

KIC 006384840

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})
006384840-01	OBS	6699.01	2.499026	133.370622	116.6	2.726	7.9	7.9	0.93	5525	1.21	593.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006384840-01	OBS	FP	0.04	1	0	1	0	LPP_ALT—CENT_RESOLVED_OFFSET

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 006384840-01

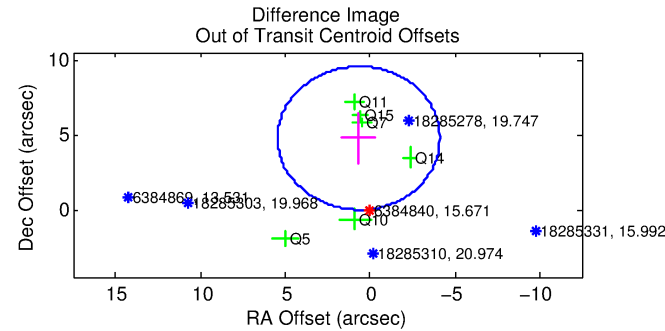
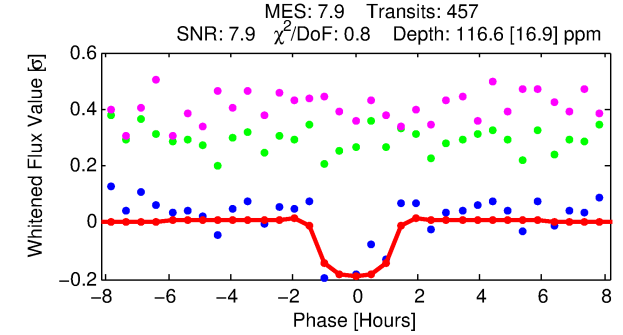
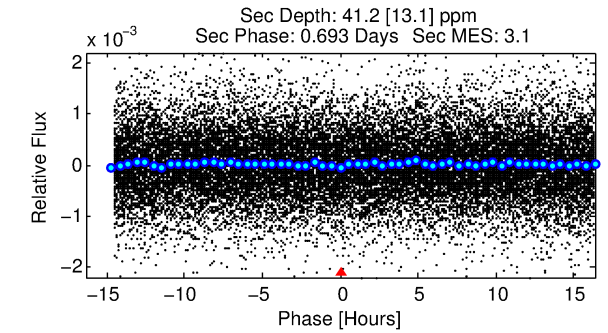
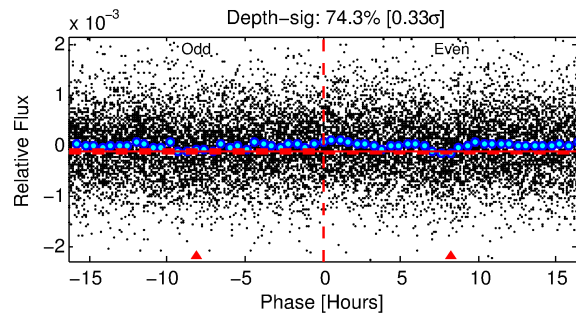
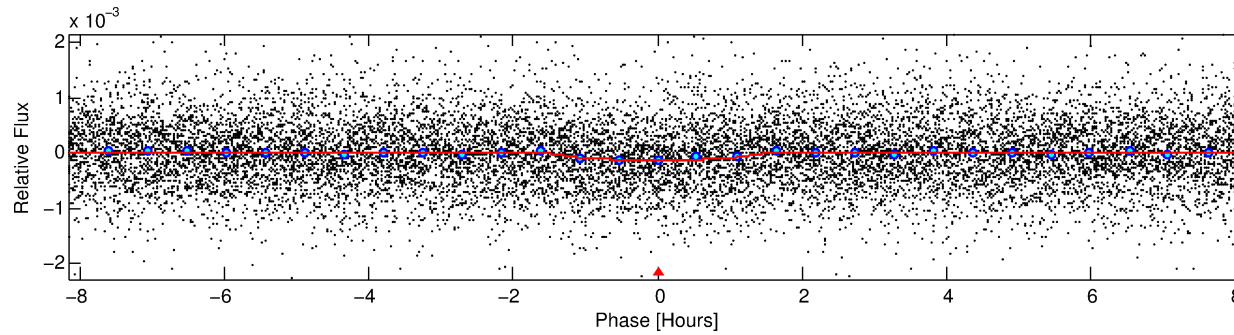
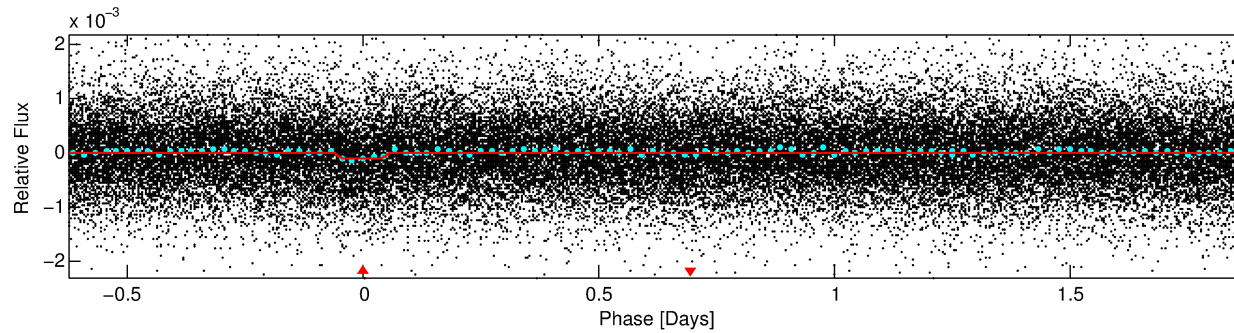
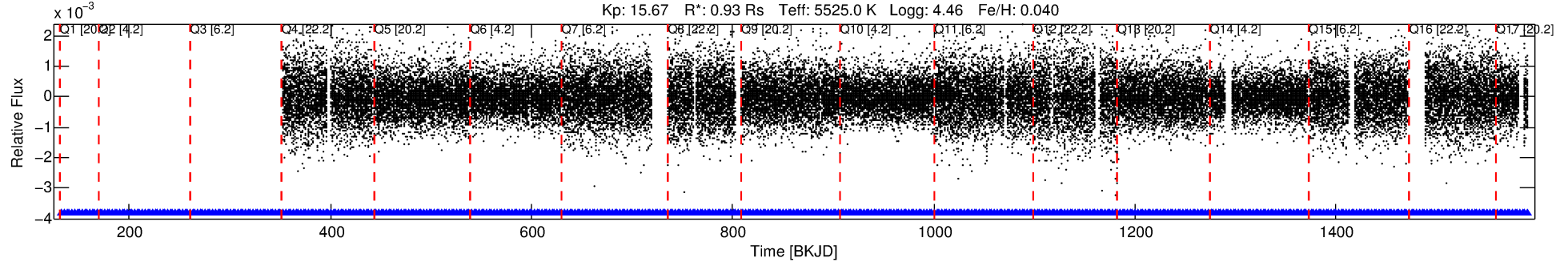
No Significant Match Found

DV One-Page Summary

KIC: 6384840 Candidate: 1 of 1 Period: 2.499 d

KOI: K06699.01 Corr: 0.910

Kp: 15.67 R*: 0.93 Rs Teff: 5525.0 K Logg: 4.46 Fe/H: 0.040



DV Fit Results:

Period = 2.49903 [0.00002] d
Epoch = 133.3706 [0.0052] BKJD
Rp/R* = 0.0119 [0.0107]
a/R* = 3.35 [12.39]
b = 0.90 [0.86]
Seff = 593.63 [201.97]
Teq = 1259 [107] K
Rp = 1.21 [1.13] Re
a = 0.0349 [0.0076] AU
Ag = 18.92 [35.01] [0.51σ]
Teff = 4059 [1855] K [1.51σ]

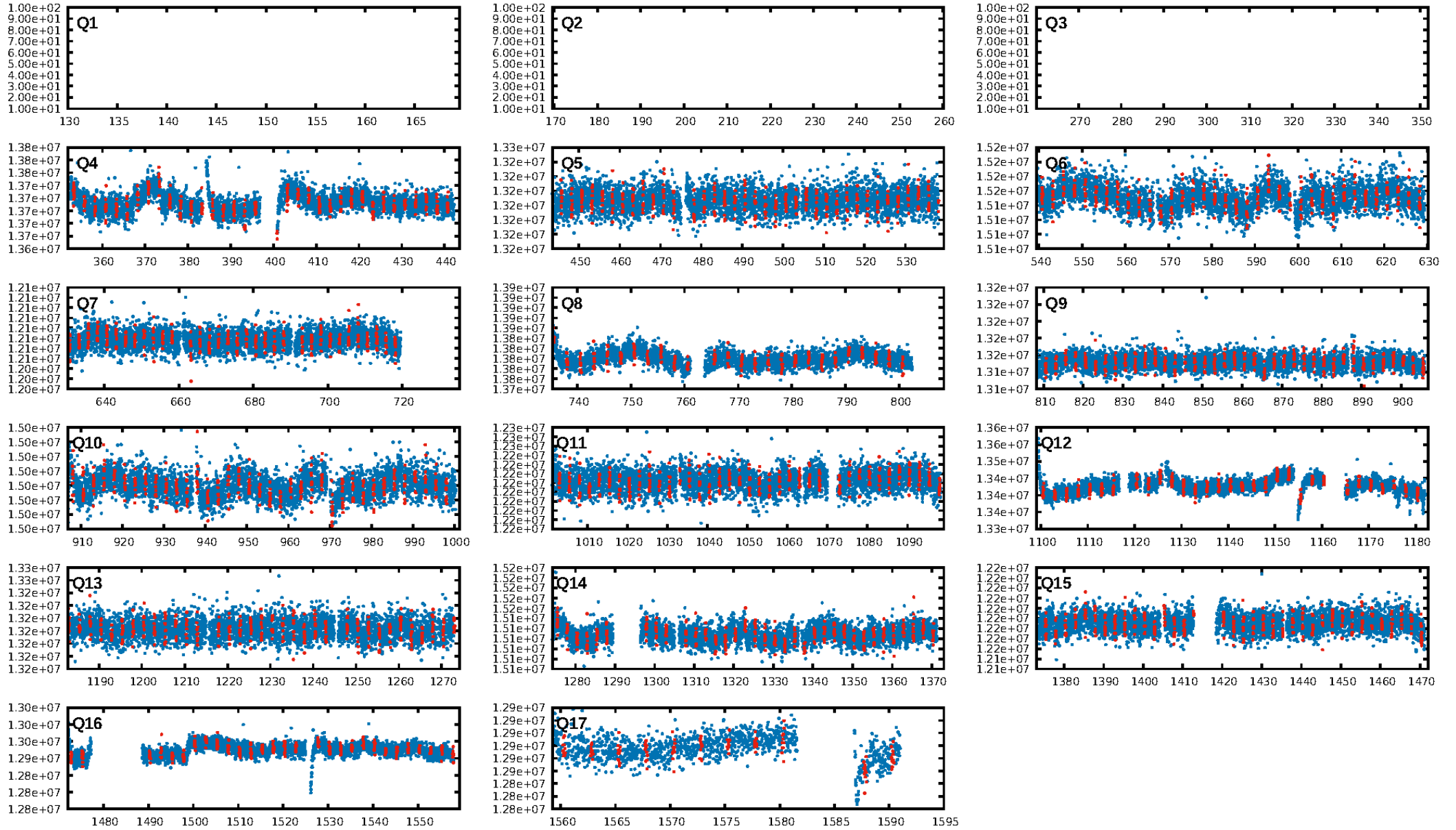
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.65e-15
RollingBand-fgt: 1.00 [446/446]
GhostDiagnostic-chr: 2.155
Centroid-sig: 65.1%
Centroid-so: 2.790 arcsec [4.23σ]
OotOffset-rm: 4.814 arcsec [3.02σ]
KicOffset-rm: 5.352 arcsec [5.64σ]
OotOffset-st: 2/3/0/1 [6]
KicOffset-st: 2/3/3/1 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 1.00 [14/14]

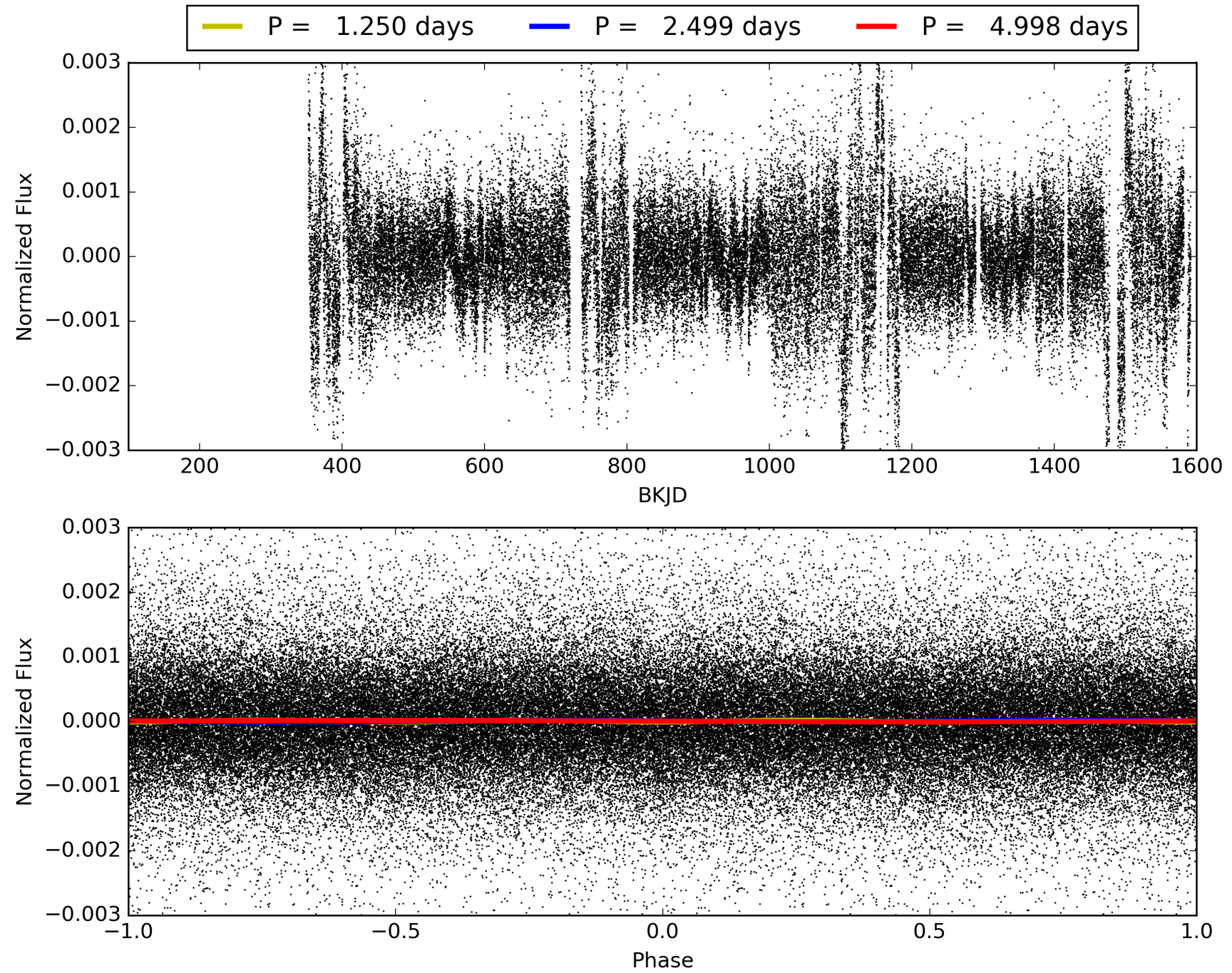
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:40:32 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006384840-01, PDC Light Curves

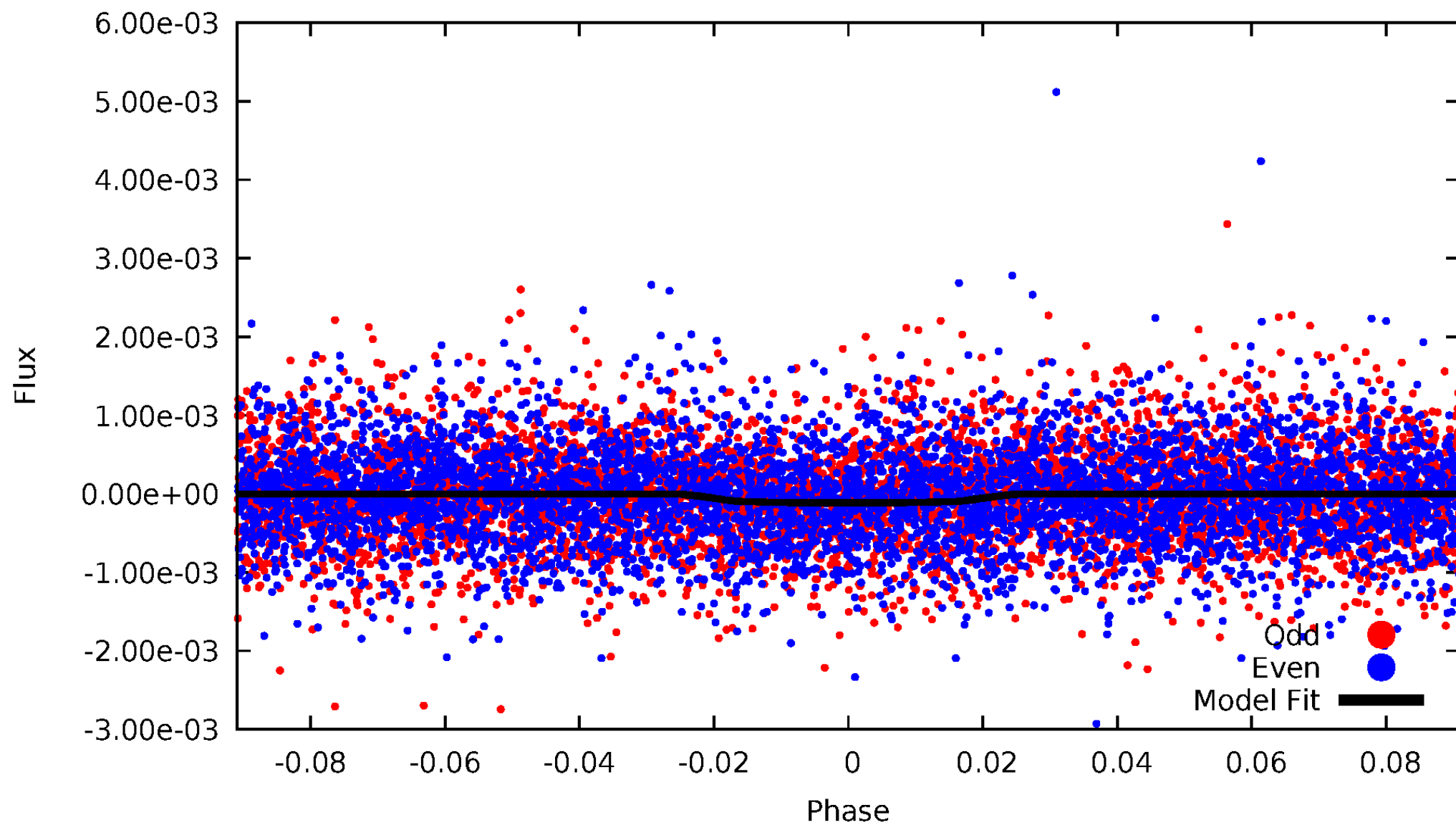


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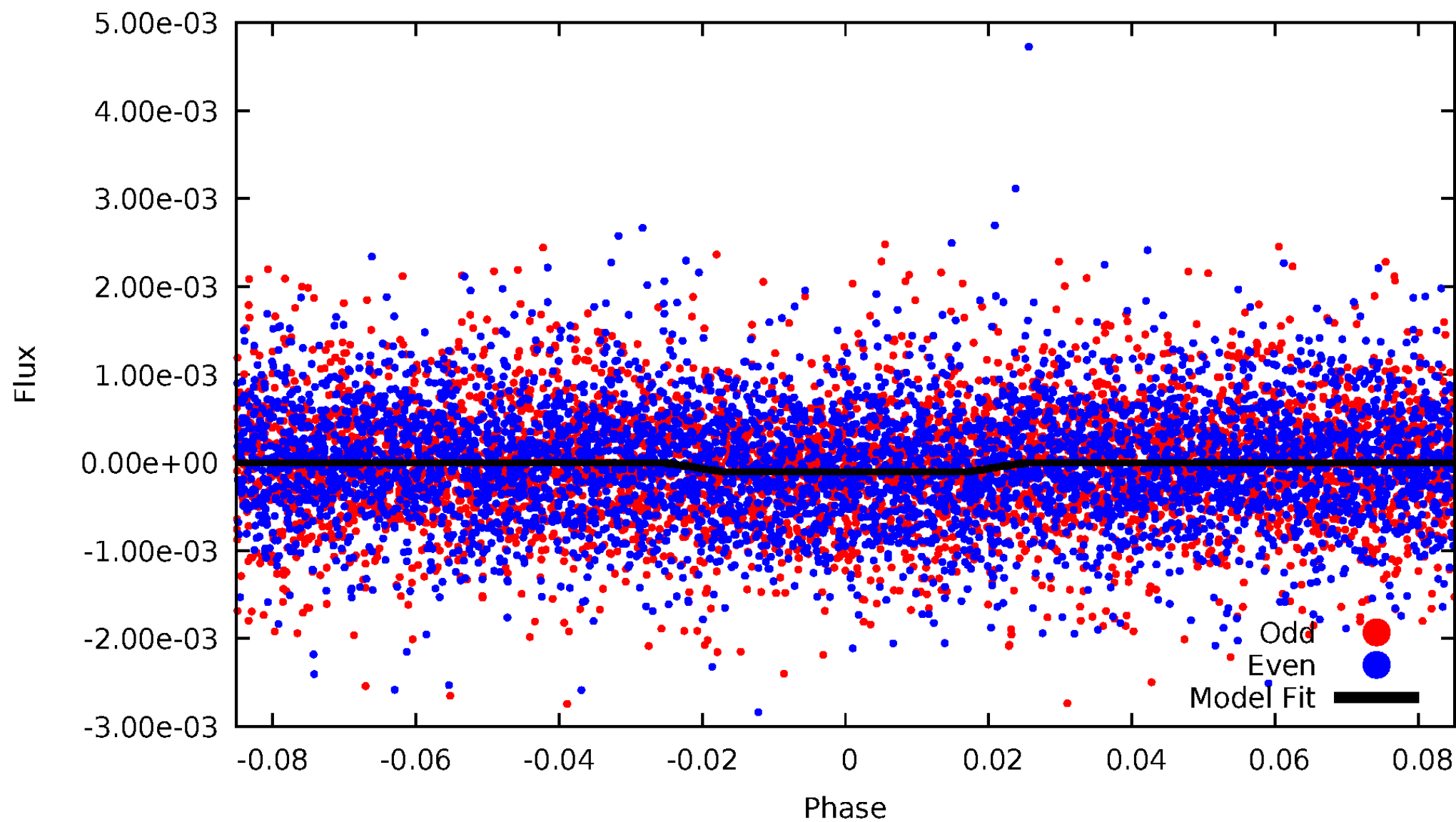
DV Odd/Even

TCE 006384840-01

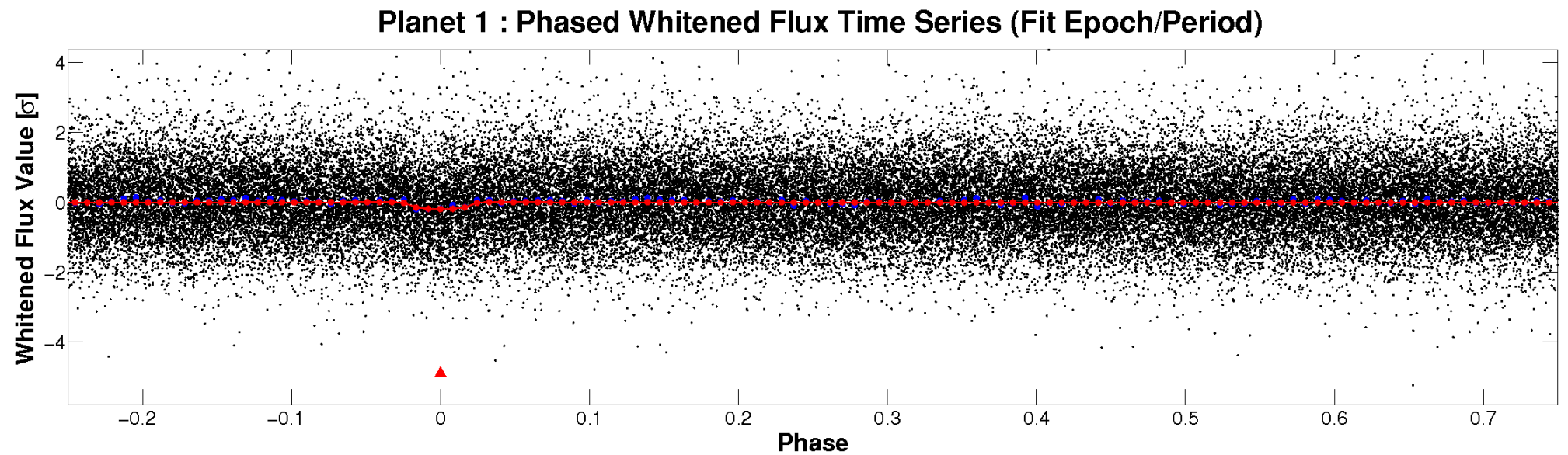
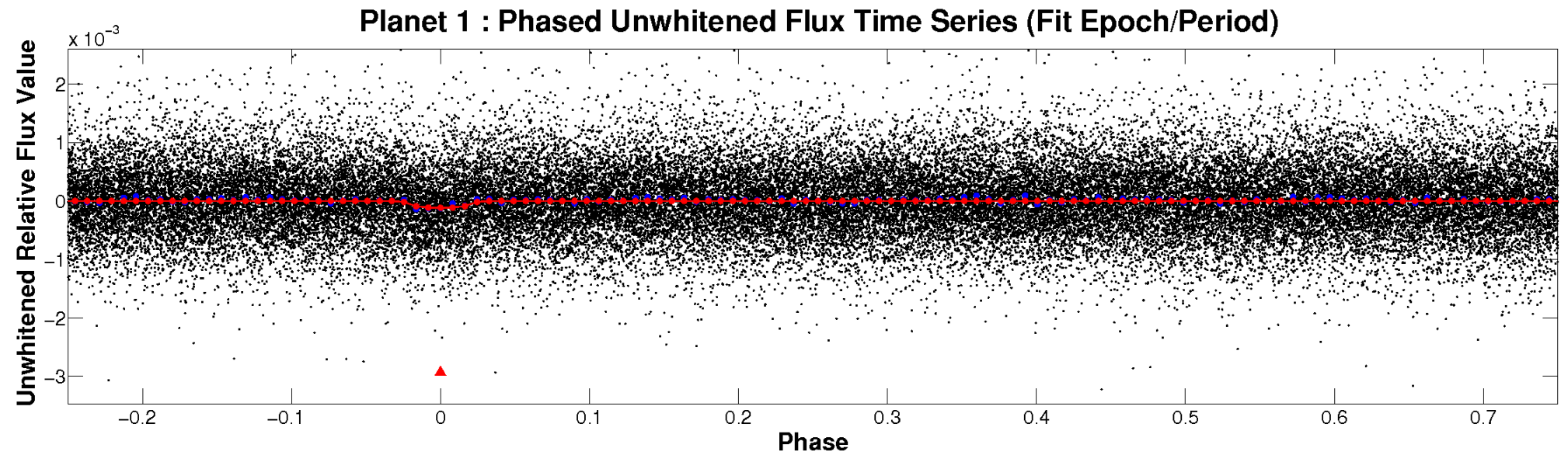


ALT Odd/Even

TCE 006384840-01

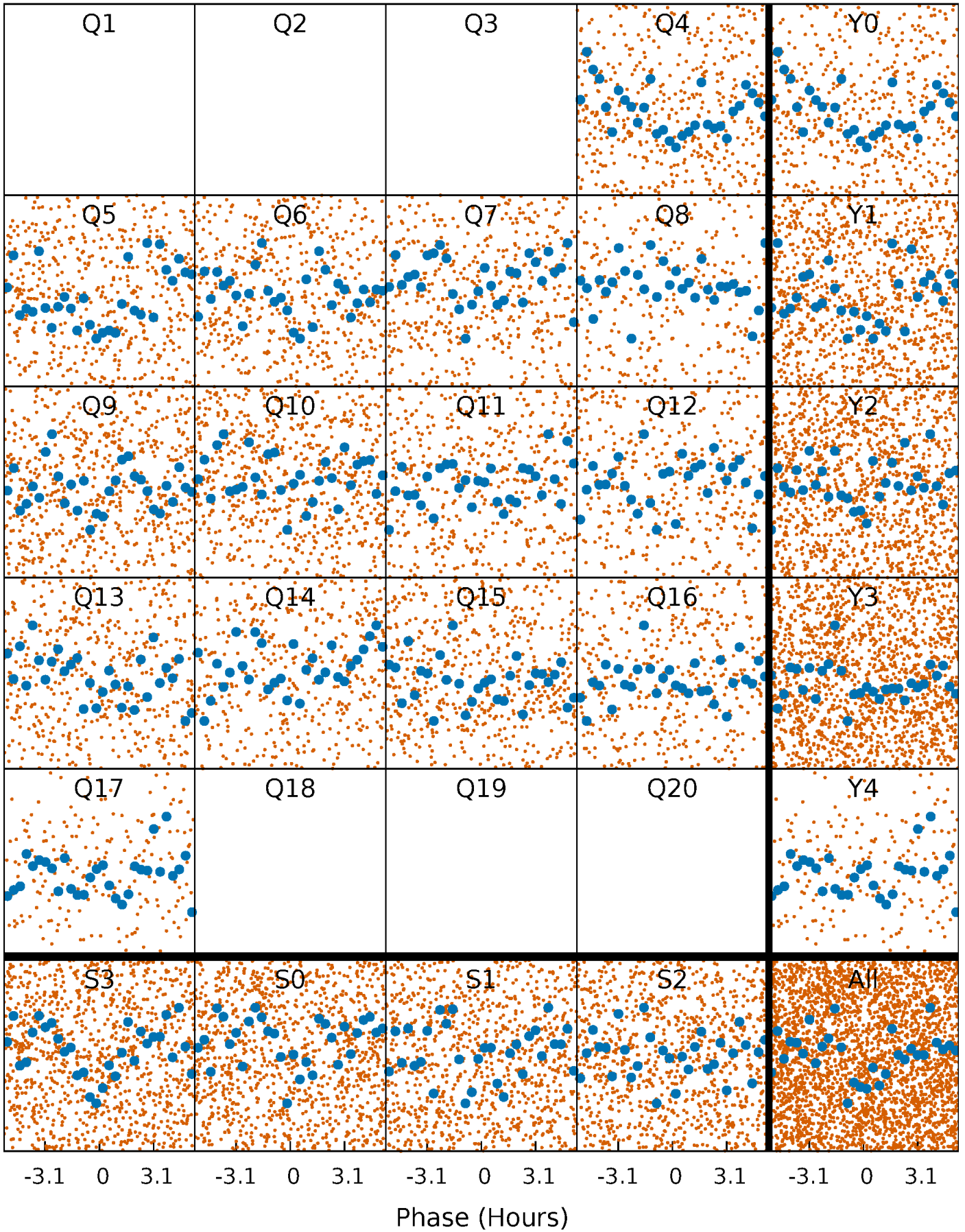


Non-Whitened Vs. Whitened Light Curve



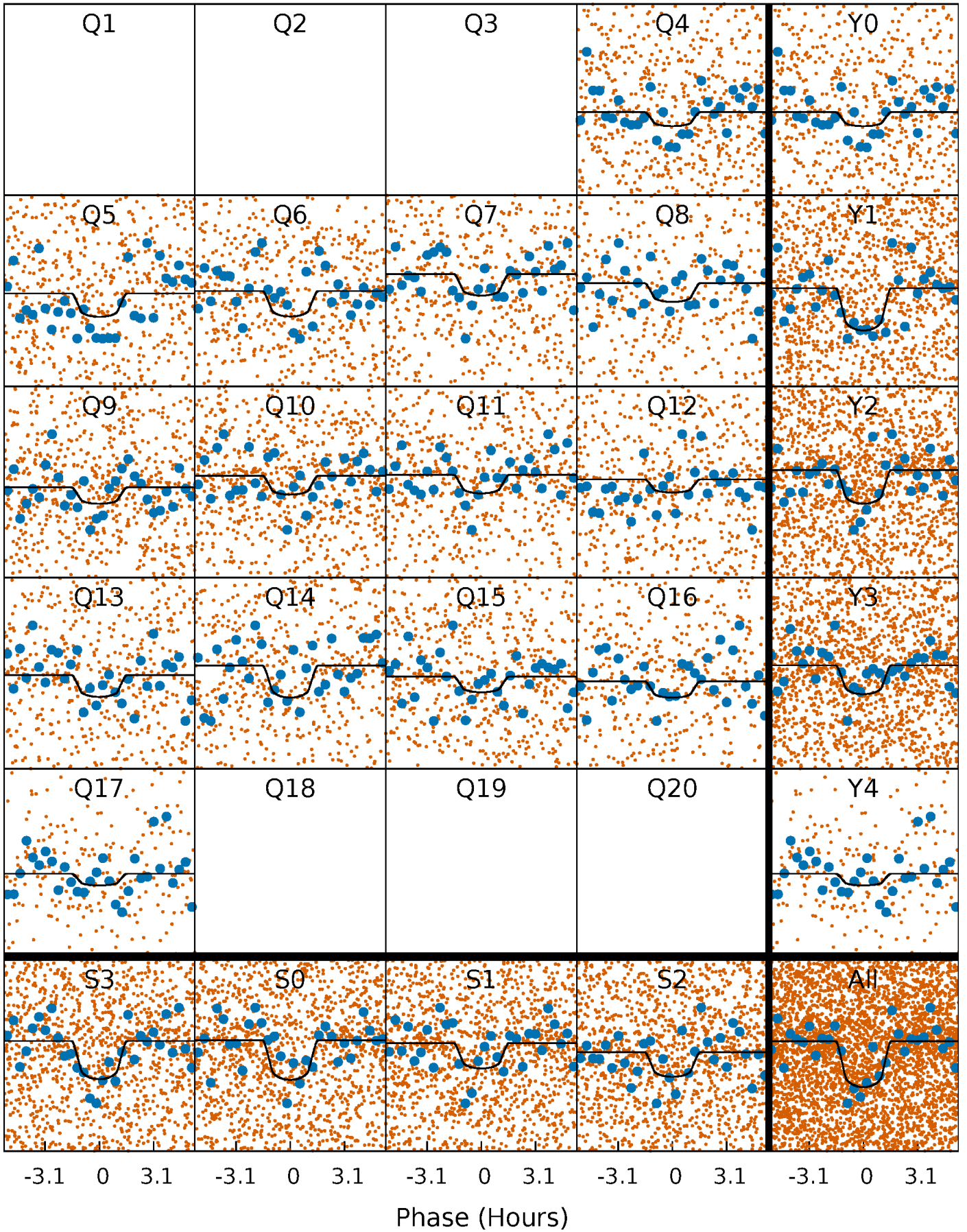
PDC Quarter-Phased Transit Curves

TCE 006384840-01 P= 2.499026 Days $T_0=133.370622$ (BKJD)



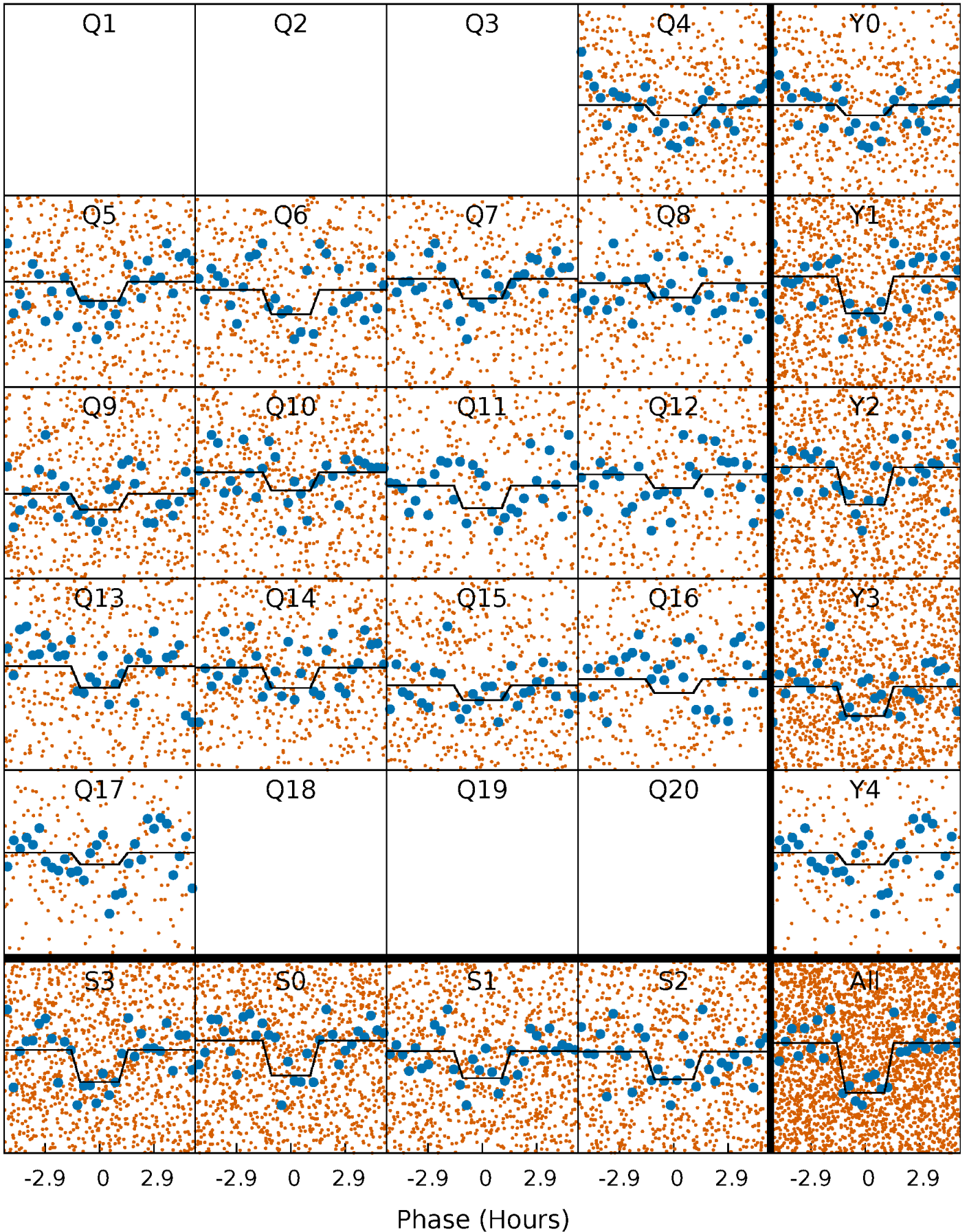
DV Quarter-Phased Transit Curves

TCE 006384840-01 P= 2.499026 Days $T_0=133.370622$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

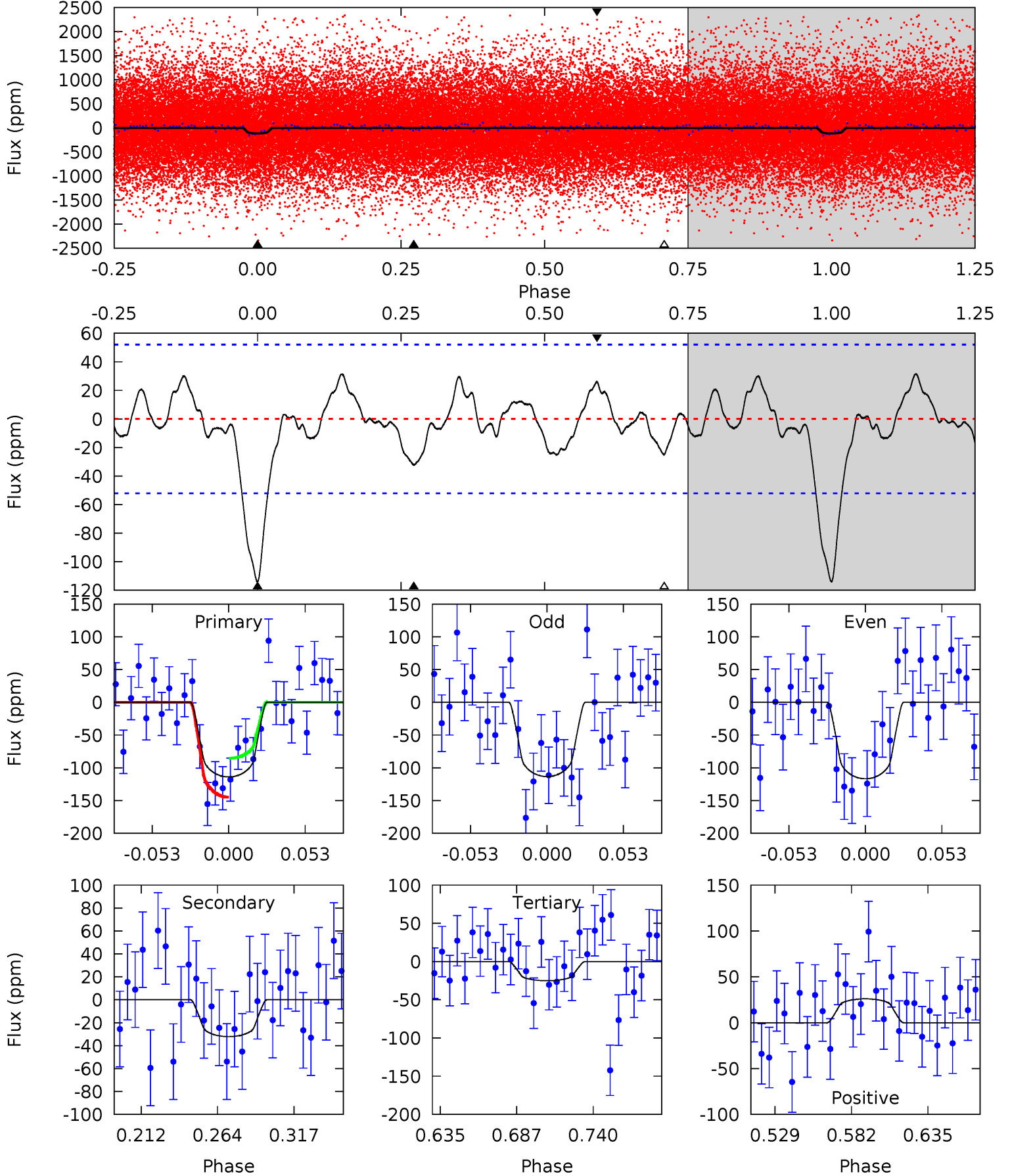
TCE 006384840-01 P= 2.499056 Days $T_0=133.367769$ (BKJD)



DV Model-Shift Uniqueness Test

006384840-01, P = 2.499026 Days, E = 133.370622 Days

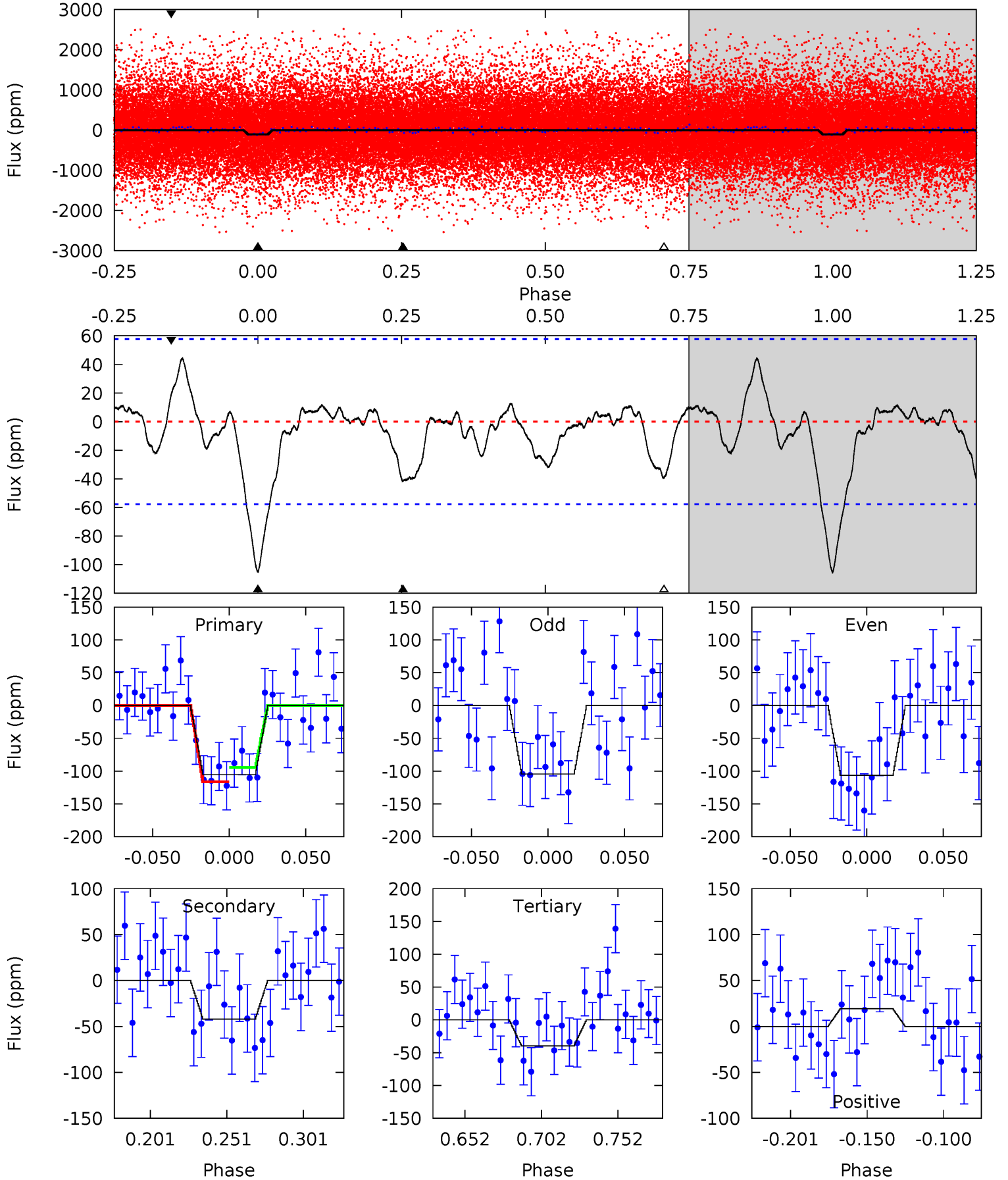
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	2.90	2.26	2.34	4.70	1.94	1.21	8.02	7.94	0.64	0.56	0.15	1.04	0.22	2.70



Alt Model-Shift Uniqueness Test

006384840-01, P = 2.499056 Days, E = 133.367769 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.60	3.42	3.23	1.58	4.71	1.96	1.13	5.37	7.02	0.19	1.84	0.08	0.94	0.30	0.90



Stellar Parameters For KIC 006384840

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5525^{+182}_{-182}	$4.458^{+0.091}_{-0.169}$	$0.040^{+0.250}_{-0.300}$	$0.930^{+0.246}_{-0.123}$	$0.906^{+0.102}_{-0.081}$	$1.586^{+0.629}_{-0.737}$
	+3%/-3%	+2%/-4%	+625%/-750%	+26%/-13%	+11%/-9%	+40%/-46%
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 006384840-01 / KOI 6699.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32 ± 11	$1.41^{+1.01}_{-0.88}$	1778^{+121}_{-93}	3868^{+1903}_{-668}	10^{+61}_{-7}
Alt.	-42 ± 12	$1.30^{+1.02}_{-0.81}$	1778^{+118}_{-101}	4178^{+2163}_{-777}	16^{+84}_{-11}

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 $A_{obs} \gg 1.0$

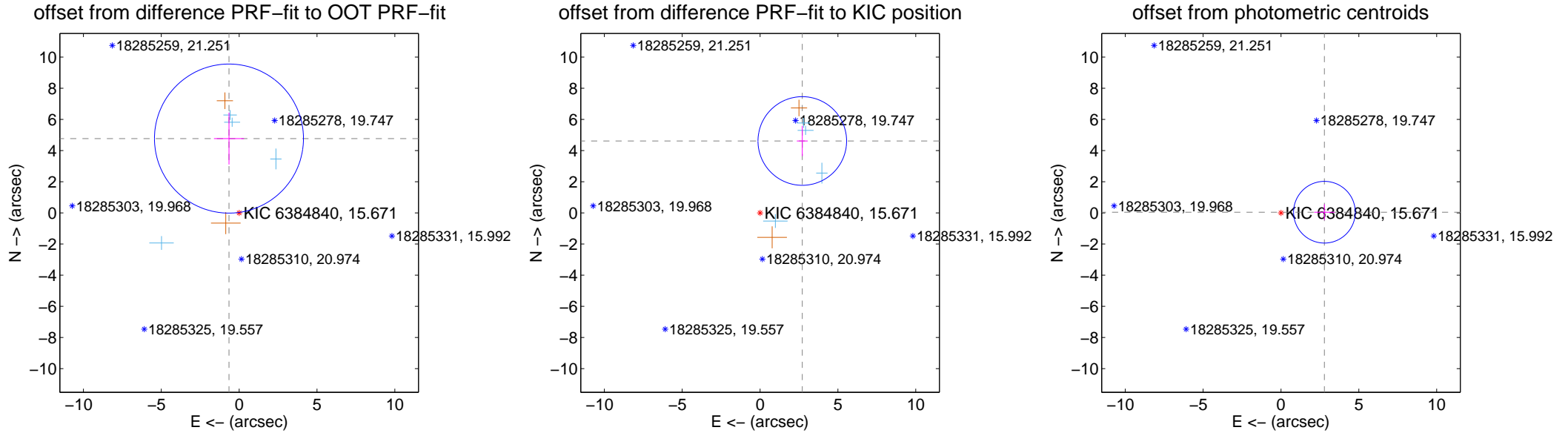
DV Centroid Data

Supplemental centroid analysis for 006384840-01. Kepler magnitude: 15.67. Transit SNR 7.95

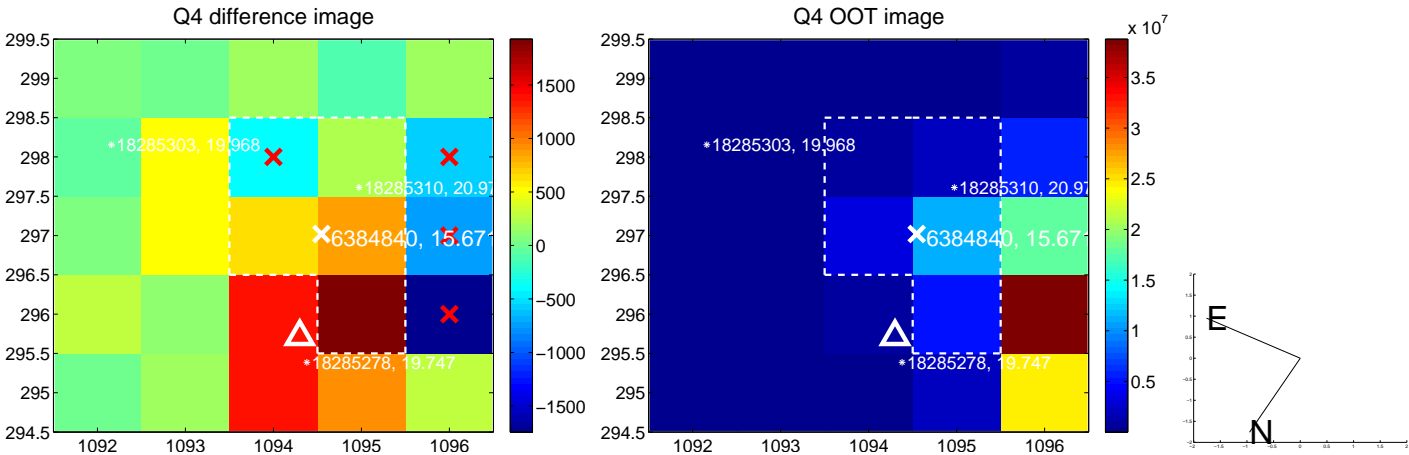
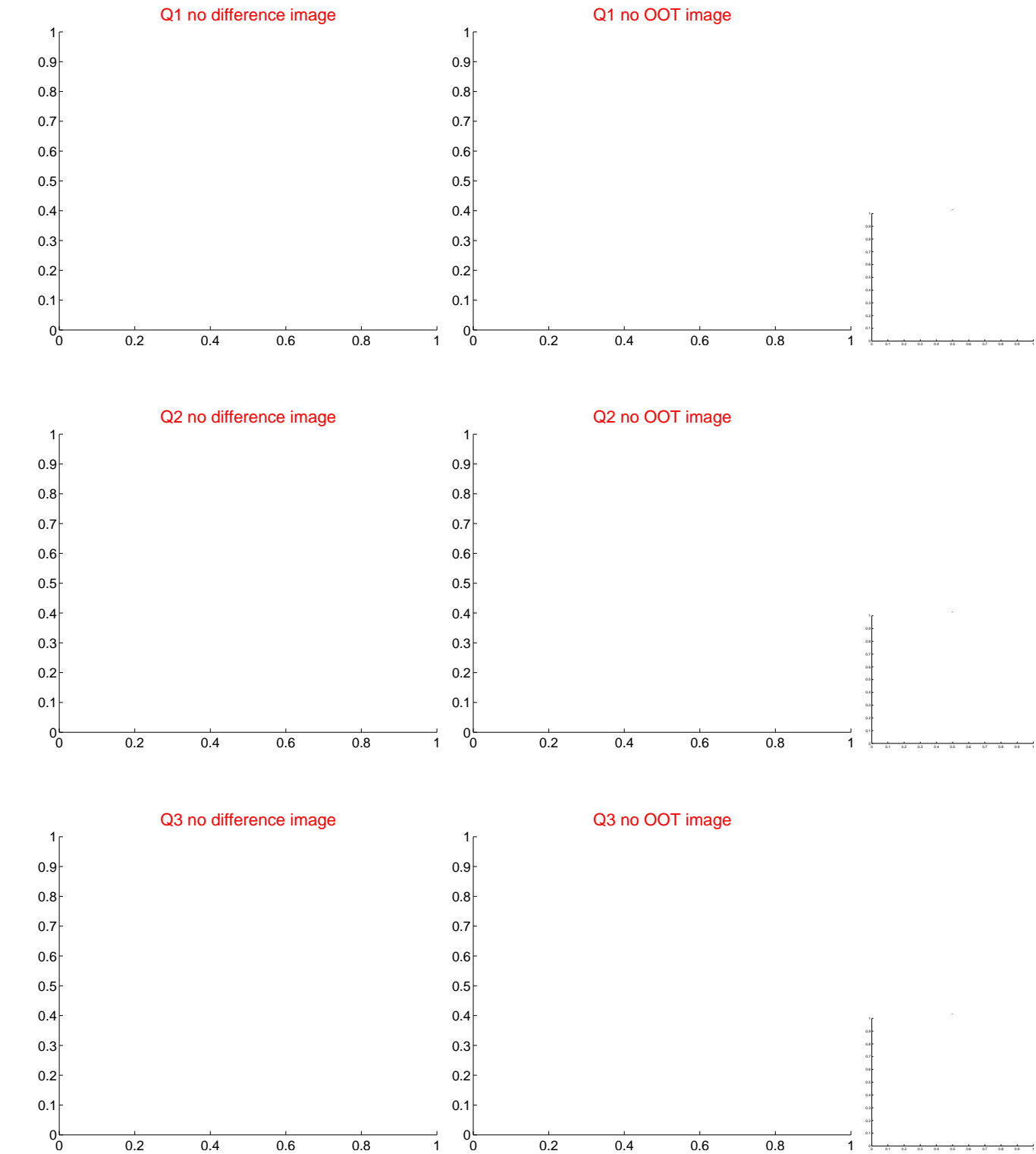
There are 5 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.42 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

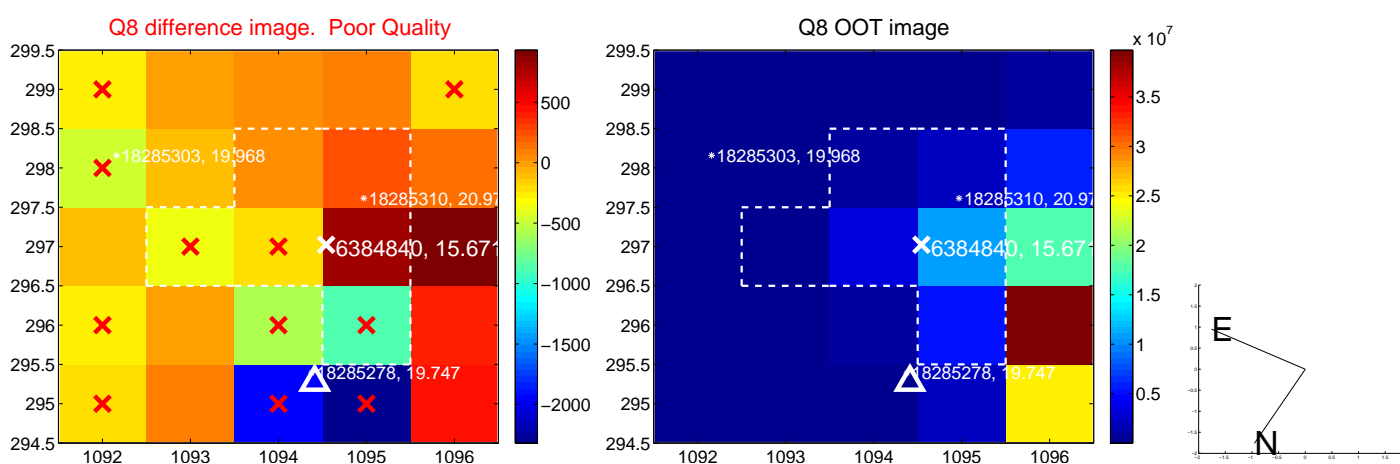
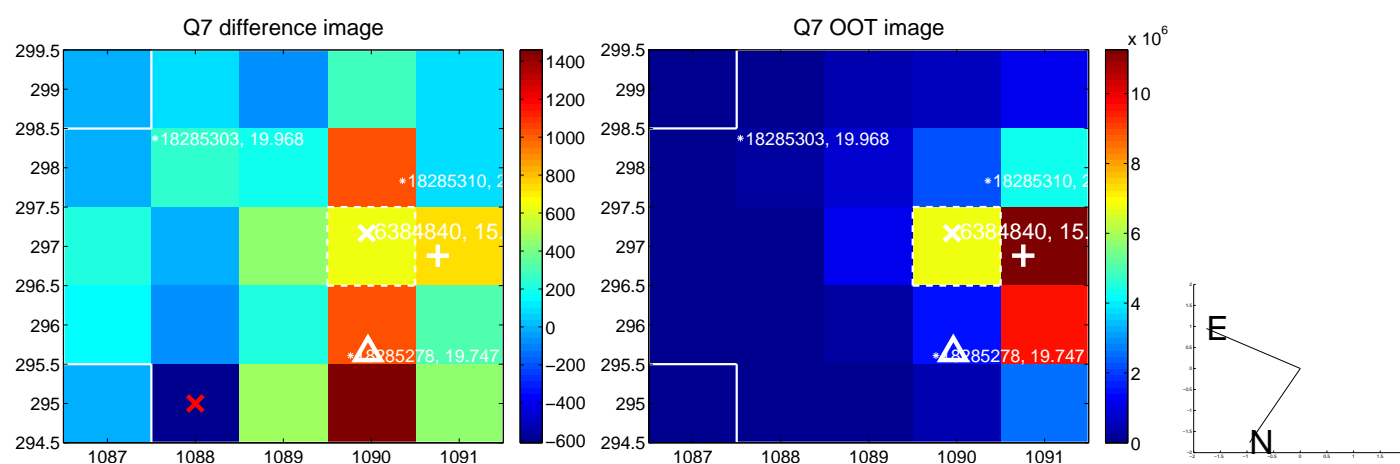
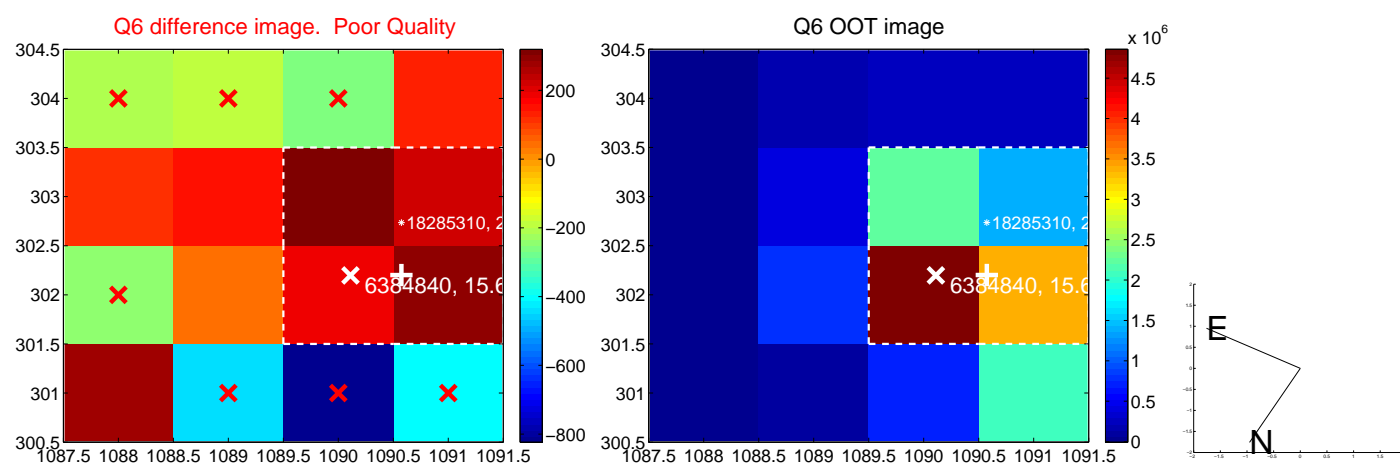
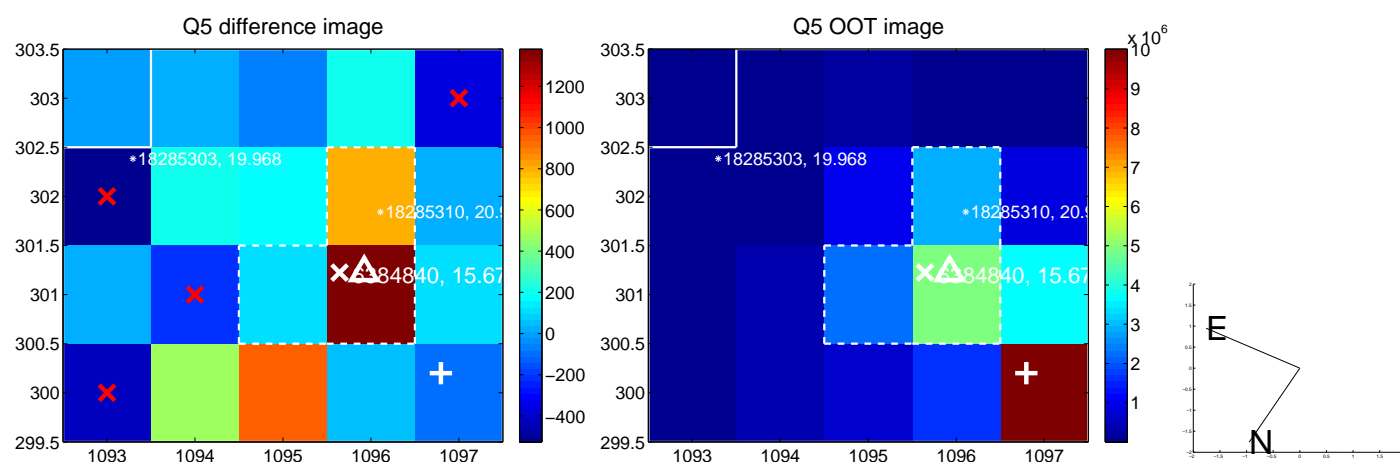
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.814 ± 1.595	3.02	0.654 ± 0.965	4.769 ± 1.664
PRF-fit source offset from KIC position	5.352 ± 0.948	5.64	-2.712 ± 0.347	4.614 ± 0.970
photometric centroid source offset	2.79 ± 0.66	4.23	-2.79 ± 0.66	0.04 ± 0.51



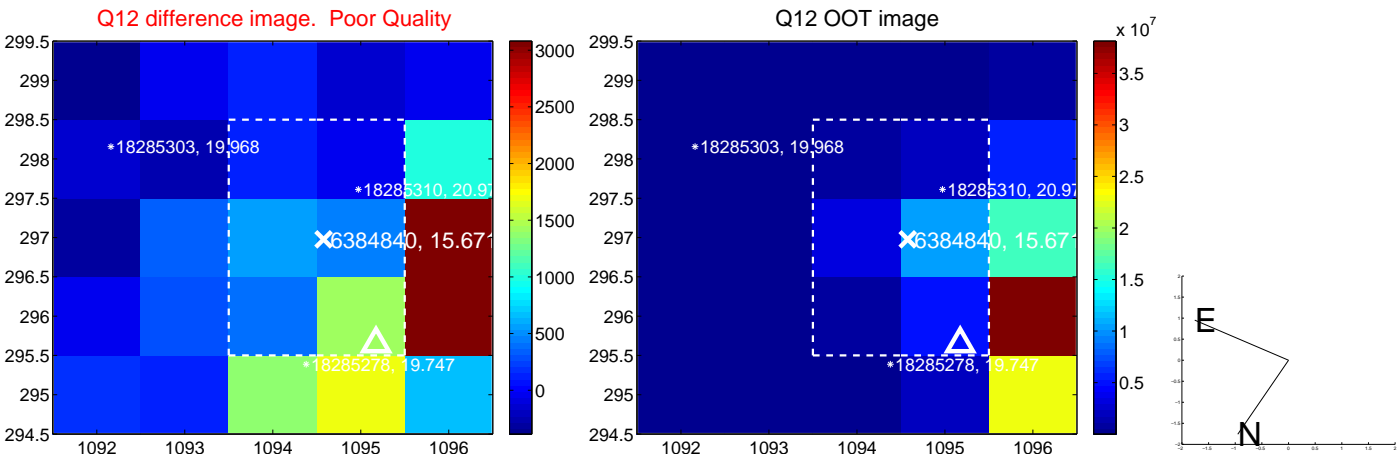
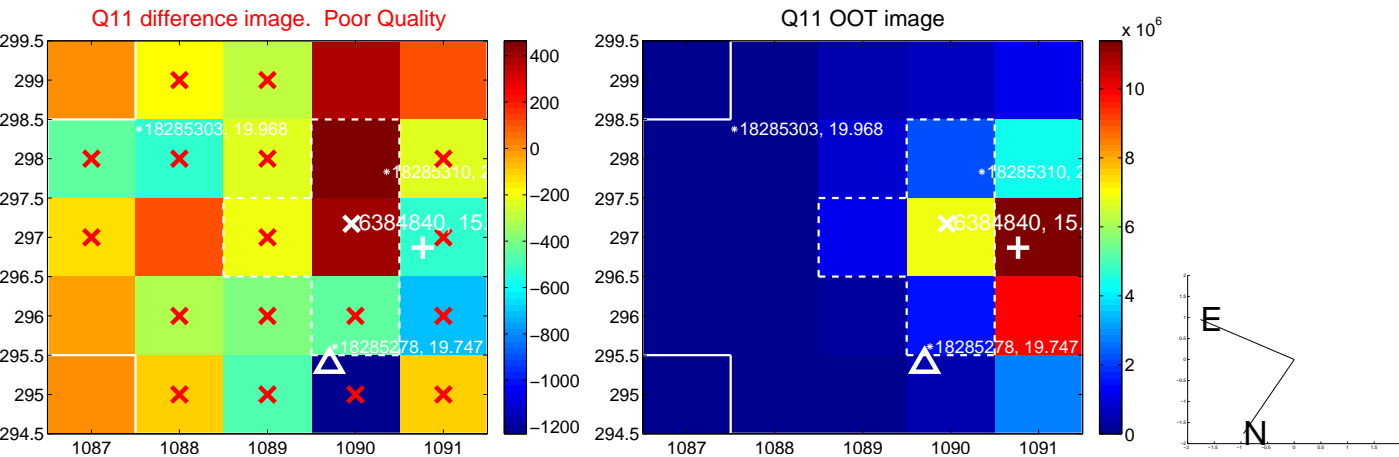
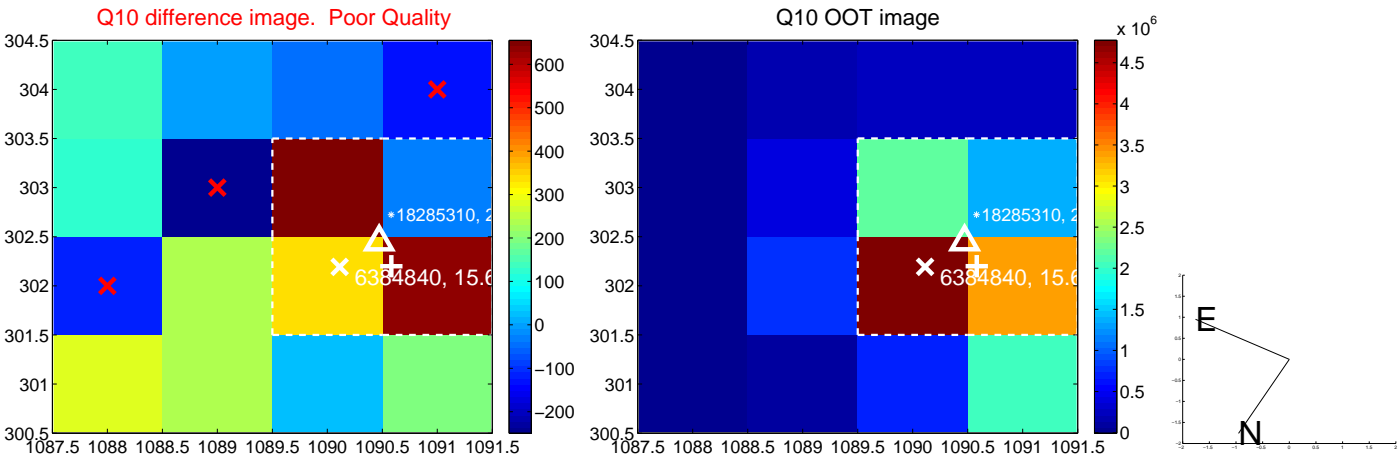
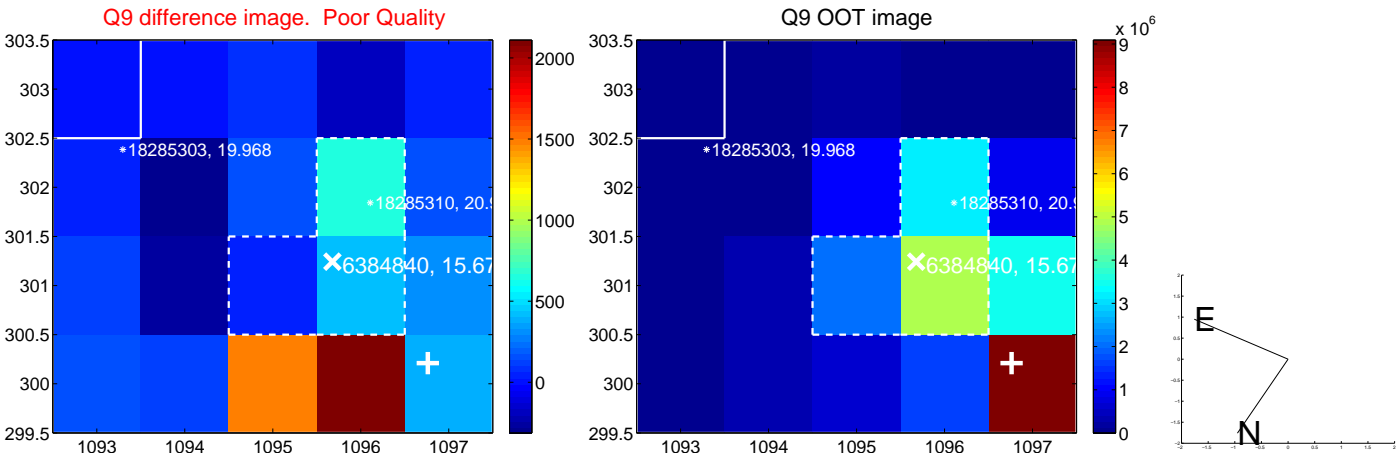
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



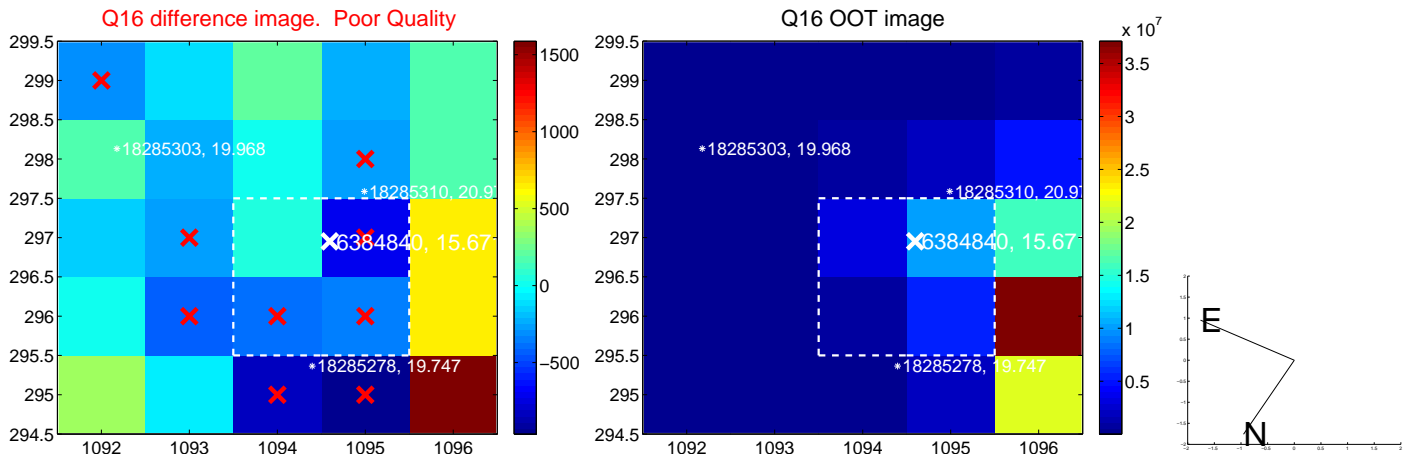
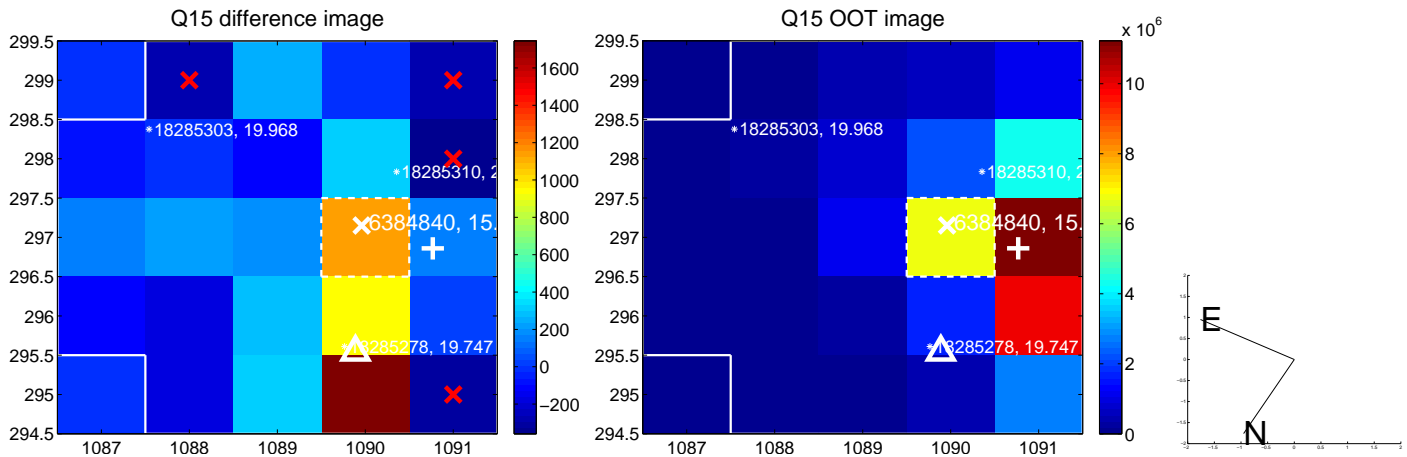
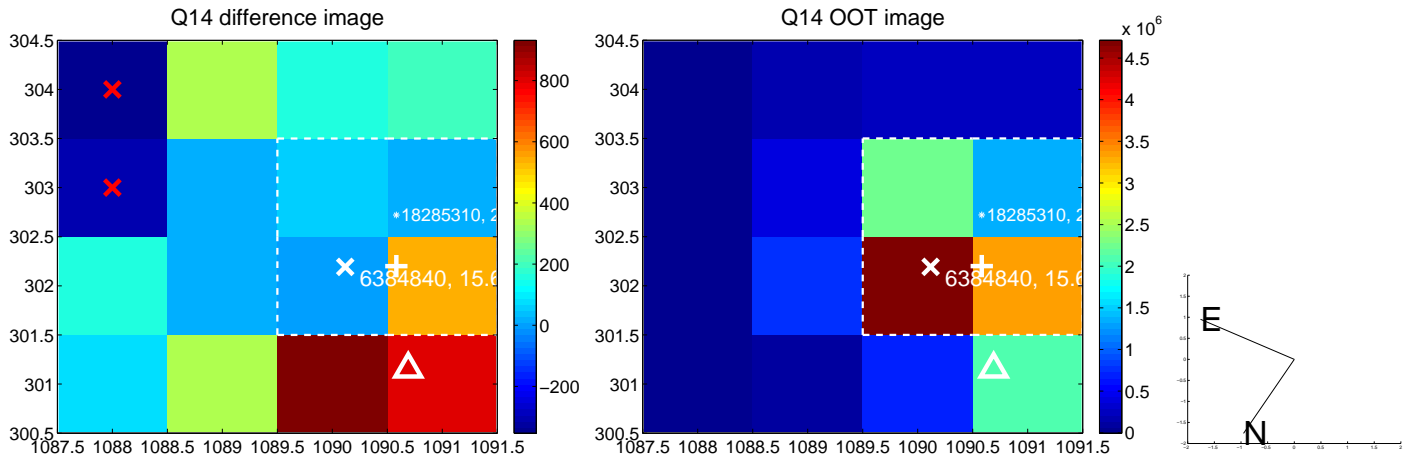
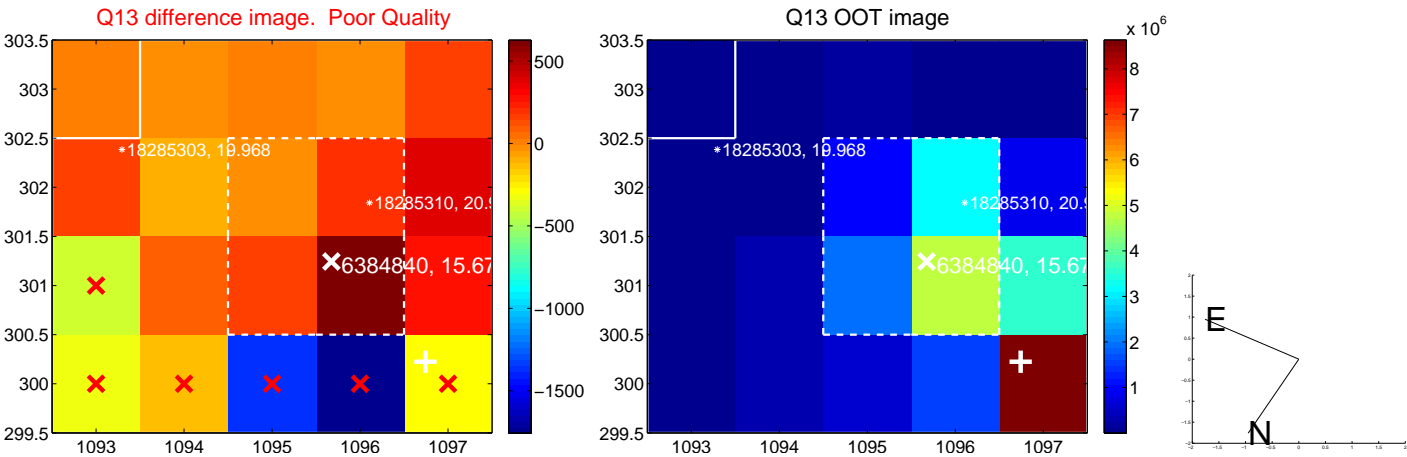
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



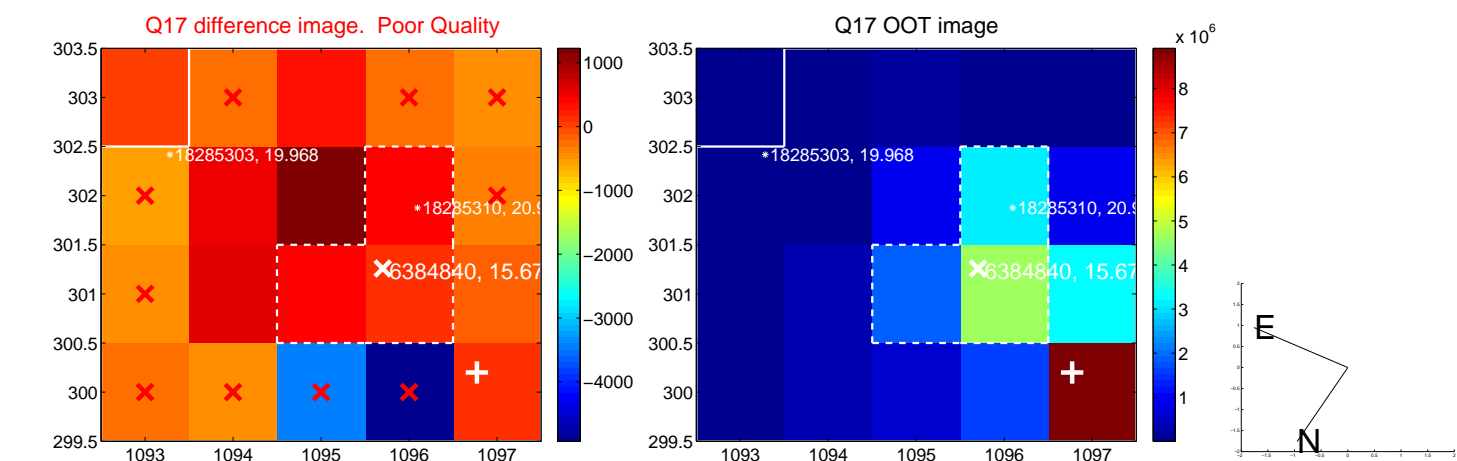
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



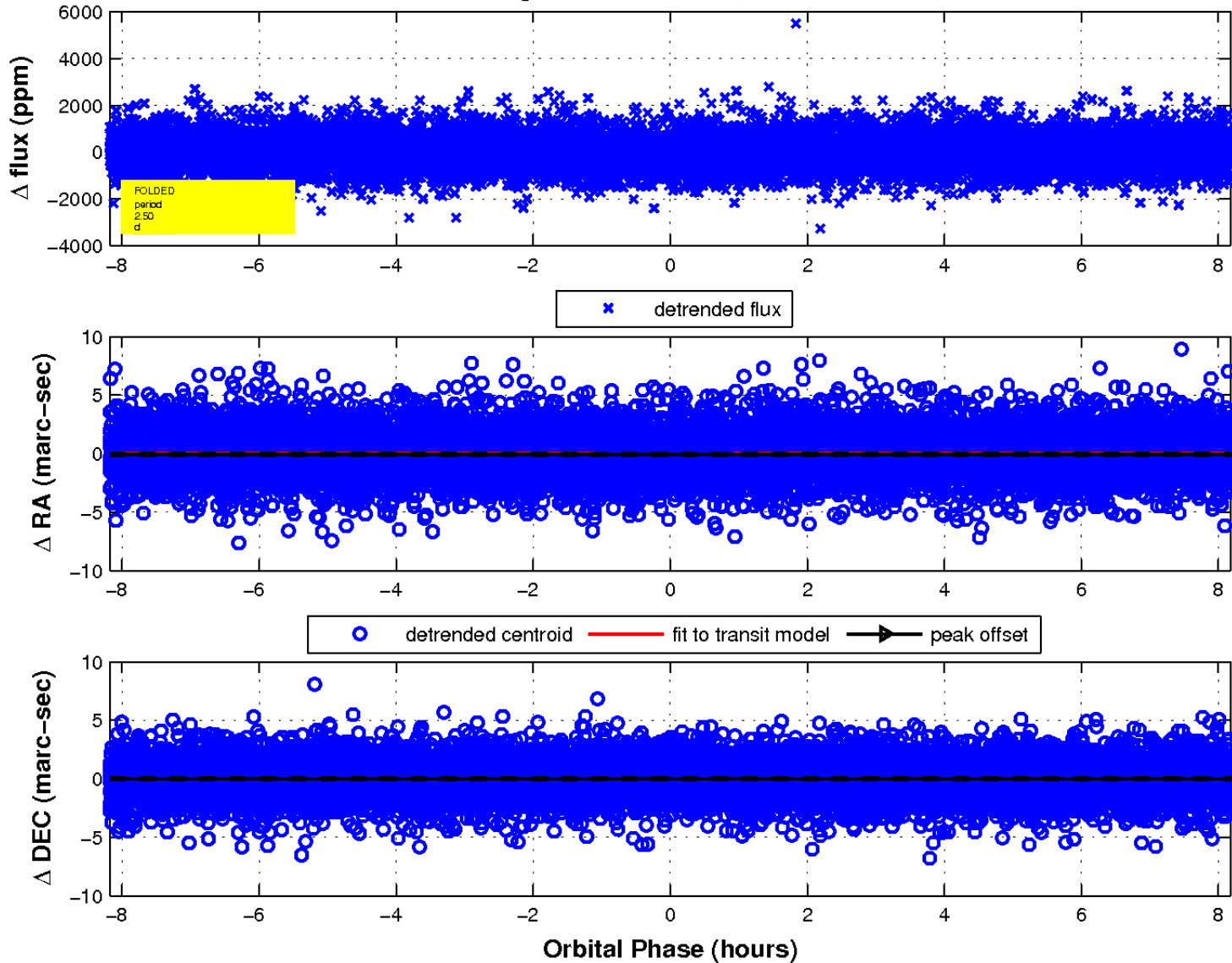
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

