Collision Avoidance Sub-Committee
26th September 2018

Steve Sawaryn

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The Industry Steering Committee on Wellbore Survey Accuracy (ISCWSA)

SPE Papers – Well Collision Avoidance

SPE 184730
Management & Practices

1. The first paper, presented at the IADC / SPE Drilling Conference, The Hague in March 2017.
2. Accepted for publication following an appeal (Probably March 2019, but not guaranteed).

SPE 187073
Separation Rule

1. The second paper, presented at the SPE ATCE, San Antonio in October 2017.
2. Accepted for publication (December 2018, but not guaranteed).
3. First proofs have been received.

SPE papers are intended as normative references for API RP 78

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Collision Avoidance: Next Tasks

Priority	Task
1	Error Models / Collision Avoidance
2	Collision Avoidance Management Presentation Pack
3	Common Collision Avoidance Report / Electronic Exchange
4	Adoption of Global Error Model Terms
5	Revision Control Process / Administration

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Common Collision Avoidance Report

Flagged as a high priority item. The following notes were taken from the workgroup's flipchart. Currently all-encompassing and further work and refinement is required.

- Data file
    - Planning and execution phase
    - Different user levels
    - Able to reconstruct calculations
- Common data standard, version
- Version (and time/data), Audit Trail (and time/data), User ID
- Geomatics
- SF, MASD, ADP
- Surveying Program, Error Models, QA/QC
- Rule
- Activity; status on reference well (depth)
- Reference information, wellhead, vertical reference (all relative to reference well)
- Offset well identity, status and assessed risk (HSE/Non-HSE)
- Review/Approval
- Users Green/Red, AI, full replication

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Collision Avoidance: Management Presentation Pack

- Problem Statement / ISCWSA Pedigree
- Rationale for Rule and Parameters
- Justification – Why the Rule is the Right One
- Before / After Comparison
- Benefits / Reason to Adopt
- Link to API RP 78 (Manage Expectations)
- Perspective: Less / More Conservative
- Implementation Issues
- Conclusion Timeline / When

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Website Suggestions / Requests

- Survey / Opinion Poll Capability to Solicit Feedback
- More graphical, rather than textual content
- Video Clips e.g.
  - ❑ Sell Standard Rule
  - ❑ Error Ellipse
  - ❑ Lecture Schedule
- Access to Documents e.g. e-Books (make more prominent)
- Improve Search Capability
  - ❑ Lexicon
  - ❑ Bibliography
- Less Cryptic / More Enduring Document References
- Separate the Meeting Notes and Presentations

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Confirmed Lecture Schedule

Date (Lunchtime Events)	Location
Tuesday 9th October	NW Virginia, Bridgeport, W. Virginia
Thursday 11th October	Lou-Ark, Shreveport, Louisiana
Monday 15th October	Permian Basin, Midland, Texas
Wednesday 17th October	Denver, Colorado
Thursday 18th October	Casper, Wyoming

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Software Implementation Mind Map

A B C Hyperlinks

E Covariance

$$\Delta C - (R_r + R_o) - S_m$$

$$SF = \text{-----------------------------}$$

$$K (\sigma_s{}^2 + \sigma_{pa}{}^2)^{\frac{1}{2}}$$

F E D

E_1 E_2 E_3

Reference Offset Surface

+ MASD, Pitfalls, Comparison table old rules versus new?

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