

NOBENDEM QUIZ 5

Here is a great example of how the new methodology can improve IO comfort AND maintain safety! It was time for our semi-annual fire suppression check at 165 FSW - not to mention a loyal staff members' last dive - so we looked at the USAF tables for the following - a 6 min descent to 165, 3 minutes at depth, a 4 min ascent to 45 FSW (I won't let our chamber ascend any faster than 30 FPM for dynamic reasons, and a gut comfort level), 3 min at 45 to reaccomplish the deluge valve checks, and then begin the decompression schedule.

Working this out via the USAF tables (a safety mod to the USN tables that basically adds five feet to the bottom depth) would have required us to use the 170 for 20 table, stopping at 30 FSW for 2, 20 FSW for 7, and 10 FSW for 23 - all on O₂. Using Nobendem, and the ACTUAL dive profile (which was a little shorter), we were able to make our first stop at 20 FSW (Again - all deco time from leaving 45 FSW on was on 100% O₂). It took us 5.5 min to hit 165, 2 min there to check the system, 4 min 12 sec (4.2 min) to ascend to 45 FSW, 3.5 min there to check the system, and 2 min to ascend to 20 FSW (on O₂, and our first stop). A staff member was at the computer console alongside the chamber driver doing a real-time Nobendem update to match the actual dive profile! Counting up times, we still would have been on the USAF 170 for 20 because we exceeded the 5 min ascent time before the first deco stop at 30. With Nobendem, we needed only 1 minute at 20 FSW, and 5 min at 10 FSW before ascent to the surface!! Our total O₂ deco time from 45 FSW to the surface adds up to 10 min (counting our ascent times, which were slower than they had to be), compared to the USAF tables which would have required 32 min + 1.5 ascent = 33.5 min on O₂!

The attached PDF document shows the Nobendem spreadsheet for the above listed profile. We have obviously recognized that dry dives are different than wet dives (we bent the heck out of our IO's following the USN dive tables until they were modified as the USAF tables)! I recommend a Nobendem safety enhancement of only 20 for wet divers, but 55 to 65 for dry divers (IO's)!! A safety enhancement of ZERO matches the model to a square dive profile using the node points on the USN tables!!