

KIC 007207645

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})
007207645-01	OBS	No	364.255206	188.524277	266.0	20.481	8.1	7.3	1.84	5519	3.73	2.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007207645-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_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.

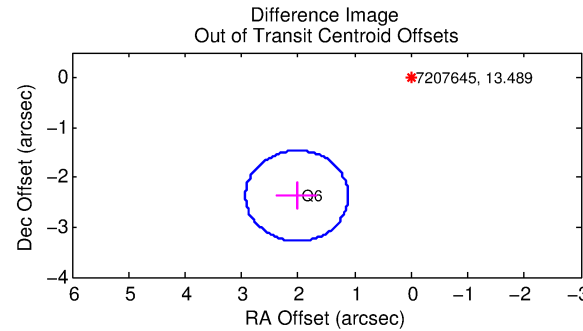
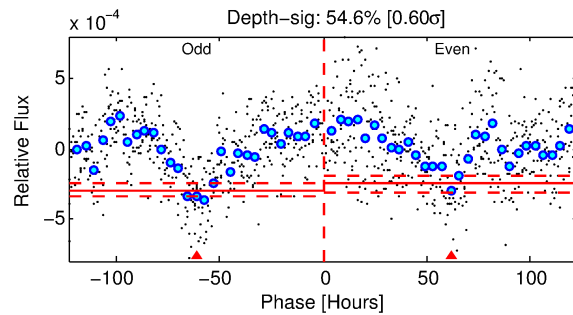
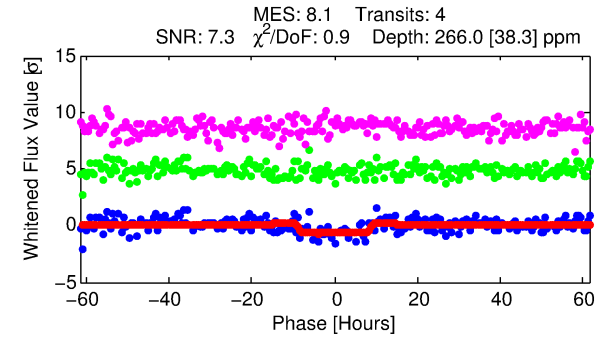
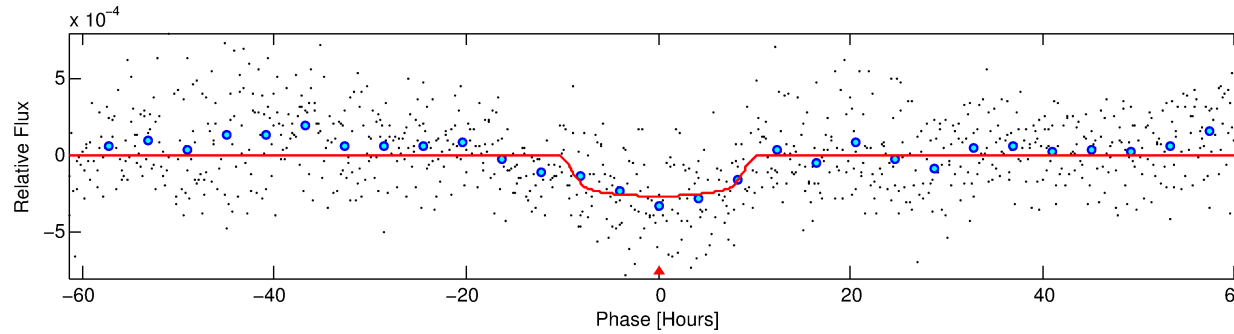
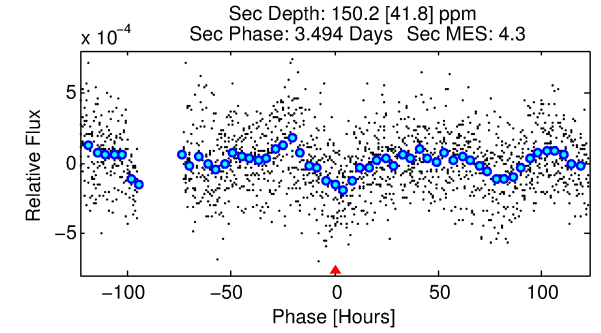
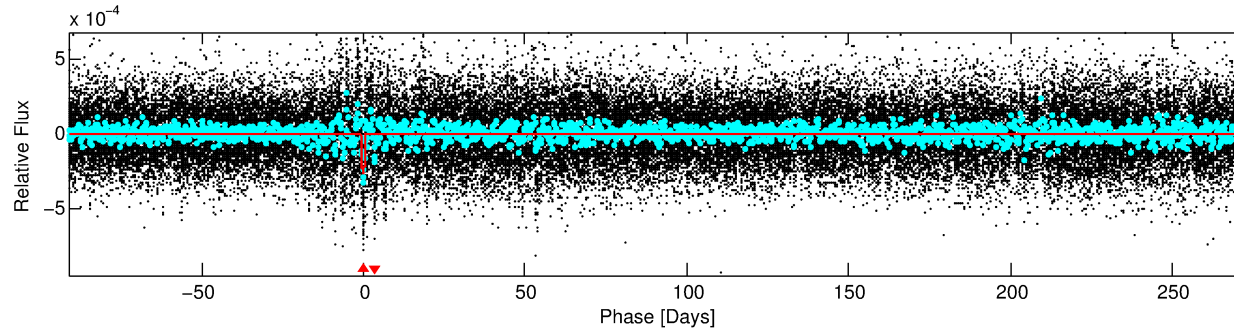
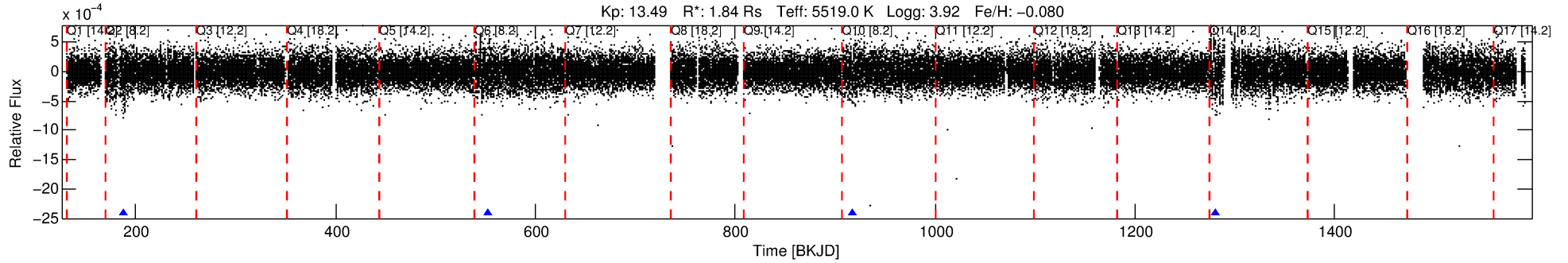
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007207645-01

No Significant Match Found

DV One-Page Summary

KIC: 7207645 Candidate: 1 of 1 Period: 364.255 d



DV Fit Results:

Period = 364.25521 [0.01760] d
Epoch = 188.5243 [0.0308] BKJD
Rp/R* = 0.0185 [0.0021]
a/R* = 56.05 [20.85]
b = 0.93 [0.05]
Seff = 2.78 [2.52]
Teq = 329 [75] K
Rp = 3.73 [1.98] Re
a = 1.0088 [0.5447] AU
Ag = 6038.82 [5839.01] [1.03σ]
Teffp = 4487 [428] K [9.57σ]

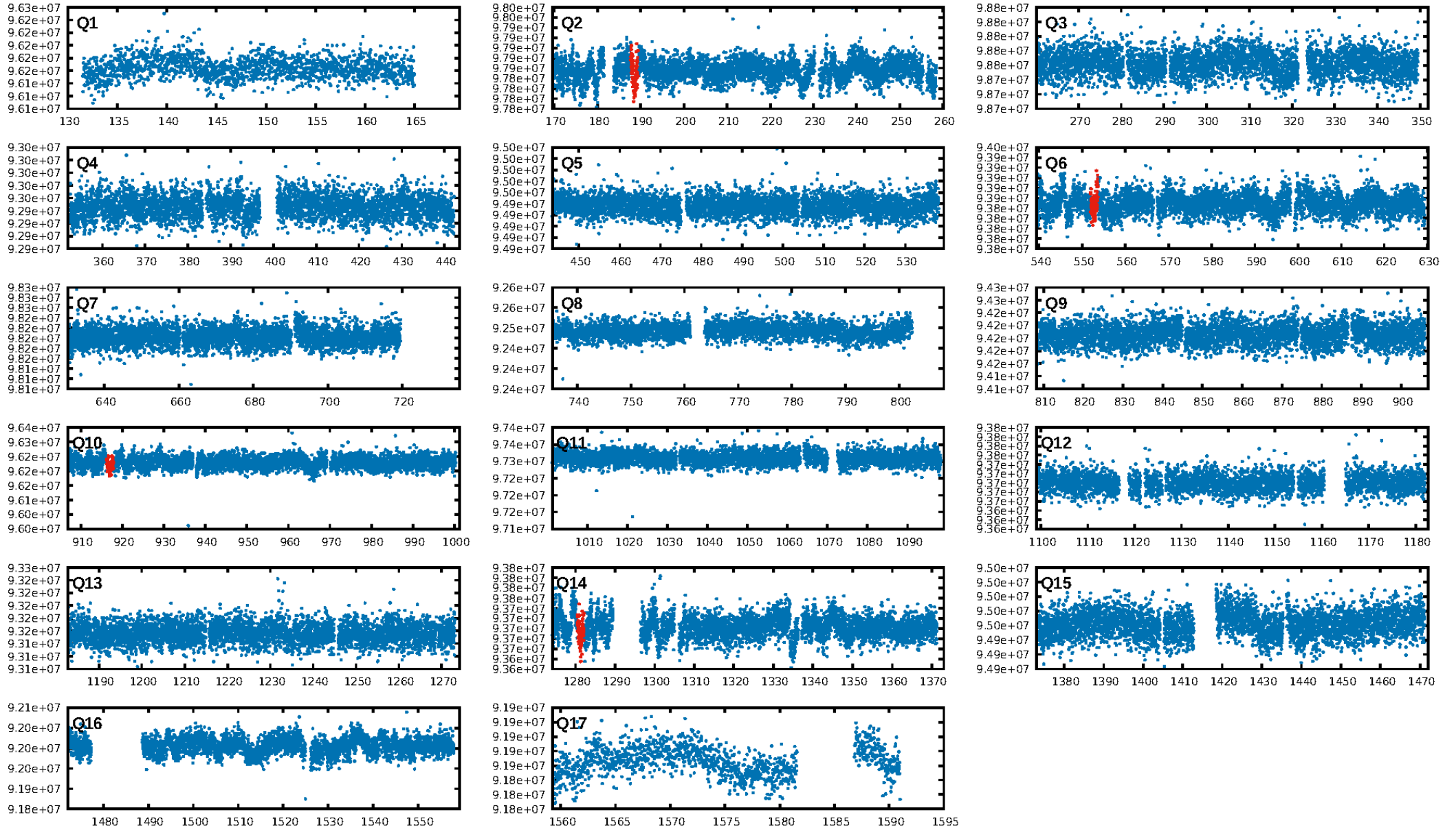
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.73e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -4.296
Centroid-sig: 0.1%
Centroid-so: 1.371 arcsec [1.55σ]
OotOffset-rm: 3.120 arcsec [10.33σ]
KicOffset-rm: 3.007 arcsec [9.83σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

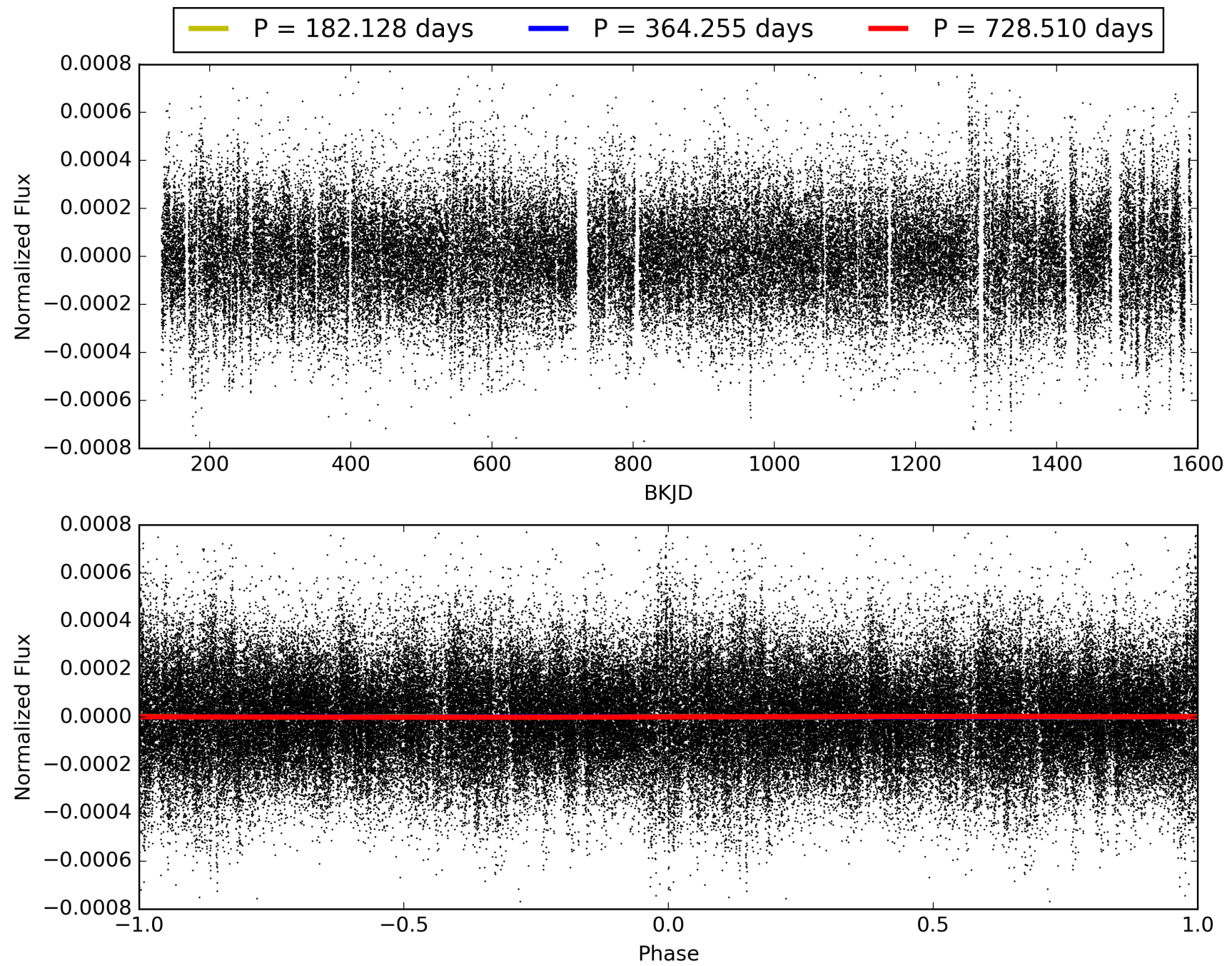
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:08:25 Z

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

TCE 007207645-01, PDC Light Curves

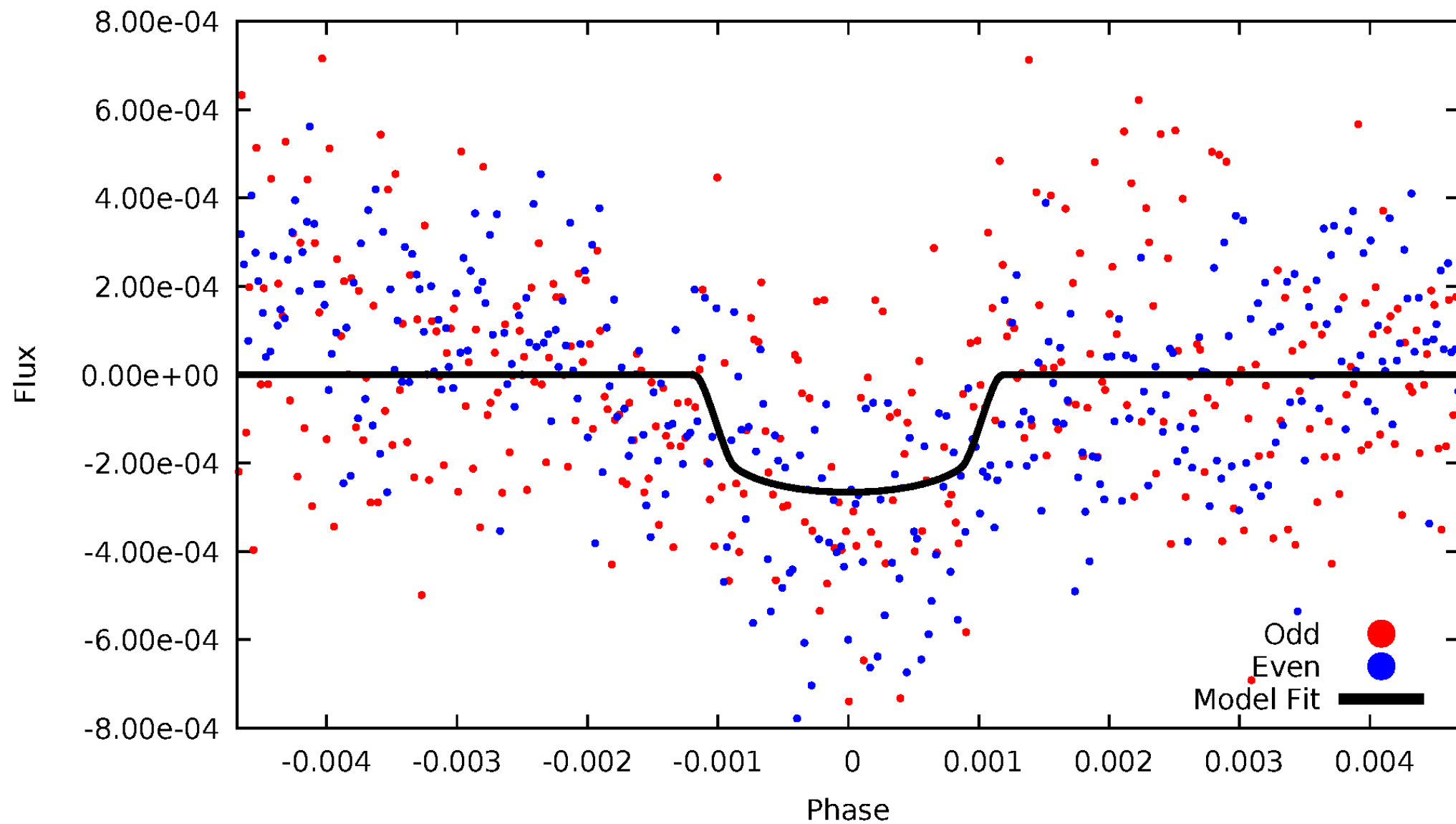


TCE 007207645-01



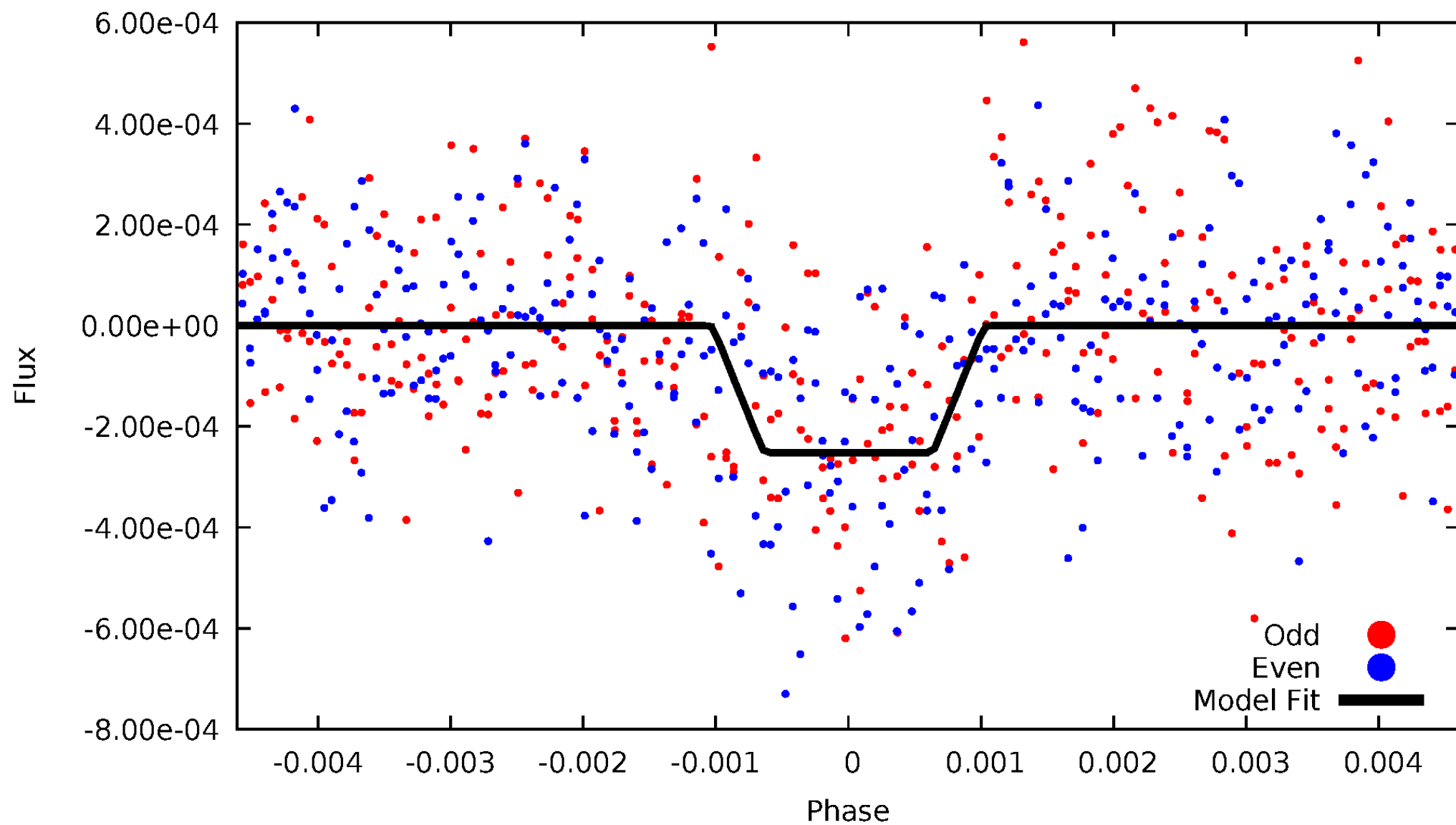
DV Odd/Even

TCE 007207645-01

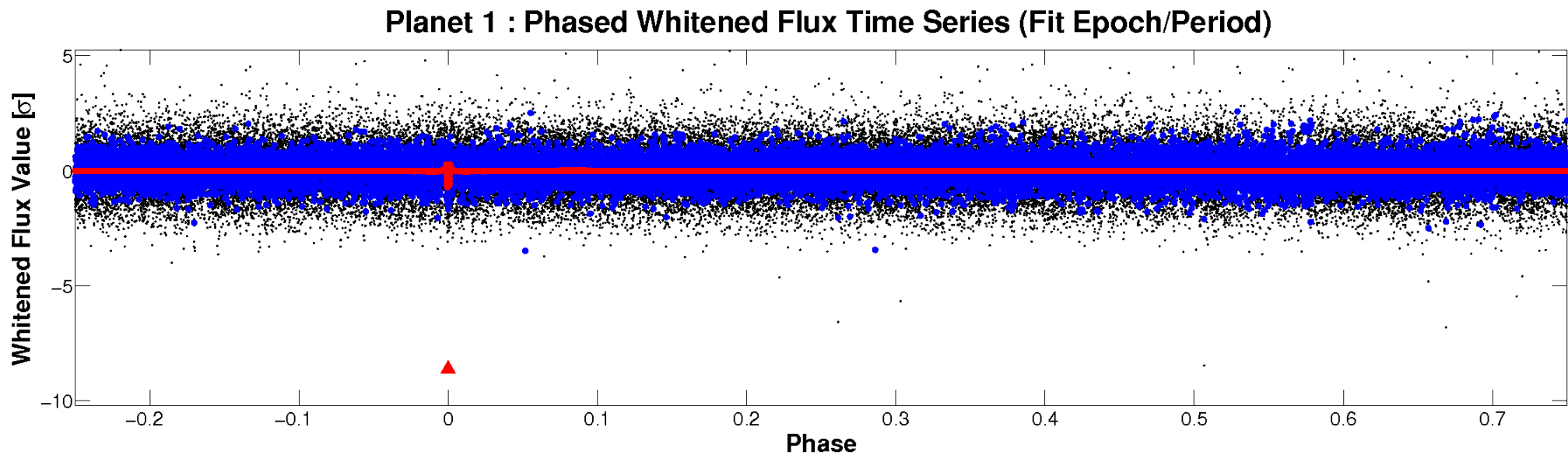
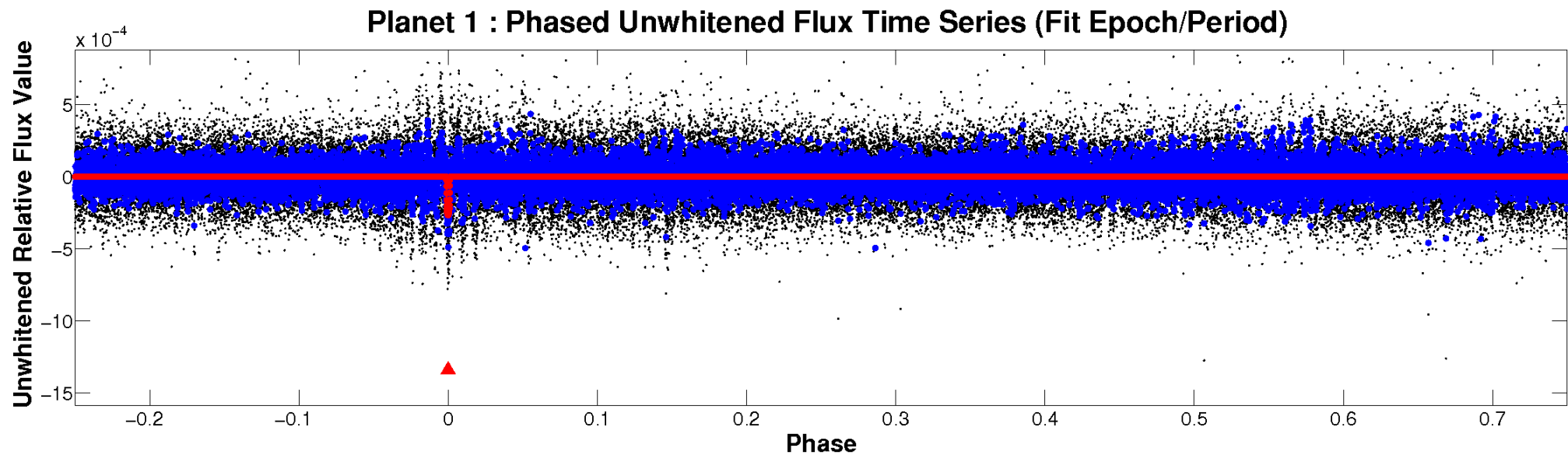


ALT Odd/Even

TCE 007207645-01

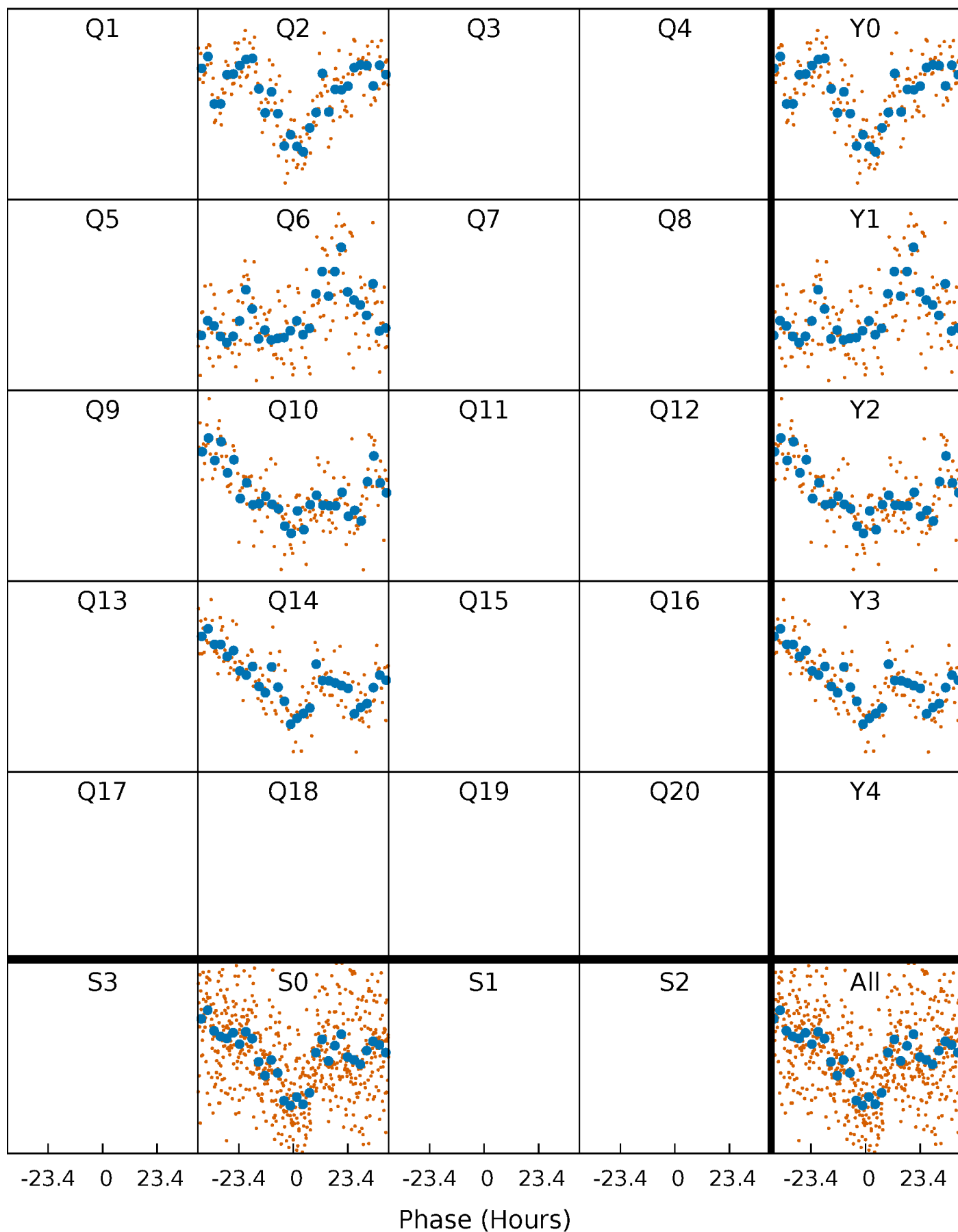


Non-Whitened Vs. Whitened Light Curve



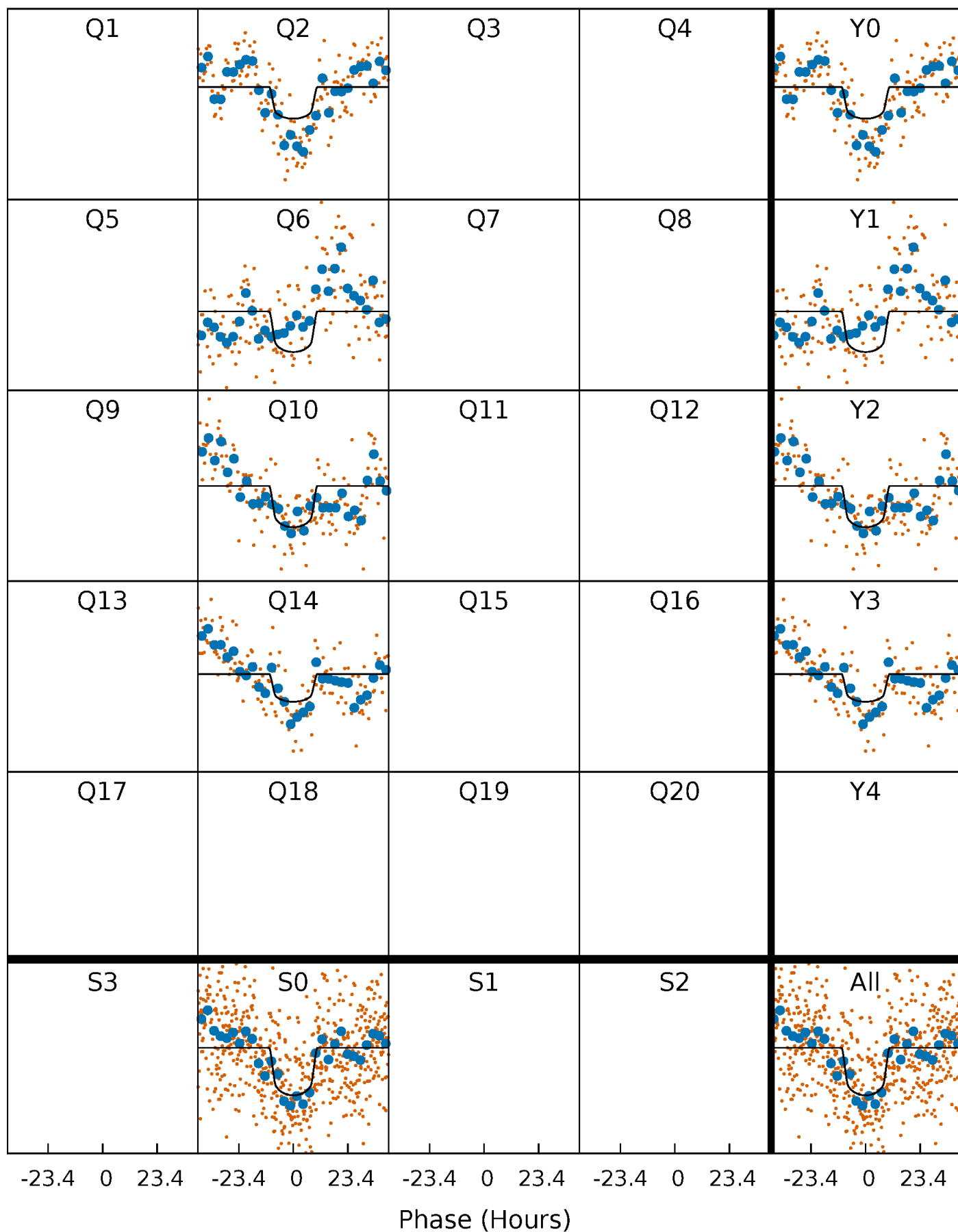
PDC Quarter-Phased Transit Curves

TCE 007207645-01 P=364.255206 Days $T_0=188.524277$ (BKJD)



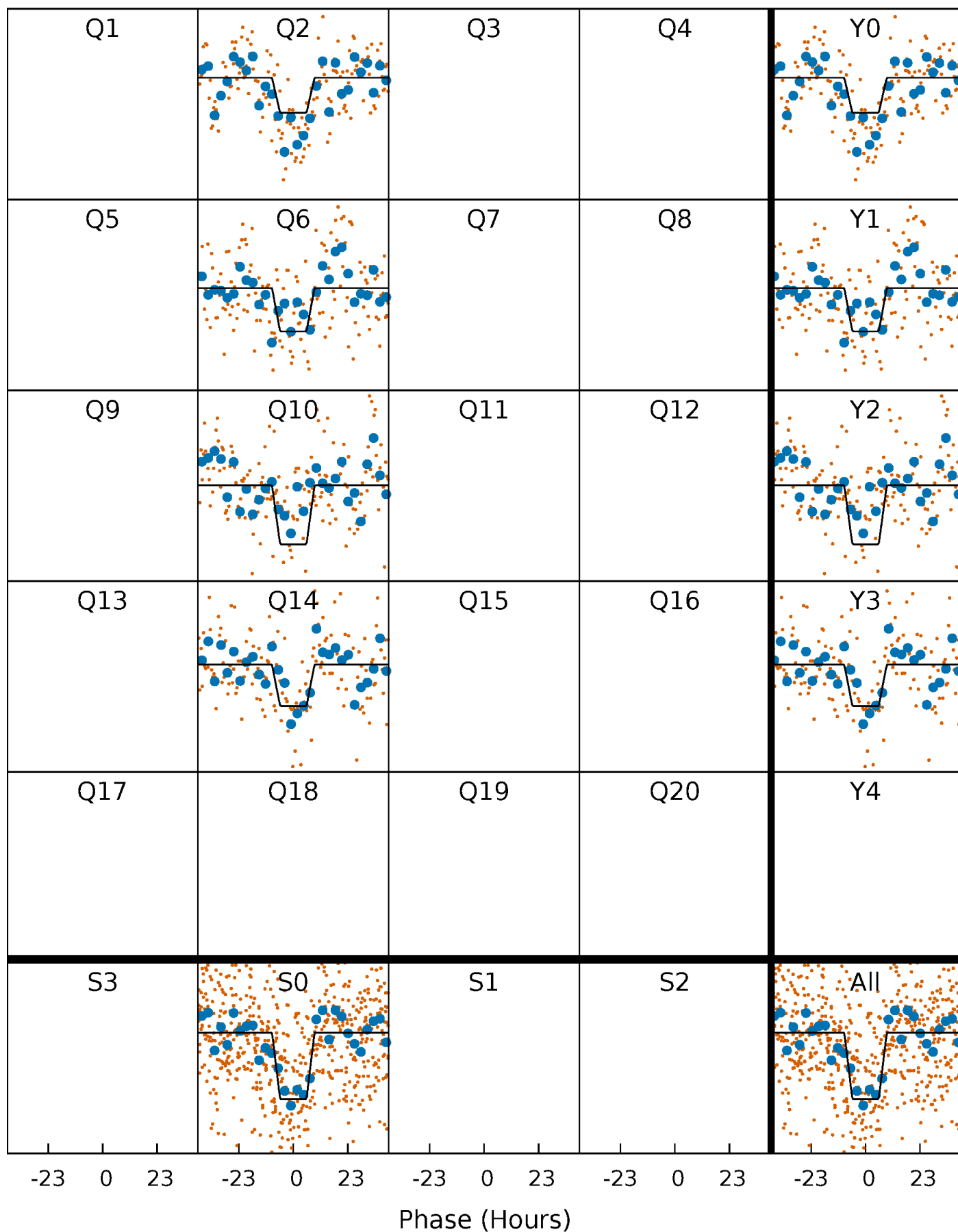
DV Quarter-Phased Transit Curves

TCE 007207645-01 P=364.255206 Days $T_0=188.524277$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

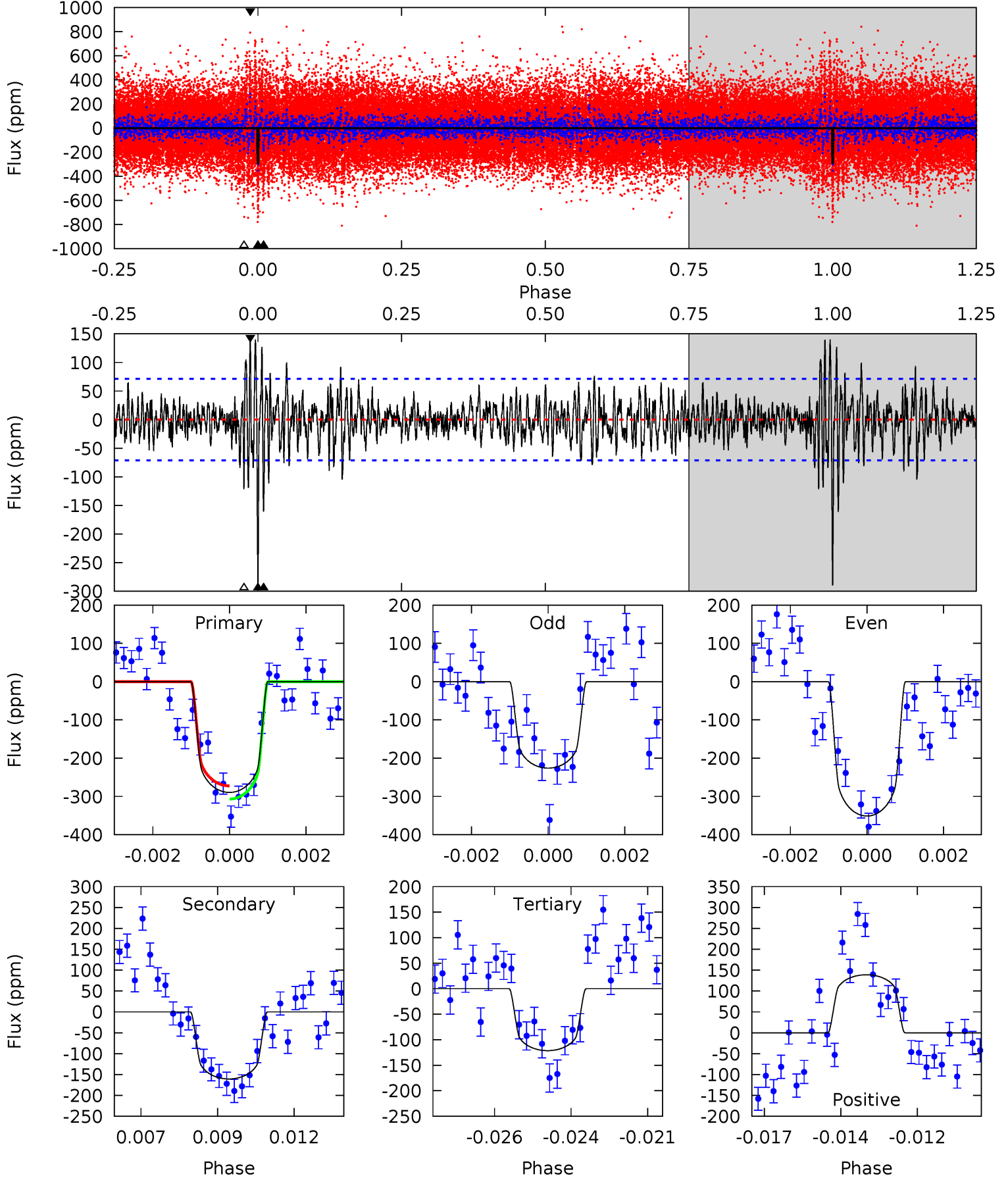
TCE 007207645-01 P=364.248641 Days $T_0=188.553866$ (BKJD)



DV Model-Shift Uniqueness Test

007207645-01, P = 364.255206 Days, E = 188.524277 Days

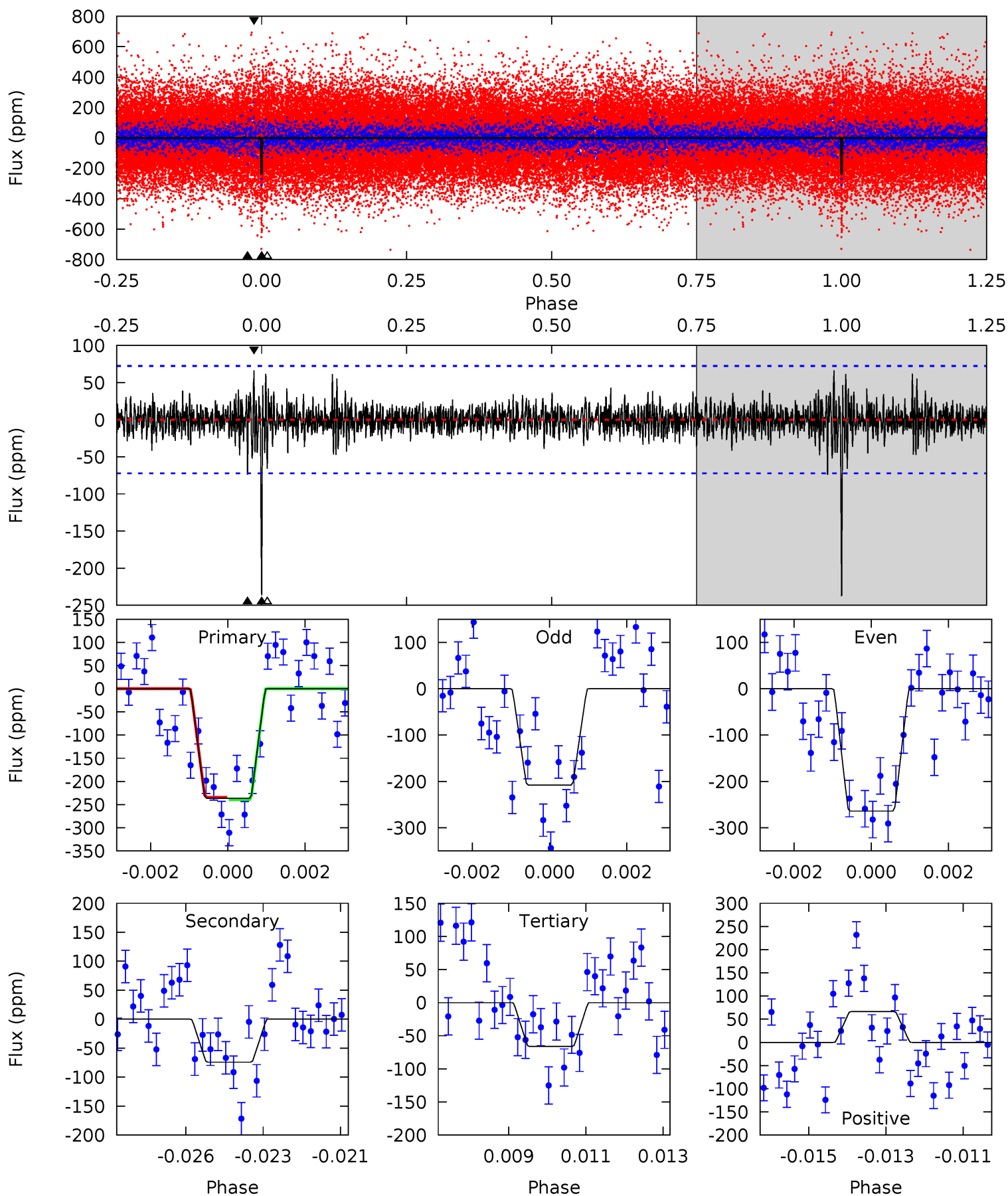
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	11.9	9.02	10.3	5.30	3.04	2.20	12.5	11.2	2.91	1.61	4.67	0.98	0.33	1.28



Alt Model-Shift Uniqueness Test

007207645-01, $P = 364.248641$ Days, $E = 188.553866$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	5.46	4.86	4.89	5.32	3.07	1.04	12.5	12.5	0.59	0.57	2.06	1.14	0.22	0.19



Stellar Parameters For KIC 007207645

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5519^{+182}_{-149}	$3.920^{+0.540}_{-0.180}$	$-0.080^{+0.300}_{-0.250}$	$1.844^{+0.515}_{-0.957}$	$1.032^{+0.125}_{-0.166}$	$0.232^{+1.473}_{-0.117}$
	+3%/-3%	+14%/-5%	+375%/-312%	+28%/-52%	+12%/-16%	+635%/-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 007207645-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-161 ± 13	$3.57^{+0.80}_{-0.90}$	454^{+40}_{-60}	4702^{+303}_{-257}	7137^{+5447}_{-2438}
Alt.	-74 ± 14	$3.06^{+0.76}_{-0.82}$	455^{+42}_{-63}	4290^{+307}_{-280}	4427^{+4060}_{-1823}

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

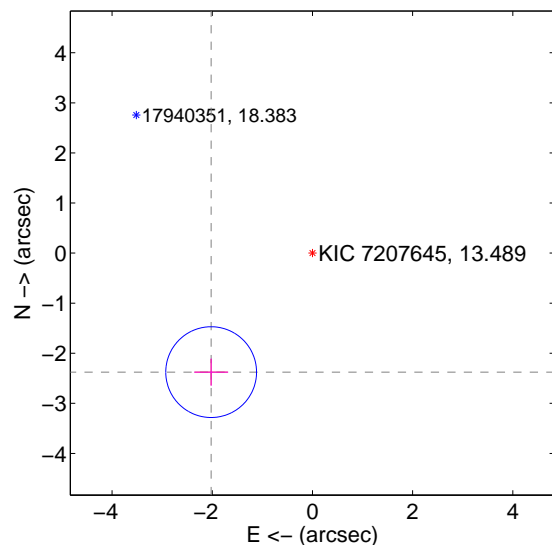
Supplemental centroid analysis for 007207645-01. Kepler magnitude: 13.49. Transit SNR 7.34

There are 0 quarters with good PRF difference image offsets

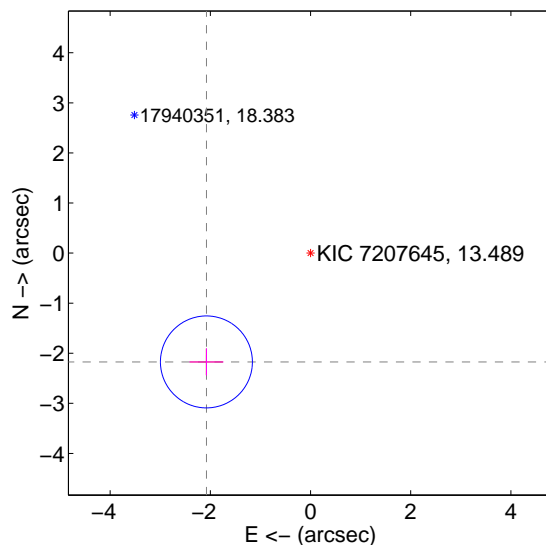
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.120 ± 0.302	10.33	2.022 ± 0.340	-2.377 ± 0.272
PRF-fit source offset from KIC position	3.007 ± 0.306	9.83	2.079 ± 0.340	-2.173 ± 0.272
photometric centroid source offset	1.37 ± 0.88	1.55	-0.06 ± 1.03	-1.37 ± 0.88

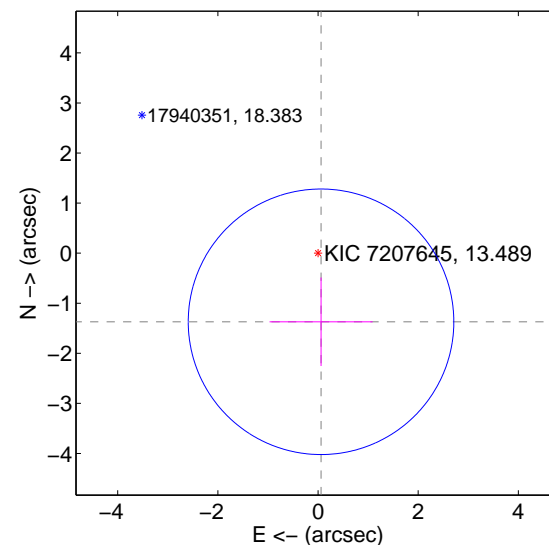
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

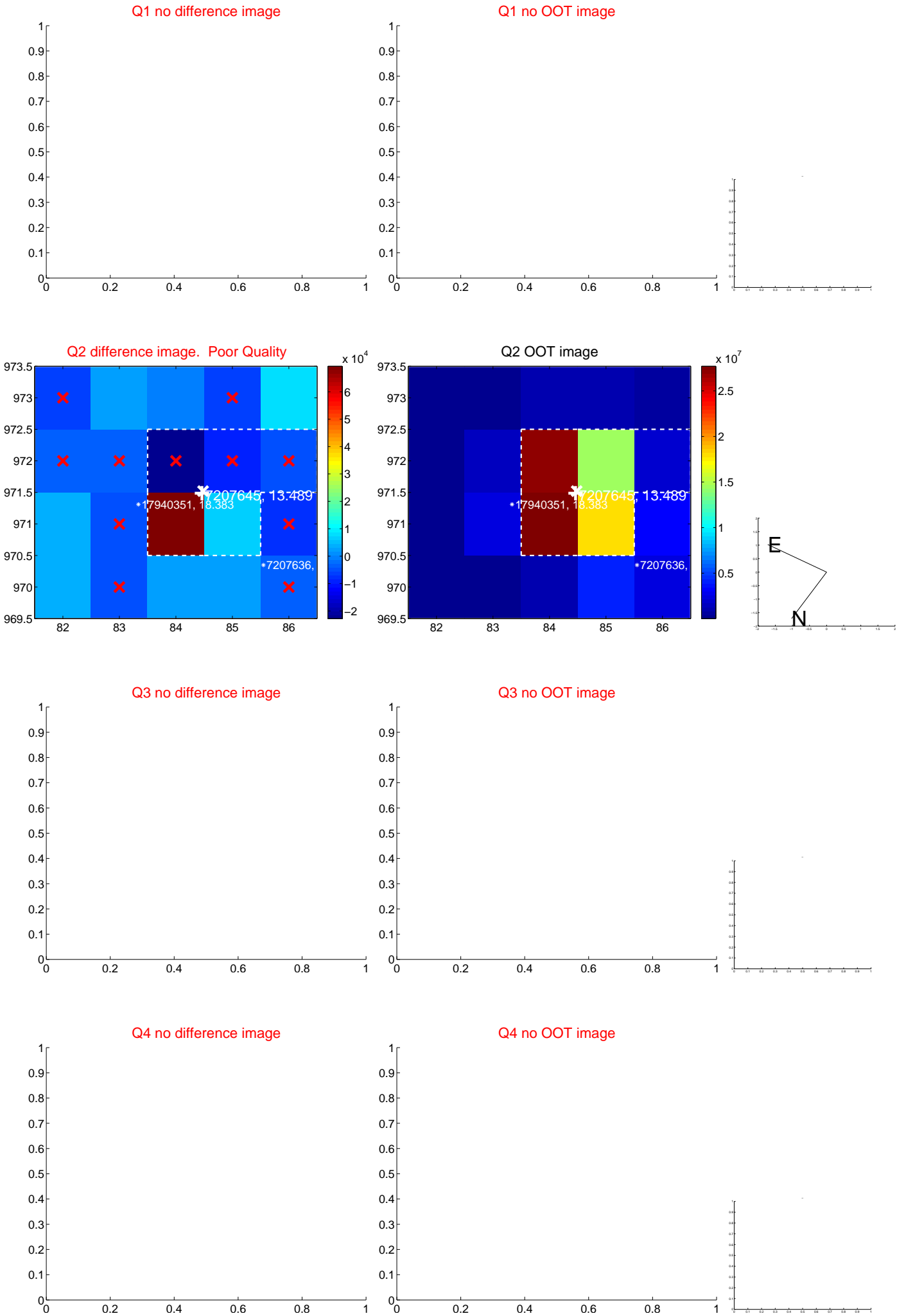


offset from photometric centroids

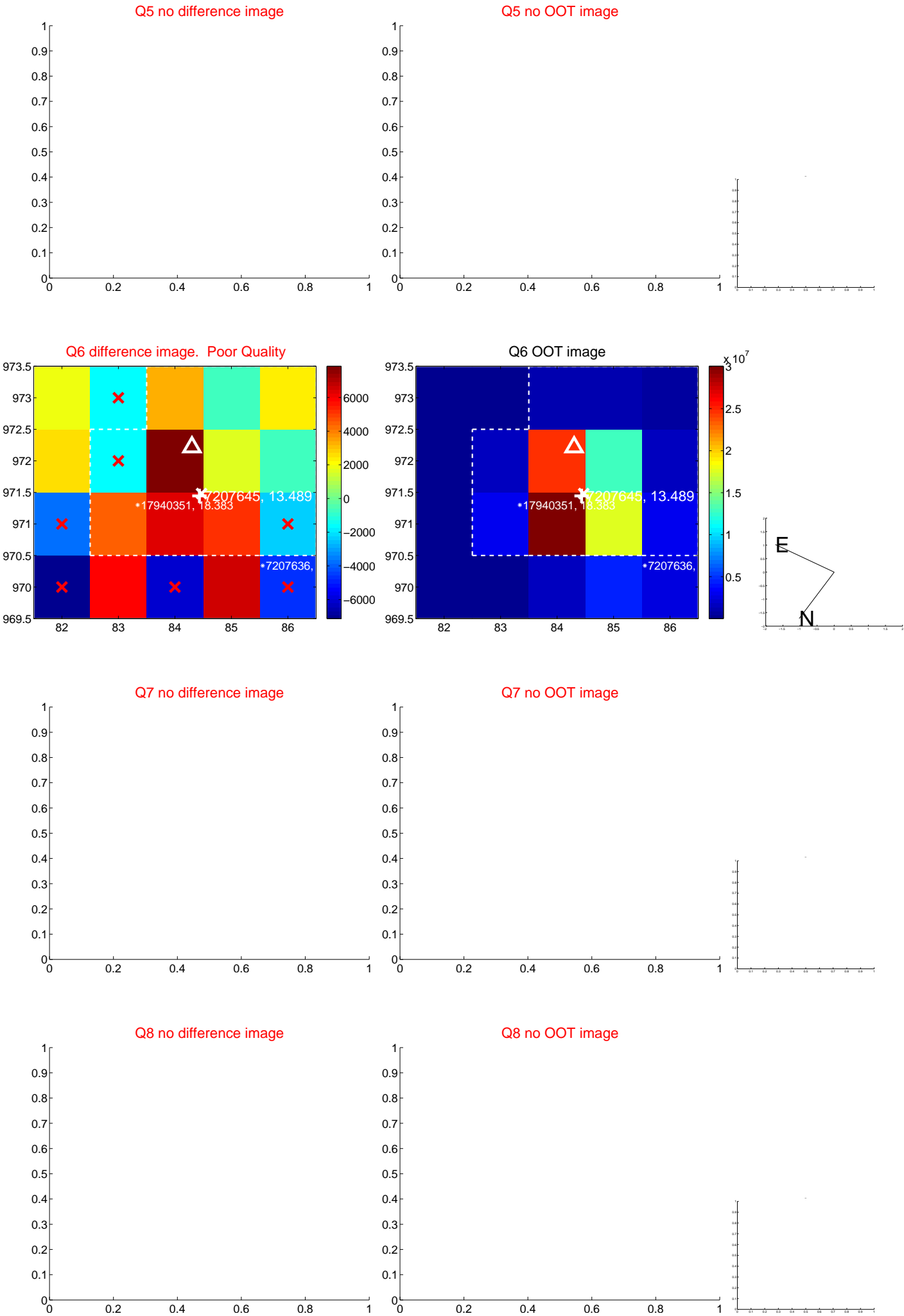


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

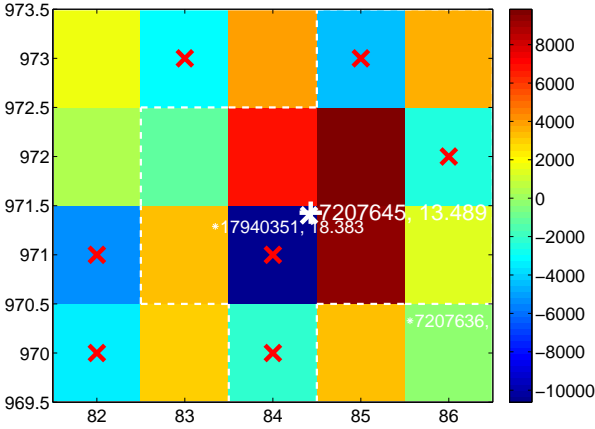
Q9 no difference image



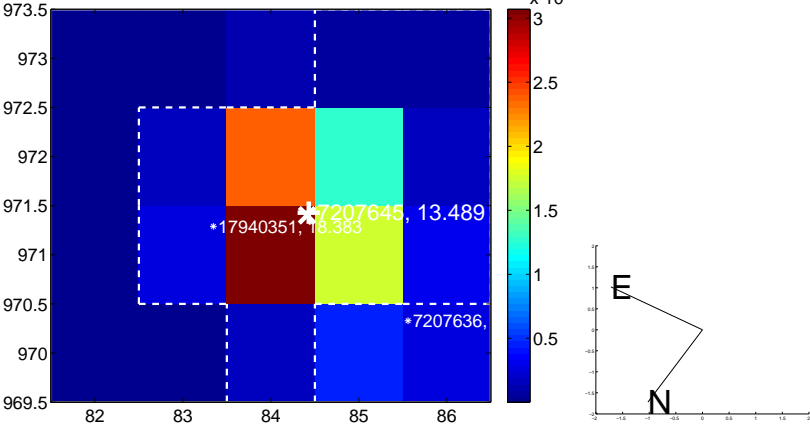
Q9 no OOT image



Q10 difference image. Poor Quality



Q10 OOT image



Q11 no difference image



Q11 no OOT image



Q12 no difference image



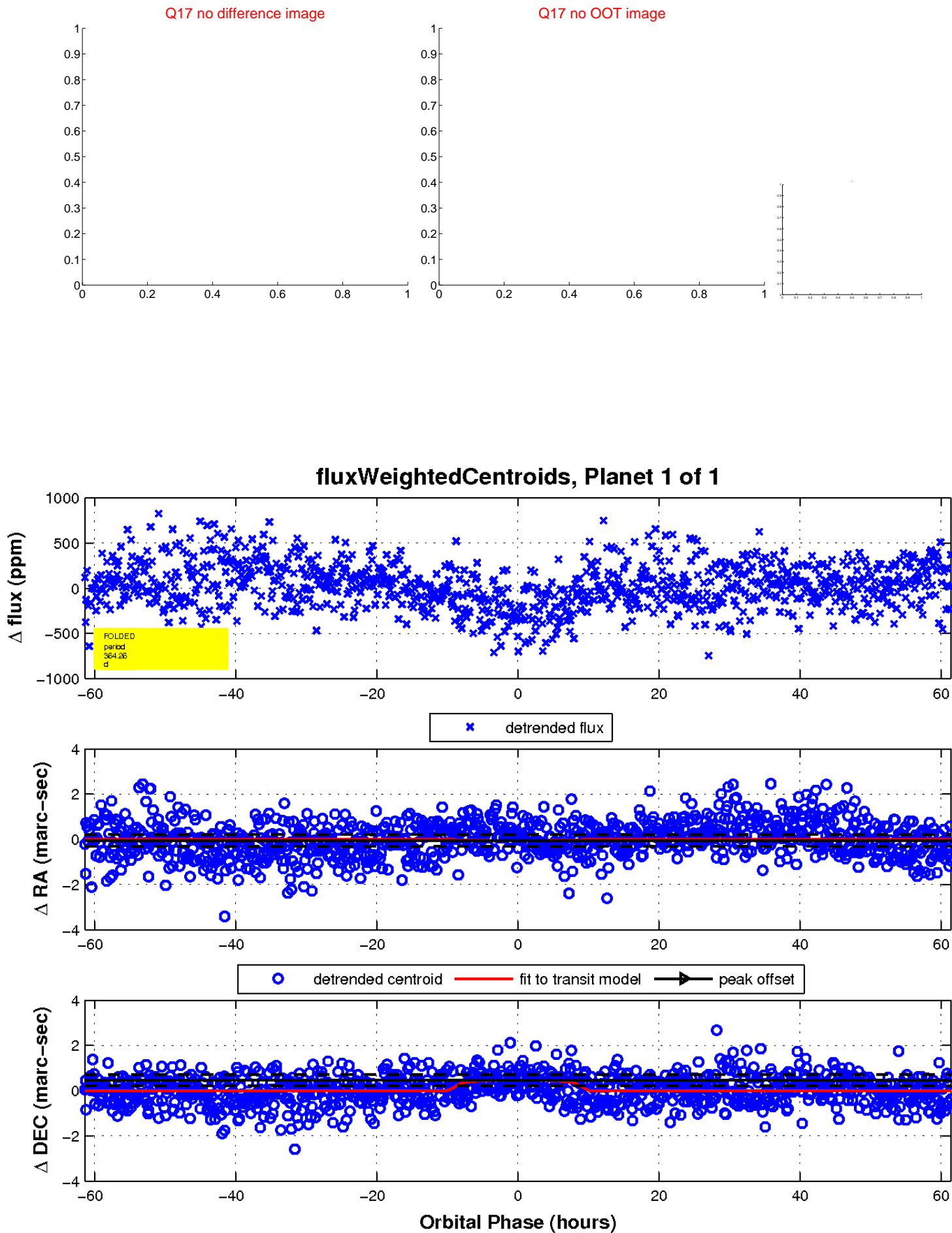
Q12 no OOT image



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

