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On the reliability of dive computer generated run-times 28.02.2022: Synopsis

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DOI:

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Abstract:

Here we give as a closure to this series a synopsis on the previous 6 parts.

During the 6 parts of „On the reliability of dive computer generated run-times“ Part I ➔ Part VI, we observed from some dive computers manufacturers deviations from documented algorithms/decompression models. Additionally to these software-driven variations are those, driven solely by hardware and the statistical errors by measuring ambient pressure, time, temperature and the inertgas contents of the breathed gas-mix.

Synopsis: slide # 3
References: slides # 4 & 5

Synopsis Part I → Part VI:

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Part #	covered topics:	Ref.
I	42 m/25‘; Air & Trimix, G2 run-times vs. firmware updates	[1]
II	45 m/30‘; Scubapro® Galileo G2 & Aladin[2], iX3M DEEP vs. ZH-86 & DIVE	[2]
III	18 m/60‘; 33 m/60‘; 51 m/30‘; iX3M DEEP vs. gradient factors & ZH-L16B	[3]
IV	Shearwater® PERDIX vs. DCIEM	[4]
V	Shearwater® PERDIX vs. ZH-86 / ZH-L16C & DIVE 3_11	[5]
VI	Error Propagation, Δ TTS	[6]
---	ZH-86, ZH-L16B, ZH-L16C & DIVE Version 3_11	[7], [8]
---	Variations in the TTS: where do they come from?	[9]

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References:

[1] Rosenblat M., Vered N., Eisenstein Y., Salm A. (26.07.2021)
On the reliability of dive computer generated run-times, Part I;
DOI: 10.13140/RG.2.2.16260.65929

[2] Rosenblat M., Vered N., Eisenstein Y., Salm A. (11.01.2022)
On the reliability of dive computer generated run-times, Part II;
DOI: 10.13140/RG.2.2.11343.41126

[3] Rosenblat M., Vered N., Eisenstein Y., Salm A. (02.02.2022)
On the reliability of dive computer generated run-times, Part III;
DOI: 10.13140/RG.2.2.21973.50405

[4] Rosenblat M., Vered N., Eisenstein Y., Salm A. (22.02.2022)
On the reliability of dive computer generated run-times, Part IV;
DOI: 10.13140/RG.2.2.11469.72169

[5] Rosenblat M., Vered N., Eisenstein Y., Salm A. (07.02.2022)
On the reliability of dive computer generated run-times, Part V;
DOI: 10.13140/RG.2.2.18129.81763

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References:

[6] Rosenblat M., Vered N., Eisenstein Y., Salm A. (23.02.2022)
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DOI: https://dx.doi.org/10.13140/RG.2.2.36242.32969

[7] Vered N., Rosenblat M., Salm A. (2021) Synopsis & Fact Sheet DIVE Version 3_11,
DOI: https://dx.doi.org/10.13140/RG.2.2.17024.56326

[8] Rosenblat M., Vered N., Eisenstein Y., Salm A. (2022) Recovery of selected ZH-86 air-diving schedules via a decompression shareware
DOI: 10.13140/RG.2.2.34235.13609

[9] Salm, A. (2012) Variations in the TTS: where do they come from?
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