



**NAVILAS**® NAVIGATED  
LASER THERAPY

# Retina Navigation

## A new treatment paradigm

OD-OS has created Retina Navigation to set new standards in retinal photocoagulation. Retina Navigation is an innovative approach, integrating laser delivery and a real-time digital imaging device. Fundus images are acquired and annotated by the physician using a touch screen, creating a detailed treatment plan which becomes available as a live overlay on the retina

during treatment. In this way, *NAVILAS*® fully integrates imaging, planning and treatment. This is Retina Navigation. As a result, *NAVILAS*® enables to improve accuracy, safety, speed and comfort in the laser treatment of retina disorders, combined with novel digital documentation capabilities.

## Documentation to monitor and inform

To support patient treatment documentation and post-treatment follow-up and analysis, the *NAVILAS*® system provides a customizable report editor incorporating the actual treatment location

and laser spots applied. This allows for maximal transparency during and after treatment and assists the physician in decision making, patient information and education.

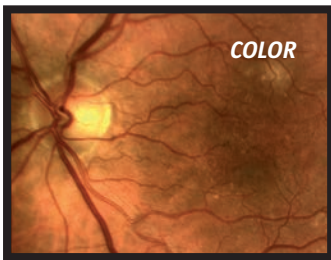
# Image ease of use



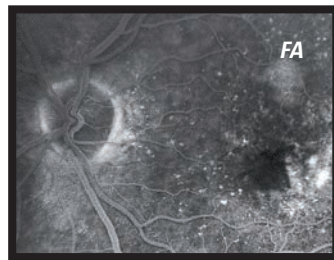
## Essential for treatment

NAVILAS® offers continuous imaging modes vital for diagnosis, photocoagulation planning and assistance during subsequent treatment. Its digital screen displays true color fundus

imaging, both mydratic and nonmydratic, as well as monochrome red-free, infrared imaging and fluorescein angiography.



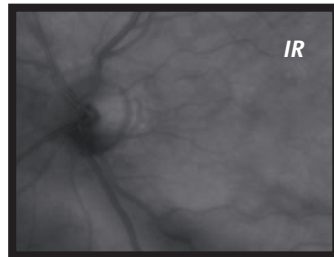
*Mydratic and  
Non-Mydratic*



*Fluorescein  
angiography*



*Red-free*



*IR image*

# Plan accurate and secure



## Layout your treatment strategy

With its integrated planning tools, NAVILAS® places the physician in ultimate control to graphically define and mark areas on the acquired retinal images for future treatment. These points of

interest (POIs) are created and manipulated using the touch-sensitive screen, and can later be displayed and overlaid on the live fundus image during the actual treatment.

The screenshot shows the NAVILAS software interface. At the top, there are tabs for Patient, Imaging, Annotate, Planning (which is active), Treatment, and Reporting. The main window displays a grayscale fundus image of a retina. On the left side, there is a control panel with sections for 'Figures' (showing 'No Treatment Zones'), 'Laser Pattern' (with various pattern icons and a 'Spot Size' of 100 micrometers), and 'Actions' (with a back arrow and a close 'X' button). At the bottom, there are 'Field of View' controls (10°, 30°, 50°) and patient information: 'Patient: 10/29/1935 Male'. The fundus image itself has several yellow annotations: a large circle with a diagonal line through it, a smaller circle with a diagonal line through it, and a cluster of small yellow circles. Green dashed arrows point from text labels on the right to these annotations.

*Planned treatment on an FA image*

*Areas not to be treated*

*Planned treatment spots*

# Treat fast and documented



## Treatment accuracy refined

During treatment, the physician can continuously view previously acquired, pre-planned images including any points of interest (POIs), overlaid onto the real-time color image of the retina.

This provides fast treatment using adjustable laser patterns and selectable single spot focal treatments. NAVILAS® also allows digital documentation of the laser spots applied.

The screenshot displays the NAVILAS software interface. The main window shows a fundus image with a yellow circle highlighting a region of interest. A red crosshair indicates the aiming beam. A cluster of green dots represents the documented delivered treatment spots. The interface includes several control panels:

- Intensity:** A slider set to 5.
- Illumination Mode:** Color and IR buttons.
- Laser and Overlay:** Conventional and Laser Standby buttons.
- Process Plan:** A dropdown menu.
- Pattern:** A grid of icons for different laser patterns.
- Spot Spacing:** A slider set to 1.00.
- Spot Diameter:** A slider set to 300.
- Bottom Panel:** Laser Power (set to 50), Pulse Duration (set to 20), and Spot Size (set to 100) controls.
- Comments:** A dropdown menu.
- Patient Information:** Patient: 5/2/1964 Male.
- Service:** 14:42:13:593.

Annotations with green dashed arrows point to specific features:

- FA overlay on live fundus image:** Points to the yellow circle.
- Aiming beam:** Points to the red crosshair.
- Documented delivered treatment spots:** Points to the cluster of green dots.

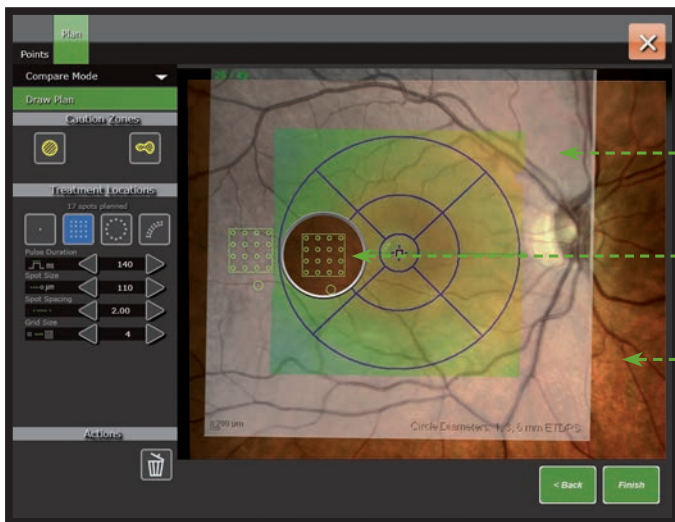
# Navilas Contact



## Import images from external platforms into Navilas

The new Navilas add-on application Navilas Contact provides the possibility to import FA, color, ICG images or thickness maps captured on non-Navilas imaging platforms for extended laser planning on Navilas.

Images from a variety of platforms can now be used to provide new opportunities to accurately plan and deliver Navilas navigated laser treatments to the retina.



*Registered external image overlay*

*Planning spot with review on Navilas base image*

*Navilas base image*

# Navilas Contact

## Versatility

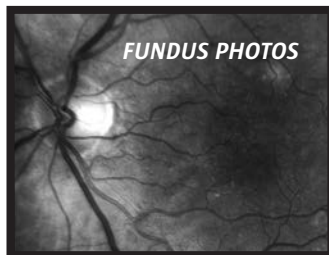
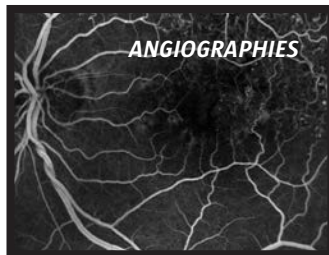
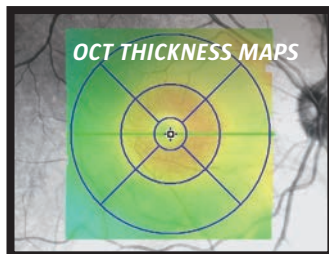
Plan navigated treatment based on Navilas imaging options or integrate external images: OCT thickness maps, FA, ICG-A, autofluorescence images.

## Flexibility

Easily register external images from various platforms to Navilas base images and plan in multi-view mode.

## Simplicity

Have all information visible at one glance throughout the entire process of planning and treatment.



# Navilas PRP Laser

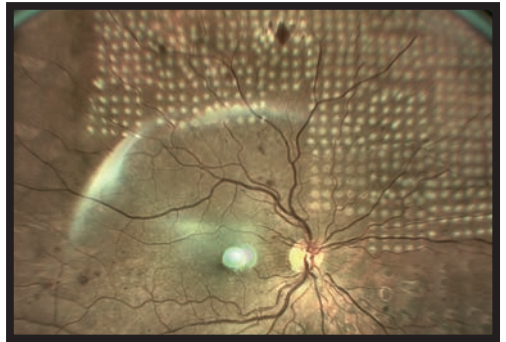
## Bringing Navigation to the Periphery

Navilas PRP brings unprecedented operator ease and treatment experience to panretinal photocoagulation. Proprietary optics enable improved wide-field visualization and uniform laser delivery. High-speed PRP with pattern and

navigation options is provided to the surgeon. Unique system advancements give significant improvement in patient comfort and compliance over standard PRP laser application.

## Benefits

- Ultra-wide field of view
- Faster treatment
- Increased patient and doctor comfort
- Navigated laser application
- Uniform laser delivery
- Treatment spot documentation



# Navilas PRP Treatment

## Reproducible and Uniform Laser Delivery

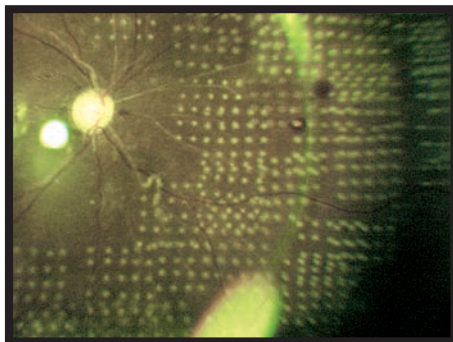
- Navilas optical design delivers circular and uniform spots in all quadrants, even the far periphery.
- Homogeneous laser uptake due to minimized variance in retinal spot size and shape.

## Navigated Patterns for PRP

- Navigated patterns with automatic advancement to the next spot(s).
- Adjustable pulse durations from 10 ms for fast treatments with less collateral damage to 100 ms or longer for traditional standard of care treatments.

## Improved Comfort and Confidence

- The only PRP laser with infrared illumination for improved patient comfort and compliance.
- Treatment spot documentation provides verified detail information to increase surgeon confidence of a complete treatment.



# Technical Specifications

## Imaging

|                         |                                                   |
|-------------------------|---------------------------------------------------|
| Field of view (static)  | 10 °; 30 °; 50 °                                  |
| Field of view (dynamic) | 110 °                                             |
| Imaging Modes           | Color/IR (Mydriatic & Non-Mydriatic), FA/Red-Free |
| Focus adjustment        | +/- 15 Dpt                                        |

## Overall Dimensions and Electrical Requirements

|                            |                                                                     |
|----------------------------|---------------------------------------------------------------------|
| Height (floor to headrest) | 1147 mm–1501 mm /<br>45"–59" (without cable and<br>fixation target) |
| Depth                      | 790 mm / 31"                                                        |
| Length                     | 1190 mm / 47"                                                       |
| Electrical                 | 100–120 V / 220–240 V,<br>50/60 Hz<br>Single phase 10A              |
| Cooling                    | Air cooled                                                          |



rev 2.0

## Treatment Laser

### Aiming Beam

|             |                                 |
|-------------|---------------------------------|
| Laser type  | Diode laser                     |
| Laser class | II                              |
| Wavelength  | 635 nm Max. average power <1 mW |

### Photocoagulation Laser

|             |                                                       |
|-------------|-------------------------------------------------------|
| Laser type  | Diode pumped, solid state<br>frequency-doubled Nd:YVO |
| Wavelength  | 532 nm, laser class IV                                |
| Laser power | 1200 mW                                               |



For more information, please visit:  
[www.od-os.com](http://www.od-os.com) or contact [info@od-os.com](mailto:info@od-os.com)

**OD-OS GmbH**, Warthestr. 21, 14513 Teltow,  
Germany, Phone: +49 (3328) 312 82-100

**OD-OS Inc.**, 31 Journey, Suite 120  
Aliso Viejo, CA 92656, USA  
Phone: Toll-free +1 (800) 628-6367