

# Is there a CBRN doctor in the house?

**GW: I know you work hard to maintain close links with the German NBC Forces and the CBRN Medical Task Force. While that might work well in generalities, how do you manage issues such as Sampling and Identification of Biological Agents (SIBA)?**

DD: The answer has two parts. There is the regular communication between us – the CBRN Medical Defence within the Med Office – and the folks at Sonthofen, especially those who work on development. Second is that we review all documents and contribute to the doctrine development on the CBRN side of the house. On the practical side, our plan is to train together – we started in 2005 with an exercise in Munster continued in 2006 with the participation in the field exercise precise response and were seen this year in our participation with Exercise Golden Mask [see p52].

As for SIBCRA, those actions are designed around environmental aspects, which are not the business of the medical people. So there is not an immediate and intimate relationship with SIBA, or SIBCRA, and the tasks that we do; we collect samples from humans and animals but not from the environment.

**GW: Yet there is a need for specialist knowledge in SIBA, so presumably that task would benefit from someone having that biological background?**

DD: Ours are special skills required to deal with biological samples from corpses or other sources. I can see in the future that one would be tempted to deploy together with SIBA teams; they might be able to assess the situation and maybe identify areas that are covered with contamination and do bio sampling on animals etc, with medical people – but it doesn't impinge much for the time being.

**GW: Do you deploy with the new Special Reconnaissance Units? Do you second-**

**staff to them, or act as reachback?**

DD: We haven't trained together so far, but we will next year – this will be the key event for next year as it has taken some time for the people in Sonthofen to build up their force. They will exercise together with the people in the medical force and find out whether there will be standard operating procedures (SOPs) for some conceptual work that will bring us into play at the same time. I can imagine there will be, but we don't know them at the moment.

**GW: The Bundeswehr is going to purchase a lightweight bio vehicle which will do detection and identification. Will you have any role to play in that, since it does identification too, or if not will it have any impact on your role?**

DD: We are involved in the process conceptually, but as of now the med service has not considered acquiring something similar. We are concerned with taking samples from human, animal, food or water sources, and the advantages you gain from having the type of equipment that you will have available on this vehicle is limited as you have to have direct access to the people or whatever biological sources. The other reason is that, as of now, the methods available in such a vehicle are comparatively crude – they rely on a limited set of antibodies or DNA primers, so they are blind against the whole spectrum of agents. They will only give a preliminary identification; anything beyond that has to be done at a lab. So sample-taking and the limited reliability of the results you get from the automatic tests reduces the tactical benefit that the medical service would gain from such a system. That does not say that they are useless in the CBRN world; you can use them to get an idea fast, but everything they find out will still have to be seen in a lab for analysis to become a reliable result.

Colonel Dirk Densow of the CBRN Medical Task Force, Bundeswehr Medical Office, tells Gwyn Winfield about the relation between German medical forces and CBRN issues

**GW: In that case are you trying to get mobile diagnostics – either through mobile labs or a Joint Biological Agent Identification and Detection System (JBAIDS)-type device – to take it out of hospitals and further into the field?**

DD: Yes, we in the Medical Service are still debating that. When we deploy a hospital or hospital-like structure, however, we have a micro biological lab with us which is different from other Nato nations. We are currently considering that, instead of procuring and deploying new labs, we might reinforce the existing lab capacity to do everything that is needed to pack the samples and kill the agent so that the samples can safely be transported. We are discussing this with our experts in the Institute of Microbiology. As soon as we have come to a conclusion which alternative, reinforcing existing lab capability versus a containerised solution will be optimal for medical needs we will be drafting our own initiative. The problem is that, if you buy these containers or mobile labs, we will only be able to acquire a few thus leaving us unable to support all missions.

**GW: There are advantages but also trade-offs. Smaller labs have greater mobility, but the larger ones have greater capability. What is your position on this trade-off?**

DD: As I have said beforehand, our process of decision making has not been finished. Personally, I prefer a small footprint on the medical side, because we have to arrive in theatre fast and do what you can in terms of provisional identification, make best use of therapeutic time window after exposure, take samples and send them home for definitive analysis within a few days. You would not be able to take everything that is needed for definitive analysis into theatre anyhow, even with a larger container.

**GW: Do you see this being for the medical service in general or a mobile lab for CBRN specifically?**

DD: That is exactly the key question. Since we have got already deployable microbiology labs; it might be much more appropriate to enhance their capabilities by providing them with a glove box, special suits etc. – whatever they needed to handle the BSL 3 or 4 samples. That might turn out to be cheaper and we already have them on the ground and would enhance the diagnostic capabilities also for routine microbiology and infectiology. Finally, we would be able to provide some sort of preliminary identification in every theatre.

**GW: One of the new major challenges for CBRN is forensics; is this something you have been involved in?**

DD: You are right – it is a difficult issue for military people. In terms of collecting evidence, so far we have never done it for domestic purposes; it is the law enforcement agencies that would do that. Our federal law enforcement agencies are in the process of acquiring a CBRN capacity, and we are in contact with them and they would be able to rely on Bundeswehr resources, though this has yet to be finalised in terms of MOUs are whatever is needed in that respect. We have not taken forensic samples so far; we could, but you have to be trained first in order not to destroy evidence and I have not seen many soldiers that have gone through that special training process.

**GW: Is the threat of a Litvinenko-type incident while on military operations something that needs to be prepared for? Or if it happened would you second forces to some civilian forces?**

DD: It's a difficult issue. Rather than managing an assault like that on our own we would support federal law enforcement agencies and they would, to some extent, rely on our medical logistic chain for transporting samples. A similar arrangement was made for the FIFA Football Championship, when we were prepared to support the sampling process rather than actually taking samples and destroying important evidence on the crime scene.

There is another aspect to forensics; it is not just criminal cases but also verification, i.e. the process of establishing whether or not for example the outbreak of a particular disease is man-made and

not natural. I definitely see a role for our teams in verification – to identify whether that was an accidental, incidental or deliberate outbreak, and record where exactly the sample was taken to maintain the chain of custody in order to identify agents in at least two independent laboratories. At least in that respect our medical teams have a significant forensic role to play.

**GW: As you mentioned, you have a role in decon. As mentioned in the Colonel Neumann interview [p40], there is an improvement in decon; is this something that is happening to the Medical CBRN Task force, or is the capability demonstrated in Bruchsal [International Symposium for NBC Defence, July 2007] it? What is your impression of your capability in five-to-ten years, and did the soccer World Cup have any impact on your thoughts?**

DD: Our med decon capability will look completely different. Just a few days ago a contract was signed with EADS (who will do the engineering) and Kaercher (who will build the interior and use the same tents as for the parachute rescue centre) for a demonstrator for the new medical decon line – so what was seen in Bruchsal this summer will be replaced about three to four years from now.

The current plan is to procure one decon line per rescue plus one for the Task Force Med CBRN Defence and for training purposes. As of now the intention is to pre-deploy the material to every theatre of operations where we have at least a role two medical facility. At this point I see a role for the Task Force to

play. Rather than actually deploying all the material shortly after a CBRN release; our well trained team will just deploy with carry-on luggage and then be able to support the medical facility in need

Testing of the new installation will begin fall 2008. It is only then, when we will be able to fully determine the minimal functional footprint, i.e. the amount of material the Task Force will have to transport.

With respect to what will change with the new generation of medical decon line is that first of all it will be using lightweight inflatable tents air condition and air filtering – so the incoming air on the clean side will be filtered and also the exhaust air. This will allow us to build up the new medical decon facility adjacent to the medical facility so we do not need to transport the patients for a long time, and we can rely on water supply from the role 2 + medical treatment facility. The next difference is that we will not transport the patients manually through the decon process; they will be moved on a rail system that reduces the physical burden on our staff. Lastly, the new facility will use less water in the decon process which reduces the logistics burden further. It will come packed on aircraft pallets so we don't have to use dedicated lorries as we do have to today.

We have been planning this for about four years, so well before the FIFA Football Championship. The planning started when it became clear that the next theatres of operations would be well outside Europe and that we would be faced with a hot climate and scarce resources especially in terms of water supply.



The CBRN medical task force have their own decon assets ©CBRN World