

Altitude „Diving“, the 2nd. Bergsee-“Tauchen“ (☺): die zweite

SUB
MARINE
CONSULTING



Test with:

Scubapro ALADIN TEC 2G, Software Version: 40 20 72 73 25 (left)

Scubapro Galileo „G2“, Hardware: 0.0, Software Version: 1.3 (middle)

RATIO iX3M DEEP, Software Version: 4.0.44 / 013 (right)

during flight with commercial aircraft 06/2018

TTS =
total time to surface, i.e. sum of all stop times + ascent time (or: TAT)

DCIEM Table for Air @ Sealevel would read for 42 m / 25' :

9 m / 7'
6 m / 8'
3 m / 17'
TTS = 32 + 4'

Bühlmann ZH-86 Table for Air @ Sealevel would read for 42 m / 27' :

9 m / 4'
6 m / 7'
3 m / 19'
TTS = 33'

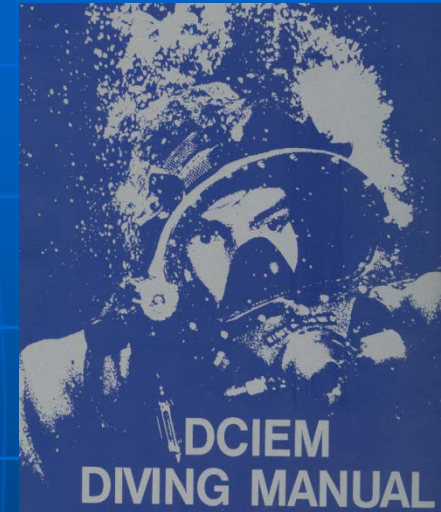
Galileo 2 / G2 Dive Planner for Air @ Sealevel would read for 42 m / 25' :

9 m / 2'
6 m / 8'
3 m / 21'
TTS = 31 + 6' (= TAT 37') OTU = 28, CNS = 9 %

Altitude „Diving“: the 2nd. Bergsee-“Tauchen“ (☺): die „zweite“ Test-“Dive“: 42 m / 25 min @ Air

The DCIEM Altitude Correction is for 1.800 m – 2.099 m: → + 12 m

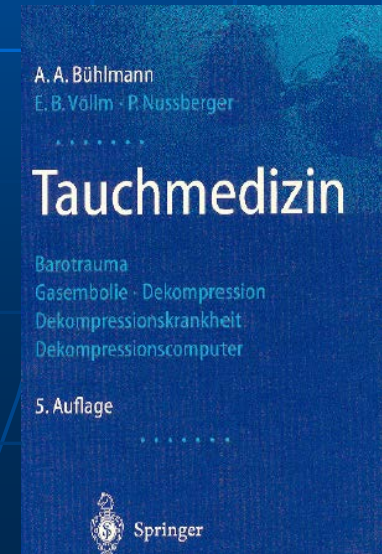
thus 54 m / 25': 15 m / 5' (but at 12 m!)
12 m / 5' (but at 10 m!)
9 m / 7' (but at 7.5 m!)
6 m / 9' (but at 5.0 m!)
3 m / 39' (but at 2.5 m!)
TTS = 65 + 4' (unadapted!)



The Bühlmann ZH-86 Table for Air @ 701 – 2.500 m:

42 m / 27': 12 m / 1'
9 m / 5'
6 m / 5'
4 m / 9'
2 m / 21'
TTS = 44'

(adaption time @ altitude: 1 h or more!)



Altitude „Diving“: the 2nd. Bergsee-“Tauchen“ (☺): die „zwote“ Test-“Dive“: 42 m / 25 min @ Air

D3_01 - [Graphic1]

```
was jetzt?z
Luftdruck: 0.798 AMV: 25.0 RQ: 1.000 O2: 0.210 He: 0.000 N2: 0.790
CNS: 10.42 OTU: 26.28 AR = 9.00 VO2 = 0.25 Latency: N
NUM FLAG: OFF Wassertemp.: 20.00 Wasserdichte: 998.20300
Korrektur: N GFHI= 1.00 GFLO= 1.00 LAST STOP= 2.0 m First Stop = 9.0 m
Tiefe: 42.00 Zeit: 25.00 max. Tiefe= 42.00 ges. Tauchzeit= 25.00
berechnete Kompartimentwerte:
```

DIVE 3.01:

- no adaption TTS = 46'
- with 30 min adaption: TTS = 42'

```
niedriger wie Gelling wachen:
Deko Prognose:
9m Stopp Prognose Dekozeit: 4.00 Komp.#: 3
6m Stopp Prognose Dekozeit: 8.00 Komp.#: 5
2m Stopp Prognose Dekozeit: 26.00 Komp.#: 7
TTS = 42.00
```

→ https://www.divetable.info/DIVE_V3/index_e.htm

Altitude „Diving“: the 2nd. Bergsee-“Tauchen“ (☺): die „zweite“ Test-“Dive“: 42 m / 25 min @ Air



After adaption time of 30 min @ ca. 0,798 Bar in cabin:

Scubapro ALADIN TEC 2G @ MB Level = 0:

TTS = 56 min ★

Scubapro Galileo „G2“ @ MB Level = 0:

TTS = 58 min ★

RATIO iX3M

TTS = 25 min (!!!) ★

(despite Gradientfaktors, default: GF Hi = GF Lo = 0,93!!!)

Altitude „Diving“: the 2nd.
Bergsee-“Tauchen“ (☺): die „zweite“
Test-“Dive“: 42 m / 25 min @ Air

SUB
MARINE
CONSULTING

post scriptum:

→ 1)

https://www.divetable.info/skripte/Altitude_Diving.pdf

→ 2)

USN Table from 2018,
i.e.: 2008/2011/2016:

SS521-AG-PRO-010

0910-LP-115-1921

REVISION 7

U.S. Navy Diving Manual



- Volume 1: Diving Principles and Policies
- Volume 2: Air Diving Operations
- Volume 3: Mixed Gas Surface Supplied Diving Operations
- Volume 4: Closed-Circuit and Semiclosed Circuit Diving Operations
- Volume 5: Diving Medicine and Recompression Chamber Operations

DISTRIBUTION STATEMENT A: THIS DOCUMENT HAS BEEN APPROVED FOR PUBLIC RELEASE AND SALE. ITS DISTRIBUTION IS UNLIMITED.

SUPERSEDES SS521-AG-PRO-010, REVISION 6 CHANGE A, Dated 15 October 2011.

PUBLISHED BY DIRECTION OF COMMANDER, NAVAL SEA SYSTEMS COMMAND

01 DECEMBER 2016
CHANGE A 30 APRIL 2018

Altitude „Diving“: the 2nd.
Bergsee-“Tauchen“ (☺): die „zwote“
Test-“Dive“: 42 m / 25 min @ Air

The USN 2018 Table for Air @ sealevel (42 m → 138 ft.):
140 feet / 25' (p. 9-78):

30 feet / 9 m: 3'
20 feet / 6 m: 24'
TTS = 32'

The USN 2018 Altitude Correction is for 6000 feet (1.900 m → 6.234 ft.):
140 feet → 180 feet (55 m; p. 9-48), thus 180 feet / 25' (p. 9-82):

50 feet / 5' (but at 40 feet / 12 m!)
40 feet / 6' (but at 32 feet / 10 m!)
30 feet / 7' (but at 24 feet / 7 m!)
20 feet / 57' (but at 16 feet / 5 m!)
TTS = 80' (unadapted!)