Error Model Maintenance Sub-Committee

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68 Attendees

- 47 in person
- 19 Online

Key Items

- Revision 5 vs. 5.1 naming convention
- Rotating 6-axis Error Model “Final” items
- Mixed Mode Surveying

Request for Feedback – What to Call Rev 5 / 5.1?

Revision 5 was technically adopted in 2020

- Minor update prior to wide implementation

- "Beta" versions of Rev 5 have been in circulation that do not include these changes

What do we call the final adopted rev5?
Currently group is leaning toward calling "5.1" just rev5

Rotating Survey Tool Code "Final Push"

Decisions that were made:

- No glaring omissions from proposed error terms
  - Minor harmonization on weighting functions
- A prototype full tool code **is** needed
  - Workgroup to assess if "conservative" option is viable
- Guidance document for background and usage needed

Rotating Survey Tool Code Guidance Document

- Tool Expectation
- Error source explanations and origins
- Explain gaps in provided error model
- Discuss checks / comparison with static survey
  - How to do an Internal RIP test, special misalignments
  - How often to perform checks (like building angle, etc)
- Similar guidance to minimum MSA requirements

Presentation from Jerry Codling Mixed Mode Surveys

- Overlapping survey legs that are not redundant
- Intend to keep all stations
- Not all error sources apply to all survey stations

- Improve legacy gyro tool codes
- Enable better Static vs. Continuous MWD Handling
- Enable more “utility” survey *stations*

Mixed Mode Proposal – Open to Feedback

#Name	Vector	Tie-On	Unit	Value	Formula	min	max	Do IF	Not IF
axyz-mis	i	s	d	0.0095	1				
axyz-sf	i	s	-	0.000111	1.3*sin(inc)*cos(inc)				
axyz-zb	i	s	-	0.0017	sin(inc)/gtot				
nxygb1	n	n	-	1	sin(azt)/(erot*cos(inc))	0	15	static	dynamic
nxygb2	n	n	-	1	cos(azt)/erot	0	15	static	dynamic
nxyggd4	n	n	-	1	sin(azt)*sin(inc)/cos(inc)/erot	0	15	static	dynamic
nxygrn	n	n	-	1	sqrt(1-(cos(azt)^2)*(sin(inc)^2))/(erot*cos(inc))	0	15	static	dynamic
gxy-b1	a	s	d	0.15	nxygb1				
gxy-b2	a	s	d	0.15	nxygb2				
gxy-g4	a	s	d	0.6	nxyggd4				
gxy-rn	a	r	d	0.4	nxygrn	0	15	static	dynamic
gxy-rn	a	s	d	0.4	0.4082*nxygrn	15.1	150	dynamic	static
runsp	n	n	m	2743	1				
dgxygd	n	n	-	1	0	0	15	static	dynamic
dgxygrw	n	n	-	1	0	0	15	static	dynamic
dgwgd	n	n		1	dgwgd+amd/sin(inc-0.5*din)	15.1	150	dynamic	static

Thank you / Questions?