



Hyperspectral systems, airborne (HySpex)

Measured values

- spectral radiance
- spectral reflectance

Description of facility

As part of the OpAiRS user service, IMF operates a combination of two HySpex sensors from a Norwegian producer, Norsk Elektro Optikk (NEO). The two line scan cameras, models VNIR 1600 and SWIR 320m-e, are primarily used to collect high-resolution spatial and spectral reference data when mounted on an aircraft. Because of their similar spectral ranges and comparable operating principles, the sensors are particularly suitable for simulating and validating data from Germany's hyperspectral satellite EnMAP. Although the system was designed for use in an airplane, it is possible to operate both sensors on the ground, in the lab as well as in the field.

Specifications

- spectral range: 420 - 2500 nm
- spectral resolution: 3.5 - 7 nm
- max. spatial resolution: 30 - 70 cm

Application

earth observation (vegetation, geology, hydrology)

remote sensing of the atmosphere

remote sensing of inland waters and coastal regions

Literature / References

- <http://www.dlr.de/opairs>
- <https://jlsrf.org/index.php/lrf/article/view/151>
- http://elib.dlr.de/id/saved_search/364

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This handout, and cross-references to related measurement techniques and facilities are available at: <http://messtec.dlr.de/link-80-en>.

HySpex installed in airplane

