

KIC 008619592

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})
008619592-01	OBS	No	375.924730	178.343825	239.6	13.402	8.5	8.5	1.17	6204	1.98	1.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008619592-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—ALL_TRANS_CHASES—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.

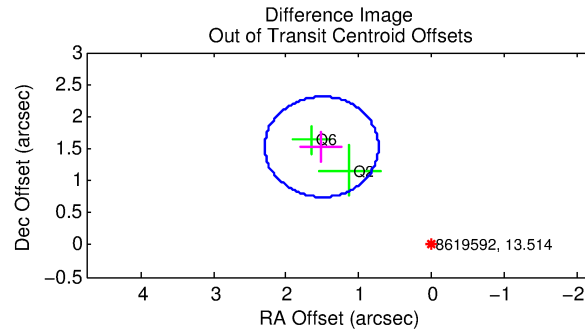
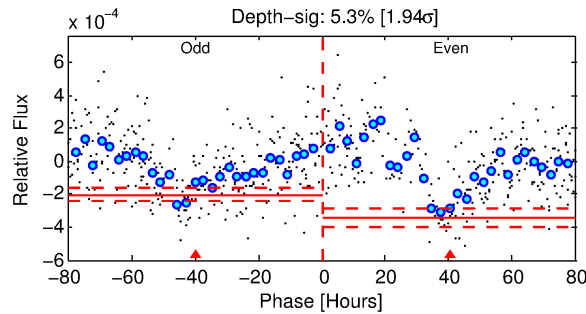
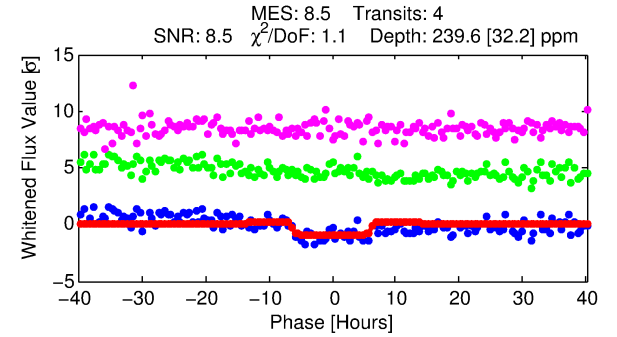
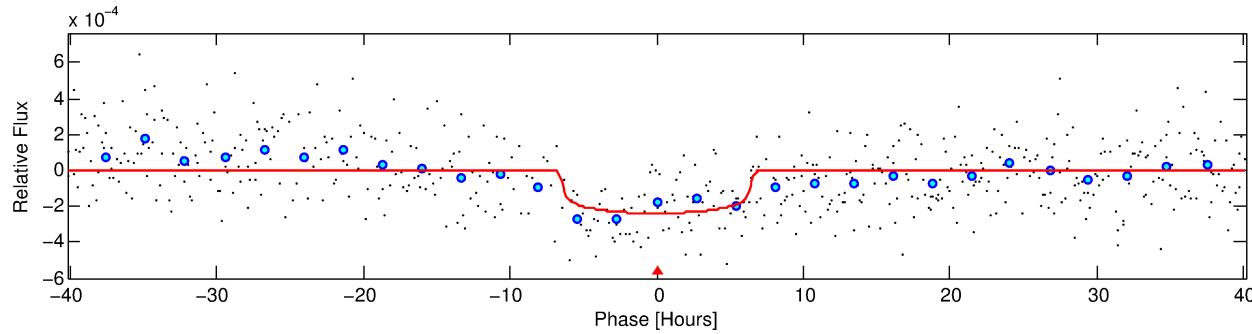
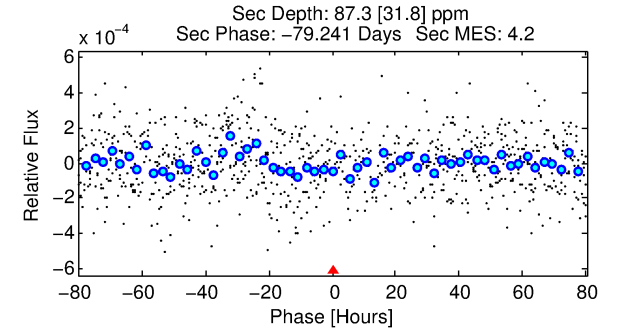
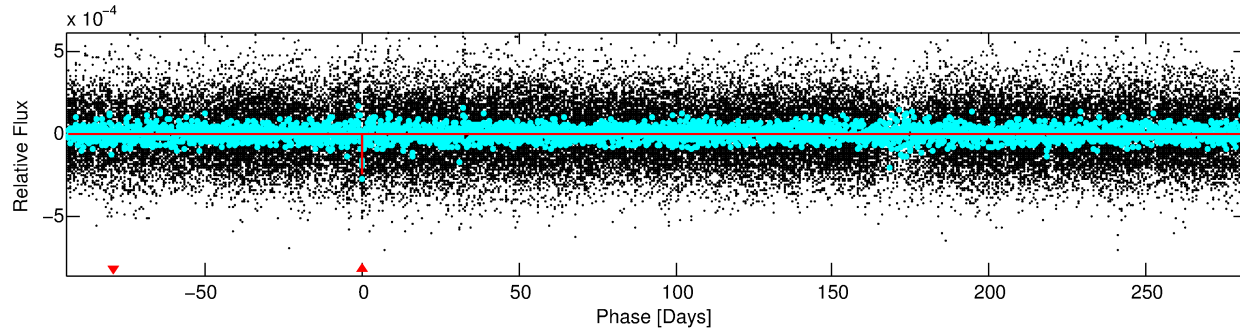
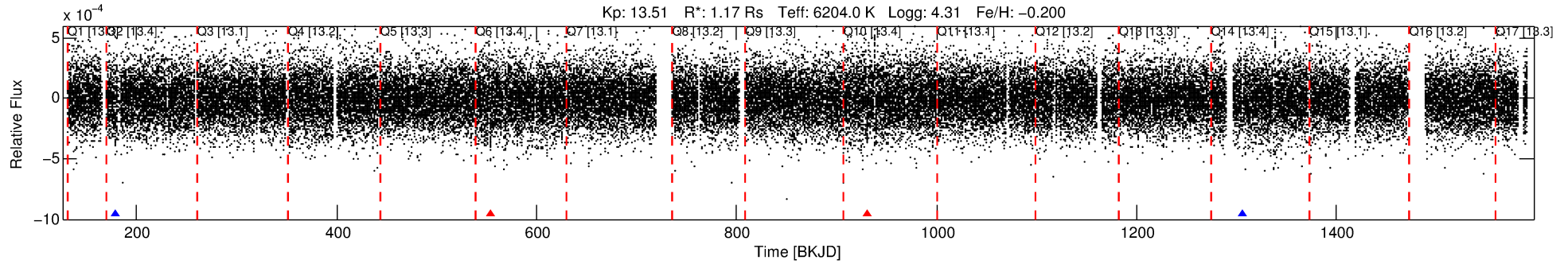
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008619592-01

No Significant Match Found

DV One-Page Summary

KIC: 8619592 Candidate: 1 of 1 Period: 375.925 d



DV Fit Results:

Period = 375.92473 [0.01133] d
Epoch = 178.3438 [0.0174] BKJD
Rp/R* = 0.0155 [0.0055]
a/R* = 140.09 [252.34]
b = 0.78 [0.92]
Seff = 1.71 [0.67]
Teq = 292 [28] K
Rp = 1.98 [0.92] Re
a = 1.0256 [0.2597] AU
Ag = 12940.61 [11299.67] [1.15σ]
Teffp = 4810 [967] K [4.67σ]

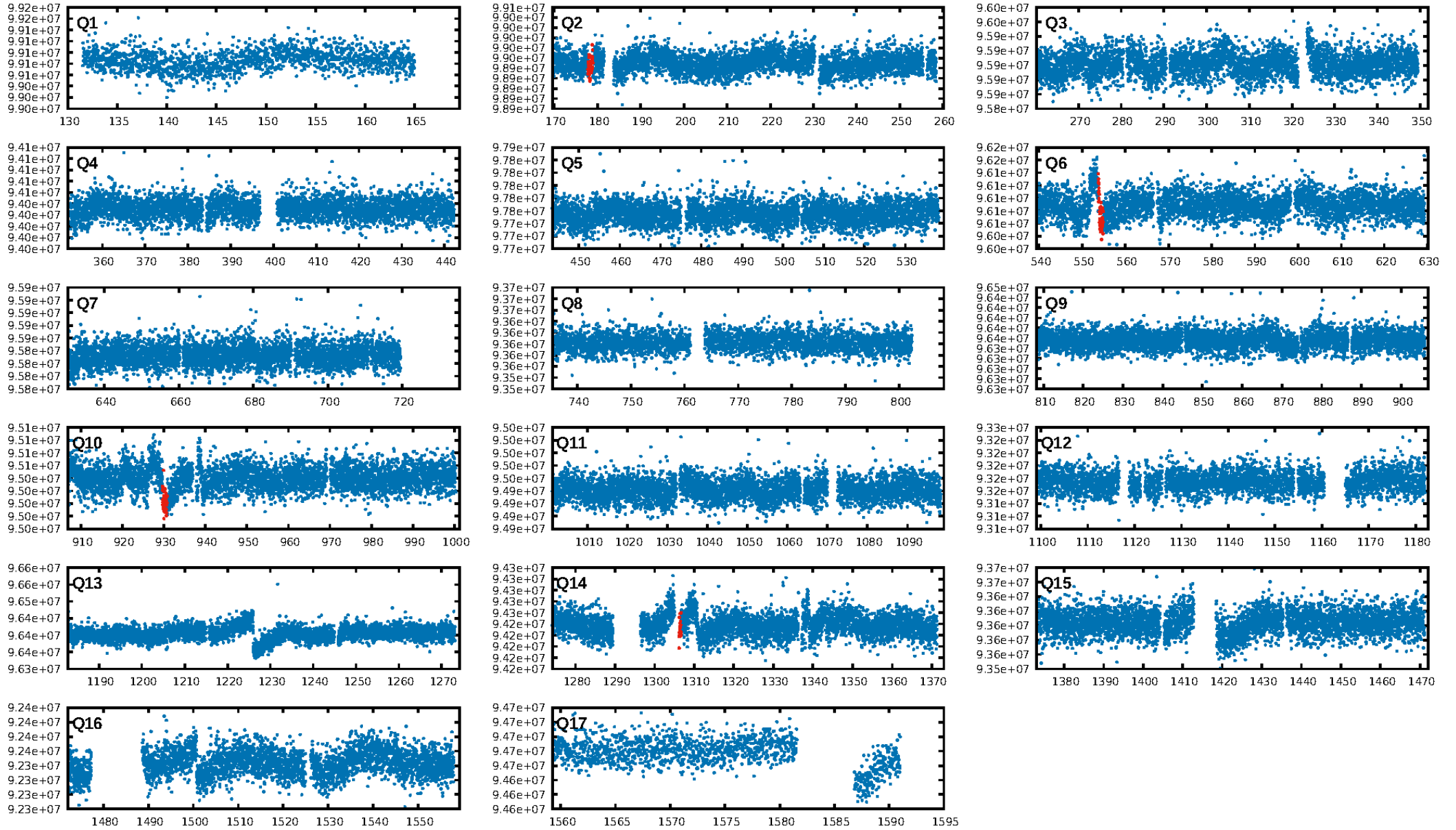
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 7.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.33e-11
RollingBand-fgt: 0.50 [2/4]
GhostDiagnostic-chr: 0.5079
Centroid-sig: 1.4%
Centroid-so: 3.265 arcsec [1.80σ]
OotOffset-rm: 2.149 arcsec [8.24σ]
KicOffset-rm: 2.235 arcsec [6.95σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

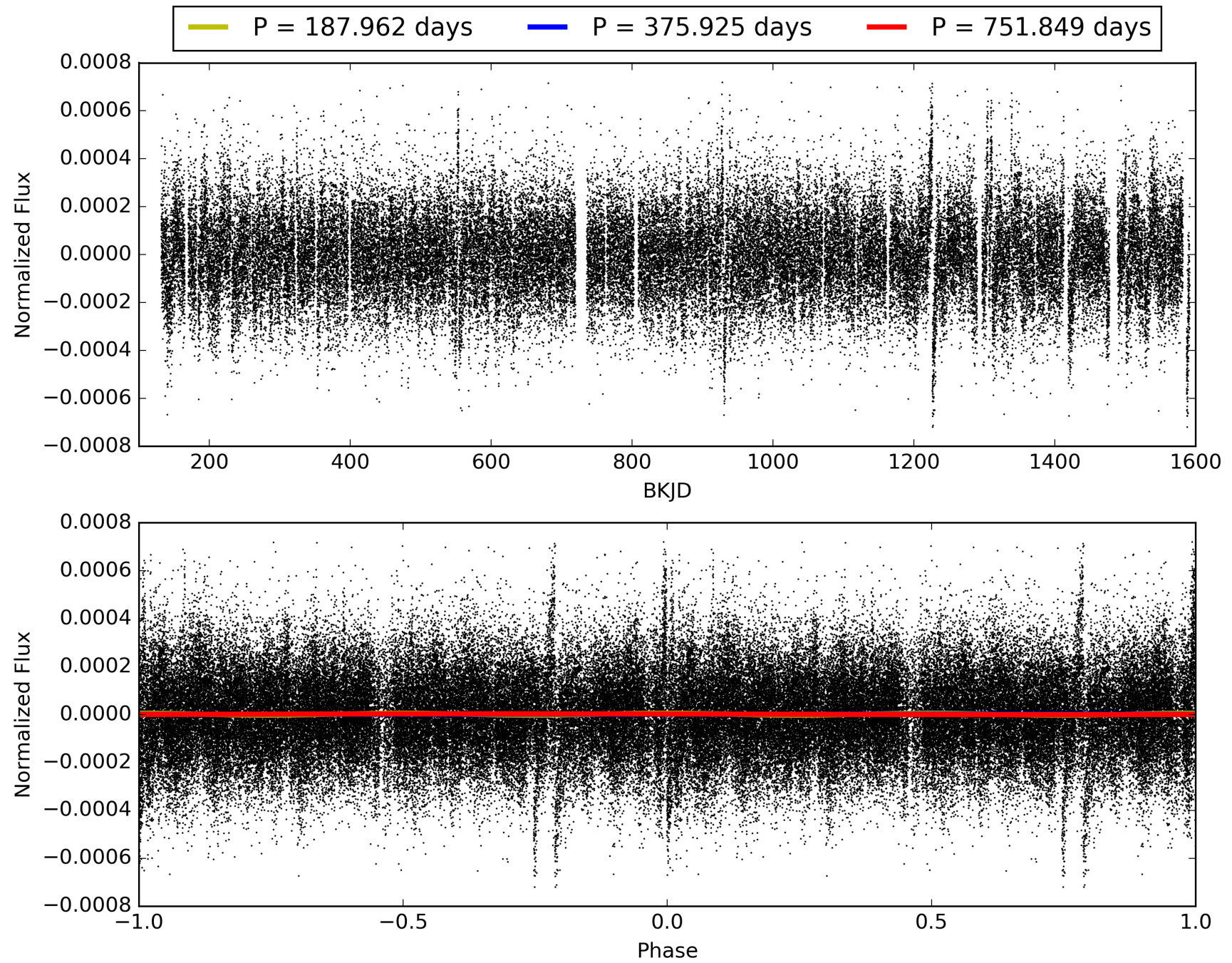
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:26:44 Z

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

TCE 008619592-01, PDC Light Curves

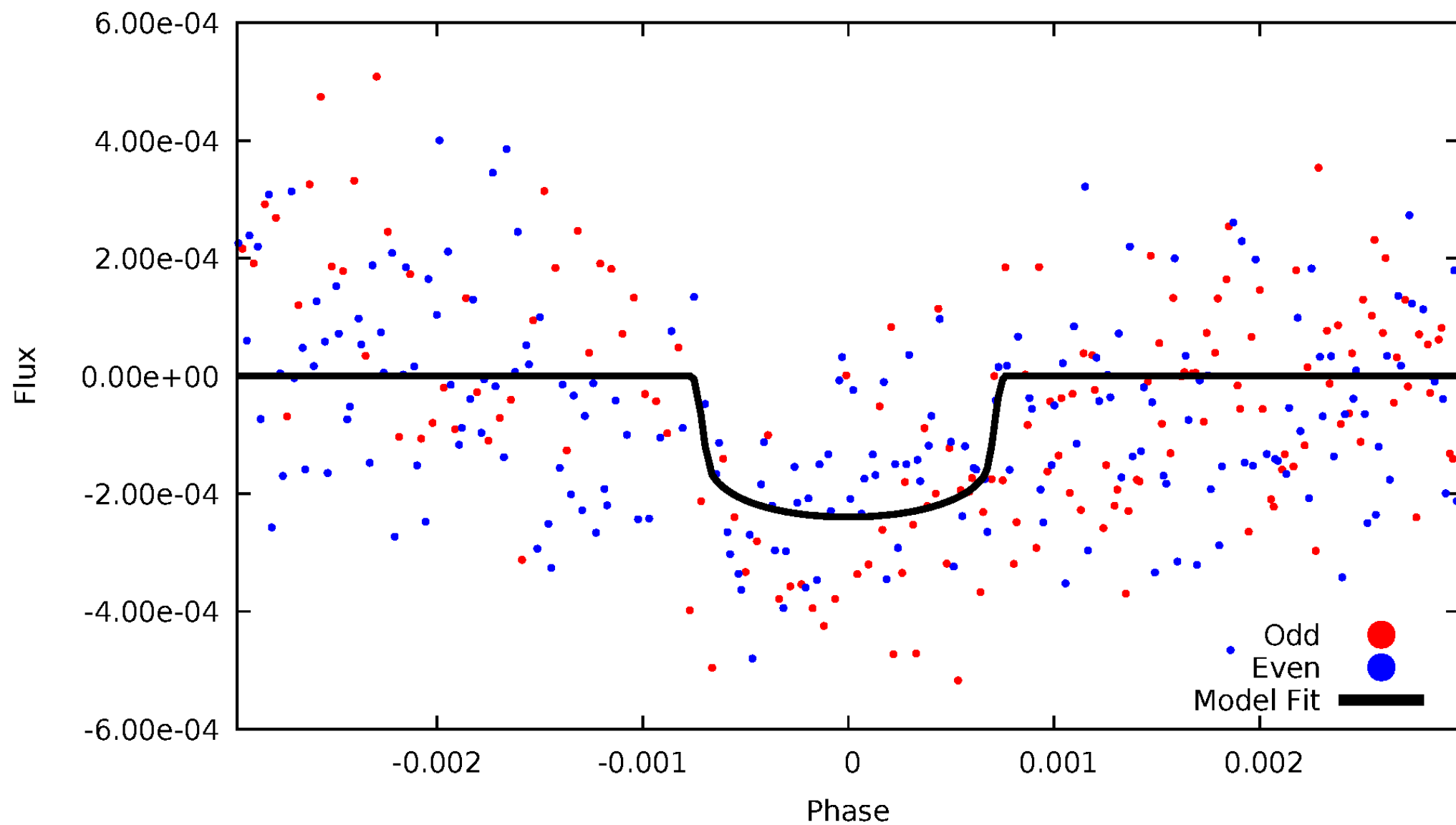


TCE 008619592-01



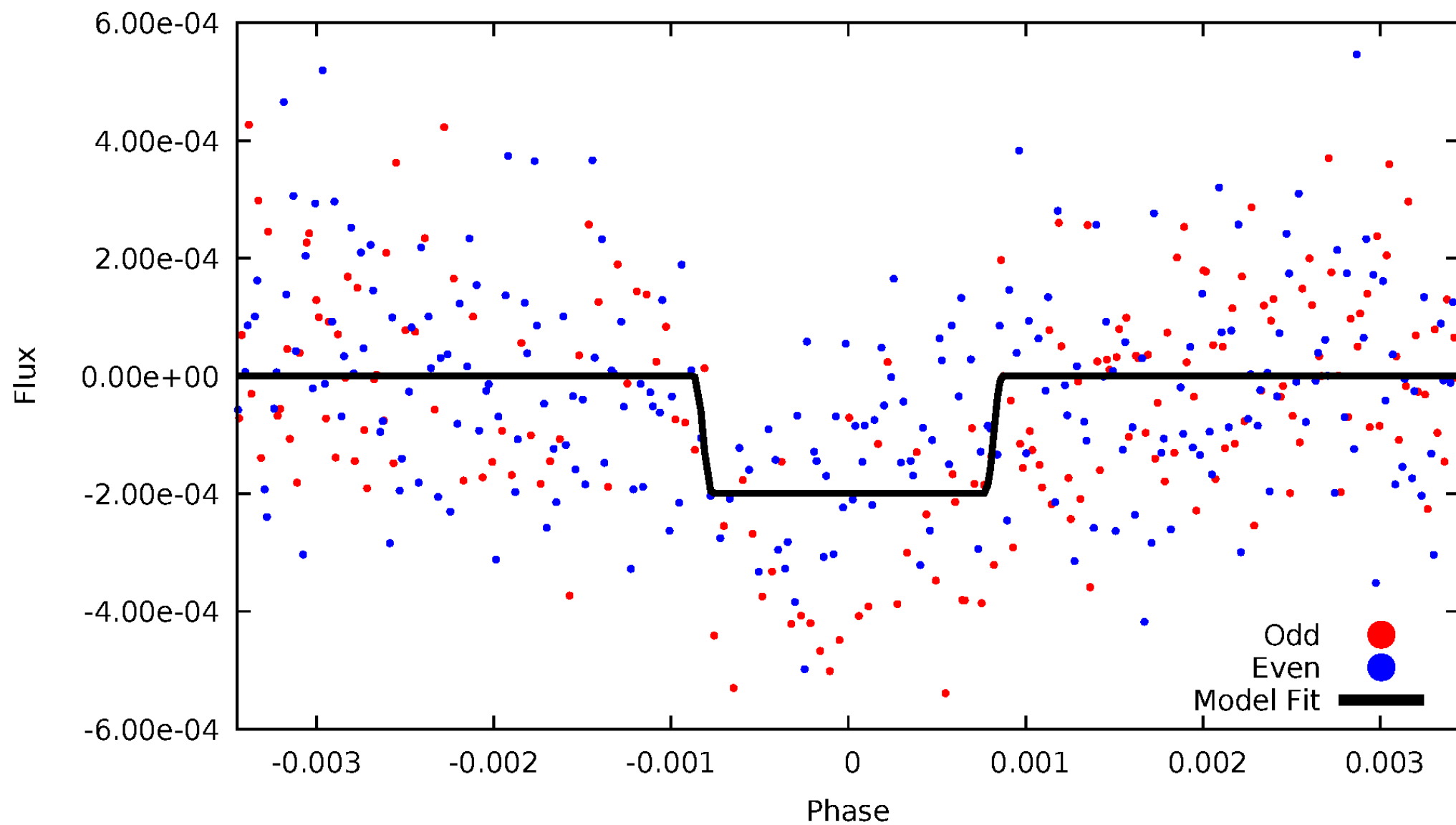
DV Odd/Even

TCE 008619592-01



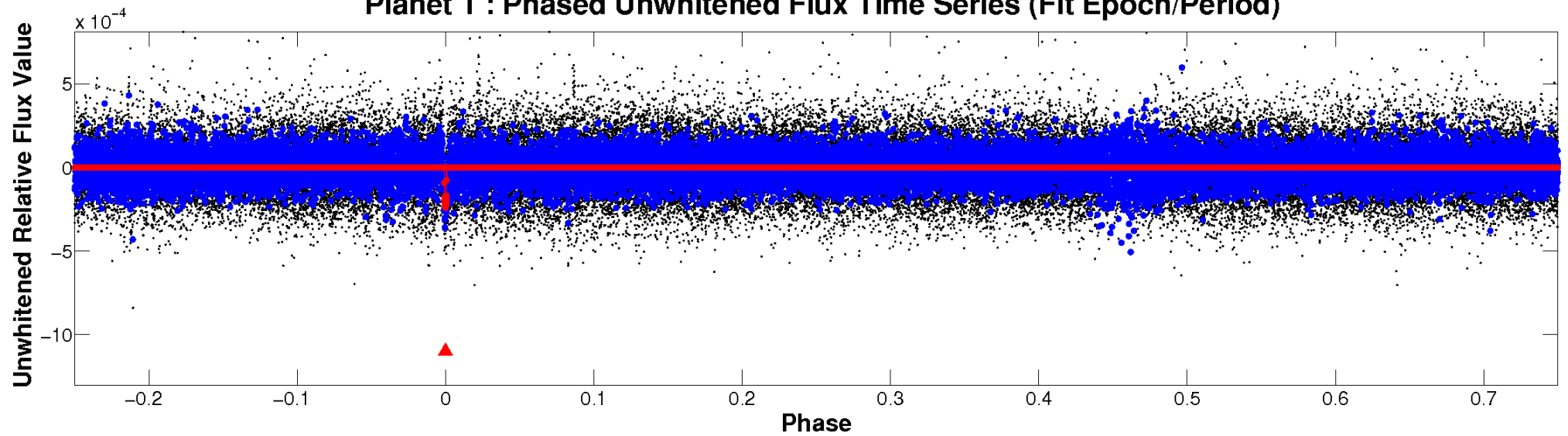
ALT Odd/Even

TCE 008619592-01

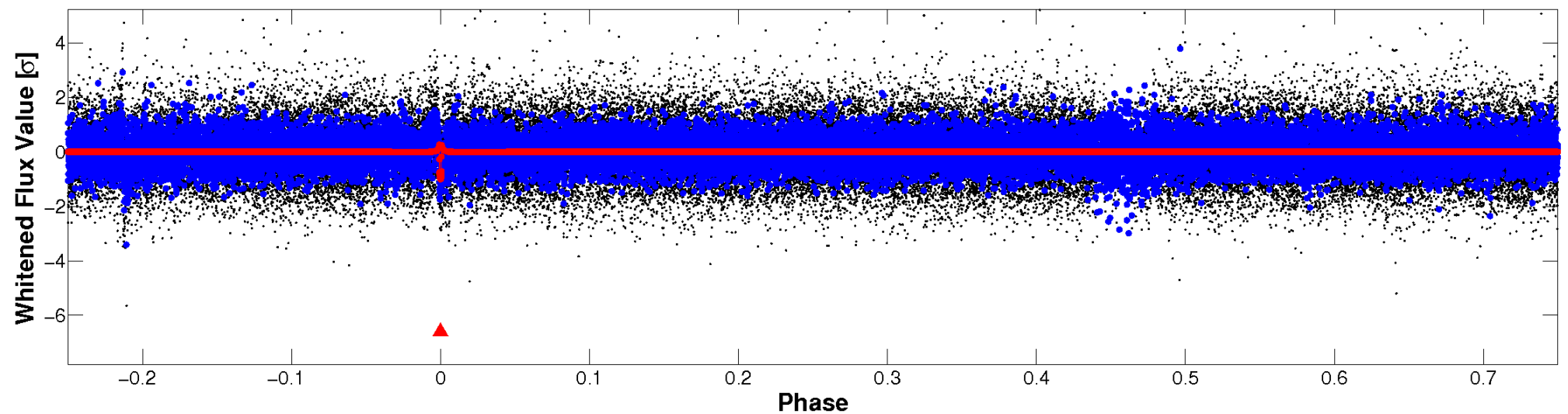


Non-Whitened Vs. Whitened Light Curve

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

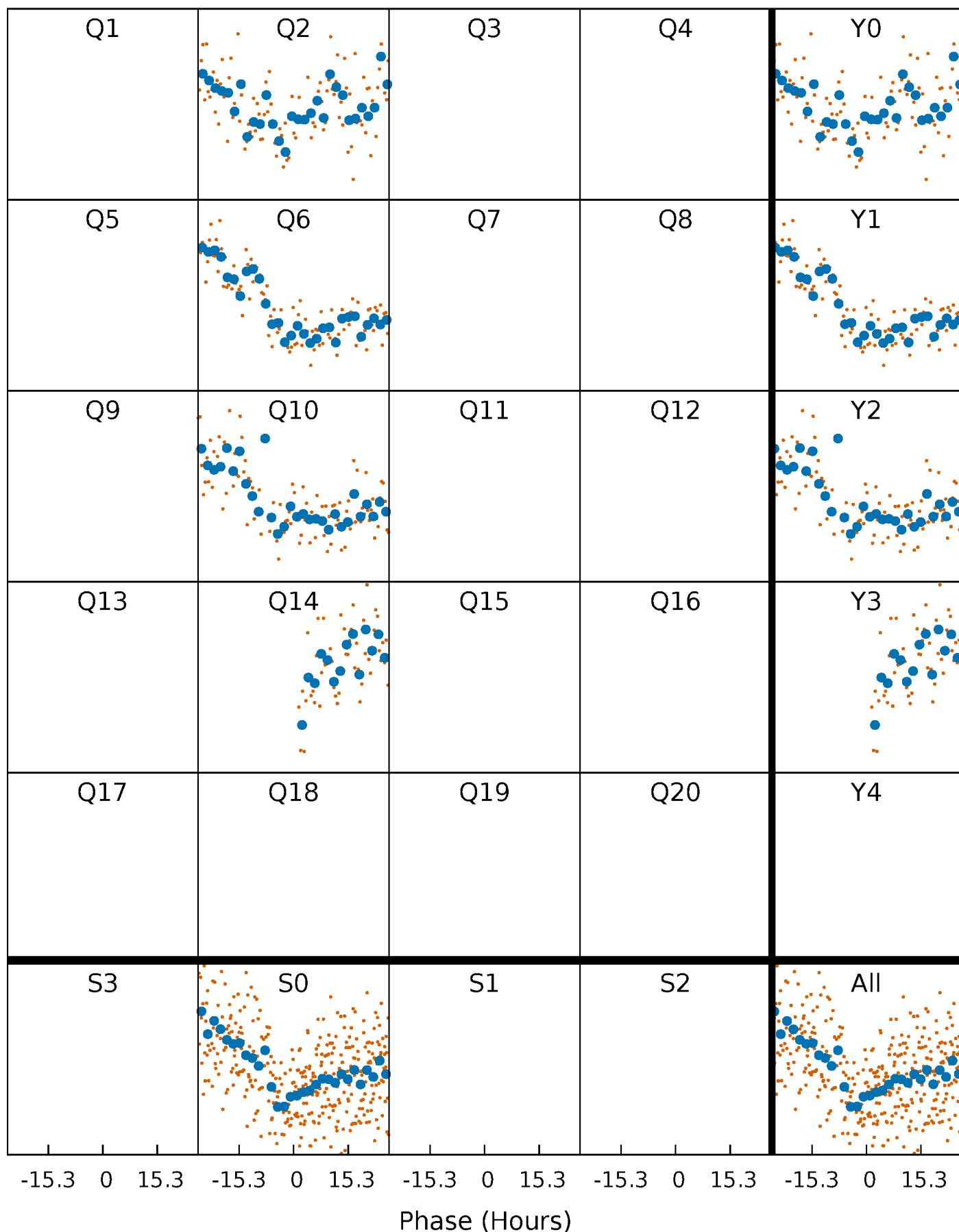


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



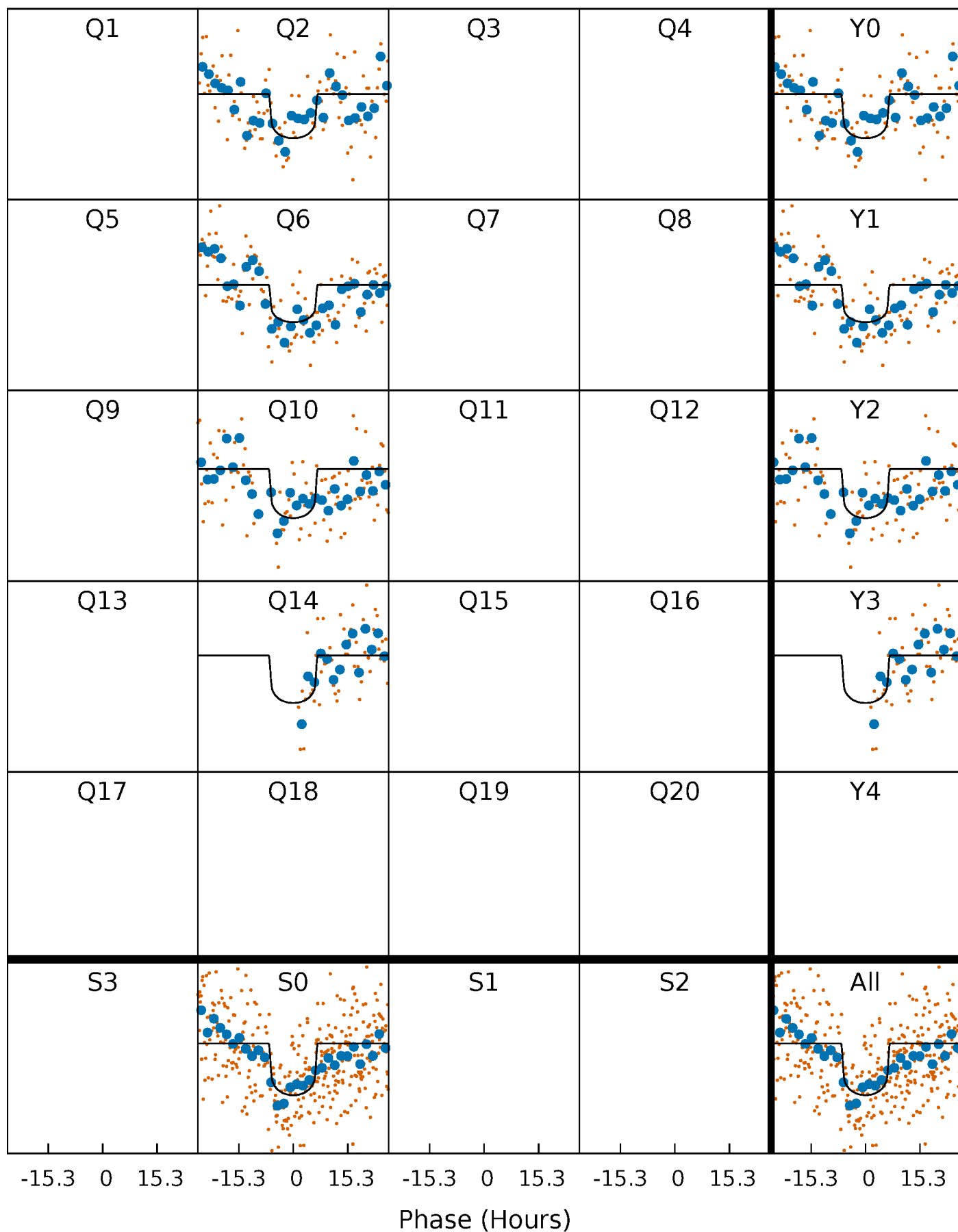
PDC Quarter-Phased Transit Curves

TCE 008619592-01 P=375.924730 Days $T_0=178.343825$ (BKJD)



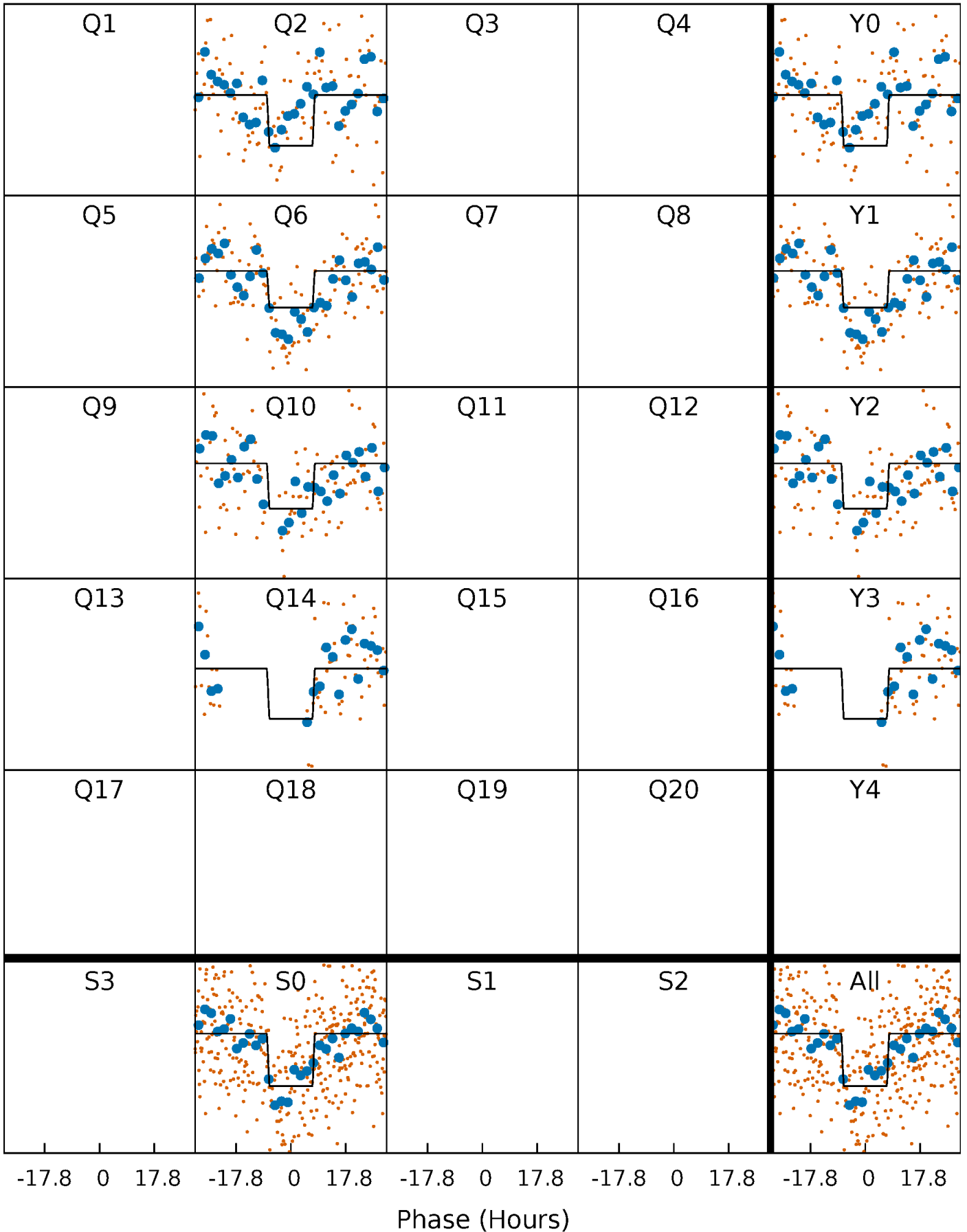
DV Quarter-Phased Transit Curves

TCE 008619592-01 P=375.924730 Days $T_0=178.343825$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

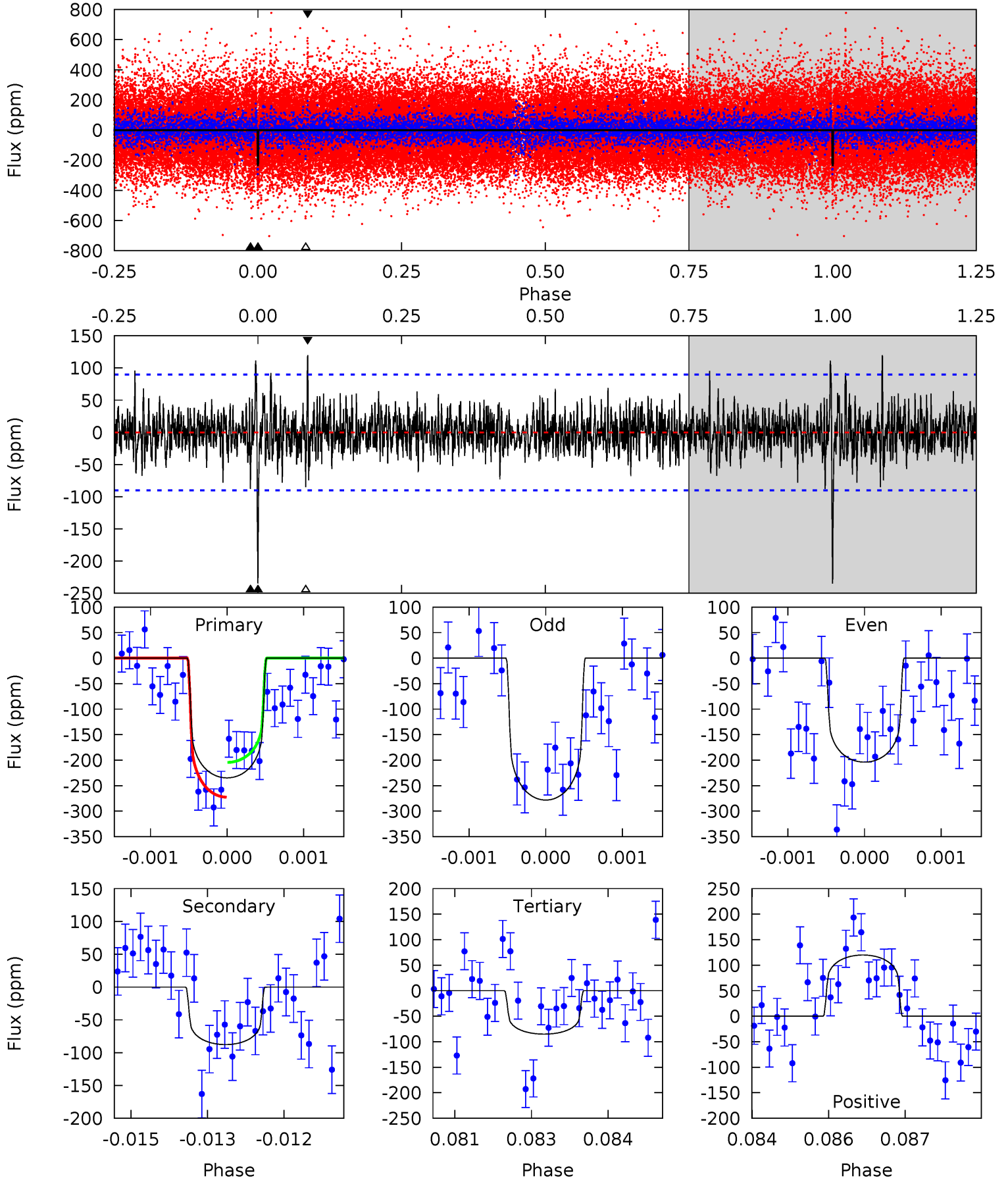
TCE 008619592-01 P=375.848091 Days $T_0=178.414874$ (BKJD)



DV Model-Shift Uniqueness Test

008619592-01, $P = 375.924730$ Days, $E = 178.343825$ Days

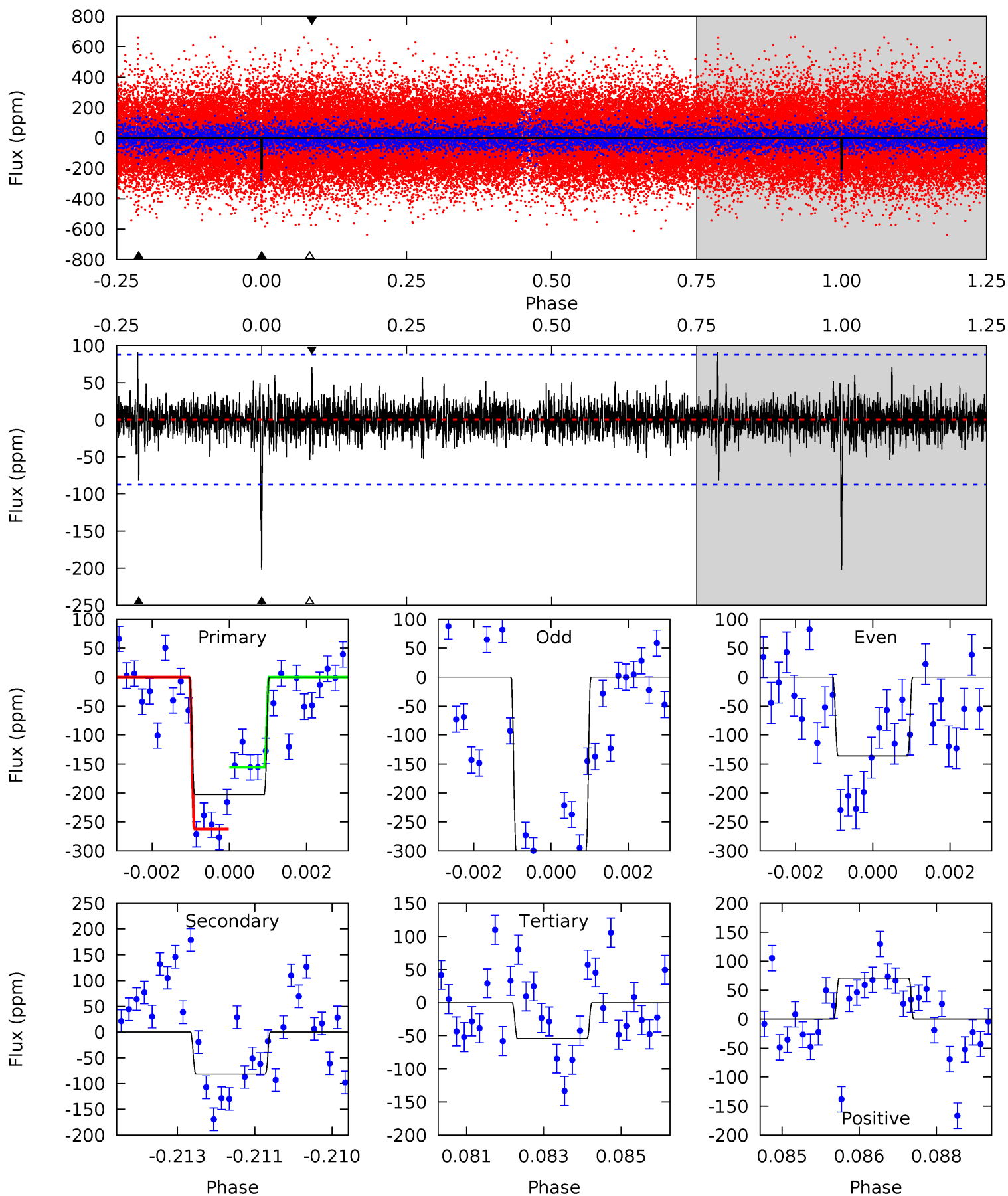
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	5.25	5.09	7.17	5.38	3.18	1.40	8.96	6.87	0.16	-1.93	2.20	1.03	0.34	2.02



Alt Model-Shift Uniqueness Test

008619592-01, P = 375.848091 Days, E = 178.414874 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.4	4.99	3.32	4.34	5.36	3.14	0.93	9.05	8.03	1.67	0.65	4.98	0.96	0.31	3.23



Stellar Parameters For KIC 008619592

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6204^{+168}_{-206}	$4.313^{+0.132}_{-0.198}$	$-0.200^{+0.250}_{-0.300}$	$1.165^{+0.354}_{-0.190}$	$1.017^{+0.173}_{-0.115}$	$0.906^{+0.582}_{-0.480}$
	+3%/-3%	+3%/-5%	+125%/-150%	+30%/-16%	+17%/-11%	+64%/-53%
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 008619592-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-88 ± 17	$2.08^{+0.74}_{-0.79}$	409^{+32}_{-24}	4845^{+1069}_{-544}	11988^{+17794}_{-5974}
Alt.	-82 ± 16	$1.86^{+0.75}_{-0.74}$	409^{+33}_{-22}	5017^{+1349}_{-628}	13965^{+23412}_{-7347}

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 $A_{obs} \gg 1.0$

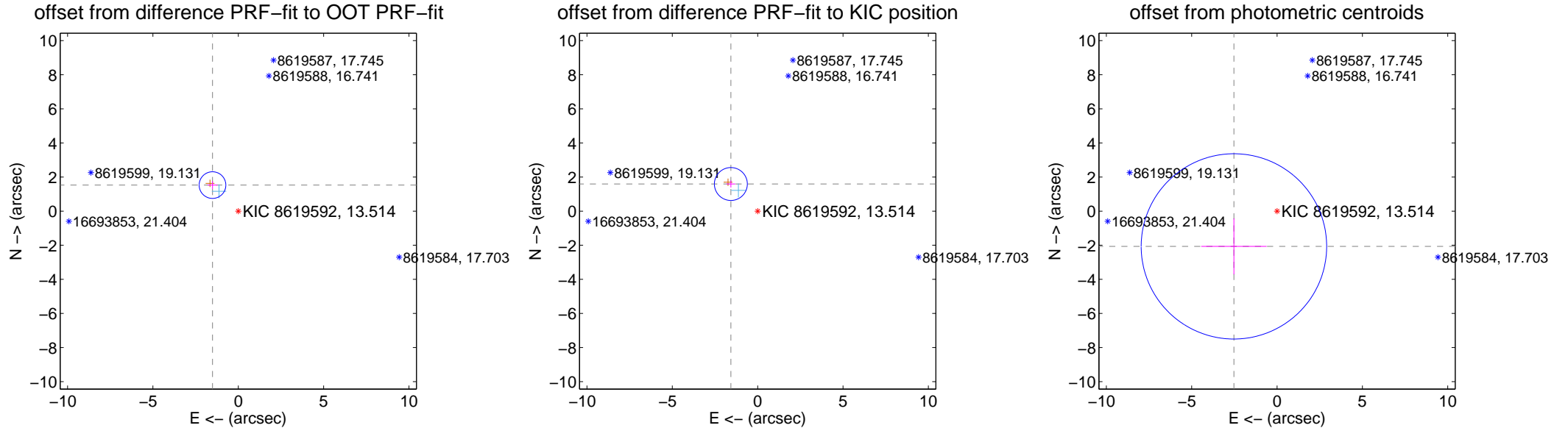
DV Centroid Data

Supplemental centroid analysis for 008619592-01. Kepler magnitude: 13.51. Transit SNR 8.53

There are 1 quarters with good PRF difference image offsets

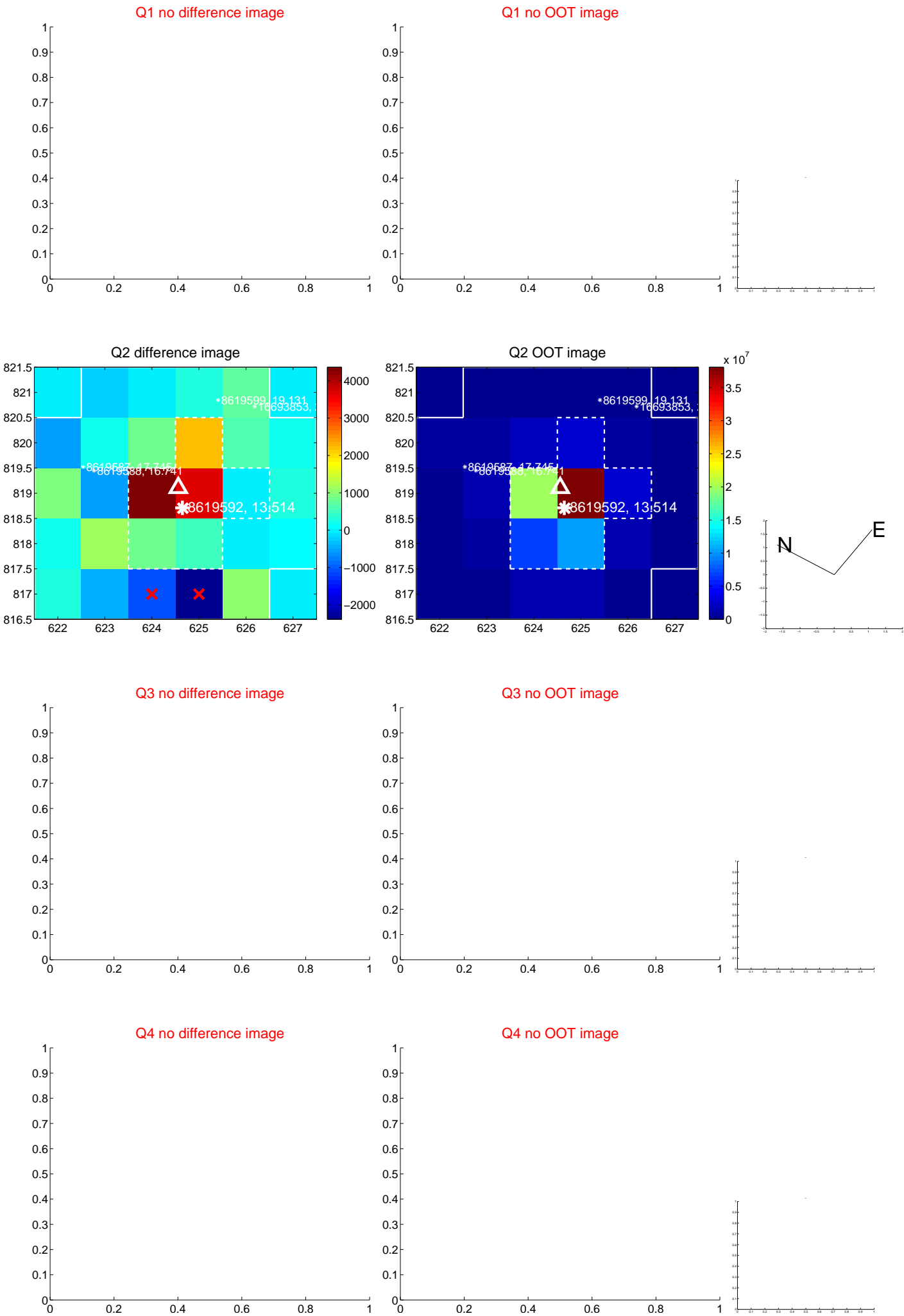
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.149 \pm 0.261	8.24	1.511 \pm 0.284	1.528 \pm 0.236
PRF-fit source offset from KIC position	2.235 \pm 0.322	6.95	1.570 \pm 0.258	1.591 \pm 0.207
photometric centroid source offset	3.27 \pm 1.81	1.80	2.53 \pm 1.92	-2.07 \pm 1.64

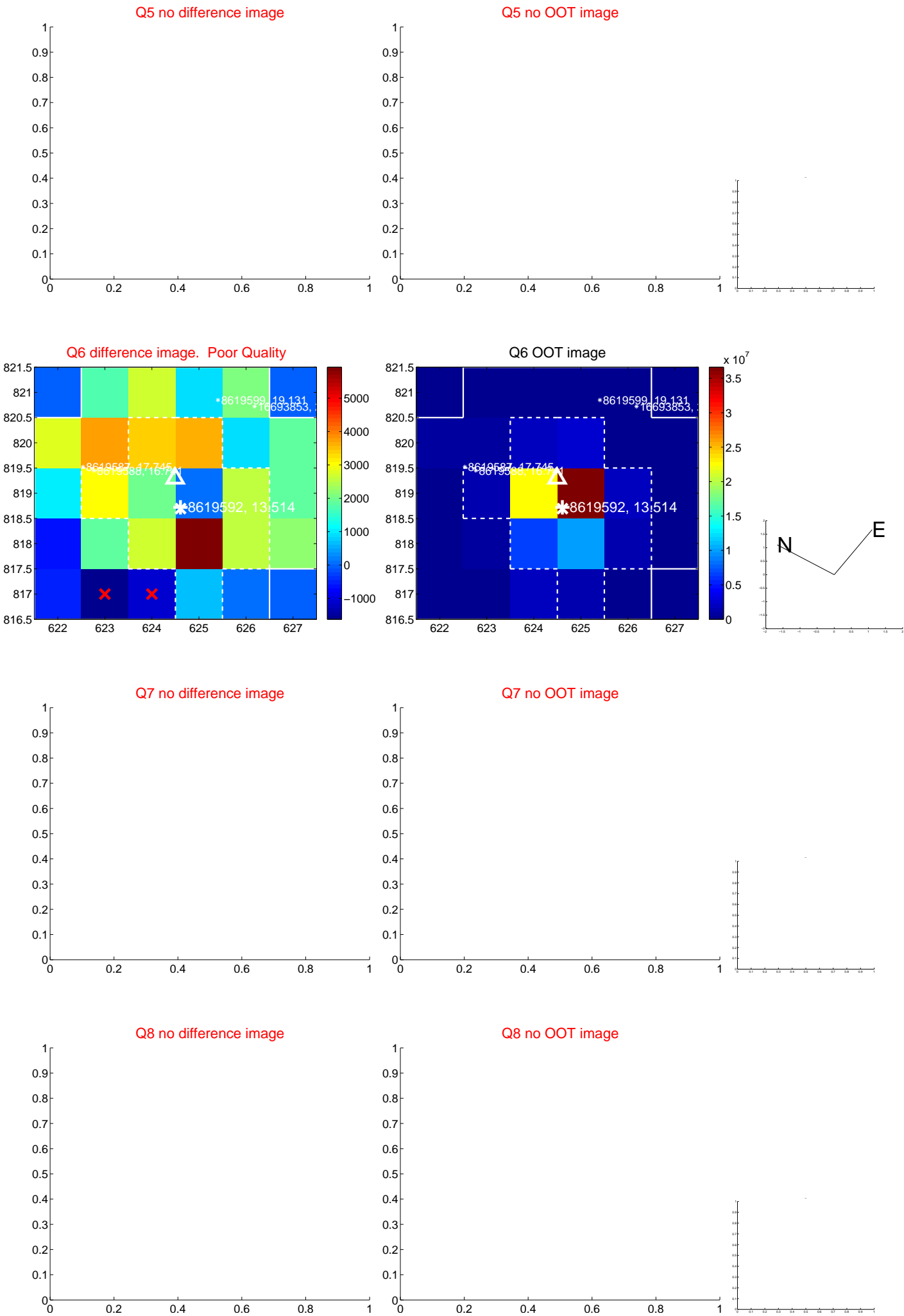


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



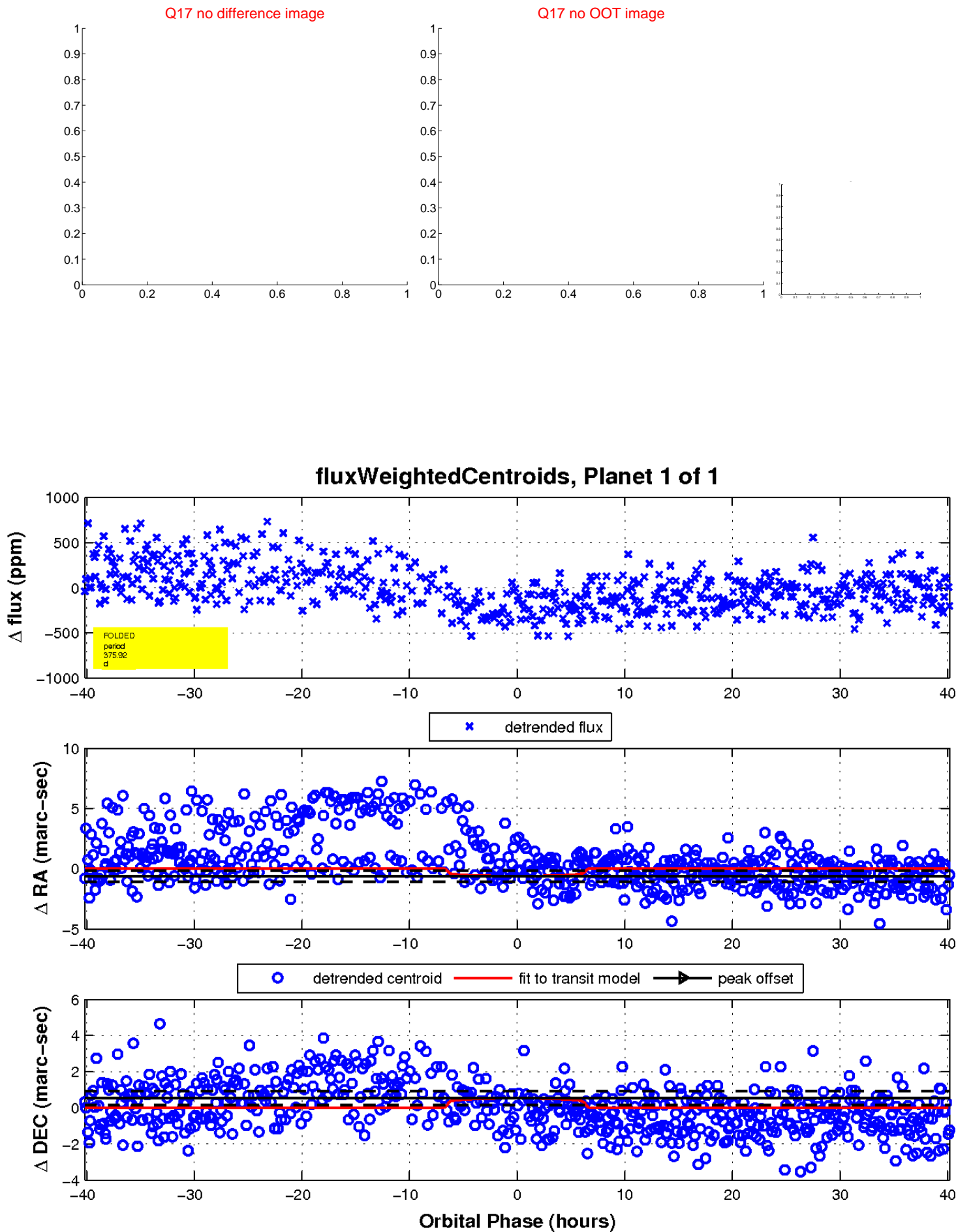
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

