



## Scale & Altitude Warner

### What is the Scale Warner?

Pilots & Data Acquisition engineers are not able to receive information about the actual height over ground reading aircraft instruments. GPS receivers only reporting Altitude above MSL & Geoid Undulations.

The determination of the altitude to fly is important to get the right photo scale, overlap, sidelap and FMC/TDI information.

Even in case the flight planning was made by use of DTM data, it does not mean that the aircraft is flying the right level.

The ScaleWarner is a small GPS driven device which calculate the actual height over ground and calculates the current photo scale or Ground Sampling Distance GSD in real-time.

Variations in ground elevation are the main reason for scale distortion in air photos. Higher elevations are closer to the camera and thus appear at larger scale in the image. Overlap & sidelap will be critical reduced.

Selecting and checking the right altitude to fly eliminate stereo gaps. ScaleWarner is a very efficient tool to display the current scale / height information to the pilot. DTM calculations are extremely fast - it's real time.

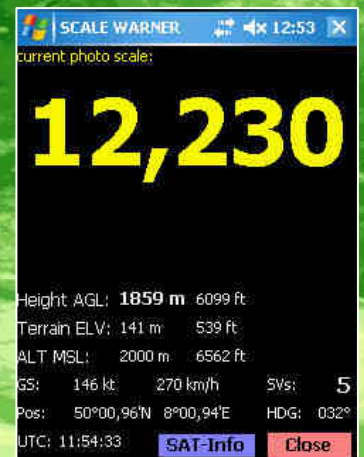
### How it works:

In 2002 the NASA released a global data set of the earth surface geometry in 3 arc second (90m) resolution obtained during a Space Shuttle mission. In 2006 a lot of additional areas have been fixed. The ScaleWarner works by use a huge build in Digital Terrain Model (DTM) database. It calculates the actual height over ground using the current GPS position of the airplane and calculates the corresponding Height out of the DTM. The actual photo scale (or GSD) is displayed on the screen.

The scale Warner works everywhere in the world.

#### Additional features:

- Current photo scale
- Height over Ground
- Terrain Elevation
- Ground Speed
- Position
- Heading
- UTC clock
- GPS Information
- PDOP, SV in view, Fix



Sat	SNR		
1	0		
2	45		
4	34		
5	39		
6	0		
9	25		
14	0		
17	40	PDOP	5,6
20	34	HDOP	3,3
24	43	VDOP	4,5
25	31	Fix	3D fix
30	30	No. SVs.:	5

Close



# aerial-survey-base

Scale & Altitude Warner  
page 2 of 2

The scale Warner works perfect on a Siemens Loox N520 pocket computer with build in high performance SIRF GPS.

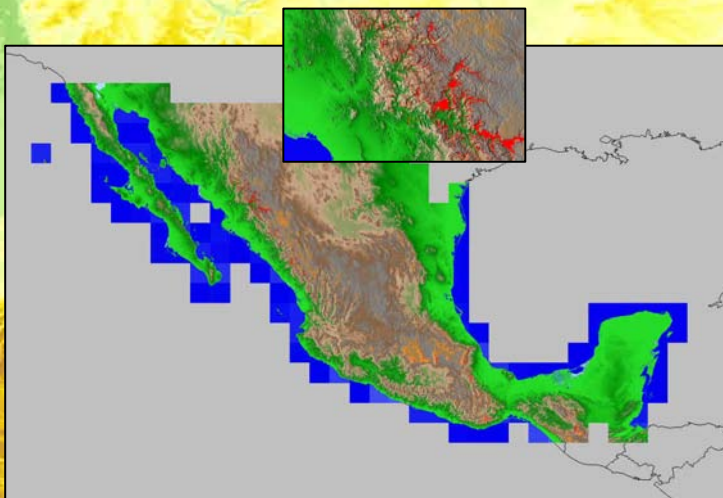


The Siemens Pocket Loox N520 combining integrated GPS solution and Windows Mobile 5.0 Premium Edition in an outstanding design. Wireless LAN and Infrared are integrated for optimized connection everywhere. The device can be expand with SD-I/O / MM cards for storing data, backup and additional applications like navigation, multimedia and more.

We recommend the Loox N520 because it is tested in aircraft environment and its large display.

## Technical Highlights:

- Intel PXA270 312 MHz (Intel XScale)
- Windows Mobile 5
- 3.5", 240x320, 65K-color TFT touchscreen LCD display
- 128MB ROM, 64 MB (S)DRAM
- 1200mAh Li-Ion polymer battery
- 100% integrated powerful GPS solution
- Microsoft Windows Mobile 5.0 Premium Edition
- SD-I/O / MMC slot
- MP3 player
- Integrated wireless LAN 802.11g Wi-Fi certified
- Integrated USB and Infrared connectivity
- Dimensions 116 x 71 x 14 mm
- Weight 160 g



sample of Mexico coverage

## aerial-survey-base

Ferdinandstrasse 19  
D-61348 Bad Homburg  
Germany

[www.aerial-survey-base.com](http://www.aerial-survey-base.com)  
[info@aerial-survey-base.com](mailto:info@aerial-survey-base.com)