

KIC 005779852

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})
005779852-01	OBS	0449.01	252.079246	240.234845	5365.0	4.024	132.5	106.7	1.01	6348	12.88	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005779852-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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 005779852-01

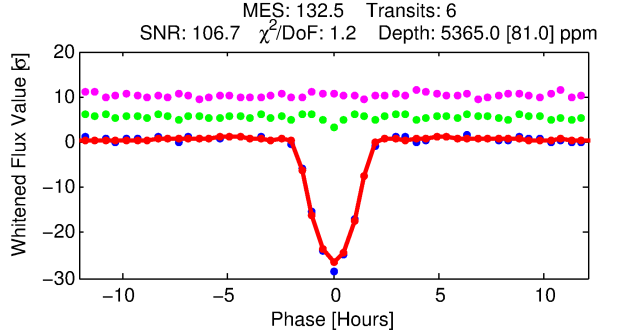
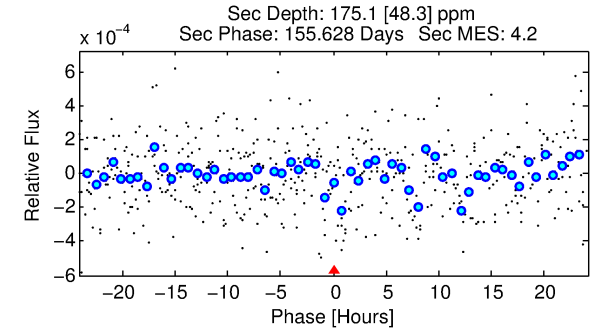
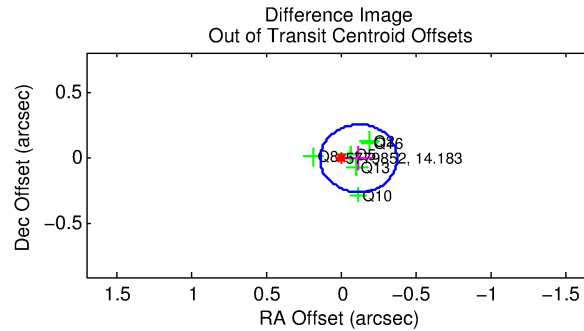
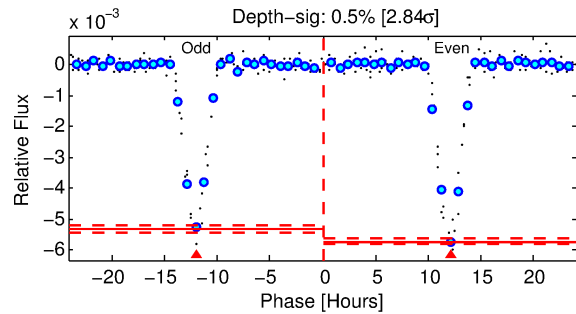
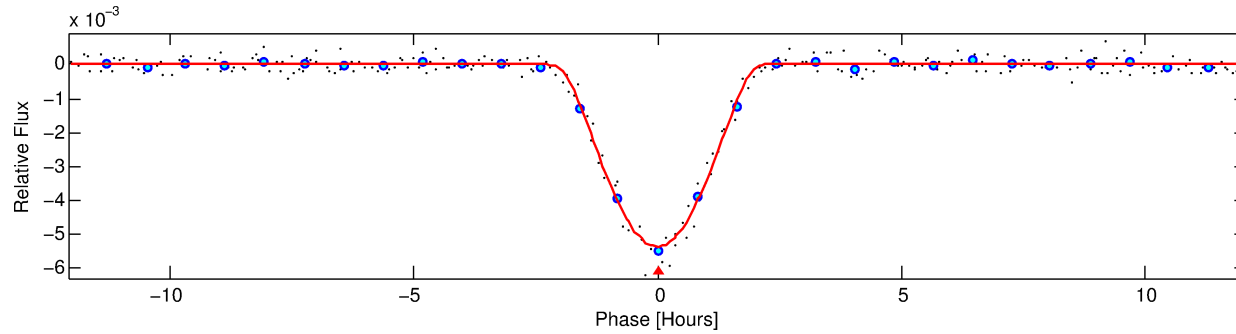
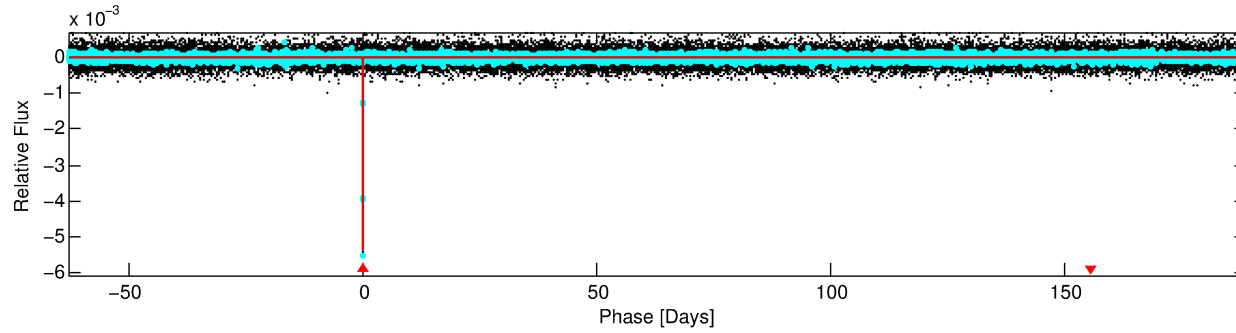
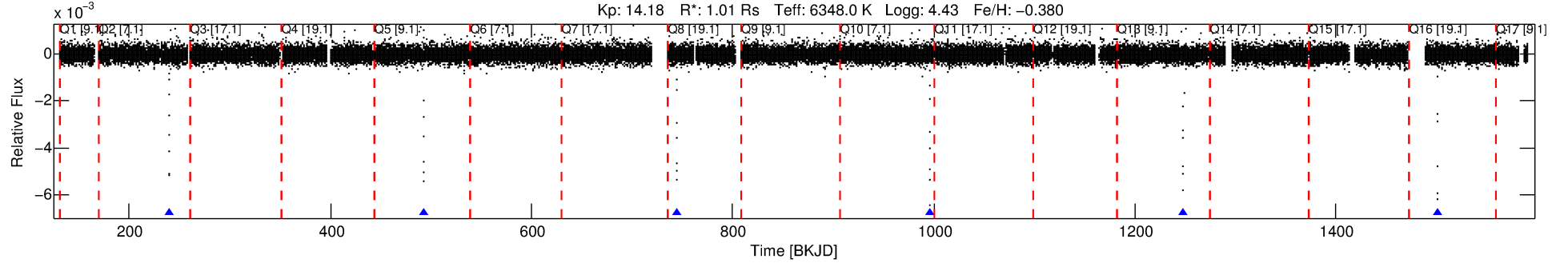
No Significant Match Found

DV One-Page Summary

KIC: 5779852 Candidate: 1 of 1 Period: 252.079 d

KOI: K00449.01 Corr: 0.988

Kp: 14.18 R*: 1.01 Rs Teff: 6348.0 K Logg: 4.43 Fe/H: -0.380



DV Fit Results:

Period = 252.07925 [0.00030] d
Epoch = 240.2348 [0.0009] BKJD
Rp/R* = 0.1164 [0.0518]
a/R* = 244.17 [21.93]
b = 0.99 [0.08]
Seff = 2.42 [0.96]
Teq = 318 [32] K
Rp = 12.88 [7.00] Re
a = 0.7860 [0.2042] AU
Ag = 358.64 [359.96] [0.99σ]
Teffp = 2140 [503] K [3.61σ]

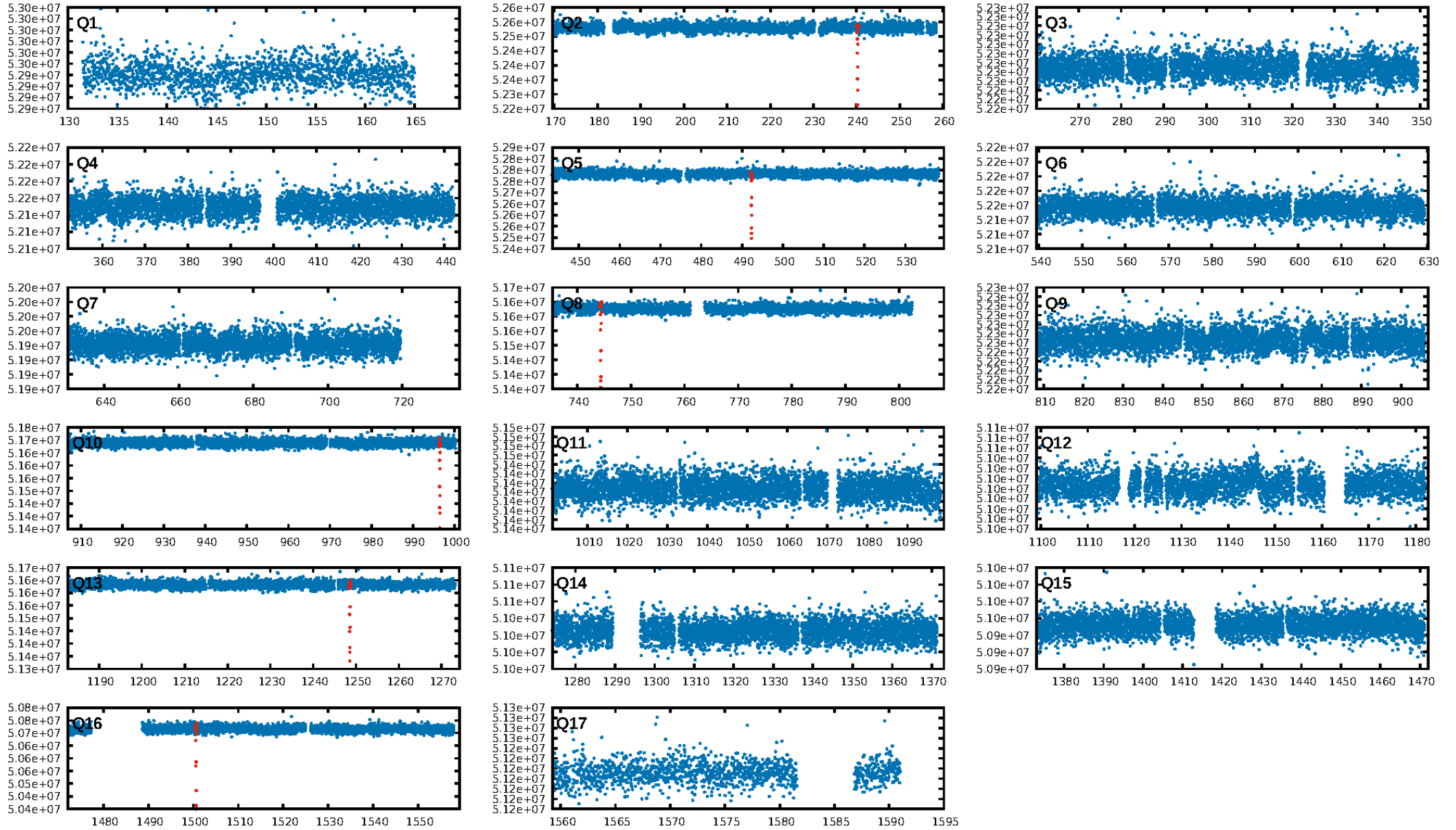
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 37.7%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 9.095
Centroid-sig: 13.7%
Centroid-so: 0.232 arcsec [2.23σ]
OotOffset-rm: 0.121 arcsec [1.41σ]
KicOffset-rm: 0.063 arcsec [0.74σ]
OotOffset-st: 2/0/2/2 [6]
KicOffset-st: 2/0/2/2 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

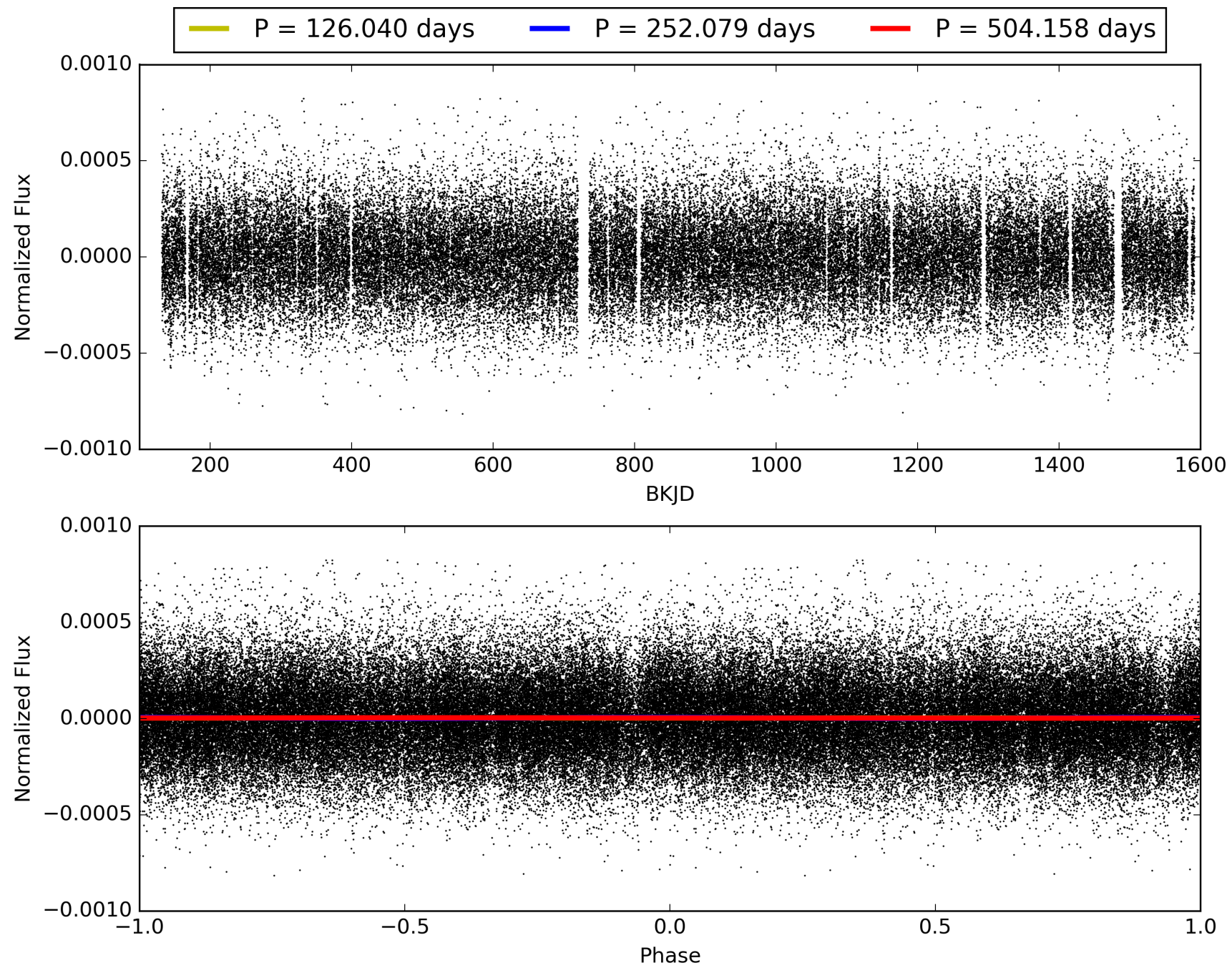
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:47:01 Z

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

TCE 005779852-01, PDC Light Curves

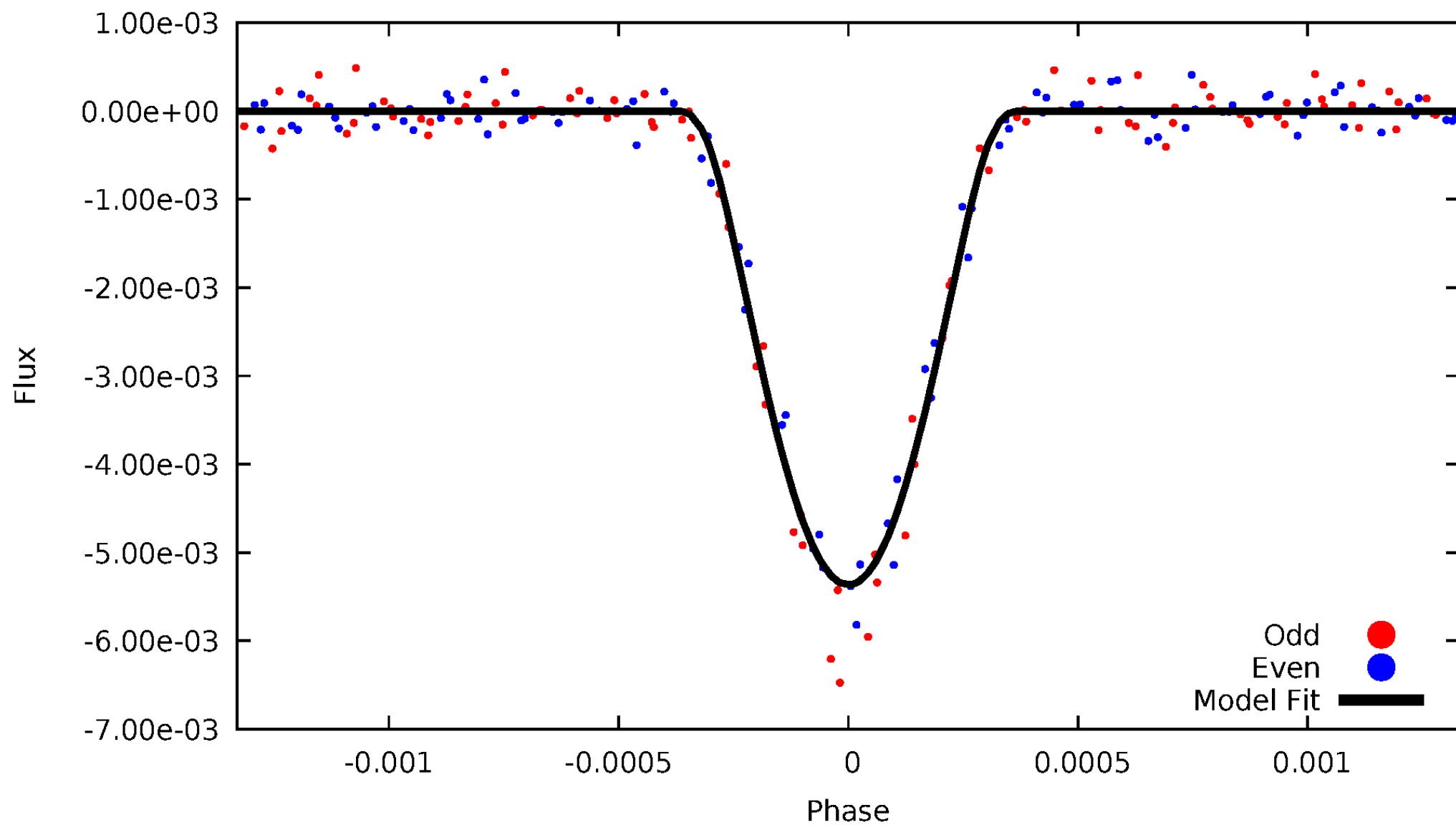


TCE 005779852-01



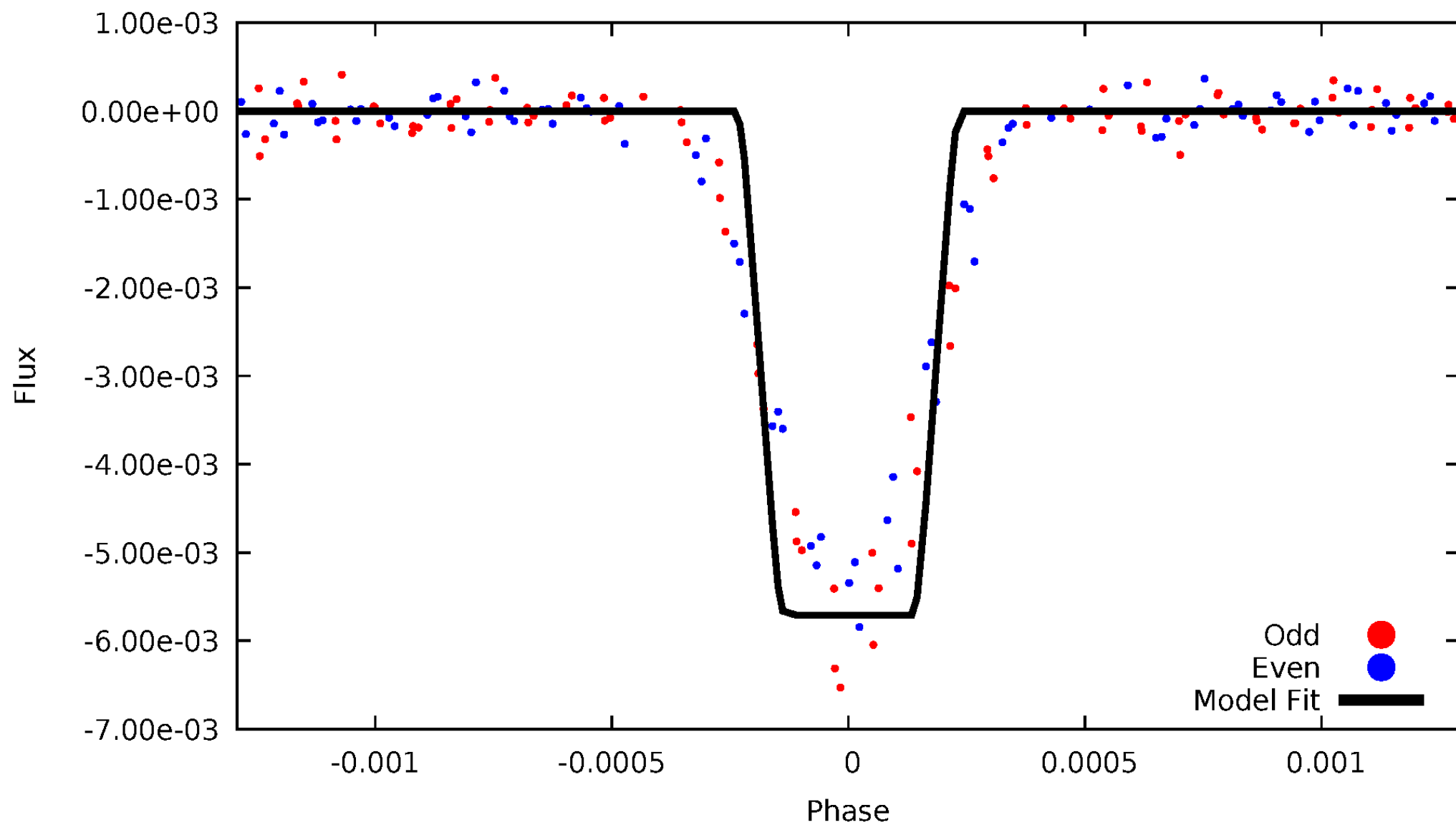
DV Odd/Even

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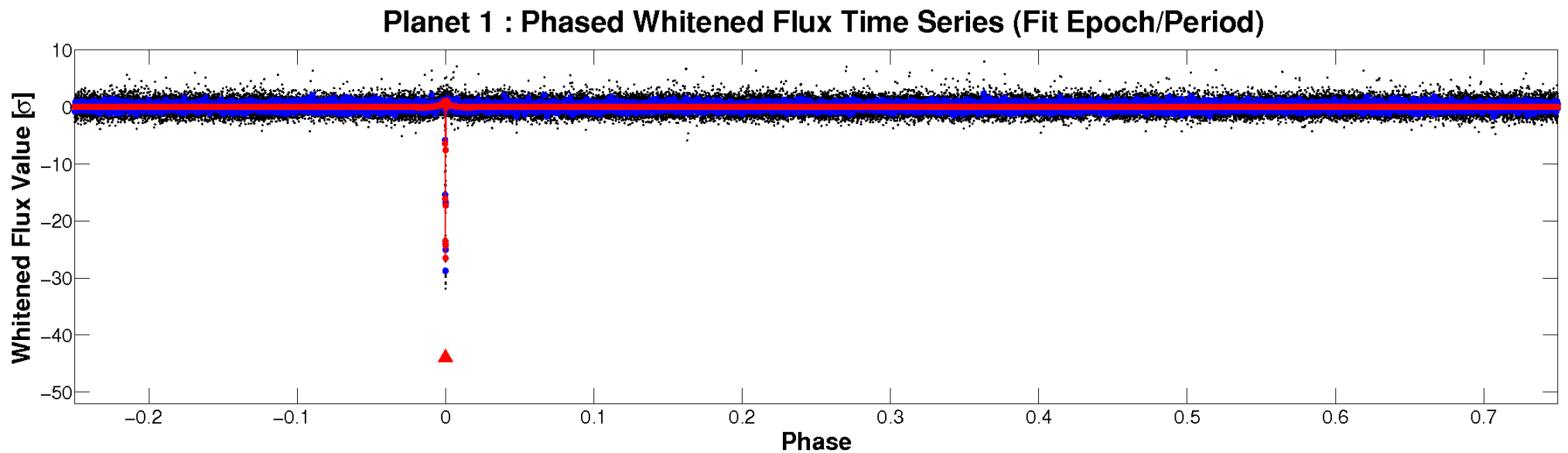
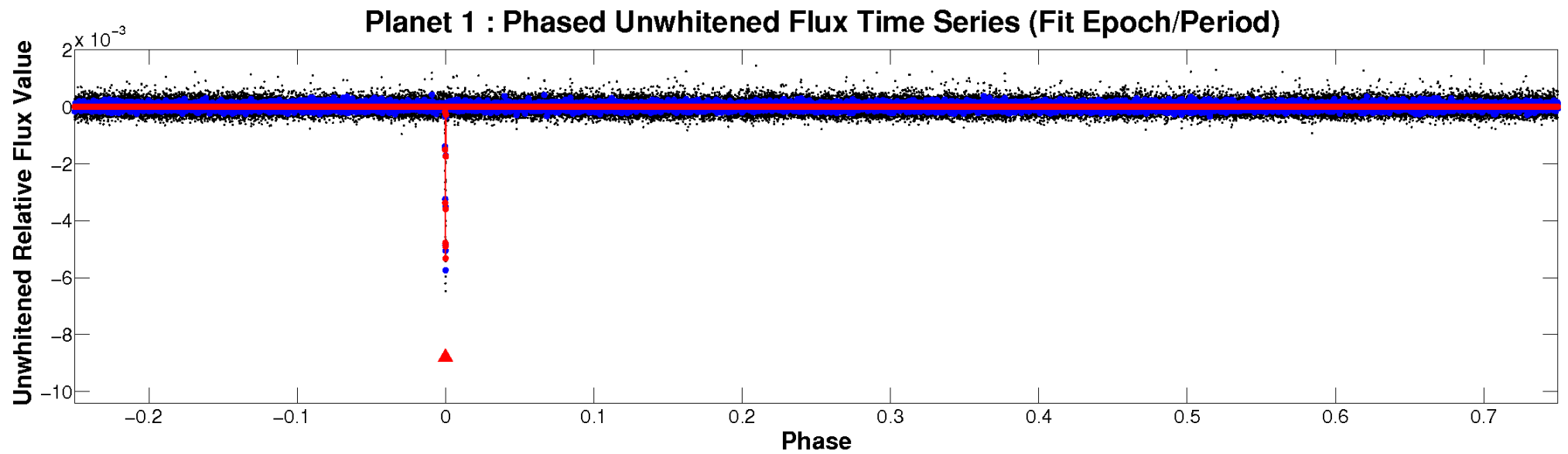


ALT Odd/Even

TCE 005779852-01

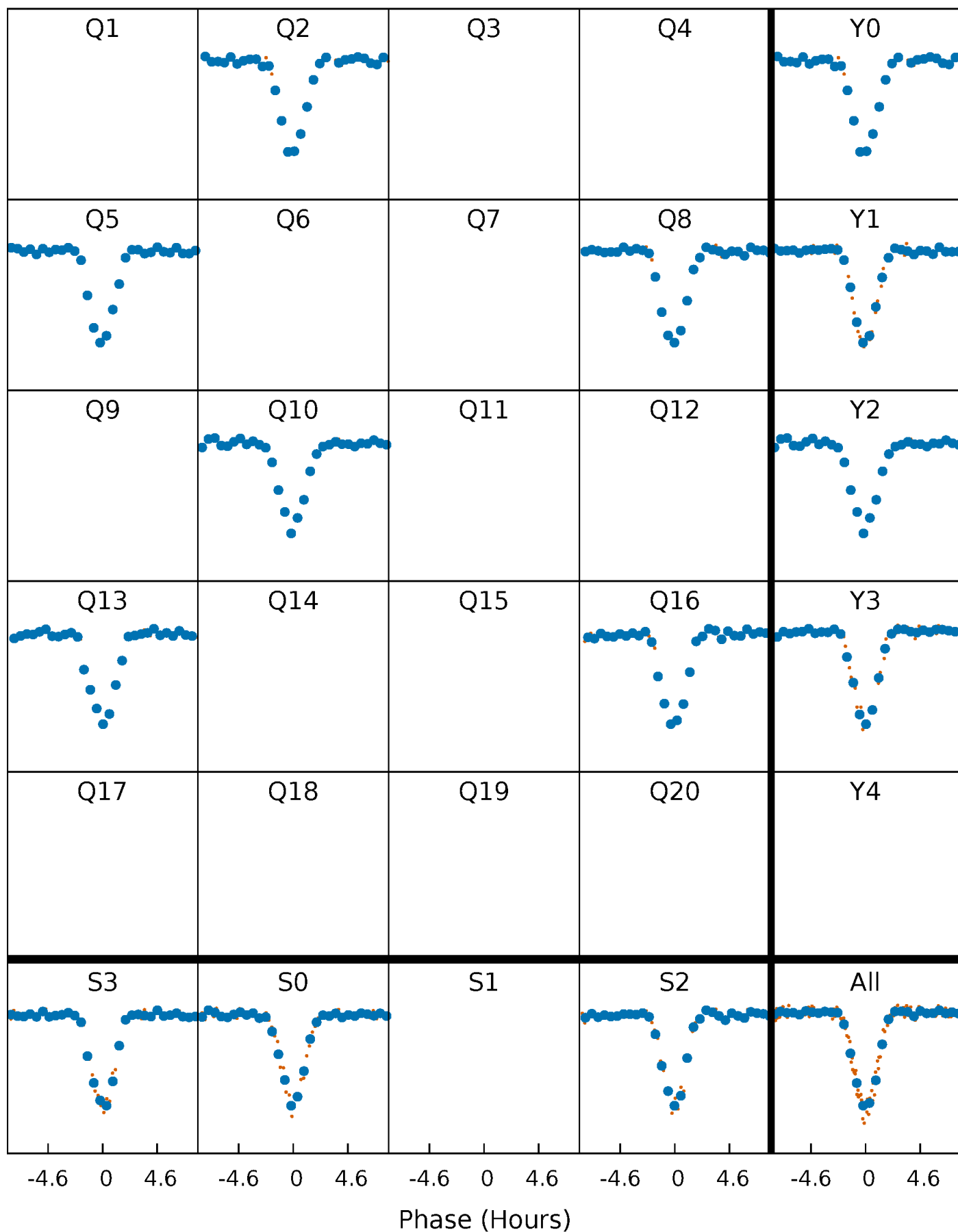


Non-Whitened Vs. Whitened Light Curve



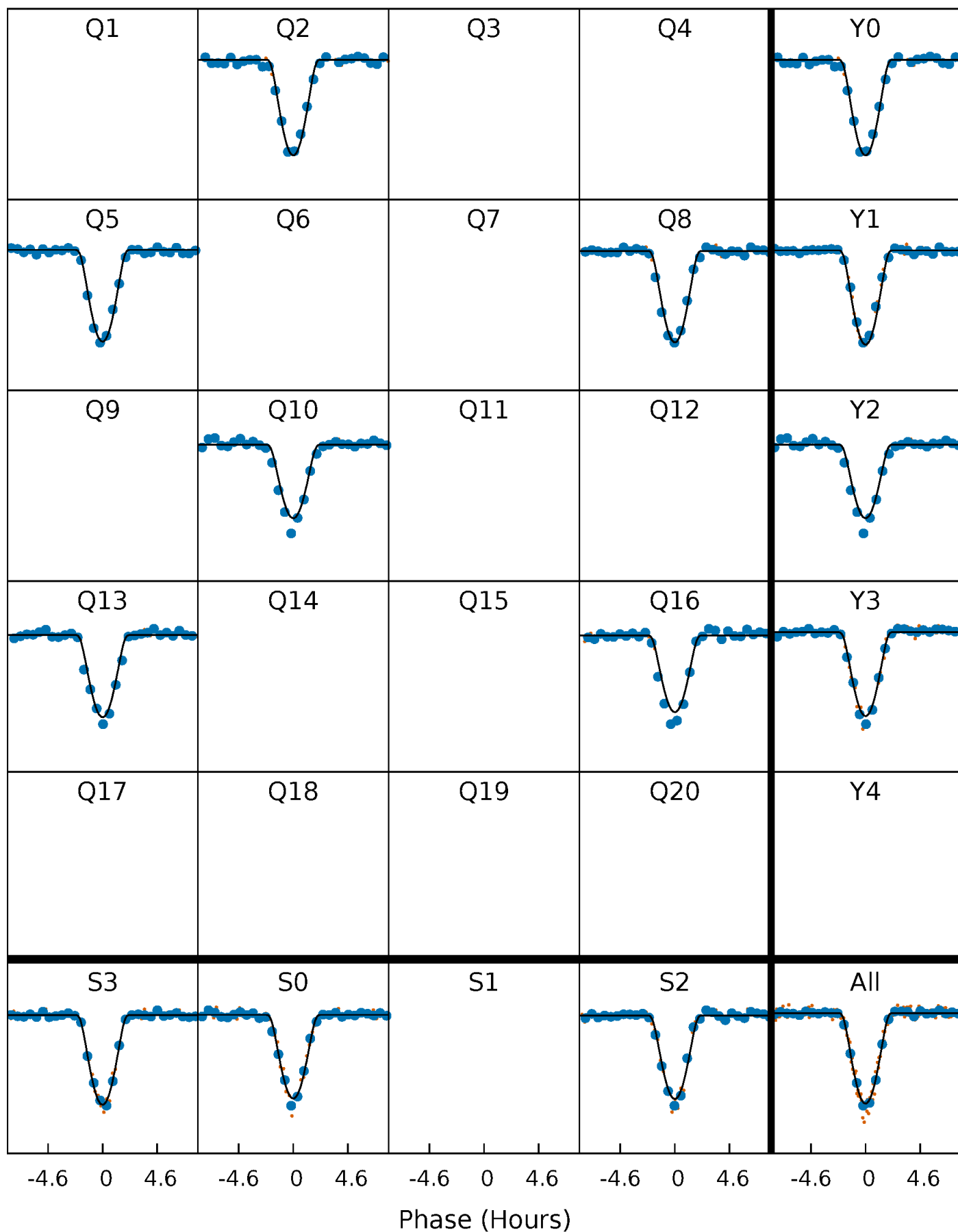
PDC Quarter-Phased Transit Curves

TCE 005779852-01 P=252.079246 Days $T_0=240.234845$ (BKJD)



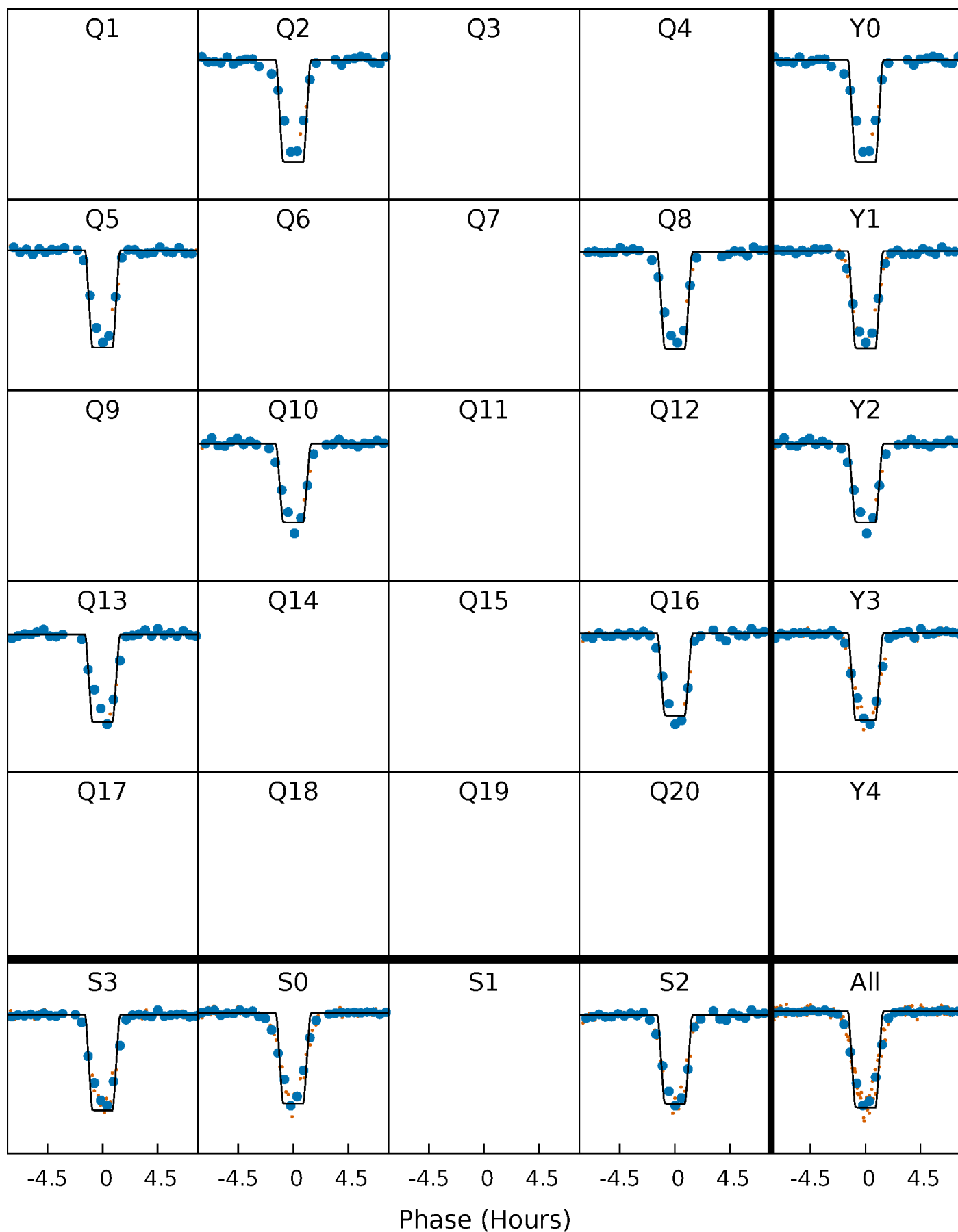
DV Quarter-Phased Transit Curves

TCE 005779852-01 P=252.079246 Days $T_0=240.234845$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

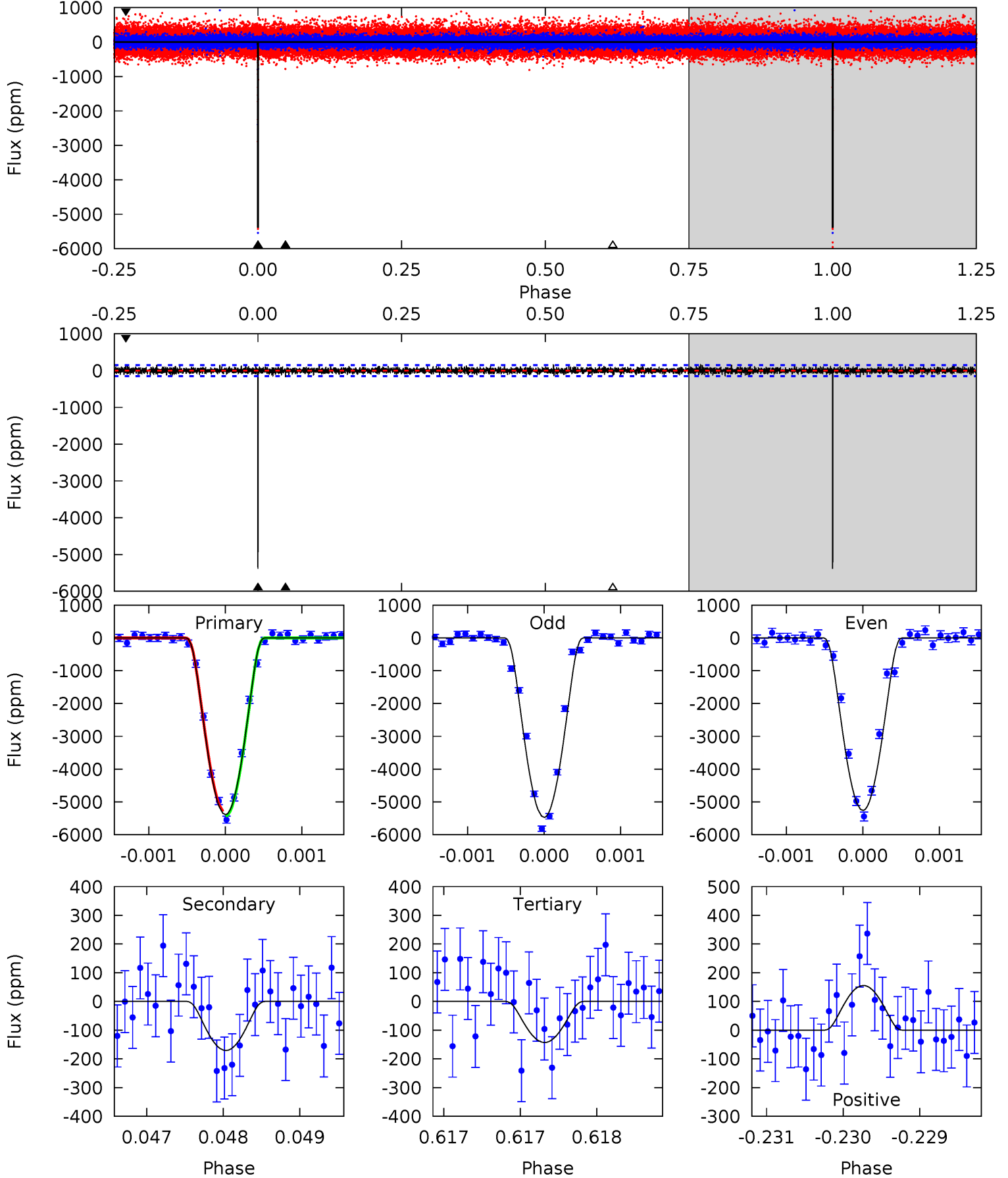
TCE 005779852-01 P=252.078160 Days $T_0=240.237798$ (BKJD)



DV Model-Shift Uniqueness Test

005779852-01, $P = 252.079246$ Days, $E = 240.234845$ Days

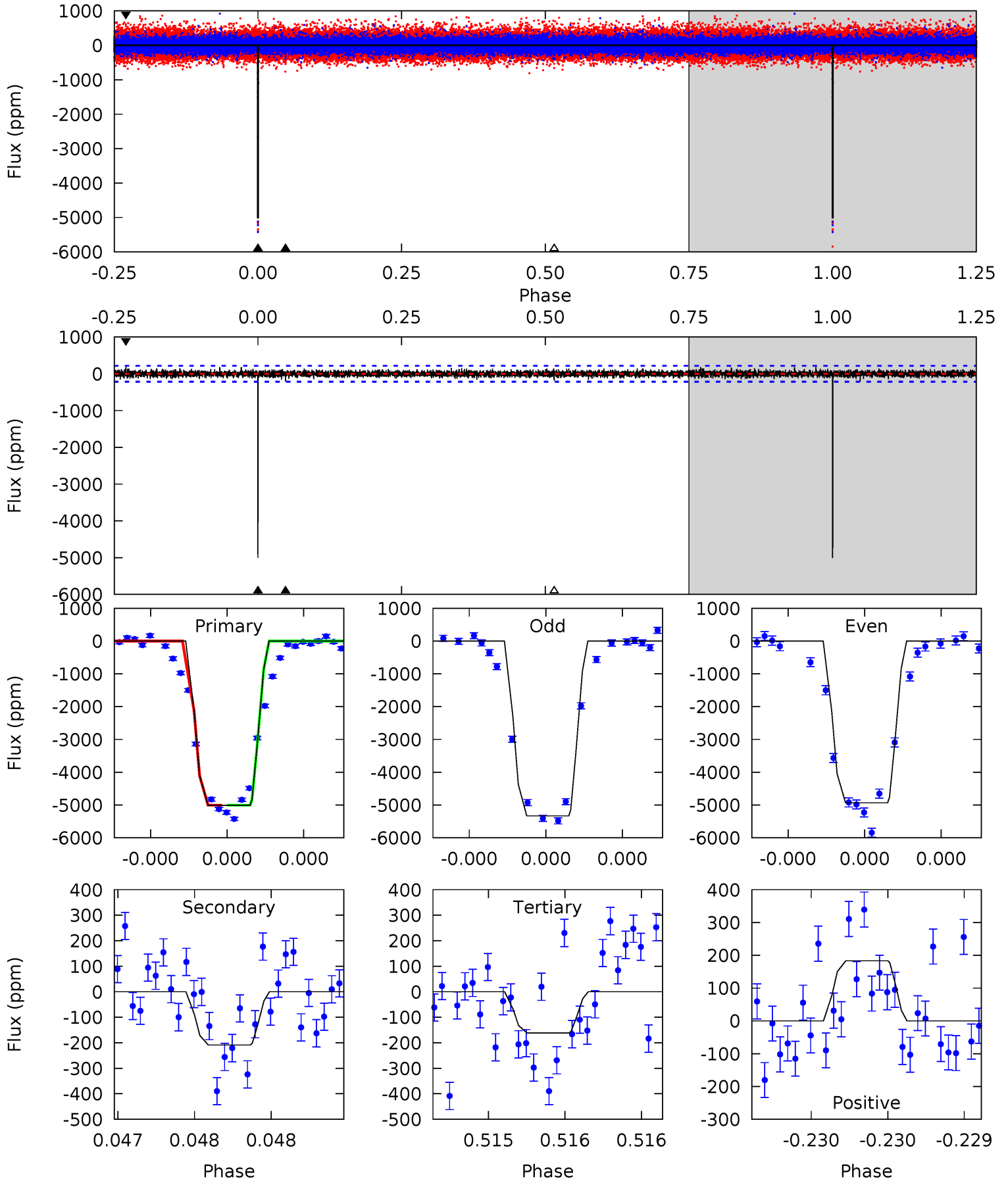
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
200.2	6.34	5.31	5.78	5.51	3.38	1.50	194.9	194.4	1.03	0.56	3.99	1.02	0.03	0



Alt Model-Shift Uniqueness Test

005779852-01, P = 252.078160 Days, E = 240.237798 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
129.1	5.38	4.16	4.73	5.59	3.51	1.11	125.0	124.4	1.22	0.65	5.04	1.02	0.04	0



Stellar Parameters For KIC 005779852

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6348^{+152}_{-209}	$4.434^{+0.067}_{-0.202}$	$-0.380^{+0.300}_{-0.350}$	$1.014^{+0.317}_{-0.127}$	$1.016^{+0.145}_{-0.119}$	$1.371^{+0.405}_{-0.747}$
	+2%/-3%	+2%/-5%	+79%/-92%	+31%/-13%	+14%/-12%	+30%/-55%
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 005779852-01 / KOI 0449.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-171 ± 27	$13.59^{+6.49}_{-5.71}$	452^{+32}_{-23}	2833^{+484}_{-273}	303^{+627}_{-164}
Alt.	-209 ± 39	$9.29^{+5.75}_{-5.42}$	451^{+31}_{-22}	3269^{+1072}_{-446}	830^{+3558}_{-534}

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

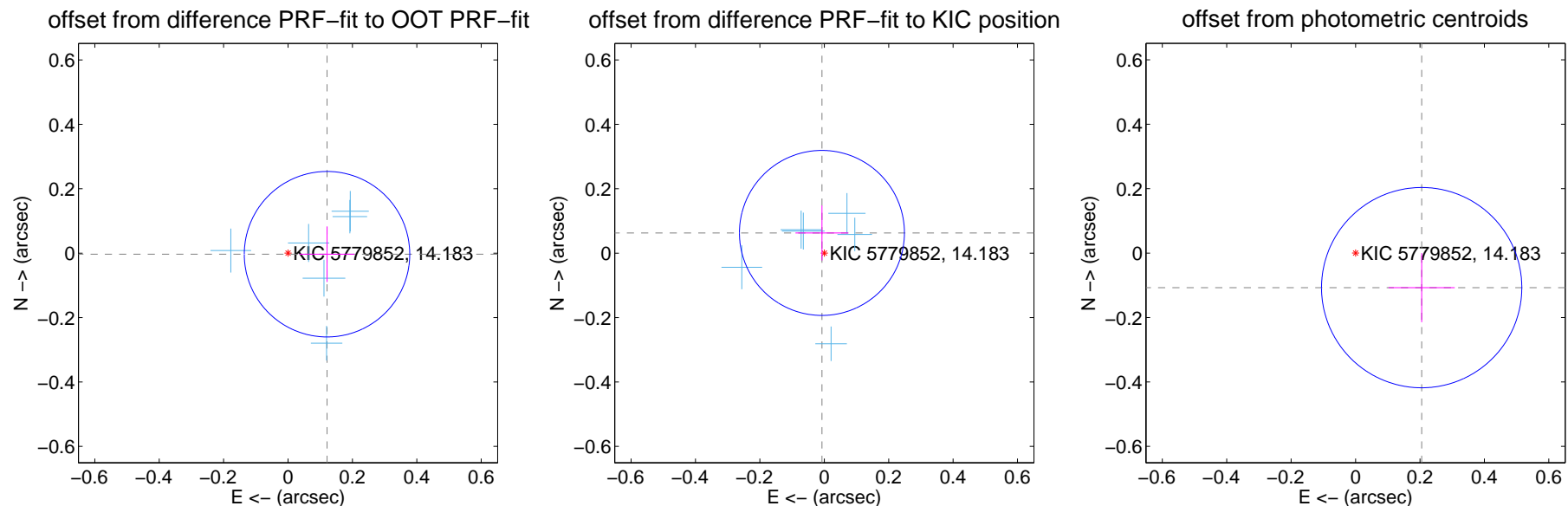
DV Centroid Data

Supplemental centroid analysis for 005779852-01. Kepler magnitude: 14.18. Transit SNR 106.70

There are 6 quarters with good PRF difference image offsets

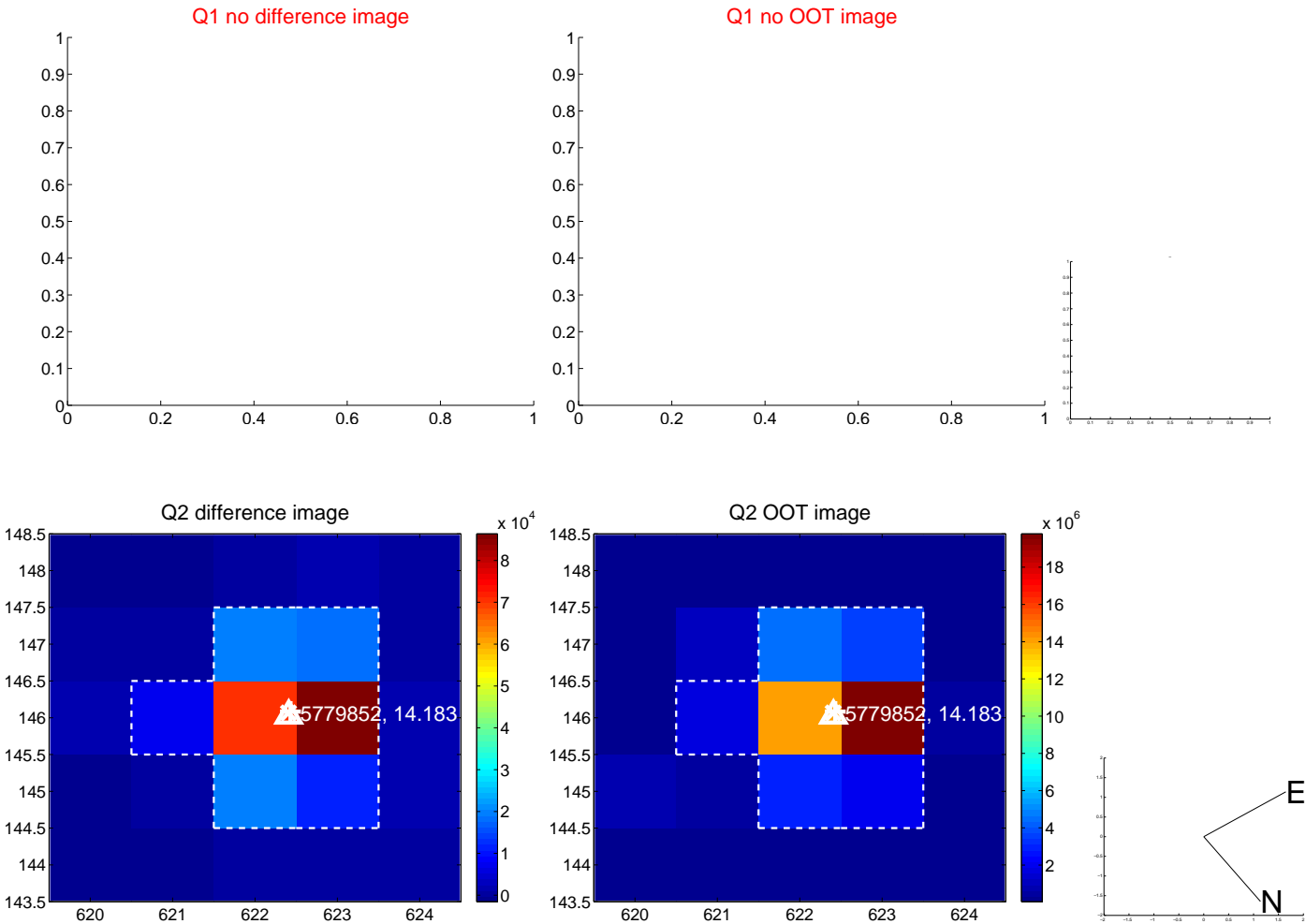
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.121 ± 0.086	1.41	-0.121 ± 0.085	-0.003 ± 0.086
PRF-fit source offset from KIC position	0.063 ± 0.085	0.74	0.007 ± 0.082	0.063 ± 0.085
photometric centroid source offset	0.23 ± 0.10	2.23	-0.21 ± 0.10	-0.11 ± 0.11

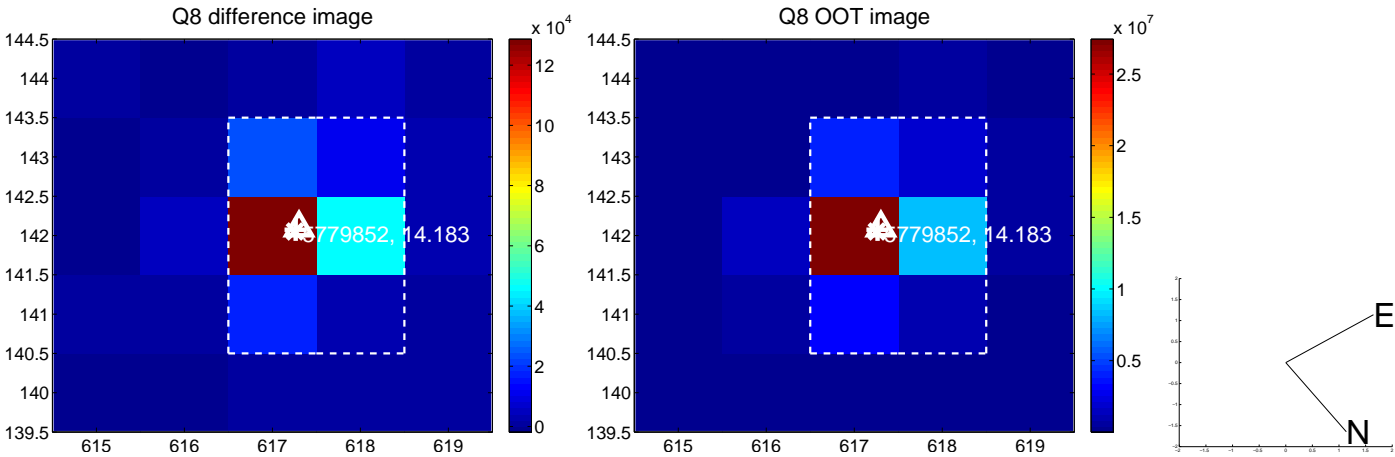
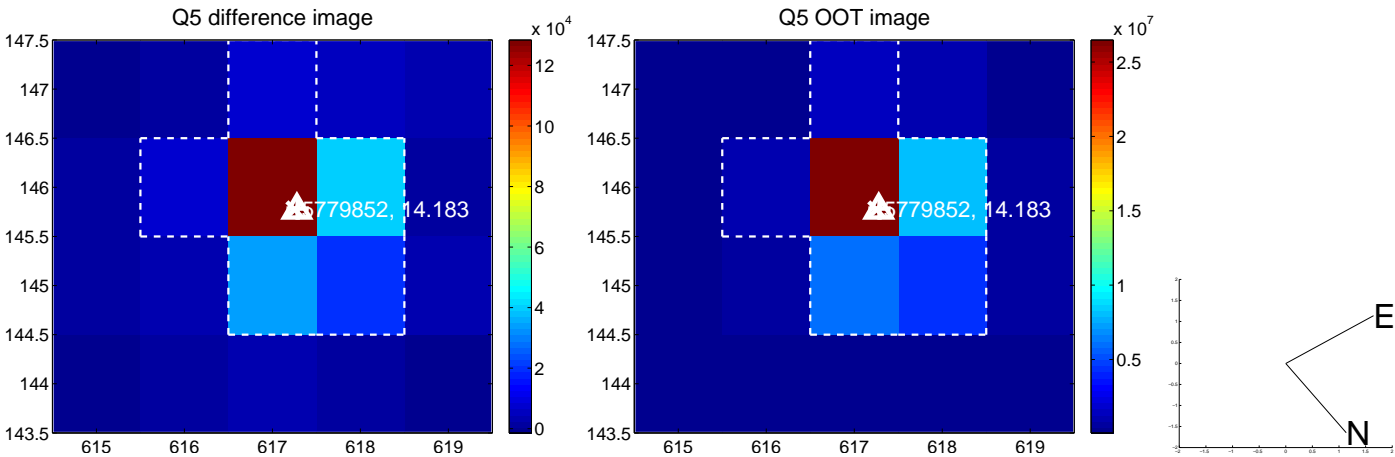


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



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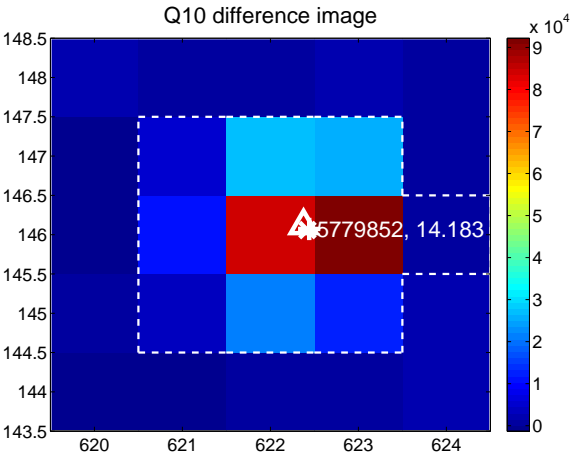
Q9 no difference image



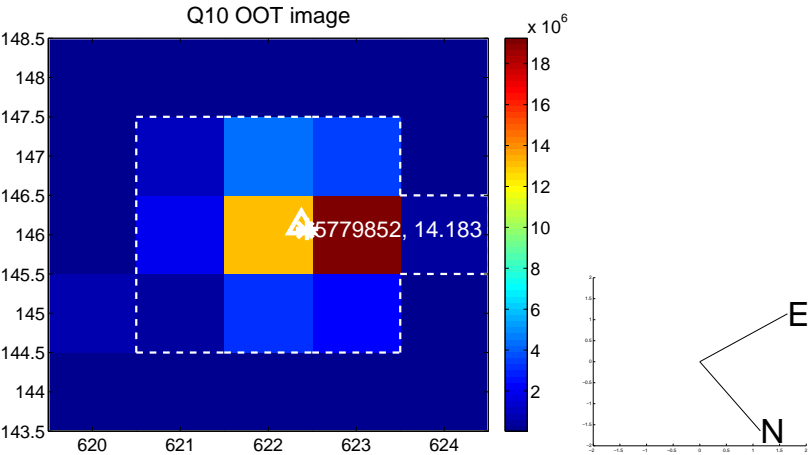
Q9 no OOT image



Q10 difference image



Q10 OOT image



Q11 no difference image



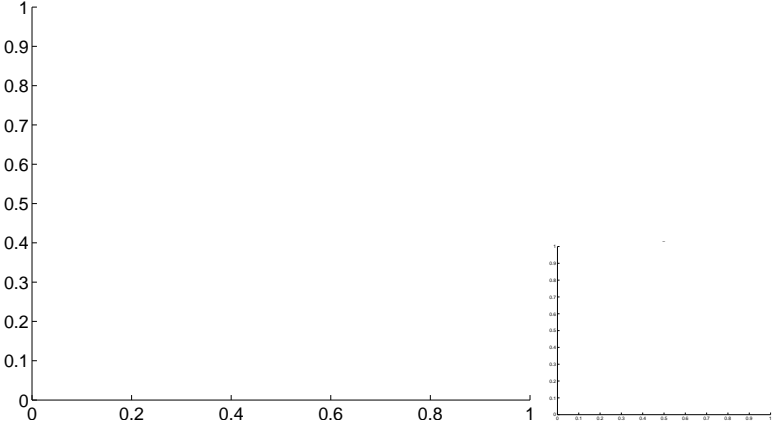
Q11 no OOT image



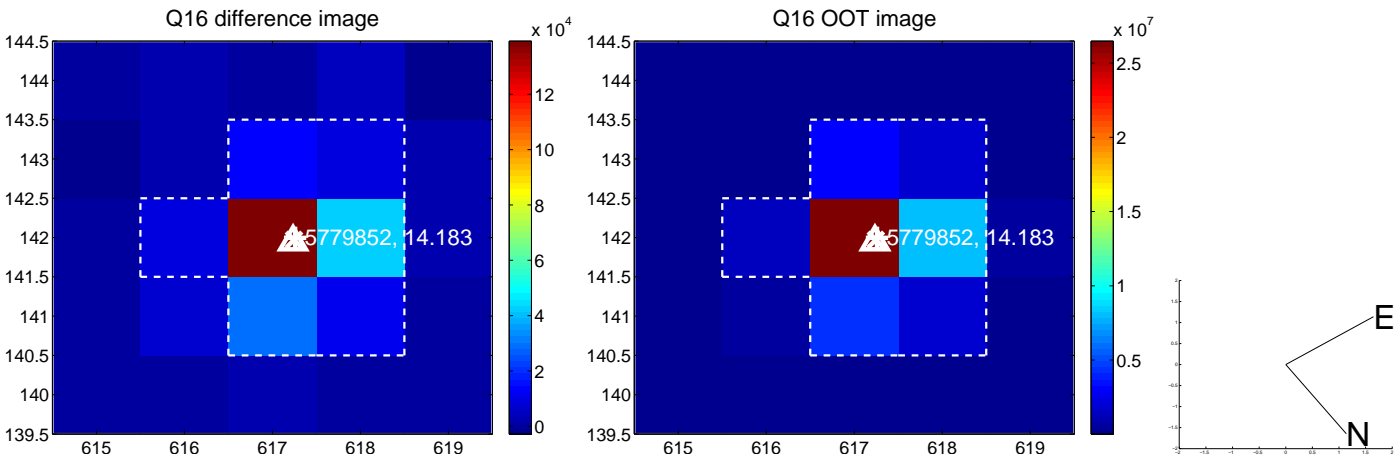
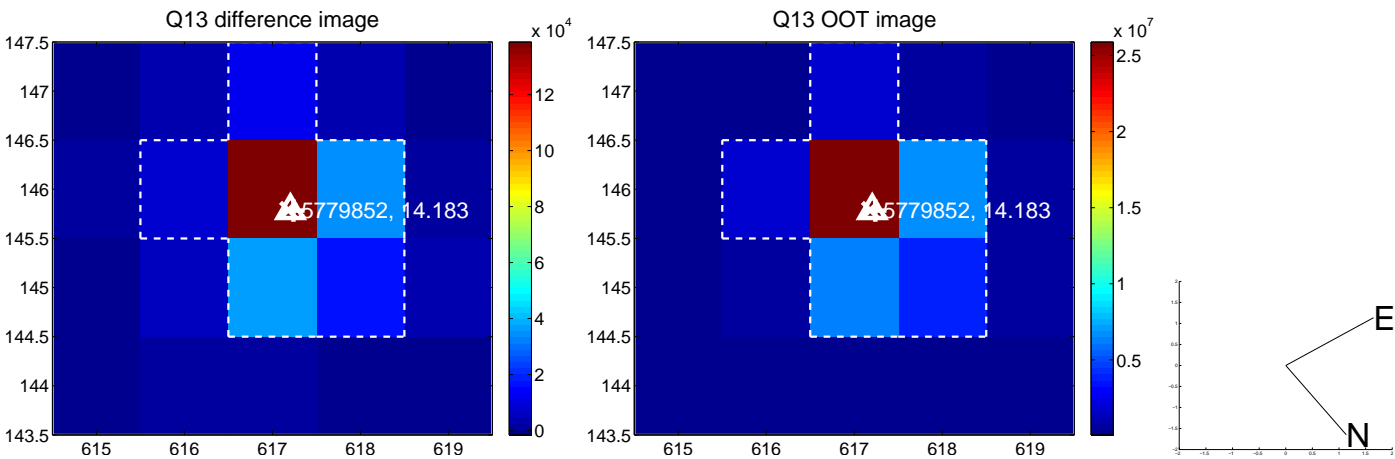
Q12 no difference image



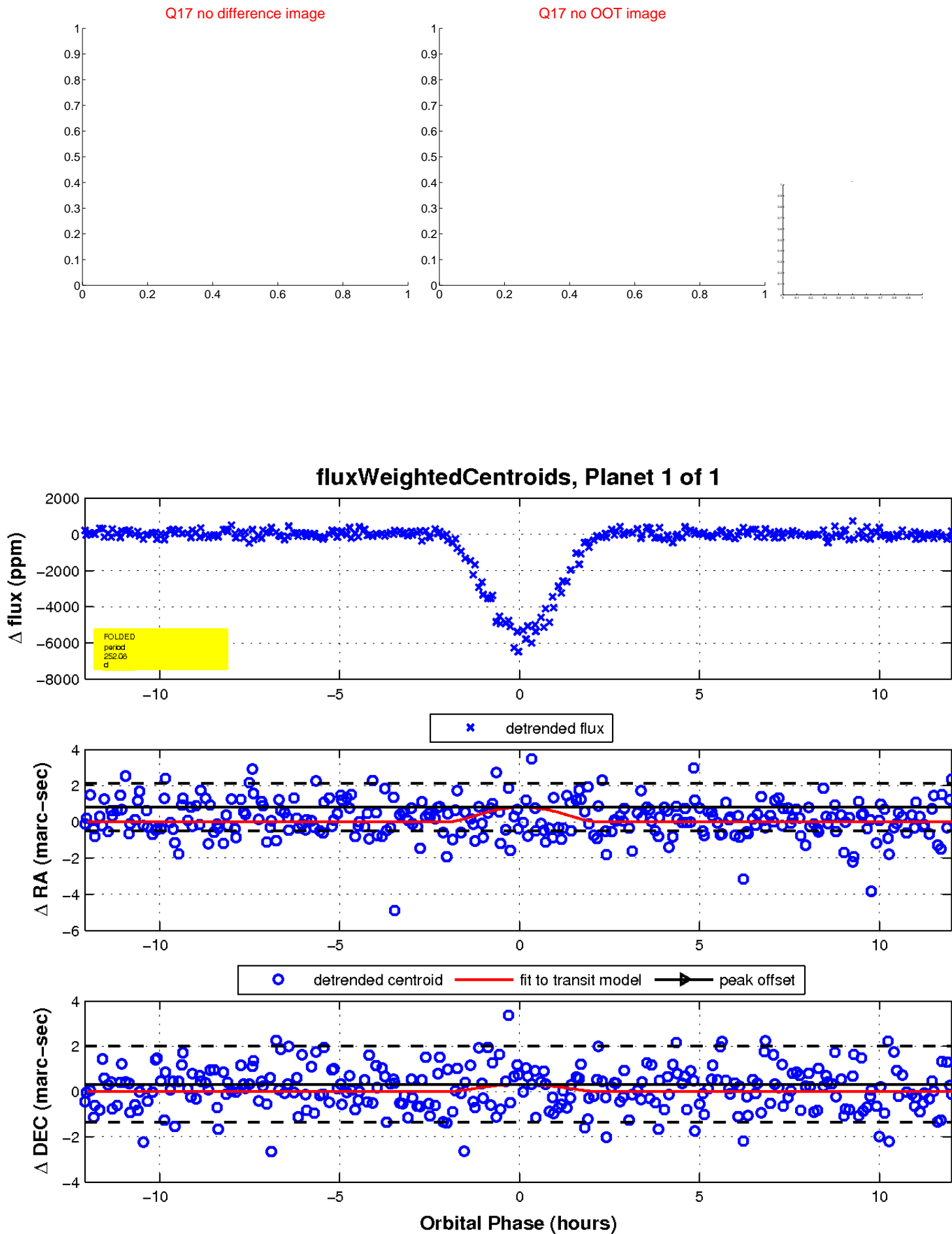
Q12 no OOT image



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



UKIRT Image

Declination

