

KIC 006848481

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})
006848481-01	OBS	No	542.956595	358.125080	241.9	13.744	12.2	10.2	0.91	5641	1.69	0.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006848481-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_KIC_POS

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

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

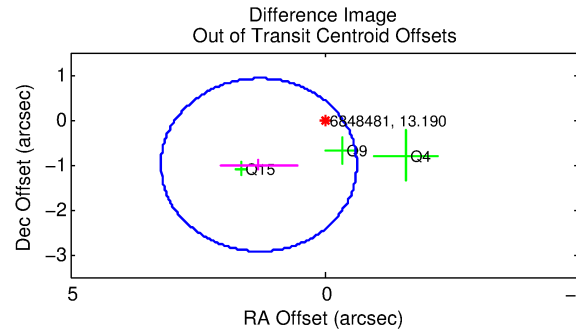
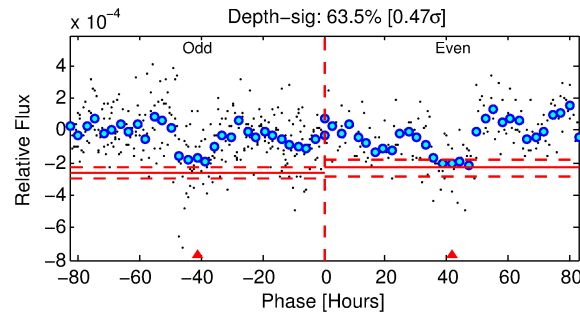
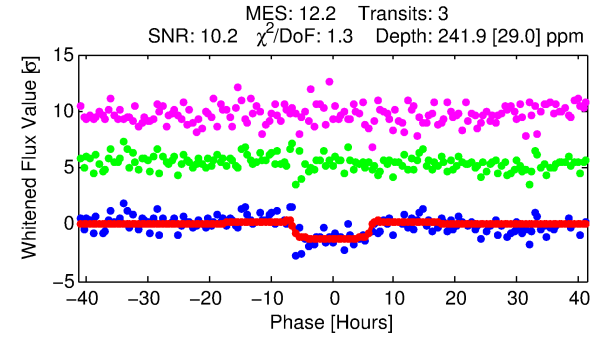
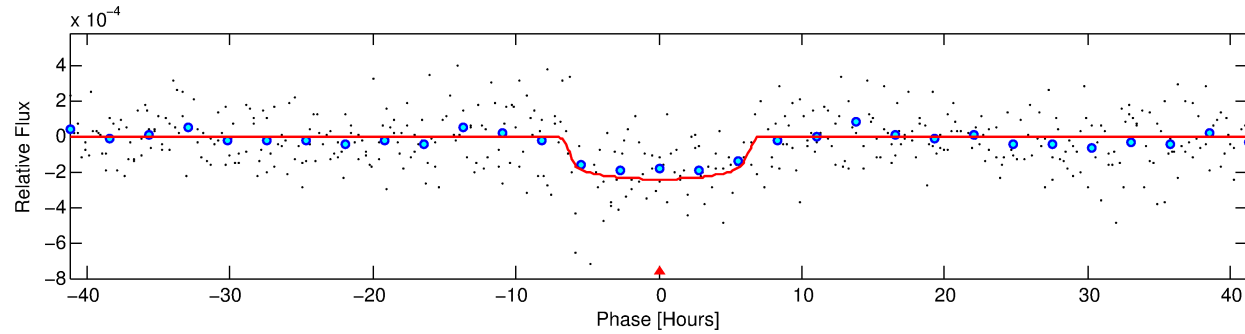
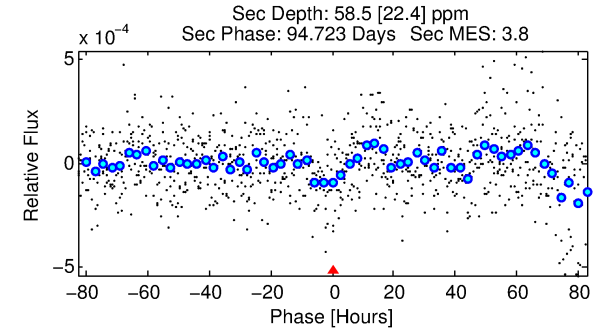
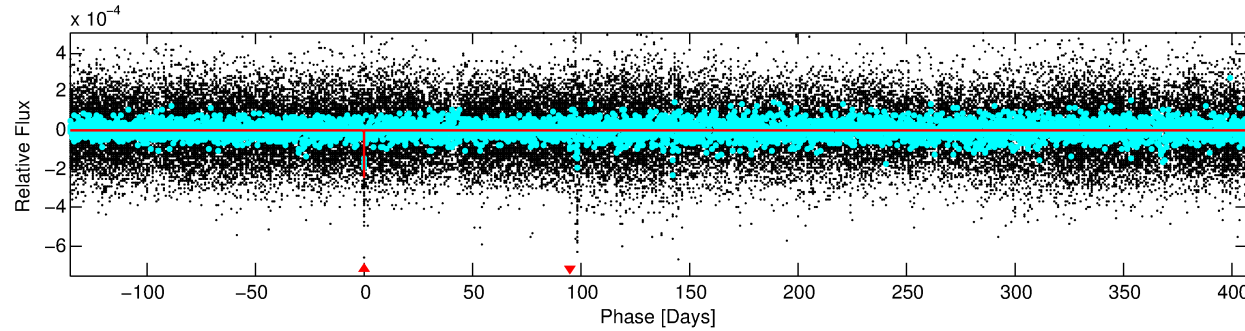
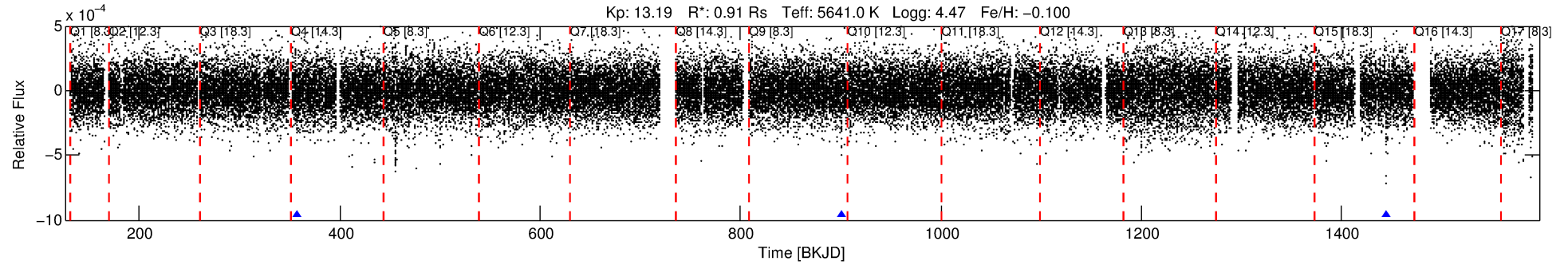
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006848481-01

No Significant Match Found

DV One-Page Summary

KIC: 6848481 Candidate: 1 of 1 Period: 542.957 d



DV Fit Results:

Period = 542.95660 [0.01678] d
Epoch = 358.1251 [0.0227] BKJD
Rp/R* = 0.0169 [0.0028]
a/R* = 144.97 [100.30]
b = 0.90 [0.16]
Seff = 0.48 [0.16]
Teq = 212 [18] K
Rp = 1.69 [0.53] Re
a = 1.2575 [0.2757] AU
Ag = 17928.07 [10650.22] [1.68 σ]
Teffp = 3794 [489] K [7.32 σ]

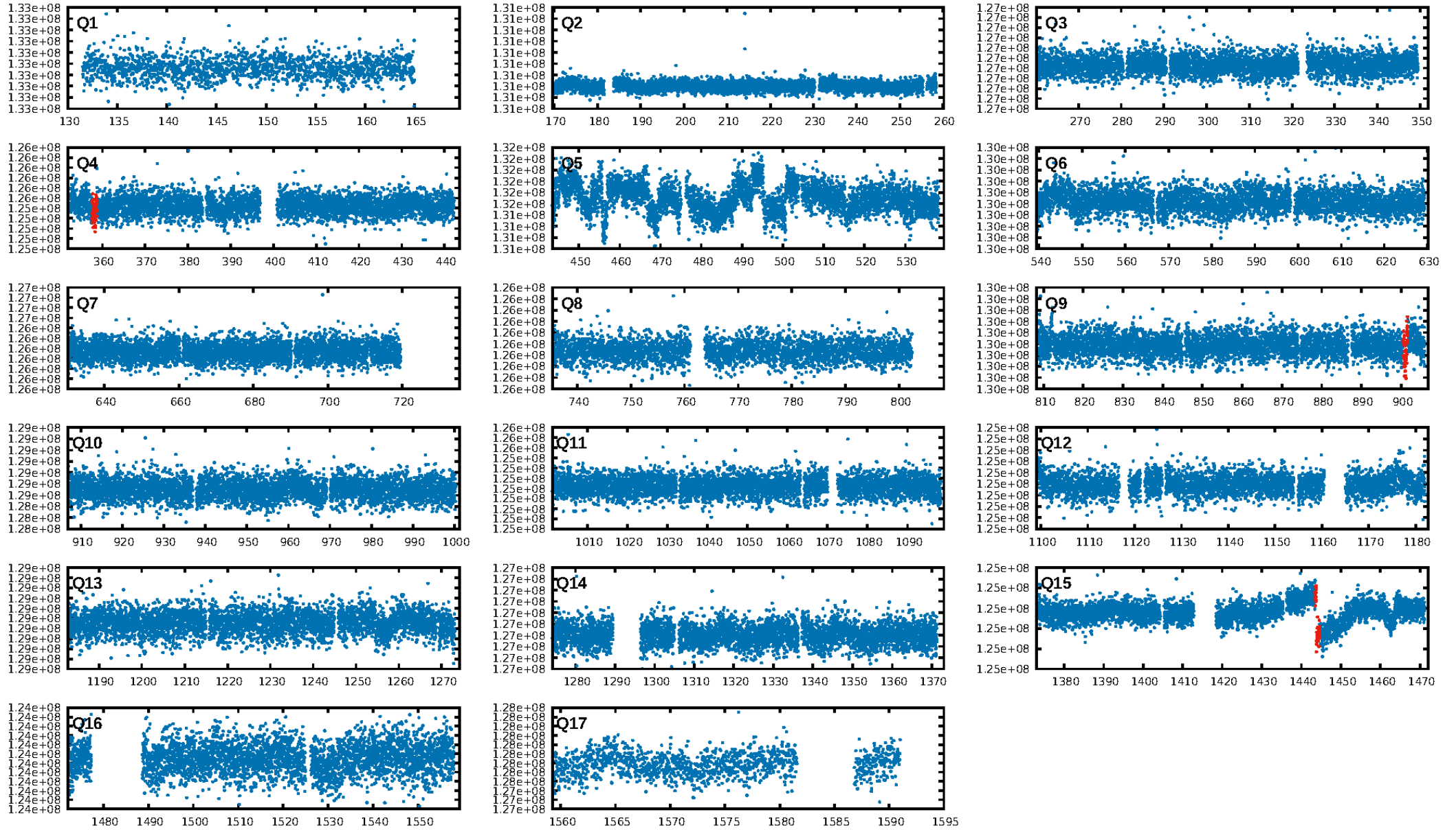
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 88.1%
Bootstrap-pfa: 1.45e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -167.4
Centroid-sig: 20.1%
Centroid-so: 0.925 arcsec [1.19 σ]
OotOffset-rm: 1.637 arcsec [2.55 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 1.433 arcsec [2.01 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

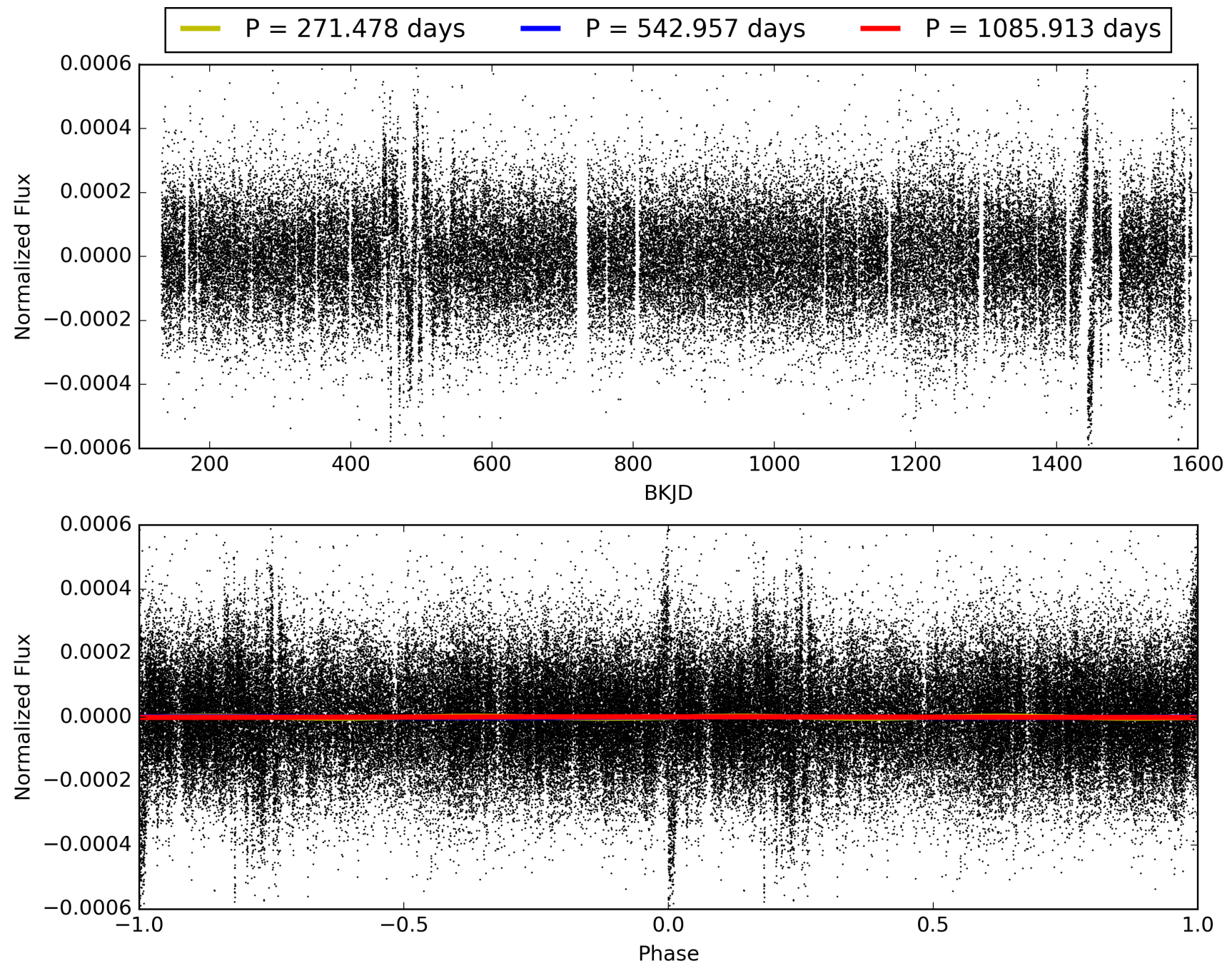
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:04:16 Z

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

TCE 006848481-01, PDC Light Curves

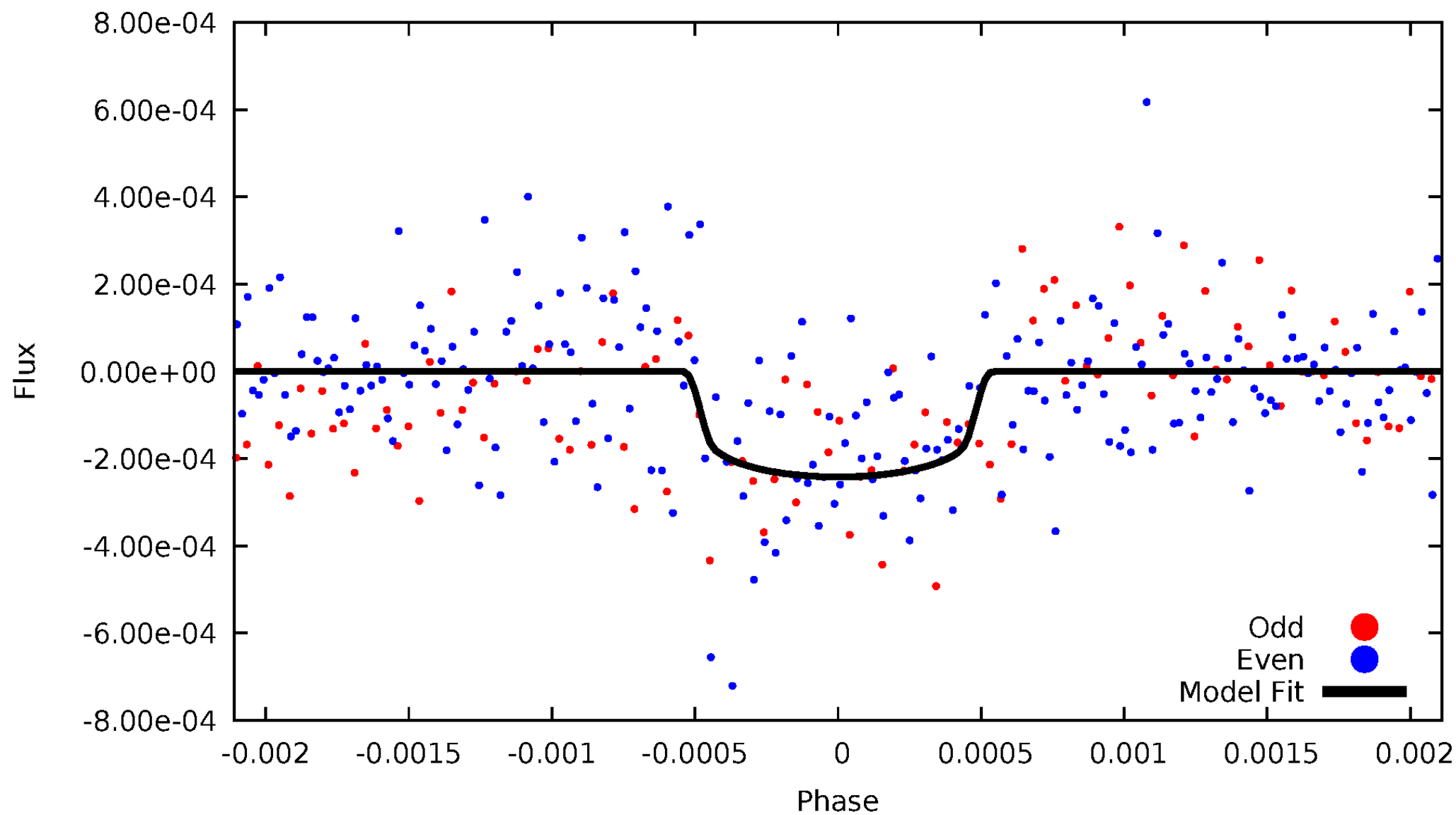


TCE 006848481-01



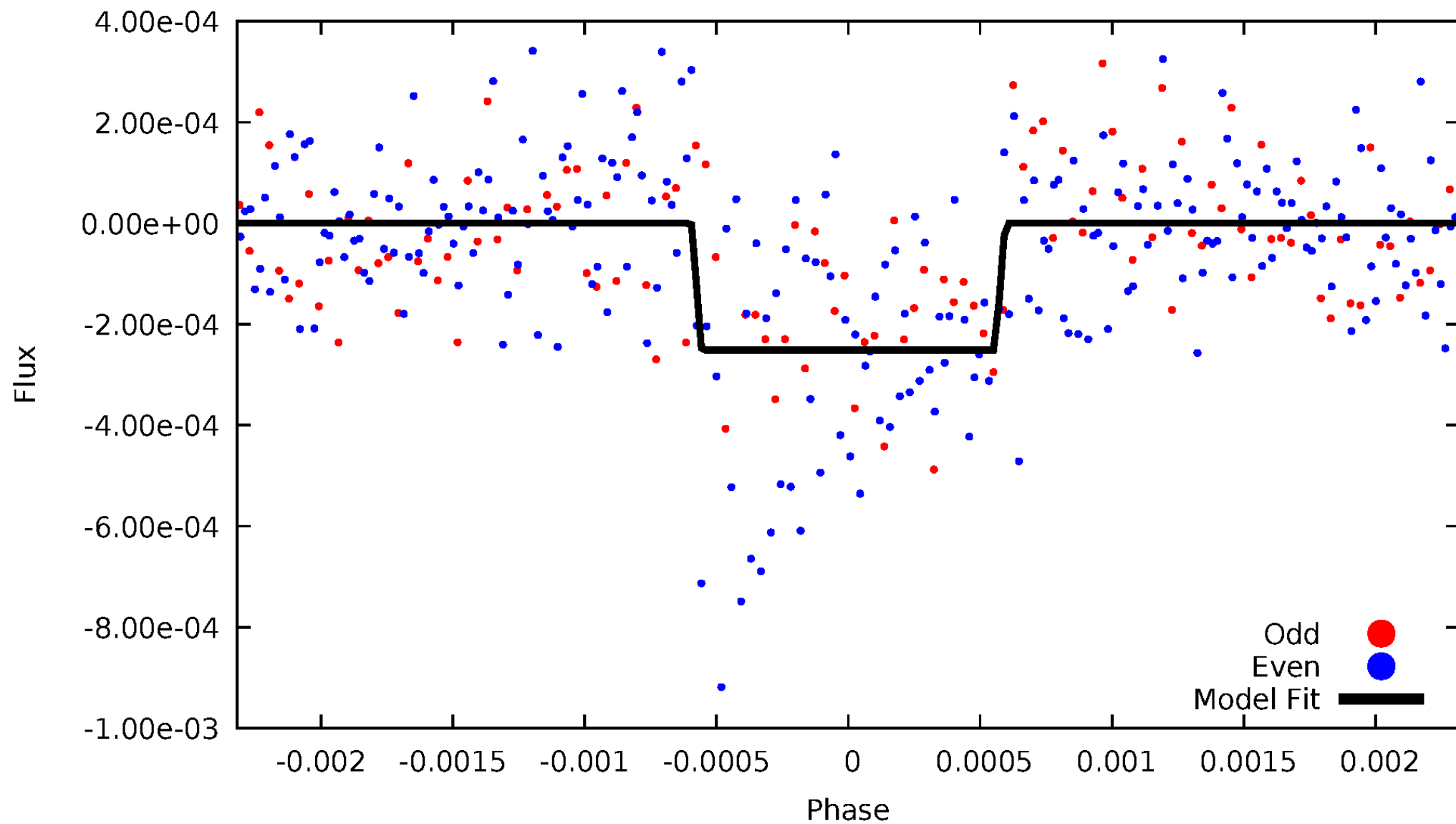
DV Odd/Even

TCE 006848481-01

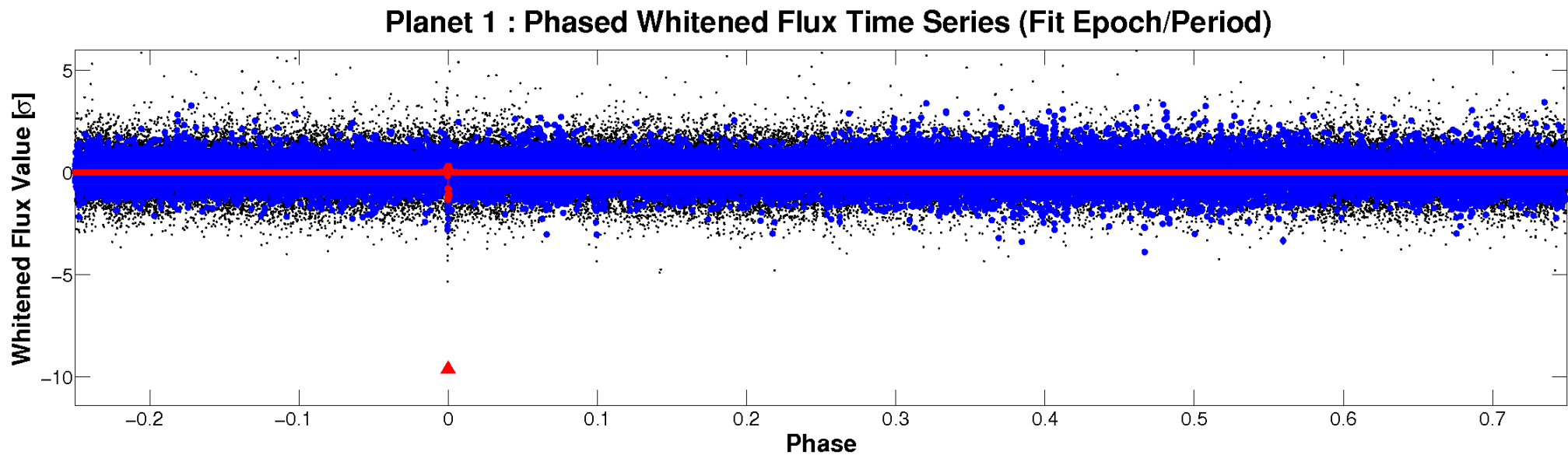
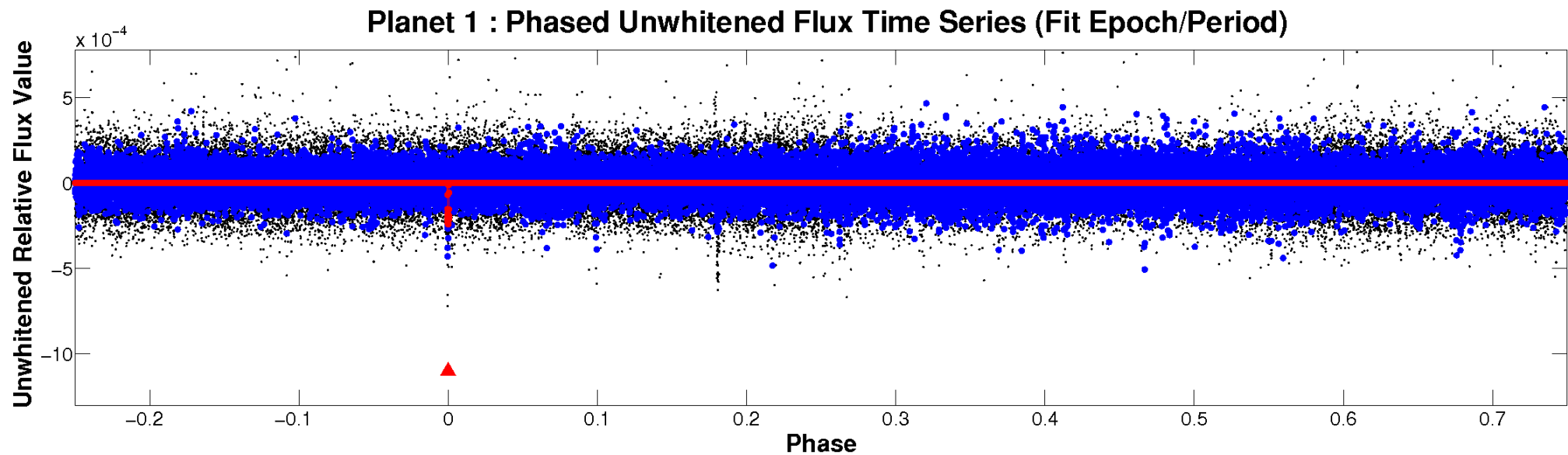


ALT Odd/Even

TCE 006848481-01

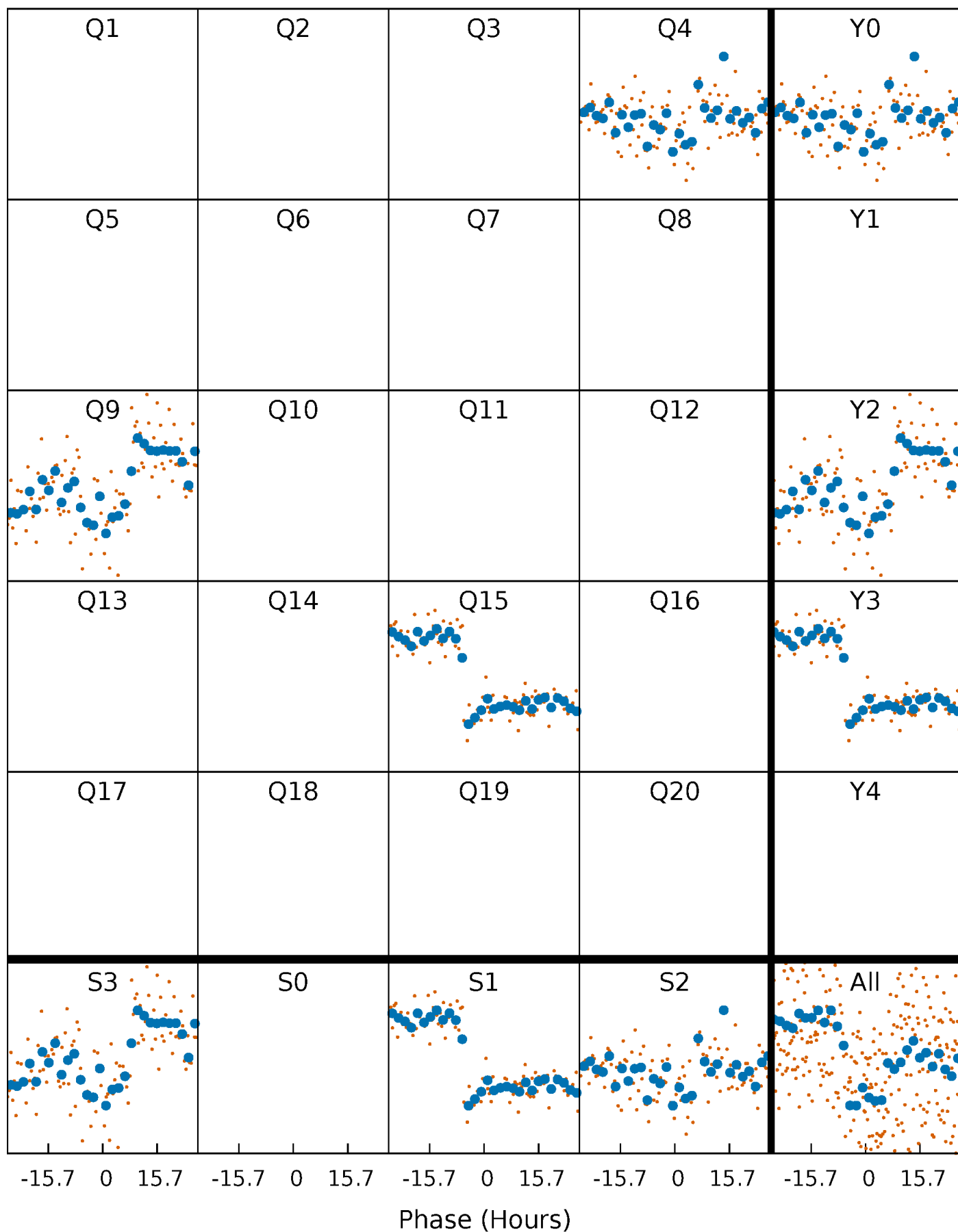


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 006848481-01 P=542.956595 Days $T_0=358.125080$ (BKJD)



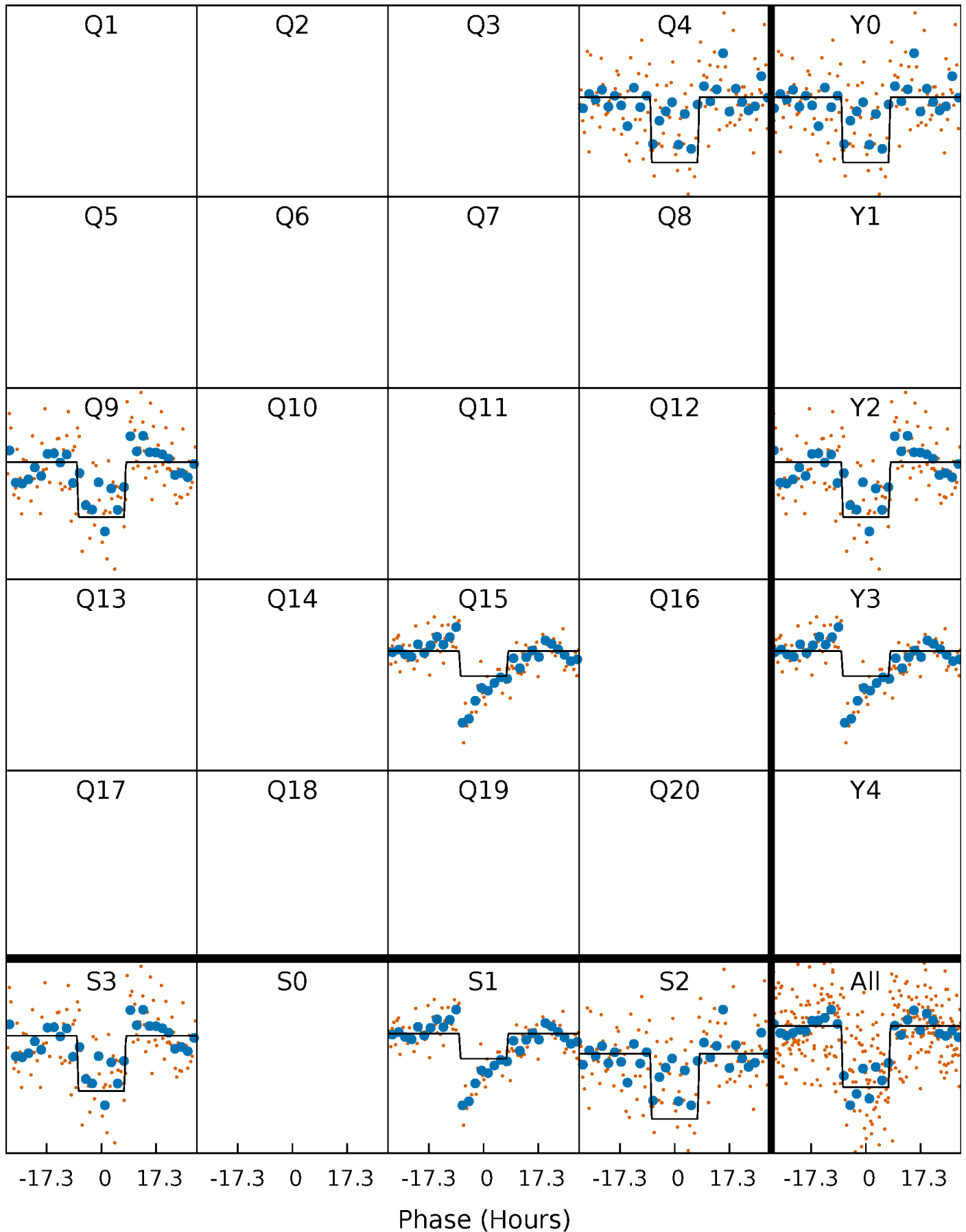
DV Quarter-Phased Transit Curves

TCE 006848481-01 P=542.956595 Days $T_0=358.125080$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

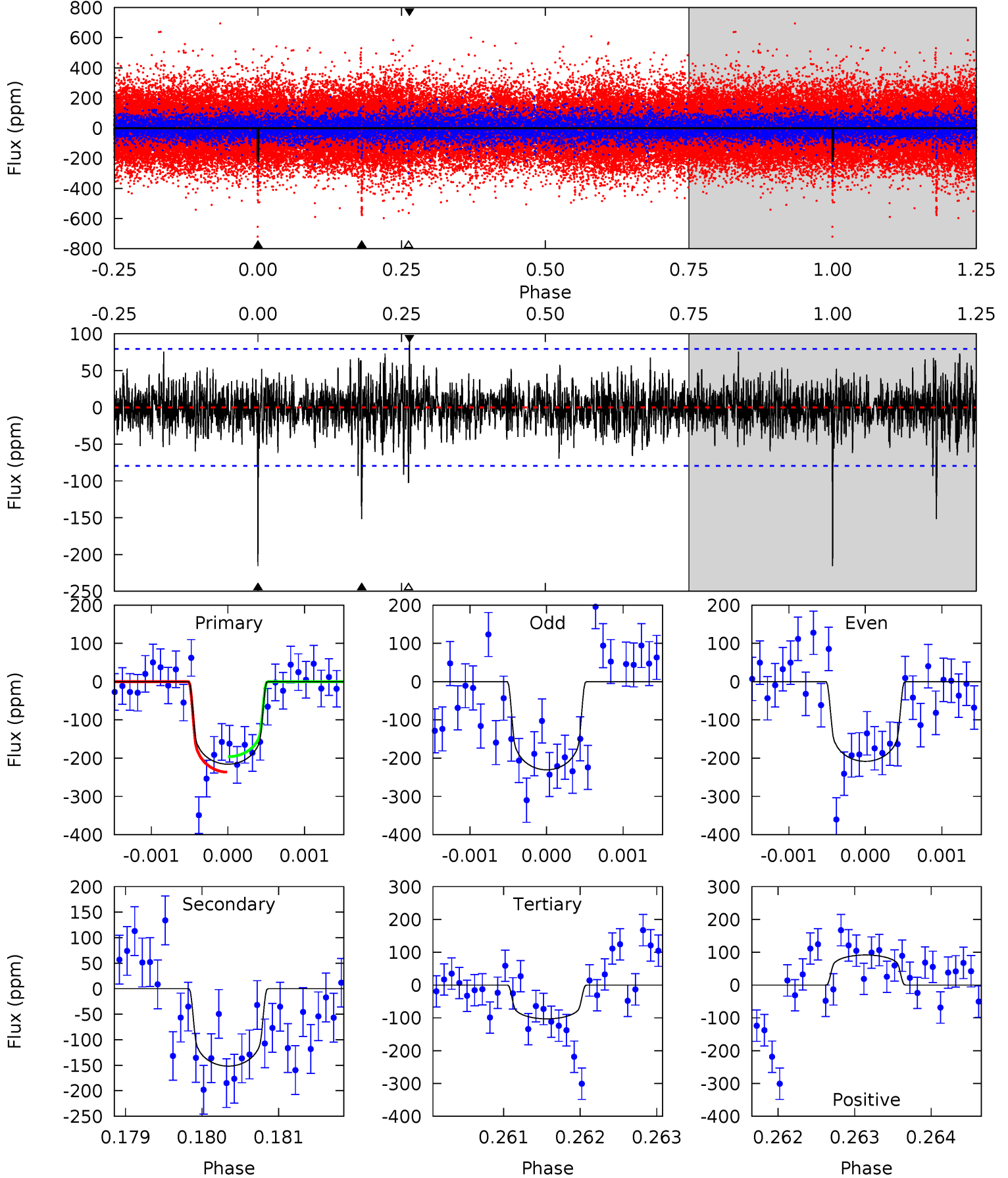
TCE 006848481-01 P=543.008235 Days $T_0=358.083267$ (BKJD)



DV Model-Shift Uniqueness Test

006848481-01, P = 542.956595 Days, E = 358.125080 Days

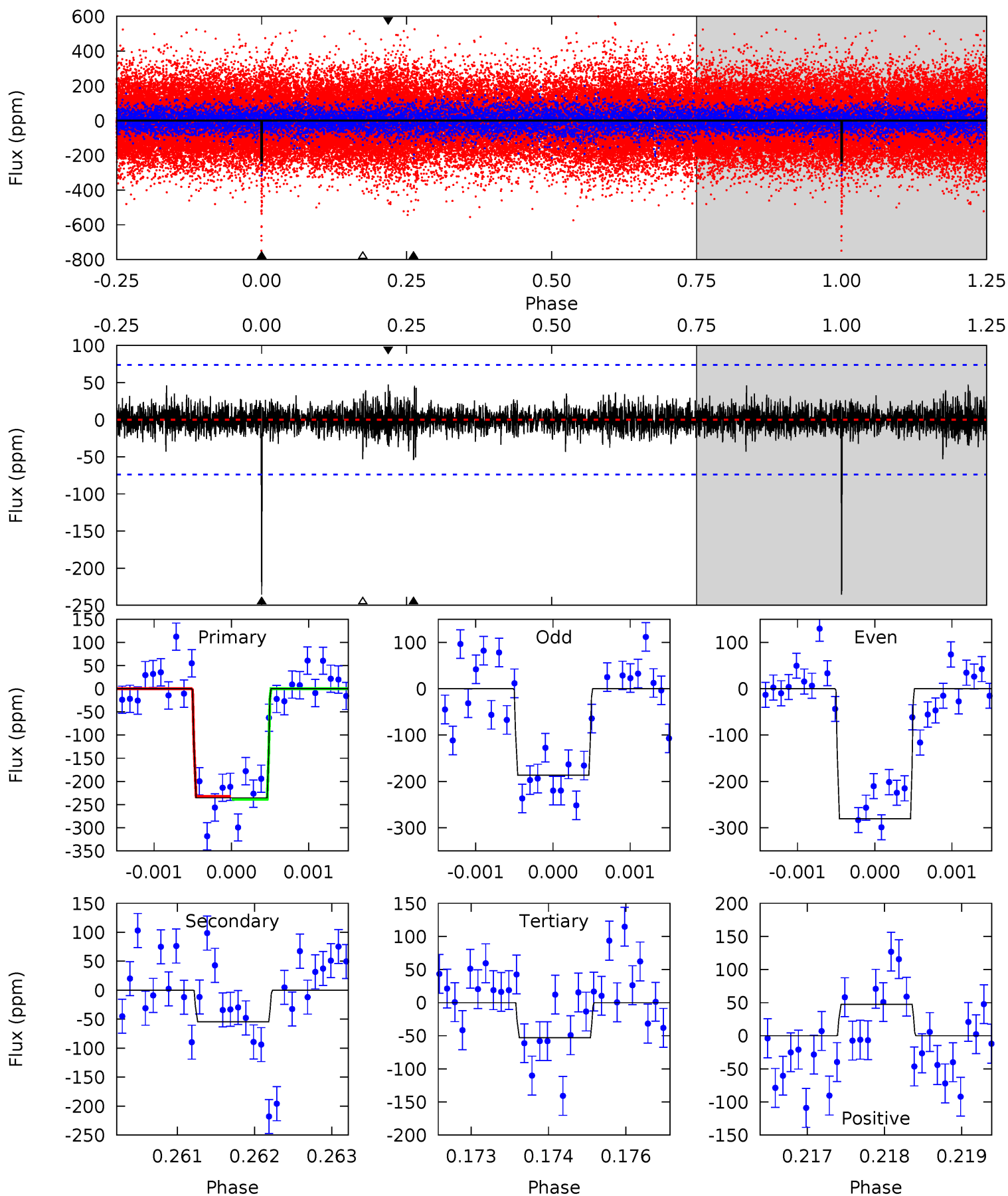
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	10.4	7.05	6.27	5.44	3.28	1.43	7.71	8.49	3.33	4.11	0.72	0.94	0.30	1.38



Alt Model-Shift Uniqueness Test

006848481-01, P = 543.008235 Days, E = 358.083267 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	3.99	3.89	3.47	5.42	3.24	0.82	13.4	13.8	0.10	0.52	3.35	1.34	0.17	0.21



Stellar Parameters For KIC 006848481

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5641^{+152}_{-152}	$4.471^{+0.078}_{-0.169}$	$-0.100^{+0.300}_{-0.300}$	$0.913^{+0.242}_{-0.104}$	$0.899^{+0.104}_{-0.083}$	$1.663^{+0.536}_{-0.801}$
	+3%/-3%	+2%/-4%	+300%/-300%	+27%/-11%	+12%/-9%	+32%/-48%
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 006848481-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-152 ± 15	$1.74^{+0.37}_{-0.32}$	300^{+19}_{-14}	4914^{+394}_{-330}	43052^{+22225}_{-13150}
Alt.	-54 ± 14	$1.62^{+0.37}_{-0.32}$	300^{+18}_{-14}	4111^{+383}_{-310}	17474^{+11503}_{-6707}

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 $A_{obs} \gg 1.0$

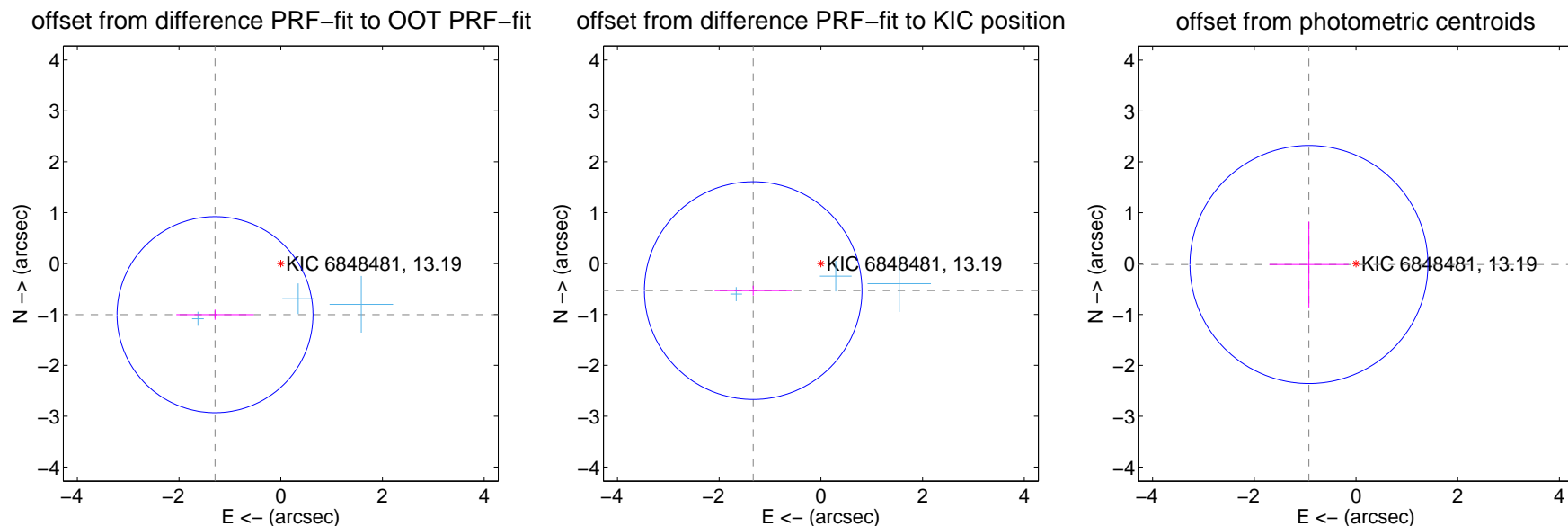
DV Centroid Data

Supplemental centroid analysis for 006848481-01. Kepler magnitude: 13.19. Transit SNR 10.22

There are 3 quarters with good PRF difference image offsets

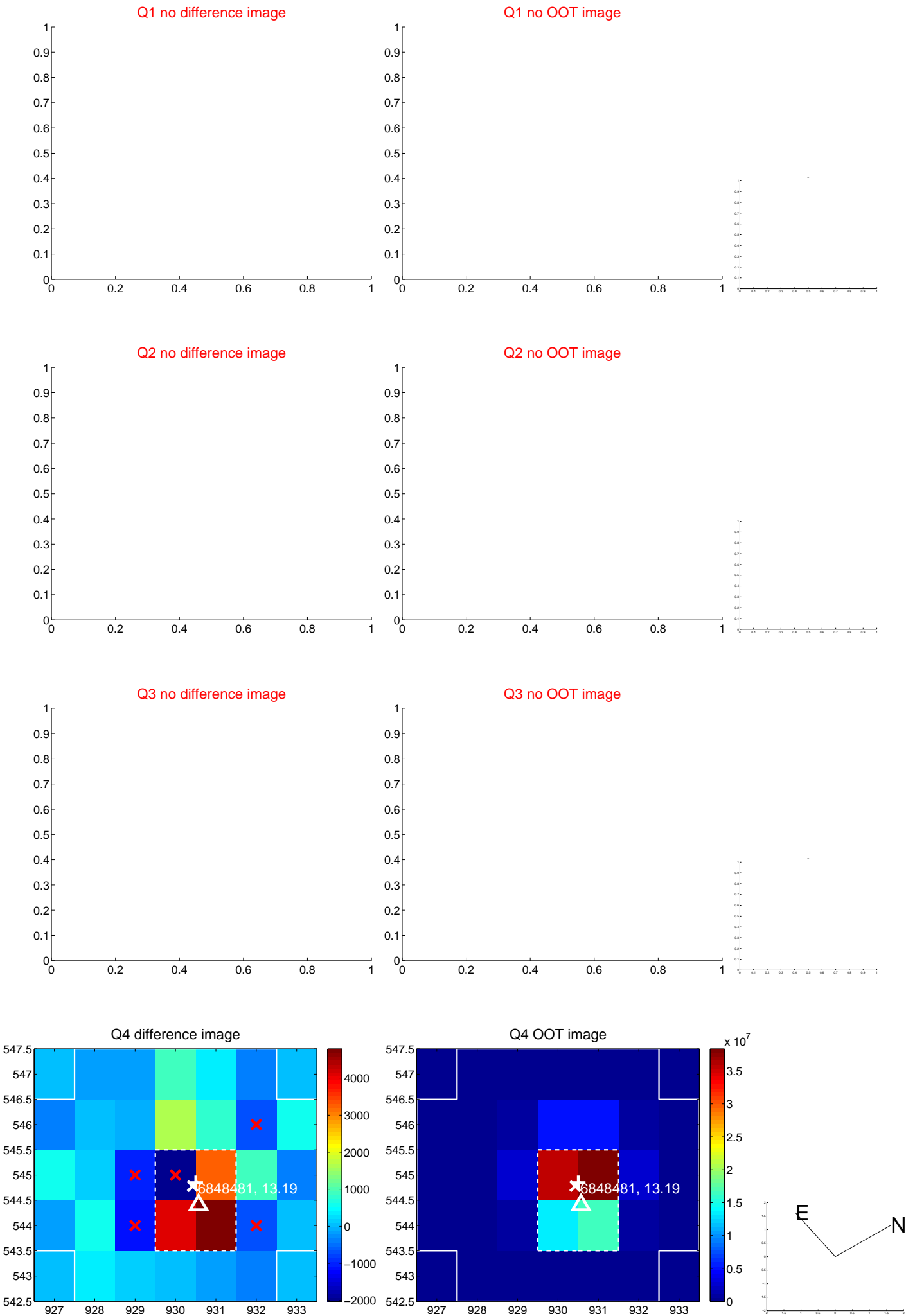
The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.637 ± 0.642	2.55	1.293 ± 0.761	-1.005 ± 0.100
PRF-fit source offset from KIC position	1.433 ± 0.713	2.01	1.331 ± 0.758	-0.531 ± 0.096
photometric centroid source offset	0.93 ± 0.78	1.19	0.92 ± 0.78	-0.02 ± 0.84



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.

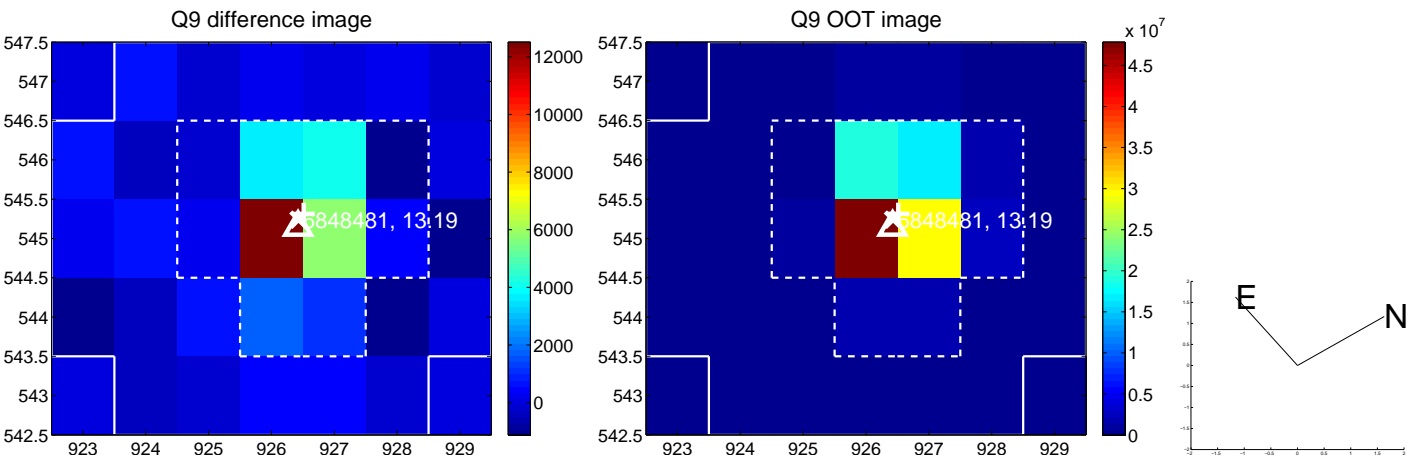
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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

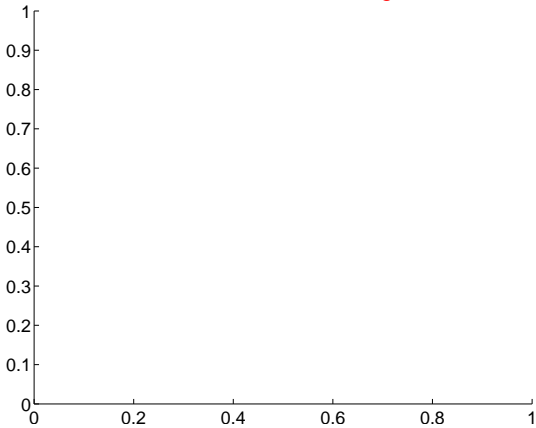


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

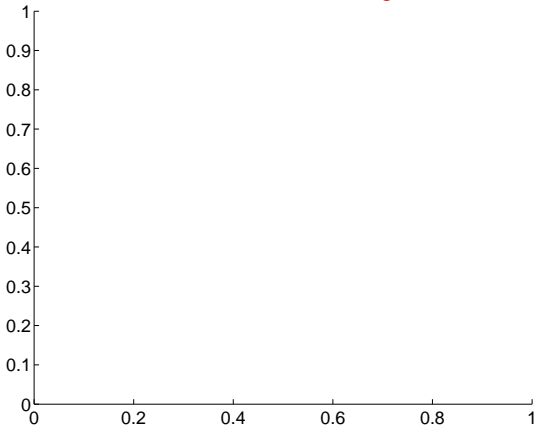
Q13 no difference image



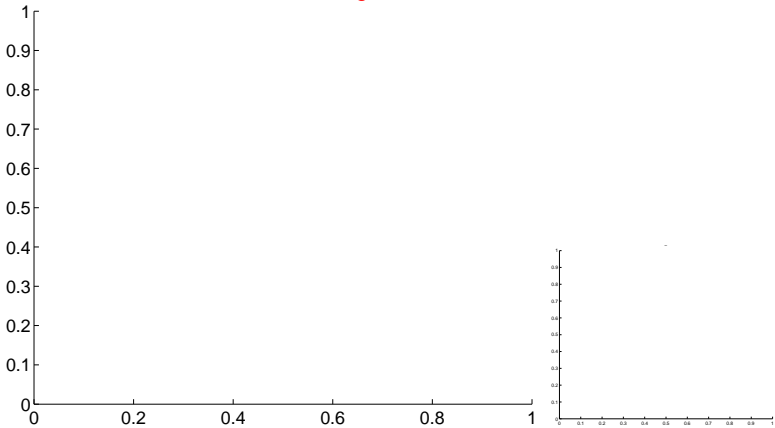
Q13 no OOT image



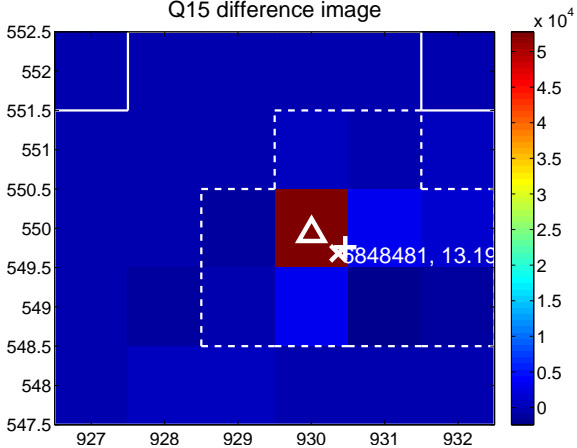
Q14 no difference image



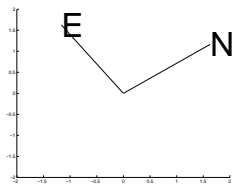
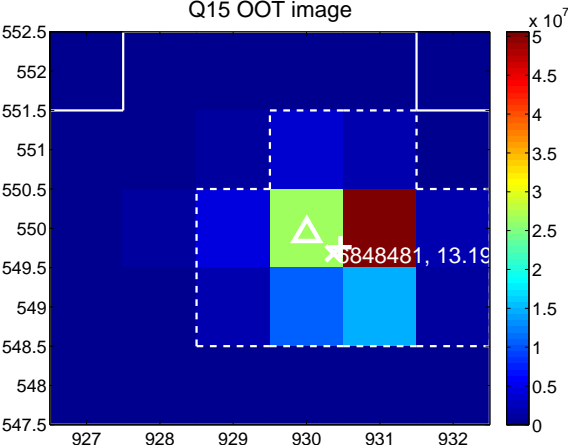
Q14 no OOT image



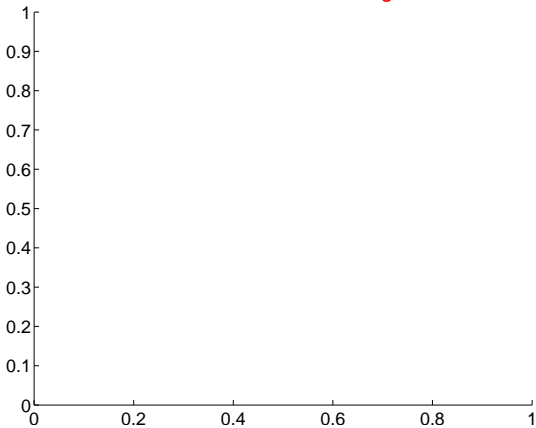
Q15 difference image



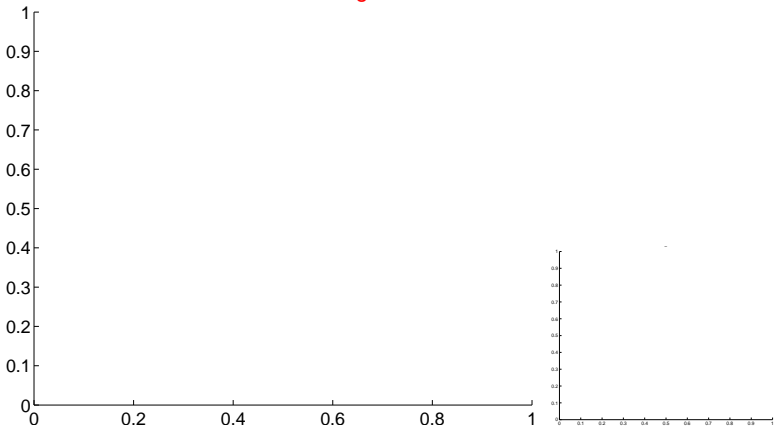
Q15 OOT image



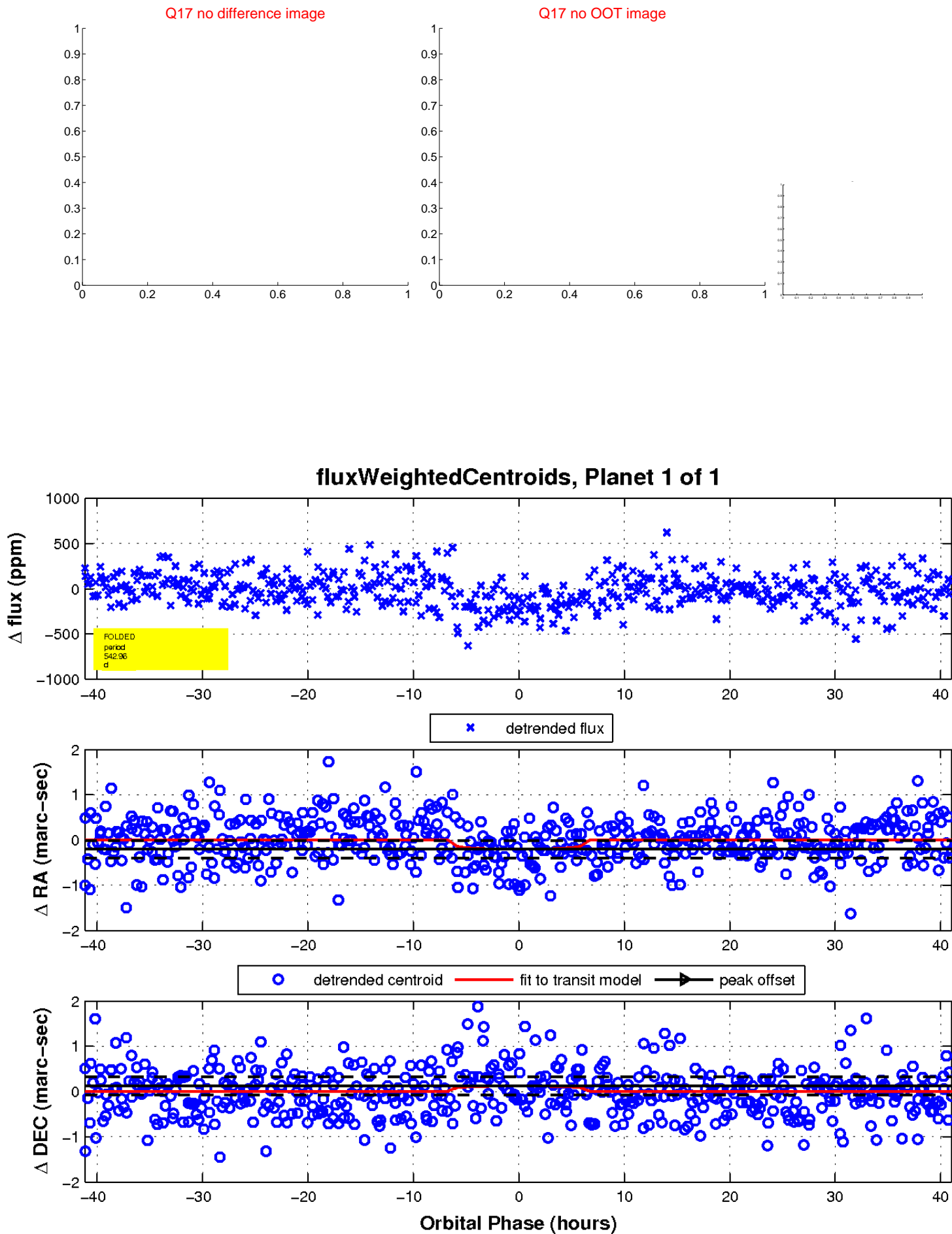
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

