

# **The Virtual Laboratory for Satellite Training and Data Utilization: Maximizing the Use of Satellite Data across the Globe**

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This talk will focus on the role of international cooperation in maximizing the exploitation of satellite data as we move together into the challenges of the 21st century. Meeting the demands of this challenge is possible because of the combined efforts of the World Meteorological Organization (WMO) and the world's producers of operational meteorological satellite data as represented through the Coordination Group for Meteorological Satellites (CGMS) in the formation of the Virtual Laboratory for Satellite Training and Data Utilization (VL). The VL was formally established in mid-May, 2001, with its main purpose being to help maximize the exploitation of satellite data across the globe. It is a collaborative effort joining the major operational satellite operators (NESDIS, JMA, EUMETSAT and NSMC) with WMO "centers of excellence" in satellite meteorology. The "centers of excellence" are five WMO Regional Meteorological Training Centers and the Australian Bureau of Meteorology and each is sponsored by one of the major operational satellite operators. Those "centers of excellence" serve as the satellite-focused training resource for WMO Members across the globe. The ITWG, along with the International Precipitation Working Group (IPWG) and the International Winds Working Group (IWWG), is one of three supporting science groups affiliated with the VL.

Although still in an evolutionary stage, the VL had had major impact on WMO sponsored training events hosted in China, Australia (2002), Barbados (2003) and Costa Rica (2005), and has been of major benefit to all "centers of excellence" as a part of their routine on site training. This paper will discuss the VL, how it got to where it is, lessons learned and its future direction. Included in those future directions is the use of electronic notebooks for training; after the training event (beginning with Costa Rica), they are left with the trainees for their use in training others within their WMO Member State. Those notebooks contain lectures, training tools (such as multi and hyper-spectral analysis tools), links to algorithms (such as precipitation derivation from satellite imagery) and a variety of other information useful for on-site and remote training. This talk will conclude with a message for the ITWG on their responsibilities as a supporting science group to the VL and suggest pathways forward to enhance training and utilization of satellite sounding data across the globe.