

KIC 008091724

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})
008091724-01	OBS	No	368.792189	302.288003	1398.5	25.085	13.3	13.2	0.89	6089	3.85	0.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008091724-01	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.

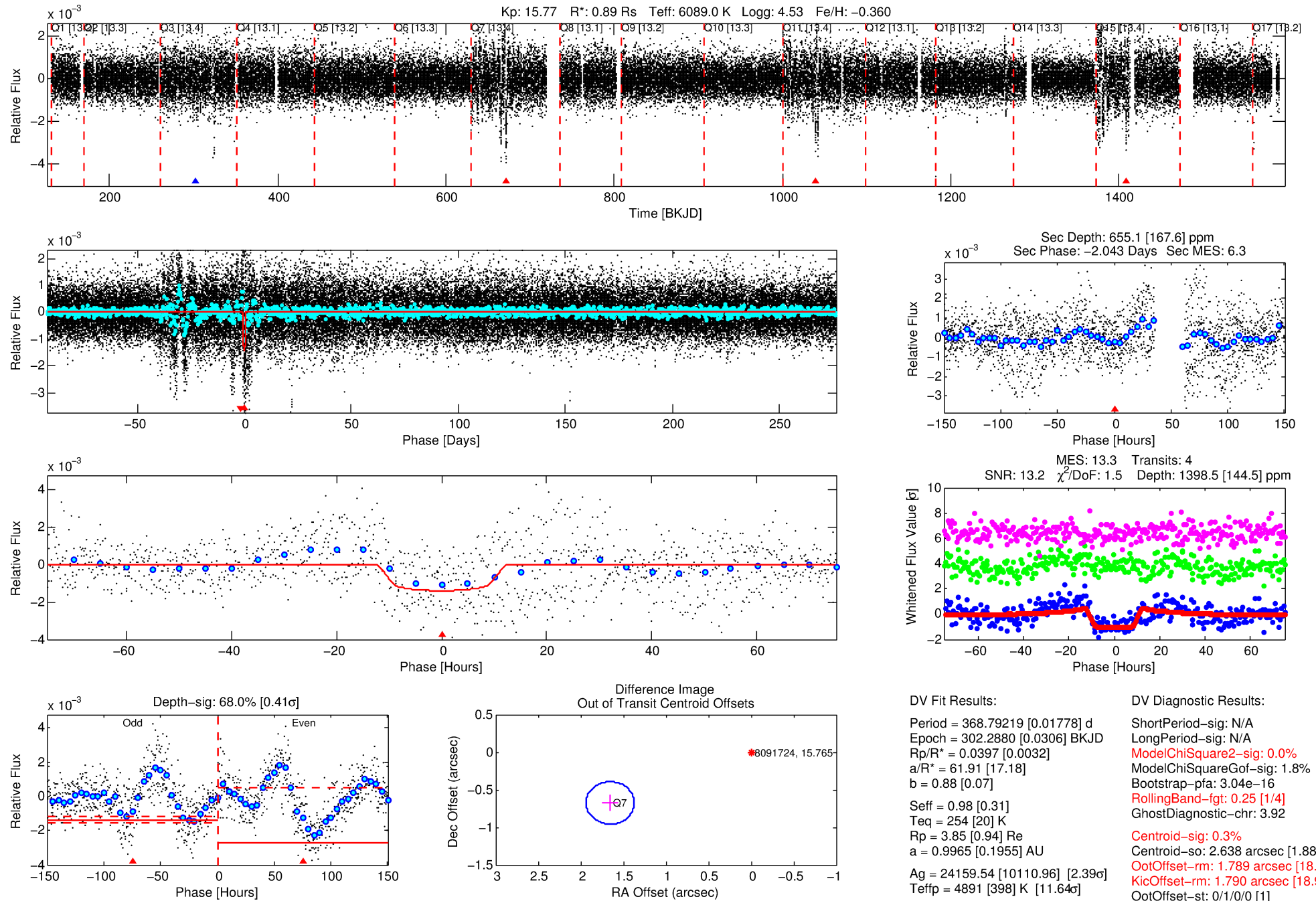
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008091724-01

No Significant Match Found

DV One-Page Summary

KIC: 8091724 Candidate: 1 of 1 Period: 368.792 d



DV Fit Results:

Period = 368.79219 [0.01778] d
Epoch = 302.2880 [0.0306] BKJD
Rp/R* = 0.0397 [0.0032]
a/R* = 61.91 [17.18]
b = 0.88 [0.07]
Seff = 0.98 [0.31]
Teq = 254 [20] K
Rp = 3.85 [0.94] Re
a = 0.9965 [0.1955] AU
Ag = 24159.54 [10110.96] [2.39 σ]
Teff = 4891 [398] K [11.64 σ]

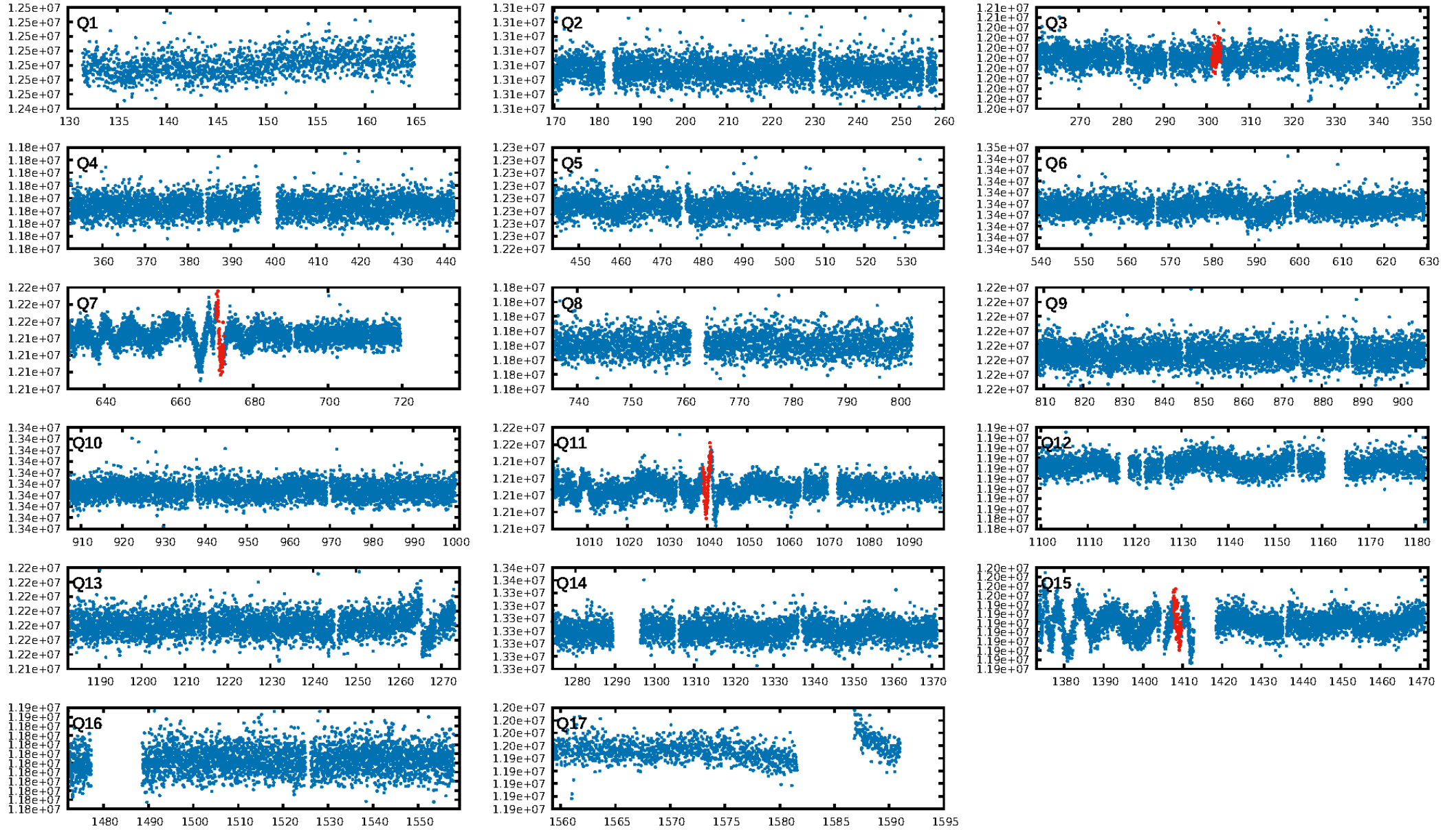
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 1.8%
Bootstrap-pfa: 3.04e-16
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 3.92
Centroid-sig: 0.3%
Centroid-so: 2.638 arcsec [1.88 σ]
OotOffset-rm: 1.789 arcsec [18.98 σ]
KicOffset-rm: 1.790 arcsec [18.90 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

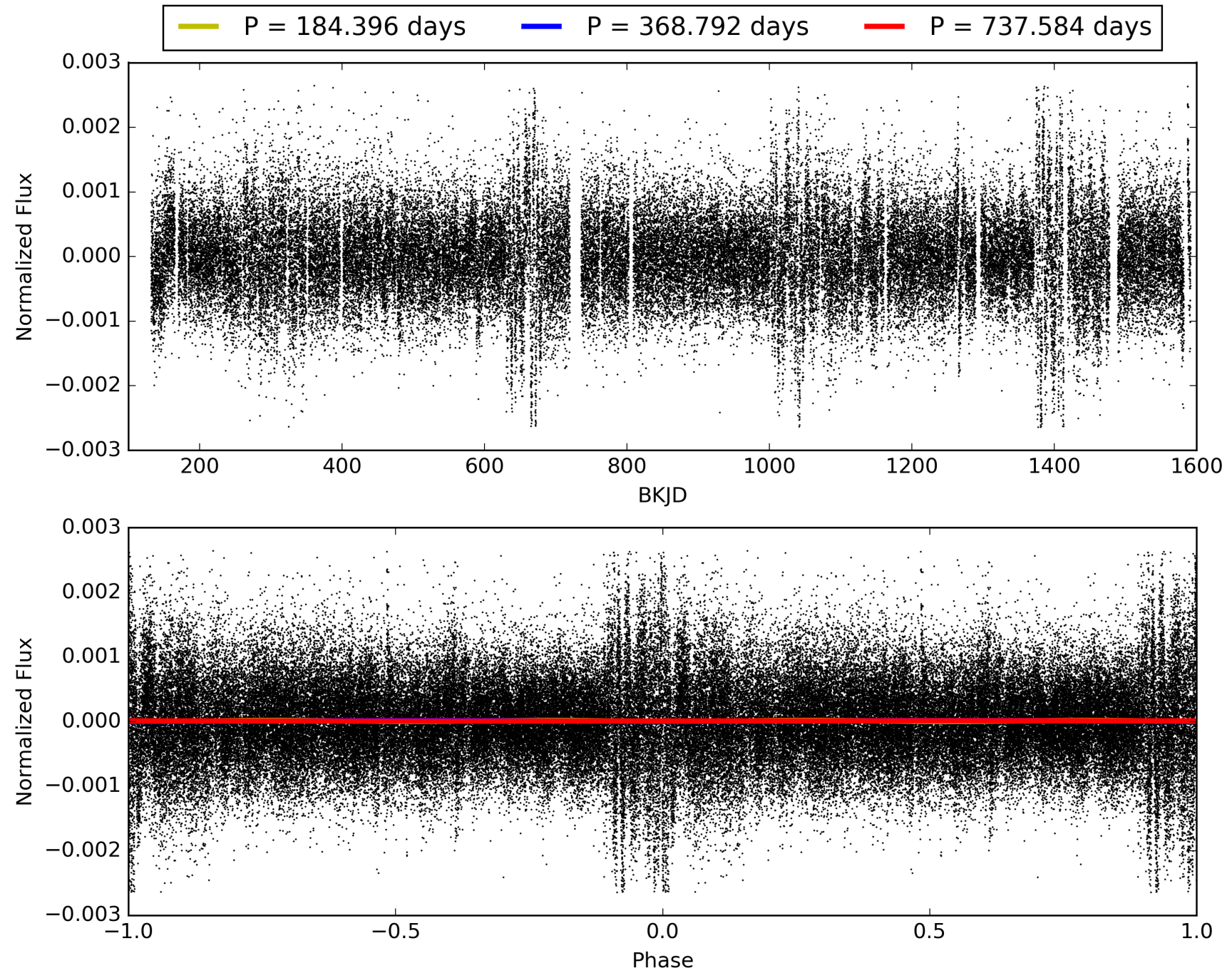
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:51:16 Z

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

TCE 008091724-01, PDC Light Curves

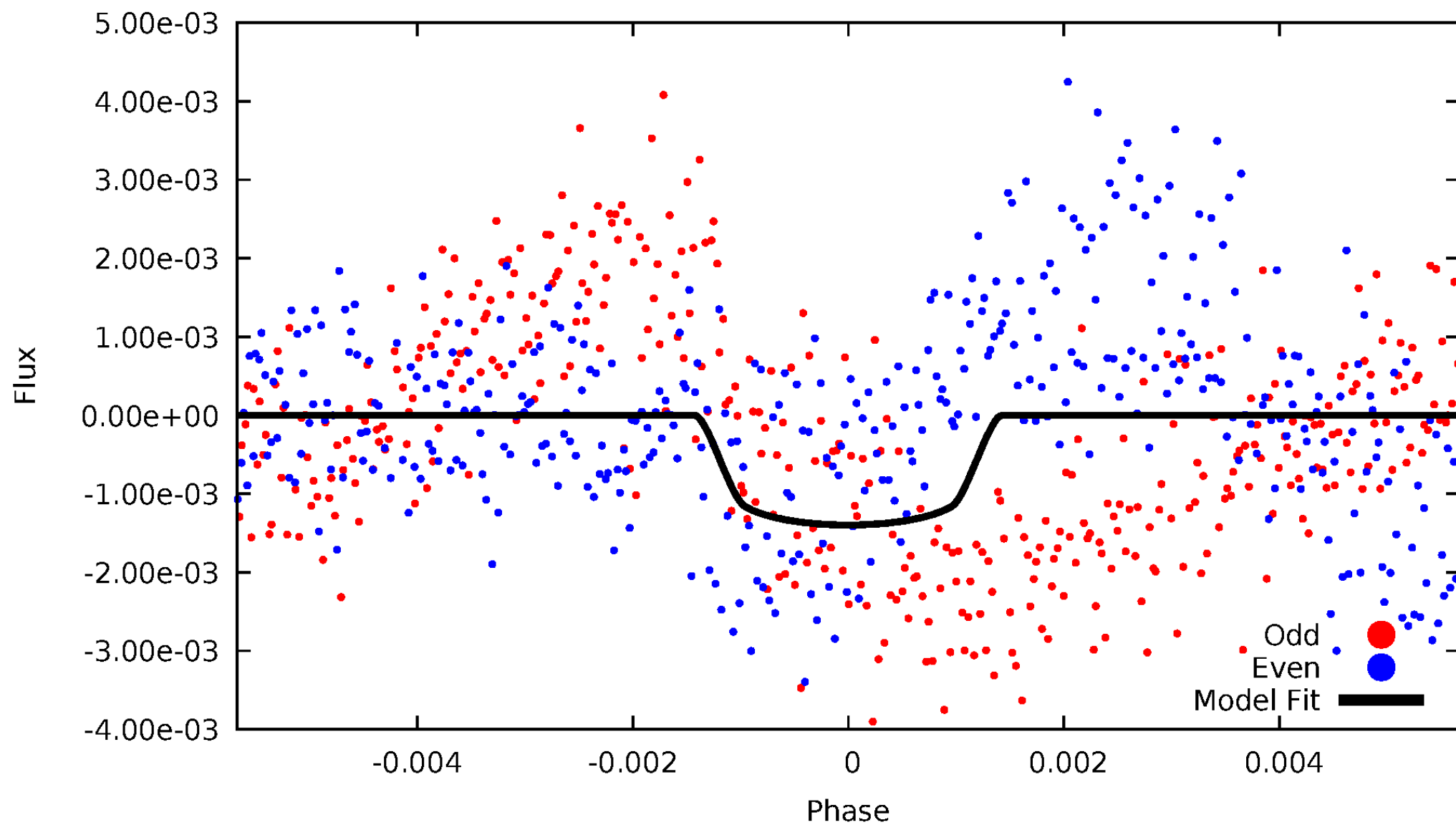


TCE 008091724-01



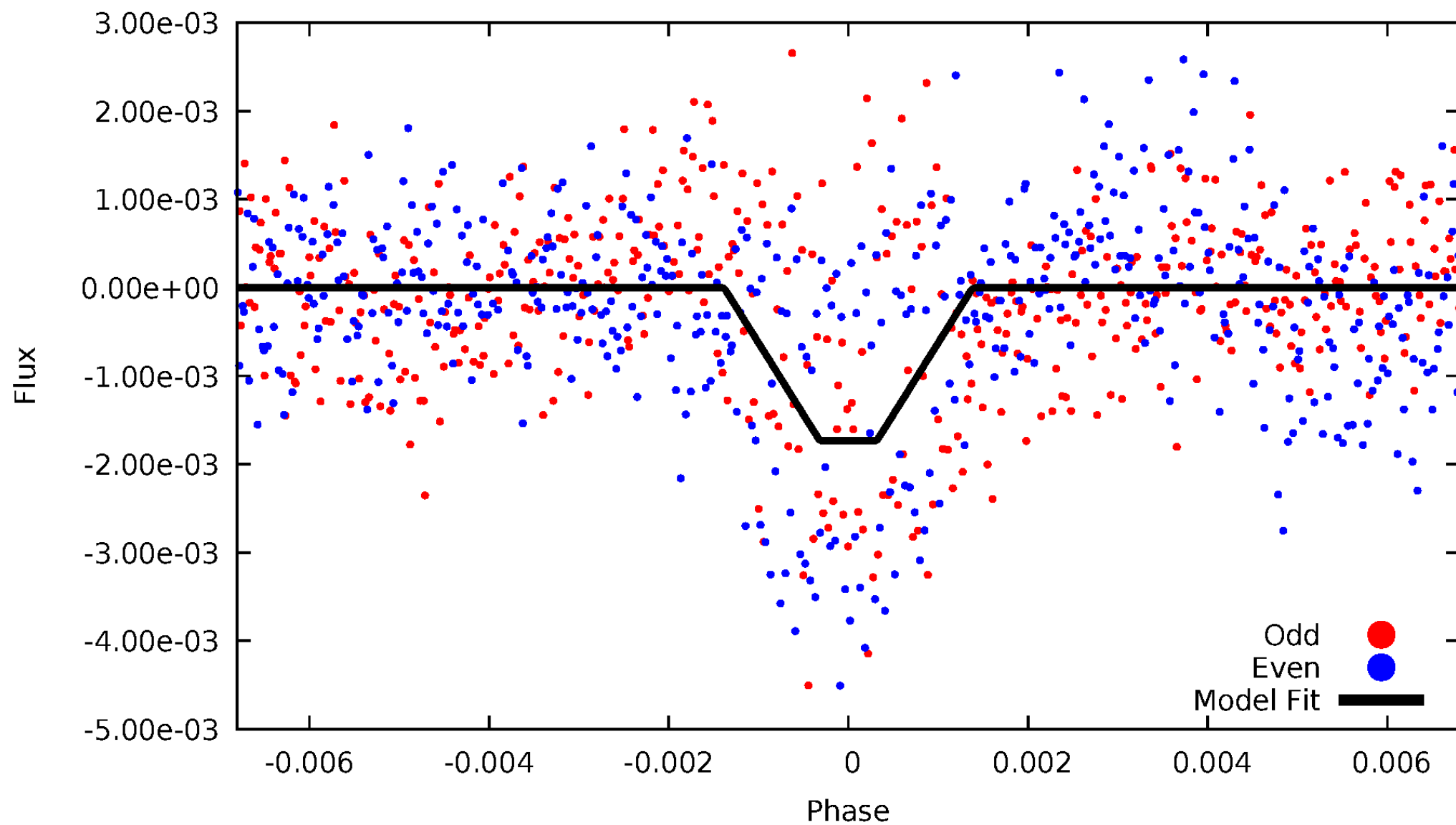
DV Odd/Even

TCE 008091724-01



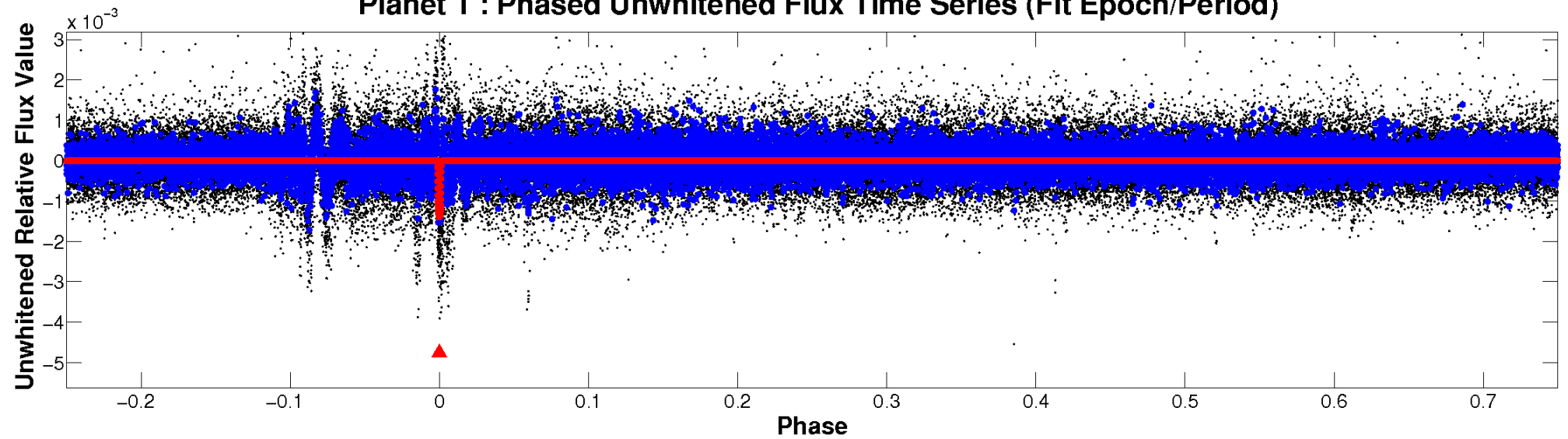
ALT Odd/Even

TCE 008091724-01

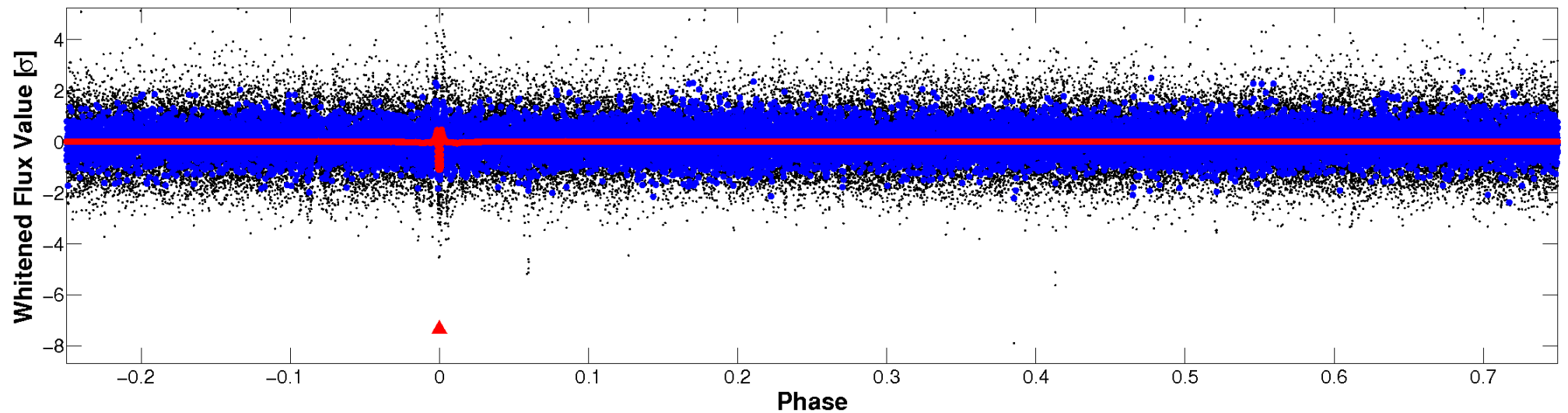


Non-Whitened Vs. Whitened Light Curve

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

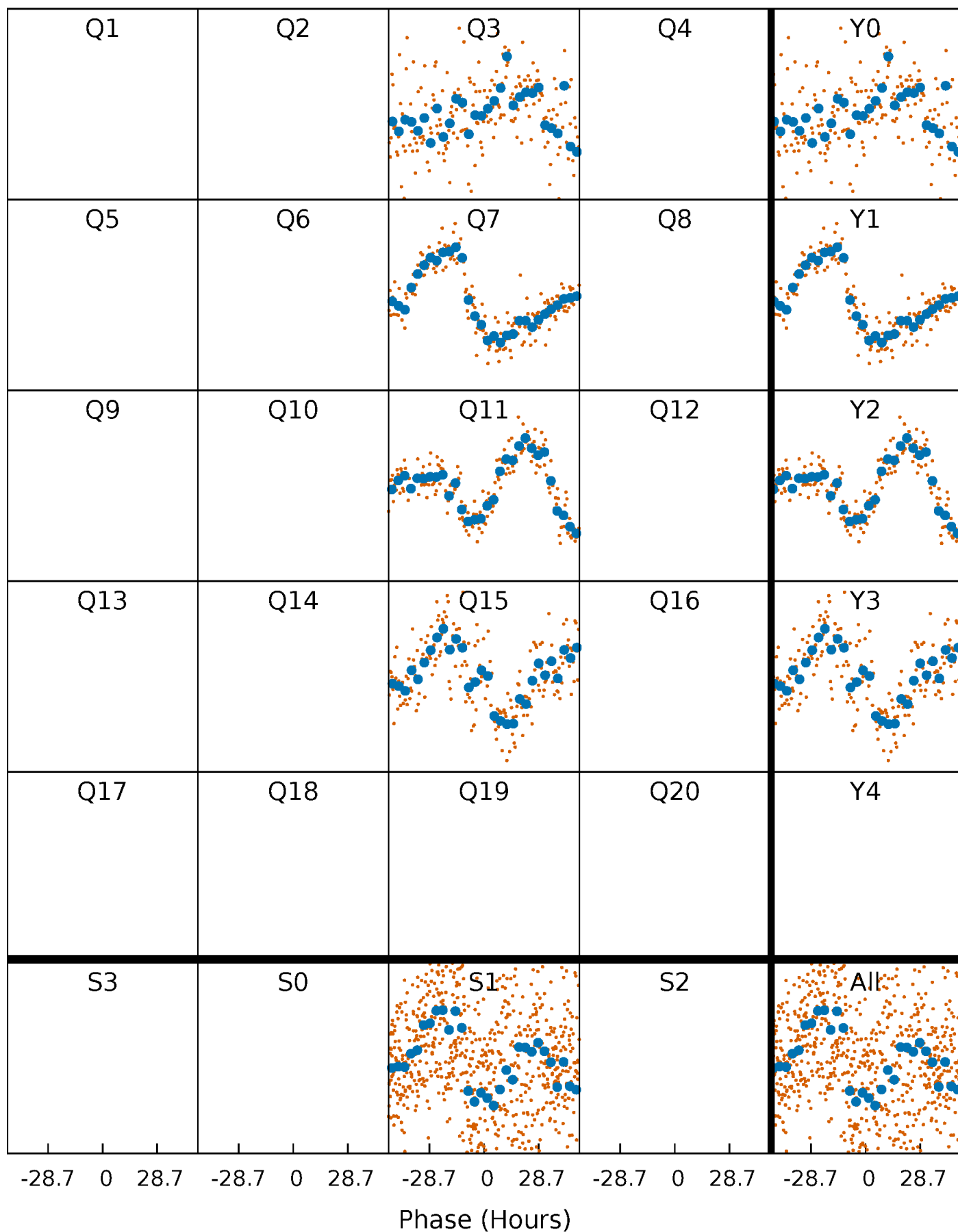


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



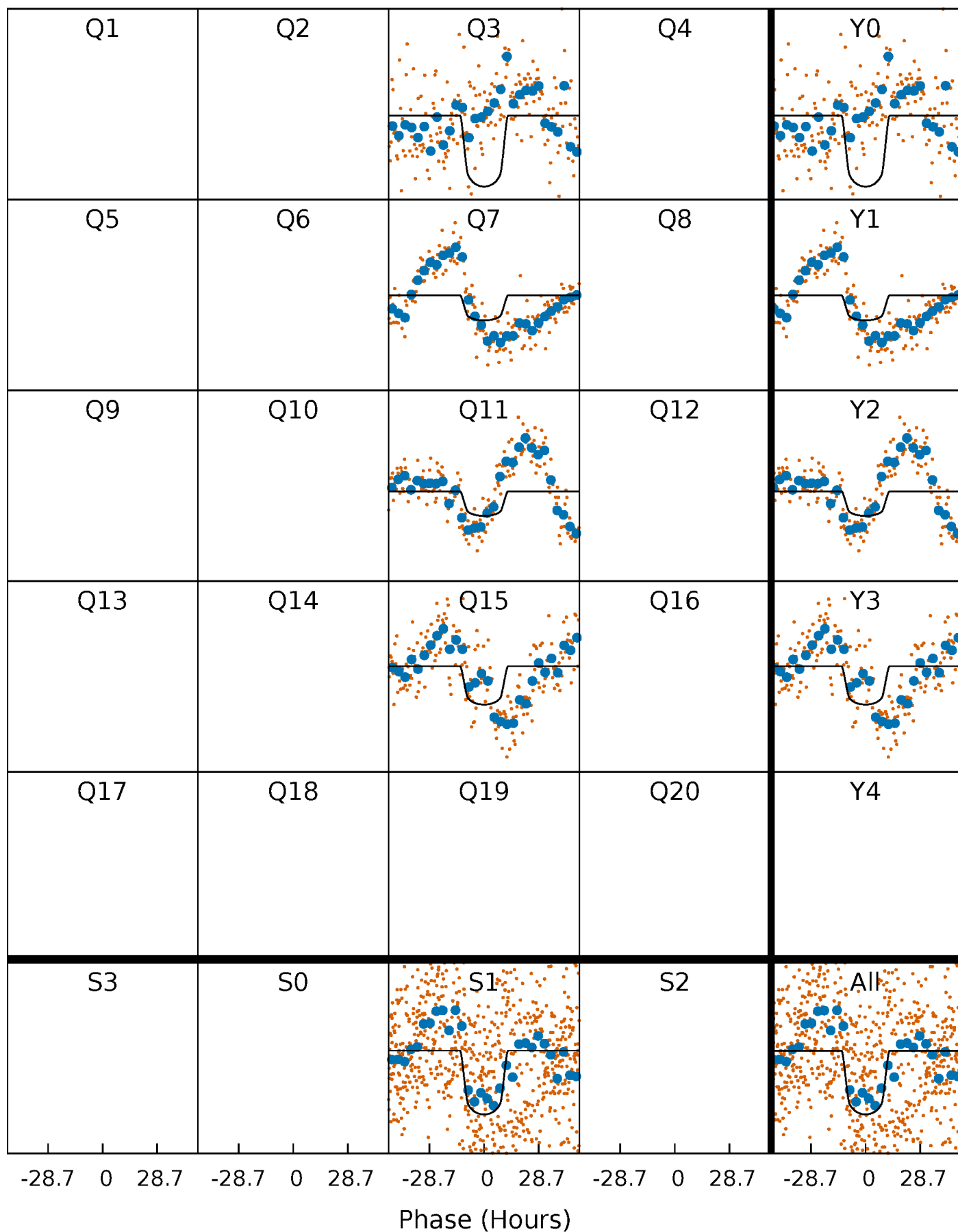
PDC Quarter-Phased Transit Curves

TCE 008091724-01 P=368.792189 Days $T_0=302.288003$ (BKJD)



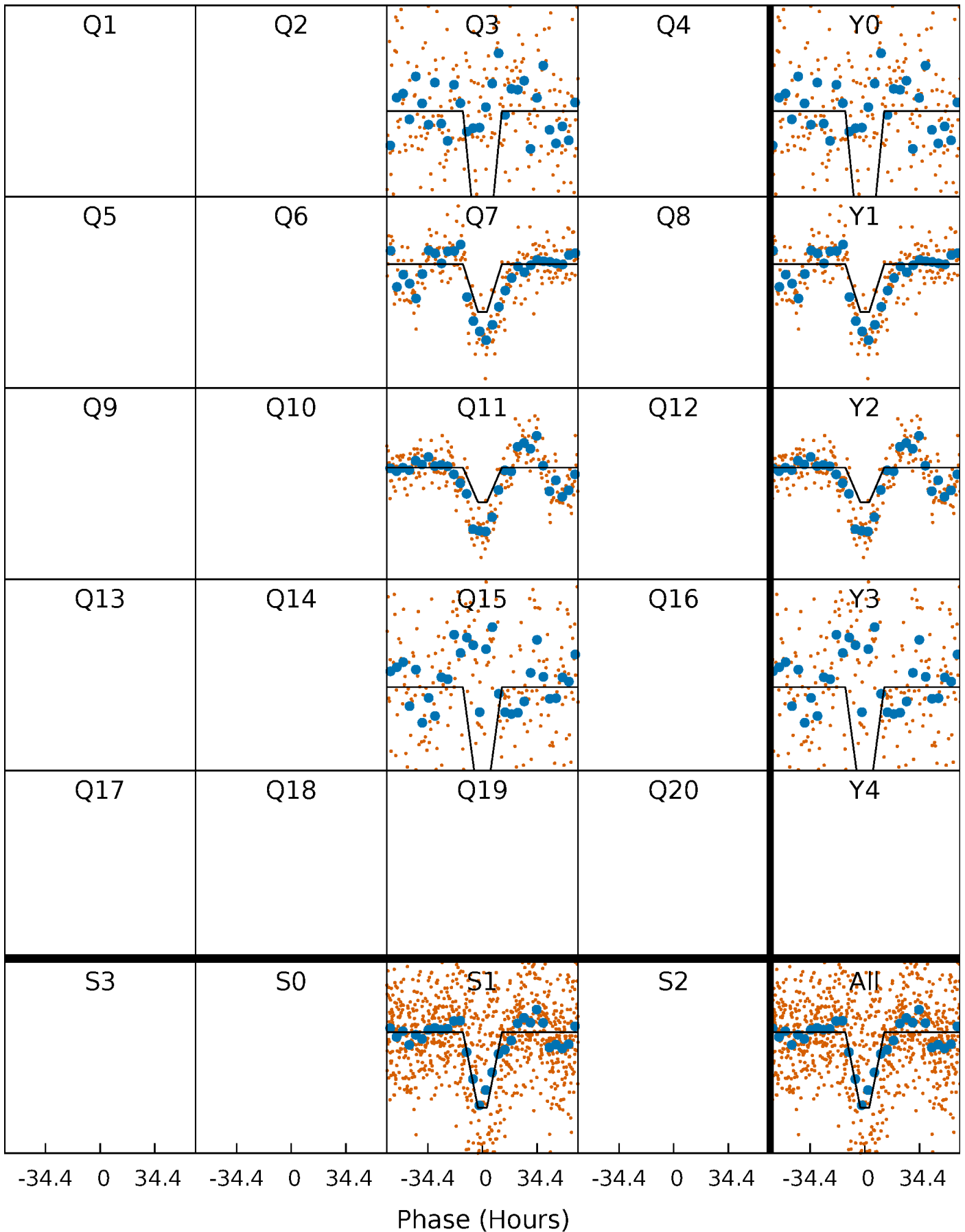
DV Quarter-Phased Transit Curves

TCE 008091724-01 P=368.792189 Days $T_0=302.288003$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

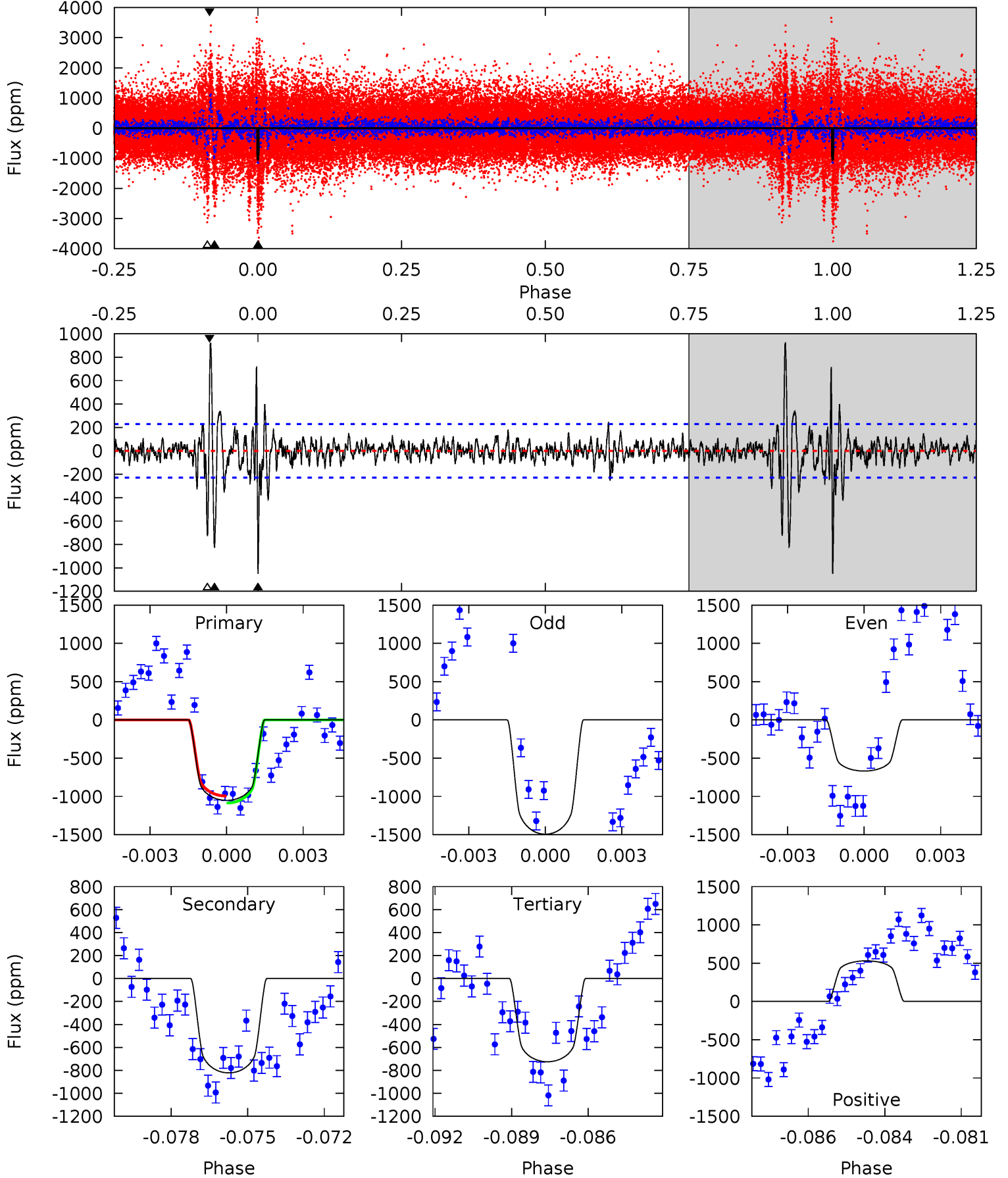
TCE 008091724-01 P=368.675912 Days $T_0=302.406156$ (BKJD)



DV Model-Shift Uniqueness Test

008091724-01, P = 368.792189 Days, E = 302.288003 Days

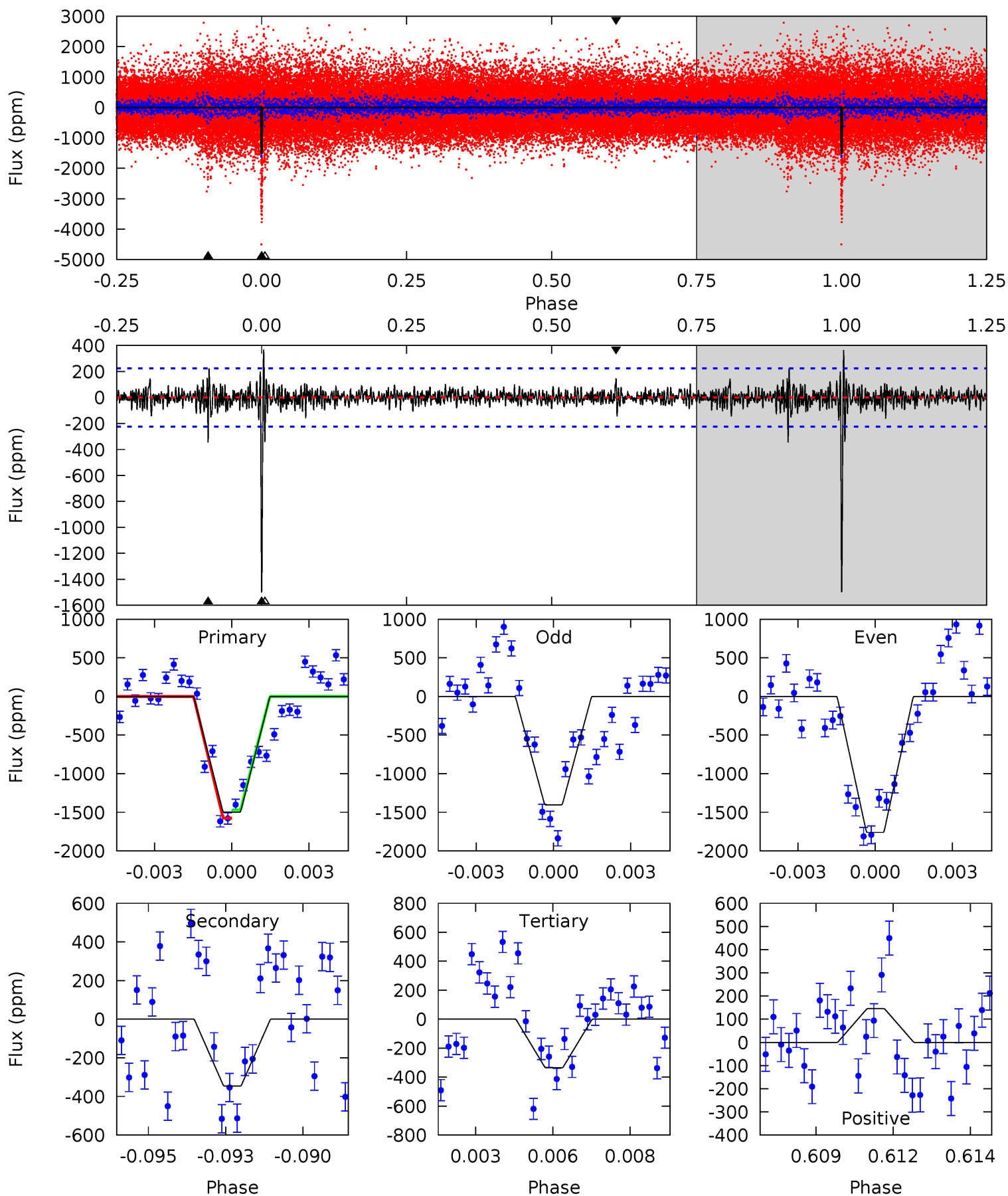
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.1	18.9	16.7	12.2	5.26	2.98	2.44	7.49	12.0	2.23	6.69	9.49	0.88	0.47	1.04



Alt Model-Shift Uniqueness Test

008091724-01, P = 368.675912 Days, E = 302.406156 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.2	8.13	7.89	3.41	5.26	2.99	1.05	27.3	31.8	0.23	4.71	4.25	1.03	0.20	1.24



Stellar Parameters For KIC 008091724

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6089^{+183}_{-183}	$4.527^{+0.040}_{-0.160}$	$-0.360^{+0.300}_{-0.300}$	$0.889^{+0.204}_{-0.087}$	$0.971^{+0.106}_{-0.118}$	$1.944^{+0.416}_{-0.855}$
	+3%/-3%	+1%/-4%	+83%/-83%	+23%/-10%	+11%/-12%	+21%/-44%
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 008091724-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-822 ± 44	$3.96^{+0.57}_{-0.44}$	361^{+21}_{-16}	5241^{+259}_{-225}	28094^{+6566}_{-6092}
Alt.	-346 ± 43	$4.16^{+0.60}_{-0.45}$	362^{+21}_{-16}	4318^{+188}_{-190}	10689^{+2828}_{-2540}

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

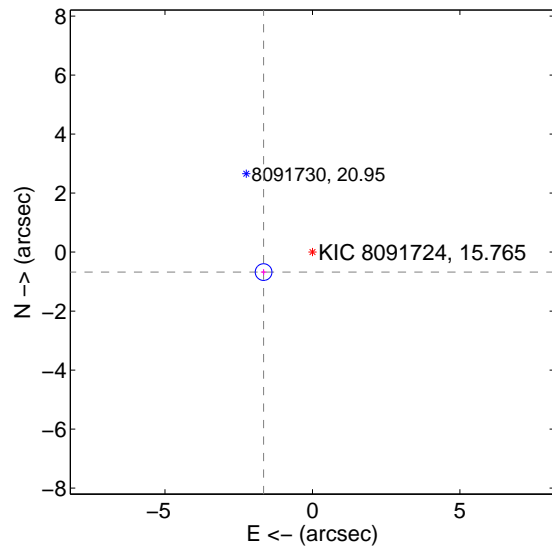
Supplemental centroid analysis for 008091724-01. Kepler magnitude: 15.77. Transit SNR 13.24

There are 0 quarters with good PRF difference image offsets

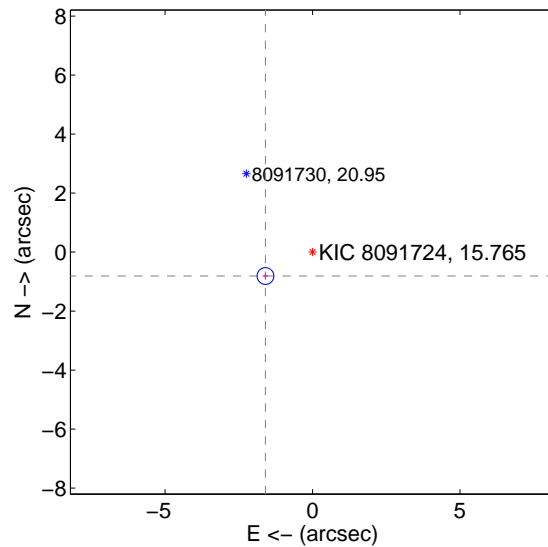
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.789 ± 0.094	18.98	1.656 ± 0.093	-0.678 ± 0.100
PRF-fit source offset from KIC position	1.790 ± 0.095	18.90	1.596 ± 0.093	-0.811 ± 0.100
photometric centroid source offset	2.64 ± 1.40	1.88	1.57 ± 1.21	2.12 ± 1.49

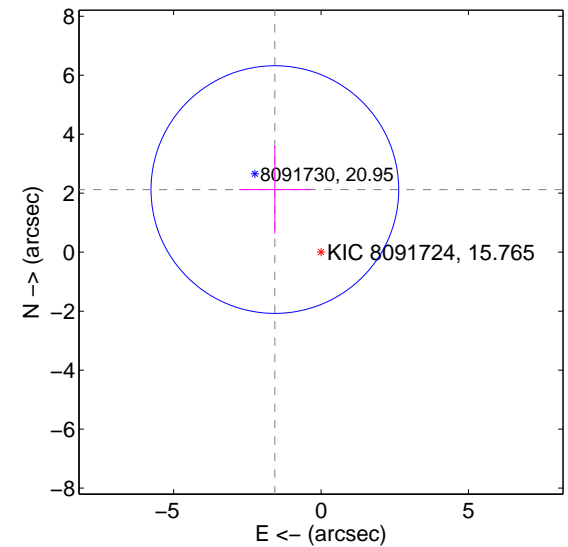
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

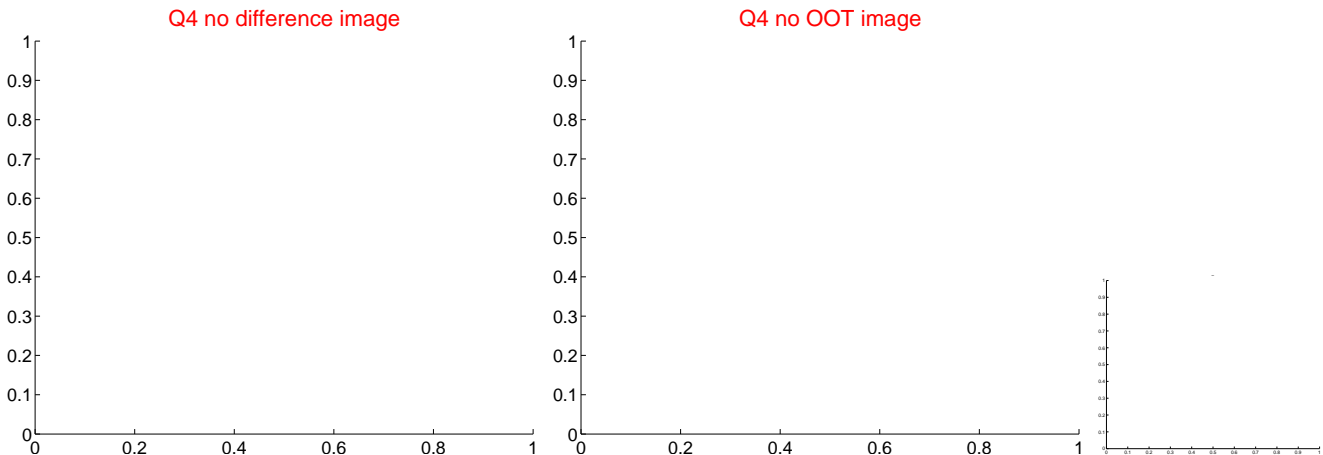
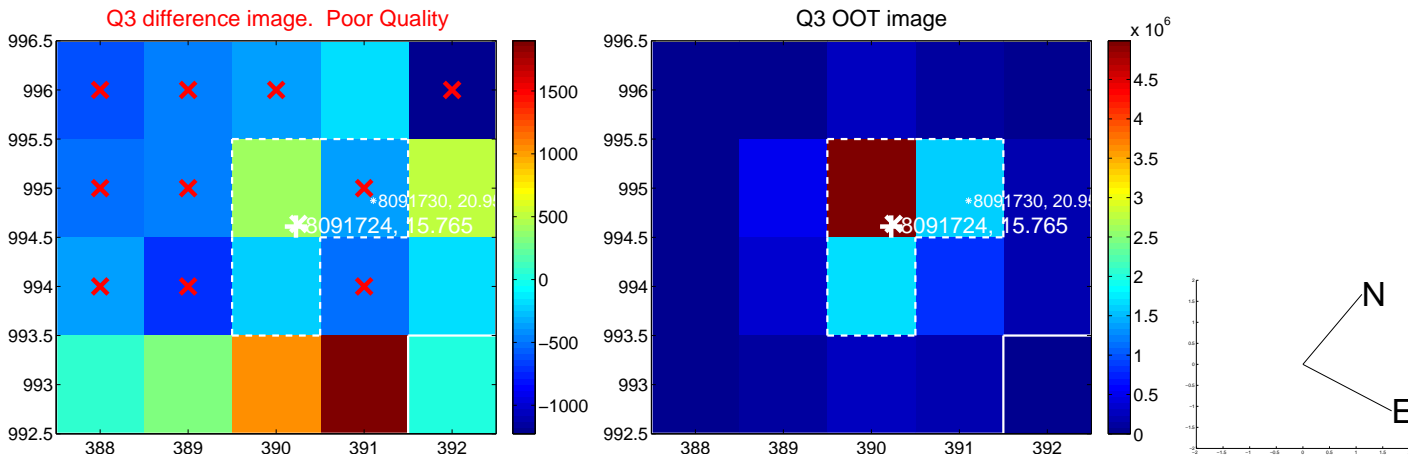
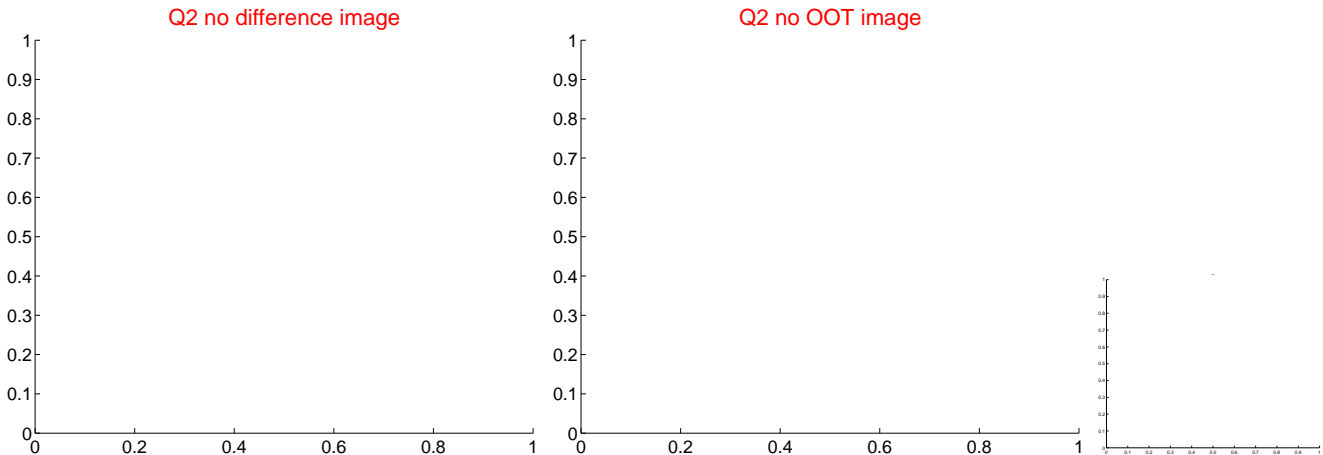
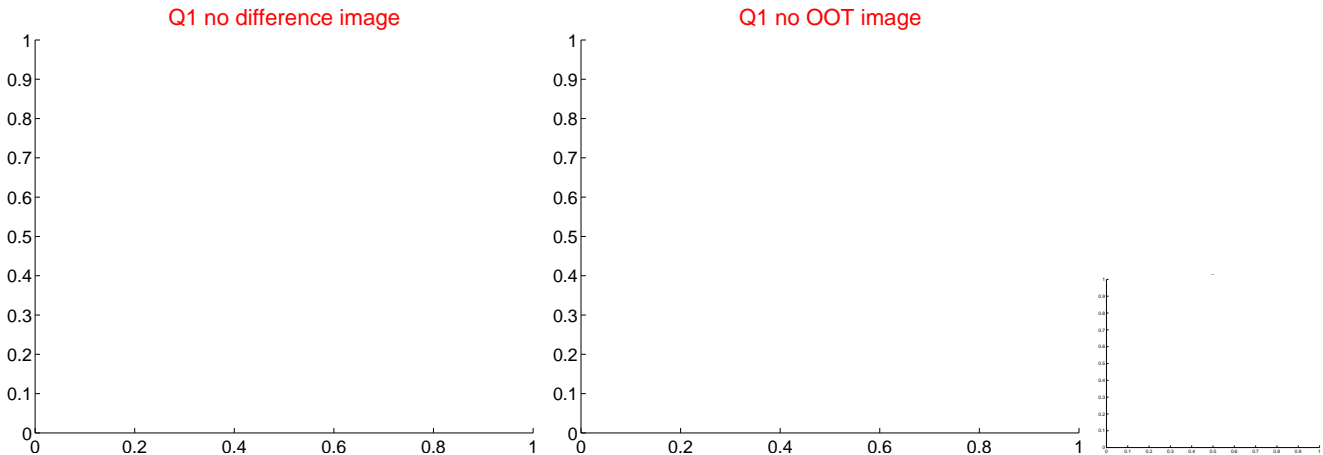


offset from photometric centroids

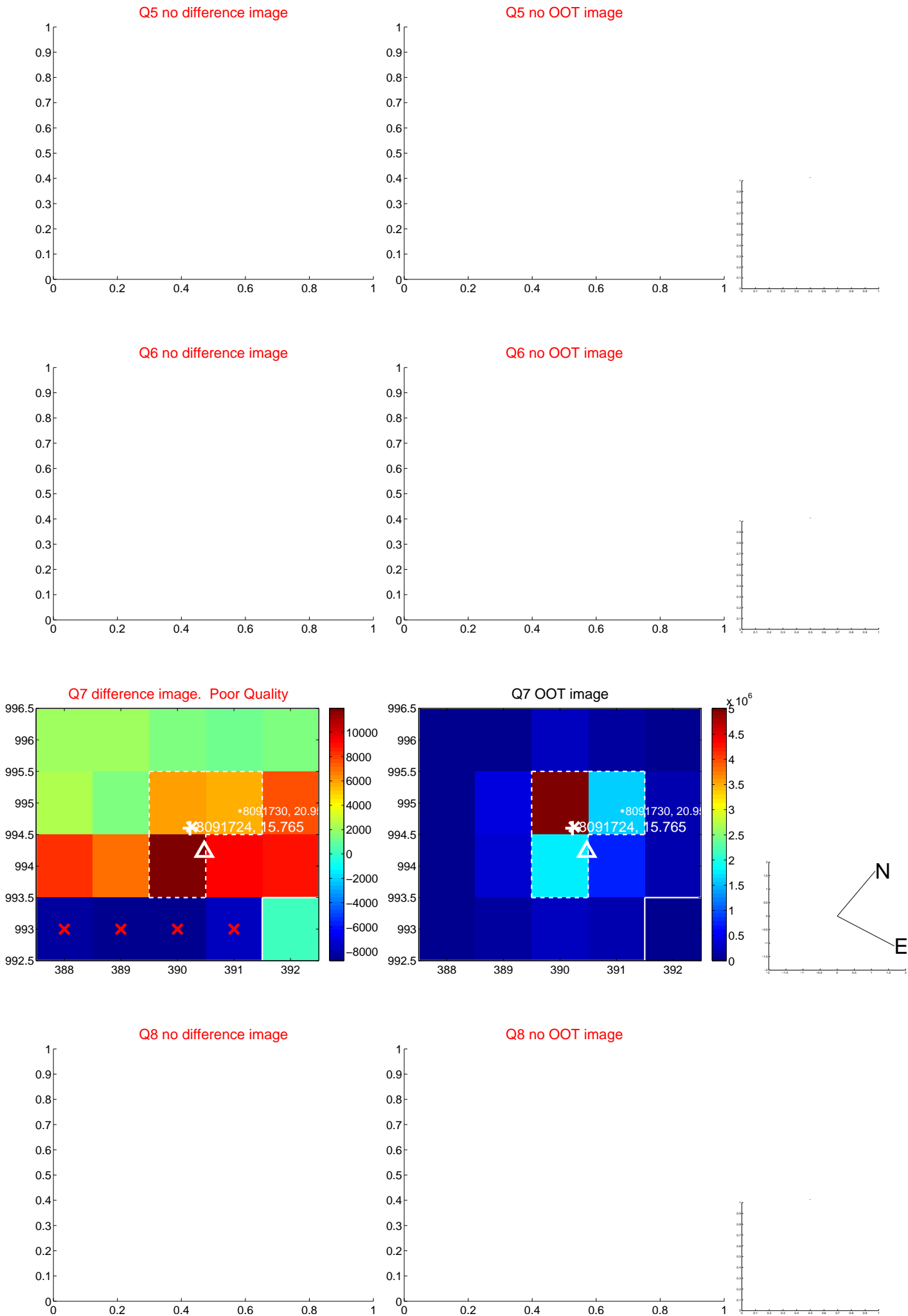


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



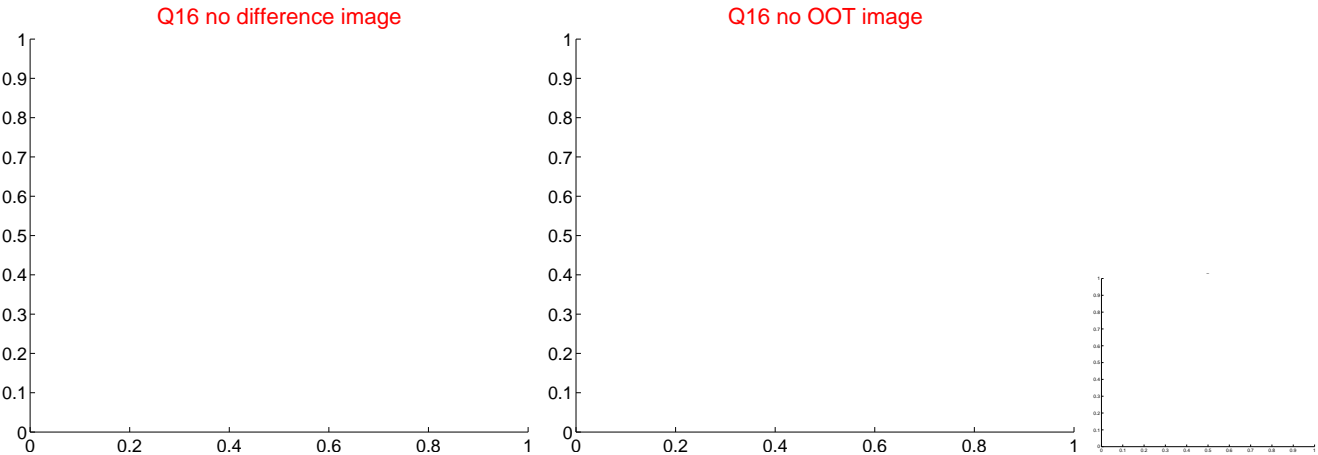
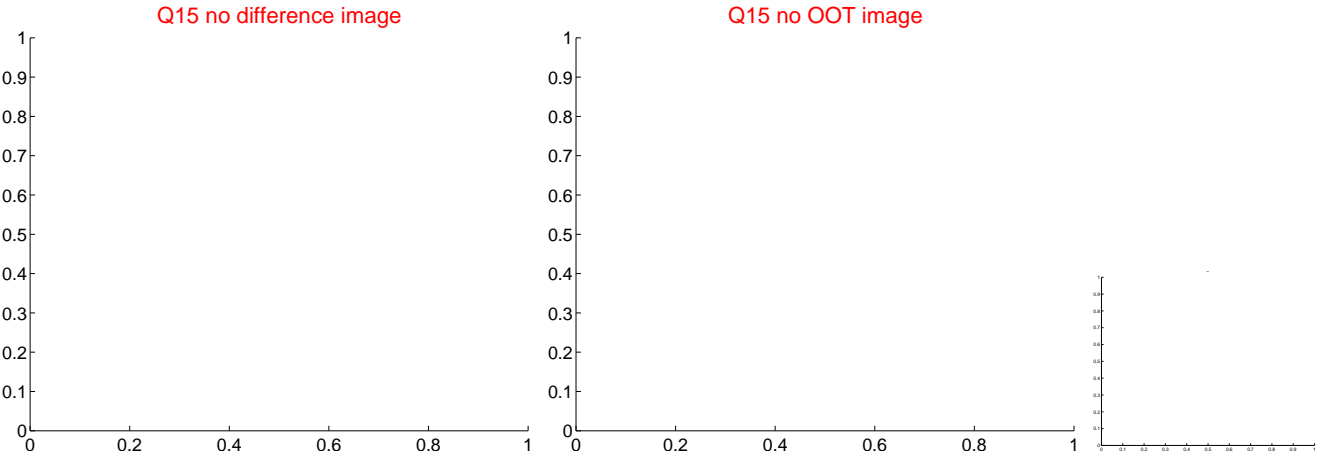
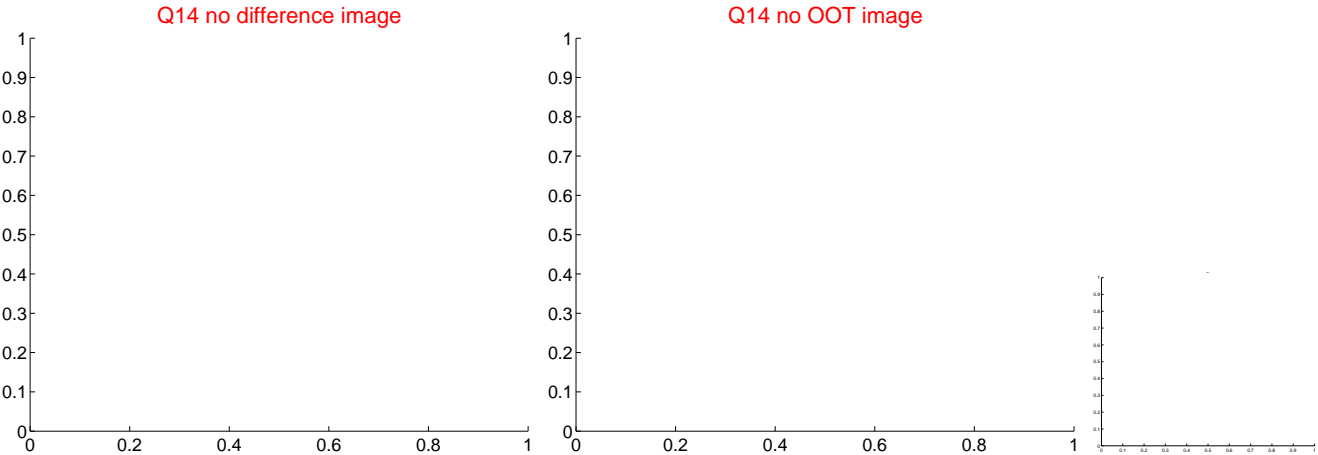
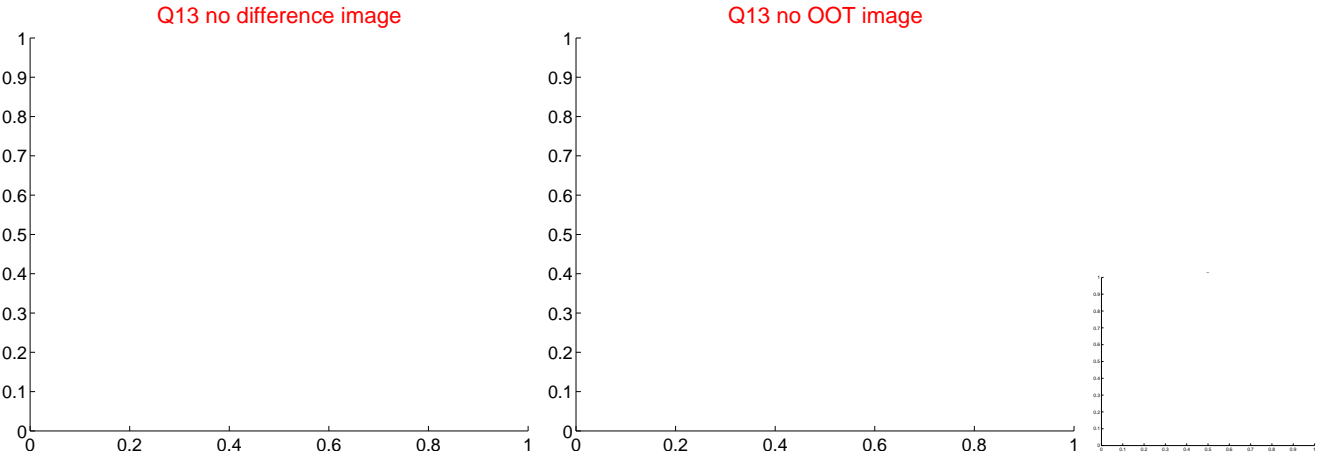
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



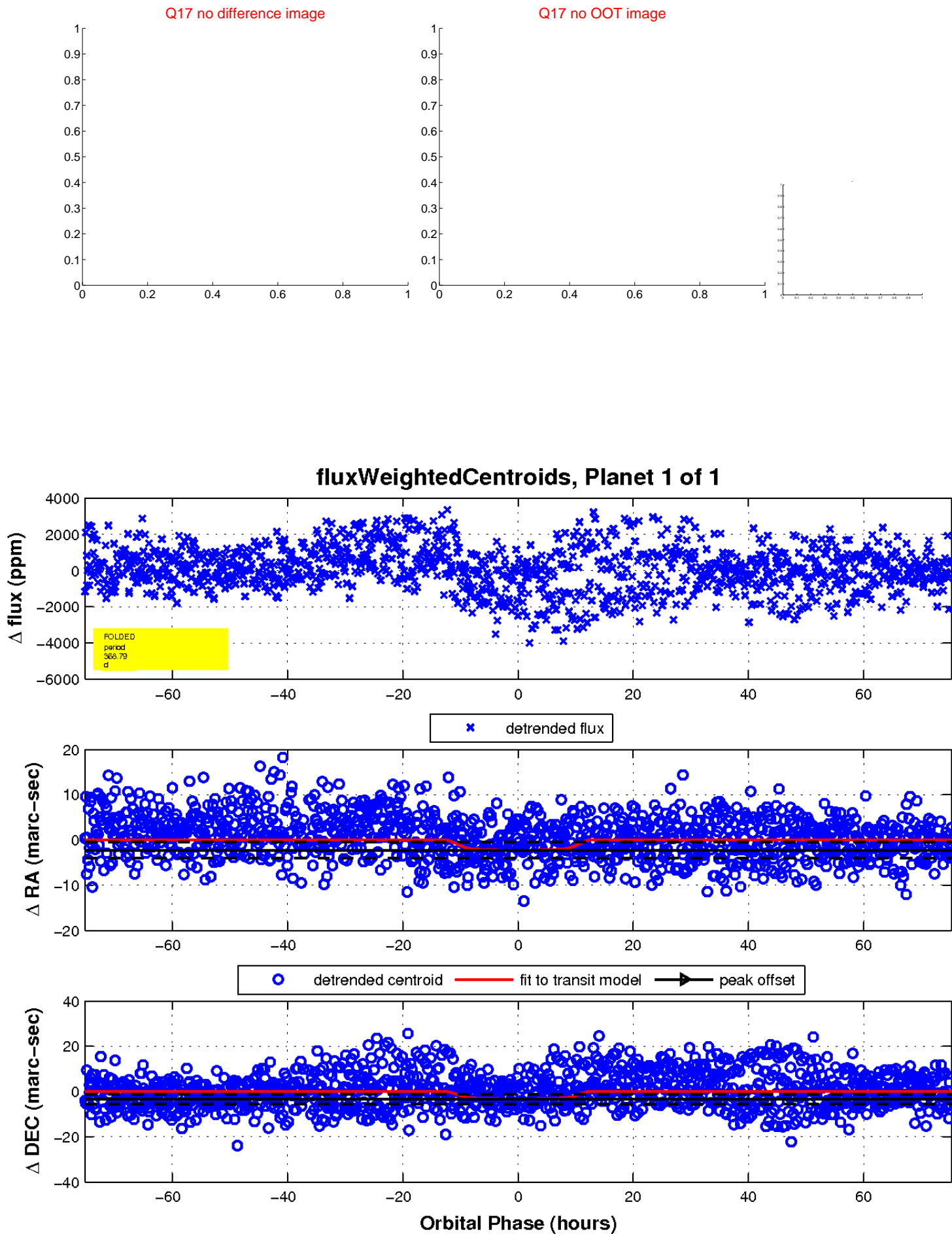
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UKIRT Image

Declination

