

KIC 003337438

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})
003337438-01	OBS	6324.01	2.976080	132.969410	54.8	6.014	11.1	12.2	6.67	5321	5.91	11067.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003337438-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—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.

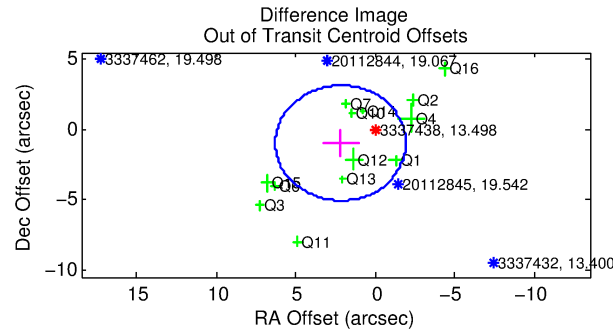
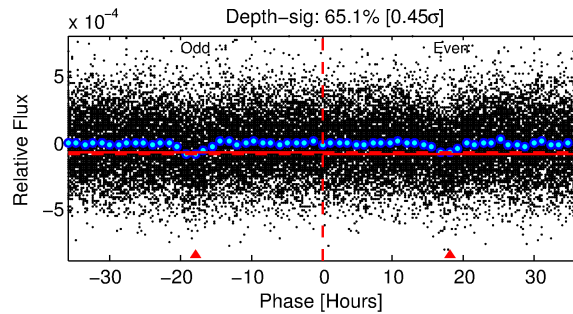
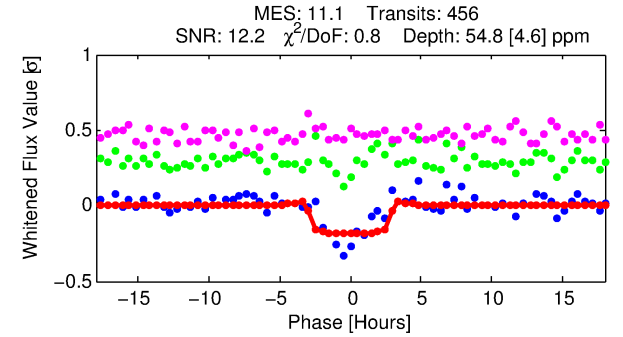
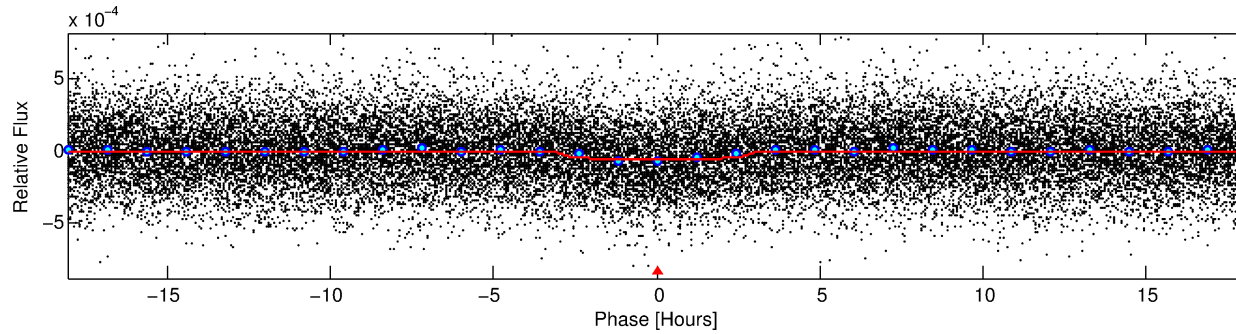
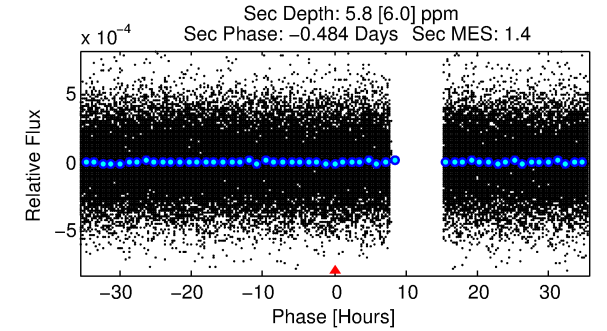
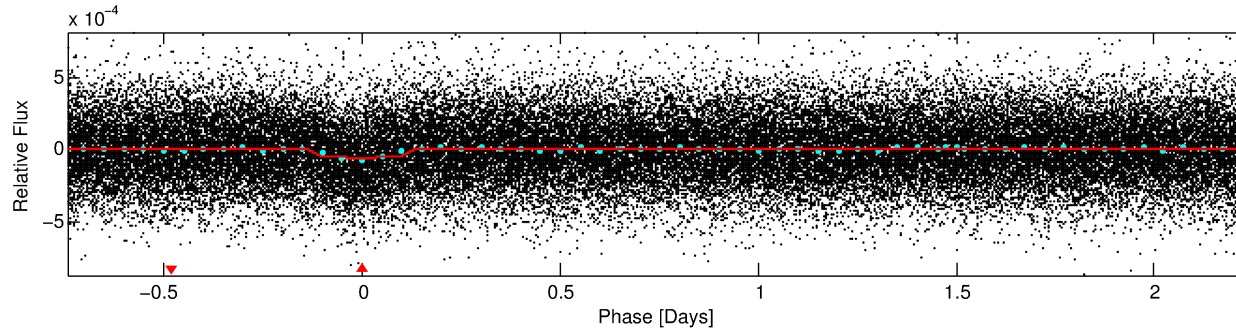
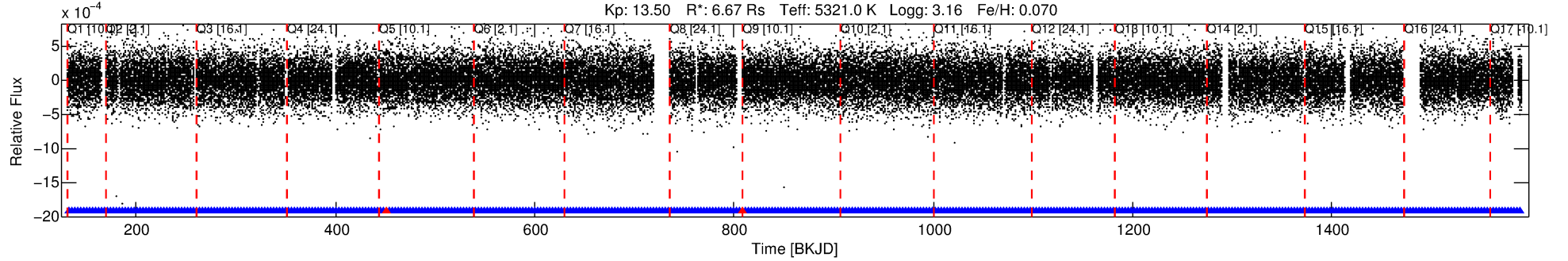
Ephemeris Match Information For 003337438-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
003337438-01	3337438	4980.01	3439031	1:1	75.1	18	-5	11.29	13.50	8115.50	Direct-PRF	0	1.40	0.06

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 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 $\sigma_P < 5.0$ and $\sigma_T < 5.0$. 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: 3337438 Candidate: 1 of 1 Period: 2.976 d
KOI: K06324.01 Corr: 0.958



DV Fit Results:

Period = 2.97608 [0.00002] d
Epoch = 132.9694 [0.0048] BKJD
Rp/R* = 0.0081 [0.0026]
a/R* = 1.99 [2.07]
b = 0.89 [0.31]
Seff = 11067.47 [13000.37]
Teff = 2615 [768] K
Rp = 5.91 [4.38] Re
a = 0.0537 [0.0374] AU
Ag = 0.26 [0.44] [-1.66σ]
Teffp = 2898 [895] K [0.24σ]

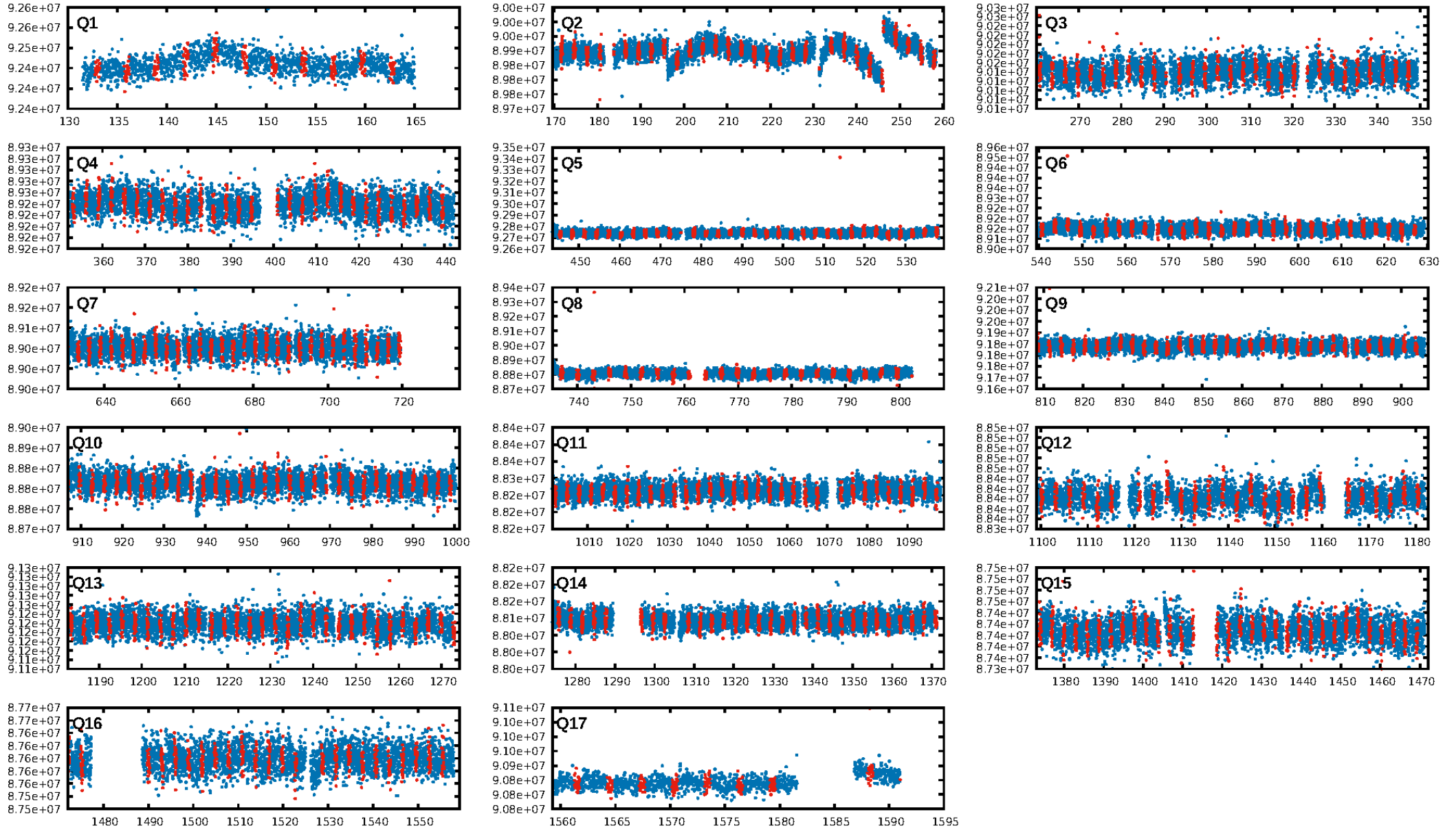
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.64e-24
RollingBand-fgt: 1.00 [435/437]
GhostDiagnostic-chr: 0.05065
Centroid-sig: 0.0%
Centroid-so: 2.342 arcsec [3.52σ]
OotOffset-rm: 2.392 arcsec [1.75σ]
KicOffset-rm: 2.153 arcsec [1.89σ]
OotOffset-st: 4/4/3/2 [13]
KicOffset-st: 4/4/3/2 [13]
DiffImageQuality-fgm: 0.00 [0/13]
DiffImageOverlap-fno: 1.00 [17/17]

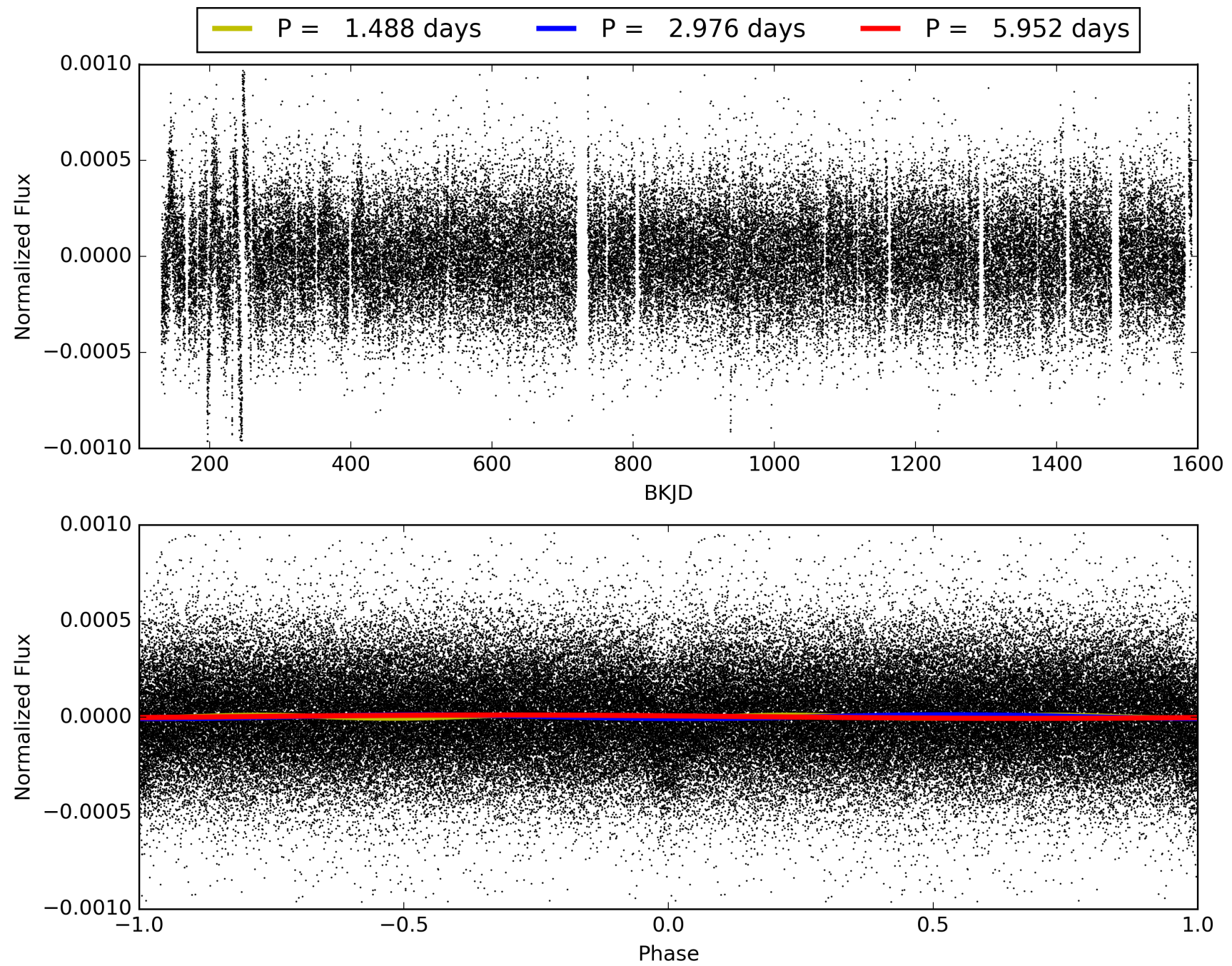
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:36:04 Z

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

TCE 003337438-01, PDC Light Curves

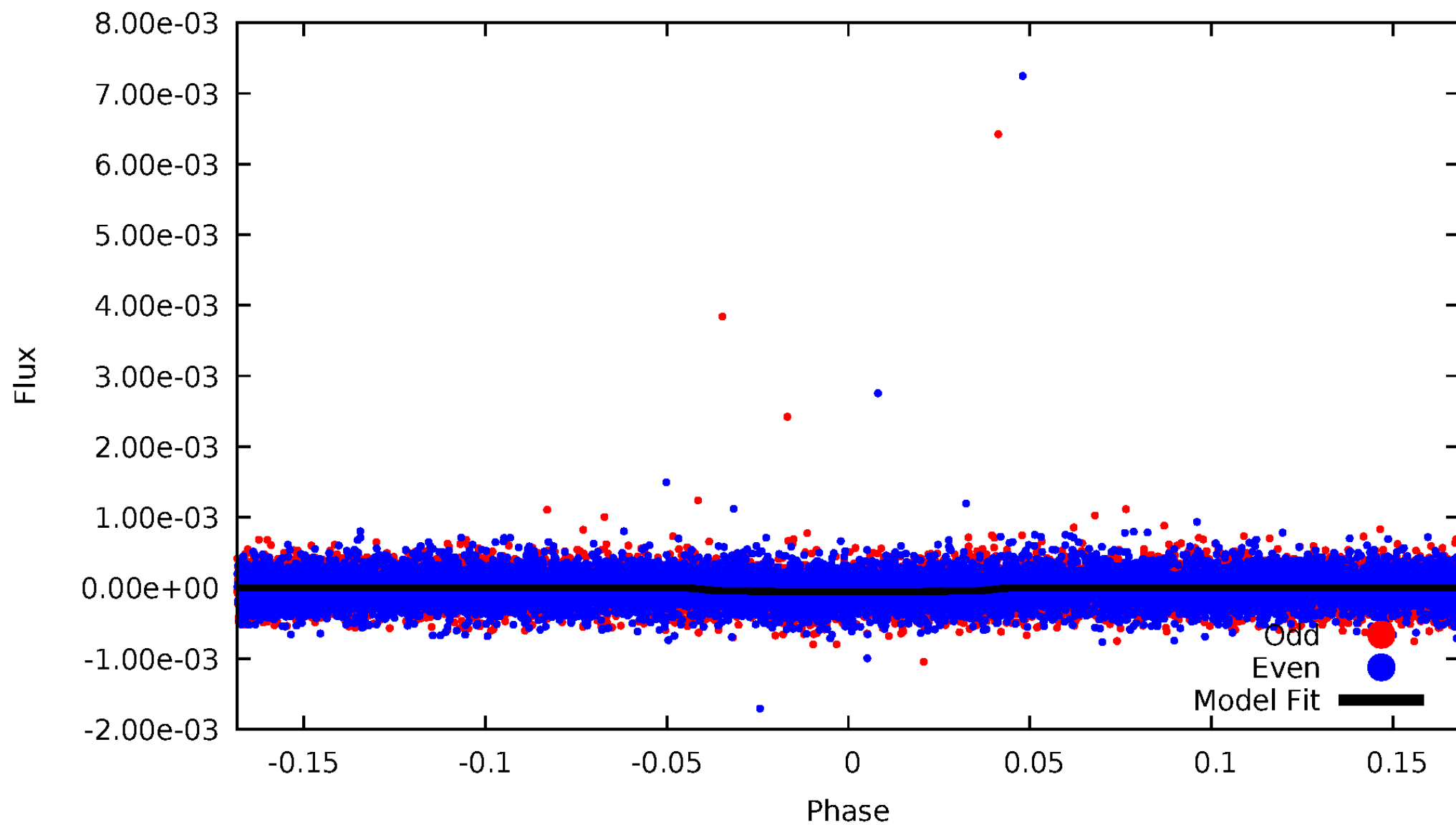


TCE 003337438-01



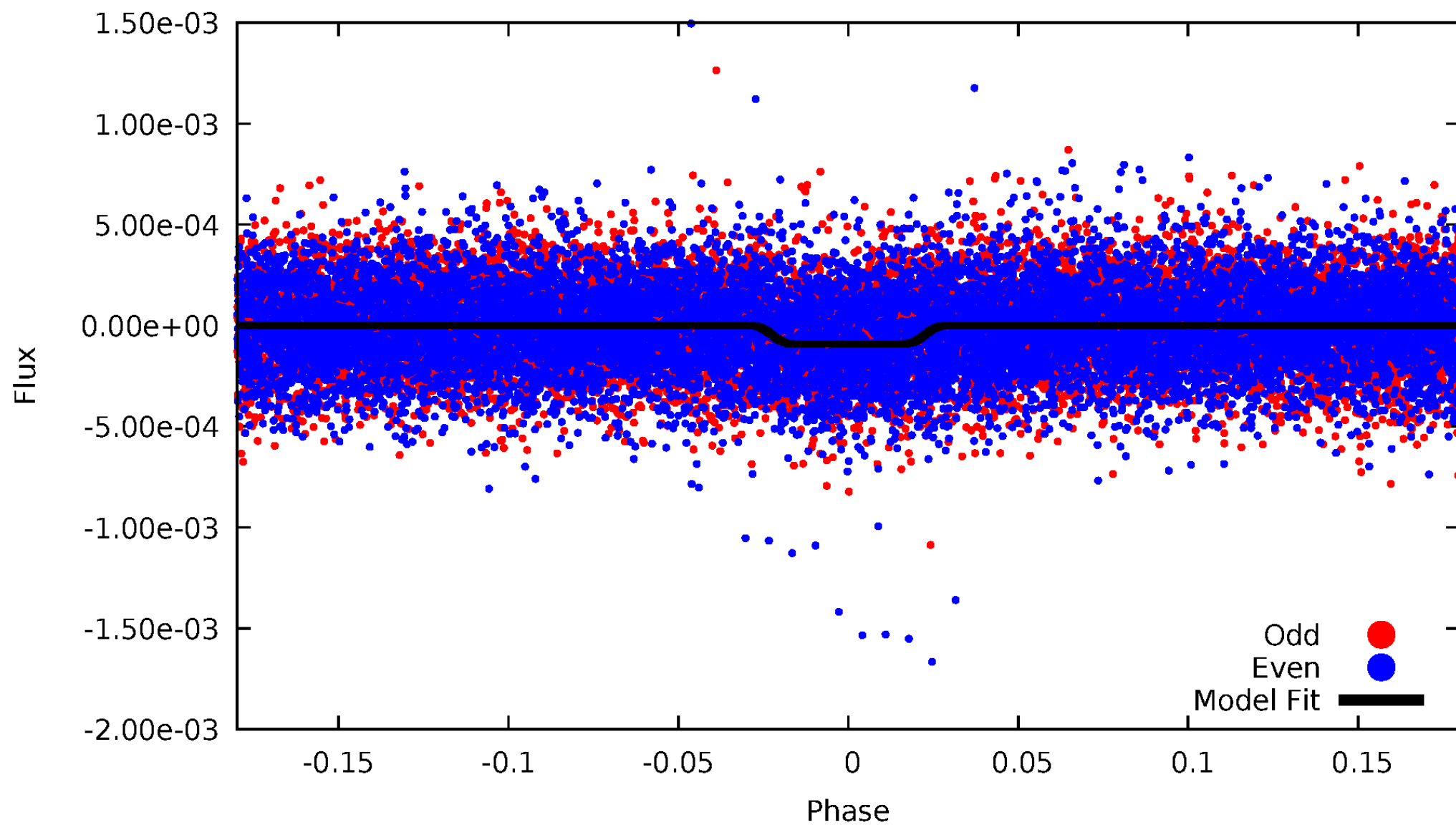
DV Odd/Even

TCE 003337438-01

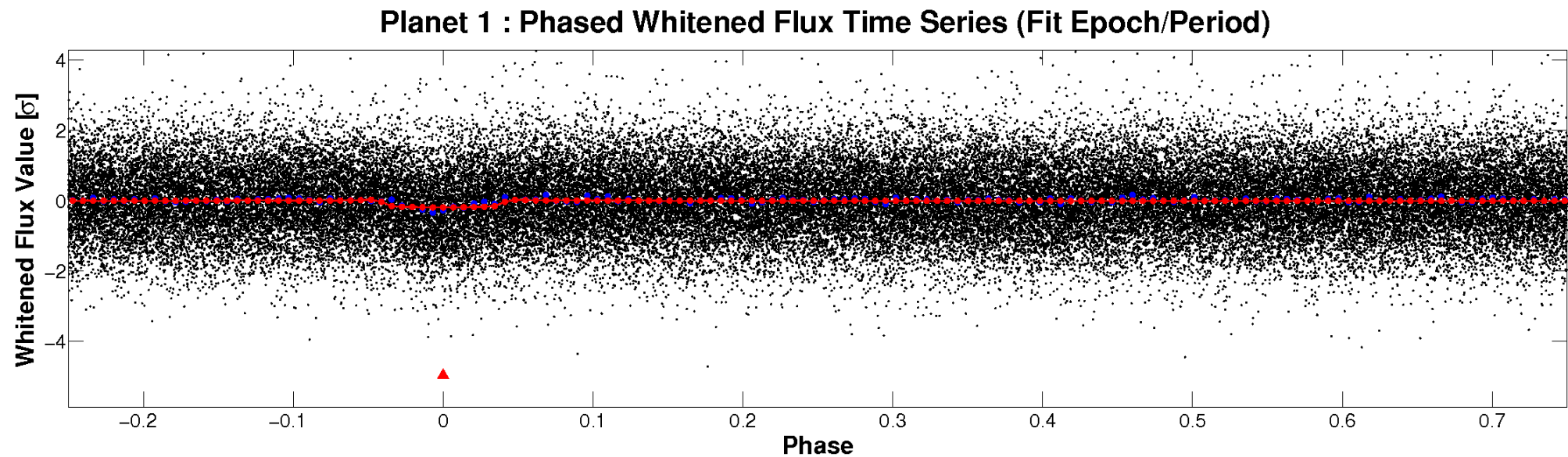
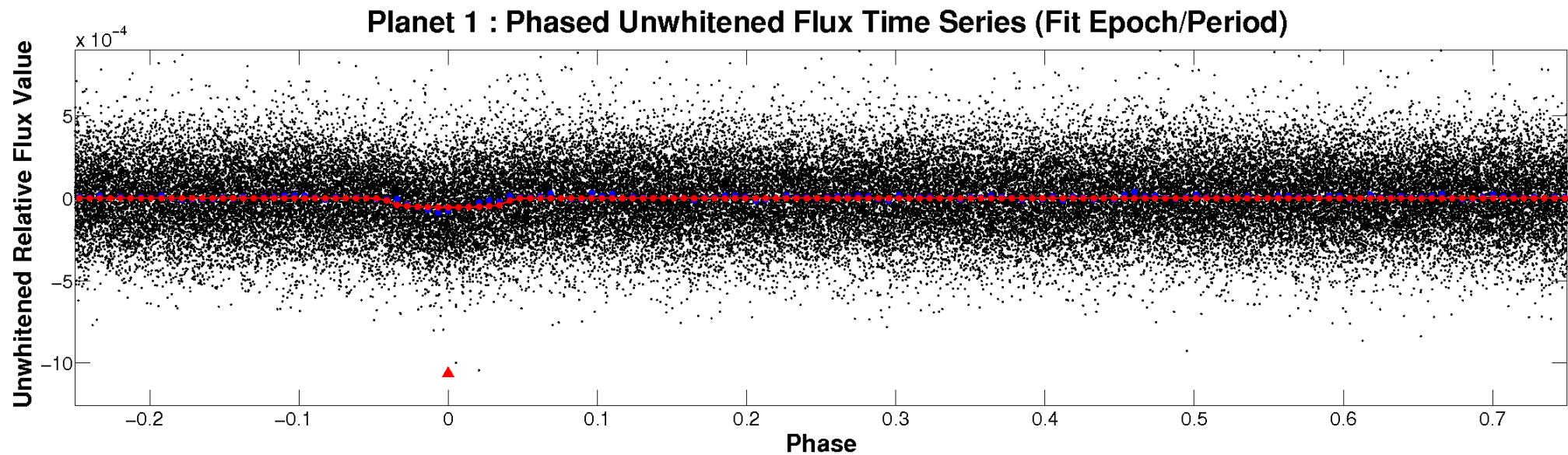


ALT Odd/Even

TCE 003337438-01

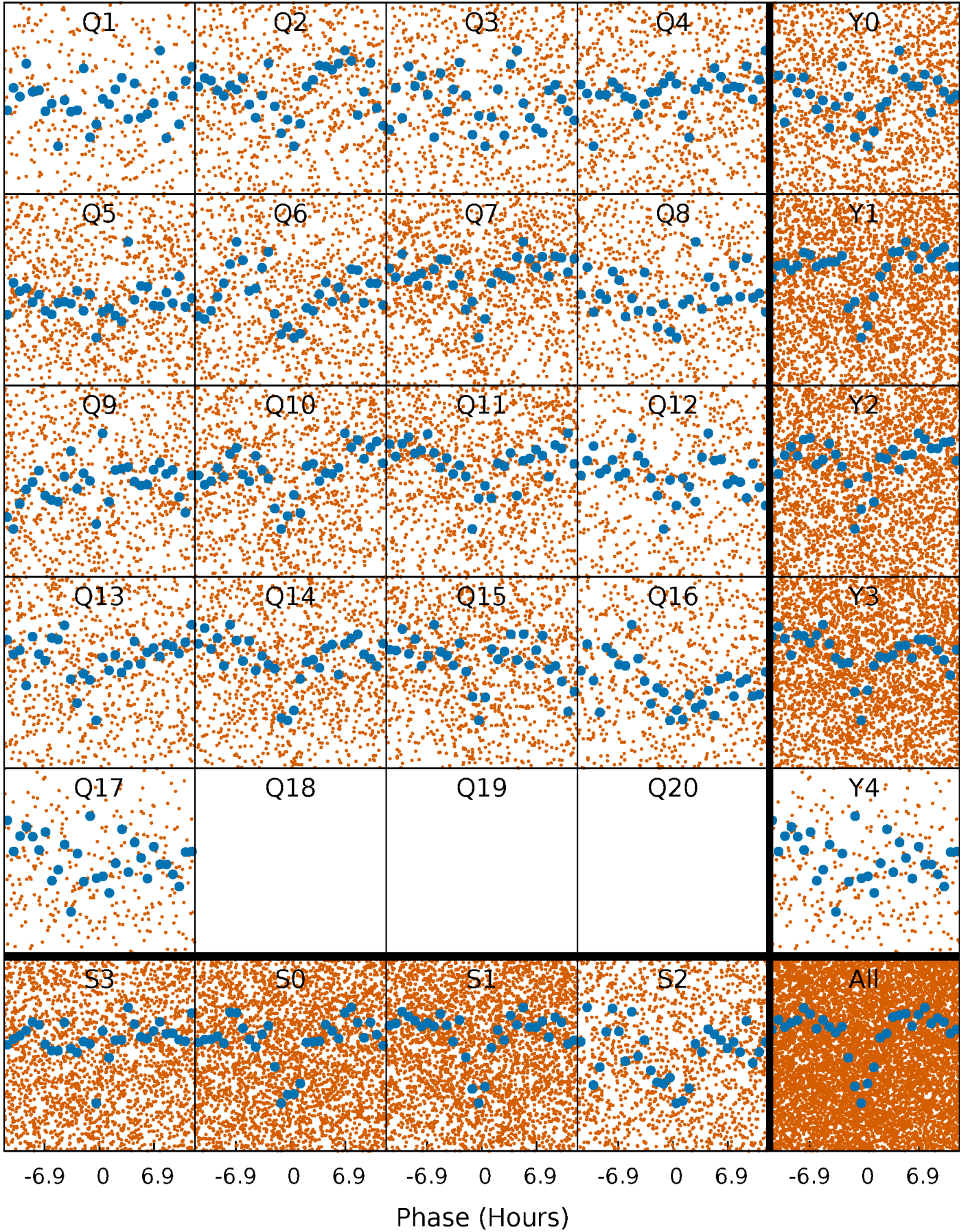


Non-Whitened Vs. Whitened Light Curve



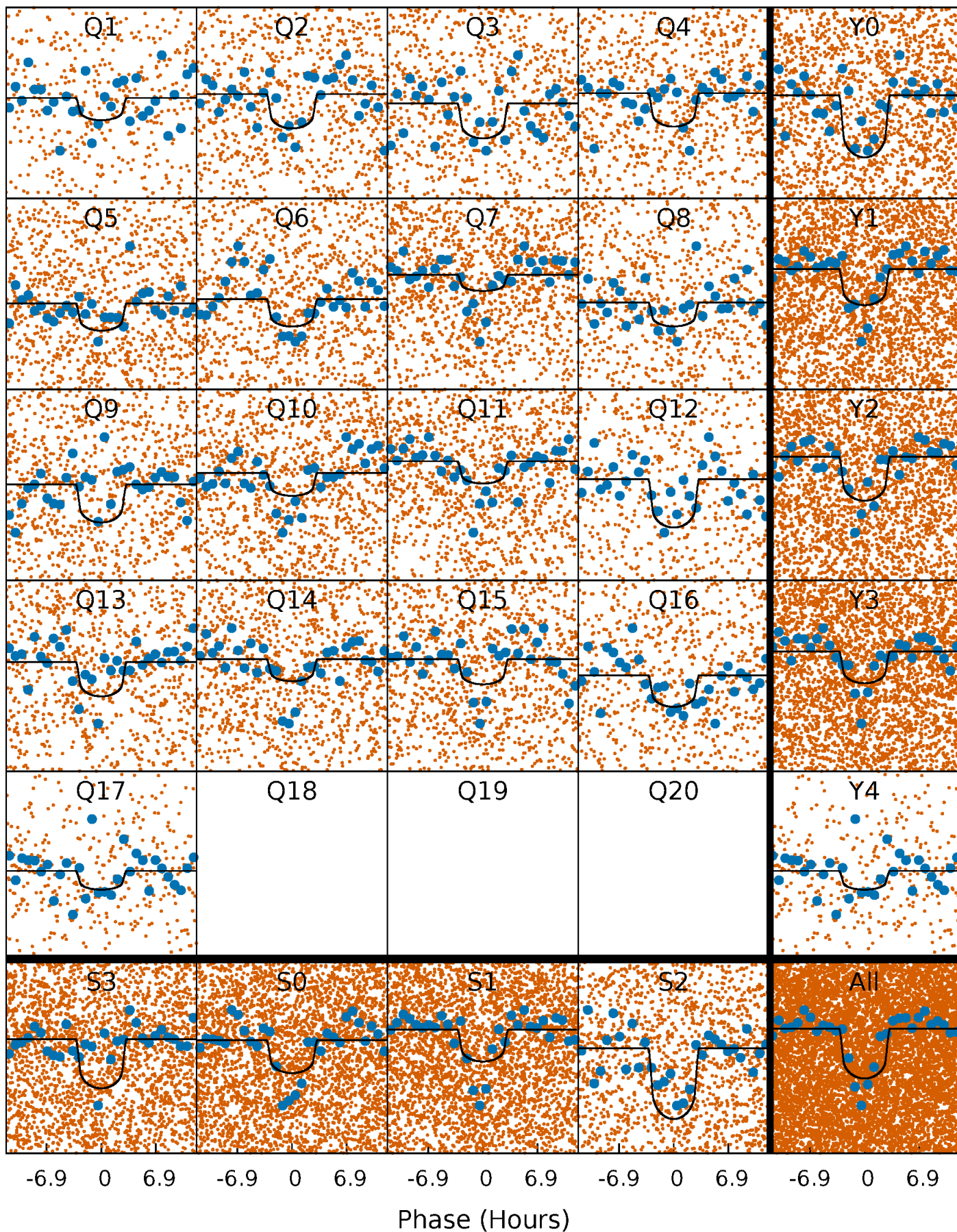
PDC Quarter-Phased Transit Curves

TCE 003337438-01 P= 2.976080 Days $T_0=132.969410$ (BKJD)



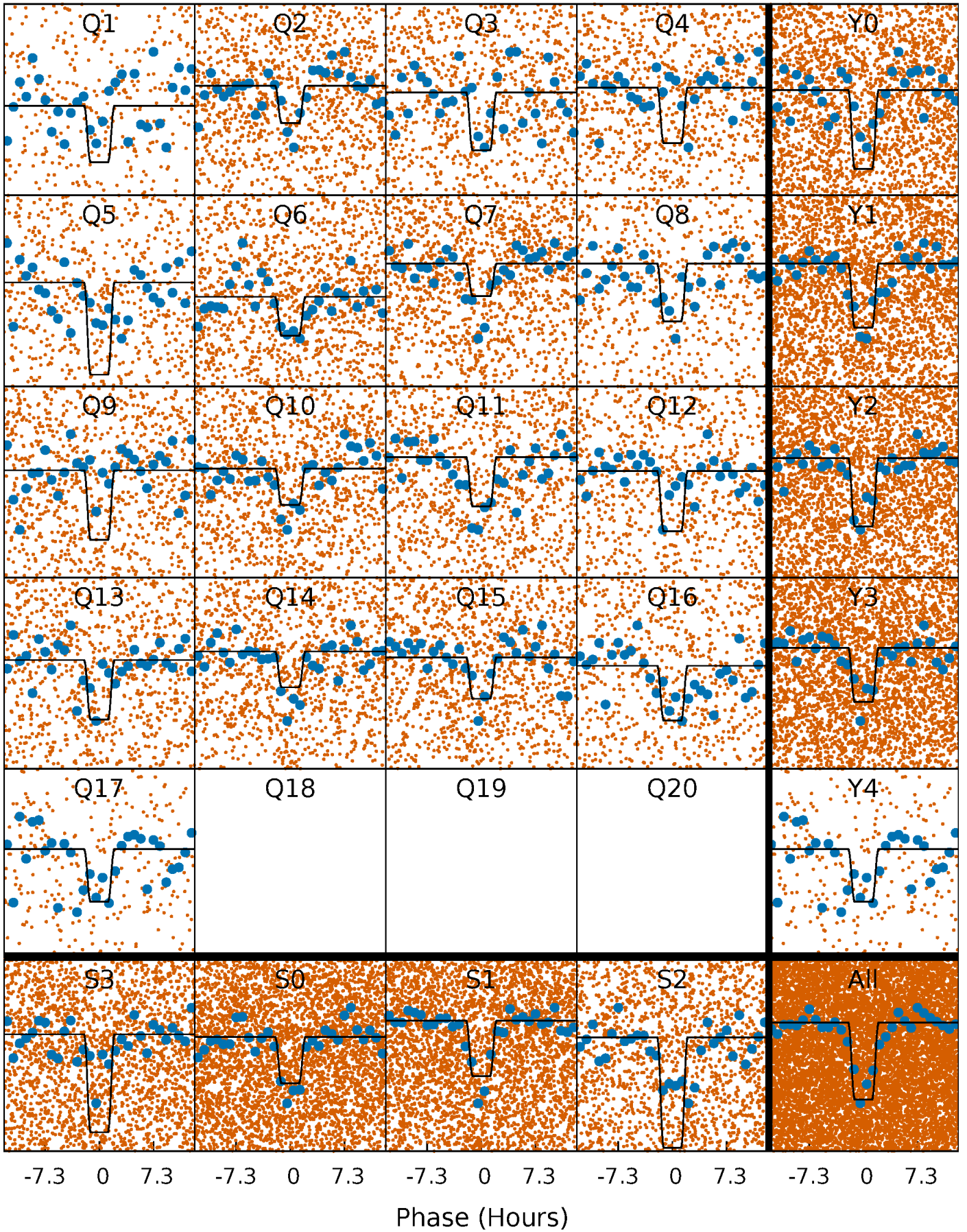
DV Quarter-Phased Transit Curves

TCE 003337438-01 P= 2.976080 Days $T_0=132.969410$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

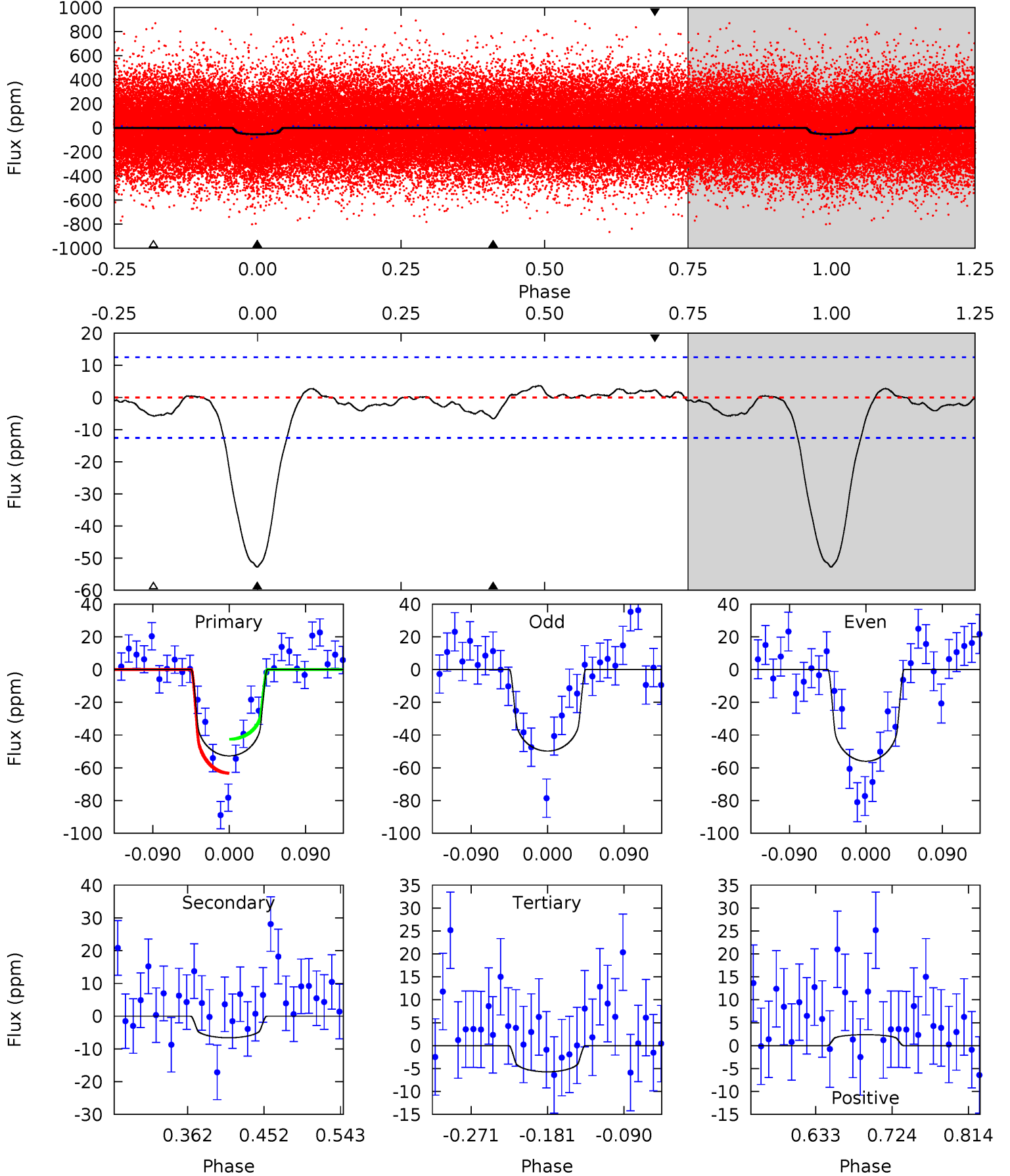
TCE 003337438-01 P= 2.976064 Days $T_0=132.962356$ (BKJD)



DV Model-Shift Uniqueness Test

003337438-01, P = 2.976080 Days, E = 129.993330 Days

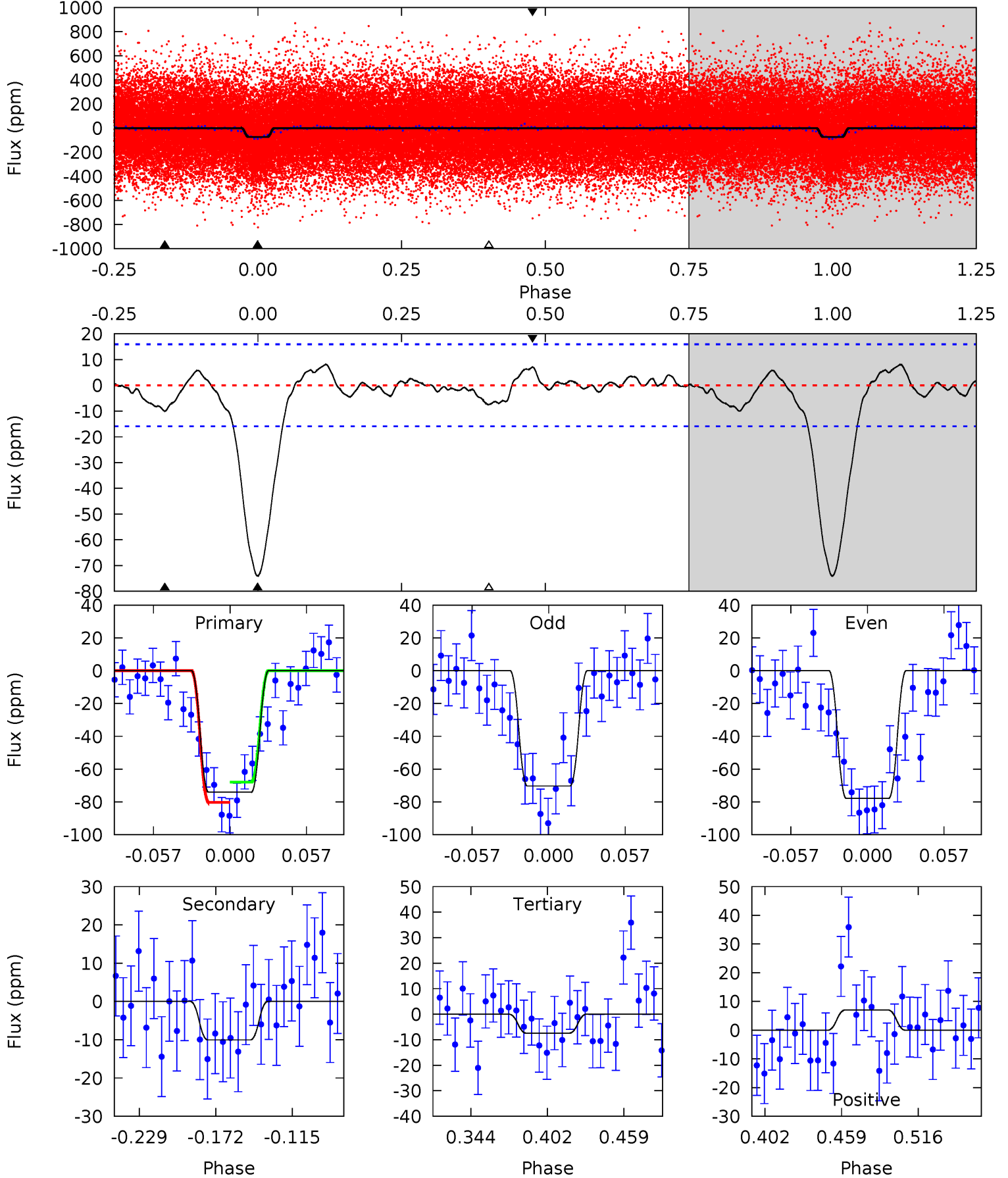
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.3	2.41	2.09	0.87	4.59	1.69	0.77	17.2	18.4	0.32	1.54	1.14	0.92	0.07	3.79



Alt Model-Shift Uniqueness Test

003337438-01, P = 2.976064 Days, E = 129.986292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	2.96	2.20	2.07	4.68	1.90	0.95	19.6	19.7	0.75	0.88	1.10	0.95	0.10	1.82



Stellar Parameters For KIC 003337438

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5321^{+189}_{-260}	$3.158^{+0.696}_{-0.174}$	$0.070^{+0.250}_{-0.400}$	$6.669^{+1.918}_{-4.475}$	$2.334^{+0.441}_{-1.322}$	$0.011^{+0.145}_{-0.005}$
	+4%/-5%	+22%/-6%	+357%/-571%	+29%/-67%	+19%/-57%	+1307%/-47%
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 003337438-01 / KOI 6324.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 3	$5.23^{+2.51}_{-2.17}$	3543^{+377}_{-568}	2658^{+1001}_{-5809}	$0.361^{+0.680}_{-0.220}$
Alt.	-10 ± 3	$6.13^{+2.90}_{-2.33}$	3521^{+377}_{-623}	2831^{+786}_{-5894}	$0.404^{+0.634}_{-0.228}$

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 $A_{\text{obs}} \gg 1.0$

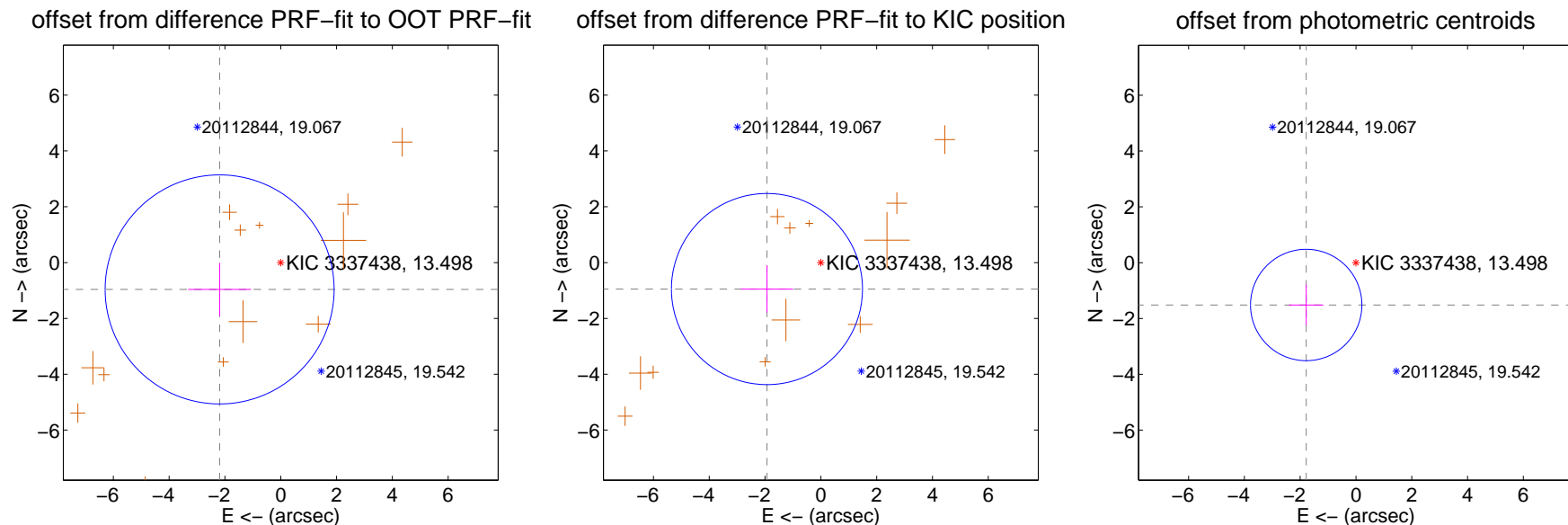
DV Centroid Data

Supplemental centroid analysis for 003337438-01. Kepler magnitude: 13.50. Transit SNR 12.15

There are 0 quarters with good PRF difference image offsets

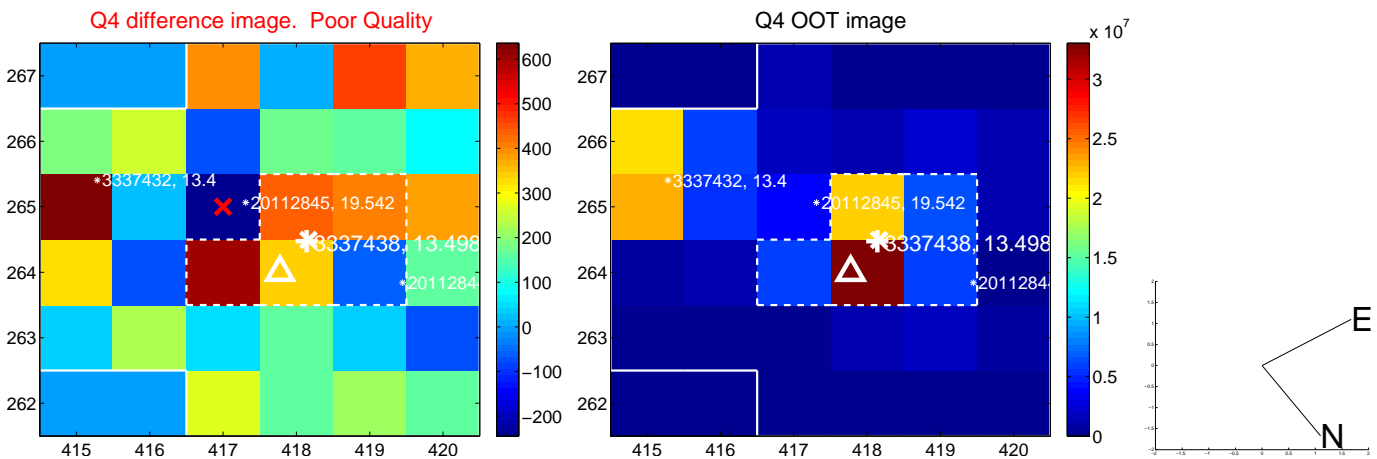
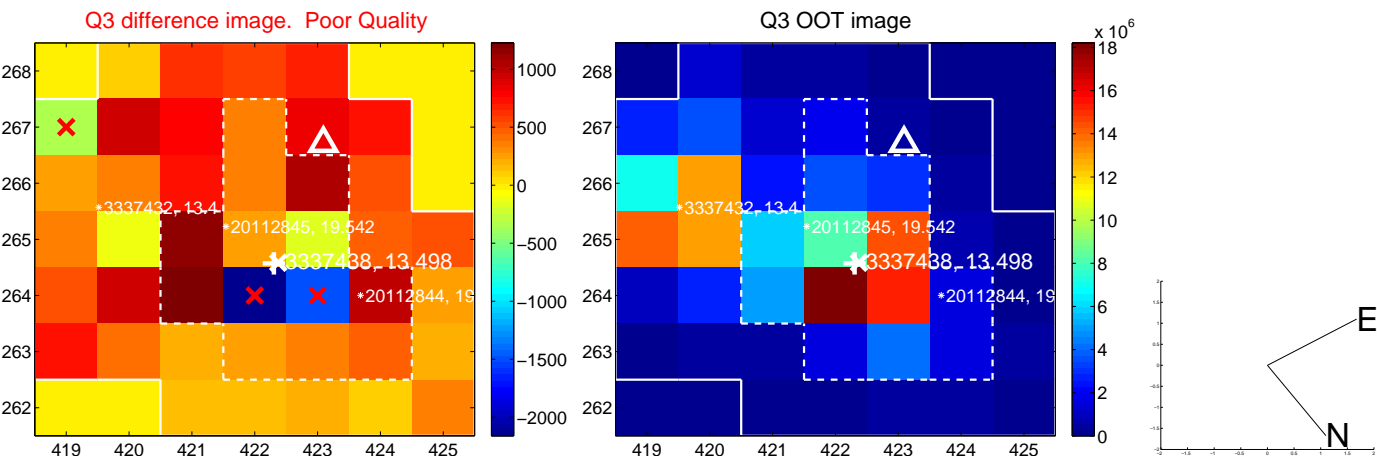
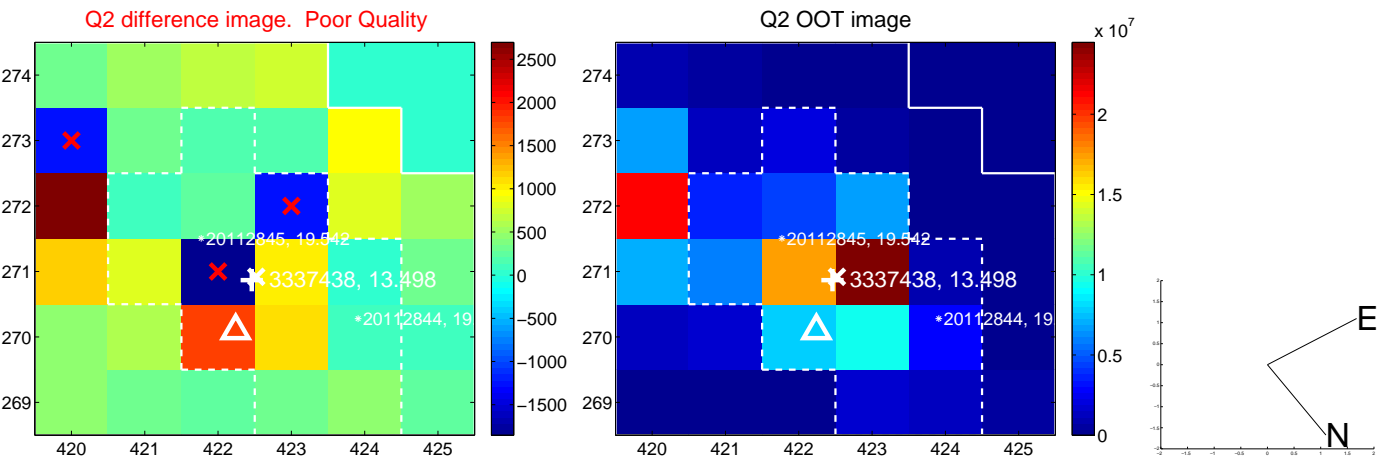
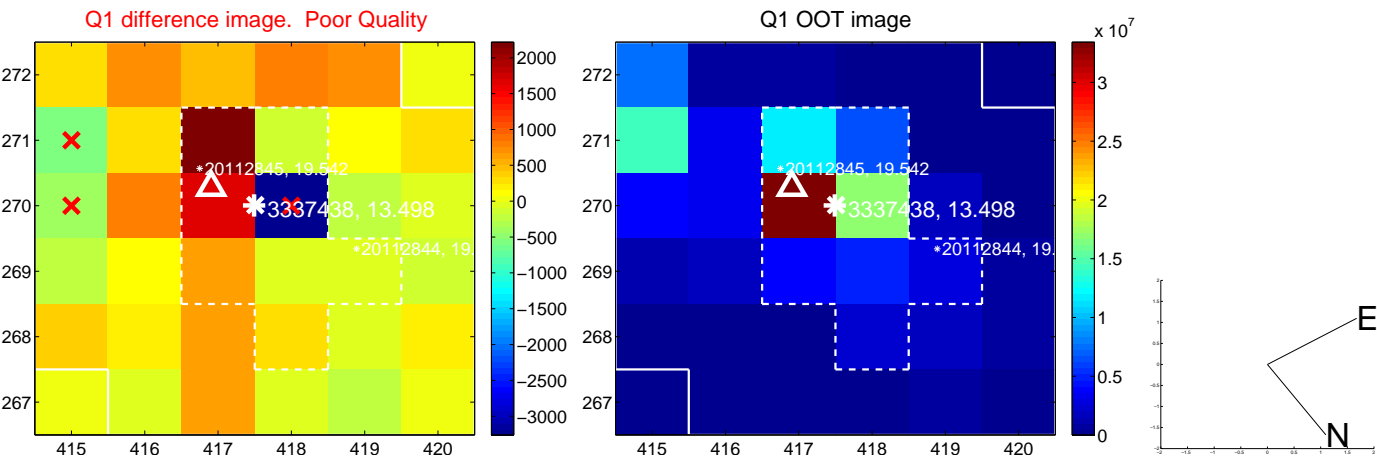
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.392 ± 1.368	1.75	2.191 ± 1.126	-0.962 ± 0.953
PRF-fit source offset from KIC position	2.153 ± 1.141	1.89	1.932 ± 0.934	-0.948 ± 0.842
photometric centroid source offset	2.34 ± 0.67	3.52	1.78 ± 0.62	-1.52 ± 0.73

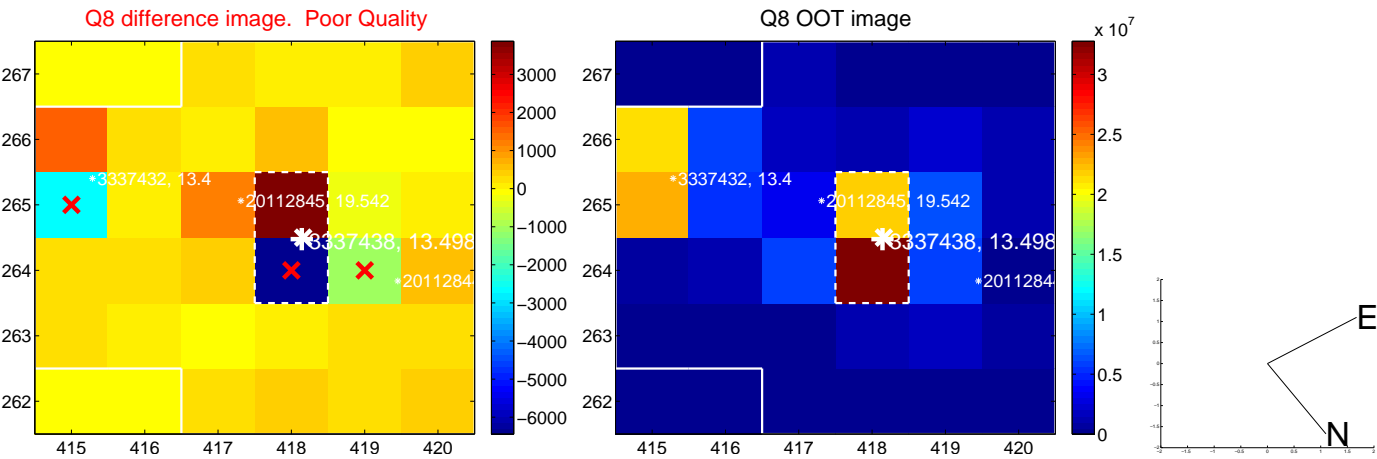
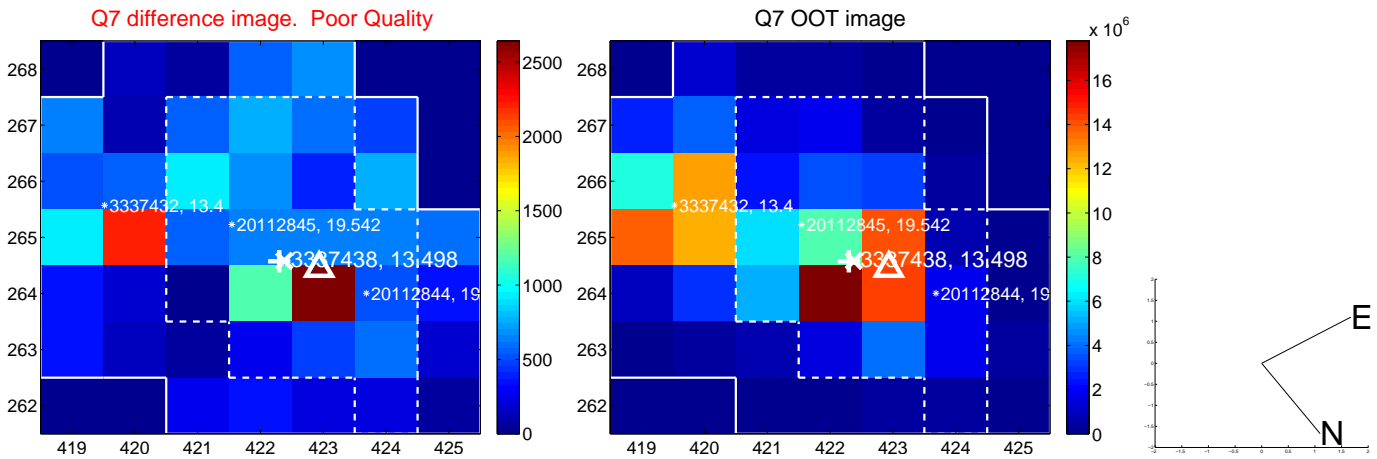
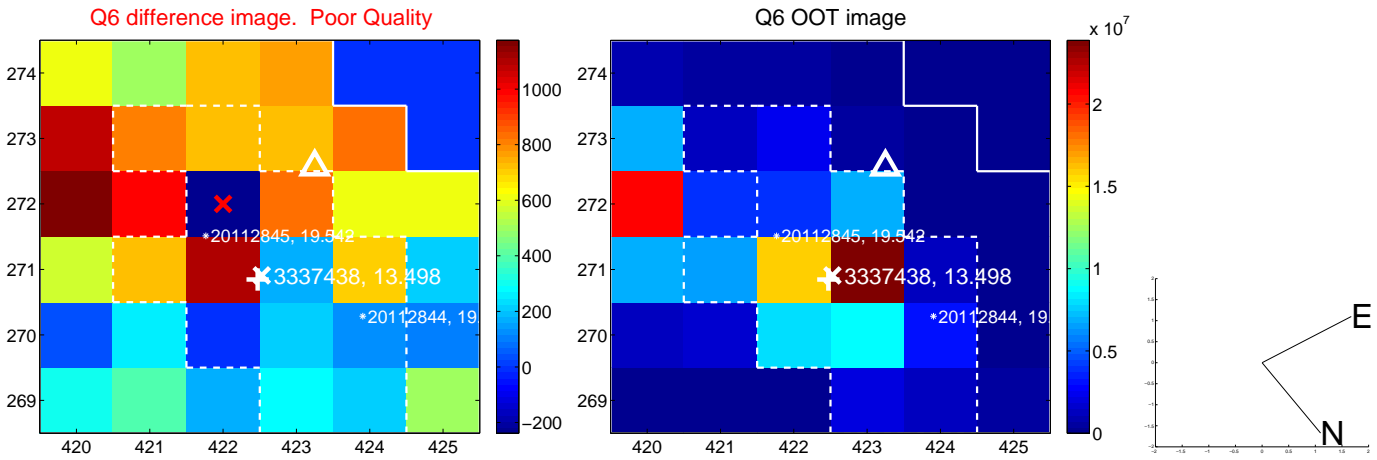
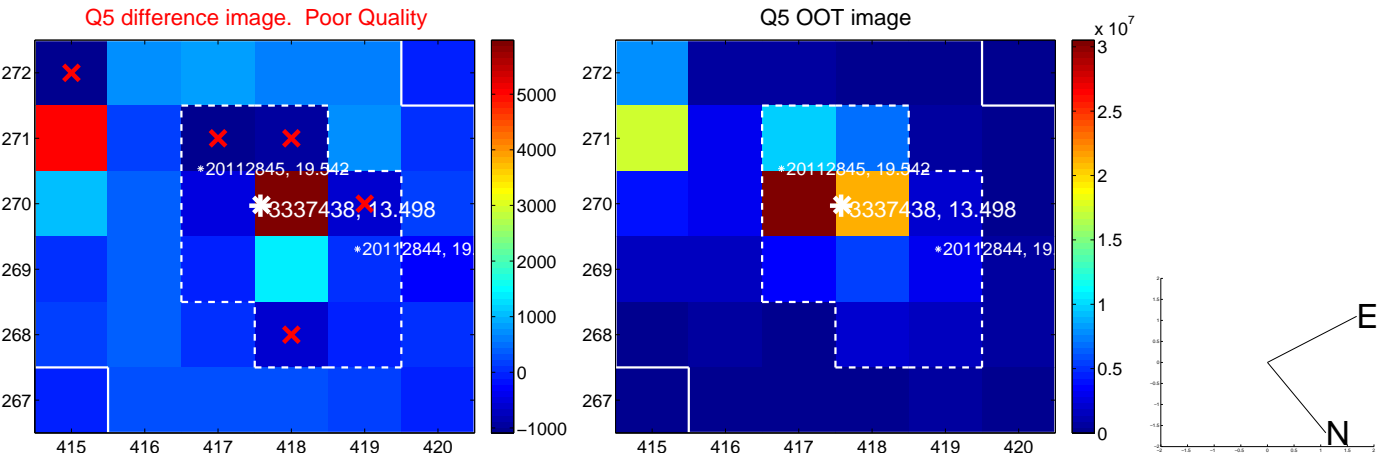


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

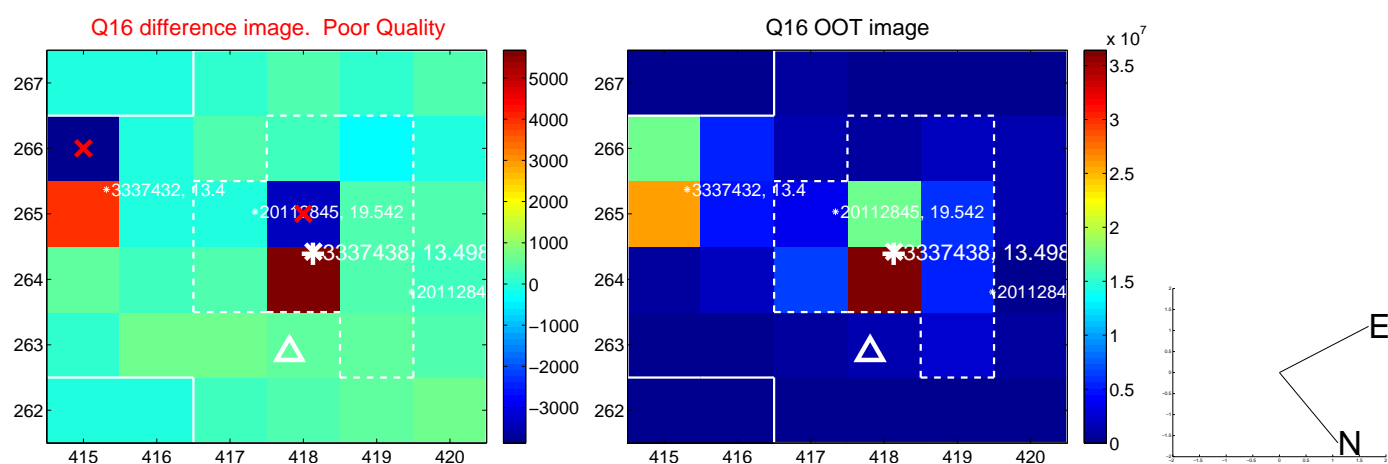
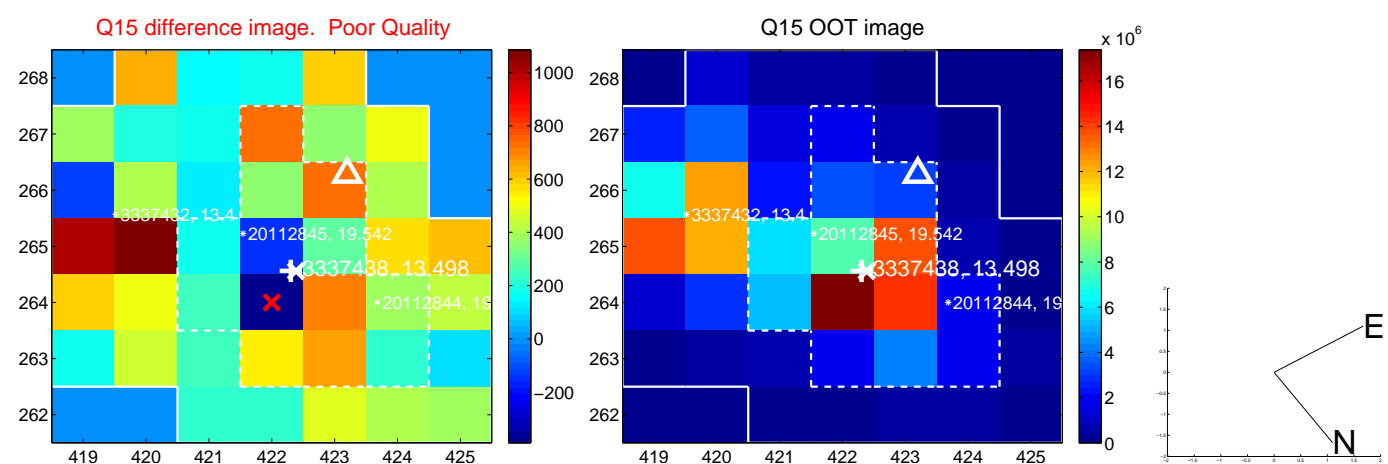
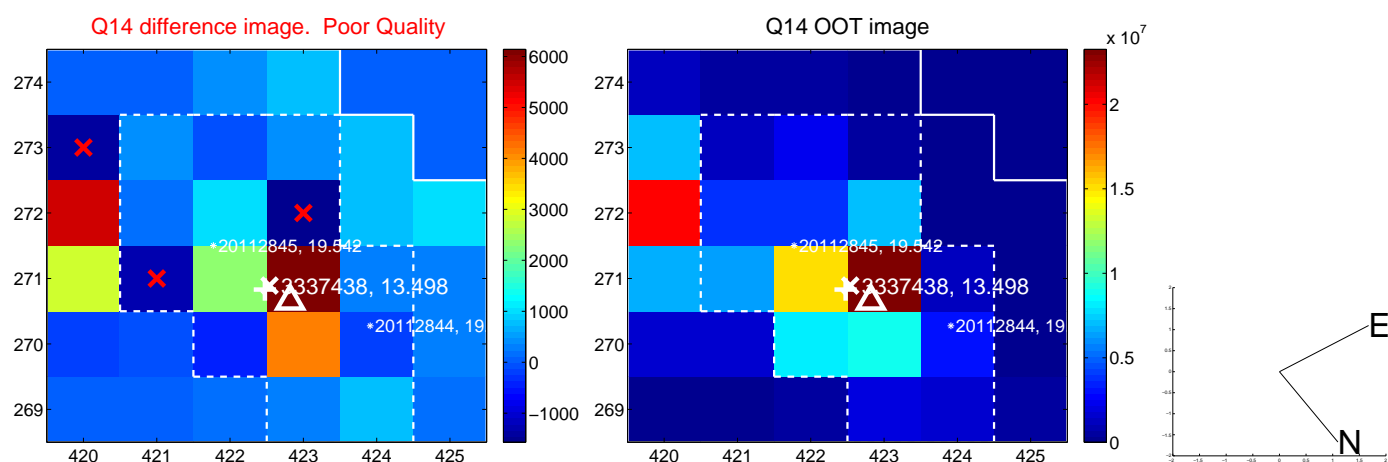
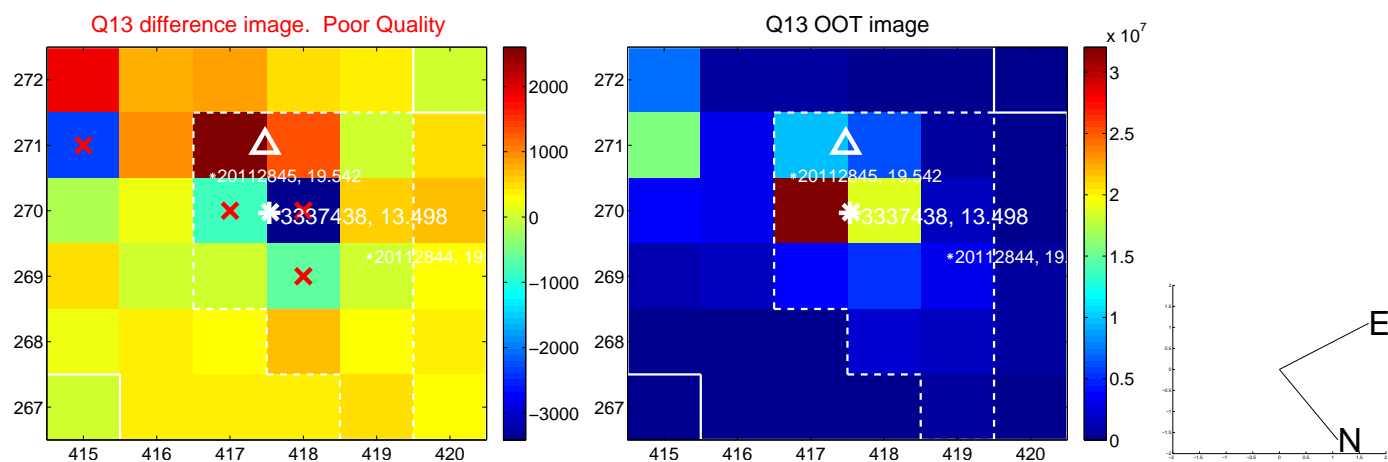
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



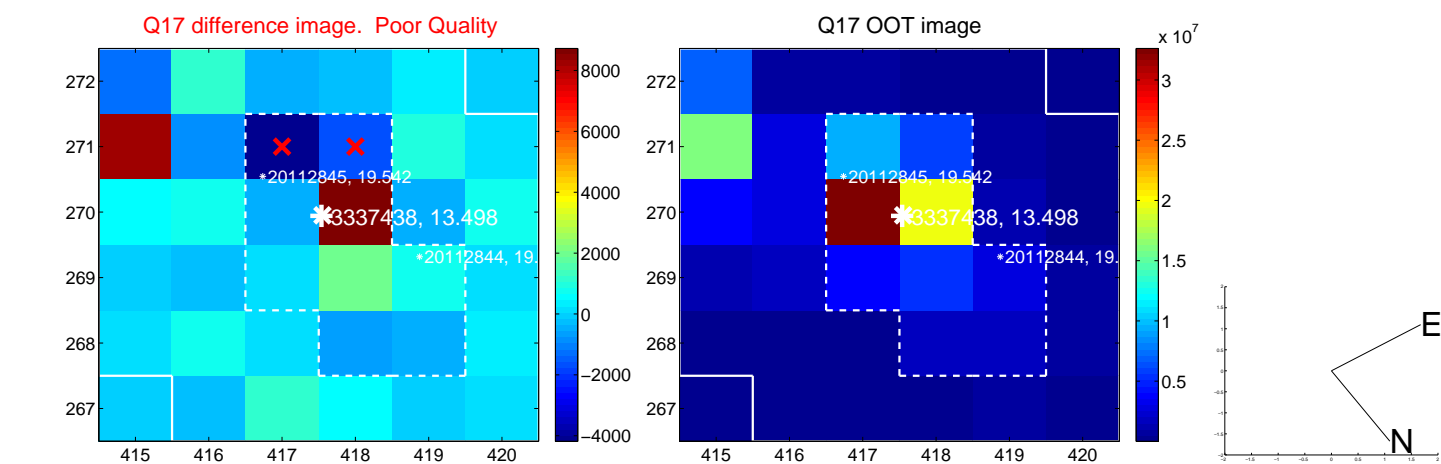
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



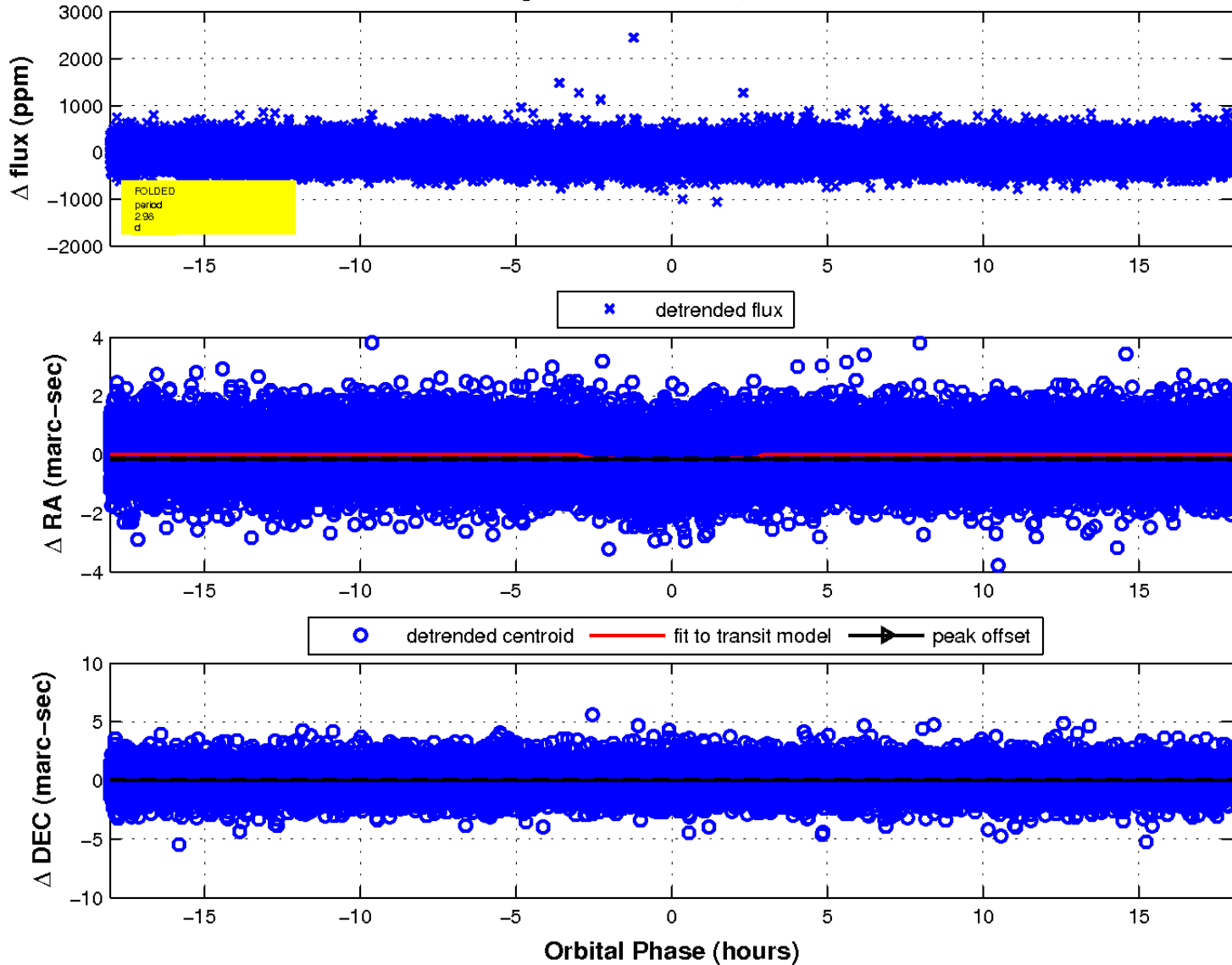
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

