

KIC 008752214

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})
008752214-01	OBS	No	374.677085	136.109334	1964.5	48.760	7.2	9.2	0.86	5626	6.26	0.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008752214-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—CENT_FEW_DIFFS—HALO_GHOST

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

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

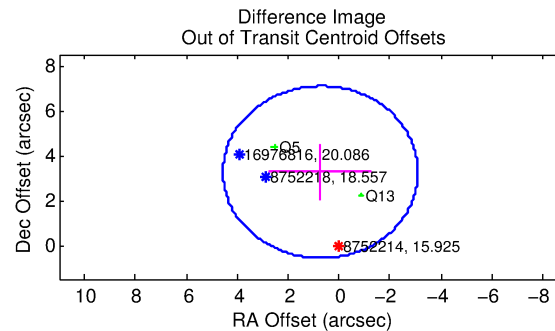
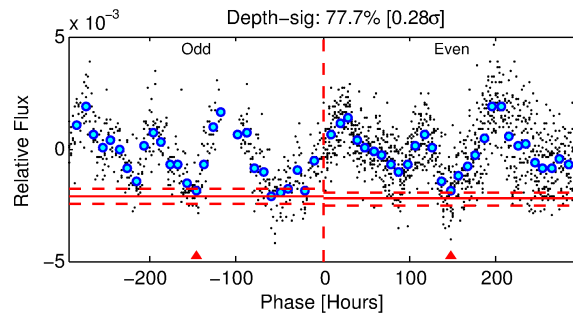
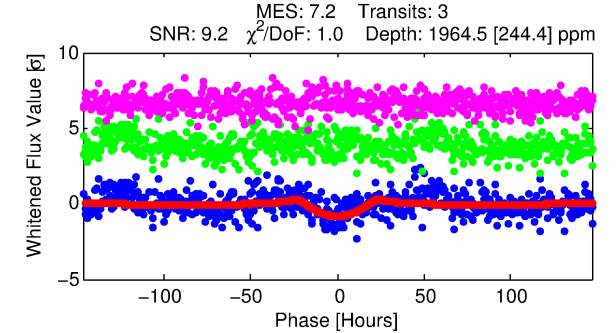
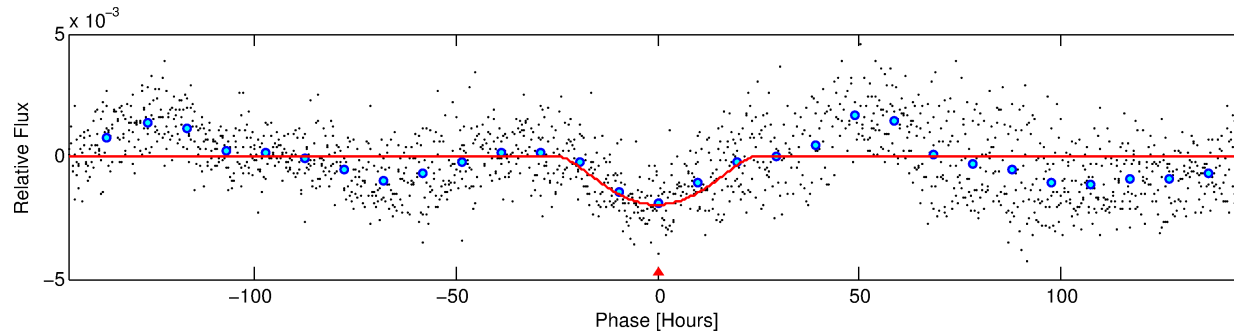
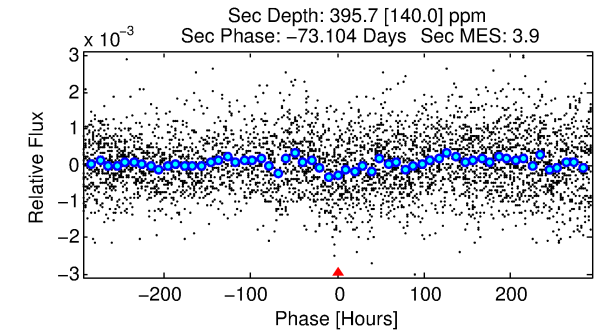
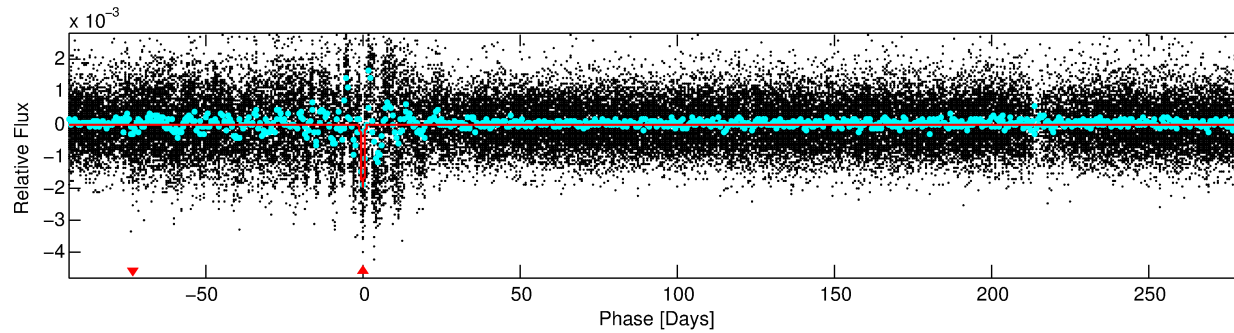
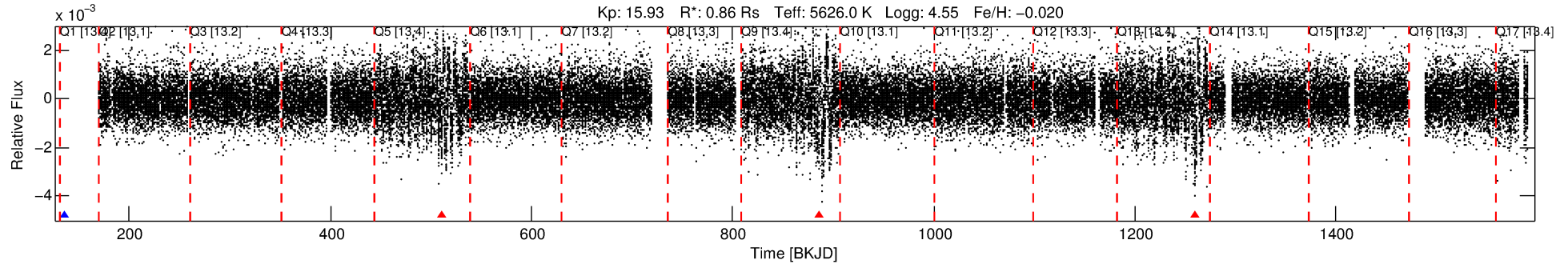
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008752214-01

No Significant Match Found

DV One-Page Summary

KIC: 8752214 Candidate: 1 of 1 Period: 374.677 d



DV Fit Results:

Period = 374.67709 [0.06177] d
Epoch = 136.1093 [0.1237] BKJD
Rp/R* = 0.0668 [0.0894]
a/R* = 24.41 [9.26]
b = 0.98 [0.15]
Seff = 0.66 [0.23]
Teq = 230 [20] K
Rp = 6.26 [8.55] Re
a = 1.0003 [0.2270] AU
Ag = 5550.32 [15088.24] [0.37σ]
Teffp = 3069 [2073] K [1.37σ]

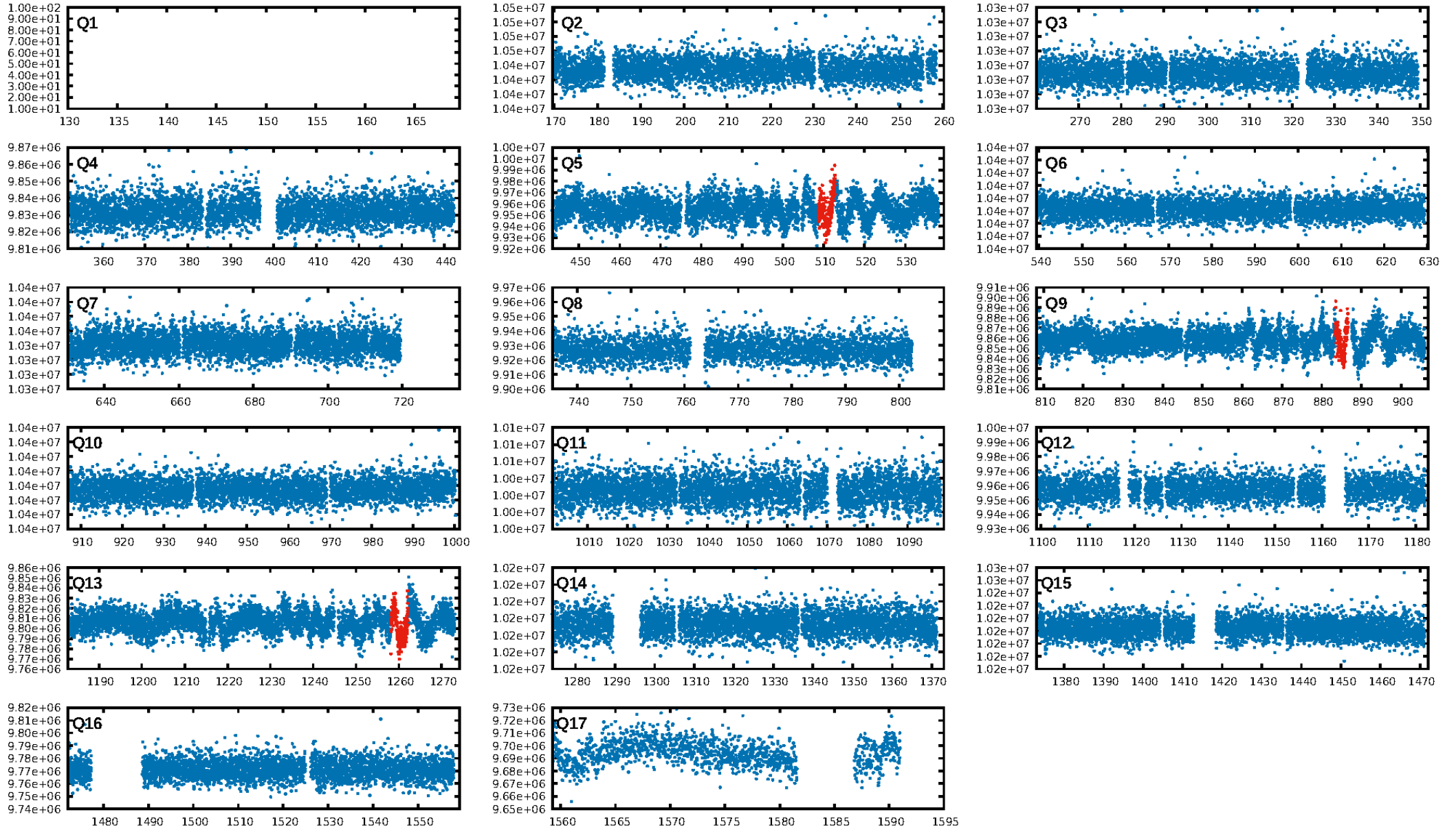
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 89.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.81e-12
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: 0.2462
Centroid-sig: 0.0%
Centroid-so: 3.908 arcsec [3.35σ]
OotOffset-rm: 3.335 arcsec [2.61σ]
KicOffset-rm: 3.418 arcsec [2.69σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

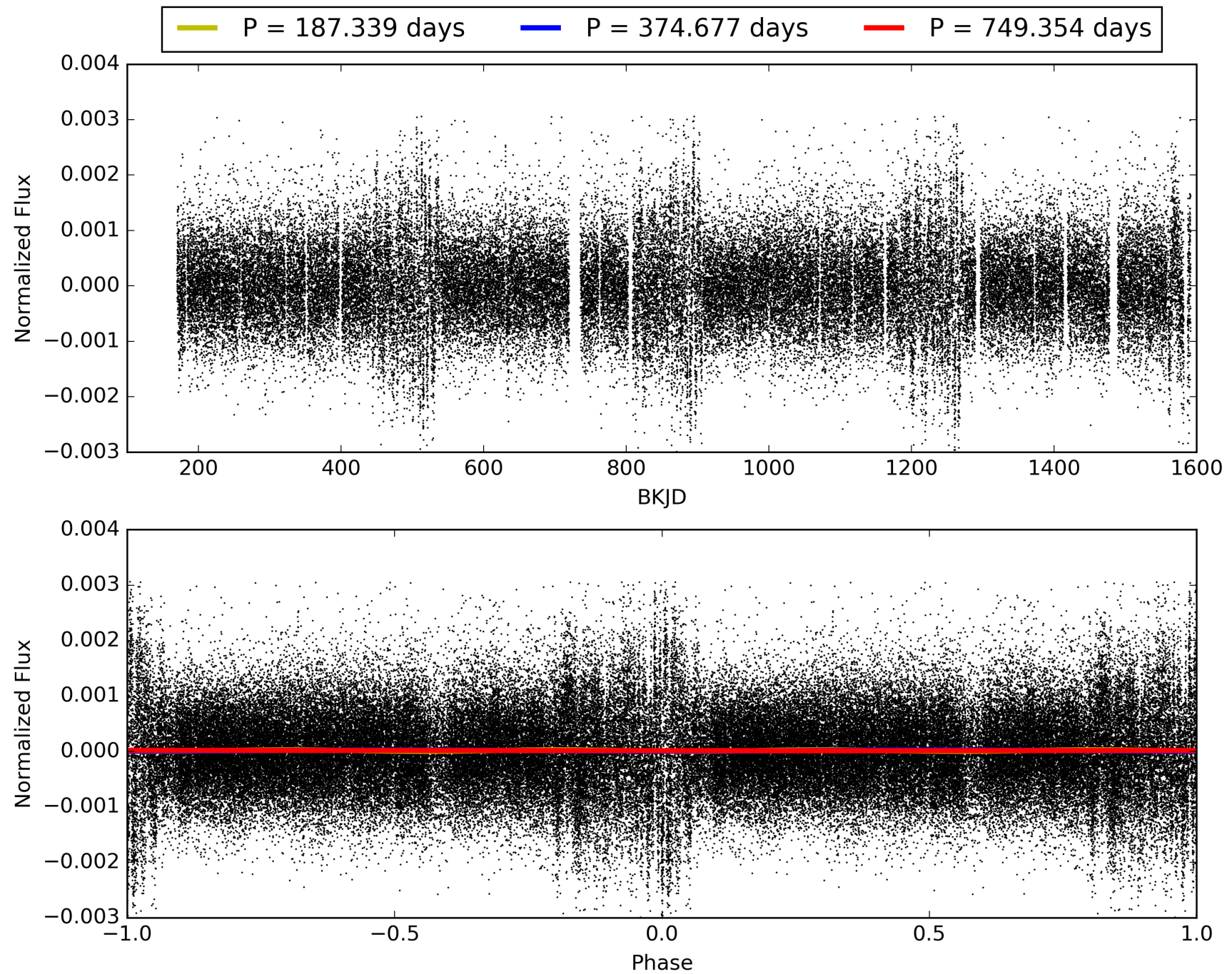
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:40:01 Z

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

TCE 008752214-01, PDC Light Curves

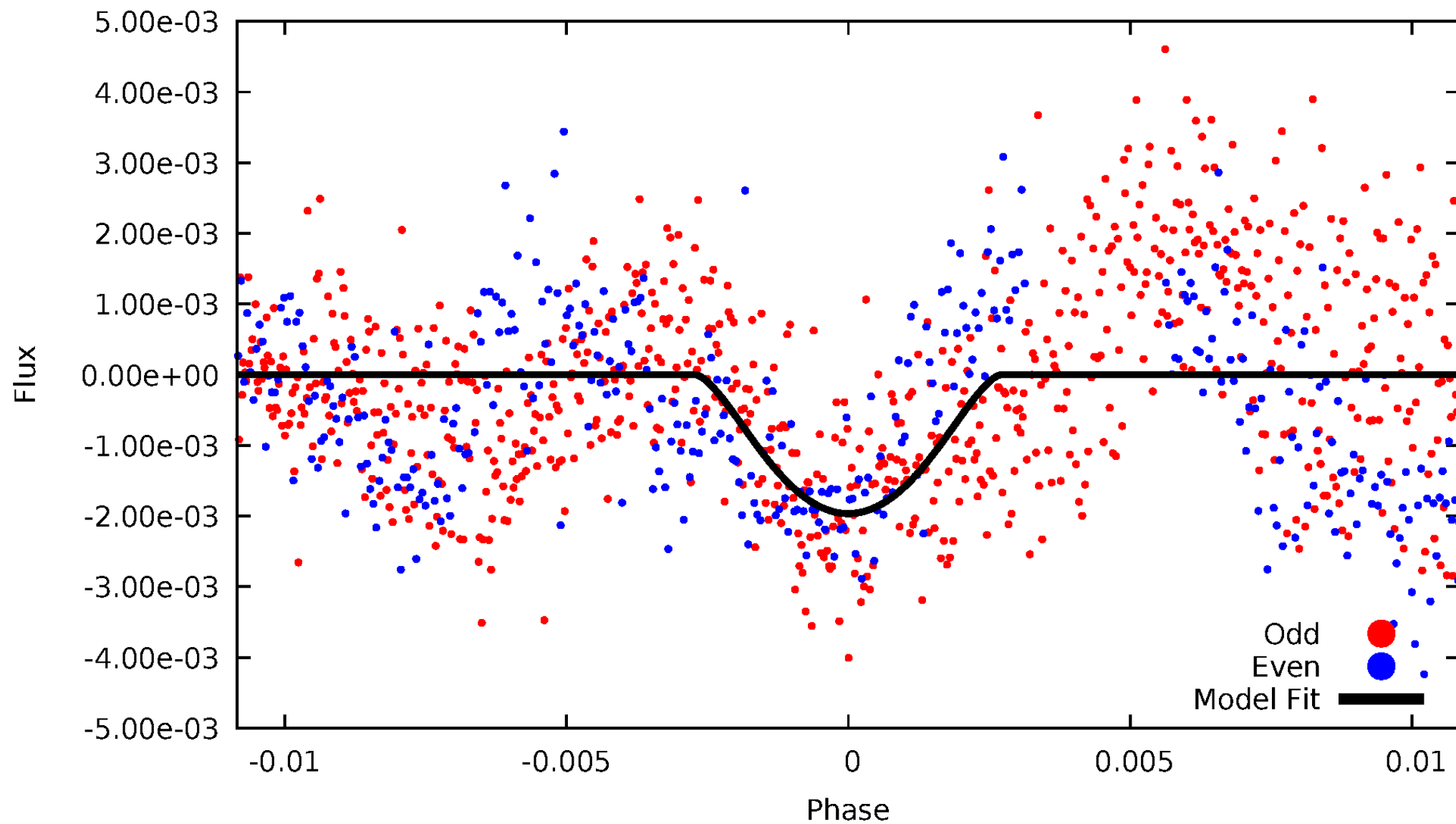


TCE 008752214-01



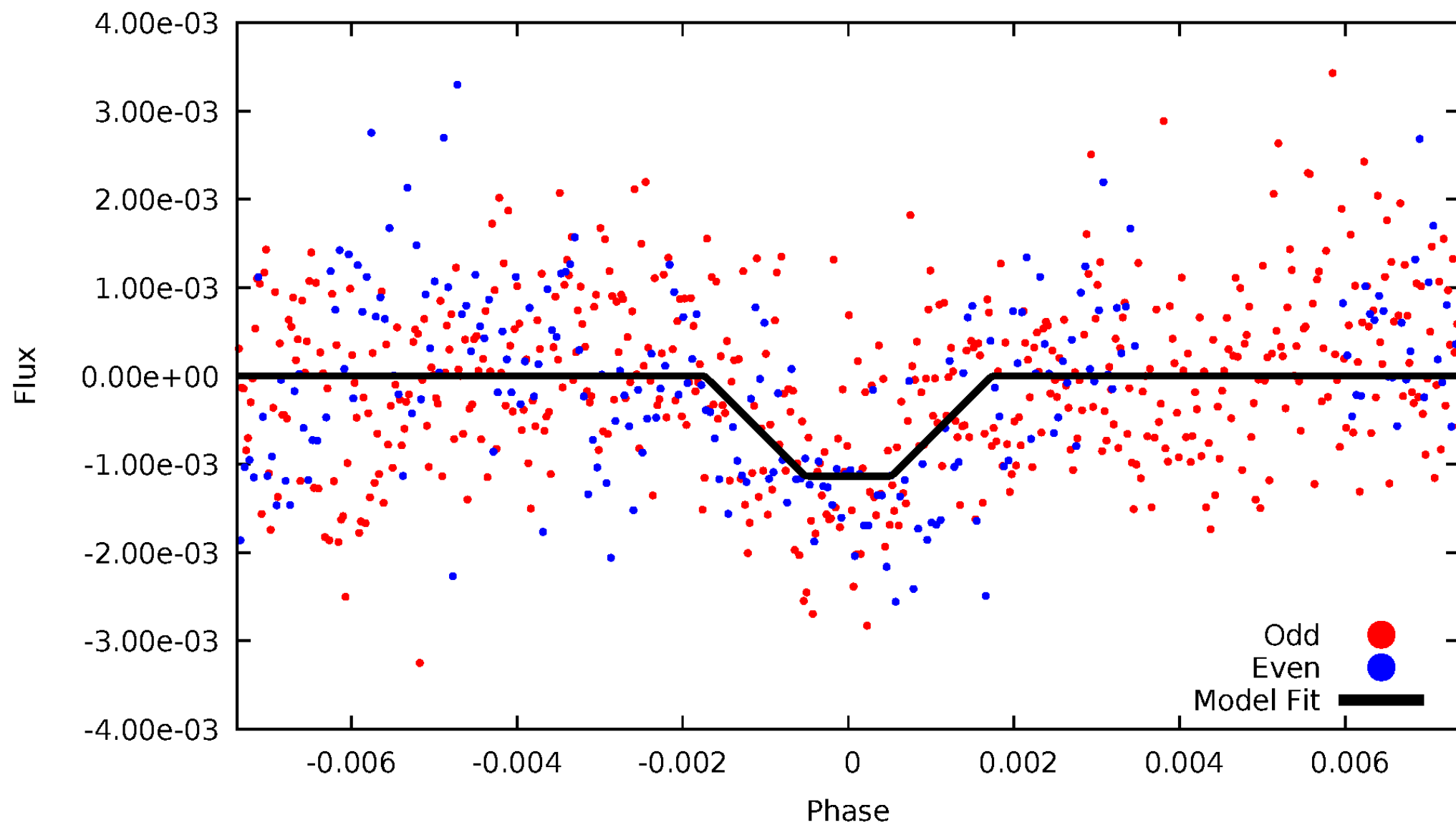
DV Odd/Even

TCE 008752214-01



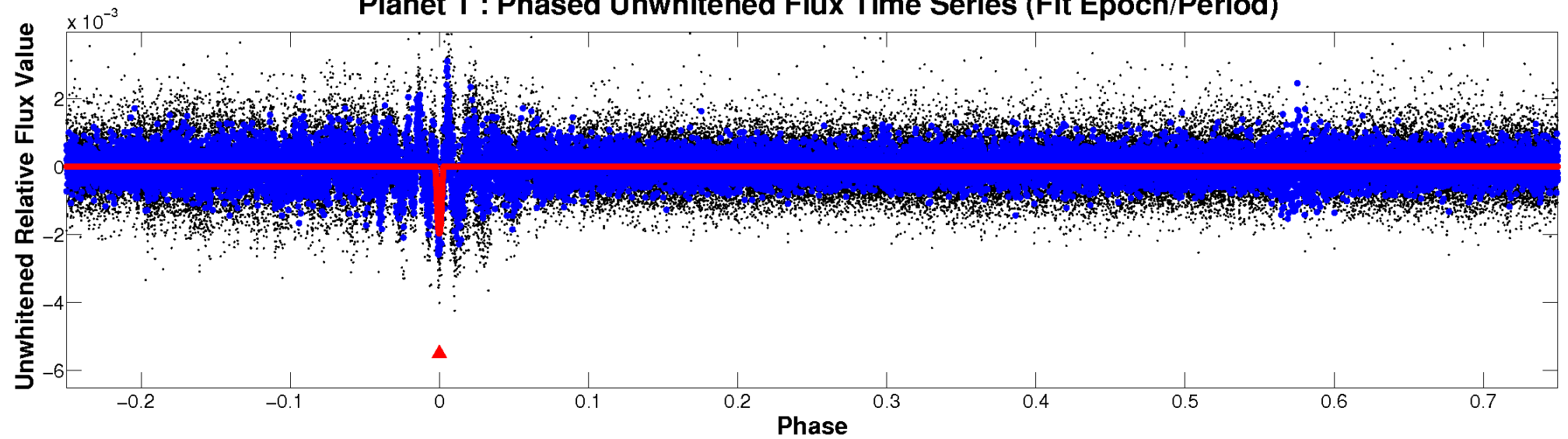
ALT Odd/Even

TCE 008752214-01

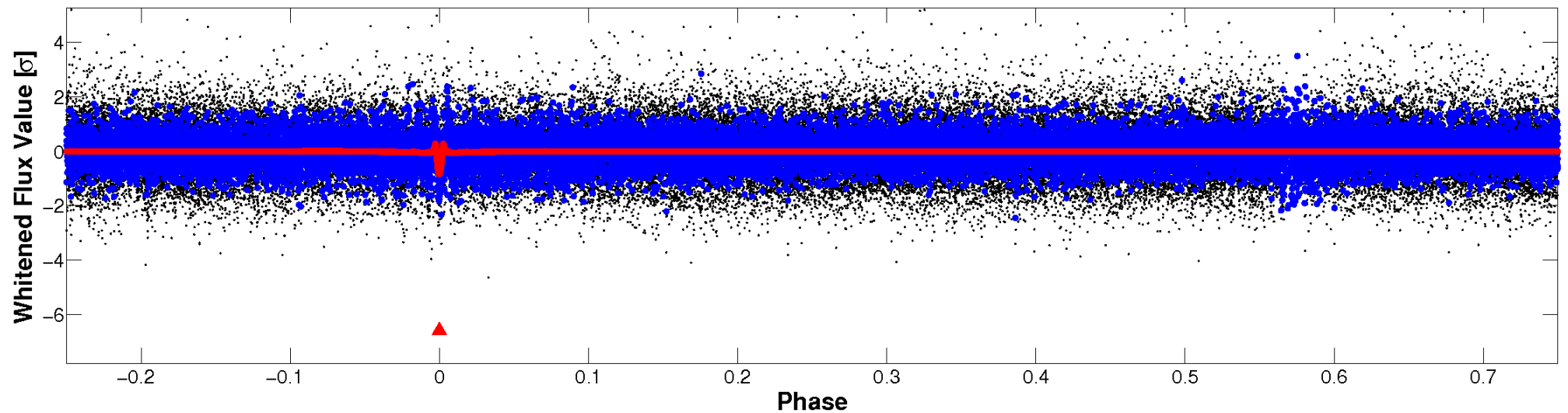


Non-Whitened Vs. Whitened Light Curve

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

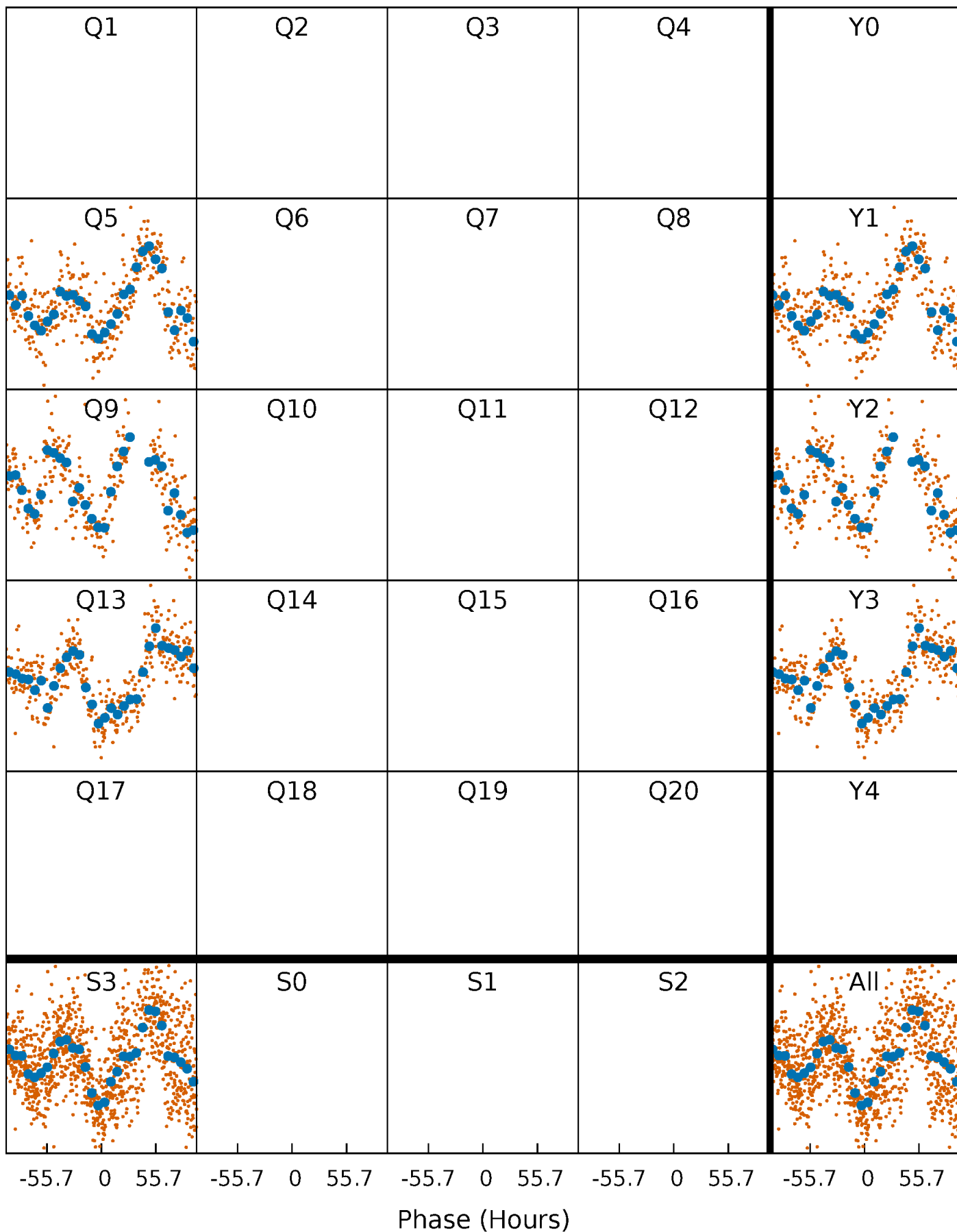


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



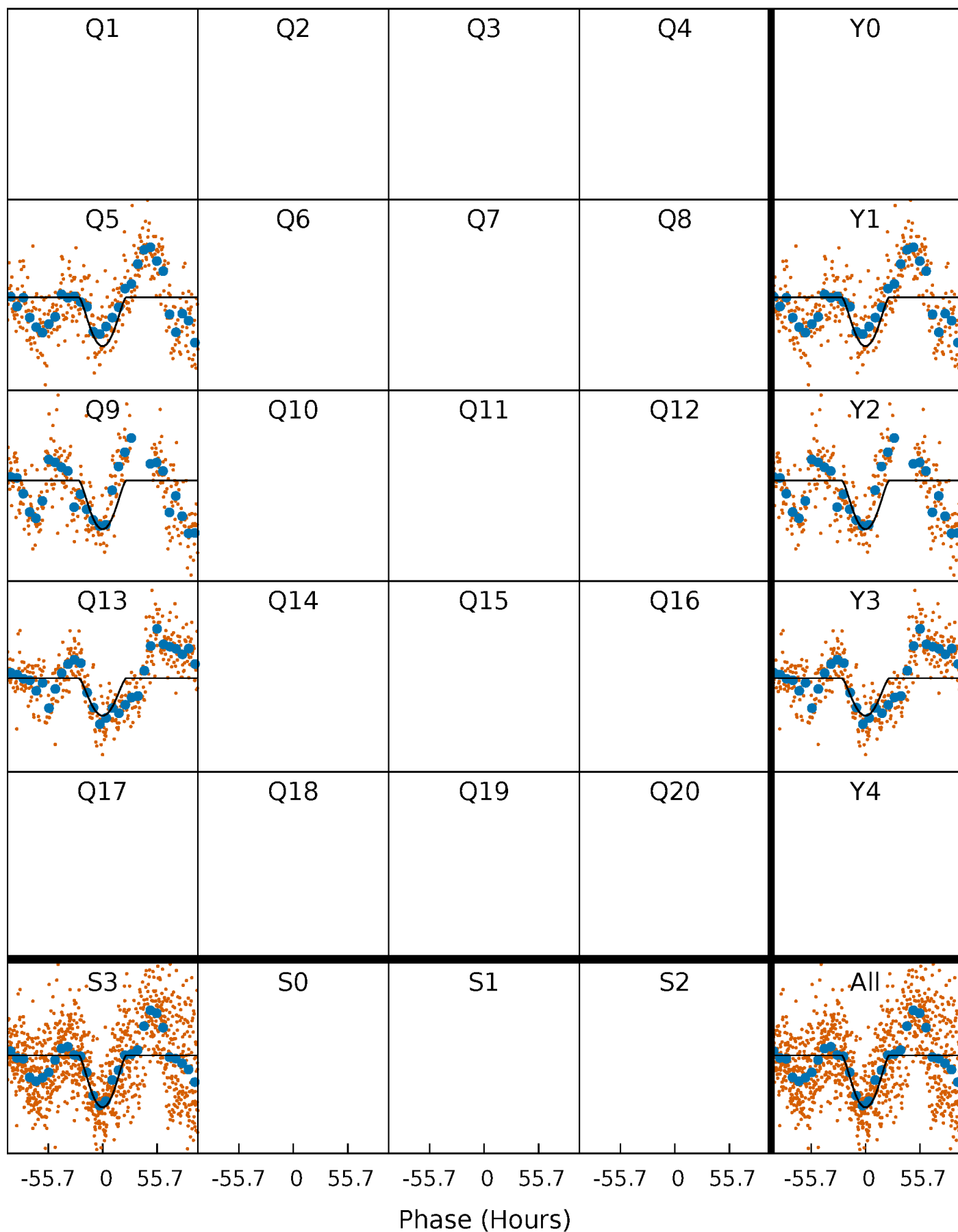
PDC Quarter-Phased Transit Curves

TCE 008752214-01 P=374.677085 Days $T_0=136.109334$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008752214-01 P=374.677085 Days $T_0=136.109334$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

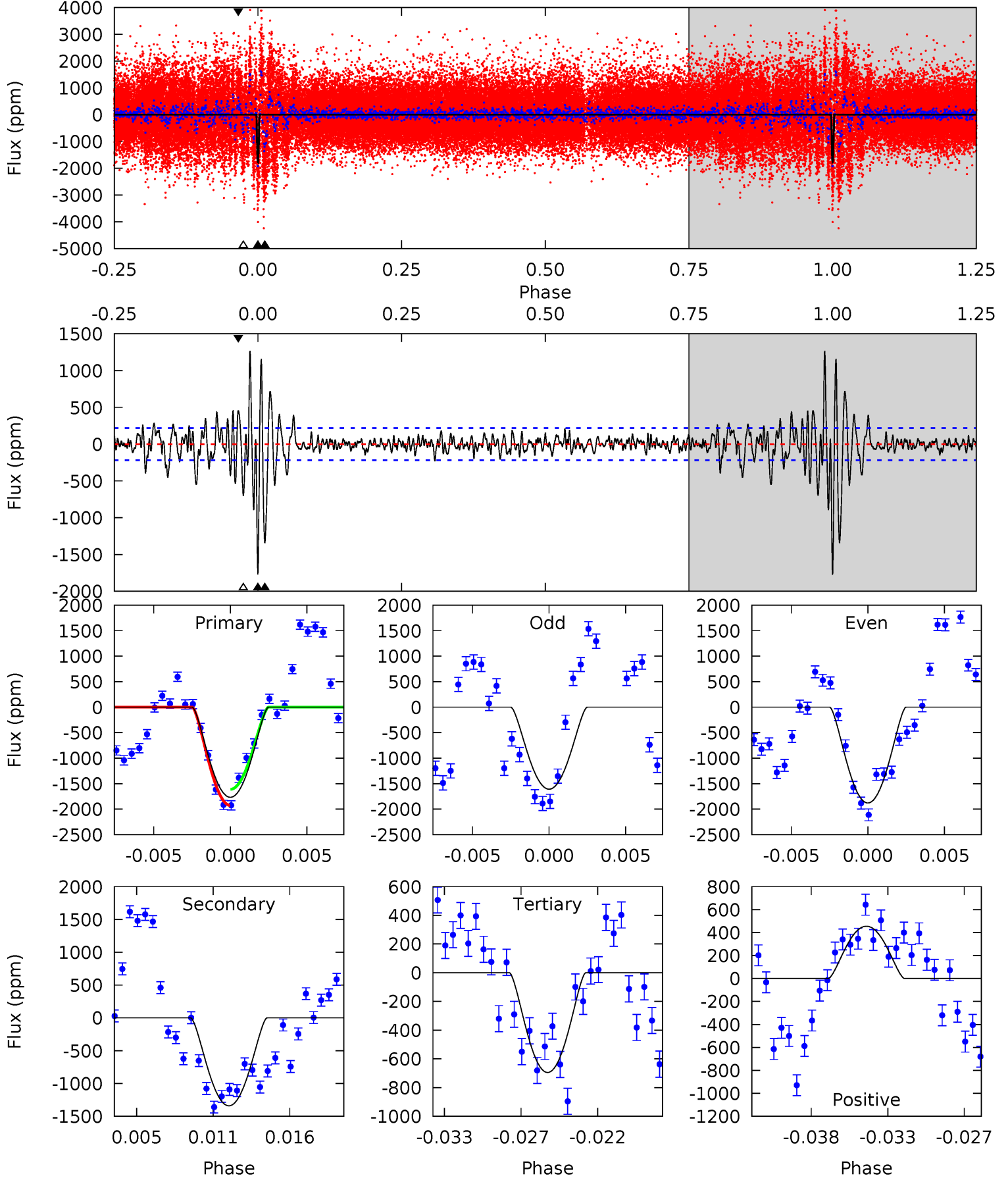
TCE 008752214-01 P=374.717435 Days $T_0=135.905018$ (BKJD)



DV Model-Shift Uniqueness Test

008752214-01, P = 374.677085 Days, E = 136.109334 Days

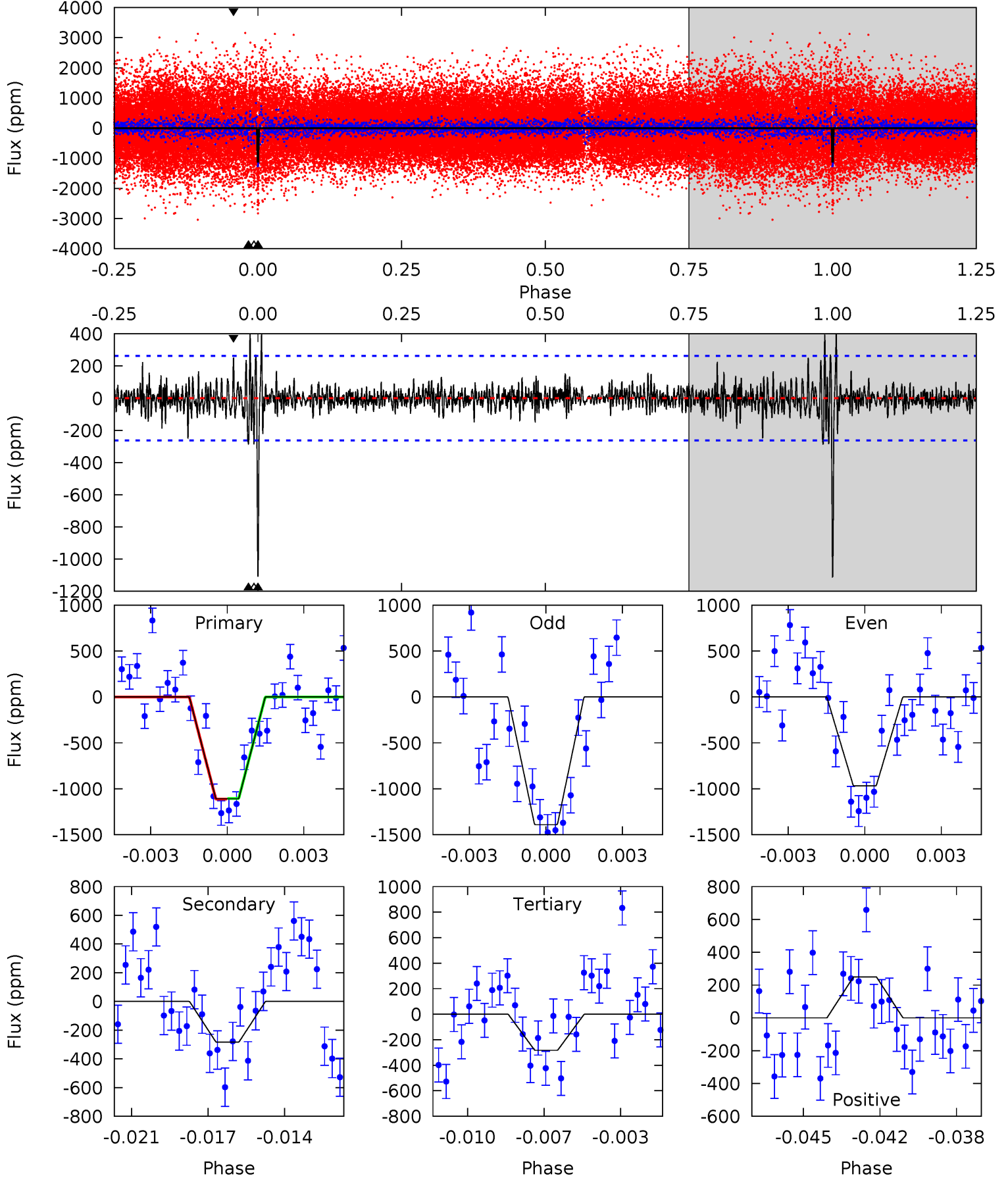
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.5	31.5	16.3	10.7	5.14	2.78	3.62	25.2	30.8	15.2	20.8	3.00	1.11	0.42	3.63



Alt Model-Shift Uniqueness Test

008752214-01, P = 374.717435 Days, E = 135.905018 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	5.64	5.63	4.98	5.22	2.92	1.09	16.4	17.1	0.01	0.66	3.94	0.95	0.26	0.06



Stellar Parameters For KIC 008752214

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5626^{+169}_{-169}	$4.548^{+0.044}_{-0.176}$	$-0.020^{+0.250}_{-0.300}$	$0.859^{+0.235}_{-0.073}$	$0.950^{+0.094}_{-0.104}$	$2.108^{+0.374}_{-1.007}$
	+3%/-3%	+1%/-4%	+1250%/-1500%	+27%/-8%	+10%/-11%	+18%/-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 008752214-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1340 ± 43	$8.59^{+7.90}_{-5.94}$	329^{+21}_{-14}	3977^{+2444}_{-765}	9934^{+86536}_{-7205}
Alt.	-284 ± 50	$7.26^{+7.72}_{-5.03}$	328^{+20}_{-15}	3243^{+1614}_{-590}	2822^{+26831}_{-2139}

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

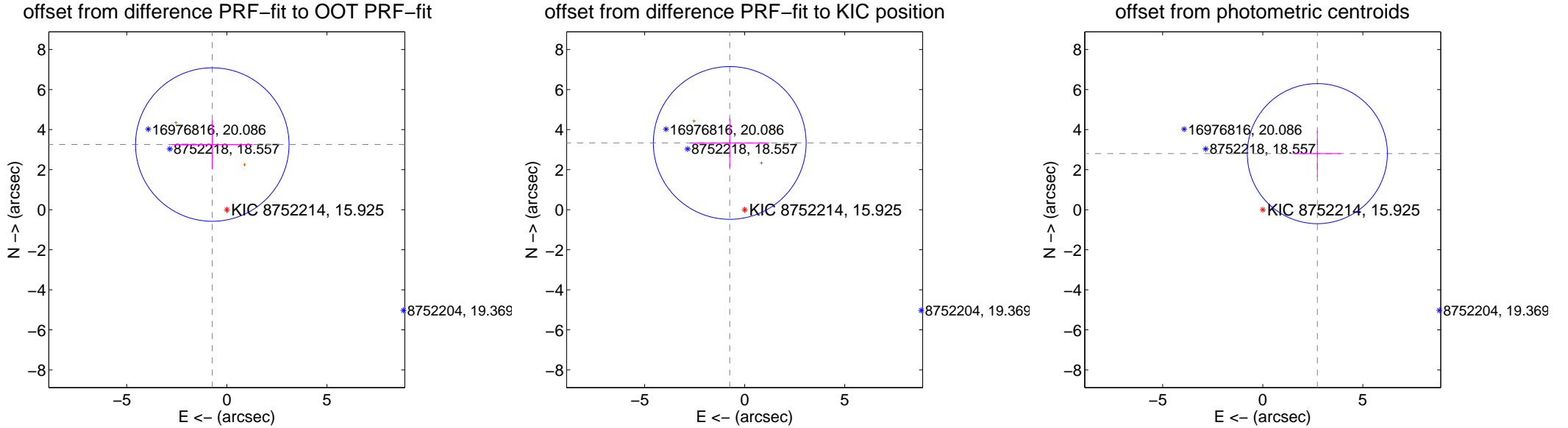
DV Centroid Data

Supplemental centroid analysis for 008752214-01. Kepler magnitude: 15.93. Transit SNR 9.19

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.335 ± 1.277	2.61	0.728 ± 2.002	3.255 ± 1.230
PRF-fit source offset from KIC position	3.418 ± 1.271	2.69	0.746 ± 1.964	3.335 ± 1.226
photometric centroid source offset	3.91 ± 1.17	3.35	-2.73 ± 1.17	2.80 ± 1.16

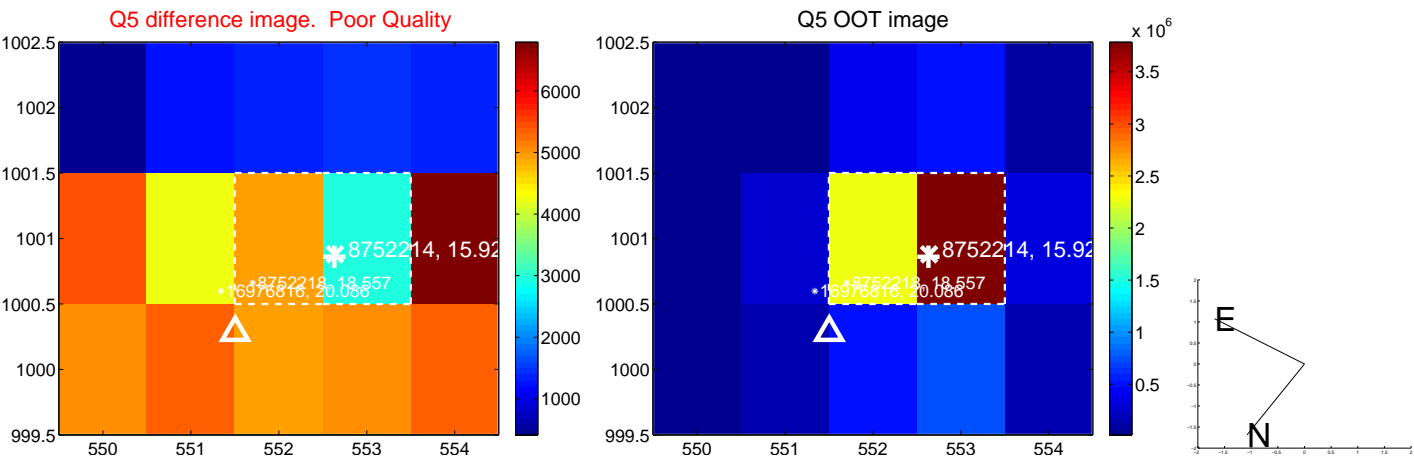


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



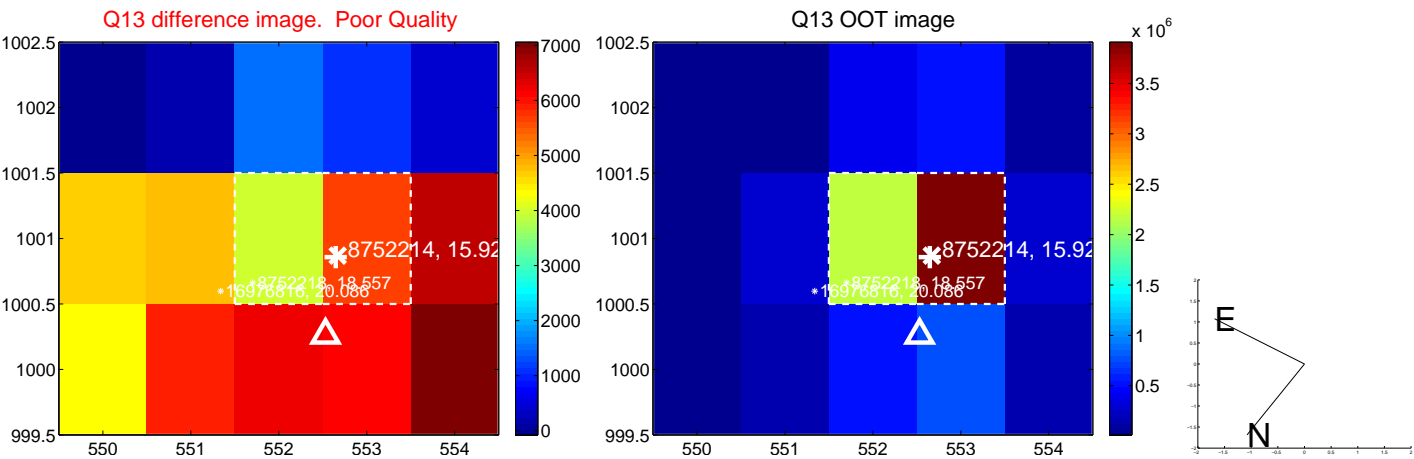
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



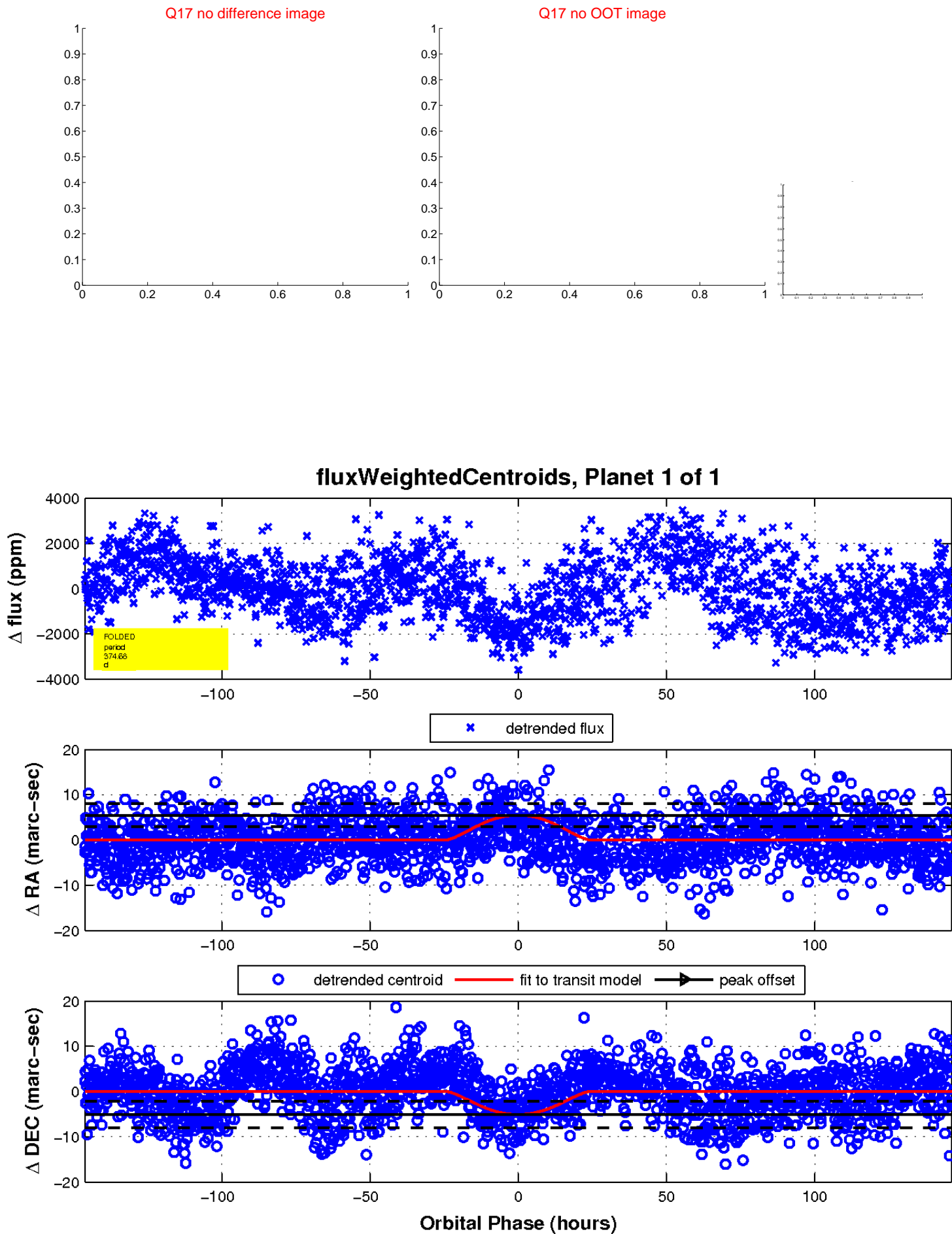
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: 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.



UKIRT Image

Declination

