

KIC 010857342

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})
010857342-01	OBS	3739.01	2.415912	133.612245	102235.9	5.000	9014.9	-1.0	3.28	8796	107.08	29084.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010857342-01	OBS	FP	0.00	0	1	0	0	SWEET_EB—MOD_SEC_ALT—CENT_NOFITS

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.

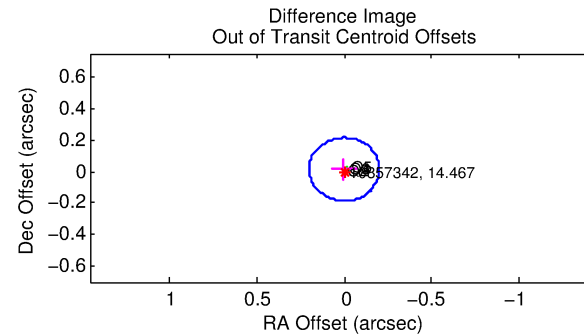
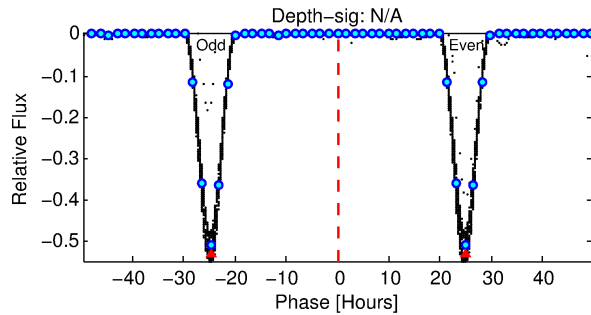
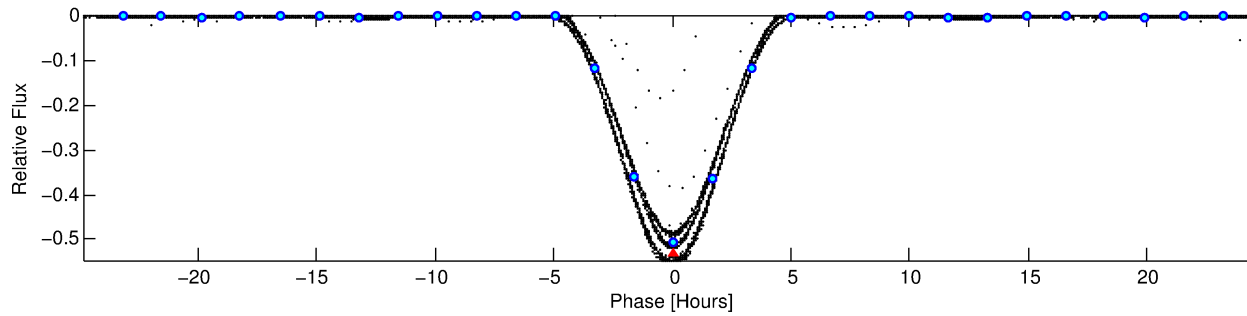
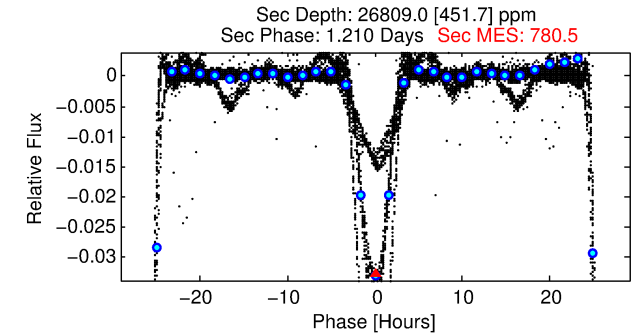
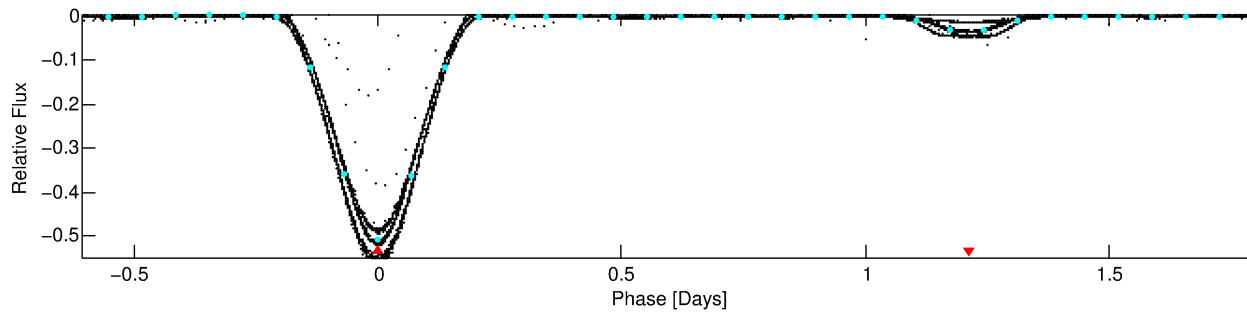
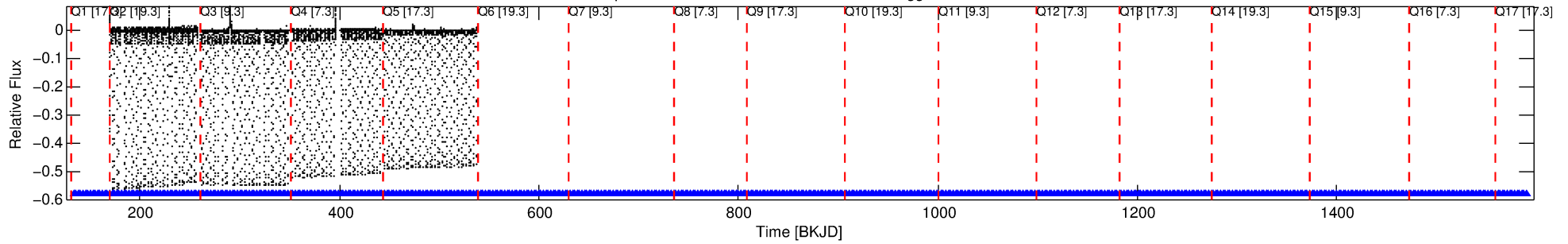
Ephemeris Match Information For 010857342-01

No Significant Match Found

DV One-Page Summary

KIC: 10857342 Candidate: 1 of 1 Period: 2.416 d
KOI: K03739 Corr: No Ephemeris Match

Kp: 14.47 R*: 3.28 Rs Teff: 8796.0 K Logg: 3.71 Fe/H: -0.500



TPS TCE Results:

Period = 2.41591 d
Epoch = 133.6122 BKJD

DV fit results are unavailable

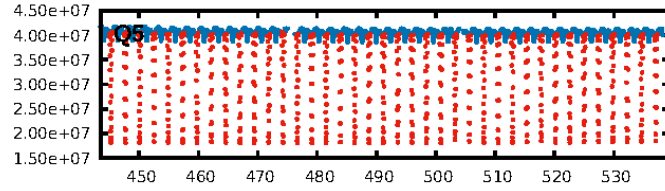
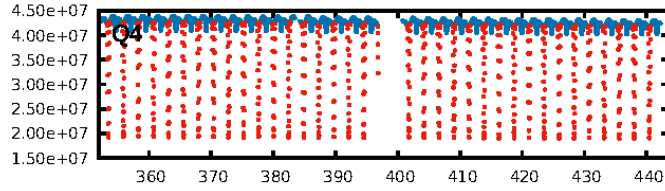
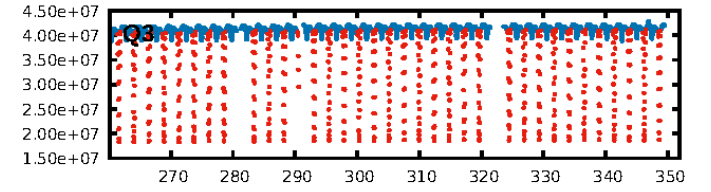
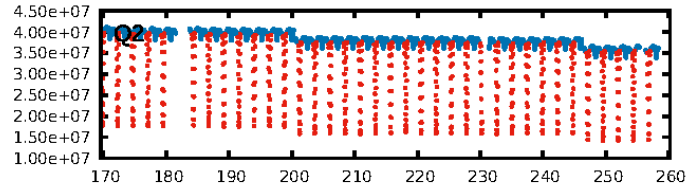
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [146/146]
GhostDiagnostic-chr: 0.9547
Centroid-sig: N/A
Centroid-so: 0.089 arcsec [119.54σ]
OotOffset-rm: 0.015 arcsec [0.22σ]
KicOffset-rm: 0.122 arcsec [1.61σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

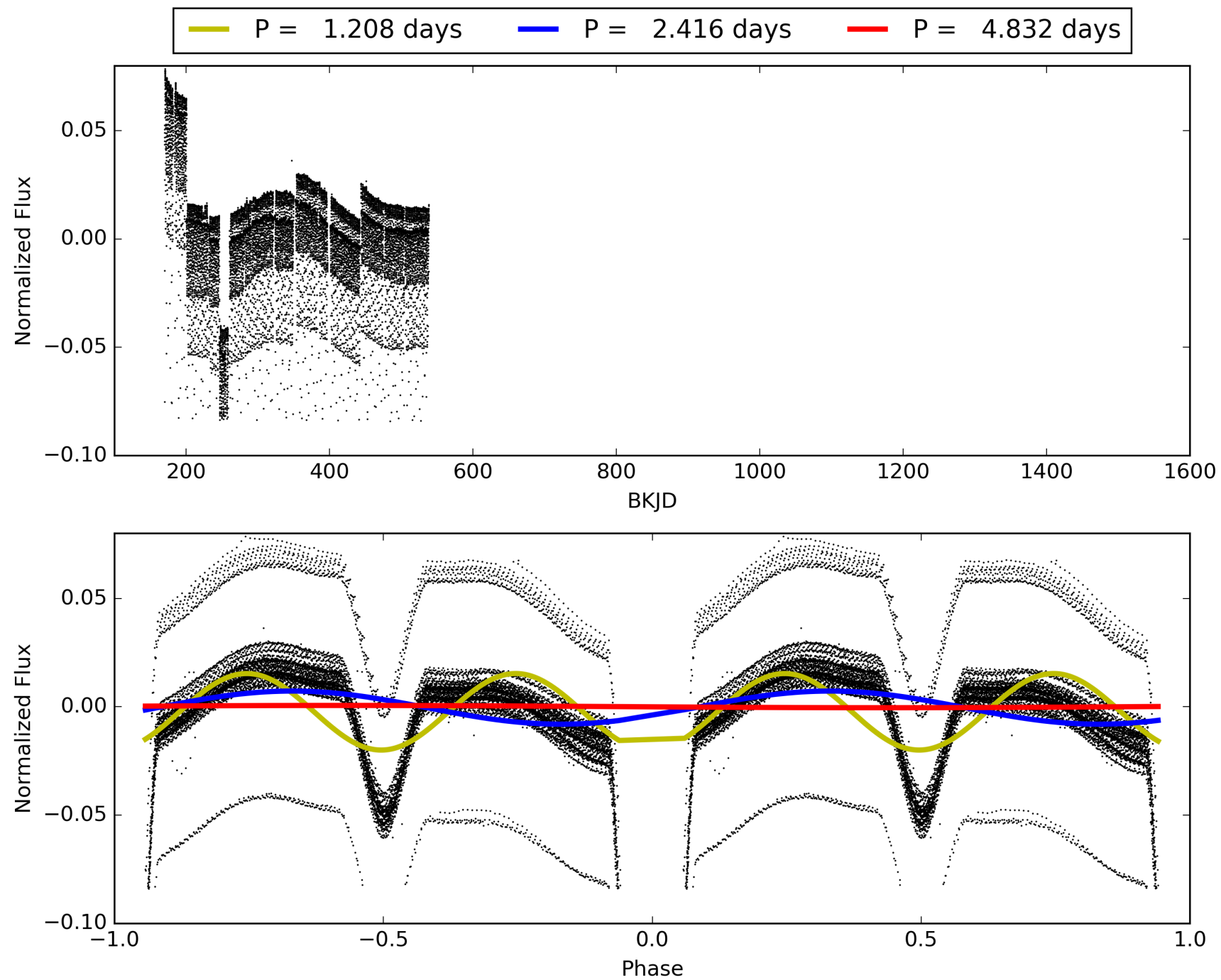
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 06:13:05 Z

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

TCE 010857342-01, PDC Light Curves

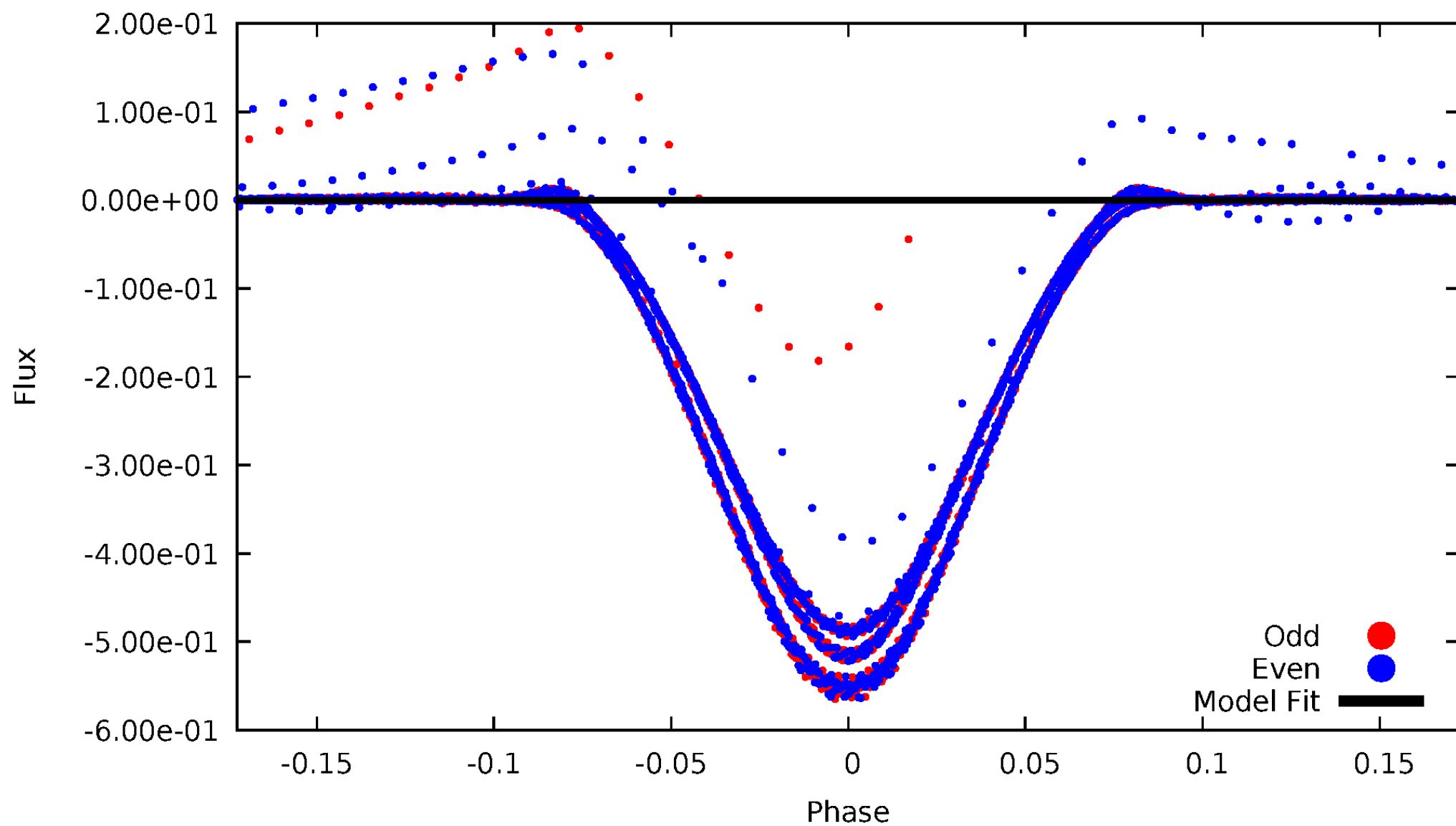


TCE 010857342-01



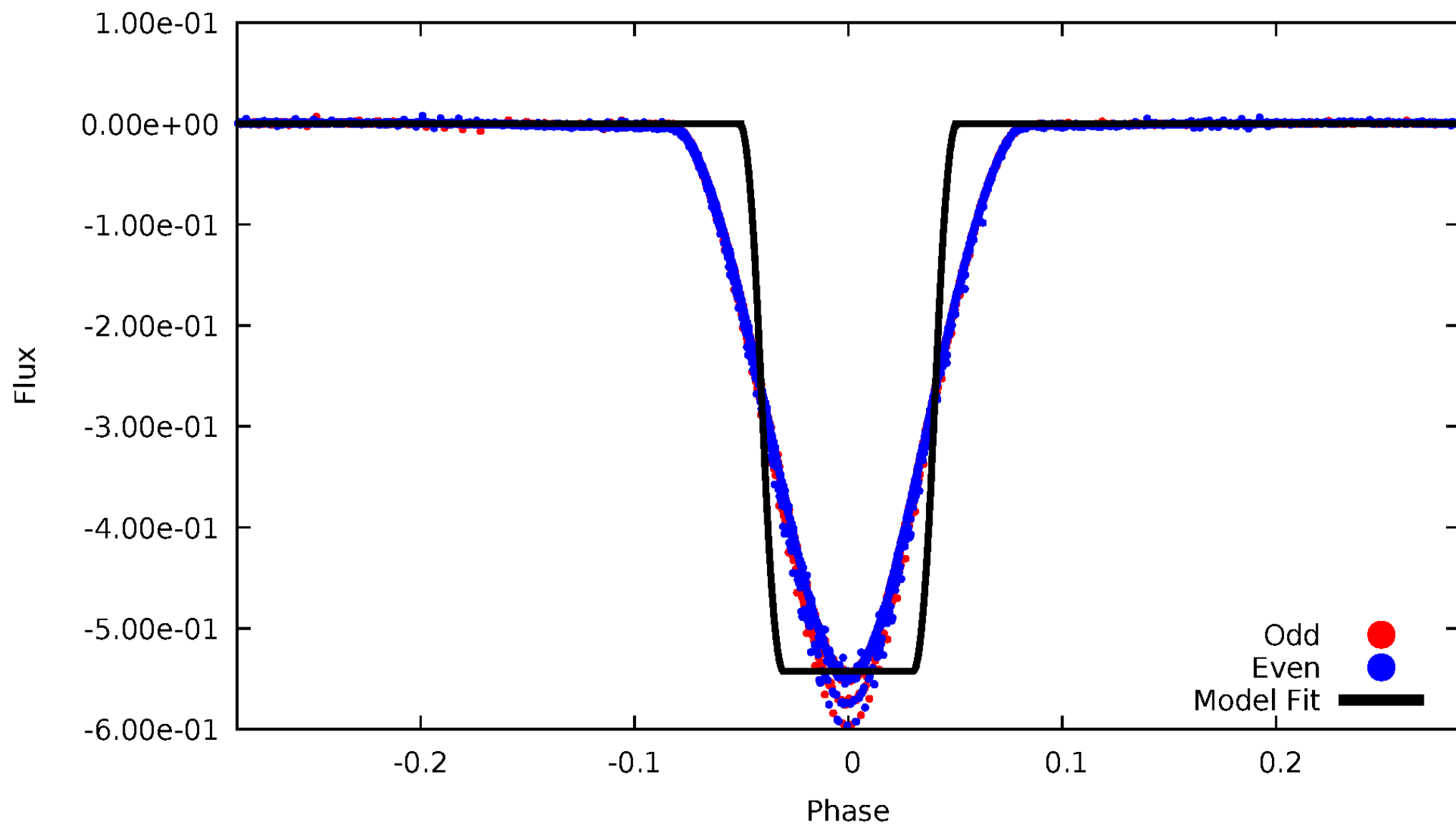
DV Odd/Even

TCE 010857342-01



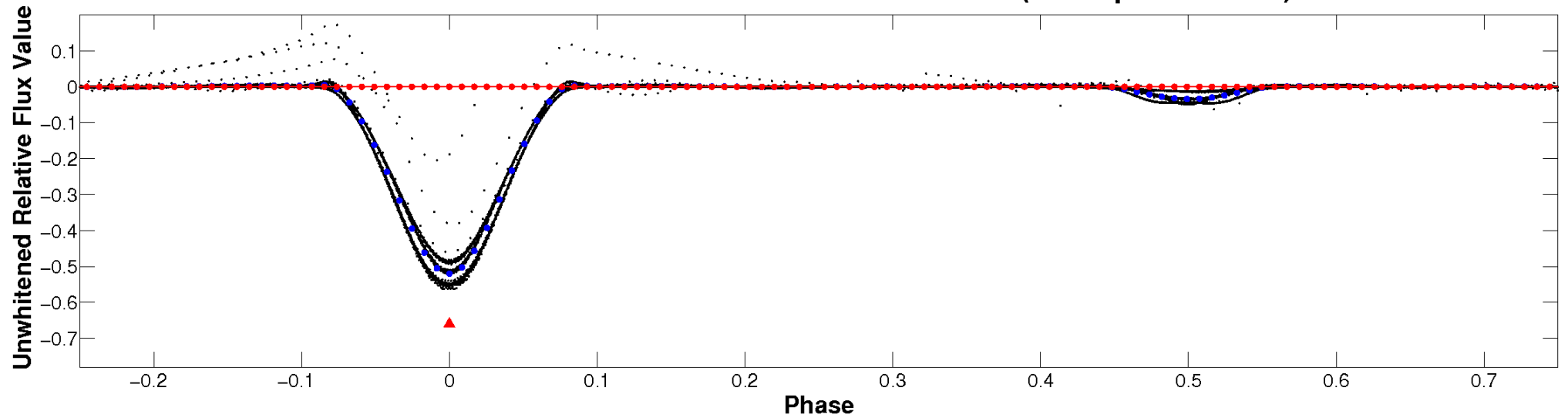
ALT Odd/Even

TCE 010857342-01



Non-Whitened Vs. Whitened Light Curve

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

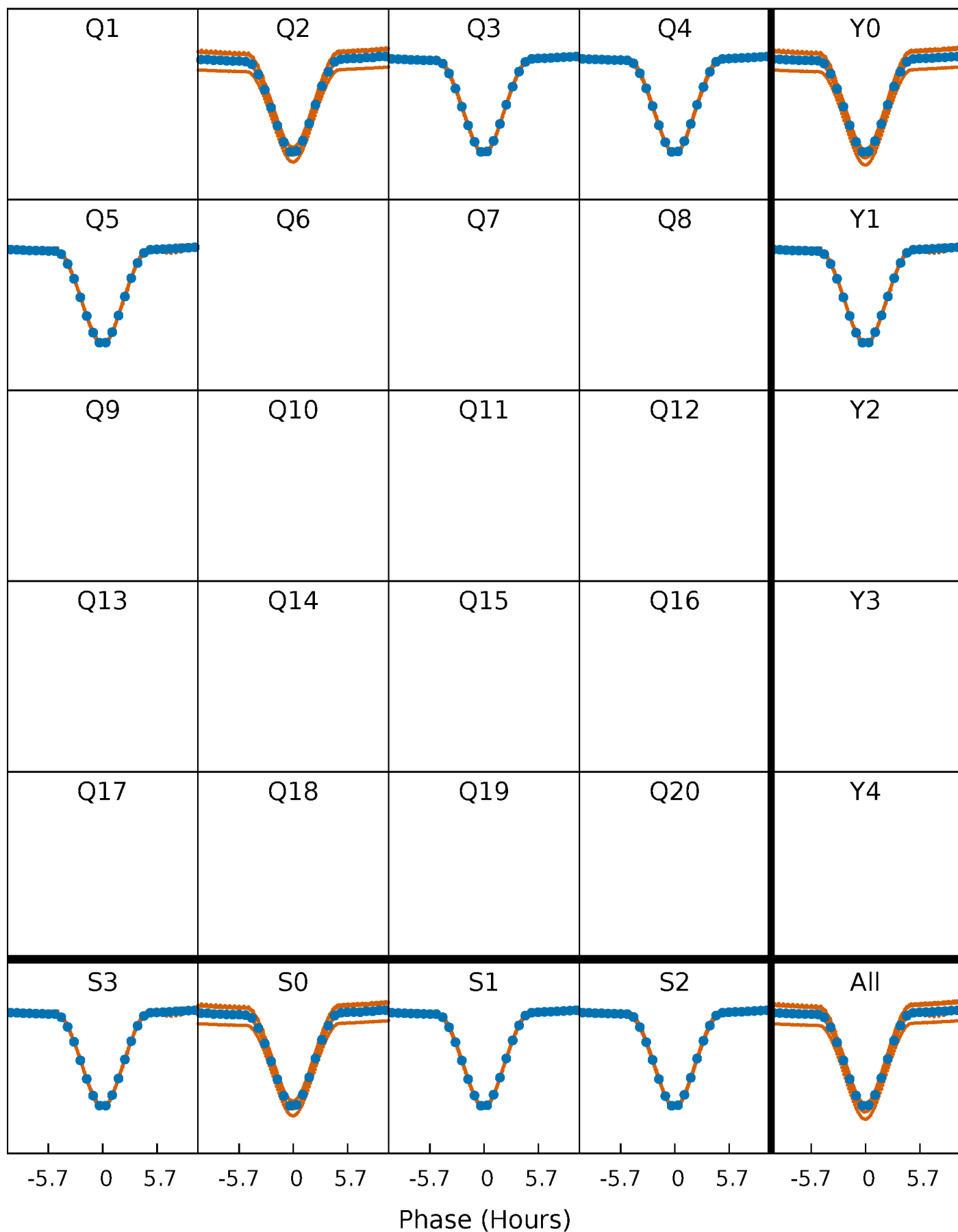


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



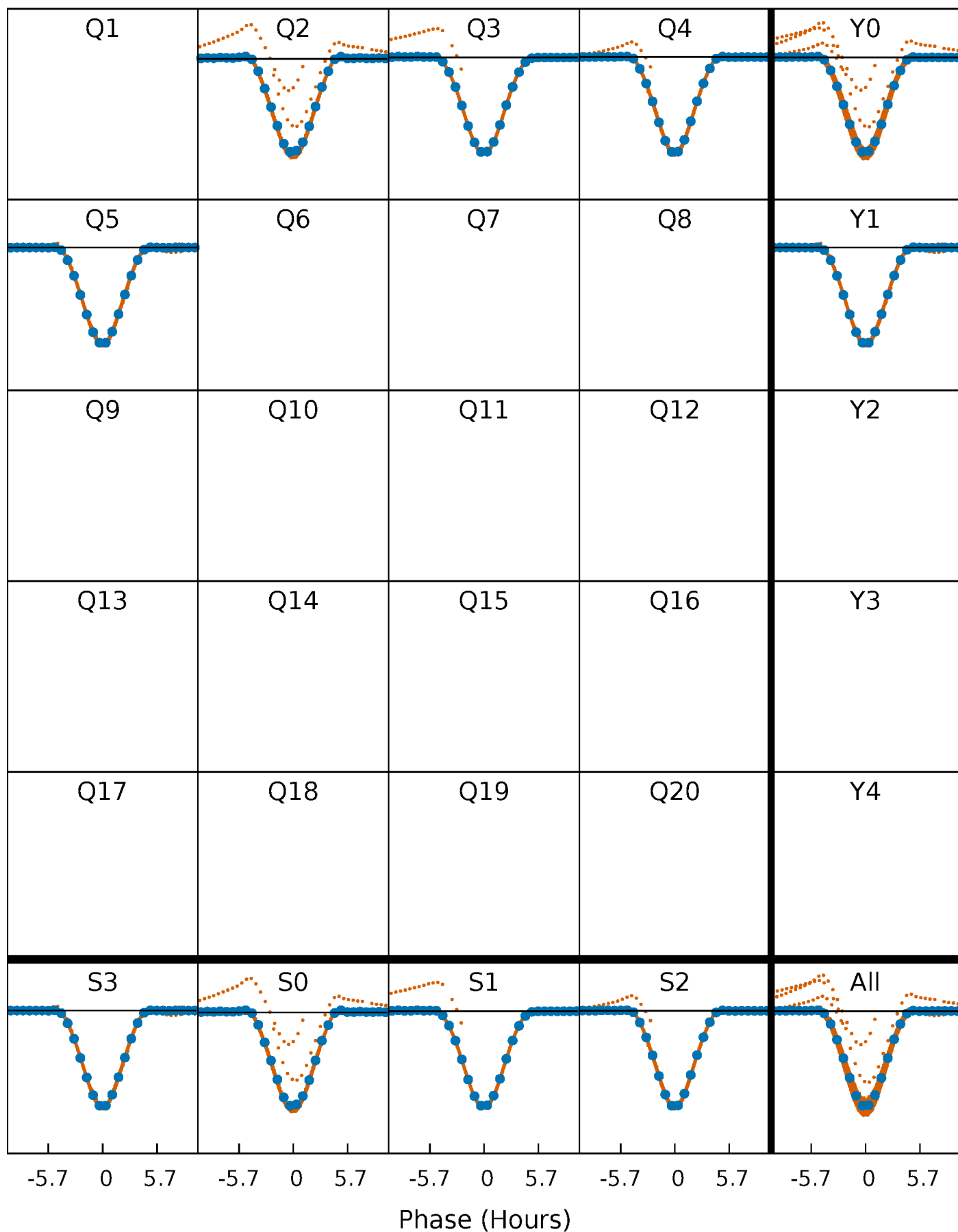
PDC Quarter-Phased Transit Curves

TCE 010857342-01 P= 2.415912 Days $T_0=133.612245$ (BKJD)



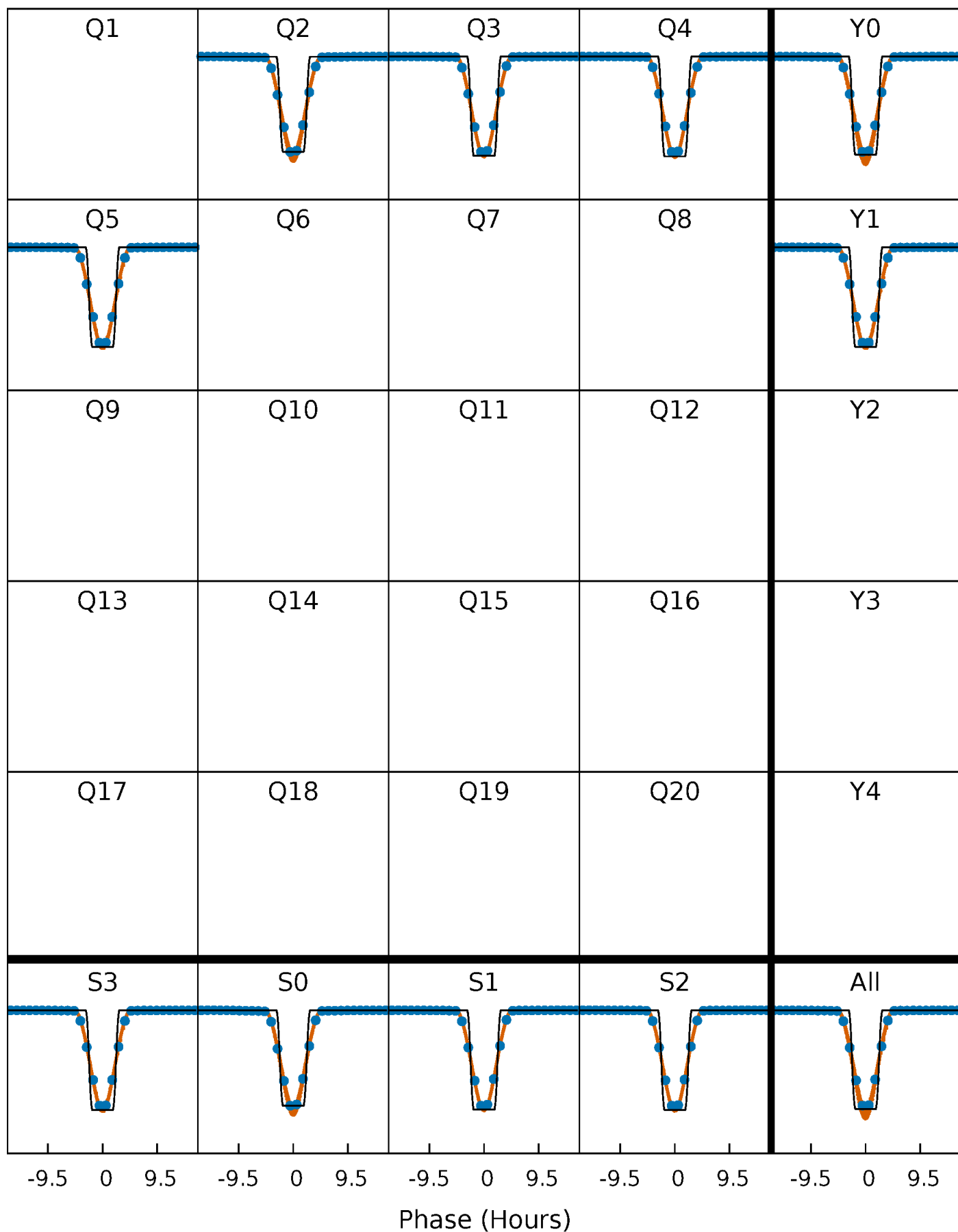
DV Quarter-Phased Transit Curves

TCE 010857342-01 P= 2.415912 Days $T_0=133.612245$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

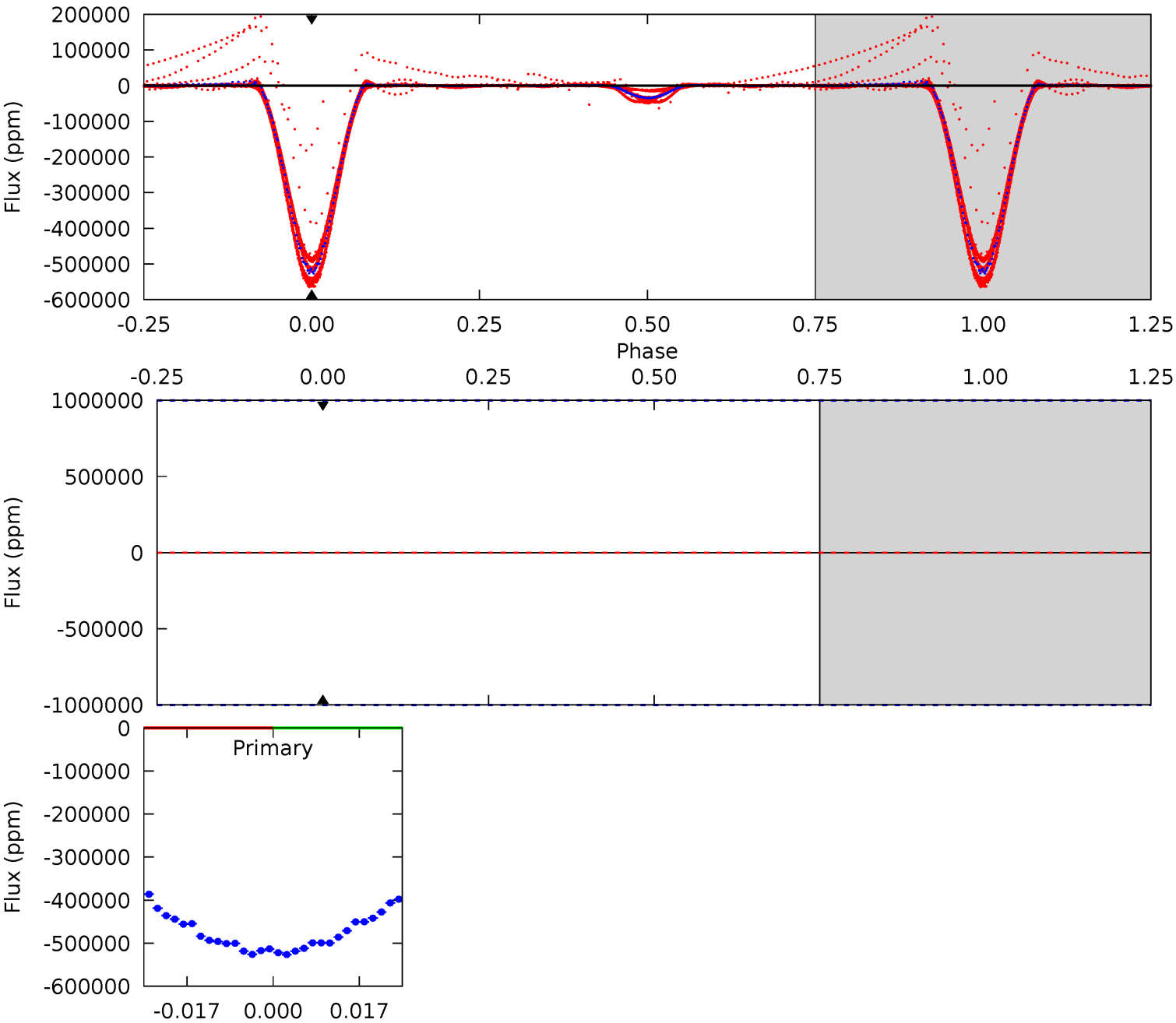
TCE 010857342-01 P= 2.415912 Days $T_0=133.611782$ (BKJD)



DV Model-Shift Uniqueness Test

010857342-01, P = 2.415912 Days, E = 133.612245 Days

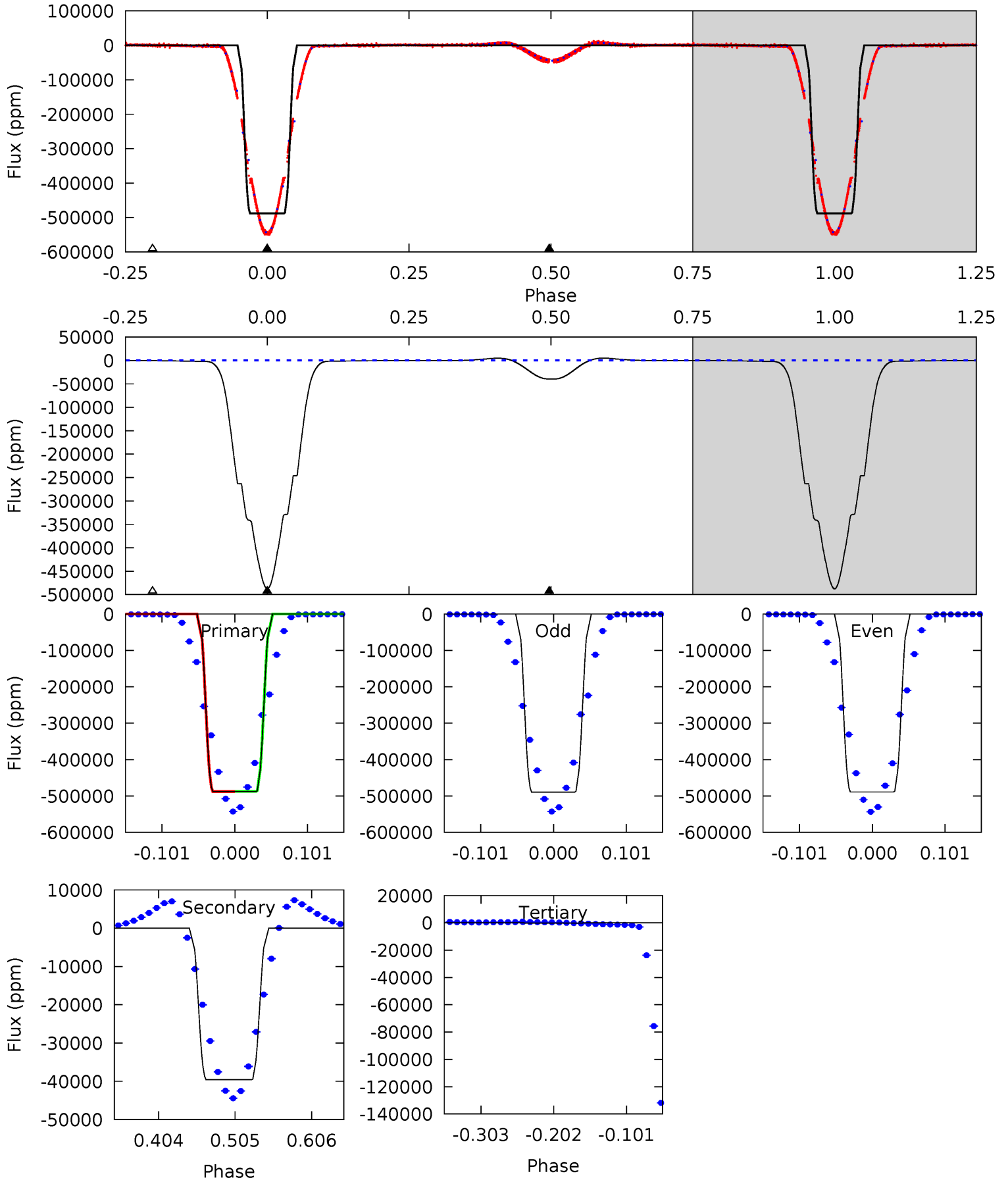
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010857342-01, P = 2.415912 Days, E = 133.611782 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10694	867.8	3.18	0	4.56	1.64	29.2	10691	10694	864.7	867.8	1.35	1.01	0.01	9.71



Stellar Parameters For KIC 010857342

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8796^{+242}_{-380}	$3.711^{+0.519}_{-0.122}$	$-0.500^{+0.150}_{-0.350}$	$3.278^{+0.877}_{-1.755}$	$2.014^{+0.280}_{-0.480}$	$0.081^{+0.466}_{-0.031}$
	+3%/-4%	+14%/-3%	+30%/-70%	+27%/-54%	+14%/-24%	+579%/-39%
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 010857342-01 / KOI 3739.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$94.77^{+48.51}_{-37.62}$	4513^{+402}_{-638}	-4335^{+14137}_{-5170}	$-0.206^{+14.689}_{-13.688}$
Alt.	-39586 ± 46	$237.43^{+67.76}_{-62.84}$	4457^{+404}_{-598}	4177^{+399}_{-462}	$0.791^{+0.627}_{-0.292}$

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 $A_{obs} \gg 1.0$

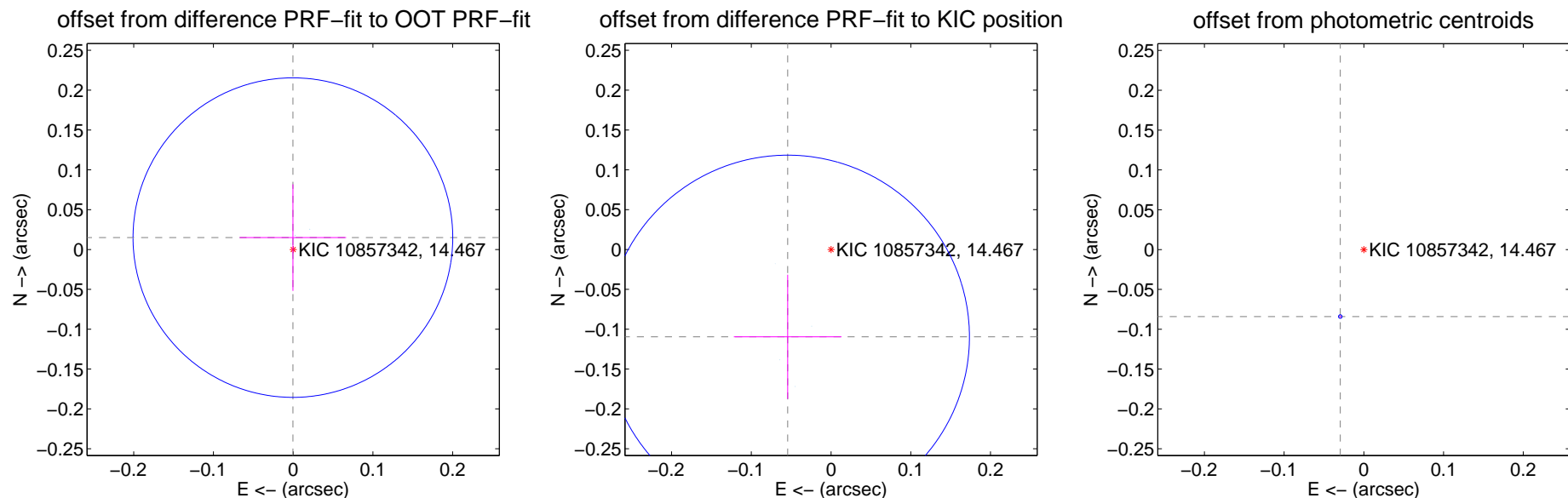
DV Centroid Data

Supplemental centroid analysis for 010857342-01. Kepler magnitude: 14.47. Transit SNR -1.00

There are 4 quarters with good PRF difference image offsets

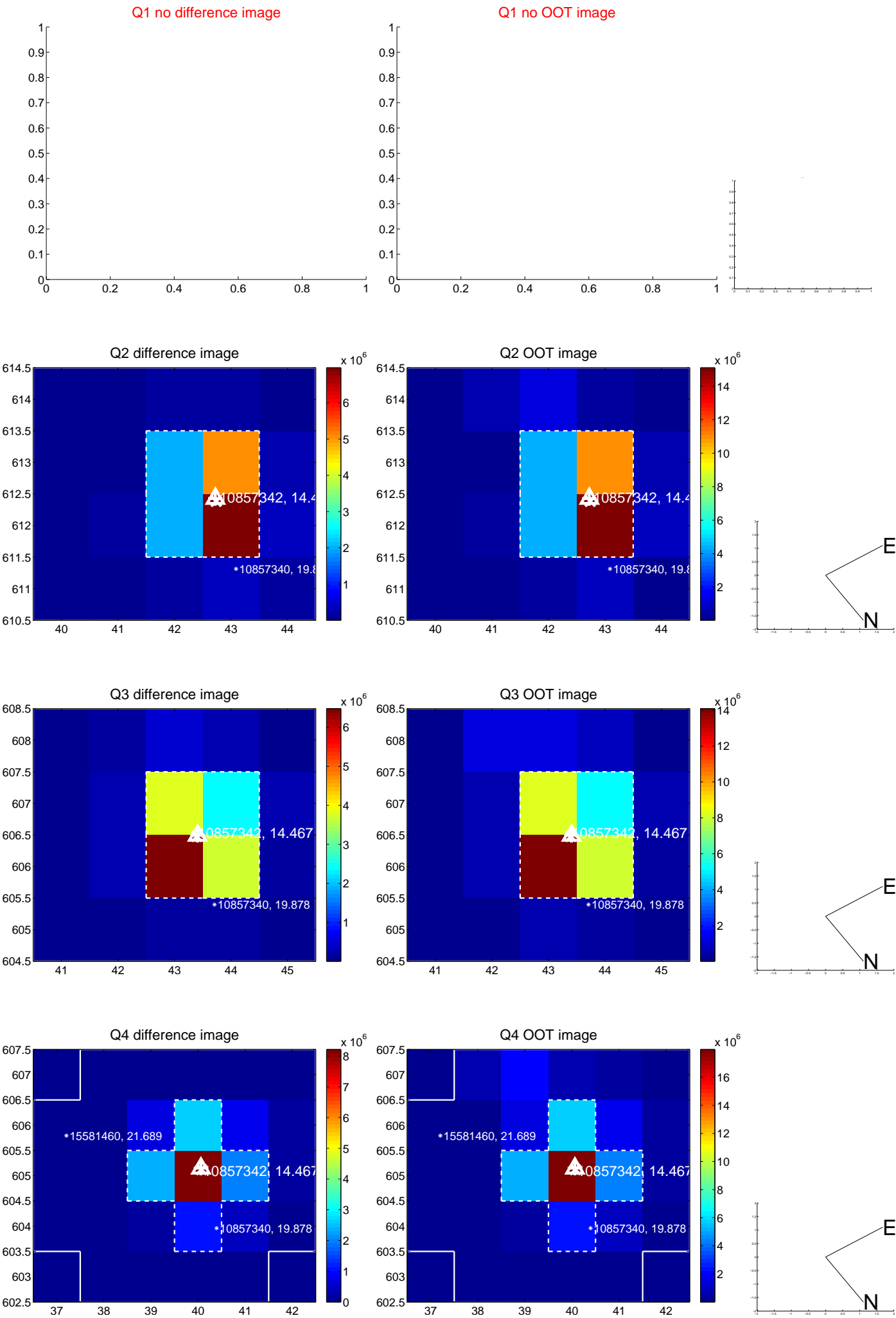
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.015 ± 0.067	0.22	0.000 ± 0.067	0.015 ± 0.067
PRF-fit source offset from KIC position	0.122 ± 0.076	1.61	0.054 ± 0.068	-0.110 ± 0.078
photometric centroid source offset	0.09 ± 0.00	119.54	0.03 ± 0.00	-0.08 ± 0.00

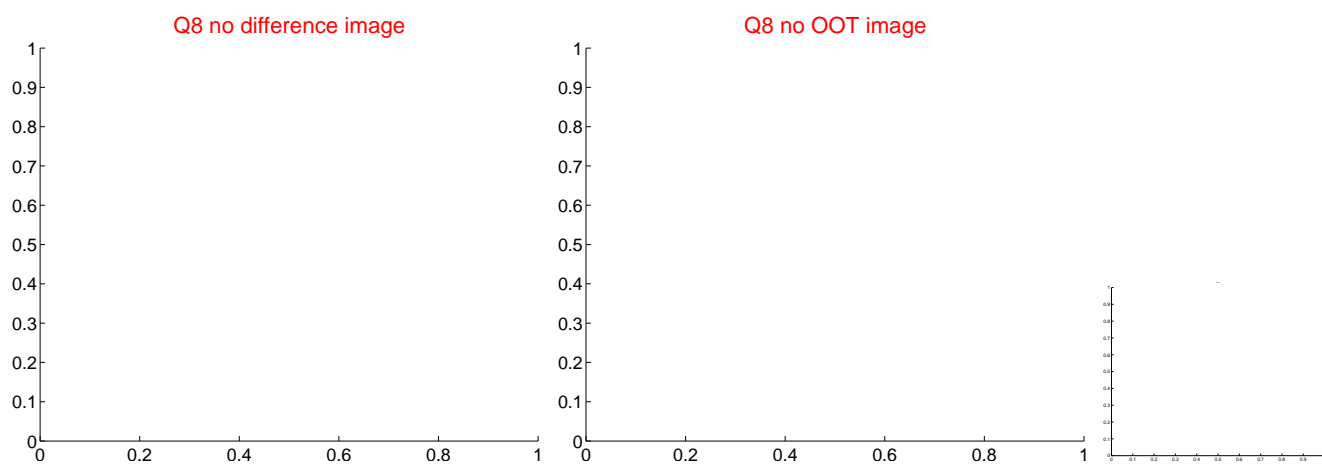
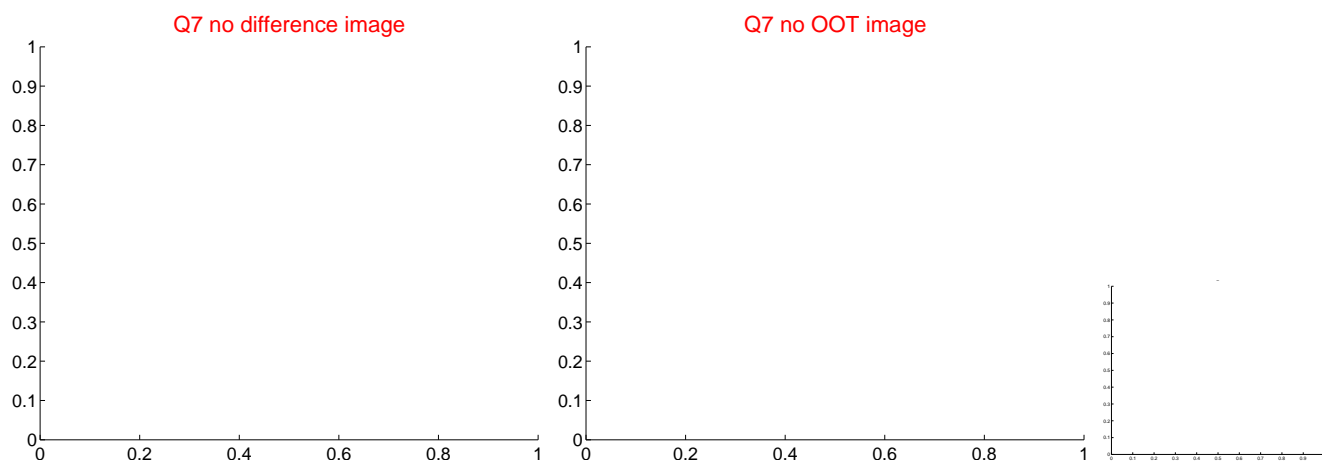
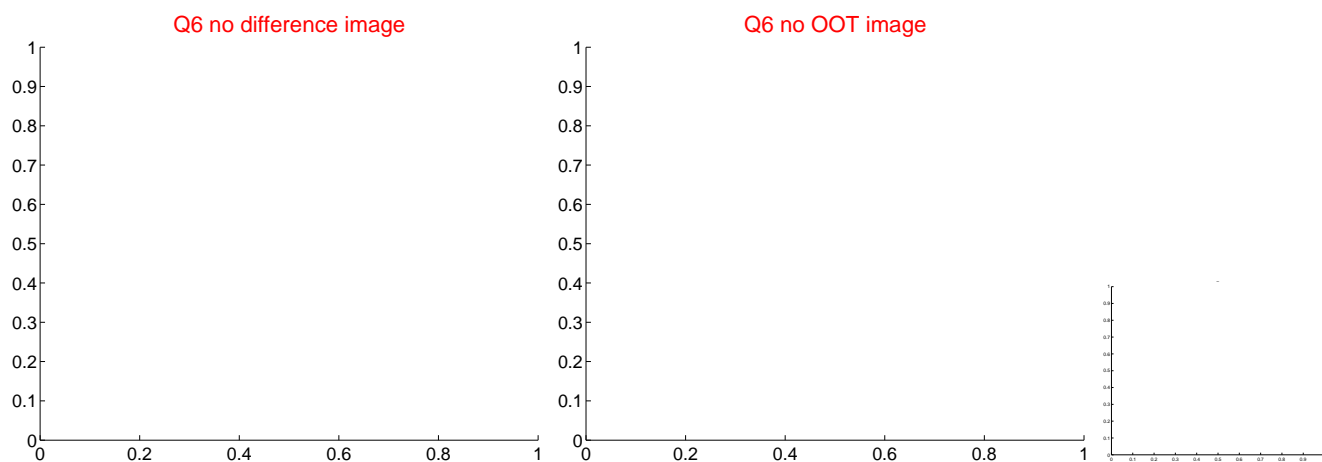
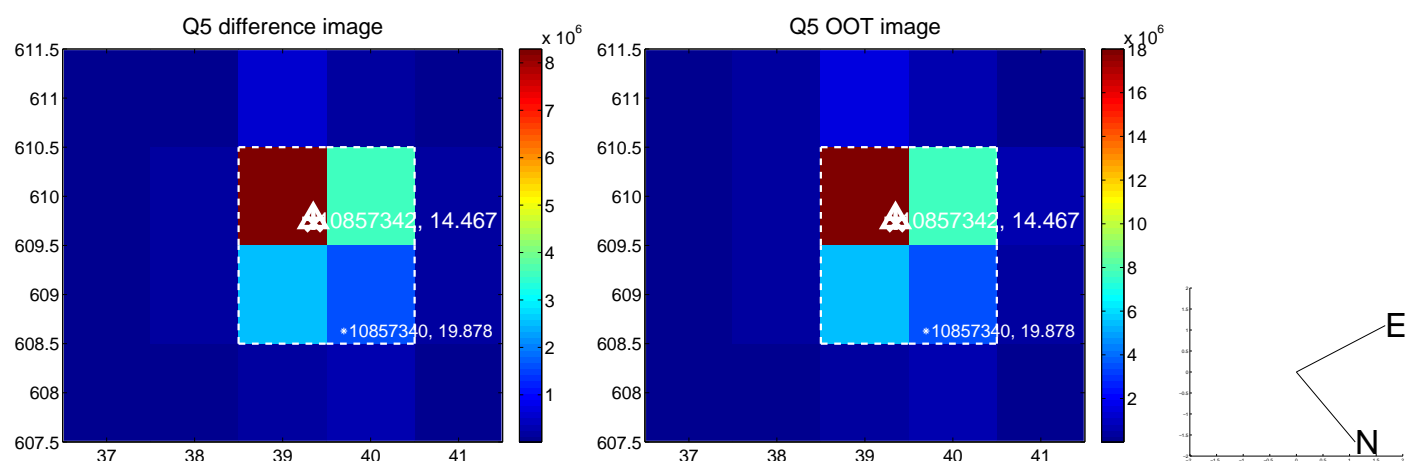


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



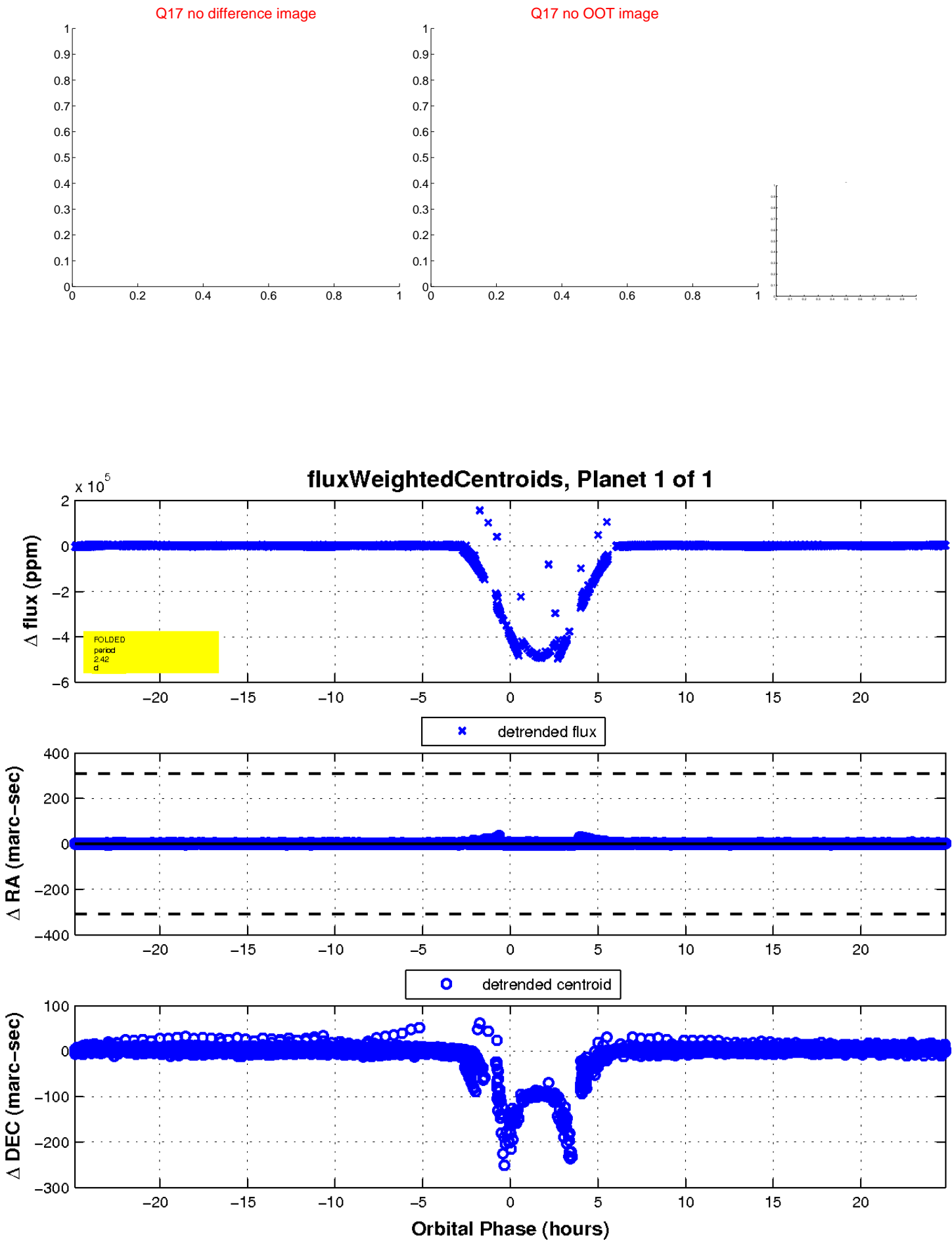
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

