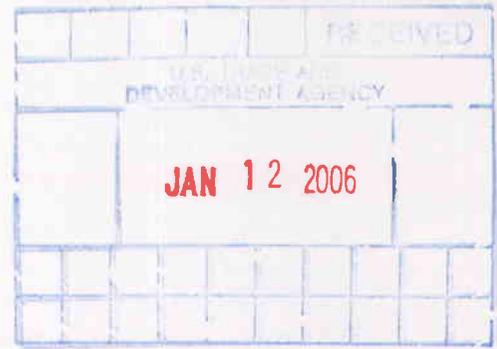




Robinson Aviation (RVA), Inc.



**FINAL REPORT – PUBLIC VERSION**  
**(SECURITY MASTER PLAN)**  
**FOR THE FEASIBILITY STUDY FOR**  
**THE CIVIL AVIATION SECURITY PROJECT**  
**REPUBLIC OF UZBEKISTAN**

**July 2005**

Prepared for:

**Office of the State Inspection of the Republic of Uzbekistan  
for Flight Safety Oversight**

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**Feasibility Study For The Civil Aviation Security Project, Republic Of Uzbekistan**  
**Table of Contents**

Executive Summary .....	3
Task 1: Document Review .....	5
Task 2: The Work Plan .....	5
Task 3: Introductory Visit .....	9
Task 4: Site Visits and Situational Assessment .....	10
Task 5: Assess the National Civil Aviation Security Training Center/Financial Gain Potential.....	11
Task 6: Working Group .....	29
Task 7: Review Available Technologies and Cost-Benefit Analysis.....	30
Task 8: Develop Capital Costs and Investment Requirements .....	32
Task 9: Develop Implementation Timetables .....	32
Task 10: Environmental Impact.....	32
Task 11: Develop Finance Options.....	33
Task 12: Prepare and Submit Tender Documents.....	42
Task 13: Working Group Meeting .....	42
Task 14: Present Transitional, Final Implementation and Survey Master Plan .....	43

**Appendices:**

Appendix A	Tashkent Checklist
Appendix B	Samarkand Checklist
Appendix C	Bukhara Checklist
Appendix D	Urgench Checklist
Appendix E	Termez Checklist
Appendix F	Observations and Recommendations

- Appendix G Working Group Presentation
- Appendix H Equipment List
- Appendix I Cost-Benefit Analysis
- Appendix J Minimum Investment
- Appendix K Estimated Delivery Times
- Appendix L Tender Documents
- Appendix M Technical Specifications
- Appendix N Abbreviations and Definitions
- Appendix O Final agreed-upon essential equipment list
- Appendix P New Security Training Center
- Appendix Q Capital Costs and Investment Requirements

## Executive Summary

In 2003 the U.S. Trade and Development Agency (USTDA) approved, as the result of a request from the Department of State Inspection for Flight Safety Oversight of Uzbekistan and the findings of a subsequent definitional mission, a grant in the amount of \$549,995 USD for a feasibility study for the Civil Aviation Security Project in Uzbekistan. USTDA then issued a Request for Proposals (RFP) to secure a contractor with the necessary experience to conduct the study, with the final selection of the contractor to be the responsibility of the grantee. Robinson Aviation (RVA) Incorporated responded to the RFP and in due time was selected by the grantee.

A team from RVA traveled to Tashkent in January 2004, with the objective of coordinating the mission with officials of the Department of State Inspection for Flight Safety Oversight and of selecting a local contractor to provide needed administrative support. Both missions were achieved and an inspection team from RVA was deployed to Uzbekistan in March 2004. The team performed thorough inspections of the five airports specified in the contract: Tashkent, Samarkand, Bukhara, Urgench and Termez, and in addition evaluated the aviation safety training center in Tashkent for its suitability for expansion and enhancement for aviation security training not only for the Republic of Uzbekistan, but for the region as a whole. The team returned to the US in April 2004.

Subsequent to its return, the team has engaged in finalization of all checklists, development of findings and recommendations, and coordination with equipment and service suppliers in the development of an equipment list that will bring the air transportation security system of Uzbekistan up to standards that not only meet those specified by ICAO, but those of the United States and the European Union.

RVA took as its mandate the Terms of Reference (TOR) as stated in the USTDA RFP, and has clearly addressed each aspect in the body of the document. We believe that, given sufficient support, the Republic of Uzbekistan will greatly improve an already commendable security posture, and will serve as a model for the aviation security efforts for other states within the Confederation of Independent States (CIS).

The objective of the Republic of Uzbekistan is to gain support from the international community in order to upgrade all aspects of airport security at all of the specified international airports within the country. An additional objective is to establish a world-class International Airport Security Training Center in Tashkent.

The team's detailed observations were based upon checklists drawn from ICAO Annex 17, Transportation Security Administration Regulation 1542, and the European Union Regulation 2320. Though the Republic of Uzbekistan is only responsible for adherence to ICAO regulations, landing rights in other countries are governed by those countries' own aviation security regulations. Therefore all applicable aviation security regulations were taken into account while completing this survey.

In general, all of the documented plans are in accordance with ICAO standards as a minimum, and are well-supervised by the Office of State Inspection for Flight Safety Oversight (SIFSO). Uzbekistan has,

as will be explained in detail in the body of the document, a national-level aviation security committee that sets policy, issues guidelines, and supervises, through SIFSO, the implementation of all security measures. The state cooperates not only with the other members of the CIS, but with all other nations who would be affected by aviation security matters set by the nation.

If there is a deficiency in Uzbekistan's civil aviation security program, it lies almost exclusively in the absence of modern and efficient equipment. Much of the equipment currently used at the airports in country is outmoded, in need of repair, and unsuited for response to the threats we increasingly see in changed terrorist tactics. The acquisition of this equipment and concurrent training in the use of it will greatly enhance Uzbekistan's civil aviation security program.

The team was constantly impressed by the quality of the personnel involved in the program, and this included everyone from the Director of SIFSO, Mr. Khakim Trobov, all the way down to the guards on the perimeters. The only observation on personnel that could in any way be regarded as a deficiency is in the lack of modern training. This, again, is not due to lack of trying on the part of the program managers, but is directly attributable to the absence of modern facilities, equipment, and instructional materials at the training center. We believe that a top priority must be the enhancement of this training center, the training and preparing of instructor personnel, and the acquisition of modern training equipment.

In preparing the recommendations, RVA considered local conditions, availability of service and spare parts within a reasonable time, the current training level of the individuals who will be operating the equipment and what it will take to bring them up to standard and the applicability of such equipment to the particular environment experienced in airports in varying locales. The recommendations in the body of this document are the result of this intensive study.

Currently, the aviation security program makes up for shortfalls in equipment by ensuring several layers of security – a policy which is to be commended for its thoroughness. However, although current security procedures are adequate to handle the passenger load now being experienced, they will create problems if passenger load is increased. It is the team's estimation that an increase in passenger load of only ten to twenty percent will result in unacceptable delays in passenger screening. Such delays create problems in several ways. An increased emphasis on reducing delays without increasing efficiency can result in the degradation of security to enhance throughput. On the other hand, if delays are accepted as a way of life, such inefficiency has a negative effect on the traveling public, often causing the traveler to seek alternative means of transportation. RVA believes that the recommendations cited in this document will enable the authorities in Uzbekistan to accommodate increased passenger loads without adversely affecting security.

As to funding, our study identified a number of potential sources. Obviously, the officials of SIFSO would prefer grants to loans, however, they understand that this may or may not be possible. We believe that they are in an excellent position to justify loans from any of the sources listed below, in that their ability to repay these loans can easily be shown. At present, the security surcharge on each ticket issued in Uzbekistan is equivalent to \$3.00 USD, far below the standard for most countries, and this surcharge is limited to international flights only. Inasmuch as current enplanements at the five international airports are at 3 million passengers for international flights, an additional dollar added to

the surcharge would produce an extra three million dollars a year, and imposing a dollar surcharge on domestic flights (1,500,000/yr) would produce an additional million and a half dollars, the total amount being sufficient to pay for the minimum requirements listed in Annex O.

RVA would like to thank the USTDA and the authorities within the Republic of Uzbekistan for their unfailing cooperation and assistance. That the mission went as smoothly as it did is a tribute to their efforts. RVA would also like to acknowledge the support of our subcontractor: Mr. Iskander S. Yakubov of the Law and Business Consulting Agency.

### **Task 1: Document Review**

*In establishing a point of departure, the Contractor shall carefully review the Definitional Mission Security Inspection Report. This review should include the Needs Assessment that was recommended by the Uzbekistan Office of the State Inspection for Flight Safety Oversight. The organizational structure of Civil Aviation – Uzbekistan should also be reviewed.*

*To the extent possible, the Contractor shall review regional security resources with regard to adequacy of training in Eurasia, to include: location and quality of training facilities, type and quantity of equipment, instruction and training aids, frequency of program availability, demand, attendance, tuition and per-diem charges.*

In responding to the TDA RFP, and again after contract award, the RVA team made a thorough analysis of Mr. Clayton Scott's Definitional Mission Security Inspection Report (DM). At the request of several members of the team, during the analysis after contract award, Mr. Scott was contacted directly in order to ascertain the answers to a few pertinent questions, and to clarify points that were not immediately transparent to the team members. Mr. Scott was extremely helpful in this regard, and the team felt confident in its understanding of the DM report, particularly that portion dealing with the Needs Assessment. The understanding was that the Needs Assessment was prepared by the authorities in Uzbekistan, and that a part of the upcoming Feasibility Study was to validate that needs assessment with a view to additions or deletions thereto. The team also determined to the extent possible the organizational structure of the Civil Aviation structure of Uzbekistan, both by thorough review of the DM and by further inquiring of Mr. Scott. The outcome of this effort was a list of the things we did know, and the things we did not, with a view toward asking the pertinent questions to validate the first and clarify the second upon our arrival in Uzbekistan.

The team also made the attempt to review regional security resources with regard to adequacy of training in Eurasia, with somewhat limited success. Both ICAO and the FAA were contacted and were queried as to this matter, but the team felt that the information gathered by this method was somewhat less than thorough. Therefore, as will be described in a later section, a list of questions to be asked of the local authorities was prepared and refined. The results of this effort will be detailed in the response to Task 5.

### **Task 2: The Work Plan**

***Deliverables:*** *The Contractor should develop a written work plan that includes the Study's terms of reference establishing the protocols of the site visits and meetings and identifying the areas of interest and specialties of the members of the Contractor's team. This plan should include a list of project activities, the scope and duration of each activity, assignment of individual responsibilities, and designation of formats to be used in preparing briefings and reports.*

The initial effort in the formulation of the work plans was to decide as to the qualifications of the team that would perform the survey. After some deliberation, the following qualifications were selected.

**Project Manager (PM)** – A senior-level aviation security expert, responsible for all activities of the study team. The Project Manager (PM) has full authority to act on behalf of the Contractor in all matters related to the Study. It is the PM's job to gather all information needed to fully brief the team as to responsibilities, tasks, milestones and deliverables, to acquire any intelligence and/or country-specific details, and to prepare the team for the Study. Upon arrival in Uzbekistan, the PM is responsible for all day-to-day operations, as well as coordination and liaison with host country officials. The PM conducts all briefings of host country officials, including the final brief of the complete Feasibility Study. In addition, because of the unique qualifications of the individual chosen by RVA to perform PM duties, he also serves as the Explosives Ordnance Disposal (EOD) Specialist.

**Security Specialist – Access Control** – A senior-level aviation security expert whose specialization lies in access control, perimeter security, and surveillance. It is this individual's task to thoroughly evaluate these critical areas in all five airports in Uzbekistan, note any deficiencies, formulate plans to address those deficiencies, and recommend measures needed not only for correction of current deficiencies, but for future requirements. These recommendations may include, but are not limited to: procedural changes, training, acquisition/installation of new equipment, upgrading of current equipment, and/or integration of existing measures with recommended changes.

**Security Specialist – Screening** – A senior-level aviation security expert whose specialization lies in the screening of personnel, baggage and cargo. It is this individual's task to thoroughly evaluate screening procedures at all five airports, note any deficiencies, formulate plans to address those deficiencies and recommend measures needed not only for correction of current deficiencies, but for future requirements. For instance, the screening procedures, training and equipment that might be sufficient for current passenger, baggage, and cargo loads would almost certainly not be sufficient for greatly increased traffic such as that envisioned should Uzbekistan achieve the business and tourist expansion hoped for in this study. This screening specialist develops recommendations for current and future improvements to include phased milestones based on increased traffic and other factors. This will provide the customer with a full array of choices.

**Training/Course Development Specialist** – This individual is a senior-level training and curriculum development specialist with extensive experience in security and aviation operations. The specialist will develop courses using both FAA and ICAO standards with all training based on Performance-Oriented standards. This individual assesses the level of training of all airport personnel whose duties include security, evaluates training records, performs appropriate job/task analyses and recommends training courses not only to correct current deficiencies but also to prepare the students for future tasks/new equipment/changes in procedures. In addition, this specialist evaluates Uzbekistan's existing Aviation

Security Training Center with a view toward it serving as an International Regional Training Center for Flight Safety and Security and provides recommendations to achieve this result.

**Communications Specialist** – This individual is a senior-level expert in communications planning, installation and equipment, particularly as it deals with the aviation environment. This individual's task is to assess the current communications system (wire, radio, cell) and determine its adequacy to meet the needs of an integrated security system. Those deficiencies noted in current capability, as well as those which will become deficiencies in the future due to changed capacities, threats and procedures, are noted and recommendations for changes in procedures/training/equipment are formulated, all within the context of the current and future capabilities existing in the Republic of Uzbekistan.

**Civil Engineer** – This individual is a senior-level engineer with extensive experience in aviation facilities and operations. The engineer's task is to examine the current status of the infrastructure of all five airports and to integrate the recommendations of all the other specialists with a view toward the measures that will be necessary to install such equipment. It is his responsibility to ensure to the maximum extent possible that any security improvements are done in a manner that is the least disruptive to current operations, that is cost-effective, and that is achievable within the constraints of available technology and the capabilities of the host country.

**Capital Planning/Budget Analyst** – This is a senior-level individual with experience in the preparation of capital improvement budgets, cost/benefit analysis, and phased improvements. Further, this individual has experience in the determination and applicability of various financing sources, including but not limited to: the World Bank, the European Bank for Reconstruction and Development, the Export-Import Bank of the United States, as well as other sources such as foundations, investment consortiums, and other sources of funding. It is this individual's task to prepare the budget, based upon team recommendations, and to make the appropriate recommendations as to sources of funding.

After team selection, the preliminary schedule was prepared. The following is the preliminary schedule for the Contractor's team and the order in which the sites were to be surveyed:

15 March 2004	Team Arrives in Tashkent and attends initial meeting/in-briefing
16-23 March 2004	Survey Tashkent International Airport
24 March 2004	Travel to Samarkand
25-28 March 2004	Survey Samarkand International Airport
29 March 2004	Travel to Bukhara
30 March – 2 April 2004	Survey Bukhara International Airport
3 April 2004	Travel to Urgench
4-7 April 2004	Survey Urgench International Airport
8 April 2004	Travel to Termez
9-12 April 2004	Survey Termez International Airport
13 April 2004	Travel to Tashkent
14-15 April 2004	Compile Survey Data/Prepare for Out-briefing
16 April 2004	Conduct Informal Out-briefing
17 April 2004	Team Departs Tashkent for United States

The basis for the Study's terms of reference establishing the protocols for the Study was the Contractor's International Airport Security Assessment Checklist (See Appendices A through E). The questions and requirements for this checklist were drawn from ICAO Annex 17, Transportation Security Administration 1542, and European Union Regulation 2320.

The Contractor's survey team consisted of the following personnel listed with their primary areas of interest and specialties:

Mr. John Mullins, Manager Security Division

- a. General Principles and Organization
- b. Airport Security
- c. Explosive Ordnance Disposal

Mr. Harlan VanWinkle, Security Specialist

- a. Training
- b. Access Control
- c. Airport Security
- d. Emergency and Other services

Mr. Derek Caswell, Civil Engineer

- a. Perimeter Security
- b. Airport Security
- c. Fuel Farms
- d. Explosive Ordnance Disposal

Mr. Ashley Blackman, Communications Engineer

- a. Communications
- b. Emergency and Other Services

Dr. Jack Milavic, PhD, Security Specialist

- a. Screening Procedures
- b. General Aviation
- c. Training
- d. Access Control

The minimum areas to be surveyed included, but were not limited to the list below. Additionally, the format to be used in preparing briefings and reports will be in the same order in which the disciplines appear below. The time devoted to each discipline is based on man-days

- |    |                                         |        |
|----|-----------------------------------------|--------|
| 1. | GENERAL PRINCIPLES AND ORGANIZATION     |        |
|    | a. SIFSO/Tashkent International Airport | 1 Day  |
|    | b. Each Satellite Airport               | .5 Day |
| 2. | TRAINING                                |        |
|    | a. National Training Center             | 2 Days |
|    | b. Each Satellite Airport               | .5 Day |

3.	ACCESS CONTROL	
	a. Tashkent International Airport	2 Days
	b. Each Satellite Airport	1 Day
4.	SCREENING PROCEDURES	
	a. Tashkent International Airport	1.5 Days
	b. Each Satellite Airport	1 Day
5.	PERIMETER SECURITY	
	a. Tashkent International Airport	3.5 Days
	b. Each Satellite Airport	2.5 Days
6.	EMERGENCY AND OTHER SERVICES	
	a. Tashkent International Airport	.5 Day
	b. Each Satellite Airport	.5 Day
7.	COMMUNICATIONS	
	a. Tashkent International Airport	4 Days
	b. Each Satellite Airport	2.5 Day
8.	AIRPORT SECURITY	
	a. Tashkent International Airport	3 Days
	b. Each Satellite Airport	1.5 Days
9.	GENERAL AVIATION	
	a. Tashkent International Airport	.5 Day
	b. Each Satellite Airport	.5 Day
10.	FUEL FARMS	
	a. Tashkent International Airport	1 Day
	b. Each Satellite Airport	1 Day

### **Task 3: Introductory Visit**

*The Contractor shall visit the Office of State Inspection for Flight Safety Oversight in Tashkent to coordinate the results of the work plan with Uzbekistan Flight Safety personnel. The visit should include a presentation of the work plan and a review of the Needs Assessment to ensure that no major changes have occurred since the initial assessment was developed.*

In coordination with the Office of State Inspection for Flight Safety Oversight, an introductory visit was scheduled for the period 19-23 January 2004. Making this visit were Mr. John F. Mullins, Project Manager, and Mr. Harlan E. VanWinkle, Assistant Project Manager. On the afternoon of 19 January RVA met with Mr. Khakim Trobov, Head of the Office of State Inspection for Flight Safety Oversight; Mr. Vladimir Rjkin, Head Aviation Security Board; and Mr. Shamil Halikov, Head Aviation Safety Department. Also attending was a representative of the local firm recommended by the Uzbekistan authorities to provide logistics support to the team, Mr. Dmitriy Ryabov of Congress Tours. During this meeting the work plan was presented and the schedule described in Task 2 was coordinated and approved.

In meetings on the 20<sup>th</sup> and 21<sup>st</sup> of January, the RVA advance team conducted further coordination and fact-finding meetings, primarily with the individual who had been appointed our main point of contact, Mr. Shamil Halikov. Questions answered to the satisfaction of the team were those concerning

organization, chains of command, and any changes/modifications to the original needs assessment. The team determined that there had been no changes to the needs assessment initiated by the Uzbek authorities. The team then paid an initial visit to Tashkent International Airport and to Samarkand Airport. These visits were designed to 'get the lay of the land' and determine if the inspection schedule planned as a part of the work plan was achievable, or if modifications should be made. The visits proved to our satisfaction that the work plan was not only achievable, but would allow for the inevitable changes that would be necessitated by conditions on the ground.

The team also paid a visit to the training center for aviation safety and security, and a thumbnail sketch was made of the facilities and personnel, for further study once the full-scale inspection team arrived.

Finally, the team negotiated with Congress Tours for the support they could provide the Feasibility Study. This included office and administrative space, transportation, logistics, billeting, and liaison. The team developed a great deal of confidence in Congress Tour's ability to provide support; confidence which was not misplaced. The RVA team would unhesitatingly recommend Congress Tour for any further support that might be required as follow-on to this effort.

The team returned to the U.S. and immediately scheduled a full team meeting in which all findings were briefed and the final touches put onto the work plan. All necessary administrative matters were taken care of during this meeting, and preparations were made for travel to Uzbekistan by the entire team.

#### **Task 4: Site Visits and Situational Assessment**

*The Contractor shall visit each of the five international airports to review the operation of local security equipment and procedures and to further develop and document specific requirements for security systems at each of the airports. The Contractor shall establish capital costs and detailed equipment specifications and assess specific training requirements for both existing and proposed equipment and services. Areas to be specifically addressed include, but should not be limited to: Surveillance and Area Control, Access Control, Explosives and Contraband Detection, Communications, Program Development and Training, and Command and Control. Equipment maintenance and long-term service requirements should also be established.*

*At a minimum, all proposals shall meet and/or exceed the standards established by ICAO Annex 17. The Contractor's review shall include both successful and unsuccessful examples of procedures and equipment used in other international airports. Potential technical and non-technical barriers to successful installation and implementation should be considered along with fiscal requirements, equipment or procedural compatibility, and timelines for integrating new technology into the existing security system.*

***Deliverables:*** *The Contractor shall develop capital costs, detailed equipment specifications and assess specific training requirements for both existing and proposed equipment and services. This document shall constitute the initial expansion of the Needs Assessment.*

The RVA team began its airport visits as scheduled at Tashkent. Using the checklist prepared as a part of Task 2, the team performed a thorough evaluation of the security equipment and procedures not only at the airport, but at the emergency services and reaction force elements both within the airport and in

the city. The completed checklist for Tashkent is included as Appendix A. At the completion of the security survey, the team performed an interim briefing for airport security management, with a view towards identifying those security shortfalls that could be remedied without major effort, but which would have a profound impact upon the security situation at Tashkent. This briefing was well-received, and by the time the team departed for the next airport improvements at Tashkent had already been initiated.

Also at Tashkent, the Training Specialist, accompanied by selected other team members, evaluated the National Aviation Security Training Center. The results of this evaluation will be seen in the response to Task 5, below.

The next four airports, Samarkand, Bukhara, Urgench and Termez, were evaluated in the same manner. The only deviation to the original schedule was when the team was held up in Samarkand for an extra day due to a deteriorated security situation. Completed security checklists for these airports are included as Appendices B through E.

At the completion of the survey of Termez, the team returned to Tashkent and compiled the results of the security surveys, re-evaluated the Needs Assessment, and prepared the material for a Working Group meeting, details of which will be seen in the response to Task 6, below.

The findings of the RVA Team, as well as the recommendations, are included as Appendix F. Due to the sensitive nature of these findings, this appendix should be regarded as Security Sensitive, with Limited Distribution to only those persons with a need to know.

#### **Task 5: Assess the National Civil Aviation Security Training Center and Financial Gain Potential.**

*The contractor will visit and evaluate the National Civil Aviation Security Training Center in Tashkent to determine its existing capacity as well as its ability to expand to accommodate additional students and programs. Should an international program be established, the facility will require additional equipment and classroom capacity.*

**Deliverables:** *The Contractor shall develop a rendering of the existing facility that reflects classroom capacities and currently available equipment. The plan shall include requirements in terms of both space and equipment to expand, modernize and equip the facility to accommodate regional security training requirements.*

It is the stated goal of the Republic of Uzbekistan to develop a world-class International Airport Security Training Center in Tashkent. The objective is to train airport security personnel from the Commonwealth of Independent States and other Central Asian countries.

#### **1. NATIONAL TRAINING CENTER LAYOUT**

The National Training Center (NTC) at Tashkent is located near the airport in an older three-story building plus a basement. It is the central location for training that includes Airport Security Training, Pilot Training, Flight Attendant Training and Language Training.

There are two rooms on the third floor devoted to classroom space for airport security training. These rooms measure 17'X34'. Student desks are arranged in a horseshoe fashion. The instructor podium/platform is located at the open end of the horseshoe and the instructor has unrestricted movement inside the horseshoe area. Each classroom has a twenty-student capacity. There are four electrical outlets per classroom. Training aids are limited to charts and handouts. There are no computers available for training purposes. There is limited potential for expanding the existing facilities and just to bring the facility up to modern standards will require a complete re-wiring of the facility as a minimum.

## 2. PROSPECTS FOR A REGIONAL TRAINING CENTER AND POTENTIAL INCOME

It is the stated goal of the Republic of Uzbekistan to develop a world-class International Airport Security Training Center in Tashkent with the objective to train airport security personnel from the Commonwealth of Independent States and other Central Asian countries. Before this can happen a commitment must be made to raise the standards of training to exceed that required by ICAO. A satisfactory training site must be selected and equipped with modern, if not state-of-the-art, training aids and electronic equipment.

Classroom space is not an insurmountable problem. However, it would be beneficial to have a training site, perhaps away from the main airport, where all training, to include practical exercises could be conducted without interference. The team noted that the old airport located on the outskirts of Tashkent is a location that might have great potential for such a training site. It is currently being used as the flight simulation-training center for the National Airlines Company. It has sufficient space on which to construct mock-up aircraft, sufficient buildings that can be converted to classroom space, and plenty of room to conduct outdoor practical training exercises on a real airport.

Based on an assumed attrition rate of 5% annually and assuming that all new hires for the Airport Security Force throughout the country will be trained at Tashkent, it is anticipated that two training cycles will handle the annual training requirement. That leaves 40 weeks more or less, to conduct other training.

Plans to train airport security personnel from other countries must consider the competition. The Airport Security Training Program at Kiev recently earned certification as an ICAO "TRAINAIR" Training Center. Though the academy in Moscow teaches to the ICAO standard, it is not a certified "TRAINAIR" course. Consideration should be given to developing a training program that is above and beyond ICAO standards. The course/s described in Paragraph 3 is an example. It is twice as long as the ICAO Basic Course spending much time in valuable practical exercises and including training in Continuum of Force Weapons and Equipment, and Weapons Qualification.

The equipment cost to bring the National Training Center into the Twenty First Century will range from \$400,000-\$600,000 USD (approximately), depending on the quality of equipment purchased. That number does not include the retrofit/remodeling and re-wiring of the National Training Center to accommodate all of the electronic equipment that must be installed. Payments on those amounts, amortized over a 30-year period at 5.5% interest, range from \$2271.16-\$3406.73 per month. Operating

utility costs for 2206 sq. ft. of classroom space based on \$.09 per sq. ft. calculates to approximately \$200 per month.

1.	Amortized monthly loan payment:	\$2271.16---\$3406.73
2.	Utility Costs:	\$200.00
3.	Janitorial Costs:	\$30.00
4.	Instructor Costs:	<u>\$1500.00</u>
	TOTAL EXPENSES	\$4001.16---\$5136.73 per month

Annual costs for loan payment, classroom space and instructors: \$48,013.92—\$61,640.76

The academies at Kiev and Moscow charge \$900 USD per student to attend the ICAO Basic Course (12 days). That amounts to \$75/day. Based on that premise a course that is 25 days in length at \$75/day would generate a gross income of \$1875 USD/student. Classrooms are designed to hold 21 students. At 70-75% attendance, a class of 15 students will generate a gross income of \$28,125 USD. Based on the cost figures above, three training cycles per year puts the program in the black.

### 3. NATIONAL AIRPORT SECURITY BASIC TRAINING PROGRAM (BASTP)

The majority of management and selected key personnel are trained in Moscow or Kiev. They are also required to periodically undergo additional security training. The majority of all Airport Security Force personnel are either retired or former military members and have completed BASTP at the National Training Center in Tashkent or Kiev.

Minimal refresher or recurrent training is conducted at the National Training Center and that is under the supervision of the National Airlines Company. Records of attendance are maintained in the employee's file.

Observation: The existing Airport Security Basic Training Program is dated 14 March 2000. It did meet the minimum ICAO standards as defined at that time and has been approved by the National Authority. It has, however, not been up-dated and does not meet present ICAO standards, which is STP/123 Basic. It consists of the following topics:

#### SECTION 1: GENERAL TOPICS (8 hours)

1. Introduction. (30 minutes)
  - a. Training objectives and purposes.
  - b. Concept of terrorism and aviation security in civil aviation.
  - c. Unlawful interference in operation of civil aviation
2. Status of aviation security in civil aviation and ICAO standards for aviation security. (30 minutes)
3. Legislation about aviation security in civil aviation. (1 hour, 30 minutes)
4. Airport Structure and aviation security structure in the airport. (2 hours)

5. Duties and responsibilities of aviation security contingent and airport security forces; relations with the other services of the airport (air lines) and with other departments. (30 minutes)
6. Airport security. (2 hours)
7. Facilities and devices used for sabotage and terrorism purposes. (30 minutes)
  - a. Concealment methods and illegal carry-on to the restricted areas.
  - b. Methods of identification.
8. Emergency situations and special action plans to include personal mission statements of security officers. (30 minutes)

## **SECTION 2: TOPICS FOR SCREENERS (16 hours)**

1. Passenger search and screening of items to be delivered on site. (5 hours)
2. Rules for weapon and hardware transportation in civil aviation aircraft. (3 hours)
3. Identification of arms, explosive devices and hardware. (2 hours)
4. Use of screening equipment. (5 hours)
5. Emergency situations and action plans for screeners. (1 hour)

## **SECTION 3: TOPICS FOR AIRPORT SECURITY FORCE (16 hours)**

1. Guard of the restricted areas in the airport. (8 hours)
2. Security of engineering and technical facilities. (4 hours)
3. Emergency situations and action plans for guards. (2 hours)
4. Interactions with other services and departments. (2 hours)

The Screeners receive a total of 24 hours of training, as does the Airport Security Force. Other security forces located on the airport such as the National Security Force (military), Customs, and Border Police, have their own training programs. The National Security Force is responsible for perimeter security.

**RECOMMENDATION:** It is recommended that extended courses of instruction be adopted that will target three specific groups: General airport employees; Airport Security Force Access Control Personnel; and Airport Security Force Screener Personnel.

## **A. BASIC AIRPORT SECURITY TRAINING PROGRAM (BASTP) (29 hours, 30 minutes)**

All airport employees need to attend a Basic Airport Security Training Program (BASTP). However it is not necessary, nor is it an ICAO requirement, for all employees to receive training in Access Control and Search Techniques or in Screening Procedures. The ICAO Standard Training Plan (STP) 123/Basic used for the ICAO "TRAINAIR" program is an excellent training program. It is recommended that portions of this training program and the training program currently being presented at the National Training Center, be used as the training plan for the BASTP. The target population is all airport employees, including flight crews, pilots, janitors, management personnel, et. al., who are not specifically assigned to or about to be assigned to Airport Security duties. It would be modified to five (5) days based on a 6-hour training day and consist of the following topics:

**MODULE 1: INTRODUCTION TO THE COURSE (3 hours, 30 minutes)**

1. Describe the course aims, structure and methodology. (30 minutes)
2. Specify the nature of the threat made against the air transport industry. (45 minutes)
3. Describe status of Airport Security as it applies to Civil Aviation. (30 minutes)
4. Outline the ICAO standards for Civil Aviation. (30 minutes)
5. Describe current legislation regarding Airport Security in Civil Aviation. (45 minutes)
6. Describe the scope for a career in the field of aviation security. (30 minutes)

**MODULE 2: WORKING AT THE AIRPORT (14 hours, 30 minutes)**

1. Describe and recognize the main features of an airport. (30 minutes)
2. Locate all main airport buildings and services on an airport. (30 minutes)
3. Specify the boundaries between non-restricted and restricted areas of an airport. (45 minutes)
4. Describe airport safety regulations for pedestrians and vehicles. (45 minutes)
5. Move about an airport complying with the airport safety rules. (Practical Exercise: 1 hour)
6. Apply the rules of an airport permit system and recognize the meanings of the different badges and passes used on an airport. (2 hours)
7. Communicate by portable radio with other staffs and agencies. (1 hour)
8. Discuss and describe General Security topics and the need to recognize suspicious activity and take corrective action. (6 hours)
  - a. Anti-Terrorism Training/Concept of Terrorism and Aviation Security in Civil Aviation/Unlawful Interference in operation of Civil Aviation. (2 hours)

- b. Crime Prevention Training (1 hour)
  - c. Loss Prevention Training (1 hour)
  - d. Behavioral Profiling (1 hours)
  - e. Procedures for Reporting of Security Breaches (30 minutes)
  - f. Encouragement of Timely Reporting (30 minutes)
9. Describe Human Resources and how each employee can relate to passengers/customers to make their travel more pleasant and how that equates to income for the airport and ultimately, the employee. (2 hours)

**MODULE 3: RECOGNITION OF EXPLOSIVE DEVICES AND OFFENSIVE WEAPONS (3 hours, 45 minutes)**

- 1. Define and classify prohibited items. (1 hour)
- 2. Recognize improvised explosive and incendiary devices, restricted articles, weapons and dangerous objects, including when they are disguised, dismantled or camouflaged. (1 hour)
- 3. Identify the places and methods used to hide explosive and incendiary devices and prohibited items. (1 hour 45 minutes)

#### **MODULE 4: EMERGENCIES AND FIRE PREVENTION (5 hours, 30 minutes)**

1. Demonstrate a set of basic skills in fire prevention and basic fire fighting. (1 hour, 25 minutes)
2. List the different types of airport emergency.
3. Describe the procedure for searching an area in response to a specific incident. (1 hour)
4. Under supervision, search a specified area for a "suspect" item. (2 hours)
5. Specify the action to be taken when a "suspect" item is located. (1 hour)

#### **MODULE 5: CLOSING ACTIVITIES (2 hour, 15 minutes)**

1. Summarize all instruction. (45 minutes)
2. Appraise the training activities of the course (Test). (1 hour)
3. Describe the responsibility of executing future job tasks. (30 minutes)

Testing procedures for the BASTP should be a written test to demonstrate that the students grasped the instruction.

Immediate requirements include, at a minimum, to adopt ICAO STP/123 Basic and to select qualified personnel to attend an ICAO certified Aviation Security Instructor Program. The two primary instructors at the National Training Center, though highly qualified, are both reaching the age of retirement. There is no infusion of new/younger instructor personnel.

**Observation:** Attendance to the Basic Airport Security Training Program (BASTP) for airport security force personnel is at the discretion of the airport director. The Airport Directors at Samarkand and Bukhara attempt to send all personnel to the Training Center at Tashkent while the Directors at Urgench and Termez rely primarily on On-The-Job Training instead of attendance at BASTP.

**Recommendation:** All employees of the Airport Security Force that have not completed BASTP should do so as soon as possible. Those personnel that require training in Access Control or Screening need to attend the certified ICAO STP/123 Basic Program at Kiev. In order to meet the stated goal of becoming a Regional Training Center for Airport Security, the ICAO Standards must be met and include the ability to competently instruct these programs as required. There should be certified instructors at all of the satellite airports as well as the National Training Center. Additionally recommend that the ICAO STP/123 be modified to include specific training in Continuum of Force Weapons and Equipment and in Weapons Qualification. The courses outlined below are designed to provide specific, expanded instruction for Airport Security Force personnel that are assigned to Access Control/Guard duties and to those assigned as screeners.

**B. ADVANCED BASIC AIRPORT SECURITY TRAINING PROGRAM (ACCESS CONTROL) (147 hours, 15 minutes)**

This course as designed will meet and exceed current ICAO Annex 17 standards and will incorporate standard requirements from the Transportation Security Administration Regulation 1542, and European Union Regulation 2320.

Target Population: Personnel that are assigned to the Airport Security Force (not to include screeners). The ICAO Standard Training Plan (STP) 123/Basic used for the ICAO "TRAINAIR" program is an excellent training program. It is recommended that this training program be used almost in its entirety (less Modules 8, 9, and 10, which deal exclusively with Screening) and with some additions, as the training medium for Advanced BASTP (Access Control). It would be modified to a five-week program, not including weekends/holidays and based on a 6-hour training day. It would include the following topics:

**MODULE 1: INTRODUCTION TO THE COURSE (3 hours, 30 minutes)**

1. Describe the course aims, structure and methodology. (30 minutes)
2. Specify the nature of the threat made against the air transport industry. (45 minutes)
3. Describe status of Airport Security as it applies to Civil Aviation. (30 minutes)
4. Outline the ICAO standards for Civil Aviation. (30 minutes)
5. Describe current legislation regarding Airport Security in Civil Aviation. (45 minutes)
6. Describe the benefits of a career in the field of aviation security. (30 minutes)

**MODULE 2: WORKING AT THE AIRPORT (17 hours, 15 minutes)**

1. Describe and recognize the main features of an airport. (30 minutes)
2. Locate all main airport buildings and services on an airport. (30 minutes)
3. Specify the boundaries between non-restricted and restricted areas of an airport. (1 hour)
4. Describe airport safety rules. (45 minutes)
5. Move about an airport complying with the airport safety rules. (Practical Exercise: 1 hour)
6. Know, understand, and apply the rules of an airport permit system and recognize the meanings of the different badges and passes used on an airport. (2 hours)

7. Demonstrate the proper operation and first echelon maintenance of a portable radio. Practical Exercise: Communicate by portable radio, using proper radio procedures, with other staffs and agencies. (2 hours)
8. Discuss and describe General Security topics and appreciate the need to recognize suspicious activity and take corrective action. (7 hours)
9. Anti-Terrorism Training/Concept of terrorism and Aviation Security in Civil Aviation/Unlawful Interference in operation of Civil Aviation. (2 hours)
10. Crime Prevention Training (1 hour)
11. Loss Prevention Training (1 hour)
12. Behavioral Profiling/Practical Exercise (2 hours)
13. Procedures for Reporting of Security Breaches (30 minutes)
14. Encouragement of Timely Reporting (30 minutes)
15. Describe Human Resources and how each employee can relate to passengers/customers to make their travel more pleasant and how that equates to income for the airport and ultimately, the employee. (2 hours)

**MODULE 3: ACCESS CONTROL----PEOPLE (12 hours, 30 minutes)**

1. Describe the threat caused by unauthorized access. (1 hour)
2. Check the operational status of control points. (1 hour)
3. Maintain a logbook. (30 minutes)
4. Know and understand the standard operating procedures (SOP) to control access. (2 hours)
5. Recognize unusual behavior at access points. (1 hour)
6. Describe and demonstrate the various Access Control Systems on the airport and the advantages and limitations of each. (2 hours)
7. Practical Exercise: Apply SOPs to controlled situations at access points; respond to a high-stress situation involving a belligerent passenger. (3 hours)
8. Criterion Testing (2 hours)

**MODULE 4: RECOGNITION OF EXPLOSIVE DEVICES AND OFFENSIVE WEAPONS  
(3 hours, 45 minutes)**

1. Define and classify prohibited items. (1 hour)
2. Recognize improvised explosive and incendiary devices, restricted articles, weapons and dangerous objects, including when they are disguised, dismantled or camouflaged. (1 hour)
3. Identify the places and methods used to hide explosive and incendiary devices and prohibited items. (1 hour, 45 minutes)

**MODULE 5: ACCESS CONTROL---VEHICLES (12 hours, 30 minutes)**

1. Describe and demonstrate all available access control equipment (2 hours, 30 minutes):
  - a. Tire Deflation Systems
  - b. Vehicle Undercarriage Inspection Mirror
  - c. Radiation Detector
  - d. Hand-held Metal Detector
  - e. CCTV and Package Screening System

**(The following five tasks all involve Practical Exercises. Recommend, if possible, that students be broken down to five-person teams in the following manner: one (1) Student Team Supervisor; one (1) Pedestrian Gate Guard; one (1) Cover Guard; one (1) Guard to check vehicle operator ID; one (1) Guard to check vehicle undercarriage, motor compartment and trunk.)**

2. Demonstrate how to operate access control equipment and ensure that it is in satisfactory working order. Set up and carry out Practical Exercise (2 hours)
3. Monitor vehicle access at the control point by checking vehicle permits and operator IDs and badges. Set up and carry out Practical Exercise. (2 hours)
4. Carry out a basic search of a vehicle to detect weapons, explosive devices and prohibited items. Set up and carry out Practical Exercise. (2 hours)
5. Specify and demonstrate the procedures for the search of the vehicle occupants. Set up and carry out Practical Exercise. (2 hours)
6. Describe and demonstrate the procedures for dealing with irregularities. Set up and carry out Practical Exercise. (2 hours)

**MODULE 6: EMERGENCIES AND FIRE PREVENTION (5 hours, 30 minutes)**

1. Demonstrate a set of basic skills in fire prevention and basic fire fighting. (1 hour)
2. List the different types of airport emergency. (30 minutes)
3. Describe the procedure for searching an area in response to a specific incident. (1 hour)
4. Practical exercise: Under supervision, search a specified area for a "suspect" item. (2 hours)
5. Specify the action to be taken when a "suspect" item is located. (1 hour)

**MODULE 7: PATROLLING AND GUARDING (11 hours, 30 minutes)**

1. Explain the principles of airport protection. (1 hour)
2. Specify which physical elements are involved in the landside/airside barrier. (1 hour)
3. List the methods of protecting the landside/airside barrier. (1 hour)
4. Locate the vulnerable points on a plan of the airport. (1 hour)
5. Describe the SOPs for dealing with signs of interference/intrusion of the airport physical barrier. (45 minutes)
6. Practical Exercise for dealing with signs of interference/intrusion of the airport physical barrier. (2 hours, 15 minutes)
7. Know and understand the airport regulations governing the airside movement of security vehicles. (30 minutes)
8. Practical Exercise: Understand and demonstrate the operation of airport security vehicles, in both routine and stress situations, and all of the attached equipment (radio). (4 hours)

**MODULE 8: SEARCHING AND SECURING A STERILE HOLDING AREA (3 hours, 45 minutes)**

1. Define the three basic types of "sterile" passenger holding areas. (45 minutes)
2. Define SOPs to deal with "suspect items located in a passenger holding area and how to maintain the sterility of the holding area. (1 hour)
3. Practical Exercise: Take appropriate response action to deal with "suspect" items located in a passenger holding area in accordance with SOPs and then maintain the sterility of the holding area. (2 hours)

**MODULE 9: ESCORTING PEOPLE AND CONSIGNMENTS (1 hour, 30 minutes)**

1. Escort people in the restricted areas of the airport. (30 minutes)
2. Escort consignments over a pre-determined route. (30 minutes)
3. Maintain radio communications with security control center. (15 minutes)
4. Apply contingency plans for emergencies involving people and consignments under escort. (15 minutes)

**MODULE 10: PROTECTION OF PARKED AIRCRAFT (3 hours, 45 minutes)**

1. Define the scope of responsibility for airport security personnel and the current SOPs relating to the protection of parked aircraft. (1 hour, 45 minutes)
2. Practical Exercise: Check that unattended parked aircraft are protected in accordance with airport SOPs; take appropriate action to notify the responsible airline representative if an unattended parked aircraft is not protected. (2 hours)

**MODULE 11: UNLAWFUL INTERFERENCE (4 hours, 30 minutes)**

1. Define the scope of responsibility for airport security personnel, and the current SOPs relating to dealing with an act of unlawful interference with an aircraft. Define the location of the designated isolated parking position and the taxi route to that location. (1 hour)
2. Define various types of unlawful interference emergency situations and the action plans devised for each situation. (1 hour)
3. Practical Exercise: Escort aircraft to the designated isolated parking position and establish positions as determined by the airport SOP and the situation. (2 hours, 30 minutes)

**MODULE 12: USE OF FORCE RULES AND REGULATIONS (35 hours)**

1. Define the airport/State Use Of Force Rules and Regulations. (2 hours)
2. Define and demonstrate the different types of Continuum of Force Weapons and Equipment. (5 hours)
  - a. Pressure Point Control Tactics
  - b. Baton
  - c. Hand Restraints
  - d. Pepper Spray or Equivalent
  - e. Taser Gun or Equivalent
  - f. Lethal Force
  - g. Sniper Training
  - h. Gas/Protective Mask

- i. Night Vision Equipment
  - j. Tire Deflation System
3. Practical Exercise on the use of Continuum of Force Weapons and Equipment. (28 hours)

**MODULE 13: WEAPONS FAMILIARIZATION, TRAINING, AND QUALIFICATION (26 hours)**

1. Become familiar with assigned weapon through disassembly and assembly; demonstration and Practical Exercise. (4 hours)
2. Understand the concept of sight picture; Practical Exercise of "Dry Fire". (4 hours)
3. Live train-fire on firing range. (8 hours)
4. Qualification Fire. (4 hours)
5. Familiarization fire, three round bursts on automatic. (2 hours)
6. Weapons maintenance. (4 hours)

**MODULE 14: CLOSING ACTIVITIES (6 hour, 15 minutes, plus 4 hours for test)**

1. Summarize all instruction. (45 minutes)
2. Appraise the training activities of the course. (Test) (4 hours)
  - a. Criterion Testing on all appropriate subjects. (4 hours)
  - b. Comprehensive exam on all appropriate subjects. (1hour)
3. Describe the responsibility of executing future job tasks. (30 minutes)

**C. ADVANCED BASIC AIRPORT SECURITY TRAINING PROGRAM (SCREENING) (148 hours)**

This course as designed will meet and exceed current ICAO Annex 17 standards and will incorporate standard requirements from the Transportation Security Administration Regulation 1542, and European Union Regulation 2320.

Target Population: Personnel that are assigned to the Airport Security Force as screeners. The ICAO Standard Training Plan (STP) 123/Basic used for the ICAO "TRAINAIR" program is an excellent training program. It is recommended that portions of this training program be used (less Modules 3, 5, 7, 12, and 13 which deal exclusively with Access Control) and with some additions, as the training medium for Advanced BASTP (Screening). It would be modified to a five-week program not including weekends/holidays and based on a 6-hour training day. It will include the following topics:

**MODULE 1: INTRODUCTION TO THE COURSE (3 hours, 30 minutes)**

1. Describe the course aims, structure and methodology. (30 minutes)
2. Specify the nature of the threat made against the air transport industry. (45 minutes)
3. Describe status of Airport Security as it applies to Civil Aviation. (30 minutes)
4. Outline the ICAO standards for Civil Aviation. (30 minutes)
5. Describe current legislation regarding Airport Security in Civil Aviation. (45 minutes)
6. Describe the benefits of a career in the field of aviation security. (30 minutes)

**MODULE 2: WORKING AT THE AIRPORT (23 hours, 45 minutes)**

1. Describe and recognize the main features of an airport. (30 minutes)
2. Locate all main airport buildings and services on an airport. (30 minutes)
3. Specify the boundaries between non-restricted and restricted areas of an airport. (1 hour)
4. Describe airport safety rules. (45 minutes)
5. Move about an airport complying with the airport safety rules. (Practical Exercise: 1 hour)
6. Know, understand, and apply the rules of an airport permit system and recognize the meanings of the different badges and passes used on an airport. (2 hours)
7. Demonstrate the proper operation and first echelon maintenance of a portable radio. Practical Exercise: Communicate by portable radio, using proper radio procedures, with other staffs and agencies. (2 hours)
8. Discuss and describe General Security topics and appreciate the need to recognize suspicious activity and take corrective action. (7 hours)
  - a. Anti-Terrorism Training/Concept of Terrorism and Aviation Security in Civil Aviation and Unlawful Interference in operation of Civil Aviation. (2 hours)
  - b. Crime Prevention Training (1 hour)
  - c. Loss Prevention Training (1 hour)
  - d. Behavioral Profiling/Practical Exercise (2 hours)
  - e. Procedures for Reporting of Security Breaches (30 minutes)
  - f. Encouragement of Timely Reporting (30 minutes)

9. Describe Human Resources and how each employee can relate to passengers/customers to make their travel more pleasant and how that equates to income for the airport and ultimately, the employee. (2 hours)

**MODULE 3: RECOGNITION OF EXPLOSIVE DEVICES AND OFFENSIVE WEAPONS (3 hours, 45 minutes)**

1. Define and classify prohibited items. (1 hour)
2. Recognize improvised explosive and incendiary devices, restricted articles, weapons and dangerous objects, including when they are disguised, dismantled or camouflaged. (1 hour)
3. Identify the places and methods used to hide explosive and incendiary devices and prohibited items. (1 hour, 45 minutes)

**MODULE 4: EMERGENCIES AND FIRE PREVENTION (5 hours, 30 minutes)**

1. Demonstrate a set of basic skills in fire prevention and basic fire fighting. (1 hour)
2. List the different types of airport emergency. (30 minutes)
3. Describe the procedure for searching an area in response to a specific incident. (1 hour)
4. Practical exercise: Under supervision, search a specified area for a "suspect" item. (2 hours)
5. Specify the action to be taken when a "suspect" item is located. (1 hour)

**MODULE 5: SEARCHING AND SECURING A STERILE HOLDING AREA (3 hours, 45 minutes)**

1. Define the three basic types of "sterile" passenger holding areas. (45 minutes)
2. Define SOPs to deal with "suspect items located in a passenger holding area and how to maintain the sterility of the holding area. (1 hour)
3. Practical Exercise: Take appropriate response action to deal with "suspect" items located in a passenger holding area in accordance with SOPs and then maintain the sterility of the holding area. (2 hours)

**MODULE 6: PASSENGER SCREENING AND PHYSICAL SEARCH OF PASSENGER  
(21 hours)**

1. List and define the four stages involved in the passenger inspection/screening process. (1 hour)
2. Describe the functions of each member of the inspection/screening team. (1 hour)
3. Define rules for weapon and hardware transportation in civil aviation. (1 hour)
4. Demonstrate the identification of various weapons, explosive devices and hardware as they appear on the X-Ray. (2 hours)
5. Define and ensure the understanding of airport Chain-of-Command, airport SOPs and plans of action for screeners during emergency situations. (2 hours)

**(The remaining six items are Practical Exercises and each student will be Criterion Tested at the end of each Practical Exercise.)**

6. Place different types of carry-on baggage on an X-Ray conveyor belt in the correct manner. (2 hours)
7. Control a flow of passengers and direct each passenger through a walk-through metal detector. (2 hours)
8. Scan a passenger with a hand-held metal detector. (2 hours)
9. Physically search selected passengers according to SOPs. (2 hours)
10. Monitor and respond to a metal detector alarm in accordance with SOPs. (2 hours)
11. Respond to an emergency situation. (4 hours)

**MODULE 7: PHYSICAL INSPECTION OF BAGGAGE (11 hours)**

1. Define airport SOPs regarding inspection of baggage and describe the correct technique for the inspection of carry-on baggage. (1 hour)

**(The remaining three items are Practical Exercises and each student will be Criterion Tested at the end of each Practical Exercise.)**

2. Open and physically search various types of carry-on baggage in the presence of the passenger. (3 hours)
3. Recognize prohibited and dangerous items that may be contained, hidden, or camouflaged in carry-on baggage. (3 hours)

4. Take action in accordance with airport SOPs to deal with prohibited and dangerous items detected in carry-on baggage. (4 hours)

#### **MODULE 8: X-RAY EXAMINATION OF BAGGAGE (15 hours)**

1. Demonstrate the baggage X-Ray machine, to include safety, operation, calibration, correct placement of different pieces of baggage, interpret images that appear on the monitor, and identify items that may be prohibited or dangerous. (3 hours)

**(The remaining three items are Practical Exercises and each student will be Criterion Tested at the end of each Practical Exercise.)**

2. Follow the required safety procedures and correct start-up requirements, turn on an X-Ray machine, calibrate it and operate it safely and correctly. (4 hours)
3. Interpret images on an X-Ray monitor and identify items that may be prohibited or dangerous. (4 hours)
4. Select baggage for physical examination and examine that baggage according to SOPs. (4 hours)

#### **MODULE 9: USE OF FORCE RULES AND REGULATIONS (35 hours)**

1. Define the airport/State Use Of Force Rules and Regulations. (2 hours)
2. Define and demonstrate the different types of Continuum of Force Weapons and Equipment. (5 hours)
  - a. Pressure Point Control Tactics
  - b. Baton
  - c. Hand Restraints
  - d. Pepper Spray or Equivalent
  - e. Taser Gun or Equivalent
  - f. Lethal Force
  - g. Sniper Training
  - h. Gas/Protective Mask
  - i. Night Vision Equipment
  - j. Tire Deflation System
3. Practical Exercise on the use of Continuum of Force Weapons and Equipment. (28 hours)

## **MODULE 10: WEAPONS FAMILIARIZATION, TRAINING, AND QUALIFICATION (26 hours)**

1. Become familiar with assigned weapon through disassembly and assembly; demonstration and Practical Exercise. (4 hours)
2. Understand the concept of sight picture; Practical Exercise of "Dry Fire". (4 hours)
3. Live train-fire on firing range. (8 hours)
4. Qualification Fire. (4 hours)
5. Familiarization fire, three round bursts on automatic. (2 hours)
6. Weapons maintenance. (4 hours)

## **MODULE 11: CLOSING ACTIVITIES (6 hour, 15 minutes, plus 4 hours for test)**

1. Summarize all instruction. (45 minutes)
2. Appraise the training activities of the course. (Test) (4 hours)
  - a. Criterion Testing on all appropriate subjects. (4 hours)
  - b. Comprehensive exam on all appropriate subjects. (1hour)
3. Describe the responsibility of executing future job tasks. (30 minutes)

**Observation:** The team saw no indication of Continuum of Force Training, nor did it see any equipment for such procedures carried by security personnel. It appears at present that the continuum of force procedures at the airports will go from physical presence and voice commands directly to lethal force. We saw no indication that batons or other impact weapons, pepper sprays, or Taser type devices were issued or carried. The security officers would be limited in their options dealing with incidents that go beyond that which can be handled by an officer or group of officers using physical force, but which do not meet the standards whereby lethal force is or should be authorized.

**Recommendation:** Acquire Continuum of Force devices, equip all security officers with such devices, and thoroughly train the officers in their use, and in continuum of force training. Standard procedures for continuum of force in most security organizations are as follows:

- a. Physical Presence
- b. Voice Commands
- c. Pressure Point Control Tactics (PPCT)
- d. Baton or Other Impact Weapon
- e. Pepper Spray
- f. Taser or similar incapacitating, but non-lethal, device
- g. Lethal force

**Observation:** All of the airports surveyed, with the exception of Samarkand, either have adequate training /classroom space or plans to develop such. At the satellite airports, training is very much an in-house activity. It is sponsored entirely by the Airport Security Management who appears to have unfailing support from their staff in the production of highly professional charts and display boards. Where they are sorely lacking is the availability of modern training equipment and training aids. As an example, the ICAO catalog from which the National Training Center at Tashkent derives its few audio/visual airport security-training films is dated 1988. There are no computers designated for student use. The availability of computers and training software is non-existent. This does not mean they are not familiar with these facilities; it is simply that budget constraints preclude their purchase.

**Recommendation:** The team recommends the procurement of the training equipment listed in the Recommended Equipment Annex. This would greatly improve the National Training Center and the respective airport's training sites and help them attain their goal of becoming a world-class training center.

**Observation:** The technical reference library at the National Airline Company Flight Simulation Center and at the National Training Center is very limited in both quantity and modern scope. They are almost non-existent at the other airports.

**Recommendation:** Making computers with intranet capability available to pilots, crew and all other students will go a long way toward solving this problem. Once the various training locations have modern computer capabilities numerous training programs and information sources will become available to them. As funds become available modern technical manuals should be added to the library.

#### **Task 6: Working Group**

*In order to review the preliminary results of the site visit and to gain consensus of the requirements identified thus far, the Contractor shall conduct a Working Group meeting under the control of the Uzbekistan Office of the State Inspection for Flight Safety Oversight. The Working Group will include representatives from:*

- a. The Uzbekistan Office of the State Inspection for Flight Safety Oversight*
- b. The Contractor*
- c. Security and capital construction departments, Uzbekistan Airways National Air Company*
- d. Uzbekistan's International Airport Management*

**Deliverables:** *The Contractor shall prepare and conduct a presentation focusing on the areas identified during the site visits. This presentation shall be designed to verify requirements in accordance with ICAO standards and to firmly establish end-user endorsement prior to the further development of system specifications. Emphasis should be placed on national standardization of equipment and procedures as they interface with and complement the simultaneous expansion of the regional training center concept.*

A Working Group meeting was held in the conference room at the Ministry of Aviation Security at 1500 hrs, 15 April 2004. Those present at this meeting included:

Mr. Khakim Trobov, Head of SIFSO  
Mr. Vladimir Rijkin, Head Aviation Security Board  
Mr. Shamil Halikov, Head Aviation Safety Department  
Mr. Saidov Javdat, Deputy Director General on Security, National Airlines Company  
Mr. Rustam Arapbaev, Head, Flight Search and Rescue Department, National Airlines Company  
Mr. Dmitriy Ryabov, Manager, Congress Tour  
Mr. Andrew Koust, AA Interpreters  
Ms. Elena D. Avanesova, Translator  
Ms. Malika Pulatova, Translator  
All members of the RVA Team

The Working Group meeting began with a briefing and Power Point presentation in English and Russian (see Appendix G). The briefing consisted primarily of a brief look at the status of aviation security at all of the surveyed airports with emphasis given to the things being done well and those areas that needed improvement and/or up-grading. Of particular importance was the analysis done by the team on the Needs Assessment that was a part of the Definitional Mission. While not completely finalized at the time of the Working Group meeting, it was apparent to the team that the items cited on the Needs Assessment needed to be augmented to a certain degree by other requirements identified by the team. These requirements were identified to the Working Group and agreed upon by all members. This modified Needs Assessment was then to become the basis for the recommended equipment and training that will result from the completed study.

Of particular emphasis was the team's identification of the need for standardization of equipment, training and procedures. Currently the aviation security apparatus of Uzbekistan is equipped with a wide range of machines, many of which were obsolete, some of which were barely functional. The team received the agreement of the Working Group that standardization would be far more cost effective, more amenable to a standard training program, and would save a great deal of money on maintenance and upgrades. The team also recommended that the equipment list contain enough machines for the proposed international training center's simulation facilities.

Agreement on all points was achieved, and the Working Group meeting was adjourned.

#### **Task 7: Review Available Technologies and Cost-Benefit Analysis**

##### ***Deliverables:***

- a. *Based on the feedback received during Task 6 Working Group meeting, the Consultant will prepare a report that will include a complete list of all security equipment requirements, a physical layout of the proposed installation of each system, identification of suppliers and manufacturers of each system, including the technical, investment and financial data developed in the proceeding Tasks. The Consultant will then conduct a cost-benefit analysis of each proposed system in order to identify the best technology for each application.*

Based upon the findings of Task 4, which indicated a pressing need for modernizing the security equipment found at the five airports in Uzbekistan, and further upon the need for standardization of such equipment, the team prepared a detailed equipment list that will address this issue. This equipment list is attached as Appendix H. In preparing the equipment list, manufacturers throughout the United States were contacted, and a number of issues were resolved. These included, but were not limited to:

1. Cost, including:
  - a. Purchase price,
  - b. Shipping cost,
  - c. Set-up and testing costs, and
  - d. Expected maintenance costs, including labor, travel, and spare parts;
2. Availability and Delivery Times;
3. Presence of locally-available maintenance centers; and
4. Guarantees and maintenance agreements.

A cost-benefit analysis was then conducted. This analysis took into account the minimum possible investment as well as the maximum necessary investment. The cost-benefit analysis is included as Appendix I. As can clearly be seen in the analysis, even the maximum necessary investment very quickly achieves positive cost benefits.

- b. The Consultant will determine the best method of introducing new technology into the existing security system. This process will require development of a phased milestone approach that involves training that coincides with equipment procurement, delivery, installation and testing.*

The impression of the team, confirmed by later inspections and analysis, and coordinated with the officials of SIFSO, is that the upgrade and modernization of the training center must take first priority. Upgrading the training of airport/airlines security personnel will have the most immediate impact upon the security situation, and will prepare SIFSO for the modernization of the equipment to be used in the security system. Further, this is a relatively low-cost solution – equipment acquisition, shipment, installation and training would consume less than \$200,000 USD.

Tentative timelines would thus be as follows:\*

\*(Note: Timelines will, of a necessity, begin with acquisition of funds [AOF].)

1. Purchase of equipment for upgrade of training center, as listed in recommendations:  
Estimate completion 2 weeks AOF
2. Shipment of equipment to Tashkent:  
Estimate arrival 4 weeks AOF

3. Installation of equipment in training center:  
Estimate completion 8 weeks AOF
4. Training of pilot course for security inspectors and potential instructors:  
Estimate completion 12 weeks AOF

After the pilot course is trained, we would recommend the acquisition and installation of the remaining items on the recommended equipment list, with the following priorities:

- I. Screening equipment (cargo/hold baggage, walk-through metal detectors, ion-scan detectors, miscellaneous other equipment),
- II. Command and control (radios, mobile command posts, security force equipment),
- III. Access control/surveillance (card readers, CCTV), and
- IV. Emergency equipment (crash/fire/rescue).

As the equipment is acquired, we would recommend thorough train-the-trainer courses be held at the training center, with follow-on training of operators to be conducted also at the center.

#### **Task 8: Develop Capital Costs and Investment Requirements**

***Deliverables:*** *The Consultant will develop engineering capital costs and a time-phased investment schedule for all equipment, systems and training needed for installation and operation at each of the five airports and the National Training Center. The Consultant shall identify U.S. sources for necessary equipment and estimated delivery times of arrival.*

Appendix J includes the minimum investments needed to bring the security systems of the five airports in Uzbekistan up to meet minimum ICAO Standards. It must be noted, however, that the full equipment list included as Appendix H lists not only the minimum standard, but that which would be necessary to meet not only current requirements, but those expected in the future. It should also be noted that the cost benefit analysis included as Appendix I shows a positive cost/benefit even for the larger figure.

Appendix K lists estimated delivery times for the minimum equipment listed in Appendix J.

#### **Task 9: Develop Implementation Timetables**

***Deliverables:*** *In order to ensure that investment schedules are consistent with Uzbekistan civil aviation authority priorities, the Consultant will prepare and submit a time-phased milestone schedule to the Office of State Inspection Flight Safety Oversight for their approval.*

The time-phased milestone schedule listed as response to Task 7b, above, was coordinated with SIFSO, and agreement was reached as to the priorities listed. Official approval was received from Mr. Shamil Halikov, who will be the responsible person for this implementation.

#### **Task 10: Environmental Impact**

**Deliverables:** *The contractor will provide a synopsis of any environmental impact that would be realized with the implementation of the Security Master Plan. If a positive or negative environmental impact is expected, those effects should be documented and reported to the Uzbekistan Office of State Inspection Flight Safety Oversight, as well as the U.S. Trade and Development Agency. Mitigation measures shall also be proposed, as appropriate, and reported.*

The implementation of suggested improvements into the Security Master Plan will not have any negative environmental impacts. No considerations are proposed to alter aquifers, or any other natural environmental sensitivity. Existing facilities will be utilized without any detrimental modifications to structures. The incorporation of modern technological equipment will only enhance the environment by facilitating higher efficiency with less waste.

### **Task 11: Develop Finance Options**

*Once the investment requirements and the schedule for implementation have been estimated, the Contractor will assess various financing options. These options will include grant and equity financing, public sector financing, debt financing from various commercial markets, financing from investors, suppliers' credits, bilateral tied credits such as the U.S. Export-Import Bank and other potential options.*

**Deliverables:** *The Contractor will develop an action plan outlining the steps necessary for obtaining financing under each source that includes the terms and conditions of potential loans and the financial risks and recommended mitigating measures.*

Financing options were assessed per the task description in the Terms of Reference (TOR). In making this assessment, consideration was not only given to the investment requirements, the costs, and the implementation schedule, but also it is assumed that the recipient of the financing will in all likelihood be supported by a sovereign risk guarantee from the Government of the Republic of Uzbekistan.

It is further understood that it is the intention of the Flight Safety Oversight Department to continue its exclusive management of airport security operations and this all but eliminates the Government's ability to source financing from IFC, OPIC, private sector financing operations of the EBRD and ADB, or other institutions supporting private sector related financing. Moreover, while it has the ability to provide sovereign risk financing, it is our understanding that given other priorities, it is unlikely that Asian Development Bank would be a source.

Consequently, we focused our efforts on exploring with bilateral and multilateral institutions that would support financing involving state operated entities. These financings would involve direct loans, loan guarantee or risk mitigating arrangements that could induce commercial financial institutions or investors to participate in financings through loans and bond issues.

The key multilateral/bilateral institutions are as follows:

**World Bank Group (WBG):** The World Bank Group supports Uzbekistan's economic transition with a modest program of lending, technical assistance, and analytical and policy advice designed to support implementation of the government's gradual reform strategy. Over the past five (5) years, transport

sector financing has accounted for only 5% of its portfolio of \$599 million in commitments. The WBG provides an array of financing options including **investment loans** which are direct loans which finance goods, works, and services in support of economic and social development projects in a broad range of sectors. They typically run for five to 10 years. As an alternative, the Bank's political risk mitigating products help encourage private capital flows to emerging market countries by providing a degree of protection against critical government-performance risks that private lenders are reluctant to assume. The Project Finance and Guarantees Department offers three types of **WBG guarantees** to commercial lenders:

1. **Partial Credit Guarantees** cover a portion of scheduled repayments of private loans or bonds against all risks. These guarantees are usually provided for privately funded public projects.
2. **Partial Risk Guarantees** cover debt services defaults on loans to private-sector projects caused by government failures to meet contractual obligations.
3. **Policy Based Guarantees** cover portions of debt service on borrowing by eligible member countries from private foreign creditors in support of agreed structural, institutional and social policy reforms.

The application process for the WBG commences with the Resident Representatives Office in Tashkent where a recommendation is made as to whether the project should commence the project review cycle as described herein. If the recommendation is affirmative, the Aviation Sector Team and other relevant departments would become team members involved in the cycle which is described herein.

#### **European Bank for Reconstruction and Development (EBRD)**

A major operational priority of EBRD is to assist with the Uzbek development of critical infrastructure projects principally in the areas of transportation, municipal services and the energy sectors. The Bank has already provided important support to the transport sector and this includes EBRD's support in 1997 with \$51.3 million USD financing covering the modernization of the Tashkent Airport International Terminal, aprons and taxiways. EBRD continues to be open to consideration of sovereign risk aviation sector medium term financing transactions in Uzbekistan. In addition, EBRD has the ability to "co-finance" with other multilateral, bilateral, and commercial financial institutions.

The initial approach to EBRD for consideration would be with the Resident Representative's Office in Tashkent where a recommendation is made as to whether the project should commence the project review cycle as described herein. When the EBRD has all the necessary information, a transaction typically takes three to six months from initial contact to signing. In some cases, however, this can be shorter. The total project cycle, from initiation to repayment, can range from one year for working capital or trade financing projects to 15 years for long-term sovereign infrastructure projects

#### **Export Import Bank of the United States (Ex-Im Bank)**

Ex-Im Bank has been active in financing exports to Uzbekistan and this includes the aviation sector in which financings have covered the purchase of Boeing aircraft. Currently, Ex-Im Bank is open to public sector financing for up to 7 years and in this case a sovereign guarantee would be required. Thus at the time of application, confirmation of that guarantee must be made by the National Bank of the Republic of Uzbekistan.

Ex-Im Bank support would be made as a direct loan from Ex-Im Bank or most likely, Ex-Im Bank would issue a guarantee to support a loan by an authorized commercial financial institution. Thus it could be advantageous for the exporters/borrowers to commence working with a commercial financial institution early on, as that institution is familiar with Ex-Im Bank's policies and this can facilitate the application process.

Under its loan and guarantee program, Ex-Im Bank will finance or guarantee up to 85% of the export. The interest rate associated with the borrowing for a loan guaranteed by Ex-Im Bank will reflect the fact that this guarantee carries the full faith and credit of the United States Government. In addition, Ex-Im Bank charges a risk exposure fee which is a risk premium charged by all export credit agencies, based on a political and credit risk analysis that Ex-Im Bank does from time to time. This risk exposure fee can be reduced significantly through risk mitigants such as pledging IATA receipts as collateral.

It should be further noted that if the Flight Safety Oversight Department intended to purchase goods from multiple countries, there are cases where Ex-Im Bank will co-finance export sales with export credit agencies of other countries including among others, Canada, United Kingdom, Japan, and Italy.

With respect to the application process, Ex-Im Bank provides exporters and borrowers support at various stages of the export process. For example, if an exporter is participating in a tender or is in a negotiation stage in which the exporter must demonstrate the ability to finance exports in this case to the Government of Uzbekistan, Ex-Im Bank will issue a **Letter of Interest** as an indication of Ex-Im Bank's willingness to consider financing a given export transaction. The exporter could also apply for a **preliminary commitment**, which is a commitment by Ex-Im Bank to provide financing subject to the exporter being awarded an export contract. Finally, the exporter or borrower can apply for a **final commitment**, which is an authorization of financing by Ex-Im Bank. The application for a final commitment occurs when the export contract has been awarded. The **final commitment** will specify the risk exposure fee, which can be financed by Ex-Im Bank or paid up front by the borrower. Note that it is not necessary to have a letter of interest or preliminary commitment before applying for a final commitment.

## Recommended Strategic Course of Action

1. The Flight Safety Oversight Department and the Ministry of Finance or appropriate Government of Uzbekistan liaison should contact EBRD, WBG, and Ex-Im Bank and present these institutions with relevant details of the Security Master Plan. If Flight Safety Oversight Department feels that there is the prospect of purchasing goods from non-U.S. exporters, it should also approach the export credit agency of that country. Note that there is limited variance between the terms and conditions that these export credit agencies offer as they are governed by Berne Union Accord entered into by countries offering export credit agency financing.
2. The Flight Safety Oversight Department might also consider engaging a Technical/Financial Advisor which can assist Flight Safety Oversight Department with the presentation, details of the tender process, and alternative financing structures that these institutions might consider.
3. When considering alternative financing structures, Flight Safety Oversight Department should not only consider proposing a sovereign guaranteed structure, but also one that might offer risk mitigants (e.g. IATA receipts on behalf of the Government of Uzbekistan) that could favorably improve the overall cost associated with borrowing. The structure should also reflect any strategy that the Government of Uzbekistan might have for attracting foreign investment capital.
4. Flight Safety Oversight Department should factor the prospect of procurement from more than one country of export origin and how that might affect the selection process for the source(s) of financing, including co-financing options.

## EBRD<sup>1</sup> Loan Review Cycle

The EBRD project cycle consists of the following stages:

**Concept Review** – The EBRD's Operations Committee (OpsCom)<sup>2</sup> approves the project concept and overall structure, including proposed financing structure and supporting obligations. At this stage, the EBRD and the client sign a mandate letter, which outlines the project plan, development expenses and responsibilities.

**Final Review** – Once the basic business deal (including a signed term sheet) has been negotiated and all investigations have been substantially completed, the project receives a Final Review by OpsCom.

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<sup>1</sup> Source: EBRD website [www.ebrd.com](http://www.ebrd.com)

<sup>2</sup> The Operations Committee consists of senior management from Banking, Finance, Office of the General Counsel, Office of the Chief Economist, and Evaluation and Operational and Environmental Support.

**Board Review** – The EBRD President and operation team present the project to the Board of Directors for approval.

**Signing** – The EBRD and the client sign the deal and it becomes legally binding.

**Disbursements** – Once repayment conditions are agreed and the Bank's conditions met, the funds are transferred from the Bank's account to the client's account.

**Repayments** – The client repays the loan amount to the EBRD under an agreed schedule.

**Final maturity** – The final loan amount is due for repayment to the Bank.

**Completion** – The loan has been fully repaid and/or the EBRD's equity investment divested.

### **World Bank Group Loan Review Cycle<sup>3</sup>**

**The Identification Phase:** WBG's Country Assistance Strategy (CAS) forms the blueprint for its assistance to a country. In low-income countries, the CAS is based on the priorities identified in the country's Poverty Reduction Strategy Paper (as outlined above). The goals outlined in the CAS guide the priorities of the WBG's lending program and are a useful source of information for interested stakeholders and businesses wishing to identify potential future areas of WBG lending. During the identification phase, WBG teams work with the government to identify projects which can be funded as part of the agreed development objectives. Once a project has been identified, the WBG team creates a Project Concept Note (PCN) which is an internal document of four to five pages that outlines the basic elements of the project, its proposed objective, likely risks, alternative scenarios to conducting the project, and a likely timetable for the project approval process.

**The Preparation Phase:** This part of the process is driven by the country that WBG is working with and can take anything from a few months to three years, depending on the complexity of the project being proposed. WBG plays a supporting role, offering analysis and advice where requested. During this period, the technical, institutional, economic, environmental and financial issues facing the project will be studied and addressed - including whether there are alternative methods for achieving the same objectives. An assessment is required for projects proposed for WBG financing to help ensure that they are environmentally sound and sustainable (Environmental Assessment). The scope of the Environmental Assessment depends on the scope, scale and potential impact of the project.

**The Appraisal Phase:** WBG is responsible for this part of the process. WBG's staff reviews the work done during identification and preparation, often spending three to four weeks in the client country. They prepare for WBG management either Project Appraisal Documents (investment projects) or Program Documents (for adjustment operations) and the Financial Management team assesses the financial aspects of the project. The PID is updated during this phase. These documents are released to the public after the project is approved (see below).

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<sup>3</sup> Source: [www.worldbank.org](http://www.worldbank.org)

**The Negotiation and Approval Phase:** After WBG staff members have appraised the proposed project, the WBG and the country that is seeking to borrow the funds, negotiate on its final shape. Both sides come to an agreement on the terms and conditions of the loan. Then the Project Appraisal Document (PAD) or the Program Document (PGD), along with the Memorandum of the President and legal documents are submitted to WBG's Board of Executive Directors for approval. The appropriate documents are also submitted for final clearance by the borrowing government which may involve ratification by a council of ministers or a country's legislature. Following approval by both parties, the loan agreement is formally signed by their representatives. Once this has occurred, the loan or credit is declared effective, or ready for disbursement, after the relevant conditions are met, and the agreement is made available to the public.

**The Implementation and Supervision Phase:** The implementation of the project is the responsibility of the borrowing country, while WBG is responsible for supervision. Once the loan is approved, the borrowing government, with technical assistance from the WBG, prepares the specifications and evaluates bids for the procurement of goods and services for the project. WBG reviews this activity to ensure that its procurement guidelines have been followed. If they have, the funds will be disbursed. The WBG's Financial Management Team maintains an oversight of the financial management of the project including periodically requiring audited financial statements.

**The Evaluation Phase:** Following the completion of a project, WBG's Operations Evaluation Department conducts an audit to measure its outcome against the original objectives. The audit entails a review of the project completion report and preparation of a separate report. Both reports are then submitted to the executive directors and the borrower. They are not released to the public. Projects may be dropped at any point in the project cycle from preparation to approval. For these projects, which never achieve active status, Project Information Documents, described above, are effectively the final documents.

## **Ex-Im Bank Application Process**

### **How to Apply For Ex-Im Bank Financing<sup>4</sup>**

- Contact the Business Development Division (202-565-3946) for information about applying for Ex-Im Bank **export credit insurance and working capital guarantees**. Applications and Forms are available at [www.exim.gov/tools/appsforms/applications](http://www.exim.gov/tools/appsforms/applications).
- You can apply for Ex-Im Bank financing for **medium- and long-term loans and guarantees** using the *Letter of Interest (LI) Application* or the *Preliminary Commitment (PC)/Final Commitment (AP) Application*. Apply for Ex-Im Bank financing when you have determined (1) that you are facing competition supported by foreign export credit agencies or (2) that financing from the private sector is either unavailable or the amount and/or terms offered are inadequate to win the export sale. In most cases, either the LI or AP will be appropriate.

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<sup>4</sup> Source: [www.exim.gov](http://www.exim.gov)

*Note:* The private banking sector plays a major role in facilitating U.S. exports by providing financial services independently and in conjunction with Ex-Im Bank. Ex-Im Bank encourages U.S. exporters to establish a relationship with a commercial financing institution.

### **Applying for a Letter of Interest**

The Letter of Interest (LI) is an indication of Ex-Im Bank's willingness to consider financing a given export transaction. Apply for an LI during the bidding or negotiating stage of an export sale when the following conditions exist:

- You need an indication from Ex-Im Bank on the general eligibility of the transaction participants and the goods and services to be exported.
- The repayment terms and other program guidelines in the LI provide you with specific enough guidance for your transaction.

An LI is generally issued within seven business days after Ex-Im Bank receives the application. The terms and conditions in the LI are valid for six months. At the request of the applicant, the LI can be renewed at six-month intervals, for up to two years. However, the terms are subject to change.

The review of the LI application includes comparing the transaction information to Ex-Im Bank's cover policy and identifying any potential issues that may need to be analyzed in more detail when an AP application is reviewed.

Any responsible party may apply for an LI. The applicant for an LI is usually the U.S. exporter or a financial advisor representing the exporter. A financial advisor acting on behalf of a foreign buyer may also apply for an LI, but the LI will be issued directly to the foreign buyer. A foreign buyer or borrower may also apply. The non-refundable processing fee for an LI is \$100.

LIs are not available for credit guarantee facilities or exports of items to be used for nuclear power plants, nuclear fuel research reactors and related facilities. LIs are available for large aircraft transactions on a case-by-case basis (see Attachment A to the *LI Application*). Contact the Aircraft Finance Division (202-565-3550) for information concerning financing of large aircraft and ancillary equipment.

Ex-Im Bank offers a secure, Internet-based, online Letter of Interest Application. Applicants can submit, save and/or edit a LI application and make a credit card payment online. To apply online, go to the Ex-Im Bank website, [www.exim.gov](http://www.exim.gov) and select "LI Online" from the home page menu.

If you wish to pay by check or money order, complete the LI Application and return the signed original application, the required attachments and a check or money order made payable to the Export-Import Bank of the U.S. to:

**Mail To:**  
**Export-Import Bank of the U.S.**  
Attn: LI Applications

811 Vermont Avenue, N.W.  
Washington, D.C. 20571

If you wish to pay by credit card, complete the *LI Application* and return the signed application with the required attachments and your credit card information either by mail or by fax to:

**Fax To:**  
**Export-Import Bank of the U.S.**  
Attn: LI Applications  
Fax: (202-565-3380)

**Online:**  
[www.exim.gov/tools/letter\\_interest.html](http://www.exim.gov/tools/letter_interest.html)

### **Applying for a Final Commitment**

The AP is an authorization of financing by Ex-Im Bank. Apply for an AP when the export contract has been awarded. Ex-Im Bank will perform a comprehensive evaluation of the transaction and any related issues. The AP will specify the exposure fee which can be financed by Ex-Im Bank. It is not necessary to have an LI or PC before applying for an AP.

The applicant for an AP is responsible for payment of Ex-Im Bank's commitment fee for a loan or guarantee or facility fee for a credit guarantee facility. If the applicant is the lender, the lender may require the borrower to accept this responsibility in writing prior to submitting the AP application.

Only the foreign borrower may apply for an AP for an Ex-Im Bank direct loan. The foreign borrower or guaranteed lender may apply for an AP for a guarantee. If the lender has not been selected, only the borrower may apply for an AP for a guarantee. In cases where the borrower is a special purpose vehicle, the applicant must be the guarantor, if there is one. If there is no guarantor, the applicant must be the company obligated to make payments to the special purpose vehicle.

While the *PC/AP Application* is used to apply for limited recourse project financing, other types of financing commitments are offered and a separate fee arrangement applies. Please contact the Ex-Im Bank Structured and Project Finance Division (202-565-3690) for more information on the specific types of financing commitments offered for limited recourse project financing and the relevant application processing fees.

### **Where to Apply for a Final Commitment**

Complete the *AP Application* and mail the signed original application, and the required attachments to:

**Export-Import Bank of the U.S.**  
Attn: Credit Applications and Processing  
811 Vermont Avenue, N.W.  
Washington, D.C. 20571

## Applying for a Preliminary Commitment

The PC is an offer of Ex-Im Bank financing subject to the award of the export contract and Ex-Im Bank's review of an AP application. Ex-Im Bank reserves the right to determine when a request for a PC is justified and has established the following three criteria for the appropriate use of a PC.

- If the award of the export contract is subject to a formal competitive bid process in which there is clear evidence that an actual quote of the definitive rates, fees, terms, and conditions of Ex-Im Bank support must be presented, then Ex-Im Bank will accept an application for a PC.
- If the exports are items to be used for nuclear power plants, nuclear fuel research reactors and related facilities, Ex-Im Bank will require a PC application. An LI is not available.
- If the applicant requests resolution of significant financial, technical, environmental, or policy issues which would have a critical impact on the availability of Ex-Im Bank support, Ex-Im Bank will accept an application for a PC only if it determines that the issues are significant enough to warrant Ex-Im Bank's review prior to the award of the export contract.

In order for Ex-Im Bank to perform the necessary review of program and credit issues required to issue a PC and specify an exposure fee, the *PC/AP Application* requires more detailed information pertaining to the transaction than the *LI Application*. Examples of case-specific issues include: economic impact on U.S. production; eligibility of military-related products; environmental impact of the project; and credit review of the borrower (and guarantor, if any). Ex-Im Bank will issue a PC subject to final review of outstanding issues when information is not available at the PC stage. However, Ex-Im Bank will require sufficient information on the borrower (and guarantor, if any) in order to establish a specific exposure fee.

The applicant has two PC options: a four-month PC with a cap on Ex-Im Bank's direct loan interest rate or a six-month PC with no interest rate cap. The terms and conditions of the PC are valid for four months or six months, depending on the option selected. At the request of the applicant, the PC can be renewed at four-month or six-month intervals, but the terms are subject to change. Large aircraft transactions are not eligible for the four-month PC option with the interest rate cap. All PCs for large aircraft transactions will continue to be valid for six months and can be renewed at six-month intervals, but the terms are subject to change. PCs are not available for credit guarantee facilities.

Any responsible party may apply for a PC. The applicant for a PC is usually the U.S. exporter or a financial advisor representing the exporter. A foreign buyer or borrower may also apply for a PC.

The processing fee for a PC is equivalent to 1/10 of one percent of the requested amount of the financing (excluding the exposure fee), up to a maximum of \$25,000. If the foreign buyer or borrower applies for a PC, the processing fee may be paid by the U.S. exporter. This fee will be rebated if and when an AP is approved by Ex-Im Bank.

The higher processing fee for the PC is intended to cover the additional transaction processing costs associated with issuing a PC and to encourage appropriate use of the LI. Exceptionally, if the Board approves a PC with a tied aid offer, Ex-Im Bank will immediately refund the PC processing fee regardless of whether the exporter eventually wins or loses the export contract.

## **Where to Apply for a Preliminary Commitment**

Complete the *PC Application* and mail the signed original application, the required attachments and a check or money order made payable to the Export-Import Bank of the U.S. to:

### **Export-Import Bank of the U.S.**

Attn: Credit Applications and Processing  
811 Vermont Avenue, N.W.  
Washington, D.C. 20571

## **Task 12: Prepare and Submit Tender Documents**

***Deliverables:*** *The Contractor shall prepare tender documents for the design, fabrication, and installation and maintenance of the recommended security equipment for each of the five airports. The tender documents shall be in sufficient detail that tenders can be issued indicating the technical responsibilities for detailed design, construction and installation of the equipment.*

Appendix L sets forth the Instructions to Tenderers

Appendix M lists Technical Specifications

Appendix N explains all abbreviations and definitions.

## **Task 13: Working Group Meeting**

*The contractor shall prepare for and conduct a meeting to present, review and summarize the information developed in the foregoing Tasks. The Contractor will present Uzbekistan officials with a draft of the Security Master Plan and the completed tender documents. The Contractor will assist Uzbekistan authorities with details as may be required.*

***Deliverables:*** *Draft Security Master Plan and completed tender documents.*

The draft Security Master Plan and Final Report were delivered, in Russian, to the Office of Flight Safety Oversight on 28 February 2005, giving officials of SIFSO time to study the document before the final working group meeting.

The Task 13 Working Group meeting was then held in Tashkent at SIFSO Headquarters on 14-16 March 2005. In attendance at the meeting were the following individuals:

Mr. Khakim Trobov, Head of SIFSO  
Mr. Vladimir Rijkin, Head Aviation Security Board  
Mr. Shamil Halikov, Head Aviation Safety Department  
Mr. Andrew Koust, AA Interpreters  
Ms. Elena D. Avanesova, Translator

Mr. John F. Mullins, RVA  
Mr. Derek Caswell, RVA

All the items in the draft report were covered in detail in the working group meeting, and a consensus was formed in which the equipment list was pared down to that which would have the most impact, while taking into account financial constraints. This finalized equipment list is attached as Appendix O.

Milestones for the accomplishment of all tasks listed in the Master Plan were also discussed and agreed upon, as stated in the response to Task 7b and Task 9, above.

The most important outcome of this working group meeting was the agreement among all the principals that the upgrade of the Aviation Security Training Center should take first priority. Accordingly, the milestone schedule was thus adjusted to reflect this agreement.

**Task 14: Present Transitional, Final Implementation and Survey Master Plan**

**Deliverables:** *Upon completion of the Study, the Contractor will finalize the Security Master Plan detailing the measures developed during the Study. This Plan will summarize the results of the Working Groups and the working papers developed throughout the projects. The Plan will include an executive summary that contains the findings and conclusions and a milestone-phased timetable of future actions that are recommended for implementation. The Plan will constitute the Final Report and shall be prepared in accordance with Clause 1 of Annex II of the Grant Agreement.*

This submission contains the Security Master Plan, detailing the measures developed during the study, along with detailed findings at each airport, as well as findings as to the national civil aviation security program, and the national civil aviation security training program, along with recommendations for changes/modifications/upgrading at each facility.

Working group meetings were held on three occasions and their findings are summarized in responses to the appropriate tasks contained herein. Working papers, including the Power Point presentation used to guide the working group meetings, are included as annexes.

The executive summary contains, in general, all findings and conclusions, and these findings and conclusions are backed up in detail in the responses to the appropriate tasks.

This submission constitutes the Final Report.

RVA is pleased to have been a part of this process.

APPENDIX H

A		B		C		D		E		F		G		H		I		J		K		L	
EQUIPMENT LIST																							
1	EQUIPMENT (1)		COMPANY	COST/ITEM	TASK/KENT	SMR/KND	BKRA	URGENCH	TERMEZ	NTC	(P)NTC	TOTAL	TOTAL COST										
2	ACCESS CONTROL SYSTEMS (2)																						
3	Bio-Metric, Walk Through Metal Detector, card reader, key pad, and card maker.		IdentifiCard																				
4	DIGI-TRAC Models as appropriate		Hirsch Electronics	\$2,514.86	21	7	7	7	7	7	1	2	\$122,130.05										
5	Automated Passport System and Crew Card reader.																						
6	Flash Identity System		KNDV	\$33,120.00	4	1	1	1	1	1	1	9	\$298,080.00										
7	ID Card Development System (3)		Asure ID (Dalco International)	\$5,995.00	5	1	1	1	1	1	1	12	\$71,940.00										
8	SCREENING EQUIPMENT																						
9	PERSONS																						
10	PMD2 Very High Performance Multi-Zone Metal Detector		Celia	\$8,973.00	10	3	3	4	2	1	1	24	\$215,352.00										
11	PD140, Hand Held Metal Detector		Celia	\$155.00	10	3	3	4	2	1	1	24	\$3,255.00										
12	M Scope Portable Detectors		Fisher Labs	\$5,000.00	10	3	3	4	2	1	1	24	\$120,000.00										
13	Entry Scan Ion Track ( Still not in Production)		GE		10	3	3	4	2	1	1	24											
14	Vapor Tracer Portable		GE	\$35,000.00	10	3	3	4	2	1	1	24	\$840,000.00										
15	Secure 1000 Body Scanner (4)		RAPISCAN	\$135,700.00	3	1	1	1	1	1	1	10	\$1,357,000.00										
16	IDP-9, Hand-Held Metal Detector		RAPISCAN	\$118.00	10	3	3	4	2	1	1	24	\$2,832.00										
17	Metal 150, Walk-Through Metal Detector		Metorex Security	\$2,006.00	10	3	3	4	2	1	1	24	\$48,144.00										
18	Metal 200, Multi-Zone Walk-Through Metal Detector		Metorex Security	\$5,664.00	10	3	3	4	2	1	1	24	\$135,936.00										
19	Metal 200WP, Weatherproof Multi-Zone Walk-Through Metal Detector		Metorex Security	\$6,844.00	3	1	1	1	1	1	1	10	\$68,440.00										
20	Metal 200HD, High Discrimination Multi-Zone Walk-Through Metal Detector		Metorex Security	\$5,782.00	10	3	3	4	2	1	1	24	\$138,768.00										
21																							
22																							
23																							

APPENDIX H

A		B		C		D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY		COST/ITEM		TASKENT	SMRKN	BKRA	URGENCH	TERMZ	NTC	(P)NTC	TOTAL	TOTAL COST
24	EQUIPMENT													
25	X-RAY HOLDICARRY ON													
26	BAGGAGE													
27	CTX 2500	InVision		\$250,000.00	13		5	4	5	2	1	1	31	\$7,750,000.00
28	CTX 5500DS	InVision		\$1,200,000.00	13		5	4	5	2	1	1	31	\$37,200,000.00
29	CTX 9000DSI	InVision		\$1,500,000.00	13		5	4	5	2	1	1	31	\$48,500,000.00
30	CTX Operator Work Station	InVision		\$75,000.00	13		5	4	5	2	1	1	31	\$2,325,000.00
31	Rapiscan 515	RAPISCAN		\$23,800.00	13		5	4	5	2	1	1	31	\$731,600.00
32	Rapiscan 519	RAPISCAN		\$22,420.00	13		5	4	5	2	1	1	31	\$695,020.00
33	Rapiscan 520B	RAPISCAN		\$37,760.00	13		5	4	5	2	1	1	31	\$1,170,560.00
34	Rapiscan 522B	RAPISCAN		\$42,480.00	13		5	4	5	2	1	1	31	\$1,316,880.00
35	Rapiscan 524	RAPISCAN		\$37,760.00	13		5	4	5	2	1	1	31	\$1,170,560.00
36	Rapiscan 526	RAPISCAN		\$46,020.00	13		5	4	5	2	1	1	31	\$1,426,620.00
37	Rapiscan 527	RAPISCAN		\$49,560.00	13		5	4	5	2	1	1	31	\$1,536,360.00
38	Rapiscan 527DV	RAPISCAN		\$81,420.00	13		5	4	5	2	1	1	31	\$2,524,020.00
39	Rapiscan 528	RAPISCAN		\$49,560.00	13		5	4	5	2	1	1	31	\$1,536,360.00
40														
41	Hi-Scan PS 5030-S	Smiths Heimann		\$16,500.00	13		5	4	5	2	1	1	31	\$511,500.00
42	Hi-Scan 6040d	Smiths Heimann		\$25,000.00	13		5	4	5	2	1	1	31	\$775,000.00
43	Hi-Scan 6030d (Mobile System)	Smiths Heimann		\$29,000.00	13		5	4	5	2	1	1	31	\$899,000.00
44	Hi-Scan 6040i	Smiths Heimann		\$30,000.00	13		5	4	5	2	1	1	31	\$961,000.00
45	Hi-Scan 7555i	Smiths Heimann		\$35,000.00	13		5	4	5	2	1	1	31	\$1,085,000.00
46	Hi-Scan 9075	Smiths Heimann		\$38,000.00	6		1	1	1	1	1	1	12	\$456,000.00
47	Hi-Scan 100100V	Smiths Heimann		\$45,000.00	6		1	1	1	1	1	1	12	\$540,000.00
48	Hi-Scan 6360-3D (3D system) Calibration and Testing Equipment,	Smiths Heimann		\$138,000.00	13		5	4	5	2	1	1	31	\$4,185,000.00
49	(Stepwedge)	Smiths Heimann		\$600.00	2		1	1	1	1	1	1	8	\$4,800.00
50														
51	X-RAY CARGO (5)													
52	Rapiscan 528	RAPISCAN		\$49,560.00	2		1	1	1	1	1	1	5	\$247,800.00
53	Rapiscan 532H	RAPISCAN		\$84,960.00	2		1	1	1	1	1	1	4	\$339,640.00
54	Rapiscan 546	RAPISCAN		\$501,500.00	2		1	1	1	1	1	1	4	\$2,006,000.00
55	Rapiscan 4200	RAPISCAN		\$1,303,900.00	1		1	1	1	1	1	1	1	\$1,303,900.00
56														
57	Hi-Scan 100100T	Smiths Heimann		\$49,000.00	2		1	1	1	1	1	1	4	\$196,000.00
58	Hi-Scan 12080	Smiths Heimann		\$60,000.00	2		1	1	1	1	1	1	4	\$320,000.00
59	Hi-Scan 145180	Smiths Heimann		\$85,000.00	2		1	1	1	1	1	1	4	\$340,000.00
60	Hi-Scan 150150-140KV	Smiths Heimann		\$100,000.00	2		1	1	1	1	1	1	4	\$400,000.00
61	Hi-Scan 150150-300KV	Smiths Heimann		\$230,000.00	2		1	1	1	1	1	1	3	\$690,000.00
62	Hi-Scan 180180-300KV	Smiths Heimann		\$286,000.00	2		1	1	1	1	1	1	3	\$858,000.00
63														

APPENDIX H

A		B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASHKENT	SMRKND	BKRA	URGENCH	TERMEZ	NTC	(P)NTC	TOTAL	TOTAL COST
64	AIR CONDITIONER											
65	Series 12, 5 Ton, 60,000BTU,											
66	230Vol/50 Cycle	Air Mover	\$74,500.00					2			4	\$298,000.00
67												
68	CCTV Passenger Terminals											
69	Lorotix video manager (6)	Vennt	\$1,885.00		1		1	1			4	\$7,540.00
70	Motion Track (6)	Vennt	\$1,750.00		1		1	1			4	\$7,000.00
71	SmartSight S3100 (6)	Vennt	\$1,490.00		1		1	1			4	\$5,960.00
72	SmartSight S1100w (6)	Vennt	\$1,700.00		1		1	1			4	\$6,800.00
73	SmartSight S1508e (6)	Vennt	\$2,400.00		1		1	1			4	\$9,600.00
74												
75	10-Camera System	American Dynamics	\$73,500.00		1						1	\$73,500.00
76	10-Camera System	American Dynamics	\$73,500.00			1					1	\$73,500.00
77	10-Camera System	American Dynamics	\$73,500.00				1				1	\$73,500.00
78	10-Camera System	American Dynamics	\$73,500.00					1			1	\$73,500.00
79	10-Camera System	American Dynamics	\$73,500.00								1	\$73,500.00
80												
81	COMPUTER/TRAINING/OFFICE											
82	EQUIP											
83	COMPUTER/COMMERCIAL											
84	SR1120NX, (7)	COMPAC	\$599.99	25	4		4	4	19	42	102	\$61,198.98
85	A630N, (6)	HP	\$899.98	25	4		4	4	19	42	102	\$91,797.96
86	Dimension 4600 (9)	DELL	\$1,100.00	25	4		4	4	19	42	102	\$112,200.00
87	Dimension 4600C (10)	DELL	\$1,259.00	25	4		4	4	19	42	102	\$128,418.00
88	550GR, Desk Top (11)	GATEWAY	\$1,019.97	25	4		4	4	19	42	102	\$104,036.94
89	ThinkCentre A50 8148 CTO Series (12)	IBM	\$1,057.00	25	4		4	4	19	42	102	\$107,814.00
90												
91	SOFTWARE											
92	Windows XP Professional	Microsoft	\$299.99	25	4		4	4	19	42	102	\$30,598.98
93	OFFICE 2003 Standard Student and Teacher Edition	Microsoft	\$147.45	25	4		4	4	19	42	102	\$14,866.50
94												
95	WORKSTATION- COMPUTER											
96	CPU Cart with Hutch	Sullivan	\$79.98	25	4		4	4	5	5	51	\$4,078.98
97	One level computer desk	ZLINE Pacific	\$79.98	25	4		4	4	5	5	51	\$4,078.98
98												

APPENDIX H

A		B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASK/KENT	SMR/KND	BKRA	URGENCH	TERM/EZ	NTC	(P)NTC	TOTAL	TOTAL COST
99	EQUIPMENT											
100	UNINTERRUPTED POWER											
101	SUPPLIES (UPS)											
102	BE 325, Power for up to 8 minutes	APC	\$29.87	25	4	4	4	4	19	42	102	\$3,046.74
103	ES500, Power for up to 40 minutes	APC	\$59.56	25	4	4	4	4	19	42	102	\$6,075.12
104	XS800, Power for up to 75 minutes	APC	\$119.87	25	4	4	4	4	19	42	102	\$12,226.74
105	RS1000VA, Power for 90 minutes	APC	\$149.99	25	4	4	4	4	19	42	102	\$15,298.98
106												
107	MONITOR											
108	Viewsonic A71F 17" CRT	Viewsonic	\$178.97	25	4	4	4	4	19	42	102	\$18,254.94
109	Monitor, AccuSync 700, 17"	NEC	\$134.74	25	4	4	4	4	19	42	102	\$13,743.48
110	Monitor CRT, XF-17b, 17"	KDS	\$128.59	25	4	4	4	4	19	42	102	\$13,116.18
111	172N, 17" Flat Screen LCD	Samsung	\$459.00	25	4	4	4	4	19	42	102	\$46,818.00
112	VX710, 17" Flat Panel LCD	Viewsonic	\$548.97	25	4	4	4	4	19	42	102	\$55,994.94
113	Ultra-Thin LCD 17" Monitor	XEROX	\$479.99	25	4	4	4	4	19	42	102	\$48,958.98
114	Thinkvision L170 LCD Flat 17"	IBM	\$459.00	25	4	4	4	4	19	42	102	\$46,818.00
115												
PRINTER/COPIER/SCANNER/FAX												
116	(13)											
117	HP 5650/5850 Desk Jet	HP	\$129.99	8	4	4	4	4	3	3	30	\$3,896.70
118	HP 1100 Ink Jet	HP	\$298.97	8	4	4	4	4	3	3	30	\$8,998.10
119	HP 3015 LaserJet/Copier/Scanner	HP	\$298.97	8	4	4	4	4	3	3	30	\$8,998.10
120	HPC8135A (Business Inkjet)	HP	\$297.57	8	4	4	4	4	3	3	30	\$8,927.10
121	HP LaserJet 3380/ printer, Copier/Fax Scanner	HP	\$698.67	2	1	1	1	1	1	1	9	\$6,288.03
122	MFC8840D Laser, Printer, copier, scanner, Fax	Brother	\$548.73	2	1	1	1	1	1	1	9	\$4,938.57
123	Stylus C86, Color Inkjet Printer	Epson	\$97.81	8	4	4	4	4	3	3	30	\$2,934.30
124	Printer Supplies (14)	N/A	\$300.00	8	4	4	4	4	3	3	30	\$9,000.00
125												
PROJECTOR												
126												
127	LP540 Projector XGA 1700	INFOCUS,	\$1,565.34	1	1	1	1	1	2	2	9	\$14,088.06
128	PowerLite S1 LCD Projector, SVG	EPSON	\$999.99	1	1	1	1	1	2	2	9	\$8,999.91
129	VP6100 Series, SVG Projector	HP	\$1,299.00	1	1	1	1	1	2	2	9	\$11,691.00
130	Infocus LP120	INFOCUS,	\$1,999.99	1	1	1	1	1	2	2	9	\$17,999.91
131	Data/Video High Intensity Projector	IBM	\$1,049.00	1	1	1	1	1	2	2	9	\$9,441.00
132												

APPENDIX H

A		B		C		D		E		F		G		H		I		J		K		L	
EQUIPMENT LIST Continued		COMPANY		COST/ITEM		TASHKENT		SMRKN		BKRA		URGENCH		TERMZ		NTC		(P)NTC		TOTAL		TOTAL COST	
133	EQUIPMENT																						
134	PULL-DOWN WALL SCREEN	APOLLO		\$99.99	1	1																	\$99.91
135	POPUP0600, 60"X60" Pull down	APOLLO		\$259.99	1	1																	\$2,339.91
136	VRW8484, 84"X84" Pull down	APOLLO		\$16.99	1	1																	\$152.91
137	POAW6 Wall Bracket	APOLLO		\$649.99	1	1																	\$5,849.91
138	PO0300 60" Pull up from floor	APOLLO		\$734.99	1	1																	\$6,614.91
139	PO60302 80" Pull up from floor	APOLLO																					
140	PLASMA TV																						
141	Plasmapro PFM-42Va/B	SONY		\$2,999.99	1	1																	\$26,999.91
142	VPW425 42" Plasma TV Monitor	Viewsonic		\$2,799.00	1	1																	\$25,191.00
143	PD42V475, HDMI Digital Plasma 42"	JVC		\$3,799.99	1	1																	\$34,199.91
144	P42W46X, 42" Plasma	ZENITH		\$2,799.99	1	1																	\$25,199.91
145	WALL MOUNT BRACKET FOR TV	COMPAC		\$193.10	1	1																	\$1,737.90
146																							
147	DVD/VCR PLAYERS/RECORDERS																						
148																							
149	DAEW DVD/VCR Dualdeck, 314219	Daewoo Electronics		\$99.99	1	1																	\$999.91
150	DVD-V4600, DVD/DHI FI VCR	SAMSUNG		\$119.99	1	1																	\$1,799.91
151	DVR-225, DVD-R/RW	PIONEER		\$299.99	1	1																	\$2,699.91
152																							
153	PHOTO COPIERS																						
154	Photo R300 Printer	EPSON		\$179.99	1	1																	\$1,259.93
155	PhotoSmart 7760 Photo Printer	HP		\$229.99	1	1																	\$1,609.93
156	IP400, Pixma Photo Printer	CANON		\$147.84	1	1																	\$1,034.88
157																							
158	IR3300 Document Feeder, Pedestal, w/two (2) 500-Sheet Paper Trays, Duplex	CANON		\$6,500.00																			\$13,000.00
159																							
160	CAMERAS																						
161	DCR-TRV460 Digital Camcorder	Sony		\$399.97	1	1																	\$3,199.76
162	ZR-80 Camcorder	Cannon		\$399.97	1	1																	\$3,199.76
163	ZR-85 Camcorder	Cannon		\$499.97	1	1																	\$3,999.76
164	HP 435 Still Camera	HP		\$129.97	1	1																	\$1,039.76
165	HP 735 Still Camera	HP		\$179.97	1	1																	\$1,439.76
166	Easyshare CX7300 Digital Camera	KODAK		\$199.95	1	1																	\$1,599.60
167	Easyshare DX4530 Digital Camera	KODAK		\$299.00	1	1																	\$2,392.00
168	Easyshare DX7630 Digital Camera	KODAK		\$449.95	1	1																	\$3,599.60
169																							
170																							

APPENDIX H

A		B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASK/ENT	SMR/KND	BKRA	URGENCH	TERM/ZEZ	NTC	P/INTC	TOTAL	TOTAL COST
171	EQUIPMENT											
172	AIRPORT CRASH/FIRE RESCUE	OSHKOSH	\$775,000.00	1	1	1	1	1			5	\$ 3,400,000.00
173	VEHICLES/3000-GAL	OSHKOSH	\$650,000.00	1	1	1	1	1			5	\$ 3,000,000.00
174	VEHICLES/1500-GAL	E-ONE	\$650,000.00	1	1	1	1	1			5	\$ 4,250,000.00
175	3000 GALLON	E-ONE	\$650,000.00	1	1	1	1	1			5	\$ 3,250,000.00
176	1500 GALLON	Crash Rescue Equip Svc Inc.	\$400,000.00	2	1	1	1	1			6	\$ 2,400,000.00
177	1500 GALLON (Rebuilt)											
178	Radio/AAM25RF9DP5 CDM 1550LS	Motorola	\$800.00	2	1	1	1	1			6	\$4,800.00
179	+ Mobile Unit											
180	Foamer	Crash Rescue Equip. Svc. Inc.		8	4	4	4	4			24	
181	TM-30, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$7,695.00	1	3	3	3	3			13	\$ 100,035.00
182	TM-60, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$9,998.00	3	1	1	1	1			7	\$ 69,996.00
183	TM-60 on Skids	Crash Rescue Equip. Svc. Inc.	\$96,660.00	4							4	\$ 38,640.00
184	TRIMAX 30 Protective Cover	Crash Rescue Equip. Svc. Inc.	\$220.00	1	3	3	3	3			13	\$ 2,860.00
185	3% AFFF Foam Concentrate, 5 Gal	Crash Rescue Equip. Svc. Inc.	\$95.00	8	4	4	4	4			24	\$ 2,280.00
186	Mobile Command Post Vehicle	Ford	\$23,669.30	1	1	1	1	1			5	\$118,346.50
187	Explorer	Ford	\$27,928.40	1							1	\$27,928.40
188	Expedition	Chrysler	\$29,532.00	1	1	1	1	1			5	\$147,860.00
189	Jeep Grand Cherokee	Dodge	\$26,858.00	1	1	1	1	1			5	\$134,290.00
190	Durango ST	Motorola	\$14,677.00	1	1	1	1	1			5	\$73,385.00
191	Communications System											
192	Siren											
193	Wobulator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	\$109.95	4	2	2	3	3			14	\$1,539.30
194	Carson Cruiser Compact Siren	LA Police Gear	\$154.99	4	2	2	3	3			14	\$2,169.86
195	100/200W SA 500 w/P.A.	Galls	\$179.99	4	2	2	3	3			14	\$2,519.86
196	SK125 Street Thunder Delux Full	Galls	\$89.99	4	2	2	3	3			14	\$1,259.86
197	Feature siren, 200W											
198	SK144 100W Speaker, 120db											
199	Emergency Light Bar for M/CPE	10-4 Warning Equipment	\$199.99	4	2	2	3	3			14	\$2,799.86
200	Able 2 SHO-ME Low-profile LED Mini Bar	Galls	\$659.97	4	2	2	3	3			14	\$9,239.58
201	Code 3, 47" MX7000 W/Bonus Pack											
202	Fully Equipped Trailer	SIRCHIE GRP. VEH	\$150,000.00	1							1	\$150,000.00

APPENDIX H

	A	B	C	D	E	F	G	H	I	J	K	L
	EQUIPMENT LIST Continued	COMPANY	COST/ITEM	TASHKENT	SMRKND	BKRA	URGENCH	TERMIEZ	NTC	(P)NTC	TOTAL	TOTAL COST
211	EQUIPMENT											
212	RADIO EQUIPMENT (15)											
213	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$202,965.00	1							1	\$202,965.00
214	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$152,246.00						1		1	\$152,246.00
215	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$126,745.00							1	1	\$126,745.00
216	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$306,710.00		1						1	\$306,710.00
217	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$299,230.00			1					1	\$299,230.00
218	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$311,199.00				1				1	\$311,199.00
219	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	\$178,240.00					1			1	\$178,240.00
220	Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA										
221	TELEPHONE EQUIPMENT (16)											
222	(Config #0003) and Multimedia Messaging Products (Config #0002)	DEFINITY	\$95,058.00	1							1	\$95,058.00
223	(Config #0003) and Multimedia Messaging Products (Config #0002)	DEFINITY	\$99,811.00						1		1	\$99,811.00
224	(Config#0003) and Multimedia Messaging Products (Config#0002)	DEFINITY	\$126,745.00							1	1	\$126,745.00
225	(Config#0003) and Multimedia Messaging Products (Config#0002)	DEFINITY	\$222,023.00								1	\$222,023.00
226	(Config#0003) and Multimedia Messaging Products (Config#0002)	DEFINITY										
227												

APPENDIX H

A		B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASK/ENT	SMR/KN	BKRA	URGEN/CH	TERM/EZ	NTC	(P)NTC	TOTAL	TOTAL COST
228	EQUIPMENT											
229	LIGHTING EQUIPMENT	Acuity Brands Lighting	\$80.00	500	475	475	450	400			2300	\$207,000.00
230	20' Steel Light Poles	Acuity Brands Lighting	\$175.00	500	475	475	450	400			2300	\$402,500.00
231	Cobra Light Heads and Bulbs, 125											
232	400S RN, 240V, 5H DC, 400watt											
233	PERIMETER SECURITY											
234	Access Control for Unmanned Gates											
235	E-FTE-EN KT-300/128K ENF-E509	KANTECH ADT	\$8,960.00		7						7	\$62,720.00
236	808.012.510 P100XSF USD-485											
237	E-FTE-EN KT-300/128K ENF-E509	KANTECH ADT	\$3,200.00		2						2	\$6,400.00
238	808.012.510 P100XSF USD-485											
239	E-FTE-EN KT-300/128K ENF-E509	KANTECH ADT	\$4,100.00			3					3	\$12,300.00
240	808.012.510 P100XSF USD-485										4	\$21,256.00
241	CCTV For Unmanned Access Gates											
242	7-Camera System	American Dynamic	\$78,890.00		7						7	\$552,230.00
243	2-Camera System	American Dynamic	\$30,408.00			2					2	\$60,816.00
244	3-Camera System	American Dynamic	\$41,650.00				3				3	\$124,950.00
245	4-Camera System	American Dynamic	\$48,840.00					4			4	\$195,360.00
246	AIRPORT SECURITY FORCE											
247												
248												
249	7-Passenger Van	Ford Freestar Van	\$19,593.90	4	2	2	3	3			14	\$274,314.60
250	7-Passenger Van	2005 Dodge Grand Caravan	\$23,085.00	4	2	2	3	3			14	\$323,190.00
251	(Van accessories)			4	2	2	3	3			14	
252	Wobblator All-Inclusive, 95W, 120 db, Freq. Range 800-1200Hz	LA Police Gear	\$109.95	4	2	2	3	3			14	\$1,539.30
253	Carson Cruiser Compact Siren	LA Police Gear	\$154.99	4	2	2	3	3			14	\$2,169.86
254	SK125 Street Thunder Delux Full	Gallis	\$179.99	4	2	2	3	3			14	\$2,519.86
255	Feature siren, 200W	Gallis	\$89.99	4	2	2	3	3			14	\$1,259.86
256	SK144 100W Speaker, 120db	10-4 Warning Equipment	\$199.99	4	2	2	3	3			14	\$2,799.86
257	Able 2 SHO-ME Low-profile LED Mini Bar(Van light bar)											
258												
259	Code 3, 47" MX7000 W/Bonus Pack Radio/AAM25RFHF9DP5 CDM 15501.S	Gallis	\$659.97	4	2	2	3	3			14	\$9,239.58
260	+ Mobile Unit	Motorola	\$800.00	4	2	2	3	3			14	\$32,800.00
261												
262	Mail and small item, X-ray											
263	Hi-Scan PS 3010	Smiths Heimann	\$12,500.00	3	1	1	1	1			9	\$112,500.00

APPENDIX H

A		B	C		D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASK/KENT	SMR/KND	BKRA	URGENCH	TERMZ	NTC	(P)NTC	TOTAL	TOTAL COST	
264	EQUIPMENT												
265	(Handheld metal detectors)												
266		Brigade Quarter Master	\$149.00	10	5	5	5	5			30	\$4,499.70	
267	GSS03 Garrett Super Scanner	Brigade Quarter Master	\$72.99	10	5	5	5	5			30	\$2,189.70	
268	MDS01 Seeker 1 Metal Detector	Brigade Quarter Master	\$159.99	10	5	5	5	5			30	\$4,799.70	
269	MDS02 Seeker Plus Metal Detector												
270													
271	(Portable walk through Det)												
272	IM Scope Portable Detectors	Fisher Labs	\$5,000.00	2	1	1	1	1	1	1	8	\$40,000.00	
273	AF385 HI-PE Multi Zone	CEIA	\$4,499.99	2	1	1	1	1	1	1	8	\$35,999.92	
274	AP394 Classic Walk Through Det.	CEIA	\$2,999.99	2	1	1	1	1	1	1	8	\$23,999.92	
275													
276	(Personal Equipment)												
277	SY22035H 6.25" High Profile, Beacon	Superior Signal	\$151.15	30	10	10	10	10			70	\$10,580.50	
278	Whelen 15W Strobe Beacon	Galls	\$79.99	30	10	10	10	10			70	\$5,999.30	
279	ML821 Mag Charger Flashlight	Brigade Quarter Master	\$109.99	75	15	20	15	20			145	\$15,948.55	
280	FL411 SL-20XP LED Recharge Flashlight	Galls	\$99.99	75	15	20	15	20			145	\$14,498.55	
281	DL143 6" LED Stick Light	Galls	\$179.99	25	10	10	10	10			65	\$11,699.35	
282	EARS/AF NRR 21 Decibels hearing Protector	Brigade Quarter Master	\$15.99	75	15	20	15	20			145	\$2,318.55	
283	Ballistic Helmet, TEO42, RBR F6 Combat MKII	Galls	\$299.99	75	15	20	15	20			145	\$43,498.55	
284	PBV2133 Gamma Plus Lvl III Body Armor	Brigade Quarter Master	\$550.00	75	15	20	15	20			145	\$79,750.00	
285													
286													

APPENDIX H

A		B	C		D	E	F	G	H	I	J	K	L
EQUIPMENT	EQUIPMENT	COMPANY	COST/ITEM	TASKENT	SMRKN	BKRA	URGENCH	TERMEZ	NTC	(P)NTC	TOTAL	TOTAL COST	
287	EQUIPMENT LIST Continued												
288		Brigade Quarter											
289	SDS02 OTV Tactical Vest Cover	Master	\$146.99	75	15	20	15	20			145	\$21,313.55	
290	Monadock Autolock Baton 26, Blk	LA Police Gear	\$103.60	75	15	20	15	20			145	\$15,022.00	
291	Monadock PR-245T'S One-Piece	LA Police Gear	\$55.00	75	15	20	15	20			145	\$7,975.00	
292	PR24 W/Stop	GE IONTrac	\$35,000.00	2	1	1	1	1			6	\$210,000.00	
293	Vapour Tracer 2 Portable	Chemical Contaminatic. Detector and Alarm	\$16,500.00	2	1	1	1	1			6	\$99,000.00	
294	PF711 Pepper Foam Pepper Gas	Brigade Quarter	\$17.99	75	15	20	15	20			145	\$2,608.55	
295	AER 1199 Deep Freeze Peper Gas	Brigade Quarter	\$17.99	75	15	20	15	20			145	\$2,608.55	
296	TSB06 Thunder Storm Stun Gun	Brigade Quarter	\$54.99	30	10	10	10	10			70	\$3,849.30	
297	ZF3000 Stunner 300K Volts	Brigade Quarter	\$49.99	30	10	10	10	10			70	\$3,499.30	
298	ZF6000 Stunner 600K Volts	Brigade Quarter	\$49.99	30	10	10	10	10			70	\$3,499.30	
299	TMG01, Model 6000 Gas Mask	3M	\$109.95	75	15	20	15	20			145	\$15,942.75	
300	TE301 NIOSCH/CBRN App. Gas mask	Brigade Quarter	\$298.99	75	15	20	15	20			145	\$43,498.55	
301	GTP 988 Pocket Strobe	Brigade Quarter	\$24.99	75	15	20	15	20			145	\$3,623.55	
302	STV08 Tacticle Vision Wheel Mirror	Brigade Quarter	\$99.99	5	3	3	3	3			17	\$1,699.83	
303	IMV308 Inspection Mirror	Brigade Quarter	\$89.99	5	3	3	3	3			17	\$1,529.63	
304	NIC Vehicle Undercarrige	American Security	\$1,056.00	5	3	3	3	3			17	\$17,952.00	
305	Inspection Mirror	Tuff-Tie	\$1.50	70	15	20	15	20			145	\$217.50	
306	Plastic Hand Restraints	Smith & Wesson	\$46.99	70	15	20	15	20			145	\$6,813.55	
	Hand Cuffs/Steel/Maximum Security												
	Slide Lock												
307	Night Vision D211 Generation II	Galls	\$2,299.99	4	2	2	2	2			12	\$27,599.88	
308	Binoculars With Zoom Lens												
309													

APPENDIX H

A	B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued	COMPANY	COST/ITEM	TASK/ITEM	SMRKN	BKRA	URGENCH	TERMIEZ	NTC	(P)NTC	TOTAL	TOTAL COST
310											
311											
312											
313	U.S. Cavalry	\$399.99		2	1	1	1	1		6	\$2,399.94
314	Phoenix International	\$373.00		2	1	1	1	1		6	\$2,238.00
315	Stop Tech Ltd	\$169.00		2	1	1	1	1		6	\$1,014.00
316											
317				1	1	1	1	1	1	7	
318	S.E. International	\$685.00		1	1	1	1	1	1	7	\$4,795.00
319											
320											
321	FUEL FARMS										
322	Access Control for Unmanned Gates										
323	KANTECH ADT	\$5,600.00		1						1	\$5,600.00
324	KANTECH ADT	\$3,840.00			3					3	\$11,520.00
325	KANTECH ADT	\$4,800.00			3					3	\$14,400.00
326	KANTECH ADT	\$4,100.00				3				3	\$12,300.00
327	KANTECH ADT	\$3,986.00					3			3	\$11,958.00
328											
329	CCTV (Coverage w/o Taut Wire										
330	American Dynamic	\$46,620.00		3						3	\$139,860.00
331	American Dynamic	\$33,810.00			3					3	\$101,430.00
332	American Dynamic	\$45,612.00				3				3	\$136,836.00
333	American Dynamic	\$41,650.00					3			3	\$124,950.00
334	American Dynamic	\$36,630.00						1		1	\$36,630.00
335	Taut Wire Fence for Fuel Farm Includes Installation and CCTV										
336	Zareba	\$398,000.00						1		1	\$398,000.00
337	Zareba	\$236,000.00			1					2	\$472,000.00
338	Zareba	\$304,000.00				1				1	\$304,000.00
339											
340	AIRCRAFT SECURITY										
341	Bulletproof Cockpit Doors w/Locking Hardware										
342	Video Observation System of Cockpit Door										
343	Monitoring System & Automatic Cockpit Door Opener for Flight Crew										
344	Covert Cockpit Alarm in Passenger Compartment										
345	Bulletproof Partitioning of Cockpit										

APPENDIX H

A		B	C	D	E	F	G	H	I	J	K	L
EQUIPMENT LIST Continued		COMPANY	COST/ITEM	TASK/NTC	SMR/KN	BKRA	URGEN/CH	TERM/MEZ	NTC	(P)NTC	TOTAL	TOTAL COST
346	EQUIPMENT											
347	EOO											
348	Bomb Suite @ Helmet 600-350	PW Allen, Inc	\$16,711.40	1	1	1	1	1	1		5	\$83,557.00
349	Chest Plate 600-351	PW Allen, Inc	\$2,084.60	1	1	1	1	1	1		5	\$10,423.00
350	Ballistic Shield 600-756	PW Allen, Inc	\$2,945.40	1	1	1	1	1	1		5	\$14,724.00
351	Radio Freq. Jammer 600 2121 C-12V	PW Allen, Inc	\$151,104.80	1	1	1	1	1	1		5	\$755,524.00
352	Recorder/Receiver 600-782	PW Allen, Inc	\$23,428.40	1	1	1	1	1	1		5	\$117,142.00
353												
354	FOOTNOTES:											
355												
356												
357	Total cost is for purchase of specific equipment and not other associated expenses such as transportation, installation, custom duties, set up unless indicated otherwise.											
358												
359	Items listed in NTC (National Training Center) or PNTC (Proposed National Training Center) are for formal training purposes.											
360												
361	(1) In some cases, multiple manufactures of specific equipment will be noted to allow selection of desired brand and models.											
362												
363	(2) Access Control systems include card manufacturing system. Passport identification and Crew Cert readable capabilities can be included with appropriate software.											
364												
365												
366	(3) This is an ID Card development system. It only makes Id Cards and not associated with a access control system.											
367												
368	(4) Rapiscan Body Scanner is intended for employee access points only.											
369												
370	(5) Cargo X-ray equipment will vary in numbers requested because of size of equipment. Some equipment can accommodate small cargo while other systems accommodate large cargo.											
371												
372												
373	(6) CCTV Verint equipment are control systems that DO NOT include cameras. Can accommodate any camera.											
374												
375	(7) SR1120 Computer, Intel Celeron B 330 processor, 512MB DDR RAM, 80GB, DVD, CDRW Drives, 56kModem, 10/100Ethernet/LAN, USB 2.0 Ports, Microsoft XP Home											
376												
377												
378	(8) HP A630N Computer, 2.8 GHz Intel Pentium Processor, 512 MB DDR RAM, 160 GB Hard Drive, 56k Modem, DVD and CD writer, USB 2.0 Ports, Microsoft XP Home											
379												
380												
381	(9) Dell, Dimension 4600, Intel Pentium 4 Processor at 2.8GHz, 512 DDR RAM, 80GB Drive, Microsoft XP Professional, Microsoft Small Business, Dell 720 Color printer included, speakers, 56k Modem, 10/100Ethernet, 48X CD-RW Drive, USB 2.0 port.											
382												
383												
384	(10) DELL, Dimension 4600C, Intel 4 Pentium Processor at 2.8GHz, 512 DDR RAM, 80GB Drive, Microsoft XP Professional, Microsoft Office Small Business, Dell 720 Color printer included, speakers, 56k Modem, 10/100Ethernet, 24X CD-RW/DVD ROM, USB 2.0 Port.											
385												
386												
387												
388												

APPENDIX H

	A	B	C	D	E	F	G	H	I	J	K	L
389	EQUIPMENT LIST Continued											
390												
391	(11)	GATEWAY 550GR, Intel 4 Pentium Processor at 3.2GHz, 512 DDR RAM, 200GB Drive, Microsoft XP Home, Multiformated DVDRW Drive										
392		Drive, personal color printer included.										
393												
394	(12)	IBM AS50 8148 CTO Series, Intel 4 Pentium Processor at 3.0GHz, 512 DDR RAM, 40GB Drive, Microsoft XP Professional.										
395		48XCB-RW/DVD, Combo Drive, USB 2.0 Ports, V.90 Data/Fax Soft Modem, Norton Anti Virus.										
396												
397	(13)	Items may be a combination of a printer, copier, scanner and FAX. Some items are for large printing use and would not be given to users.										
398		Those large capacity printers would be primarily used at the Training Center and management office.										
399												
400	(14)	Printer supplies include paper, toner, and replacement ink cartridges to last for one year.										
401												
402	(15)	Radio Equipment represent a system. Individual component breakdown of system is attached										
403												
404	(16)	Telephone Equipment represent a system. Individual component breakdown of system is attached.										
405												
406	(17)	Fuel Farm Guard Towers are turn key installations including CCTV.										
407												
408	(18)	The difference in pricing for CCTV coverage at the unmanned access gates along the perimeter and the Fuel Farms is based on the additional wiring and distance										

APPENDIX I

UZBEKISTAN  
FORECAST OF REDUCED DELAY BENEFITS FROM UPGRADE/ENHANCEMENT OF SECURITY SCREENING EQUIPMENT

Passenger Loads	Current	2005	2006	2007	2008	2009
Effect of 10% Increase	2,060,000					
#Pax		2,266,000.00	2,492,600.00	2,741,860.00	3,016,046.00	3,317,650.60
Delays(in Pax Hours)						
15 Minute		566500	623150	685465	754011.5	829412.65
Cost(at \$30.05/hr)		\$17,023,325.00	\$18,725,657.50	\$20,598,223.25	\$22,658,045.58	\$24,923,850.13
Net Present Value*		3.79	3.45	3.14	2.85	2.59
High Investment	\$64,578,825.00	1.37	1.50	1.65	1.82	2.00
Low Investment	\$12,470,632.00					
30 Minute		1133000	1246300	1370930	1508023	1658825.3
Cost(at \$30.05/hr)		\$34,046,650.00	\$37,451,315.00	\$41,196,446.50	\$45,316,091.15	\$49,847,700.27
Net Present Value*		1.90	1.72	1.57	1.43	1.30
High Investment	\$64,578,825.00	2.73	3.00	3.30	3.63	4.00
Low Investment	\$12,470,632.00					
45 Minute		1699500	1869450	2056395	2262034.5	2488237.95
Cost(at \$30.05/hr)		\$51,069,975.00	\$56,176,972.50	\$61,794,669.75	\$67,974,136.73	\$74,771,550.40
Net Present Value*		1.26	1.15	1.05	1.05	1.16
High Investment	\$64,578,825.00	4.10	4.50	4.96	5.45	6.00
Low Investment	\$12,470,632.00					
1 Hour		2266000	2492600	2741860	3016046	3317650.6
Cost(at \$30.05/hr)		\$68,093,300.00	\$74,902,630.00	\$82,392,893.00	\$90,632,182.30	\$99,695,400.53
Net Present Value*		0.95	1.16	1.28	1.40	1.54
High Investment	\$64,578,825.00	5.46	6.01	6.61	7.27	7.99
Low Investment	\$12,470,632.00					
Effect of 20% Increase						
#Pax		2,472,000.00	2,966,400.00	3,559,680.00	4,271,616.00	5,125,939.20
Delays(in Pax Hours)						
15 Minute		618000	741600	889920	1067904	1281484.8
Cost(at \$30.05/hr)		\$18,570,900.00	\$22,285,080.00	\$26,742,096.00	\$32,090,515.20	\$38,508,618.24
Net Present Value*		3.48	2.90	2.41	2.01	1.68
High Investment	\$64,578,825.00	1.49	1.79	2.14	2.57	3.09
Low Investment	\$12,470,632.00					
30 Minute		1236000	1483200	1779840	2135808	2562969.6
Cost(at \$30.05/hr)		\$37,141,800.00	\$44,570,160.00	\$53,484,192.00	\$64,181,030.40	\$77,017,236.48
Net Present Value*		1.74	1.45	1.21	1.01	1.19
High Investment	\$64,578,825.00	2.98	3.57	4.29	5.15	6.18
Low Investment	\$12,470,632.00					
45 Minute		1854000	2224800	2669760	3203712	3844454.4
Cost(at \$30.05/hr)		\$55,712,700.00	\$66,855,240.00	\$80,226,288.00	\$96,271,545.60	\$115,525,854.72

APPENDIX I

Passenger Loads

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
<b>Effect of 20% Increase Continued</b>					
<b>Net Present Value*</b>					
High Investment	\$64,578,825.00	1.04	1.24	1.49	1.79
Low Investment	\$12,470,632.00	4.47	6.43	7.72	9.26
1 Hour					
Cost(at \$30.05/hr)	2,472,000.00	2,966,400.00	3,559,680.00	4,271,616.00	5,125,939.20
Net Present Value*	\$74,283,600.00	\$89,140,320.00	\$106,968,384.00	\$128,362,060.80	\$154,034,472.96
1.15	1.15	1.38	1.66	1.99	2.39
5.96	5.96	7.15	8.58	10.29	12.35
<b>Effect of 30% Increase</b>					
#Pax	2,678,000.00	3,481,400.00	4,525,820.00	5,883,566.00	7,648,635.80
Delays(In Pax Hours)					
15 Minute	669500	870350	1131455	1470891.5	1912158.95
Cost (at 30.05/hr)	\$20,118,475.00	\$26,154,017.50	\$34,000,222.75	\$44,200,289.58	\$57,460,376.45
Net Present Value*	3.21	2.47	1.90	1.46	1.12
1.61	1.61	2.10	2.73	3.54	4.61
30 Minute	1339000	1740700	2262910	2941783	3824317.9
Cost(at \$30.05/hr)	\$40,236,950.00	\$52,308,035.00	\$68,000,445.50	\$88,400,579.15	\$114,920,752.90
Net Present Value*	1.60	1.23	1.05	1.37	1.78
3.23	3.23	4.19	5.45	7.09	9.22
45 Minute	2008500	2611050	3394365	4412674.5	5736476.85
Cost(at \$30.05/hr)	\$60,355,425.00	\$78,462,052.50	\$102,000,668.25	\$132,600,868.73	\$172,381,129.34
Net Present Value*	1.07	1.21	1.58	2.05	2.67
4.84	4.84	6.29	8.18	10.63	13.82
1 Hour	2678000	3481400	4525820	5883566	7648635.8
Cost(at \$30.05/hr)	\$80,473,900.00	\$104,616,070.00	\$136,000,891.00	\$176,801,158.30	\$229,841,505.79
Net Present Value*	1.25	1.62	2.11	2.74	3.56
6.45	6.45	8.39	10.91	14.18	18.43

**Uzbekistan Airport Security - Investments****INVESTMENTS SUMMARY**

<b>PROCUREMENT (TENDERS)</b>	<b>REQUIRED BUDGET</b>	<b>TOTAL UNITS</b>
Communications Infrastructure	\$2,651,253	
IT Infrastructure (computers/audiovisual)	\$264,449	
Access Control and Screening Equipment	\$4,154,240	
Mobile Command Post Vehicles (1)	\$411,399	
Airport Security Force - Personnel Equipment	\$1,070,447	
Explosive Ordnance Disposal	\$1,030,442	
Airport Crash/Fire Rescue	\$3,263,261	
Perimeter and Fuel Farm Security	\$3,314,881	
Aircraft Security Upgrade (2)	<u>\$250,000</u>	
<b>TOTAL BUDGET REQUIRED</b>	<b>\$16,160,370</b>	

(1) Add item cost of Foamers

(2) Equipment expenditures for aircraft security improvement remain to be determined (assumed approximately \$250,000)

Aircraft Security Upgrades have already been accomplished by the client.

Total Budget required does not include this \$250,000.

**Communications System Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
<b>Radio</b>			
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$202,995	1	\$202,995
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$152,246	1	\$152,246
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$126,745	1	\$126,745
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$306,710	1	\$306,710
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$299,230	1	\$299,230
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$311,199	1	\$311,199
Non-Networked Trunk System, UHF. Passport Trunking Protocall	\$178,240	1	\$178,240
<b>Telephone</b>			
(Config #0003) and Multimedia Messaging Products (Config #0002)	\$95,058	1	\$95,058
(Config #0003) and Multimedia Messaging Products (Config #0002)	\$99,811	1	\$99,811
(Config #0003) and Multimedia Messaging Products (Config #0002)	\$126,745	1	\$126,745
(Config #0003) and Multimedia Messaging Products (Config #0002)	<u>\$222,023</u>	<u>1</u>	<u>\$222,023</u>
<b>SUBTOTAL</b>			<b>\$2,121,002</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>25%</b>	<b><u>\$530,251</u></b>
<b>TOTAL BUDGET</b>			<b><u>\$2,651,253</u></b>

## APPENDIX J

**IT Infrastructure Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
<b>Computer/Commercial</b>			
A630N	\$900	102	\$91,798
<b>Software</b>			
Windows XP Professional Edition	\$300	102	\$30,599
	\$147	102	\$15,040
<b>Workstation - Computer</b>			
CPU Cart with Hutch	\$80	51	\$4,079
<b>Uninterrupted Power Supplies</b>			
ES500, Power for up to 40 minutes	\$60	102	\$6,075
<b>Monitor</b>			
Viewsonic A71F 17" CRT	\$179	102	\$18,255
<b>Printer/Copier/Scanning/Fax</b>			
HPC8135A (Business Inkjet)	\$298	30	\$8,927
MFC8840D Laser, Printer, copier, scanner. Fax	\$549	9	\$4,939
Printer Supplies	\$300	30	\$9,000
<b>Proector</b>			
Data/Video High Intensity Projector	\$1,049	9	\$9,441
<b>Pull-down Screen</b>			
APOPW6060, 60"X60" Pull down	\$100	9	\$900
APOAW6 Wall Bracket	\$17	9	\$153
<b>Plasma TV</b>			
VPW425 42" Plasma TV Monitor	\$2,799	9	\$25,191
WALL MOUNT BRACKET FOR TV	\$193	9	\$1,738
<b>DVD/VCR Players/Recorders</b>			
DAEW DVD/VCR Dualdeck, 314219	\$100	9	\$900
<b>Photo Copies</b>			
IP400, Pixma Photo Printer	\$148	7	\$1,035
IR3300 Document Feeder, Pedestal,w/two (2) 500-Sheet Paper Trays, Duplex	\$6,500	1	\$6,500
<b>Cameras</b>			
DCR-TRV460 Digital Camcorder	\$400	8	\$3,200
HP 435 Still Camera	\$130	8	\$1,040
<u>Easyshare CX7330 Digital Camera</u>	<u>\$200</u>	<u>8</u>	<u>\$1,600</u>
<b>SUBTOTAL</b>			<b>\$240,408</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		10%	<b>\$24,041</b>
<b>TOTAL BUDGET</b>			<b>\$264,449</b>

**Access Control and Screening Equipment Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
Bio-Metric, card reader, key pad, and card maker.	\$2,515	55	\$138,306.30
Flash Identity System	\$33,120	9	\$298,080.00
ID Card Development System	\$5,995	12	\$71,940.00
<b>Screening</b>			
PD140, Hand Held Metal Detector	\$155	24	\$3,720.00
M Scope Portable Detectors	\$5,000	24	\$120,000.00
Vapor Tracer Portable	\$35,000	24	\$840,000.00
IDP-9, Hand-Held Metal Detector	\$118	24	\$2,832.00
Metor 200, Multi-Zone Walk-Through Metal Detector	\$2,006	24	\$48,144.00
<b>X-Ray Hold/Carry On Baggage/Cargo</b>			
Rapiscan 522B	\$37,760	31	\$1,170,560.00
Hi-Scan 145180	\$80,000	4	\$320,000.00
<b>Air Condition</b>			
Series 12, 5 Ton, 60,000BTU, 230Volt/50 Cycle	\$74,500	4	\$298,000.00
<b>CTTV</b>			
SmartSight S1100w	\$1,700	4	\$6,800.00
10-Camera System	\$73,500	1	\$73,500.00
10-Camera System	\$73,500	1	\$73,500.00
10-Camera System	\$73,500	1	\$73,500.00
<u>10-Camera System</u>	<u>\$73,500</u>	<u>1</u>	<u>\$73,500.00</u>
<b>SUBTOTAL</b>			<b>\$3,612,382.30</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>15%</b>	<b><u>\$541,857.35</u></b>
<b>TOTAL BUDGET</b>			<b>\$4,154,239.65</b>

APPENDIX J

**Mobile Command Post Vehicles Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
Explorer	\$23,669	5	\$118,347
Expedition	\$27,928	1	\$27,928
Communications System 600-1200Hz	\$14,677	5	\$73,385
	\$110	14	\$1,539
Able 2 SHO-ME Low-profile LED Mini Bar	\$200	14	\$2,800
<u>Fully Equipped Trailer</u>	<u>\$150,000</u>	<u>1</u>	<u>\$150,000</u>
<b>SUBTOTAL</b>			<b>\$373,999</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>10%</b>	<b><u>\$37,400</u></b>
<b>TOTAL BUDGET</b>			<b>\$411,399</b>

**Airport Security Force - Personnel Equipment Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
<b>Mail and Small Item X-Ray</b>			
Hi-Scan PS 3010	\$12,500.00	9	\$112,500
<b>Airport Security Force</b>			
7-Passenger Van	\$19,593.90	14	\$274,315
<b>(Van Accessories)</b>			
600-1200Hz	\$109.95	14	\$1,539
w/P.A.	\$154.99	14	\$2,170
Able 2 SHO-ME Low-profile LED Mini Bar( Van light bar)	\$199.99	14	\$2,800
Code 3, 47" MX7000 W/Bonus Pack	\$659.97	14	\$9,240
Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit	\$800.00	14	\$11,200
<b>Detectors</b>			
AP394 Classic Walk Through Det.	\$2,999.99	8	\$24,000
GSS03 Garrett Super Scanner	\$149.00	30	\$4,470
<b>Personal Equipment</b>			
Whelen 15W Strobe Beacon	\$79.99	70	\$5,599
ML821 Mag Charger Flashlight	\$109.99	145	\$15,949
DL143 6" LED Stick Light	\$179.99	65	\$11,699
EARSAF NRR 21 Decibels hearing Protector	\$15.99	145	\$2,319
Ballistic Helmet, TEO42, RBR F6 Combat MKII	\$299.99	145	\$43,499
PBV2133 Gamma Plus Lvl III Body Armor	\$550.00	145	\$79,750
SDS02 OTV Tactical Vest Cover	\$146.99	145	\$21,314
Monadock PR-245TS One-Piece PR24 W/Stop	\$55.00	145	\$7,975
Vapour Tracer 2 Portable	\$35,000.00	6	\$210,000
Chemical Contaminatic.Detector and Alarm	\$16,500.00	6	\$99,000
PF711 Pepper Foam Pepper Gas	\$17.99	145	\$2,609
TSB06 Thunder Storm Stun Gun	\$54.99	70	\$3,849
TMG01, Model 6000 Gas Mask	\$109.95	145	\$15,943
GTP 988 Pocket Strobe	\$24.99	145	\$3,624
IMV3508 Inspection Mirror	\$89.99	17	\$1,530
NIC Vehicle Undercarriage Inspection Mirror	\$1,056.00	17	\$17,952
Plastic Hand Restraints	\$1.50	145	\$218
Hand Cuffs/Steel/Maximum Security Slide Lock	\$46.99	145	\$6,814
<u>Night Vision D211 Generation II Binoculars With</u>			
<u>Zoom Lense</u>	<u>\$2,299.99</u>	<u>12</u>	<u>\$27,600</u>
<b>SUBTOTAL</b>			<b>\$1,019,473</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>5%</b>	<b>\$50,974</b>
<b>TOTAL BUDGET</b>			<b>\$1,070,447</b>

APPENDIX J

**Explosive Ordnance Disposal Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
Bomb Suite @ Helmet 600-350	\$16,711	5	\$83,557
Chest Plate 600-351	\$2,085	5	\$10,423
Ballistic Shield 600-756	\$2,945	5	\$14,727
Radio Freq. Jammer 600 2121 C-12V	\$151,105	5	\$755,524
<u>Recorder/Receiver 600-782</u>	<u>\$23,428</u>	<u>5</u>	<u>\$117,142</u>
<b>SUBTOTAL</b>			<b>\$981,373</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>5%</b>	<b>\$49,069</b>
<b>TOTAL BUDGET</b>			<b>\$1,030,442</b>

APPENDIX J

**Airport Crash/Fire Rescue Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
1500 GALLON (Rebuilt)	\$400,000	6	\$2,400,000
Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit	\$800	6	\$4,800
<b>Foamers (1)</b>		24	\$0
TM-30, Portable Wheeled Unit	\$7,695	13	\$100,035
TM-60, Portable Wheeled Unit	\$9,998	7	\$69,986
TM-60 on Skids	\$96,660	4	\$386,640
TRIMAX 30 Protective Cover	\$220	13	\$2,860
<u>3% AFFF Foam Concentrate, 5 Gal.</u>	<u>\$95</u>	<u>24</u>	<u>\$2,280</u>
<b>SUBTOTAL</b>			<b><u>\$2,966,601</u></b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		10%	<b><u>\$296,660</u></b>
<b>TOTAL BUDGET</b>			<b><u>\$3,263,261</u></b>

(1) Add cost of Foamer units, if applicable

**Aircraft Security Investments**

<b>EQUIPMENT (1)</b>	<b>TOTAL COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
Bulletproof Cockpit Doors w/Locking Hardware			\$0
Video Observation System of Cockpit Door for Flight Crew			\$0
Covert Cockpit Alarm in Passenger Compartment			\$0
<u>Bulletproof Partitioning of Cockpit</u>			<u>\$0</u>
<b>SUBTOTAL</b>			<b>\$0</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>20%</b>	<b>\$0</b>
<b>TOTAL BUDGET</b>			<b>\$0</b>
			<b>\$250,000</b>

(1) Equipment expenditures for aircraft security improvement remain to be determined (assumed approximately \$250,000)

**Perimeter and Fuel Farm Security Investments**

<b>EQUIPMENT</b>	<b>COST/ITEM</b>	<b>TOTAL UNITS</b>	<b>TOTAL COST</b>
<b>Lighting Equipment</b>			
20' Steel Light Poles	\$90	2300	\$207,000
Cobra Light Heads and Bulbs, 125 400S RN, 240V, 5H DG, 400watt	\$175	2300	\$402,500
<b>Access Control for Unmanned Gates</b>			
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$8,960	7	\$62,720
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$3,200	2	\$6,400
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$4,100	3	\$12,300
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$5,314	4	\$21,256
<b>CCTV For Unmanned Access Gates</b>			
7-Camera System	\$78,890	7	\$552,230
2-Camera System	\$30,408	2	\$60,816
3-Camera System	\$41,650	3	\$124,950
4-Camera System	\$48,840	4	\$195,360
<b>Tires Deflation System</b>			
16' Wrap & Roll tire Deflation System, Item#20773	\$400	6	\$2,400
Inspector EXP	\$685	7	\$4,795
<b>Fuel Farm - Access Control for Unmanned Gates</b>			
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$5,600	1	\$5,600
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$3,840	3	\$11,520
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$4,800	3	\$14,400
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$4,100	3	\$12,300
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	\$3,986	3	\$11,958
<b>Taut Wire Fence for Fuel Farm Includes Installation and CCTV</b>			
2km, 6', w/o outrigger	\$398,000	1	\$398,000
1km, 6', w/o Outrigger	\$236,000	2	\$472,000
1km, 8', w/1' Outrigger	<u>\$304,000</u>	1	<u>\$304,000</u>
<b>SUBTOTAL</b>			<b>\$2,882,505</b>
<b>ADDITIONAL (INSTALLATION, DELIVERY, ETC)</b>		<b>15%</b>	<b><u>\$432,376</u></b>
<b>TOTAL BUDGET</b>			<b>\$3,314,881</b>

## Uzbekistan Security Equipment - Estimated Delivery Times

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>ACCESS CONTROL SYSTEMS</b>		
Bio-Metric, Walk Through Metal Detector, card reader, key pad, and card maker.	IdentiCard	10-14
DIGI-TRAC Models as appropriate	Hirsch Electronics	4-6
<b>Automated Passport System and Crew Card reader.</b>		
Flash Identity System	KNDV	6-8
ID Card Development System (3)	Asure ID (Dalco International)	4-6
<b>SCREENING EQUIPMENT PERSONS</b>		
PMD2 Very High Performance Multi-Zone Metal Detector	Ceia	5-10
PD140, Hand Held Metal Detector	Ceia	5-10
M Scope Portable Detectors	Fisher Labs	8-10
Entry Scan Ion Track ( Still not in Production)	GE	18-26
Vapor Tracer Portable	GE	18-26
Secure 1000 Body Scanner (4)	RAPISCAN	6-10
IDP-9, Hand-Held Metal Detector	RAPISCAN	6-10
Meter 150, Walk-Through Metal Detector	Metorex Security	8-12
Meter 200, Multi-Zone Walk-Through Metal Detector	Metorex Security	8-12
Meter 200WP, Weatherproof Multi-Zone Walk-Through Metal Detector	Metorex Security	8-12
Meter 200HD, High Discrimination Multi-Zone Walk-Through Metal Detector	Metorex Security	8-12
<b>X-RAY HOLD/CARRY ON BAGGAGE</b>		
CTX 2500	InVision	24
CTX 5500DS	InVision	24
CTX 9000DSI	InVision	24
CTX Operator Work Station	InVision	24
Rapiscan 515	RAPISCAN	6-10
Rapiscan 519	RAPISCAN	6-10
Rapiscan 520B	RAPISCAN	6-10
Rapiscan 522B	RAPISCAN	6-10
Rapiscan 524	RAPISCAN	6-10
Rapiscan 526	RAPISCAN	6-10
Rapiscan 527	RAPISCAN	6-10
Rapiscan 527DV	RAPISCAN	6-10
Rapiscan 528	RAPISCAN	6-10
Hi-Scan PS 5030-S	RAPISCAN	6-10
Hi-Scan 6040d	Smiths Heimann	12
	Smiths Heimann	12

APPENDIX K

Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>X-RAY HOLD/CARRY ON BAGGAGE Continued</b>		
Hi-Scan 6030di (Mobile System)	Smiths Heimann	12
Hi-Scan 6040i	Smiths Heimann	12
Hi-Scan 7555i	Smiths Heimann	12
Hi-Scan 9075	Smiths Heimann	12
Hi-Scan 100100V	Smiths Heimann	12
Hi-Scan 8380-3D (3D system)	Smiths Heimann	12
Calibration and Testing Equipment, (Stepwedge)	Smiths Heimann	12
<b>X-RAY CARGO (5)</b>		
Rapiscan 528	RAPISCAN	6-10
Rapiscan 532H	RAPISCAN	6-10
Rapiscan 546	RAPISCAN	6-10
Rapiscan 4200	RAPISCAN	6-10
Hi-Scan 100100T	Smiths Heimann	12
Hi-Scan 12080	Smiths Heimann	12
Hi-Scan 145180	Smiths Heimann	12
Hi-Scan 150150-140kV	Smiths Heimann	12
Hi-Scan 150150-300kV	Smiths Heimann	12
Hi-Scan 180180-300kV	Smiths Heimann	12
<b>Air Conditioner</b>		
Series 12, 5 Ton, 60,000BTU, 230V/1/50 Cycle	Air Mover	18
<b>CCTV Passenger Terminals</b>		
Lorotix video manager (6)	Verint	10-12
Motion Track (6)	Verint	10-12
SmartSight S3100 (6)	Verint	10-12
SmartSight S1100w (6)	Verint	10-12
SmartSight S1508e (6)	Verint	10-12
10-Camera System	American Dynamics	12-16
10-Camera System	American Dynamics	12-16
10-Camera System	American Dynamics	12-16
10-Camera System	American Dynamics	12-16
<b>COMPUTER/TRAINING/OFFICE EQUIP</b>		
<b>COMPUTER/COMMERCIAL</b>		
SR1120NX, (7)	COMPAC	6-8
A630N, (8)	HP	6-8
Dimension 4600 (9)	DELL	8-10

## Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>COMPUTER/COMMERCIAL Continued</b>		
Dimension 4600C (10)	DELL	8-10
550GR, Desk Top (11)	GATEWAY	8-10
ThinkCentre A50 8148 CTO Series (12)	IBM	6-8
<b>SOFTWARE</b>		
Windows XP Professional	Microsoft	1-2
OFFICE 2003 Standard Student and Teacher Edition	Microsoft	1-2
<b>WORKSTATION- COMPUTER</b>		
CPU Cart with Hutch	Sullivan	4-6
One level computer desk	ZLINE Pacific	4-6
<b>UNINTERRUPTED POWER SUPPLIES (UPS)</b>		
BE 325, Power for up to 8 minutes	APC	4-6
ES500, Power for up to 40 minutes	APC	4-6
XS800, Power for up to 75 minutes	APC	4-6
RS1000VA, Power for 90 minutes	APC	4-6
<b>MONITOR</b>		
Viewsonic A71F 17" CRT	Viewsonic	6-8
Monitor, AccuSync 700, 17"	NEC	6-8
Monitor CRT, XF-17b, 17"	KDS	6-8
712N, 17" Flat Screen LCD	Samsung	6-8
VX710, 17" Flat Panel LCD	Viewsonic	6-8
Ultra-Thin LCD 17" Monitor	XEROX	6-8
Thinkvision L170 LCD Flat 17"	IBM	6-8
<b>PRINTER/COPIER/SCANNER/FAX (13)</b>		
HP 5650/5650 Desk Jet	HP	6-8
HP 1100 Ink Jet	HP	6-8
HP 3015 LaserJet/Copier/Scanner	HP	6-8
HPC8135A (Business Inkjet)	HP	6-8
HP Laserjet 3380/ printer, Copier, Fax, Scanner	HP	6-8
MFC8840D Laser, Printer, copier, scanner, Fax	Brother	8-10
Stylus C86, Color Inkjet Printer	Epson	8-10
Printer Supplies (14)	N/A	6-8
<b>PROJECTOR</b>		
LP540 Projector XGA 1700	INFOCUS,	10
Powerlite S1 LCD Projector, SVG	EPSON	10
VP6100 Series, SVG Projector	HP	6-8

Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>PROJECTOR Continued</b>		
Infocus LP120	INFOCUS,	8-10
Data/Video High Intensity Projector	IBM	6-8
<b>PULL-DOWN WALL SCREEN</b>		
APOPW6060, 60"X60" Pull down	APOLLO	4-6
VRW8484, 84"X84" Pull down	APOLLO	4-6
APOAW6 Wall Bracket	APOLLO	4-6
APO60300 60" Pull up from floor	APOLLO	4-6
APO60302 80" Pull up from floor	APOLLO	4-6
<b>PLASMA TV</b>		
Plasmapro PFM-42Va/B	SONY	6-8
VPW425 42" Plasma TV Monitor	Viewsonic	6-8
PD42V475, HDMI Digital Plasma 42"	JVC	6-8
P42W46X, 42" Plasma	ZENITH	8-10
WALL MOUNT BRACKET FOR TV	COMPAC	6-8
<b>DVD/VCR PLAYERS/RECORDERS</b>		
DAEW DVD/VCR Dualdeck, 314219	Daewoo Electronics	6-8
DVD-V4600, DVD/Hi Fi VCR	SAMSUNG	6-8
DVR-225, DVD-R/RW	PIONEER	6-8
<b>PHOTO COPIERS</b>		
Photo R300 Printer	EPSON	6-8
PhotoSmart 7760 Photo Printer	HP	6-8
IP400, Pixma Photo Printer	CANON	6-8
IR3300 Document Feeder, Pedestal, w/two (2) 500-Sheet Paper Trays, Duplex	CANON	6-8
<b>CAMERAS</b>		
DCR-TRV460 Digital Camcorder	Sony	6-8
ZR-80 Camcorder	Cannon	6-8
ZR-85 Camcorder	Cannon	6-8
HP 435 Still Camera	HP	6-8
HP 735 Still Camera	HP	6-8
Easysare CX7330 Digital Camera	KODAK	6-8
Easysare DX4530 Digital Camera	KODAK	6-8
Easysare DX7630 Digital Camera	KODAK	6-8

## Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>AIRPORT CRASH/FIRE RESCUE</b>		
VEHICLES/3000-GAL	OSHKOSH	35-60
VEHICLES/1500-GAL	OSHKOSH	35-60
3000 GALLON	E-ONE	52-57
1500 GALLON	E-ONE	52-57
1500 GALLON (Rebuilt)	Crash Rescue Equip Svc Inc.	40-65
Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit	Motorola	10-15
<b>Foamer</b>		
TM-30, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	20
TM-60, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	20
TM-60 on Skids	Crash Rescue Equip. Svc. Inc.	20
TRIMAX 30 Protective Cover	Crash Rescue Equip. Svc. Inc.	20
3% AFFF Foam Concentrate, 5 Gal.	Crash Rescue Equip. Svc. Inc.	20
<b>Mobile Command Post Vehicle</b>		
Explorer	Ford	10-20
Expedition	Ford	10-20
Jeep Grand Cherokee	Chrysler	10-20
Durango ST	Dodge	10-20
Communications System	Motorola	12
<b>Siren</b>		
Wobblulator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	8-12
Carson Cruiser Compact Siren 100/200W SA 500 w/P.A.	LA Police Gear	8-12
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	8-12
SK144 100W Speaker, 120db	Galls	8-12
Emergency Light Bar for MCPE		
Able 2 SHO-ME Low-profile LED Mini Bar	10-4 Warning Equipment	8-12
Code 3, 47" MX7000 W/Bonus Pack	Galls	8-12
Fully Equipped Trailer	SIRCHIE GRP VEH	14-20
<b>RADIO EQUIPMENT (15)</b>		
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25
Non-Networked Trunk System, UHF. Passport Trunking Protocol	MOTOROLA	25

## Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>TELEPHONE EQUIPMENT (16)</b>		
(Config #0003) and Multimedia Messaging Products (Config #0002)	DEFINITY	20-30
(Config #0003) and Multimedia Messaging Products (Config #0002)	DEFINITY	20-30
(Config#0003) and Multimedia Messaging Products Config#0002)	DEFINITY	20-30
(Config#0003) and Multimedia Messaging Products Config#0002)	DEFINITY	20-30
<b>LIGHTING EQUIPMENT</b>		
20' Steel Light Poles	Acuity Brands Lighting	4-6
Cobra Light Heads and Bulbs, 125 400S RN, 240V, 5H DG, 400watt	Acuity Brands Lighting	4-6
<b>PERIMETER SECURITY</b>		
<b>Access Control for Unmanned Gates</b>		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
<b>CCTV For Unmanned Access Gates</b>		
7-Camera System	American Dynamic	10-15
2-Camera System	American Dynamic	10-15
3-Camera System	American Dynamic	10-15
4-Camera System	American Dynamic	10-15
<b>AIRPORT SECURITY FORCE</b>		
7-Passenger Van	Ford Freestar Van	
7-Passenger Van	2005 Dodge Grand Caravan	
(Van accessories)		
Wobblulator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	8-12
Carson Cruiser Compact Siren 100/200W SA 500 w/P.A.	LA Police Gear	8-12
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	8-12
SK144 100W Speaker, 120db	Galls	8-12
Able 2 SHO-ME Low-profile LED Mini Bar( Van light bar)	10-4 Warning Equipment	8-12
Code 3, 47" MX7000 W/Bonus Pack	Galls	8-12
Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit	Motorola	8-10
<b>Mail and small item, X-ray</b>		
Hi-Scan PS 3010	Smiths Heimann	20-30
(Handheld metal detectors)		
GSS03 Garrett Super Scanner	Brigade Quarter Master	8-12
MDS01 Seeker 1 Metal Detector	Brigade Quarter Master	8-12
MDS02 Seeker Plus Metal Detector	Brigade Quarter Master	8-12

## Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>AIRPORT SECURITY FORCE Continued</b>		
(Portable walk through Det)		
M Scope Portable Detectors	Fisher Labs	8-10
AP395 HI-PE Multi Zone	CE/A	5-10
AP394 Classic Walk Through Det.	CE/A	5-10
(Personal Equipment)		
SY22035H 6.25" High Profile, Beacon	Superior Signal	8-12
Whelen 15W Strobe Beacon	Galls	8-12
ML821 Mag Charger Flashlight	Brigade Quarter Master	8-12
FL411 SL-20XP LED Recharge Flashlight	Galls	8-12
DL143 6" LED Stick Light	Galls	8-12
EARSAF NRR 21 Decibels hearing Protector	Brigade Quarter Master	8-12
Ballistic Helmet, TEO42, RBR F6 Combat MKII	Galls	8-12
PBV2133 Gamma Plus Lvl III Body Armor	Brigade Quarter Master	8-12
SDS02 OTV Tactical Vest Cover	Brigade Quarter Master	8-12
Monadock Autolock Baton 26, Blk.	LA Police Gear	8-12
Monadock PR-245TS One-Piece PR24 W/Stop	LA Police Gear	8-12
Vapour Tracer 2 Portable	GE IONTrac	8-12
Chemical Contaminatic.Detector and Alarm	Proengin	8-12
PF711 Pepper Foam Pepper Gas	Brigade Quarter Master	8-12
AER 1199 Deep Freeze Peper Gas	Brigade Quarter Master	8-12
TSB06 Thunder Storm Stun Gun	Brigade Quarter Master	8-12
ZF3000 Stunner 300K Volts	Brigade Quarter Master	8-12
ZF6000 Stunner 600K Volts	Brigade Quarter Master	8-12
TMG01, Model 6000 Gas Mask	3M	8-12
TE301 NIOSCH/CBRN App. Gas mask	Brigade Quarter Master	8-12
GTP 988 Pocket Strobe	Brigade Quarter Master	8-12
STV08 Tacticle Vision Wheel Mirror	Brigade Quarter Master	8-12
IMV3508 Inspection Mirror	Brigade Quarter Master	8-12
NIC Vehicle Undercarriage Inspection Mirror	Brigade Quarter Master	8-12
Plastic Hand Restraints	American Security	8-12
Hand Cuffs/Steel/Maximum Security Slide Lock	Tuff-Tie	2-4
Night Vision D211 Generation II Binoculars With Zoom Lense	Smith & Wesson	2-4
<b>TIRE DEFLATION SYSTEM</b>	Galls	8-12
16' Wrap & Roll tire Deflation System, Item#20773	U.S. Cavalry	12
MS16 Magnum Spike	Phoenix International	12
Barracuda 8048, 9'	Stop Tech Ltd	12
Radiation detector		
Inspector EXP	S.E. International	12-16

Uzbekistan Security Equipment - Estimated Delivery Times Continued

EQUIPMENT	COMPANY	EST. DELIVERY TIMES (Weeks) - (1)
<b>FUEL FARMS</b>		
<b>Access Control for Unmanned Gates</b>		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	4-6
<b>CCTV (Coverage w/o Taut Wire)</b>		
3-Camera System	American Dynamic	8-12
3-Camera System	American Dynamic	8-12
3-Camera System	American Dynamic	8-12
3-Camera System	American Dynamic	8-12
1-Camera System	American Dynamic	8-12
<b>Taut Wire Fence for Fuel Farm Includes Installation and CCTV</b>		
2km, 6', w/o outrigger	Zareba	20
1km, 6', w/o Outrigger	Zareba	20
1km, 8', w/1' Outrigger	Zareba	20
<b>AIRCRAFT SECURITY</b>		
Bulletproof Cockpit Doors w/Locking Hardware	N/A	N/A
Video Observation System of Cockpit Door	N/A	N/A
Monitoring System & Automatic Cockpit Door Opener for Flight Crew	N/A	N/A
Covert Cockpit Alarm in Passenger Compartment	N/A	N/A
Bulletproof Partitioning of Cockpit	N/A	N/A
<b>EOD</b>		
Bomb Suite @ Helmet 600-350	PW Allen, Inc	18-22
Chest Plate 600-351	PW Allen, Inc	18-22
Ballistic Shield 600-756	PW Allen, Inc	18-22
Radio Freq. Jammer 600 2121 C-12V	PW Allen, Inc	18-22
Recorder/Receiver 600-782	PW Allen, Inc	18-22

**Footnotes:**

(1) US export controls may impact delivery times. 6-8 weeks has been added to the estimated delivery time, where applicable.

## INSTRUCTIONS TO TENDERERS

### 1. Introduction

The State Inspection of the Republic of Uzbekistan for Flight Safety Oversight, a specialized agency of the Republic of Uzbekistan, with Headquarters located at 73B Nukussskaya Street, 700015 Tashkent, Republic of Uzbekistan, Telephone (998-71) 133-61; Fax (998-712) 54-14-82, intends to procure Aviation Security Equipment for the Republic of Uzbekistan.

### 2. Basis of Tender

The Tender Document signed and witnessed by Officers authorized to act on behalf of the company should comprise three sets of at least the following:

- a) Completed Attachment II Technical specifications for Aviation Security Equipment including clearly indicated compliance or non-compliance;
- b) Completed Attachment III (Tender Form) together with a detailed price break-down;
- c) Detailed Technical Proposal;
- d) Itemized, costed listings of all spares, accessories, etc;
- e) Details of installation and commissioning offered;
- f) Details of the training offered, including course outlines and course contents;
- g) Technical documentation and equipment lists;
- h) Details of warranties offered; and
- i) Definitive responses indicating compliance or otherwise with the articles of Attachment TBD Uzbekistan General Conditions.

### 3. Pricing and Payment

Prices, which shall be firm and final, should be stated in US dollars.

Uzbekistan normally effects payment after satisfactory delivery/installation of equipment/services net 30 days after receipt of correct invoice.

**Advance payment is not normally made.** However, should a down-payment be required, you must be prepared to provide a Letter of Indemnity (Advance Payment Guarantee) which would be used to

**INSTRUCTIONS TO TENDERERS continued**

secure any advance payments in accordance with the sample text and format of guarantee which would be acceptable to Uzbekistan, as shown hereunder.

An amount up to 10% of the equipment value (either in cash or through extension of any guarantee(s) which may be in place), may be withheld following satisfactory completion of installation and commissioning during the warranty period as a performance bond for the procured equipment/system.

<p><b>LETTER OF INDEMNITY</b> <b>(Advance Payment Guarantee)</b></p>
<p>You concluded a Contract No. _____ with Messrs. _____ on _____ for the supply of _____ at a price of _____. According to the terms of the Contract, you will make an advance payment of _____ to Messrs. _____. As a security for the possible claim for the refund of the advance payment, in the event that the merchandise is not delivered in conformity with the terms of the contract, an indemnity by a bank shall be furnished.</p>
<p>At the request of Messrs. _____, we, the _____, hereby irrevocably undertake to refund to you on your first demand, irrespective of the validity of the effects of the above-mentioned Contract and waiving all rights of objection and defence arising from said Contract, the advance payment in the amount of _____ upon receipt of your written and duly signed request for payment and your written confirmation that Messrs. _____, have failed to deliver the ordered merchandise and/or services or not delivered such merchandise and/or services as specified in the above-mentioned Contract.</p>
<p>It expires, however, on _____ in full and automatically, if your written request for payment and your written confirmation are not in our possession on or before that date.</p>
<p>This Letter of Indemnity enters into force only after receipt by us of the advance payment in favour of Messrs. _____.</p>
<p>This undertaking shall be interpreted in accordance with the laws of the Republic of Uzbekistan place of jurisdiction is Tashkent.</p>

Please note that such a bank guarantee must be conveyed through a confirming US Bank.

**4. Closing Date**

This Tender must be received by the State Inspection of the Republic of Uzbekistan for Flight Safety Oversight of the Republic of Uzbekistan, by 16:00 local time on (Date).

## INSTRUCTIONS TO TENDERERS continued

### 5. Validity of Tender

The Tender must be valid for a minimum of 120 days from (date).

### 6. Language

The Tender submission shall be in **English**. In the event an order is awarded, the language of all services, manuals, instructions, technical documentation, etc. provided for under the Contract shall be in English or Russian. All labelling on the controls and instruments **must** be in English or Russian.

### 7. Insurance and Freight Costs

The Contractor shall indicate separately all shipping and insurance costs as well as any on-site storage costs.

### 8. General Information

- a) Alterations, modifications, additions to and/or deletions from the specification/requirements shall be considered if the Tenderer *can justify his submission, e.g. on the grounds of improved performance, reliability, serviceability, maintainability and/or reduction in cost with the goods and/or services remaining fit for the purpose of this procurement*. Uzbekistan will evaluate tenders based on considerations which in the sole opinion of State Inspection of the Republic of Uzbekistan for Flight Safety Oversight would yield to the Government of Uzbekistan for the best value.
- b) All revisions, amendments, changes and/or additions to a Tender must be received in writing by closing date specified for this Tender.
- c) Tenders may be withdrawn by written notice, e-mail or facsimile received at any time prior to the closing date set forth herein. A Tender may be withdrawn in person by the Tenderer or his authorized representative provided his identity is made known and he signs a receipt for the proposal prior to closing date for receipt of tenders.
- d) *Data/information previously submitted, if any, will not be considered by Uzbekistan; hence, any such data/information should not be relied upon or incorporated in the proposal by reference.*
- e) Because of the nature and diversity of the equipment required, partial proposals will be considered. However, Tenders shall be sufficiently detailed, specific and complete with the applicable supporting data or rationale to enable Uzbekistan to make a thorough technical and financial evaluation of equipment included in the proposal and to determine whether the specified requirements are met without further reference to the Tenderer.

**INSTRUCTIONS TO TENDERERS continued**

- f) State Inspection of the Republic of Uzbekistan For Flight Safety Oversight reserves the right to delete, decrease, or increase the quantity of any of the items requested.
- g) Upon completion of the evaluation of tender and award of Contract, the unsuccessful bidders will be advised only that the contract has been awarded. In accordance with the Common Guidelines for Procurement by Uzbekistan will not disclose:
  - i) Information that may prejudice legitimate commercial interests of the parties or inhibit fair competition;
  - ii) Information relating to the examination, evaluation and comparison of offers.

**9. Exemptions (Taxes and Duty)**

As an Uzbekistan agency, State Inspection of the Republic of Uzbekistan for Flight Safety Oversight may be exempt from duties and taxes in certain countries.

**10. Addressing**

Enquiries regarding clarification/interpretation in connection with this Tender should be addressed to:

**Mr. Khakim Trobov, Head of the State Inspection of the Republic of Uzbekistan for Flight Safety Oversight, (Uzbekistan Project No. -----)**

By facsimile (998-712) 54-14-82) or by e-mail (vsubbota@uzcaa.usz).

Such enquiries and Uzbekistan reply may be circulated to other Tenderers by Uzbekistan.

Three copies of the Sealed Tender (and all documentation requested in Paragraph 2 above) **MUST BE** addressed to the addressee below:

Mr. Khakim Trobov  
Head of the State Inspection of the Republic of Uzbekistan for Flight Safety Oversight  
73B Nukusskaya Street  
700015 Tashkent  
Republic of Uzbekistan

An advance copy of the Sealed Tender may be sent via facsimile, Attention: Mr. Khakim Trobov, Head of the State Inspection of the Republic of Uzbekistan for Flight Safety Oversight. In cases where the Tender is being air freighted from abroad, arrangements should be made by the Tenderer to clear Customs and deliver the documentation to State Inspection of the Republic of Uzbekistan for Flight Safety Oversight Headquarters. Uzbekistan is not responsible for either Customs clearance or delivery of Tenderers submissions.

**INSTRUCTIONS TO TENDERERS continued**

**11. Transfer of Tender**

This Tender document is not transferable, and the specifications and any other information contained herein may not be copied, exhibited, or furnished to others without prior written consent of Uzbekistan.

However, recipients may request State Inspection of the Republic of Uzbekistan for Flight Safety Oversight to invite Tenderer alternate affiliation to bid on their behalf. In such case, written authorization should be requested by telex or facsimile in view of closing time constraints.

**12. Rejection and Return of Tender**

State Inspection of the Republic of Uzbekistan for Flight Safety Oversight reserves the right to reject any or part of a Tender without disclosing information.

Documentation submitted by Tenderers will not be returned unless the Tenderer expressly stated this request at the time of submission of their Tender that Tender documentation be returned. The cost of return will be borne by the Tenderer.

**13. Disclaimer**

This request does not commit State Inspection of the Republic of Uzbekistan for Flight Safety Oversight to pay for any costs, or loss, incurred in the preparation or submission of any Tender or technical proposal nor to procure or contract for any of the items described herein.

**14. Order of Precedence**

In the event of any inconsistency in this documentation and any other information material referred to herein, the inconsistency shall be resolved by giving precedence to the Technical Specification at Attachment II, or by requesting clarification from State Inspection of the Republic of Uzbekistan for Flight Safety Oversight.

**15. Signatures**

The Tender shall be signed by an Officer of the Company and suitably witnessed.

	<p style="text-align: center;">STATE INSPECTION FOR FLIGHT SAFETY OVERSIGHT, REPUBLIC OF UZBEKISTAN TECHNICAL SPECIFICATION</p>	<p style="text-align: center;">THIS COLUMN TO BE COMPLETED BY TENDERER  COMPLIANCE STATEMENT</p>																
		<p>Tenderer must state below, against every item, <b>Compliance</b> or <b>Non Compliance</b>. Failure to complete and return this form may invalidate the bid.</p>																
<p><b>TITLE: AVIATION SECURITY EQUIPMENT</b></p>																		
<p><i>It is strictly prohibited for Tenderers to alter this document. Only the originator of the specification may provide amendments.</i></p>		<p style="text-align: center;"><b>SUPPLIER:</b></p>																
<p><b>SECTION A – INTENT AND STANDARDS</b></p>																		
<p>1.</p>	<p><b>SCOPE</b></p>																	
<p>1.1</p>	<p><b><i>State Inspection For Flight Safety Oversight, Republic of Uzbekistan, (SIFSO), intends to procure Aviation Security Equipment. The objective of this project is to supply, install, integrate (High-Throughput CT), and commission the requested systems and equipment on a turnkey basis supplying the end user the necessary operational and technical training, documentation and spares to operate the equipment at <b>Tashkent Airport, Samarkand Airport, Bukhara Airport, Urgench Airport and Termez Airport, in the Republic of Uzbekistan.</b></i></b></p>																	
<p>1.2</p>	<p>This specification sets out the requirements to be met in the supply of:</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="padding-left: 40px;">Hand-Held Metal Detector:</td> <td style="text-align: right;">31 units</td> </tr> <tr> <td style="padding-left: 40px;">Metal Detector Archway:</td> <td style="text-align: right;">15 units</td> </tr> <tr> <td style="padding-left: 40px;">Portable Metal Detector Weatherproof</td> <td style="text-align: right;">7 units</td> </tr> <tr> <td style="padding-left: 40px;">X-Ray Inspection System: Hand-Carried Baggage:</td> <td style="text-align: right;">21 units</td> </tr> <tr> <td style="padding-left: 40px;">X-Ray Inspection System: Checked Baggage:</td> <td style="text-align: right;">10 units</td> </tr> <tr> <td style="padding-left: 40px;">- X-Ray Inspection System Cargo, Advanced Technology (AT):</td> <td style="text-align: right;">3 units</td> </tr> <tr> <td style="padding-left: 40px;">- Hand-Held Trace Detector for Explosives, Chemical Agents, Toxic Chemicals and Narcotics</td> <td style="text-align: right;">7 Units</td> </tr> <tr> <td style="padding-left: 40px;">Desktop Explosives and Narcotics Detection</td> <td style="text-align: right;">22 units</td> </tr> </tbody> </table>	Hand-Held Metal Detector:	31 units	Metal Detector Archway:	15 units	Portable Metal Detector Weatherproof	7 units	X-Ray Inspection System: Hand-Carried Baggage:	21 units	X-Ray Inspection System: Checked Baggage:	10 units	- X-Ray Inspection System Cargo, Advanced Technology (AT):	3 units	- Hand-Held Trace Detector for Explosives, Chemical Agents, Toxic Chemicals and Narcotics	7 Units	Desktop Explosives and Narcotics Detection	22 units	
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X-Ray Inspection System: Checked Baggage:	10 units																	
- X-Ray Inspection System Cargo, Advanced Technology (AT):	3 units																	
- Hand-Held Trace Detector for Explosives, Chemical Agents, Toxic Chemicals and Narcotics	7 Units																	
Desktop Explosives and Narcotics Detection	22 units																	

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION A – INTENT AND STANDARDS**

1.3 This specification covers the basic design and testing of the equipment required. It also includes support services for installation and spare parts, as well as for the training of technical personnel.

1.4 The tenderer shall assume complete responsibility for the configuration, design and performance of the equipment and systems to satisfy all operational, technical and functional requirements as described in this specification or provided in the tenderer's proposal.

**2. STANDARDS**

2.1 All designs, materials, manufacturing techniques and workmanship shall be in accordance with the highest accepted international standards for this type of equipment.

2.2 The tenderer shall also state, where applicable, the National Standard(s) to which the equipment complies.

**3. ALTERNATIVES**

3.1 The tenderer is free to offer any equipment or design of a system, which, in his opinion, is equal to or superior to the requirements of this specification. Any such alternatives or variations must be fully and clearly defined and supported so that equivalence or superiority can be readily determined.

3.2 The tenderer shall also clearly indicate the extent to which the requirements of this specification are *not* met by the alternative design and shall state the performance he is prepared to guarantee where this differs from that which is defined herein.

TITLE:

## AVIATION SECURITY EQUIPMENT

COMPLIANCE STATEMENT

## SECTION A – INTENT AND STANDARDS

## 4. TENDER DOCUMENTATION

4.1 **Compliance Statement:** a correctly completed Compliance Statement in the form of this specification with the tenderer indicating in the right hand column, Compliance (C) or Non Compliance (NC), shall accompany all offers. If compliance is indicated, any further references, statements, comments or notes, will not waive the liability of the tenderer on the stated Compliance. Lack of such definitive indication for any requirement may invalidate the offer. Tender documentation is to be provided in English and in three copies.

4.2 **Supporting Documentation:** Additionally each offer shall be supported by adequate technical documentation including data sheets, performance sheets, drawings, technical brochures, illustrations etc. to facilitate a full and complete understanding of the equipment under offer and to enable a detailed comparative evaluation of all specified parameters. In particular areas of this specification (e.g. spares, tools, test equipment etc.) separate detailed, itemized and individually priced lists are to be supplied by the tenderer as part of the tender documentation. These lists are also essential to the evaluation of offers and should be supplied as indicated to assure the acceptability of the bid.

**Note:** While the attachment of brochures and supporting literature is required to facilitate the evaluation of equipment and systems under offer, it does not relieve the tenderer of the obligation to fully complete the compliance statement of this specification as indicated in Paragraph 4.1 above.

## 5. GUARANTEE/WARRANTY

5.1 The tenderer shall warrant that all equipment delivered under an eventual contract (including any equipment components manufactured by their sub-contractors) shall perform in accordance with and conform to all specifications, descriptions, and other requirements included in their offer and shall be without defects in materials, workmanship and design. Failing to accomplish these performance criteria, the tenderer must modify/add and/or exchange the inadequate equipment and/or software, if necessary, to provide the specified functions.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION A – INTENT AND STANDARDS**

- 5.2 The tenderer's warranty shall remain in effect for a period **of two (2) years** from the final commissioning date to the levels and figures achieved and approved at the time of the Factory Acceptance Test. This is to be provided with respect to major systems equipment repaired pursuant to this article and the original period of warranty of the said equipment shall be extended for a warranty period equivalent to the time required for the said repair.
- 5.3 The tenderer shall be responsible for processing all under warranty claims and will cover all expenses involved in Transportation, Customs Clearance, Shipment and Installation of the defective equipment to and from the appropriate repair/installation facility and back to the appropriate site.
- 5.4 The warranty period shall begin anew for any equipment replaced pursuant to this article.
- 5.5 The tenderer shall submit to the State Inspection For Flight Safety Oversight, a copy of the formal agreement(s) with local appointed companies responsible for warranty service.
- 5.6 If any equipment fails during the warranty period, before its expiration, the tenderer shall be informed and the failure specified, where possible. The tenderer shall decide whether to repair the item locally or return it to their facilities for repair. If a spare part(s) or replacement item is not available to restore equipment operation, the tenderer, shall provide an immediate replacement of the failed item(s) in order to restore immediate operational capability at no extra cost. The tenderer shall guarantee a thirty-one (30) day Turn Around Time to replace all failed item(s) (excluding shipping and customs clearance time).
- 5.7 If the reported problem is not solved in forty-five (45) days, the Head of State Inspection For Flight Safety Oversight for Uzbekistan shall be entitled, at their option, to:
- i. Return the equipment and require the tenderer to repair and make re-delivery, or
  - ii. Repair the equipment or have the equipment repaired by a third party and, in either case, recover the reasonable cost of repair from the tenderer, or
  - iii. Require the tenderer to deliver replacement equipment

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION A – INTENT AND STANDARDS**

- 5.8 With respect to the provisions of this Article, the return and re-delivery of the equipment, as well as the repair, shall be at tenderer's risk and expense. Uzbekistan shall also be entitled to recover from the tenderer all reasonable and demonstrable costs incurred in removing the equipment or assembly and in re-installing repaired or replacement equipment. It is understood that such warranty repair work will be carried out in-factory, or locally at the appointed representative's facilities, except in the case of a systems failure which might require dispatch of tenderer's Engineers to an Uzbekistan airport. The import and export documentation required for transported material shall be prepared by State Inspection For Flight Safety Oversight of Uzbekistan according to the existing National customs regulations.
- 5.9 If it is determined that the equipment sent to the tenderer under this Article was not defective according to the above article, the transportation cost from the site to the factory and return shall be covered by the tenderer.
- 5.10 Approval or acceptance of the tenderer's designs or acceptance of the equipment shall not prejudice State Inspection For Flight Safety Oversight of Uzbekistan's rights under this Article.
- 5.11 The rights under this Article shall be enforceable by State Inspection For Flight Safety Oversight of Uzbekistan.
- 5.12 State Inspection For Flight Safety Oversight of Uzbekistan's rights under this Article are not exclusive and any other rights provided in this Contract or by Law are reserved.
- 5.13 This warranty does not apply for normal wear and tear items. It shall not cover equipment or parts of equipment modified after its delivery without the tenderer's prior written agreement. The Warranty shall only apply as long as the equipment has been used and maintained in compliance with the tenderer's operation and maintenance manuals and under normal operating conditions.
- 5.14 Within the warranty period, the tenderer confirms an unlimited number of on-site visits and maintenance assistance; on an on-call basis for warranty claims at no cost to State Inspection For Flight Safety Oversight of Uzbekistan should the problem solution not be rectified via remote facility locations.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION A – INTENT AND STANDARDS**

- 5.15 The tenderer shall provide on-site technical intervention and support by immediate use of a local representative personnel first for all critical failures, if necessary, shall send a specialist from their repair facilities within 72 hours from the date of defect notification, State Inspection For Flight Safety Oversight of Uzbekistan written request or notice, during the warranty period.
- 5.16 The use of a Local Representative by the tenderer shall not diminish the tenderer's responsibilities and obligations under an eventual Contract. Any upgrading and modification of the equipment associated with the defaults of the equipment shall be provided by the tenderer at no extra cost to State Inspection For Flight Safety Oversight of Uzbekistan within the expected period of the system operation.
- 5.17 If the operation or use of the materials or equipment proves to be non compliant with the technical specifications or intended performance characteristics, State Inspection For Flight Safety Oversight of Uzbekistan shall have the right to operate and use such material or equipment until they can be taken out of service for correction by the tenderer of such defects, errors, or omissions and for replacement in whole or in part if correction is unsuccessful or unfeasible.
- 5.18 During the Warranty Period, if any equipment or equipment component part fails, that is; not included in the list of spare parts recommended by the tenderer, the tenderer shall supply said part or component at no additional cost to State Inspection For Flight Safety Oversight of Uzbekistan, as a spare part.
- 5.19 The warranty period shall commence after the equipment has been received on site, site tested, commissioned and accepted by State Inspection For flight Safety Oversight of Uzbekistan and must be free from any faults or defects, both operational and functional.
- 5.20 As an option, the tenderer shall supply pricing for an extended warranty of the system. This option shall be renewable on a yearly basis, and pricing shall be supplied for a minimum of five (5) years from the expiration of the Initial Period of Warranty. The Customer may exercise this option any time during the Initial Warranty Period.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION B – GENERAL REQUIREMENTS****1. POWER SUPPLY**

- 1.1 Except where otherwise specified all equipment shall operate from a power source of 220 volts  $\pm 10\%$ , 50 hertz  $\pm 5\%$ , 1 phase, 3-wires.
- 1.2 The equipment shall be supplied with built-in voltage stabilizer. Switching and noise transient spikes and dips, causing momentary excursions of voltage outside the above specified limits might be experienced on the power supply to the equipment. The equipment supplied shall be capable of normal and reliable operation under these conditions.
- 1.3 Any disabilities of the equipment to operate satisfactorily within the prescribed tolerances as above shall be clearly stated. ***In default of this, the compliance statement shall be taken as a guarantee of performance in this respect.***
- 1.4 The equipment offered must conform to EU directives and standards established for the application of the CE mark.

**2. ENVIRONMENTAL CONDITIONS**

The equipment shall be designed for continuous operation under the following environmental conditions:

- Operation:            0°C to +40°C and up to 90% of relative humidity  
(non-condensing)
- Storage:              0°C to +80°C and up to 90% of relative humidity  
(non-condensing)

**3. EQUIPMENT PROTECTION**

- 3.1 Protective methods shall follow normal commercial practice of providing adequate preventative control of the most severe conditions that may prevail.
- 3.2 The protection of electrical and electronic equipment shall be provided particularly to withstand damage due to excessive voltage, current, humidity, high or low ambient temperatures, dust, vermin, corrosive fumes, salt atmosphere or the intrusion of water.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION B – GENERAL REQUIREMENTS**

3.3 Metal surfaces must be either corrosion-resistant or protected against corrosion by suitable surface treatment. Electrical contacts shall be protected in an appropriate manner without impairing their electrical characteristics.

3.4 Adequate safeguards shall be provided to protect personnel from inadvertent contact with lethal voltages.

**4. RELIABILITY AND MAINTAINABILITY**

4.1 The stability of the adjustments, the circuit techniques and the components used shall be such that the equipment requires routine maintenance only at long intervals.

4.2 The service life of the equipment is expected to be ten (10) years. The degree to which current technology is used will therefore be a factor in the evaluation process.

4.3 The tenderer shall provide evidence of supplying equipment, similar to that proposed, to other clients. Names and telephone numbers of current satisfied users shall be supplied with the proposal.

4.4 The tenderer shall present reliability predictions, availability and maintenance figures. The MTTR and MTBF of the proposed system should be stated as verified and confirmed during the operation of the equipment.

4.5 A modular concept shall be used to the maximum possible extent to facilitate fault location and rapid equipment restoration. A module extender shall be provided (where applicable) to assist troubleshooting of all digital circuit accessories.

4.6 With the exception of the X-ray tube, the equipment shall be completely of solid-state design. No continuously moving mechanical parts shall be used with the exception of the X-ray conveyor system and cooling fans where necessary.

4.7 Adequate test points, metering and other testing facilities shall be provided to permit ease of maintenance. All units, sub-assemblies, components and adjustment points shall be readily accessible for maintenance purposes.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION B – GENERAL REQUIREMENTS**

- 4.8 The system shall perform a self-test upon power-ON to determine if it is operating normally. The system should also monitor continuously, all key parameters and ensure that the system's performance has not deteriorated beyond acceptable levels. Any automatic re-calibration required throughout the operating day shall not interfere with system use.

TITLE:

## AVIATION SECURITY EQUIPMENT

COMPLIANCE STATEMENT

## SECTION C – DETAILED DESCRIPTION OF SYSTEM

## 1. X-RAY INSPECTION SYSTEMS

## 1.1 Performance Requirements (Hand-Carried and Checked Baggage)

1.1.1 **Wire Display** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.254 mm diameter (30 AWG) and larger. (AWG = American Wire Gauge)

1.1.2 **Useful Penetration** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.254 mm diameter (30 AWG) and larger through 15.9 mm of aluminum.

1.1.3 **Spatial Resolution** - The equipment shall be able to distinguish and display multiple vertical and horizontal, un-insulated copper wires (at least 20 mm long) of 2.05 mm diameter (12 AWG) separated by 2 mm.

1.1.4 **Simple Penetration** - The equipment shall be able to penetrate through at least 22 mm of cold rolled steel and display, on the monitor, the lead digits behind it.

1.1.5 **Thin Organic Imaging** - The equipment shall be able to display organic material, within the range of effective Z between 6.8 and 7.4 that is 3 mm thick and measures at least 25 mm by 25 mm.

1.1.6 **Material Differentiation** - The equipment shall provide material information that is based on the effective atomic number and/or density. Material identification shall be divided into a minimum of two (2) basic groups, organic matter and other matter, and each group shall be displayed in a distinct color. Materials, within the range of effective atomic number (Z) between 6.8 and 7.4 shall be clearly displayed as an organic type. This applies to materials that measure at least 25 mm by 25 mm and are 25 mm thick. Inorganic materials shall be displayed in other colors.

1.1.7 **Organic Differentiation** - The equipment shall be able to display organic matter of different effective atomic number and/or density. As a minimum, PVC and Nylon should appear on the monitor in distinct shades or colors.

1.1.8 **Useful Organic Differentiation** - The equipment shall be able to achieve Organic Differentiation as per Paragraph 1.1.7 through at least 0.16 mm (1/16@) of steel.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

**Note:** Use the new ASTM Test Object & procedures to test against these performance requirements, see ASTM F 792 – 01 “Standard Practice For Evaluation Of Security X-ray Systems”.

**1.2 Controls and Features**

1.2.1 On the control console, only those controls required to operate the equipment are to be accessible to the operator. Other controls shall be rendered inaccessible.

1.2.2 An automatic alarm function shall be available, on the X-ray system's control console, to alert security in the event of violation detection.

1.2.3 At a minimum 2X through 4X zoom shall be available for any selected portion of the image. A minimum number of switch actions to accomplish this are desirable so as to speed up the processing time.

1.2.4 The equipment shall provide a single action switch that suppresses inorganic material on the display so that organic material becomes more prominent.

1.2.5 The equipment shall also provide a single action switch (Separate from the inorganic stripping) that suppresses organic material on the display so that inorganic material becomes more prominent.

1.2.6 Other required controls/enhancement features are:

- |                      |                                     |
|----------------------|-------------------------------------|
| - Pseudo Color       | - Reverse Video (B&W image)         |
| - Edge Enhancement   | - Conveyor direction control        |
| - High penetration - | Conveyor Forward-Stop-Reverse       |
| - Variable Gamma     | - On/off switch - security key type |

**1.3 Electrical Requirements**

1.3.1 In addition to self testing upon power-ON, the X-ray system should have a built-in aid to troubleshooting that will indicate without ambiguity the required repairs should the equipment become unserviceable. The preferred method of indicating system failures is through plain language messages or self-explanatory images on the video monitor. The software should also provide menu selectable indications of critical operating parameters i.e. power supply voltages, X-ray tube current, high voltage, defective diodes in the detector array.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

1.3.2 A monitor shall be supplied with each X-ray system and it shall meet the following minimum requirements:

- 17" B/W, color monitor
- Solid state design with contrast and brightness controls
- High Resolution, 1280 X 1024
- Anti-glare faceplate
- Flicker-free, non-interlaced
- Dot pitch of .28 mm or less
- Low radiation
- Tilt & swivel base

**1.4 Mechanical Requirements**

1.4.1 The minimum size of the tunnel opening shall be:

Hand-baggage System: Width = 60 cm Height = 40 cm  
Checked-baggage System: Width = 75 cm Height = 55 cm

1.4.2 The X-ray system shall be able to irradiate a standard item of luggage 76.2 cm long, 58.4 cm wide and 25.4 cm high with no corner cut-off when placed anywhere on the conveyor. A folded detector array shall be used.

1.4.3 Baggage handling shall be by means of a conveyor belt system extending about 1 m beyond each end of the unit, and not more than 750 mm above floor level.

1.4.4 An extension roller conveyor to allow for the collection of examined baggage shall be proposed as an option.

1.4.5 Conveyor belt speed shall be not less than 0.2 m per second, in continuous operation.

1.4.6 The conveyor load capacity shall be a minimum of 75 Kg.

1.4.7 The conveyor belt and discharge roller conveyor shall be anti-static.

1.4.8 The conveyor belt and discharge roller conveyor shall not have finger/bag catch points. The gap between the conveyor belt and discharge roller conveyor shall not form any baggage trap.

1.4.9 The conveyor belt and discharge roller conveyor shall be quiet in operation and shall not generate excessive noise or heat. The tenderer shall state the noise level of the conveyor belt system.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**

1.4.10 The belt used to transport the baggage should be made of a durable material that is easy to clean but also causes a minimum of radiation absorption. If a zipper or joint is used to facilitate replacement it should be invisible on the display.

1.4.11 The X-ray equipment shall be fitted with suitable castors or wheels for ease of transportation/movement. Locking devices or screw-down pads shall be provided for securing the x-ray equipment at their operating positions.

**1.5 Safety Requirements**

1.5.1 The health and safety of operators and other persons using or coming in contact with the equipment must be considered in the equipment design.

1.5.2 The equipment shall be free from sharp comers or protrusions that can puncture the skin or clothing or injure persons moving normally within the immediate area. All mechanically driven components shall be protected against accidental entrapment of, or attachment to any part of the human body or clothing that may come close to the moving component during normal operation. An emergency stop switch, of the conveyer belt, shall be provided at each end of the X-ray equipment.

1.5.3 The equipment shall also be free of potential electrical shock hazards during operation. For this purpose, the spirit and intent of UL 187 shall apply. (UL 187 - STANDARD FOR X-RAY EQUIPMENT, 7th Edition dated April 30, 1998)

1.5.4 The X-ray system shall comply with the requirements of the radiation safety specifications under jurisdiction. e.g. 21 CFR 1020.40 (c) (21 CFR 1020.40 - US Government Code of Federal Regulations for Cabinet X-ray systems) for America or Health and Safety Regulations #1333 (The Ionizing Radiations Regulations No 1333, HMSO 1985) for the UK. The X-ray system shall be certified as being in full compliance with the national radiological health standards of the country of manufacture.

1.5.5 To be considered safe for screened items, the X-ray system must not produce effects that will interfere with the intended use of the items or their contents. X-ray exposure to any part of an item that may contain unprocessed photographic film shall not exceed 1 mR (10 μSv) per screening.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**

**2. METAL DETECTOR ARCHWAY**

**2.1 Detection/Performance Requirements**

2.1.1 The equipment must be capable of detecting real and simulated metal weapons. Weapons must be detectable through heavy outer garments, it should not be possible to mask out any metal objects from being detected. The sensitivity should be uniform throughout the archway. The metal detector shall be capable of detecting, equally well, metal threats fabricated of ferrous and/or non-ferrous metals.

2.1.2 The equipment shall be capable of consistently detecting all of the weapons listed as Test Devices. These unloaded, fully assembled weapons shall be detected at certain locations while at various orientations and speeds within the archway. The selection of these weapons is intended to represent a sample of the perceived threat, and because their size and/or metal composition makes them problematic to detect.

**TEST DEVICES**

- (1) Revolver - North American Arms (NAA) .22 Cal. long rifle, 5-shot revolver. Stainless steel is major composition.
- (2) Derringer - American Derringer Corp., .38 Cal., 2-shot derringer, Model 7. Aluminium is major composition.
- (3) Pistol – Phoenix Arms .25 Cal., automatic pistol, Raven. Alloy of zinc and aluminium is major composition
- (4) Davis model D-32, .32 Cal, aluminium.
- (5) FIE Titan - 0.25 Cal automatic, aluminium and steel.
- (6) Ramline Exactor - .22 Cal, tool steel and T6 alloy. Barrel is hybrid injection-moulded polymer and steel. Grip/frame is injection-modified nylon.
- (7) Berretta 950B, 6.35 Cal, aluminium and steel.

2.1.3 The equipment shall detect each weapon at different orientations in each zone. The following figure displays the 24 possible orientations and Paragraph 2.1.4 lists the orientations to be detected per zone for each weapon.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**



**24 Weapon Orientations**

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****2.1.4 Orientation Per Weapon and Location**

	<b>ZONE 1</b>	<b>ZONE 2</b>	<b>ZONE 3</b>	<b>ZONE 4</b>
DAVIS D32	ALL ORIENTATIONS	2,3,14,15,17,18,23,24	ALL ORIENTATIONS	5,8,9,12,13,14,15,16,17,18,23,24
NAA REVOLVER	ALL ORIENTATIONS	2,3,14,15,17,18,23,24	ALL ORIENTATIONS	5,8,9,12,13,14,15,16,17,18,23,24
FIE TITAN	1,4,5,8,9,12,13, 16	14,15,17,18,23,24	ALL ORIENTATIONS	5,8,9,12,13,16
RAVEN ARMS	1,4,5,8,9,12,13, 16	14,15,17,18,23,24	ALL ORIENTATIONS	5,8,9,12,13,16
AMERICAN DERRINGER	1,4,5,8,9,12,13, 16	14,15,17,18,23,24	ALL ORIENTATIONS	5,8,9,12,13,16
BERETTA 950B	1,4,5,8,9,12,13, 16	14,15,17,18,23,24	ALL ORIENTATIONS	13,16
RAMLINE EXACTOR	1,4,13,16	14,15,17,18,23,24	NO ORIENTATION	NO ORIENTATION

- 2.1.5 The equipment shall detect the weapons at speeds ranging from 50 cm/sec to 130 cm/sec in zones 1, 2, and 3. In zone 4 it shall detect the weapons at speeds ranging from 90 cm/sec to 130 cm/sec.
- 2.1.6 The equipment shall detect the weapons in all listed locations, orientations, and speeds on three consecutive passes. Failure to meet this requirement will be considered as not detecting.
- 2.1.7 The proposed equipment should be capable of operating on a variety of floor types (concrete/rebar, computer, or metal free) without its detection ability being affected.

TITLE: **AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****2.2 Discrimination**

2.2.1 The proposed equipment shall be capable of consistently discriminating (i.e. not detecting) innocuous items typically carried by the traveling public when these items are passed at various speeds, in their usual location. The secondary search requirements for normal passenger flow at an airport should be less than 10%.

2.2.2 The following is a list of the innocuous items typically carried by the traveling public:

1. Men's Dressed Shoes, with steel shanks.
2. Keys (Seven assorted).
3. Quartz watch, non-magnetic metal case and band.
4. Two (2) ballpoint pens, non-magnetic stainless steel with gold or chrome plate.
5. Glasses with metal frame, non-magnetic.
6. Pocket Change, Loose US Coins, four Quarters, three dimes, two nickels, and four pennies.
7. Brass Belt Buckle, open frame/loop type with tang, about 35 by 40 by 3 mm (1.4 by 1.6 by 0.125 in.), 29 to 37 g (1 to 1.3 oz).
8. Cigarette pack, aluminum foil-lined.
9. Metal zipper (15 cm / 6").

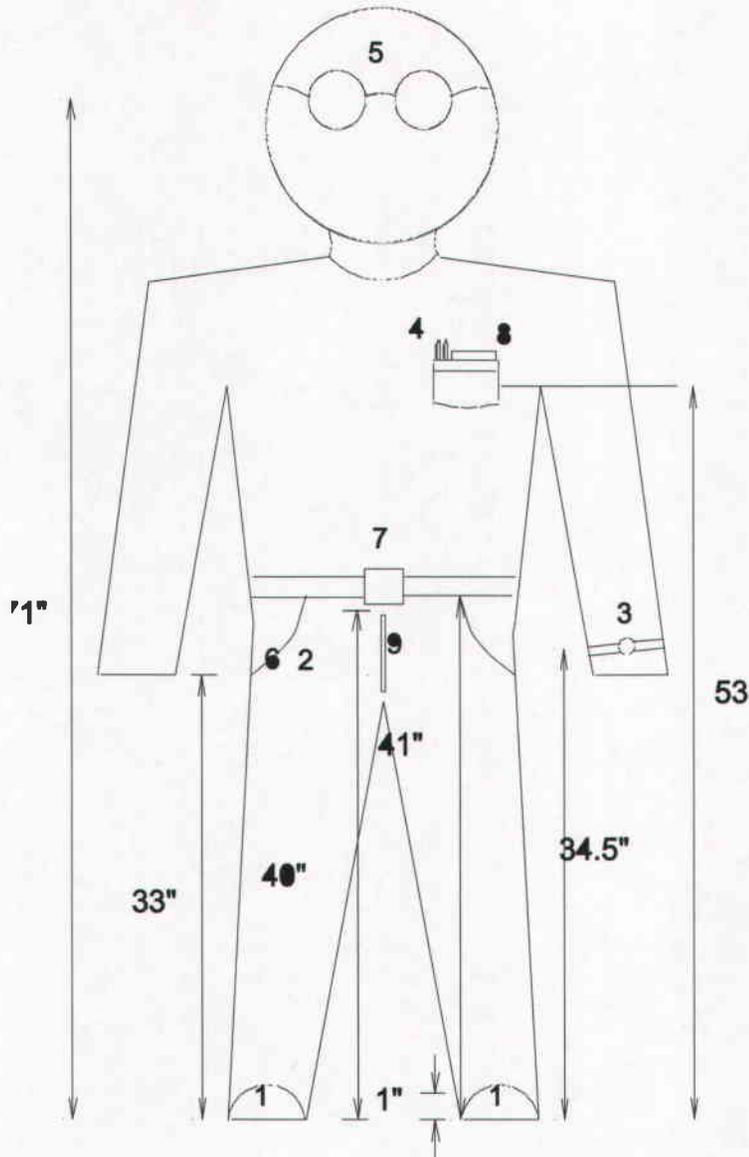
2.2.3 The following figure indicates the location of the innocuous items.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**



**Figure 3**  
**Innocuous Item Locations**

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

- 2.2.4 The speeds at which the innocuous items are typically passed through the metal detector are; 50, 90, and 130 cm/sec.
- 2.2.5 Consistency in discrimination will be considered as achieved when the equipment does not detect the innocuous items on three consecutive passes.
- 2.2.6 With the equipment's sensitivity set to meet the detection requirements of Paragraph 2.1, it should be possible to discriminate all of the innocuous items. With the equipment's sensitivity set, such that the signal response is no less than 60% of that obtained when the detection requirements of Paragraph 2.1 are met, it shall be possible to discriminate all of the innocuous items.
- 2.3 Controls and Features**
- 2.3.1 The sensitivity of the metal detector shall be programmable over a range of different size or density of metal objects to be detected. The possible programmable range shall be stated in the proposal.
- 2.3.2 Only those controls, required to operate the equipment (e.g. Power On/Off, Audio Volume), shall be accessible to the operator. Other controls, programming and adjusting devices shall be tamper-proof and located in a secure and lockable location. If access is restricted by means of a password / access code, this code shall be programmable
- 2.3.3 It should be possible to adjust the equipment's sensitivity at floor level independently of the main sensitivity. The range of adjustment should be from 0 to 200% of the main sensitivity.
- 2.3.4 The equipment should be capable of remote monitoring/adjustment via telephone type lines and appropriate hardware/software. It should be possible to remotely monitor alarms, run diagnostics, and monitor/control/adjust the equipment's operation and maintenance functions.
- 2.4 Alarms**
- 2.4.1 The equipment shall have both audible and visual alarm indications. The metal detector shall provide a visual indication proportional to the size or density of the metal object present in the detecting field and an audible alarm when the size or density of the metal object exceeds a pre-set value.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

- 2.4.2 The visual indication and audible alarm shall be programmable and adjustable. The audible alarm volume shall be operator adjustable but only maintenance personnel shall control the minimum audio level to which the volume can be adjusted. The audible alarm shall produce a sound level of at least 80 dB at a distance of 1 meter, and it should be able to produce 90 dB with the volume set to maximum. The visual indication shall have sufficient brightness / contrast to be clearly visible at a distance of 2 meters in bright light (sunlight).
- 2.4.3 The visual alarm should be a bar-graph type display and the portion of the bar graph that exceeds the alarm threshold should be of a different color (preferably red). The size and location of the display should make it highly visible to operators.
- 2.4.4 Units should indicate visually the location of all threats carried on the persons being screened; it should perform this function accurately and reliably.
- 2.4.5 The equipment should be capable of more than one user selectable alarm tone for use when multiple units are installed in close proximity.
- 2.4.6 Both the audible alarm and visual indication shall reset automatically. Alarm duration should be adjustable by authorized maintenance personnel. The duration of the alarm and visual indication shall be in the range of 1 second to 5 seconds.
- 2.4.7 The equipment should provide a readout, which represents a quantitative measurement of the signal amplitude, for testing purposes. This readout should be digital (numeric) and appear on the equipment's control/display panel when it is selected by maintenance personnel.
- 2.4.8 Visual indication facilities indicating whether the metal detector is in a normal operational mode or in a faulty state shall be provided.
- 2.5 Electrical Requirements**
- 2.5.1 The Equipment should be fully solid state. The equipment offered shall represent state-of-the-art technology and have a proven track record, preferably at other airports in the world. In this instance, state of the art is defined as microprocessor controlled and self contained.
- 2.5.2 The metal detector shall be capable of AC and DC operation. Under normal conditions, the metal detector shall be operated from the AC mains (see Section B, Paragraph 1.1). A standby Ni-Cad or equivalent battery of a capacity good for one (1) to two (2) hours of operation and the associated battery charger shall be provided for uninterrupted operation of the metal detector in case of mains failure.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****2.6 Mechanical Requirements**

2.6.1 The equipment shall be designed such that the passageway through which a passenger will walk shall have the following dimensions:

Width: min = 75 cm (30 in.)

Height: min = 195 cm (78 in.)

Depth: max = 91 cm (36 in.)

2.6.2 The equipment should be designed such that the outside dimensions will be kept to a minimum while still complying with all requirements of this specification.

2.6.3 The electronics unit should be mounted in the upper portion of the archway.

2.6.4 The external finish should be weather resistant, easily maintained (cleaned) and be available in a variety of colors.

2.6.5 The equipment shall be sturdy and not easily tipped. The equipment should not be susceptible to false alarms caused by mechanical vibrations. The floor area of the archway should be unobstructed.

2.6.6 The equipment should be light weight enough to facilitate relocation with a minimum expenditure of effort and manpower. Provision should be made to facilitate the fastening of the archway to the floor. An anchoring kit should be provided with the unit proposed.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**

**2.7 Safety Requirements**

2.7.1 The equipment shall not have any potential tripping hazards such as ramps, or external wires/cables, (other than AC), and be free of sharp corners and protrusions which could cause injury. The equipment shall be CE approved. The equipment shall have an operator accessible power ON/OFF switch that is clearly labeled.

2.7.2 The magnetic field produced by the equipment shall comply with the requirements of the Safety Specifications under jurisdiction. As well, the units shall also comply with the ICNIRP guidelines to ensure biological safety.

2.7.3 The equipment should have no detrimental affect on items such as magnetic storage media (audio/video/computer tapes, floppy disks etc) hearing aids, electrical/electronic equipment, pacemakers, and defibrillators.

**3. HAND-HELD METAL DETECTOR**

**3.1 Detection\Performance Requirements**

3.1.1 The equipment must be capable of detecting real and simulated metal weapons or any other metal objects that will cause a walk-through metal detector to alarm. These items may be fabricated of ferrous and/or non-ferrous metals, which should be equally detectable.

3.1.2 Weapons must be detectable through heavy outer garments at distances of up to 7.5 cm. (3 inches) while at the same time the unit should be able to detect and locate the smaller metal objects (e.g. rings, belt buckles and pocket knives) at lesser distances.

3.1.3 The sensitivity should be uniform on all parts of the detection probe normally used during the scanning procedure and it should not be possible to mask out any metal objects from being detected.

3.1.4 The metal detector shall be capable of detecting metal objects of variable sizes irrespective of their shape, position and orientation within the detecting field.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

3.1.5 The unit must be capable of scanning a person near the ankles and as close to the floor as possible, without interference from the steel commonly used in floor construction. A method of reducing the detection sensitivity from 7.5 cm. (3 inches) to no less than 2.5 cm. (1 inch) while scanning in this area is acceptable as long as it is a momentary function that is only in effect while being consciously selected by an operator.

3.1.6 The equipment shall be capable of detecting all of the threats listed below. The selection of these Test Devices is intended to be a sample of the perceived threat, they were selected since their size and / or metal composition make them problematic to detect. The equipment should detect all of them at a minimum distance of 7.5 cm. (3 inches) from the detection probe. The handguns are to be tested in an unloaded and fully assembled condition.

**TEST DEVICES**

- (1) Revolver - North American Arms (NAA) .22 Cal. long rifle, 5-shot revolver. Stainless steel is major composition.
- (2) Derringer - American Derringer Corp., .38 Cal., 2-shot derringer, Model 7. Aluminium is major composition.
- (3) Phoenix Arms Raven. .25 Cal., automatic pistol, Alloy of zinc and aluminium is major composition
- (4) Davis model D-32, .32 Cal, aluminium.
- (5) FIE Titan - 0.25 Cal automatic, aluminium and steel.
- (6) Ramline Exactor - .22 Cal, tool steel and T6 alloy. Barrel is hybrid injection-moulded polymer and steel. Grip/frame is injection-modified nylon.
- (7) Berretta 950B, 6.35 Cal, aluminium and steel
- (8) Knife - A 10 cm. (4") blade made of high quality stainless steel.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****3.2 Controls and Features**

3.2.1 Only a power ON/OFF switch should be available to the operator. A Momentary On switch is not acceptable. If needed, a sensitivity reduction switch as per Paragraph 3.1.3 could also be made available. Volume and audio frequency controls are desirable features, but an internal multi-turn adjustment control as a means of calibrating the detection sensitivity is essential. The audible alarm volume could be operator adjustable but only maintenance personnel shall control the minimum audio level to which the volume can be adjusted. The audio frequency and the sensitivity adjustments must also be accessible only by maintenance personnel.

3.2.2 The unit shall be self-calibrating upon turn-on and remain in that condition as the battery voltage decreases and environmental conditions change. No operator adjustment shall be required, any fine-tuning required throughout the operating day shall be automatic, operator transparent and shall not interfere with its use.

3.2.3 The equipment shall have both audible and visual alarm indications. The audible alarm shall produce a sound level of at least 80 dB at a distance of 1 meter, and it should be able to produce 90 dB with the volume set to maximum. The duration of the alarm should be long enough to allow sufficient time to locate small metal objects. The visual indication shall have sufficient brightness/contrast to be clearly visible at a distance of 1 meter in bright light (sunlight).

3.2.4 The equipment should be capable of more than one user selectable alarm tone for use when multiple units are installed in close proximity.

**3.3 Electrical Requirements**

3.3.1 The unit must be powered by a rechargeable battery that is capable of operating for a minimum of twenty-four (24) hours of normal use on a single charge. It must be possible to recharge the battery in less than eight (8) hours. A low battery indication must be available on the unit to warn the operator that the battery needs to be recharged.

3.3.2 The battery must be the quick disconnect type that can be easily removed by the operator without special tools. The operator must not gain access to any internal controls or circuitry during the battery change. The battery must not be of a common variety suitable for home use as it is much harder to control inventory.

3.3.3 The equipment should be protected against reversed battery polarity. The battery connector should be mounted on a backing plate to reduce the possibility of wire harness problems.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

3.3.4 A battery charger must be provided that is capable of completely recharging a fully discharged battery in 8 hours or less without damaging the battery. It would be desirable to have a charger that can determine the state of the battery and cycle it when it is required. The battery charger must operate on 220 volts  $\pm 10\%$ , 50 hertz  $\pm 5\%$ , 1 phase, 3 wires and be CE approved.

**3.4 Mechanical Requirements**

3.4.1 The equipment must be small, portable and light enough to be held in one hand. It should be comfortable to hold for long periods of time and have a wrist strap. A belt clip or a holster should be provided that is rigid enough for one handed loading and unloading of the unit. If the handle has a grip, it should be a non-porous material that will not absorb perspiration. A means of adhering the grip to the handle is necessary to discourage prying and tearing of the covering.

3.4.2 The equipment must be very rugged and continue to operate normally after it is dropped multiple times from a height of 1 meter on a concrete floor. It should be reinforced at those points where breakage is most likely to occur in the event it is dropped accidentally or is subject to other careless or improper handling. External controls or switches should be ruggedized and be flush mounted where possible.

3.4.3 The external finish should be weather resistant, easily maintained (cleaned) and be available in a variety of colours.

3.4.4 The operating weight must not exceed 600 grams including the battery, belt clip and wrist strap.

**3.5 Safety Requirements**

3.5.1 The equipment shall be free from sharp comers or protrusions that can puncture the skin or clothing.

3.5.2 The equipment shall have an operator accessible power ON / OFF switch that is clearly labeled.

3.5.3 The magnetic field produced by the equipment shall comply with the requirements of the Safety Specifications under jurisdiction. As well, the units shall also comply with the ICNIRP guidelines to ensure biological safety.

3.5.4 The hand-held metal detectors shall comply with R&TTE directive (1999/5/EC), which requires inductive devices to be tested to I-ETS 300 330.

TITLE:

**AVIATION SECURITY EQUIPMENT**

COMPLIANCE STATEMENT

3.5.5 The equipment should have no detrimental effect on items such as magnetic storage media (audio/video/computer tapes, floppy disks etc.) hearing aids, electrical/electronic equipment, pacemakers, and defibrillators.

#### 4. X-RAY INSPECTION SYSTEM ADVANCED TECHNOLOGY (AT)

**Note:** The proposed equipment shall have the capability to operate and be installed both in a stand alone and in-line configuration.

##### 4.1 Detection/Performance Requirements

4.1.1 The equipment must be capable of detecting real explosives when concealed within luggage bags.

4.1.2 The equipment shall be capable of consistently detecting all of the explosives listed below. These explosives shall be detected at various locations and orientations within the X-ray tunnel. The selection of these explosives is intended to represent a sample of the perceived threat. The proposed equipment shall have the capability to display all images for both accepted and rejected images.

##### EXPLOSIVES TO BE DETECTED

- (1) C-4
- (2) Sheet Explosives (Primasheet and Datasheet)
- (3) Semtex H
- (4) TNT
- (5) Dynamite (NG-based)

4.1.3 **Wire Display** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.254 mm diameter (30 AWG) and larger. (AWG = American Wire Gauge)

4.1.4 **Useful Penetration** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.511 mm diameter (24 AWG) and larger through 9.5 mm of aluminum.

4.1.5 **Spatial Resolution** - The equipment shall be able to distinguish and display multiple vertical and horizontal, un-insulated copper wires (at least 20 mm long) of 2.05 mm diameter (12 AWG) separated by 2 mm.

4.1.6 **Simple Penetration** - The equipment shall be able to penetrate through at least 18 mm of cold rolled steel and display, on the monitor, the lead digits behind it.

4.1.7 **Thin Organic Imaging** - The equipment shall be able to display organic material, within the range of effective Z between 6.8 and 7.4 that is 3 mm thick and measures at least 25 mm by 25 mm.

TITLE:

## AVIATION SECURITY EQUIPMENT

COMPLIANCE STATEMENT

4.1.8 **Material Differentiation** - The equipment shall provide material information that is based on the effective atomic number and/or density. Material identification shall be divided into a minimum of two (2) basic groups, organic matter and other matter, and each group shall be displayed in a distinct color. Materials, within the range of effective atomic number (Z) between 6.8 and 7.4 shall be clearly displayed as an organic type. This applies to materials that measure at least 25 mm by 25 mm and are 25 mm thick. Inorganic materials shall be displayed in other colors.

4.1.9 **Organic Differentiation** - The equipment shall be able to display organic matter of different effective atomic number and/or density. As a minimum, PVC and Nylon should appear on the monitor in distinct shades or colors.

4.1.10 **Useful Organic Differentiation** - The equipment shall be able to achieve Organic Differentiation as per Paragraph. 4.1.9 through at least 0.16 mm (1/16@) of steel.

**Note:** Use the new ASTM Test Object & procedures to test against these performance requirements, see ASTM F 792 – 01 Standard Practice For Evaluation Of Security X-ray Systems.

## 4.2 Alarms

The specified Advanced Technology (AT) X-ray system shall automatically identify threats for resolution by an operator. If the AT identifies a possible threat, it shall automatically generate an alarm and display the possible threat for operator resolution.

## 4.3 Controls and Features

4.3.1 On the control console, only those controls required to operate the equipment are to be accessible to the operator. Other controls shall be rendered inaccessible.

4.3.2 An automatic alarm function shall be available, on the AT system's control console, to alert security in the event of violation detection.

4.3.3 A 2X and a 4X zoom shall be available for any selected portion of the image. A minimum number of switch actions to accomplish this are desirable so as to speed up the processing time.

4.3.4 The equipment shall provide a single action switch that suppresses inorganic material on the display so that organic material becomes more prominent.

4.3.5 The equipment shall also provide a single action switch (Separate from the inorganic stripping) that suppresses organic material on the display so that inorganic material becomes more prominent.

**TITLE: AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

4.3.6 Other required controls/enhancement features are:

- Variable Gamma
- Edge Enhancement
- High penetration
- Reverse Video (B&W image)
- Conveyor direction control
- Conveyor Forward-Stop- Reverse

**4.4 Electrical Requirements**

The monitor supplied with each X-ray system shall meet the following minimum requirements:

- 19" color monitor
- Solid state design with contrast and brightness controls
- High Resolution, 1280 X 1024
- Anti-glare faceplate
- Flicker-free, non-interlaced
- Dot pitch of .28 mm or less
- Low radiation
- Tilt and swivel base

**4.5 Mechanical Requirements**

4.5.1 The minimum size of the tunnel opening shall be:

Width = 100 cm Height = 65 cm

4.5.2 The AT system shall be able to irradiate an item of luggage 125 cm long, 80 cm wide and 50 cm high with no corner cut-off. A folded detector array shall be used.

4.5.3 Baggage handling shall be by means of a conveyor belt system.

4.5.4 Conveyor belt speed shall be not less than 0.5 m per second, in continuous operation.

4.5.5 The conveyor distributed load capacity shall be a minimum of 180 Kg.

4.5.6 The conveyor belt shall be quiet in operation and shall not generate excessive noise or heat. The tenderer shall state the noise level of the conveyor belt system.

4.5.7 The belt used to transport the baggage should be made of a durable anti-static material that is easy to clean but also causes a minimum of radiation absorption. If a zipper or joint is used to facilitate replacement it should be invisible on the display.

4.5.8 The AT system shall be fitted with locking devices or screw-down pads for securing it at its operating position.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

4.5.9 In addition to self-testing upon power-ON, the AT system should have a built-in troubleshooting aid that will indicate without ambiguity the required repairs should the equipment become unserviceable. The preferred method of indicating system failures is through plain language messages or self-explanatory images on the video monitor. The software should also provide menu selectable indications of critical operating parameters i.e. power supply voltages, X-ray tube current, high voltage, defective diodes in the detector array.

**4.6 Safety Requirements**

4.6.1 The health and safety of operators and other persons using or coming in contact with the equipment must be considered in the equipment design.

4.6.2 The equipment shall be free from sharp corners or protrusions that can puncture the skin or clothing or injure persons moving normally within the immediate area. All mechanically driven components shall be protected against accidental entrapment of, or attachment to any part of the human body or clothing that may come close to the moving component during normal operation. An emergency stop switch, of the conveyer belt, shall be provided at each end of the AT system.

4.6.3 The equipment shall also be free of potential electrical shock hazards during operation. For this purpose, the spirit and intent of UL 187 shall apply. (UL 187 - STANDARD FOR X-RAY EQUIPMENT, 7th Edition dated April 30, 1998)

4.6.4 The AT system shall comply with the requirements of the radiation safety specifications under jurisdiction. e.g. 21 CFR 1020.40 (c) (21 CFR 1020.40 - US Government Code of Federal Regulations for Cabinet X-ray systems) for America or Health and Safety Regulations #1333 (The Ionizing Radiations Regulations No 1333, HMSO 1985) for the UK. The AT system shall be certified as being in full compliance with the national radiological health standards of the country of manufacture.

4.6.5 To be considered safe for screened items, the AT system must not produce effects that will interfere with the intended use of the items or their contents. X-ray exposure to any part of an item that may contain unprocessed photographic film shall not exceed 1 mR (10  $\mu$ Sv) per screening.

TITLE:

**AVIATION SECURITY EQUIPMENT**

COMPLIANCE STATEMENT

**SECTION C – DETAILED DESCRIPTION OF SYSTEM**

**5. COMPUTED TOMOGRAPHY (CT) BAGGAGE INSPECTION SYSTEM**

**Note:** The proposed equipment shall have the capability to operate and be installed both in a stand alone and in-line configuration.

**5.1 Detection / Performance Requirements**

5.1.1 The equipment's detection performance must be FAA certified, detecting real explosives when concealed within luggage bags. The tender shall provide evidence that the systems are certified by the FAA for airport use, as an explosives detection system. The tenderer shall furnish copies of FAA Explosives Detection System (EDS) certificates for the exact hardware and software configuration to be supplied; only the most recently certified systems shall be offered. The proposed equipment shall have the capability to display all images for both accepted and rejected images.

5.1.2 Three different CT systems are required, a low-throughput system, a medium throughput system and a high throughput system. These systems shall be capable of screening;

Low-throughput CT system	=	100 bags per hour
Medium-throughput CT system	=	350 bags per hour
High-throughput CT system	=	500 bags per hour

These system throughput rates shall be the maximum, certified EDS speed (excluding threat resolution time) as demonstrated in the FAA certification process.

5.1.3 **Wire Display** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.511 mm diameter (24 AWG) and larger. (AWG = American Wire Gauge).

5.1.4 **Useful Penetration** - The equipment shall be capable of displaying un-insulated copper wires (at least 20 mm long) of 0.511 mm diameter (24 AWG) and larger through 9.5 mm of aluminum.

5.1.5 **Spatial Resolution** - The equipment shall be able to distinguish and display multiple vertical and horizontal, un-insulated copper wires (at least 20 mm long) of 2.05 mm diameter (12 AWG) separated by 2 mm.

TITLE:

## AVIATION SECURITY EQUIPMENT

COMPLIANCE STATEMENT

## SECTION C – DETAILED DESCRIPTION OF SYSTEM

- 5.1.6 **Simple Penetration** - The equipment shall be able to penetrate through at least 14 mm of cold rolled steel and display, on the monitor, the lead digits behind it.
- 5.1.7 **Thin Organic Imaging** - The equipment shall be able to display organic material, within the range of effective Z between 6.8 and 7.4 that is 3 mm thick and measures at least 25 mm by 25 mm.
- 5.1.8 **Material Differentiation** - The equipment shall provide material information that is based on the effective atomic number and/or density. Material identification shall be divided into a minimum of two (2) basic groups, organic matter and other matter, and each group shall be displayed in a distinct color. Materials, within the range of effective atomic number (Z) between 6.8 and 7.4 shall be clearly displayed as an organic type. This applies to materials that measure at least 25 mm by 25 mm and are 25 mm thick. Inorganic materials shall be displayed in other colors.
- 5.1.9 **Organic Differentiation** - The equipment shall be able to display organic matter of different effective atomic number and/or density. As a minimum, PVC and Nylon should appear on the monitor in distinct shades or colors.
- 5.1.10 **Useful Organic Differentiation** - The equipment shall be able to achieve Organic Differentiation as per Paragraph 5.1.9 through at least 0.16 mm (1/16") of steel.

**Note:** Use the new ASTM Test Object & procedures to test against these performance requirements, see ASTM F 792 – 01 Standard Practice For Evaluation Of Security X-ray Systems.

**5.2 Alarms**

The specified Explosives Detection System (EDS) shall use Computed Tomography (CT) X-ray technology to automatically identify threats for resolution by an operator. The EDS shall identify areas of interest and automatically take CT slices of the possible threats. If the EDS identifies a possible threat, it shall automatically generate an alarm and display the possible threat for operator resolution, including manual selection of additional CT slices.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****5.3 Controls and Features**

5.3.1 Explosives Detection System operation shall be accomplished at an operator's console immediately beside the System for stand-alone installations. System operators shall be able to operate the System and assess alarm bags via the operator's console that is supplied with the System delivered. On the control console, only those controls required to operate the equipment are to be accessible to the operator. Other controls shall be rendered inaccessible.

5.3.2 The CT systems shall be programmable to automatically detect explosives and /or contraband.

5.3.3 The systems shall have a screening mode that holds bags and parcels inside the machine until an operator makes a decision.

5.3.4 In addition to self-testing upon power-ON, the CT system should have a built-in troubleshooting aid that will indicate without ambiguity the required repairs should the equipment become unserviceable. The preferred method of indicating system failures is through plain language messages or self-explanatory images on the video monitor. The software should also provide menu selectable indications of critical operating parameters i.e. power supply voltages, X-ray tube current, high voltage, defective diodes in the detector array.

5.3.5 The CT systems shall come with two (2) monitors, one to display the standard projection X-ray image and the other for CT slice images. The systems shall display highly visible contrasting colors for explosives or contraband.

- |                       |   |        |
|-----------------------|---|--------|
| a) Threat Coloring    | : | Red    |
| b) Metal Coloring     | : | Blue   |
| c) Detonator Coloring | : | Green  |
| d) Shield Coloring    | : | Yellow |

5.3.6 Other required controls/enhancement features are:

- a) With Reverse Conversion for Depth of Color
- b) Image Enlargement
- c) Image Storage

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****5.4 Electrical Requirements**

The two (2) monitors supplied with each CT system shall be identical and meet the following minimum requirements:

- 17" color monitor
- Solid state design with contrast and brightness controls
- High Resolution, 1280 X 1024
- Anti-glare faceplate
- Flicker-free, non-interlaced
- Tilt and swivel base

**5.5 Mechanical Requirements**

- 5.5.1 The low and medium-throughput CT systems shall be quick detection devices that are installed as stand-alone machines in a public, airport terminal. Baggage and parcels will be manually loaded into the systems for X-ray and computed tomography image processing to accurately and quickly detect materials with explosive parameters. Through software modifications, the systems shall be configurable to automatically detect contraband including illegal drugs
- 5.5.2 The high-throughput CT system shall be a quick detection device that is integrated with the Airport's BHS. Baggage will be manually or automatically routed to the System for X-ray and computed tomography image processing to accurately and quickly detect materials with explosive parameters. System scanning devices will be physically installed on baggage handling system conveyor belts by the supplier and shall be used for "Level 1" and "Level 2" screening as described below. The tenderer shall furnish all System signal installation and testing required for a fully functional System as described herein. Through software modifications, the System shall be configurable to automatically detect contraband including illegal drugs.
- 5.5.3 The specified EDS shall be of a compact design, not to exceed six meters length, when installed in the BHS. The minimum size of the tunnel opening shall be:
- Width = 60 cm    Height = 40 cm
- 5.5.4 The CT system shall be able to irradiate an item of luggage 100 cm long, 60 cm wide and 40 cm high.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM**

5.5.5 Baggage handling in the CT shall be by means of a conveyor belt system. The conveyor distributed load capacity shall be a minimum of 100 Kg. The conveyor shall be quiet in operation and shall not generate excessive noise or heat. The tenderer shall state the noise level of the conveyor system. The belt used to transport the baggage should be made of a durable anti-static material that is easy to clean but also causes a minimum of radiation absorption. If a zipper or joint is used to facilitate replacement it should be invisible on the display.

5.5.6 All CT systems shall be equipped with seismic/vibration mounts.

5.5.7 The low and medium-throughput CT systems shall be offered with inclined entrance conveyors and exit slides. The high throughput CT shall be offered with a flat entrance conveyor.

**5.6 Safety Requirements**

5.6.1 The health and safety of operators and other persons using or coming in contact with the equipment must be considered in the equipment design.

5.6.2 The equipment shall be free from sharp corners or protrusions that can puncture the skin or clothing or injure persons moving normally within the immediate area. All mechanically driven components shall be protected against accidental entrapment of, or attachment to any part of the human body or clothing that may come close to the moving component during normal operation. An emergency stop switch, of the conveyor belt, shall be provided at each end of the CT system and at the workstation.

5.6.3 The equipment shall also be free of potential electrical shock hazards during operation. For this purpose, the spirit and intent of UL 187 shall apply. (UL 187 - STANDARD FOR X-RAY EQUIPMENT, 7th Edition dated April 30, 1998)

5.6.4 The CT systems shall comply with the requirements of the radiation safety specifications under jurisdiction. e.g. 21 CFR 1020.40 (c) (21 CFR 1020.40 - US Government Code of Federal Regulations for Cabinet X-ray systems) for America or Health and Safety Regulations #1333 (The Ionizing Radiations Regulations No 1333, HMSO 1985) for the UK. The AT system shall be certified as being in full compliance with the national radiological health standards of the country of manufacture.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION C – DETAILED DESCRIPTION OF SYSTEM****6. ALTERNATIVE FOR X-RAY DIFFRACTION SYSTEM**

**6.1 *As an alternative to the CT and AT Detection Systems, the tenderer can propose an X-Ray Diffraction based system, for low, medium and high throughput baggage. As a minimum, the Tenderer shall:***

6.1.1 Produce documentary evidence of successful operational trials.

6.1.2 Produce a summary of machine performance in operational trial conditions.

6.1.3 Produce a statement of compliance with all relevant international safety and radiological protection legislation. The statement shall reference appropriate legislation. The system shall not cause harm to medicines, magnetic tape or electronic media.

6.1.4 Produce documentary evidence of installed production systems.

6.1.5 Produce evidence of certification by USTSA, DBKA, UK DFT or other internationally recognized body. (This need not refer to throughput)

6.1.6 Provide a method of Physical System Quality Testing (PSQT) that can be run on a daily basis and is independent of software driven SQT procedures.

**6.2 *As a minimum, the tenderer shall ensure that the proposed equipment has the following characteristics. The proposal shall clearly substantiate the following requirements:***

6.2.1 Employ the principle of X-ray Diffraction as its primary method of detection.

6.2.2 Be capable of processing more than 60 pieces of baggage per hour.

6.2.3 Have a probability of detection compliant with USTSA EDS Certification requirement.

6.2.4 Have a false alarm rate of less than 5%. (Including "dark alarms/density alerts".)

6.2.5 Be capable of detecting materials in, but not limited to, the USTSA Certification groups.

6.2.6 Be capable of detection an explosive mass of at least 75% of the USTSA Certification amount.

6.2.7 Be capable of operation as either a standalone system or integrated with a baggage handling system.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

- 6.2.8 Where there is no provision for operator intervention the system should operate on a 'go, no go' basis.
- 6.2.9 The system should failsafe to reject.
- 6.2.10 For engineering and control purposes, the equipment shall be capable of interrogation from a remote station by FTP or other data transmission protocol.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION D – ACCESSORIES AND SPARE PARTS****1. ACCESSORIES**

1.1 All necessary tools, test instruments, connectors, cables, plug-ins, adaptors, and other accessories required for routine maintenance of the equipment shall be provided. For items not normally included with the equipment, an itemized and individually costed list shall be included with the tender documentation.

1.2 Quantity of Accessory Sets:

- Hand-Held Metal Detector: 4 sets
- Metal Detector Archway: 4 sets
- X-Ray Inspection System: Hand-Carried Baggage 4 sets
- X-Ray Inspection System: Checked Baggage 4 sets
- X-Ray Inspection System Advanced Technology (AT): 1 set
- Low-Throughput Computed Tomography (CT) System: 1 set
- Medium-Throughput Computed Tomography (CT) System: 1 set
- High-Throughput Computed Tomography (CT) System: 1 set

**2. SPARE PARTS**

2.1 The supply of spares shall be based upon the manufacturer's anticipated reliability figures for the equipment in the intended service and location. A five-year (5) supply of manufacturer recommended spare parts and consumables shall be offered, based on 24 hour per day operation.

2.2 Quantity of Spares Kits:

- Hand-Held Metal Detector: 4 kits
- Metal Detector Archway: 4 kits

**TITLE: AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION D – ACCESSORIES AND SPARE PARTS**

- X-Ray Inspection System: Hand-Carried Baggage 4 kits
- X-Ray Inspection System: Checked Baggage 4 kits
- X-Ray Inspection System Advanced Technology (AT): 1 kit
- Low-Throughput Computed Tomography (CT) System: 1 kit
- Medium-Throughput Computed Tomography (CT) System: 1 kit
- High-Throughput Computed Tomography (CT) System: 1 kit

- 2.3 The list of spares shall assume module-level maintenance (Level II) and will include, wherever applicable, printed circuit cards and complete plug-in modules to enable rapid corrective action and restoration of equipment to service.
- 2.4 The spares list shall be fully itemized and individually costed and submitted as part of the tender documentation.
- 2.5 The tenderer shall guarantee the availability of all spare parts for a period of not less than 15 years.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION E - TECHNICAL DOCUMENTATION**

**1. GENERAL REQUIREMENTS**

1.1 The supplier shall provide complete sets of documents for each equipment as defined in this specification whether the equipment was manufactured by the supplier or procured by him from another vendor.

1.2 (Quantity: 1 hard copy and 1 soft copy with each unit)

1.3 All documentation shall be in the English language.

1.4 All documentation, at least in draft version, shall be available for inspection and approval at the time of the Factory Acceptance Test.

1.5 All documents shall be current editions with all amendments incorporated up to the time of delivery.

1.6 The component schedules, wherever they are located, shall include suitable code systems so that parts can be readily identified with both the circuit designators and with the component supplier.

1.7 All documents to be provided with the system shall be described in the tender submission in sufficient detail to permit an objective evaluation of the intent and scope of each document. Examples may be provided where the tenderer deems this to be desirable.

1.8 The documentation should cover the installation, maintenance and operation of all aspects of the equipment and systems.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION F - TESTS AND ACCEPTANCE****1. FACTORY ACCEPTANCE TEST**

- 1.1 The equipment shall be considered factory accepted by State Inspection For Flight Safety Oversight upon satisfactory completion of each Acceptance Test as certified by relevant test records signed by the tenderer's appointed representative and counter-signed by State Inspection For Flight Safety Oversight appointed representative(s), free of all discrepancies. Three copies of the said records shall be sent to State Inspection For Flight Safety Oversight addressed to the Mr. Khakim Trobov, Head of the State Inspection.
- 1.2 Notwithstanding any inspection or test conducted at factory prior to shipment, under this Article, all equipment shall be subject to acceptance on site in accordance and to State Inspection For Flight Safety Oversight right of rejection.
- 1.3 The Factory Acceptance Tests shall be performed at the tenderer's factory in accordance with the approved procedures, the intent of which shall be that those systems tests accepted at factory, as a minimum, shall be functionally duplicated on-site.
- 1.4 The Factory Acceptance Tests shall be conducted in the presence of representatives from State Inspection For Flight Safety Oversight whose names shall be advised to the tenderer at least two weeks prior to the commencement of tests. Following the satisfactory completion of the tests, State Inspection For Flight Safety Oversight shall sign and issue a Factory Acceptance Certificate.
- 1.5 If State Inspection For Flight Safety Oversight's appointed representative does not issue and sign the Factory Acceptance Certificate, he shall immediately notify the tenderer in writing with proper reference to any tests in the approved Acceptance Test schedule or to any part of the Specifications which the equipment has failed to meet. It is agreed between the parties that minor failures, which do not adversely affect the performance or operation of the equipment for the purpose intended and subsequently subject to modification by the tenderer at no extra cost, shall not be considered as items preventing State Inspection For Flight Safety Oversight Factory Acceptance.
- 1.6 With respect to State Inspection For Flight Safety Oversight's reason for non-acceptance, the tenderer shall give notice to State Inspection For Flight Safety Oversight stating how it intends to rectify the equipment in order that State Inspection For Flight Safety Oversight may repeat the tests with which the equipment did not initially comply and also the tests in respect of those parts of the equipment affected by the rectification. The tenderer shall bear all costs associated with the re-testing (i.e. travel, accommodation and subsistence costs for State Inspection For Flight Safety Oversight's representative(s) re-participation).

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION F - TESTS AND ACCEPTANCE**

- 1.7 If the equipment, or any part thereof, is not accepted by the anticipated final Factory Acceptance date for the systems, State Inspection For Flight Safety Oversight shall have the right to request that the accepted component equipment be shipped, provided that the use of the equipment, or any part thereof, for any purpose by State Inspection For Flight Safety Oversight under such conditions shall not imply Final Acceptance in any way and the tenderer shall be afforded the earliest possible opportunity of taking such steps as may be necessary to obtain Final Acceptance.
- 1.8 In the event of State Inspection For Flight Safety Oversight or State Inspection For Flight Safety Oversight representatives failing to be present at the time and place appointed by the tenderer for the Factory Acceptance Tests, the tenderer may proceed with the tests which shall be deemed to have been made in the presence of State Inspection For Flight Safety Oversight and State Inspection For Flight Safety Oversight representatives and the tenderer shall sign the Factory Acceptance Certificate for corresponding purposes which shall have the same meaning and value as if it had been signed by State Inspection For Flight Safety Oversight. A copy of the production test results must be submitted to State Inspection For Flight Safety Oversight for review prior to shipment.
- 1.9 The equipment shall be considered factory accepted by State Inspection For Flight Safety Oversight upon satisfactory completion of each Acceptance Test as certified by the relevant test records signed by the tenderer's appointed representative and counter-signed by State Inspection For Flight Safety Oversight's appointed representative(s), free of all discrepancies. Three copies of the said records shall be sent to State Inspection For Flight Safety Oversight addressed to the Chief, Field Procurement Section.
- 1.10 The tenderer shall ensure that all the equipment included under the eventual Contract, as well as spare parts, tools, test equipment, accessories and documentation are present at the Factory Acceptance, for State Inspection For Flight Safety Oversight inspection, review and approval.
- 1.11 The tenderer shall include in his offer, the air travel to and from Uzbekistan, accommodation and DSA costs for the participation at the Factory Acceptance Test by four (4) State Inspection For flight Safety Oversight personnel from Uzbekistan, namely 4 (four) engineers for Technical Acceptance and 2 (two) instructors of Air Traffic Controllers.
- 1.12 The tenderer shall identify in the Statement of Compliance each requirement that will be tested during the conduct of the FAT.

TITLE:

**AVIATION SECURITY EQUIPMENT**

COMPLIANCE STATEMENT

**SECTION F - TESTS AND ACCEPTANCE**

**2. SITE ACCEPTANCE TESTS (SAT)**

- 2.1 The SAT shall contain a series of tests to confirm that requirements and specifications are met in the Uzbekistan environment. They shall commence after installation is completed.
- 2.2 The SAT shall be conducted in three (3) phases as follows:
  - a) Provisional Site Acceptance Test (PSAT)
  - b) Operational Readiness Demonstration (ORD) phase (30 days).
  - c) Final Site Acceptance Test (FSAT)
- 2.3 The contractor shall demonstrate at PSAT phase, using mutually agreed upon test procedures, that all the equipment provided within this project is compliant to the technical specification and requirements. All deficiencies identified at the PSAT phase shall be corrected by the tenderer prior to the FSAT phase. The PSAT shall be then considered to have been successful.
- 2.4 There shall be a 30 day period between the PSAT and FSAT phases. During this period of 30 days, the operation and maintenance personnel shall be operating the system normally in order to identify any defect, equipment software and/or hardware, modifications, adjustments, etc. which shall be corrected by the contractor prior to the FSAT.
- 2.5 When all the deficiencies identified during the PSAT, and all abnormal situations identified during the 30 days operational readiness test phase in Paragraph 3.4 above are corrected, then the FSAT can take place.
- 2.6 The tenderer shall give Uzbekistan State Inspection For flight Safety Oversight/State Inspection For Flight Safety Oversight representative(s) at least thirty (30) days advance notice of the date on which the equipment shall be ready for the PSAT and FSAT.
- 2.7 The tenderer shall provide the test equipment required for the PSAT.
- 2.8 The tenderer shall provide written test plans and procedures for the PSAT. Copies of the detailed test plan and procedures are to be provided to Uzbekistan State Inspection For flight Safety Oversight/State Inspection For Flight Safety Oversight for approval not less than 45 days prior to the conduct of the tests. The SAT shall be witnessed by Uzbekistan State Inspection For flight Safety Oversight/State Inspection For Flight Safety Oversight representatives.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION F - TESTS AND ACCEPTANCE**

- 2.9 All results of the SAT shall be duly recorded and shall be signed by the contractor. These results shall form the basis for the installation acceptance and for station records.
  
- 2.10 If the system or sub-system fails to pass one or more of the tests, i.e. the test(s) shows that the system is non-compliant with the requirements of the specifications and the proposal, then the contractor shall correct the cause of the failure(s). Uzbekistan State Inspection For flight Safety Oversight/State Inspection For Flight Safety Oversight shall reserve the right to have all the tests or any single test performed again until compliance is proven.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION G - INSTALLATION****1. INSTALLATION**

- 1.1 The supplier shall be responsible for the installation of the equipment (except for metal detectors) at the following Uzbekistan airports.

	Tashkent	Samarkand	Bukhara	Urgench	Termez
Carry-on Bag. X-ray	10	3	3	3	1
Checked Bag. X-ray	3	2	2	2	1
AT System	2				
High Throughput CT	1 or 2				
Medium Throughput CT		1	1		
Low Throughput CT	2	1			

- 1.1 Example of each piece of equipment will be also placed in the Training Institute.
- 1.2 Provision of main power supply and civil works, if required, will be the responsibility of the State Inspection For flight Safety Oversight of Uzbekistan. Notwithstanding the contractor shall confirm that the provision of power and ground at the equipment locations are adequate.
- 1.3 All material, test equipment and tools required for the installation and testing of the equipment shall be provided by the supplier.
- 1.4 Uzbekistan's DGAC personnel will be assigned to participate and / or monitor the installation process.
- 1.5 Any spare parts used to replace faulty items during the installation and testing of the equipment shall be replaced by the supplier free-of-charge within two weeks.
- 1.6 The tenderer shall provide details regarding any significant installation maintenance and/or verification requirement that will involve significant effort or expertise. The tenderer will indicate the level of support that will be provided in this event.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION H - TRAINING AND BACK-UP SUPPORT****1. METAL DETECTOR TRAINING**

1.1 For both Hand-Held Metal Detectors (HHMD) and Walk-Through Metal Detectors (WTMD) the Tenderer shall propose a one (1) week factory training session for 10 State Inspection For flight Safety Oversight Uzbekistan personnel. training format will be an audiovisual presentation.

1.2 The Operator Training shall be provided to train all equipment operators at Uzbekistan airports where the equipment will be used. The Training shall provide sufficient detail and scope to enable the recipients to become proficient in the operation of the equipment. The training video will cover but not be restricted to the following topics:

- Purpose of the unit
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures
- Testing the unit with the approved test device
- Operation of the unit
- Basic Troubleshooting

1.2.1 The tenderer shall ensure that one (1) Operator Training Video cassette, in PAL video format, shall be delivered with each metal detector. Along with each video, ten (10) Operator's Pamphlets shall be supplied so that each Trainee may have a quick reference guide on the equipment's operation.

1.3 A Technical Training Video shall be provided to train Uzbekistan site maintenance technicians to enable them to repair the equipment down to the Lowest Replaceable Module (LRM) level. The video must be of sufficient detail and scope to enable the recipients to become proficient in the installation and maintenance of the equipment. The training video will cover but not be restricted to the following topics:

- Purpose of the unit;
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION H - TRAINING AND BACK-UP SUPPORT**

- Testing the unit with the approved test device
- Operation of the unit
- Installation instructions
- Preventive maintenance instructions
- Troubleshooting procedures
- Corrective maintenance procedures

1.3.1 One video a cassette, in PAL video format, shall be delivered with each metal detector. Along with each training video, 10 student manuals shall be provided so that each technician may have his own technical manual.

**2. X-RAY SYSTEM TRAINING**

2.1 For the Carry-on baggage X-ray, the Checked baggage X-ray and the AT, formal in-class training shall be provided.

2.2 Three (3) Operator Instructor Training Courses shall be provided at the Contractor's facilities in a classroom that is suitably lit, furnished and air-conditioned, where a functional X-Ray unit is installed. The training shall be delivered in English by a certified expert on the subject who will use a "hands-on" teaching / learning approach, supplemented by appropriate written and audio-visual materials. The class size will be restricted to ten (10) participants; the maximum duration of the training session is estimated at 1 week.

2.2.1 This course is intended for supervisory / instructor staff of security guards who will then conduct operator training sessions for equipment operators at the Uzbekistan airports where the units will be installed. The Contractor's course must therefore be of sufficient detail and scope to enable the recipients to become effective trainers on the equipment.

2.2.2 The Operator Instructor Training Course will cover but not be restricted to the following topics:

- Purpose of the unit
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION H - TRAINING AND BACK-UP SUPPORT**

- Testing the unit with the approved test device
- Operation of the unit
- Basic Troubleshooting

2.2.3 Each participant on the Operator Instructor Training Course, shall be provided with a copy of an Operator's Student Manual. A quantity of five (5) additional Operator's Student Manuals shall be supplied with each equipment so that at the Uzbekistan airports where the equipment is installed, the Operator Instructors can provide each operator with their own manual.

2.2.4 One complete simulator training package will be provided for each type of X-ray system adopted. Package will include software and touch-pad Operator Console.

2.3 Two (2) Technical Training Courses shall be provided at the Contractor's facilities, of one (1) week duration each, in a laboratory that is suitably lit, furnished and air-conditioned, where at least two (2) functional X-Ray units are installed. The training shall be delivered in English by a certified expert on the subject who will use a "hands-on" teaching / learning approach, supplemented by appropriate written and audio-visual materials. The class size will be restricted to ten (10) participants; the maximum duration of the training session is estimated at 2 weeks.

2.3.1 This course is intended for site maintenance technicians to enable them to become proficient in the installation and maintenance of the equipment down to the Lowest Replaceable Module (LRM) level. The training course will cover but not be restricted to the following topics:

- Purpose of the unit;
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures
- Testing the unit with the approved test device
- Operation of the unit
- Installation instructions
- Preventive maintenance instructions
- Troubleshooting procedures
- Corrective maintenance procedures

2.3.2 Each participant shall be provided with a Student Manual so that each technician may have his own technical manual.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION H - TRAINING AND BACK-UP SUPPORT****3. CT SYSTEM TRAINING**

3.1 For the Low, Medium and High-throughput CT systems formal in-class training shall be provided.

3.2 Three (3) Operator Training Courses shall be provided at the Contractor's facilities in a classroom that is suitably lit, furnished and air-conditioned, where simulators or a functional CT unit is installed. The training shall be delivered in English by a certified expert on the subject who will use a "hands-on" teaching / learning approach, supplemented by appropriate written and audio-visual materials. The class size will be restricted to ten (10) participants; the maximum duration of the training session is estimated at 2 weeks.

3.2.1 This course is intended for equipment operators at the Uzbekistan airports where the units will be installed. The Contractor's course must therefore be of sufficient detail and scope to enable the recipients to become effective operators of the equipment.

3.2.2 The Operator Training Course will cover but not be restricted to the following topics:

- Purpose of the unit
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures
- Testing the unit with the approved test device
- Operation of the unit
- Basic Troubleshooting

3.2.3 Each participant on the Operator Training Course, shall be provided with a copy of an Operator's Student Manual.

3.3 Three (3) Technical Training Courses shall be provided at the Contractor's facilities in a laboratory that is suitably lit, furnished and air-conditioned, where at least two (2) functional CT units are installed. The training shall be delivered in English by a certified expert on the subject who will use a "hands-on" teaching / learning approach, supplemented by appropriate written and audio-visual materials. The class size will be restricted to ten (10) participants; the maximum duration of the training session is estimated at (four) 4 weeks.

TITLE:

**AVIATION SECURITY EQUIPMENT****COMPLIANCE STATEMENT****SECTION H - TRAINING AND BACK-UP SUPPORT**

3.3.1 This course is intended for site maintenance technicians to enable them to become proficient in the installation and maintenance of the equipment down to the Lowest Replaceable Module (LRM) level. The training course will cover but not be restricted to the following topics:

- Purpose of the unit
- Description of the unit's main components
- Safety of the unit
- Unit Inspection Procedures
- Unit Start-up Procedures
- Testing the unit with the approved test device
- Operation of the unit
- Installation instructions
- Preventive maintenance instructions
- Troubleshooting procedures
- Corrective maintenance procedures

3.3.2 Each participant shall be provided with a Student Manual so that each technician may have his own technical manual.

**Note:** The costs for airfare and accommodations relevant to Factory Training shall be borne by State Inspection For flight Safety Oversight, Uzbekistan.

**4. TRAINING PLAN**

The tenderer shall include in his offer, the air travel to and from Uzbekistan, accommodation and DSA costs for the participation at the factory courses of personnel from Uzbekistan. The cost of these courses shall be itemized separately on the proposal. The tenderer shall supply with his proposal a training plan describing projected training dates and detailed course syllabi.

**5. BACK-UP SUPPORT**

5.1 The tenderers shall advise and provide information on their local representative in Uzbekistan. Details of the level of servicing and engineering advice locally available, the range of spare parts held and the location(s) of the representatives shall be provided in the proposal.

TITLE:

**AVIATION SECURITY EQUIPMENT**

**COMPLIANCE STATEMENT**

**SECTION H - TRAINING AND BACK-UP SUPPORT**

- 5.2 Details of any other back up services that the tenderer provides, such as regular visits by technical representatives, should also be included in the tender documentation.
  
- 5.3 The supplier is also required to quote a price to offer a maintenance contract to conduct preventative and corrective maintenance on the equipment for a period of one (1), two (2) and three (3) years.
  
- 5.4 The tenderer shall provide details of any post-warranty module repair or replacement service they are prepared to offer. Such offers should be itemized and should give sufficient detail to permit an objective evaluation of the benefits and cost effectiveness of the service.

**SIFSO TERMS AND CONDITIONS**  
**(EQUIPMENT AND SERVICES)**

**1. ABBREVIATIONS AND DEFINITIONS**

In these conditions:

- |    |                                                                                                                 |                                                                                                                                                                                                                                                                                         |
|----|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) | "SIFSO means":                                                                                                  | - State Inspection For Flight Safety Oversight, 73B, Nukusskaya Street 7000 15, Republic of Uzbekistan, Tele: (998-71) 133-61, Fax: (998-712) 54-14-82                                                                                                                                  |
| b) | HSIFSO means"                                                                                                   | - Head of State Inspection For flight Safety Oversight                                                                                                                                                                                                                                  |
| c) | "Contractor's Appointed Representative" means:                                                                  | - An officer notified to SIFSO as being authorized to act on behalf of the Contractor.                                                                                                                                                                                                  |
| d) | "SIFSO Appointed Representative" means                                                                          | - An officer notified to the Contractor by the HSIFSO to represent SIFSO.                                                                                                                                                                                                               |
| f) | "Turn-key" means:                                                                                               | A type of Contract where the Contractor is responsible for the performance of all necessary<br>- surveys, studies, site visits, preparation and production of reports and recommendations, up to final acceptance of the results by SIFSO in accordance with the terms of the Contract. |
| g) | "Contract/Purchase Order" means:                                                                                | - The words Contract and purchase order shall be interchangeable and shall refer to the Contract/purchase order together with all attachments.                                                                                                                                          |
| h) | "Day" means:                                                                                                    | - Unless otherwise specified, a calendar day.                                                                                                                                                                                                                                           |
| i) | Words in the singular person shall also include the plural and vice versa where the context requires or admits. |                                                                                                                                                                                                                                                                                         |

	<p align="center"><b>State Inspection For Flight Safety Oversight</b></p> <p align="center"><b>TERMS AND CONDITIONS – EQUIPMENT AND SERVICES</b></p>	<p align="center">THIS COLUMN TO BE COMPLETED BY TENDERER</p> <p>Tenderer <b>must</b> state below, against <b>every</b> item, if these terms and conditions will be met; if not, explain. Failure to complete and return this form may invalidate the bid.</p> <hr/> <p align="center"><b>SUPPLIER</b></p>
<p><b>2.</b></p>	<p><b>STATUS OF SIFSO</b></p> <p>2.1 The Contractor recognizes that HSIFSO has the status of a mandatory of SIFSO</p> <p>2.2 Neither the Contractor nor its personnel shall be considered as an employee or an agent of SIFSO.</p> <p>2.3 Unless otherwise provided for in this Contract, SIFSO shall not be liable for claims of any kind arising in connection with the performance of this Contract.</p> <p><b>3. LANGUAGE OF CORRESPONDENCE</b></p> <p>3.1 All reports, correspondence and other technical information shall be in English.</p> <p><b>4. CONTRACTOR'S RESPONSIBILITY FOR EMPLOYEES</b></p> <p>4.1 The Contractor shall be responsible for the professional and technical competence of its employees and will select for work under this Contract reliable individuals who will perform effectively in the implementation of the Contract, respect the local customs and conform to a high standard of moral and ethical conduct.</p> <p>4.2 The Contractor and its employees shall conform to all applicable laws, regulations and ordinances promulgated by legally constituted authorities of the SIFSO.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>5. ASSIGNMENT OF PERSONNEL</b></p> <p>The Contractor shall not assign any personnel other than those referred to in this Contract for the performance of work in the field without the prior written approval of SIFSO. Prior to assigning any other personnel for the performance of work in the field, the Contractor shall submit to SIFSO for its consideration the curriculum vitae of any person the Contractor proposes to assign for such service.</p> <p><b>5.1</b></p> <p><b>6. REMOVAL OF PERSONNEL</b></p> <p><b>6.1</b> Upon written request from HSIFSO, the Contractor shall withdraw from the field any personnel provided under this Contract and shall replace such personnel by others acceptable to HSIFSO, if HSIFSO so requests.</p> <p><b>6.2</b> Such request for withdrawal or replacement shall not be considered as termination in part or in whole of this Contract under the provisions of Article 24 (Termination).</p> <p><b>6.3</b> All costs and additional expenses resulting from any withdrawal or replacement for whatever reason of any of the Contractor's personnel shall be at the Contractor's expense.</p> <p><b>7. WORKMEN'S COMPENSATION AND OTHER INSURANCE</b></p> <p><b>7.1</b> The Contractor shall provide and thereafter maintain appropriate workmen's compensation and liability insurance, with respect to and, prior to the departure for, overseas employment under this Contract of all employees who are hired outside Uzbekistan, and who are not citizens of Uzbekistan. The Contractor shall, upon request, provide SIFSO with satisfactory evidence of the insurance required under this Article.</p> <p><b>7.2</b></p> <p>The Contractor shall comply with the labour laws of Uzbekistan providing for benefits covering injury or death in the course of employment.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>8. EQUIPMENT TITLE/INSURANCE</b></p>	
<p>8.1 Title and risk of loss and damage to the equipment shall pass to HSIFSO after the installed equipment has been commissioned, has been found fully operational, and has been accepted by SIFSO on behalf of the HSIFSO. Consequently, the Contractor shall obtain and maintain all necessary insurances, including but not limited to transit, on-site and all appropriate in-country insurance covering all risks, including personal liability, as well as "war risks", unless otherwise agreed. The said insurances shall be effected on behalf of the Contractor and SIFSO/HSIFSO as their respective interests may appear.</p>	
<p>8.2 The Contractor shall be responsible for all insurance under this turn-key project. The Contractor shall therefore provide and thereafter maintain all necessary insurances, including but not limited to insurance against all risks in respect of its property or any equipment owned or leased by the Contractor and used in the execution of this Contract. The Contractor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, loss of or damage to property arising from or in connection with the provision of services and equipment under this Contract or the operation of any vehicles, boats, air planes, or other equipment owned or leased by the Contractor. The insurance shall be maintained by the Contractor up to the time title of equipment is passed to SIFSO/HSIFSO.</p> <p>8.3 The Contractor shall arrange that all insurance policies referred to in the preceding paragraph of this Article, shall include SIFSO/HSIFSO, and where appropriate, the sub-Contractor concerned, together with the Contractor as the insured. The Contractor shall, upon request, provide SIFSO with satisfactory evidence of the insurance required under this Article.</p>	
<p>8.4 Any equipment and supplies that may be furnished by HSIFSO to the Contractor shall be returned to HSIFSO at the conclusion of this Contract or when no longer needed by the Contractor. Such equipment, when returned to HSIFSO shall be in the same condition as when delivered to the Contractor, subject to normal wear and tear. The Contractor shall be liable to compensate HSIFSO for equipment determined to be damaged or degraded beyond normal wear and tear.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>9. INDEMNIFICATION</b></p> <p>9.1 The Contractor shall indemnify, hold and save harmless and defend at its own expense SIFSO, its officers, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including their costs and expenses, arising out of acts of omissions of the Contractor or the Contractor's employees, officers, agents or sub-Contractors, in the performance of this Contract. This provision shall extend, <i>inter alia</i>, to claims and liability in the nature of workmen's compensation claims, product liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Contractor, its employees, officers, agents, servants, or sub-Contractors. The obligations under this clause do not lapse upon termination of this Contract.</p> <p><b>10. ENCUMBRANCES/LIENS</b></p> <p>10.1 The Contractor shall not cause or permit any lien, attachment or other encumbrance by any person to be placed on file in any public office or on file with SIFSO against any monies due or to become due for any work done or material furnished under this Contract, or by reason of any other claim or demand against the Contractor.</p> <p><b>11. CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION/PUBLIC DISCLOSURE</b></p> <p>11.1 All technical, financial or other documentation and data compiled by or received by the Contractor under this Contract shall be the property of SIFSO, and as such, shall be treated as confidential, and shall be delivered only to the SIFSO authorized officials upon completion of work under this Contract.</p> <p>11.2 The Contractor shall not communicate at any time to any other person, Government or external authority to SIFSO, any information known to it by reason of its association with SIFSO which has not been made public except with the authorization of SIFSO; nor shall the Contractor at any time use such information for private advantage. These obligations do not lapse upon termination of the Contract.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p>11.3 Unless authorized in writing by SIFSO, the Contractor shall not disclose the particulars of the Contract, advertise or make otherwise public the fact that it is performing, or has performed, services for SIFSO, or use the name, emblem, or official seal of SIFSO, or any abbreviation of the name of SIFSO for advertising or for any other purpose.</p>	
<p><b>12. COPYRIGHT, PATENTS AND OTHER PROPRIETARY RIGHTS</b></p>	
<p>12.1 Unless otherwise specified, SIFSO shall be entitled to all intellectual property and other proprietary rights including but not limited to copyrights, patents and trademarks, with regard to documents, software, or equipment and other materials which are produced or prepared or collected in consequence of or in the course of the execution of the Contract. At SIFSO's request, the Contractor shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights for the benefit of SIFSO in compliance with the requirements of the applicable law.</p>	
<p>12.2 It is the Contractor's responsibility to ensure that no intellectual property nor other proprietary rights including but not limited to copyrights, patents, and trademarks are violated and to defend at its own expense any suit or proceedings based on any claim of an infringement, provided that the Contractor is notified promptly in writing and is given full and complete authority, information and assistance for the defence of same. Should any equipment purchased under this Contract be held to constitute an infringement and its use is enjoined, the Contractor shall obtain for SIFSO or HSIFSO as the case may be, the right to continue using such equipment or systems, or modify the equipment so that it is not infringing yet performing the task, or remove such equipment or systems and grant SIFSO/HSIFSO, a full refund therefore.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>13. OFFICIALS NOT TO BENEFIT</b></p> <p>13.1 The Contractor warrants that no official of SIFSO or the Government has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof.</p> <p><b>14. SOURCE OF INSTRUCTIONS</b></p> <p>14.1 The Contractor shall neither seek nor accept instructions from any authority external to SIFSO in connection with the performance of the work under this Contract. The Contractor shall refrain from any action which may adversely affect and shall fulfil its commitments with fullest regard for the interest of, SIFSO/HSIFSO.</p> <p><b>15. ASSIGNMENT</b></p> <p>15.1 The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof or of any of the Contractor's rights, claims or obligations under this Contract except with the prior written consent of SIFSO.</p> <p><b>16. SUBCONTRACTING</b></p> <p>16.1 In the event the Contractor requires the services of sub-Contractors, the Contractor shall obtain the prior written approval and clearance of SIFSO for all sub-Contractors. The approval by SIFSO of a sub-Contractor shall not relieve the Contractor of any of its obligations under this Contract, and the terms of any sub-Contract shall be subject to and be in conformity with the provisions of this Contract.</p> <p><b>17. CONTRACT AMENDMENTS</b></p> <p>17.1 This Contract including the attachments may, by agreement between the parties, be amended from time to time.</p> <p>17.2 Contract amendments shall be effective only when executed and delivered on behalf of SIFSO and the Contractor by persons duly authorized in writing to do so.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>18. DIRECTION OF CONTRACT AND INTERPRETATION OF SPECIFICATIONS</b></p> <p>18.1 The Contractor shall perform the work in accordance with the decisions and directions of SIFSO given under this Article and any further consequential decisions and directions given by SIFSO in the performance of this Contract. Upon notification by SIFSO of the details of any failure by the Contractor to meet its obligations, the Contractor shall take corrective action as soon as possible but in any event within two (2) weeks. Such directions shall be given in writing. If verbal instructions must be given, such shall be confirmed in writing within seven (7) days. In case of any decisions and/or directions of SIFSO in the performance of the Contract constituting a deviation, change or amendment to the original specifications and which may give rise to additional expenses, the Contractor may submit to SIFSO for its consideration a statement detailing the cost consequences of such deviation, change or amendment. Any such deviation, change or amendment in order to be effective shall be executed by way of the Contract amendment in accordance with Article 17.2.</p> <p>18.2 SIFSO reserves the right of adjudication should any question arise at any time prior to approval of the equipment regarding the interpretation of any provision of the specifications and any other technical documentation incorporated in this Contract.</p> <p>18.3 Failure to rectify a breach of an obligation under this Contract after three (3) notifications in writing may result in suspension of any remaining part of the Contract.</p> <p>18.4 SIFSO may order the Contractor in writing to suspend all or any part of the work for a period of time deemed appropriate by SIFSO/HSIFSO. In this case, the Contract shall be amended in accordance with Article 17.2 and the Contractor may submit to SIFSO for its consideration a statement detailing the reasonable costs of such amendment.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>19. REGULATORY REQUIREMENTS</b></p> <p>19.1 It shall be the Contractor's responsibility to ensure that it is fully in compliance with all applicable laws, enactments, rules, regulations, patents and procedures of the civil aviation industry which have been established by the HSIFSO, its relevant regulatory bodies or by any regulatory body with jurisdiction over any aspect of the scope of works of the Contract.</p> <p><b>20. LICENCES</b></p> <p>20.1 If any licence or permit is required for the performance of the Contract, the Contractor shall obtain any such licence or permit.</p> <p><b>21. WARRANTY AND PACKAGING</b></p> <p>21.1 The Contractor warrants that the goods, including packaging, conform to the specifications for the goods ordered under this Contract and are fit for the purposes for which such goods are ordinarily used and for purposes expressly made known to the Contractor by SIFSO, and are free from defects in design, workmanship and materials.</p> <p>21.2 If during the warranty period, the equipment/services or any part thereof delivered under this Contract are found by SIFSO/HSIFSO to be defective or not to conform with the specifications under the Contract, the Contractor shall, upon notification, promptly and at its own expense, unless otherwise agreed to, correct all such defects and non-conformities. If these defects or non-conformities cannot be corrected, SIFSO/HSIFSO shall have the right at the expense of the Contractor to either demand replacement of the defective items, receive appropriate reimbursement, or have the defective items repaired by or otherwise procured from a third party.</p> <p>21.3 The Contractor also warrants that the goods are packaged and marked for the purpose of transportation in a proper manner in order to protect the goods in accordance with any statutory requirement, any requirements of the carriers, and any shipping instructions from SIFSO.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p>21.4 The Contractor shall submit a performance bond in the form of a Bank Guarantee acceptable to SIFSO. The performance bond shall remain in effect for the full period of the duration of the warranty as specified in the contract, including any subsequent extension. The amount of the performance bond shall be agreed upon by the parties concerned.</p>	
<p><b>22. DAMAGES</b></p>	
<p>22.1 Subject to the provisions of Article 23 (<i>Force Majeure</i>) hereof and without prejudice to any action which SIFSO is empowered to take pursuant to the provision of any Article of this Contract or by law, if the Contractor fails to effect delivery, in accordance with the Contract, then the Contractor shall become liable to pay to SIFSO liquidated damages in this Contract's currency at the rate of 1% of the price of this Contract in respect of each week the said delivery, installation or operability is delayed, provided that payments in respect of liquidated damages to SIFSO shall be limited to an amount <b>not exceeding 10%</b> of the total price of this Contract</p>	
<p>22.2 Notwithstanding Article 22.1, in case of the Contractor's significant delay in the implementation of the project or its negligent failure to fulfill any of its obligations under the terms of the Contract, SIFSO/HSIFSO shall have the right to claim and recover from the Contractor all proven damages incurred by SIFSO, or HSIFSO or both. Save in the case of gross negligence, the total liability of the Contractor for proven damages shall not exceed the total value of the Contract and shall exclude indirect or punitive damages. The recovery of proven damages shall not be excluded for the period of delay referred to in Article 22.1, but shall not be claimed in addition to the liquidated damages.</p>	
<p>22.3 Liquidated damages defined in sub-paragraph 1 shall also be applied during the warranty period of the supplied equipment/systems if the Contractor, after being notified by SIFSO of the performance level falling below the level stated in the Contract, fails to rectify the failure within 30 days from the date of notification.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p>22.4 Without prejudice to any right to recover any sum under this Article, SIFSO/HSIFSO is entitled to require the Contractor to fulfill all obligations under the Contract.</p>	
<p>22.5 SIFSO/HSIFSO reserves the right to recover its damages by means of set-off, withholding of payments and/or recourse to the Bank Guarantee.</p>	
<p><b>23. FORCE MAJEURE</b></p>	
<p>23.1 <i>Force Majeure</i> as used herein shall mean acts of God, laws or regulations, industrial disturbances, acts of the public enemy, civil disturbances, explosions and any other similar cause of equivalent force not caused by nor within the control of either party and which neither party is able to overcome. As soon as possible after the occurrence of any cause constituting <i>force majeure</i>, the Contractor shall give notice and full particulars in writing to SIFSO of such <i>force majeure</i> if the Contractor is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. In this event, the following provisions shall apply:</p> <ul style="list-style-type: none"> <li>a) The obligations and responsibilities of the Contractor under this Contract shall be suspended to the extent of its inability to perform them and for as long as such inability continues.</li> <li>b) The term of this Contract shall be extended for a period equal to the period of suspension taking, however, into account any special conditions which may cause the time for completion of the work to be different from the period of suspension;</li> <li>c) If the Contractor is rendered permanently unable, wholly or in part, by reason of <i>force majeure</i> to perform its obligations and meet its responsibilities under this Contract, SIFSO shall have the right to terminate this Contract on the same terms and conditions as are provided for in Article 24 (Termination);</li> </ul>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p>d) For the purpose of the preceding subsection, SIFSO may consider the Contractor permanently unable to perform in case of any period of suspension in excess of ninety (90) days. Any such period of ninety (90) days or less shall be deemed temporary inability to perform.</p>	
<p><b>24. TERMINATION</b></p>	
<p>24.1 SIFSO may terminate this Contract for cause or default in whole or in part at any time, upon giving written notice to the Contractor. The termination notice shall be sent by certified mail, return receipt requested. Upon receipt of notice of termination, the Contractor shall take immediate steps to bring the work and services to a close in a prompt and orderly manner, shall reduce expenses to a minimum and shall not undertake any forward commitment from the date of receipt of notice of termination.</p>	
<p>24.2 SIFSO shall pay the Contractor for work performed in accordance with schedule and agreed upon by SIFSO, for expenses necessary for the prompt and orderly termination of the work, and for such urgent and essential work as the Contractor is asked by SIFSO to complete. In the event such termination is caused by the Contractor's negligence or fault, no payment shall be due from SIFSO to the Contractor except for work and services completed to SIFSO's satisfaction and accepted by HSIFSO.</p>	
<p>24.3 SIFSO may terminate this Contract at any time should SIFSO's mandate be curtailed or terminated. In such case the Contractor shall be reimbursed by SIFSO/HSIFSO for all reasonable costs incurred by the Contractor prior to receipt of the notice of termination and those costs approved and acquired.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>25. BANKRUPTCY</b></p> <p>25.1 Should bankruptcy or winding-up procedures be initiated against the Contractor, or should the Contractor be adjudged bankrupt, or should the Contractor make a general assignment for the benefit of its creditors, or should a receiver be appointed on account of the Contractor's insolvency, SIFSO may, without prejudice to any other right or remedy it may have under the terms of this Contract, terminate this Contract forthwith by giving the Contractor written notice of such termination in accordance with the provisions of Article 24.</p> <p>25.2 The Contractor must advise SIFSO within 24 hours of the occurrence of any event described in this Article.</p>	
<p><b>26. CHANGE IN OWNERSHIP</b></p> <p>26.1 The Contractor shall inform SIFSO as early as possible of any change or anticipated change in the status of the Contractor or its ownership that may affect its ability to deliver the equipment and systems or render the services mentioned herein, as soon as such information is known to the Contractor.</p>	
<p><b>27. SETTLEMENT OF DISPUTES</b></p> <p>27.1 The parties shall use their best efforts to settle amicably through negotiation any dispute, controversy or claim arising out of, or relating to, this Contract or the breach, termination or invalidity thereof. If the parties cannot reach such amicable settlement through negotiations, the matter shall first be referred to conciliation, by a request by either party for conciliation procedures. The conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then prevailing, or according to such other procedure as may be agreed between the Parties, within a time period of ninety (90) days.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
<p><b>27.2 Arbitration</b></p> <p>Any dispute, controversy or claim arising out of or relating to this Contract, or the breach, termination or invalidity thereof, unless settled amicably under the preceding paragraph of this Article within ninety (90) days after receipt by one party of the other party's request for conciliation, shall be referred by either party to arbitration in accordance with the UNCITRAL Arbitration Rules then prevailing. The parties agree that the arbitration be conducted by an arbitral tribunal consisting of a sole arbitrator. If the parties cannot agree on a sole arbitrator within sixty (60) days, the appointment of the arbitrator shall be made in accordance with Article 6 of the UNCITRAL Arbitration Rules. The place of arbitration shall be Tashkent Republic of Uzbekistan, and it shall be conducted in the English language.</p> <p><b>28. APPLICABLE LAW</b></p> <p>28.1 This Contract shall be governed by the laws of the Republic of Uzbekistan</p> <p><b>29. NOTICES</b></p> <p>29.1 Any notices given by the parties to the Contract shall be sent in writing addressed as follows:</p> <p><b>HSIFSO</b></p> <p>To: Mr. Khakim Trobov Head, State Inspection For Flight Safety Oversight</p> <p><b>Contractor</b></p> <p>To: As notified to SIFSO by the Contractor at the time of order acceptance or to such other address as either party may designate by notice given as required under this Article.</p>	

TERMS AND CONDITIONS – EQUIPMENT AND SERVICES	COMPLIANCE STATEMENT
29.2 Notices hereunder shall be effective when received.	
<b>30. SIFSO PRIVILEGES AND IMMUNITIES</b>	
30.1 Nothing in or relating to this Contract shall be deemed a waiver, express or implied, of any immunity from suit or legal process or any privilege, exemption or other immunity enjoyed or which may be enjoyed by SIFSO, its officers and staff, either pursuant to the <i>Convention on the Privileges and Immunities of the Specialized Agencies</i> or other conventions, agreements, laws or decrees of an international character.	
<b>31. USE OF NAME, EMBLEM OR OFFICIAL SEAL OF SIFSO</b>	
31.1 Unless authorized in writing by SIFSO, the Contractor shall not advertise or otherwise make public the fact that it is performing, or has performed services for SIFSO, or use the name, emblem or official seal of SIFSO or any abbreviation of the name of SIFSO for advertising purposes or for any other purpose.	
<b>32. COMPLETE NATURE OF AGREEMENT</b>	
32.1 This Contract constitutes the complete and exclusive statement of the Contract between the parties and supersedes all proposals or all other communications, verbal and/or written arrangements or agreements, between the parties relating to the subject matter of this Contract, unless the Contract is changed, amended or modified in accordance with Article 17 of this Contract.	
<b>33. PARTIAL INVALIDITY</b>	
33.1 If any provision of this Contract is or becomes invalid, illegal or unenforceable by force of law, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.	

<b>TERMS AND CONDITIONS – EQUIPMENT AND SERVICES</b>	<b>COMPLIANCE STATEMENT</b>
<p><b>34. COMING INTO FORCE</b></p> <p>34.1 The Contract shall come into force at the time of signature of the Contract by the parties concerned.</p> <p>34.2 Receipt and acceptance of the Contract must be confirmed by the return to SIFSO of the completed and signed Contract. Failure by SIFSO to receive the completed and signed Contract within 20 days of submission of the Contract to the Contractor allows SIFSO, at its sole discretion, to withdraw the Contract without penalty.</p> <p style="text-align: center;">- END -</p>	

**Information on required priority aviation security equipment and its quantity  
to be procured for the five international airports of Uzbekistan**

No	Name of equipment	Quantity (units)	Approximate Total price(all units) (US\$)	Notes
1	X-Ray for Cargo	5	\$1,500,000.00	
2	X-Ray for Hold/Carry-on Baggage	10	\$ 250,000.00	
3	Stationary Walk-Through Metal Detector	10	\$ 90,000.00	
4	Portable Hand-held Metal Detector	25	\$ 3,750.00	
5	Portable Gas Analyzer	6	\$ 210,000.00	
6	Portable Radio	125	\$ 123,750.00	
7	Vehicle Mounted Radio	5	\$ 75,000.00	
8	Portable Radiation Detector	6	\$ 99,000.00	
9	Computer	50	\$ 40,000.00	
	Monitor	50	\$ 9,000.00	
10	Printer//copier/scanner/fax machine	10//10	\$ 7,000.00	
11	Projector	6	\$ 7,800.00	
	Pull-down Wall Screen	6	\$ 1,560.00	
12	Plasma TV	6	\$ 18,000.00	
13	Photo Copier	6	\$ 3,600.00	
14	Digital TV Camera	6	\$ 3,000.00	
15	Vehicle 1500 Gal. ( <i>for airport crash and rescue</i> )	4	\$1,600,000.00	
	Stationary Radio + mobile unit	4	\$ 60,000.00	
16	Foamer	10	\$ 100,000.00	
17	Bomb Suit and Helmet	5	\$ 85,000.00	
18	Chest Plate	5	\$ 10,500.00	
19	Ballistic Shield	5	\$ 15,000.00	
20	Recorder/Receiver	5	\$ 1,000.00	
21	Mail and Small Item X-ray	6	\$ 75,000.00	
22	7-seat Passenger Van	6	\$ 180,000.00	
23	Thunder Storm Stun Gun	25	\$ 1,500.00	
24	Plastic Hand Restraints	500	\$ 750.00	
25	Night Vision D211 Generation II Binoculars With Zoom Lens	5	\$ 11,500.00	
26	Mobile Command Post Vehicle – Explorer	5	\$ 125,000.00	
	Communications System	5	\$ 75,000.00	
27	Bio-Metric, Card Reader, Key Pad and Card Maker	6	\$ 15,000.00	
28	Flash Identity System	5	\$ 167,500.00	
29	Closed Circuit TV System for Passenger Terminals and Surrounding Area	4	\$ 54,000.00	

\_\_\_\_\_  
 Sh. Khalikov (signature)  
 Head, Aviation Security Department  
 State Inspection for Flight Safety Oversight

16 March, 2005

New Security Training Center

# Republic of Uzbekistan

## State Inspection for Flight Safety Oversight

### Proposed plan layout for the establishment of a New Security Training Center

Robinson Aviation (RVA) Inc.  
Suite 850, 1601 NW Expressway  
Oklahoma City, 73118  
Oklahoma U.S.A.

May 2005

## **Republic of Uzbekistan.**

### **State Inspection for Flight Safety Oversight.**

#### **Proposed New Security Training Centre - Tashkent.**

The Plan layout shown in the following documentation has been based upon the proposed site offered as the preferred Centre for the establishment of a new Security Training facility.

The allocation of space is based upon our conception of the type of training that it is considered fundamental to the primary requirements for meeting International Standards, on the basis of which, we believe the new Training Centre would have the opportunity of expanding its potential client base to encompass Trainee's from other Countries.

We believe it is also the intention to utilise this facility to provide for basic training in EOD, that will be undertaken in a separate part of the same building. Since we do not have any information relating to the extent of the facilities to be provided, we have not included for the operational requirements within the documentation provided.

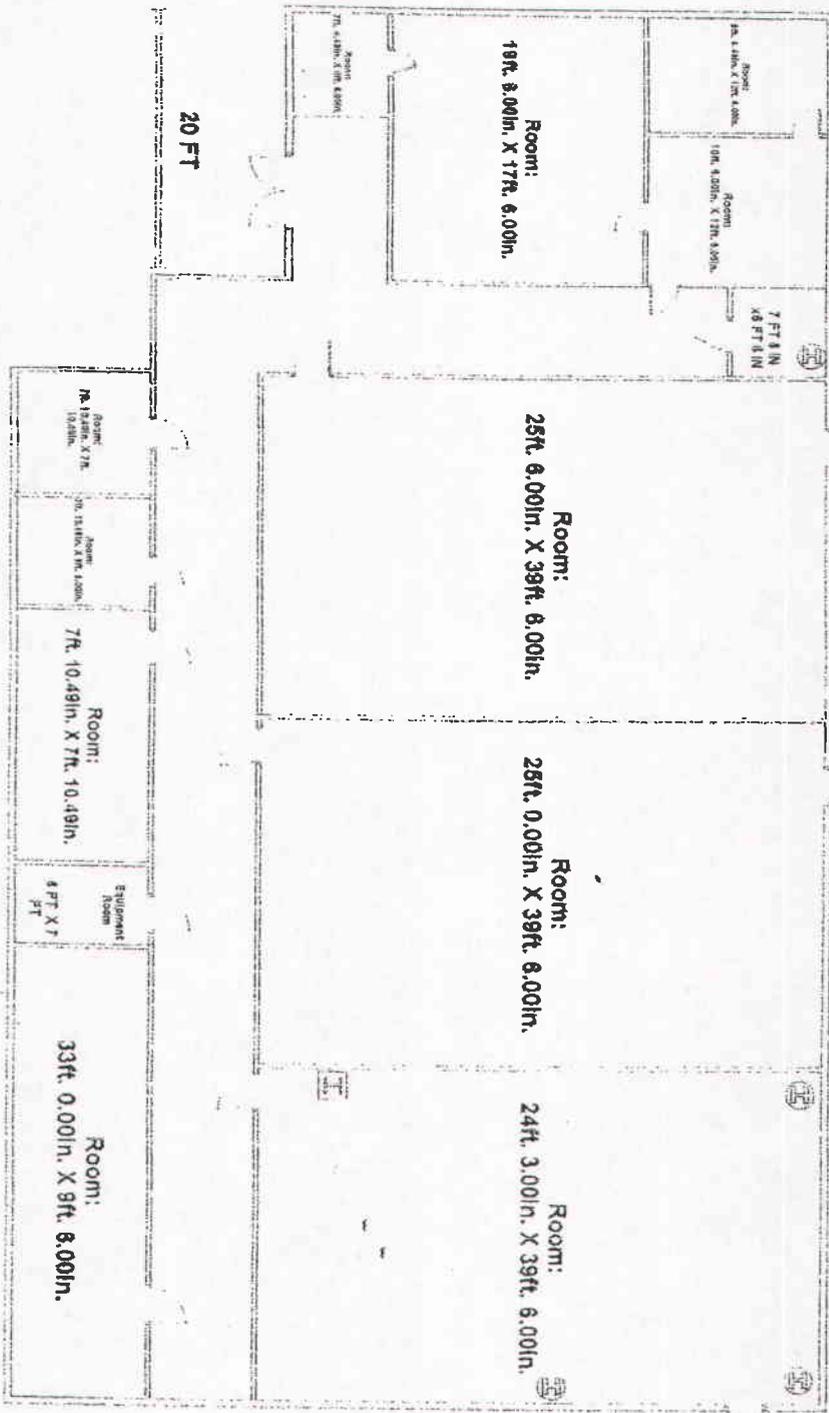
Apart from ensuring that sufficient space has been allocated to the provision of teaching, with all of the equipment that this entails, we have also attempted to create an atmosphere of social learning with the provision of a Library/Lounge in which we hope a transfer of thoughts and ideas may prevail.

These plans are provided as a source of discussion and should not in any way be considered as the final layout of the new Security Training Centre. We offer these proposals as a means of developing jointly the best possible facilities that will establish the Republic of Uzbekistan as a leader in the provision of training in Airport Security.

**Robinson Aviation (RVA) Inc.  
Suite 850, 1601 NW Expressway  
Oklahoma City. 73118.  
Oklahoma U.S.A.**

**May 2005**

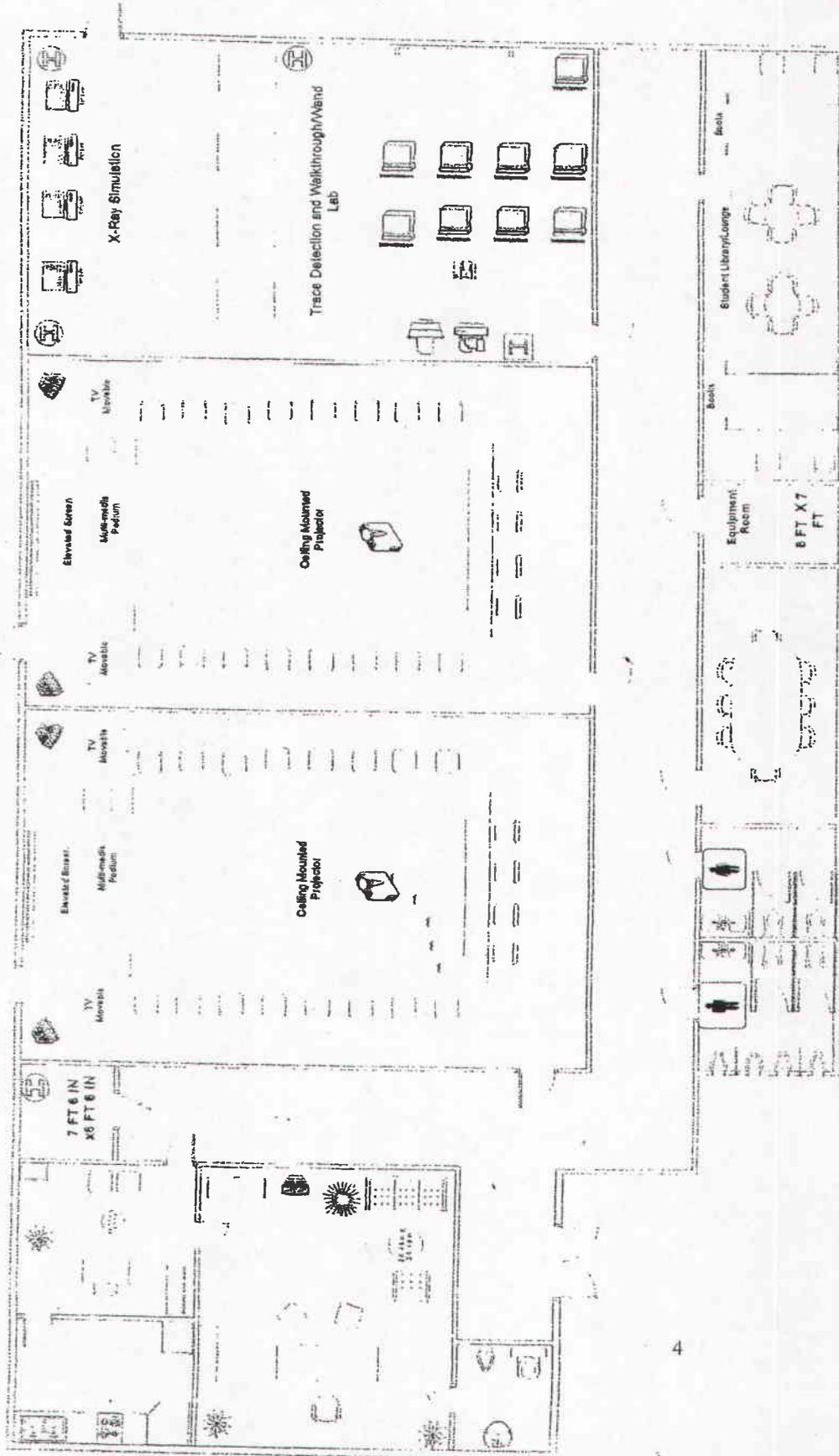
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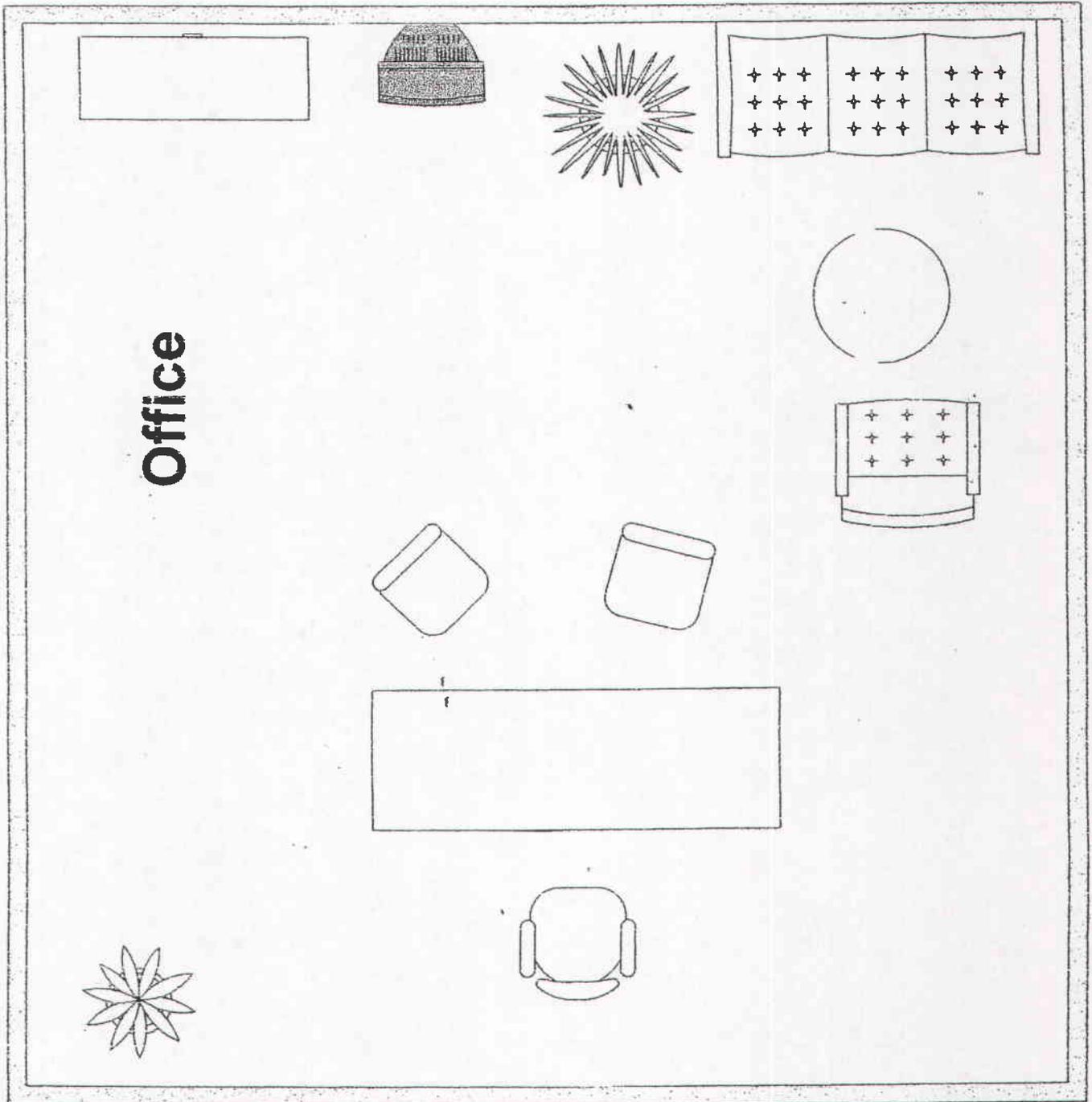


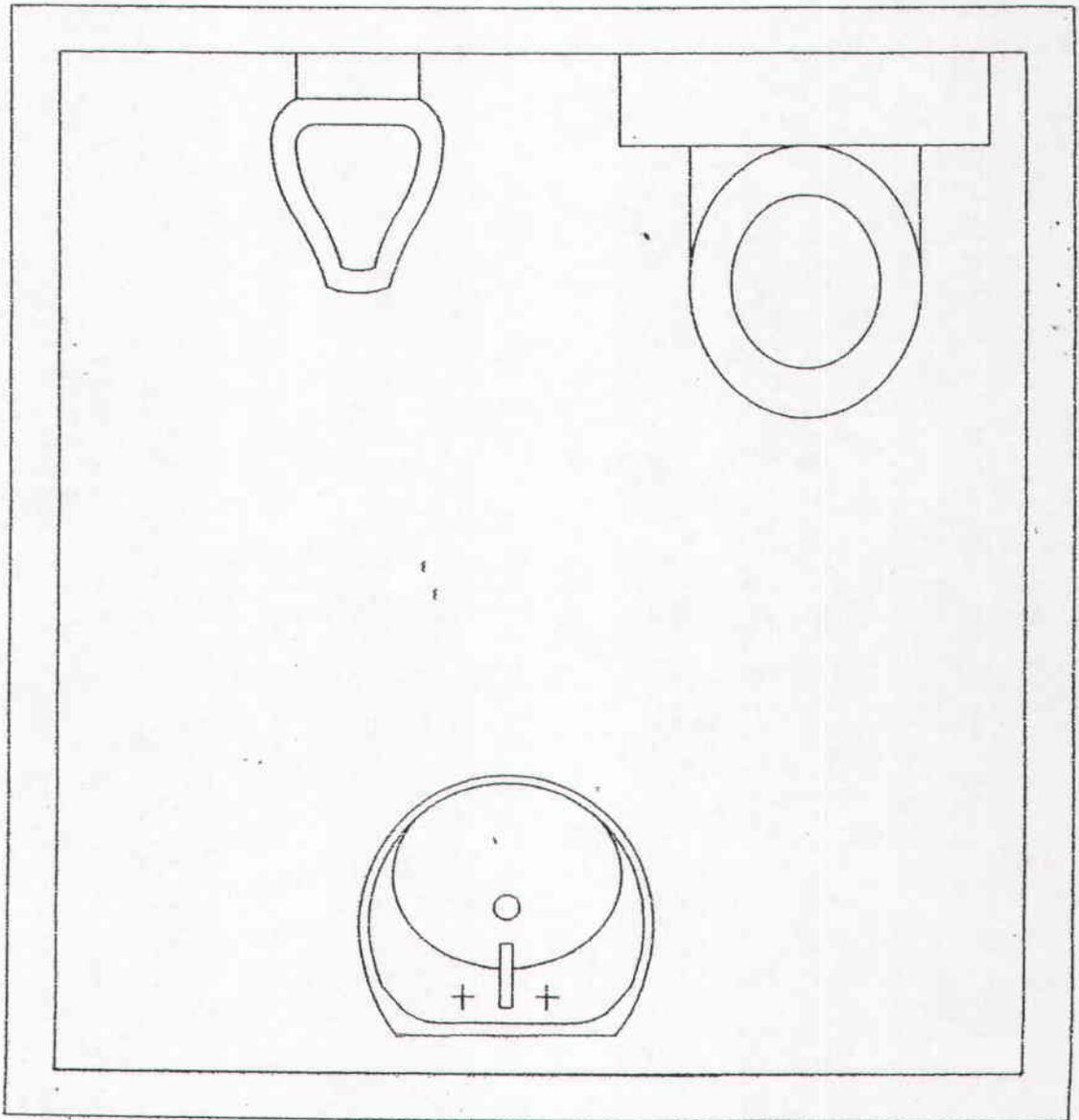
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APPENDIX P

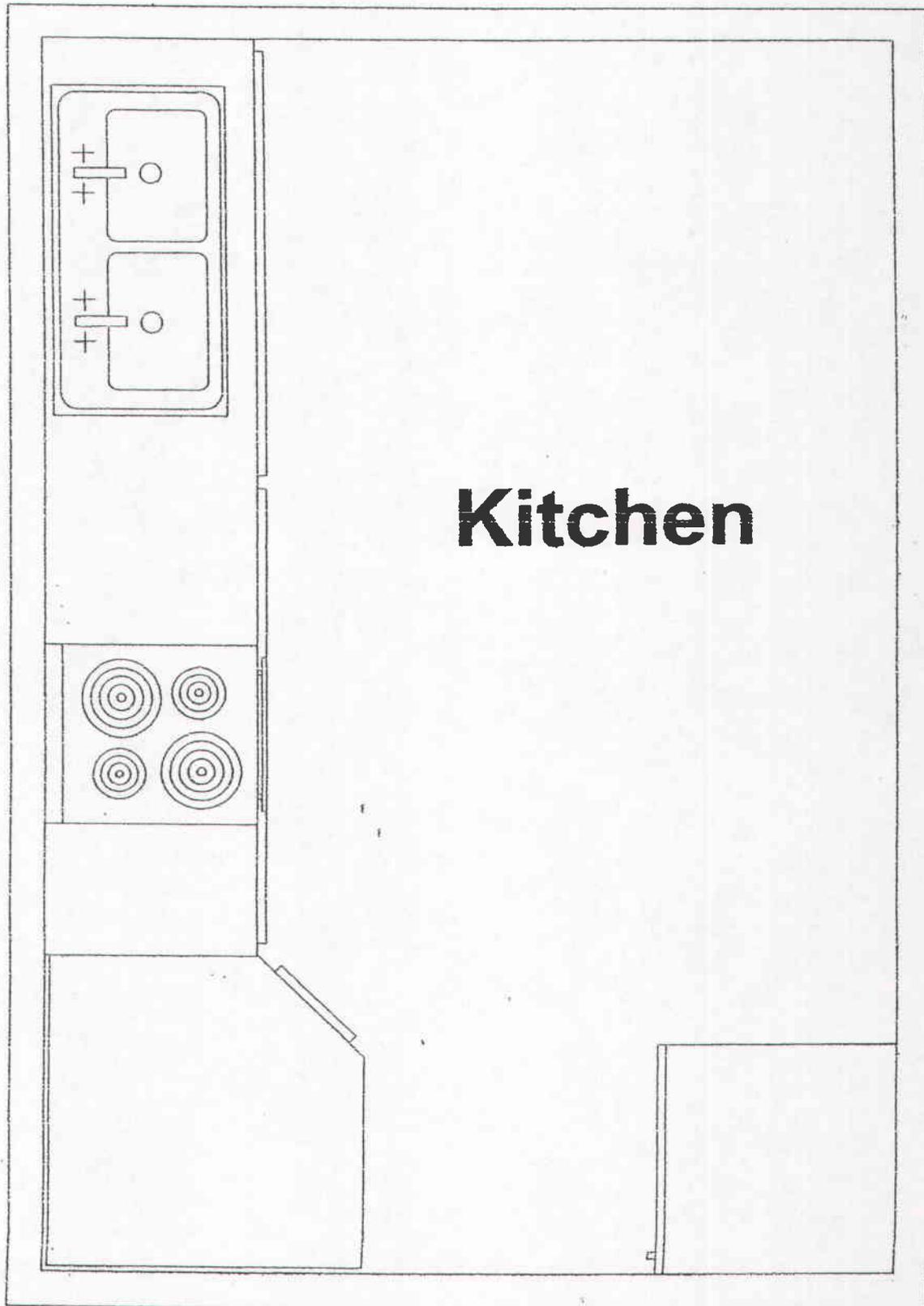
New Security Training Center

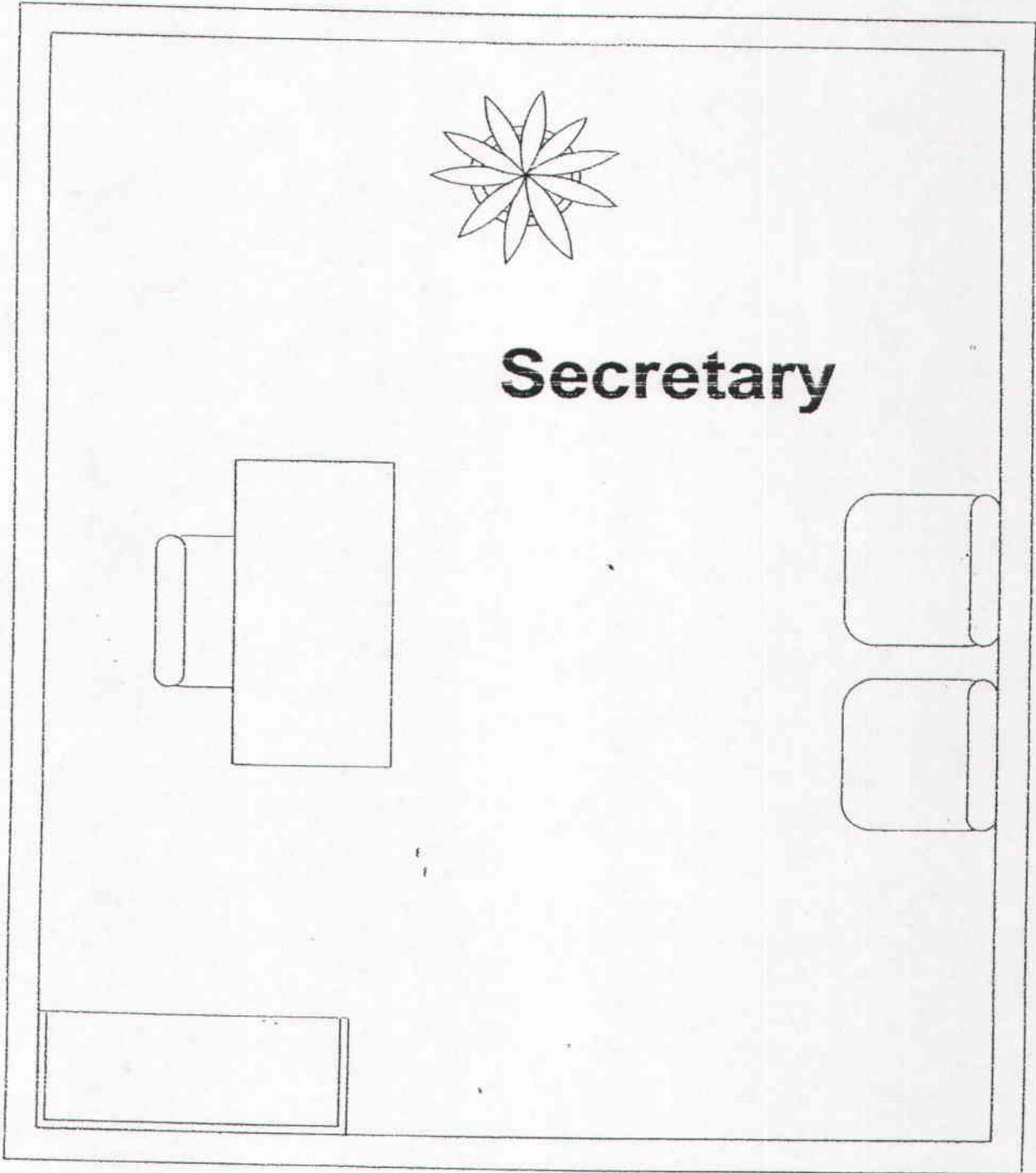




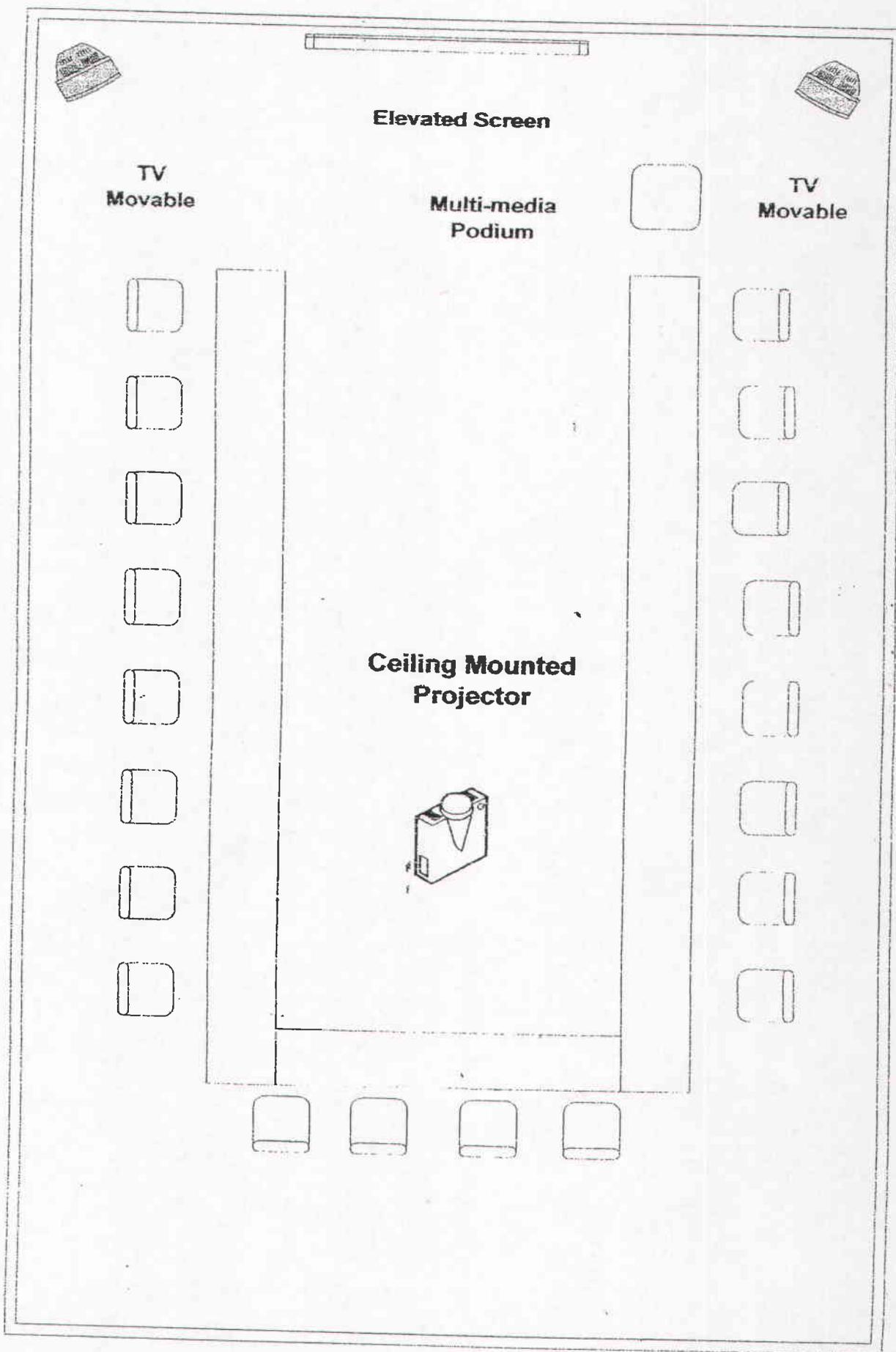


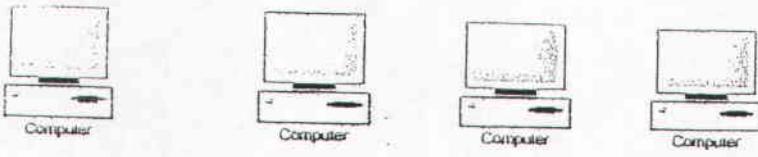
**Bathroom**





New Security Training Center

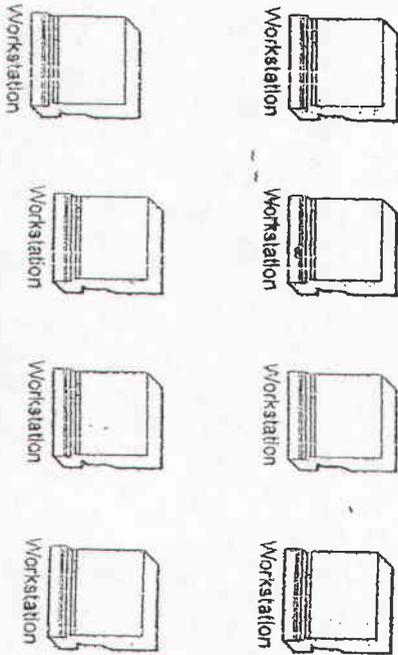
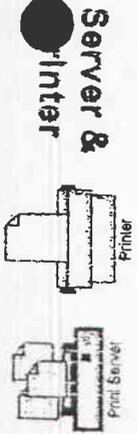




### X-Ray Simulation



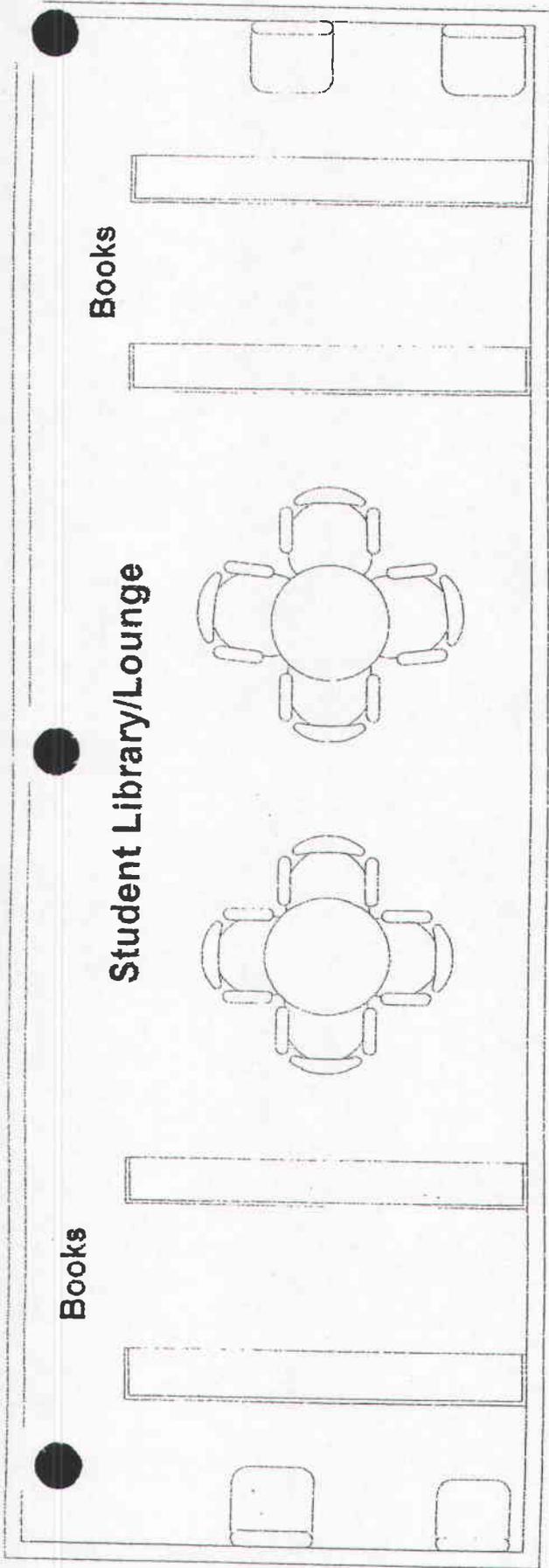
### Trace Detection and Walkthrough/Wand Lab

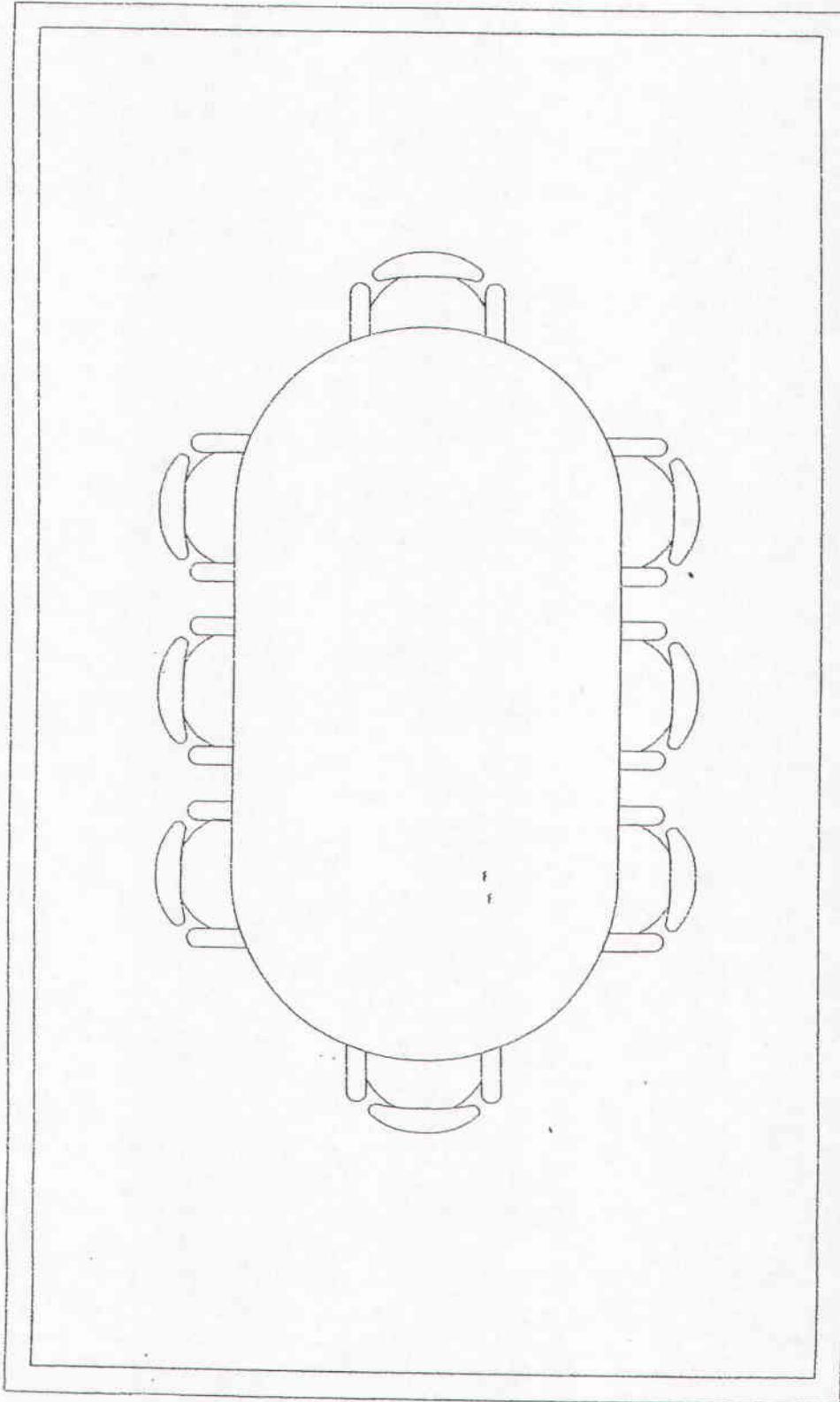


### Computer Lab

Dropdown Screen

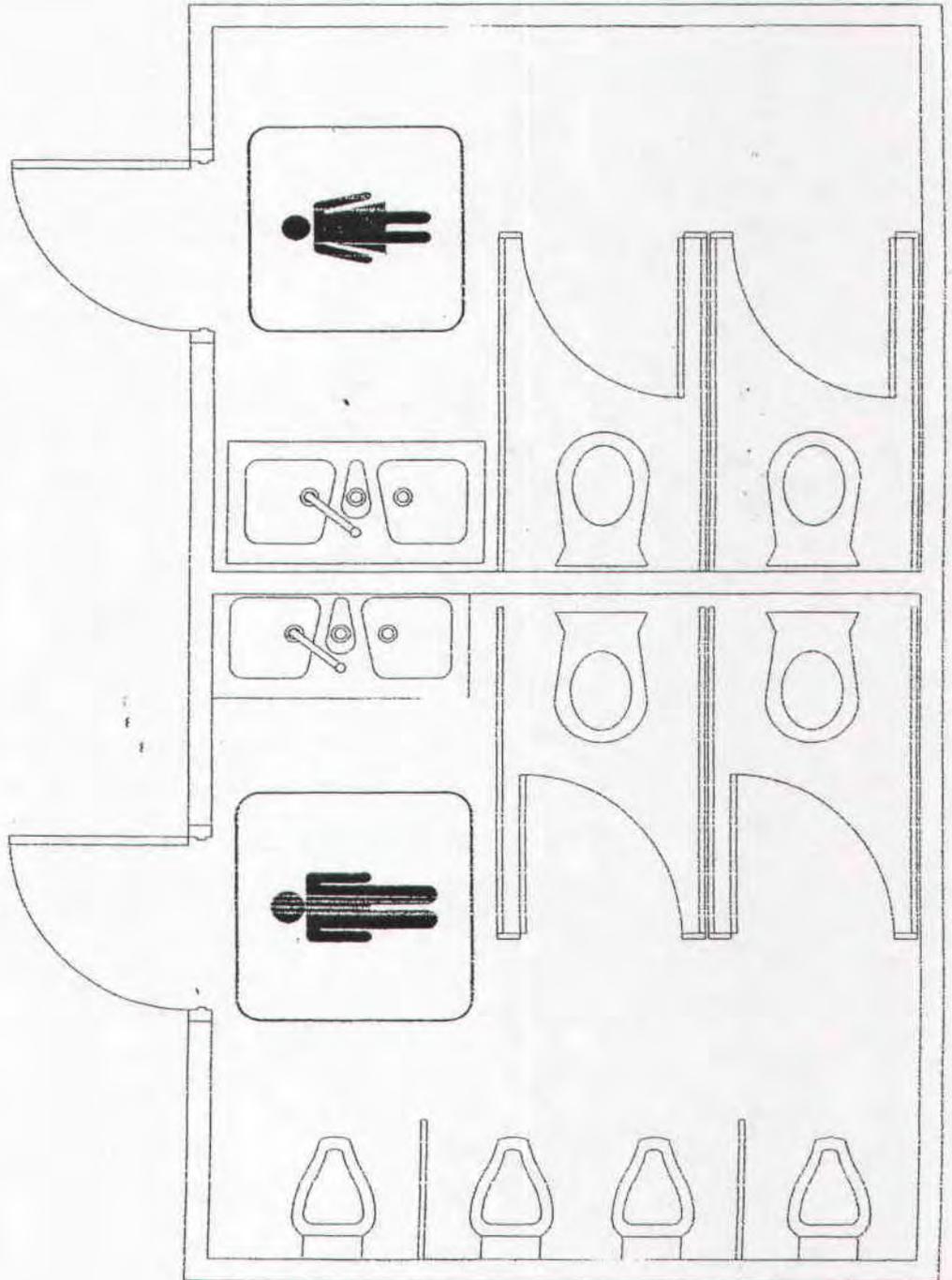






# Conference Room

# Bathroom



## **APPENDIX Q CAPITAL COSTS AND INVESTMENT REQUIREMENTS**

**GENERAL:** Appendix J gives the minimum equipment and investment necessary to ensure Civil Aviation in Uzbekistan meets or exceeds the requirements set forth in ICAO Annex 17 and all other international civil aviation security requirements. Appendix H sets forth an equipment list that would be ideal for this task. This appendix will discuss the engineering capital costs and a timed investment schedule for all equipment, systems, and training needed for installation and operation at each of the five international airports and at both the National Training Center and the proposed National Training Center.

### **1. U.S. Sources of Supply and Contact Information**

See Attachment 1 to Appendix Q.

### **2. Order of Magnitude Cost and the Scope of Each Action Identified**

See Attachment 2 to Appendix Q.

### **3. Implementation Plan, Priority List of Actions and Detailed Scope of Work**

The assessment team is in agreement and recommends that the priorities for the improvement of the overall aviation security program of the Republic of Uzbekistan should be as presented below. The priorities fall under eight action steps and the equipment needed to implement the actions are listed along with each priority. The areas covered, in order of importance from highest to least are: training, communications, access control and screening equipment, perimeter and fuel farm security, mobile command posts, airport security force personnel equipment, explosive ordnance disposal and crash/fire rescue.

#### **Priorities**

##### **Priority 1 – Training**

While the National Authority ensures that all persons involved in aviation security are trained, there is inadequate standardization due to the fragmentation of agencies responsible for security and the lack of modern training methods and aids. The team's recommendation for a standardized training program is contained in Appendix F of this document.

Efficiency in the training process will require modern and up-to-date training methods and aids. Below is a comprehensive list of equipment the team recommends for equipping both the current National Training Center and the Proposed National Training Center. In most cases, we have listed at least three sources for the equipment, and as shown in the table, the costs are in many cases quite different, depending upon model and

manufacturer. We believe that the choice of equipment in these cases should belong to the Uzbekistan authorities.

Exceptions to the three source rule were made when only a specific piece of equipment would fit the requirements, or when the piece of equipment is only manufactured by one source.

Note: The equipment chosen for the training center should in all cases correspond with the equipment chosen for use at the various airports, i.e., if a specific x-ray system is to be installed at the airport, the same x-ray system should be available for training of screeners at the National Training Center.

#### Equipment Lists for National Training Center (NTC) and Proposed National Training Center (P)NTC

EQUIPMENT (1)	COMPANY	COST/ITEM	NTC	(P)NTC	TOTAL	Total Cost
<b>Access Control Systems (2)</b>						
Bio-Metric, Walk Through Metal Detector, card reader, key pad, and card maker.	IdentiCard	\$2,220.54	1	2	3	\$ 6,661.62
DIGI-TRAC Models as appropriate	Hirsch Electronics	\$2,514.66	1	2	3	\$ 7,543.98
<b>Automated Passport System and Crew Card reader.</b>						
Flash Identity System	KNDV	\$33,120.00	1	1	2	\$ 66,240.00
ID Card Development System	Asure ID (Dalco International)	\$5,995.00	1	1	2	\$ 11,990.00
<b>SCREENING EQUIPMENT PERSONS</b>						
AP395 HI-PE Multi Zone	CEIA	\$4,499.99	1	1	2	\$ 8,999.98
AP394 Classic Walk Through Det.	CEIA	\$2,999.99	1	1	2	\$ 5,999.98
PMD2 Very High Performance Multi-Zone Metal Detector	Ceia	\$8,973.00	1	1	2	\$ 17,946.00
M Scope Portable Detectors	Fisher Labs	\$5,000.00	1	1	2	\$ 10,000.00
Secure 1000 Body Scanner	RAPISCAN	\$135,700.00	1	1	2	\$ 271,400.00
Metor 150, Walk-Through Metal Detector	RAPISCAN	\$2,006.00	1	1	2	\$ 4,012.00
Metor 200, Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,664.00	1	1	2	\$ 11,328.00
Metor 200HD, High Discrimination Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,782.00	1	1	2	\$ 11,564.00

APPENDIX Q

**Trace Detection Equipment**

Vapor Tracer Portable	GE	\$35,000.00	1	1	2	\$ 70,000.00
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**Carry On/Hold Baggage Screening Equipment**

CTX 2500	InVision	\$250,000.00	1	1	2	\$ 500,000.00
CTX 5500DS	InVision	\$1,200,000.00	1	1	2	\$ 2,400,000.00
CTX 9000DSI	InVision	\$1,500,000.00	1	1	2	\$ 3,000,000.00
CTX Operator Work Station	InVision	\$75,000.00	1	1	2	\$ 150,000.00

**Carry On/Hold Baggage Screening Equipment continued**

Rapiscan 515	RAPISCAN	\$23,600.00	1	1	2	\$ 47,200.00
Rapiscan 519	RAPISCAN	\$22,420.00	1	1	2	\$ 44,840.00
Rapiscan 520B	RAPISCAN	\$37,760.00	1	1	2	\$ 75,520.00
Rapiscan 522B	RAPISCAN	\$42,480.00	1	1	2	\$ 84,960.00
Rapiscan 524	RAPISCAN	\$37,760.00	1	1	2	\$ 75,520.00
Rapiscan 526	RAPISCAN	\$46,020.00	1	1	2	\$ 92,040.00
Rapiscan 527	RAPISCAN	\$49,560.00	1	1	2	\$ 99,120.00
Rapiscan 527DV	RAPISCAN	\$81,420.00	1	1	2	\$ 162,840.00
Rapiscan 528	RAPISCAN	\$49,560.00	1	1	2	\$ 99,120.00
Hi-Scan PS 5030-S	Smiths Heimann	\$16,500.00	1	1	2	\$ 33,000.00
Hi-Scan 6040d	Smiths Heimann	\$25,000.00	1	1	2	\$ 50,000.00
Hi-Scan 6030di (Mobile System)	Smiths Heimann	\$29,000.00	1	1	2	\$ 58,000.00
Hi-Scan 6040i	Smiths Heimann	\$30,000.00	1	1	2	\$ 60,000.00
Hi-Scan 7555i	Smiths Heimann	\$35,000.00	1	1	2	\$ 70,000.00
Hi-Scan 8380-3D (3D system)	Smiths Heimann	\$138,000.00	1	1	2	\$ 276,000.00

**Screenng Equipment Simulator**

	InVision	\$40,000.00	1	1	2	\$ 80,000.00
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APPENDIX Q

<b>Calibration and Testing Equipment, (Stepwedge)</b>	Smiths Heimann	\$600.00	2	2	4	\$ 2,400.00
<b>(Handheld metal detectors)</b>						
GSS03 Garrett Super Scanner	Brigade Quarter Master	\$149.00	2	2	4	\$ 596.00
MDS02 Seeker Plus Metal Detector	Brigade Quarter Master	\$159.99	2	2	4	\$ 639.96
PD140, Hand-Held Metal Detector	Ceia	\$155.00	2	2	4	\$ 620.00
IDP-9, Hand-Held Metal Detector	RAPISCAN	\$118.00	2	2	4	\$ 472.00
<b>X-RAY CARGO</b>						
Rapiscan 528	RAPISCAN	\$49,560.00	1	1	2	\$ 99,120.00
Rapiscan 532H	RAPISCAN	\$84,960.00	1	1	2	\$ 169,920.00
Rapiscan 546	RAPISCAN	\$501,500.00	1	1	2	\$ 1,003,000.00
Rapiscan 4200	RAPISCAN	\$1,303,900.00	1	1	2	\$ 2,607,800.00
Hi-Scan 100100T	Smiths Heimann	\$49,000.00	1	1	2	\$ 98,000.00
Hi-Scan 12080	Smiths Heimann	\$80,000.00	1	1	2	\$ 160,000.00
Hi-Scan 145180	Smiths Heimann	\$85,000.00	1	1	2	\$ 170,000.00
Hi-Scan 150150-140kV	Smiths Heimann	\$100,000.00	1	1	2	\$ 200,000.00
Hi-Scan 150150-300kv	Smiths Heimann	\$230,000.00	1	1	2	\$ 460,000.00
Hi-Scan 180180-300kV	Smiths Heimann	\$286,000.00	1	1	2	\$ 572,000.00
<b>Mail and small item, X-ray</b>						
Hi-Scan 9075	Smiths Heimann	\$38,000.00	1	1	2	\$ 76,000.00
Hi-Scan 100100V	Smiths Heimann	\$45,000.00	1	1	2	\$ 90,000.00
<b>Chemical Contamination Detector</b>						
Vapour Tracer 2 Portable	GE IONTrac	\$35,000.00	1	1	2	\$ 35,000.00
Model AP2C Chemical Contamination Detector and Alarm	Proengin	\$16,500.00	1	1	2	\$ 16,500.00

APPENDIX Q

**COMPUTER/TRAINING/OFFICE EQUIP**

**COMPUTER/COMMERCIAL**

COMPAC Model SR1120NX,	COMPUSA	\$599.99	19	42	61	\$36,599.39
Hewlett Packard Model A630N	COMPUSA	\$899.98	19	42	61	\$54,898.78
Dell Dimension 4600	COMPUSA	\$1,100.00	19	42	61	\$67,100.00
Dell Dimension 4600C	COMPUSA	\$1,259.00	19	42	61	\$76,799.00
Gateway Model 550GR, Desk Top	COMPUSA	\$1,019.97	19	42	61	\$62,218.17
IBM ThinkCentre A50 8148 CTO Series	COMPUSA	\$1,057.00	19	42	61	\$64,477.00

**SOFTWARE**

Microsoft Windows XP Professional	COMPUSA	\$299.99	19	42	61	\$16,199.46
Microsoft Office Standard Student & Teacher Edition	COMPUSA	\$147.45	19	42	61	\$8,994.45

**WORKSTATION- COMPUTER**

Sullivan CPU Cart with Hutch	COMPUSA	\$79.98	5	5	10	\$799.80
Zline Pacific OneLevel Computer Desk	COMPUSA	\$79.98	19	42	61	\$4,878.78

**UNINTERRUPTED POWER SUPPLIES (UPS)**

APC Model BE 325, Power for up to 8 minutes	COMPUSA	\$29.87	19	42	61	\$1,822.07
APC Model ES500, Power for up to 40 minutes	COMPUSA	\$59.56	19	42	61	\$3,533.16
APC Model XS800, Power for up to 75 minutes	COMPUSA	\$119.87	19	42	61	\$7,312.07
APC Model RS1000VA, Power for 90 minutes	COMPUSA	\$149.00	19	42	61	\$9,089.00

**MONITOR**

Viewsonic A71F 17" CRT	COMPUSA	\$178.97	19	42	61	\$10,917.17
NEC Monitor, AccuSync 700, 17"	COMPUSA	\$134.74	19	42	61	\$8,219.14

APPENDIX Q

KDS Monitor CRT, XF-17b, 17 "	COMPUSA	\$128.59	19	42	61	\$7,843.99
IBM Thinkvision L170 LCD Flat 17"	COMPUSA	\$459.00	19	42	61	\$27,999.00
Samsung 712N, 17" Flat Screen LCD	COMPUSA	\$459.00	19	42	61	\$27,999.00
Xerox Ultra-Thin LCD 17" Monitor	COMPUSA	\$479.00	19	42	61	\$29,219.00
Viewsonic VX710, 17" Flat Panel LCD	COMPUSA	\$548.97	19	42	61	\$33,487.17

**PRINTER/COPIER/SCANNER/FAX**

Hewlett Packard Model 5650/5850 Desk Jet	COMPUSA	\$129.99	4	5	9	\$1,169.91
Hewlett Packard Model 1100 Ink Jet	COMPUSA	\$299.97	4	5	9	\$2,699.73
Hewlett Packard Model 3015 LaserJet/Copier/Scanner	COMPUSA	\$299.97	4	5	9	\$2,699.73
Hewlett Packard Model HPC8135A (Business Inkjet)	COMPUSA	\$297.57	4	5	9	\$2,678.13
Epson Stylus C86, Color Inkjet Printer	COMPUSA	\$97.81	3	5	8	\$880.29
Hewlett Packard Model Laserjet 3380/ printer. Copier.Fax.Scanner	COMPUSA	\$698.67	1	1	2	\$1,397.34
Brother MFC8840D Laser, Printer, copier, scanner. Fax	COMPUSA	\$548.73	1	1	2	\$1,097.46
Printer Supplies (14)	COMPUSA	\$300.00	3	5	8	\$2,400.00

**PROJECTOR**

INFOCUS Model LP540 Projector XGA 1700	COMPUSA	\$1,565.34	2	2	4	\$6,261.36
Epson Powerlite S1 LCD Projector, SVG	COMPUSA	\$999.99	2	2	4	\$3,999.96
Hewlett Packard Model VP6100 Series, SVG Projector	COMPUSA	\$1,299.00	2	2	4	\$5,196.00
Infocus LP120	COMPUSA	\$1,999.99	2	2	4	\$7,999.96
IBM Data/Video High Intensity Projector	COMPUSA	\$1,049.00	2	2	4	\$4,196.00

APPENDIX Q

**PULL-DOWN WALL SCREEN**

Apollo Model APOPW6060, 60"X60" Pull down	COMPUSA	\$99.99	2	2	4	\$399.96
Apollo Model VRW8484, 84"X84" Pull down	COMPUSA	\$259.99	2	2	4	\$1,039.96
Apollo Model APO60300 60" Pull up from floor	COMPUSA	\$649.99	2	2	4	\$2,599.96
Apollo Model APO60302 80" Pull up from floor	COMPUSA	\$734.99	2	2	4	\$2,939.96
<b>Apollo Model APOAW6 Wall Bracket</b>	COMPUSA	\$16.99	2	2	4	\$67.96

**PLASMA TV**

Sony Plasmapro PFM-42Va/B	COMPUSA	\$2,999.99	2	2	4	\$11,999.96
Viewsonic Model VPW425 42" Plasma TV Monitor	COMPUSA	\$2,799.00	2	2	4	\$11,196.00
JVC Model PD42V475, HDMI Digital Plasma 42"	COMPUSA	\$3,799.99	2	2	4	\$15,199.96
Zenith Model P42W46X, 42" Plasma	COMPUSA	\$2,799.99	2	2	4	\$11,199.96

<b>WALL MOUNT BRACKET FOR TV</b>	COMPUSA	\$193.10	2	2	4	\$772.40
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**DVD/VCR PLAYERS/RECORDERS**

DAEWOO Electronics Model DAEW DVD/VCR Dualdeck, 314219	COMPUSA	\$99.99	2	2	4	\$399.96
Samsung Model DVD-V4600, DVD/Hi Fi VCR	COMPUSA	\$119.99	2	2	4	\$479.96
Pioneer Model DVR-225, DVD-R/RW	COMPUSA	\$299.99	2	2	4	\$1,199.96

**PHOTO COPIERS**

Epson Model Photo R300 Printer	COMPUSA	\$179.99	2	2	4	\$719.96
Hewlett Packard Model PhotoSmart 7760 Photo Printer	COMPUSA	\$229.99	2	2	4	\$919.96
Canon Model IP400, Pixma Photo Printer	COMPUSA	\$147.84	2	2	4	\$591.36

APPENDIX Q

IR3300 Document Feeder, Pedestal,w/two (2) 500-Sheet Paper Trays, Duplex	CANON	\$6,500.00	1	1	2	\$13,000.00
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**CAMERAS**

Sony Model DCR-TRV460 Digital Camcorder	COMPUSA	\$399.97	2	2	4	\$1,599.88
Cannon Model ZR-80 Camcorder	COMPUSA	\$399.97	2	2	4	\$1,599.88
Cannon Model ZR-85 Camcorder	COMPUSA	\$499.97	2	2	4	\$1,999.88
Hewlett Packard Model HP 435 Still Camera	COMPUSA	\$129.97	2	2	4	\$519.88
Hewlett Packard Model HP 735 Still Camera	COMPUSA	\$179.97	2	2	4	\$719.88
KodakEasyshare CX7330 Digital Camera	COMPUSA	\$199.95	2	2	4	\$799.80
KodakEasyshare DX4530 Digital Camera	COMPUSA	\$299.00	2	2	4	\$1,196.00
KODAKEasyshare DX7630 Digital Camera	COMPUSA	\$449.95	2	2	4	\$1,799.80

**RADIO EQUIPMENT (15)**

Non-Networked Trunk System, UHF. Passport Trunking Protocall	MOTOROLA	\$152,246.00	1	1	2	\$ 304,492.00
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**TELEPHONE EQUIPMENT (16)**

(Config #0003) and Multimedia Messaging Products (Config #0002)	DEFINITY	\$99,811.00	1	1	2	\$ 199,622.00
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**Priority 2 – Communications**

Communications between the various entities responsible for security at the airports of Uzbekistan is hampered by outdated equipment, lack of standardization, and the inability of the various entities to net with one another. This situation is a hindrance and has been shown to contribute to an increased chance of a disaster during emergencies. We therefore recommend the acquisition and installation of modern radio and telecommunications equipment, on which all users must be well trained, on a timely basis after acquisition. While there are reliable suppliers of communications equipment from many sources, the only one that is a U.S. company is Motorola, therefore only that company's equipment has been listed below.

**RADIO EQUIPMENT (15)**

Non-Networked Trunk System, UHF. Passport Trunking Protocall	MOTOROLA	\$311,199.00	1	1	1	1 1	1	1
	<b>7 TOTAL</b>	<b>\$2,178,393.00</b>						

**TELEPHONE EQUIPMENT (16)**(Config#0003) and Multimedia  
Messaging Products Config#0002)

DEFINITY	\$222,023.00	1	1	1	1	1	1	1	1
7 TOTAL	\$1,554,161.00								

**Priority 3 – Access Control and Screening Equipment**

As detailed in Appendix F, access control is an extremely labor-intensive task that relies heavily on personal recognition. The team has serious doubts about the ability of access control personnel to recognize each and every person who has authority to be on the airport, far less the ability to determine if that person's access has been revoked or denied.

Screening of passengers and baggage as currently done, while adequate, suffers from a lack of standardization and in some cases the use of completely outdated equipment. Both areas need improvement.

The team's recommendations for the acquisition, installation, and training for the screening and access control modernization program are listed below. As in the equipment listed as necessary for the Training Centers, every attempt has been made to find at least three manufacturers of recommended items. In some cases, however, this was not possible due to items being available only from one or two sources.

**Equipment List for Screening and Access Control**

EQUIPMENT (1)	COMPANY	COST/ITEM	TSHKNT	SRKD	BKRA	URGCH	TRMZ	TOTAL	TOTAL COST
<b>ACCESS CONTROL SYSTEMS (2)</b>									
Bio-Metric, Walk Through Metal Detector, card reader, key pad, and card maker.	IdentiCard	\$2,220.54	21	7	7	7	7	49	\$108,806.46
DIGI-TRAC Models as appropriate	Hirsch Electronics	\$2,514.66	21	7	7	7	7	49	\$123,218.34
<b>Automated Passport System and Crew Card reader.</b>									
Flash Identity System	KNDV	\$33,120.00	4	1	1	1	1	8	\$264,960.00
ID Card Development System	Asure ID (Dalco International)	\$5,995.00	2	1	1	1	1	6	\$35,970.00
<b>SCREENING EQUIPMENT PERSONS</b>									
AP395 HI-PE Multi Zone	CEIA	\$4,499.99	10	3	3	4	2	22	\$98,999.78
AP394 Classic Walk Through Det.	CEIA	\$2,999.99	10	3	3	4	2	22	\$65,999.78
PMD2 Very High Performance Multi-Zone Metal Detector	Ceia	\$8,973.00	10	3	3	4	2	22	\$197,406.00

APPENDIX Q

M Scope Portable Detectors	Fisher Labs	\$5,000.00	10	3	3	4	2	22	\$110,000.00
Secure 1000 Body Scanner	RAPISCAN	\$135,700.00	3	1	1	1	1	7	\$949,900.00
Metor 150, Walk-Through Metal Detector	RAPISCAN	\$2,006.00	10	3	3	4	2	22	\$44,132.00
Metor 200, Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,664.00	10	3	3	4	2	22	\$124,608.00
Metor 200HD, High Discrimination Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,782.00	10	3	3	4	2	22	\$127,204.00
Metor 200WP, Weatherproof Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$6,844.00	3	1	1	1	1	7	\$47,908.00
<b>Trace Detection Equipment</b>									
Vapor Tracer Portable	GE	\$35,000.00	4	1	1	1	1	8	\$280,000.00
<b>Carry On/Hold Baggage Screening Equipment</b>									
CTX 2500	InVision	\$250,000.00	6	2	2	2	2	14	\$3,500,000.00
CTX 5500DS	InVision	\$1,200,000.00	6	2	2	2	2	14	\$16,800,000.00
CTX 9000DSI	InVision	\$1,500,000.00	6	2	2	2	2	14	\$21,000,000.00
CTX Operator Work Station	InVision	\$75,000.00	6	2	2	2	2	14	\$1,050,000.00
Rapiscan 515	RAPISCAN	\$23,600.00	6	2	2	2	2	14	\$330,400.00
Rapiscan 519	RAPISCAN	\$22,420.00	6	2	2	2	2	14	\$313,880.00
Rapiscan 520B	RAPISCAN	\$37,760.00	6	2	2	2	2	14	\$528,640.00
Rapiscan 522B	RAPISCAN	\$42,480.00	6	2	2	2	2	14	\$594,720.00
Rapiscan 524	RAPISCAN	\$37,760.00	6	2	2	2	2	14	\$528,640.00
Rapiscan 526	RAPISCAN	\$46,020.00	6	2	2	2	2	14	\$644,280.00
Rapiscan 527	RAPISCAN	\$49,560.00	6	2	2	2	2	14	\$693,840.00
Rapiscan 527DV	RAPISCAN	\$81,420.00	6	2	2	2	2	14	\$1,139,880.00
Rapiscan 528	RAPISCAN	\$49,560.00	6	2	2	2	2	14	\$693,840.00
Hi-Scan PS 5030-S	Smiths Heimann	\$16,500.00	6	2	2	2	2	14	\$231,000.00
Hi-Scan 6040d	Smiths Heimann	\$25,000.00	6	2	2	2	2	14	\$350,000.00
Hi-Scan 6030di (Mobile System)	Smiths Heimann	\$29,000.00	6	2	2	2	2	14	\$406,000.00

APPENDIX Q

Hi-Scan 6040i	Smiths Heimann	\$30,000.00	6	2	2	2	2	14	\$420,000.00
Hi-Scan 7555i	Smiths Heimann	\$35,000.00	6	2	2	2	2	14	\$490,000.00
Hi-Scan 8380-3D (3D system)	Smiths Heimann	\$138,000.00	6	2	2	2	2	14	\$1,932,000.00
<b>Screenng Equipment Simulator</b>									
	InVision	\$40,000.00	1	1	1	1	1	5	\$200,000.00
<b>Calibration and Testing Equipment, (Stepwedge)</b>	Smiths Heimann	\$600.00	2	1	1	1	1	6	\$3,600.00
<b>(Handheld metal detectors)</b>									
GSS03 Garrett Super Scanner	Brigade Quarter Master	\$149.00	10	3	3	4	2	22	\$3,278.00
MDS02 Seeker Plus Metal Detector	Brigade Quarter Master	\$159.99	10	3	3	4	2	22	\$3,519.78
PD140, Hand-Held Metal Detector	Ceia	\$155.00	10	3	3	4	2	22	\$3,410.00
IDP-9, Hand-Held Metal Detector	RAPISCAN	\$118.00	10	3	3	4	2	22	\$2,596.00
<b>X-RAY CARGO</b>									
Rapiscan 528	RAPISCAN	\$49,560.00	2	1				3	\$148,680.00
Rapiscan 532H	RAPISCAN	\$84,960.00	2	1				3	\$254,880.00
Rapiscan 546	RAPISCAN	\$501,500.00	2	1				3	\$1,504,500.00
Rapiscan 4200	RAPISCAN	\$1,303,900.00	1	1				2	\$2,607,800.00
Hi-Scan 100100T	Smiths Heimann	\$49,000.00	2	1				3	\$147,000.00
Hi-Scan 12080	Smiths Heimann	\$80,000.00	2	1				3	\$240,000.00
Hi-Scan 145180	Smiths Heimann	\$85,000.00	2	1				3	\$255,000.00
Hi-Scan 150150-140kV	Smiths Heimann	\$100,000.00	2	1				3	\$300,000.00
Hi-Scan 150150-300kv	Smiths Heimann	\$230,000.00	2					2	\$460,000.00
Hi-Scan 180180-300kV	Smiths Heimann	\$286,000.00	2					2	\$572,000.00

APPENDIX Q

**Mail and small item, X-ray**

Hi-Scan 9075	Smiths Heimann	\$38,000.00	2	1	1	1	1	6	\$228,000.00
Hi-Scan 100100V	Smiths Heimann	\$45,000.00	2	1	1	1	1	6	\$270,000.00

**Chemical Contamination Detector**

Vapour Tracer 2 Portable	GE IONTrac	\$35,000.00	2	1	1	1	1	6	\$210,000.00
Model AP2C Chemical Contamination Detector and Alarm	Proengin	\$16,500.00	2	1	1	1	1	6	\$99,000.00

**CCTV-Passenger Terminals**

Loronix video manager	Verint	\$1,885.00		1	1	1	1	4	\$7,540.00
Motion Track	Verint	\$1,750.00		1	1	1	1	4	\$7,000.00
SmartSight S3100	Verint	\$1,490.00		1	1	1	1	4	\$5,960.00
SmartSight S1100w	Verint	\$1,700.00		1	1	1	1	4	\$6,800.00
SmartSight S1508e	Verint	\$2,400.00		1	1	1	1	4	\$9,600.00
10-Camera System	American Dynamics	\$73,500.00		1	1	1	1	4	\$294,000.00

**Priority 4 – Perimeter and Fuel Farm Security**

As noted in Appendix F, perimeter security is regarded as good, if very labor-intensive. The team believes that the equipment listed in Appendix J, and further priced in this Appendix, will enhance security while reducing personnel needs.

The fuel farms, in all cases, need improvements. Such facilities can be a target in themselves, but are more likely to be attacked as a diversion, attracting the entire airport security apparatus to respond to the emergency while the perpetrators attack their real target.

**LIGHTING EQUIPMENT**

20' Steel Light Poles	Acuity Brands Lighting	\$90.00	500	475	475	450	400	2300	\$207,000.00
Cobra Light Heads and Bulbs, 125 400S RN, 240V, 5H DG, 400watt	Acuity Brands Lighting	\$175.00	500	475	475	450	400	2300	\$402,500.00

APPENDIX Q

**PERIMETER SECURITY**

**Access Control for Unmanned Gates**

E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$8,960.00	7	7	\$62,720.00
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**Access Control for Unmanned Gates contd.**

E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,200.00	2	2	\$6,400.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,100.00	3	3	\$12,300.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$5,314.00	4	4	\$21,256.00

**CCTV For Unmanned Access Gates**

7-Camera System	American Dynamic	\$78,890.00	7	7	\$552,230.00
2-Camera System	American Dynamic	\$30,408.00	2	2	\$60,816.00
3-Camera System	American Dynamic	\$41,650.00	3	3	\$124,950.00
4-Camera System	American Dynamic	\$48,840.00	4	4	\$195,360.00

**FUEL FARMS**

**Access Control for Unmanned Gates**

E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$5,600.00	1	1	\$5,600.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,840.00	3	3	\$11,520.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,800.00	3	3	\$14,400.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,100.00	3	3	\$12,300.00
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,986.00	3	3	\$11,958.00

**CCTV (Coverage w/o Taut Wire)**

3-Camera System	American Dynamic	\$46,620.00	3	3	\$139,860.00
3-Camera System	American Dynamic	\$33,810.00	3	3	\$101,430.00

APPENDIX Q

3-Camera System	American Dynamic	\$45,612.00			3			3	\$136,836.00
3-Camera System	American Dynamic	\$41,650.00				3		3	\$124,950.00
1-Camera System	American Dynamic	\$36,630.00					1	1	\$36,630.00

**Taut Wire Fence for Fuel Farm Includes Installation and CCTV**

2km, 6', w/o outrigger	Zareba	\$398,000.00						1	1	\$398,000.00
1km, 6', w/o Outrigger	Zareba	\$236,000.00			1		1		2	\$472,000.00
1km, 8', w/1' Outrigger	Zareba	\$304,000.00				1			1	\$304,000.00

**Priority 5 – Mobile Command Posts**

Currently the command posts of all the airports are fixed in place, and are oftentimes not located in the ideal position to respond either to accidents or attacks. Too, they are not equipped with up-to-date communications and other amenities.

While mobile command posts are no deterrent, they are invaluable in response to an emergency and can often mean the difference between disaster and the successful resolution of the problem.

**Mobile Command Post Vehicle**

Ford Explorer	Johnson Bros. Ford	\$23,669.30	1	1	1	1	1	5	\$118,346.50
Ford Expedition	Johnson Bros. Ford	\$27,928.40	1					1	\$27,928.40
Jeep Grand Cherokee	Temple Chrysler Jeep	\$29,532.00	1	1	1	1	1	5	\$147,660.00
Dodge Durango ST	Mac Haik Dodge	\$26,858.00	1	1	1	1	1	5	\$134,290.00

**Communications System**

Motorola	\$14,677.00	1	1	1	1	1	5	\$73,385.00
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**Siren**

Wobblator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	\$109.95	4	2	2	3	3	14	\$1,539.30
Carson Cruiser Compact Siren 100/200W SA 500 w/P.A.	LA Police Gear	\$154.99	4	2	2	3	3	14	\$2,169.86
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	\$179.99	4	2	2	3	3	14	\$2,519.86

APPENDIX Q

<b>SK144 100W Speaker, 120db</b>	Galls	\$89.99	4	2	2	3	3	14	\$1,259.86
<b>Emergency Light Bar for MCPE</b>									
Able 2 SHO-ME Low-profile LED Mini Bar	10-4 Warning Equipment	\$199.99	4	2	2	3	3	14	\$2,799.86
Code 3, 47" MX7000 W/Bonus Pack	Galls	\$659.97	4	2	2	3	3	14	\$9,239.58
<b>Fully Equipped Trailer</b>	SIRCHIE GRP VEH	\$150,000.00	1					1	\$150,000.00

**Priority 6 – Airport Security Force Personnel Equipment**

Airport security force personnel are currently equipped with either military or police force uniforms and equipment. As with other items, this practice lacks standardization. Further, there is no equipment, policy or training dealing with continuum of force. Currently the continuum of force runs only from police presence to physical force to lethal force, surely not an acceptable solution.

Equipping and training the security forces with standardized gear that has stood the test of deployment in other countries will go a long way toward professionalizing the force.

**Vans for Guard Response**

Ford Freestar 7-Passenger Van	Johnson Bros. Ford	\$19,593.90	4	2	2	3	3	14	\$274,314.60
Dodge Grand Caravan 7-Passenger Van	Mac Haik Dodge	\$23,085.00	4	2	2	3	3	14	\$323,190.00
<b>(Van accessories)</b>			4	2	2	3	3	14	\$14.00
Wobblator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	\$109.95	4	2	2	3	3	14	\$1,539.30
Carson Cruiser Compact Siren 100/200W SA 500 W/P.A.	LA Police Gear	\$154.99	4	2	2	3	3	14	\$2,169.86
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	\$179.99	4	2	2	3	3	14	\$2,519.86
<b>SK144 100W Speaker, 120db</b>	Galls	\$89.99	4	2	2	3	3	14	\$1,259.86
<b>Emergency Light Bar</b>									
Able 2 SHO-ME Low-profile LED Mini Bar( Van light bar)	10-4 Warning Equipment	\$199.99	4	2	2	3	3	14	\$2,799.86
Code 3, 47" MX7000 W/Bonus Pack	Galls	\$659.97	4	2	2	3	3	14	\$9,239.58

APPENDIX Q

<b>Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit</b>	Motorola	\$800.00	4	2	2	3	3	14	\$11,200.00
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**PERSONAL EQUIPMENT**

**Strobe Light/Beacon**

GTP 988 Pocket Strobe	Brigade Quarter Master	\$24.99	75	15	20	15	20	145	\$3,623.55
SY22035H 6.25" High Profile, Beacon	Superior Signal	\$151.15	30	10	10	10	10	70	\$10,580.50
Whelen 15W Strobe Beacon	Galls	\$79.99	30	10	10	10	10	70	\$5,599.30

**Flashlights**

ML821 Mag Charger Flashlight	Brigade Quarter Master	\$109.99	75	15	20	15	20	145	\$15,948.55
FL411 SL-20XP LED Recharge Flashlight	Galls	\$99.99	75	15	20	15	20	145	\$14,498.55
DL143 6" LED Stick Light	Galls	\$179.99	25	10	10	10	10	65	\$11,699.35

**Hearing Protection**

EARSAF NRR 21 Decibels hearing Protector	Brigade Quarter Master	\$15.99	75	15	20	15	20	145	\$2,318.55
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**Protective Headgear**

Ballistic Helmet, TEO42, RBR F6 Combat MKII	Galls	\$299.99	75	15	20	15	20	145	\$43,498.55
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**Body Armor w/Cover**

PBV2133 Gamma Plus Lvl III Body Armor	Brigade Quarter Master	\$550.00	75	15	20	15	20	145	\$79,750.00
SDS02 OTV Tactical Vest Cover	Brigade Quarter Master	\$146.99	75	15	20	15	20	145	\$21,313.55

**Batons**

Monadock Autolock Baton 26, Blk.	LA Police Gear	\$103.60	75	15	20	15	20	145	\$15,022.00
Monadock PR-245TS One-Piece PR24 W/Stop	LA Police Gear	\$55.00	75	15	20	15	20	145	\$7,975.00

APPENDIX Q

**Pepper Spray**

PF711 Pepper Foam Pepper Gas	Brigade Quarter Master	\$17.99	75	15	20	15	20	145	\$2,608.55
AER 1199 Deep Freeze Pepper Gas	Brigade Quarter Master	\$17.99	75	15	20	15	20	145	\$2,608.55

**Taser Weapons**

TSB06 Thunder Storm Stun Gun	Brigade Quarter Master	\$54.99	30	10	10	10	10	70	\$3,849.30
ZF3000 Stunner 300K Volts	Brigade Quarter Master	\$49.99	30	10	10	10	10	70	\$3,499.30
ZF6000 Stunner 600K Volts	Brigade Quarter Master	\$49.99	30	10	10	10	10	70	\$3,499.30

**Protective Mask**

Model 6000 Gas Mask w/60926 Model Canisters	3M	\$136.00	75	15	20	15	20	145	\$19,720.00
TE301 NIOSCH/CBRN App. Gas mask	Brigade Quarter Master	\$299.99	75	15	20	15	20	145	\$43,498.55

**Vehicle Inspection Mirrors**

STV08 Tacticle Vision Wheel Mirror	Brigade Quarter Master	\$99.99	5	3	3	3	3	17	\$1,699.83
IMV3508 Inspection Mirror	Brigade Quarter Master	\$89.99	5	3	3	3	3	17	\$1,529.83
NIC Vehicle Undercarriage Inspection Mirror	American Security	\$1,056.00	5	3	3	3	3	17	\$17,952.00

**Hand Restraints**

Plastic Hand Restraints	Brigade Quartermaster	\$1.50	70	15	20	15	20	140	\$210.00
Hand Cuffs/Steel/Maximum Security Slide Lock Model 100	Brigade Quartermaster	\$27.95	70	15	20	15	20	140	\$3,913.00

**Night Vision Equipment**

Night Vision D211 Generation II Binoculars With Zoom Lense	Galls	\$2,299.99	4	2	2	2	2	12	\$27,599.88
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**TIRE DEFLATION SYSTEM**

MS16 Magnum Spike	Phoenix International	\$373.00	2	1	1	1	1	6	\$2,238.00
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APPENDIX Q

Barracuda 8048, 9'	Stop Tech Ltd	\$169.00	2	1	1	1	1	6	\$1,014.00
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**Priority 7 – Explosive Ordnance Disposal**

The EOD detachment at Tashkent is reasonably well equipped. This is not the case at the other airports. The team recommends that the EOD equipment and training be upgraded with the equipment listed below.

**Radiation detector**

Inspector EXP	S.E. International	\$685.00	2	1	1	1	1	6	\$4,110.00
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**EOD**

Bomb Suite @ Helmet 600-350	PW Allen, Inc	\$16,711.40	1	1	1	1	1	5	\$83,557.00
Chest Plate 600-351	PW Allen, Inc	\$2,084.60	1	1	1	1	1	5	\$10,423.00
Ballistic Shield 600-756	PW Allen, Inc	\$2,945.40	1	1	1	1	1	5	\$14,727.00
Radio Freq. Jammer 600 2121 C-12V	PW Allen, Inc	\$151,104.80	1	1	1	1	1	5	\$755,524.00
Recorder/Receiver 600-782	PW Allen, Inc	\$23,428.40	1	1	1	1	1	5	\$117,142.00

**Priority 8 – Crash/Fire Rescue**

While not strictly under the purview of security, the ability to respond quickly and effectively to emergencies cannot be divorced from the overall security situation at the airport. The team noted, as seen in Appendix F, that the crash/fire rescue apparatus at all the airports was badly outdated. We therefore recommend that the equipment be upgraded and that training be given on its use, maintenance, and deployment.

**AIRPORT CRASH/FIRE RESCUE**

VEHICLES/3000-GAL	OSHKOSH	\$775,000.00	1	1	1	1	1	5	\$3,400,000.00
VEHICLES/1500-GAL	OSHKOSH	\$650,000.00	1	1	1	1	1	5	\$3,000,000.00
3000 GALLON	E-ONE	\$850,000.00	1	1	1	1	1	5	\$4,250,000.00
1500 GALLON	E-ONE	\$650,000.00	1	1	1	1	1	5	\$3,250,000.00
1500 GALLON (Rebuilt)	Crash Rescue Equip Svc Inc.	\$400,000.00	2	1	1	1	1	6	\$2,400,000.00

APPENDIX Q

<b>Radio/AAM25RHF9DP5 CDM 1550LS + Mobile Unit</b>	Motorola	\$800.00	2	1	1	1	1	6	\$4,800.00
<b>Foamer</b>									
TM-30, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$7,695.00	2	3	3	3	3	14	\$107,730.00
TM-60, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$9,998.00	3	1	1	1	1	7	\$69,986.00
TM-60 on Skids	Crash Rescue Equip. Svc. Inc.	\$96,660.00	4					4	\$386,640.00
TRIMAX 30 Protective Cover	Crash Rescue Equip. Svc. Inc.	\$220.00	1	3	3	3	3	13	\$2,860.00
3% AFFF Foam Concentrate, 5 Gal.	Crash Rescue Equip. Svc. Inc.	\$95.00	8	4	4	4	4	24	\$2,280.00

Other recommendations have already been taken by the Uzbekistan authorities. These include the armoring of cockpit doors, the changes in procedure at the checkpoints, and the upgrading of closed-circuit television systems. The authorities are to be commended for their initiative in these matters.

**Implementation Plan**

The first step in this process will be the acquisition of funding to allow for the implementation of the recommended courses of action. Our response to Task 11, Develop Finance Options, beginning on Page 33 of the body of this document, lists the options available to the aviation sector of the Republic of Uzbekistan. It should be noted, however, that in accordance with that section, our primary recommendation is that the government assess a security-specific passenger facility charge (PFC) that would be adequate to fund even the high end of the recommendations.

It should be noted that this option gives the government the ability to borrow against future collections of the PFC, thus allowing for speedy acquisition of funds.

The implementation of the recommendations should then follow the recommendations set forth in the body of the document as response to Task 7, Section b.

#### **4. Milestone Schedule of Project Implementation**

In accordance with the team's recommendations as to Priorities, listed in Attachment 3 to Appendix Q, the following Milestones are suggested:

##### **Milestone 1 – Funding Decision**

The Government of Uzbekistan should made a decision as to funding mechanisms, and then implement these decisions. The team is unable to give a general time for milestone accomplishment, as timetables for these decisions are not known.

##### **Milestone 2 – Improvements to the National Training Center**

As is noted in Appendix K of this document, the average time for acquisition of the equipment needed for the upgrade of the National Training Center is between six and ten weeks after receipt of order. Thus a timeline for Milestone 2 would be approximately as follows:

- Order Received
- Equipment Shipped – 6 to 10 weeks
- Shipping Time, Customs Clearance – 2 weeks
- Equipment Installation – 2 weeks

Given no complications, the National Training Center could then be fully equipped and prepared to accept the first class of Train-the-Trainer in approximately 10-14 weeks after the order is received.

##### **Milestone 3 – Train the Trainer**

A full scale Train-the-Trainer course will require at least six weeks of classroom, practical exercise, and practice instruction.

The remaining milestones for the next priorities are time-dependent upon whether the decision is made to acquire the equipment at the same time as that required for the National Training Center, or if the equipment purchases are to be staged to allow for the spreading out of funds expenditures, installation, and training. Thus each priority will be listed as "After Receipt of Order (ARO).

##### **Milestone 4 – Communications**

- Receipt of Order
- Equipment Shipped – 20 to 25 weeks
- Shipping Time, Customs Clearance – 4 weeks
- Equipment Installation – 4 weeks

**Milestone 5 – Access Control and Screening**

Receipt of Order

Equipment Shipped – 6 to 24 weeks (EDS machines are in short supply, thus the extended end-time for shipment. Other than EDS, most machines can be shipped within 10 weeks. See Appendix K for details.)

Shipping Time, Customs Clearance – 4 weeks

Equipment Installation and Calibration – 8 weeks

**Milestone 6 – Perimeter and Fuel Farm Security**

Receipt of Order

Equipment Shipped – 4 to 12 weeks

Shipping Time, Customs Clearance – 4 weeks

Equipment Installation – 2 weeks

**Milestone 7 – Mobile Command Posts**

Receipt of Order

Equipment Shipped – 10 to 20 weeks

Shipping Time, Customs Clearance – 6 weeks

Equipment Installation, Calibration – 2 weeks

**Milestone 8 – Airport Security Force Equipment**

Receipt of Order

Equipment Shipped – 8 to 12 weeks

Shipping Time, Customs Clearance – 2 weeks

Equipment Issue, Training – 4 weeks

**Milestone 9 – Explosives Ordnance Disposal**

Receipt of Order

Equipment Shipped – 18 to 22 weeks

Shipping Time, Customs Clearance – 2 weeks

Equipment Issue, Calibration, Training – 6 weeks

**Milestone 10 – Crash/Fire Rescue**

Receipt of Order

Equipment Shipped – from 20 to 64 weeks due to high demand and dependent upon which equipment is ordered. See Appendix K for details

Shipping Time, Customs Clearance – 8 weeks

Equipment Issue, Training – 10 to 12 weeks.

**5. Action Plan for Reviewing and Upgrading the Security Master Plan**

Robinson Aviation's team of aviation security specialists stands ready to assist the Republic of Uzbekistan in any way possible should the Ministry of Aviation desire its help. The team has already, in fact, contacted various U.S. Government agencies in an attempt to determine if there is any interest in furnishing grants or loans to the Uzbeks, particularly in the Priority 1 task of establishing and equipping the National Training Center. This effort is ongoing.

It is Robinson Aviation's intention to periodically review the current Security Master Plan in light of the continuous improvement in the capabilities of security equipment, particularly in those areas dealing with threats that are not at this time adequately addressed with available equipment and/or procedures. For instance, the threat of carry-on IEDs is not addressed by the combination of portal metal detector and carry-on baggage x-rays. Two technologies show promise – the GE detector currently being evaluated by the TSA and the Backscatter X-Ray system now being used in some other countries. As these develop and are approved by ICAO, the TSA and other agencies, we will furnish any necessary information to the appropriate authorities in Uzbekistan.

Robinson Aviation also stands ready to perform any necessary training, to include the train-the-trainer courses recommended in this document.

**ATTACHMENT 1 TO APPENDIX Q - U.S. SOURCES OF SUPPLY AND CONTACT INFORMATION**

<u>Company</u>	<u>POC</u>	<u>Address</u>	<u>Phone</u>	<u>Web Site</u>
Identocard	Gary P. Funck	P.O. Box 5349, Lancaster, PA 17606-5349	717-569-5797	<a href="http://www.identocard.com">http://www.identocard.com</a>
Hirsch Electronics	Lars Suneborn or Robert Fitzgerald	1900-B Carnegie Avenue, Santa Anna, CA 92705-5520	949-250-8888	<a href="http://www.HirschElectronics.co">http://www.HirschElectronics.co</a> or <a href="mailto:rfitzgerald@hirschelectronics.com">rfitzgerald@hirschelectronics.com</a> <a href="http://www.crashrescue.com">http://www.crashrescue.com</a> <a href="http://www.cbarnes@crashrescue.com">http://www.cbarnes@crashrescue.com</a>
Crash Rescue Equipment Service	Carey Barnes	P.O. Box 211506, Dallas, TX 75211	972-243-3307	<a href="http://www.cbarnes@crashrescue.com">http://www.cbarnes@crashrescue.com</a>
Asure ID	Matthew Nelson	P.O. Box 857, Willmar, MN 56201-0857	320-214-7641	<a href="http://www.positiveid.com">http://www.positiveid.com</a>
CEIA	Norman H. Wood	9177 Dutton Drive, Twinsburg Ohio 44087	330-405-3190	<a href="mailto:sales@ceia-usa.com">sales@ceia-usa.com</a>
Fisher Labs	Michael White	153 Mount Auburn Street Watertown, MA 02472	617-923-1786	<a href="mailto:info@securitydetection.com">info@securitydetection.com</a>
RAPISCAN	Nav Grover	3232 West El Segundo Blvd, Hawthorne CA 90250	310-978-1457	<a href="http://www.rapiscansystems.com">http://www.rapiscansystems.com</a>
GE Security, Inc.	Sales Dept.	8985 Town Center Parkway, Bradenton, FL 34202-5129		<a href="mailto:geiontracksales@ge.com">geiontracksales@ge.com</a>
InVision Technologies Distributor	Len Dalquest	35996 Sycamore Road, Afton, OK 74331 2810 South Bedford Street, Los Angeles, CA 90034	918-782-4261	<a href="mailto:lendalco@aol.com">lendalco@aol.com</a>
Smiths Heimann	Jason Gash		310-559-8381	<a href="mailto:jason.gash@smiths-heimann-us.com">jason.gash@smiths-heimann-us.com</a>
Proengin, Inc	Sales Dept.	405 N.E. 8th Street, Fort Lauderdale, FL 33304	954-760-9990	<a href="mailto:contactusa@proengin.com">contactusa@proengin.com</a>
Verint Corporation	Roger Ghostine	330 South Service Road, Melville, NY 11747	631-962-9600	<a href="mailto:info@verint.com">info@verint.com</a>
American Dynamics	Sales Dept.	6795 Flanders Drive, San Diego, CA 92121	858-642-2400	<a href="http://www.americandynamics.net">http://www.americandynamics.net</a>
COMPUSA	Dirk Halaoui	Oklahoma City, OK 73116	405-879-3028	<a href="mailto:Dirk_halaoui@compusa.com">Dirk_halaoui@compusa.com</a>
Brigade Quartermaster	Sales Dept.	P.O. Box 1000001, Kennesaw, GA 30156-9217	770-428-1248	<a href="mailto:sales@brigadeqrm.com">sales@brigadeqrm.com</a>
Oshkosh Truck Corporation	Tom Cihowiak	P.O. Box 2586, Oshkosh, WI 54903-2586	920-235-9150	<a href="http://www.oshkoshtruck.com">http://www.oshkoshtruck.com</a>
e-one Corporation	Sales Dept.	1601 S.W. 37th Avenue, Ocala, FL 34474	352-237-1122	<a href="mailto:info@e-one.com">info@e-one.com</a>
Motorola/Savannah Communicatic	Wade Britt	P.O. Box 7328, Savannah, GA 31418 503 North General Bruce Drive, Temple, Texas 76504	912-964-1479	<a href="mailto:sales@savannahcomm.com">sales@savannahcomm.com</a>
Johnson Bros. Ford	Eddy Young		254-773-5257	<a href="http://www.johnsonbrosford.com">http://www.johnsonbrosford.com</a>
Mac Haik Dodge	David Lang	3207 South General Bruce Drive, Temple, Texas 76504	866-622-4240	<a href="http://www.machaikdodge.com">http://www.machaikdodge.com</a>
Temple Chrysler Jeep	Steve Russell	520 North General Bruce Drive, Temple, Texas 76504	254-773-9077	<a href="http://www.templechryslerjeep.com">http://www.templechryslerjeep.com</a>
LA Police Gear	Jennifer Mathews	25345 Avenue Stanford, Suite 212, Valencia, CA 91355	866-793-1911	<a href="http://www.LAPoliceGear.com">http://www.LAPoliceGear.com</a>
Stop Tech Ltd	Sales Dept.	365 Industrial Drive, Harrison, Ohio 45030	513-202-5500	<a href="http://www.stopstick.com">http://www.stopstick.com</a>
Galls Equipment	Patricia Velazquez	6365 South Arizona Circle, Los Angeles, CA 90045	310-338-6800	<a href="http://www.international@galls.com">http://www.international@galls.com</a>
Superior Signal	Colleen Hulsey	16355 South Lone Elm Road, Olathe, KS 66062	913-780-1440	<a href="http://www.superiorsignals.com">http://www.superiorsignals.com</a>
American Security Company, Inc	Alex Stanich	P.O. Box 7628, Falls Church, VA 22040 3M Center, Bldg 235-02-70W, St Paul, MN 55144	800-999-1384	<a href="mailto:amsec@americansecurity.net">amsec@americansecurity.net</a>
3M	Jeff Betsinger		800-328-1667	<a href="http://www.3m.com">http://www.3m.com</a>
S.E. International	Lily Trainor	436 Farm Road, Summertown, TN 38483 Ashchurch Business Centre, Tewkesbury, Glos, GL20 8TD	800-293-5759	<a href="http://www.seintl.com">http://www.seintl.com</a>
Allen-Vanguard Acuity Brands Lighting/American Electric Lighting	Allen House Jennifer Estevez	1335 Industrial Blvd., Conyers, GA 30012	44 (0)1684 851111 770-860-3473	<a href="mailto:sales@allen-vanguard.co.uk">sales@allen-vanguard.co.uk</a> <a href="http://www.americanelectriclighting.com">http://www.americanelectriclighting.com</a>
KANTECH ADT Zareba Perimeter Security Systems	Sales Dept.	13705 26th Avenue N, Suite 102, Minneapolis, MN 55441	800-526-8324 763-551-1125	<a href="mailto:sales@kantec.com">sales@kantec.com</a> <a href="mailto:info@zarebasecurity.com">info@zarebasecurity.com</a>

Attachments to Appendix Q

<u>EQUIPMENT (1)</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>TSHKNT</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>TRMZ</u>	<u>NTC</u>	<u>(P)NTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>C/NTC</u>	<u>LOW</u>	<u>HIGH</u>	
<b>ACCESS CONTROL SYSTEMS (2)</b>															
Bio-Metric, Walk Through Metal Detector, card reader, key pad, and card maker.	IdentiCard	\$2,220.54	21	7	7	7	7	1	1	2	\$115,468.08	\$6,661.62	\$4,441.09		
DIGI-TRAC Models as appropriate	Hirsch Electronics	\$2,514.66	21	7	7	7	7	1	1	2	\$130,762.32	\$7,543.98		\$5,029.32	
<b>Automated Passport System and Crew Card reader.</b>															
Flash Identity System	KNDV	\$33,120.00	4	1	1	1	1	1	1	10	\$331,200.00	\$66,240.00	\$33,120.00	\$33,120.00	
ID Card Development System	Asure ID (Dalco International)	\$5,995.00	2	1	1	1	1	1	1	8	\$47,960.00	\$11,990.00	\$5,995.00	\$5,995.00	
<b>SCREENING EQUIPMENT PERSONS</b>															
AP395 HI-PE Multi Zone	CEIA	\$4,499.99	10	3	3	4	2	1	1	24	\$107,999.76	\$8,999.98			
AP394 Classic Walk Through Det.	CEIA	\$2,999.99	10	3	3	4	2	1	1	24	\$71,999.76	\$5,999.98			
PMD2 Very High Performance Multi-Zone Metal Detector	Ceia	\$8,973.00	10	3	3	4	2	1	1	24	\$215,352.00	\$17,946.00			
M Scope Portable Detectors	Fisher Labs	\$5,000.00	10	3	3	4	2	1	1	24	\$120,000.00	\$10,000.00			
Secure 1000 Body Scanner	RAPISCAN	\$135,700.00	3	1	1	1	1	1	1	9	\$1,221,300.00	\$271,400.00	\$2,006.00	\$135,700.00	
Meter 150, Walk-Through Metal Detector	RAPISCAN	\$2,006.00	10	3	3	4	2	1	1	24	\$48,144.00	\$4,012.00			
Meter 200, Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,664.00	10	3	3	4	2	1	1	24	\$135,936.00	\$11,328.00			
Meter 200HD, High Discrimination Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$5,782.00	10	3	3	4	2	1	1	24	\$138,768.00	\$11,564.00			
Meter 200WP, Weatherproof Multi-Zone Walk-Through Metal Detector	RAPISCAN	\$6,844.00	3	1	1	1	1	1	1	7	\$47,908.00				
<b>Trace Detection Equipment</b>															
Entry Scan Ion Trac/Walk Through	GE		3	1	1	1	1	1	1	1					
Vapor Tracer Portable	GE	\$35,000.00	4	1	1	1	1	1	1	10	\$350,000.00	\$70,000.00			
Itemizer3, Desktop	GE		4	1	1	1	1	1	1	10					
<b>Carry On/Hold Baggage Screening Equipment</b>															
CTX 2500	InVision	\$250,000.00	6	2	2	2	2	2	1	16	\$3,500,000.00	\$47,200.00			
CTX 5500DS	InVision	\$1,200,000.00	6	2	2	2	2	2	1	16	\$16,800,000.00	\$44,840.00			
CTX 9000DSI	InVision	\$1,500,000.00	6	2	2	2	2	2	1	14	\$21,000,000.00	\$75,520.00			
CTX Operator Work Station	InVision	\$75,000.00	6	2	2	2	2	2	1	14	\$1,050,000.00	\$84,960.00			
Rapiscan 515	RAPISCAN	\$23,600.00	6	2	2	2	2	2	1	16	\$377,600.00	\$47,200.00			
Rapiscan 519	RAPISCAN	\$22,420.00	6	2	2	2	2	2	1	16	\$358,720.00	\$44,840.00			
Rapiscan 520B	RAPISCAN	\$37,760.00	6	2	2	2	2	2	1	16	\$604,160.00	\$75,520.00			
Rapiscan 522B	RAPISCAN	\$42,480.00	6	2	2	2	2	2	1	16	\$679,680.00	\$84,960.00			
Rapiscan 524	RAPISCAN	\$37,760.00	6	2	2	2	2	2	1	16	\$604,160.00	\$75,520.00			
Rapiscan 526	RAPISCAN	\$46,020.00	6	2	2	2	2	2	1	16	\$736,320.00	\$92,040.00			
Rapiscan 527	RAPISCAN	\$49,560.00	6	2	2	2	2	2	1	16	\$792,960.00	\$99,120.00			
Rapiscan 527DV	RAPISCAN	\$81,420.00	6	2	2	2	2	2	1	16	\$1,302,720.00	\$162,840.00			
Rapiscan 528	RAPISCAN	\$49,560.00	6	2	2	2	2	2	1	16	\$792,960.00	\$99,120.00			
Hi-Scan PS 5030-S	Smiths Heimann	\$16,500.00	6	2	2	2	2	2	1	16	\$264,000.00	\$33,000.00	\$16,500.00		
Hi-Scan 6040d	Smiths Heimann	\$25,000.00	6	2	2	2	2	2	1	16	\$400,000.00	\$50,000.00			
Hi-Scan 6030di (Mobile System)	Smiths Heimann	\$29,000.00	6	2	2	2	2	2	1	16	\$464,000.00	\$58,000.00			

Attachment to Appendix Q

<u>EQUIPMENT (1) Continued</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>TSHKNT</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>TRMZ</u>	<u>NTC</u>	<u>PINTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>C/NTC</u>	<u>LOW</u>	<u>HIGH</u>
Hi-Scan 6040	Smiths Heimann	\$30,000.00	6	2	2	2	2	1	1	16	\$480,000.00	\$60,000.00		
Hi-Scan 7555i	Smiths Heimann	\$35,000.00	6	2	2	2	2	1	1	16	\$560,000.00	\$70,000.00		
Hi-Scan 8380-3D (3D system)	Smiths Heimann	\$138,000.00	6	2	2	2	2	1	1	16	\$2,208,000.00	\$276,000.00		
<b>Screening Equipment Simulator</b>														
InVision	InVision	\$40,000.00	1	1	1	1	1	1	1	7	\$80,000.00	\$280,000.00	\$40,000.00	\$40,000.00
<b>Calibration and Testing Equipment, (Stepwedge)</b>														
Smiths Heimann	Smiths Heimann	\$600.00	2	1	1	1	1	2	2	10	\$6,000.00	\$2,400.00	\$1,200.00	\$1,200.00
<b>(Handheld metal detectors)</b>														
GSS03 Garrett Super Scanner	Brigade Quarter Master	\$149.00	10	3	3	4	2	2	2	26	\$3,874.00	\$596.00		
MDS02 Seeker Plus Metal Detector	Brigade Quarter Master	\$159.99	10	3	3	4	2	2	2	26	\$4,159.74	\$639.96		\$159.99
PD140, Hand-Held Metal Detector	Celia	\$155.00	10	3	3	4	2	2	2	26	\$4,030.00	\$620.00		
IDP-9, Hand-Held Metal Detector	RAPISCAN	\$118.00	10	3	3	4	2	2	2	26	\$3,068.00	\$472.00	\$118.00	
<b>X-RAY CARGO</b>														
Rapiscan 528	RAPISCAN	\$49,560.00	2	1				1	1	5	\$247,800.00	\$99,120.00		
Rapiscan 532H	RAPISCAN	\$84,960.00	2					1	1	4	\$339,840.00	\$169,920.00		
Rapiscan 546	RAPISCAN	\$501,500.00	2					1	1	4	\$2,006,000.00	\$100,300.00		
Rapiscan 4200	RAPISCAN	\$1,303,900.00	1					1	1	3	\$3,911,700.00	\$2,607,800.00	\$49,000.00	\$1,303,900.00
Hi-Scan 100100T	Smiths Heimann	\$49,000.00	2	1				1	1	5	\$245,000.00	\$88,000.00		
Hi-Scan 12080	Smiths Heimann	\$80,000.00	2	1				1	1	5	\$400,000.00	\$160,000.00		
Hi-Scan 145180	Smiths Heimann	\$85,000.00	2	1				1	1	5	\$425,000.00	\$170,000.00		
Hi-Scan 150150-140KV	Smiths Heimann	\$100,000.00	2	1				1	1	5	\$500,000.00	\$200,000.00		
Hi-Scan 150150-300kv	Smiths Heimann	\$230,000.00	2					1	1	4	\$920,000.00	\$460,000.00		
Hi-Scan 180180-300KV	Smiths Heimann	\$286,000.00	2					1	1	4	\$1,144,000.00	\$572,000.00		
<b>Mail and small item, X-ray</b>														
Hi-Scan 9075	Smiths Heimann	\$38,000.00	2	1	1	1	1	1	1	8	\$304,000.00	\$76,000.00		
Hi-Scan 100100V	Smiths Heimann	\$45,000.00	2	1	1	1	1	1	1	8	\$360,000.00	\$90,000.00		
<b>Chemical Contamination Detector</b>														
Vapour Tracer 2 Portable	GE IONTrac	\$35,000.00	2	1	1	1	1	1	1	8	\$280,000.00	\$35,000.00		
Model AP2C Chemical Contamination Detector and Alarm	Proengin	\$16,500.00	2	1	1	1	1	1	1	8	\$132,000.00	\$16,500.00	\$16,500.00	\$35,000.00
<b>Air Conditioner</b>														
Series 12, 5 ton, 60000 BTU, 230 Volt/50 Cycle	Air Mover	\$74,500.00					2			4	\$298,000.00		\$74,500.00	\$74,500.00
<b>CCTV-Passenger Terminals</b>														
Lorionix video manager	Verint	\$1,885.00	1	1	1	1	1	1	1	4	\$7,540.00			
Motion Track	Verint	\$1,750.00	1	1	1	1	1	1	1	4	\$7,000.00			
SmartSight S3100	Verint	\$1,490.00	1	1	1	1	1	1	1	4	\$5,960.00		\$1,490.00	
SmartSight S1100w	Verint	\$1,700.00	1	1	1	1	1	1	1	4	\$6,800.00			

Attachment to Appendix Q

EQUIPMENT (1) Continued	COMPANY	COST/ITEM	TSHKNT	SRKD	BKRA	URGCH	TRMZ	NTC	P/INTC	TOTAL	TOTAL COST	C/NTC	LOW	HIGH
SmartSight S1508e	Verint	\$2,400.00	1	1	1	1	1	1	1	4	\$9,600.00			\$2,400.00
10-Camera System	American Dynamics	\$73,500.00	1	1	1	1	1	1	1	4	\$294,000.00			\$73,500.00
<b>COMPUTER/TRAINING/OFFICE EQUIP</b>														
COMPAC Model SR1120NX,	COMPUSA	\$599.99	25	4	4	4	4	19	42	102	\$61,198.98	\$36,599.39	\$599.99	
Hewlett Packard Model A630N	COMPUSA	\$899.98	25	4	4	4	4	19	42	102	\$91,797.96	\$54,898.78		
Dell Dimension 4600	COMPUSA	\$1,100.00	25	4	4	4	4	19	42	102	\$112,200.00	\$67,100.00		
Dell Dimension 4600C	COMPUSA	\$1,259.00	25	4	4	4	4	19	42	102	\$128,418.00	\$76,799.00		\$1,259.00
Gateway Model 550GR, Desk Top	COMPUSA	\$1,019.97	25	4	4	4	4	19	42	102	\$104,036.94	\$62,218.17		
IBM ThinkCentre A50 8148 CTO Series	COMPUSA	\$1,057.00	25	4	4	4	4	19	42	102	\$107,814.00	\$64,477.00		
<b>SOFTWARE</b>														
Microsoft Windows XP Professional	COMPUSA	\$299.99	25	4	4	4	4	19	42	102	\$30,598.98	\$16,199.46		\$299.99
Microsoft Office Standard Student & Teacher Edition	COMPUSA	\$147.45	25	4	4	4	4	19	42	102	\$15,039.90	\$8,994.45	\$147.45	
<b>WORKSTATION- COMPUTER</b>														
Sullivan CPU Cart with Hutch	COMPUSA	\$79.98	25	4	4	4	4	5	5	51	\$4,078.98	\$799.80	\$79.98	
Zline Pacific OneLevel Computer Desk	COMPUSA	\$79.98	25	4	4	4	4	19	42	102	\$8,157.96	\$4,878.78		\$79.98
<b>UNINTERRUPTED POWER SUPPLIES (UPS)</b>														
APC Model BE 325, Power for up to 8 minutes	COMPUSA	\$29.87	25	4	4	4	4	19	42	102	\$3,046.74	\$1,822.07	\$29.87	
APC Model ES500, Power for up to 40 minutes	COMPUSA	\$59.56	25	4	4	4	4	19	42	102	\$6,075.12	\$3,633.16		
APC Model XS800, Power for up to 75 minutes	COMPUSA	\$119.87	25	4	4	4	4	19	42	102	\$12,226.74	\$7,312.07		
APC Model RS1000VA, Power for 90 minutes	COMPUSA	\$149.00	25	4	4	4	4	19	42	102	\$15,198.00	\$9,089.00		\$149.00
<b>MONITOR</b>														
Viewsonic A71F 17" CRT	COMPUSA	\$178.97	25	4	4	4	4	19	42	102	\$18,254.94	\$10,917.17		
NEC Monitor, AccuSync 700, 17"	COMPUSA	\$134.74	25	4	4	4	4	19	42	102	\$13,743.48	\$8,219.14		
KDS Monitor CRT, XF-17b, 17"	COMPUSA	\$128.59	25	4	4	4	4	19	42	102	\$13,116.18	\$7,843.99	\$128.59	
IBM Thinkvision L170 LCD Flat 17"	COMPUSA	\$459.00	25	4	4	4	4	19	42	102	\$46,818.00	\$27,999.00		
Samsung 712N, 17" Flat Screen LCD	COMPUSA	\$459.00	25	4	4	4	4	19	42	102	\$46,818.00	\$27,999.00		
Xerox Ultra-Thin LCD 17" Monitor	COMPUSA	\$479.00	25	4	4	4	4	19	42	102	\$48,858.00	\$29,219.00		
Viewsonic VX710, 17" Flat Panel LCD	COMPUSA	\$548.97	25	4	4	4	4	19	42	102	\$55,994.94	\$33,487.17		\$548.97
<b>PRINTER/COPIER/SCANNER/FAX</b>														
Hewlett Packard Model 5650/5850 Desk Jet	COMPUSA	\$129.99	8	4	4	4	4	4	5	33	\$4,289.67	\$1,169.91		\$299.97
Hewlett Packard Model 1100 Ink Jet	COMPUSA	\$299.97	8	4	4	4	4	4	5	33	\$9,899.01	\$2,698.73		\$299.97
Hewlett Packard Model 3015 LaserJet/Copier/Scanner	COMPUSA	\$299.97	8	4	4	4	4	4	5	33	\$9,899.01	\$2,698.73		\$299.97
Hewlett Packard Model HPC8135A (Business Inkjet)	COMPUSA	\$237.57	8	4	4	4	4	4	5	33	\$9,819.81	\$2,678.13		
Epson Stylus C86, Color Inkjet Printer	COMPUSA	\$97.81	8	4	4	4	4	3	5	33	\$3,227.73	\$880.29	\$97.81	
Hewlett Packard Model LaserJet 3380/ printer, Copier, Fax, Scanner	COMPUSA	\$698.67	2	1	1	1	1	1	1	8	\$5,589.36	\$1,397.34		\$698.67

Attachment to Appendix Q

EQUIPMENT (1) Continued	COMPANY	COST/ITEM	TSHKNT	SRKD	BKRA	URGCH	TRMZ	NTC	IP/NTC	TOTAL	TOTAL COST	C/NTC	LOW	HIGH
		\$548.73	2	1	1	1	1	1	1	1	\$4,389.84	\$1,097.46	\$548.73	
Brother MFC8840D Laser, Printer, copier, scanner, Fax	COMPUSA	\$300.00	8	4	4	4	4	3	5	33	\$8,100.00	\$2,400.00		
Printer Supplies (14)	COMPUSA													
<b>PROJECTOR</b>														
INFOCUS Model LP540 Projector XGA 1700	COMPUSA	\$1,585.34	1	1	1	1	1	2	2	9	\$14,088.06	\$6,261.36		
Epson Powerlite S1 LCD Projector, SVG	COMPUSA	\$999.99	1	1	1	1	1	2	2	9	\$8,999.96	\$3,999.96	\$999.99	
Hewlett Packard Model VP6100 Series, SVG Projector	COMPUSA	\$1,298.00	1	1	1	1	1	2	2	9	\$11,891.00	\$5,196.00		
Infocus LP120	COMPUSA	\$1,999.99	1	1	1	1	1	2	2	9	\$17,999.91	\$7,999.96		\$1,999.99
IBM Data/Video High Intensity Projector	COMPUSA	\$1,049.00	1	1	1	1	1	2	2	9	\$9,441.00	\$4,196.00		
<b>PULL-DOWN WALL SCREEN</b>														
Apollo Model APOPW6060, 60"X60" Pull down	COMPUSA	\$99.99	1	1	1	1	1	2	2	9	\$899.91	\$399.96	\$99.99	
Apollo Model VRW8484, 84"X84" Pull down	COMPUSA	\$259.99	1	1	1	1	1	2	2	9	\$2,339.91	\$1,039.96		
Apollo Model APO60300 60" Pull up from floor	COMPUSA	\$649.99	1	1	1	1	1	2	2	9	\$5,849.91	\$2,599.96		
Apollo Model APO60302 60" Pull up from floor	COMPUSA	\$734.99	1	1	1	1	1	2	2	9	\$6,614.91	\$2,939.96		\$734.99
Apollo Model APOAW6 Wall Bracket	COMPUSA	\$16.99	1	1	1	1	1	2	2	9	\$152.91	\$67.96		
<b>PLASMA TV</b>														
Sony Plasmapro PFM-42Va/B	COMPUSA	\$2,999.99	1	1	1	1	1	2	2	9	\$26,999.91	\$11,999.96		
Viewsonic Model VPW425 42" Plasma TV Monitor	COMPUSA	\$2,799.00	1	1	1	1	1	2	2	9	\$25,191.00	\$11,196.00	\$2,799.00	
JVC Model PD42V475, HDMI Digital Plasma 42"	COMPUSA	\$3,799.99	1	1	1	1	1	2	2	9	\$34,199.91	\$15,199.96		\$3,799.99
Zenith Model P42W46X, 42" Plasma	COMPUSA	\$2,799.99	1	1	1	1	1	2	2	9	\$25,199.91	\$11,199.96		
<b>WALL MOUNT BRACKET FOR TV</b>														
DAEWOO Electronics Model DAEW DVD/VCR Dualdeck, 314219	COMPUSA	\$193.10	1	1	1	1	1	2	2	9	\$1,737.90	\$772.40		
<b>DVD/VCR PLAYERS/RECORDERS</b>														
Samsung Model DVD-V4600, DVD/Hi Fi VCR	COMPUSA	\$99.99	1	1	1	1	1	2	2	9	\$899.91	\$399.96	\$99.99	
Pioneer Model DVR-225, DVD-R/RW	COMPUSA	\$119.99	1	1	1	1	1	2	2	9	\$1,079.91	\$479.96		
<b>PHOTO COPIERS</b>														
Epson Model Photo R300 Printer	COMPUSA	\$179.99	1	1	1	1	1	2	2	9	\$1,619.91	\$719.96		
Hewlett Packard Model PhotoSmart 7760 Photo Printer	COMPUSA	\$229.99	1	1	1	1	1	2	2	9	\$2,069.91	\$919.96		\$229.99
Canon Model IP400, Pixma Photo Printer	COMPUSA	\$147.84	1	1	1	1	1	2	2	9	\$1,330.56	\$591.36	\$147.84	
IR3300 Document Feeder, Pedestal, w/two (2) 500-Sheet Paper Trays, Duplex	CANON	\$6,500.00	1	1	1	1	1	1	1	3	\$19,500.00	\$13,000.00	\$6,500.00	\$6,500.00
<b>CAMERAS</b>														
Sony Model DCR-TRV460 Digital Camcorder	COMPUSA	\$399.97	1	1	1	1	1	2	2	9	\$3,599.73	\$1,599.88		
Canon Model ZR-80 Camcorder	COMPUSA	\$399.97	1	1	1	1	1	2	2	9	\$3,599.73	\$1,599.88		

Attachments to Appendix Q

EQUIPMENT (1) Continued	COMPANY	COST/ITEM	TSHKNT	SRKD	BKRA	URGCH	TRMZ	NTC	IPNTC	TOTAL	TOTAL COST	C/NTC	LOW	HIGH
Cannon Model ZR-85 Camcorder	COMPUSA	\$499.97	1	1	1	1	1	1	2	2	\$4,499.73	\$1,999.88	\$129.97	\$499.97
Hewlett Packard Model HP 435 Still Camera	COMPUSA	\$129.97	1	1	1	1	1	1	2	2	\$1,169.73	\$519.88		
Hewlett Packard Model HP 735 Still Camera	COMPUSA	\$179.97	1	1	1	1	1	1	2	2	\$1,619.73	\$719.88		
KodakEasyshare CX7330 Digital Camera	COMPUSA	\$199.95	1	1	1	1	1	1	2	2	\$1,799.55	\$799.80		
KodakEasyshare DX4530 Digital Camera	COMPUSA	\$299.00	1	1	1	1	1	1	2	2	\$2,691.00	\$1,196.00		
KODAKEasyshare DX7630 Digital Camera	COMPUSA	\$449.95	1	1	1	1	1	1	2	2	\$4,049.55	\$1,799.80		
<b>AIRPORT CRASH/FIRE RESCUE</b>														
VEHICLES/3000-GAL	OSHKOSH	\$775,000.00	1	1	1	1	1	1		5	\$3,400,000.00		\$775,000.00	
VEHICLES/1500-GAL	OSHKOSH	\$650,000.00	1	1	1	1	1	1		5	\$3,000,000.00			
3000 GALLON	E-ONE	\$850,000.00	1	1	1	1	1	1		5	\$4,250,000.00			\$850,000.00
1500 GALLON	E-ONE	\$650,000.00	1	1	1	1	1	1		5	\$3,250,000.00			
1500 GALLON (Rebuilt)	Crash Rescue Equip Svc Inc.	\$400,000.00	2	1	1	1	1	1		6	\$2,400,000.00		\$400,000.00	
<b>Radio/AAM26RMF9DP5 CDM 1650LS + Mobile Unit</b>	Motorola	\$600.00	2	1	1	1	1	1		6	\$4,800.00			
<b>Foamer</b>														
TM-30, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$7,695.00	2	3	3	3	3	3		14	\$107,730.00			
TM-60, Portable Wheeled Unit	Crash Rescue Equip. Svc. Inc.	\$9,998.00	3	1	1	1	1	1		7	\$69,986.00			
TM-60 on Skids	Crash Rescue Equip. Svc. Inc.	\$96,660.00	4							4	\$386,640.00			
TRIMAX 30 Protective Cover	Crash Rescue Equip. Svc. Inc.	\$220.00	1	3	3	3	3	3		14	\$3,080.00			
3% AFFF Foam Concentrate, 5 Gal.	Crash Rescue Equip. Svc. Inc.	\$95.00	8	4	4	4	4	4		24	\$2,280.00			
<b>RADIO EQUIPMENT (15)</b>														
Non-Networked Trunk System, UHF, Passport Trunking Protocol	MOTOROLA	\$311,199.00	1	1	1	1	1	1	1	1	\$311,199.00			
												\$202,995.00		
												\$304,492.00		
												\$306,710.00		
												\$299,230.00		
												\$311,199.00		
												\$178,240.00		
<b>TELEPHONE EQUIPMENT (16)</b>														
(Config#0003) and Multimedia Messaging Products	DEFINITY	\$222,023.00	1	1	1	1	1	1	1	1	\$222,023.00		\$99,811.00	\$99,811.00
(Config#0002)												\$199,622.00		

Attachments to Appendix Q

<u>EQUIPMENT (1) Continued</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>IRMZ</u>	<u>NTC</u>	<u>PINTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>C/NTC</u>	<u>LOW</u>	<u>HIGH</u>
<b>AIRPORT SECURITY FORCE</b>													
Mobile Command Post Vehicle	Johnson Bros. Ford	\$23,669.30	1	1	1	1			5	\$118,346.50		\$23,669.30	
Ford Explorer	Johnson Bros. Ford	\$27,928.40	1						1	\$27,928.40		\$27,928.40	
Ford Expedition	Temple Chrysler Jeep	\$29,532.00	1	1	1	1			5	\$147,660.00			\$29,532.00
Jeep Grand Cherokee	Mac Haik Dodge	\$26,858.00	1	1	1	1			5	\$134,290.00			
Dodge Durango ST	Motorola	\$14,677.00	1	1	1	1			5	\$73,385.00			
Communications System													
<b>Siren</b>													
Wobblulator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	\$109.95	4	2	2	3			14	\$1,539.30		\$109.95	
Carson Cruiser Compact Siren 100/200W SA 500 w/P.A.	LA Police Gear	\$154.99	4	2	2	3			14	\$2,169.86			
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	\$179.99	4	2	2	3			14	\$2,519.86			\$179.99
SK144 100W Speaker, 120db	Galls	\$89.99	4	2	2	3			14	\$1,259.86		\$89.99	
<b>Emergency Light Bar for MCPPE</b>													
Able 2 SHO-ME Low-profile LED Mini Bar	10-4 Warning Equipment	\$199.99	4	2	2	3			14	\$2,799.86		\$199.99	
Code 3, 47" MX7000 W/Bonus Pack	Galls	\$659.97	4	2	2	3			14	\$9,239.58			\$659.97
Fully Equipped Trailer	SIRCHIE GRP VEH	\$150,000.00	1						1	\$150,000.00			
Ford Freestar 7-Passenger Van	Johnson Bros. Ford	\$19,593.90	4	2	2	3			14	\$274,314.60		\$19,593.90	
Dodge Grand Caravan 7-Passenger Van (Van accessories)	Mac Haik Dodge	\$23,085.00	4	2	2	3			14	\$323,190.00			\$323,190.00
Wobblulator All-Inclusive, 95W, 120 db, Freq. Range 600-1200Hz	LA Police Gear	\$109.95	4	2	2	3			14	\$1,539.30		\$109.95	
Carson Cruiser Compact Siren 100/200W SA 500 W/P.A.	LA Police Gear	\$154.99	4	2	2	3			14	\$2,169.86			
SK125 Street Thunder Delux Full Feature siren, 200W	Galls	\$179.99	4	2	2	3			14	\$2,519.86			\$179.99
SK144 100W Speaker, 120db	Galls	\$89.99	4	2	2	3			14	\$1,259.86		\$89.99	
<b>Emergency Light Bar</b>													
Able 2 SHO-ME Low-profile LED Mini Bar (Van light bar)	10-4 Warning Equipment	\$199.99	4	2	2	3			14	\$2,799.86		\$199.99	
Code 3, 47" MX7000 W/Bonus Pack	Galls	\$659.97	4	2	2	3			14	\$9,239.58			\$659.97
Radio/AAM25RHFP5 CDM 1650LS + Mobile Unit	Motorola	\$600.00	4	2	2	3			14	\$32,800.00		\$600.00	

Attachment 2 to Appendix Q

<u>EQUIPMENT (1) Continued</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>TSHKNT</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>TRMZ</u>	<u>NTC</u>	<u>P/NTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>C/NTC</u>	<u>LOW</u>	<u>HIGH</u>
<b>PERSONAL EQUIPMENT</b>														
Strobe Light/Beacon	Brigade Quarter Master	\$24.99	75	15	20	15	20			145	\$3,623.55		\$24.99	
GTP 988 Pocket Strobe	Superior Signal Galls	\$151.15	30	10	10	10	10			70	\$10,580.50			\$151.15
SY22035H 6.25" High Profile, Beacon		\$79.99	30	10	10	10	10			70	\$5,599.30			
Whelen 15W Strobe Beacon														
<b>Flashlights</b>														
ML821 Mag Charger Flashlight	Brigade Quarter Master	\$109.99	75	15	20	15	20			145	\$15,948.55			
FL411 SL-20XP LED Recharge Flashlight	Galls	\$99.99	75	15	20	15	20			145	\$14,498.55		\$99.99	
DL143 6" LED Stick Light	Galls	\$179.99	25	10	10	10	10			65	\$11,699.35			\$179.99
<b>Hearing Protection</b>														
EARS/AF NRR 21 Decibels hearing Protector	Brigade Quarter Master	\$15.99	75	15	20	15	20			145	\$2,318.55		\$15.99	
<b>Protective Headgear</b>														
Ballistic Helmet, TEO42, RBR F6 Combat MKII	Galls	\$299.99	75	15	20	15	20			145	\$43,498.55		\$299.99	
<b>Body Armor w/Cover</b>														
PBV2133 Gamma Plus Lvl III Body Armor	Brigade Quarter Master	\$550.00	75	15	20	15	20			145	\$79,750.00			\$550.00
SDS02 OTV Tactical Vest Cover	Brigade Quarter Master	\$146.99	75	15	20	15	20			145	\$21,313.55		\$146.99	
<b>Batons</b>														
Monadock Autolock Baton 26, Blk.	LA Police Gear	\$103.60	75	15	20	15	20			145	\$15,022.00			\$103.60
Monadock PR-245TS One-Piece PR24 W/Stop	LA Police Gear	\$55.00	75	15	20	15	20			145	\$7,975.00		\$55.00	
<b>Pepper Spray</b>														
PF711 Pepper Foam Pepper Gas	Brigade Quarter Master	\$17.99	75	15	20	15	20			145	\$2,608.55		\$17.99	
AER 1199 Deep Freeze Pepper Gas	Brigade Quarter Master	\$17.99	75	15	20	15	20			145	\$2,608.55			\$17.99
<b>Taser Weapons</b>														
TSB06 Thunder Storm Stun Gun	Brigade Quarter Master	\$54.99	30	10	10	10	10			70	\$3,849.30			\$54.99
ZF3000 Stunner 300K Volts	Brigade Quarter Master	\$49.99	30	10	10	10	10			70	\$3,499.30		\$49.99	
ZF6000 Stunner 600K Volts	Brigade Quarter Master	\$49.99	30	10	10	10	10			70	\$3,499.30			

Attachment 2 to Appendix Q

<u>EQUIPMENT (1) Continued</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>TSHKNT</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>IRMZ</u>	<u>NTC</u>	<u>IPNTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>C/NTC</u>	<u>LOW</u>	<u>HIGH</u>
<b>Protective Mask</b>														
Model 6000 Gas Mask w/60926 Model Canisters	3M	\$136.00	75	15	20	15	20		20	145	\$19,720.00		\$136.00	
TE301 NIOSCH/CBRN App. Gas mask	Brigade Quarter Master	\$299.99	75	15	20	15	20		20	145	\$43,498.55			\$299.99
<b>Vehicle Inspection Mirrors</b>														
STV08 Tacticle Vision Wheel Mirror	Brigade Quarter Master	\$99.99	5	3	3	3	3		3	17	\$1,699.83			
IMV3508 Inspection Mirror	Brigade Quarter Master	\$89.99	5	3	3	3	3		3	17	\$1,529.63		\$89.99	
NIC Vehicle Undercarriage Inspection Mirror	American Security	\$1,056.00	5	3	3	3	3		3	17	\$17,952.00			\$1,056.00
<b>Hand Restraints</b>														
Plastic Hand Restraints	Brigade Quartermaster	\$1.50	70	15	20	15	20		20	145	\$217.50		\$1.50	
Hand Cuffs/Steel/Maximum Security Slide Lock Model 100	Brigade Quartermaster	\$27.95	70	15	20	15	20		20	145	\$4,052.75			\$27.95
<b>Night Vision Equipment</b>														
Night Vision D211 Generation II Binoculars With Zoom Lens	Galls	\$2,299.99	4	2	2	2	2		2	14	\$27,599.88		\$2,299.99	\$2,299.99
<b>TIRE DEFLATION SYSTEM</b>														
MS16 Magnum Spike	Phoenix International	\$373.00	2	1	1	1	1		1	6	\$2,238.00			
Barracuda 8048, 9'	Stop Tech Ltd	\$169.00	2	1	1	1	1		1	6	\$1,014.00		\$169.00	
<b>Radiation detector</b>														
Inspector EXP	S.E. International	\$685.00	2	1	1	1	1		1	2	\$6,850.00	\$1,370.00	\$685.00	\$685.00
<b>EOD</b>														
Bomb Suite @ Helmet 600-350	PW Allen, Inc	\$16,711.40	1	1	1	1	1		1	5	\$83,557.00		\$16,711.40	\$16,711.40
Chest Plate 600-351	PW Allen, Inc	\$2,084.60	1	1	1	1	1		1	5	\$10,423.00		\$2,084.60	\$2,084.60
Ballistic Shield 600-756	PW Allen, Inc	\$2,945.40	1	1	1	1	1		1	5	\$14,724.00		\$2,945.40	\$2,945.40
Radio Freq. Jammer 600 2121 C-12V	PW Allen, Inc	\$151,104.80	1	1	1	1	1		1	5	\$755,524.00		\$151,104.80	\$151,104.80
Recorder/Receiver 600-782	PW Allen, Inc	\$23,428.40	1	1	1	1	1		1	5	\$117,142.00		\$23,428.40	\$23,428.40
<b>LIGHTING EQUIPMENT</b>														
20' Steel Light Poles	Acuity Brands Lighting	\$90.00	500	475	475	450	400		400	2300	\$207,000.00			
Cobra Light Heads and Bulbs, 125 400S RN, 240V, 5H DG, 400watt	Acuity Brands Lighting	\$175.00	500	475	475	450	400		400	2300	\$402,500.00			
<b>PERIMETER SECURITY</b>														
Access Control for Unmanned Gates	KANTECH ADT	\$8,960.00								7	\$62,720.00			
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSUF USD-485														

<u>EQUIPMENT (1) Continued</u>	<u>COMPANY</u>	<u>COST/ITEM</u>	<u>SRKD</u>	<u>BKRA</u>	<u>URGCH</u>	<u>TRMZ</u>	<u>NTC</u>	<u>P/NTC</u>	<u>TOTAL</u>	<u>TOTAL COST</u>	<u>LOW</u>	<u>HIGH</u>
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,200.00		2				2		\$6,400.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,100.00		3				3		\$12,300.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$5,314.00		4				4		\$21,256.00		
<b>CCTV For Unmanned Access Gates</b>												
7-Camera System	American Dynamic	\$78,890.00	7					7		\$552,230.00		
2-Camera System	American Dynamic	\$30,408.00	2					2		\$60,816.00		
3-Camera System	American Dynamic	\$41,650.00	3					3		\$124,950.00		
4-Camera System	American Dynamic	\$48,840.00	4					4		\$195,360.00		
<b>FUEL FARMS</b>												
<b>Access Control for Unmanned Gates</b>												
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$5,600.00	1					1		\$5,600.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,840.00	3					3		\$11,520.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,800.00	3					3		\$14,400.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$4,100.00		3				3		\$12,300.00		
E-FTE-EN KT-300/128K ENF-E509 808.012.510 P100XSF USD-485	KANTECH ADT	\$3,986.00		3				3		\$11,958.00		
<b>CCTV (Coverage w/o Taut Wire</b>												
3-Camera System	American Dynamic	\$46,620.00	3					3		\$139,860.00		
3-Camera System	American Dynamic	\$33,810.00	3					3		\$101,430.00		
3-Camera System	American Dynamic	\$45,612.00	3					3		\$136,836.00		
3-Camera System	American Dynamic	\$41,650.00	3					3		\$124,950.00		
1-Camera System	American Dynamic	\$36,630.00		1				1		\$36,630.00		
<b>Taut Wire Fence for Fuel Farm Includes Installation and</b>												
<b>CCTV</b>												
2km, 6', w/o outrigger	Zareba	\$398,000.00		1				1		\$398,000.00		
1km, 6', w/o Outrigger	Zareba	\$236,000.00	1					2		\$472,000.00		
1km, 6', w/1' Outrigger	Zareba	\$304,000.00	1					1		\$304,000.00		
										\$1,805,248.76	\$4,734,118.95	

**FOOTNOTES: (For further detail and a complete listing of the equipment referenced in APPENDIX Q, please see the consolidated Equipment List in APPENDIX H )**

Total cost is for purchase of specific equipment and not other associated expenses such as transportation , installation, custom duties, Items listed in NTC (National Training Center) or PNTC (Proposed National Training Center) are for formal training purposes.

**(1) In some cases, multiple manufactures of specific equipment will be noted to allow selection of desired brand and models.**

**(3) Access Control systems include card manufacturing system. Passport identification and Crew Cert readable capabilities can be included**

with appropriate software. The quotes from IdentiCard (Line 3) and Hirsch Electronics (Line 4) represent what the evaluation team consider as equipment that most met the needs of the airports. Other companies were approached and elected not to submit a quote. Additionally both IdentiCard and Hirsch Electronics met all TDA eligibility requirements. Hirsch Electronics represented the high bid at \$130762.32 for 52 units. IdentiCard was low at \$115468.08 for 52 units. The RVA evaluation team determined a need for 21 units at Tashkent International Airport (TIA)

plus one unit at the existing National Training Center (NTC), two units at the (Proposed) National Training Center (P)NTC, and each of the other four airports would require seven units for a total of 52 units.

**(6) Automated Passport System and Crew Card Reader. KNDV (Line 7) is the only company meeting TDA eligibility requirements that elected to submit a bid. The cost per system is \$33120.00.**

It was determined that TIA would need four systems that would cover each of the employee access points plus one each at the NTC and the (P)NTC. Each of the other four airports would require one system. This equates to a total of 10 systems and an over all cost of \$331200.00

**(8) This is an ID card development system and is not associated with an automated passport system.**

at a cost of \$5995.00 per system. Two systems were recommended for TIA (one as a back-up) plus one each at the NTC and (P)NTC. The other four airports would require one system each. That equates to a total of eight systems and an overall cost of \$47960.00

Asure ID (Dalco International) submitted a quote on an ID card development system

**(10) Screening Equipment, Persons. Metal detector quotes were received from Ceia (Lines 11,12,13); Fisher Labs (Line 14);**

RAPISCAN (Line 15); Metorex Security (Lines 16,17,18). The RAPISCAN model 1000 Secure Body Scanner is a costly

but highly effective and versatile piece of equipment. The RAPISCAN is the only walk-through passenger screening device capable of detecting not only metal but high explosives, ceramics, and plastics. This unit is at the high end of the scale at \$135,700.00 per unit and for that reason the team determined that TIA could manage with three units, one at each terminal (International and Domestic) and one at the major employee access point.

The team recommends that if the RAPISCAN equipment is selected that a unit be located at the NTC, (P)NTC, and for each of the other four airports.

Total cost for the nine units would be \$1,221,300.00. The low end of the scale is represented by the Metorex Security model Metor 150 Walk-Through Metal

Detector at a unit cost of \$2006.00. For this unit and all of the other units in between, the team recommended 10 units at TIA, one each at the NTC and (P)NTC,

three at Samarkand, three at Bukhara, four at Urgench, and two at Termez. That is a total of 24 units. The team recommends that some unit other than

the low scale unit be selected. The Ceia model AP395 Multi Zone (Line 11), Metor 200 Multi-Zone Walk-Through (Line 17), the Metor 200HD, High Discrimination

Multi-Zone Walk-Through (Line 18), and the M Scope Portable Detector by Fisher Labs (Line 14) are all good quality systems that should adequately cover the requirement.

**(20) The Metorex Security model Metor 200WP, Weatherproof Multi-Zone Walk-Through is a good quality system that is adequate for employee access points that are exposed to the weather.**

If this system is selected the team recommends three units at TIA and one at each of the other four airports. This would total seven units at a total cost of \$47,908.00.

**(22) Trace Detection Equipment: The Portable Vapor Tracer unit by GE is now in production and has proved its effectiveness at airports throughout the world. The team recommends consideration be**

given to placing four units at TIA (One each at the International and Domestic terminals, one at the Cargo terminal, and one at the main employee access point), one at the NTC, one at the (P)NTC, and one at each of the other four airports. This would be a total of ten units at a total cost of \$350,000.00. Other GE models such as the Entry Scan Ion Trac/Walk-Through and the

Itemizer3 Desktop model are still undergoing tests and not yet in production

**((27) Screening Equipment X-Ray Hold/Carry-on Baggage:** Quotes were received from InVision (Lines 28-31); RAPISCAN (Lines 32-40); Smiths Heimann (Lines 41-46). Prices varied greatly

depending on what would be required of the equipment. On the high end was the InVision model 9000DSI at \$1,500,000.00 per unit. On the plus side of the InVision equipment is the fact

that InVision has an Equipment Training Simulator (Line 48) available for \$40,000.00 thus eliminating the need to purchase actual units for the training centers. The low end of the scale was Smiths

Heimann model HI-Scan PS 5030-S at \$16,500.00 per unit. The team recommended that six units be placed at TIA and each of the other airports would receive two units. If any equipment other than InVision were selected then the NTC and the (P)NTC would each get a unit for training purposes. If InVision is selected then TIA should receive two of the training simulators and

the NTC and (P)NTC and all of the other airports would receive one each. Should Smiths Heimann equipment be selected they have a Calibration and Testing Equipment Kit (Line 51) available.

Here the team recommended that TIA, NTC, and (P)NTC each receive two kits while the other airports each get a kit.

**(53) Hand-Held Metal Detectors: The high scale model was the Brigade Quartermaster model MDS02 Seeker Plus Metal Detector (Line 55) at \$159.99 per unit. The low end was the RAPISCAN**

model IDP-9, Hand-Held Metal Detector (Line 57) at \$118.00 per unit. The team recommended that TIA get ten units, Samarkand and Bukhara get three units each, Urgench four units, and Termez, the NTC and the (P)NTC get two units each.

**(59) Cargo X-ray equipment will vary in numbers requested because of size of equipment. Some equipment can accommodate small cargo while other systems accommodate large cargo.**

TIA has a large, active cargo department and the team recommends that with the exception of the RAPISCAN model 4200 (Line 63), that TIA receive two units. Should the RAPISCAN 4200 model be

selected it is recommended that only one be purchased for TIA and another model be selected as the second unit. Samarkand is the only other airport with an active cargo department and it is

relatively small scale. The team recommends one unit of the less expensive variety go to Samarkand. The NTC and (P)NTC should receive one of each model. On the high end is the RAPISCAN 4200

at \$1,303,900.00; the low end is the Smiths Heimann Model 100100T (Line 64) at \$49,000.00.

There are several options here, all depending on what requirements exist for the equipment. At the

most, depending on the equipment selected, only five units need be purchased and the total cost will reflect what equipment needs to go where.

**(71) Mail and Small Item X-Ray: Smiths Heimann (Line 72, 73) submitted two models for consideration, one costing \$38,000.00 and the other costing \$45,000.00. Both are good quality systems.**

it is recommended that TIA receive two units and all of the other entities receive one each for a total of eight.

**(75) Chemical Contamination Detector: Two companies submitted models for consideration, the GE model Vapor Tracer 2 (Line 76), Portable at \$35,000.00 per unit, and the Proengin Chemical**

Contaminatic Detector and Alarm (Line 77) priced at \$16,500.00 per unit. The team recommends that TIA receive two of the units and all of the other entities receive one each for a total of eight.

**(79) Air Conditioner: Both Bukhara, and most especially Termez, have a need for air conditioning systems is the area where they have X-Ray equipment. The team recommends that Bukhara and**

Termez receive two air conditioning units each for a total of four. Air Mover was the only company to submit a bid for equipment heavy enough to do the job at a cost of \$74,500.00 per unit.

**(82) CCTV Systems for Passenger Terminals:** It was determined that TIA has an adequate CCTV system and there is no need for CCTV at the training centers therefore the team only recommends

that a system be installed at each airport. CCTV Verint equipment (Lines 83-87) are control systems that DO NOT include cameras. This is important to note, they can accommodate any camera, but

the prices here are only for a six-point system. The low end of the price scale is \$1490.00 per unit while the high end is \$2400.00 per unit and a camera still has to be purchased. American Dynamics (Line 89) offers a ten-camera unit at \$73,500.00 per unit.

**(91) Computer/Training/Office Equipment: Five companies: COMPAC (Line 93), Hewlett Packard (Line 94), Dell (Line 95,96), Gateway (Line 97) and IBM (Line 98) all submitted bids for a rather large**

computer requirement. The low end of the scale was the COMPAC model SR1120NX at \$599.99 per unit and with the following characteristics: Intel Celeron B 330 processor, 512 MB DDR RAM,

80GB, DVD,CDRW Drives, 56kModem, 10/100Ethernet/LAN, USB 2.0 Ports, Microsoft XP Home. The Hewlett Packard model A630N was next at \$899.98 with the following characteristics:

2.8 GHz Intel Pentium Processor, 512 MB DDR RAM, 160 GB Hard Drive, 56k Modem, DVD and CD writer, USB 2.0 Ports. Microsoft XP Home. The Dell Dimension Model 4600 was

next at \$1100.00 with the following characteristics: Intel Pentium 4 Processor at 2.8GHz, 512 DDR RAM, 80GB Drive, Microsoft XP Professional, Microsoft Small Business,

Dell 720 Color printer included, speakers, 56k Modem, 10/100Ethernet, 48X CD-RW Drive, USB 2.0 port. The Dell Dimension model 4600C was the high end of the scale at \$1259.00 per unit with

the following characteristics: Intel 4 Pentium Processor at 2.8GHz, 512 DDR RAM, 80GB Drive, Microsoft XP Professional, Microsoft Office Small Business, Dell 720 Color printer included, speakers,

56k Modem, 10/100Ethernet, 24X CD-RW/DVD ROM, USB 2.0 Port. Gateway Model 550GR, Desk Top at \$1019.97 per unit with the following characteristics: Intel 4 Pentium Processor

at 3.2GHz, 512 DDR RAM, 200GB Drive, Microsoft XP Home, Multiformated DVDRW Drive. The last computer submitted was IBM Model ThinkCentre A50 8148 CTO Series at \$1057.00 per unit.

It has the following characteristics: Intel 4 Pentium Processor at 3.0GHz, 512 DDR RAM, 40GB Drive, Microsoft XP Professional, 48XCB-RW/DVD, Combo Drive, USB 2.0 Ports, V.90 Data/Fax Soft Modem,

Norton Anti Virus. As stated this is a large computer requirement with the vast majority (42 units) going to the (P)NTC. The team recommends that TIA receive 25 units, the NTC 19 units and the

other airports receive four units each. This totals 102 computer units at a total cost ranging between \$61,198.98 and \$128,418.00.

**(100) Computer software, Uninterrupted Power Supplies (Line 108), and Monitors Line 114) are all items that need to be addressed for each computer. The team also considered computer**

workstations (Line 104) and recommended that the majority of the computers at the training centers need to be one level items and in fact there may be enough spare desks to handle this requirement.

The computers going to the airports and some of the administrative requirements at the training centers might prefer a workstation with a hutch. The cost was the same for each style, \$79.98. Software costs could be reduced by selecting the Microsoft Office 2003 Standard Student and Teacher Edition for the student requirements at the training centers. Six companies submitted quotes for

monitors: Viewsonic (Lines 115 & 121) which represented the low and high end of the scale respectively. All units have a 17" screen but when a Flat Screen LCD is added the price goes up

accordingly. The cost for 102 units of Viewsonic Model A71F 17" CRT is \$18,254.94 and for 102 units of Viewsonic Model VX710, 17" Flat Panel LCD, the total cost is \$55994.94.

**(123) Items may be a combination of a printer, copier, scanner and FAX. Some items are for large printing use and would not be given to users. Those large capacity printers would be primarily used at**

the Training Center and management office. The team recommended that TIA and the training centers would need fewer printers, that most printers would be used for administrative areas and the break

down is eight units to TIA, four units to each of the other airports and the NTC, and five units to the (P)NTC for a total of 33 units. The high end of the scale was Model HP1100 Ink Jet, and Model HP3015 Laser Jet/Copier/Scanner, both listed at \$299.97 per unit. The low end was Epson Model Stylus C86, Color Ink Jet Printer at \$97.81 per unit. Hewlett Packard submitted Model HP LaserJet 3380/Printer/Copier/Fax/Scanner listed at \$698.57 and Brother submitted Model MFC8840D Laser/Printer/Copier/Scanner/Fax at \$548.73 per unit. Should either of these models be selected the team recommended that TIA would receive two units and all the other entities one each.

**(132) Printer supplies include paper, toner, and replacement ink cartridges to last for one year.**

**(134-177) All line items are designed to facilitate training. All of the airports do conduct on-site training and all of the outlying airports are in desperate need of training aids. The evaluation team recommends that the training centers each get two of each item and all of the other entities get one each. The only notable exception is Line Item 167, the Canon IR3300 Document Feeder, Pedestal with two 500-Sheet Paper Trays, Duplex. This unit is expensive but it is very advantageous in both the training mode and administrative mode. The team recommends one unit at TIA and one unit at each of the training centers. Should a decision be made to purchase all of the recommended equipment on the low end of the scale the cost would only be about \$59,881.83; for another \$30,000.00 top of the line equipment could be purchased.**

**(179-194) Fire/Crash Rescue Equipment: All of the airports have needs in this area. The team recommends that each airport procure a new or rebuilt 3000-gal fire truck and a new or rebuilt 1500 gallon fire truck. The high end of the 3000 gallon model is built by E-One at \$850,000.00 per unit and the low end by Oshkosh at \$775,000.00 per unit. There are some very high quality rebuilt that can be had in the range of \$600,000.00. The low end of the scale for 1500-gallon units is a rebuilt by Crash Rescue Equipment Service, Inc at \$400,000.00 per unit; the high end of the scale for 1500-gallon units is \$650,000.00 from both Oshkosh and E-One. The team recommends that quality rebuilt equipment be pursued. Foamers are another item of extreme importance and for a marginal cost can be a decisive piece of equipment in an emergency. There is no high or low end in this category. Each of the airports need at least the foaming equipment recommended by the team. It is very difficult to place a value on equipment of this type but for a cost of \$569,716.00 all of the airports can be up-dated to handle any emergency.**

**(196-207) The radio and telephone communications equipment was specifically evaluated for each location and is covered in a separate appendix. The telephone systems at Samarkand, Bukhara, and Urgench did not require up-grading. The recommended radio system designed for all of the airports will allow secure voice communication throughout the country.**

**(209-310) All line items in this range deal with equipping the Airport Security Force at each airport. It does not include the National Security Force, Transportation Police, Border Guards or Customs. These items are considered to be the minimums to allow the Airport Security Force (ASF) to properly do its job. Should a decision be made to purchase all of the recommended equipment on the low end of the scale the cost would be approximately \$1,825,000.00. The high end cost would be approximately \$2,010,000.00. Certainly the high dollar items for EOD equipment could be adjusted to reflect perhaps only two units, both located at Tashkent. The need for vehicles, communications equipment and personnel protective equipment should not be compromised.**

**(18) The difference in pricing for CCTV coverage at the unmanned access gates along the perimeter and the Fuel Farms is based on the additional wiring and distance**

**(17) Fuel Farm Guard Towers are turn key installations including CCTV.**