

Inspection of High Voltage Networks

VarioCAM® High Definition – precise, reliable, efficient

Feeding of renewable energy and rising consumption peaks – operators of energy networks face great challenges in meeting the set levels of electrical power supply. The increasing network load asks for intensified predictive maintenance. Airborne inspections highly increase the efficiency of high power line monitoring. Also here infrared thermography provides advantages for the precise identification of problems at isolators and power lines by tracing and measuring of atypical heatings.

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InfraTec solution:

VarioCAM® HD head 880



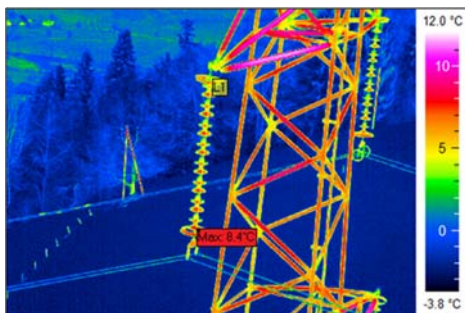
Paul Spengler

swiss controlling provides services for operators of electrical networks and does this with all the Swiss virtues of precision and reliability. Already small thermal problems can be precisely recognised and efficiently documented. For this job Paul Spengler and his team have found their ideal thermographic camera – the VarioCAM® HD head 880 with (1,024 x 768) infrared pixels. Like swiss controlling also this product, made in Germany, puts precision and reliability first. The high number of (1,024 x 768) infrared pixels not only precisely resolves small details but it also helps to avoid measurement errors caused by insufficient geometrical resolution. The high grade design of the camera can already be realised from the outside by little details like the use of LEMO plugs that guarantee long-lasting usage.



Helicopter with VarioCAM® High Definition mounted in gimbal

When integrating the camera into the gimbal and subsequently onto the helicopter swiss controlling had been comprehensively advised and supported by the InfraTec specialists. For instance, an optimised user interface was developed which enables the inspector to control the camera directly from the cockpit using a joystick. This also allows thermal images to be taken and the control of other instrumentation such as a visual camera. The fully radiometric thermographic measurement data can be stored together with GPS coordinates and additional information like visual images, the number of the respective pole and a precise time stamp. Storage is possible as single images or as a sequence of thermal images.



Thermal image of high voltage net pole

Maximum efficiency in reporting of the current condition of the inspected high voltage network is achieved by the use of the convenient IRBIS® 3 report software package. In this way a large number of thermal images as well as other previously saved information can be directly included and automatically processed resulting in most meaningful reports for swiss controlling customers.