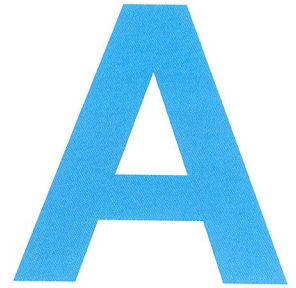


# NITROX DIVE TABLES



The NOAA Nitrox No-Decompression Dive Tables were developed using the U.S. Navy Air Decompression Tables 9-7 and 9-8 published in the *U.S. Navy Diving Manual* (2008).

The dive times listed in the NOAA tables were derived by calculating the equivalent air depth (EAD) for each nitrox mixture between 28% and 40% oxygen. NOAA used the following EAD formula:

$$\text{EAD} = \left[ \left( \frac{(1 - \text{FO}_2)}{0.79} \right) (D + 33) \right] - 33$$

$$\text{EAD} = \left[ \left( \frac{(1 - \text{FO}_2)}{0.79} \right) (D + 10) \right] - 10$$

Table depths range from 40 fsw (12.3 msw) to the depth at which the partial pressure of oxygen in the mixture reached a maximum of 1.6 atmospheres absolute. Depths are listed in 5 or 10 fsw (1.5 or 3.1 msw) intervals. On certain tables, the maximum no-decompression limit displayed exceeds the NOAA Oxygen Partial Pressure Limit for single exposures; these numbers are highlighted in yellow. The decision to

display the maximum allowable bottom time per the U.S. Navy Air Decompression Table instead of the maximum time allowed based on oxygen exposure was due to the inordinate amount of time permitted by either set of numbers. Both were deemed so great that the average NOAA diver would never reach, let alone exceed, either amount of time.

During EAD calculations, all depths were rounded to the nearest foot. Calculations  $\geq 0.5$  ft (0.15 m) were rounded up to the next whole foot, while those  $< 0.5$  ft (0.15 m) were rounded down to the next whole foot. For example, in the NOAA Nitrox 36% No-Decompression Dive Table, the EAD calculation for 45 fsw (13.8 msw) is 30.7 fsw (9.4 msw). In this case, 0.7 ft exceeds 0.5 ft; therefore, the depth was rounded up to 31 fsw (9.5 msw), placing the diver on the 35 fsw (10.7 msw) table. In the NOAA Nitrox 32% No-Decompression Dive Table, the EAD calculation for 40 fsw (12.3 msw) is 30.3 fsw (9.3 msw). In this case, 0.3 feet is less than 0.5; therefore, the depth was rounded down to 30 fsw (9.2 msw), placing the diver on the 30 fsw (9.2 msw) table.

Considering that most depth gauges are only accurate to  $\pm 3$  fsw, a variation of +0.4 fsw (0.1 msw), which equates to an actual measurement of 4.8 in (12.2 cm), was deemed acceptable from a safety perspective.







# NO-DECOMPRESSION TABLE

## NOAA NITROX 36

### ONLY FOR 36% O<sub>2</sub>, 64% N<sub>2</sub> MIXTURES

WARNING: EVEN STRICT COMPLIANCE WITH THESE CHARTS WILL NOT GUARANTEE AVOIDANCE OF DECOMPRESSION SICKNESS. CONSERVATIVE USAGE IS STRONGLY RECOMMENDED.

RNT RESIDUAL NITROGEN TIME  
 +ABT ACTUAL BOTTOM TIME  
 ESDT EQUIVALENT SINGLE DIVE TIME



EXCEEDS NOAA 1.40 PO<sub>2</sub> LIMIT

PO <sub>2</sub>	START DEPTH		MAXIMUM NO-STOP TIME	DIVE TIME REQUIRING DECOMPRESSION - Top		MAXIMUM NO-STOP TIME	DIVE TIME REQUIRING DECOMPRESSION - Bottom											
	msw	fsw		00	00		00	00										
0.80	12.3	40	17	27	38	50	62	76	91	107	125	145	167	193	223	260	307	371
0.85	13.8	45	17	27	38	50	62	76	91	107	125	145	167	193	223	260	307	371
0.91	15.3	50	14	23	32	42	52	63	74	87	100	115	131	148	168	190	215	232
0.96	16.9	55	12	20	27	36	44	53	63	73	84	95	108	121	135	151	163	180
1.01	18.4	60	11	17	24	31	39	46	55	63	72	82	92	102	114	125	130	150
1.12	21.4	70	9	15	21	28	34	41	48	56	63	71	80	89	92	100	110	114
1.23	24.5	80	7	12	17	22	28	33	39	45	51	57	60	65	80	90	90	90
1.34	27.6	90	6	10	14	19	23	28	32	37	42	47	48	55	60	65	65	60
1.45	30.6	100	5	9	12	16	20	24	28	32	36	39	45	45	50	50	40	40
1.56	33.7	110	4	7	11	14	17	21	24	28	30	35	35	40	40	30	30	14

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Z
2:20	3:36	4:31	5:23	6:15	7:08	8:00	8:52	9:44	10:36	11:29	12:21	13:13	14:05	14:58	15:50
0:10	1:17	2:12	3:04	3:56	4:49	5:41	6:33	7:25	8:17	9:10	10:02	10:54	11:46	12:38	13:31
0:10	0:56	1:48	2:40	3:32	4:24	5:17	6:09	7:01	7:53	8:45	9:38	10:30	11:22	12:14	
0:55	1:47	2:39	3:31	4:23	5:16	6:08	7:00	7:52	8:44	9:37	10:29	11:21	12:13		
0:10	0:53	1:45	2:38	3:30	4:22	5:14	6:07	6:59	7:51	8:43	9:35	10:28			
0:10	0:53	1:44	2:37	3:29	4:21	5:13	6:06	6:58	7:50	8:42	9:34	10:27	11:19		
0:10	0:53	1:44	2:37	3:29	4:21	5:13	6:06	6:58	7:50	8:42	9:34	10:27			
0:10	0:53	1:45	2:38	3:30	4:22	5:14	6:07	6:59	7:51	8:43	9:35				
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