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ACG035-03

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## The effects of river fluxes on river plume behaviors: Yukon River and Bering Sea

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Satellite images show that the sediment plume is developed off the estuarine delta of the Yukon River, Alaska. In order to explore how the river fluxes affects the plume behaviors off the Yukon delta, time series of discharge, sediment load and chemical flux were obtained at a downstream point of the Yukon River, Alaska, and marine observations were performed off the delta in June 2007 ? September 2009. Meanwhile, the plume area was obtained by using three near-infrared bands of MODIS/Aqua. As a result, there is the significant correlation between the plume area and the Yukon discharge or sediment load in spite of the northern winds opposite to the advance of the plume.

Keywords: Yukon River, Bering Sea, glacier-melt, MODIS, river plume