

Value-Added Services

Establishment of an Integrated Maintenance & Repair Facility

The proposed maintenance facility shall be able to maintain up to the Heavy Repairs Level the following types of day and optronic devices:

- Night Vision Weapon Sights.
- Night Vision Goggles.
- Night Vision Driver's Viewers.
- Clip on Afocal Night Vision Sights.
- Day Sights.
- Binoculars.
- Telescopes.
- Artillery Collimators.

Theon has put a considerable effort in selecting the instruments, the Special Tools and Test Equipment that are offered for maintenance purposes. Parameters that were taken into account are:

- low cost
- maximum commonality
- ease of operation
- low volume and weight
- expandability and upgradeability so that to be easily adopted to future needs

Support Services

Theon offers support services to customers in a scalable, three-level approach. Starting from basic over-the-phone support, customers may select to receive expanded assistance that reaches the levels of dedicated consulting and customized research and engineering services. The support services may include (but not limited to) the following topics:

- Performance of Surveys; analysis of inventory support capabilities
- Assistance in identifying user requirements, completion of feasibility studies, assistance in set-up of product evaluations and preparation of technical specifications
- Assistance in the creation or update of user training manuals and technical documentation / nomenclature
- Provision of training services in specific topics
- Assistance in calibration and maintenance of equipment
- Assistance in program management
- Assistance in the set-up of a Maintenance & Repair Facility for optronic devices
- Assistance in the Modification and Upgrade Design of existing equipment
- User Dedicated Product Development and Prototyping
- Engineering Assistance and General Technical Services
- Follow-on Support for existing equipment or Theon products to be purchased

The above services will be complemented by the necessary visits of THEON qualified personnel to the user's location.

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 **Theon**
sensors

Value-Added Services

Modification & Upgrade of Existing E-O Systems

Night Vision Devices that are based on image intensifier technology are part of a rapidly advancing field. Historically, the first night vision devices were fielded in the 60's-70's and were based on Generation I image intensifier tubes, followed in the 80's by the introduction of Generation II, 18 mm and 25 mm image intensifier tubes.

Today, there are generation III & IV tubes which are offering superior performance as compared to the old Gen I & II tubes. The current situation is similar in armed forces around the world: a considerable amount of night vision devices based on Gen I and/or II technology are still employed while the question of what to do with them remains: Replacement or Upgrade?

Theon Sensors has extensive experience in providing Modification/Upgrade Design Solutions for a number of Gen I night vision devices.

A typical Upgrade Modification Kit, replaces the internal optical assemblies of the device while the external metallic shell remains the same. During the upgrade process the existing objectives and tubes are removed and replaced by new ones while all the other assemblies remain the same. There is no machining or changing in the external structure.

As a result of the modification, the system resolution is increased by at least three times.



Design of New Products

Theon Sensors can design new products according to customer's needs. This module can be divided into the following sub-modules, in a scalable level approach:

- Feasibility Study
- Prototype Stage
- Transfer Of Technology/Co production

Transfer of Technology

This service presents the company's potential to offer a Technical Data Package/TDP to be build under license on a kit. The offer may include:

- Technical Data Package
- Infrastructure for assembly line and testing
- Training
- Troubleshooting

Training

Theon offers electro-optics training courses for military personnel in Greece. Also, the courses can be given at customer's place with an extra pre-determined cost. Basically, there are two separate training courses: The first one covers the Basic Electro-optics theory, while the second one deals with the Image Intensification Theory.

Basic Electro-optics Theory

The course lasts 5 days and includes the following topics:

- Introduction
- The nature and properties of Light
- Thermal Sources
- Optical Components
- Transmission of the Optical Energy through the atmosphere
- Laser Theory and applications
- Photodetectors
- Passive Electro-optical systems
- IR Seeker technology
- Electro-optical countermeasures

Image Intensification Theory

The course lasts 5 days and includes the following topics:

- Introduction
- The nature and properties of light
- Optical components
- Image Intensifier Tubes
- System Parameters
- Applications

