Fighting Vehicle Fraud
July 30, 2014
Owen McShane
Director of Investigations
NYS DMV
1. NMVTIS

2. NICB VIN Checks

3. OBD VIN Checks
Fighting Vehicle Fraud

Calverton Airport
Used to store 15,000+ vehicles after Hurricane Sandy
An underground garage flooded which resulted in some vehicles floating to the top.
Fighting Vehicle Fraud

Queens, New York After Hurricane Sandy
2011 Hyundai for Sale with Clean Title
Fighting Vehicle Fraud

2013 VW Jetta SE-Clean Title
All airbags deployed & engine seized
“Light Rollover”
NMVTIS

- Utilized for all Title Applications
- We currently process over 40,000 out of state titles per month
- Identifies Salvage, Odometer and prior title state discrepancies
Fighting Vehicle Fraud

Altered NC Title

Good

Altered
Fighting Vehicle Fraud

Altered NJ Title

Good

Altered
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<tr>
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<td><strong>Status:</strong></td>
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<td><strong>Location of Loss:</strong></td>
<td>000001569 - WATERBURY POLICE DEPARTMENT</td>
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<td><strong>Vehicle Info:</strong></td>
<td>1965 FORD MUSTANG</td>
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<td><strong>VIN</strong></td>
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<td><strong>Plate</strong></td>
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Fighting Vehicle Fraud

NICB Checks
## Fighting Vehicle Fraud

### OBD Checks

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<tr>
<th>INSPI_DTE</th>
<th>VEH_YEAR</th>
<th>DMV_VEH_MAKE_CDE</th>
<th>PUBLIC_MODEL_NAME</th>
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<td>128282</td>
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</table>
Fighting Vehicle Fraud

OBD Checks
Questions?
Fighting Fraud 'System'atically In Drive Clean

Ontario Ministry of the Environment & Climate Change
Agenda

• Drive Clean Background Information
• Modernization
• Compliance Program
• Compliance Systems
• Real-Time Triggers
• Post-Test Data and Telephone Audits
• Data Analysis and Compliance Score
Ontario’s Drive Clean Program
At a Glance

- Emissions testing Program
- Decentralized model
  - over 1400 light duty vehicle testing facilities (DCF)
- Biennial testing for renewals
  - 7 year old and older
- All ownership transfers except for current model year
- 2.3 million tests per year
- Implemented and managed through an Alternative Service Delivery model:
  - Equipment deployment/servicing
  - IT infrastructure
  - Auditing
  - Training and Certification
  - Public and Industry call centre
• Heavy duty vehicles are tested throughout the Province

• Light duty vehicles are tested throughout Southern Ontario (Windsor to Quebec corridor)
Modernization

- On January 1, 2013, the Drive Clean emission test was changed to the on-board diagnostic (OBD) test.
- The old dynamometer tailpipe test measured a vehicle’s emissions at a particular speed, load, and moment in time.

- The OBD test is more stringent:
  - Vehicles fail when emissions are 1.5 times above certification standards.
Common Diagnostic Trouble Codes (DTCs) and their causes

- **P0171/P0174**: Too much oxygen in exhaust
- **P0141**: Oxygen Sensor - Heater not heating up properly
- **P0401**: Exhaust Gas Recirculation - has insufficient valve/passage flow
- **P0300/P0301**: Engine misfire possibly due to problems with fuel or the ignition system (spark)
- **P0128**: Coolant temperature is too low (check thermostat)
- **P0420**: Catalytic Converter unable to reduce emissions
- **P0455**: Fuel vapour leak due to loose gas cap, leaking lines or components
Compliance Program

• Goal is to ensure integrity of testing process
  o Vehicles receive appropriate test and repairs as required
  o Drive Clean Facilities adhere to the Standard Operating Procedures

• Challenges
  o 1400 facilities/2.3 million tests/wide geographic area/more difficult test for vehicle owners
    ❑ Over 100 fields of data per OBD test
• Multi-pronged approach:
  o On-line and real-time test and repair triggers that can lead to an immediate video interruption by an auditor
  o Post-test triggers lead to telephone audits based on a risk framework
  o Post-test Data Analysis
  o DCF Compliance History/Score
Real-time Triggers

- Ontario’s Drive Clean system and auditors perform live data analysis to identify anomalies and use data triggers to focus on known indicators of potential fraud
  - Currently have 8 Inspection Triggers and 5 Repair Triggers
  - Auditors have the ability to monitor and review records as they are transmitted
  - Auditors can abort a test that is in progress
  - Auditors can communicate directly with Inspector/RT
Real-time Triggers

- Real time test/repair interruptions
  - A trigger is tripped
  - Auditor is notified
  - Auditor reviews data
Real Time Test Interruption
• The inspector, or repair technician, sees this on the testing equipment screen:
Real Time Test Interruptions

- Auditor compares photo
- Asks pertinent questions
- Decides whether to reject or approve the inspection or repair
- Makes notes
Examples of Real-Time Inspection Triggers:

• OBD Parameters during Retest Mismatch Initial Test Values
• OBD EVIN Mismatches, Including EVIN Found When Not Expected
• Vehicle's Voltage Does Not Change between KOEO and KOER Portions of Test
Examples of Real-Time Repair Triggers:

• Repair not appropriate reason for failure
• Repair Costs are Not in Line with Item Listed for Repair
• Short Time between Fail Result and Entry of Repair Data
• Telephone Audit conducted by a QA/QC auditor following a data review
• Purpose is to identify non-compliance with program requirements
Clean Scan data analysis is carried out to identify fraudulent tests

LDVs with a specific year, make, and model will have the same ‘electronic’ fingerprint

Suspect vehicle’s electronic fingerprint is compared against results from other vehicles in the same family

A general Data review done and an in-depth review done on all “escalations”

Over 100 possible points of data per test
Protocol Id approach

- CAN protocol (ISO15765-4) rolled out in 2003 and vehicles before this model year do not have this protocol
- Vehicles from 2009-2012 showing with protocols other than CAN
- Many other data fields are used. We compare the test data for a given DCF and compare against the test data of other DCFs for the same year, make, and model
Compliance Database in Development

- A database that integrates the results of various compliance activities to identify high risk DCFs.
- It will combine # of real-time inspection triggers, # of real-time repair triggers, # of failed audits and other statistical results to determine a “composite” compliance score or risk rating for DCFs.
- Will allow us to focus compliance efforts and outreach/education opportunities.
Questions

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Manager, Drive Clean Facility Operations
Ministry of the Environment and Climate Change
Glenn.Dunphy@ontario.ca
Fighting Vehicle Fraud
Interprovincial Record Exchange
July 30, 2014
Ontario Ministry of Transportation
To provide an overview of how Ontario uses the Interprovincial Records Exchange (IRE) to:
  • Track vehicle life cycle
  • Fight vehicle fraud
What is IRE?

• A Canada-wide, computerized communications network used for sharing driver and vehicle information

• Implemented in 1989 to assist in validating out-of-province vehicle registration and verification of driver and vehicle records

• System developed and operated by Canadian Council of Motor Transport Administrators (CCMTA)

• Approximately 8M inquiries annually
Why Use IRE?

- Canadian jurisdictions use IRE when processing out-of-province vehicle registrations
- Includes first time vehicle registrations, transfers and status change transactions
- Information provided by IRE is supported by documents presented by the registrant
  – May trigger need for further investigation
What Does IRE Do?

• Performs exploded searches
• Supports driver licence reciprocity
• Provides driver and vehicle closeouts
• Helps to prevent fraud and brand-washing
• Reduces registration of stolen/cloned vehicles
• Tracks lifecycle of vehicle - Cradle to Grave
How Does IRE Work?

• Jurisdiction requesting vehicle information send the query to the target jurisdiction
  – Plate, Vehicle Identification Number (VIN)
• IRE formats request and returns response
• IRE enquiries and responses are received immediately and processed in real time
• IRE check is conducted:
  – Registering used vehicle from another Canadian jurisdiction
  – Confirm eligibility for registration
  – Notify vehicle’s originating jurisdiction that vehicle is now registered in Ontario
  – When a vehicle, that previously moved out-of-province, is returning
• If any information provided by IRE is not supported by documentation or IRE system not available, customer is asked to return
• Approximately 750K inquires and 1M requests from other jurisdictions annually
Out-of-Province

14/07/18 07:39:47 R01-5 * VRS IPRE ENQUIRY DETAIL * X6 3 M2636221 PG#- 001 L

COMMAND  ==> ENTER STATUS CHECKED, OR FAST MODE NEXT ENQ#, ELSE RETURN
REPLY  ==> QC
ENQ#: 0177  JUR: QC  OFF: R01  OP: 5  STAT.USR: BACK ENQ. DT: 07/18 TM: 07:39
ON VIN : JS3TD0D77B4101171  RSP: RSP. DT: 07/18 TM: 07:39
PLATE:  STAT:  JUR: QC  VALTAG:  EXP DT: INDE/F /
VEH. VIN: JS3TD0D77B4101171  STAT: 4 / /  SALV  REG. STAT 0 13/07/30 RE: Y
ODOMETER: 041410 KM  NSCH:  GROSS WT: 000000  TARE WT: 001400
OWNR1: LA COMPAGNIE D’ASSURANCE BELA R INC.
ADD-1: 5400  500
BOUL DES GALERIES
QUEBEC
QC
OWNR2:
ADD-2: DOB: / / CLTP: 0 OWN: 1
DL#: 43864057
CL#: 43864057
JUR: QC  PC: G2K284
COMMT: 027 VEHICULE NON-IMMATRICULE. INSPECTION OBLIGATOIRE AU QUEBEC AVANT.

07/075
Out-of-Country
Vehicle inquiry by plate or Vehicle Identification Number (VIN):
- Provides vehicle ownership information
- Registration information
- Vehicle description
- Vehicle VIN status
• Verifies documentation presented to re-register a vehicle from out-of-province matches information in the previous jurisdiction

• Verifies that vehicles have not been branded as salvage, irreparable or stolen in another jurisdiction

• Close out vehicle:
  – Notifies previous jurisdiction that a vehicle has been re-registered in another jurisdiction
Registrar of Imported Vehicles (RIV)

- RIV enquiry-integral part of vehicle registration
- Accessed through IRE
- Provides vehicle and brand information
- Importers must declare any vehicle being imported that will be:
  - Licenced for operation in a Canadian jurisdiction
  - Used for parts only
- Responses are validated against supporting documents
**Information Sharing**

**IRE Inquiry System**

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<tr>
<td>Address:</td>
<td>HELP DESK/BUREAU D'AIDE: 1-888-848-8240&lt;br&gt;CASE / DOSSIER: J3051234</td>
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<tr>
<td>V. Tag:</td>
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**Comments**

ENTERED: CUSTOMS / EST ENTREAUX DOUANES: 20080328
Cloned Vehicles

Cloning stolen vehicles assumes the identity of similar vehicle

VIN plate + counterfeit documents
Brand-washing is a vehicle branded in one jurisdiction and then the brand was removed in another jurisdiction.
Brand-washing is a vehicle branded in one jurisdiction and then the brand was removed in another jurisdiction.

Post IRE
Questions?