

KIC 008108349

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})
008108349-01	OBS	No	401.729757	255.070777	470.5	28.440	7.9	9.4	1.11	6325	2.50	1.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008108349-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—CENT_FEW_MEAS

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

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

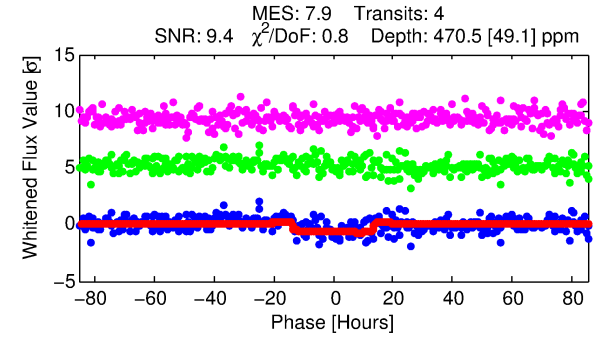
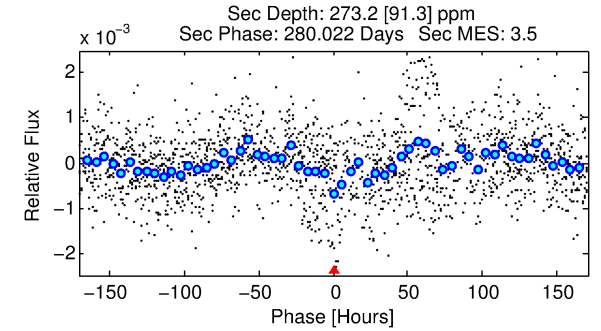
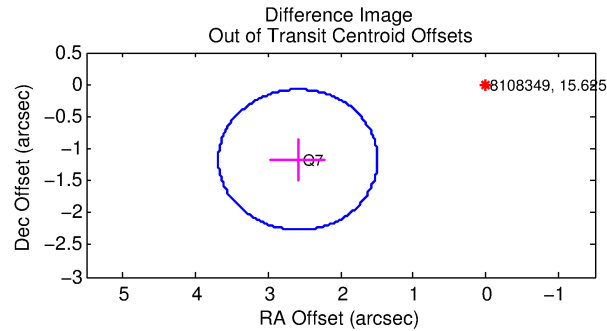
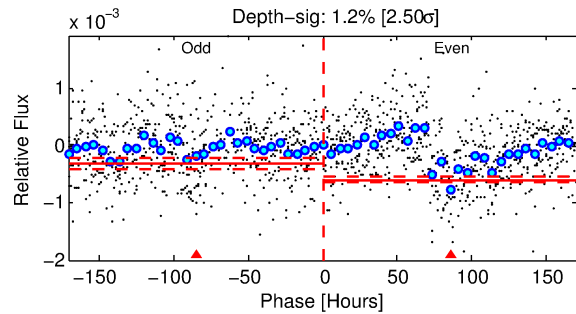
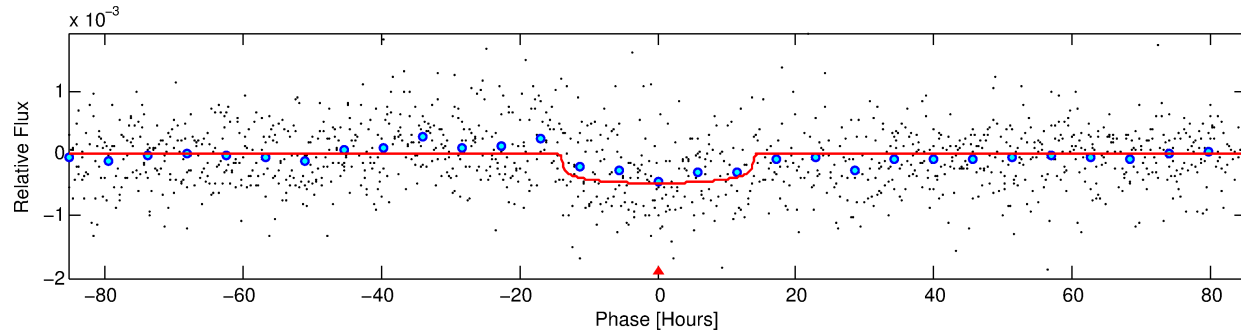
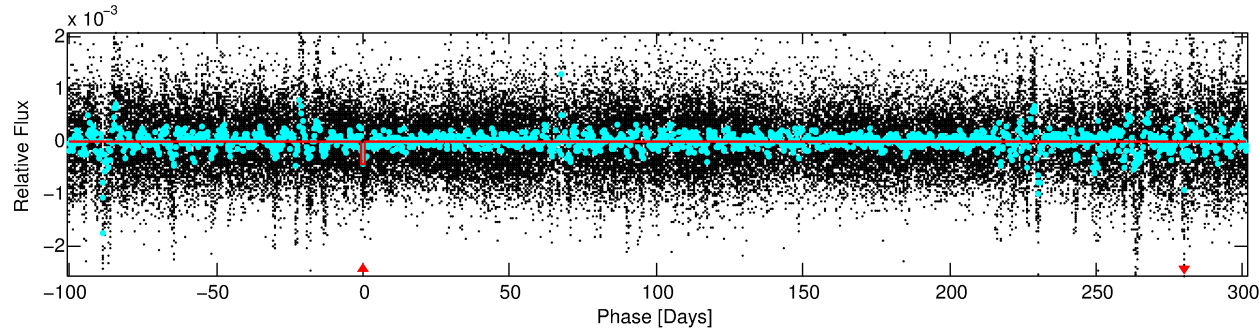
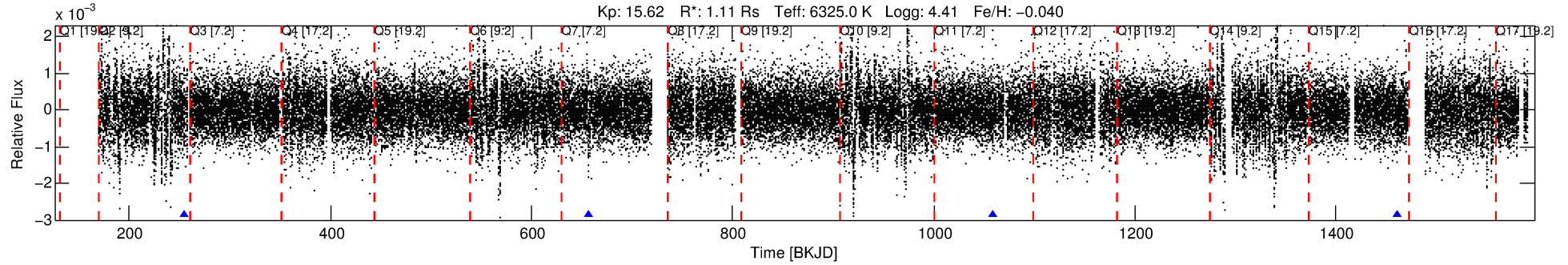
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008108349-01

No Significant Match Found

DV One-Page Summary

KIC: 8108349 Candidate: 1 of 1 Period: 401.730 d



DV Fit Results:

Period = 401.72976 [0.01784] d
Epoch = 255.0708 [0.0370] BKJD
Rp/R* = 0.0206 [0.0055]
a/R* = 92.54 [122.81]
b = 0.55 [1.67]
Seff = 1.42 [0.54]
Teq = 278 [26] K
Rp = 2.50 [0.99] Re
a = 1.1187 [0.2734] AU
Ag = 30024.95 [21555.37] [1.39 σ]
Teffp = 5662 [913] K [5.89 σ]

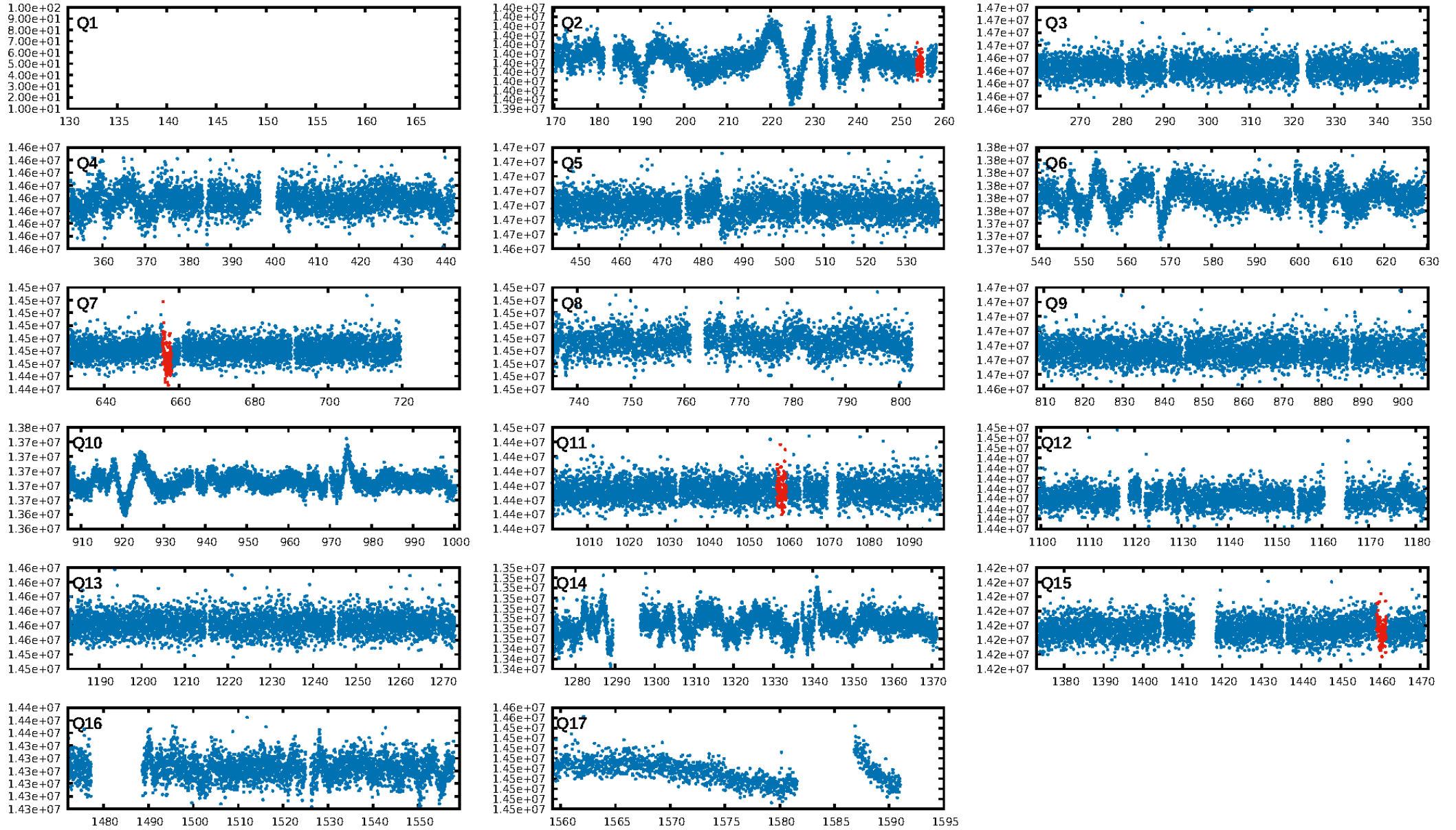
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.96e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 3.999
Centroid-sig: 34.4%
Centroid-so: 1.407 arcsec [0.88 σ]
OotOffset-rm: 2.838 arcsec [7.78 σ]
KicOffset-rm: 2.836 arcsec [7.79 σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

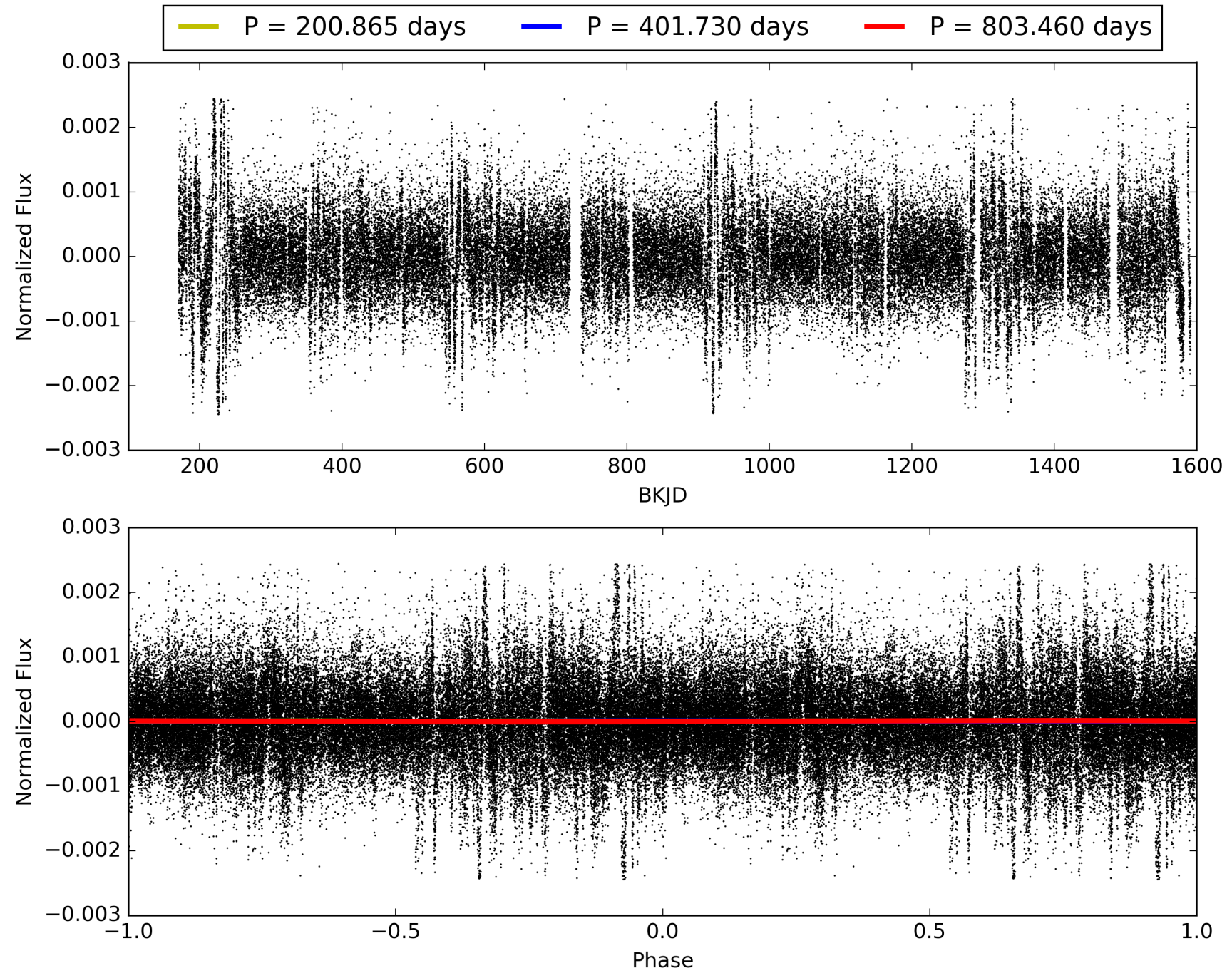
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:31:27 Z

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

TCE 008108349-01, PDC Light Curves

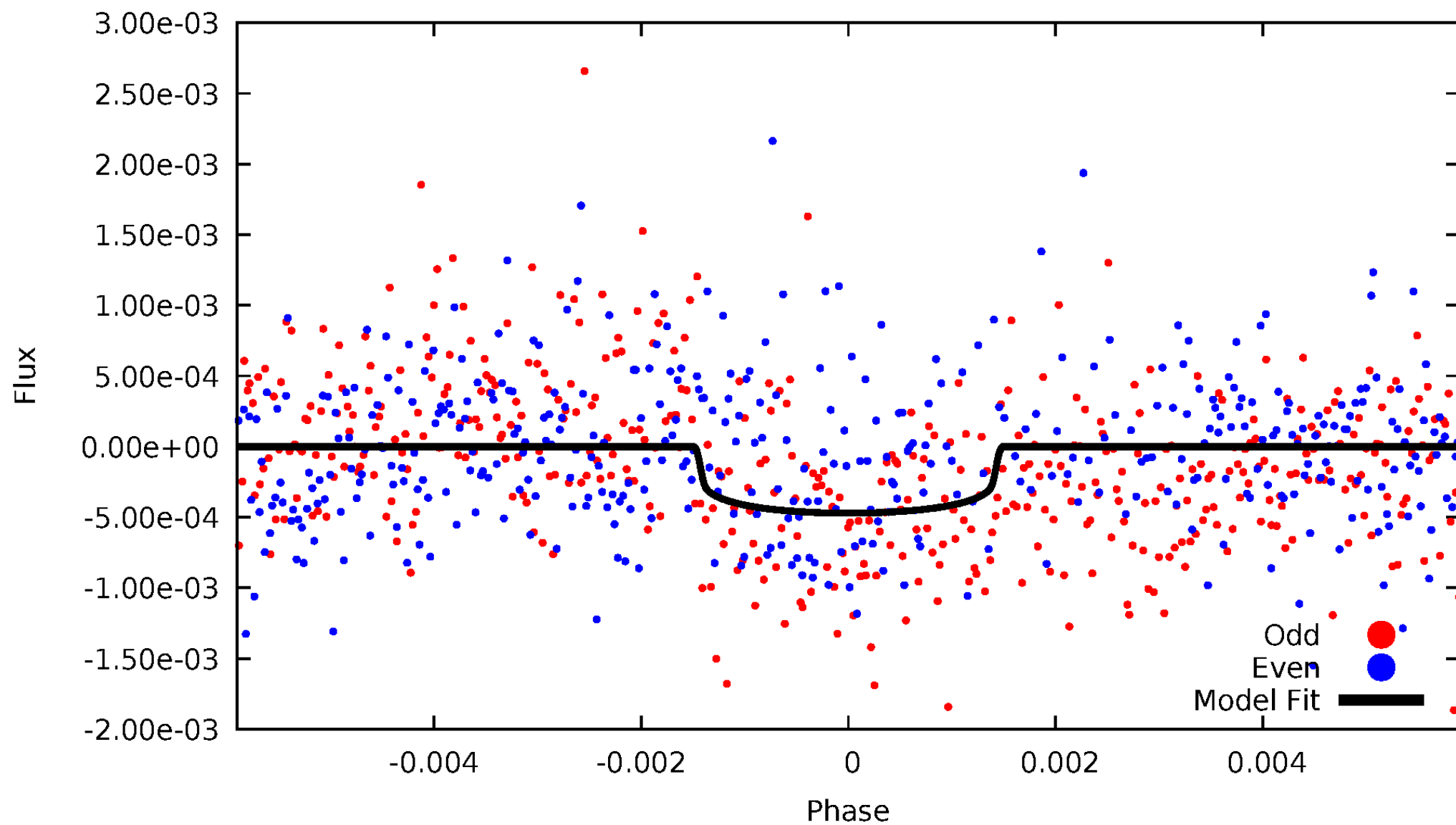


TCE 008108349-01



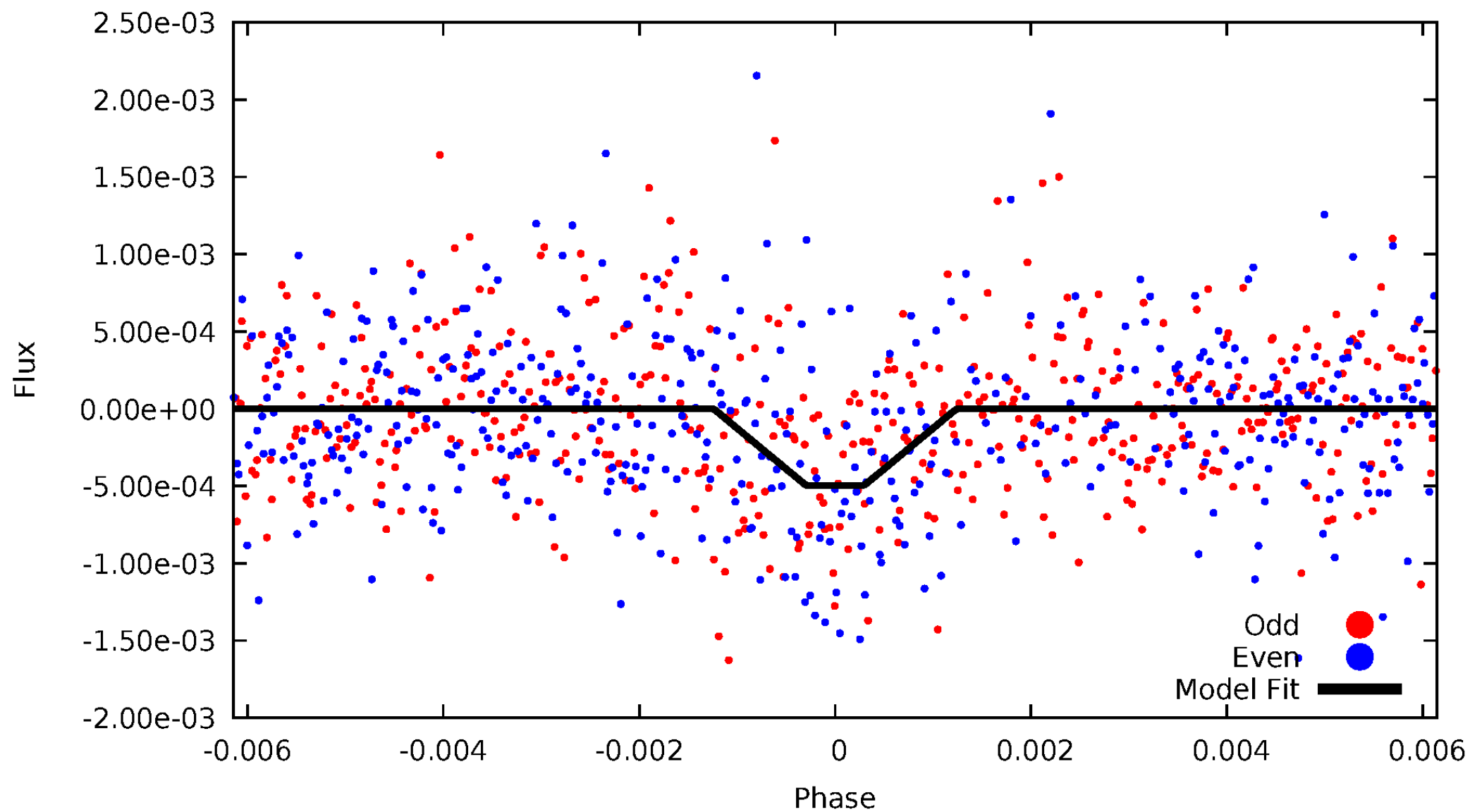
DV Odd/Even

TCE 008108349-01

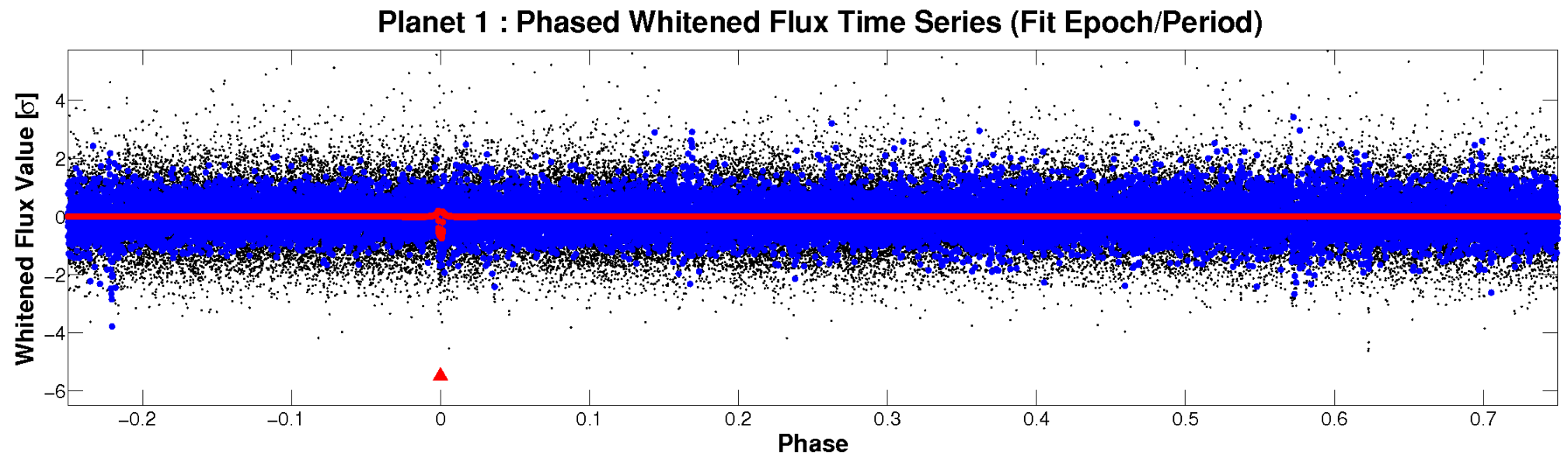
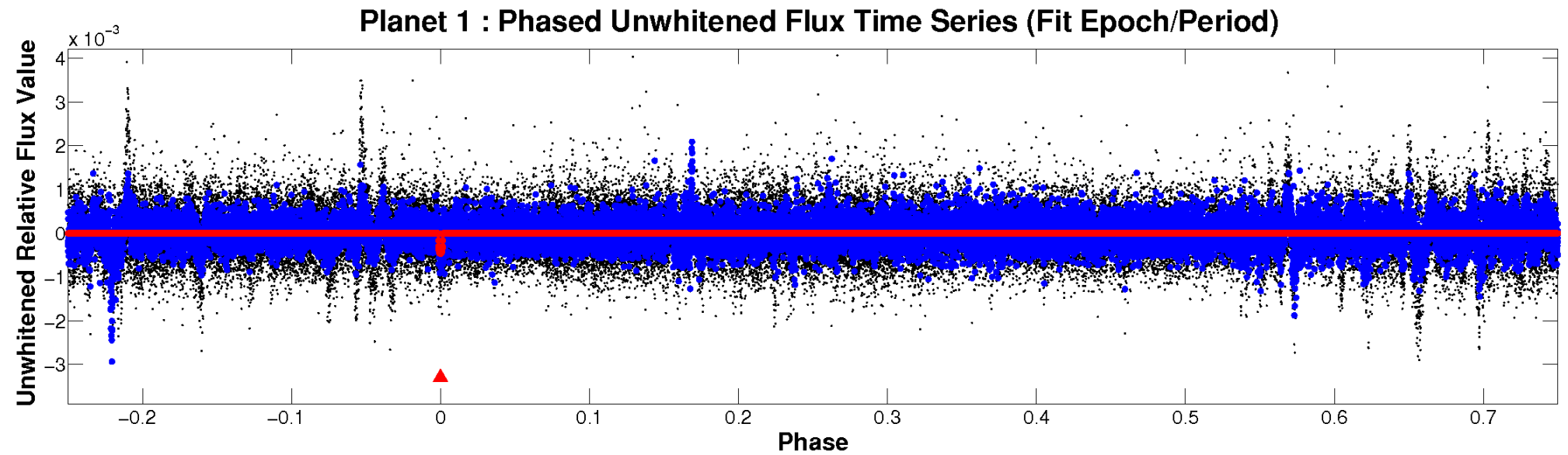


ALT Odd/Even

TCE 008108349-01



Non-Whitened Vs. Whitened Light Curve



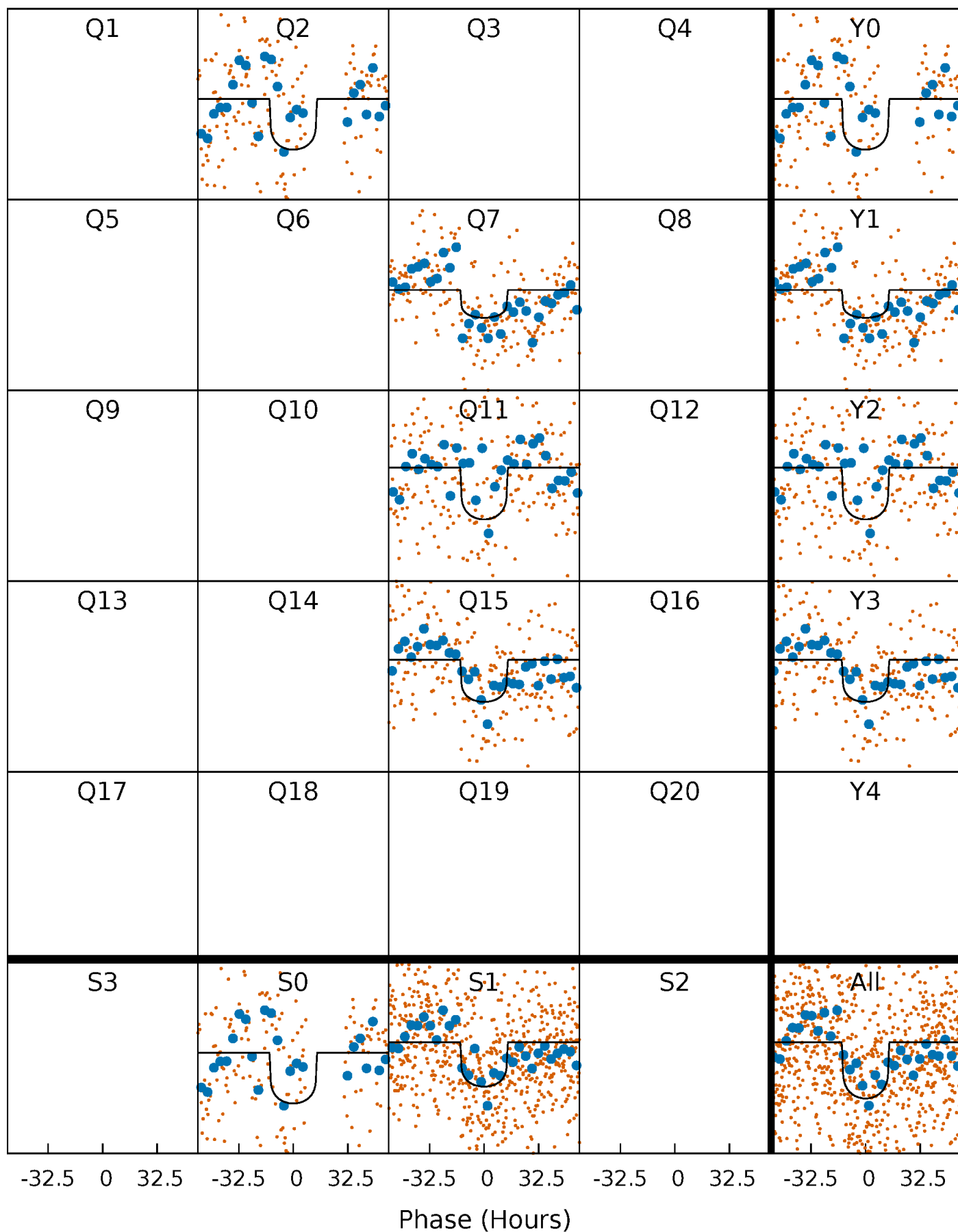
PDC Quarter-Phased Transit Curves

TCE 008108349-01 P=401.729757 Days $T_0=255.070777$ (BKJD)



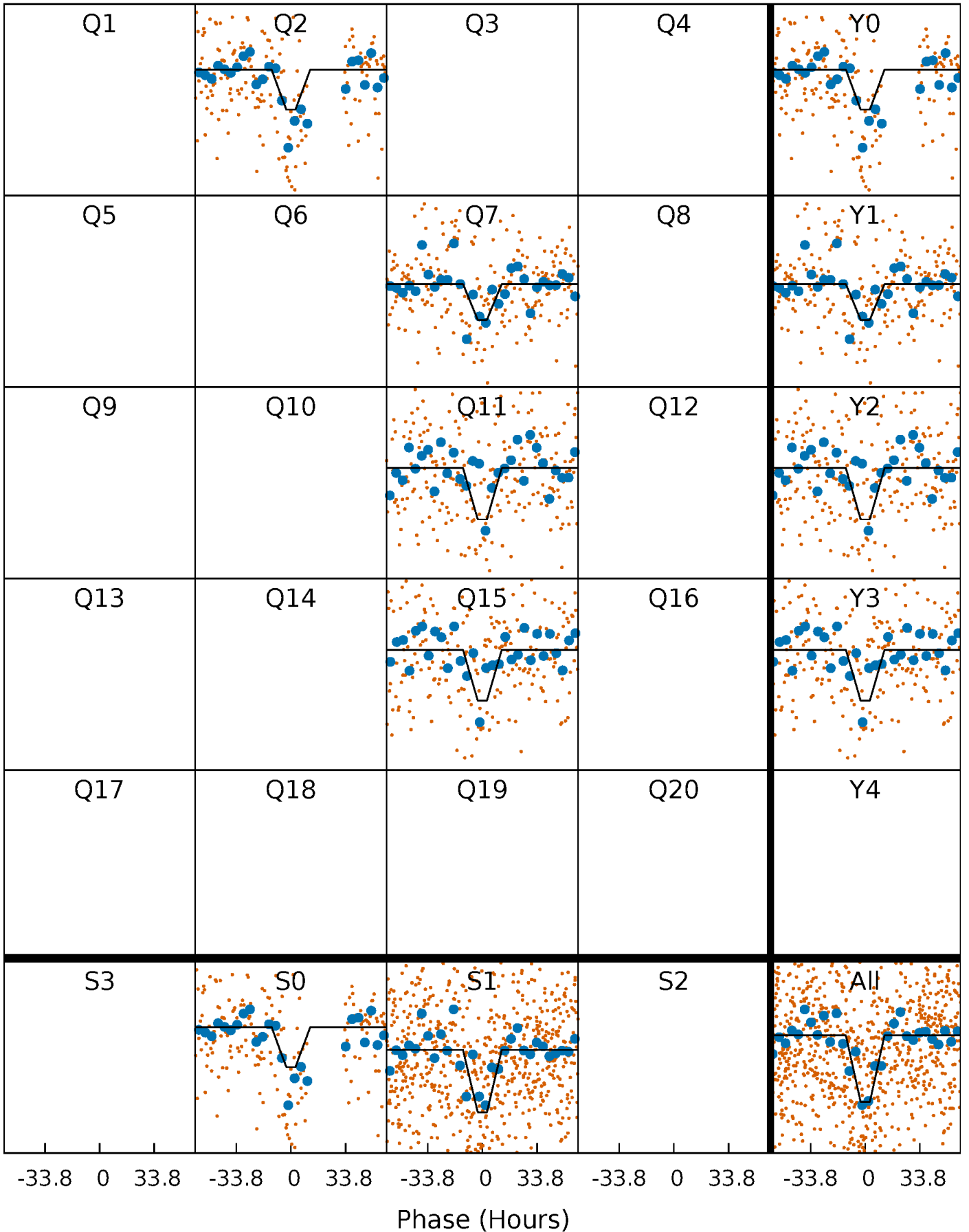
DV Quarter-Phased Transit Curves

TCE 008108349-01 P=401.729757 Days $T_0=255.070777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

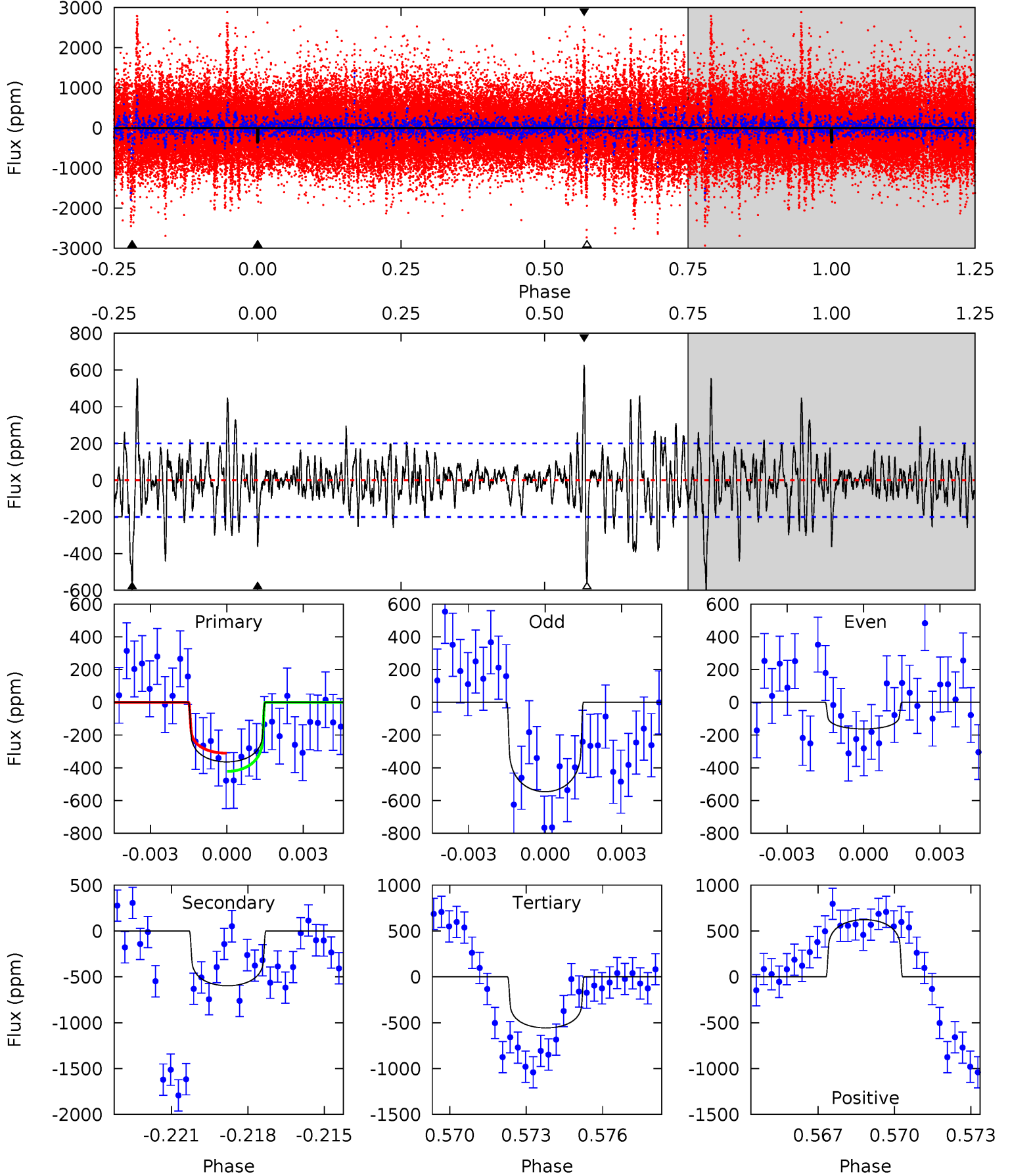
TCE 008108349-01 P=401.791901 Days $T_0=254.974396$ (BKJD)



DV Model-Shift Uniqueness Test

008108349-01, P = 401.729757 Days, E = 255.070777 Days

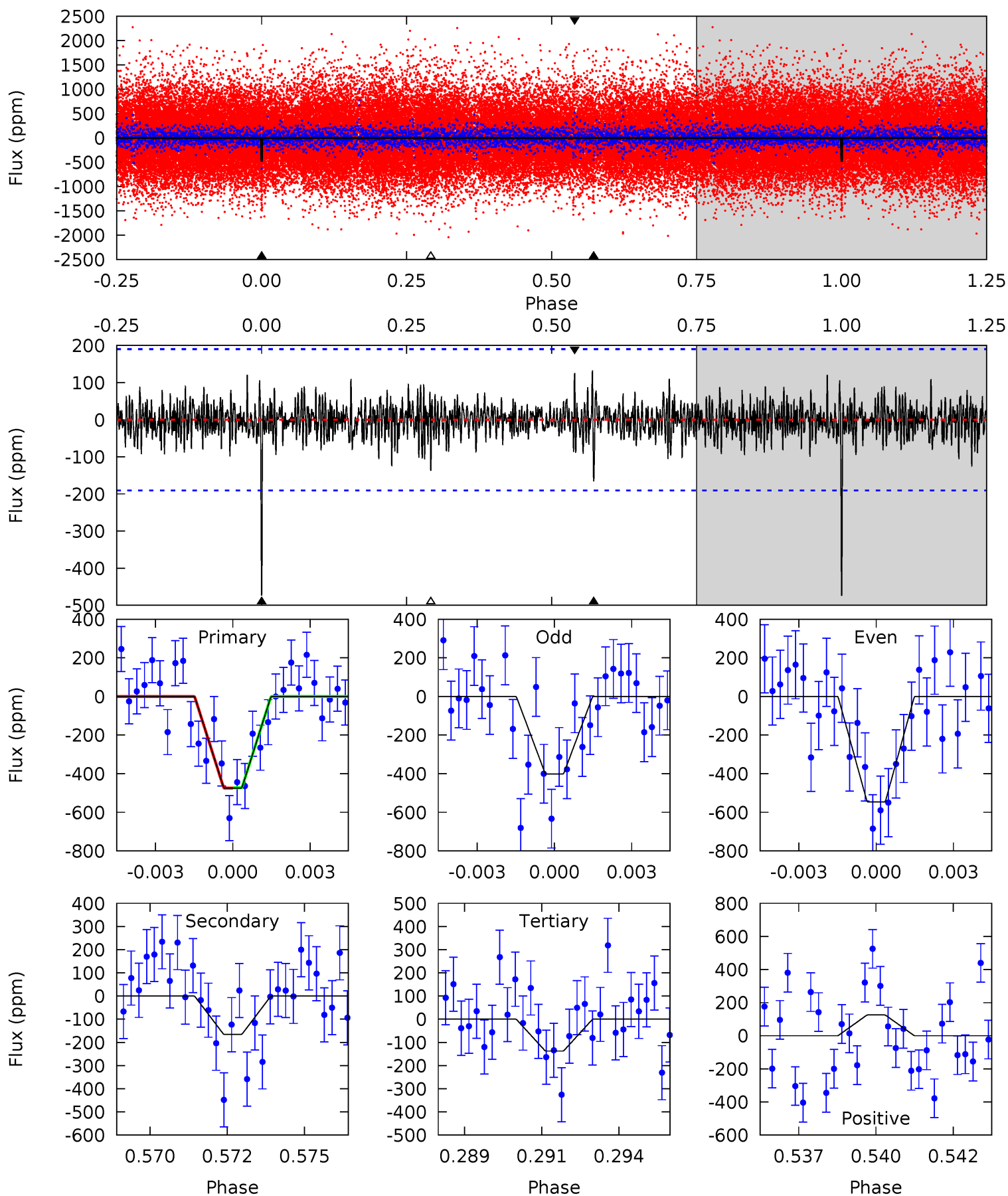
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	15.7	14.6	16.4	5.25	2.97	3.23	-5.07	-6.80	1.05	-0.69	5.00	1.24	0.51	1.46



Alt Model-Shift Uniqueness Test

008108349-01, P = 401.791901 Days, E = 254.974396 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.2	4.60	3.82	3.49	5.29	3.02	0.99	9.34	9.67	0.78	1.11	2.01	1.15	0.22	0.02



Stellar Parameters For KIC 008108349

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6325^{+174}_{-239}	$4.409^{+0.062}_{-0.188}$	$-0.040^{+0.250}_{-0.300}$	$1.112^{+0.329}_{-0.141}$	$1.157^{+0.145}_{-0.159}$	$1.184^{+0.402}_{-0.587}$
	+3%/-4%	+1%/-4%	+625%/-750%	+30%/-13%	+13%/-14%	+34%/-50%
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 008108349-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-597 ± 38	$2.61^{+0.84}_{-0.71}$	396^{+28}_{-20}	6886^{+1381}_{-841}	60292^{+52223}_{-25417}
Alt.	-166 ± 36	$2.82^{+0.84}_{-0.73}$	396^{+28}_{-20}	4877^{+745}_{-456}	14300^{+11289}_{-6259}

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 $A_{obs} \gg 1.0$

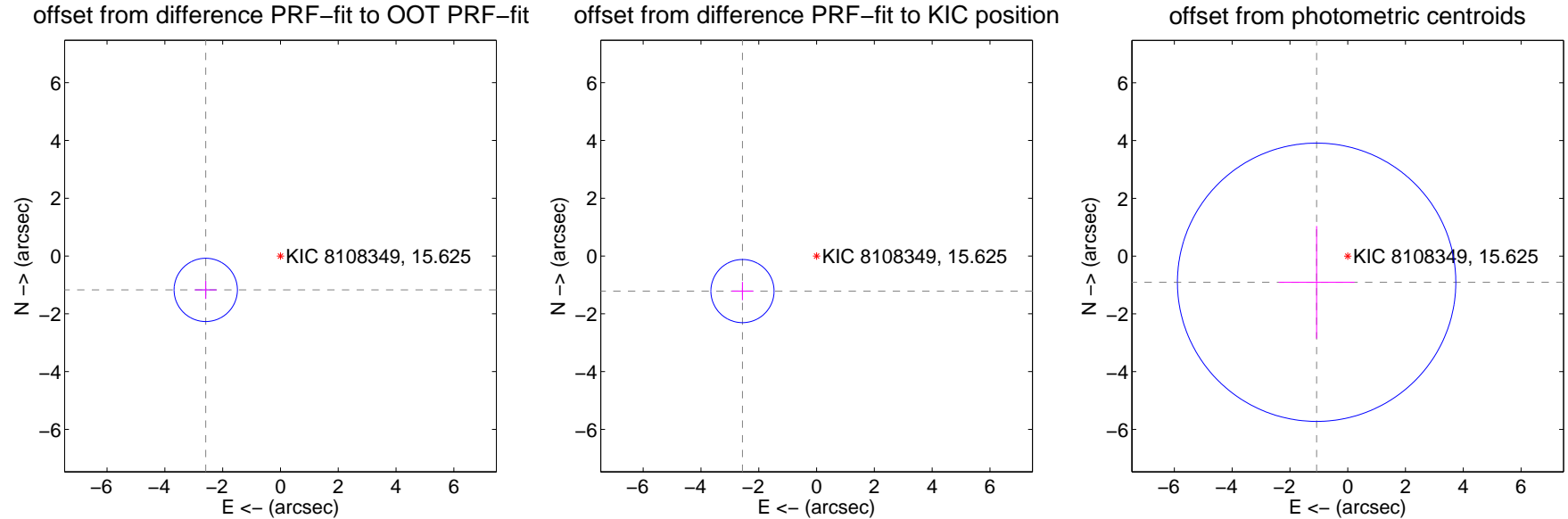
DV Centroid Data

Supplemental centroid analysis for 008108349-01. Kepler magnitude: 15.62. Transit SNR 9.40

There are 1 quarters with good PRF difference image offsets

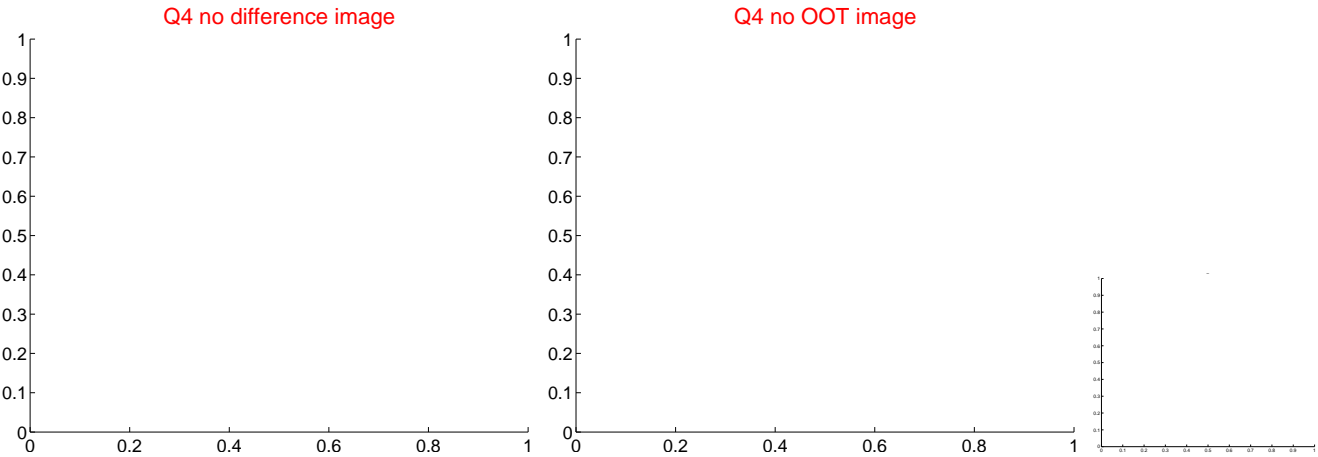
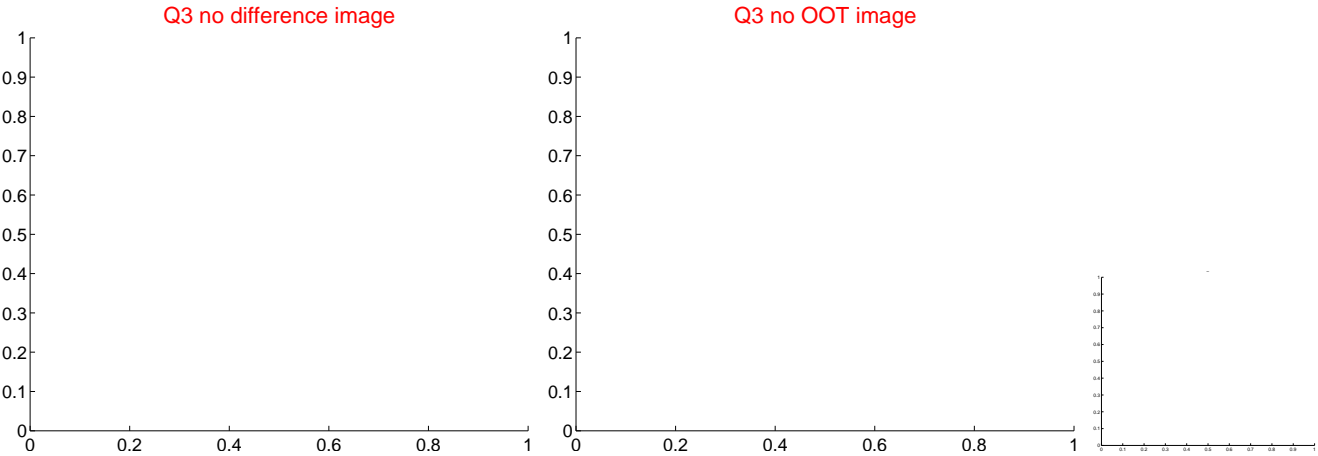
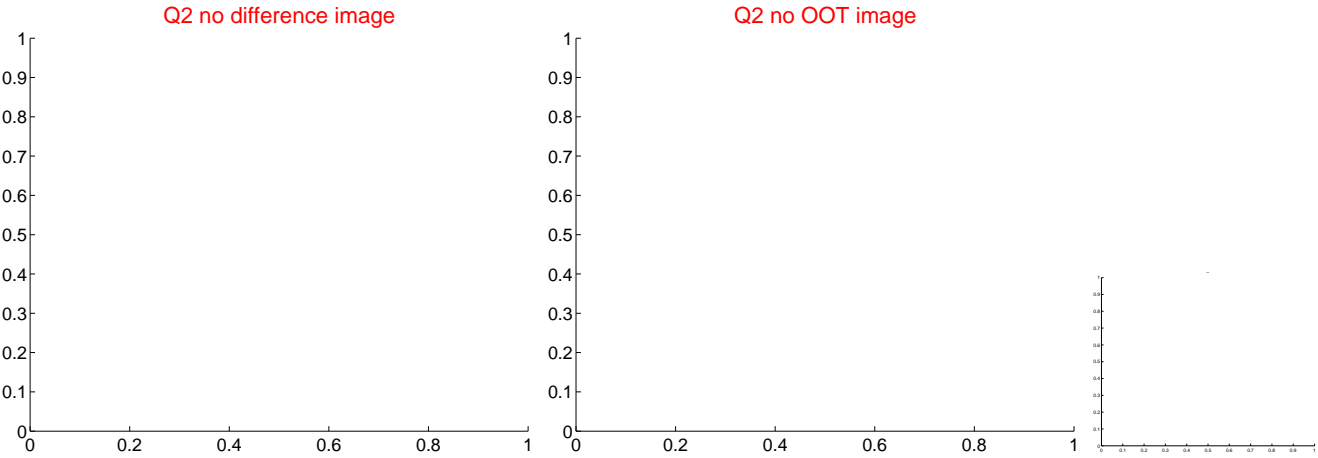
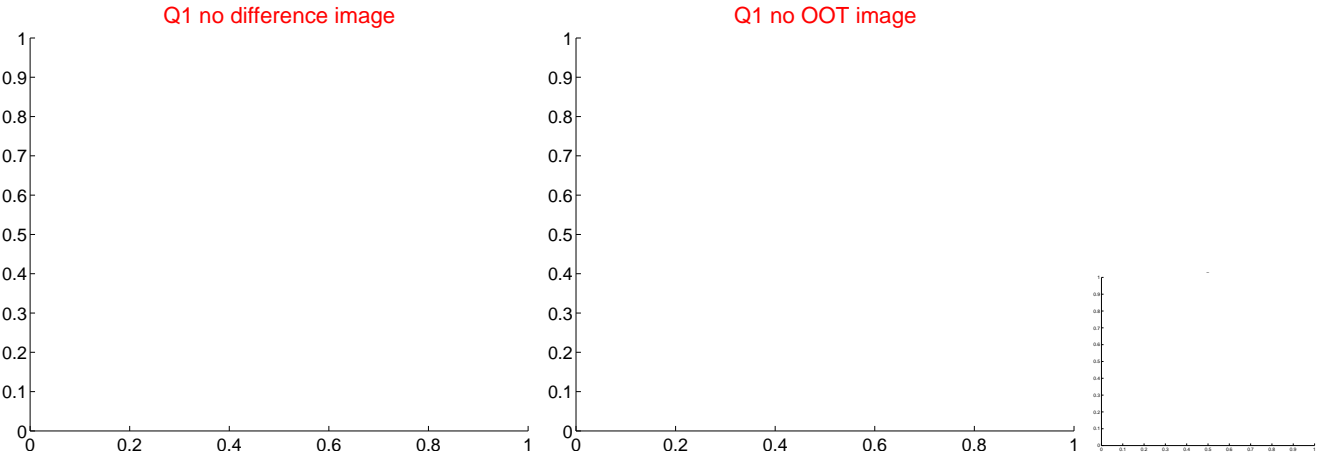
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.838 ± 0.365	7.78	2.585 ± 0.375	-1.172 ± 0.313
PRF-fit source offset from KIC position	2.836 ± 0.364	7.79	2.564 ± 0.375	-1.213 ± 0.313
photometric centroid source offset	1.41 ± 1.61	0.88	1.08 ± 1.31	-0.91 ± 1.95



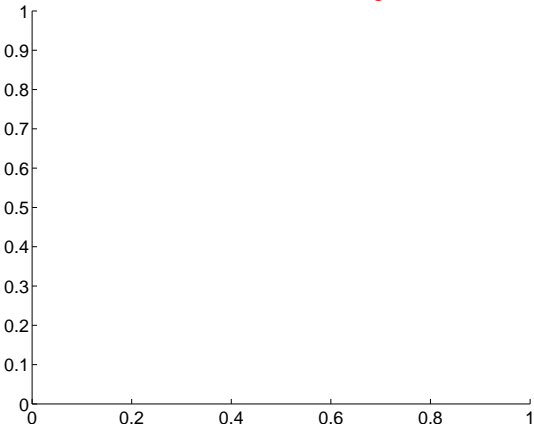
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

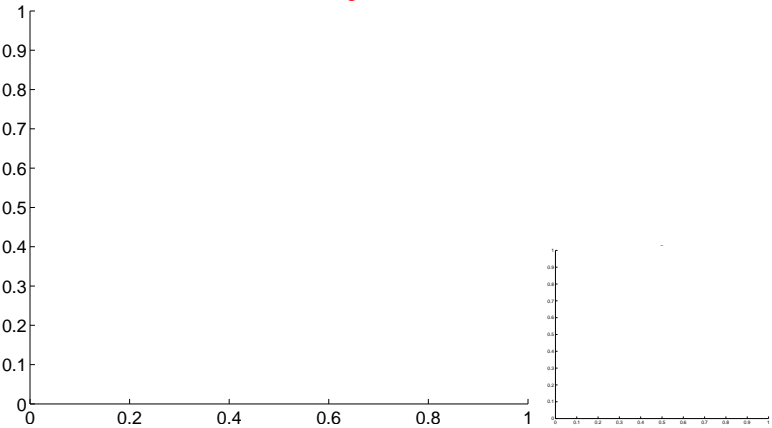


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

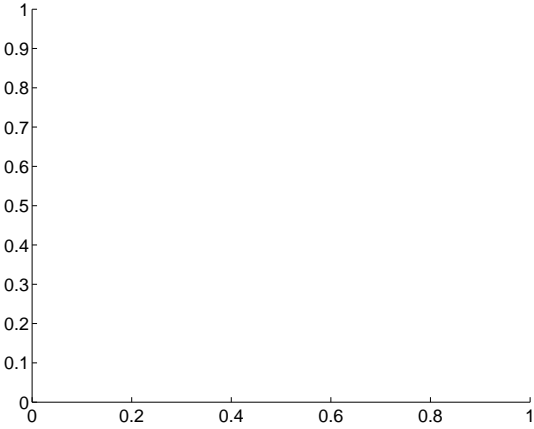
Q5 no difference image



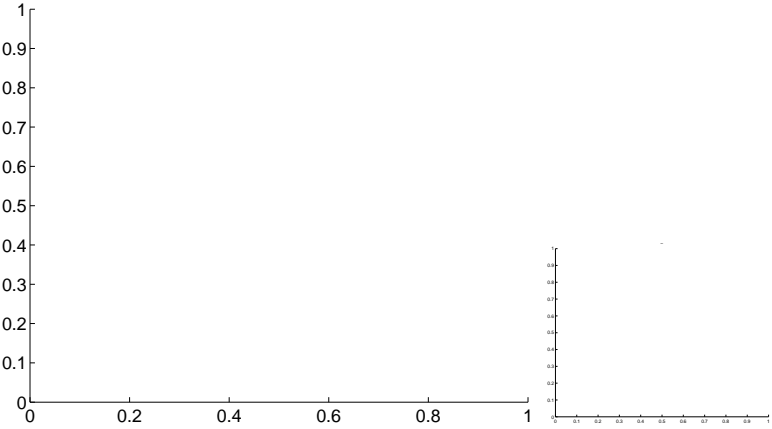
Q5 no OOT image



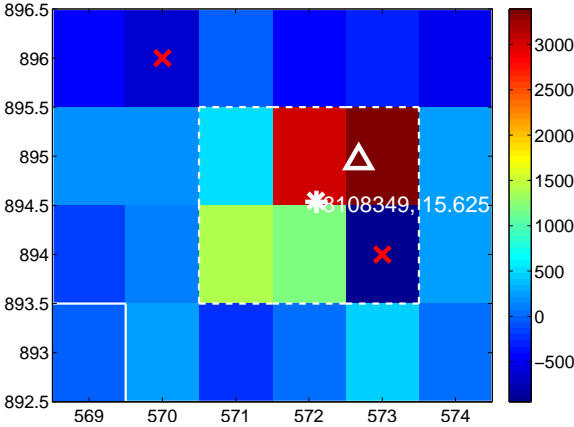
Q6 no difference image



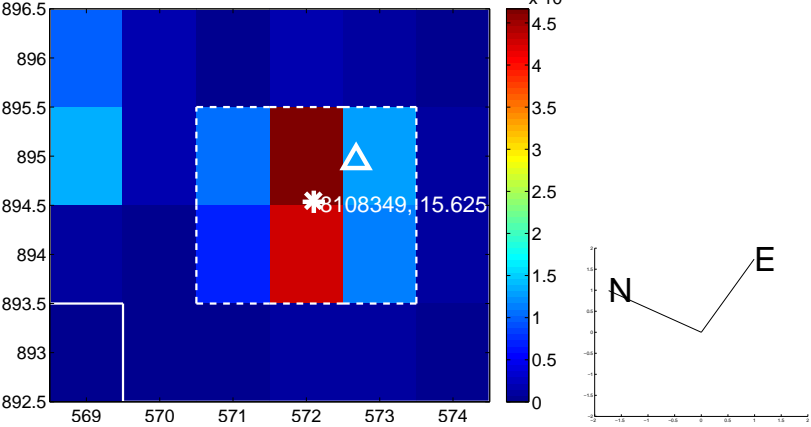
Q6 no OOT image



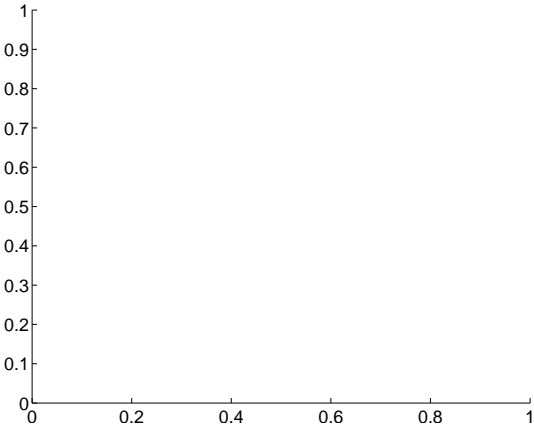
Q7 difference image



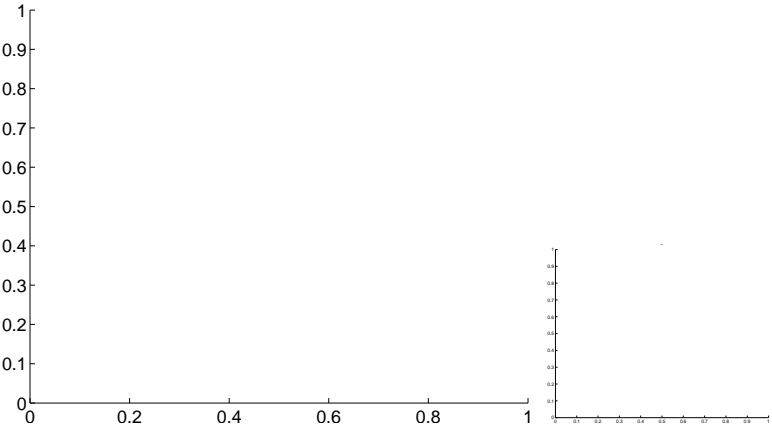
Q7 OOT image



Q8 no difference image

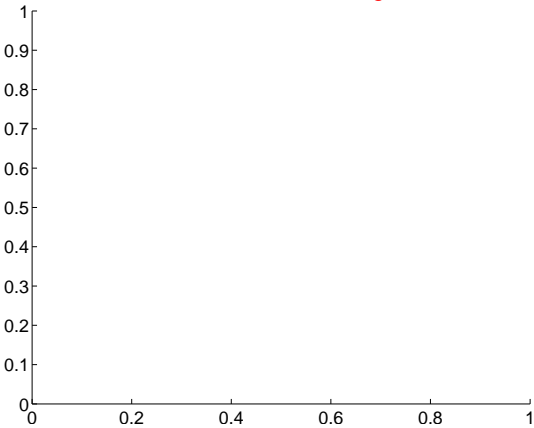


Q8 no OOT image

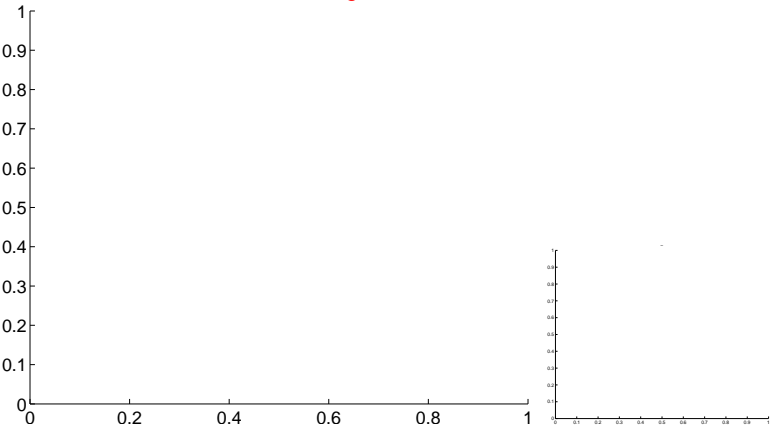


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

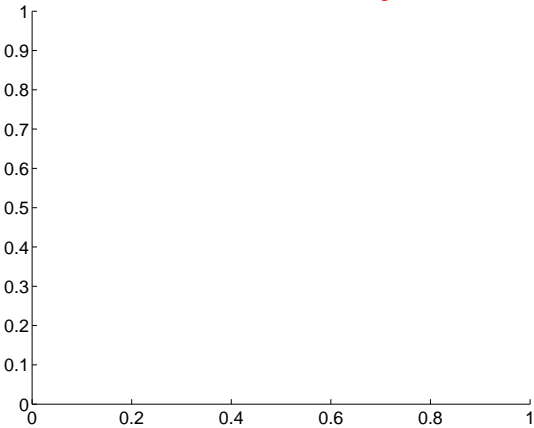
Q9 no difference image



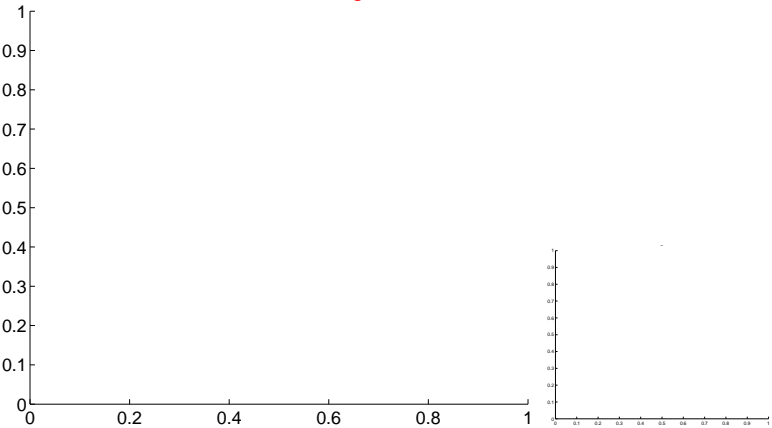
Q9 no OOT image



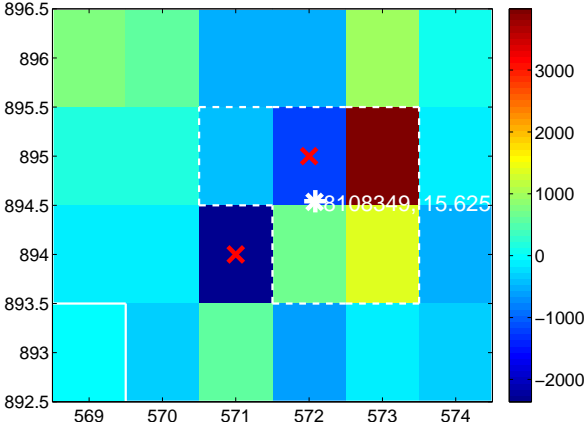
Q10 no difference image



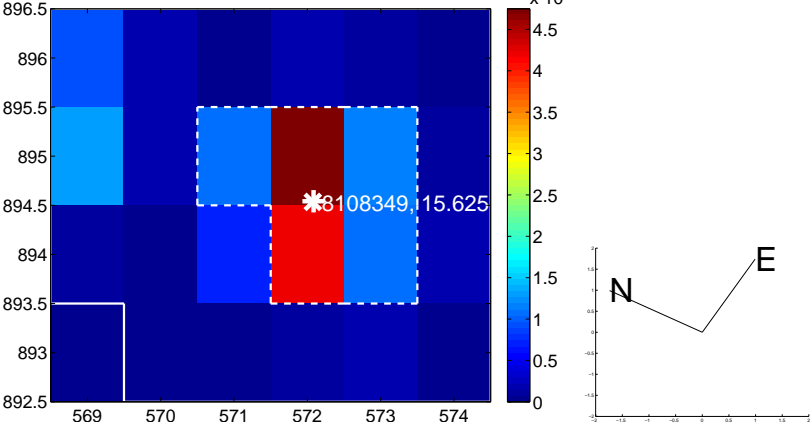
Q10 no OOT image



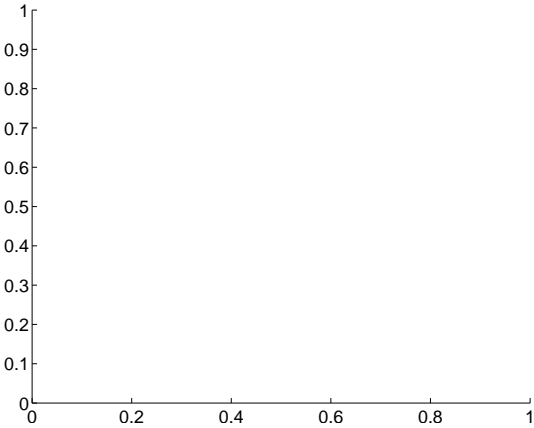
Q11 difference image. Poor Quality



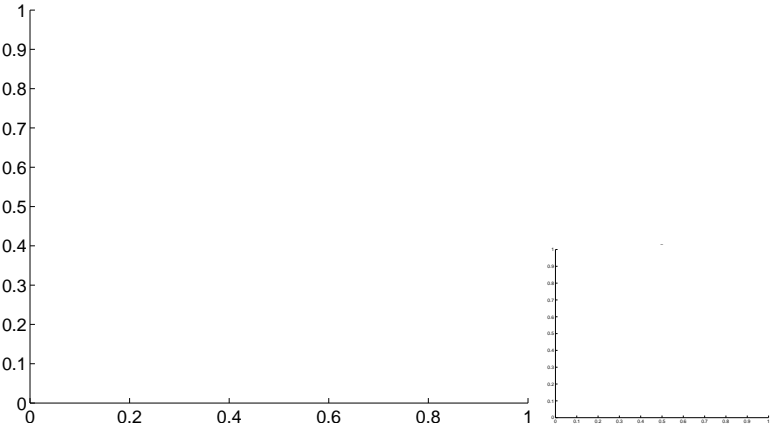
Q11 OOT image



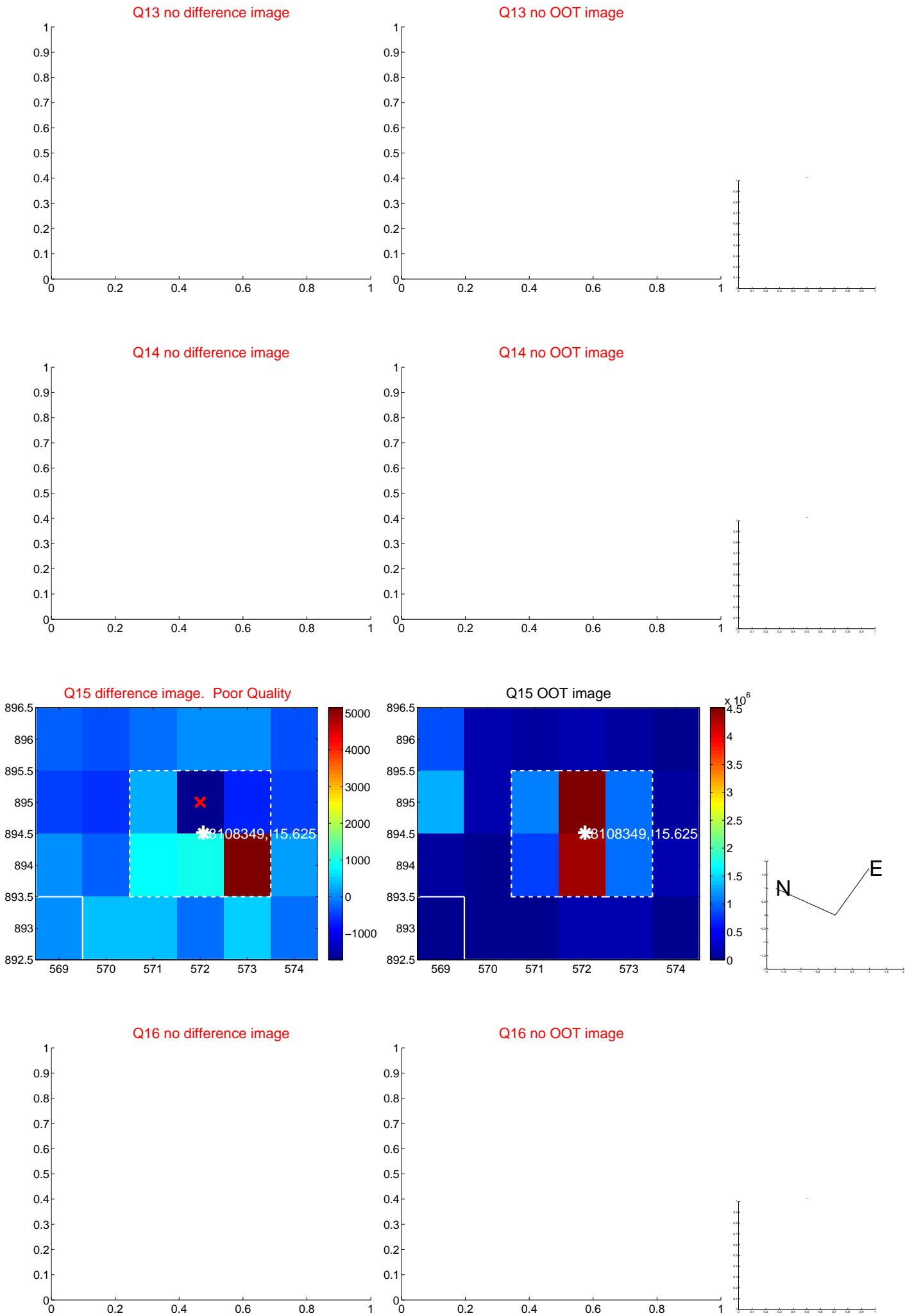
Q12 no difference image



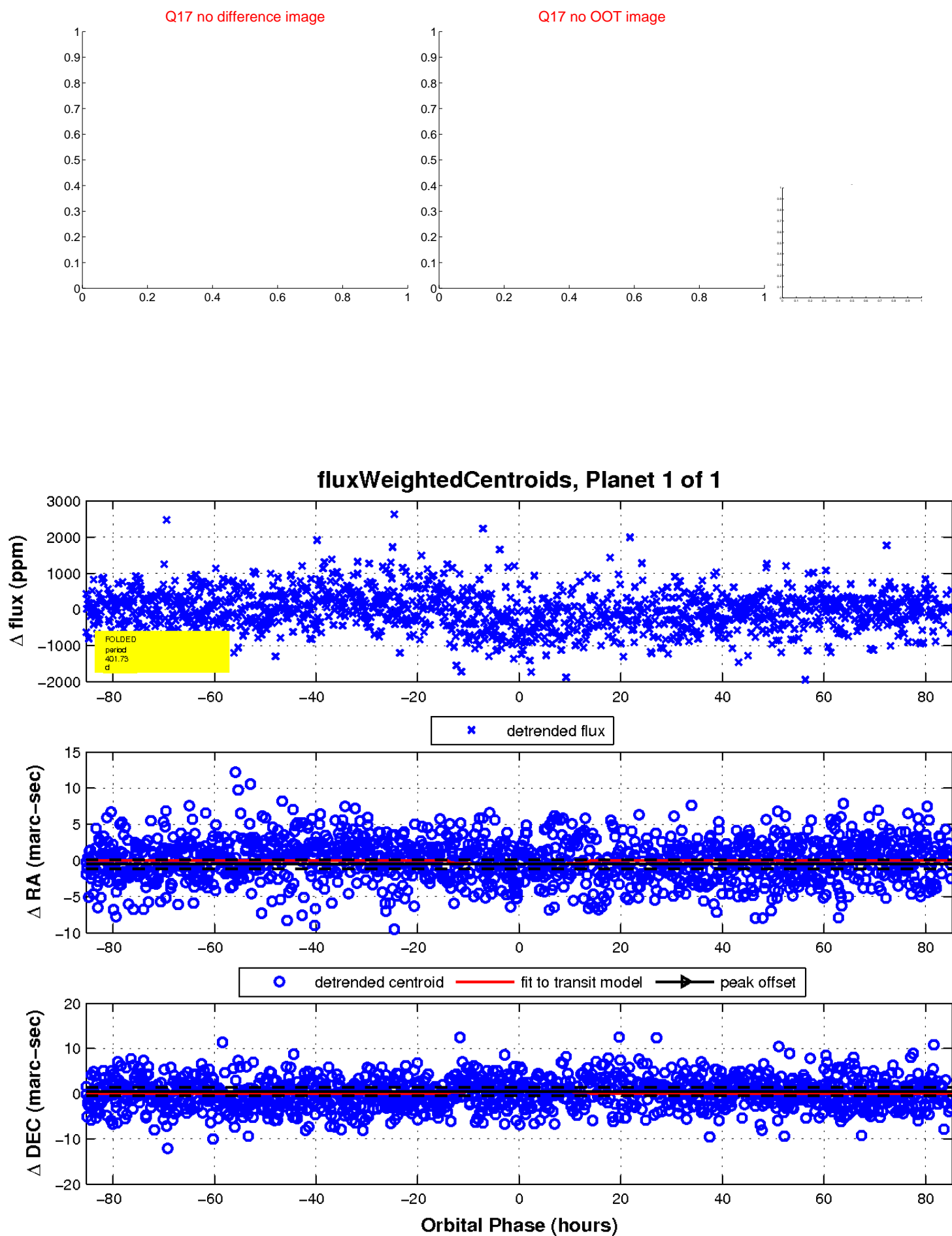
Q12 no OOT image



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

