

KIC 008504653

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})
008504653-01	OBS	No	366.538649	183.613364	2082.2	30.300	8.7	9.9	0.73	4835	6.67	0.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008504653-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

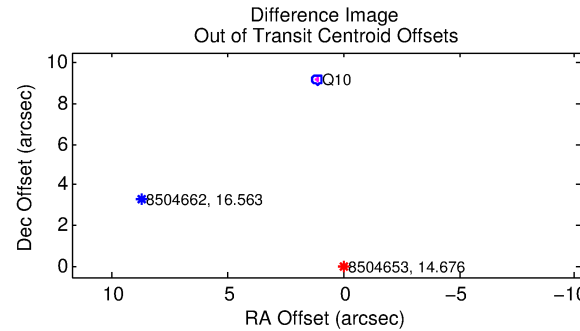
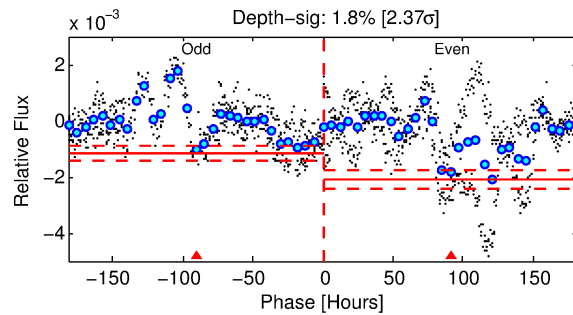
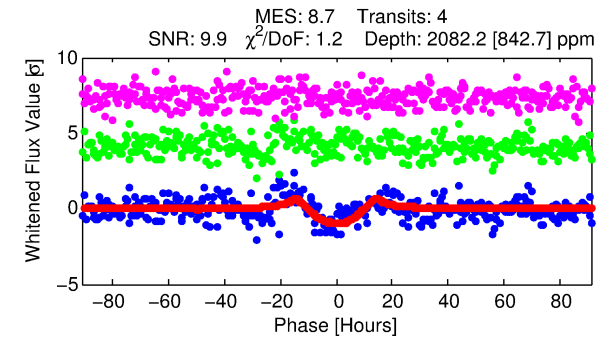
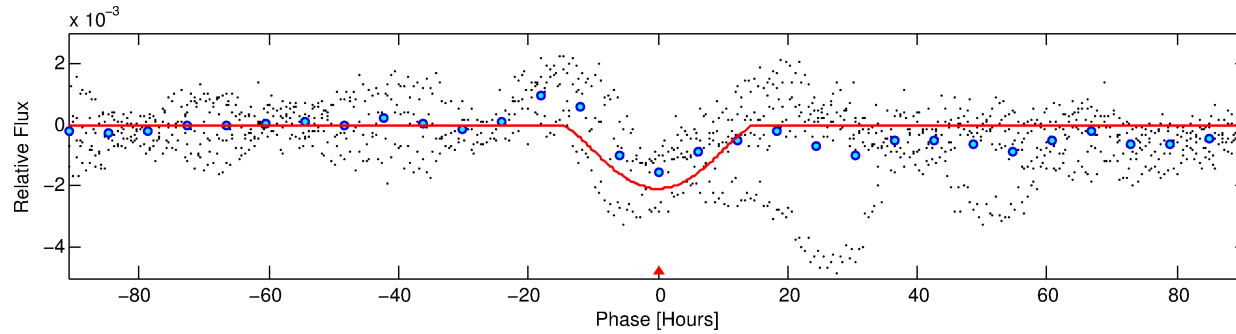
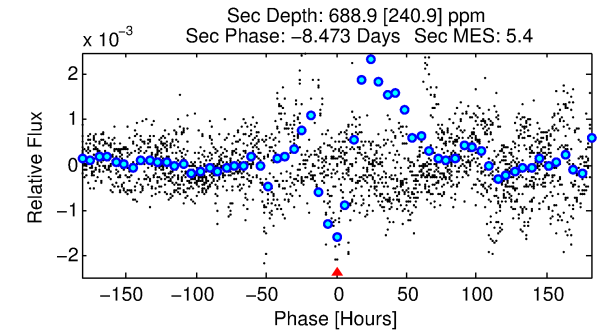
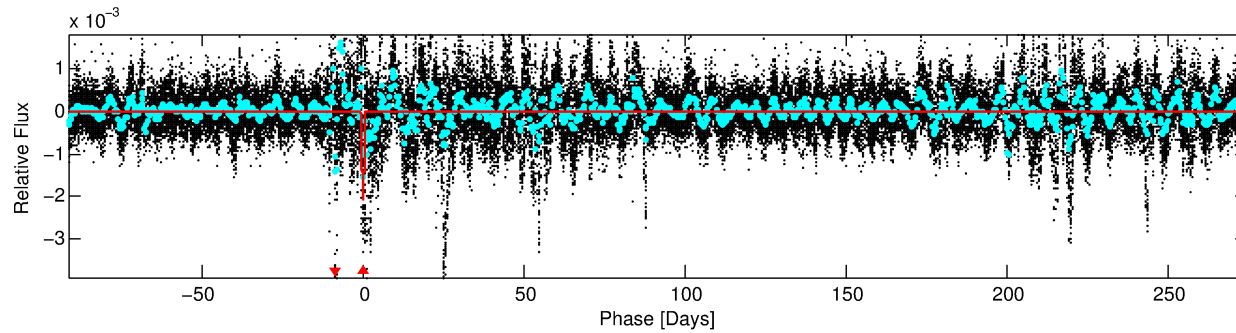
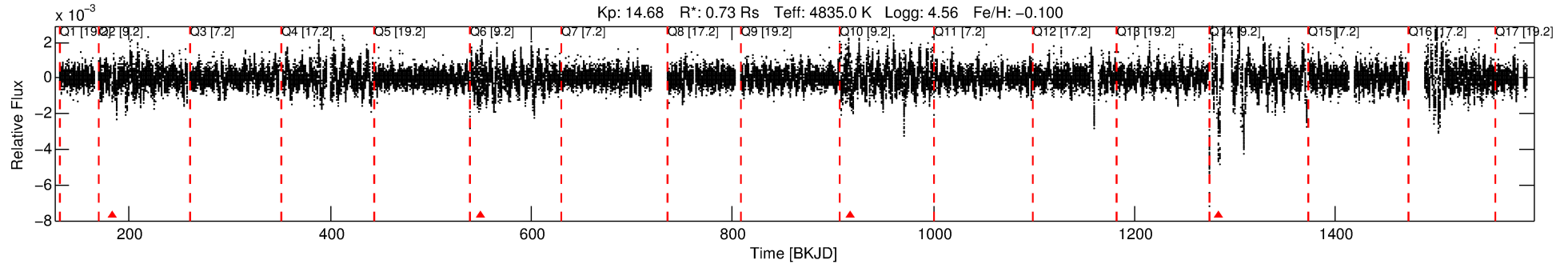
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008504653-01

No Significant Match Found

DV One-Page Summary

KIC: 8504653 Candidate: 1 of 1 Period: 366.539 d



DV Fit Results:

Period = 366.53865 [0.02672] d
Epoch = 183.6134 [0.0480] BKJD
Rp/R* = 0.0831 [0.1435]
a/R* = 38.47 [13.06]
b = 1.00 [0.18]
Seff = 0.33 [0.05]
Teq = 193 [8] K
Rp = 6.67 [11.52] Re
a = 0.8960 [0.0715] AU
Ag = 6848.55 [23784.22] [0.29σ]
Teff = 2717 [2359] K [1.07σ]

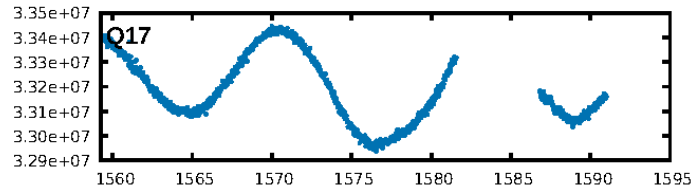
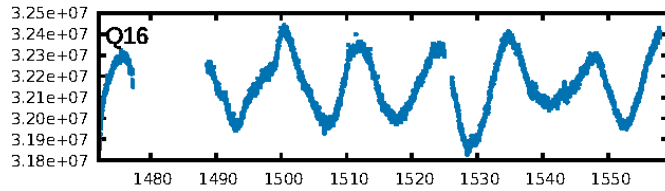
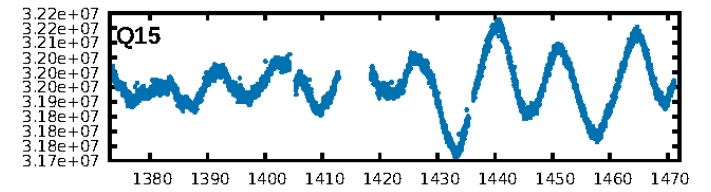
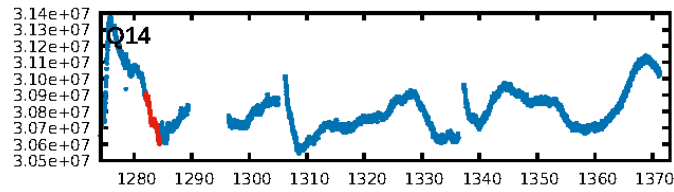
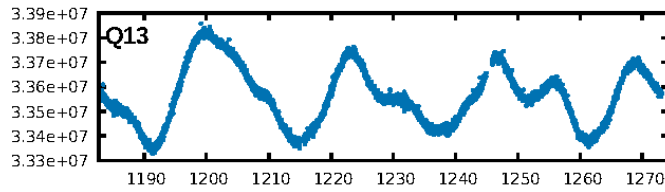
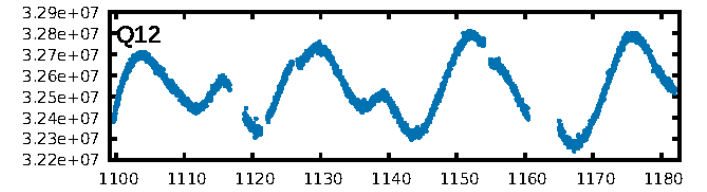
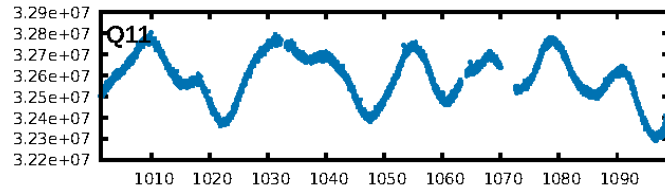
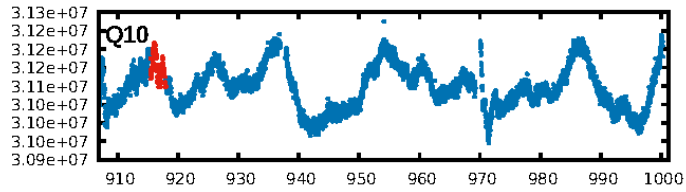
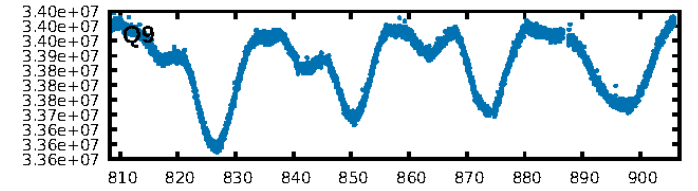
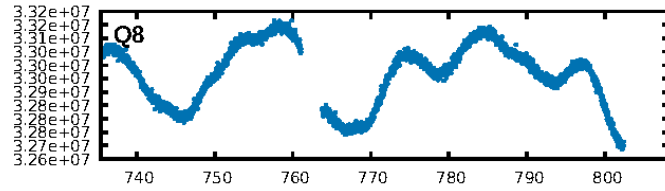
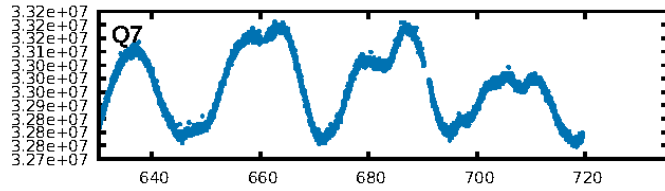
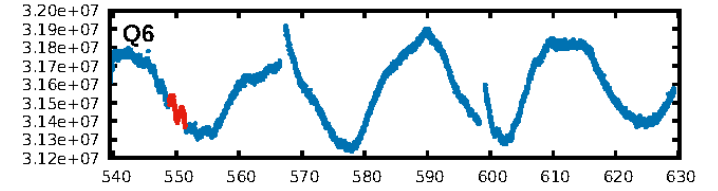
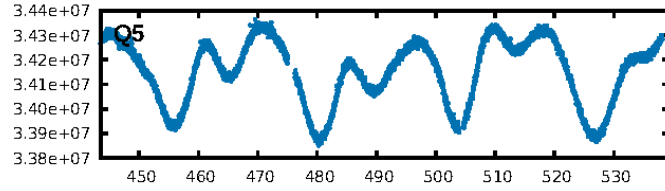
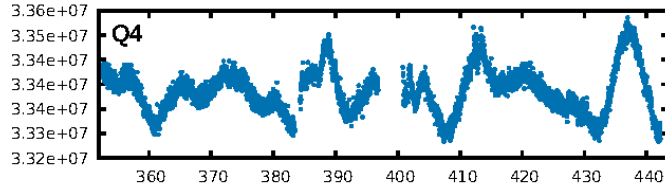
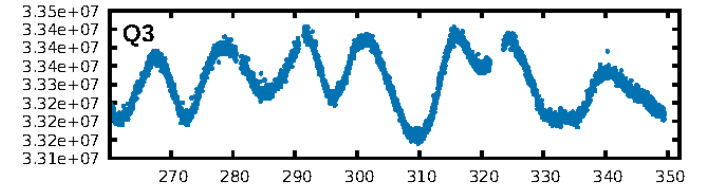
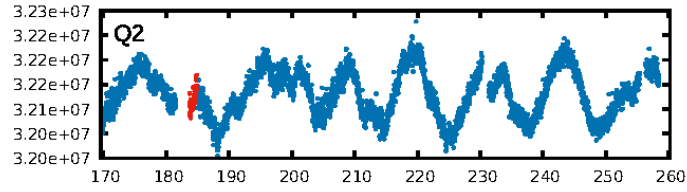
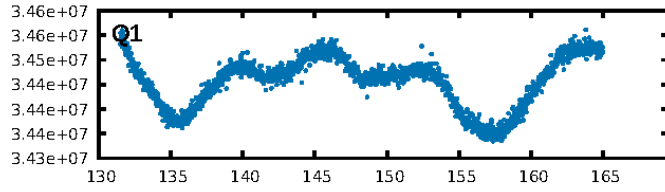
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 50.5%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 5.35e-10
RollingBand-fgt: 0.00 [0/4]
GhostDiagnostic-chr: 1.081
Centroid-sig: 0.1%
Centroid-so: 2.004 arcsec [2.07σ]
OotOffset-rm: 9.239 arcsec [122.01σ]
KicOffset-rm: 9.060 arcsec [119.65σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

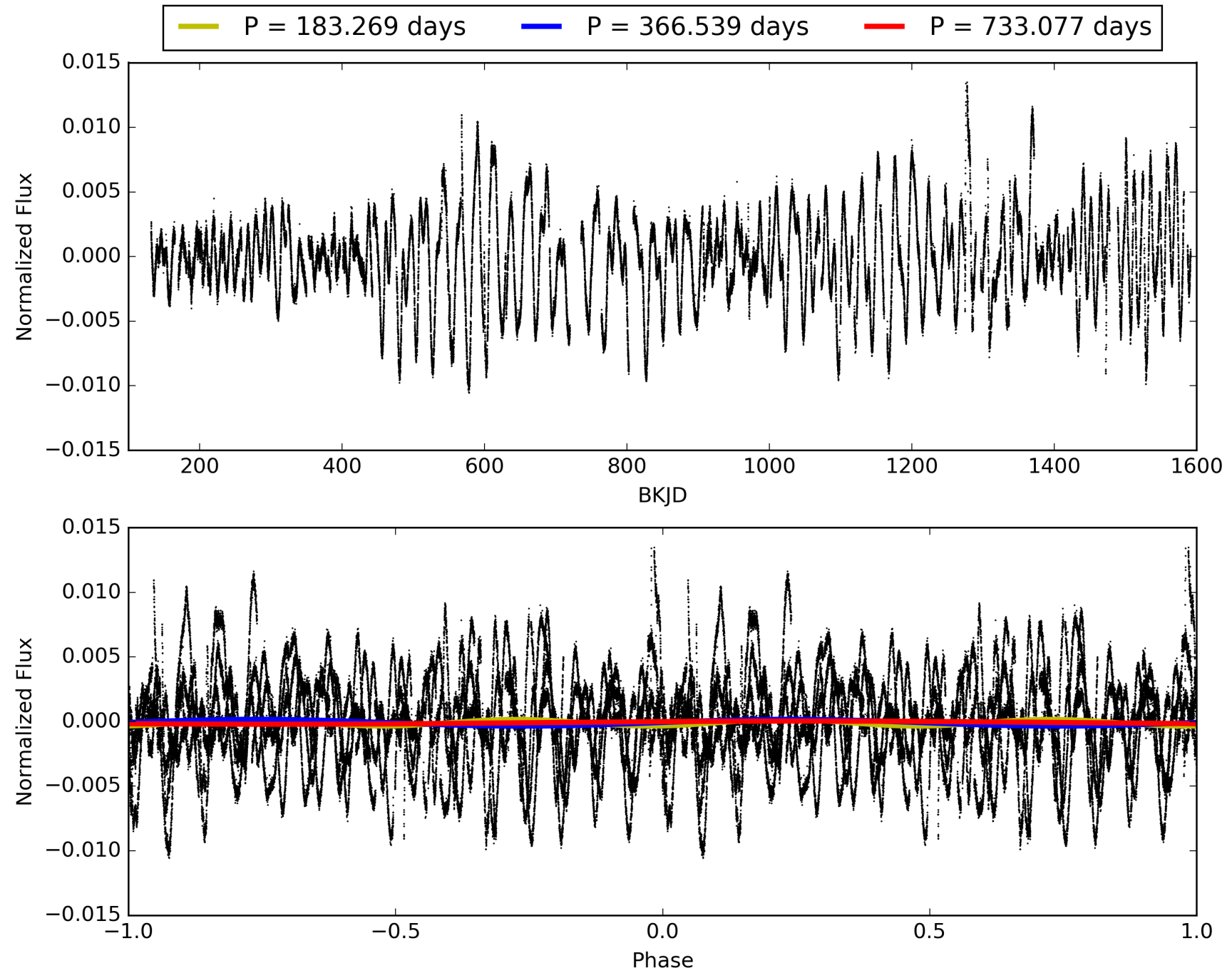
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:40:29 Z

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

TCE 008504653-01, PDC Light Curves

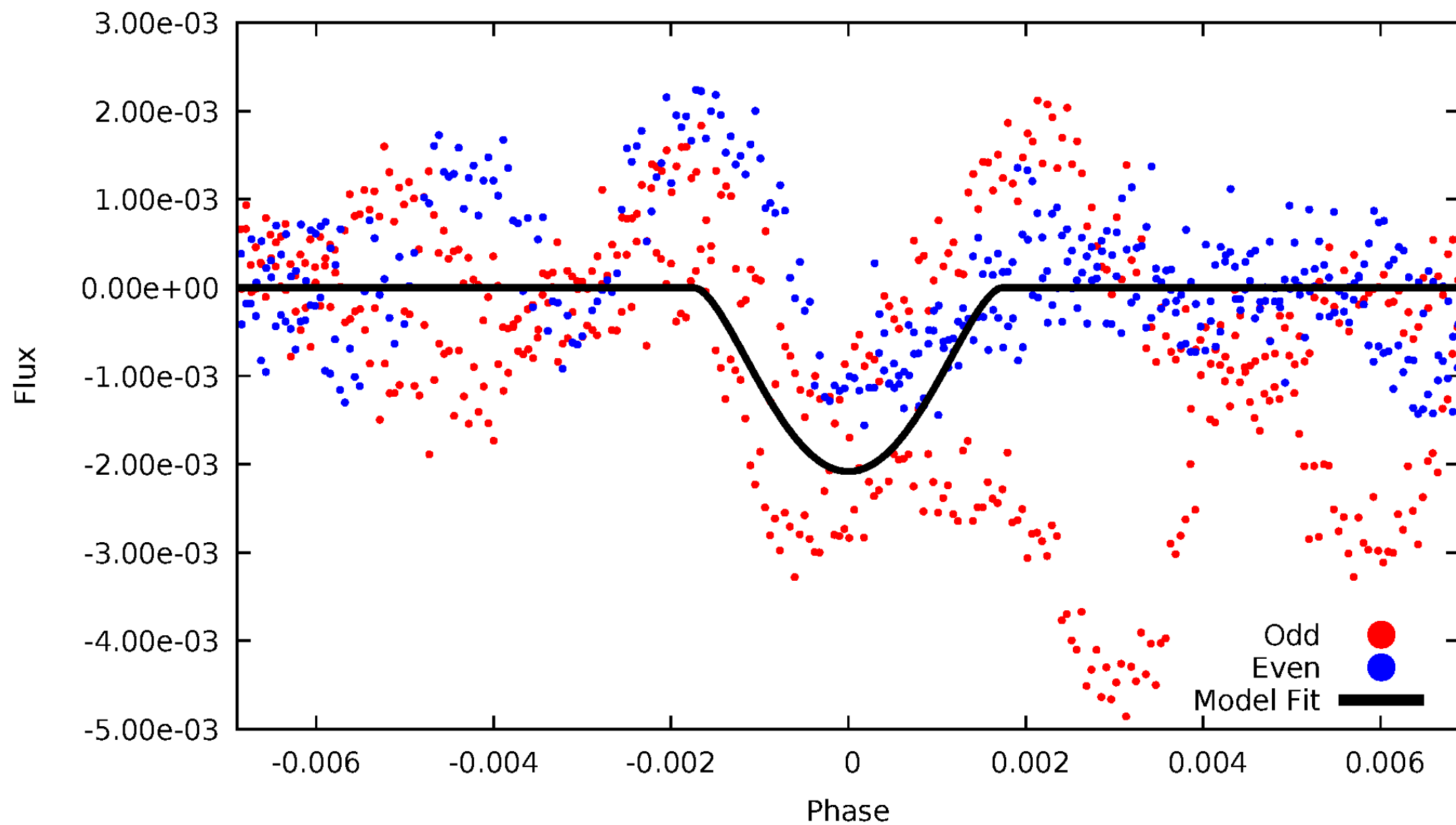


TCE 008504653-01



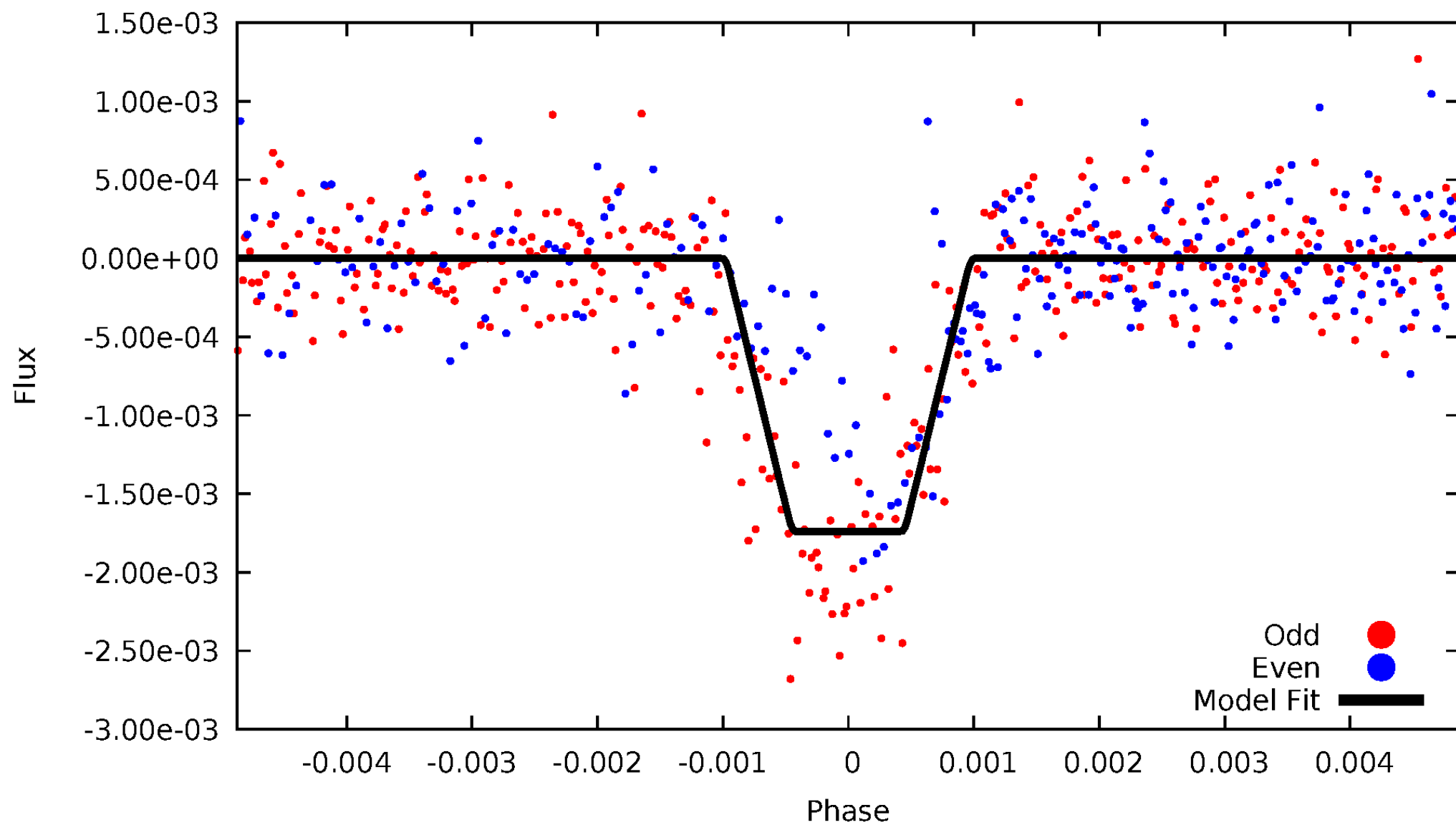
DV Odd/Even

TCE 008504653-01



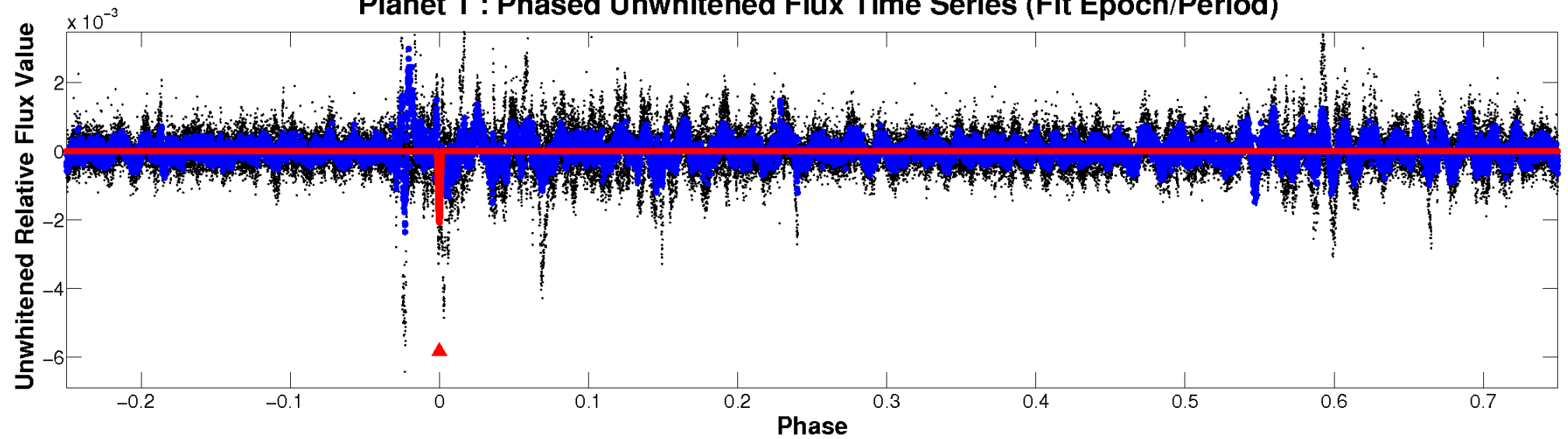
ALT Odd/Even

TCE 008504653-01

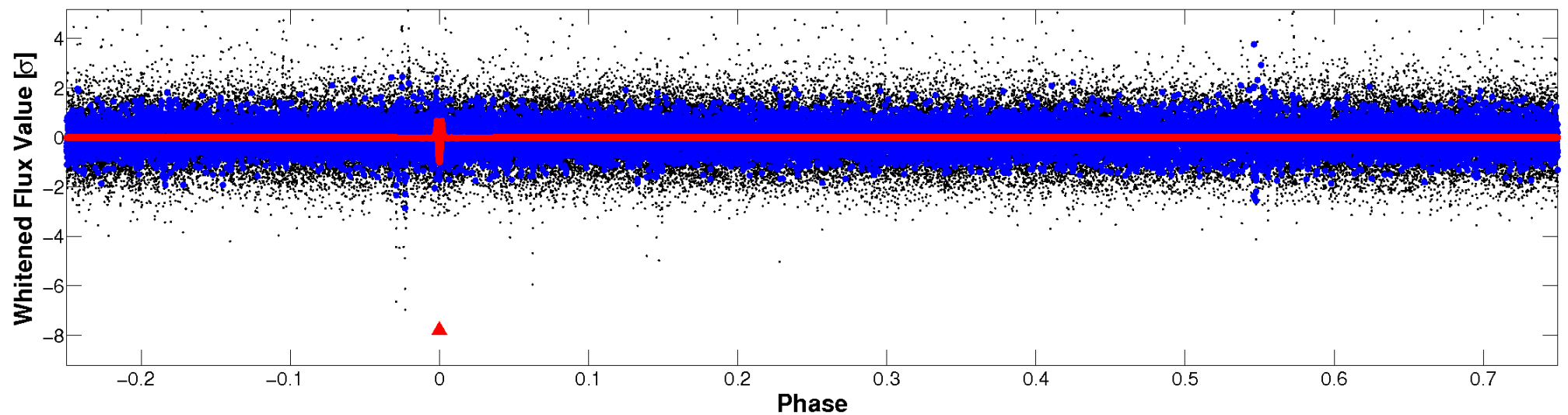


Non-Whitened Vs. Whitened Light Curve

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

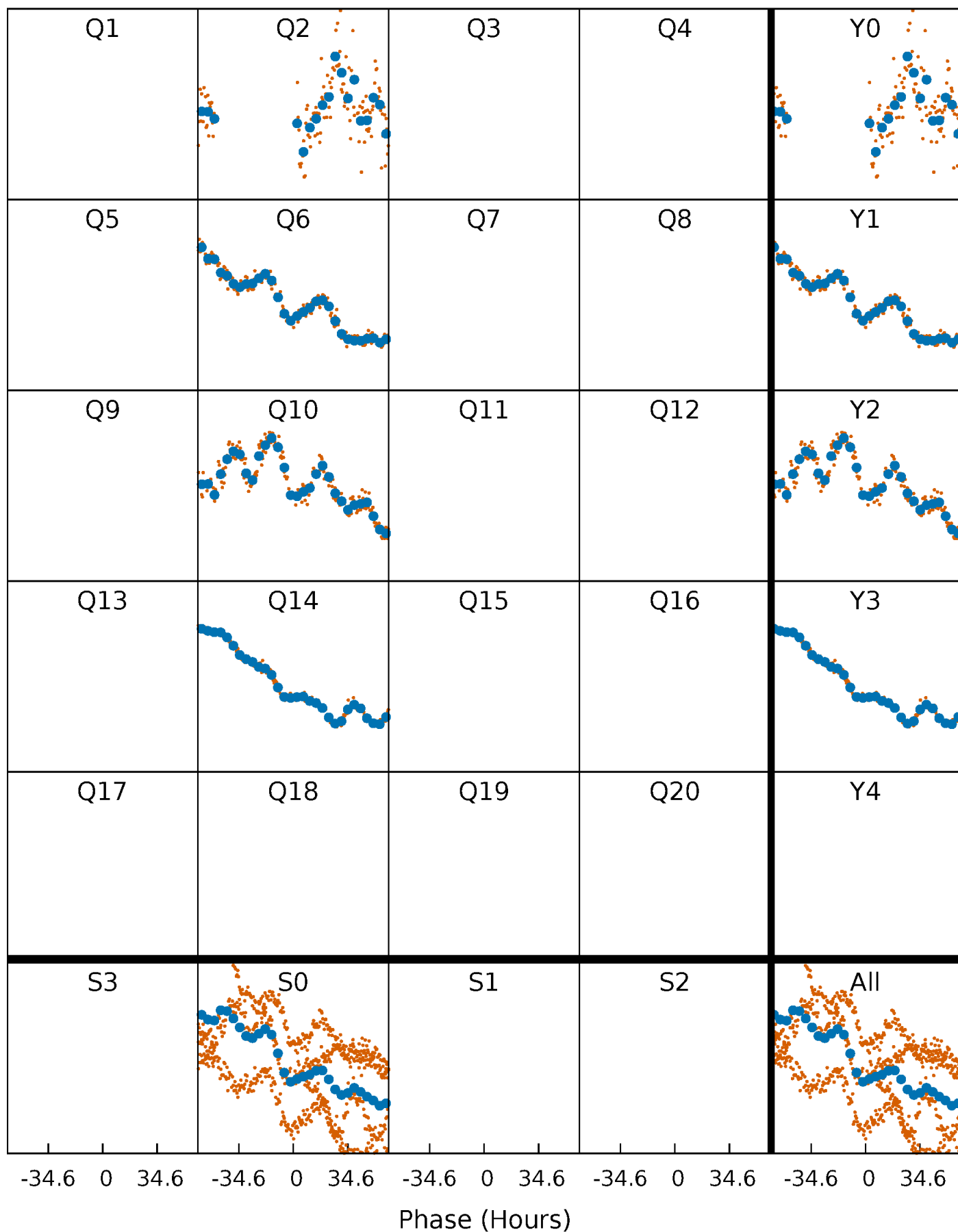


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



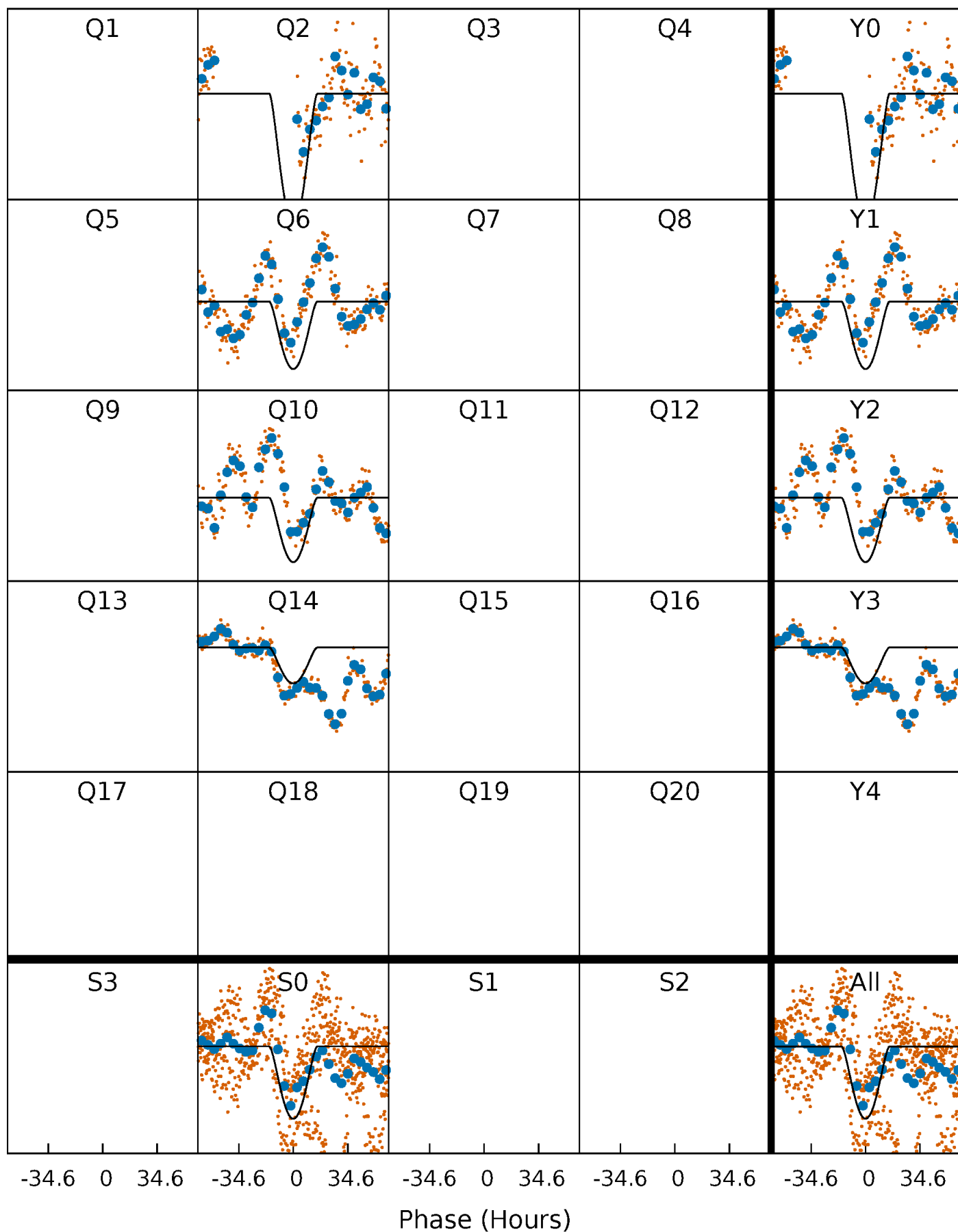
PDC Quarter-Phased Transit Curves

TCE 008504653-01 P=366.538649 Days $T_0=183.613364$ (BKJD)



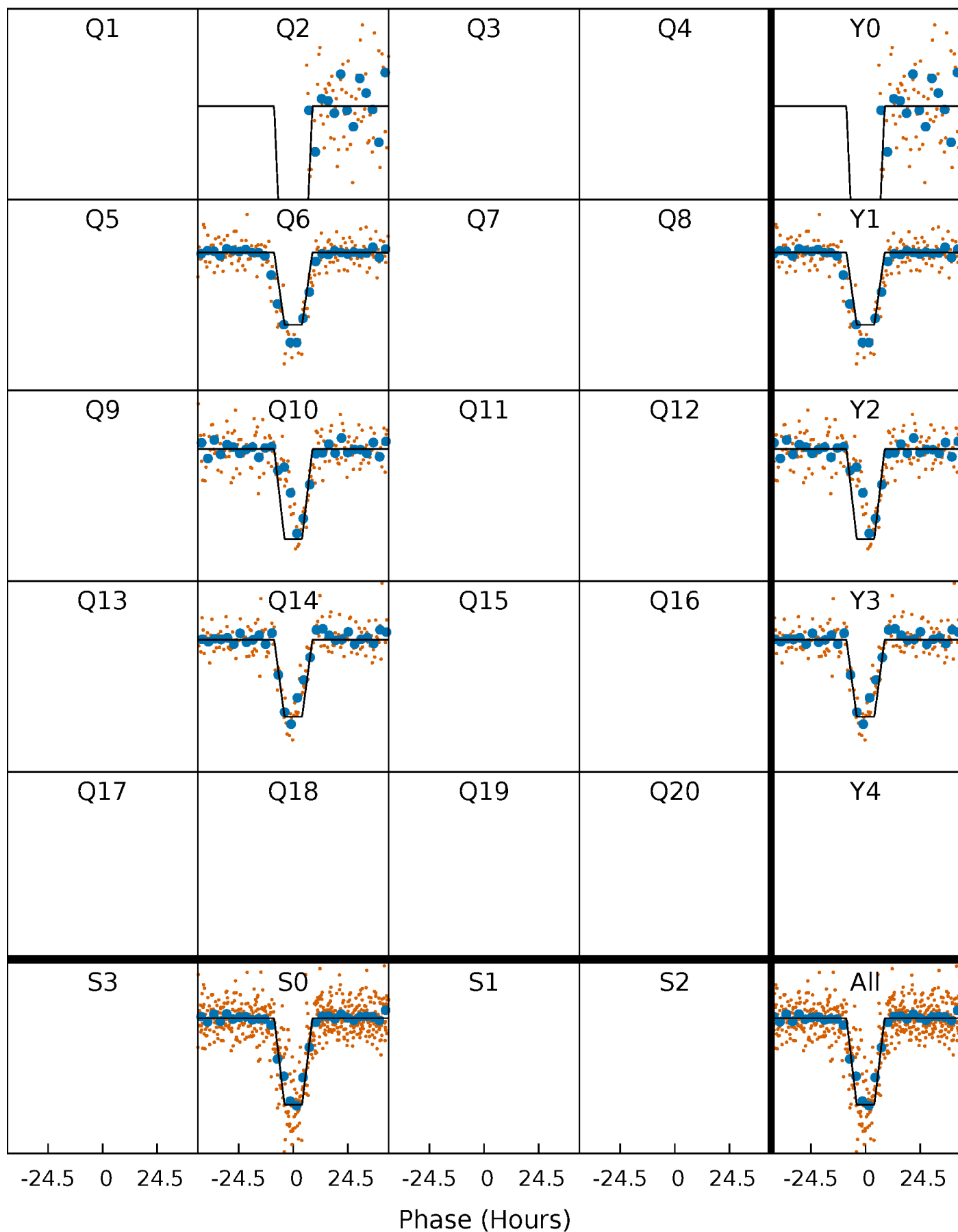
DV Quarter-Phased Transit Curves

TCE 008504653-01 P=366.538649 Days $T_0=183.613364$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

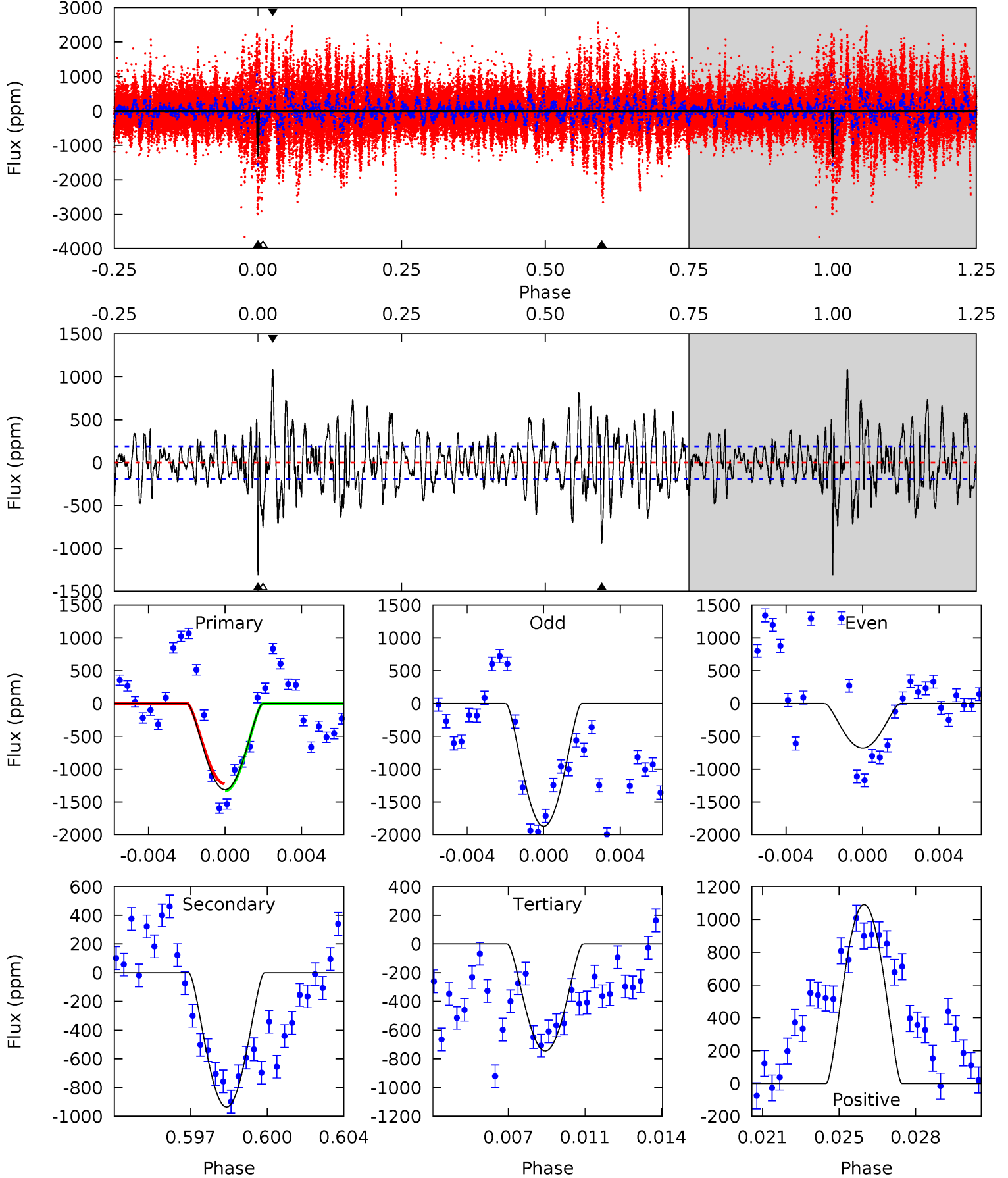
TCE 008504653-01 P=366.509954 Days $T_0=183.489429$ (BKJD)



DV Model-Shift Uniqueness Test

008504653-01, P = 366.538649 Days, E = 183.613364 Days

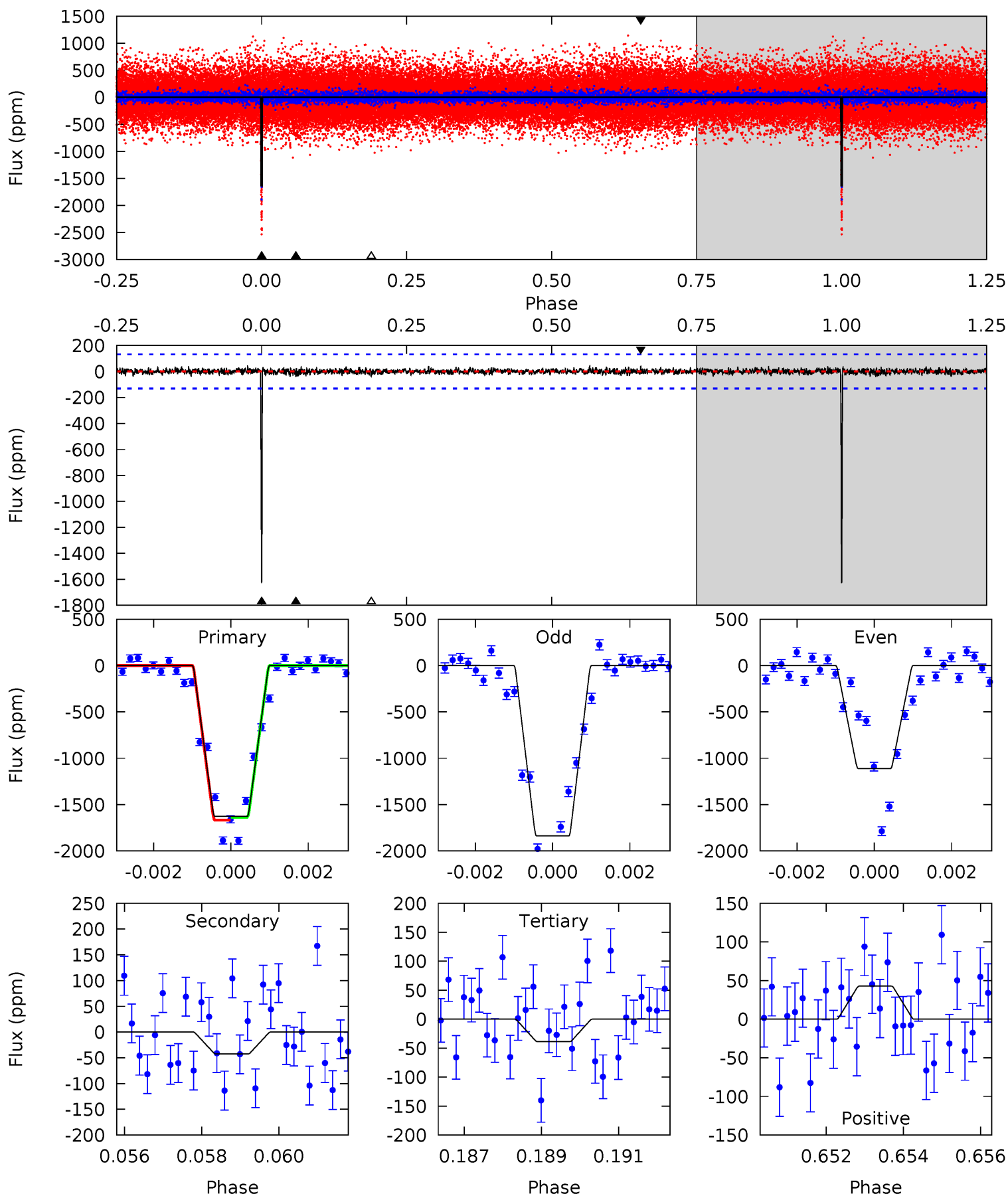
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
36.1	25.7	20.5	29.9	5.22	2.92	7.24	15.6	6.13	5.23	-4.27	15.2	1.59	0.45	1.46



Alt Model-Shift Uniqueness Test

008504653-01, P = 366.509954 Days, E = 183.489429 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
66.2	1.73	1.58	1.74	5.33	3.09	0.44	64.6	64.5	0.15	-0.01	14.5	0.82	0.03	0.56



Stellar Parameters For KIC 008504653

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4835^{+131}_{-131}	$4.559^{+0.066}_{-0.048}$	$-0.100^{+0.300}_{-0.300}$	$0.735^{+0.062}_{-0.068}$	$0.714^{+0.090}_{-0.053}$	$2.535^{+0.693}_{-0.409}$
	+3%/-3%	+1%/-1%	+300%/-300%	+8%/-9%	+13%/-7%	+27%/-16%
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 008504653-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-935 ± 36	$10.89^{+9.80}_{-7.41}$	269^{+10}_{-9}	2930^{+1262}_{-447}	3531^{+30244}_{-2554}
Alt.	-43 ± 25	$9.67^{+8.54}_{-6.44}$	269^{+9}_{-10}	2062^{+620}_{-299}	186^{+1622}_{-148}

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

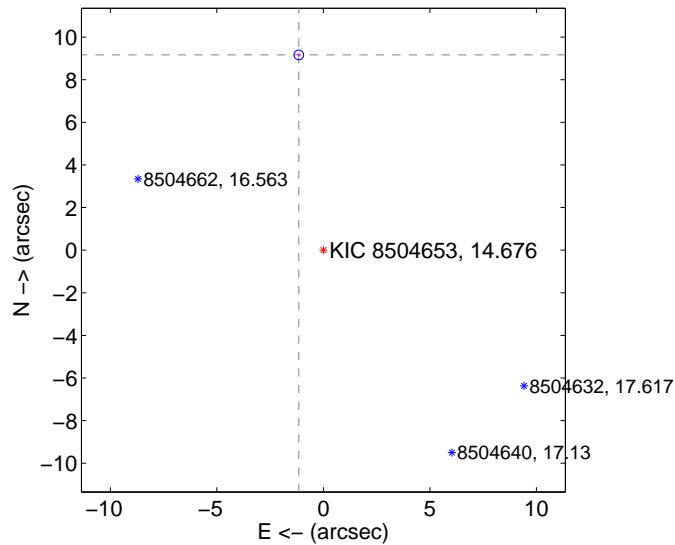
Supplemental centroid analysis for 008504653-01. Kepler magnitude: 14.68. Transit SNR 9.90

There are 0 quarters with good PRF difference image offsets

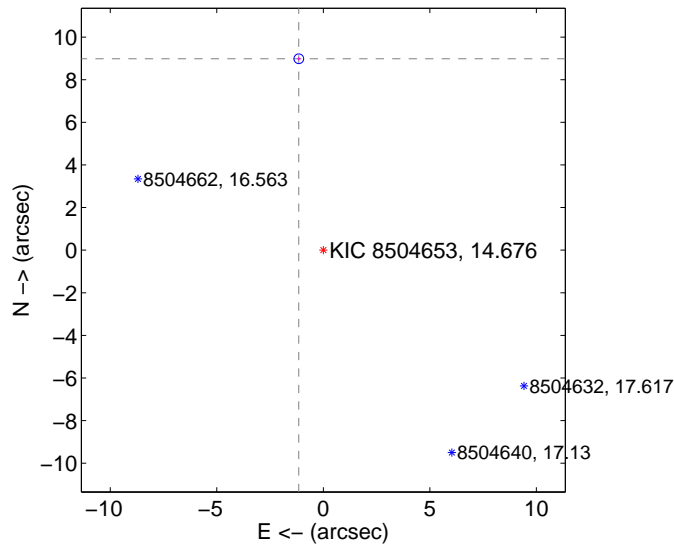
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.239 \pm 0.076	122.01	1.154 \pm 0.076	9.167 \pm 0.076
PRF-fit source offset from KIC position	9.060 \pm 0.076	119.65	1.151 \pm 0.076	8.987 \pm 0.076
photometric centroid source offset	2.00 \pm 0.97	2.07	-0.95 \pm 0.77	-1.76 \pm 1.01

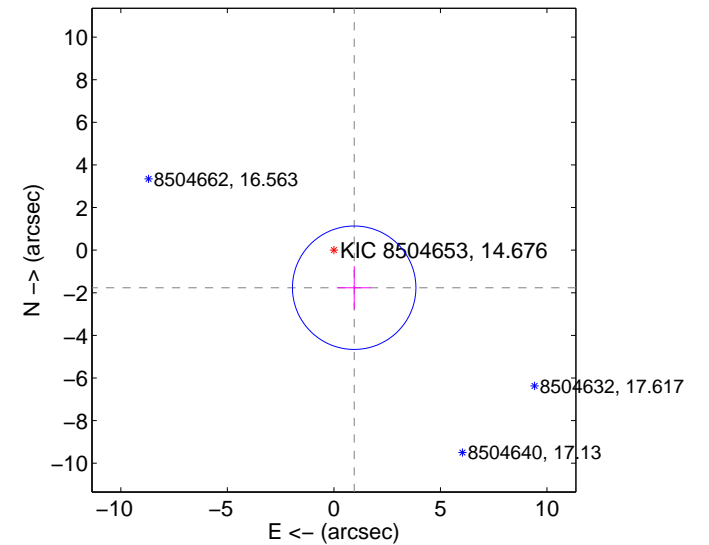
offset from difference PRF-fit to OOT PRF-fit



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

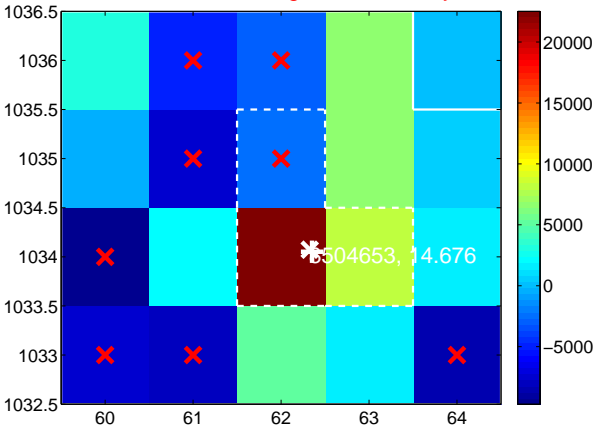
Q5 no difference image



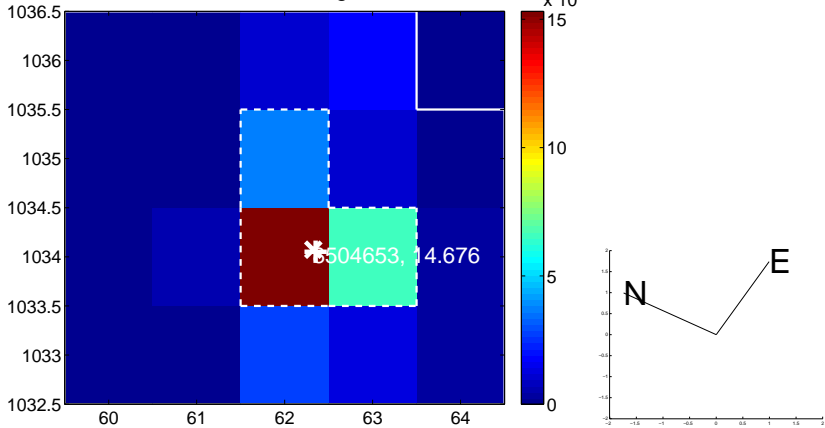
Q5 no OOT image



Q6 difference image. Poor Quality



Q6 OOT image



Q7 no difference image



Q7 no OOT image



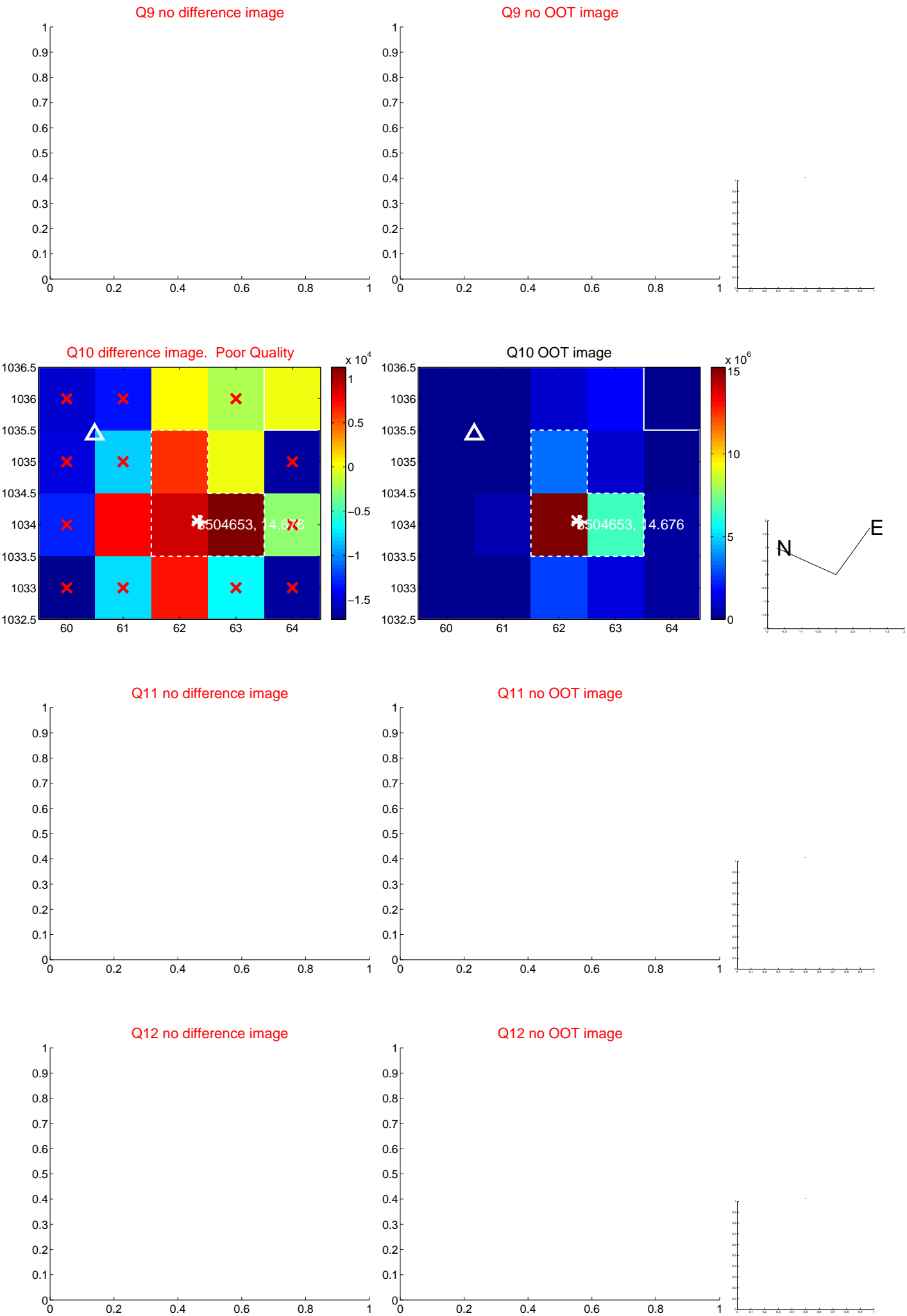
Q8 no difference image



Q8 no OOT image



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



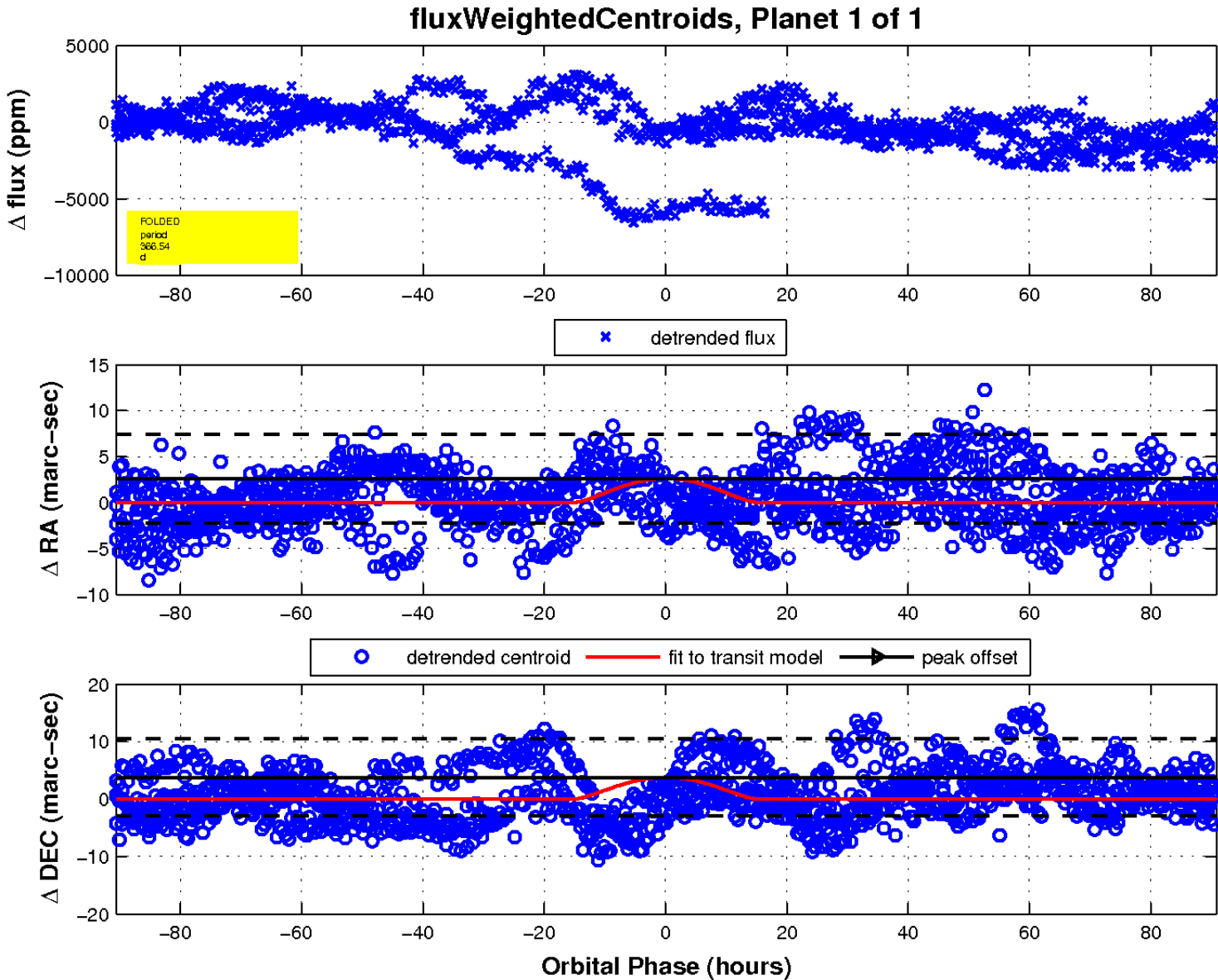
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Q17 no difference image

Q17 no OOT image



UKIRT Image

Declination

