

KIC 004263546

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})
004263546-01	OBS	No	375.377883	488.798984	345.2	8.275	7.8	7.3	1.19	6500	2.49	1.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004263546-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

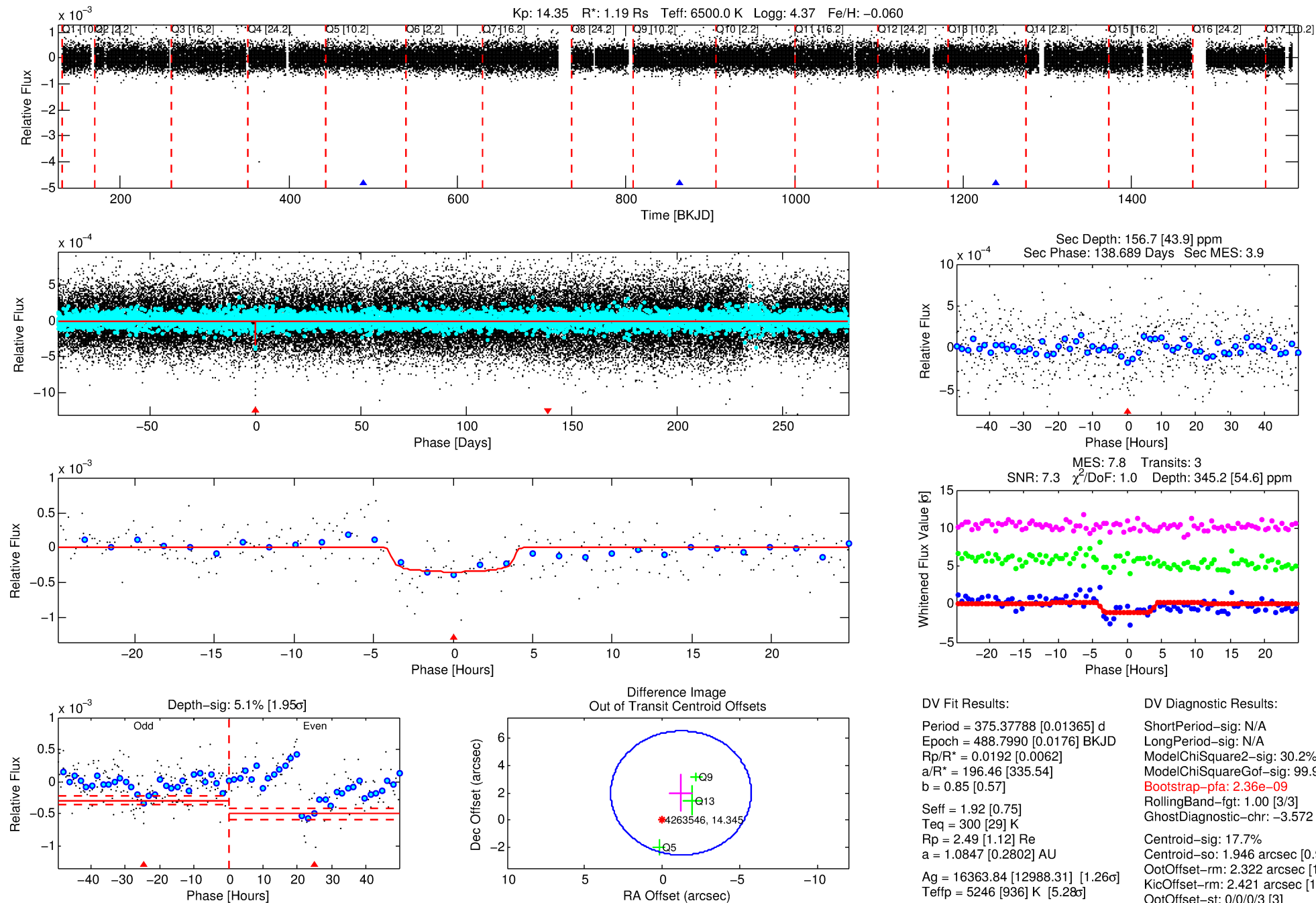
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004263546-01

No Significant Match Found

DV One-Page Summary

KIC: 4263546 Candidate: 1 of 1 Period: 375.378 d



DV Fit Results:

Period = 375.37788 [0.01365] d
Epoch = 488.7990 [0.0176] BKJD
Rp/R* = 0.0192 [0.0062]
a/R* = 196.46 [335.54]
b = 0.85 [0.57]
Seff = 1.92 [0.75]
Teq = 300 [29] K
Rp = 2.49 [1.12] Re
a = 1.0847 [0.2802] AU
Ag = 16363.84 [12988.31] [1.26 σ]
Teffp = 5246 [936] K [5.28 σ]

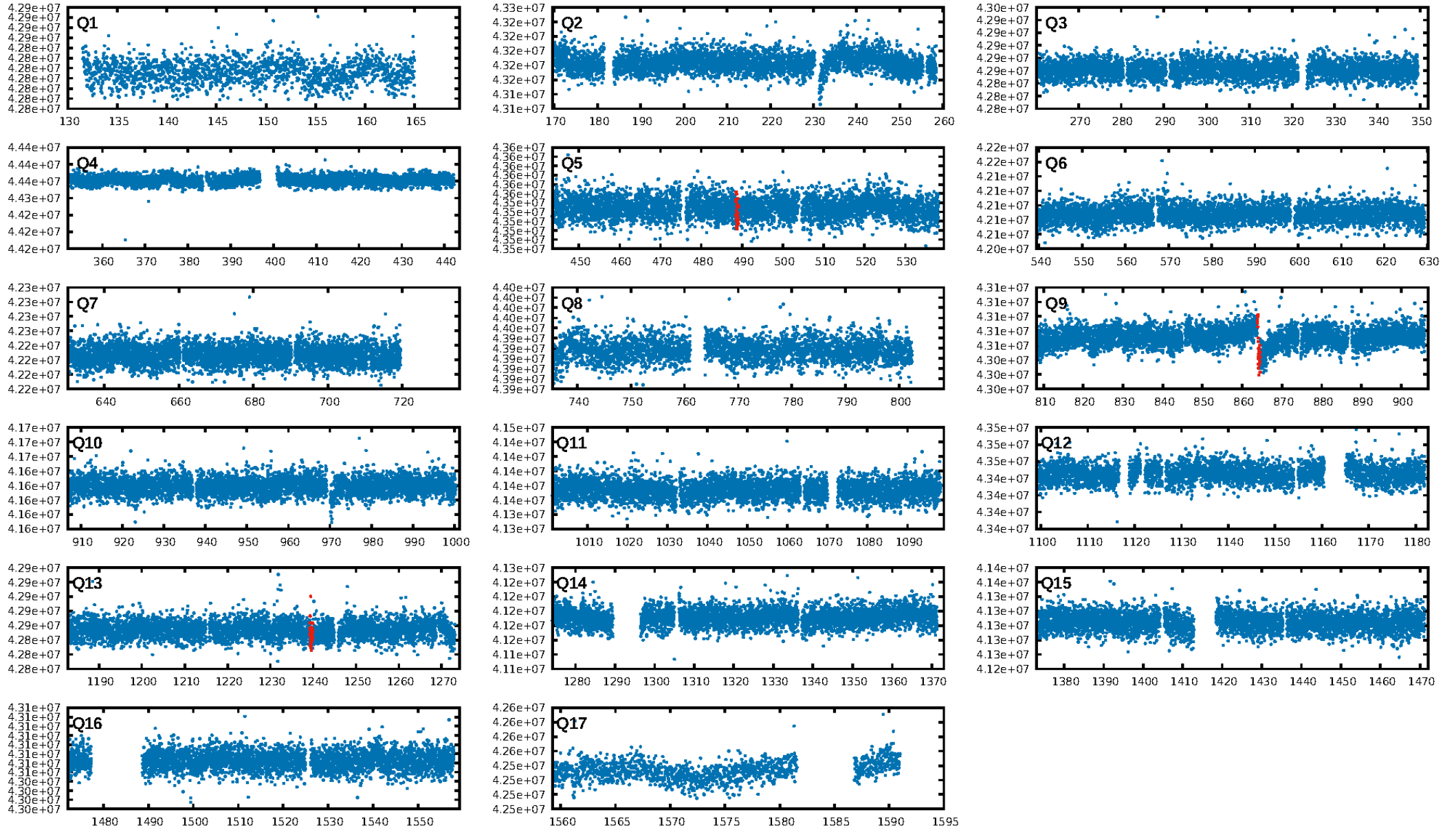
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 30.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.36e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -3.572
Centroid-sig: 17.7%
Centroid-so: 1.946 arcsec [0.96 σ]
OotOffset-rm: 2.322 arcsec [1.54 σ]
KicOffset-rm: 2.421 arcsec [1.68 σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

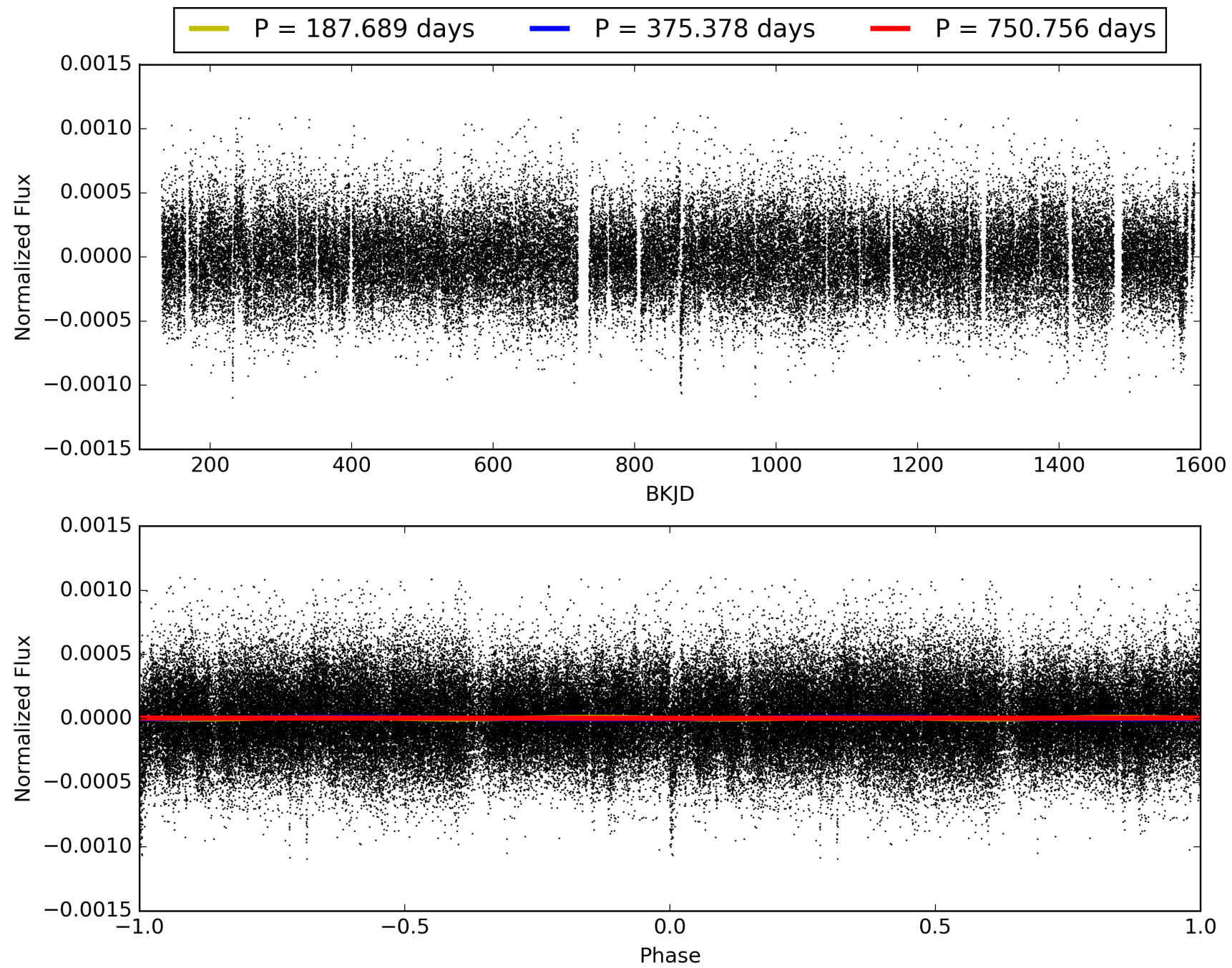
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:26:56 Z

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

TCE 004263546-01, PDC Light Curves

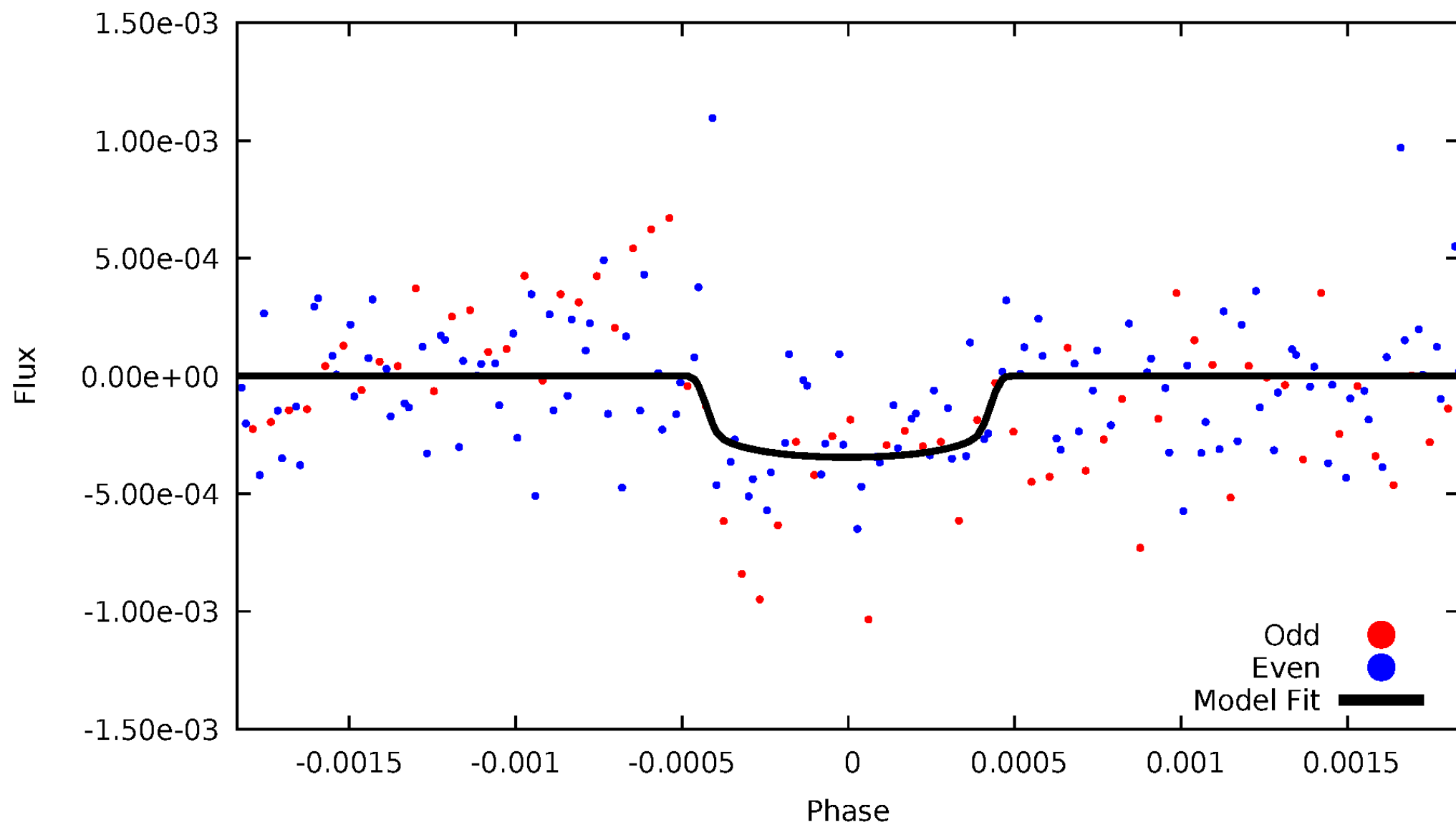


TCE 004263546-01



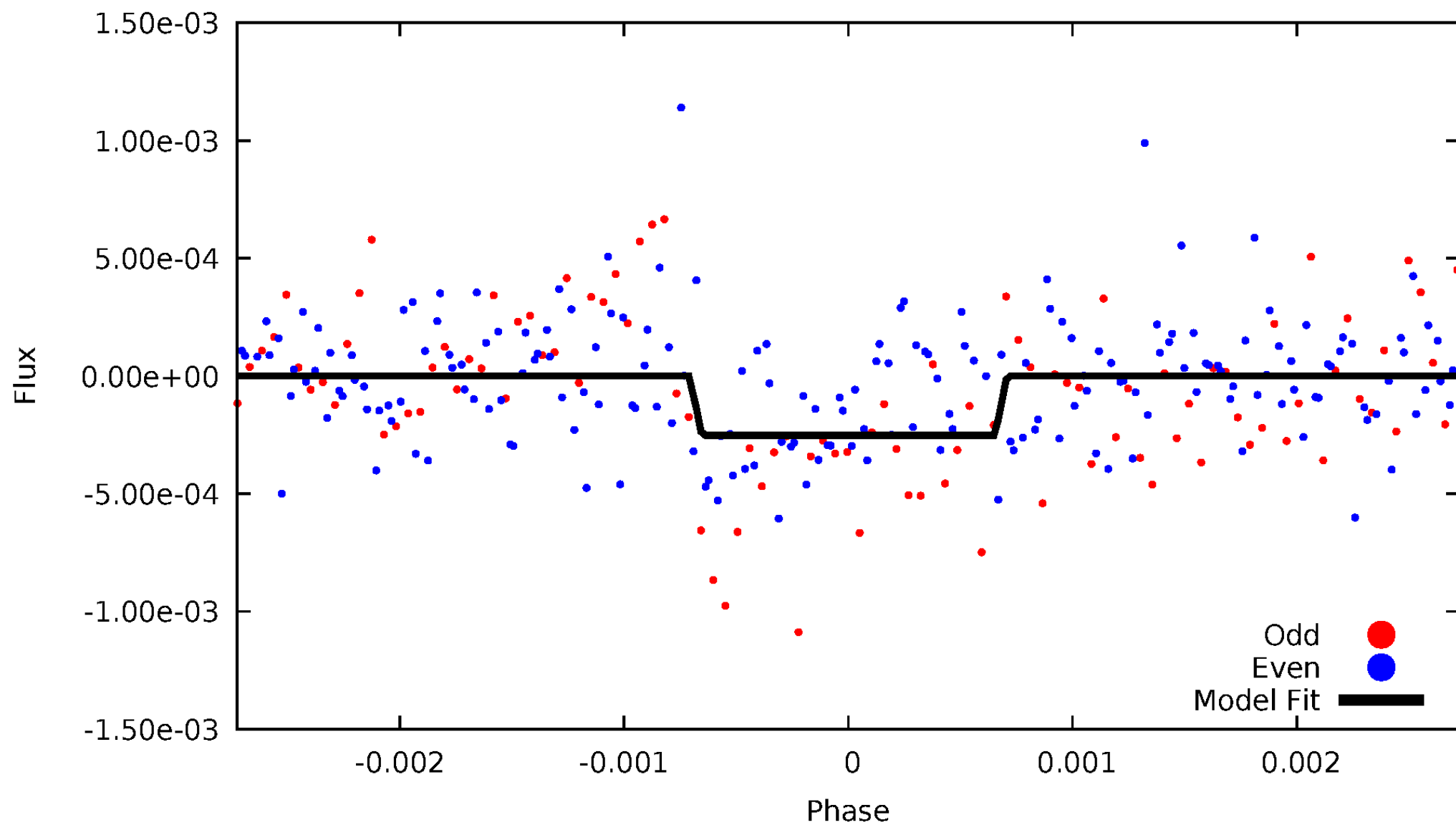
DV Odd/Even

TCE 004263546-01

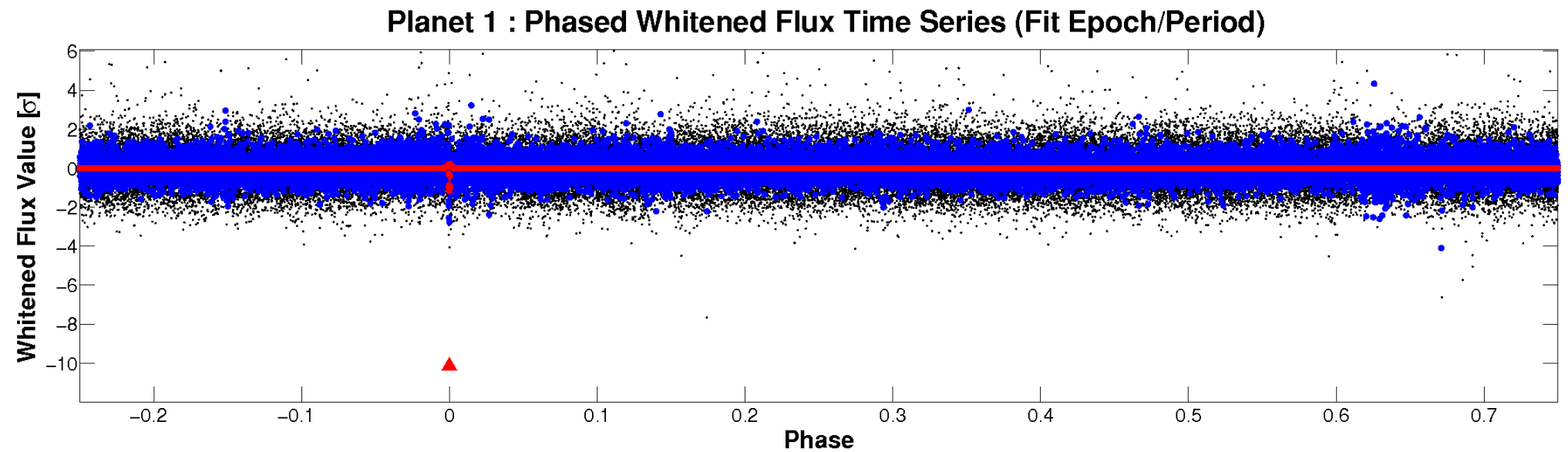
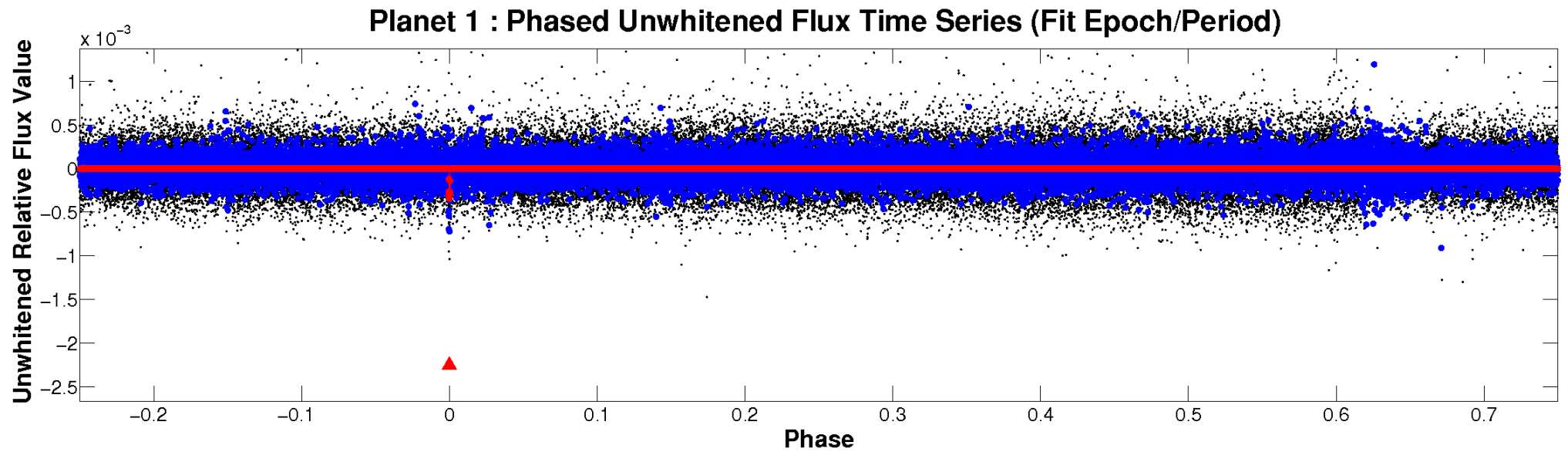


ALT Odd/Even

TCE 004263546-01

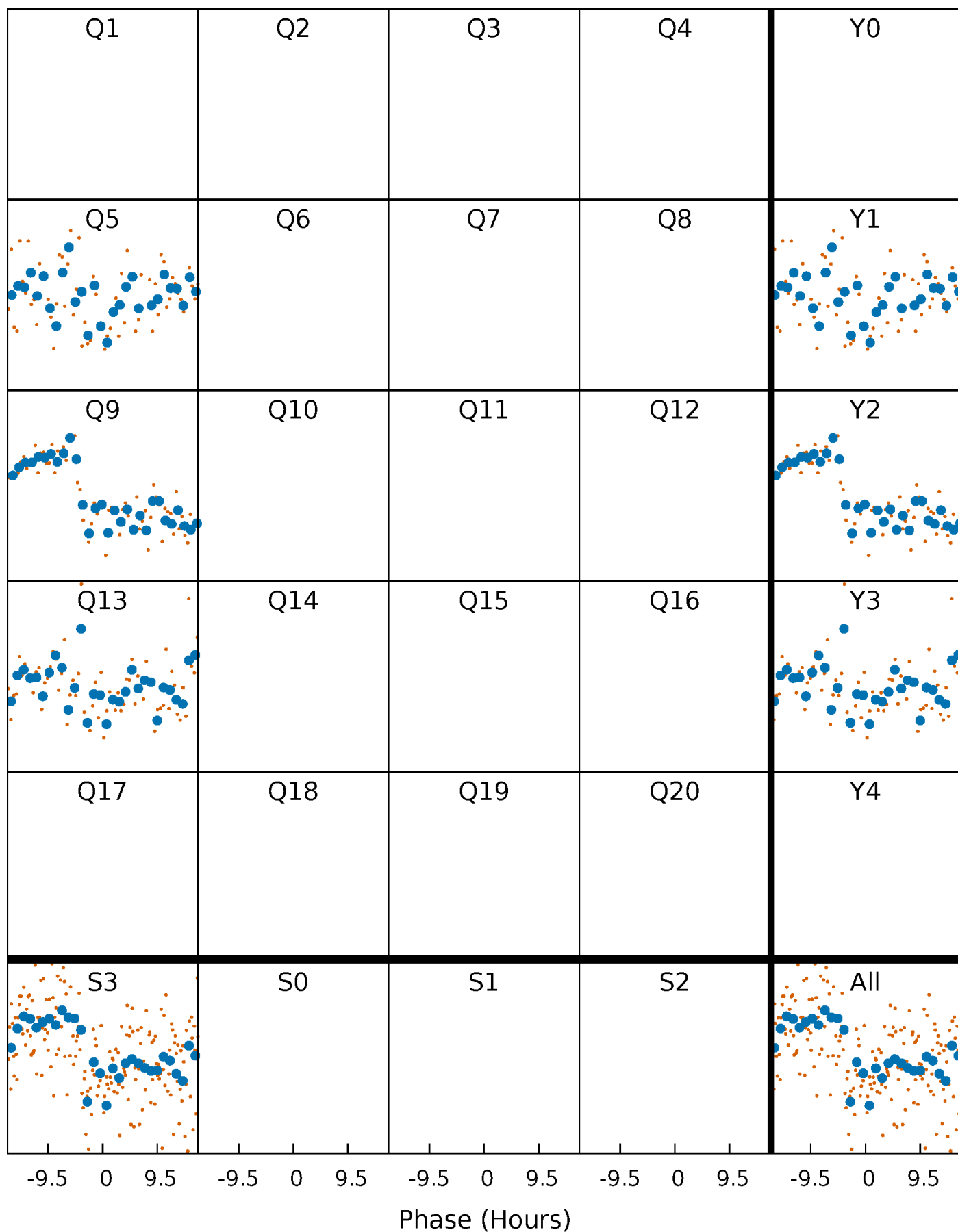


Non-Whitened Vs. Whitened Light Curve



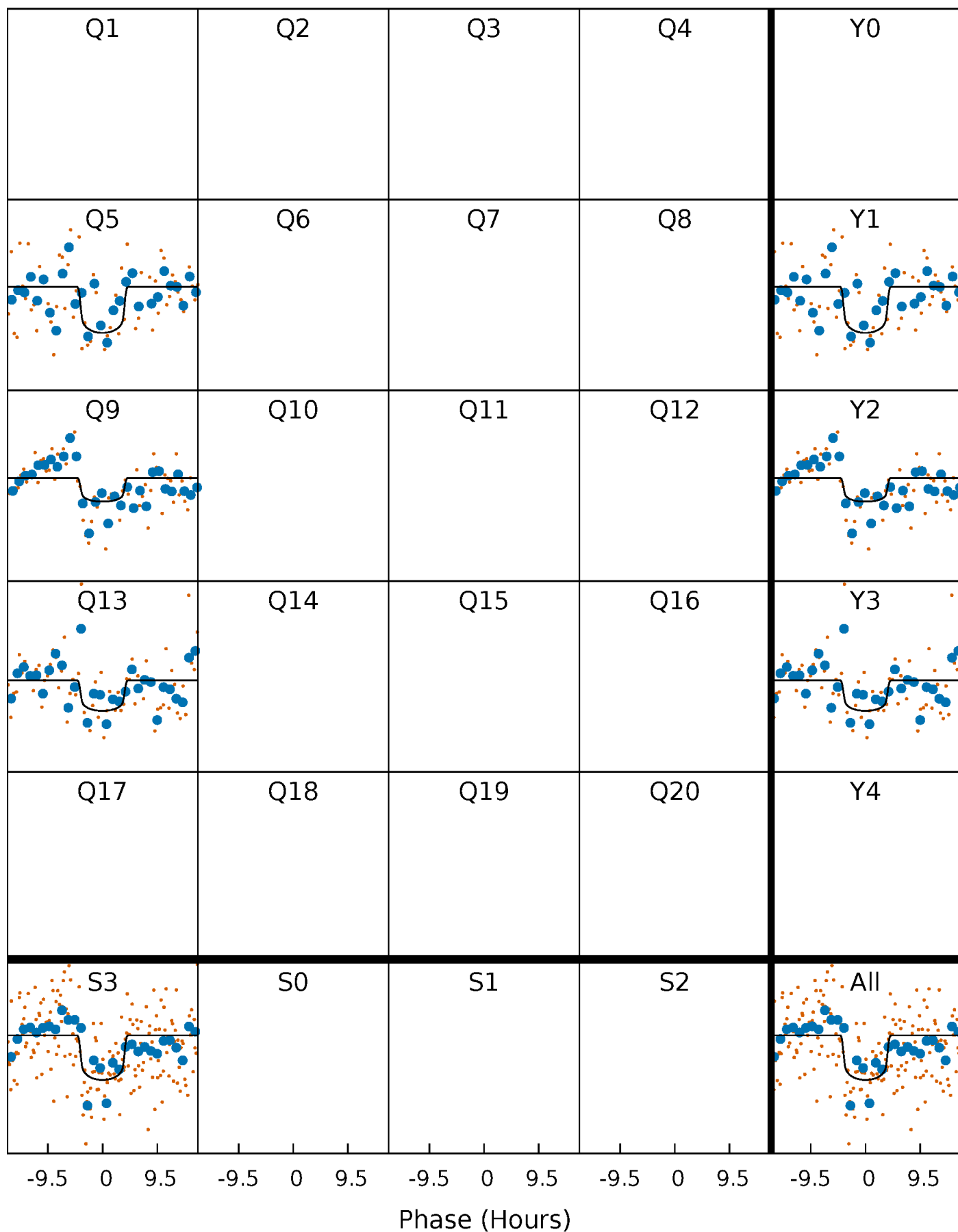
PDC Quarter-Phased Transit Curves

TCE 004263546-01 P=375.377883 Days $T_0=488.798984$ (BKJD)



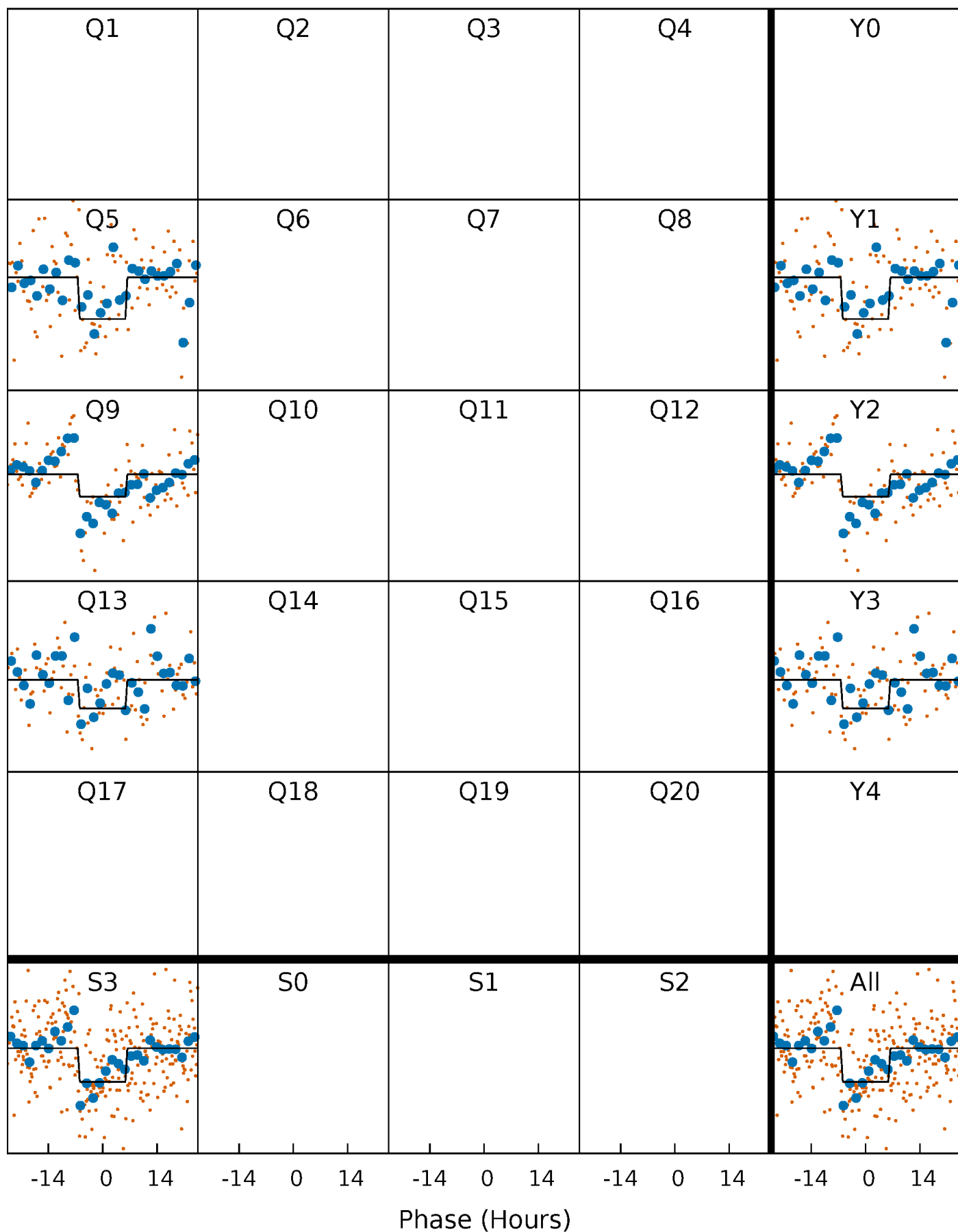
DV Quarter-Phased Transit Curves

TCE 004263546-01 P=375.377883 Days $T_0=488.798984$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

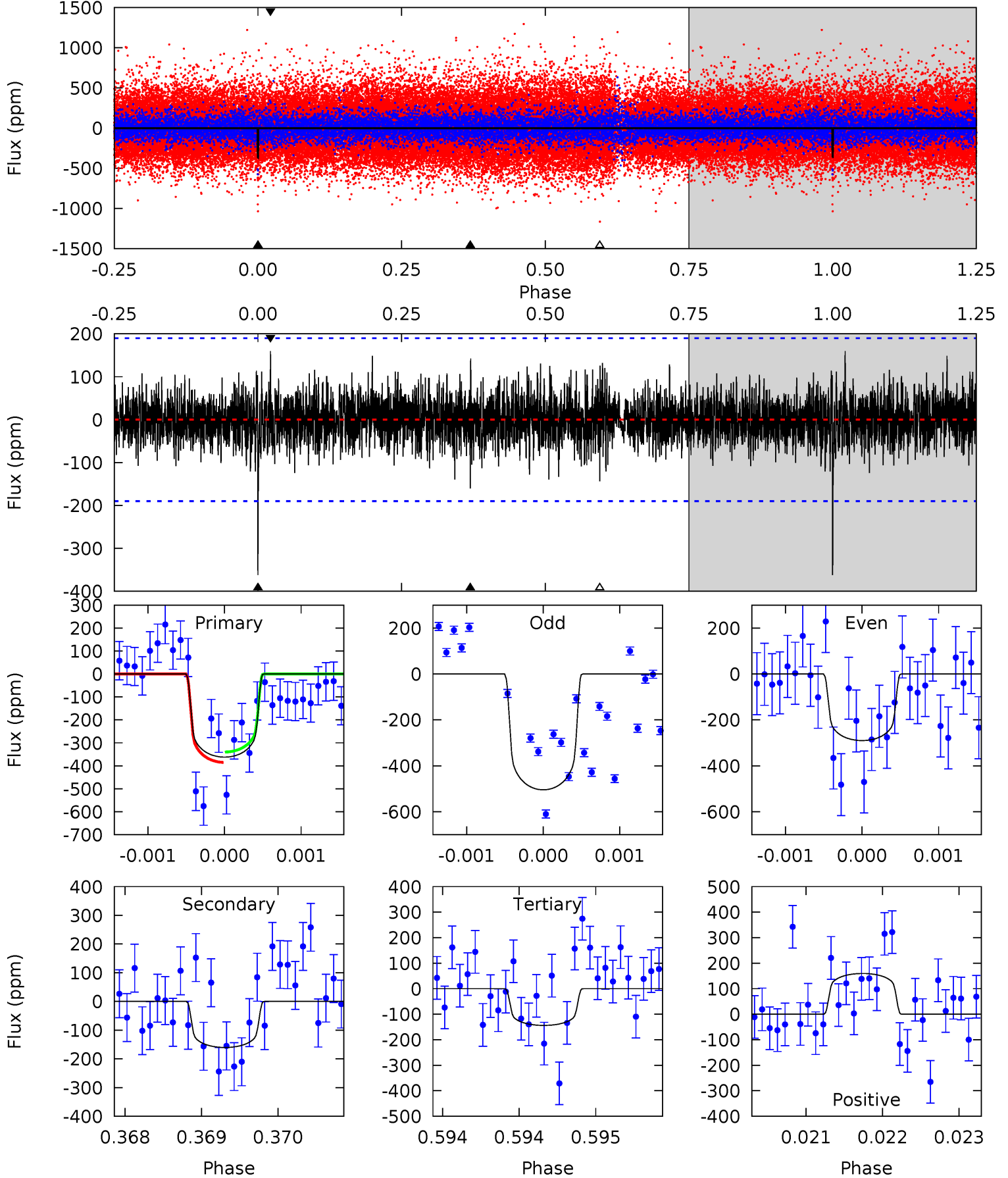
TCE 004263546-01 P=375.398553 Days $T_0=488.884396$ (BKJD)



DV Model-Shift Uniqueness Test

004263546-01, P = 375.377883 Days, E = 113.421101 Days

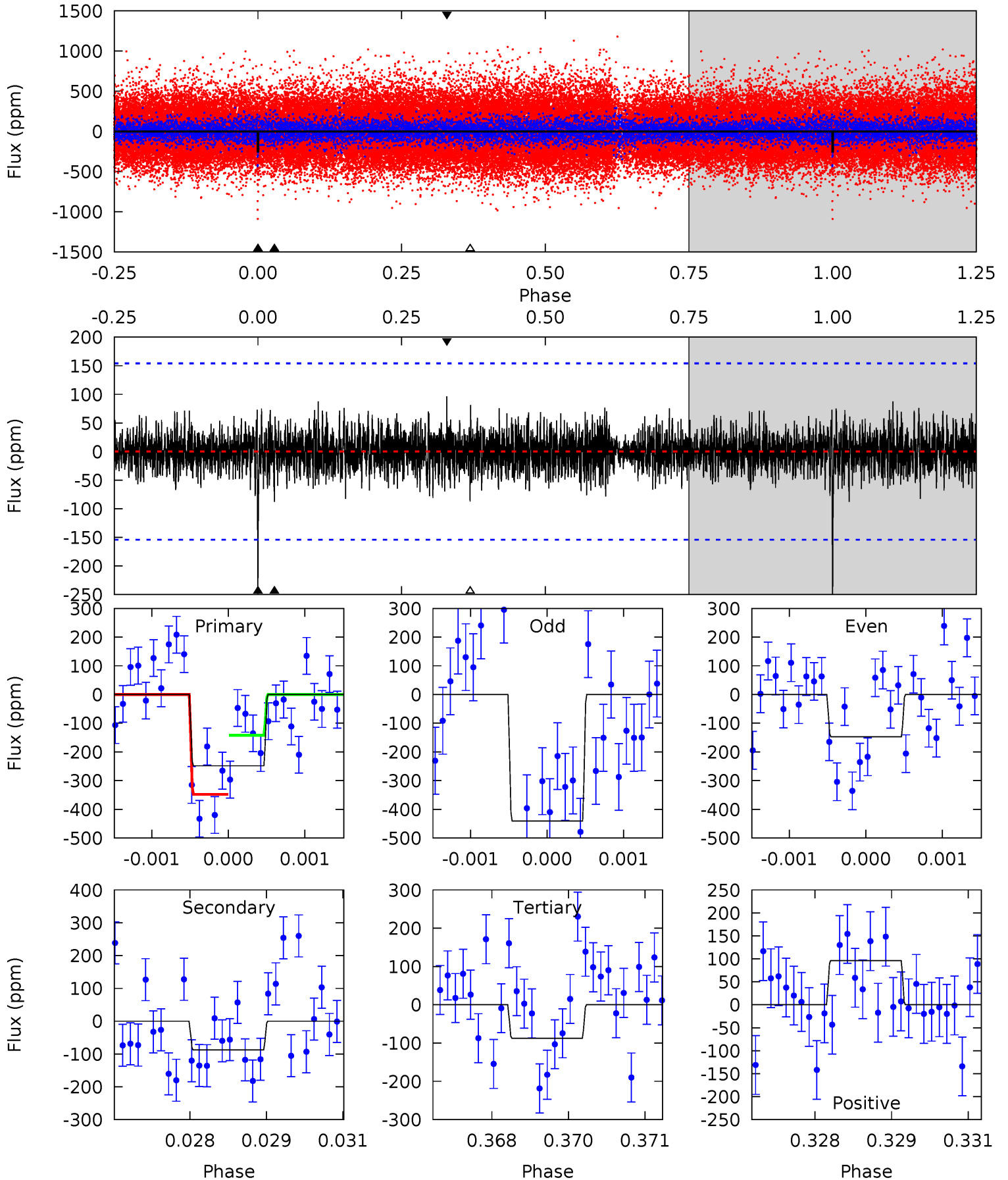
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.61	4.13	4.59	5.46	3.30	1.13	6.28	5.82	0.47	0.02	2.91	1.30	0.31	0.65



Alt Model-Shift Uniqueness Test

004263546-01, P = 375.398553 Days, E = 113.485843 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.70	3.07	3.06	3.37	5.39	3.20	0.85	5.64	5.33	0.01	-0.31	4.86	1.62	0.28	3.60



Stellar Parameters For KIC 004263546

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6500^{+153}_{-211}	$4.371^{+0.062}_{-0.200}$	$-0.060^{+0.250}_{-0.300}$	$1.187^{+0.370}_{-0.148}$	$1.208^{+0.169}_{-0.169}$	$1.018^{+0.347}_{-0.502}$
	+2%/-3%	+1%/-5%	+417%/-500%	+31%/-12%	+14%/-14%	+34%/-49%
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 004263546-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-160 ± 35	$2.69^{+0.95}_{-0.90}$	429^{+30}_{-20}	5242^{+1088}_{-603}	13999^{+17696}_{-6554}
Alt.	-88 ± 29	$2.16^{+0.96}_{-0.84}$	427^{+29}_{-21}	4988^{+1333}_{-701}	11358^{+21676}_{-6428}

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 $A_{obs} \gg 1.0$

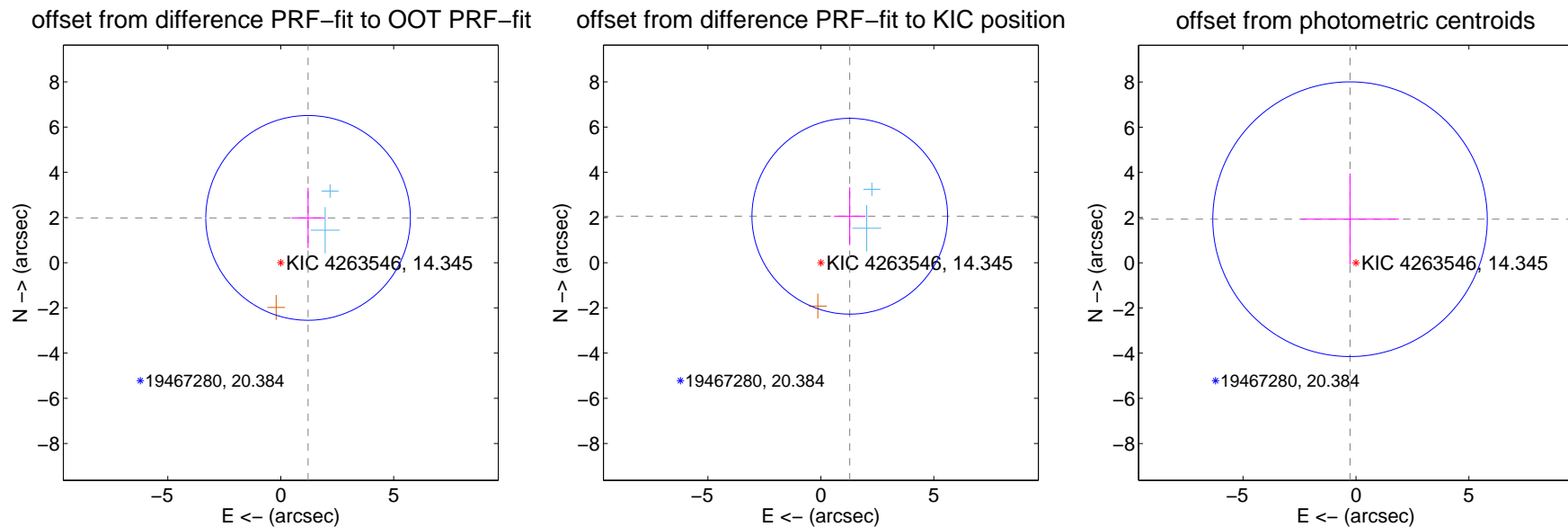
DV Centroid Data

Supplemental centroid analysis for 004263546-01. Kepler magnitude: 14.35. Transit SNR 7.25

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.322 ± 1.510	1.54	-1.210 ± 0.729	1.982 ± 1.333
PRF-fit source offset from KIC position	2.421 ± 1.444	1.68	-1.280 ± 0.695	2.056 ± 1.278
photometric centroid source offset	1.95 ± 2.03	0.96	0.26 ± 2.17	1.93 ± 2.02

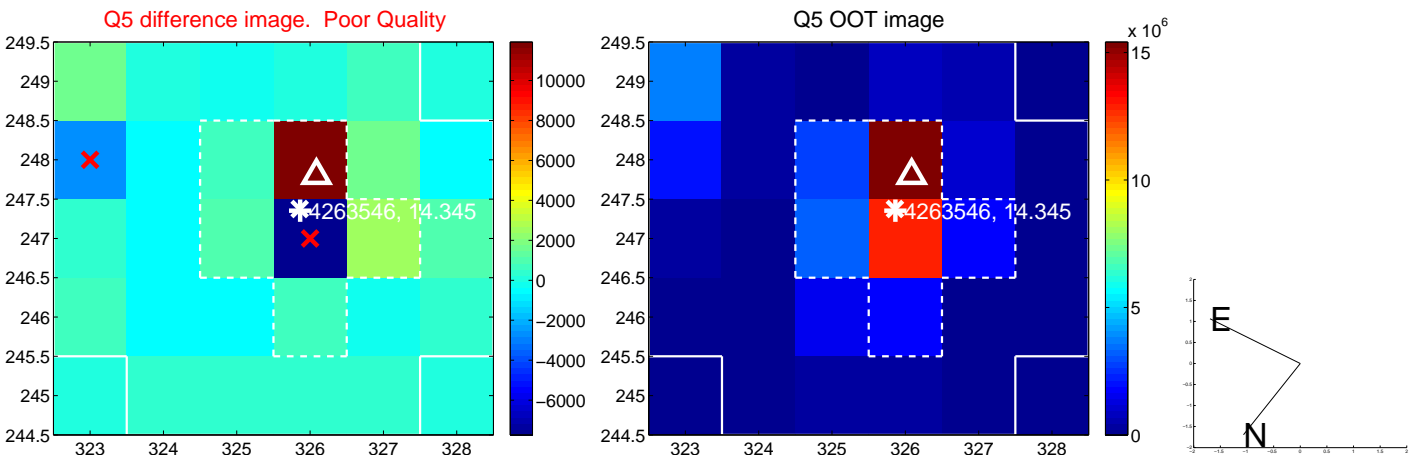


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

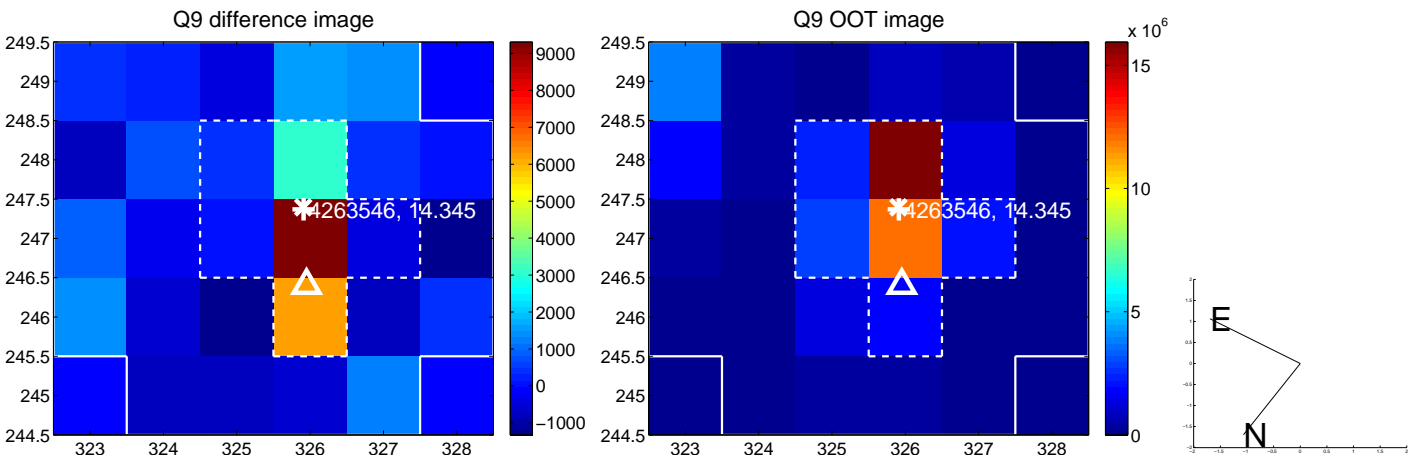
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



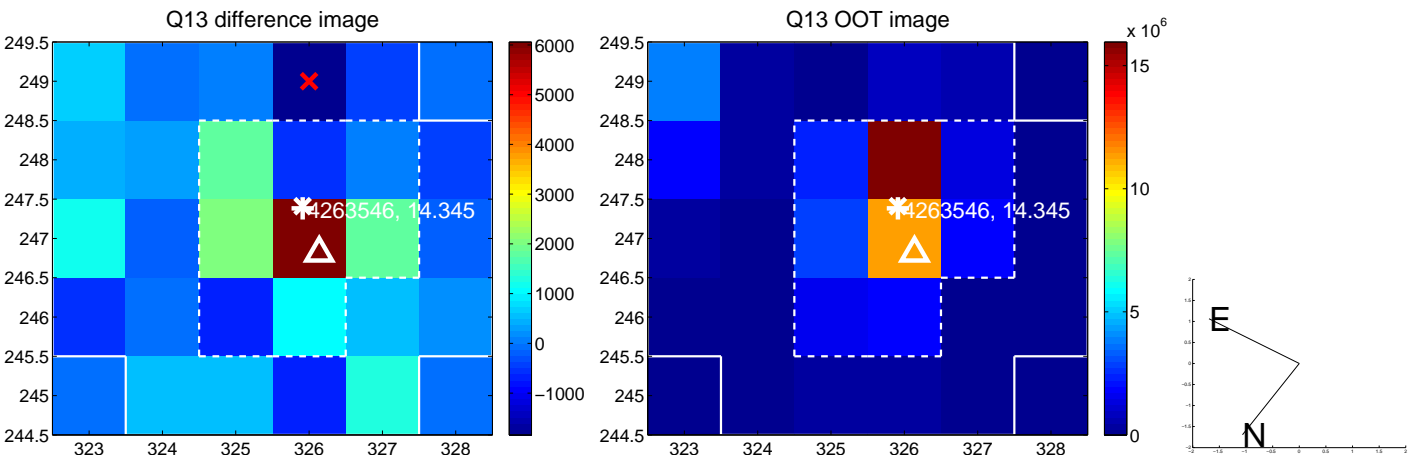
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



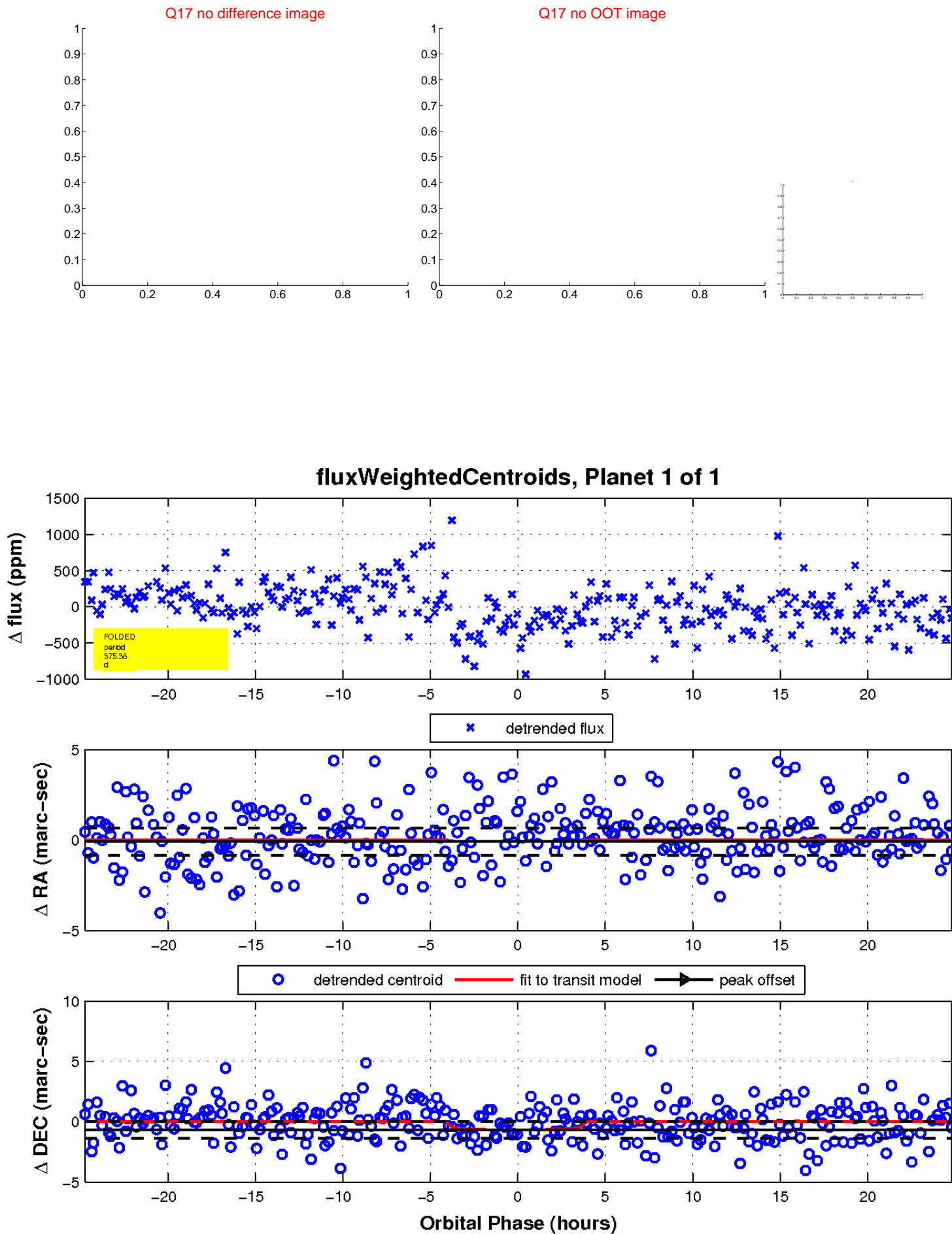
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

