

TABLE III
HPL AND VPL STATISTICS FOR ARTK AND CRTK ("PART" REFERS TO THE CONVERGED PART OF THE TIME SERIES)

	whole (cm)		part (cm)	
	HPL	VPL	HPL	VPL
ARTK	1.67	3.44	1.46	2.77
CRTK	3.26	6.67	2.91	5.51

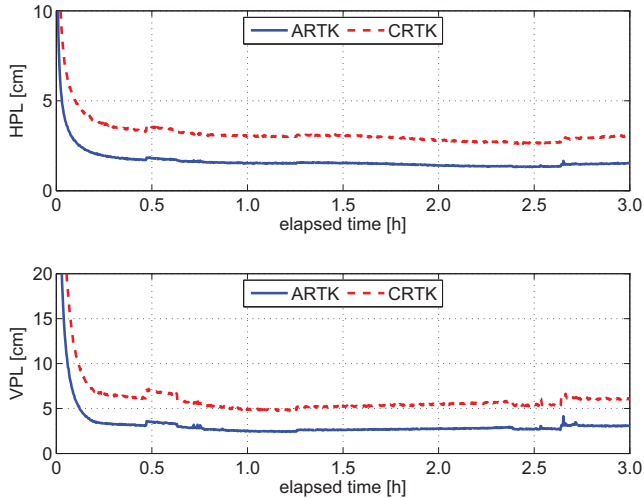


Fig. 8. The HPL and VPL of ARTK and CRTK

whole time series and also for the part after convergence, i.e. after 10 minutes. From Table III, both HPLs and VPLs of ARTK are basically half the counterparts of CRTK.

V. CONCLUSION

A-PPP provides a new concept that uses GNSS measurements, from an array of antennas on a platform, to realize a strengthened GNSS model with improved positioning capabilities. In this contribution, the benefits of A-PPP have been explored for long-baseline RTK positioning using antenna-array equipped baseline stations. The underlying theory was formulated and the results of a real-data experiment was presented. The results from an 80 km baseline experiment, with 4-antenna equipped stations, suggests that conventional RTK can indeed be improved by means of the A-PPP concept. This holds true for the speed with which successful IAR can be done, as well as for the accuracy of positioning.

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