

Auxiliary material for

Slow Translation Speed Causes Collapse of East Pacific Hurricane Kenneth Over a Cold-core Eddy

Walker, Nan D. *(corresponding author-nwalker@lsu.edu), Robert R. Leben+, Chet T. Pilley*, Michael Shannon+, Derrick C. Herndon**, I.F.Pun***, I.-I. Lin***, Chelle L. Gentemann****

*Dept of Oceanography and Coastal Sciences and Coastal Studies Institute, Louisiana State University, Baton Rouge, LA, USA 70803

+Colorado Center for Astrodynamics Research, University of Colorado, Boulder, CO, USA

**Cooperative Institute for Meteorological Satellite Studies (CIMSS), University of Wisconsin, Madison, WI, USA

***Dept. of Atmospheric Sciences, National Taiwan University, Taipei, Taiwan

****Remote Sensing Systems, 444 Tenth St. #200, Santa Rosa, CA 95401

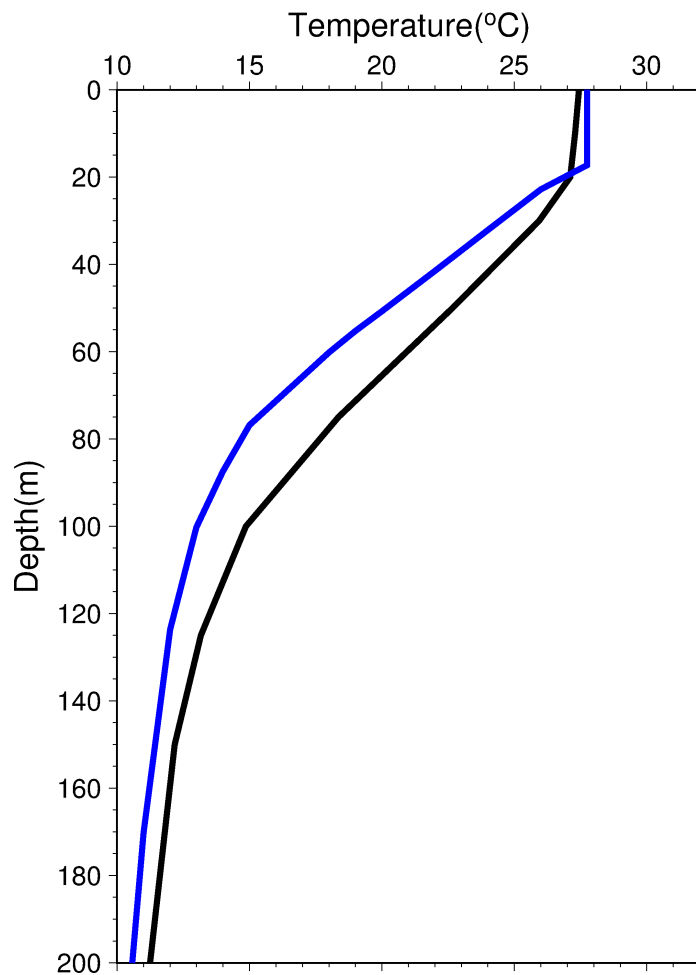
Geophysical Research Letters

Introduction

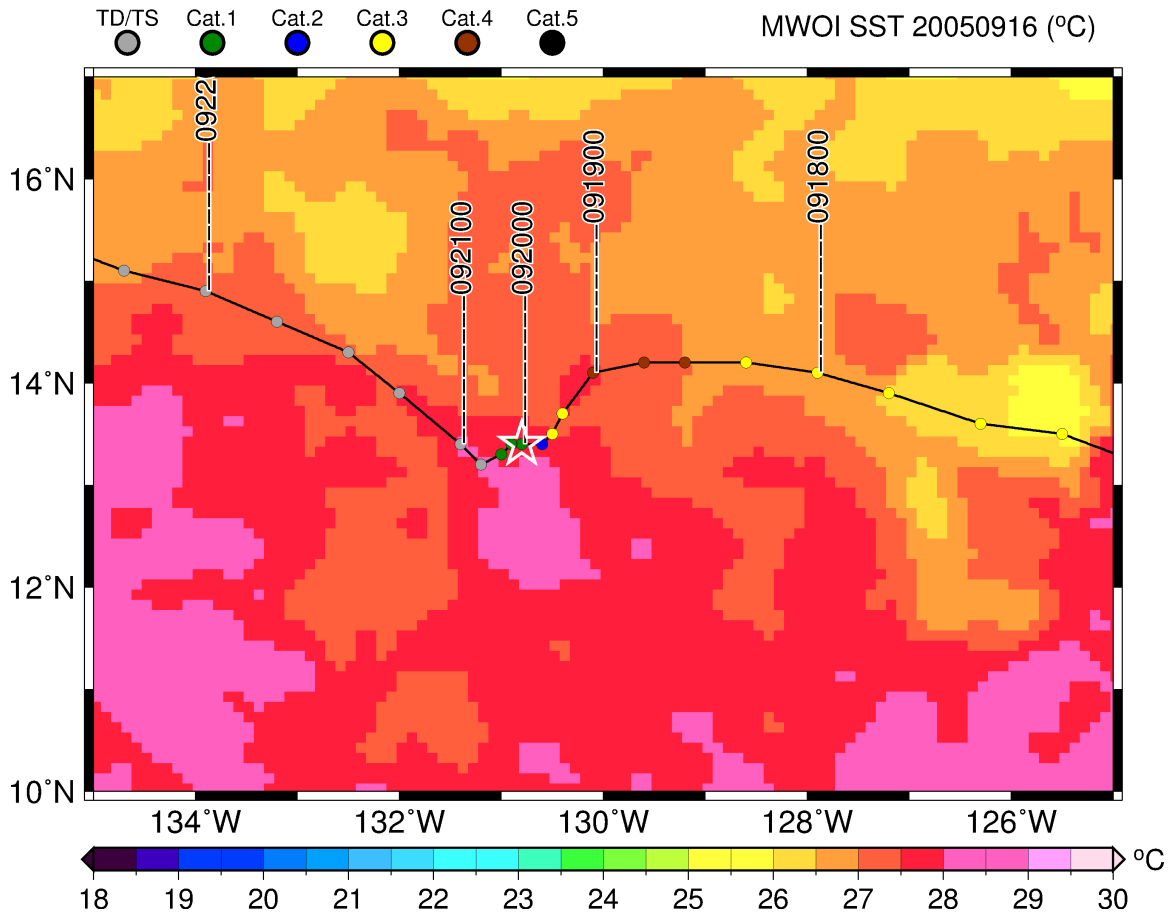
The auxiliary material includes four figures to provide additional graphics to aid the readers in understanding the analyses and modeling performed. They are named “fs01.pdf”, “fs02.pdf”, “fs03”, and “fs04”. These graphics are described and cited in the DATA and METHOD and DISCUSSION sections of the manuscript. Below are the Figure captions.

1. fs01.withcaption.pdf Ocean depth-temperature profiles in the CCE. Blue represents a profile derived from satellite and blue represents the corresponding climatological profile from World Ocean Atlas 2001.
2. fs02.withcaption.pdf MWOI SST ($^{\circ}\text{C}$) on Sep 16, 2005 used to initialize the model along with the profile shown in fs01. The track of Hurricane Kenneth is annotated with dates at 0000 UTC. The star depicts the location of the data that was used to initialize the model.
3. fs03.withcaption.pdf SSHA (cm) on Sep 16, 2005 showing the height field that Hurricane Kenneth tracked over. The value at the location of the star (-6.4 cm) was used to construct the sub-surface profile shown in fs01.

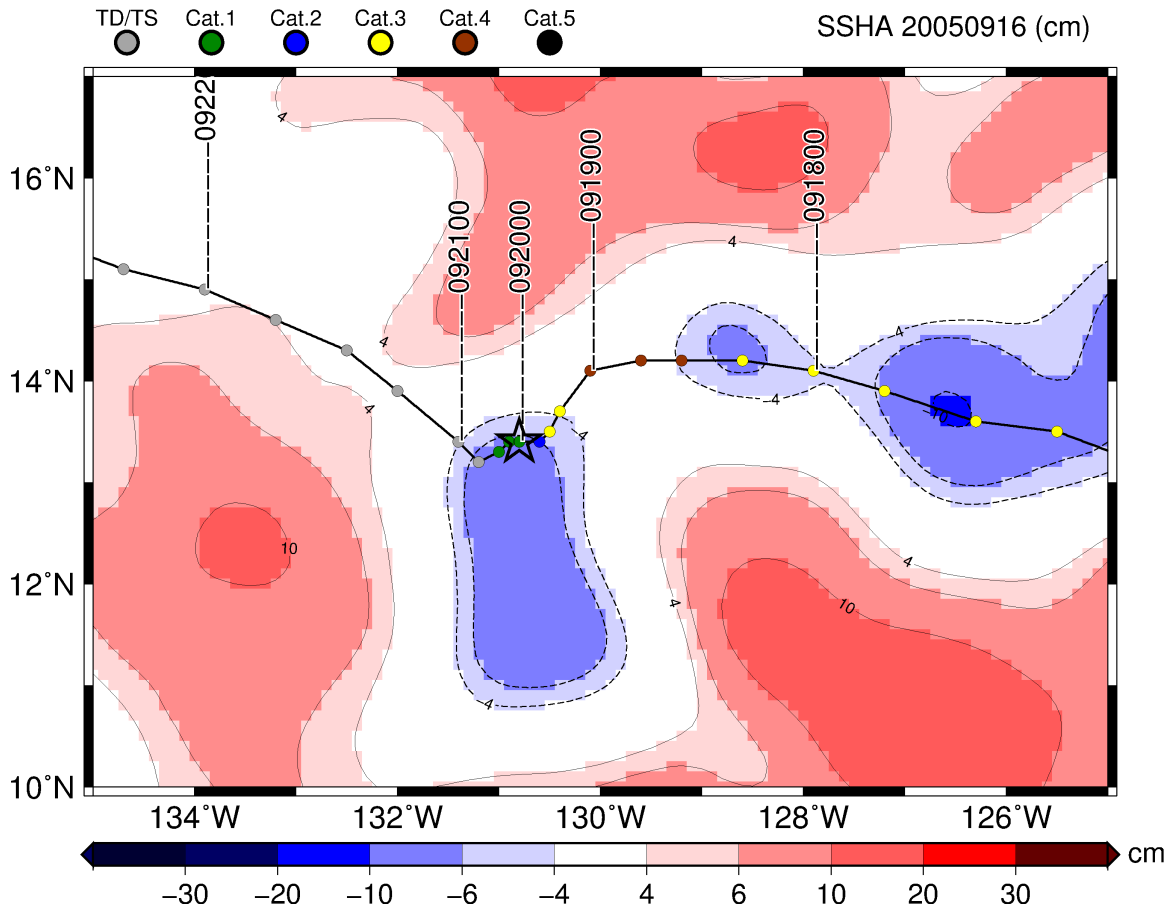
4. fs04withcaption.pdf Time series of wind shear and maximum sustained wind speed for H. Kenneth based on 6 hr data from NHC (Pasch, 2006). See manuscript text for description of methods used to calculate.



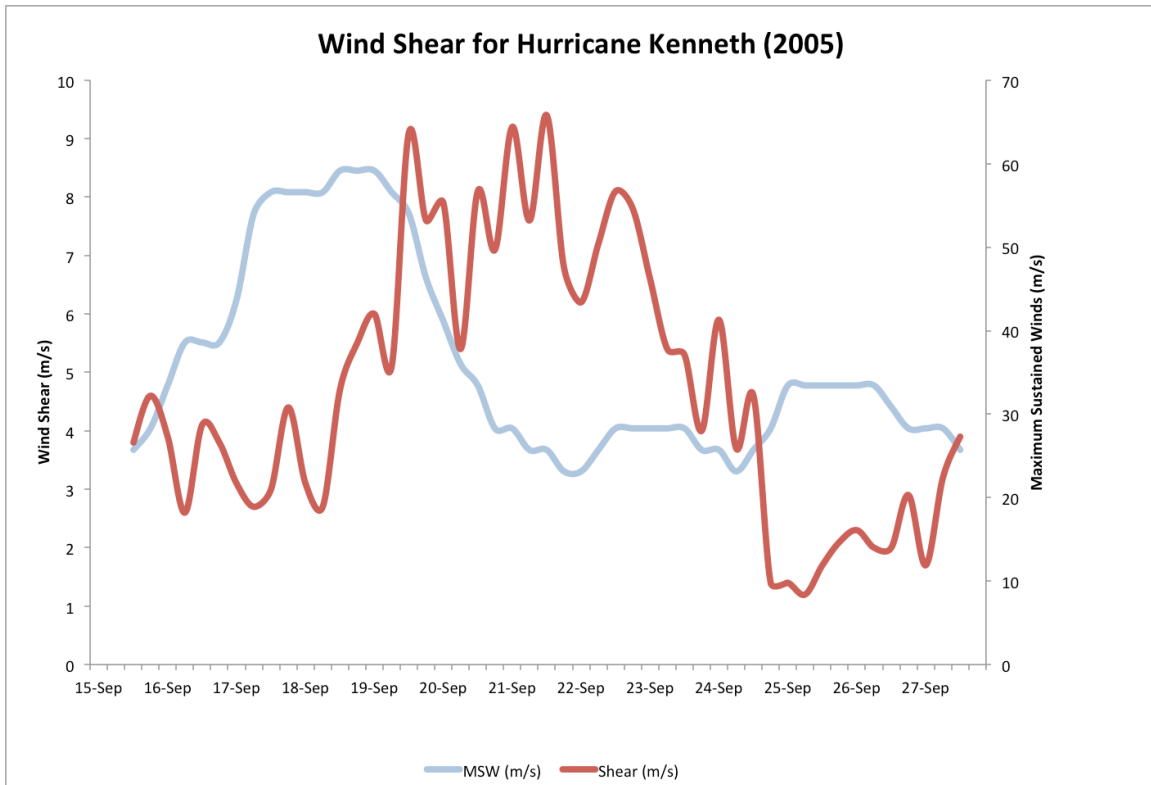
Fs01. Ocean depth-temperature profiles in the NE Pacific in September 2005. Blue represents a profile derived from satellite SSHA data for the pre-existing CCE before HK's passage and black represents the corresponding climatological profile from World Ocean Atlas 2001



(fs02) MWOI SST (°C) on Sep 16, 2005 used to initialize the model along with the profile shown in fs01. The track of Hurricane Kenneth is annotated with dates at 0000 UTC. The star depicts the location of the data that was used to initialize the model.



(fs03) SSHA (cm) on Sep 16, 2005 showing the height field that Hurricane Kenneth tracked over. The value at the location of the star (-6.4 cm) was used to construct the sub-surface profile shown in fs01.



fs04. Time series of wind shear and maximum sustained wind speed for H. Kenneth based on 6 hr data from NHC (Pasch, 2006). See manuscript text for description of methods used to compute wind shear.