

KIC 011498907

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})
011498907-01	OBS	No	354.158562	145.557462	85.0	6.200	39.1	1.5	3.79	6248	4.08	14.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011498907-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—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.

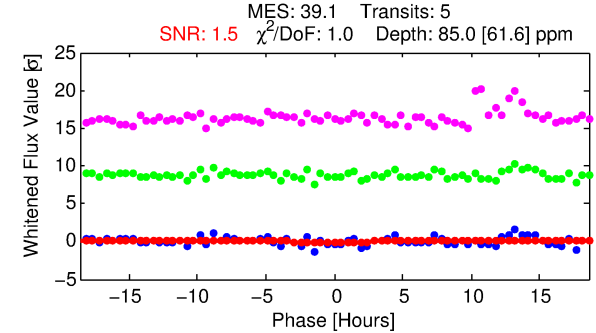
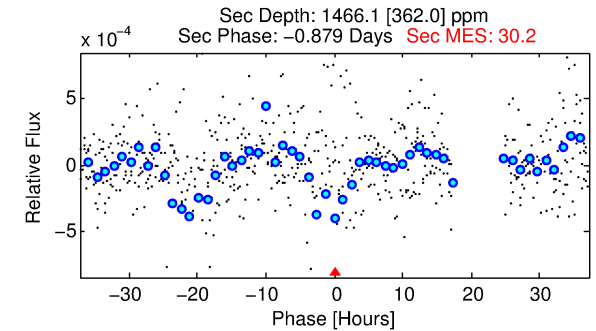
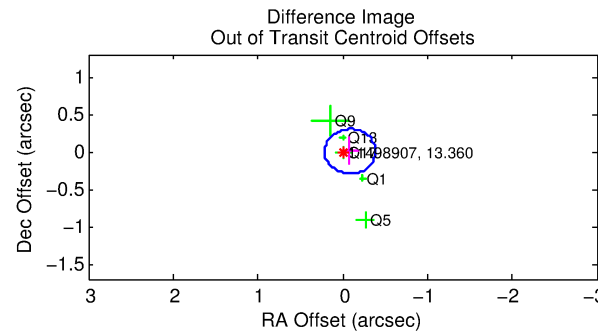
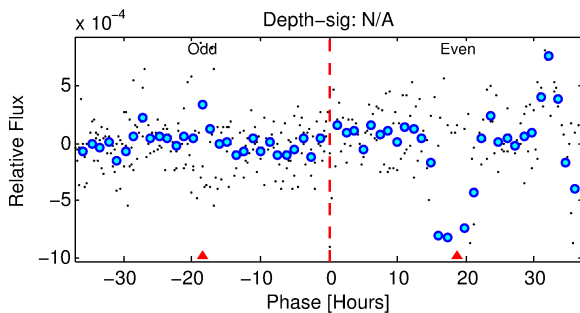
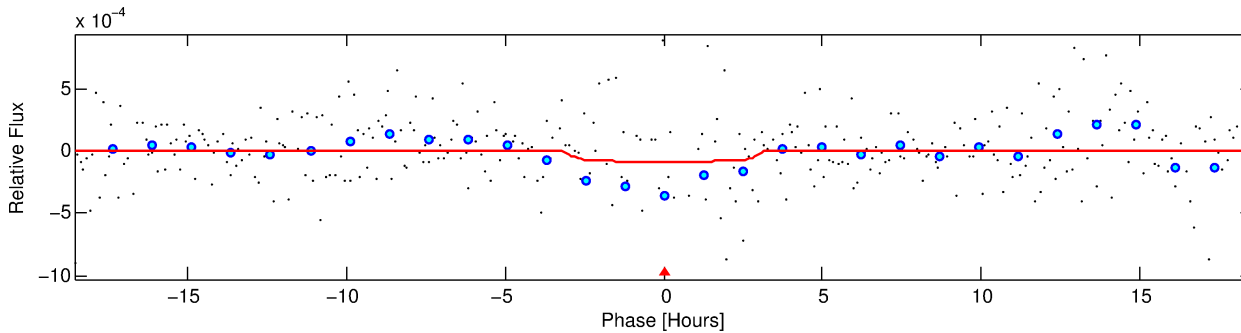
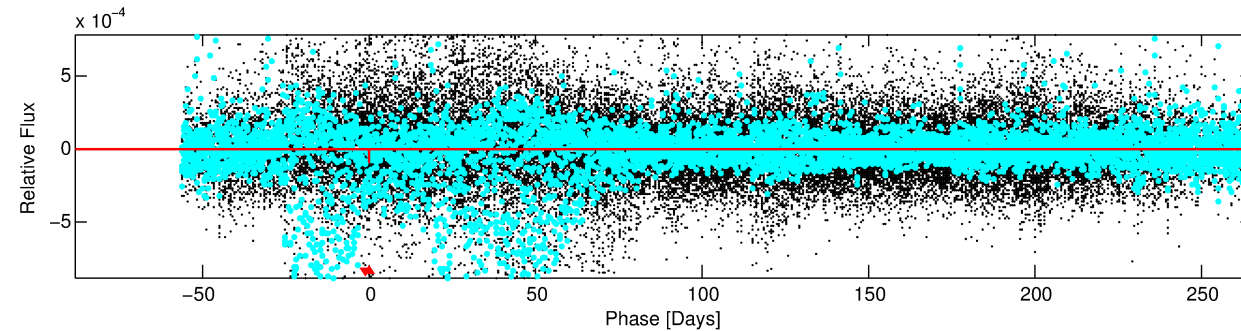
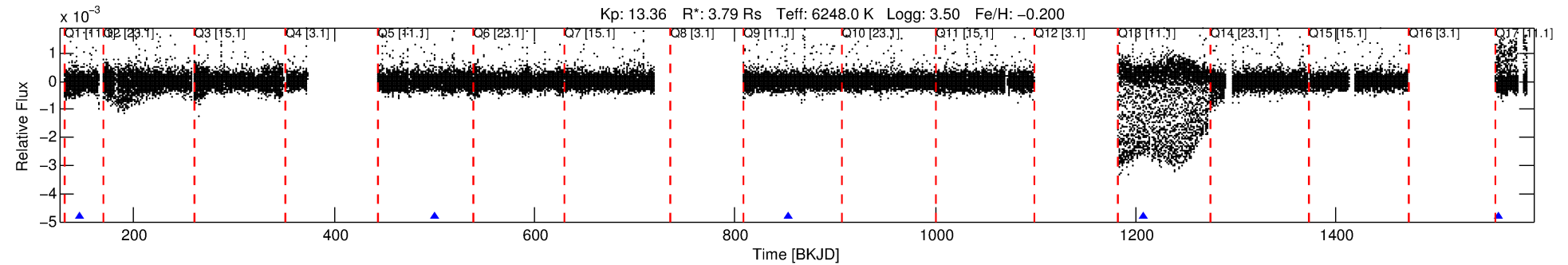
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011498907-01

No Significant Match Found

DV One-Page Summary

KIC: 11498907 Candidate: 1 of 1 Period: 354.159 d



DV Fit Results:

Period = 354.15856 [0.01644] d
Epoch = 145.5575 [0.0396] BKJD
Rp/R* = 0.0099 [0.0123]
a/R* = 202.84 [1275.33]
b = 0.90 [1.39]
Seff = 14.57 [9.87]
Teq = 498 [84] K
Rp = 4.08 [5.38] Re
a = 1.1606 [0.4820] AU
Ag = 65182.23 [168764.91] [0.39σ]
Teffp = 12307 [7707] K [1.53σ]

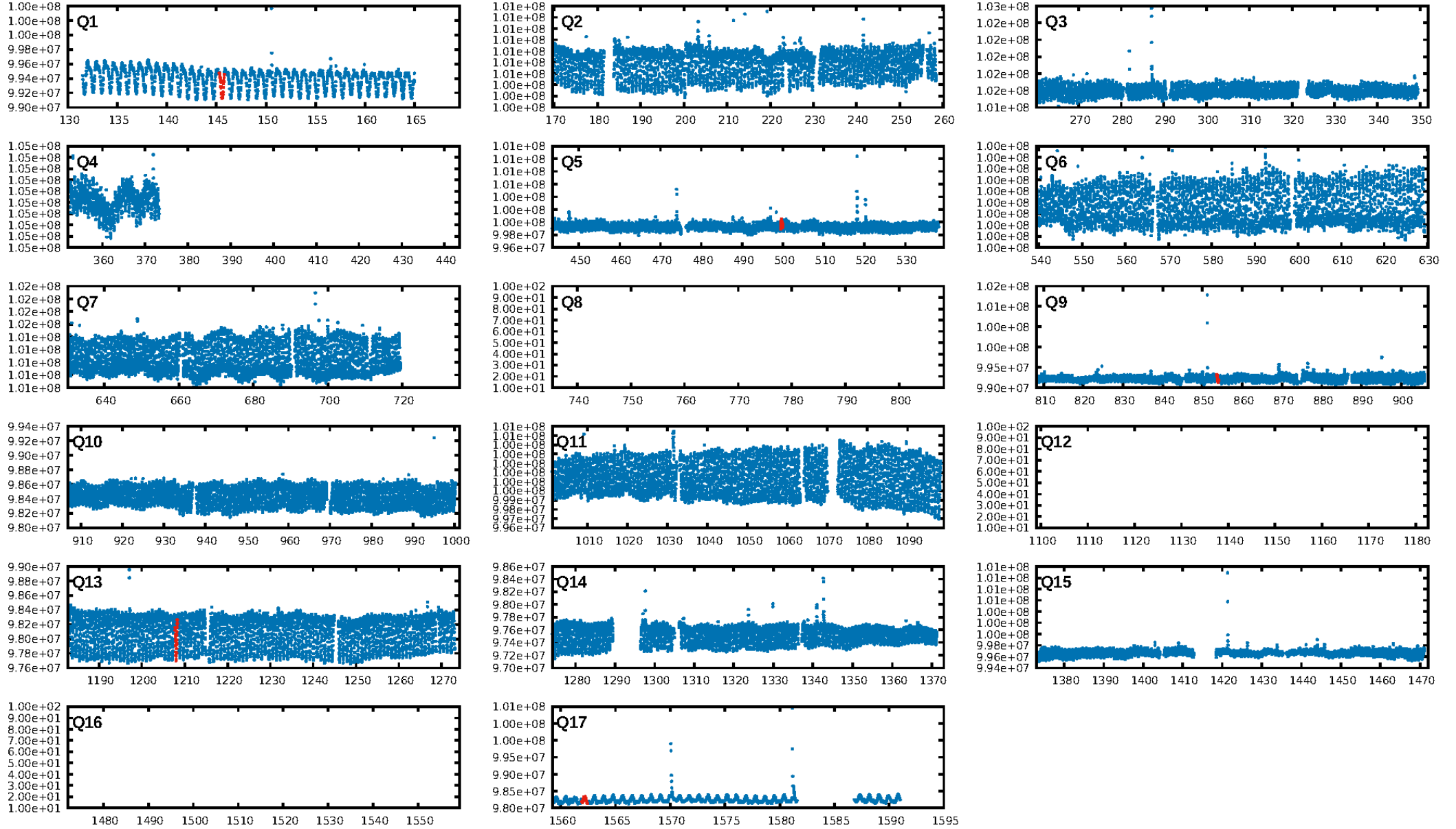
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
Bootstrap-pfa: 9.58e-42
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.532
Centroid-sig: 85.1%
Centroid-so: 1.506 arcsec [0.45σ]
OotOffset-rm: 0.087 arcsec [0.87σ]
KicOffset-rm: 0.205 arcsec [1.88σ]
OotOffset-st: 0/0/0/5 [5]
KicOffset-st: 0/0/0/5 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 1.00 [5/5]

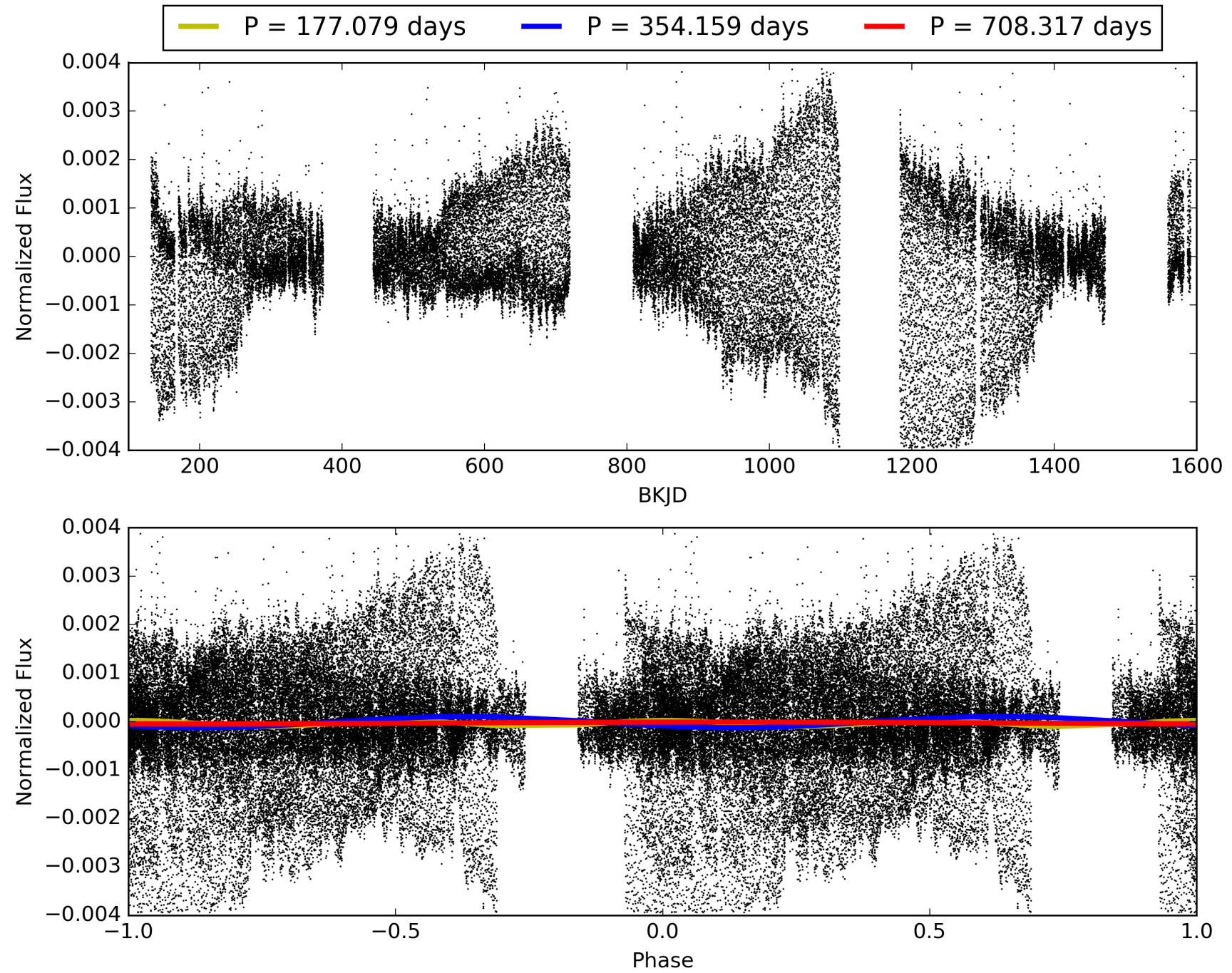
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:30:38 Z

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

TCE 011498907-01, PDC Light Curves

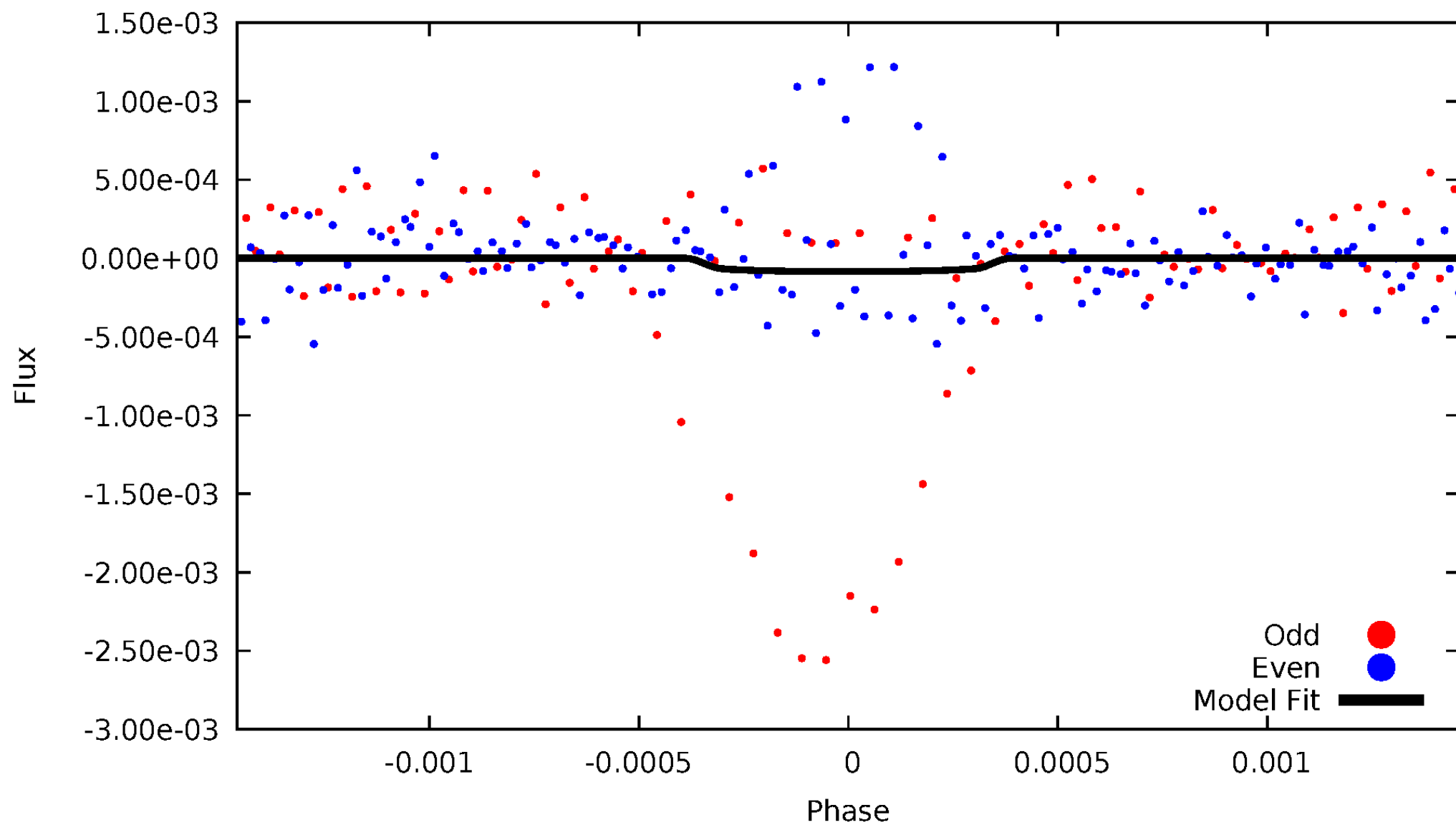


TCE 011498907-01



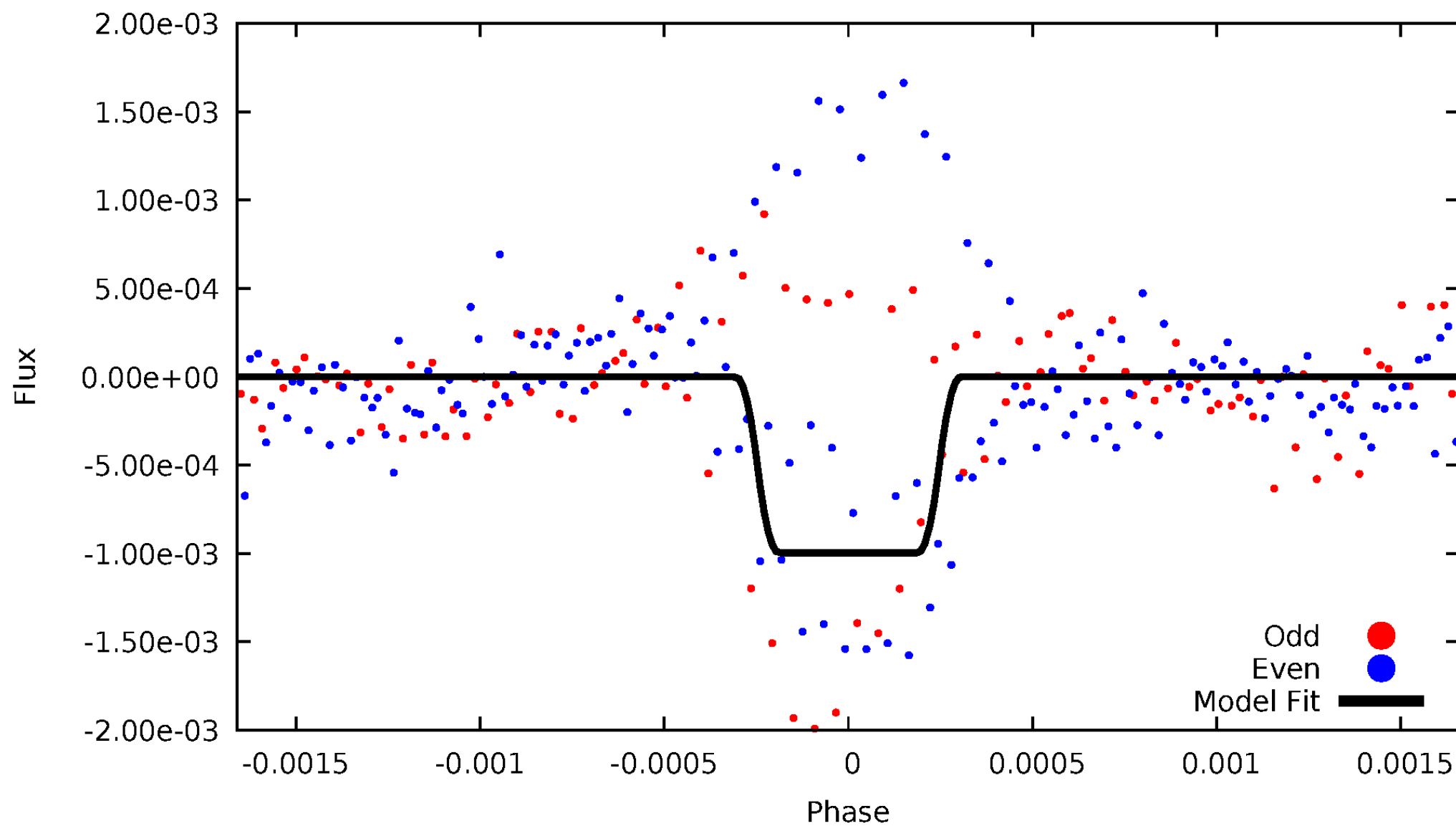
DV Odd/Even

TCE 011498907-01



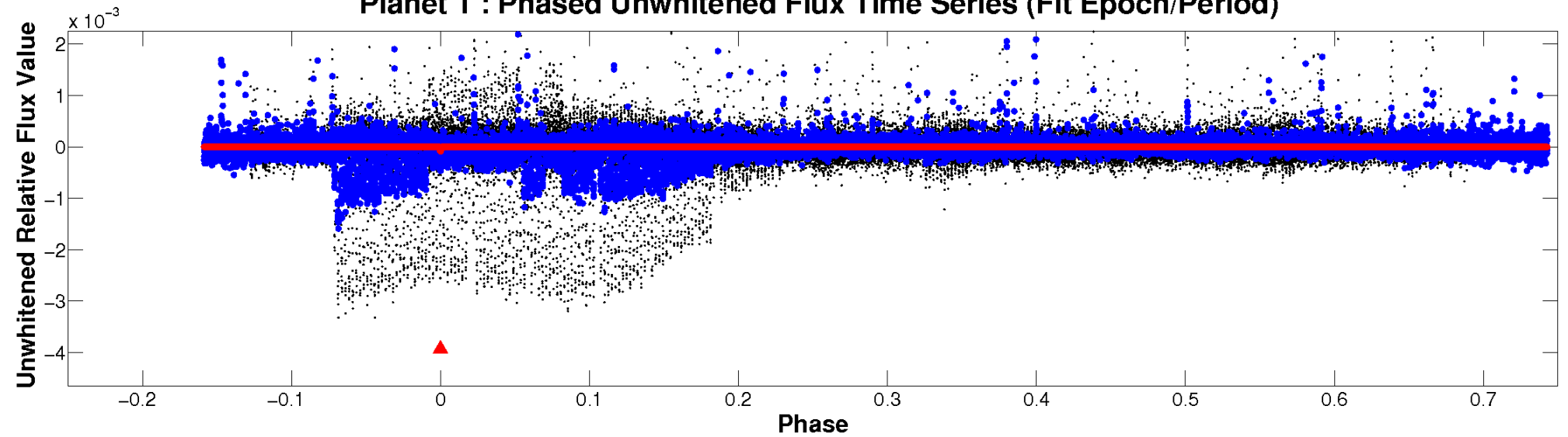
ALT Odd/Even

TCE 011498907-01

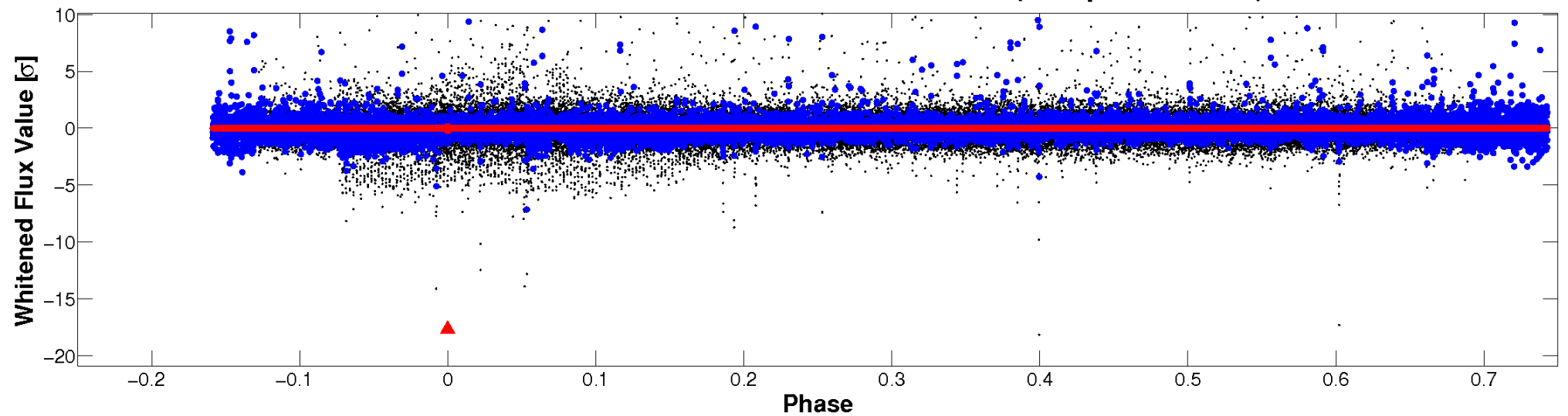


Non-Whitened Vs. Whitened Light Curve

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

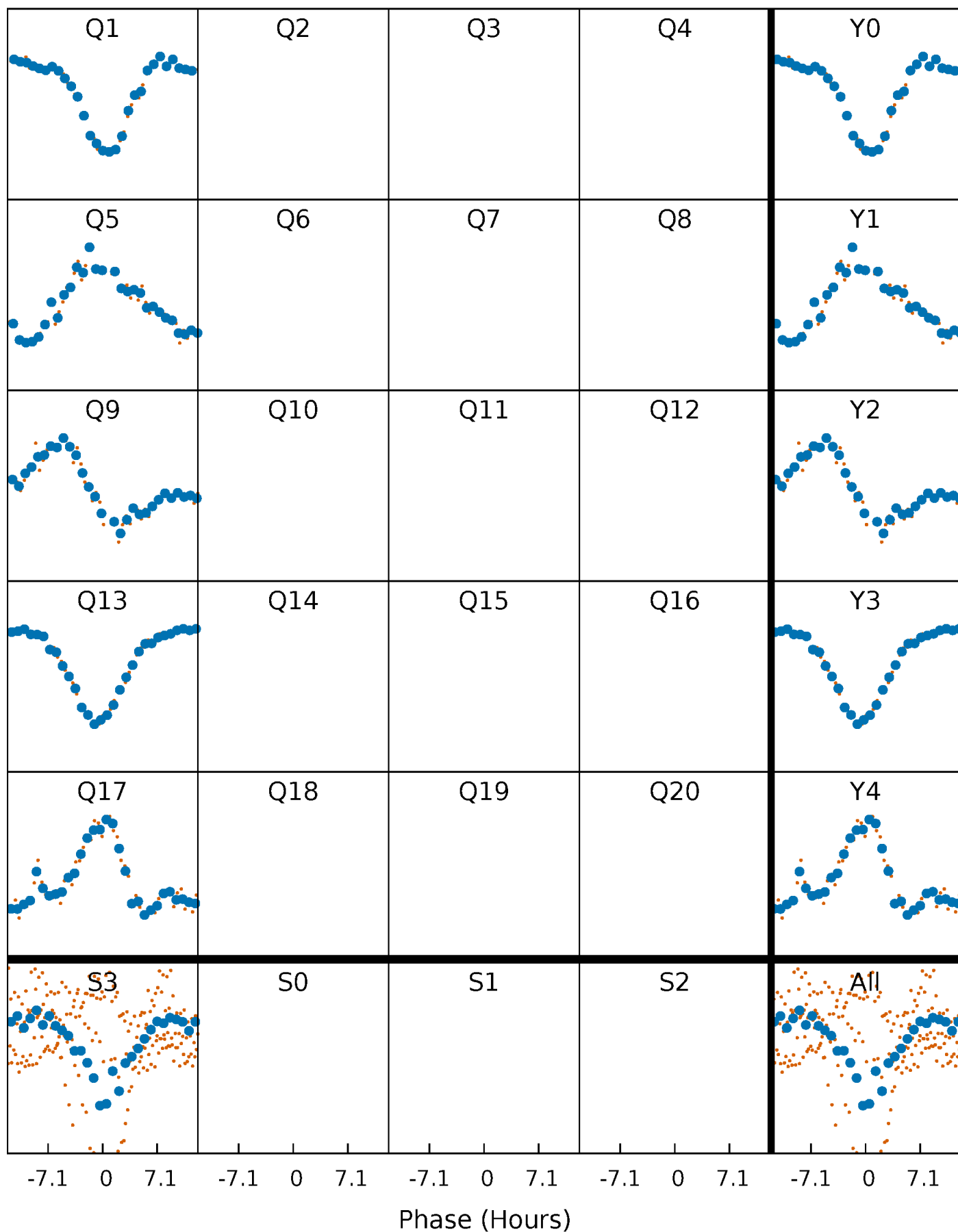


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



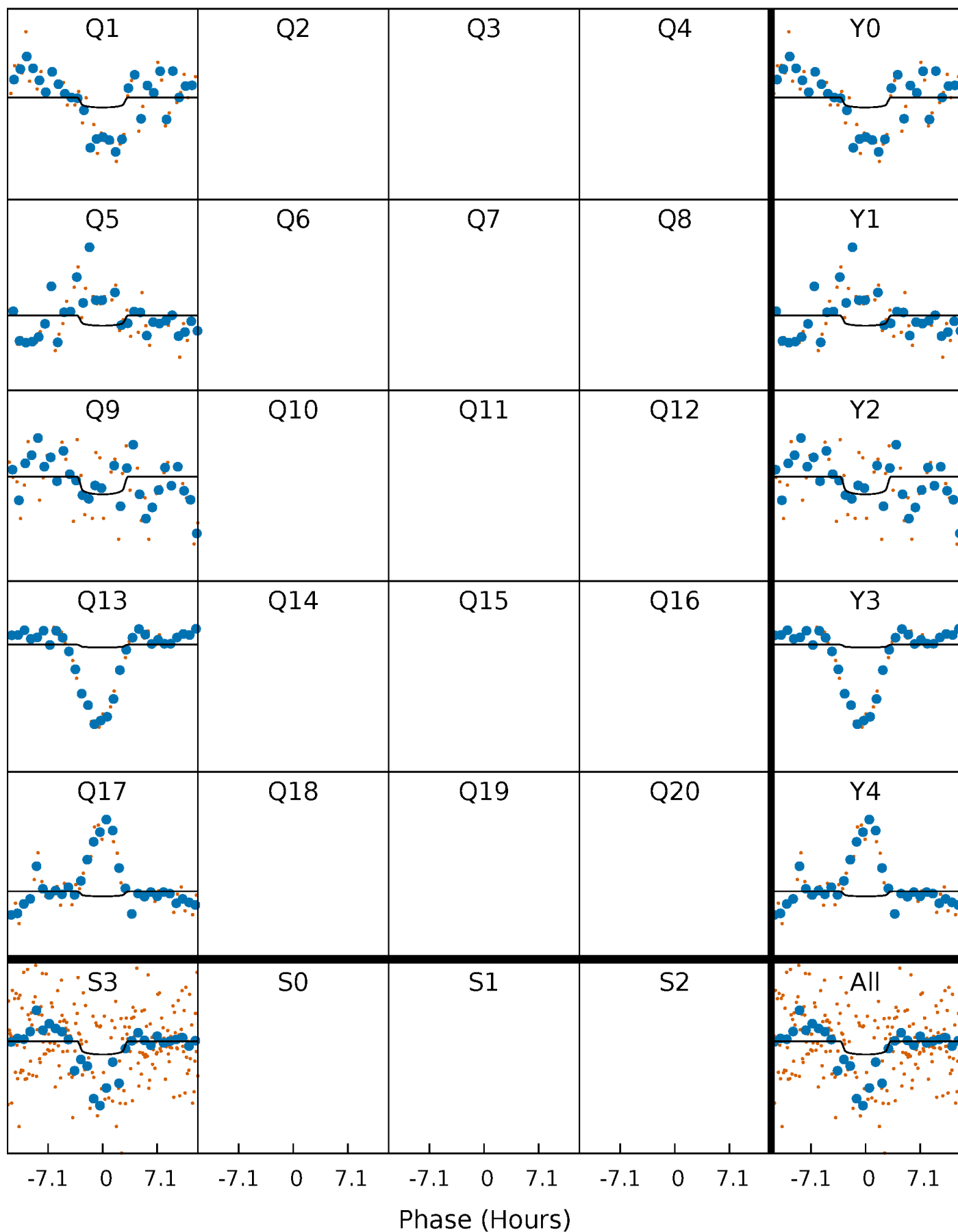
PDC Quarter-Phased Transit Curves

TCE 011498907-01 P=354.158562 Days $T_0=145.557462$ (BKJD)



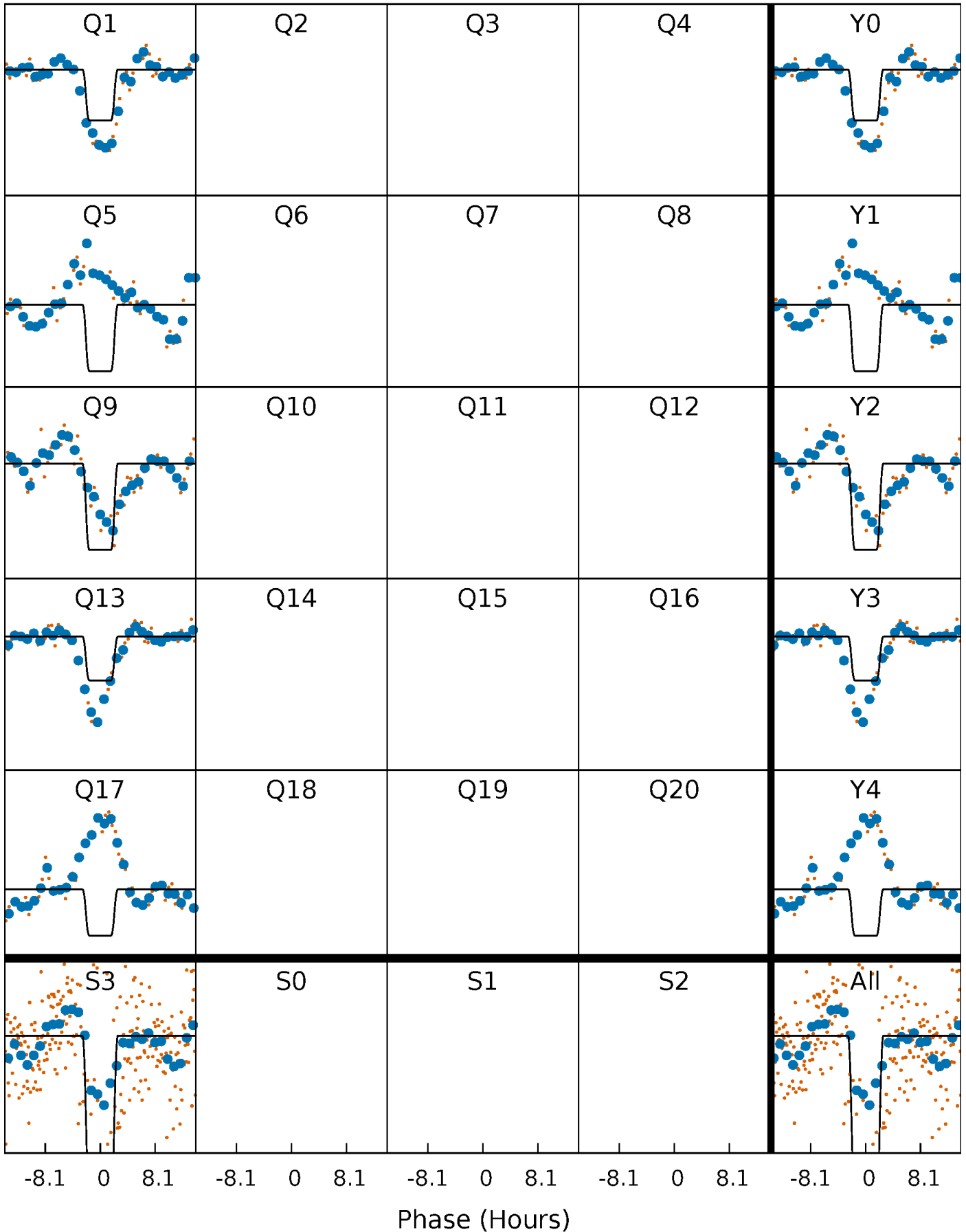
DV Quarter-Phased Transit Curves

TCE 011498907-01 $P=354.158562$ Days $T_0=145.557462$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

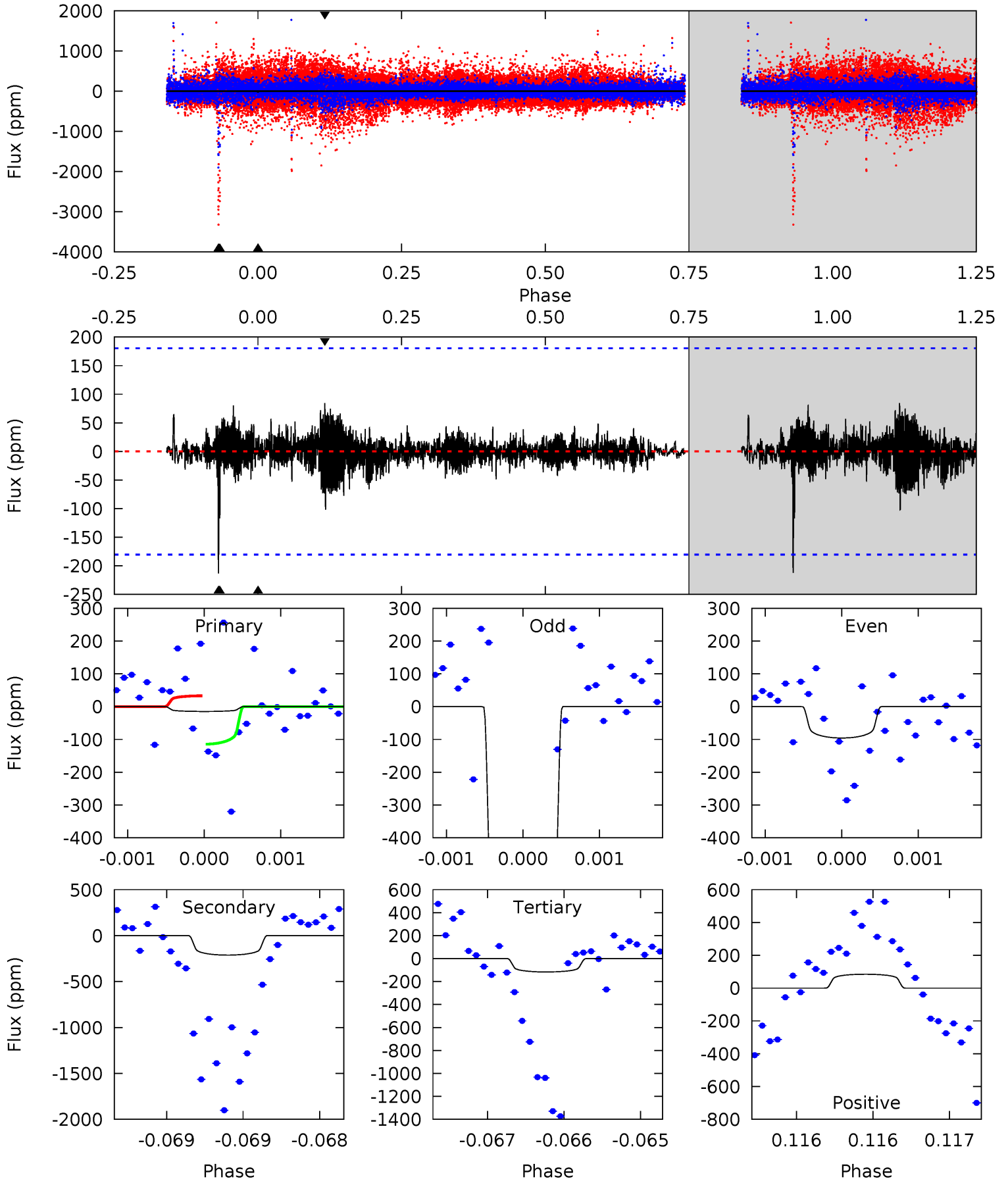
TCE 011498907-01 $P=354.150744$ Days $T_0=145.574066$ (BKJD)



DV Model-Shift Uniqueness Test

011498907-01, P = 354.158562 Days, E = 145.557462 Days

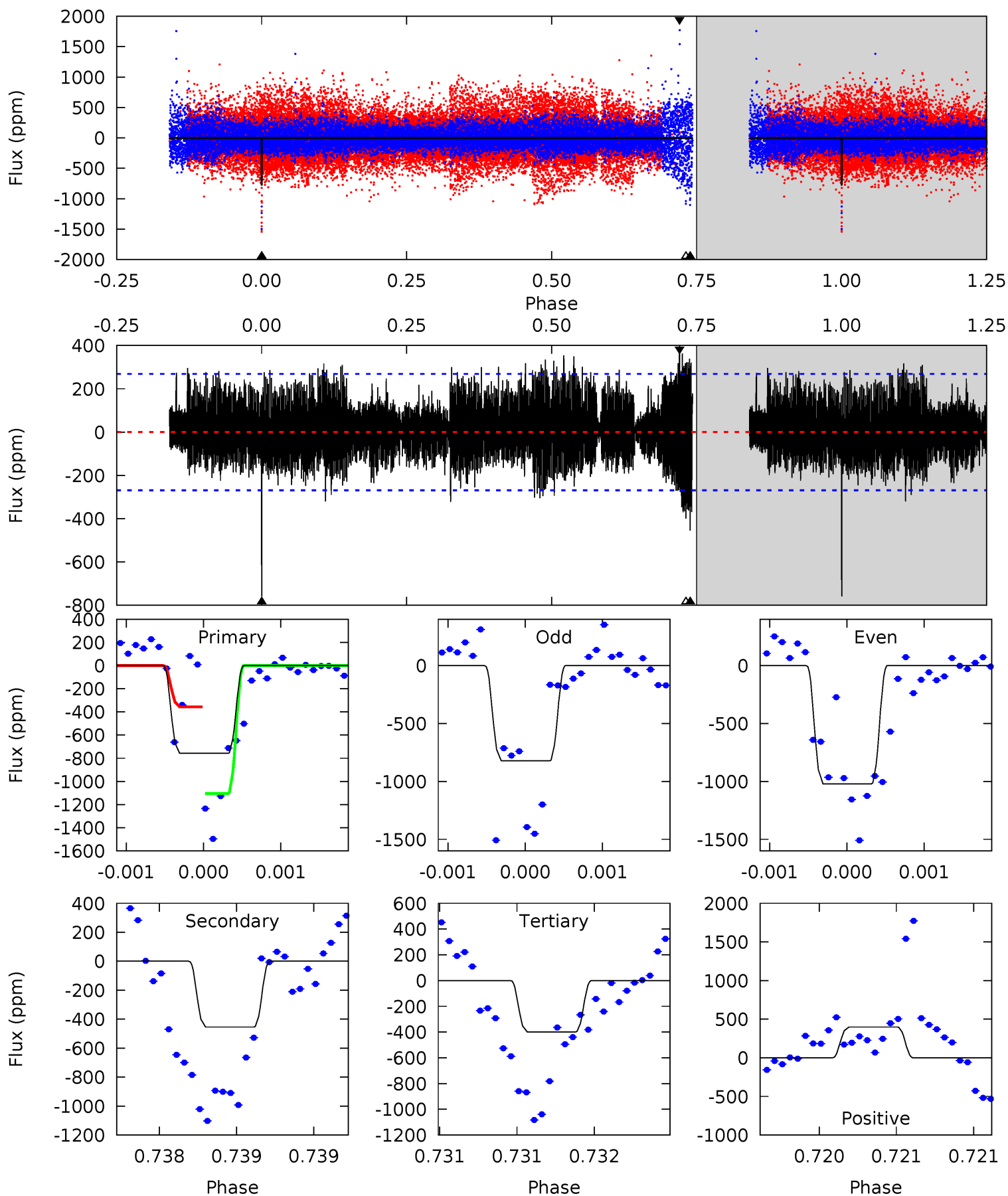
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.45	6.47	3.56	2.58	5.50	3.37	0.61	-3.11	-2.13	2.91	3.89	8.09	4.50	0.29	0



Alt Model-Shift Uniqueness Test

011498907-01, P = 354.150744 Days, E = 145.574066 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	9.38	8.24	8.23	5.55	3.44	2.23	7.42	7.43	1.14	1.15	2.31	0.57	0.34	7.56



Stellar Parameters For KIC 011498907

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6248^{+190}_{-171}	$3.501^{+0.392}_{-0.098}$	$-0.200^{+0.350}_{-0.300}$	$3.791^{+0.582}_{-1.628}$	$1.660^{+0.186}_{-0.434}$	$0.043^{+0.138}_{-0.013}$
	+3%/-3%	+11%/-3%	+175%/-150%	+15%/-43%	+11%/-26%	+323%/-30%
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 011498907-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-212 ± 33	$4.95^{+4.44}_{-3.40}$	680^{+43}_{-74}	6531^{+7359}_{-1577}	6456^{+52110}_{-4708}
Alt.	-454 ± 48	$12.23^{+5.32}_{-5.18}$	683^{+45}_{-72}	5158^{+1290}_{-646}	2275^{+4201}_{-1206}

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

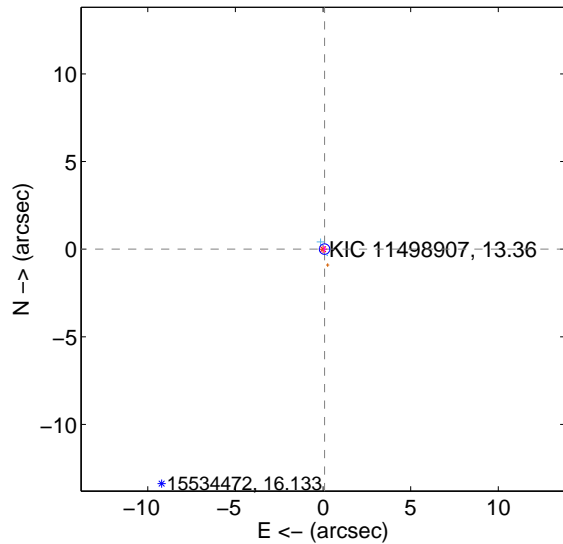
Supplemental centroid analysis for 011498907-01. Kepler magnitude: 13.36. Transit SNR 1.54

There are 3 quarters with good PRF difference image offsets

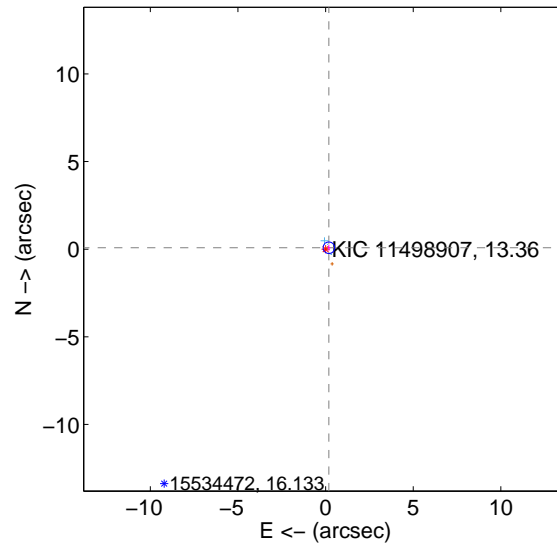
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.087 ± 0.100	0.87	-0.087 ± 0.099	0.004 ± 0.172
PRF-fit source offset from KIC position	0.205 ± 0.109	1.88	-0.189 ± 0.092	0.081 ± 0.177
photometric centroid source offset	1.51 ± 3.33	0.45	-1.47 ± 3.30	0.32 ± 3.92

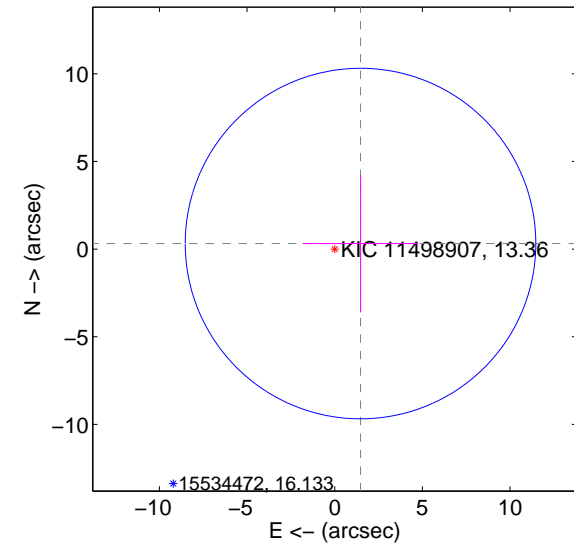
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

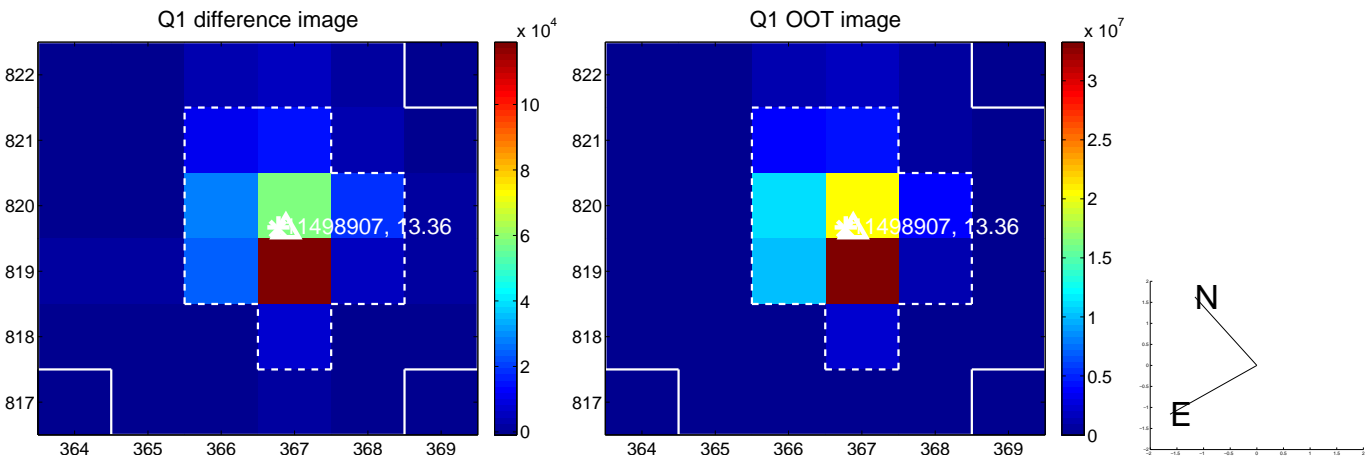


offset from photometric centroids

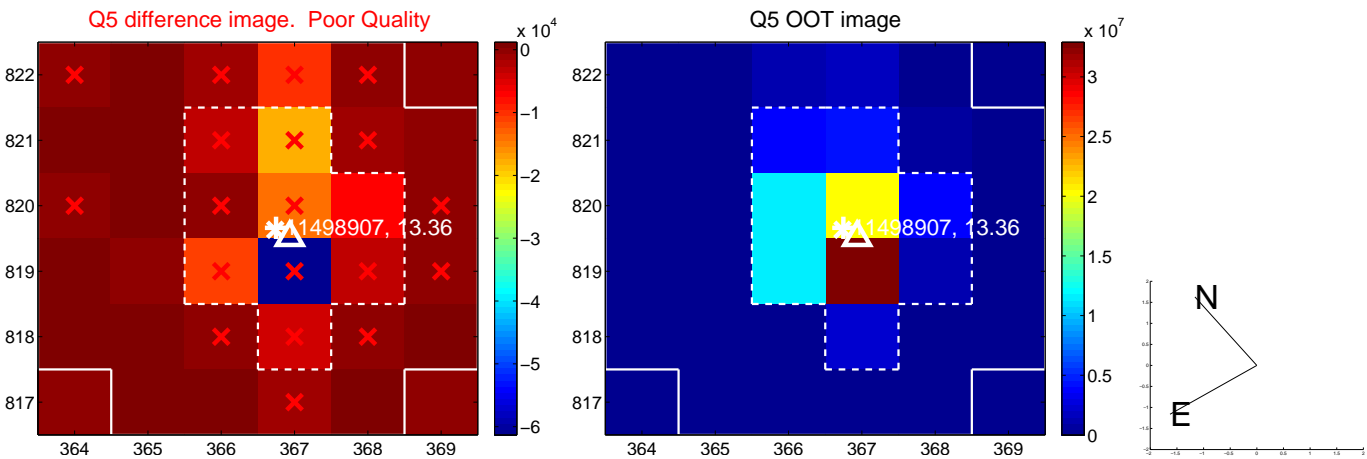


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

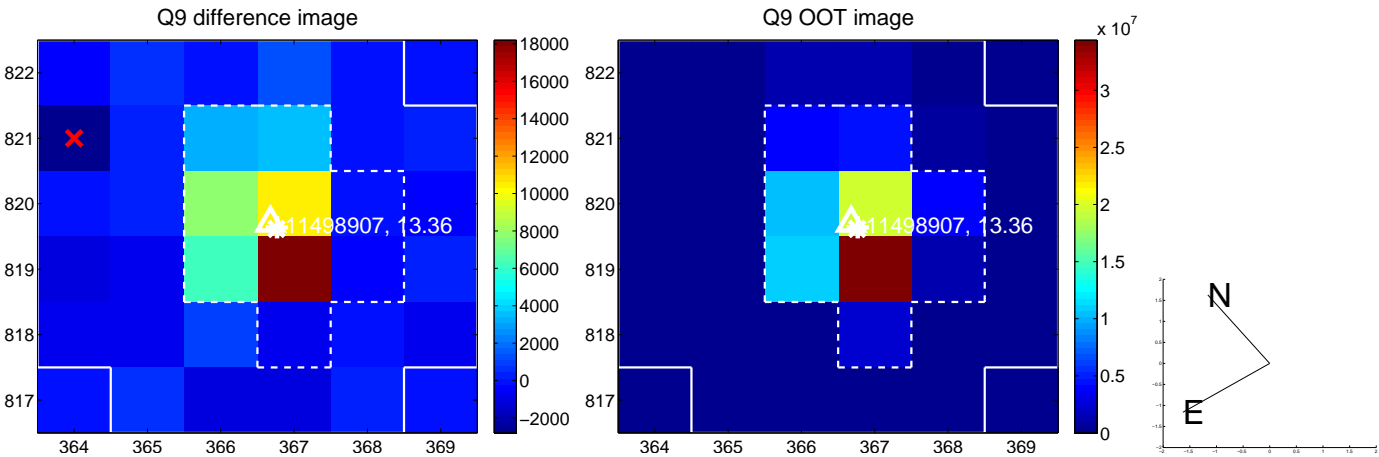
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



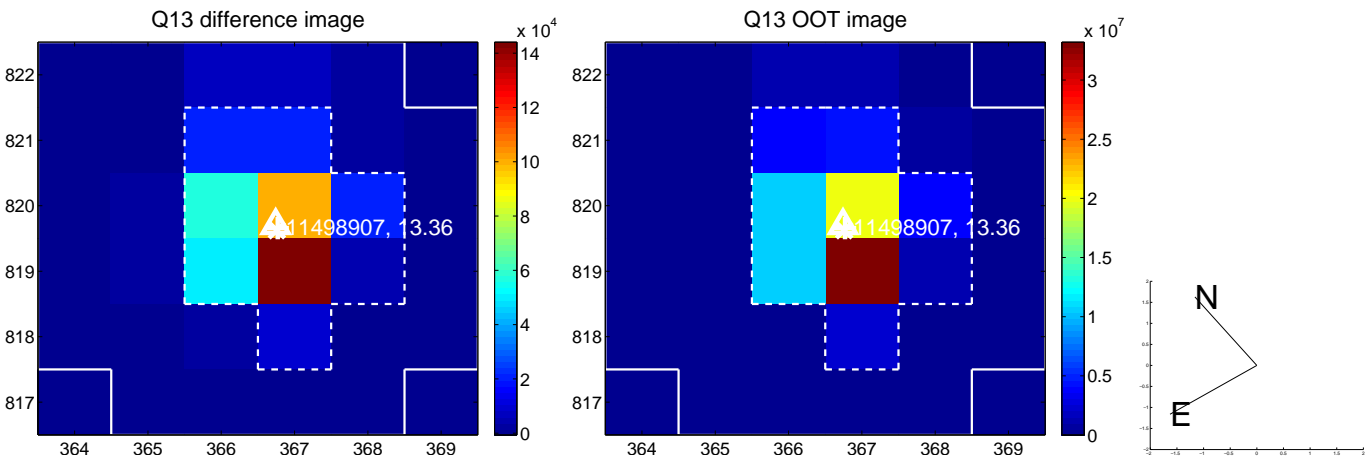
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



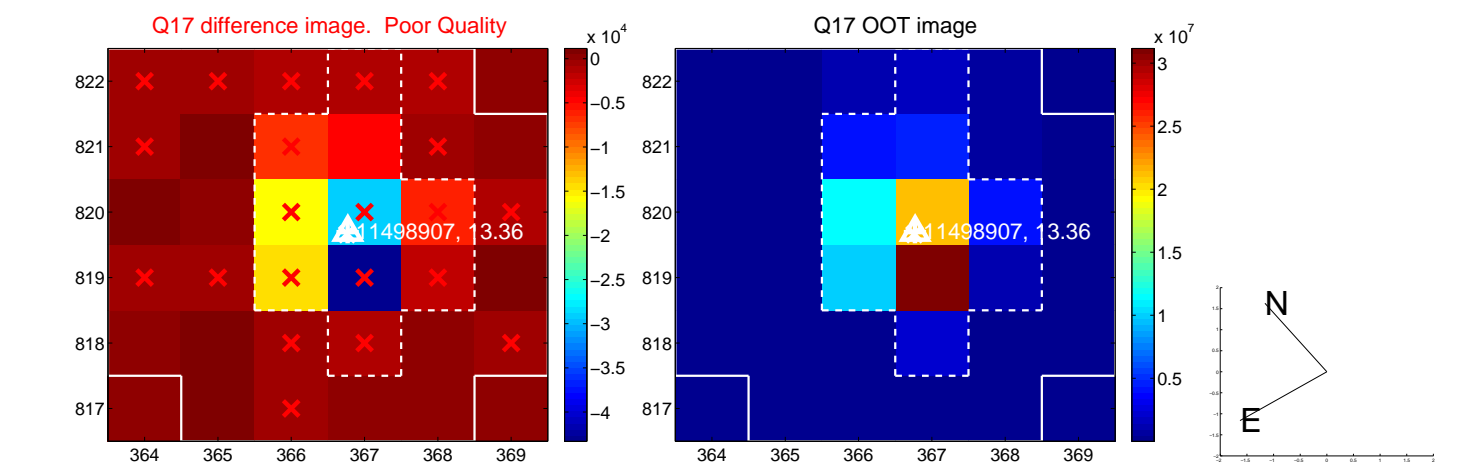
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



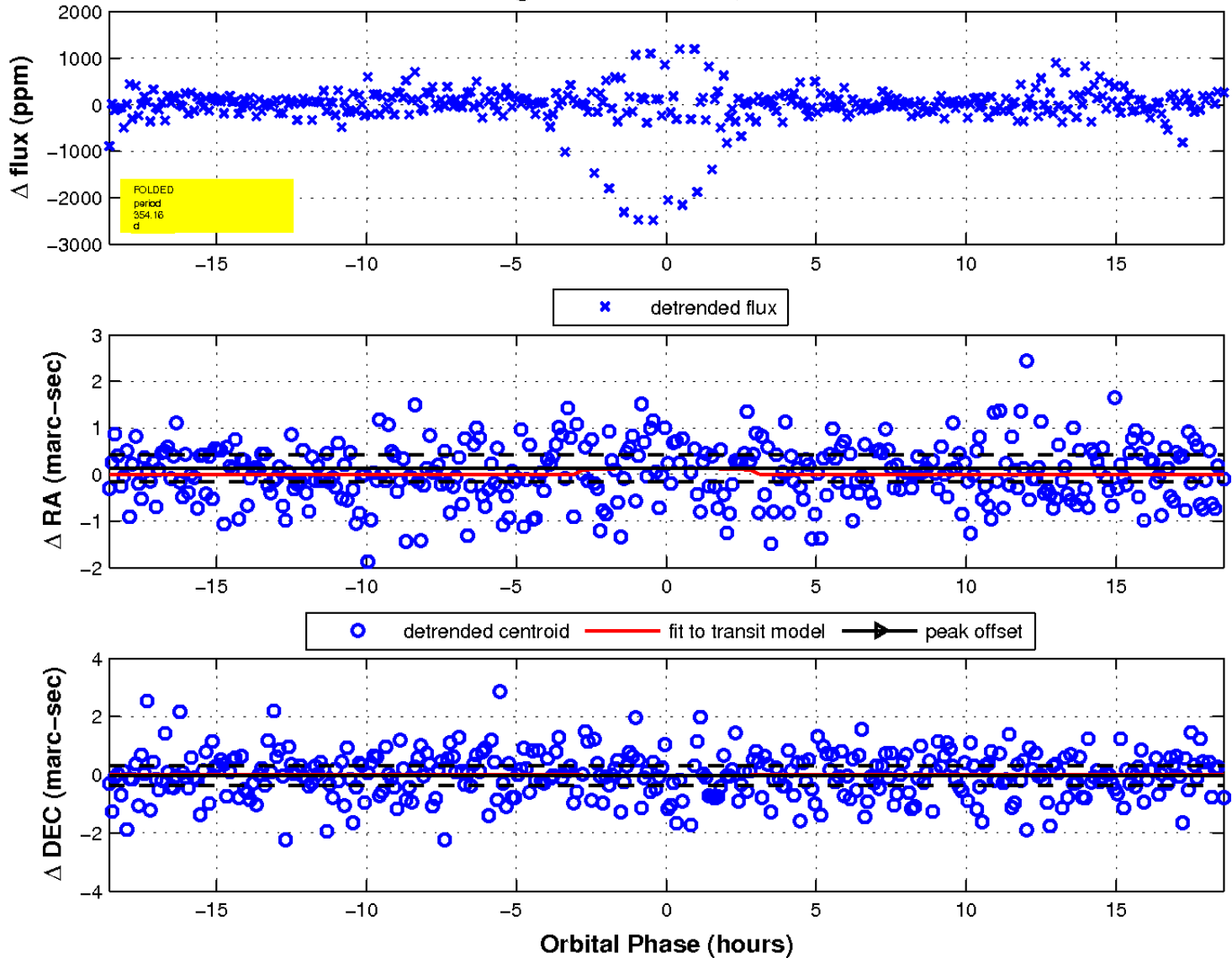
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

