

KIC 008481095

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})
008481095-01	OBS	No	452.650699	188.482226	390.6	9.102	10.5	6.1	0.82	4889	2.28	0.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008481095-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL_SKYE—MOD_NONUNIQ_ALT—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.

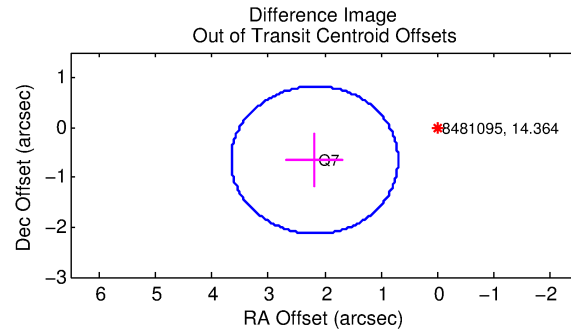
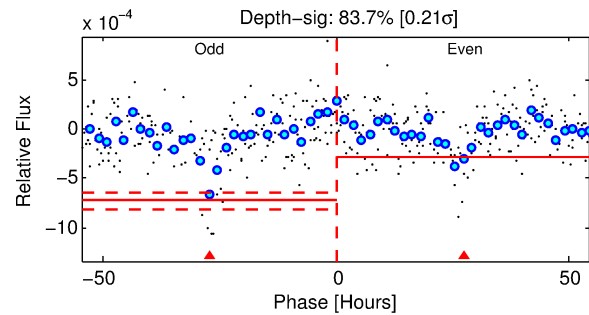
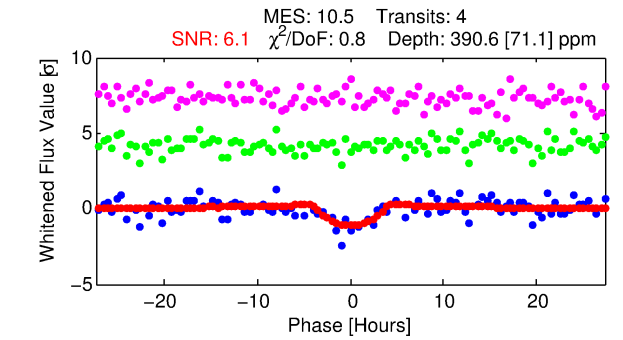
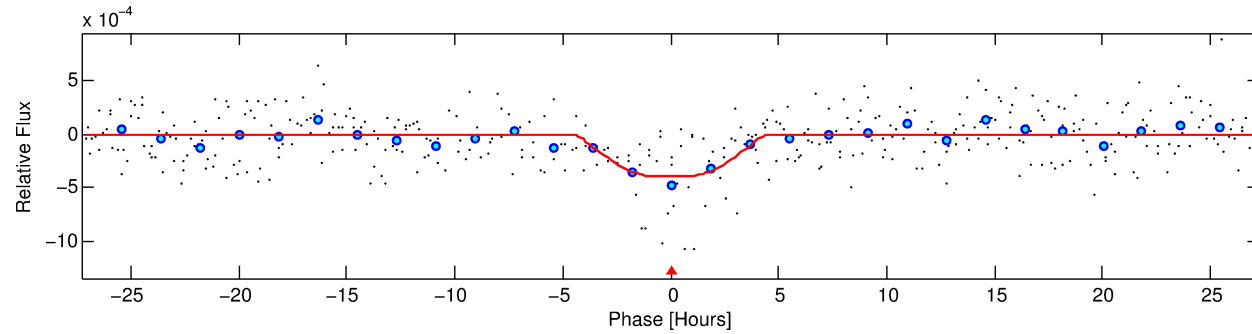
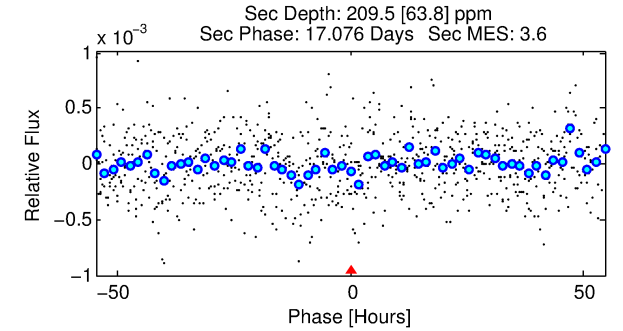
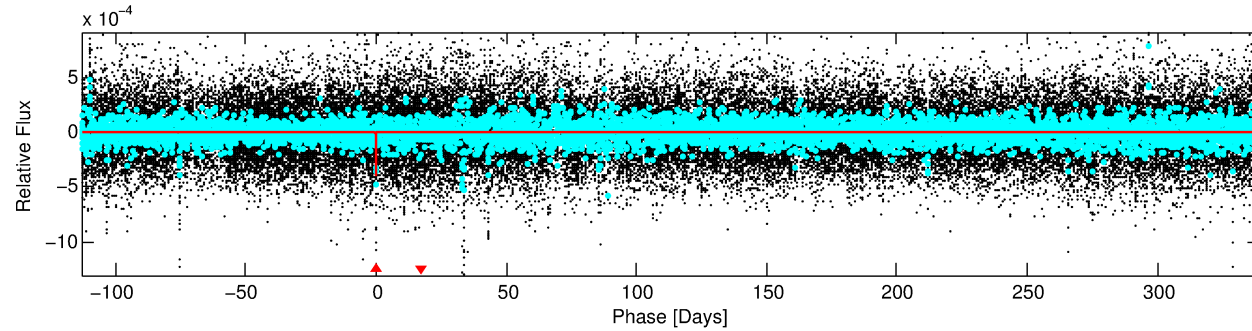
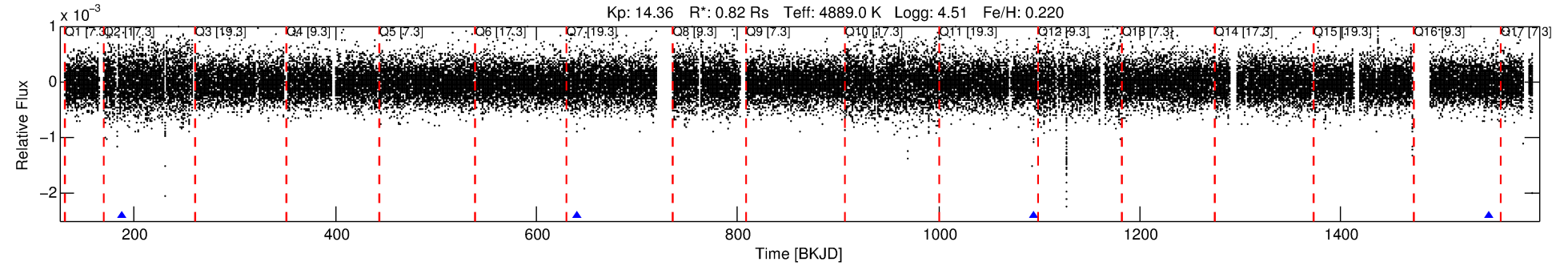
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008481095-01

No Significant Match Found

DV One-Page Summary

KIC: 8481095 Candidate: 1 of 1 Period: 452.651 d



DV Fit Results:

Period = 452.65070 [0.01253] d
Epoch = 188.4822 [0.0276] BKJD
Rp/R* = 0.0255 [0.0034]
a/R* = 125.56 [31.17]
b = 0.97 [0.02]
Seff = 0.30 [0.06]
Teq = 189 [9] K
Rp = 2.28 [0.38] Re
a = 1.0659 [0.0986] AU
Ag = 25274.74 [10833.33] [2.33σ]
Teffp = 3683 [388] K [9.00σ]

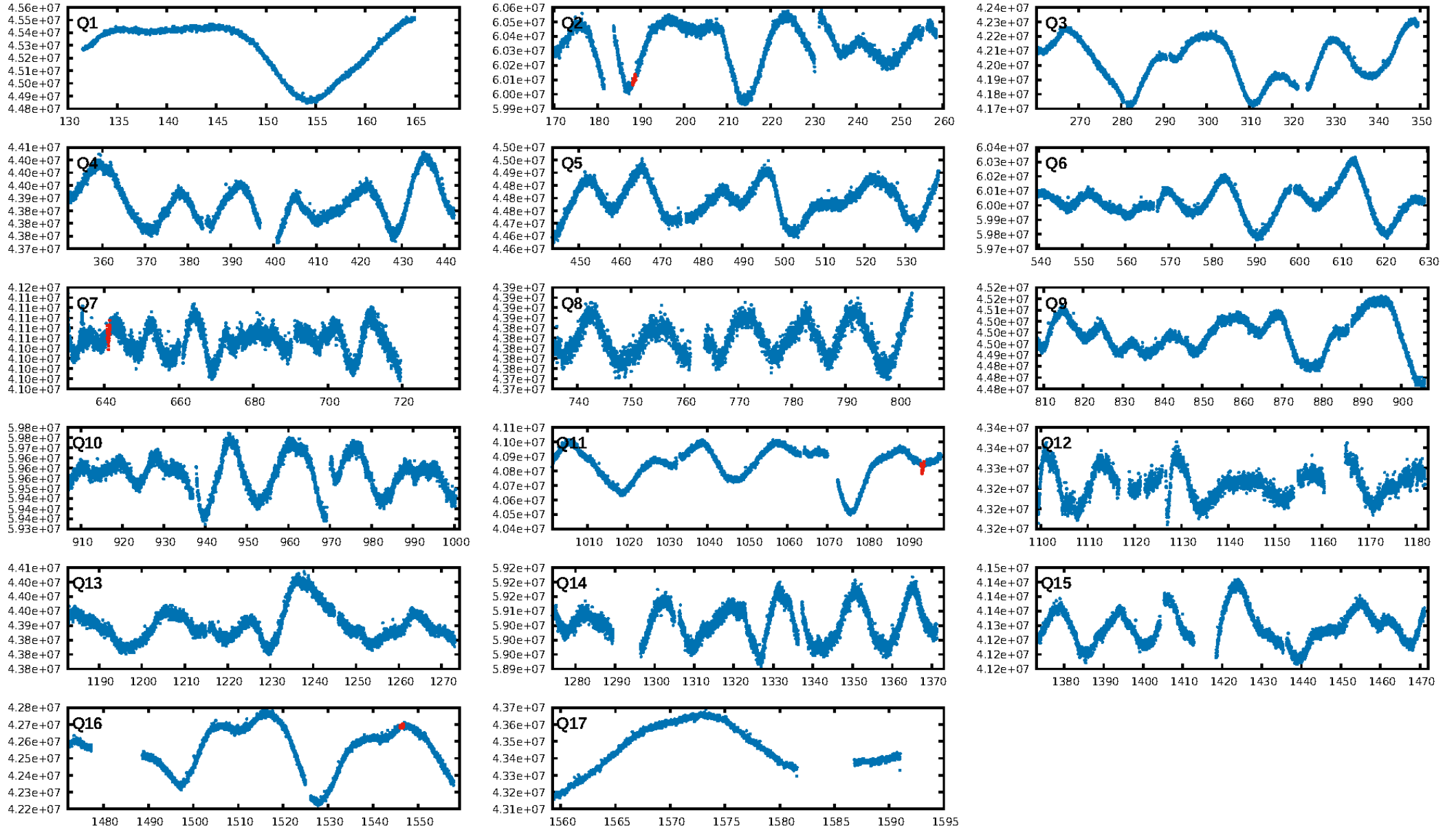
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.29e-20
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -10.82
Centroid-sig: 41.9%
Centroid-so: 1.559 arcsec [1.34σ]
OotOffset-rm: 2.274 arcsec [4.61σ]
KicOffset-rm: 2.138 arcsec [4.31σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

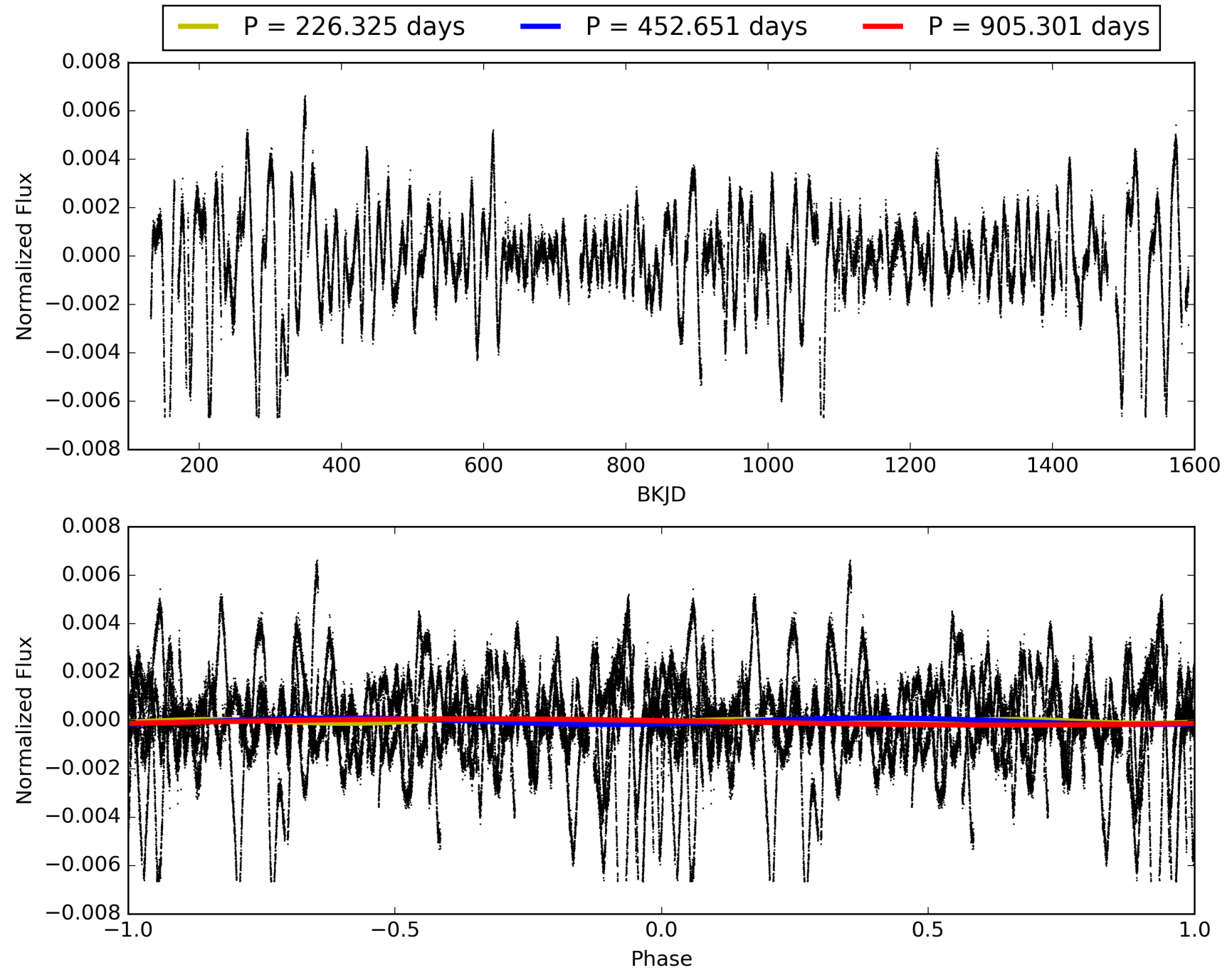
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:35:20 Z

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

TCE 008481095-01, PDC Light Curves

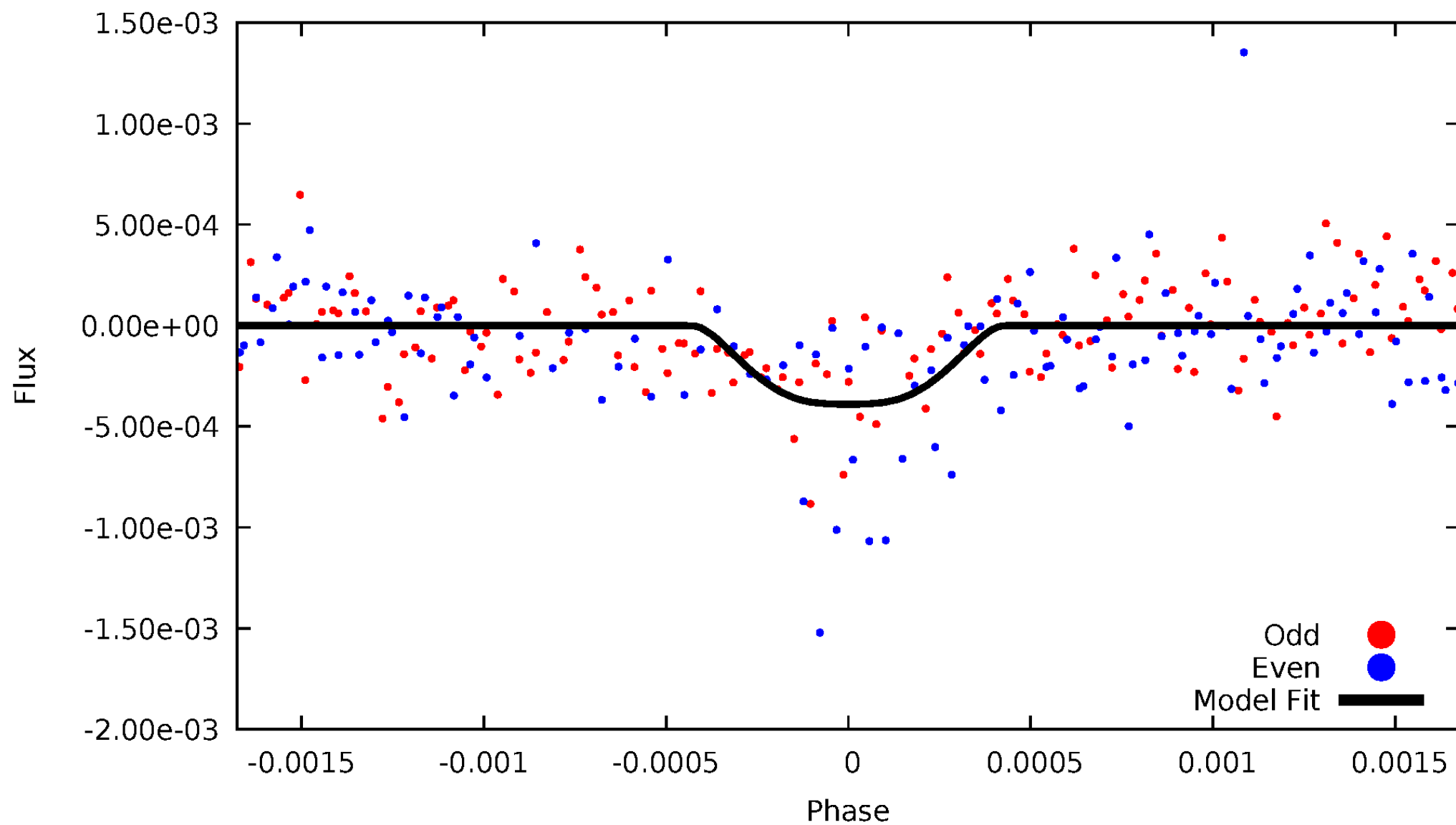


TCE 008481095-01



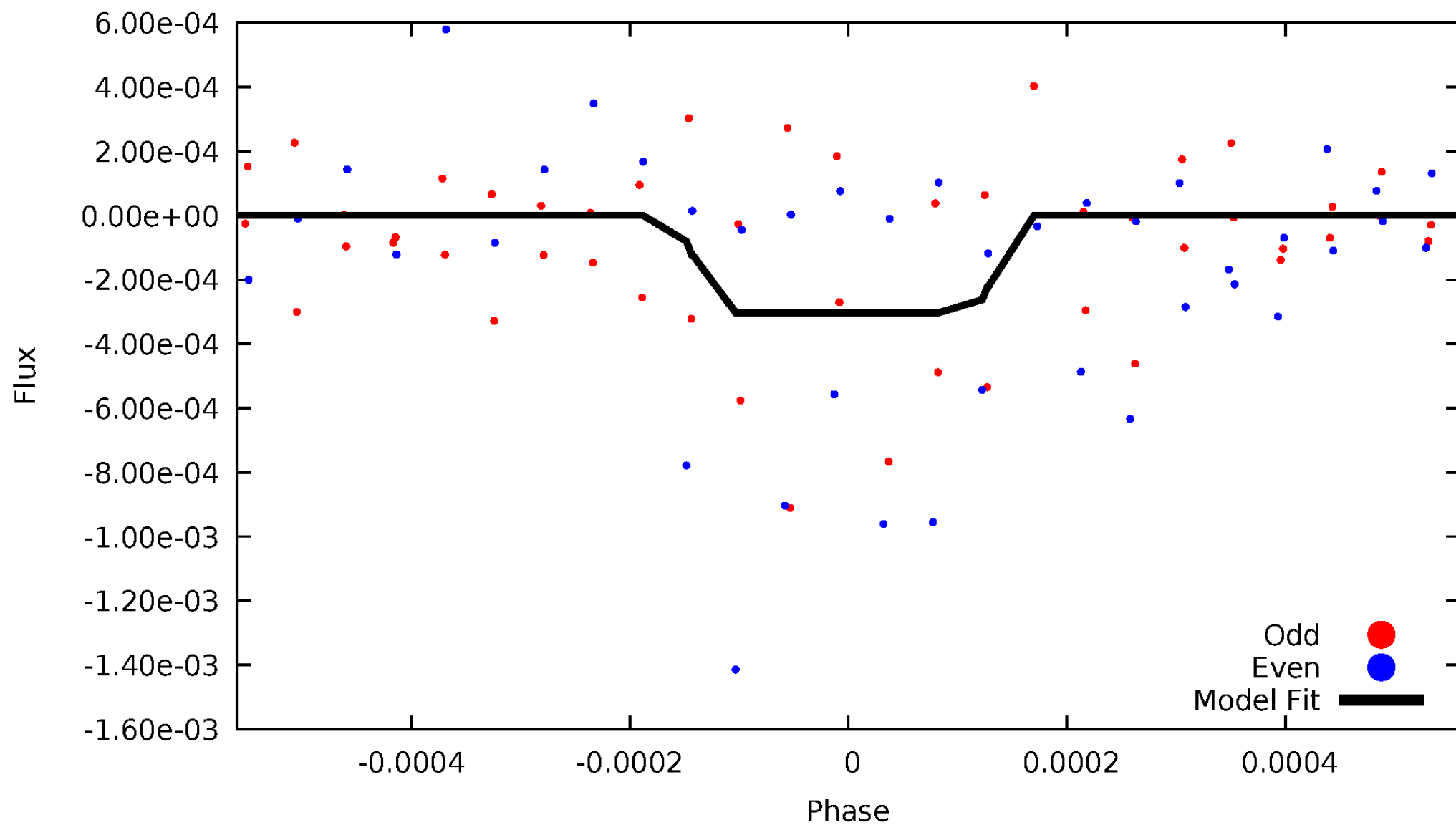
DV Odd/Even

TCE 008481095-01



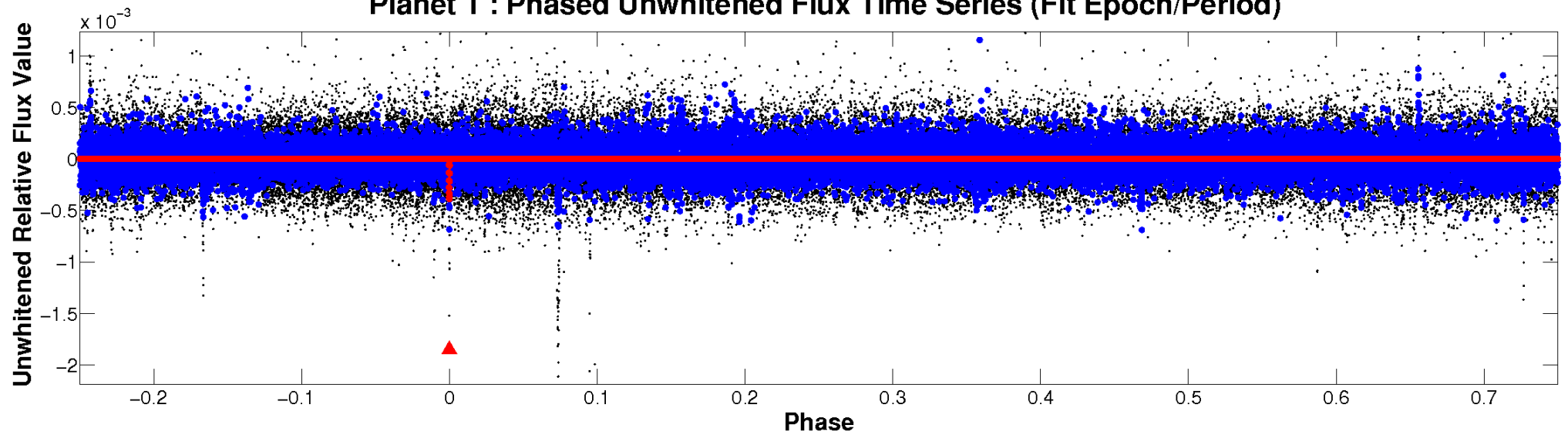
ALT Odd/Even

TCE 008481095-01

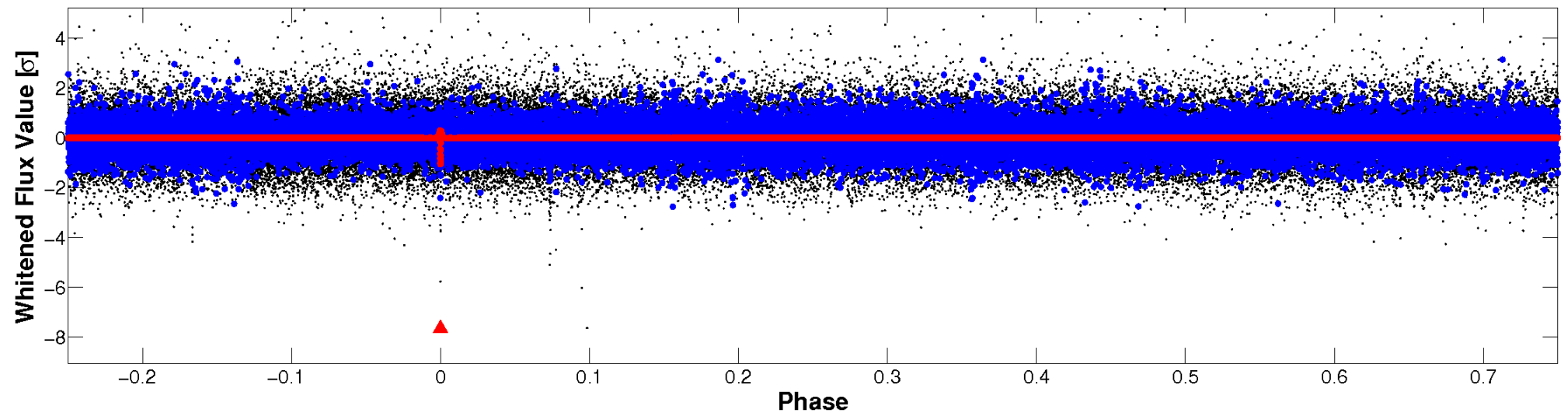


Non-Whitened Vs. Whitened Light Curve

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

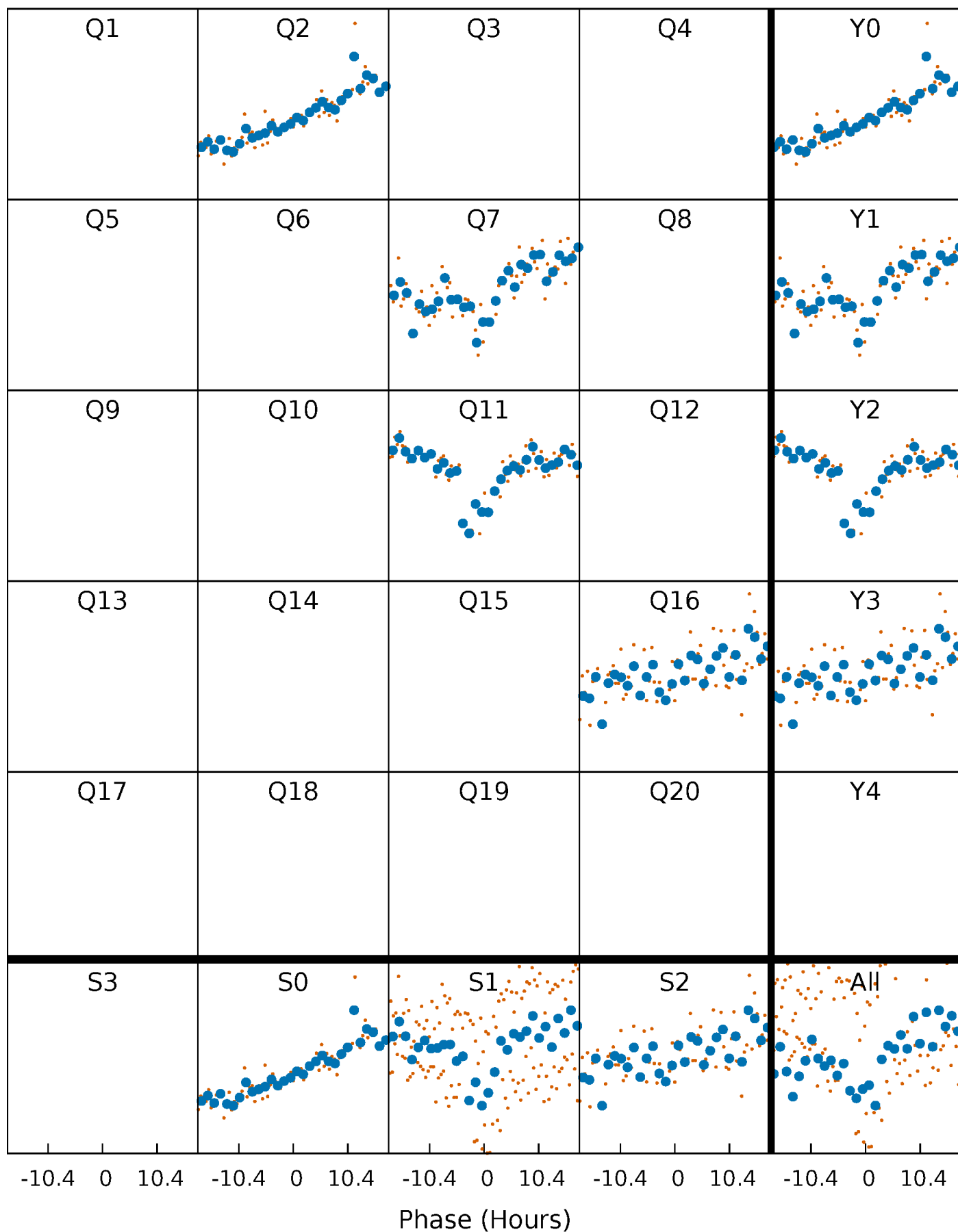


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



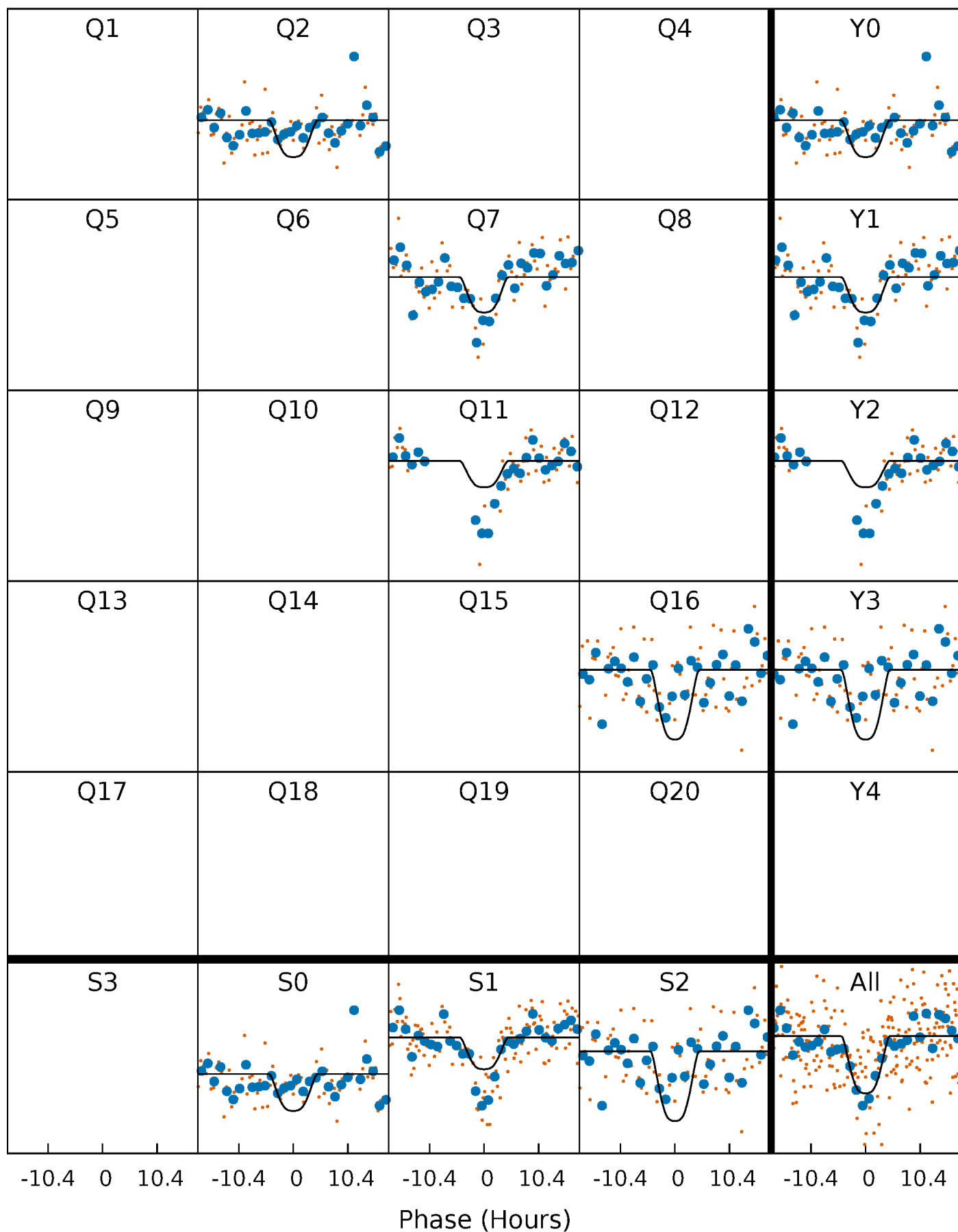
PDC Quarter-Phased Transit Curves

TCE 008481095-01 P=452.650699 Days $T_0=188.482226$ (BKJD)



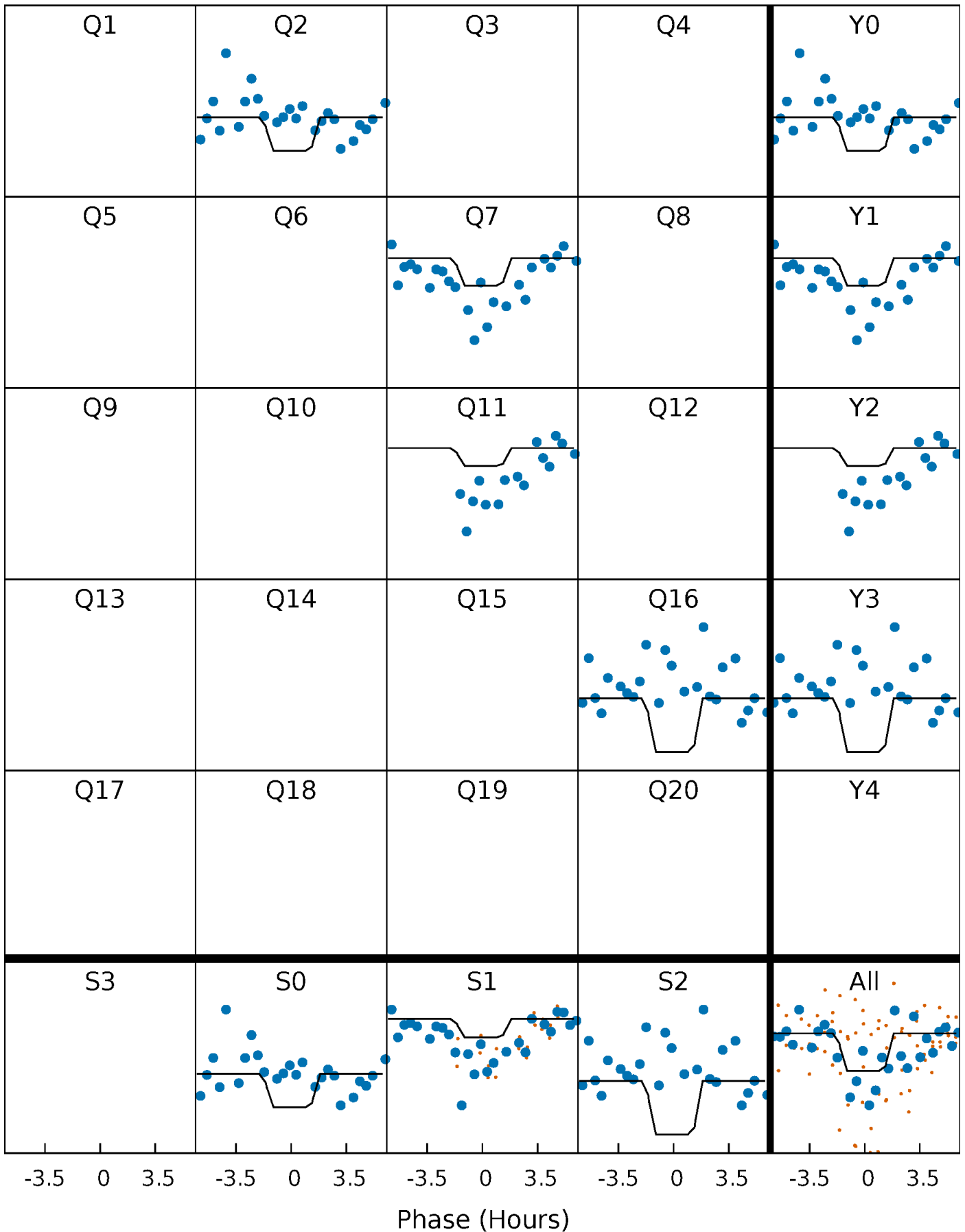
DV Quarter-Phased Transit Curves

TCE 008481095-01 $P=452.650699$ Days $T_0=188.482226$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

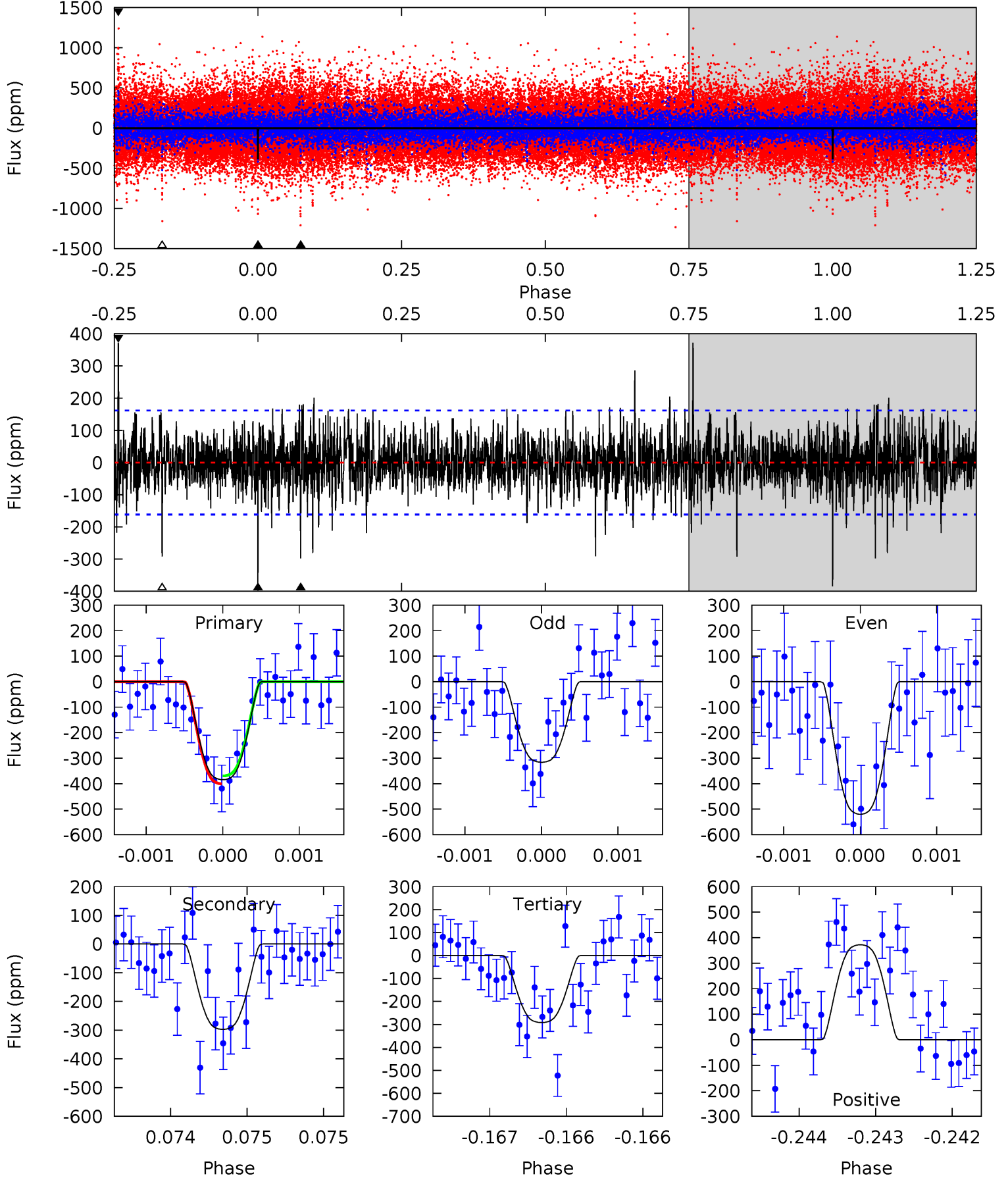
TCE 008481095-01 P=452.685088 Days $T_0=188.424981$ (BKJD)



DV Model-Shift Uniqueness Test

008481095-01, P = 452.650699 Days, E = 188.482226 Days

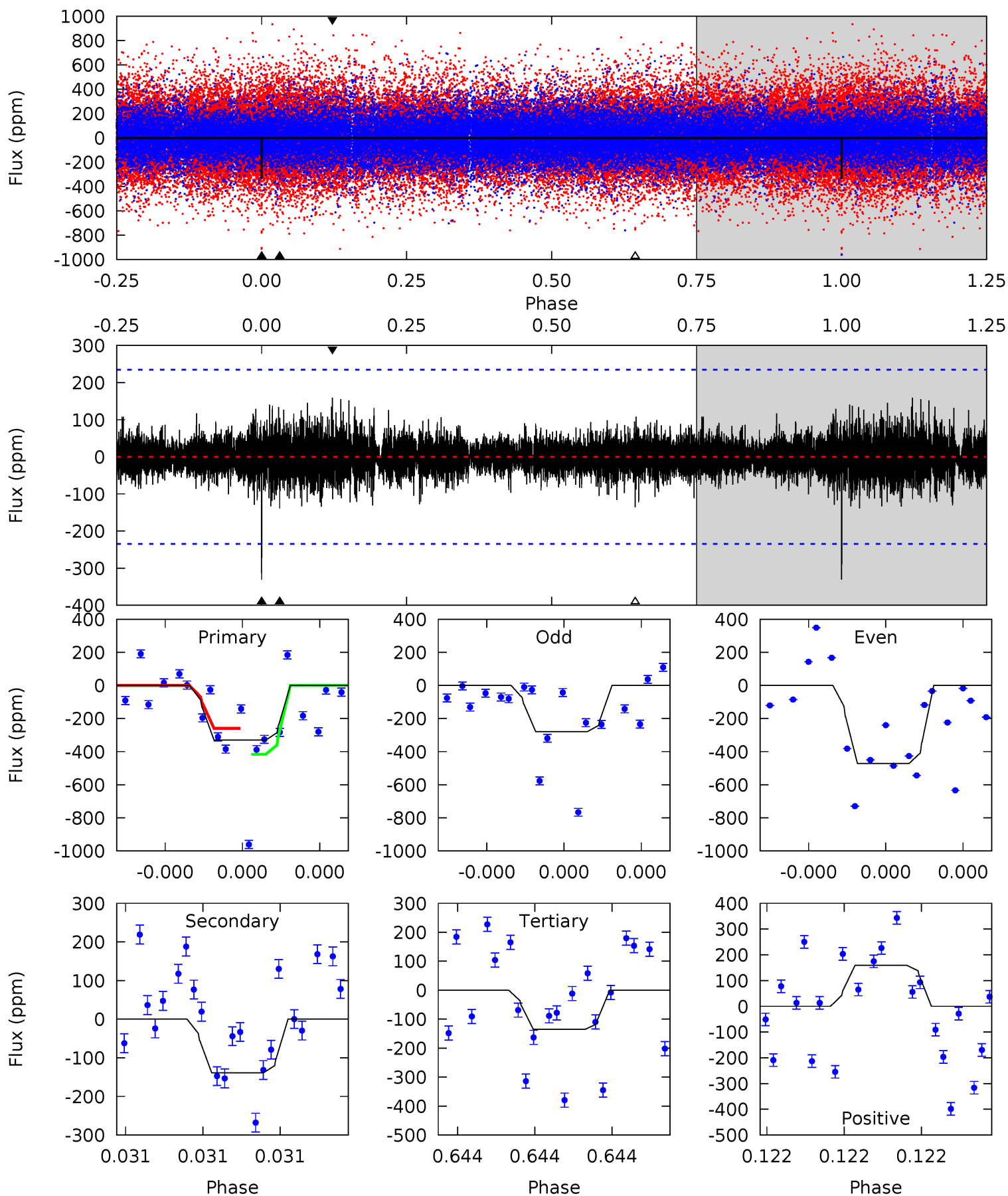
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	10.1	9.90	12.6	5.48	3.33	2.05	3.14	0.41	0.18	-2.54	3.46	1.41	0.49	0.53



Alt Model-Shift Uniqueness Test

008481095-01, P = 452.685088 Days, E = 188.424981 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.99	3.36	3.27	3.85	5.68	3.64	0.77	4.72	4.14	0.09	-0.50	2.37	1.16	0.33	1.88



Stellar Parameters For KIC 008481095

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4889^{+145}_{-130}	$4.509^{+0.081}_{-0.072}$	$0.220^{+0.200}_{-0.300}$	$0.818^{+0.063}_{-0.084}$	$0.788^{+0.067}_{-0.054}$	$2.024^{+0.715}_{-0.443}$
	+3%/-3%	+2%/-2%	+91%/-136%	+8%/-10%	+9%/-7%	+35%/-22%
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 008481095-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-297 ± 29	$2.28^{+0.33}_{-0.34}$	264^{+10}_{-11}	4200^{+284}_{-232}	36064^{+12716}_{-8650}
Alt.	-139 ± 41	$1.55^{+0.32}_{-0.32}$	264^{+11}_{-10}	4205^{+435}_{-380}	35808^{+24324}_{-14312}

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

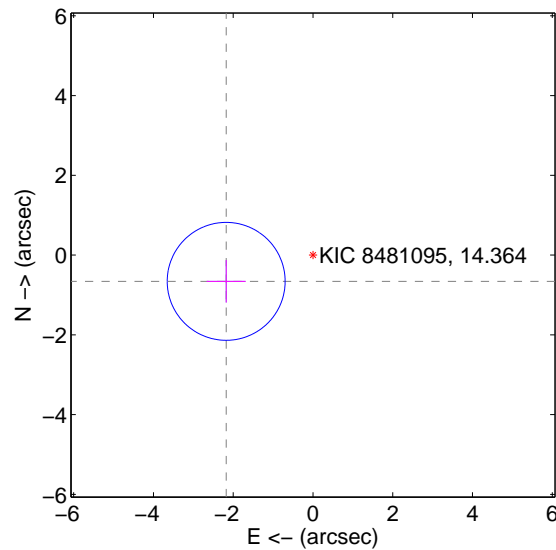
Supplemental centroid analysis for 008481095-01. Kepler magnitude: 14.36. Transit SNR 6.12

There are 1 quarters with good PRF difference image offsets

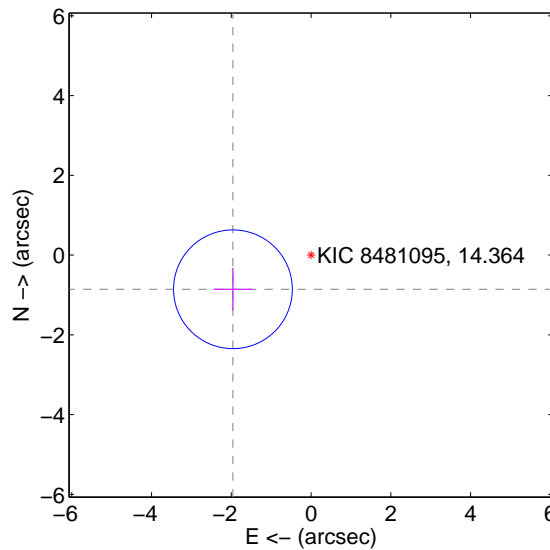
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.274 ± 0.493	4.61	2.176 ± 0.489	-0.658 ± 0.533
PRF-fit source offset from KIC position	2.138 ± 0.496	4.31	1.959 ± 0.489	-0.857 ± 0.533
photometric centroid source offset	1.56 ± 1.17	1.34	-1.38 ± 1.17	-0.72 ± 1.14

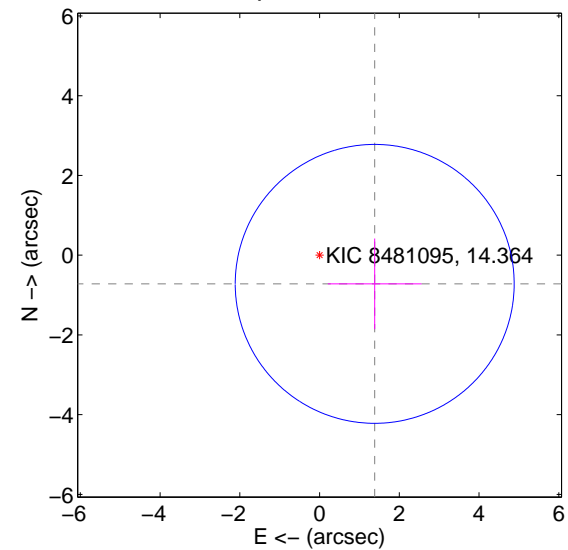
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

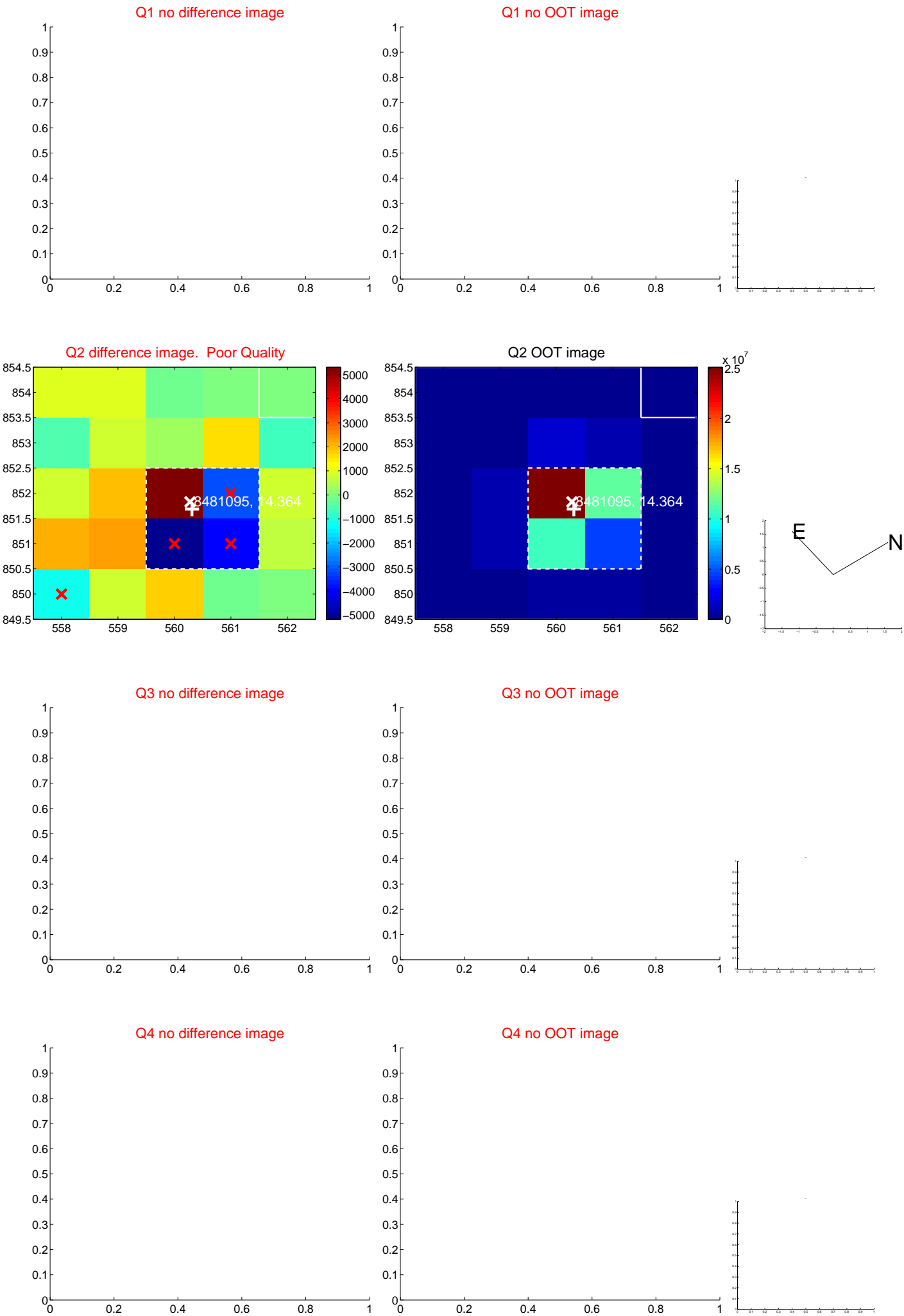


offset from photometric centroids



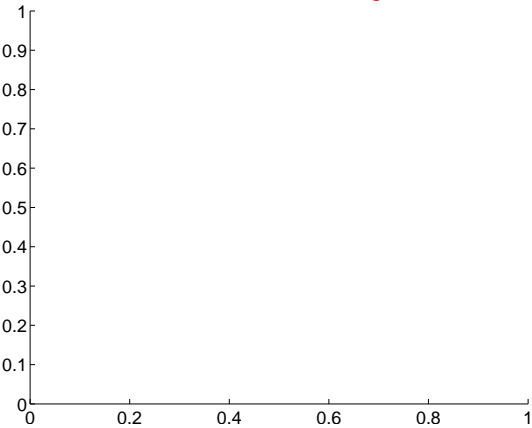
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

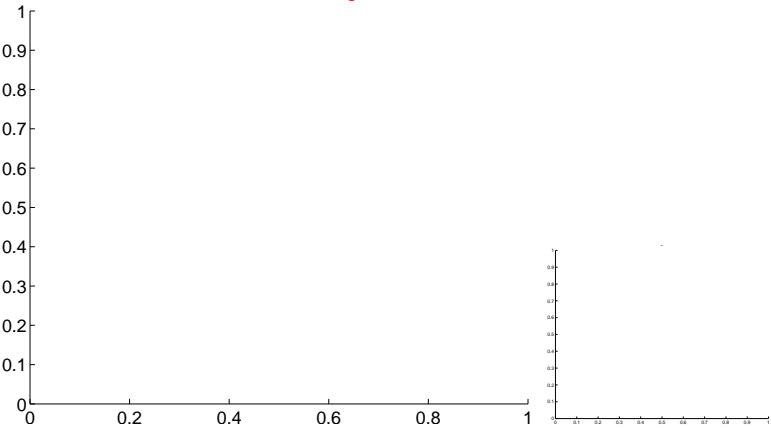


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

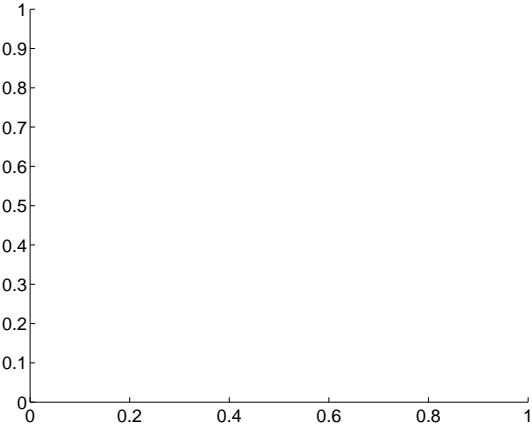
Q5 no difference image



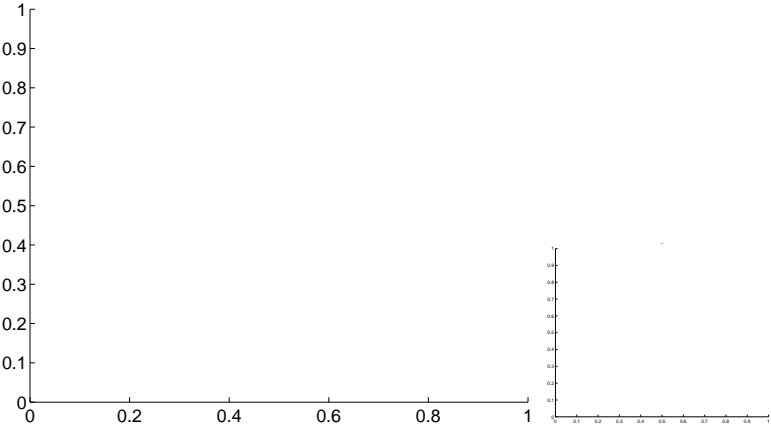
Q5 no OOT image



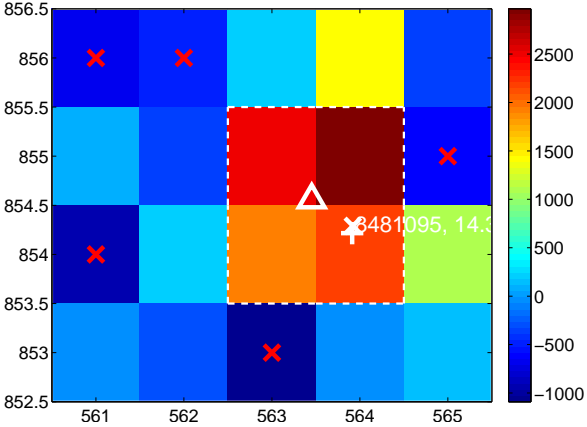
Q6 no difference image



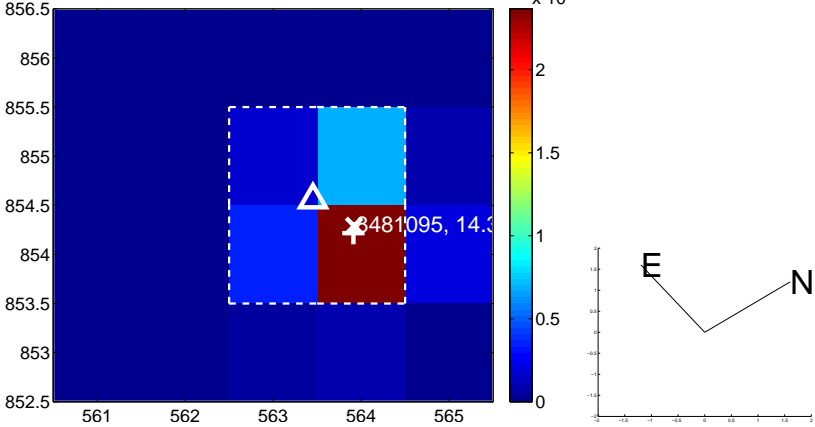
Q6 no OOT image



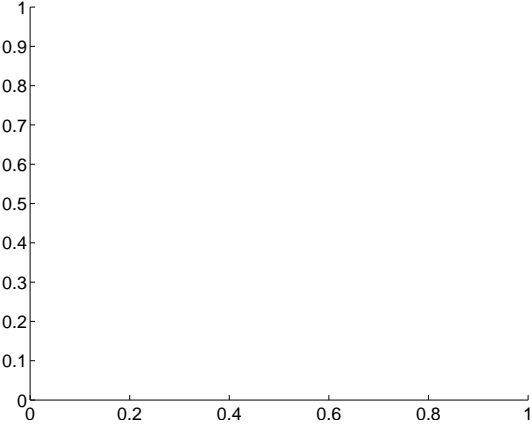
Q7 difference image



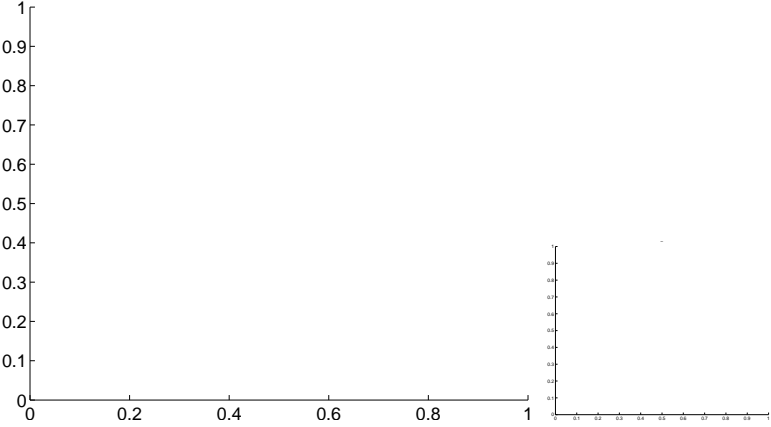
Q7 OOT image



Q8 no difference image



Q8 no OOT image



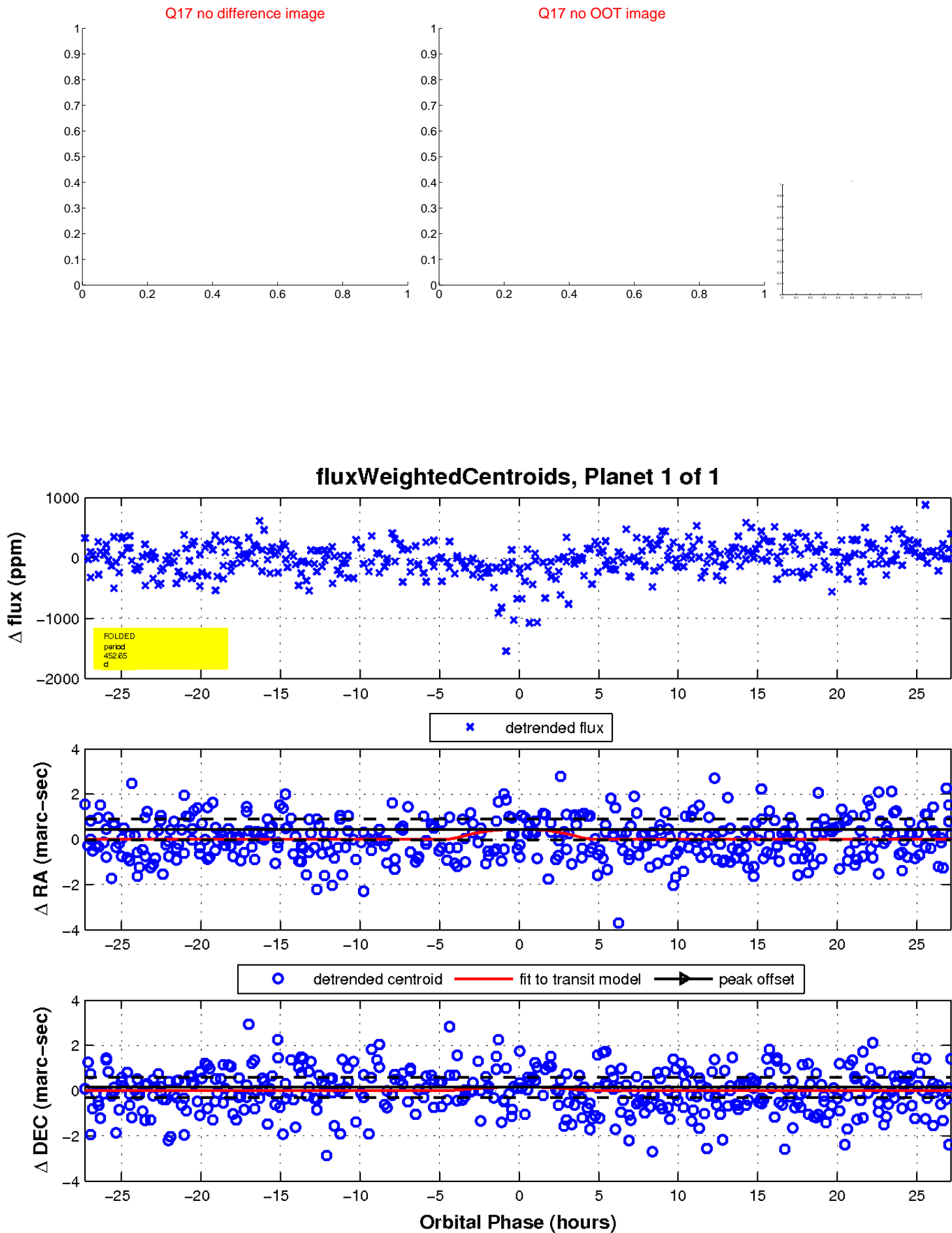
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

