



the complete navigation, flight and engine system for ultralight airplanes, auto-gyros and helicopters.

# PERFECTION IN AVIONICS



The Nesis family of avionics is a self-contained state-of-the-art navigation instrument optimized for ultralight airplanes, autogyros and helicopters. All units are lightweight with low power consumption. Nesis includes: airspeed and altitude monitors, a variometer, an AHRS, a horizontal situation indicator (HSI), an autopilot, an engine monitoring system (EMS), a moving map, a flight planning

system, word-wide map coverage and much more. It also supports the orthophoto mode for automatic camera triggering and angle correction (Geoniss system). Nesis has a multi-language user interface and is the only modern multifunctional unit which hosts the carbon monoxide detector and gives a warning before CO builds up to dangerous levels.

# ONE WITH MANY FACES



## NAVIGATION VIEW

The screen shows a big moving map optimized for VFR flying. The map includes terrain elevation, significant landmarks (rivers, railroads, cities and towns) and most importantly, aeronautical information like airspace, restricted and prohibited areas, navigation points and airfields. It also includes intuitive graphical flight planning. DFS ICAO and Visual 500 maps are also supported.



## MODERN VIEW

The Modern view shows all that is needed during flight: a large background image supplemented with the airspeed on the left, the altitude and vario on the right, the compass rose on the top and the complete engine section at the bottom of the screen. The background image can be: a classic artificial horizon, 3D synthetic vision, a moving map, a video camera picture or an aerophotography guiding system.



## CLASSIC VIEW

The Classic view mimics a classical look of the instruments with modern enhancements like a moving map, a miniature engine monitor and a fuel computer. This combination provides all relevant flight, navigation and engine information on a single screen. The picture shows a typical airplane layout, but most of the layout is configurable.



## ENGINE VIEW

The Engine view presents all engine, fuel and electric parameters in the classical form. The layout consists of six gauges. Each of these can be configured into any imaginable combination of needles, bars and labels. All parameters are configurable in range, markings, limits and physical units. Visual and audio alarms are issued when a certain parameter is out of the range.



## STUDENT VIEW



The student view is optimized for the flight schools. It provides all information required by the student and nothing more. This view can be locked – the student can't change it so you can be sure that his/her task will be accomplished without peeking onto the navigation view.

# EMSIS

## Emsis PFD

This simple instrument has all what you expect from a PFD (primary flight display). It can act as a main standalone PFD or as a perfect backup instrument. It can be also extend with the charts and engine features, when required.

## Emsis EMS

Advanced monitoring system for aircraft engines. A simple to use and affordable engine information system which can be used in conjunction with NESIS or as a standalone instrument. EMSIS system has separated data acquisition device, which can be installed into the engine compartment.



# LITTLE EMSIS HAS MANY FACES TOO

Any Emsis can be extended to show charts. DFS (Deutsche Flugsicherung) products are supported. Other providers will be supported in the near future.

EMS screen

PFD screen



## Charts available:

ICAO Germany,  
Visual 500 Austria,  
Swiss,  
France NE,  
Denmark,  
Holland,  
Belgium,  
Czech Republic,  
Poland W and NW,  
unofficial Kanardia maps after August 2013.

# SUPPLEMENTAL INSTRUMENTS



RPM indicator 57 mm

Altimeter 57 mm  
Altimeter 80 mm

Airspeed indicator 57 mm  
Airspeed indicator 80 mm

Rate of climb indicator 57 mm



Perfect engine monitoring companion for Emsis PFD.

## BU 57 BACKUP SYSTEM



- Backup battery for approximately 2 hours of stand alone operation
- Mechanical needle for IAS
- Colour graphic display for additional information
- Intelligent power management
- Recharging of back up battery from aircraft network
- Rotary switch for simple QNH adjustment
- No power break by change over to emergency power
- May be used as a copilot air data info device



# A SYSTEM FOR VERTICAL AEROPHOTOGRAPHY

Very fast development of digital high resolution sensors for small and medium format cameras brought a whole new era into vertical aerophotography. Using light and ultralight aircraft means an ECO attitude - professional results with low noise and gas pollution. The system enables you to register location of each photograph which makes post-processing faster and more accurate.

Geoniss is well suited for small and medium areas of aerial survey and for low budget monitoring projects. It is perfect for digital orthophoto map production, suited also for photogrammetric measurements.

## HIGHLIGHTS:

- extremely light - 3kg without the camera,
- electronic compensation of the camera direction,
- works with Nikon, Canon, Hasselblad cameras (small and medium format cameras),
- made for ultralight and experimental aircrafts,
- home preplanning of aerial survey routes,
- on-screen guidance and visualization
- automatic camera triggering above preplanned spots.



# GIBLI

## NEW STABILIZED AIRBORNE CAMERA SYSTEM

Available in October 2013.



Gibli system consists of:

- movable platform,
- quality camera,
- remote control,
- miniature video recorder and
- Nesis system.

Movable platform has two degrees of freedom and can rotate around its vertical and horizontal axis. Wireless remote control is used to control the camera. Nesis system is used to stabilize and guide the camera.

 **KANARDIA** Fly with the attitude.

**K**anardia is developing and producing high performance avionics for ultralight airplanes, helicopters and autogyros. The most important feature of all our instruments is an intuitive, easy to use interface supported by light, reliable and fast hardware.

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