

KIC 007035844

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})
007035844-01	OBS	No	429.420158	274.001636	420.1	7.983	8.4	7.3	0.90	6050	1.98	0.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007035844-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

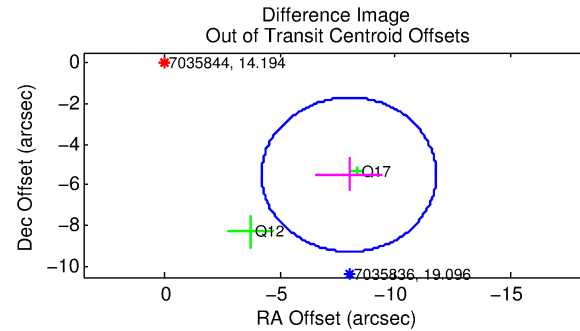
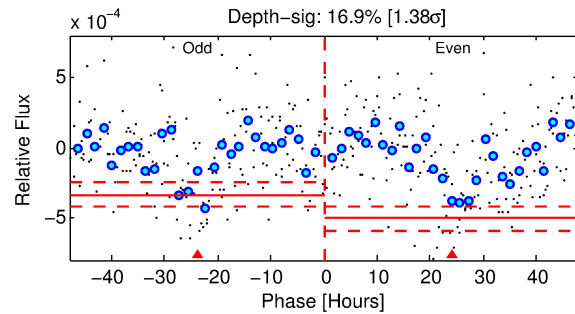
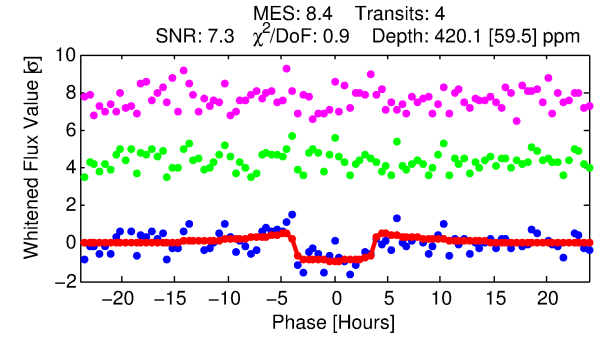
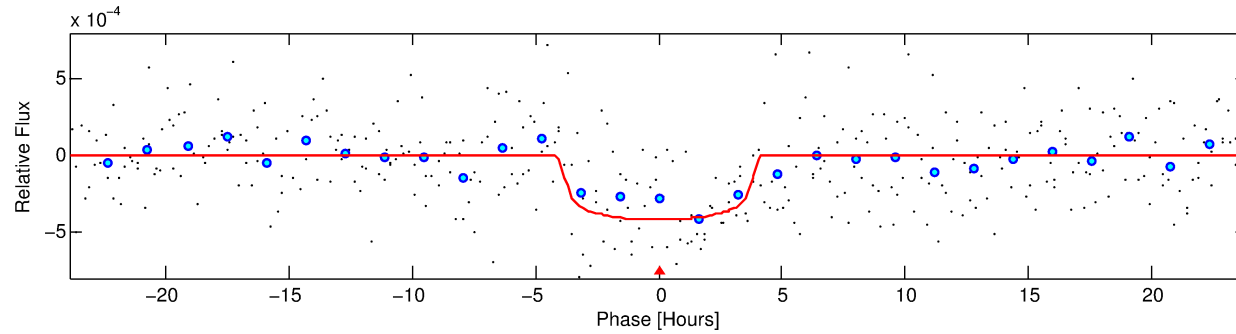
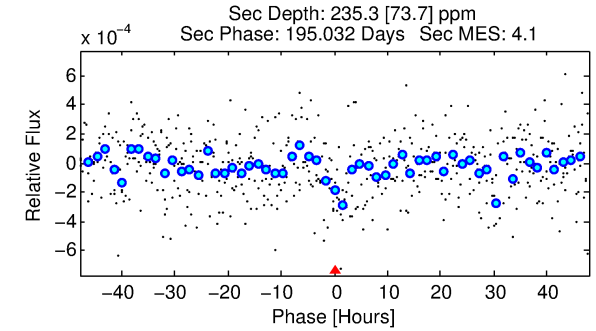
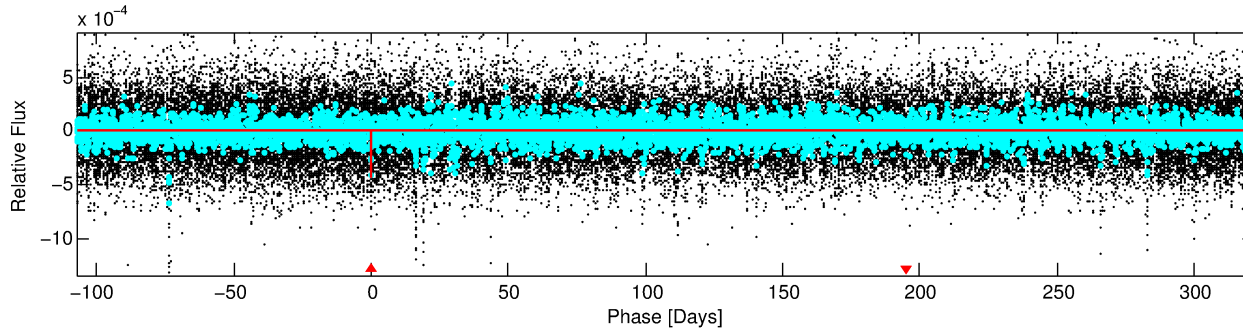
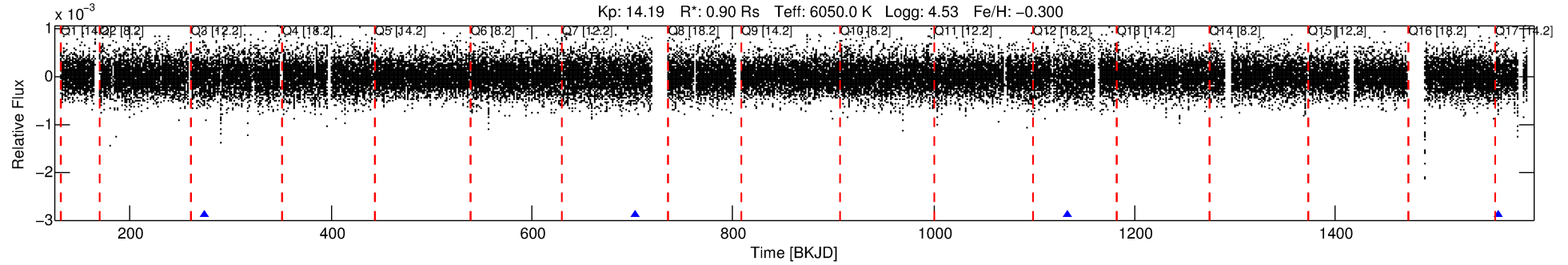
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007035844-01

No Significant Match Found

DV One-Page Summary

KIC: 7035844 Candidate: 1 of 1 Period: 429.420 d



DV Fit Results:

Period = 429.42016 [0.00588] d
Epoch = 274.0016 [0.0129] BKJD
Rp/R* = 0.0202 [0.0095]
a/R* = 295.21 [679.47]
b = 0.72 [1.52]
Seff = 0.79 [0.32]
Teq = 240 [24] K
Rp = 1.98 [1.11] Re
a = 1.1070 [0.2915] AU
Ag = 40600.93 [43089.58] [0.94σ]
Teffp = 5270 [1310] K [3.84σ]

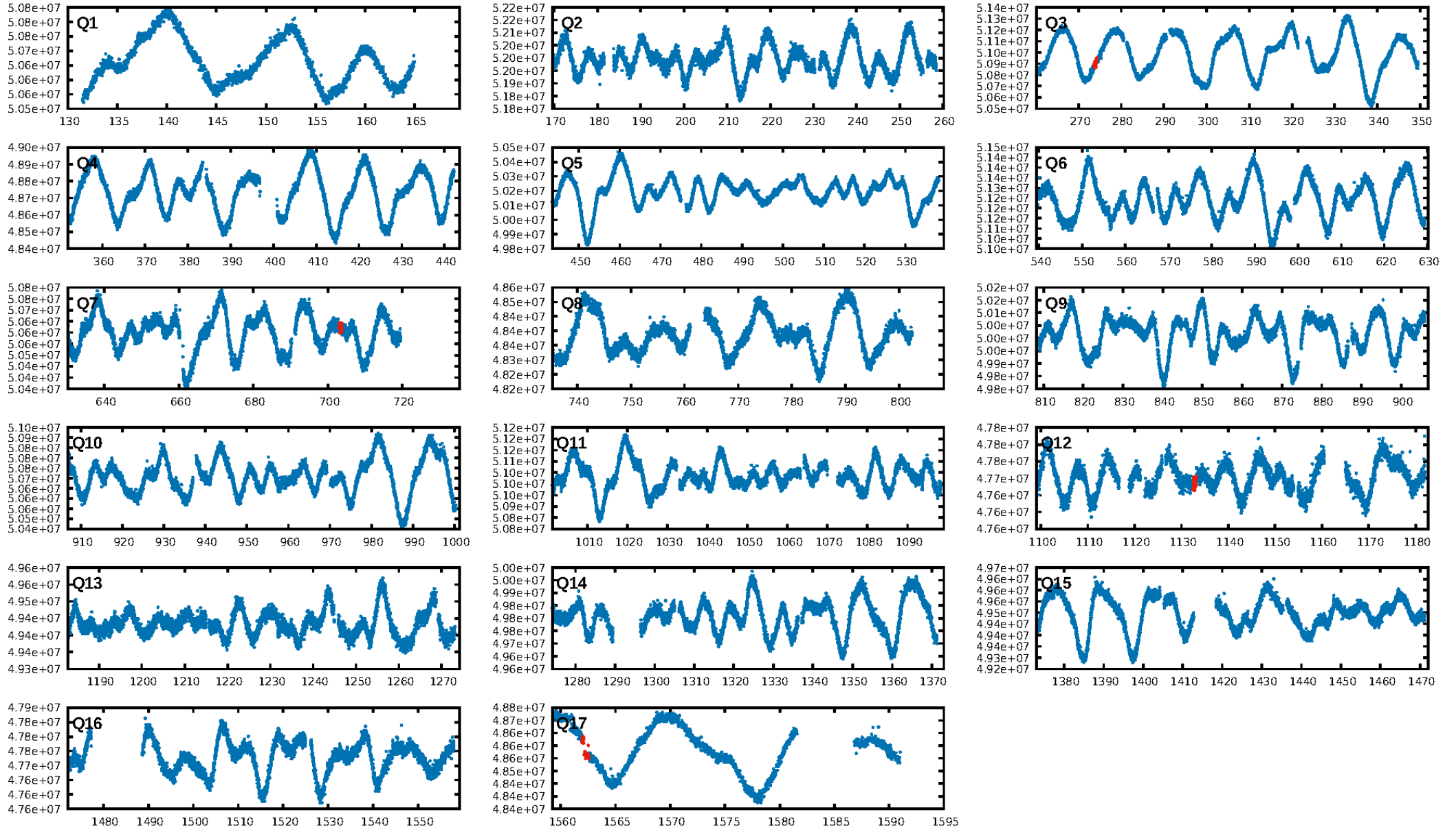
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.5%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 8.29e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.181
Centroid-sig: 0.2%
Centroid-so: 0.251 arcsec [0.16σ]
OotOffset-rm: 9.693 arcsec [7.71σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 1.855 arcsec [1.18σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

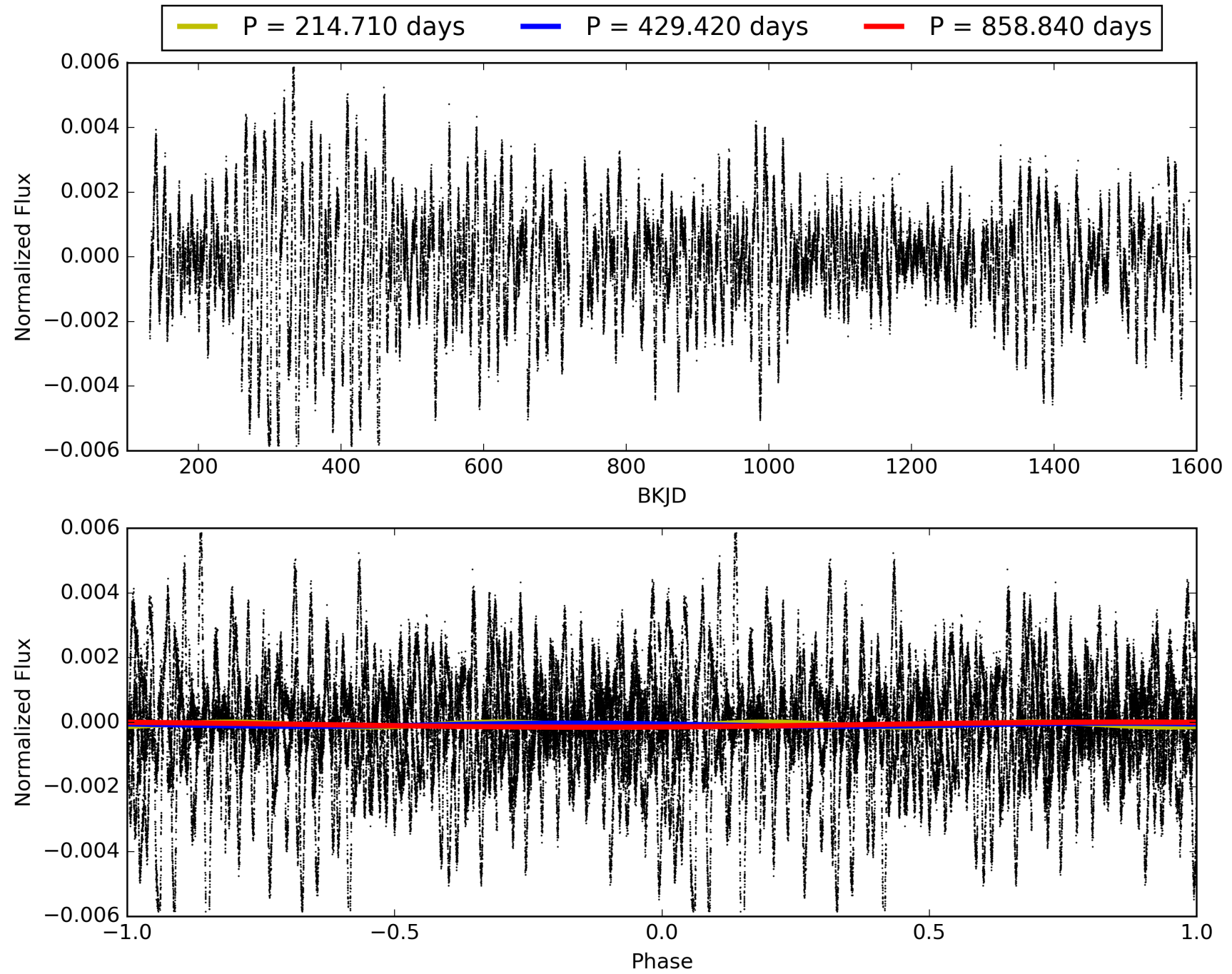
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:31:16 Z

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

TCE 007035844-01, PDC Light Curves

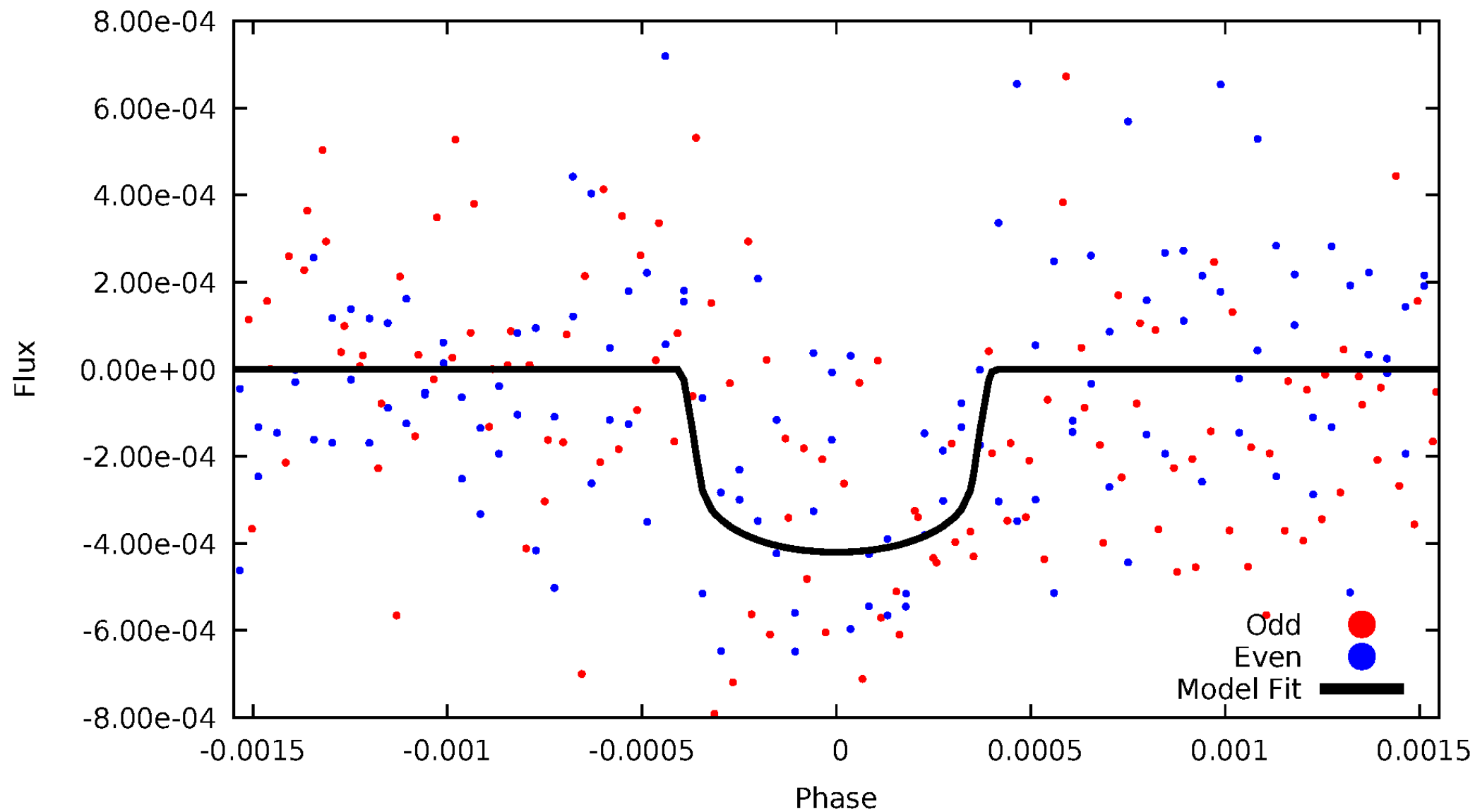


TCE 007035844-01



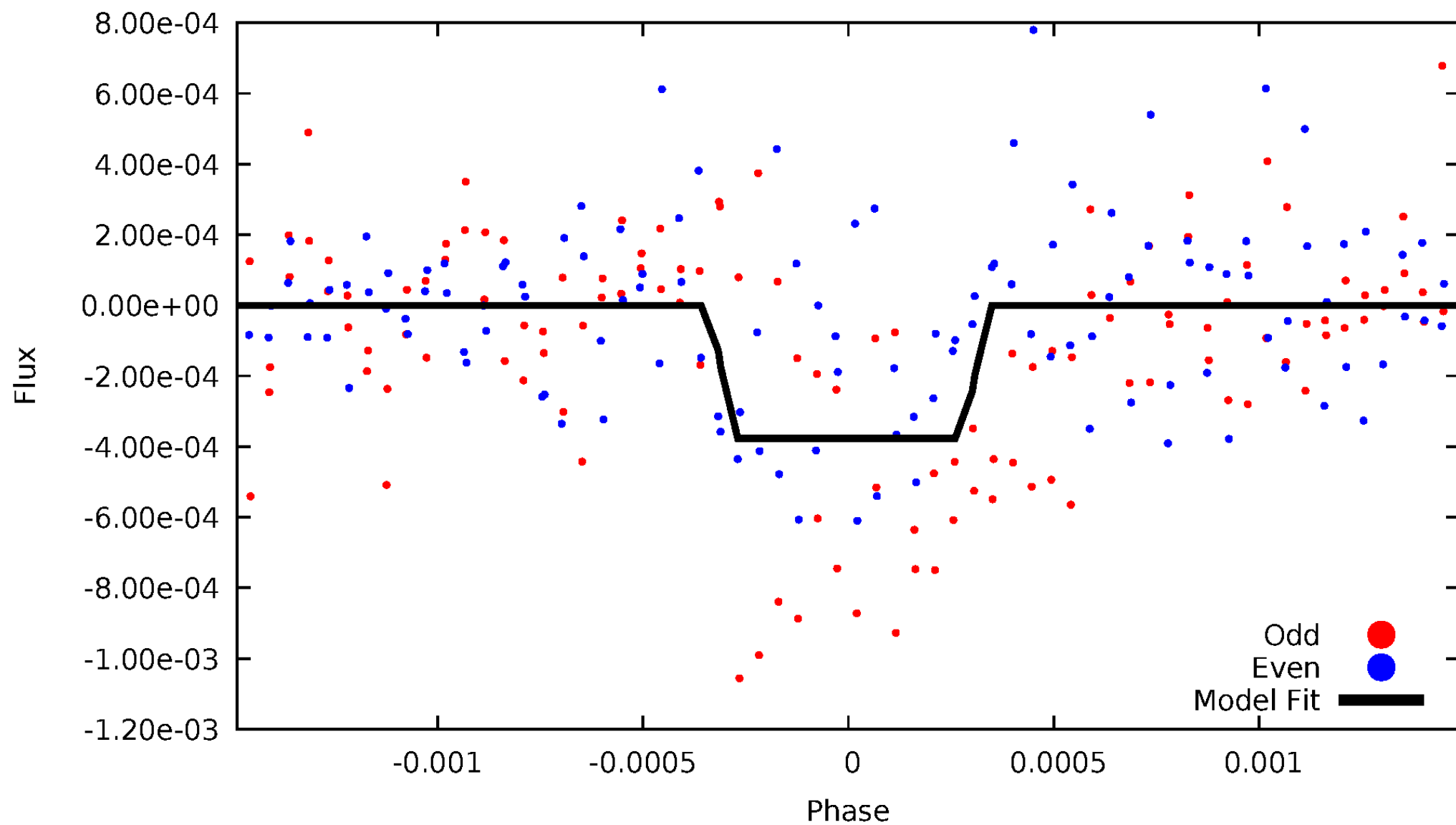
DV Odd/Even

TCE 007035844-01



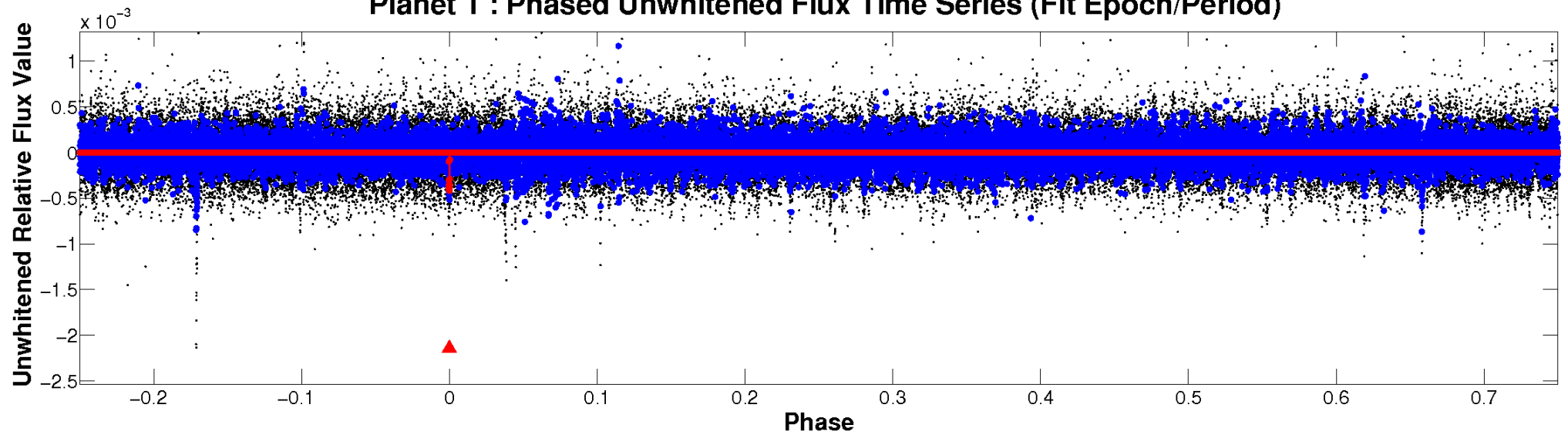
ALT Odd/Even

TCE 007035844-01

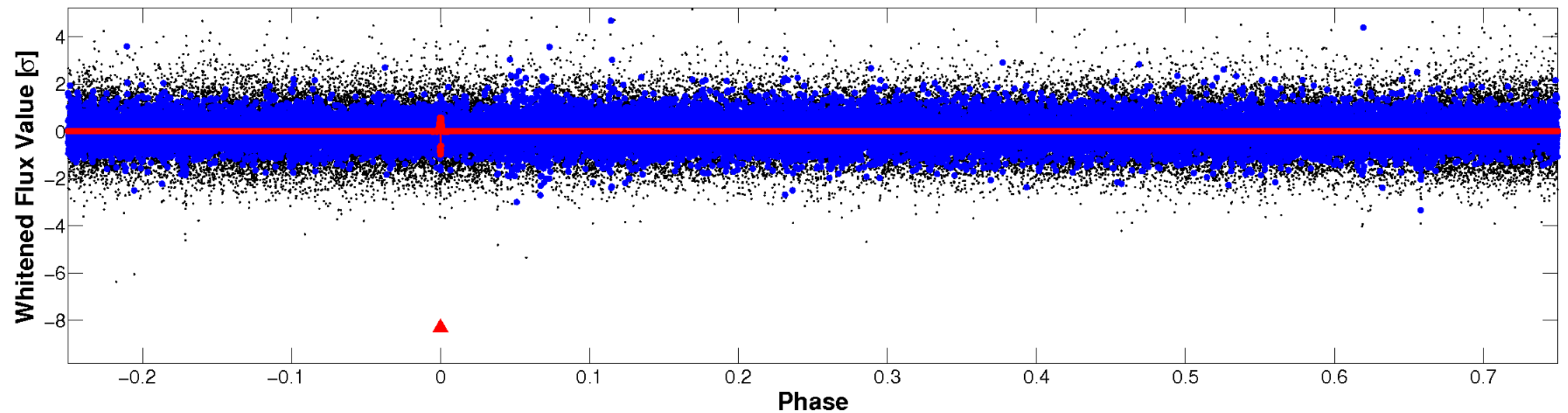


Non-Whitened Vs. Whitened Light Curve

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

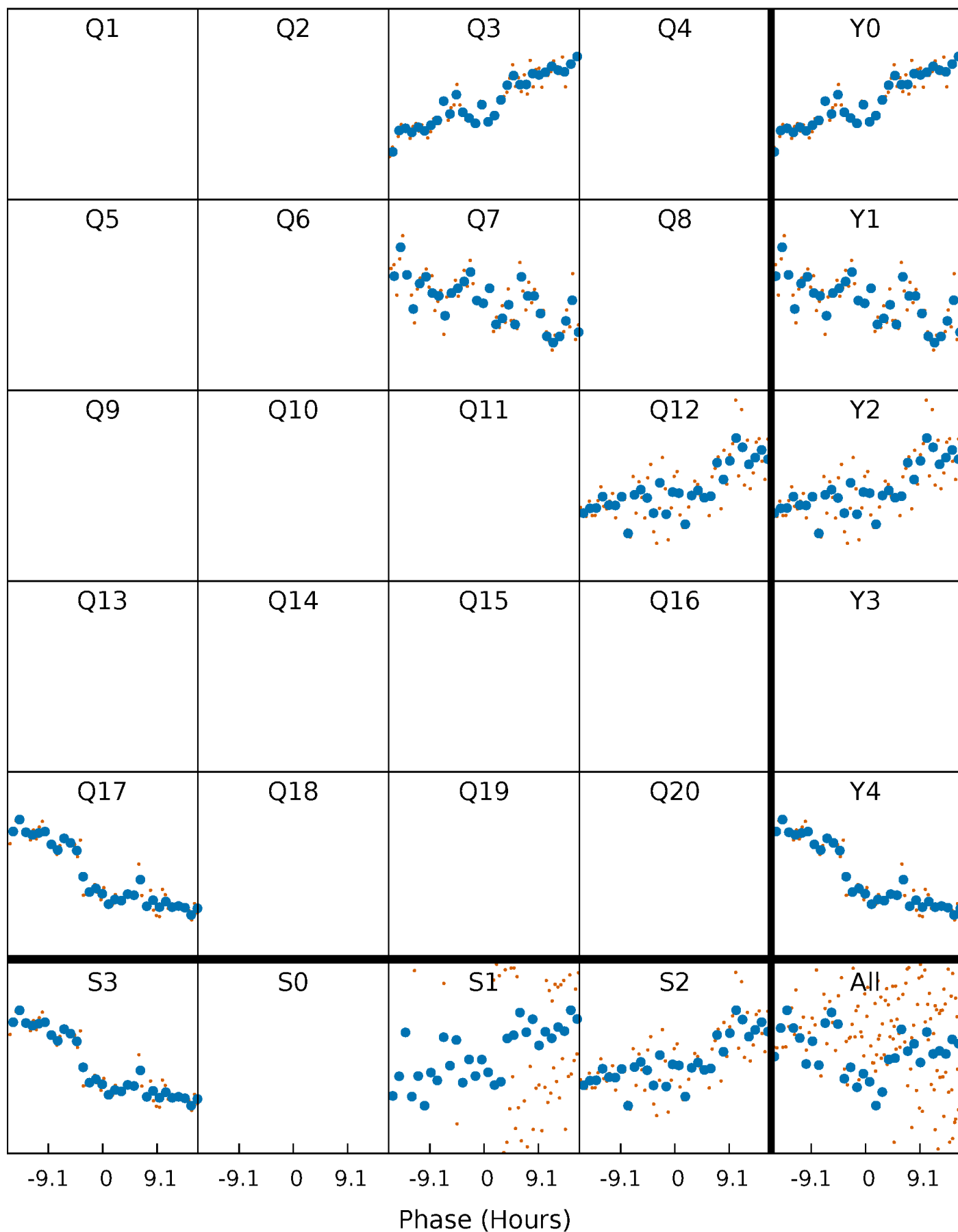


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



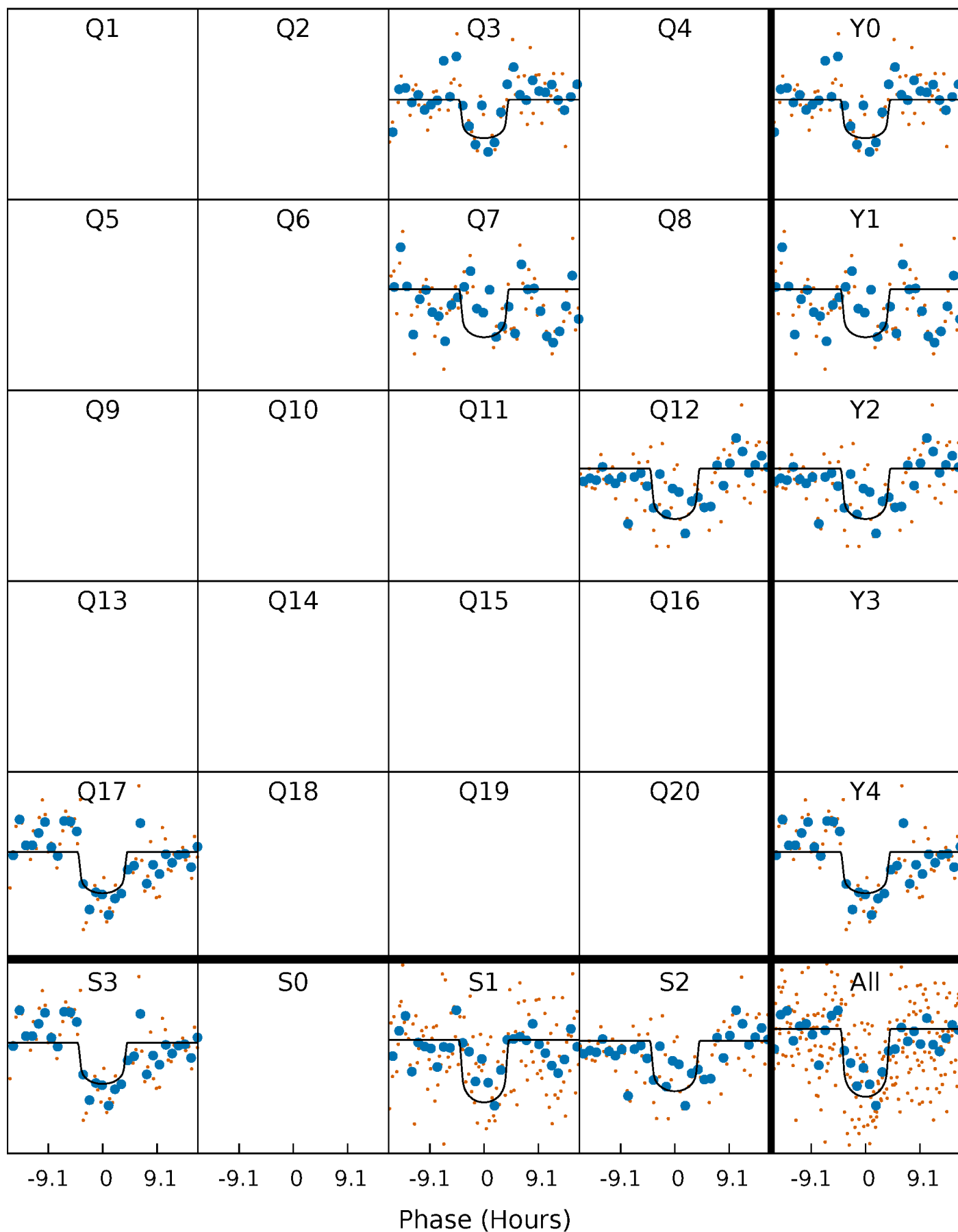
PDC Quarter-Phased Transit Curves

TCE 007035844-01 P=429.420159 Days $T_0=274.001636$ (BKJD)



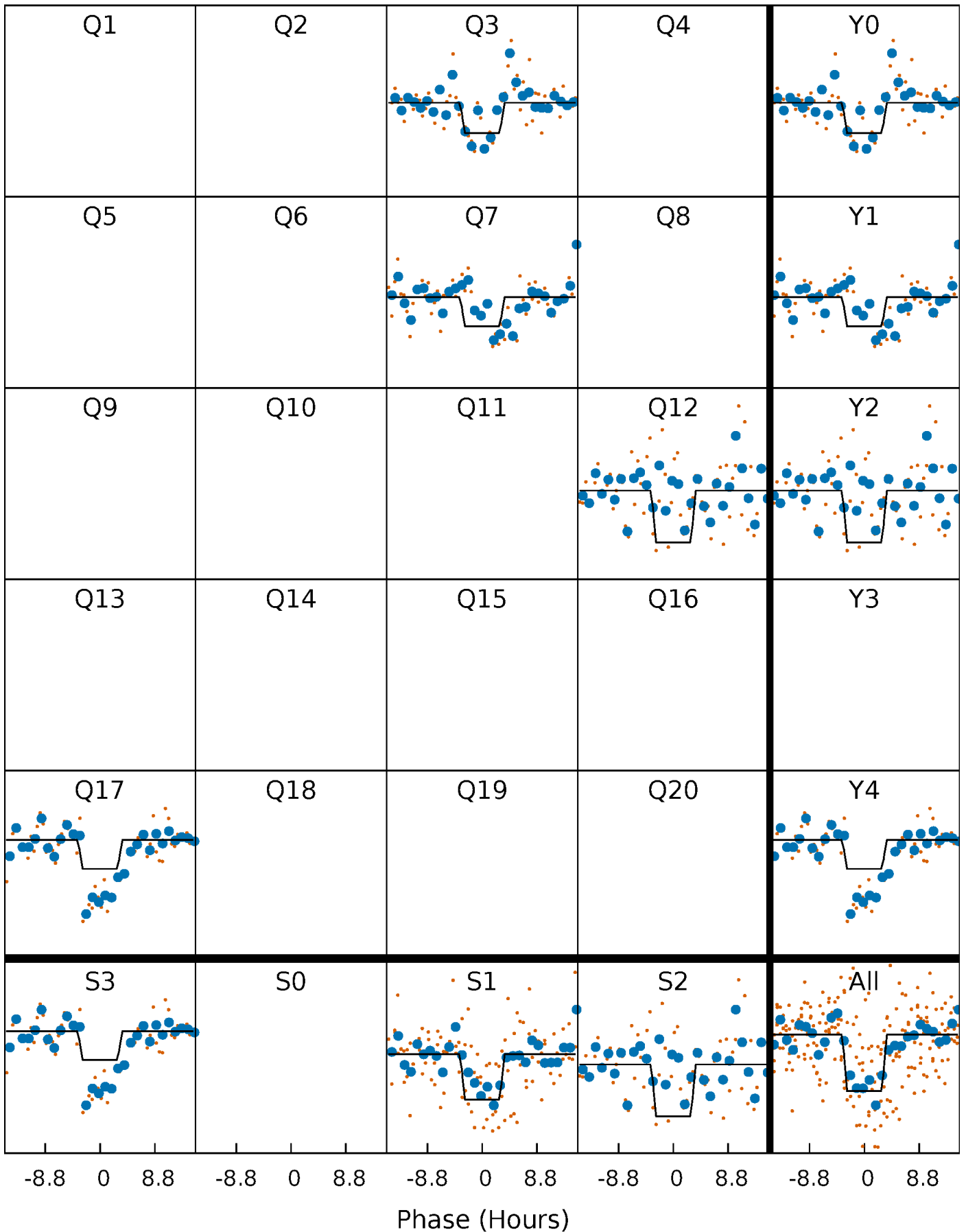
DV Quarter-Phased Transit Curves

TCE 007035844-01 P=429.420159 Days $T_0=274.001636$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

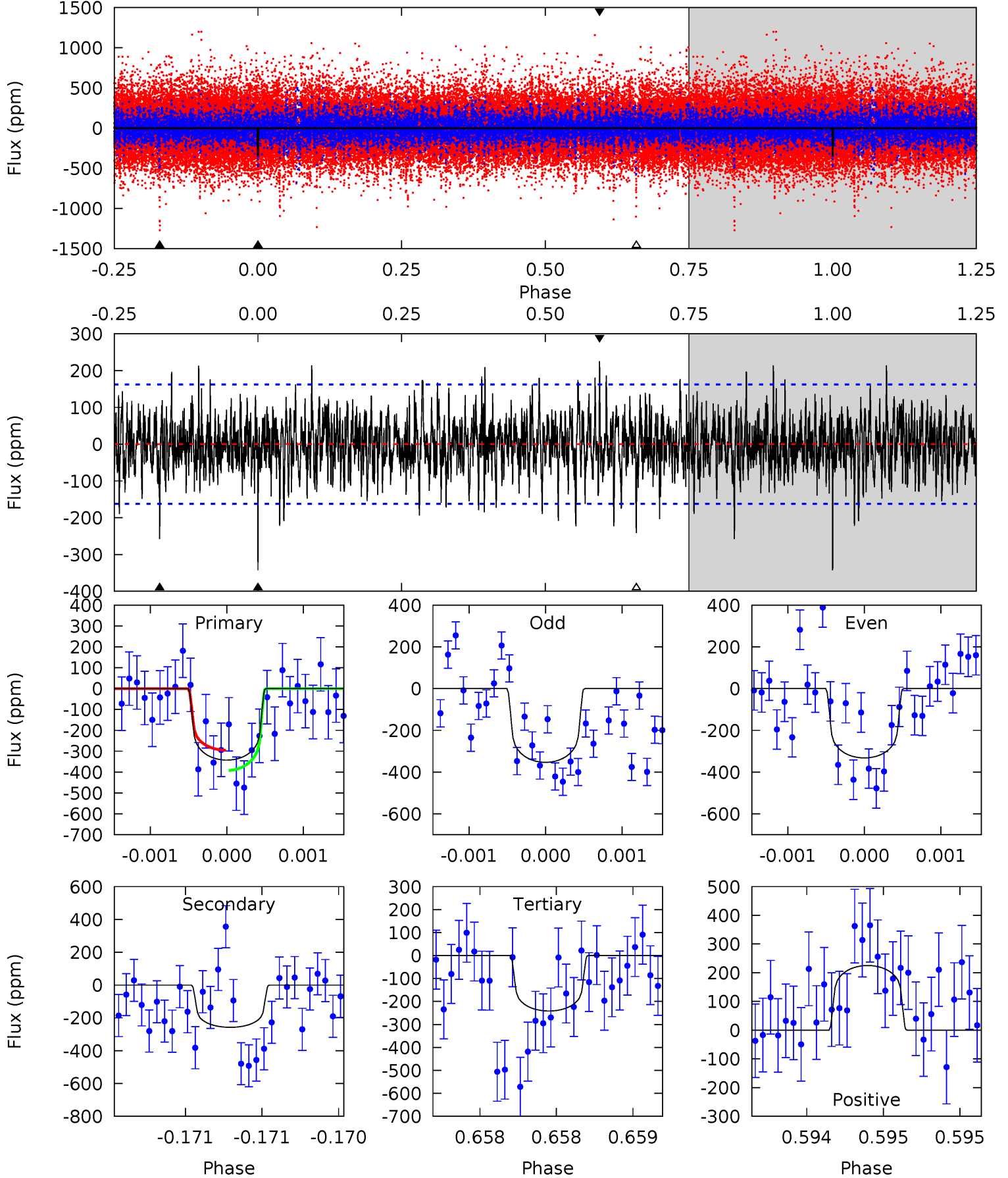
TCE 007035844-01 P=429.411263 Days $T_0=274.007605$ (BKJD)



DV Model-Shift Uniqueness Test

007035844-01, P = 429.420159 Days, E = 274.001636 Days

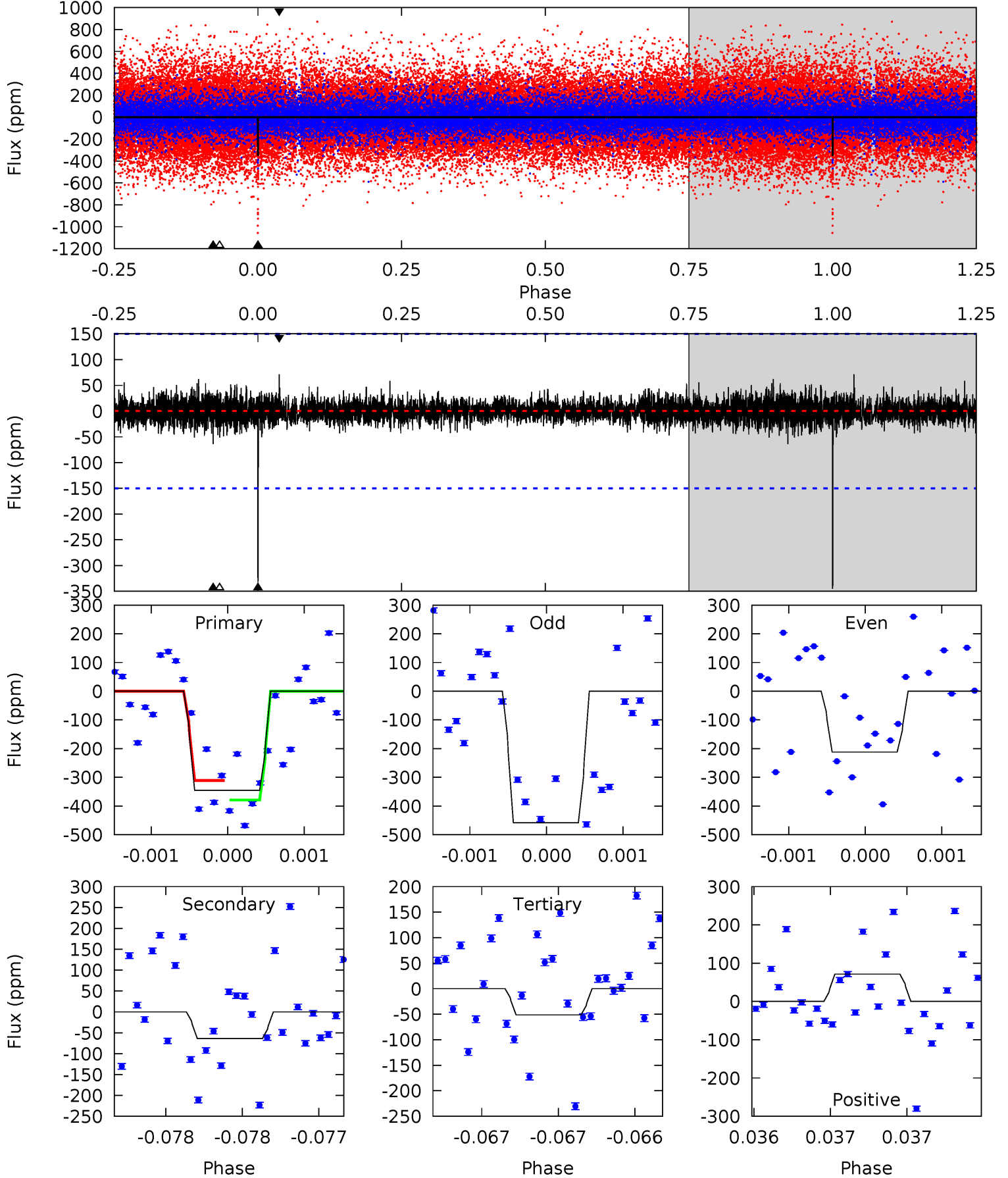
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	8.71	8.17	7.61	5.49	3.35	2.05	3.41	3.97	0.54	1.10	0.36	1.02	0.40	1.64



Alt Model-Shift Uniqueness Test

007035844-01, P = 429.411263 Days, E = 274.007605 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	2.36	1.89	2.64	5.53	3.42	0.50	10.8	10.1	0.47	-0.27	4.51	1.30	0.17	1.27



Stellar Parameters For KIC 007035844

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6050^{+163}_{-181}	$4.525^{+0.040}_{-0.216}$	$-0.300^{+0.300}_{-0.300}$	$0.896^{+0.275}_{-0.092}$	$0.979^{+0.116}_{-0.129}$	$1.918^{+0.413}_{-1.042}$
	+3%/-3%	+1%/-5%	+100%/-100%	+31%/-10%	+12%/-13%	+22%/-54%
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 007035844-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-258 ± 30	$2.14^{+1.00}_{-1.03}$	345^{+25}_{-16}	5396^{+1959}_{-838}	$37124^{+104785}_{-20165}$
Alt.	-64 ± 27	$2.03^{+1.05}_{-0.89}$	345^{+25}_{-16}	4085^{+1152}_{-575}	9422^{+24141}_{-5769}

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

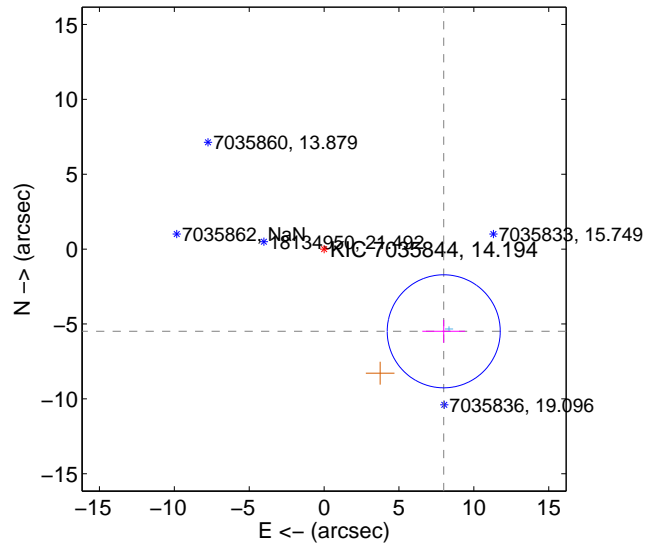
Supplemental centroid analysis for 007035844-01. Kepler magnitude: 14.19. Transit SNR 7.33

There are 1 quarters with good PRF difference image offsets

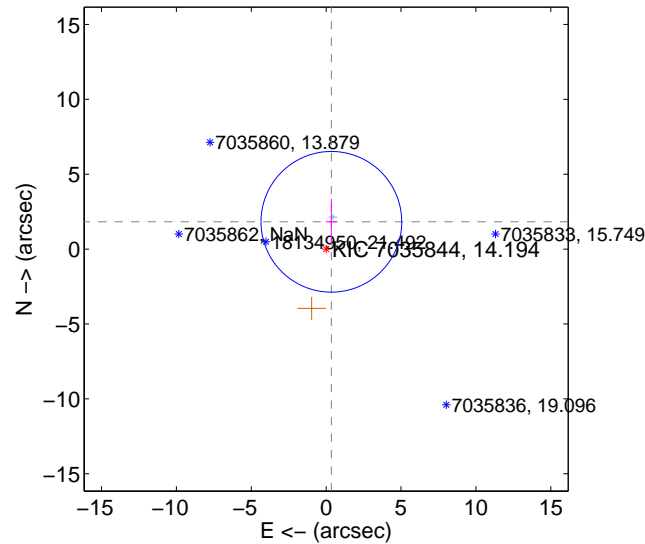
The OOT PRF centroid is offset from the target star catalog position by about 10.86 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.693 ± 1.258	7.71	-7.989 ± 1.432	-5.489 ± 0.767
PRF-fit source offset from KIC position	1.855 ± 1.566	1.18	-0.349 ± 0.363	1.822 ± 1.526
photometric centroid source offset	0.25 ± 1.54	0.16	-0.25 ± 1.55	0.04 ± 1.13

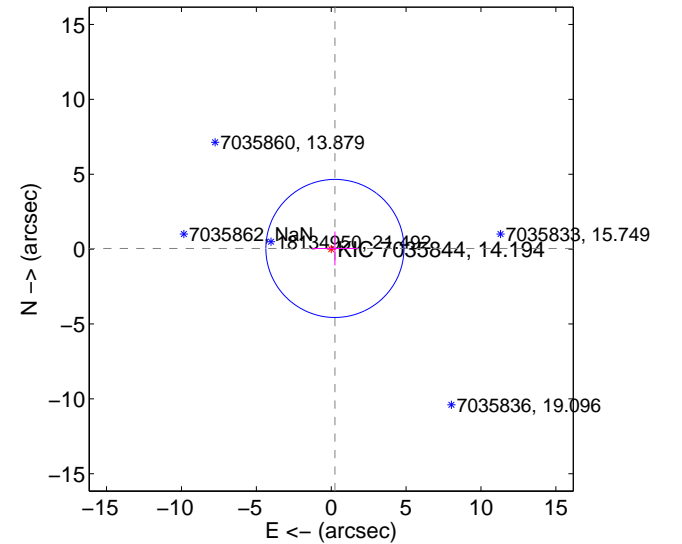
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

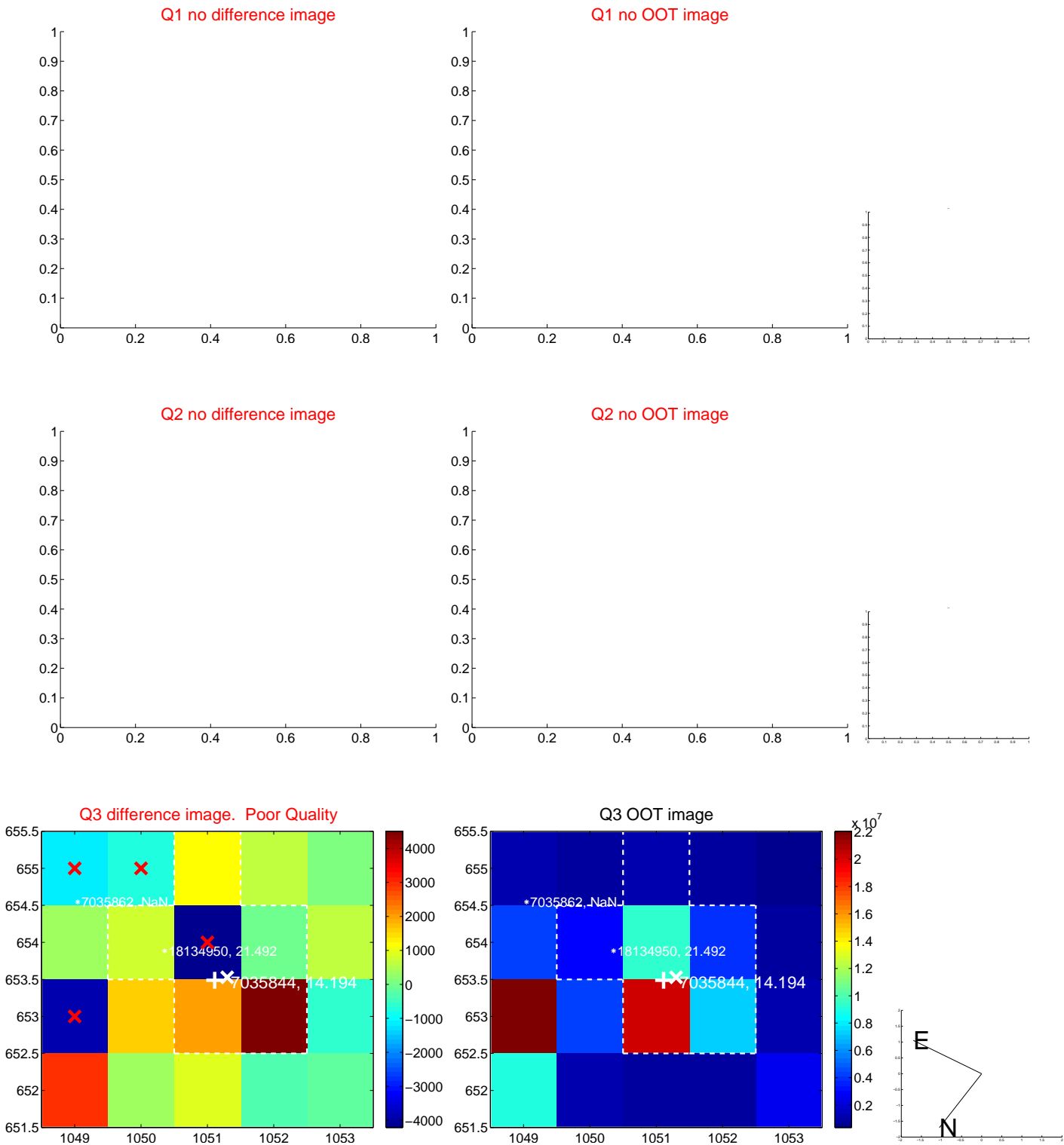


offset from photometric centroids



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.

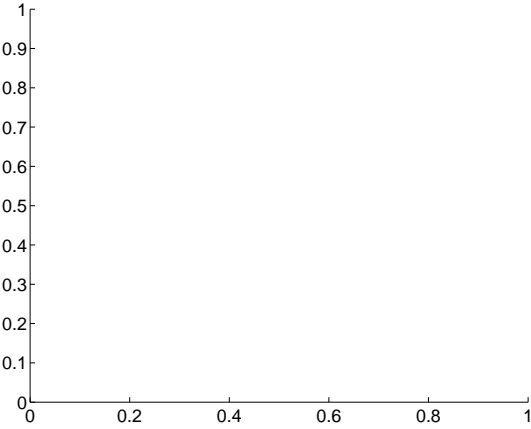
Q5 no difference image



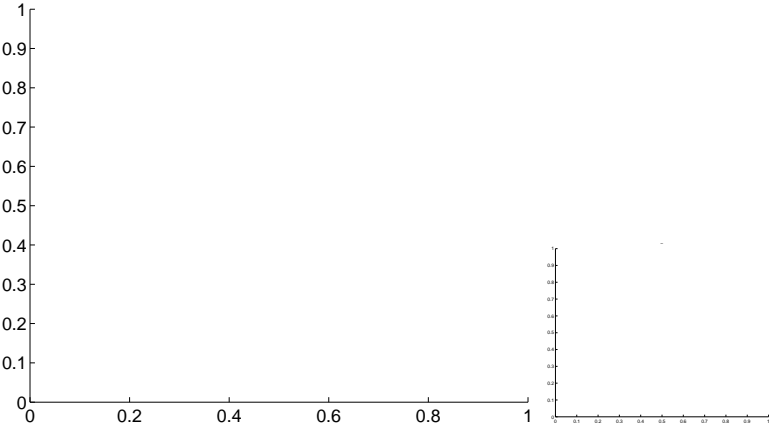
Q5 no OOT image



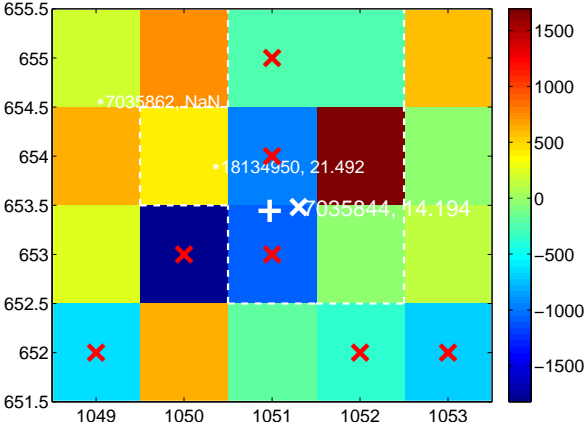
Q6 no difference image



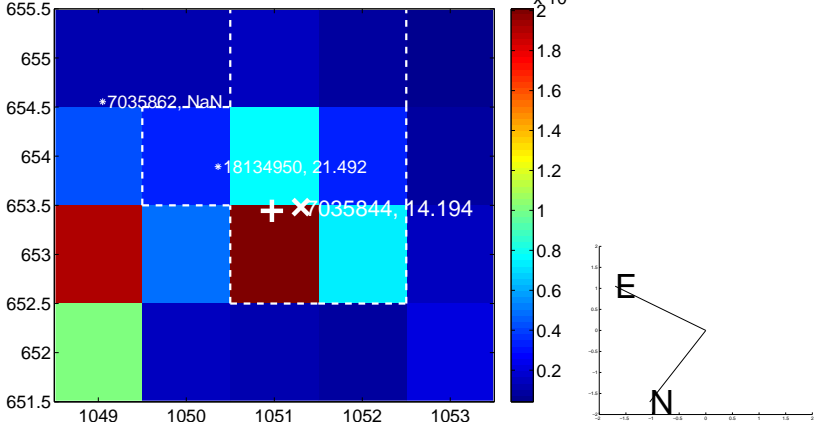
Q6 no OOT image



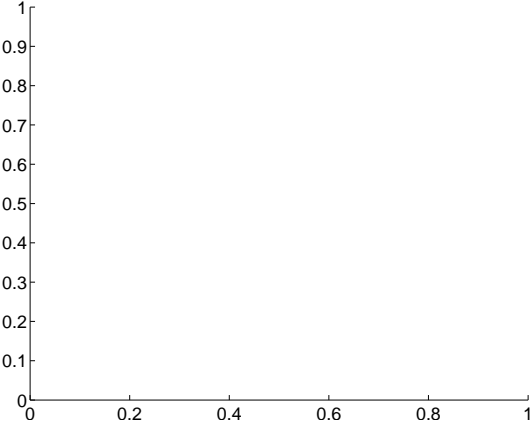
Q7 difference image. Poor Quality



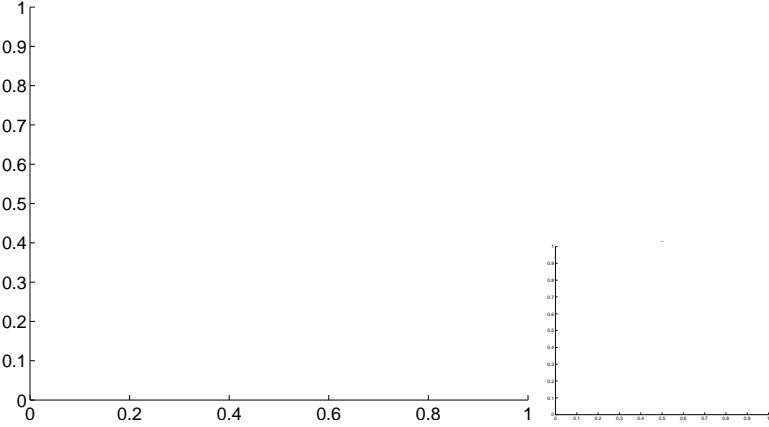
Q7 OOT image



Q8 no difference image



Q8 no OOT image



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

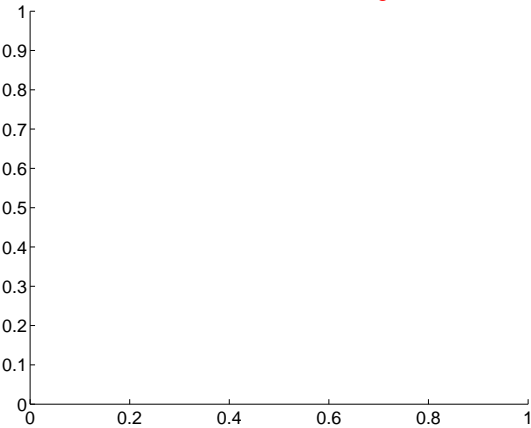
Q9 no difference image



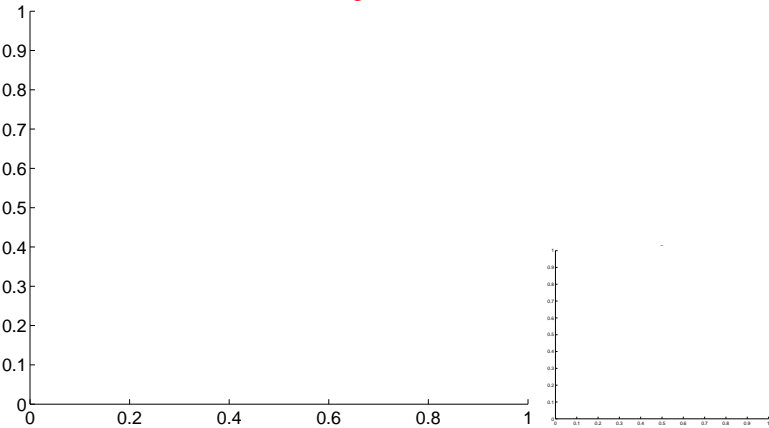
Q9 no OOT image



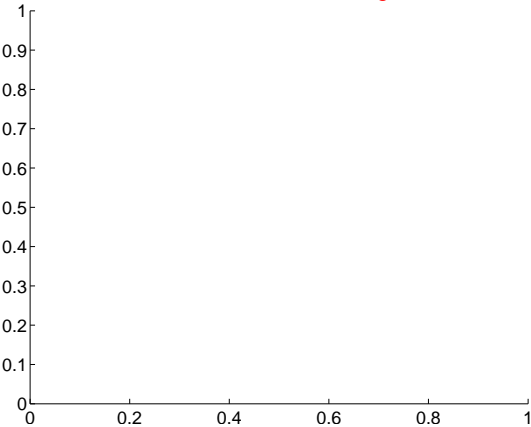
Q10 no difference image



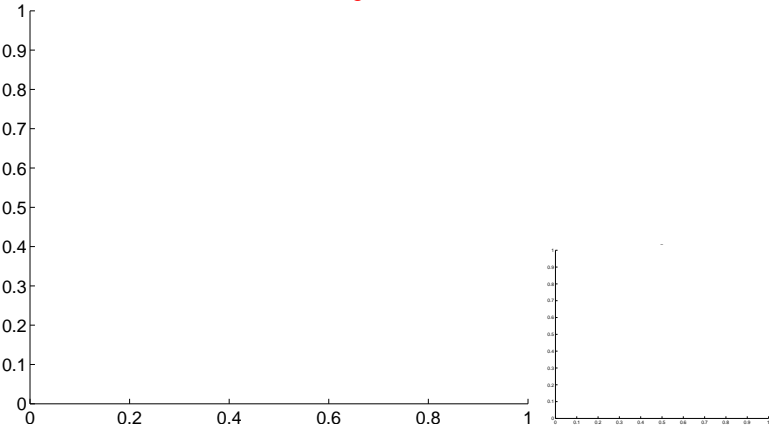
Q10 no OOT image



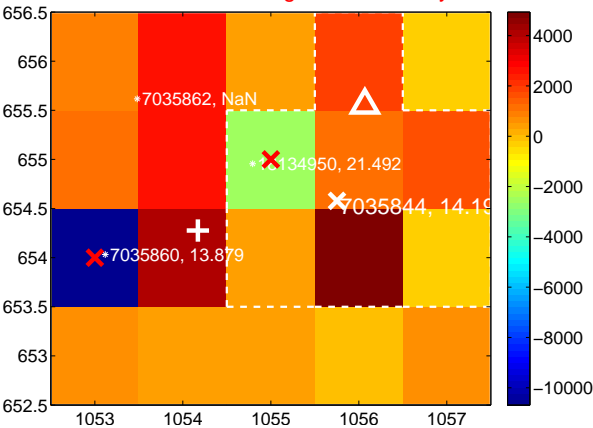
Q11 no difference image



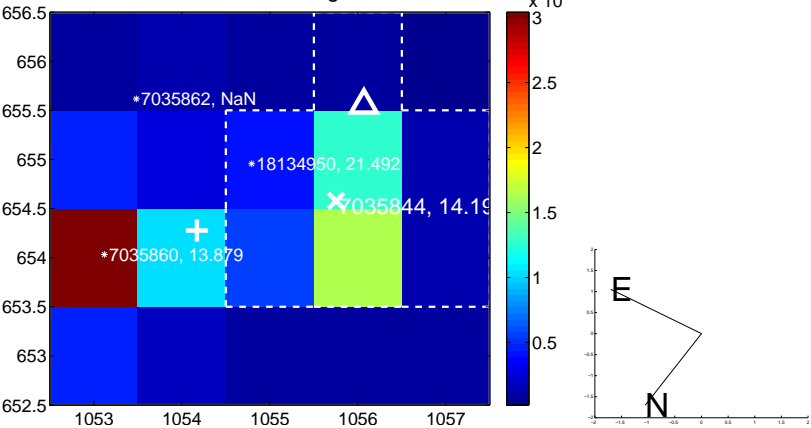
Q11 no OOT image



Q12 difference image. Poor Quality



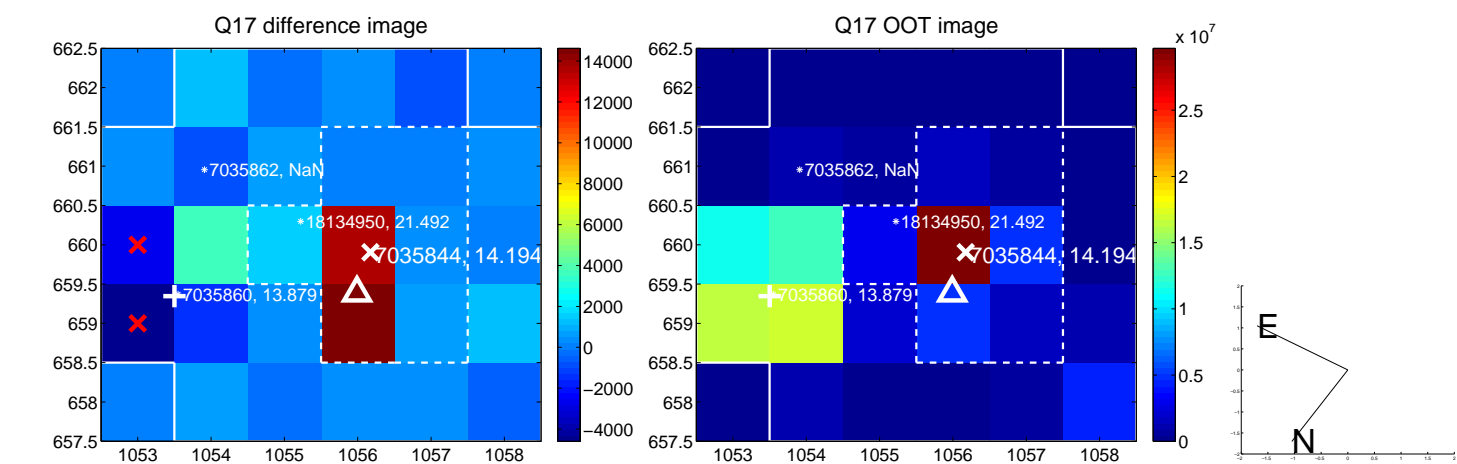
Q12 OOT image



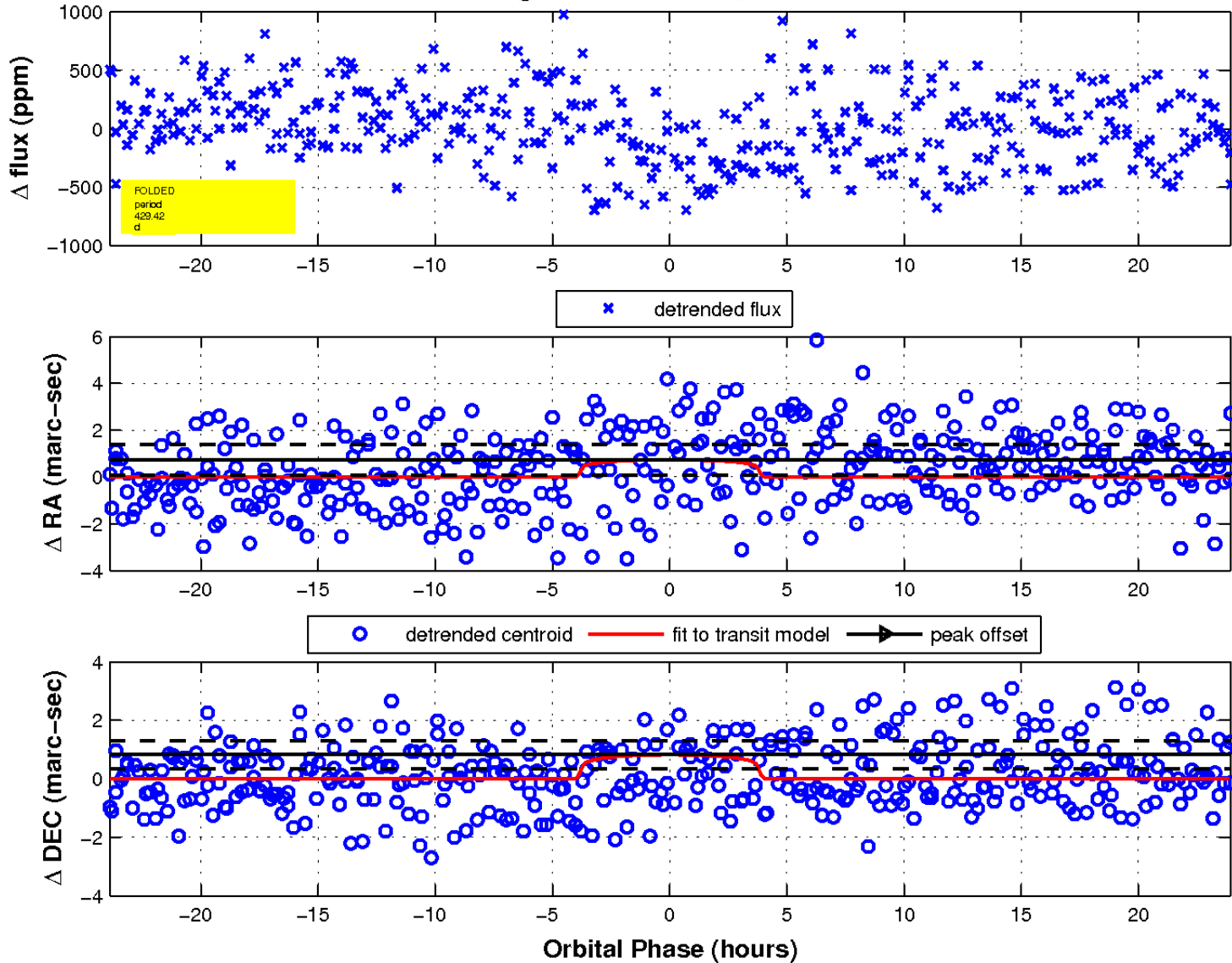
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

