

KIC 006114967

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})
006114967-01	OBS	No	618.593411	331.716097	240.6	6.635	9.6	3.7	0.53	4861	0.87	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006114967-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_TER_DV—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.

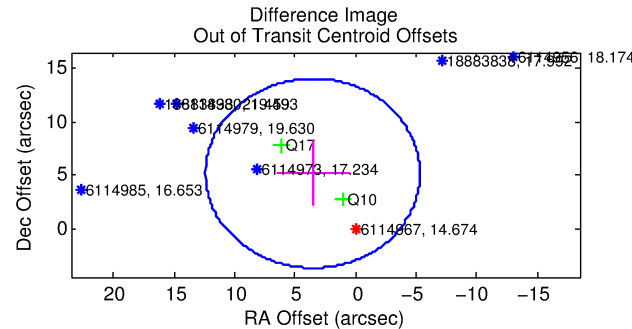
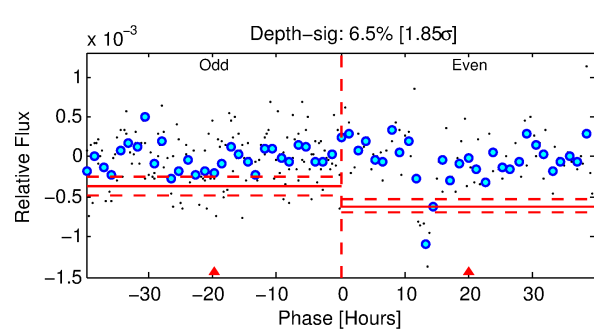
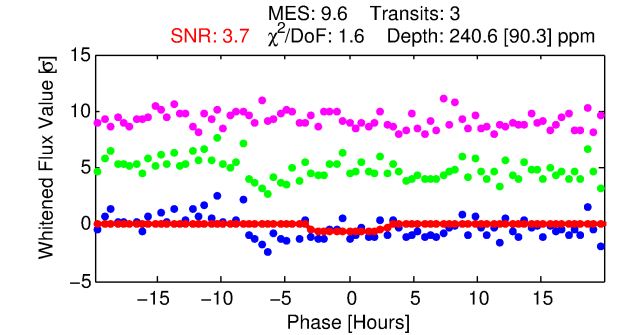
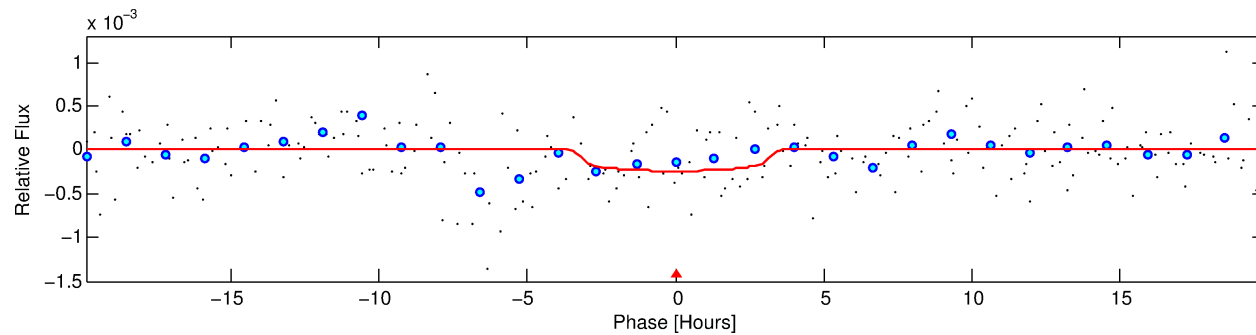
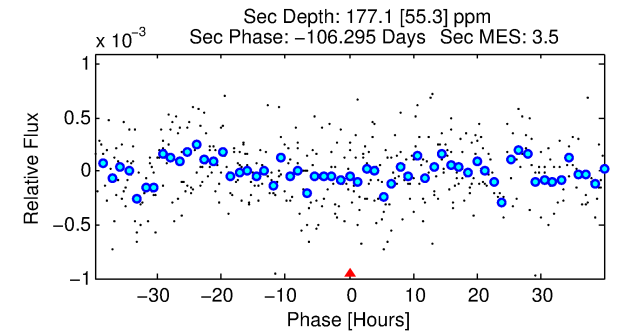
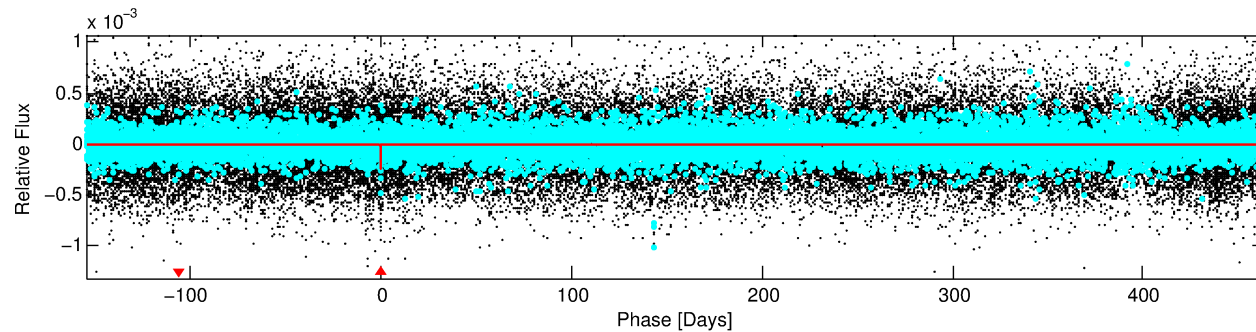
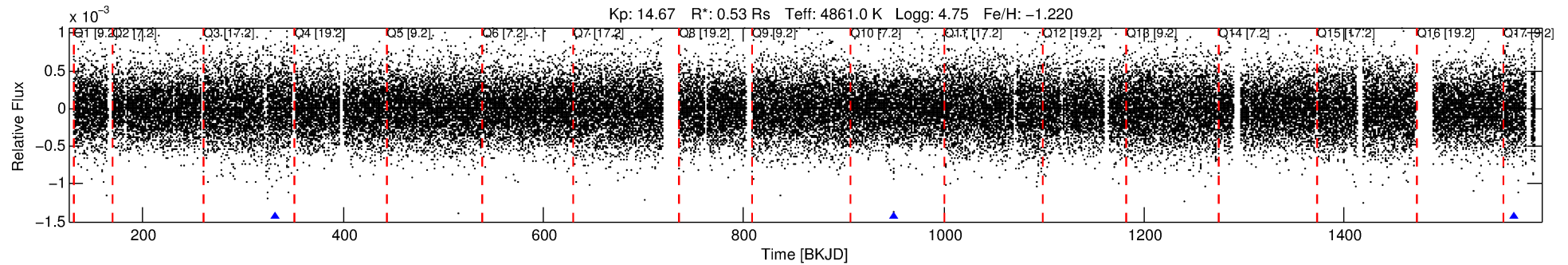
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006114967-01

No Significant Match Found

DV One-Page Summary

KIC: 6114967 Candidate: 1 of 1 Period: 618.593 d



DV Fit Results:

Period = 618.59341 [0.02933] d
Epoch = 331.7161 [0.0399] BKJD
Rp/R* = 0.0150 [0.0443]
a/R* = 542.60 [6551.45]
b = 0.67 [9.99]
Seff = 0.10 [0.02]
Teq = 143 [5] K
Rp = 0.87 [2.58] Re
a = 1.1916 [0.0751] AU
Ag = 181510.95 [1072479.25] [0.17 σ]
Teffp = 4577 [6762] K [0.66 σ]

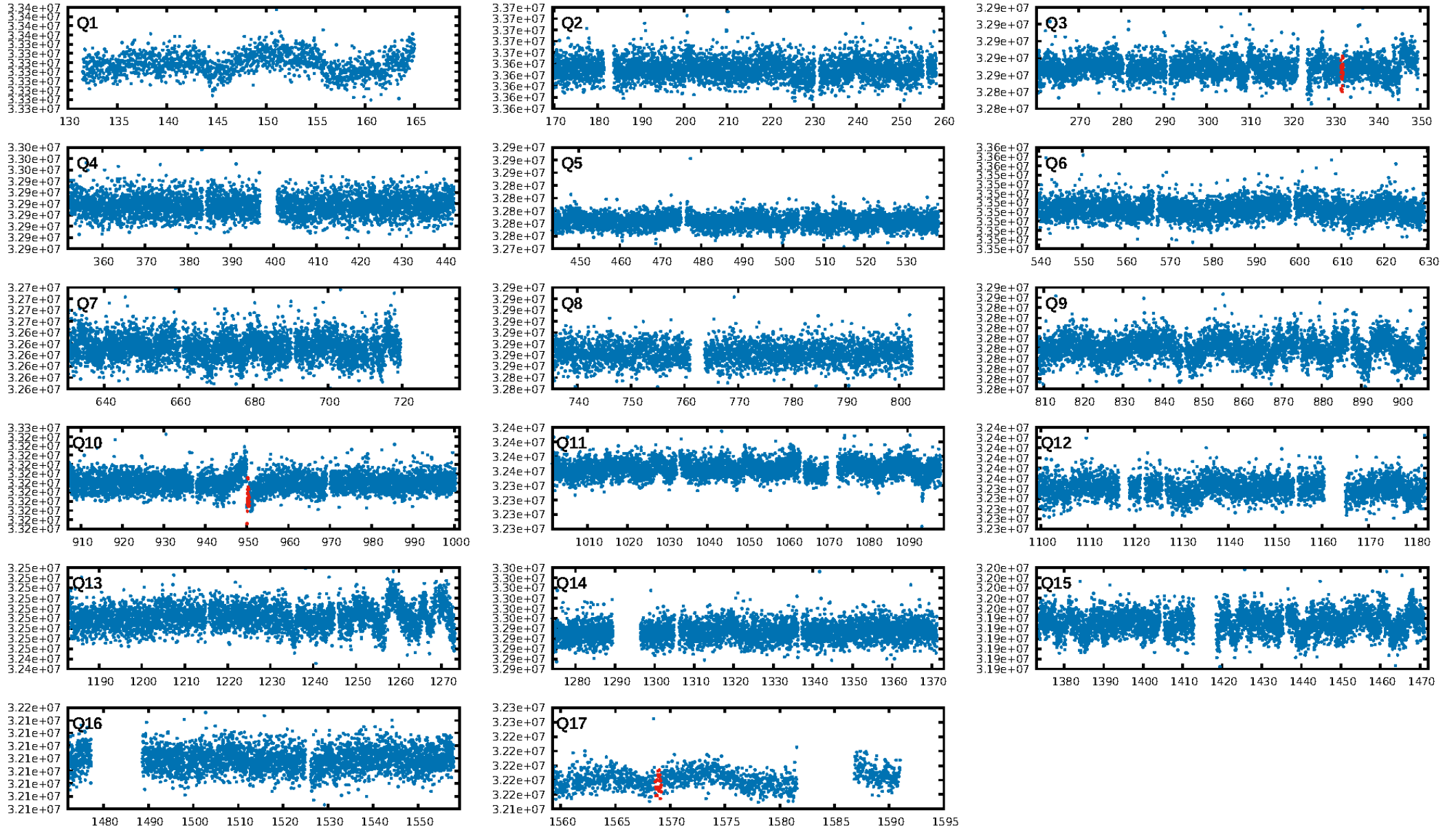
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 10.0%
ModelChiSquareGof-sig: 36.6%
Bootstrap-pfa: 5.39e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -1.22
Centroid-sig: 0.4%
Centroid-so: 7.367 arcsec [2.08 σ]
OotOffset-rm: 6.287 arcsec [2.13 σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-rm: 6.350 arcsec [2.15 σ]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

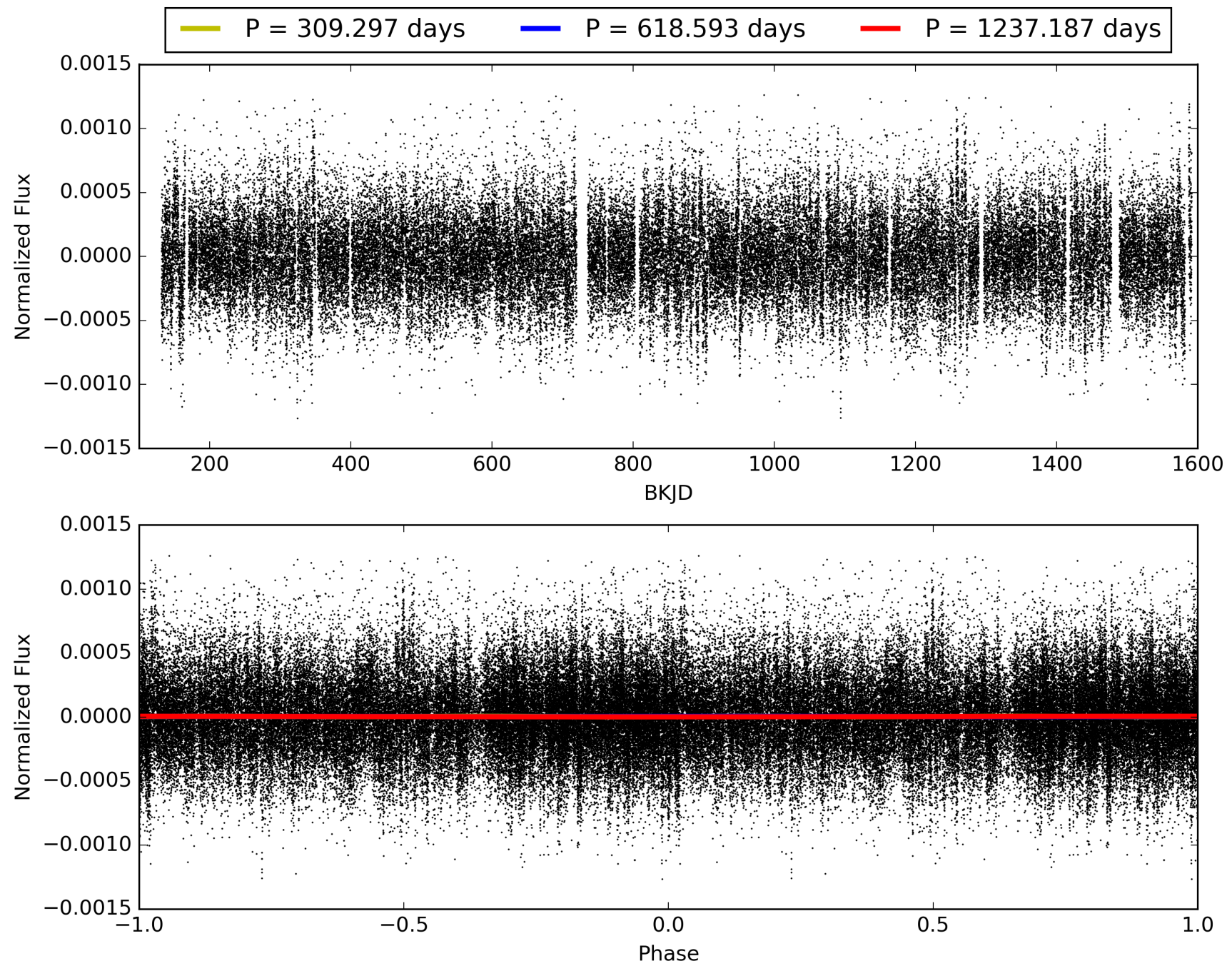
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:20:51 Z

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

TCE 006114967-01, PDC Light Curves

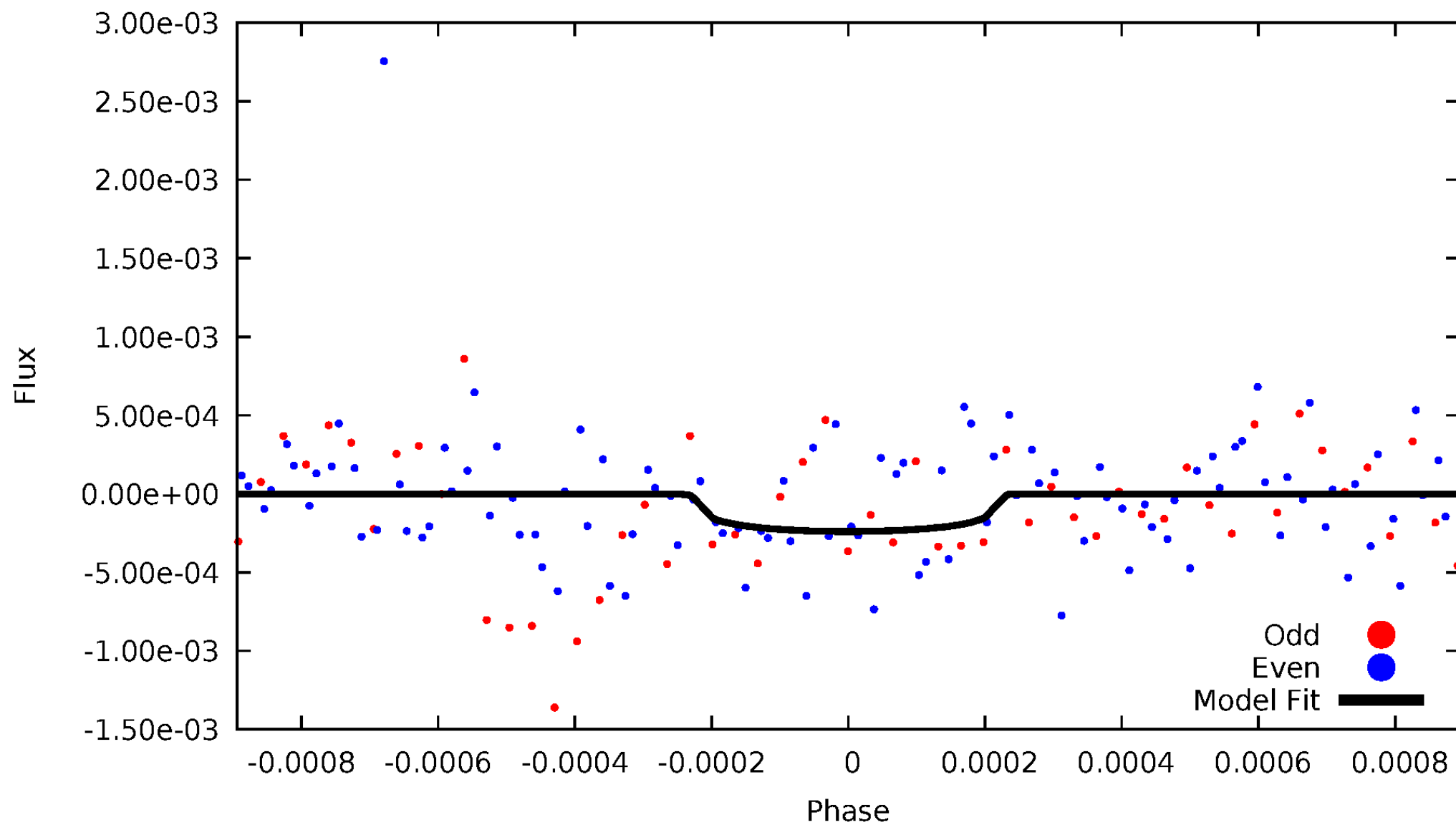


TCE 006114967-01



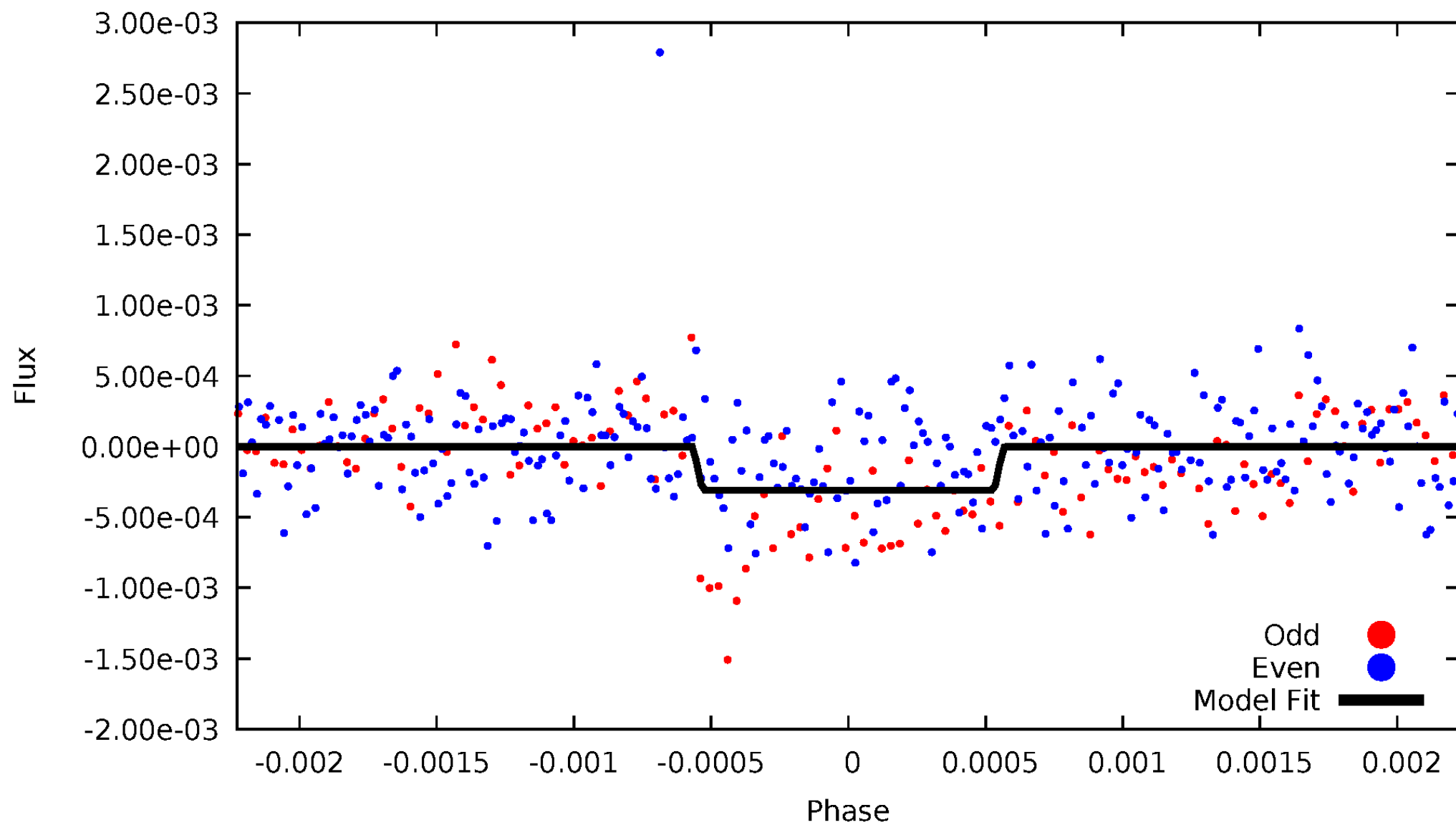
DV Odd/Even

TCE 006114967-01



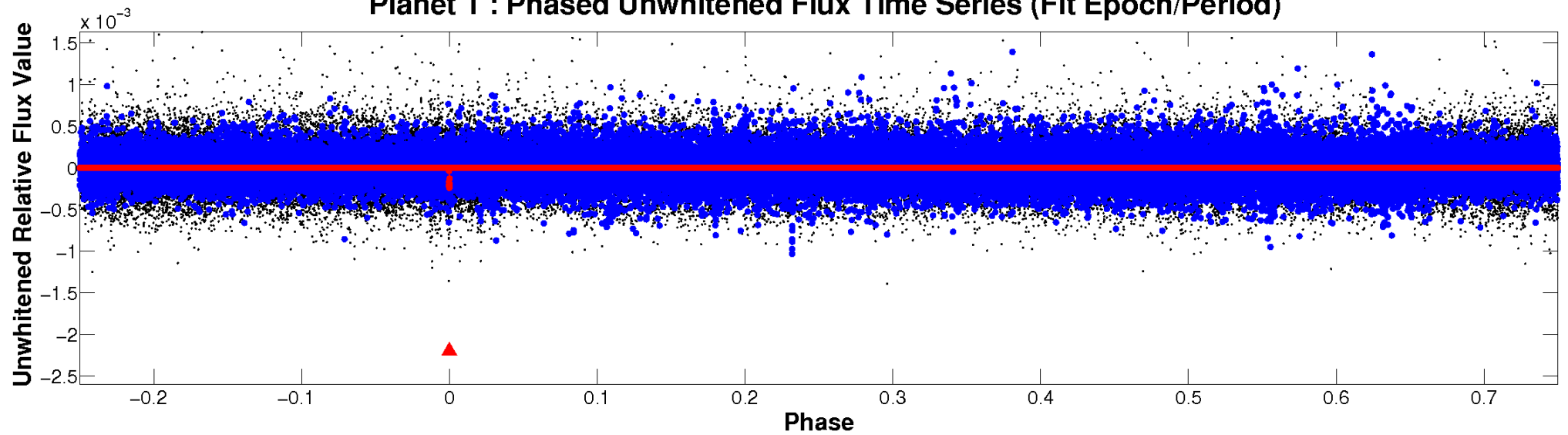
ALT Odd/Even

TCE 006114967-01

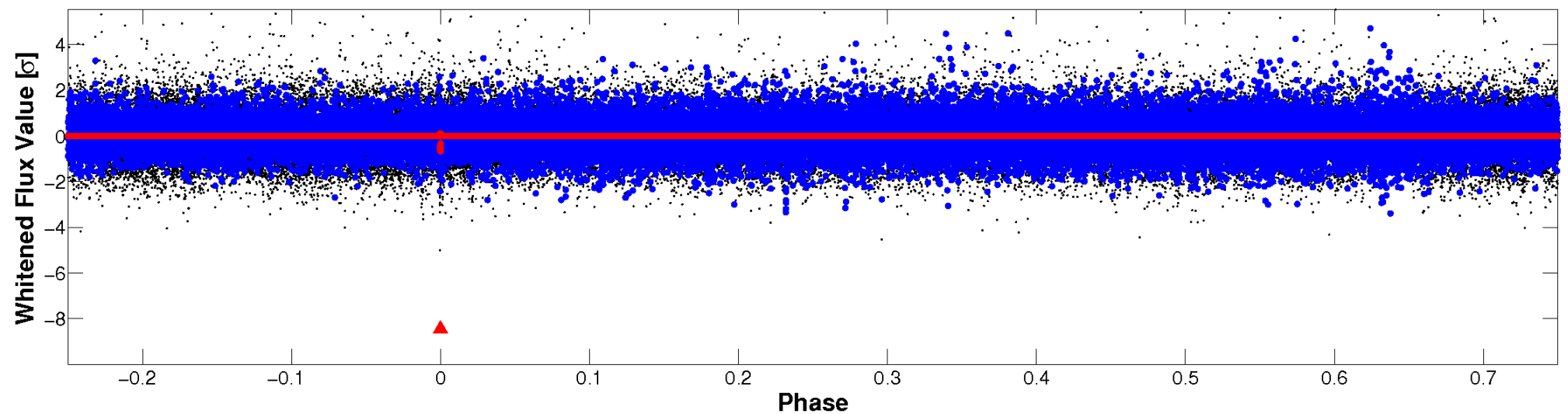


Non-Whitened Vs. Whitened Light Curve

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

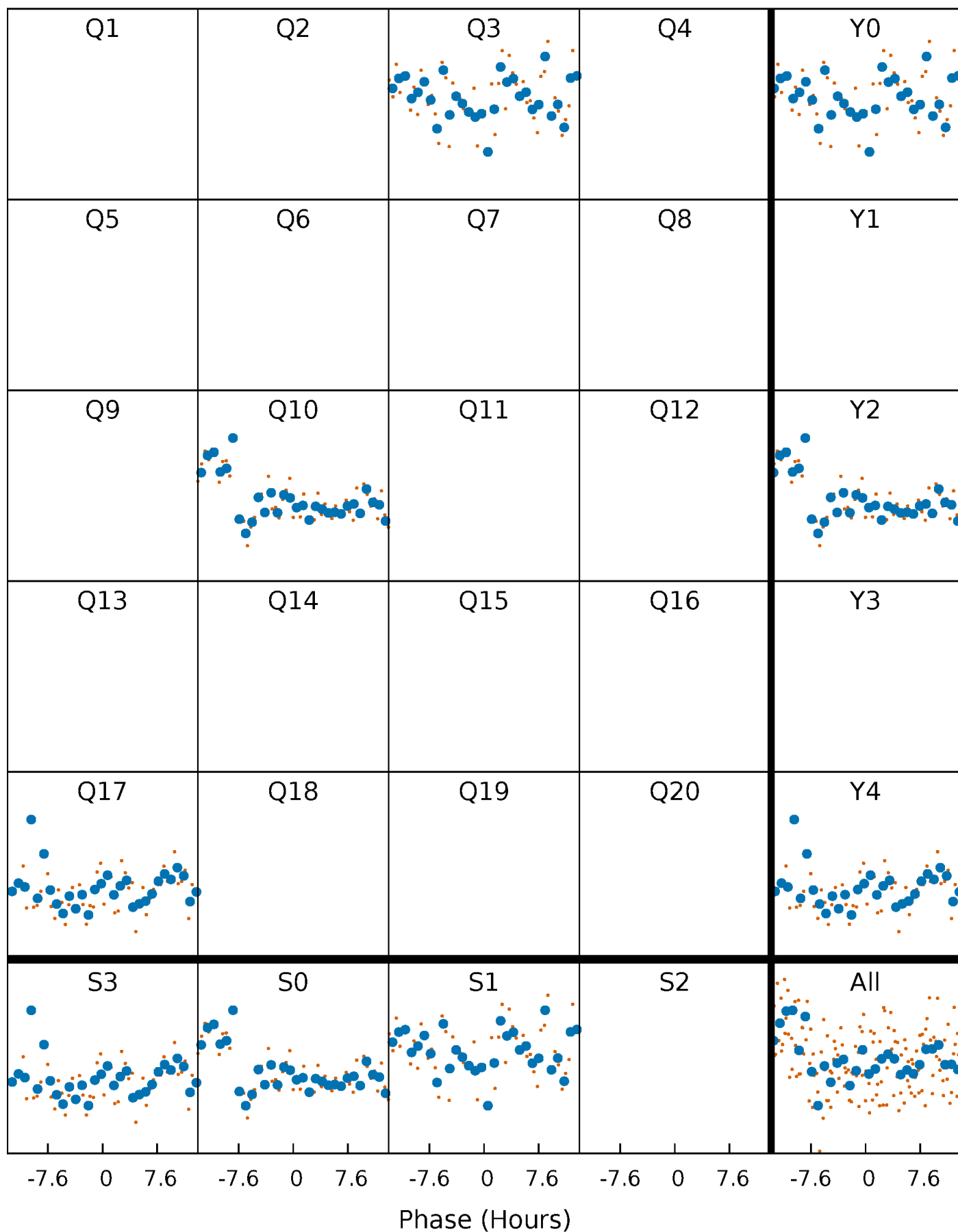


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



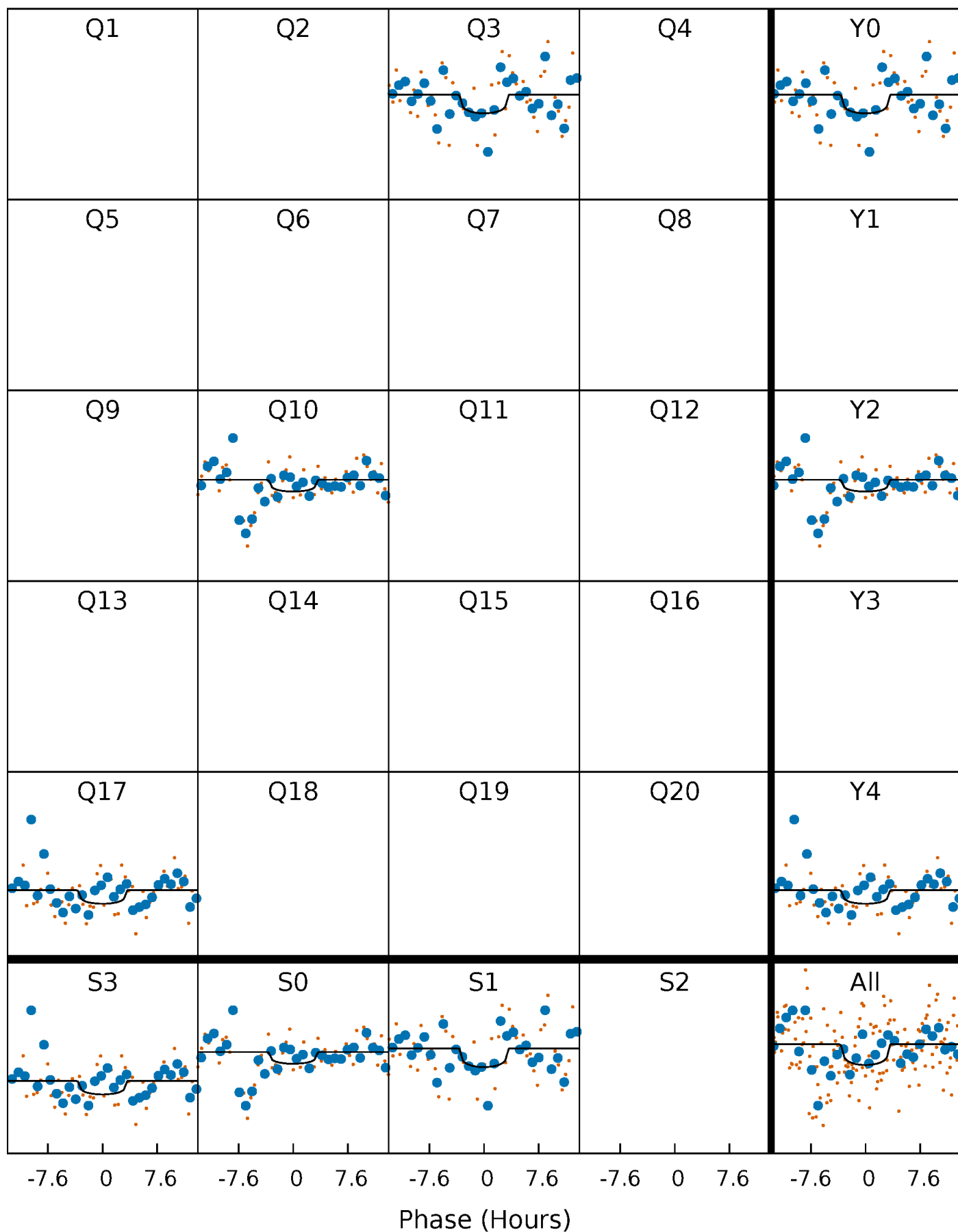
PDC Quarter-Phased Transit Curves

TCE 006114967-01 P=618.593411 Days $T_0=331.716097$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 006114967-01 P=618.593411 Days $T_0=331.716097$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

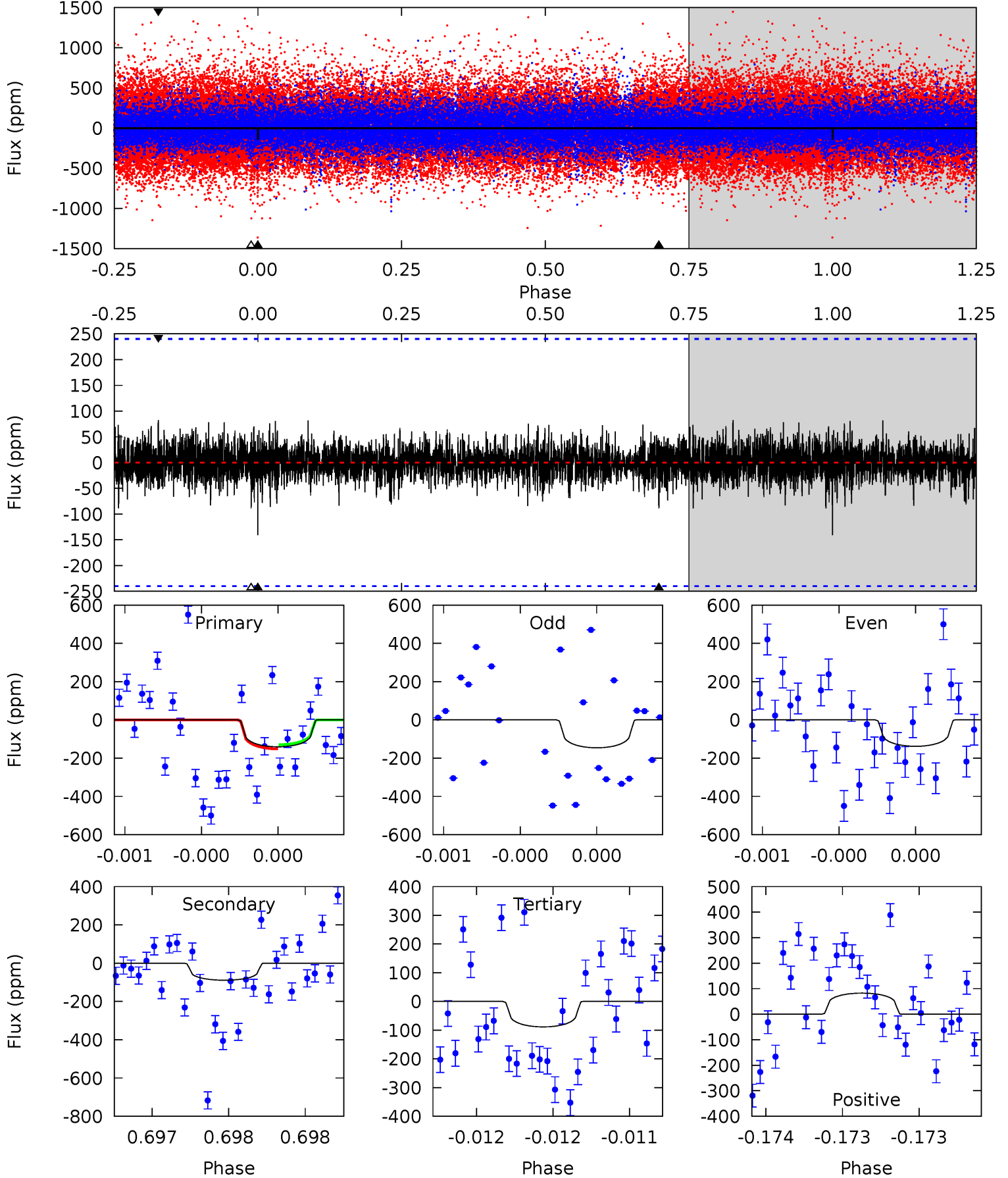
TCE 006114967-01 P=618.591973 Days $T_0=331.723627$ (BKJD)



DV Model-Shift Uniqueness Test

006114967-01, P = 618.593411 Days, E = 331.716097 Days

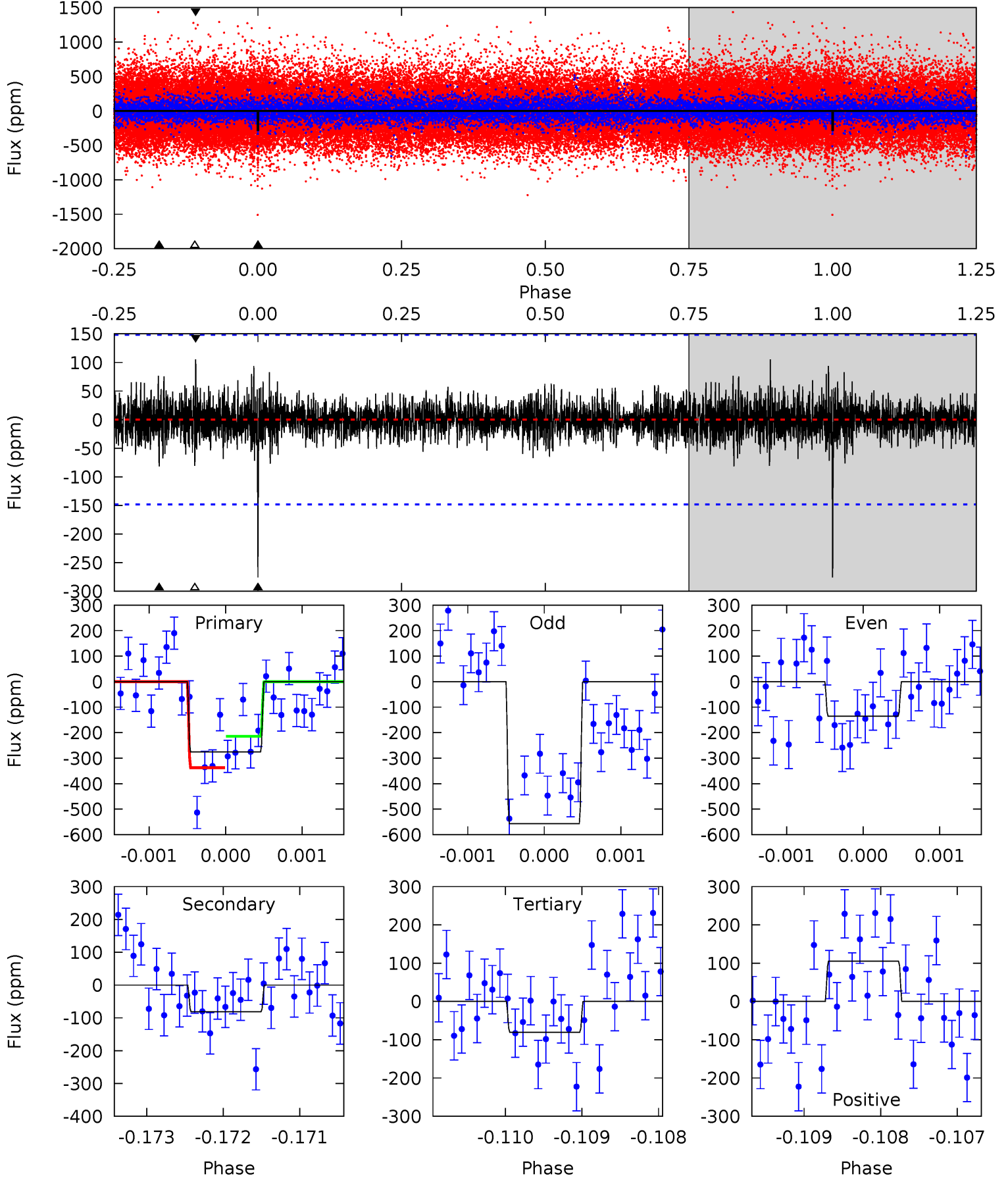
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.27	2.07	2.06	1.92	5.58	3.50	0.55	1.21	1.35	0.01	0.15	0.09	0.96	0.37	0.25



Alt Model-Shift Uniqueness Test

006114967-01, P = 618.591973 Days, E = 331.723627 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	2.98	2.95	3.85	5.43	3.25	0.77	7.16	6.25	0.03	-0.87	7.25	1.51	0.28	2.25



Stellar Parameters For KIC 006114967

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4861^{+145}_{-145}	$4.755^{+0.021}_{-0.052}$	$-1.220^{+0.300}_{-0.300}$	$0.533^{+0.039}_{-0.023}$	$0.590^{+0.027}_{-0.034}$	$5.490^{+0.475}_{-0.968}$
	+3%/-3%	+0%/-1%	+25%/-25%	+7%/-4%	+5%/-6%	+9%/-18%
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 006114967-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-89 ± 43	$2.09^{+2.17}_{-1.43}$	201^{+7}_{-6}	3099^{+1419}_{-613}	$15677^{+136787}_{-12580}$
Alt.	-81 ± 27	$2.19^{+2.11}_{-1.48}$	202^{+7}_{-7}	2992^{+1356}_{-509}	$12749^{+108298}_{-9760}$

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

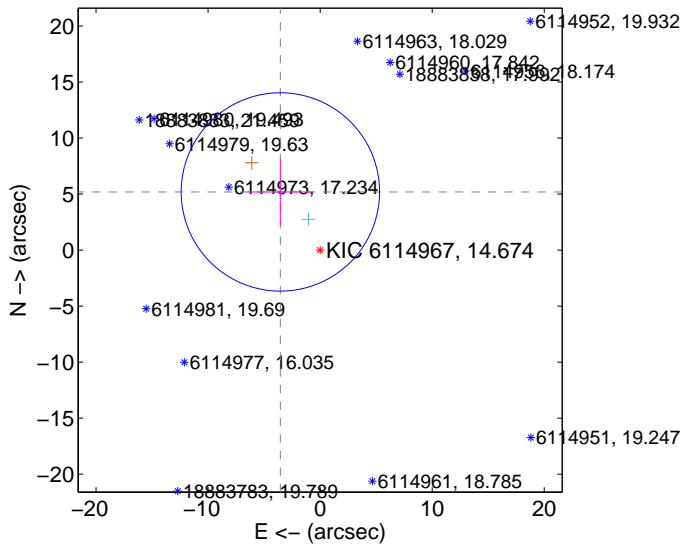
Supplemental centroid analysis for 006114967-01. Kepler magnitude: 14.67. Transit SNR 3.71

There are 1 quarters with good PRF difference image offsets

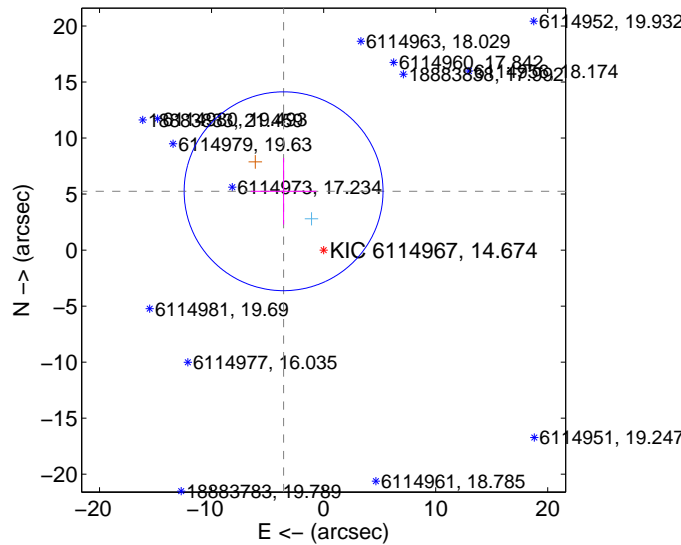
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.287 ± 2.950	2.13	3.550 ± 2.956	5.189 ± 2.947
PRF-fit source offset from KIC position	6.350 ± 2.957	2.15	3.572 ± 2.933	5.250 ± 2.968
photometric centroid source offset	7.37 ± 3.54	2.08	5.73 ± 3.45	4.63 ± 3.68

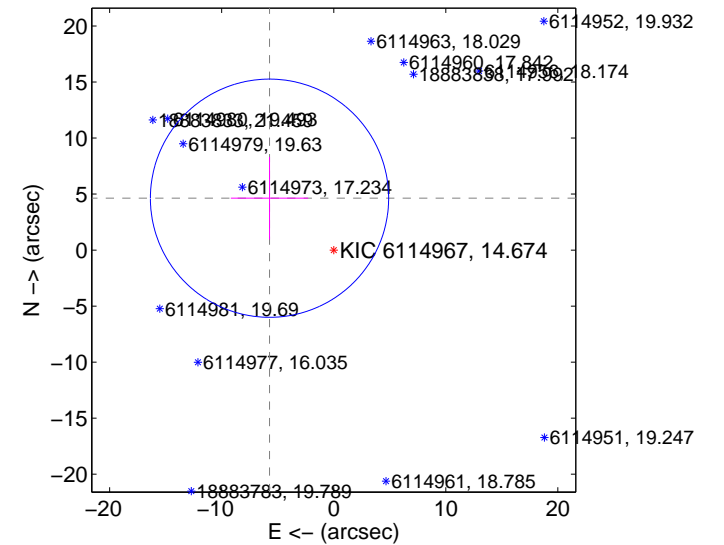
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

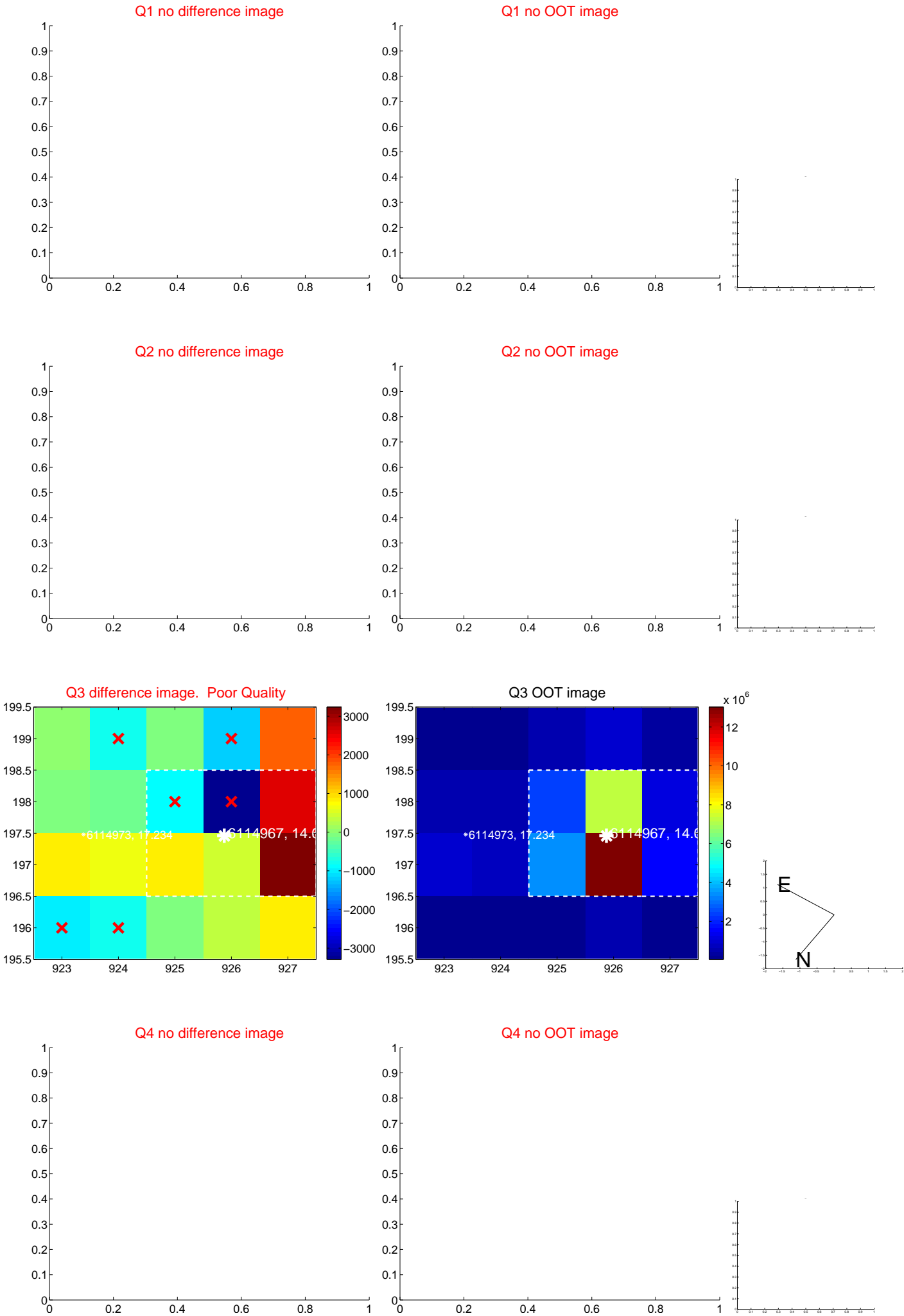


offset from photometric centroids



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.

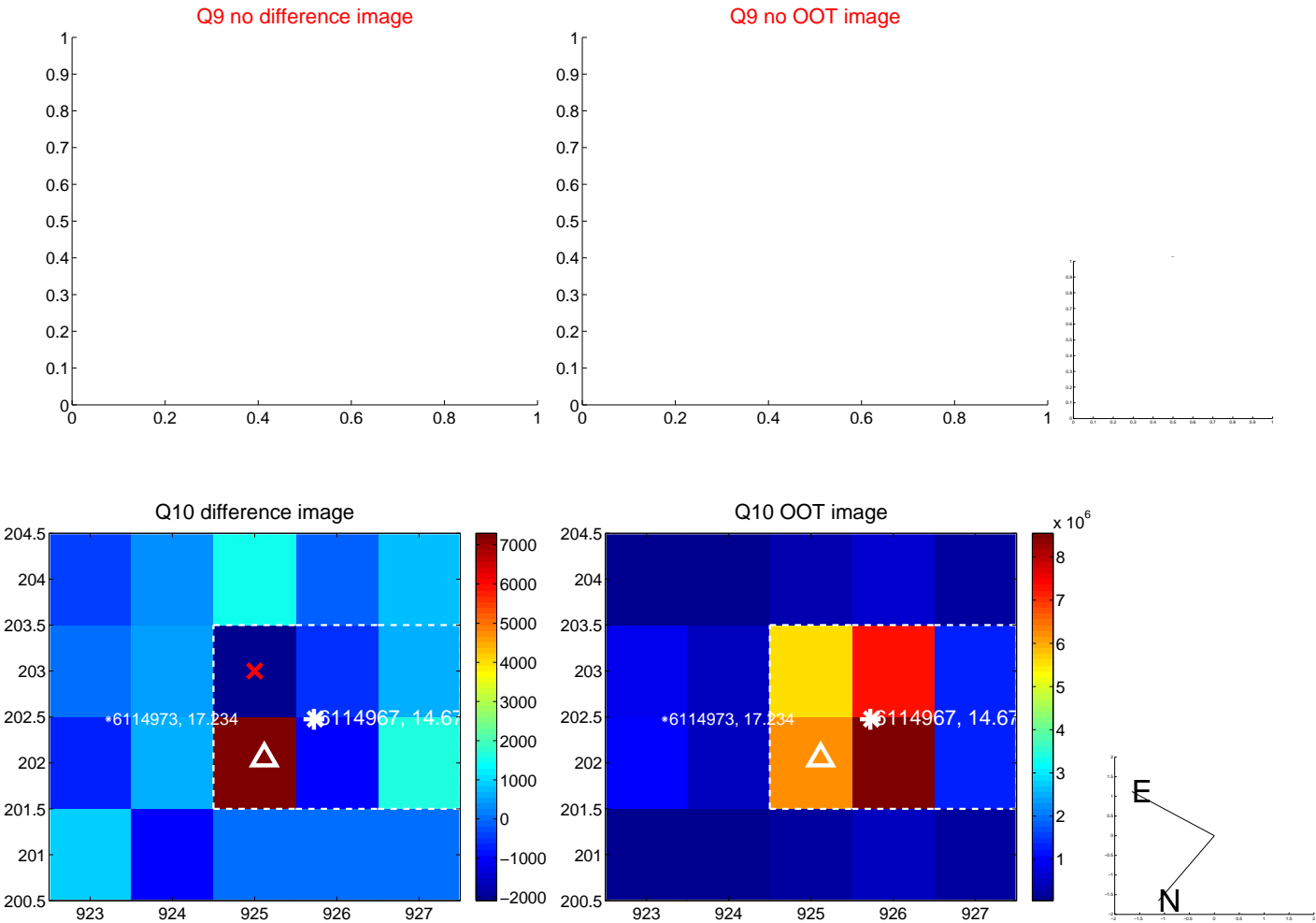
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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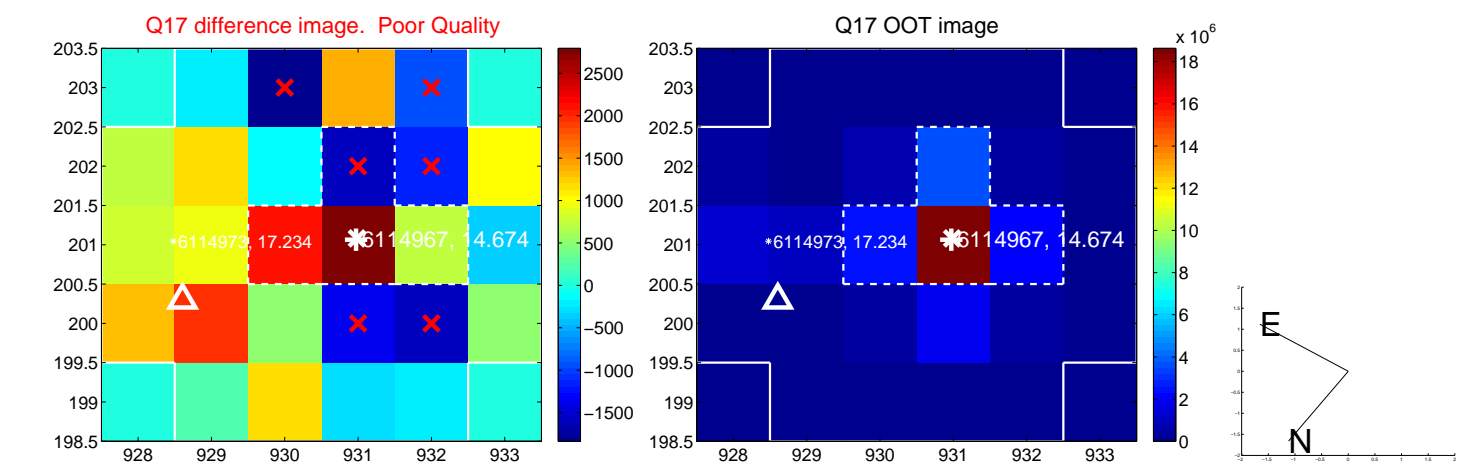
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



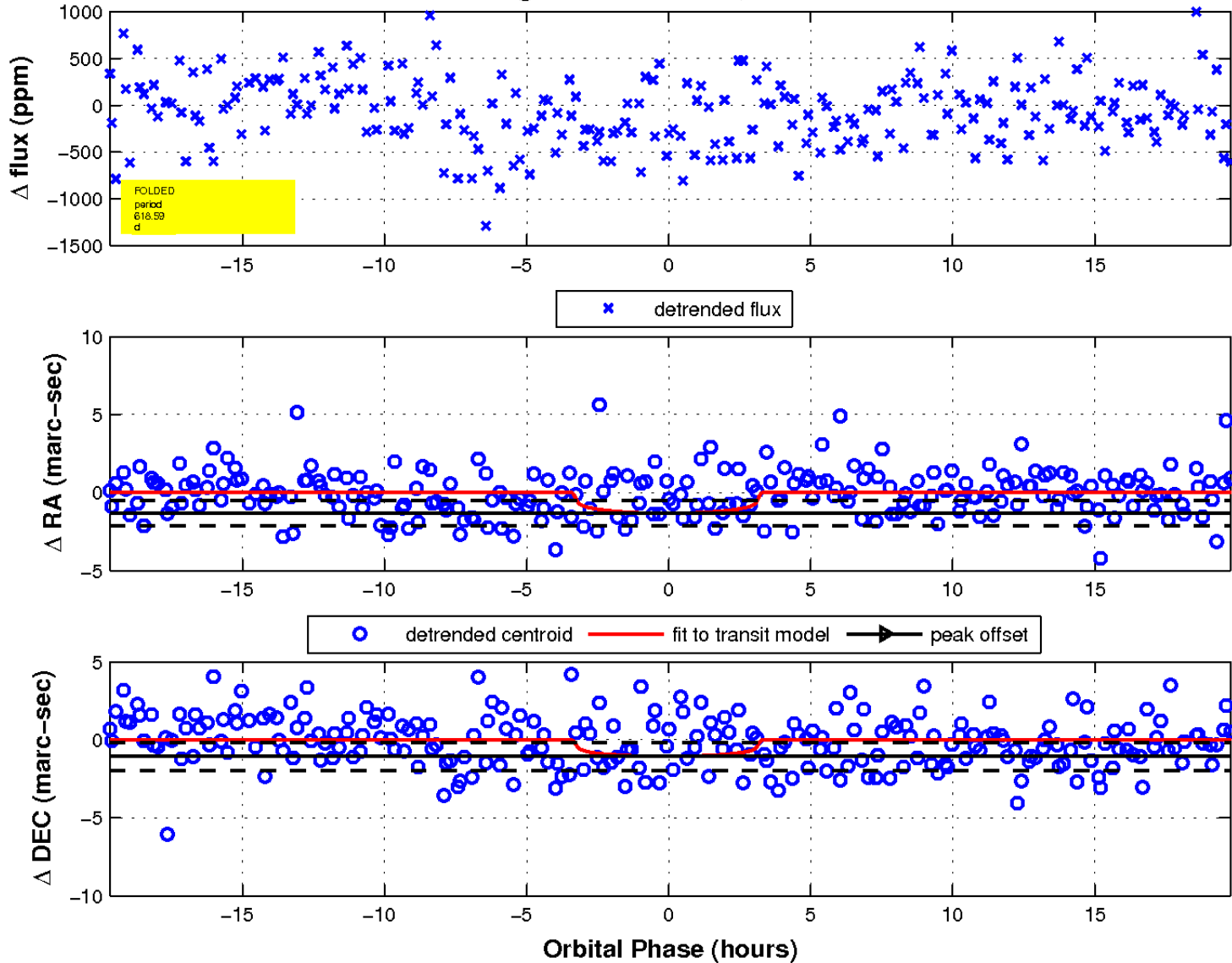
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

