

SESSION 3

VERIFICATION AND IMPACT STUDIES OF OPERATIONAL WIND DATA

Chairperson: D.E. Hinsman

The presentations during this session were interesting, varied and included operational techniques, practical uses of wind data in developing countries, quality assessments and verification methods. The keynote speaker was Paul Menzel, NOAA/NESDIS, who described an assessment of several operational techniques for assigning heights to cloud motion winds. He highlighted that the H₂O technique is a viable alternative to the CO₂ technique for inferring the heights of semi-transparent cloud elements. He also described ongoing research that addressed some of the remaining difficulties in height assignment with multi-layered clouds.

Several presentations discussed practical uses of wind data. The paper of L. Bakst and N. Fedorova discussed a method to calculate displacement velocity of large-scale cyclonic cloud systems. G.G. Kinyoda's presentation was particularly lively as it informed the workshop of the potential uses of wind data in Africa while noting the lack of such data over the present telecommunications systems. Based on his presentation, specific recommendations were made to improve the availability of wind data. K. Onogi discussed the impact of using low-level satellite derived winds around tropical cyclones in NWP. J. Schmetz discussed the relationship between monthly mean wind fields derived from successive water vapour images and the Upper Tropospheric Humidity (UTH) that is inferred from water vapour image data. This work showed the expanding use of satellite data and products in climate studies.

Finally, several presentations assessed the impact of cloud motion winds in large computing centres. B. Strauss noted that the significance of cloud motion wind collocation statistics was recently improved due to the availability from automatic aircraft reporting systems. D. Hinsman discussed the various statistical procedures in use, including those of CGMS, while highlighting differences. His paper resulted in workshop recommendations towards a more standardized presentation of verification statistics.

The session was lively due to the content of the papers and delivery of the speakers. The session became a forum where valuable information was exchanged both during and after. The interests and inter-relationships between the various participants' work led to most fruitful dialogues. The level of maturity of the research and operational procedures was a catalyst and it is foreseen that this type of interaction will become even more dynamic at future workshops.

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