Case Study 1: Part B
Southern Rub’ Al-Khali, Lower Cretaceous Shu’aiba Formation

Cross Posting Shows
- Some parasequences are absent from “Strike 4” – labeled here as “? Missed Beat”
- Sensu Goldhammer et al. (1990) – Missed beats occur when the platform top remains emergent at sea-level maximum

Summary Strike 4
- 4 Sequence Boundaries Observed
- 6 Sequences Inferred

Example 1 Dip 4 vs. Strike 3
- Some parasequences are absent from “Strike 4” – labeled here as “? Missed Beat”
- Sensu Goldhammer et al. (1990) – Missed beats occur when the platform top remains emergent at sea-level maximum

Observations & Facts
- Not all sequences are observed or inferred to be present on all lines.
- The number of sequence boundaries (SBs) observed on each line ranges from 8 to 1 and the number of sequences inferred to be present on each line ranges from 2 to 6.

Summary & Conclusions
1. Relative position with respect to the shelf, basin margin, and basin determined where the sequences were deposited.
2. The number of observed SBs and sequences falls within the range reported by Yose et al. (2006) from an area about one-quarter the size of our study area.
3. The average duration of the systems tracts (2 to 9 inferred) is in the range of about 6.5 to 1.5 Ma, suggesting that most are 3rd order sequences with some possibly being 4th order sequences.
4. A top Shu’aiba surface terminating with a FSST or LST is consistent with subaerial exposure reported by most workers in the literature.
5. A top Biyadh (base Shu’aiba) seismic marker is consistent with a HST or FSST and agrees with the findings of Cantrell et al. (2004) who considered the base Shu’aiba to have deeper water affinities.

Local static busts or local zones of poor data quality inherent in the land seismic data presented challenges to chronostratigraphic analysis.

A spread sheet was used to keep track of systems tracts observed among different 2D lines extracted from the 3D volume.