

# MorphCol supplement#18.2 - Vertical correction for the Auto-focus in AMOR: Testing of improved version AMOR 3.10

Michael Knappertsbusch, 27.11.2009

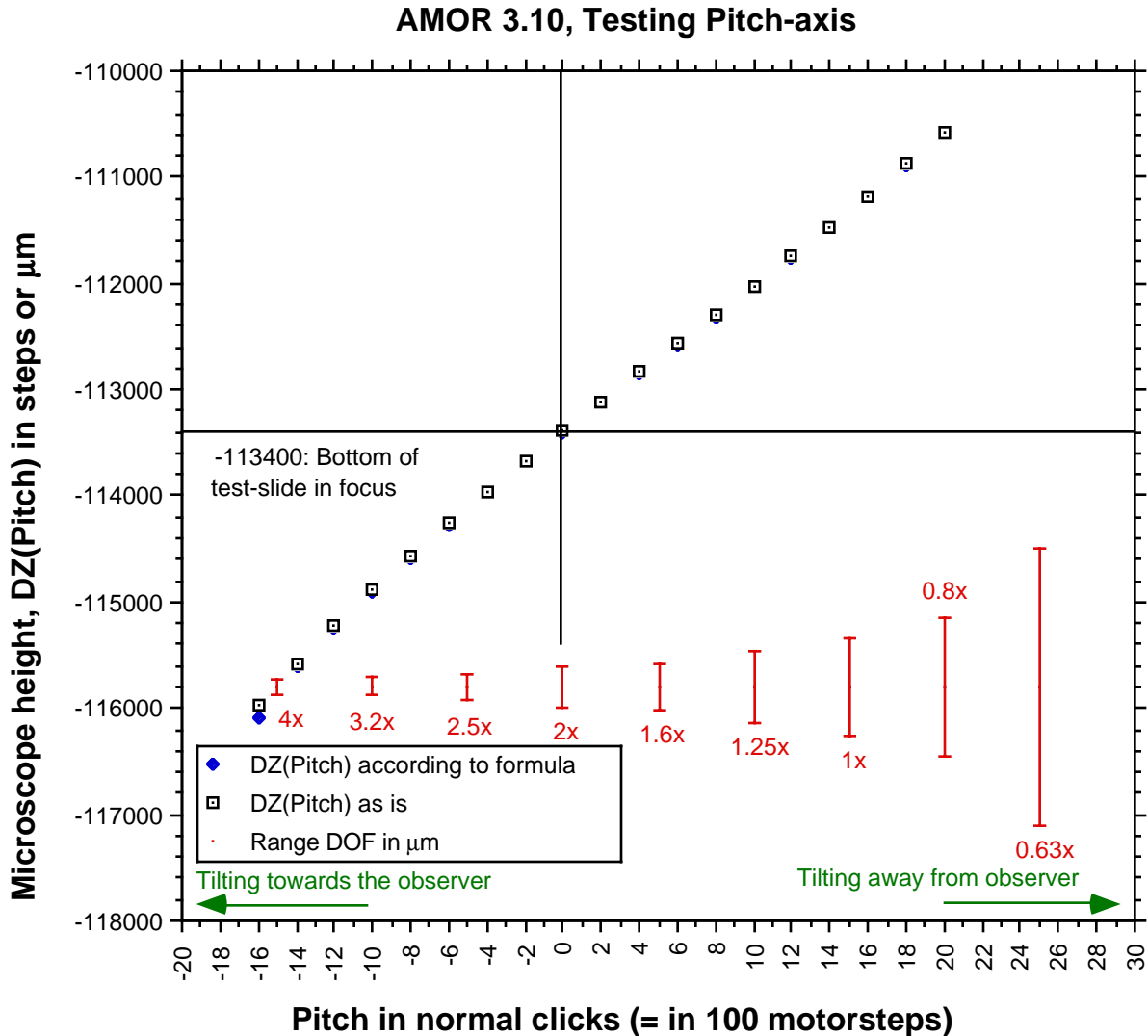


Figure 5. Testing the pitch axis in AMOR 3.10. Black symbols show behaviour as it is. Blue symbols show the behaviour calculated according to the formula for DZ(Pitch). Red ranges indicate the depth of focus in micrometers at each magnification.

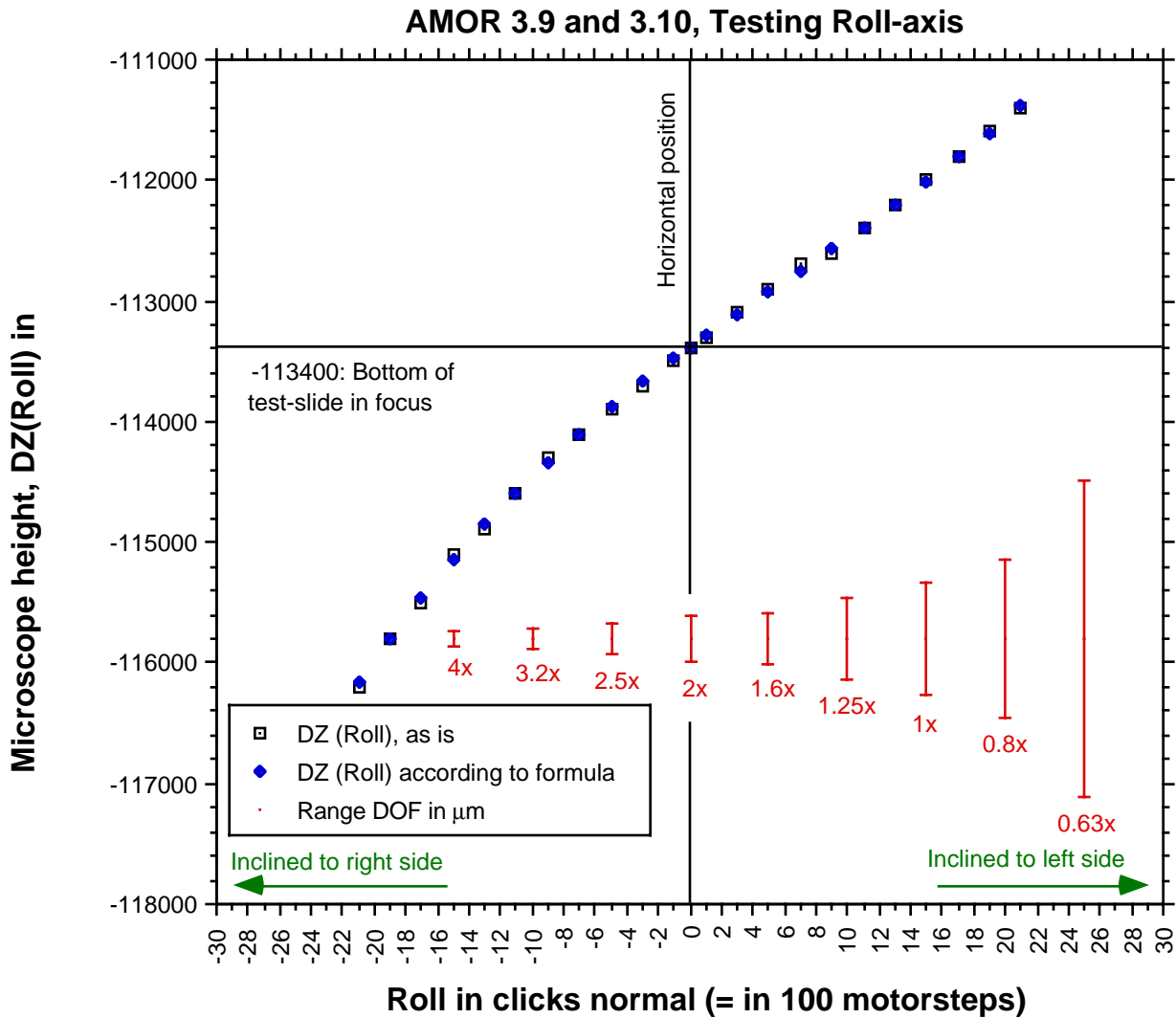


Figure 6 Testing the roll axis in AMOR 3.10 (same as in version 3.9). Black symbols show behaviour as it is. Blue symbols show the behaviour calculated according to the formula  $DZ(Roll)$ . Red ranges indicate the depth of focus in micrometers at each magnification.

**Conclusions:**

AMOR 3.10 behaves in a good manner and the start position for the AutoFocus follows now precisely the vertical movement of the microscope. With these improvements AMOR is now successful in producing well focused images even at high amplitudes of ritch or roll movements.

Pitch in Clicks normal	DZ(Pitch) Ist	DZ(Pitch) Soll
- 16	-115963	-116081
- 14	-115587	-115605
- 12	-115230	-115248
- 10	-114890	-114908
- 8	-114566	-114583
- 6	-114254	-114272
- 4	-113955	-113972
- 2	-113664	-113683
0	-113382	-113400
2	-113106	-113123
4	-112833	-112851
6	-112563	-112580
8	-112292	-112310
10	-112020	-112038
12	-111745	-111762
14	-111464	-111481
16	-111175	-111192
18	-110877	-110895
20	-110569	-110586

Table 4 showing data for Figure 5.

Roll in Clicks normal	DZ (Roll) Ist	DZ (Roll) Soll
- 21	-116200	-116159
- 19	-115800	-115795
- 17	-115500	-115458
- 15	-115100	-115146
- 13	-114900	-114857
- 11	-114600	-114588
- 9	-114300	-114337
- 7	-114100	-114103
- 5	-113900	-113883
- 3	-113700	-113675
- 1	-113500	-113478
0	-113400	-113400
1	-113300	-113288
3	-113100	-113105
5	-112900	-112925
7	-112700	-112748
9	-112600	-112570
11	-112400	-112389
13	-112200	-112205
15	-112000	-112013
17	-111800	-111813
19	-111600	-111603
21	-111400	-111380

Table 5 showing data for Figure 6.