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MWD TOOLFACE-INDEPENDENT TOOL ERROR TERMS

This document summarises the changes to the Tool Error Terms in converting from MWD Toolface Dependant Rev.2 to MWD Toolface-Independent Rev.3.

> Toolface-Independent models have been included for both rotating and non-rotating (sliding) cases, however only the use of the non-rotating (sliding) model is recommended as it gives a slightly more conservative result.

Conversion from Standard MWD Rev.2 to MWD Toolface-Independent Rev.3

The table below shows the old terms to be removed and be replaced by new terms. The numeric values for the new terms remain the same as the old terms.

Old Rev.2 Terms to be Removed	New Terms [Rotating]	New Terms [Sliding]
Accelerometer Biases:		
ABX and *ABY*	ABXY-TI1R	ABXY-TI1S
	ABXY-TI2R	ABXY-TI2S
Accelerometer Scale Factor Errors:		
ASX and *ASY*	ASXY-TI1S	ASXY-TI1S
	ASXY-TI2R	ASXY-TI2S
	ASXY-TI3R	ASXY-TI3S
Magnetometer Biases:		
MBX and *MBY*	MBXY-TI1R	MBXY-TI1S
	MBXY-TI2R	MBXY-TI2S
Magnetometer Scale Factor Errors:		
MSX and *MSY*	MSXY-TI1S	MSXY-TI1S
	MSXY-TI2R	MSXY-TI2S
	MSXY-TI3R	MSXY-TI3S

Conversion from MWD + Axial Correction Rev.2 to MWD + Axial Correction Toolface-Independent Rev.3

The table below shows the old terms to be removed and be replaced by new terms. The numeric values for the new terms remain the same as the old terms.

Old Rev.2 Terms to be Removed	New Terms [Rotating]	New Terms [Sliding]
Accelerometer Biases		
ABIX and ABIY	ABIXY-TI1R	ABIXY-TI1S
	ABIXY-TI2R	ABIXY-TI2S
Accelerometer Scale Factor Errors:		
ASIX and *ASIY*	ASIXY-TI1S	ASIXY-TI1S
	ASIXY-TI2R	ASIXY-TI2S
	ASIXY-TI3R	ASIXY-TI3S
Magnetometer Biases		
MBIX and *MBIY*	MBIXY-TI1R	MBIXY-TI1S
	MBIXY-TI2R	MBIXY-TI2S
Magnetometer Scale Factor Errors:		
MSIX and *MSIY*	MSIXY-TI1S	MSIXY-TI1S
	MSIXY-TI2R	MSIXY-TI2S
	MSIXY-TI3R	MSIXY-TI3S