

# Berghaus-News

Traffic Technology · Mobile Crash Barriers

Issue 29

August 2008



Fachbetrieb und Mitglied im  
Verein für Verkehrstechnik  
und Verkehrssicherung e.V.

## At a glance

### Contents

#### Page 2

- Radio-operated access lights: red/green on request
- Jens-Rolf Oppermann: Heaps of know-how
- Humour: Not just hot air?!

#### Page 3

- Mobile pre-warners: New version
- Crossroads controller EPB 12 in use
- New mobile mast for overhead cables

#### Page 4

- Which traffic control makes you feel safer?
- More than 20 km of crash barriers erected in only 7 days
- 5 km of crash barriers erected in only 36 hours

## ProTec 120 on the internet



### Screenshot of the new website for the mobile crash barrier ProTec 120

Visit our information website on the internet for the mobile crash barrier ProTec 120. Here you will find important tips on areas of use, practical application and installation, available for you to consult 24/7. Download sample tender texts, and take a look at our references:

[www.ProTec120.com](http://www.ProTec120.com)

### Imprint

#### Published by:

Peter Berghaus GmbH  
Herrenhöhe 6  
D-51515 Kürten-Herweg

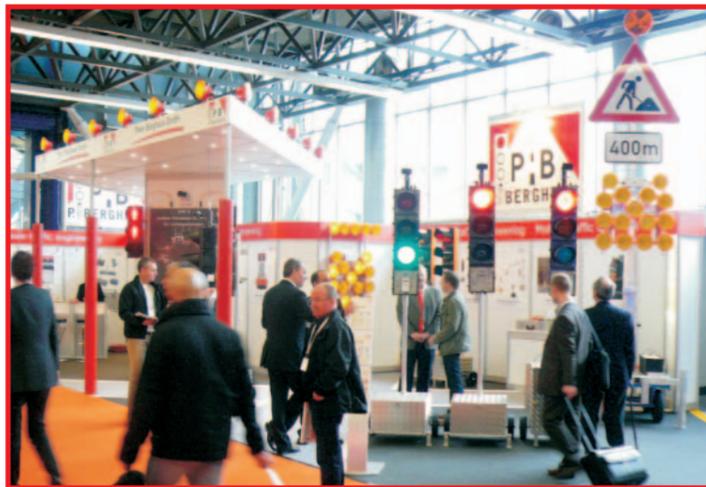
**Editor:** Dieter Berghaus  
D-51515 Kürten-Herweg  
Text and layout: M. Kronenberg

#### Circulation:

45,000 copies in German  
1,000 copies in English

**Printers:** Druckerei Brocker  
D-51515 Kürten-Dürscheid

## INTERTRAFFIC 2008: highly successful trade-fair



We met with a great reception at our booth during the international trade-fair INTERTRAFFIC in Amsterdam. Our innovative products were practically "besieged" by customers, authorities and interested visitors on all four days of the trade-fair (picture on the right: booth of our subsidiary, AVS Verkehrssicherungs-Gruppe).

INTERTRAFFIC is the world's No. 1 trade-fair for traffic technology. For a good twenty years or so, Peter Berghaus has been present in Amsterdam every two years with its broad range of products covering all aspects of mobile traffic light systems, portable crash barriers and innovative traffic control products. Time and again, our booth acts as meeting point for experts from all over the world. This year once more, it was our pleasure to welcome customers and business friends from Germany, the Netherlands, Belgium,

Luxembourg, France, Austria, Switzerland, Italy, Finland, Denmark, Sweden, Ireland, Spain, Portugal, Hungary, Poland, Slovakia, Croatia, the Czech Republic, Israel, Malaysia and Australia at our trade-fair counter.

There was huge demand for our new price list 2008, fresh off the press for the trade-fair: within four trade-fair days, around 1,200 price lists in German and English were collected by interested visitors, together with our CD containing extensive product information.

Our new **traffic light system MPB 1400** also met with a great reception from all customers, thanks to its low price and simple operation, with orders being placed directly at the trade-fair.

But the absolute highlight was the new **mobile crash barrier ProTec 120**, on display at our subsidiary's neighbouring booth. Interesting talks about this innovative crash barrier system were held with authorities and those responsible for traffic safety.

(Page 4 contains more details about ProTec 120)

## Berghaus worldwide: MPB 4400 now in Dubai

Berghaus traffic light technology is coveted all over the world: we recently received a larger order from our representative for Berghaus products in Dubai City, to supply altogether 20 traffic light systems type MPB 4400 to the Persian Gulf.

There is currently a lot of construction work going on in Dubai. The Emirate itself and in particular the city of Dubai are well known for their many spectacular building projects, such as sky scrapers, shopping malls, artificial islands and amusement parks. Nowhere else in the world have so many exciting building structures attracted so much global attention over the first few years of the 20th century as in Dubai: and the construction boom continues.

We are therefore very pleased that one of the prime building contractors in the United Arab Emirates has now placed their trust completely in German traffic light technology made by Berghaus. The MPB 4400 is the flagship of mobile traffic light technology. The order was placed for the radio-controlled version



The "flagship" in Dubai: the Burj al Arab (literally "Tower of the Arabs") is one of the world's most luxurious and most expensive hotels. An impressive landmark in the metropolis of the Emirates.



equipped with directional radar detectors, naturally with energy-saving, maintenance-free LED technology. Mounted on a mobile aluminium casing for two batteries 12 V/170 Ah with solid rubber tyres, the system is ideal for mobile use while still offering robust stability. All traffic lights are 100% identical and suitable for quartz, cable or radio operation, in this case with up to max. eight signals. The standard

version of the reliable traffic light system is already equipped for alternating one-way traffic, T-junction or crossroads traffic. The identical, flexible signal heads can be used as transmitters or receivers, and combined as required.

For use as pedestrian crossing signal system, all that's required is to insert the pedestrian symbols in the lens and add the request button. The system is controlled simply with the menu-driven handheld terminal. Our customer in Dubai has opted for the control system in English.

But the United Arab Emirates are not the only non-European country that use Berghaus traffic lights to control roadworks traffic. Our systems are also operating for example in Australia, New Zealand

(picture left), Singapore, Malaysia, New Caledonia, Iceland, the Faroe Islands, Canada, USA, the Bermudas and Barbados. So it's quite correct to say that Berghaus traffic lights from Kürten can be found all over the world!



Mobile Berghaus traffic lights outside the premises of our New Zealand representative, waiting for their next job.

## Radio-operated access lights: red/green on request



**Convenient radio control: ideal as clear access control for vehicle weighbridges, loading ramps, rubbish sites, gatekeeper's office, etc.**

**Large range of the compact handheld radio transmitter of up to 800 m.**

(top picture: Elektro Scheuermann)



surroundings, for example. The electronic control and the radio receiver are accommodated in an IP-67 protective casing that offers complete protection from water and dust.

The power supply is rated during production to 12V, 40V or 230V according to customer requirements, although versions with 230V AC and 12V DC are also possible without further ado. This gives the user the option of using 12V batteries, for example, if 230 V mains power is not available, or if the traffic light is not going to be permanently installed but used autonomously and in variable positions on the premises.

The signal heads are available with 200 mm or 300 mm light outlet, in halogen or also LED technology.

The battery-operated clearly designed handheld transmitter can be used to activate the traffic light from a maximum distance of up to 800 m.

It is thus possible to control access by triggering a red or green light directly on pressing the button. The remote control gives auditory and visual feedback that the traffic light has received the radio signal.

This radio-controlled request traffic light was purchased by our customer as an access control system that is easily

operated by the gatekeeper to allow trucks to drive onto the company premises.

The system can naturally also be used in exactly the same way to control access to a vehicle weighbridge, to a loading ramp or to a rubbish site, for example.

But this kind of low-cost, independently radio-controlled system can also be equipped with two signal heads for controlling fire brigade or emergency service access onto the road.

Perhaps you also need a special traffic light for what may initially seem to be an unusual application.

Just ask us about it: we will gladly produce a traffic light system to meet your requirements.

Benefit from our extensive experience as developer and manufacturer of traffic signal systems.

As renowned manufacturers of mobile traffic light systems, we frequently receive enquiries for customized signal systems apart from the normal roadworks traffic lights.

In view of the fact that since 1964, we have been planning, developing and producing all Berghaus traffic light systems here in our Kürten factory, this means we are naturally in a position to customize signal systems precisely to our customers' requirements.

And so it was recently our pleasure to meet the request for so-called gatekeeper's radio-operated traffic lights for a company's premises, which we would like to present to you here.

The traffic light system consists of a top quality polycarbonate signal head 300 mm in diameter, which can be fitted with a corresponding contrasting visor on request so that road users can see the traffic light even better, particularly when there are other lighting effects in the

## Jens-Rolf Oppermann: heaps of know-how



**Heaps of know-how: Berghaus-News spoke with Jens-Rolf Oppermann (48) at the INTERTRAFFIC in Amsterdam**

Interview with Jens-Rolf Oppermann, Büro für Verkehrstechnik (traffic systems bureau), Lehrte

**Berghaus-News (BN):** Mr. Oppermann, you are known to our readers from your former job with "AED Autobahn Elektro-Dienst GmbH" in Lehrte near Hannover, where you were involved in construction site protection. You have recently set up in business in your own with a traffic systems bureau. What made you set up this kind of company and work as a consultant in future?

**Jens-Rolf Oppermann (JRO):** You know, after being committed to traffic safety for more than 30 years, I had the opportunity to change the way my career was going and leave the operative traffic safety business behind me. The merger of AED with VAS put the new company AVS Lehrte GmbH on a good footing and gave me an opening to do my own thing.

**BN:** Your company offers planning, consulting and project work. What's that all about?

**JRO:** One important area for consulting work is training according to the German "Additional Technical Contract Conditions and Guidelines for the Work Involved in Safeguarding Road Works (ZTV-SA)" with a focus on motorways and dual carriageways and looking in particular at mobile crash barriers and temporary road markings. I also offer direct and personal consulting and information about traffic safety to engineering firms, building contractors and authorities when it comes to technical possibilities, on-going developments and innovative products. I receive extremely positive feedback from my customers who benefit from my experience in this field of traffic technology.

I also advise engineering firms, building contractors and authorities when planning construction work and drawing up tender documents, and help these institutions to look for alternative traffic control possibilities. Frequently the suggestions made in the "Guidelines for the Work Involved in Safeguarding Roadworks (RSA)" and ensuing tender procedures do not go far enough. This results in the possibilities for alternative

traffic control systems which are safer or more cost-efficient.

I also take on special project work within road construction projects. This can include for example coordinating the cooperation between building contractors, construction site protection companies and authorities. I also gladly provide services such as preliminary calculations and elaborating ancillary offers for building contractors on request.

**BN:** That really is a very broad range of services. How do you juggle it all?

**JRO:** It is rather a lot, that's true, but many aspects are interlinked with each other and can be combined. Why shouldn't a course refer for example to new aspects such as warning humps, arrow beacons or new road restraint systems? I see my task especially as providing interested people with exactly the information they want and need on a highly personal level, without them having to plough their way through technical literature or surf the 'net for hours on end. Today it is more important than ever that we learn from each other and benefit specifically from what others have experienced. Not even the internet can be a substitute for personal contacts.

**BN:** Mr. Oppermann, what are you dealing with just now?

**JRO:** Just now I am putting together a training course based on the ZTV-SA particularly for road construction agencies, authorities and engineering firms. This will also be available in a compressed short version that can act as "Safety Instructions" for employees working for the road and motorway maintenance departments.

**BN:** Mr. Oppermann, many thanks for giving us such an informative interview.

## Not just hot air?!



A man in a hot air balloon has got lost. He goes lower and sees a woman on the ground. He goes even lower and asks her: "Excuse

me, perhaps you can help me. I promised my friend that I would meet him an hour ago, and I don't know where I am."

The lady on the ground answers: "You are travelling in a hot air balloon at about 10 m altitude above ground. You are currently between 50 and 51 degrees latitude and between 8 and 7 degrees longitude."

"You must be an engineer", says the balloonist.

"Yes, I am", replies the woman. "How did you know that?"

"Well," says the balloonist, "what you told me is technically correct, but I still

haven't a clue what I'm supposed to do with your information, and the fact is that I still don't know where I am.

To be quite honest, you haven't been much help. All you've done is delay my journey even more."

The woman answers: "You must be in management."

"Yes, I am", says the balloonist. "How did you know that?"

"Well", says the woman, "You don't know where you are or where you're going. You've reached your position simply because of a lot of hot air. You have given a promise without having a clue how to fulfil it, and you expect the people below you to solve your problem. The fact is that you're in exactly the same position as before we met, but now somehow it's all my fault!"



**Büro für Verkehrstechnik**  
(Traffic systems bureau)  
Consulting – Planning – Project work  
Jens-Rolf Oppermann  
www.jr-oppermann.de

# Safety in roadworks: optimized mobile pre-warner

In the last Berghaus News we presented the new mobile pre-warners with reports on trials carried out with the state authority Straßen.NRW on the motorway A3 in the Cologne area.



The mobile pre-warner is brought to its operating position on a mobile frame with pneumatic tyres. The low weight of 350 kg (including battery) allows it to be accommodated in the mobile warning trailer or on another trailer.

**Further optimization of the pre-warner**  
In recent months, various models of the mobile pre-warner have been thoroughly tested, reports of practical experience evaluated and minor technical alterations introduced. Eventually, the version of the mobile pre-warner optimized specially for Straßen.NRW was presented.

### Ready for use in seconds

Once the mobile warning trailer has been erected in position ready for operation, this protected area can be used by just one person to make the mobile pre-warner ready for use in only a few minutes. The pre-warner is connected up to the battery and the mast is extended to the required height. Here there is a choice of different variations: the telescopic hinged mast can be used to bring the illuminated cross up to heights of approx. 3.50 m above the road surface. Alternatively, the cranked mast positions the illuminated arrow up to heights of even approx. 5.50 m. Thanks to the steering drawbar, the pre-warner

can be brought exactly to the required position and secured with the cranked supports. A spirit level facilitates precise alignment, with the cranked supports compensating easily for any irregularities in the road surface.

The flashing LED illuminated cross is now clearly visible high above the road surface and draws attention to the pending danger.

### Changes in behaviour through pre-warners

Thanks to the great height and eye-catching light pulse, the pre-warner is perceived early on at any time of day and night or even in bad weather conditions. It draws the attention of road users to the pending danger. This is clearly illustrated for example by the behaviour of truck drivers: they no longer touch or cross the lane boundary.

Increased attention which makes a major contribution to more safety in (one-day) road works.



The early (before the mobile warning trailer) and eye-catching warning of pending dangers at a height of up to 5 m clearly enhances attention levels of road users at (one-day) roadworks.

## Crossroads controller EPB 12 in use

At the INTERTRAFFIC in Amsterdam this April, we presented our new mobile crossroads controller system EPB 12 to the interested trade public.

The resonance was excellent so that we could book the first orders already at our booth during the trade-fair.

The first units have been delivered and are in use. Our customers appreciate in particular the considerable reduction in material and labour costs for wiring thanks to the combined use of master and slave controller.

The decentral design of the mobile controller EPB 12 means it is no longer necessary for all the cables for signal heads, push-buttons, radar devices and detectors to be routed in a star-shaped installation to a central point. In contrast to conventional systems, clever positioning of the master and slave unit at the

site reduces cable lengths to a large extent. The controllers are connected to each other only by a data bus cable and possibly with a power supply cable. There can even be a maximum distance between master and slave controller of up to 1 km.

This means smaller, lighter overhead systems can be used. Installation is altogether much faster with clear savings in material, transport and labour.

Our "Ampel-Win" software makes it very clear and extremely easy to program the EPB 12, using a commercially available laptop.

Customers also appreciate the identical plug-in power cards for the controllers as being most service-friendly. Up to max. 12 signal groups with up to 32 signal heads (24 with full monitoring) can be directly controlled and supplied with power. In addition, the user can decide separately for every signal group whether to activate the signal heads with 40V lamp technology or LED technology. And if a defect should occur at a power output, the customer can replace the faulty card simply on the spot.

Yet another practical advantage of mobile crossroads controller EPB 12.



The master/slave controller system brings huge cutbacks in the cabling workload: this saves time, material and money



## New mobile mast for overhead cables

A new module has been added to our mobile aluminium erection system. A new mast has been developed to go with the previous components in the lattice mast construction; it is ideal for a larger number of overhead cables and for coping with long distances.

The new large mast with its height of eight metres clearly exceeds all previous erection systems while still using the tried and trusted components. The concrete pedestals each weighing 1,550 kg on an area measuring just 1.2 m<sup>2</sup> provide the system with great stability.

With the modular design, the required stability is achieved by simply adding concrete pedestals. Square and round masts are inserted through all pedestals for additional stability. The transport openings in the concrete pedestals can be used for easy handling with a forklift truck.

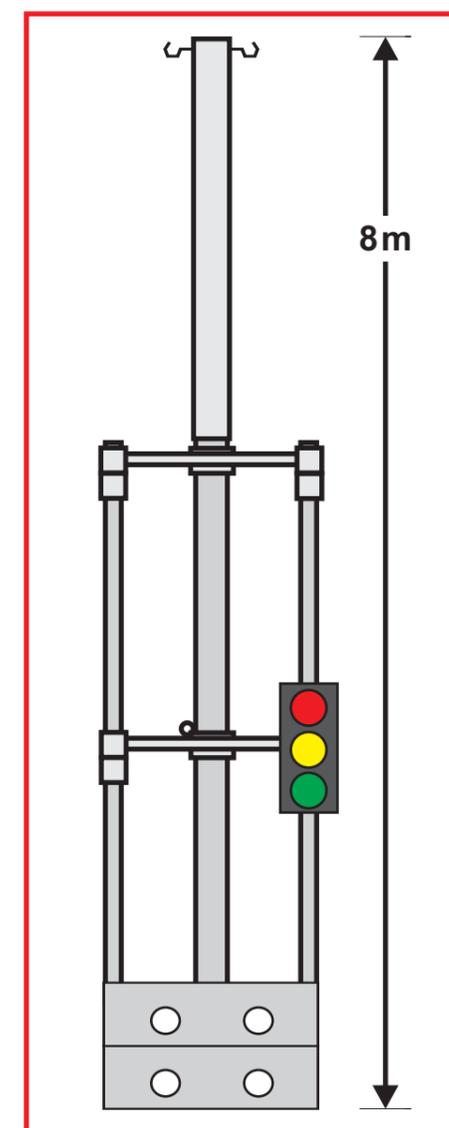
Very often, larger mobile traffic light systems need control leads (controller systems with central supply), or large-scale roadworks require overhead cables over wide distances as power supply cables, for example, or a larger number of cables have to be carried across carriageways. We have designed the new large mast particularly for these applications, with corresponding structural analysis.

It is now possible to carry up to 16 cables (PUR leads) with a diameter of 5 x 1.5 mm<sup>2</sup> at the lofty height of eight meters even under ice and snow loads.

Distances of 25 m can be bridged with up to eight cables. And mast spacing of 19 m is still possible for up to 16 cables (see table on the right).

It goes without saying that this universal and modular system can be used with the same components every time to create a wide range of different erection possibilities.

In addition to overhead cables, it can also be used for safe, stable installation of high signals for traffic lights, diversion signs and large-sized signs or arms. One system for all applications.



Technical drawing of the structural analysis for the new 8 m large mast system, specially for overhead cables over wide distances.

Overview table for maximum cable widths using an 8 m high large lattice mast with two concrete pedestals under ice and snow load

No. of cables 5x1,5 mm <sup>2</sup>	Maximum mast spacing / cable length
8	25 m
10	22 m
12	22 m
14	20 m
16	19 m

# Which traffic control makes you feel safer?



Road dividers consisting of double marking lines and signs: protection from on-coming traffic? None whatsoever! Road users can't understand why no crash barrier has been erected here. It certainly can't have been a lack of space, if there's still space for two yellow marking lines 15 cm each and a sign 12 cm wide.

(Picture: J.-R. Oppermann, 2008)



Maximum safety in minimum space: crash barrier ProTec 120. Containment levels T3/W2 and H1/W5 are achieved with an ASI value of "A" with a concrete width of just 12 cm. You can see that the crash barrier takes up only a minimum of space while needing neither yellow marking lines nor signs next to the barrier.

(Picture: FVS GmbH, 2008)

In spite of the increasing number of authorities that include portable road restraint systems as road dividers in their specifications for road construction work, the advantages and (certainly often live-saving) properties (when vehicles veer off their lanes) of these systems have still not become general knowledge. This is unfortunately quite clear from the

picture top left taken this March in the Berlin/ Brandenburg region. Cars and trucks pass each other by at close proximity on extremely constricted lanes with only 75 cm between them, with double yellow marking lines as the only "visual" road divider. If a vehicle veers off its lane and lands unhindered in the oncoming traffic, this is sure to have fatal conse-

quences ....

But today, mobile crash barriers can be used even in narrow lane cross sections, without any problems: ProTec 120 is a system that scarcely narrows the available lane widths.

On the contrary: use of our ProTec 120 with its slight concrete width of only 12 cm leaves road users with far more space

than a double yellow marking line.

The protection and guiding effect of ProTec 120 keeps vehicles safely in lane through the roadworks.

There's surely no need to emphasise the positive safety aspects for all road users here yet again.

With ProTec 120, Berghaus once again dictates road safety standards!

## Your No. 1 service provider: AVS Verkehrssicherungs-Gruppe

### More than 20 km of crash barriers erected in only 7 days

The state road construction and traffic authority Straßenbau und Verkehr Schleswig-Holstein commissioned the Hamburg branch of AVS Lehrte GmbH with the traffic safety measures on the motorway A24 (Berlin-Hamburg) between junctions Witzhave and Schwarzenbek.

In recent years, considerable increases in heavy traffic on the A24 have caused a drastic deterioration in the road surface. Thorough refurbishment is therefore necessary in this particular section of the motorway.

In addition, the existing drainage system here is in a desperate state and will be replaced beforehand.

Just ten days were given to complete the traffic safety measures with 20,500 m of mobile crash barriers type Quadro T3/W4. But thanks to the incredible daily completion rate of around 3,000 m performed by the AVS service team, it was possible to start the roadworks a full three days in advance.

Proof once more of the professional logistics and outstanding service provided by the AVS-Verkehrssicherungs-Gruppe!

### 5 km of crash barriers erected in only 36 hours



A tender was issued among others for altogether 5,100 m of traffic safety measures with mobile crash barriers on the motorway A7 (Hanover-Kassel) for roadworks near Seesen.

The tender specification stipulated just three days for installation of more than 5 km of crash barriers, working round the clock 24/7.

A nice challenge for AVS Mellingen GmbH, but no real problem. Thanks to the well-practised teams, outstanding logistics and, last but not least, the tried-and-tested design of the ProTec 120 system, installation was completed in just 36 hours working in 3 shifts.

It proved once again to be a great advan-

tage that ProTec 120 can be erected quickly, precisely and safely in one workflow.

Thanks to the special handling gripper on the vehicle crane, the 10 m elements of the mobile crash barrier are positioned exactly and set directly in the stands. Only two screwed unions have to be tightened, then on to the next 10 m element.

This results in a smooth, fast workflow on site by a team of only 3 workers, and goes easy on all resources!



Unloading, positioning and installing in one smooth workflow thanks to the ProTec 120 special handling gripper.



# Peter Berghaus GmbH

## Traffic Technology • Mobile Crash Barriers

Herrenhoehe 6 • D-51515 Kuerten • phone +49 22 07 96 77 0 • fax +49 22 07 96 77 80

www.berghaus-verkehrstechnik.de • mail@berghaus-verkehrstechnik.de