

KIC 006695801

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
006695801-01	OBS	5316.01	1.106552	132.381798	76.5	2.010	13.8	14.1	1.17	6237	1.20	3701.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006695801-01	OBS	FP	0.00	0	1	0	1	MOD_SEC_DV—EPHEM_MATCH

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.

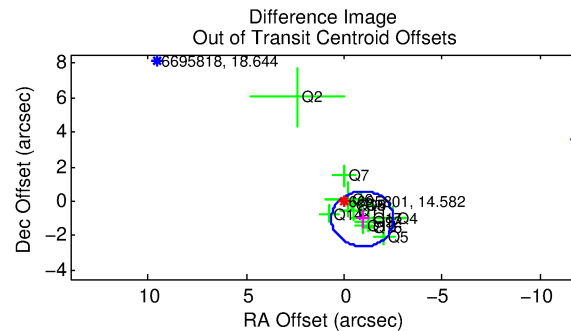
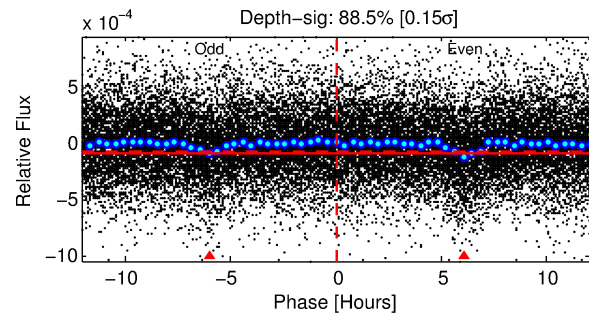
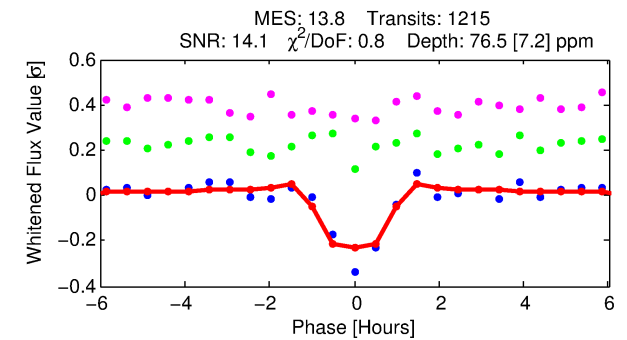
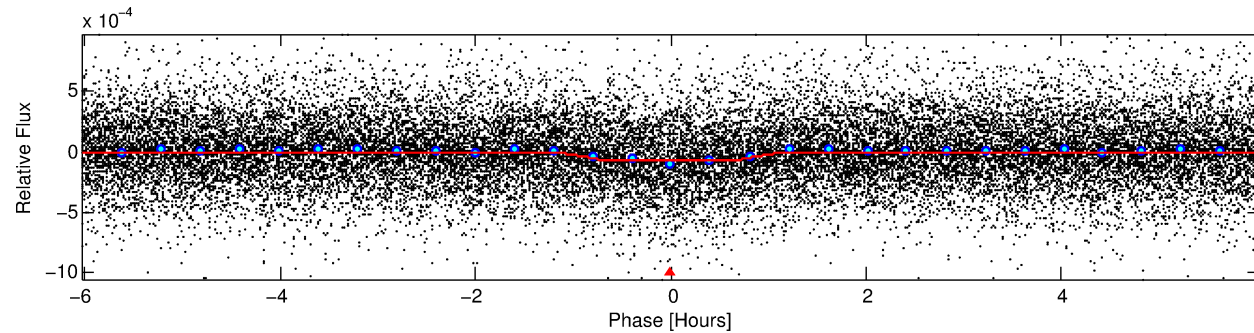
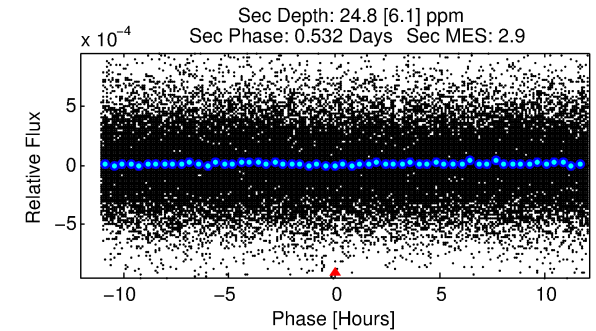
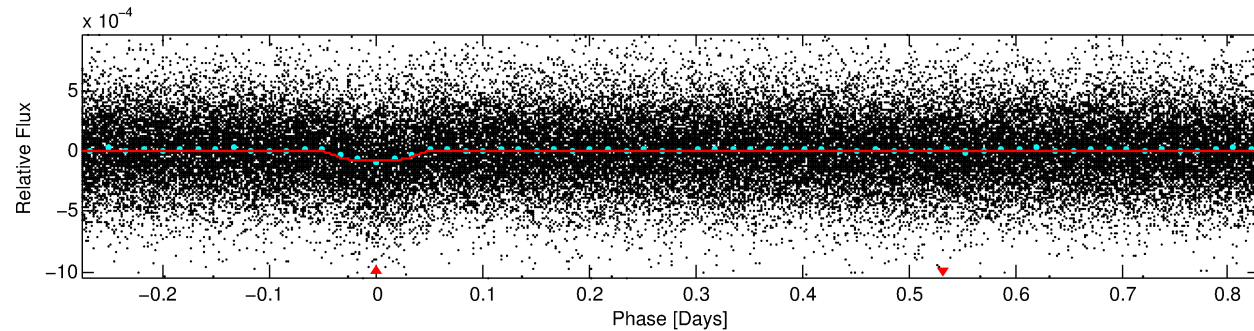
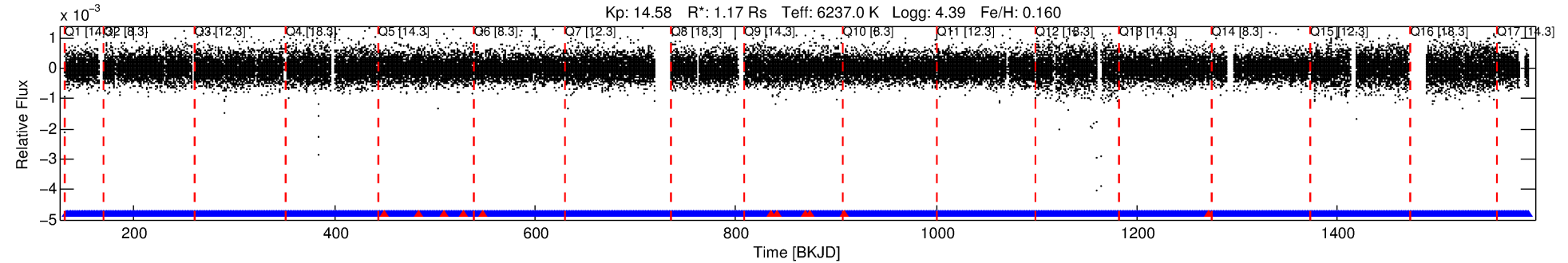
Ephemeris Match Information For 006695801-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
006695801-01	6695801	6757.01	6695889	1:1	117.2	30	-1	15.41	14.58	3401.00	Col-Anomaly	0	0.68	0.51

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6695801 Candidate: 1 of 1 Period: 1.107 d
KOI: K05316.01 Corr: 0.933



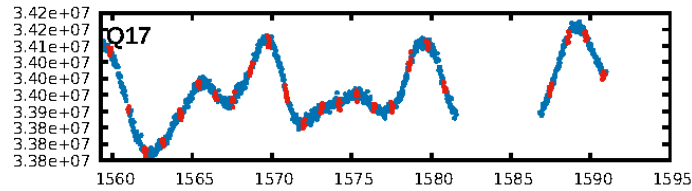
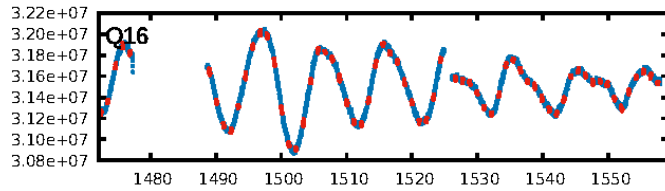
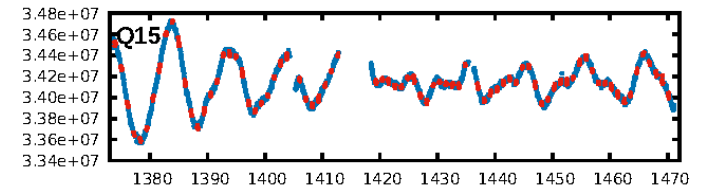
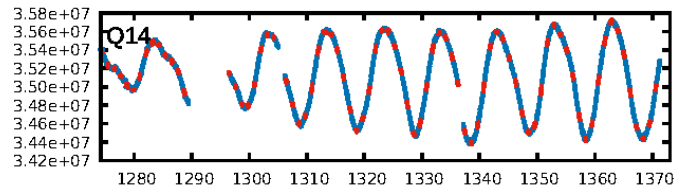
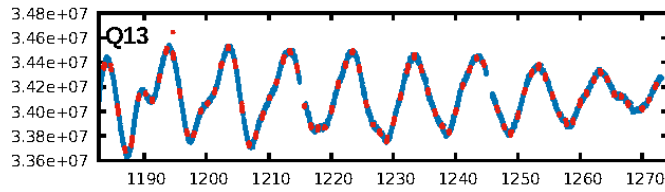
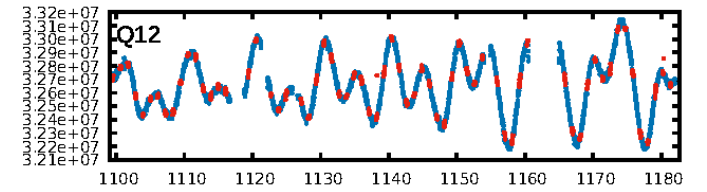
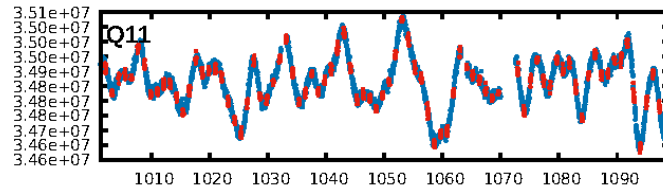
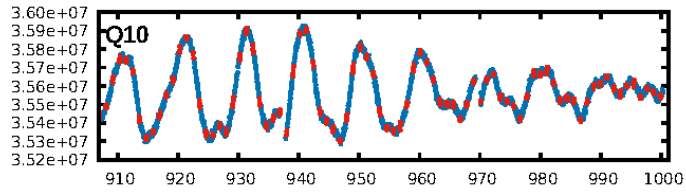
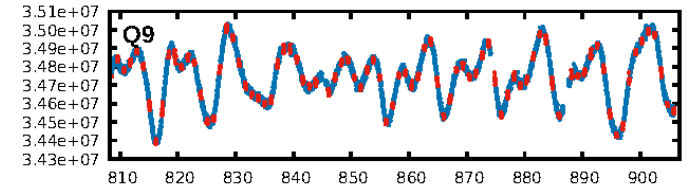
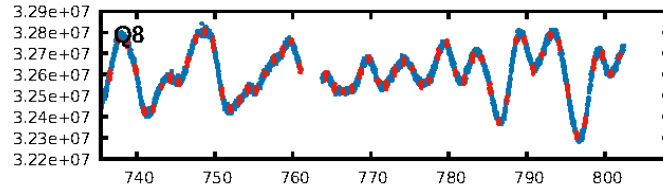
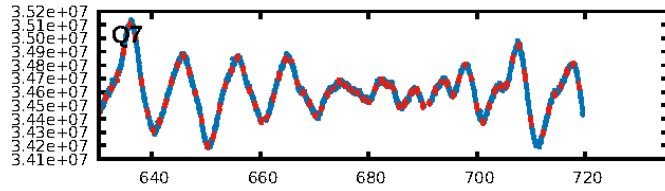
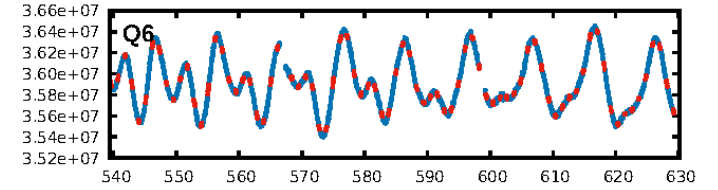
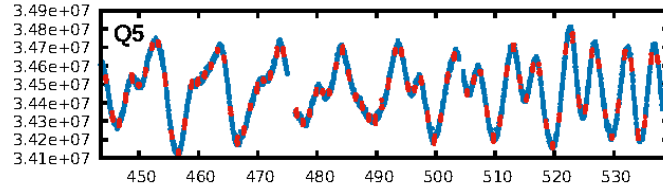
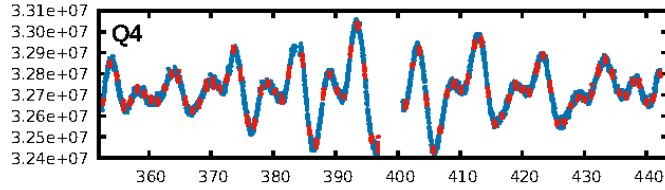
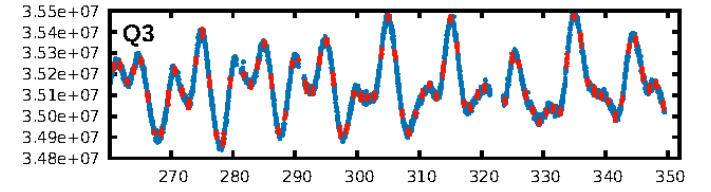
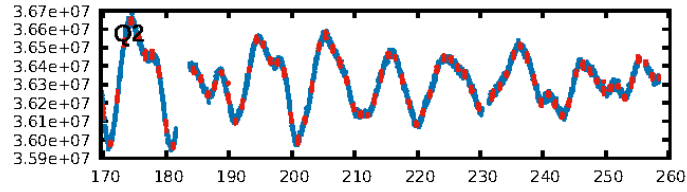
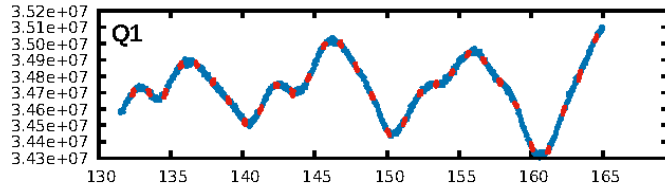
DV Fit Results:

Period = 1.10655 [0.00001] d
Epoch = 132.3818 [0.0017] BKJD
Rp/R* = 0.0095 [0.0037]
b/R* = 2.13 [3.41]
b = 0.90 [0.43]
Seff = 3701.56 [1621.20]
Teq = 1989 [218] K
Rp = 1.20 [0.63] Re
a = 0.0223 [0.0064] AU
Ag = 4.68 [4.29] [0.86σ]
Teffp = 4522 [940] K [2.63σ]

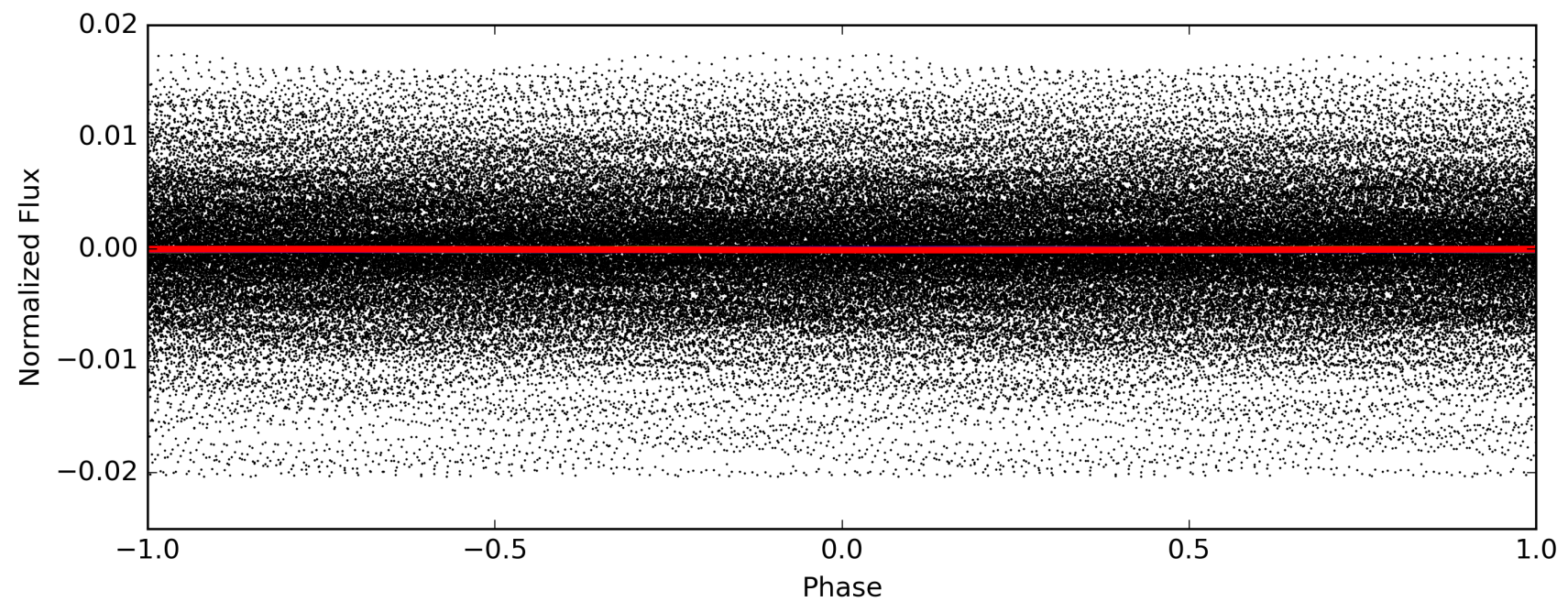
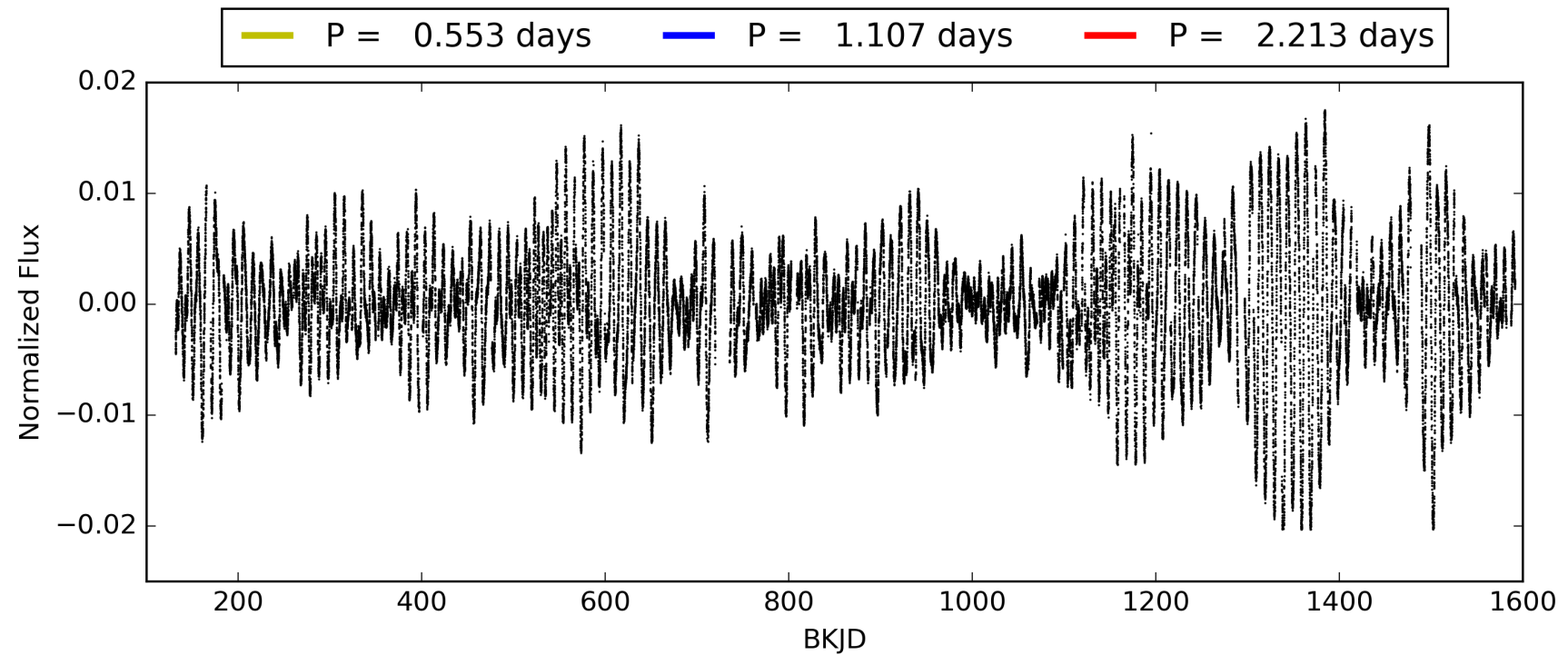
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.44e-40
RollingBand-fgt: 0.99 [1150/1161]
GhostDiagnostic-chr: 2.679
Centroid-sig: 0.0%
Centroid-so: 2.801 arcsec [3.96σ]
OotOffset-rm: 1.386 arcsec [2.61σ]
KicOffset-rm: 1.399 arcsec [2.45σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006695801-01, PDC Light Curves

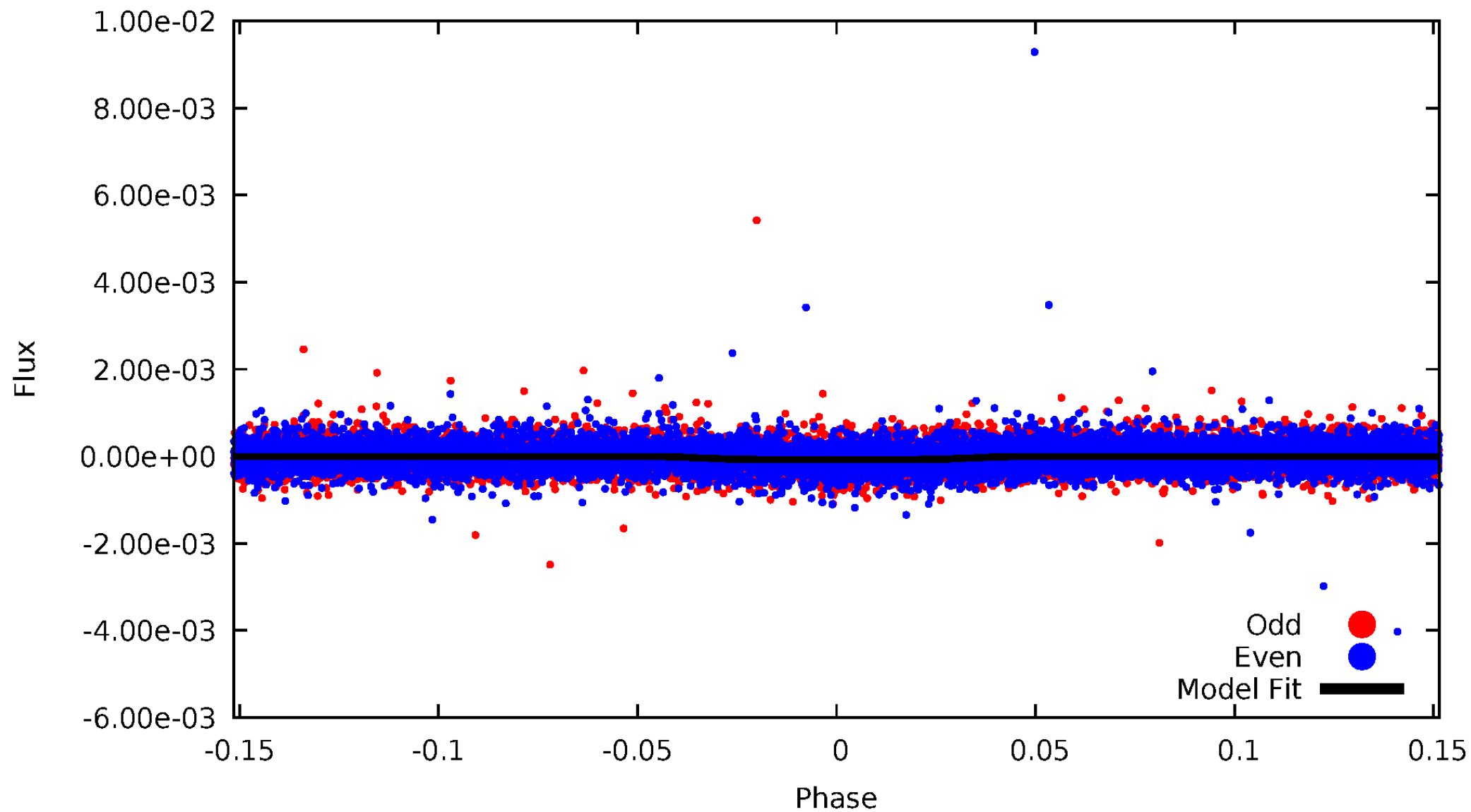


TCE 006695801-01



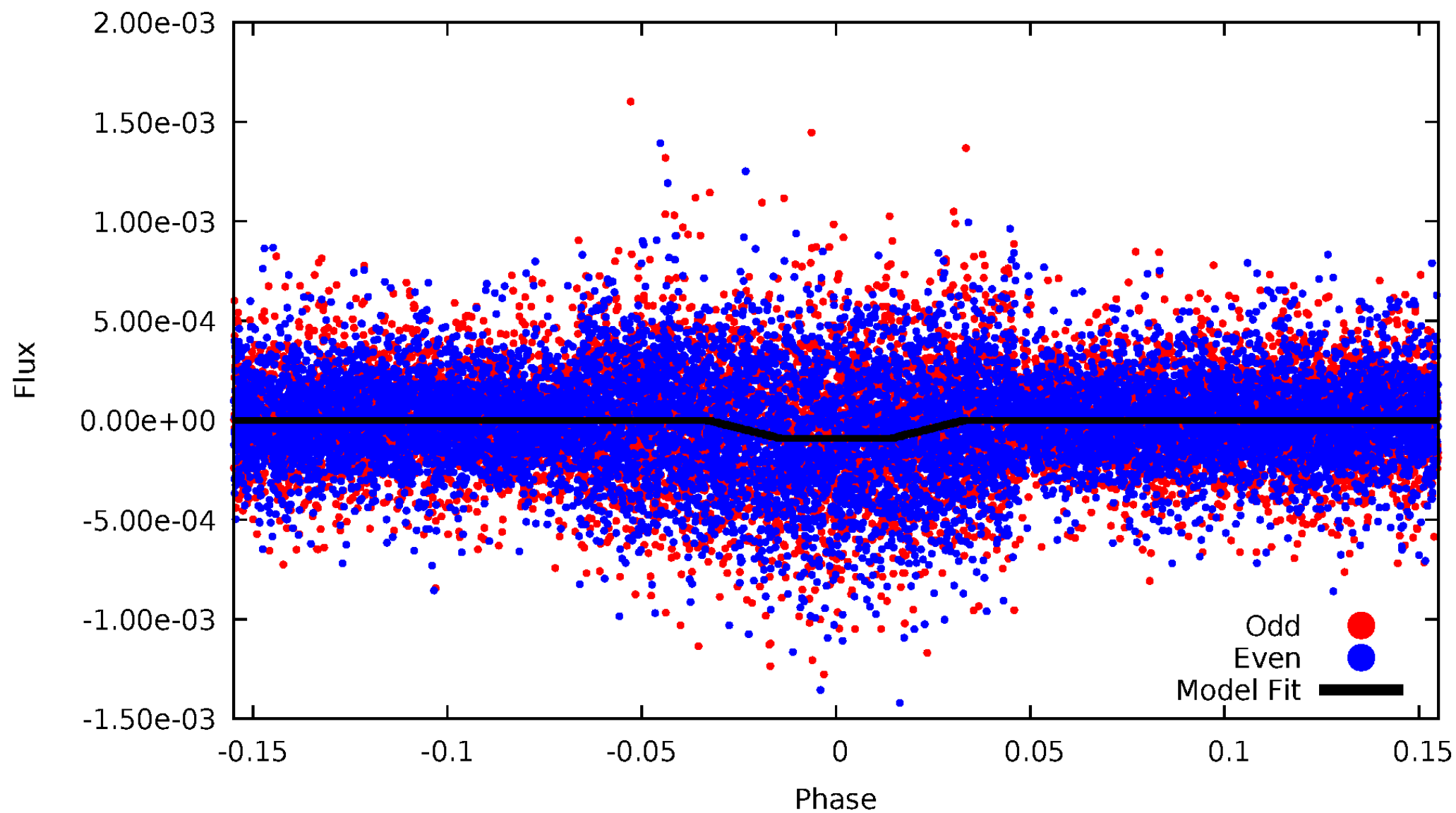
DV Odd/Even

TCE 006695801-01



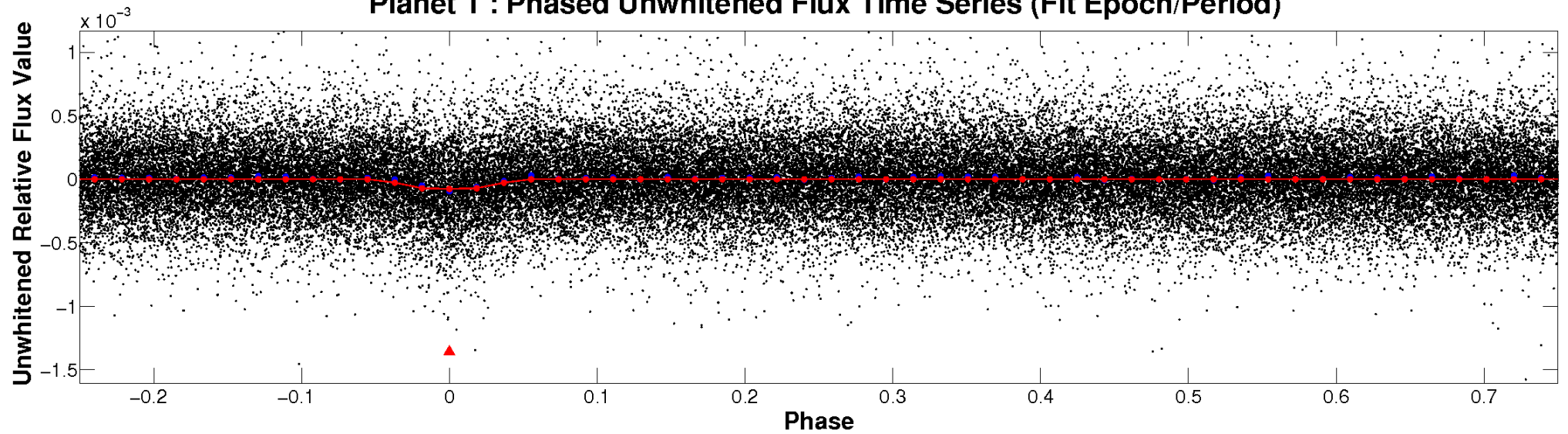
ALT Odd/Even

TCE 006695801-01

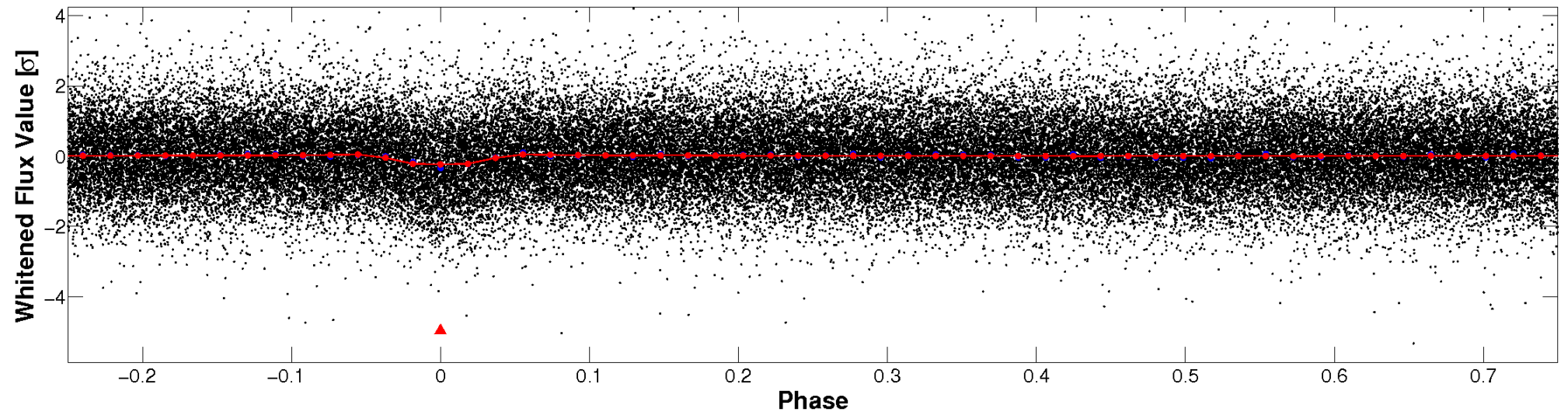


Non-Whitened Vs. Whitened Light Curve

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

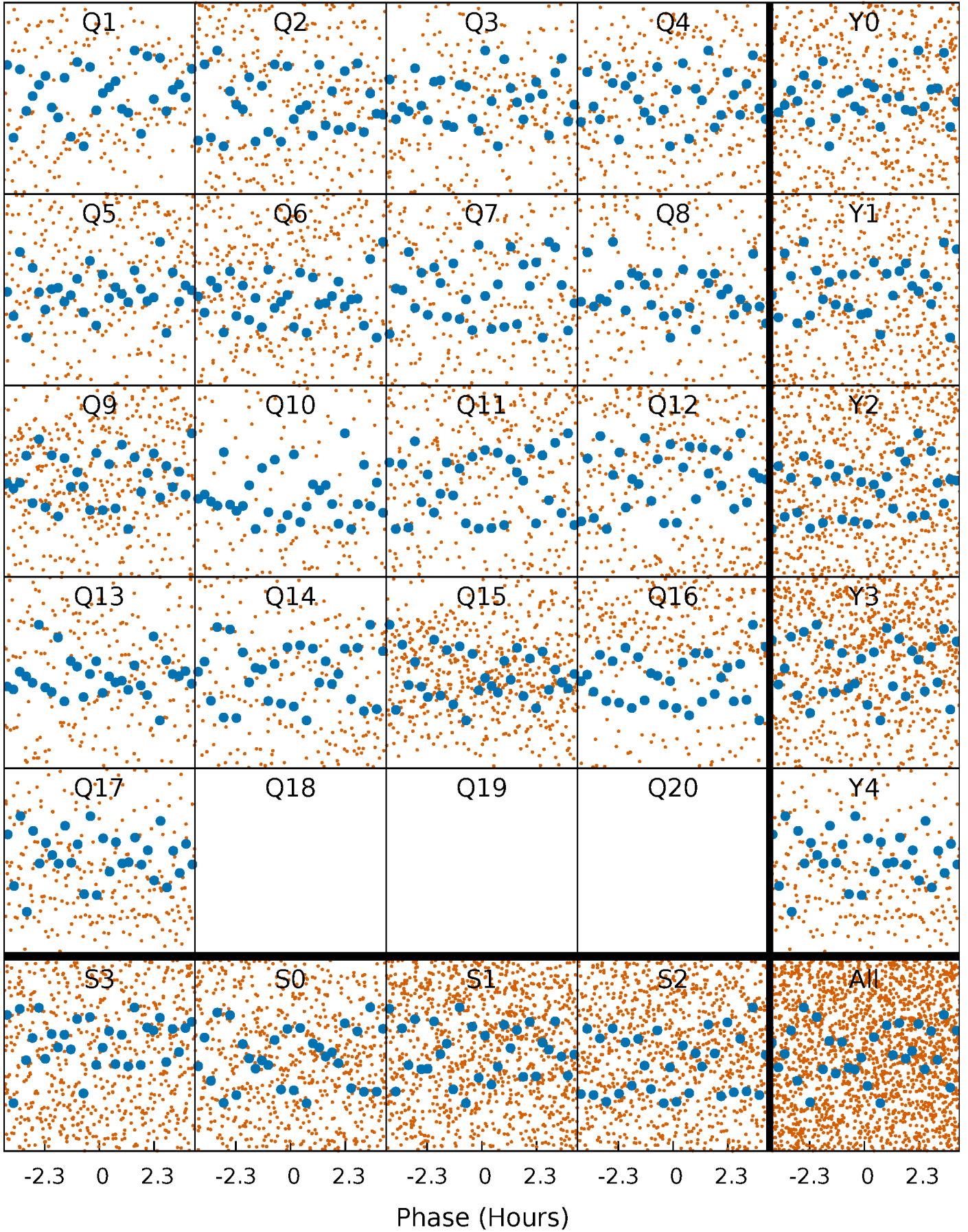


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



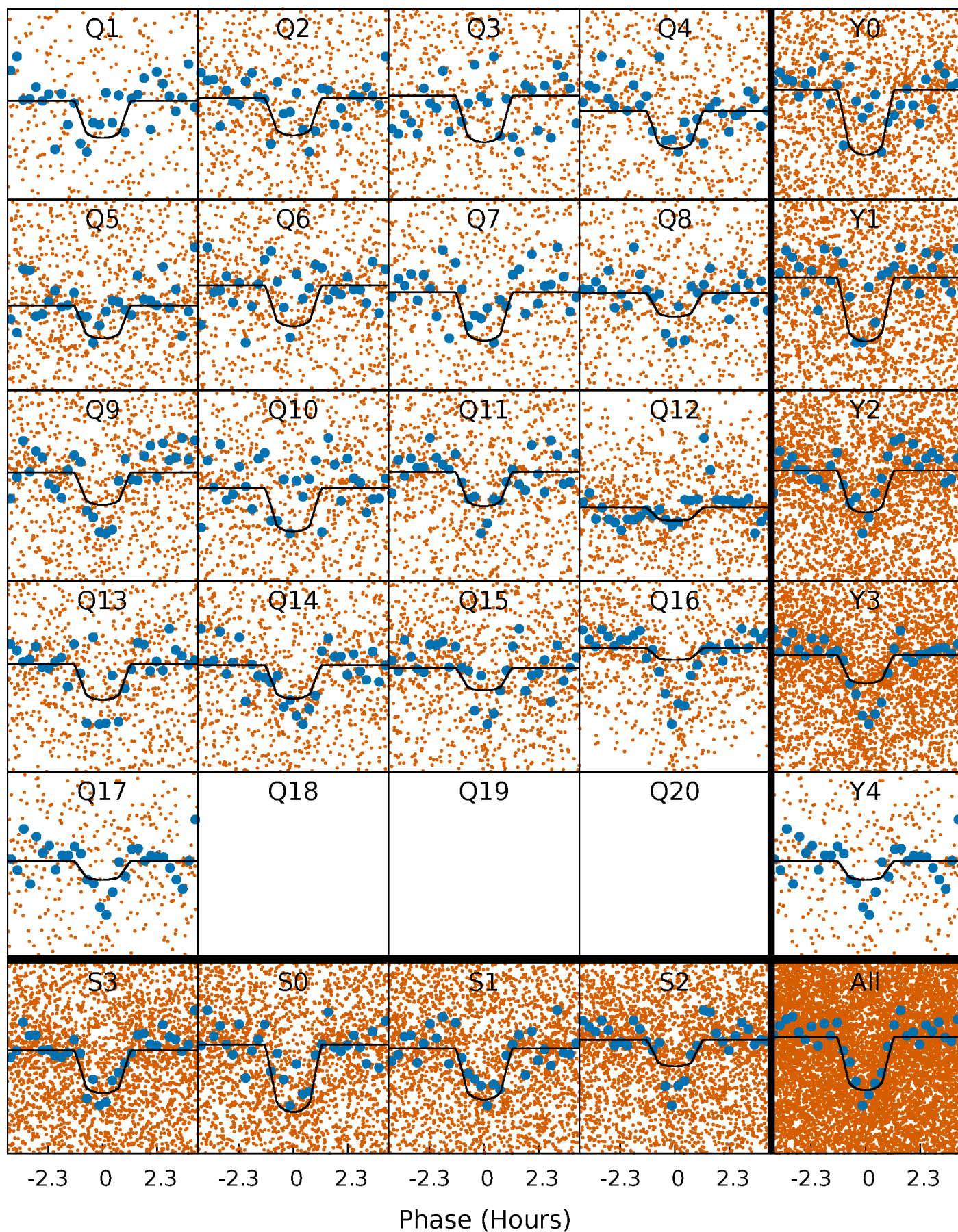
PDC Quarter-Phased Transit Curves

TCE 006695801-01 P= 1.106552 Days $T_0=132.381798$ (BKJD)



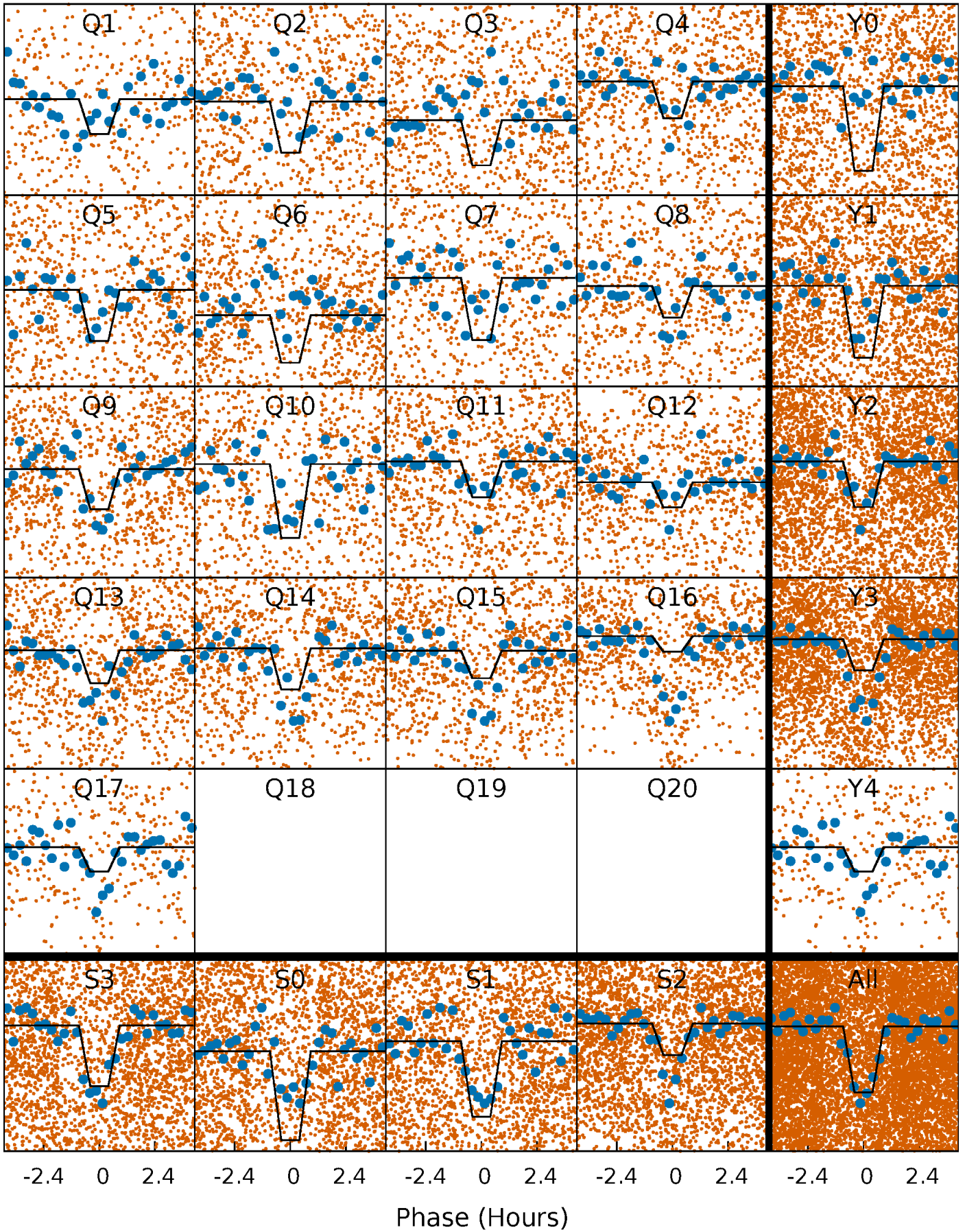
DV Quarter-Phased Transit Curves

TCE 006695801-01 P= 1.106552 Days $T_0=132.381798$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

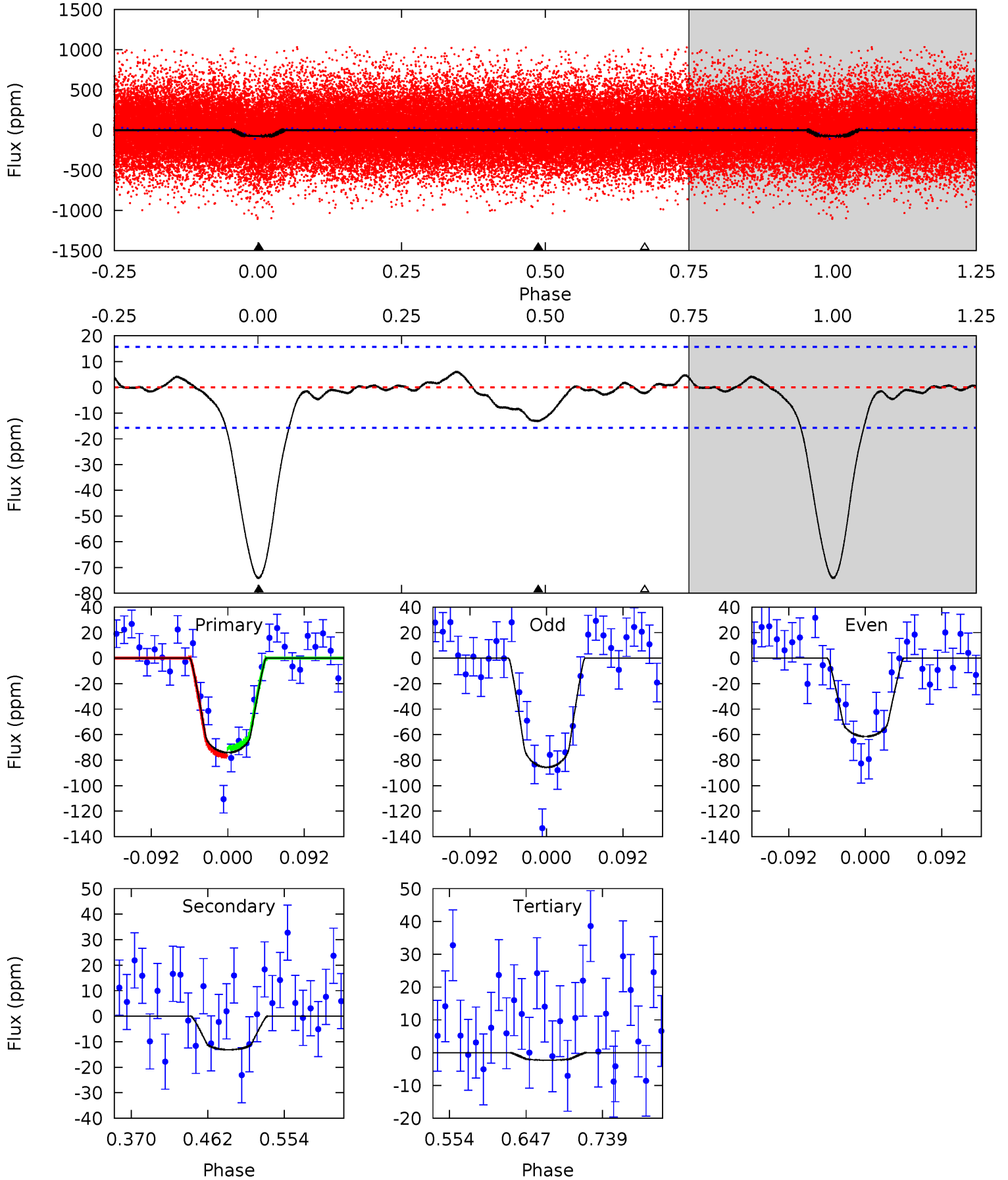
TCE 006695801-01 P= 1.106555 Days $T_0=132.381823$ (BKJD)



DV Model-Shift Uniqueness Test

006695801-01, P = 1.106552 Days, E = 131.275246 Days

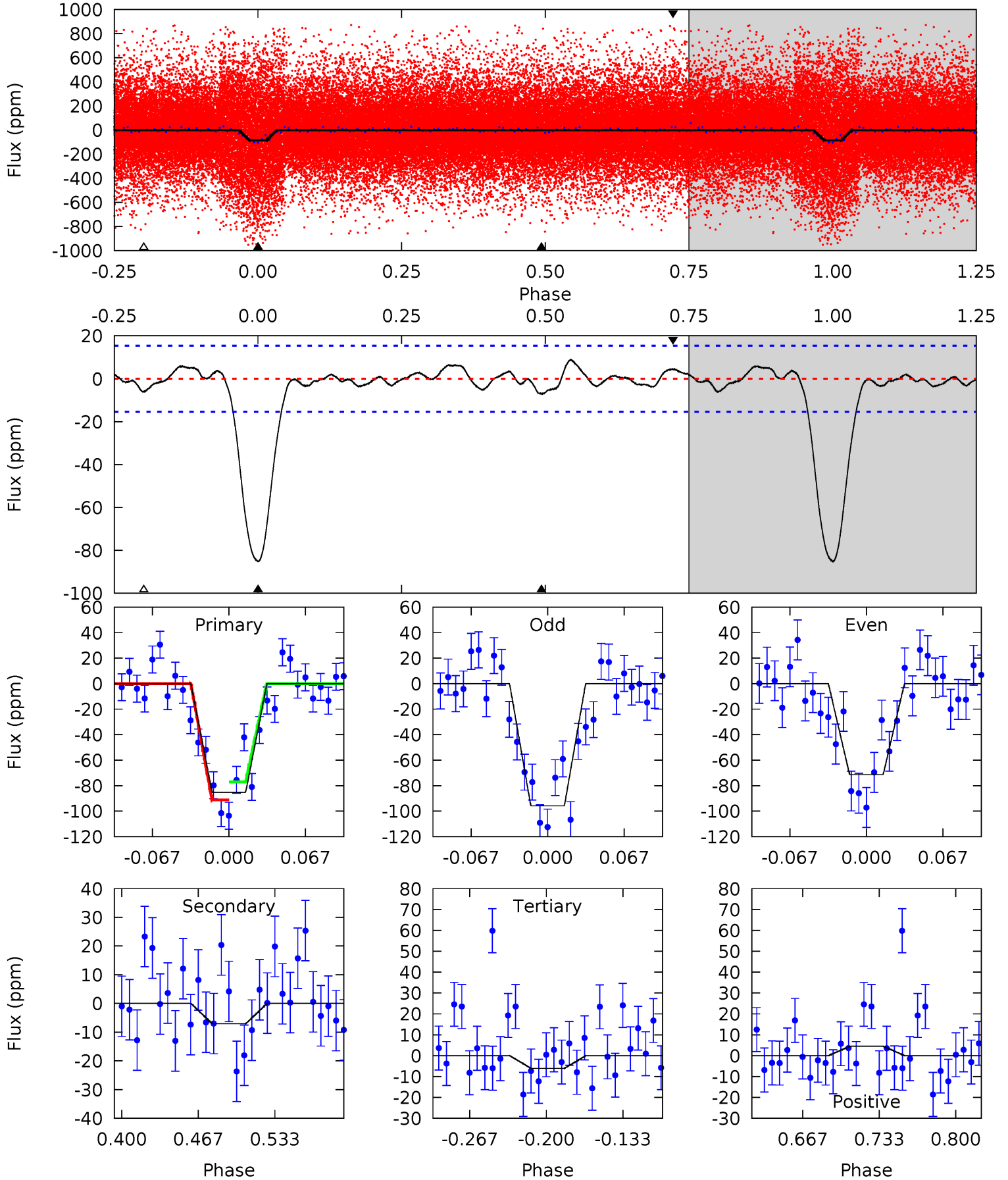
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	3.82	0.67	0	4.58	1.68	0.62	20.9	21.6	3.16	3.82	3.52	0.99	0.08	0.88



Alt Model-Shift Uniqueness Test

006695801-01, P = 1.106555 Days, E = 131.275268 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.7	2.13	1.83	1.35	4.65	1.83	0.86	23.8	24.3	0.30	0.77	3.69	1.33	0.09	2.15



Stellar Parameters For KIC 006695801

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6237^{+170}_{-227}	$4.387^{+0.070}_{-0.224}$	$0.160^{+0.200}_{-0.350}$	$1.165^{+0.400}_{-0.133}$	$1.211^{+0.168}_{-0.168}$	$1.078^{+0.337}_{-0.602}$
	+3%/-4%	+2%/-5%	+125%/-219%	+34%/-11%	+14%/-14%	+31%/-56%
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 006695801-01 / KOI 5316.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 3	$1.30^{+0.53}_{-0.49}$	2831^{+232}_{-159}	3966^{+913}_{-584}	$2.090^{+3.437}_{-1.106}$
Alt.	-7 ± 3	$1.26^{+0.56}_{-0.50}$	2824^{+215}_{-150}	3473^{+879}_{-837}	$1.076^{+2.385}_{-0.655}$

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 $A_{obs} \gg 1.0$

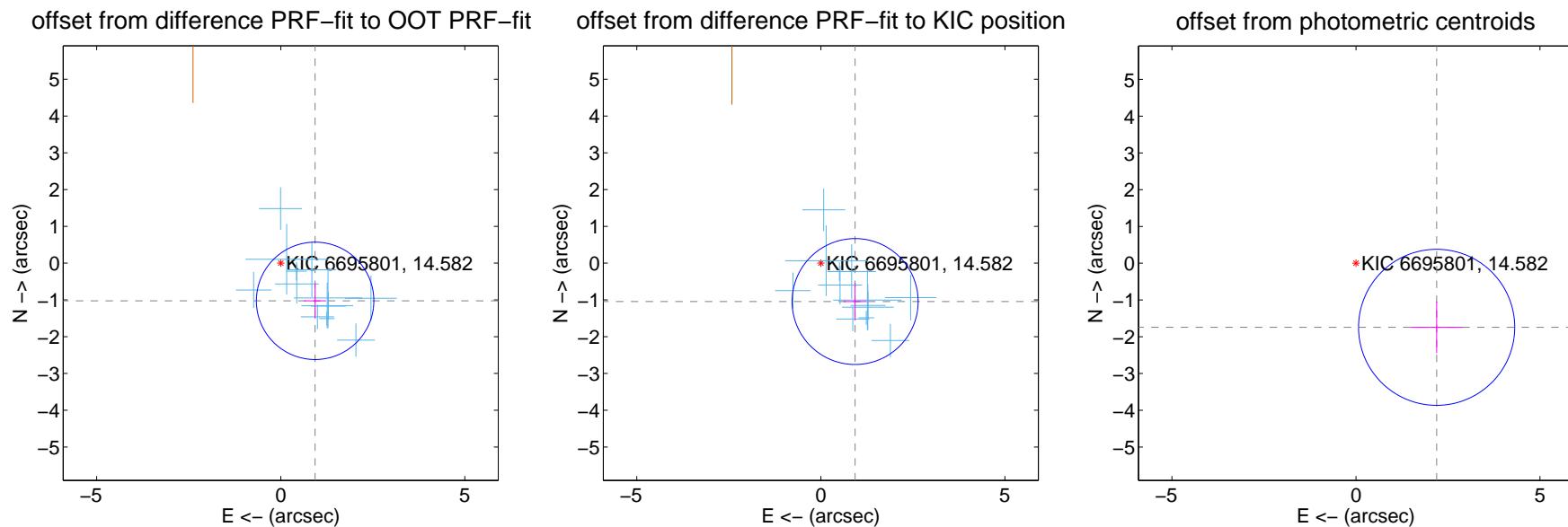
DV Centroid Data

Supplemental centroid analysis for 006695801-01. Kepler magnitude: 14.58. Transit SNR 14.06

There are 13 quarters with good PRF difference image offsets

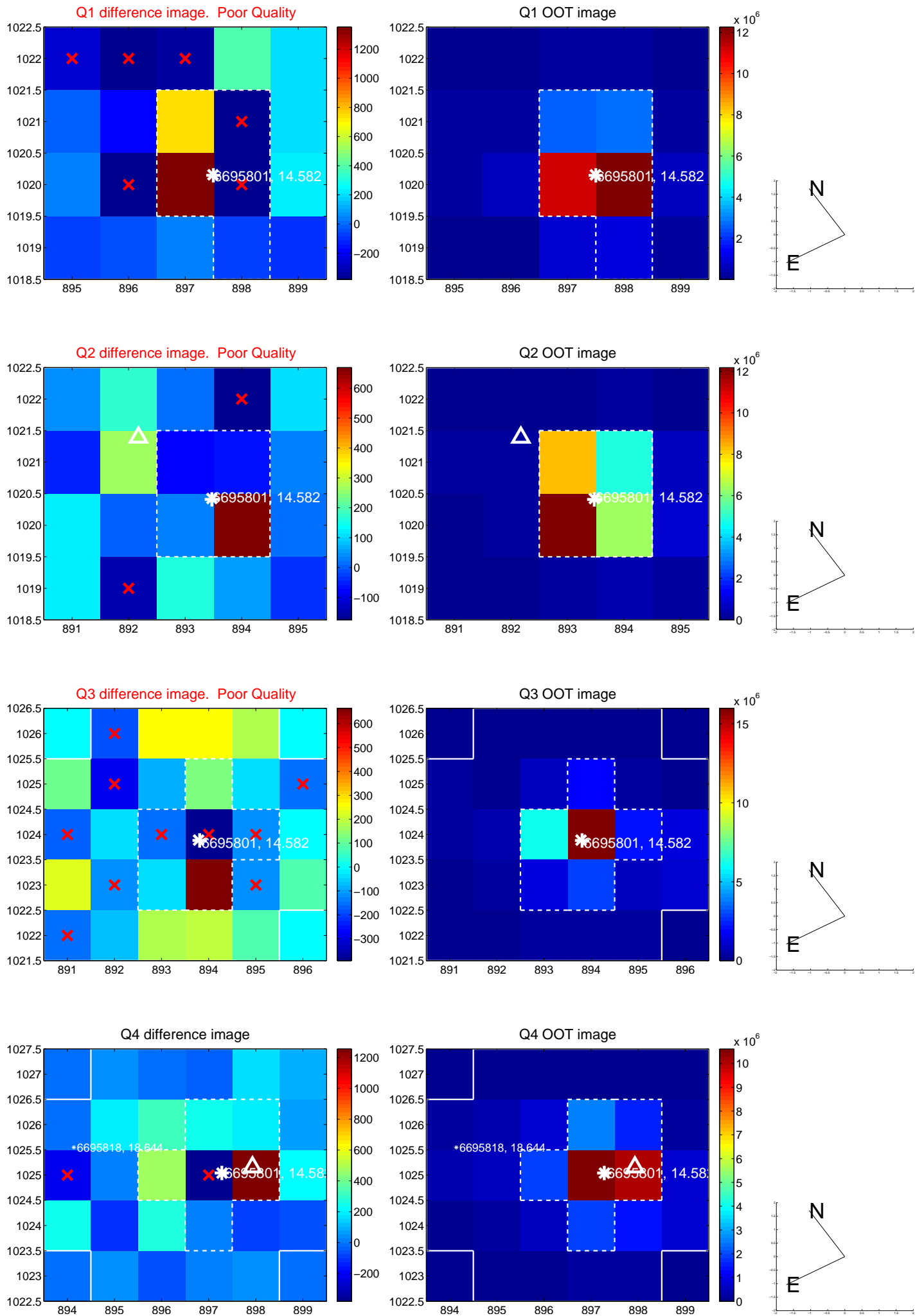
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.386 ± 0.532	2.61	-0.934 ± 0.297	-1.025 ± 0.483
PRF-fit source offset from KIC position	1.399 ± 0.571	2.45	-0.931 ± 0.317	-1.044 ± 0.516
photometric centroid source offset	2.80 ± 0.71	3.96	-2.19 ± 0.71	-1.74 ± 0.70

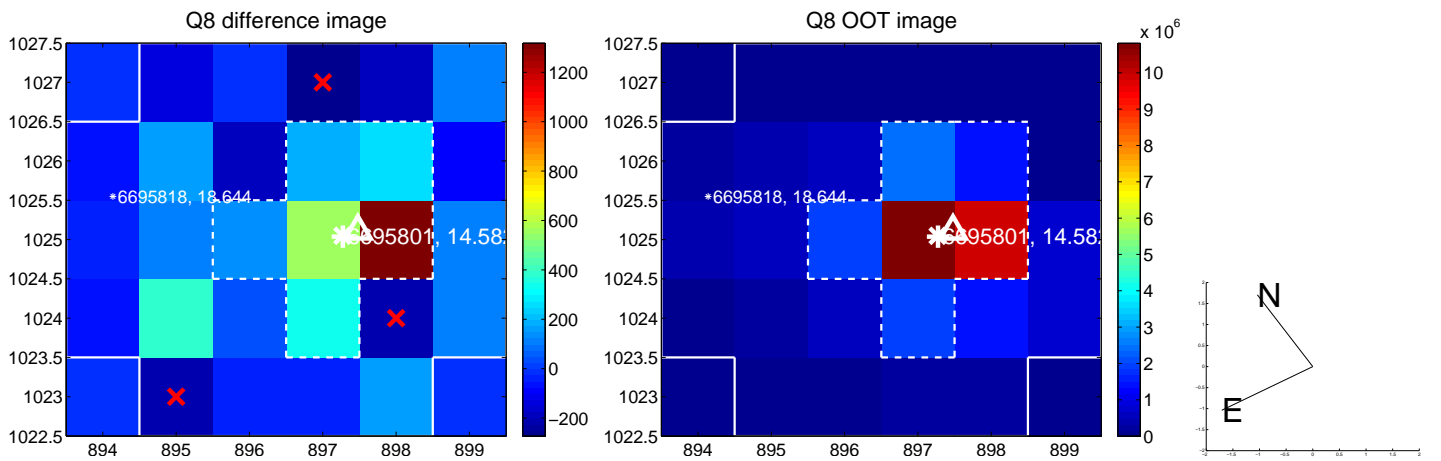
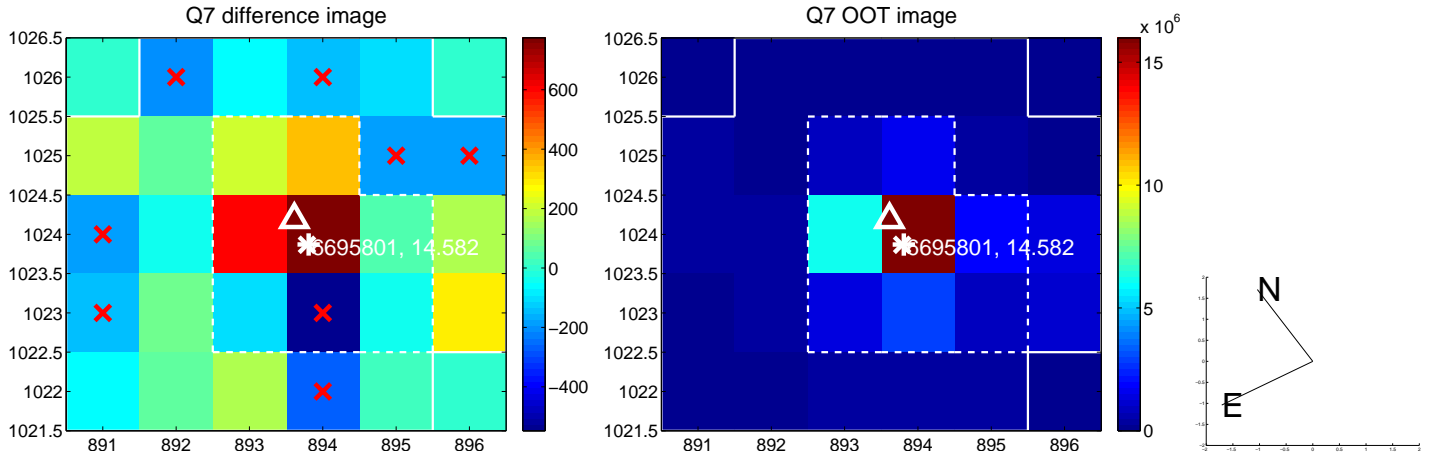
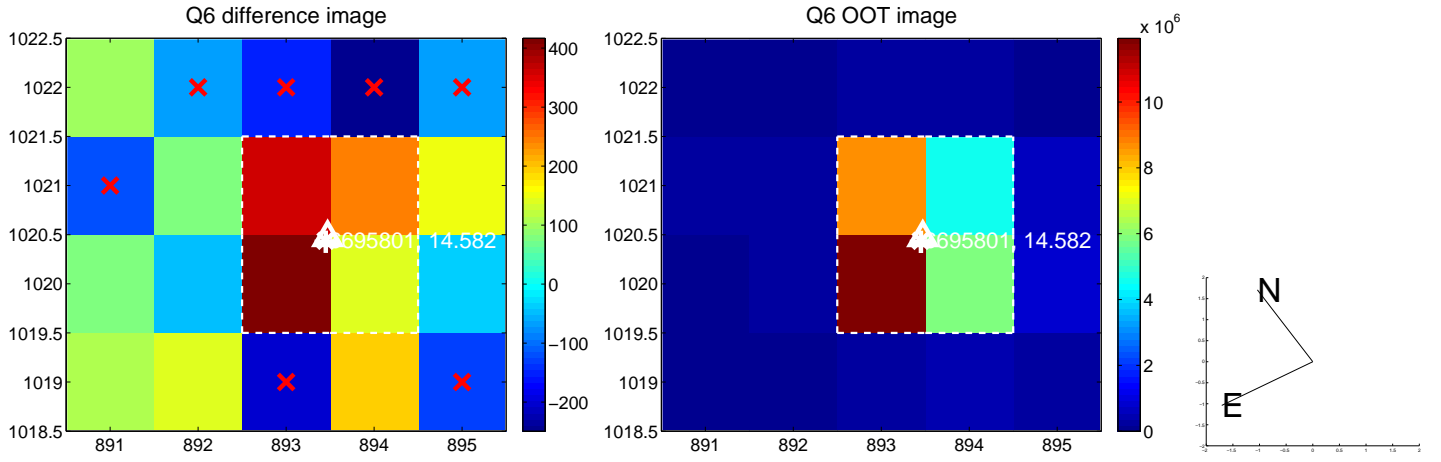
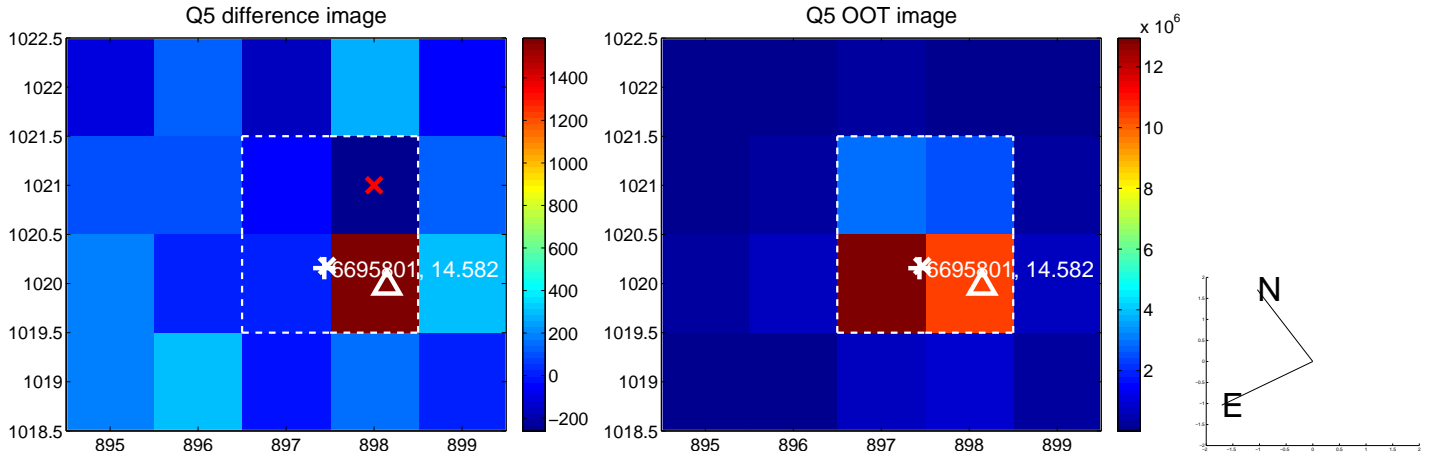


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

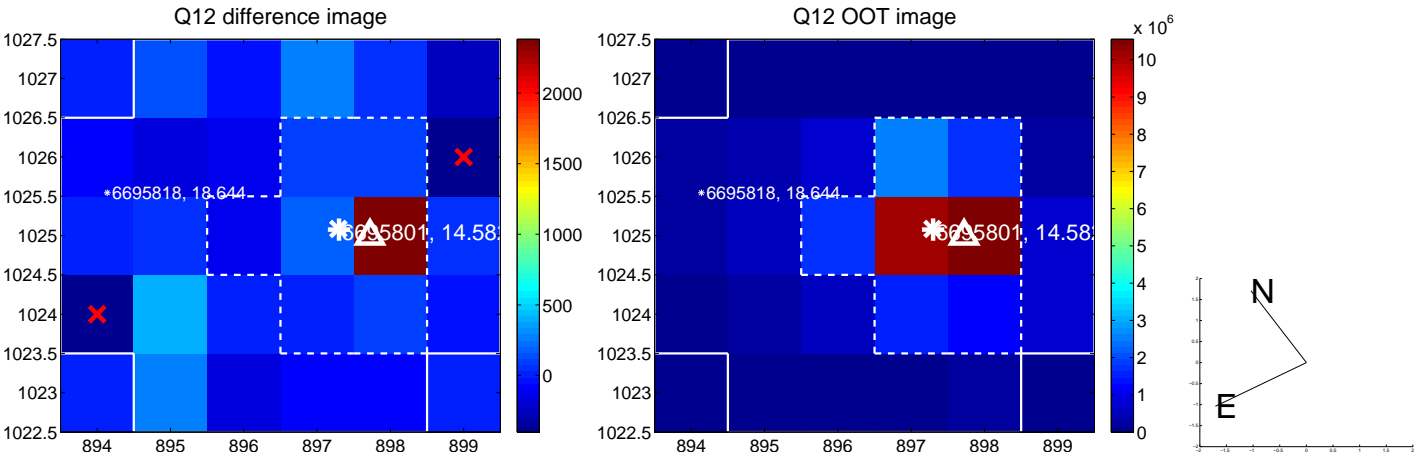
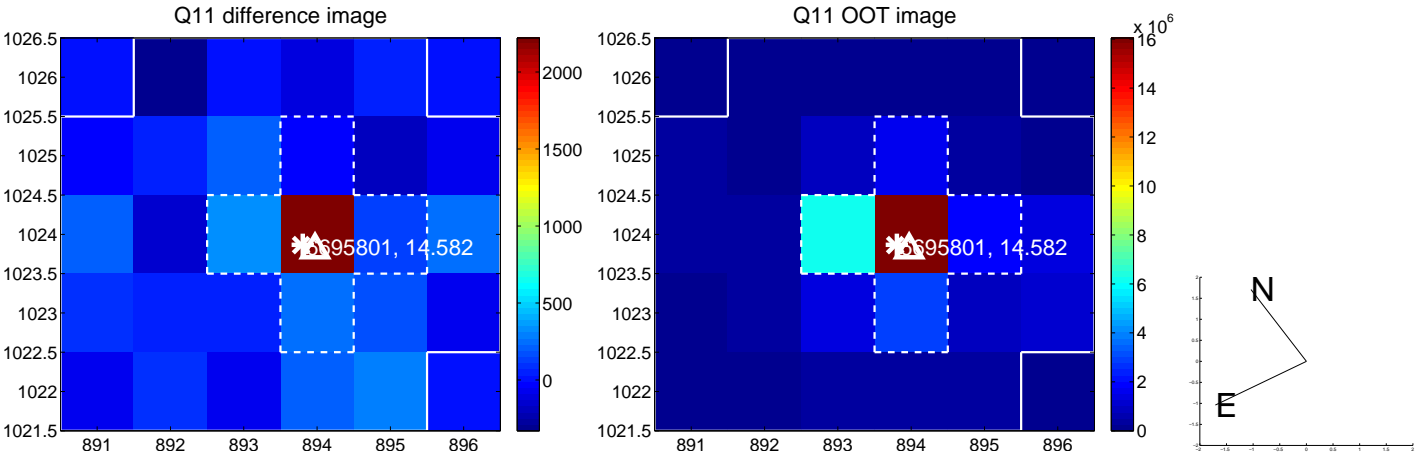
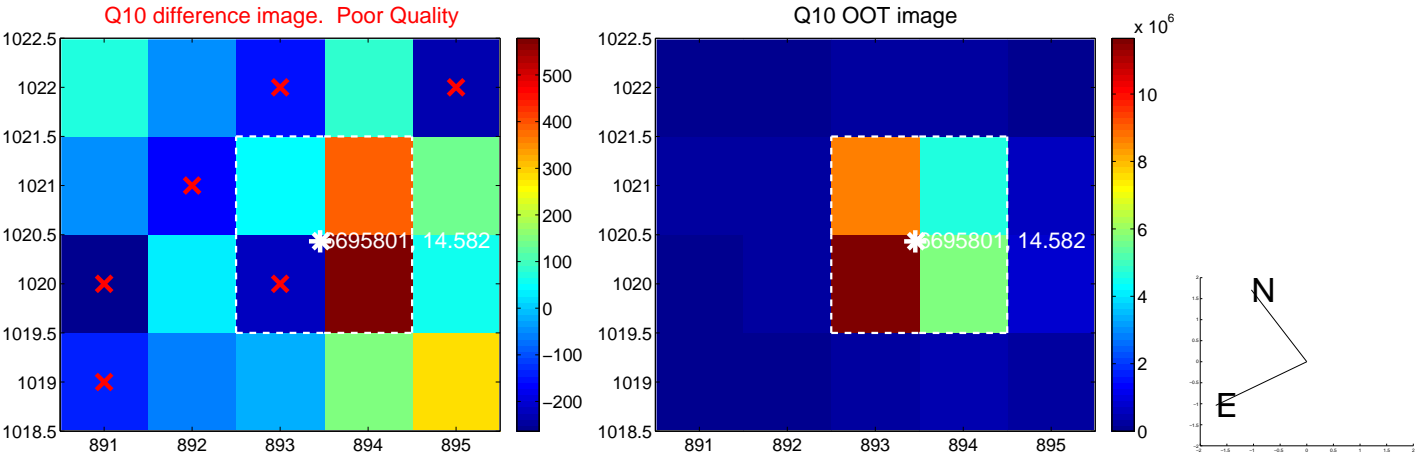
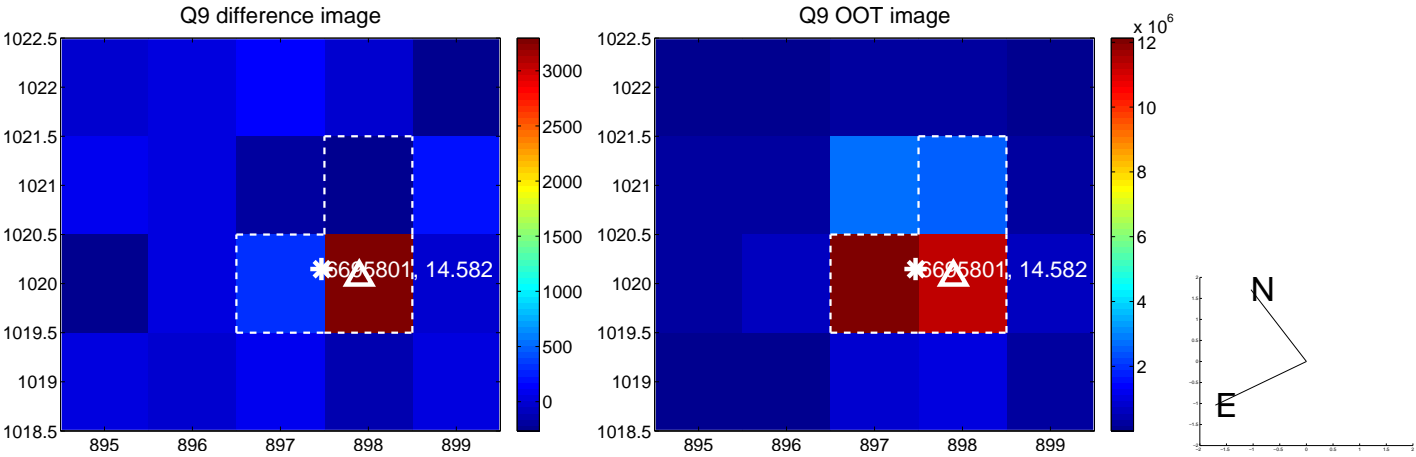
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



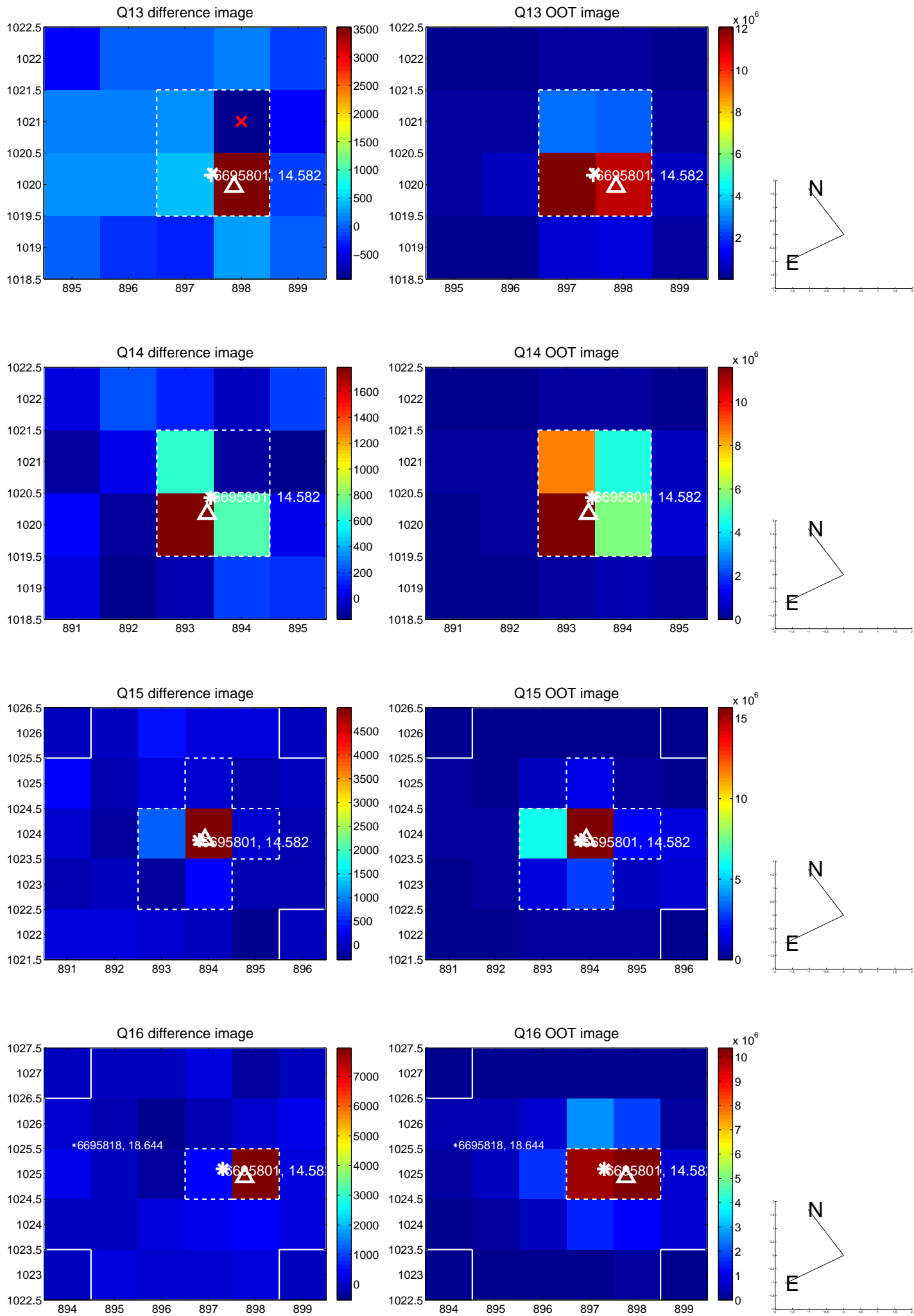
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



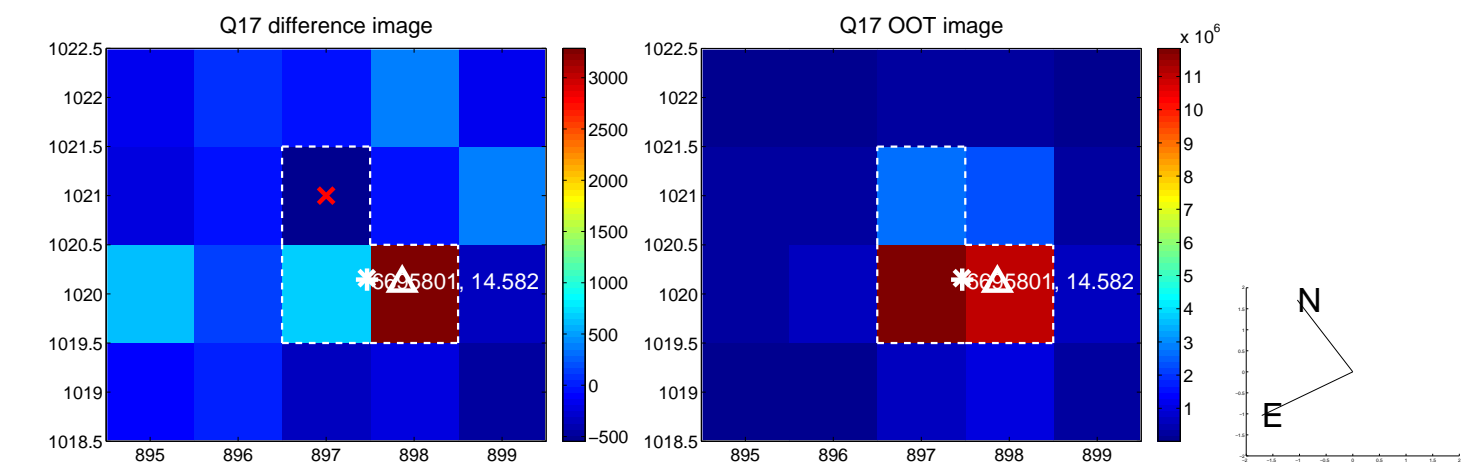
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



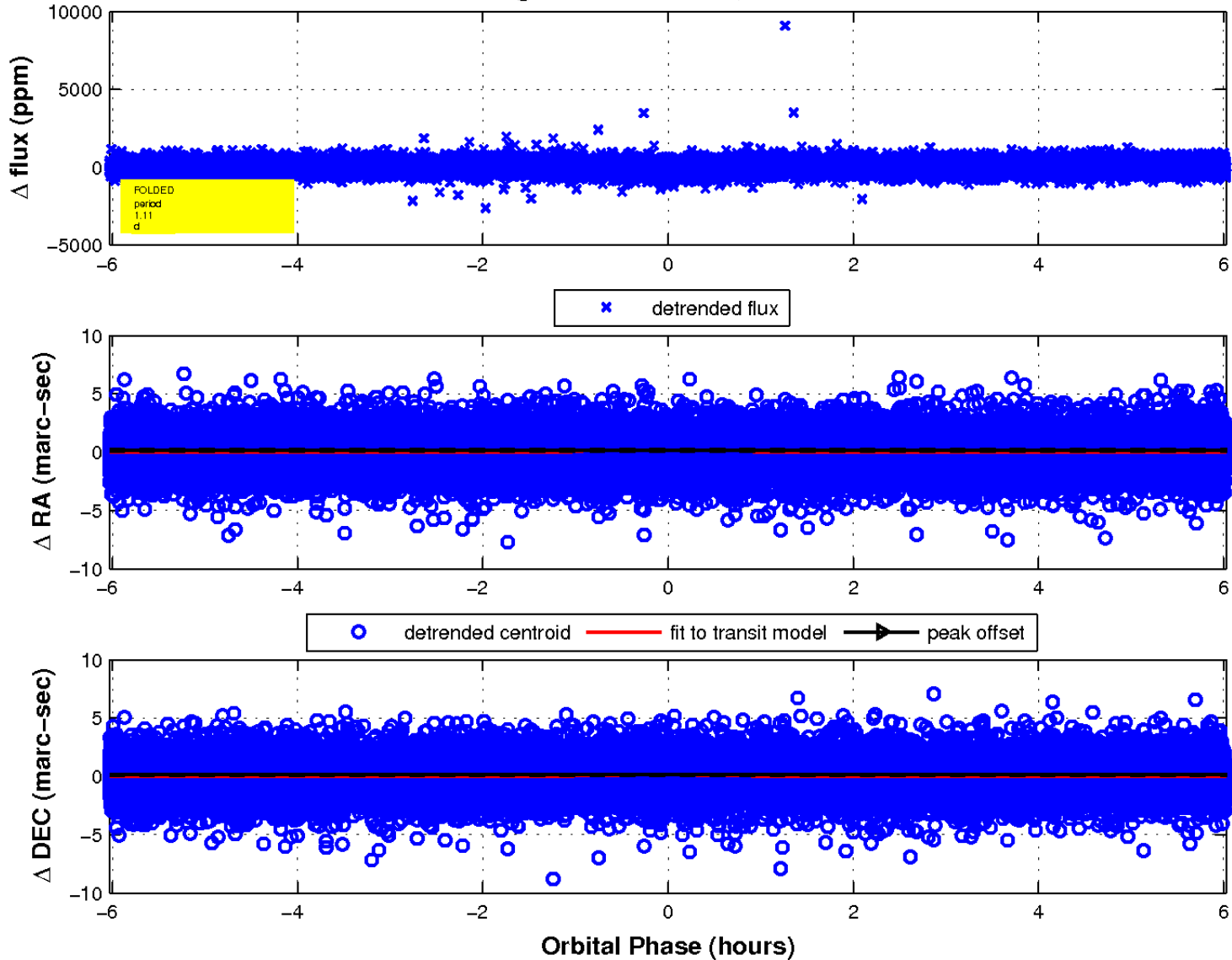
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

