Error Model Maintenance Subcommittee
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Error Model Documentation

- Produce a single document

- Based on papers, eBook, other documents and OWSG spreadsheets with additional data

- Implementation guidelines including handling singularity and propagation modes

- Validation limits for comparisons

- Small group to work on this

Proposed Change - Drillstring Magnetisation

- Different approach for Drillstring Magnetisation

- Remove AMIC

- Replace AMID with AMIL - value to be confirmed

- Old model to be retained for historic data

- Note: OWSG uses AMIL

Proposed Change - Add Inclination & Azimuth Cones

- Used in some Tool Error Models

- Not needed - misalignment terms can be used

OWSG vs. ISCWSA

- OWSG is based on ISCWSA MWD Rev.3 with AMIL 300 nT & Misalignment 0.1 deg

- Rev.3 has option to use BGGM uncertainty lookup Tables (was Rev.4 in eBook - remove reference to Rev.4)

- Review use of BGGM lookup Tables

- ISCWSA Models now in OWSG Spreadsheet format

- Request for ISCWSA MWD models to include HDGM and IGRF geomagnetic models

Proposed Change - Elimination of SF Terms

- MWD Model can be simplified without significant change to the EOU

- Could add Calibration Reference and Magnetic Mud terms

- Need to check derived models e.g. MWD+MSA

Alternative Misalignment Calculation

- Presentation by Jon Bang

- Elegant single-term solution

- Not suitable for Inclination-Only Models with two different values

- Investigate method for use with other terms with singularity issues

Vertical Drilling Systems

- Needs own Tool Error Model

- E.g. Inc-Only with reduced measurement and misalignment error

Inclination-Only TVD

- Handling of TVD questioned

- Currently has MD and TVD the same

- Options to be investigated

Geomagnetic Reference Uncertainty

- Presentation by Stefan Maus

- Need to include missing Random Terms

- IFR2 reduces uncertainty by 1 to 4%

- Link with BGS study

Course Length

- Current model assumes max survey interval of 100 ft

- Use alternative model or have term that penalises long survey intervals

- Deferred to next meeting