Abstract Submitted
for the DFD06 Meeting of
The American Physical Society

Vortex formation in a model glottal jet MICHAEL KRANE, Penn State University, MICHAEL BARRY, Sunset Prepartory School, TIMOTHY WEI, Rensselaer Polytechnic Institute — This talk presents vortex formation timing in a model glottal jet, using DPIV measurements previously presented of the flow through a scaled-up model of the human glottis. The range of reduced frequency of vibration was 0.01-0.04 and the Reynolds number 8000. The jet issuing from the glottis is generally symmetrical and is characterized by the formation of vortex pairs along the jet. The data shows that the vortex formation time is not a strong function of reduced frequency of vibration, but that the vortex strength is. Furthermore, during periods of strong flow acceleration and deceleration, the timing is less regular.

Michael Krane
Penn State Univeristy

Date submitted: 28 Jul 2006 Electronic form version 1.4