

KIC 006387814

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})
006387814-02	OBS	No	294.541894	238.129487	699.2	4.578	8.2	7.7	9.12	6347	26.33	80.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006387814-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

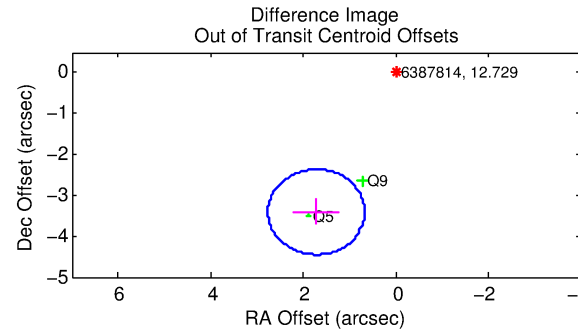
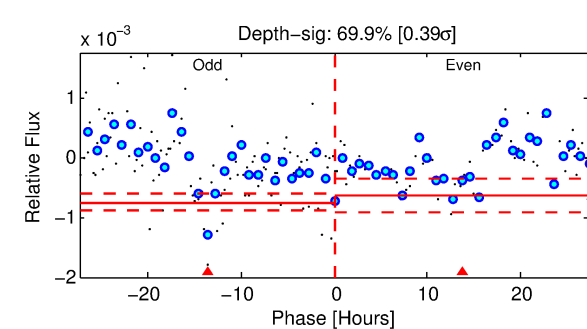
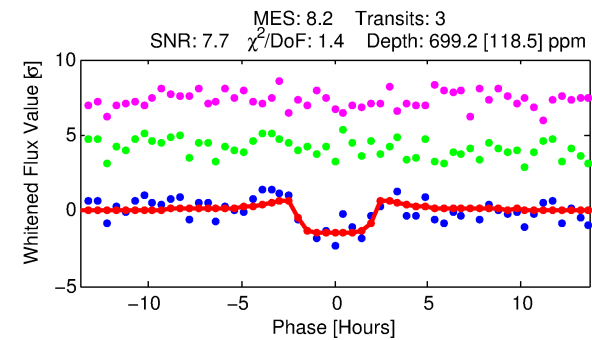
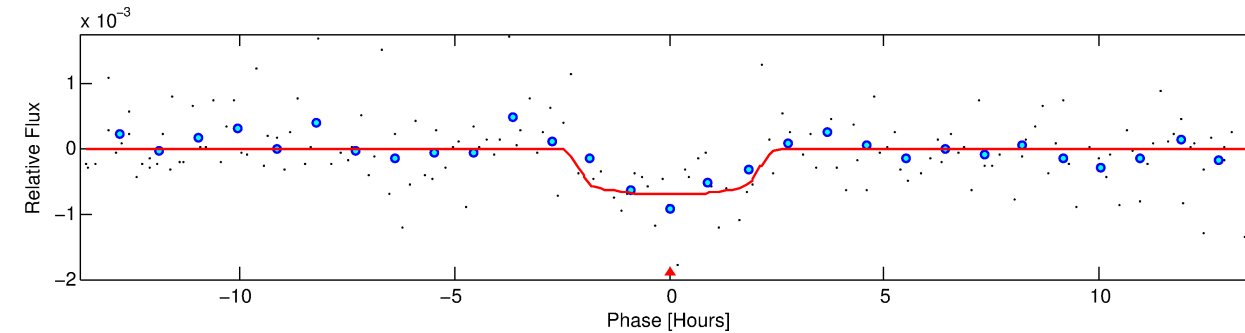
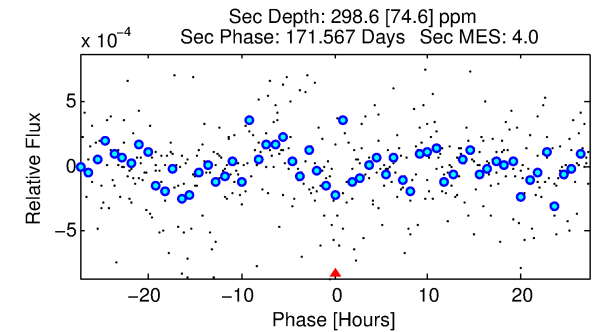
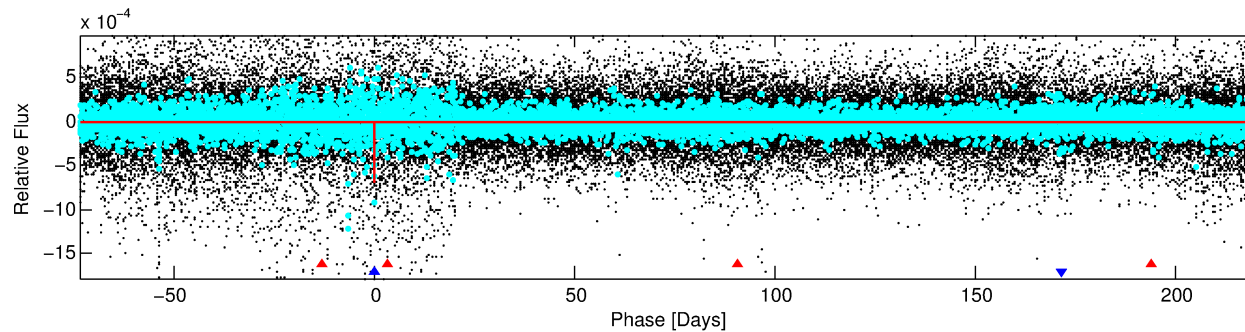
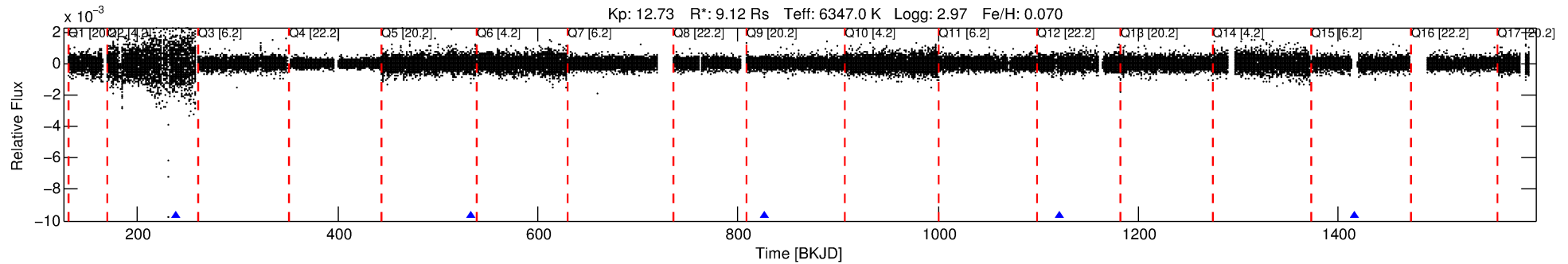
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006387814-02

No Significant Match Found

DV One-Page Summary

KIC: 6387814 Candidate: 2 of 2 Period: 294.542 d



DV Fit Results:

Period = 294.54189 [0.01195] d
Epoch = 238.1295 [0.0166] BKJD
Rp/R* = 0.0265 [0.0163]
a/R* = 334.54 [1074.73]
b = 0.77 [1.74]
Seff = 80.81 [67.84]
Teq = 765 [160] K
Rp = 26.33 [21.99] Re
a = 1.2226 [0.6440] AU
Ag = 354.07 [532.45] [0.66σ]
Teffp = 5128 [1620] K [2.68σ]

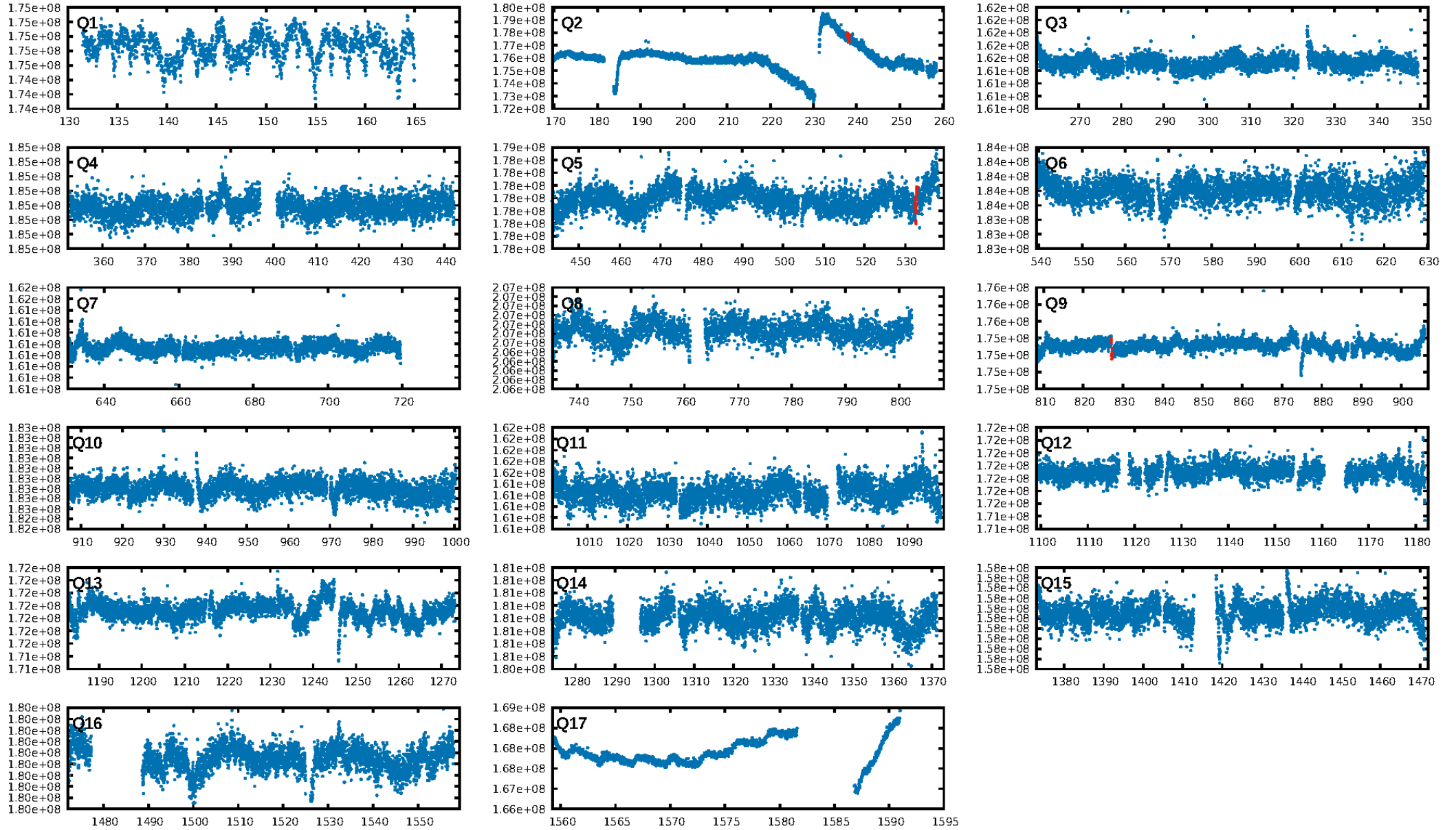
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [202.36σ]
ModelChiSquare2-sig: 24.2%
ModelChiSquareGof-sig: 74.2%
Bootstrap-pfa: 2.22e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.7717
Centroid-sig: 82.8%
Centroid-so: 3.253 arcsec [1.34σ]
OotOffset-rm: 3.819 arcsec [10.97σ]
KicOffset-rm: 2.542 arcsec [17.69σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

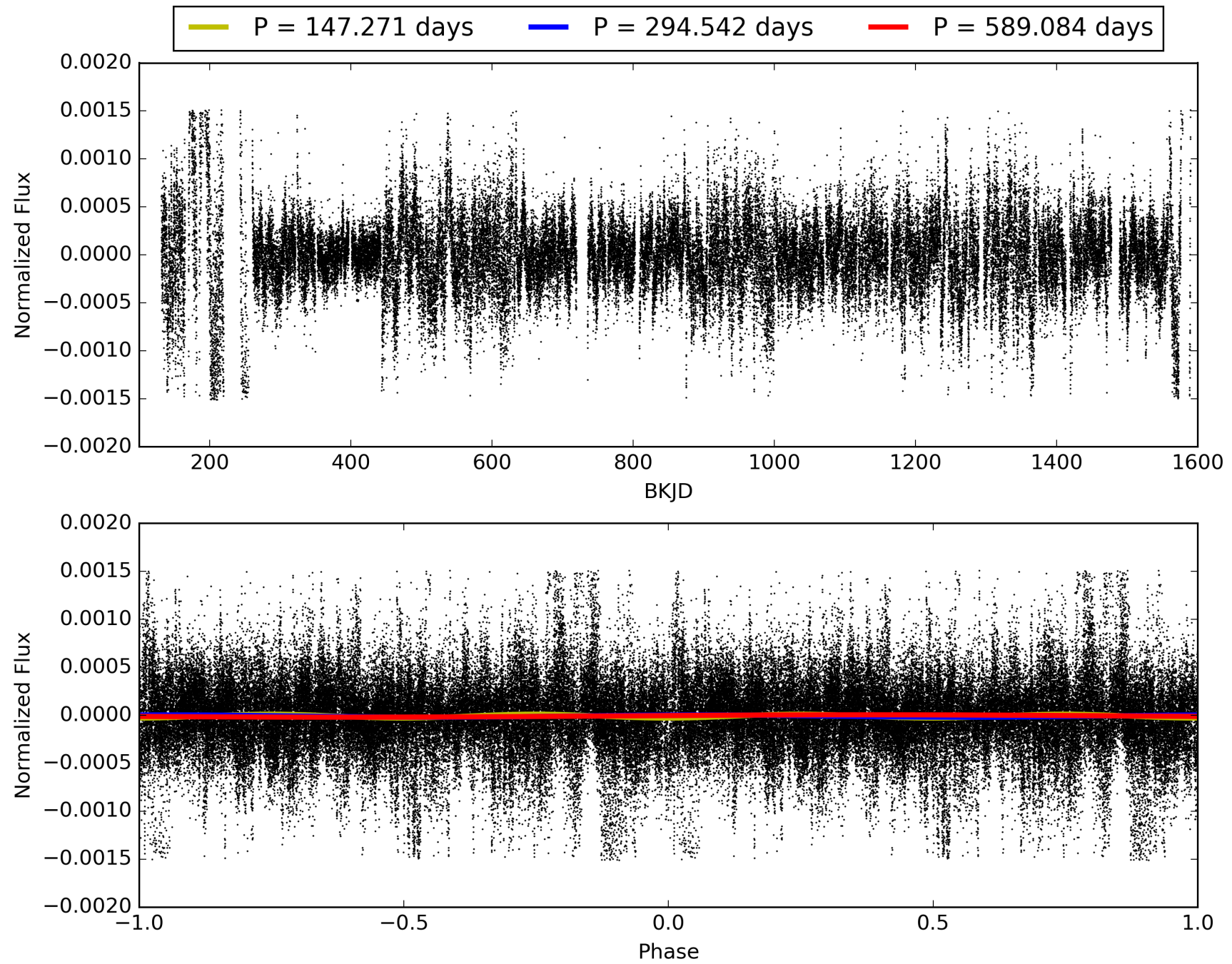
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:44:47 Z

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

TCE 006387814-02, PDC Light Curves

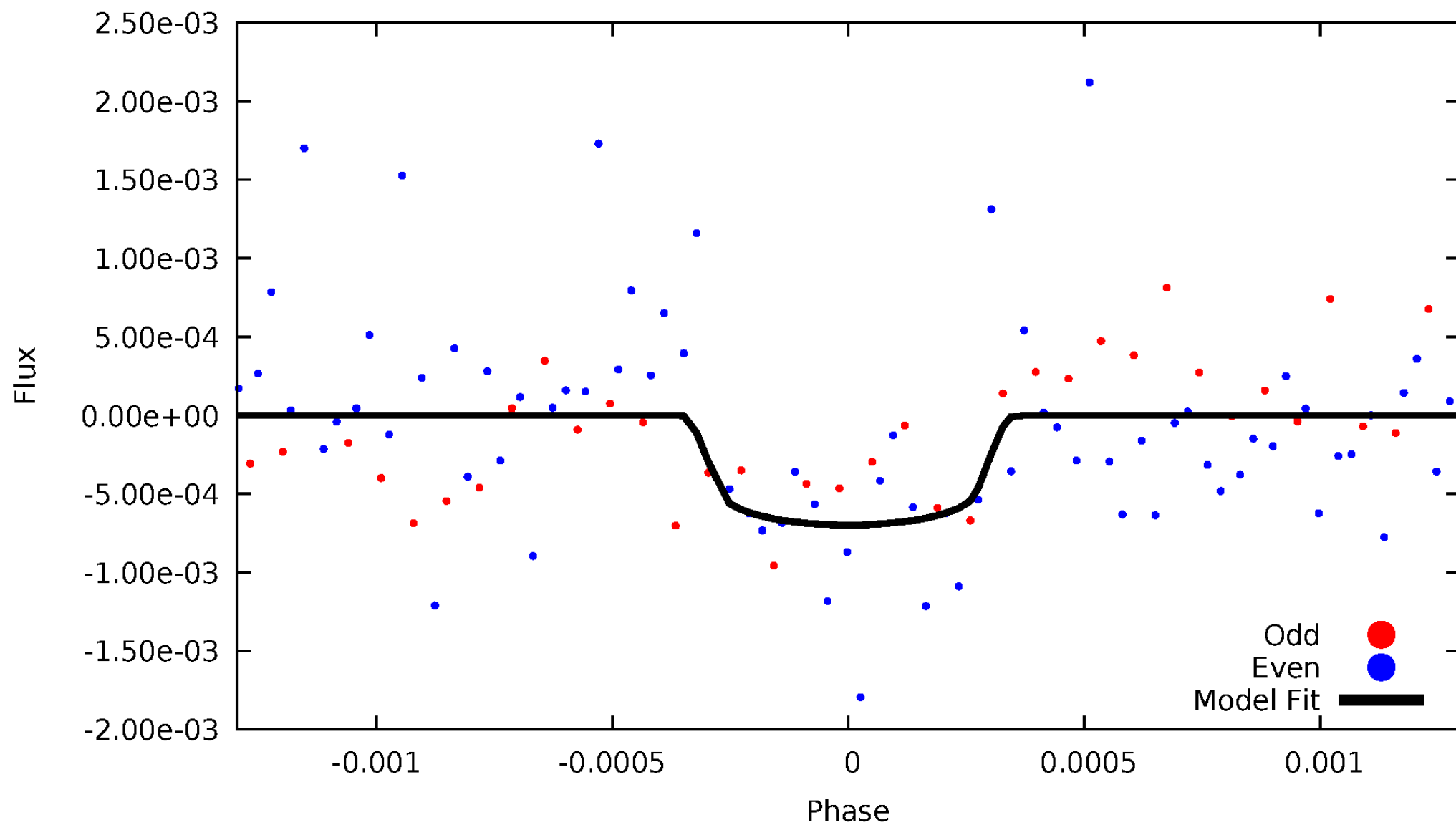


TCE 006387814-02



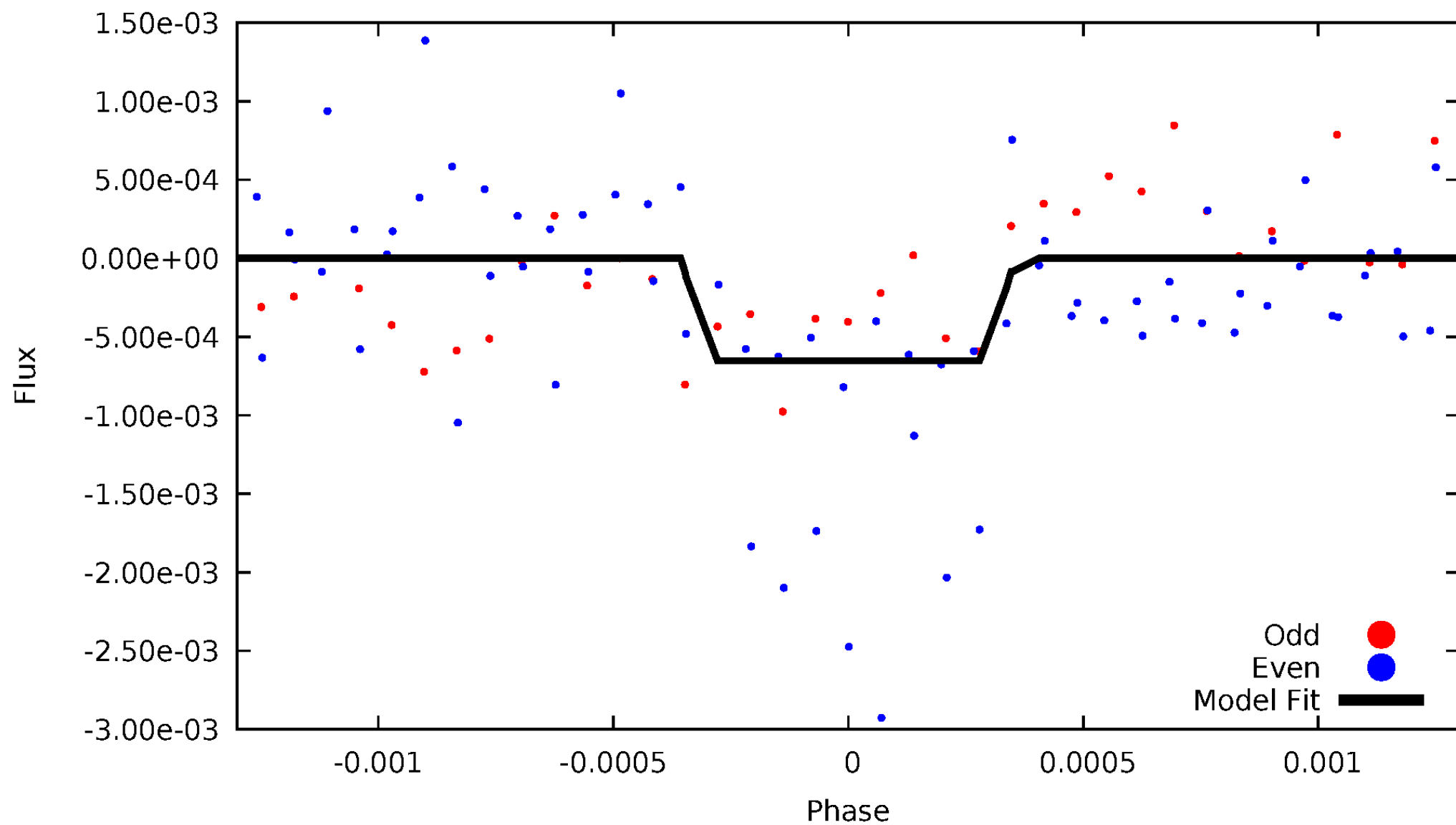
DV Odd/Even

TCE 006387814-02



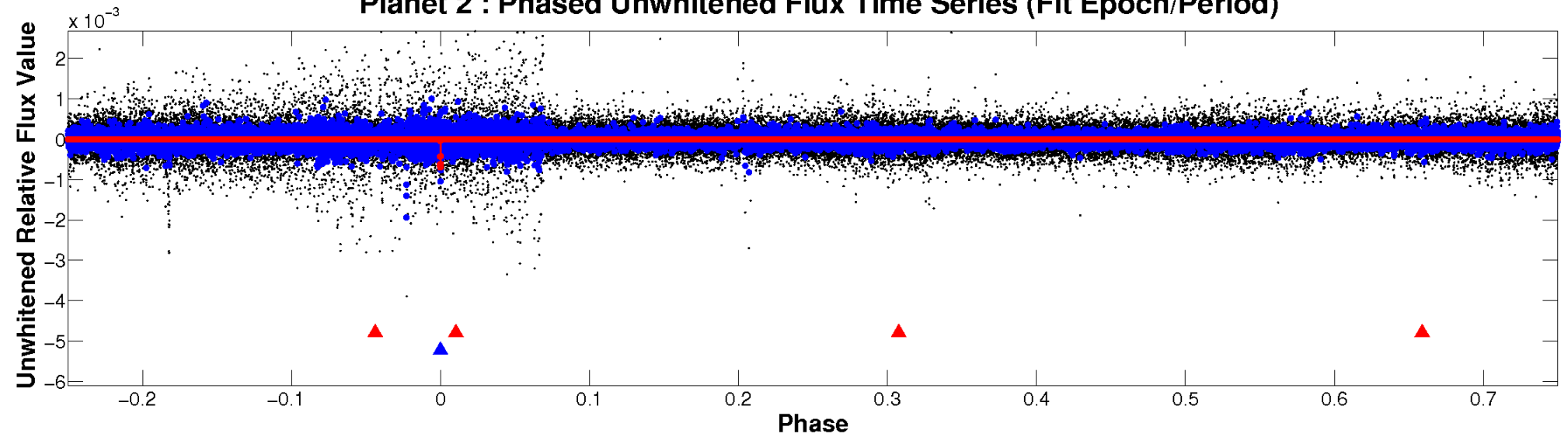
ALT Odd/Even

TCE 006387814-02

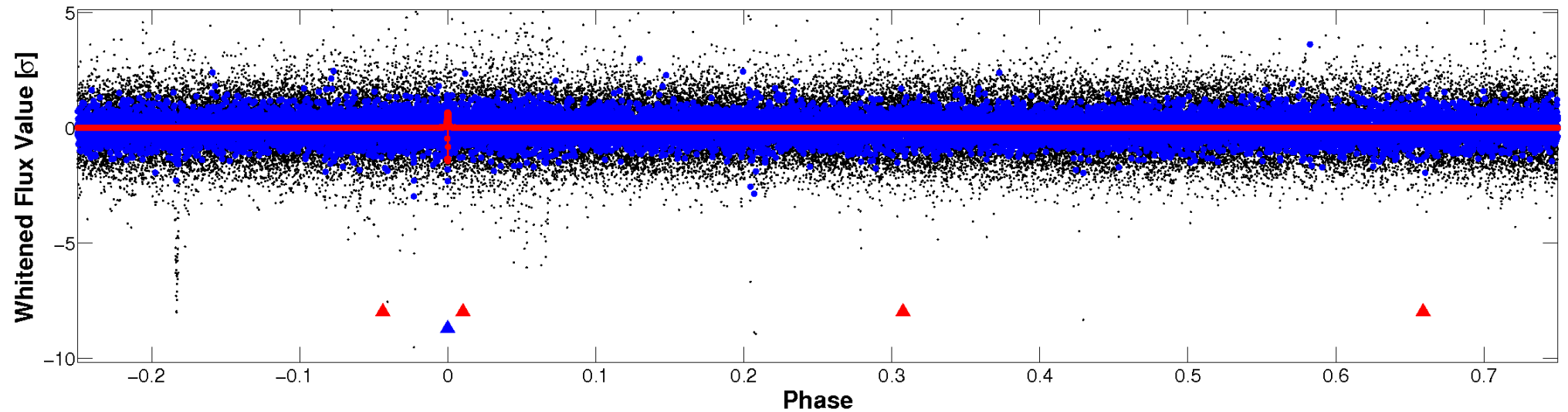


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

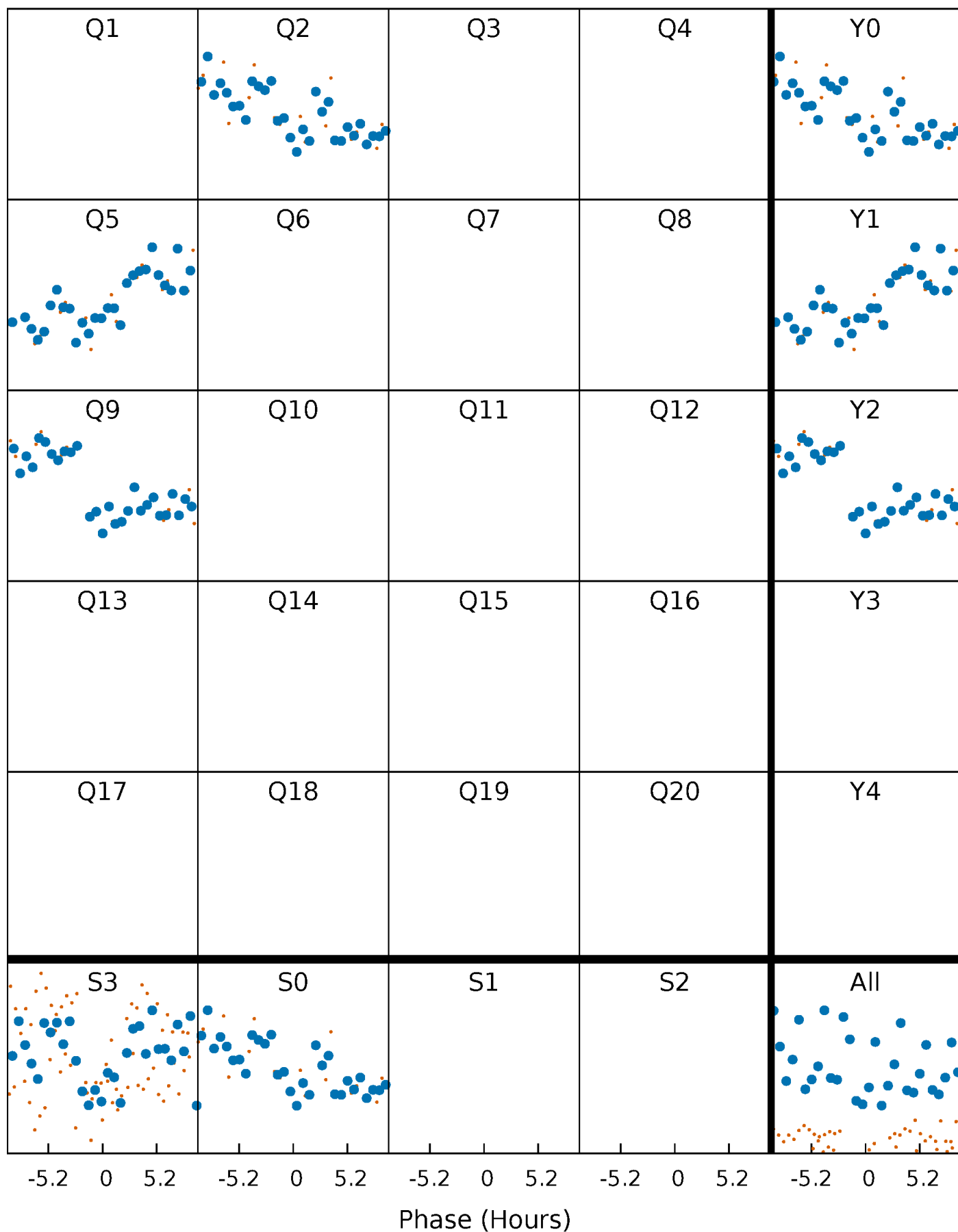


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006387814-02 $P=294.541894$ Days $T_0=238.129487$ (BKJD)



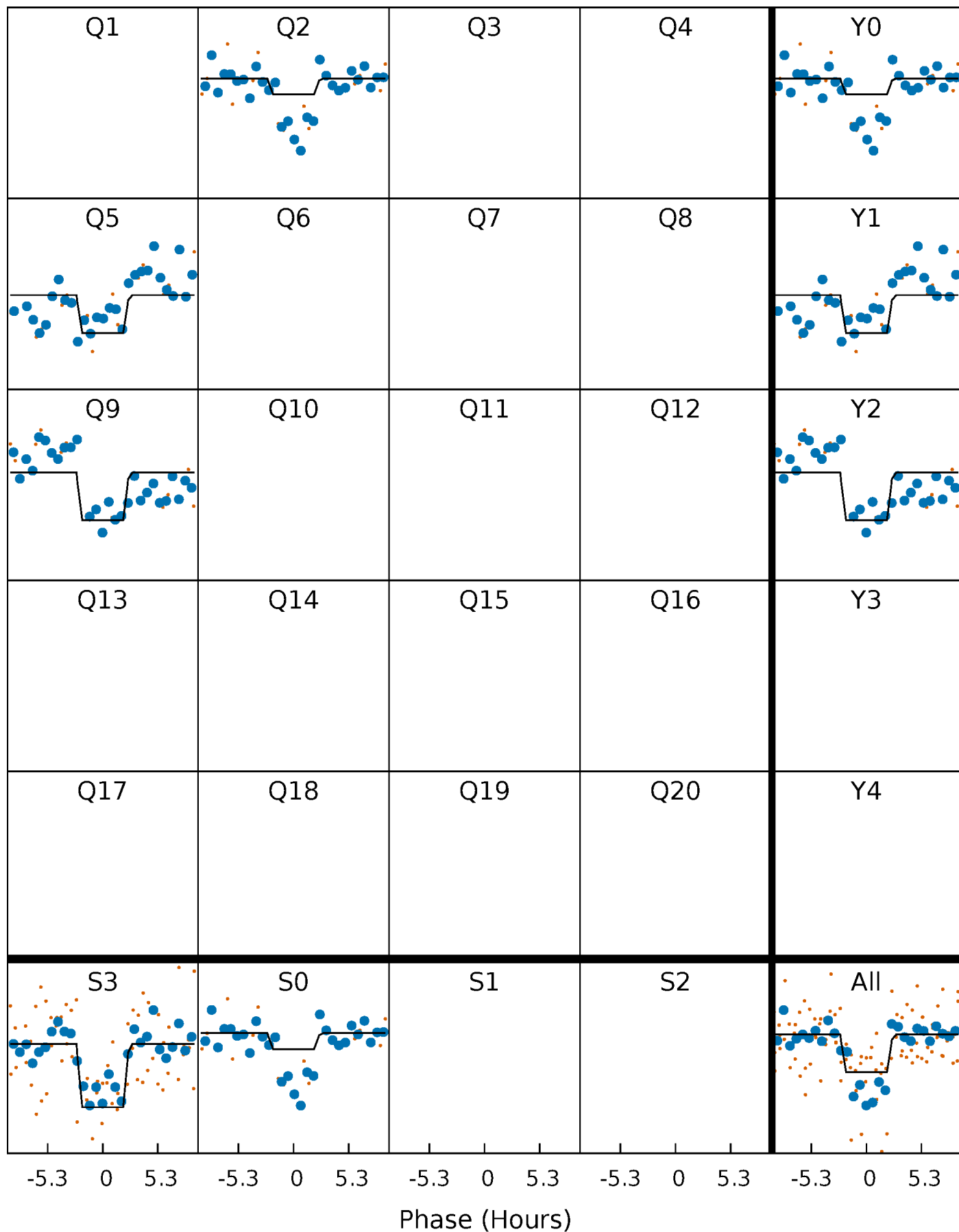
DV Quarter-Phased Transit Curves

TCE 006387814-02 $P=294.541894$ Days $T_0=238.129487$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

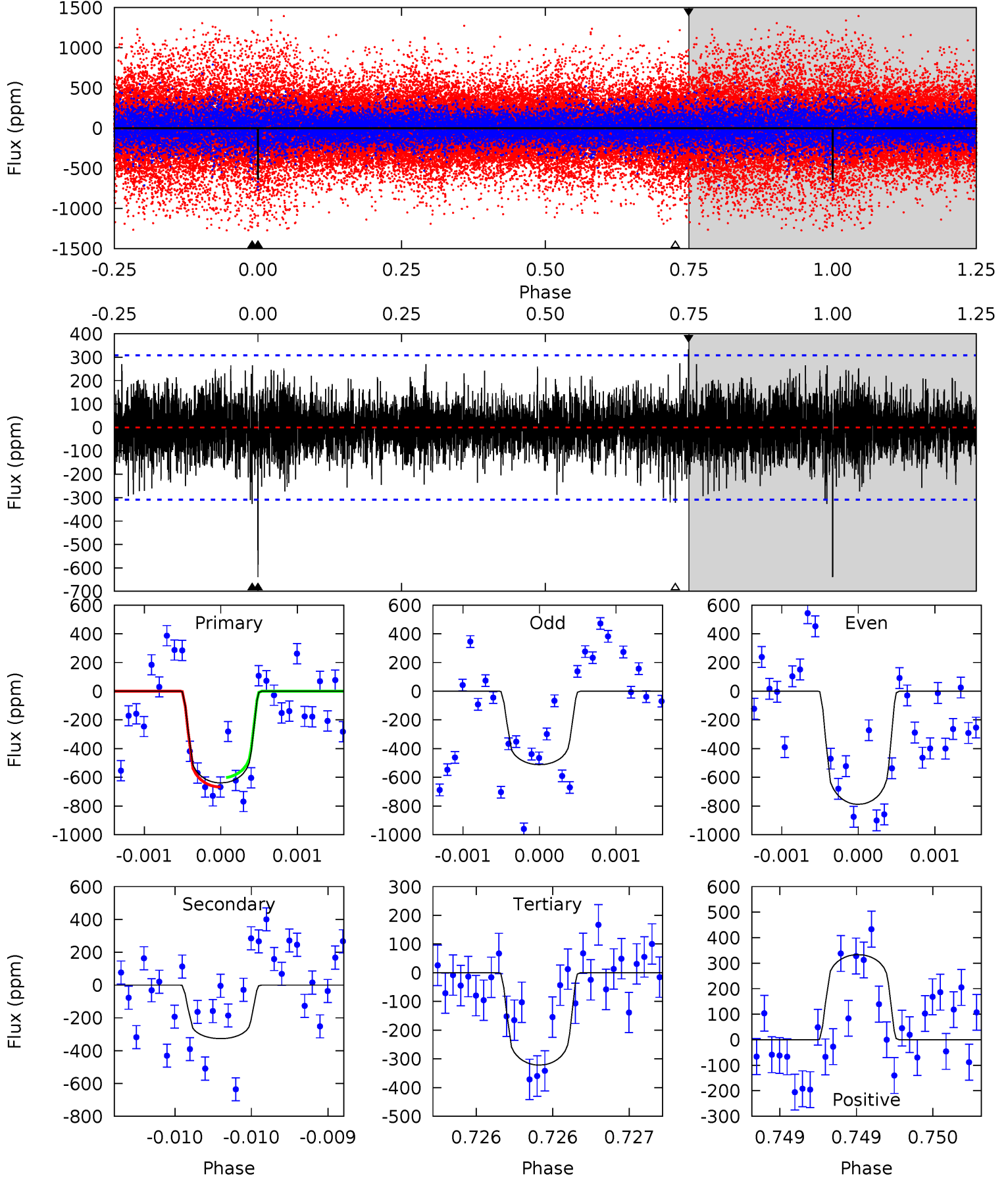
TCE 006387814-02 P=294.549767 Days $T_0=238.116177$ (BKJD)



DV Model-Shift Uniqueness Test

006387814-02, P = 294.541894 Days, E = 238.129487 Days

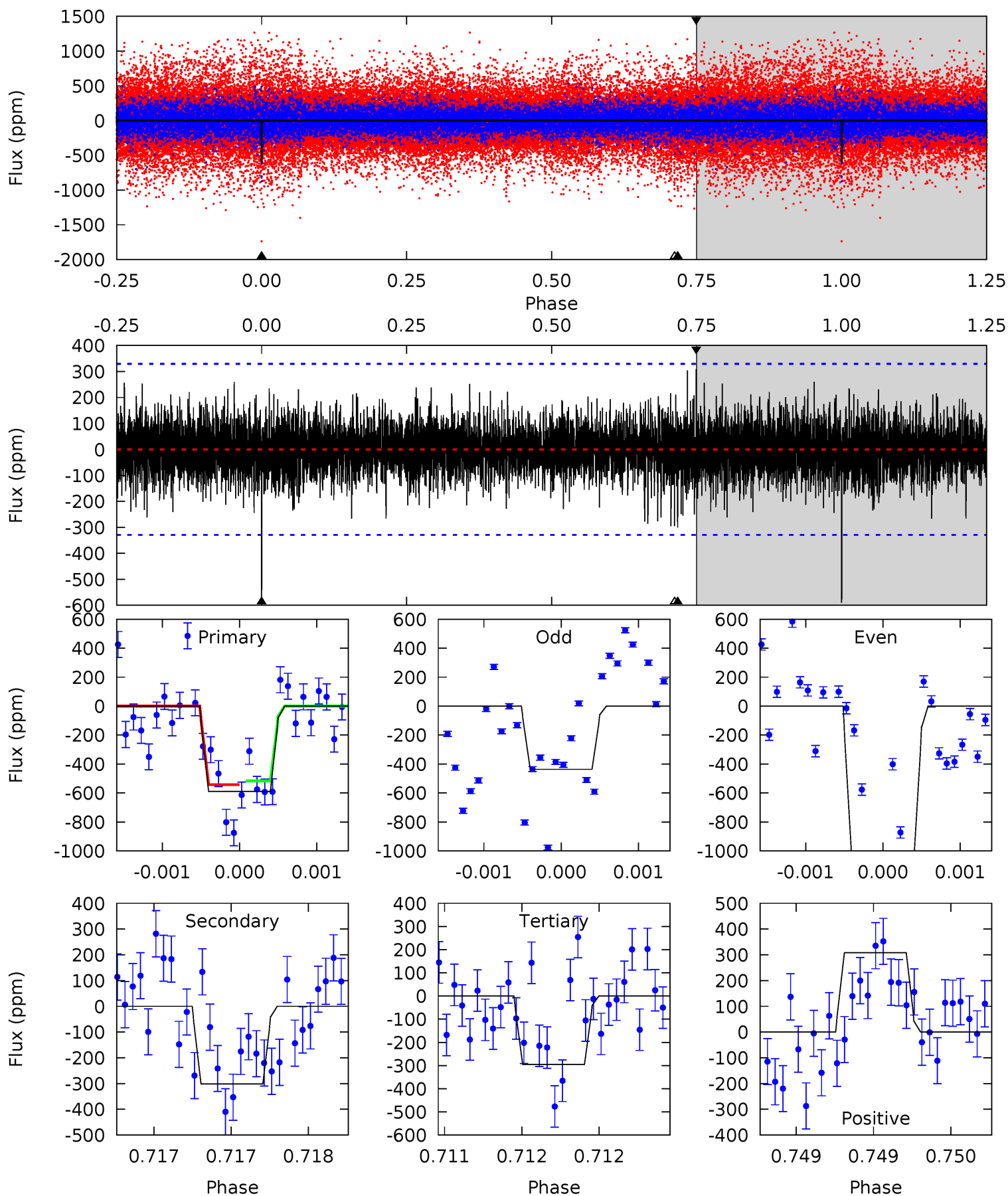
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	5.84	5.75	5.96	5.52	3.39	1.36	5.68	5.47	0.09	-0.12	2.49	1.01	0.34	0.59



Alt Model-Shift Uniqueness Test

006387814-02, P = 294.549767 Days, E = 238.116177 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.89	5.05	4.94	5.17	5.52	3.39	1.17	4.95	4.72	0.11	-0.12	5.74	1.54	0.34	0.21



Stellar Parameters For KIC 006387814

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6347^{+150}_{-225}	$2.967^{+0.480}_{-0.120}$	$0.070^{+0.200}_{-0.500}$	$9.115^{+2.059}_{-5.147}$	$2.811^{+0.269}_{-1.075}$	$0.005^{+0.031}_{-0.002}$
	+2%/-4%	+16%/-4%	+286%/-714%	+23%/-56%	+10%/-38%	+585%/-40%
Source	PHO1	FLK73	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 006387814-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-327 ± 56	$24.07^{+16.64}_{-13.23}$	1032^{+84}_{-135}	5115^{+2432}_{-868}	438^{+1619}_{-283}
Alt.	-301 ± 60	$23.10^{+16.15}_{-12.93}$	1032^{+80}_{-131}	5119^{+2350}_{-883}	451^{+1845}_{-294}

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

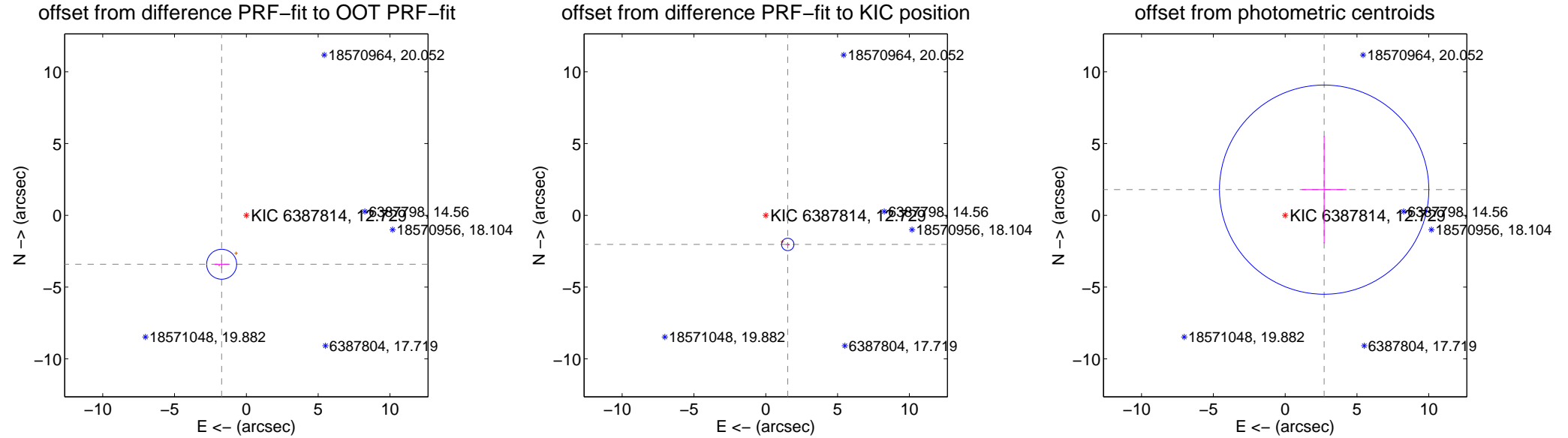
DV Centroid Data

Supplemental centroid analysis for 006387814-02. Kepler magnitude: 12.73. Transit SNR 7.75

There are 0 quarters with good PRF difference image offsets

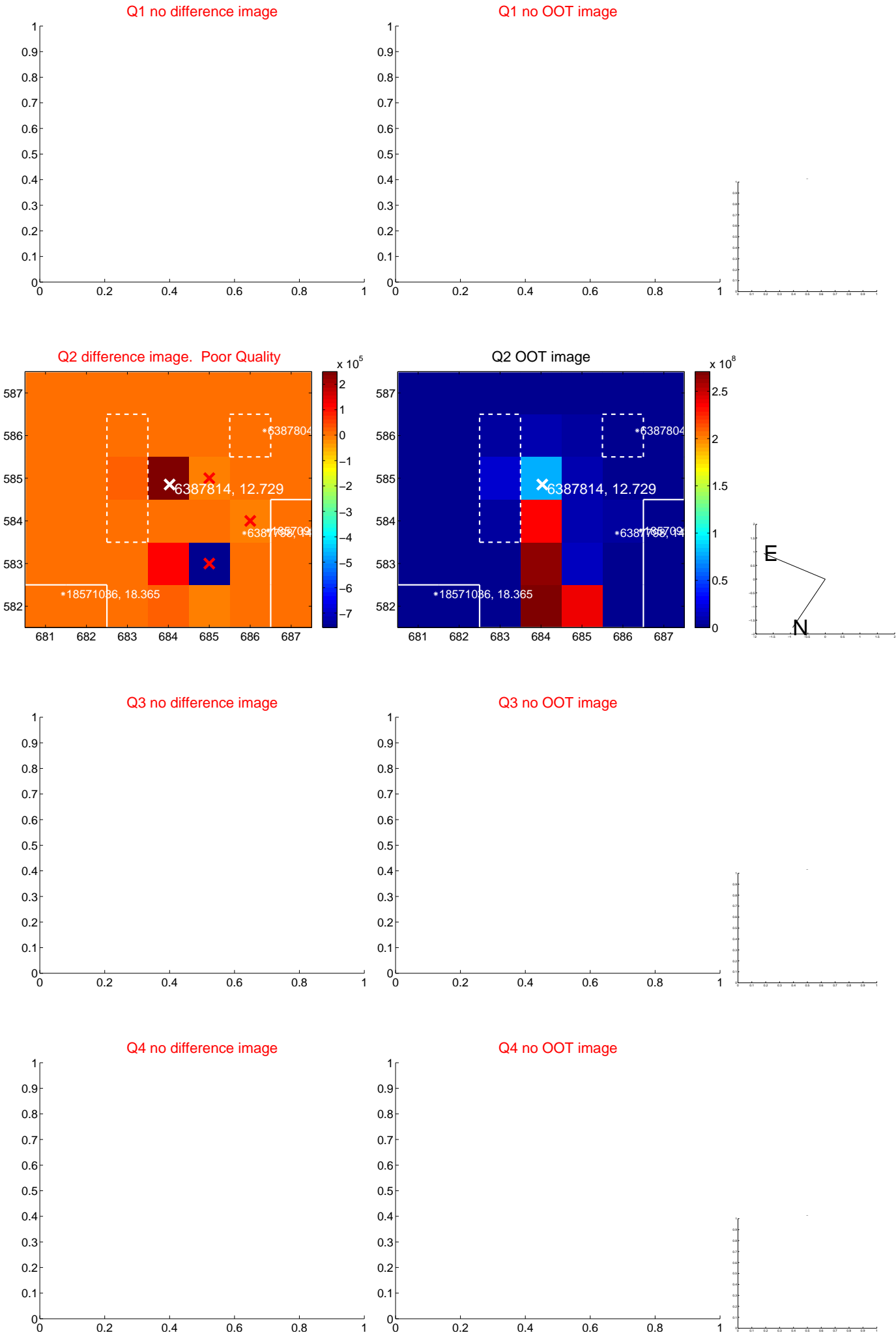
The OOT PRF centroid is offset from the target star catalog position by about 2.04 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.819 ± 0.348	10.97	1.720 ± 0.492	-3.410 ± 0.300
PRF-fit source offset from KIC position	2.542 ± 0.144	17.69	-1.533 ± 0.144	-2.028 ± 0.092
photometric centroid source offset	3.25 ± 2.43	1.34	-2.72 ± 1.55	1.79 ± 3.74

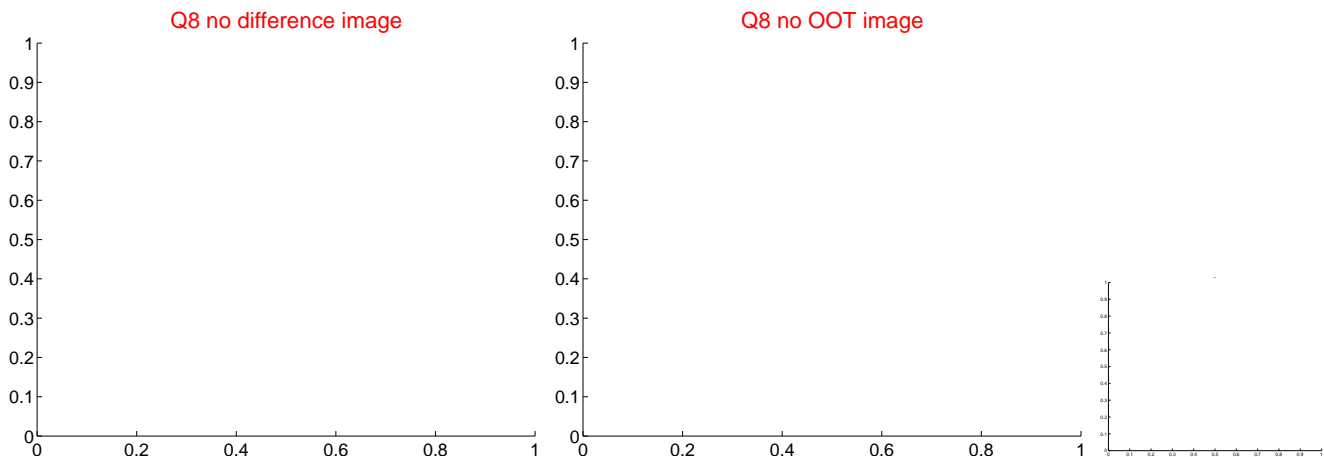
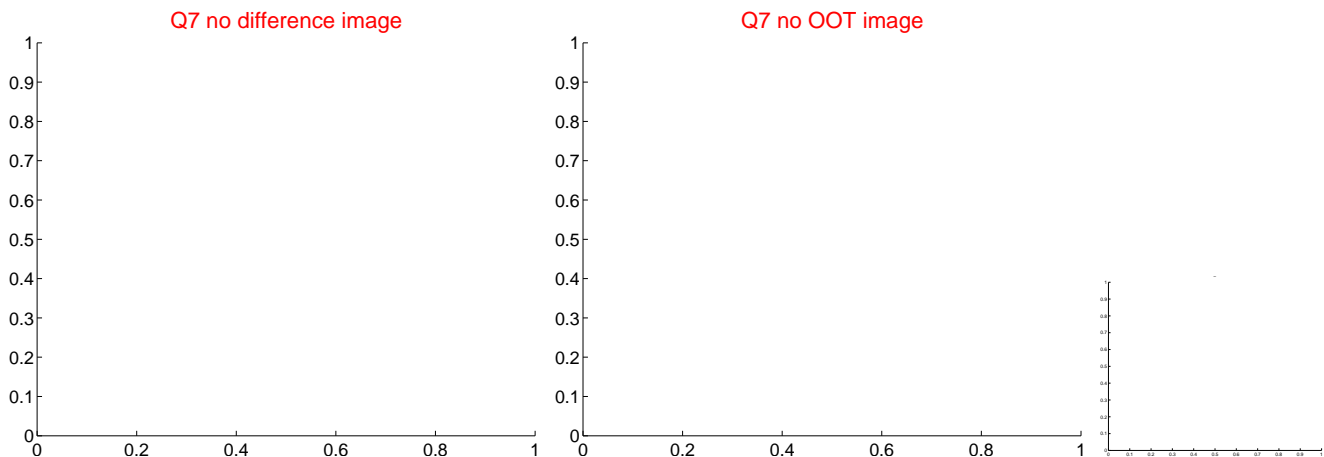
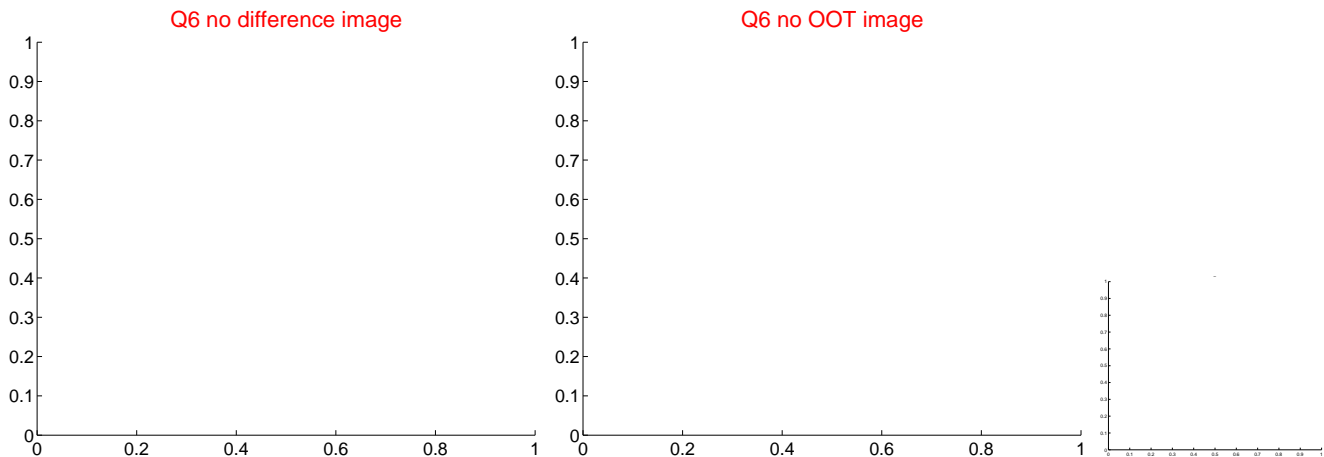
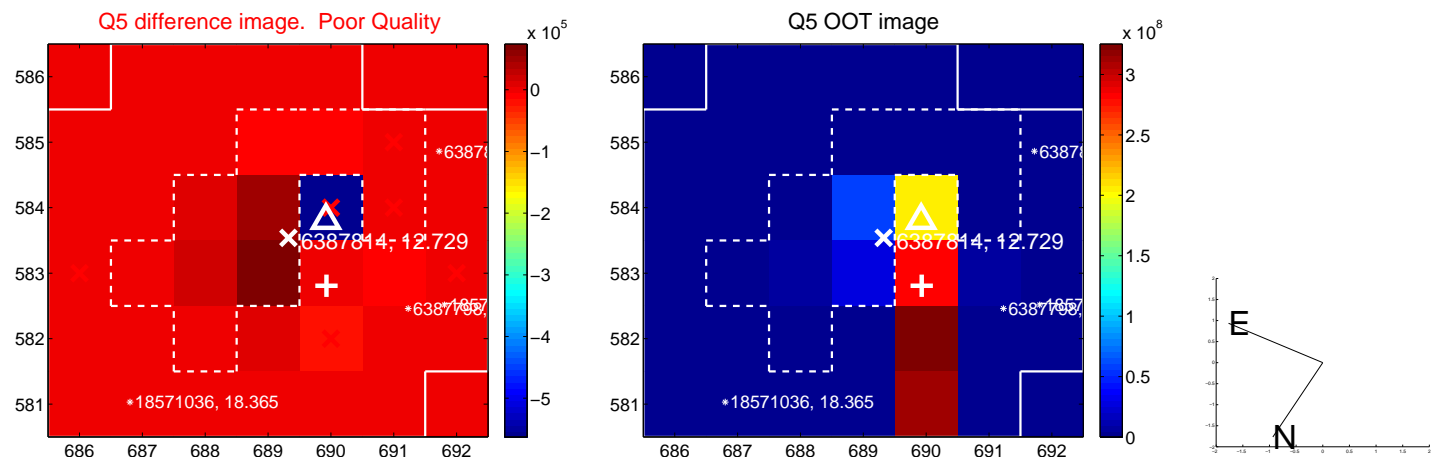


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

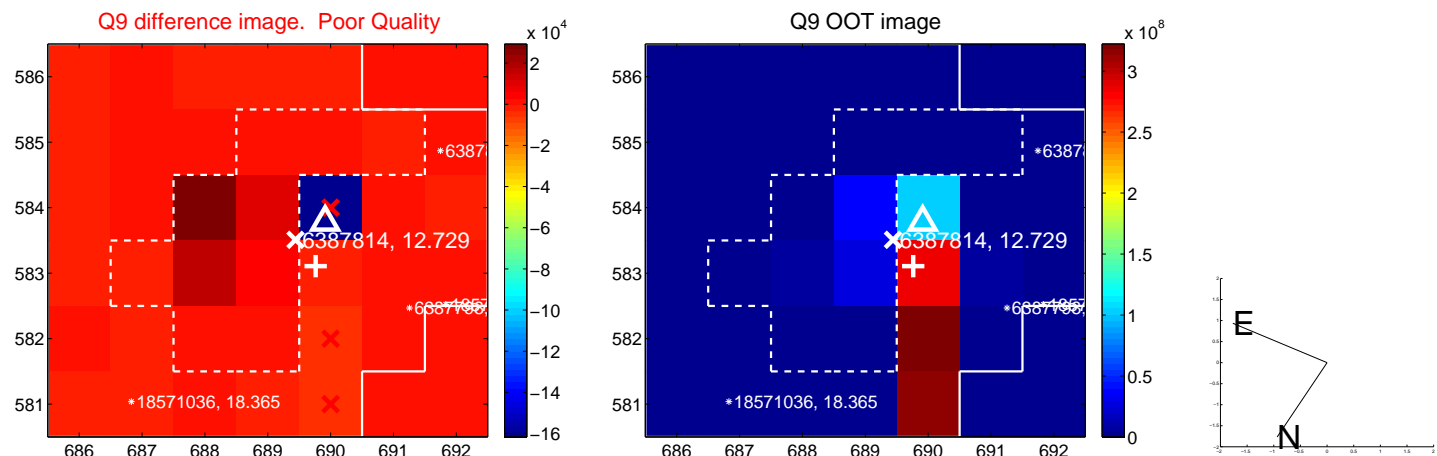
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



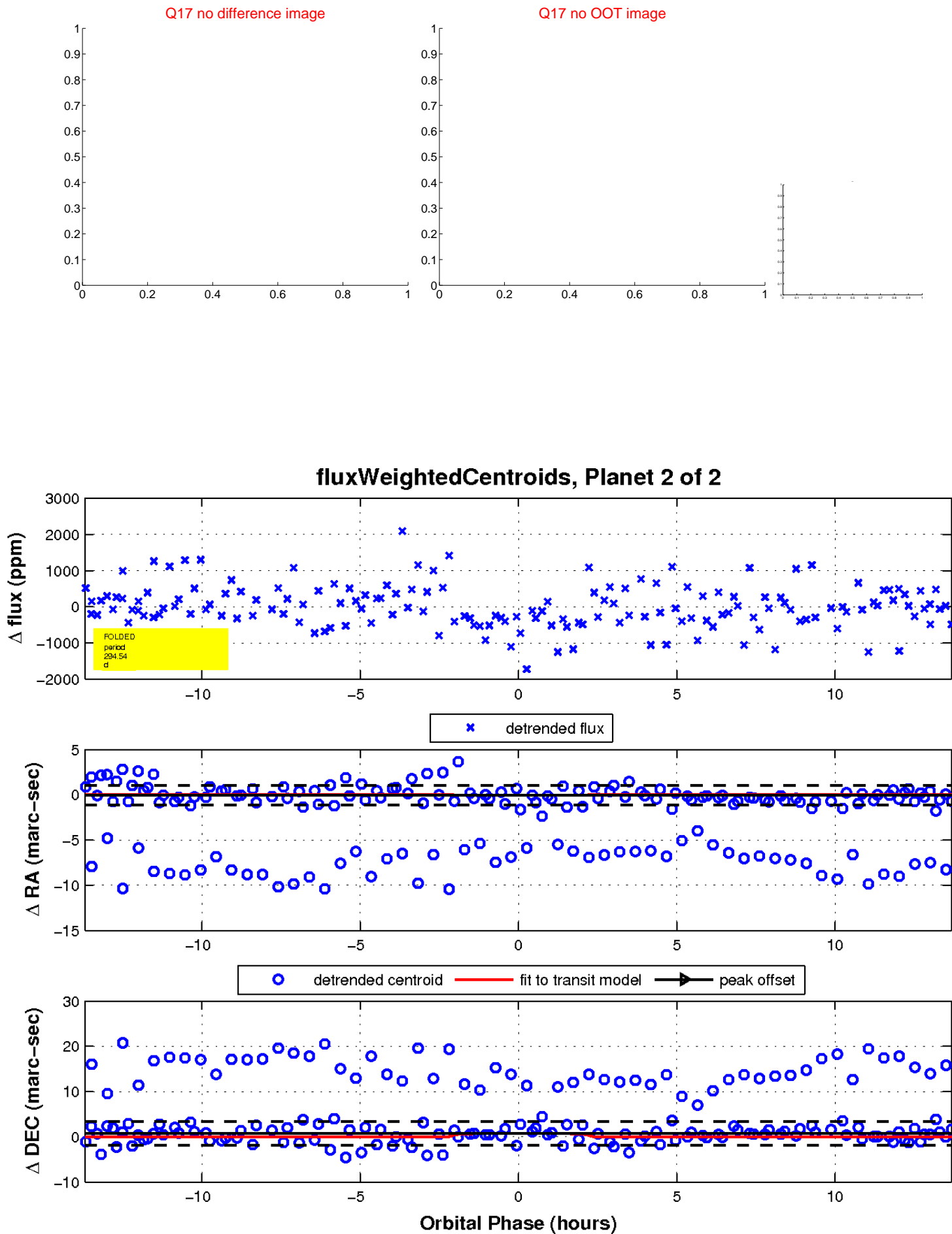
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

