

Benefits of Implementing Telematics



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BlueArrow Telematics



Agenda

- What is Telematics?
- The Pillars of Telematics
- Managing Risk
- What a successful deployment looks like
- Where ROI Comes From

What is Telematics?

Telematics is the technology that combines GPS tracking, sensors, and wireless communication to monitor and manage vehicles, equipment, or assets in real-time. It helps track location, measure performance, and improve efficiency, safety, and maintenance.

2 Main Types of Telematics



Vehicle/Asset
Telematics



Video Telematics

The Pillars of Telematics



Productivity



Compliance



Safety



Sustainability



Optimization



Expandability



Productivity



Map Tab

Groups filter Crew Truck X holden@bluearrowmail.com baker_roofing

Name, VIN, or serial nu... Status Nearest Map Views

Find asset Asset status

- V0617, Spare Crew Cab**
 - No driver assigned 18m 45s
 - Dan K. Moore Fwy, Durham, NC 27703, USA 114 km/h
- V0664, Luke Leonard**
 - No driver assigned 11m 21s
 - 1513 Lake Wheeler Rd, Raleigh, NC 27603, USA 18 km/h
- V0442, Commercial Repair Trailer Truck**
 - No driver assigned 3d
 - 906 Newcombe Rd, Raleigh, NC 27610, USA 0 km/h
- V0631, Sold to Chiel Construction 04/28/22**
 - No driver assigned 21h 45m
 - 224 Oakridge Duncan Rd, Fuquay-Varina, NC 2752... 0 km/h
- V0659, Jose Lopez**
 - No driver assigned 43m 54s
 - 2912 N Main St, Fuquay-Varina, NC 27526, USA 0 km/h
- V0865, Tommy Penny**
 - No driver assigned 1h 24m
 - 1522 Canterbury Rd, Raleigh, NC 27608, USA 0 km/h
- V0902, Johnny Parker**
 - No driver assigned 24m
 - BRC 517 (Warehouse) 0 km/h

Keyboard shortcuts Map data ©2023 Terms of Use Report a map error

Trip History

Trips History

○	12947 Gravois Rd, St. Louis, MO 63127, USA	Driving	08:20 am - 08:55 am	Driving duration	35m 2s	Distance	17mi
●	State Boundary	Stopped	08:55 am - 08:55 am	Stop duration	1s	Idling	0s
	10232 Big Bend Rd, St. Louis, MO 63122, USA						
○	1154 Tolent St, St. Louis, MO 63122, USA	Driving	08:55 am - 08:56 am	Driving duration	49s	Distance	1mi
●	State Boundary	Stopped	08:56 am - 08:56 am	Stop duration	1s	Idling	0s
	302 Windsor Spring Dr, St. Louis, MO 63122, USA						
○	306 Windsor Spring Dr, St. Louis, MO 63122, USA	Driving	08:56 am - 08:56 am	Driving duration	16s	Distance	0mi
		Stopped	08:56 am - 08:56 am	Stop duration	1s	Idling	0s
		Driving	08:56 am - 08:57 am	Driving duration	19s	Distance	0mi
		Stopped	08:57 am - 08:57 am	Stop duration	1s	Idling	0s
		Driving	08:57 am - 08:57 am	Driving duration	39s	Distance	1mi
		Stopped	08:57 am - 08:57 am	Stop duration	1s	Idling	0s

06 - 10157 HD DUMP CC

Driving 26 mph on 12/02/21 at 08:38:52 am
 Snow, Cummins, SL HAAS Alert, HAAS Alert, Heavy Duty, SL Class - Heavy Duty, SL Snow Trucks, SL 7F35 Sunset Hills [O]

Engine Fault Exception on 12/02/21 at 08:16 am (7 times), 11/23/21 at 09:15 am
 Aux 4 - Lights ON on 12/02/21 at 08:32 am
 Snow Service Rule on 12/02/21 at 08:37 am



Unknown road
 70 mph

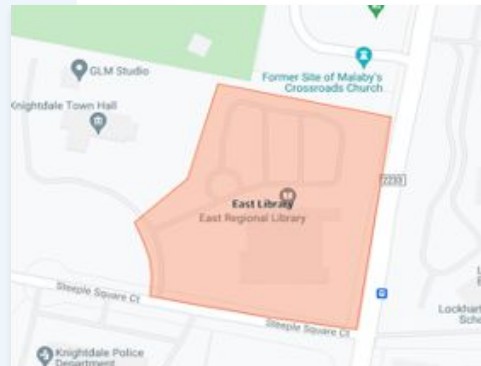
58 °F, broken clouds

Geofencing

- Build custom rules for specific Zones/Zone Types
- Run reports off of zone activity

Customer Visits

Zone Name	Time of Arrival	Visit Duration	Time of Departure
AF1279			
 Farmington fueling	11/24/21 8:42:41 am	3m 32s	11/24/21 8:46:13 am
 Farmington fueling	11/24/21 8:50:22 am	1h 17m	11/24/21 10:08:16 am
AF1314			
 Farmington fueling	11/24/21 7:45:22 am	1h 33m	11/24/21 9:18:58 am



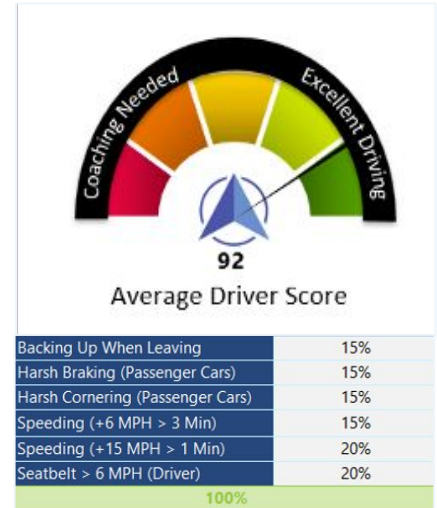


Safety



Driver Scorecards

- Driver behavior scorecards are the best way to gauge driver safety and performance. It gives you a way to quantify how safe each driver within your fleet is.
- BlueArrow has successfully worked with many of our customers to use this data to develop a comprehensive driver rewards program.



Name	Group	Distance (mi)	Total Score	Scoring Classification	Hard Acceleration	Harsh Braking	Harsh Cornering	Seatbelt > 20MPH	Speeding
T144	IS4, Trucks - Company	354.47	90.8	Mild Risk	97.2	100.0	69.0	80.0	94.4
T128	IS1/IS3, Trucks - Company	663.97	96.6	Low Risk	75.9	100.0	86.4	100.0	99.2
T139	IS1/IS3, Trucks - Company	1,345.77	94.4	Mild Risk	68.8	96.3	86.6	100.0	93.3
T146	IS1/IS3, Trucks - Company	0.00	94.0	Mild Risk	100.0	100.0	100.0	60.0	100.0
T141	IS4, Trucks - Company	134.70	91.8	Mild Risk	92.6	100.0	48.0	100.0	100.0
T135	IS4, Trucks - Company	279.58	98.4	Low Risk	100.0	100.0	89.3	100.0	100.0
T142	IS1/IS3, Trucks - Company	0.00	100.0	Low Risk	100.0	100.0	100.0	100.0	100.0
T129	Trucks - Company, WL3	570.21	58.2	High Risk	30.0	50.0	87.7	50.0	45.0
T136	IS1/IS3, Trucks - Company	7.16	100.0	Low Risk	100.0	100.0	100.0	100.0	100.0
T145	IS1/IS3, Trucks - Company	883.04	95.5	Low Risk	74.0	100.0	78.5	100.0	100.0
T148	Entire Organization	354.09	97.3	Low Risk	100.0	100.0	94.4	100.0	92.7
T140	IS1/IS3, Trucks - Company	1,247.38	95.2	Low Risk	75.9	98.4	80.0	100.0	98.3
C101	Trucks - Company, WL4	0.01	100.0	Low Risk	100.0	100.0	100.0	100.0	100.0

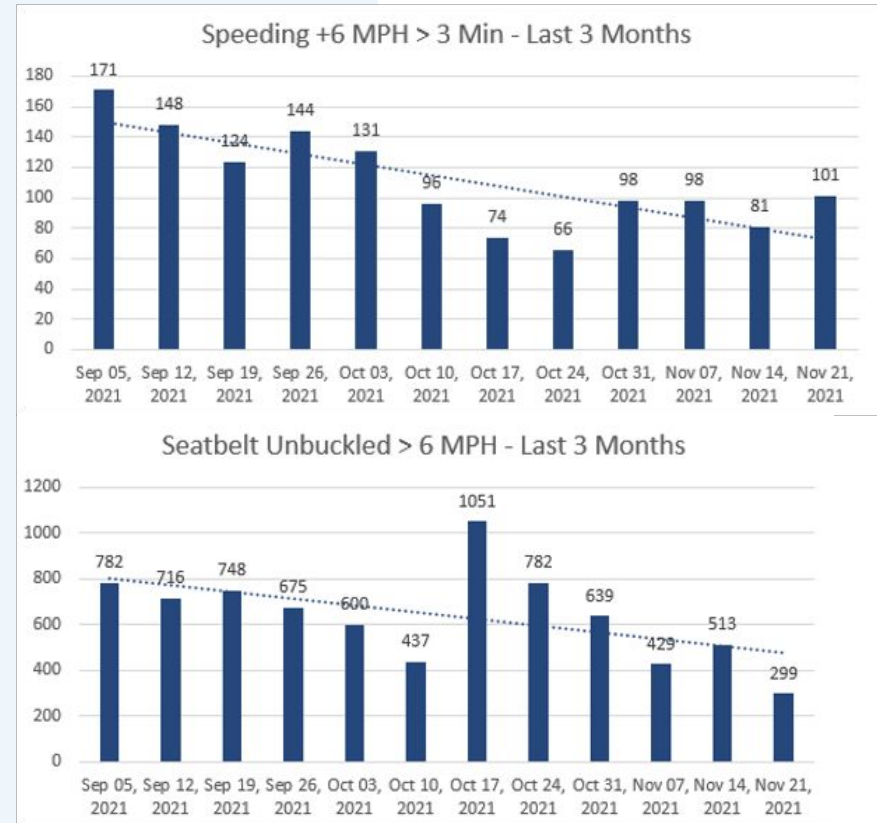
Fair Reporting

Normalize Exception data by analyzing by miles driven. Operators who drive varying distances will be treated equally.



Exception Trends

- Ensure your provider focuses on showing trend data within reports as this is best way to determine which areas of your fleet are getting better, and which ones need improvement
- Trend reports can be used to track any data, such as Speeding, Seatbelt, Harsh Driving, Backing When Leaving, Engine Abuse, etc.





Optimization



Engine Faults

- Advanced reporting and custom rules based on engine faults
- Example: If your vehicles have a common issue with a specific fault code, you can be notified immediately if that code appears on any vehicle

From	Dec 01, 2021			
To	Dec 01, 2021			
Vehicle	Description	Count	Last Occurrence	
AT1436	P04F1: EVAP system low pressure purge line performance (No sub type information)	2	Dec 01, 2021 7:32:26 AM	
	P0441: EVAP system incorrect purge flow (No sub type information)	2	Dec 01, 2021 7:32:26 AM	
AT378	P2007: Intake manifold runner control stuck closed bank 2 (No sub type information)	5	Dec 01, 2021 7:43:40 AM	
	P0301: Cylinder 1 misfire detected (No sub type information)	1	Dec 01, 2021 8:11:25 AM	
AT436	P0302: Cylinder 2 misfire detected (No sub type information)	3	Dec 01, 2021 6:20:23 AM	
	P0309: Cylinder 9 misfire detected (No sub type information)	3	Dec 01, 2021 6:20:23 AM	
MHI1486	P0036: HO2S heater control circuit bank 1 sensor 2 (No sub type information)	2	Dec 01, 2021 7:43:24 AM	
	P0137: O2 sensor circuit low voltage bank 1 sensor 2 (No sub type information)	2	Dec 01, 2021 7:43:24 AM	

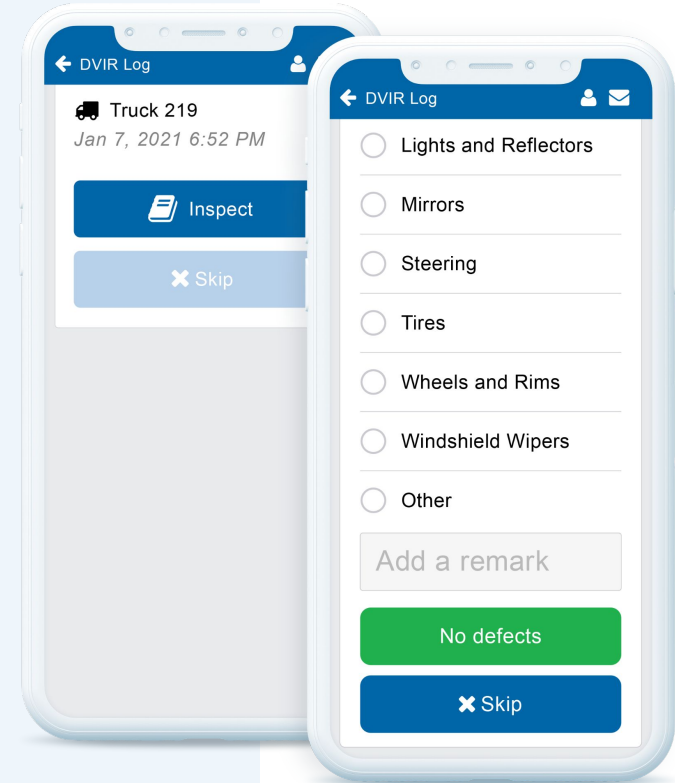
Engine Measurements

- Advanced reporting on all available engine measurements (400+ measurements available)
- Custom rules based on specific engine measurements
 - Example: You can create a rule that notifies you immediately if your engine coolant temperature goes above or below a certain threshold



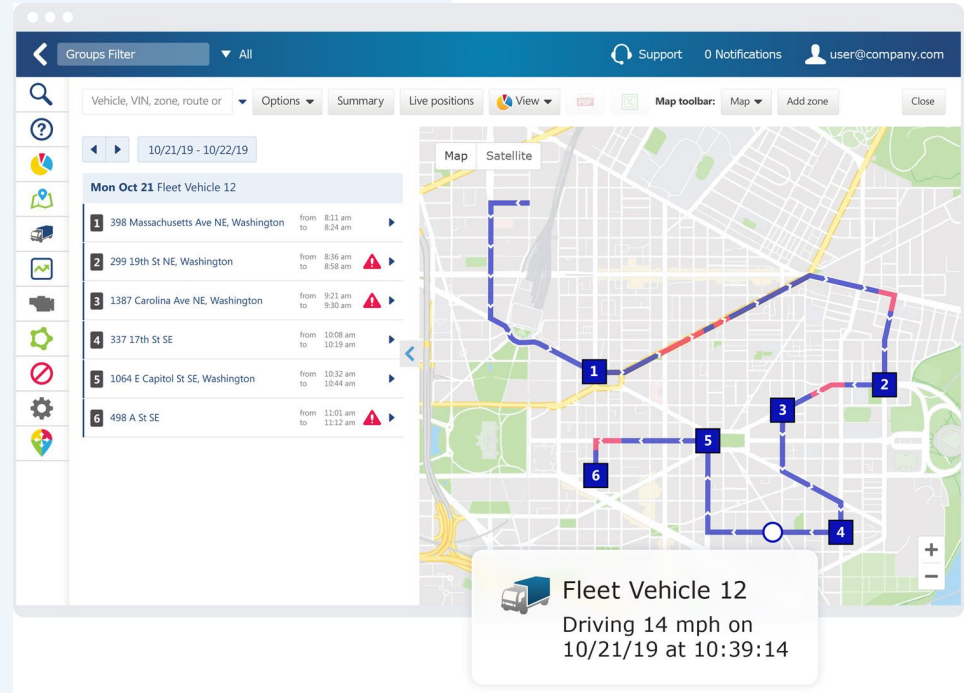
Asset Inspection

- Customizable forms/checklists
- Required fields
- Mobile app for android/apple
- Works for Vehicles/Trailers/Asset Trackers
- Reporting/Notifications for incomplete inspections



Route Optimization

Optimize fleet routes and dispatch, reduce travel time and distance, to adapt quickly to last-minute changes. Ideal for dynamic fleets needing efficient, customer-focused scheduling.





Expandability

Integration

- Utilize integration to:
 - Remove data duplication tasks
 - Improve functionality of software you're already using
 - Eliminate mistakes due to human error
 - Combine data sets for powerful analytics
- Common systems that can be integrated
 - HR/Payroll
 - CRM
 - Maintenance Programs
 - Business Intelligence Tools



Asset Tracking

- Track your assets that move, monitor your assets that shouldn't.
- Battery powered and Hardwired Options
- Track utilization of assets
- Theft prevention/recovery



In-Vehicle Cameras



HANDHELD
DEVICE



FOOD &
DRINK



DRIVER
SMOKING



UNBELTED
DRIVER



INATTENTIVE
DRIVER

PATTERN:

HANDHELD DEVICE



MINUTES



Why do you need in-vehicle cameras?



Identify risky behaviors and take preventative action



Rear Camera



Rear Camera



Mitigate losses and streamline the insurance claim process



Limit your liability at every moment



Managing Your Risk



Understanding Risk

- Your vehicles are a mobile billboard
- Without driver monitoring, you have no control over driver behavior on the roadways
- Nuclear Verdicts are on the rise
 - Average verdict in involving fleet vehicle crash with injury saw a 967% increase in monetary penalties, up to \$100M
- Insurance Premiums
- Loss of revenue from vehicle downtime



Total Cost of Collisions

Collision with no injury:

Direct Costs:

- Vehicle Damage: **\$2,500 to \$10,000+**
- Downtime: **\$200 to \$500 per day**
- Administrative Costs: **\$500 to \$1,000**
- Insurance Deductibles: **\$500 to \$2,500**

Indirect Costs:

- Increased Insurance Premiums: **\$1,000 to \$3,000 per year**
- Lost Productivity and Reputation Impact: Variable

Average Total Cost:

- **\$5,000 to \$25,000**

Collision with Injury:

Direct Costs:

- Medical Costs: **\$50,000 to \$100,000+** per person (depending on severity)
- Legal Fees: **\$20,000 to \$1,000,000**
- Vehicle Damage: **\$5,000 to \$10,000+**

Indirect Costs:

- Increased Insurance Premiums: **\$5,000 to \$10,000+ per year**
- Productivity Losses: Significant, depending on the accident impact on operations
- Reputational Damage: Hard to quantify but potentially large

Average Total Cost:

- **\$250,000 to \$2M**
(Can be higher if litigation or severe injuries occur.)

Collision with Fatality:

Direct Costs:

- Legal Fees & Settlements: **\$1,000,000 to \$3,000,000+** (varies significantly by case)
- Medical and Emergency Services: **\$50,000 to \$100,000+**
- Vehicle Damage: **\$5,000 to \$10,000+**

Indirect Costs:

- Regulatory Penalties: **\$100,000 to \$500,000+** if violations contributed
- Increased Insurance Premiums: Substantial increases, often **\$25,000 to \$100,000+ per year**
- Reputation and Business Losses: Long-term, potentially devastating

Average Total Cost:

- **\$3,000,000 to \$10,000,000+**

Mitigating Risk

- **Driver Scorecards**
 - Understand who your best and worst drivers are based on accelerometer data from telematics.
 - Scorecards automatically weigh and score your fleet as a whole, as well as each individual driver to give full scope of your fleet safety
- **Driver Coaching**
 - Based on factual datasets from telematics
 - Proof that you worked toward improving driver behavior
 - Reduces wear and tear on vehicles - reduced maintenance costs
- **In-vehicle cameras**
 - Capture footage of accidents and risky behavior
 - In the event of litigation from an accident, make factual decisions on whether to settle the case, or fight in court based on your evidence
- **The 80/20 rule is alive and well within fleet**
 - 80% of your risk comes from 20% of your drivers
 - Taking care of your top offenders has the most instantaneous improvement, and trickles down to your other drivers as well

How to Make a Deployment Successful

- Have clearly defined goals
 - What are the main difficulties you have with your fleet?
- Select the right partner
 - Telematics providers vary greatly in service and product quality
- Work with your provider to create custom reporting based on your needs/goals
- Create a comprehensive driver policy with actionable repercussions based on telematics rules
- Automation is your friend!
- Ongoing driver coaching based on data from telematics
- Analyze trends to measure risk



Maximizing ROI From Telematics



Where Does ROI Come From with Telematics?

- It's up to you!
- Safety
 - Reduced collisions, lower premiums, less wear and tear
 - 10-15% cost reduction and \$10k per vehicle on average
- Maintenance
 - Shop efficiency, reduced downtime
 - 10-20% cost reduction
- Fuel
 - Monitor fuel usage, detect fuel theft/fraud
 - 10-20% savings on fuel
- Routing
 - Make your routes more efficient, save fuel, fit more stops in per day from saved time

Thank You!



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Contact me for more info on how BlueArrow can help transform your fleet!