

KIC 003248501

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})
003248501-01	OBS	2052.01	4.224635	133.091676	1026.8	1.379	27.6	33.0	1.14	6343	4.38	633.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003248501-01	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 003248501-01

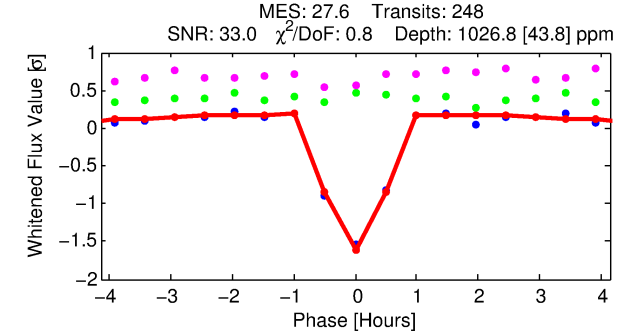
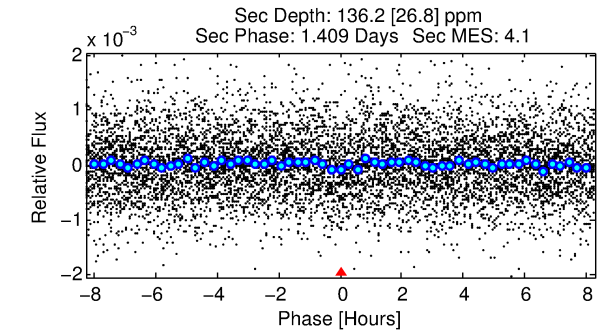
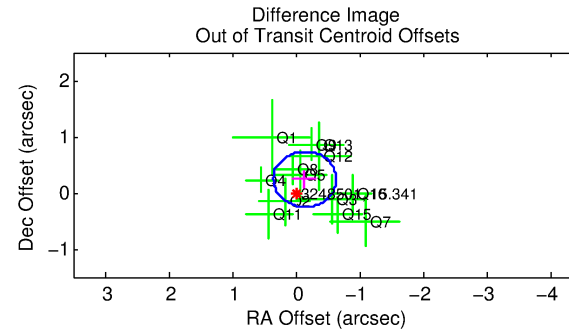
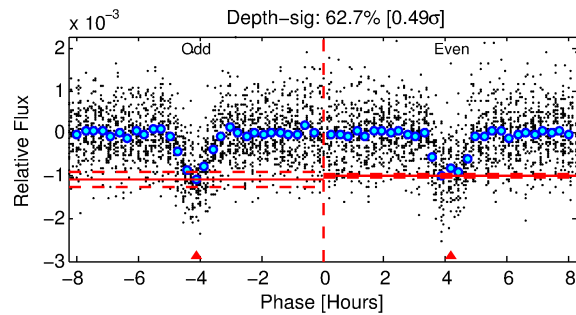
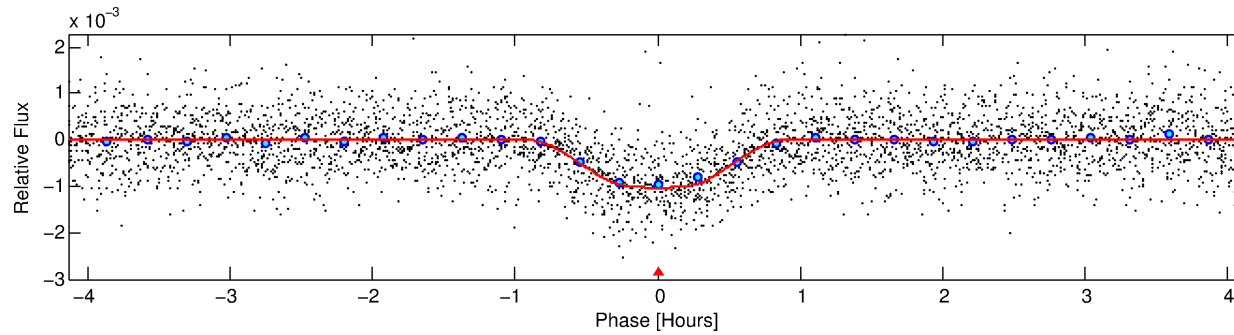
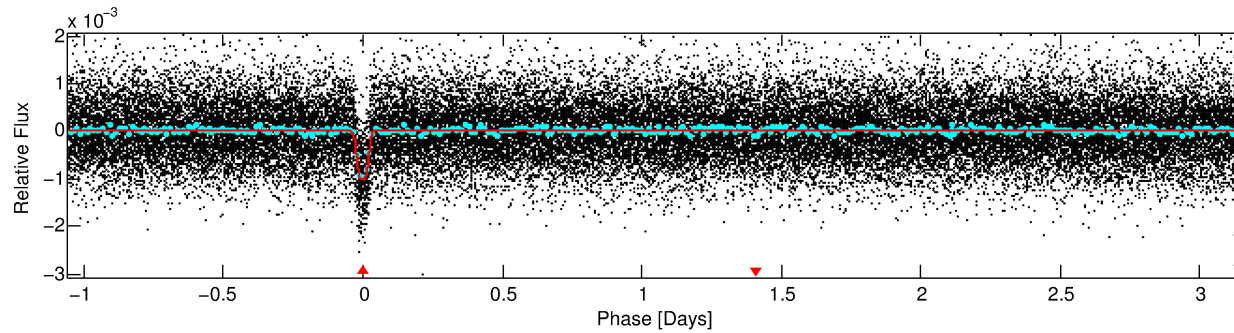
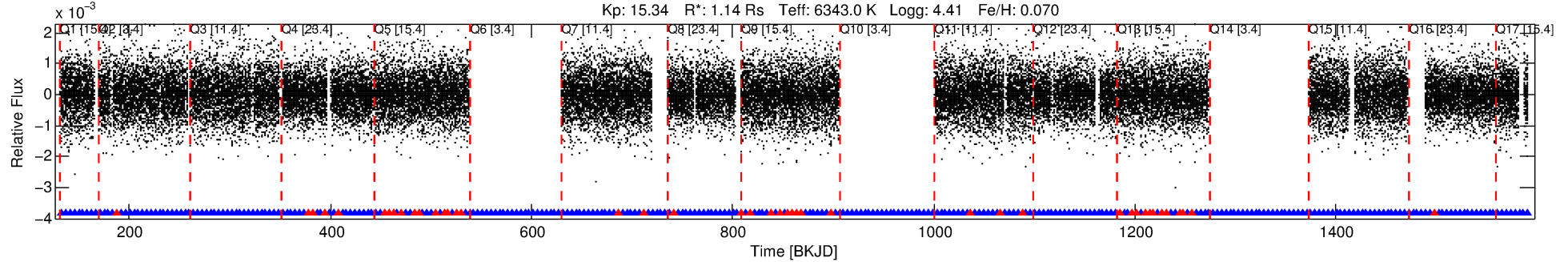
No Significant Match Found

DV One-Page Summary

KIC: 3248501 Candidate: 1 of 1 Period: 4.225 d

KOI: K02052.01 Corr: 0.942

Kp: 15.34 R*: 1.14 Rs Teff: 6343.0 K Logg: 4.41 Fe/H: 0.070



DV Fit Results:

Period = 4.22464 [0.00001] d
Epoch = 133.0917 [0.0007] BKJD
Rp/R* = 0.0352 [0.0030]
a/R* = 11.39 [4.56]
b = 0.91 [0.07]
Seff = 633.32 [270.01]
Teq = 1279 [136] K
Rp = 4.38 [1.49] Re
a = 0.0546 [0.0150] AU
Ag = 11.65 [5.55] [1.92σ]
Teffp = 3654 [277] K [7.70σ]

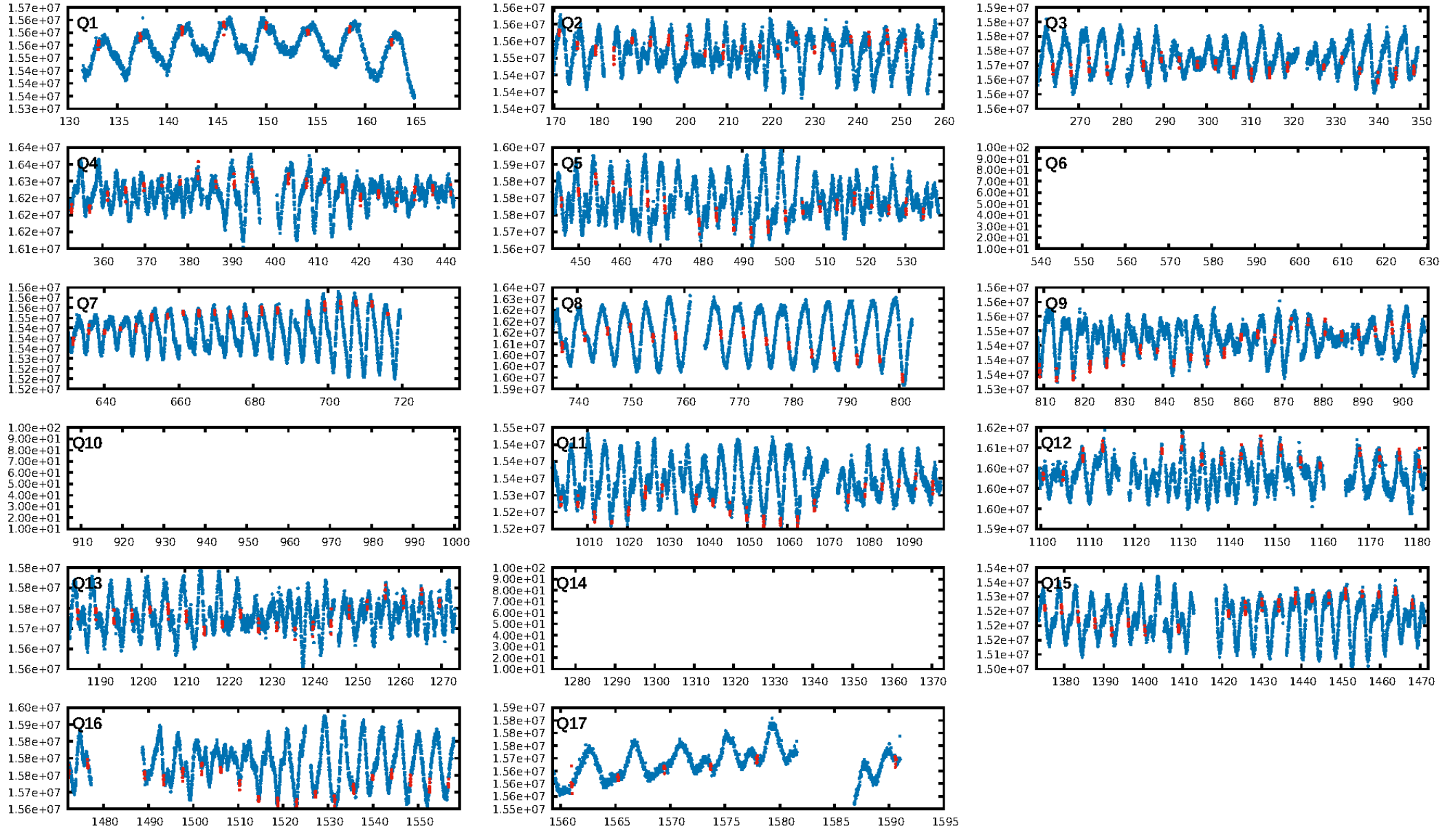
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.88e-162
RollingBand-fgt: 0.82 [191/234]
GhostDiagnostic-chr: 2.124
Centroid-sig: 30.5%
Centroid-so: 0.237 arcsec [0.60σ]
OotOffset-rm: 0.277 arcsec [1.68σ]
KicOffset-rm: 0.330 arcsec [2.03σ]
OotOffset-st: 1/4/4/4 [13]
KicOffset-st: 1/4/4/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [14/14]

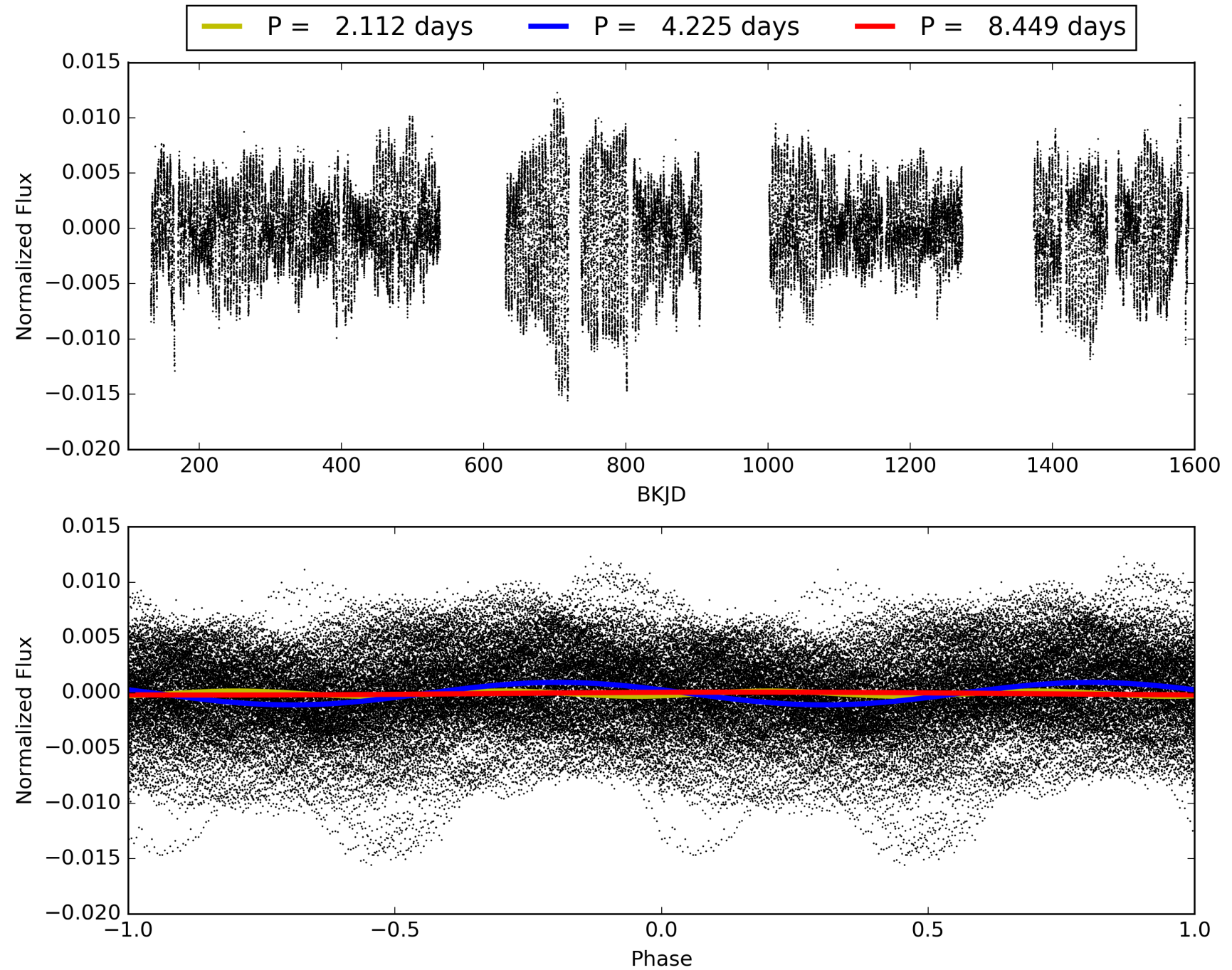
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:22:58 Z

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

TCE 003248501-01, PDC Light Curves

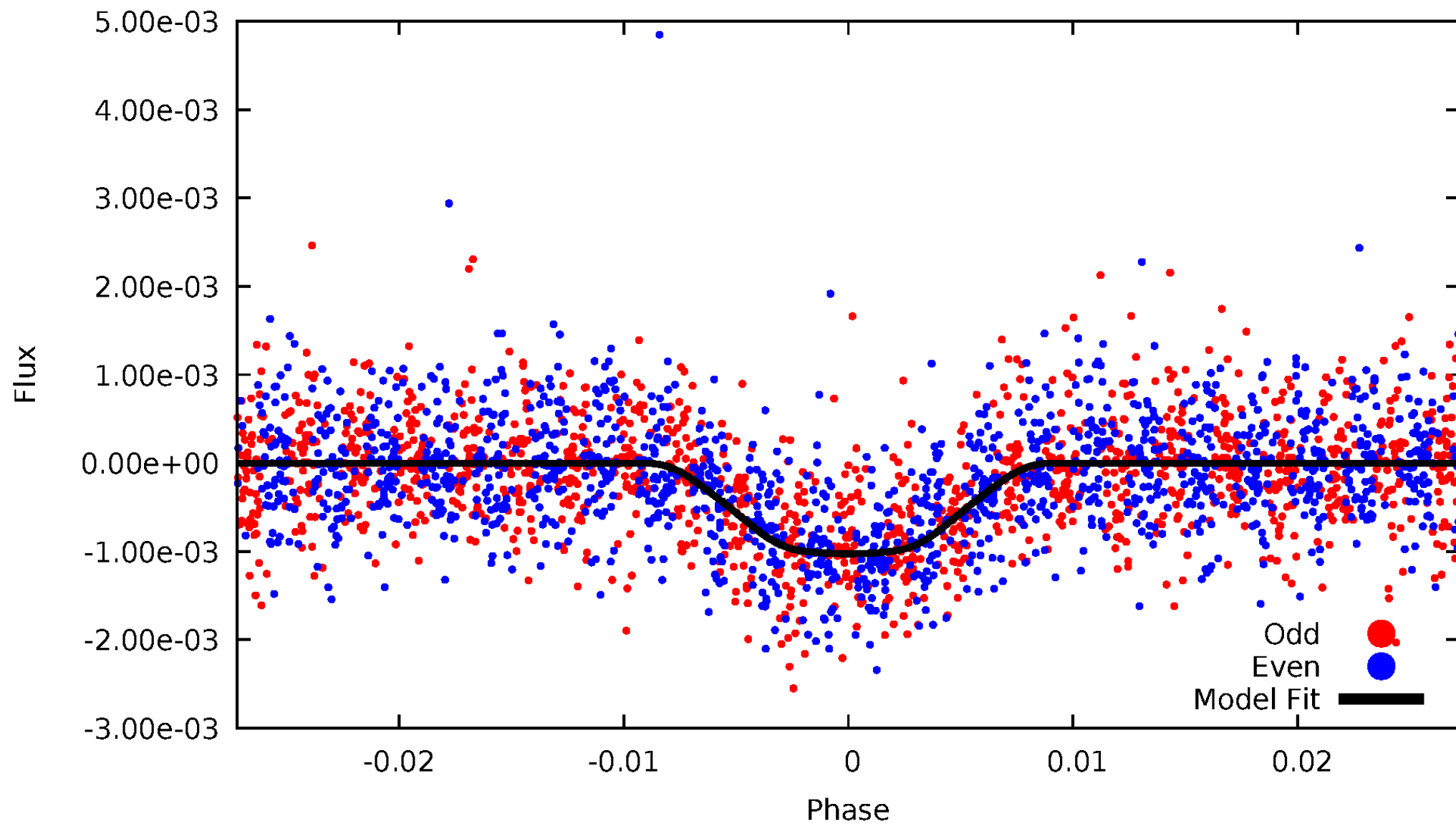


TCE 003248501-01



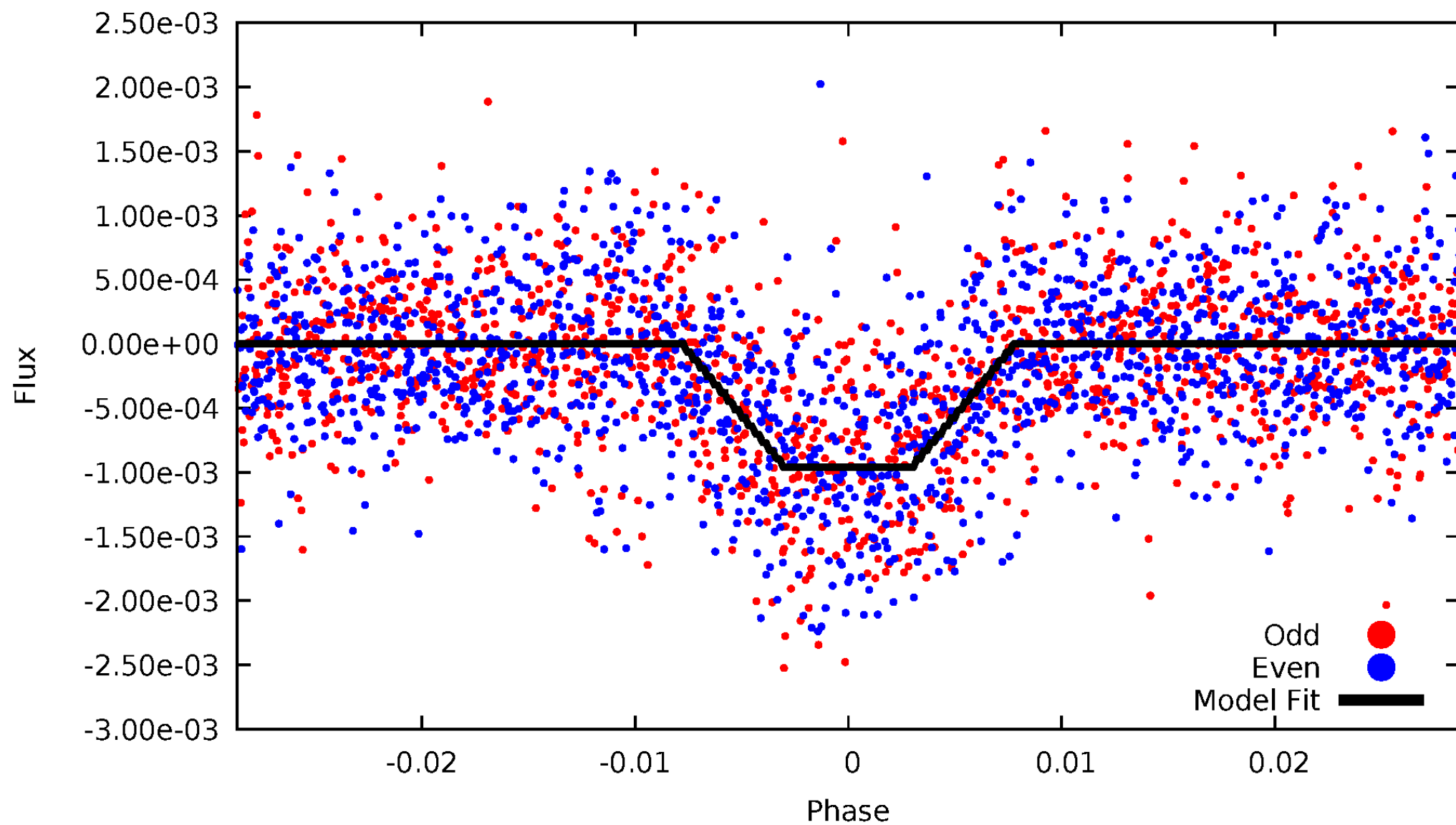
DV Odd/Even

TCE 003248501-01

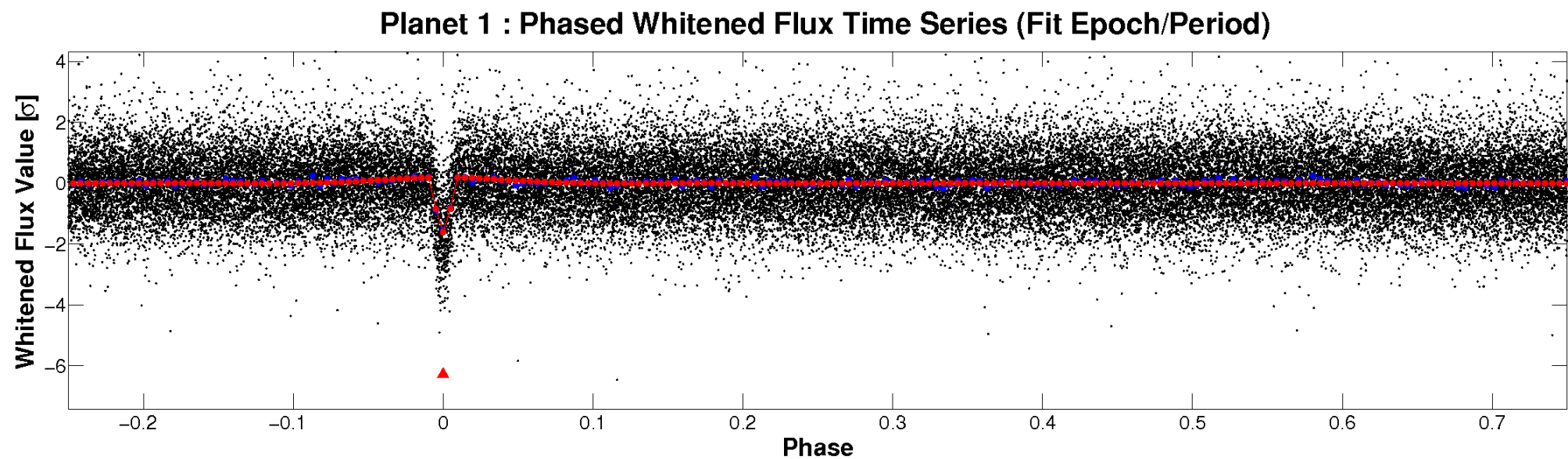
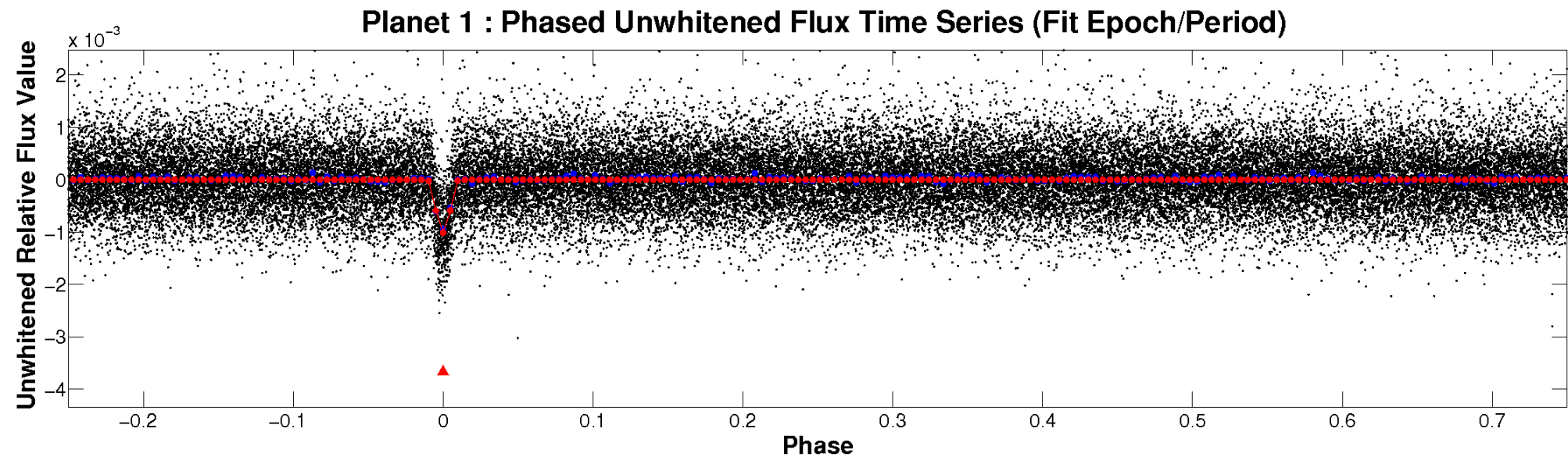


ALT Odd/Even

TCE 003248501-01

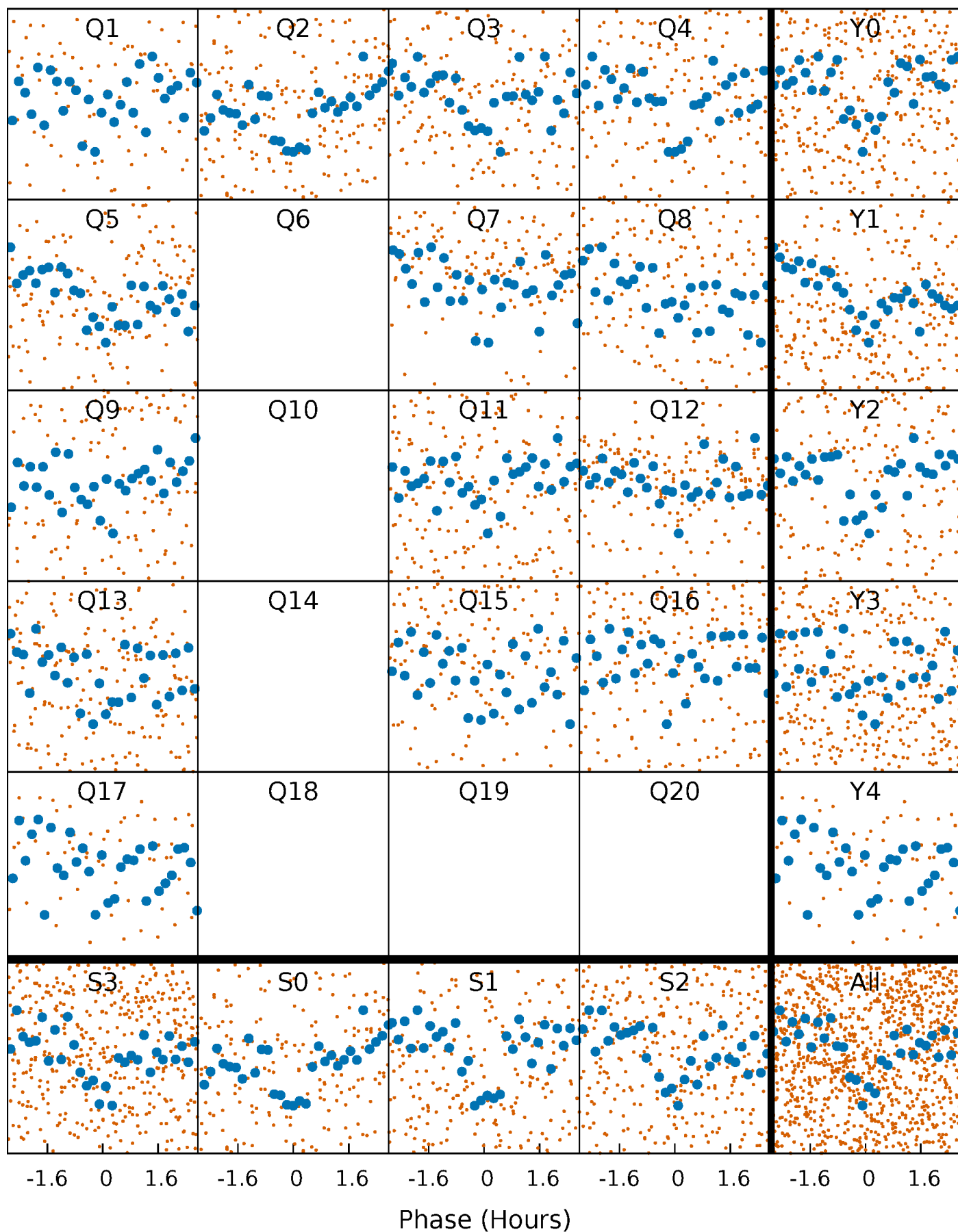


Non-Whitened Vs. Whitened Light Curve



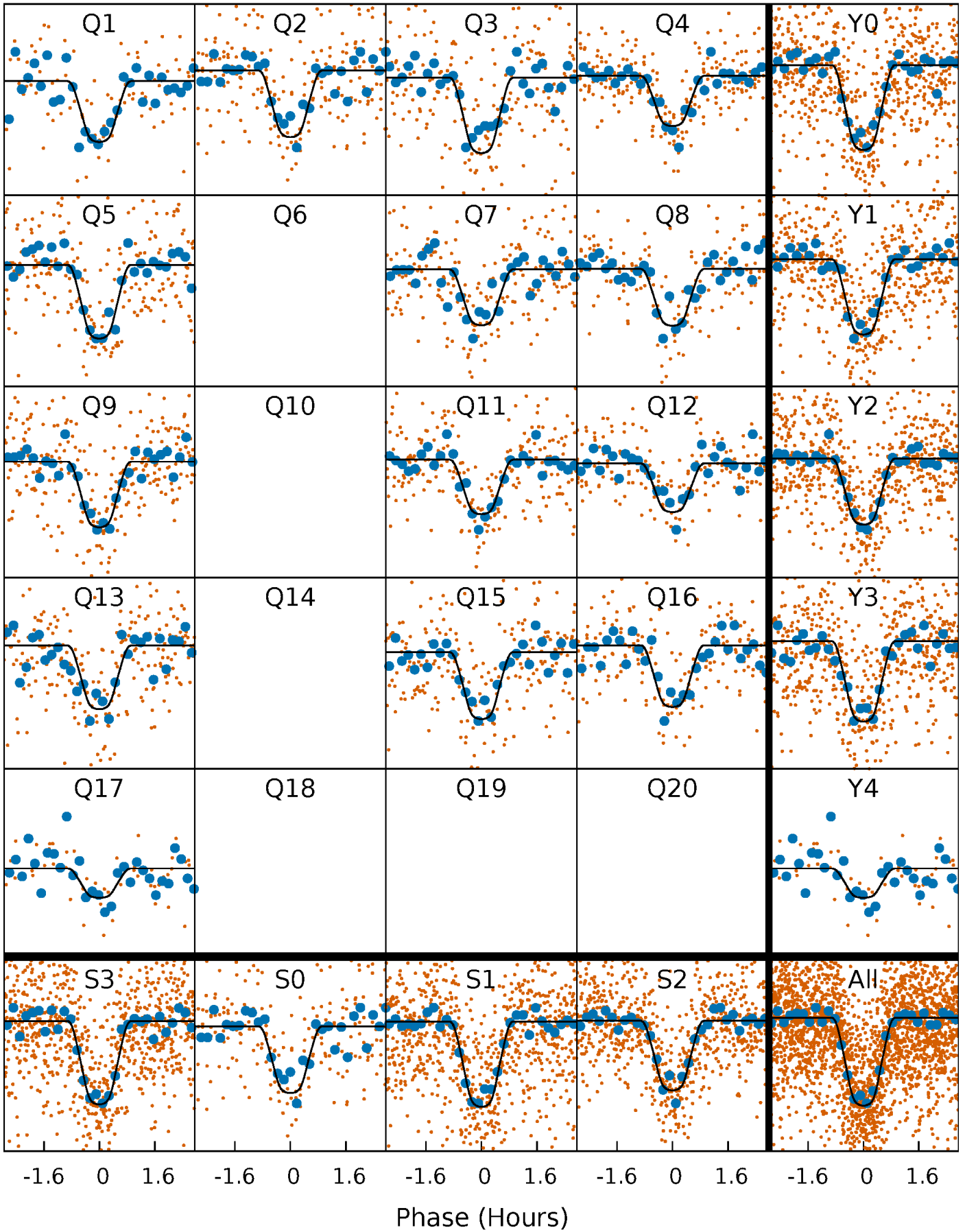
PDC Quarter-Phased Transit Curves

TCE 003248501-01 P= 4.224635 Days $T_0=133.091676$ (BKJD)



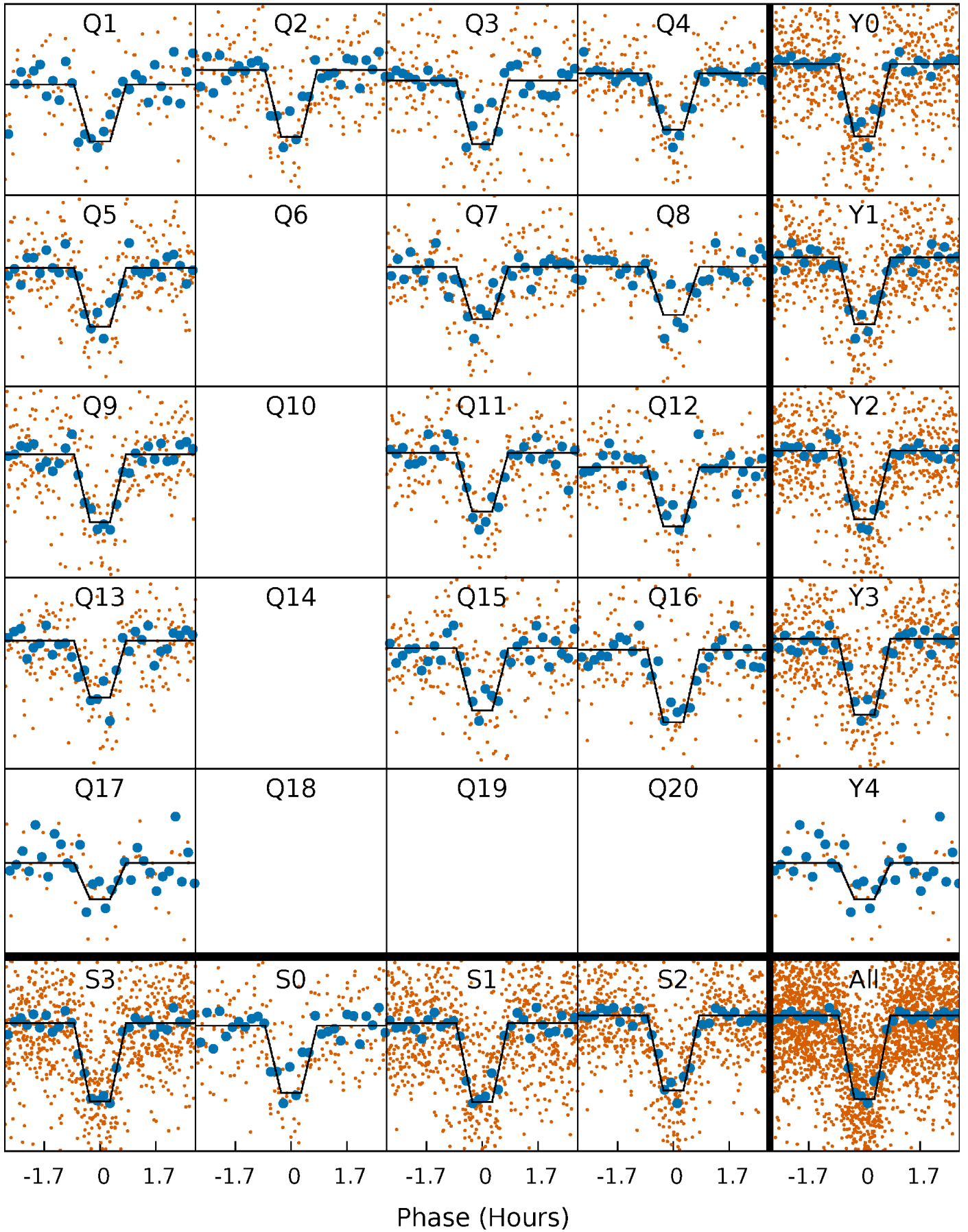
DV Quarter-Phased Transit Curves

TCE 003248501-01 P= 4.224635 Days $T_0=133.091676$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

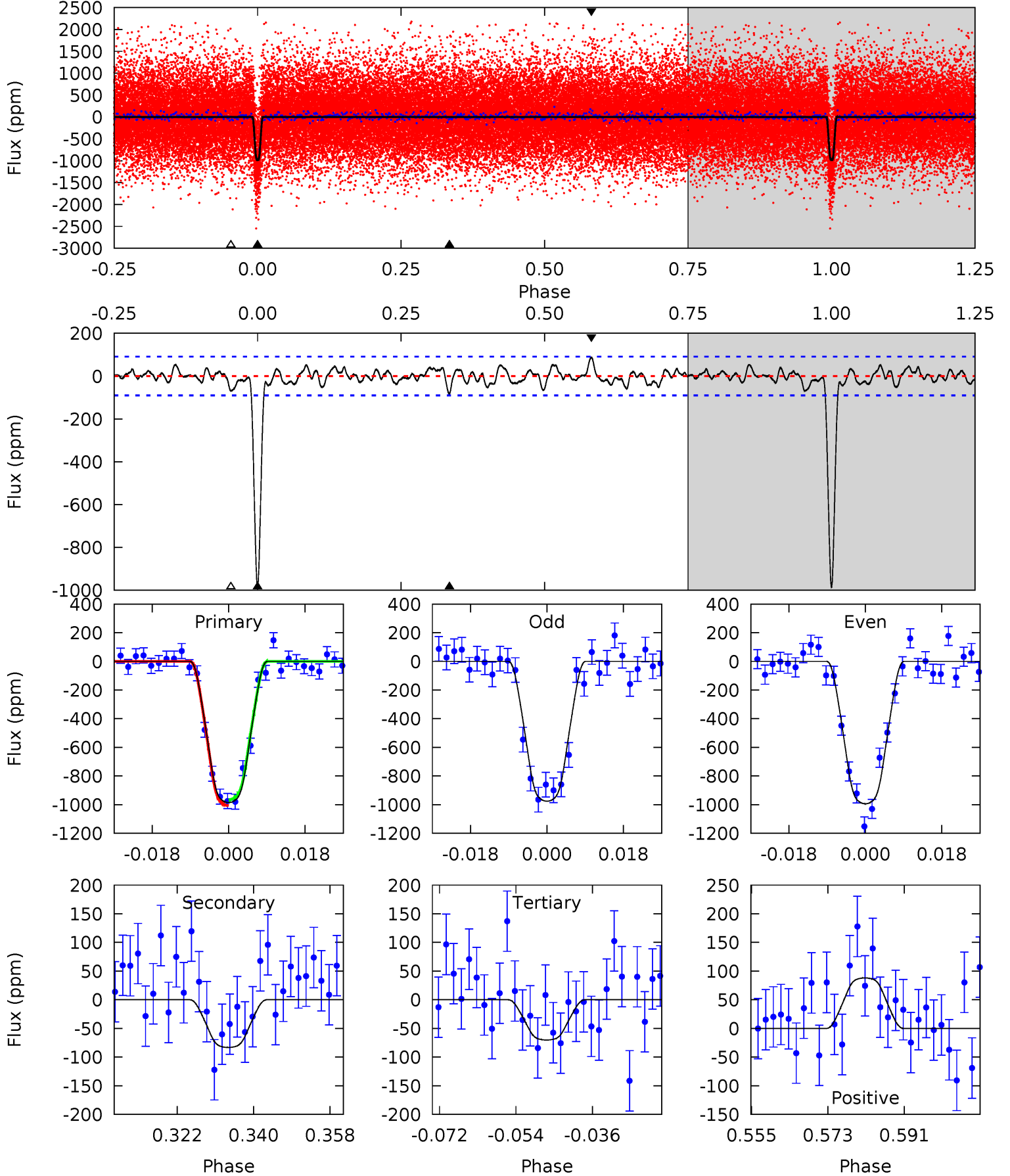
TCE 003248501-01 P= 4.224617 Days $T_0=133.094155$ (BKJD)



DV Model-Shift Uniqueness Test

003248501-01, P = 4.224635 Days, E = 128.867041 Days

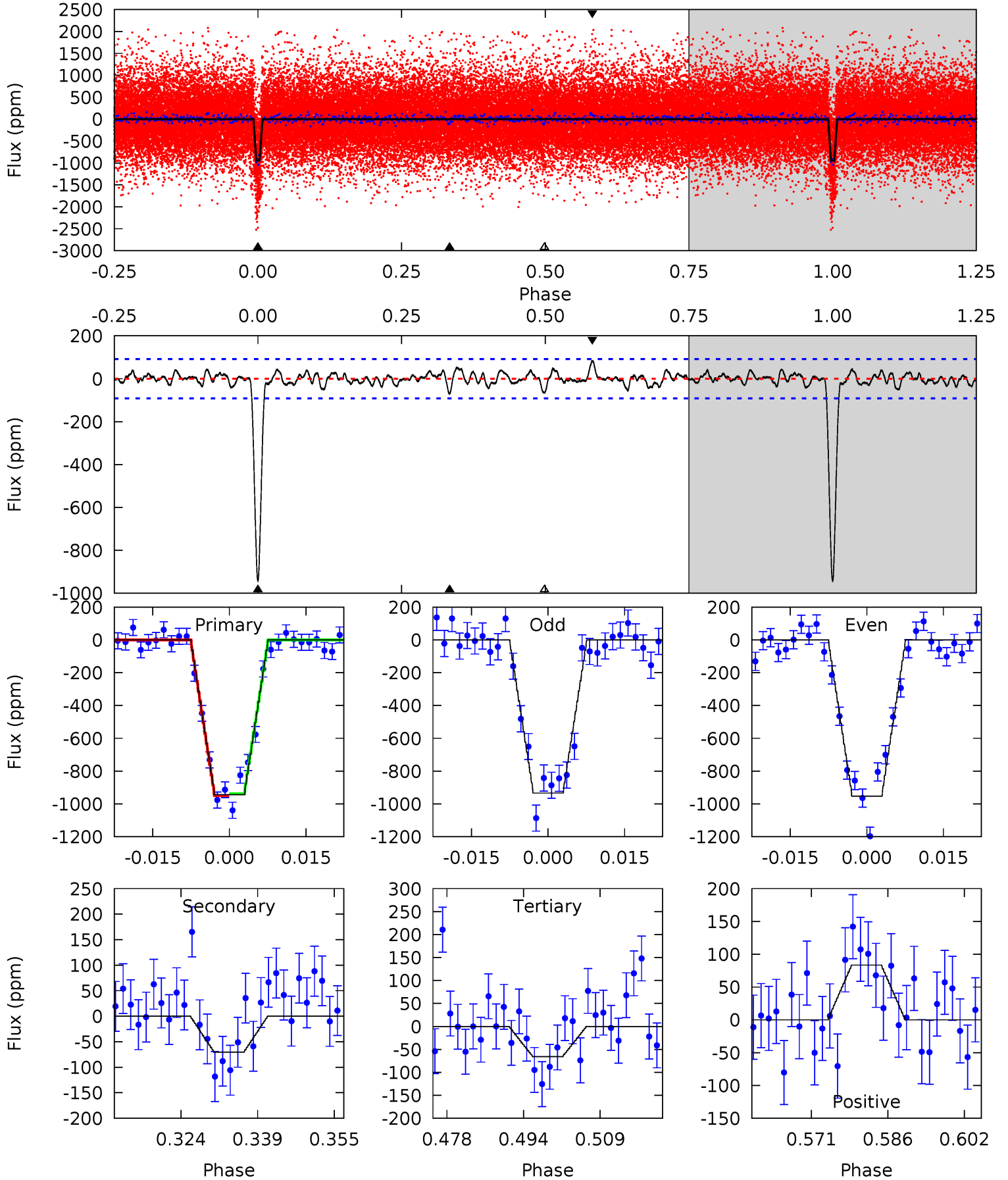
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.4	4.50	3.80	4.77	4.91	2.37	1.39	49.6	48.6	0.70	-0.26	0.49	0.96	0.08	1.13



Alt Model-Shift Uniqueness Test

003248501-01, P = 4.224617 Days, E = 128.869538 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.8	3.80	3.55	4.49	4.94	2.42	1.16	47.3	46.3	0.25	-0.70	0.52	0.97	0.08	0.31



Stellar Parameters For KIC 003248501

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6343^{+177}_{-243}	$4.408^{+0.054}_{-0.216}$	$0.070^{+0.250}_{-0.300}$	$1.140^{+0.376}_{-0.125}$	$1.213^{+0.168}_{-0.168}$	$1.155^{+0.336}_{-0.647}$
	+3%/-4%	+1%/-5%	+357%/-429%	+33%/-11%	+14%/-14%	+29%/-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 003248501-01 / KOI 2052.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-83 ± 18	$4.56^{+0.79}_{-0.60}$	1820^{+132}_{-87}	3612^{+194}_{-196}	$6.259^{+2.454}_{-1.954}$
Alt.	-71 ± 19	$3.99^{+0.74}_{-0.53}$	1817^{+145}_{-93}	3668^{+230}_{-234}	$6.796^{+3.346}_{-2.599}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

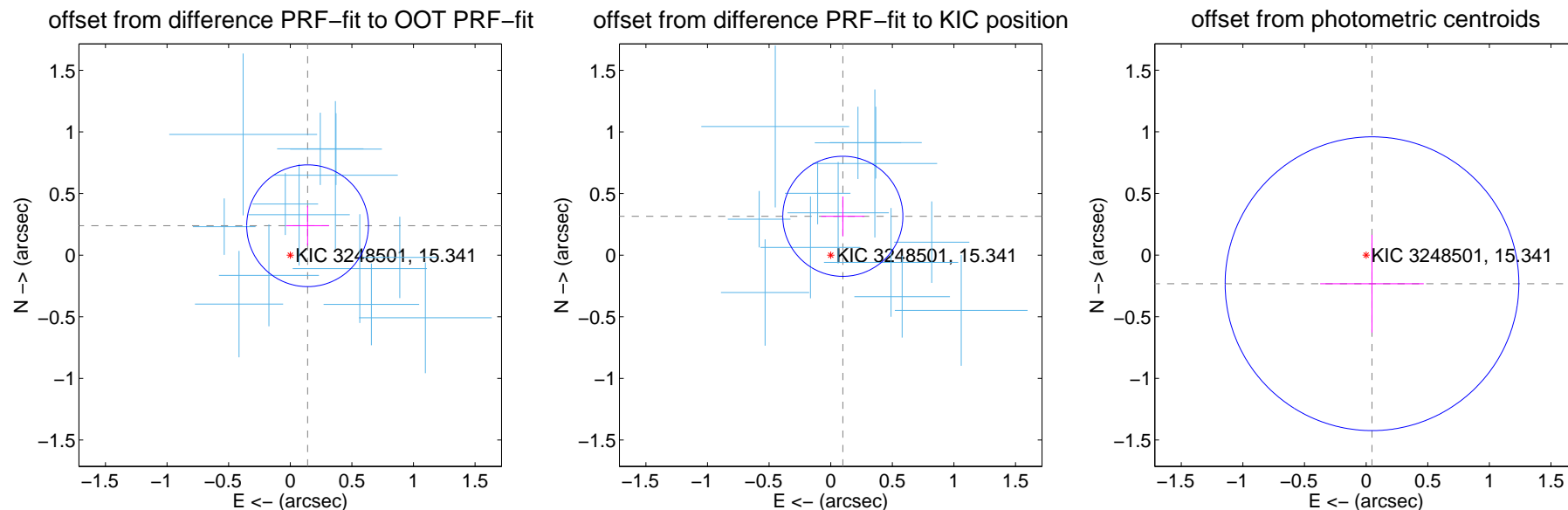
DV Centroid Data

Supplemental centroid analysis for 003248501-01. Kepler magnitude: 15.34. Transit SNR 32.96

There are 13 quarters with good PRF difference image offsets

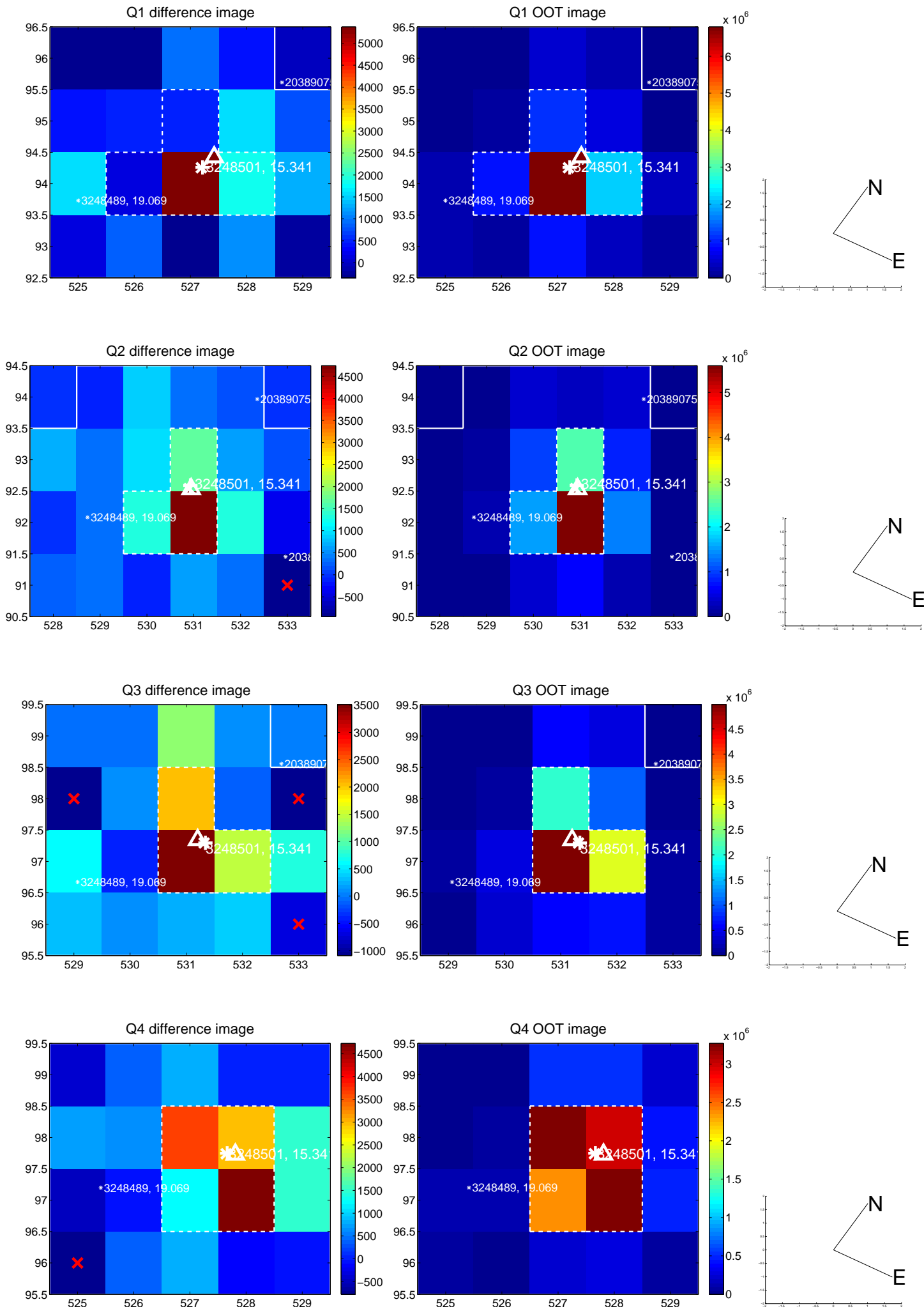
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.277 ± 0.165	1.68	-0.141 ± 0.175	0.239 ± 0.161
PRF-fit source offset from KIC position	0.330 ± 0.162	2.03	-0.098 ± 0.176	0.315 ± 0.161
photometric centroid source offset	0.24 ± 0.40	0.60	-0.05 ± 0.42	-0.23 ± 0.40

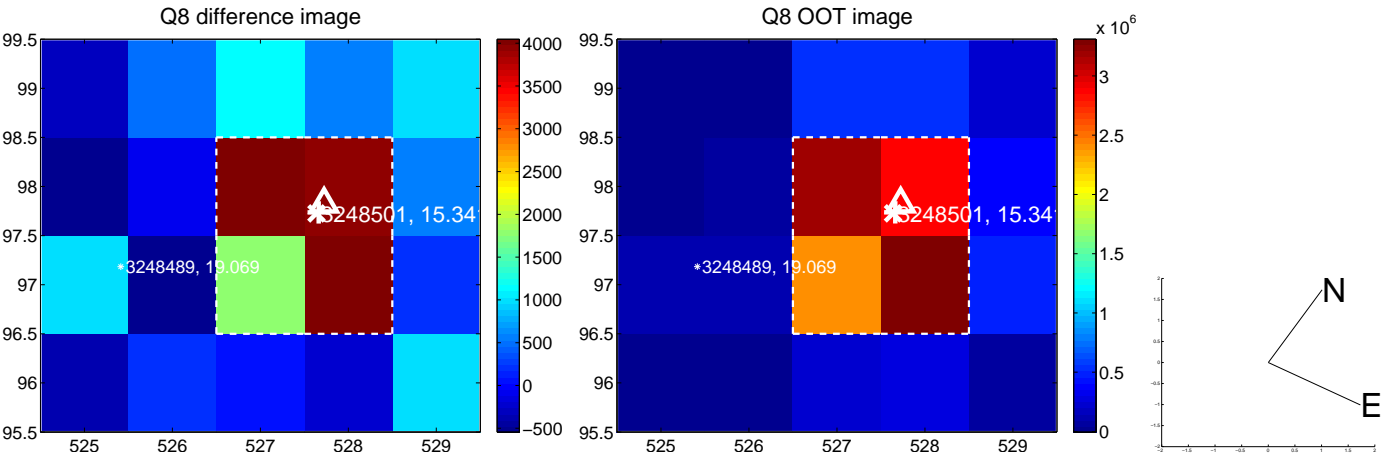
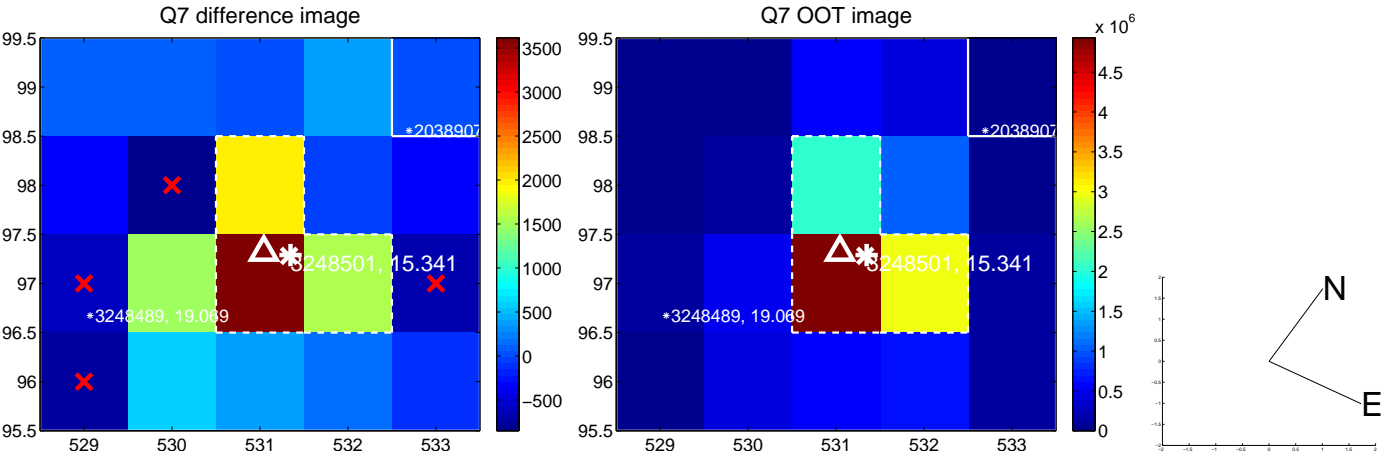
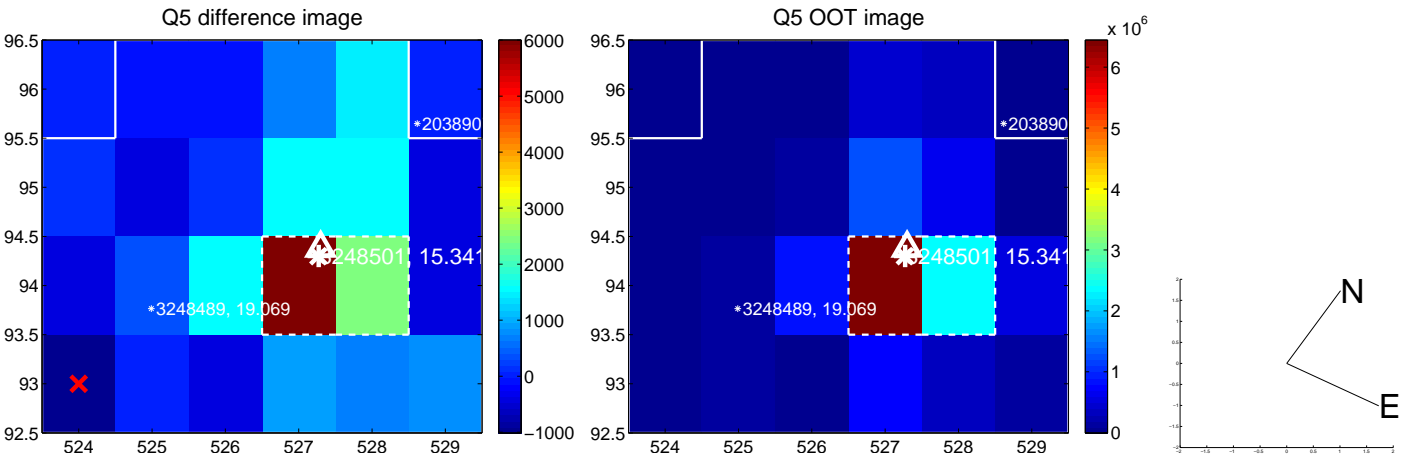


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

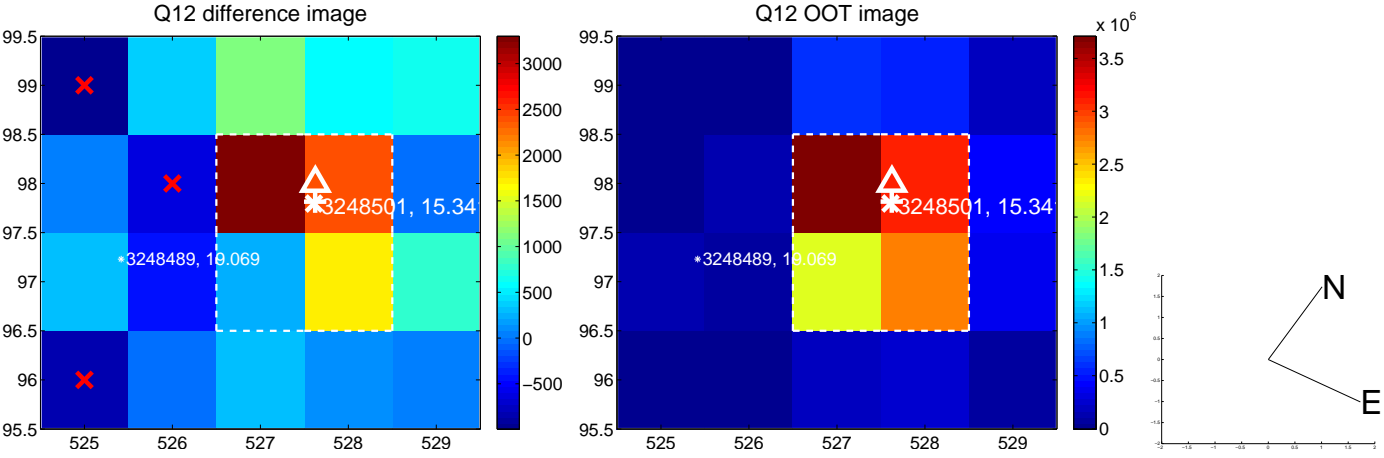
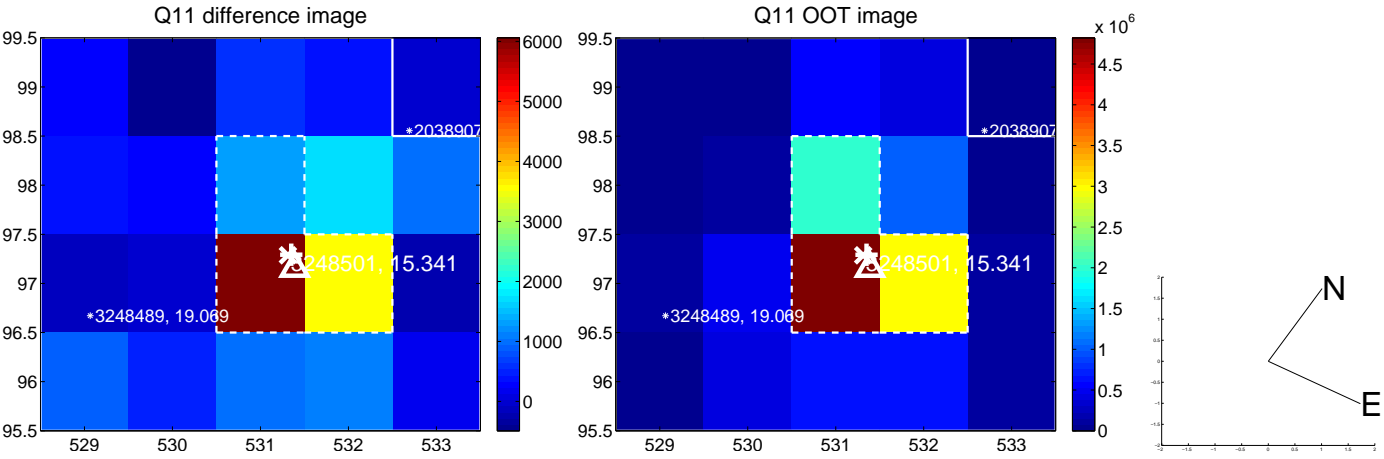
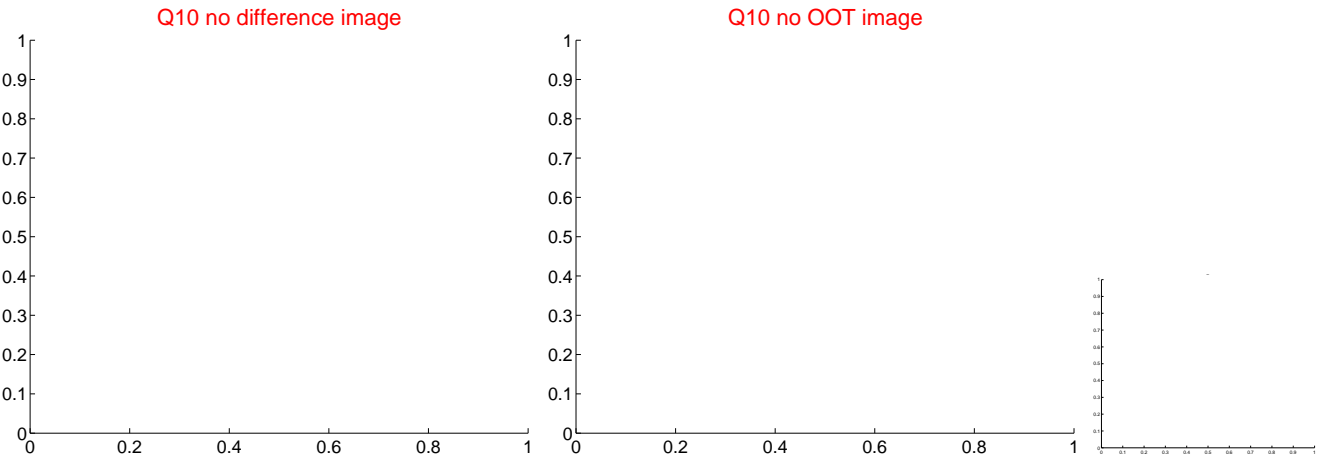
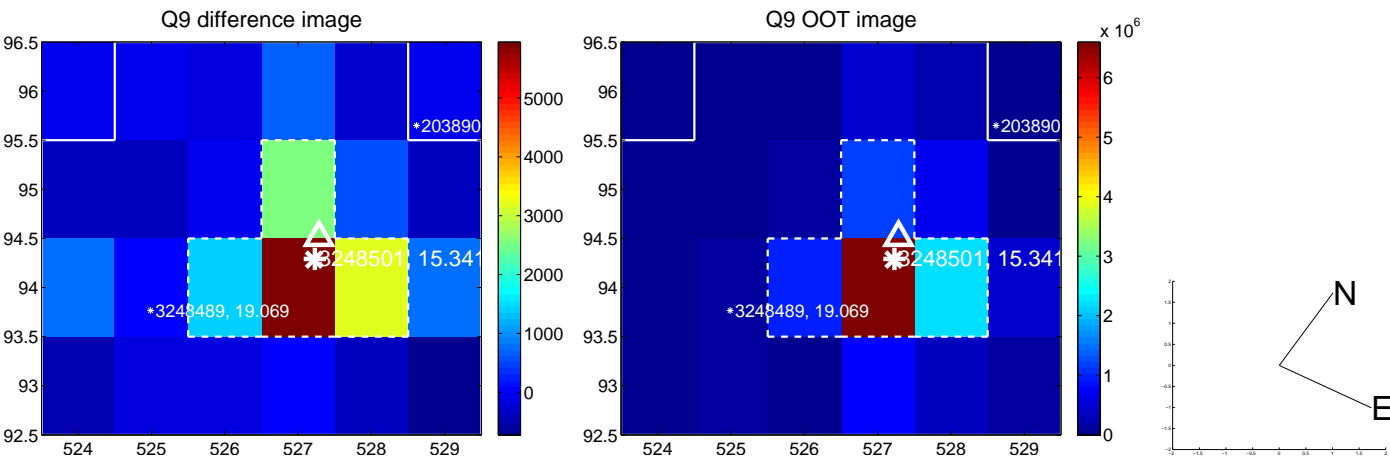
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



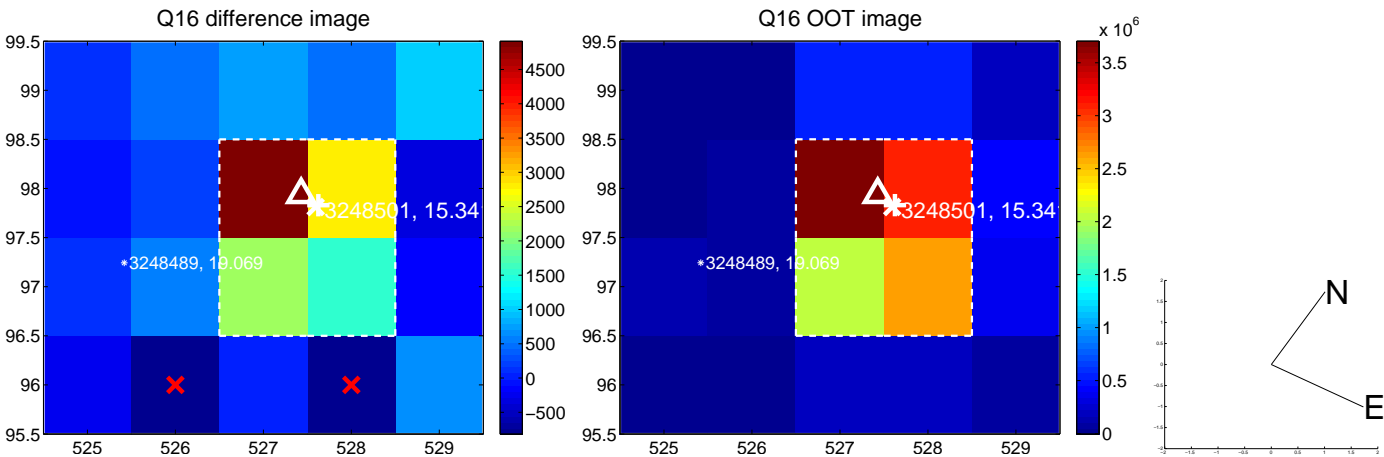
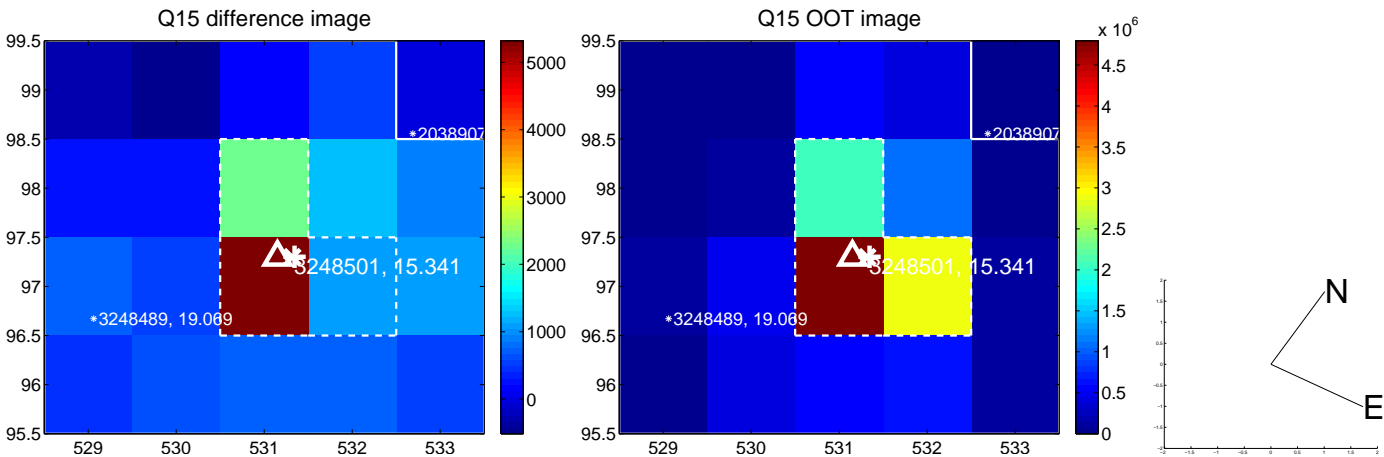
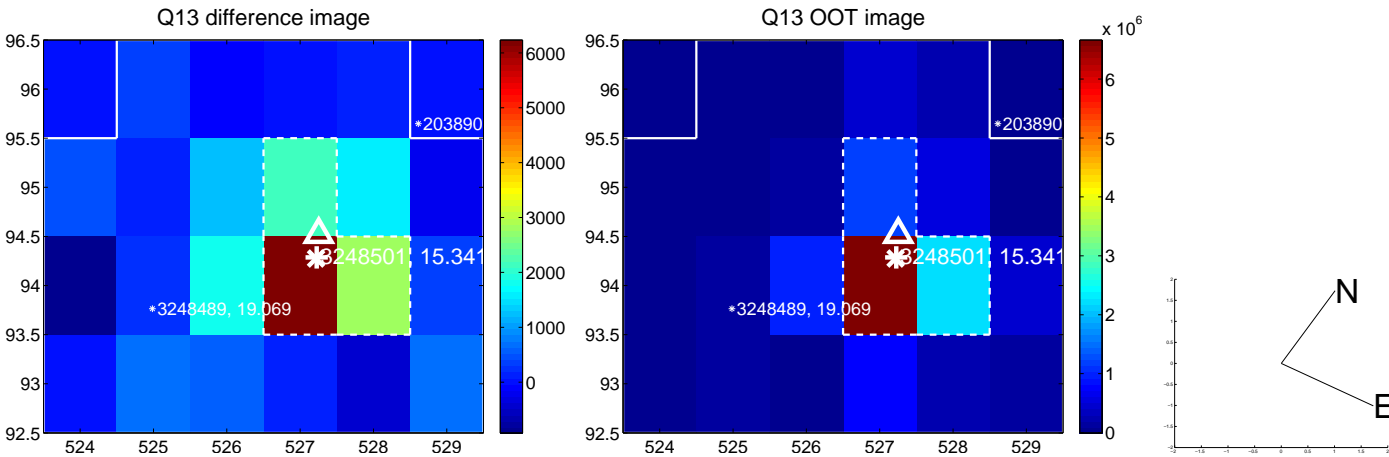
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



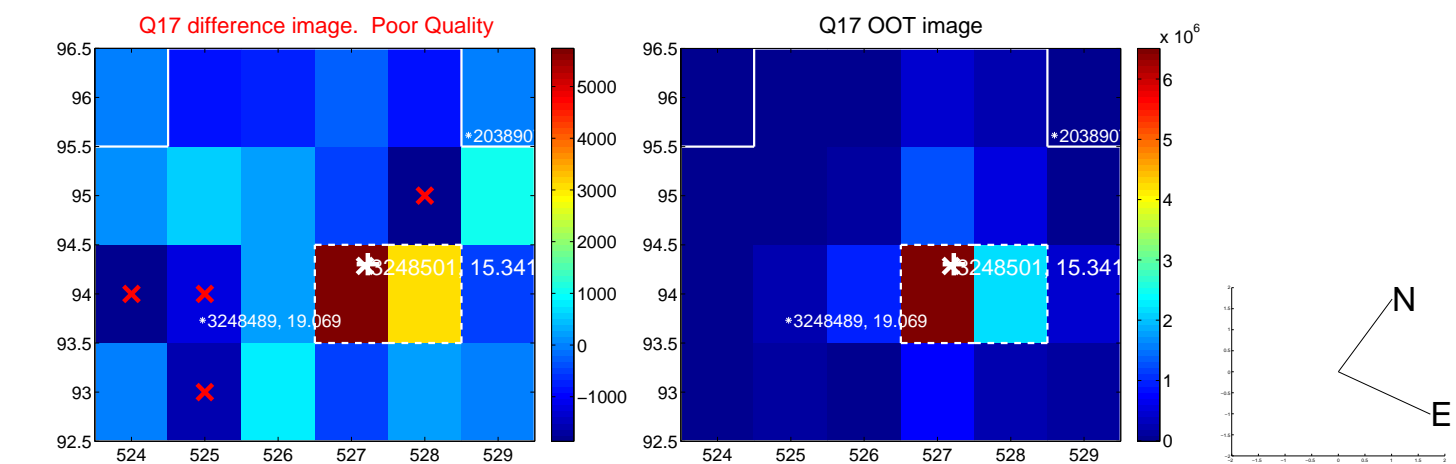
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



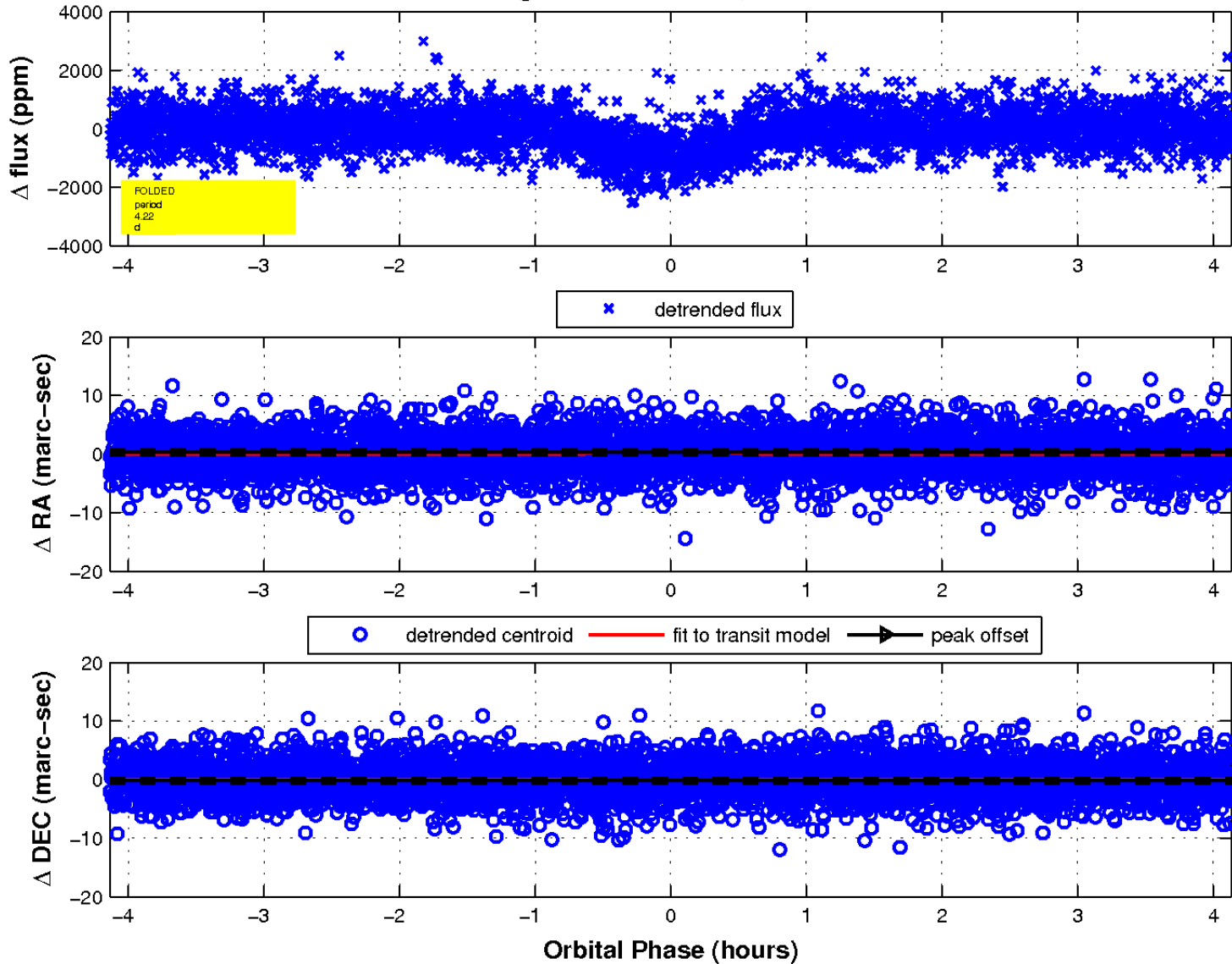
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

