# Nuts & Bolts

There must be a spell linking the concept of remoteness with the world's most beautiful dive spots. When you consider this fact, and the provision of specialist medical services for injured divers in those spots, you start to understand how challenging the role of DAN as your partner in case of need can be.

Back in 1999, we realised that we had had too much faith on recompression chamber facilities in remote locations. The ability of those facilities to remain sustainable, available and suitably equipped was, indeed, a tricky business: we needed to find a way to support them, ensuring at the same time a standard level of quality of service.

The International DAN (IDAN) commissioned the Risk Assessment Guide for Recompression Chambers in order to provide this industry with some international best practices; a series of on-site risk assessments under the Recompression Chamber Assistance and Partnership Program (RCAPP) followed in the next twelve years. The multifaceted work with these facilities allowed us to become a driving force for change. The resulting on-site needs assessments showed that consistent and comprehensive training in operating facilities, tendering to injured divers inside the chambers, basic diving medicine and technical skills such as facilities maintenance were given high priority in a few chambers only.

Over the past eight years, Alert Diver has published numerous articles on our endeavours to visit, assess and assist facilities, some of these in remote corners of the diving world like the Galapagos islands, Papua New Guinea, Zanzibar and the Azores, to name but a few. The same spirit animates our latest projects, including the one we refer to as our "Nuts & Bolts" program: maintenance training for remote chamber facilities, devised to empower the staff abilities to keep their facilities running effectively and safely, by using really basic technical skills and tools.

The full scope of the training course includes as many as twenty-two different talks, covering all aspects of the facility, from oxygen delivery and equipment analysis to compressors, chamber air-conditioning and fire extinguishing systems. Its full version can take up to five days to be accomplished.

When one thinks of maintenance, the first image one is likely to have is: your complicated compressor lying on the workroom floor, scattered in a thousand individual parts! In fact, maintenance seldom means repair. Rather, we teach maintenance as a series of planned, preventative inspections, checks, tests and basic service steps. If you care for your equipment and take note when things start to change, most often you can perform simple procedures to avoid costly breakdowns and failures.

Another mental block lies in the role of the maintenance technician: the typical profile of a suitable, skilled maintenance worker. Yet, most interested staff members can be taught how to accomplish 95% of the steps needed to keep a chamber facility work properly. Comprehensive services and overhauls remain a requirement, but can be easily planned for and fitted into operating schedules and budgets when you know that everything is done as the manufacturer intended.The same applies to motor vehicles and related maintenance services: you just cannot neglect the oil level between your planned services, and if you remember to do the basics and pay attention, your vehicle will stay reliable and efficient as time goes by.

On those same assumptions, "Nuts & Bolts" was conceived as an IDAN initiative. Once we had a draft of the course ready, we set about offering it to future presenters, maintainers, managers, owners, even doctors on an international level. Two comprehensive training opportunities were organised as trial runs: one on-site, on the island of Utila in the Caribbean; another one at the impressive Polish National Centre

for Hyperbaric Medicine in the Baltic port town of Gdynia.

Now it’s time to spread it, in smaller and more focused parts, at the recompression chamber facilities engaged with DAN under the RCAPP. We hope and mean to raise the level of on-site skills at these facilities, empowering them to be in a position to take better care of their massive investments in equipment and human resources.