

## Sheet A-22—CEUS SSC Project GIS Data Summary

### World Stress Map of 2008 Updated by Owen Hurd, Stanford University

CEUS\_WSM\_Hurd2010\_R0.shp

**Data Description:** This GIS layer presents updated crustal stress data not previously found in the World Stress Map Project's (WSM) 2008 release. These 49 updates were found through a literature review by Dr. Owen Hurd of Stanford University. The data, in combination with the WSM 2008 release, covers the area of the CEUS. Stress indicators are taken from four general types of sources including: earthquake focal mechanisms, well bore breakouts and drilling-induced fractures, in situ stress measurements, and young geologic data (fault-slip analysis and volcanic vent alignments). Several ESRI symbology layers are provided to assist in the presentation of the attributes included with the data.

Summary of explanation labels in Figure A-63 and the GIS layer's attribute table:

| Quality                              | Regime                    |
|--------------------------------------|---------------------------|
| A = $S_H$ is within $\pm 15$ degrees | NF = Normal faulting      |
| B = $S_H$ is within $\pm 20$ degrees | SS = Strike-slip faulting |
| C = $S_H$ is within $\pm 25$ degrees | TF = Thrust faulting      |
|                                      | U = Unknown regime        |

where  $S_H$  is the maximum horizontal compressional stress. **Source (Internet URL, CD/DVD-ROM):** WSM 2008 release is available at <http://world-stress-map.org>. Updates from Dr. Owen Hurd obtained 2010 via personal communication.

**Author/Publisher/Year:** Heidbach, O., Tingay, M., Barth, A., Reinecker, J., Kurfess, D., and Müller, B., 2008, The World Stress Map database release 2008 doi:10.1594/GFZ.WSM.Rel2008.

Hurd, O., 2010, Stress Measurement Update for the Central and Eastern United States, 5 pp.

**Data Summary:** WSM 2008 data in Microsoft Excel (xls) format were converted to ESRI point shapefile using latitude and longitude values. Updated stress measurements from Dr. Hurd were provided in the same attribute layout as the WSM 2008 and converted to ESRI point shapefile.

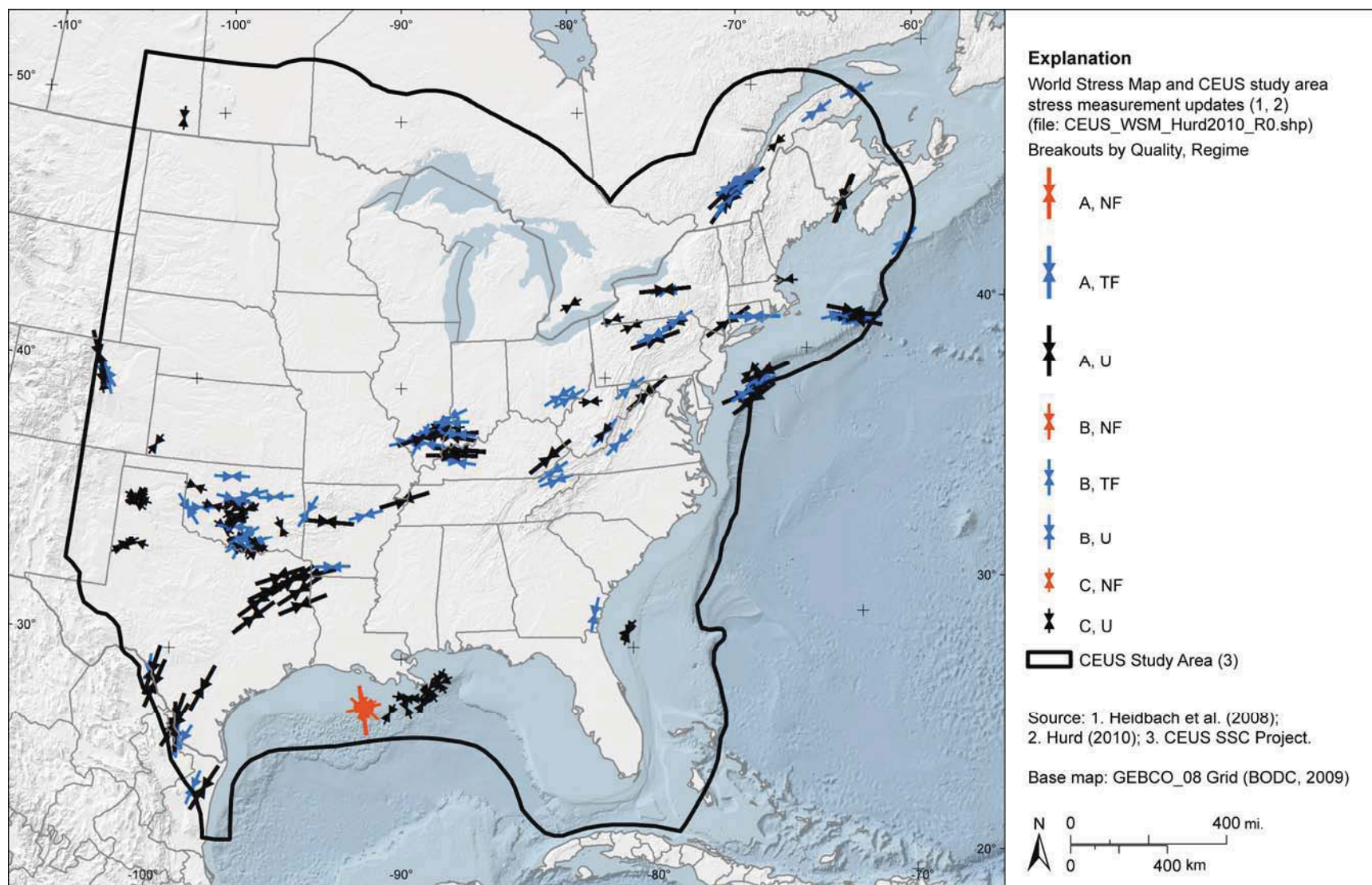
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**Figure A-63**  
 Stress measurement update for the CEUS (Hurd, 2010)