

# **LTIAM Data Processing Results for ISFT Regional GBAS Threat Model (Storm Days)**

***ISTF/6***

***January 19 - 21, 2016***

NAV TAC

**KAIST**

# LTIAM IACS options

<b>baseline</b>	100 km	<b>eff_slip_para</b>	0.8 m	<b>clumpslope</b>	true
<b>tintv</b>	30 s	<b>out_para</b>	0.8 m	<b>clumpratio</b>	100 mm/km
<b>maskangle</b>	10 deg	<b>out_para_rho</b>	10 m	<b>width</b>	1.5*3600s
<b>con_arc</b>	3600 s	<b>smoothwin</b>	5 pnt	<b>ellim</b>	15 deg
<b>allow_arc_len</b>	300 s	<b>hl</b>	350 km	<b>nodiscon</b>	5 pnt
<b>allow_arc_pnt</b>	10 pnt	<b>th_slope</b>	200 mm/km	<b>thres</b>	150
<b>slip_para</b>	2.5 m	<b>negiono</b>	true		

# Color Definitions

- **Red**

- Candidates which are fully validated

- **Green**

- Candidates which are not validated due to frequent cycle slips in  $I_{\phi}$ . However,  $I_{cmc}$  does not have cycle slips or data outages. In this case, the candidates are occasionally validated with  $I_{cmc}$  only.

- **Orange**

- Candidates which are not validated due to low quality of  $I_{cmc}$  (*i.e.*, highly noisy data due to short baseline). However,  $I_{\phi}$  does not have cycle slips or data outages.

- **Blue**

- Candidates which are not validated due to both frequent cycle slips in  $I_{\phi}$  and low quality of  $I_{cmc}$ .

# Dates analyzed by KAIST

 No Data       Data Exist

Year	DOY	Kp	Dst
2000	97	8.3	-287
2000	197	9	-289
2000	225	7.7	-235
2001	90	8.7	-387
2001	102	7.3	-236
2001	328	8.3	-221
2003	303	9	-383
2003	324	8.7	-422
2004	313	8.7	-374
2004	315	8.7	-263

# Validated Gradients

ID	DOY-YYYY	Sta #1	Sta #2	Dist. (km)	PRN	Hour (decimal)	Slope (mm/km)	EI. (deg)	Type (L1/DF)
1	328-2001	HKFN	HKLT	16.86	4	13.57	152	50.39	DF
2	328-2001	HKKT	HKLT	7.79	28	14.28	80.9	47.67	DF
3	328-2001	HKLT	HKSL	8.72	28	14.36	142.46	45.45	L1

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**2001-090**  
**(No Remaining Candidate)**

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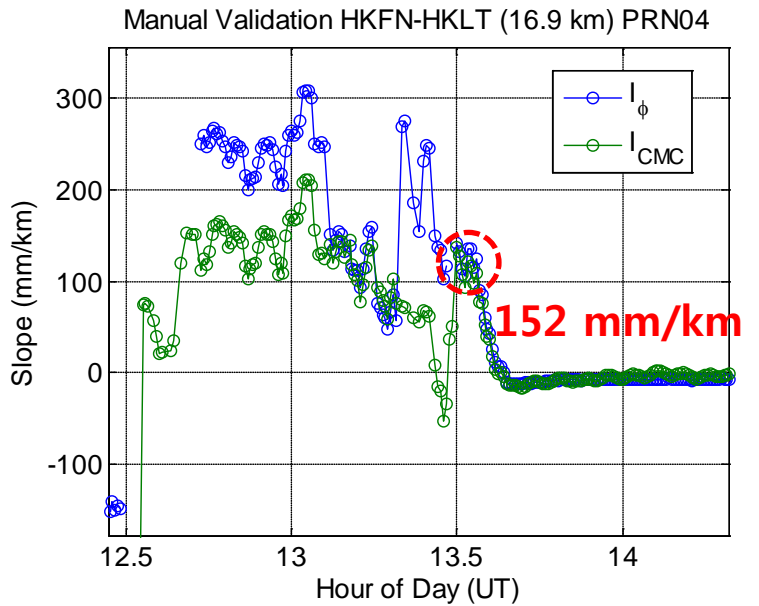
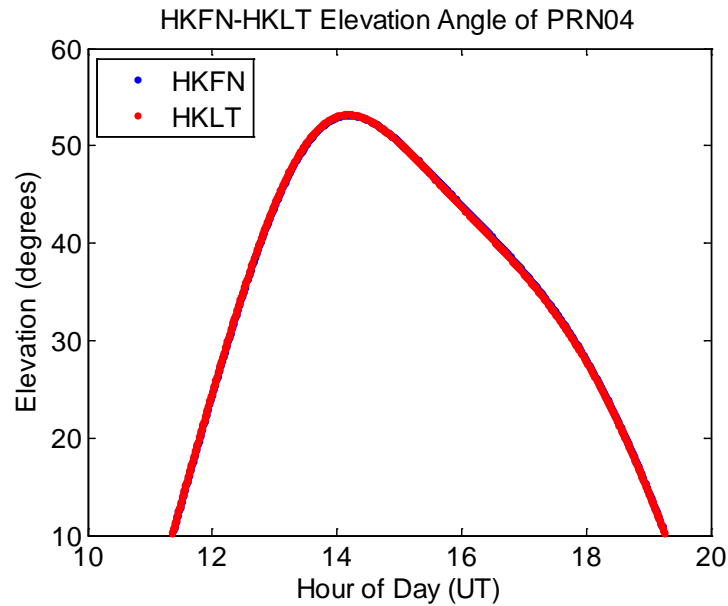
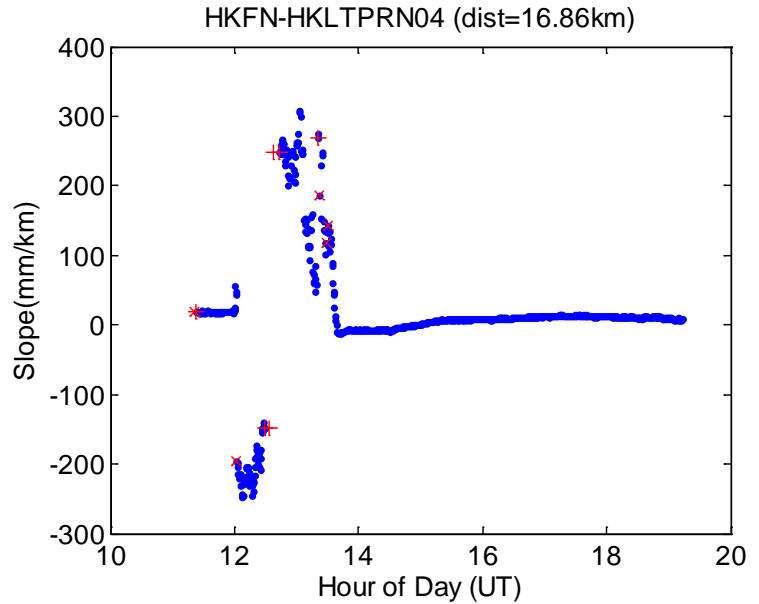
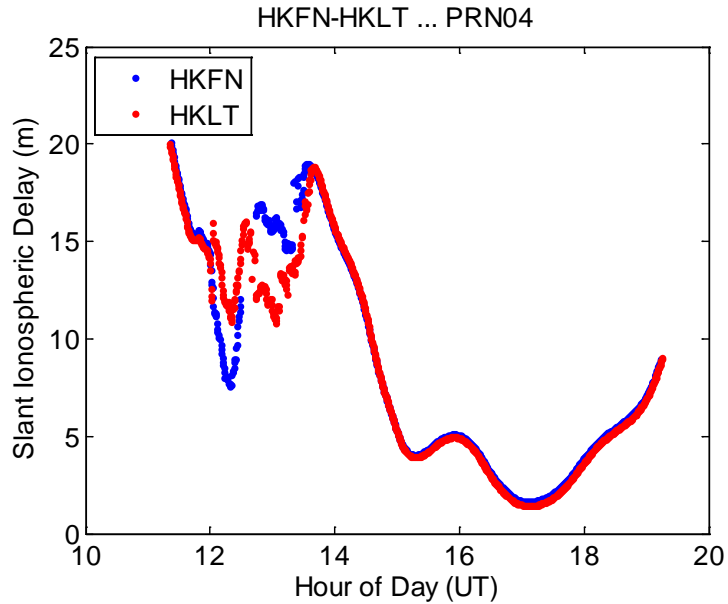
**2001-102**  
**(No Remaining Candidate)**

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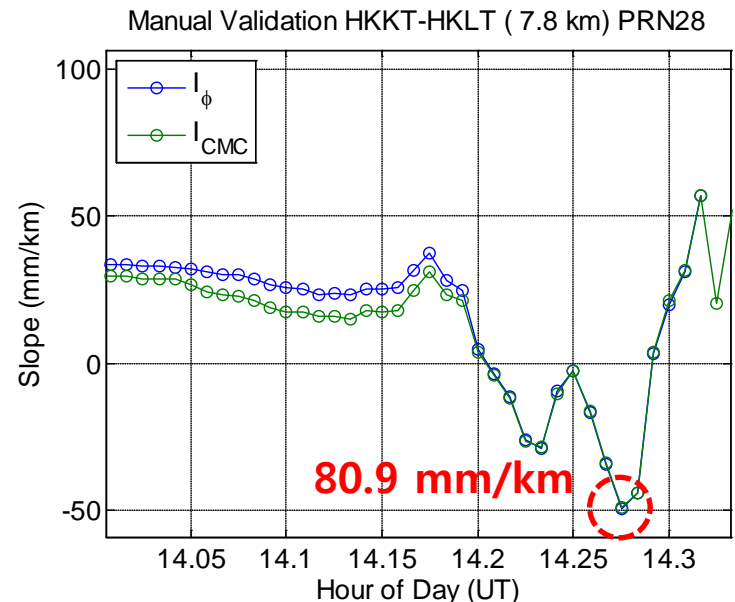
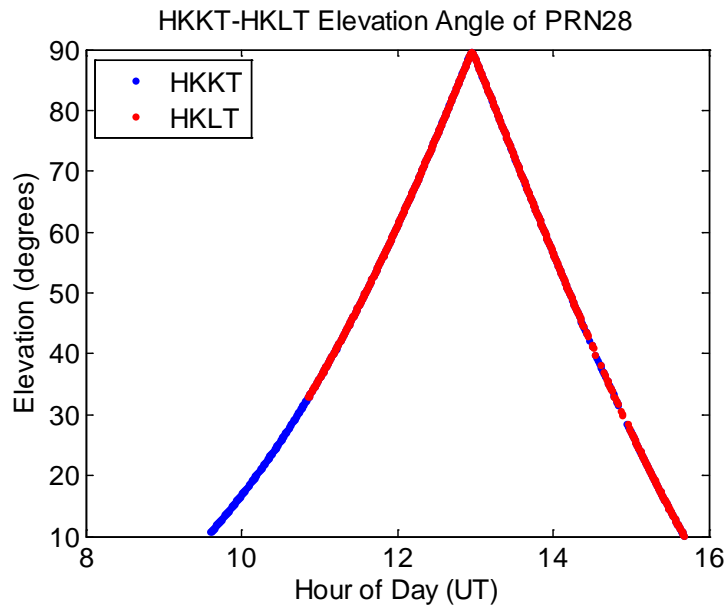
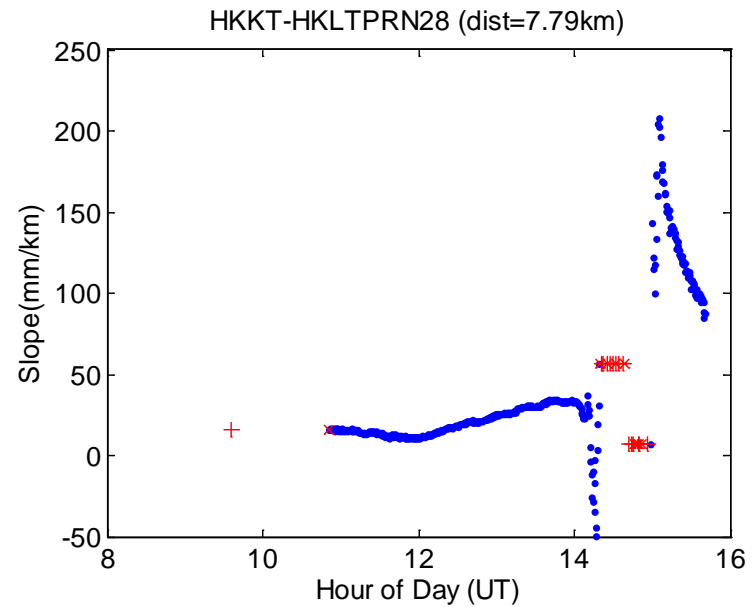
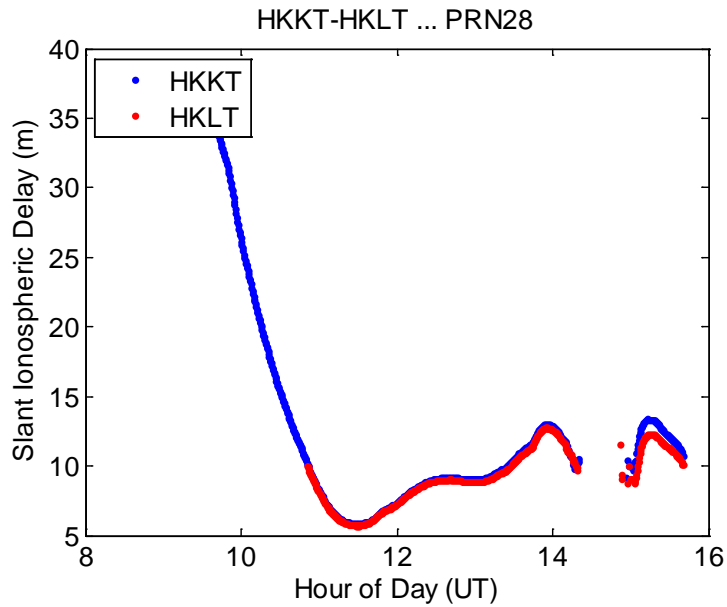
**2001-328**  
**(28 Remaining Candidates)**



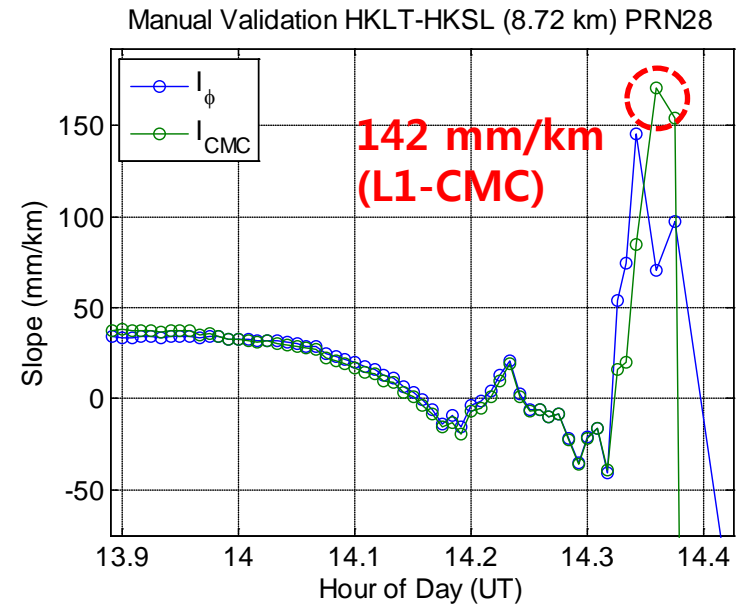
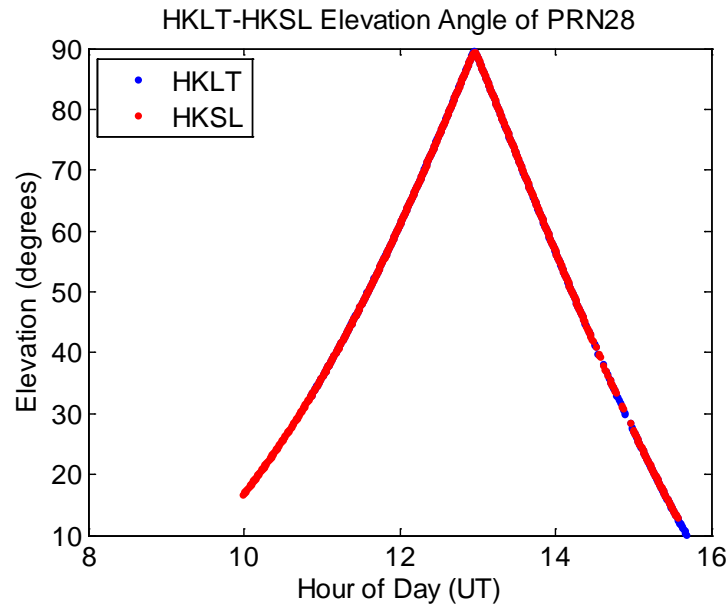
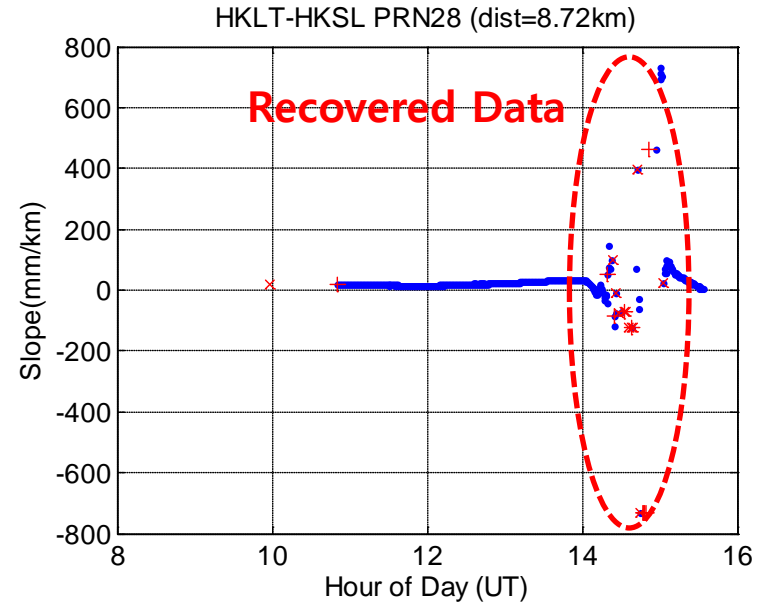
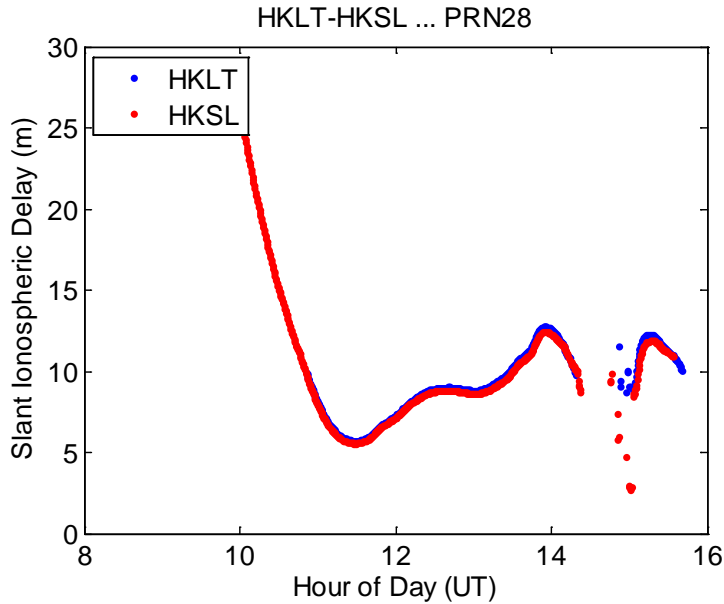
# HKFN-HKLT 04



# HKKT-HKLT 28

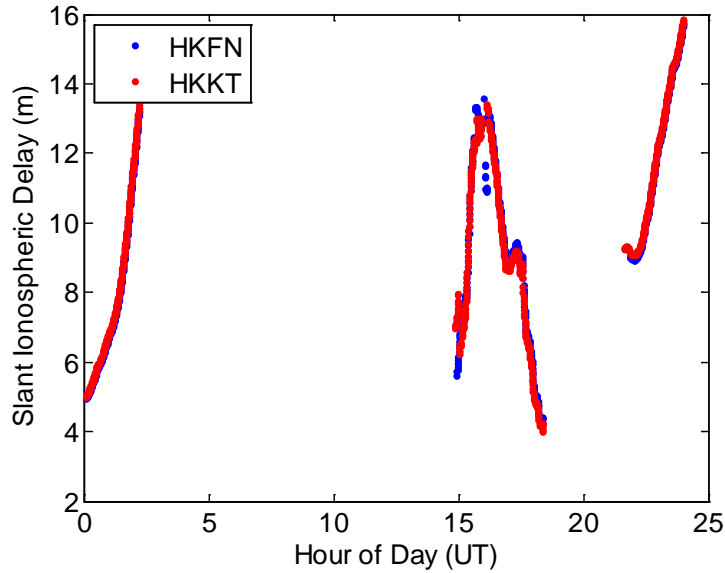


# HKLT-HKSL 28

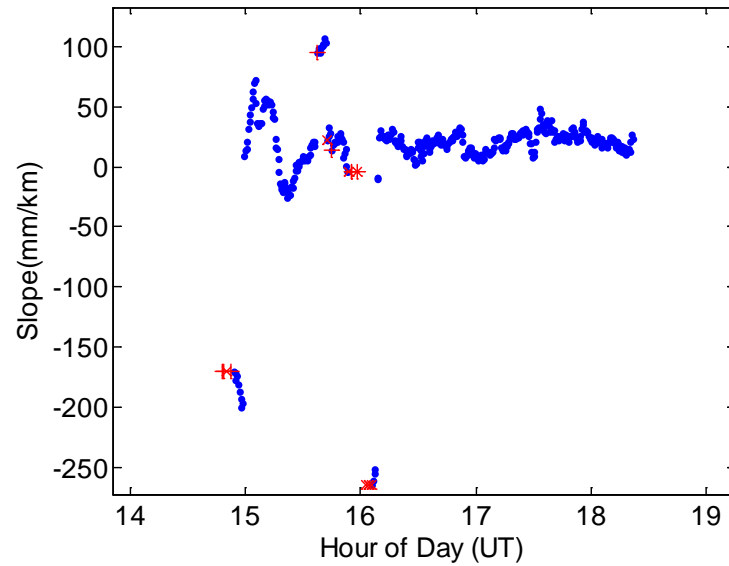


# HKFN-HKKT 05

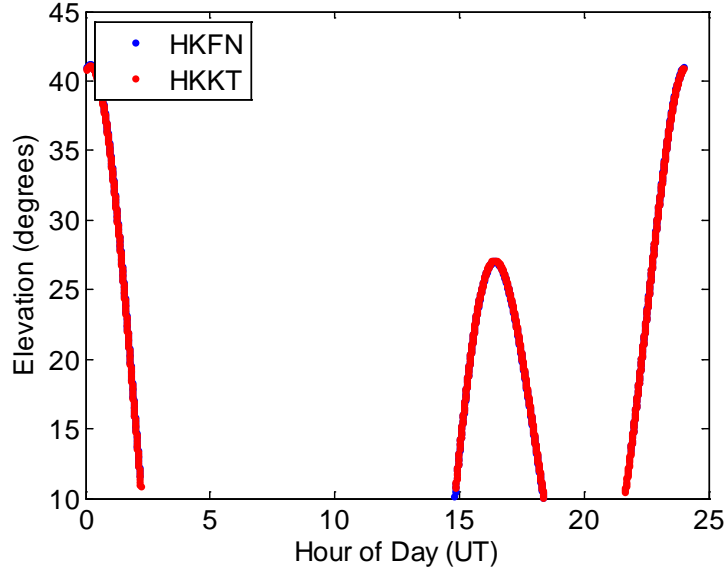
HKFN-HKKT ... PRN05



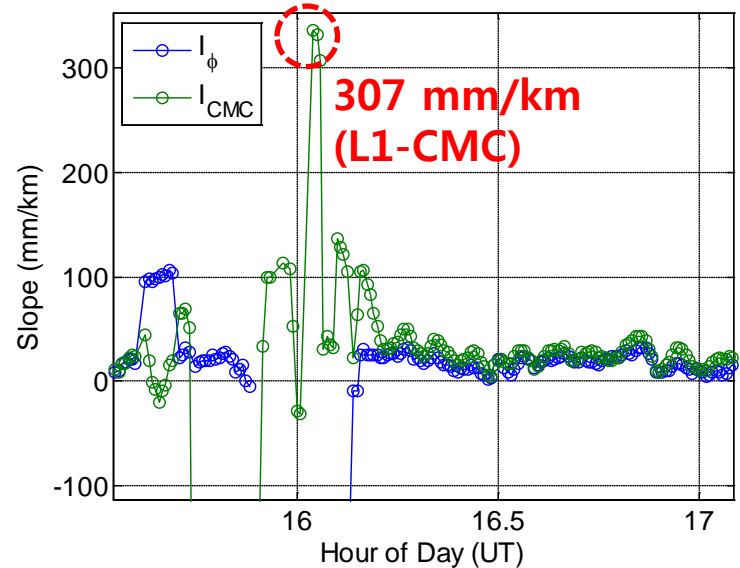
HKFN-HKKT PRN05 (dist=9.20km)



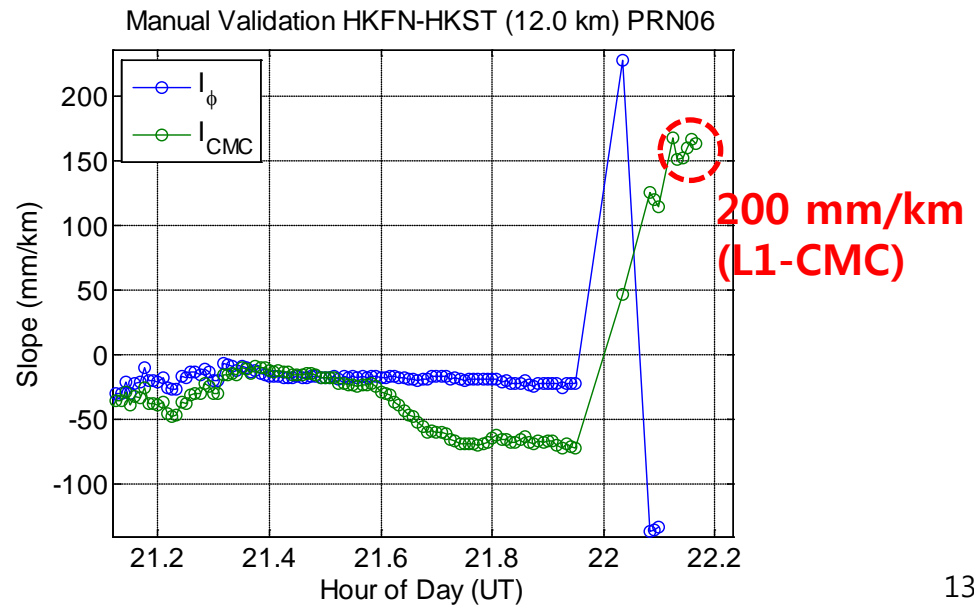
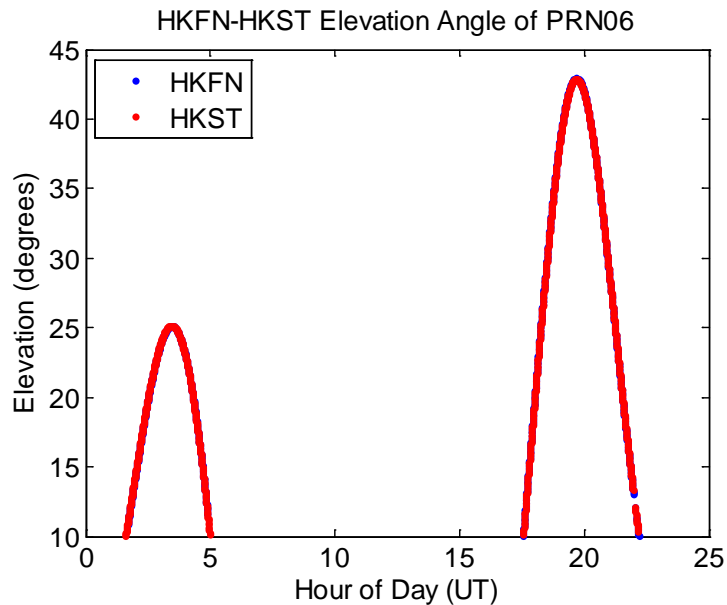
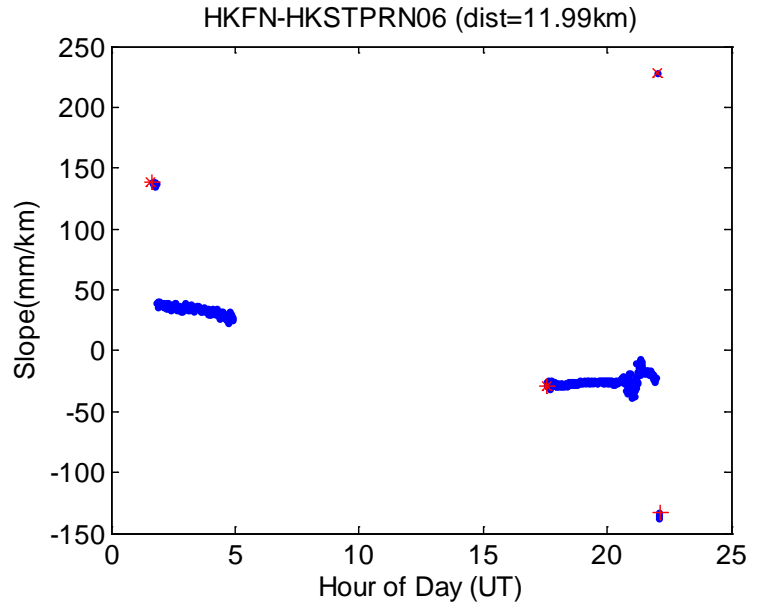
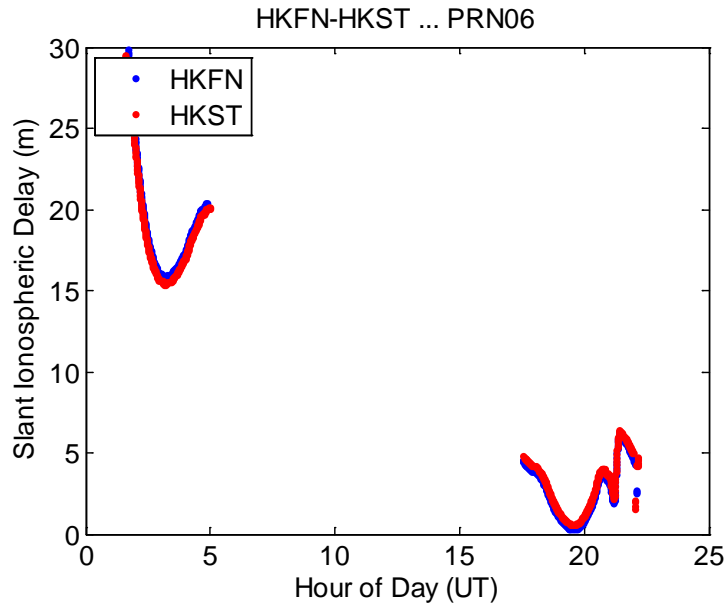
HKFN-HKKT Elevation Angle of PRN05



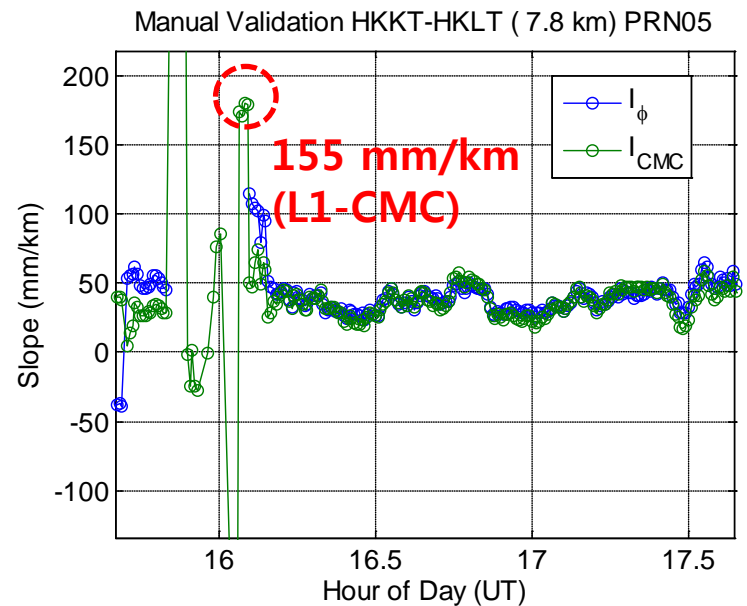
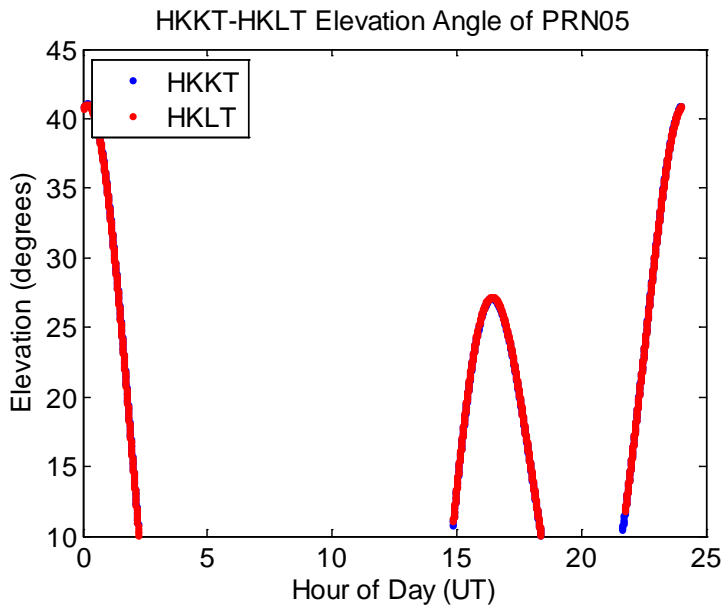
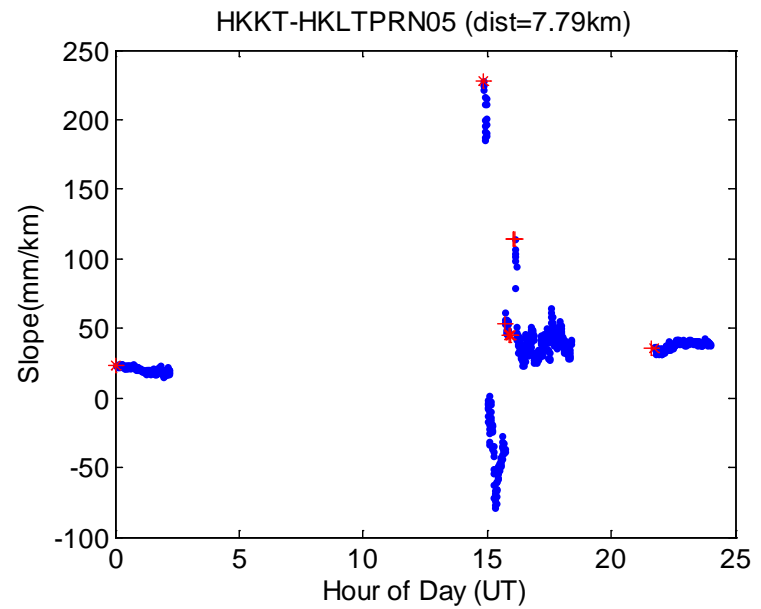
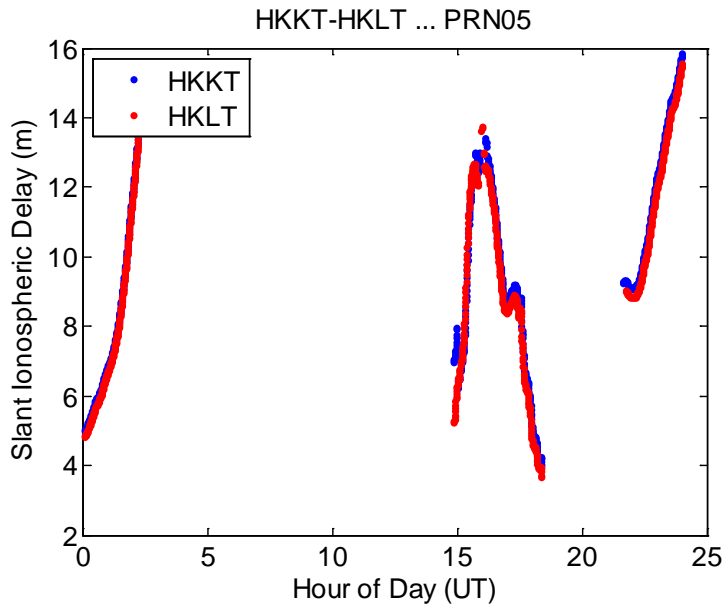
Manual Validation HKFN-HKKT ( 9.2 km) PRN05



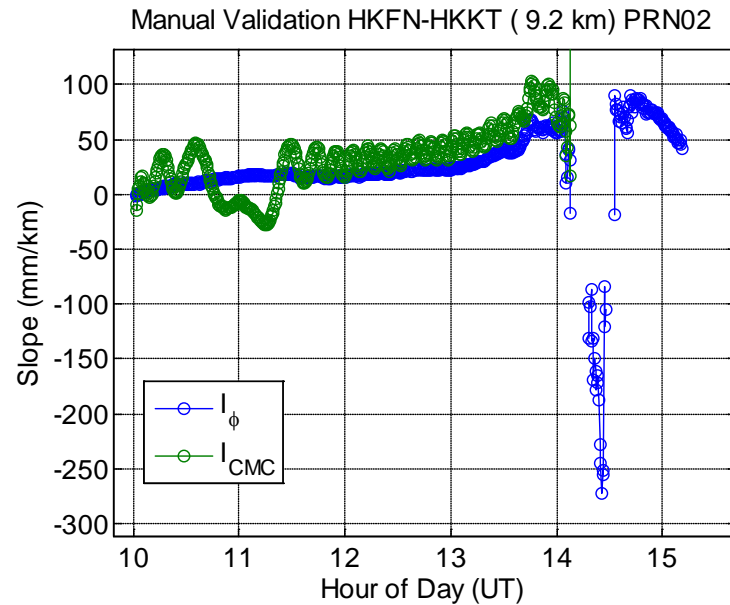
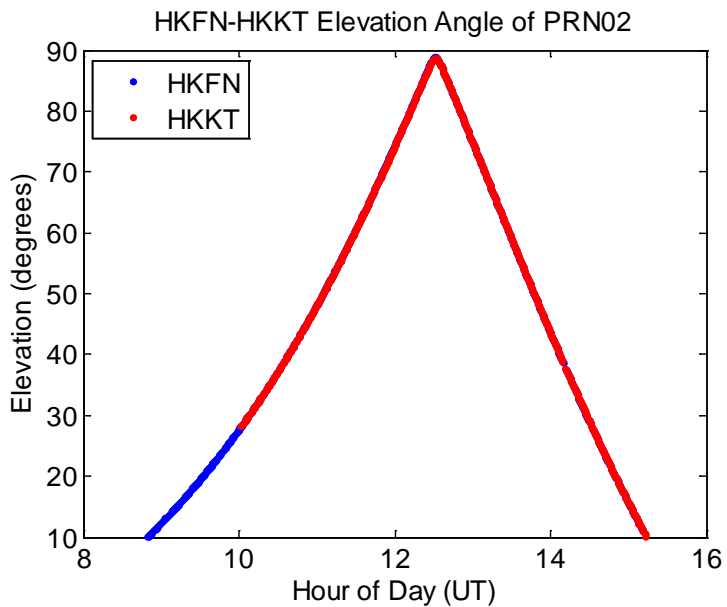
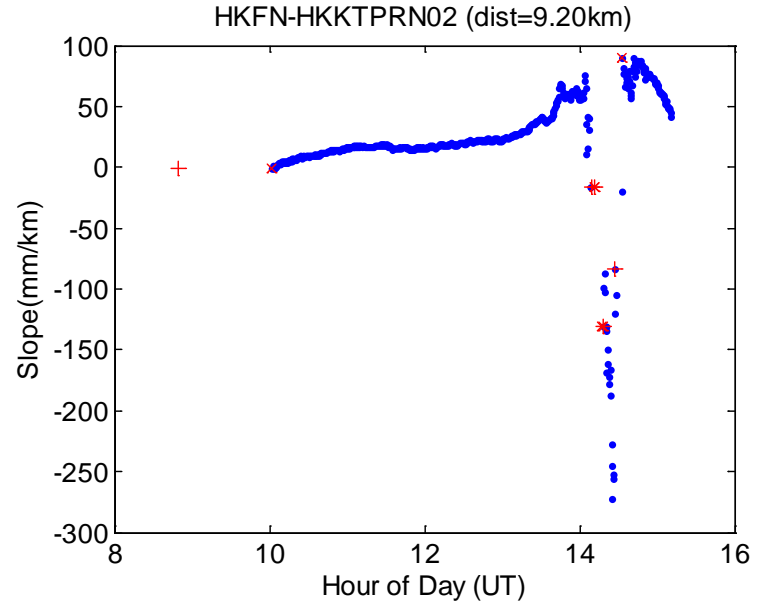
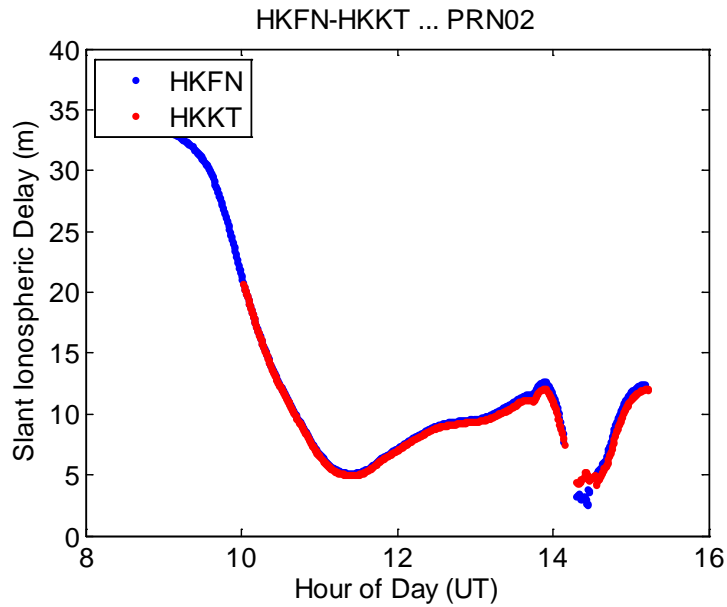
# HKFN-HKST 06



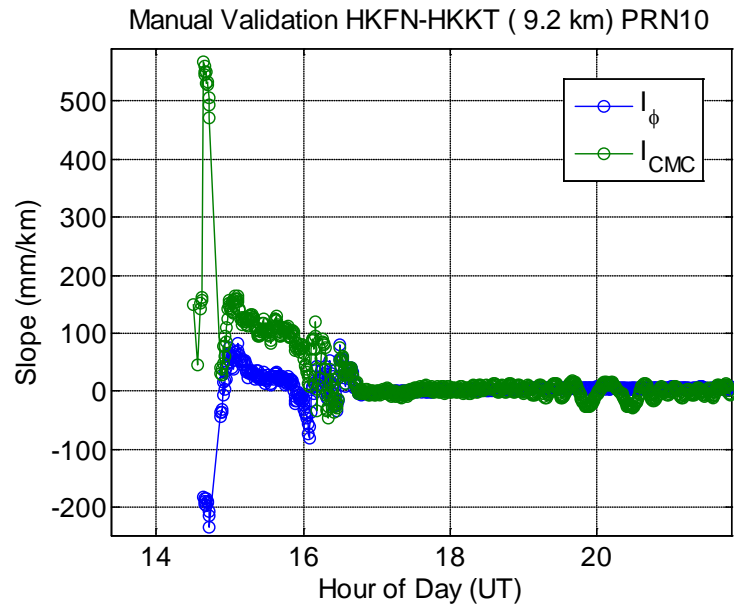
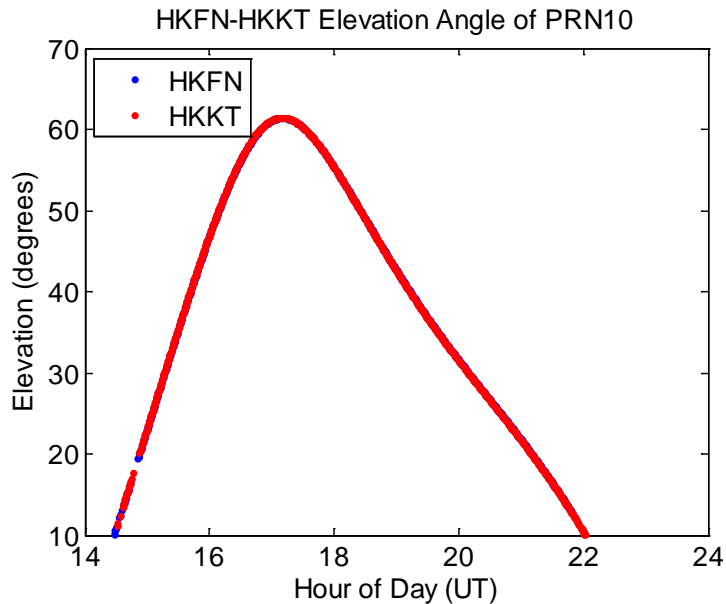
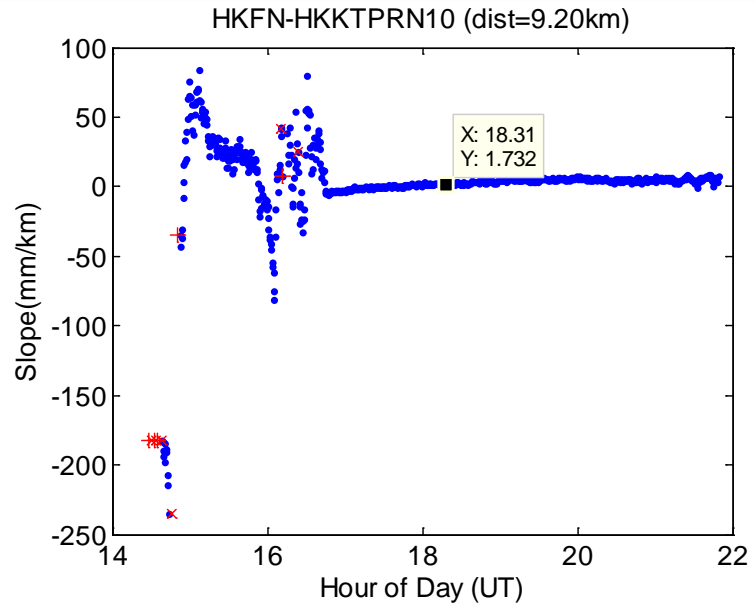
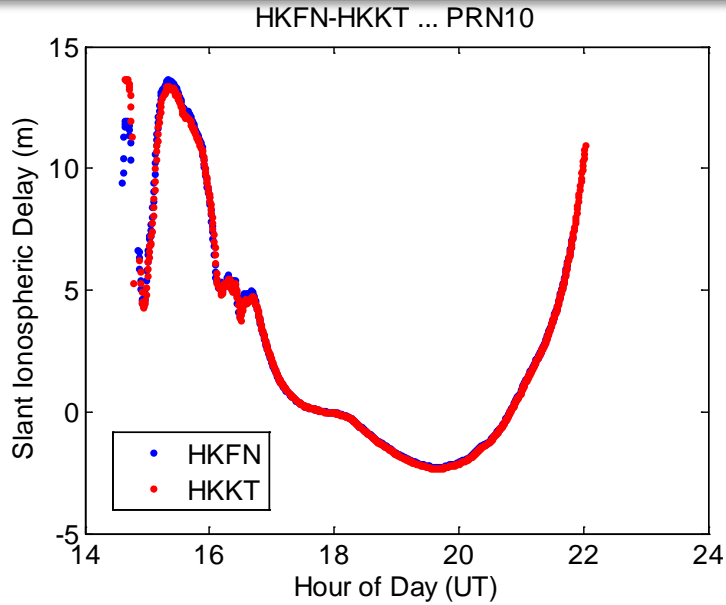
# HKKT-HKLT 05



# HKFN-HKKT 02

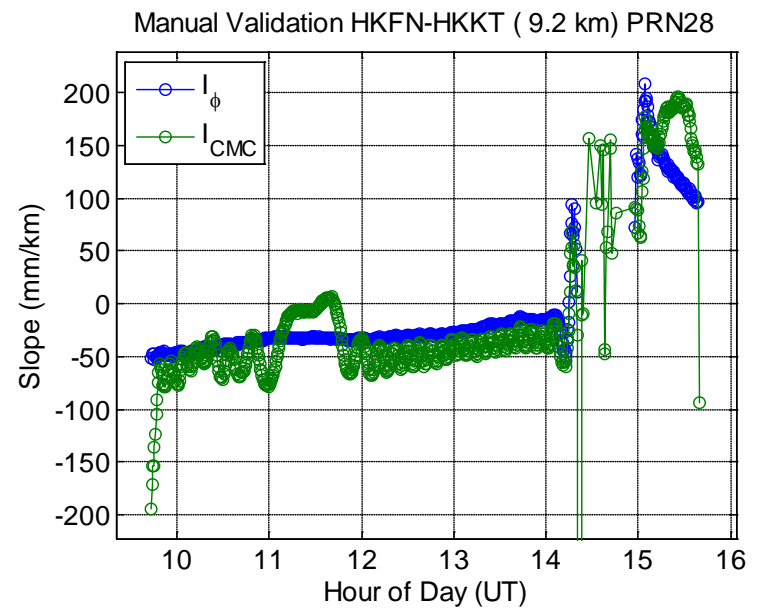
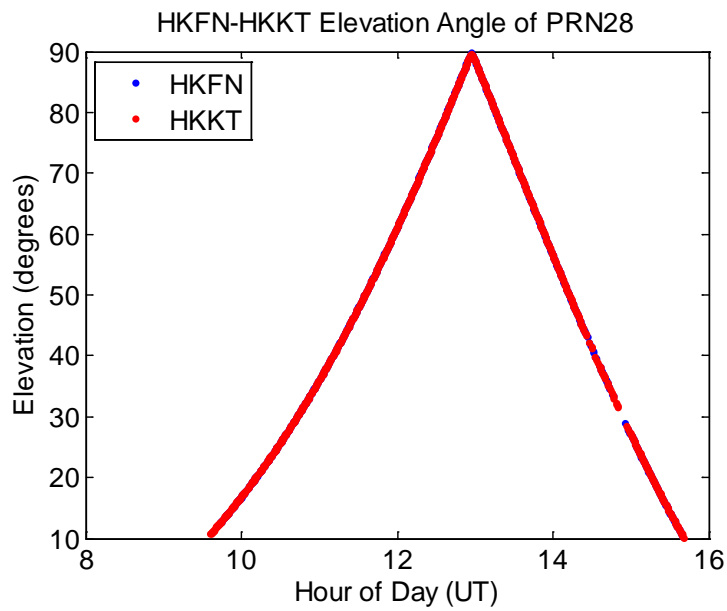
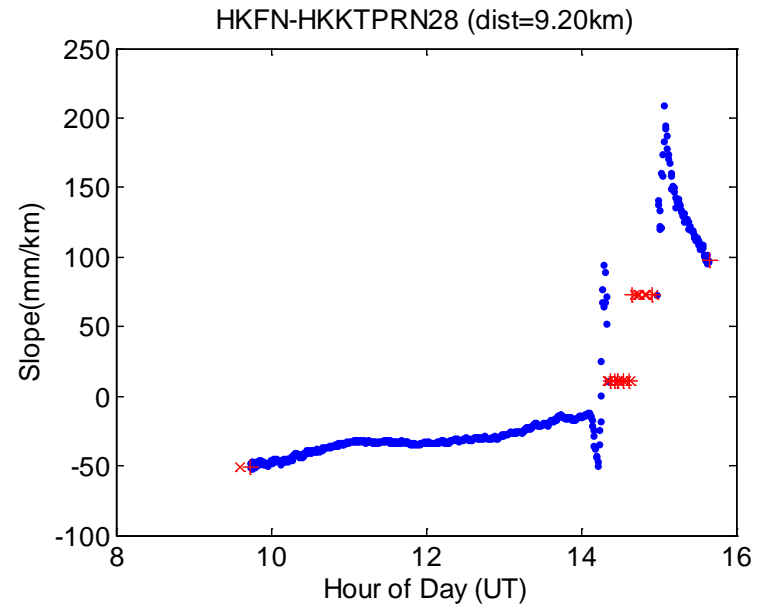
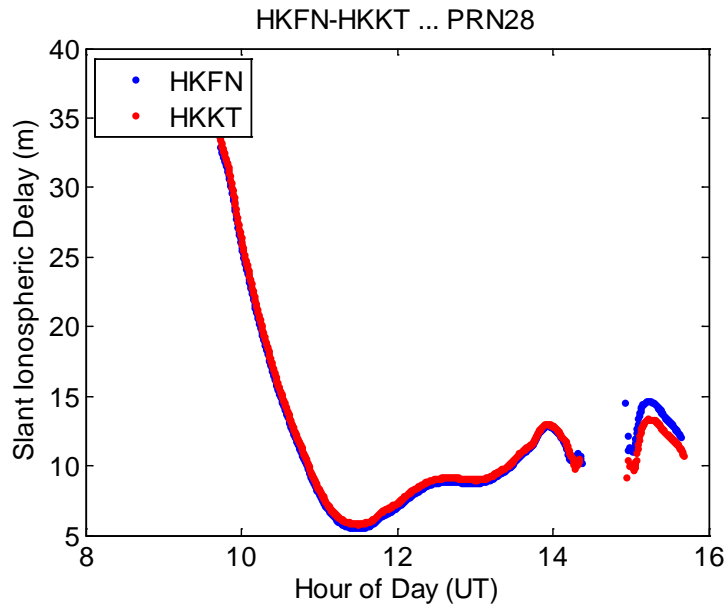


# HKFN-HKKT 10

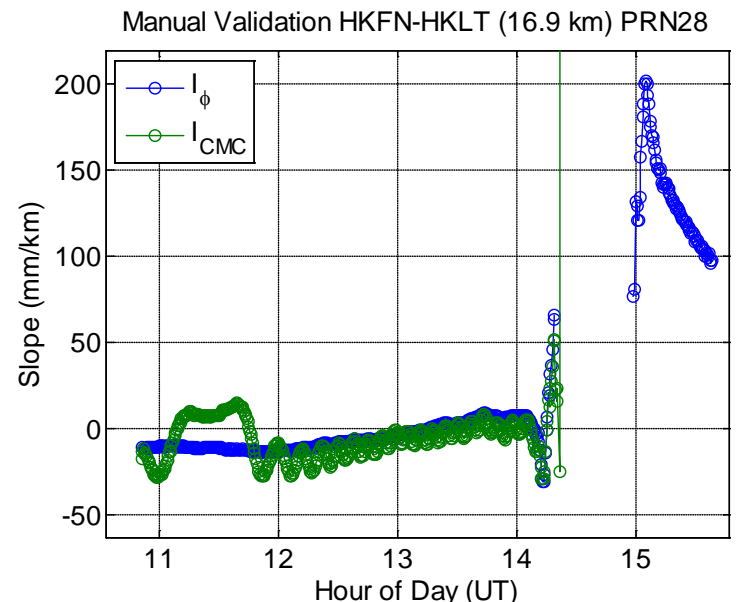
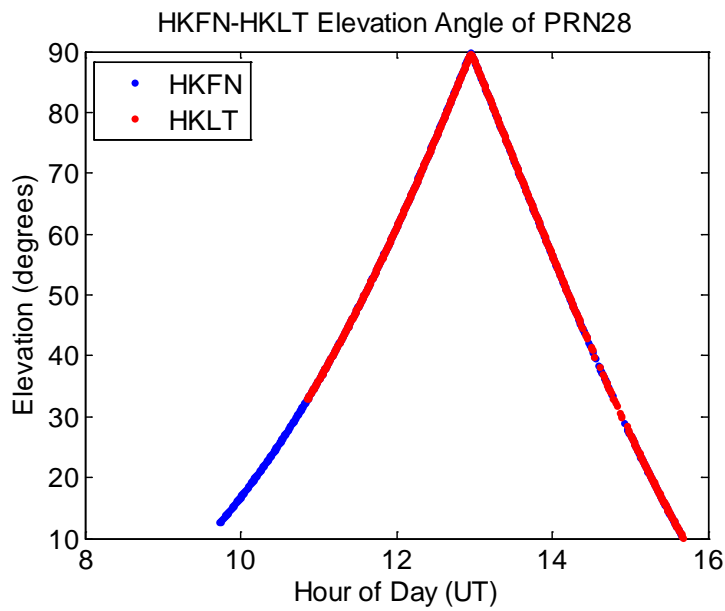
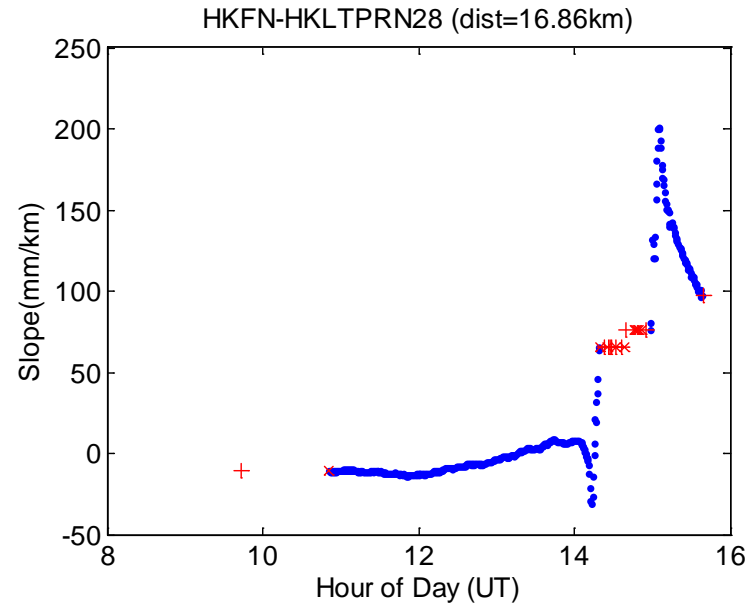
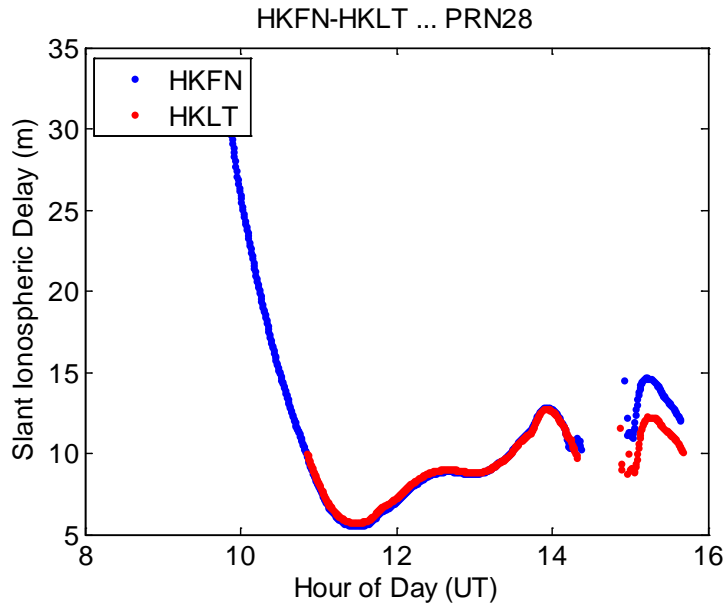




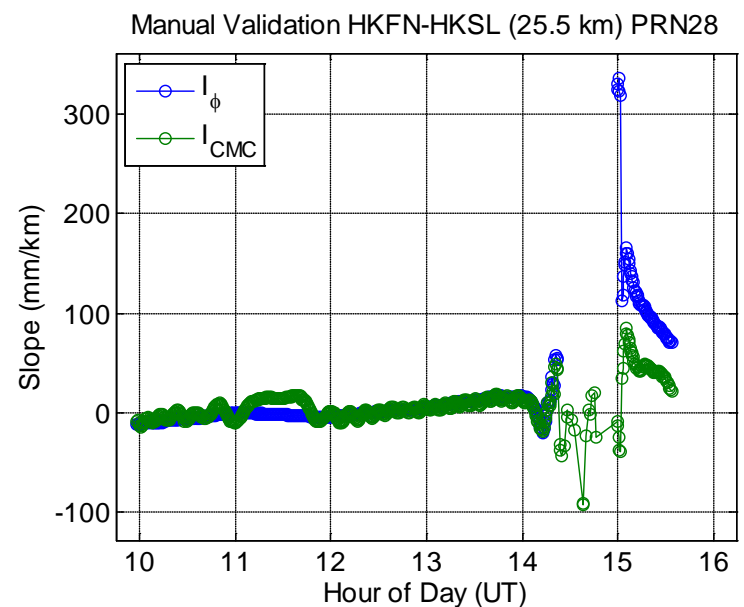
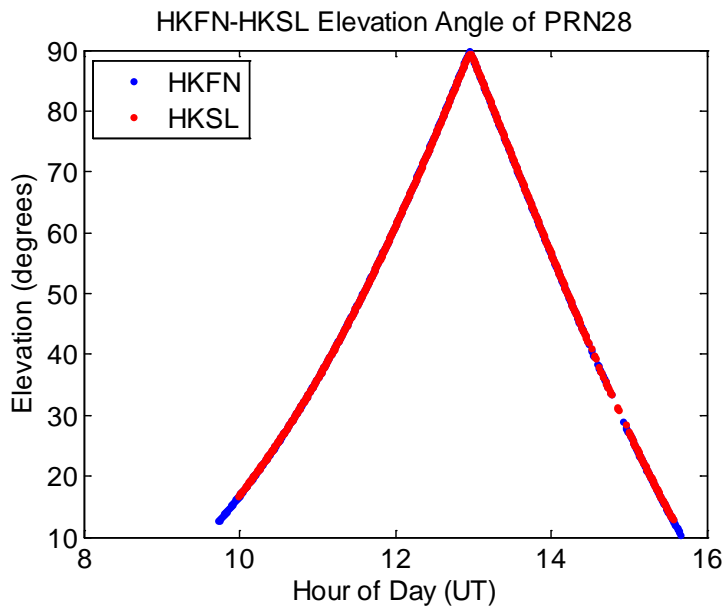
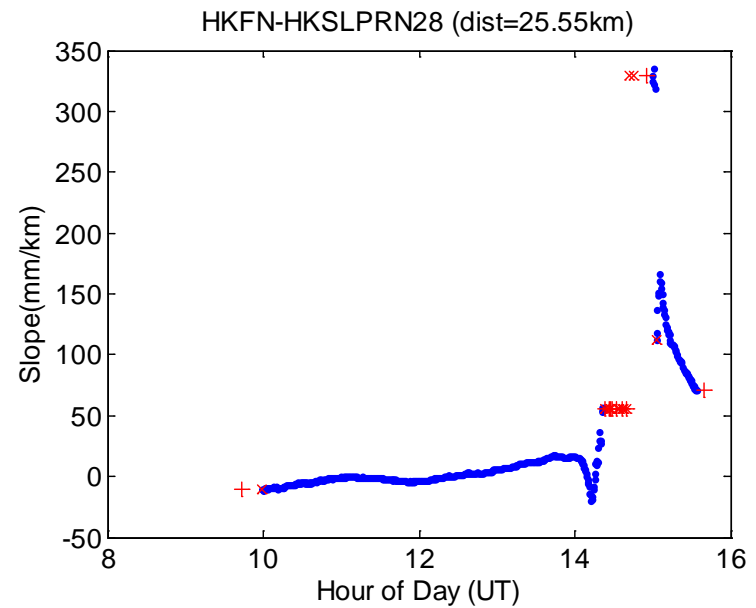
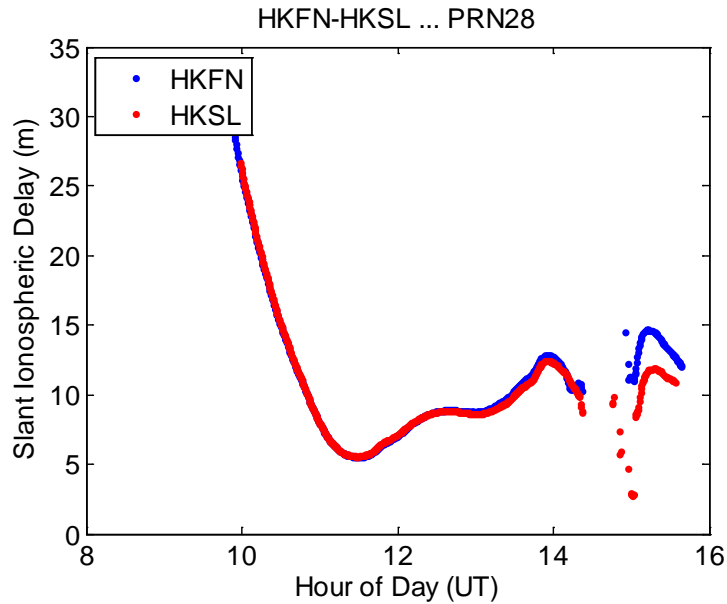
# HKFN-HKKT 28



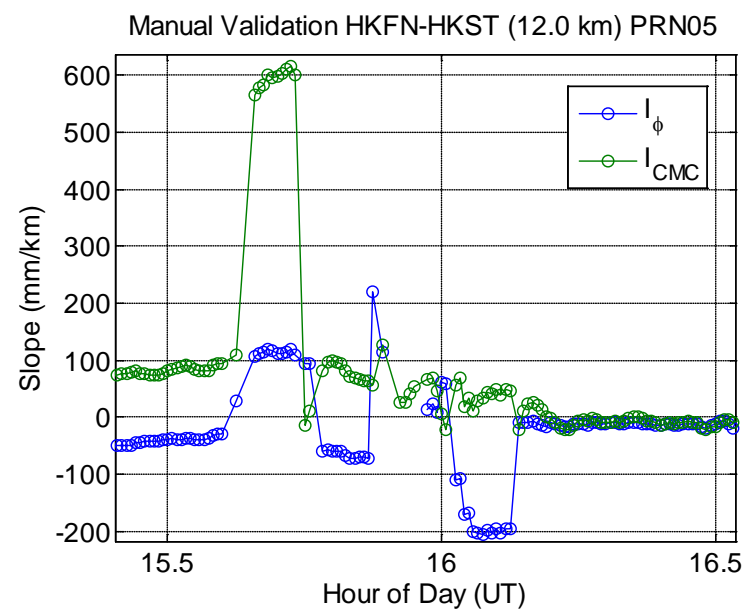
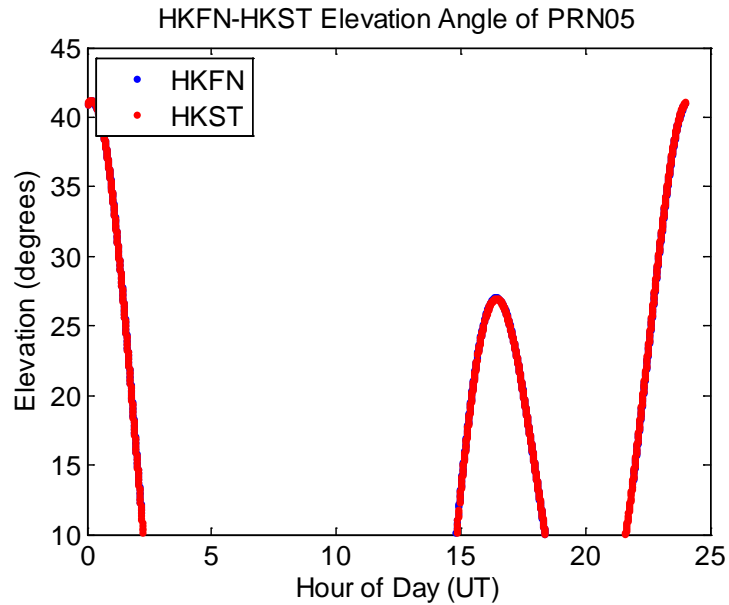
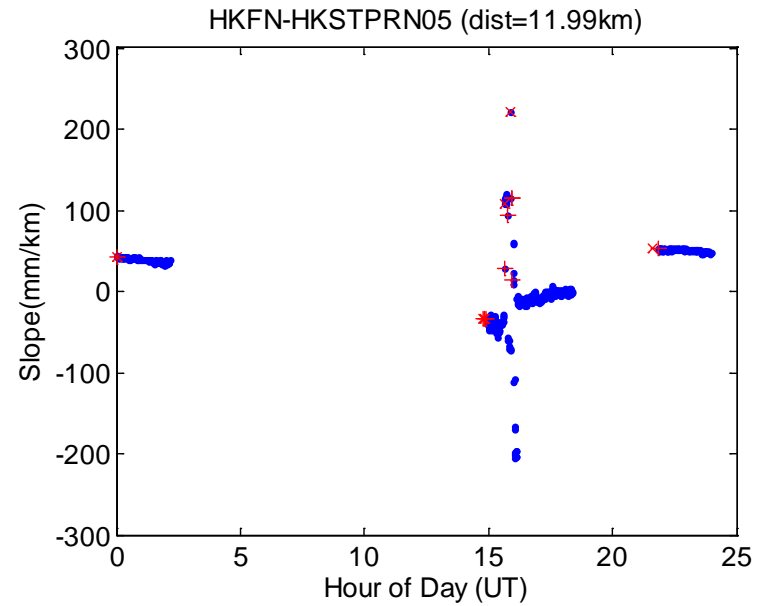
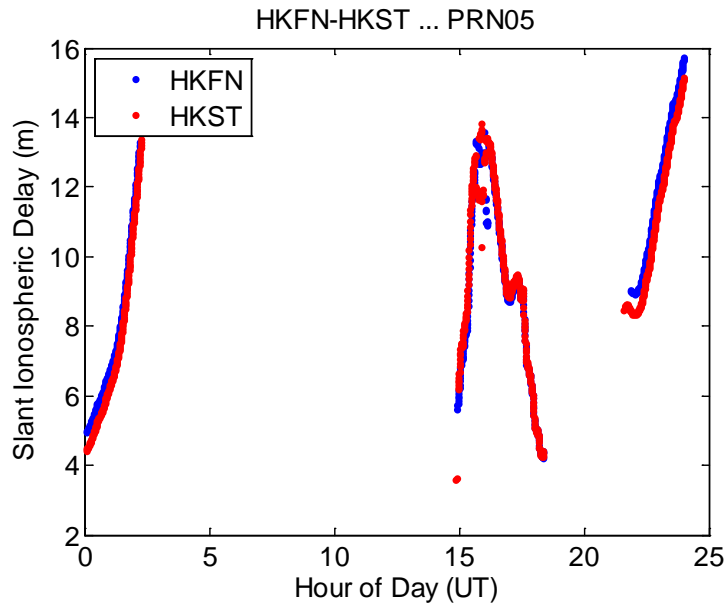
# HKFN-HKLT 28



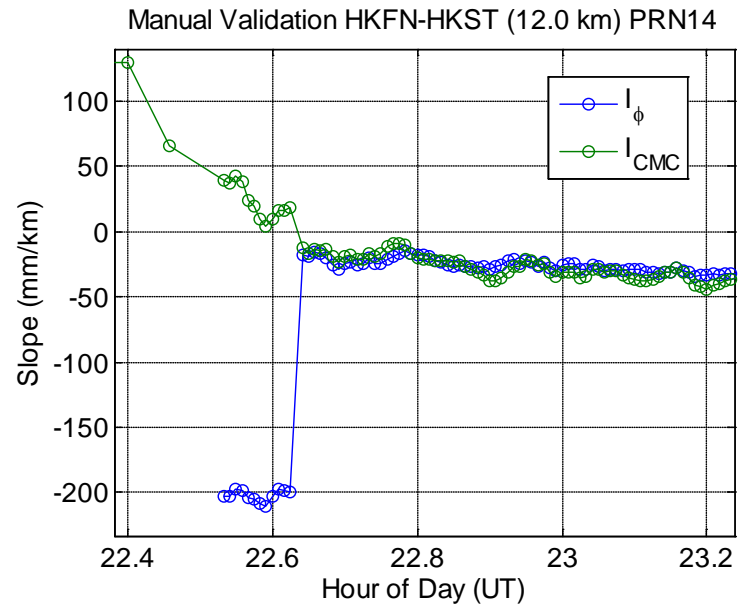
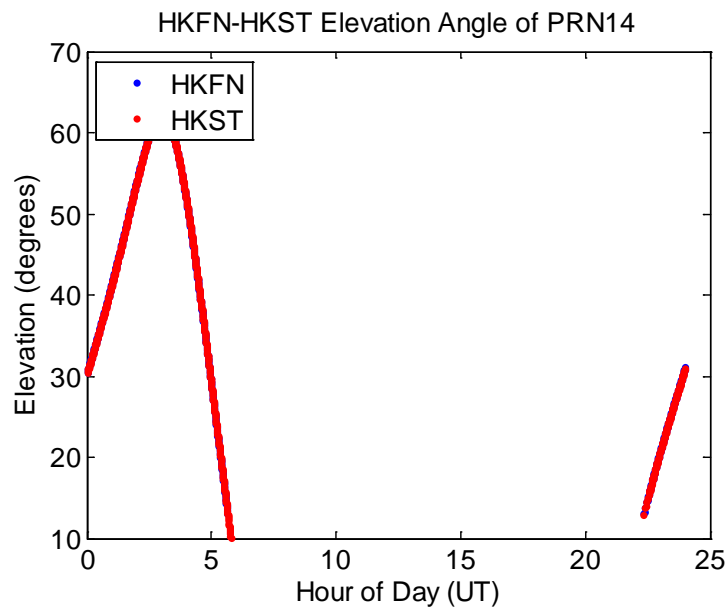
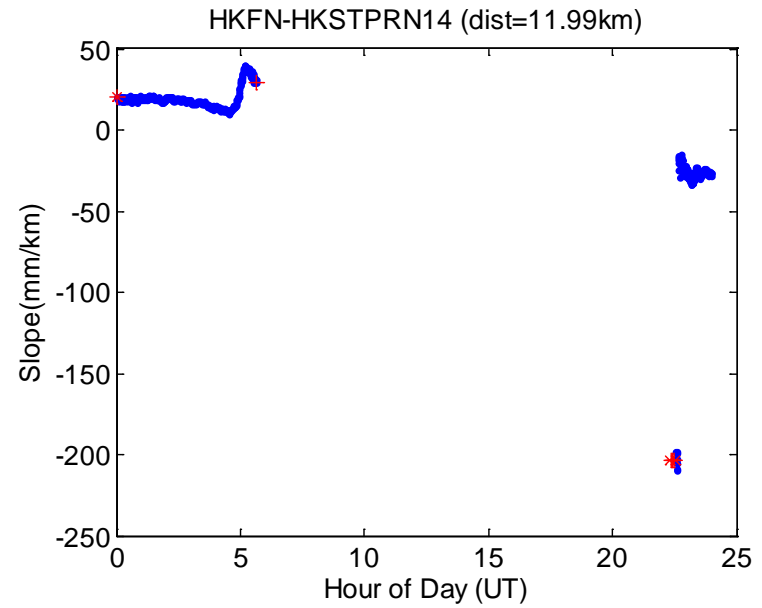
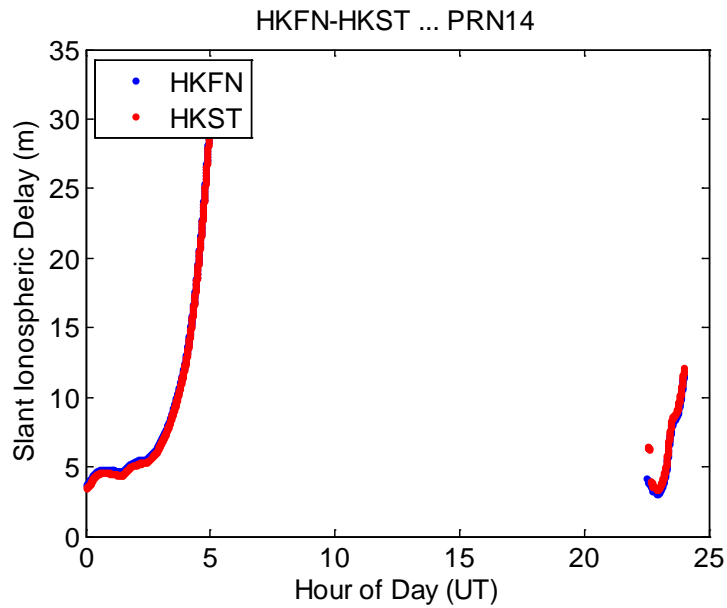
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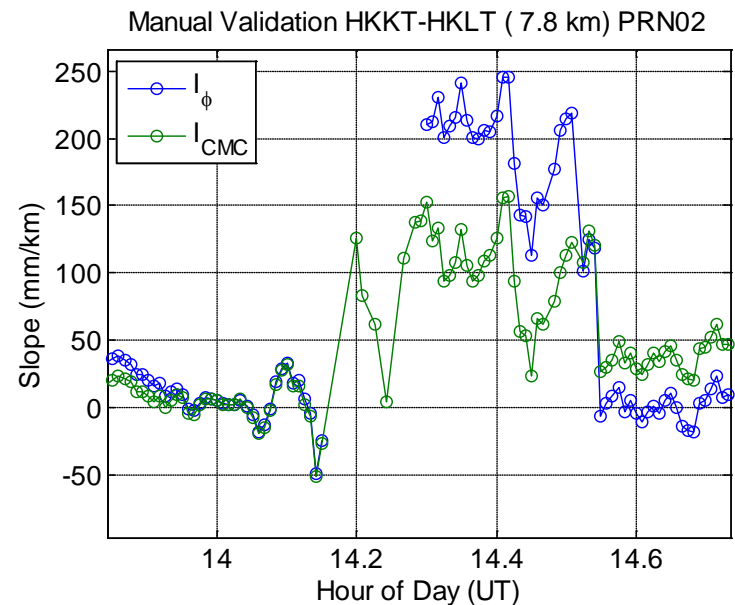
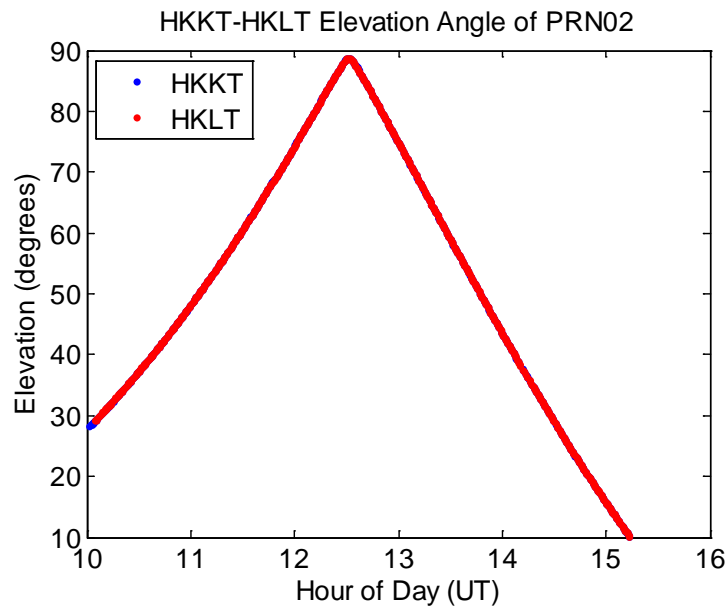
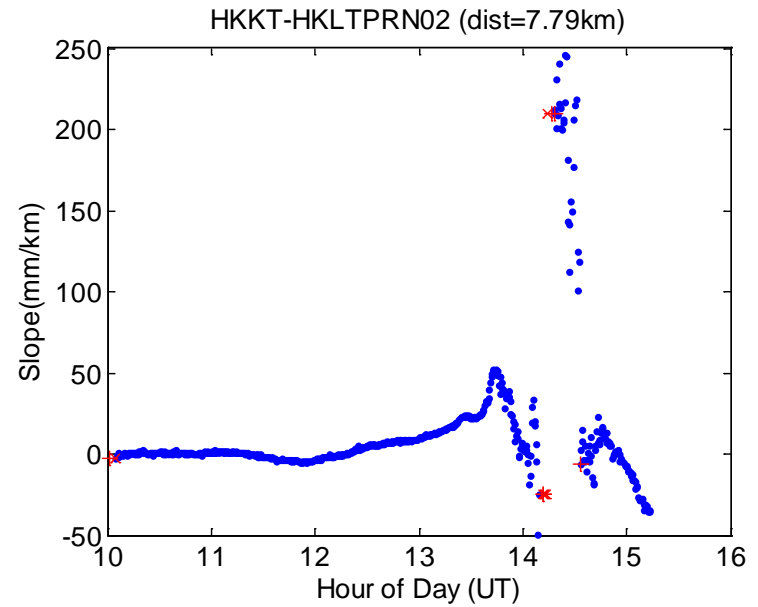
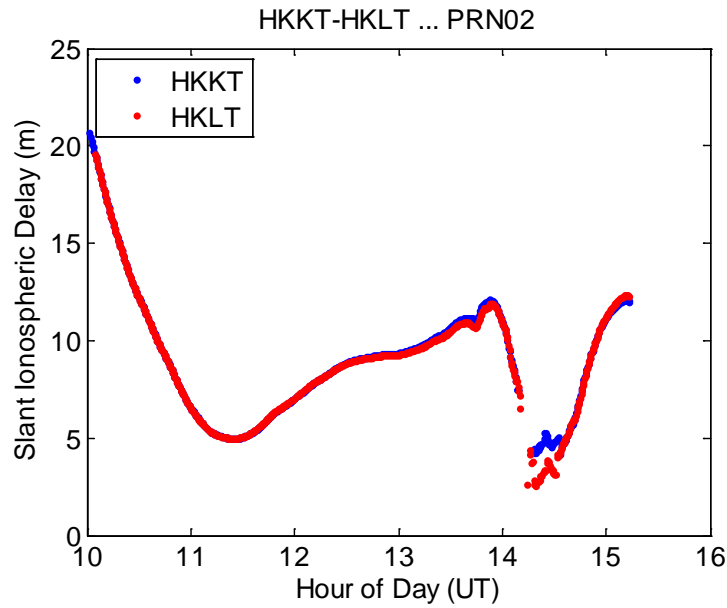
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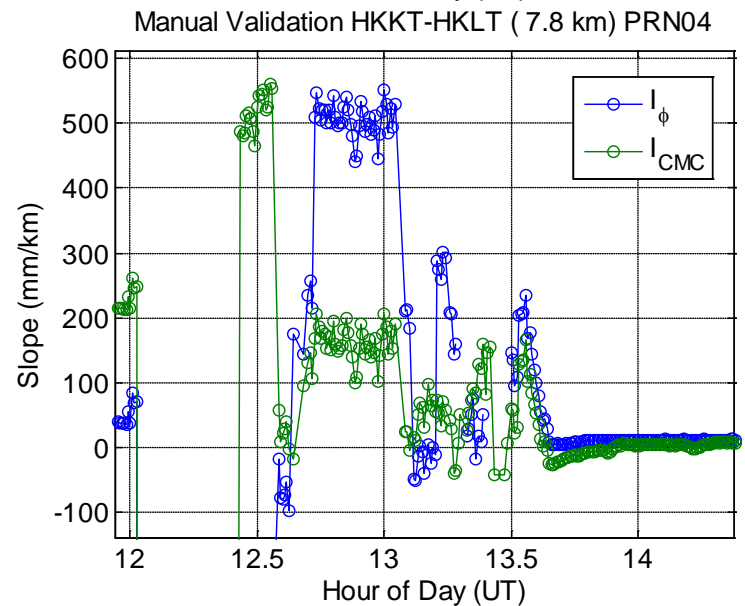
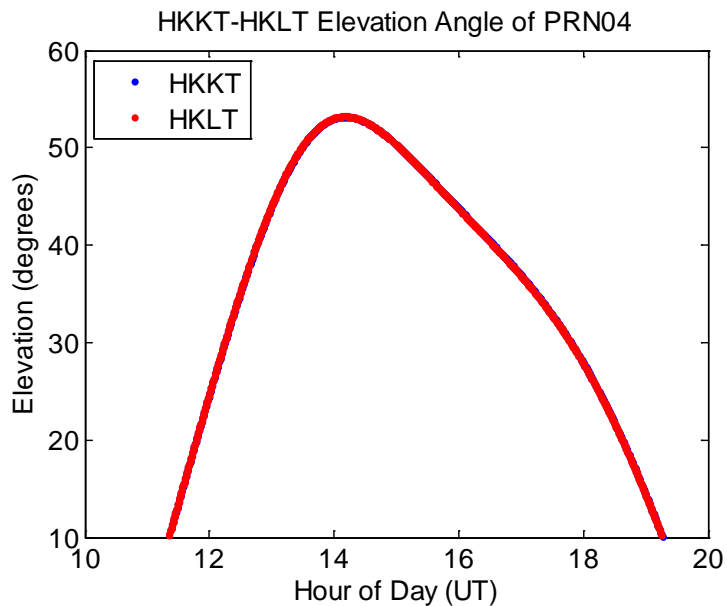
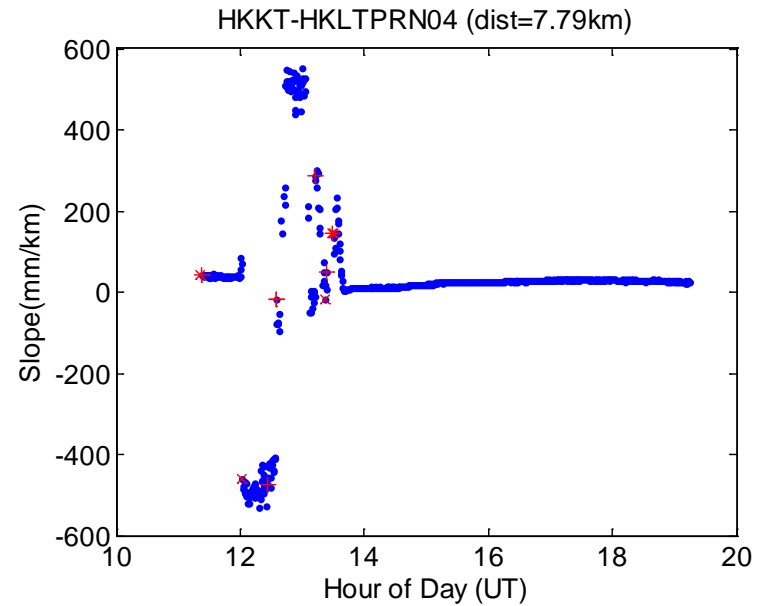
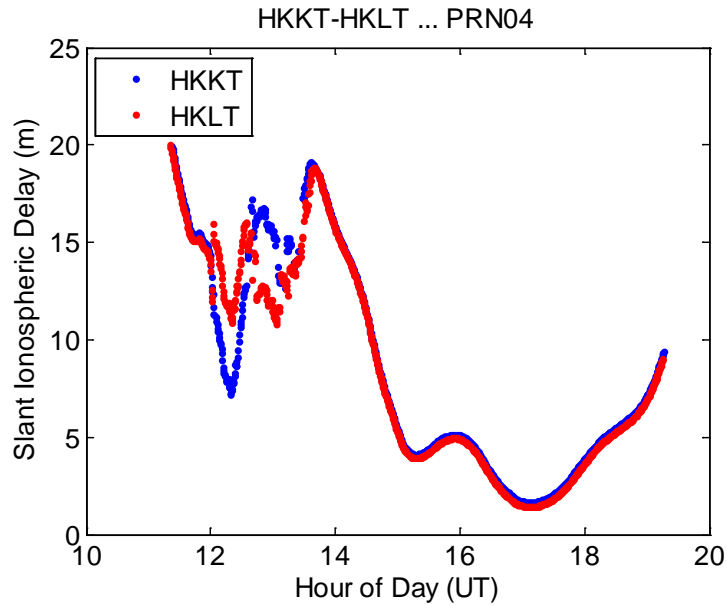
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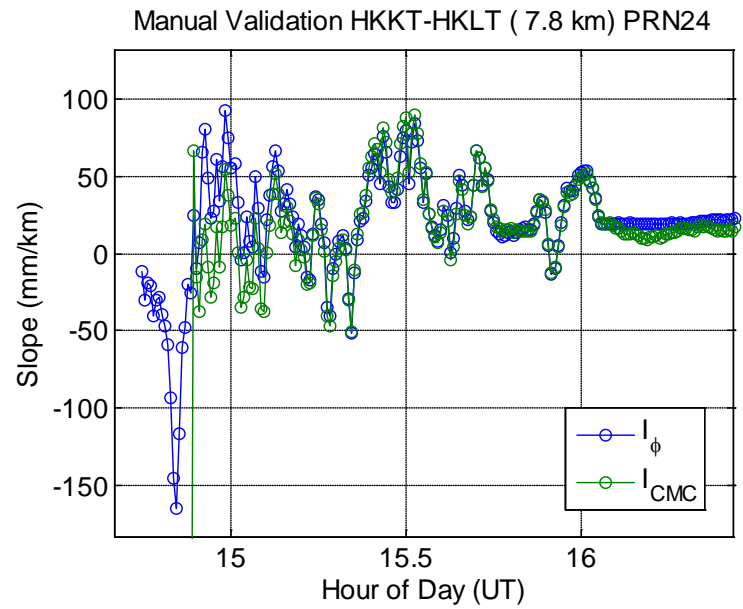
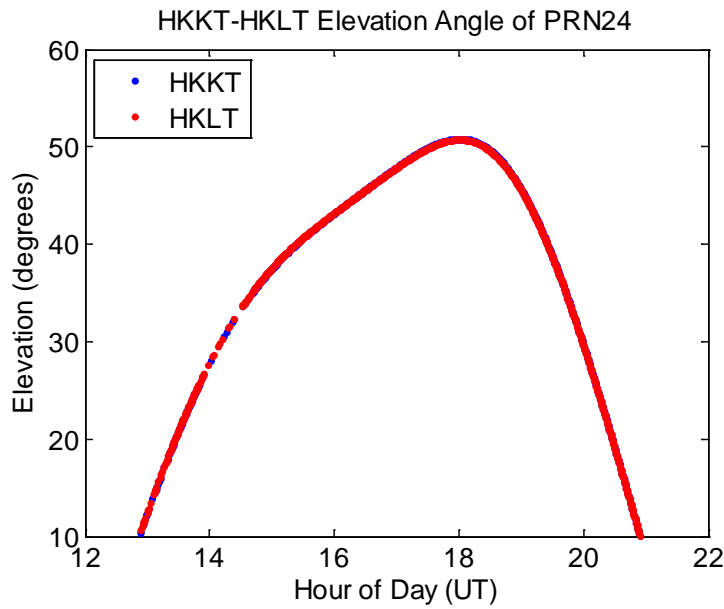
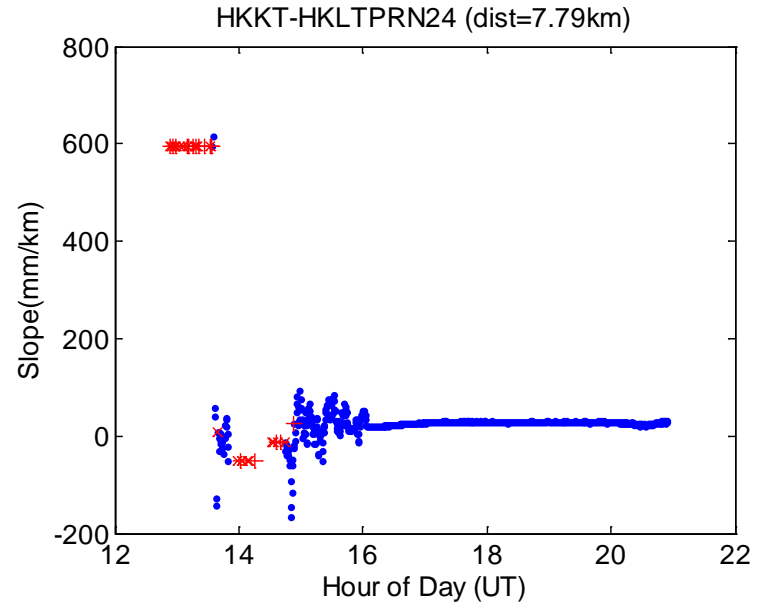
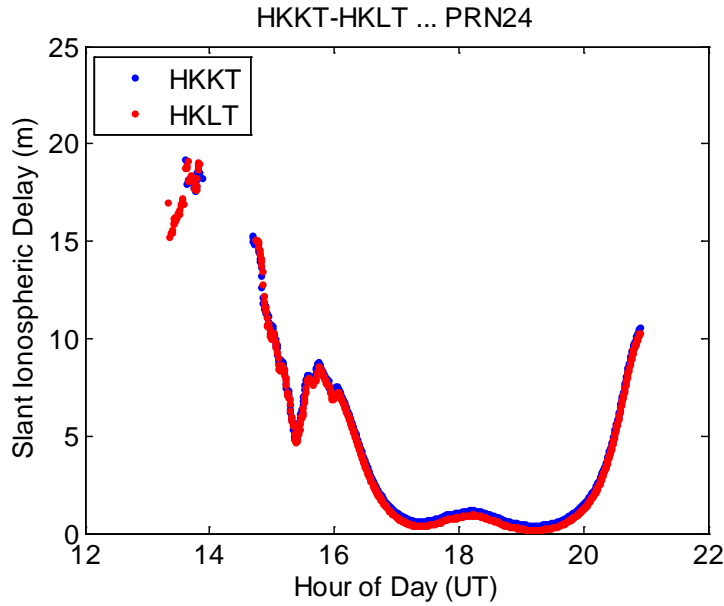
# HKKT-HKLT 02



# HKKT-HKLT 04

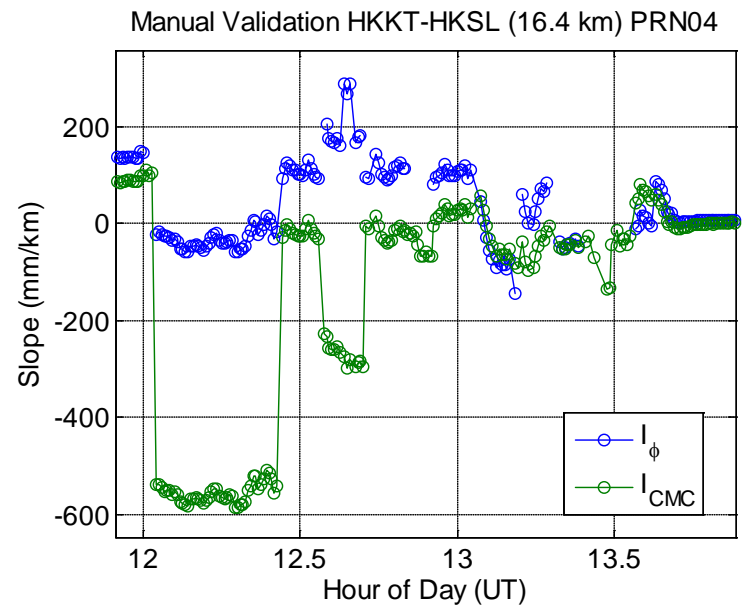
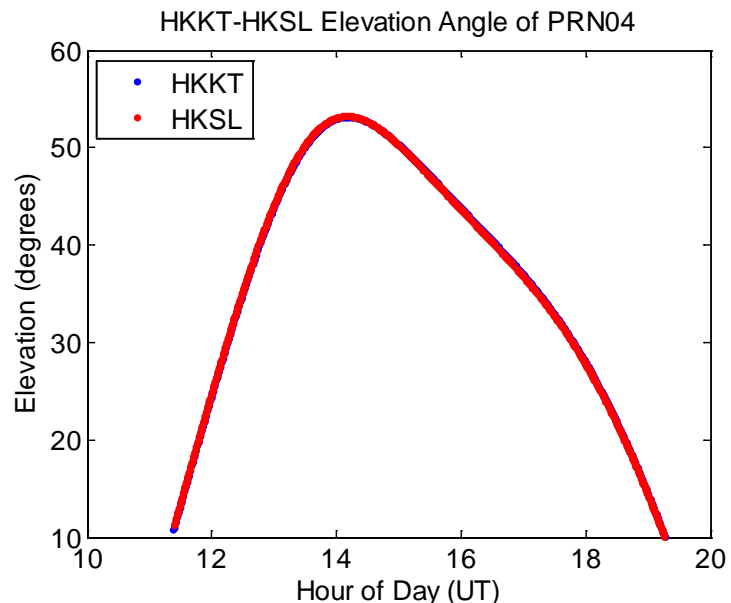
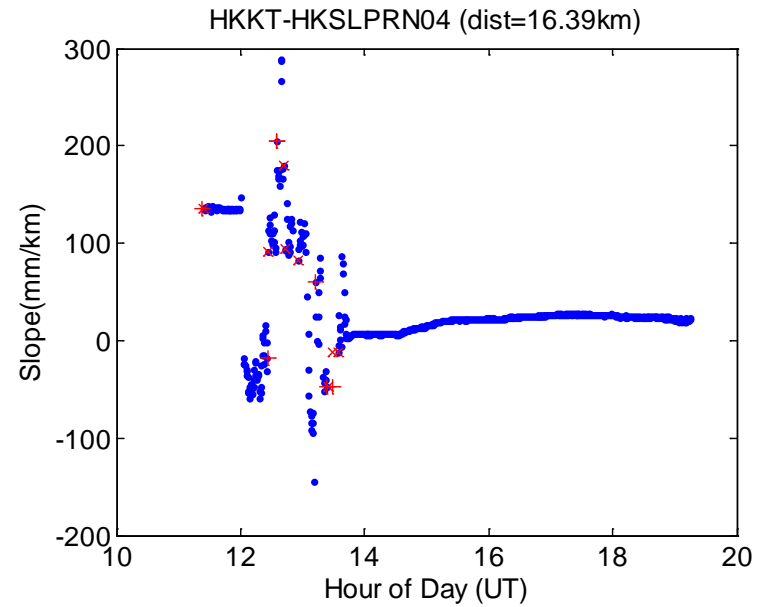
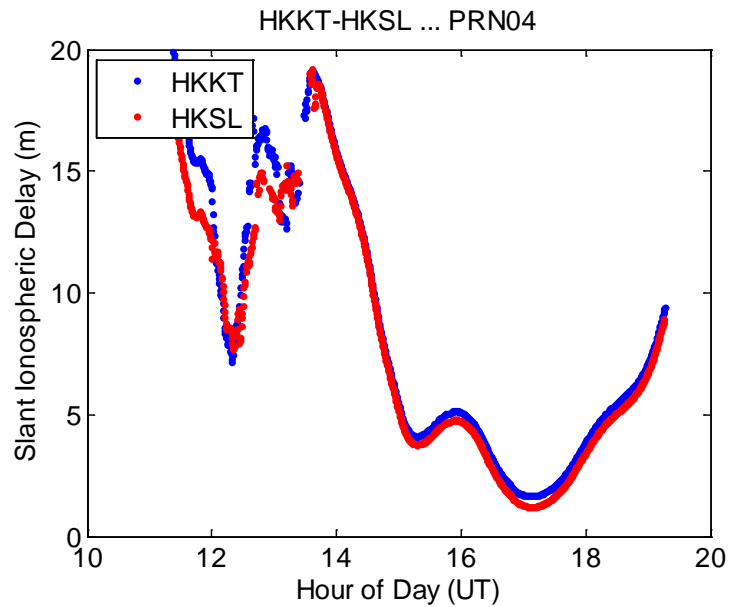


# HKKT-HKLT 24

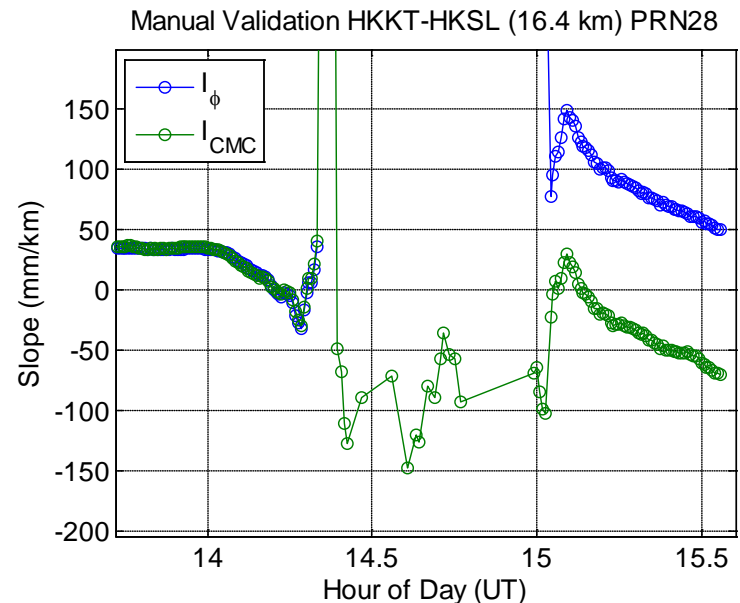
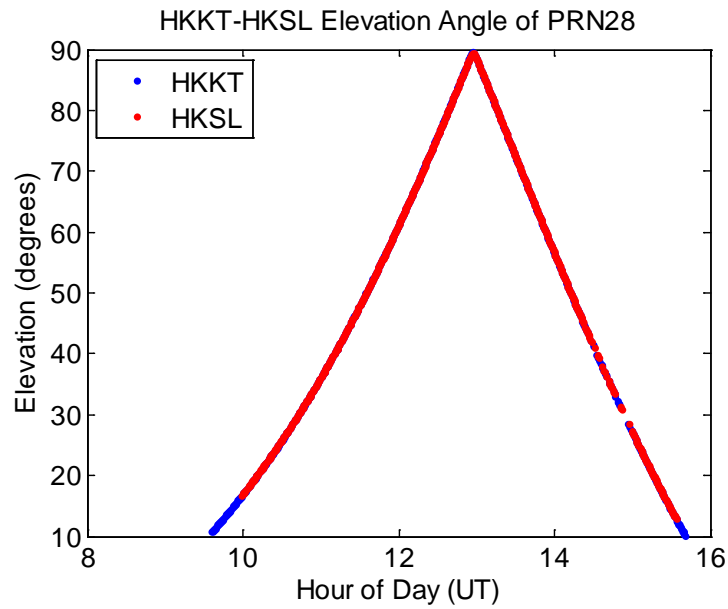
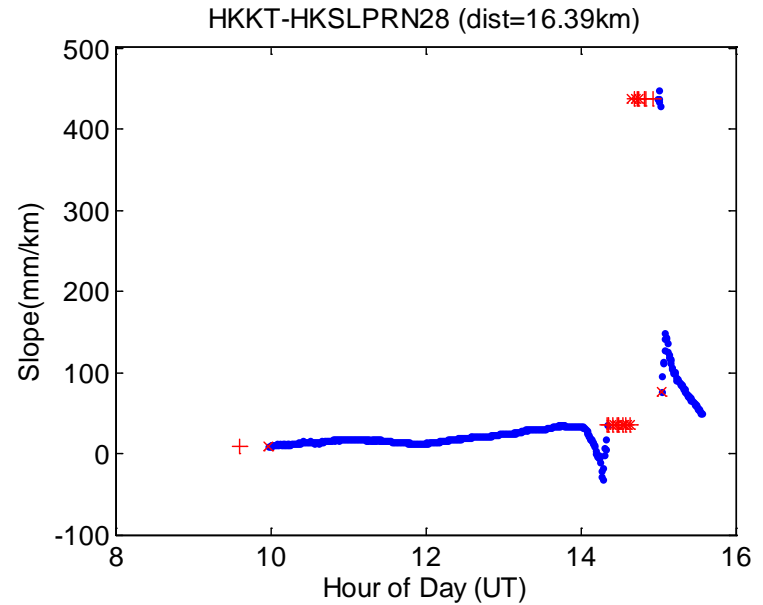
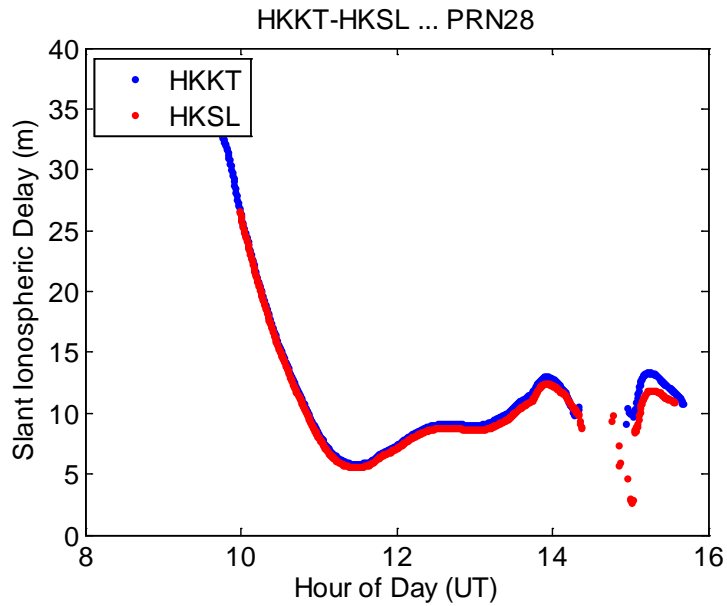




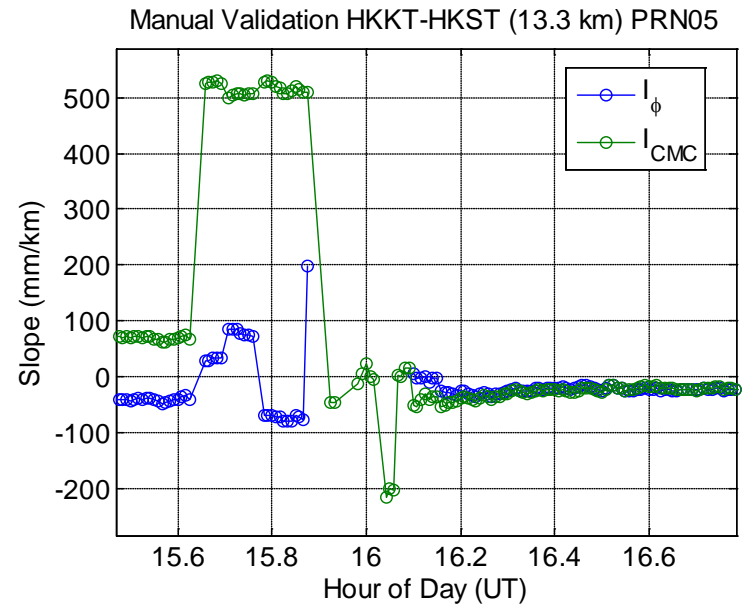
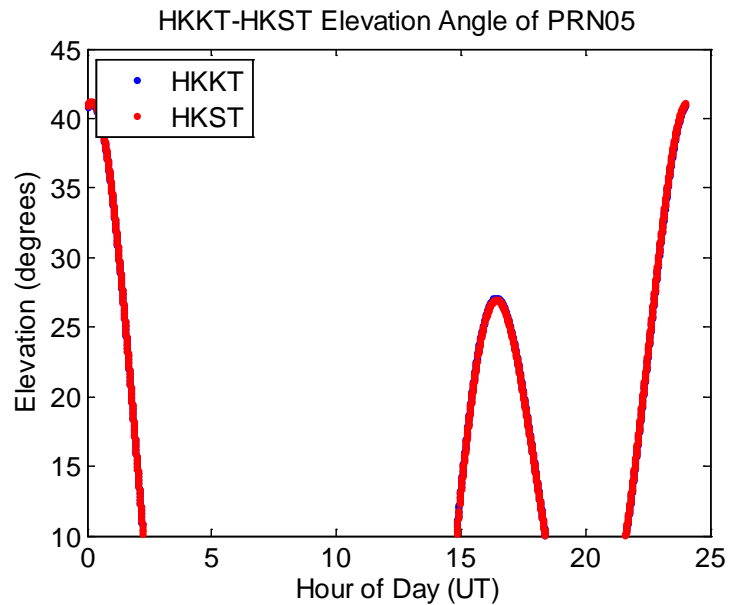
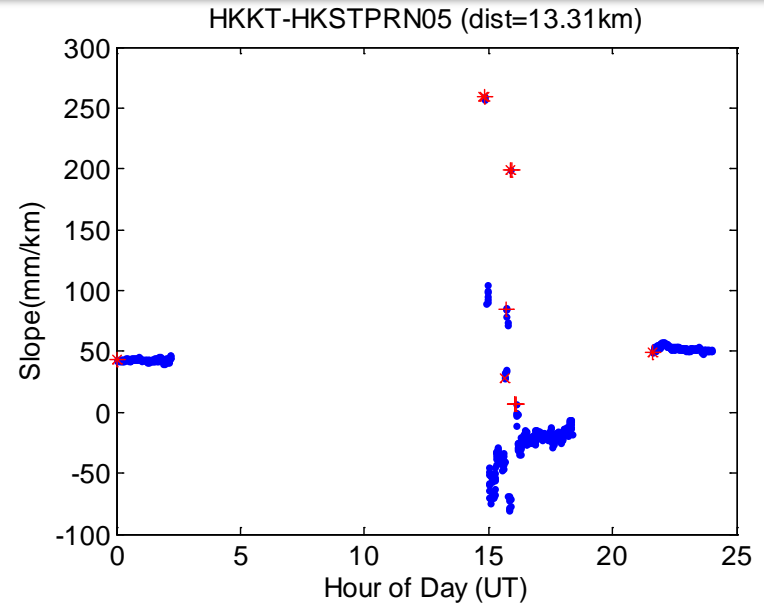
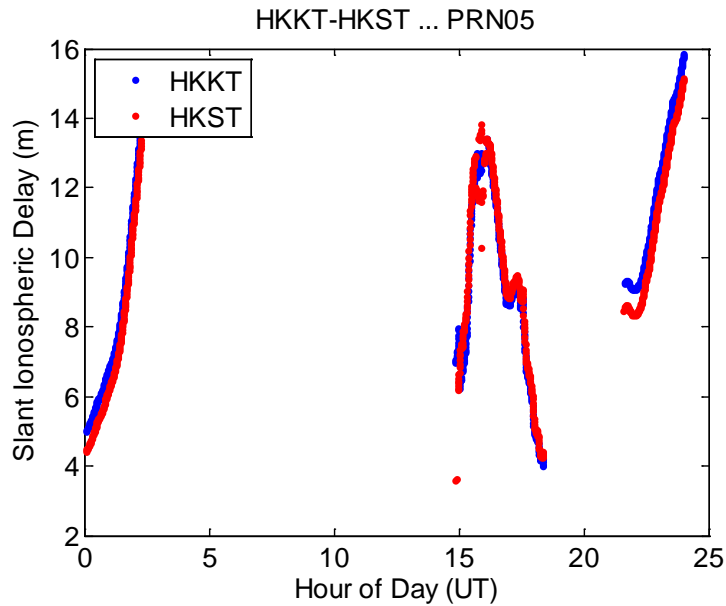
# HKKT-HKSL 04



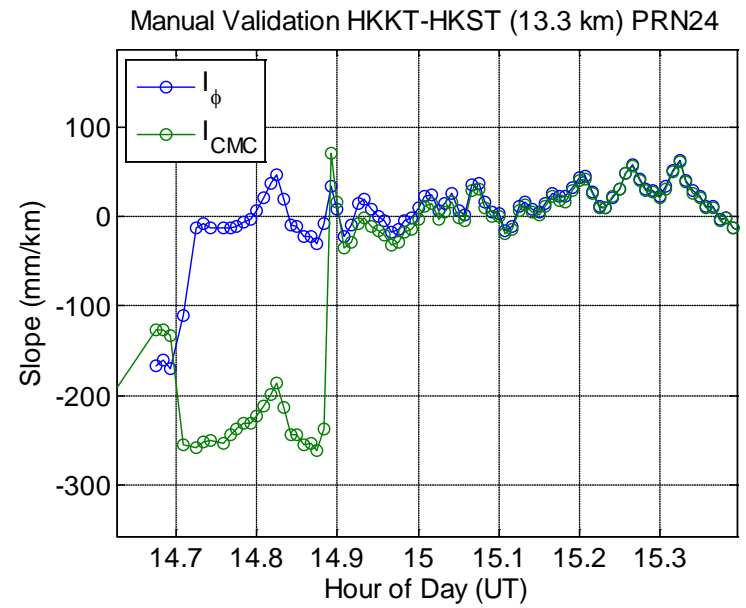
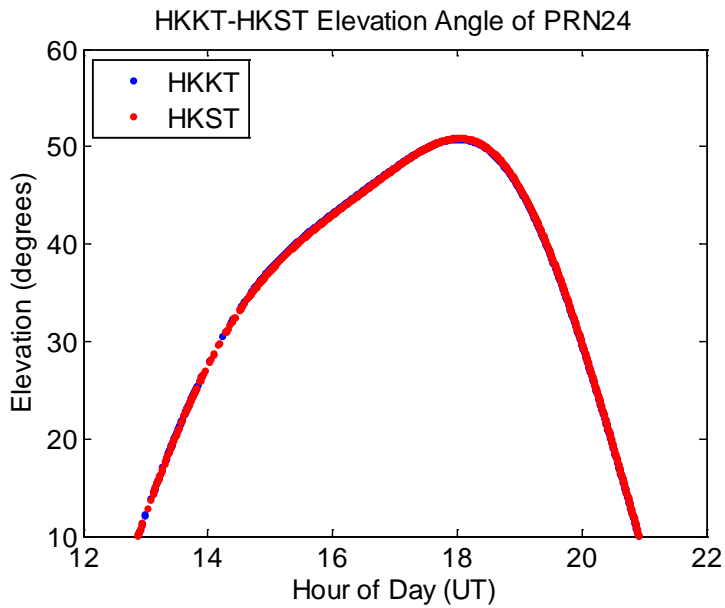
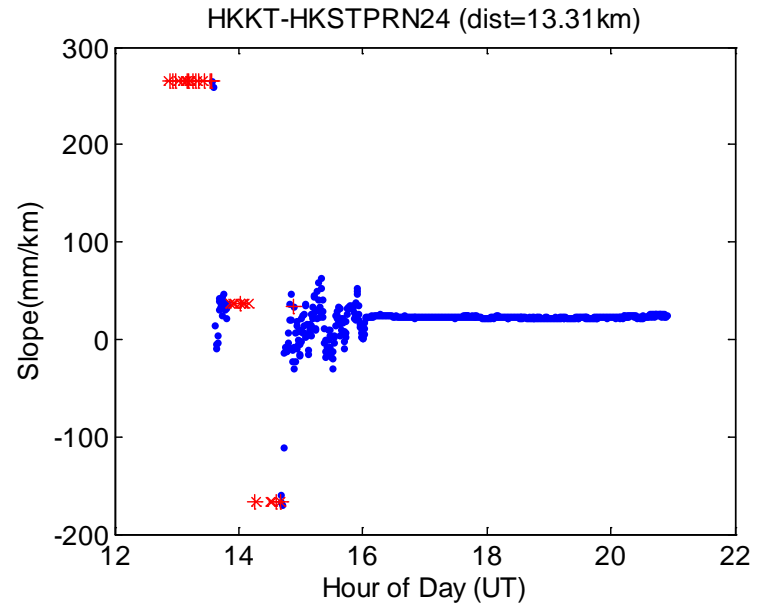
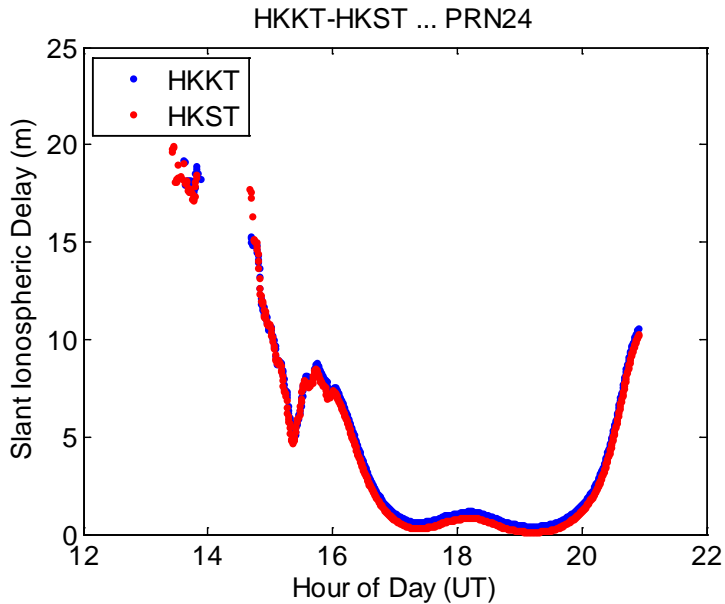
# HKKT-HKSL 28



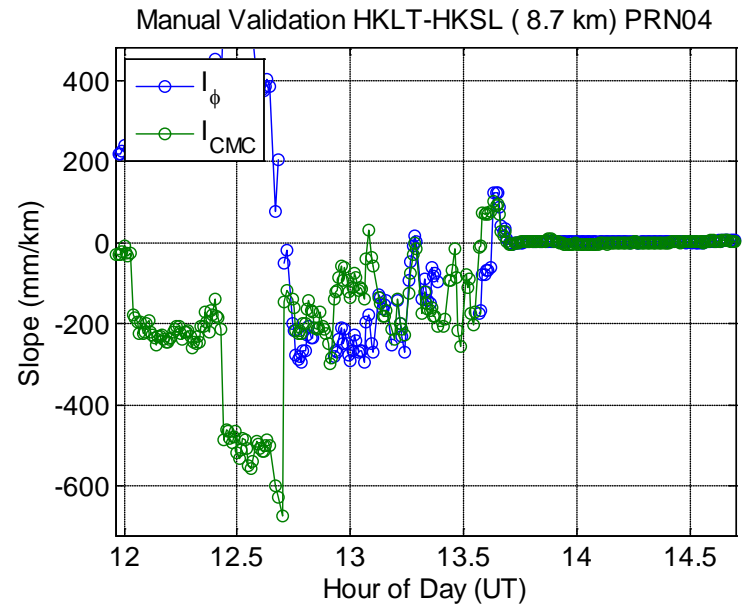
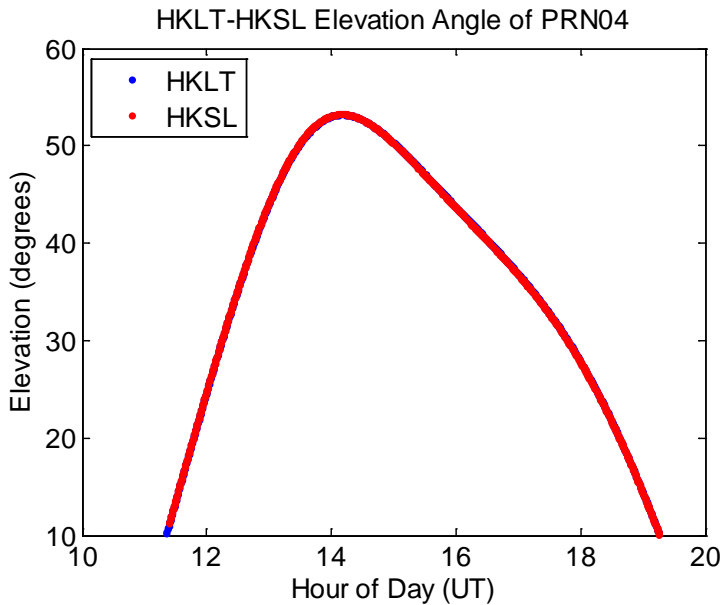
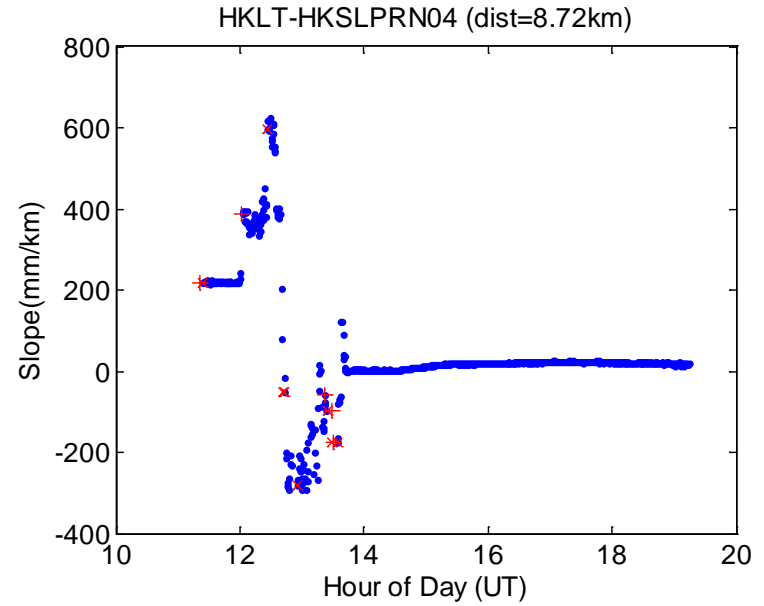
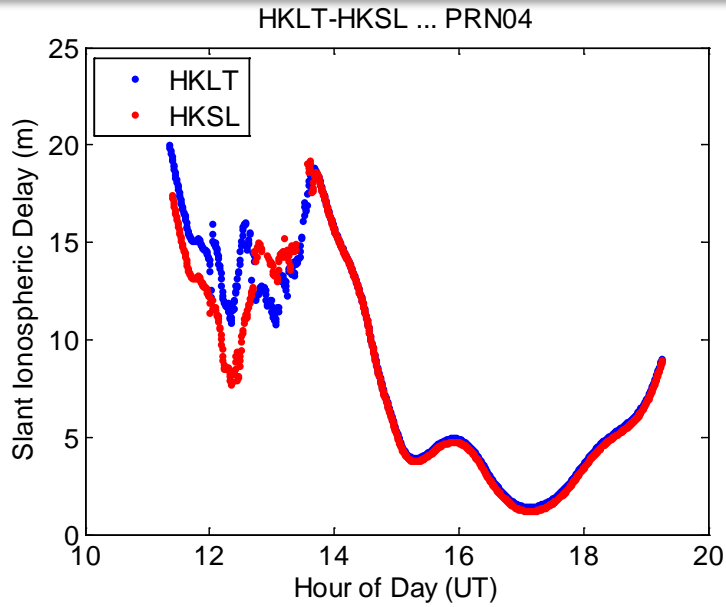
# HKKT-HKST 05



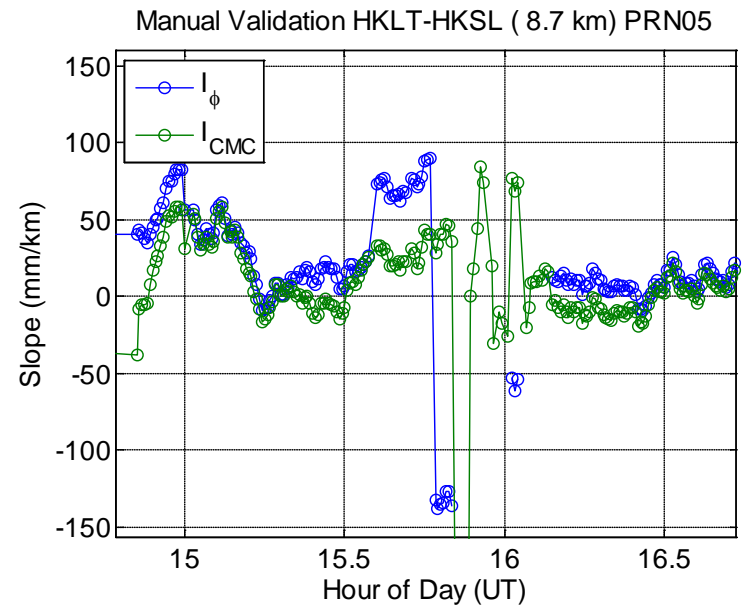
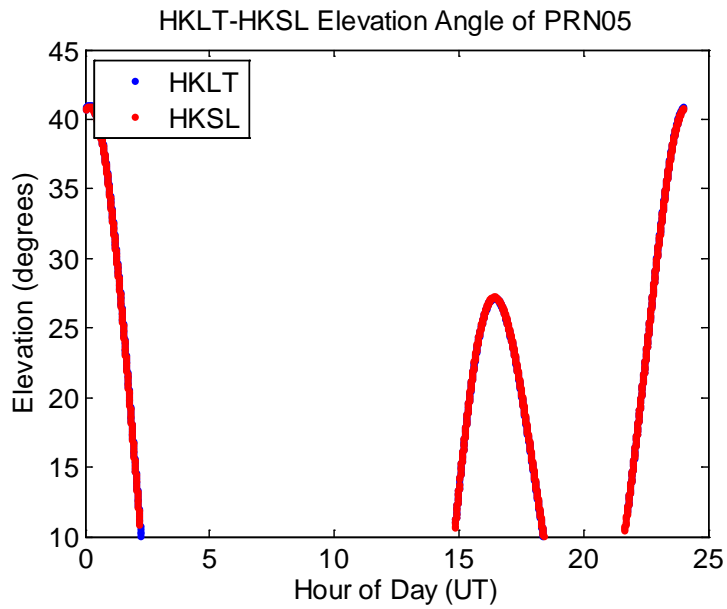
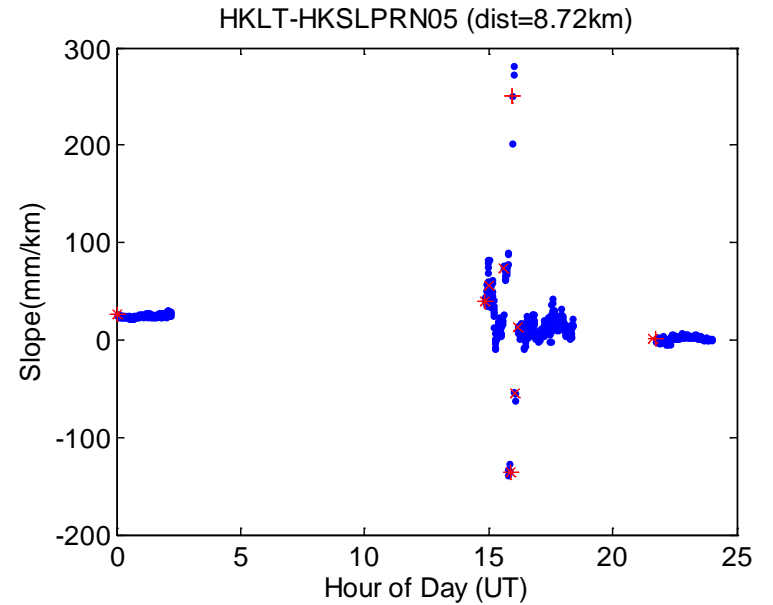
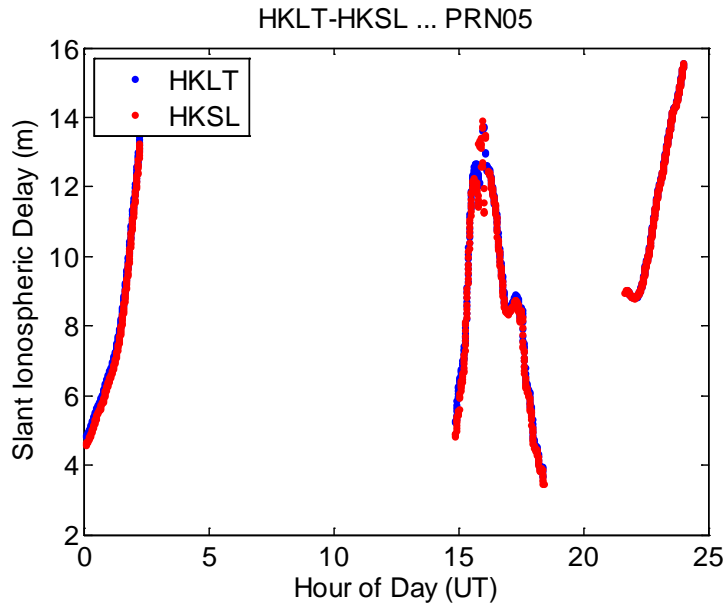
# HKKT-HKST 24



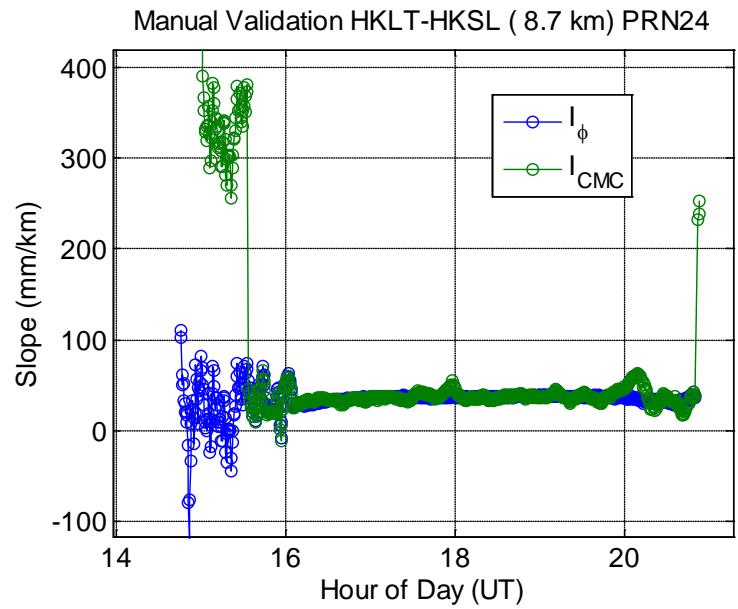
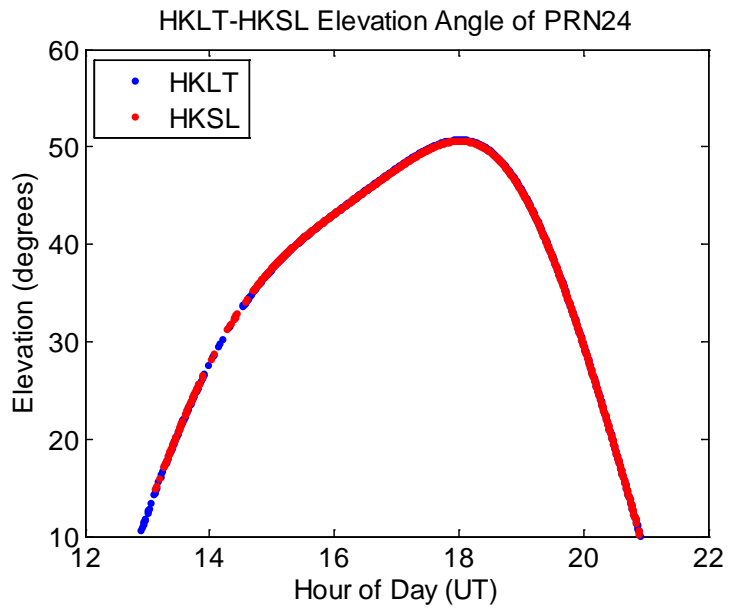
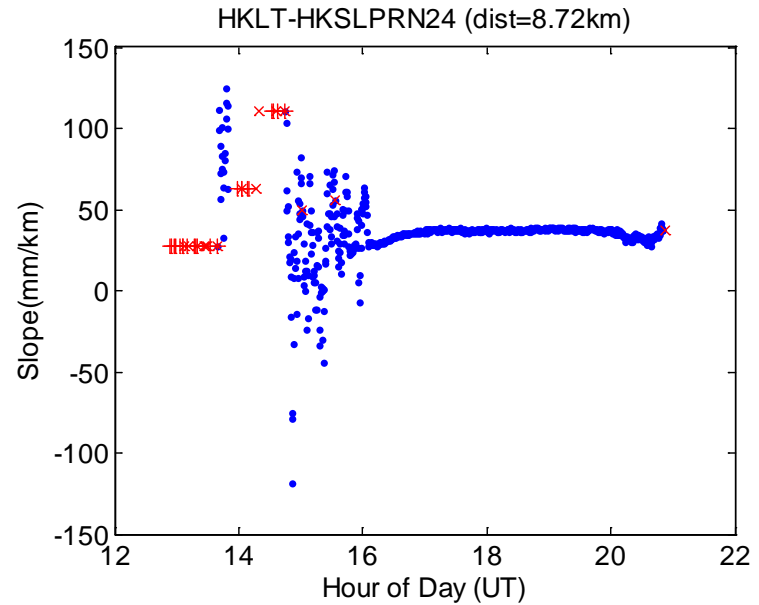
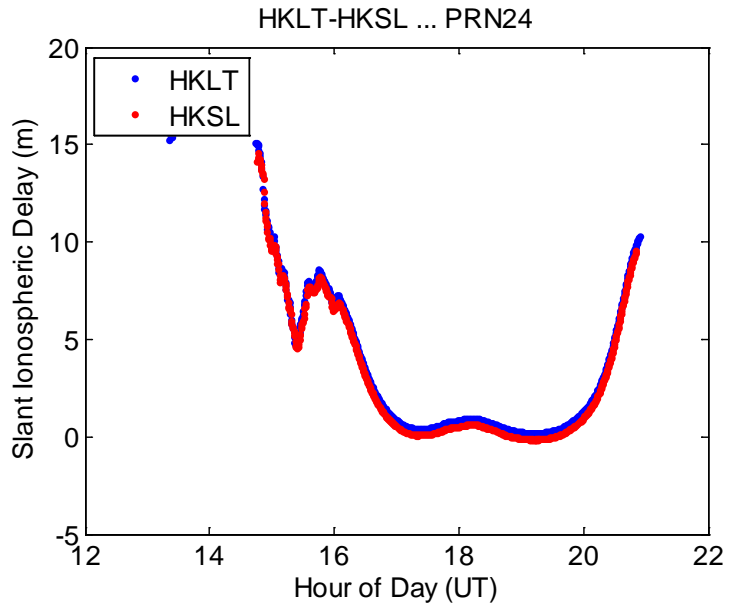
# HKLT-HKSL 04



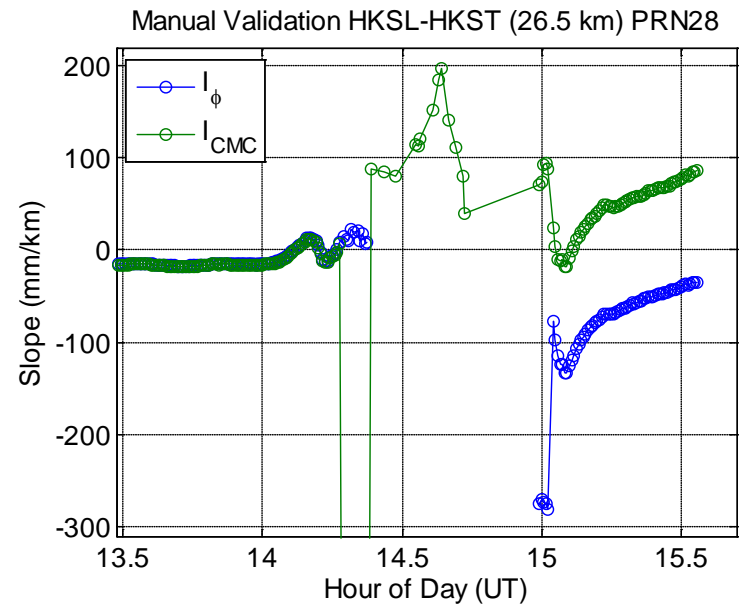
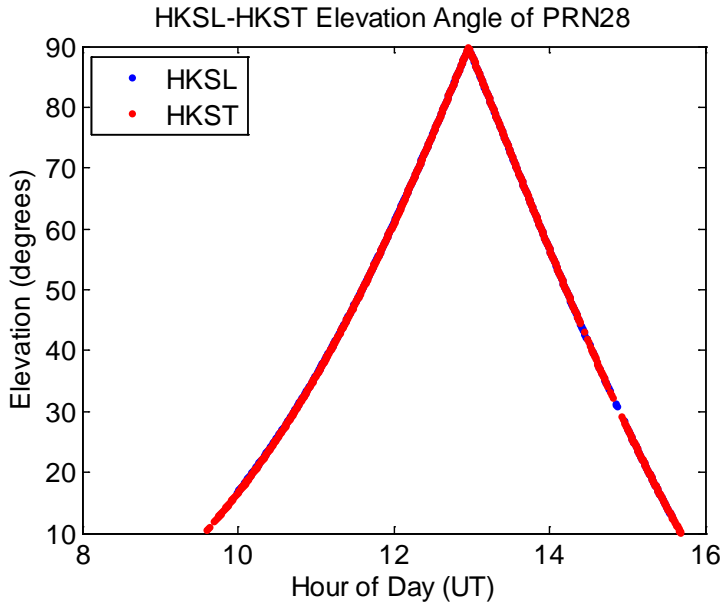
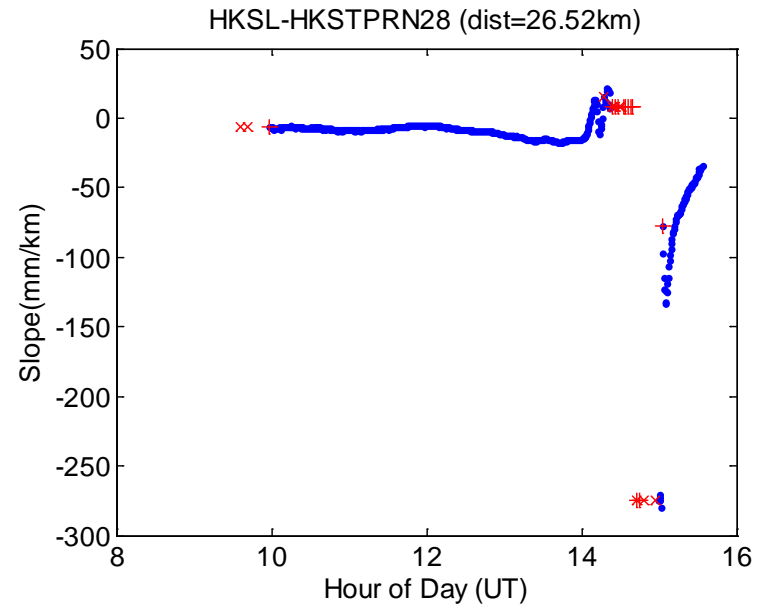
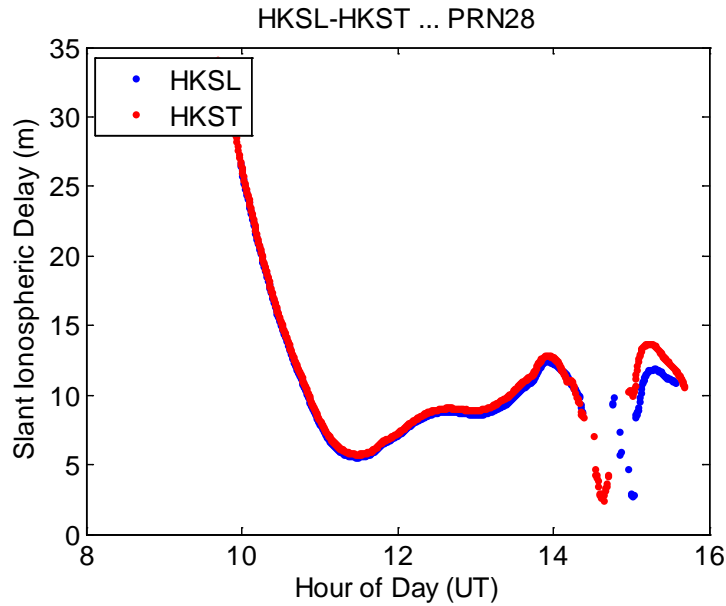
# HKLT-HKSL 05



# HKLT-HKST 24

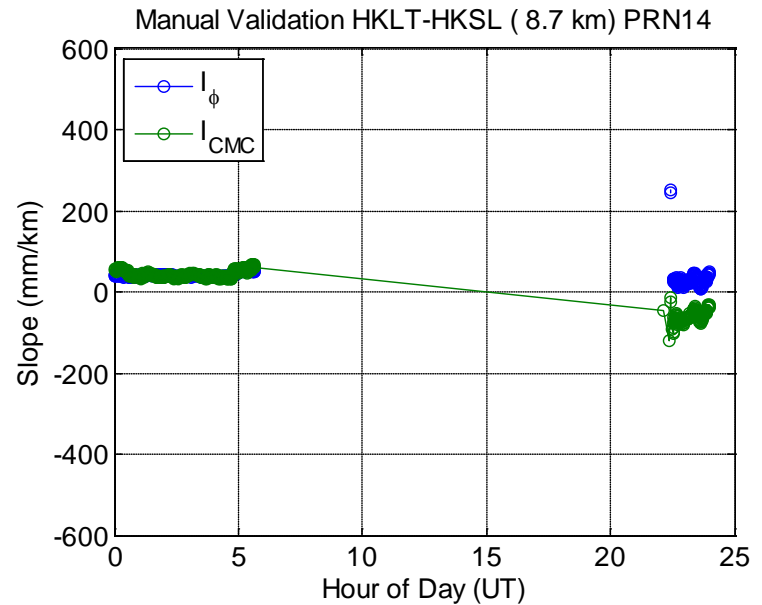
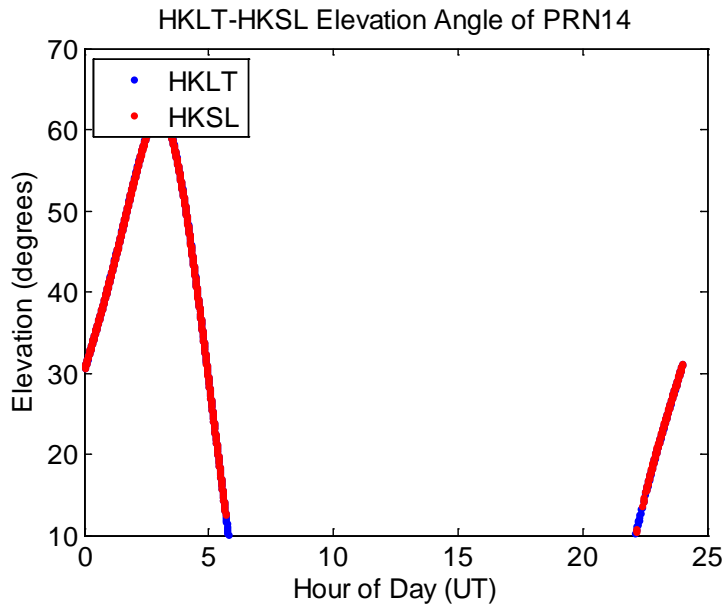
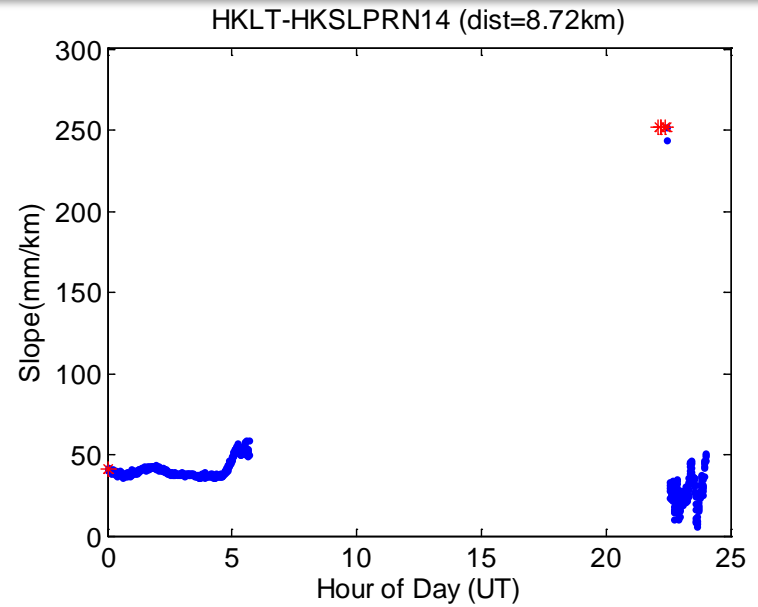
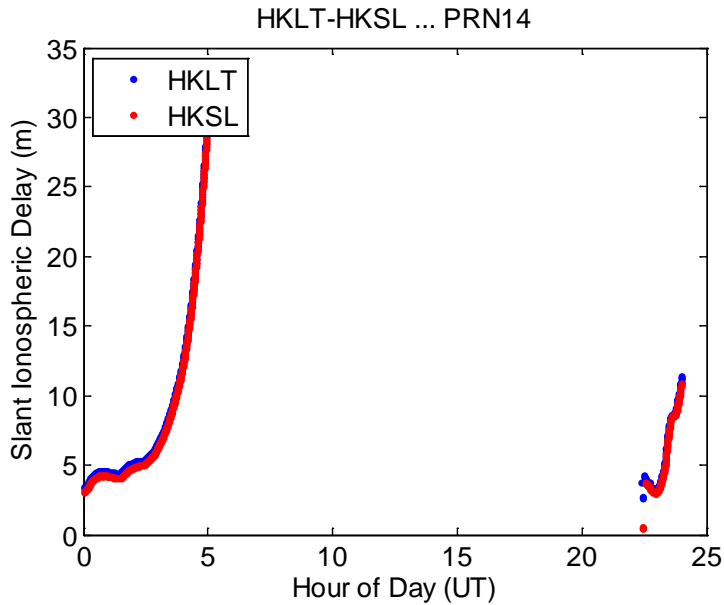


# HKSL-HKST 28





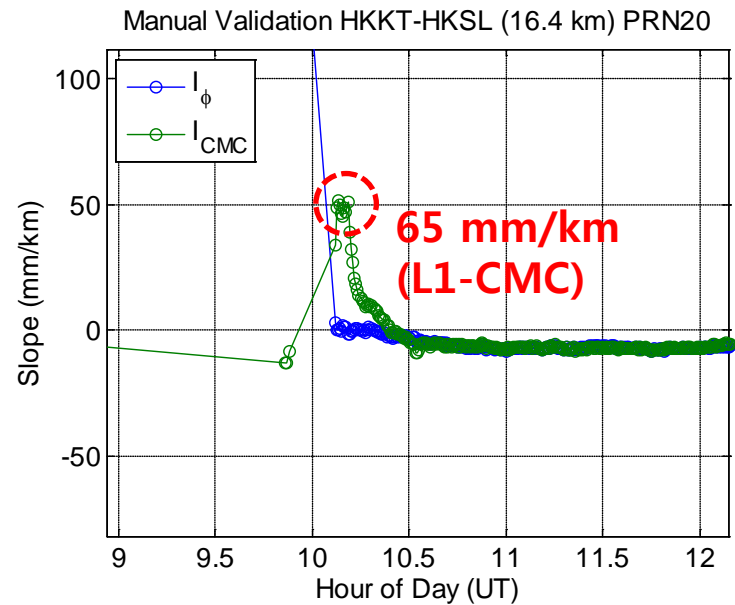
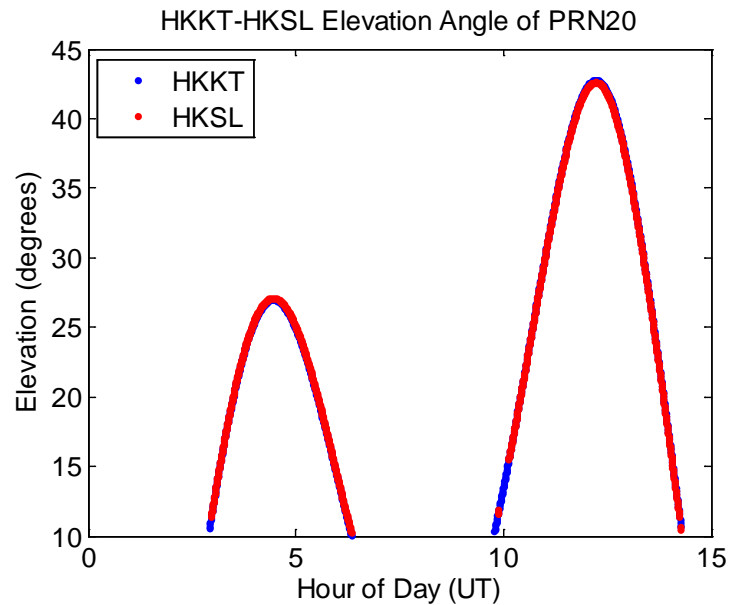
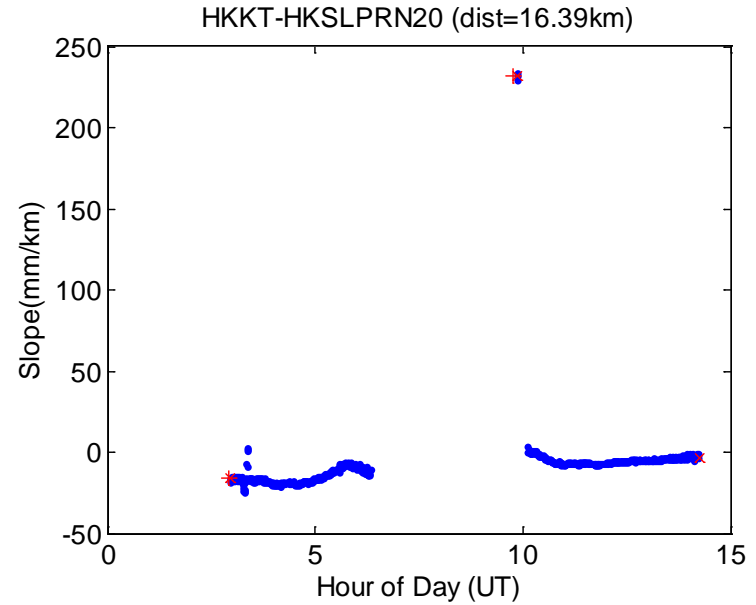
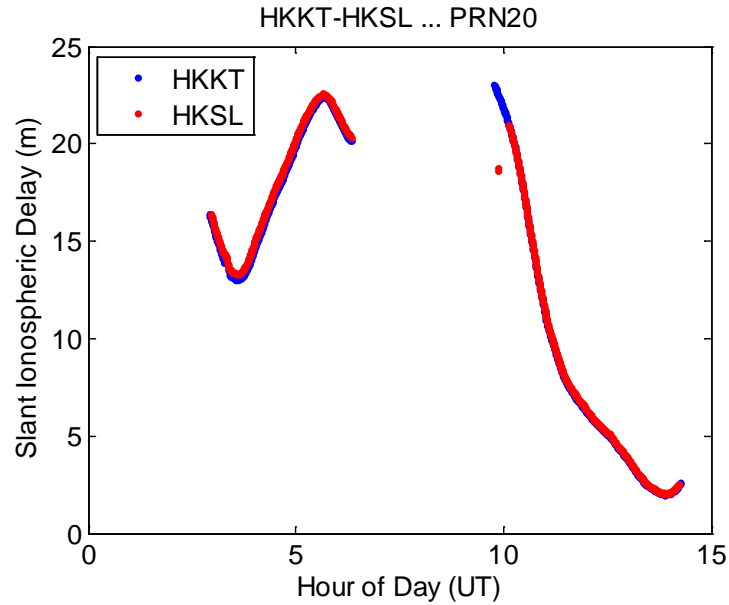
# HKLT-HKSL 14



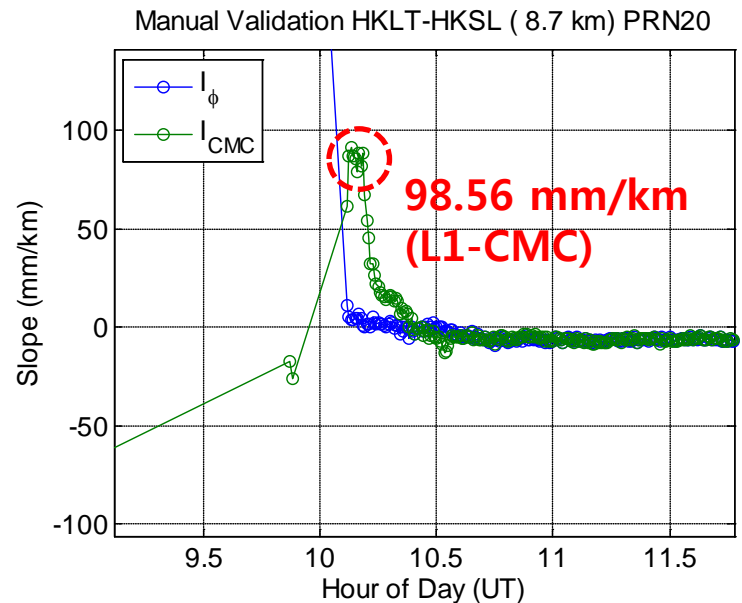
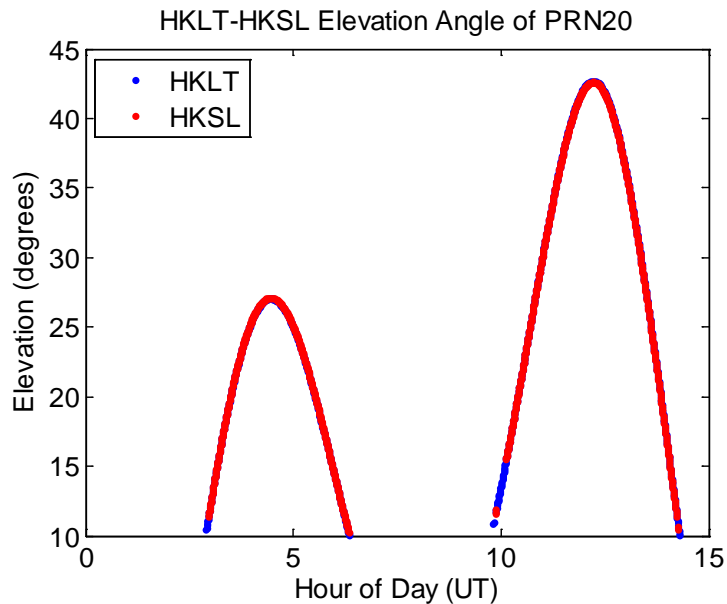
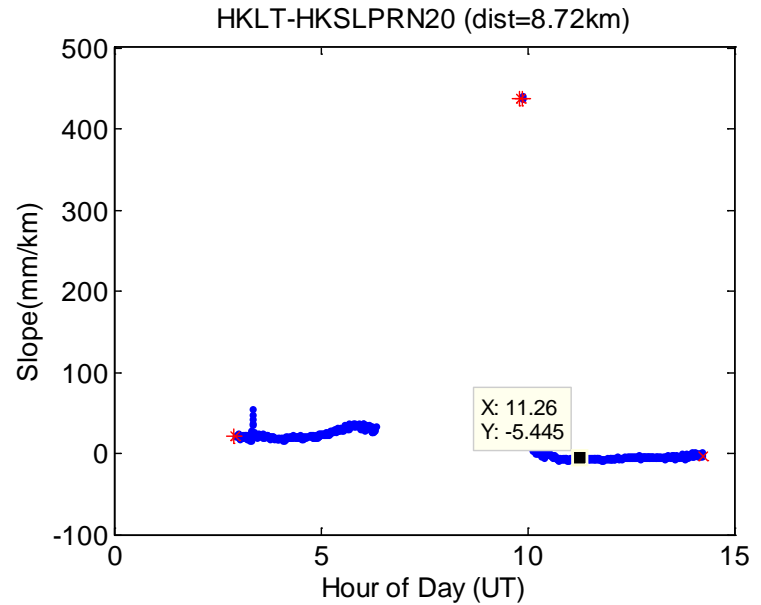
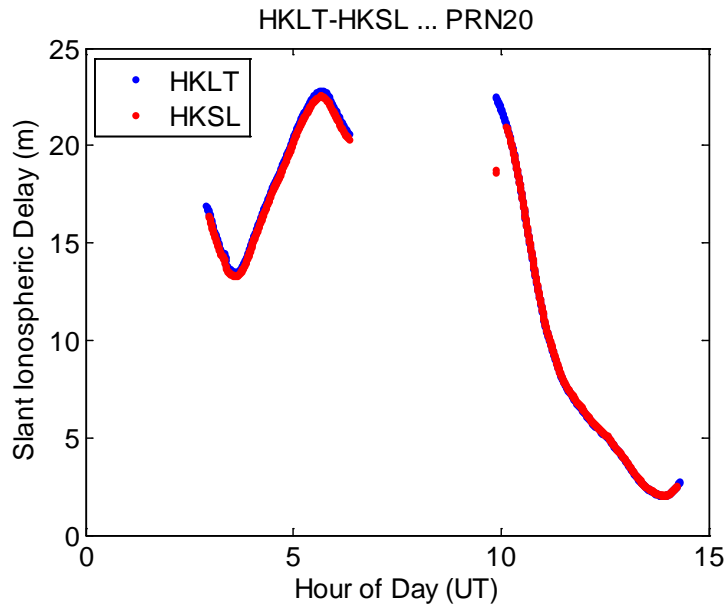
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**2003-303**  
**(4 Remaining Candidates)**

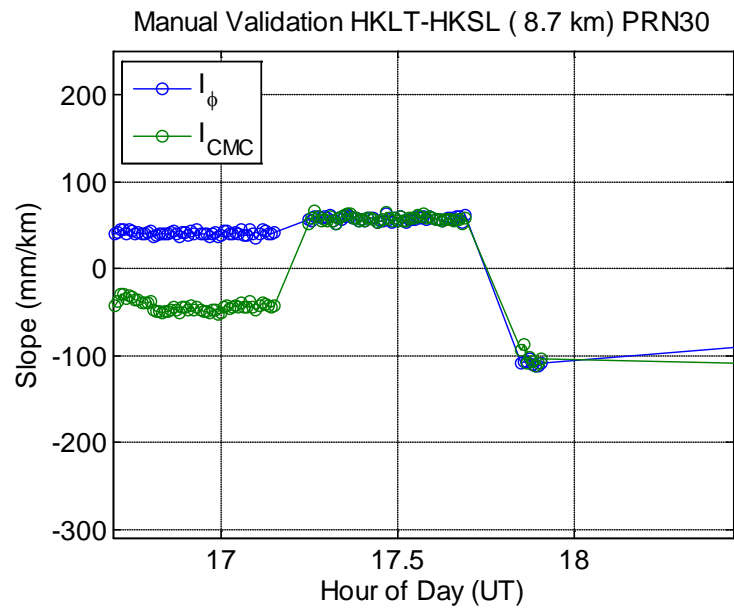
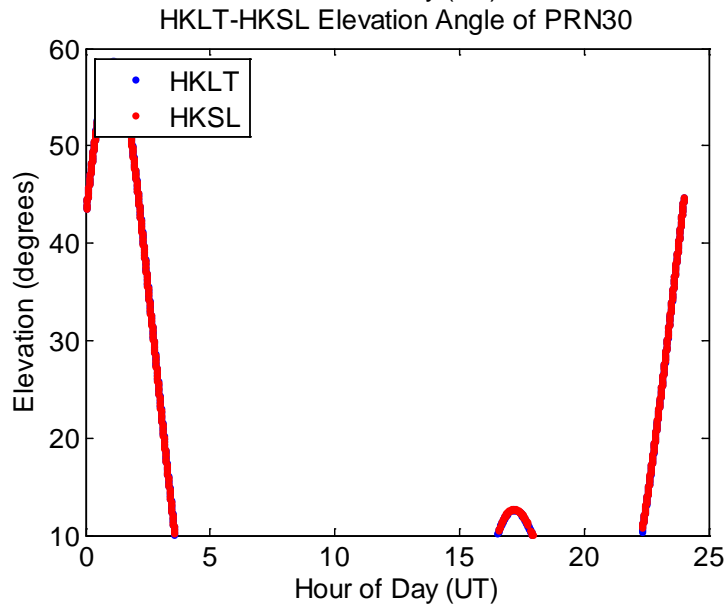
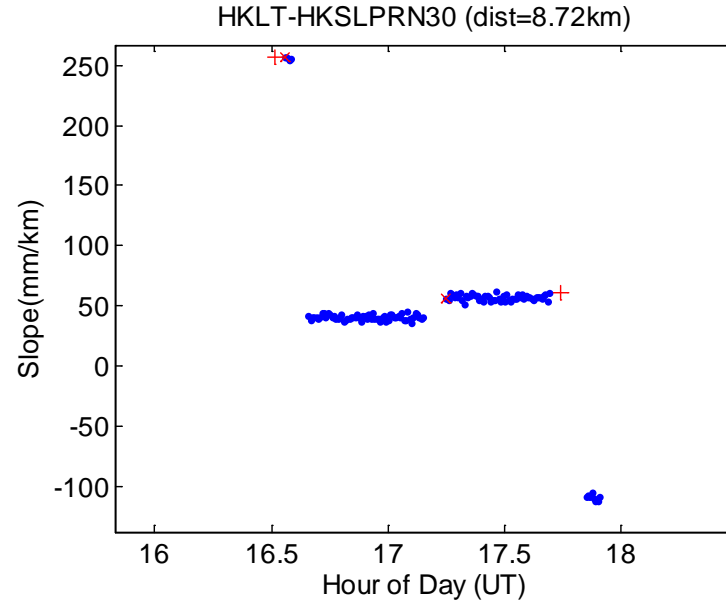
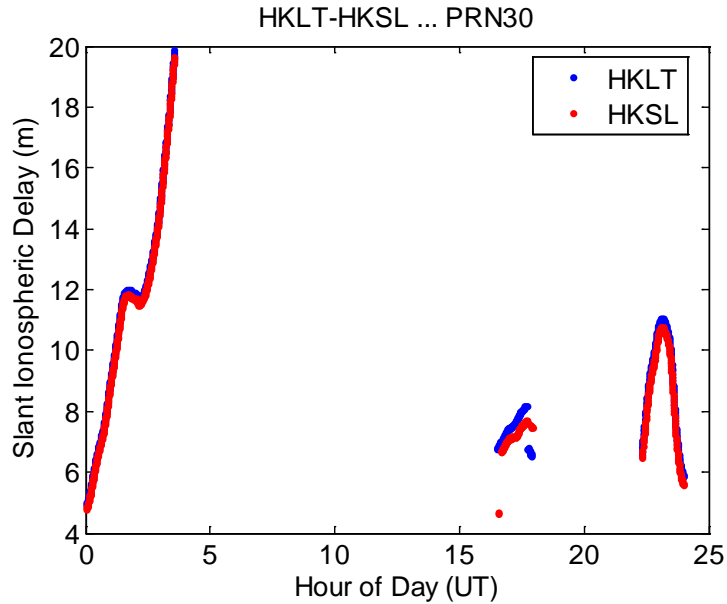
# HKKT-HKSL 20



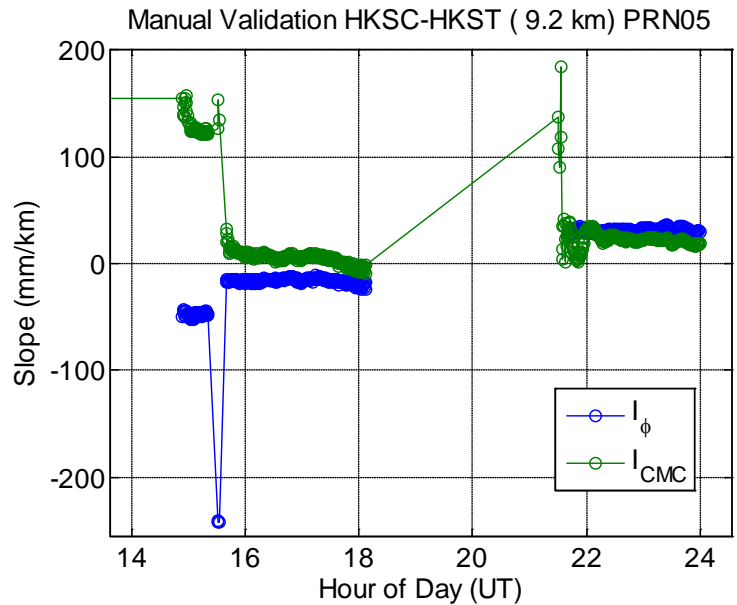
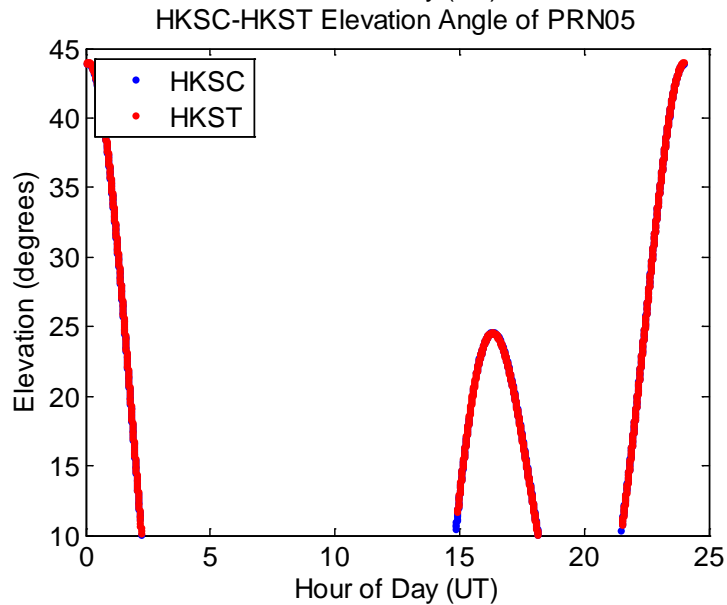
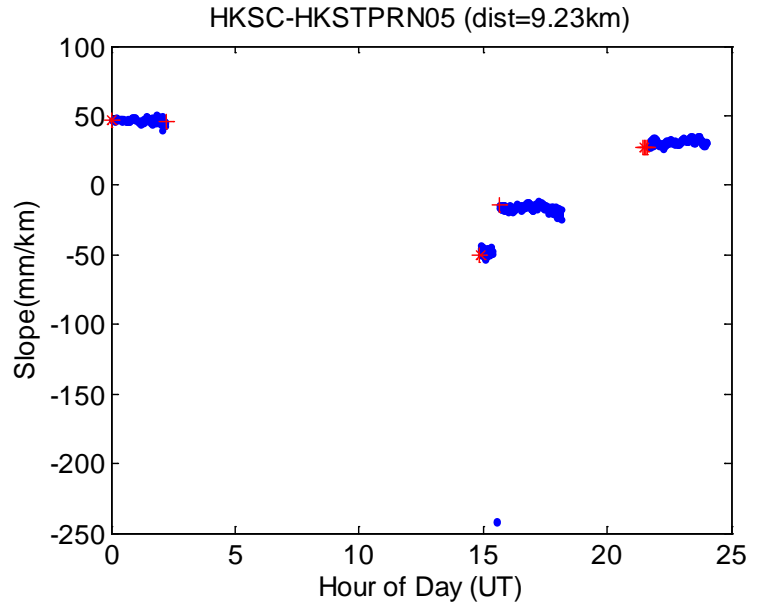
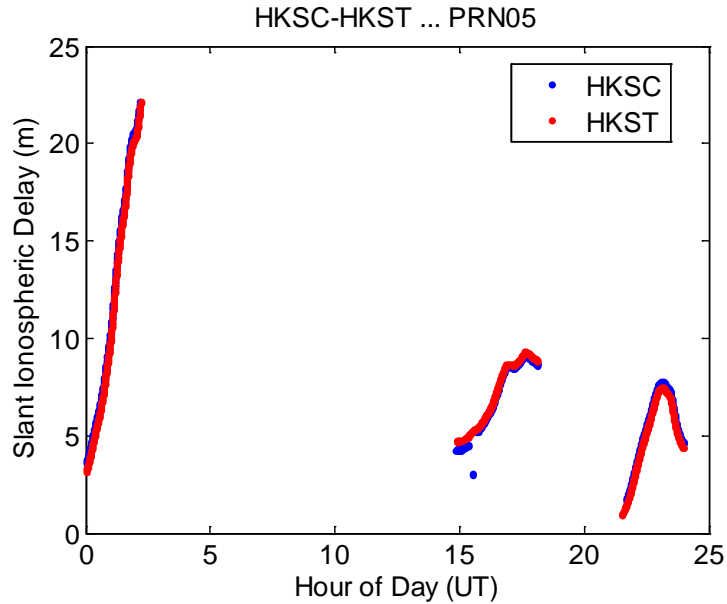
# HKLT-HKSL 20



# HKLT-HKSL 30



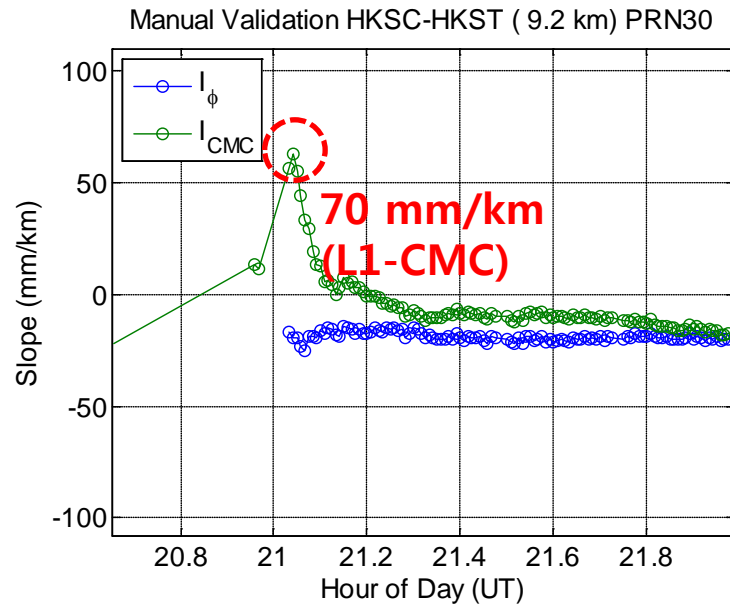
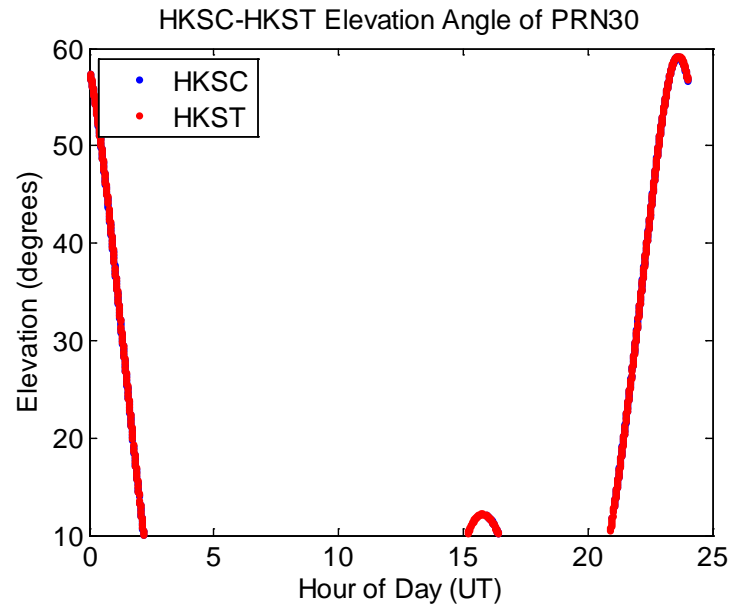
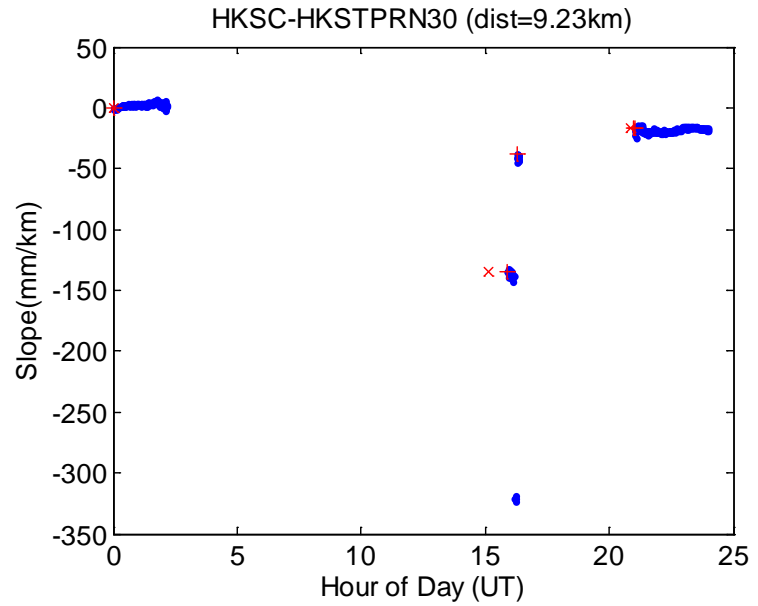
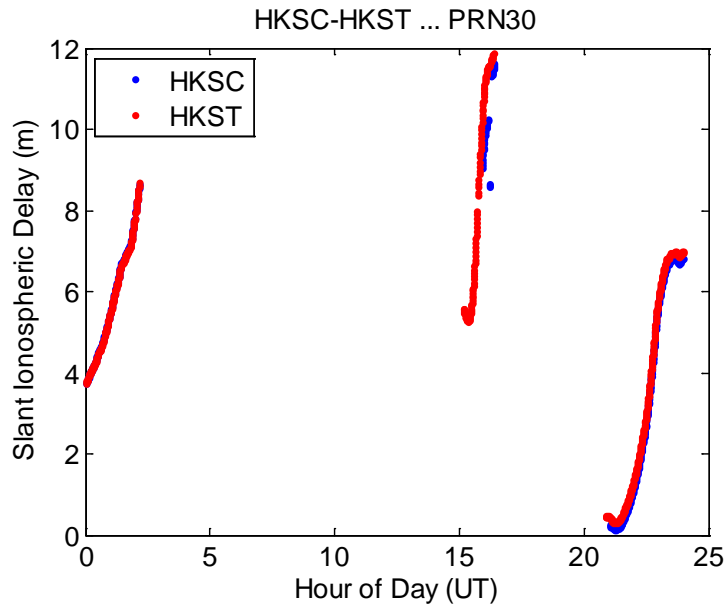
# HKSC-HKST 05



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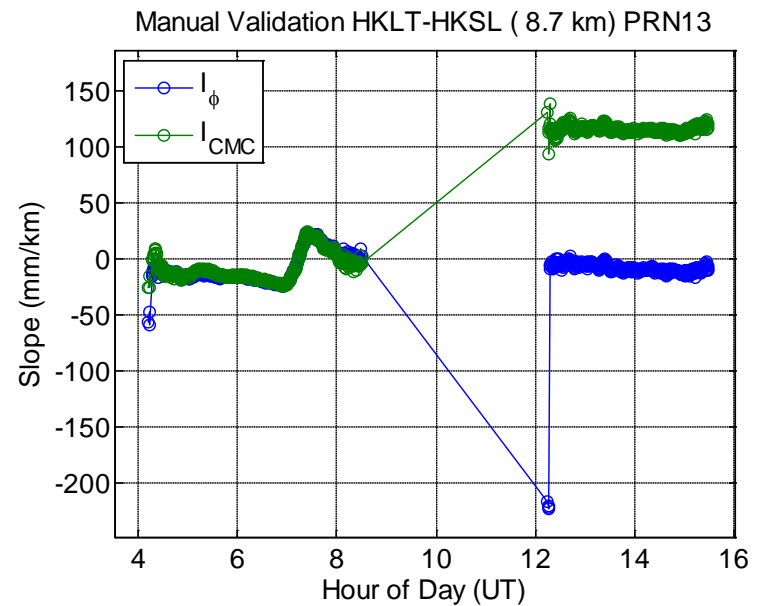
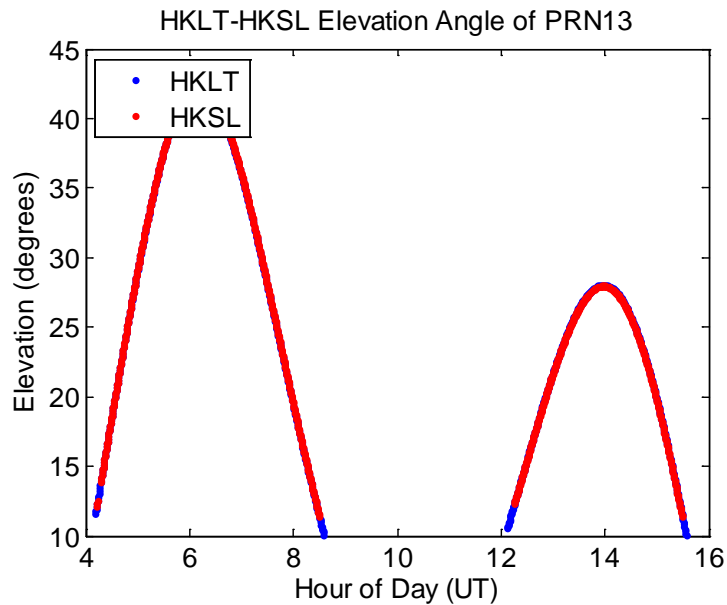
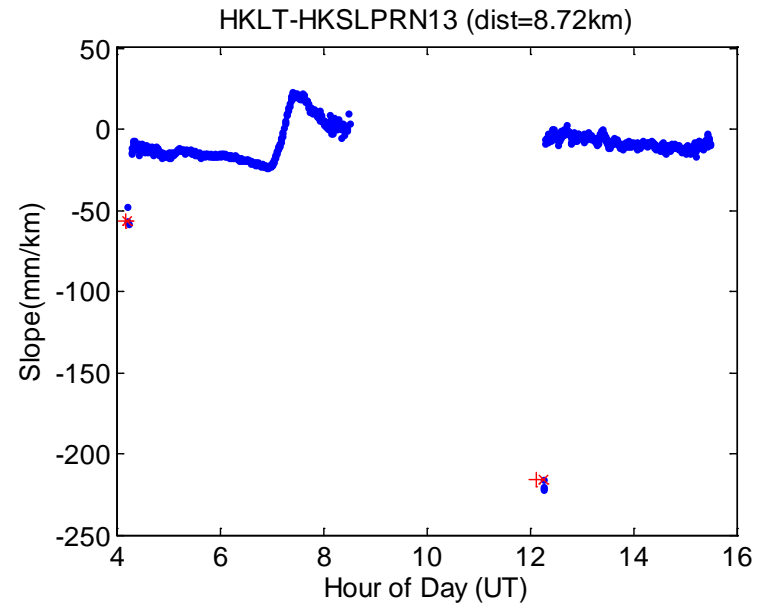
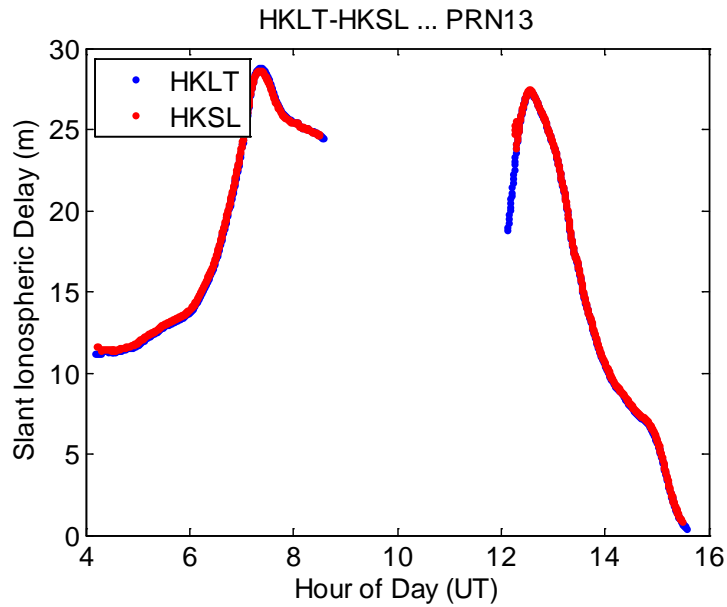
**2003-324**  
**(4 Remaining Candidates)**

# HKSC-HKST 30

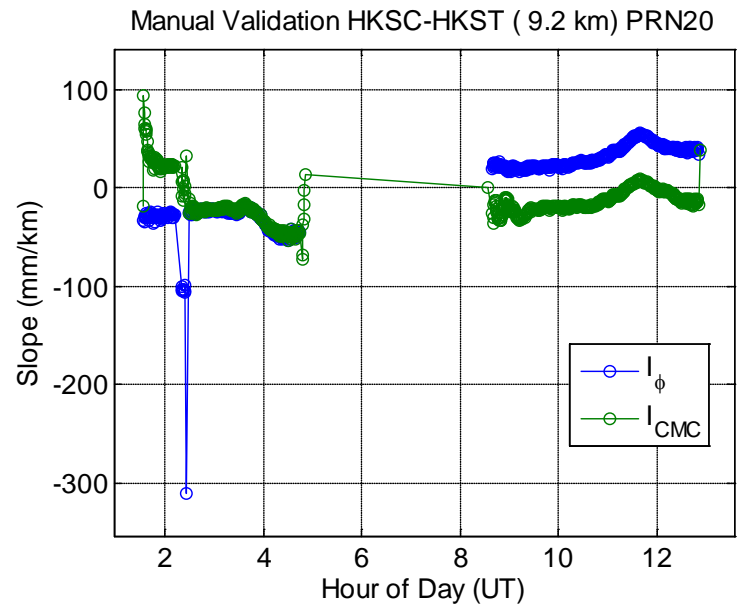
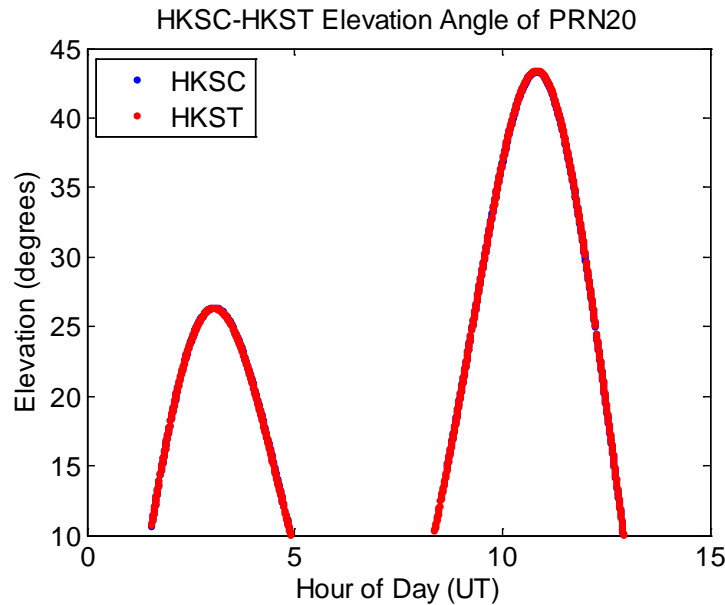
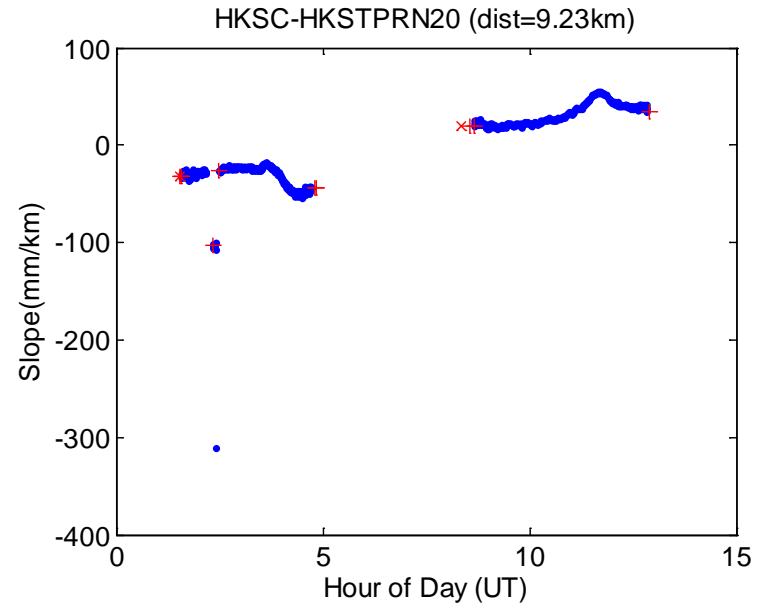
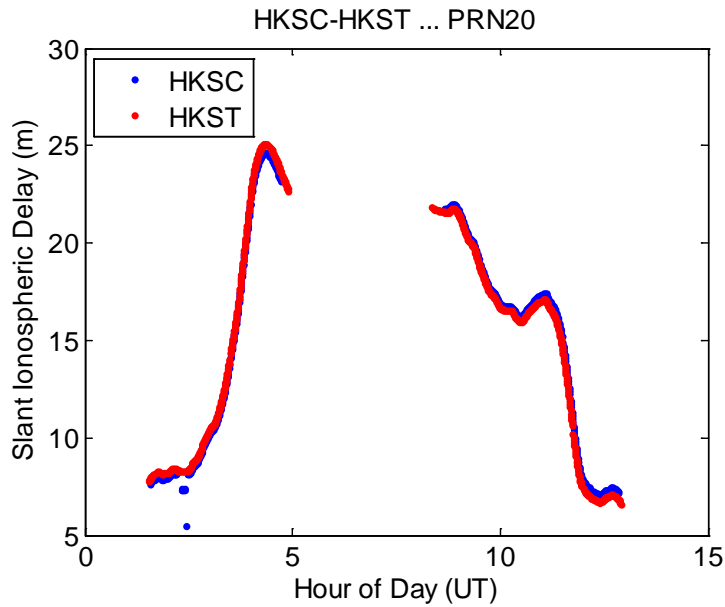




# HKLT-HKSL 13



# HKSC-HKST 20



# HKSC-HKST 31

