

KIC 003353629

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})
003353629-01	OBS	No	358.154450	166.478992	511.9	12.875	7.3	6.8	0.94	5735	2.30	0.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003353629-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

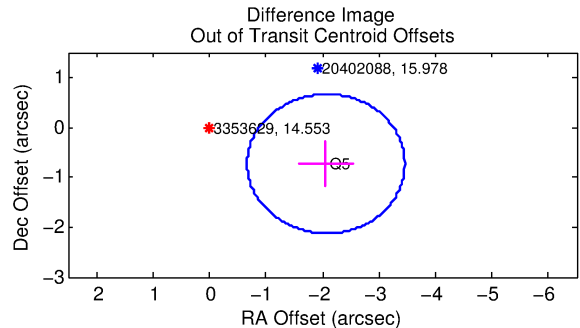
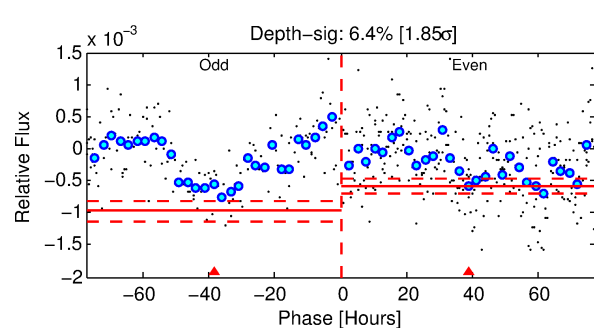
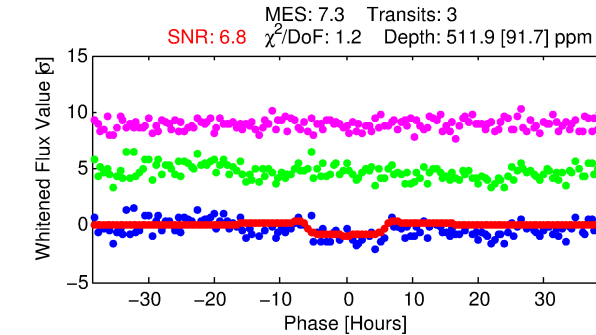
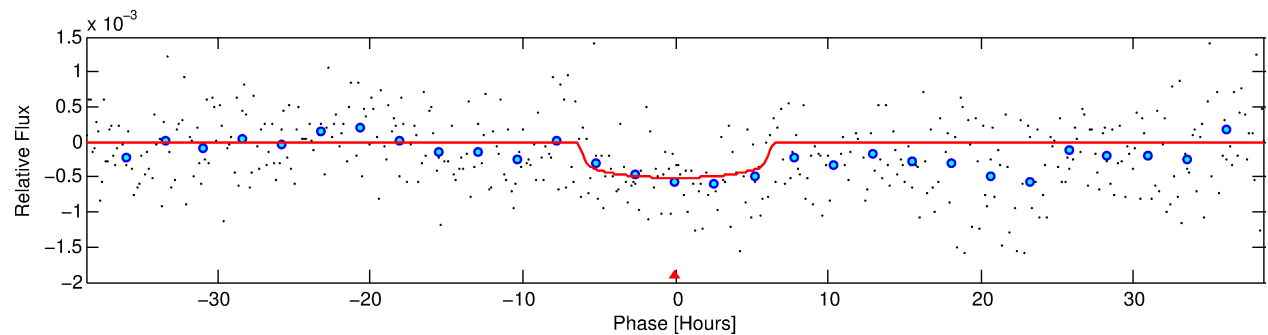
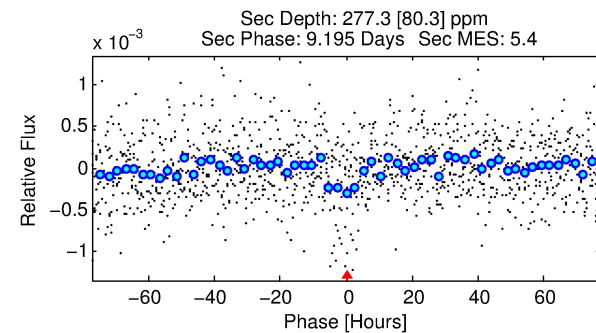
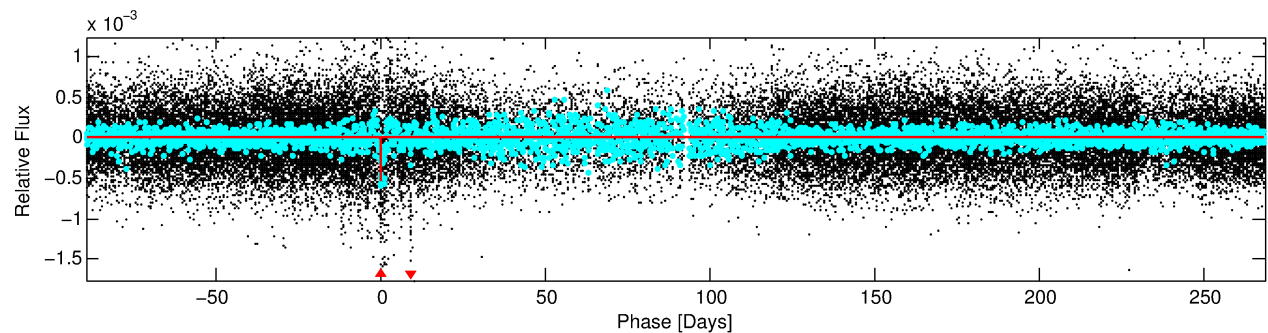
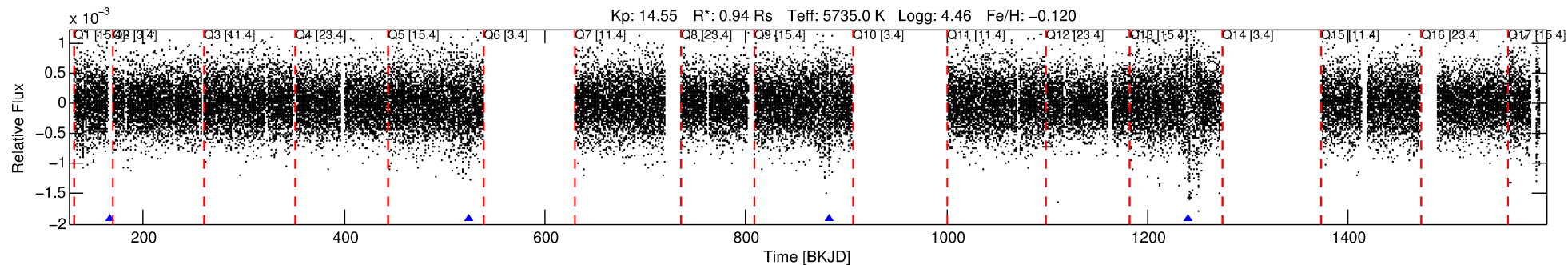
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003353629-01

No Significant Match Found

DV One-Page Summary

KIC: 3353629 Candidate: 1 of 1 Period: 358.154 d



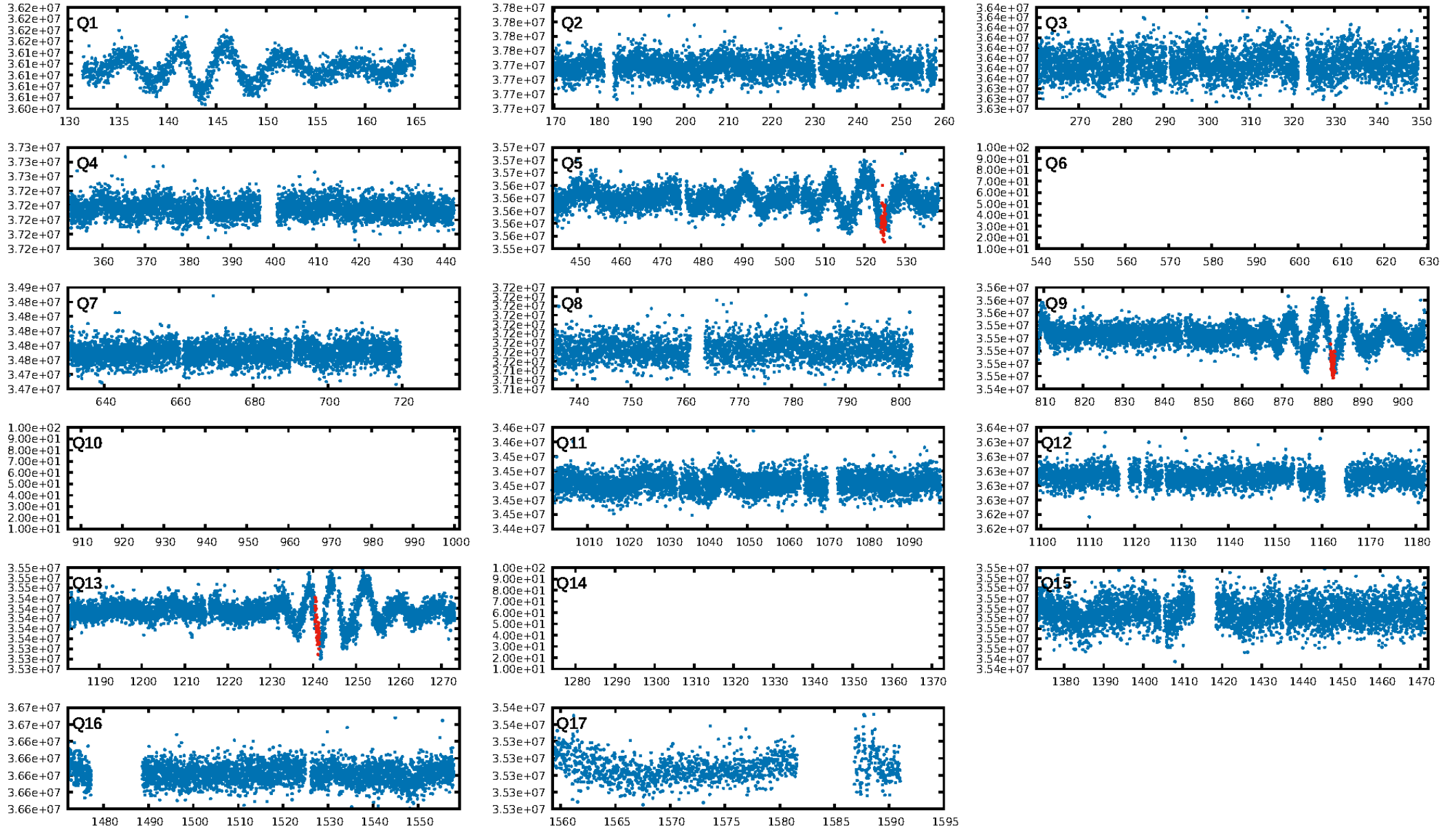
DV Fit Results:

Period = 358.15445 [0.01851] d
Epoch = 166.4790 [0.0413] BKJD
Rp/R* = 0.0224 [0.0106]
a/R* = 150.58 [311.00]
b = 0.74 [1.29]
Seff = 0.93 [0.34]
Teq = 250 [23] K
Rp = 2.30 [1.27] Re
a = 0.9598 [0.2253] AU
Ag = 26598.83 [27901.44] [0.95 σ]
Teffp = 4944 [1239] K [3.79 σ]

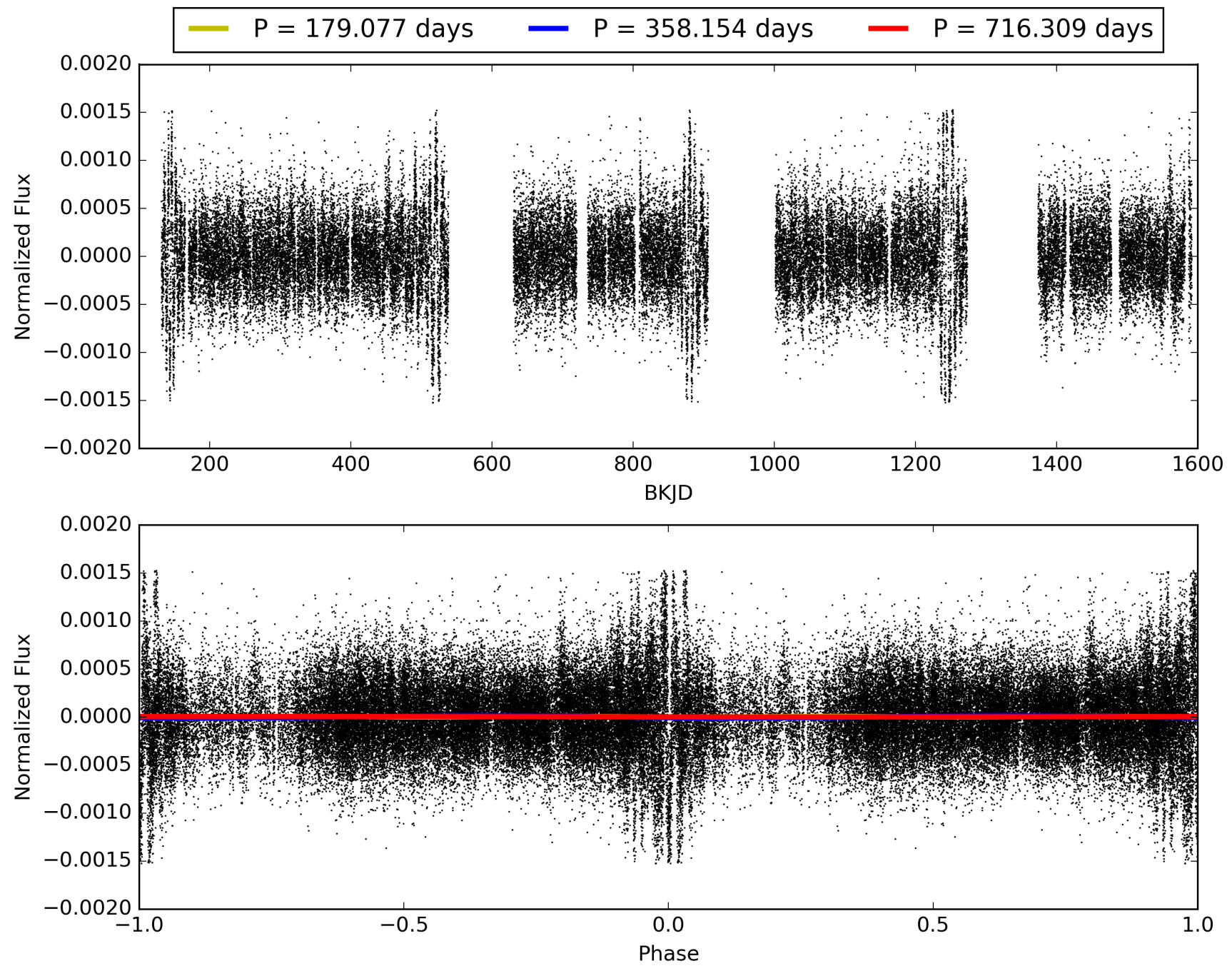
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 41.6%
ModelChiSquareGof-sig: 99.3%
Bootstrap-pfa: 4.11e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -6.095
Centroid-sig: 2.5%
Centroid-so: 4.186 arcsec [1.51 σ]
OotOffset-rm: 2.192 arcsec [4.72 σ]
KicOffset-rm: 2.208 arcsec [4.76 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 003353629-01, PDC Light Curves

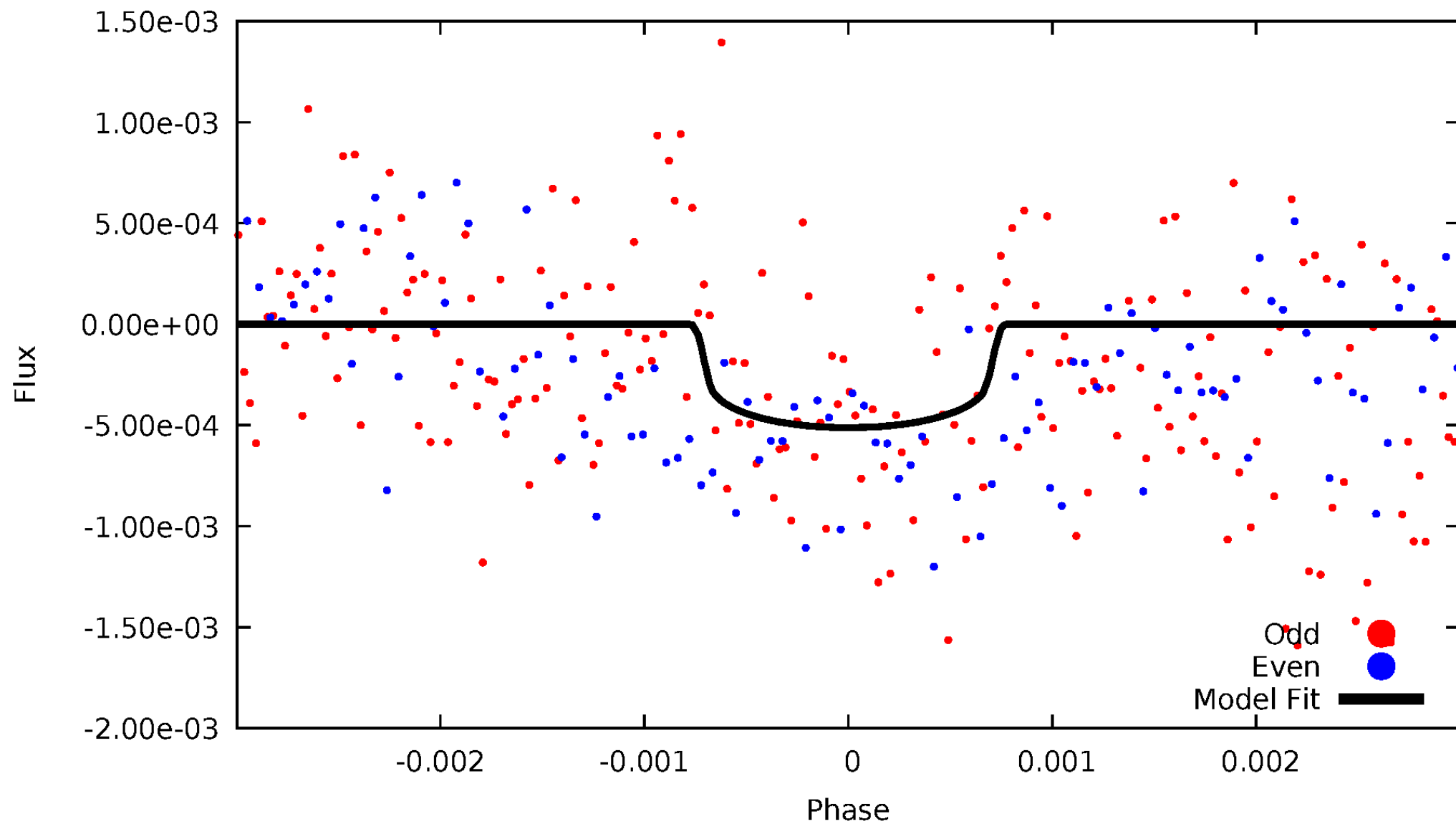


TCE 003353629-01



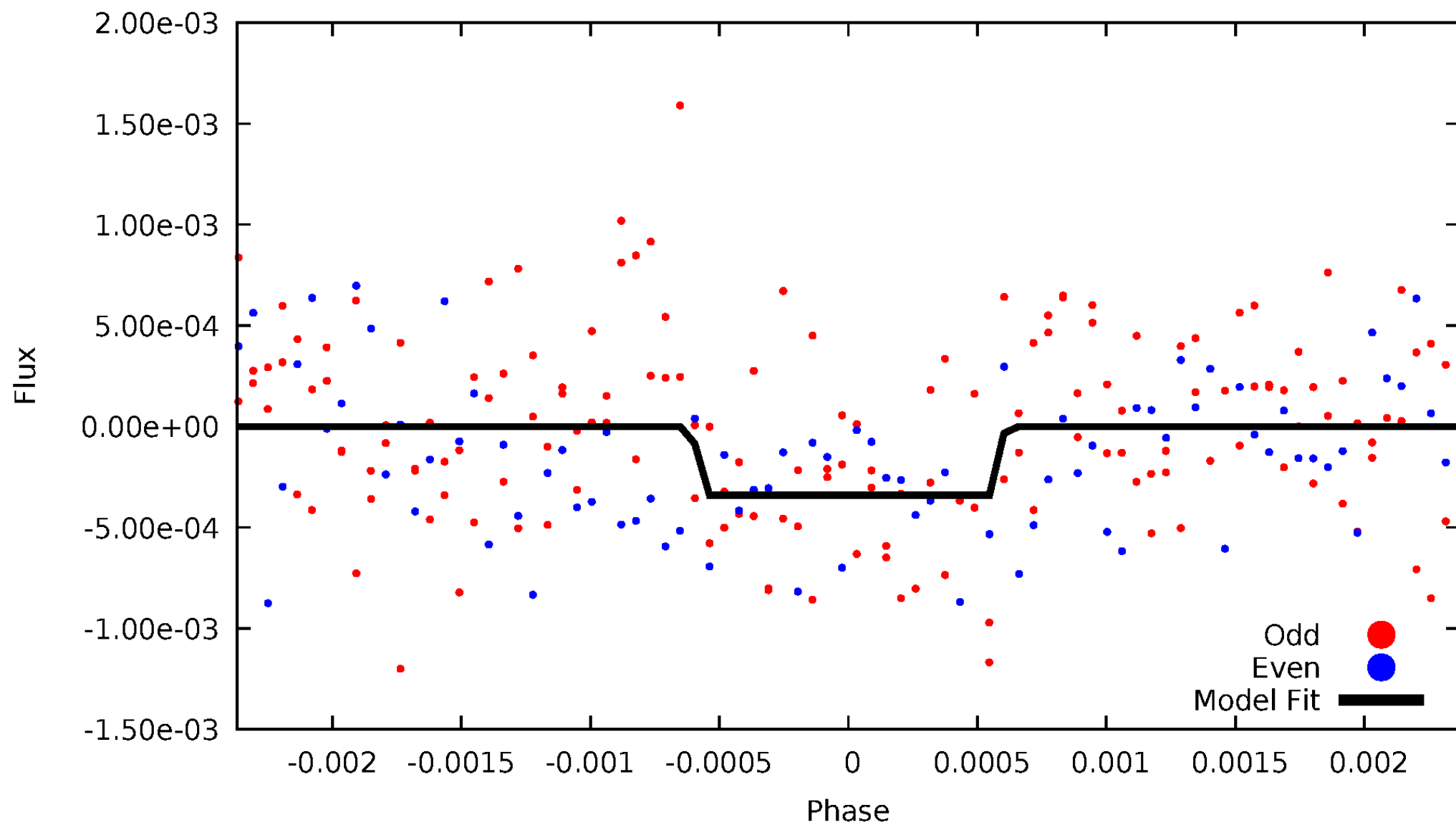
DV Odd/Even

TCE 003353629-01



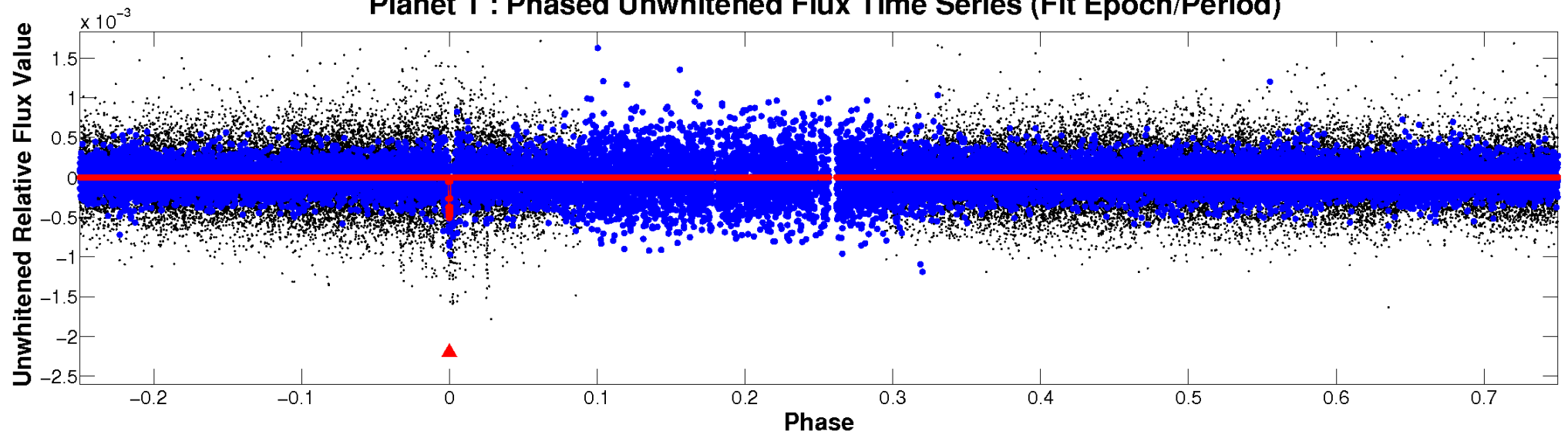
ALT Odd/Even

TCE 003353629-01

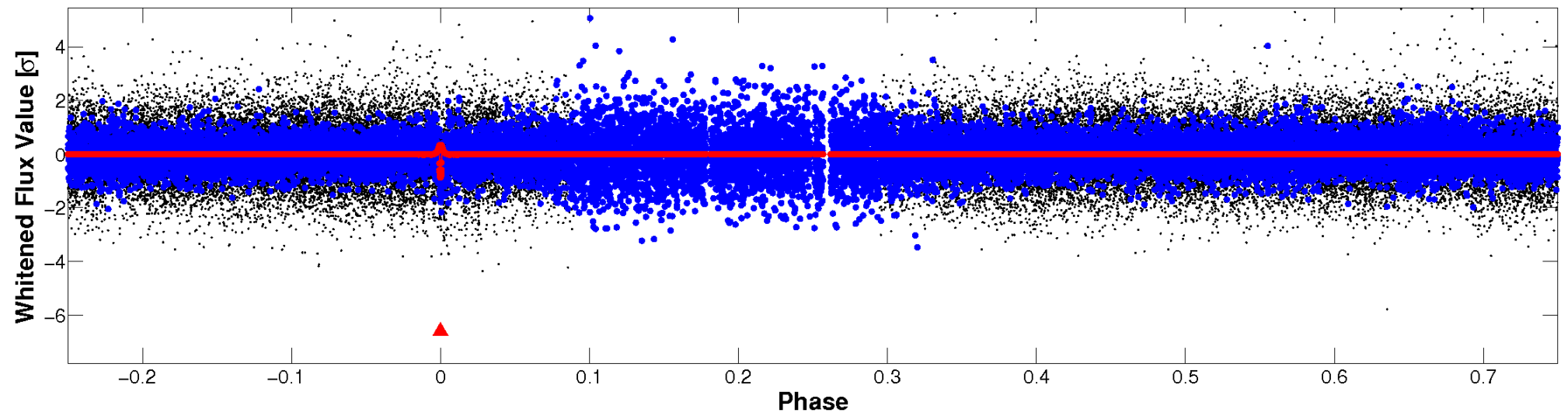


Non-Whitened Vs. Whitened Light Curve

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

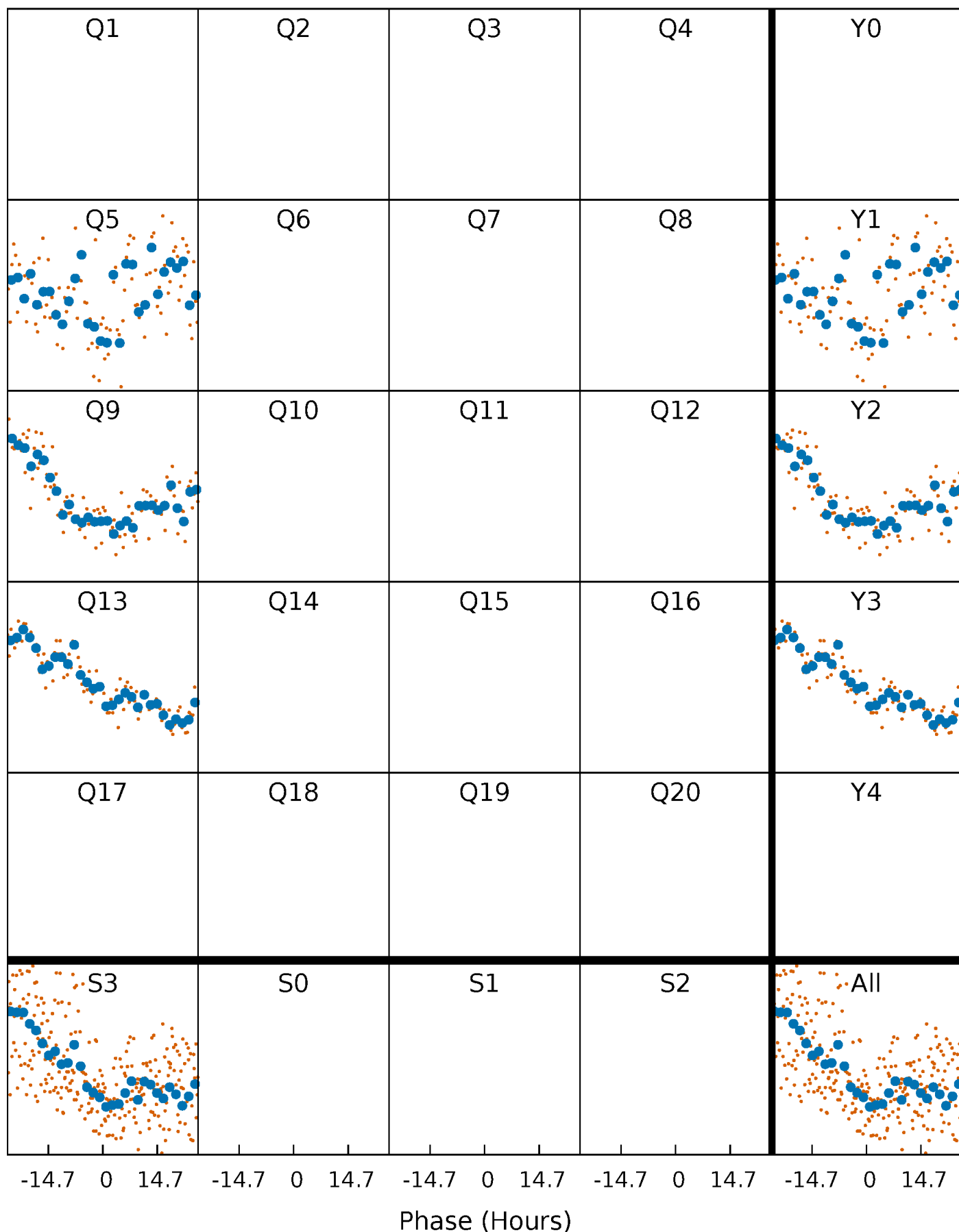


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



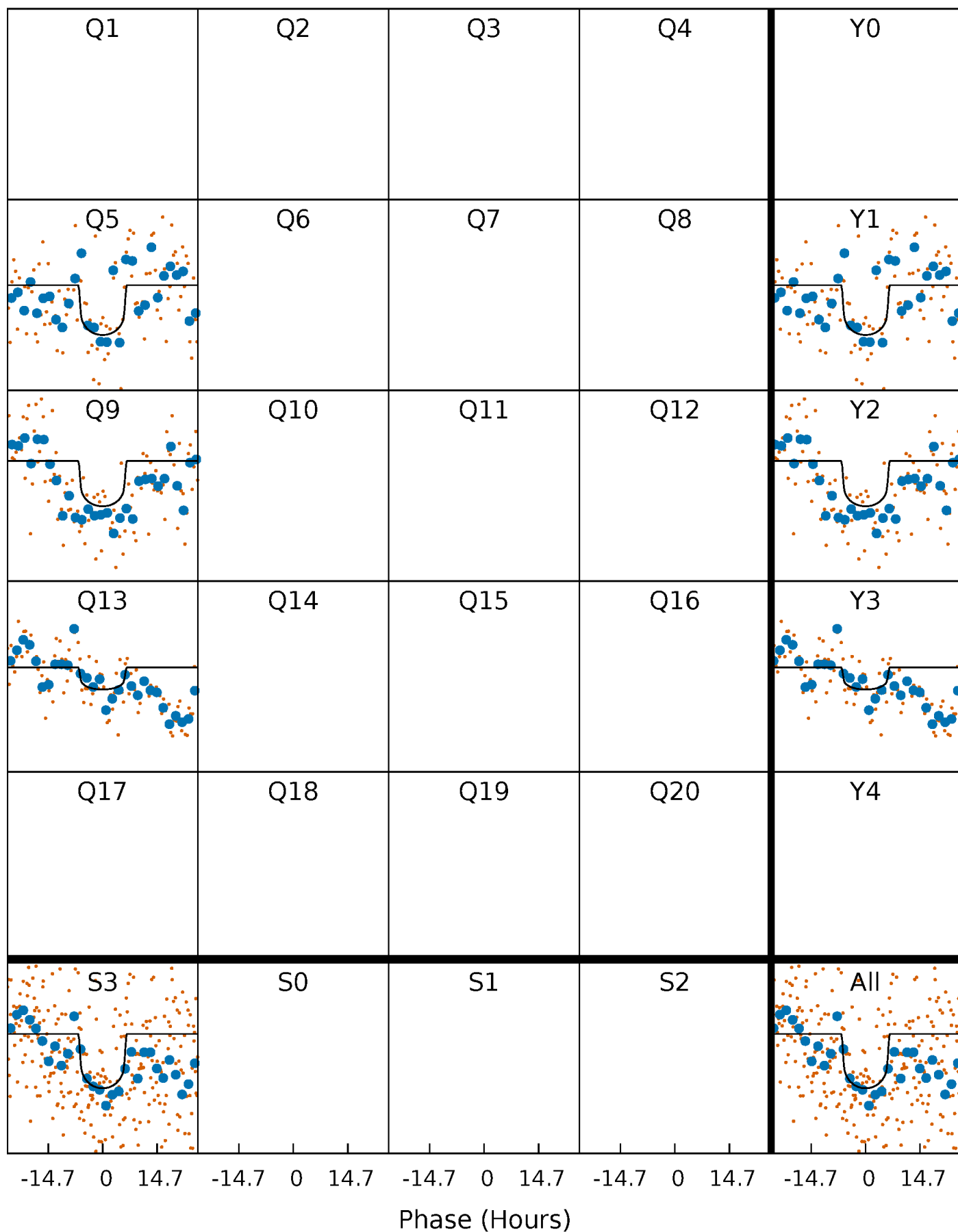
PDC Quarter-Phased Transit Curves

TCE 003353629-01 P=358.154450 Days $T_0=166.478992$ (BKJD)



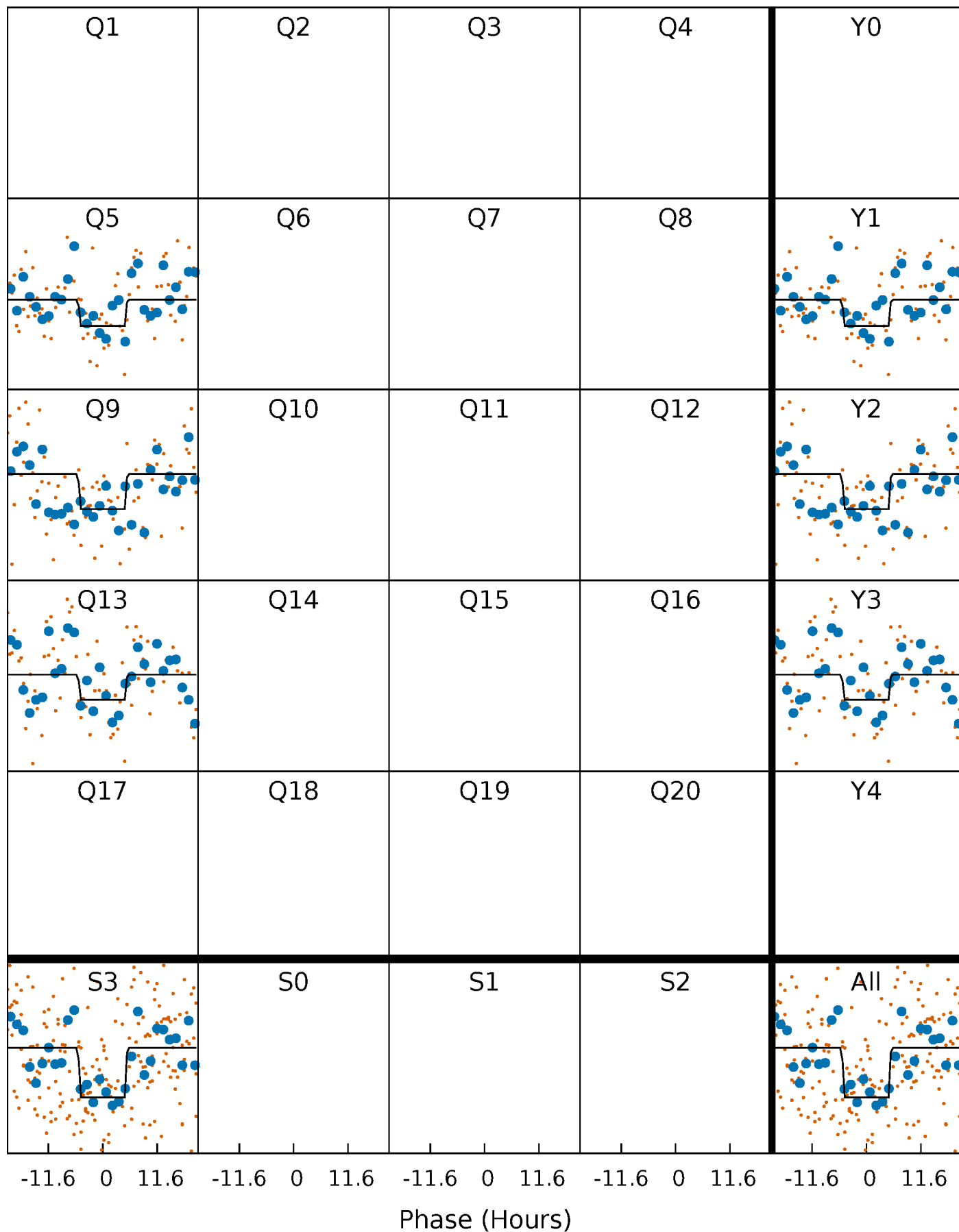
DV Quarter-Phased Transit Curves

TCE 003353629-01 P=358.154450 Days $T_0=166.478992$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

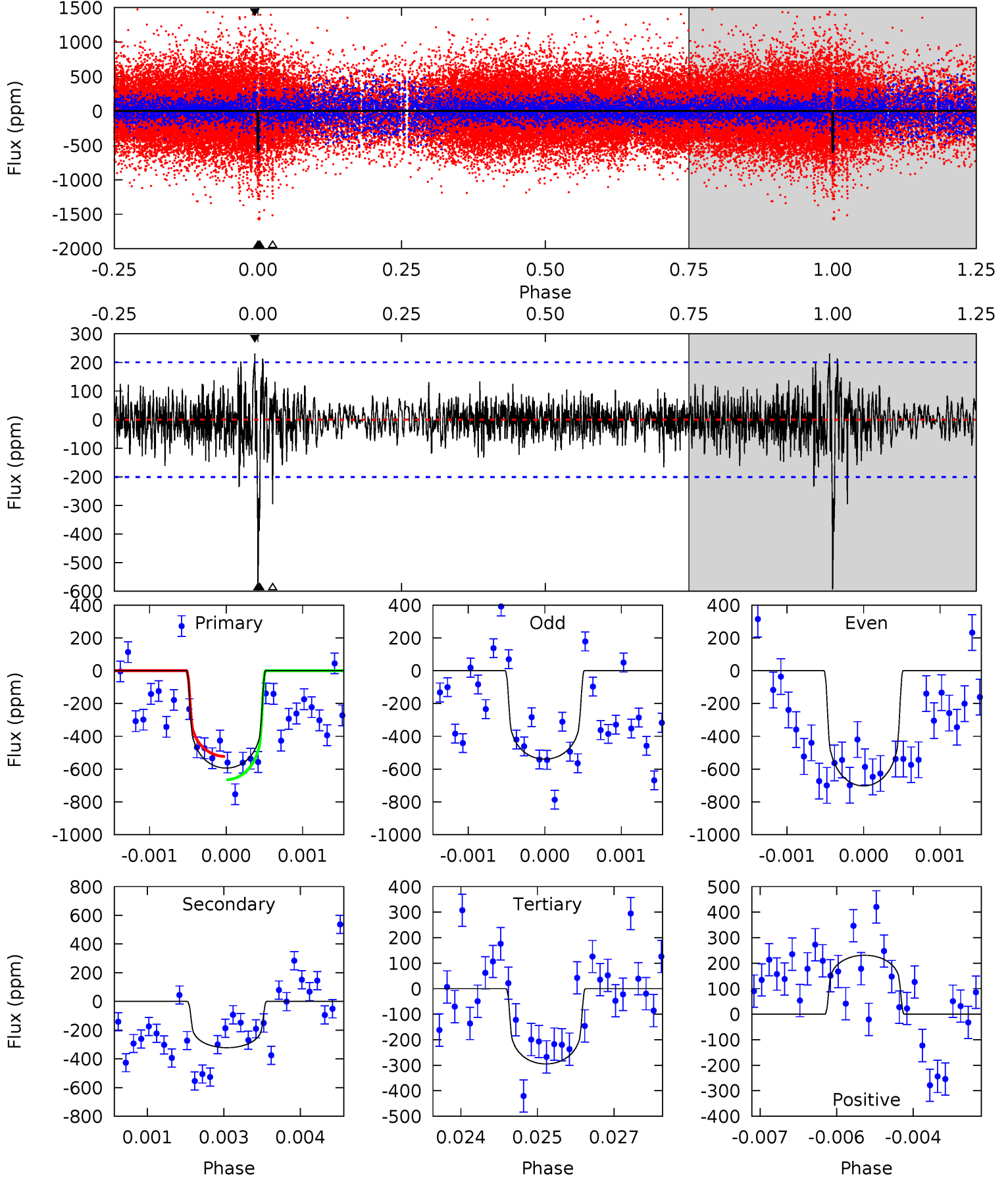
TCE 003353629-01 P=358.139006 Days $T_0=166.505179$ (BKJD)



DV Model-Shift Uniqueness Test

003353629-01, P = 358.154450 Days, E = 166.478992 Days

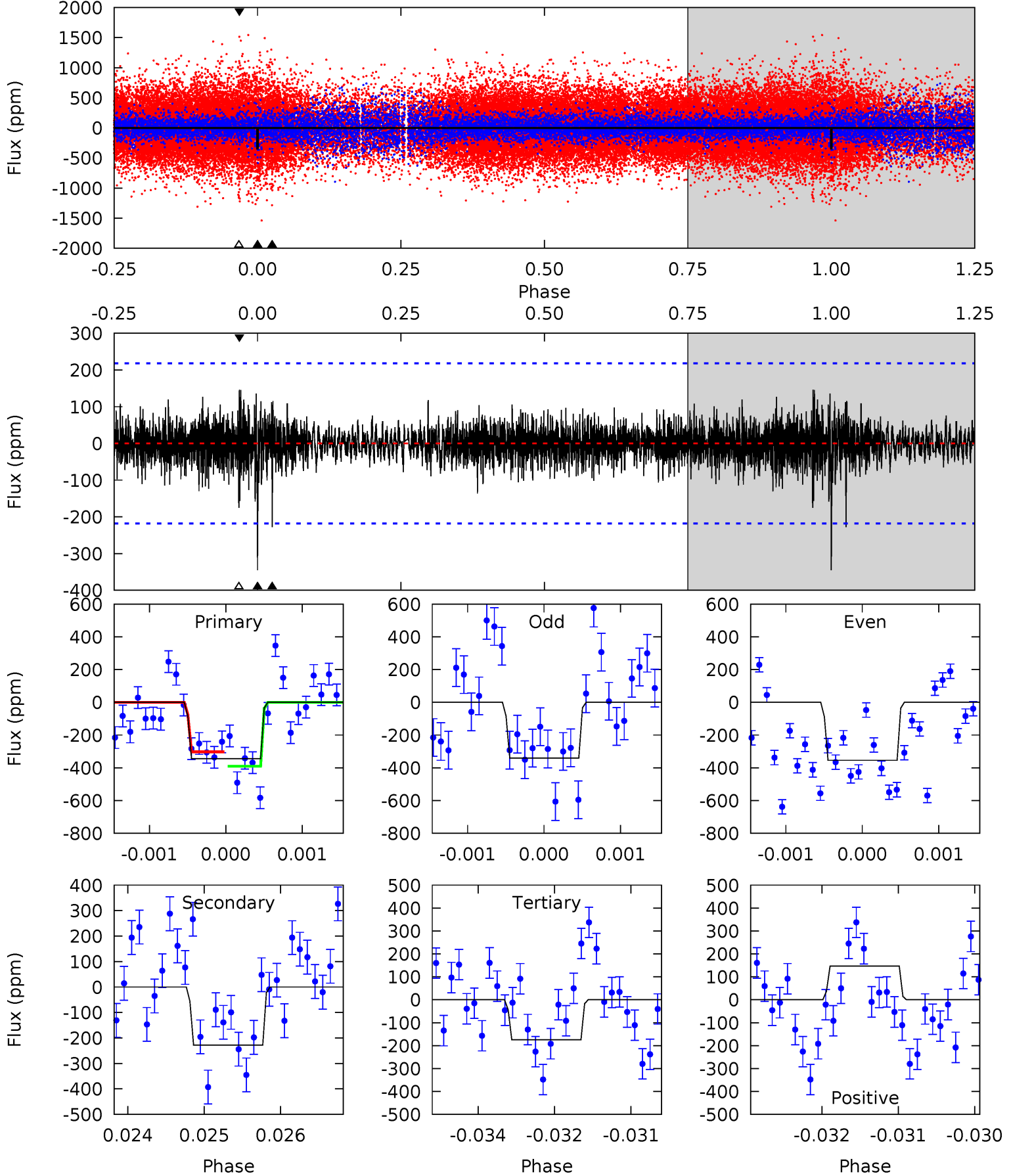
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	8.64	7.91	6.19	5.38	3.18	1.37	8.01	9.73	0.73	2.44	2.07	0.93	0.28	1.89



Alt Model-Shift Uniqueness Test

003353629-01, P = 358.139006 Days, E = 166.505179 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.56	5.66	4.34	3.64	5.42	3.24	0.90	4.23	4.93	1.32	2.02	0.17	0.97	0.30	1.09



Stellar Parameters For KIC 003353629

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5735^{+177}_{-197}	$4.455^{+0.084}_{-0.182}$	$-0.120^{+0.300}_{-0.300}$	$0.940^{+0.266}_{-0.114}$	$0.919^{+0.125}_{-0.094}$	$1.557^{+0.663}_{-0.752}$
	+3%/-3%	+2%/-4%	+250%/-250%	+28%/-12%	+14%/-10%	+43%/-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 003353629-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-322 ± 37	$2.47^{+1.13}_{-1.19}$	354^{+24}_{-18}	5126^{+1689}_{-745}	26996^{+68032}_{-14511}
Alt.	-228 ± 40	$1.99^{+1.22}_{-0.95}$	354^{+25}_{-18}	5149^{+2128}_{-853}	28890^{+84396}_{-17712}

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

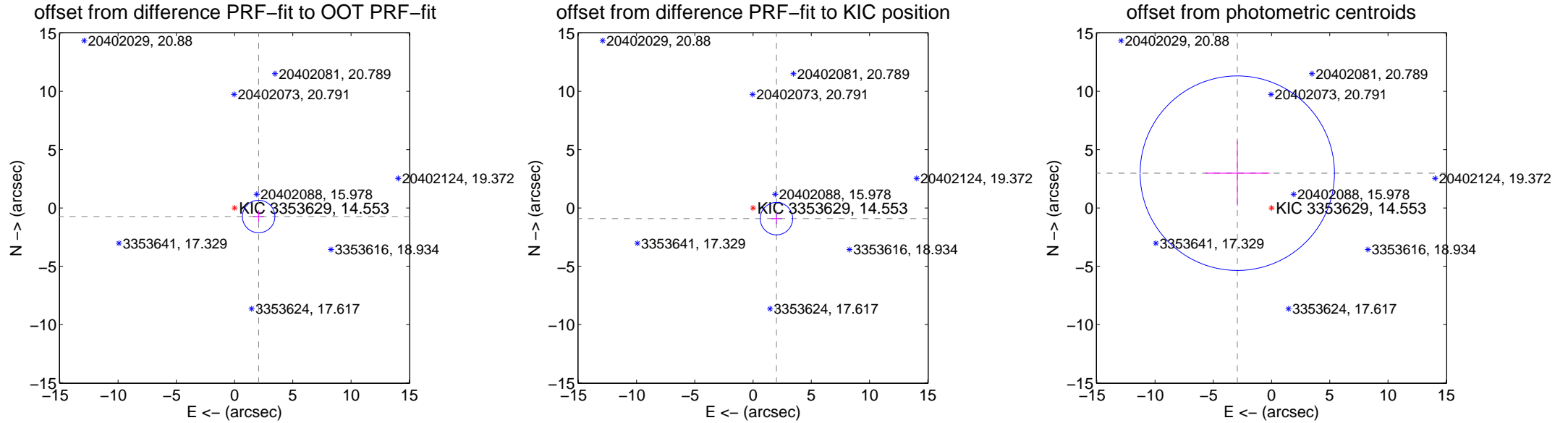
DV Centroid Data

Supplemental centroid analysis for 003353629-01. Kepler magnitude: 14.55. Transit SNR 6.81

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.192 ± 0.464	4.72	-2.065 ± 0.465	-0.734 ± 0.458
PRF-fit source offset from KIC position	2.208 ± 0.464	4.76	-2.008 ± 0.465	-0.917 ± 0.458
photometric centroid source offset	4.19 ± 2.78	1.51	2.94 ± 2.77	2.98 ± 2.79

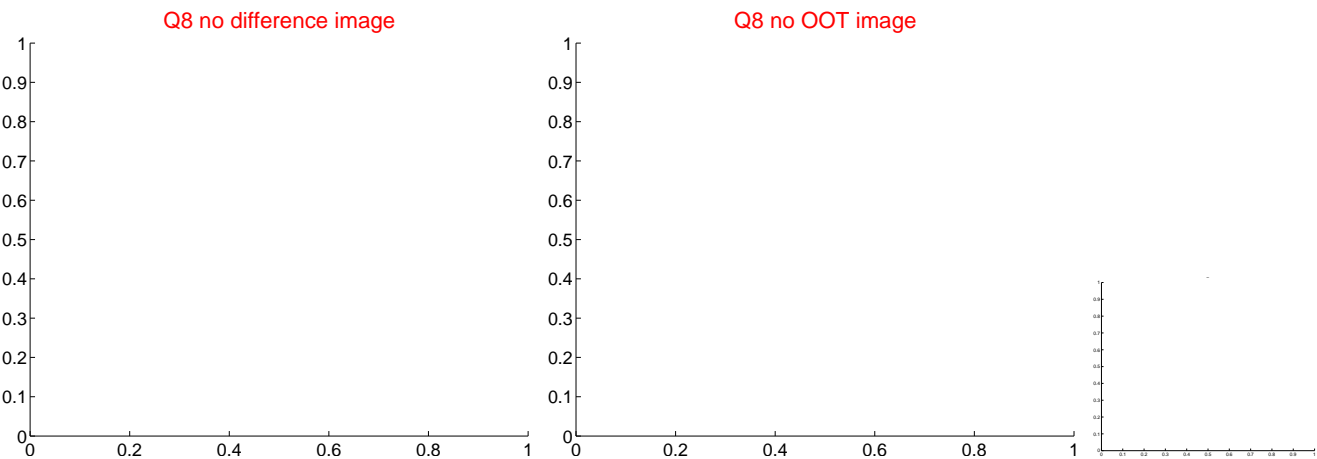
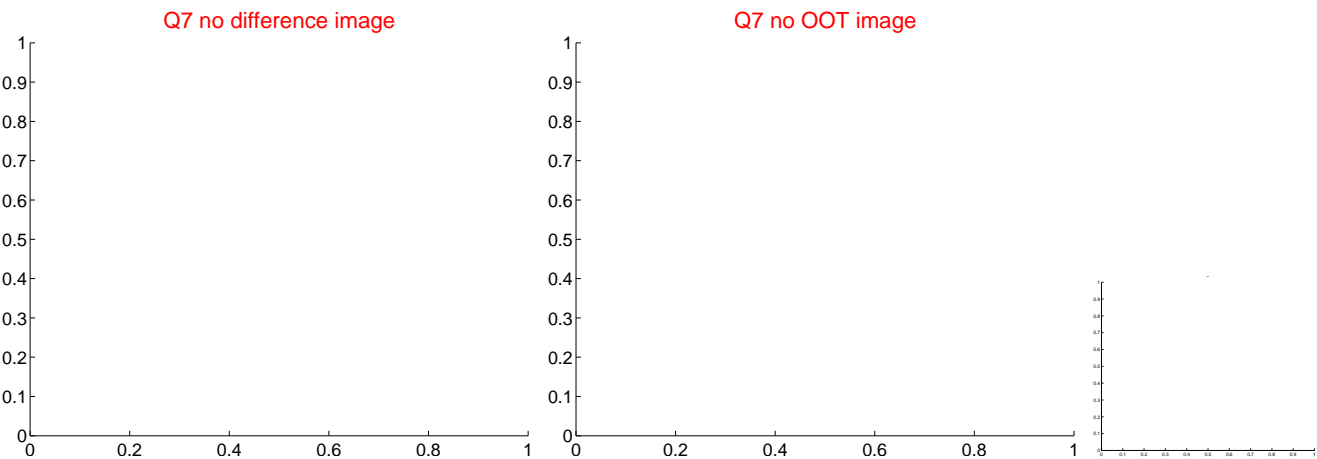
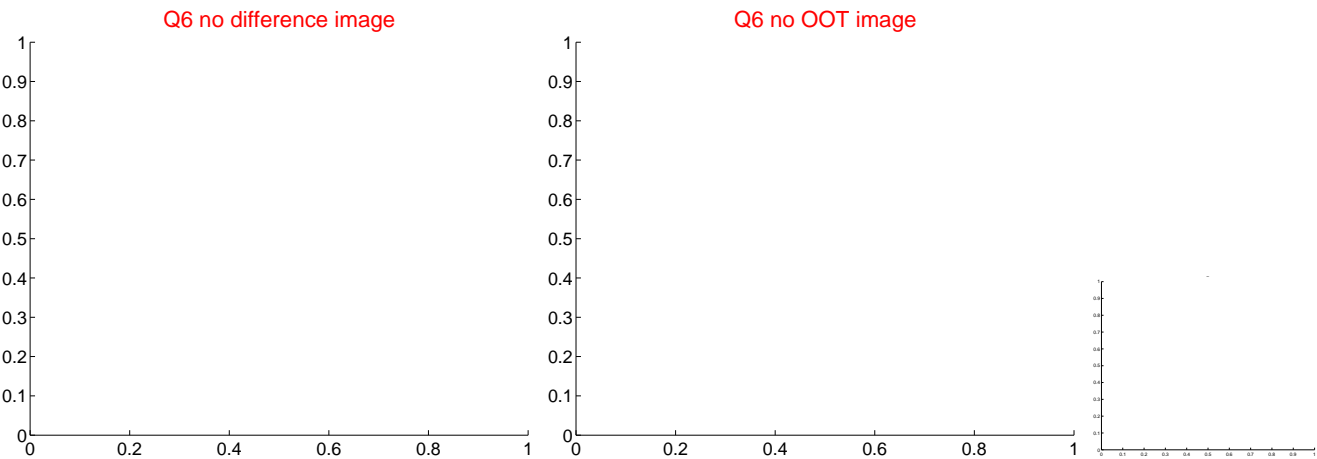
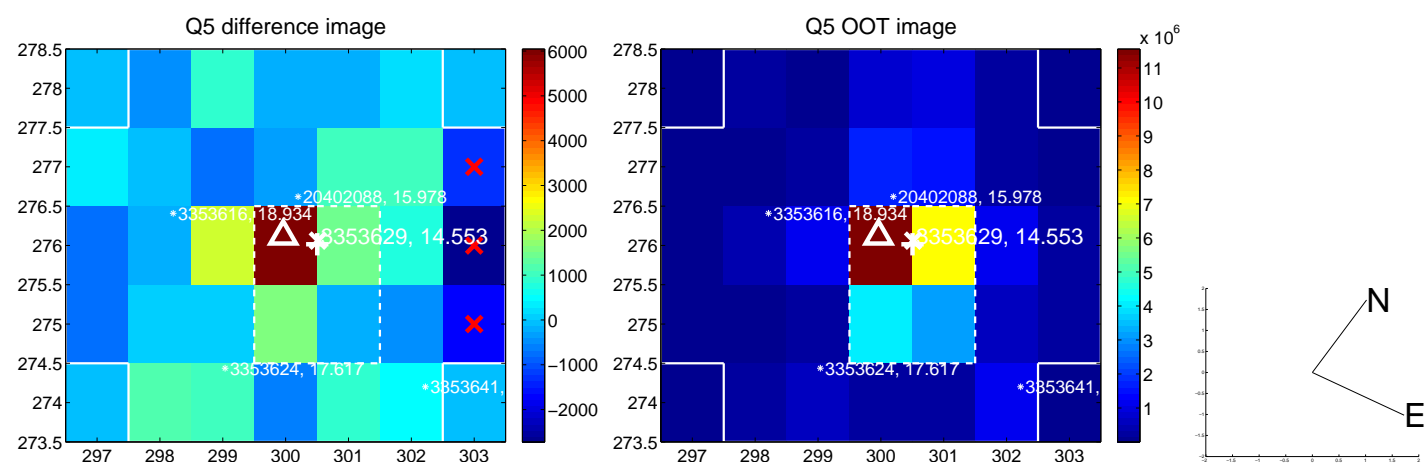


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

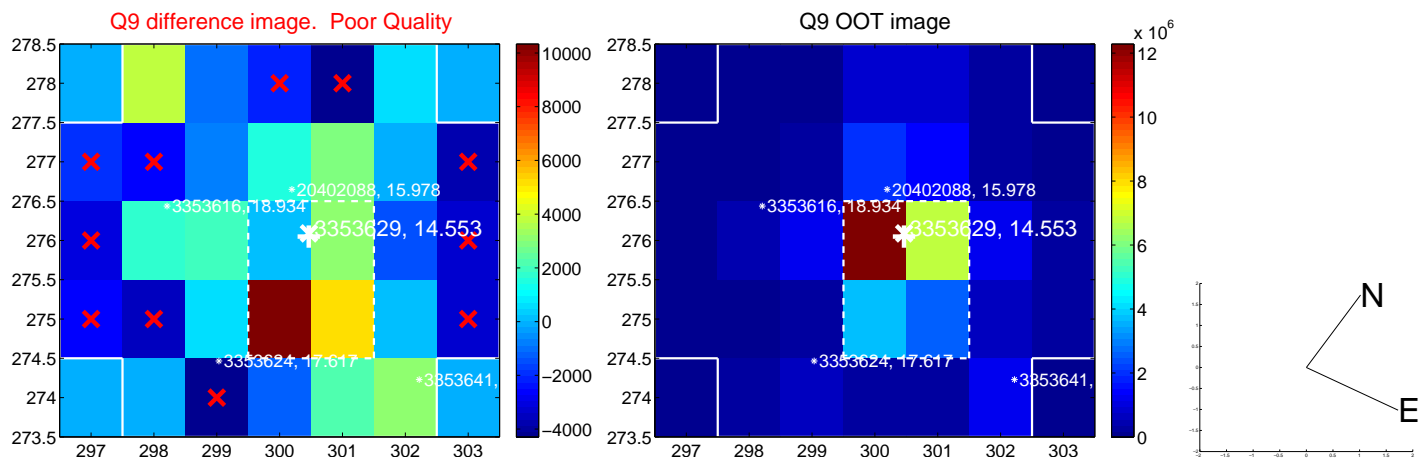
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



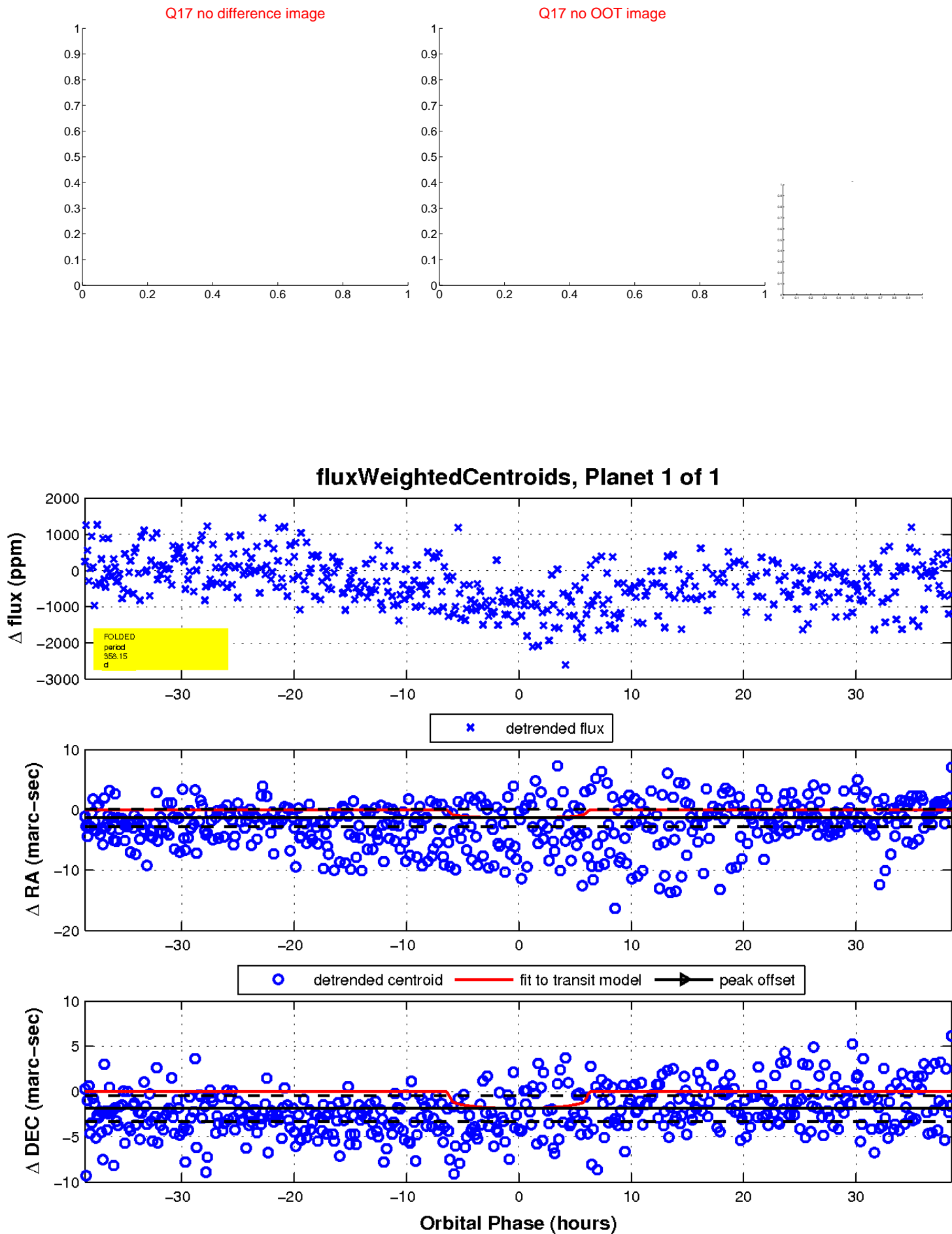
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



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



UKIRT Image

Declination

