

KIC 010081962

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})
010081962-01	OBS	No	635.465411	298.154535	274.0	3.082	7.4	7.5	1.37	6754	2.50	1.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010081962-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT

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

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

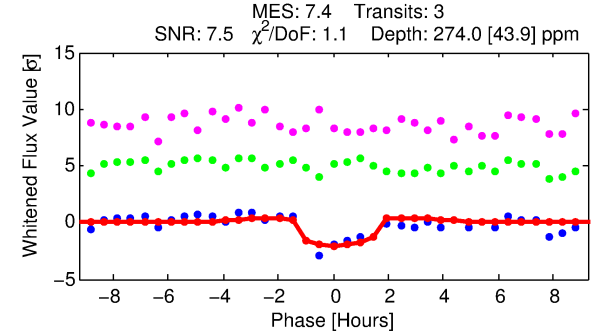
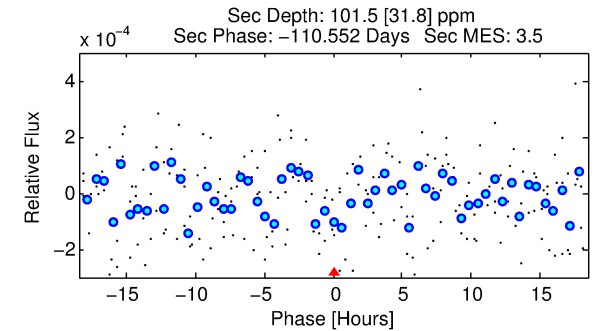
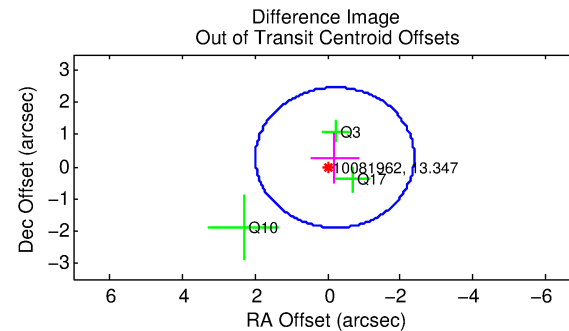
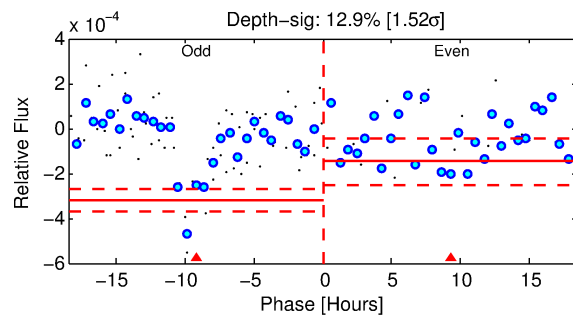
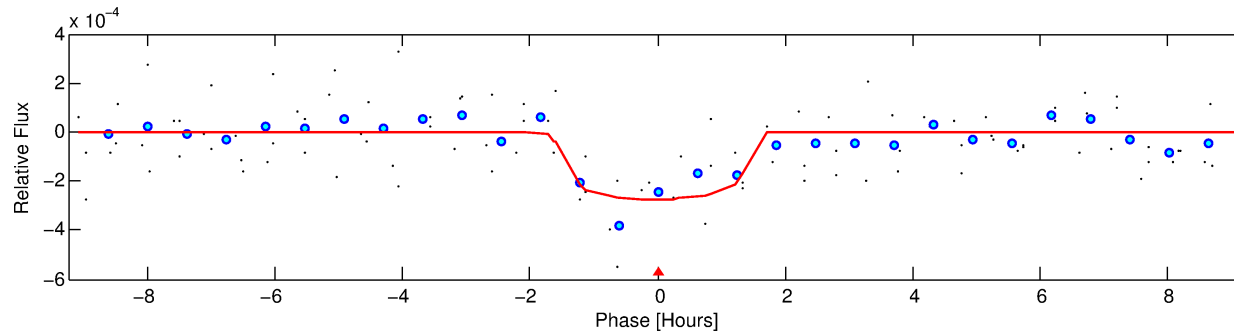
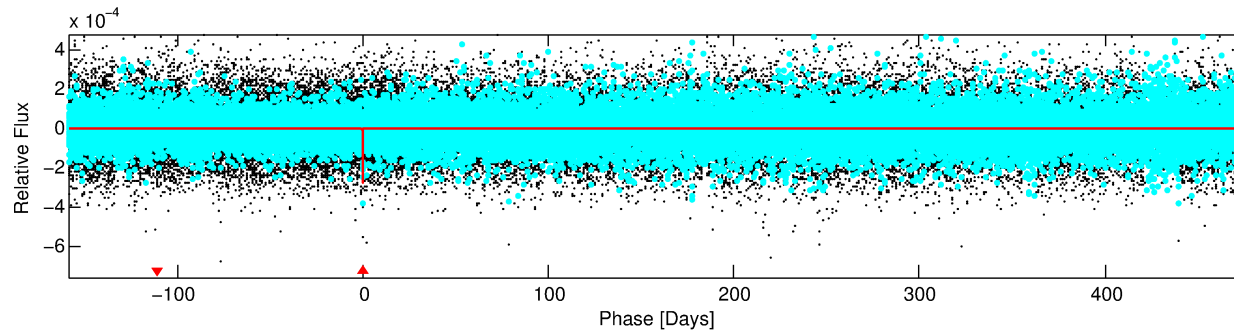
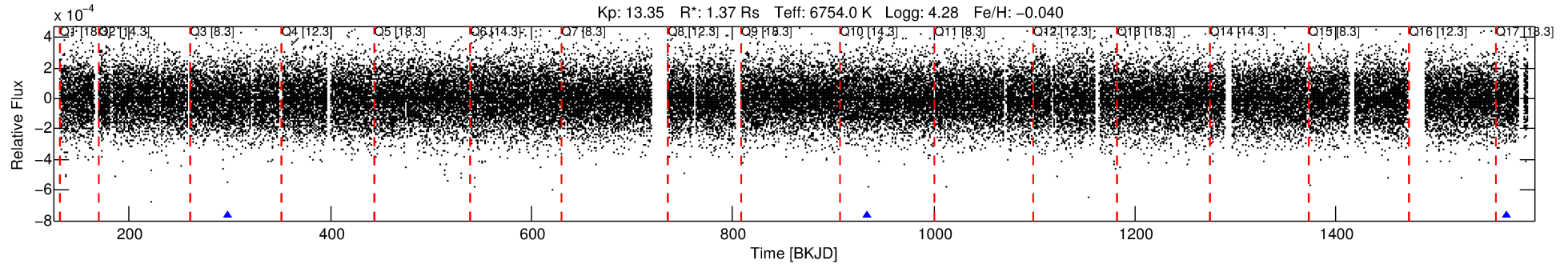
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010081962-01

No Significant Match Found

DV One-Page Summary

KIC: 10081962 Candidate: 1 of 1 Period: 635.465 d



DV Fit Results:

Period = 635.46541 [0.00715] d
Epoch = 298.1545 [0.0093] BKJD
Rp/R* = 0.0168 [0.0094]
a/R* = 992.52 [3099.47]
b = 0.80 [1.43]
Seff = 1.39 [0.44]
Teq = 277 [22] K
Rp = 2.50 [1.53] Re
a = 1.5838 [0.3169] AU
Ag = 22370.52 [26852.04] [0.83σ]
Teffp = 5238 [1539] K [3.22σ]

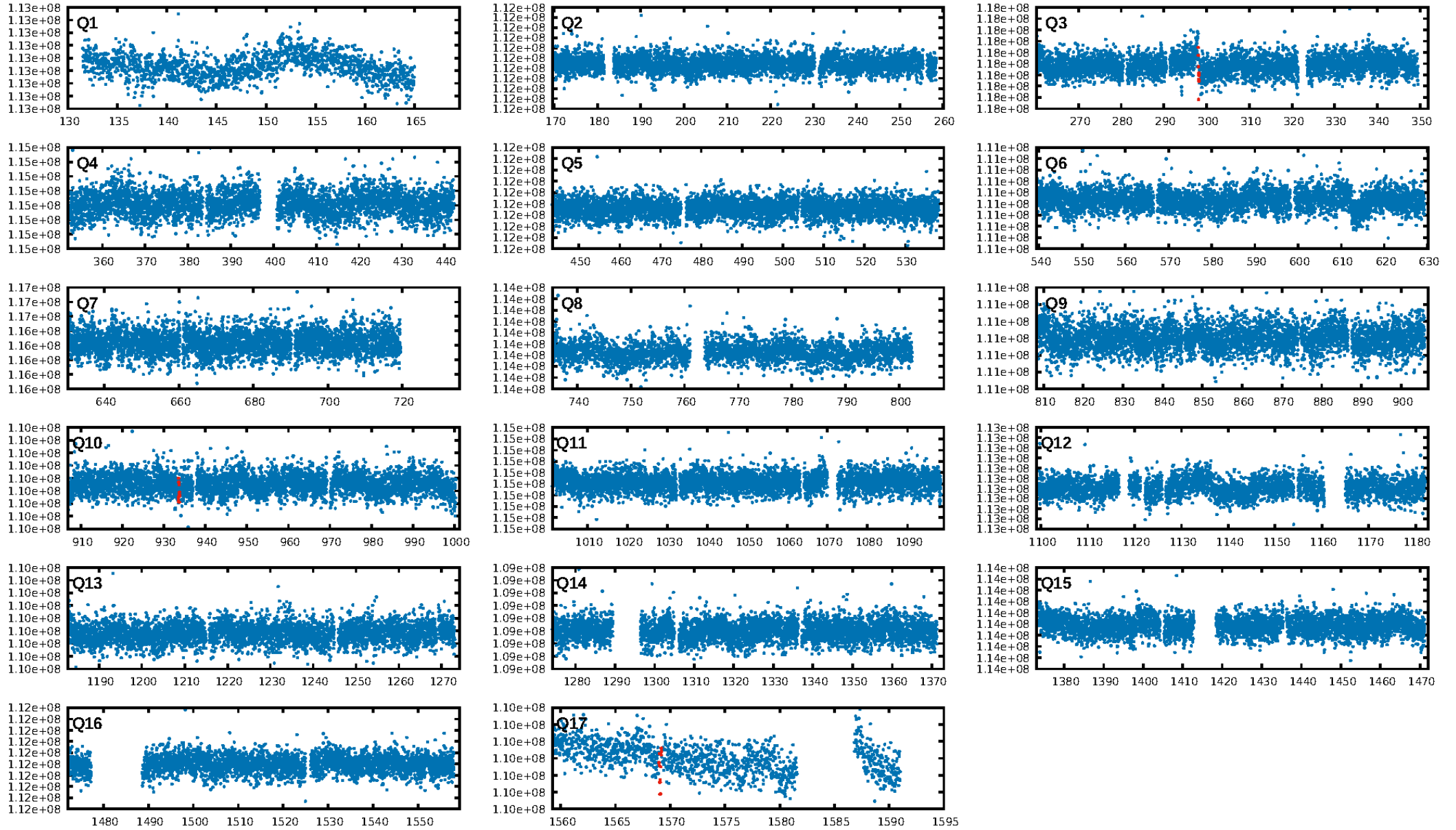
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 26.5%
ModelChiSquareGof-sig: 96.0%
Bootstrap-pfa: 4.18e-13
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: 8.744
Centroid-sig: 41.9%
Centroid-so: 1.142 arcsec [0.71σ]
OotOffset-rm: 0.347 arcsec [0.48σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.403 arcsec [0.31σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

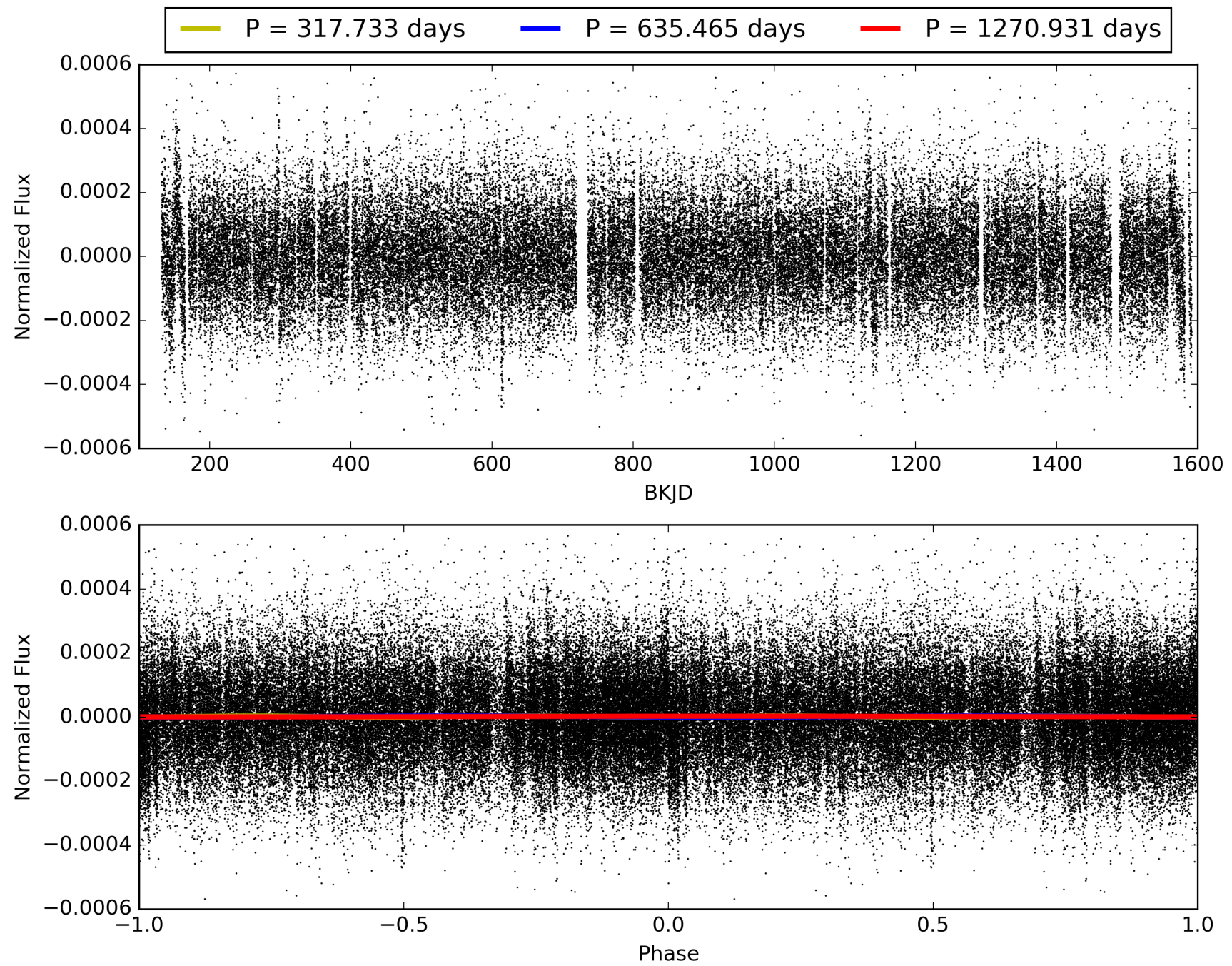
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:59:10 Z

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

TCE 010081962-01, PDC Light Curves

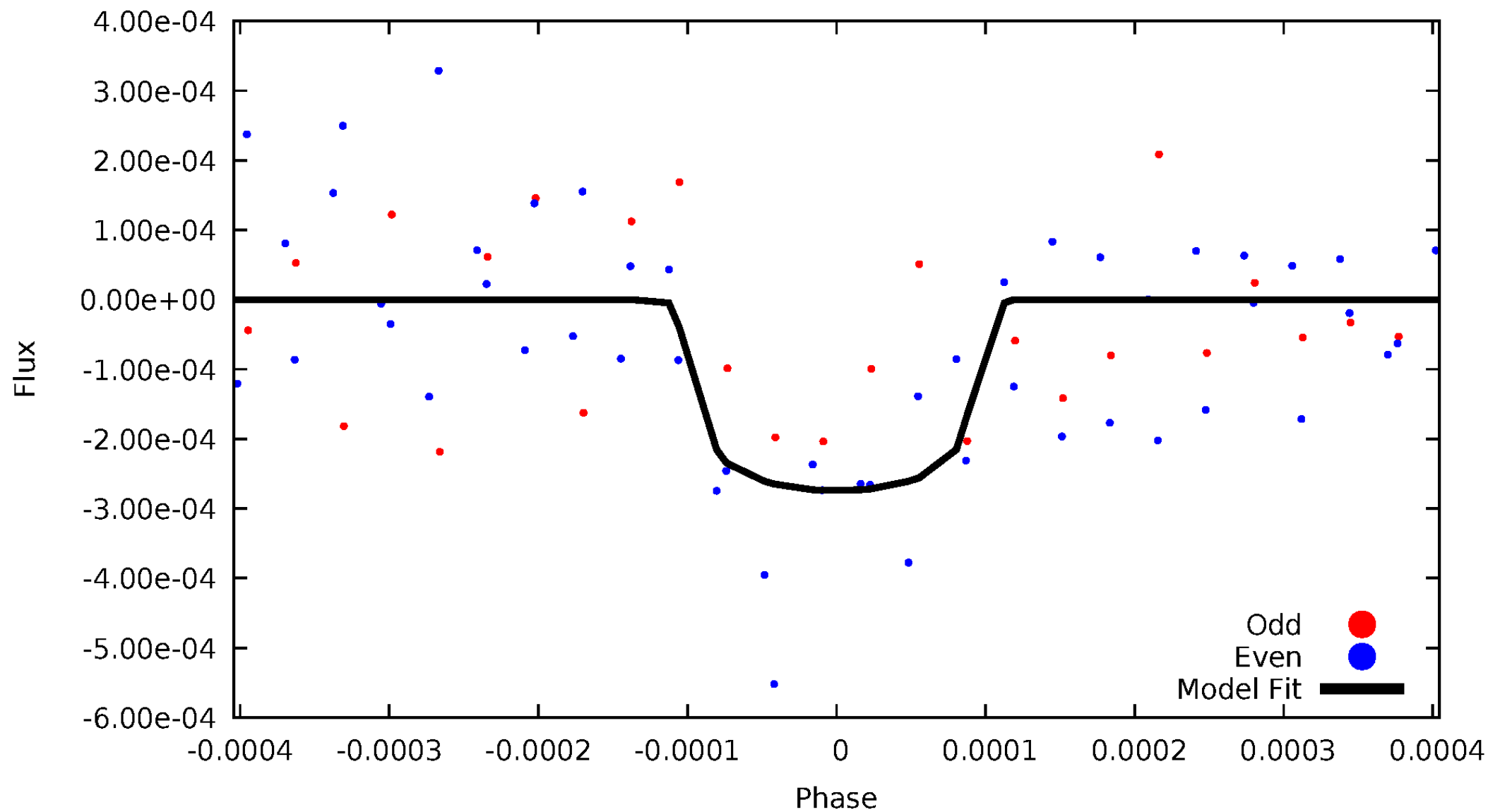


TCE 010081962-01



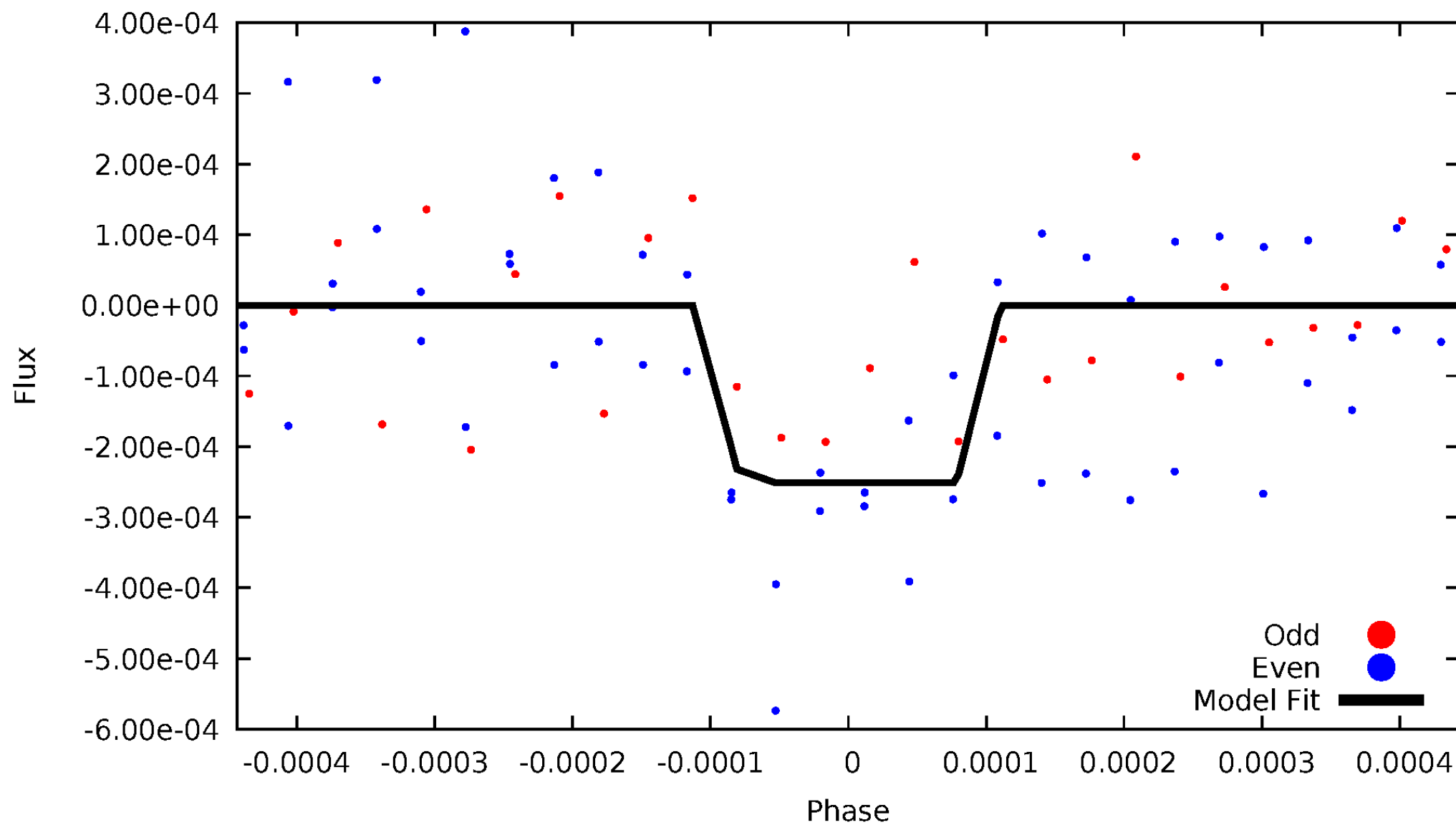
DV Odd/Even

TCE 010081962-01

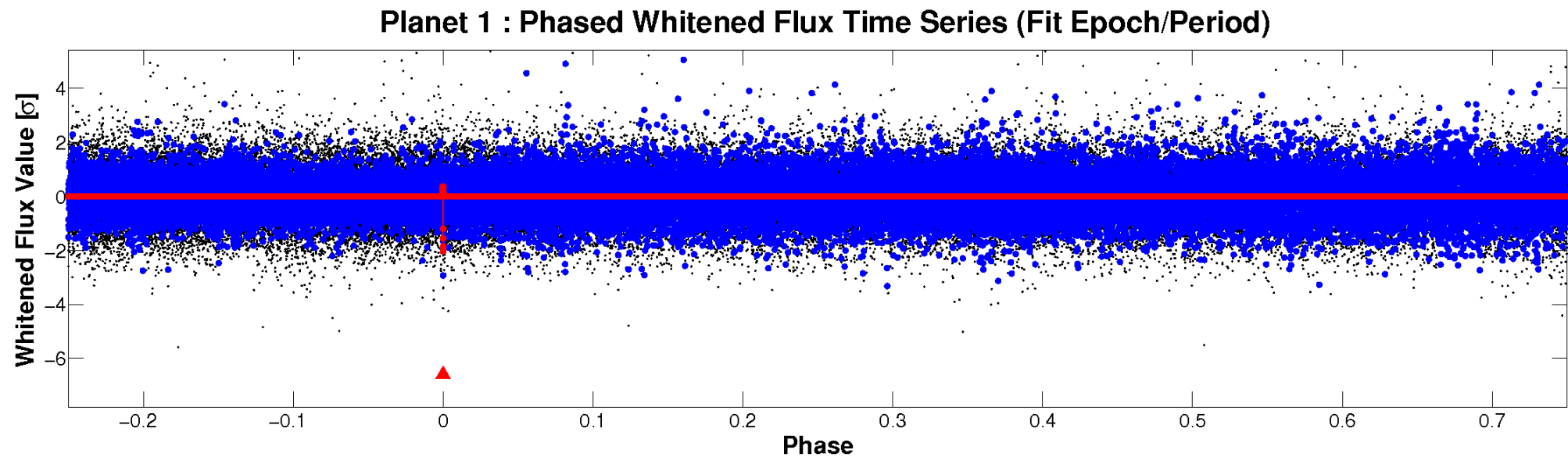
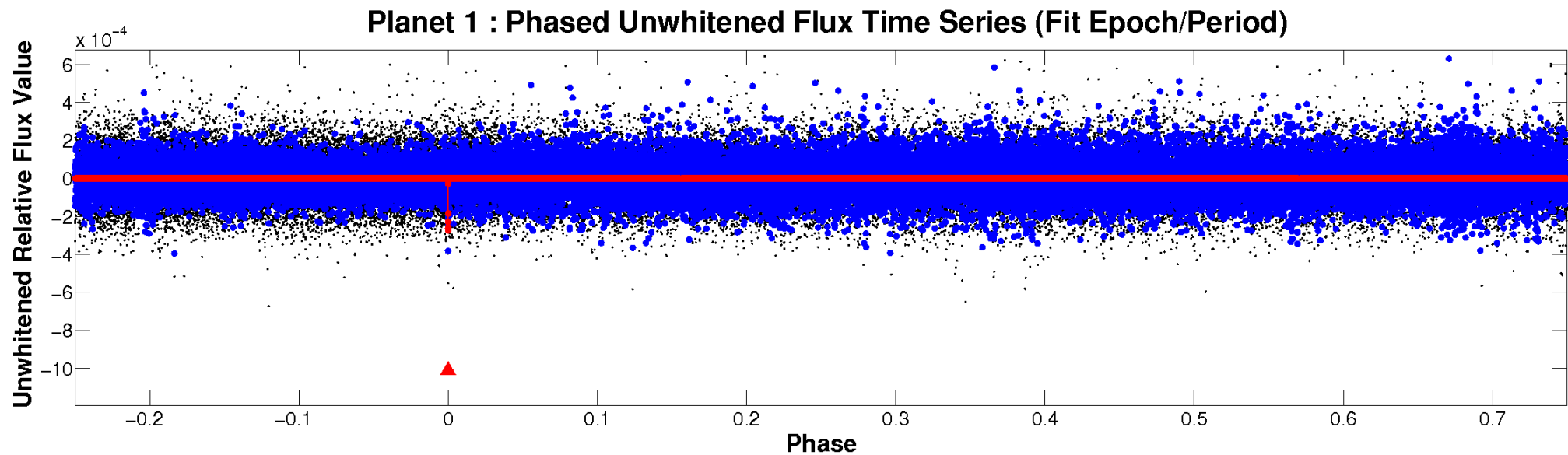


ALT Odd/Even

TCE 010081962-01

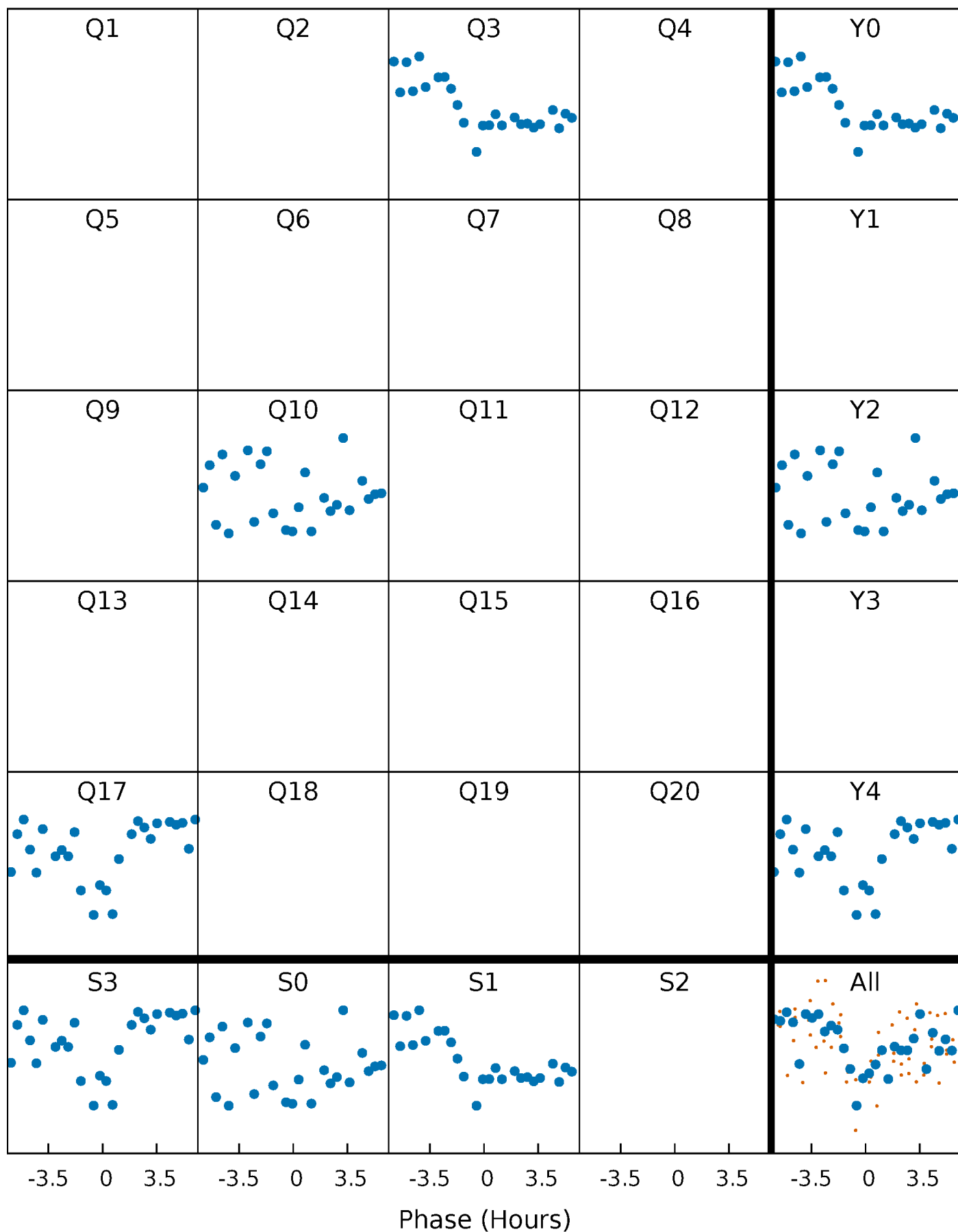


Non-Whitened Vs. Whitened Light Curve



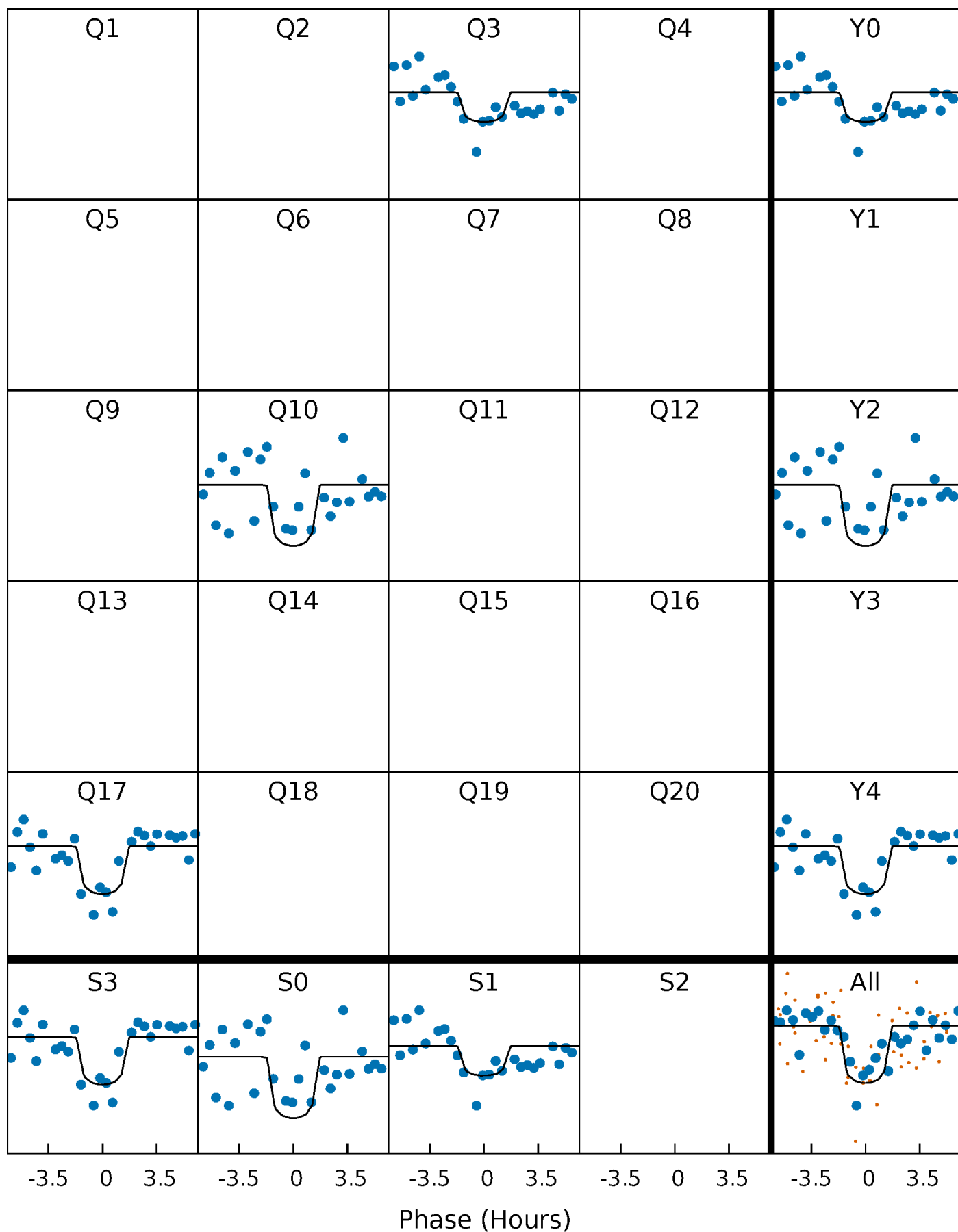
PDC Quarter-Phased Transit Curves

TCE 010081962-01 $P=635.465411$ Days $T_0=298.154535$ (BKJD)



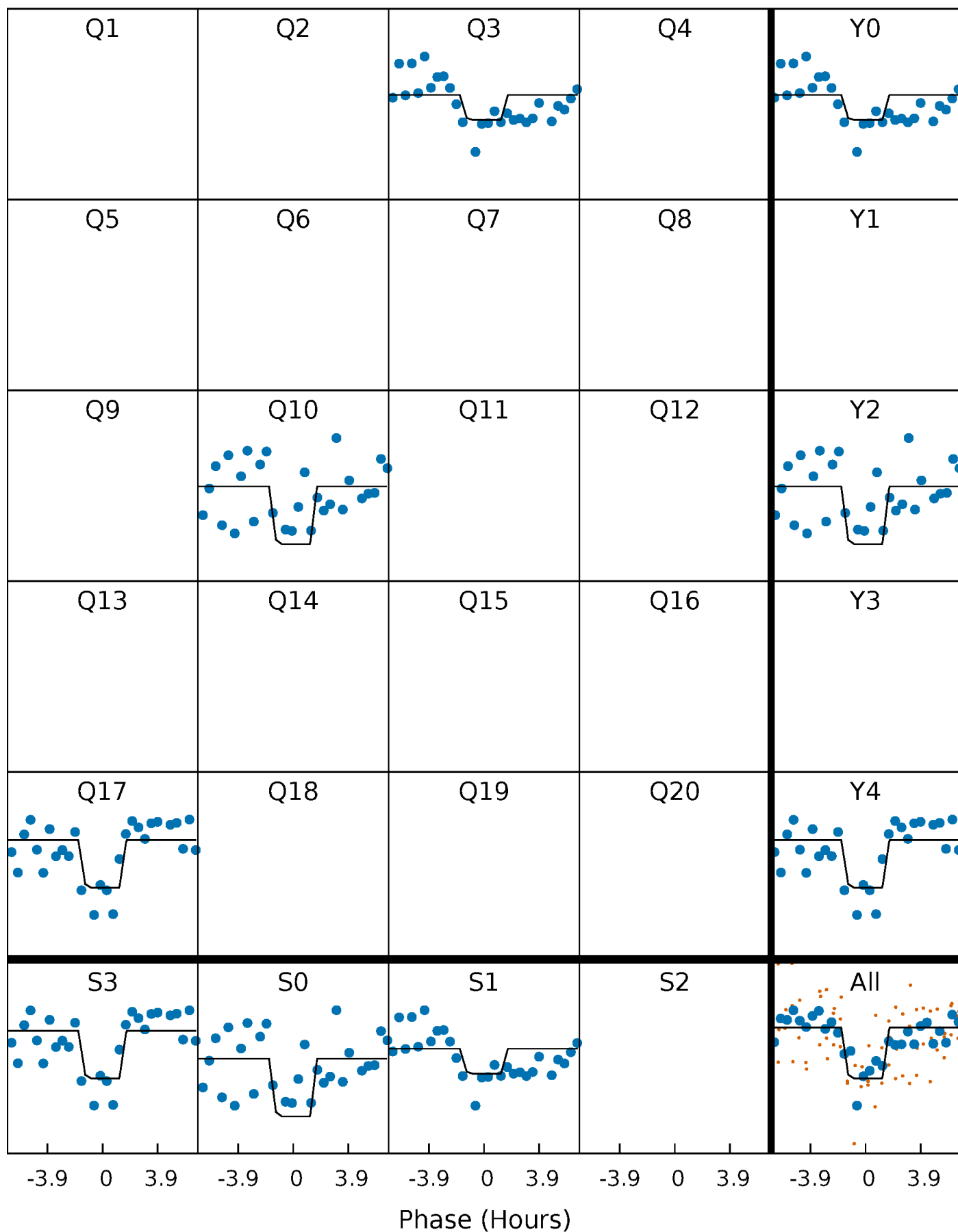
DV Quarter-Phased Transit Curves

TCE 010081962-01 P=635.465411 Days $T_0=298.154535$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

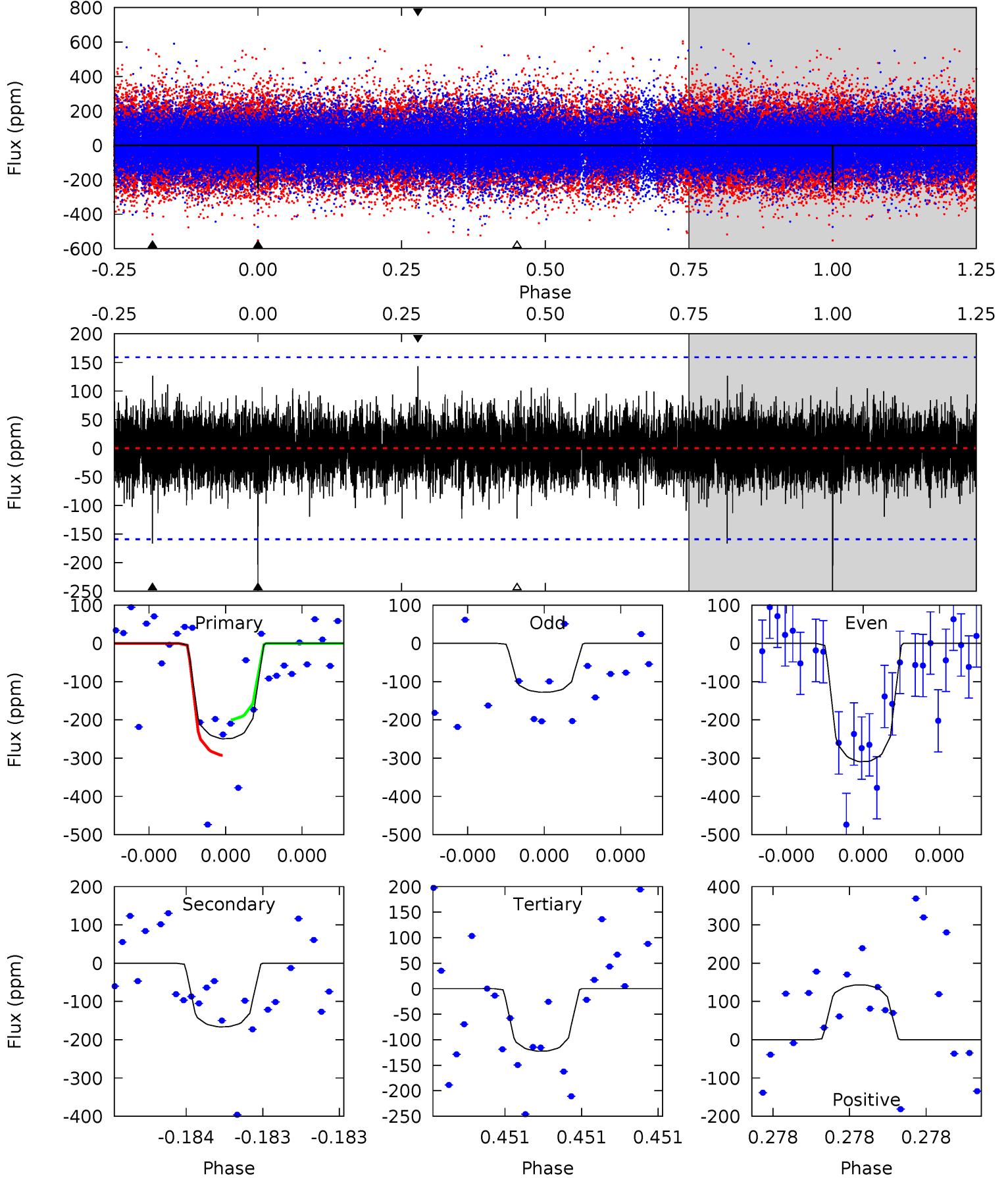
TCE 010081962-01 P=635.463282 Days $T_0=298.161481$ (BKJD)



DV Model-Shift Uniqueness Test

010081962-01, P = 635.465411 Days, E = 298.154535 Days

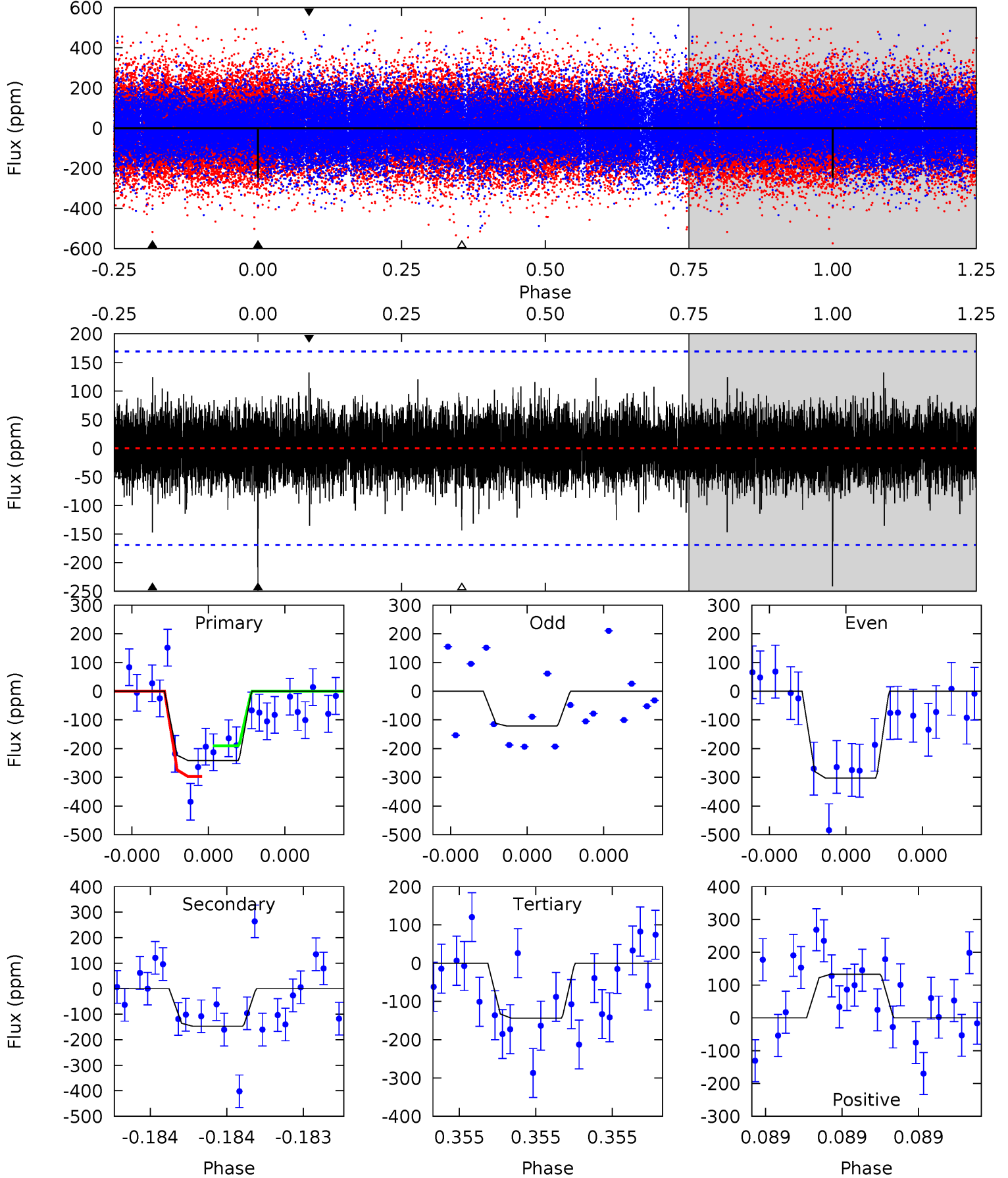
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.96	5.98	4.40	5.15	5.71	3.69	1.10	4.56	3.81	1.58	0.83	3.19	0.83	0.36	1.67



Alt Model-Shift Uniqueness Test

010081962-01, P = 635.463282 Days, E = 298.161481 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.18	4.98	4.87	4.49	5.73	3.72	1.06	3.32	3.69	0.11	0.48	2.91	0.86	0.35	1.76



Stellar Parameters For KIC 010081962

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6754^{+162}_{-243}	$4.283^{+0.069}_{-0.150}$	$-0.040^{+0.250}_{-0.350}$	$1.369^{+0.336}_{-0.181}$	$1.318^{+0.147}_{-0.196}$	$0.723^{+0.261}_{-0.316}$
	+2%/-4%	+2%/-4%	+625%/-875%	+25%/-13%	+11%/-15%	+36%/-44%
Source	PHO1	FLK73	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 010081962-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-166 ± 28	$2.60^{+1.50}_{-1.31}$	391^{+22}_{-19}	5786^{+2972}_{-1046}	$32805^{+103118}_{-19584}$
Alt.	-147 ± 30	$2.58^{+1.35}_{-1.28}$	390^{+22}_{-19}	5689^{+2450}_{-1013}	29272^{+85683}_{-16792}

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 $A_{obs} \gg 1.0$

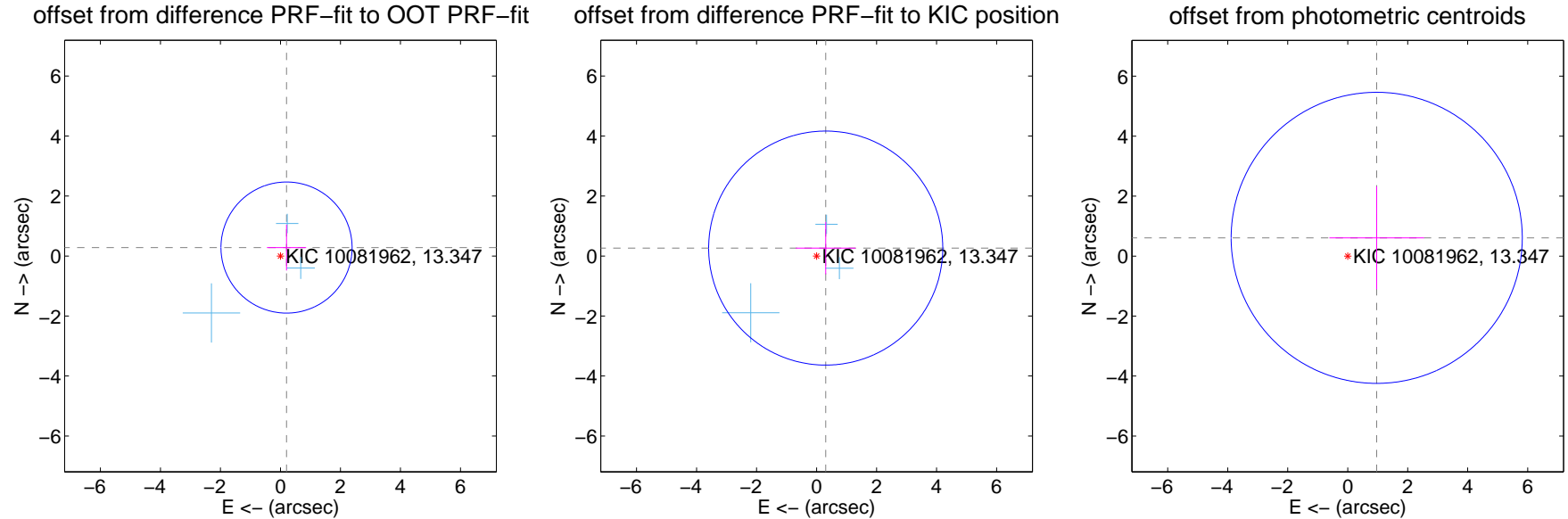
DV Centroid Data

Supplemental centroid analysis for 010081962-01. Kepler magnitude: 13.35. Transit SNR 7.55

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.347 ± 0.728	0.48	-0.202 ± 0.652	0.282 ± 0.764
PRF-fit source offset from KIC position	0.403 ± 1.300	0.31	-0.304 ± 0.996	0.265 ± 0.871
photometric centroid source offset	1.14 ± 1.62	0.71	-0.97 ± 1.58	0.61 ± 1.71



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.

Q1 no difference image



Q1 no OOT image



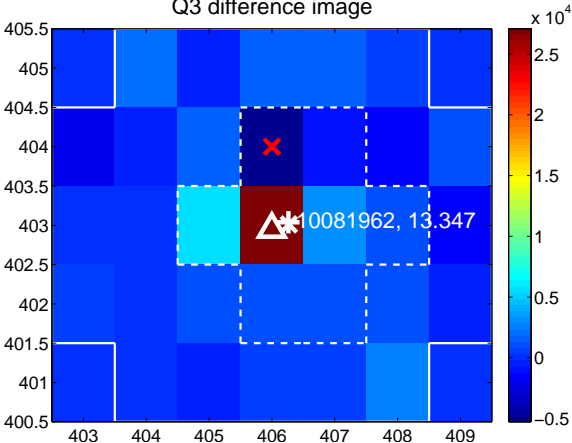
Q2 no difference image



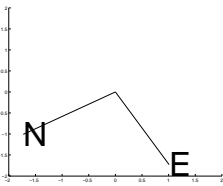
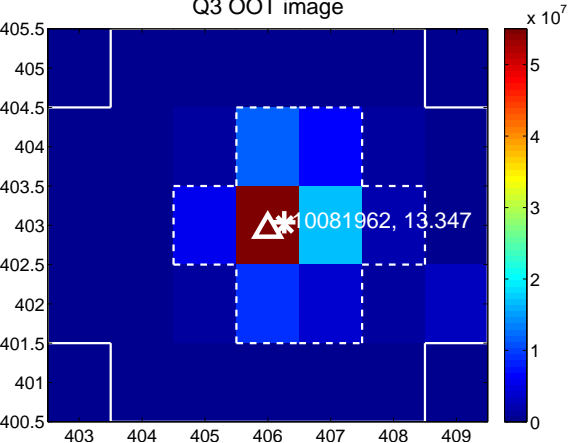
Q2 no OOT image



Q3 difference image



Q3 OOT image



Q4 no difference image



Q4 no OOT image



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

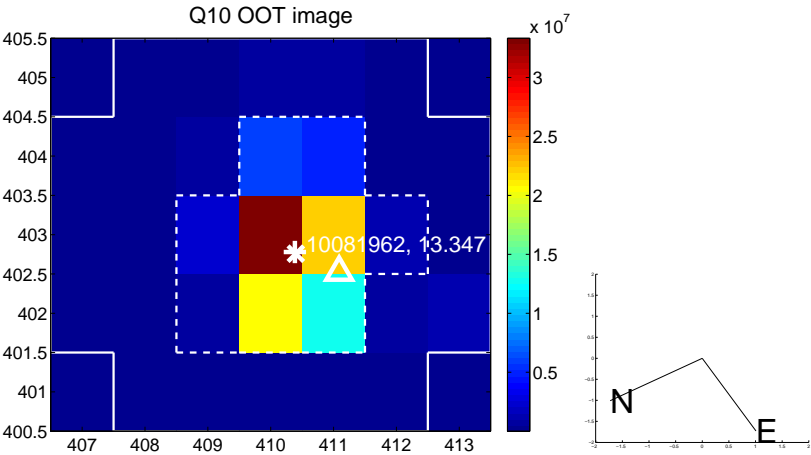
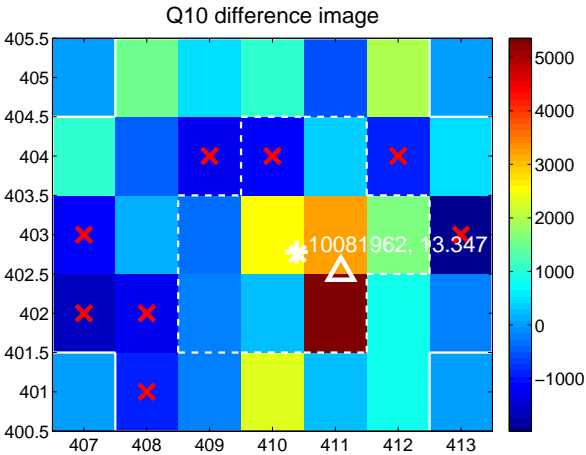


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

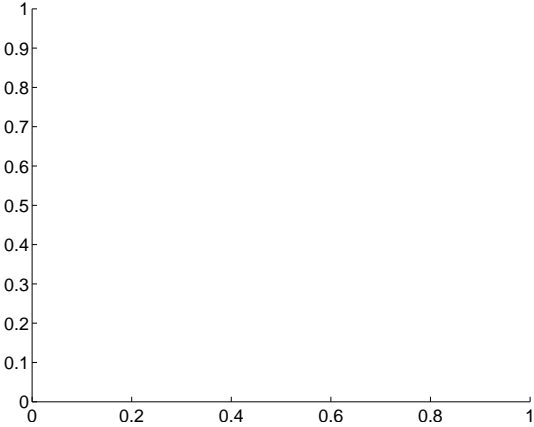
Q9 no difference image



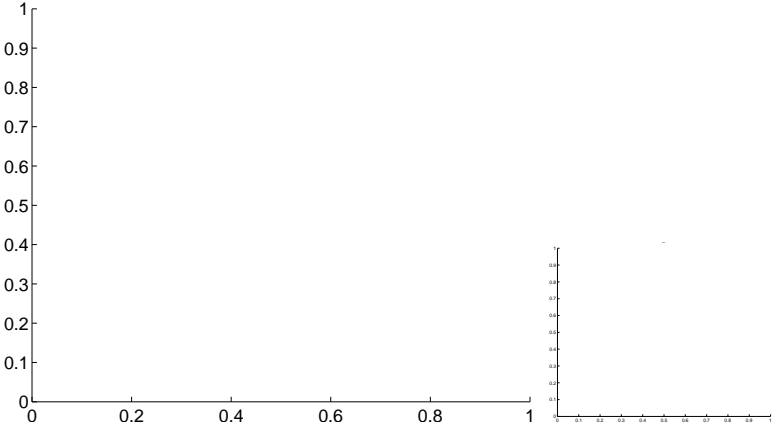
Q9 no OOT image



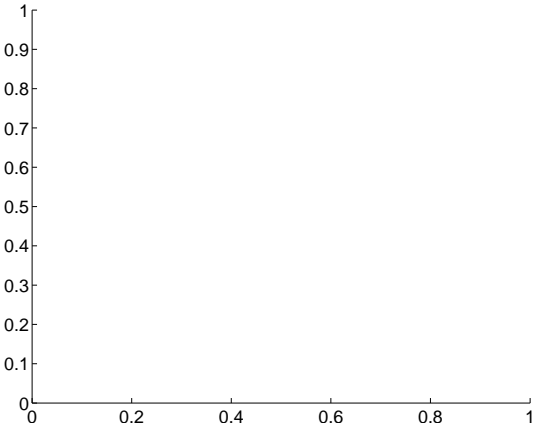
Q11 no difference image



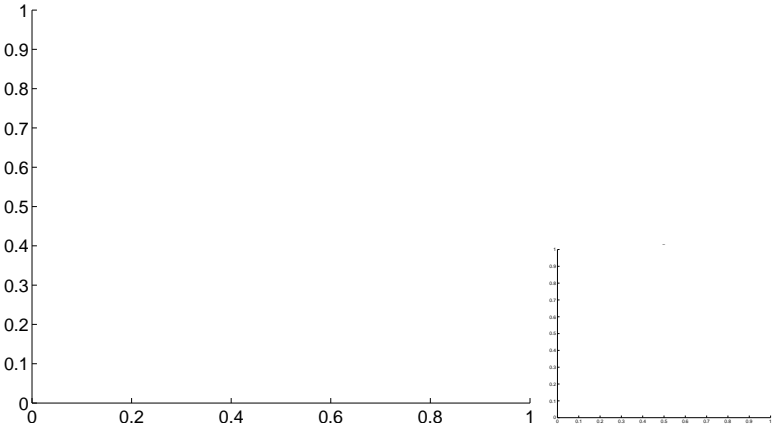
Q11 no OOT image



Q12 no difference image



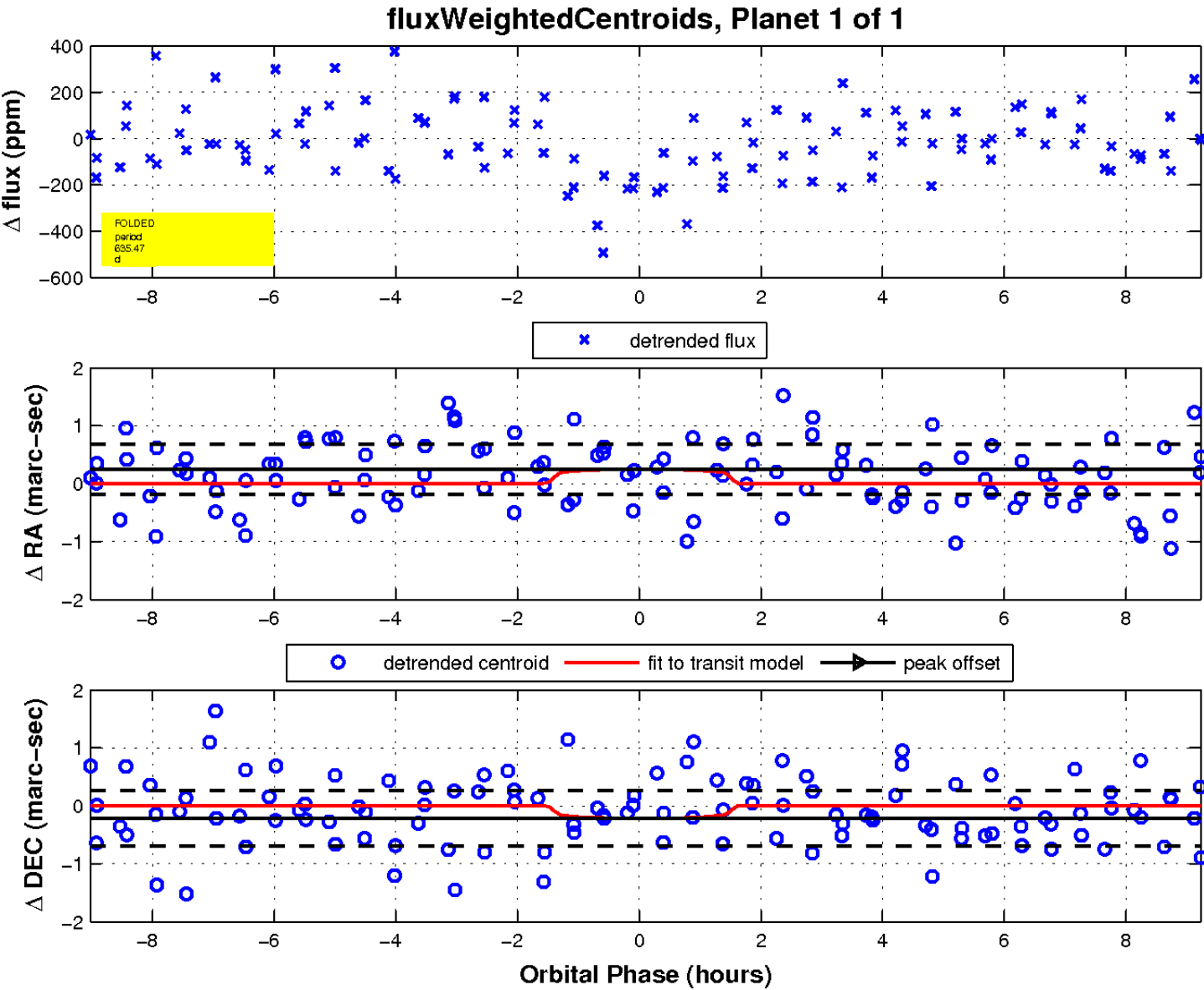
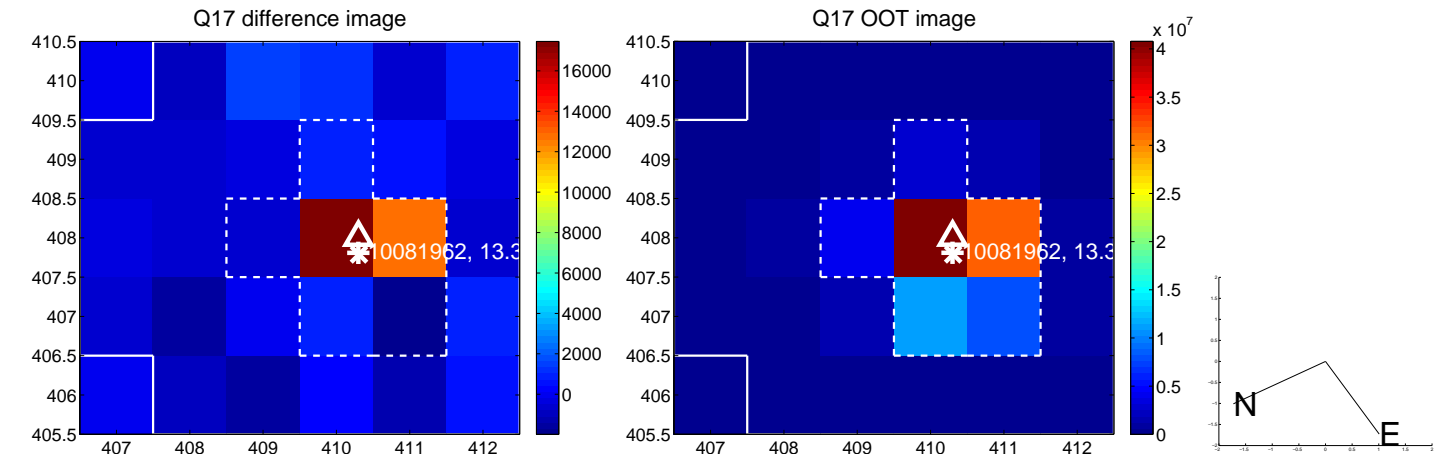
Q12 no OOT image



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.



UKIRT Image

