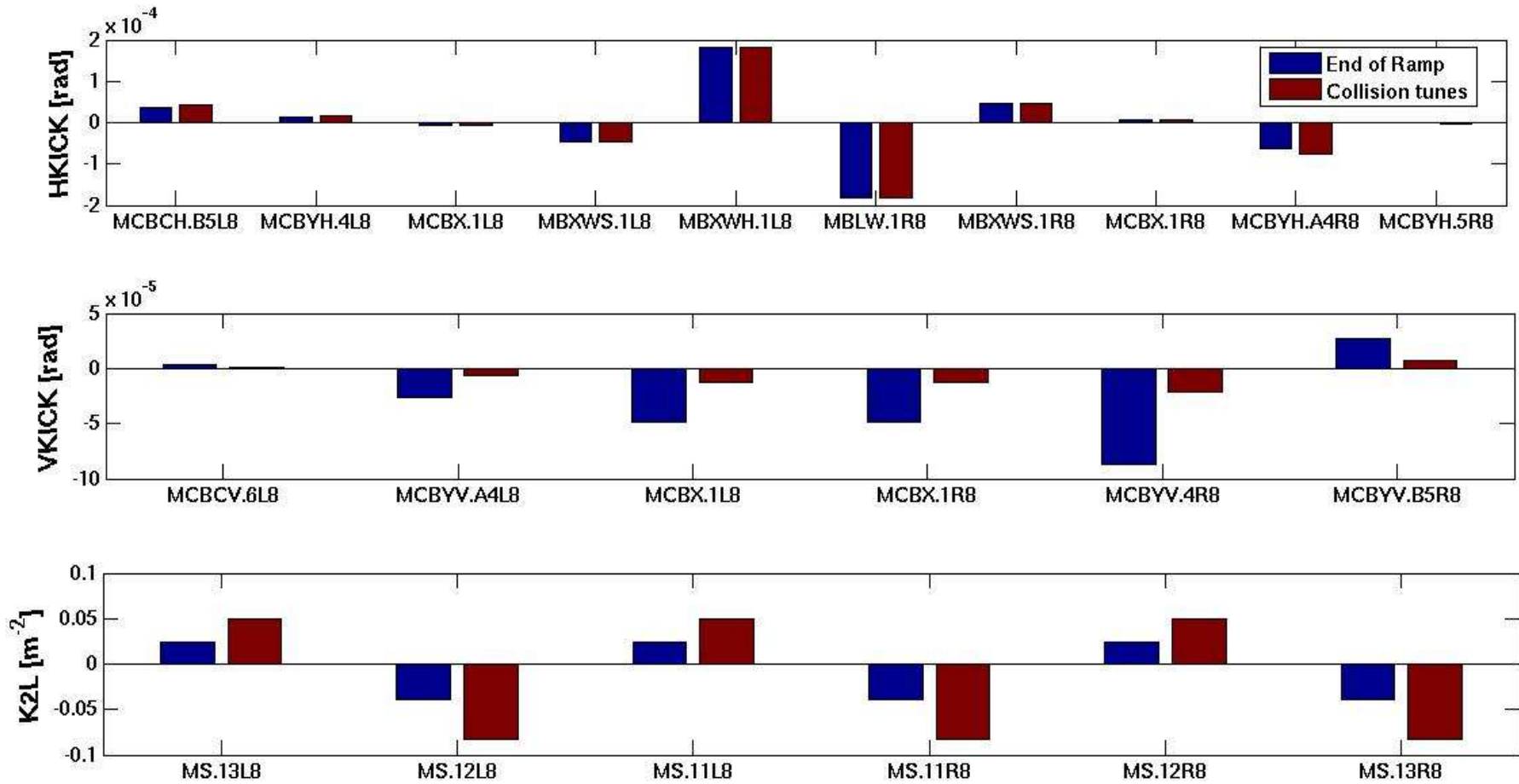


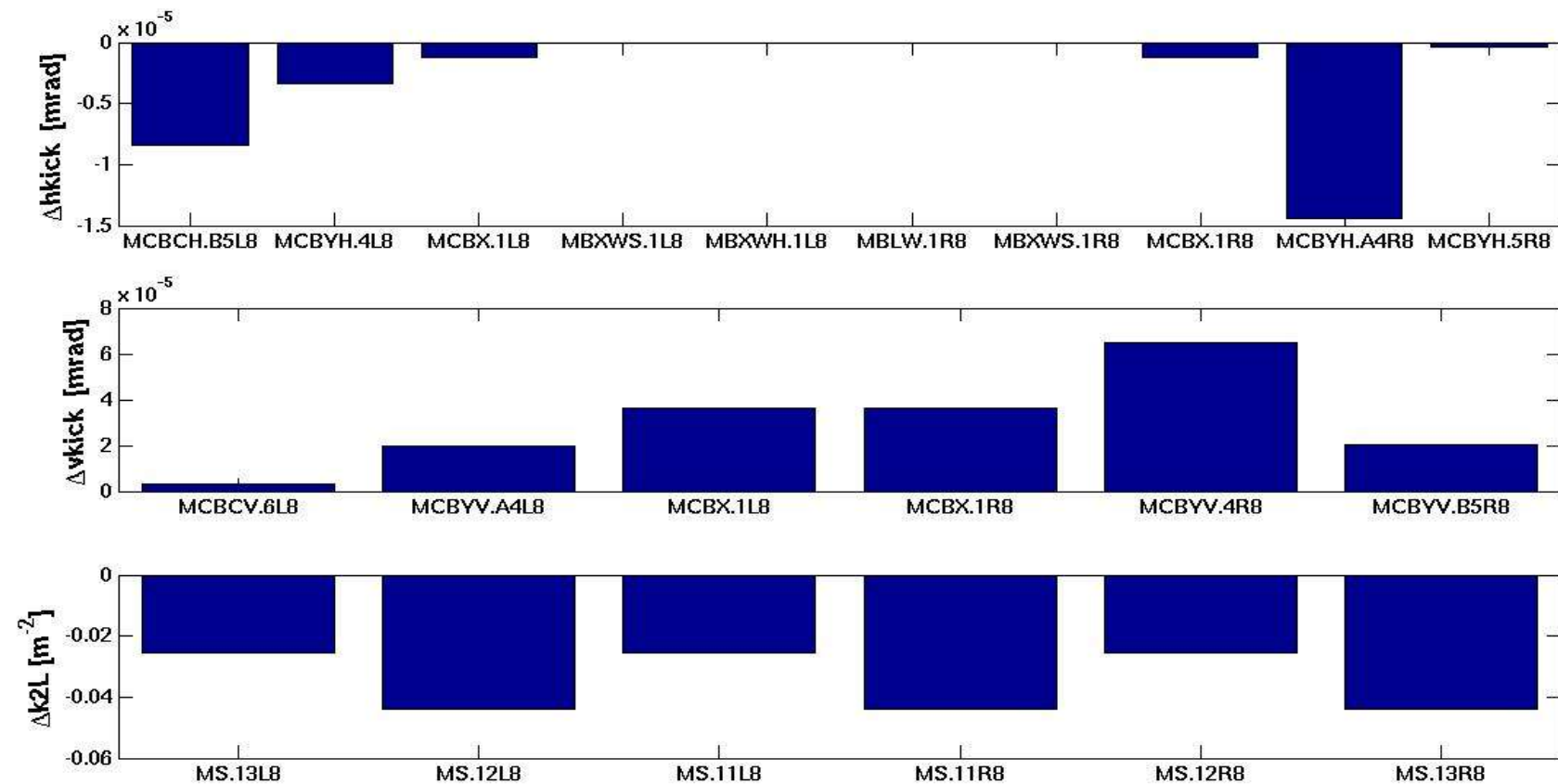
# End of ramp with Injection settings in IR8

- Larger aperture at end of the ramp with injection settings
  - Emittance is reduced by a factor of 16, i.e. beam size is reduced by a factor of 4
  - Orbit tolerance goes to 0.03mm
- No difference in phase advances in IR8
  - Tuning is done in IR1-5, thus no difference in quad strengths
- Crossing schemes, with respect to standard collision settings:
  - Horizontal crossing angle is smaller for + polarity (170 vs. 210  $\mu$ rad)
  - Vertical separation is larger (2 vs. 0.5mm before collisions)

# End of Ramp vs Collision



# Differences Ramp vs Collision



# Differences Ramp vs Collision

ELEMENT		Kick [ $\mu$ rad]					
		End of ramp		Collision		Nominal	
Beam 1	Beam 2	Beam 1	Beam 2	Beam 1	Beam 2	Beam 1	Beam 2
MCBCV.6L8	MCBCV.B5L8	3.94	-28.46	0.98	-7.12	89.66	
MCBYV.A4L8	MCBYV.4L8	-26.36	85.6	-6.59	21.4	95.67	
MCBX.1L8		-48.35	48.35	-12.09	12.09	66.61	
MCBX.1R8							
MCBYV.4R8	MCBYV.A4R8	-86.38	24.92	-21.59	6.23	95.67	
MCBYV.B5R8	MCBCV.B5R8	27.34	-3.51	6.84	-0.88	95.67	89.66