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Real-Time remote sensing monitoring of the major explosive events of Volcan de Colima (Mexico) since 1913

I. Galindo, J.C. Gavilanes, T. Tene, E. Bricio, N. Zuazo

Centro universitario de investigaciones en ciencias del ambiente, Universidad de Colima, México (igalindo@ucol.mx)

Since the reactivation of the current eruption process of Volcán de Colima initiated late October 1997, we have observed an alternate eruption dynamics: The latest process initiated about October 21, 2004 with a new effusive phase showing high integrated brightness AVHRR temperatures accompanied by small discrete ash emissions and slowly temperature decaying until January 24, 2005. At the end of January a slow summit heating activity was observed. However, on March 25 an increase in ash emissions was detected which continued until the latest explosive activity from May 23 to June 15, 2005. During this period we have observed the greatest explosions ever recorded since 1913, year of the latest Plinian eruption. In what follows we shall document the real-time AVHRR multispectral monitoring of the Colima volcano eruption process during the major explosive activity from May 23 to June 15, 2005 which according with the heights of the eruptive columns and the amount of ash emitted produced the most energetic explosions recorded during the current eruptive process. Finally, considerations are made on the regional hazards associated with these events, mainly air navigation due to heavy ash clouds.