

KIC 006310636

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})
006310636-01	OBS	1688.01	0.921028	132.032030	89.0	2.661	20.3	22.4	1.61	5843	1.81	7376.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006310636-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

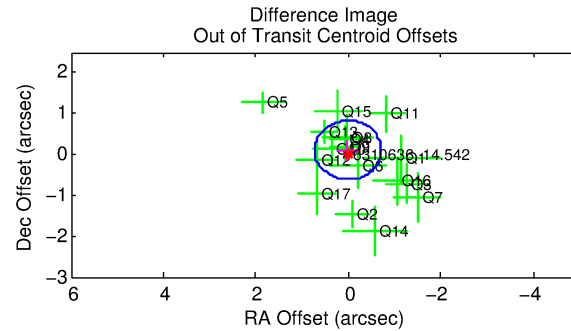
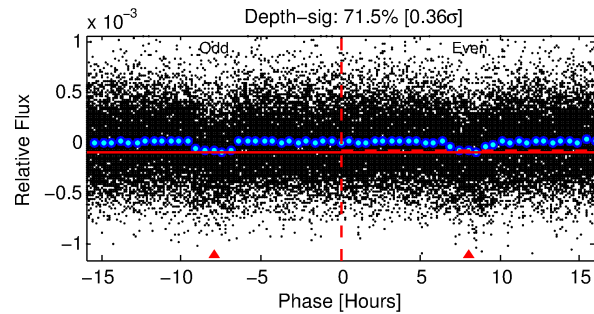
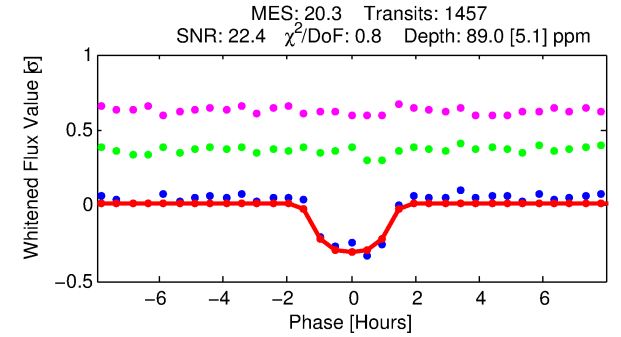
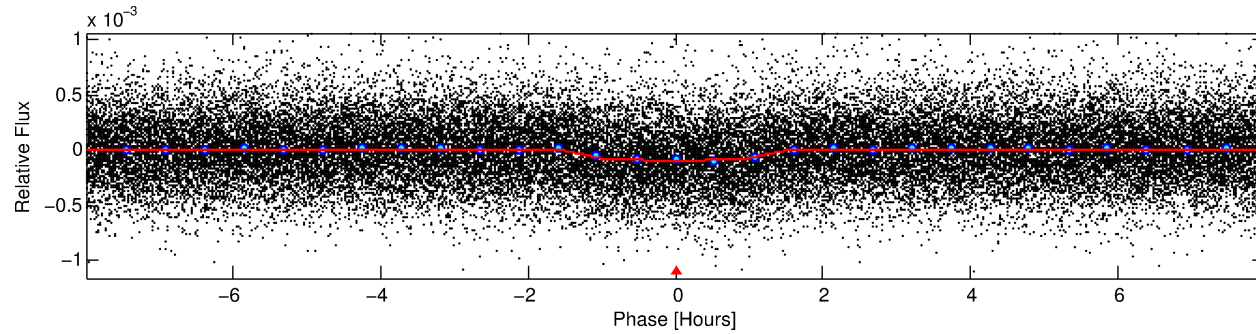
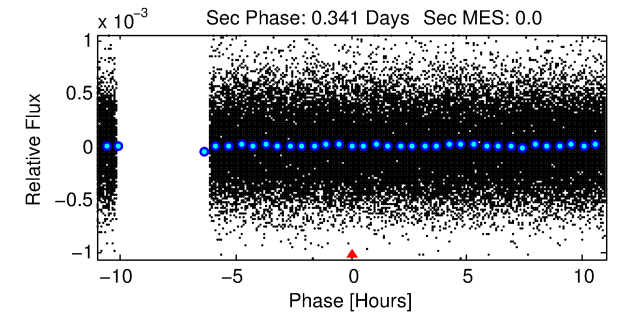
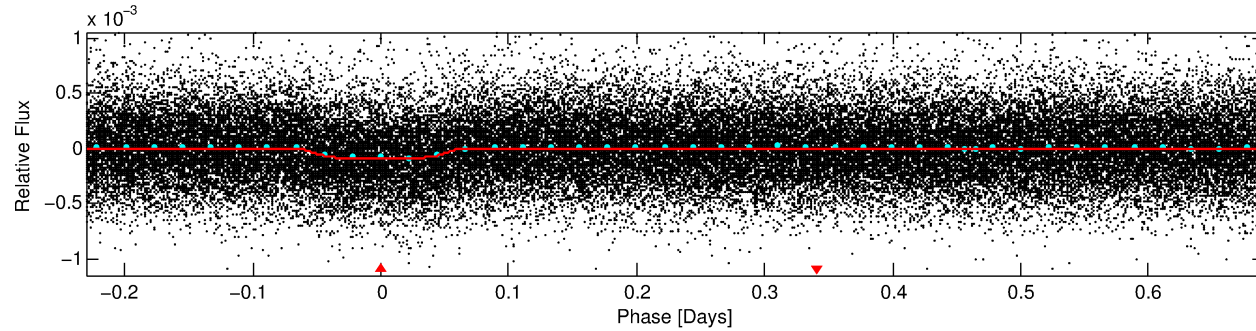
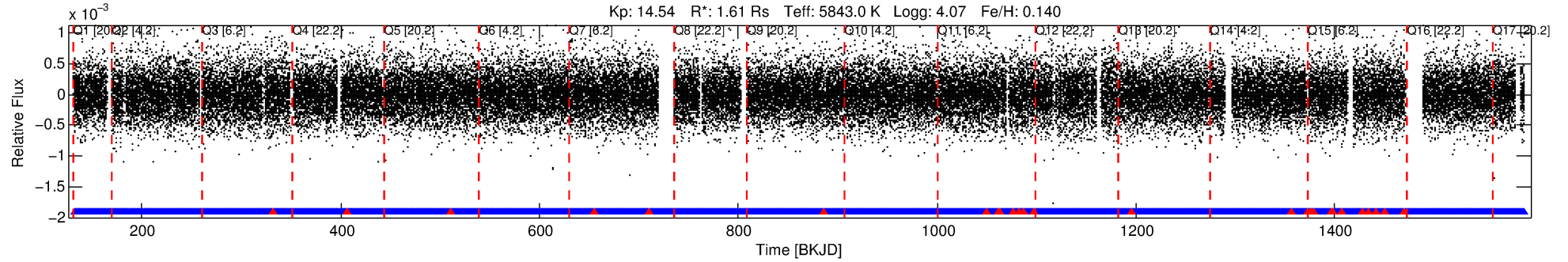
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006310636-01

No Significant Match Found

DV One-Page Summary

KIC: 6310636 Candidate: 1 of 1 Period: 0.921 d
KOI: K01688.01 Corr: 0.973



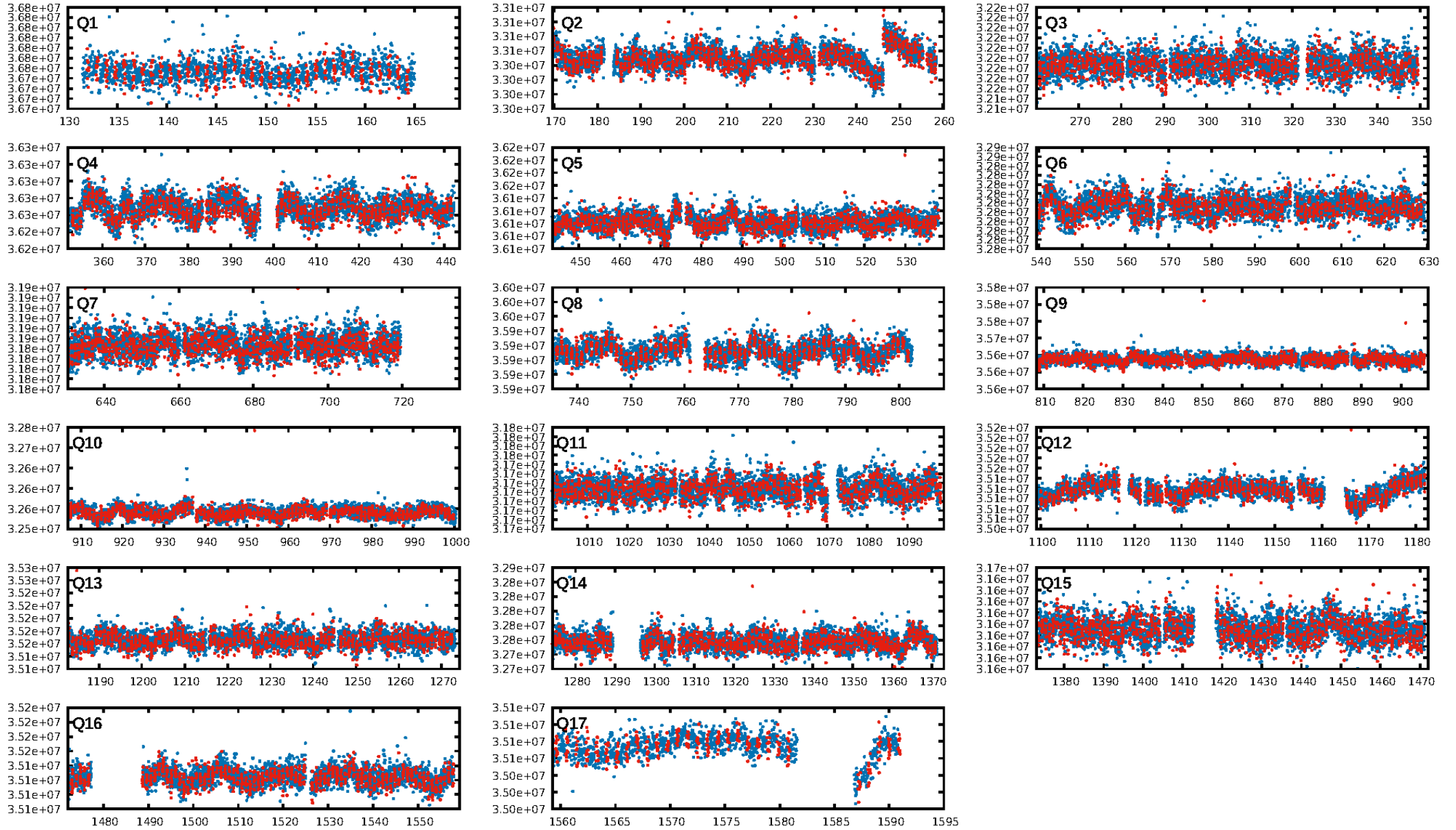
DV Fit Results:

Period = 0.92103 [0.00000] d
Epoch = 132.0320 [0.0015] BKJD
Rp/R* = 0.0103 [0.0036]
a/R* = 1.53 [1.48]
b = 0.90 [0.36]
Seff = 7376.59 [2348.70]
Teff = 2363 [188] K
Rp = 1.82 [0.74] Re
a = 0.0192 [0.0038] AU
Ag = N/A
Teffp = N/A

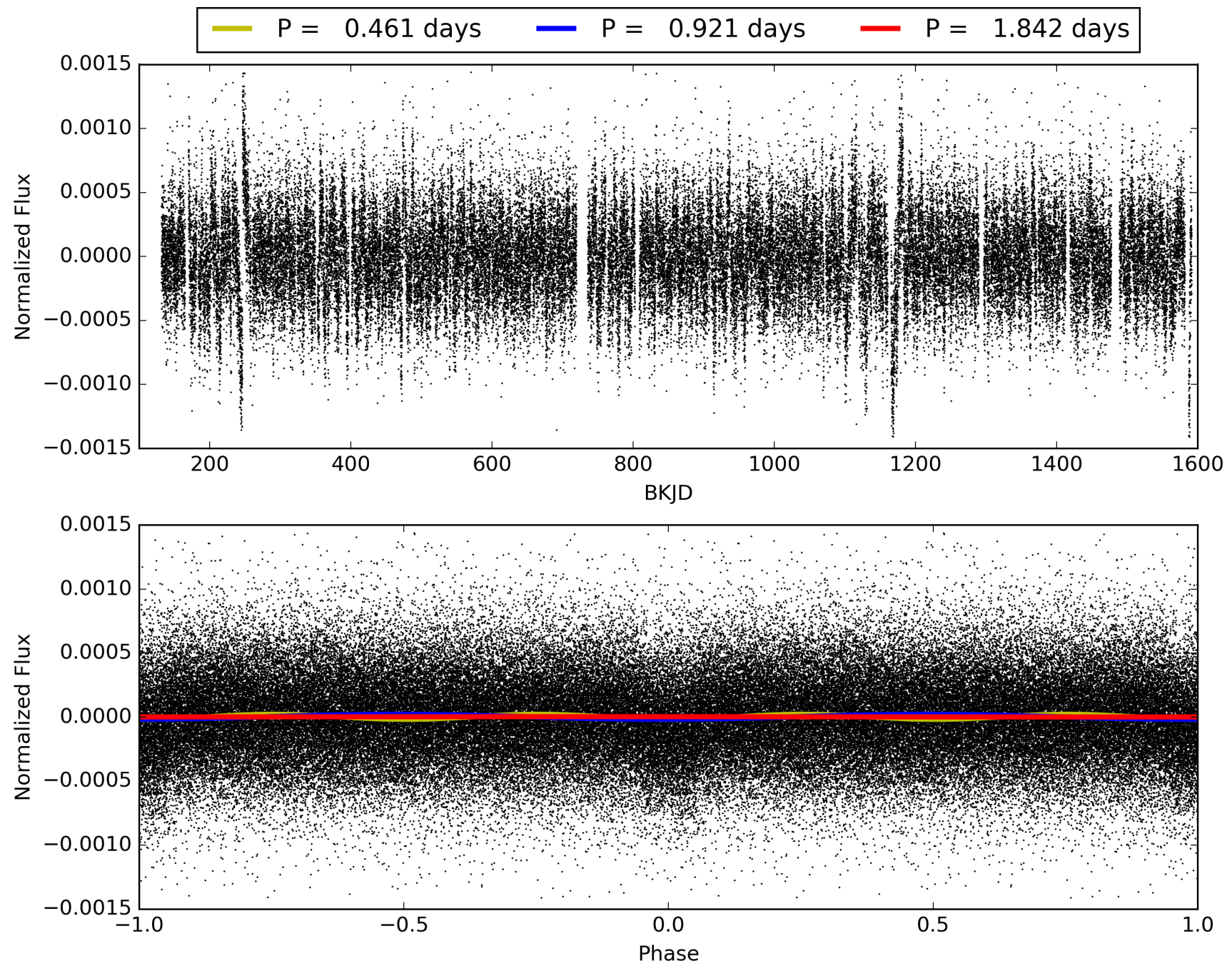
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.70e-89
RollingBand-fgt: 0.98 [1364/1392]
GhostDiagnostic-chr: 3.316
Centroid-sig: 0.0%
Centroid-so: 1.295 arcsec [2.44 σ]
OotOffset-rm: 0.106 arcsec [0.44 σ]
KicOffset-rm: 0.029 arcsec [0.12 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006310636-01, PDC Light Curves

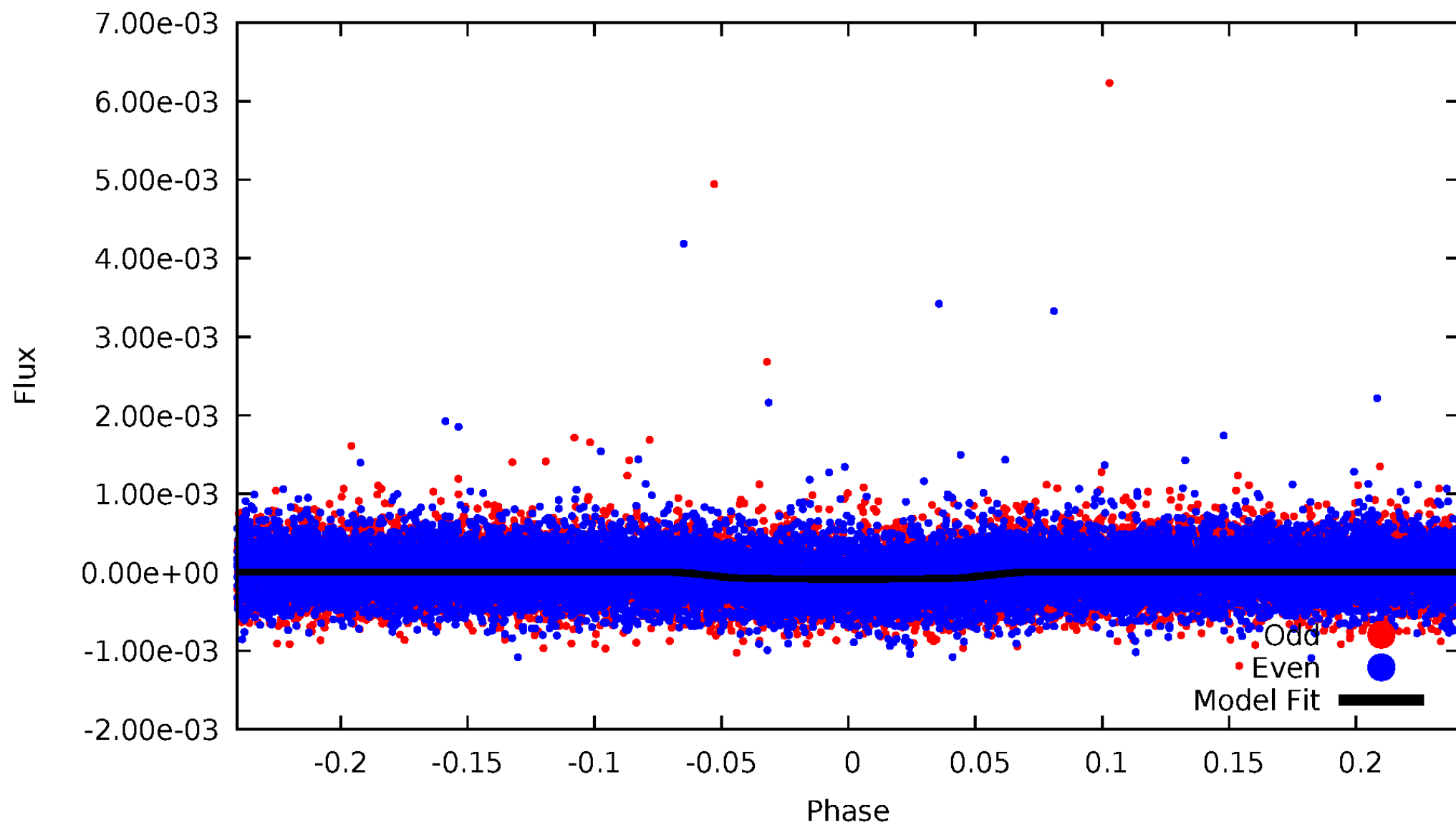


TCE 006310636-01



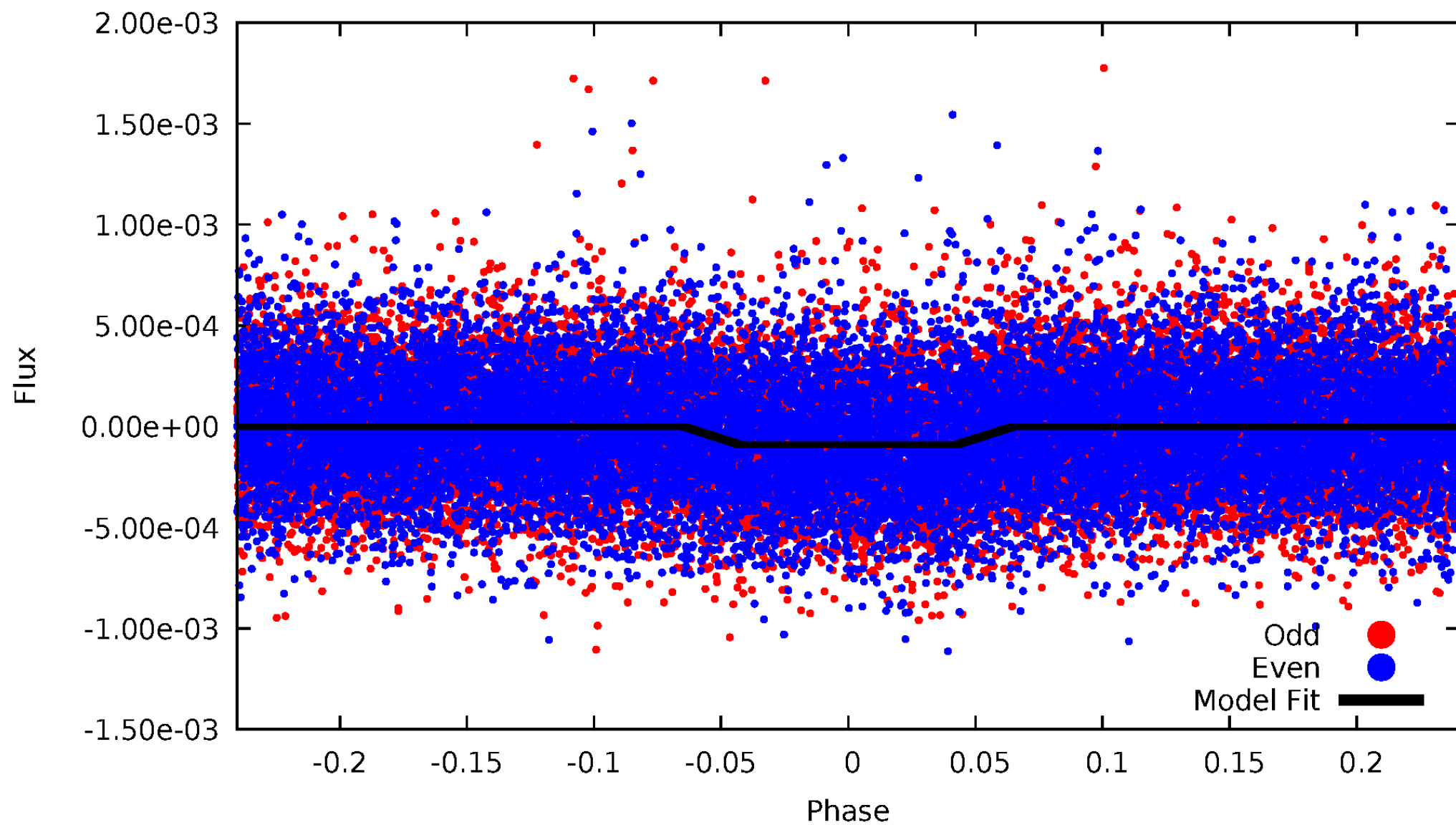
DV Odd/Even

TCE 006310636-01

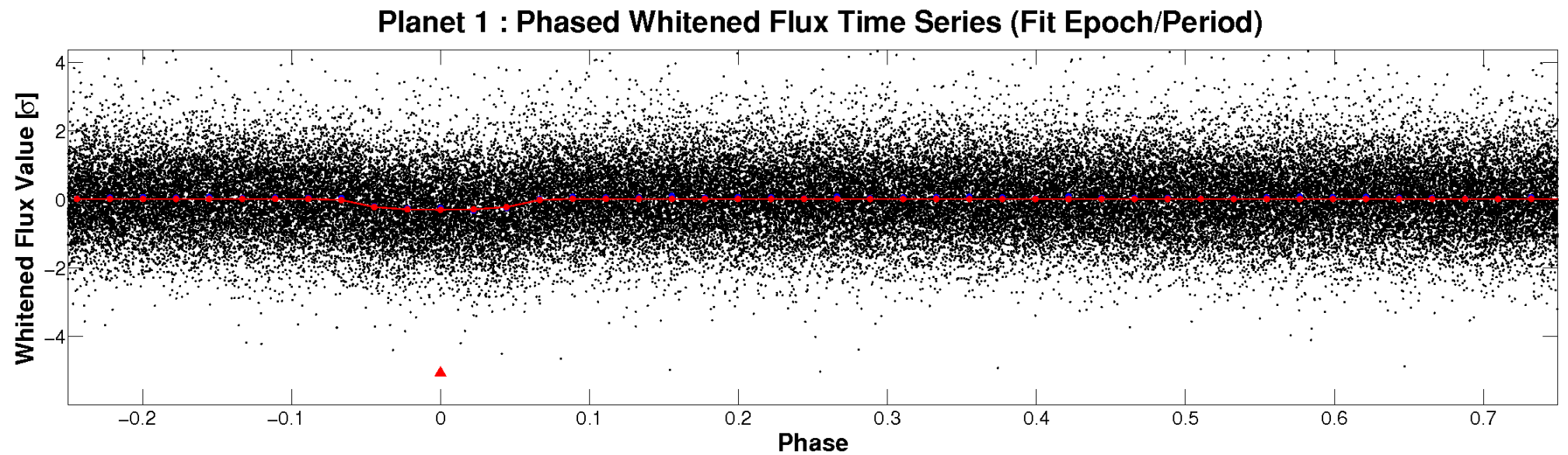
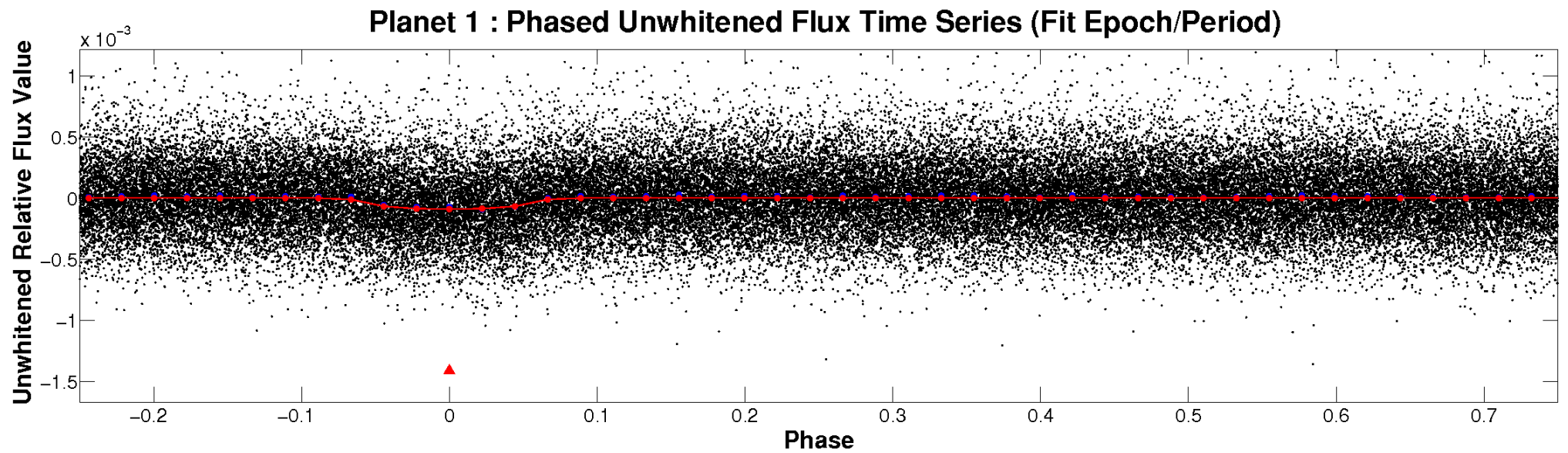


ALT Odd/Even

TCE 006310636-01

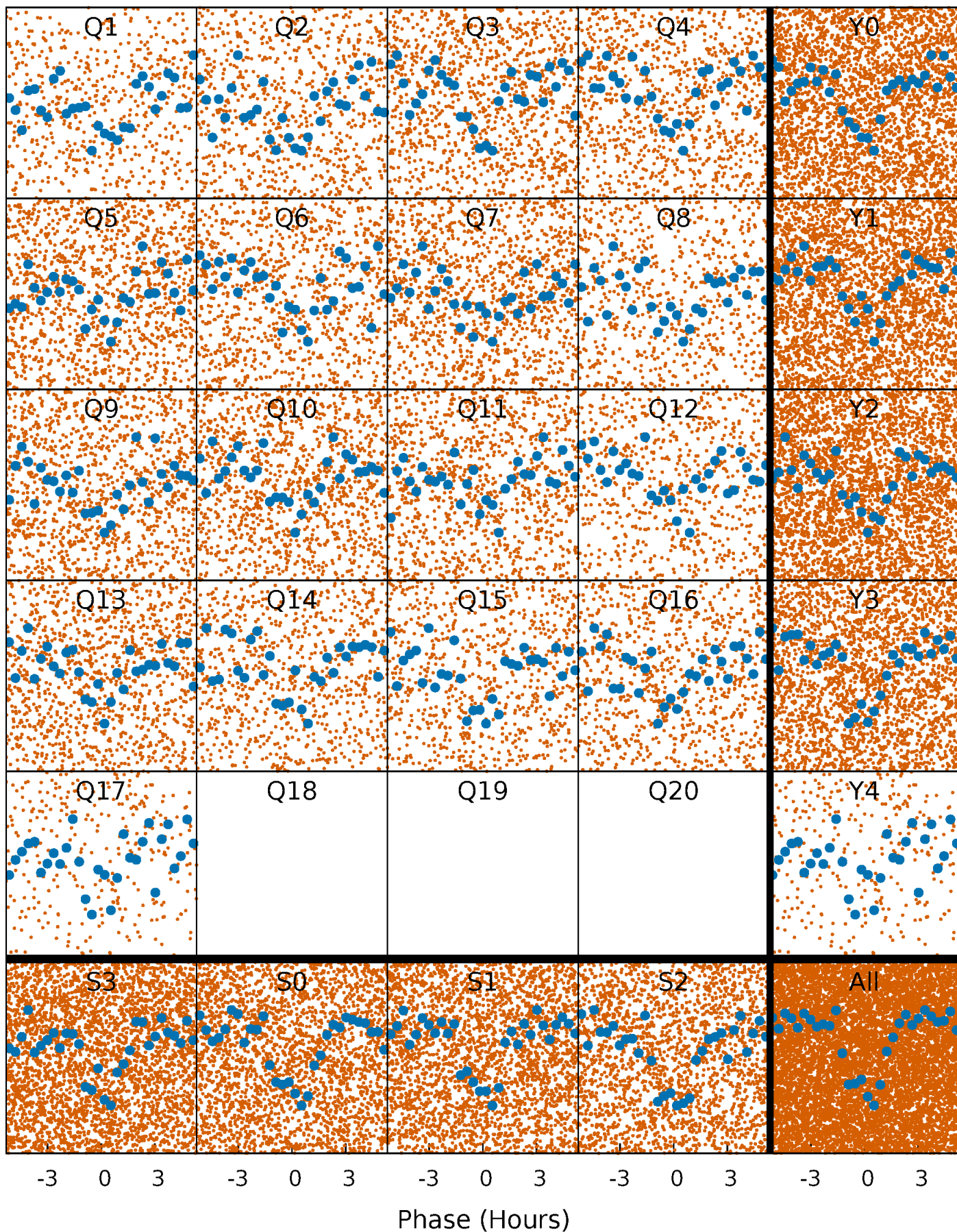


Non-Whitened Vs. Whitened Light Curve



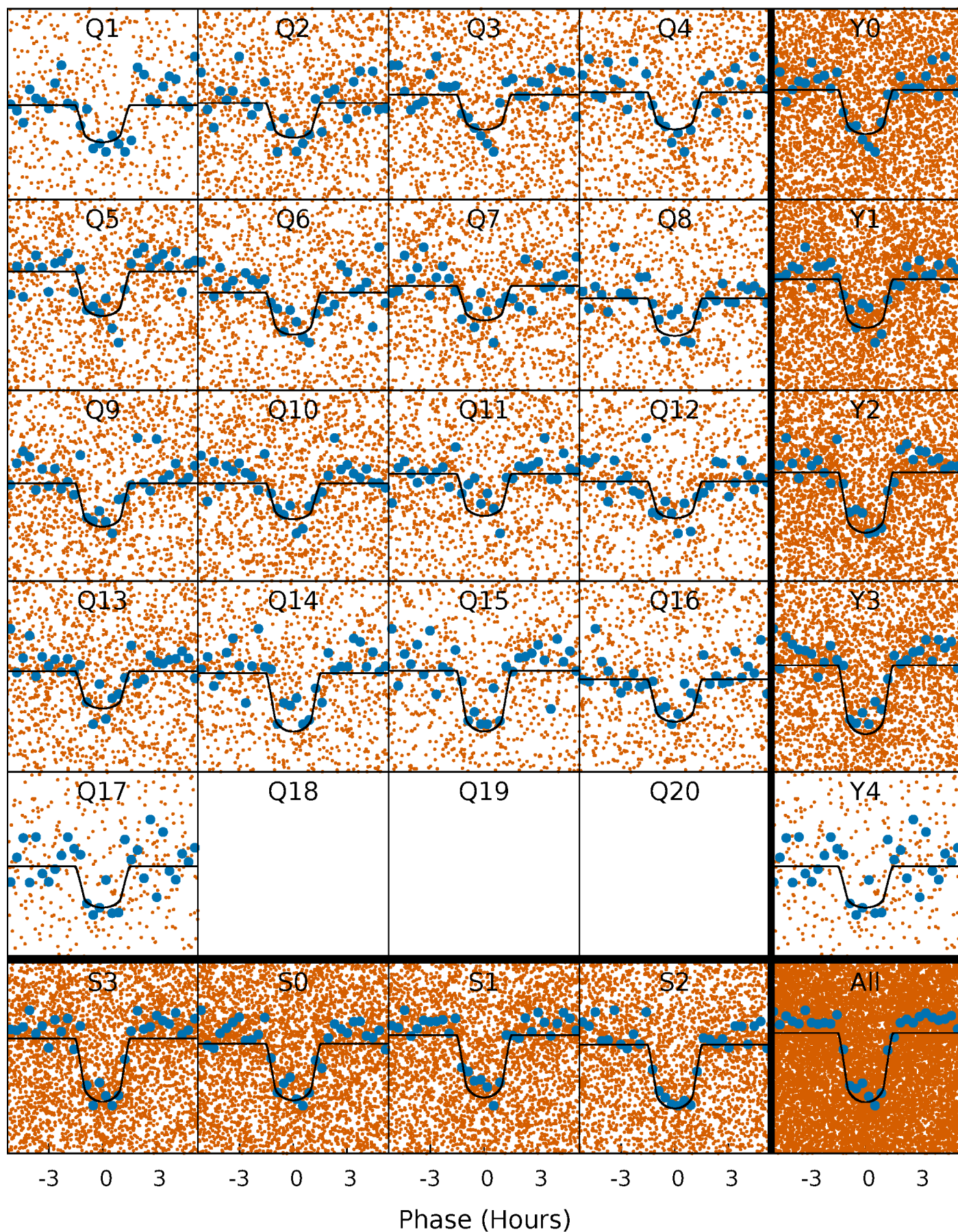
PDC Quarter-Phased Transit Curves

TCE 006310636-01 P= 0.921028 Days $T_0=132.032030$ (BKJD)



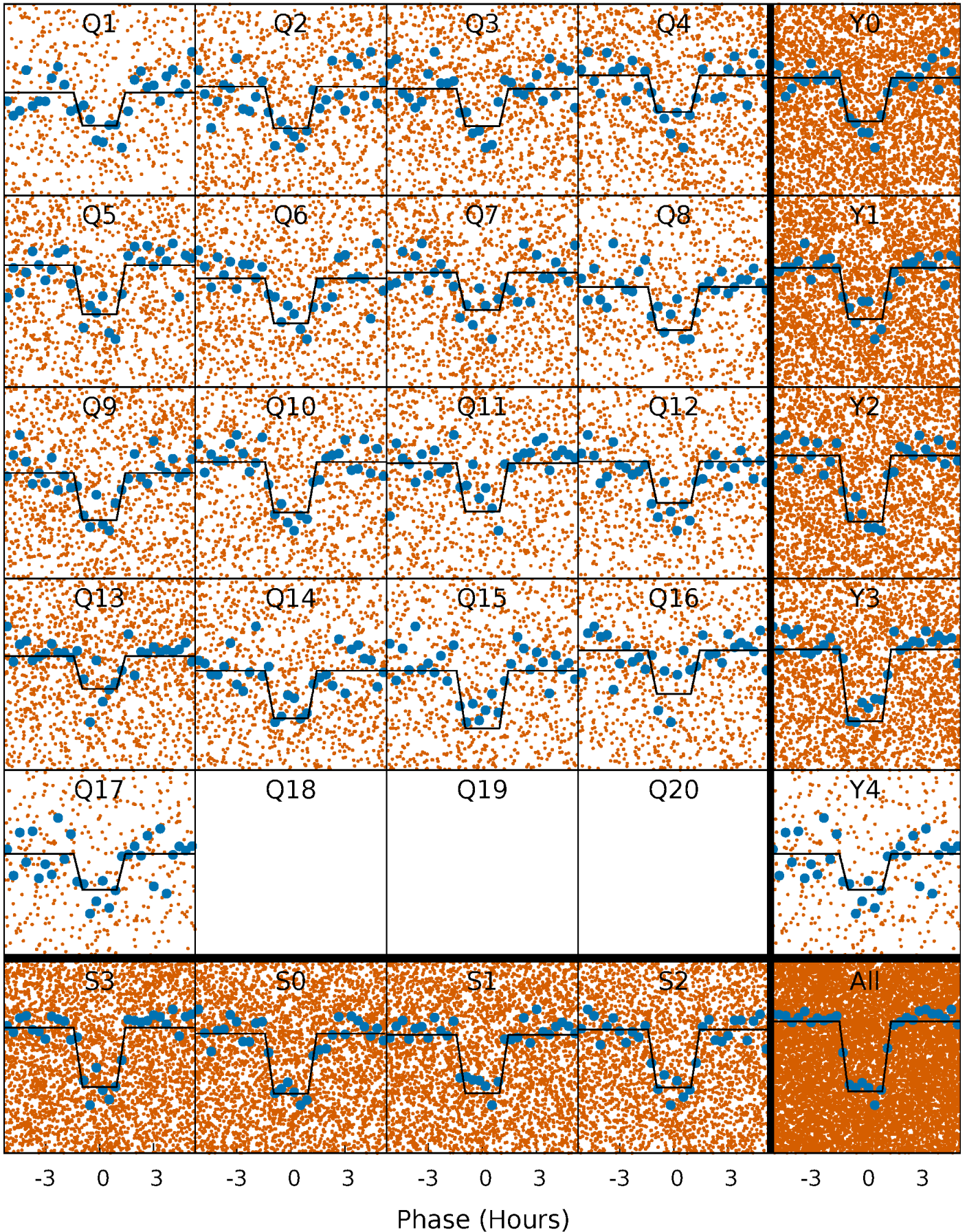
DV Quarter-Phased Transit Curves

TCE 006310636-01 P= 0.921028 Days $T_0=132.032030$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

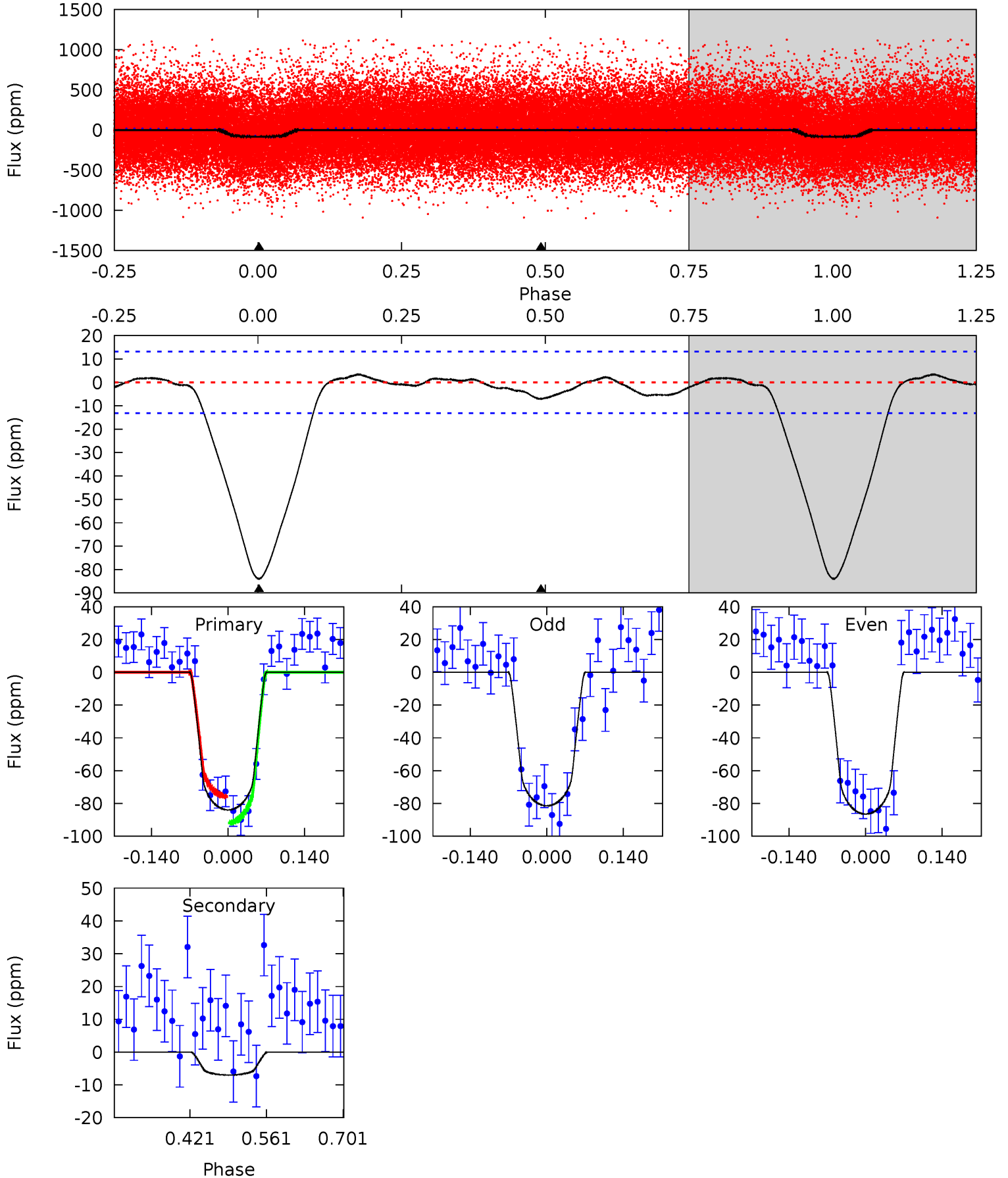
TCE 006310636-01 P= 0.921031 Days $T_0=132.030397$ (BKJD)



DV Model-Shift Uniqueness Test

006310636-01, P = 0.921028 Days, E = 131.111002 Days

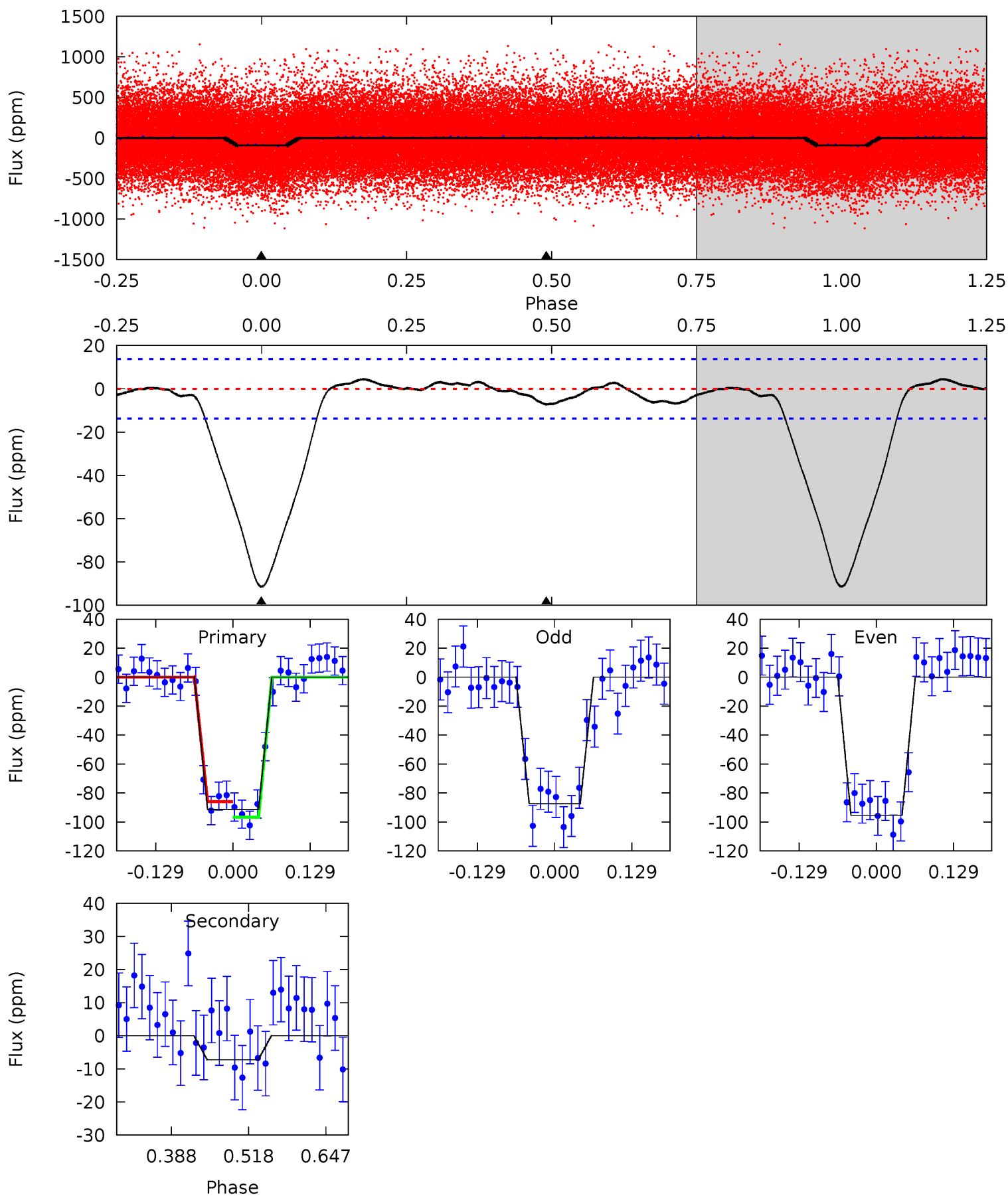
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.6	2.39	0	0	4.49	1.47	0.88	28.6	28.6	2.39	2.39	0.86	0.95	0.04	2.74



Alt Model-Shift Uniqueness Test

006310636-01, P = 0.921031 Days, E = 131.109366 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.0	2.38	0	0	4.51	1.52	1.01	30.0	30.0	2.38	2.38	1.32	0.95	0.05	1.77



Stellar Parameters For KIC 006310636

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5843^{+79}_{-79}	$4.069^{+0.182}_{-0.084}$	$0.140^{+0.150}_{-0.150}$	$1.615^{+0.252}_{-0.346}$	$1.115^{+0.119}_{-0.095}$	$0.373^{+0.358}_{-0.113}$
	+1%/-1%	+4%/-2%	+107%/-107%	+16%/-21%	+11%/-9%	+96%/-30%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 006310636-01 / KOI 1688.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-7 ± 3	$1.76^{+0.63}_{-0.62}$	3277^{+130}_{-191}	2924^{+879}_{-5744}	$0.444^{+0.707}_{-0.249}$
Alt.	-7 ± 3	$1.61^{+0.71}_{-0.60}$	3270^{+143}_{-180}	3157^{+935}_{-5905}	$0.556^{+1.047}_{-0.343}$

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 $A_{obs} \gg 1.0$

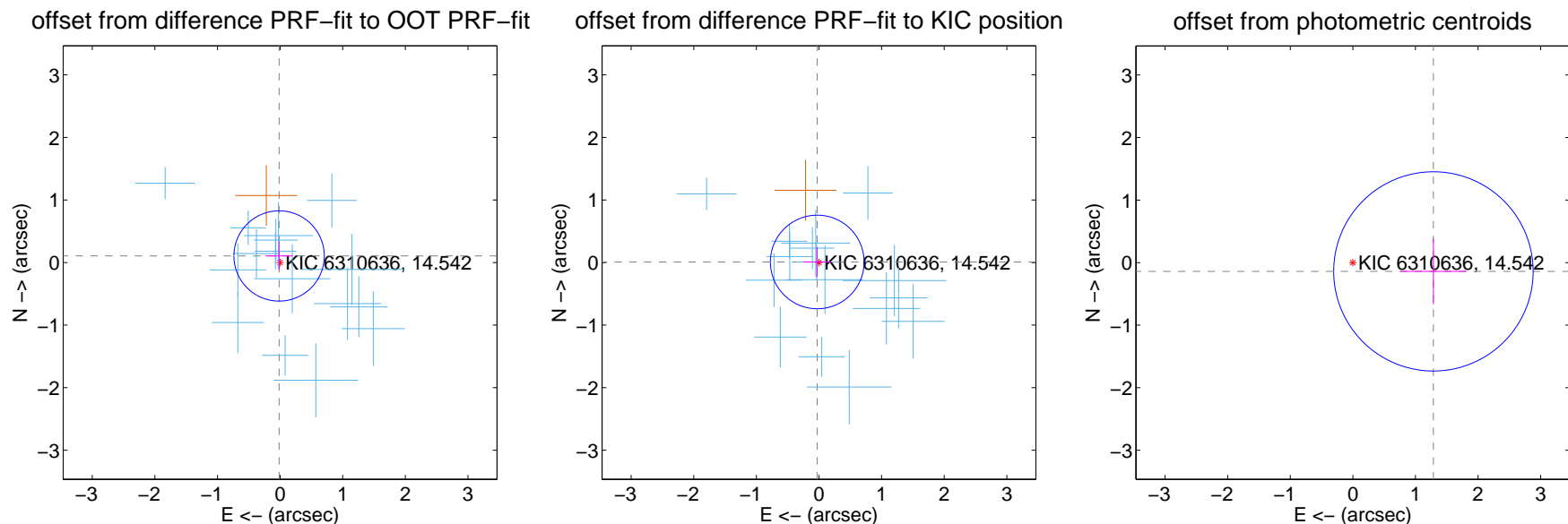
DV Centroid Data

Supplemental centroid analysis for 006310636-01. Kepler magnitude: 14.54. Transit SNR 22.40

There are 16 quarters with good PRF difference image offsets

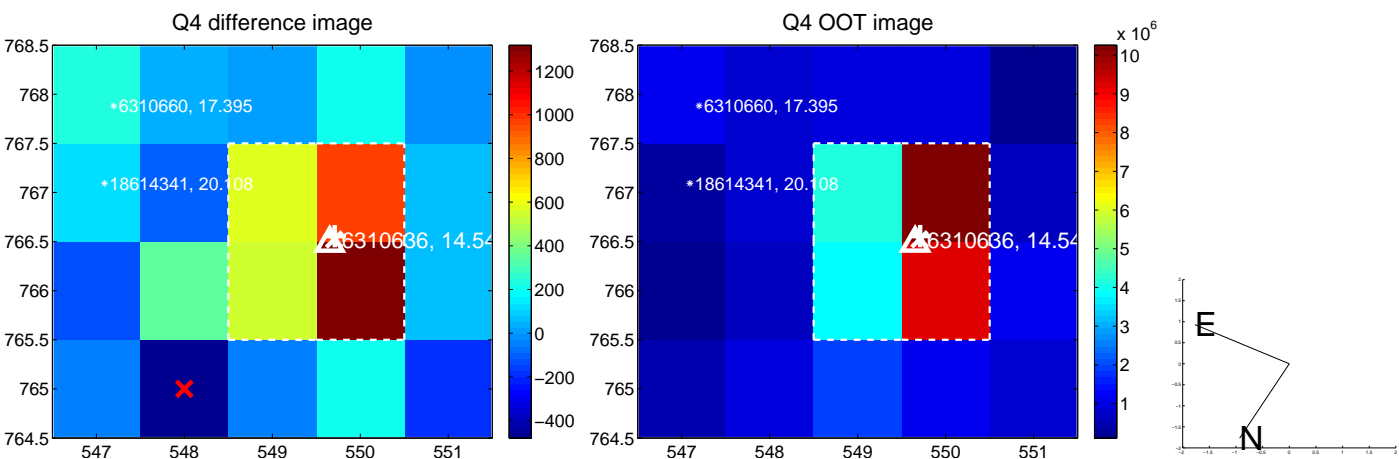
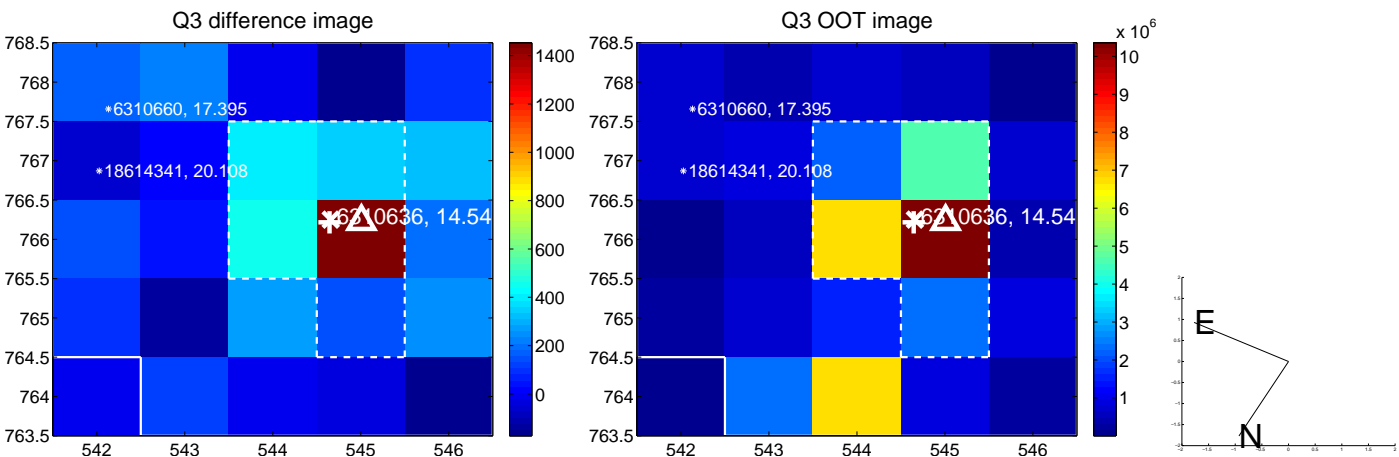
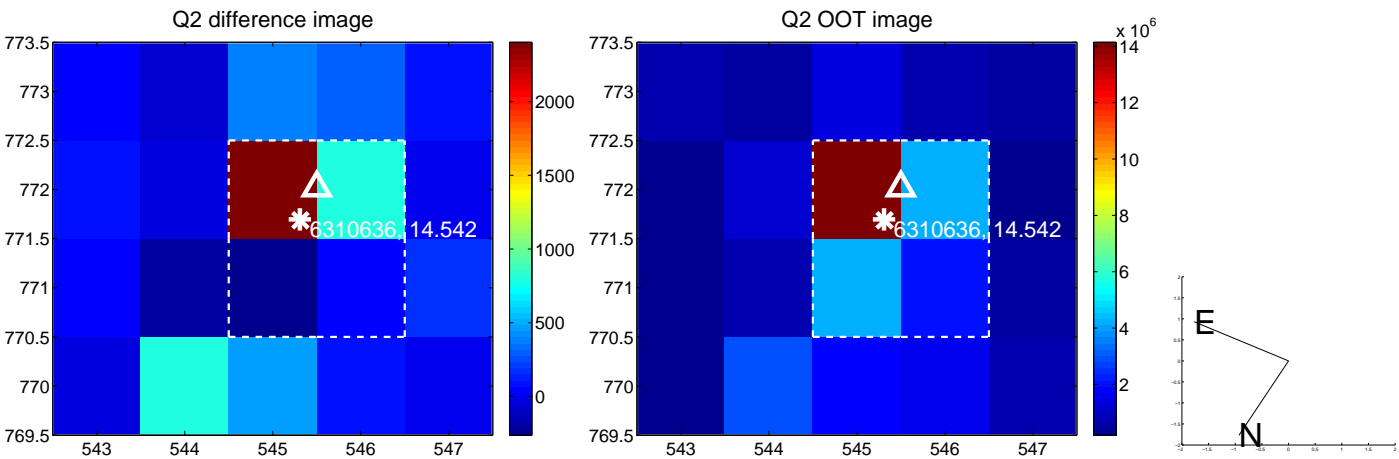
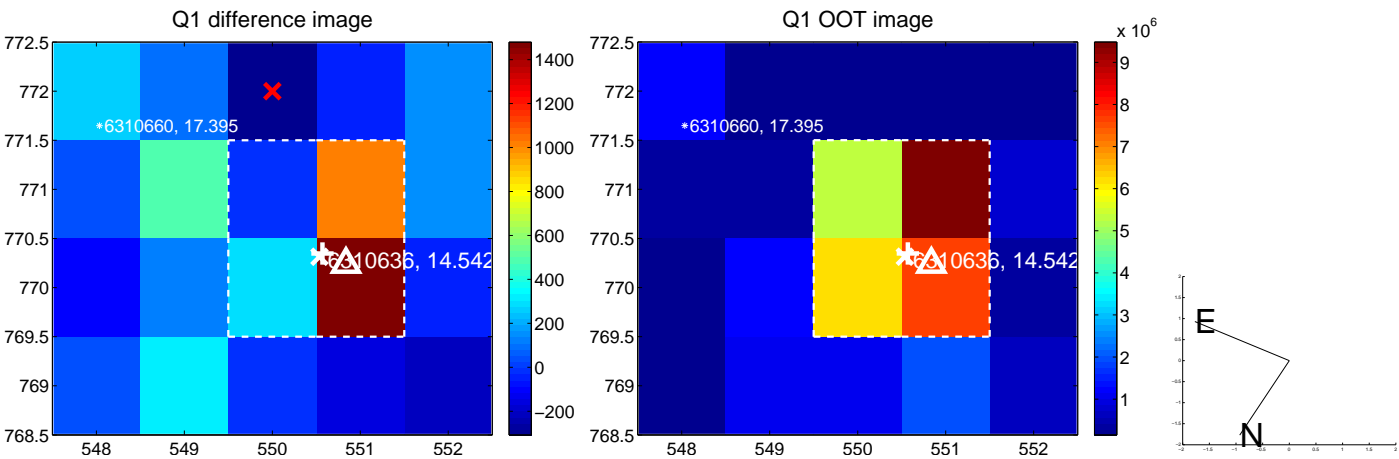
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.106 ± 0.241	0.44	0.016 ± 0.220	0.105 ± 0.226
PRF-fit source offset from KIC position	0.029 ± 0.249	0.12	0.028 ± 0.221	0.009 ± 0.241
photometric centroid source offset	1.29 ± 0.53	2.44	-1.29 ± 0.53	-0.14 ± 0.52

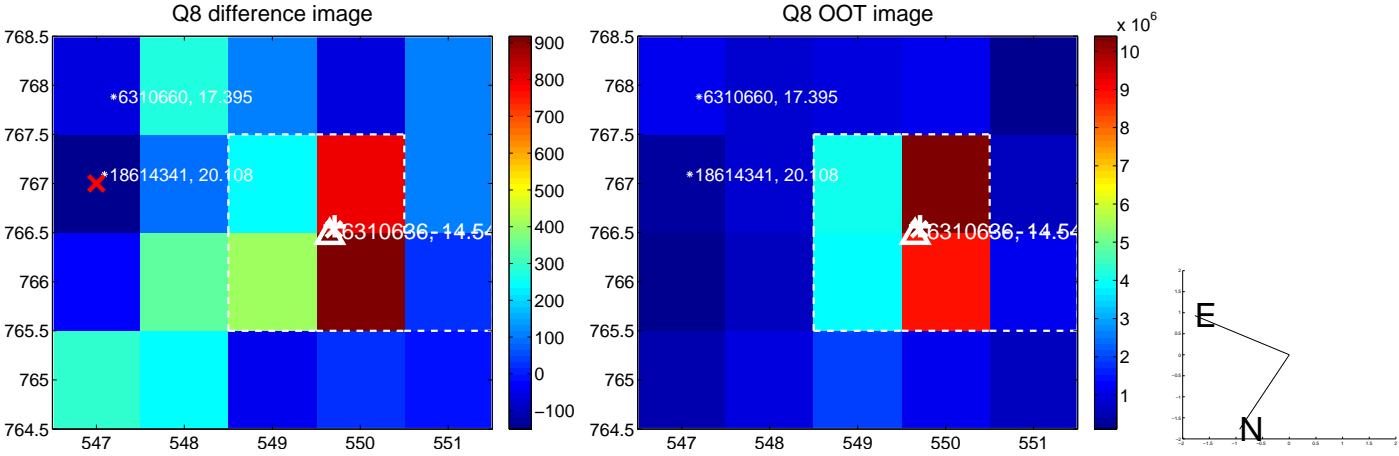
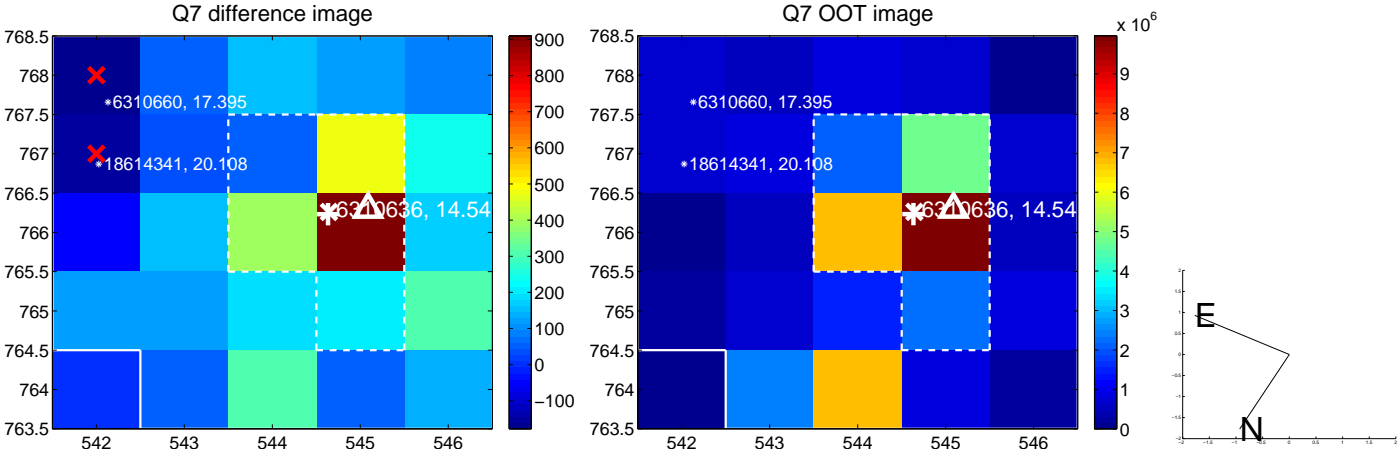
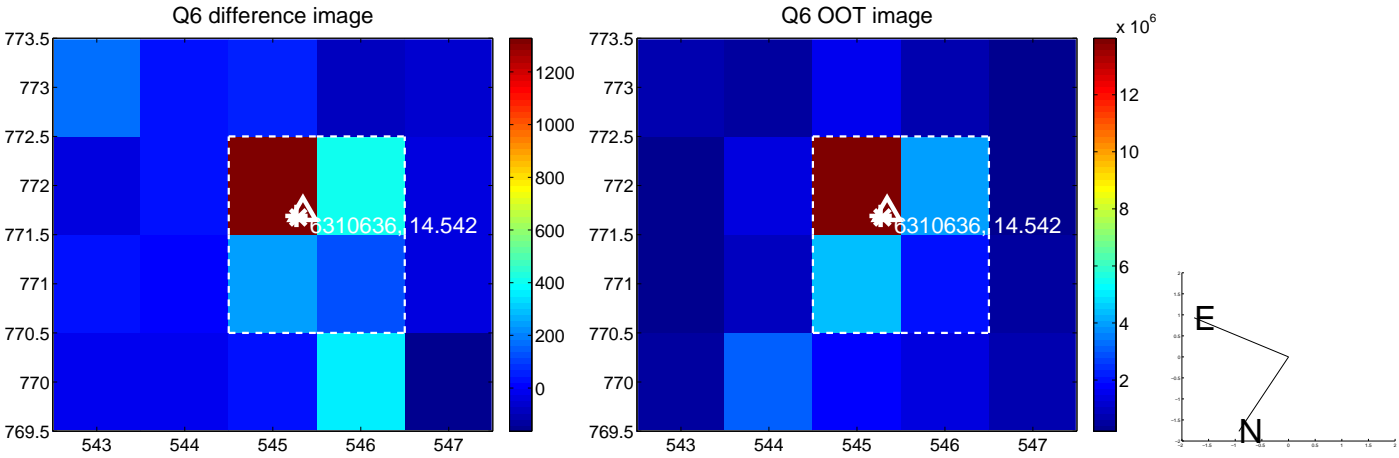
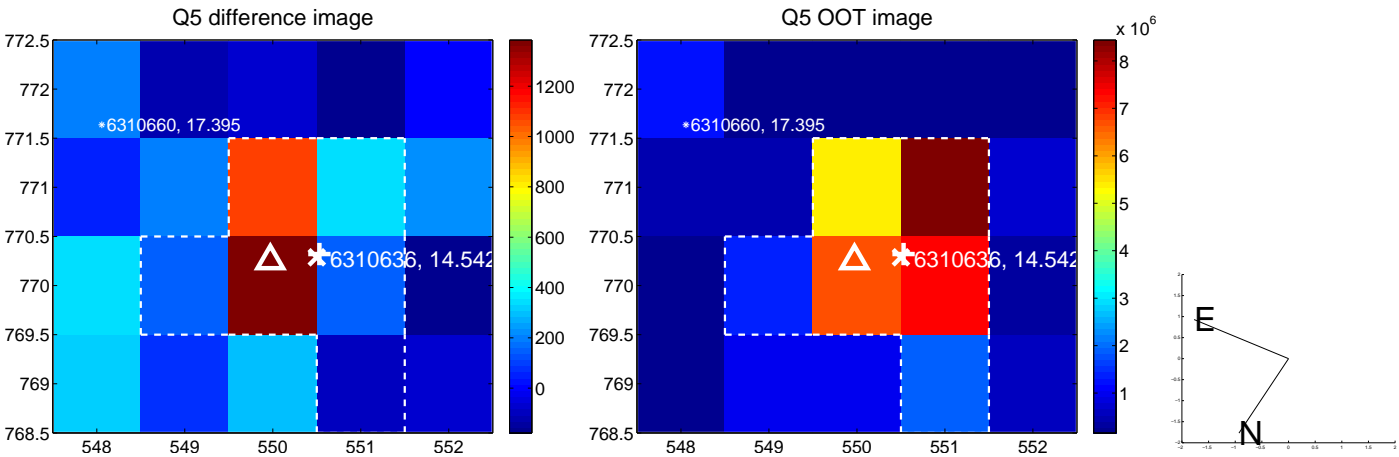


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

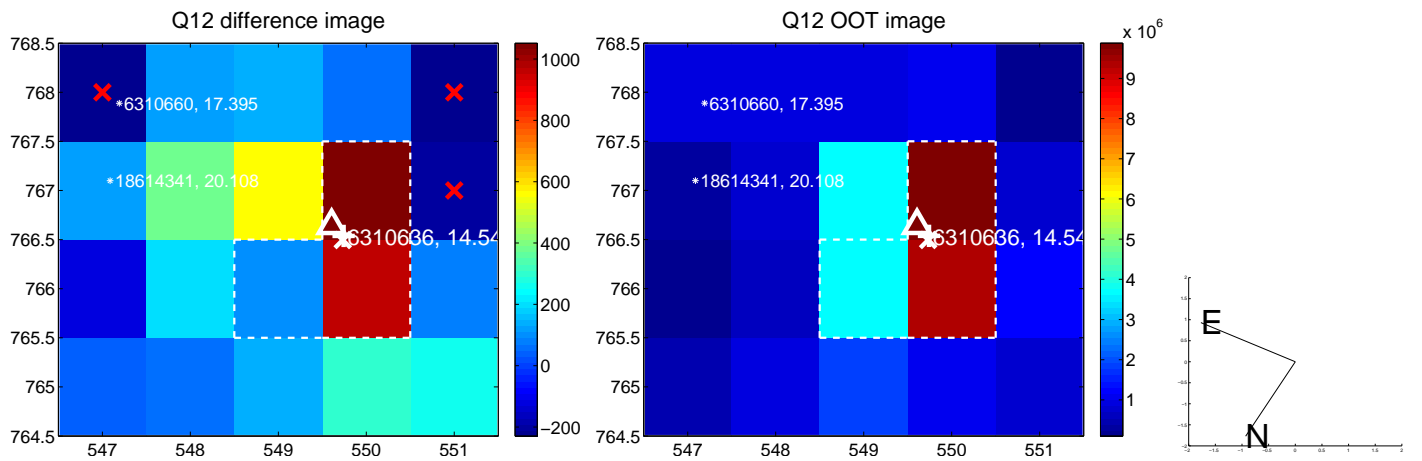
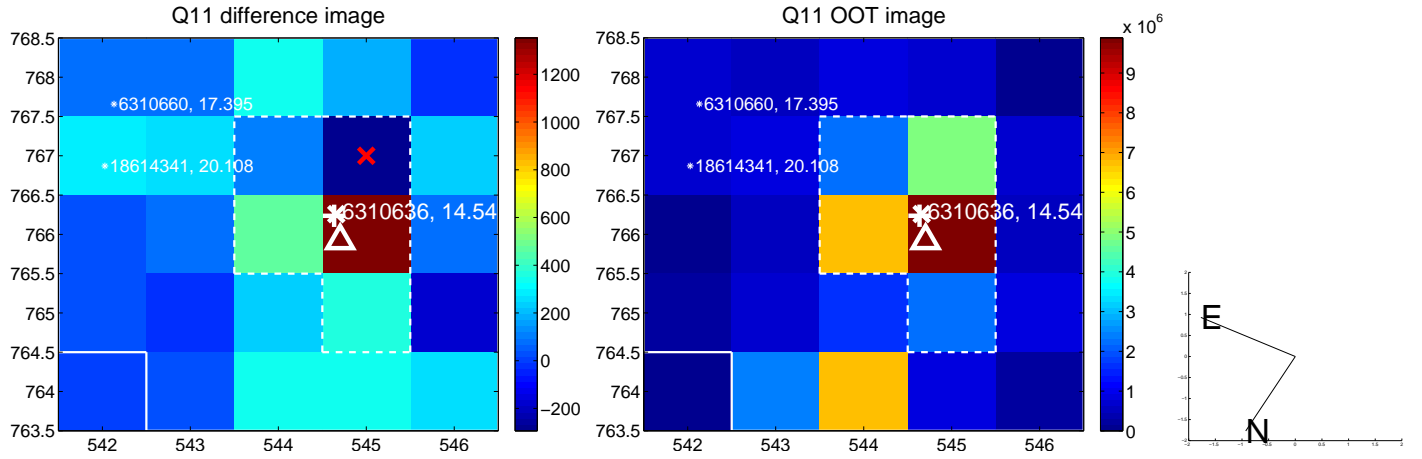
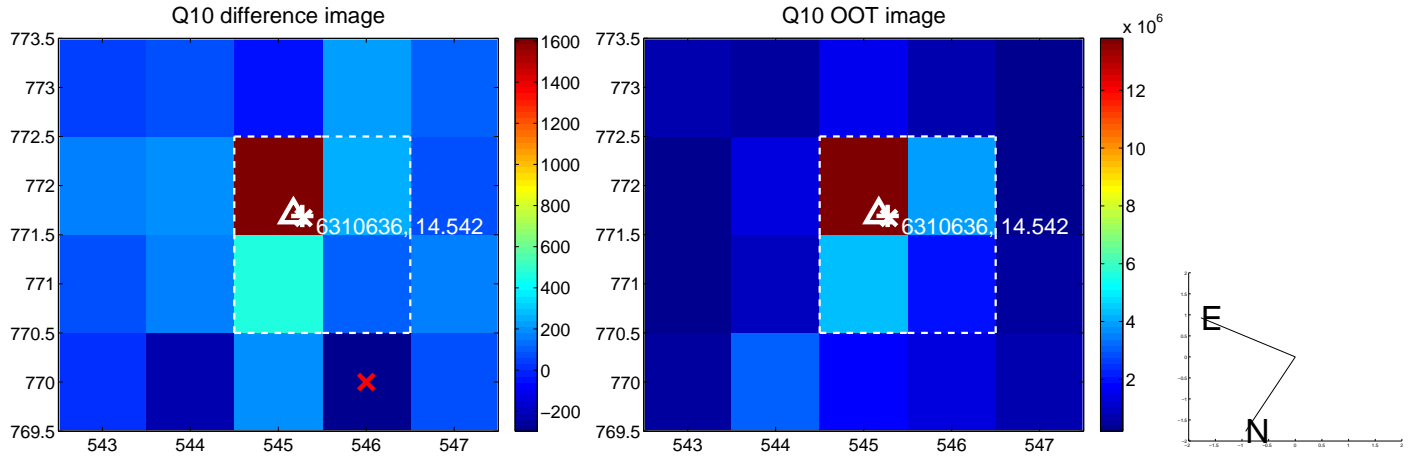
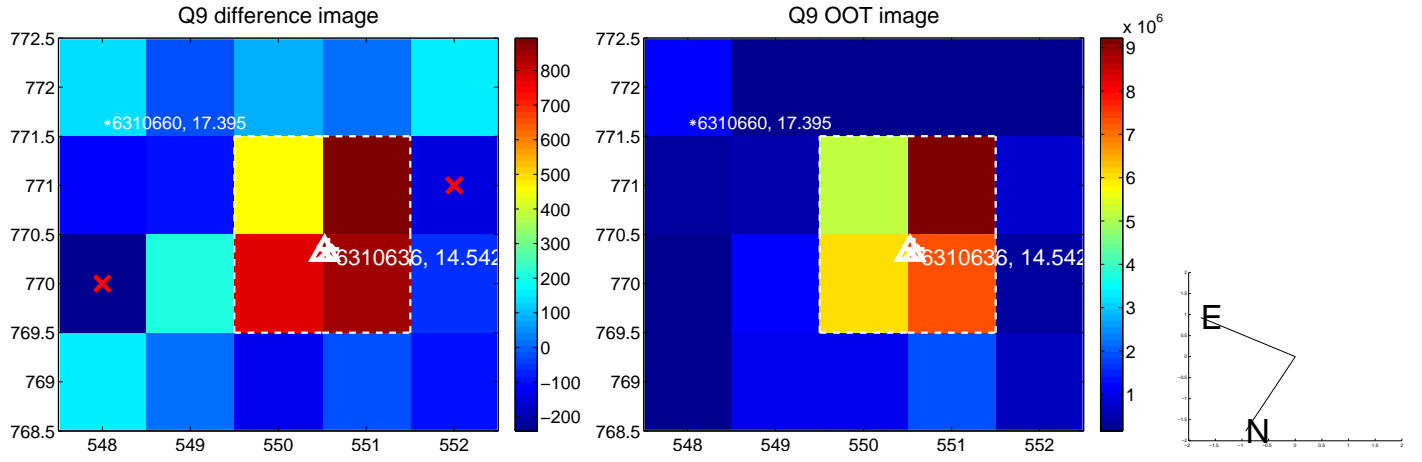
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



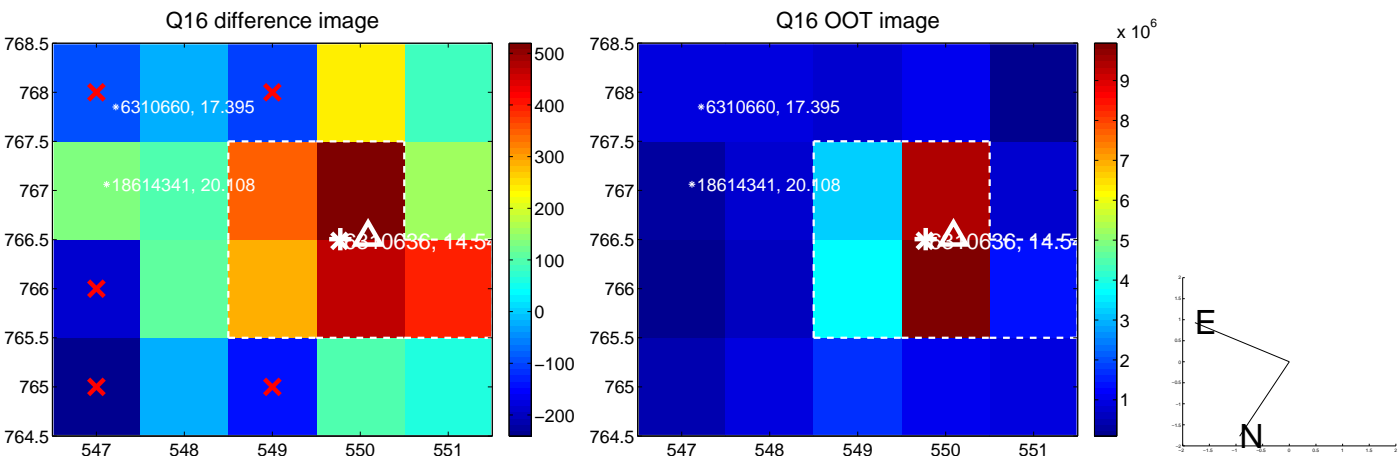
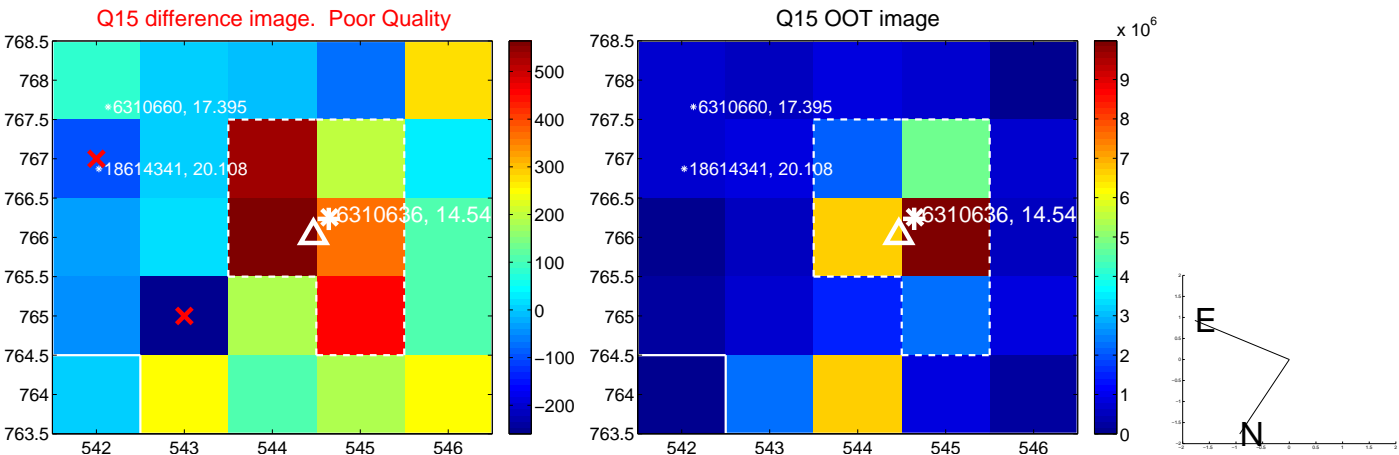
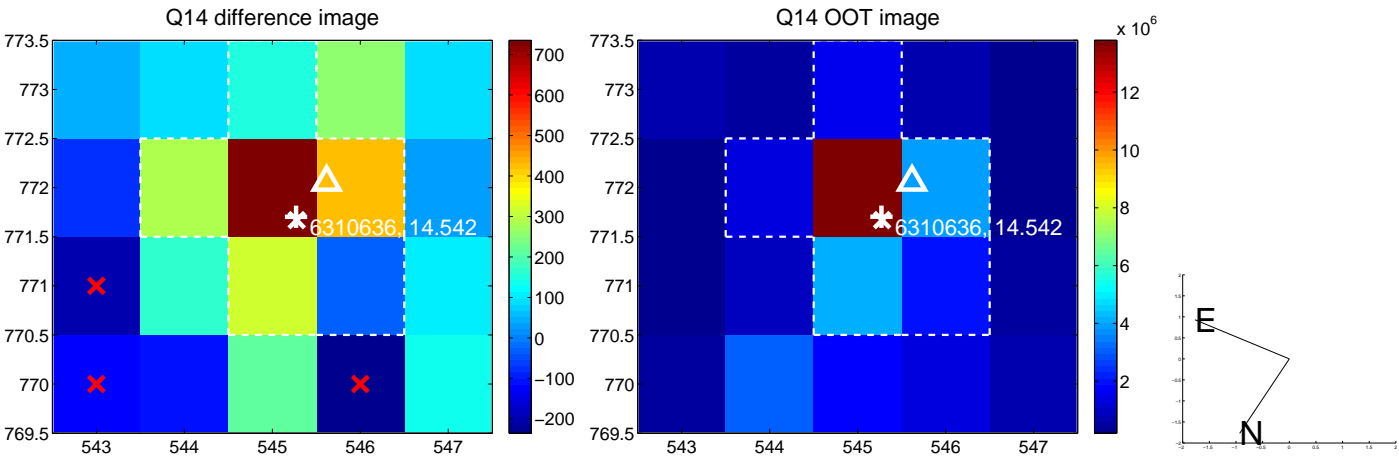
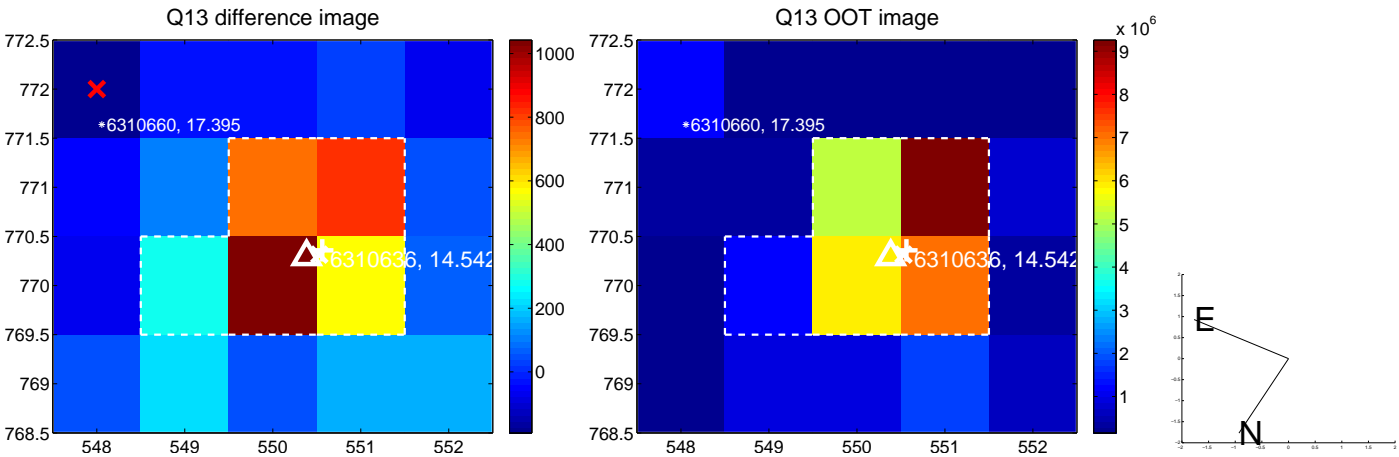
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



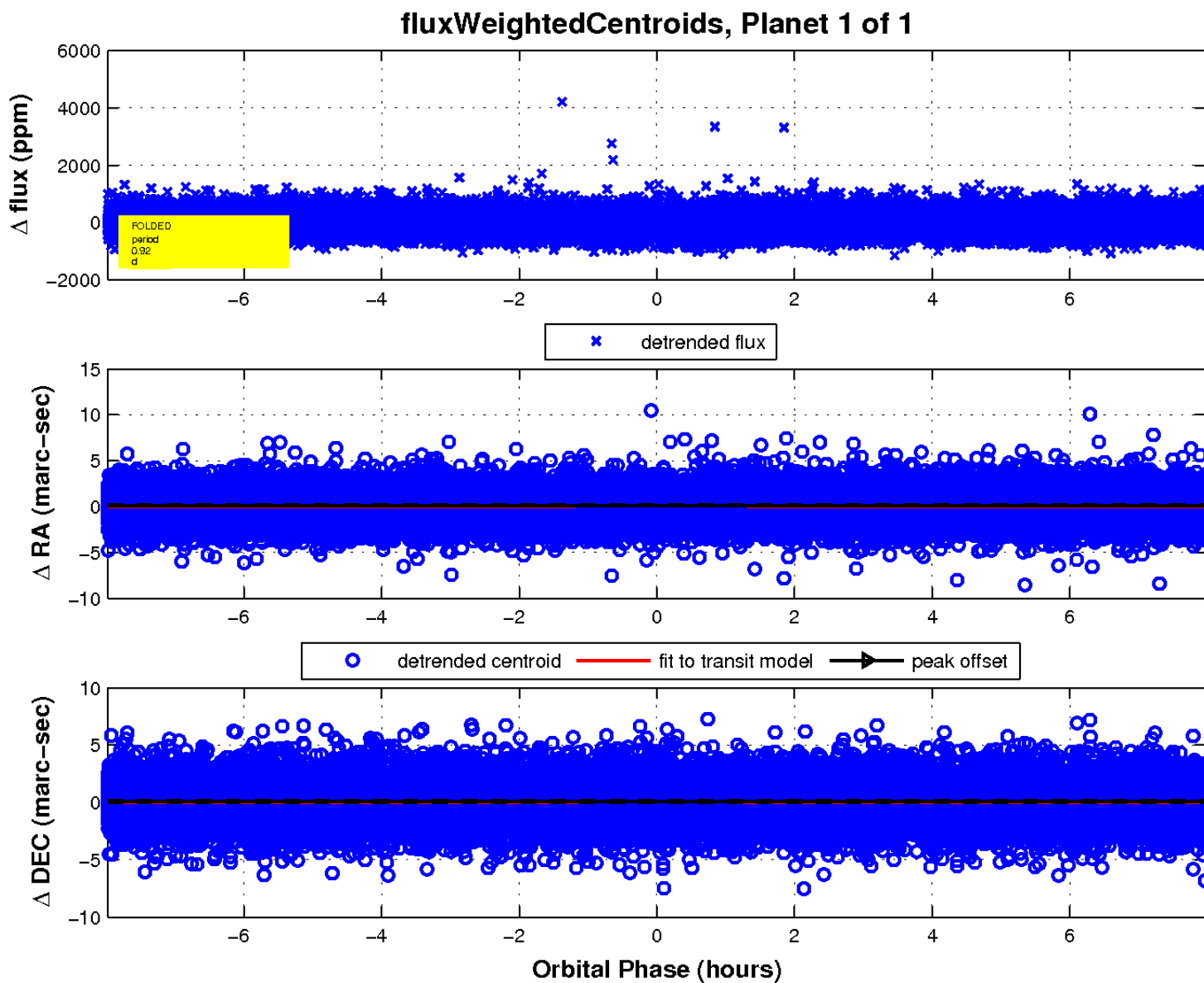
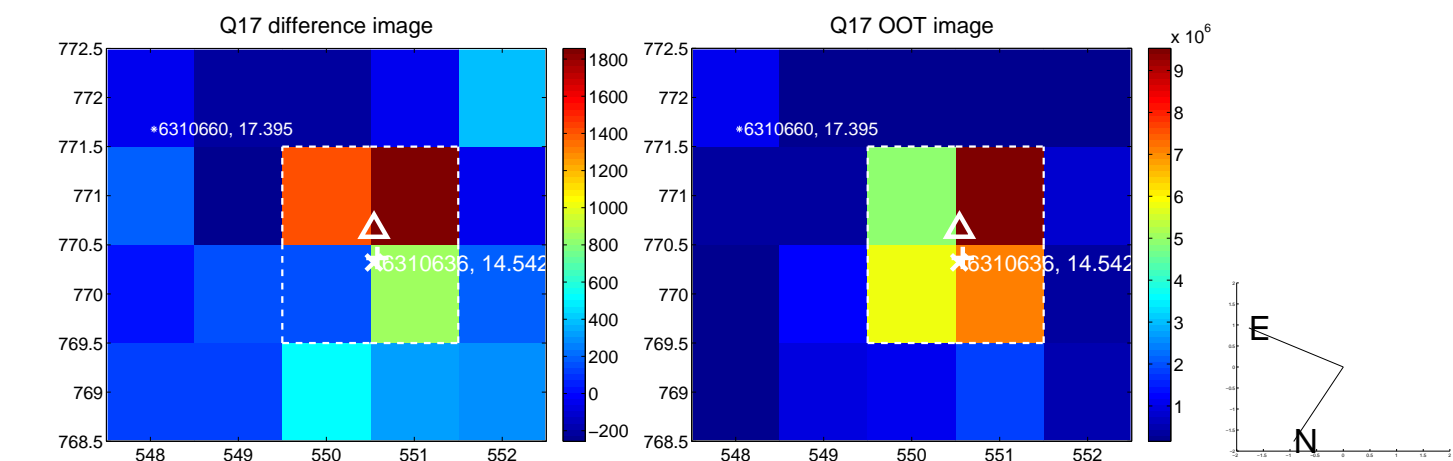
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

