

KIC 008652577

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})
008652577-01	OBS	4458.01	358.819242	416.575299	649.8	2.530	10.4	11.4	0.92	6056	2.74	1.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008652577-01	OBS	PC	0.16	0	0	0	0	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.

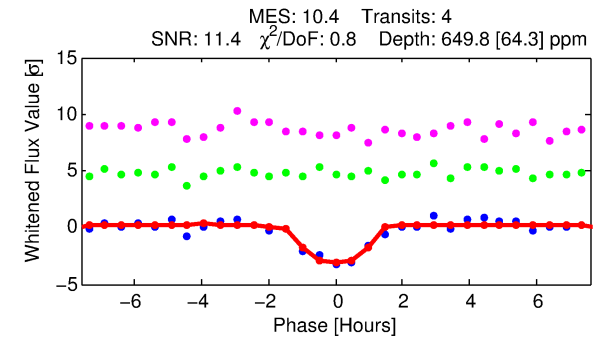
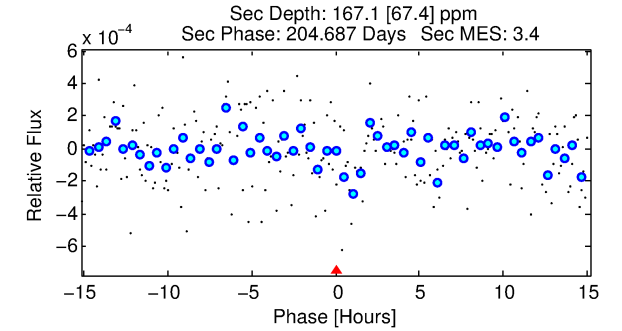
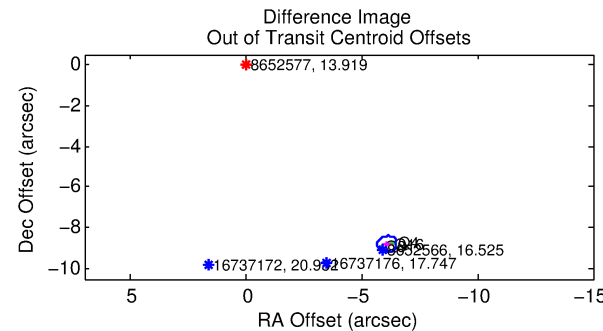
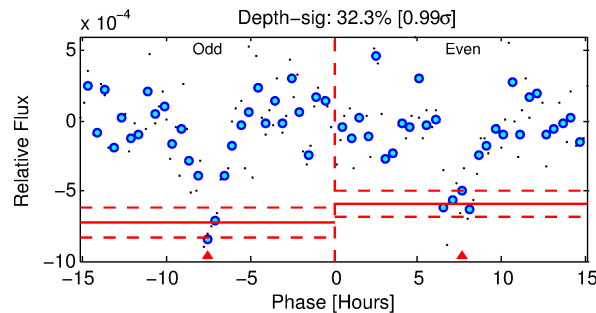
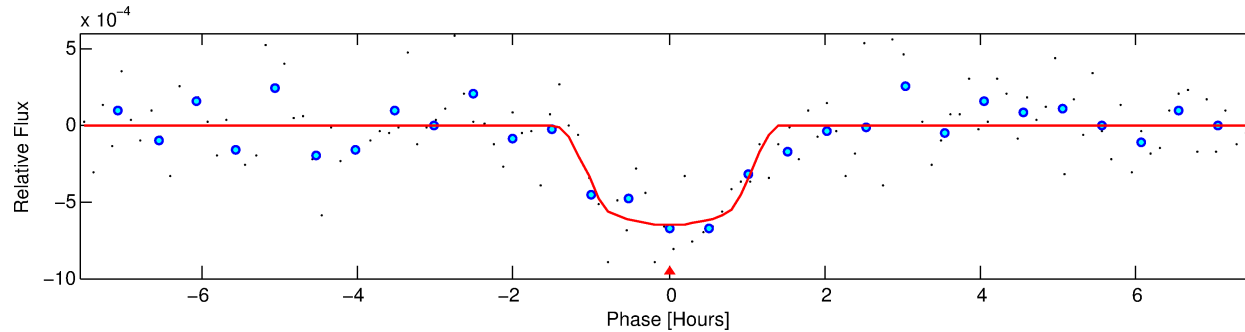
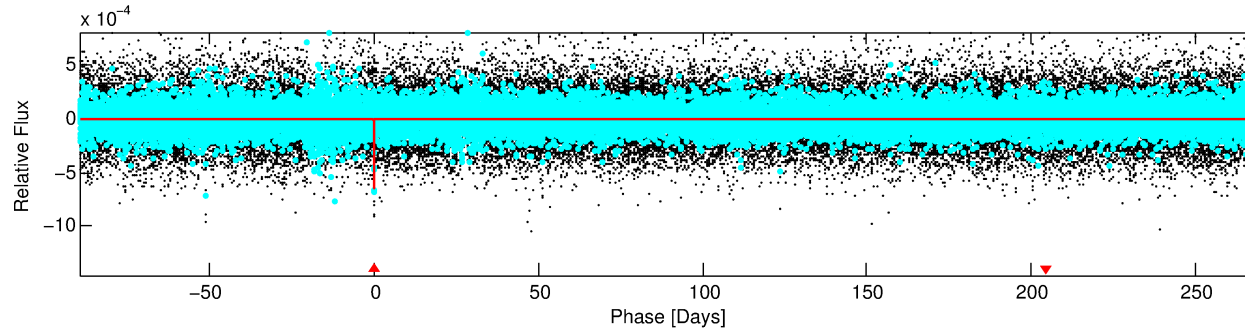
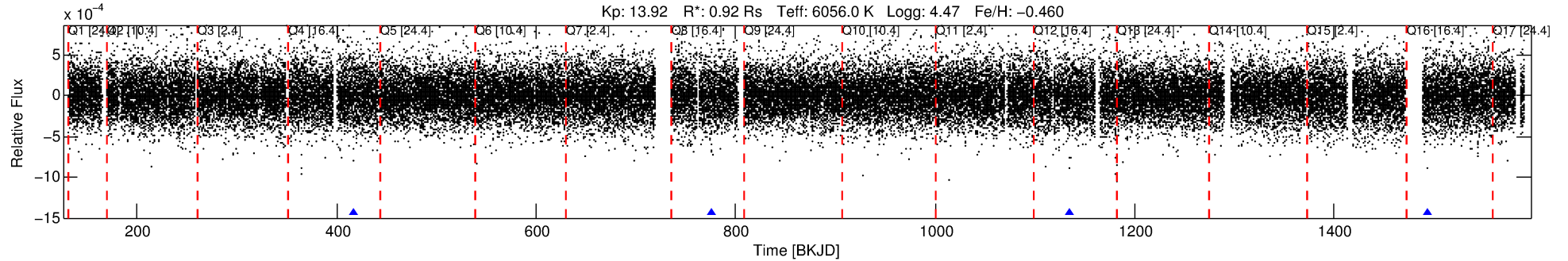
Ephemeris Match Information For 008652577-01

No Significant Match Found

DV One-Page Summary

KIC: 8652577 Candidate: 1 of 1 Period: 358.819 d
KOI: K04458.01 Corr: 0.976

Kp: 13.92 R*: 0.92 Rs Teff: 6056.0 K Logg: 4.47 Fe/H: -0.460



DV Fit Results:

Period = 358.81924 [0.00260] d
Epoch = 416.5753 [0.0049] BKJD
Rp/R* = 0.0274 [0.0085]
a/R* = 543.31 [864.69]
b = 0.90 [0.35]
Seff = 1.11 [0.40]
Teq = 262 [24] K
Rp = 2.74 [1.13] Re
a = 0.9568 [0.2197] AU
Ag = 11183.75 [9133.21] [1.22σ]
Teff = 4161 [782] K [4.98σ]

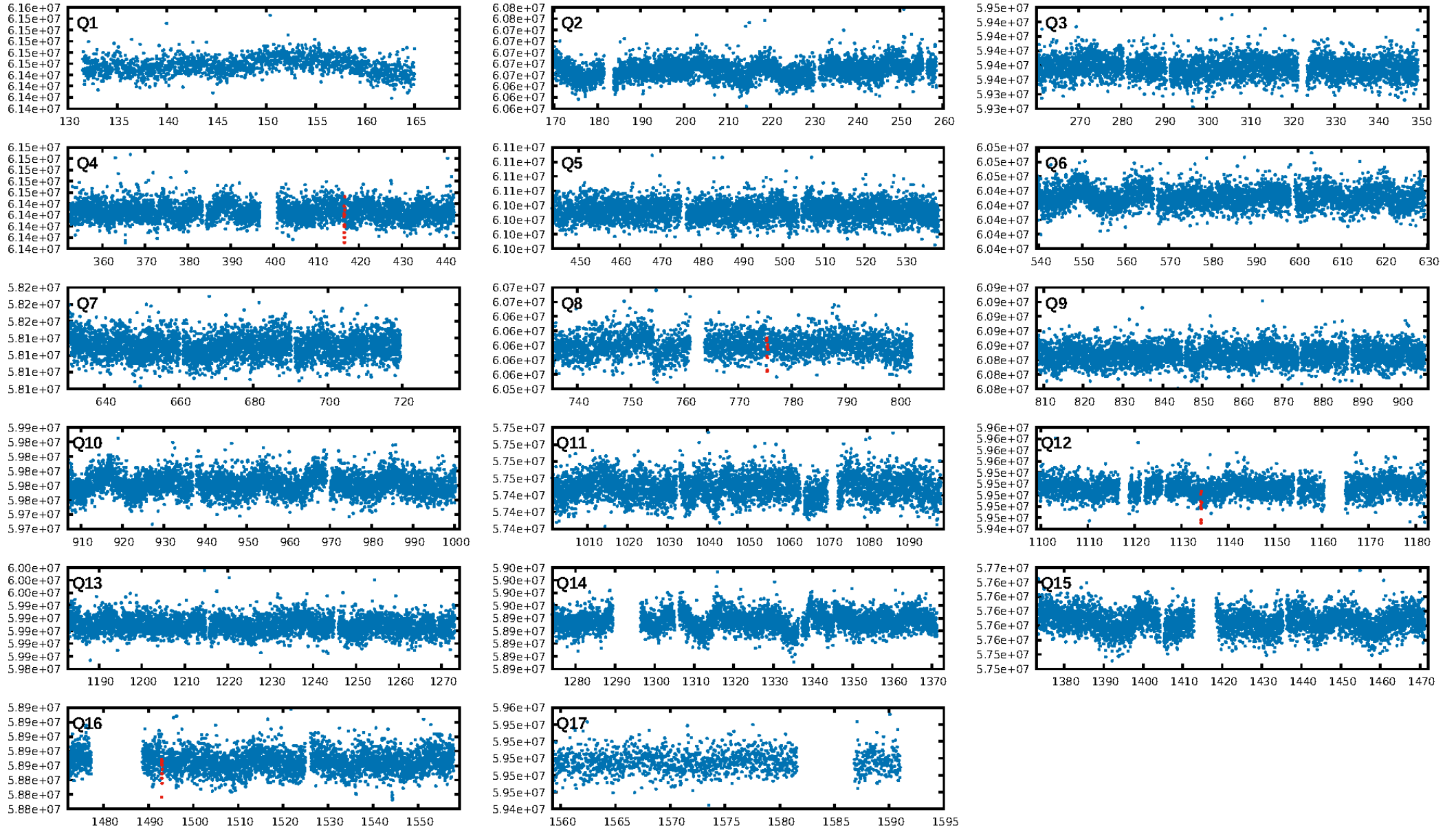
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 58.0%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 9.28e-21
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.4753
Centroid-sig: 0.0%
Centroid-so: 42.273 arcsec [27.00σ]
OotOffset-rm: 10.699 arcsec [78.93σ]
KicOffset-rm: 10.754 arcsec [76.65σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

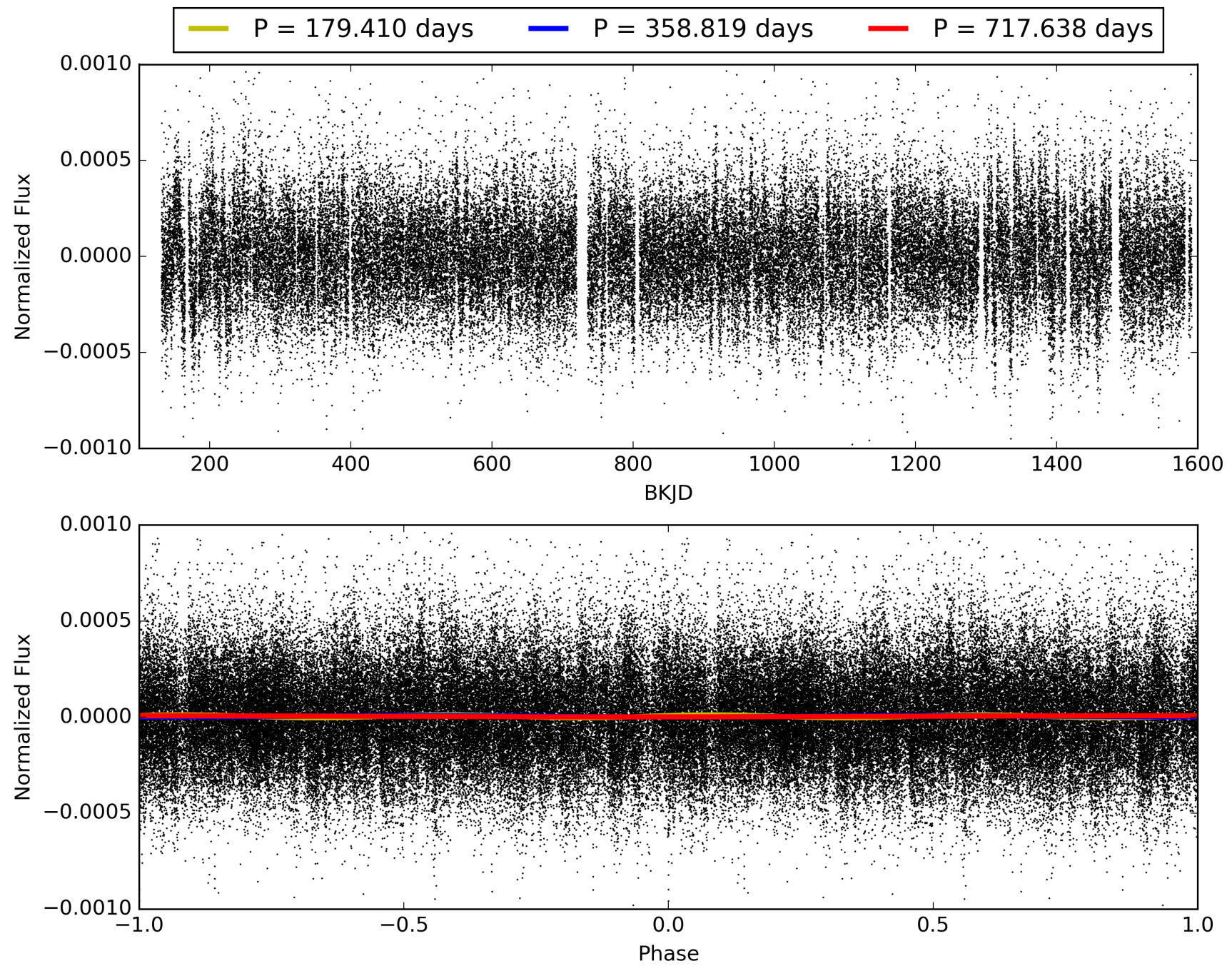
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:54:58 Z

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

TCE 008652577-01, PDC Light Curves

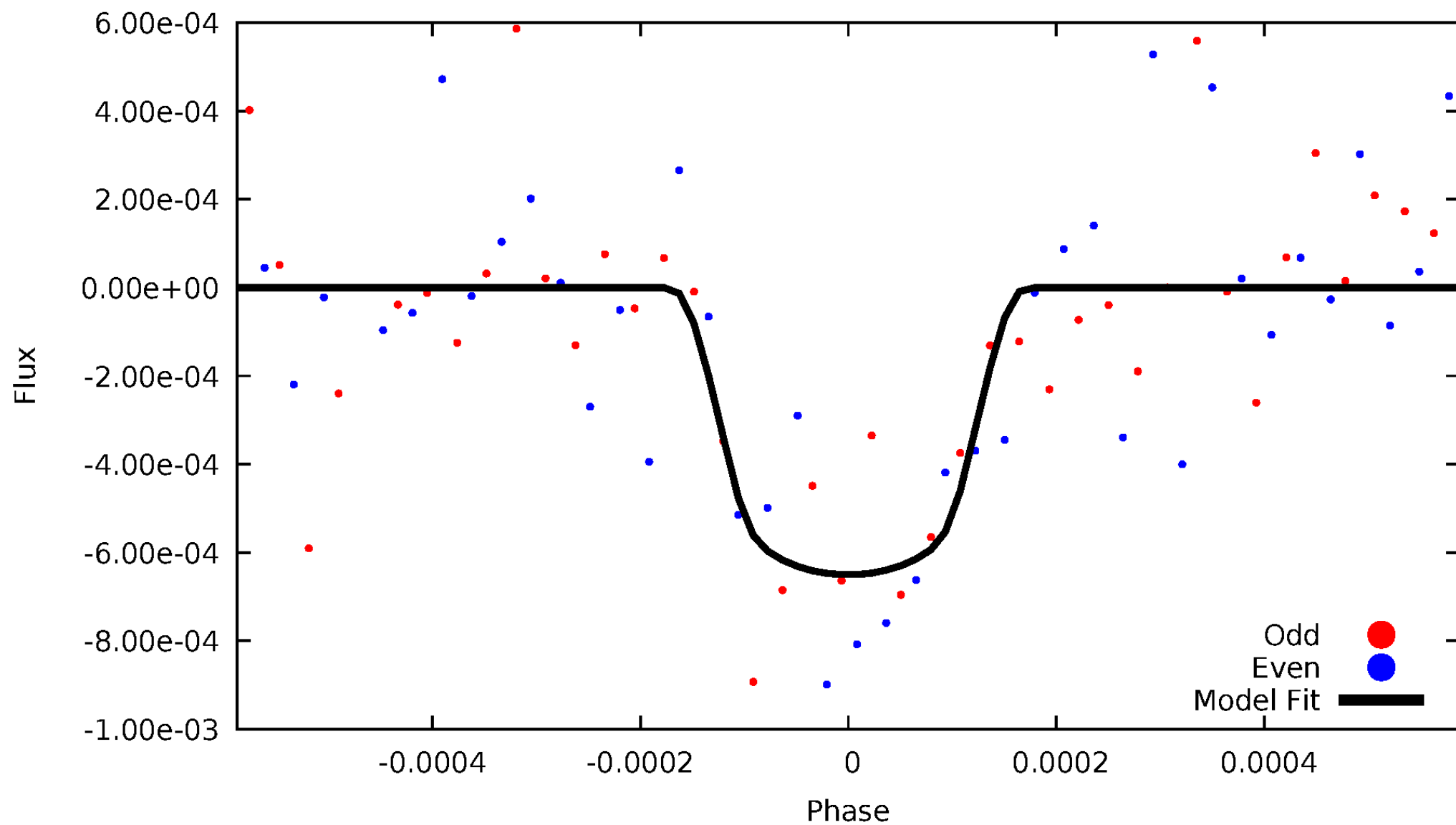


TCE 008652577-01



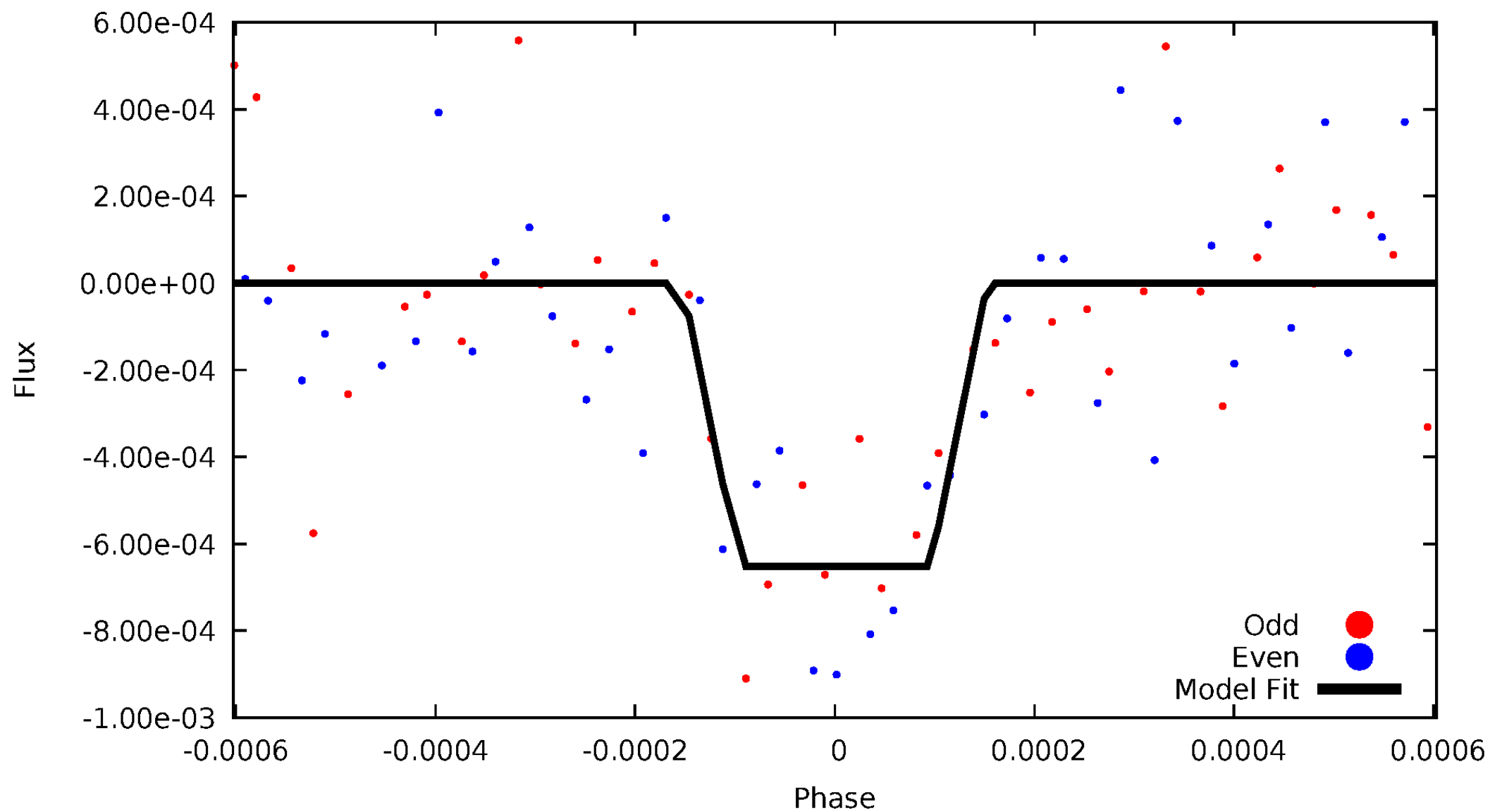
DV Odd/Even

TCE 008652577-01



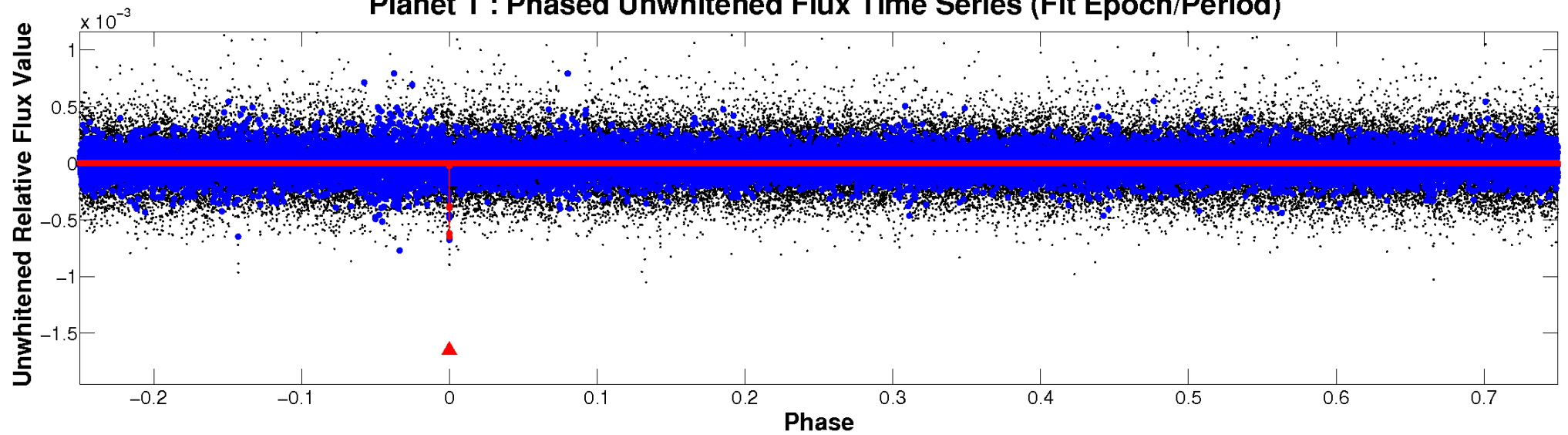
ALT Odd/Even

TCE 008652577-01

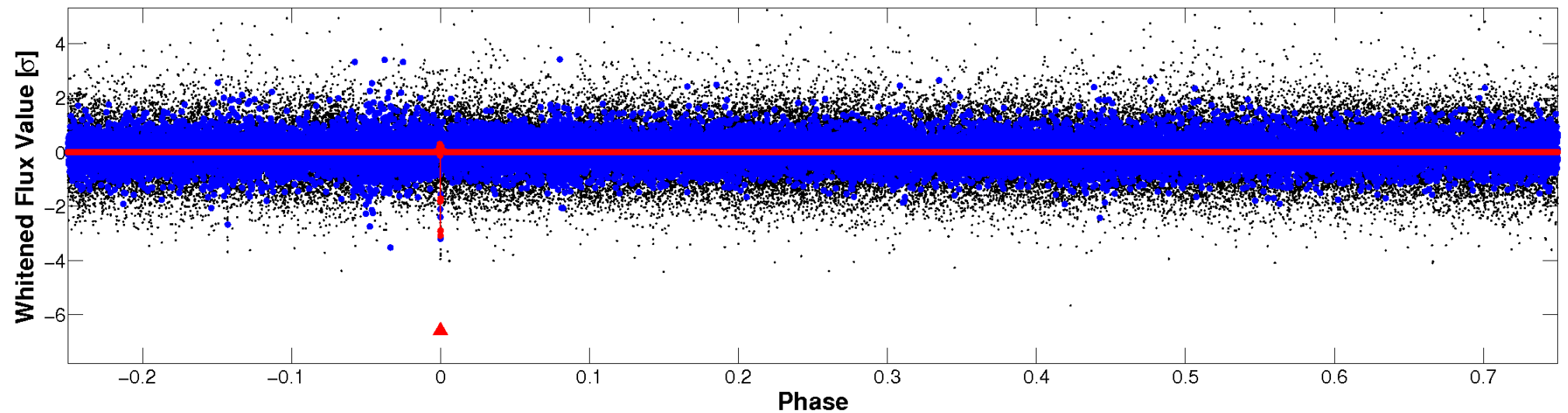


Non-Whitened Vs. Whitened Light Curve

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

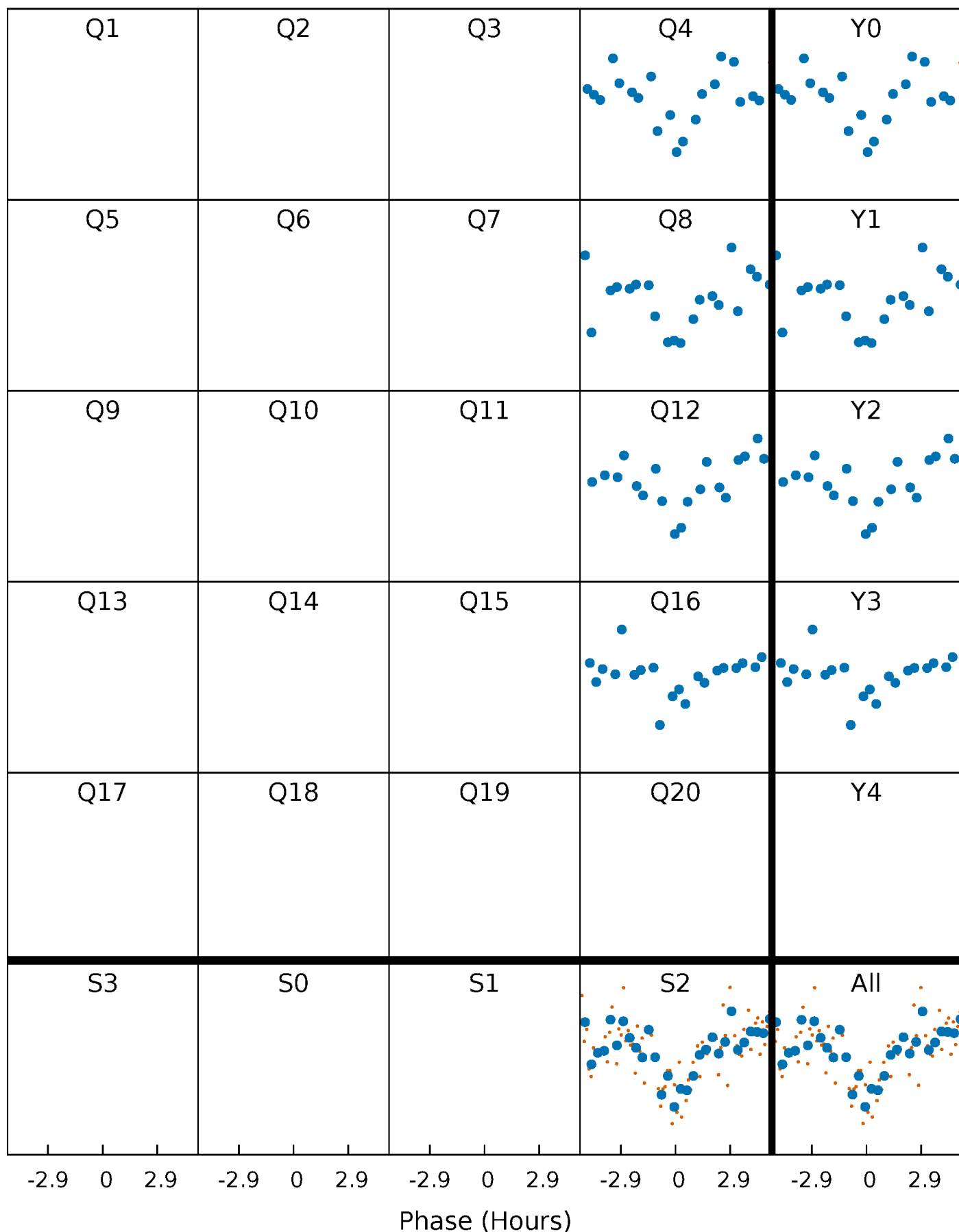


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



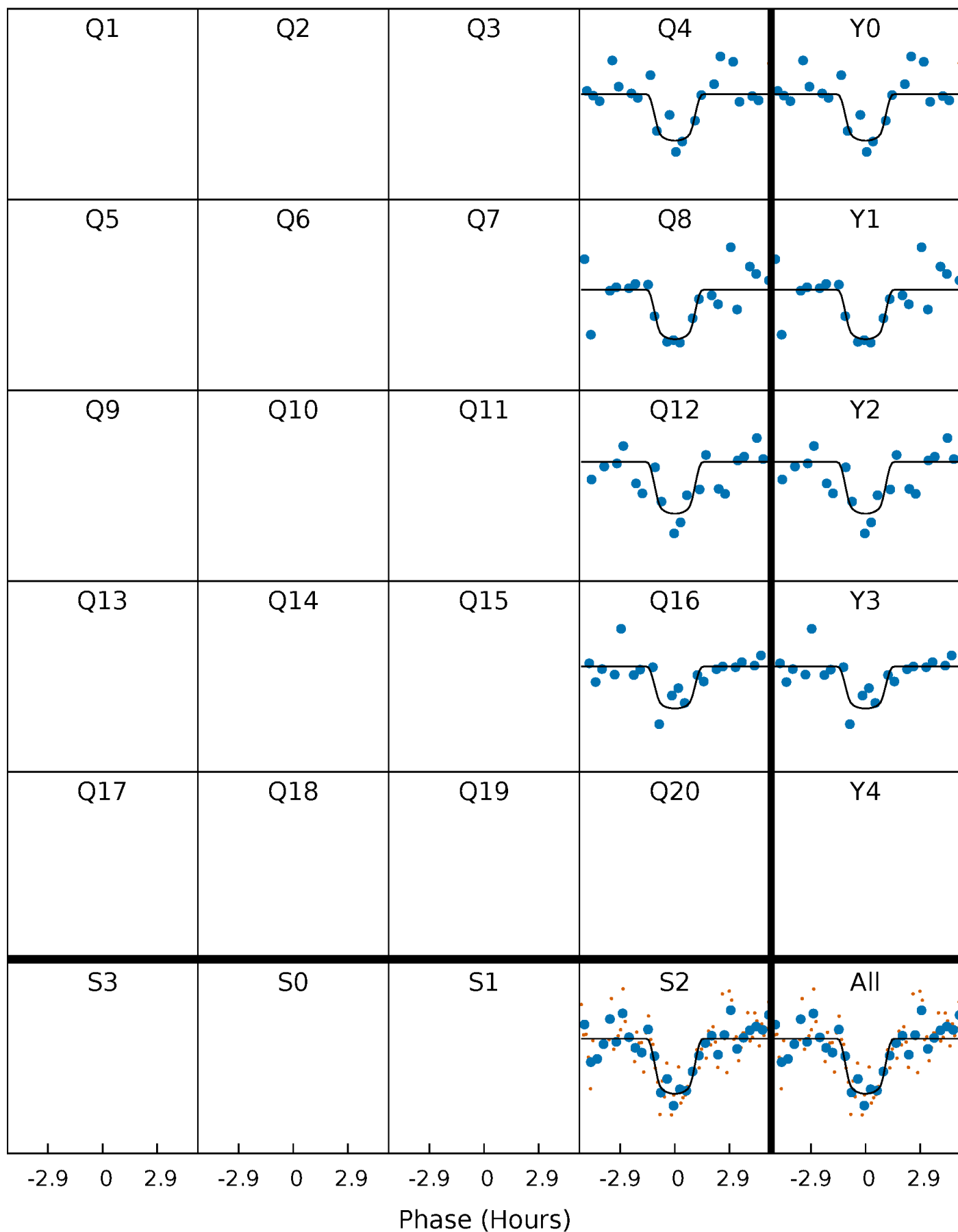
PDC Quarter-Phased Transit Curves

TCE 008652577-01 P=358.819242 Days $T_0=416.575299$ (BKJD)



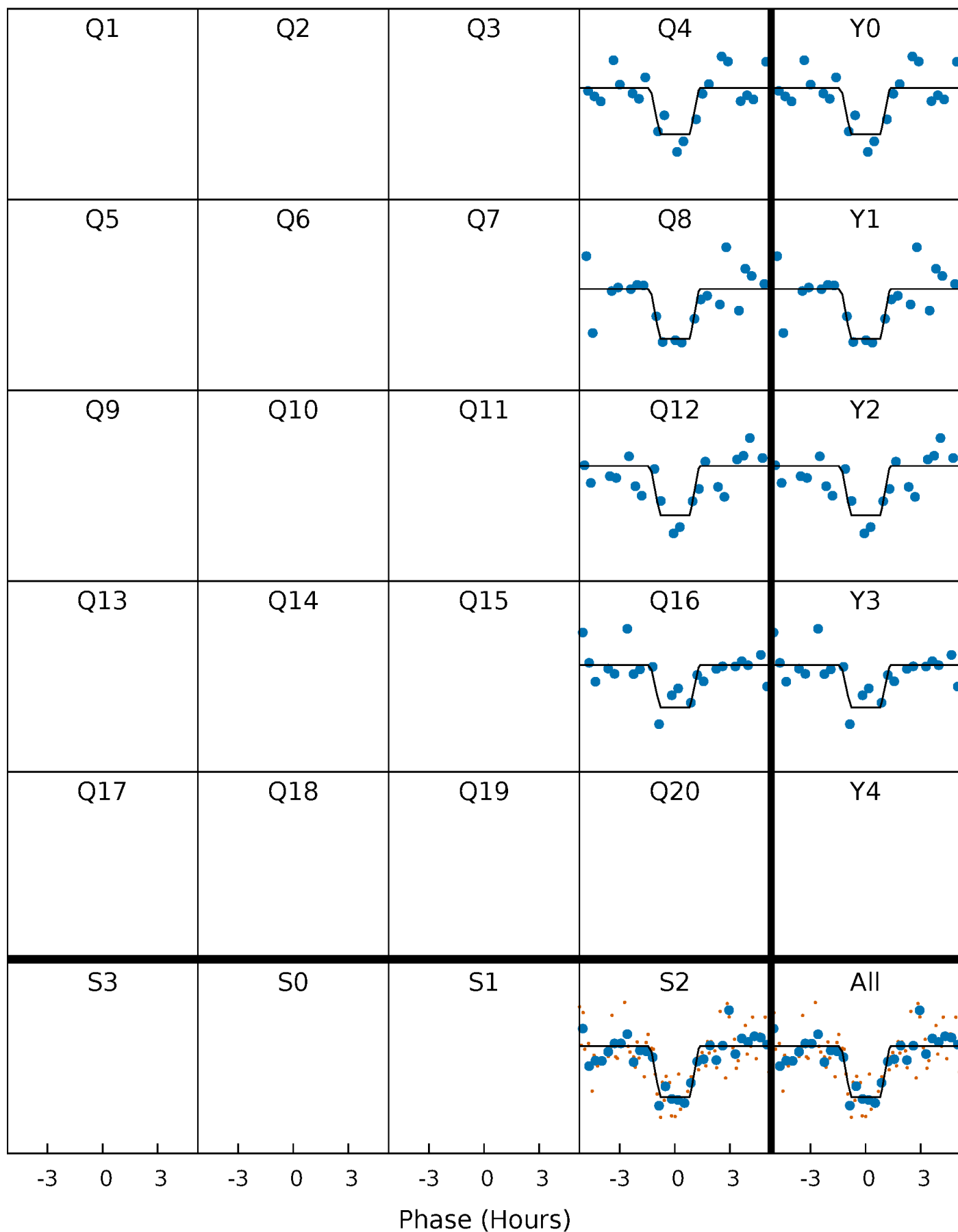
DV Quarter-Phased Transit Curves

TCE 008652577-01 P=358.819242 Days $T_0=416.575299$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

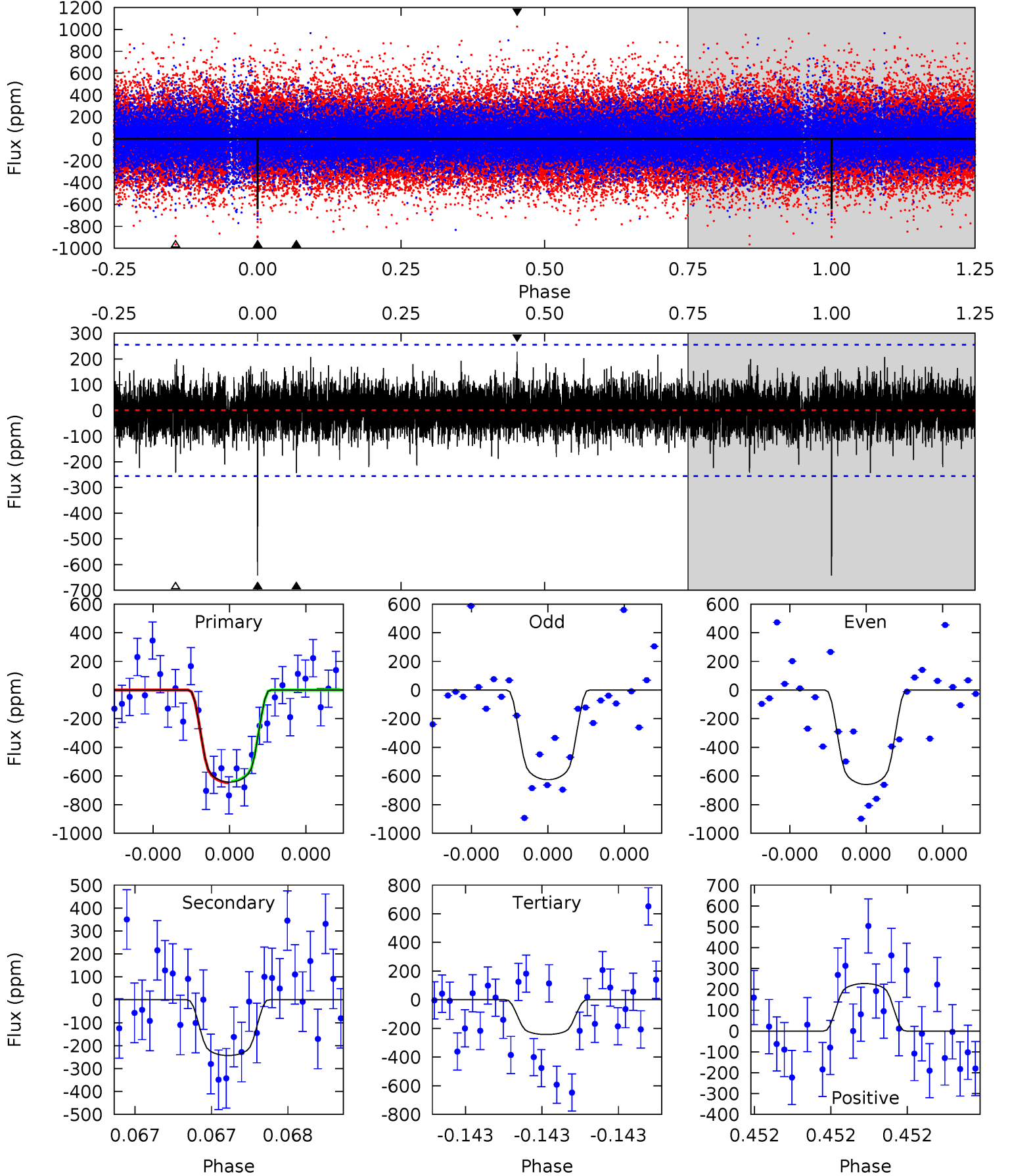
TCE 008652577-01 P=358.818185 Days $T_0=416.577674$ (BKJD)



DV Model-Shift Uniqueness Test

008652577-01, $P = 358.819242$ Days, $E = 57.756057$ Days

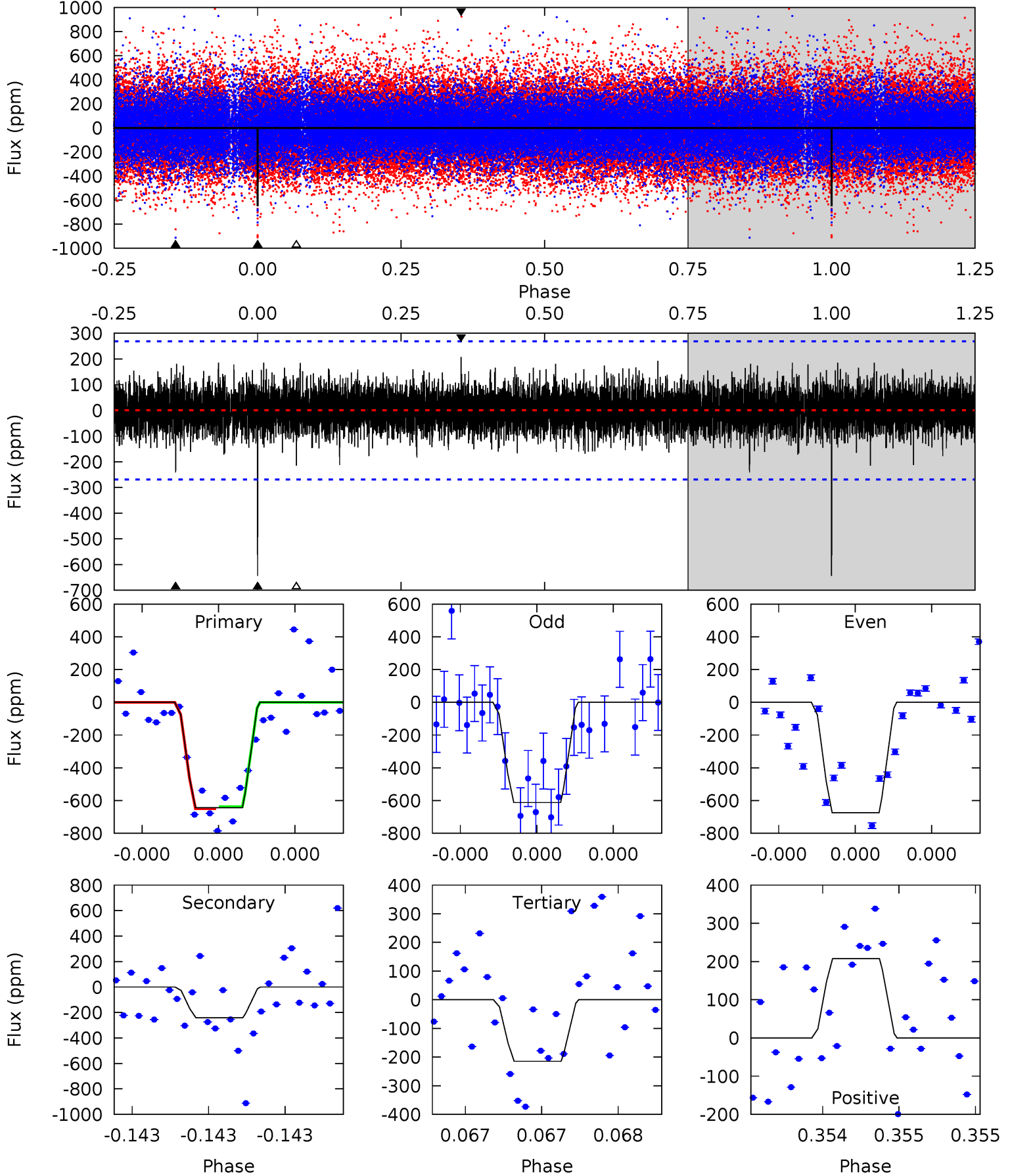
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.2	5.38	5.36	5.03	5.65	3.59	1.19	8.84	9.17	0.01	0.34	0.37	0.99	0.26	0.11



Alt Model-Shift Uniqueness Test

008652577-01, $P = 358.818185$ Days, $E = 57.759489$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	5.07	4.52	4.37	5.66	3.62	1.10	9.03	9.17	0.55	0.70	0.68	0.99	0.24	0.12



Stellar Parameters For KIC 008652577

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6056^{+163}_{-181}	$4.470^{+0.081}_{-0.189}$	$-0.460^{+0.300}_{-0.300}$	$0.918^{+0.245}_{-0.105}$	$0.908^{+0.109}_{-0.099}$	$1.651^{+0.564}_{-0.823}$
	+3%/-3%	+2%/-4%	+65%/-65%	+27%/-11%	+12%/-11%	+34%/-50%
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 008652577-01 / KOI 4458.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-243 ± 45	$2.80^{+1.04}_{-0.92}$	370^{+25}_{-17}	4720^{+837}_{-528}	15877^{+17323}_{-7888}
Alt.	-241 ± 47	$2.58^{+0.93}_{-0.91}$	368^{+26}_{-17}	4855^{+1096}_{-573}	17805^{+25085}_{-8565}

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

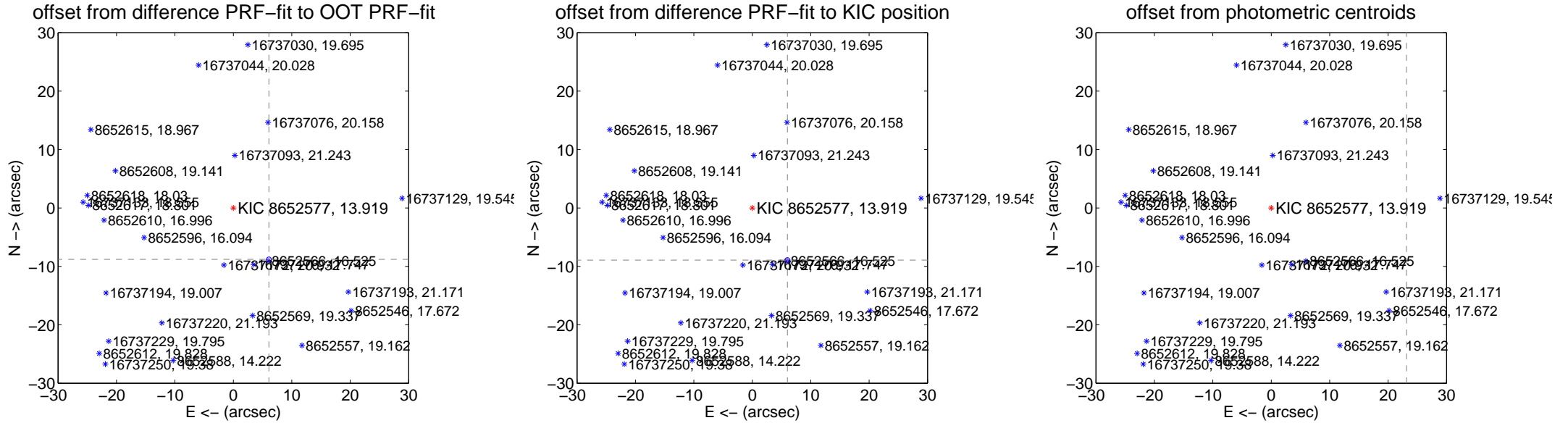
DV Centroid Data

Supplemental centroid analysis for 008652577-01. Kepler magnitude: 13.92. Transit SNR 11.36

There are 3 quarters with good PRF difference image offsets

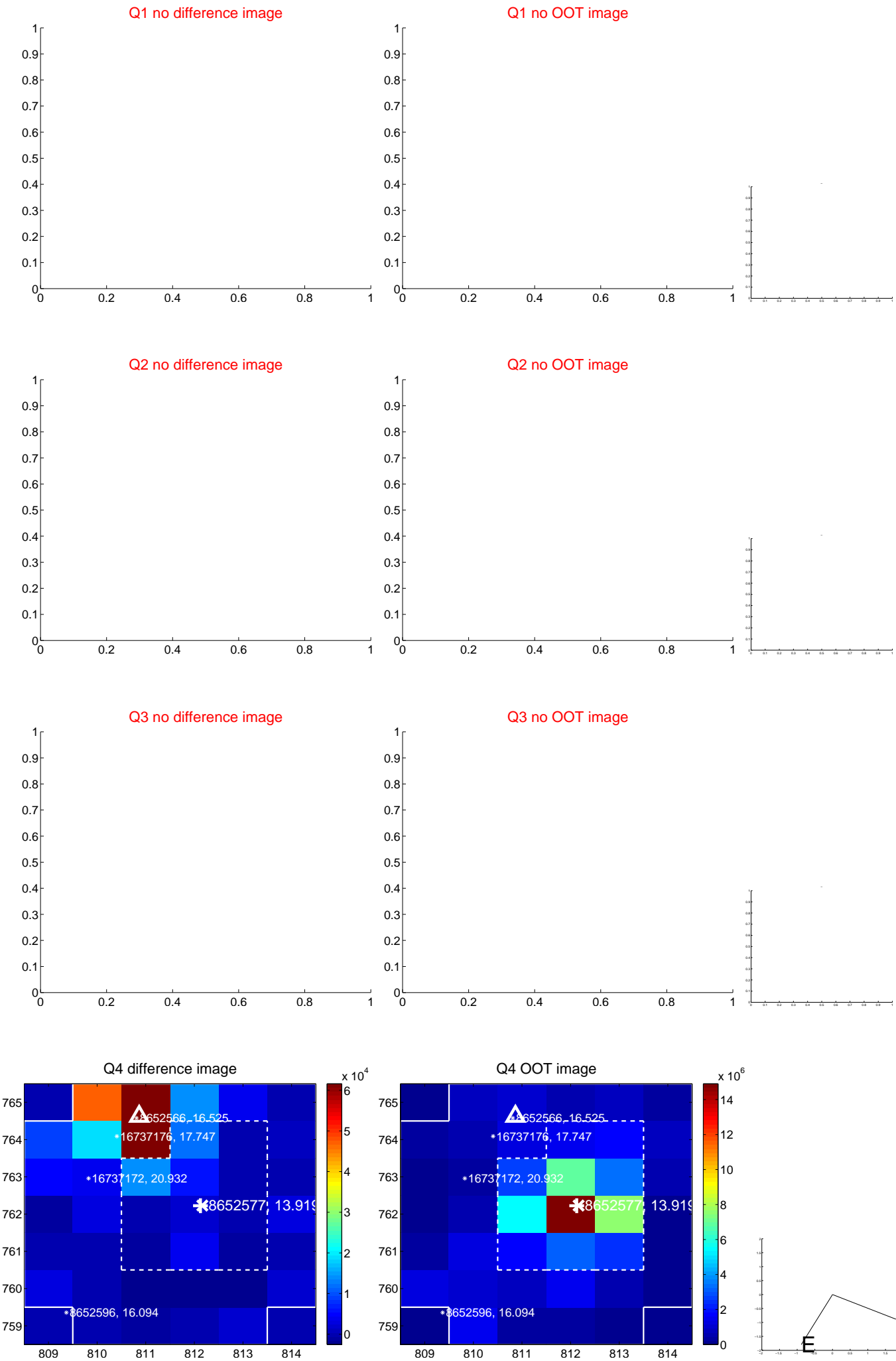
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.699 ± 0.136	78.93	-6.089 ± 0.190	-8.797 ± 0.100
PRF-fit source offset from KIC position	10.754 ± 0.140	76.65	-6.008 ± 0.209	-8.919 ± 0.094
photometric centroid source offset	42.28 ± 1.57	27.00	-23.16 ± 1.64	-35.37 ± 1.53

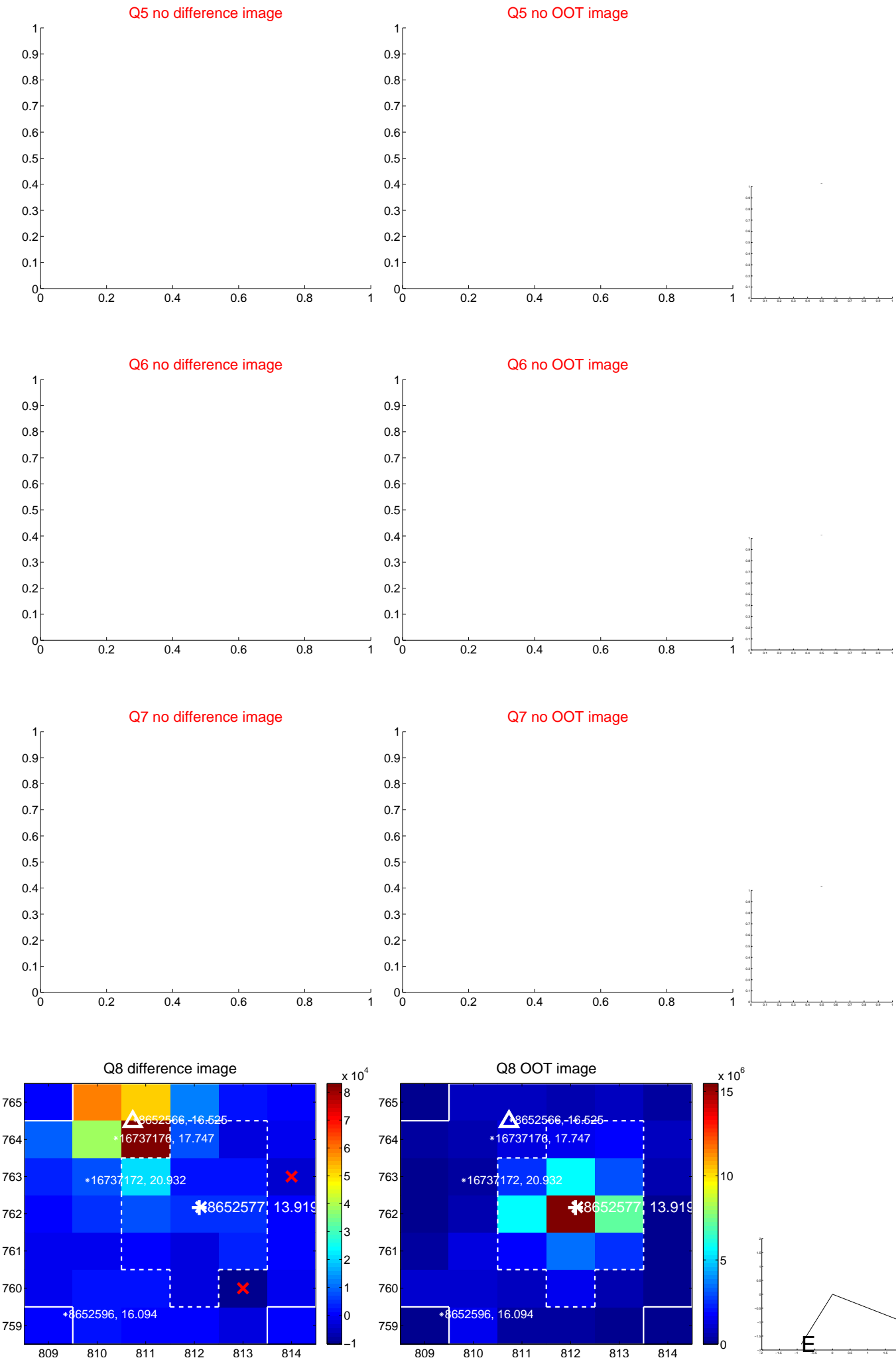


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



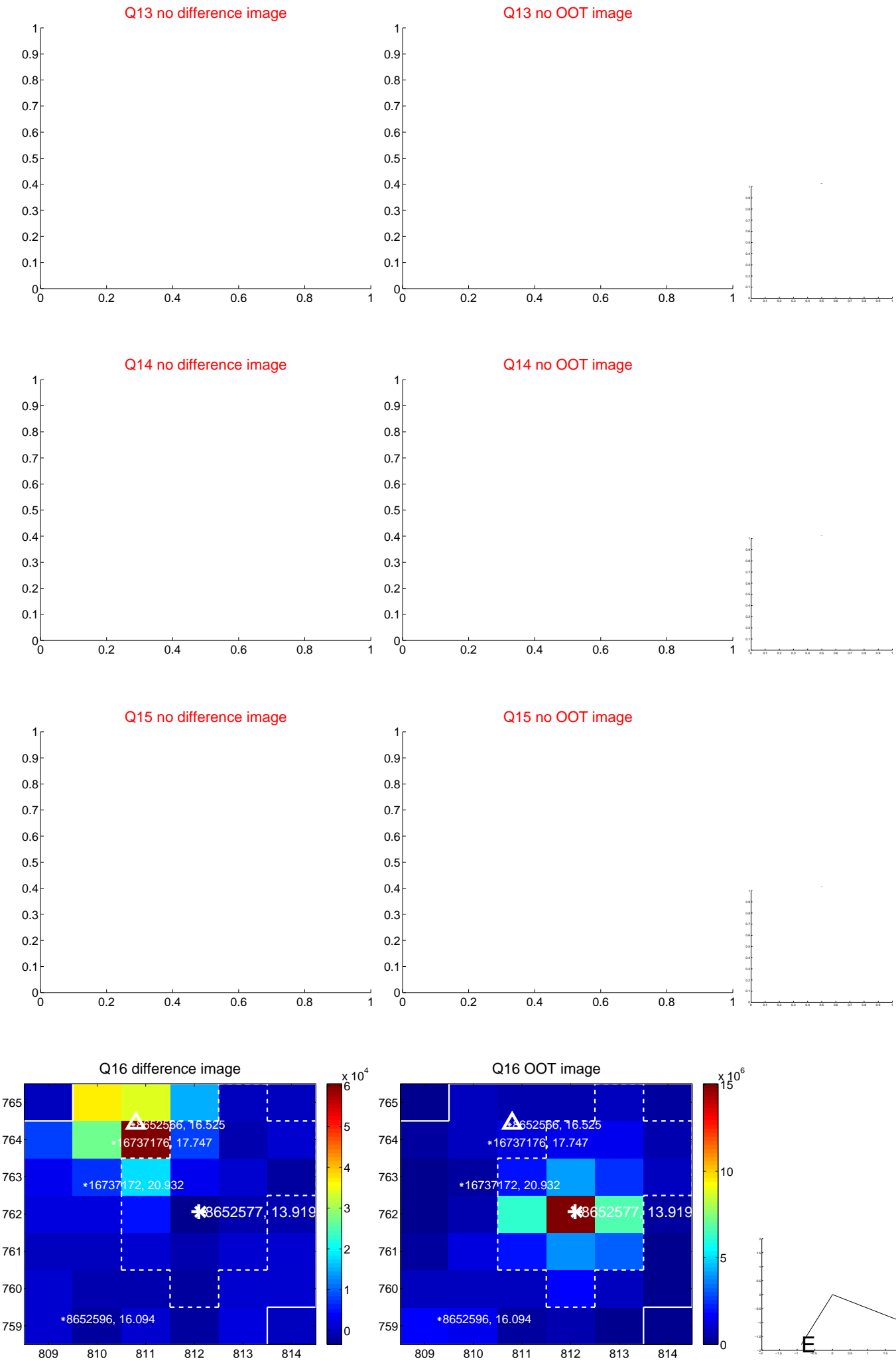
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



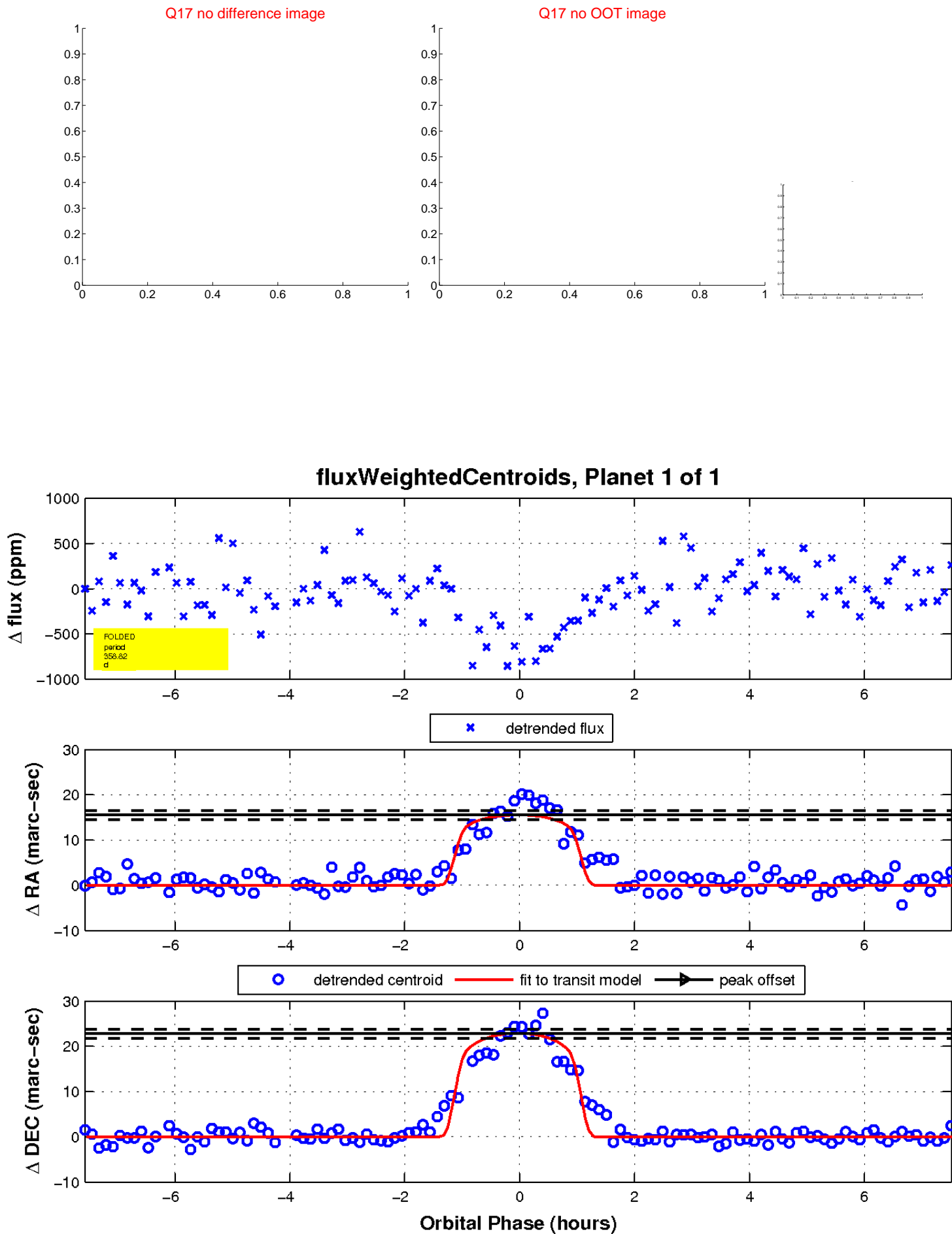
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UKIRT Image

Declination

