State of Alaska
FY2009 Governor's Operating Budget

Department of Public Safety
Laboratory Services
Component Budget Summary

Component: Laboratory Services

Contribution to Department's Mission

Use forensic science to assist criminal investigations.

Core Services

1) The Alaska Scientific Crime Detection Laboratory is the only accredited forensic facility available in Alaska to provide forensic services at no charge to all law enforcement agencies.

2) Forensic services include the scientific examination and detailed analysis of evidence in criminal cases, assistance with crime scene investigations to include expert testimony in court regarding the results of the testing of evidence, and training of law enforcement officers regarding proper evidence collection and preservation.

3) The crime laboratory's areas of expertise are latent fingerprints, trace evidence, shoe print/tire track, controlled substances, blood alcohol analysis, biological evidence screening, DNA, firearm/tool mark, and crime scene investigations.

4) The crime laboratory administers the statewide breath alcohol program, which provides law enforcement agencies with properly calibrated and certified instruments for administering evidential breath tests. Expert testimony in alcohol-related court proceedings and support for non-evidential breath test devices is also provided.

5) The Alaska Scientific Crime Detection Laboratory maintains Alaska's DNA Identification System. DNA profiles are routinely uploaded into the National DNA Index System (NDIS) and searched against profiles submitted by other states.

6) The Alaska Scientific Crime Detection Laboratory maintains Alaska's Integrated Ballistic Identification System (IBIS). Through the use of the IBIS, digital images of the markings made by a firearm on bullets and cartridge casings are acquired and searched against a database of images of firearms evidence recovered from crime scenes. These images are routinely uploaded into the National Integrated Ballistic Information Network (NIBIN) and searched against images of ballistic evidence submitted by other states.

7) Crime laboratory personnel are active members in several organizations that have the responsibility for setting the standards for training and certification of analysts nationally in the various forensic disciplines as well as accreditation standards for crime laboratories.

End Result	Strategies to Achieve End Result
A: Improved utility of forensic science to assist statewide law enforcement with their criminal investigations. Target #1: 5% increase per year in rate of unsolved criminal investigations aided by Alaska's DNA database. Measure #1: % change in rate of unsolved criminal investigations aided by Alaska's DNA database. Target #2: 5% increase per year in the number of latent prints identified using fingerprint or palm print automated identification systems. Measure #2: % change in number of prints identified using automated identification systems.	**A1: Expand forensic databases.** Target #1: 5% increase per year in the number of DNA forensic profiles entered into the DNA database per year. Measure #1: % change in number of profiles entered. Target #2: Eliminate backlog of qualified convicted offender profile samples to be entered into the DNA database. Measure #2: Number of qualified convicted offender profile samples entered into the database. Target #3: 5% increase per year in the number of latent print lift cards submitted to the laboratory that are suitable for comparison.

	Measure #3: % change in number of latent print lift cards submitted to the laboratory and examined.

Major Activities to Advance Strategies

- Enter additional convicted offender profiles.
- Enter additional forensic profiles.
- Train law enforcement to submit more "no-suspect" cases.
- Participate in proficiency testing.
- Comply with accreditation by monitoring expert witness testimony.
- Maintain and follow the laboratory's quality assurance program.
- Provide continuing education for analysts.
- Perform audits of laboratory operations.
- Perform internal audits of laboratory operations for 4 sequential years, and in the 5th, receive audit by an inspector from the accreditation board.
- Provide training to supervisor of Statewide Breath Alcohol Program.
- Provide calibration alcohol standards.
- Certify DataMaster verification of calibration reports.
- As needed, repair or replace instruments used in Statewide Breath Alcohol Program.
- Provide necessary supplies and expert testimony to support Statewide Breath Alcohol Program.

FY2009 Resources Allocated to Achieve Results

FY2009 Component Budget: $4,850,600

Personnel:	
Full time	42
Part time	0
Total	42

Performance Measure Detail

A: Result - Improved utility of forensic science to assist statewide law enforcement with their criminal investigations.

Target #1: 5% increase per year in rate of unsolved criminal investigations aided by Alaska's DNA database.
Measure #1: % change in rate of unsolved criminal investigations aided by Alaska's DNA database.

Number of Investigations Aided (fiscal year)

Fiscal Year	YTD	Percent Inc/Dec
FY 2004	14	
FY 2005	52	+271%
FY 2006	54	+4%
FY 2007	50	0%

Source: Crime Lab

Analysis of results and challenges: The success of Alaska's DNA database is measured by the crimes it helps to solve. "Investigations aided" tracks the number of criminal investigations where the database has added value to the investigative process. An investigation can be aided by using the database to link two or more unsolved crime scene DNA profiles, or by linking a crime scene profile to the DNA profile obtained from a known convicted offender. The key to increasing the number of investigations aided is to increase the size of the database with both DNA profiles from unsolved crime scenes and DNA profiles from additional convicted offenders. The dramatic increase in the number of investigations aided in FY2005 can be directly attributed to a large number of new convicted offender DNA profiles entered during this time period. With the backlog of offender samples reduced, fewer offender profiles were entered in FY2006. In FY2007, with the backlog of offender samples reduced, the number of investigations aided declined slightly.

Target #2: 5% increase per year in the number of latent prints identified using fingerprint or palm print automated identification systems.
Measure #2: % change in number of prints identified using automated identification systems.

Number of Finger or Palm Prints Identified Using Automated Identification Systems (fiscal year)

Fiscal Year	YTD	Percent Inc/Dec
FY 2004	66	
FY 2005	17	-74%
FY 2006	31	+82%
FY 2007	44	+42%

Source: Crime Lab

Analysis of results and challenges: At the end of FY2006, two new forensic technicians were hired and assigned to the Palmer and Fairbanks areas. A major part of their jobs is to process and collect palm and fingerprint evidence at crime scenes. Additional latent print evidence submitted by these two individuals resulted in an increased number of finger and palm prints identified using automated identification systems in FY2007.

A1: Strategy - Expand forensic databases.

Target #1: 5% increase per year in the number of DNA forensic profiles entered into the DNA database per year.
Measure #1: % change in number of profiles entered.

DNA Forensic Profiles Entered (fiscal year)

Fiscal Year	YTD	Percent Inc/Dec
FY 2004	93	
FY 2005	86	-8%
FY 2006	134	+56%
FY 2007	177	+32%

Source: Crime Lab

Analysis of results and challenges: The number of forensic profiles entered in FY2007 increased significantly due to a combination of higher throughput testing equipment and staff consisting of highly experienced analysts. The numbers above represent only forensic profiles attributed to unknown individuals that were recovered from crime scene evidence.

Target #2: Eliminate backlog of qualified convicted offender profile samples to be entered into the DNA database.
Measure #2: Number of qualified convicted offender profile samples entered into the database.

Convicted Offender Profiles Entered (fiscal year)

Fiscal Year	# Added during FY	# in Data Base at FY End	# in Backlog at FY End
FY 2004	16	3,265	
FY 2005	5,383	8,648	
FY 2006	2,215	10,863	

Note: Number in backlog will be provided for reporting periods subsequent to FY2006 after implementation of new laboratory management information system (LIMS)
Source: Crime Lab

Analysis of results and challenges: This measure is being removed because it is no longer relevant. Outsourcing in FY2005 and FY2006 eliminated the backlog of qualified convicted offender profiles. The scientific crime laboratory will develop a new measure of the timely processing of samples during FY2008.

Target #3: 5% increase per year in the number of latent print lift cards submitted to the laboratory that are suitable for comparison.
Measure #3: % change in number of latent print lift cards submitted to the laboratory and examined.

Officer Latent Lift Cards Analyzed (fiscal year)

Fiscal Year	YTD	Percent Inc/Dec
FY 2004	785	
FY 2005	657	-16%
FY 2006	697	+6%
FY 2007	777	+11%

Source: Crime Lab

Analysis of results and challenges: One method of increasing the number of latent prints submitted to the laboratory is to encourage law enforcement officers to take more latent finger and palm prints at crime scenes. This requires appropriate training. In addition to its normal training, the crime lab intends to use training videos, training bulletins, articles in law enforcement newsletters, etc., to provide both training information and encouragement regarding the effectiveness of increased law enforcement officer participation in building this database.

Key Component Challenges

The laboratory has experienced a 20 percent increase in the number of cases submitted by law enforcement from fiscal year 2006 to fiscal year 2007.

Fiscal Year	Cases Submitted
2004	2285
2005	2364
2006	2687
2007	3346

The number of cases submitted to the laboratory will continue to grow as law enforcement agencies around the state hire additional officers, and as the state's population increases.

The crime laboratory provides evidential breath testing instruments to law enforcement around the state that the laboratory is also responsible for repairing. The laboratory performs simple repairs, but instruments are also shipped back to the factory. The instruments were originally purchased with extended warranties that minimized the impact on the laboratory's equipment repair budget. These warranties have expired and increased repair expenses are anticipated through the expected life (2010) of the DataMaster instruments. The DNA and chemistry sections of the laboratory use sophisticated and expensive instrumentation to perform analysis of physical evidence. Ninety-one thousand dollars is budgeted in FY2008 for all repairs and replacement of scientific instruments, repair of office equipment, and repair of the physical plant. This is inadequate to insure continued operation of laboratory equipment and the DataMasters. Repairing expensive equipment such as mass spectrometers, infrared spectrophotometers, and genetic analyzers can be very expensive and could severely impact the laboratory's budget unless additional funding is provided for this purpose.

The laboratory is at capacity in terms of physical space to house employees, equipment, case records, and retained evidence items. The crime laboratory facility is now 21 years old, and is requiring more maintenance. The heating and cooling system is incapable of maintaining stable temperatures due to the increase in laboratory instrumentation, and as such limits the ability to add instrumentation to meet increased requests for service.

Significant Changes in Results to be Delivered in FY2009

AAFIS (Alaska Automated Fingerprint Identification System) Database Hits

The number of investigations aided by AAFIS is expected to increase during FY2009; forensic technicians assigned to crime scene response will be processing latent fingerprint evidence from numerous burglary and auto theft scenes. Forensic processing of evidence from these types of crimes has been under-used in the past.

CODIS (Combined DNA Index System) Database
The percentage of "no suspect" cases yielding DNA matching to known convicted offenders as well as the total number of investigations aided should continue to increase as the size of the database grows. When the database contains DNA profiles from a significant number of the criminally active population of Alaska, it will be an even more effective tool for identifying perpetrators.

Major Component Accomplishments in 2007

A paralegal II was hired January 2007 and has provided support to the laboratory in the handling of disclosure requests, subpoena tracking, and interpretation of court orders. By having an individual on staff experienced in these legal issues, analysts have been able to concentrate on the scientific analysis of evidence, increasing the efficiency of the laboratory to perform analyses, and provide more consistent and timely responses to disclosure requests.

A forensic technician was hired to assist analysts from various disciplines. The forensic technician has processed over 3,000 buccal swabs, preparing them to be analyzed by DNA analysts and entered into CODIS.

On November 9, 2006, a hit in the CODIS database identified a suspect in the 1994 death of Bonnie Craig. Despite processing close to 100 suspect samples in this case, there were no leads until this cold hit was obtained. The success of the results achieved in this case has resulted in more cold cases being reopened for investigation.

The American Society of Crime Laboratory Directors/Laboratory Accreditation Board has accredited the crime laboratory since 1996. While accreditation is a voluntary program in which any crime laboratory may participate to demonstrate that its management, personnel, operational and technical procedures, equipment, and physical facilities meet established standards, accreditation is mandatory to obtain some federal grants and participate in the National DNA Index System. Accreditation is one part of the laboratory's quality assurance program that also includes proficiency-testing, continuing education, and other programs to help the laboratory provide better overall service to the criminal justice system. During FY2007, the laboratory successfully completed an external laboratory inspection by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board.

Upgrades were made to a gas chromatograph mass spectrometer to aid in the analysis of steroids. Analysis of substances suspected of containing controlled substances now has an average turnaround time of 35 days.

Statutory and Regulatory Authority

DPS - DNA Registration System (AS 44.41.035)
DPS - Fingerprint System (AS 44.41.025)
DPS - Powers and duties of department (AS 44.41.020)
State Troopers - Department to assist Other Agencies (AS 18.65.090)
State Troopers - Fingerprint Information (AS 18.65.050)
DPS - Forensic Alcohol Testing Regulations (13 AAC 63)

Contact Information

Contact: Dan Spencer, Director, Administrative Services
Phone: (907) 465-5488
Fax: (907) 465-5500
E-mail: danial.spencer@alaska.gov

Laboratory Services
Component Financial Summary

All dollars shown in thousands

	FY2007 Actuals	FY2008 Management Plan	FY2009 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	2,806.6	3,499.8	3,688.0
72000 Travel	42.8	106.9	106.9
73000 Services	558.6	791.4	737.5
74000 Commodities	430.4	316.2	285.2
75000 Capital Outlay	189.4	33.0	33.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	**4,027.8**	**4,747.3**	**4,850.6**
Funding Sources:			
1002 Federal Receipts	462.3	407.5	412.5
1003 General Fund Match	13.3	13.3	13.3
1004 General Fund Receipts	3,375.4	4,121.7	4,214.5
1007 Inter-Agency Receipts	88.5	105.3	109.3
1061 Capital Improvement Project Receipts	13.7	10.0	10.0
1108 Statutory Designated Program Receipts	74.6	89.5	91.0
Funding Totals	**4,027.8**	**4,747.3**	**4,850.6**

Estimated Revenue Collections

Description	Master Revenue Account	FY2007 Actuals	FY2008 Management Plan	FY2009 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		**0.0**	**0.0**	**0.0**
Restricted Revenues				
Federal Receipts	51010	462.3	407.5	412.5
Interagency Receipts	51015	88.5	105.3	109.3
Statutory Designated Program Receipts	51063	74.6	89.5	91.0
Capital Improvement Project Receipts	51200	13.7	10.0	10.0
Restricted Total		**639.1**	**612.3**	**622.8**
Total Estimated Revenues		**639.1**	**612.3**	**622.8**

Summary of Component Budget Changes
From FY2008 Management Plan to FY2009 Governor

All dollars shown in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2008 Management Plan	**4,135.0**	**407.5**	**204.8**	**4,747.3**
Adjustments which will continue current level of service:				
-ETS Chargeback Redistribution	4.0	0.0	0.0	4.0
-Ch 24 SLA 2007 (HB 90) Omnibus Crime Bill - Delete One-time Costs	-130.5	0.0	0.0	-130.5
-Delete one-time-authorization for First FY2008 Fuel/Utility Cost Increase Funding Distribution	-3.7	0.0	0.0	-3.7
-FY 09 Bargaining Unit Contract Terms: General Government Unit	176.0	5.0	5.5	186.5
-FY 09 Bargaining Unit Contract Terms: Labor Trades and Crafts Unit	1.7	0.0	0.0	1.7
Proposed budget increases:				
-Increased Fuel / Utility Costs	21.0	0.0	0.0	21.0
-Increased Vehicle Costs	4.3	0.0	0.0	4.3
-Increased Costs for Equipment Service Contracts	20.0	0.0	0.0	20.0
FY2009 Governor	**4,227.8**	**412.5**	**210.3**	**4,850.6**

Laboratory Services
Personal Services Information

Authorized Positions			Personal Services Costs	
	FY2008 Management Plan	FY2009 Governor		
Full-time	42	42	Annual Salaries	2,321,249
Part-time	0	0	COLA	178,770
Nonpermanent	0	0	Premium Pay	20,318
			Annual Benefits	1,331,120
			Less 4.24% Vacancy Factor	(163,457)
			Lump Sum Premium Pay	0
Totals	**42**	**42**	**Total Personal Services**	**3,688,000**

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Administrative Assistant	1	0	0	0	1
Administrative Clerk II	1	0	0	0	1
Administrative Clerk III	1	0	0	0	1
Criminalist II	4	0	0	0	4
Criminalist III	16	0	0	0	16
Criminalist IV	6	0	0	0	6
Forensic Lab Supervisor	1	0	0	0	1
Forensic Technician	4	1	0	1	6
Latent Fingerprint Ex III	3	0	0	0	3
Latent Fingerprint Ex IV	1	0	0	0	1
Maint Spec Bfc Jrny II/Lead	1	0	0	0	1
Paralegal II	1	0	0	0	1
Totals	**40**	**1**	**0**	**1**	**42**