

KIC 004575392

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})
004575392-01	OBS	No	295.947075	206.019298	1814.6	16.369	9.1	6.5	19.12	4632	148.34	124.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004575392-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—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.

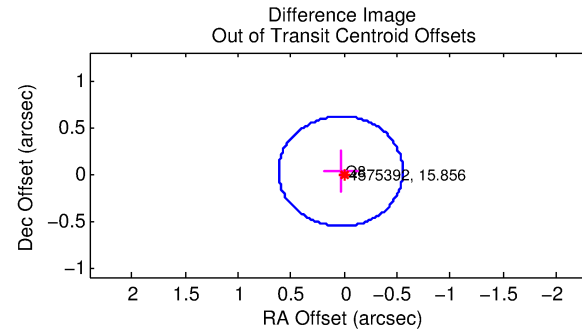
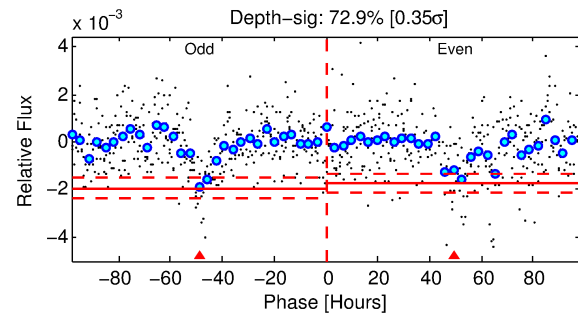
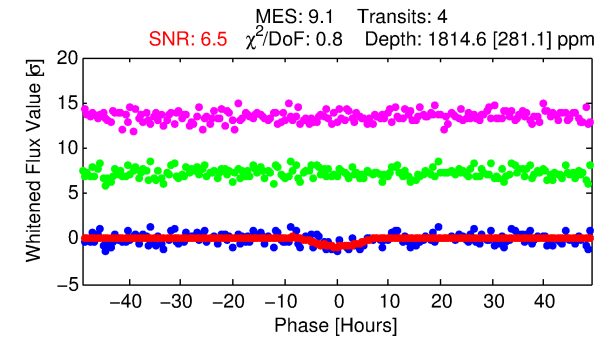
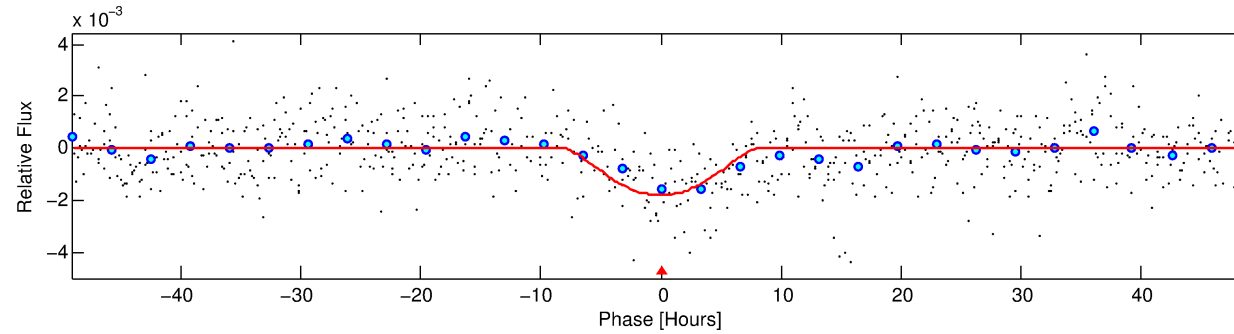
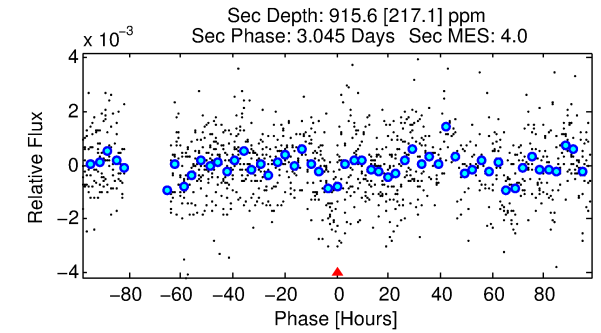
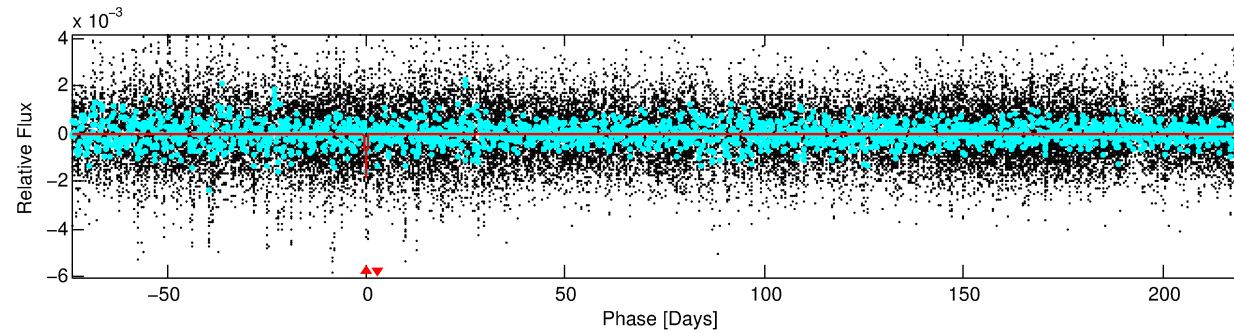
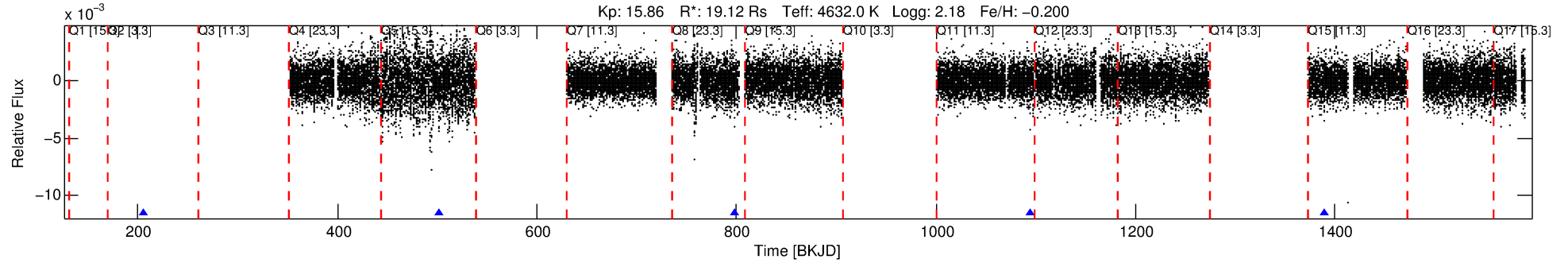
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004575392-01

No Significant Match Found

DV One-Page Summary

KIC: 4575392 Candidate: 1 of 1 Period: 295.947 d



DV Fit Results:

Period = 295.94708 [0.02638] d
Epoch = 206.0193 [0.0878] BKJD
Rp/R^{*} = 0.0711 [0.2055]
a/R^{*} = 56.92 [40.03]
b = 0.99 [0.32]
Seff = 124.53 [19.08]
Teq = 852 [33] K
Rp = 148.34 [429.66] Re
a = 1.1001 [0.1409] AU
Ag = 27.70 [160.33] [0.17σ]
Teffp = 3022 [4371] K [0.50σ]

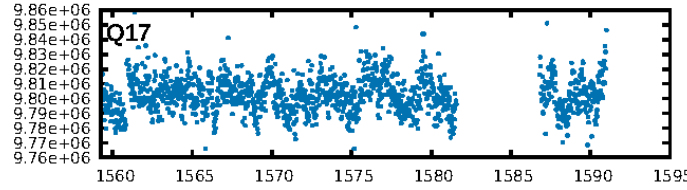
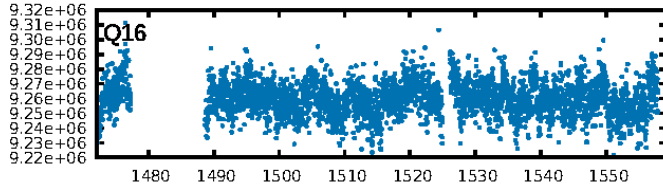
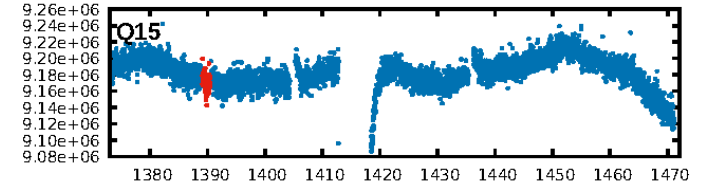
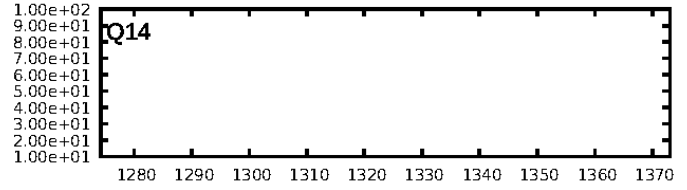
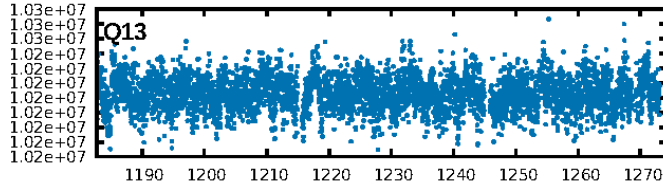
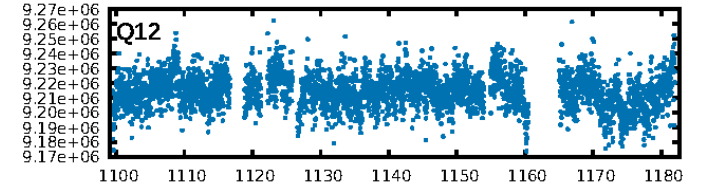
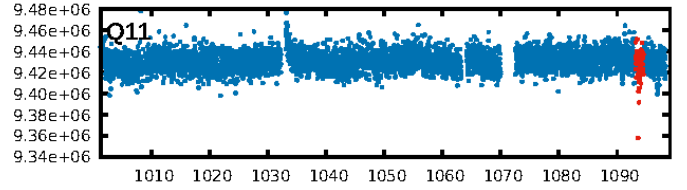
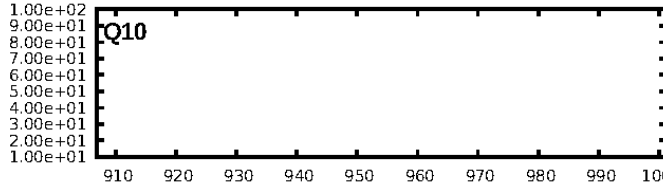
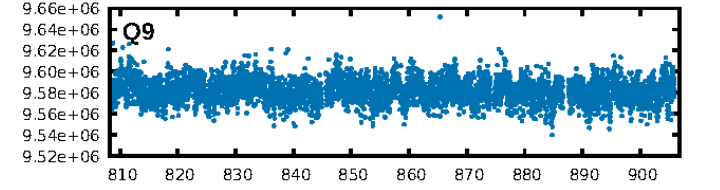
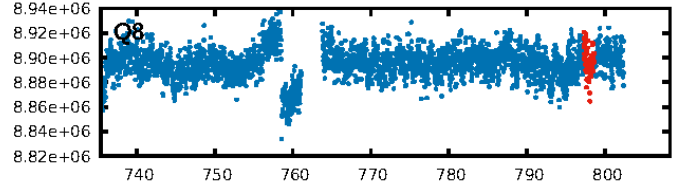
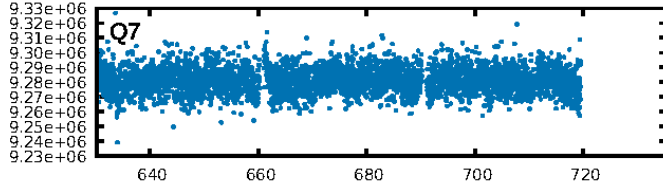
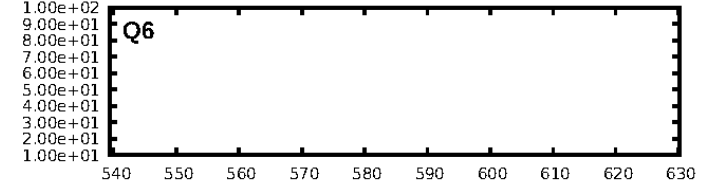
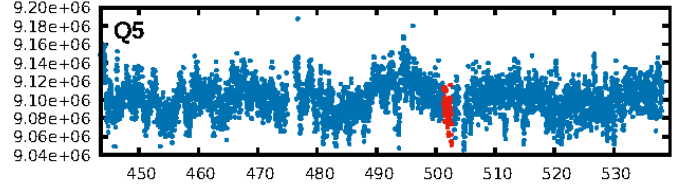
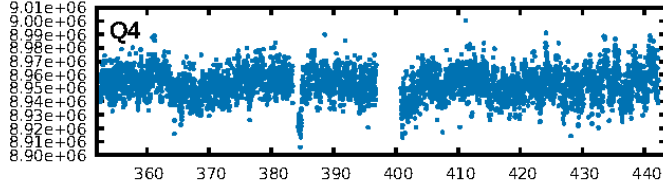
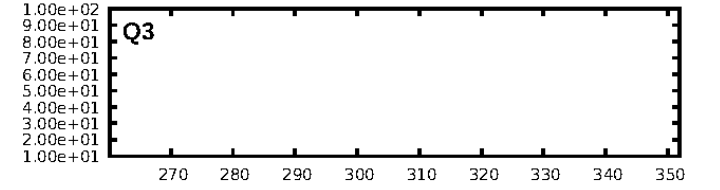
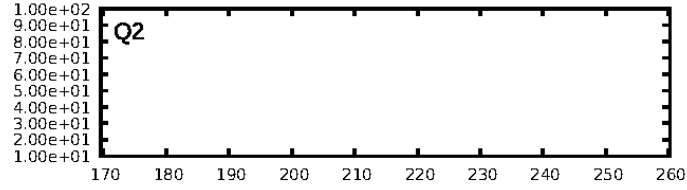
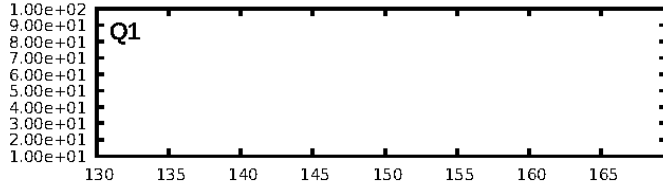
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.39e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -8.033
Centroid-sig: 84.0%
Centroid-so: 3.544 arcsec [8.30σ]
OotOffset-rm: 0.041 arcsec [0.21σ]
KicOffset-rm: 5.029 arcsec [22.52σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

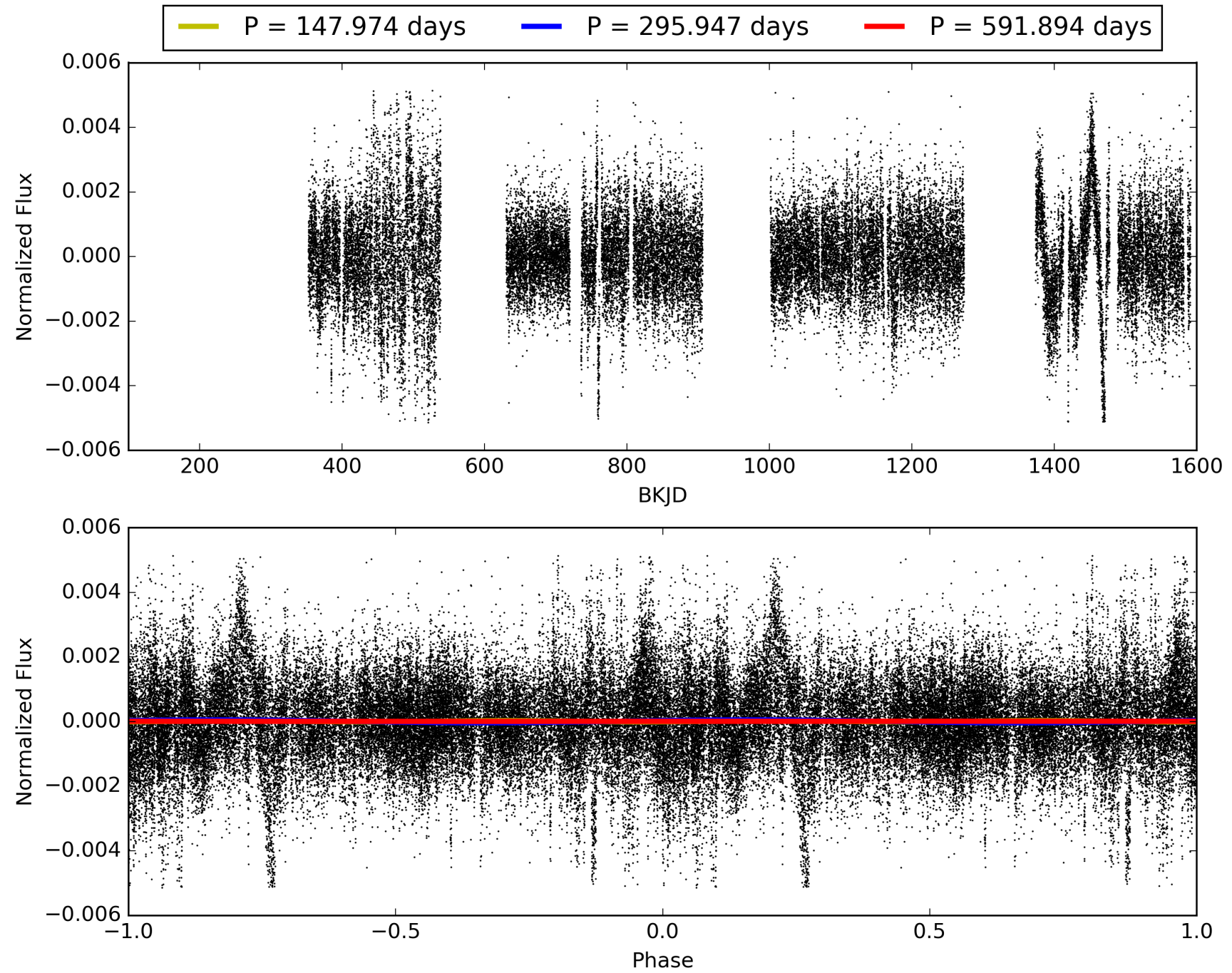
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:26:22 Z

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

TCE 004575392-01, PDC Light Curves

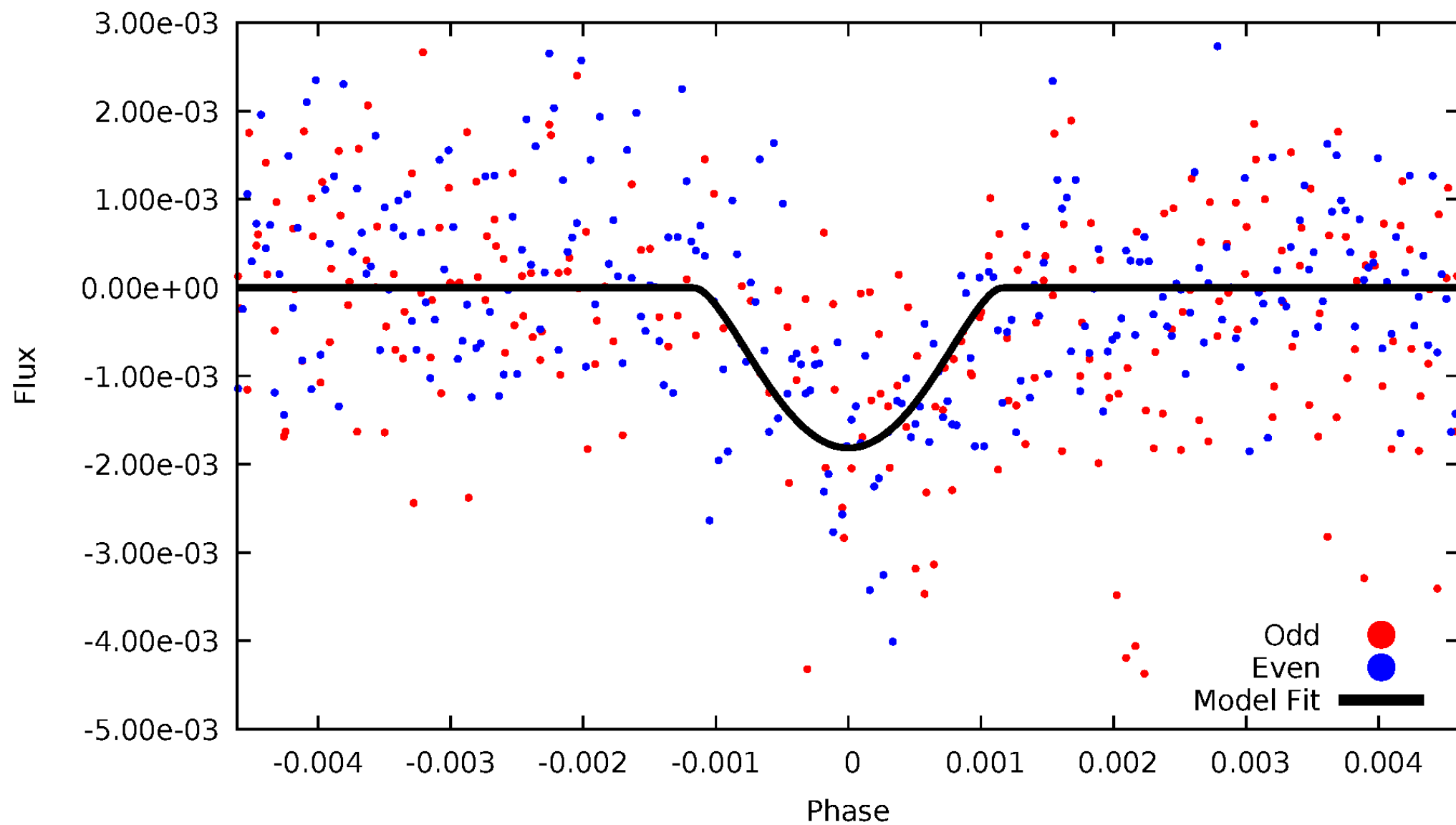


TCE 004575392-01



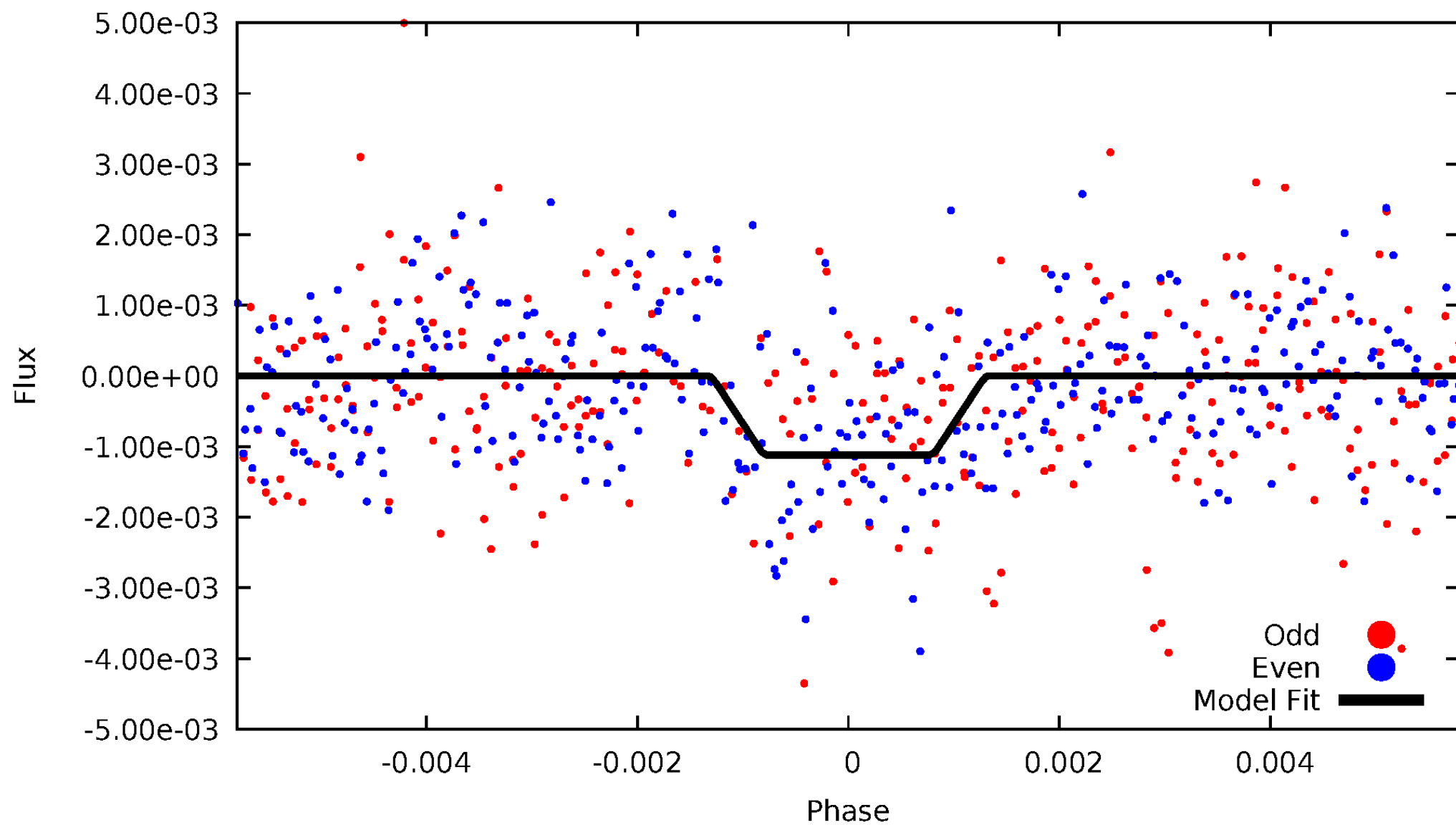
DV Odd/Even

TCE 004575392-01

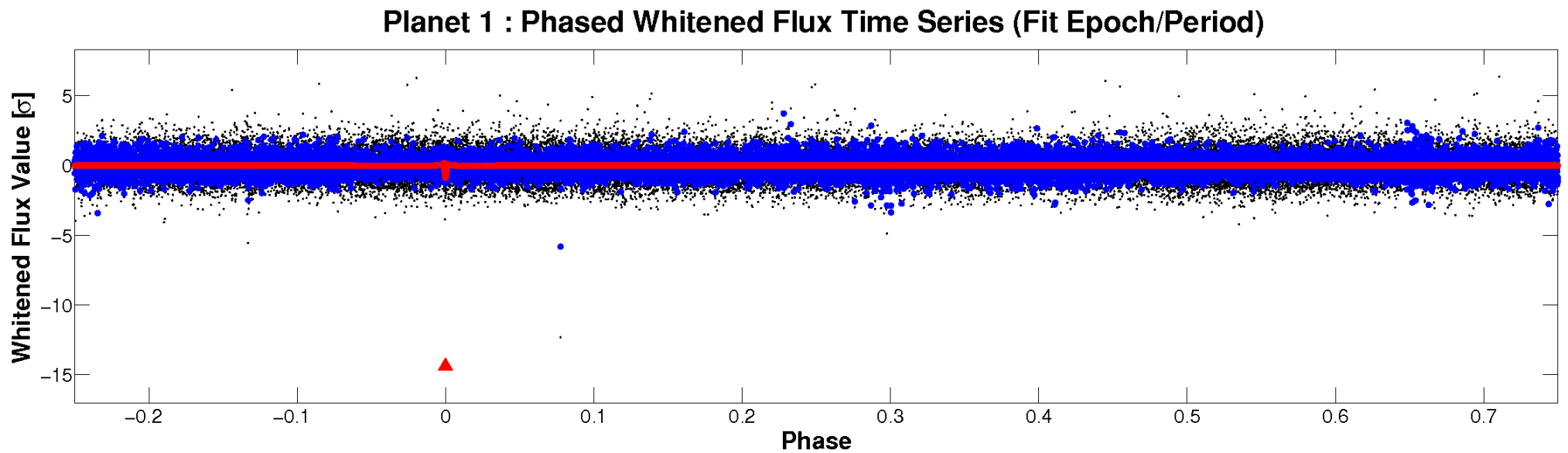
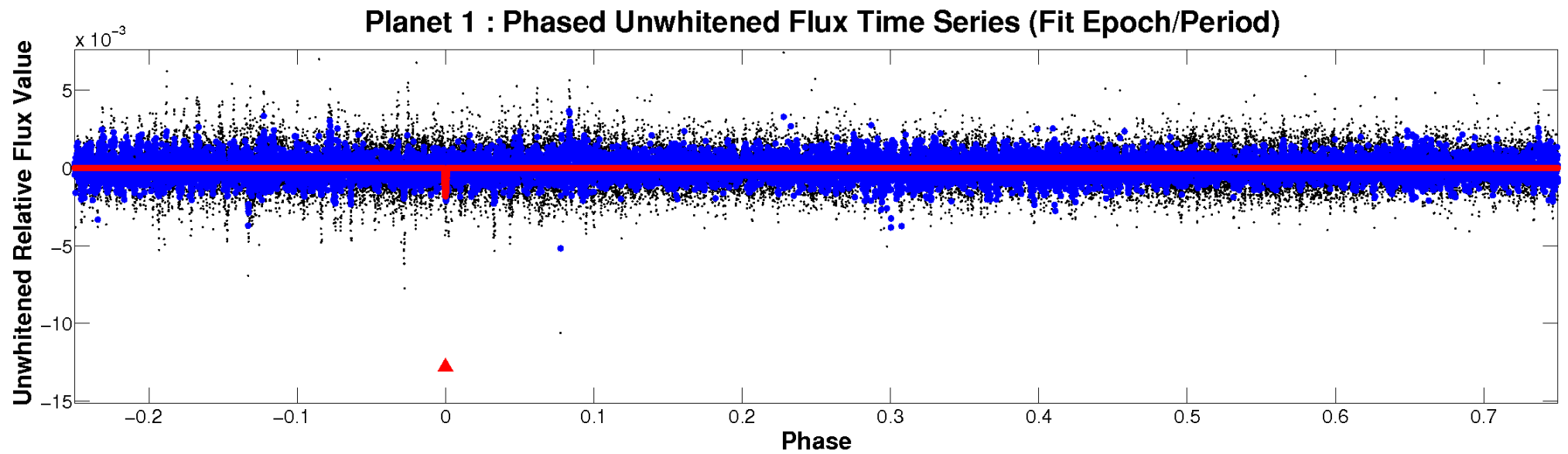


ALT Odd/Even

TCE 004575392-01

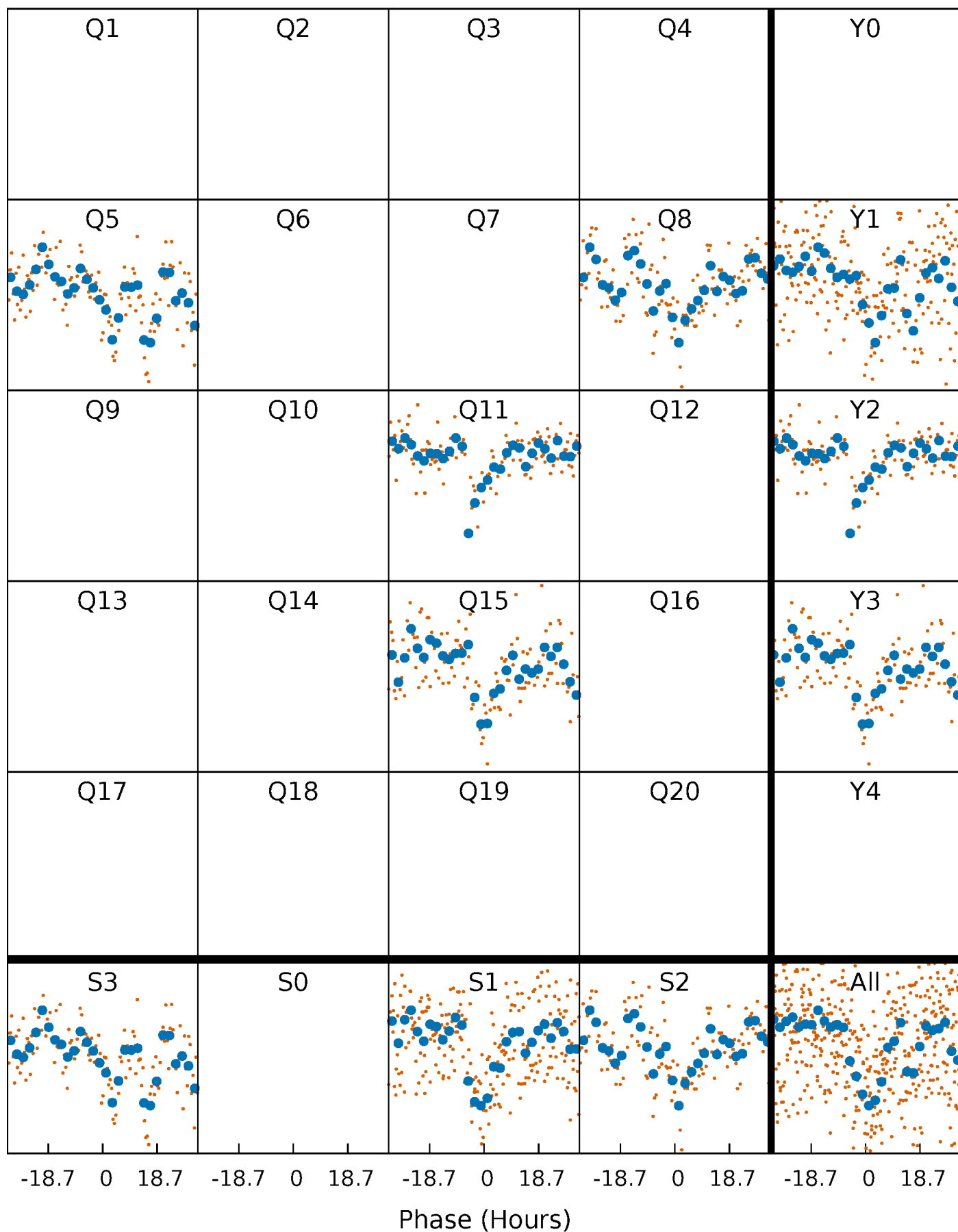


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 004575392-01 $P=295.947075$ Days $T_0=206.019298$ (BKJD)



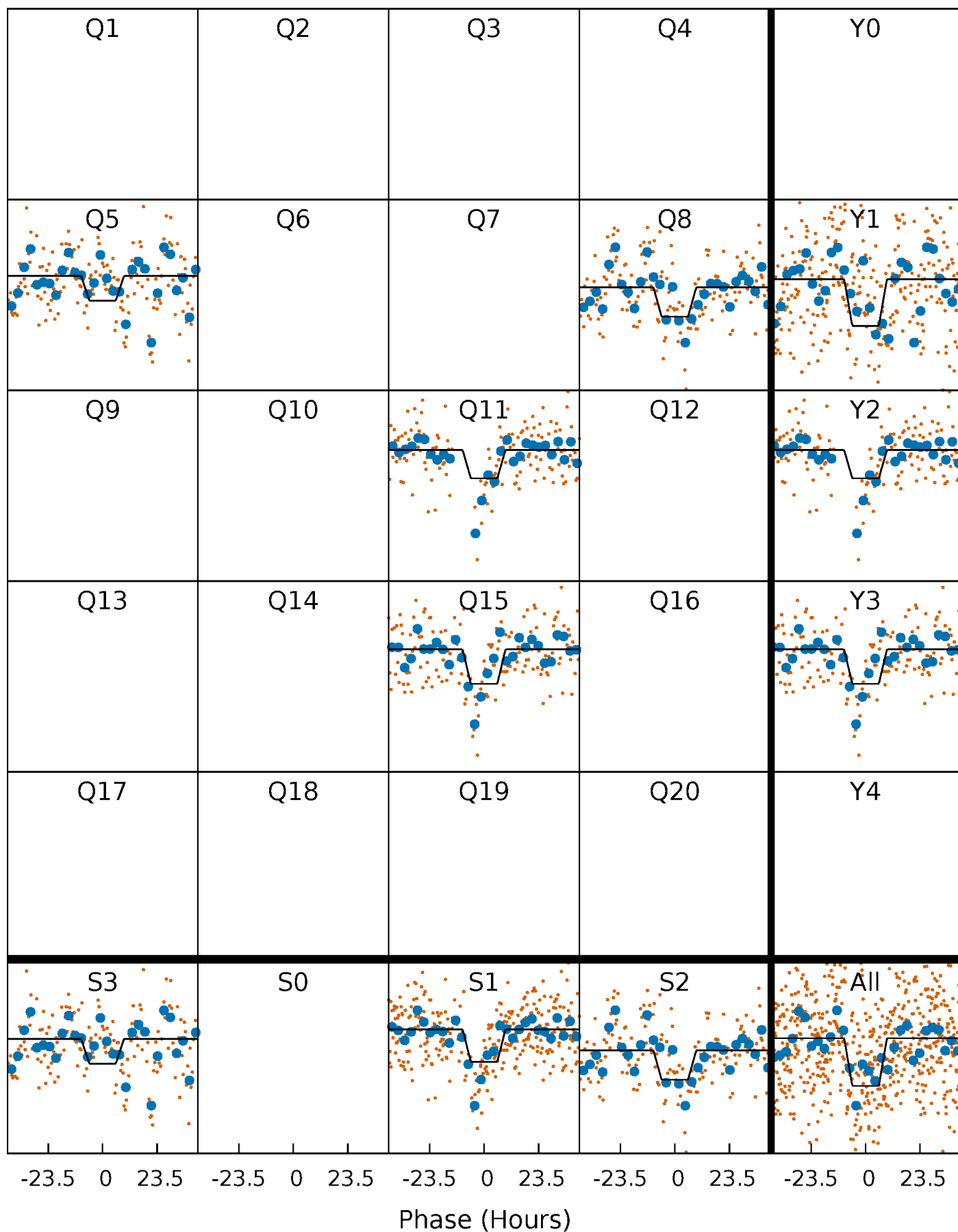
DV Quarter-Phased Transit Curves

TCE 004575392-01 $P=295.947075$ Days $T_0=206.019298$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

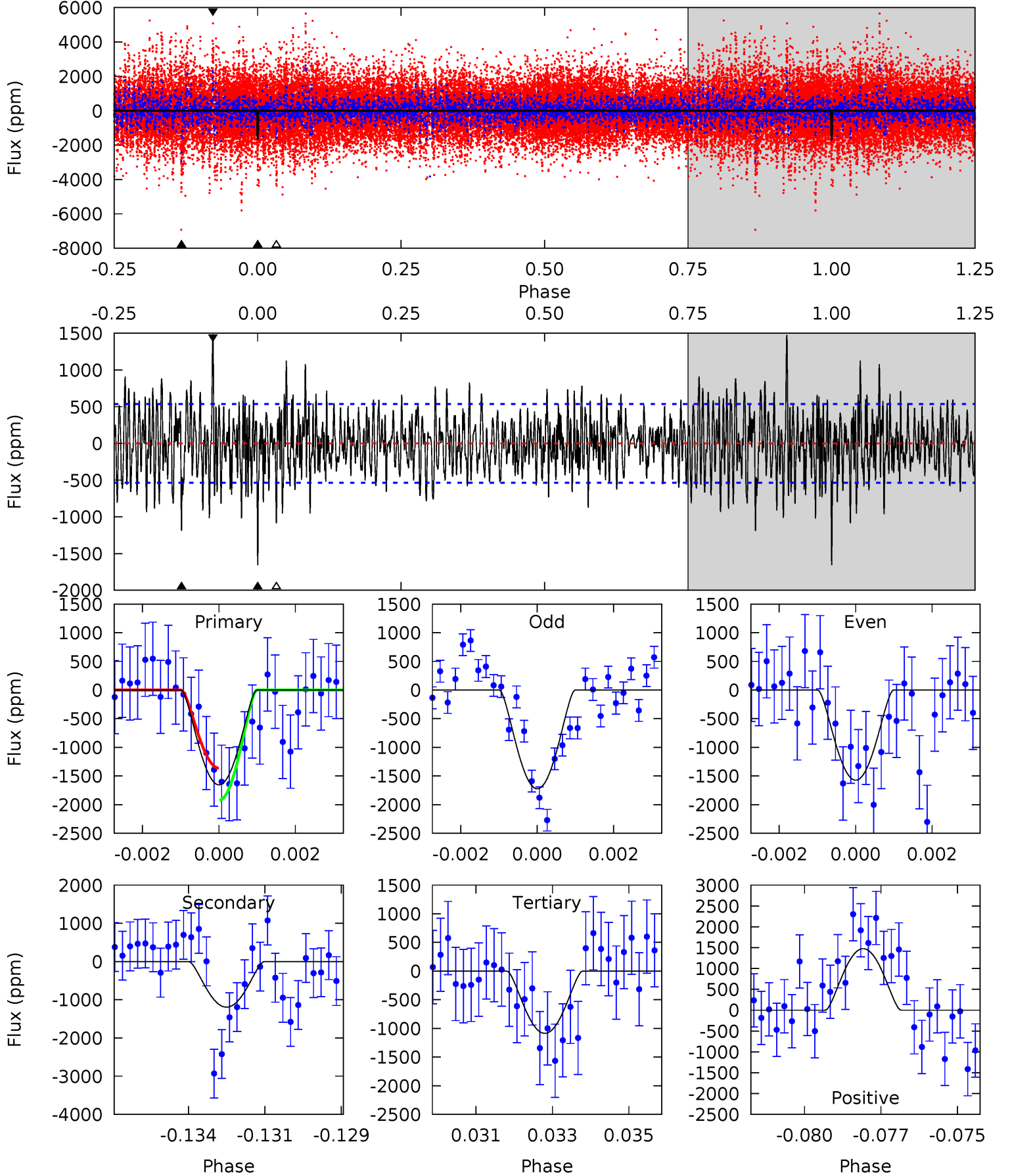
TCE 004575392-01 $P=296.082284$ Days $T_0=205.646114$ (BKJD)



DV Model-Shift Uniqueness Test

004575392-01, P = 295.947075 Days, E = 206.019298 Days

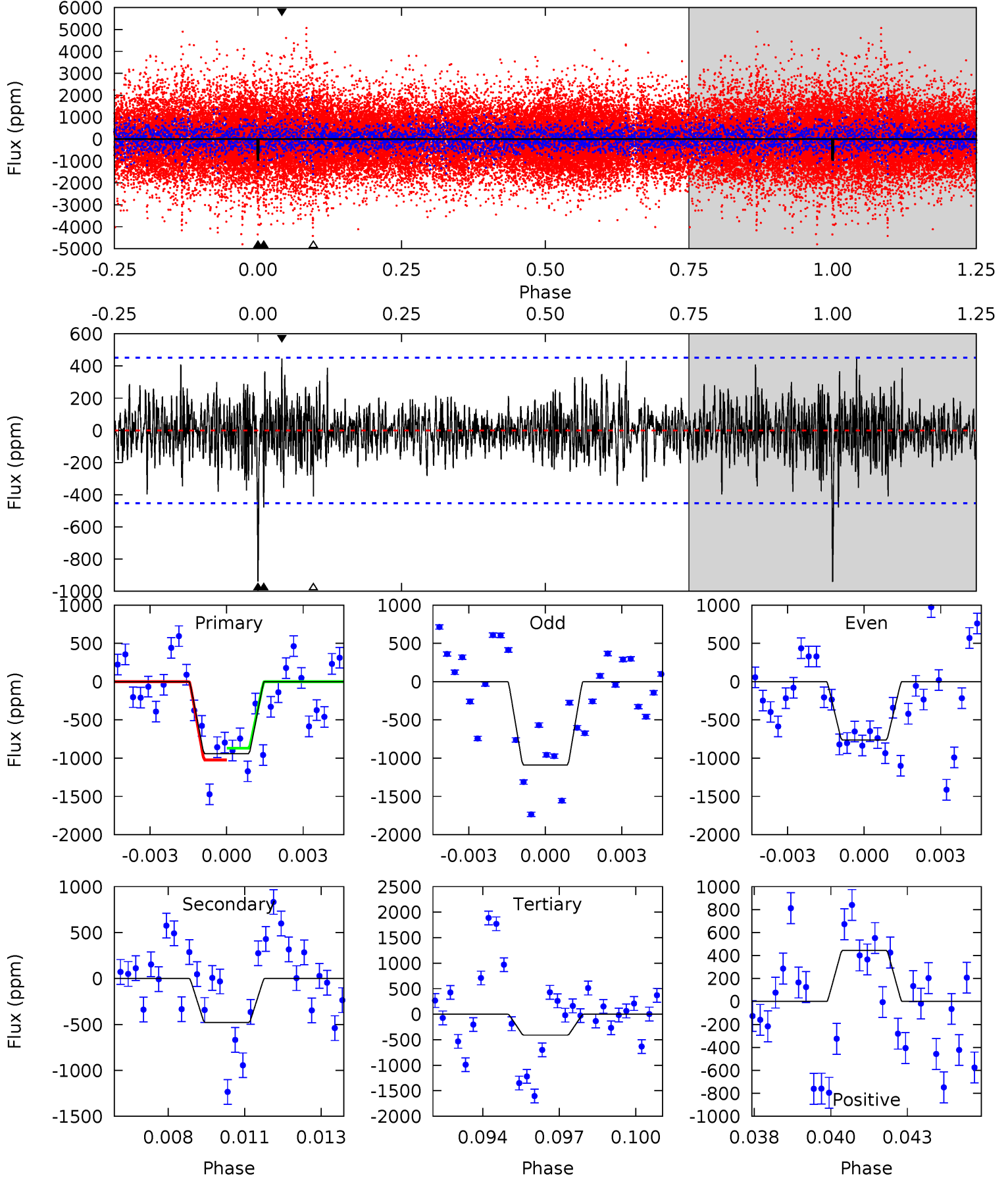
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	11.8	10.7	14.6	5.30	3.04	3.27	5.62	1.77	1.06	-2.78	0.73	0.97	0.47	2.75



Alt Model-Shift Uniqueness Test

004575392-01, P = 296.082284 Days, E = 205.646114 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	5.59	4.78	5.19	5.27	3.00	1.35	6.20	5.79	0.81	0.40	1.89	0.89	0.32	0.90



Stellar Parameters For KIC 004575392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4632^{+41}_{-83}	$2.182^{+0.027}_{-0.033}$	$-0.200^{+0.100}_{-0.150}$	$19.116^{+0.847}_{-3.601}$	$2.026^{+1.025}_{-0.732}$	$0.000^{+0.000}_{-0.000}$
	+1%/-2%	+1%/-2%	+50%/-75%	+4%/-19%	+51%/-36%	+27%/-10%
Source	SPE74	AST71	SPE74	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 004575392-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1193 ± 101	$352.26^{+343.68}_{-240.91}$	1187^{+24}_{-30}	2746^{+1107}_{-475}	$6.323^{+55.894}_{-4.762}$
Alt.	-479 ± 86	$312.19^{+317.61}_{-224.31}$	1185^{+23}_{-28}	2484^{+1074}_{-448}	$3.089^{+35.018}_{-2.330}$

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 $A_{obs} \gg 1.0$

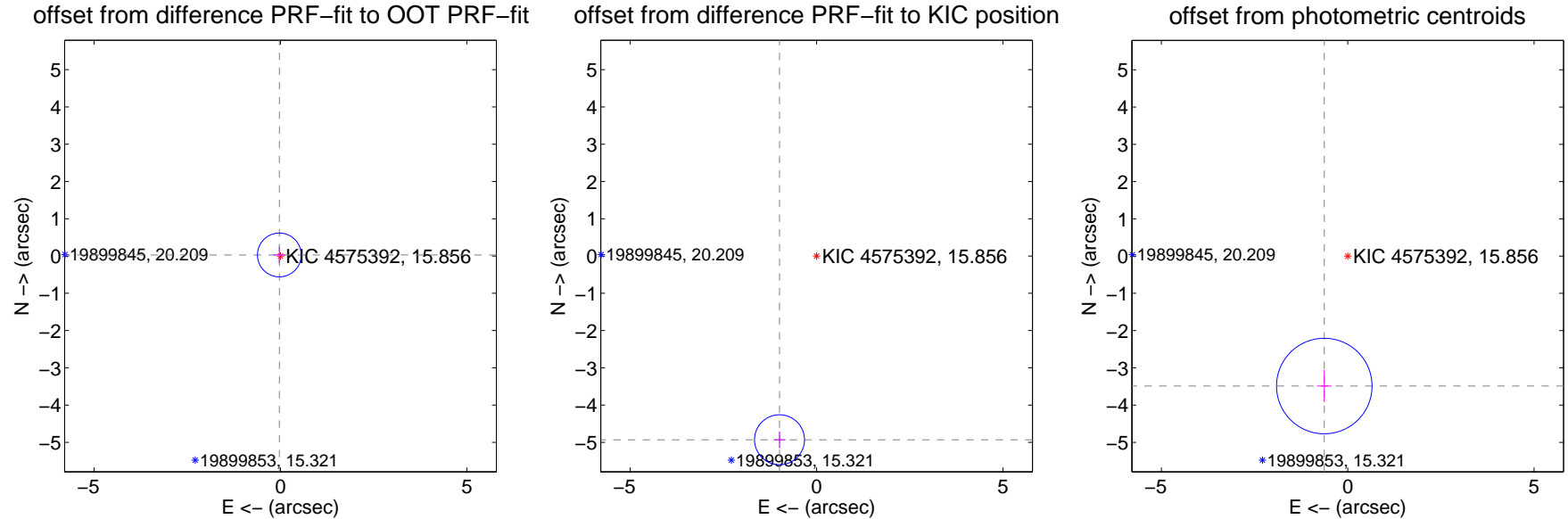
DV Centroid Data

Supplemental centroid analysis for 004575392-01. Kepler magnitude: 15.86. Transit SNR 6.50

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 5.05 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.041 ± 0.196	0.21	0.029 ± 0.162	0.029 ± 0.225
PRF-fit source offset from KIC position	5.029 ± 0.223	22.52	0.995 ± 0.162	-4.930 ± 0.225
photometric centroid source offset	3.54 ± 0.43	8.30	0.63 ± 0.19	-3.49 ± 0.43

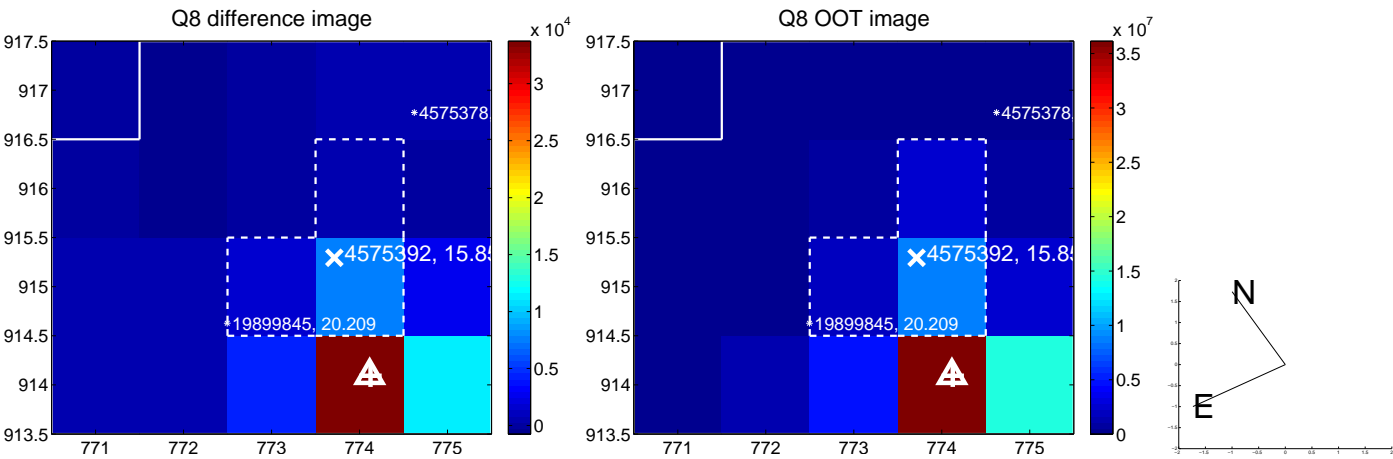
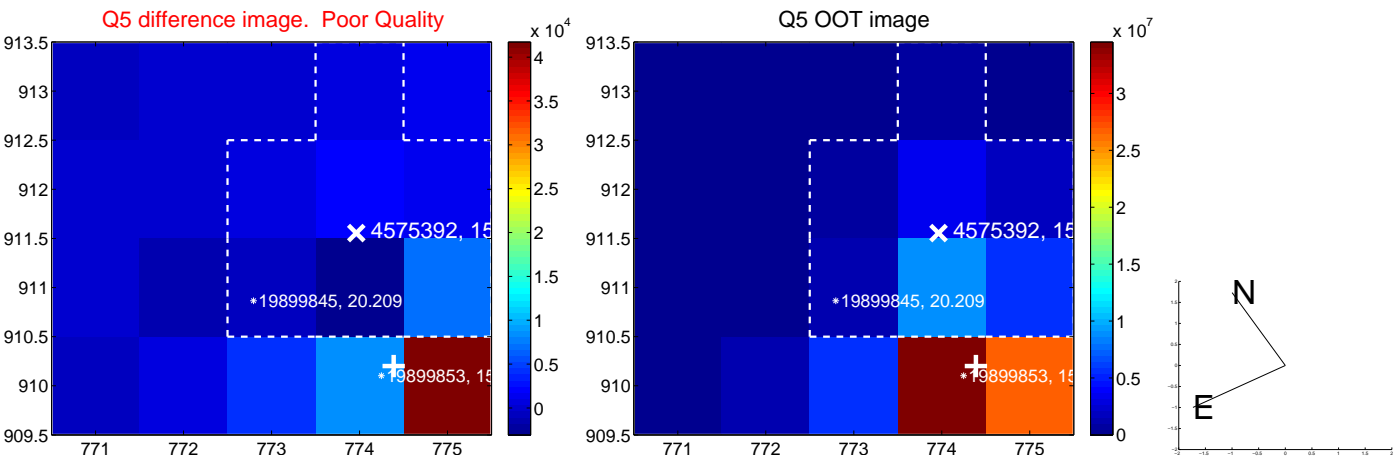


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



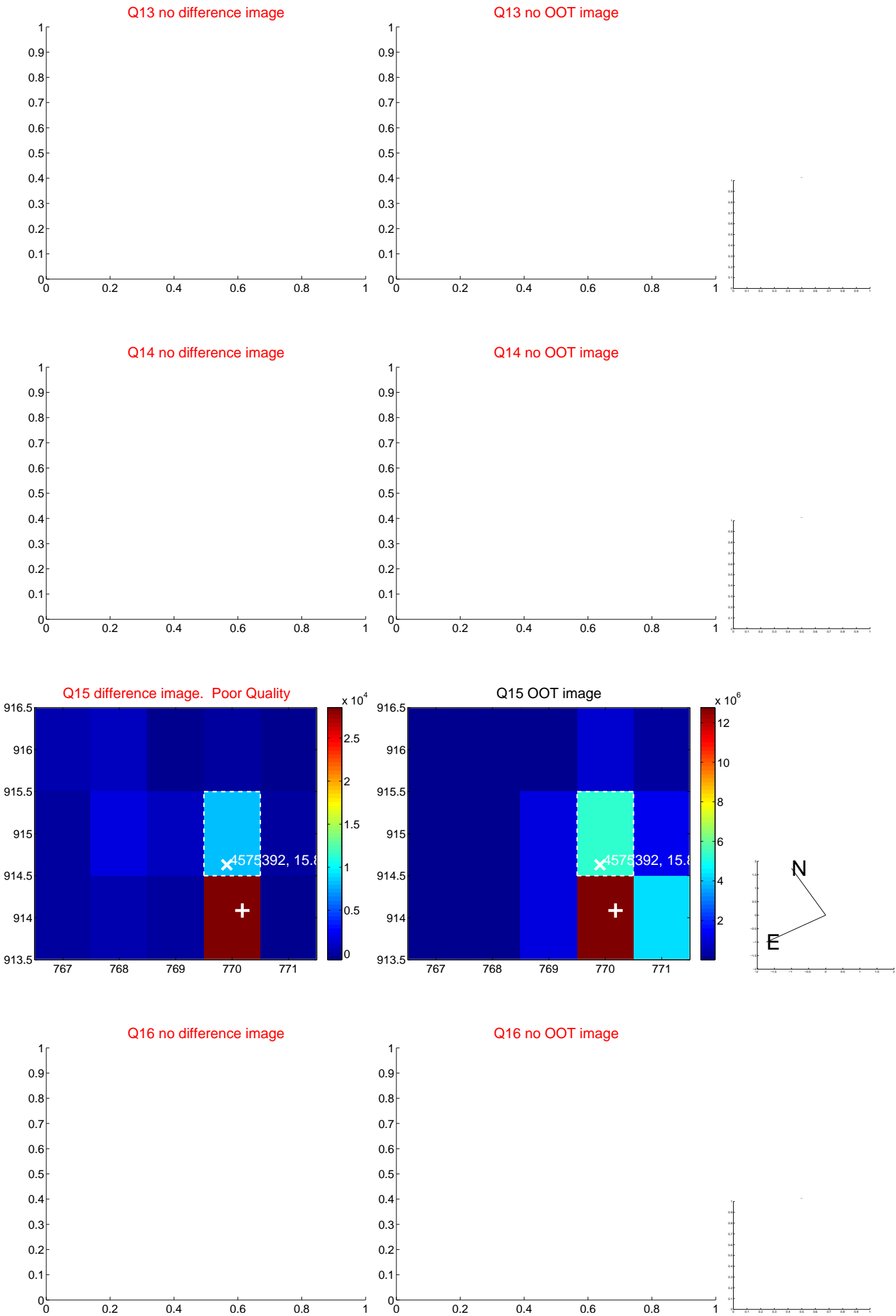
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



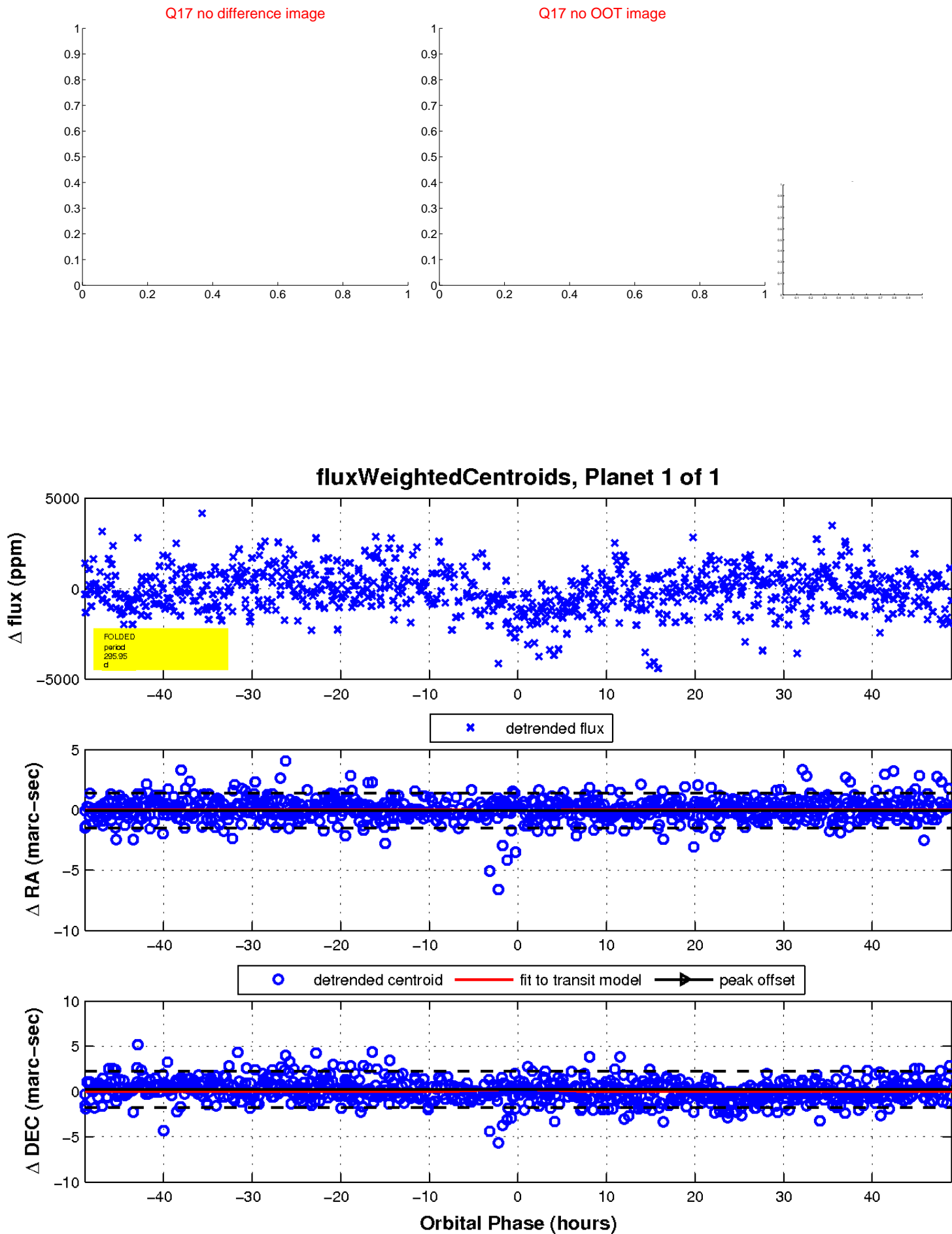
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

