

KIC 005697440

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})
005697440-01	OBS	No	363.919355	161.737879	2031.2	29.229	8.4	9.4	0.81	5785	4.61	0.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005697440-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

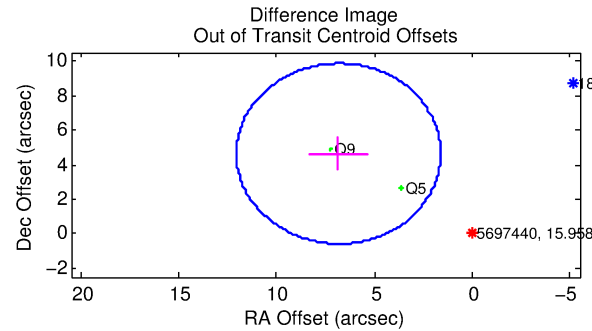
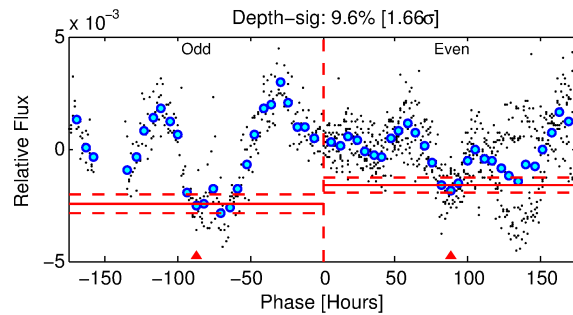
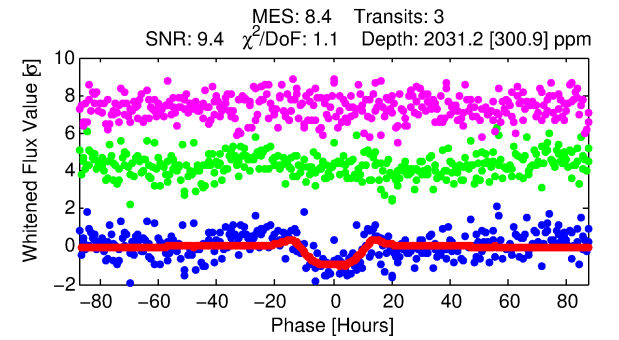
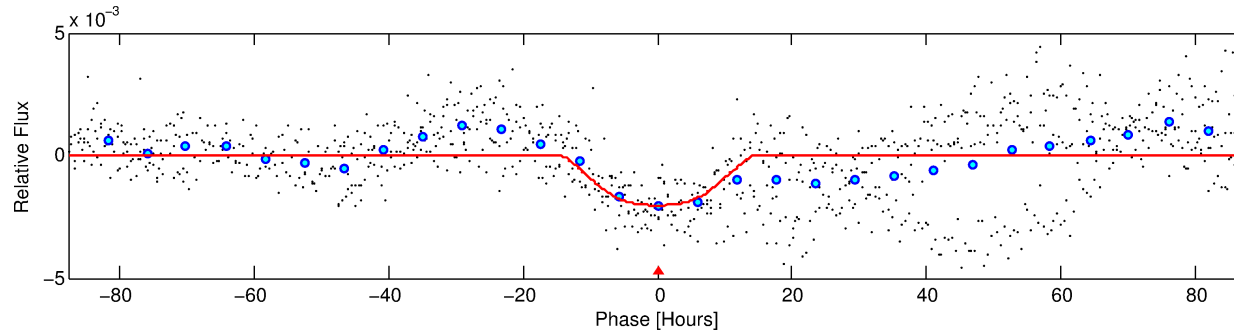
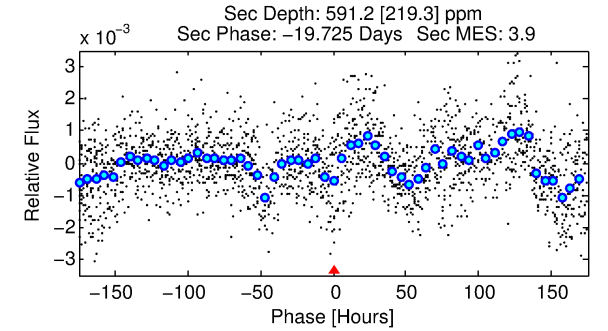
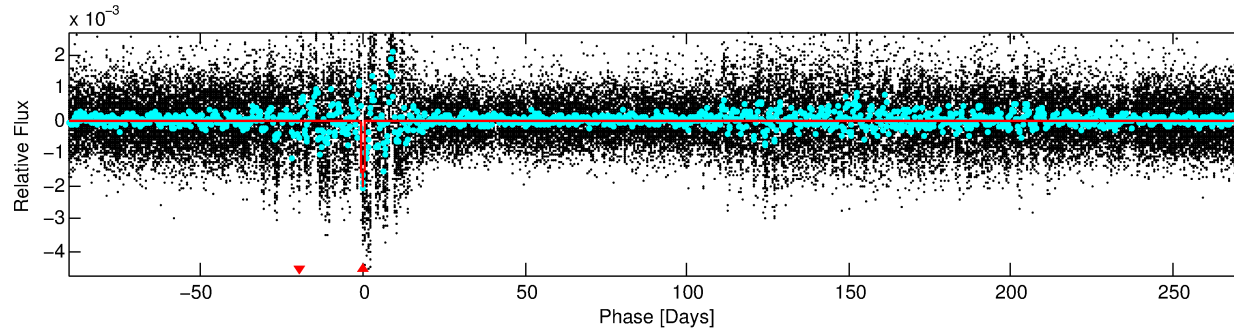
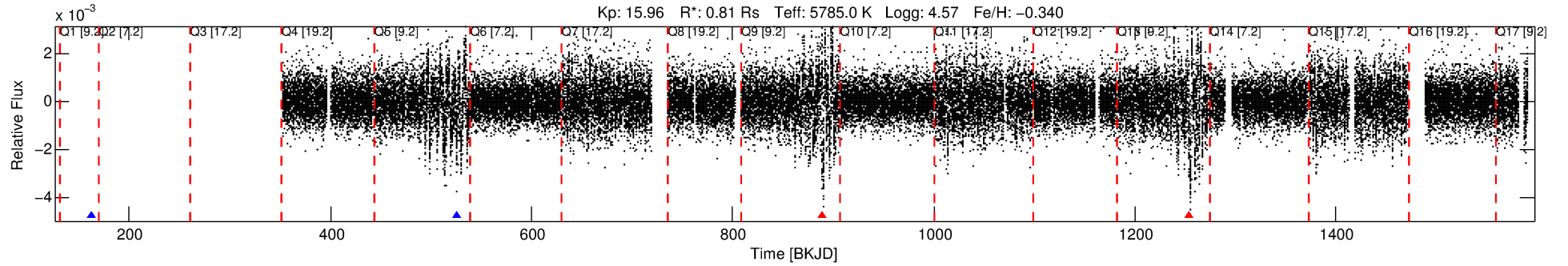
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005697440-01

No Significant Match Found

DV One-Page Summary

KIC: 5697440 Candidate: 1 of 1 Period: 363.919 d



DV Fit Results:

Period = 363.91935 [0.03731] d
Epoch = 161.7379 [0.0762] BKJD
Rp/R* = 0.0521 [0.0051]
a/R* = 43.95 [5.32]
b = 0.95 [0.02]
Seff = 0.71 [0.25]
Teq = 234 [21] K
Rp = 4.61 [1.35] Re
a = 0.9610 [0.2195] AU
Ag = 14151.06 [7519.83] [1.88σ]
Teffp = 3954 [434] K [8.57σ]

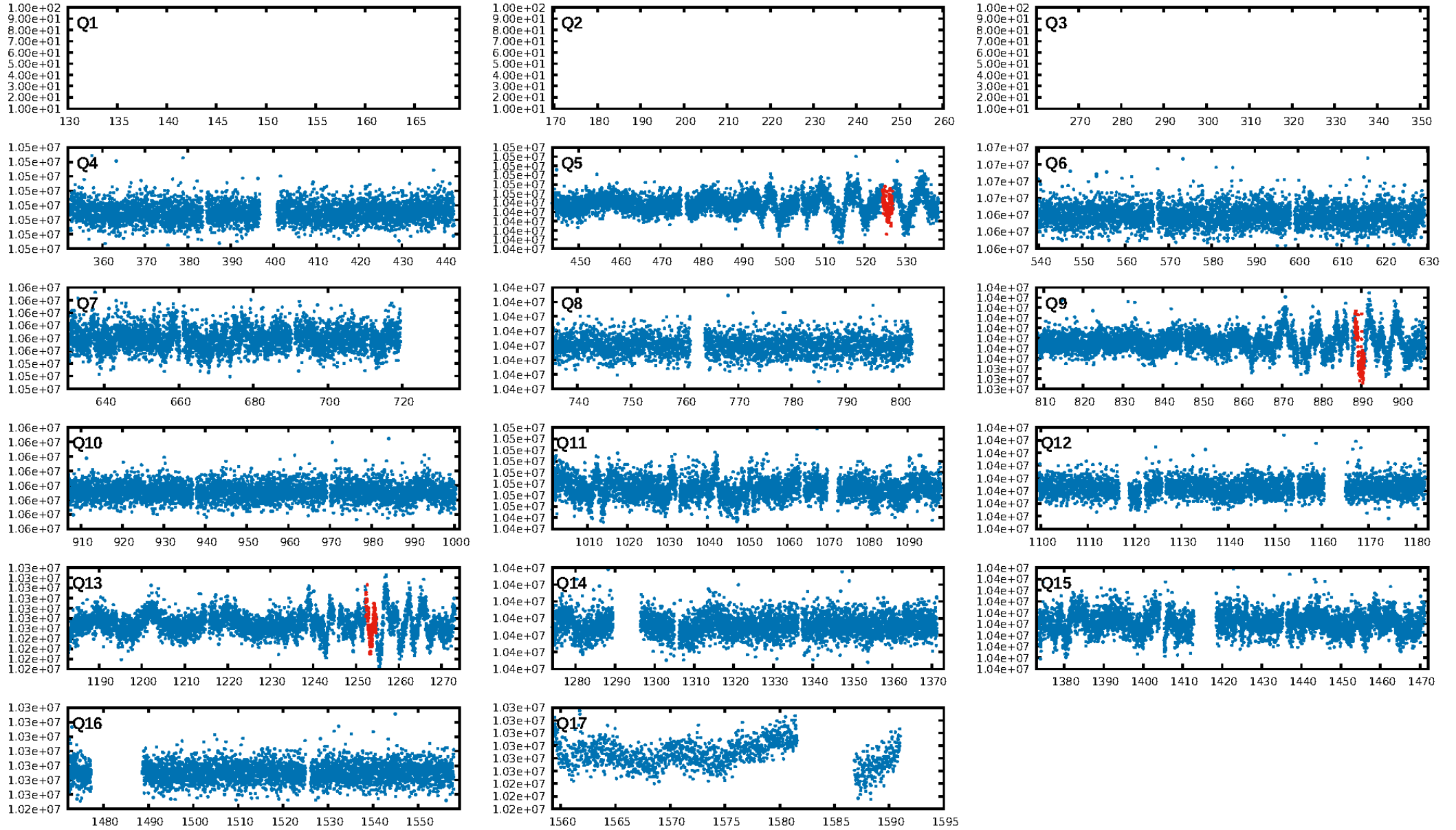
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.24e-12
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: -7.314
Centroid-sig: 0.1%
Centroid-so: 4.009 arcsec [2.03σ]
OotOffset-rm: 8.256 arcsec [4.75σ]
KicOffset-rm: 8.159 arcsec [3.84σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

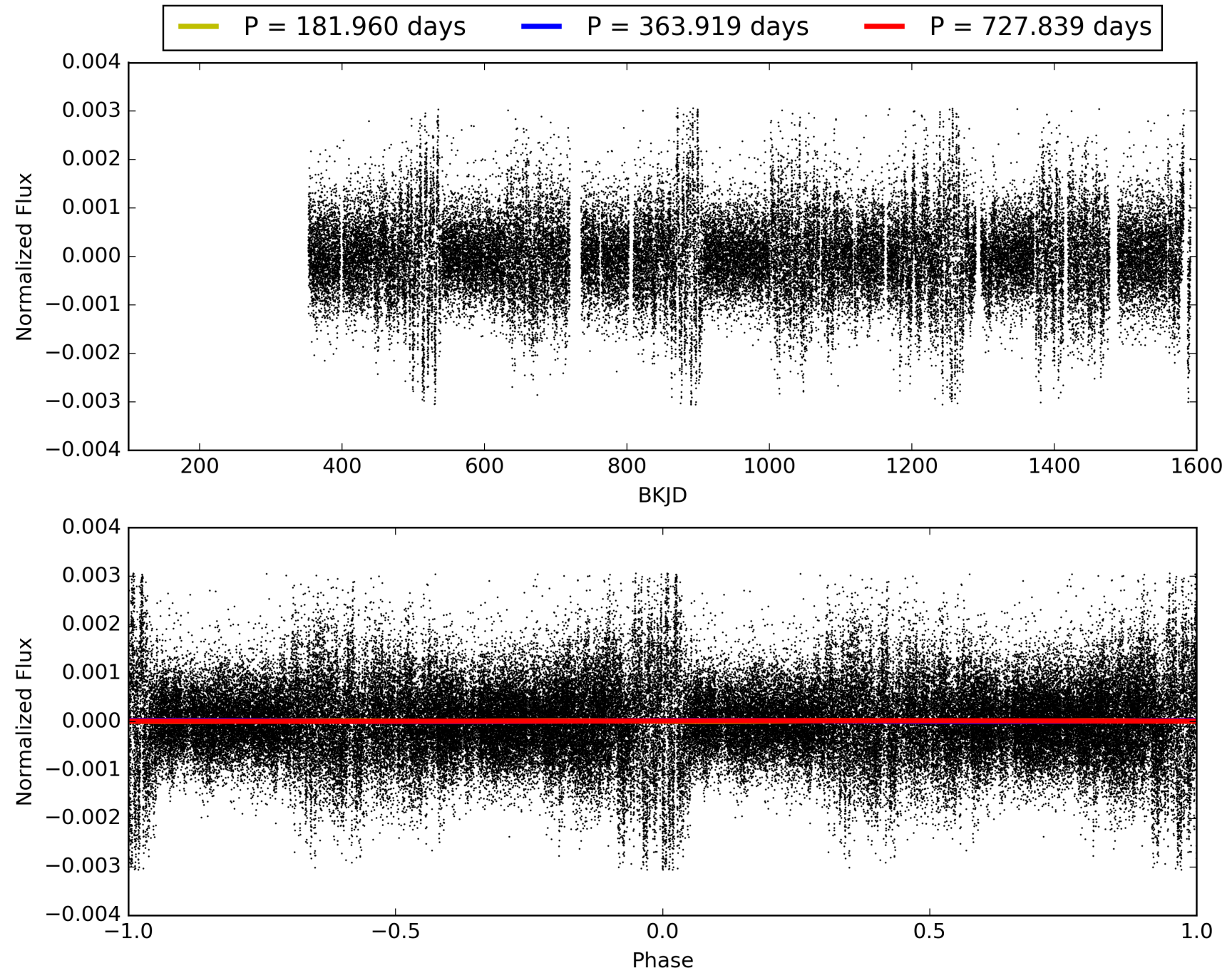
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:26:16 Z

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

TCE 005697440-01, PDC Light Curves

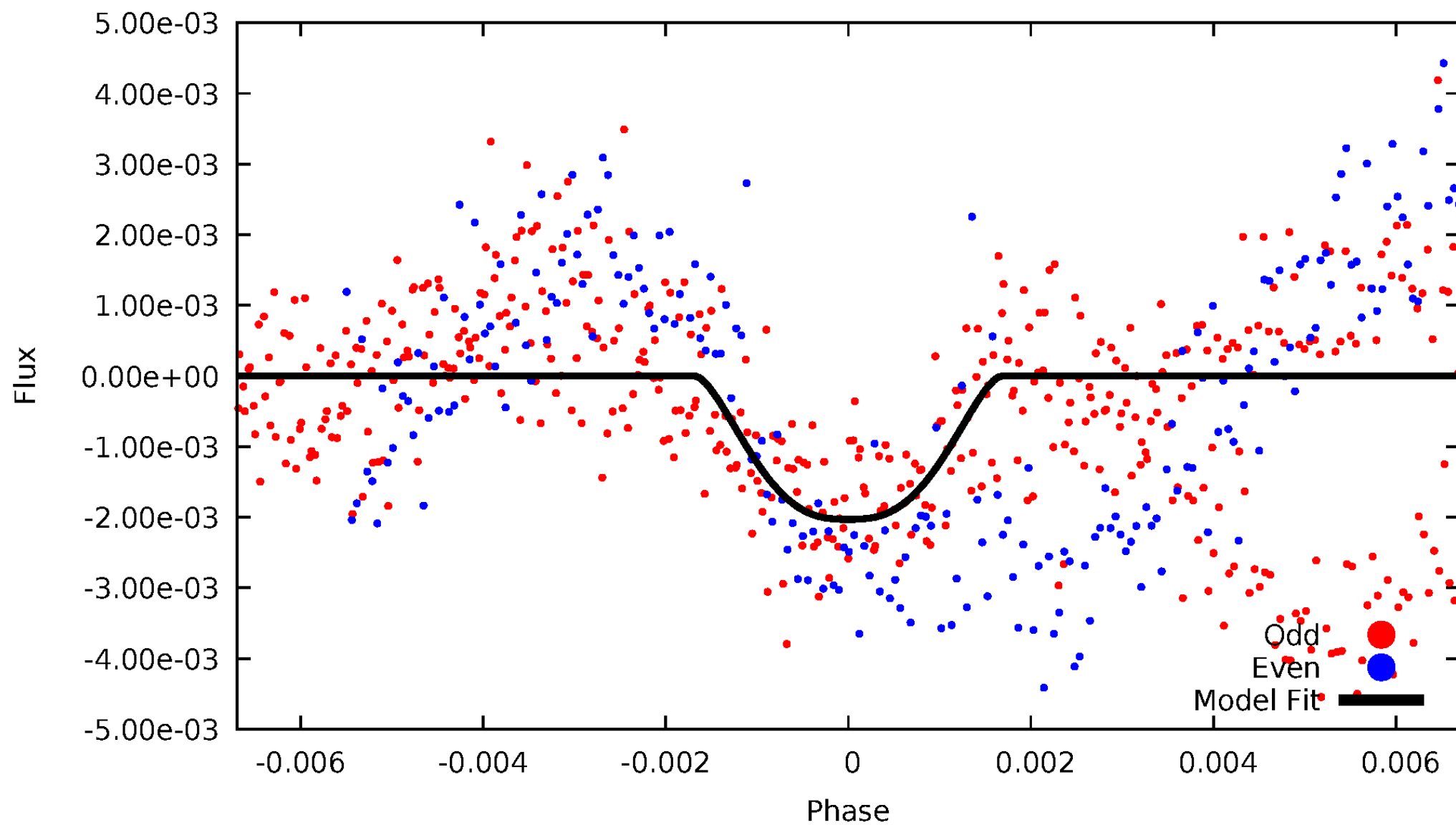


TCE 005697440-01



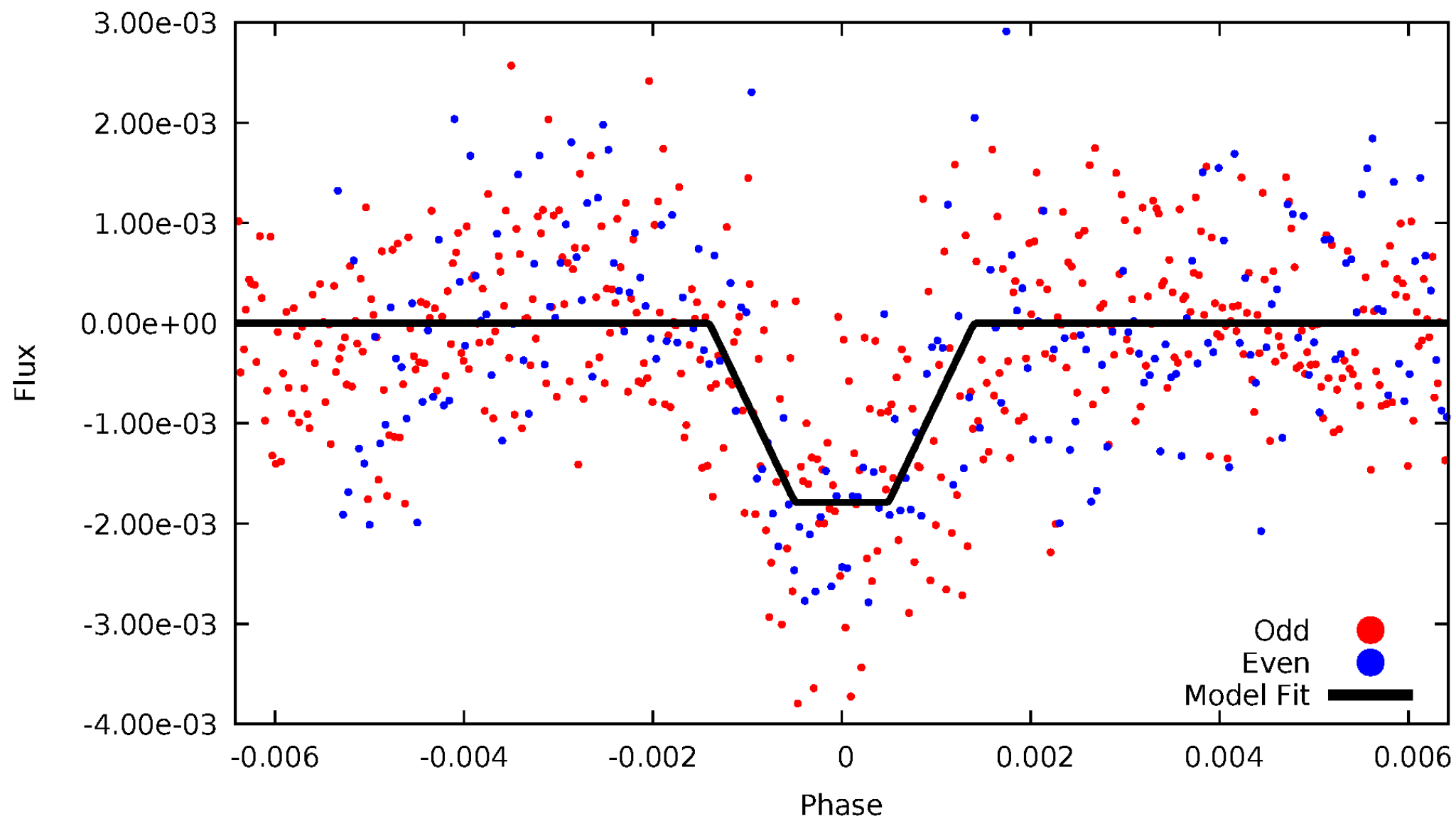
DV Odd/Even

TCE 005697440-01



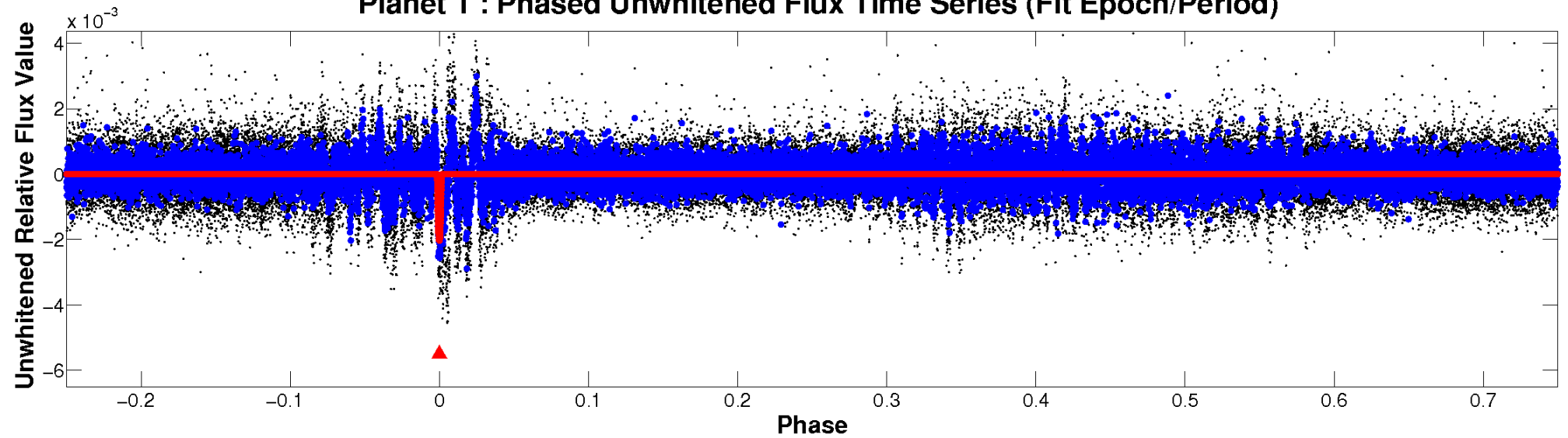
ALT Odd/Even

TCE 005697440-01

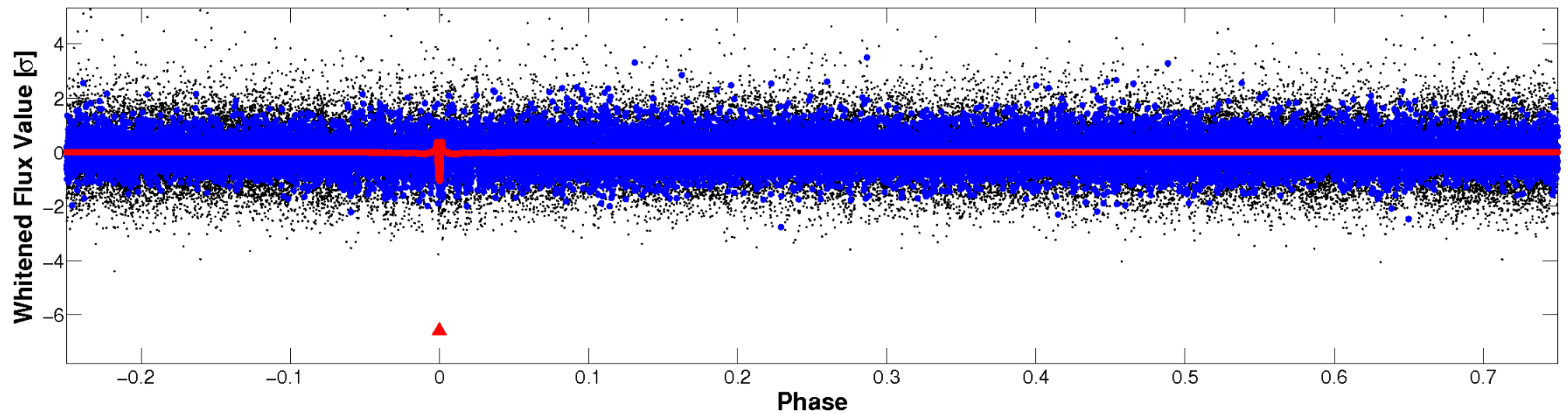


Non-Whitened Vs. Whitened Light Curve

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

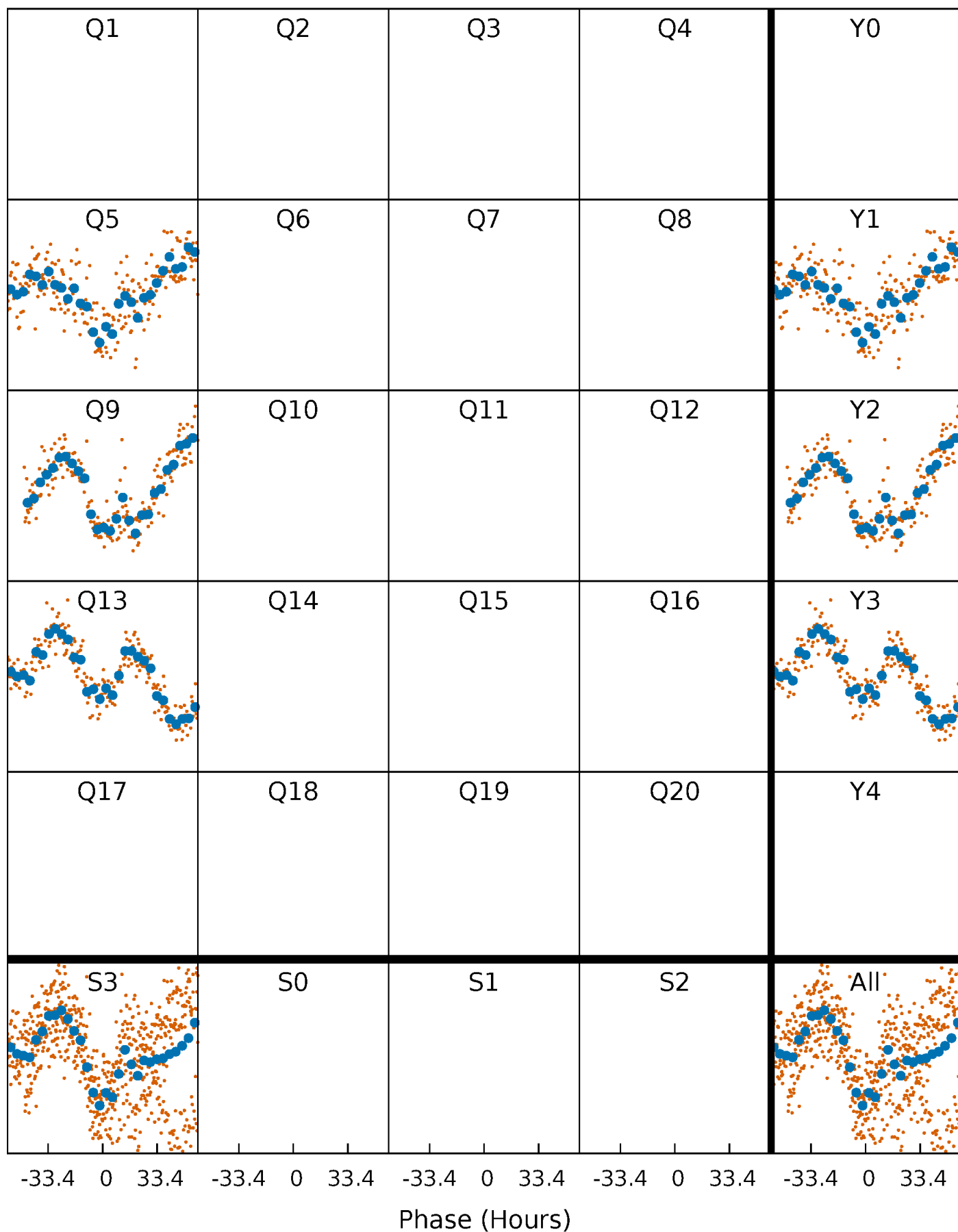


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



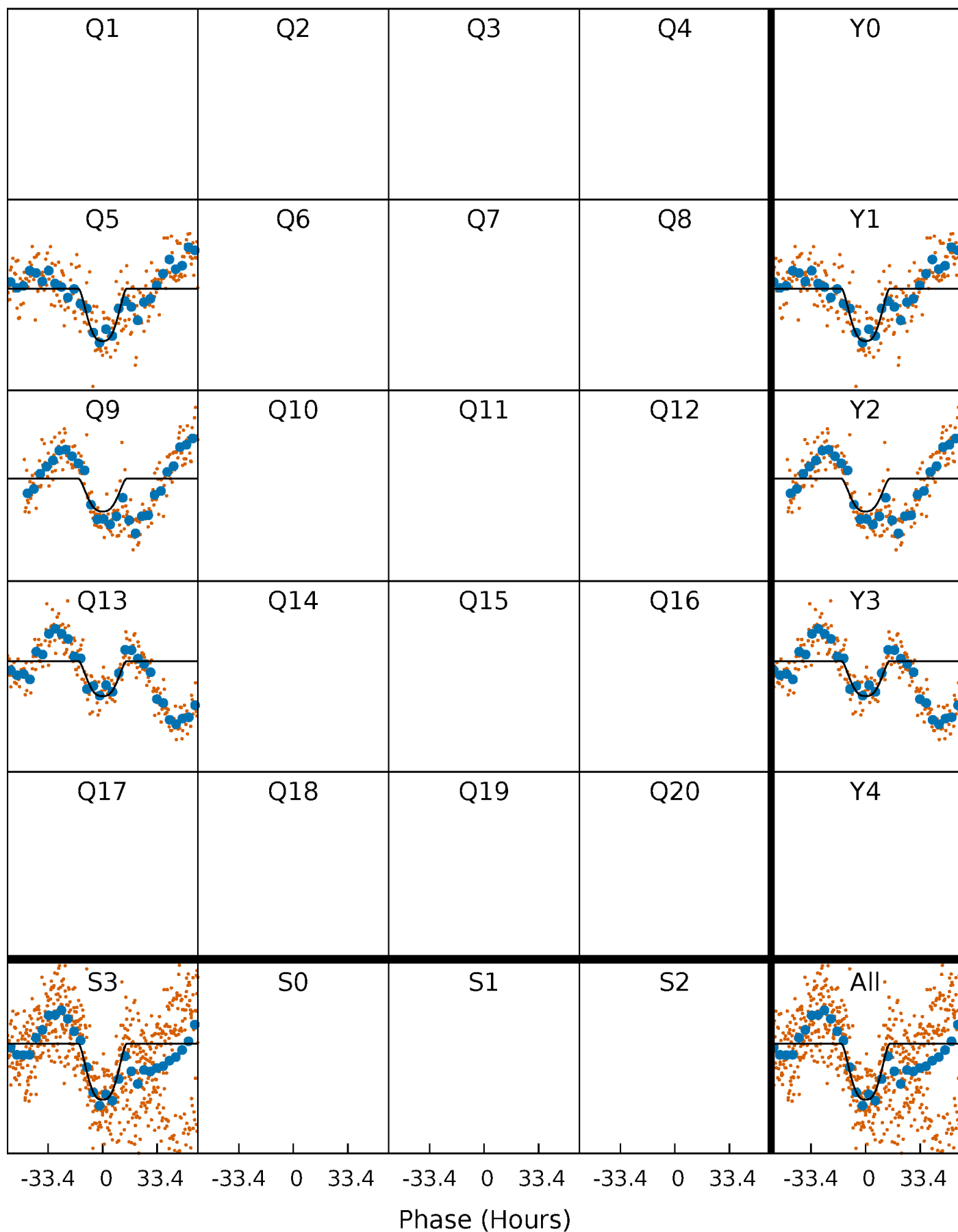
PDC Quarter-Phased Transit Curves

TCE 005697440-01 P=363.919355 Days $T_0=161.737879$ (BKJD)



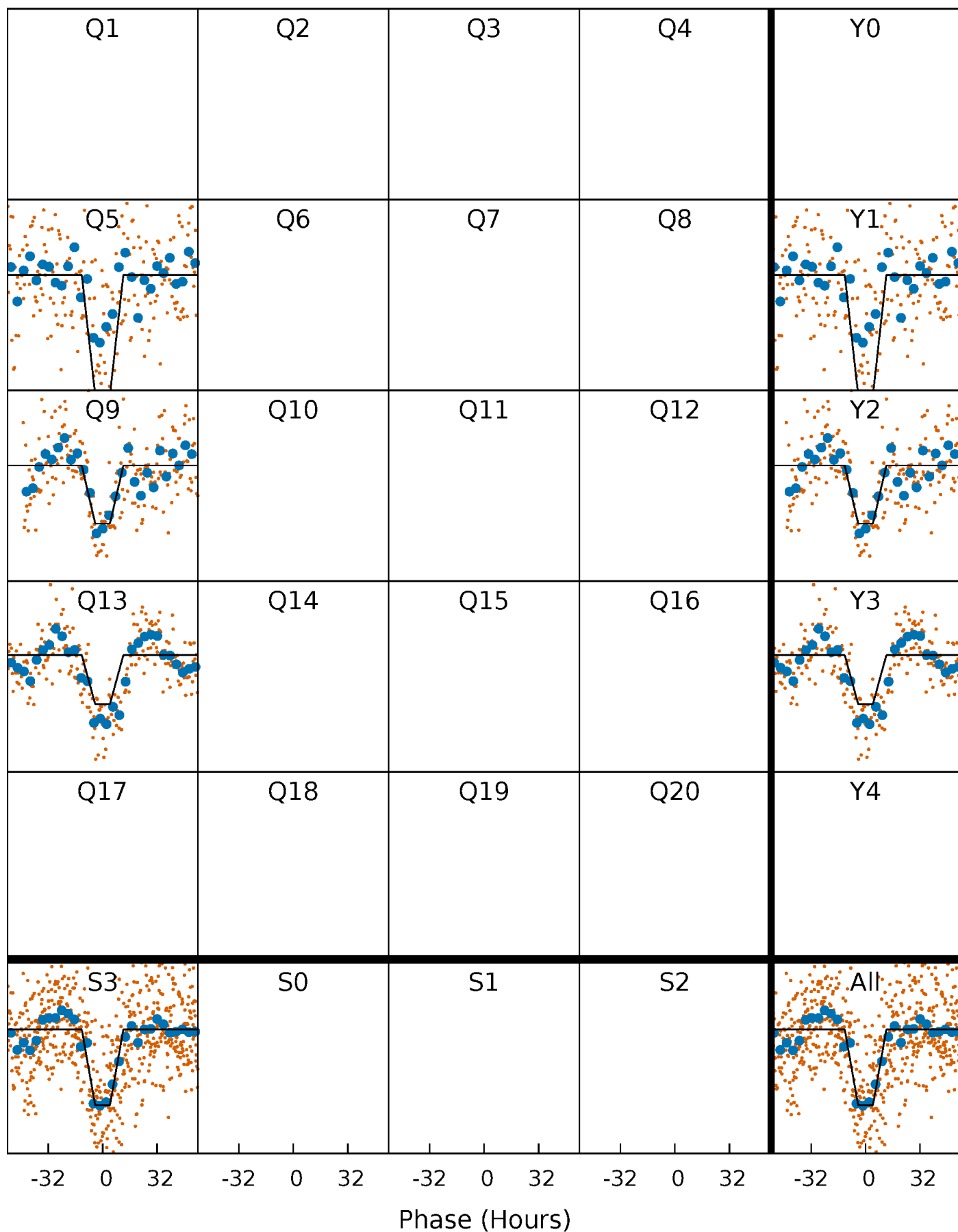
DV Quarter-Phased Transit Curves

TCE 005697440-01 P=363.919355 Days $T_0=161.737879$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

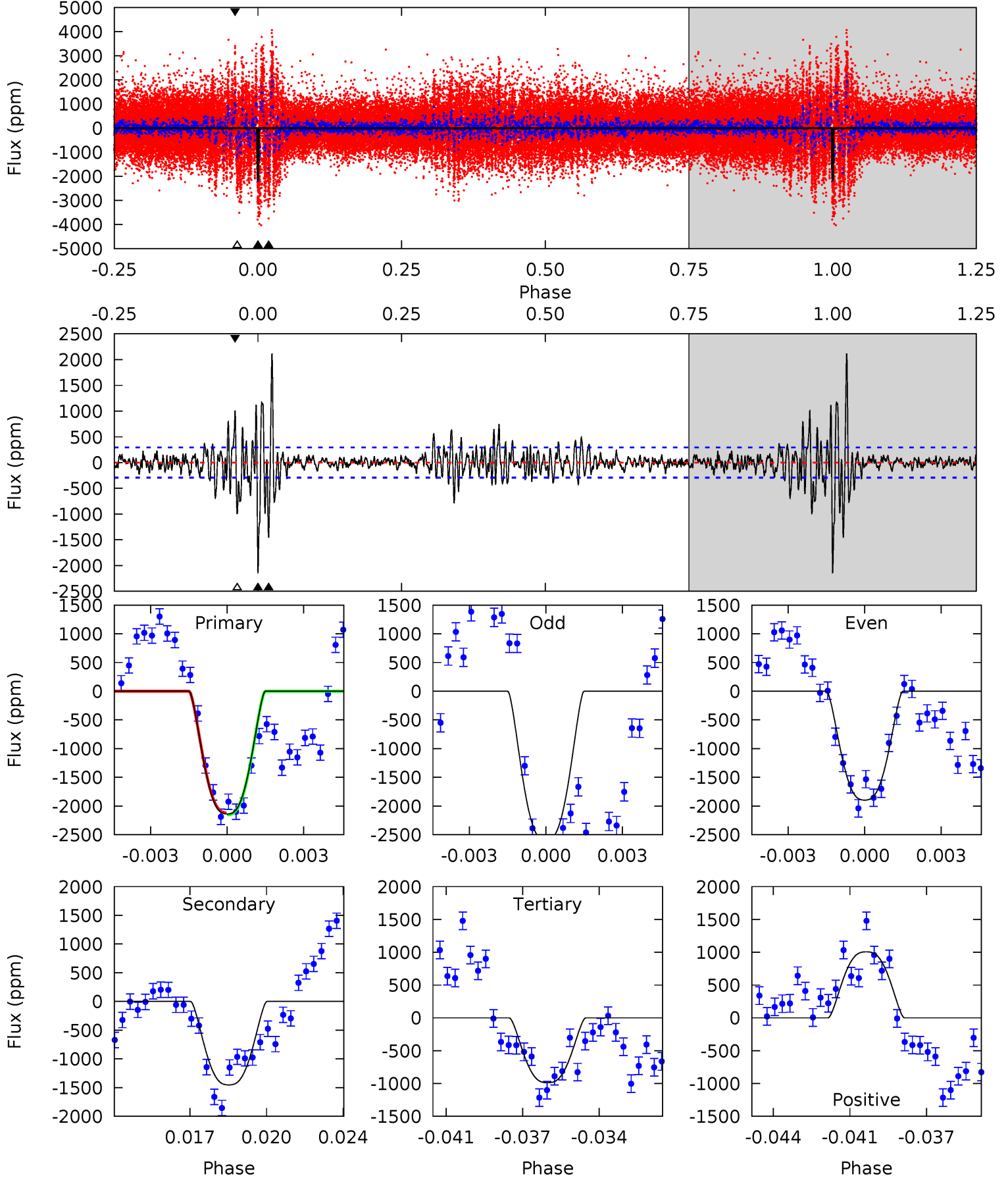
TCE 005697440-01 P=363.826347 Days $T_0=161.864774$ (BKJD)



DV Model-Shift Uniqueness Test

005697440-01, P = 363.919355 Days, E = 161.737879 Days

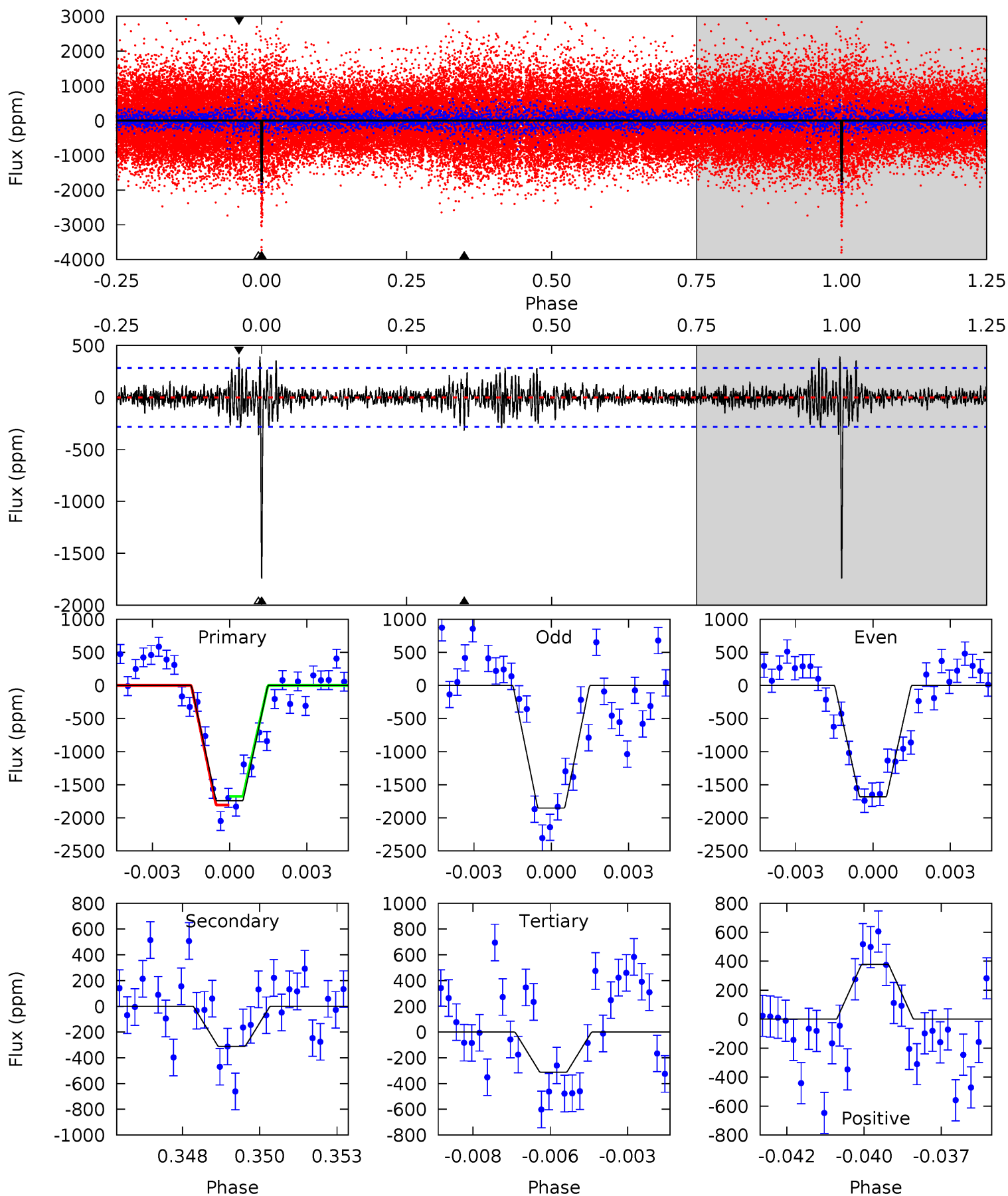
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.1	25.9	17.6	18.0	5.23	2.93	4.14	20.5	20.2	8.30	7.97	5.81	1.12	0.50	0.29



Alt Model-Shift Uniqueness Test

005697440-01, P = 363.826347 Days, E = 161.864774 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.4	5.79	5.80	7.04	5.26	2.99	1.37	26.6	25.3	-0.01	-1.24	1.49	0.94	0.18	1.25



Stellar Parameters For KIC 005697440

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5785^{+172}_{-189}	$4.571^{+0.044}_{-0.176}$	$-0.340^{+0.300}_{-0.300}$	$0.811^{+0.224}_{-0.075}$	$0.903^{+0.100}_{-0.110}$	$2.381^{+0.436}_{-1.107}$
	+3%/-3%	+1%/-4%	+88%/-88%	+28%/-9%	+11%/-12%	+18%/-46%
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 005697440-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1454 ± 56	$4.82^{+0.78}_{-0.63}$	334^{+22}_{-15}	5019^{+266}_{-237}	31591^{+9434}_{-7682}
Alt.	-312 ± 54	$3.90^{+0.68}_{-0.52}$	334^{+22}_{-15}	4030^{+238}_{-212}	10238^{+3747}_{-3127}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

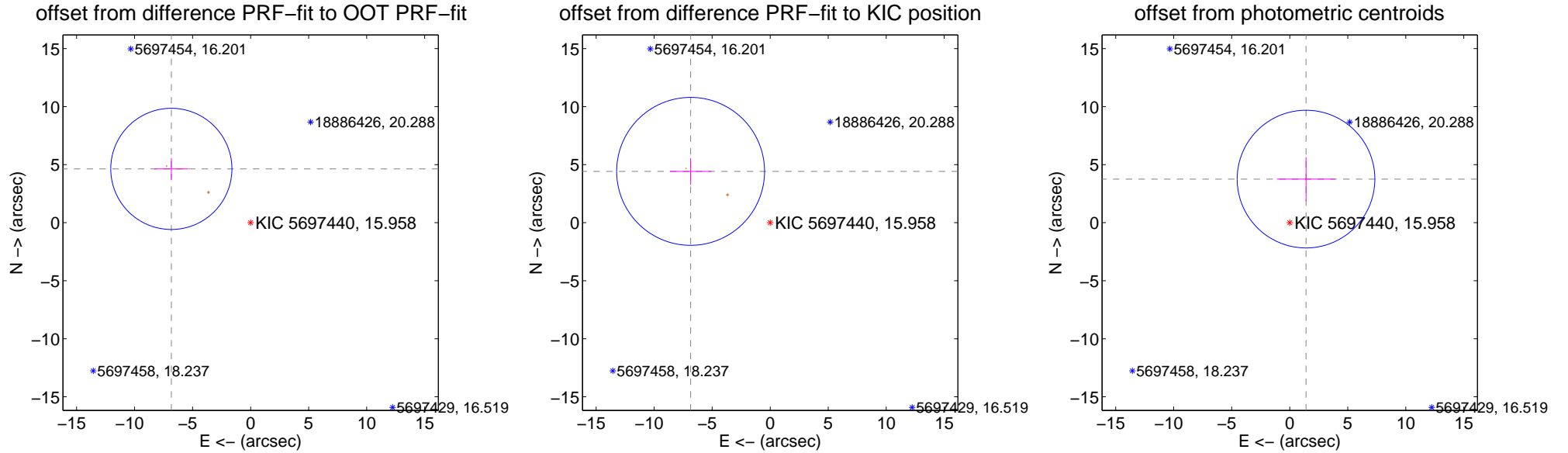
DV Centroid Data

Supplemental centroid analysis for 005697440-01. Kepler magnitude: 15.96. Transit SNR 9.43

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	8.256 ± 1.740	4.75	6.832 ± 1.473	4.636 ± 0.930
PRF-fit source offset from KIC position	8.159 ± 2.124	3.84	6.857 ± 1.793	4.422 ± 1.141
photometric centroid source offset	4.01 ± 1.98	2.03	-1.40 ± 2.51	3.76 ± 1.89

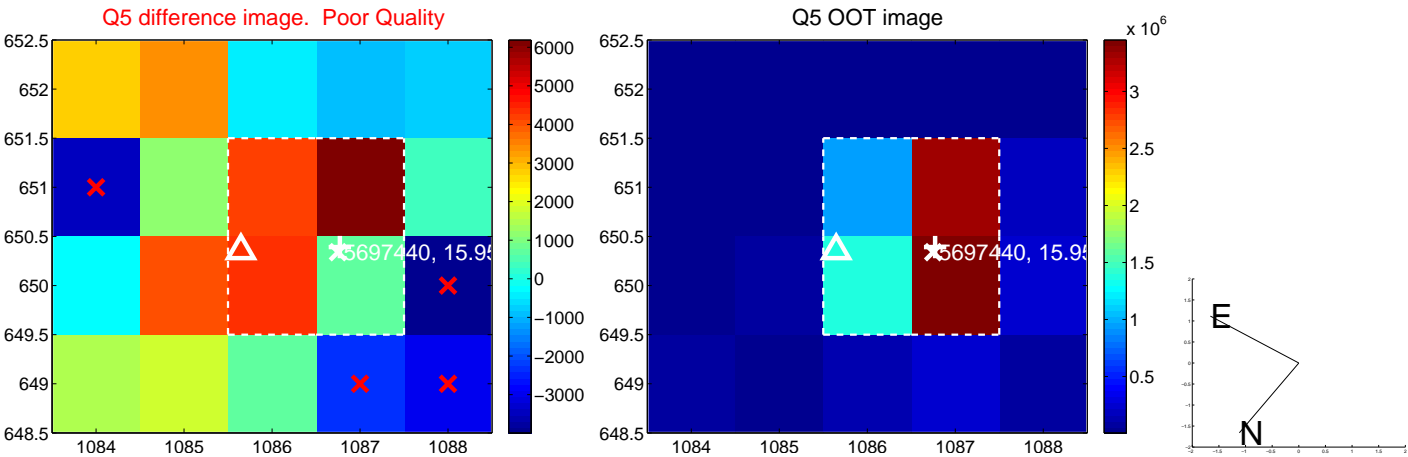


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

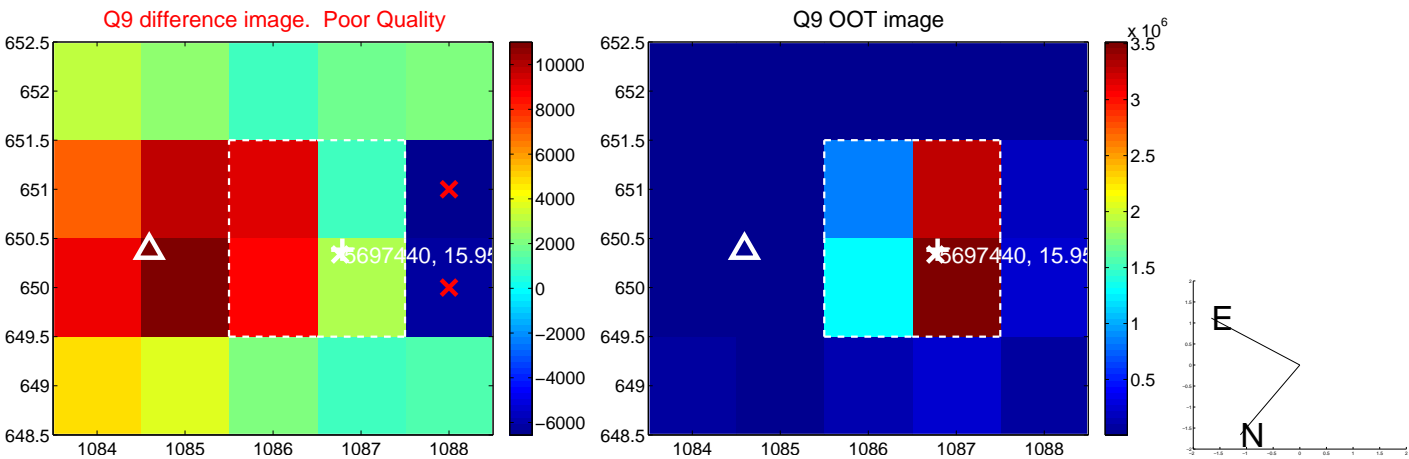
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



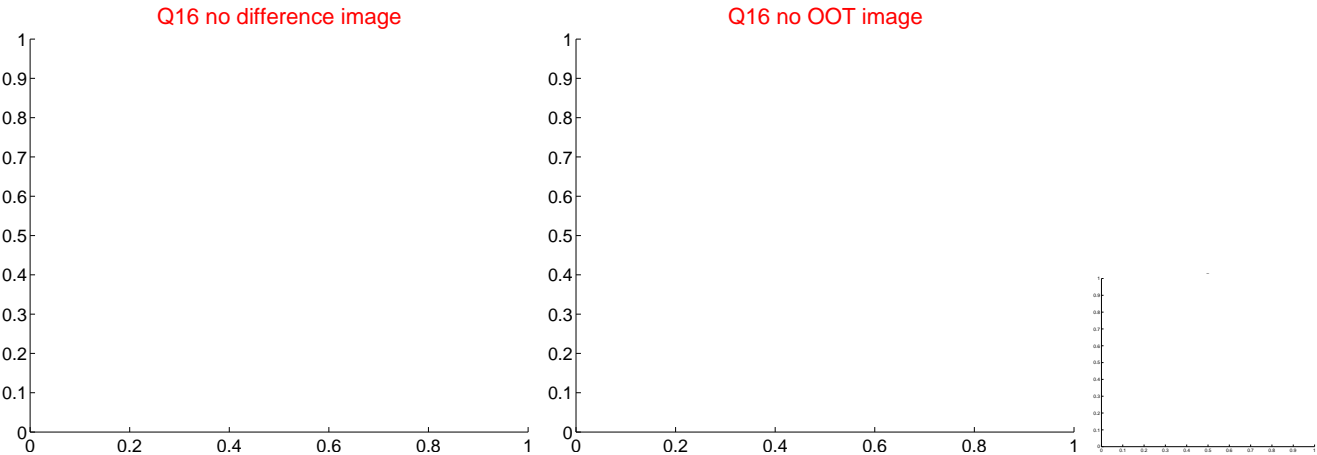
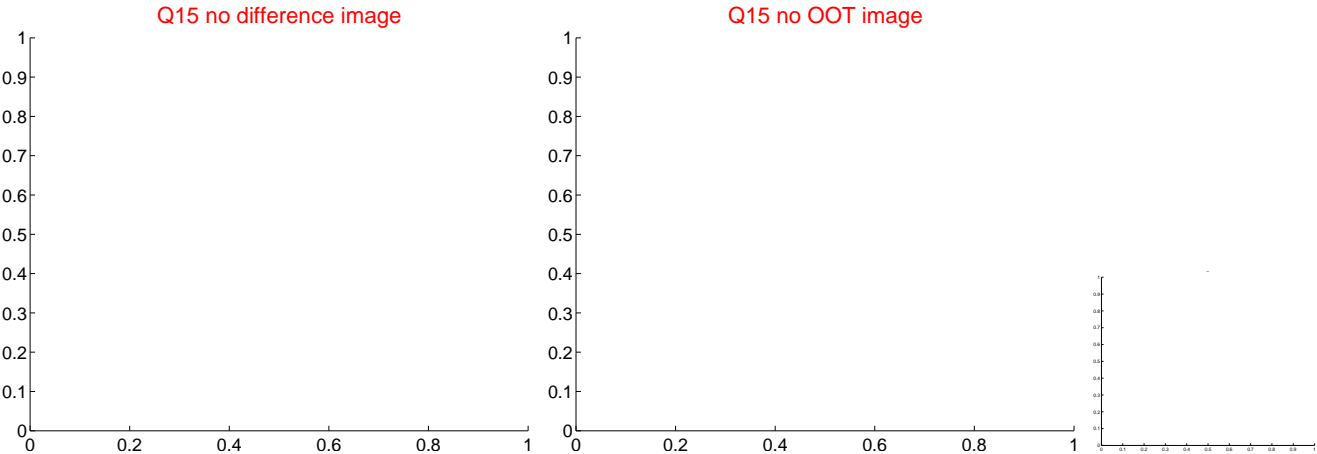
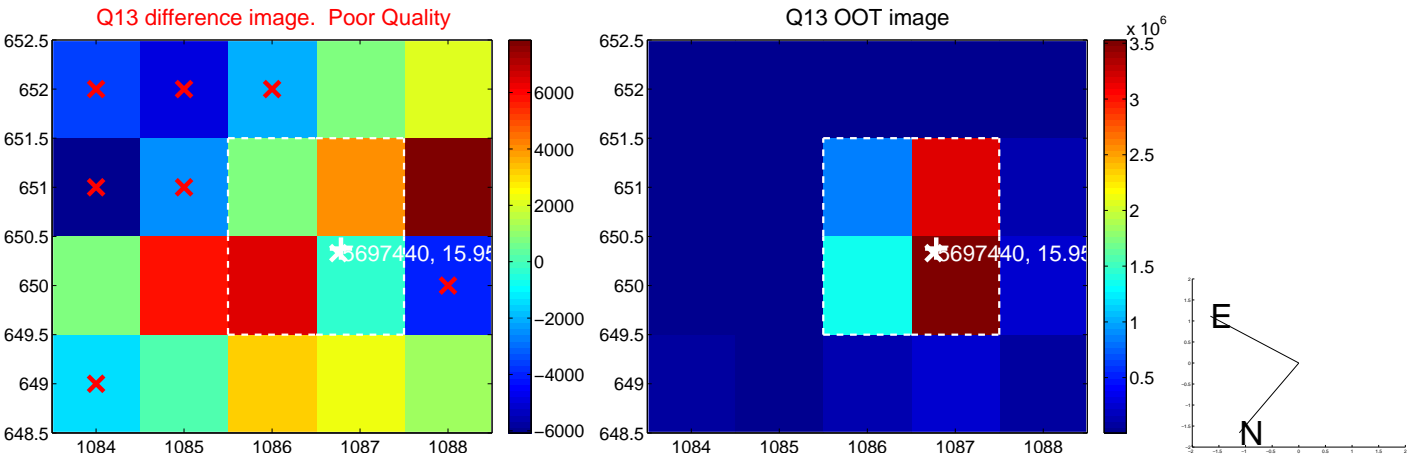
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



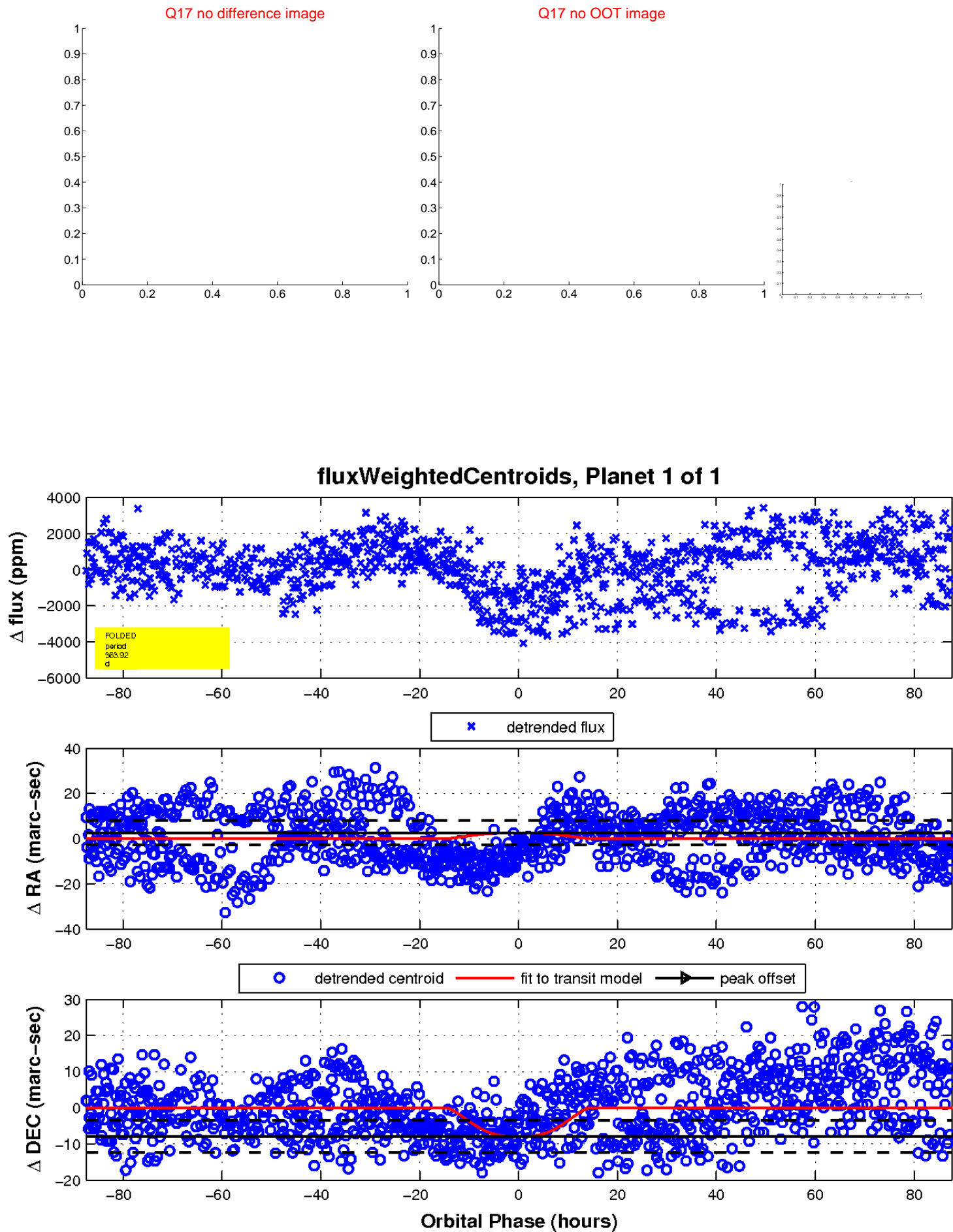
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

