ATCOR FOR IMAGINE: HAZE REDUCTION, ATMOSPHERIC AND TOPOGRAPHIC CORRECTION

MOTIVATION
Earth-observing satellite sensors map the Earth’s surface properties. However, haze from water vapour and aerosol particles influences the recorded signal. In addition, in rugged terrain, varying illumination conditions (sunny and shady hills) modify the “true” spectral behaviour of surfaces. Haze reduction and atmospheric correction with ATCOR for IMAGINE eliminates haze, atmospheric and illumination effects.

ATCOR for IMAGINE is a professional tool for every user of satellite data, no matter whether the aim is to produce a brilliant image without haze or clouds or whether you have to analyse the real reflectance values of the surface. ATCOR for IMAGINE is your choice to get better results.

KEY FEATURES
ATCOR for IMAGINE offers the two options de-hazing and atmospheric/topographic correction. The de-hazing algorithm can turn a hazy data set into a crisp and neat image. Atmospheric/topographic correction results in the output of true reflectance values, in the case of a mountainous relief with greatly reduced shading of the slopes.

HAZE REDUCTION
• Automatic generation of a haze mask from Tasselled Cap Coefficients.
• Processing runs without user interaction.

ATMOSPHERIC CORRECTION
• Determine atmospheric parameters (aerosol type, visibility) individually within the SPECTRA module.
• The atmospheric database includes a wide range of pre-calculated radiative transfer runs for different weather conditions and sun angles employing the MODTRAN-4 code.
• Generation of surface (brightness) maps for thermal band sensors.
• Calculation of value-added products (e.g. Soil Adjusted Vegetation Index or Leaf Area Index) and surface energy fluxes for thermal band sensors.
APPLICATION

- Multi-temporal and multi-sensoral land cover classification
- Forest camouflage monitoring
- Surface temperature mapping
- Monitoring of changes over time

USABILITY

- Streamlined and intuitive user interface.
- De-hazing default parameters produce sufficiently good results.
- User manual contains the scientific background and an explanation of all parameters.
- Once selected parameters are stored in a project file and ready for later processing.

PRODUCT PACKAGING / SALES INFORMATION

ATCOR stands for ATmospheric CORrection and is an ERDAS IMAGINE® software solution. ATCOR was originally developed at DLR, the German Aerospace Centre. GEOSYSTEMS GmbH, the German Intergraph® Distributor, integrated ATCOR into IMAGINE.

SYSTEM REQUIREMENTS

ATCOR for IMAGINE needs a running ERDAS IMAGINE license with IMAGINE Advantage® minimum. The current version of ATCOR is compatible with IMAGINE 2013. ATCOR is supported on the same platforms as ERDAS IMAGINE 2013.

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The official ATCOR website provides a wide range of product details. Please visit www.atcor.de regularly.