



Heterogeneous Wind Erosion from Anthropogenic Source Areas- An Introduction to JADE Project-

M. Mikami(1), J. Leys(2), Y. Shao(3), G. McTainsh(4), M. Ishizuka(5), Y. Yamada(6), and H. Nagasima(7)

(1) Meteorological Research Institute, Japan, (2) Dept. of natural Resources, Australia, (3) City Univ. of Hong-Kong, China, (4) Griffith University, Australia, (5) Kagawa University, Japan, (6) Tokyo Marine University, Japan (mmikami@mri-jma.go.jp/ Phone:+811-29-853-8623)

Japanese Australian Dust Experiment-JADE was launched from April 2005 as a three years project. The project aims to gain a better understanding of wind erosion processes, including multi-size saltation, multi-size dust emission, and meteorological/soil-physical conditions that control wind erosion. JADE also aims to establish a wind erosion theory, which will well explain the heterogeneous process of wind erosion, and a numerical wind erosion model to predict streamwise saltation flux and dust emission from surface. Field experiment is planned at a cultivated land and a pasture in the Lower Murray Darling Catchments in Australia. Multi-size saltation process and dust emission are monitored using newly developed sand particle counter (SPC) and optical particle counter (OPC). A portable wind tunnel will be used to calibrate these sensors with orthodox methods and instruments. First intensive observation was made in March this year. An outline and preliminary results will be shown.