

# 2016 MSCVE Annual Report

**State of Alaska**

Division of Measurement Standards and Commercial Vehicle Enforcement,  
Department of Transportation and Public Facilities

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# Letter from the Director of MSCVE, Daniel V. Smith



August 22, 2017

As the Director of the Department of Transportation and Public Facilities, Division of Measurement Standards and Commercial Vehicle Enforcement (DOT&PF, MSCVE), it is my pleasure to present the 2016 MSCVE Annual Report. In the following pages you will see ways that MSCVE leverages resources and maximizes efforts to support our mission to enhance motoring public safety, protect public infrastructure, and assure marketplace confidence and equitable trade. Our success would not be possible without the outstanding cooperation of our government and industry partners, and the professionalism of Department personnel who are entrusted with the responsibility to promote safety and market confidence on a daily basis. MSCVE consists of two sections: Measurement Standards and Commercial Vehicle Enforcement.

**Measurement Standards** (MS) team members work to ensure a level playing field for the residents and businesses operating in the State of Alaska. Weights and Measures inspectors provide testing and inspection of all weighing and measuring devices used in commerce. Dedicated team members not only enforce statutes and regulations, but provide education to device owners. Measurement inaccuracy can cause financial hardship to residents and businesses alike.

The **Commercial Vehicle Enforcement** (CVE) goal is to reduce the number of commercial motor vehicle related crashes and fatalities in Alaska. A transportation system that is safe, reliable, and efficient provides a foundation for economic prosperity. Cargo carrying commercial motor vehicles (CMVs) deliver everything from food, fuel, and clothing to automobiles and mined ore. Passenger carrying CMVs (motor coaches) provide passenger services throughout the State vital to the tourism industry and the Alaskans' that want to go to work, school, or play. CVE efforts in the coming year include: educational training to carriers and drivers, size and weight enforcement, and removing unsafe cargo and passenger carrying CMVs, and unqualified drivers from the road.

The **Commercial Vehicle Customer Service Center** analyzes routes and conducts load calculations to ensure safe routes that protect State infrastructure when movements require oversize and overweight permits. In an effort to protect State roads and bridges, weight restrictions are used to decrease the deterioration of the transportation system. Future enhancements to the on-line permitting system will allow near real-time permit generation for overweight loads upwards of 125%.

We will continue to focus our efforts to protect public infrastructure, enhance safety of the motoring public, and assure marketplace confidence and equitable trade for all of Alaska. Please explore the MSCVE website and allow us to share our accomplishments and plans for the future.

Drive Safely,

Daniel V. Smith, Director

*"Keep Alaska Moving through service and infrastructure."*

### **Mission Statement**

**"Ensuring Accurate Trade  
Measurements and Enforcing  
Commercial Vehicle Regulations."**

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## Executive Summary

The purpose of this annual report is to provide information and heighten awareness of the efforts of the State of Alaska, Department of Transportation and Public Facilities, Measurement Standards and Commercial Vehicle Enforcement (MSCVE).

In July 1997, the State of Alaska, Department of Transportation and Public Facilities (DOT&PF) became the Lead Agency for commercial motor vehicle safety. It was created by executive order to become the Measurement Standards and Commercial Vehicle Enforcement (MSCVE) Division by combining staff, functions, and responsibilities of groups formerly in the Alaska Departments of Commerce, Public Safety, and Transportation and Public Facilities.

The Division consists of two sections: Measurement Standards (MS) and Commercial Vehicle Enforcement (CVE). MS is responsible for the annual inspection of weighing and measuring devices that are used in any form of commerce and trade. CVE is responsible for commercial motor vehicle safety, size and weight enforcement, and issuing permits, in addition to the enforcement of Federal safety regulations. Information in this report is provided in State, Federal, or calendar year, depending on the Program reporting period.

<u>Year</u>	<u>Period</u>
Federal Fiscal Year 2016 (FY2016)	October 1, 2015 – September 30, 2016
State Fiscal Year 2016 (SFY2016)	July 1, 2015 – June 30, 2016
Calendar Year 2016 (CY2016)	January 1, 2016 – December 31, 2016

## Measurement Standards

Measurement Standards (MS) uses multiple approaches of enforcement and regulatory compliance to ensure accurate trade measurements in the market place. These approaches include:

- Checking prepackaged products and commodities to assure accurate net contents
- Inspection and testing of weighing and measuring equipment used in commerce
- Investigate consumer complaints and work towards willful compliance
- Providing educational outreach to device owners and consumers



There were 18,437 Weights and Measures device inspections conducted during SFY2016, compared to 17,816 inspections conducted in SFY2015. The photograph to the left highlights a retail dispenser in Kotzebue in the winter time. MS tests year round in all weather conditions.

The package testing section inspected a total of 52,315 packages and found 4,057 packages to be out of compliance with regulations which were then placed off-sale. This process helps identify pre-package devices which are inaccurate. Increased testing is extremely effective in meeting our goals of promoting equitable trade.

Inspectors sampled 21,750 retail items to determine pricing accuracy and took enforcement actions on 202 price overcharges to consumers. Consumer complaints relating to price inaccuracies are still among the most frequently received from the public.

## Commercial Vehicle Enforcement

CVE uses multiple avenues to enhance motoring safety and protect State infrastructure. These include:

- Conducting Commercial Motor Vehicle (CMV) safety, size, and weight inspections
- Continuing enforcement and training partnerships with local, State, and Federal law enforcement agencies
- Educating property and passenger carriers that operate in Alaska
- Educating hazardous and non-hazardous materials carriers that operate in Alaska
- Issuing oversize and overweight permits to the motoring public

CVE's two primary activities are to conduct safety inspections and size and weight compliance checks on all vehicles, especially those engaged in commerce, and to ensure proper permitting of all vehicles operating in Alaska. To the right is a properly permitted load, the fuselage of a plane that was purportedly used in the Bay of Pigs Invasion. Commercial vehicle and driver inspections serve to reduce the severity of CMV-related crashes by removing unsafe vehicles and unqualified drivers from the road. A total of 788 unsafe vehicles and 147 unqualified drivers were removed from the road during FY2016. In FY2016, a total of 7,761 inspections were conducted by Commercial Vehicle Enforcement Officers (CVEOs). CVEOs documented 7,900 safety violations, which include: 6,061 vehicle, 1,720 driver, and 119 Hazardous Material (HazMat) safety violations.



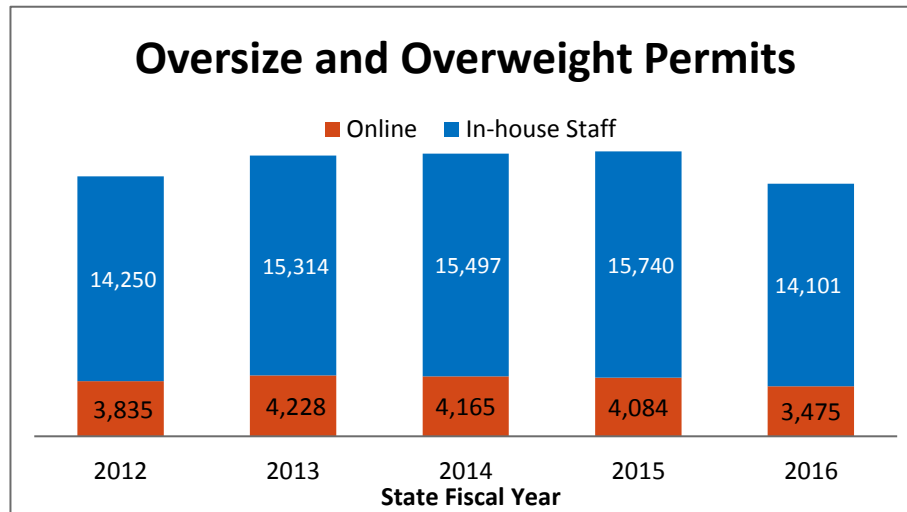
Size and weight compliant motor vehicles help prevent premature deterioration of Alaska's roads and bridges. Inspection efforts focus on maintaining a high level of CMV weight compliance at fixed weigh stations and roadside inspections away from fixed facilities. In FY2016, a total of 59,432 CMVs were weighed for compliance at weigh stations throughout Alaska; an additional 400 vehicles were weighed during roadside weight inspections. There were 937 permit violations discovered, 330 of which received a written citation. The SFY2016 weight compliance rate was 98.4%. Continued size and weight enforcement throughout Alaska is expected to increase weight compliance in FY2017.

The state operated and maintained nine fixed facilities, with the addition of the two Richardson sites, where safety inspections were conducted. The state also maintains nine fixed weight-in-motion (WIM) sites for monitoring traffic flows. Currently the WIM system on the New Seward Highway is not operational. Using the data provided by the WIMs, MSCVE was able to focus efforts in locations of high traffic volumes.

Oversized and overweight vehicles without a permit can be a safety hazard to the motoring public and could possibly damage infrastructure. The Commercial Vehicle Customer Service Center (CVCSC) analyzes routes to process permits that ensure safe routes that protect the State's infrastructure when movements require oversize and overweight permits. The CVCSC produced 17,576 oversize and overweight permits in SFY2016; an additional 10,485 temporary truck/trailer registration permits



were processed. The total number of oversize and overweight permits issued has remained roughly constant between SFY2012 and SFY2016 (see graph below).



From left: Division Director Daniel Smith, Commissioner Marc Luiken, and Permit Team Lead Jennifer Gray.

### Employee Recognition

During CY2016, the officers and staff of MSCVE had an exemplary year. Several individuals and groups were recognized for their excellence during the year. The Anchorage Area Weights and Measures inspectors received the Team Award for their tireless efforts to test devices. The Permit Team Lead, Jennifer Gray (left), was recognized for her five years of service with the State. Sergeant Carlos Rojas, the Fairbanks area CVE supervisor, received the Leadership Award. Lastly, the Department's Spirit of One DOT&PF was awarded to Inga Johnson.

### Financial Position

MSCVE leverages a combination of funding from the State of Alaska and the Federal government. During SFY2016, MSCVE spent approximately \$6,763,200.

- \$4,117,850 – General Funds (UGF and GF/PR)
- \$ 7,650 – Interagency
- \$ 484,400 – Unified Carrier Registration
- \$2,133,200 – Total Grant Funding
- \$ 16,900 – Total State Project Costs
- \$ 3,200 – ICAP Project Costs (IT Infrastructure)

MSCVE relies on State funding to leverage Federal grant funding. Federal funding supports a portion of enforcement personnel, equipment, technology, research, the Mobile Inspection Station, Infra-Red Inspection System, Performance-Based Brake Testers, and the Commercial Vehicle Information System Network.

### **Future Challenges**

Measurement Standards (MS) will need effective management of personnel to meet statutory requirements. Scales, meters, and scanners are required to be tested annually per AS 45.75.080 – General Testing. The anticipated challenges are performing inspections and ensuring compliance on all weighing & measuring devices throughout the State. These inspections ensure accurate trade measurements for wholesalers, retailers, and Alaskans who purchase items based on weight, volume, or measure.

Weights and Measures inspectors operate out of Anchorage, Fairbanks, and Juneau and travel to outlying areas in order to serve the entire state. Inspectors require specialized tools and training to keep up with technological advances in measuring as it relates to device design, applications, and inspections. MS works closely with the National Conference on Weights and Measures (NCWM) to provide a Professional Development Program that encourages employee retention. More recently, MS has worked closely with the states of Washington and Utah to utilize financial training resources from the NCWM Associates Membership and set up centralized training programs in Salt Lake City. Out-of-state travel is required in order to participate in this training.

Marijuana dispensaries are beginning to open around the state. These dispensaries have led to an increase in the importance of MS mission. A rigorous testing program of these scales, as with all measurement devices used in commerce, requires a robust and comprehensive Measurement Standards presence to protect both consumers and the interests of the state. This presence necessitates MS to play an active role in promoting fairness and assisting new business growth.

Commercial Vehicle Enforcement (CVE) is the lead agency for safety inspections and enforcement activities in all areas of the State. CMV safety inspections in urban and rural locations reduce CMV crashes, fatalities, and injuries. There is an expected increase of CMV traffic, as well as permits, throughout the state in the coming years. According to five years of data, 80% of permits are processed by in-house staff as opposed to online.

The Fixing America's Surface Transportation Act, or FAST Act, was signed into law by the President on December 4, 2015. This act funds surface transportation programs through 2020 and further consolidates grants. While this act ensures funding availability, there is still uncertainty surrounding the grant consolidation, which creates challenges when attempting to perform long-term strategic planning. Hiring and retention of effective leadership will be essential in this competitive grant environment.

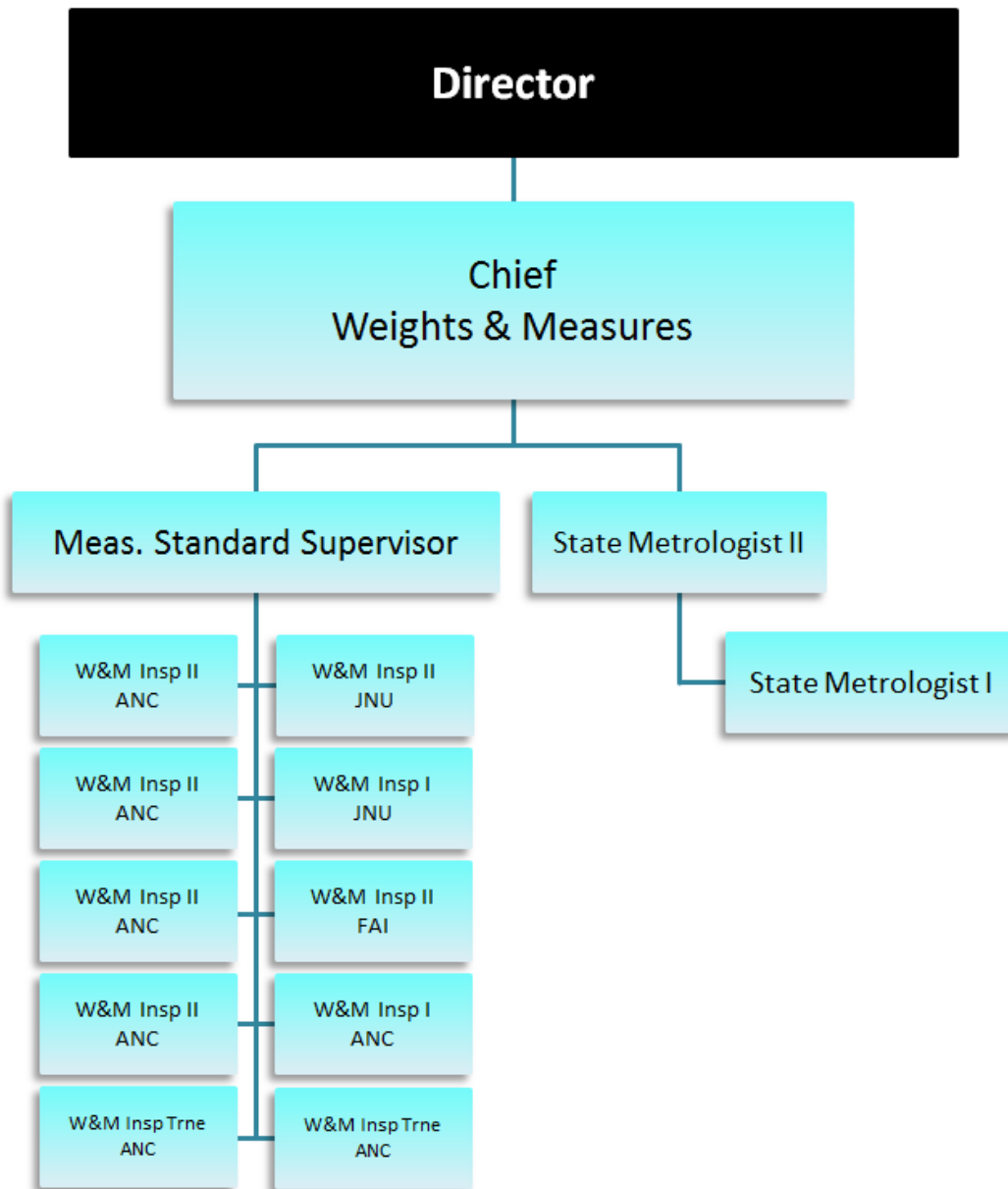
This annual report is distributed to stakeholders, interested parties, and is available for download at:

[www.dot.alaska.gov/mscve](http://www.dot.alaska.gov/mscve)

# Measurement Standards



## Measurement Standards – Section Organizational Chart



As of January 17, 2017



## Measurement Standards – Inspections and Testing



Weights & Measures Inspector Justin Zimin testing a grocery store checkout register scale in Anchorage.

The goal of Measurement Standards (MS) is to assure marketplace confidence and equitable trade with the objective of safeguarding the public and industry in matters involving commercial determinations of quantity. Inspection and testing procedures are designed to ensure the accuracy of all transactions when merchandise is bought or sold by weight, measure, or count, and to eliminate the potential for fraud, carelessness, and misrepresentations during these transactions. For example, an improperly calibrated gasoline retail dispenser could be overcharging customers for fuel.

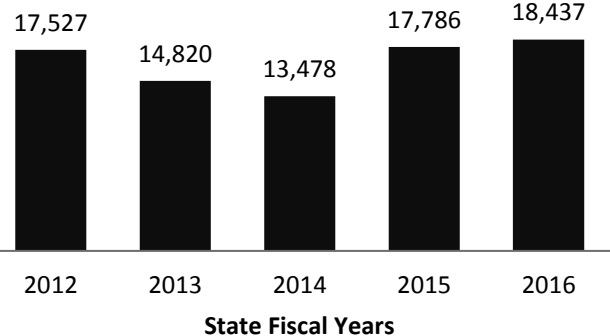
Activities performed in pursuit of this goal include the testing of commercial scales and meters. An example of this can be seen in the image to the left, where an inspector is testing the scale at a grocery store checkout register. Additionally, inspectors perform price verification evaluations and check the accuracy of advertised net content labeling. Emphasis has been placed on testing weight and measurement devices

annually, increasing large fuel meter inspections, and improving inspector productivity.

### Device Inspections

There were 18,437 weights and measures device inspections conducted during SFY2016, a slight increase compared to 17,786 inspections conducted in SFY2015. The increase is due to inspection team members being fully trained. Statewide there are 17,113 active devices, some of which are inspected multiple times to bring them into compliance.

### Alaska Weights and Measures Inspections



### Package Testing Program

The Package Testing Program protects consumers from purchasing weighed products that have less than the amount stated (e.g. a box of king crab legs is labeled 20 pounds. The actual weight is 18 pounds. Assuming the price is \$20 per pound; the consumer was overcharged by \$40). Products that are mislabeled have negative financial impacts on retailers and consumers. For example the image to the left highlights a seafood product that was mislabeled as extra lean ground beef.

The package testing program has improved with the purchase of new tools and staff training which have allowed for higher levels of testing. An evaluation of the national handbooks used to conduct legal product testing was undertaken by our staff and recommendations to adopt the latest versions have been accepted. MS continually monitors changes that might affect regulations.

### **Focus on the Future**

Industry compliance with statute and regulation is directly dependent on the frequency of inspections and the presence of Weights & Measures Inspectors. Frequent testing ensures accurate trade measurements for wholesalers, retailers, and all Alaskans who purchase items based on weight, volume, or measure. MS continues to assist businesses with legal packaging and labeling requirements for products intended to be sold in the national or international market.

MS works to reduce the travel costs of inspections to all communities, including those which are accessible only by air and/or ferry. One example of MS increasing its efficiency and reducing costs is the investment in additional test weights and measures. These are located in specific communities around the State and serve to reduce costs associated with performing inspections. MS works with device owners to conduct weight and measure inspections in support of remote road and airport construction projects.

MS is continually broadening the scope of their inspection capabilities. In CY2016, a liquefied petroleum gas (LPG) prover was purchased by the Division. This prover will allow the Division to verify the accuracy of retail LPG dispensers, primarily propane meters.

The opening of marijuana dispensaries around the state has led to an increase in the importance of MS mission. Currently, marijuana is taxed at \$50 per ounce. In November of 2016, 98 pounds of marijuana was sold in dispensaries, generating \$78,400 in revenue. If the scales used to weigh the marijuana product sold in the month of November were all within tolerance (0.1 gram) but weighing light one scale count, the impact to the State would be \$7,850 dollars lost. There are currently 62 devices being used in dispensaries statewide and it is anticipated that more will come into service in the near future.

This example demonstrates the necessity for a robust MS presence within the marijuana industry. This presence protects consumers as well as the interests of the state. As this industry matures, it will only be more important for MS to play an active role in promoting fairness and assisting new business growth in this difficult economic time.

## Measurement Standards – Metrology Laboratory

Metrology is defined as the science and practice of precision measurement, and is a prerequisite aspect of weights and measures regulation. Although this function is relatively low in profile, the Metrology Laboratory provides the critical link that allows the Division to assure confidence in



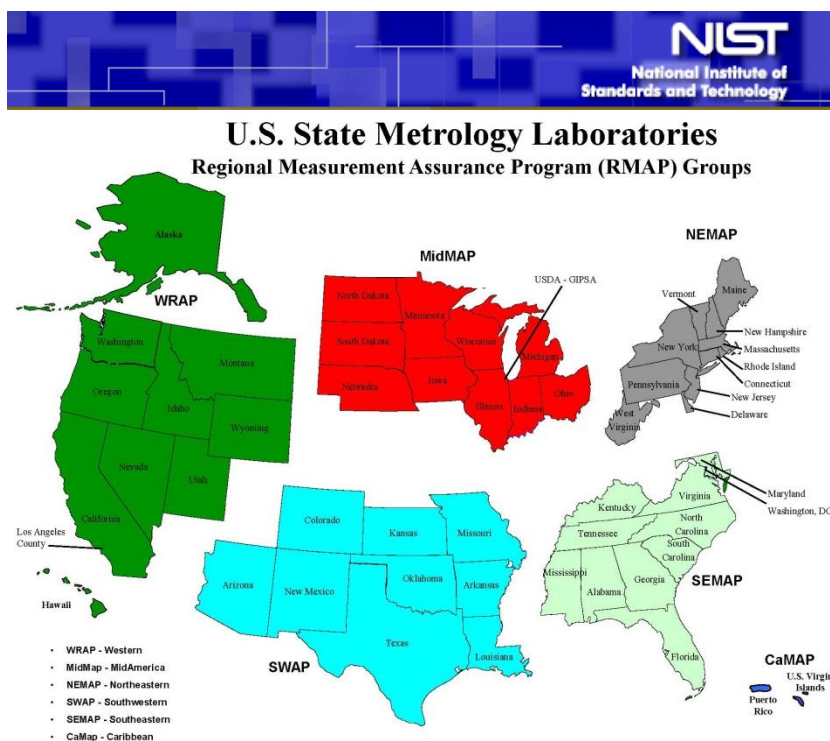
Above: State Metrologist Roger Holland calibrating a five gallon neck type prover using the NIST traceable slicker.

measurements made within the State, particularly in regard to commerce and law enforcement. The Metrology Laboratory provides calibration and certification for the standards used by Weights and Measures Inspectors. This includes mass standards to 1,000 pounds, volumetric provers to 1,000 gallons, speed detection devices, and portable weight enforcement scales. All calibrated equipment is traceable to national standards. In the image to the left a Metrologist is calibrating a test measure with the state five gallon volume standard.

The laboratory provides test results for measuring devices of mass, volume, and frequency. Examples of these devices include calibration of speed detection equipment, portable wheel load weighers, stainless steel and cast iron test weights, and various sizes of volumetric provers. The primary customers of the laboratory are the State Weights and Measures inspectors, but services are also provided to local law enforcement agencies, scale service companies, fuel

distribution, and support organizations, medical service companies, and the military. A person who submits a weighing and measuring device for registration may incur a nominal fee, as set by 17 AAC 90.920. – Device Registration Fees.

The Metrology Laboratory is recognized by the US Department of Commerce, National Institute of Standards and Technology (NIST) through the State Laboratory Measurement Assurance Program. This program is limited to government laboratories that support regulatory weights and measures programs in specific measurement areas. It is through this program that the Metrology Laboratory has established its capability to safe-keep traceable calibrations, supporting the accuracy of its data for legal applications.



The State Metrology Lab is one of eight state laboratories operating under a two-year recognition from NIST during the current recognition cycle (2015-2016) and was recently awarded another two-year recognition for 2017-2018. This accomplishment, combined with the improvements to the lab space, gives us the confidence that our application for accreditation recognition from the National Voluntary Laboratory Accreditation Program (NVLAP) will be approved in 2017. Meeting the standards of this governing body will give Alaska the credentials to be recognized as meeting globally accepted standards of excellence in the calibrations performed by staff.



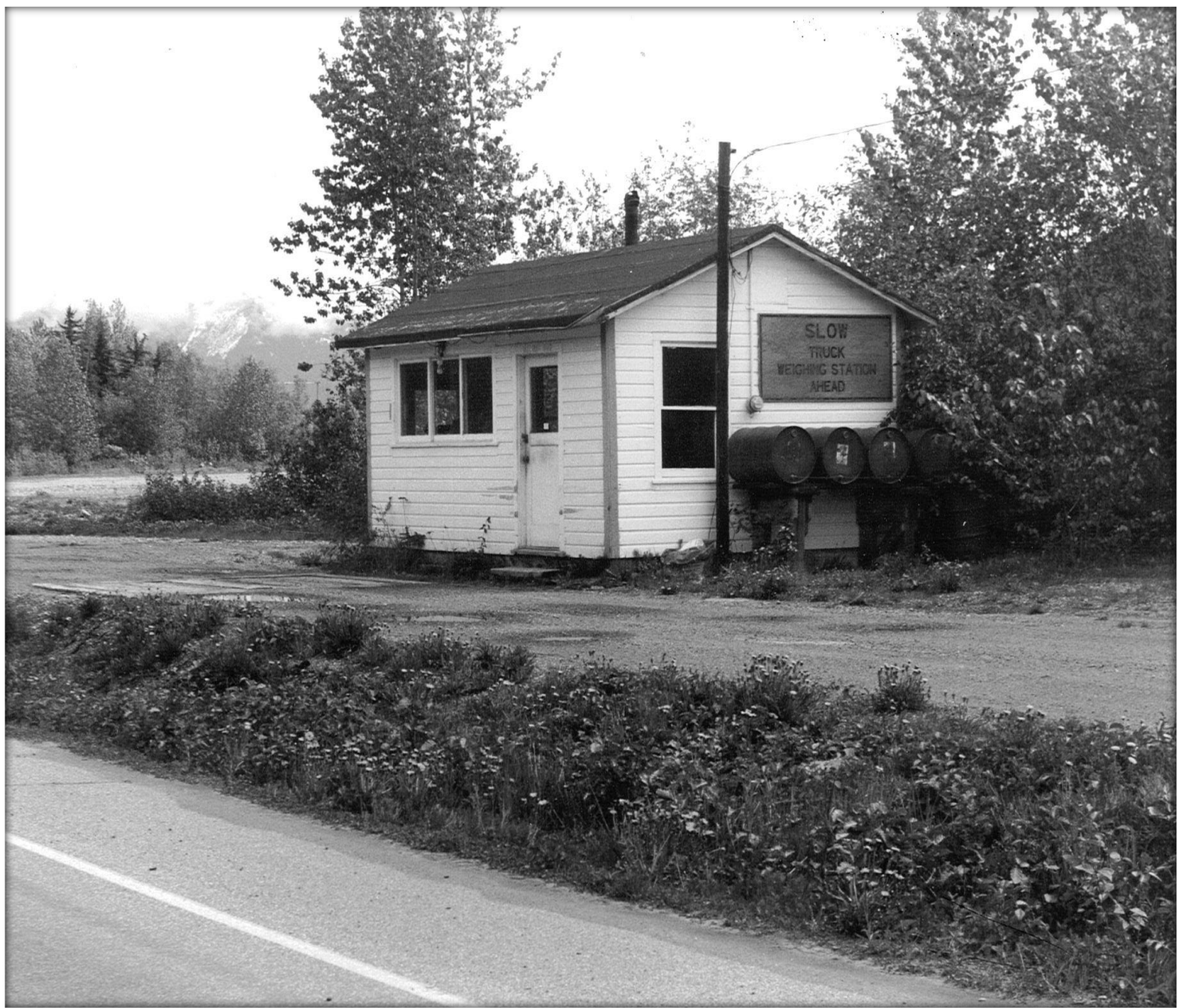
## Measurement Standards – Information and Contacts

The MSCVE web site is designed to be a “One Stop” portal to access information about the Measurement Standards section, get answers to questions and present concerns. On this website, the public can obtain contacts, file a complaint, or register a device for testing.

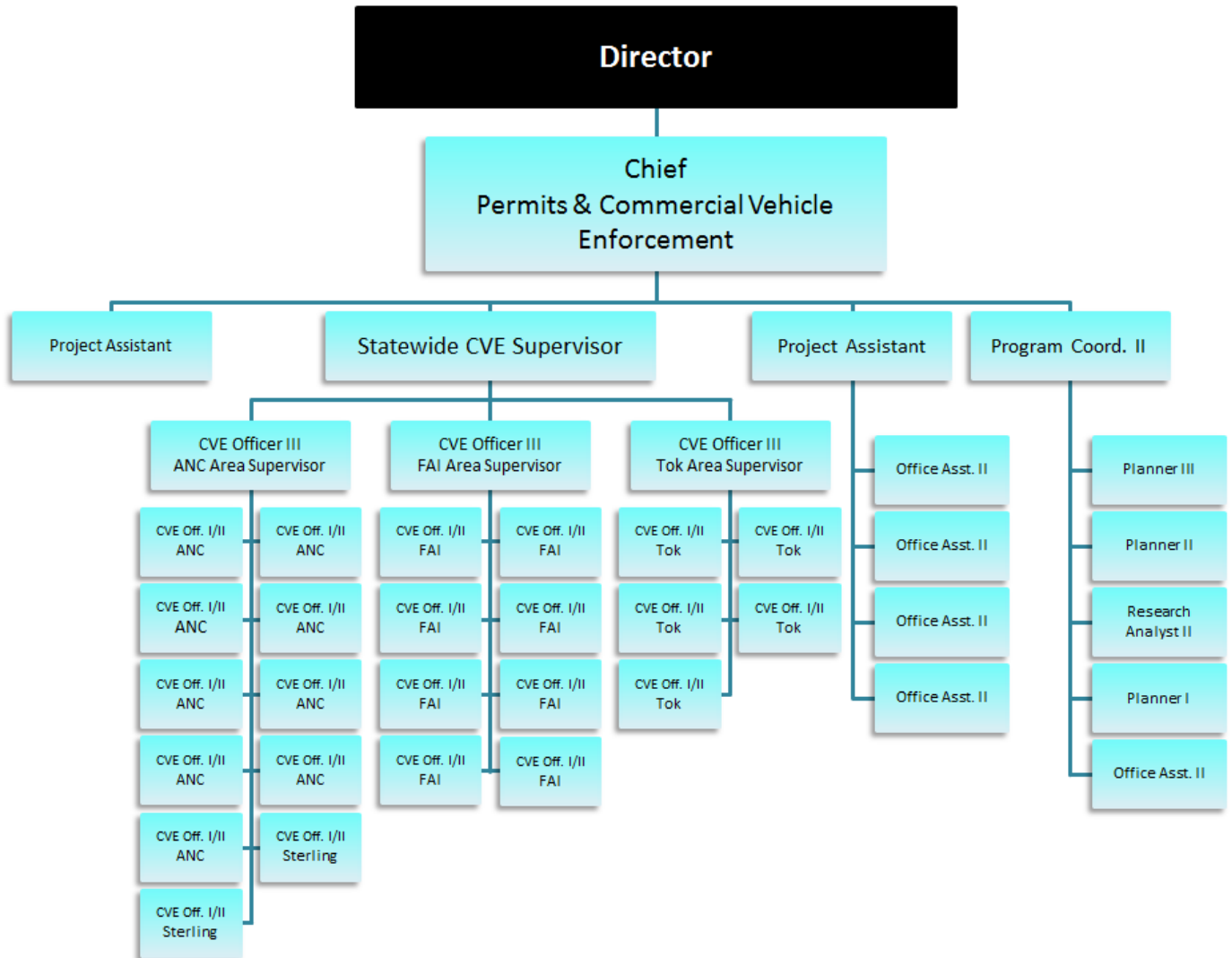
<http://dot.alaska.gov/mscve/index.cfm?go=mscve.wm>

<i>City</i>	<i>Name</i>	<i>Title</i>	<i>Phone</i>	<i>Fax</i>	<i>Email</i>
<b><i>Anchorage</i></b>	Don Brewer	Chief, Weights & Measures	907-365-1222	907-365-2313	donald.brewer@alaska.gov
<b><i>Anchorage</i></b>	Ray Woolfolk	Measurement Standards Supervisor	907-365-1240	907-365-1275	ray.woolfolk@alaska.gov
<b><i>Anchorage</i></b>	Gary Brown	Metrologist II	907-365-1233	907-365-1275	garret.brown@alaska.gov
<b><i>Fairbanks</i></b>	Stephen Pocock	Inspector II	907-451-3134	907-451-2864	stephen.pocock@alaska.gov
<b><i>Juneau</i></b>	Marty Holmberg	Inspector II	907-789-9763	907-789-0069	marty.holmberg@alaska.gov

# Commercial Vehicle Enforcement



## Commercial Vehicle Enforcement – Section Organizational Chart



As of January 17, 2017

## Commercial Vehicle Enforcement – Inspection Program

### History of the CMV Inspection Program

The State of Alaska began participation in the Federal Motor Carrier Safety Assistance Program (MCSAP) in 1988 with a \$25,000 grant. In 1989, the U.S. Department of Transportation (US DOT), Federal Motor Carrier Safety Administration (FMCSA) awarded a \$125,000 grant, and four inspectors were hired in July, 1990. The new inspection program was administered by the Department of Public Safety and consisted of four inspectors, two State troopers, and one clerk. During FY1993, 631 inspections were conducted. With the creation of the Division in 1997, MSCVE became the Lead Agency for commercial motor vehicle (CMV) safety. MSCVE is responsible for the enforcement of CMV safety regulations, including size and weight regulations. During FY2016, a total of 7,761 safety inspections were conducted on CMVs, as seen in the figure to the right.

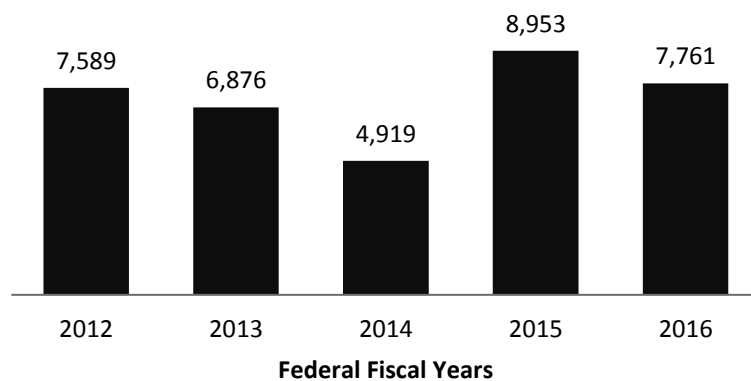
### Activities

MSCVE uses multiple approaches for enforcement and regulation compliance. Inspections are conducted at weigh stations, roadside pull-outs, during traffic stops, and at terminal locations.

Terminal inspections provide additional safety benefits for industry and training for MSCVE personnel. MSCVE

partners with the Alaska State Troopers, and Police Departments throughout Alaska to remove impaired CMV drivers and unsafe vehicles from the highways with ongoing and effective enforcement initiatives. The Division's inspection program supports DOT&PF's Results Based

### Alaska Commercial Motor Vehicle Inspections



Above: A Commercial Vehicle Enforcement Officer testing the brakes on a CMV using the Performance Based Brake Tester (PBBT).

Alignment (RBA) Core and Direct Services through "Vehicle Management," found under "Operate Alaska's Transportation Infrastructure." To ensure maximum operational effectiveness and efficiency, MSCVE has dedicated resources to support the following safety programs (national program elements defined in 49 CFR 350.109):

- Conduct Driver and Vehicle Safety Inspections
- Traffic Enforcement
- Conduct Compliance Reviews
- Educate Carriers and Drivers by Increasing Awareness about CMV Interaction on the Road
- Data Collection

MSCVE is funded through a combination of sources. State of Alaska appropriations, Unified Carrier Registration (UCR) receipts, and Federal government grants constitute 100% of



the funding sources for MSCVEs efforts. Safety programs supported by Federal and State funds include:

#### Border Enforcement Grant (BEG) Program

The BEG program provides financial assistance to a State that shares a land border with another country. BEG funds are utilized to ensure motor carriers operating cargo and passenger carrying CMVs entering the United States from a foreign country are in compliance with commercial vehicle safety standards and regulations, financial responsibility regulations and registration requirements of the United States, and to ensure drivers of those vehicles are qualified and properly licensed to operate a CMV. The BEG program is intended to enhance a State's existing MCSAP initiatives.

#### Commercial Vehicle Information Systems and Networks (CVISN)

CVISN is a key component of MSCVE's effort to improve commercial motor vehicle safety. The CVISN Program supports MSCVE goals by: focusing safety enforcement on high-risk operators, improving efficiency through electronic screening of commercial vehicles, improving commercial vehicle data sharing within states and between states and FMCSA, and reducing State and industry regulatory and administrative costs.

#### Motor Carrier Safety Assistance Program (MCSAP)

MCSAP Basic and Incentive is an international, coordinated, and uniform program of inspections and enforcement activities related to intrastate and interstate commercial vehicles and drivers. This program allows for compliance checks of drivers and vehicles operating on public roadways. Coordinated efforts between State and industry helps reduce fatalities, injuries, property damage, and hazardous material incidents.

#### MCSAP High Priority Grant Program

High Priority grants assist in the development or implementation of national programs for uniform enforcement of Federal and State rules and regulations concerning commercial motor vehicle safety. They are intended to go above and beyond what is included in basic MCSAP. This grant program focuses on reducing crashes, injuries, and fatalities involving Commercial Motor Vehicles (CMV's) by providing CMV enforcement, educational outreach, and the application of new technologies.

#### Performance and Registration Information Systems Management (PRISM) Program

The Performance and Registration Information Systems Management (PRISM) program links Federal Motor Carrier Safety information systems with State commercial vehicle registration and licensing system and enables a State to (1) determine the safety fitness of a motor carrier or registrant when licensing or registering the applicant of a motor carrier or while the license or registration is in effect; and (2) deny, suspend, or revoke, the commercial motor vehicle registrations of a motor carrier or registrant that has been issued an out-of-service order by the Federal Motor Carrier Safety Administration (FMCSA).

#### Safety Data Improvement (SaDIP) Grant Program

The SaDIP grant program provides funding to Alaska for activities to improve the accuracy, timeliness, and completeness of safety data including, but not limited to, cargo and passenger carrying CMV crash data, roadside inspection/enforcement, driver citation, and registration

data. These funds are used to purchase equipment, train law enforcement officers in collecting crash and inspection data, enter crash data, and revise outdated crash report forms.

#### Unified Carrier Registration (UCR)

The Unified Carrier Registration (UCR) program is used to register operators of CMVs who conduct interstate and international commerce. It was created by federal legislation and adopted by states, replacing the former system Single State Registration System (SSRS). Motor carriers, motor private carriers, freight forwarders, leasing companies, and brokers that operate in interstate or international commerce in the United States must register under the UCR program through their participating state.

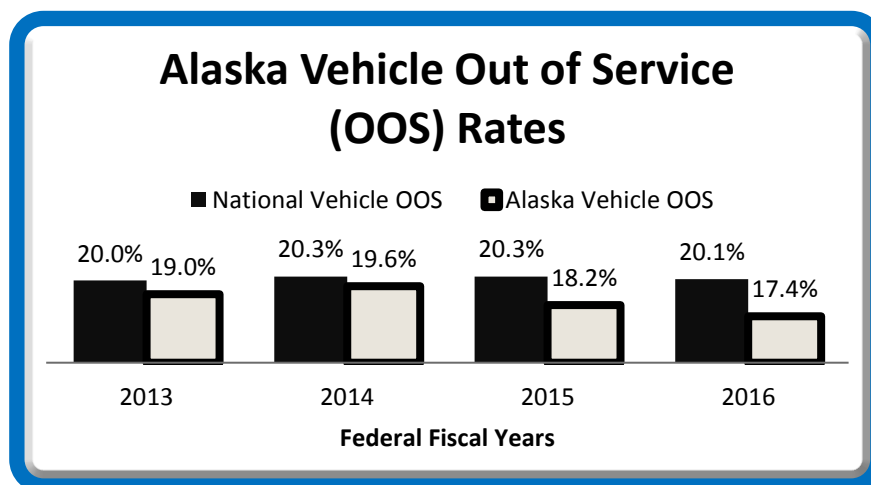
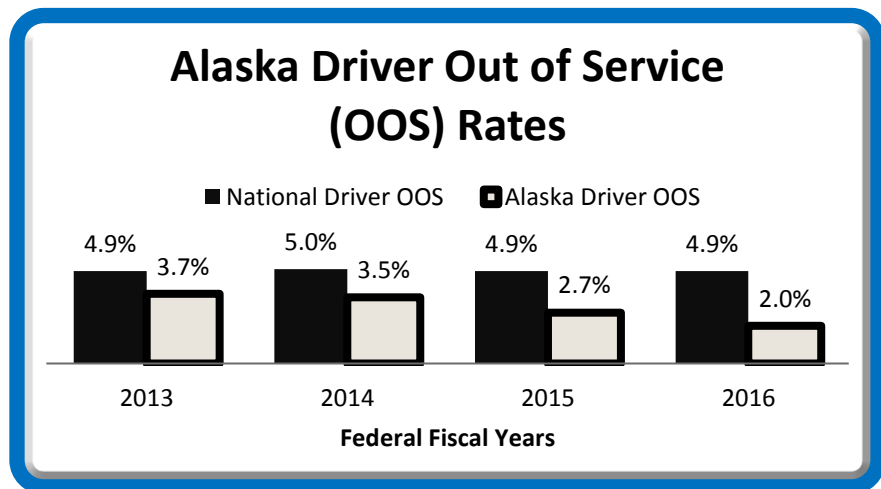
#### **CMV Safety in Alaska (Out of Service Rates)**

One measurement of the overall safety of commercial motor vehicle traffic is the Out of Service (OOS) rate. Consistent enforcement and education can improve carrier and driver behaviors. The safety inspection

program helps drivers and carriers comply with State and Federal safety regulations, thereby reducing driver and vehicle OOS rates.

Removing drivers from the road for unsafe or fatigued driving, and/or controlled substance violations reduces the risk of crashes. Fatalities

in Alaska are relatively rare events, so MSCVE utilizes a combination of the reduction of CMV crashes and OOS rates to measure the safety of CMV traffic.



Through repeated inspections and educational outreach the driver OOS has been reduced from 3.7% in FY2013 to 2.0% in FY2016 as seen on the above figure. In comparison, the vehicle OOS rate decreased from 19.0% in FY2013 to 17.4% in FY2016 as

seen on the previous figure. Alaska consistently remains lower than the national average for driver OOS rates and vehicle OOS rates. The reduction in driver OOS rates and vehicle OOS rates indicates a higher level of compliance.

### Alaska CMV Inspection Program

MSCVE officers are Department of Transportation & Public Facilities employees authorized to enforce permits, size and weight regulations, and commercial vehicle safety. The Alaska Department of Public Safety has issued Special Commissions for all commercial vehicle enforcement officers. As the lead agency for commercial motor vehicle enforcement, MSCVE has the authority to stop, inspect and, if necessary, temporarily issue an out of service order or issue a stop movements order if the CMV or the CMV driver is not in compliance. The Alaska commercial vehicle size, weight, and permit regulations are contained in 17 AAC Chapter 25.

To standardize safety inspections within Alaska, the Commercial Vehicle Safety Alliance (CVSA) North American Standard (NAS) Inspection Levels are utilized.

- Level I (Full Inspection)
- Level II (Walk-Around Vehicle and Driver Inspection)
- Level III (Driver/Credential Inspection)
- Level IV (Special Inspection)
- Level V (Vehicle-Only or Carrier Terminal Inspection)

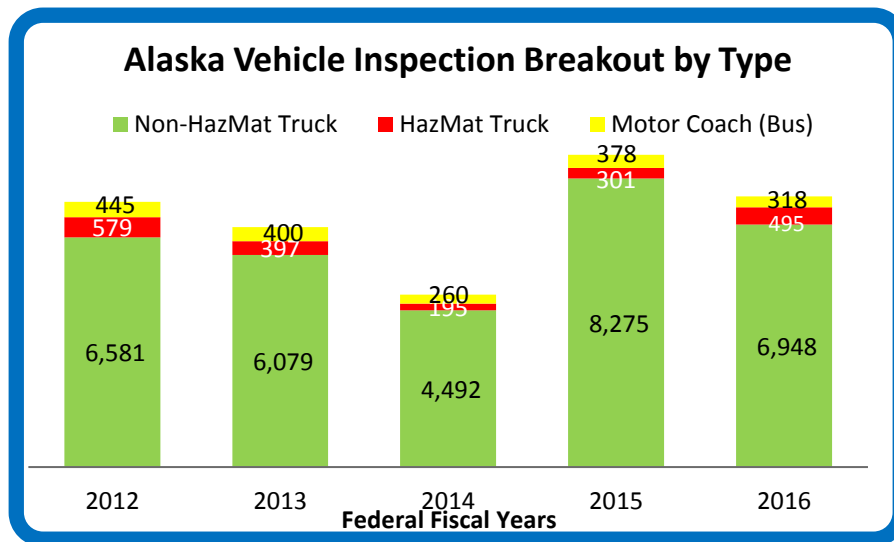
As seen in the following table, during FY2016, a total of 7,761 CMV safety inspections were conducted by CVEOs. The total safety inspections that were conducted during FY2016 are broken down by the inspection level in the table. Based on the five year average, for FY2012 through FY2016, the number of safety inspections completed during FY2016 is above average. However, safety inspections that were conducted at III (Driver Inspection) and IV (Special Inspection) were below the average.

Inspection Level	2012	2013	2014	2015	2016	Five Year Average
I	2,584	1,686	1,437	2,021	2,193	1,984
II	1,703	1,380	785	2,014	2,098	1,596
III	3,091	3,473	2,499	4,688	3,234	3,397
IV	76	104	95	129	20	85
V	151	233	131	101	216	166
<b>Grand Total</b>	<b>7,605</b>	<b>6,876</b>	<b>4,947</b>	<b>8,952</b>	<b>7,761</b>	<b>7,228</b>

The number of motor coach<sup>1</sup> and HazMat inspections increased in FY2016 as seen in the figure on the following page. As a result of statewide enforcement efforts, 784 unsafe cargo carrying CMVs and 4 unsafe passenger carrying CMVs were removed from the road. Through the safety inspector program, MSCVE identified 141 unqualified cargo carrying CMV drivers and six unqualified passenger carrying CMV drivers during FY2016.

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<sup>1</sup> For the purpose of this Annual Report, the terms motor coach and bus have the same meaning. However, it is important to note that MSCVE only has authority to enforce upon tour and charter buses, not transit and school buses.



**Motor Coach** (example)



**Truck** (example)



**HazMat** (example)

### Rural Truck and Motor Coach Enforcement

Mobile inspection statistics have shown the vehicles that do not pass through a weigh station are more likely to have a safety violations, which may lead to out of service conditions. This is also true of cargo and passenger carrying CMVs that operate in rural areas without a weigh station. For the eighth year, MSCVE deployed the Mobile Inspection Station (MIS). The MIS is a mobile CMV inspection station with all the necessary tools to conduct NAS Level I inspections at roadside locations.

The MIS deployed three times in FY2016 to areas around Alaska at safe rural roadside locations. Secure wireless connectivity allows driver license and warrant checks in addition to US DOT carrier authority checks. Rural areas of the State may not have wireless or cellular coverage; therefore, CVEOs are equipped with Alaska Land-based Mobile Radios (ALMR) to conduct a driver license, warrant, and vehicle registration checks. The MIS is also equipped with portable Haenni scales, as seen to the right, to allow checks for weight compliance. Additionally, MSCVE officers conducted high visibility CMV traffic enforcement and inspections on rural roads throughout the State. These deployments were made to the following locations during FY2016: Kodiak (3), Ketchikan/Prince of Wales Island (2), Valdez (3), Nome, and Juneau.



Haenni scales weighing a double axle.



## Border Enforcement

Alaska shares five road border crossings with Canada. Two of these are located in Interior Alaska: at the Alcan Port-of-Entry on the Alaska Highway and Poker Creek on the Top of the World Highway. Two others are located in Southeast Alaska: the Dalton Cache station on the Haines Highway and the

U.S. Border station near Skagway on the South Klondike Highway. The fifth border crossing is located on the Stewart-Hyder Access Road, located in the southeast of Alaska, geographically closer to Seattle, Washington than to Anchorage.

The portion of the Alaska Highway running from the United States/Canada border to the Tok Weigh Station (WS) is the first point of contact. It is also the single most heavily traveled corridor for international commerce into and out of the State of Alaska. Vehicles operating in interstate and international

commerce represent about 89% of the inspections that occurred at the Tok WS in FY2016. Of the total border related enforcement activities 65% of them occurred at the Tok WS in FY2016.

In the State of Alaska, vehicles engaged in international commerce typically operate during the summer season. In FY2016, 12 motor coaches operating in foreign or domestic commerce were inspected. All 12 of those safety inspections occurred during the summer season. Commercial vehicles carrying HazMat and operating in interstate and international commerce are also subject to the inspection program. During FY2016, 60 HazMat inspections occurred as part of border enforcement. These totals for motor coach and HazMat inspections are expressed as a percentage of the 1,116 total border enforcement inspections in the chart above.

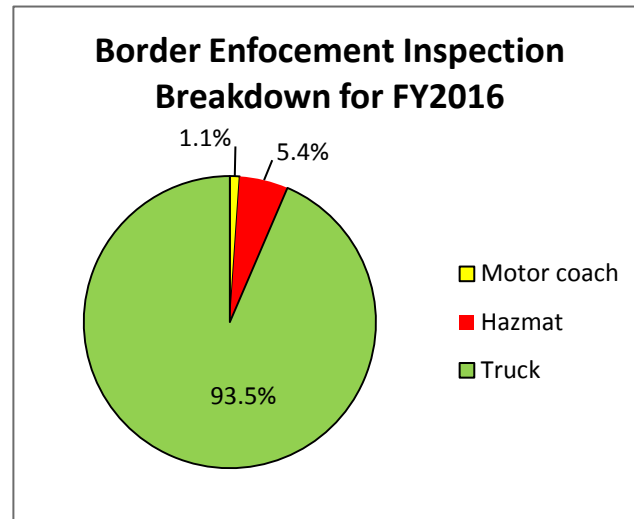
## MSCVE Inspection Tools

Two of the tools used by MSCVE during inspections with the intent of reducing the risk of CMV crashes are: the Infrared Inspection System (IRIS, white van in background) vehicle and the



The PBBT and IRIS van at a roadside inspection station.

Performance-Based Brake Tester (PBBT, foreground). The IRIS vehicle allows CVEOs to thermally scan a CMV to detect bad brakes. The IRIS vehicle is deployed to areas where braking capacity is crucial, for example residential areas, areas of high crash rates, and steep downgrades. The PBBT is a mobile dynamometer, which directly tests the braking capacity of each axle, allowing the CVEO to determine if the vehicle has adequate braking capacity for a given vehicle weight.

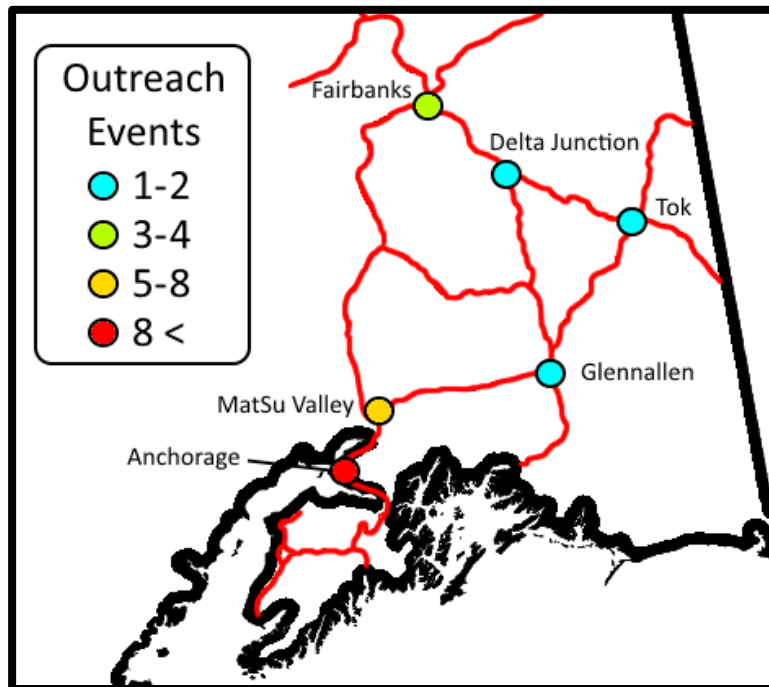
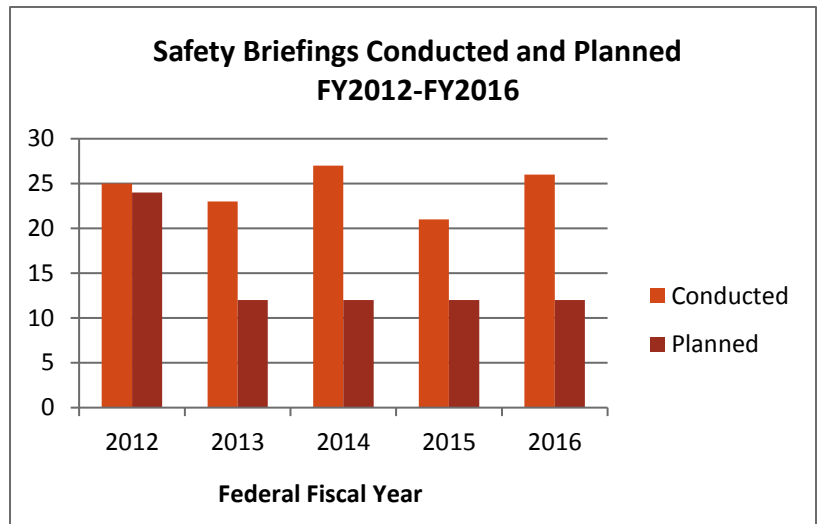


### Educational Outreach and Law Enforcement Partnerships

Outreach efforts improve the CMV awareness of all highway users to minimize the risk of a crash with a CMV, and the resulting injury and/or fatality. The fundamental strategy is to raise safety awareness about sharing the road with CMVs.

MSCVE continues working with stakeholders interested in commercial vehicle safety to develop and deploy new avenues of timely information and effective outreach. In FY2016, there were 26 safety briefings

conducted throughout the state, an increase from the 21 completed in FY2015. The locations of these briefings can be seen in the figure below.



### Future Updates

The Unified Carrier Registration System (URS) is a new streamlined online system that will simplify the Federal Motor Carrier Safety Administration (FMCSA) registration process. As of December 2015, new USDOT Number Applicants must use the new online registration process and all entities with a USDOT, MC, or FF number, or combinations thereof will continue to use existing agency forms and processes to conduct updates, seek additional registration authorities, make administrative filings, and other registration-related transactions. FMCSA is extending the implementation date of the final state of the Unified Registration System (URS) beyond January 14, 2017 because additional time is needed to securely migrate data into a new database and to conduct further compatibility testing with its State partners.

## Commercial Vehicle Enforcement – Size and Weight Compliance

Division inspection efforts continue to focus on maintaining a high level of compliance at weigh stations and improving compliance at roadside inspection sites. Size and weight inspection efforts focus on identifying and correcting non-compliant oversize and overweight vehicles as both have negative impacts on highway safety and public infrastructure, including roads and bridges. The SFY2016 weight compliance was 98.4%, just short of the goal of 99.0%. Continued enforcement and carrier education is expected to increase weight compliance in SFY2017 to 99.0%.

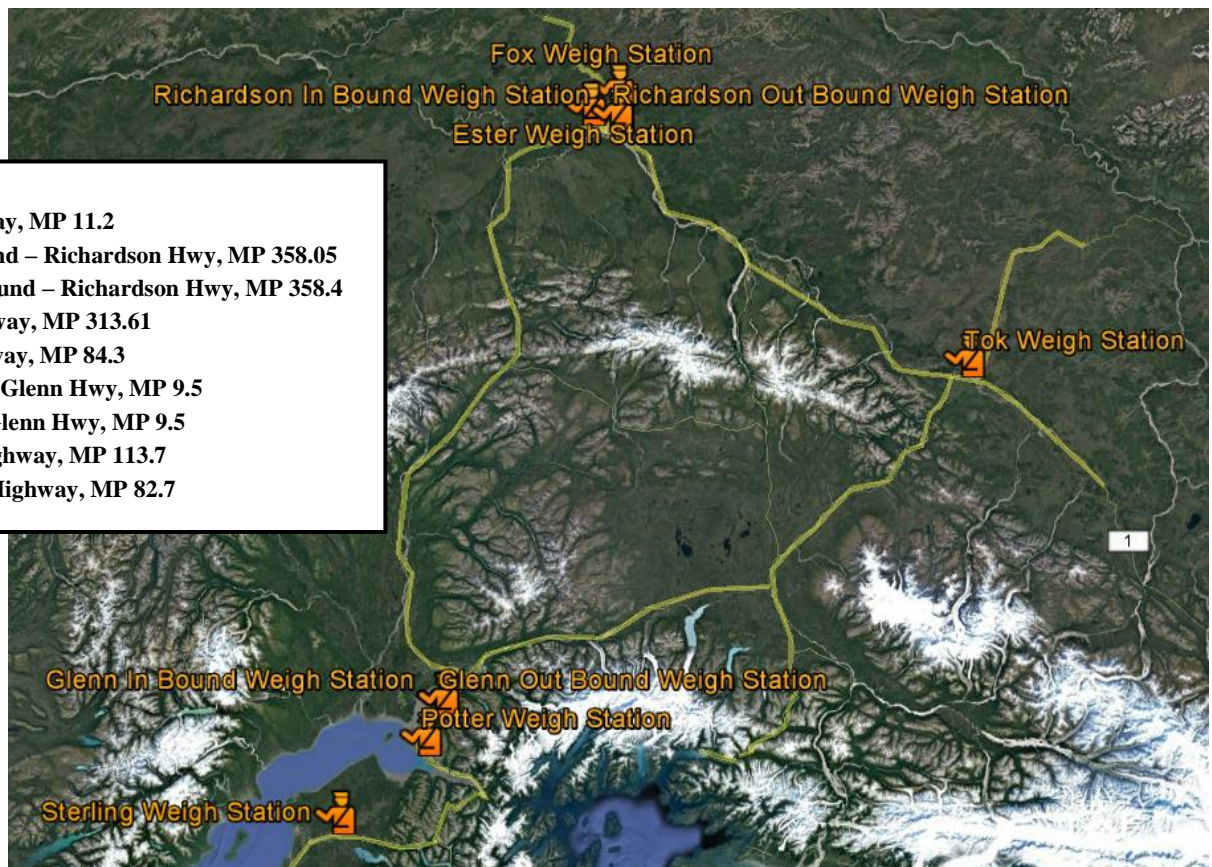
Weigh stations have designated areas for thorough inspection of a commercial motor vehicle and driver credentials. Fixed scales, equipped to measure axle group weight and gross vehicle weight violations, are installed at nine weigh stations statewide. The locations of the fixed weigh stations in the State generally do not allow large commercial vehicles to take alternate routes and bypass the facility. MSCVE has ongoing efforts to identify carriers who bypass an open weigh station.

**Fox Weigh Station.**



### Weigh Stations

- Fox - Steese Highway, MP 11.2
- Richardson In Bound – Richardson Hwy, MP 358.05
- Richardson Out Bound – Richardson Hwy, MP 358.4
- Ester - Parks Highway, MP 313.61
- Tok - Alaska Highway, MP 84.3
- Glenn Out Bound - Glenn Hwy, MP 9.5
- Glenn In Bound - Glenn Hwy, MP 9.5
- Potter - Seward Highway, MP 113.7
- Sterling - Sterling Highway, MP 82.7



As represented in the image above, all Alaska fixed weigh stations are located on the National Highway System. During FY2016, MSCVE weighed 59,432 CMVs at the Weigh Stations listed in the upper left portion of the image.



Two new weigh stations on the Richardson Highway, located southeast of Fairbanks, were completed and opened in June 2016. These weigh stations are the Northbound (In Bound, pictured) and Southbound (Out Bound) Richardson Weigh Stations. The original weigh stations were removed as part of the Badger Road Overpass Construction Project in 2001. These weigh stations will be important to the safety of the motoring public and to protecting infrastructure.



MSCVE continues to employ broad-based size and weight enforcement deployment strategies by evaluating traffic patterns to determine appropriate locations for portable weigh scale operations. Portable weigh scales are used at roadside locations by CVEOs.

### **Commercial Vehicle Information Systems and Networks (CVISN)**


The Commercial Vehicle Information Systems and Networks (CVISN) program helps improve commercial motor vehicle safety by:


- focusing safety enforcement on high-risk operators
- integrating systems to improve the accuracy, integrity, and verifiability of credentials
- improving efficiency through electronic screening of commercial vehicles

CVISN refers to the information systems that support local CVE activities. Systems that support CVE activities consist of the following components:

- **Weigh in Motion (WIM) sites** – A WIM site allows the weight of a vehicle to be screened while maintaining traffic flow. WIM is used to measure approximate axle weights as a vehicle moves across sensors in the pavement, and to determine the gross vehicle weight and classification based on the axle weights and spacing's. These devices provide data that helps MSCVE study the traffic patterns of CMVs for the efficient deployment of enforcement personnel. During FY2016, nearly 1.67 million CMVs (class 5-13 vehicles) crossed over established WIMs within the State.

- Virtual Weigh Station – A Virtual Weigh Station is comprised of additional components in addition to the WIM to allow the weight of a vehicle to be transmitted to a fixed location for screening purposes while maintaining traffic flow. These components include cameras to capture images of commercial vehicles passing over the WIM, and software and hardware to transmit the image and weigh data to either weigh stations or a web location. Currently, virtual weigh stations are at the Port of Anchorage (transponder reader pictured), the Seward Highway (currently offline), the Sterling Highway, and the Glenn Highway. Data from the Glenn Highway WIM, Automated Vehicle Identification (AVI), and Video Identification (VID) are transmitted to the nearby weigh stations for the purpose of prescreening the weight compliance of vehicles.


- Bypass system – This system adds to the Virtual Weigh Station through the use of transponders, provided free of charge in Alaska, which may allow compliant vehicles to pass an open weigh station. A bypass system is active at the Outbound Glenn Highway weigh station (pictured, right). In addition to cost savings to the industry, the reduction in CMV idling emissions reduces the carbon footprint of the weigh station.

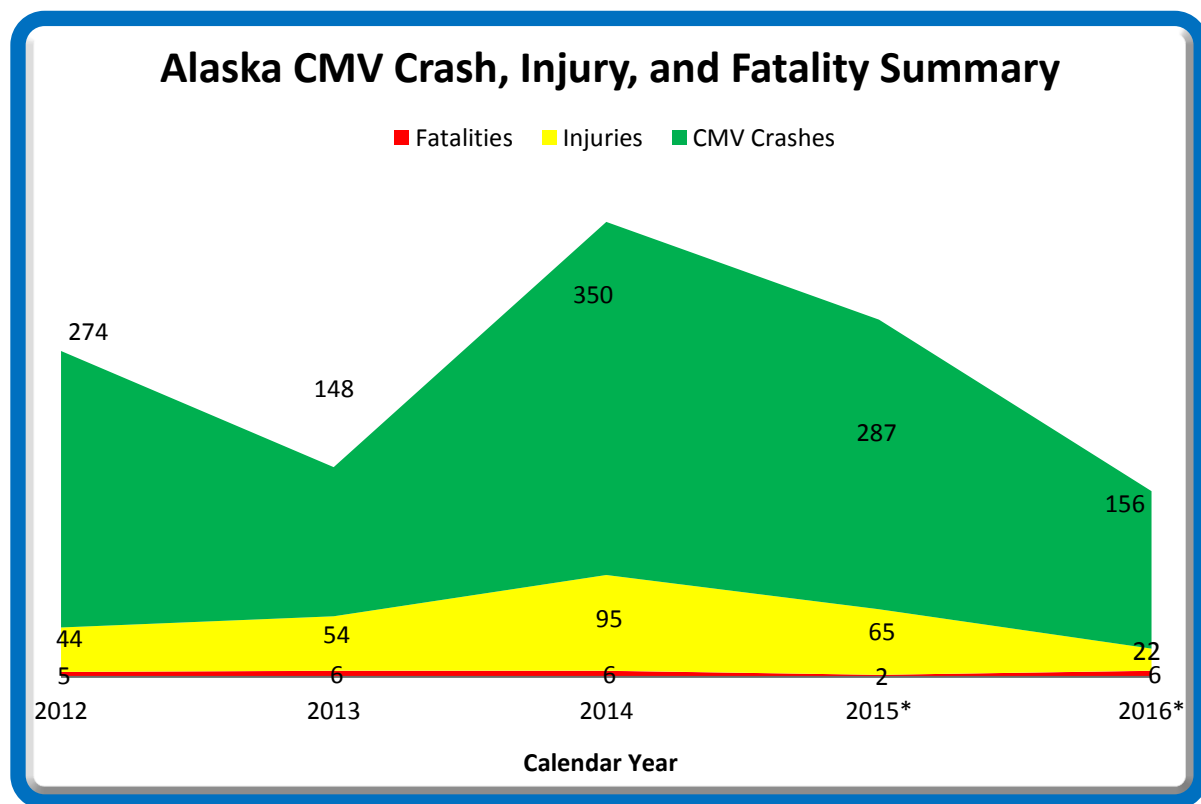


## Commercial Vehicle Enforcement – Crash Reporting

The downward trend in CMV crashes in Alaska mirrors the nationwide trend. Alaska's efforts to reduce crashes and their causes have resulted in a goal consistent with the *FMCSA CMV Fatality Reduction Goal* of 0.114 fatalities per 100M total Vehicle Miles Traveled (VMT). In the FY2016

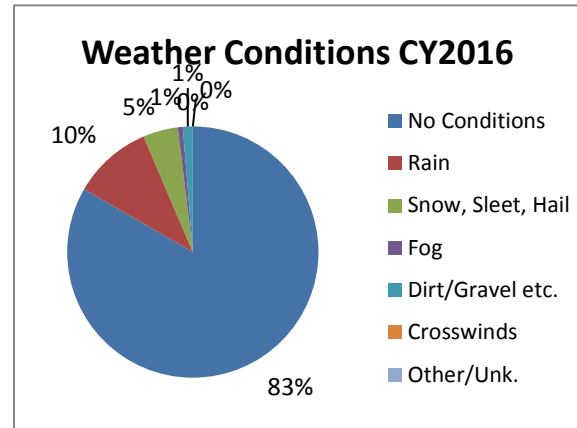
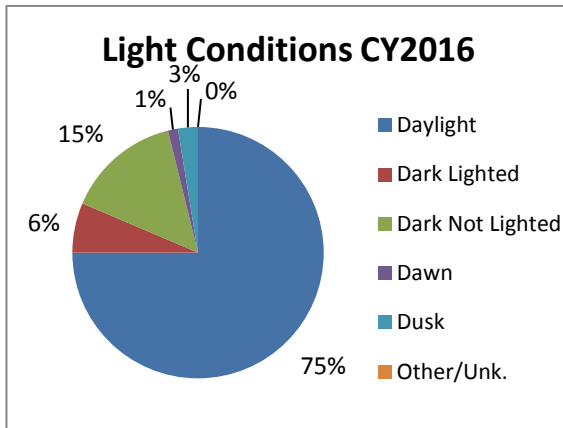


Alaska Commercial Vehicle Safety Plan (CVSP) the goal was to reduce the number of federally reportable CMV-related crashes below the three year average of 106. A federally reportable crash results in: any vehicle being disabled as a result of the crash and requiring a tow; an injury as a result of the crash, requiring immediate transportation for treatment away from the scene; or a fatality. The chart below, displaying the total CMV crashes, injuries, and fatalities, is intended to illustrate the general downward trend. The image on the left was taken along Northern Lights Boulevard, where a delivery CMV jumped the curb and became high-centered on a landscaping rock in August of 2016.



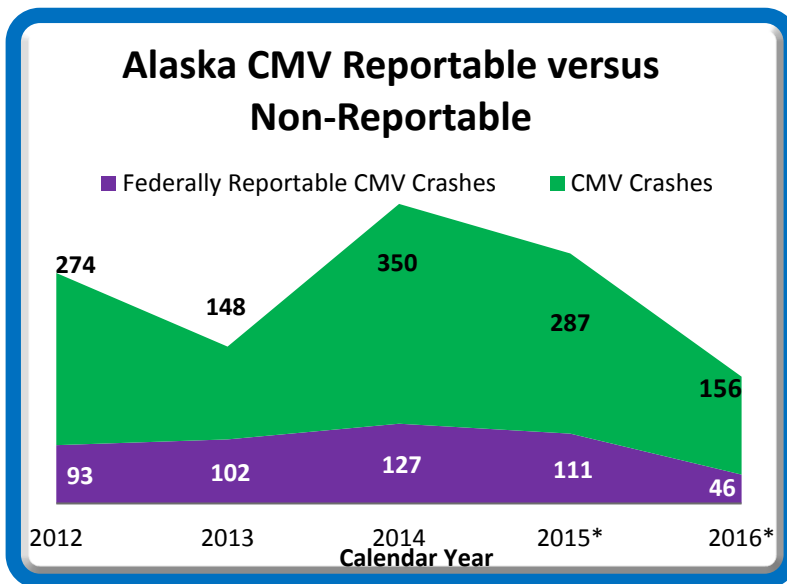
Driver errors, both CMV and non-CMV, are prominent contributing factors in crashes involving a CMV. An example of a factor which is frequently considered a prominent contributing factor in crashes, but is contrary to the data, is environmental factors such as weather conditions and time of day. The figures on the following page highlight how daylight hours and weather conditions are not a contributing factor to the frequency of crashes.

*\*Preliminary data*



Motor coaches are vital modes of transportation for the Alaskan tourism industry and the general public. Unlike large cargo carrying CMVs, motor coaches generally have many passengers on board. In the past five years, approximately 3.3% of CMV crashes in the State have involved a motor coach. Crashes involving motor coach operations are a national focus, and enforcement operations are focused on minimizing crashes related to motor coaches.

As seen on the figure below, in CY2016 there were 156 CMV crashes. Of those 156 crashes, 46 resulted in a federally-reportable crash. These were entered into SAFETYNET, a state utilized federal database, and then uploaded to the Federal Motor Carrier Management Information System (MCMIS). The remaining 110 CMV crashes had minimal, if any, personal property or vehicle damage.



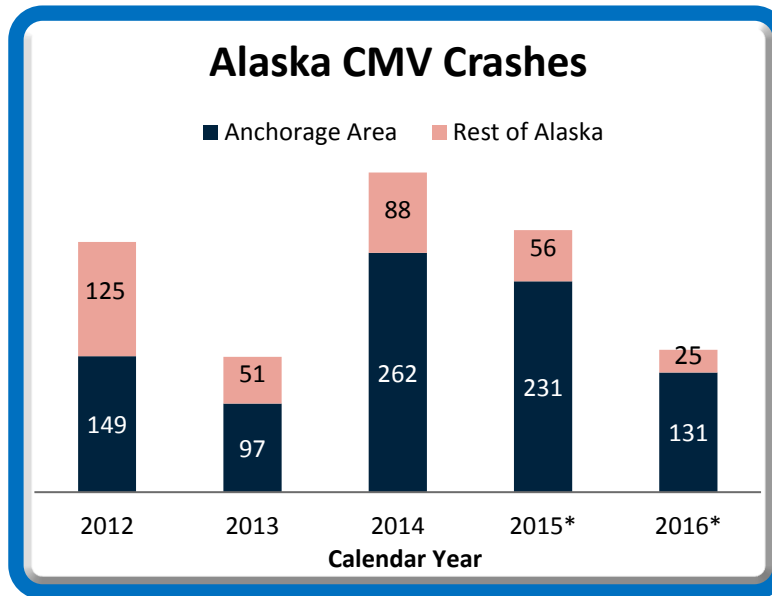
MSCVE is progressing towards acquiring all crash reports through a newly created Crash Data Repository (CDR) and not relying on the mailing and emailing of crash reports. Full implementation of CDR electronic crash-data sharing and mapping is expected in FY2017. Internal mapping of crashes began in late 2016 and is expected to be completed in early 2017.

*\*Preliminary data*

### **Anchorage and Surrounding Area Crash Reduction**

MSCVE's FY2016 CVSP state specific objective was to reduce CMV crashes occurring in Anchorage and its surrounding area. The surrounding area is defined as the area which is bounded by MP 77 Parks Hwy (Willow), MP 62 Glenn Hwy (Sutton), and MP 75 Seward Hwy (Turnagain Pass).

This area houses roughly one-half of the State's population and hosts the majority of CMV traffic moving within and through the region.



Crashes involving CMVs and the resulting deaths, injuries, and damages take a tremendous toll on society. During CY2013-2015, an average of 113 Federally-reportable crashes involving CMVs occurred each year throughout the state. Of these 62.4% occurred in Anchorage and the surrounding area. During FY2013, FY2014, and FY2015 an average of 30.8% of all inspections conducted in the State were performed in this area.

During FY2016, MSCVE's efforts included conducting 2,121 inspections (27.3% of all inspections) in Anchorage and the surrounding area. These inspections resulted in removing 311 unsafe vehicles and 54 unqualified drivers from the road. The out-of-service rates for vehicles (19.9%) and drivers (2.7%) are higher than the statewide out-of-service rates, 17.4% for vehicles and 2.0% for drivers. A comparison of the total crashes occurring in Anchorage and the surrounding area with those occurring in the rest of the state can be seen in the figure above. Of the total crashes, 46 federally reportable crashes occurred in the state and 27 were in Anchorage or the surrounding area (58.7%).

*\*Preliminary data*



## Commercial Vehicle Enforcement – Customer Service Center

The Commercial Vehicle Customer Service Center's (CVCSC) objective is to protect Alaska's highway infrastructure by regulating the transport of oversize and overweight loads. Without a permit detailing specific routes all motor vehicles could damage infrastructure. The image to the right, taken in 2015, shows an example of a vehicle striking a support of a bridge and the resulting major structural damage. The professional staff of the CVCSC can interpret road and bridge restrictions and may issue permits to allow movement of an oversize or overweight load in Alaska. This helps prevent infrastructure damage to both roads and bridges by detailing specific acceptable routes.



A permit for travel on public roads is required for commercial and non-commercial vehicles if a size or weight limit is exceeded.



*For information regarding legal dimensions of loads, contact the CVCSC at the numbers below, or visit the website listed below.*

*(800) 478-7636 or (907) 365-1200*

Website: <http://dot.alaska.gov/mscve/index.cfm?go=mscve.permits>

Roads in Alaska are subject to extreme conditions, including: repeated freeze and thaw cycles, heavy loads, and seasonal use of studded tires. During the spring and summer months, typically March through June, roadway weight restrictions are used in an effort to reduce damage to the road system. This is accomplished by reducing certain allowable axle weights. Weight restrictions notices can be found on MSCVE's Web site at:

<http://dot.alaska.gov/mscve/index.cfm?go=mscve.weightrestrictions>

In SFY2016, the CVCSC issued 17,576 oversize and/or overweight permits. Permits were obtained at the MSCVE office and on-line. Online permits are available for limited over dimensional and overweight loads up to 125%. A permit manual is available to assist in the process. An additional 10,485 temporary truck/trailer registration (TRT) permits were processed. TRT permits were obtained at Tok Port of Entry, Tok DMV, and online at [my.alaska.gov](http://my.alaska.gov).

Staff assists commercial vehicle owners:

- Obtain information for a **FREE** transponder (electronic by-passing of participating weigh stations)
- Update the Federal MCS-150 form for vehicle PRISM registration  
*(At the time of this printing, this service is available at no charge)*
- Process annual Unified Carrier Registration (UCR) payments  
*(At the time of this printing, this service is available at no charge)*

## Commercial Vehicle Enforcement – Information and Contacts

The Commercial Vehicle Enforcement website is designed to be a “One Stop” portal to most questions and concerns.

<http://dot.alaska.gov/mscve/index.cfm?go=mscve.phones>

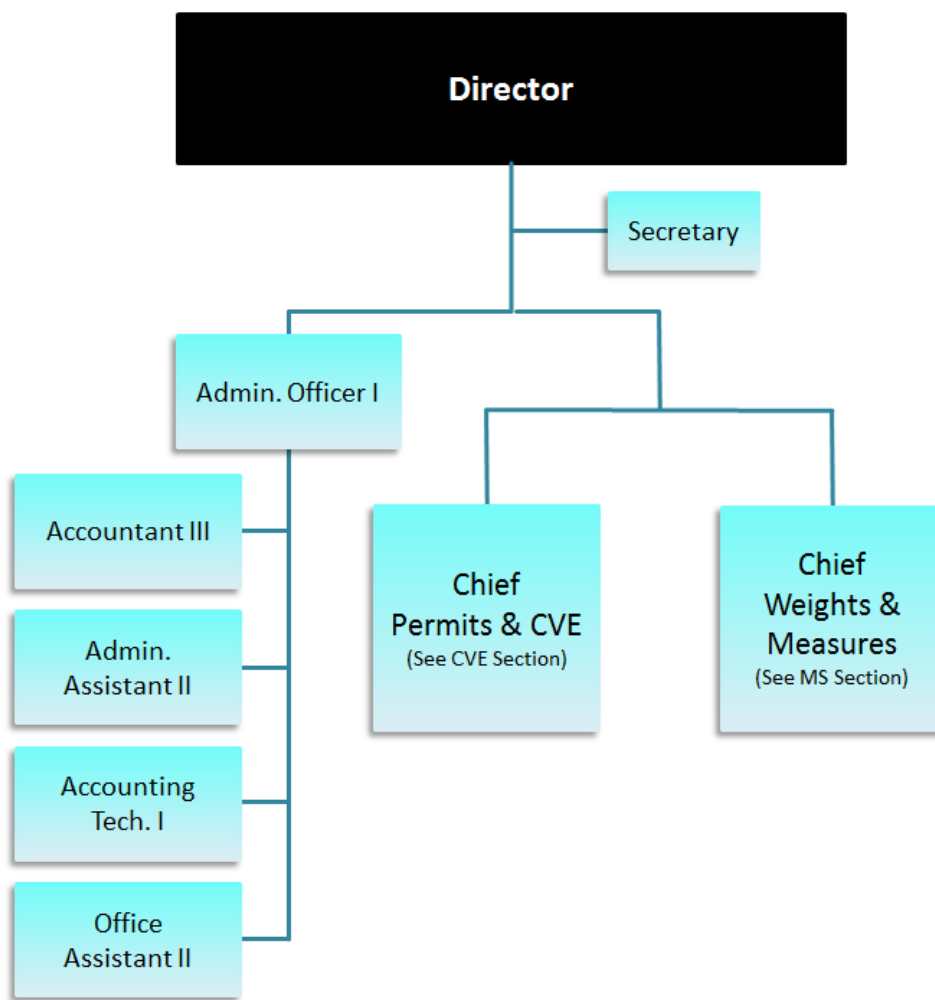
### Commercial Vehicle Enforcement

<i>City</i>	<i>Name</i>	<i>Title</i>	<i>Phone</i>	<i>Fax</i>	<i>Email</i>
<b><i>Anchorage</i></b>	Dan Byrd	Chief, Permits & CVE	907-365-1210	907-365-1220	daniel.byrd@alaska.gov
<b><i>Anchorage</i></b>	Jess Seward	Statewide Supervisor	907-365-1213	907-365-1220	jess.seward@alaska.gov
<b><i>Anchorage</i></b>	Katherine Hensley	Program Coordinator II	907-365-1215	907-365-1220	katherine.hensley@alaska.gov
<b><i>Anchorage</i></b>	Customer Service Center		907-365-1200 800-478-7636	907-365-1221 866-345-2641	dot.dms.permitsfax@alaska.gov

### Weigh Stations - Statewide

<i>City</i>	<i>Name</i>	<i>Title</i>	<i>Phone</i>	<i>Fax</i>	<i>Email</i>
<b><i>Anchorage</i></b>	Lyle Johnson	Anchorage Area Supervisor	907-428-2020	907-428-2199	lyle.johnson@alaska.gov
<b><i>Fairbanks</i></b>	Carlos Rojas	Fairbanks Area Supervisor	907-322-1865	907-451-5498	carlos.rojas@alaska.gov
<b><i>Tok</i></b>	Stephen Brooks	Tok Area Supervisor	907-883-3729	907-883-4318	stephen.brooks@alaska.gov
<b><i>Glenn O/B Weigh Station</i></b>			907-428-1333	907-428-2199	
<b><i>Glenn I/B Weigh Station</i></b>			907-428-2064	907-428-0769	
<b><i>Potter Marsh Weigh Station</i></b>			907-345-1184	907-345-8252	
<b><i>Sterling Weigh Station</i></b>			907-262-5400	907-262-4903	
<b><i>Ester Weigh Station</i></b>			907-479-5087	907-474-4248	
<b><i>Fox Weigh Station</i></b>			907-457-8505	907-457-5610	
<b><i>Richardson O/B Weigh Station</i></b>			907-451-1694		
<b><i>Richardson I/B Weigh Station</i></b>			907-451-5460		
<b><i>Tok Weigh Station</i></b>			907-883-4591	907-883-4318	

## Appendix A – Top Level Organizational Chart



As of January 17, 2017

### Statutory and Regulatory Authority

AS 45.75 Weights and Measures Act

AS 19.10.060 Size, Weight, and Load Provisions; Restriction On Use of Highways; Commercial Vehicle Inspection Program

AS 19.10.300 Financial Responsibility (Commercial Motor Vehicle)

AS 19.10.310 Commercial Motor Vehicle Safety Inspections

17 AAC 25 Truck Size, Weight and Safety Regulations

17 AAC 28 Buses

17 AAC 90 Specifications, Tolerances, and Regulations for Weighing and Measuring Devices

## Appendix B – Summary of Major Accomplishments in 2016

### Measurement Standards (SFY2016)

Packages	
<b>Number Inspected</b>	52,315 packages
<b>% placed off-sale</b>	8.1%
Inspections	
<b>Device Inspections</b>	18,437 inspections

- The State Metrology Laboratory has been operating under a two-year recognition from NIST for the 2015-2016 calendar years, which recognizes it as a top metrology lab on a national scale. It has also been approved for another two-year recognition for 2017-2018.

### Commercial Vehicle Enforcement (FY2016)

Safety Inspections	
<b>Total Number Inspected</b>	7,761 inspections
<b>Motor coach (Bus) Inspected</b>	318 inspections
<b>HazMat Inspected</b>	495 inspections
<b>Unsafe Vehicles Removed</b>	788 vehicles placed out-of-service
<b>Unsafe Drivers Removed</b>	147 drivers placed out-of-service
Safety Violations	
<b>Total Safety Violations</b>	7,900 safety violations
<b>Vehicle-related</b>	6,061 safety violations
<b>Driver-related</b>	1,720 safety violations
<b>HazMat-related</b>	119 safety violations
Size & Weight	
<b>% of weight compliance</b>	98.4% (SFY2016)
<b>Weigh Station Counts</b>	59,432 vehicles
<b>Weigh-in-Motion Counts</b>	1,669,359 vehicles
<b>Portable Scales</b>	400 vehicles

- The Mobile Inspection Station (MIS) was deployed three times in FY2016.

### Commercial Vehicle Customer Service Center (SFY2016)

Permits	
<b>Total Permits</b>	17,576 permits
<b>TRT</b>	10,485 permits

## MSCVE Contact Information

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**Department of Transportation and Public Facilities,**  
 Division of Measurement Standards and Commercial Vehicle Enforcement  
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Website: [www.dot.alaska.gov/mscve](http://www.dot.alaska.gov/mscve)



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