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Oral presentation

A European competency level applied to the use of the closed circuit rebreather in scientific diving at work. First step. Highlighting the best practice.

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1, ABSTRACT

The use of the closed circuit rebreather (CCR) for scientific diving activities is growing. During the last 10 years more and more scientists and scientific projects did take advantage of the furtive behaviour CCR offers together with the very efficient gas management, optimized decompression and enhanced diving safety. Many applications exists, among others, the exploration of the mesophotic zone or the fishes sensing, sampling, study of their vocal communication. The use of rebreather in sciences exploration constitutes a new technological paradigm.

The American Academy of Underwater Science (AAUS) in the USA established a standard for the use of rebreathers in scientific diving some 10 years ago and such document is lacking in Europe. Today in Europe the use of rebreather is generally not permitted by existing national legislation. If accepted in Belgium, France is currently undergoing changes to its laws and should allow the use of closed circuit rebreather early 2017. These national legislations need to evolve and adapt to the new technique used for scientific diving but that takes time.

So it is time to establish at European level a competency level for the use of CCR at work. Taking advantage of the existing European norm for that respiratory equipment will permit to put more emphasis on the best practice rules aiming at inferring adapted and unified training around Europe using a common reference frame.

This paper is a first step on that process and will highlight all the points that will need to be addressed in this future new competency level.