

KIC 011521274

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})
011521274-01	OBS	No	427.956773	499.441644	806.0	5.576	8.5	6.9	0.35	3482	1.04	0.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011521274-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—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.

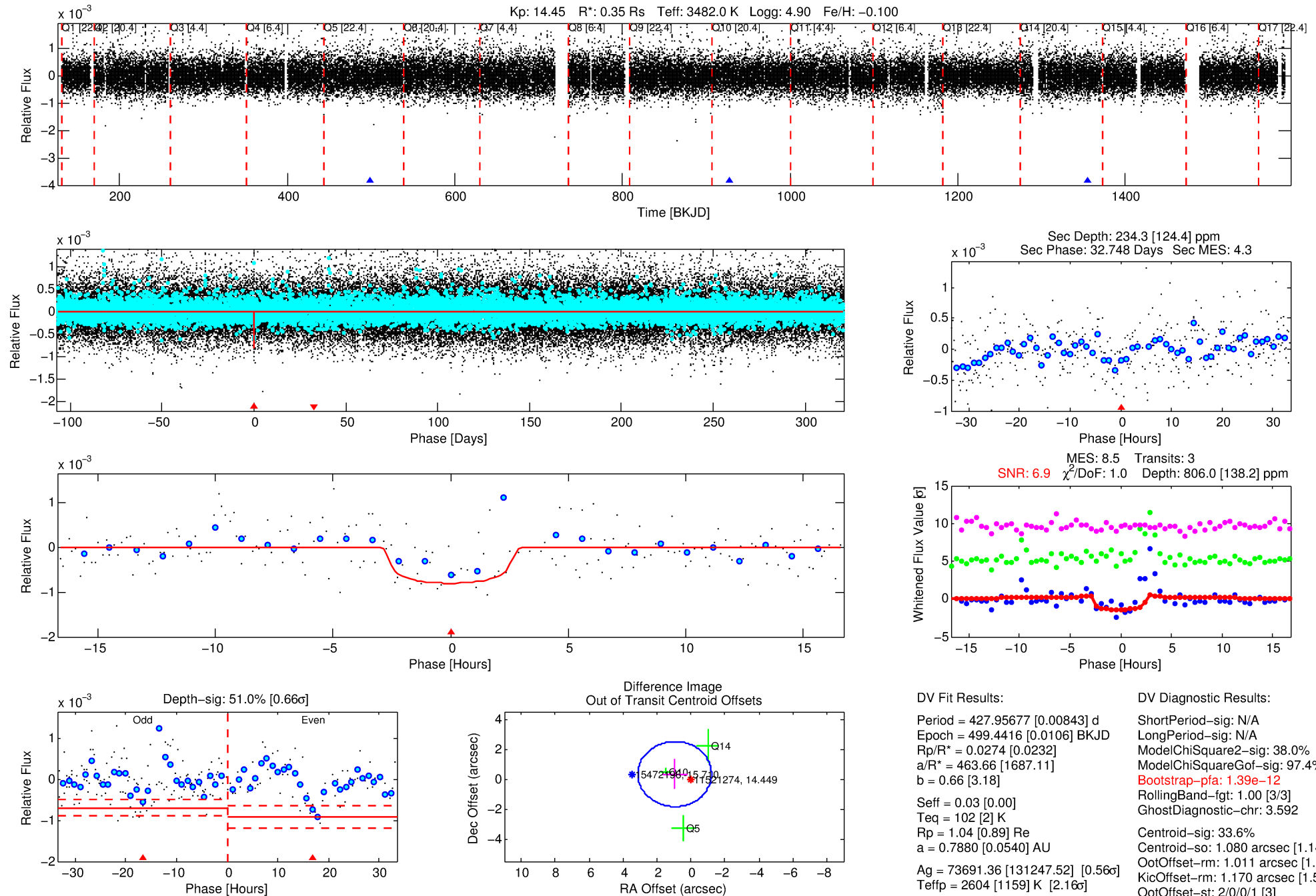
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011521274-01

No Significant Match Found

DV One-Page Summary

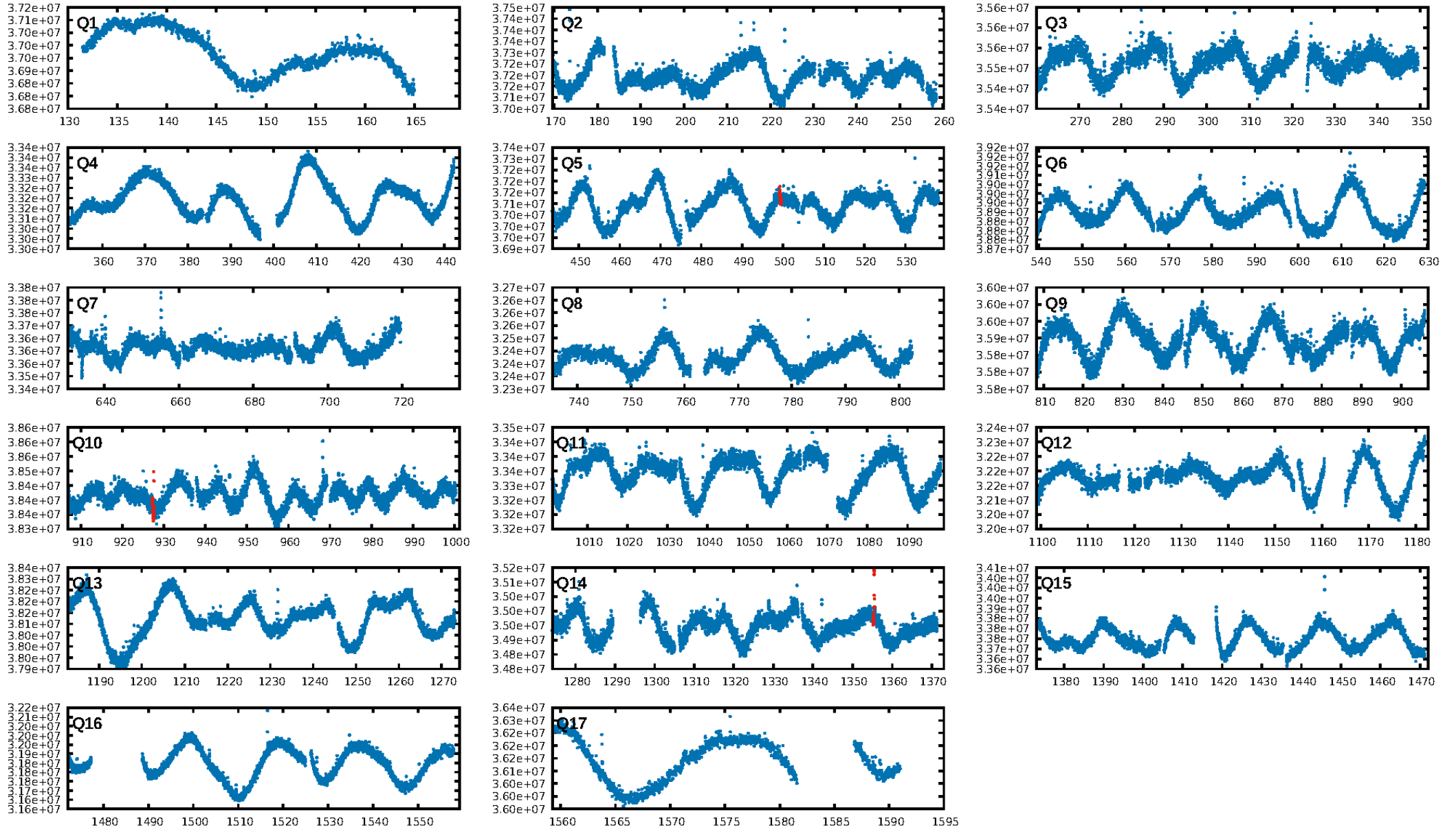
KIC: 11521274 Candidate: 1 of 1 Period: 427.957 d



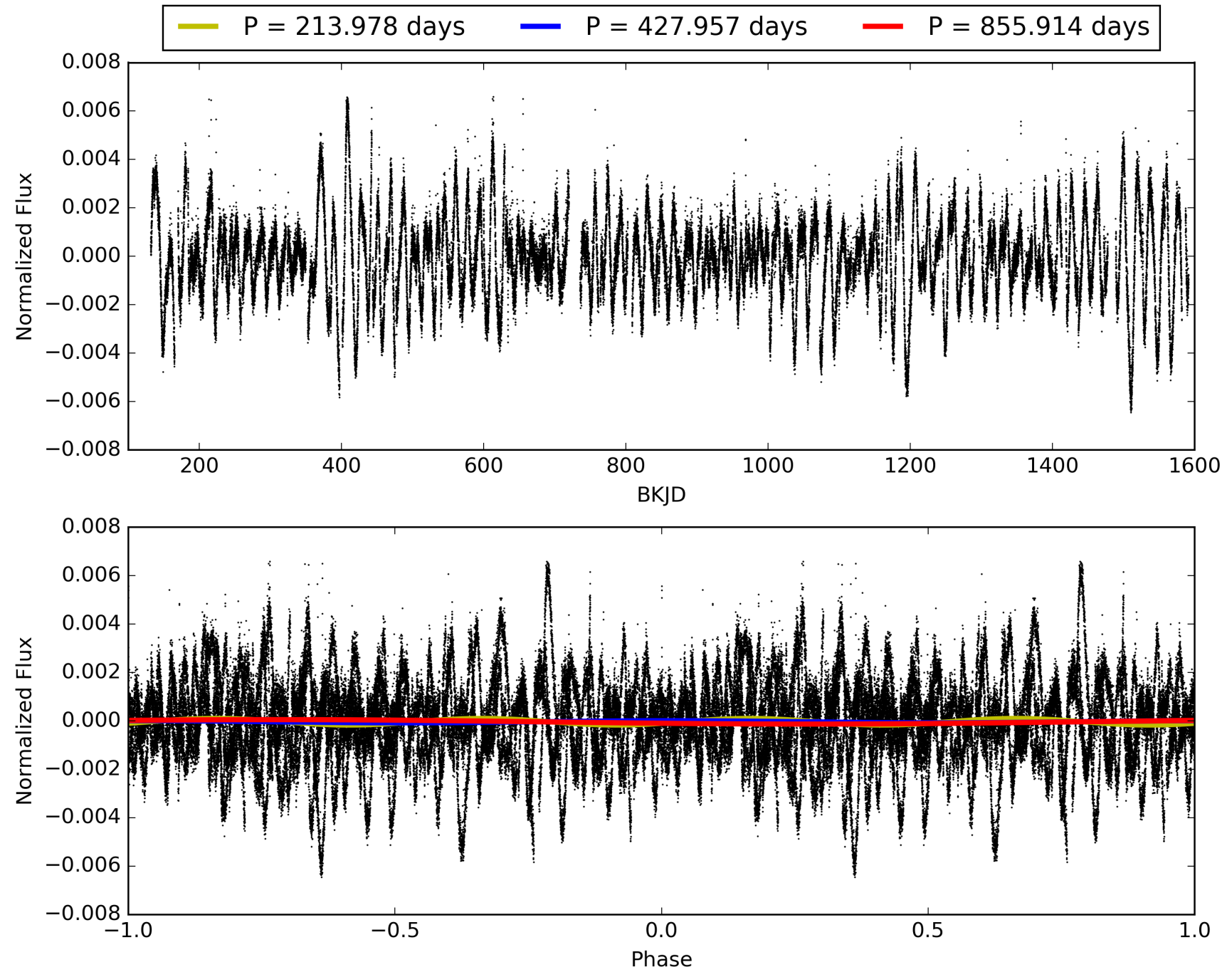
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:41:49 Z

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

TCE 011521274-01, PDC Light Curves

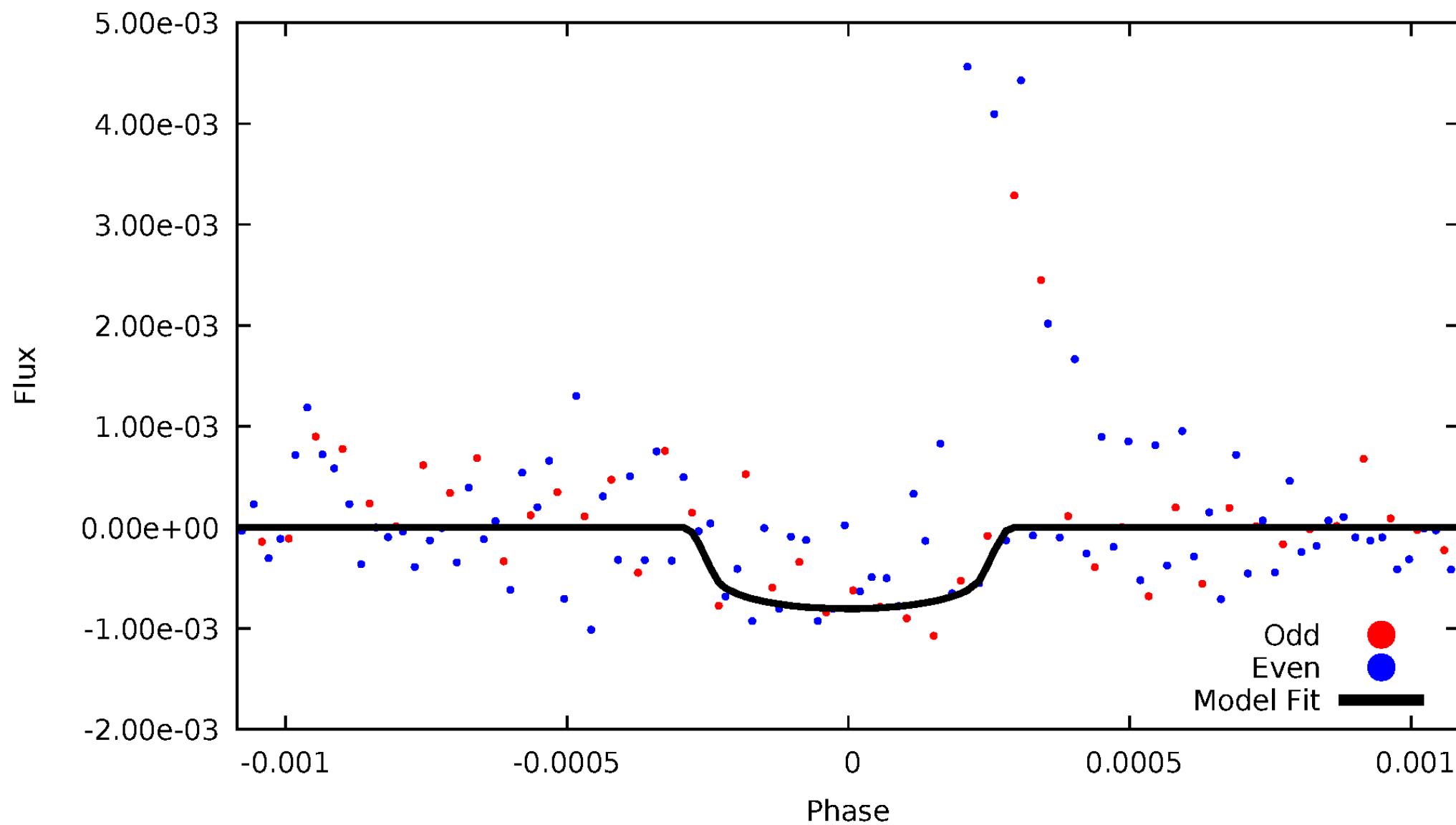


TCE 011521274-01



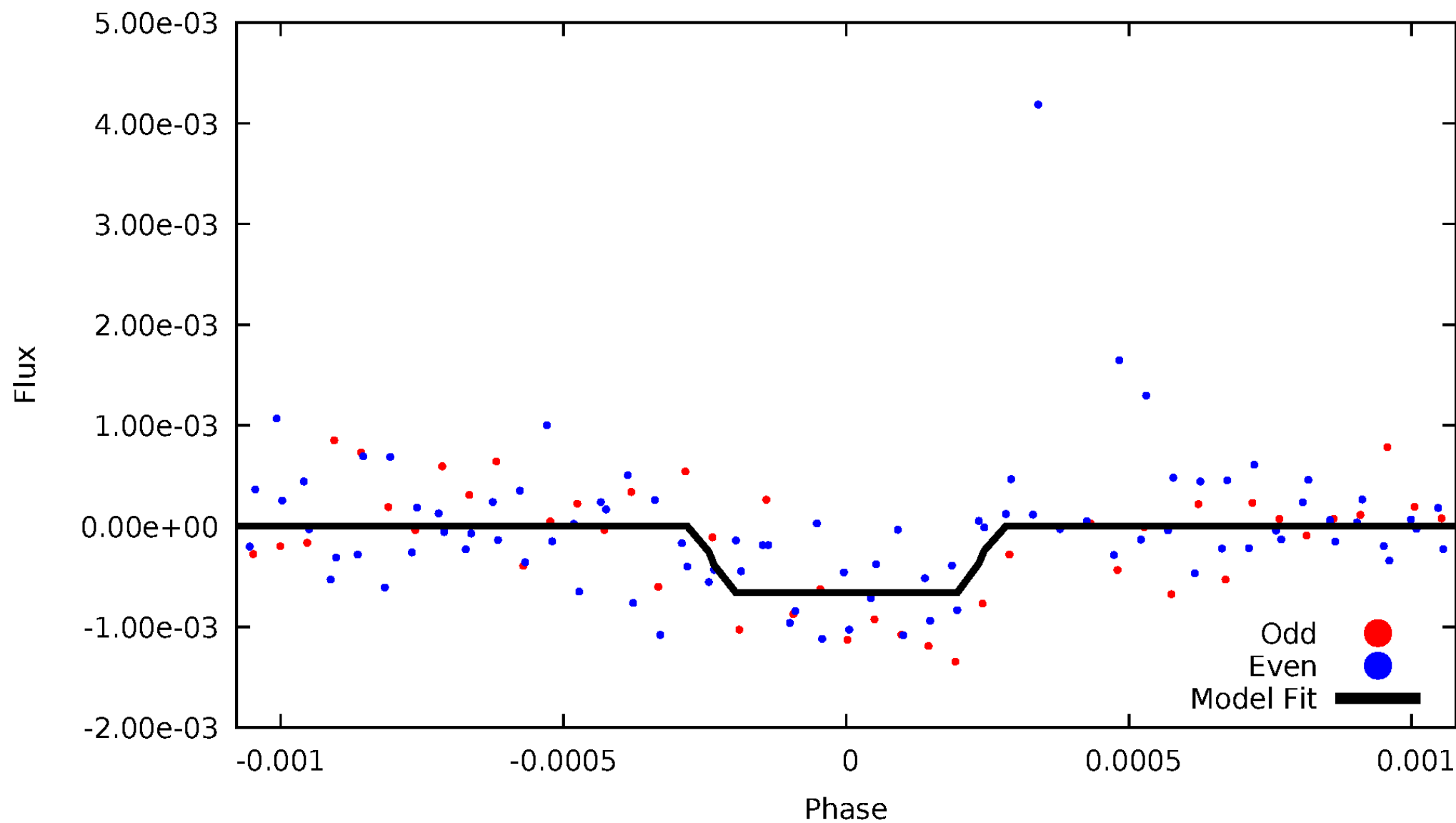
DV Odd/Even

TCE 011521274-01



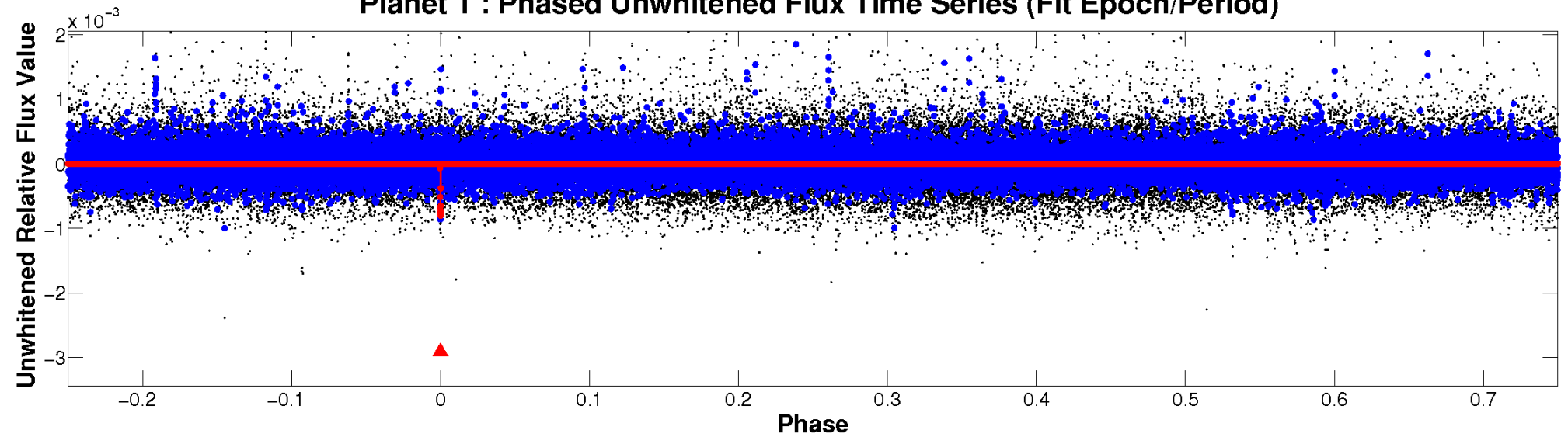
ALT Odd/Even

TCE 011521274-01

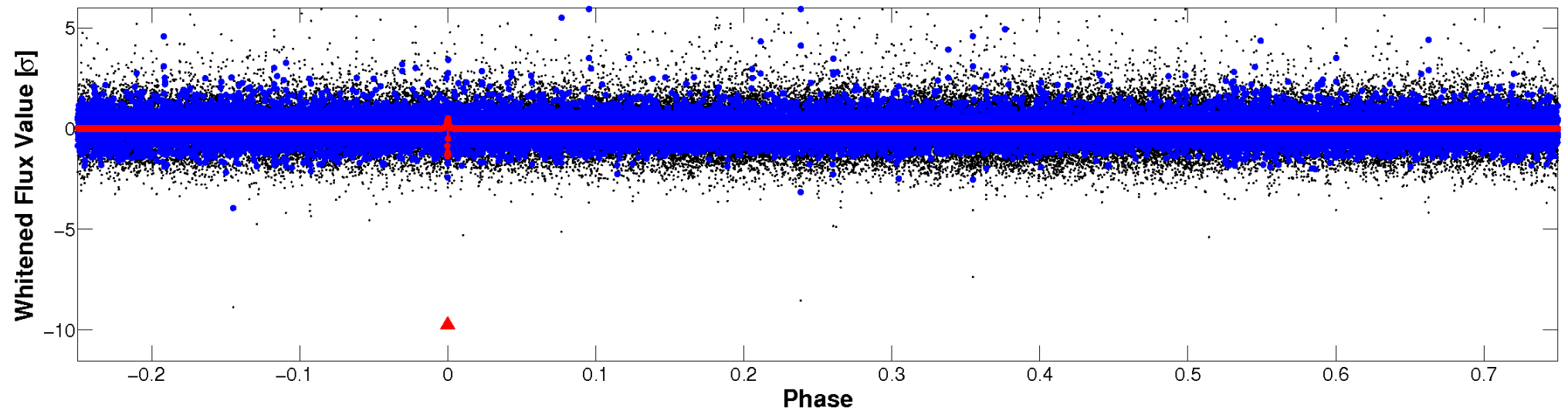


Non-Whitened Vs. Whitened Light Curve

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

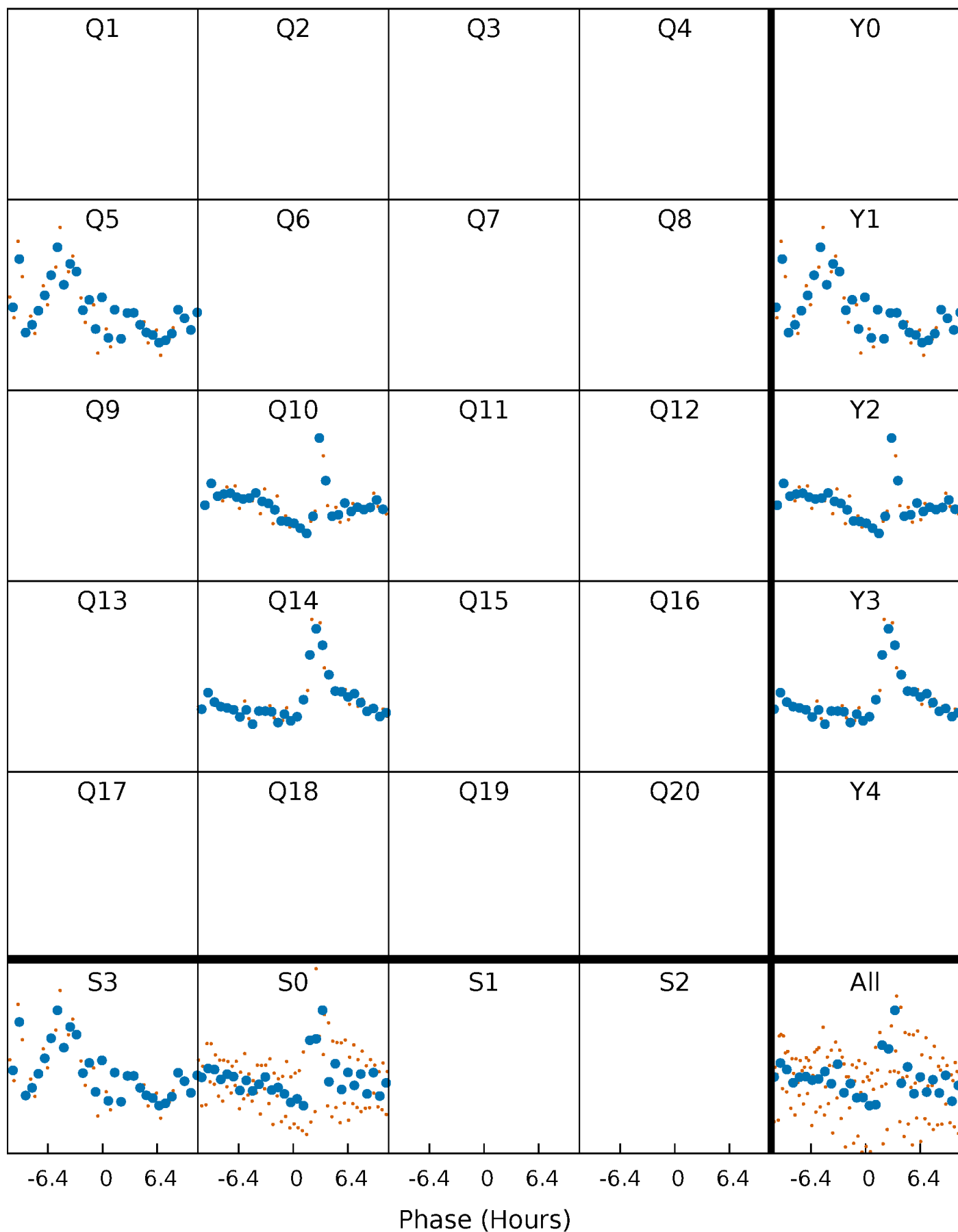


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



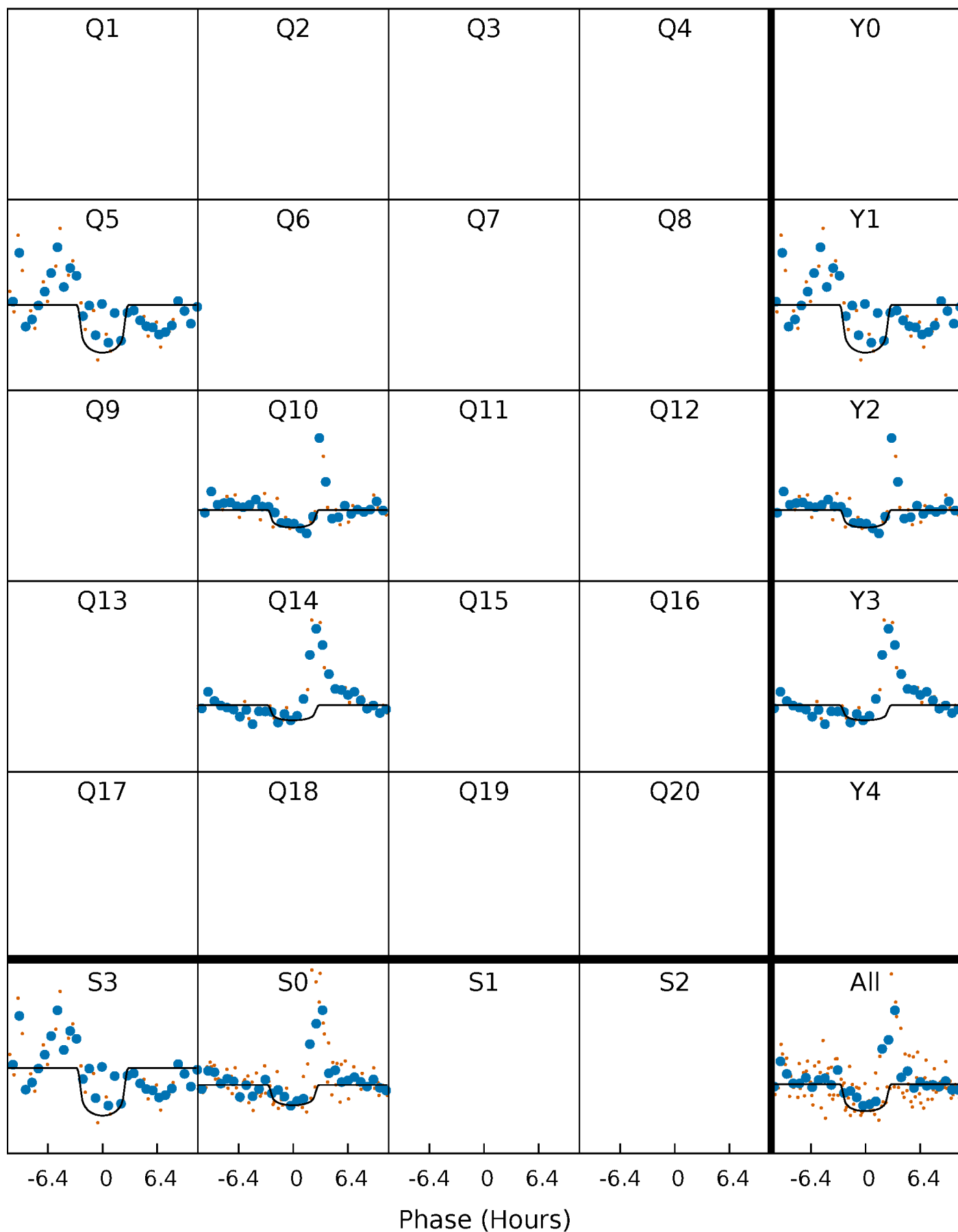
PDC Quarter-Phased Transit Curves

TCE 011521274-01 P=427.956773 Days $T_0=499.441644$ (BKJD)



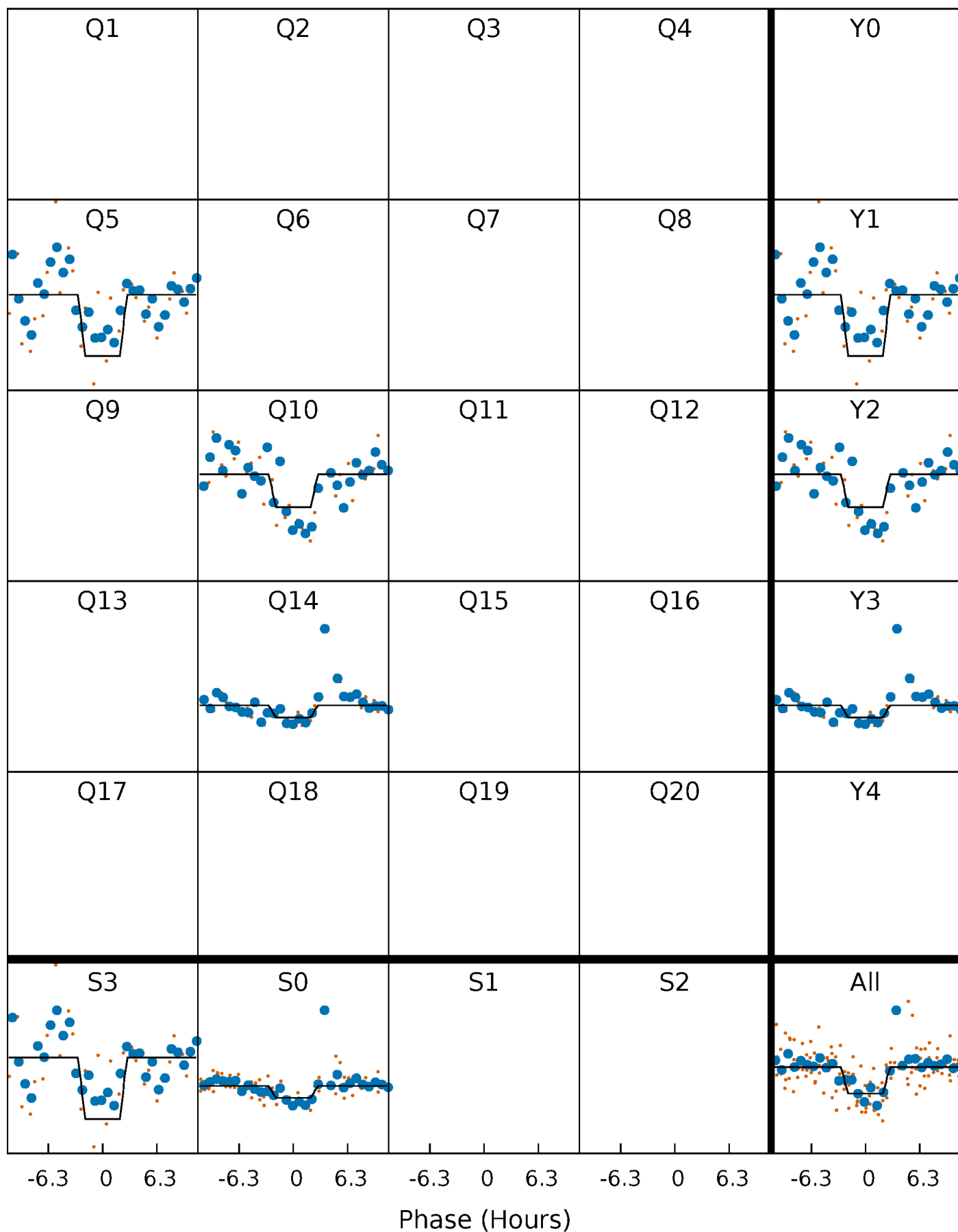
DV Quarter-Phased Transit Curves

TCE 011521274-01 P=427.956773 Days $T_0=499.441644$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

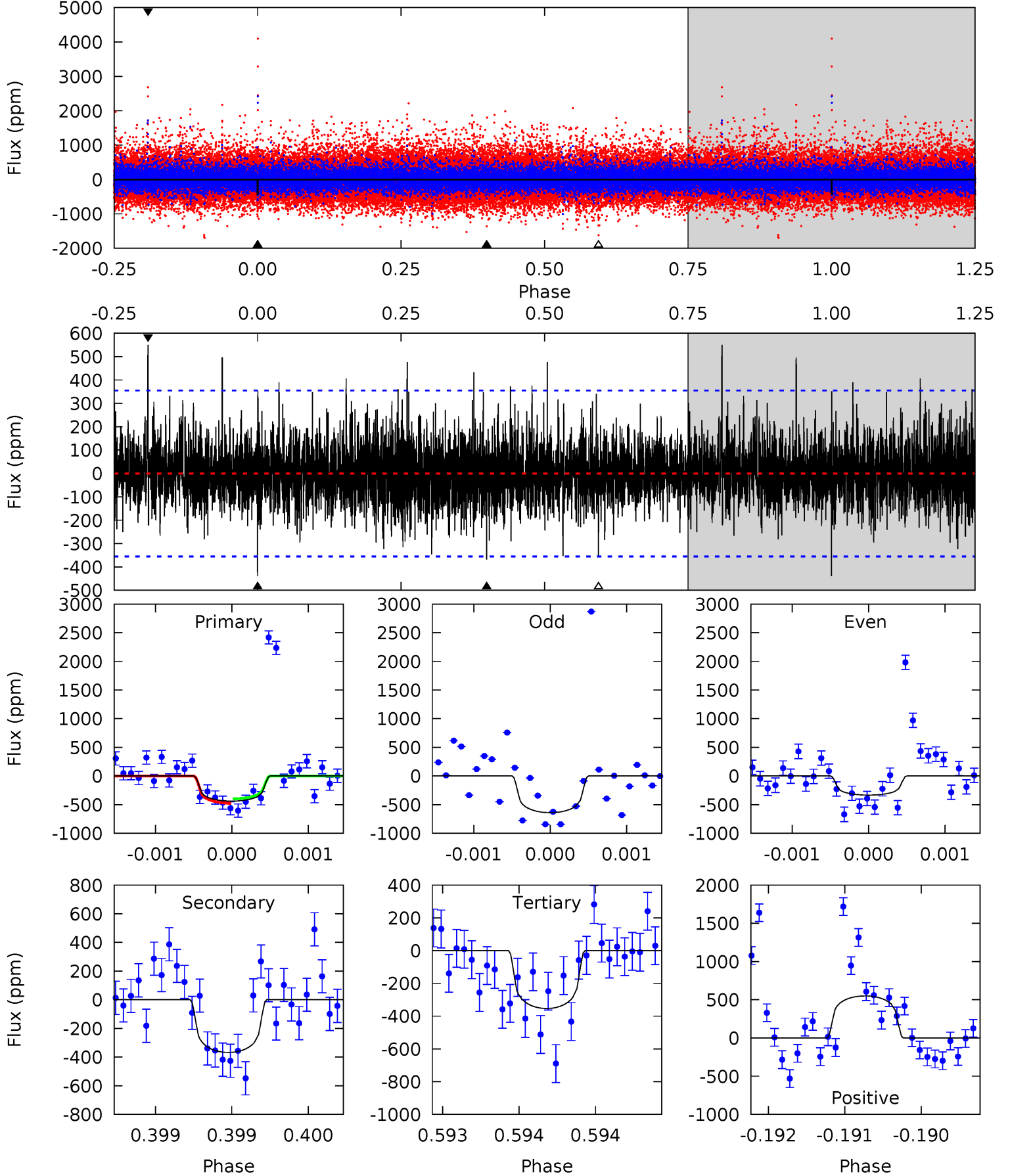
TCE 011521274-01 P=427.919614 Days $T_0=499.461163$ (BKJD)



DV Model-Shift Uniqueness Test

011521274-01, P = 427.956773 Days, E = 71.484871 Days

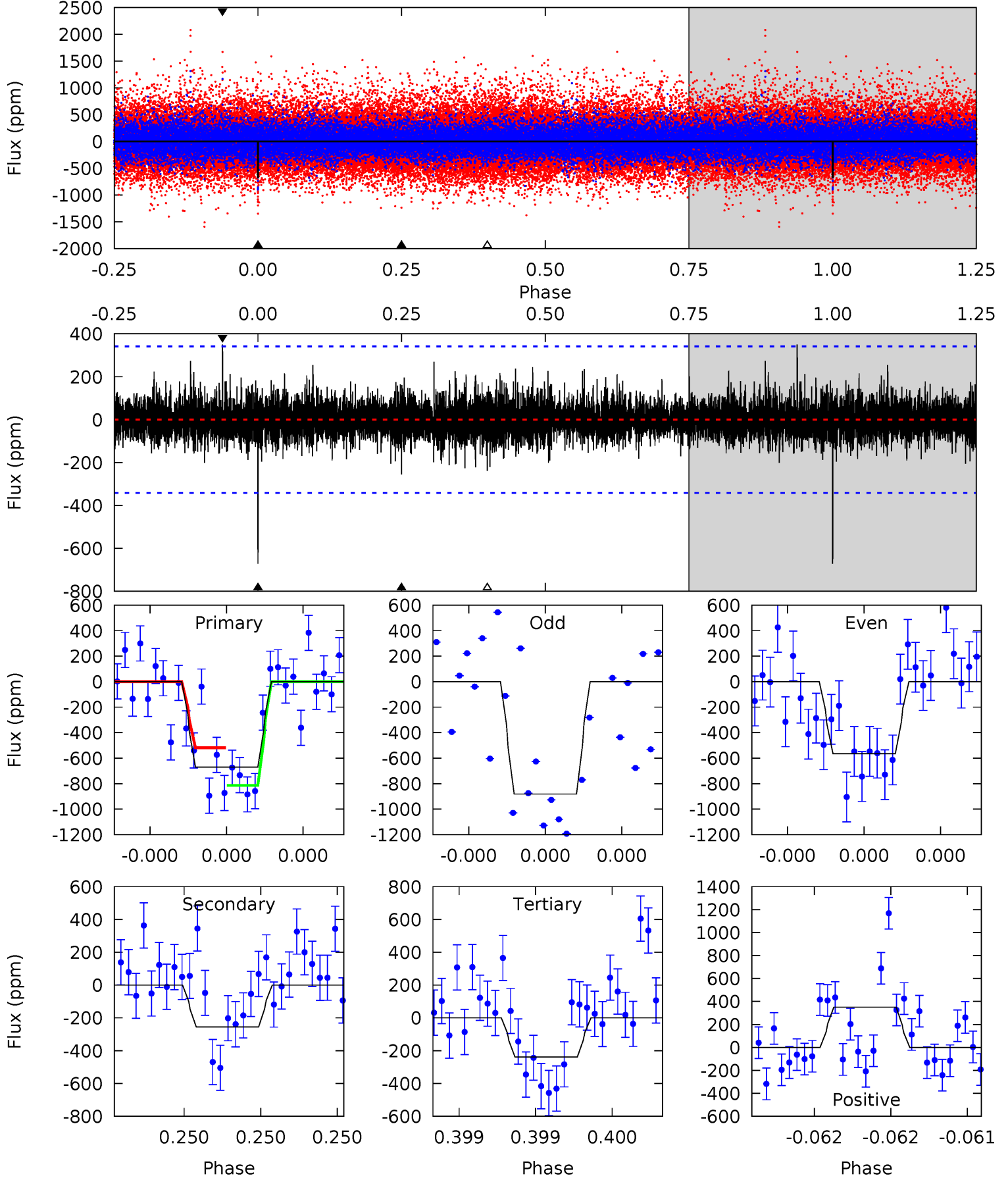
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.85	5.74	5.52	8.59	5.55	3.44	1.57	1.33	-1.74	0.22	-2.84	2.22	0.69	0.56	0.61



Alt Model-Shift Uniqueness Test

011521274-01, P = 427.919614 Days, E = 71.541549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	4.17	3.90	5.72	5.58	3.49	1.00	7.05	5.22	0.28	-1.55	2.41	0.89	0.34	2.41



Stellar Parameters For KIC 011521274

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3482^{+45}_{-45}	$4.904^{+0.035}_{-0.031}$	$-0.100^{+0.100}_{-0.100}$	$0.349^{+0.030}_{-0.033}$	$0.358^{+0.038}_{-0.041}$	$11.830^{+2.293}_{-1.596}$
	+1%/-1%	+1%/-1%	+100%/-100%	+9%/-9%	+11%/-11%	+19%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011521274-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-368 ± 64	$1.17^{+0.86}_{-0.69}$	143^{+3}_{-3}	3017^{+919}_{-414}	$90586^{+412695}_{-60827}$
Alt.	-256 ± 61	$1.18^{+0.78}_{-0.74}$	143^{+3}_{-3}	2886^{+996}_{-379}	$65191^{+375890}_{-43899}$

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 $A_{obs} \gg 1.0$

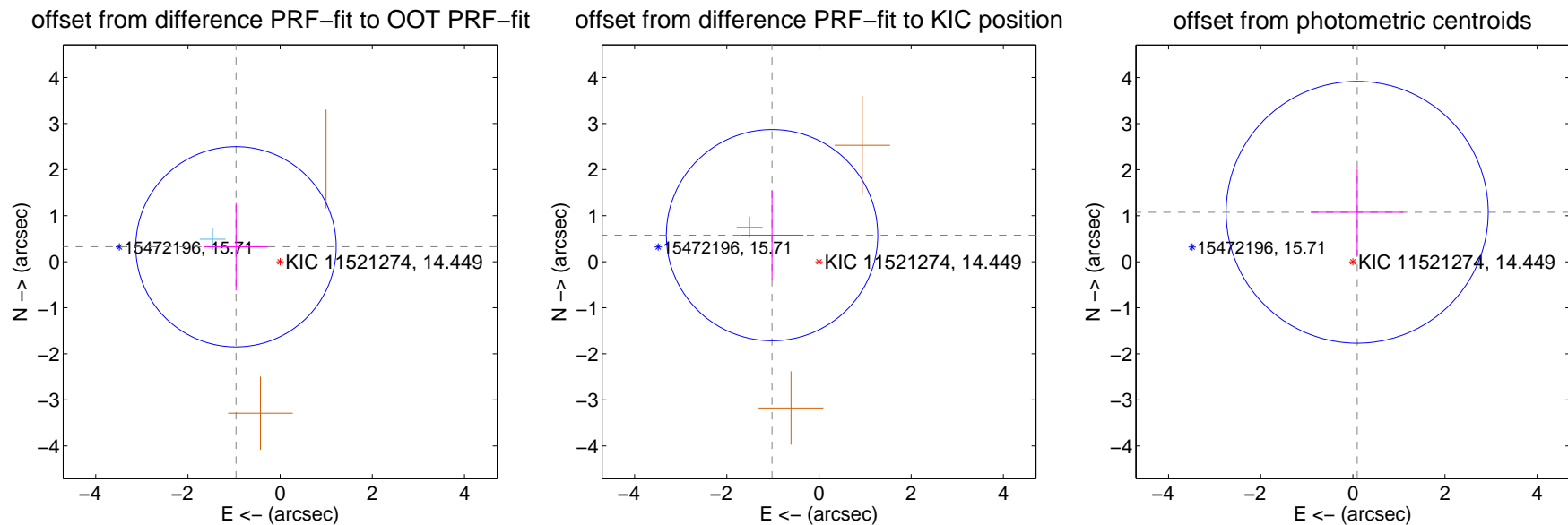
DV Centroid Data

Supplemental centroid analysis for 011521274-01. Kepler magnitude: 14.45. Transit SNR 6.91

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.011 ± 0.725	1.40	0.958 ± 0.694	0.324 ± 0.949
PRF-fit source offset from KIC position	1.170 ± 0.764	1.53	1.018 ± 0.684	0.576 ± 0.975
photometric centroid source offset	1.08 ± 0.95	1.14	-0.09 ± 1.01	1.08 ± 0.95

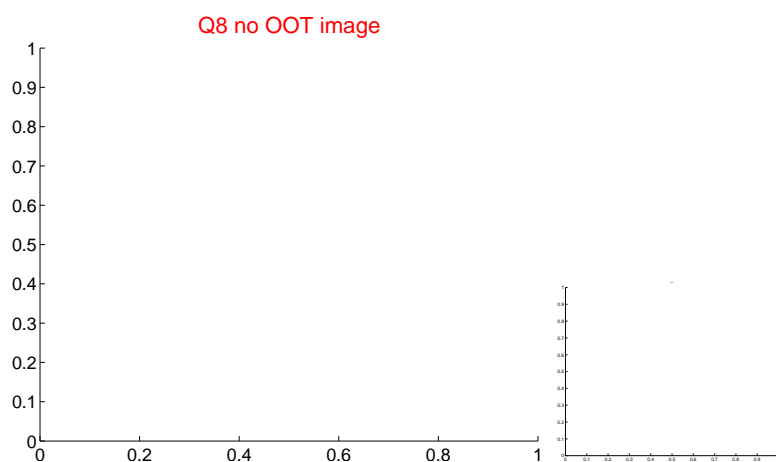
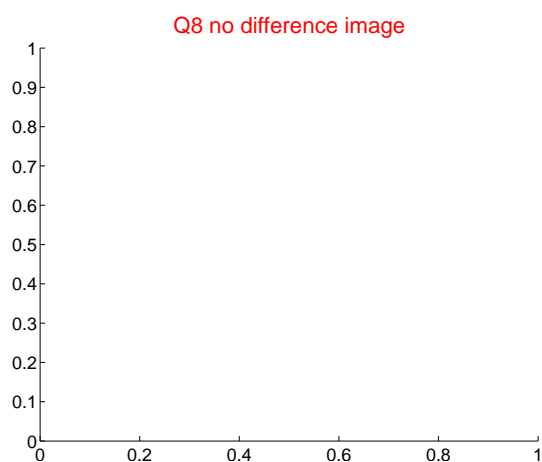
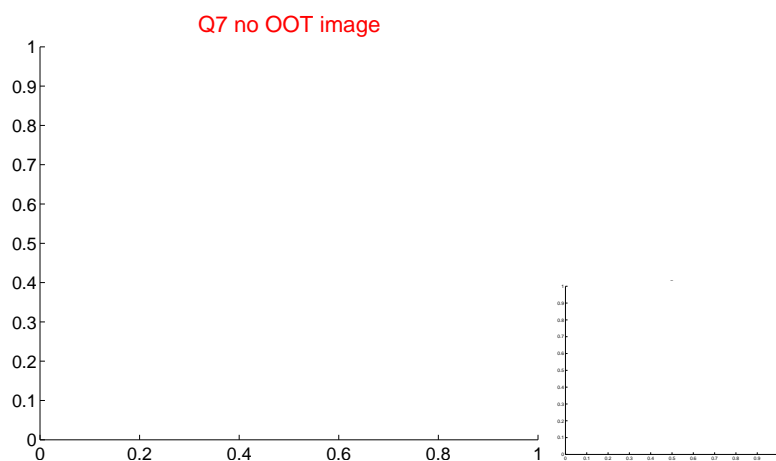
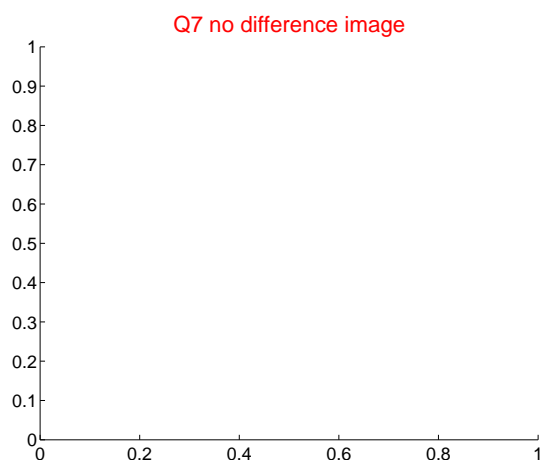
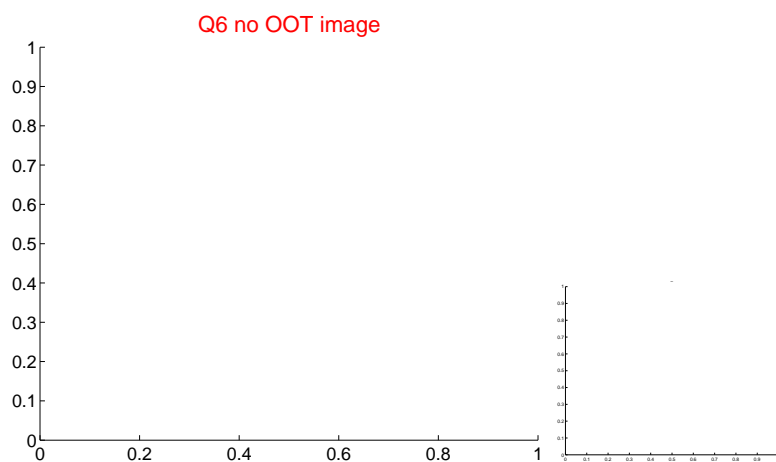
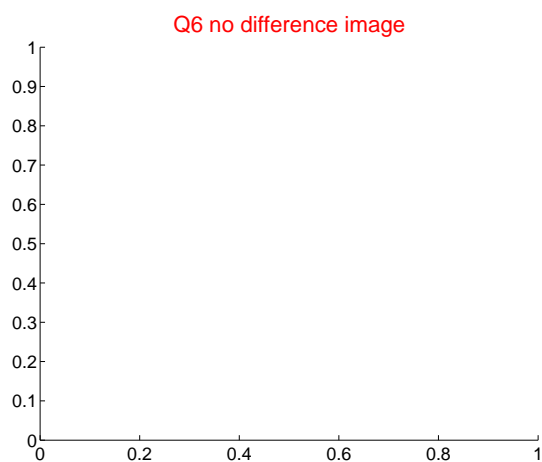
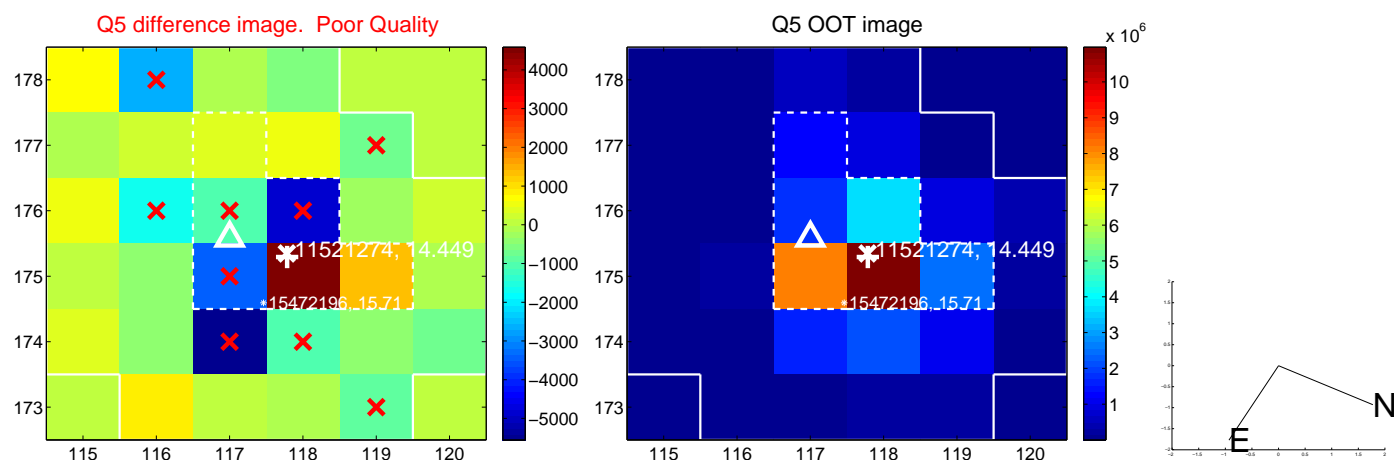


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

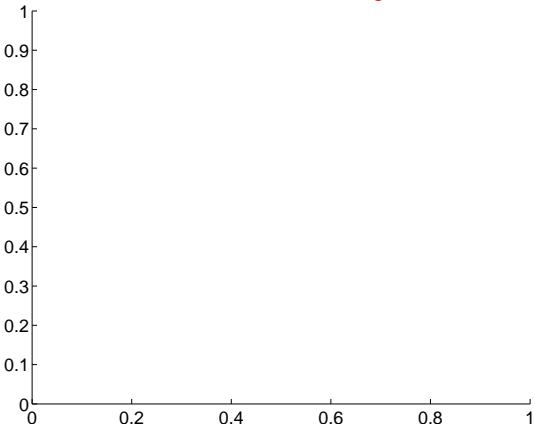


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value

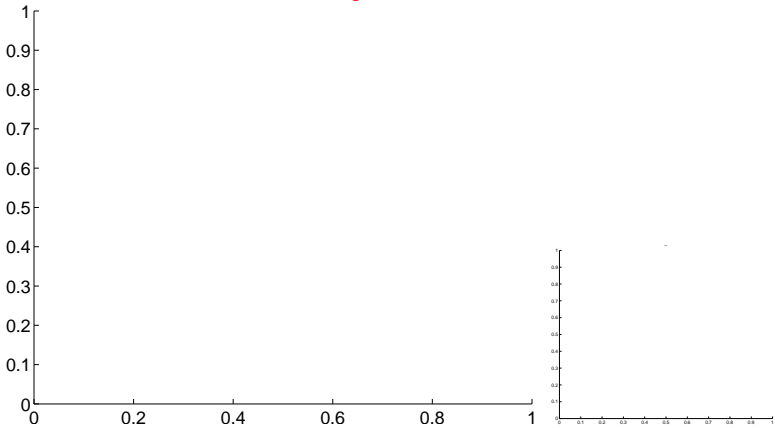


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

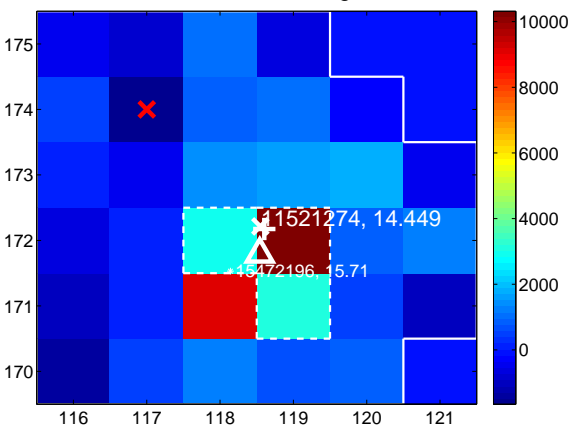
Q9 no difference image



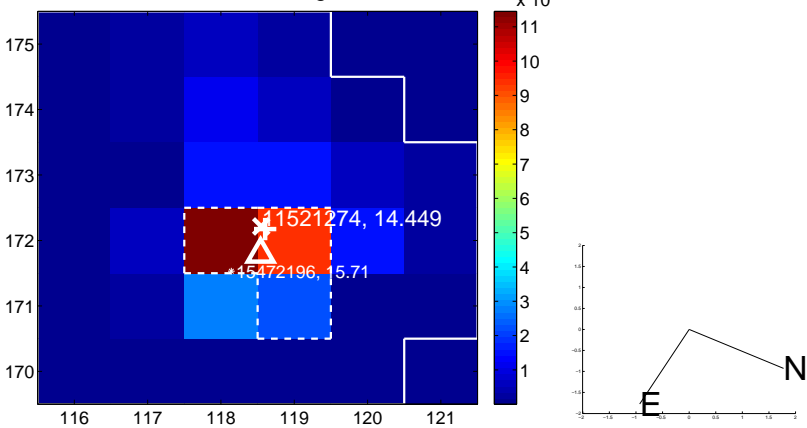
Q9 no OOT image



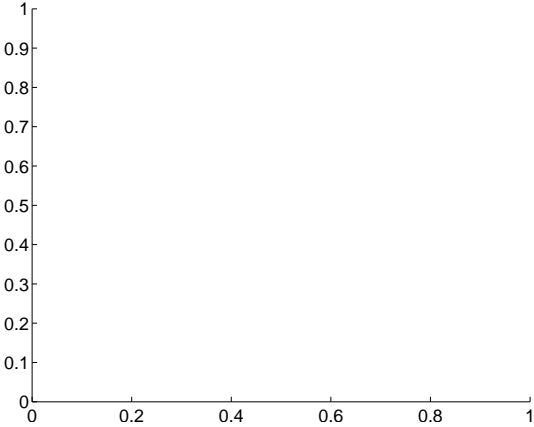
Q10 difference image



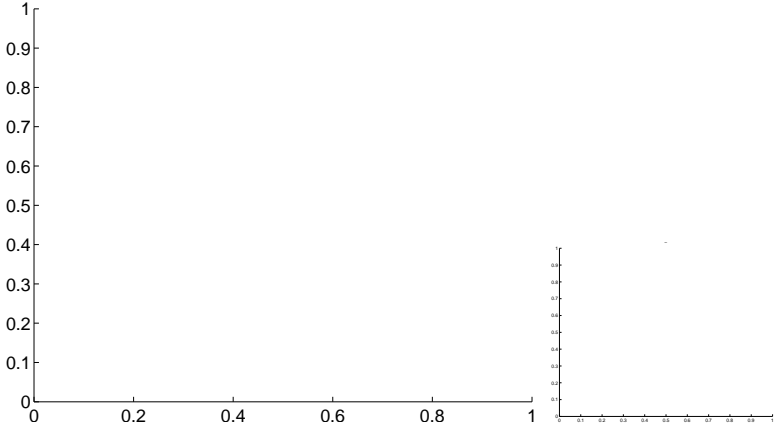
Q10 OOT image



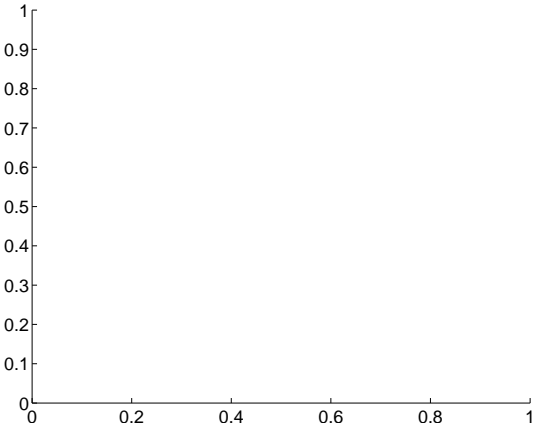
Q11 no difference image



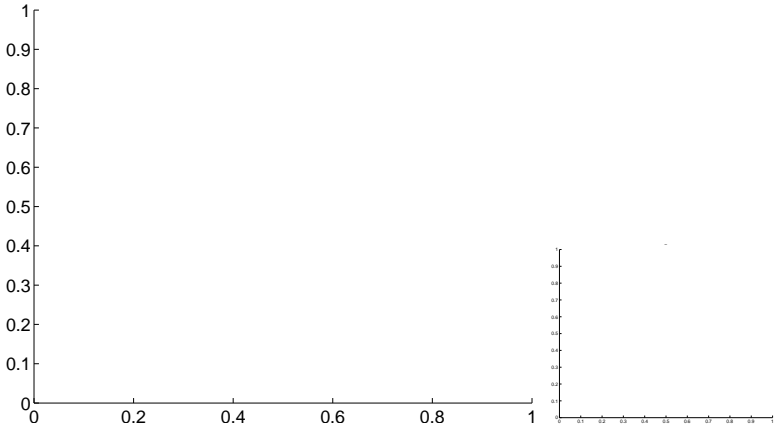
Q11 no OOT image



Q12 no difference image

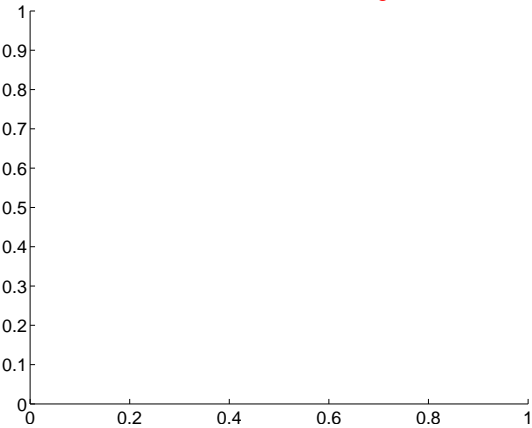


Q12 no OOT image

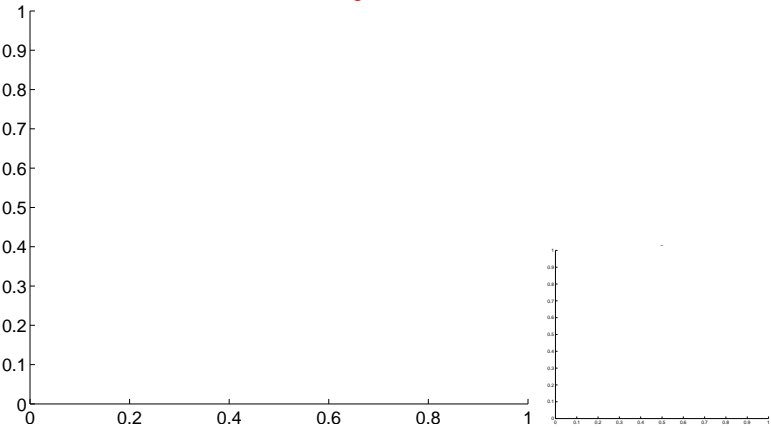


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

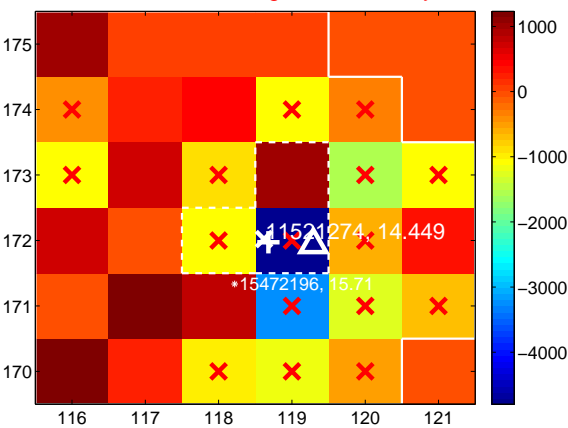
Q13 no difference image



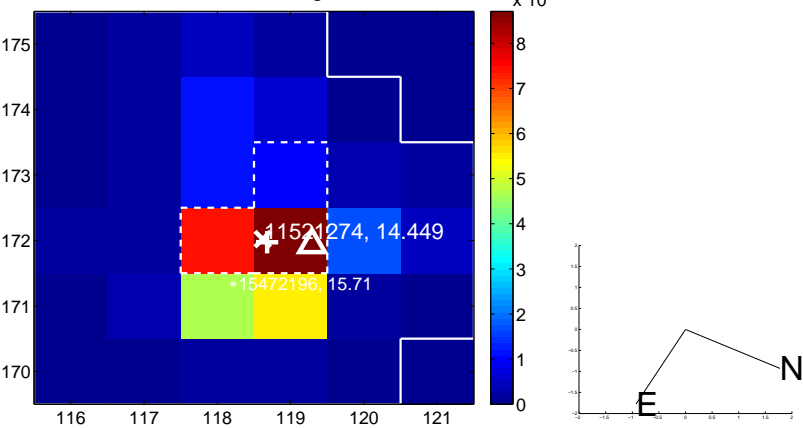
Q13 no OOT image



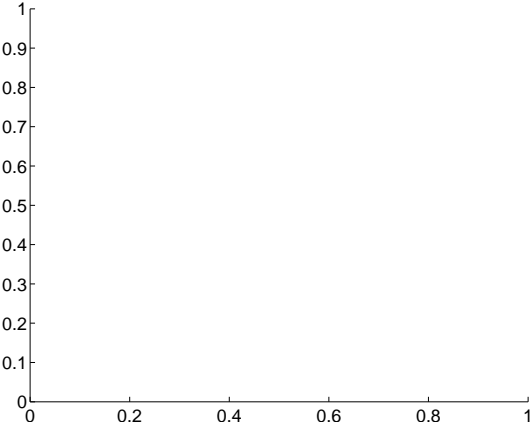
Q14 difference image. Poor Quality



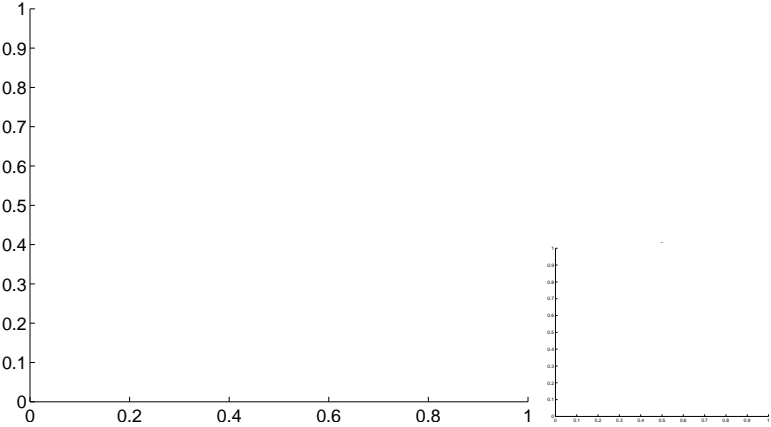
Q14 OOT image



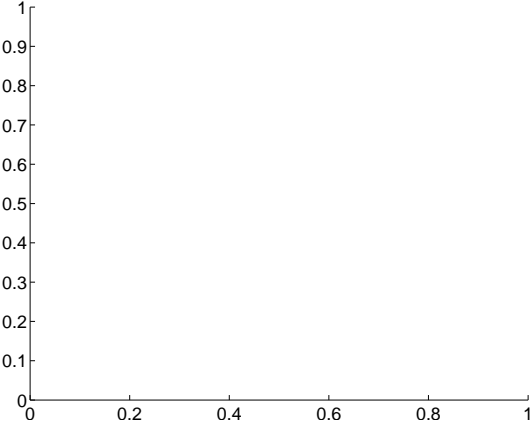
Q15 no difference image



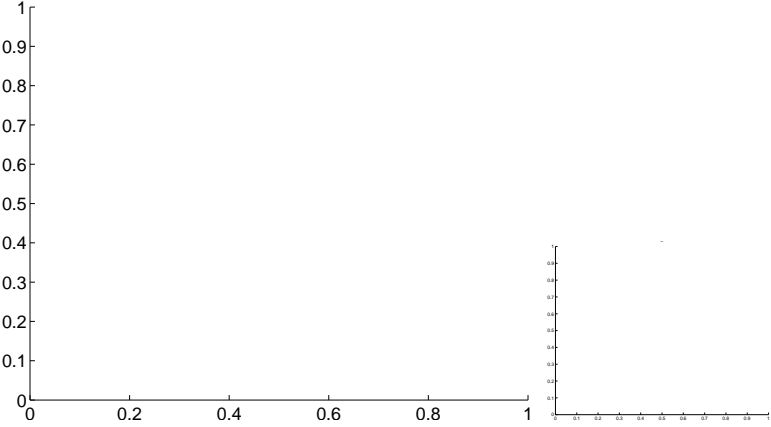
Q15 no OOT image



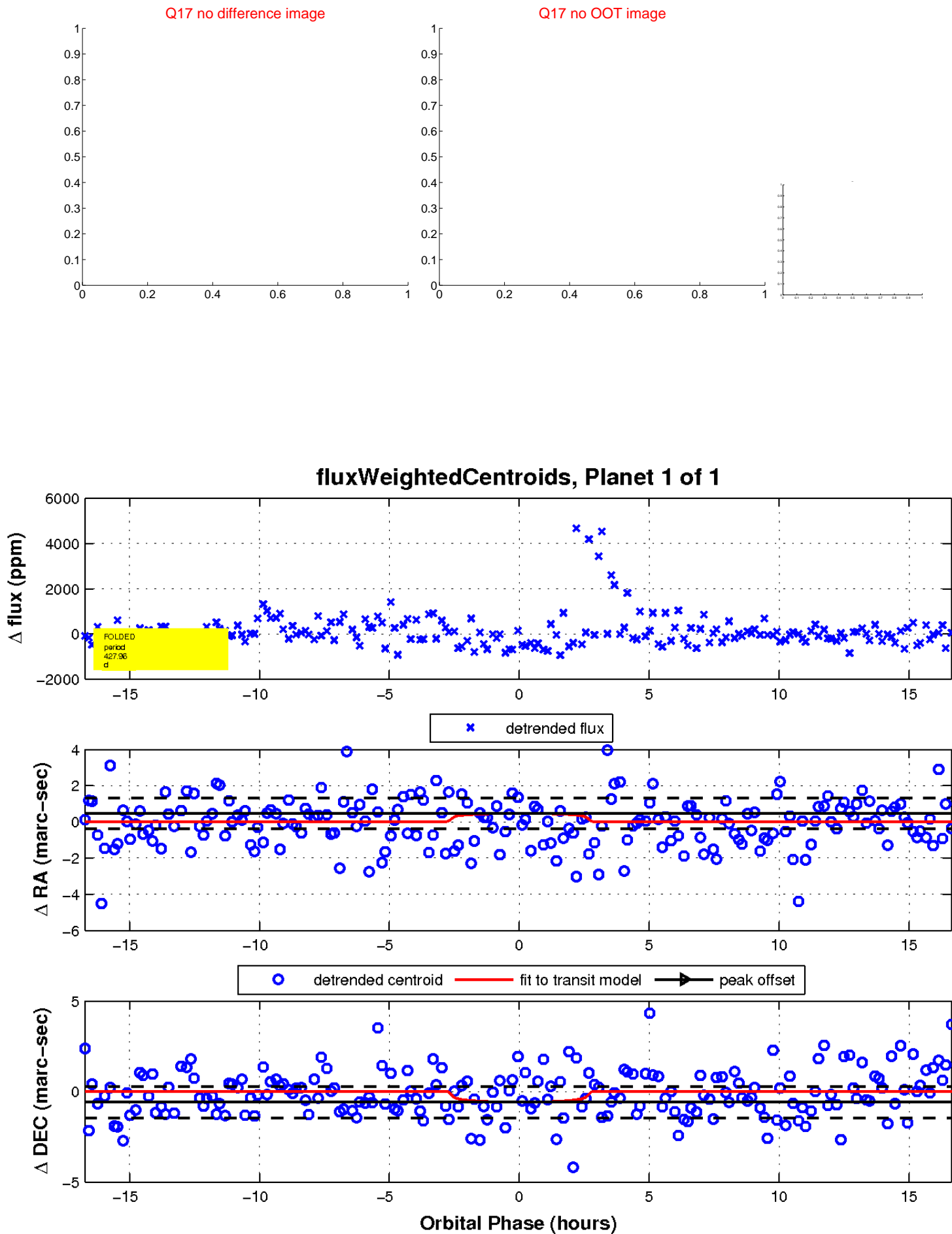
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

