


Government Scientists Confirm Slug Flow in Mid-May 2010

Deepwater Horizon Release Estimate of Rate by PIV

July 21, 2010

Plume Team - FRTG

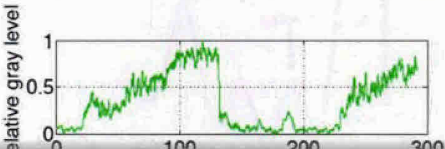


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The analysis of the gray levels of two longer image sequences from May 14th (see Figure 7) confirms the "slug flow" regime found in the short 5 minute clip from May 17th. In both movies the gas slugs appear to come in pairs (uniformly spaced an average time T approximately 70 s) and with a very well-defined time periodicity between the pairs of $T=200$ s - with a very well-defined time periodicity between the pairs of $T=200$ s = 3.3 minutes. Autocorrelation analysis of the time variation of the average brightness intensity (see Figure 8) confirms the periodic behavior of the oil/gas composition with two distinct peaks at 70s and 200s observed in Figure 7.



“... confirms the ‘slug flow’ regime...”

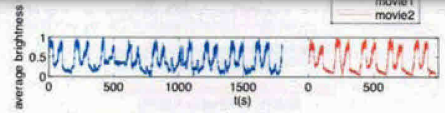


Figure 7: Temporal evolution of the average brightness in an ROI at the riser exit.

30 minutes 20100514235708344@H14_Ch1-H264h.mov of May 14th
16 minutes 20100514220052312@H14_Ch1-H264h.mov on May 14th

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