

KIC 007365544

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})
007365544-01	OBS	No	507.579754	405.314814	1177.0	15.442	7.1	7.0	1.00	5780	3.46	0.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007365544-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

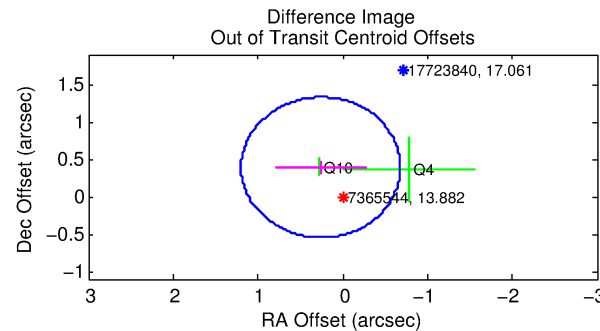
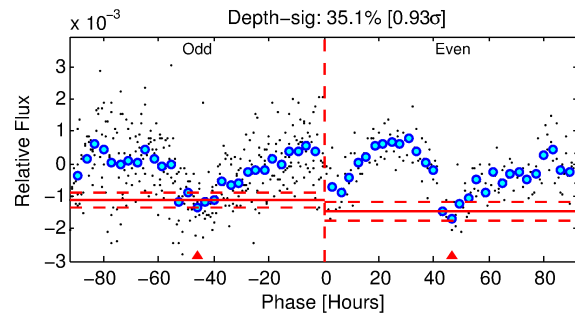
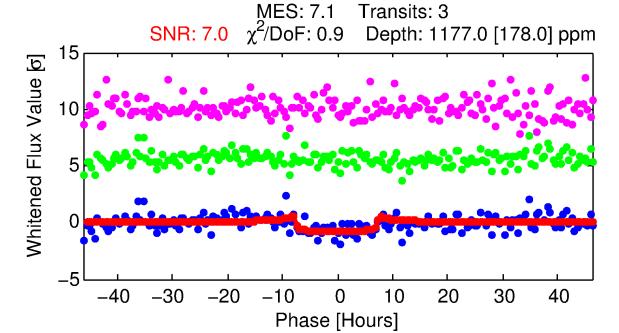
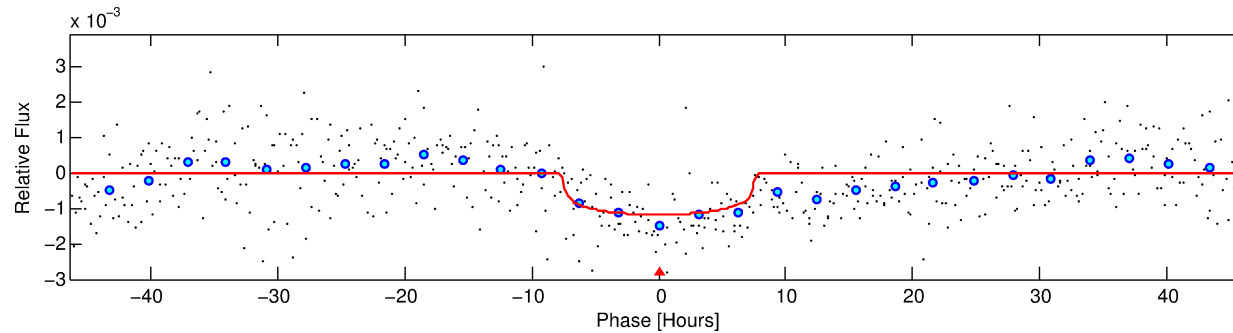
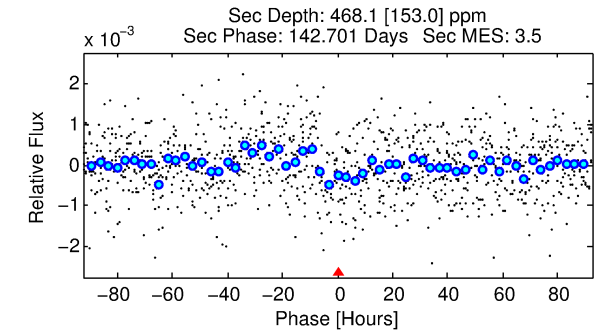
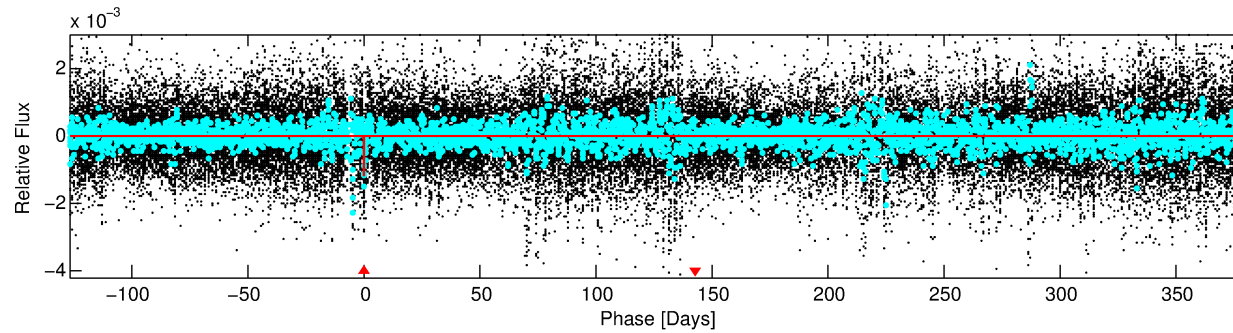
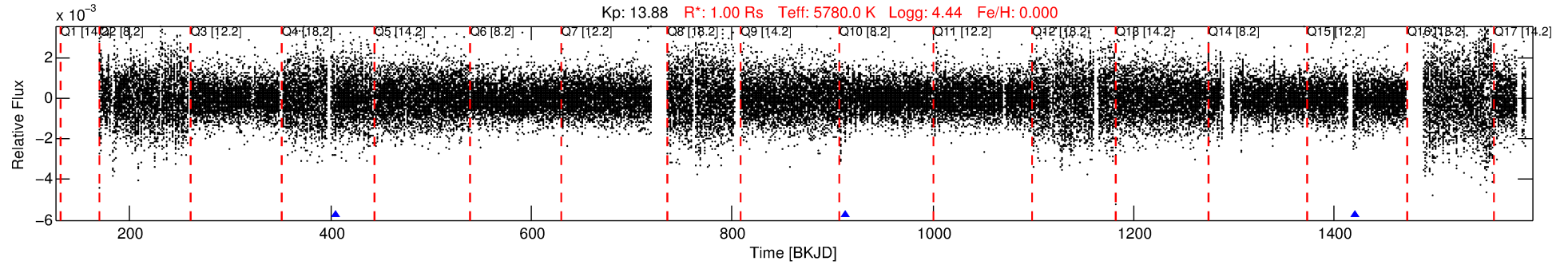
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007365544-01

No Significant Match Found

DV One-Page Summary

KIC: 7365544 Candidate: 1 of 1 Period: 507.580 d



DV Fit Results:

Period = 507.57975 [0.01407] d
Epoch = 405.3148 [0.0190] BKJD
Rp/R* = 0.0317 [0.0133]
a/R* = 239.80 [427.49]
b = 0.39 [3.89]
Seff = 0.64 [0.00]
Teq = 228 [0] K
Rp = 3.46 [1.45] Re
a = 1.2456 [0.0000] AU
Ag = 33438.86 [30194.18] [1.11σ]
Teff = 4777 [1078] K [4.22σ]

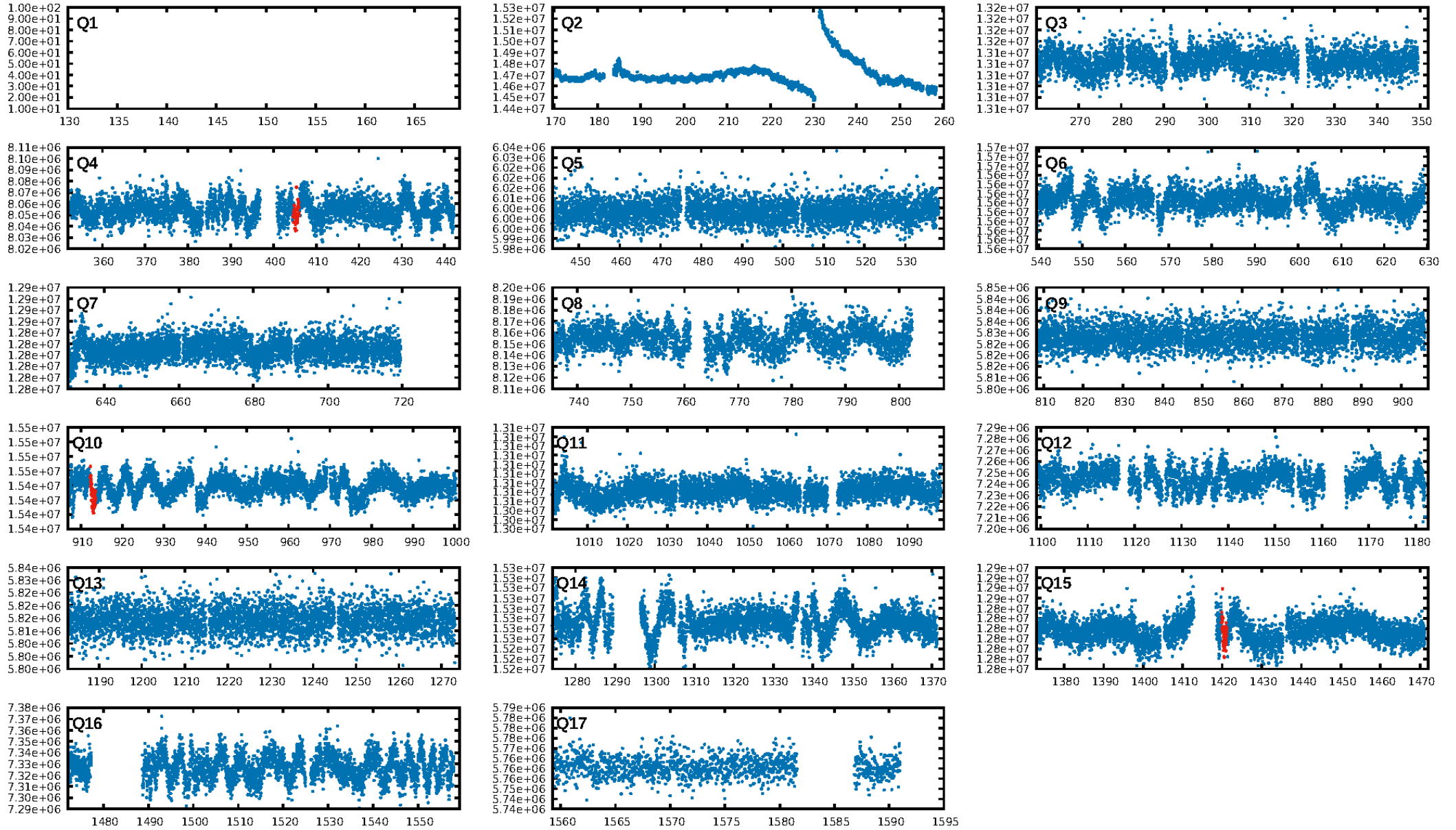
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 84.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.21e-07
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.3298
Centroid-sig: 14.6%
Centroid-so: 4.394 arcsec [8.31σ]
OotOffset-rm: 0.468 arcsec [1.50σ]
KicOffset-rm: 4.637 arcsec [10.92σ]
OotOffset-st: 1/0/1/0 [2]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

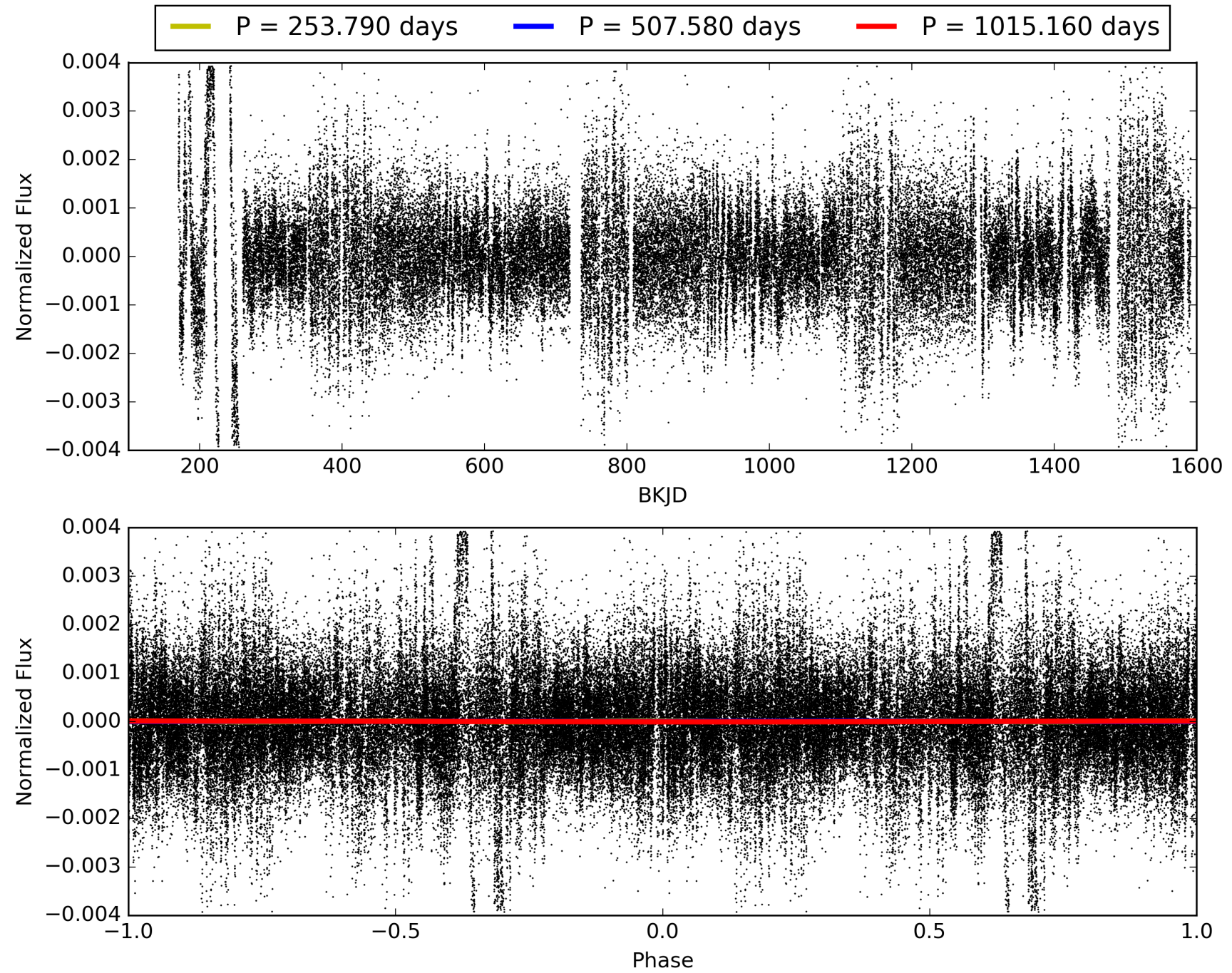
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:15:59 Z

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

TCE 007365544-01, PDC Light Curves

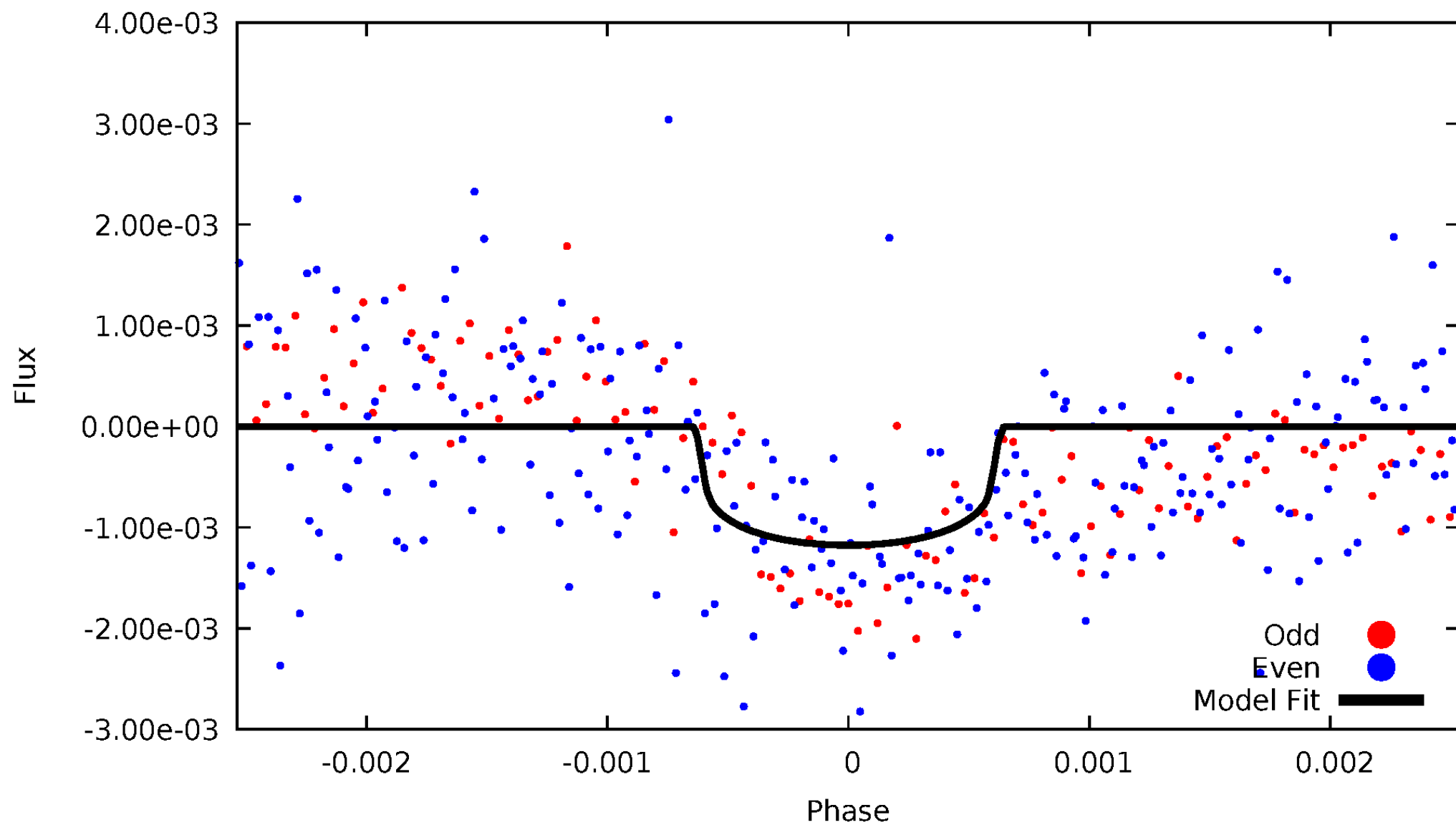


TCE 007365544-01



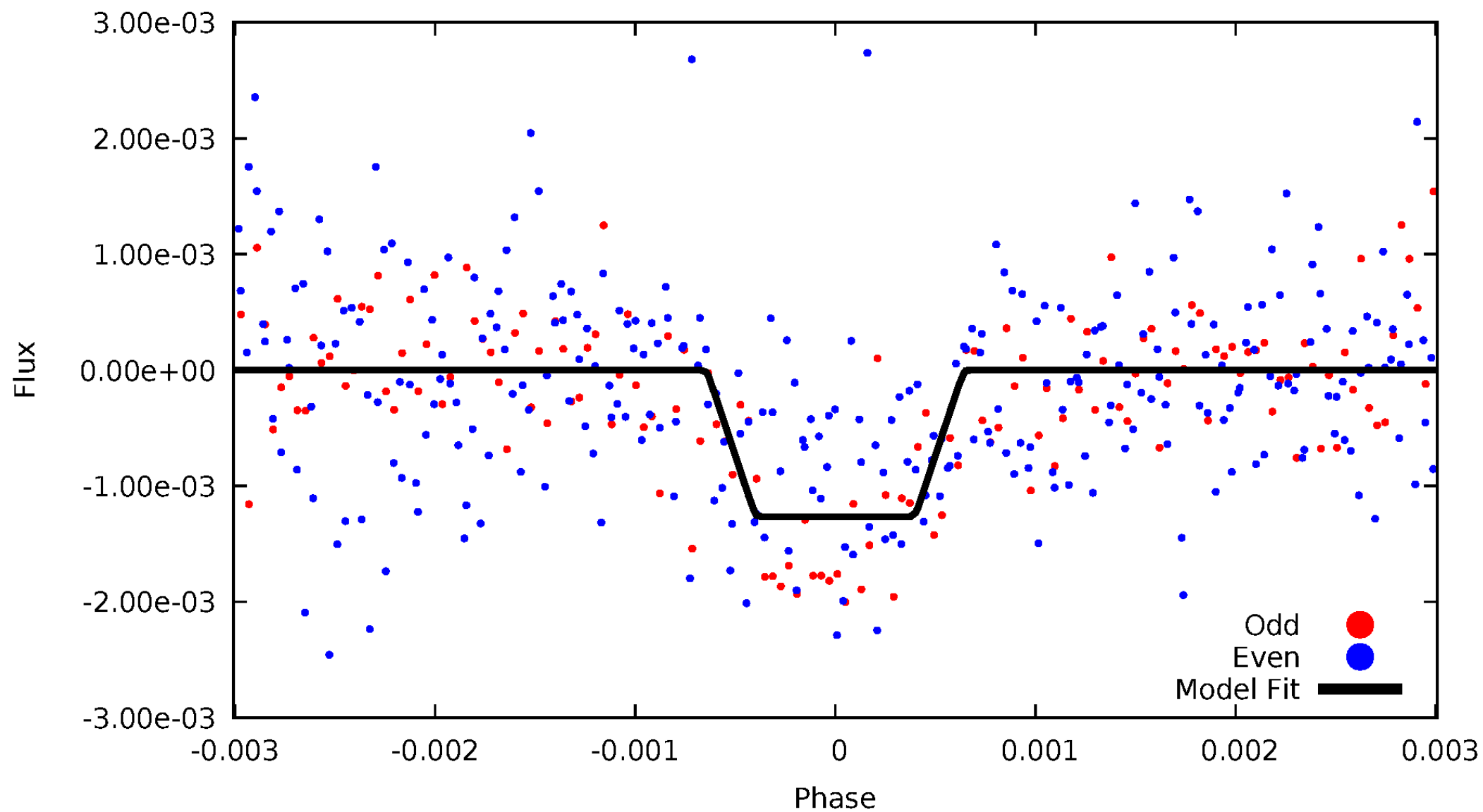
DV Odd/Even

TCE 007365544-01



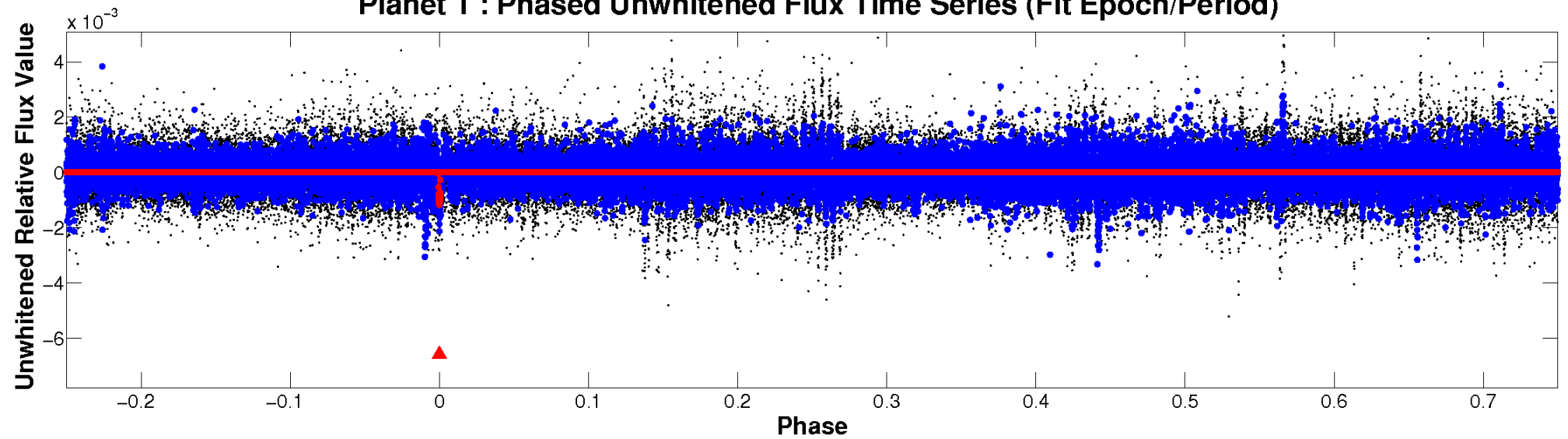
ALT Odd/Even

TCE 007365544-01

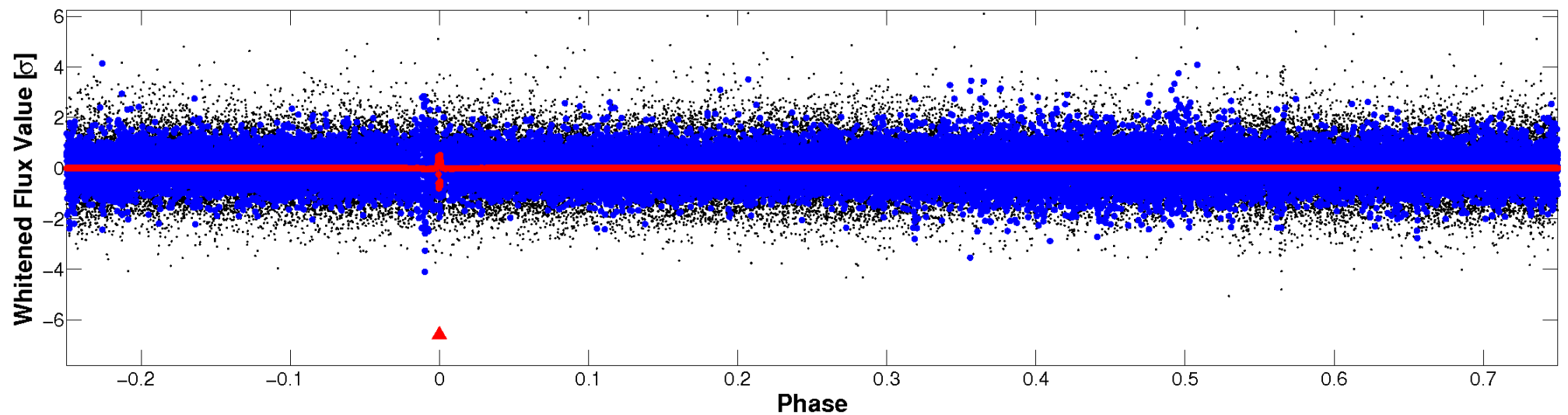


Non-Whitened Vs. Whitened Light Curve

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

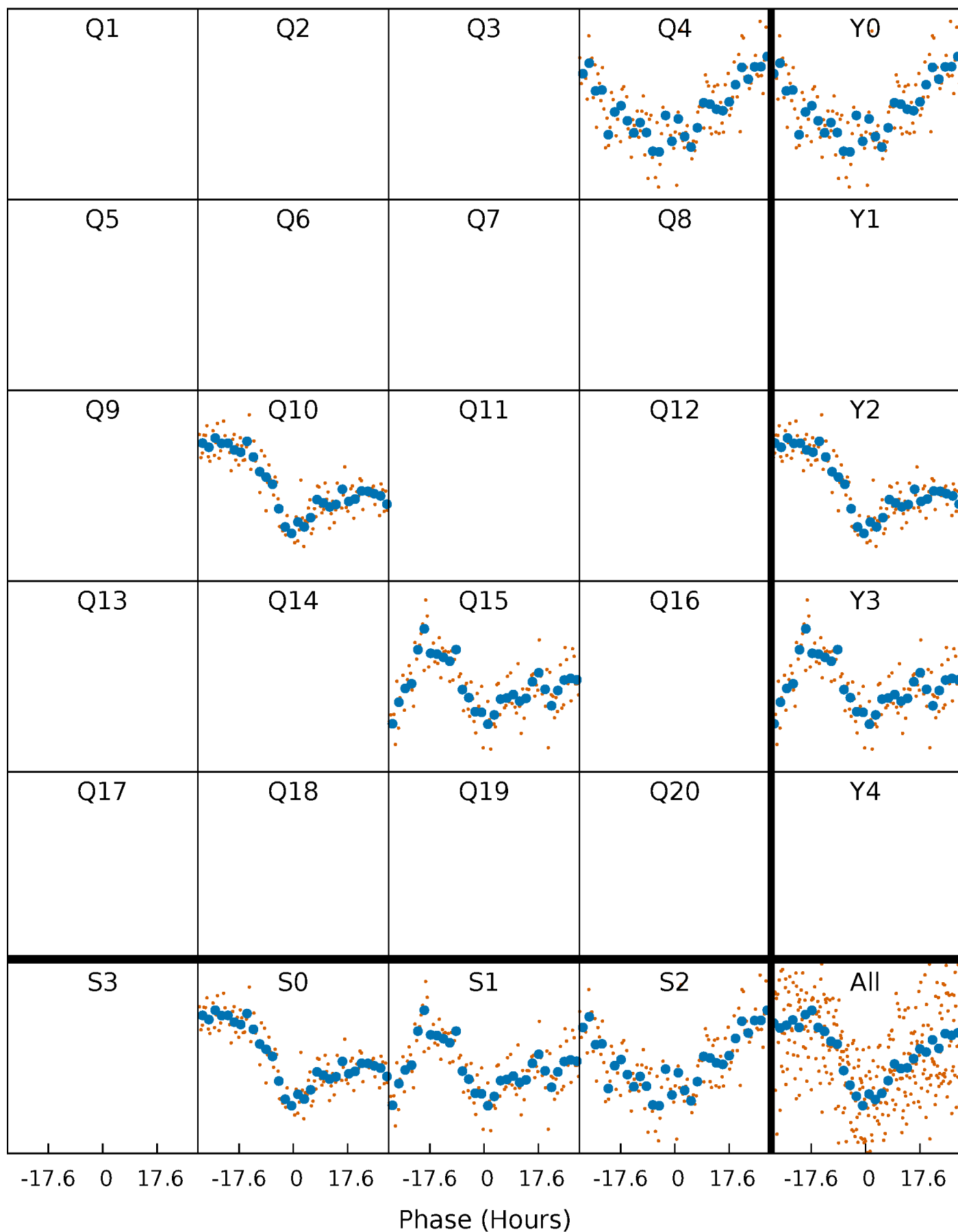


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



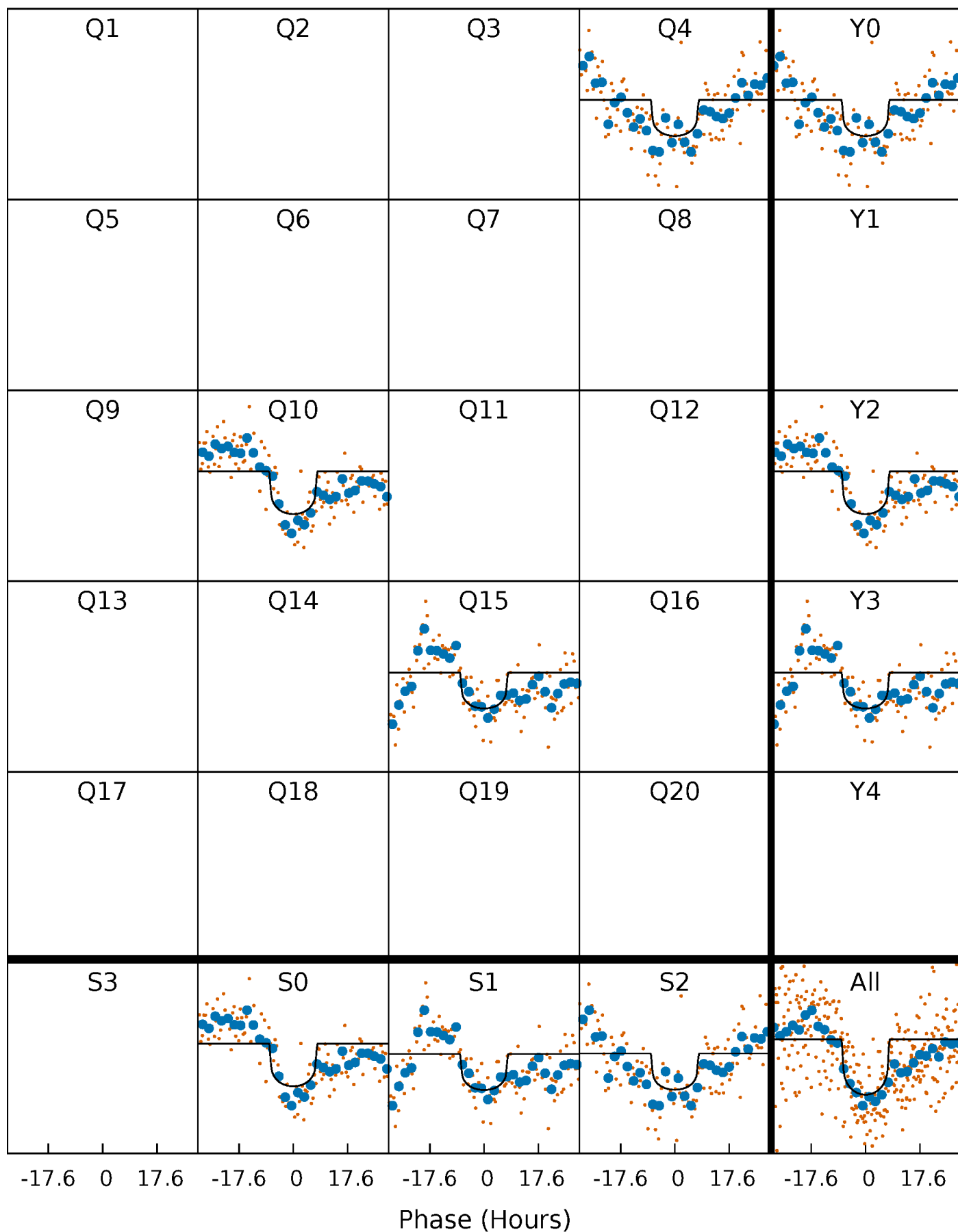
PDC Quarter-Phased Transit Curves

TCE 007365544-01 P=507.579754 Days $T_0=405.314814$ (BKJD)



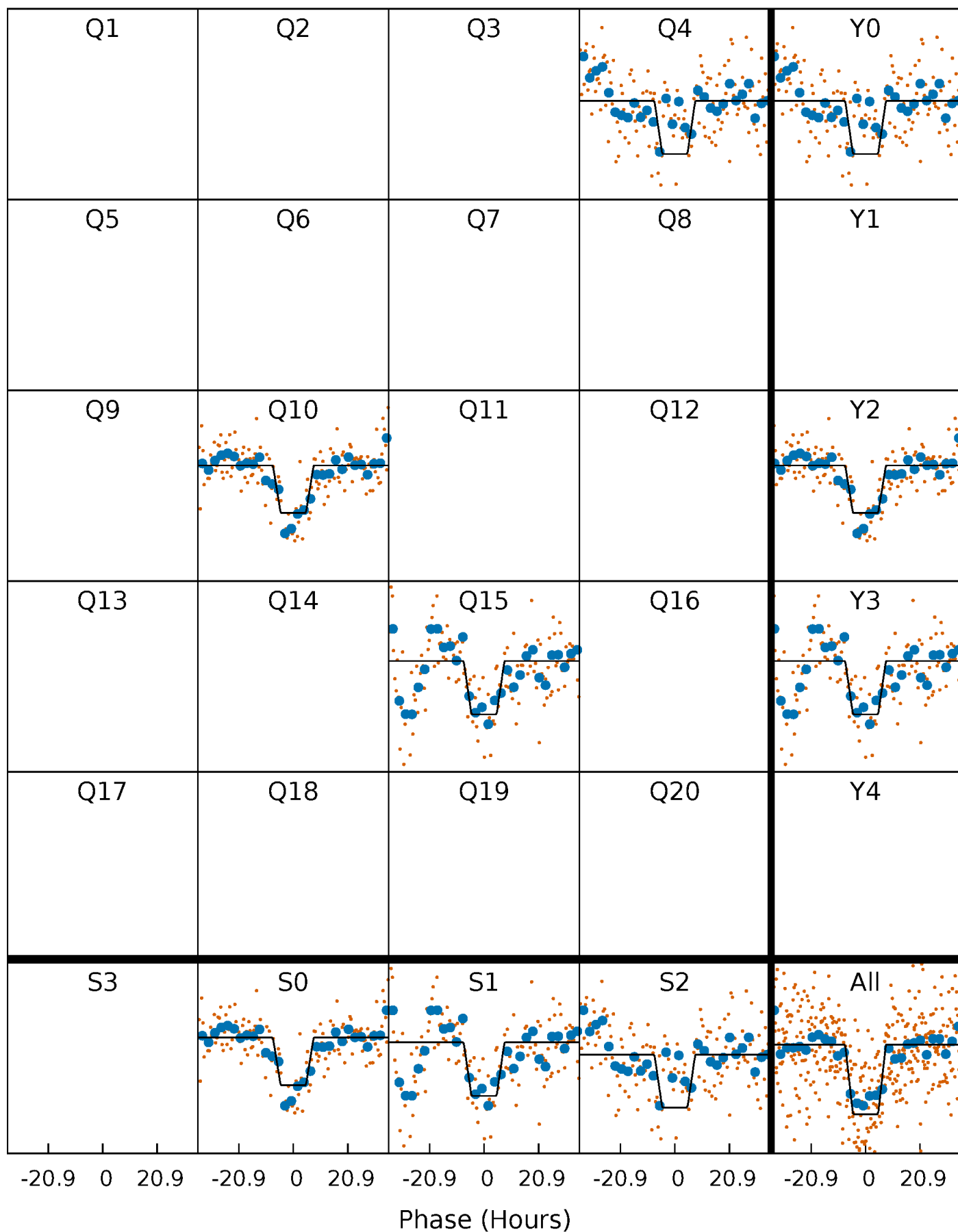
DV Quarter-Phased Transit Curves

TCE 007365544-01 P=507.579754 Days $T_0=405.314814$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

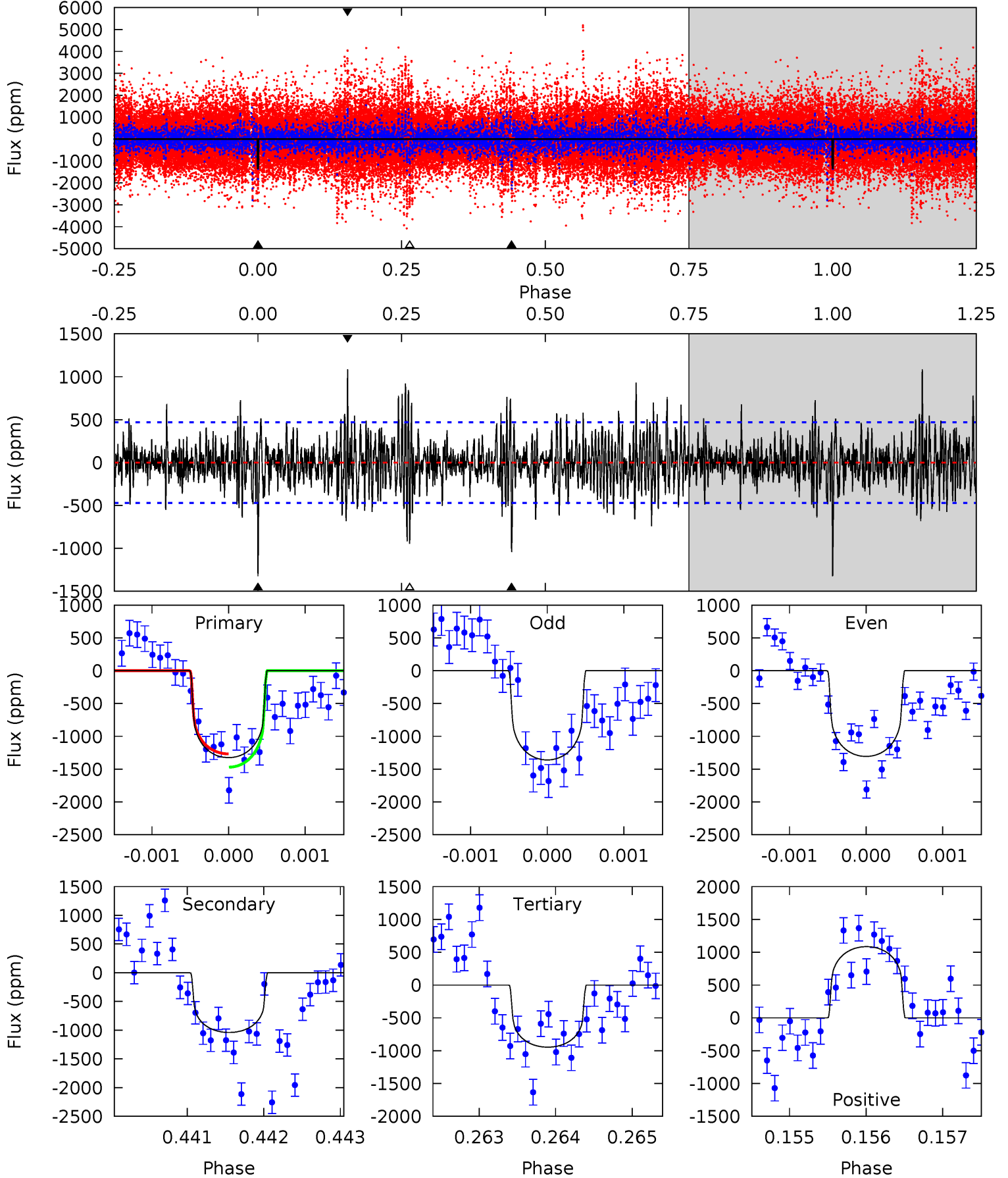
TCE 007365544-01 P=507.569630 Days $T_0=405.319907$ (BKJD)



DV Model-Shift Uniqueness Test

007365544-01, P = 507.579754 Days, E = 405.314814 Days

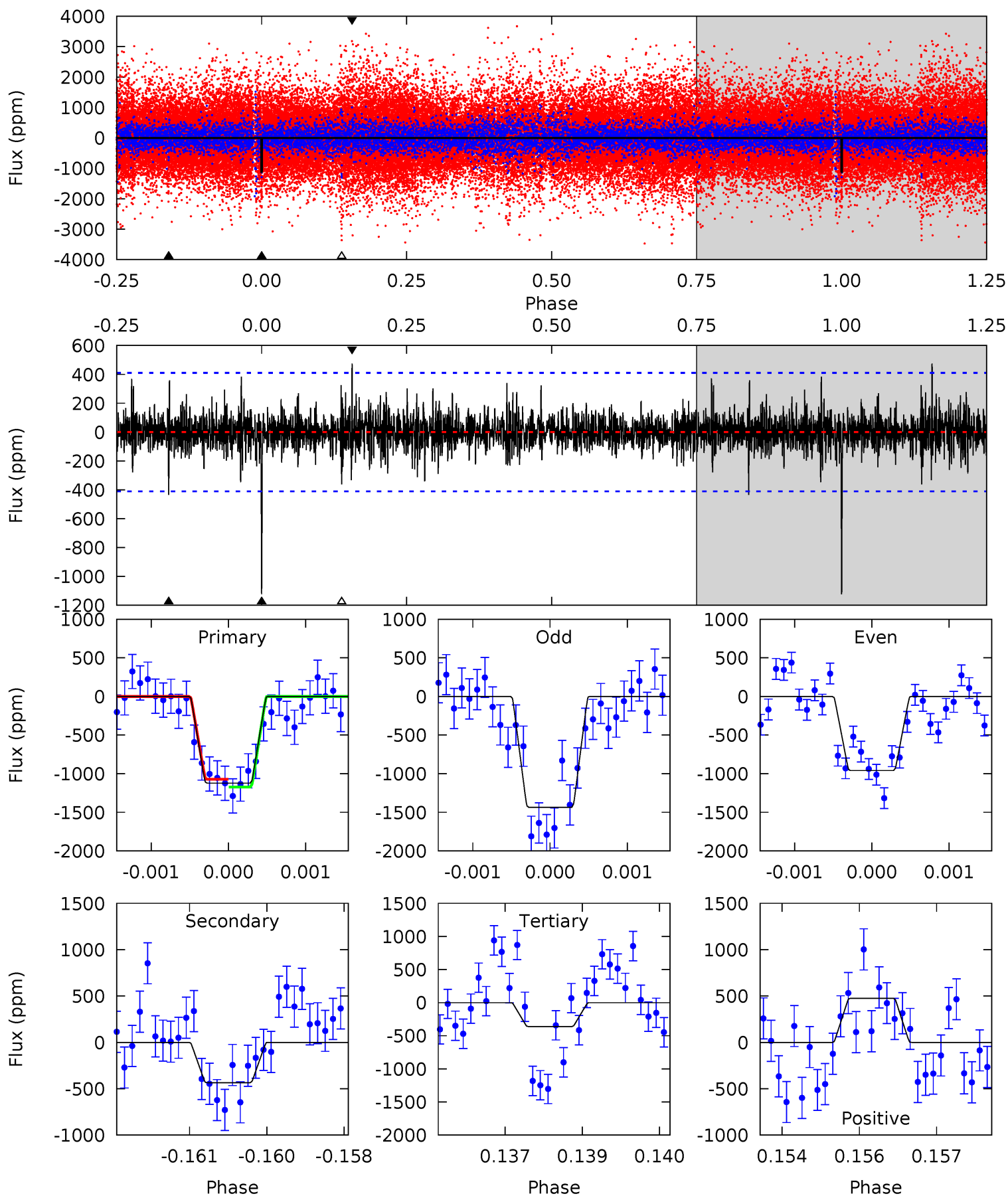
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	12.0	10.9	12.5	5.41	3.22	2.62	4.35	2.75	1.08	-0.52	0.29	0.98	0.45	1.16



Alt Model-Shift Uniqueness Test

007365544-01, P = 507.569630 Days, E = 405.319907 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	5.73	4.76	6.26	5.40	3.21	1.18	10.0	8.52	0.97	-0.53	2.96	0.88	0.30	0.66



Stellar Parameters For KIC 007365544

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 007365544-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1040 ± 87	$3.47^{+1.56}_{-1.46}$	320^{+14}_{-15}	5782^{+2193}_{-865}	$74972^{+154271}_{-40222}$
Alt.	-435 ± 76	$3.90^{+1.52}_{-1.38}$	320^{+15}_{-16}	4562^{+966}_{-542}	24845^{+33897}_{-12237}

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 $A_{obs} \gg 1.0$

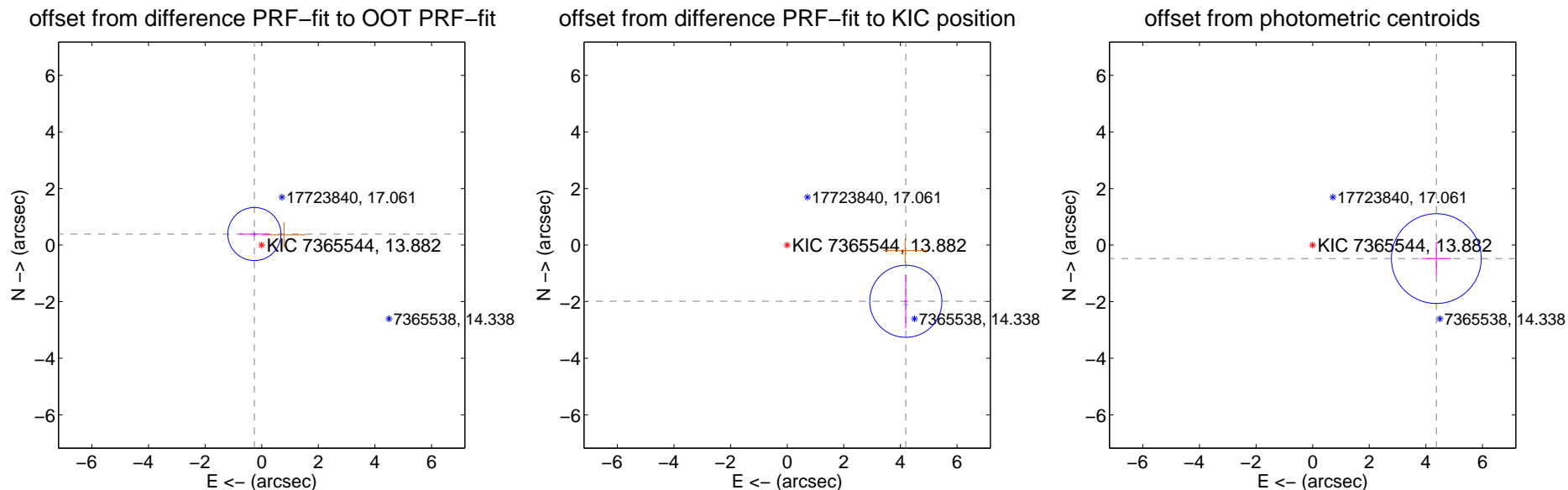
DV Centroid Data

Supplemental centroid analysis for 007365544-01. Kepler magnitude: 13.88. Transit SNR 6.96

There are 1 quarters with good PRF difference image offsets

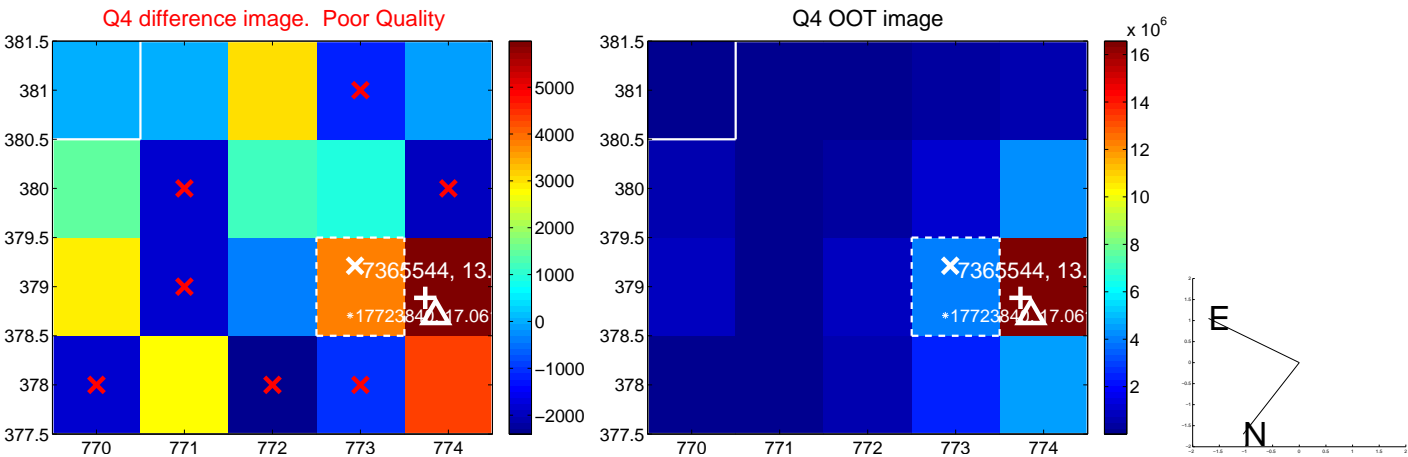
The OOT PRF centroid is offset from the target star catalog position by about 5.11 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.468 ± 0.313	1.50	0.259 ± 0.535	0.390 ± 0.068
PRF-fit source offset from KIC position	4.637 ± 0.425	10.92	-4.190 ± 0.068	-1.986 ± 0.954
photometric centroid source offset	4.39 ± 0.53	8.31	-4.37 ± 0.53	-0.48 ± 0.59



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.

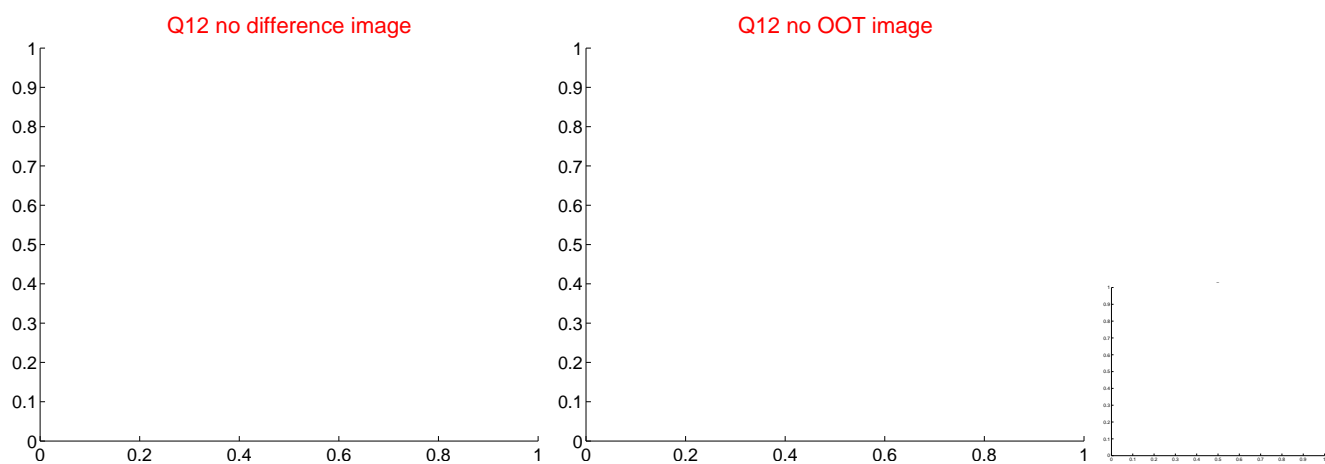
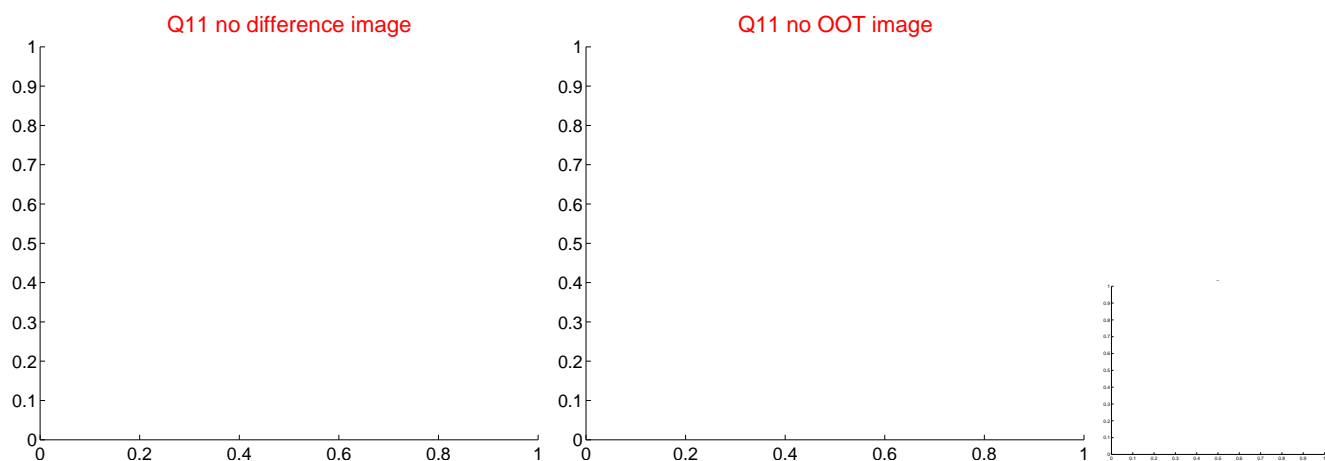
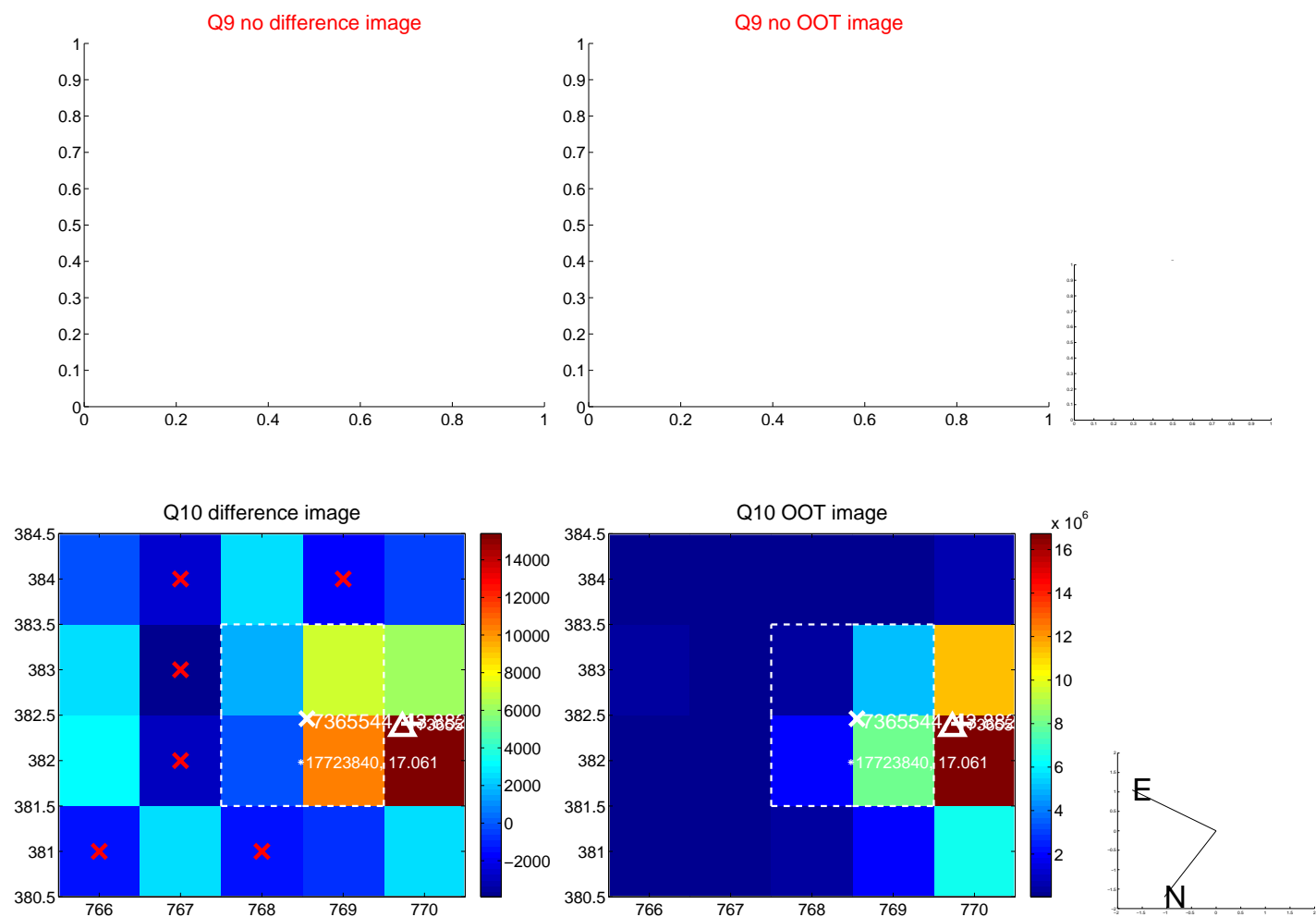
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



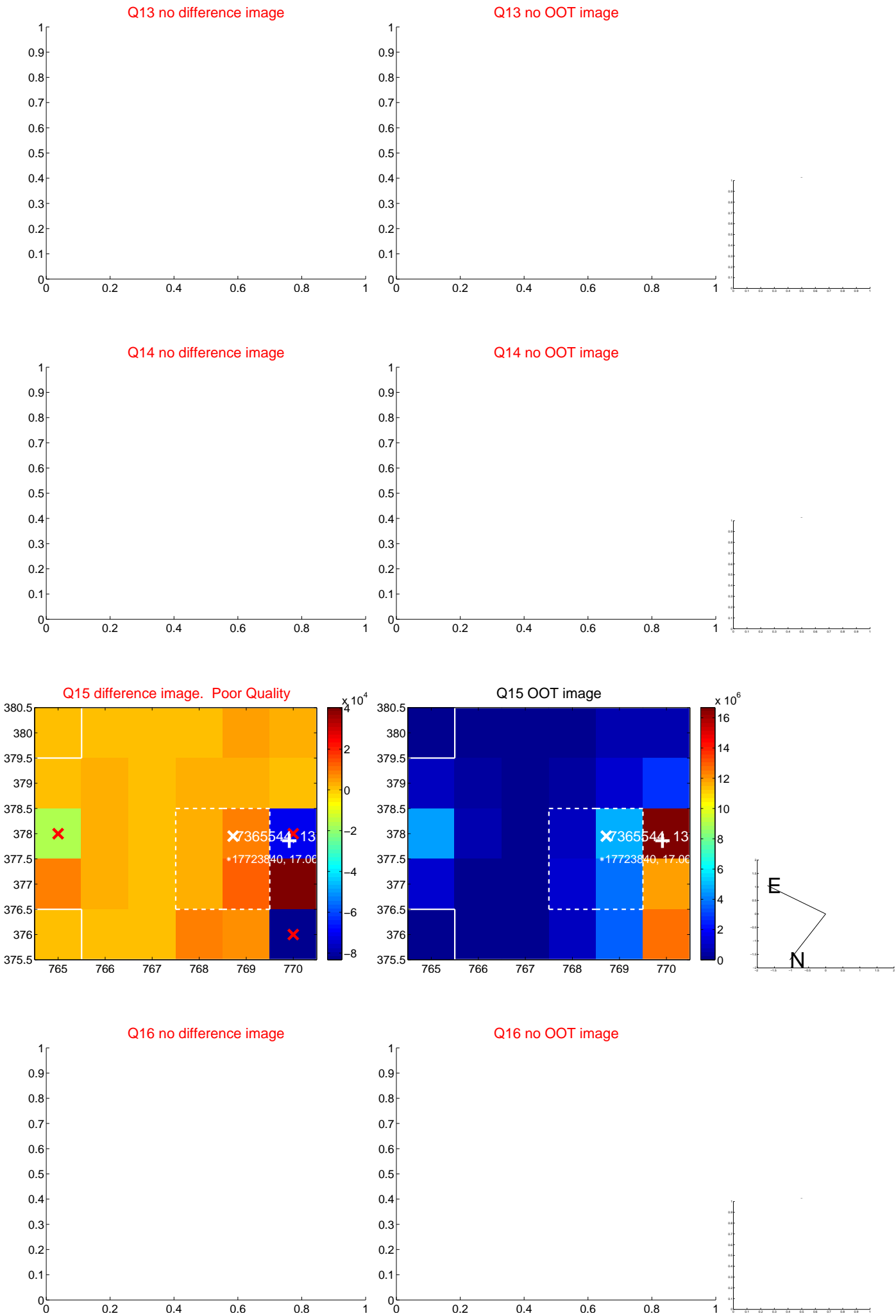
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



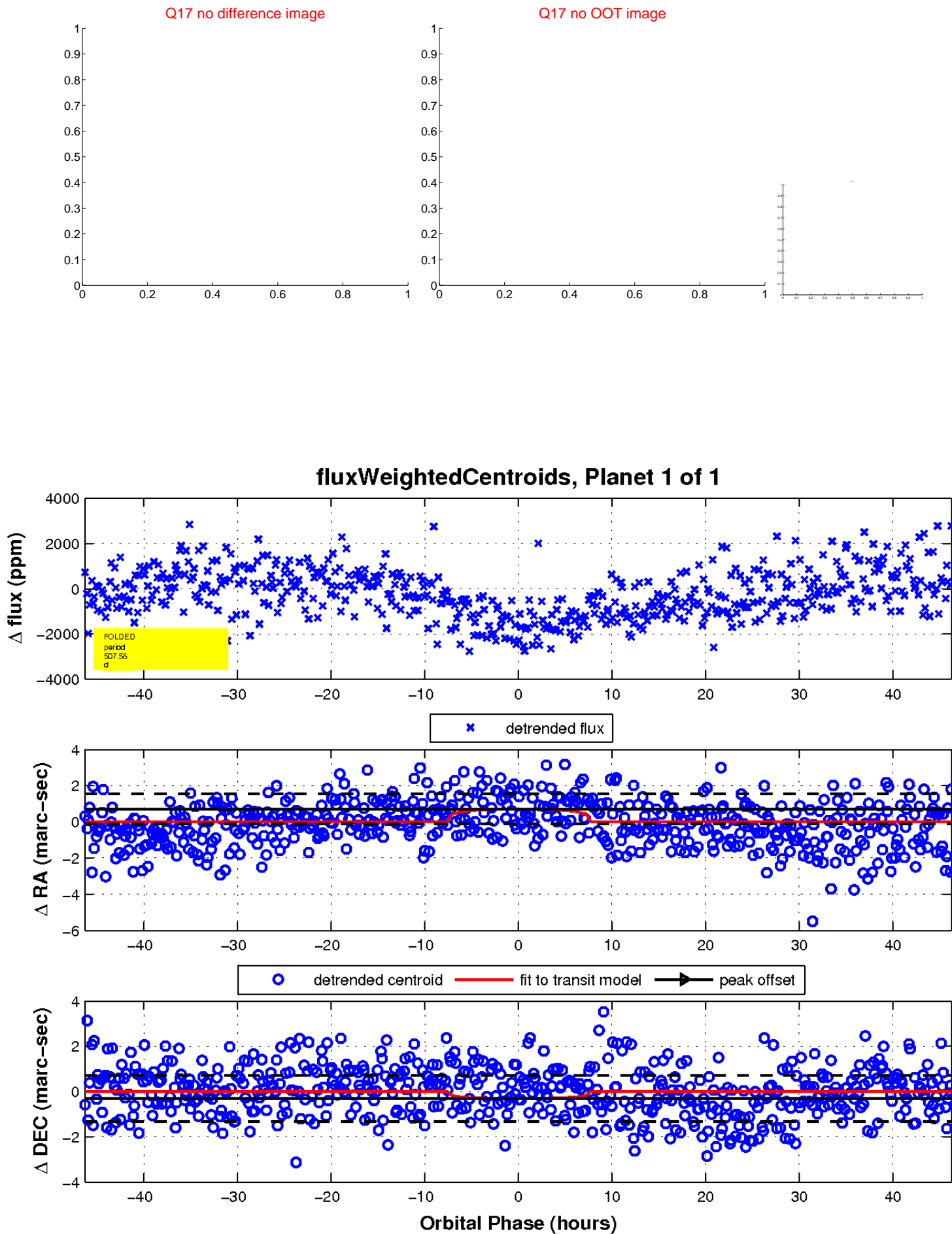
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

