

WELCOME ADDRESS

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Good morning. It is my pleasure on behalf of the NOAA/NESDIS Office of Research and Applications to welcome you to Helsinki, host city for the 7th International Winds Workshop. We thank the Finnish Meteorological Service for their excellent and generous hosting efforts in making this 7th workshop possible.

At the last workshop in Madison, I welcomed you to the home of Verner Suomi. I do so again figuratively here in Helsinki as Verner was surely a Suomi. From his pioneering work, cloud motion vectors derived from geostationary satellite imagery have evolved into an important data source of meteorological information. Winds are now being derived from sequences of polar orbiting as well as geostationary satellite images. The wind coverage from the polar orbiting satellites nicely complements that possible from geostationary satellites.

In the past decade, GOES, Meteosat, and GMS AMVs, AMDAR wind reports, Quikscat ocean surface wind estimates, and polar water vapor motions from MODIS have produced positive impact in numerical weather prediction models. Later this decade, there will be investigations of geostationary interferometer winds tracked in moisture retrieval fields (thus AMV heights will be precisely assigned) and lidar wind measurements (providing very accurate radial motions of aerosols and other tracers). The Global Observing System of the future will likely rely on all of these approaches for meeting the NWP needs.

In previous workshops we have noted that improved data assimilation of atmospheric motion vectors will depend on better use of Quality Indicators, accounting for the correlated errors in the AMVs, clever thinning strategies that preserve small scale circulations, timely data delivery that accommodates tighter forecast deadlines, better height assignment algorithms, assimilation of AMVs as layer motions not single level vectors, and further investigation of the relationships between cloud motions and atmospheric winds. These considerations will continue to be important at this and future workshops.

So there is a lot of work to be done. Let us begin so we have some time to enjoy this beautiful city also.