4. || ADVEEZ - Localeez®

the challenge

Our client, a port terminal located in the Mediterranean area, had an accident in 2019 when a straddle carrier accidentally ran over a smaller vehicle working in the port area. As the straddle carriers are more than 15 metres high, the drivers do not have an optimal view of the ground. The equipment height induces lack of ground visibility for operators. Any emergency or failure of vehicle/straddle carrier segregation in the storage area raises the risk of accidents, particularly in the rush of high level operations. Therefore, the issue was to ensure safety of all persons and machines during container loading/unloading and in the storage area were provided with automatic alerts. Moreover safety needed to be enhanced to prevent incidents with emergency procedures on the field and in the control area.

the innovation

Developed in house from A to Z, the ADVEEZ solution allows terminal operations managers to enforce safety by real time monitoring the fleet of vehicles during operations. The FAMA V4 is an onboard unit designed, developed and assembled by ADVEEZ in France. The device collects real time data (geolocation, speed, fuel level, working status, shocks, driving behaviour, etc.) and displays them on Localeez®, the dedicated user-friendly web and smartphone platform. Via the Localeez® platform, the manager controls and operates all fleet equipment over the air, allowing the vehicles to be speed-limited or disabled in case of emergency. An access control system added to the device ensures that the operations manager knows that the authorized and appropriate user is driving the vehicle.
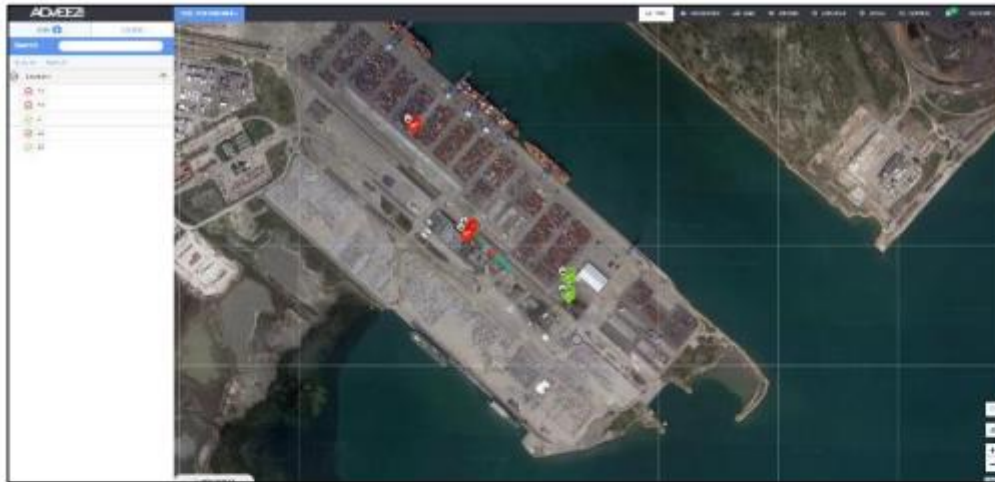
how it was implemented

Implemented at our client's premises, ADVEEZ innovative solution allows operations management to trigger, instantly and over the air, a speed limit zone (5km/h automatic speed limit) and/or a forbidden zone (reverse gear only if the vehicle enters the zone) in the event of an incident on the terminal. The alert is sent to the system instantly and the device installed on the equipment will automatically slow down the driver thanks to a real time geofencing technology. The driver of the failed vehicle can find solutions with no fear of the other vehicles, even with no visibility. The driving behaviour alert notifies when a shock or a failure is detected on the vehicle by the onboard unit. Moreover the solution implementation is easy to install and brand agnostic, suited to every type of handling equipment. As well it can interface fully with TOS systems. Thus, the implementation was a plug and play project as our web platform is able to show assets on bird view map instantly.

result

Short term: instantly increased safety and a better real time birds-eye view on operations. The user feels safer as the emergency procedure is backed up with a better supervision on the field and on the system. The management is able to know when an incident happens and help efficiently if necessary.

Middle/Long term: -45% cost reduction in maintenance & accident within 12 months. Safety feeling is increased as the speed is reduced around pedestrians and incidents areas.

Significant modification of driving behaviour with access control, less infrastructures and equipment accident with a better maintenance management.

conclusion

At ADVEEZ, we design advanced and easy solutions to monitor and optimize operations in complex environment. This project is fully in line with this philosophy as its implementation did not require extensive work but a simple retrofit of the existing machines. Despite this simple implementation, the results have led to a clear enhancement of safety working conditions and procedures. As safety is not the only interest of port terminal operations, our solution allows our customer to track unnecessary CO_2 emissions when idle time is detected and to feedback mechanical information to the technical and maintenance teams. Therefore, ADVEEZ solutions improves operational efficiencies and turnaround management as well as reducing costs and accident rates.

Further information can be found at https://adveez.com/