

KIC 006062874

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})
006062874-01	OBS	No	494.033891	472.018804	254.1	16.759	7.7	7.5	0.77	5834	1.32	0.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006062874-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

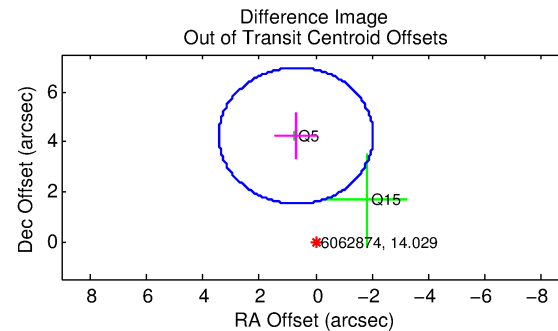
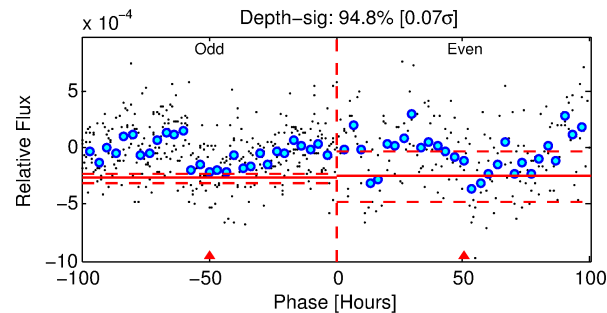
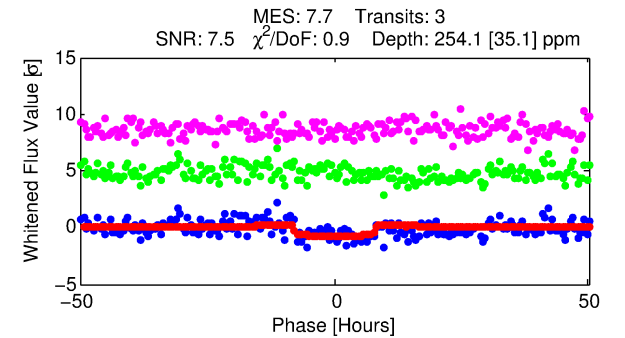
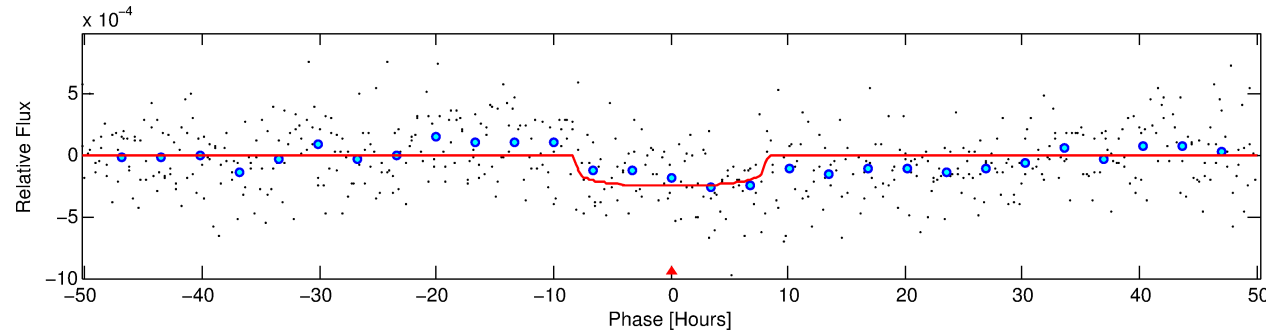
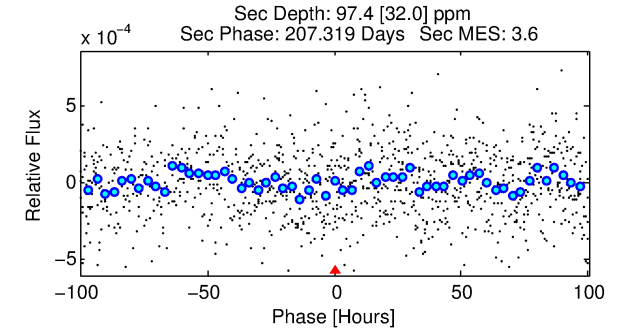
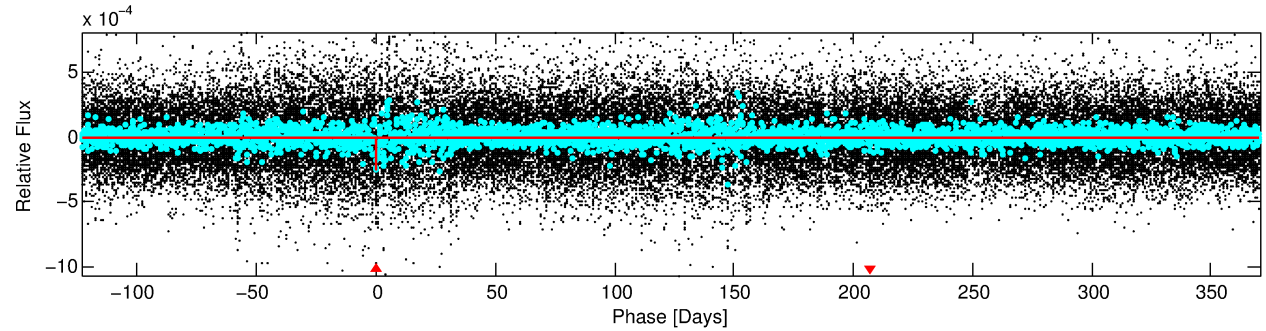
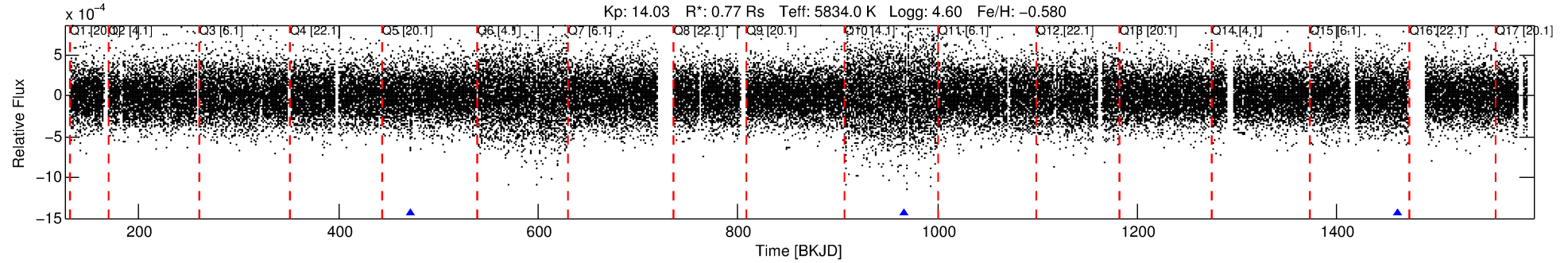
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006062874-01

No Significant Match Found

DV One-Page Summary

KIC: 6062874 Candidate: 1 of 1 Period: 494.034 d



DV Fit Results:

Period = 494.03389 [0.01600] d
Epoch = 472.0188 [0.0222] BKJD
Rp/R* = 0.0158 [0.0054]
a/R* = 157.49 [260.15]
b = 0.74 [1.03]
Seff = 0.45 [0.13]
Teff = 209 [15] K
Rp = 1.32 [0.53] Re
a = 1.1571 [0.2091] AU
Ag = 41221.84 [33117.51] [1.24σ]
Teffp = 4613 [885] K [4.98σ]

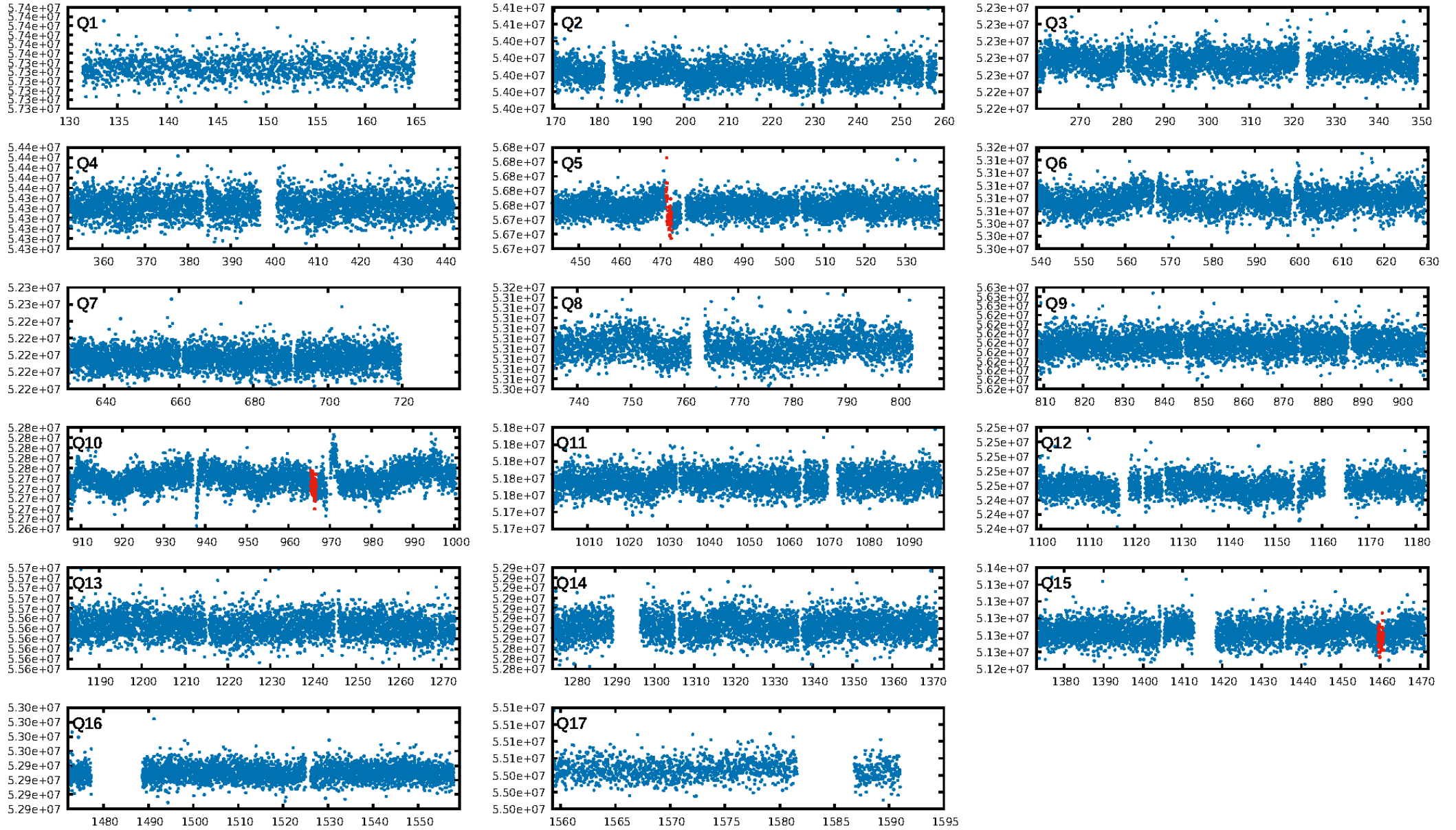
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 10.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.61e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.456
Centroid-sig: 47.5%
Centroid-so: 0.863 arcsec [0.68σ]
OotOffset-rm: 4.294 arcsec [4.72σ]
KicOffset-rm: 4.365 arcsec [4.81σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

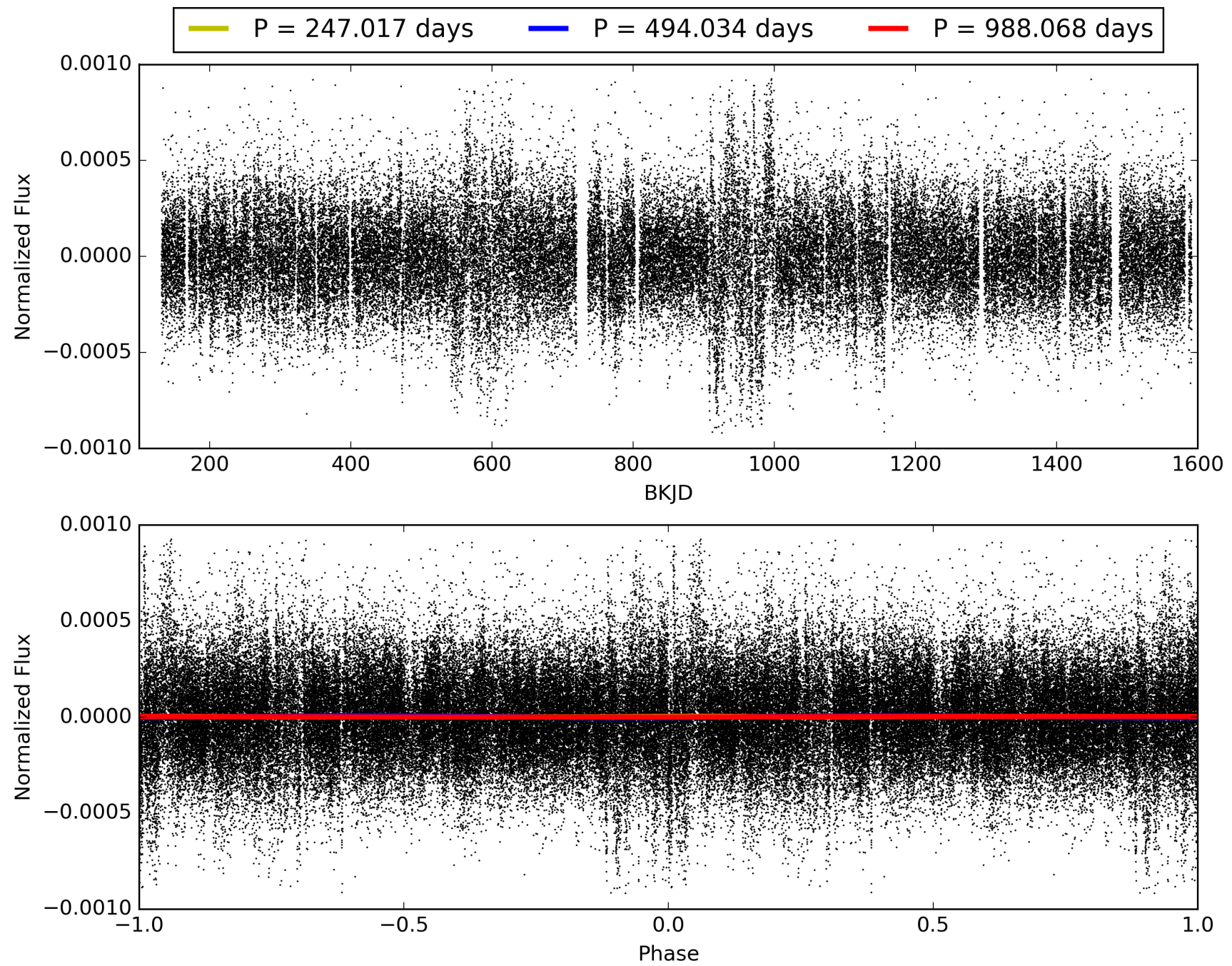
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:26:42 Z

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

TCE 006062874-01, PDC Light Curves

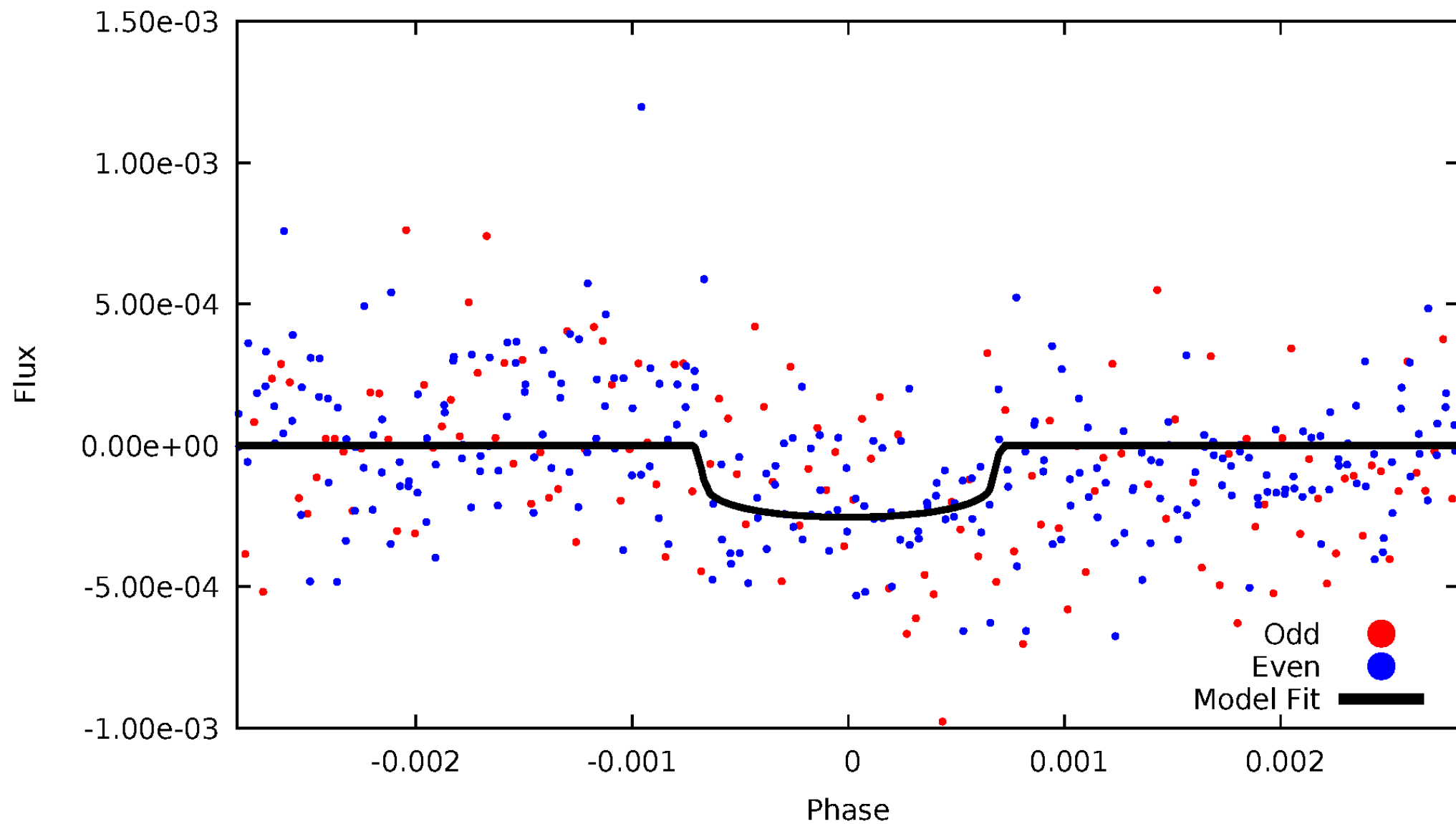


TCE 006062874-01



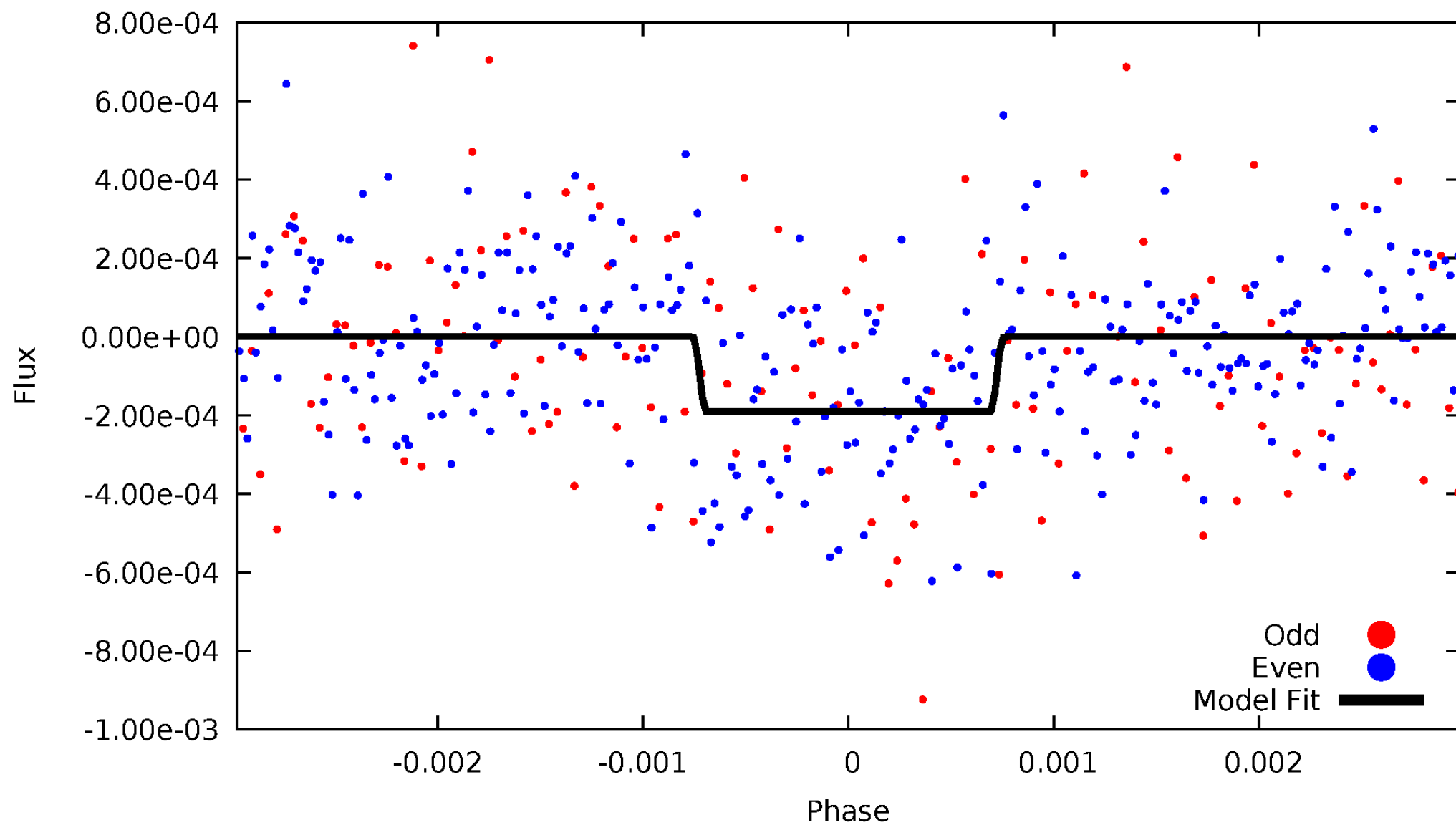
DV Odd/Even

TCE 006062874-01



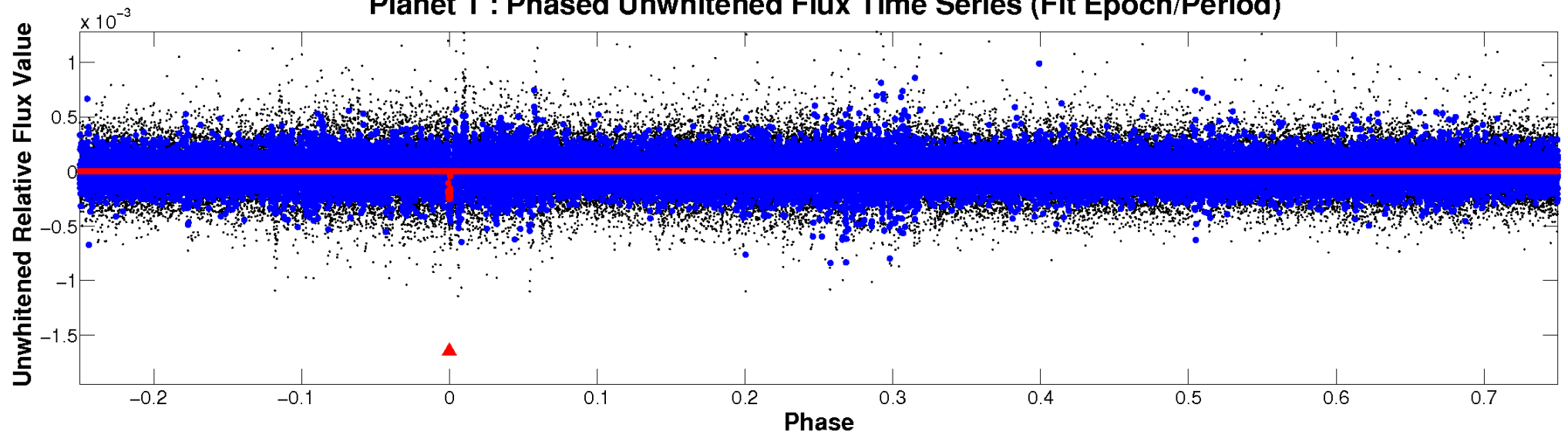
ALT Odd/Even

TCE 006062874-01

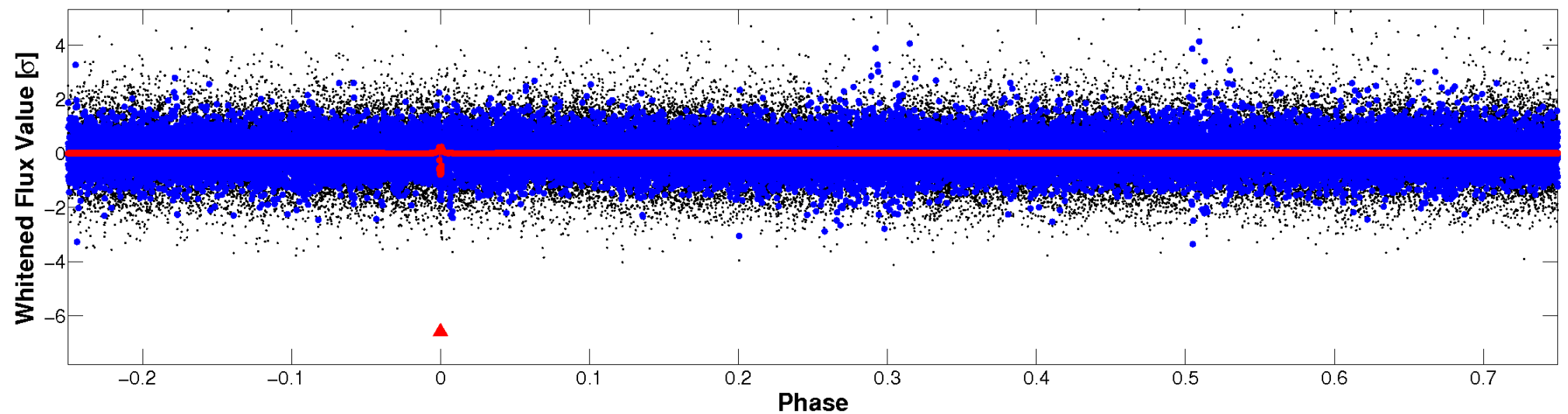


Non-Whitened Vs. Whitened Light Curve

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



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



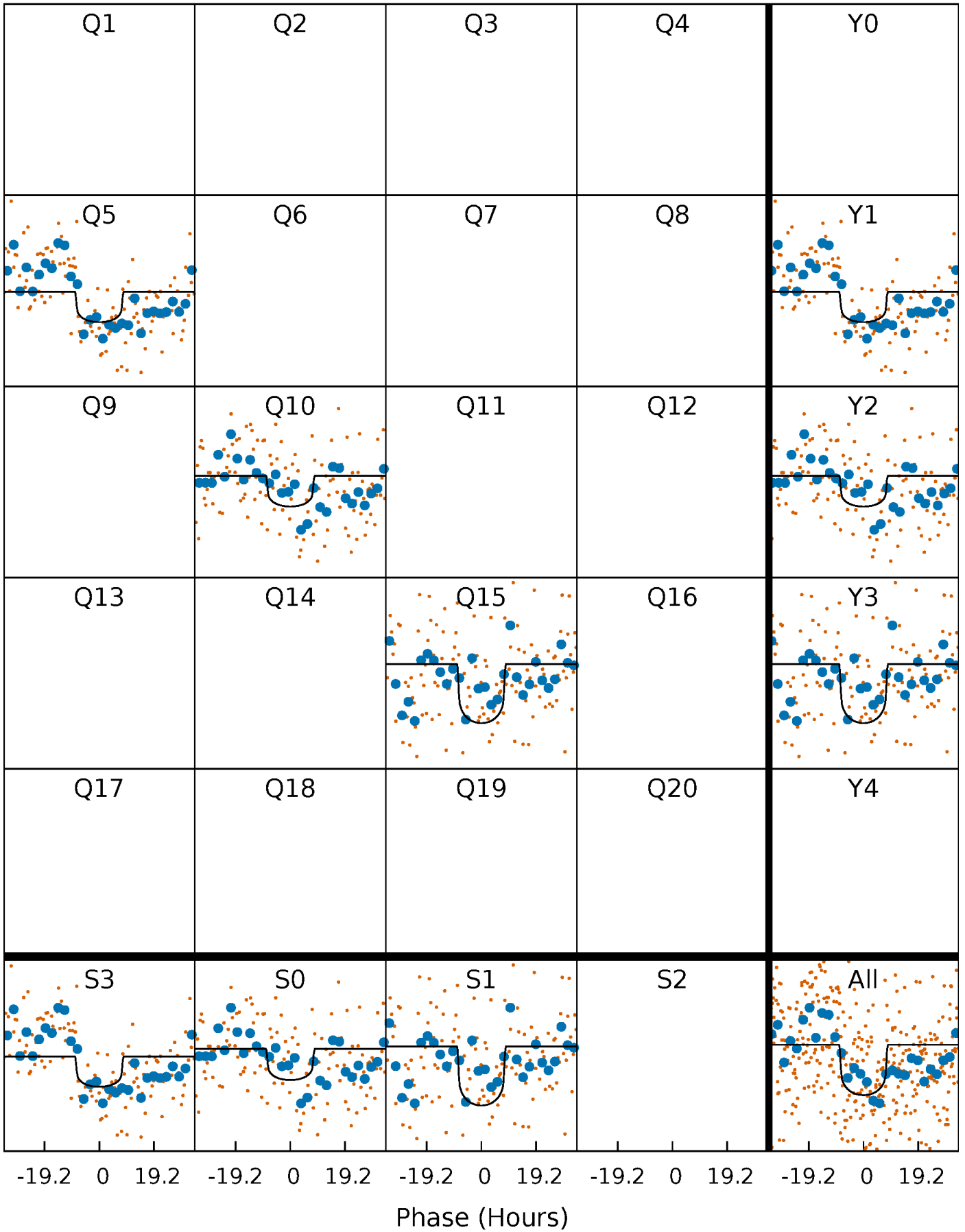
PDC Quarter-Phased Transit Curves

TCE 006062874-01 $P=494.033891$ Days $T_0=472.018804$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006062874-01 P=494.033891 Days $T_0=472.018804$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

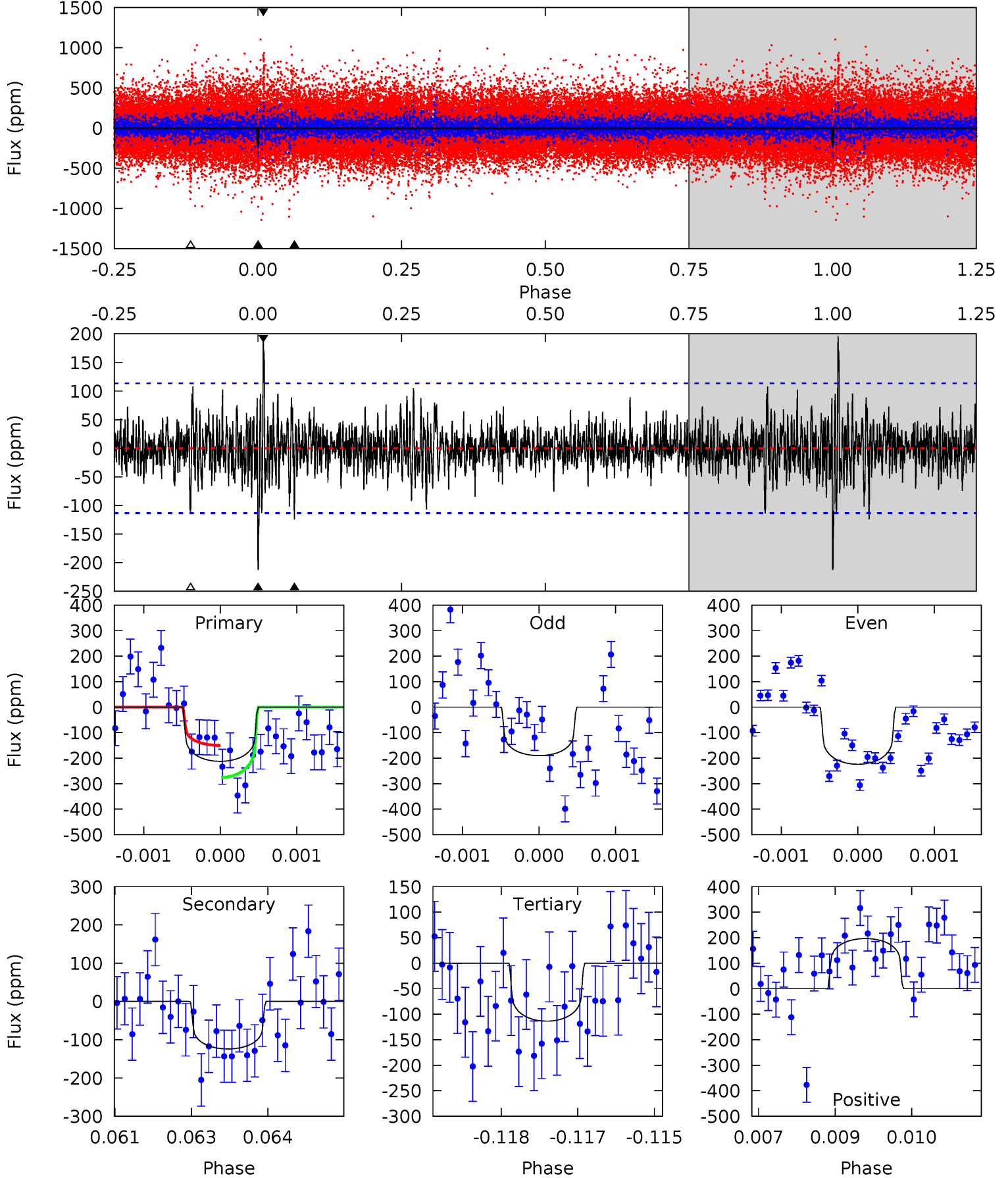
TCE 006062874-01 P=494.008558 Days $T_0=472.080657$ (BKJD)



DV Model-Shift Uniqueness Test

006062874-01, P = 494.033891 Days, E = 472.018804 Days

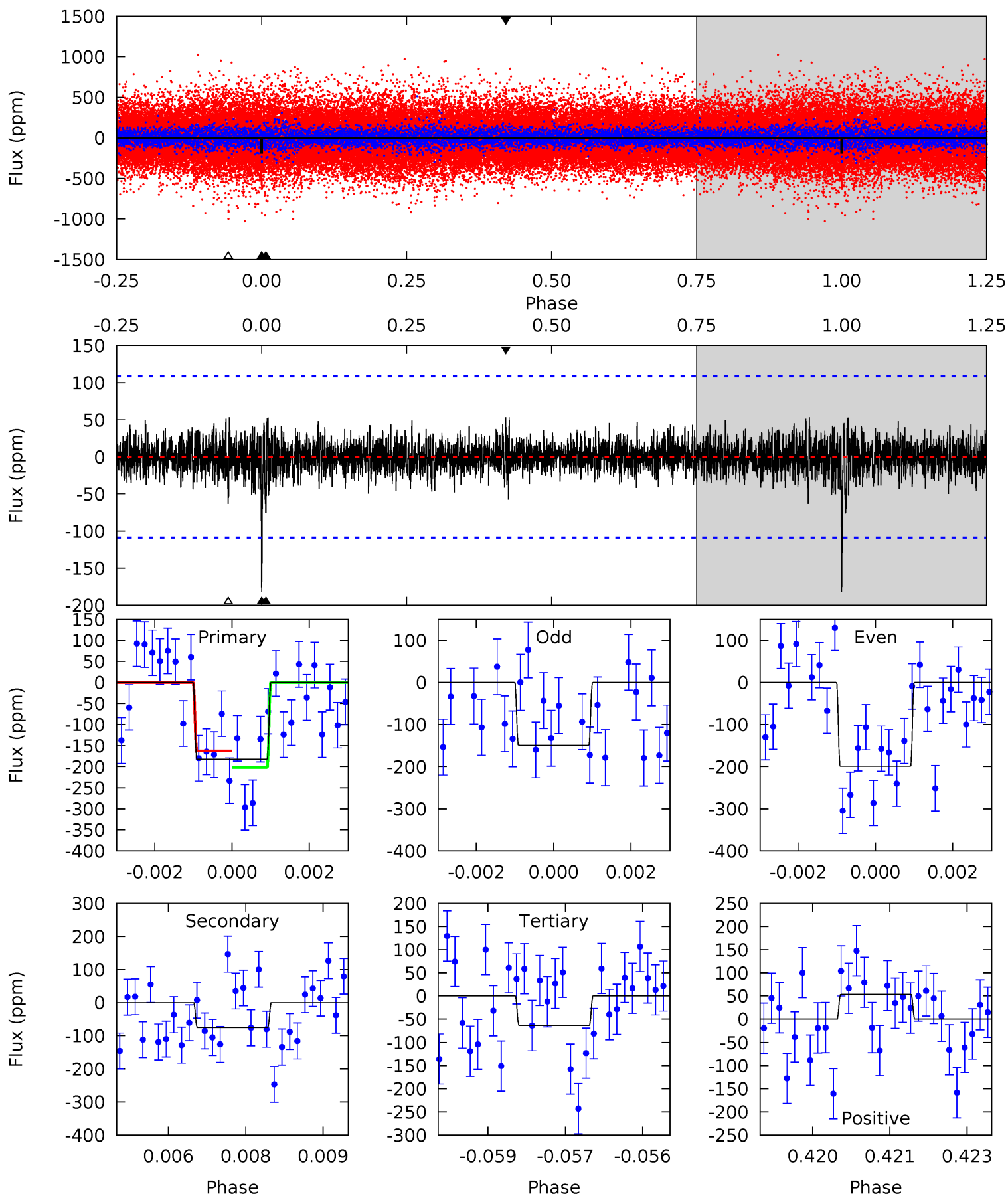
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	5.89	5.40	9.34	5.38	3.18	1.43	4.70	0.76	0.49	-3.45	0.75	1.12	0.48	2.99



Alt Model-Shift Uniqueness Test

006062874-01, P = 494.008558 Days, E = 472.080657 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.03	3.71	3.13	2.64	5.38	3.17	0.76	5.90	6.39	0.58	1.08	1.15	1.23	0.23	0.98



Stellar Parameters For KIC 006062874

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5834^{+157}_{-157}	$4.597^{+0.038}_{-0.143}$	$-0.580^{+0.300}_{-0.300}$	$0.766^{+0.165}_{-0.055}$	$0.851^{+0.077}_{-0.094}$	$2.661^{+0.399}_{-1.088}$
	+3%/-3%	+1%/-3%	+52%/-52%	+22%/-7%	+9%/-11%	+15%/-41%
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 006062874-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-124 ± 21	$1.36^{+0.48}_{-0.50}$	297^{+15}_{-12}	5010^{+1026}_{-611}	49288^{+66511}_{-23154}
Alt.	-75 ± 20	$1.17^{+0.48}_{-0.44}$	296^{+17}_{-11}	4724^{+1199}_{-593}	37501^{+64776}_{-19676}

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

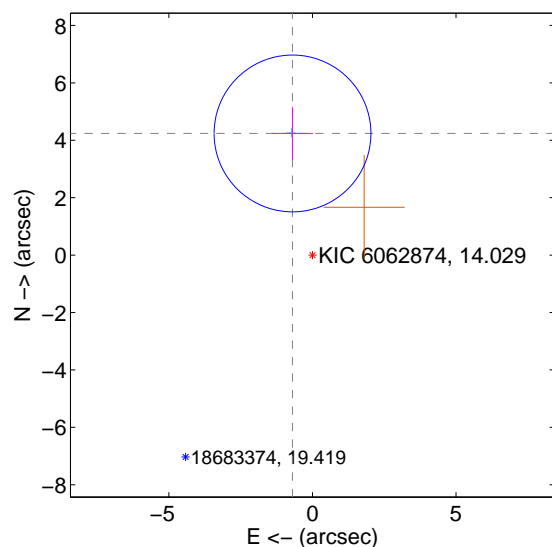
Supplemental centroid analysis for 006062874-01. Kepler magnitude: 14.03. Transit SNR 7.48

There are 1 quarters with good PRF difference image offsets

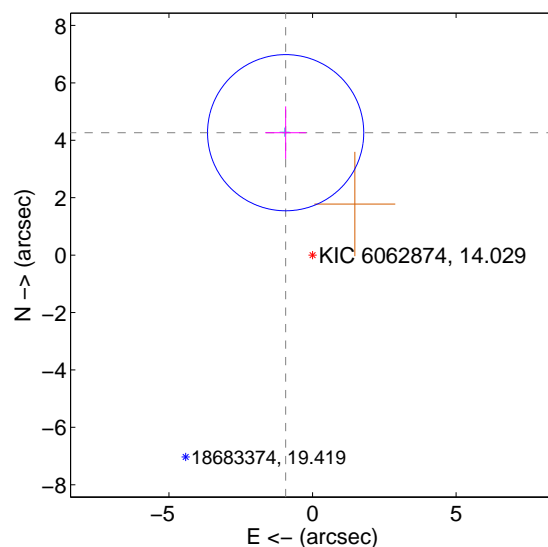
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.294 ± 0.910	4.72	0.695 ± 0.713	4.238 ± 0.915
PRF-fit source offset from KIC position	4.365 ± 0.907	4.81	0.936 ± 0.713	4.264 ± 0.915
photometric centroid source offset	0.86 ± 1.27	0.68	-0.73 ± 1.26	0.46 ± 1.30

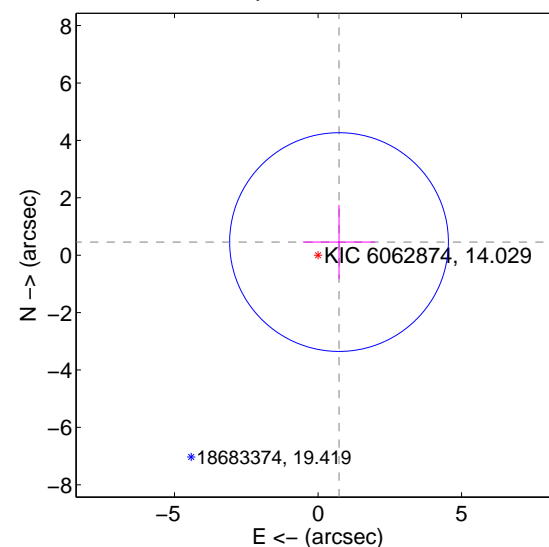
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

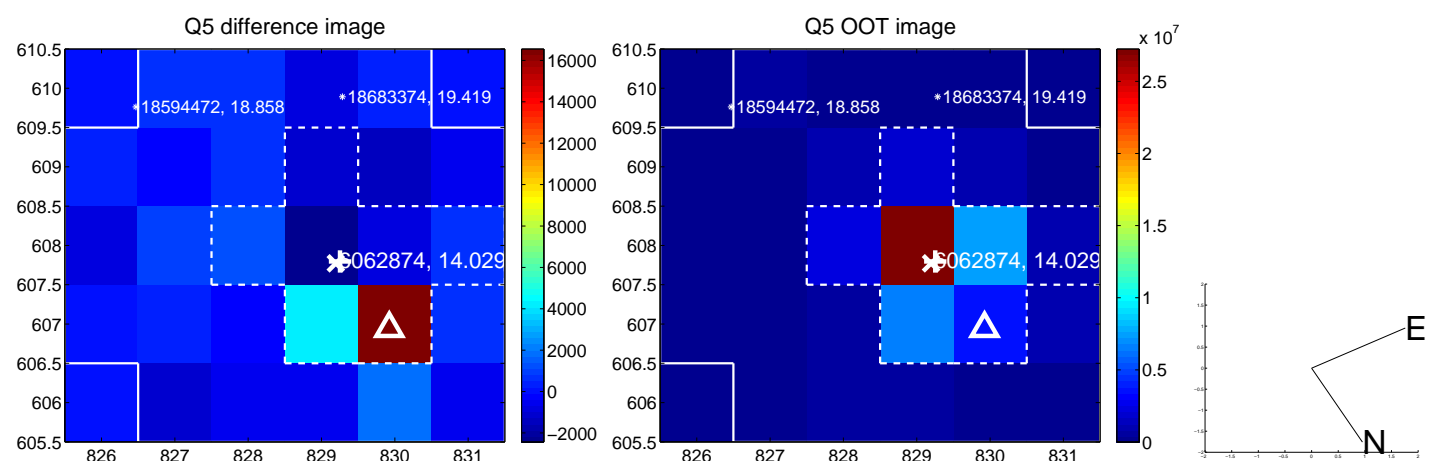


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



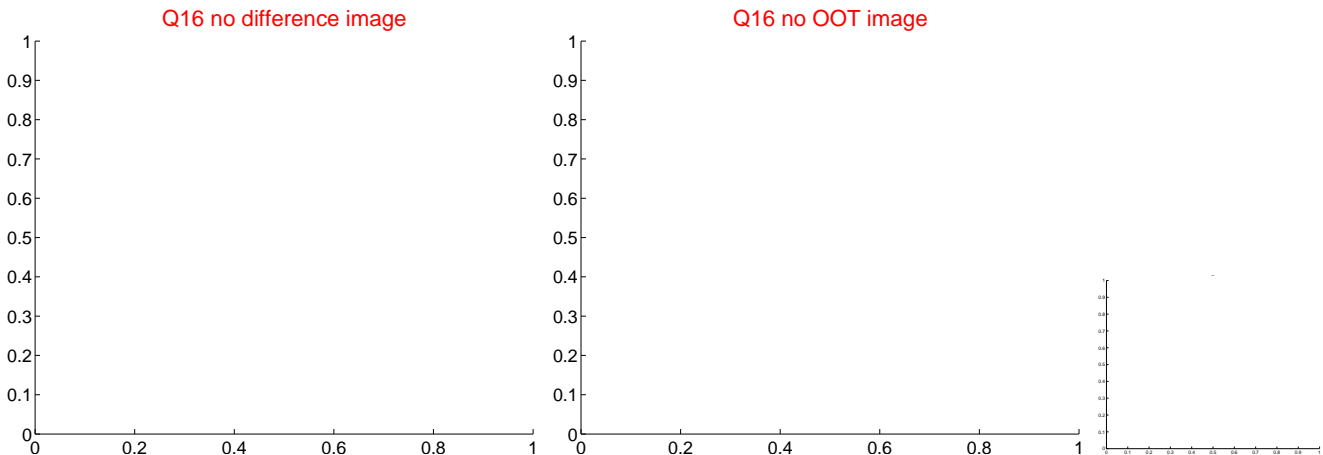
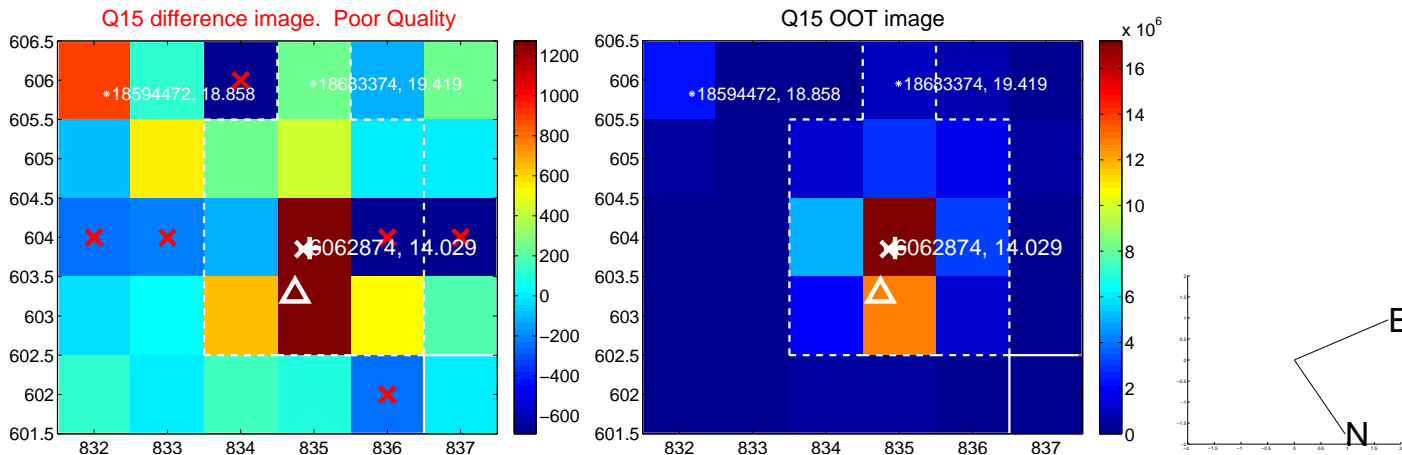
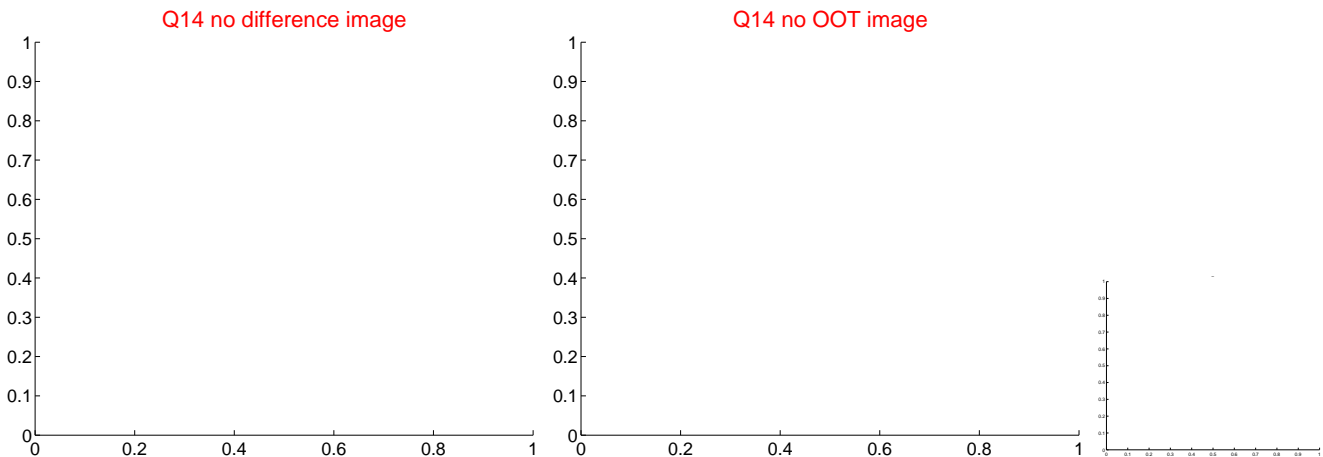
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



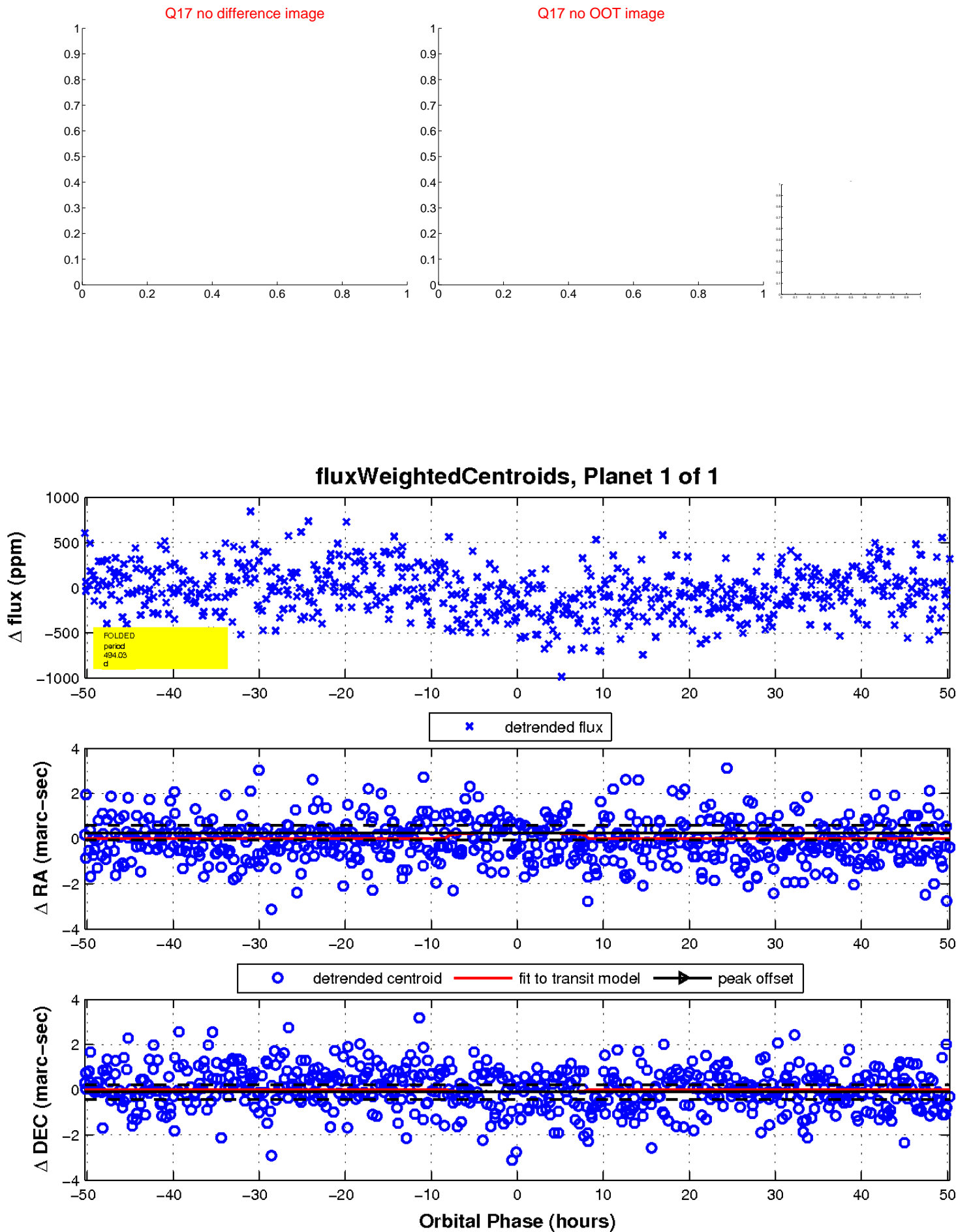
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

