

KIC 005343997

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})
005343997-01	OBS	No	0.802638	131.630534	10.0	2.284	9.2	6.5	1.59	6432	0.59	13248.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005343997-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

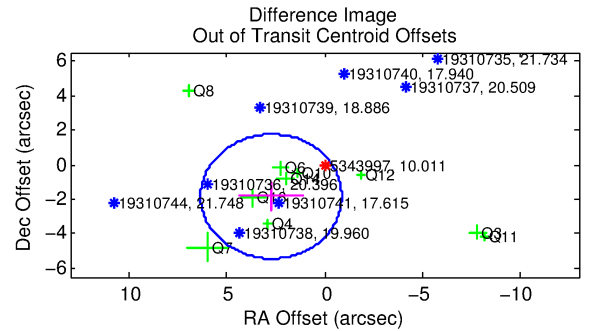
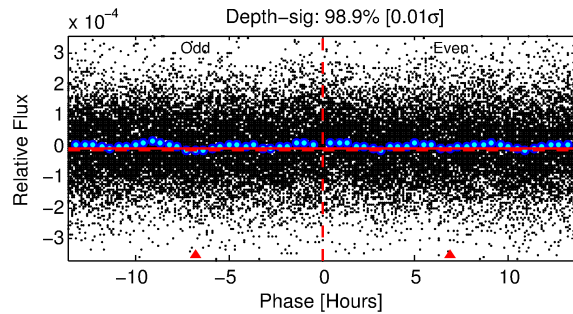
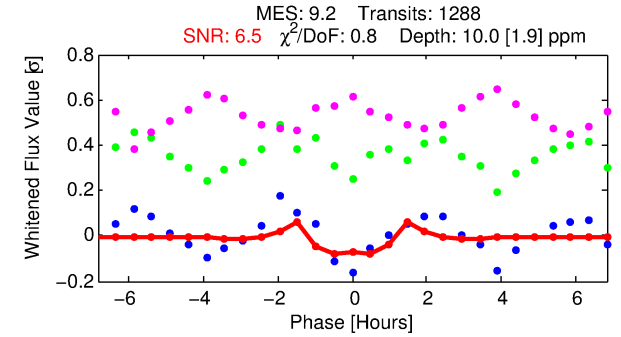
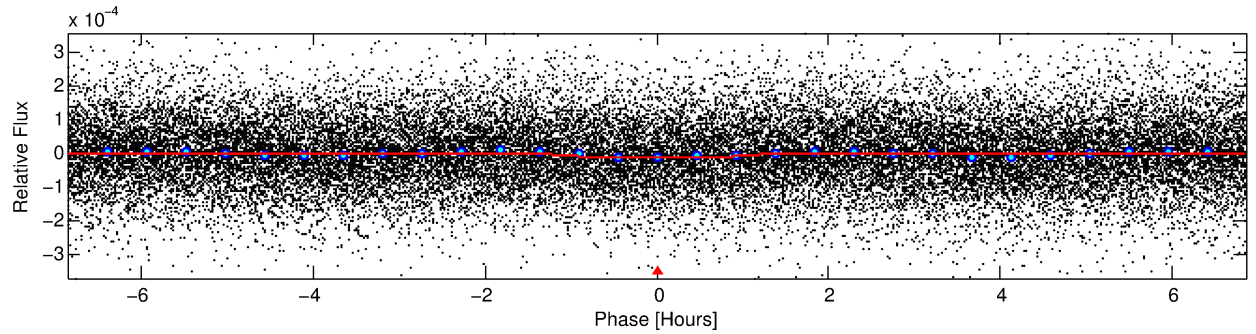
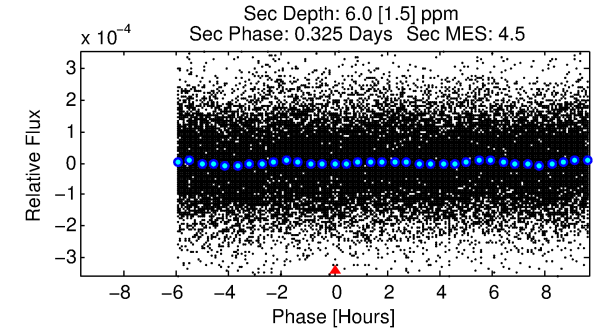
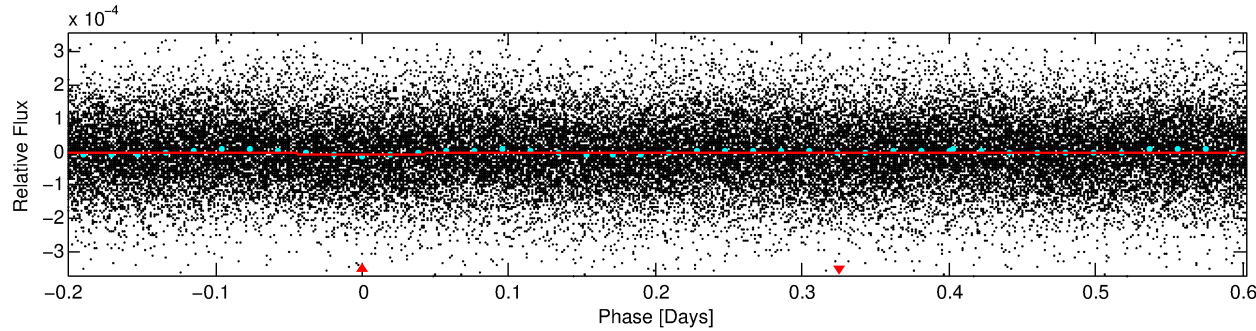
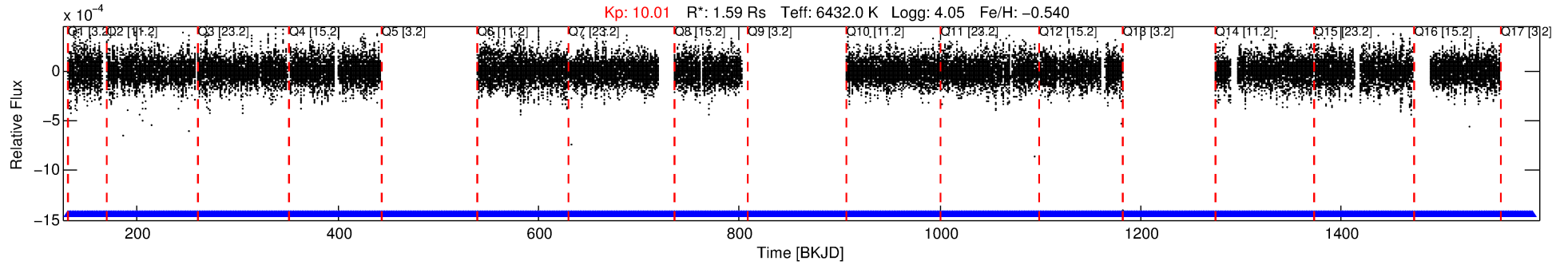
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005343997-01

No Significant Match Found

DV One-Page Summary

KIC: 5343997 Candidate: 1 of 1 Period: 0.803 d



DV Fit Results:

Period = 0.80264 [0.00001] d
Epoch = 131.6305 [0.0023] BKJD
 $R_p/R^* = 0.0034$ [0.0005]
 $a/R^* = 1.51$ [0.57]
 $b = 0.90$ [0.14]
 $\text{Seff} = 13248.07$ [8022.29]
 $T_{\text{eq}} = 2736$ [414] K
 $R_p = 0.59$ [0.23] R_e
 $a = 0.0171$ [0.0062] AU
 $A_g = 2.77$ [1.96] [0.91σ]
 $T_{\text{eff}} = 5459$ [564] K [3.89σ]

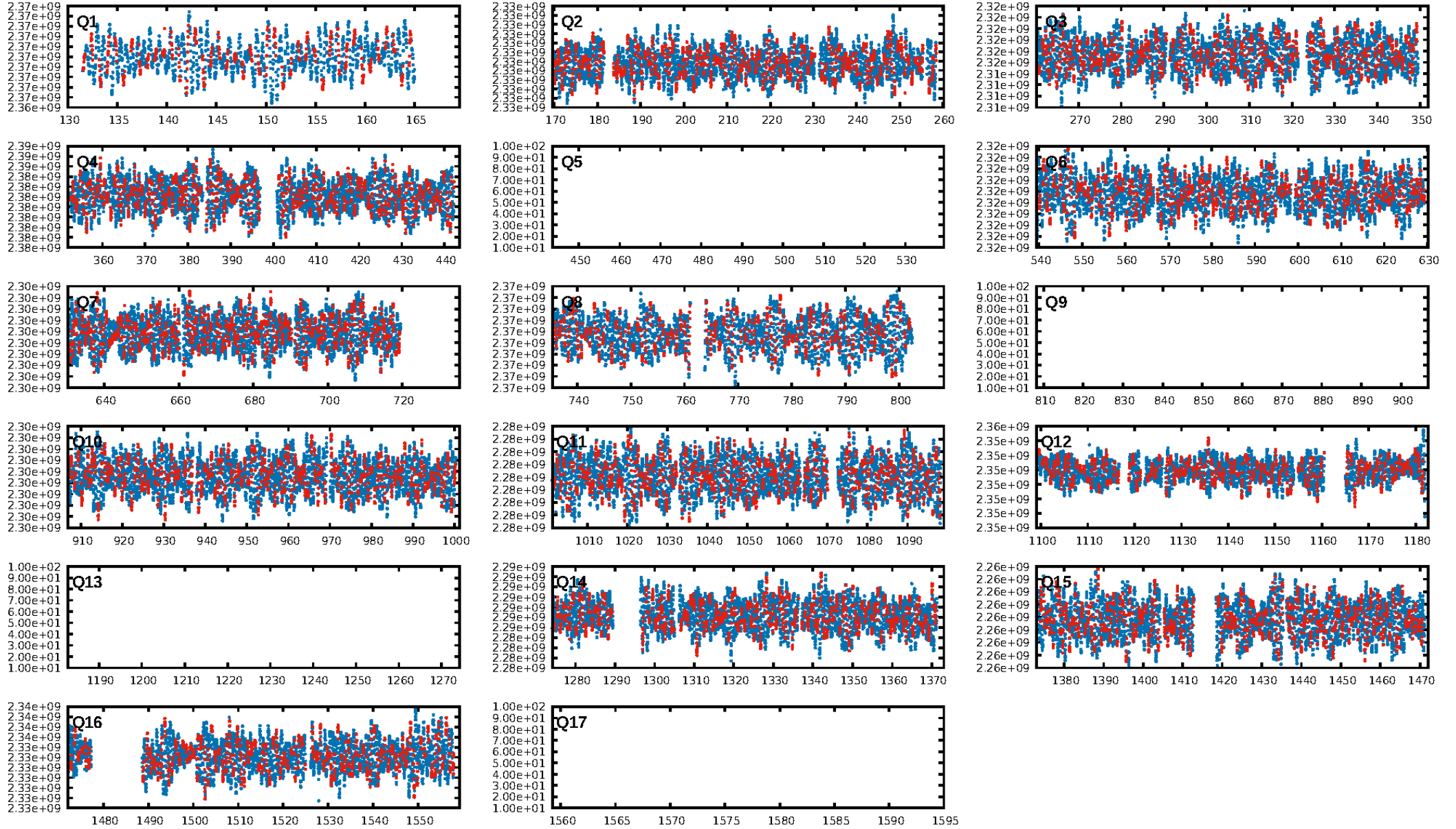
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.03e-19
RollingBand-fgt: 1.00 [1246/1246]
GhostDiagnostic-chr: 3.463
Centroid-sig: 5.7%
Centroid-so: 1.503 arcsec [1.29σ]
OotOffset-rm: 3.293 arcsec [2.74σ]
KicOffset-rm: 3.247 arcsec [2.45σ]
OotOffset-st: 3/3/4/0 [10]
KicOffset-st: 3/3/4/0 [10]
DiffImageQuality-fgm: 0.00 [0/10]
DiffImageOverlap-fno: 1.00 [13/13]

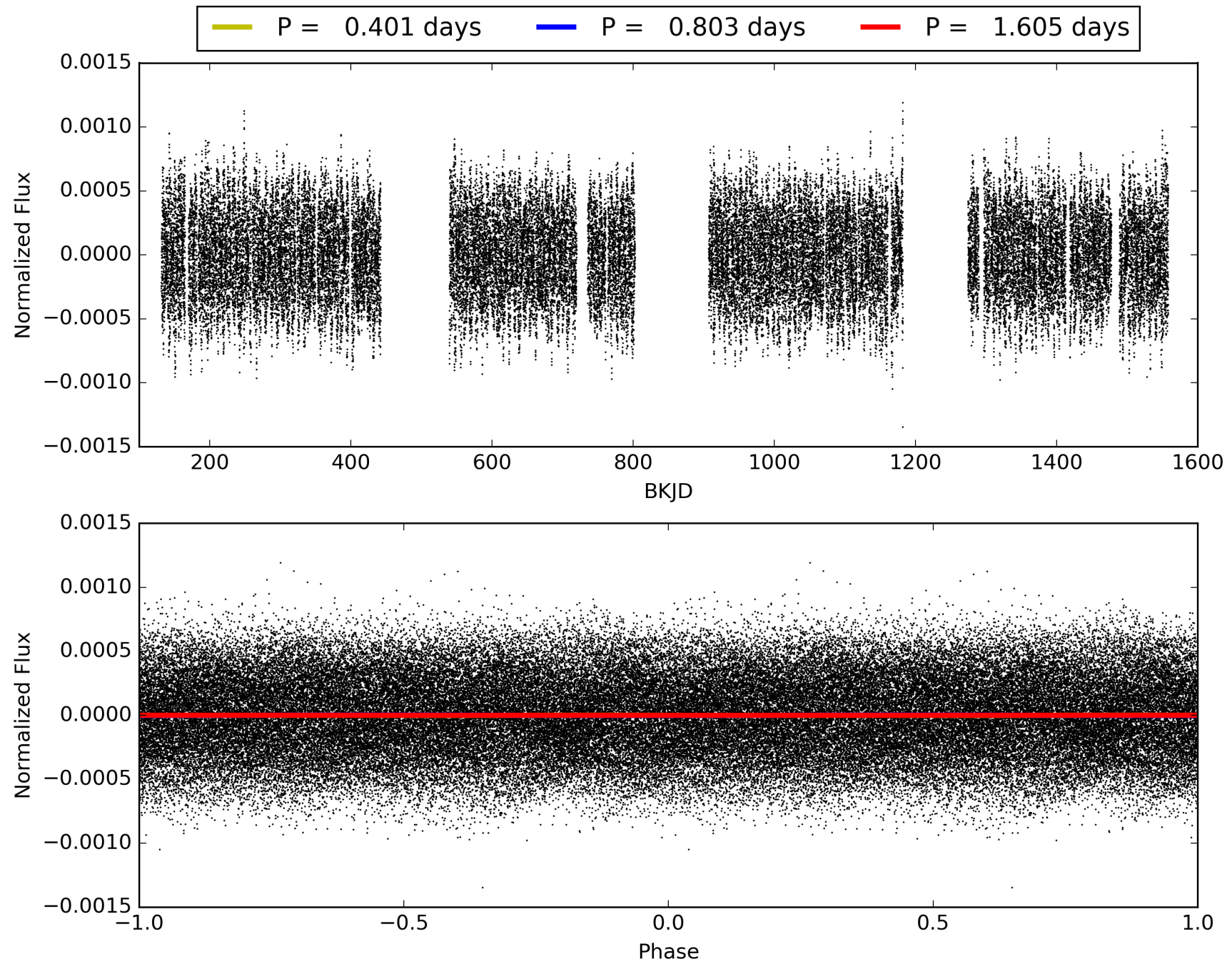
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 01:32:11 Z

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

TCE 005343997-01, PDC Light Curves

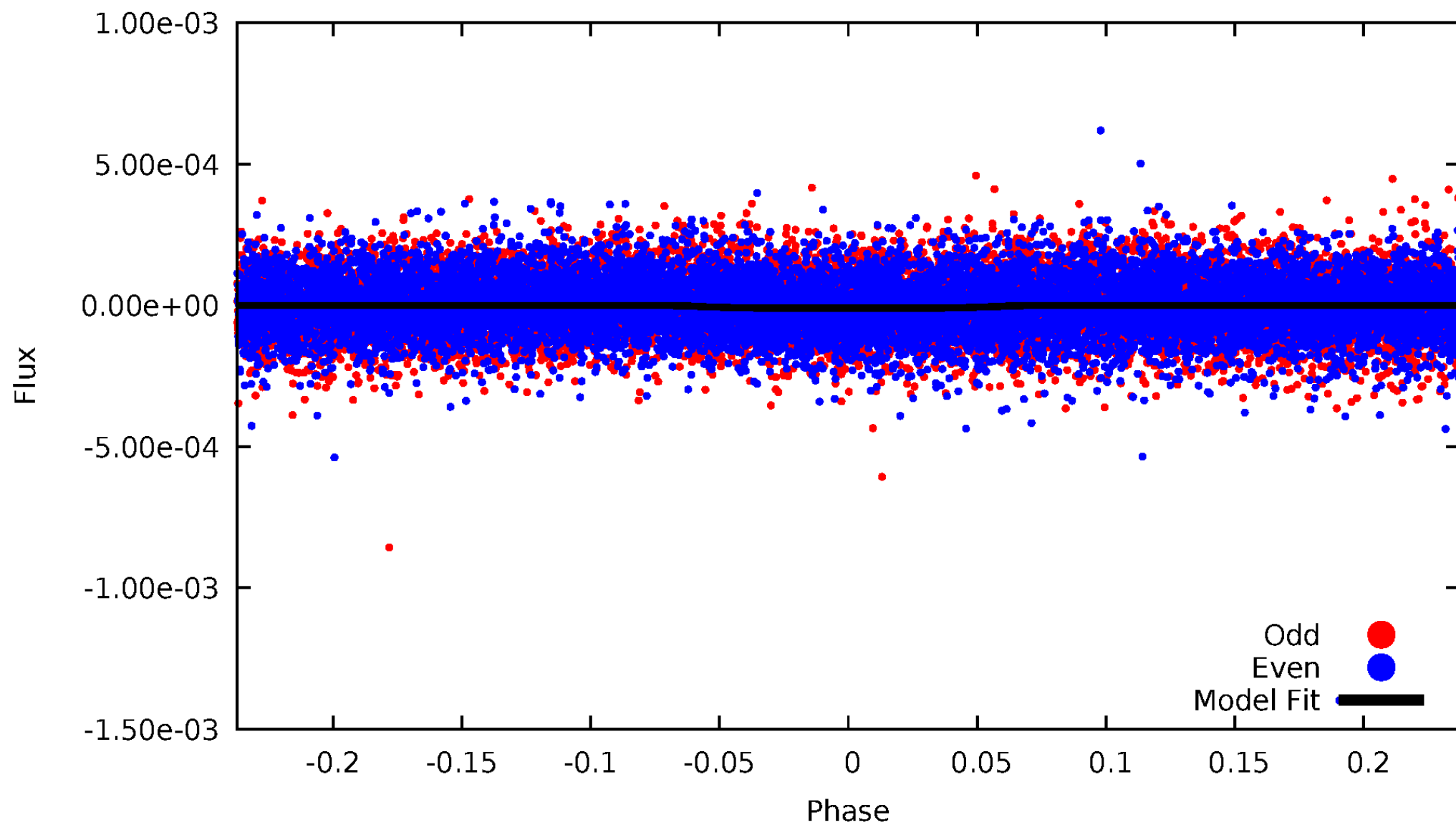


TCE 005343997-01



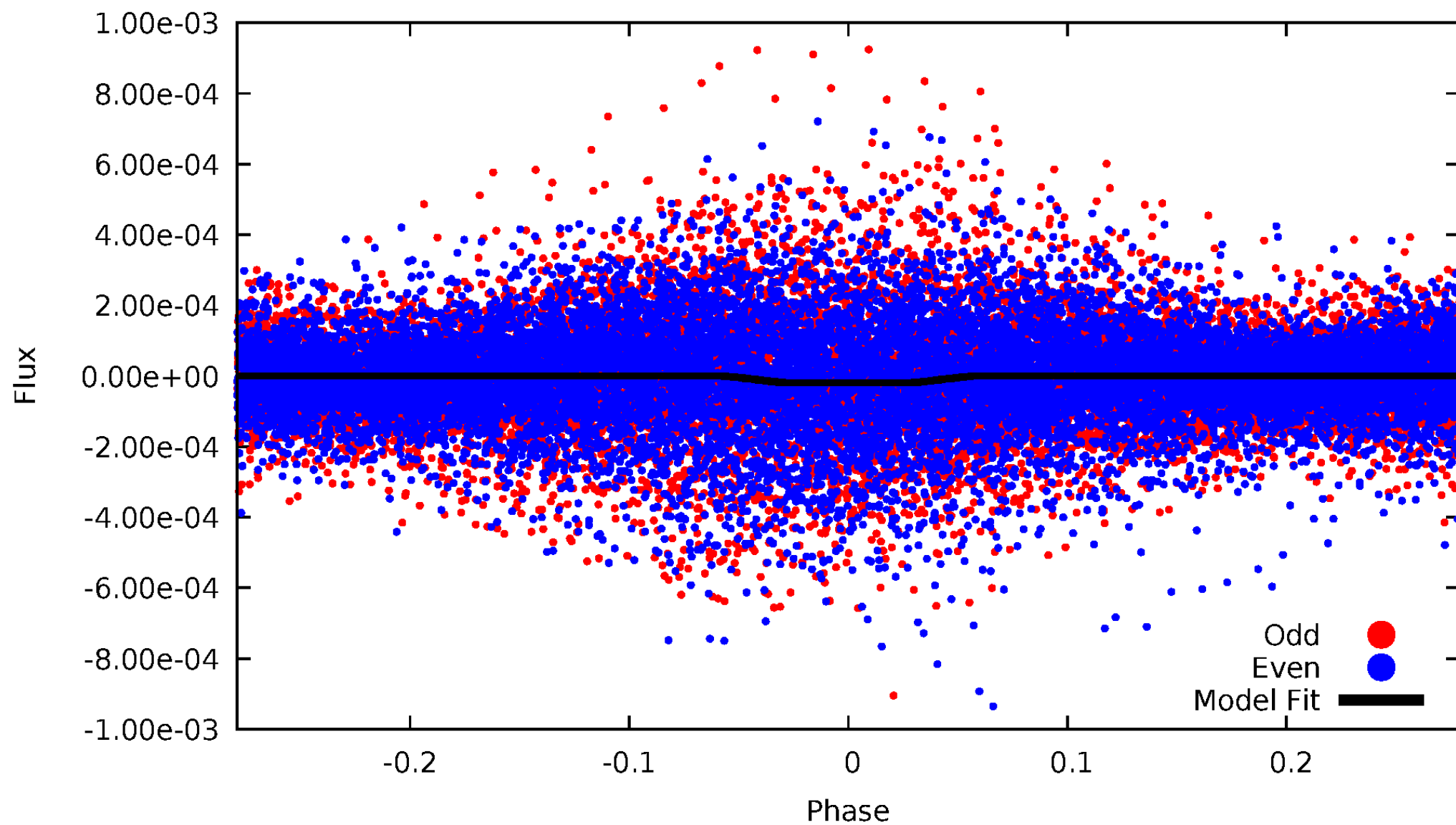
DV Odd/Even

TCE 005343997-01



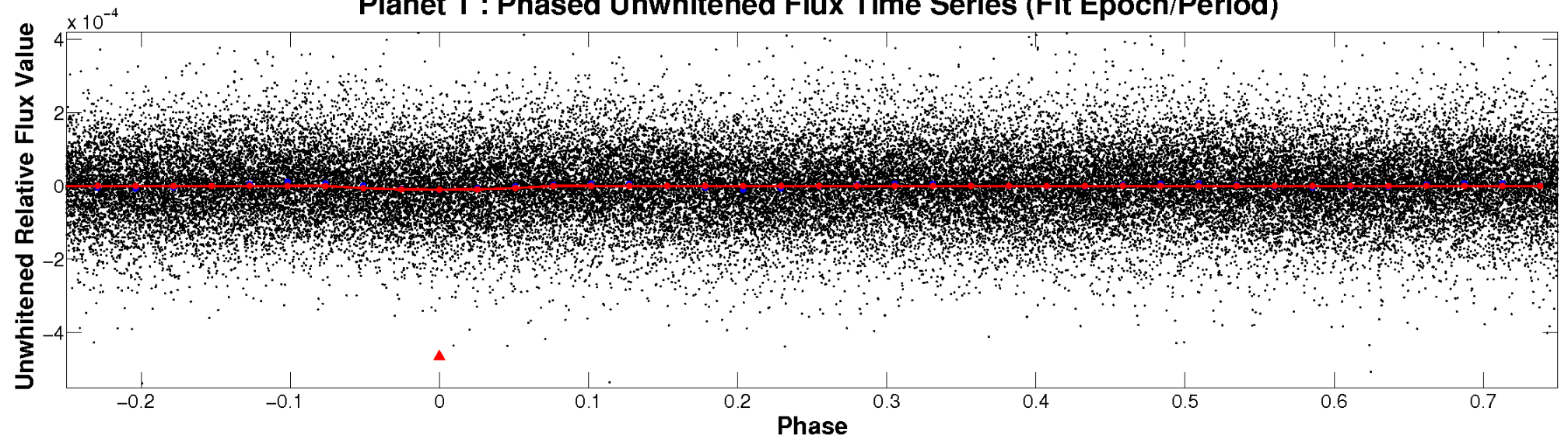
ALT Odd/Even

TCE 005343997-01

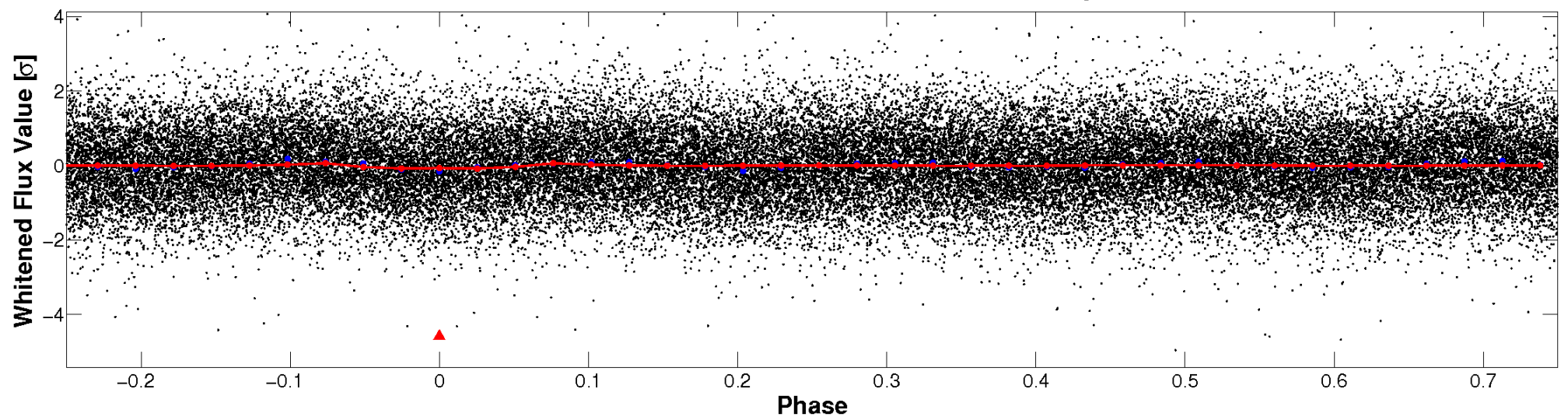


Non-Whitened Vs. Whitened Light Curve

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

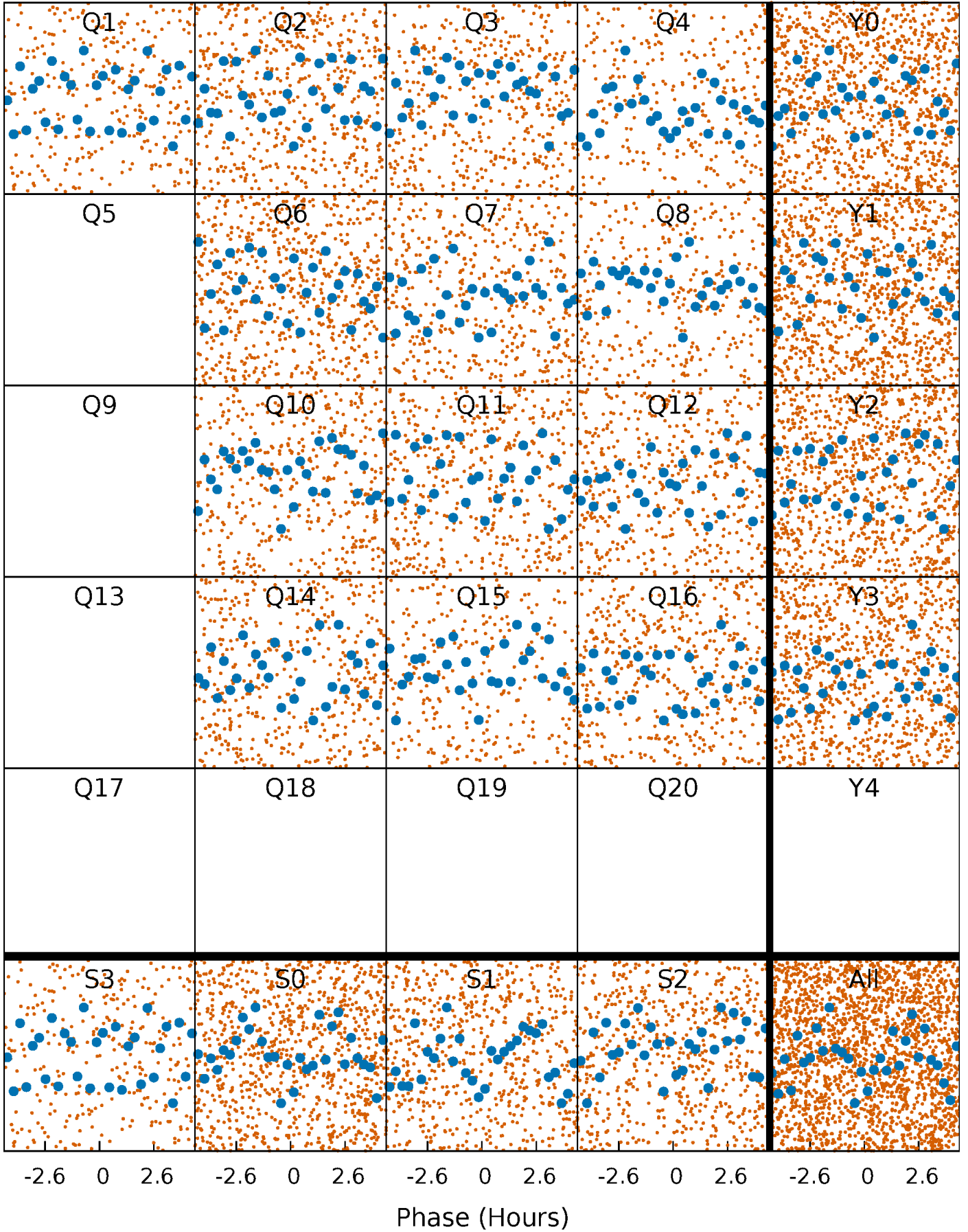


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



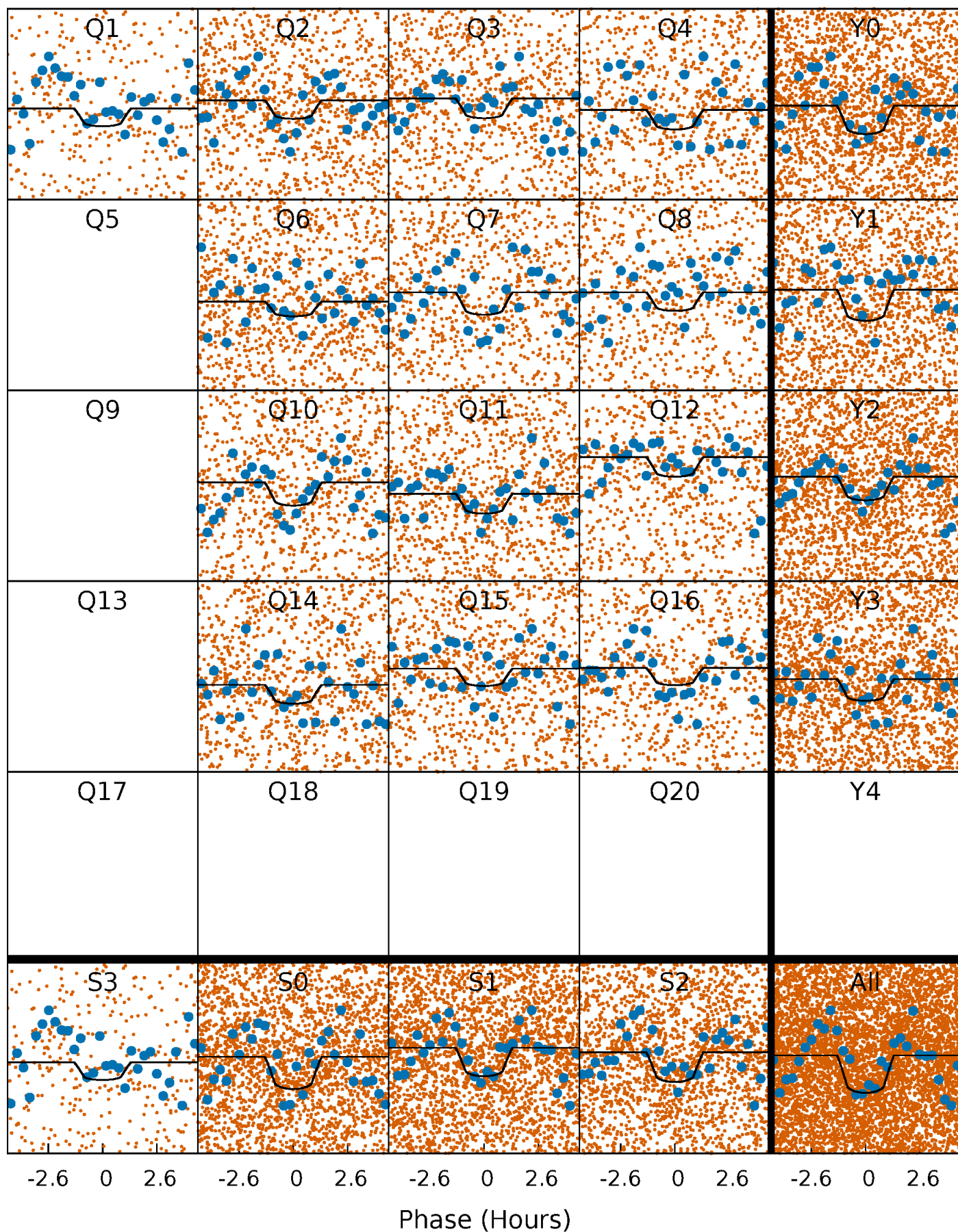
PDC Quarter-Phased Transit Curves

TCE 005343997-01 P= 0.802638 Days $T_0=131.630534$ (BKJD)



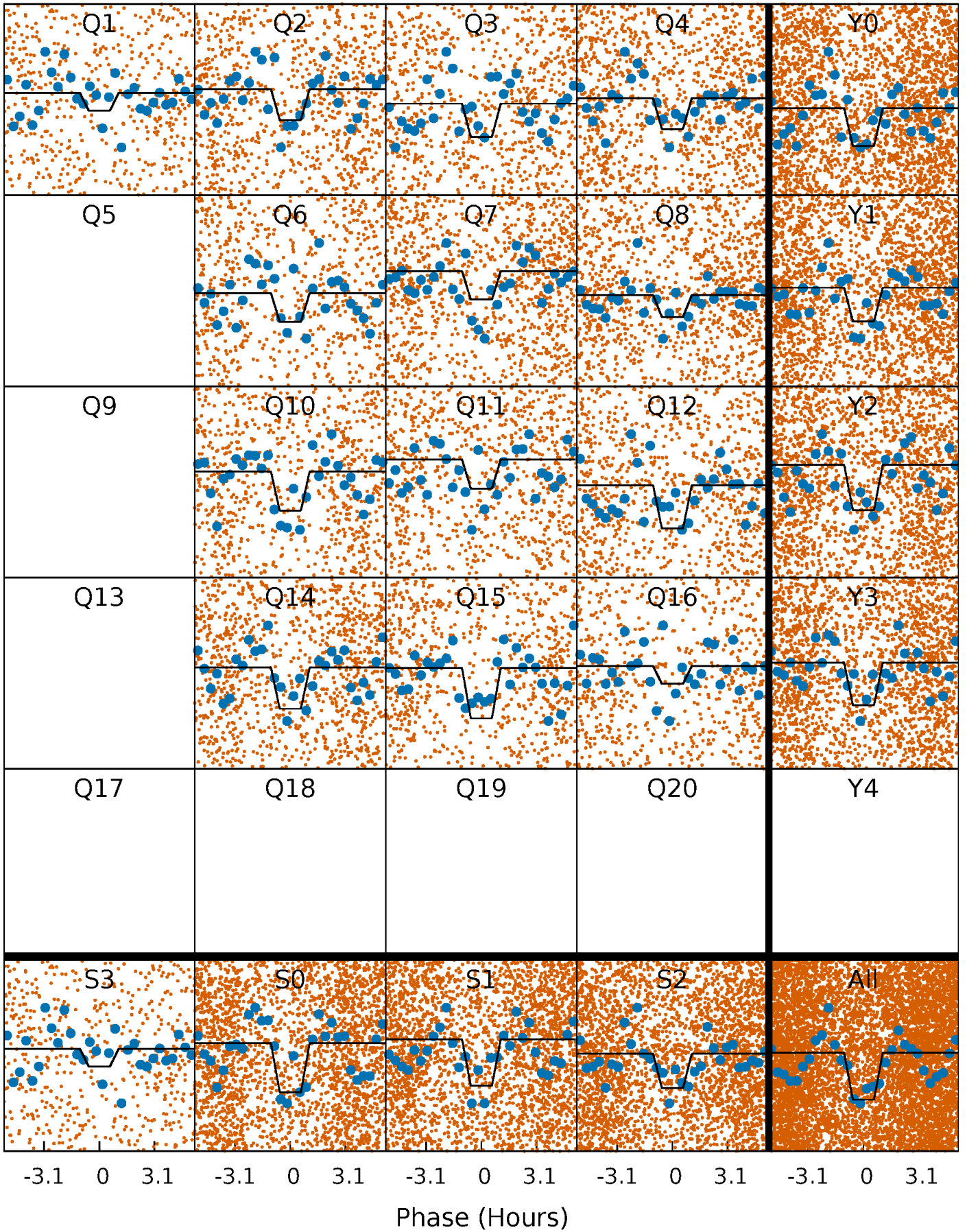
DV Quarter-Phased Transit Curves

TCE 005343997-01 P= 0.802638 Days $T_0=131.630534$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

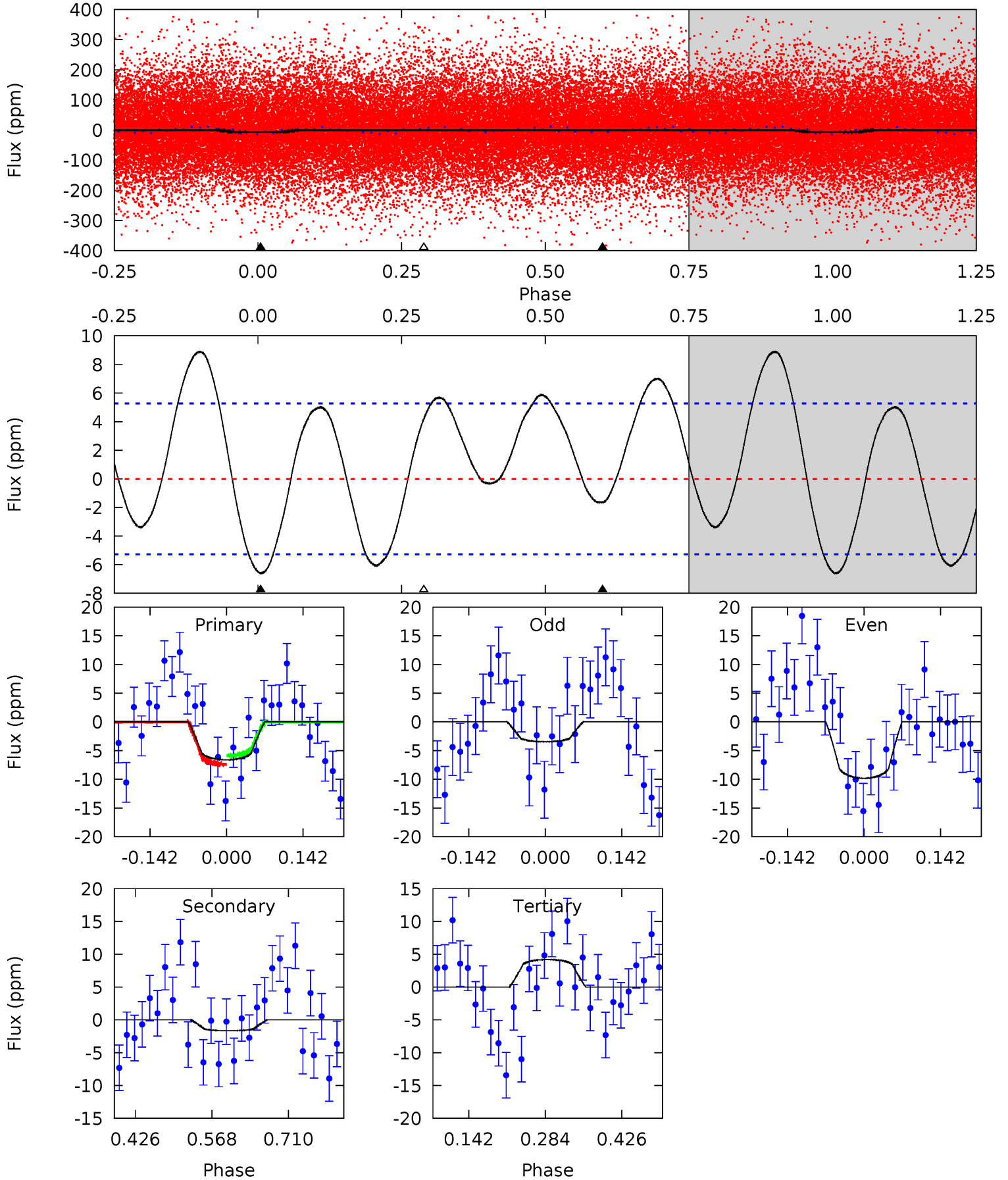
TCE 005343997-01 P= 0.802651 Days $T_0=131.622554$ (BKJD)



DV Model-Shift Uniqueness Test

005343997-01, P = 0.802638 Days, E = 130.827896 Days

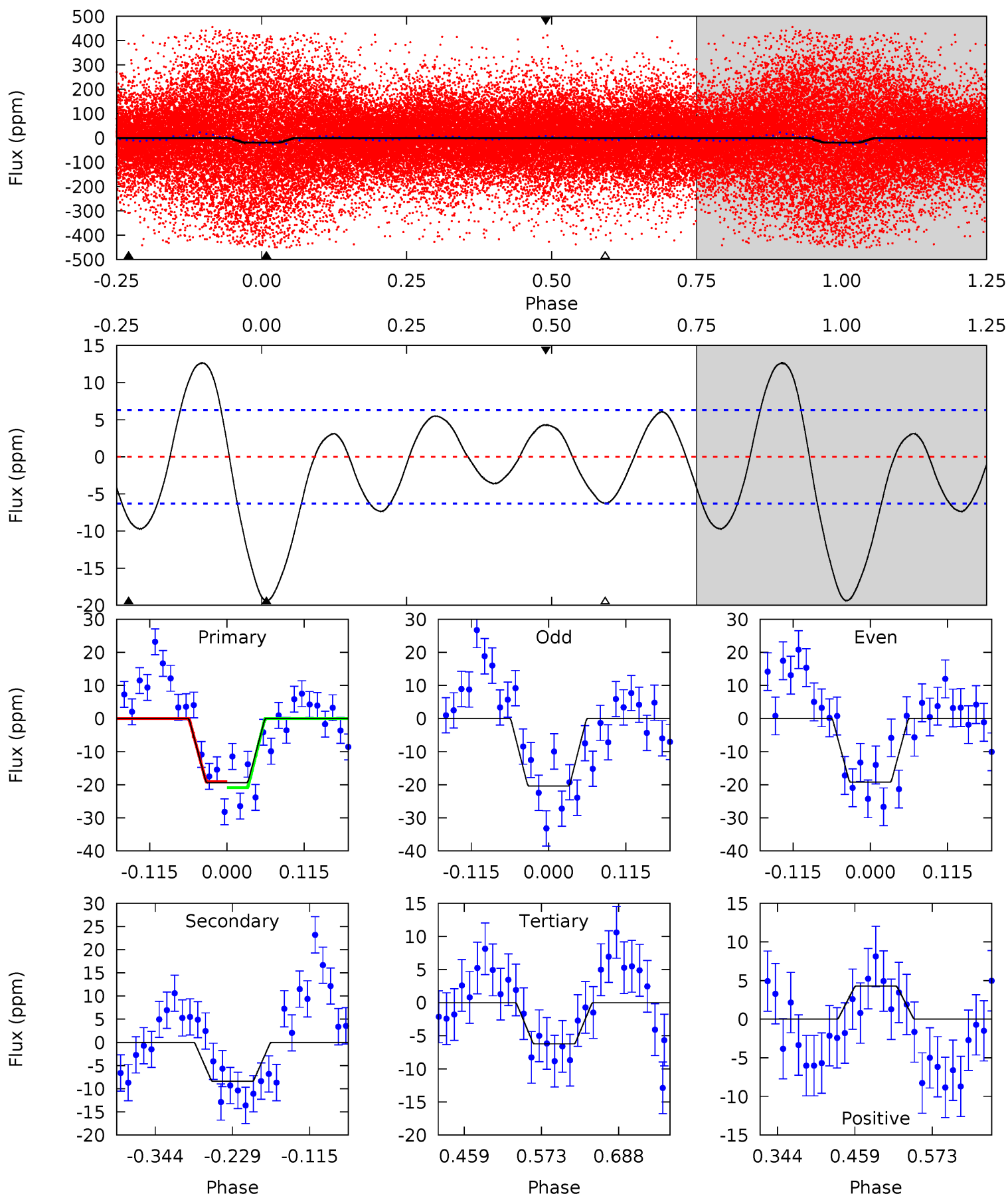
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.63	1.42	-3.57	0	4.49	1.47	2.84	9.20	5.63	4.99	1.42	2.75	0.77	0.57	0.64



Alt Model-Shift Uniqueness Test

005343997-01, P = 0.802651 Days, E = 130.819903 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	6.06	4.50	3.10	4.54	1.58	2.98	9.49	10.9	1.56	2.96	0.42	1.10	0.39	0.63



Stellar Parameters For KIC 005343997

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6432^{+204}_{-226}	$4.050^{+0.350}_{-0.150}$	$-0.540^{+0.300}_{-0.300}$	$1.588^{+0.432}_{-0.575}$	$1.031^{+0.153}_{-0.138}$	$0.363^{+0.845}_{-0.176}$
	+3%/-4%	+9%/-4%	+56%/-56%	+27%/-36%	+15%/-13%	+233%/-48%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 005343997-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2 ± 1	$0.56^{+0.14}_{-0.13}$	3744^{+317}_{-383}	3829^{+726}_{-6873}	$0.810^{+0.954}_{-0.603}$
Alt.	-8 ± 1	$0.72^{+0.15}_{-0.17}$	3755^{+323}_{-385}	5201^{+406}_{-405}	$2.661^{+1.864}_{-0.935}$

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

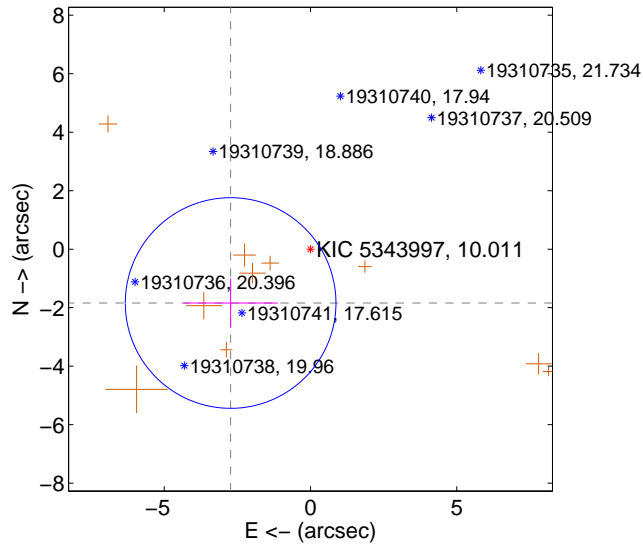
Supplemental centroid analysis for 005343997-01. **Kepler magnitude: 10.01.** Transit SNR 6.53

There are 0 quarters with good PRF difference image offsets

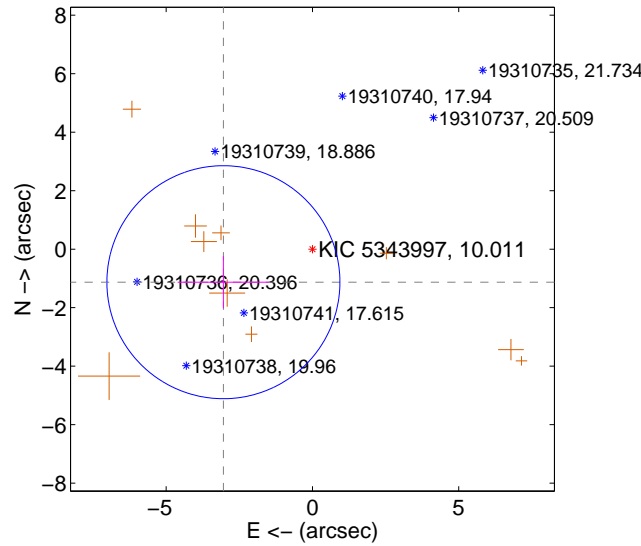
The direct PRF centroid is offset from the target star catalog position by about 0.85 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.293 ± 1.200	2.74	2.730 ± 1.615	-1.841 ± 0.845
PRF-fit source offset from KIC position	3.247 ± 1.328	2.45	3.044 ± 1.564	-1.130 ± 0.889
photometric centroid source offset	1.50 ± 1.17	1.29	-1.46 ± 1.18	-0.36 ± 0.99

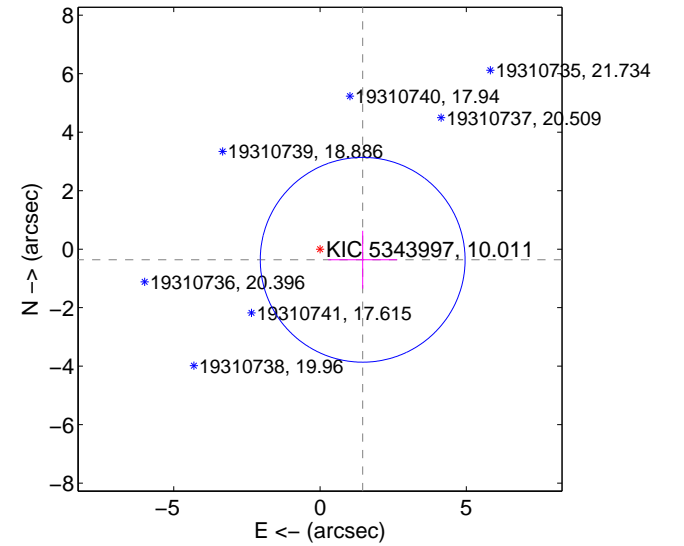
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

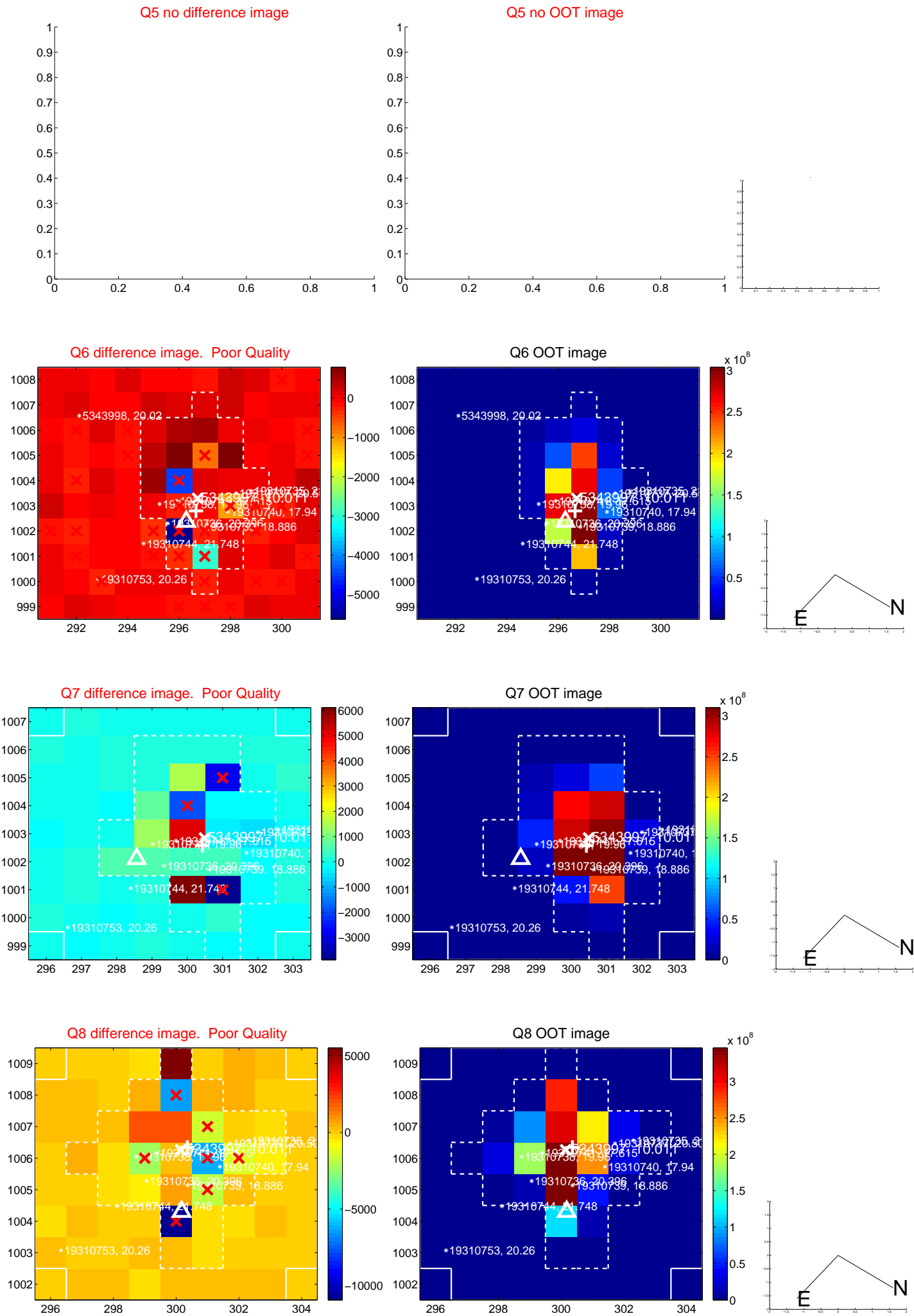


offset from photometric centroids

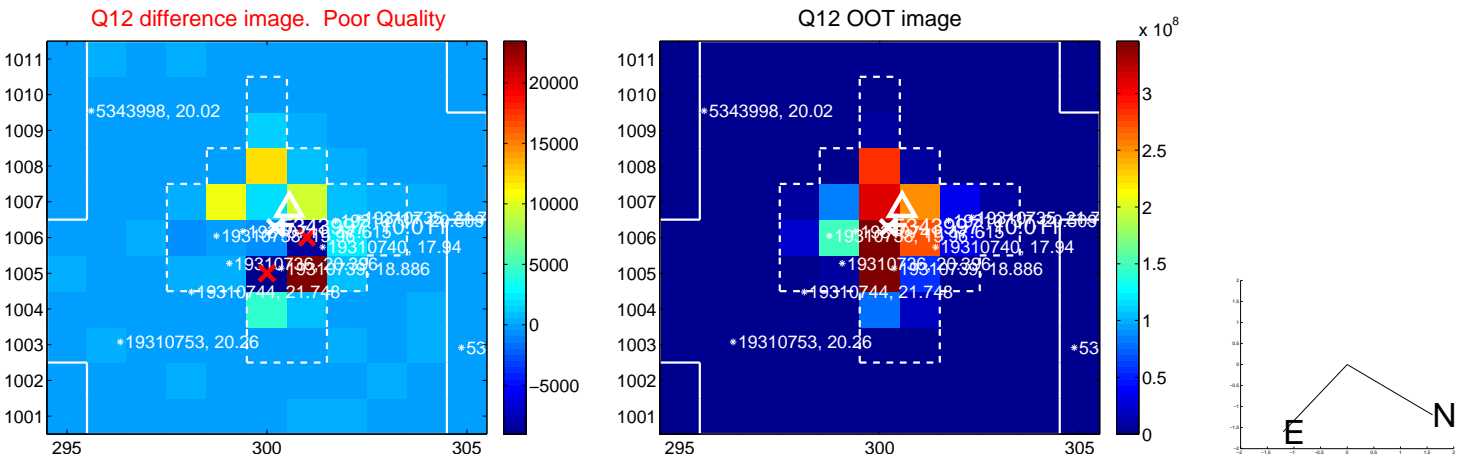
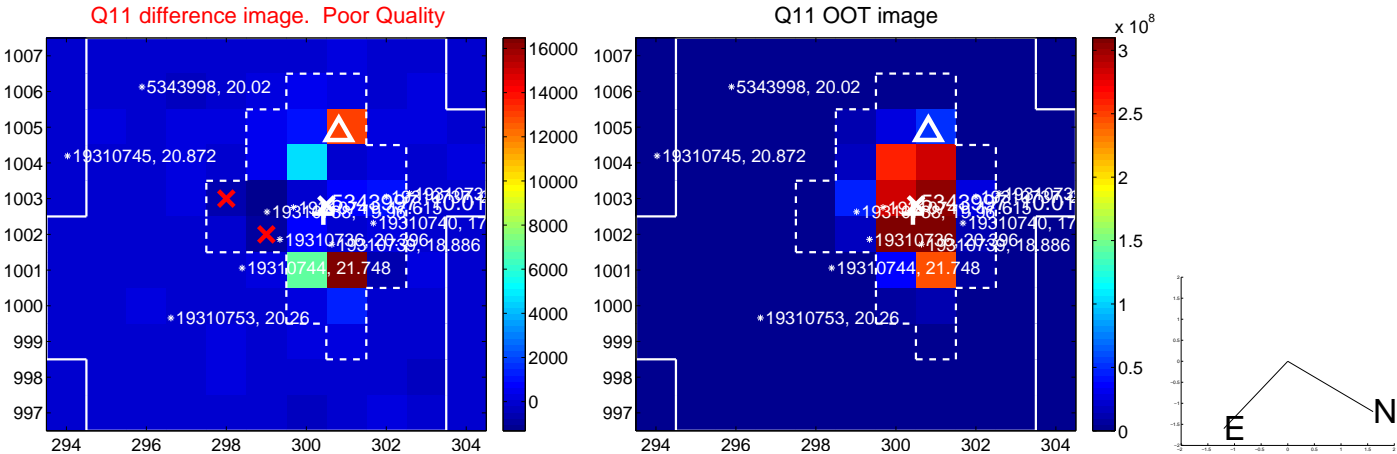
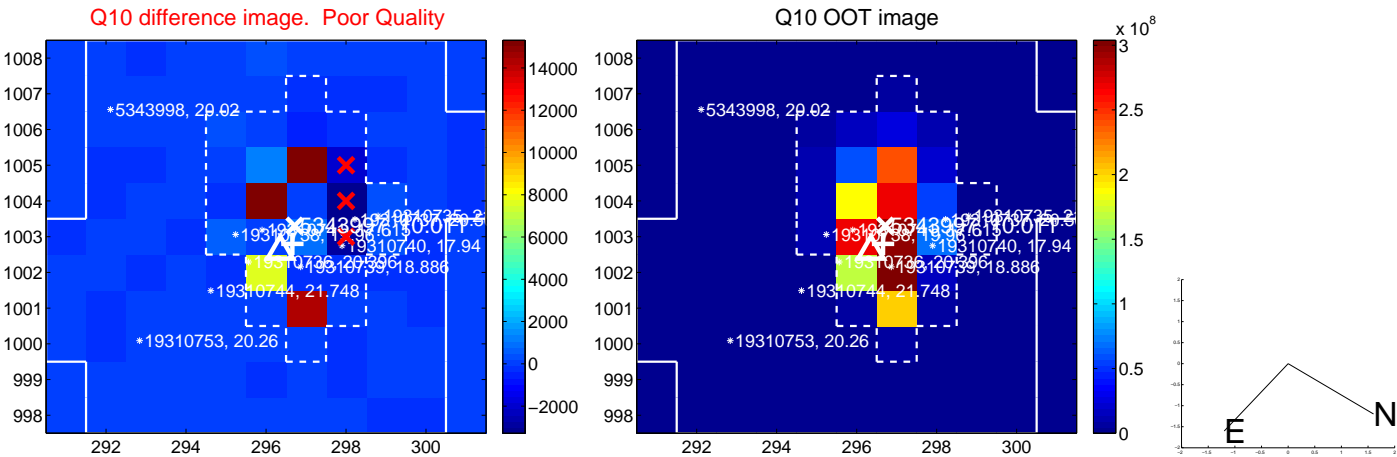
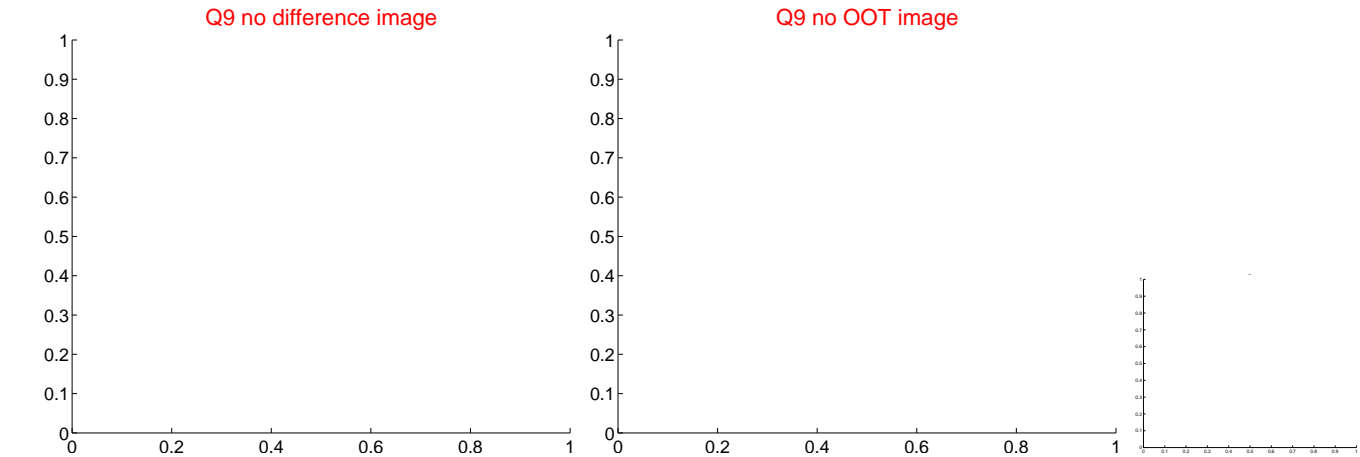


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

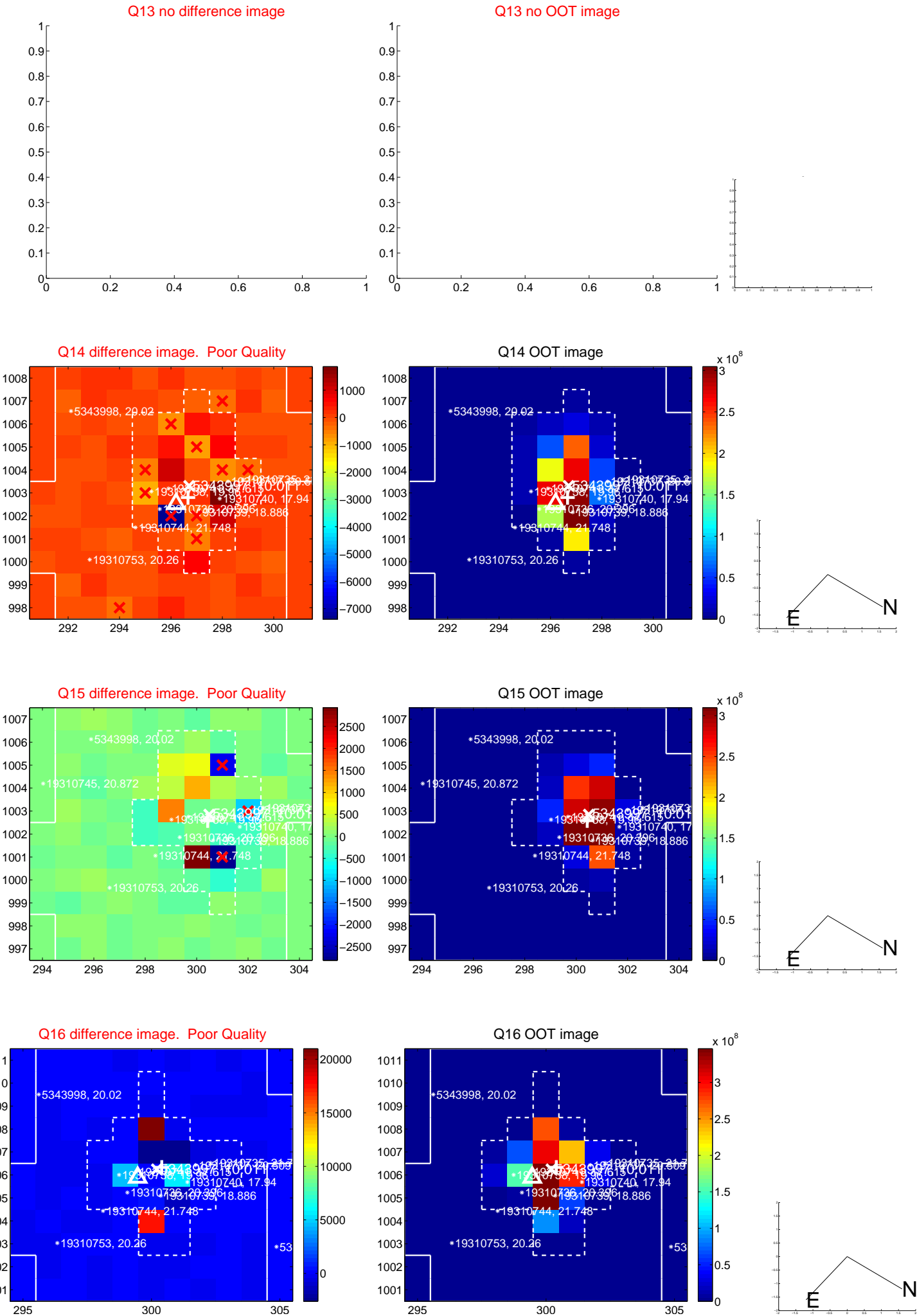
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



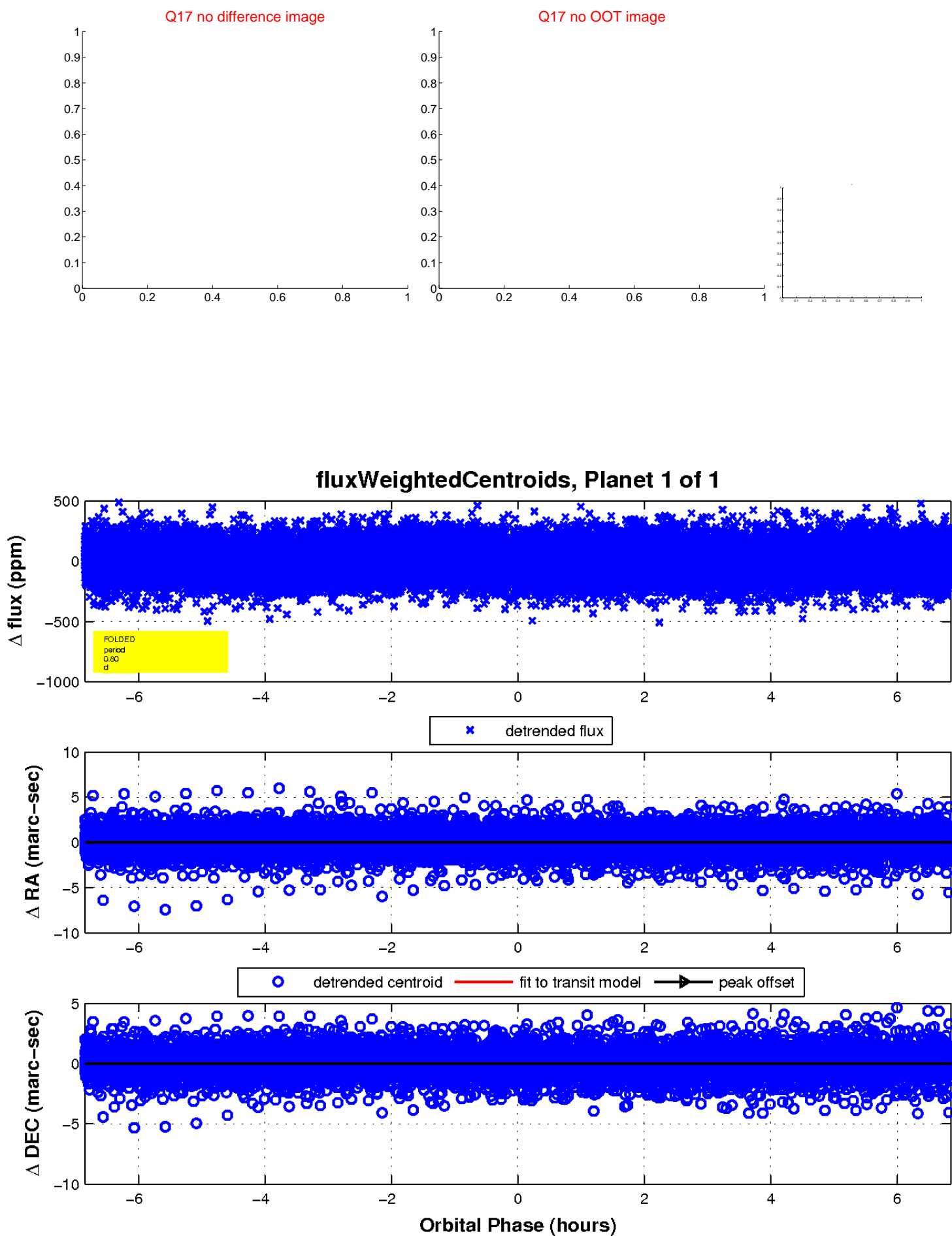
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

