PBS

PERFORMANCE BREATHING SYSTEM®

Unlock peak performance through the science of breathing

OPTIMISING HUMAN PERFORMANCE FOR TACTICAL OPERATORS

Tactical operators—whether military, law enforcement, or first responders—operate in high-stress, high-consequence environments where performance under pressure is critical. The ability to regulate stress, sustain cognitive performance and maintain optimal physical readiness can mean the difference between mission success and failure.

The Performance Breathing System® (PBS) is an innovative training system designed to optimise breathing, enhance resilience, and sustain split-second decision-making under pressure.

Backed by scientific research and field-tested in real-world tactical settings, our system integrates physiological monitoring, behavioural science, and individualised breathing interventions to deliver measurable improvements in focus, endurance, recovery, and cognitive performance.

# THE CHALLENGE: PERFORMANCE LIMITERS IN HIGH-STRESS ENVIRONMENTS

Tactical operators face extreme physical and mental demands that push human limits. Whether executing complex missions, responding to emergencies, or sustaining long operational shifts, internal and external stressors degrade performance over time.

Key Performance Threats:

- Cognitive Fatigue: Split second decision-making errors and reaction time delays
- Physical Exhaustion: Reduced strength, coordination, and endurance
- Emotional Dysregulation: Heightened anxiety, reduced situational awareness
- Dysfunctional Breathing: Suboptimal breathing habits increase stress, impair oxygen delivery, and degrade both physical and cognitive output

Despite its critical role, breathing is rarely assessed or trained as a tactical skill—yet it directly influences endurance, focus, resilience, and overall human performance.
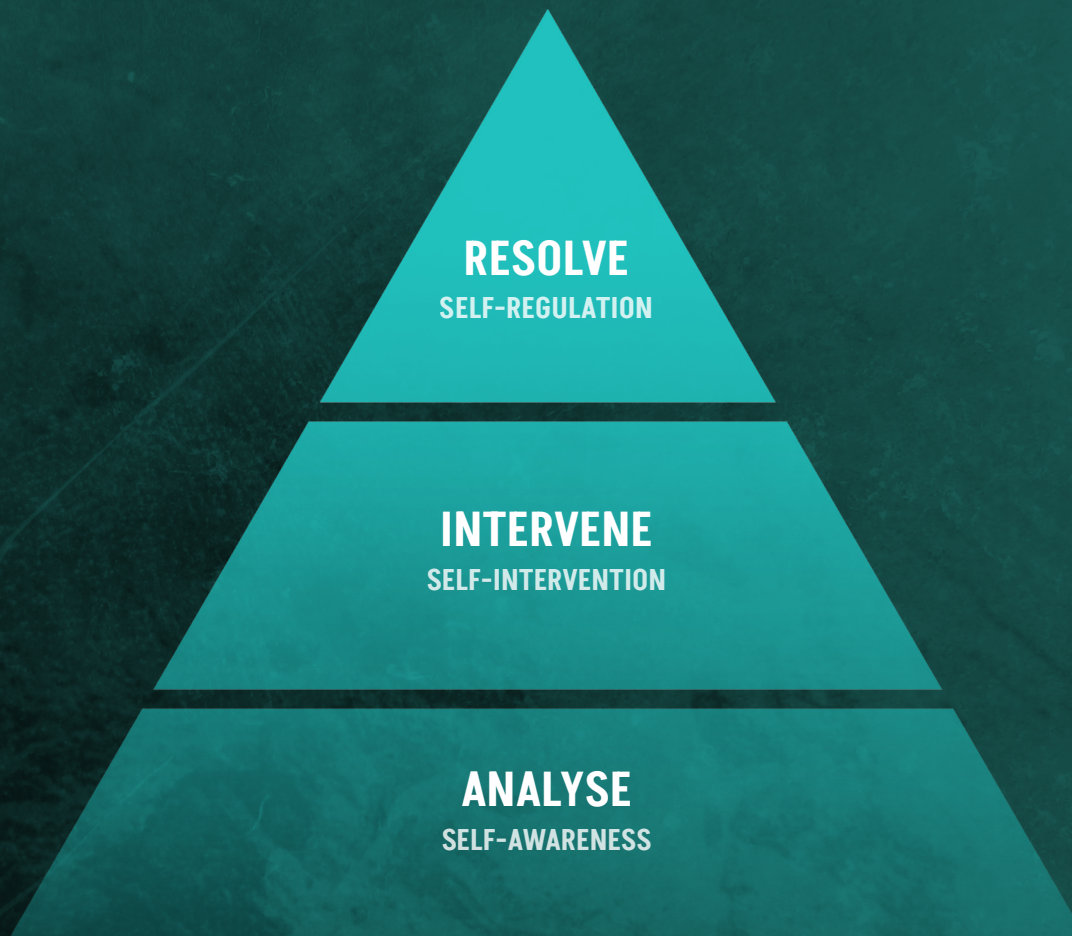
THE SOLUTION: THE PERFORMANCE BREATHING SYSTEM®

RESOLVE
SELF-REGULATION

INTERVENE
SELF-INTERVENTION

ANALYSE
SELF-AWARENESS

Analyse | Intervene | Resolve (AIR) Framework

PBS is more than just breath training—it is a structured system designed to assess, analyse, and optimise individual breathing habits through real-time feedback and personalised interventions.

Our Approach:

1. Analysis (Self-Awareness) – Identify dysfunctional breathing habits and their impact on decision-making, endurance, and stress resilience
2. Intervention (Self-Exploration) – Implement individualised breathing interventions to enhance resilience and optimise performance under pressure
3. Resolution (Self-Regulation) – Train operators to sustain optimal breathing habits in high-stress, high-consequence environments for lasting performance gains

HRV

RR/CO$_2$

O$_2$

OUTCOMES: OPTIMISING HUMAN PERFORMANCE

Using advanced biofeedback tools, tactical scenario integration, and data-driven training, PBS develops breathing as a skill—just like shooting, combatives, or endurance training.

Key Training Outcomes:

- Reduce cognitive fatigue and sustain optimal mental clarity
- Improve reaction times, motor coordination, and endurance
- Enhance emotional regulation and resilience under pressure
- Develop breathing habits that prevent burnout and optimise recovery

SCIENCE AND INNOVATION

PBS is built on the latest advancements in applied breathing science, psychophysiology, and human performance research.

What Sets PBS Apart?

- Mission-Specific Training: Interventions tailored for military, law enforcement, and emergency response scenarios
- Evidence-Based Methods: Backed by science, field research, tactical case studies, and physiological monitoring
- Real-World Application: Integrated into live tactical exercises and simulated stress events

PBS Training Includes:

- Screening for dysfunctional breathing in tactical environments
- Cardio-respiratory fitness assessments to measure operational fatigue
- Breathing behavioural analysis in high-stress scenarios
- Performance breathing interventions to enhance resilience, endurance, and cognitive function
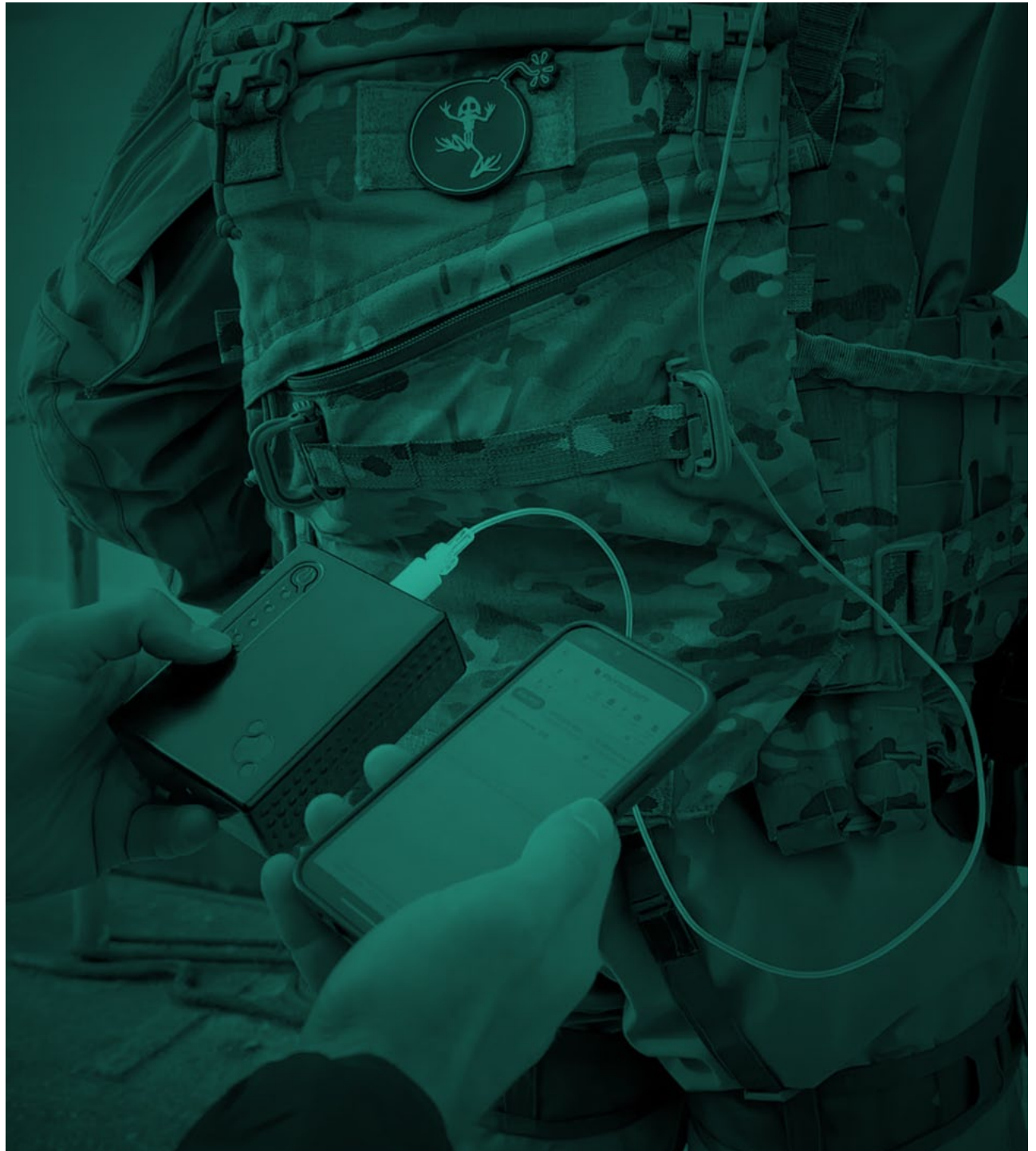
CARDIO-RESPIRATORY FITNESS ASSESSMENT (CRF)

In partnership with SplendoTactical, a Duke University start-up, we integrate a 1-Minute All-Out Airbike Test (1-MAO) with advanced physiological monitoring to assess:

- Oxygen efficiency and metabolic response
- Operational fatigue in the brain, lungs, heart, and muscles
- Real-time cardiovascular performance

This low-risk, high-impact diagnostic tool provides instant reporting and personalised training insights, enabling tactical operators to refine performance and recovery strategies.

splendotactical

O_2

HR / HEMODYNAMICS

VO_2 / VCO_2

O_2

PHYSIOLOGICAL MONITORING & BIOFEEDBACK

We employ cutting-edge wearable technology to provide real-time feedback on how breathing affects cognitive and physical performance:

Key Tools:

- CapnoTrainer GO – Monitors exhaled CO_2 to detect dysfunctional breathing habits
- Hexoskin Pro Shirt – Tracks heart rate, breathing patterns, and physiological load
- GoPro Tactical Footage – Captures performance for post-training review

Operational Impact:

- Identify dysfunctional breathing habits during high-stakes operations
- Learn to regulate breathing under stress, fatigue, and extreme exertion
- Build real-time awareness of how breathing influences decision-making and performance

TESTIMONIALS

AARON JAMES (AJ)
1st NZSAS Regiment (retd)

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Dylan possesses a clear passion for human performance, with an impressive depth of knowledge in breathing physiology and its relationship to stress. His expertise was instrumental in enhancing the training of the 1st NZSAS Regiment, where he introduced stress management techniques, breathing interventions, and hi-tech biofeedback wearables. The result? Marked improvements in physical recovery, mental focus, and decision-making under pressure.

Dylan's guidance took already high-performing individuals and teams to the next level. If you're in search of that next level, we back Dylan and the PBS team 100% to get you there.

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ANON.
Special Forces Operator

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I have worked with Dylan for over three years to enhance my performance, health, and longevity. His team continues to evolve, staying at the forefront of cutting-edge technology and research to deliver a complete, state-of-the-art system.

Time spent learning from their expert team has produced tangible results, equipping me with the right tools and breathing behaviors to significantly enhance both mental and physical output. If you're looking for a competitive edge, you've come to the right place.
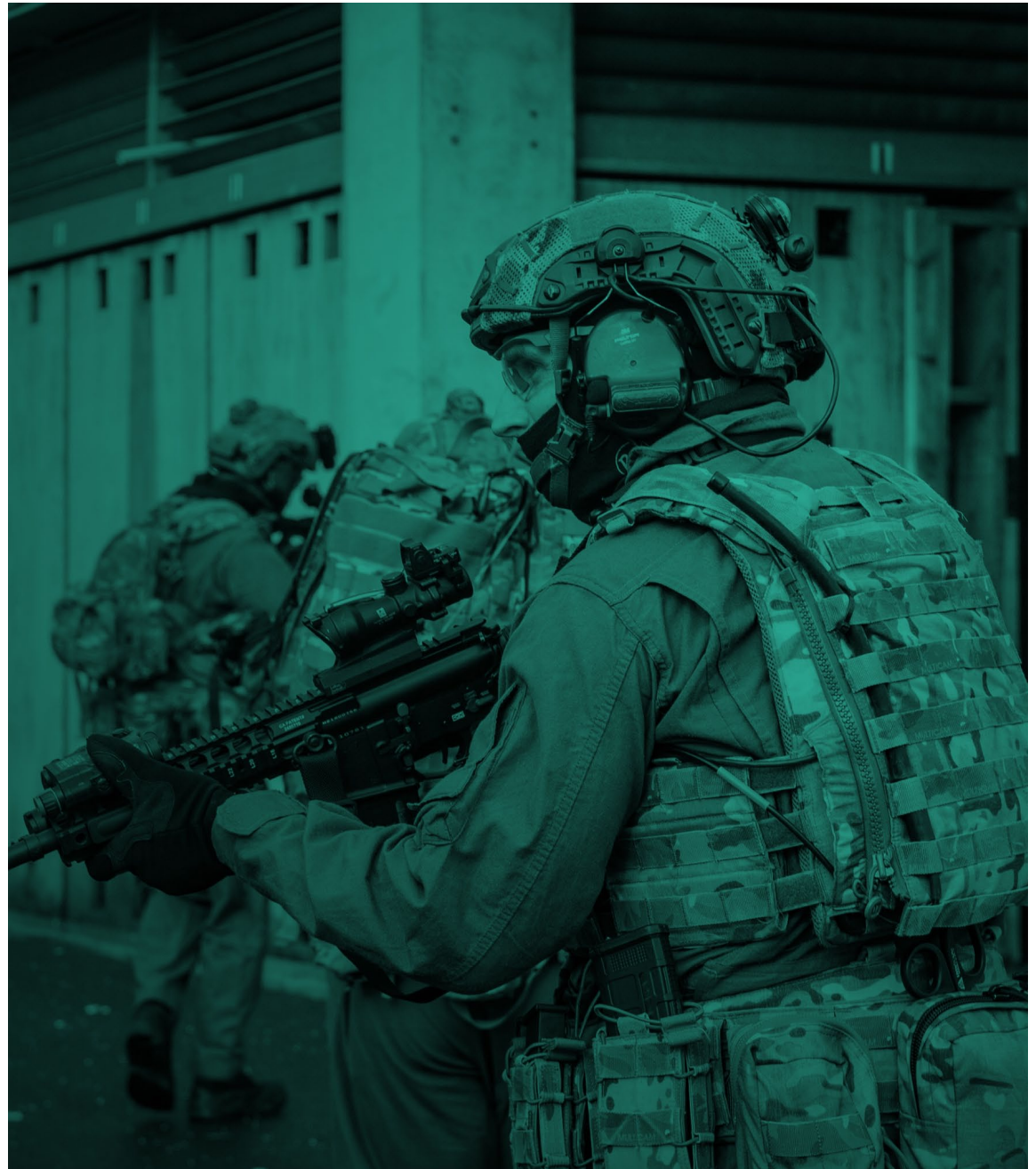
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DYLAN MCKAY – LEAD TRAINER AND FOUNDER OF PBS®

Dylan McKay is co-founder of RenderSafe, a company pioneering Special Operations Forces (SOF) and Explosive Ordnance Disposal (EOD) training and human performance optimisation (HPO) for the Defence and Security industry.

A former New Zealand Army officer and NZSAS EOD Commander, Dylan also led the NZ Special Forces Human Performance Programme (HPP), working with global partners to enhance resilience, cognitive function, and operational effectiveness.

Dylan studied Applied Breathing Science at the Professional School of Behavioural Health Sciences, where he now serves as a faculty member. He is currently pursuing an MSc in Human Performance Optimisation at Buckinghamshire New University, London. His combined academic and operational experience has shaped a deep understanding of respiratory interventions in extreme environments, leading to the development of the Performance Breathing System® — a groundbreaking approach designed to fill a critical gap in human performance programmes.

MEET OUR EXPERTS

Our advisory team consists of leading experts in exercise physiology, biofeedback, breathing behaviour, and respiratory muscle training, ensuring that PBS remains at the cutting edge of tactical performance science.

Together, they provide the scientific foundation that powers our training, ensuring that PBS delivers proven, data-driven results.

DR. JEROEN MOLLINGER

Expert in Cardio-Respiratory Fitness (CRF) assessments and exercise physiology

DR. MARIA KATSAMANIS

Expert in Heart Rate Variability (HRV) biofeedback

DR. PETER LITCHFIELD

Pioneer in Breathing Behavioural Science

DR. NINA BAUSEK

Expert in Respiratory Muscle Training (RMT)

NEXT STEPS: IMPLEMENT PBS® INTO YOUR TRAINING

The Performance Breathing System® is designed to deliver immediate and lasting performance benefits to tactical operators in high-stress, high-consequence environments.

- Enhance performance, resilience, and recovery with data-driven breathing optimisation
- Equip teams with life-saving self-regulation skills to sustain operational effectiveness
- Integrate PBS into existing training frameworks for maximum mission impact

Contact us today to implement PBS in your training program.

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www.pbs-elite.com