



## UNODC uses IKONOS high-resolution satellite imagery to monitor illicit crops in Afghanistan

**Moscow October 29<sup>th</sup>:** The Executive Director of the United Nations Office on Drugs Crime, Mr. Antonio Costa, presented the results of the 2003 Afghanistan Annual Opium Poppy Survey in Moscow. UNODC used Space Imaging Middle East (SIME), 4&1 meter high-resolution imagery IKONOS to conduct the survey in Afghanistan

Satellite imagery was chosen by the UNODC as it represented an accurate a timely cost effective method to locate areas poppy cultivation. “Our imagery can detect area as small as 1 meter square on the surface of the earth,” said Mohamed El Kadi SIME Managing Director. He added “The imagery was delivered in 5 days after it was collected, which provided UNODC with updated source of information.”

The high-resolution imagery depicted areas of poppy cultivation as small as 1 meter<sup>2</sup> of poppy. Endowed with geo-reference, the imagery constitutes a base map from which the UNODC expert extracted the coordinated of regions of poppy cultivation. Accordingly expedition was sent to examine site.

The survey covered Helmand, Kandahar, Uruzgan, Nagarhar, Laghman, Kunar, and Badakhshan which account for 90% of the production of poppy seeds in Afghanistan. The high resolution imagery enabled UNODC to ensure a sample based coverage of all main opium growing regions in the country. In order to improve the interpretation of imagery as well as account for staggered planting, images were acquired twice with a one-month interval.

The UNODC coupled the satellite imagery census with extensive fieldwork that covered 28 provinces, 179 districts and 1800 villages. The fieldwork was used to collect ground truthing data, as well as cultivation information for areas not covered by satellite imagery. Surveyors also collected socio-economic information and opium yield data

The survey revealed key data about the plantation of opium in Afghanistan: The survey estimates the annual turnover of international trade of Afghan opiates to amount to 30 billions USD .poppy area cultivation covered 80000 hectares in 2003 as opposed to 74000 in 2002. Production increased from 3400 mt in 2002 to 3600 mt in 2003.

El Kadi explained the importance of using satellite imagery in illicit crop- monitoring by saying: “Farmers plant illicit crops in patches within cereals fields. Covered by surrounding crop, the illicit crop cannot be depicted unless a very thorough ground survey is conducted which may jeopardise the life or the surveyors, ”. He added: “ Satellite imagery diminishes the hazards

involved in conducting such a survey”. Additionally high-resolution satellite imagery can be used to logistically plan for missions operations against illicit crop cultivation activities.

### **About Space Imaging Middle East**

Based in Dubai, Space Imaging Middle East (SIME) is the leading supplier of satellite imagery in the region offering a comprehensive range of visual imagery products and services derived from space imagery and aerial photography. The imagery offered is used in cartography, agriculture and forestry, urban planning, disaster management, infrastructure management, environmental monitoring, transportation, and a variety of other markets.

SIME products are derived from IKONOS, the world’s first commercial satellite. Since its launch in 1999, IKONOS has revolutionized the geographic information industry. IKONOS flies at a 680 kilometers altitude and delivers global images with a less than 1-meter detail. SIME geographic scope covers the Middle East, East Africa, the Gulf and Central Asia. For more information log on to [www.spaceimagingME.com](http://www.spaceimagingME.com)

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