



NCEP GEFS 2nd Week Daily Temp. Ensemble MOS vs. Ensemble MMS in CWB

– SFRD/CWB –

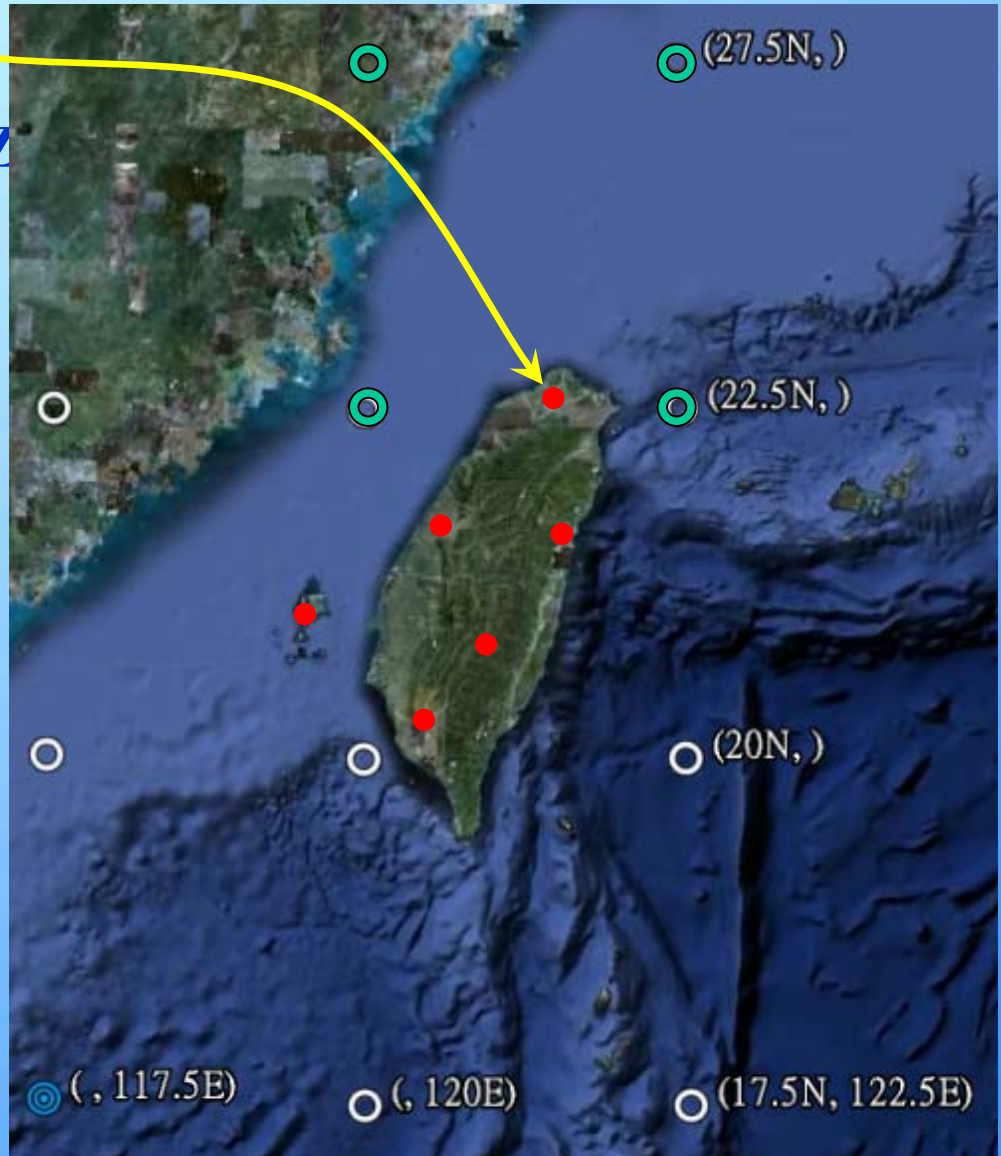
(科技中心：陳重功、羅存文
預報中心：陳孟詩、王嫵蘭)

September 18, 2012



資料簡介

Station : Taipei/46692
NWP : NCEP GEFS 00Z
01組Ctr、
20組Ensemble
Grid : $2.5^{\circ} * 2.5^{\circ}$
Period : 2009.01.01
~2012 - Date
Fitting : 2009/01
~2011/12
Verify : 2012/12~
Variab. : MSLP;
850T,U,V;
700H, Rh;
500H;
200U,V.





NCEP GEFS MOS

vs. GEFS MOS

- Daily Temperature -

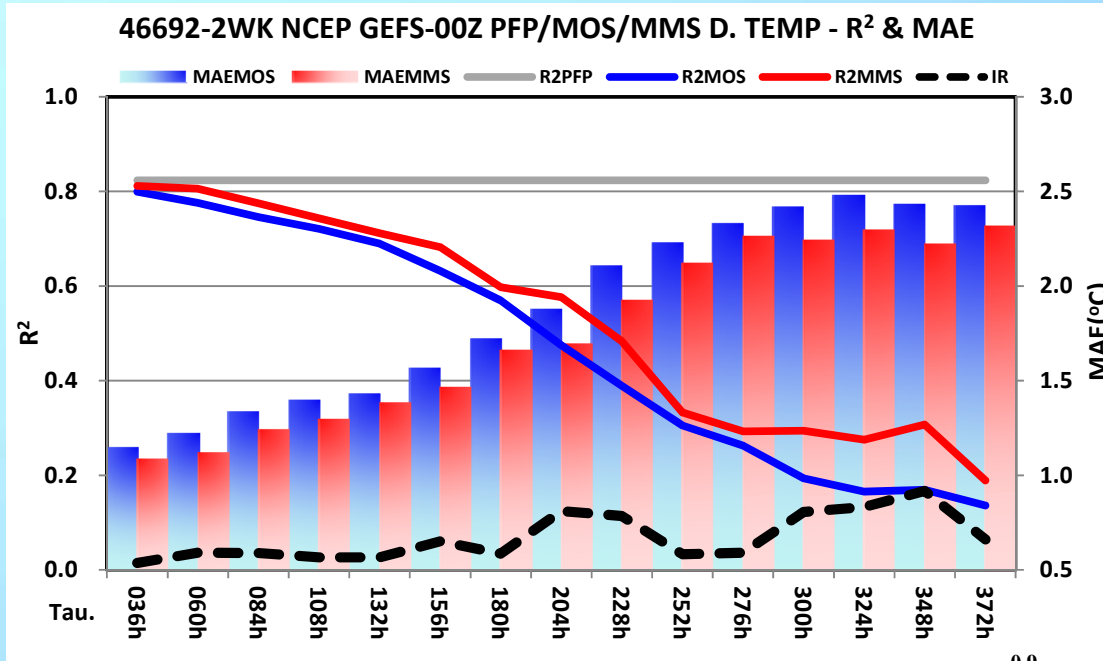


MMS & MOS 模式架構

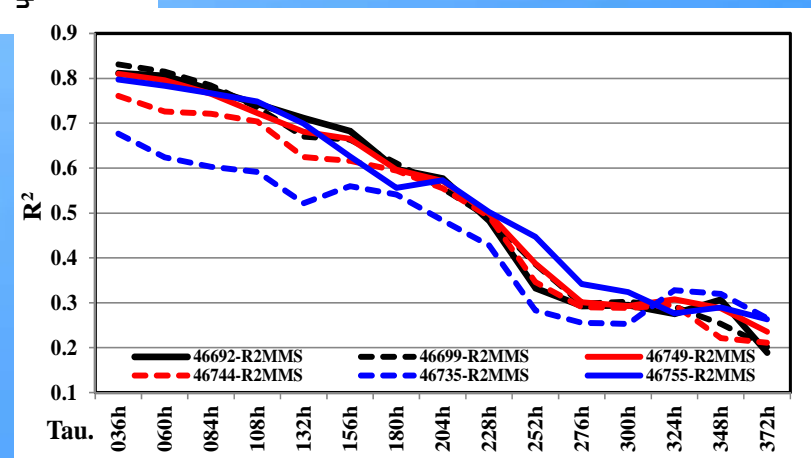
Tau. (00z)		012h	024h	036h	048h	060h	072h	084h	096h	108h	120h	132h	144h	156h	168h	180h	192h	204h	216h	228h	240h	252h	264h	276h	288h	300h	312h	324h	336h	348h	360h	372h	384h				
	MOS			✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓					
MMS	036h	✓	✓	✓	✓	✓																															
	060h			✓	✓	✓	✓	✓																													
	084h					✓	✓	✓	✓																												
	108h						✓	✓	✓	✓	✓	✓																									
	132h									✓	✓	✓	✓																								
	156h												✓	✓	✓	✓																					
	180h													✓	✓	✓	✓	✓																			
	204h															✓	✓	✓	✓	✓																	
	228h																	✓	✓	✓	✓	✓															
	252h																			✓	✓	✓	✓	✓	✓	✓											
	276h																				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	300h																					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	324h																								✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	348h																										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
372h																										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
區間		前 2tau+後 2tau=5tau								前 3tau+後 3tau=7tau								前 4tau+後 4tau=9tau																			



MMS vs. MOS Winter Daily Temp



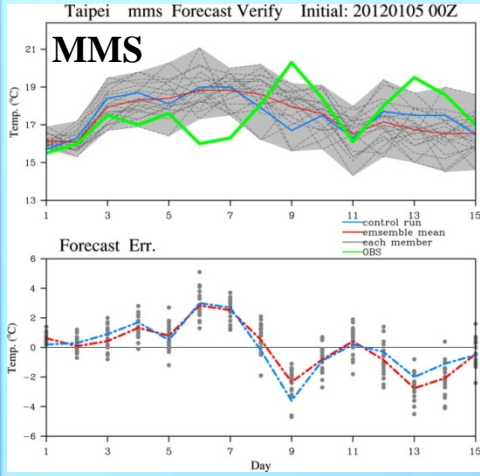
$$IR_{R^2} = \frac{R^2_{MMS} - R^2_{MOS}}{R^2_{MOS}}$$



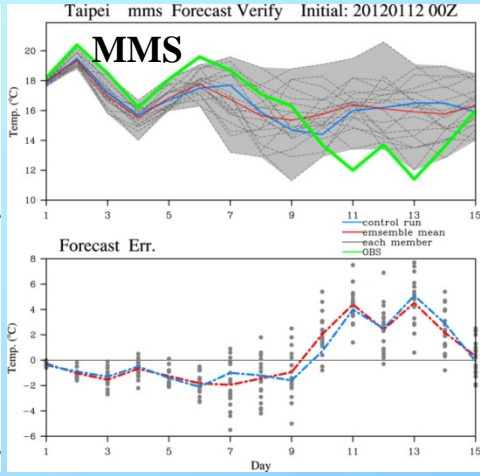


MMS vs. MOS Winter Daily Temp

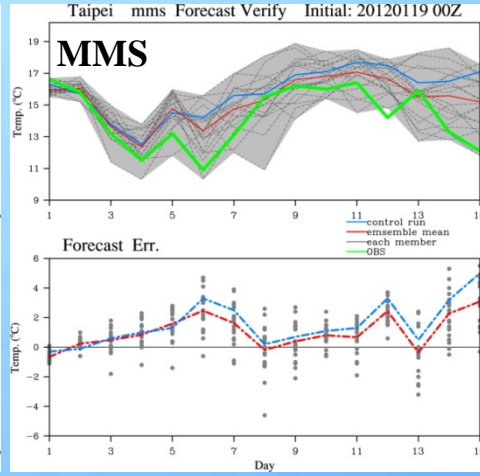
台北-2012年01月05日00Z



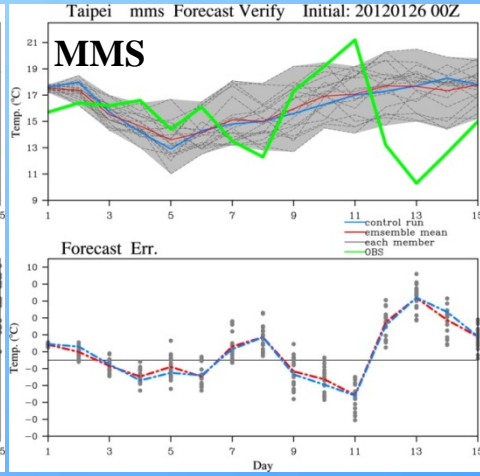
台北-2012年01月12日00Z



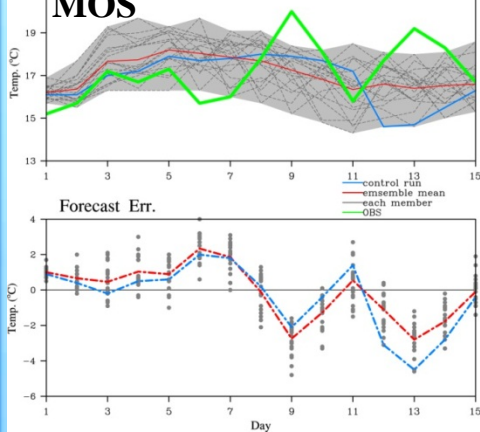
台北-2012年01月19日00Z



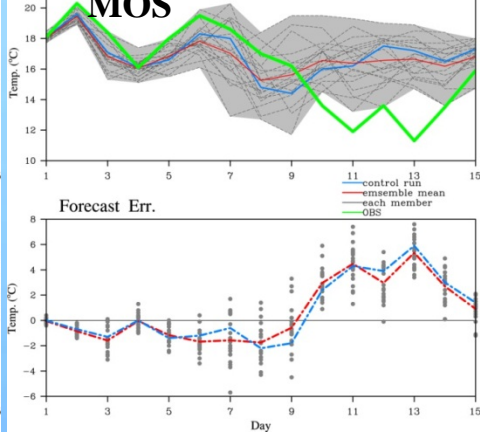
台北-2012年01月26日00Z



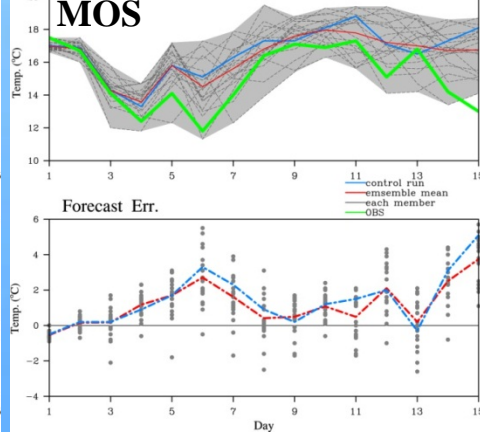
Taipei mos Forecast Verify Initial: 20120105 00Z



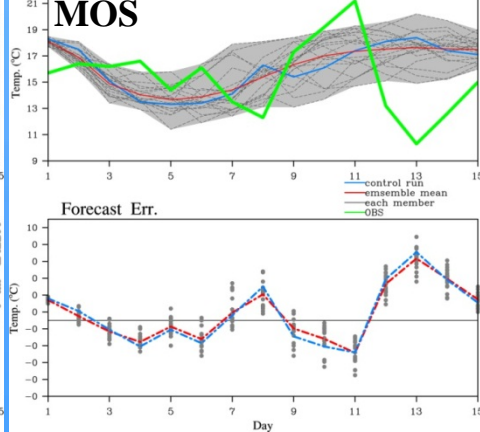
Taipei mos Forecast Verify Initial: 20120112 00Z



Taipei mos Forecast Verify Initial: 20120119 00Z



Taipei mos Forecast Verify Initial: 20120126 00Z





1st and 2nd Week 比較

- MMS vs. MOS Winter DailyTemp -

台北(46692)第 1 週 MOS 與 MMS 預報評比

1-WK		MOS		MMS	
Case		Ctr	EnsM	Ctr	EnsM
Bias	Jan05	0.76	1.02	1.27	1.22
	Jan12	-1.06	-1.24	-1.20	-1.39
	Jan19	1.36	1.13	1.26	1.01
	Jan26	-0.33	-0.33	-0.09	-0.01
MAE	Jan05	0.81	1.25	1.33	1.40
	Jan12	1.06	1.40	1.20	1.48
	Jan19	1.36	1.38	1.29	1.34
	Jan26	1.96	1.74	1.69	1.63

台北(46692)第 2 週 MOS 與 MMS 預報評比

2-WK		MOS		MMS	
Case		Ctr	EnsM	Ctr	EnsM
Bias	Jan05	-1.70	-1.32	-1.17	-1.27
	Jan12	2.73	2.68	1.93	2.13
	Jan19	1.83	1.52	2.16	1.33
	Jan26	1.59	1.73	1.60	1.67
MAE	Jan05	1.89	1.27	0.77	1.32
	Jan12	3.04	2.77	2.38	2.44
	Jan19	2.14	1.94	2.36	1.81
	Jan26	3.92	3.78	3.98	3.88



NCEP GEFS MOS PoP

Multiple General Regression

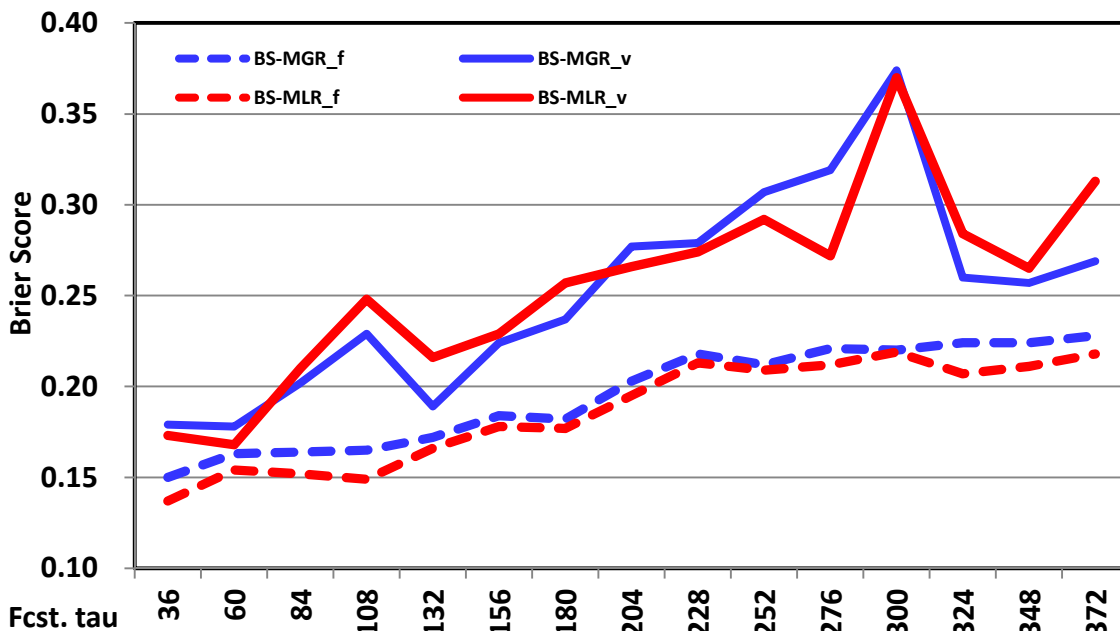
vs. Multiple Logistic Regression



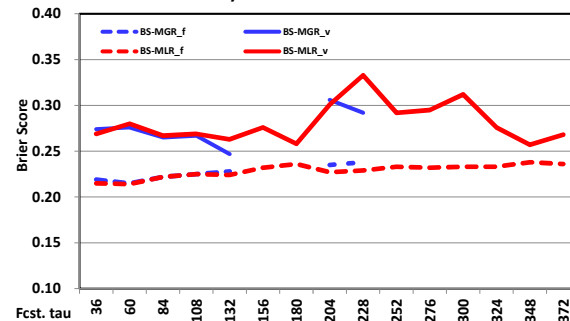
MGR vs. MLR Brier Score

- MOS Winter Daily PoP -

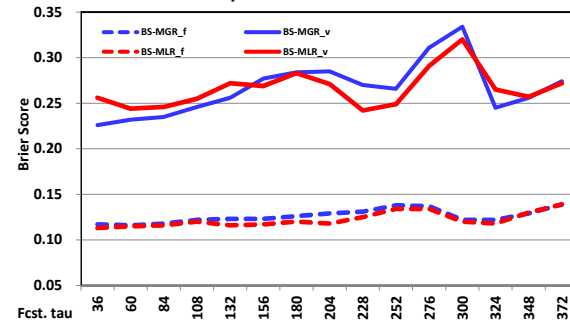
46692 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



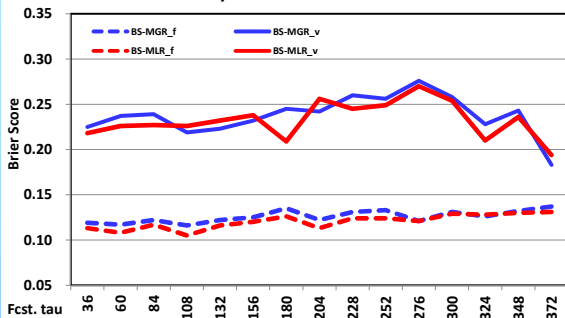
46699 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



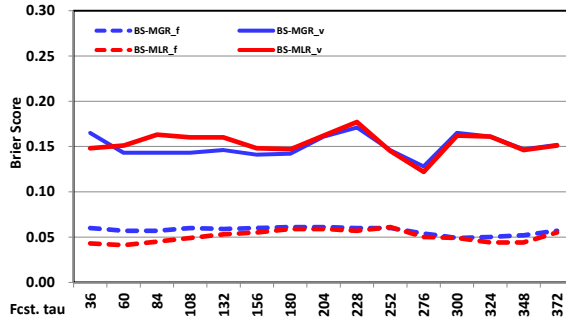
46755 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



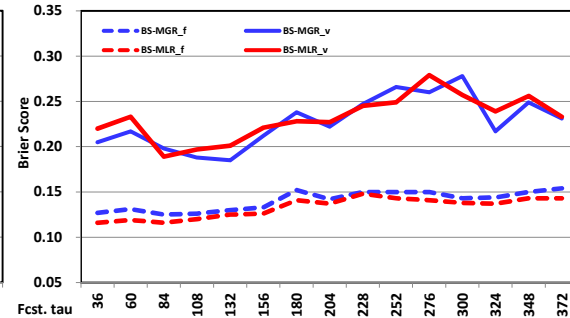
46735 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



46744 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



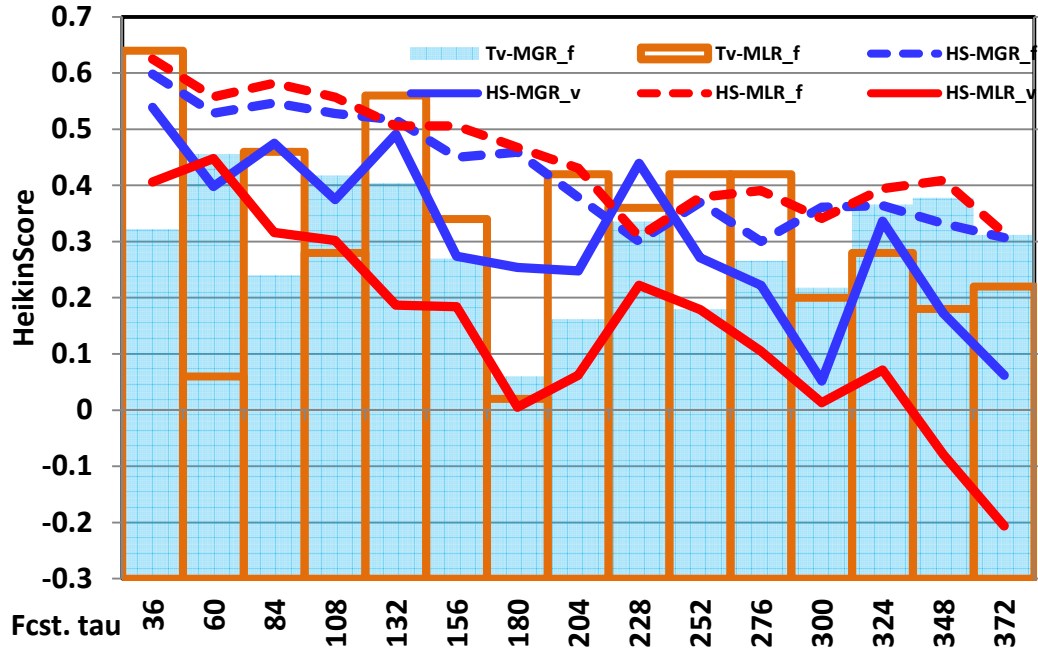
46749 Winter Daily PoP GEFS MGR vs. MLR MOS Brier S



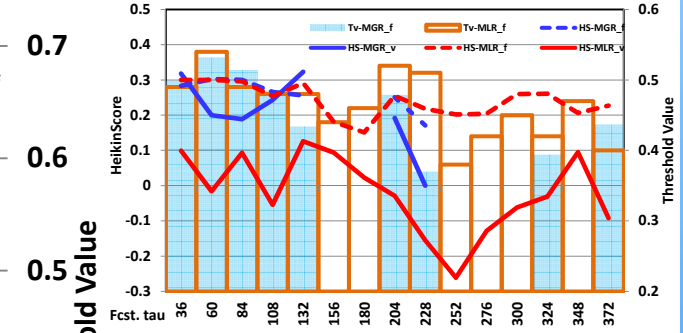


MGR vs. MLR Heikin Score - MOS Winter Daily PoP -

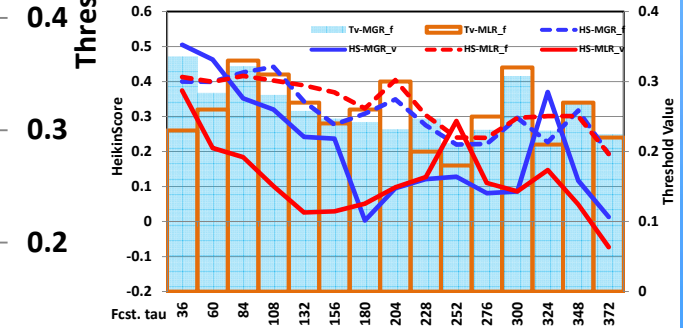
46692 Winter Daily PoP GEFS MGR vs. MLR MOS



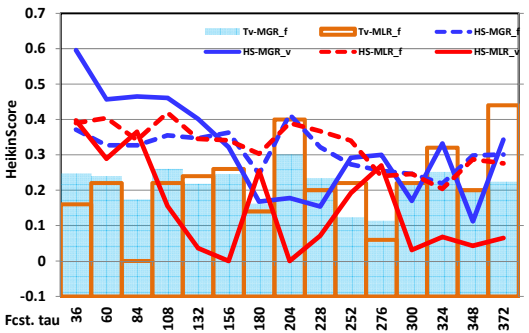
46699 Winter Daily PoP GEFS MGR vs. MLR MOS



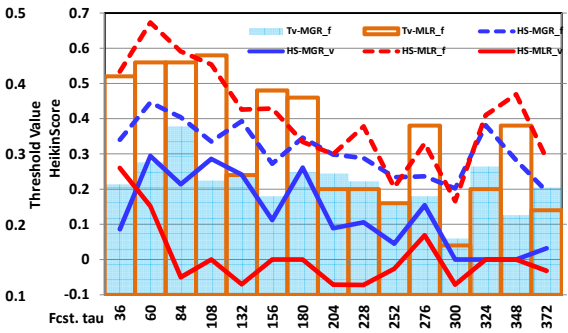
46755 Winter Daily PoP GEFS MGR vs. MLR MOS



46735 Winter Daily PoP GEFS MGR vs. MLR MOS



46744 Winter Daily PoP GEFS MGR vs. MLR MOS



46749 Winter Daily PoP GEFS MGR vs. MLR MOS

