



# SUCCESS STORY PARTNERING NORTH WEST AMBULANCE SERVICE WITH ACCELERATION AND TOP SPEED CONTROL

Sturdy's Vehicle Management System continues to be fitted to NWS's emergency and non-emergency vehicles.





## Overview

North West Ambulance Service serve the communities of Cumbria, Lancashire, Greater Manchester, Merseyside, Cheshire and Glossop (Derbyshire).

NWAS receive 1.3 million 999 calls and respond to over one million emergency incidents every year.

In addition, they make 1.5 million patient transport journeys every year for those requiring non-emergency transport to and from healthcare appointments.

## Fleet profile

### Company

North West Ambulance Service NHS Trust

### Industry

Emergency Services

### Location

North West England

### Fleet size

1,000+ vehicles

### Types of vehicles

- Fiat Ducato
- Mercedes Sprinter/Vito
- BMW X3 Phev
- KIA EV6

### Solution

Sturdy VMS

### Fleet focus

- Fuel Savings
- Emissions Savings

**NHS**  
North West  
Ambulance Service  
NHS Trust



**1,000**  
emergency and  
non-emergency vehicles

**6,000+**  
staff working in  
300+ roles

**120+**  
emergency vehicles  
already equipped with  
Sturdy VMS

**\$224,000**  
fuel saving per year  
with Sturdy VMS



We are very proud of the trust's commitment to the environment and have won several awards for our initiatives.

NWAS strategy document 2022 – 2025





## The challenge

Searching for a configurable, dynamic speed control system

**High on the wish list of NWAS when looking for a new speed control system, was to find a solution that could not only meet the basic speed limiter requirements, but also contribute savings in fuel consumption and generate a beneficial environmental impact.**

Serving more than seven million people across approximately 5,400 square miles, the NWAS is an incredibly active, high mileage fleet.

Operating in both urban and rural areas, and with motorway journeys making very high speeds a possibility, NWAS also had a desire to further protect their staff and other road users by finding a system that could apply a secondary speed limit to operate under emergency blue light conditions. This meant that even when responding to any of their one million emergency incidents they attend each year, the vehicle could automatically be limited to the Trust's maximum of 90mph.



A speed control solution that minimizes carbon footprint by reducing fuel consumption in the fleet was a key motivation for NWAS. A system that could fulfill all their requirements was found in the Sturdy VMS module, and installed after successfully being put to the test in real-world trials.

Daniel Graham – Technical Director, Sturdy Europe



# The solution

## Using a more advanced speed control system that goes beyond the basic specification

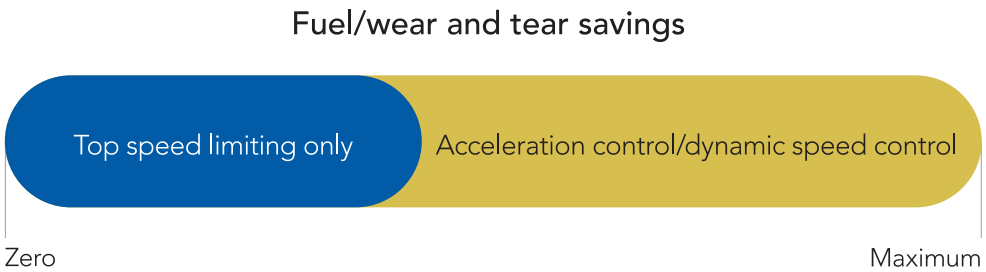
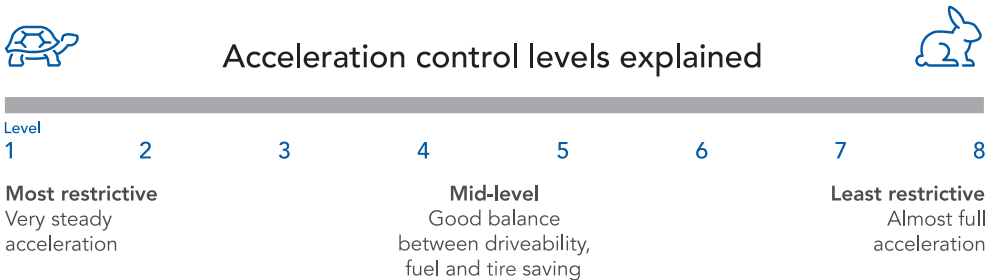
Once NWAS had identified that Sturdy's VMS module would not only offer top-speed limiting but also control aggressive acceleration and reduce fuel consumption, a free demonstration and trial was arranged with relevant personnel.

During the trial, seven vehicles were used with a non-emergency speed limit of 70mph being set and increasing to 90mph during emergency blue light mode.

With Sturdy's eight levels of customizable acceleration control available, the initial demonstration allowed NWAS to identify a mid-level setting as giving the best balance between fuel savings and operations and level 5 control was applied for the trial. This was set to disable when responding to emergency calls and, once exiting blue light mode, the full system governance returned.

The trial operated in both urban and rural conditions and Sturdy were able to analyze the fuel economy data both before and during the system being installed and tested. NWAS were also keen to gain internal driver acceptance feedback and real-world experience of VMS in operation.

By July 2022 NWAS had installed Sturdy VMS into more than 120 fleet vehicles and continue to install on new vehicles as standard at build stage.







## The results

An immediate 10% increase in fuel economy and similar 10% reduction in carbon emissions

After analysis of the fuel data, the benefits of Sturdy VMS were clear. Comparing actual liters used at the pump and mileage traveled to give accurate MPG figures before and after installation, there was a significant 10% decrease in fuel consumption over the combination of urban and rural areas.

Annually this 10% saving in fuel equates to a cost saving of \$1,867 per vehicle. With 120 vehicles in the fleet already benefiting from Sturdy VMS, NNAS are able to save more than \$221,552 each year in fuel alone.

In addition to the fuel saving, each ambulance will reduce their CO<sub>2</sub> emissions by more than 17 tonnes over the course of their service.

Top-speed limiting and acceleration was controlled smoothly and successfully, and over-speeding events in excess of 90mph were eliminated.

Driver acceptance has been universal due to the system allowing the user to continue to drive in a safe and responsible manner with no detrimental impact to their jobs.

Sturdy VMS has been proven to achieve the goals laid out by NNAS.



Averaged  
**10.57%**  
increased MPG per vehicle



Averaged  
**2.44 Tonnes**  
CO<sub>2</sub> reduction per vehicle per year



Averaged  
**\$1,866.73**  
Annual saving per vehicle per year

Annual saving based on September 2022 UK fuel price.



## Get in touch

Very few products available on today's market automatically provide sustained reductions in emission of pollutants by reducing fuel usage in your fleet's vehicles.

Over the life of the vehicle, Sturdy VMS will pay for itself many times over in fuel savings alone. Over a seven year life span, NWAS can expect to remove an average of over 17 tonnes of CO<sub>2</sub>, and save almost \$13,300 in fuel per vehicle just by installing Sturdy VMS as standard. No further maintenance of the system is required.

Book your demonstration of the Sturdy VMS acceleration control module today and find out what we can do for you.

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