

Berghaus-News

Traffic Technology · Mobile Crash Barriers

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Breaking ground to upgrade the A9 motorway



In mid April, Federal Minister of Transport Peter Ramsauer officially started the upgrade of the A9 motorway between Triptis and Schleiz during the groundbreaking ceremony, to start work on the last major section of the traffic project German Unity No. 12, ensuring that the Nuremberg-Berlin motorway is upgraded to six lanes almost throughout.

The groundbreaking ceremony was also attended by representatives from our local AVS service provider who is responsible for traffic safety for the PPP project (as reported in the last Berghaus-News).

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Special order for Berghaus New Zealand

On the other side of the globe, our mobile MPB 4000 traffic light system is currently playing a crucial role at New Zealand's largest passenger airport in Auckland. Here the runways are undergoing extensive renewal work. The old concrete substrate is being broken up and taken away, to be replaced subsequently by the new surface layer, consisting of a special 125 mm airport asphalt concrete for airports.

As the work is being carried out during normal flight operations with arriving and departing construction site vehicles and concrete mixers crossing the runways, a mobile traffic light system is used to control site traffic. The traffic light system has to be regulated by remote control from the central tower to ensure full knowledge of and compliance with the air traffic.

"The reason why Peter Berghaus New Zealand won this contract is that we adapt our traffic lights individually to the specific traffic situation and they are also reliable under remote operation. This is not possible with standard systems. Professional, particularly reliable technology is required here: after all, the responsible work at the airport leaves no scope for any mistakes - so we received the contract", says Peter Berghaus New Zealand Co-Director Rashmi Gupte with



At Auckland airport in New Zealand, a special version of our mobile MPB 4000 traffic light system controls construction site traffic, with remote control from the tower. An Emirates A380 Airbus from Dubai can be seen in the background.

pride. "To handle this sort of traffic situation, we simply use our universal MPB 4000 traffic-light system, which was certified for use in New Zealand by the New Zealand Transport Agency."

The MPB 4000 is rated for the control of vehicle-actuated alternating one-way traffic together with T-junctions and crossroads, and is equipped with energy-saving LED technology with high luminous intensity. It can be adjusted with customised programming to cope with many different applications.

Depending on the national regulations, digital data transfer uses up to 16 different radio frequencies. Similarly, the mobile traffic light system can also be operated by cable or quartz control.

Berghaus traffic lights "made in Germany" have been used in New Zealand for more than 10 years. Peter Berghaus New Zealand (formerly ISP) is run by Directors Peter Goug and Rashmi Gupte in the Royal Oak suburb of Auckland.

BASSt-tested LED long-range warning light

The proprietary **high-powered LED technology** developed and produced by Berghaus development and production has now also been fitted in the proven 340 mm long-range warning directional light. And as so often, once again Berghaus is a step ahead: while others still have to use a large number of LEDs, the Berghaus technicians manage with **just one single high-powered LED** even for the 340 mm lens – and still produce **outstanding surface illumination**, as confirmed by the **BASSt** (Federal Highway Research Institute). Compared to our halogen technology, the LED's low mean power consumption of about **0.26 A** (at 24 volt) permits a far **longer operating period** with just one battery charge. The integrated **automatic photocell** is responsible for fully variable adaptation of the luminous intensity LED advance warning light to the ambient brightness. This ensures that road users are not dazzled, while power consumption can be reduced even further when it



Double warning light system on a construction site vehicle – naturally also available in the new BASSt-tested LED version

BASST-TESTED



No clue from the outside as to what's really on the inside: innovative Berghaus LED technology in proven 340 mm long-range warning directional light case. Successful BASSt testing with outstanding light values from just one single power LED!

The lights can be operated with **12 V or 24 V DC** as needed, without any changeover or modifications. Already during development of the electronic controller, every care was taken to rule out the risk of electrical damage to the LED lights from reverse polarity and incorrect operating voltage, together with total discharge and damage to the battery.

Our 340 mm LED double warning light systems are ideal vehicle safety systems pursuant to RSA (additional safety equipment), with synchronised flashing lights drawing attention to the hazard already from afar. Our LED double warning light systems naturally also offer all the above-mentioned advantages of the LED advance warning light, including BASSt test number.

is completely dark. The maintenance-free high-powered LED also has a far **longer service life** than halogen lamps, thus further minimising the servicing workload and increasing operational safety. Other advantages of the electronic controller developed by Berghaus include for example standard electronic **reverse polarity protection** and **undervoltage protection**.

Technical data

Operating voltage	12 V or 24 V DC (automatically detected)
Lamp	1 high output LED
Lens	340 mm diameter, yellow
mean power consumption	approx. 0.26 A (at 24 volt)
Flashing frequency	40-45 flashing pulses/min

BASSt test number V-4-69-2011
tested to TL Warning Lamps 90 type WL 7
DIN EN 12352: L9H (by day) / **L9M** (by night)

Successful INTERTRAFFIC in Amsterdam



On all four days of the event, the joint exhibition stand of Peter Berghaus and AVS Traffic Safety was a popular meeting point for customers, business partners and interested trade-fair visitors from all over the world.

At the end of March, altogether 810 exhibitors from 50 countries were once again present in Amsterdam to present their latest products and services in the field of traffic technology. This makes the INTERTRAFFIC Amsterdam the world's number 1 trade fair for traffic technology. Nearly 26,000 interested trade-fair visitors from 123 countries came to the RAI Exhibition and Convention Centre to find out the very latest about innovative products and services at first hand from manufacturers and renowned suppliers.

On all four days of the event, large crowds also came to the joint exhibition stand of Peter Berghaus and AVS Traffic Safety. Together with our service provider, the AVS Traffic Safety Group, we once again presented our company's innovative proprietary product developments from Berghaus development and production - "made in Germany", of course.

New Berghaus LED technology

At the main entrance, it was already possible to see the new BAST-tested 340 mm LED advance warning light and our mobile LED illuminated arrow, pointing the way to the Berghaus exhibition stand. Some trade-fair visitors and even co-exhibitors were obviously astonished by our new product; at first, they couldn't believe that such outstanding brightness could be generated just by **one single power LED**, as up to now, competitors have still needed several LEDs to fulfil the strict lighting requirements made by the DIN standards. But on opening the commercially available case to reveal a clear view of the new Berghaus electronic control, even doubters were then truly convinced by our innovative LED technology.



Mobile traffic light technology

Our mobile **pedestrian traffic light controller FG 2** also generated great interest. This was presented at the trade-fair with a completely new control. While remaining easy to operate, the system now offers many additional possibilities for controlling pedestrian crossings and alternating one-way traffic.

Visitors also showed interest in our **MPB 3400**, which is designed as a mobile traffic light system for bottleneck situations, but which can be extended at any time to control crossroads simply by adding additional identical signal heads.



Mobile crash barriers

A further eye-catcher that drew the attention of the international traffic experts was our new, compact and hitherto narrowest mobile crash barrier, the **ProTec 100**. This latest member of the ProTec product family was revealed to the public for the first time at the INTERTRAFFIC. Together with the proven ProTec 120 model and the big sister ProTec 160, the ProTec mobile crash barrier system covers all traffic control aspects in roadwork situations pursuant to ZTV SA 97, including traffic between the site and on-coming or parallel traffic, as well as contraflow traffic and even in the transition zone.

Mobile LED alternating traffic sign

Many visitors to our exhibition stand also used the opportunity to find out about our universal possibilities for using mobile LED alternating traffic signs and congestion warning signs to inform, warn or control road users.

We would like to take this opportunity to thank all customers, business partners and interested visitors for coming to our exhibition stand, for the pleasant talks and the great interest shown in our products and services!

Four traffic light junctions on the B12 near Passau

At the start of May, our customer Verkehrs-Sicherungs-Service GmbH (VSS) from St. Wolfgang received a contract from Passau State Construction Authority to set up a diversion route with traffic light control.

The main B12 road between Munich and Passau is to be closed completely for about 200 days on account of roadworks. In order to cope with the diversion traffic, altogether four mobile crossroads traffic light systems were installed and commissioned in just two days in Simbach am Inn by the experienced VSS service team.

The swift installation was certainly also a result of the modular mounting devices and precisely fitting traffic light components in our modular system. For example, mobile masts for large signs, traffic lights and overhead cables can be installed up to a height of 8 metres above the roadway with arms extending to 8.70 metres - all using the same components, which naturally come with the accompanying static tests.

All signal heads, request buttons, radar detectors etc. are equipped with waterproof plug-in connections and can be put together quickly without tools, using ready made-up cables in the right lengths. All four mobile traffic light systems in Simbach am Inn were installed completely with Berghaus products - from the mounting device via energy-

saving 40 volt LED signal heads through to the traffic light controllers.

Berghaus even supplied the software for the mobile traffic light controls to calculate and produce the graphic signal timetables - naturally including progressive signalling, different daily programs and the interim time matrix. The traffic light controller is programmed directly from the previously generated signal timetable documents.

The programming stipulations issued by the State Construction Authority made quite specific reference to stationary traffic light systems, but are also easy to fulfil with the EPB 12 mobile traffic light controller. The EPB 12 controllers are linked in to the progressive signalling to minimise the burden placed on road users using the diversion. All four controllers are equipped with SMS modules for remote supervision, providing the maintenance engineer with reliable information about the condition of the traffic lights. "SMS remote supervision is a fine thing. We can query the status of the traffic lights reliably at any time, just as if we were directly on site. Any disruption is reported to us immediately by SMS and e-mail; however, up to now the four systems have been running without any problems at all since being installed 100 days ago", explains VSS project leader Anton Schwimmer.



As part of the complete closure of the main B12 road from Munich to Passau, mobile traffic lights had to be installed at four crossroads in Simbach am Inn in order to cope with the diversion traffic. The systems were installed using the Berghaus rotating and tipping mast system together with the large modular aluminium lattice mast system with arms extending up to 8.70 m over the roadway.

Eight-channel hand-held transmitter

We have made further improvements to our radio remote control for the MPB 4400, MPB 3400 and MPB 3200 mobile traffic light systems, and now offer a new version with active feedback function and large range.

Two coloured LEDs at the top of the touch panel on the handy radio transmitter provide the user with important information.

The red LED indicates an existing radio connection to the traffic light controller with the option of selecting any function.

The blue LED indicates feedback directly from the traffic light controller.

On making a selection, first the blue LED flashes; once the traffic light has performed the required function, the feedback LED then lights up blue permanently, reliably showing the user that the selected function is now active.

The hand-held transmitter switches to standby about 30 seconds after the last use.

The maximum radio range is about 1,000 m (under ideal conditions), depending naturally on the prevailing local conditions.

The radio remote control is suitable not just for temporary road closures (continuous red), e.g. when trees are being felled. Depending on the traffic light type, it is possible to select many different functions adapted to the traffic light. For example, in addition to automatic mode, flashing, lamps off and manual mode, in the MPB 3400 for example it is also possible to release individual directions of a crossroads control specifically by pressing the corresponding button - thus making hand-held control even easier.



Enlarged warning trailer production facility



Our second Berghaus metalworking shop in Kürten. Here we produce mobile warning trailers in various sizes and designs for the safety of short-term roadworks on normal roads, main roads and motorways.

Here at Berghaus, we also make all our own metal products. Right from the start, company headquarters in Kürten-Herweg has been equipped with a metalworking shop for six employees. Activities here focus on producing mobile sign stands, ground anchors, crash barrier element holders and other TL mounting devices for traffic signs and mobile traffic light systems made of steel and aluminium. The mobile battery casings made of aluminium chequered plate for all Berghaus traffic lights are also produced in Kürten-Herweg.

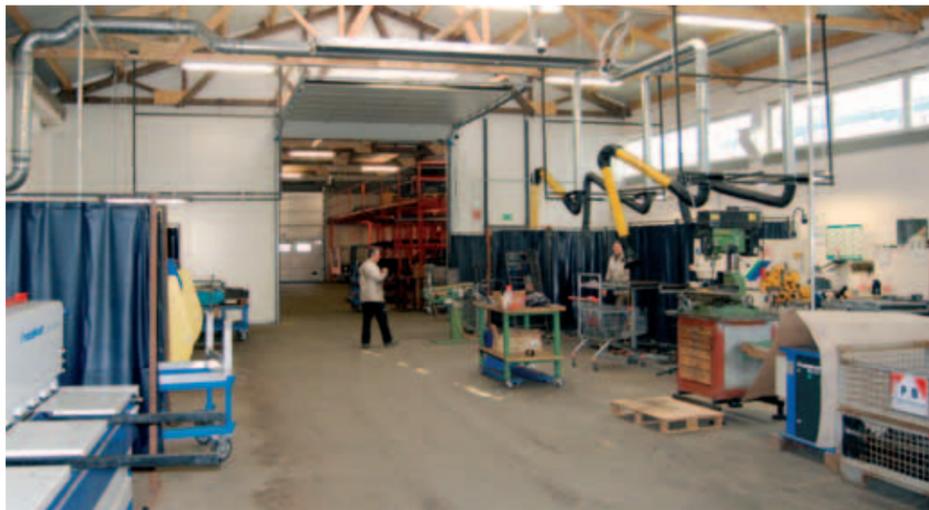
At the start of the year, the need for more space resulted in us relocating the production of mobile warning trailers from company headquarters to a separate building complex in Kürten-Eichhof. This site is also equipped with a full range of metal-processing machinery for our specialist vehicle engineering team. With all this ideal equipment, the Eichhof facility produces a whole range of mobile

traffic safety trailers for use on urban streets, country and main roads as well as motorways.

Depending on customer requests and possibilities, we provide the SM mobile warning trailers (corresponding to German traffic signs 615 and 616 small) and the AM warning trailers (traffic sign 616) with a whole number of technical extras ex works.

The basic chassis of the mobile warning trailer offers the customer the possibility of adding useful further items, such as LED lamps, large battery compartment with processor-controlled electronic battery charger, drive-on loading area and winch to take a pre-warning device, cable and radio remote control, electrically mounted warning sign upper section and many other useful options.

We can gladly provide you with an individual offer – just let us know what you need!



View inside our vehicle metalworking shop in Kürten-Eichhof. Right in the background, two red-reflecting superstructures for the SM smaller mobile warning trailer can be seen in the second building.



Mobile warning trailers by Berghaus in many different designs for all areas.

Count-down display for 40-V traffic light technology

For years, our red count-down displays mounted simply on top of the red light of the mobile Berghaus traffic lights have been generating greater acceptance for temporary traffic lights. The displays keep road users informed right down to the last second about how long they will have to wait for a green light, so that even longer waiting times are safely accepted without doubting the function of the traffic light.

In the past, this was only possible for battery-operated 12 V traffic light systems, but now it is also available for 40 V signal heads, regardless of whether the traffic lights are equipped with Berghaus LED technology or traffic signal lamps.

Our three-digit waiting time or red count-down display is used in fixed-phase mode and needs no extra cable to the controller. It is simply



plugged into the already existing wiring at any existing signal head - that's all!

No programming is necessary: calibration begins automatically with the next red phase. In every cycle, this is followed by the waiting time, displayed second by second. The user can choose whether the count-down is shown just in seconds (up to 999 seconds) or in minutes and seconds (up to 9:59 min). The display is switched off for the last five seconds of the red phase to ensure that the driver's attention focuses fully on the traffic light again. Automatic brightness adjustment ensures that the display is clearly seen even with the sun is shining brightly.

The 40 V count-down display is ideal particularly for use with the EPB 12 and 48 mobile Berghaus controllers.

Six pedestrian traffic light systems in Munich

The new FG 2 mobile pedestrian crossing traffic light presented at the INTER-TRAFFIC at the end of March met with great interest.

The first contracts were already concluded directly at the exhibition stand in Amsterdam; in May, altogether six complete pedestrian systems were commissioned on site at roadworks in Munich, including all signal heads, buttons, cables and masts.

Our customer MVPT Verkehrsplanung und Verkehrstechnik München GmbH is responsible for traffic safety at a large "travelling roadworks" site in Munich-Schwabing.

Over the next few weeks, Münchner Verkehrsgesellschaft mbH (MVG) will be renewing its tram tracks bit by bit between Kurfürstenplatz and Rotkreuzplatz.

The work for tram line no. 12 is being carried out in several sections, with traffic safety moving along according to the roadworks. In the next few weeks, our FG 2 mobile pedestrian systems with all modular components will also be constantly moved and recommissioned in various places.



Six mobile pedestrian traffic light systems were needed for roadworks in Munich: no problem for Berghaus, of course!

The new FG 2 mobile traffic light controller for pedestrian and bottleneck situations is tested pursuant to the Technical Delivery Conditions for Portable Traffic Light systems (TL-LSA 97) and complies with type class D. The clearly arranged control of the FG 2 makes commissioning very simple. All parameters necessary for the procedure are adjusted directly at the controller via the touch panel – without needing a laptop or any other pieces of equipment. All inputs can be printed out at any time for checking or as evidence. The FG 2 mobile pedestrian controller already offers many system functions and operating modes ex works. These include

operation. It comes with over- and undervoltage protection and also controls LED signal technology. A request counter for pedestrian mode is already included ex works. On request, several systems can be coupled together to permit simultaneous green on request for all pedestrians. Radio clock operation (DCF 77) is available as an option for progressive signalling, SMS remote supervision, illuminated waiting signals, pedestrian request buttons with visible feedback, acoustic system for the visually impaired, operating log books and much more besides

20th jubilee celebrations at AVS Mellingen

The invitation issued by the AVS Management in Mellingen to attend the jubilee celebrations for "20 years AVS Mellingen" on 2 June met with great response.

Following the celebrations with many customers and business partners from the traffic safety branch to mark 15 years of the company five years ago, this time the jubilee was intended just for the workforce as a special gesture of the company's gratitude.

From the total number of 95 invited employees, 90 colleagues had announced their intention to attend with their partners. The invitation was naturally also extended to the temporary employees currently working in the workshops to assist the colleagues at AVS Mellingen.

As a result, the 20th jubilee of AVS Mellingen GmbH was celebrated with more than 200 guests as one big family. "It all went off very well and everybody seemed to enjoy themselves. This is the first time that a company event like this has met with quite such a large response", were the happy comments made by Managing Director Steffen Weidner.

The celebrations were opened officially at 1 p.m. by a short speech from Steffen Weidner and Reinhard Cämmerer, the long-standing Managing Director who retired at the end of last year, and was followed immediately by the jubilee programme. Among others, this gave all employees and their partners the possibility of seeing their workplace and the lovely Weimar Land from on high. The AVS airplane, a historical Russian Antonov AN-2 built in 1954, was kept busy right through the afternoon, taking ten AVS passengers at a time on an exclusive, impressive round trip. Parallel to this unforgettable experience, the marquee offered a constant flow of musical entertainment, while during the afternoon a ventriloquist and his cheeky dummy kept all the guests in a cheerful mood.

It goes without saying that plentiful refreshments were also provided. All day long, tasty Thuringian specialities were available from the barbecue, together with coffee, cakes and ice cream, while malt lemonade and lovely Thuringian beer ensured no-one went thirsty.

At 7 p.m., a live band started up, providing dancing music throughout the evening to keep everyone happy so that the AVS company jubilee in Mellingen went on till way past midnight.



Popular jubilee highlight: non-stop round-trip flights over Mellingen and the lovely Weimar Land for ten people at a time in a 58-year old Russian Antonov airplane.

The jubilee celebrations met with a great response from all AVS employees and their partners, with more than 200 people accepting their invitations.



European summer bob championship in Hückeswagen

In early May, the castle town of Hückeswagen in North Rhine-Westphalia was the focus of international bobsleigh enthusiasts as the host of this year's European summer bob championships.

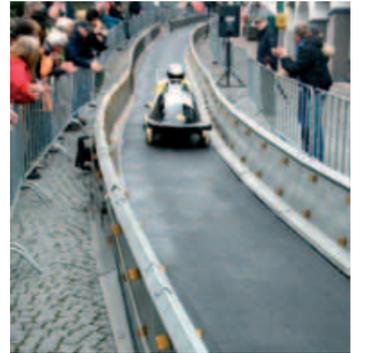
In the interests of safety and to mark out the downhill course through the old town centre, AVS Overath GmbH installed the STGW 4200 mobile steel crash barrier, as had already been the case back in 2009 for the summer bob grand prix event. Altogether 15 teams from Germany, Switzerland, Austria, Italy, Poland and

Holland came to Hückeswagen to take part, consisting of five women's and ten men's teams. Following some exciting races, Wolfgang Stampfer from Austria claimed the title of European Champion for the men's events and Anja Schneiderheinze from Germany became the women's European Champion.

Which all once again goes to prove the reliability of AVS, your Traffic Safety Professionals even for the more unusual projects!



The 525 metre long crash barrier channel formed the setting for the high-speed race down the hill through Hückeswagen old town centre. The bobsleighs reached speeds of up to 90 km/h. Despite the rain, around 10,000 spectators lined the track.



Pioneer: AVS Traffic Safety achieves qualification

As one of the first specialist firms, AVS Overath GmbH and the Wetzlar branch have now been officially qualified for their activities, based on the specifications issued by the Traffic Safety Department of the IVSt (Industrial Association for Roadside Equipment). The preamble of the IVSt audit guideline describes the quality assurance system and the special requirements made of the companies as follows:

Ensuring the safety of road construction sites demands a great degree of professional expertise, efficiency and reliability from the contracted companies. To minimise the risk factors within the roadworks, it is necessary for the companies contracted with the specific tasks of roadworks safety to provide due verification of their respective suitability. In turn, the awarding authorities are expected to check the suitability of the applicants or bidders.

In this context and knowing that a quality assurance system gives the traffic safety companies the possibility of verifying their suitability and reliability beyond and regardless of specific prequalification procedures for the building industry, a working group in the IVSt Traffic Safety Department has created a quality assurance system for traffic safety companies.

Every company involved in roadworks safety is given an opportunity to have the audit, monitoring and certification agency (PÜZ agency) named in the guidelines verify its suitability, professional expertise and reliability according to standard rules and criteria, thus giving the company the qualification needed for certain services in the

framework of traffic safety.

With due knowledge of the requirements, the companies are also in a position to constantly check and improve their efficiency.

The quality assurance system also offers the advantage of working on the basis of objectively comparable requirements, thus leading to an improvement in the demands for quality in traffic safety services also in the competition context. Suitability, professional expertise, efficiency and reliability for the various service aspects involved in traffic safety are verified by a certificate issued by the StrAusZert (Roadside Equipment Certification Agency) or another auditing institute approved by the IVSt.

In this way, the awarding authorities are put in a position to obtain an appropriate, accurate, objective and comparable picture about the respective applicant or bidder for the specific traffic safety service being awarded. The process gives them the possibility of instructing a suitably qualified company to perform the work involved in specific transport safety services (signage, road markings, mobile traffic lights, mobile road restraint systems). This certification harmonises the differing audit criteria of the various professional associations that were valid up to now.



Fachabteilung Verkehrssicherung

More information and a list of qualified companies can be found on the IVSt website under the Traffic Safety Department, www.ivst.de

Your experts for **safe** roadworks:

Berghaus Traffic Technology and 11 x AVS Traffic Safety



Your Traffic Safety Professionals!



Peter Berghaus GmbH as manufacturer for innovative traffic technology and our service provider, AVS Traffic Safety with its 11 sites nationwide are at your service in word and deed with more than 270 well qualified staff.



Peter Berghaus GmbH

Traffic Technology • Mobile Crash Barriers

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