

KIC 007503885

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})
007503885-01	OBS	3417.01	91.080737	213.753842	623.8	9.748	12.4	15.3	1.01	5915	3.06	7.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007503885-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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.

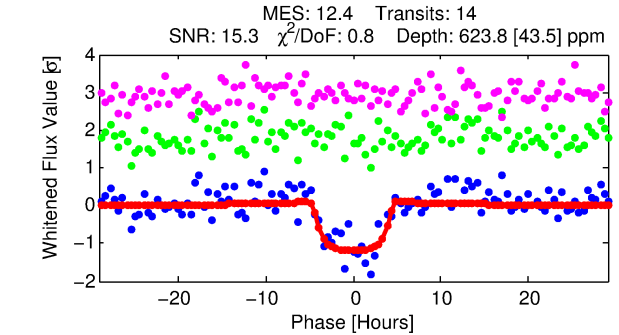
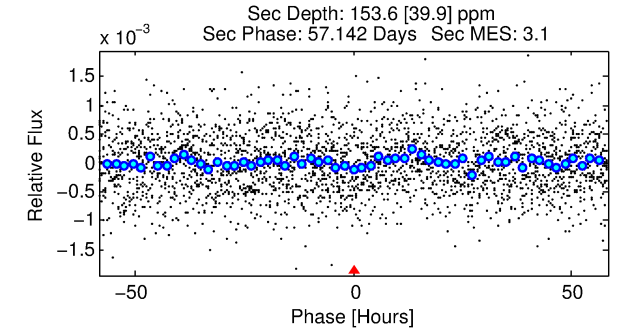
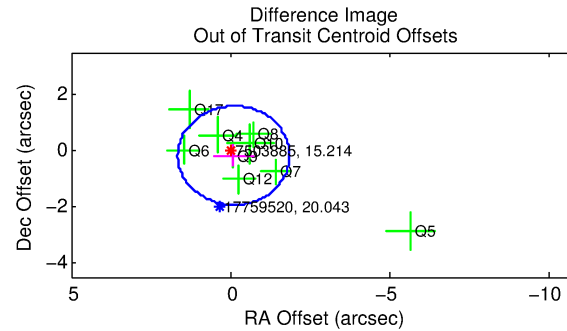
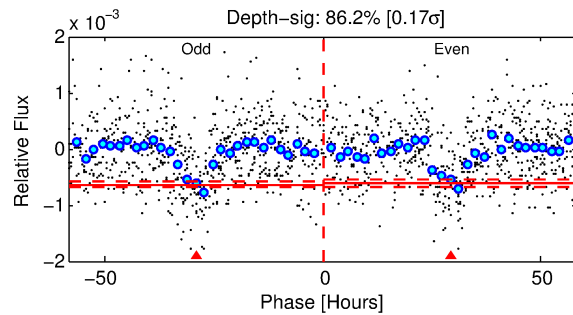
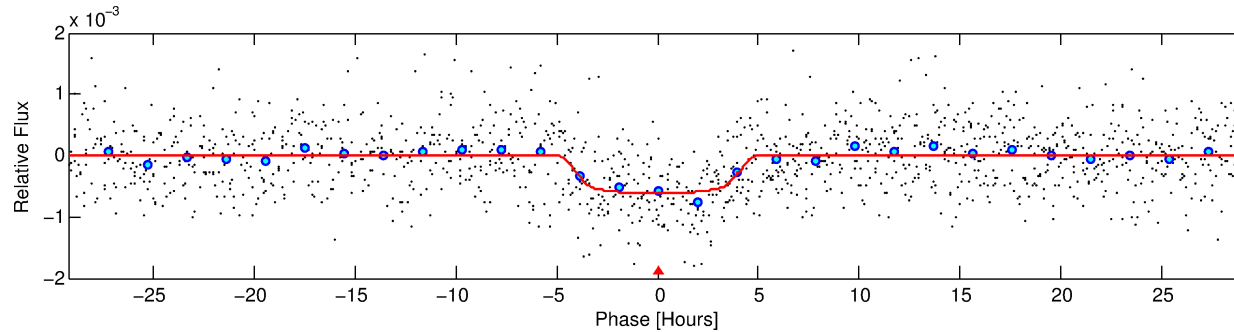
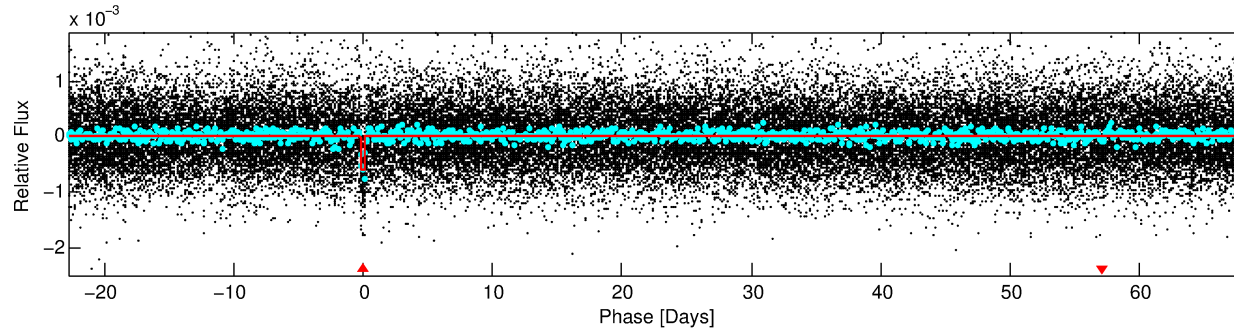
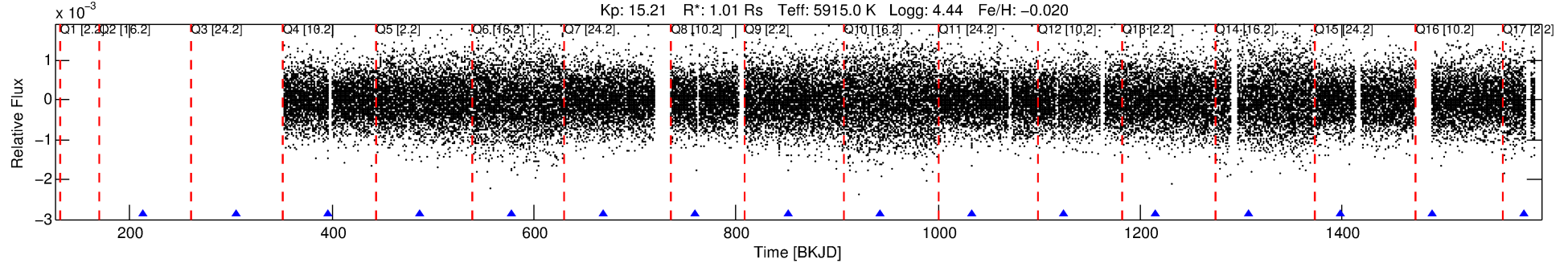
Ephemeris Match Information For 007503885-01

No Significant Match Found

DV One-Page Summary

KIC: 7503885 Candidate: 1 of 1 Period: 91.081 d
KOI: K03417.01 Corr: 0.992

Kp: 15.21 R*: 1.01 Rs Teff: 5915.0 K Logg: 4.44 Fe/H: -0.020



DV Fit Results:

Period = 91.08074 [0.00162] d
Epoch = 213.7538 [0.0152] BKJD
Rp/R* = 0.0278 [0.0019]
a/R* = 32.25 [8.66]
b = 0.92 [0.04]
Seff = 7.03 [2.82]
Teq = 415 [42] K
Rp = 3.06 [0.99] Re
a = 0.3981 [0.1044] AU
Ag = 1432.45 [684.76] [2.09σ]
Teffp = 3950 [322] K [10.90σ]

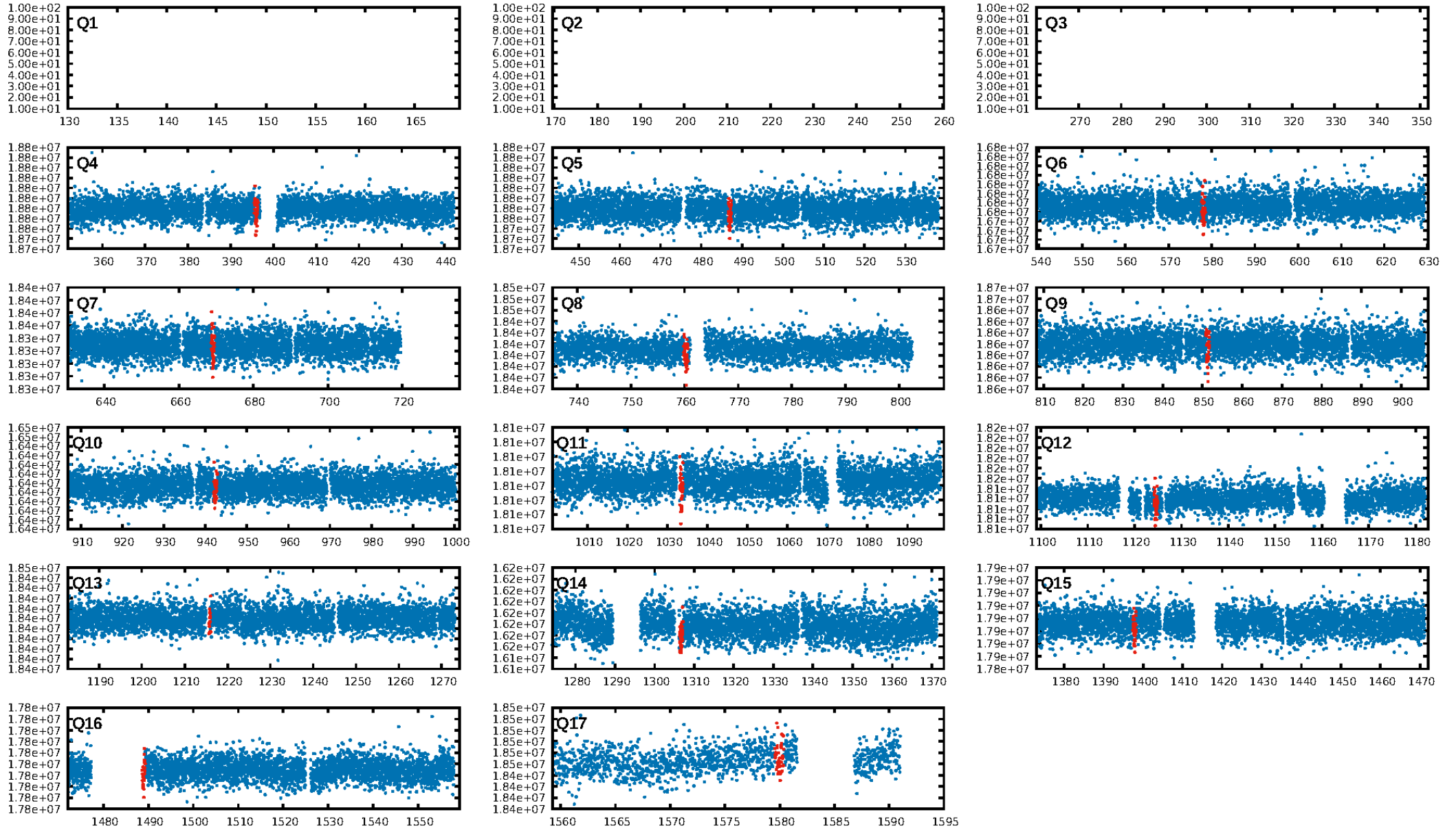
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 86.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.36e-36
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 3.432
Centroid-sig: 50.8%
Centroid-so: 0.648 arcsec [0.70σ]
OotOffset-rm: 0.207 arcsec [0.35σ]
KicOffset-rm: 0.107 arcsec [0.19σ]
OotOffset-st: 2/1/3/3 [9]
KicOffset-st: 2/1/3/3 [9]
DiffImageQuality-fgm: 0.67 [6/9]
DiffImageOverlap-fno: 1.00 [9/9]

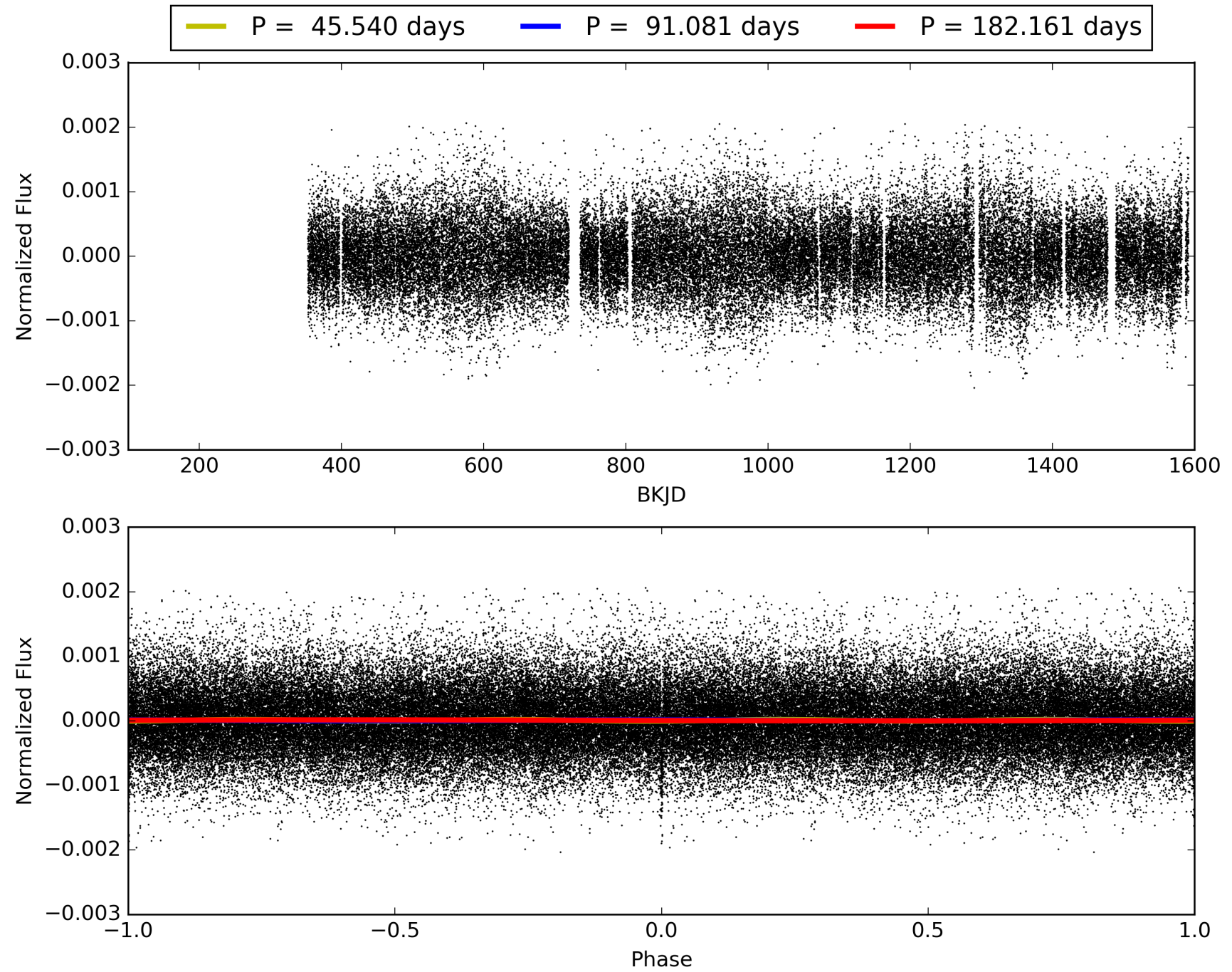
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:13:13 Z

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

TCE 007503885-01, PDC Light Curves

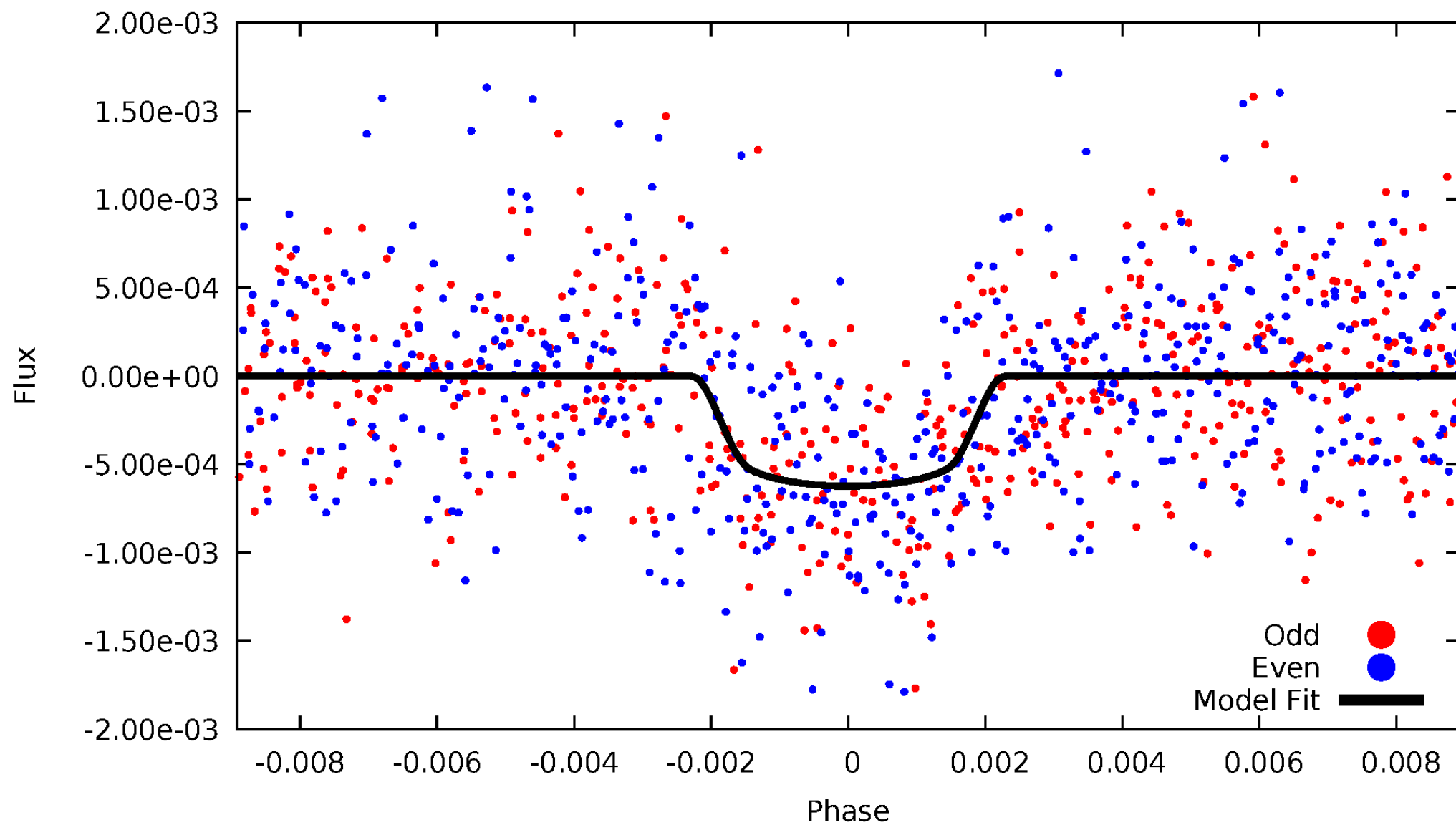


TCE 007503885-01



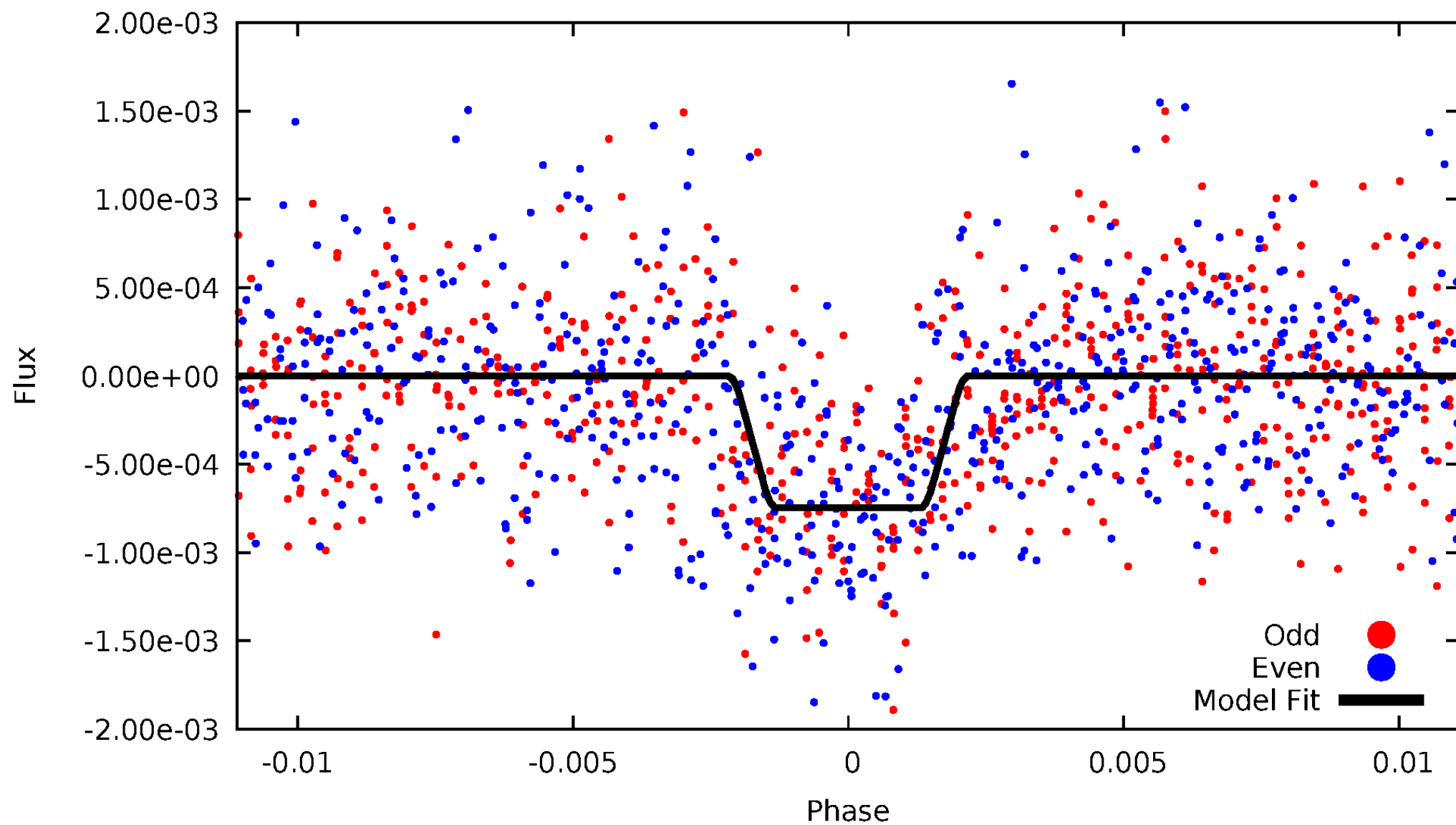
DV Odd/Even

TCE 007503885-01

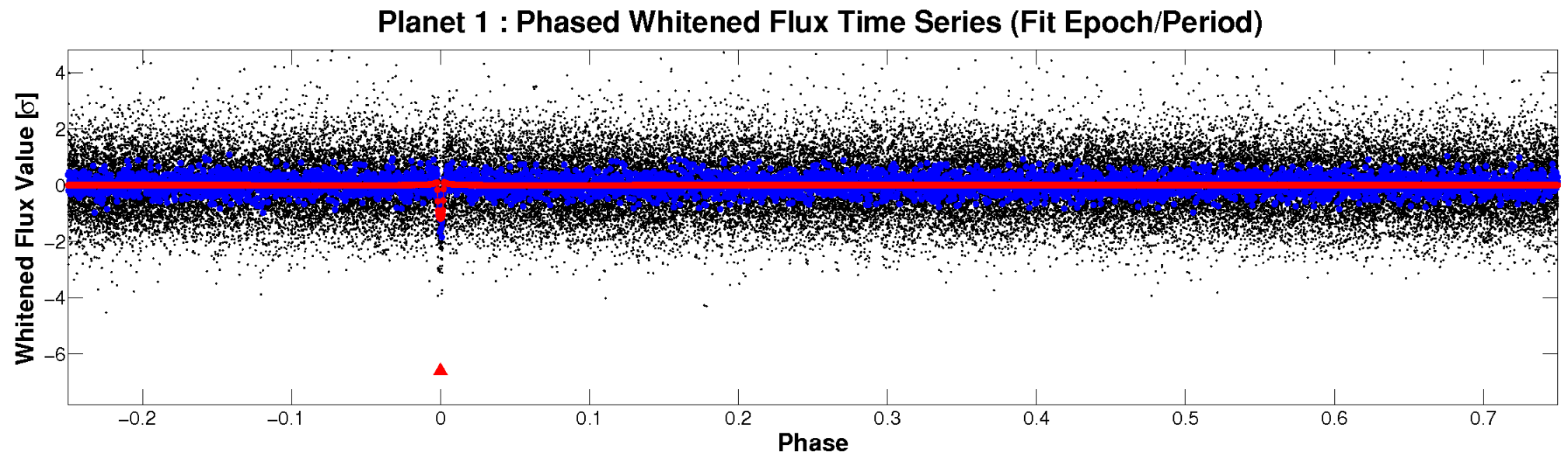
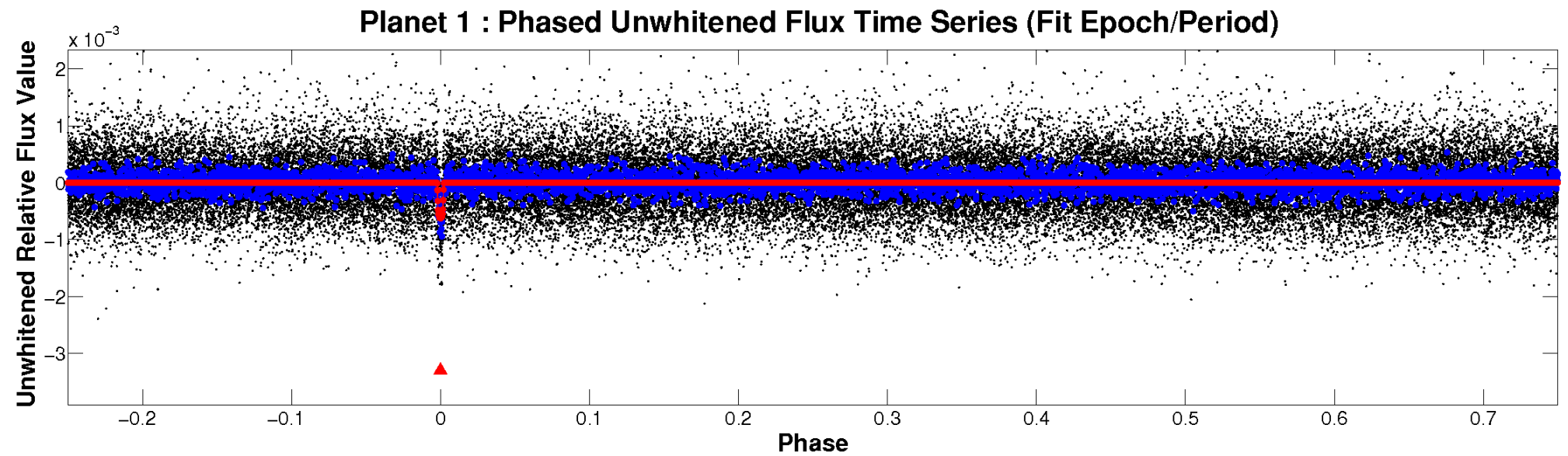


ALT Odd/Even

TCE 007503885-01

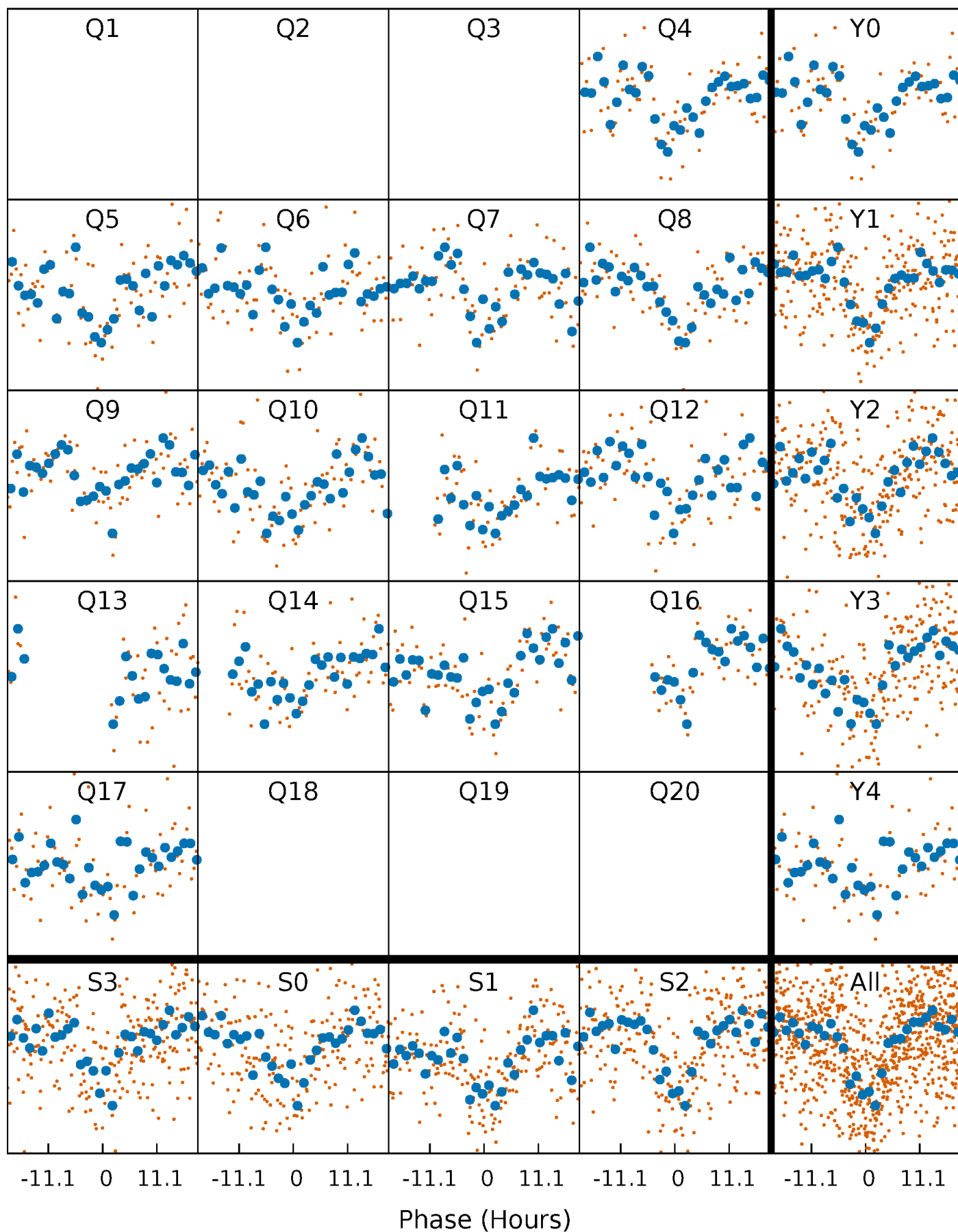


Non-Whitened Vs. Whitened Light Curve



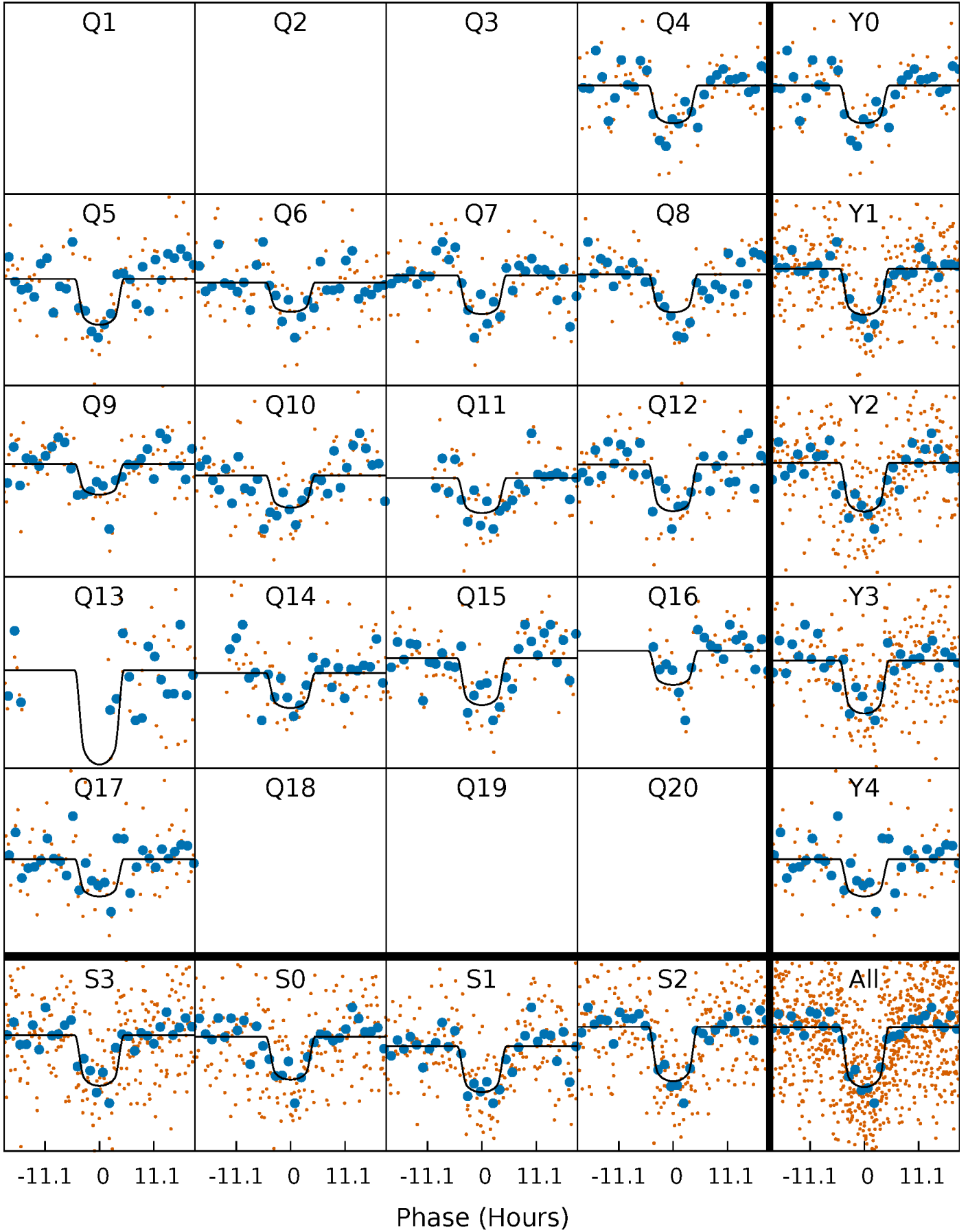
PDC Quarter-Phased Transit Curves

TCE 007503885-01 P= 91.080737 Days $T_0=213.753842$ (BKJD)



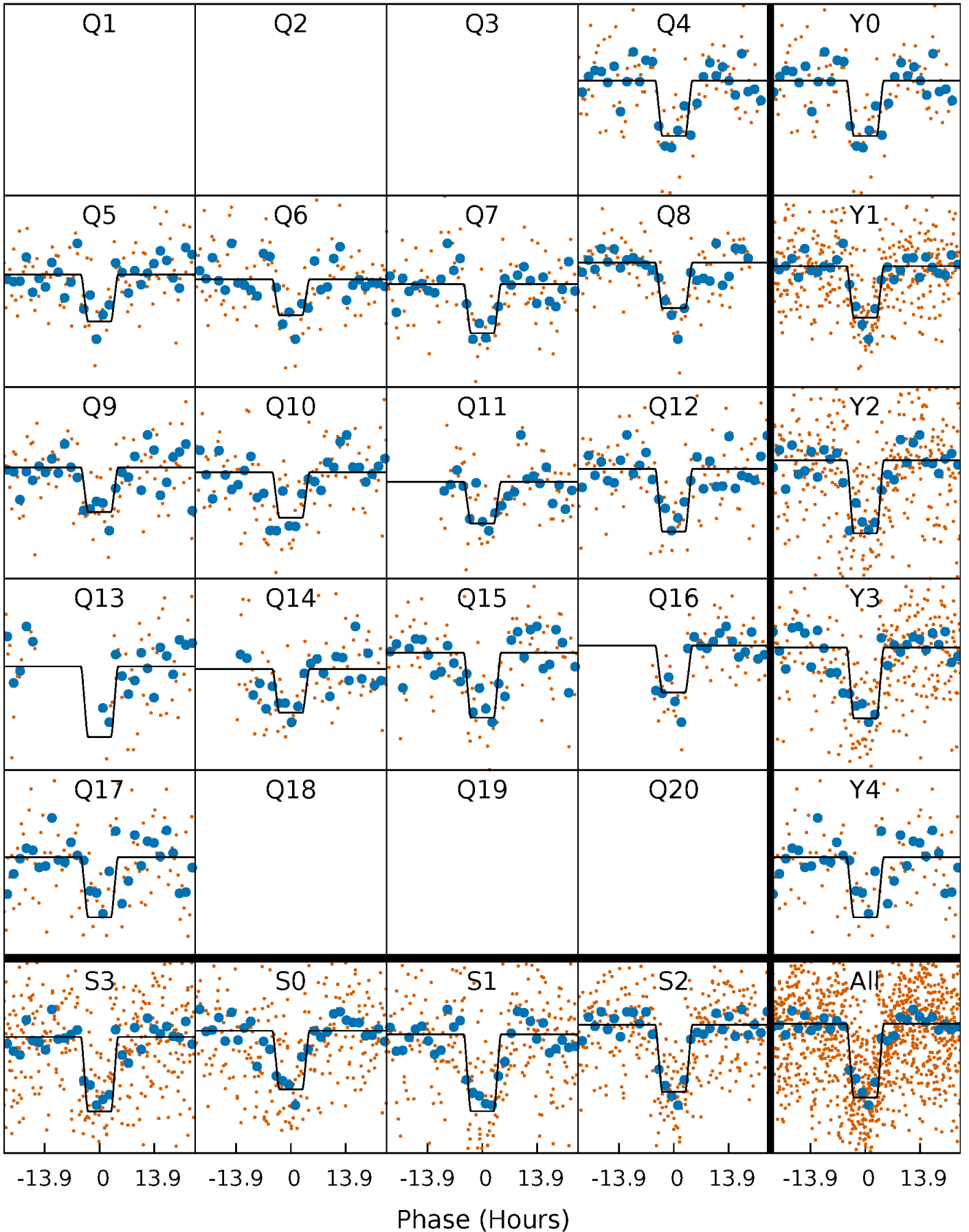
DV Quarter-Phased Transit Curves

TCE 007503885-01 P= 91.080737 Days $T_0=213.753842$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

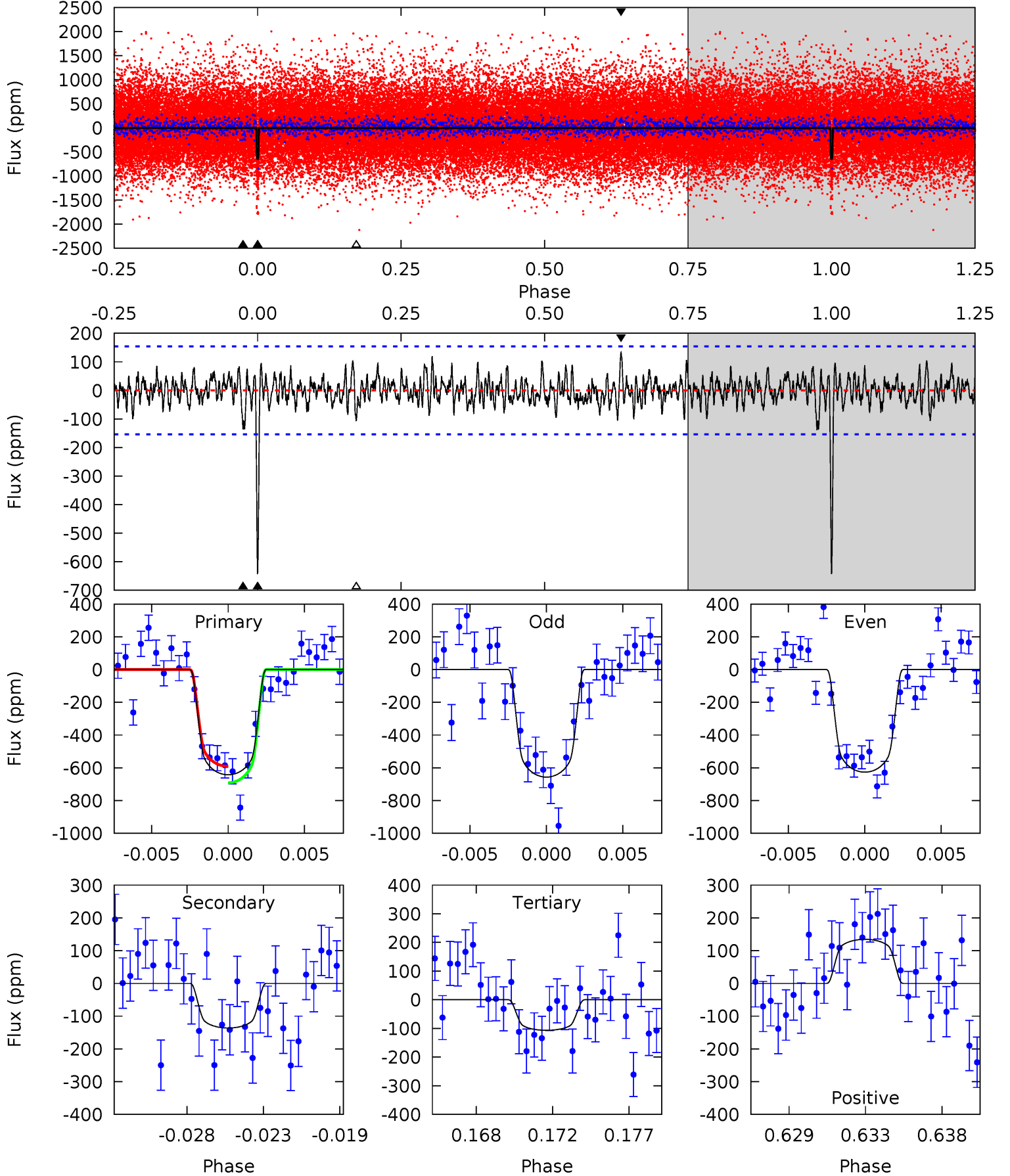
TCE 007503885-01 P= 91.082635 Days $T_0=213.755225$ (BKJD)



DV Model-Shift Uniqueness Test

007503885-01, $P = 91.080737$ Days, $E = 213.753842$ Days

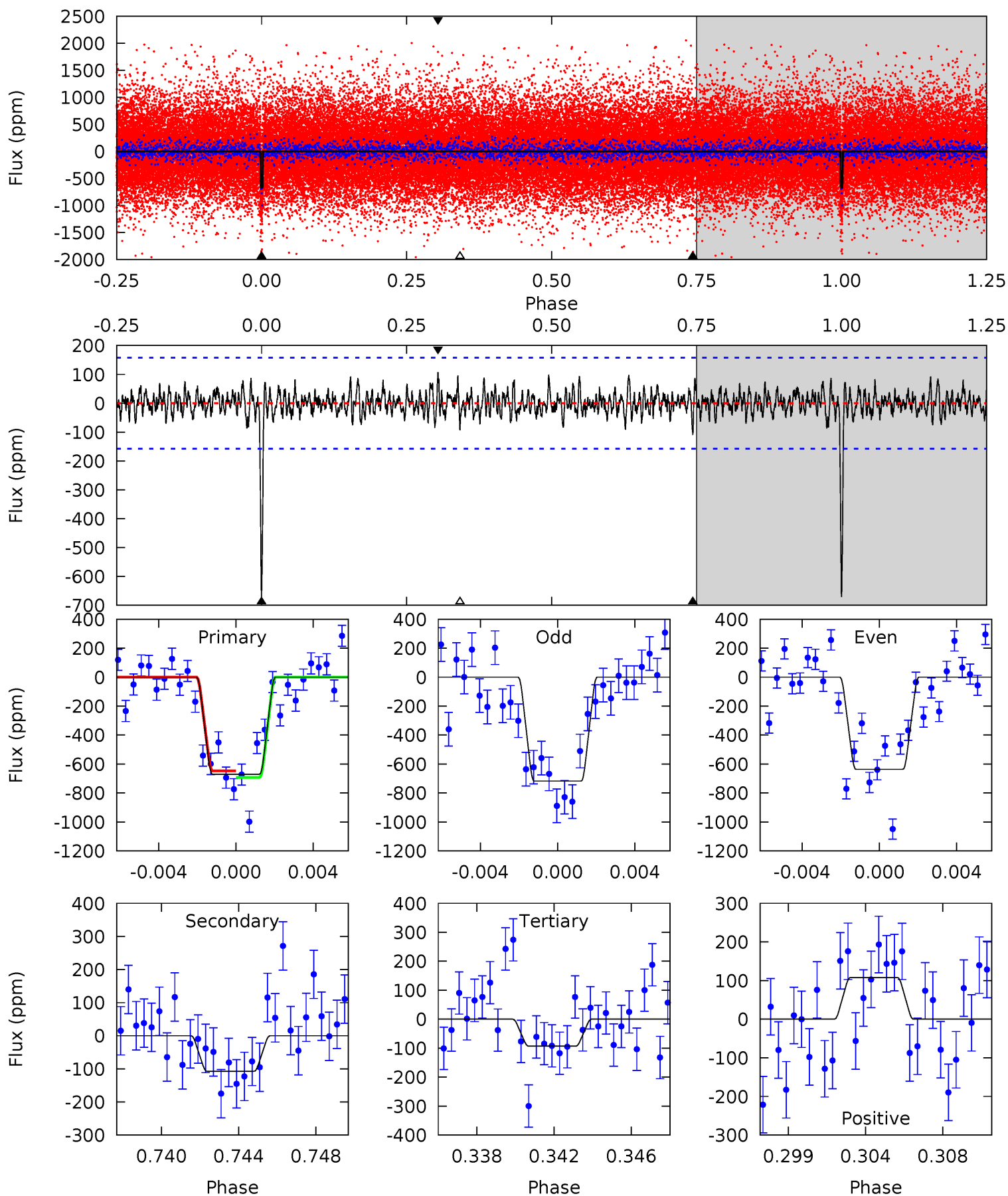
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	4.57	3.58	4.51	5.17	2.83	1.27	18.0	17.1	1.00	0.06	0.51	0.96	0.17	1.69



Alt Model-Shift Uniqueness Test

007503885-01, $P = 91.082635$ Days, $E = 213.755225$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	3.54	3.07	3.54	5.19	2.86	1.05	19.0	18.5	0.47	-0.01	1.34	0.97	0.14	0.73



Stellar Parameters For KIC 007503885

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5915^{+184}_{-205}	$4.437^{+0.072}_{-0.203}$	$-0.020^{+0.250}_{-0.300}$	$1.008^{+0.319}_{-0.137}$	$1.014^{+0.140}_{-0.127}$	$1.394^{+0.515}_{-0.721}$
	+3%/-3%	+2%/-5%	+1250%/-1500%	+32%/-14%	+14%/-13%	+37%/-52%
Source	KIC0	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 007503885-01 / KOI 3417.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-136 ± 30	$3.17^{+0.54}_{-0.39}$	590^{+47}_{-31}	4113^{+209}_{-231}	1134^{+427}_{-357}
Alt.	-107 ± 30	$3.11^{+0.49}_{-0.35}$	592^{+38}_{-32}	3964^{+228}_{-258}	932^{+379}_{-329}

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 $A_{obs} \gg 1.0$

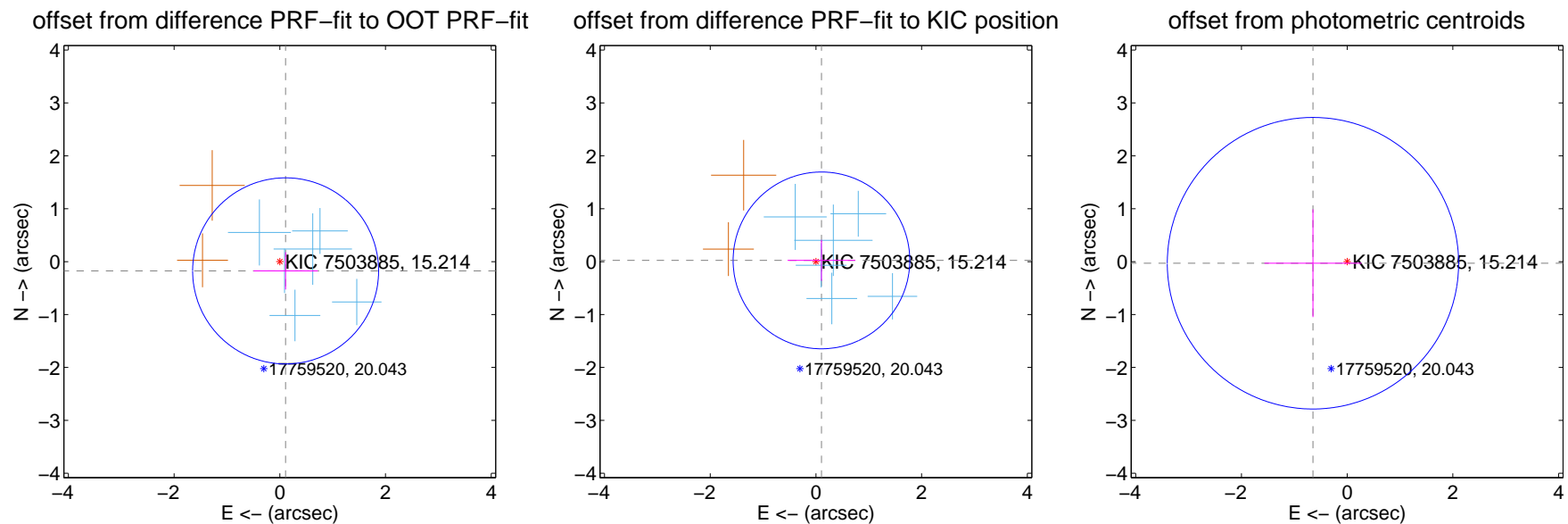
DV Centroid Data

Supplemental centroid analysis for 007503885-01. Kepler magnitude: 15.21. Transit SNR 15.34

There are 6 quarters with good PRF difference image offsets

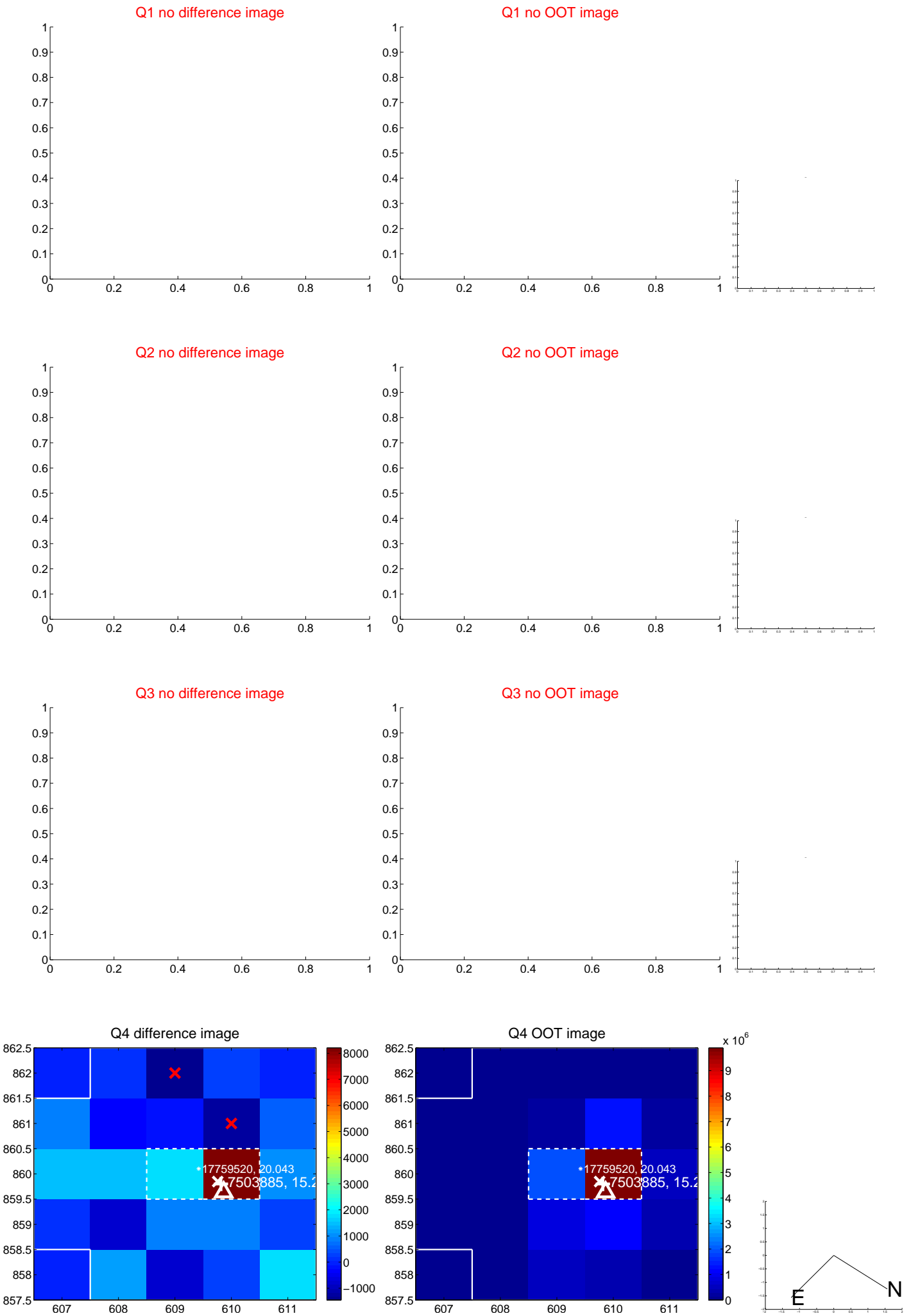
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.207 ± 0.586	0.35	-0.110 ± 0.608	-0.175 ± 0.352
PRF-fit source offset from KIC position	0.107 ± 0.557	0.19	-0.104 ± 0.640	0.023 ± 0.387
photometric centroid source offset	0.65 ± 0.92	0.70	0.65 ± 0.92	-0.03 ± 1.02

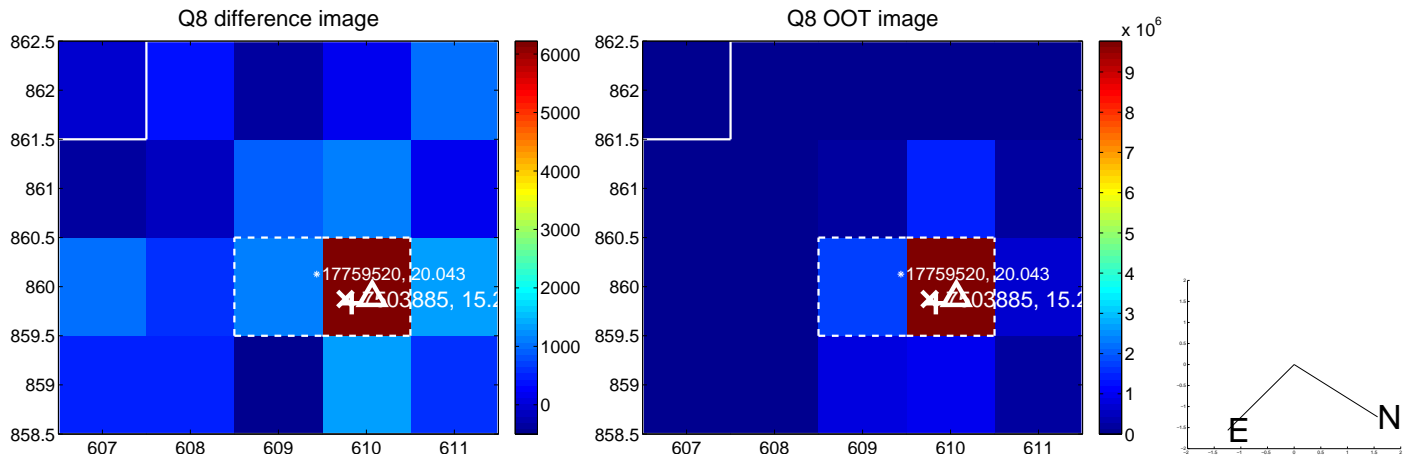
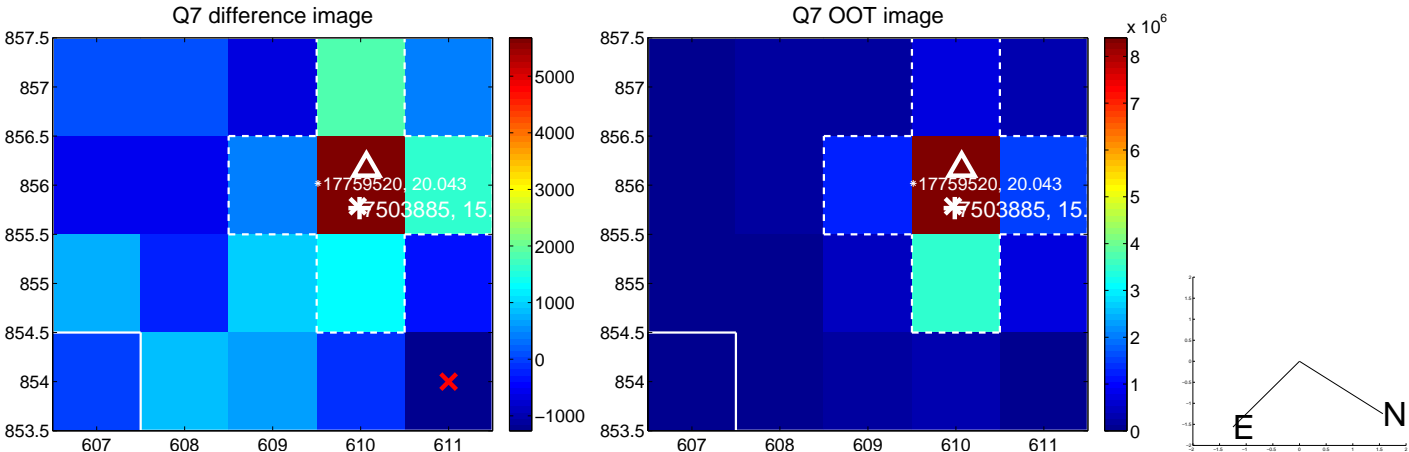
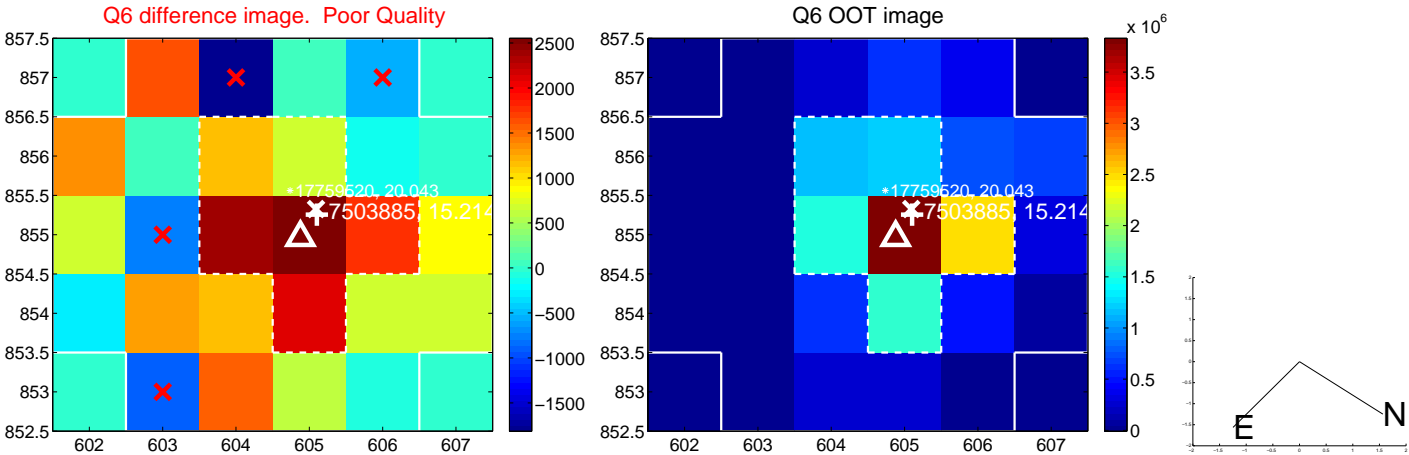
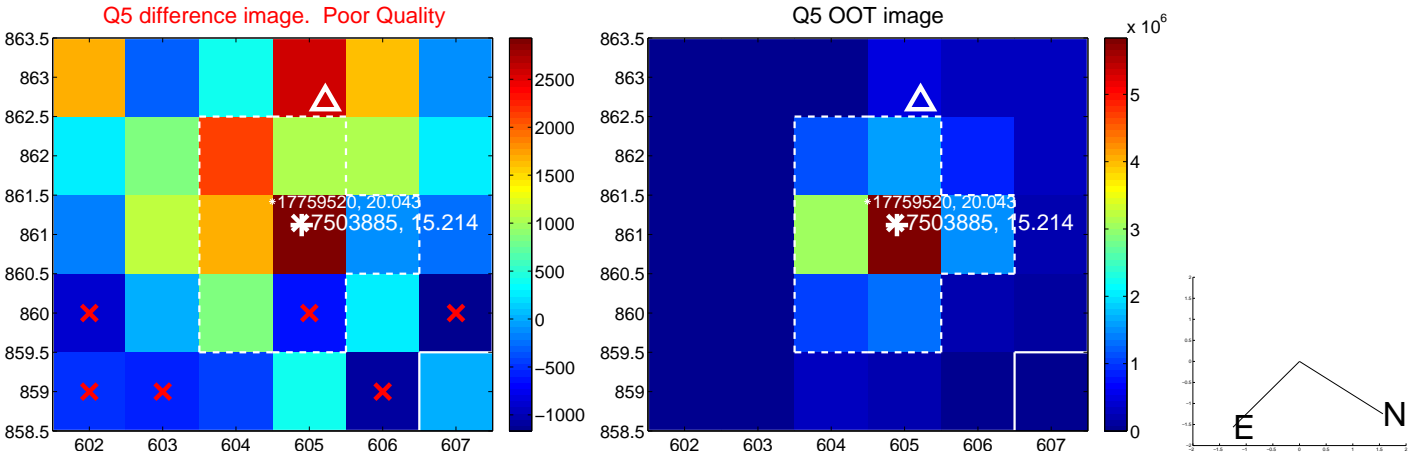


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

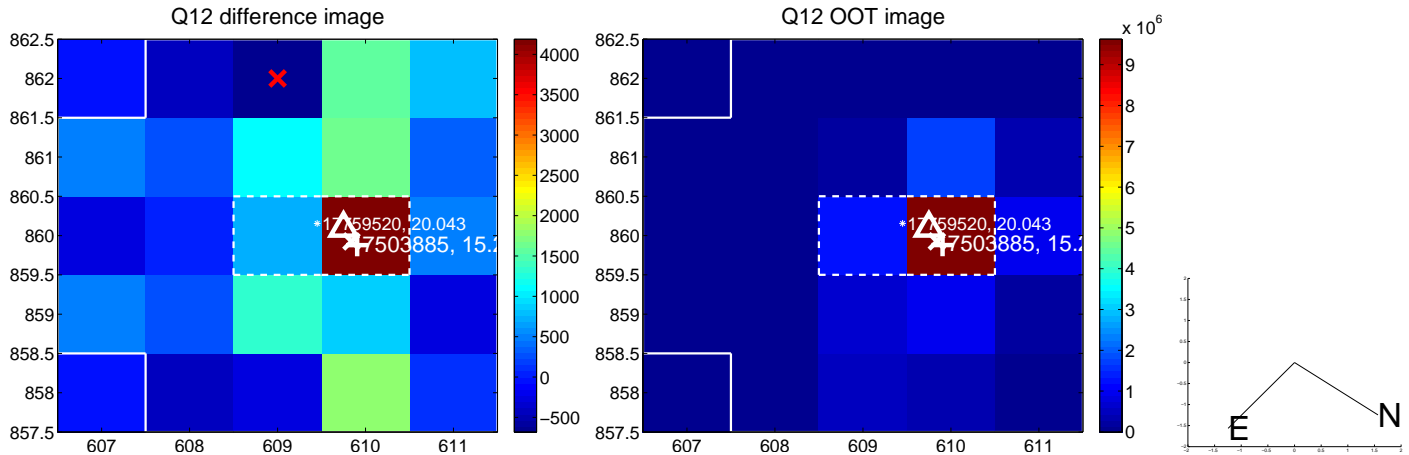
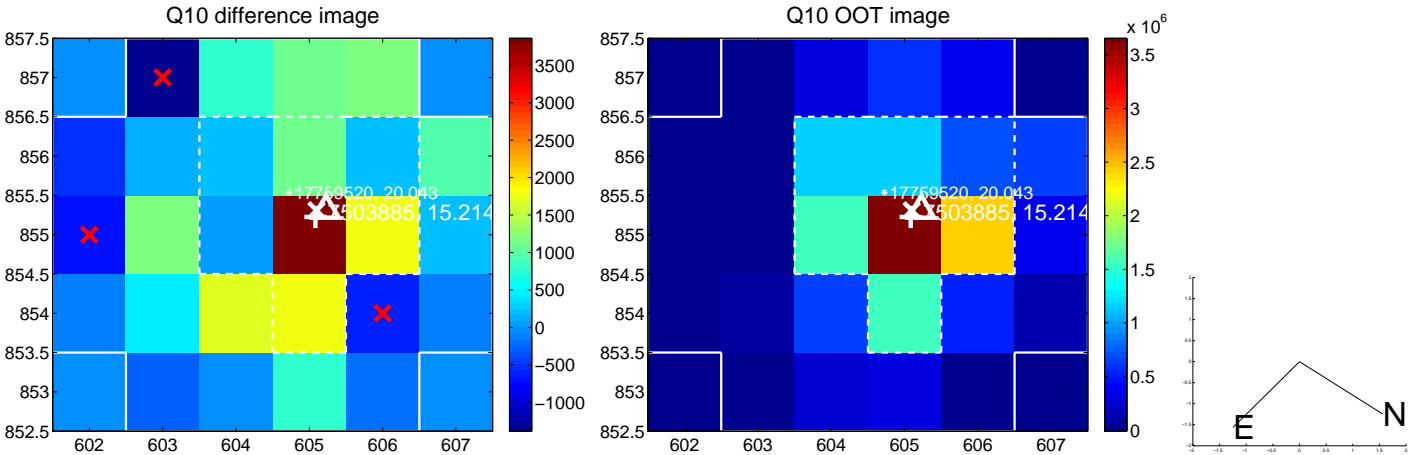
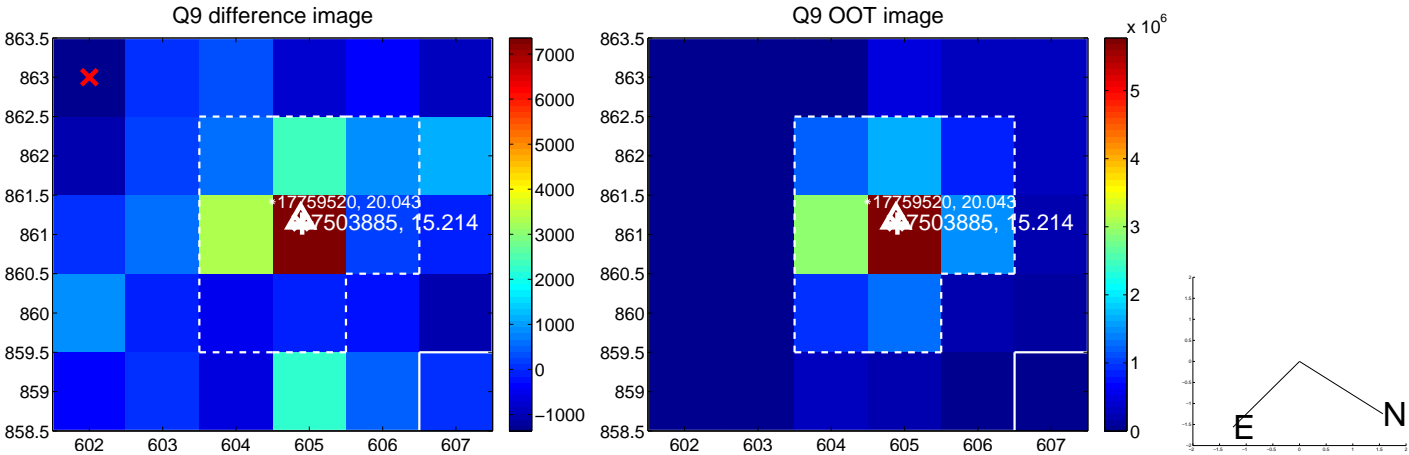
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



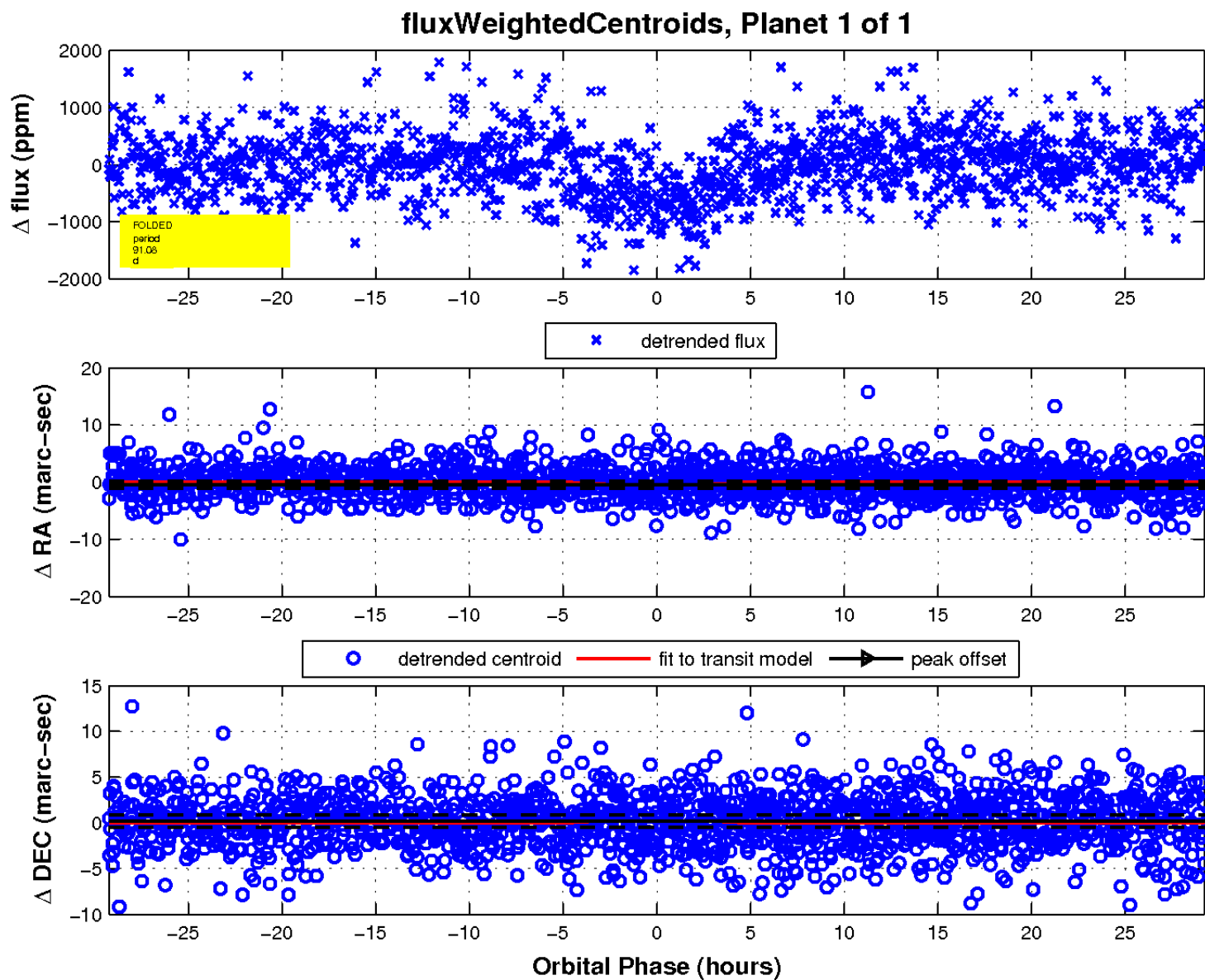
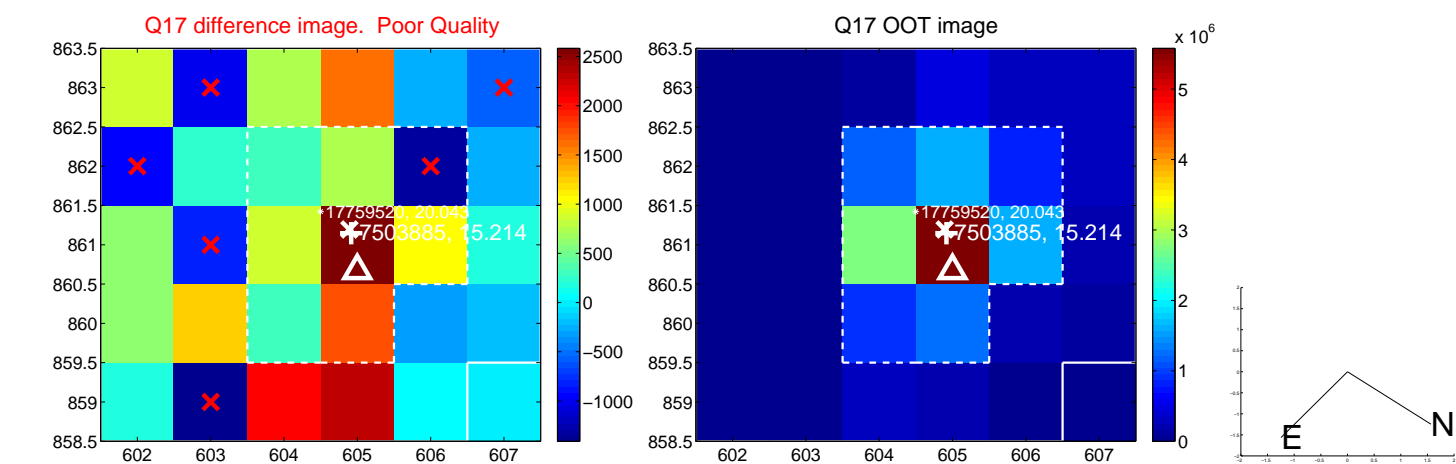
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

