

October 2005

CATSA Deployment of X-Ray Tutor & Threat Image Projection System

The Canadian Air Transport Security Authority (CATSA) is in the process of deploying two new training programs, X-Ray Tutor (XRT) and the Threat Image Projection System (TIPS) at all 89 airports in CATSA's jurisdiction in the coming months. This is part of CATSA's on-going efforts to enhance screening and the security of air transportation in Canada.

Operation trials of both XRT and TIPS were held in Halifax and Kingston beginning in October of last year. The success of these two trials has resulted in a decision to deploy nationally. Deployment began in Toronto and Vancouver in October. The Learning and Performance team has hired and trained dedicated instructors for this purpose, and full deployment is expected to be completed by end of March 2006.

What is X-Ray Tutor?

XRT is a computer-based training program that is designed for a non-operational or classroom environment. The software is designed to help screening officers improve their ability to identify threat objects in passenger baggage. XRT simulates images similar to those displayed on x-ray machines for baggage screening. The XRT program works much the same as a video game in that screening officers progress through several levels of complexity, each offering

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Screening officers in Halifax who participated in the XRT / TIPS trials.

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Message from the President and CEO

Dispelling the Myths about Terrorists

On September 29th, 2005, Marc Sageman, the best selling author of “Understanding Terror Networks” (University of Pennsylvania Press 2004) addressed a CATSA all-staff meeting.

Marc Sageman is a clinical Assistant Professor at the University of Pennsylvania and an independent researcher on terrorism. A former Central Intelligence Agency officer, he spent a year on the Afghan Task Force then went to Islamabad from 1987 to 1989, where he ran the US unilateral programs with the Afghan Mujahedin. Other significant contributions include his testimony before the 9/11 Commission.

After 9/11, Marc Sageman began collecting biographical material on approximately 400 Al Qaeda terrorists to test the validity of the conventional wisdom on terrorism. As a result of his extensive research, Marc Sageman has dispelled several popular myths about terrorists.

One of Marc Sageman’s more interesting observations involved the internet and its impact on terrorism. According to his research, there are over 6,000 jihadi websites that provide a wealth of information that is readily available to terrorists or would-be terrorists. These websites are targeted to a younger audience, who feels marginalized from society. These sites present a sound-bite interpretation of Islam and the information that is posted eliminates the necessity for leaders and/or training. Additionally, the internet is gender neutral thereby encouraging more female participation.

One important lesson that we can draw from Marc Sageman’s research on terror networks is that even though the network is very complex, it is not necessarily intelligently designed. Mr. Sageman highlighted, and I firmly agree, that terrorists are not as sophisticated as we give them credit for. As I have said in the past, we must be prepared and vigilant, but we must live our lives free of fear.

Statistics show that the chances of being in a terrorist attack are 1 in

88,000 as compared to a car accident which is 1 in 228¹. And yet, everyday, we get into our cars because we have taken precautions - there are rules and regulations that we follow when driving a vehicle that make us feel safe and secure. Similarly, we can take precautions and live our lives without living in fear of a terrorist attack.

London Prepared (<http://www.londonprepared.gov.uk/>) is a website that has been developed to ensure that the city is prepared in the event

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Marc Sageman’s Observations

1. Poverty does not create terrorists.
2. Terrorists are well educated, middle class citizens (20% of terrorists have doctoral degrees).
3. For the most part, terrorists are professionals and not unskilled labourers.
4. Most terrorists have strong backgrounds in natural sciences.
5. 73% of terrorists are married and most have children.
6. Very few terrorists have criminal records.
7. There is very little evidence of mental illness and very little evidence of personality disorder in terrorists.
8. A more significant and immediate threat to our country is the increasing radicalization of young Muslims in diaspora communities.
9. Terrorists groups are decentralized and loosely connected.
10. We will see less attacks that resemble the attacks of September 11th in the United States however, we will see an increase in attacks that resemble March 11th in Madrid, Spain when bombs were detonated on busy commuter trains.

¹ Statistics were taken from the following website (<http://www.nsc.org/lrs/statinfo/odds.htm>)

Sharing CATSA's Vision: A Summary Report

Jacques Duchesneau, CATSA's President and CEO kicked off the "Sharing CATSA's Vision" tour at Calgary Airport on August 24th.

Mr. Duchesneau brought together screening officers and presented them with CATSA's mission and vision and reinforced the crucial role they play in ensuring air security. Simultaneously, Mark Duncan, CATSA's Executive Vice-President and COO, delivered the same message to screening officers in Edmonton.

Each session consisted of a presentation by the President and CEO or Executive-Vice President and COO followed by a video, an unveiling of our mission statement and a question and answer period. The session provided screening officers with the opportunity to pose questions and share their concerns in an open and transparent manner directly with the President and CEO and the EVP and COO. While each site focused on a variety of questions and comments, the content was consistent across the country as summarized here.

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Concerns	Action Items/Response
Stability <ul style="list-style-type: none"> • Frequent change in service providers • Federalization of screeners 	<ul style="list-style-type: none"> ✓ Changes were made due to service providers not meeting CATSA's requirements. Current model with service providers is working, U.S. looking at adopting Canadian model. ✓ No plan to federalize screening officers.
Training <ul style="list-style-type: none"> • New threat items • French language • Customer service • X-Ray Tutor and Tips • Consistency of training by trainers (and lack of availability) 	<ul style="list-style-type: none"> ✓ Developing training for new explosives (and other new threats). ✓ Looking into options for French language training (working with service providers to ensure Official Languages obligations are met). ✓ Verbal judo (courses on how to deal with unruly passengers/customers.) ✓ New Supervisory Development Program for Point Leaders and Service Delivery Managers entitled, <i>Enhanced Skills Training Program</i>, developed for the Edmonton International Airport.
Working Conditions <ul style="list-style-type: none"> • Salary • Scheduling • Job security • Occupational Health and Safety • Labor issues • Career development • Oversight • Performance pay • Uniforms 	<ul style="list-style-type: none"> ✓ Provision of stools (chairs) for x-ray operators at PBS. ✓ Looking into exchange programs for screening officers. ✓ Possibility of higher levels of training to encourage career development (dogs, behavioral assessment). ✓ Work closely and establish better relationships with our partners (TC inspectors). ✓ Researching possibility of pride and recognition program for screeners.
Rise in unruly passengers <ul style="list-style-type: none"> • Lack of respect from passengers and non-passengers • Relationship with RCMP and airlines in dealing with unruly passengers (investigation and prosecution) 	<ul style="list-style-type: none"> ✓ CATSA will not accept verbal and physical abuse of screening officers. ✓ Unruly passenger signage will be produced and placed at PBS. ✓ Meetings with stakeholders to discuss unruly passengers and other issues of concern.
Communications <ul style="list-style-type: none"> • Confusion with regulations and procedures • Unclear directives from TC/CATSA/Airports/Airlines (unsure of who's directive to follow) • New threats (not communicated in a timely manner) • Lack of communication between screeners, service providers and CATSA (no direct channels in place) 	<ul style="list-style-type: none"> ✓ Exploring the possibility of an intranet service for screening officers. ✓ Consultation sessions.
Operations <ul style="list-style-type: none"> • New equipment for new threats • Life cycle management of equipment (need to replace equipment that doesn't work properly) • Completion of HBS • Screening of non-passengers and their belongings (i.e. equipment, food services) • Lack of consistency with prohibited items list (why are some objects permitted, who creates/regulates the list) 	<ul style="list-style-type: none"> ✓ Operational issues to be discussed in consultation group sessions. ✓ Development and implementation of new equipment in collaboration with TC. ✓ HBS to be fully deployed by December 31, 2005. ✓ CATSA will continue to be more stringent in regards to the prohibited items list because of proximity to US. ✓ Continue to work with our domestic and international partners to meet international standards.

CATSA Deployment of X-Ray Tutor & Threat Image Projection System

different and increasingly challenging images.

Why do we need XRT?

Consistent use of XRT enables screening officers to identify and familiarize themselves with potential and previously unknown threat objects. It will become part of each screening officer's ongoing professional development.

What training will be required on XRT?

XRT training will be delivered in three phases:

1. An initial, instructor-led, 30-minute training course
2. A one-hour session for hands-on experience and to set the initial baseline test
3. 20 minutes each week to continually work through the levels of complexity

Will all screening officers be required to take the XRT training?

No. Only screening officers certified to level 2 will be trained on XRT.

Where will XRT training take place?

XRT will take place at CATSA training centers and/or designated workstations, depending on the airport.

Who will deliver the training?

CATSA will provide dedicated instructors to deliver XRT training at each airport.

Will XRT be used to evaluate performance of the screening officers?

The purpose of XRT is to improve screening officers' ability to identify



threat objects and identify needs for training program enhancement, and not to evaluate performance.

Will screening officers be required to take a test at the end of the training?

There will not be any formal test following training. The XRT program works like a video game in that it allows a user to move through increasing levels of difficulty. The initial baseline for this progression will be set during the hands-on practical experience that immediately follows the instructor-led training.

What is the Threat Image Projection System?

TIPS is a software program that operates on the x-ray equipment. TIPS software projects fictional images of threat objects (IED, gun, knife) within the x-ray image of a real bag. The screening officer's task, as with real threats, is to detect these threat images when they occur.

Why do we need TIPS?

TIPS enables the screening officer to gain valuable experience as it provides immediate feedback on the accuracy of their response to the threat image. The net result is an increased ability to recognize threat objects quickly.

Testimonial Following TIPS / XRT Trials in Halifax

"The X-Ray Tutor has been a benefit to all screening officers. The continuing increase of awareness in possible threats allows the screening officers to be more attentive to the images seen every day on the x-ray machine. Once the officers have had a chance to try XRT, they are willing to participate in this additional training. Sometimes you can hear the staff get excited when they locate an item that was either missed before or one that was extremely hard to locate. Repetition allows them to become comfortable to responding to emergency procedures. The XRT is an excellent training aid in expanding the screening officers' minds to potential and unknown threats.

Here in Halifax we have been using TIPS program. It allows the screening officers to continually train with live passenger bags on the x-ray machine. As a result to this experience the screening officers have adapted to seeing potential threats and responding to actual threats."

– Steven Joseph, Screening Officer

What training will be required on TIPS?

TIPS training will be an instructor-led tutorial followed by 30 minutes of hands-on practical experience.

Will all screening officers be trained?

No. Only those screening officers certified to level 2 will be trained on TIPS.

How will TIPS training take place?

TIPS training will be delivered using x-ray screening equipment when not in use.

Who will deliver the TIPS training?

CATSA will provide dedicated instructors to deliver TIPS training at each airport.

Will implementing TIPS result in delays for passengers and airlines?

TIPS is not expected to have any adverse effects on the screening process.

Will screening officers be evaluated on their performance using TIPS?

The purpose of the TIPS is to assess and determine future requirements for training and certification purposes, and not to evaluate screening officer performance. ■

Kingston Screening Service Provider Manager Testimonial



Sandra Brash, General Aviation Security

“The screening officers in Kingston have been using XRT for well over a year now. During downtime, officers are required to use the system at least once a day on their shift. The program

has been extremely helpful and many have said that not only are they able to recognize items that they perhaps would not have been familiar with in the past, but also their recognition time of all possible threat items is much quicker. It has made them more comfortable when operating the x-ray as they are more confident in identifying all items. We appreciate the knowledge XRT has given our station and hope to be part of any similar training in the future.” ■

– Sandra Brash,
General Aviation Security

Annual Report

On September 21, 2005, the Honourable Jean-C. Lapierre, Minister of Transport, tabled CATSA's 2005 Annual Report entitled *Anticipating the Unexpected*. The report provides a retrospective of our accomplishments and challenges in fiscal year 2004-05, provides stakeholders and the public with an overview of our operations, corporate organization and performance, and publicly discloses our year-end financial results.

CATSA is proud of its performance over the past year in continuing to protect the flying public from security threats. We have taken further steps to improve our performance through more effective and efficient use of resources, and the implementation of cutting-edge management tools to ensure the alignment of our activities to our objectives. The result is a more resilient organization, better positioned to anticipate and mitigate threats.

We invite you to consult the 2005 Annual Report posted on our website at www.catsa-acsta.gc.ca.



ACI-NA Conference



X-Ray Tutor Demonstrations in CATSA Booth

On September 18-21, 2005, CATSA exhibited at the Airports Council International – North America’s (ACI-NA) 14th Annual Conference and Exhibit in Toronto. This year’s theme was “From vision to reality: improving airport capacity, efficiency and customer service”.

Key speakers at the conference included the Honourable Jean-C. Lapierre, Minister of Transport and CATSA’s Chairman of the Board of Directors, General (Ret’d) Maurice Baril.

General Baril was part of a panel along with Margaret Purdy, Special Advisor to the Deputy Minister of Transport Canada, that examined a wide variety of security issues on the Canadian airport landscape.

The conference exhibition gave CATSA the opportunity to demonstrate its new and improved X-Ray Tutor training program.

“It was very interesting to see how people reacted when they saw how difficult it is to spot a threatening object on an x-ray screen. It just shows how difficult a job that the screening officers have and the need for extensive training to do what they do,” says Mark Duncan, CATSA’s Executive Vice-President and Chief Operating Officer who attended the conference.

A special thanks to Manjari Kashyap, Training Coordinator with Garda at Pearson Airport in Toronto for her assistance with the X-Ray Tutor demonstrations in our booth! ■

Innovation by Ivan Von Huene, Montreal Screening Officer

Inspired by his frustration in passengers, Ivan put his hands to work. “A lot of people don’t even know what some of the most common prohibited items look like,” Ivan told CATSA News.

He wanted to make a tool to help his fellow officers see the objects they were supposed to intercept. Ivan went on a mission to collect samples of prohibited items. And he did it all on his own time. He bought a standard briefcase and carefully glued cork stands inside it. Then he affixed the prohibited items to the cork using epoxy. Ivan placed specially-cut plexiglass over the collection. Hats off to Ivan for his ingenuity and initiative.

His briefcase is used to help train screening officers. CATSA’s President and CEO, Jacques Duchesneau often borrows the portable display case to show journalists.

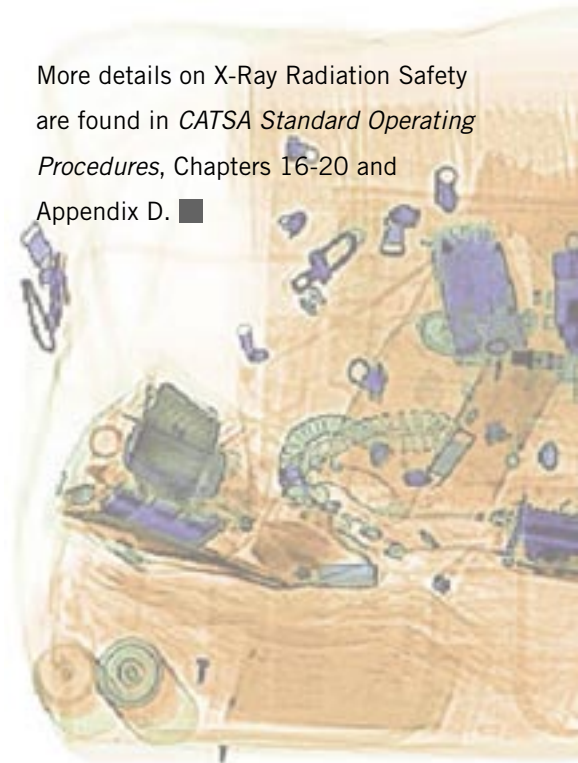


Montreal Screening Officer, Ivan Von Huene

FAQs and Training Tips for Screening Officers: X-Ray Safety

- ▶ All x-ray inspection systems used by CATSA are in **full compliance** with Health Canada safety regulations.
- ▶ X-rays are **only** generated when the red “**X-RAY ON**” indicators light up.
- ▶ **Are you safe while operating the x-ray unit?** Yes – x-ray systems emit very low amounts of radiation. We are exposed to more radiation on a daily basis from our environment, such as the sun.
- ▶ **Is there a need to wear a personal dosimeter while operating the x-ray unit?** No – Health Canada indicates that personal monitors are neither required nor recommended for operators. (*reference Safety Code 29, 4.2.2*)
- ▶ Watch for these **unsafe conditions** at the screening checkpoint
 - ▶ **Liquids** – Like oil and water, liquids and x-ray machines DON'T mix. Ensure that colleagues and passengers do not place water bottles, coffee, juices or other such liquids on top of x-ray units or on conveyor belts;
 - ▶ **Metal objects** – can damage the operation of x-ray units. **NEVER allow coins, keys, or other metal objects to be placed on top of the x-ray unit.** Ensure persons being screened place these objects in the trays provided;
 - ▶ **Lead curtains** – ensure no curtains are missing, check curtains for damage, vertical orientation and cleanliness;
 - ▶ **Conveyor belt** – check the belt for damage, dirt and obstructed items.
 - ▶ **Safety labels and radiation indicators** – ensure they are in place and visible on the x-ray
 - ▶ General :
 - check the x-ray unit for damage on housing panels
 - check the monitor, keyboard and visible cables
 - be aware of damaged rollers or objects that have fallen between the rollers.
- ▶ Do not use the x-ray unit if the **lead curtains or conveyor belt are damaged.**
- ▶ When the x-ray system is in operation, **never**:
 - ▶ **Lift** the lead drapes for any reason
 - ▶ **Expose** any part of the body to the x-ray beam, or
 - ▶ **Cover** the x-ray “ON” lights or x-ray “WARNING” signs
- ▶ Health Canada conducts regular inspections of CATSA x-ray units. These inspectors can shut down your x-ray unit if:
 - ▶ Metal objects are found inside the unit
 - ▶ The lead curtains are torn or missing
- ▶ X-ray inspection units for carry-on baggage will **NOT** damage:
 - ▶ film
 - ▶ magnetic cards
 - ▶ electronic components
 - ▶ medicines, including homeopathic medicines

More details on X-Ray Radiation Safety are found in *CATSA Standard Operating Procedures*, Chapters 16-20 and Appendix D. ■



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Message from the President and CEO

of an emergency. This is an excellent example of a city that is aware of the nature of threat. London has taken considerable steps to prepare for an emergency by engaging and informing the public so they do not live in fear. It empowers the public through emergency preparedness education.

By debunking some of the commonly associated myths about terrorists and providing insightful revelations, Marc Sageman's research on terror networks offers a very realistic portrayal of the threat we are facing today. In order to perform our jobs to the best of our abilities, we must continue to learn and understand the nature of the threat we are facing. ■

Jacques Duchesneau, C.M.
President and Chief Executive Officer



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Sharing the Vision: A Summary Report

CATSA is in the process of following up on feedback and ideas received at the twelve sites visited during the tour and further consultations are underway. CATSA News will continue to dedicate articles to keep you informed of progress. ■

CONTACT CATSA NEWS

Media Inquiries

If you receive an inquiry from the media about CATSA or any security-related matters, please refer them to **1-888-294-2202**.

Feedback

Please provide us with your feedback on this newsletter using our "Contact Us" section on our web site at: www.catsa-acsta.gc.ca



CATSA is dedicated to providing services to the travelling public in both official languages