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MESSAGE FROM THE ASSISTANT COMMISSIONER,

FORENSIC LABORATORY SERVICES, RCMP

I am pleased to introduce the Forensic Laboratory Services' Annual Achievement Report 2002-2003.

This publication highlights the activities and initiatives which the fine members of the Forensic Laboratory Services (FLS) have undertaken during the past year. More to the point, it celebrates the successes that have marked a very challenging period in our history. Over the course of the past three years, the FLS has been in the process of developing a series of plans to make the organization more effective and flexible. The outcome is a new service-delivery model and a renewed emphasis on service excellence and integration. The period for which this document reports saw the implementation of the plans and the fundamental changes required to achieve our goals.

While we are still implementing, gathering data, and evaluating our new model, the initial reports are that we are providing a better service to our clients. This improvement has taken many forms: a more interactive manner in which to access our services; a more efficient use of our resources, designed to reduce the amount of time to process cases; and the introduction of new services – to name a few. Most importantly, however, the Forensic Laboratory Services has become more flexible via the implementation of a “one laboratory with several delivery sites” concept. This fundamental change has allowed the FLS to utilize all of its national resources, in any combination, to meet our law enforcement challenges. All of the FLS resources and assets – whether in Halifax, Vancouver, or any one of the four other sites – may now be engaged to provide the best possible solution to any case, no matter where it originates.

None of our achievements would be possible if it were not for the very dedicated group of professionals who make up the National Police Services' Forensic Laboratory. These folks are absolutely amazing. I am constantly impressed with how they apply their knowledge, skills, and abilities to resolve problems to meet the challenges of our reorganization, and to continuously work at a very high professional level. The successes described in this report are truly theirs to celebrate and the excellence within the FLS is theirs to accept.

I am confident in our future: I believe that we have set the template for success. The FLS has become a strategy-focused organization and we have developed performance measures that will not only tell us how we have done, but will guide our way forward. In the upcoming year, we will continue to improve upon our new service-delivery model and begin to explore ways in which we may more fully integrate with those who may be of benefit to the achievement of our goals.

Have a look at our many achievements and other undertakings that are showcased in this report. You will see for yourself that the FLS is a dynamic organization and is well positioned to be a leader in forensic science, well into the future.



J.L. Buckle

Assistant Commissioner Forensic Laboratory Services



Who we are

ABOUT THE FORENSIC LABORATORY SERVICES

As an integral part of the RCMP National Police Services, the Forensic Laboratory Services (FLS) is responsible for conducting analyses and examinations of physical evidence in connection with police investigations anywhere in Canada. Its services are primarily available to police agencies, courts and government agencies in most provinces (Ontario and Quebec have their own provincial forensic laboratories). The FLS consists of approximately 370 forensic scientists, technologists, and administrative personnel. Based on the results of their work, members of the Forensic Laboratory Services issue case reports and provide expert forensic testimony to the courts. In certain cases, the laboratory staff can – on request – provide advice and opinion to interpret evidence in situations where a hypothetical scenario may have been established, but laboratory examinations have not been requested. The Forensic Laboratory Services complements the work of the National

DNA Data Bank, which unlike the FLS, is responsible specifically for the analysis of convicted offender samples and the maintenance of the Convicted Offender and Crime Scene Indices.

Recently, the FLS undertook one of the most extensive organizational reviews and reorganizations in its history. Started in 1998 and planned for completion in 2004, the review and reorganization was designed to improve and streamline services to clients and other stakeholders in Canada's criminal justice system – ensuring a common, consistent standard of service everywhere in Canada. As a result, the FLS has adopted an innovative service-delivery model, predicated on having a single laboratory with six delivery sites across Canada. These sites are located in Vancouver, Edmonton, Regina, Winnipeg, Halifax, and Ottawa. Together, they provide clients with professional forensic services that aim for nothing short of excellence.



What we do

PROVIDING PROFESSIONAL FORENSIC SERVICES TO

POLICE AND OTHER STAKEHOLDERS ACROSS CANADA

Working as a team, the Forensic Laboratory Services aims to provide state-of-the-art service and forensic science capabilities in a diverse range of scientific disciplines.

Biology processes trace evidence using established biochemical techniques to generate DNA typing profiles. Services include:

- comparing DNA typing profiles to determine if there are any forensically significant associations; and
- submitting selected DNA typing profiles for entry into the Crime Scene Index of the National DNA Data Bank of Canada.

Chemistry examines physical evidence such as paint, fire debris, clothing and footwear, glass, fibres and textiles, safe insulation, and a wide range of commercial products. The examination of exhibits may be classified into two categories: the identification of an unknown substance; and the comparison of “known” and “questioned” exhibits. Services include:

- recovering, comparing and identifying non-biological trace evidence (e.g., paint, potential fire accelerants, glass, fibres and textiles, plastics, building products, safe insulation and commercial products);
- conducting physical matches of the seized materials;
- providing scientific and technical support to other forensic disciplines; and
- hosting and supporting the Paint Data Query database.

Counterfeit examines suspect travel documents (passports, visas, etc.), currency and counterfeit credit cards to determine if they are genuine and whether or not they have been altered. Assistance is provided

to investigators in searching printing plants suspected of being connected with counterfeiting activities. Services include:

- conducting forensic examination of Canadian and foreign bank notes and coins and of negotiable instruments (e.g., travellers cheques, bonds) to establish their authenticity;
- conducting classification and database recording of information pertaining to counterfeit bank notes and dissemination of information to the Canadian law enforcement community and to foreign agencies;
- providing forensic examination of travel documents suspected of being counterfeit or fraudulently altered; and
- conducting classification and database recording of information pertaining to counterfeit travel documents and dissemination of the information to Canadian and foreign law enforcement agencies, as well as to Interpol.

Document examination services include:

- performing handwriting and handprint comparisons, document-production media, as well as materials used to produce documents and occurrences to documents after their production.

Explosives analyze post-blast samples to determine type of explosive. Services include:

- analyzing explosives ingredients and related materials;

- providing scene assistance, including use of explosives detectors; and
- providing scientific and technical support to bomb disposal and other experts in the field.

Firearms examines recovered cartridge components to determine if they were fired or chambered in specific weapons and – in cases where no suspect weapons are available – to determine the probable type and make of weapon involved. Tool marks on a variety of materials are compared with suspect tools. Gunshot residue is analyzed to determine whether a suspect fired a firearm and estimate the distance between a gunshot victim and a firearm. Services include:

- determining whether a bullet, cartridge case, or other ammunition component had been loaded into or fired from a particular firearm;
- assessing the mechanical condition of firearms;
- determining the legal status of a firearm;
- conducting gunshot residue analysis from hands, face, clothing, and elsewhere;
- conducting analysis of a bullet path at a crime scene or autopsy;
- determining whether a tool mark impression was made by a given tool;
- providing serial number restoration; and
- hosting and supporting the Integrated Ballistics Information System Database.

The Breath-Test Program includes:

- training police officers as qualified technicians;
- assisting in their training as operators of approved instruments; and
- ensuring quality control of solutions used in breath tests.

The National DNA Data Bank Of Canada

(NDDDB) is a branch of Forensic Laboratory Services that contains the Convicted Offender Index and the Crime Scene Index. These represent two different sets of information in which DNA profiles are developed and compared. Services include:

- assisting law enforcement agencies in solving crimes by linking crimes together where there are no suspects;
- helping to identify suspects;
- eliminating suspects where there is no match between crime scene DNA and a DNA profile in the Data Bank; and
- determining whether a serial offender is involved.

Toxicology detects drugs and poisons including alcohol and other volatile substances in biological fluids and tissues. These are quantified in cases of impaired driving, homicide and assault. Services include:

- giving interpretative evidence on the pharmacological effects of alcohol, drugs and poisons found. This service is provided in situations where no analyses of body fluids or tissues have been made;
- examining “over-the-counter” pharmaceutical and prepared food products, to determine evidence of tampering;
- analyzing chemicals found in tear gas canisters, as well as their toxic effects, for later use by the courts; and
- providing scientific support to the Breath-Test Program, as well as to the drug recognition expert programs of Canadian police agencies.

Automated Systems services include:

- providing information-technology support at all six delivery sites of the Forensic Laboratory Services, as well as to user agencies and courts.

Scientific Information Centre services include:

- providing a full range of library services to specialists working in Forensic Laboratory Services. The Centre also welcomes enquiries from RCMP officers, other police forces, and researchers.

About this report

ACHIEVEMENTS ARE INTEGRAL TO OUR WORK

As the title suggests, this is more than an annual report. It is a publication that profiles the many achievements of the Forensic Laboratory Services. More than a compendium of our work, it's our way of showcasing our staff – the professionals who make this organization possible – and demonstrating the results of what has been an extensive and exhausting organizational review. In all, this report demonstrates that we are equipped, determined, and focused on being a dynamic leader in the field of forensic science today and into the future.

Excellence is a driving force in the RCMP, and the *Achievements in Profile* section of this report illustrates how the Forensic Laboratory Services is succeeding, with emphasis on the following three key areas:

A new service-delivery model – our new business approach and our pledge to clients;

A new approach to case management – as part of our new service-delivery model, this is the method we've adopted to respond to the unique needs of our clients; and

Safe homes, safe communities – this is the core objective of the RCMP and a commitment to all Canadians.

Complementing this work is a series of ongoing initiatives that are serving to support the Forensic Laboratory Service's commitment to excellence and innovation. From quality to research and development, from health and safety to the Balanced Scorecard – all of these efforts are detailed in the *Ongoing Initiatives* section of this Achievement Report.

The *Case Themes* section also serves as a means to showcase our expertise, providing three cases that demonstrate how we are already applying our new way of doing business to our work in the field. Last but not least, the section entitled *Want to Know More?* provides important contact information for readers who would like more information on the Forensic Laboratory.

Achievements in profile:

BUILDING A SERVICE THAT IS EFFICIENT, EFFECTIVE AND INTEGRATED

Information is at the core of what we do. From police investigators to the courts, Canada's criminal justice system depends on having a reliable, efficient system that gathers, analyzes, and interprets data, including forensic evidence. Recognizing this, and coupled with the recommendations of a report in 2000 by the Auditor General of Canada, the Forensic Laboratory Services embarked on an ambitious reorganization of its services.

Beginning in 2001, with the development of a business case for building a new service model, and leading subsequently to its implementation over the course of 2002, this exercise has resulted in nothing short of a *transformation* in the way that forensic services are offered by the FLS.

In this section of the report – entitled *Achievements in Profile* – you'll find individual snapshots of the key initiatives underway that are enhancing the way the FLS provides services to clients and stakeholders in Canada's criminal justice system.

Read on, and you'll see for yourself that these initiatives are not just ambitious – they are already achieving real, measurable results.



A new model of service delivery

THE NEW WAY OF DOING BUSINESS AT THE FORENSIC

LABORATORY SERVICES

As a science-based organization, the Forensic Laboratory Services must always be at the forefront of technology and innovation. This applies not only to the research we do, but also to the way we provide services to clients and stakeholders. According to the Assistant Commissioner, Forensic Laboratory Services, Joe Buckle, staying one step ahead of criminals and criminal organizations requires that the RCMP and the FLS regularly invest in better tools and information. The trouble is, over the years, the demands on the FLS have grown steadily, due in part to the increasingly international character of crime.

By the 1990s, the Forensic Laboratory Services found itself in a difficult situation in which it had to meet growing demands and adapt to new technologies, while saddled with outdated management practices and operating rules inherited from the 1950s and 1960s. “The result was that the quality of services sometimes fell short as case backlogs grew, and the lab struggled to meet the demand for new technology, such as DNA testing,” says Buckle. “Something had to be done.”

Fuelled in part by recommendations in a 2000 report by the Auditor General of Canada, the Forensic Laboratory Services set out to re-evaluate and re-think its business. “We weren’t changing for the sake of change, but because the status quo had become unsustainable for us,” explains the Assistant Commissioner. “We also needed a solution that would help us grow in the future.” The outcome of the exercise was a comprehensive new way to deliver forensic laboratory services – an approach that quickly became known within the FLS simply as “the new model.”

The Assistant Commissioner is unequivocal about the impact of the new model on the Forensic Laboratory Services. “It’s a fundamental change in

the way we do business. Our goal is to be perceived by our clients as law enforcement *partners* rather than as law enforcement support services.” To achieve this, the organization concluded that it needed a major shake-up to become more flexible and efficient.

“The new model is a fundamental change in the way we do business. Our goal is to be perceived by our clients as law enforcement *partners* rather than as law enforcement support services.”

The new model is predicated on the concept of being a single laboratory with multiple service-delivery sites. By embracing this concept, the organization was able to discard old rules that had required each laboratory to be fitted with precisely the same resources, training, equipment, and staff – a practice that often resulted in some tools being underused. Instead, the new model lets such tools be located where they are needed at any given time. This model adopts a much more fluid approach to managing resources and people, and evokes the “just-in-time” delivery model of service – an idea that has revolutionized manufacturing industries worldwide.

“Integration is key to our success,” says Buckle. “We’re no longer operating under a case-management regime that focuses on handling a case from cradle to grave. Instead, thanks to the establishment of the Case Receipt Unit (see *Achievements in Profile*, page 12), we now respond to our clients by asking ‘what services do you need?’ rather than ‘which of our services do you want?’”

In essence, the Forensic Laboratory Services has become an organization that thinks and solves problems as a team. As Buckle explains: “Thanks to the new model, a backlog at our Vancouver site becomes a *national* problem that everybody works to fix, not just Vancouver. We now look at cases differently, because we have to consider how each one could be handled most efficiently at a particular site.”

“We now look at cases differently, because we have to consider how each one could be handled most efficiently at a particular site.”

Equally important, the new model means that the Forensic Laboratory Services can focus on providing

the best service possible to their clients. Key among clients are case investigators. “Investigators are busy people,” explains Buckle, “and their jobs are already tasking enough without having to ask them to manage laboratory case files.” Yet this type of management is an important component of a smooth-running laboratory.

Under the new model, the solution to this problem is simple. An investigator who arrives at a crime scene simply telephones a toll-free number that connects to a Case Coordinator in the Case Receipt Unit at the Forensic Laboratory Services. The investigator can then indicate the services required to assist with the case (e.g., blood-alcohol analysis). Currently, this service is provided between 7:00 AM EST and 7:00 PM PST, but could be expanded to become a 24-hour, seven-days-a-week operation, should it ever be required by clients and other stakeholders.

CASE - IN - POINT

Highlights of client feedback, Quality of Service Questionnaire

When invited by the questionnaire to comment on the impact of the Forensic Laboratory Services on an investigator’s work, responses included:

- “...(it) reduced investigation time by ten days;”
- “...corroborated victim’s allegations;”
- “...eliminated driver as being impaired;”
- “...completely ties-in the firearm used;”
- “...prevented an innocent man from having to attend court on an alleged sexual assault charge.”

Questions and Answers

JOE BUCKLE, ASSISTANT COMMISSIONER,

FORENSIC LABORATORY SERVICES

Q. What prompted the Forensic Laboratory Services to undertake this review?

A. Successful organizations should always take some time periodically to stop and look at themselves critically and ask if they are still doing the best job they can, and whether the status quo is still viable. Traditionally, this hasn't occurred as often in the public sector as in the private sector – but that's changing, as the Government of Canada is demanding this of federal organizations as part of modern comptrollership. We felt that the time was right to start asking the big questions about who we are, and about the kinds of services we can – or should – provide over the coming years to police and stakeholders across Canada. Granted, we got a significant boost, thanks to the recommendations of a report in 2000 by the Auditor General, but the impetus to get this thing started had already begun before that report had surfaced. Nevertheless, there were some excellent recommendations in the report and they found their way into our management response.

Q. In your view, how successful has the new model been so far?

A. We've been successful beyond our wildest dreams. There's no doubt this level of change has been difficult and challenging for our staff – after all, no one should expect that significant changes can be implemented without a cost – but they persevered and remained dedicated, as professionals always do. Ultimately, with the new model in place, we now find ourselves capable of handling the kinds of challenges that would have brought the old organization to its knees. Our response to the demands of Project Evenhanded in Port Coquitlam, B.C., is a case-in-point (for more information, see the *Case Themes* section of this publication on page 26).

Q. Have you encountered any spin-off benefits from this success?

A. Indeed, we have. Our efficiency gains have allowed us to reprofile resources so that we can do other things that were previously out of our reach, such as enhanced professional development activities. Like other organizations, our funds are limited in this area, so this extra money can go a long way to help improve the professional skills of our staff. But the benefits don't end there. Since January 2002, we have also been able to hire 51 new staff for the organization. These new resources are not manna from heaven: this is a reinvestment of our savings and is a direct pay-off for having become a more efficient organization.

"This is a reinvestment of our savings and is a direct pay-off for having become a more efficient organization."

Q. You mentioned that change comes with a price. How have you addressed the challenges that arise from change?

A. One aspect of the new model – and the changes that come with it – that I have been sensitive to has been how it affects the health and wellness of my staff. When changes have caused personal hardship for some of our people (i.e., the impact of a relocation on a member's family), we have stepped in and taken measures to fix that problem. In fact, for the first time in our history, we hired a Human Resource Specialist in 2001. This person is tasked with dealing with each and every one of the staff affected by the new model. This way, we have been able to develop custom-designed solutions to address staff concerns in a sensible and sensitive way.

Q. In your view, what new qualities has the new model brought to the Forensic Laboratory Services?

A. The new model has transformed the manner in which our people see themselves and the type of work they do. Our people can now see themselves in a *business context* and that's something that I think was much harder to do before. It has also had an impact on the way that our clients perceive the organization. They look at us now more as law enforcement partners rather than as law enforcement *support*. The distinction is important and I think that this changing perception is due in large part to the new level of access we offer and our willingness to be responsive to the needs of our clients.

"Our people can see themselves in a business context and that's something that I think was much harder to do before."

Q. Why is it so important to be client-focused?

A. When I'm talking to my staff about what's at stake for us, I like to remind them of the perils of winding up as a buggy-whip maker in an automobile world. What I mean by that is the way we conduct our business should always be viewed through the lens of our clients and their needs. We can think we're doing the best job in town, building buggy whips, but if our client has no use for these things, then our efforts will be in vain. The best way we can understand our clients' needs is to integrate with them. We can't be in the background, we have to be right there at the forefront with investigators so they know they can count on us to help them do their work and solve cases.

"The best way we can understand our clients' needs is to integrate with them."

Q. Now that the new model is in place, where would you like to see the Forensic Laboratory Services five years from now?

A. I can sum up my vision in two words: virtual lab. When I look around at the science and research that is being done at universities, in the private sector, and at other forensic labs, my view is that we have to get the RCMP out of the confines of our own labs and start integrating with these other organizations. That's not to say that we should throw caution to the wind as far as security is concerned – we can be choosy about whom we work with, and we have to feel comfortable undertaking that kind of work. My point is that the paradigm of the past, in which we did what was required of us while protecting our budgets, just doesn't work anymore. Instead, what I would like to see adopted in the future is a method in which we look at how we can integrate our work with other like-minded organizations, find a way to share resources, and achieve a common objective. This isn't an impossible goal: it just requires an open mind.

Service awareness

TOWARDS AN EFFECTIVE, EFFICIENT AND INTEGRATED

WAY TO DELIVER SERVICES

The Forensic Laboratory Services' new model of service delivery consists of a series of measures and structures that, together, are helping the RCMP meet the ever-growing challenges of policing in Canada. Reflecting the philosophy of a national police agency that delivers services in a consistent and timely fashion, these new measures and structures are helping to make the Forensic Laboratory Services more effective, more efficient, and better integrated to suit the needs of the clients they serve.

From the establishment of Case Receipt and Evidence Recovery Units that respond to the specific needs of investigators, to the development of a new service standard and formalized complaint-resolution mechanism – these are the *key drivers* that now propel the FLS's pursuit of service and operational excellence. Moreover, these initiatives demonstrate that the organization's new service-delivery model is determined to achieve real, measurable results now, and in the future.

CASE RECEIPT UNIT

The Case Receipt Unit (CRU) serves as a single point-of-contact for investigators when dealing with the Forensic Laboratory. Each of the FLS's six delivery sites across Canada includes a CRU that is under the management and direction of a Case Coordinator. According to Greg Smith, Acting Program Manager for Counterfeits, Documents and Case Receipt Unit, this approach was adopted based on the success of a pilot project, implemented in Vancouver in 2001. "We found that we could be far

more efficient in the way we did business by giving investigators a single place to go to get the answers they need," says Smith.

In effect, this approach serves as a kind of triage: investigators can work hand in hand with CRU members to determine what exhibits are most probative for their investigation. A CRU Case Coordinator will then determine the most efficient and effective means of processing these exhibits through the laboratory system. The steps involved are simple. All cases have to be pre-approved by a CRU before laboratory work can proceed.

Once an investigator has prepared a request for analysis and submitted it to a CRU for pre-authorization, a Case Coordinator will discuss with the investigator which examinations will be conducted and which exhibits should be submitted for those examinations. At this point, the CRU determines whether the case will be approved. An approved case is given a file number and the investigator is given instructions on what exhibits to submit and to which of the six service delivery sites they can be submitted.

This approach helps to reduce the number of exhibits submitted for consideration. “We used to find that investigators would sometimes bring in all exhibits, because they weren’t sure what exhibits would be most useful for laboratory examination,” notes Smith. “Thanks to the CRU, this doesn’t happen anymore.” In addition, the CRU is responsible for the prioritization and distribution of work at each service-delivery site, as well as monitoring the workflow of case files.

While CRU staff members do not undertake analysis or examination of exhibits, they have a wide-ranging scope of responsibilities with respect to the management of laboratory case files. The staff who work in these units have to be more than just generalists – they have a firm understanding of the requirements for exhibit analysis in all of the disciplines of the Forensic Laboratory Services (e.g. Toxicology, Biology, Documents, etc.). Says Smith: “Everyone in the CRU has a background in at least one of these disciplines and they have educated themselves on the others, so that they know what is required.” The experiences of the staff have been incorporated into a training manual for future members of the CRU.

While efficiency is a cornerstone upon which the CRU was established, these units also help to ensure that the lines of communication remain open between an investigator and the laboratory that analyzes and examines case evidence and exhibits. After all, investigators are *clients*, and under the new model of service delivery, the needs of the clients come *first*. The challenge is to find reliable ways to ensure that the organization responds to these needs. That’s where the CRU is playing a vital role in the organization’s integration strategy. Being ever-available and flexible to the needs of clients helps to go a long way to being perceived as an essential partner in law enforcement.

“The CRU and the service-delivery model are one and the same,” says Smith. “Without the CRU concept, we would not be able to take full advantage of our new model.” Both are predicated on providing client-focused service.

How have clients responded to the implementation of the CRU? According to Smith, feedback received to date from investigators has been encouraging: “I think they’re really happy – they like the simplicity of having to only call one person to get the answers they need. Not only does this approach mean that investigators save time, it’s also a more efficient way of doing business.”

EVIDENCE RECOVERY UNIT

Established under the new service-delivery model, the Evidence Recovery Unit (ERU) helps improve case management within the Forensic Laboratory Services. Under the direction of John Bowen, Program Manager for Evidence Recovery and Biology Services, each ERU provides expertise in searching exhibits for trace-evidence, an activity that is conducted only once to recover all potential evidentiary material in connection with a case.

Not all cases require this kind of search – it is decided by the Case Receipt Unit responsible for a given case. In situations where a trace evidence search is required and where evidentiary material is subsequently recovered by an ERU, the items that have the highest probative value are forwarded. When all the casework is completed, the evidentiary material is returned to the investigator by the Case Coordinator.

Over the course of 2002, the four ERU sections grew in size, adding over a dozen new employees to the organization and bringing its total number of staff to twenty-eight. According to Bowen, there are many advantages to having an ERU in the Forensic Laboratory Services; key among them is that they reduce the risk of evidence contamination. “Since a trace-evidence search is a one-time activity, we’ve reduced the probability of exhibit contamination and loss.” It also makes the processing of cases much more efficient. “It takes away the administrative burden of case management from investigators,” says Bowen, “and in turn gives them the fastest response for the most probative types of evidence.”

SERVICE STANDARDS

Service standards – when properly established – provide an objective way for an organization to test whether it is meeting the needs of clients. By regularly measuring and reporting actual performance against standards, an organization can identify problem areas and assess performance trends over time. Prior to 2002, the Forensic Laboratory Services had always operated with an implicit service standard – a formalized model was never put into place. According to Frederick Fromm, General Manager, Forensic Laboratory Services Halifax, “when it came to standards, we used to talk tough and then fall short on our delivery.”

All of that changed under the new service-delivery model. “We thought it was high-time that we put our standards in writing,” explains Fromm, “not only to help focus our organization, but so our clients would have a clear commitment of our service.” Moreover, he maintains that “this is where the rubber hits the road and where we can see the real value of our new model.”

“This is where the rubber hits the road and where we can see the real value of our new model.”

The challenge was to find a workable way in which to establish service standards for the Forensic Laboratory Services. But it also required that they identify the means to measure their success in achieving their goals, as well as a mechanism to deal with complaints. The solution was the establishment of a new case-priority system, an employee-performance standard, a service pledge, and a formalized complaints resolution mechanism.

Service standards at the Forensic Laboratory Services:

- case-priority system;
- employee-performance standard;
- service pledge; and
- complaint resolution mechanism.

The Forensic Laboratory Service’s new **case-priority system** has been in place since January 2003. It was designed to help manage workload in the labs by prioritizing service requests. Equally important, the FLS wanted a solution that would *simplify* this task.

Under this new system, service requests are identified by the Case Receipt Unit as either urgent or routine. A fifteen-day turnaround time has been targeted for urgent cases. A routine request gets a thirty-day deadline. Service requests must meet specific criteria to be considered urgent (*see Criteria*). According to Fromm, not more than five percent of all service requests are identified as such. This helps to ensure that the number of time-sensitive cases is kept to a manageable volume.

CRITERIA

Requests for service are assigned priority by the Case Receipt Unit according to the following criteria:

Urgent – Any request for service where there is an immediate threat to national security (declared by Canadian federal agencies), community safety, or evidence integrity (e.g., cases where evidence material is unstable). The “urgent” designation is also applied in cases where there is a court-ordered time frame of less than thirty days.

Routine – All other requests for service.

This new, simplified approach represents a significant departure from the previous system, in which service requests were prioritized according to at least four different ranks. By collapsing this classification regime and distilling it down to two categories, the Case Receipt Unit can provide each investigator with a clear indication about how long it will take a laboratory to handle and complete a specific service request. The benefits of this approach don't end there. "This has also had a tremendous levelling effect," says Fromm. "It ensures that clients in different parts of the country are treated the same way for the same cases...and that's an element that was missing in the way we used to do business."

As of January 2003, the FLS has put in place a new system to measure the organization's turn-around time on handling service requests. It consists of two diary dates: a Corporate Diary Date sets a target for the completion of a case, and an Expected Diary Date establishes the actual date that a case is expected to be completed. In the future, these will be the benchmarks by which the FLS will measure its success in delivering services in a timely manner. Unlike some systems that demand that rules be applied rigidly, the FLS approach is flexible – always in the interest of customer service. "The client can negotiate the diary date, and this can be subdivided according to the specific service requests," Fromm explains. "This is helpful, especially when a client has a file that might only require that certain elements be considered urgent."

Complementing the case-priority system is an **employee-performance standard**. Launched in January 2003, this is an additional measure that will soon help plan the workload of employees. This standard allocates a 70:30 ratio between casework and non-casework activity, based on the total available time per employee. Results will be reviewed on an annual basis. Since this standard is still very new, it will take at least a year before results can be examined and applied to planning for the organization.

While standards are a crucial component of improved client service, there are other measures that are just as important. One of these is accountability. According to Fromm, "It's important that we have a way that clients can hold us accountable to these standards." With this in mind, a formalized **service pledge** was created in 2002 by the Forensic Laboratory Services (*note: a copy of the service pledge is featured on page 30 of this publication*).

The service pledge explains how the Forensic Laboratory Services intends to ensure that clients are satisfied with the services they receive. According to Fromm, it also expresses in a straightforward manner what is *achievable* by the FLS. "We felt this was important," he explains, "because we wanted to be clear among ourselves that there were reasonable things that our clients should expect from us and that we should expect from ourselves."

What happens when a client is unsatisfied with the services received? That question is also addressed in the Forensic Laboratory's efforts to be service-focused. A **complaint resolution mechanism** has been developed so that clients have a formalized means to register a complaint and the organization can ensure a timely response. The mechanism works like this: first, the client contacts a Case Coordinator at a Case Receipt Unit in order to resolve the complaint. If the Coordinator can't resolve the complaint, then the client files a complaint (preferably in writing) to the General Manager of that location. If the General Manager can't resolve it, the issue is referred to the Assistant Commissioner, Forensic Laboratory Services.

Safe homes, safe communities

A COMMITMENT TO ALL CANADIANS

In their 1997 book, The Power of Alignment: How Great Companies Stay Centered and Accomplish Extraordinary Things, authors George Labovitz and Victor Rosansky contend that “the main thing for (an) organization as a whole must be a common and unifying concept to which every unit can contribute.” For the RCMP, this unifying “main thing” is *safe homes, safe communities*. More than a reiteration of priorities of the Government of Canada, it represents the operational compass of the RCMP and a commitment to all Canadians.

As an organization committed to excellence, the RCMP continues to strive to meet this goal by implementing immediate and long-term measures. Among these are four specific undertakings of the Forensic Laboratory Services:

- the Breath-Test Program (BTP);
- the Drug Recognition Expert (DRE) Program;
- chemical, biological, radiological, and nuclear (CBRN) response and preparedness; and
- Materials Profiling.

The first two undertakings on this list – the BTP and the DRE Program – are special operations that are helping to keep communities safe by detecting impaired drivers, whether by alcohol or drugs. Unlike most other areas of responsibility of the Forensic Laboratory Services – where the role of laboratory scientists is to help solve crimes that have already been committed – these programs are unique because quite often they use science as a means of *preventing* impaired drivers from causing bodily harm or death.

Thanks to the new service-delivery model, clients can expect improvements in how these special operations are provided. Marthe Dalpé-Scott,

Program Manager for Toxicology Services explains: “By adopting a single laboratory with multiple delivery sites, we’re taking what was always a national service and making it uniform, so that clients can count on a consistent, coordinated service from coast to coast to coast.”

“By adopting a single laboratory with multiple delivery sites...clients can count on a consistent, coordinated service from coast to coast to coast.”

BREATH-TEST PROGRAM

Canada’s Breath-Test Program is a collaborative partnership of police and forensic scientists across the country. The program is comprised of the RCMP Forensic Laboratory Services, as well as forensic science counterparts in Ontario (Centre of Forensic Sciences) and Quebec (Laboratoire de sciences judiciaires et de médecine légale). All three groups are represented on the Canadian Society of Forensic Science Alcohol Test Committee, which is responsible for studying the scientific, technical, and law-enforcement aspects of breath testing for alcohol.

The risk posed by impaired drivers is a national problem – and that’s why the Forensic Laboratory Services is a significant contributor to this program. Dalpé-Scott offers statistics that help to explain the RCMP’s commitment: impaired drivers continue to account for approximately 32% of all driver fatalities in Canada. Furthermore, impaired driving accounts for approximately 60% of all Criminal Code traffic offences reported by police. In the bulk of cases involving impaired drivers, evidentiary material includes breath samples collected for the purpose of deriving a driver’s blood-alcohol level. These samples, entered as evidence in the courts, must be taken by police, using approved breath-testing instruments in a manner that adheres to strict operating procedures.

F A C T :

impaired drivers continue to account for approximately 32% of all driver fatalities in Canada.

“Without the Breath-Test Program, the RCMP National Police Services would not be able to meet its goals as part of safe homes, safe communities,” says Dalpé-Scott. Through the Forensic Laboratory Services, police across Canada are provided with training on the proper use of approved screening devices and instruments. In doing so, they are certified as Qualified Technicians, which is required by the *Criminal Code of Canada*. Additional services are provided by the laboratory, including analysis of body fluids (mainly blood) for alcohol and other volatile substances, as well as providing expert testimony to the courts on the pharmacology of alcohol and on the operation of approved instruments.

DRUG RECOGNITION EXPERT PROGRAM

The Drug Recognition Expert Program addresses another challenge faced by police in protecting

communities against impaired drivers. Currently, Canada does not have legislation that permits a police officer to stop a driver and conduct a test for the presence of drugs in that person’s bloodstream. Dalpé-Scott notes: “We recognized that we had to develop an effective way to detect a driver who is under the influence of mind-impairing drugs, such as prescription medication and illegal drugs...but we need to do so in a way that is fair and in a way that minimizes the risk of a person being wrongly accused.”

“We recognized that we had to develop an effective way to detect a driver who is under the influence of mind-impairing drugs, such as prescription medication and illegal drugs.”

Based on practices developed by police in the United States, as well as in British Columbia, the Forensic Laboratory Services adopted the Drug Recognition Expert (DRE) Program. Since 1998, staff from Toxicology Services of the FLS have taken on a role as one of the instructors, teaching police across Canada about approaches and best-practices regarding drug recognition expertise. In addition, Forensic Laboratory staff support the DRE’s findings in courts of law.

Other organizations are also looking at ways to incorporate this approach in the interests of public safety. For example, the federal Department of Justice has begun looking at the issue and is considering how key sections of the *Criminal Code of Canada* could be amended to address this area of expertise. In 2002, Solicitor General Canada also provided a \$50,000 grant to the Drug Abuse Committee of the Canadian Association of Chiefs of Police to help teach the DRE Program to police officers across Canada. As a result, Wayne Jeffery of the Forensic Laboratory Services Vancouver (National Coordinator, DRE) is taking part in a first-ever national effort to teach the DRE Program. “We’re not engaged in this work to

take a position on whether possession of certain drugs should be decriminalized,” adds Dalpé-Scott, “we’re using science as a means of upholding the law and protecting the safety of citizens against harm from impaired drivers.”

CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN) RESPONSE AND PREPAREDNESS

In the late 1990s, the Government of Canada realized the need to enhance the ability of all federal departments to prepare for – and respond to – a potential attack (terrorist-based or otherwise) involving chemical, biological, radiological and or nuclear weapons. Preparedness initiatives were in place well before the September 11, 2001, terrorist attacks in the United States, and work was underway to bolster the RCMP’s capacity in this respect. However, arising from the September 11th tragedy, the Government of Canada created an organization to provide a unified approach for the federal science community – the CBRN Research and Technology Initiative (CRTI). Featuring the participation of the Forensic Laboratory Services, this initiative provides new knowledge, technology, and research for CBRN response and preparedness in Canada. The CRTI has the following mandate:

- create clusters of federal laboratories as elements of a national response network that will build Canada’s science and technology capacity to address the highest-risk terrorist attack scenarios;
- create a fund to build capability in critical areas, particularly those identified in the scenarios that address biological and radiological attack;
- accelerate technology into the hands of the first-responder community and other operational authorities; and
- provide funds to those areas where national science-and-technology capacity is deficient, due to obsolete equipment, dated facilities, and inadequate scientific teams.

Denis Nelson, CBRN/Health and Safety Program Manager, represents the Forensic Laboratory and all of the RCMP on the CRTI’s Strategic Projects Team. “My role is to ensure that the RCMP Forensic Laboratory Services is prepared to provide forensic science support to police agencies to respond to a CBRN event,” says Nelson. He offers a hypothetical example. “If Canada has an anthrax by-mail scare, similar to what we saw in the United States in 2001, it would be up to the RCMP Forensic Laboratory to provide handwriting analysis on the letters. The results of our work could be the missing link that helps solve the case.” However, the responsibilities of the RCMP do not end there. In cases where suspicious matter is found – and is not a chemical or biological warfare material (e.g., anthrax) – it becomes a matter for the Forensic Laboratory, along with other federal partners, to determine the identity of the substance. “We’ve adopted a very integrated approach to CBRN research and analysis at the federal level,” says Nelson, “and some day soon, this approach will also include provincial labs and the private sector.”

In participating in federal CBRN response-and-preparedness activities, the Forensic Laboratory is also helping to support the RCMP goal of safe homes, safe communities. Says Nelson: “The CRTI represents our collective ability to reach into the scientific community and get the expertise needed to respond to a CBRN event.”

“We’ve adopted a very integrated approach to CBRN research and analysis at the federal level,” says Nelson, “and some day soon, this approach will also include provincial labs and the private sector.”

MATERIALS PROFILING

Materials profiling is another key area that the Forensic Laboratory is pursuing. This is a field of study comprised of several methodologies, of which the FLS is adopting forensic diamond profiling – a non-destructive scientific process for characterizing small parcels of this unique gem for origin determination.

“This is a first for the RCMP and for police anywhere,” explains Dave Ballantyne (Program Manager, Materials Profiling), “no police organization in the world can provide this service.” Diamond Profiling will give police a new crime-fighting tool they can use in a range of cases where diamonds have been seized as evidence (e.g., smuggling, illicit trading schemes involving drugs or weapons, money laundering, theft, among others).

“(Forensic diamond profiling) is a first for the RCMP and for police anywhere ...No police organization in the world was doing this before us.”

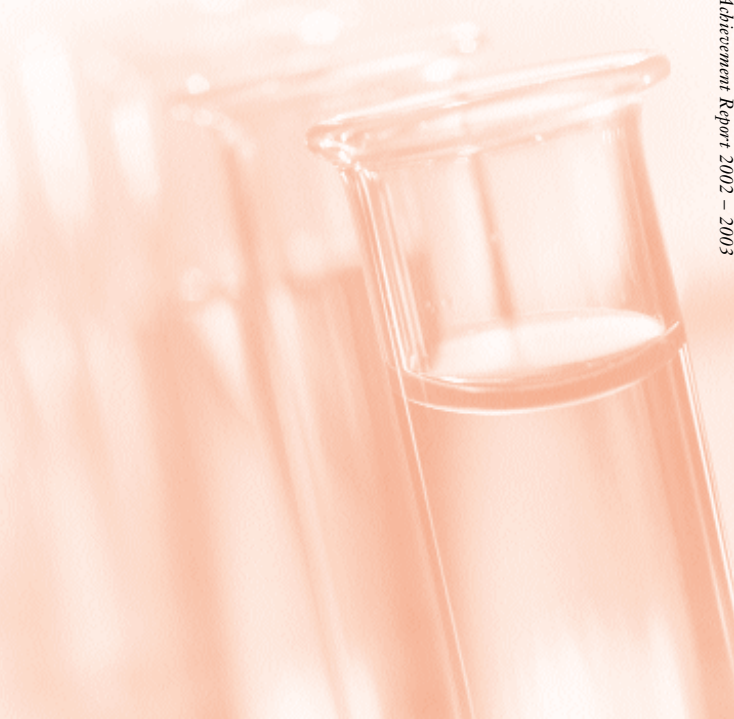
Determining source-to-geographical location or region, among other facts, will assist investigations and prosecutions. This could help to prevent Canada

from becoming a trade location for illicit diamonds. This will become increasingly important for Canada: it is poised to become the third-largest diamond producer in the world, and several potential mines are on the horizon across the country.

“Building a program of this nature does not happen overnight,” says Ballantyne, “it takes years to get something like this off the ground.” Since being granted program status in 2002, efforts have focused on developing capacity and resources. While the program will involve incorporating traditional scientific methods, it will also combine best practices in forensic science, as well as leading-edge technologies.

This will include three notable innovations:

- the development of a database within the FLS to accurately assess the levels of gem discrimination and to support expert testimony;
- the implementation (operational in 2003) of Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS), which is a versatile technique that uses a laser to sample the material and the ICP-MS to determine ultra-trace quantities of elements found in diamonds; and
- the investigation of supporting scientific methods, such as Infrared or Raman Spectroscopy, which are analytical techniques generally used to examine the light absorbing properties of materials.



Value for service

RESULTS OF THE QUALITY OF SERVICE QUESTIONNAIRE 2002

“Everything we do in this organization focuses on operations.” That’s a message that staff at the Forensic Laboratory Services like to repeat often. To achieve this, however, an organization has to do more than implement standards, or devise new ways to measure service efficiency. It also has to have a system in place to regularly monitor feedback from clients. It follows, therefore, that the most effective way to retain and satisfy clients is by listening to what they’re saying and by responding to their needs.

That is why the FLS regularly conducts a client survey of investigators, to seek their feedback on the quality and timeliness of laboratory services. It also probes for feedback on specific services. According to Ted Lukaszewski, Officer In Charge, Policy, Planning & Evaluation: “We were one of the first areas in the RCMP – and one of the first among federal organizations – to conduct a regular client survey and to demonstrate real outcomes of our work.” While this survey has taken many shapes since the first one was launched in 1987, the current

format – known as the *Quality of Service Questionnaire* – has been in place since 1998. The questionnaire is a two-page form and can easily be completed by a respondent within minutes. Completed surveys are sent to the FLS’s Policy, Planning & Evaluation group, where the data is compiled annually into a summary report – the most recent of which was published in June 2002.

According to Lukaszewski, response rates and findings are consistent from year to year. He credits the feedback from respondents for helping to fine-tune the questionnaire. Among the data compiled, the most recent survey reveals that approximately 92 percent of respondents credited the Laboratory for providing timely service. In addition, approximately 43 percent claimed that its services helped determine a criminal offence. “Just as important,” adds Lukaszewski, “fourteen percent reported that we helped eliminate a suspect,” ensuring that someone is not wrongfully accused or convicted of an offence.

CASE - IN - POINT

Highlights of client feedback, Quality of Service Questionnaire (June 2002)

When respondents were asked to rate the quality of service provided by the FLS:

- 92.2 percent indicated that they either “agreed” or “strongly agreed” that the services provided by the FLS are timely; and
- 98.1 percent indicated that they either “agreed” or “strongly agreed” that the FLS was responsive to the needs of the respondent.

In addition, respondents reported that the Forensic Laboratory provided information that was not otherwise available, and resulted in:

- | | |
|--|---|
| a) determination of criminal offence (43.6%); | d) eliminating a suspect (14.2%); |
| b) change to the nature, scope or direction of an investigation (31.5%); | e) associating a suspect and victim or crime scene (33%); and |
| c) identifying a suspect (16.5%); | f) laying of charges (34.9%). |

Ongoing initiatives

CURRENT EFFORTS THAT SHOWCASE THE FORENSIC LABORATORY

SERVICES' COMMITMENT TO EXCELLENCE AND INNOVATION

"We are what we repeatedly do. Excellence, then, is not an act, but a habit." – Aristotle

The path to excellence has long been understood as something that is achievable in steps, over time, and by habit. This lesson is well understood by the Forensic Laboratory Services. In addition to the work highlighted in the *Achievements in Profile* section of this report, the FLS also has a host of ongoing initiatives in support of its mandate. With a range that includes research and development, quality, health and safety, and the Balanced Scorecard (among others), ongoing efforts underscore the diversity of work, and demonstrate the Forensic Laboratory's emphasis on excellence and innovation, and the dedication of staff in providing state-of-the-art forensic services to clients.

RESEARCH AND DEVELOPMENT

For the Forensic Laboratory Services, the importance of ongoing research and development can't be overstated. "Our organization's job is to apply and harness science for the benefit of the courts," says Ron Fourney, the Officer in Charge of the National DNA Data Bank. "To do this, we undertake research and development so we can find new approaches to questions that are relevant to forensic science."

The organization continues to be an important contributor to the growing library of knowledge on forensic science. As of January 2003, there were no fewer than twenty-four research and development projects underway in the FLS, and the majority are focused on operational needs. These undertakings include looking at ways to produce better DNA evidence from older samples, and developing new

ways of identifying the characteristics of toolmarks in forensic examinations. It also includes significant work that has been done on Capillary Electrophoresis: an automated analytical technique that is employed to great advantage by law enforcement to screen for drugs in body fluids.

Indeed, research and development has long been a mainstay in the work of the Forensic Laboratory Services, but over the course of the last 18 months, it has also become increasingly integrated into the strategic plan of the organization. "This is a direct consequence of our new model of service delivery," explains Fourney. Proof of this can be found in an exciting enterprise currently underway at the FLS: the design and implementation of the Forensic Laboratory's first-ever strategic-planning body responsible for research, to be known as the Research Project Office.

Work is underway on the Forensic Laboratory's first-ever strategic-planning body responsible for research.

The Research Project Office intends to look at the FLS's capabilities – from alcohol detection and DNA analysis, to toxicology and firearms analysis (among others) – and consider ways to specifically target components of research and development to plan for the organization's future. Says Fourney: "We're doing this because it's the *right thing* to do, because it captures research the way that it *should* be captured, and because it's going to help keep us pointed in the direction of innovation, well into the future."

*“We’re doing this because it’s the **right thing** to do, because it captures research the way that it **should be captured**, and because it’s going to help keep us pointed in the direction of innovation, well into the future.”*

This ambitious undertaking will require new procedures for handling research and development proposals. This will be addressed in the FLS’s *Laboratory Policy and Procedures Manual* in 2003. It will require that all research and development proposals and projects within the Forensic Laboratory be coordinated through the Research Project Office and the Scientific Information Centre. The former will pre-screen applications for technical feasibility and completeness, and the latter will be responsible for organizing and maintaining related documentation. Proposals that meet the basic requirements will then be considered by the organization’s Research and Development Review Committee and examined for technical feasibility, operational merit, as well as strategic benefit.

Collaboration is another important part of the Forensic Laboratory Services strategic plan for research. The organization intends to seek out new partnerships with academics, including students. “This is an important opportunity for us,” notes Fourney. “It provides us with a conduit to seek out new recruits to join our team, and it also gives our people an opportunity to play a mentoring role, making it part of the professional learning plan of our staff.”

While the strategic planning function and the Research Project Office are still in the development stage, Fourney expects to be reporting on results in the Forensic Laboratory Service’s next Annual Achievement Report, due in 2004. “The Research Project Office is something that I’ve always wanted

to do, and it’s really exciting to have been given the opportunity to make a difference and contribute to the future of this organization.”

QUALITY

You can’t achieve excellence without having the tools to recognize quality. With this in mind, the Forensic Laboratory Services has been engaged in a multi-year effort to obtain accreditation at all of its delivery sites. In doing so, it receives formal recognition that it is competent to carry out specific tests or procedures. In the case of forensic services, this recognition is provided by the Standards Council of Canada (ISO Standard 17025). This accreditation covers a host of technical and scientific matters, as well as principles related to quality management.

According to Murray Malcolm, National Quality Manager, Forensic Laboratory Services, “achieving accreditation is a process, not an event. It takes many years to achieve this recognition and it demands detailed work on the part of staff to make it happen.” In June 2002, the Forensic Laboratory Services achieved an important milestone in this process: the completion of accreditation of the Ottawa laboratory – the final step in achieving full accreditation of all service-delivery sites in the organization. “This is just the beginning of a new step in the process,” adds Malcolm. “Now we have to work to maintain this accreditation.”

In June 2002, the Forensic Laboratory Services celebrated an important milestone: the completion of accreditation of the Ottawa laboratory – the final step in achieving full accreditation of all service-delivery sites in the organization.

Since accreditation is a *voluntary* process – and requires an investment of time and resources – organizations undertake this exercise with clear objectives in mind. In the case of the Forensic Laboratory Services, the objective is to help contribute to the RCMP's commitment of being an organization of excellence. Accreditation means that the clients of the FLS, including police, law enforcement groups, and the courts, can be assured that the Forensic Laboratory meets the rigours of science as well as the demands of excellence in client service.

HEALTH AND SAFETY

Occupational health and safety is a common concern for all work environments. For those who work in the field of forensic science, however, this is an issue that calls for extra care and vigilance from staff and management alike. This fact is simply unavoidable, given the wide variety of materials – including many that are potentially hazardous – with which laboratory scientists must work every day. Given these elevated risk factors, the need for a safety culture is self-evident. In the case of the Forensic Laboratory Services, it is well entrenched. “Health and safety has been an important component of our operations for years,” says Denis Nelson, CBRN/Health and Safety Program Manager. “We pride ourselves on being leaders in this field.”

The FLS has a series of ongoing initiatives to support and promote health and safety. Key among them in 2002 were:

- obtaining compliance with Part II of the *Canada Labour Code*, through the development of a customized health and safety training course for all managers and supervisors;
- preparing a custom-designed training course for use by the FLS's workplace health and safety committees; and
- developing a health and safety policy committee.

Ongoing initiatives:

- ensuring that all staff have the necessary training for the safe operation of radiation devices used in some laboratory instruments (this is especially important since the Canadian Nuclear Safety Commission's reporting and licensing rules have changed);
- ensuring that staff have the necessary training for the transportation of dangerous goods (this is especially important in relation to the safe handling of chemical, biological, radiological or nuclear material stemming from a CBRN event); and
- continuing the Medical Assessment of the Effects of Stress Project that is being conducted in all of our laboratories in conjunction with the RCMP Health Services Section.

BALANCED SCORECARD

Over the course of 2002, the Forensic Laboratory Services also undertook the implementation phase of a Balanced Scorecard management system. Based on a concept developed in the 1990s by Dr. Robert Kaplan (Harvard Business School) and Dr. David Norton (Balanced Scorecard Collaborative Inc.), the Balanced Scorecard is a management tool that uses the principles of measurement and review to help shape organizational development.

In its fullest application, it applies a measurement framework to cover four perspectives:

- customer (*How do customers see us?*);
- internal capabilities (*What must we excel at?*);
- innovation and learning (*Can we continue to improve and create value?*); and
- financial (*How do our owners/shareholders see us?*).

Implementing the Balanced Scorecard at the Forensic Laboratory required that special considerations be taken into account. Since RCMP forensic services are provided in Canada as a public service, only the first three perspectives were applied.

“The Balanced Scorecard is one of the many initiatives that the RCMP has put in place to make the organization become more strategy-focused,” explains Ted Lukaszewski, Officer in Charge, Policy, Planning & Evaluation. In doing so, this new system is helping the RCMP and the Forensic Laboratory Services focus on carefully defined perspectives. Therefore, strategic decisions can be based on results information, service delivery can be improved, the FLS remains accountable externally and internally for its commitments and resources, and its performance record is well-told.

To implement this system within the Forensic Laboratory Services, a process was put into place in 2002, consisting of a series of steps. First, interviews were conducted with senior managers and executive members of the FLS to obtain their views on the goals and objectives of the organization. Second, these views were grouped into themes – better known under this system as “perspectives” – and then fashioned into a draft strategy-map to illustrate the goals and objectives identified (*for identified*

themes, see textbox entitled “Three perspectives”). A meeting of executives and managers was then held to validate the strategy map and linkages, objectives were defined, measures were proposed, and initiatives identified. A follow-up teleconference was then scheduled with senior managers and executive members of the FLS to review, revise, and confirm the draft scorecard.

Three perspectives identified by the Forensic Laboratory Services Balanced Scorecard:

1. People, learning and growth;
2. Internal process; and
3. Clients, partners and stakeholders.

The next step in this process was the implementation of the Balanced Scorecard into everyday work processes, started in April 2003. “Our goal is to have a good performance tool by then,” says Lukaszewski. “But it’s important to remember that under the rules of the Balanced Scorecard, this will be a living document. It’s never completely finished – it changes and grows with the organization.”



Want to know more?

The Forensic Laboratory Services employs civilian staff as specialists and technologists in positions requiring various levels of post-secondary academic training and experience. As a science-based organization focussed on excellence, we're dedicated to attracting the best and brightest talent who are interested in pursuing science and research in a work environment where you can make a difference.

This Achievement Report provides an overview of the many areas where our staff work as a team in providing state-of-the-art service and forensic science capabilities in a diverse range of scientific disciplines.

For more information on the RCMP's Forensic Laboratory Services, contact the General Manager at any of the following FLS locations:

General Manager
RCMP Forensic Laboratory
Box 8208 3151 Oxford Street
Halifax, N.S.
B3K 5L9

General Manager
RCMP Forensic Laboratory
15707-118 Avenue
Edmonton, Alta.
T5V 1B7

General Manager
RCMP Forensic Laboratory
6101 Dewdney Ave. W.
Regina, Sask.
S4P 3J7

General Manager
RCMP Forensic Laboratory
621 Academy Road
Winnipeg, Man.
R3N 0E7

General Manager
RCMP Forensic Laboratory
1200 Vanier Parkway
Ottawa, Ont.
K1A 0R2

General Manager
RCMP Forensic Laboratory
5201 Heather Street
Vancouver, B.C.
V5Z 3L7

Case themes

A LOOK AT CASES THAT DEMONSTRATE THE HANDS-ON

EXPERTISE OF THE FORENSIC LABORATORY SERVICES

PROJECT EVENHANDED

Project Evenhanded – the ongoing RCMP investigation in Port Coquitlam, B.C., into suspected serial killings over 15 years – is one of the highest profile forensic investigations to have ever been undertaken in Canada. Conducted as a joint task-force investigation with municipal police in Vancouver, it's one of the biggest forensic projects ever handled by the RCMP. DNA evidence could play a significant role in determining whether or not murder charges are laid against a suspect.

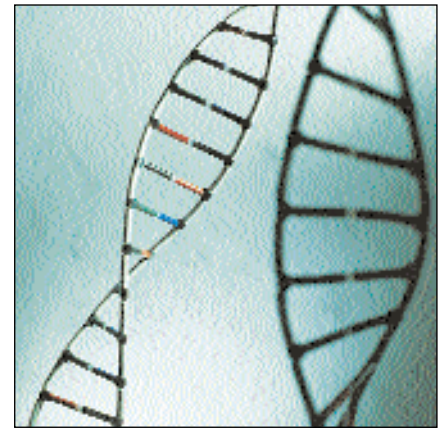
The number of suspected victims and the size of the crime scene has presented the RCMP with a major challenge. It needs an efficient way to collect evidence exhibits that could number in the *thousands*...

at a crime scene that consists of several buildings and motor vehicles located on a 12-acre plot of land.

Project Evenhanded is one of the first opportunities for the Forensic Laboratory Services to demonstrate the benefits of its new model of service delivery. Integration – bringing laboratory services directly to the client – is an important element in this case. According to Joe Buckle, Assistant Commissioner, Forensic Laboratory Services: “With Project Evenhanded, the things we are doing and the services we are providing have been possible thanks to this new model.”

For the FLS's clients – the police investigators who are conducting the investigation – this approach has resulted in some important new services that have helped to ensure that the investigation moves along

“The Forensic Laboratory and the new model they have put into place have made a big difference in how we do our jobs as investigators. Our people in the field know that they can always count on the FLS to provide their level-best in service, analysis and expertise...Operations consider these services as critical front-end adjunct to investigations.”



in a timely manner. First, personnel at the Forensic Laboratory Services Vancouver (FLS-V) have been integrated into the investigation task force. This has helped to ensure that an array of services can be provided quickly to police. In addition, the FLS-V has been provided with extra assistance and resources from other laboratory sites.

With added resources and an efficient team in place, the FLS-V has set up a mini-lab at the crime scene to help the forensic team in its search for evidence. In turn, laboratory personnel have been able to play a major role for clients in processing physical evidence on-site.

From the client's perspective, the FLS's new service-delivery model – demonstrated through Project Evenhanded – has been a major success. According to Tom Stimpson, General Manager, FLS-V: “Thanks to the implementation of this model, the work of the forensic scientists has been applauded by our partners and our clients in this case.”

Among those clients is Assistant Commissioner Gary Bass (Criminal Operations Officer for B.C.). “The Forensic Laboratory and the new model they have put into place have made a big difference in how we do our jobs as investigators,” he says. “Our people in the field know that they can always count on the FLS to provide their level-best in service, analysis and expertise... Operations consider these services as critical front-end adjunct to investigations.”

To date, the forensic team has been successful in managing and processing exceptionally high volumes of exhibits associated with Project Evenhanded. While much work has yet to be completed, this approach has helped make a difference in a very difficult and challenging case.

FLEXIBILITY

Flexibility is a hallmark of the Forensic Laboratory Service's new model of service delivery. For police investigators, it means they can count on the RCMP to provide forensic expertise *anywhere* in Canada from *any* of its delivery sites across the country. The following case illustrates how improved FLS flexibility is an important benefit for its clients.

"It was moved as part of the FLS's *single lab, several sites* approach to delivering services. As a result, eighteen exhibits and examinations were completed within eight days." Samples of biological material were then forwarded to FLS-Ottawa for DNA typing analysis, and results were sent back to Halifax in a matter of weeks. "This combined effort," explains Verret, "resulted in the release of results to the investigator well within the assigned 30-day diary date."



In June 2002, the RCMP was called to investigate a homicide involving an elderly woman who had been robbed and murdered in her home. Investigators required the assistance of the Forensic Laboratory to collect and analyze crime-scene evidence. A significant number of exhibits were collected. A few days later, the Case Receipt Unit (CRU) of FLS-Vancouver was contacted. However, at the time, significant casework demands were being placed on FLS-V, due to the ongoing Project Evenhanded investigation.

Thanks to the new model of service delivery – and the ease with which it can reassign cases to balance workload – this challenge was dealt with quickly. It was determined that the CRU at FLS-Halifax was in the best position to become the point-of-contact for investigators. Following case authorization at the Halifax laboratory, a number of exhibits were screened, prioritized, and selected as part of the first submission.

Gary Verret of FLS-Halifax credits the new model for making a difference in the way this case was handled:

Subsequent submissions of eleven exhibits were processed in the same fashion. Service requests for the two additional submissions were concluded in time for the trial. As a result, one of the exhibit submissions – the first in the series – led to a forensically significant association between the suspect and the victim and provided valuable evidence, well before the date of the preliminary inquiry.

CASE LEVELLING

Case levelling is another important dynamic that has been helped greatly by the Forensic Laboratory's new model of service delivery. It ensures that every laboratory site across Canada can count on the support from its counterparts in other regions to lend a hand when required – sometimes leading to some unexpected discoveries.

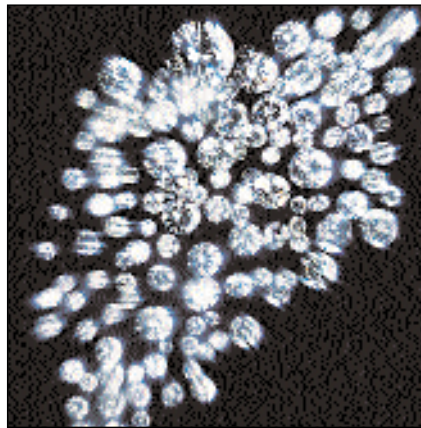
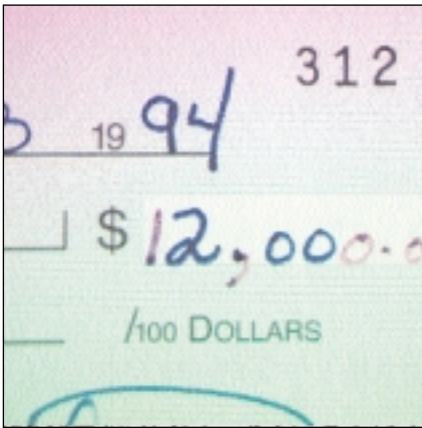
Consider the following case-in-point.

In September 2001, FLS-Vancouver was called to assist with an investigation of a double attempted murder

in B.C.'s Lower Mainland. It involved two suspects who were released by the RCMP after questioning because initially the police did not have enough evidence to keep them in custody. While investigators wanted to treat the case as urgent, staff in Vancouver realized that, given their existing caseload, the turn-around time would take at least three or four weeks.

The case was forwarded to FLS-Regina, where it was handled by Karl Hummel (Biology). "An extensive

result of the issuance of two DNA warrants, known samples were also collected and submitted for comparison. Further examinations were completed on a second submission of ten more exhibits, including a Ruger firearm, a detachable box magazine, along with the DNA warrant of known samples. Also sent were the consensual known samples from three individuals who had found this same Ruger by a dumpster and then had accidentally discharged it, resulting in a shooting of one of the three individuals. Additional



list of over 61 exhibits was faxed to us" explains Hummel. "It was determined that a shortlist of a dozen exhibits would be examined by Biology, consisting of nine articles of clothing from both of the suspects, a swab of blood taken from the scene and two known samples from the complainants."

All of the exhibits were examined immediately upon receipt and were submitted to the FLS-Regina for DNA analysis. Meanwhile, work began by the Regina Firearms Section on examining gunshot residue from the clothing worn by the suspects.

Biology lab personnel prepared a forensic report within five days based on the DNA analyses/comparisons. It showed an association among the two complainants and the two suspects. Shortly thereafter, the suspects were arrested and detained on two counts of attempted murder.

But that wasn't all the forensic laboratory personnel were able to offer.

Extracted from the clothing sent to Regina was the profile of an unknown male. This was entered into the National DNA Data Bank Crime Scene Index. As a

firearms/ballistics examinations were also conducted immediately by the Regina Laboratory Firearms Identification Section and it was determined that the fired bullets and expended cartridge cases were fired from the Ruger handgun.

Further DNA associations were made between the handgun (detachable box magazine), the bullets, and the cartridges – all of which helped corroborate witness statements in the double-attempted murder case. As a result, a second male DNA profile from the detachable box magazine of the Ruger was entered into the National DNA Data Bank Crime Scene Index, which led to a "forensic to forensic" hit between this case and another Lower Mainland file previously analyzed and entered by the Vancouver lab.

Since all the required DNA warrant samples had been previously collected and profiled, the name of one of the two suspects could then be associated with the other previously unsolved file.

Service Pledge

COMMITTED TO SAFE HOMES AND SAFE COMMUNITIES

The **RCMP Forensic Laboratory**, as a component of National Police Services, is dedicated to ensuring client satisfaction by:

Responding to your request for service by a trained Case Coordinator to determine the most appropriate exhibit(s) to be examined, the analyses which could prove to be optimal and a service location where the most expedient service can be rendered.

For your convenience, we have a toll free number 1-866-NPS-LABS which can be accessed 24 hours a day.

Negotiating an acceptable date by which you can expect a result in writing. In the event of unforeseen delay, that despite our best efforts we cannot resolve, we will immediately make contact to inform you and determine an arrangement acceptable to you to deal with the delay.

Maintaining our operations so that they continue to be accredited by the Standards Council of Canada. In that way we maintain our professional standing and ensure we discharge our responsibilities in a manner that will bring credit to our agency, our profession and the judicial system.

Acknowledging receipt of complaints received immediately and providing a written response within five business days. Explain clearly to you what additional steps you may take, if in your view, your complaint is still not resolved. We will continually determine your degree of satisfaction with our work by constantly monitoring your comments expressed through our Quality of Service Questionnaires.

Conducting research and development to ensure that we provide our clients with the latest in technology and expertise pertaining to forensic science. If a technology is not offered by us, we will assist you in finding someone who does.

We invite comments on our operations and always welcome suggestions for improving them.

Please contact us by telephone at 1-866-NPS-LABS

