



# OPTIMIZE YOUR NIGHT VISION PROGRAM

Advanced Night Vision Goggle Training to Enhance Operations and Maintenance

# ENHANCING YOUR NIGHT VISION IMAGING SYSTEM

## Background

Night Vision Goggles (NVGs)—the backbone of any Night Vision Imaging System (NVIS) program—expand user capabilities, improve flight safety and operator performance.

NVGs compensate for the loss of visual cues used during the hours of daylight that are diminished in the low ambient light conditions of night. Without NVGs, it is difficult or impossible to identify obstacles and accurately determine depth perception during unaided night operations.

To achieve all the benefits of a fully optimized NVIS program requires an advanced understanding of night vision equipment, maintenance processes and operator handling procedures to enhance safety and operational capabilities of an organization.



# NVG TRAINING & OPERATION CHALLENGES

## When NVGs Hinder, Not Help

Sustained operations at high tempo can strain an organization creating challenges that adversely impact NVG training and maintenance:

- Damaged NVGs result in unscheduled downtime
- Inadequate time and methods to train to standard
- Training and operational support are limited
- Limited access to equipment
- NVGs are easily damaged due to improper handling
- Improper NVG use results in user stress and injury
- Operator and task performance degraded by improper NVG use
- Mission safety compromised by improper NVG use



## NVG HANDLING TRAINING CBT OVERVIEW

### Augment and Enhance Your NVIS Program

The NVIO™ Night Vision Goggle (NVG) Computer-Based Training (CBT) was designed to help optimize NVG training support programs for operators and maintainers. It is an essential tool to help users build and maintain the critical foundation of knowledge concerning NVG handling required to respond to operational challenges.

NVIO night vision products are a new line of blended training solutions that use self-paced courseware, advanced synthetic environments, and advanced instruction methodologies to reduce resources required to achieve (and maintain) competency.

The NVIO NVG CBT captures and shares the know-how from civil and military NVG experts gathered over years of experience in the lab and in the field. A comprehensive, best of breed training program, the NVIO NVG CBT can augment any NVIS program.



## OPTIMIZED, BLENDED LEARNING

### Self-Paced NVG Operation and Maintenance Training

The NVIO NVG CBT features a blended training approach with a flexible instruction framework to accelerate and optimize learning comprehension.

The 3D-enabled CBT learning program features self-paced, interactive NVG training on:

- System capabilities and limitations
- Operational concepts and requirements
- Equipment parts familiarization
- NVG operations and maintenance procedures

The NVIO NVG CBT includes opportunities for users to interact with virtual NVG equipment. In these modules users work with safe, virtual 3D NVGs in Free Play, Structured Learning, Guided Practice and Self-Testing. Test results can be tracked in an integrated Learning Management System (LMS).



## ENHANCED NVG PERFORMANCE SUPPORT

### Just-In-Time Job Aid for Operators And Maintainers

The NVIO NVG CBT provides enhanced NVIS performance support to NVG users.

A comprehensive tool, the NVIO NVG CBT provides an effective Job Aid enabling Just-In-Time (JIT) training to operators and maintainers to improve operational support and ensure consistent information for all individuals involved in an NVIS program.

3D virtual NVIS equipment models and instruction animations are used to illustrate parts information, operational procedures and warnings, as well as equipment capabilities and limitations in context.

### Extend Your NVG Training System Capabilities

The NVIO NVG CBT program functionality can be extended with other NVG product options to enable JIT decision-support tools that expand overall NVIS program capabilities.

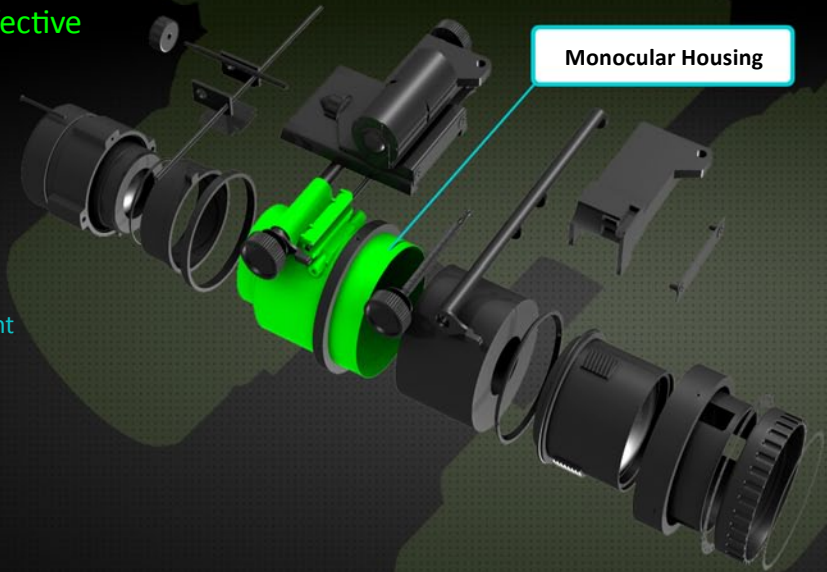


## TRAIN NVG OPERATORS TO STANDARD FASTER

### Conventional Instruction Methods are Not Effective

Interactive, blended learning is proven to be more effective than presentations, video or manuals. With the NVIO NVG CBT, operators and maintainers use 3D virtual equipment to “learn by doing” procedures.

- Users interact freely with 3D NVG models and animations to become familiar with virtual assets and procedures
- The 3D models and animations of NVGs show equipment parts, issues and procedures in context for faster comprehension



## DELIVER NVG TRAINING WHEN AND WHERE NEEDED

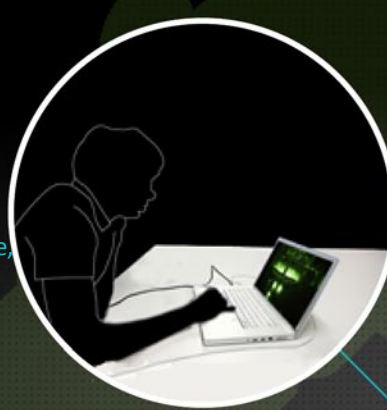
### Overcome Limited Access to NVG Equipment

Transform the NVG learning experience. The NVIO NVG CBT delivers self-paced instruction that can be accessed from home, the classroom or in the field.

The CBT enables a 1:1 student to equipment ratio at all times, increasing training efficiency and effectiveness.

NVG operators and maintainers can access training:

- Anytime, anywhere
- 24 hours a day/7 days a week
- Synchronously or asynchronously
- In Distance Learning, classroom and field training





# INCREASE OPERATIONAL READINESS

## NVG Misuse Increases Cost of Operations

- Reduce operational costs due to dropped or lost missions associated with NVG equipment breakage or failure
- Reduce NVG equipment breakage costs due to improper handling during training and operations
- Reduce time to train to standard. The NVIO NVG CBT uses virtual equipment to eliminate concerns for safety or equipment damage



## IMPROVE OPERATOR HEALTH & PERFORMANCE

### Improper NVG Use Degrades Physical Health and Operator Situational Awareness

The NVIO NVG CBT helps ensure proper calibration and use of NVGs. The CBT will:

- Reduce exposure to health risks
- Reduce operator stress and fatigue
- Prevent undue and dangerous eye and neck strain in users



## INCREASE OPERATIONAL READINESS

### Ineffective NVG Use Can Compromise Mission Goals

High operation tempo means operators frequently perform long operations with little rest. With limited time for training, NVG operators and maintainers may fail to gain a full grasp of equipment capabilities and limitations. This can lead to operator errors or equipment malfunctions.

- The NVIO NVG CBT makes it easy to ensure that NVGs are properly calibrated and being used effectively
- Effective NVG use ensures individual acuity stays intact, helping to sustain, or improve performance over time
- Appropriate NVG handling reduces exposure to health risks associated with improper NVG use
- Proper equipment set-up reduces equipment malfunctions and missed mission objectives

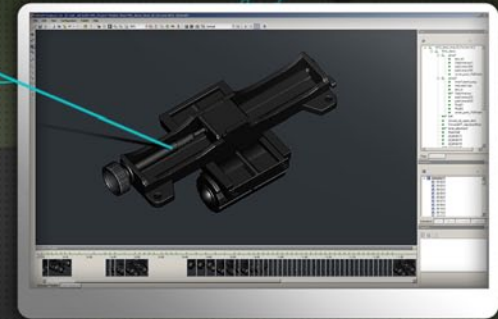


## OVERCOME TRAINING BARRIERS

### Easily Localized CBT Supports International NVIS Programs

- Use of conventional methods for NVG training in international environments can be impeded by language and cultural barriers
- The NVIO NVG CBT can be easily localized with text and audio to respond to local needs
- Interactive virtual equipment provides a safe, intuitive way to train on complex systems across language and cultural barriers quickly and easily
- Localized, interactive 3D virtual equipment models and animations improve the speed and effectiveness of learning about NVG systems

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## NVG HANDLING TRAINING CBT

### Benefit Summary

The NVIO NVG CBT is a best of breed, flexible training and performance support system that augments and transforms conventional NVG training for operators and maintainers.

#### Highlights:

- Train NVG operators to standard faster
- Deliver NVG JIT Training when and where needed
- Decrease operation costs
- Increase operation readiness
- Improve operator health and performance
- Overcome training barriers



## TRUSTED, PROVEN NIGHT VISION EXPERTS

### Committed to NVIS Excellence

The NVIO NVG CBT was developed by a team of night vision experts committed to NVG optimization and excellence.



**Night Flight Concepts (NFC)** is a comprehensive night vision technology (NVT) provider specializing in night vision goggle (NVG) pilot and crew member flight training, NVG service and maintenance repair, NVG maintenance technician training, and night vision program support for law enforcement agencies, air medical/rescue services, military organizations, and government task force agencies worldwide.



**Gladstone Aerospace Corporation (GAC)** assists clients worldwide in identifying, articulating and driving business strategy, planning, and technology development. The Gladstone Aerospace core competency is that it can merge its knowledge and experience in operations, operational test and evaluation, aviation human factors, integrated training solutions, research and development (R&D) and industrial design to provide unique customer solutions, especially in the areas of aerospace, defense and security (ADS) markets and technology.

# OPTIMIZE NEW OR EXISTING NVIS PROGRAMS

## Professional Services Support

The NVIO NVG CBT augments conventional NV operations and maintenance training. If you seek additional NVG training and support to assist with a new or existing NVIS program our team offers:

- **Advanced NVG Training Courses**  
Classroom instruction provides the ideal setting for concentrated hands-on learning. Courses cover equipment handling basics, through to advance instruction and operation tips and tricks.
- **NVG Maintenance and Technical Support**  
Services for NV system support, including NVG maintenance.
- **NV Implementation Services**  
Consulting services to assist with NVIS program development and roll-out, including training program planning, cockpit redesign services and equipment audits and recommendations.





## ENHANCE YOUR NVIS PROGRAM TODAY

A comprehensive training tool, make the NVIO NVG CBT an essential part of your NVIS program.  
For more information, contact us:



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