

KIC 005006817

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})
005006817-01	OBS	5112.01	94.807741	186.080768	1388.7	76.321	21.2	45.4	6.27	4840	40.76	81.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005006817-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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 005006817-01

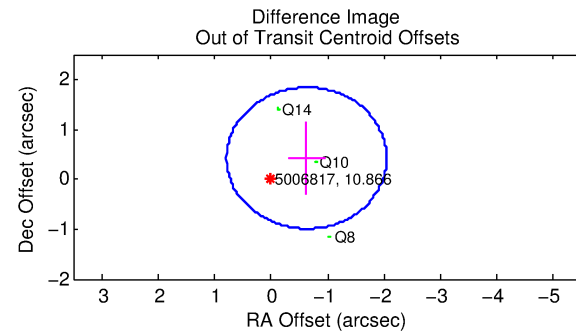
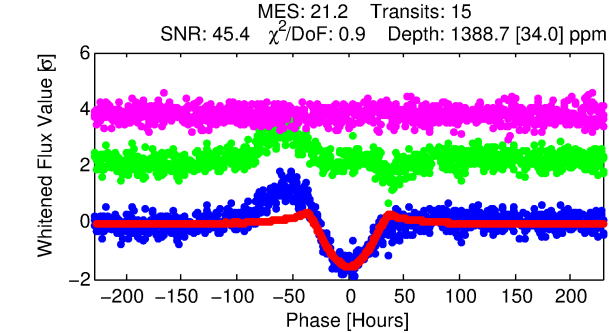
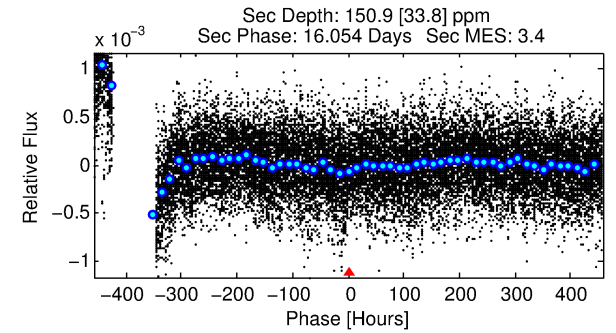
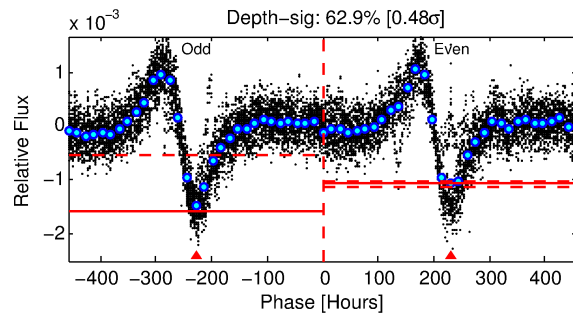
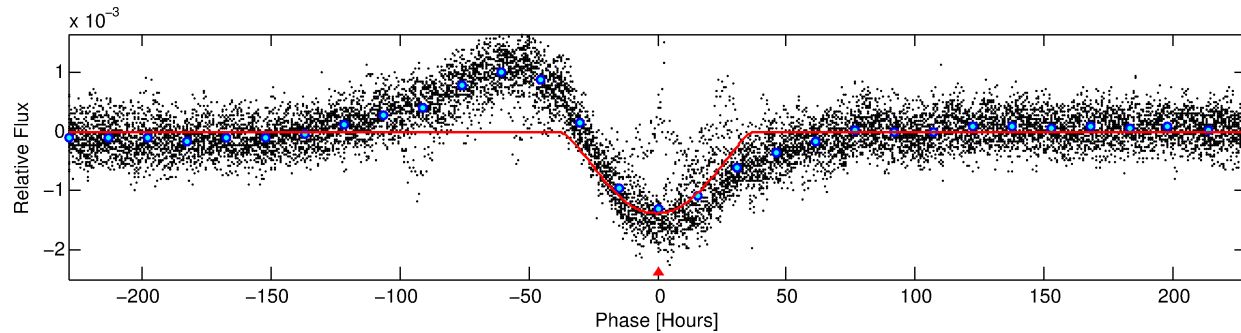
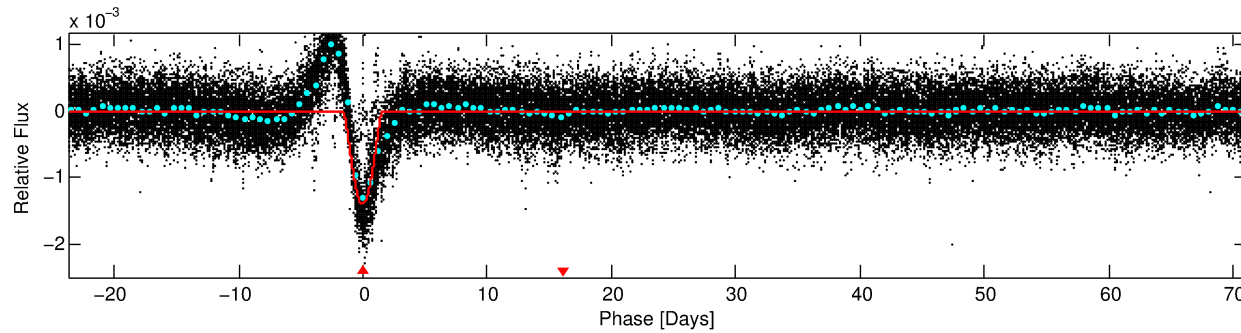
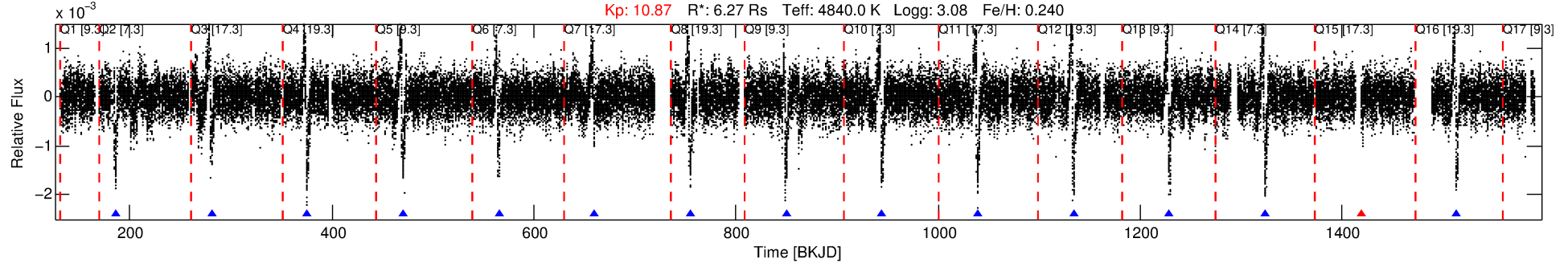
No Significant Match Found

DV One-Page Summary

KIC: 5006817 Candidate: 1 of 1 Period: 94.808 d

KOI: K05112.01 Corr: 0.903

Kp: 10.87 R*: 6.27 Rs Teff: 4840.0 K Logg: 3.08 Fe/H: 0.240



DV Fit Results:

Period = 94.80774 [0.00422] d
Epoch = 186.0808 [0.0347] BKJD
Rp/R* = 0.0595 [0.0210]
a/R* = 3.85 [0.35]
b = 0.98 [0.03]
Seff = 81.43 [12.04]
Teq = 766 [28] K
Rp = 40.76 [16.15] Re
a = 0.4874 [0.0595] AU
Ag = 11.87 [8.93] [1.22σ]
Teffp = 2198 [409] K [3.49σ]

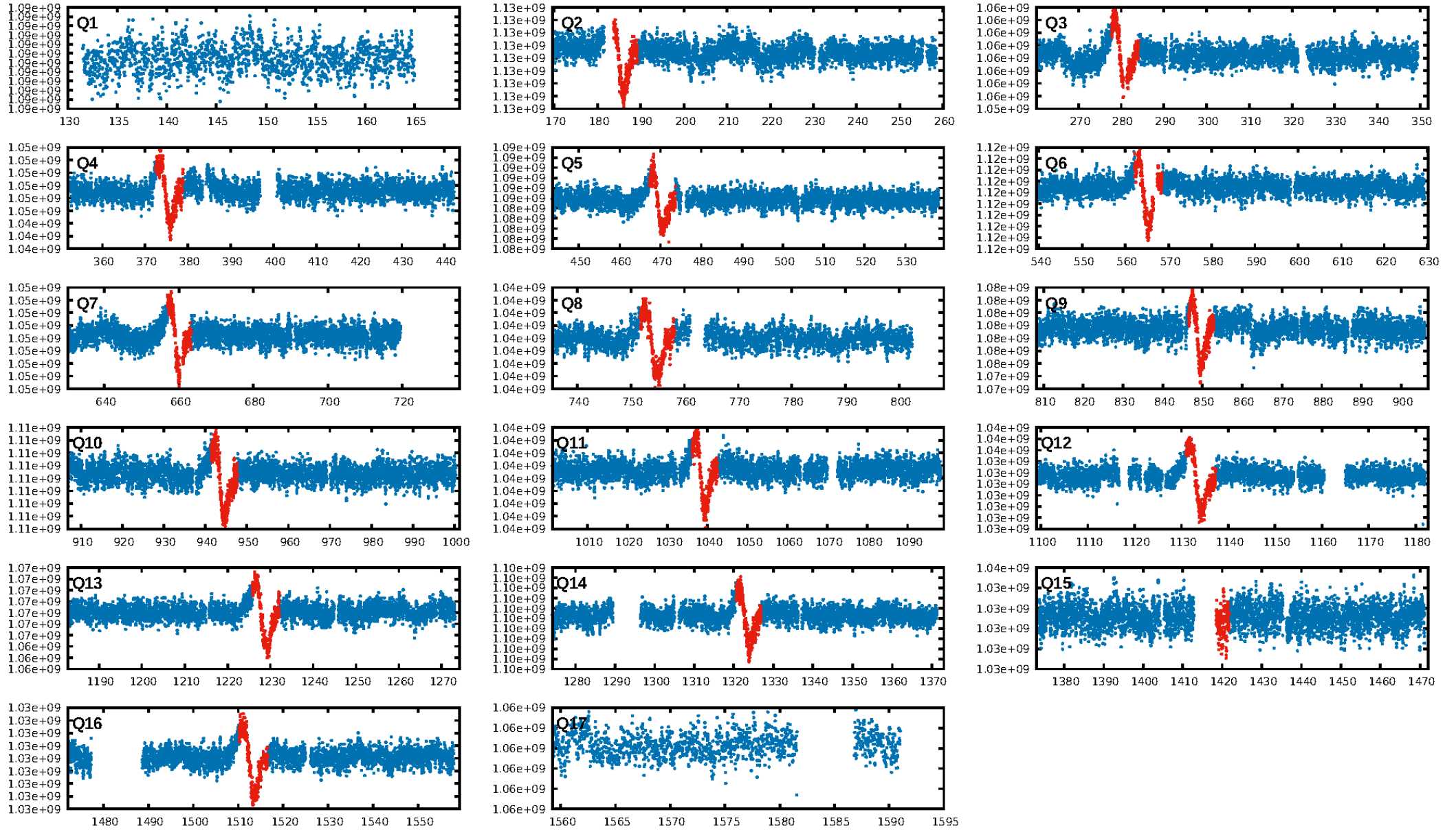
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.06e-78
RollingBand-fgt: 0.93 [14/15]
GhostDiagnostic-chr: 1.716
Centroid-sig: 24.1%
Centroid-so: 0.509 arcsec [8.89σ]
OotOffset-rm: 0.757 arcsec [1.60σ]
KicOffset-rm: 0.870 arcsec [1.94σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

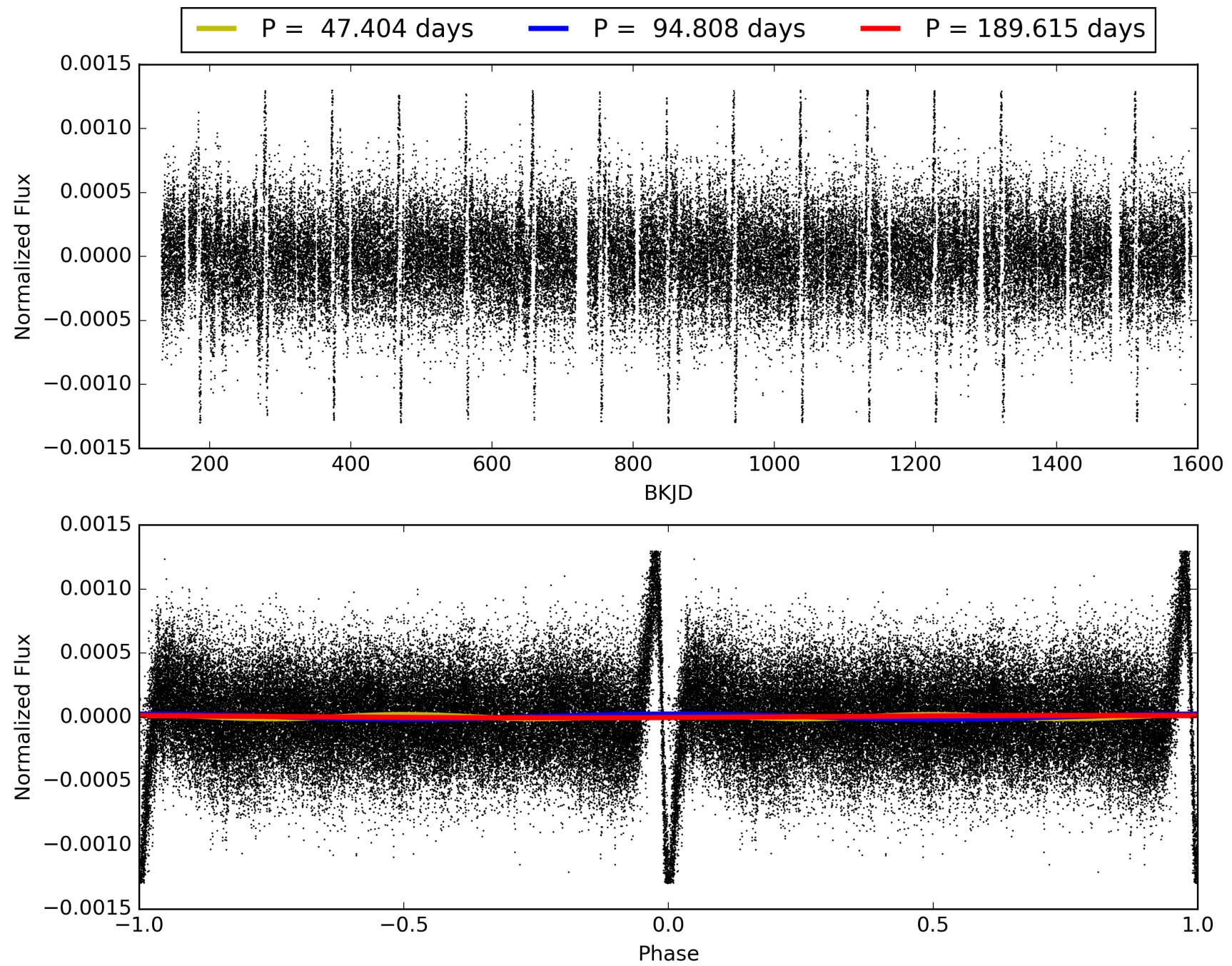
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:15:51 Z

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

TCE 005006817-01, PDC Light Curves

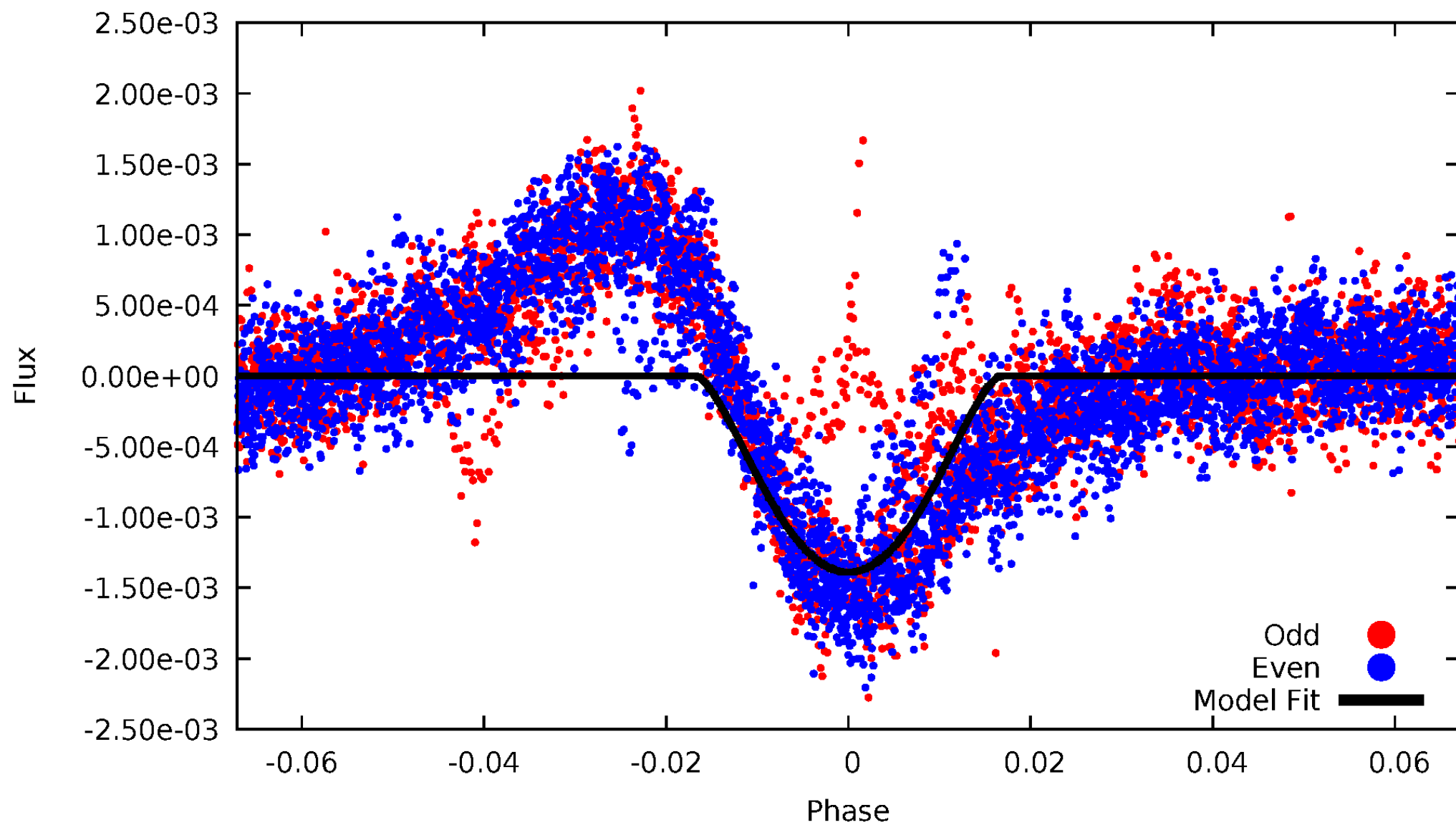


TCE 005006817-01



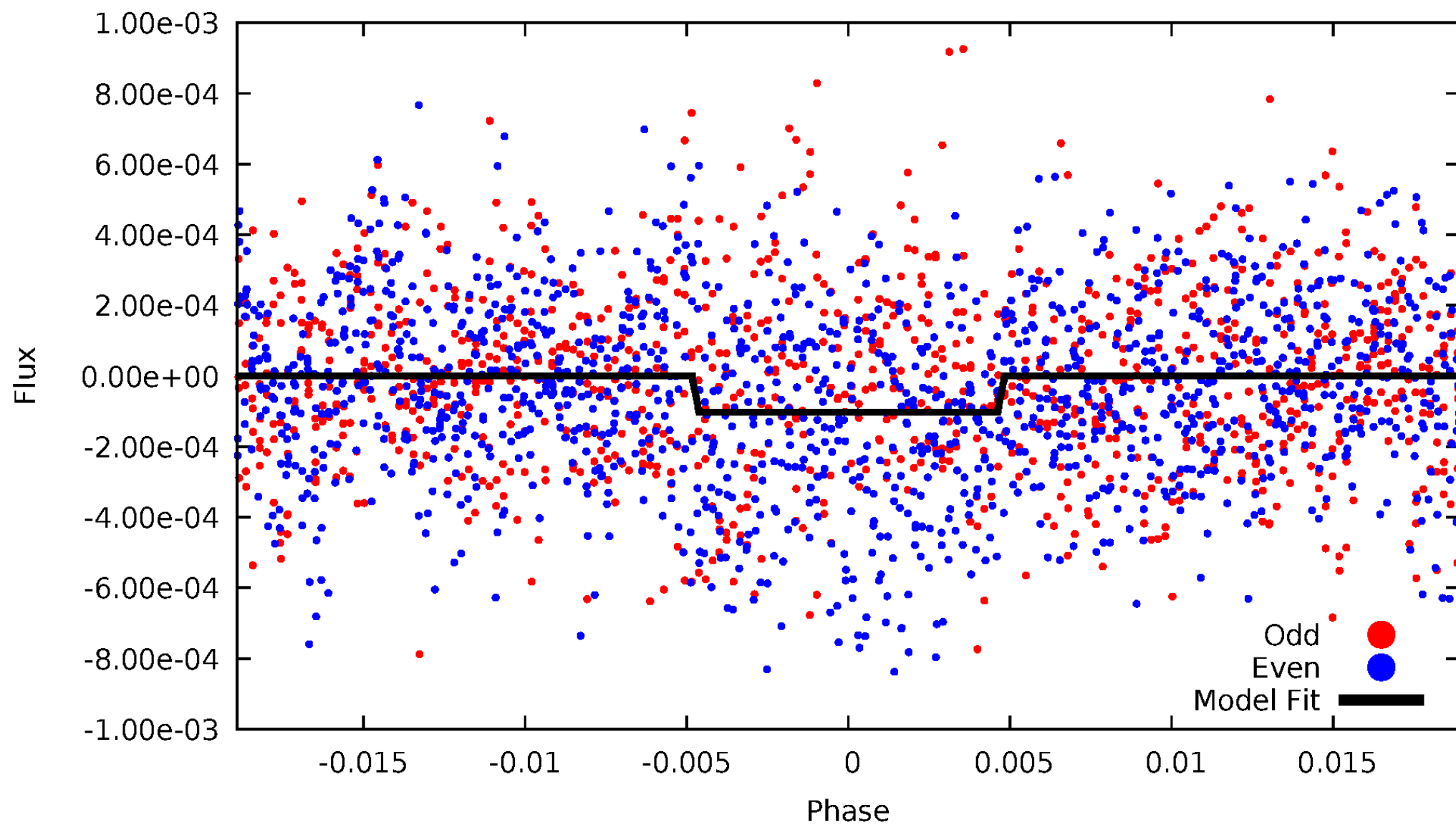
DV Odd/Even

TCE 005006817-01

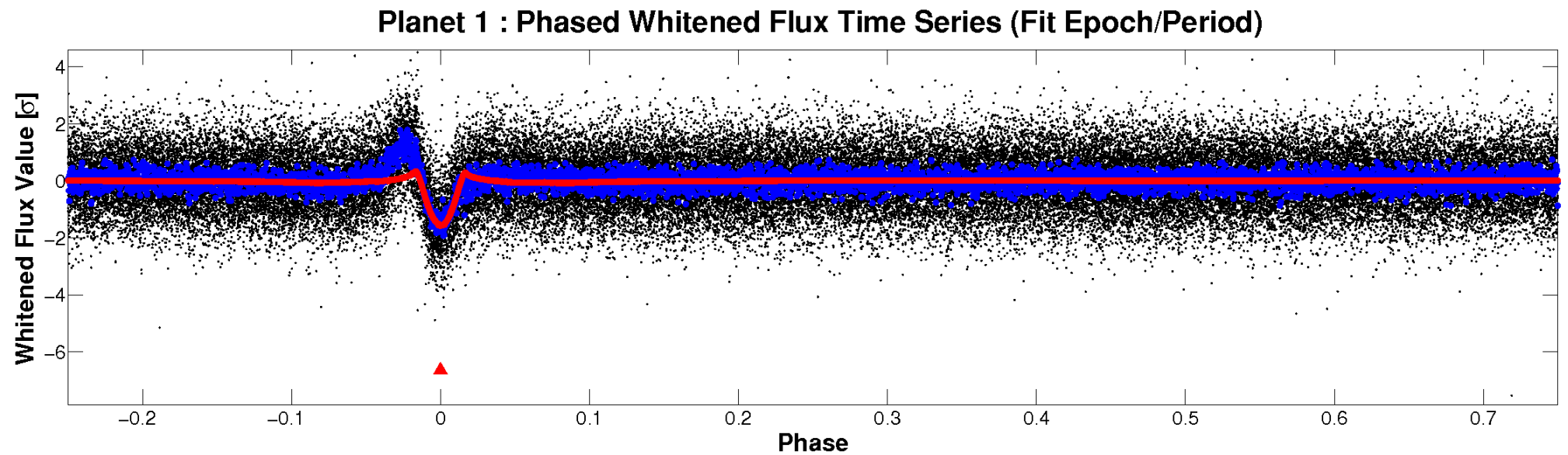
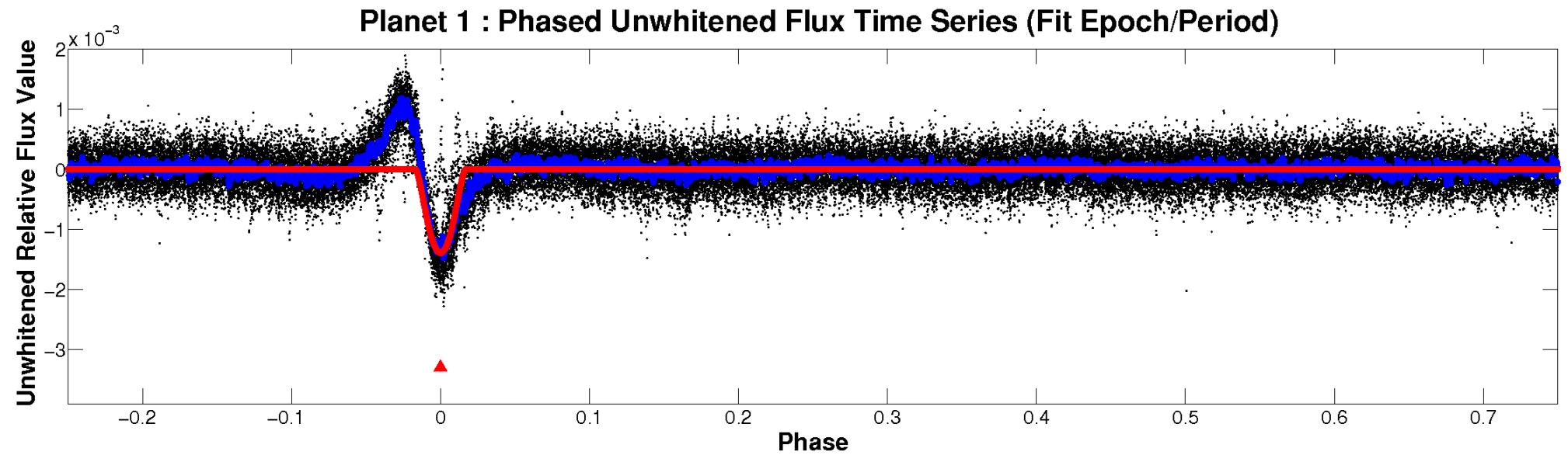


ALT Odd/Even

TCE 005006817-01

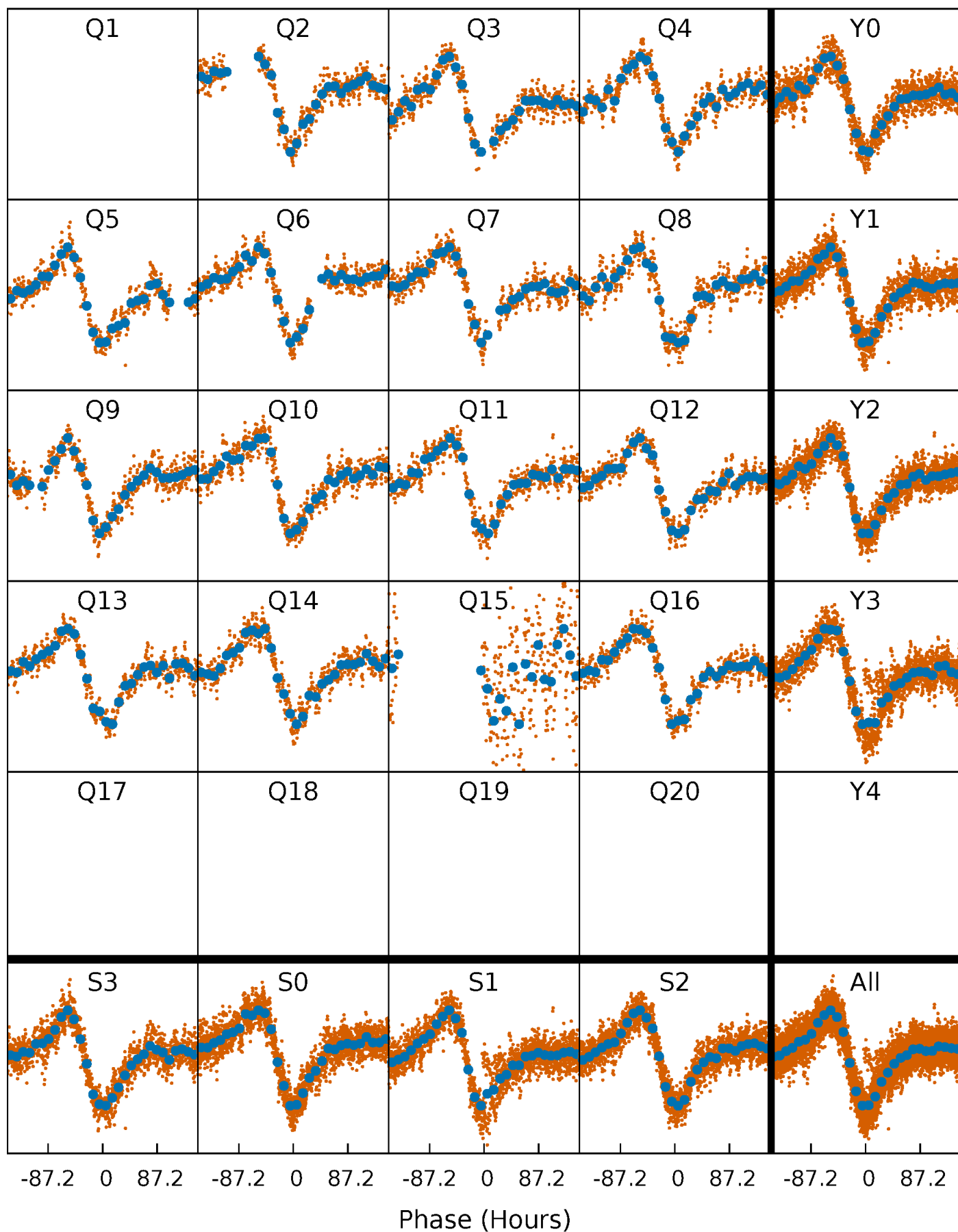


Non-Whitened Vs. Whitened Light Curve



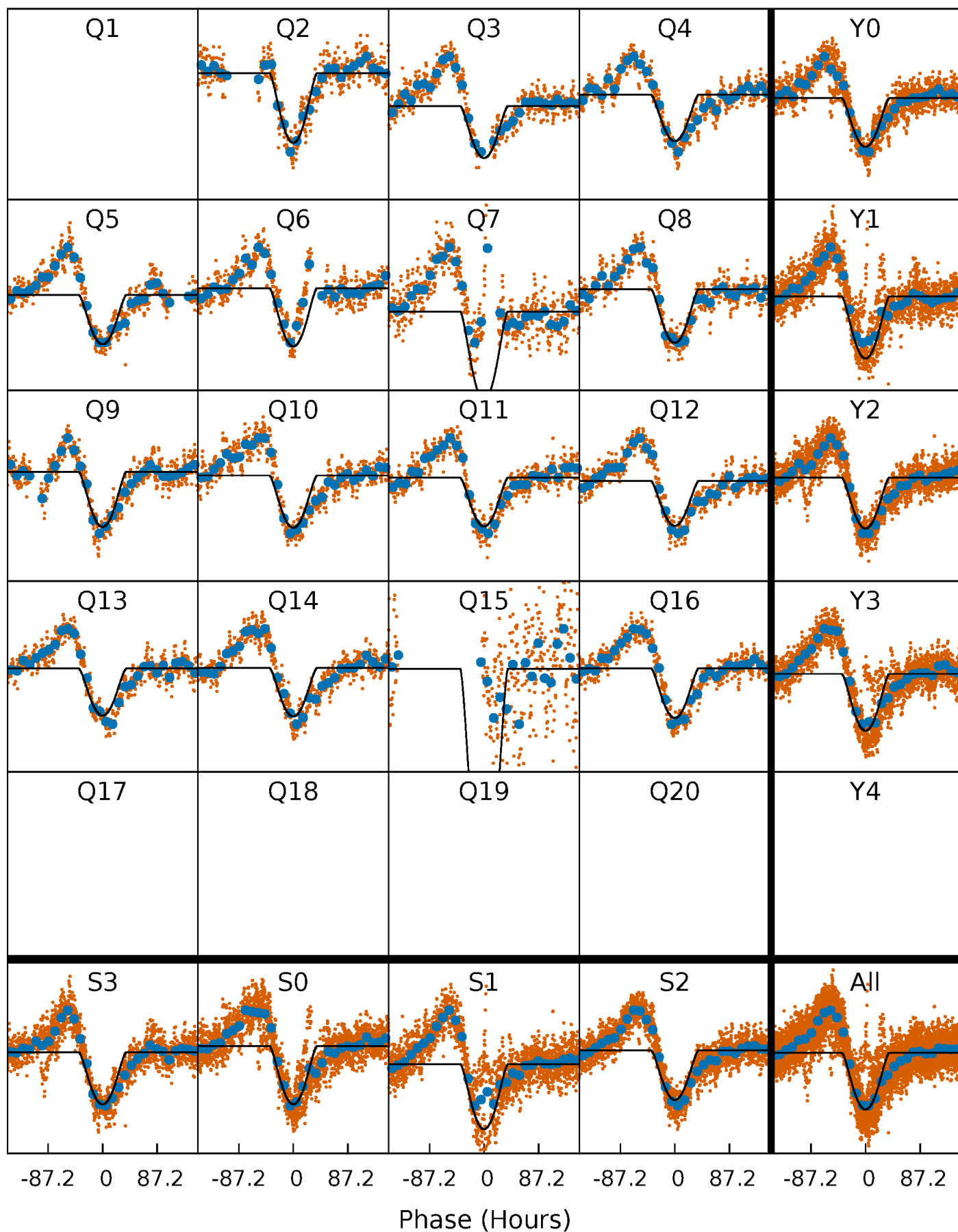
PDC Quarter-Phased Transit Curves

TCE 005006817-01 P= 94.807741 Days $T_0=186.080768$ (BKJD)



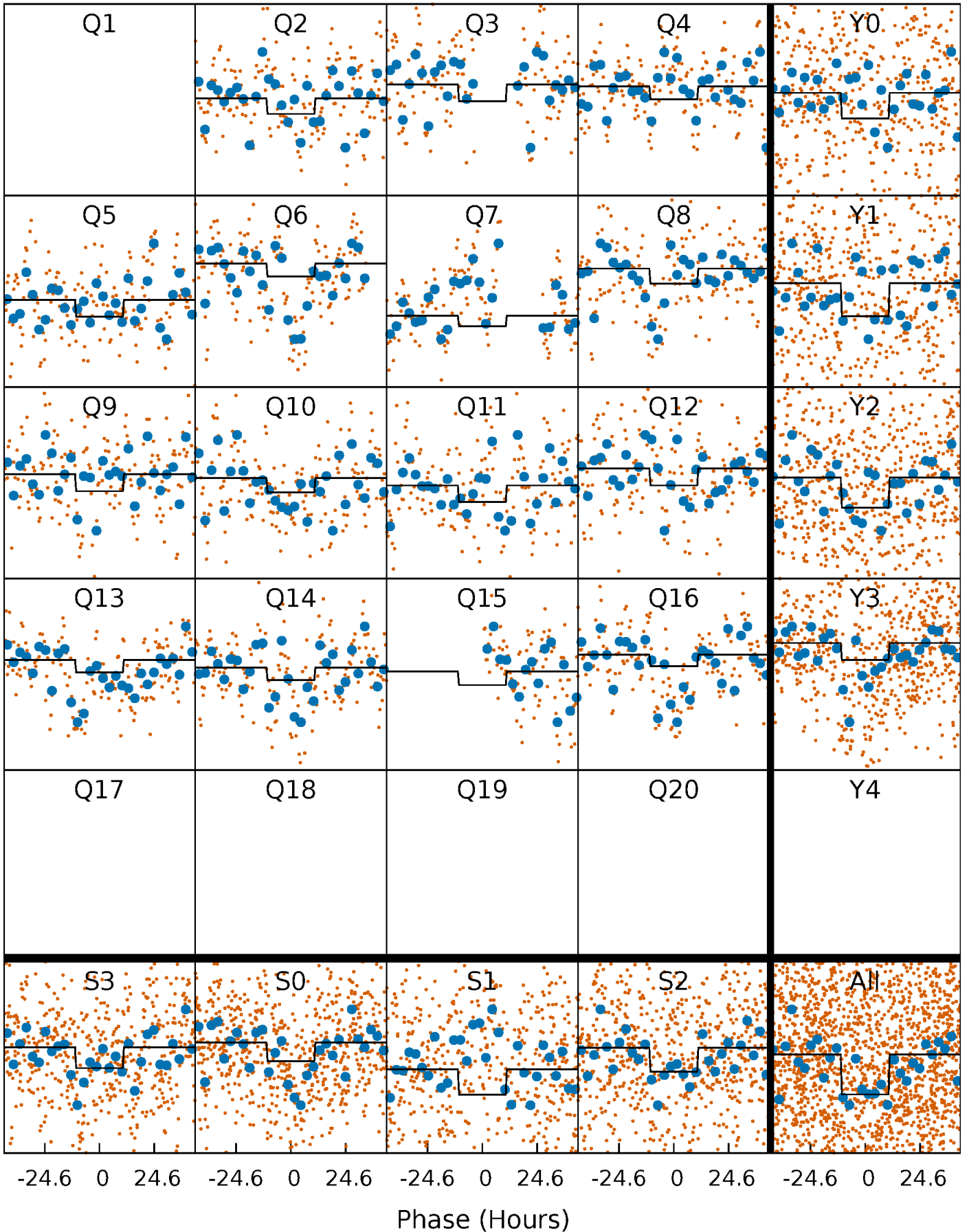
DV Quarter-Phased Transit Curves

TCE 005006817-01 P= 94.807741 Days $T_0=186.080768$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

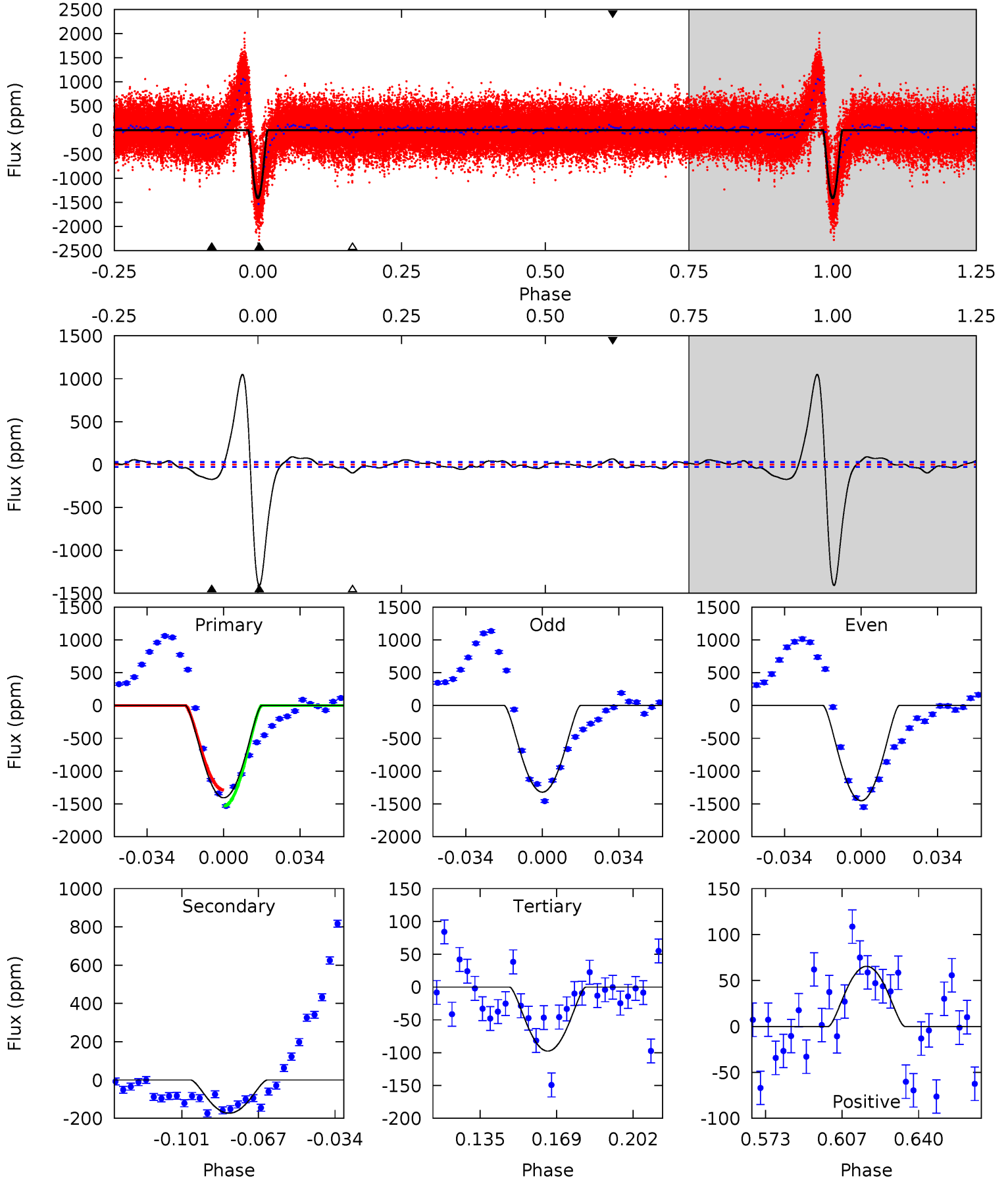
TCE 005006817-01 P= 94.811718 Days $T_0=185.876855$ (BKJD)



DV Model-Shift Uniqueness Test

005006817-01, P = 94.807741 Days, E = 91.273027 Days

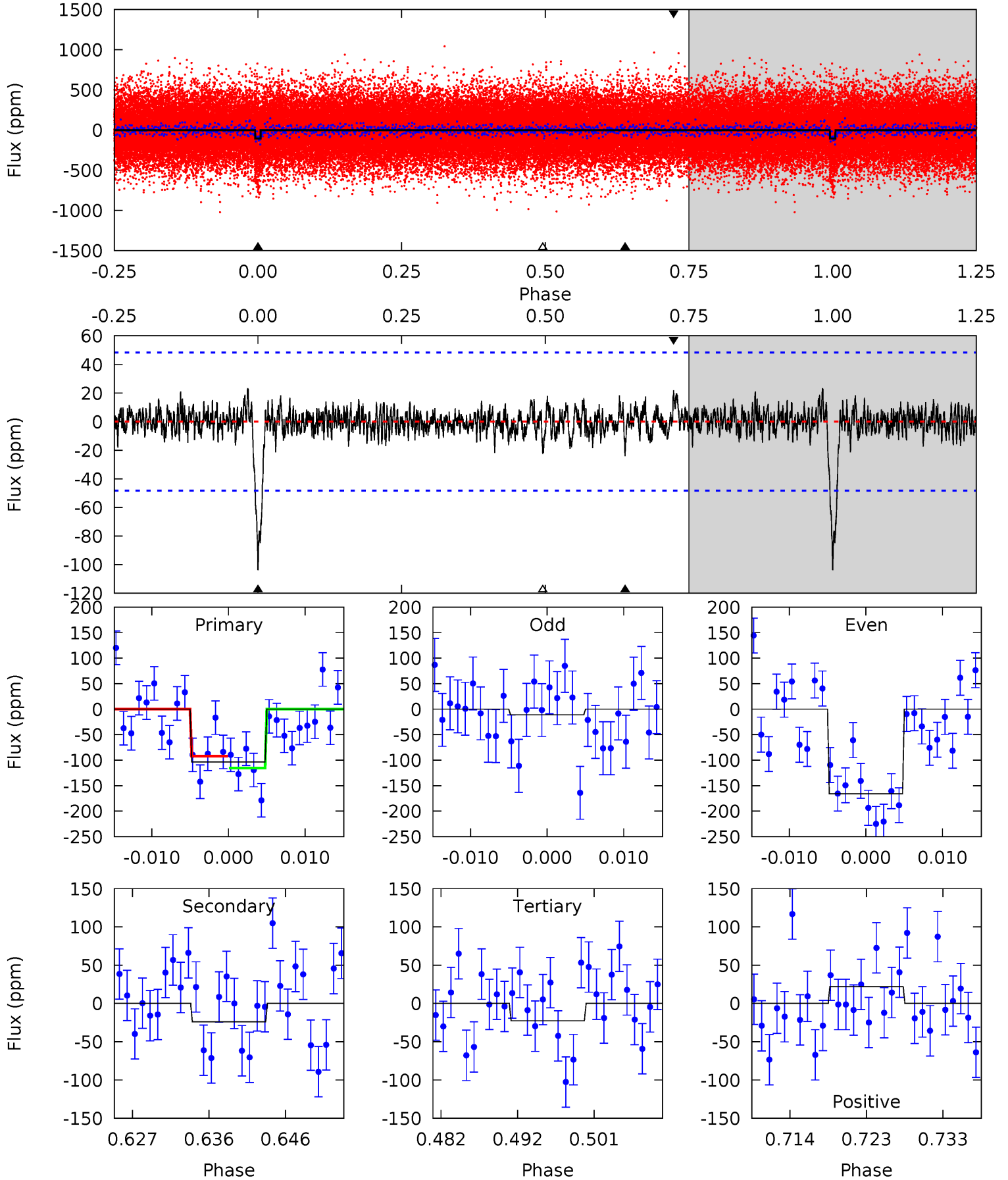
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
229.3	28.3	15.9	10.7	4.79	2.12	15.4	213.4	218.7	12.4	17.6	10.6	0.86	0.43	20.3



Alt Model-Shift Uniqueness Test

005006817-01, P = 94.811718 Days, E = 91.065137 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	2.51	2.36	2.29	5.03	2.59	0.70	8.46	8.53	0.15	0.22	7.96	0.99	0.18	1.23



Stellar Parameters For KIC 005006817

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4840^{+50}_{-86}	$3.078^{+0.033}_{-0.027}$	$0.240^{+0.100}_{-0.200}$	$6.273^{+0.374}_{-1.123}$	$1.717^{+0.179}_{-0.538}$	$0.010^{+0.003}_{-0.001}$
	+1%/-2%	+1%/-1%	+42%/-83%	+6%/-18%	+10%/-31%	+27%/-9%
Source	SPE74	AST11	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 005006817-01 / KOI 5112.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-174 ± 6	$40.22^{+15.28}_{-14.80}$	1068^{+21}_{-24}	2921^{+416}_{-244}	14^{+21}_{-7}
Alt.	-24 ± 10	$13.17^{+11.48}_{-8.93}$	1069^{+19}_{-26}	3017^{+1370}_{-534}	18^{+151}_{-14}

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

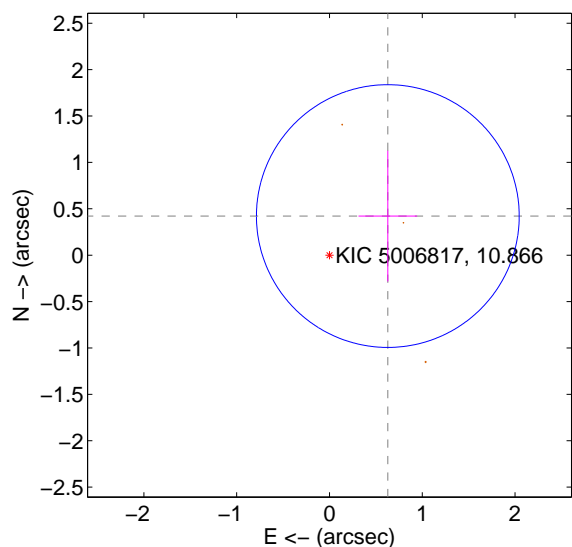
Supplemental centroid analysis for 005006817-01. **Kepler magnitude: 10.87.** Transit SNR 45.37

There are 0 quarters with good PRF difference image offsets

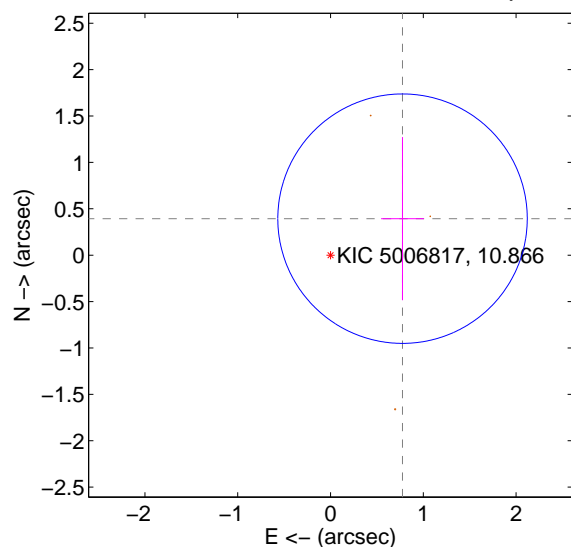
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.757 ± 0.472	1.60	-0.629 ± 0.316	0.422 ± 0.705
PRF-fit source offset from KIC position	0.870 ± 0.448	1.94	-0.776 ± 0.232	0.394 ± 0.879
photometric centroid source offset	0.51 ± 0.06	8.89	0.35 ± 0.05	-0.37 ± 0.06

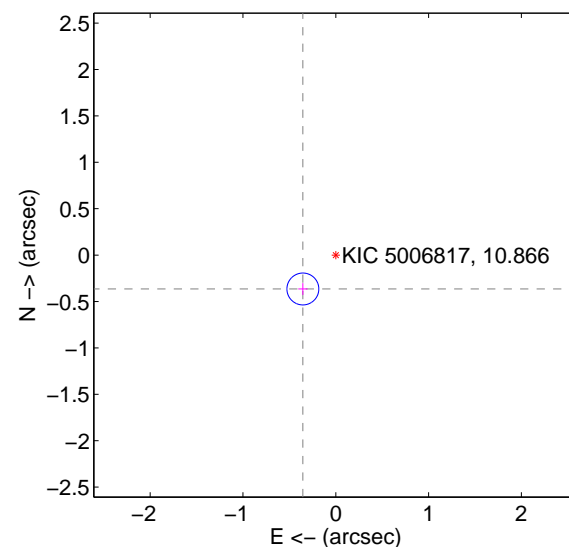
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

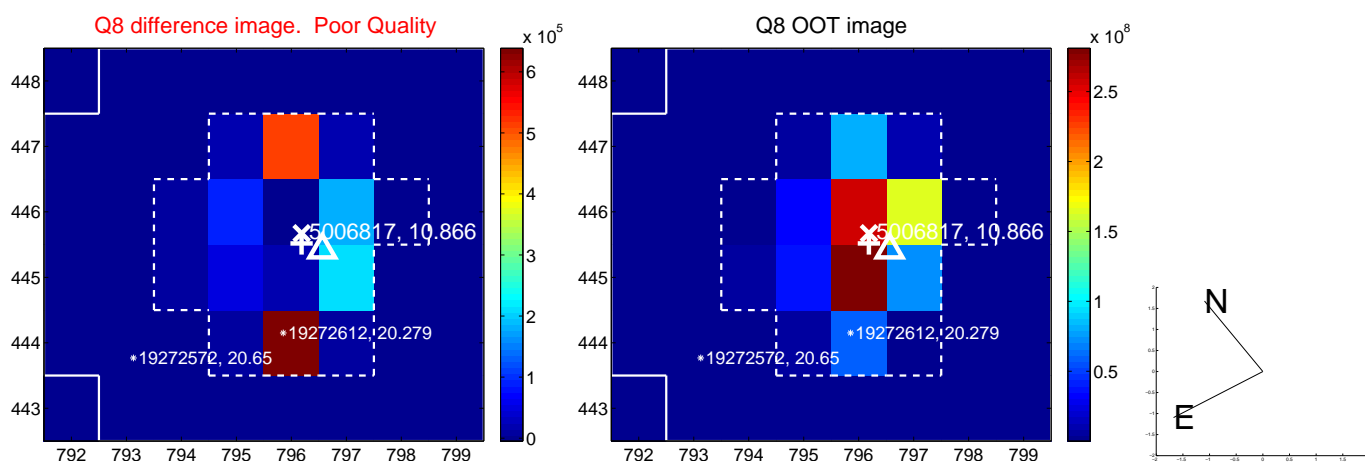
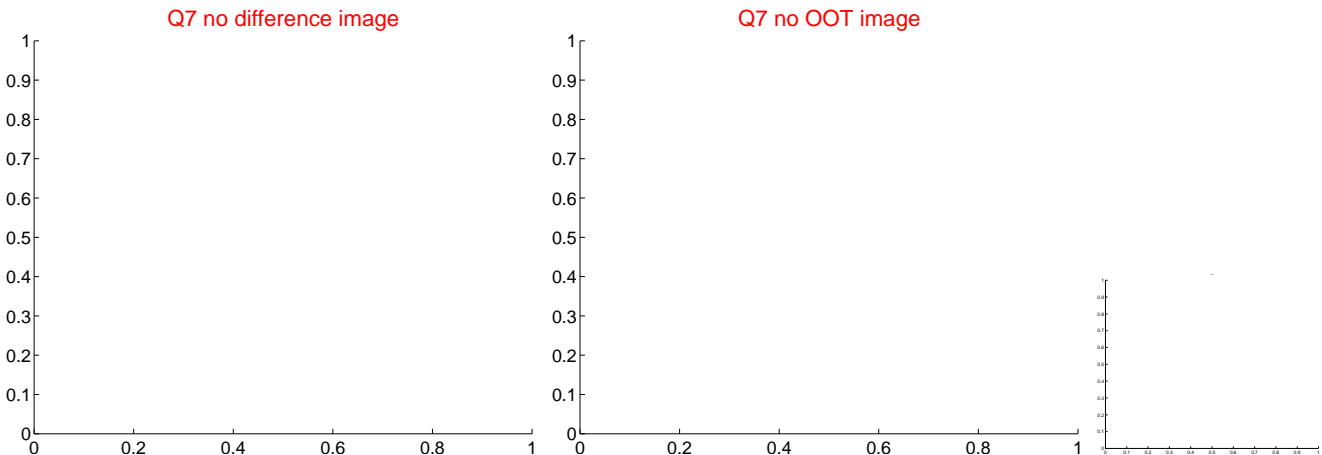
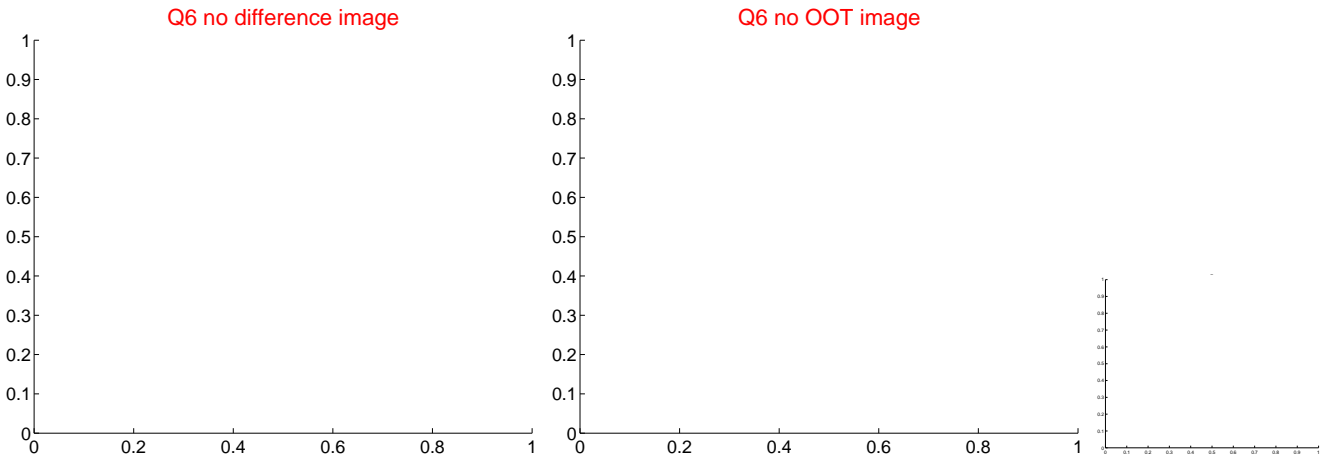
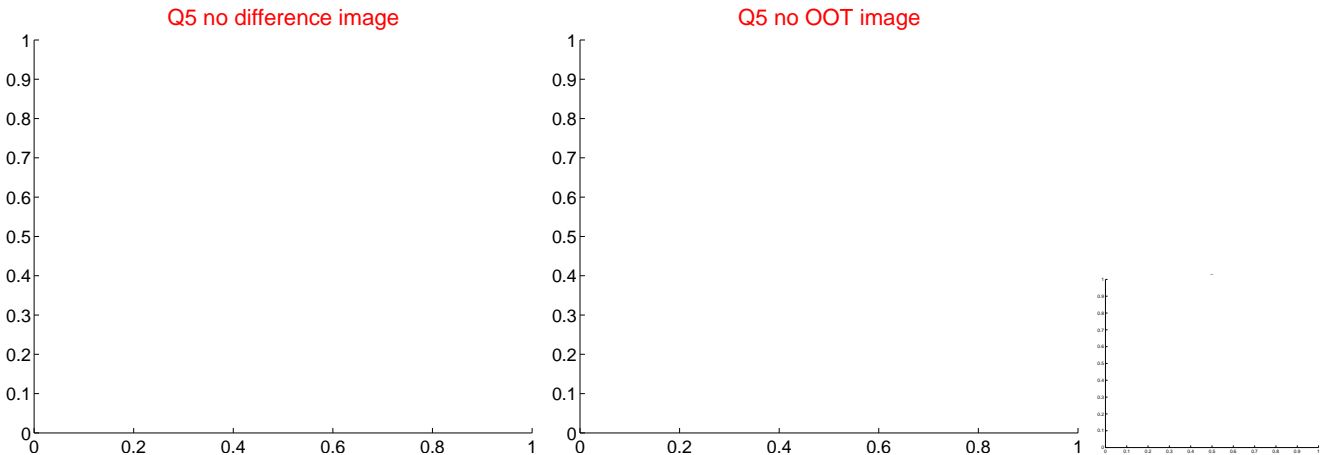


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

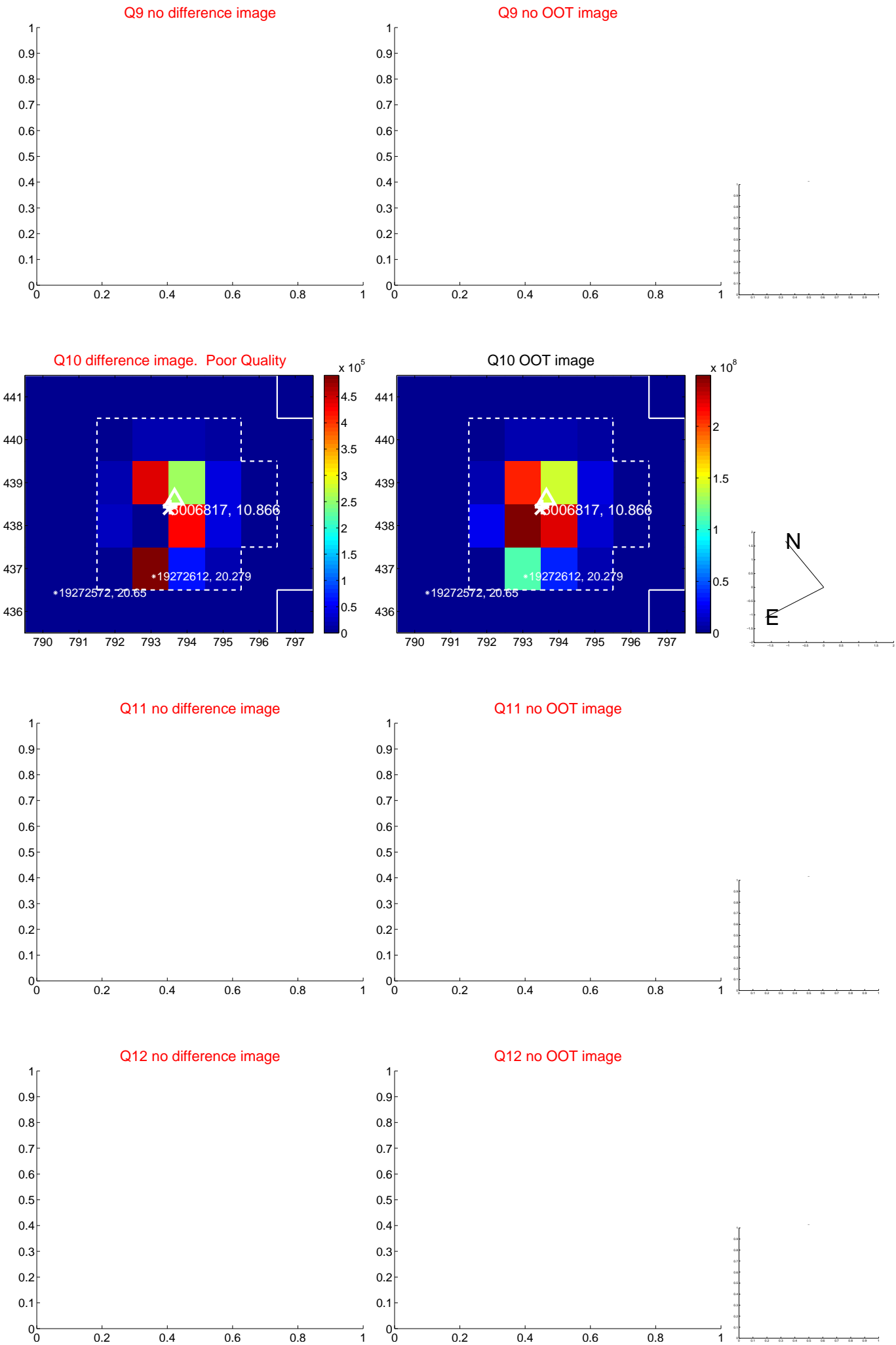
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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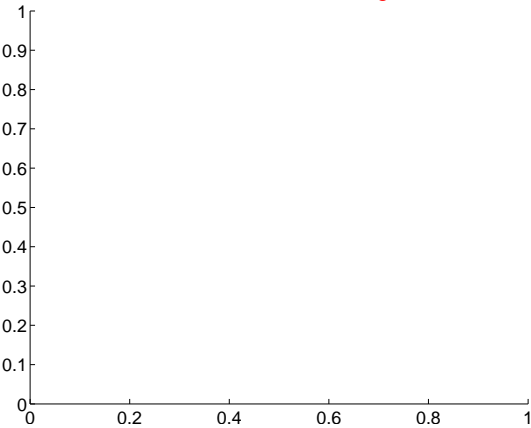


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

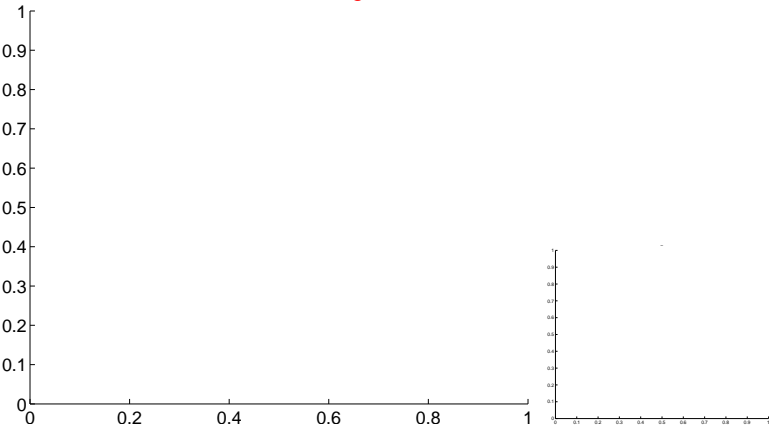


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

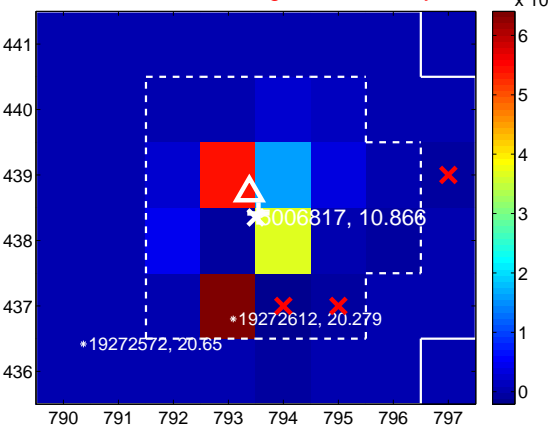
Q13 no difference image



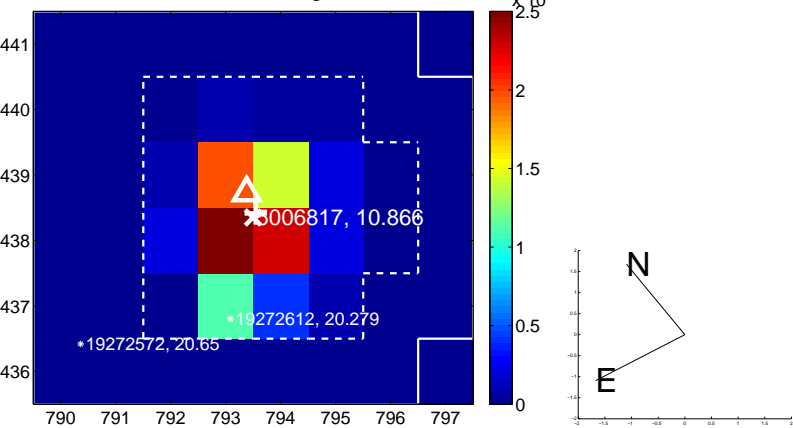
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



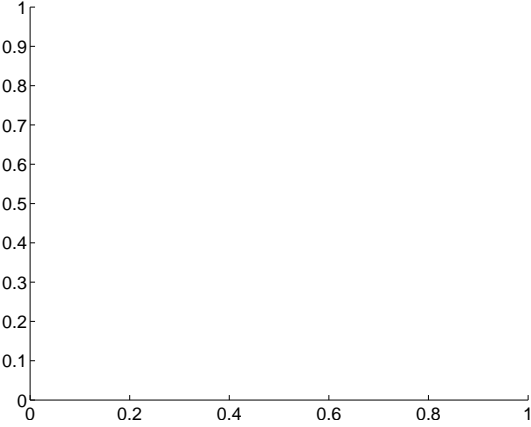
Q15 no difference image



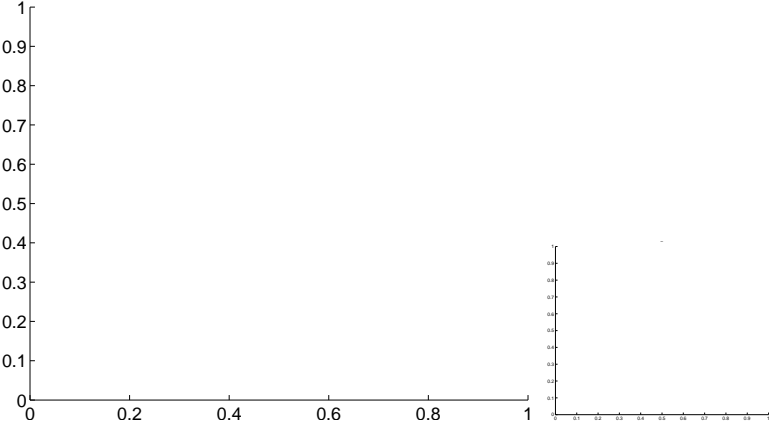
Q15 no OOT image



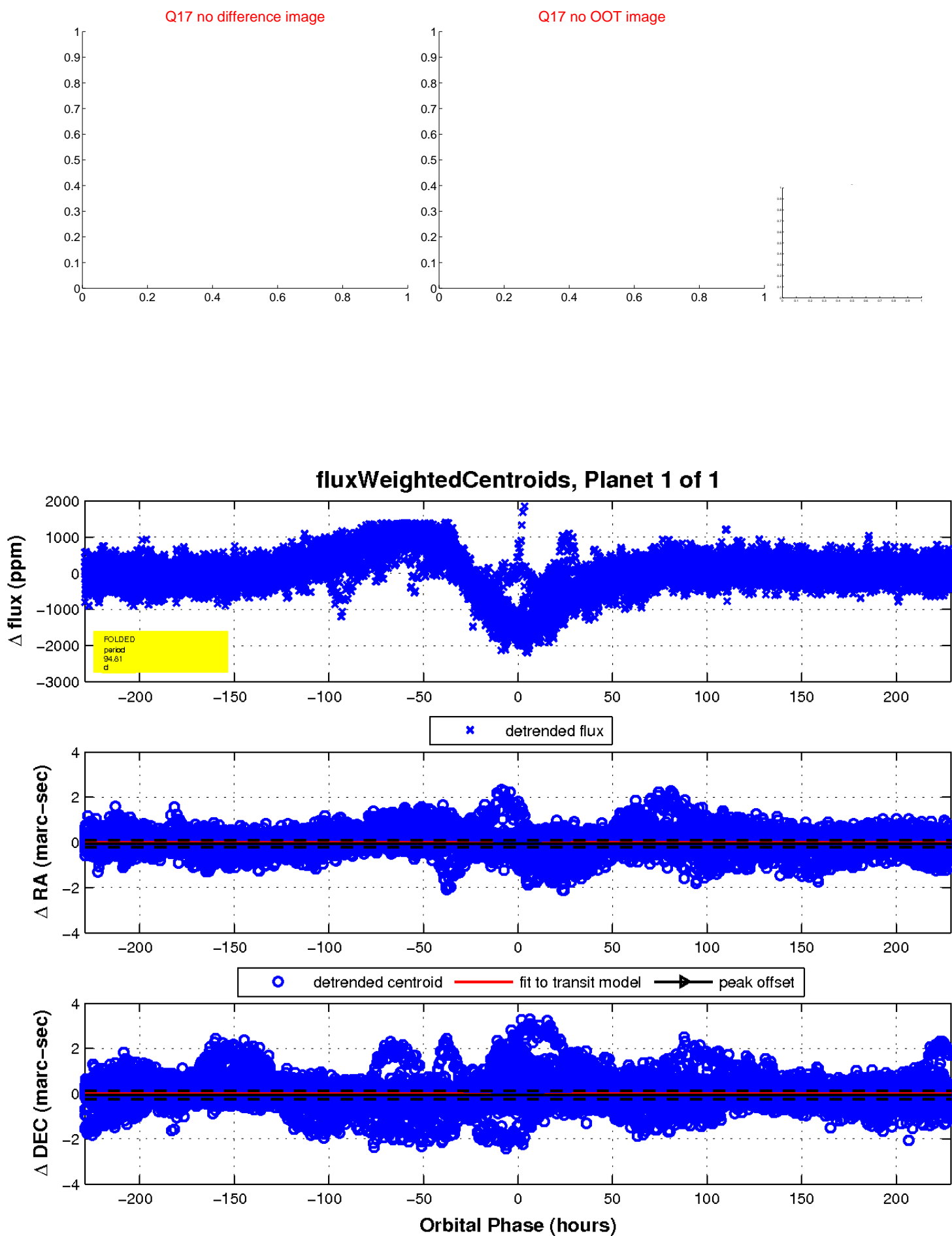
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

