



Arson Laboratory Improvement Program [ALIP] - 2010 Report

12 Month Analysis

RUN 3 12:21 85/11/11
METHOD 1 ACCELERANTS
A 1024 0

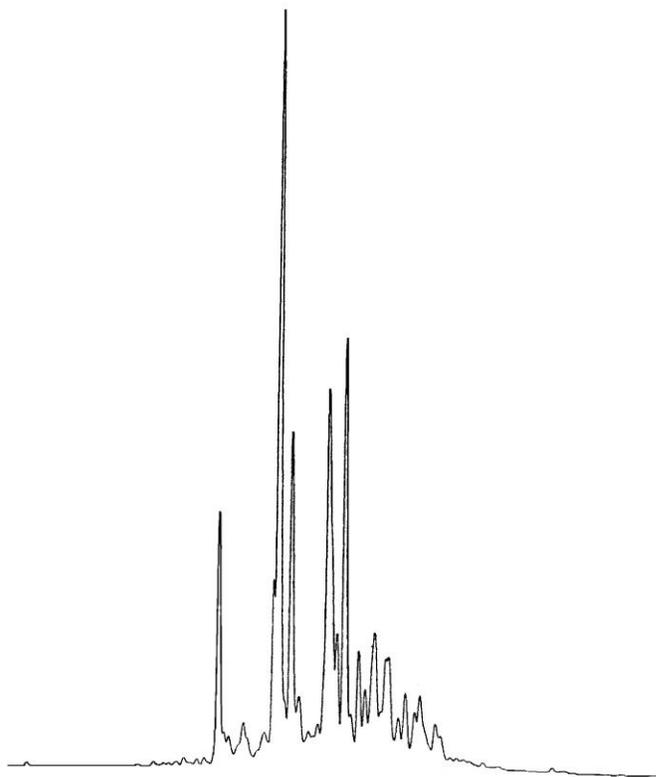


Table of Contents

Section 1	Introduction	3 - 6
	❖ ALIP Participating Laboratories	7
Section 2	Statistical Summaries	8
Section 3	Individual Laboratory Data	9
	❖ State	10/11
	❖ City	12
	❖ County	13/18

Section 1 - INTRODUCTION

The intentional act to set fire to property for fraudulent or malicious purposes is a serious crime affecting communities both large and small in New York State. Each year arsonists knowingly set fires that result in injury and death to occupants, destruction of buildings and vehicles and cause millions in insured property loss, including homes, businesses, factories, churches and motor vehicles. Intentionally set, a/k/a arson fires, can be difficult to determine or detect, therefore the forensic support offered through the analytical services of the public crime laboratories becomes critical in identifying and providing confirmation of evidence collected and in solving the crime of arson.



The state legislature in 1979 charged the New York State Department of State, Office of Fire Prevention and Control (OFPC) with the responsibility for administering a coordinated, statewide arson control program. Article 6C of the NYS Executive Law charges the Office of Fire Prevention & Control with the duty to improve arson evidence analysis and testing at existing facilities and periodically recommend to the governor and the legislature methods to improve such services. As a component of this anti-arson effort the Arson Laboratory Improvement Program (ALIP) was developed to provide continual input and interaction between the fire investigation community and the forensic crime lab. This program as administered by the Division of Homeland Security and Emergency Services through the Office of Fire Prevention & Control utilizes facts specifically related to the analysis of fire debris by forensic laboratories from samples as generated through the conduction of fire scene investigations throughout the state. Over the past 31 years, the Arson Laboratory Improvement Program (ALIP) has helped fortify the role of fire debris analysis in collaboration with fire and police investigations conducted in fighting the crime of arson in our state. Today more so than ever, the role of the Forensic Laboratory has become vital to the preparation and successful prosecution of Arson Crimes. The ALIP has also proven to be an asset in identifying training needs benefiting both the laboratory and the fire investigation community.



Currently, the ALIP includes nine public crime laboratories in New York State that provide forensic services to local fire and law enforcement agencies. This year's report reflects data from the labs reporting 12 months of 2010. As part of this program, each laboratory submits data monthly to OFPC Arson Bureau for review and tabulation. The Arson Bureau in turn prepares the Arson Laboratory Improvement Program Report and provides the data to the New York State Division of Criminal Justice

Services, the participating Laboratories, to the New York State Crime Laboratory Advisory Committee (NYCLAC); and various fire officials and associations.

The 2010 ALIP report tracks several data elements including a five-year comparison of the total fire debris cases examined by the number of positive samples found, broken down by category of ignitable liquid, the total number of samples examined, and the case processing time. An additional element of the report allows for general comments that often provide valuable feedback from the Laboratories relative to proper evidence packaging and submission by the investigation community.



The crime Laboratories participating in ALIP receive financial support through a grant program administered by the New York State Office of Fire Prevention and Control. This program provides laboratories with annual funding specific to supporting the cost of fire debris analysis. The current ALIP Grant Program expired at the end of 2010. In these austere budget times, maintaining the financial support as provided through the ALIP Grant Program remains critical to assuring fire debris analysis therefore ALIP Grant contracts have been renewed by the Office of Fire Prevention & Control for the period 2011 through 2015 as administered by the Arson Bureau.

An additional element supporting the improvement of fire debris evidence analysis has evolved through the development of the Arson Technical Working Group, ATWG. This group as established through NYS-CLAC, is co-chaired by the OFPC Arson Bureau, and includes representatives from each of the nine crime labs comprising the ALIP as well as from the NYS Division of Criminal Justice Services. The ATWG generally meets twice a year to review current issues specific to fire debris analysis, as well as providing a forum for discussion and education focused on improving aspects of identifying, collecting and analyzing fire debris evidence in support of arson prosecutions. The ATWG also undertakes special projects that benefit the process of evidence identification, collection and analysis.

The ATWG continually reviews and analyzes the data collected from the ALIP. From this analysis, improvement strategies and areas of concern are highlighted for study. Areas of special interest and study include the 2009 and 2010 pilot to review sample submission data as related to K9 alert samples and for vehicle fire case sample submissions as an impact on laboratory workload. Through the study and use of this data, the pilot fields will become a standard reporting requirement for 2011 and beyond.

Results of 2009 Pilot

Reporting Lab	K9 Cases	Positive K9 Cases	Vehicle Cases	Positive Vehicle Cases
NYSP WRCL	36	22	28	19
Erie County	2	1	10	5
Niagara County	4	4	7	6
Onondaga County	0	0	4	0
Suffolk County	1	2	24	16
Westchester	1	0	4	2
	44	29	77	48
		66%		62%

Results of 2010 Pilot

Reporting Lab	K9 Cases	Positive K9 Cases	Vehicle Cases	Positive Vehicle Cases
NYSP HQ	12	6	17	11
NYSP WRCL	28	14	23	14
Erie County	4	1	43	22
Niagara County	0	0	2	2
Onondaga County	0	0	9	4
Suffolk County	8	7	27	20
Westchester County	3	2	2	0
	55	25	123	73
		45.45%		59.34%

As a means to improve the accuracy of the data, in 2010, the ATWG made recommendation that the ALIP data make a change in tracking suspect and control/comparison samples. Previous years ALIP data had combined these fields as general sample submissions which was found to produce inaccurate findings when evaluating the number of positive analytical findings as compared to the number of general samples submitted. As control or comparison samples are collected with the general expectation of having a negative findings for ignitable liquids the ALIP data fields will now be recorded separately for suspect samples which are collected with the expectation of positive findings and control/comparison samples as presumed to be negative.

The ATWG also provided recommendation to modify the ALIP data submission process to help track the case submission to the lab from the time of collection. Successful and accurate results of fire debris evidence are time sensitive and therefore the ability to monitor case submission time may lend to studying the impact on analytical results. Both the fire investigative community and the laboratories need to better understand this relationship data to better track and address case submission issues and the impact on the success of fire debris analysis.

As a means to provide a more in-depth study and findings relative to offering recommendations to the fire investigation community concerning proper fire debris evidence containers, in 2009 the ATWG supported a *Special Study Project* to include collaboration between the NYS Office of Fire Prevention and Control, the NYSP Forensic Investigation Center and the Masters Forensic Chemistry



program of SUNY Albany. The ATWG provided input to the parameters for the project to include the types of containers for testing, selecting fire debris matrix for testing and how the results of such a study would best serve fire investigators as a means to provide the best integrity of a fire debris sample. Although the study is ongoing and continues into 2011, early results in 2010 supported the ATWG recommendation that the fire investigative community use lined paint cans when collecting fire debris evidence as opposed to unlined cans where a container degradation problem had been detected, jeopardizing the ability to test submitted fire debris samples. As a means to reach the investigative community with this critical information, the Office of Fire Prevention & Control utilized the ATWG's input to create and provide Technical Alert Bulletins to the fire and arson investigators first alerting them to the concerns of evidence can degradation issues and then providing follow-up data and recommendations for proper container selection and use. While results of the study are at least a year away, preliminary findings support the use of lined paint cans for collection of fire debris sample evidence. The Office of Fire Prevention and Control will ensure these findings are incorporated into fire arson investigation training courses and results relayed to fire and police officials across the state.

Arson Laboratory Improvement Project Participating Laboratories 2010

<p>Erie County Dept. of Central Police Services Forensic Laboratory Public Safety Campus Building 45 Elm Street Buffalo NY 14203 John Simich, Director</p>	<p>New York City Forensic Investigations Division 150-14 Jamaica Avenue Jamaica NY 11432 Dr. Peter Pizzola, Director</p>
<p>Monroe County Rm 500 Public Safety Building 150 Plymouth Avenue So. Rochester NY 14614 Janet Anderson-Seaquist, Administrator</p>	<p>Niagara County P.O. Box 496 5526 Niagara Extension Lockport NY 14095 Al Mack, Director</p>
<p>New York State Police Albany Lab 1220 Washington Avenue Albany NY 12226-3000 Inspector Gerald Zeosky, Director</p>	<p>Onondaga County Center for Forensic Sciences 100 Elizabeth Blackwell Street Syracuse NY 13210 Dr. Kathy Corrado, Director</p>
<p>New York State Police Western Regional Crime Lab 722 Homer Street Olean NY 14760-1130 Lt. David Greshan, Supervisor</p>	<p>Suffolk County Crime Laboratory Forensic Sciences Building #487 725 Veterans Memorial Highway P.O. Box 6100 Hauppauge NY 11787-0099 Robert Genna, Director</p>
<p>Westchester County 10 Dana Road Valhalla NY 10595 Robert Admono, Director</p>	

Section 2 – Statistical Summaries

This report reflects the annual summary of the laboratories analysis of fire debris evidence.

Statewide Annual Averages 2006 - 2010

Year	Total Fire Debris Cases Examined	Percent Cases Positive for Ignitable Liquids	Total Fire Debris Samples Examined	Percent of Samples Positive for Ignitable Liquids
2010	868	61.2%	2334	47.2%
2009	1228	62.4%	1870	48.3%
2008	870	53.0%	2432	44.8%
2007	807	65.6%	2249	56.8%
2006	1031	59.4%	1967	47.4%
5 Yr Average	961	60.0%	2170	48.9%

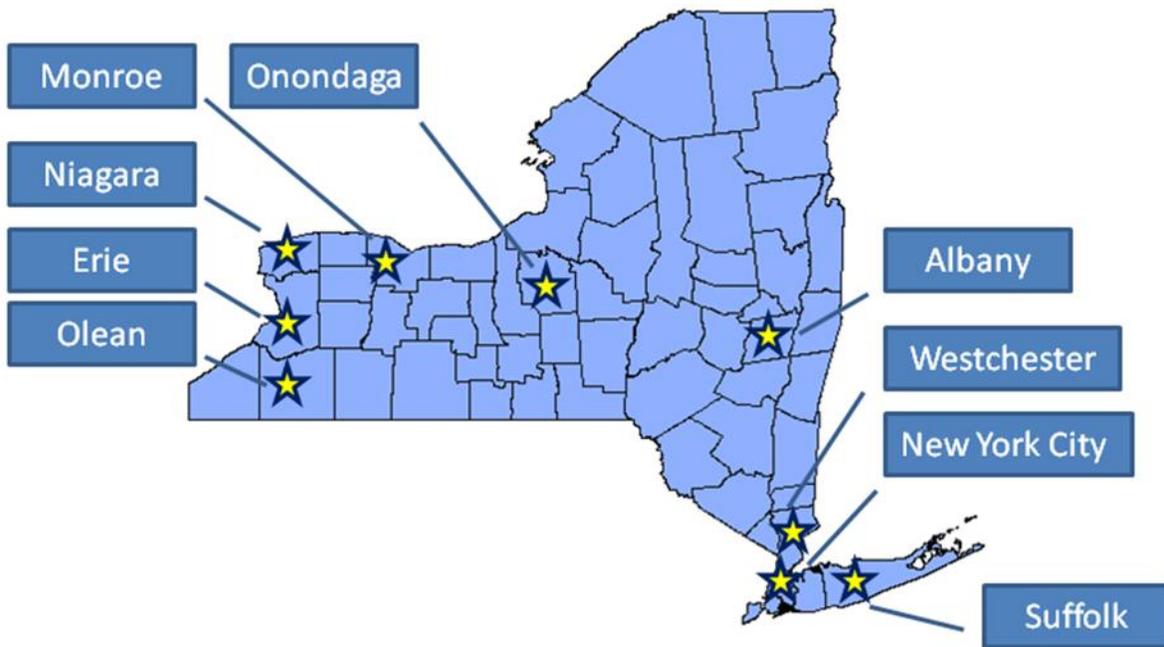
2010 ALIP Summary Data by Laboratory

Laboratory	Months Reported	Cases Received	Cases Examined	Total Cases Percentage Positive	Total Samples Examined	Percentage of Positive Samples
State Police						
Headquarters - Albany	12	108	108	61%	349	47%
Western Region - Olean	12	89	89	40%	258	45%
City Labs						
New York City*	12	182	184	78%	446	50%
Counties						
Erie*	12	148	150	58%	344	56%
Monroe	12	160	160	55%	421	41%
Niagara	12	23	23	65%	70	47%
Onondaga	12	31	31	55%	83	37%
Suffolk*	12	71	77	78%	225	61%
Westchester*	12	30	46	43%	138	27%

*represents cases carried forward from previous year

Section 3 – INDIVIDUAL LABORATORY DATA

Arson Laboratory Improvement Program Participating Laboratories



State Police Laboratory Summary

Laboratory: Headquarters, Albany

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	*35%	3

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
108	108	66	61%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
360	349	163	47%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
12	50%	17	65%

Analytical method(s) utilized GC/MS 349 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
53%	26%	0%	0%	3%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	5%	13%	

CASE TURN AROUND TIME

Completed in 7 days	09.6%
Completed in 8-14 days	18.4%
Completed in 15 – 21 days	30.1%
Completed in 22-28 days	14.1%
Completed in more than 28 days	27.8%
Average number of days for case completion	19.89

Comment Section

*This reports total work hours in percentage of hours based on laboratory policy.

State Police Laboratory Summary

Laboratory: Western Regional, Olean

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	602	1

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
89	89	36	40%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
263	258	115	45%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
28	50%	23	61%

Analytical method(s) utilized GC/MS 257 Other 2

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
53%	9%	0%	2%	1%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	3%	32%	

CASE TURN AROUND TIME

Completed in 7 days	23.6%
Completed in 8-14 days	50.7%
Completed in 15 – 21 days	22.5%
Completed in 22-28 days	2.2%
Completed in more than 28 days	1.0%
Average number of days for case completion	11.22

Comment Section

City Laboratory Summary

Laboratory: New York City

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	*83%	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
182	184	143	78%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
399	446	221	50%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
0	0	0	0

Analytical method(s) utilized GC/MS 446 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
67%	20%	1%	2%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	10%	0%	

CASE TURN AROUND TIME

Completed in 7 days	17.5%
Completed in 8-14 days	21.9%
Completed in 15 – 21 days	31.6%
Completed in 22-28 days	15.5%
Completed in more than 28 days	13.5%
Average number of days for case completion	16.56

Comment Section

*This reports total work hours in percentage of hours based on laboratory policy.

The lab has been processing a backlog of cases. This backlog has caused the data to be out of balance in some categories.

County Laboratory Summary

Laboratory: Erie

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	960	2

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
148	150	87	58%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
307	344	194	56%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
4	25%	43	51%

Analytical method(s) utilized GC/MS 344 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
64%	33%	1%	1%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	1%	0%	

CASE TURN AROUND TIME

Completed in 7 days	00.0%
Completed in 8-14 days	22.0%
Completed in 15 – 21 days	30.0%
Completed in 22-28 days	28.0%
Completed in more than 28 days	20.0%
Average number of days for case completion	21.03

Comment Section

The lab has been processing a backlog of cases. This backlog has caused the data to be out of balance in some categories.

County Laboratory Summary

Laboratory: Monroe

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	631	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
160	160	88	55%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
421	421	172	41%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
0	0	0	0

Analytical method(s) utilized GC/MS 421 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
50%	41%	0%	3%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	6%	0%	

CASE TURN AROUND TIME

Completed in 7 days	7.5%
Completed in 8-14 days	21.5%
Completed in 15 – 21 days	21.0%
Completed in 22-28 days	17.5%
Completed in more than 28 days	32.5%
Average number of days for case completion	20.69

Comment Section

County Laboratory Summary

Laboratory: Niagara

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	Not Reported	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
23	23	15	65%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
70	70	33	47%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
0	0	2	100%

Analytical method(s) utilized GC/MS 70 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
64%	15%	6%	3%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	0%	12%%	

CASE TURN AROUND TIME

Completed in 7 days	43.5%
Completed in 8-14 days	47.8%
Completed in 15 – 21 days	8.7%
Completed in 22-28 days	0.0%
Completed in more than 28 days	0.0%
Average number of days for case completion	08.13

Comment Section

County Laboratory Summary

Laboratory: Onondaga

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	Not Reported	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
31	31	17	55%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
103	83	31	37%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
0	0	9	56%

Analytical method(s) utilized GC/MS 83 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
58%	36%	0%	0%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	3%	3%	

CASE TURN AROUND TIME

Completed in 7 days	12.9%
Completed in 8-14 days	29.0%
Completed in 15 – 21 days	22.6%
Completed in 22-28 days	16.1%
Completed in more than 28 days	19.4%
Average number of days for case completion	17.68

Comment Section

County Laboratory Summary

Laboratory: Suffolk

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	1223	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
71	77	60	78%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
189	225	137	61%
K9 Cases	K9 Cases % Positive	Vehicle Cases	Vehicle Cases Positive
8	88%	27	74%

Analytical method(s) utilized GC/MS 225 Other 3

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
73%	16%	4%	1%	1%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	1%	4%	

CASE TURN AROUND TIME

Completed in 7 days	0.0%
Completed in 8-14 days	2.8%
Completed in 15 – 21 days	0.0%
Completed in 22-28 days	7.9%
Completed in more than 28 days	89.3%
Average number of days for case completion	31.72

Comment Section

The lab has been processing a backlog of cases. This backlog has caused the data to be out of balance in some categories.

County Laboratory Summary

Laboratory: Westchester

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2010	12	*42%	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
30	46	20	43%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
102	138	37	27%

Analytical method(s) utilized GC/MS 138 Other 0

% OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
56%	30%	0%	0%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	14%	0%	

CASE TURN AROUND TIME

Completed in 7 days	0.0%
Completed in 8-14 days	4.5%
Completed in 15 – 21 days	2.2%
Completed in 22-28 days	7.5%
Completed in more than 28 days	85.8%
Average number of days for case completion	29.42

Comment Section

*This reports total work hours in percentage of hours based on laboratory policy.

The lab has been processing a backlog of cases. This backlog has caused the data to be out of balance in some categories.

The New York State Office of Fire Prevention and Control by executive order, Section 156–1-19 shall advise and assist in coordination and strengthening the activities, programs and services, rules and regulations of these departments and agencies of the state, which have functions, powers and duties relating to arson suppression, detection, investigation and prosecution and to the end of providing more effective services to the public and strengthening governmental programs relating to such matters.

The Office of Fire Prevention and Control is committed to sustaining arson evidence analysis and testing through the Arson laboratory Improvement Program and working with the DCJS and NYCLAC to improve such services aimed at combating the crime of arson.

Andrew M. Cuomo
Governor

John R. Gibb
Acting Commissioner
Division of Homeland Security
& Emergency Services



Floyd A. Madison
State Fire Administrator

Rich Barlette
Arson Bureau
Chief

Randi W. Shadic
Arson Bureau
Deputy Chief