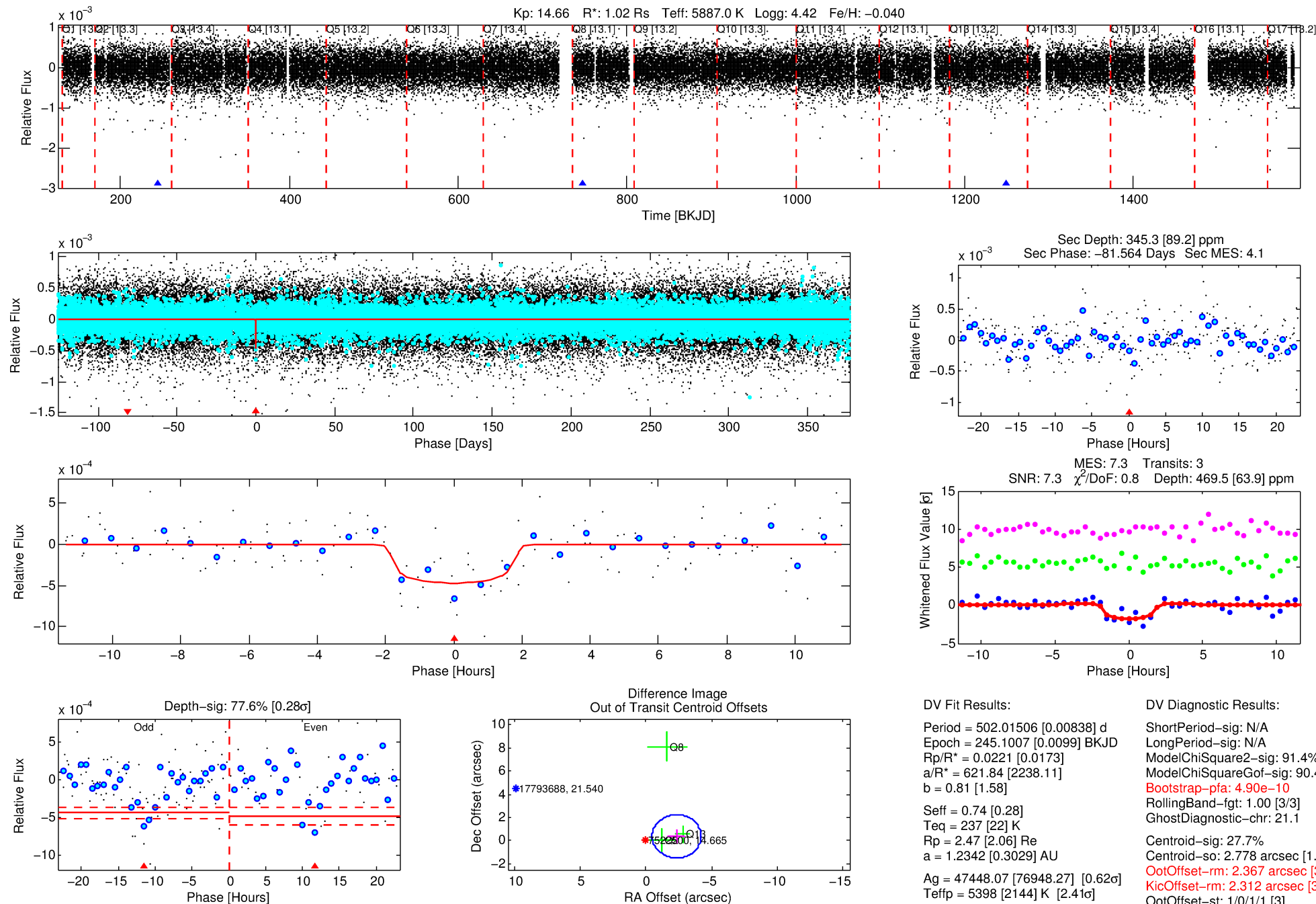


**WARNING: THIS DATA IS
SIMULATED, NOT OBSERVED**

DV One-Page Summary

KIC: 7522500 Candidate: 1 of 1 Period: 502.015 d

**WARNING: THIS DATA IS
SIMULATED, NOT OBSERVED**



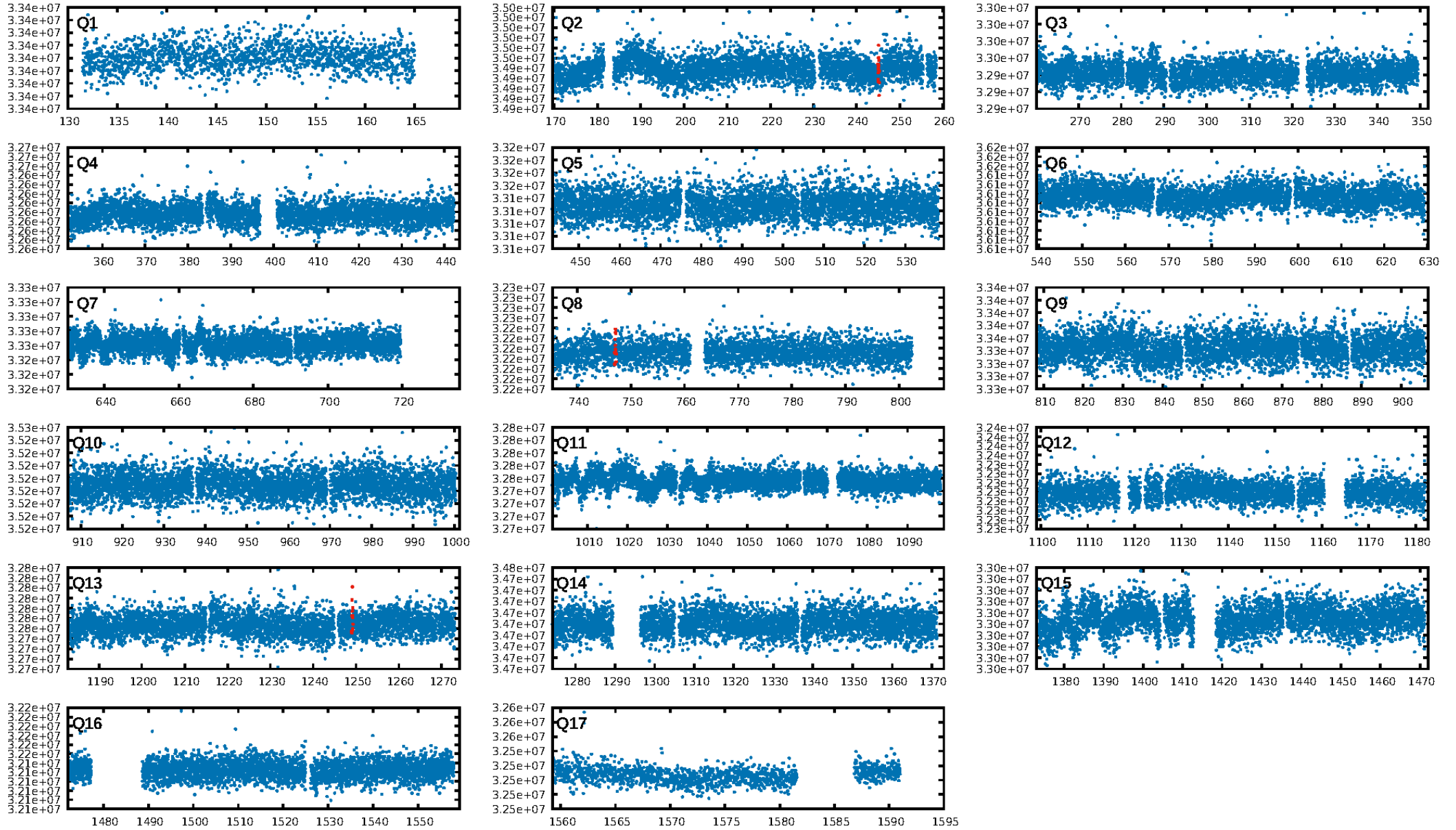
DV Fit Results:

Period = 502.01506 [0.00838] d
Epoch = 245.1007 [0.0099] BKJD
Rp/R* = 0.0221 [0.0173]
a/R* = 621.84 [2238.11]
b = 0.81 [1.58]
Seff = 0.74 [0.28]
Teq = 237 [22] K
Rp = 2.47 [2.06] Re
a = 1.2342 [0.3029] AU
Ag = 47448.07 [76948.27] [0.62 σ]
Teff = 5398 [2144] K [2.41 σ]

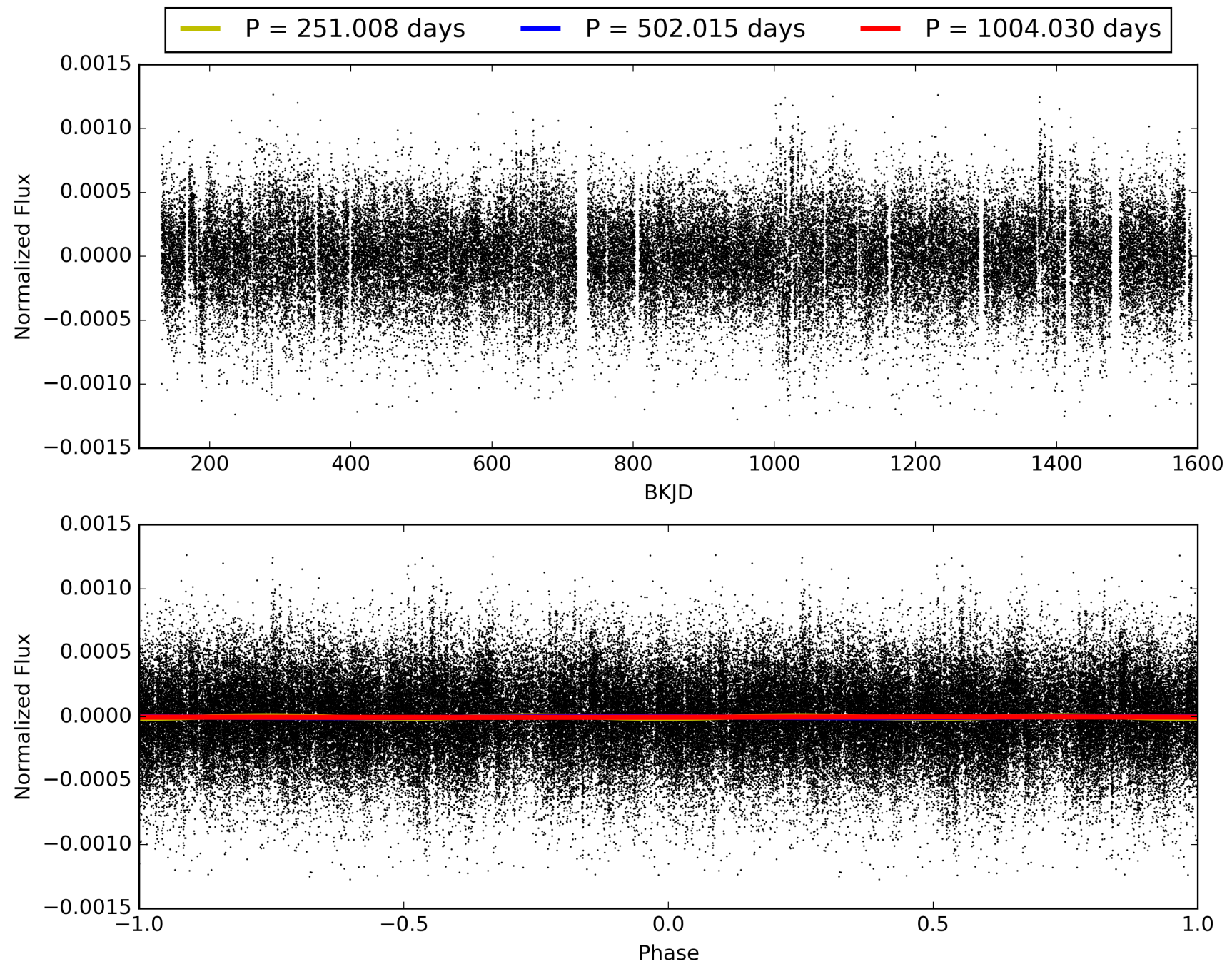
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.4%
ModelChiSquareGof-sig: 90.4%
Bootstrap-pfa: 4.90e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 21.1
Centroid-sig: 27.7%
Centroid-so: 2.778 arcsec [1.23 σ]
OotOffset-rm: 2.367 arcsec [3.81 σ]
KicOffset-rm: 2.312 arcsec [3.73 σ]
OotOffset-st: 1/0/1/1 [3]
KicOffset-st: 1/0/1/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 007522500-01, PDC Light Curves

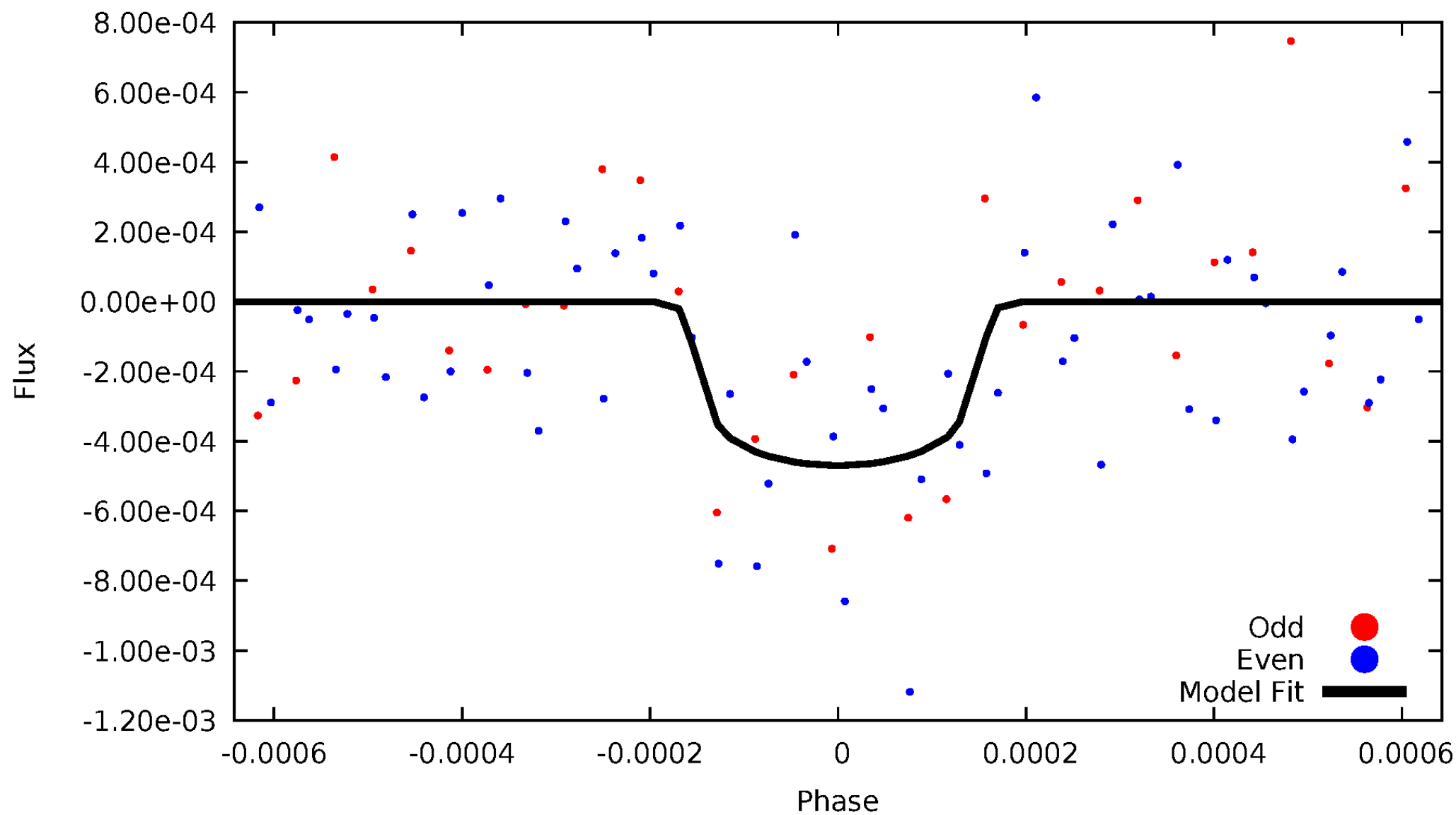


TCE 007522500-01



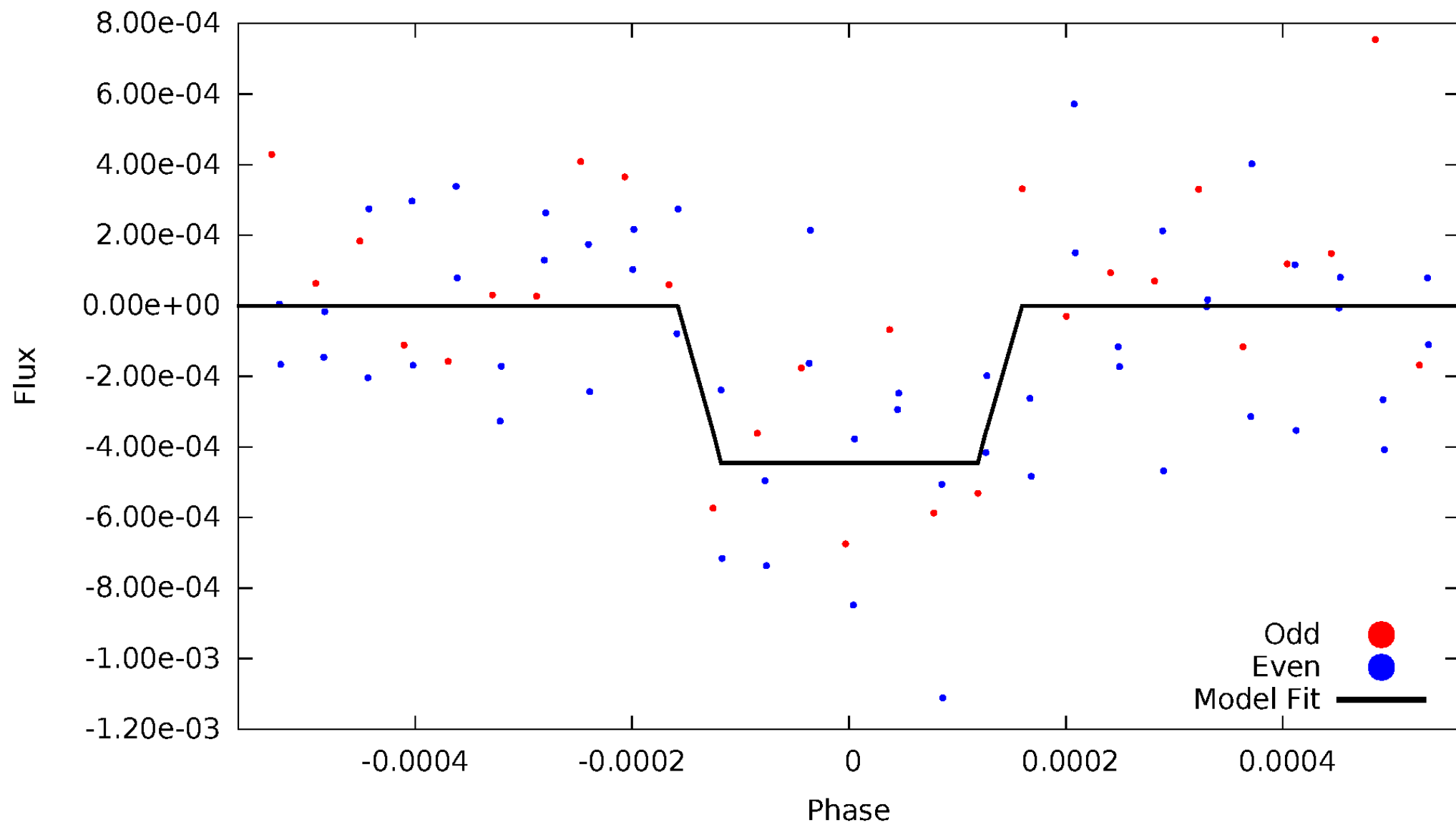
DV Odd/Even

TCE 007522500-01



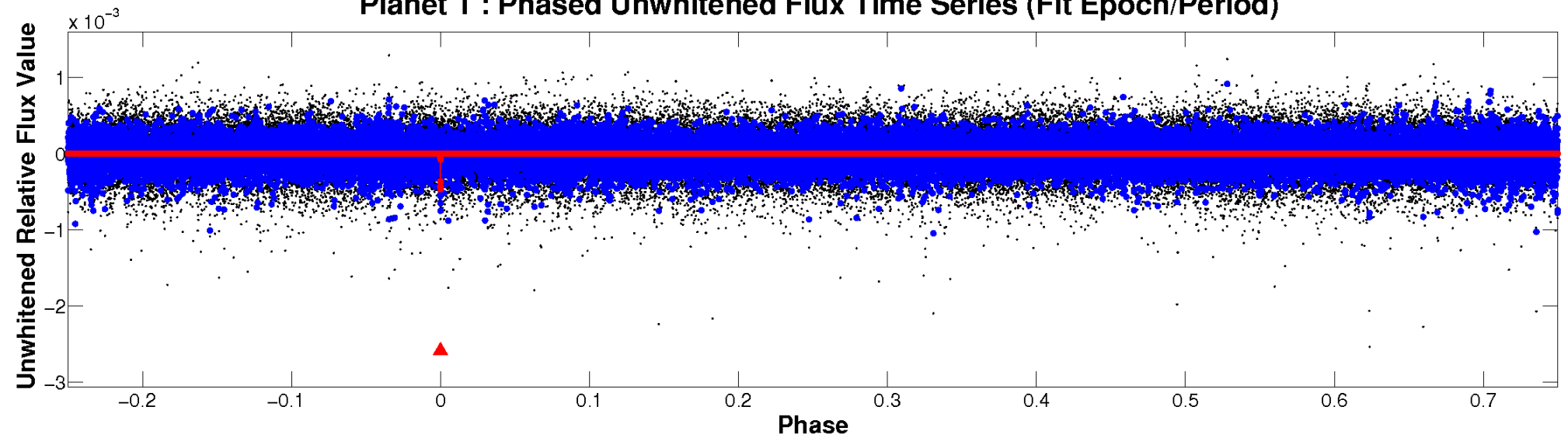
ALT Odd/Even

TCE 007522500-01

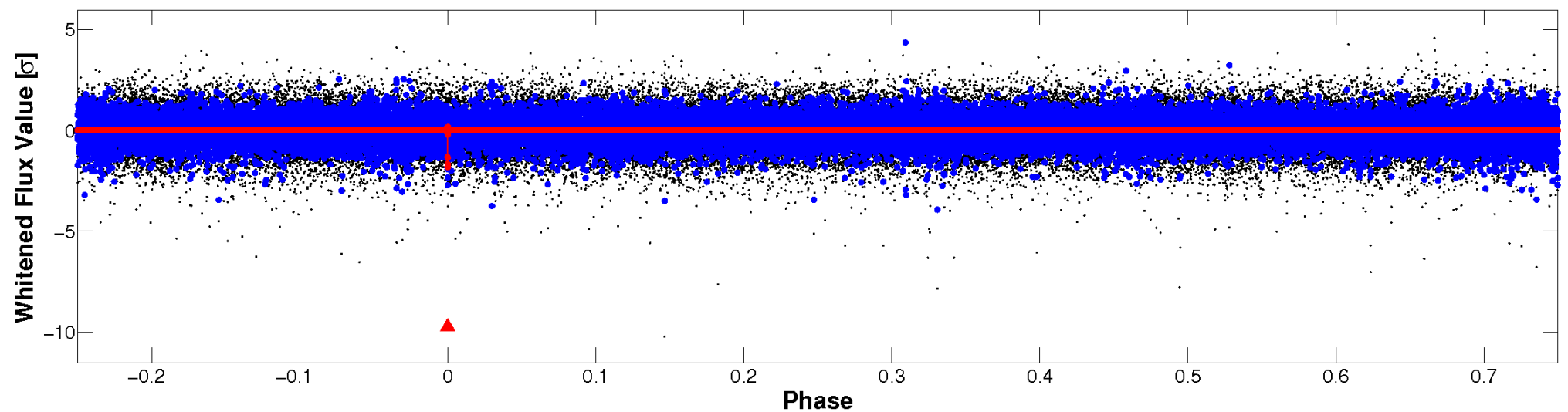


Non-Whitened Vs. Whitened Light Curve

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

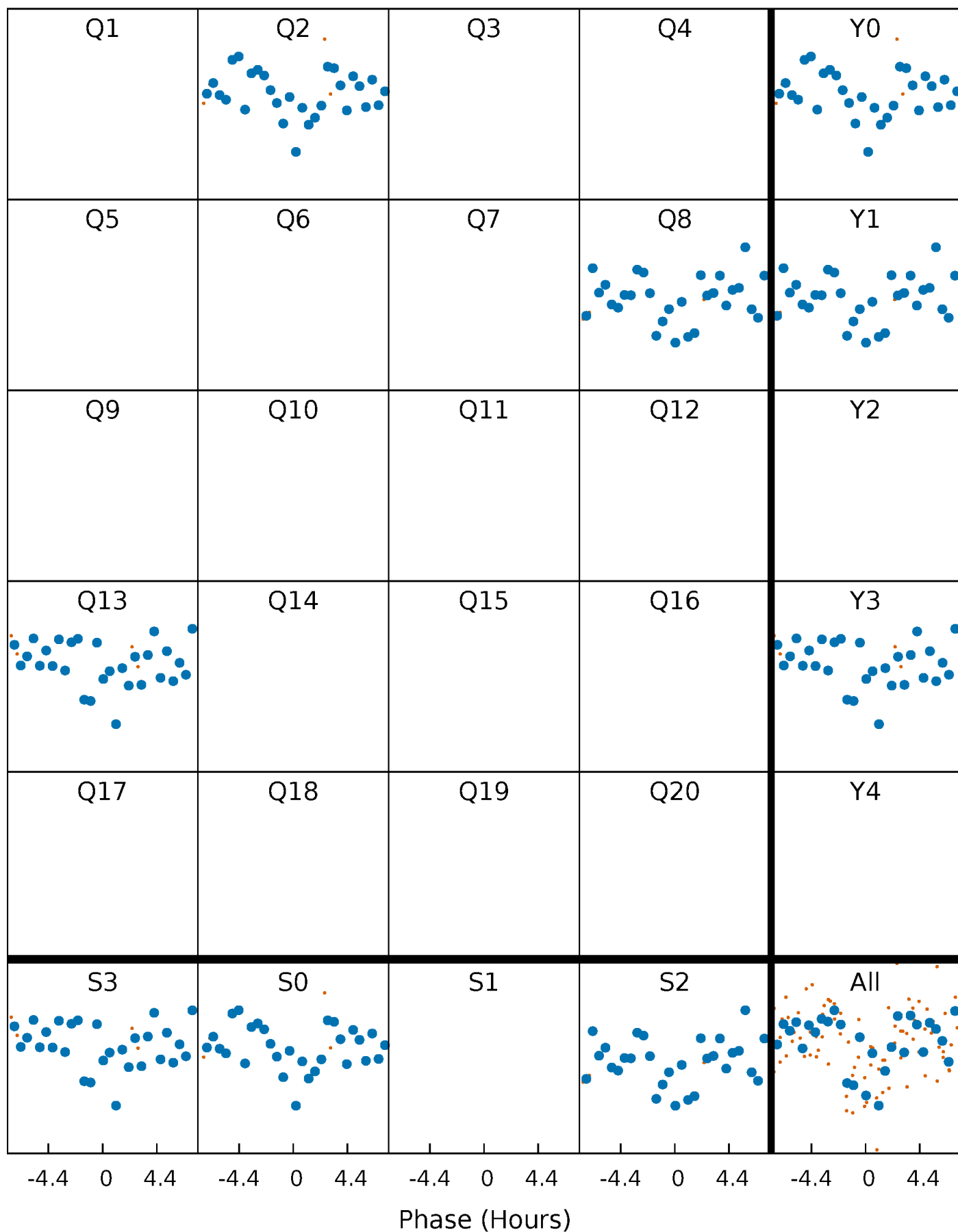


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



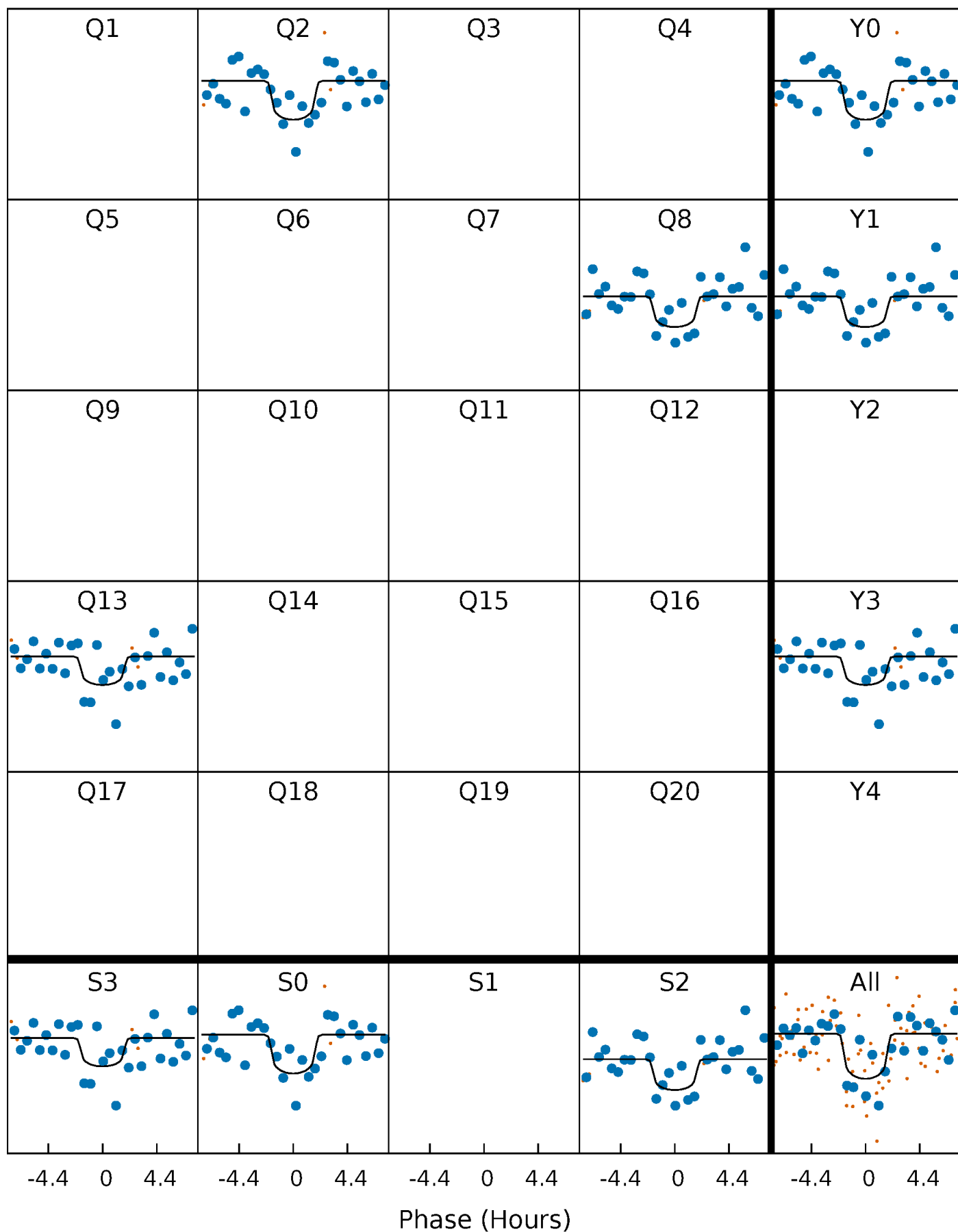
PDC Quarter-Phased Transit Curves

TCE 007522500-01 $P=502.015056$ Days $T_0=245.100675$ (BKJD)



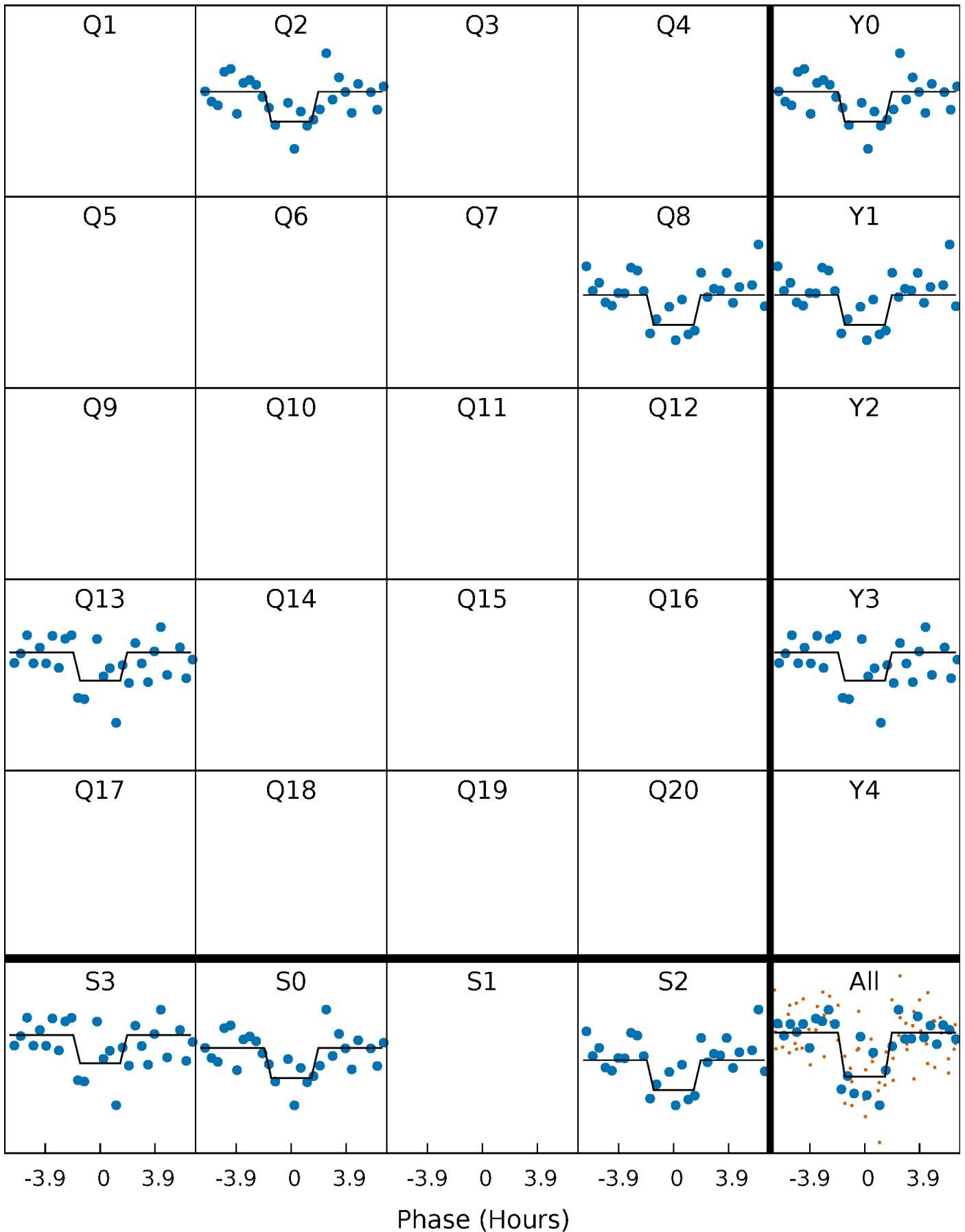
DV Quarter-Phased Transit Curves

TCE 007522500-01 P=502.015056 Days $T_0=245.100675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

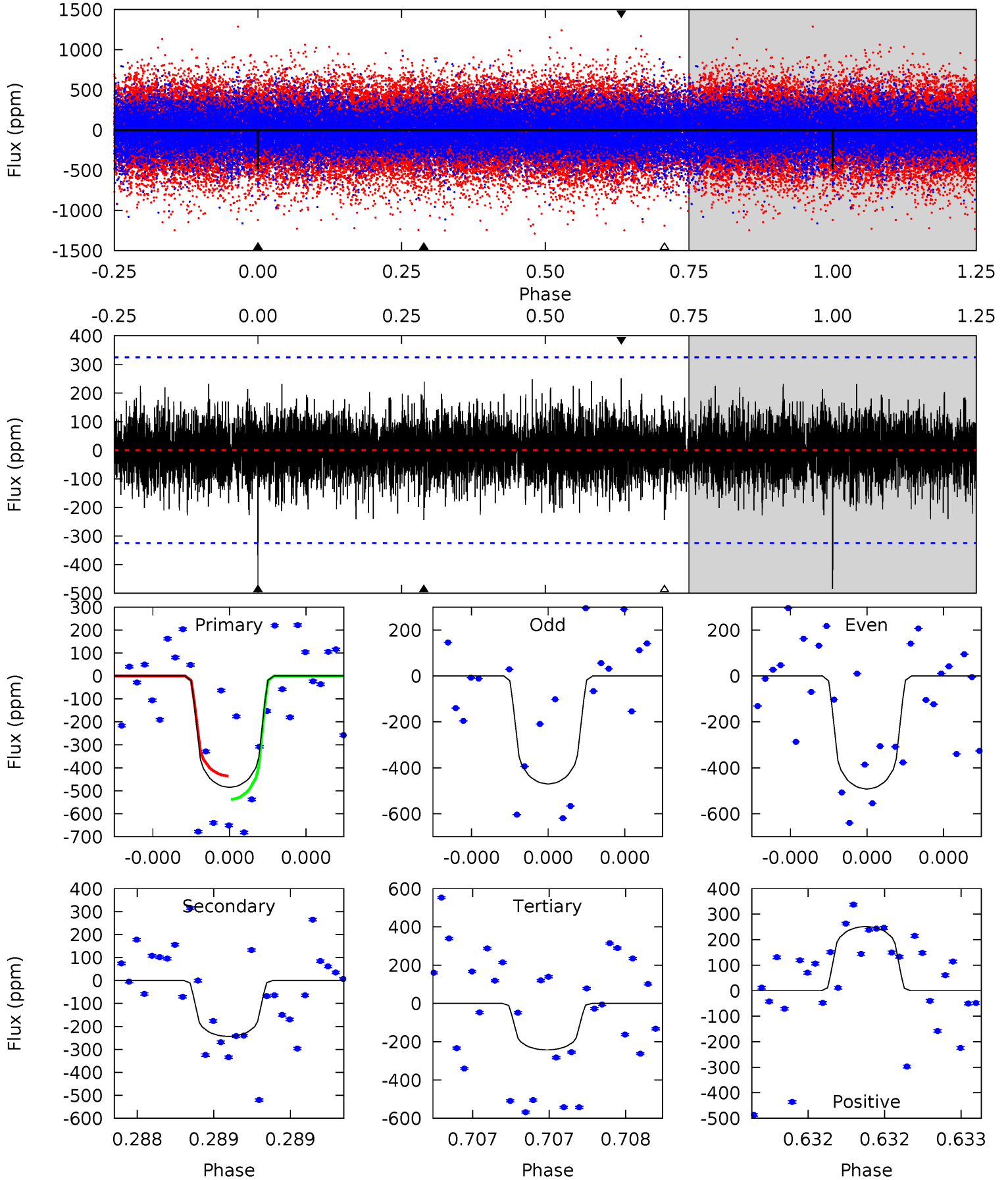
TCE 007522500-01 P=502.011702 Days $T_0=245.102243$ (BKJD)



DV Model-Shift Uniqueness Test

007522500-01, P = 502.015056 Days, E = 245.100675 Days

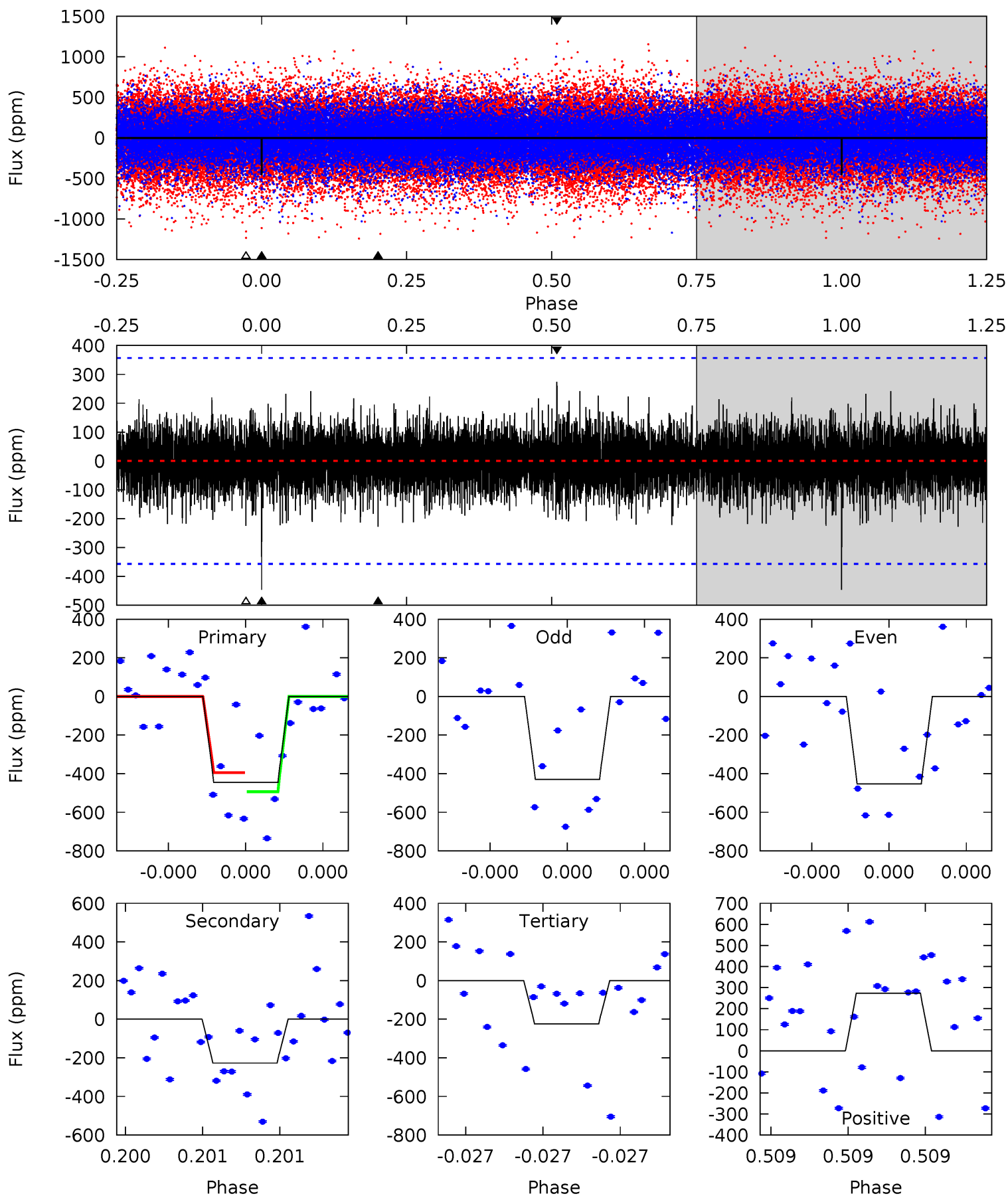
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.42	4.23	4.22	4.36	5.64	3.58	1.13	4.20	4.06	0.01	-0.14	0.18	1.02	0.34	0.89



Alt Model-Shift Uniqueness Test

007522500-01, P = 502.011702 Days, E = 245.102243 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.08	3.61	3.56	4.35	5.67	3.63	0.98	3.52	2.73	0.05	-0.74	0.18	1.03	0.38	0.78



Stellar Parameters For KIC 007522500

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5887^{+158}_{-193}	$4.415^{+0.087}_{-0.188}$	$-0.040^{+0.250}_{-0.300}$	$1.024^{+0.305}_{-0.131}$	$0.994^{+0.127}_{-0.115}$	$1.305^{+0.595}_{-0.659}$
	+3%/-3%	+2%/-4%	+625%/-750%	+30%/-13%	+13%/-12%	+46%/-51%
Source	PHO1	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 007522500-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-243 ± 58	$2.79^{+1.91}_{-1.65}$	333^{+25}_{-17}	4791^{+2671}_{-849}	$25182^{+131514}_{-16496}$
Alt.	-227 ± 63	$2.81^{+1.88}_{-1.63}$	335^{+22}_{-18}	4778^{+2576}_{-888}	$24251^{+111919}_{-16385}$

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

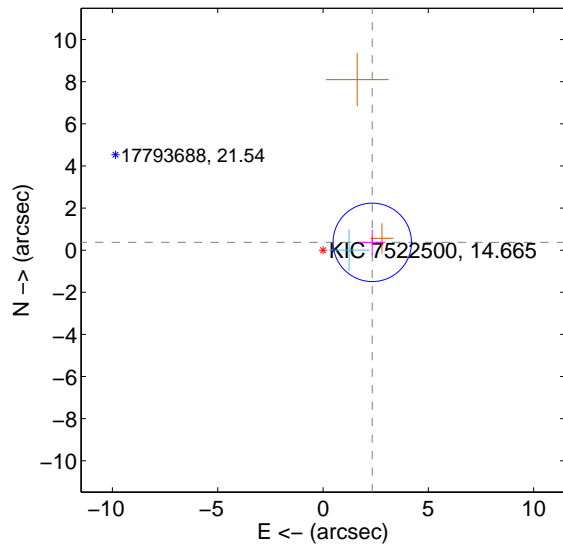
Supplemental centroid analysis for 007522500-01. Kepler magnitude: 14.66. Transit SNR 7.28

There are 1 quarters with good PRF difference image offsets

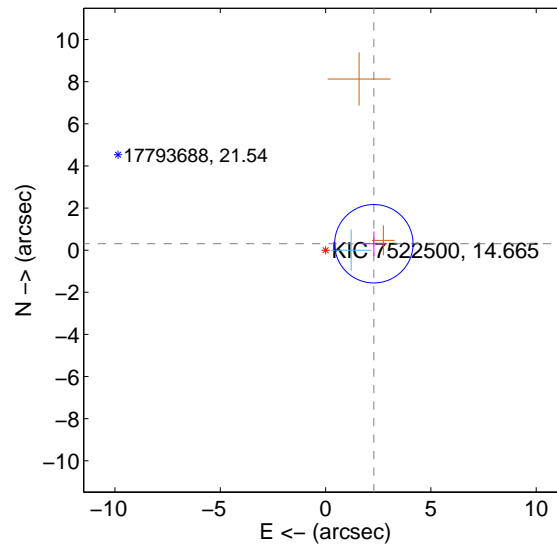
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.367 ± 0.620	3.81	-2.338 ± 0.621	0.371 ± 0.588
PRF-fit source offset from KIC position	2.312 ± 0.621	3.73	-2.292 ± 0.621	0.305 ± 0.588
photometric centroid source offset	2.78 ± 2.26	1.23	2.76 ± 2.27	0.28 ± 2.09

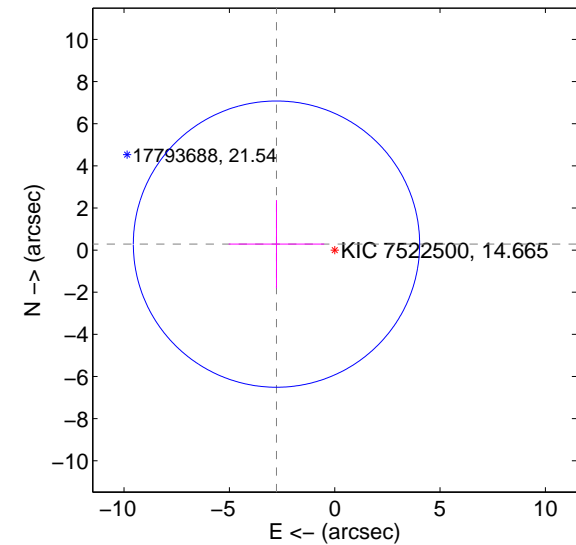
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

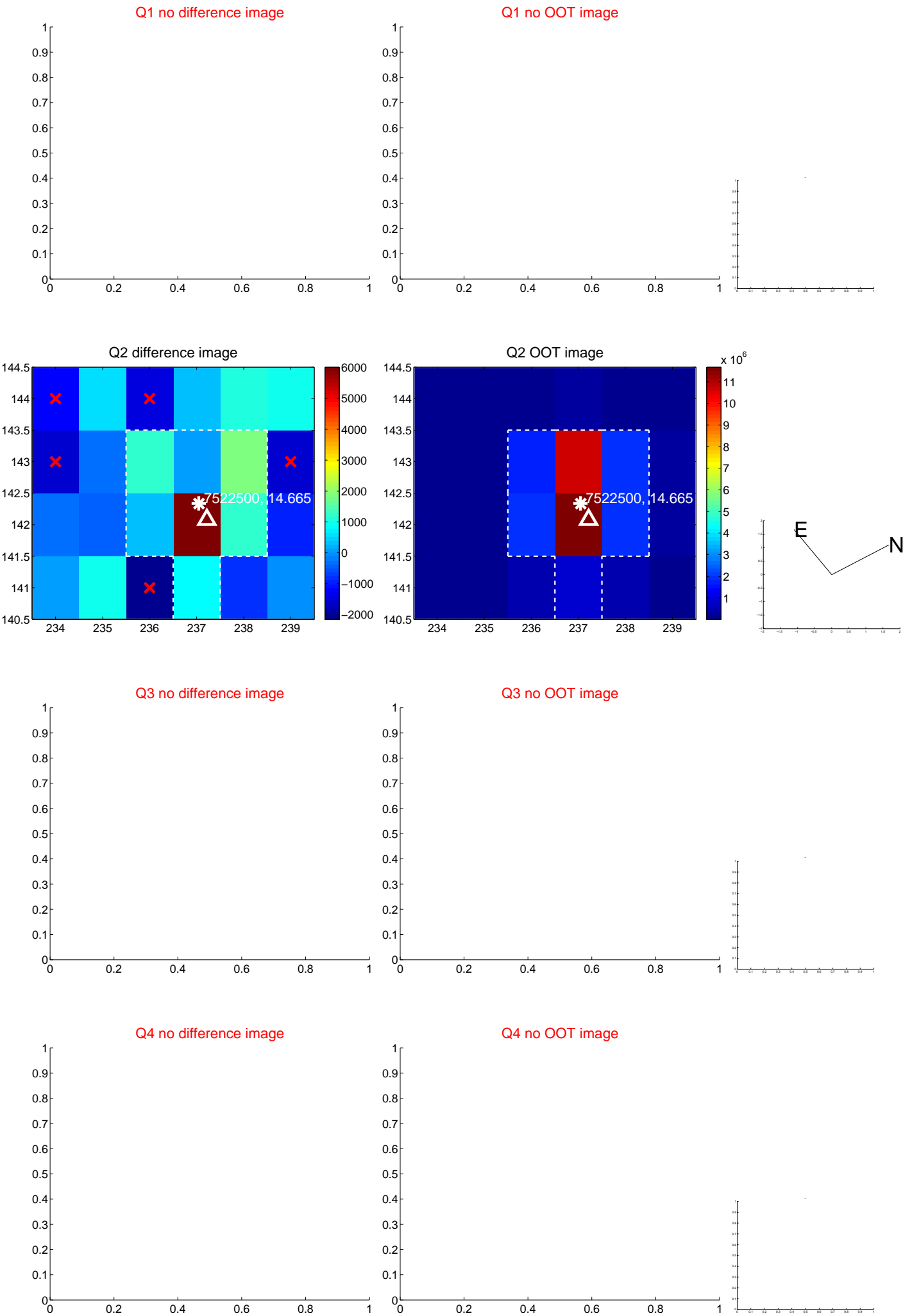


offset from photometric centroids

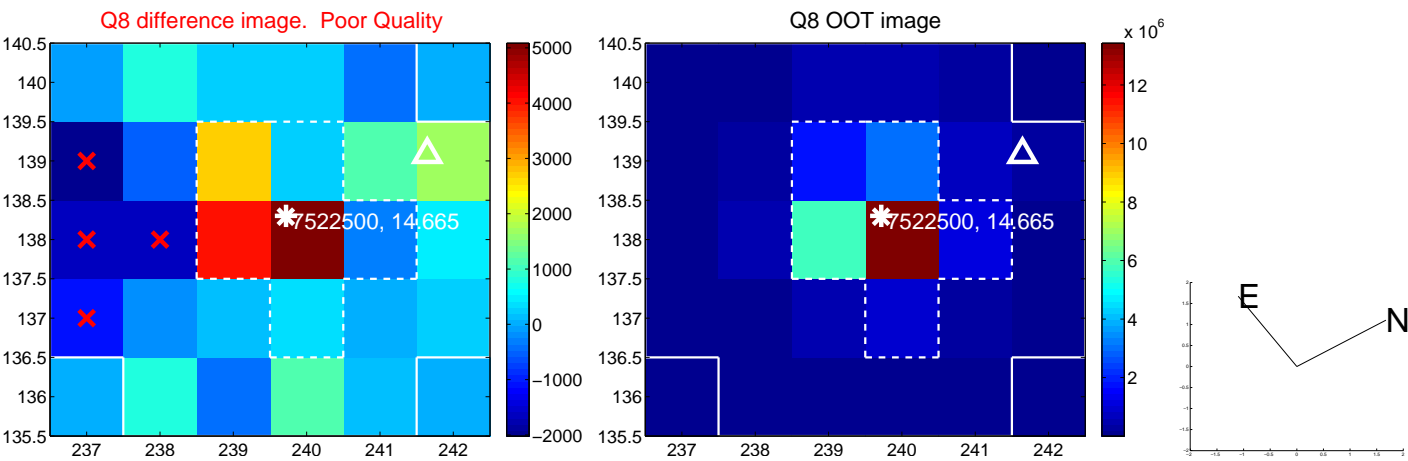
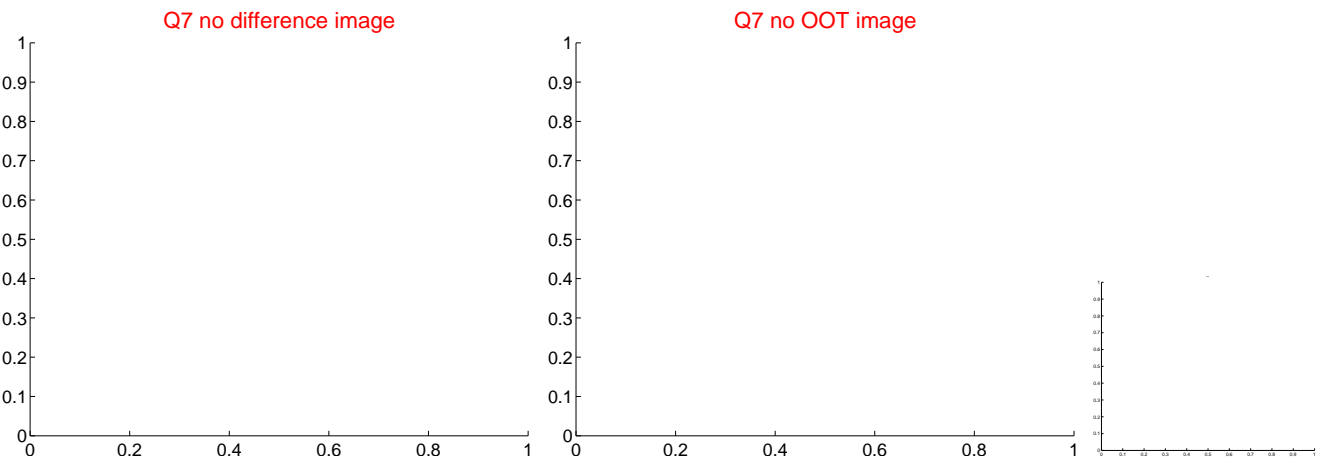
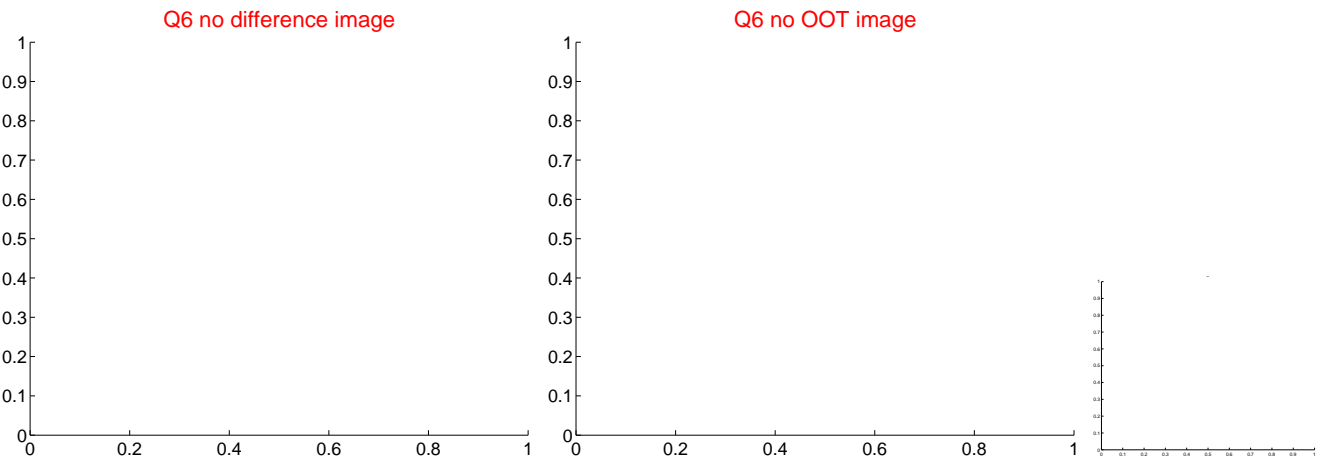
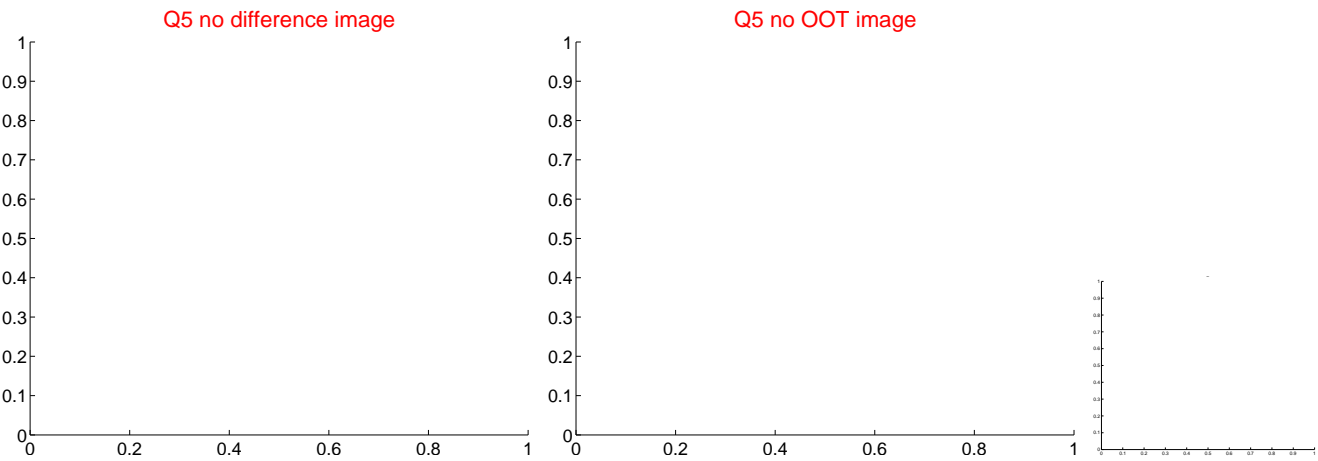


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

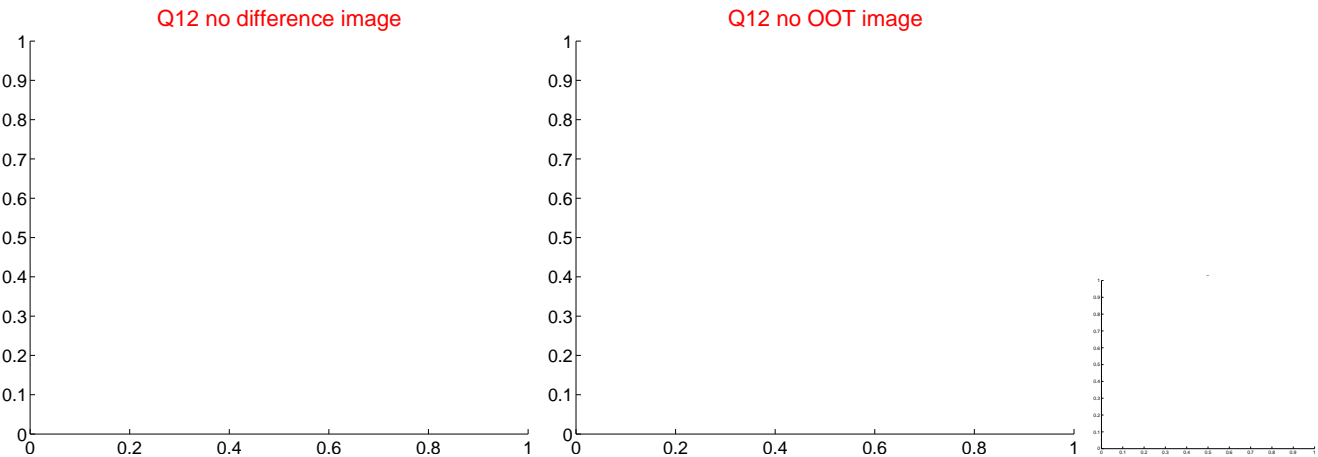
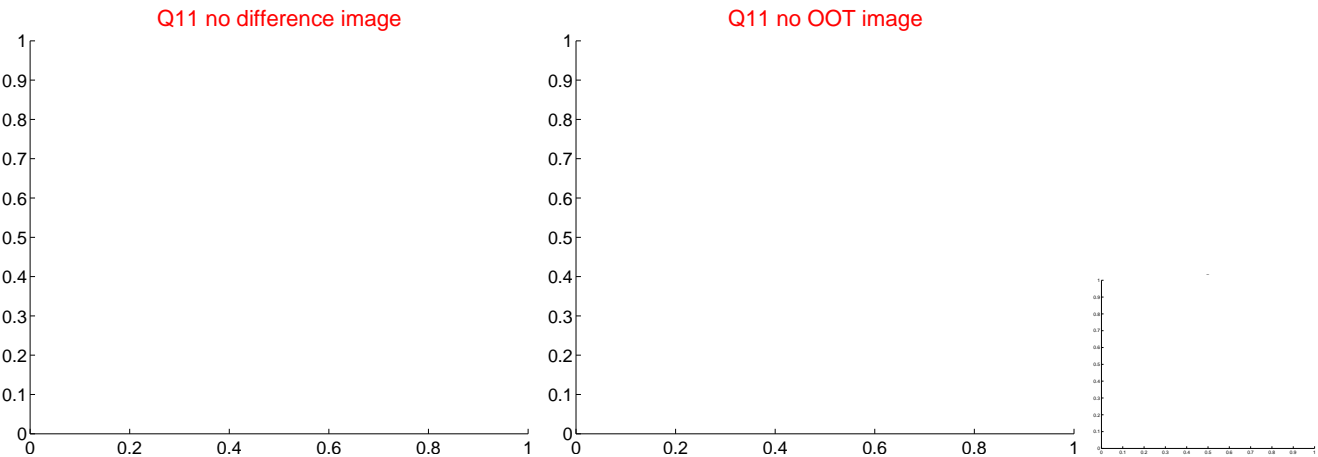
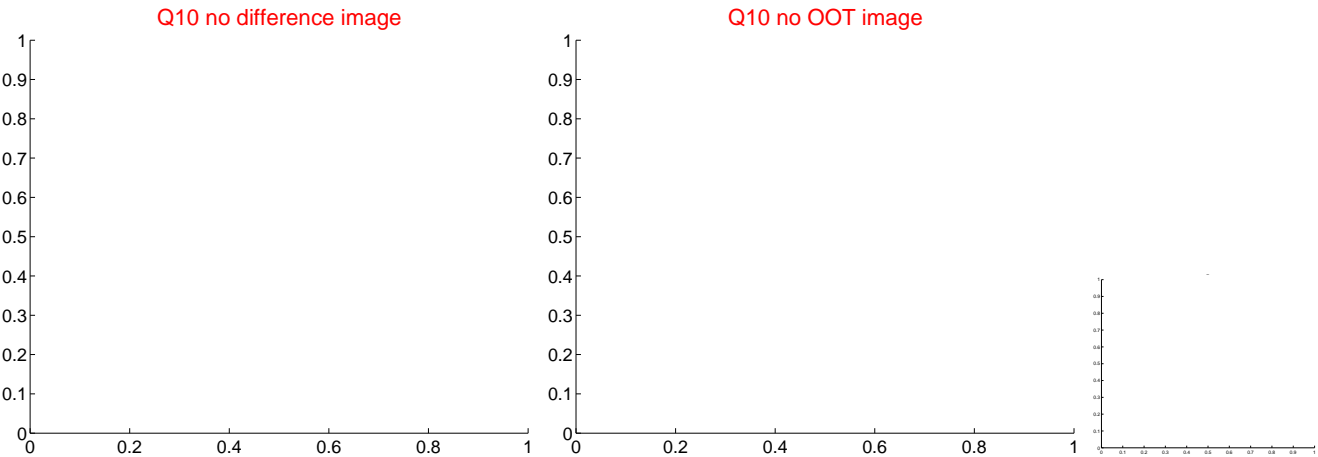
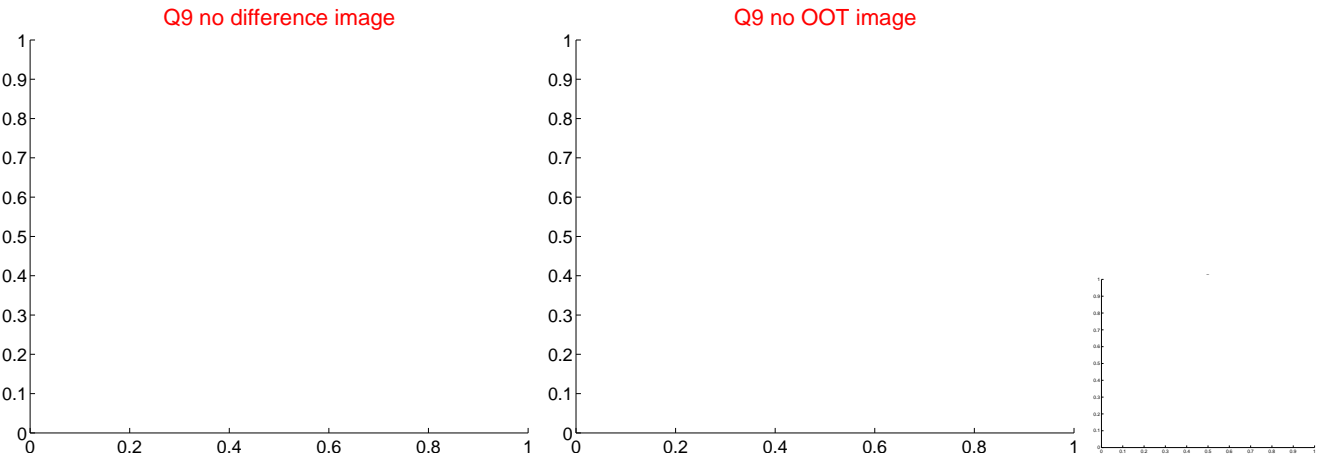
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



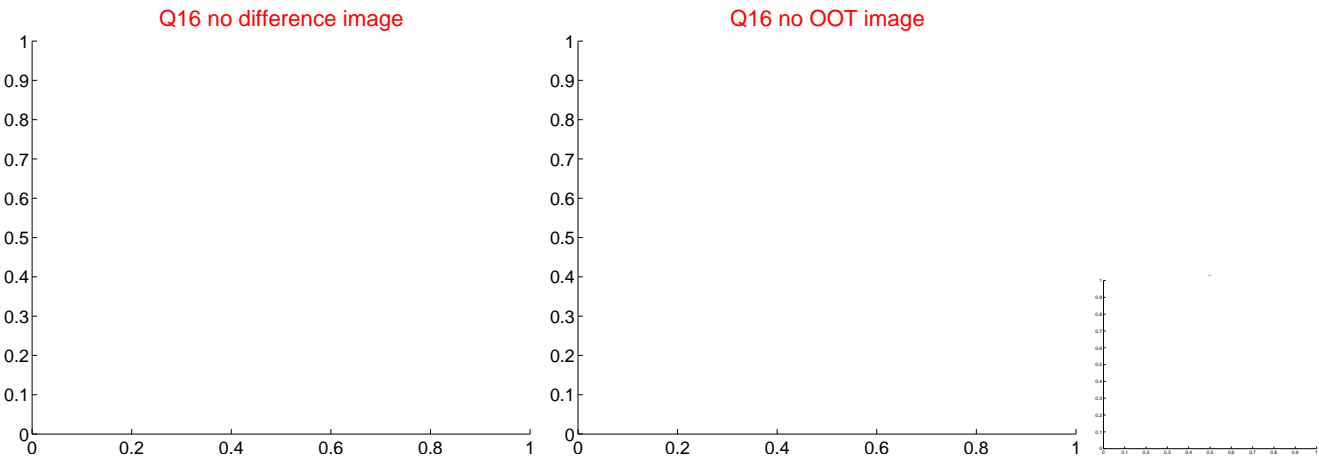
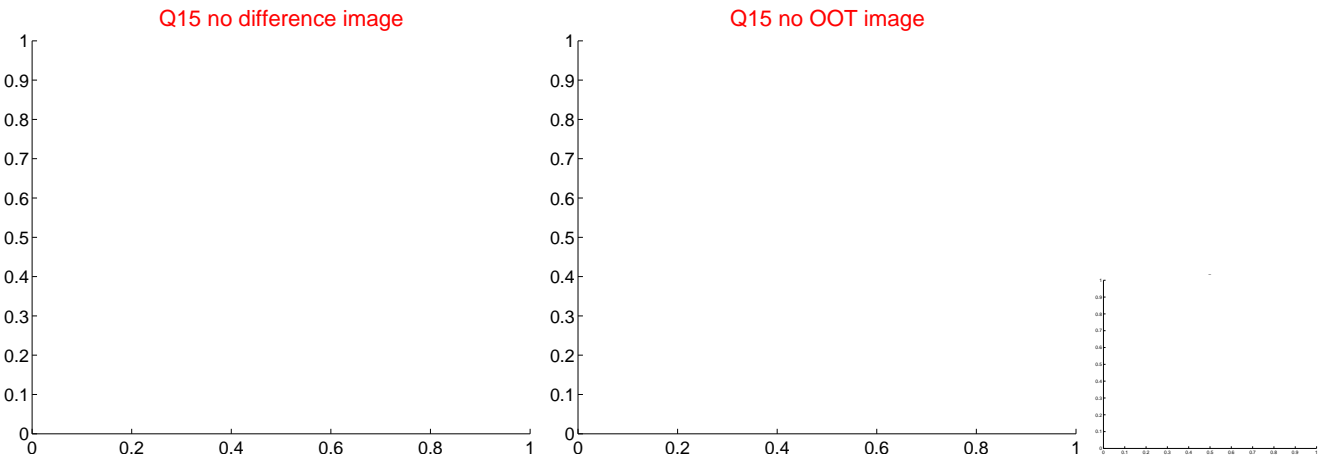
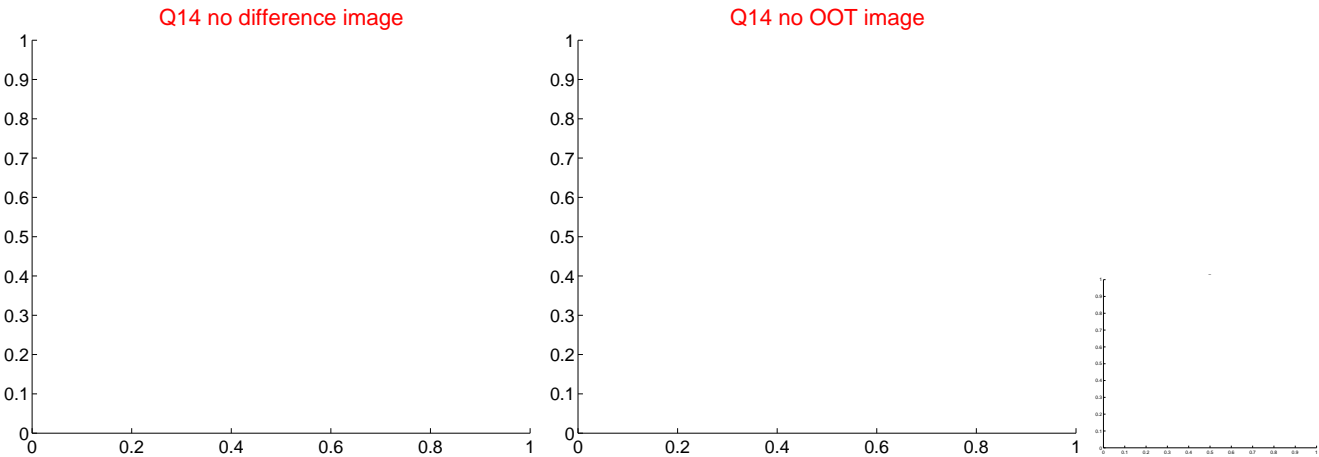
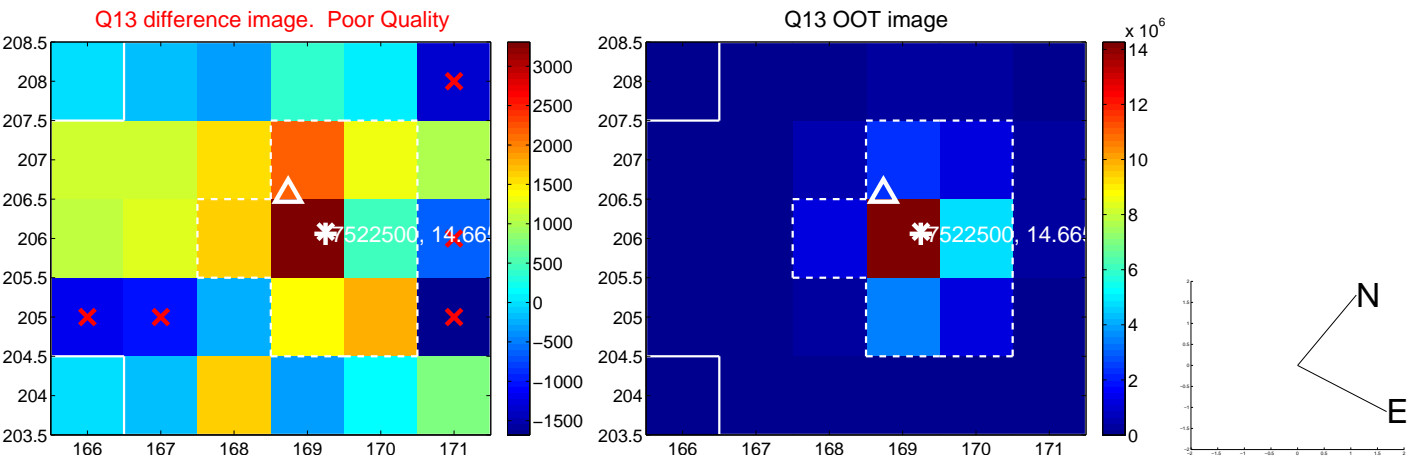
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



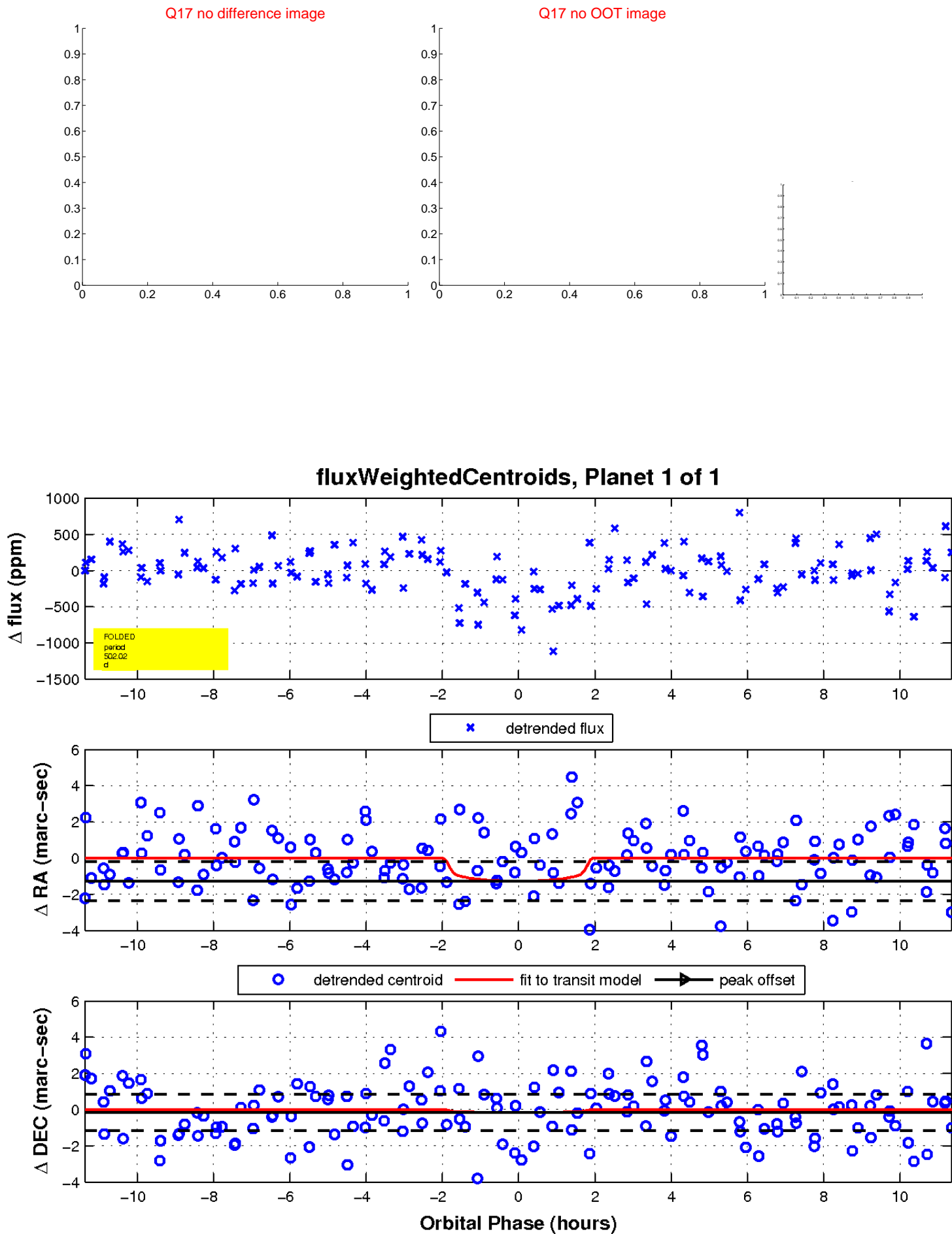
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

