

Technology and Safety

NYC Fleet

NHTSA Pedestrian Coordinators Meeting

Keith T. Kerman

NYC Chief Fleet Officer

Deputy Commissioner, DCAS

May 18, 2023

NYC Fleet




Electrifying the Fleet

electrek Exclusives Autos Alt. Transport Autonomy Energy Tesla Shop

SEPTEMBER 26

NYC surpasses 4,050 city-owned electric vehicles, meeting its target 3 years ahead of schedule

Peter Johnson · Sep 26th 2022 10:36 am PT



19 Comments Facebook Twitter Pinterest LinkedIn Reddit

New York City hit a massive milestone as the city announced it has already met its 2025 goal of 4,000 electric vehicles in its fleet. As of September 2022, NYC had replaced around 4,050 gas-powered models with zero-emission electric vehicles.

NYC aims to be the nation's most sustainable fleet

Vision Zero Safe Fleet Transition Plan

Truck Sideguards for Vision Zero

Review and technical recommendations for Safe Fleet Transition Plan pilot deployment

Alexander K Epstein, Ph.D., Sean Peirce, Andrew Breck, Coralie Cooper, and Eran Segev



December 2014
DOT-VNTSC-DCAS-14-01

Prepared for:
Department of Citywide Administrative Services
City of New York



U.S. Department of Transportation
John A. Volpe National Transportation Systems Center



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Launching the Safe Fleet Transition Plan

Technology and Process Recommendations

Margo Dawes and Alexander K Epstein, Ph.D.



May 2017
DOT-VNTSC-DCAS-17-01

Prepared for:
Department of Citywide Administrative Services
City of New York



U.S. Department of Transportation
John A. Volpe National Transportation Systems Center



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Safe Fleet Transition Plan Update 2018 - 2019

Best Practice Technologies and Processes

Alexander K Epstein, Ph.D. and Rebecca Kiriazes



NYC DCAS
Citywide Administrative Services
November 2018

DOT-VNTSC-DCAS-18-01
Prepared for:
Department of Citywide Administrative Services
City of New York

U.S. Department of Transportation
John A. Volpe National Transportation Systems Center



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Safe Fleet Transition Plan: Private Vehicle Crashes and Vehicle Safety Technology

Preliminary Report: Expanding the NYC Safe Fleet Transition Plan to Trade Waste Industry and Private Truck Fleets

Alexander K Epstein, Ph.D., Michael Chang, Lucy Liu, and Rahi Patel



December 2021

Prepared for:
Business Integrity Commission and Department of Citywide Administrative Services
City of New York



[HERE](#)

Changing Design: School Buses

K-12 EDUCATION

NYC Officials Seek Tech Solution to Speeding Bus Drivers

The Department of Citywide Administrative Services is launching a study to re-think school bus safety and design features, including technology to reduce speeding and automatically apply brakes during reckless movement.

Changing Vehicle Design: Safe Fleet Plan

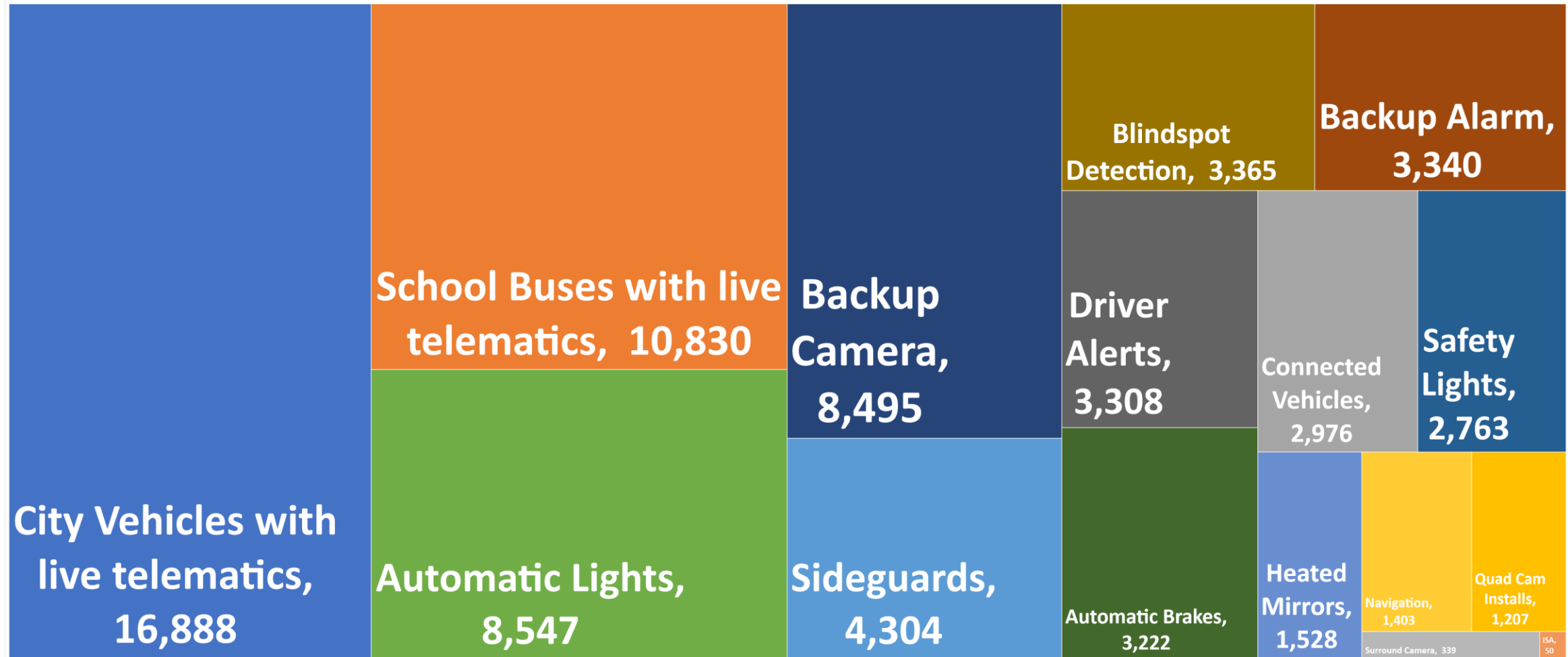
Tier 1	Tier 2	Tier 3
	Best Practice Technologies	Exploratory Technologies
High vision truck cabs where competitively available and operationally feasible * [§]	Pedestrian AEB for medium- and heavy-duty vehicles where available (Class 3-8) * [§]	Alcohol touch ignition interlock [§]
Additional mirrors/lenses where applicable including Fresnel lenses *	Blind spot monitors	Cell phone physical or app-based lock box/ docking station ignition interlock [§]
Appropriate technologies and techniques to see behind vehicle, such as but not exclusive to backup cameras	Enhanced Seat Belt Reminder systems (ESBRs)	Seatbelt assurance ignition interlock systems [§]
Forward Collision Warning (FCW) and Pedestrian Collision Warning (PCW) for Class 1 and 2	Navigation systems	Surround cameras *
Automatic Emergency Braking (AEB) for light-duty vehicles (Class 1-2) with Advanced Pedestrian Monitoring as preferred option where available [§]	Power mirrors and heated mirrors *	Turning alarms *
Automatic headlights where available	Speed governors * [§]	Universal design
Enhanced truck rear underride guards *	Connected vehicle, or vehicle-to-vehicle (V2V), communication technology	Rear Automatic Emergency Braking (AEB) for light-duty vehicles (Class 1-2) [§]
Safety lights for work trucks, such as but not exclusive to side-visible turn signals and roadwork lights (amber)	Broadband backup alarms †	Intelligent Speed Assistance (ISA) [§]
Side underride guards * consistent with Local Law	Rear Automatic Emergency Braking (AEB) for heavy-duty vehicles with air brakes * [§]	Automatic Emergency Braking (AEB) for medium- and heavy-duty vehicles (Class 3-8) * [§]
Self-adjusting volume backup alarms †	Forward Collision Warning (FCW) and Pedestrian Collision Warning (PCW) for Class 3 and above	
Telematics to enable utilization, collision, speed, and safety reporting, among other uses	External Cameras and Recording	
Warning decals *	Training where feasible in appropriate use of technologies	

Note: Entries in bold are potential updates for 2018 (see explanations below)

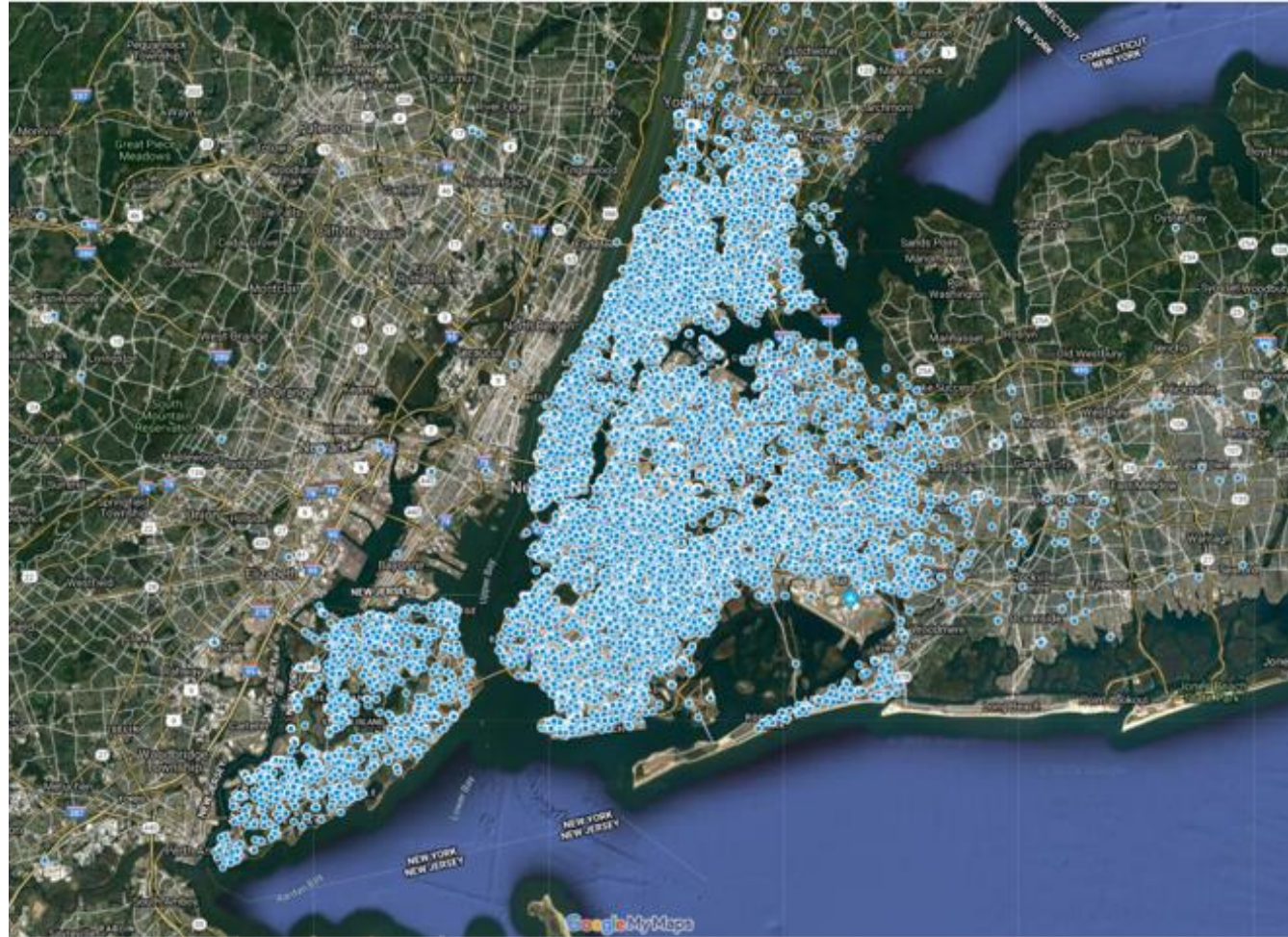
* = Only apply to vehicles with gross vehicle weight rating of 10,000 lbs. or greater.

Safe Fleet Investments, over 75,000 since 2017

SAFE FLEET TRANSITION PLAN

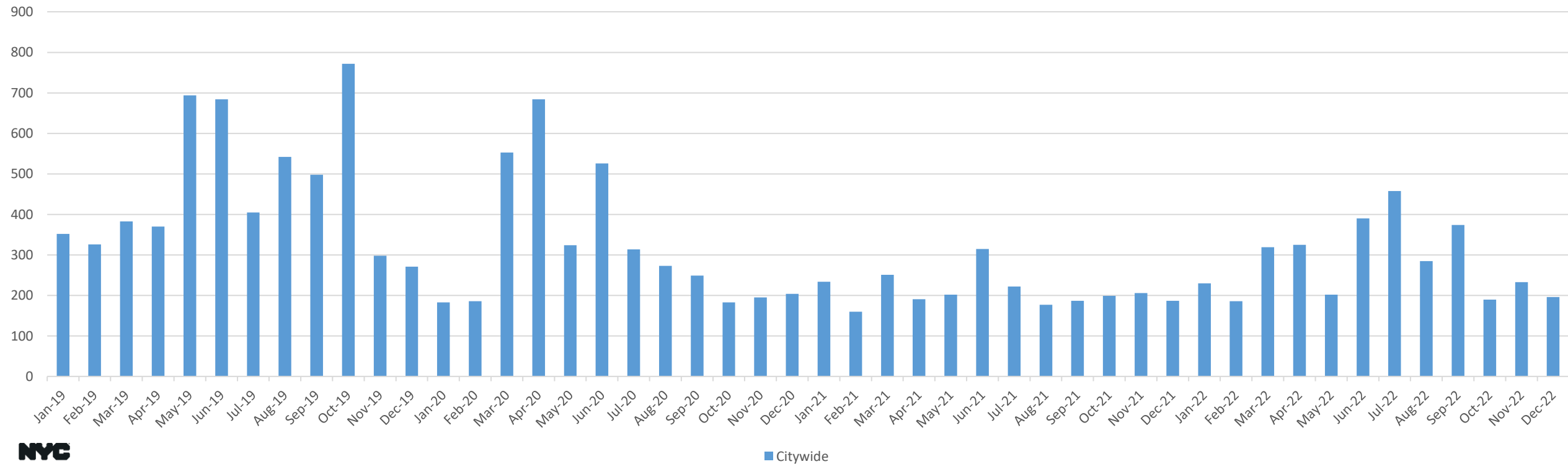


Fleet Office of Real Time Tracking (FORT)



Reduction in Excessive Speeding (Telematics)

Excessive Speeding Alerts 2019-2022



Citywide

Monthly Risk Assessment Reporting

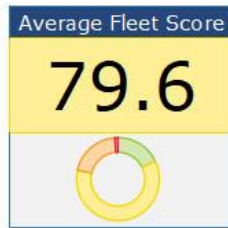
Vehicle Safety Scorecard

Oct 13, 2022

NYC Fleet

Date Range	
From	Oct 01, 2022
To	Oct 31, 2022
Days	31

Fleet Distance (mi)	13,718
Fleet Occurances	11,525



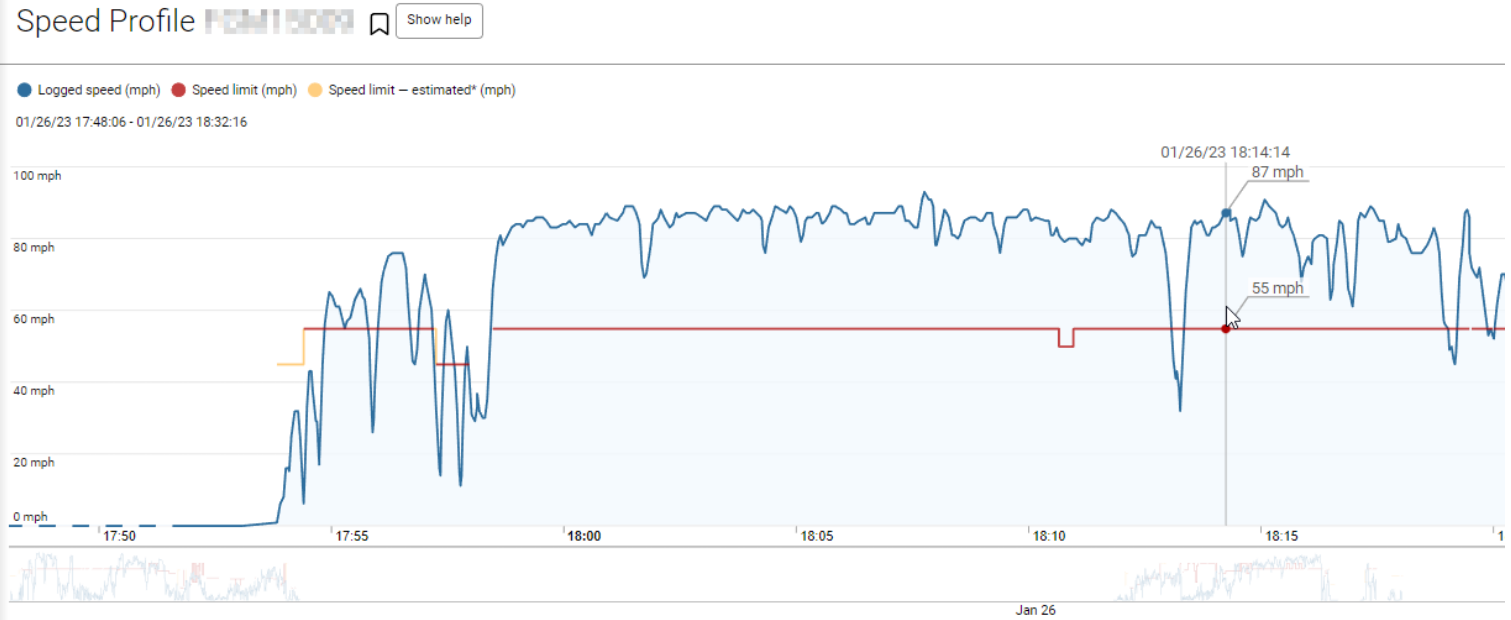
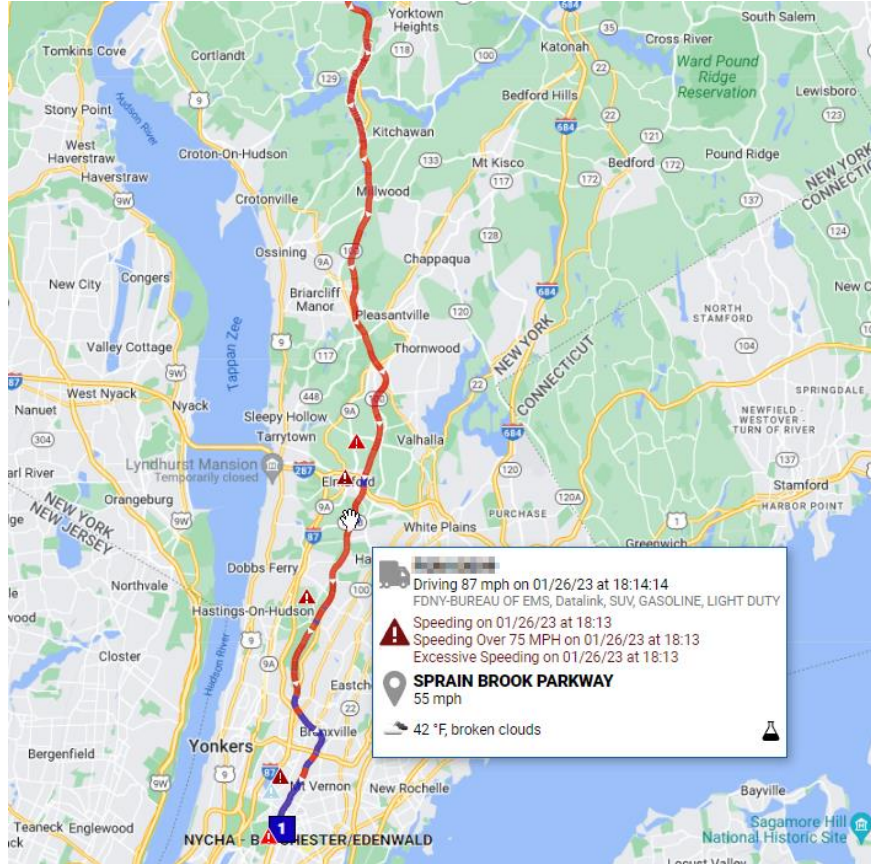
Rule	Weight
Hard Acceleration	10%
Harsh Braking	10%
Harsh Cornering	10%
Seat belt	20%
Speeding	20%
Excessive Speeding	30%
Total	100%

Classifications	
Low Risk	90
Mild Risk	70
Medium Risk	50
High Risk	0



Vehicle Information			Incidents								Incidents						
Name	Group	Distance (mi)	Total Score	Scoring Classification	Hard Acceleration	Harsh Braking	Harsh Cornering	Seat belt	Speeding	Excessive Speeding	Total Occurances	Hard Acceleration	Harsh Braking	Harsh Cornering	Seat belt	Speeding	Excessive Speeding
Car123	NYC	34.93	92.5	Low Risk	71.4	100.0	71.4	91.2	100.0	100.0	3	1	0	1	1	0	0
Car124	NYC	10.66	100.0	Low Risk	100.0	100.0	100.0	100.0	100.0	100.0	0	0	0	0	0	0	0
Car125	NYC	214.13	38.6	High Risk	0.0	86.0	0.0	0.0	0.0	100.0	1252	302	3	36	886	25	0
Car126	NYC	26.99	76.3	Mild Risk	25.9	100.0	0.0	68.5	100.0	100.0	8	2	0	3	3	0	0
Car127	NYC	243.68	83.4	Mild Risk	0.0	100.0	50.8	98.8	93.0	100.0	77	59	0	12	1	5	0
Car128	NYC	322.14	83.1	Mild Risk	0.0	96.9	69.0	94.1	88.6	100.0	63	37	1	10	6	9	0
Car129	NYC	151.62	82.7	Mild Risk	0.0	100.0	27.5	100.0	100.0	100.0	210	199	0	11	0	0	0
Car130	NYC	137.85	81.0	Mild Risk	0.0	92.7	20.2	100.0	98.6	100.0	52	39	1	11	0	1	0
Car131	NYC	214.32	81.8	Mild Risk	0.0	100.0	81.3	88.7	79.7	100.0	47	28	0	4	8	7	0
Car132	NYC	63.40	82.8	Mild Risk	0.0	100.0	84.2	81.1	90.9	100.0	14	7	0	1	4	2	0
Car133	NYC	227.09	62.1	Medium Risk	0.0	86.8	47.2	0.0	93.6	100.0	1140	277	3	12	844	4	0
Car134	NYC	65.63	95.4	Low Risk	69.5	84.8	100.0	100.0	100.0	100.0	3	2	1	0	0	0	0

Real-Time Safety Alerts for Supervisors



[EXTERNAL] Excessive Speeding Alert - **FDNY15009** SN: G91N90NC9J5T UnknownDriver Westchester- 01/26/23 6:14:41 PM

NYCfleet@geotab.com
 To: FORT (DCAS)

Exceptions Details Report Template_1860145945r.xlsx
 32 KB

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. Forward suspect email to [\[redacted\]](#)

FDNY15009 SN: G91N90NC9J5T has broken the Excessive Speeding rule at 6:14:41 PM on 01/26/23. Please see the alert details below:

Address: 450 Secor Rd, Hartsdale, NY 10530, USA
 GPS Coordinates: 41.02951, -73.82082
 Zone: Westchester
 Vehicle's Speed: 91 mph
 Speed Limit (If Applicable): 55
 VIN: **FDNY15009**
 Division: LIGHT DUTY,GASOLINE,SUV,Datalink,FDNY-BUREAU OF EMS

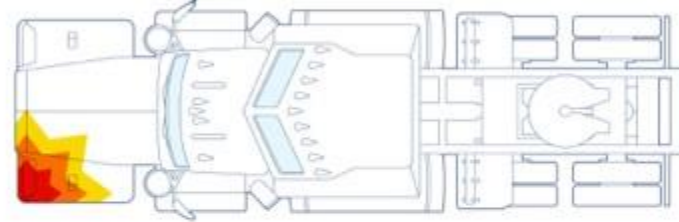
Instant Crash Reports

Collision Reconstruction (BETA)

Device Information

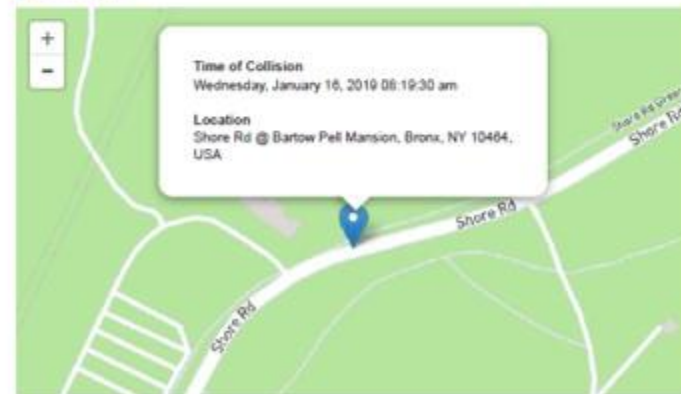
Vehicle Name: P8357
Driver: Unknown Driver
VIN: 2FZACFDK08AZ36598
Vehicle: 2008 Sterling Acterra
Time of Collision: Wednesday, January 16, 2019 08:19:30 am

Point of Impact



Map View

[Trip History](#)



Theft Protection and Recovery

NEW YORK

NYC officials use GPS to bust thieves who heisted Parks Dept. truck and sped to Virginia

By Clayton Guse
Transit Reporter • Feb 24, 2021 at 6:03 pm

City officials last month watched in real time as a stolen Parks Department truck clocked speeds of 95 mph in a mad dash along I-95 that ended with the arrest of three bandits in Virginia.

The Ford F-250 pickup was parked in Harlem's Marcus Garvey Park the morning of Jan. 23 when it was hot-wired.

Less than 20 minutes later, an automated GPS system that tracks the whereabouts of all 23,000 New York City government vehicles sent alerts to officials, who could see exactly where the carjackers were heading.



Map of the route for the stolen NYC Parks truck. (DCAS)

"We all watched this vehicle as it escaped the City of New York," said Keith Kerman, chief fleet officer at the Department of Citywide Administrative Services. "This is a \$30,000 pickup truck used for park operations. It's supposed to be used to keep our park clean and safe... We see it's speeding down the highway going 95 mph."

Using Telematics to Reduce the Fleet

Press Release

SHARE



Email



Print

Mayor Adams Reduces NYC's Vehicle Fleet, Saving Taxpayer Dollars and Reducing Carbon Emissions

April 25, 2022

City Will Save \$13.7 Million Through New Measure as Part of Upcoming Executive Budget

City Car Fleet Will Shrink to Bloomberg-Era Levels, With Focus on Reduction of Vehicles Used for Employee Commuting

NEW YORK – New York City Mayor Eric Adams today announced a reduction of the city's vehicle fleet by at least 855 vehicles in an effort to save taxpayer dollars and reduce carbon emissions. The four percent reduction of the on-road fleet will focus on non-emergency vehicles, and will reduce the city's fleet to its size in the Bloomberg administration. In all, the plan announced today is expected to result in 5.13 million fewer miles driven per year — representing a 2,072 metric ton reduction in carbon dioxide emissions.

Intelligent Speed Assist (ISA) Initiative



IN THIS STORY

DCAS is conducting a pilot program on 50 city vehicles with new Intelligent Speed Assist technology. ISA restricts the vehicle's speed based on the local speed limit on the road where the vehicle is travelling.

New Technology on City Fleet Cars to Reduce Speeds and Save Lives ▶

Intelligent Speed Assist (ISA)



Changing Vehicle Design: Truck Side-guards

Truck Sideguards for Vision Zero

Review and technical recommendations for Safe Fleet Transition Plan pilot deployment

Alexander K Epstein, Ph.D., Sean Peirce, Andrew Breck, Coralie Cooper, and Eran Segev



December 2014
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Changing Vehicle Design: Truck Side-guards

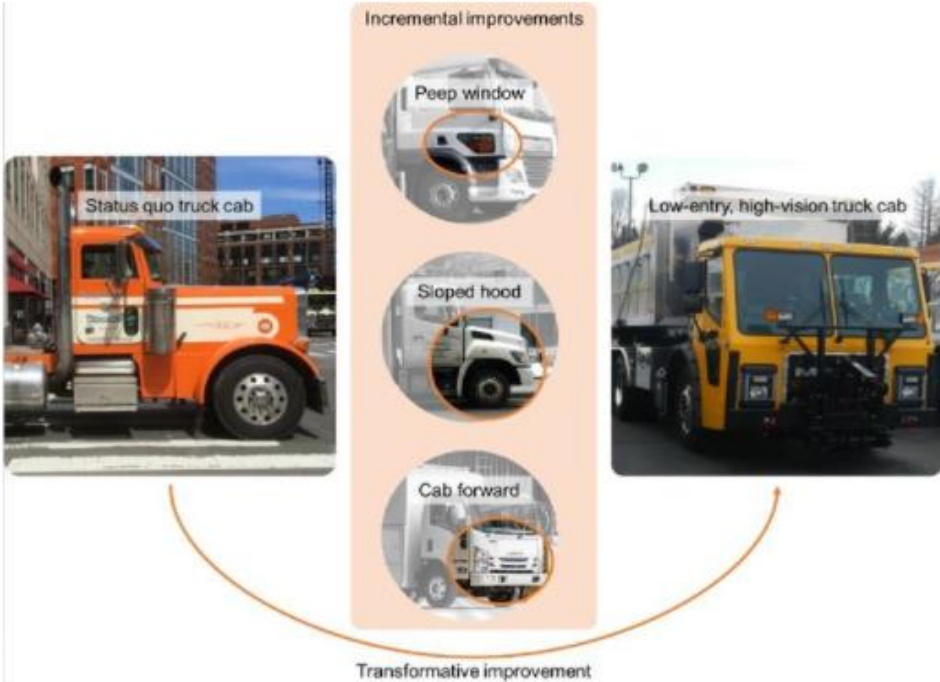


Changing Vehicle Design: High Vision Trucks

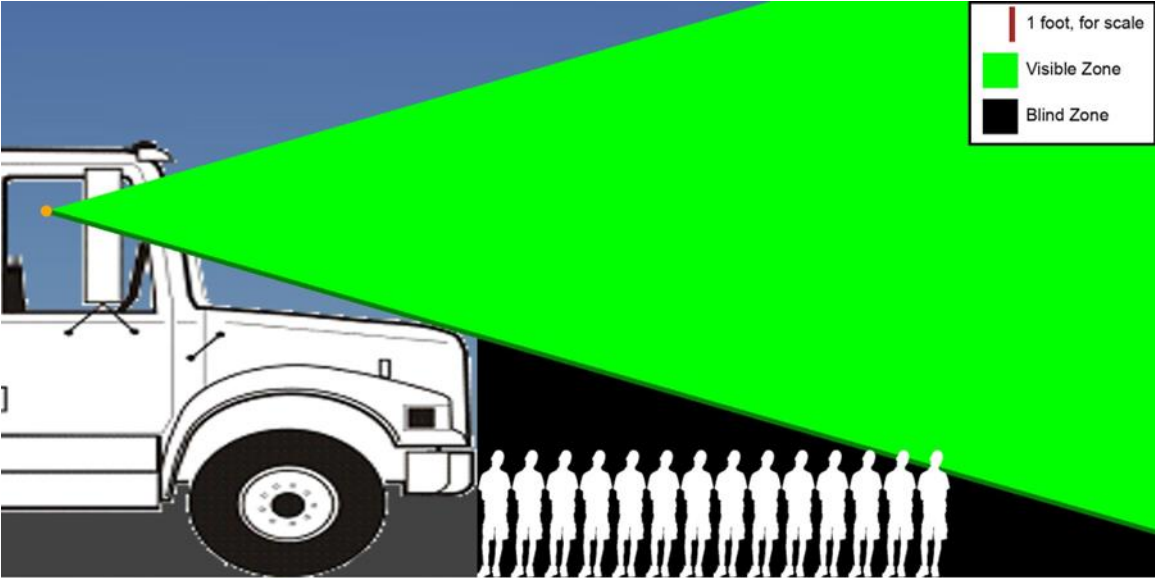
SAFETY

New York City Transitions to Safer 'High Vision' Trucks

November 29, 2018 • by Government Fleet Staff •



Changing Vehicle Design: High Vision Trucks



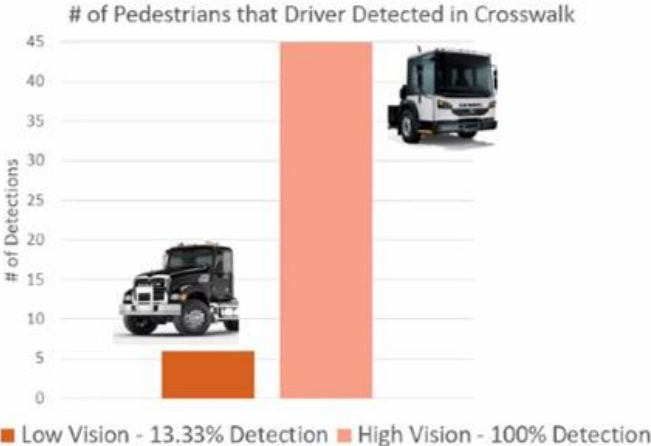
Front Blind Zone extends out by 14 preschool children (10' 6")

Pedestrian crosswalk safety study results

39 out of 45 killed when truck was **low vision**

vs.

None killed when truck was **high vision**



Changing Vehicle Design: Surround Cameras

STREETSBLOG NYC

Parking Madness 2021 / Coronavirus Crisis / Transit / Congestion Pricing / Open Streets / Calendar

City Shows Off Trucks and Buses With Surround-View Cameras

By Fiifi Frimpong | Jun 12, 2021 | 4 COMMENTS



Truck of the Future Pilot with Together for Safer Roads



Barring Hands-Free Phone Use by Drivers

SAFETY

NYC Bans Hands-Free Phone Use in Fleet

May 16, 2016 • Staff • 



Photo via Flickr/Bruce Stokes.

New York City has banned the use of hands-free phone devices by city fleet drivers, except for emergency responders.

Training for New Technologies



Dawn M. Pinnock, Commissioner
Keith T. Kerman, Deputy Commissioner
and Chief Fleet Officer

NYC Fleet Newsletter

March 31, 2023 - Issue 422

DCAS and City Agencies Introducing New Team of Safe Driving Trainers

By: Keith Kerman

On March 29, DCAS held a Train-the-Trainer session as part of an initiative to certify a new team of safe driving trainers for in-person Vision Zero Safety Training. DCAS Claims Coordinator Veronica Rodriguez and Crash Coordinator Nate Koszer teamed up to provide the training which was attended by 26 trainers from 7 agencies including the Department of Sanitation, Department of Environmental Protection, NYC Parks, Department of Correction, Administration for Children's Services, Department of Health and Mental Hygiene, and DCAS. DCAS works with the National Traffic Safety Institute (NTSI) to certify trainers. The certification requires classroom work and assessment of each applicant conducting live training.



City fleet staff at the in-person train-the-trainer session led by DCAS staff members Veronica Rodriguez and Nate Koszer.

Since the Vision Zero initiative began in NYC in 2012, DCAS and its partner fleet agencies have now trained over 90,000 fleet operators in safe and defensive driving. DCAS focuses on training for non-emergency staff while NYPD and FDNY offer their own safety training

Partnerships



Contact

For more information, go to the NYC Fleet website:
<http://www.nyc.gov/html/dcas/html/employees/fleet.shtml>

Keith Kerman
Chief Fleet Officer
New York City
Deputy Commissioner,
Department of Citywide Administrative Services

kkerman@dcas.nyc.gov

DCAS

THANK YOU