

KIC 011668783

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011668783-01	OBS	No	0.625936	132.001741	21.2	5.320	7.2	6.8	2.36	7363	1.13	48989.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011668783-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_FEW_MEAS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

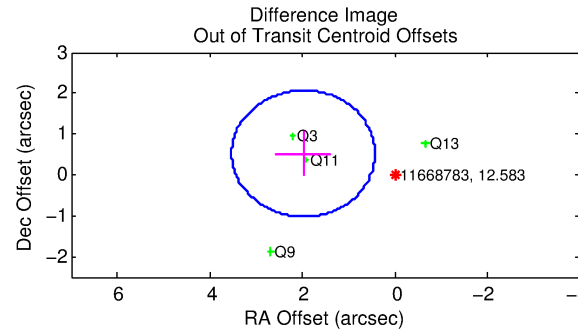
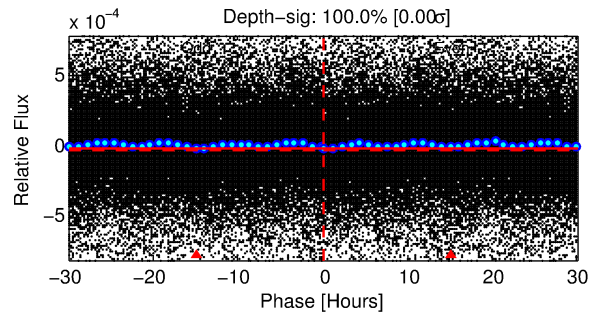
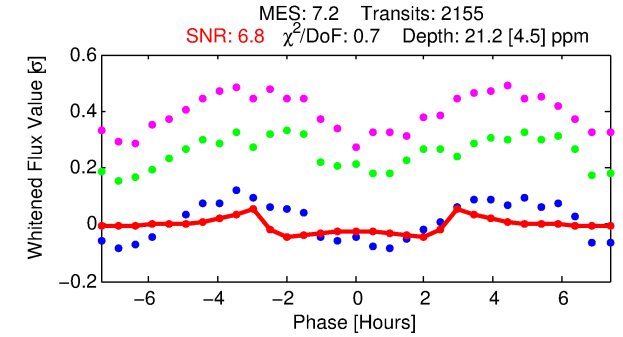
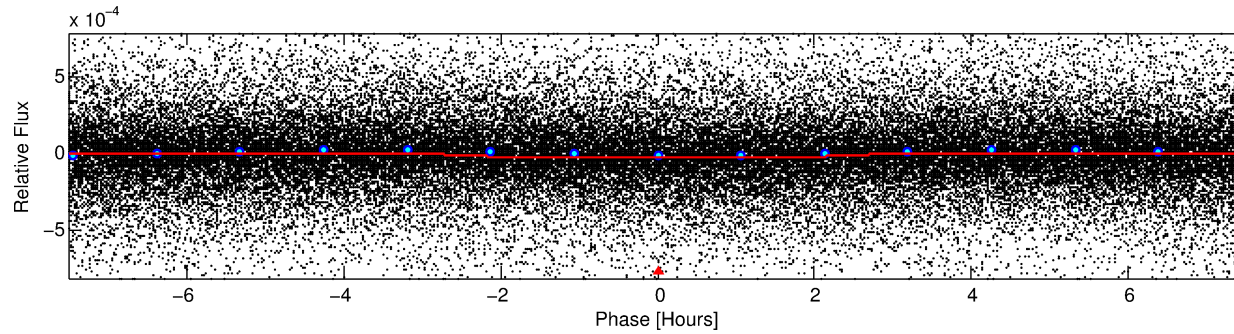
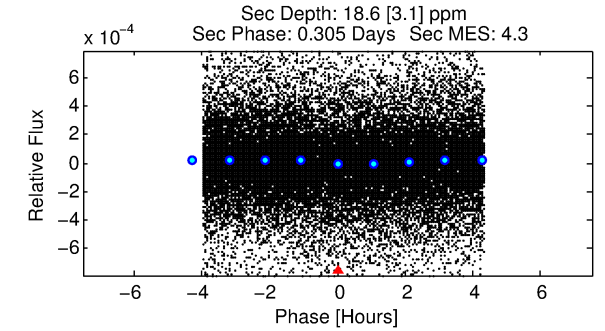
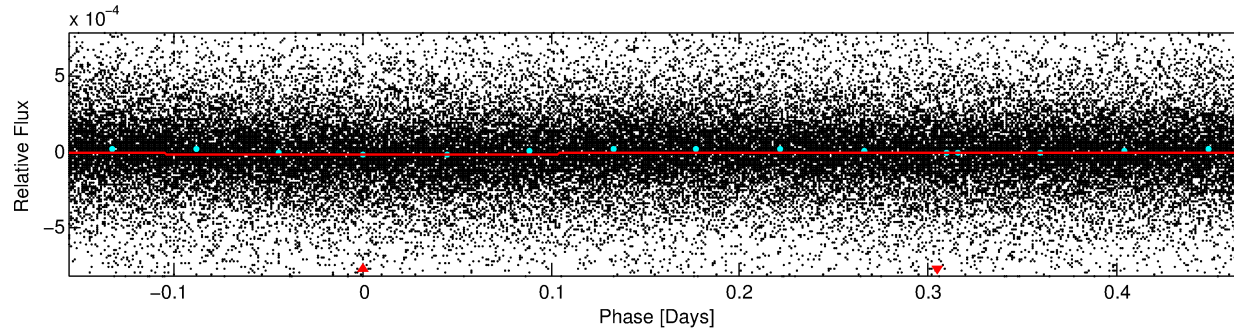
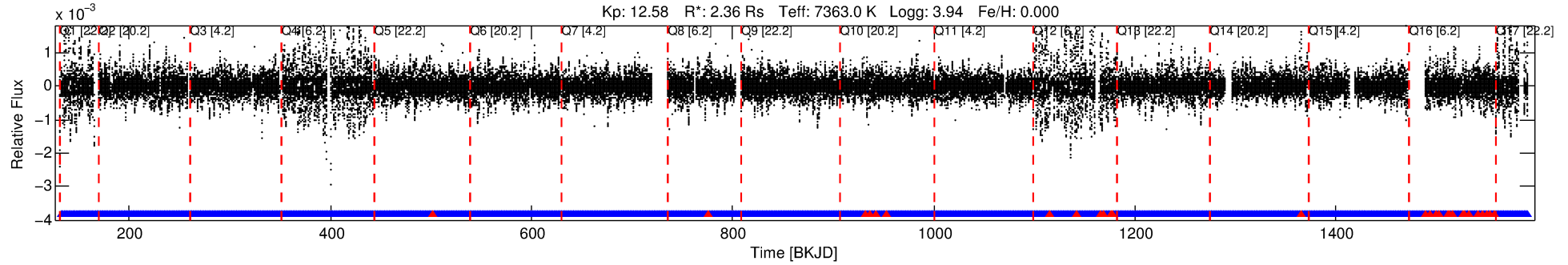
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011668783-01

No Significant Match Found

DV One-Page Summary

KIC: 11668783 Candidate: 1 of 1 Period: 0.626 d



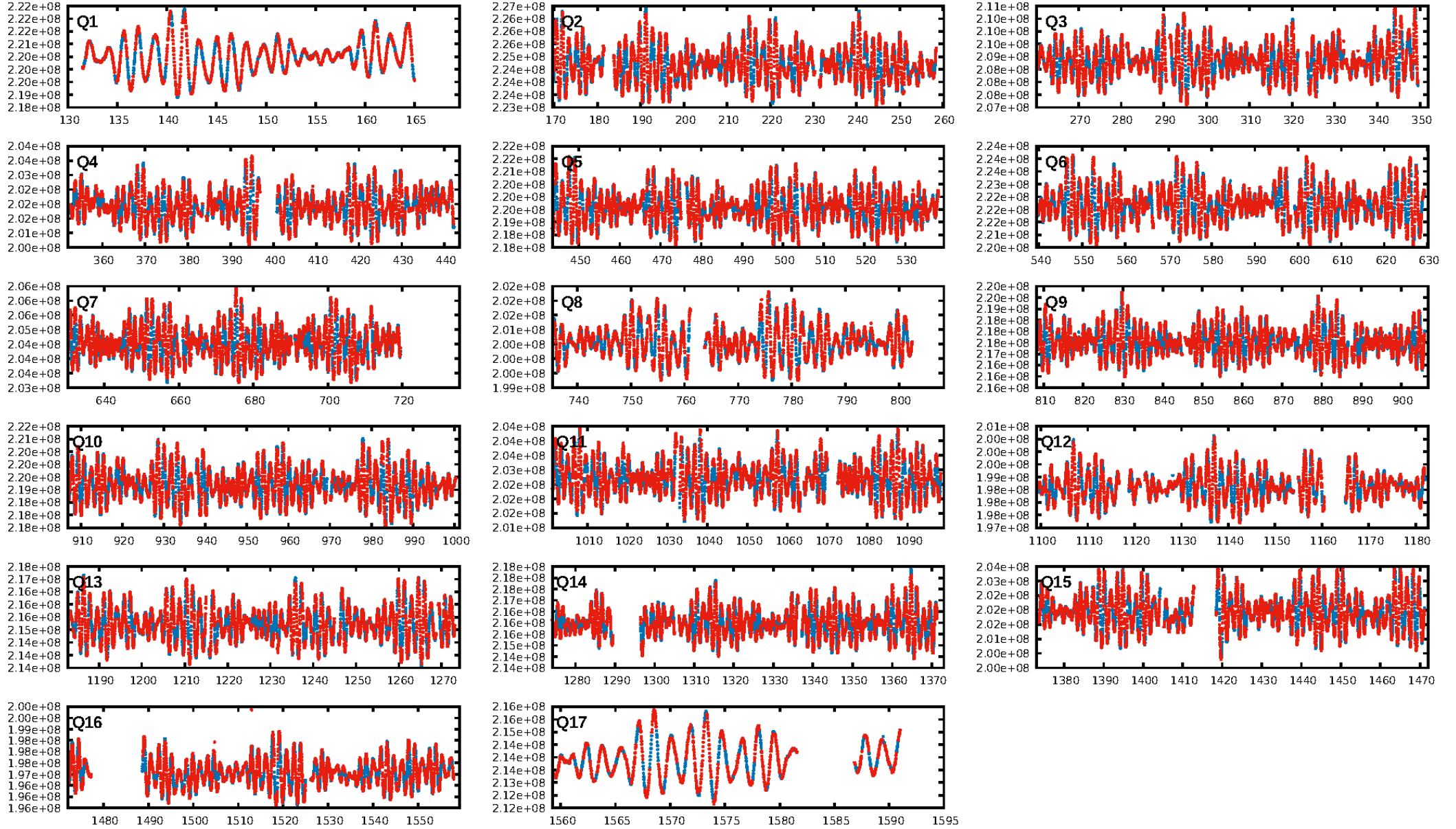
DV Fit Results:

Period = 0.62594 [0.00001] d
Epoch = 132.0017 [0.0026] BKJD
Rp/R* = 0.0044 [0.0022]
a/R* = 1.09 [0.55]
b = 0.50 [4.76]
Seff = 48989.47 [24059.39]
Teq = 3794 [466] K
Rp = 1.13 [0.67] Re
a = 0.0173 [0.0052] AU
Ag = 2.41 [2.67] [0.53σ]
Teffp = 7311 [1870] K [1.82σ]

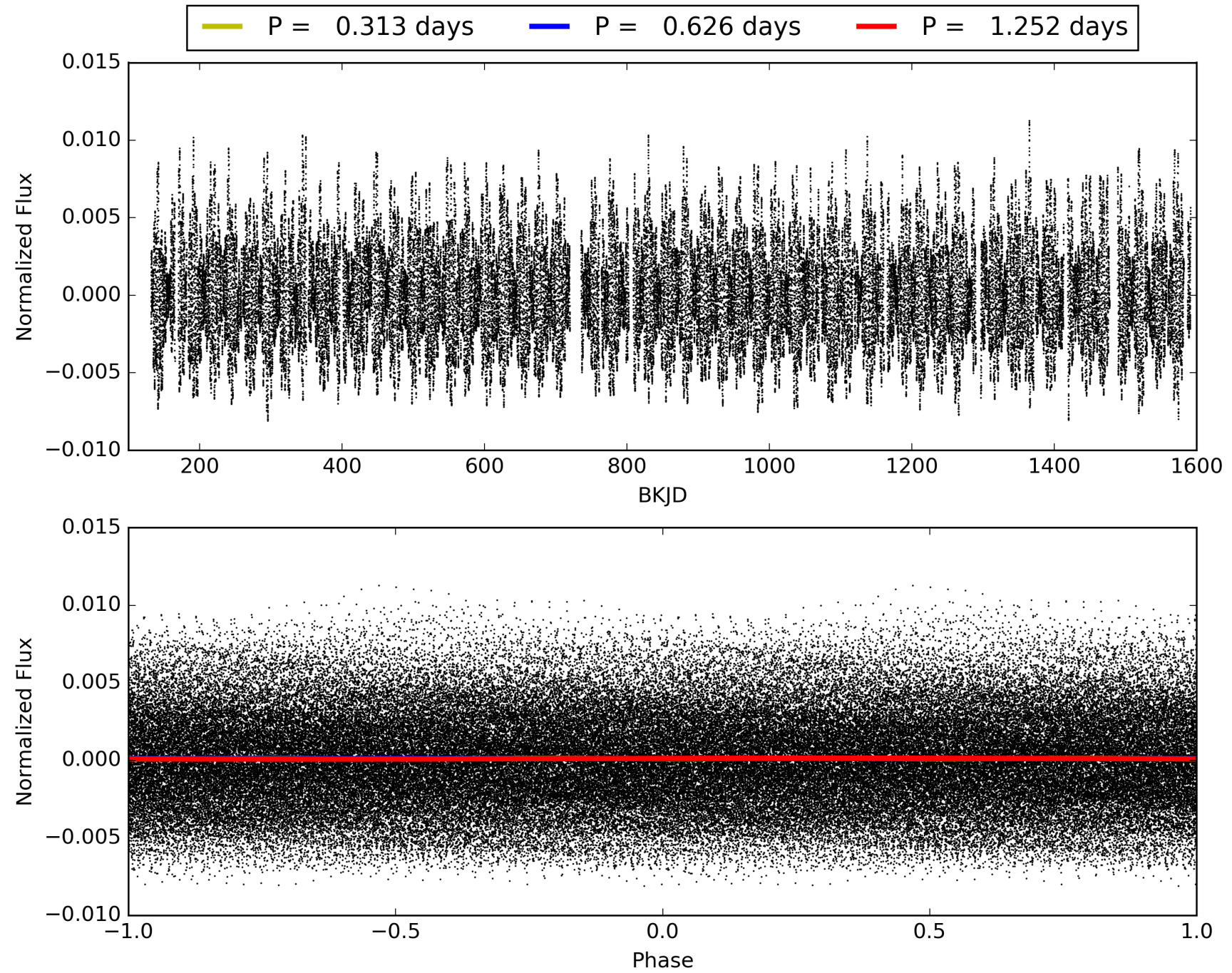
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [2029/2058]
GhostDiagnostic-chr: 0.03934
Centroid-sig: 0.0%
Centroid-so: 1.565 arcsec [2.83σ]
OotOffset-rm: 2.047 arcsec [3.97σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-rm: 2.081 arcsec [2.83σ]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011668783-01, PDC Light Curves

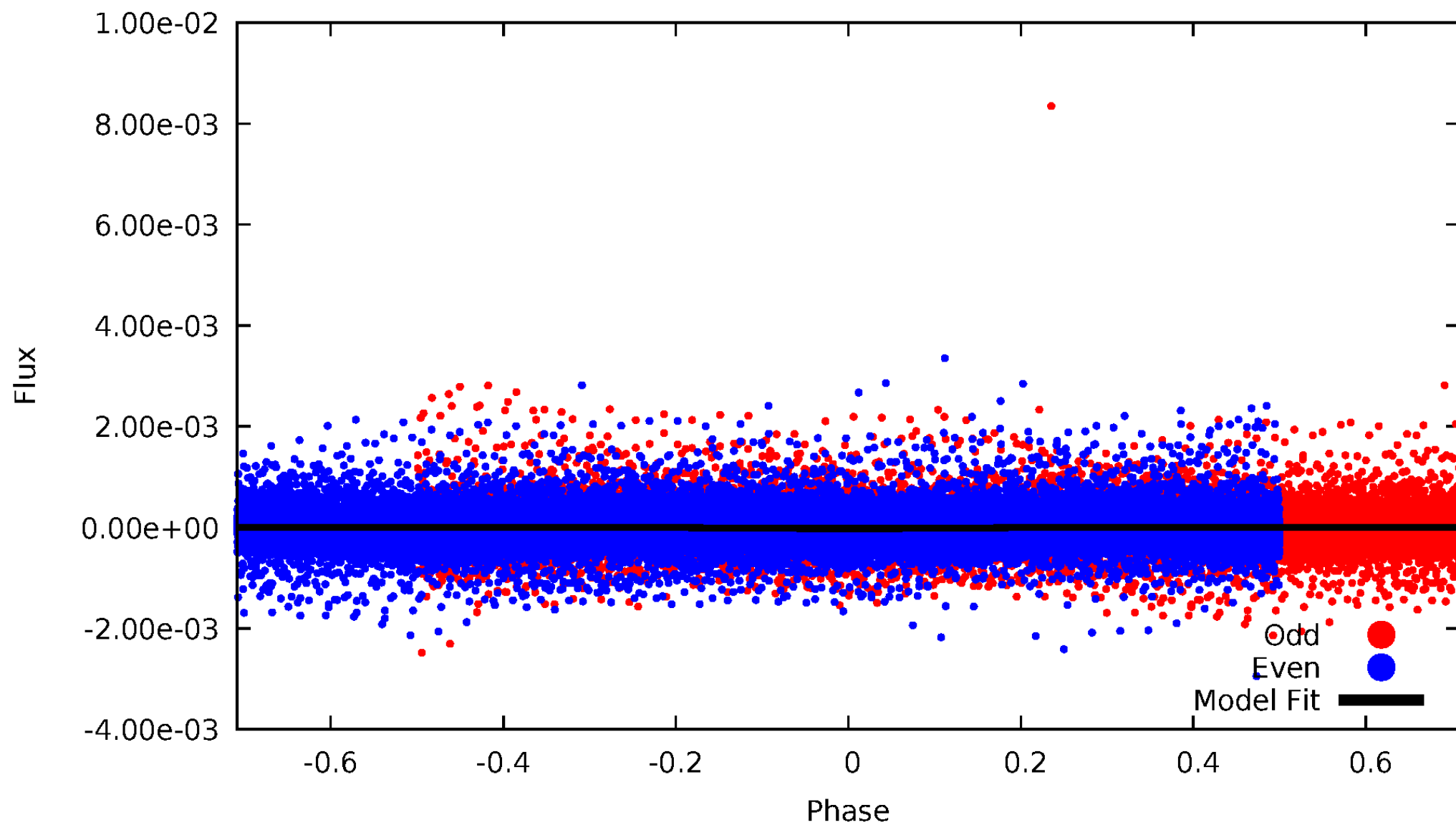


TCE 011668783-01



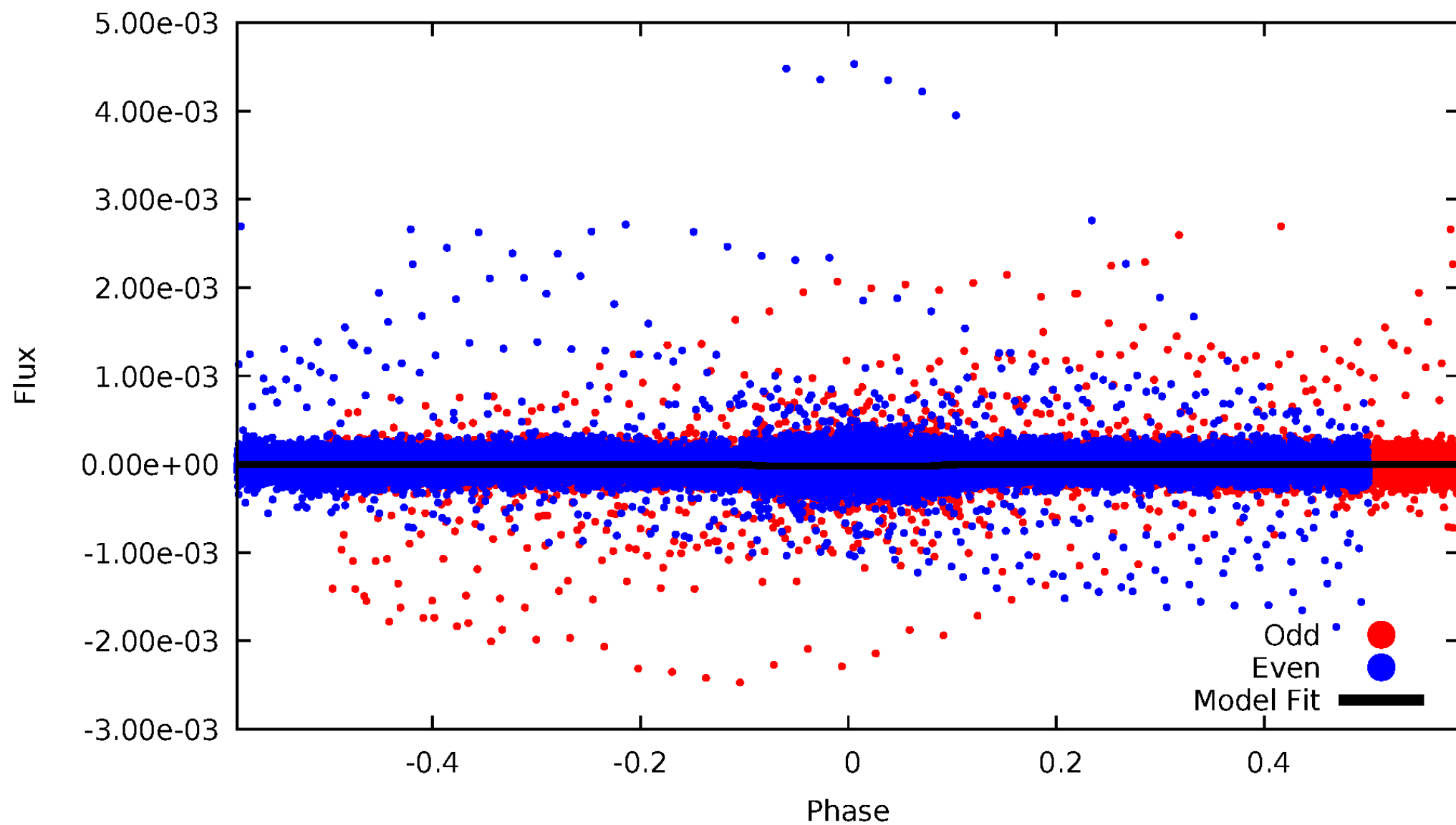
DV Odd/Even

TCE 011668783-01



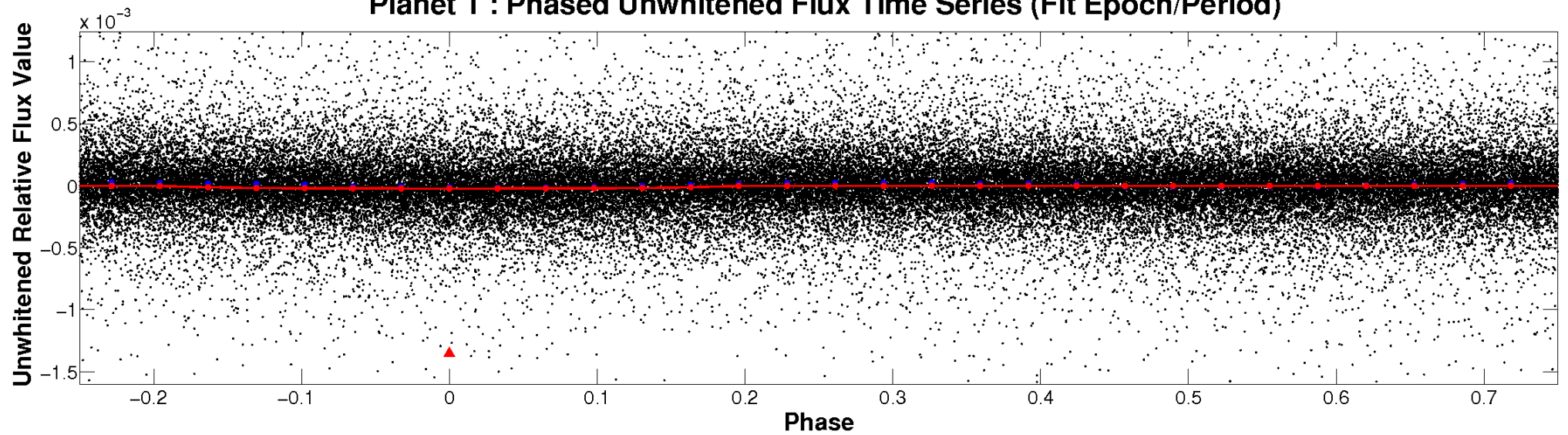
ALT Odd/Even

TCE 011668783-01

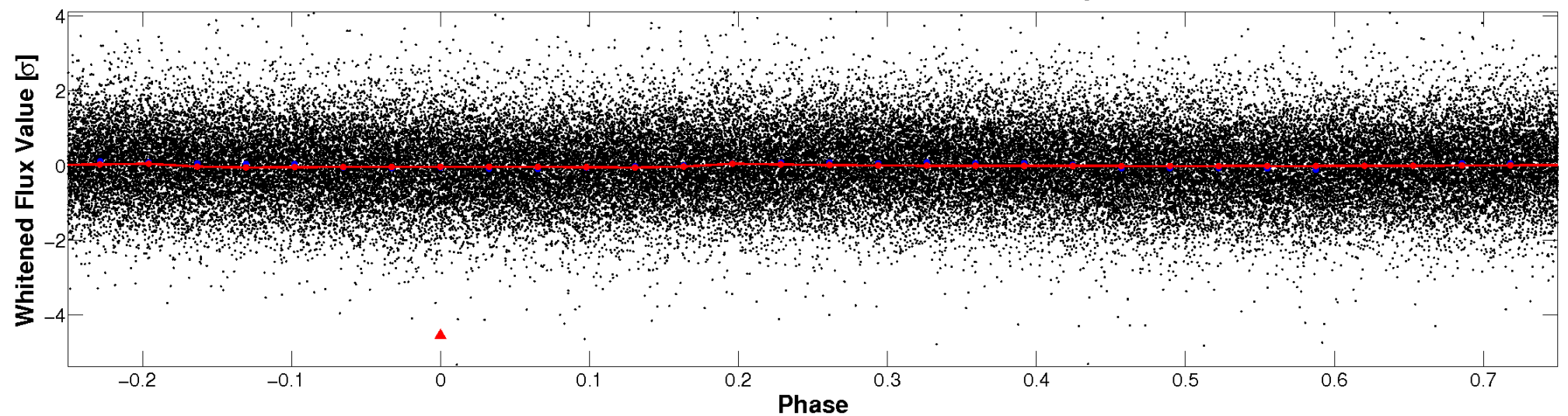


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

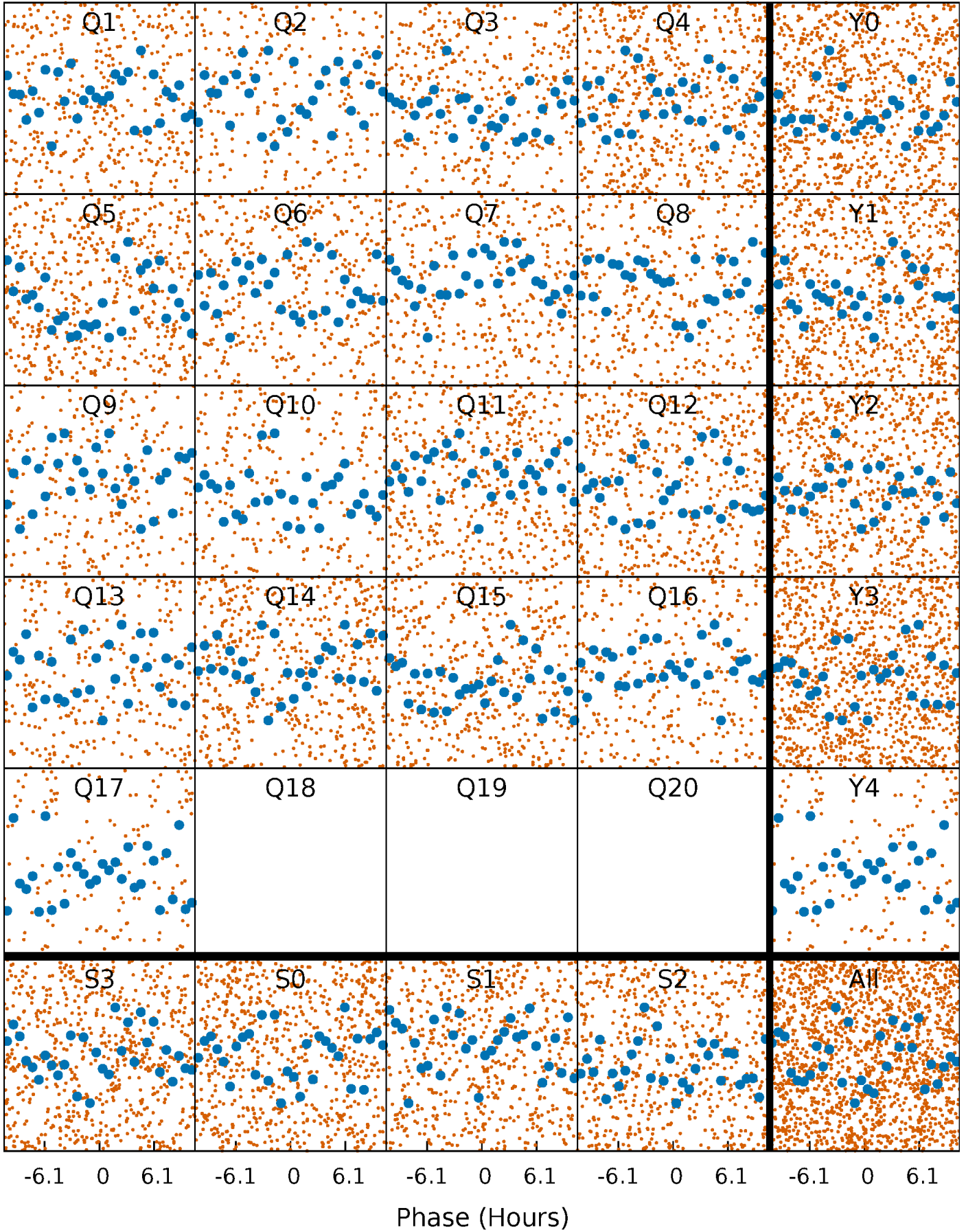


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



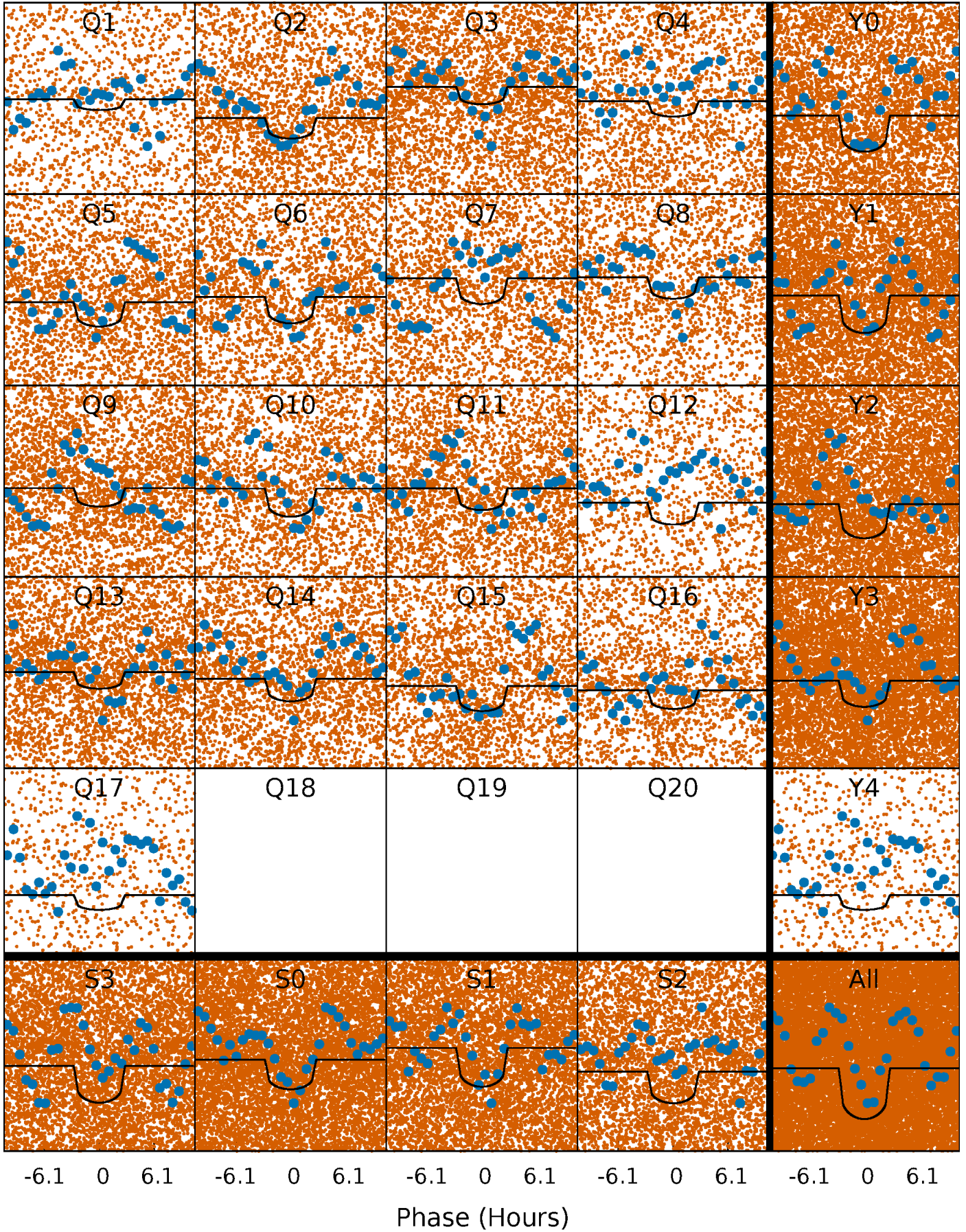
PDC Quarter-Phased Transit Curves

TCE 011668783-01 P= 0.625936 Days $T_0=132.001741$ (BKJD)



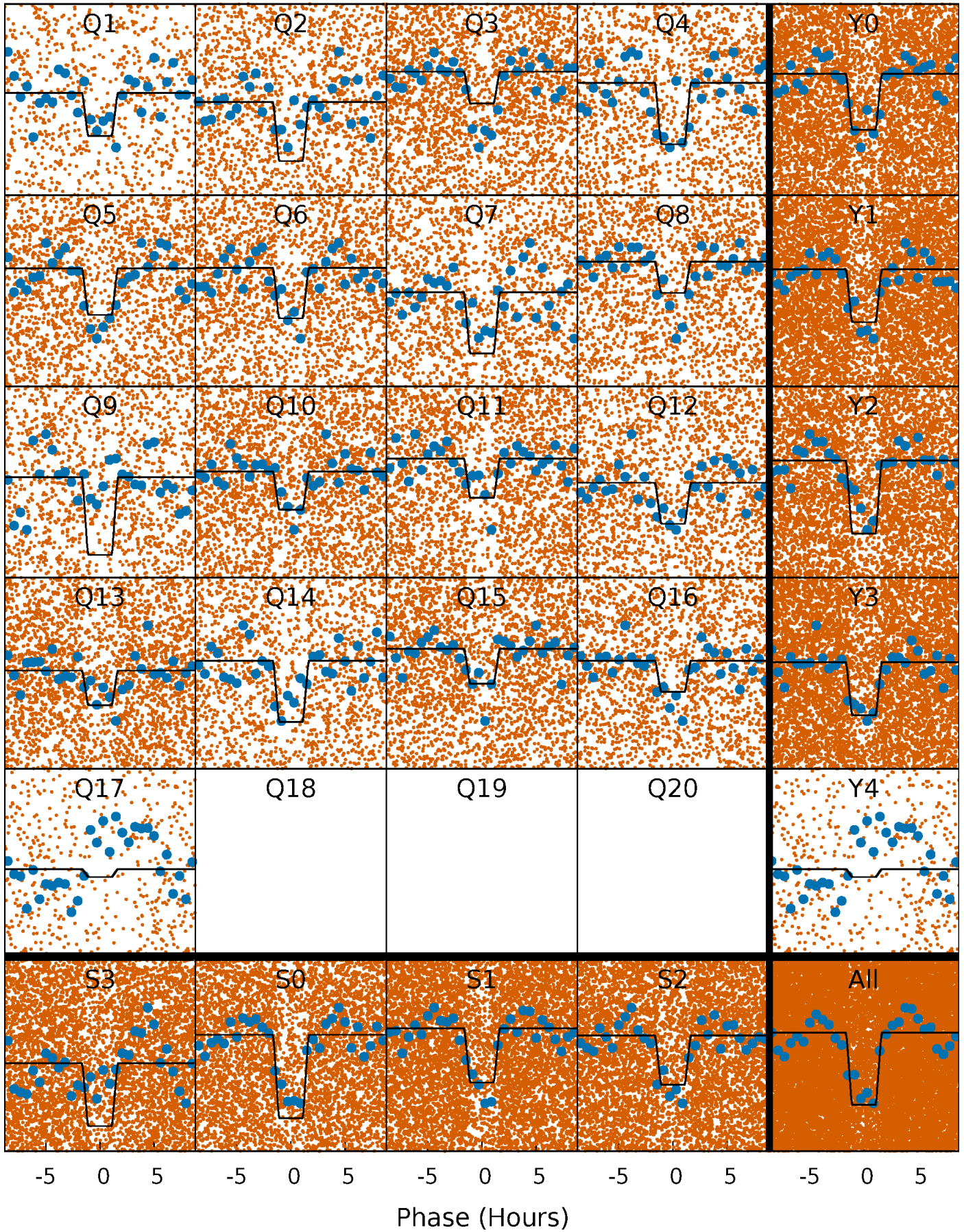
DV Quarter-Phased Transit Curves

TCE 011668783-01 P= 0.625936 Days $T_0=132.001741$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

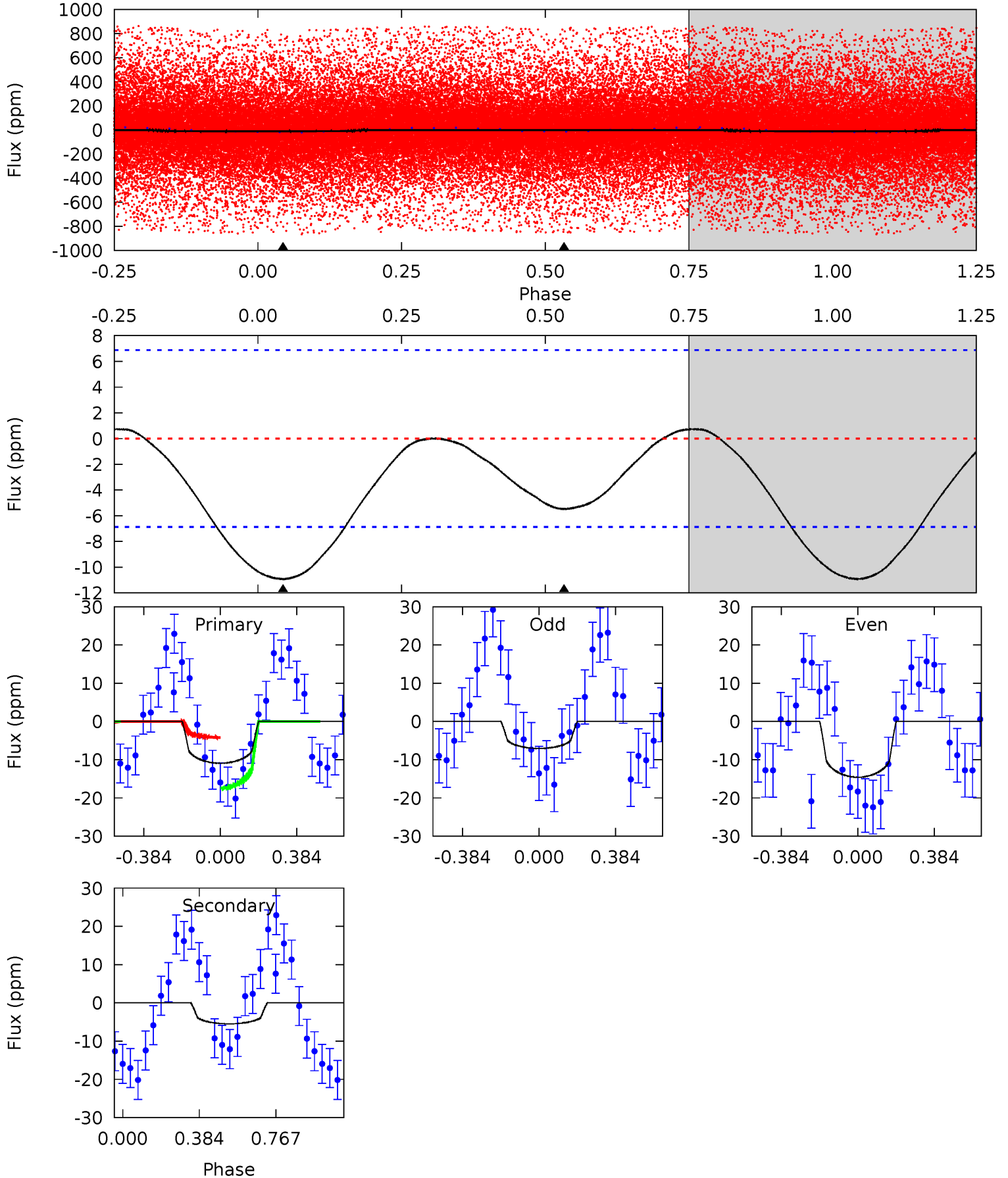
TCE 011668783-01 P= 0.625963 Days $T_0=131.996901$ (BKJD)



DV Model-Shift Uniqueness Test

011668783-01, P = 0.625936 Days, E = 131.375805 Days

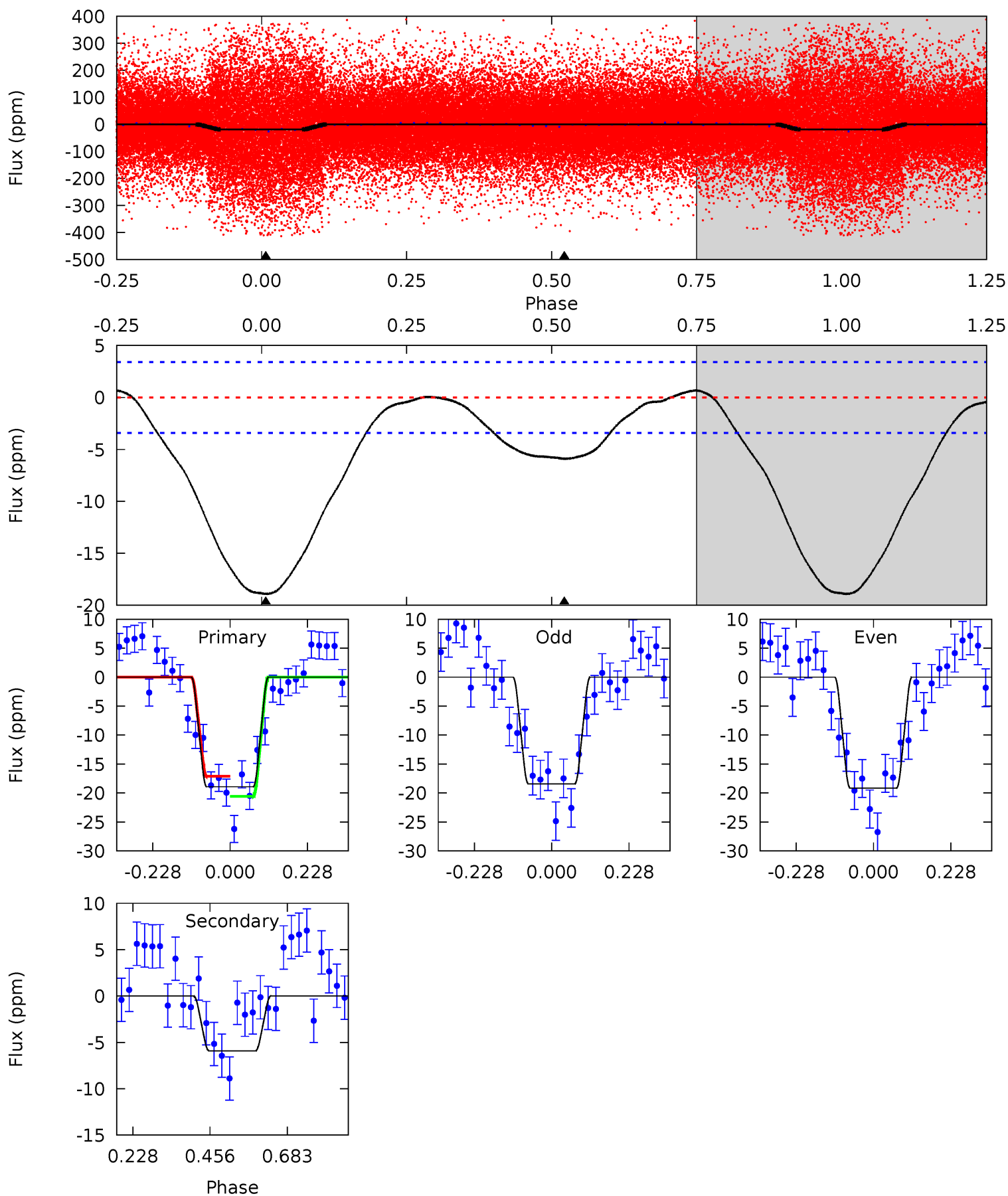
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.79	3.41	0	0	4.27	0.87	0.24	6.79	6.79	3.41	3.41	2.37	0.20	0.06	4.23



Alt Model-Shift Uniqueness Test

011668783-01, P = 0.625963 Days, E = 131.370938 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.3	7.60	0	0	4.39	1.21	0.49	24.3	24.3	7.60	7.60	0.47	0.91	0.03	2.28



Stellar Parameters For KIC 011668783

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7363^{+203}_{-330}	$3.938^{+0.260}_{-0.140}$	$0.000^{+0.200}_{-0.350}$	$2.358^{+0.526}_{-0.789}$	$1.757^{+0.194}_{-0.361}$	$0.189^{+0.327}_{-0.079}$
	+3%/-4%	+7%/-4%	+inf%/-inf%	+22%/-33%	+11%/-21%	+173%/-42%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011668783-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 2	$1.08^{+0.63}_{-0.53}$	5222^{+434}_{-452}	4771^{+2217}_{-7568}	$0.743^{+1.918}_{-0.459}$
Alt.	-6 ± 1	$1.12^{+0.61}_{-0.48}$	5195^{+393}_{-441}	4719^{+1884}_{-1977}	$0.757^{+1.485}_{-0.442}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

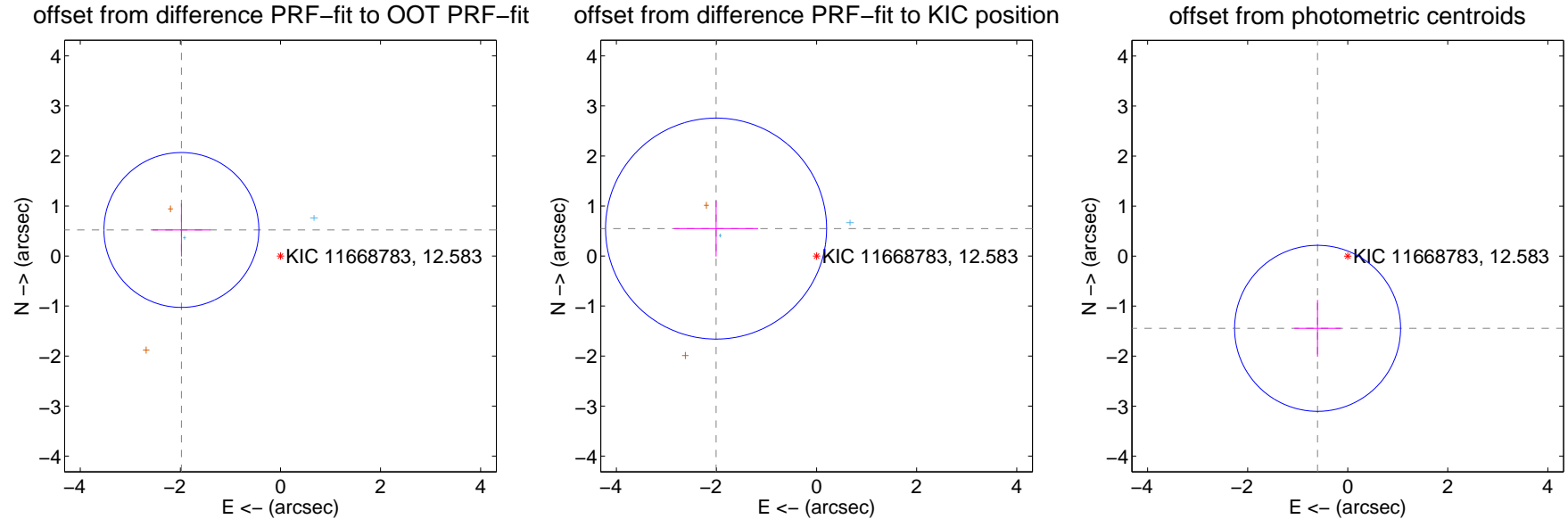
DV Centroid Data

Supplemental centroid analysis for 011668783-01. Kepler magnitude: 12.58. Transit SNR 6.83

There are 2 quarters with good PRF difference image offsets

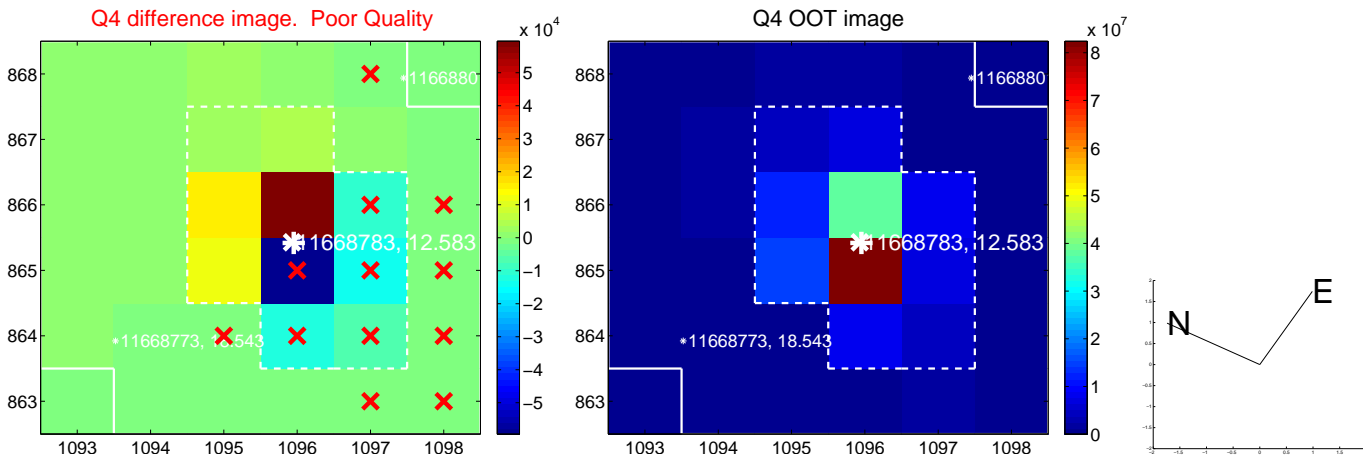
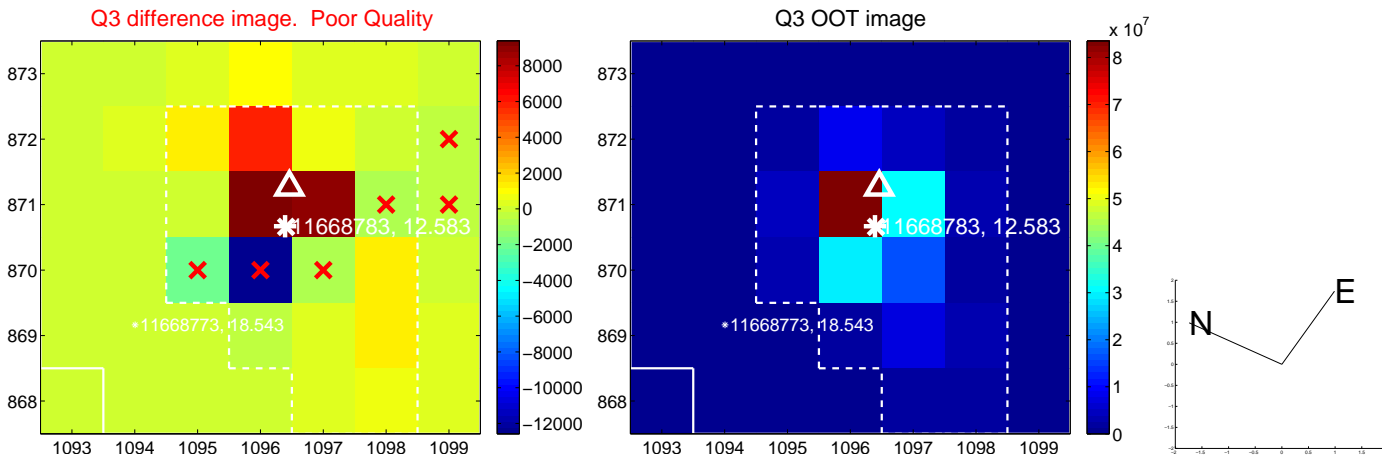
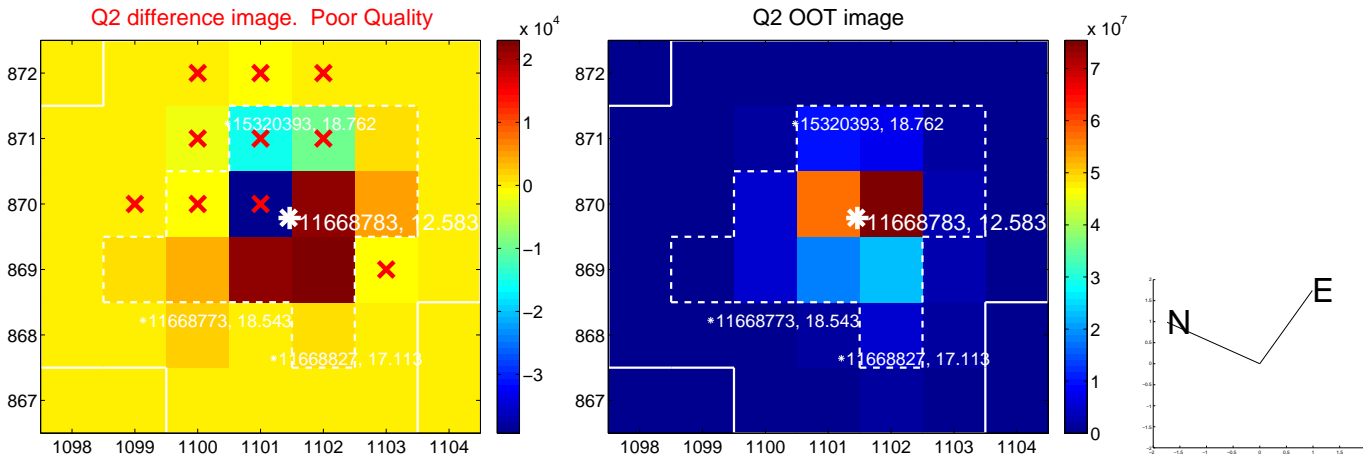
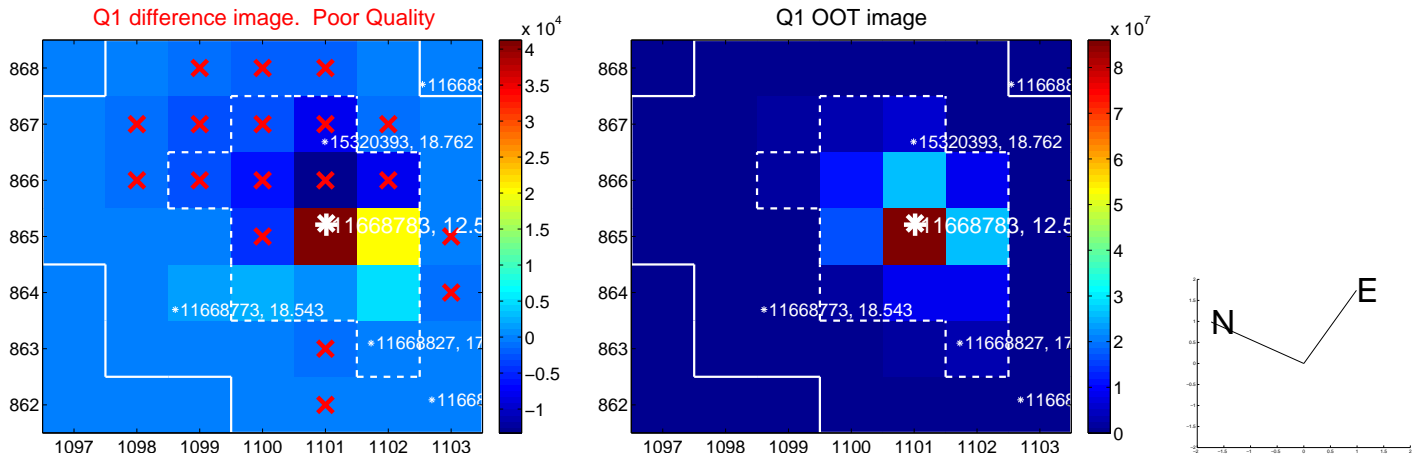
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.047 ± 0.516	3.97	1.979 ± 0.576	0.521 ± 0.530
PRF-fit source offset from KIC position	2.081 ± 0.736	2.83	2.008 ± 0.840	0.548 ± 0.558
photometric centroid source offset	1.56 ± 0.55	2.83	0.60 ± 0.46	-1.44 ± 0.57

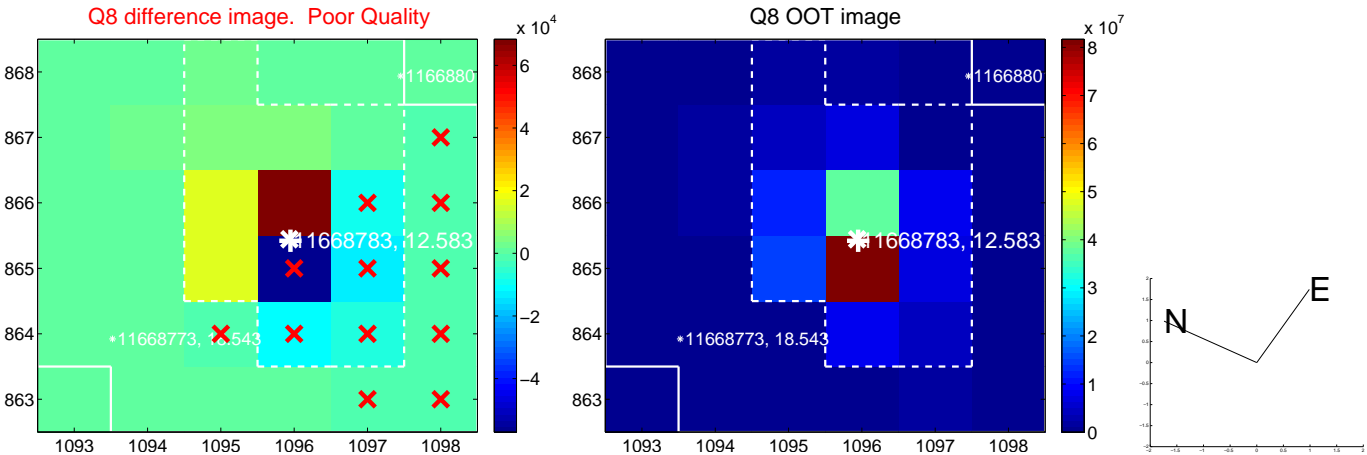
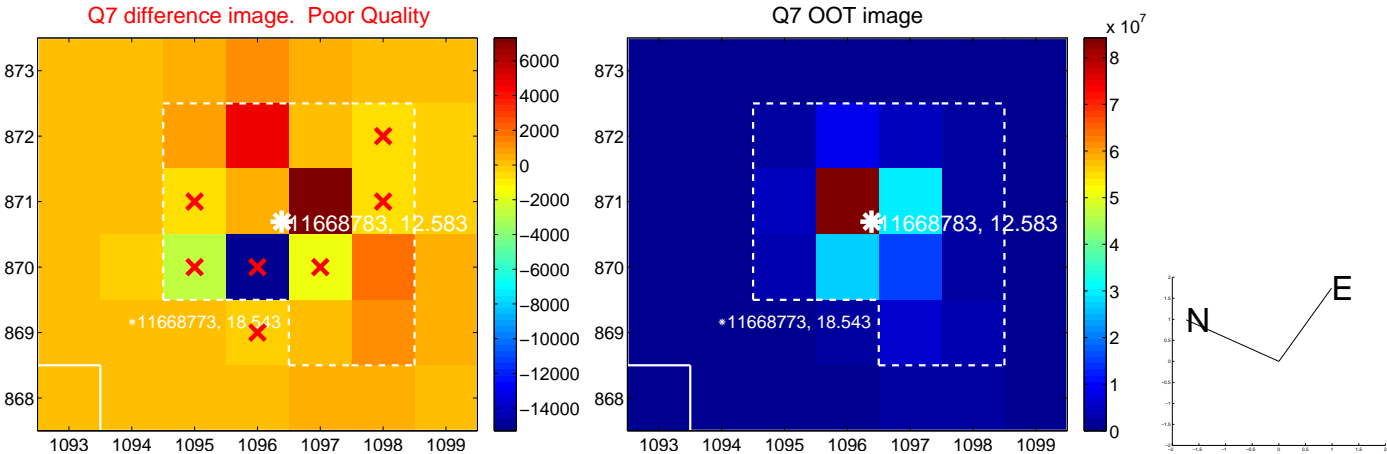
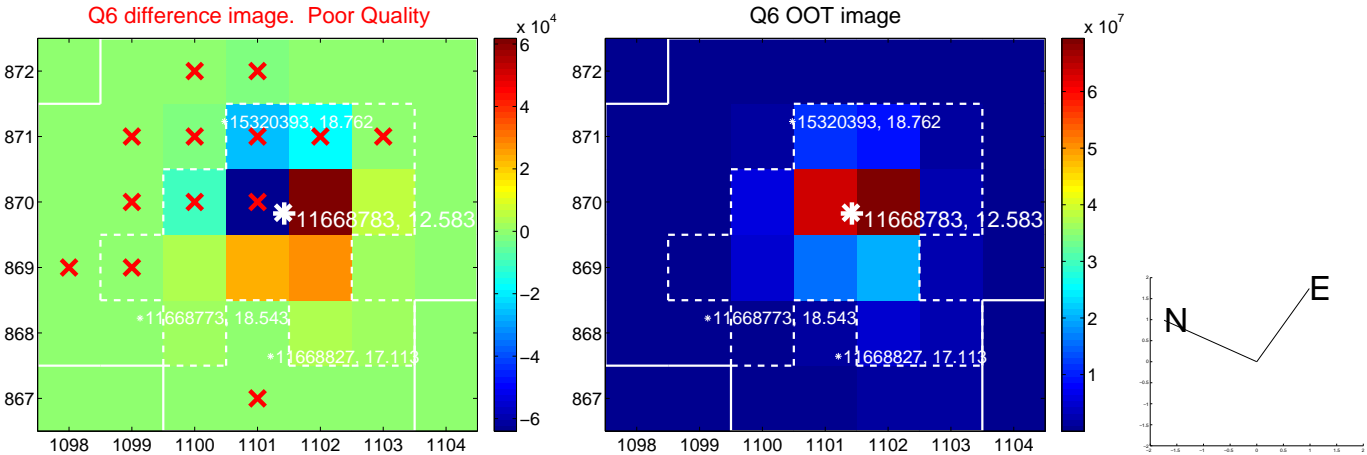
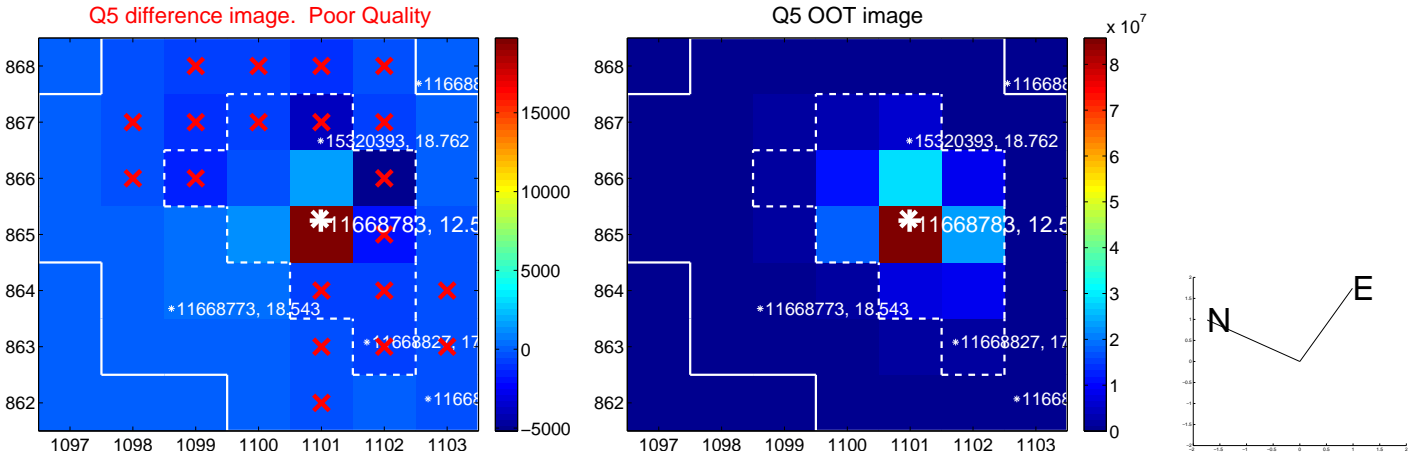


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

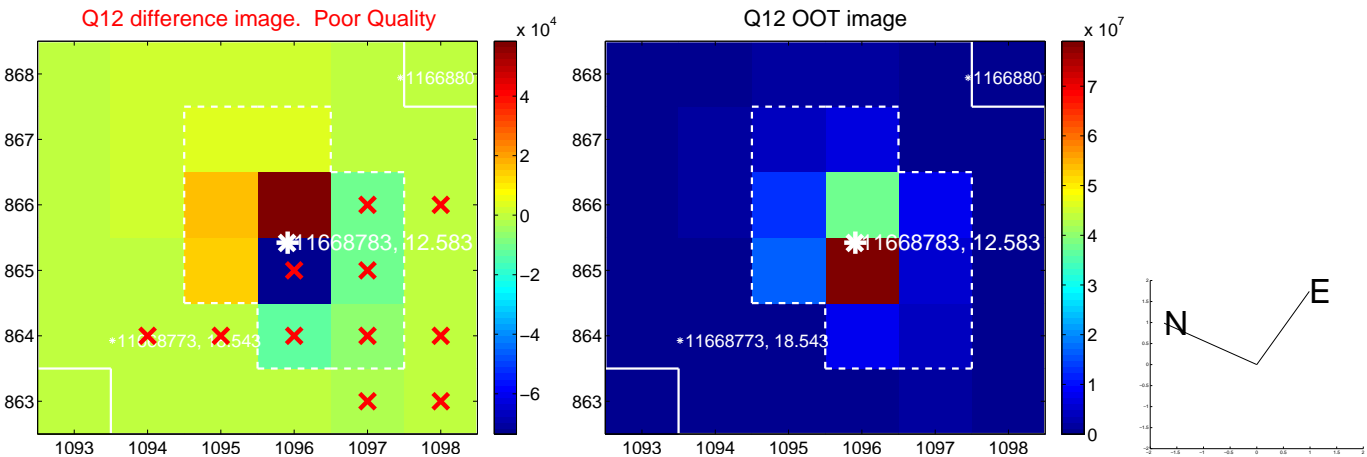
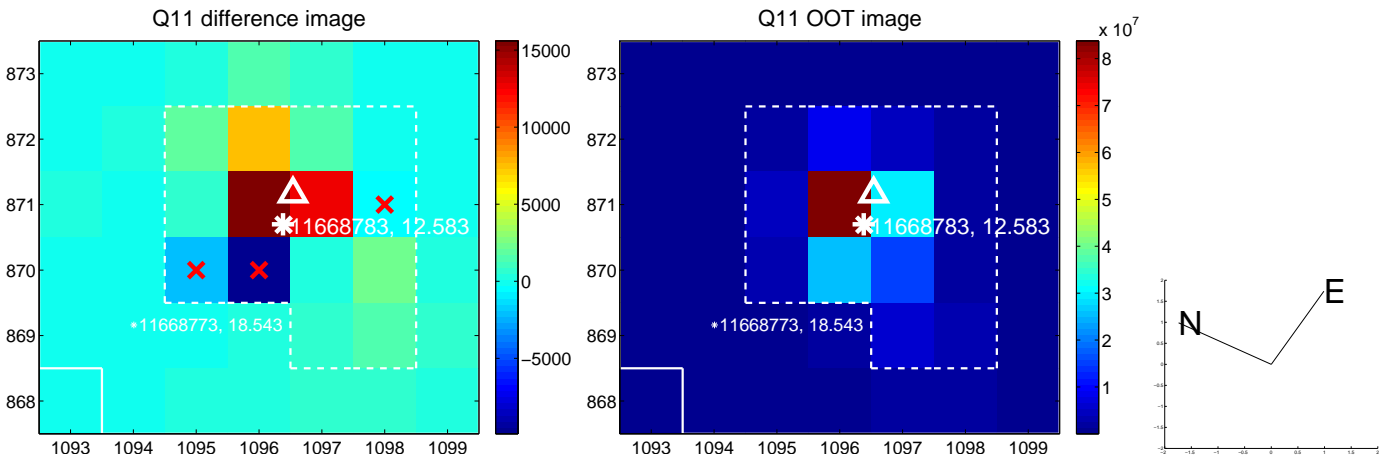
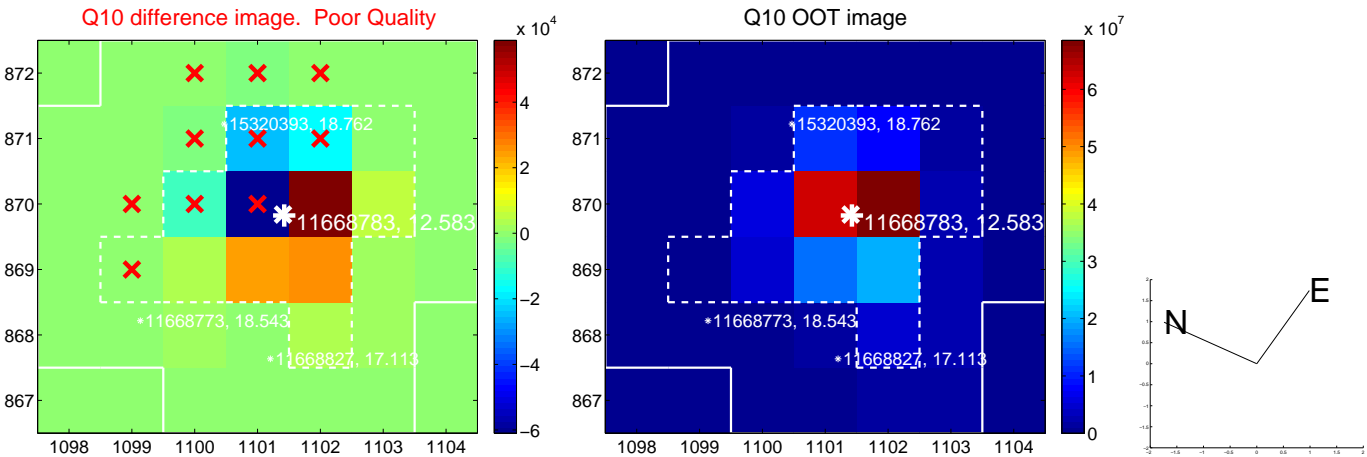
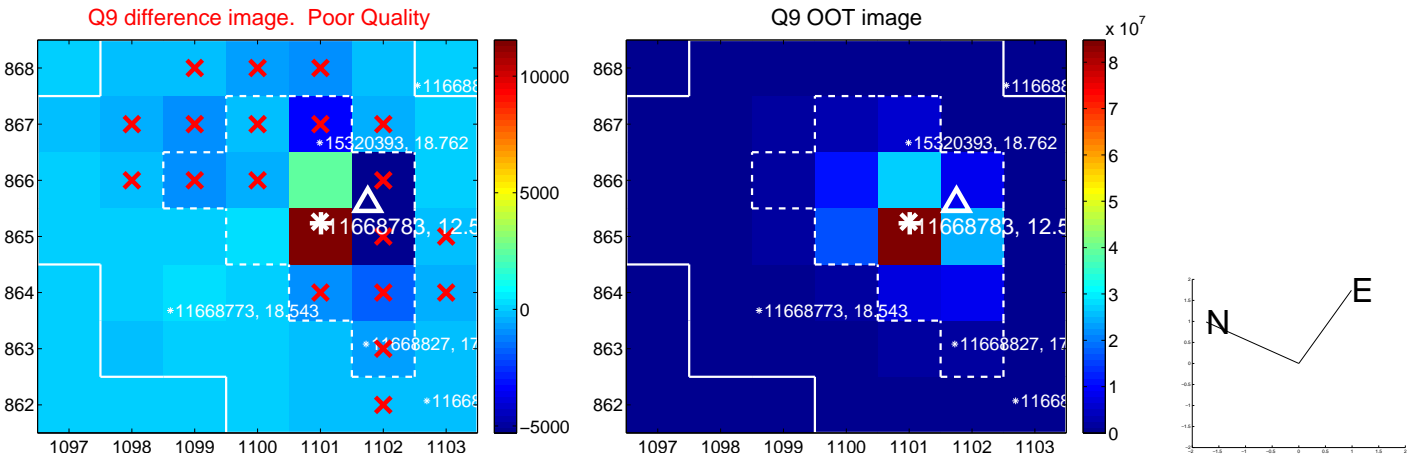
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



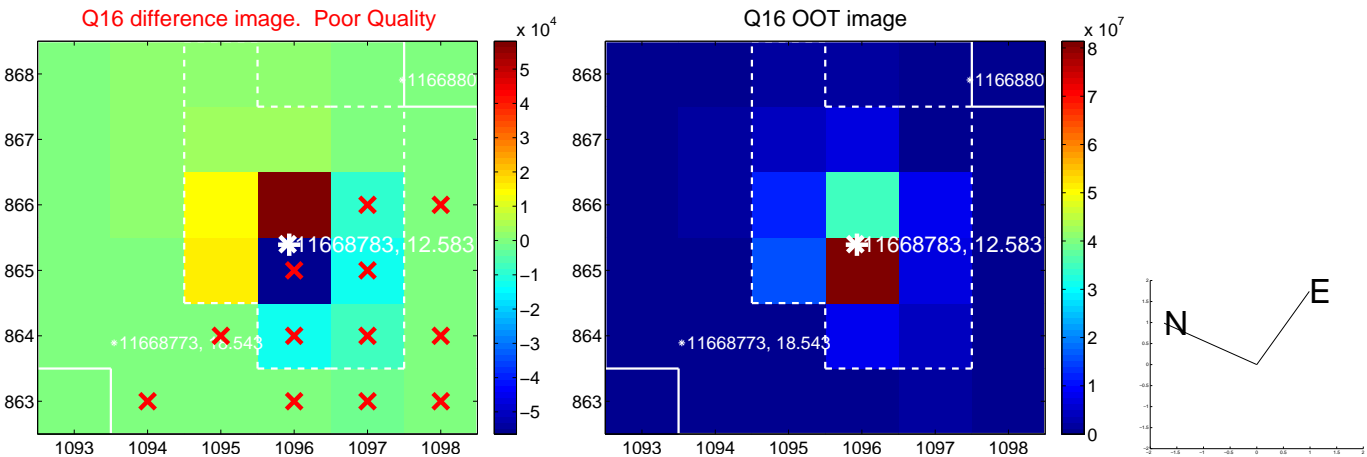
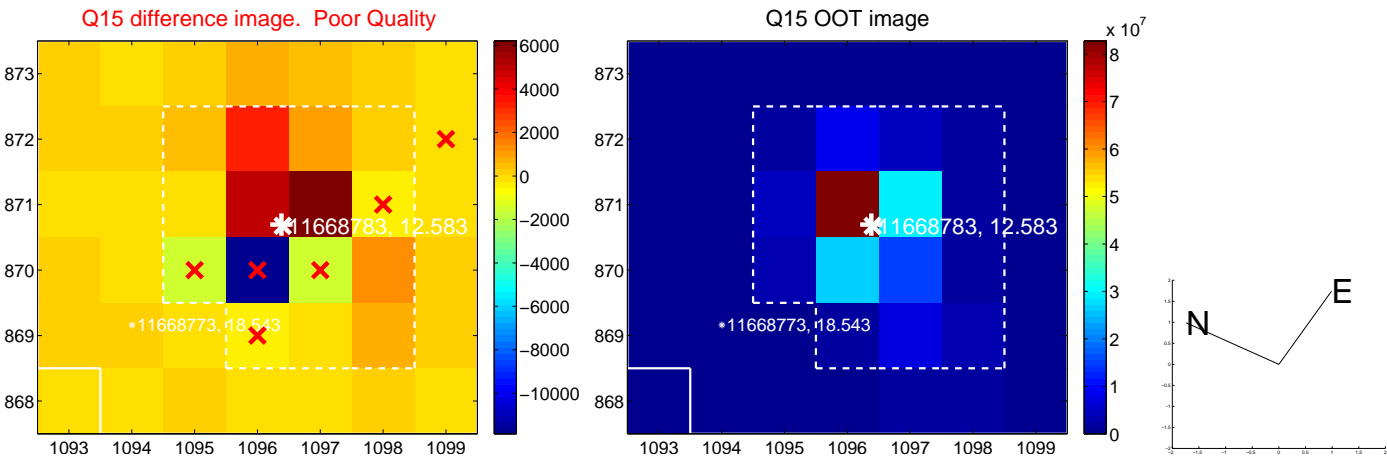
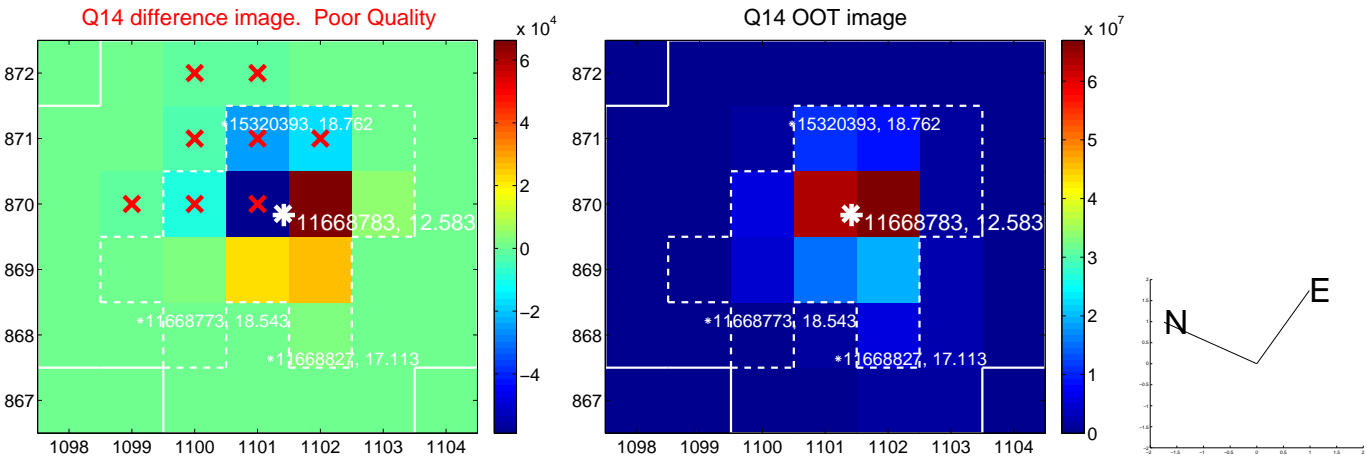
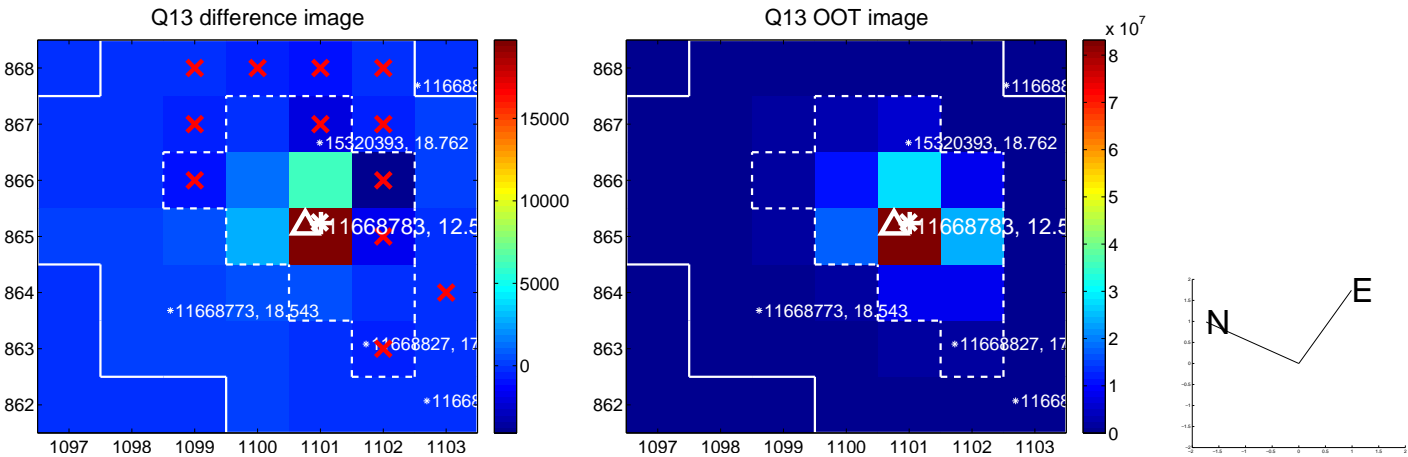
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

