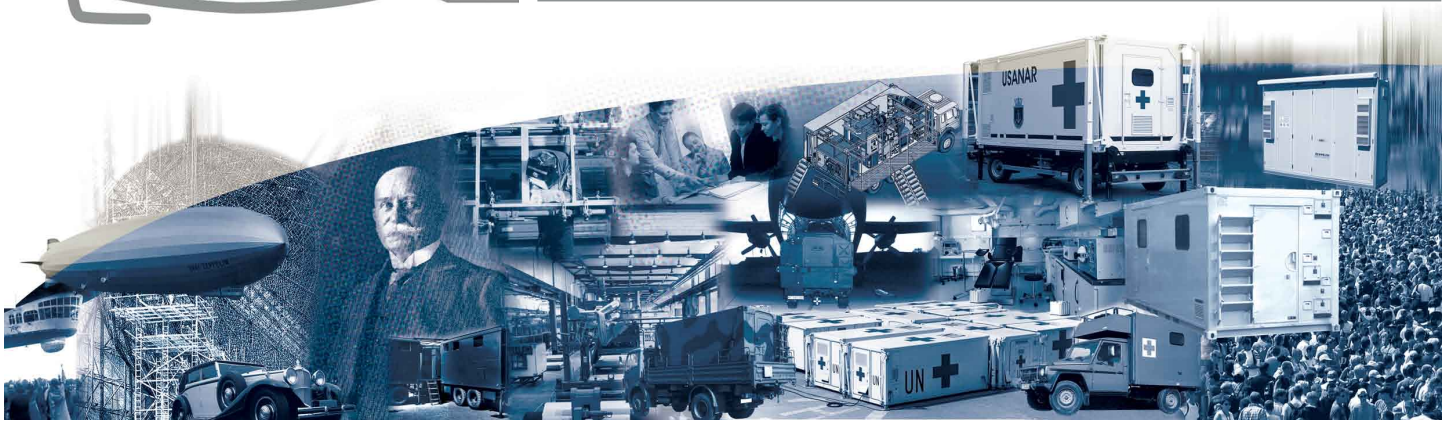
ZMS® inside

Issue 2 / 2010



„Meckenbeuren, we've got a problem"

We hope to never hear these words from our customer, the German Aerospace Center (DLR). DLR is Germany's national research center for aeronautics space, energy and traffic.

Zeppelin has recently supplied DLR with a double-side expandable 20ft shelter for a new mobile Telemetry, Tracking and Command Station (TT&C). DLR's Mobile Rocket Base (MORABA) enables the national and international scientific community to prepare and perform sounding rocket and balloon born experiments in the scientific fields of aeronomy, astronomy, geophysics, material science and hypersonic research.

The mobile TT&C Station has to operate reliably in very harsh environmental conditions, from arctic to tropical climates (-40 to +55°C). Additionally the shelter comprises several unique features like for example floor heating, even in the expandable parts. Every part of the

27m² interior space is used ergonomically. In addition to the working area, a total of 6 fix and one mobile 19'' racks had to be accommodated. As a consequence the main entrance into the shelter had to be moved to an expandable side. For climatic reasons, an air lock had to be integrated in front of the entrance to enter into the working area. From there, the rocket launch and all experiments are monitored. We wish our customer the best of success with their interesting work and we are proud that Zeppelin has again contributed to aeronautics history, although this time the Zeppelin product will remain on the ground.

Editorial

Dear Readers,

With this second edition of ***ZMS - inside*** we would like to use the opportunity by the end of the year to thank all of our valued business partners, suppliers and customers for an excellent cooperation throughout a very successful year. But moreover, we would particularly like to congratulate our employees for their outstanding work without which such a success would not be possible.

We have received a lot of positive feedback for the first edition of our newsletter which affirmed us in our effort to continuously improving the quality and information level of ***ZMS - inside***. The second half of the year has seen a lot of extraordinary and diversified projects that we have realized all over the world.

Among the most amazing projects was an order for two mobile clinics for Papua New Guinea which is also featured in a special article of this newsletter. With the example of Conrad Manove we would like to start a series of features about our successful and most appreciated distributors all over the world.

Another project was so exciting to us that it well deserves its appearance on the front page of this newsletter. The order of the German Aerospace Center for a command post system was already announced in the first newsletter. Not even the great Zeppelin airships have made it up to space ☺

Last but not least we would like to send all our readers Season's Greetings and our best wishes for a very Happy New Year!

Best regards,

Ralf Griesbaum & Ulrich Korte
Managing Directors

ZEPPELIN MOBILE SYSTEME

ZEPPELIN MOBILE SYSTEME GMBH
Zeppelinplatz 1 · D-88074 Meckenbeuren
Phone: +49 (0) 7542 - 5509 - 0
Mail: info@zeppelin-syteme.de
www.zeppelin-systeme.de

The big Show

The wide range of products that is offered by ZMS is also reflected by the type of exhibitions where we participate. There couldn't be a bigger difference than in the biggest military and the biggest medical exhibition in the world. The EUROSATORY Show was held in June this year in Paris while the MEDICA Exhibition took place in Düsseldorf/ Germany just recently in November.

If we just take the bare facts and figures of the two Zeppelin displays at these Shows there was no difference in the shell of the two stands. Both have existed of a double-side expandable 20ft shelter and an inflatable tent connected thereto. However, the outer dimensions are basically all that these two displays had in common.

As already indicated in the first edition of ZMS - inside, Zeppelin showed a highfrequency shielded command post in camouflage painting at EUROSATORY to the more than 54,000 visitors from 135 countries worldwide which is an excellent result for a purely military exhibition.

Zeppelin display at Eurosatory Show in Paris

This product has recently caught a lot of attention because of the shielding level of 45 dB hich is a unique selling point on the world market.

Zeppelin outdoor stand at Medica

The 4-day MEDICA Show was even attended by approx. 137,000 visitors from more than 100 countries. ZMS had displayed a fully functional Operating Room with all accessories involved such as medical equipment and instruments. In addition to the OR functions, the 3:1-Shelter also comes with a built-in scrub-up sink and a blood bank fridge. It is equipped with a HEPA filtration air condition and with medical gas cabinets O2, N2O, compressed air). The connected tent was equipped with an ICU bed. In this configuration the Zeppelin demonstrator is immediately ready to start work at every place of the world. The demonstrator is currently deployed at the ZMS headquarters in Meckenbeuren, but it is ready to leave the factory quickly upon the first call.

Fully equipped Operating Room

The ZMS stand had attracted a lot of attention because it was the only display that showed a functional medical system instead of just offering single medical equipment. In addition to that people have also been fascinated by the fact that this highly sophisticated product is available as a mobile field system that can be shifted to every part of the world.

NEWS IN BRIEF *The older the better !*

Willi Papert, Johann Bell and Peter Rüthlein (pictured from left to right) have one thing in common: All together they make it to almost 100 years of Zeppelin experience. This unbeatable knowledge now has to be covered by others as the three are going into retirement.
Mr. Papert and Mr. Bell have already started their private lives, Mr. Rüthlein will follow in spring 2011.
Thank you very much, gentlemen, for a remarkable achievement and good luck for the next 100 years of your private life!

Miner issues

Among the most emotional moments of the year was the rescue of the 33 miners that had been trapped in a copper mine in Chile for almost three months. One of the first things that they might have seen after their rescue was the Zeppelin field hospital which had been delivered to the Chilean Armed Forces ten years ago and that had been deployed at the site of the mine accident. The hospital did not only have a very busy year 2010 - as it was also in several missions after the earthquake in Chile in February - it also has a very remarkable mission record throughout the last decade. On an average, the field hospital was in service in Chile and in other South American countries at least 3-4 times per year since its initial supply. This is surely an unbeatable record and an outstanding humanitarian performance of its operators. Unfortunately, the demand for such kind of field hospitals in Chile (and adjacent countries) is at least ten times higher than the current inventory.

Tirana calling

In April 2009, Albania and Croatia have been incorporated as 27th and 28th members of the Northern Atlantic Treaty oganization (NATO). This, however, is not only a privilege, it is mainly a duty for both countries. A duty to comply with applicable NATO regulations but also with applicable NATO standards in terms of the equipment they are having in service. The interoperability of equipment is particularly important in case of joint operations of different NATO forces.

For this reason it was not necessarily a surprise but still something remarkable when the Albanian MOD had issued a tender for 7 Tactical Mobile Command Posts in 2009. The 7 double-side expandable shelters were meant to be combined to 3 command post systems. The Group Battalion is a system of 3 expandable shelters connected to each other through a covered platform (see pictures). The 2 Battalion systems are made the same way with the difference that just two shelters form the Battalion. The Group Battalion was already delivered this year, the remaining systems are due for delivery in 2011.

The seven 3:1-Shelters are equipped with a high-frequency shielding which allows an attenuation level of 45 dB within a frequency range of 100 kHz and 1 GHz. The shelters can be powered by public network or by power generator trailers which are part of the Zeppelin supply. Alternatively, every shelter's got a built-in emergency power generator.

The Zeppelin supply is not limited to the bare shelter and supporting infrastructure such as air condition and power distribution, it also contains the installation of up to 14 working stations per shelter, an IT network as well as racks for the radio communication equipment to be used by the customer.

The cooperation with the Albanian MOD and in particular with the contract executing authority, the C4I section of the Modernization Directorate, was very pleasant and fruitful at any time. We are looking forward to a future cooperation with the Albanian Armed Forces and thank you for the trust in our company.

NEWS IN BRIEF

Progress everywhere

The progressiveness of ZMS is not limited to the high quality and inventive character of our products. It is also demonstrated in many aspects of the new facility. When being involved in environmental questions in almost all of our shelter projects it is a logical consequence that such issues also need to be addressed when building a new factory. This is why the complete factory roof has been covered with photovoltaic cells during this summer. This means that the total power requirement of the factory could theoretically be covered by solar energy. Unfortunately, the weather in central Europe is still not as 'progressive' as necessary in terms of solar days which means that the heat supply is additionally covered by wood pellets. But even this is another renewable energy.

Zeppelin receives order for satellite ground control stations

ND SatCom, a system integrator for satellite based communication, which is also located at Lake Constance, recently placed an order with ZMS for the pre-integration of approx. 70 mobile ground control stations as part of a big work share that ND SatCom has in Step 2 of the SATCOMBw satellite communications program of the German Armed Forces. The Zeppelin work share in the project will mainly contain the installation of racks and other electric equipment as well as of communication electronics. The final adjusting of the antenna installation is also part of the ZMS work which will occupy a dedicated part of the production area in the Meckenbeuren factory throughout 2011.

Country focus: Papua New Guinea

The country focus of this newsletter features a country which might not even be known to all of our readers, not to mention its exact geographic position on the globe.

Papua New Guinea (PNG) is a country in Oceania, occupying the eastern half of the island of New Guinea and numerous offshore islands. It is located in the southwestern Pacific Ocean, north of Australia. The country is one of the most diverse countries on earth, with over 850 indigenous languages and at least as many traditional societies, out of a population of just under 7 million. It is also one of the most rural, with only 18% of its people living in urban centers. PNG is one of the world's least explored, culturally and geographically, and many undiscovered species of plants and animals are thought to exist in the interior of Papua New Guinea.

After being ruled by three external powers since 1884, Papua New Guinea gained its independence from Australia in 1975. The country's geography is diverse and, in places, extremely rugged. A spine of mountains runs the length of the island of New Guinea, forming a populous highlands region mostly covered with tropical rainforest.

These specific geographic characteristics even mean that the capital Port Moresby cannot be reached on a country way but only by plane. Logically, this also means that all other places are even harder to reach. It goes without saying that a country where three quarter of the population live in the rainforest also has a problem with medical care. This is what attracted the attention of Conrad Manove a couple of years ago. Conrad is a young and modern man who today

Launching of Zeppelin mobile clinics in the highland province of Goroka

runs his business with his company Orion Commodities Limited in Port Moresby. Conrad grew up in the highlands in the province of Goroka (see map). When he first came across the Zeppelin product range of mobile medical shelter solutions he automatically realized that this was a perfect match with the needs of his country. He convinced the governor of the province of Goroka to invest into two initial mobile polyclinics and finally after three years of hard work these clinics have been officially handed over in Goroka in November 2010 which has attracted a lot of local attention (see picture).

Polyclinic with Dentistry and Ophthalmology

Conrad Manove in Gynaecology clinic

The two clinics are both made of double-side expandable 20ft shelters which are powered by an independent generator and which come with their own fresh and waste water tanks integrated into the bottom frame of the shelter. Electrical lifting jacks allow the loading and unloading from a truck without any additional machinery. Clinic no. 1 features examination, dentistry and ophthalmology units, all separated by curtains (see picture). The shelter has three different entrances so that each of the medical applications of the polyclinic can be run independently.

Clinic no. 2 includes another examination part, a gynaecology unit and a laboratory. Orion Commodities Limited is Zeppelin's exclusive distributor in PNG. The big success of the launching of the two clinics has confirmed Conrad Manove in his belief that this has not been the last supply of Zeppelin products to the country.

Hot business

The fact that the football world championships 2022 have just been awarded to the Emirate of Qatar has recently called the world's attention for the outside temperatures that are predominating the summer in a Gulf country. These ambient temperatures of up to 50°C also stress the summer months in the United Arab Emirates.

180 bed field hospital deployed at Khalifa Medical City in Abu Dhabi

Despite of these scary figures, Zeppelin staff has deployed and installed not less than 3 mobile hospitals in the UAE bet-ween June and October this year.

The first one was the 180 bed field hospital for the Ministry of Health of the United Arab Emirates ('SEHA'). This hospital is one the most complete turn-key field hospitals that ZMS had ever built. Earlier in the year SEHA had already been delivered a 50 bed field hospital from Zeppelin. The 180 bed hospital has been deployed most recently as a medical back-up for the Formula 1 Grand Prix that took place in Abu Dhabi in November.

The UAE Armed Forces have also received their second Zeppelin field hospital in just one year. At the Zayed Military Base outside Abu Dhabi this hospital was handed over to the army. It comes with a complete NBC protection of the whole system including hard shelters and tents.

Finally, the third installation and training of a Zeppelin mobile hospital took place in Dubai. However, unlike the aforementioned, this hospital was different in two ways. First of all, the system was not meant for a local customer but for the Yemeni Armed Forces. Second of all, it was the first time that ZMS had made a mobile hospital arrangement out of semi-trailers (see pictures). These 50ft giants are normally used as stand-alone units because of their huge dimensions. In this particular case, manoeuvrability was not the major concern of the end-user because of the size of the country and of the roads. For this reason, the standard European road travel dimensions have even been exceeded. The three semi-trailers - equipped as examination, radiology and operating room - had been connected to each other and added by two inflatable tents for patient accommodation (see pictures). The 20 bed mobile hospital was designed for a completely independent use. Every semi-trailer was equipped with its own power generator and water tanks.

NEWS IN BRIEF

The older the better II

The refurbishment of shelters has become an important aspect of the services offered by ZMS. Until 2005, the numbers of shelters that came back to the factory for refurbishment was marginal, for a good reason of course. Under conditions of normal wear and tear and regular maintenance the Zeppelin-Shelters have a lifetime of more than 30 years. Under such conditions they do not need to be refurbished in the first half of their lifetime. Since 2005, however, we have refurbished more than 300 shelters in all categories delivered in the past 20 years, from communication shelters to hospital or kitchen shelters. These shelters that had been used in many missions abroad showed different types of abrasion or minor damages whereas the structure of the shelter normally was not affected. Typical refurbishment works are change of floor, replacement of damaged flaps or other add-on items and a new painting of course.

PS: The 'shelter' pictured was not among the refurbished ones although it is more than 100 years old.

Semitrailer hospital deployed in Dubai

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www.zeppelin-systeme.de

ZEPPELIN MOBILE SYSTEME

ZEPPELIN MOBILE SYSTEME GMBH
Zeppelinplatz 1 · D-88074 Meckenbeuren
Phone: +49 (0) 7542 - 5509 - 0 · Fax: +49 (0) 7542 - 5509 - 149
Mail: info@zeppelin-systeme.de