

**Flight Training for Aliens and Other Designated Individuals;
Security Awareness Training for Flight School Employees**

**In Support of Fees for Foreign Student Pilot Candidates
Security Threat Assessment**

20 September 2004

**U.S. Department of Homeland Security
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PURPOSE OF THE REPORT

The purpose of this document is to provide a detailed review of the costs and related fee development methodology associated with the first five years of operation of the Alien Flight Students Security Assessment Program. The costs and related fee development are identical to those in the Interim Final Rule: “Flight Training for Aliens and Other Designated Individuals; Security Awareness Training for Flight School Employees.”

INTRODUCTION

The costs for the Alien Flight Students Security Assessment Program are based on TSA’s current best estimates of the start-up and recurring activities and related component costs. The candidate fee is based on the estimate of the recurring costs for providing the security threat assessment on the population that is required to receive these security threat assessments. This document provides further detail on the costs, population, and fees as described in the Interim Final Rule.

COST OF SERVICES

The costs of the program have been divided into two categories, *Start-Up* and *Recurring Costs*:

Start Up Costs

Start-Up Costs include all the costs associated with establishing the security threat assessment program. These costs include building out systems, establishing processes and procedures, setting up facilities, and other costs that are incurred in the development of the capabilities to provide the security threat assessment.

Recurring Costs

The Recurring Costs include the on-going costs of providing services. These costs include the recurring adjudication of security threat assessment results, recurring maintenance of hardware and systems, and other overhead and variable costs associated with running the program.

This Table is identical to the costs table in the “Interim Final Rule: “Flight Training for Aliens and Other Designated Individuals; Security Awareness Training for Flight School Employees”

	Category Description	Start-Up	Recurring
Hardware/Software			
1	Transfer and modify Flight Training Candidate Checks Program (FTCCP) designed "front-end" website application system	\$376,000	\$0
2	Transfer and modify FTCCP designed applicant assessment system ...	\$1,054,000	\$0
3	Transfer and modify FTCCP designed helpdesk system	\$70,000	\$0
4	Maintain and refresh "front-end" website application system	\$0	\$94,000
5	Maintain and refresh applicant assessment system.....	\$0	\$263,500
6	Maintain and refresh helpdesk system.....	\$0	\$17,500
	Total.....	\$1,500,000	\$375,000
Contract Employee			
7	Contract personnel to support transfer and modification of "front-end" website application system.....	\$241,800	\$0
8	Contract personnel to support transfer and modification of applicant assessment system	\$229,000	\$0
9	Contract personnel to maintain "front-end" website application system.....	\$0	\$336,000
10	Contract personnel to maintain applicant assessment system.....	\$0	\$1,900,800
11	Contract personnel for help desk	\$0	\$403,200
12	Contract security assessment personnel.....	\$0	\$1,382,400
	Total.....	\$470,800	\$4,022,400
Federal Employee			
13	Travel	\$0	\$30,000
	Total.....	\$0	\$30,000
Rent/Build out			
14	Facilities (build out).....	\$1,000,000	\$0
	Total.....	\$1,000,000	\$0
Other Costs			
15	Terrorist threat analysis	\$0	\$4,410,000
16	Fee payment processing.....	\$70,000	\$250,000
	Total.....	\$70,000	\$4,660,000
	Total Costs	\$3,040,800	\$9,087,400

Detailed information on the costs provided above can be found in the following appendices to this document:

Appendix A: *Detailed Description of Start-Up and Recurring Costs* - Includes a description of the costs in the table above.

Appendix B: *Detail on Hardware & Software Costs* – Includes the component costs of the “Front End” Website Application System-Total, the Helpdesk System-Total, and the Applicant Assessment System-Total.

Appendix C: *Recurring Labor Costs* - Includes a monthly and yearly estimate of the recurring labor costs associated with the security threat assessment program including: Security Assessment labor costs, Help Desk labor costs, Application Assessment Tool labor costs and Front-end Contract Personnel labor costs.

Appendix D: *Start-Up Labor Costs* – Includes the costs associated with establishing the tools, processes and procedures that will be implemented/used during the on-going performance of the program.

Appendix E: *Fee Processing Start-Up and Recurring Costs* - Includes the Start-Up and Recurring costs associated with processing the fees to be collected by TSA.

ESTABLISHING THE FEES

Calculating the fee for the program requires a three step process: 1) Calculation of the annual population of alien flight students that will apply for a security threat assessment; 2) Identification of recurring costs; and 3) Calculation of the fee by dividing the recurring costs by the population that will receive a security threat assessment.

Note: The Start-Up costs for this program are being covered by appropriated funds and therefore these costs are not included in the fee calculations.

STEP 1: Calculation of the annual population of Foreign Students that will apply for a security threat assessment

TSA estimates that there will be 70,000 annual flight candidate submissions for request of training at FAA approved flight schools. This estimate is comprised of the following:

The number of foreign student candidate submissions for request of training on aircraft weighing over 12,500 pounds is estimated to be 32,000 annually, which is equivalent to 160,000 submissions for a security threat assessment for the first five years of the program. This estimate is based on the total annual candidate applications for training provided by the existing Department of Justice's (DOJ) Flight Training Candidate Check Program (FTCCP)¹ for CY 2003¹. While the DOJ did not track actual number of flight training candidates submitting multiple applications, TSA believes that, on average, candidates will submit two applications per year. This could be due to a candidate applying for subsequent flight training on a different type of aircraft in the same fiscal year or if the flight school does not initiate the candidate's training within 180 days of

¹ The FBI currently conducts security threat assessments for those requesting training on aircraft weighing over 12,500 pounds

receiving the TSA approval (both scenarios require re-application under the requirements of the IFR.) Thus, TSA estimates that approximately 16,000 candidates, multiplied by an average of two applications each, will result in 32,000 annual applications for training on aircraft weighing over 12,500 pounds.

The annual number of foreign student candidate submissions for request of training on aircraft weighing 12,500 pounds or less is estimated to be 38,000, which is equivalent to 190,000 submissions for a security threat assessment for the first five years of the program. The estimate is based on a two-step calculation using the number of certificates issued by the FAA annually and percentage of active non-U.S. Citizens (Permanent Resident Aliens and Foreign Nationals) holding certificates. In step 1, TSA collected from the FAA the number of certificates issued annually to all persons by FAA (FAA does not separately record the number of certificates issued to permanent resident aliens or foreign nationals). The FAA estimates that it issued an average of 106,000 certifications per year to all persons over the last 6 years. In step 2, TSA collected from the FAA the percentage of total outstanding certificates held by non-U.S. Citizens. The FAA estimates 18% of the outstanding certificates were issued to non-U.S. Citizens. Therefore, TSA estimates, using the number of certificates issued annually and multiplying it by the percentage of total certificates held by non-U.S. Citizens that approximately 19,000 candidates ($106,000 \times 18\%$) will submit requests for training each year. However, just as with the applicant population for aircraft weighing greater than 12,500 pounds, TSA again estimates that each candidate will submit an average of two requests each year. TSA estimates that it will receive 38,000 submissions ($19,000 \text{ candidates} \times 2 \text{ applications} = 38,000$).

The total population estimate of 70,000 is therefore comprised of an estimated 32,000 applications from student candidates desiring training in aircraft weighing over

12,500 pounds plus 38,000 submissions from student candidates desiring training in aircraft weighing 12,500 pounds or less.

Step 2: Identification of the annual recurring costs

TSA estimates that the annual recurring costs will total \$9,087,400. The annual recurring costs include: \$4,410,000 for terrorist threat assessment costs; \$4,022,400 for contract personnel; \$375,000 for hardware and software; \$250,000 for fee payment processing; and \$30,000 for Federal employee travel. The recurring costs are based on a 12-month operational year.

Step 3: Divide the recurring costs by population

TSA will base its fee on the recurring cost per applicant that TSA incurs to perform the security threat assessment. To calculate this fee, TSA uses the following equation: Annual recurring costs / estimated number of annual threat assessments = cost per applicant. Beginning in fiscal year 2005 (October 1, 2004), the annual recurring cost is estimated to be \$9,087,400. As the security threat assessment and therefore the costs for each applicant category are the same, the fee will also be the same for each applicant category. The estimated annual application population, as discussed above, is 70,000. The per applicant fee (\$130) equals the recurring cost divided by the estimated annual applicant population ($\$9,087,400 / 70,000 \approx \130) beginning in FY 05.

Pursuant to the Chief Financial Officers Act of 1990, Department of Homeland Security/Transportation Security Administration will review this fee at least every two years. Upon review, if it is found that the fee is either too high or too low, the amount of the fee will be adjusted accordingly. Since this IFR newly regulates a very dynamic segment of the aviation population (foreign candidates for flight training to operate

aircraft weighing 12,500 pounds or less), and given that TSA has no prior operating history in performing threat assessments for this population, TSA may need to review program costs earlier than the minimum two-year review period.

Appendix A

**Table A1
Start-Up and Recurring Costs**

	Category Description	Detailed Description	Start-Up	Recurring
	Hardware/Software			
1	Transfer and modify Flight Training Candidate Checks Program (FTCCP) designed "front-end" website application system	The "front-end" website application system (hardware and software) is the means by which flight training providers and applicants inform FTCCP of an applicant's intention to attend flight school at a FAA approved flight training school and submit his or her biographical information. This system also informs the flight training provider and applicant of the preliminary and final adjudication decision via email. TSA must transfer and modify both the hardware and software of the "front-end" system in order to accommodate the new legislative mandate. The expected cost to transfer and modify such a system is based on FBI and TSA data, from programs such as performing security assessments on Federal Baggage Screeners and the HAZMAT Endorsement Program. See Appendix B for hardware/software cost breakdown.	\$375,000	\$0
2	Transfer and modify FTCCP designed applicant assessment system	The applicant assessment system extracts information from the "front-end" website system, stores an applicant's biographical information and records the progress of an applicant's risk assessment. This system also has connectivity with various government entities to access terrorist and criminal data sources. TSA must transfer and modify both the hardware and software of the applicant assessment system. This estimate is based on FBI data and TSA data, from programs such as performing security assessments on Federal Baggage Screeners and the HAZMAT Endorsement Program. Whenever possible, other TSA programs will leverage this system in conjunction with their programs, such as the HAZMAT Endorsement Program. See Appendix B for hardware/software cost breakdown.	\$1,054,000	\$0

Appendix A

**Table A1
Start-Up and Recurring Costs**

	Category Description	Detailed Description	Start-Up	Recurring
	Hardware/Software			
3	Transfer and modify FTCCP designed helpdesk system	TSA will require the use of Interpol data. TSA will leverage the system developed and used by the HAZMAT Endorsement Program and will incur no development costs associated with this system. See Appendix B for hardware/software cost breakdown.	\$70,000	
4	Maintain and refresh "front-end" website application system	In order to maintain and refresh the "front-end" website application system, TSA will modify or replace specific hardware and software throughout the fiscal year. The expected cost is based on a 25% annual recurring rate of the original equipment ($\$376,000 * 25\% = \$94,000$ annually). This estimate is based on FBI data and TSA data from the HAZMAT Endorsement Program. See Appendix B for hardware/software cost breakdown.	\$0	\$94,000
5	Maintain and refresh applicant assessment system	In order to maintain and refresh the applicant assessment system, TSA will modify or replace specific hardware and software throughout the fiscal year. The expected cost is based on a 25% annual recurring rate of the original equipment ($\$1,054,000 * 25\% = \$263,500$ annually). This estimate is based on FBI data and TSA data from the HAZMAT Endorsement Program. Whenever possible, other TSA programs will leverage this system in conjunction with their programs, such as the HAZMAT Endorsement Program. See Appendix B for hardware/software breakdown.	\$0	\$263,500

Appendix A

**Table A1
Start-Up and Recurring Costs**

	Category Description	Detailed Description	Start-Up	Recurring
	Hardware/Software			
6	Maintain and refresh helpdesk system	In order to maintain and refresh the helpdesk system, TSA will modify or replace specific hardware and software throughout the fiscal year. The expected cost is based on a 25% annual recurring rate of the original equipment (\$70,000 * 25% = \$17,500 annually). This estimate is based on FBI data and TSA data. See Appendix B for hardware/software breakdown.	\$0	\$17,500
	Contract Employee			
7	Contract personnel to support transfer and modification of "front-end" website application system	TSA will require specific contract personnel to execute the aforementioned transfer and modification of the "front-end" website application system. The expected cost is derived from FBI estimates. See Appendix C for individual employees' salaries and hours.	\$241,800	\$0
8	Contract personnel to support transfer and modification of applicant assessment system	TSA will require specific contract personnel to execute the aforementioned transfer and modification of the applicant assessment system. See Appendix C for individual employees' salaries and hours.	\$229,000	\$0
9	Contract personnel to maintain "front-end" website application system	TSA will require specific contract personnel to maintain the aforementioned "front-end" website application system. The expected cost is derived from a FBI estimated annual cost of \$336,000. See Appendix C for individual employees' salaries. Whenever possible, other TSA programs will leverage these employees in conjunction with their programs, such as the HAZMAT Endorsement Program.	\$0	\$336,000

Appendix A

**Table A1
Start-Up and Recurring Costs**

	Category Description	Detailed Description	Start-Up	Recurring
	Contract Employees (cont..)			
10	Contract personnel to maintain applicant assessment system	TSA will require specific contract personnel to maintain the aforementioned applicant assessment system. The expected cost is derived from a FBI estimated annual cost of \$1,900,800. See Appendix C for individual employees' salaries. Whenever possible, other TSA programs will leverage these employees in conjunction with their programs, such as the HAZMAT Endorsement Program.	\$0	\$1,900,800
11	Contract personnel for help desk	TSA will require specific contract personnel to operate the aforementioned helpdesk. The expected cost is derived from a FBI estimated annual cost of \$403,200. See Appendix C for individual employees' salaries.	\$0	\$403,200
12	Contract security assessment personnel	TSA will require specific contract personnel to conduct the initial security assessment of applicants using the risk assessment system. The expected cost is derived from FBI estimates that 8 contract employees at a mean rate of \$90 per hour are necessary to perform this function. Whenever possible, other TSA programs will leverage these employees in conjunction with their programs, such as the HAZMAT Endorsement Program.	\$0	\$1,382,400
	Federal Employee			
13	Travel	TSA federal employees will travel throughout the United States, and possibly abroad, to visit specific flight training providers with the purpose of communicating program specific information. TSA federal employees will also travel to flight training providers to ensure that all entities are adhering to the legal requirements set forth in the interim final rule (and final rule when published). Estimate is based on TSA experience.	\$0	\$30,000

Appendix A

**Table A1
Start-Up and Recurring Costs**

Ref #	Category Description	Detailed Description	Start-Up	Recurring
	Rent/Build out			
14	Facilities (build out)	Alien Flight Student Program will require facilities that satisfy the minimal requirements for programs associated with or managing classified data and/or information. TSA estimates that modifying facilities of the appropriate size for Alien Flight Student Program will cost \$1,000,000. This cost assumes that Alien Flight Student Program will use existing TSA space. Based on TSA Real Estate Expertise.	\$1,000,000	\$0
15	Terrorist threat analysis	There are multiple government agencies that maintain security threat databases. TSA will submit applicant names to these agencies and the agency will check their databases for possible matches. This is a cost incurred by TSA outside of the Department of Homeland Security. The cost is derived by multiplying the applicant population by the cost of each database check. Based on TSA expertise and discuss with other agencies the costs of the database checks are as follows: \$48 per applicant for U.S. Government database checks and \$15 per applicant for fingerprint processing. Note that the cost of collecting and submitting fingerprints is not included in this cost and will be paid by the applicant directly to the collecting organization at the time of fingerprint collection.	\$0	\$4,410,000
16	Fee payment processing	Based on TSA experience in fee collections, TSA estimates a start up costs of \$70,000 to cover web development, financial management and other miscellaneous costs. Furthermore, TSA estimates \$250,000 will be the annual recurring cost to process payments. This cost includes web development, financial management and other miscellaneous costs. See Appendix E Fee Processing Start-Up and Recurring Costs	\$70,000	\$250,000
	Totals		\$3,040,800	\$9,087,400

Appendix B

**Table B1
Hardware & Software Costs**

Hardware/Software			
Category	Component	Start-up	Recurring*
"Front end" Website Application System	Database Servers	\$ 60,000	\$ 15,000
"Front end" Website Application System	Front End Servers	\$ 20,000	\$ 5,000
"Front end" Website Application System	Storage	\$ 50,000	\$ 12,500
"Front end" Website Application System	Backup (Servers & Tape Library)	\$ 45,000	\$ 11,250
"Front end" Website Application System	Oracle Licenses	\$ 64,000	\$ 16,000
"Front end" Website Application System	Comm Line	\$ 17,000	\$ 4,250
"Front end" Website Application System	Router /Switch /Load Balancer	\$ 120,000	\$ 30,000
"Front end" Website Application System- Total		\$ 376,000	\$ 94,000
Helpdesk System	Server	\$ 20,000	\$ 5,000
Helpdesk System	Application	\$ 50,000	\$ 12,500
Helpdesk System-Totals		\$ 70,000	\$ 17,500
Applicant Assessment System	Database Servers (2U, 2C)	\$ 320,000	\$ 80,000
Applicant Assessment System	Batch Match Servers	\$ 60,000	\$ 15,000
Applicant Assessment System	Storage	\$ 180,000	\$ 45,000
Applicant Assessment System	Backup (Servers & Tape Library, U,C)	\$ 80,000	\$ 20,000
Applicant Assessment System	Oracle Licenses (U, C)	\$ 256,000	\$ 64,000
Applicant Assessment System	Comms Lines	\$ 38,000	\$ 9,500
Applicant Assessment System	Router/Switch/Load Balancer	\$ 120,000	\$ 30,000
Applicant Assessment System-Total		\$ 1,054,000	\$ 263,500
Grand Total	Total:	\$ 1,500,000	\$ 375,000

*Industry standard is to assume the annual cost to maintain and refresh hardware and software is 25% of the initial purchase costs.

Appendix C

**Table C1
Recurring Labor Costs**

Monthly Costs							Yearly Costs
Cost Component	FTCCP Process or Initiative	Contract Labor Description	Estimated Mean Rate	Hours	Estimated FTE	Estimated Monthly Cost	
Security Assessment	Security Assessment Adjudication	Security Assessment Specialist	\$90.00	160	8	\$115,200.00	\$1,382,400.00
Security Assessment Total						\$115,200.00	\$1,382,400.00
Help Desk Personnel	FTCCP Help Desk Operations	Help Desk Operator	\$70.00	160	3	\$33,600.00	\$403,200.00
Help Desk Personnel Total						\$33,600.00	\$403,200.00
Applicant Assessment	System sustainment	System Administrator	\$80.00	160	4	\$51,200.00	\$614,400.00
Applicant Assessment	System sustainment	Database Administrator	\$110.00	160	2	\$35,200.00	\$422,400.00
Applicant Assessment	SETA support	Network Engineer	\$100.00	160	2	\$32,000.00	\$384,000.00
Applicant Assessment	Applicant Assessment Enhancement		\$125.00	160	2	\$40,000.00	\$480,000.00
Applicant Assessment Tool Total						\$158,400.00	\$1,900,800.00
Front-end Contract Personnel	Website Enhancement		\$175.00	160	1	\$28,000.00	\$336,000.00
Front-end Contract Personnel Total						\$28,000.00	\$336,000.00
Grand Total						\$335,200.00	\$4,022,400.00

Appendix D

**Table D1
Start-Up Labor Costs**

Cost Component	FTCCP Process or Initiative	Contract Labor Description	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Total
Applicant Assessment	System Sustainment	System Administrator	\$0	\$0	\$0	\$0	\$12,800	\$12,800
Applicant Assessment	System Sustainment	Database Administrator	\$0	\$0	\$0	\$0	\$ 8,800	\$ 8,800
Applicant Assessment	SETA support	Network Engineer	\$0	\$0	\$0	\$0	\$ 8,000	\$ 8,000
Applicant Assessment	Develop new Applicant assessment application	Applicant Assessment Application Developer	\$ 39,000	\$ 39,000	\$ 20,000	\$0	\$0	\$ 98,000
Applicant Assessment	Test new Applicant assessment application		\$0	\$0	\$ 20,000	\$ 20,000	\$0	\$ 40,000
Applicant Assessment	Integrate new Applicant assessment application		\$0	\$0	\$0	\$ 20,000	\$0	\$ 20,000
Applicant Assessment	Train on new Applicant assessment application		\$0	\$0	\$0	\$ 14,400	\$0	\$ 14,400
Applicant Assessment	Move FTCCP to new TSA facility		\$0	\$0	\$0	\$0	\$ 3,000	\$ 3,000
Applicant Assessment	Move FTCCP to new TSA facility		\$0	\$0	\$0	\$0	\$ 4,000	\$ 4,000
Applicant Assessment	Applicant Assessment Enhancement		\$0	\$0	\$0	\$0	\$ 20,000	\$ 20,000
Applicant Assessment Tool Total			\$ 39,000	\$ 39,000	\$ 40,000	\$ 54,400	\$ 56,600	\$ 229,000
Front-end Contract Personnel	Move JMD hardware to new facility	Move Team	\$ 10,000	\$0	\$0	\$0	\$0	\$ 10,000
Front-end Contract Personnel	Move JMD hardware to new facility	Applications Engineer	\$ 20,800	\$0	\$0	\$0	\$0	\$ 20,800
Front-end Contract Personnel	Develop new website application	Website Developer	\$ 54,600	\$ 21,000	\$0	\$0	\$0	\$ 75,600
Front-end Contract Personnel	Test new website application		\$0	\$ 21,000	\$ 21,000	\$0	\$0	\$ 42,000
Front-end Contract Personnel	Set-up JMD hardware/network		\$0	\$ 16,000	\$0	\$0	\$0	\$ 16,000
Front-end Contract Personnel	Integrate new website application		\$0	\$0	\$ 21,000	\$0	\$0	\$ 21,000
Front-end Contract Personnel	Train on new website application		\$0	\$0	\$ 14,400	\$0	\$0	\$ 14,400
Front-end Contract Personnel	Website Enhancement		\$0	\$0	\$0	\$ 28,000	\$ 14,000	\$ 42,000
Front-end Contract Personnel Total			\$ 85,400	\$ 58,000	\$ 56,400	\$ 28,000	\$ 14,000	\$ 241,800
Grand Total			\$124,400	\$ 97,000	\$ 96,400	\$ 82,400	\$ 70,600	\$ 470,800

Appendix E

Table E1
Fee Processing Start-Up and Recurring Costs

Start-Up Costs	
Web Development Personnel Daily Rate	\$1,200
Number of Web Development Personnel	2
Days of Web Development	20
Financial Management Web Development	\$48,000
PC's/Support for Financial Management Contract Personnel	\$6,000
Miscellaneous Set up costs for Financial Management Contract Personnel	\$5,000
Number of Financial Management Contract Personnel	2
Total Financial Management Costs	\$ 22,000
Total Financial Management Related Start -Up Costs	
	\$70,000

Recurring Costs	
Annual Costs of Financial Management Contract Personnel	\$125,000
Number of Financial Management Contract Personnel	2
Total Financial Management Related Recurring Costs	\$ 250,000