

KIC 011241814

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})
011241814-01	OBS	3717.01	227.662512	232.242110	13729.8	5.440	199.2	203.4	1.01	6124	19.22	2.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011241814-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED—CENT_KIC_POS

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

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

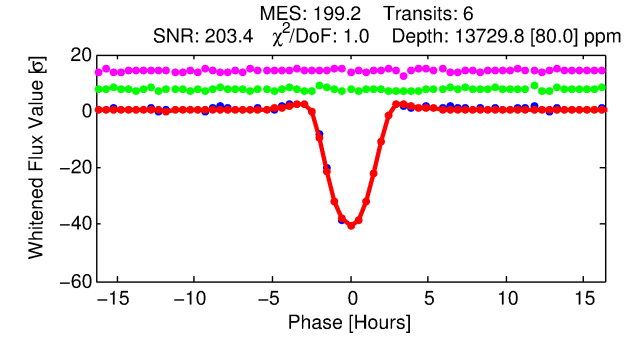
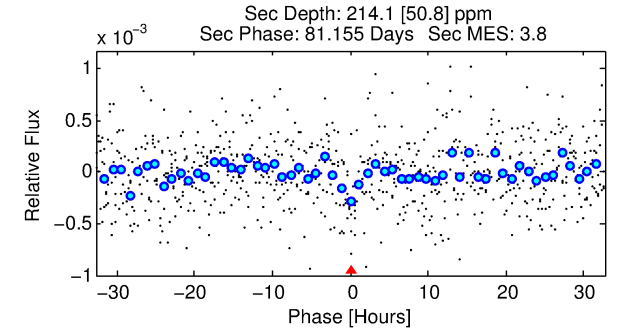
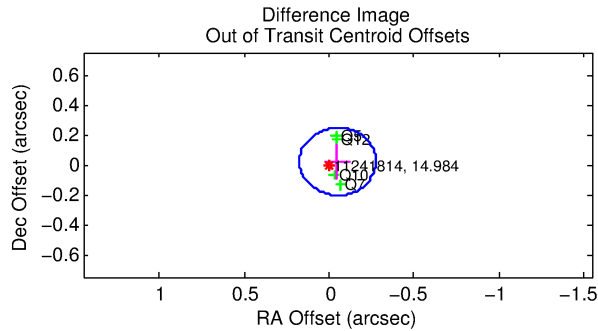
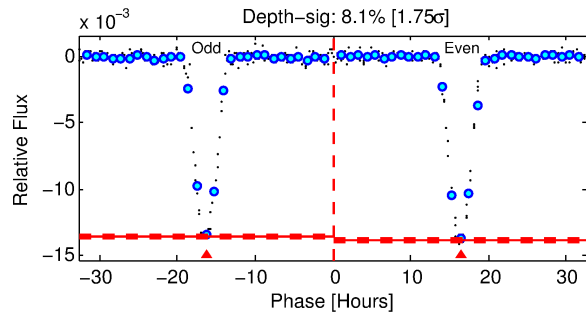
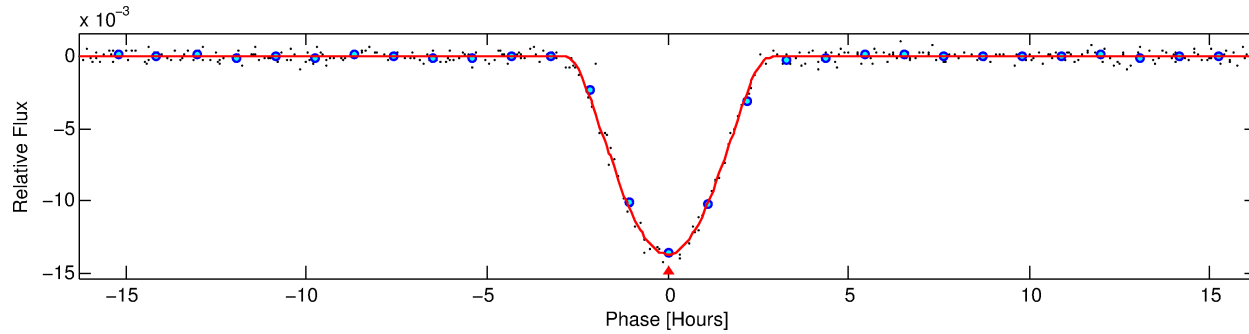
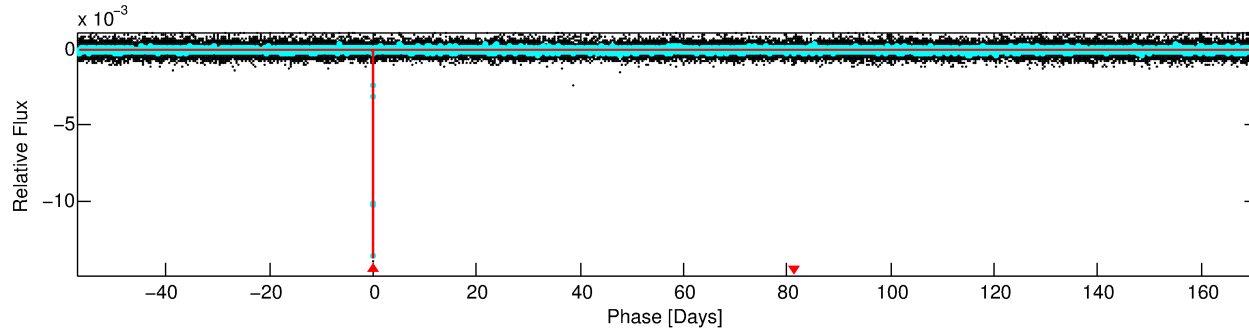
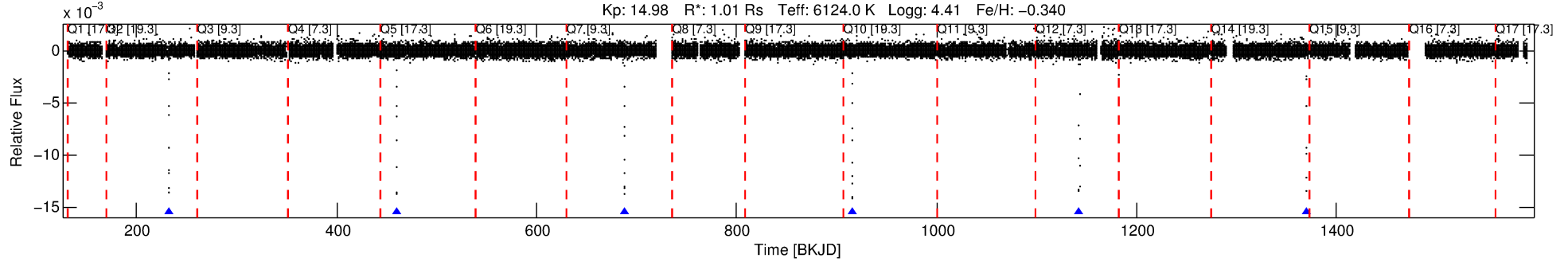
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011241814-01

No Significant Match Found

DV One-Page Summary

KIC: 11241814 Candidate: 1 of 1 Period: 227.663 d
KOI: K03717.01 Corr: 0.993



DV Fit Results:

Period = 227.66251 [0.00019] d
Epoch = 232.2421 [0.0006] BKJD
Rp/R* = 0.1749 [0.0379]
a/R* = 207.71 [7.29]
b = 0.98 [0.06]
Seff = 2.47 [0.95]
Teq = 320 [31] K
Rp = 19.22 [7.15] Re
a = 0.7199 [0.1809] AU
Ag = 165.27 [101.10] [1.62 σ]
Teffp = 1771 [226] K [6.36 σ]

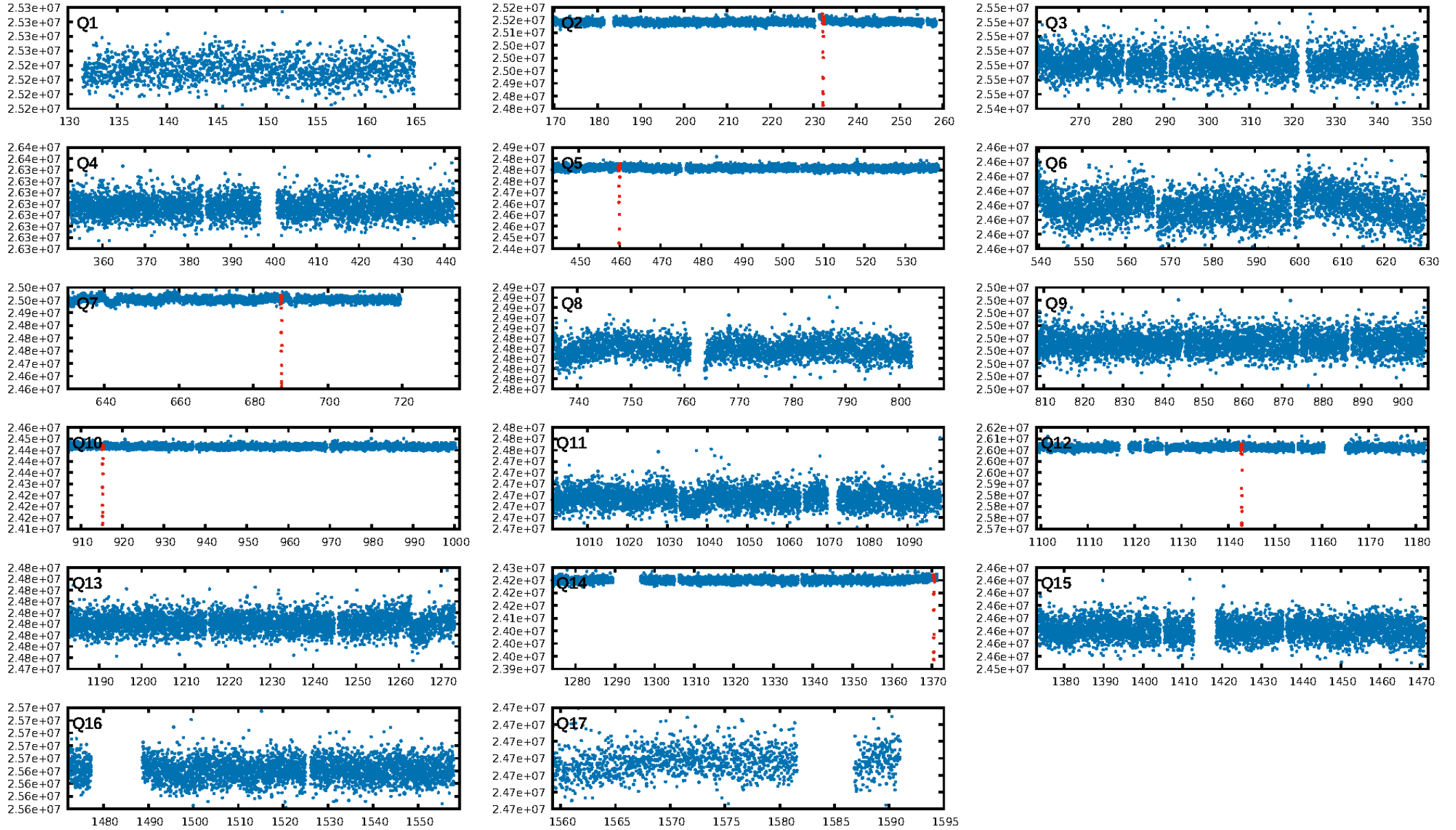
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 60.5%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 10.52
Centroid-sig: 0.0%
Centroid-so: 0.558 arcsec [9.37 σ]
OotOffset-rm: 0.054 arcsec [0.72 σ]
KicOffset-rm: 0.401 arcsec [3.32 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [4/4]

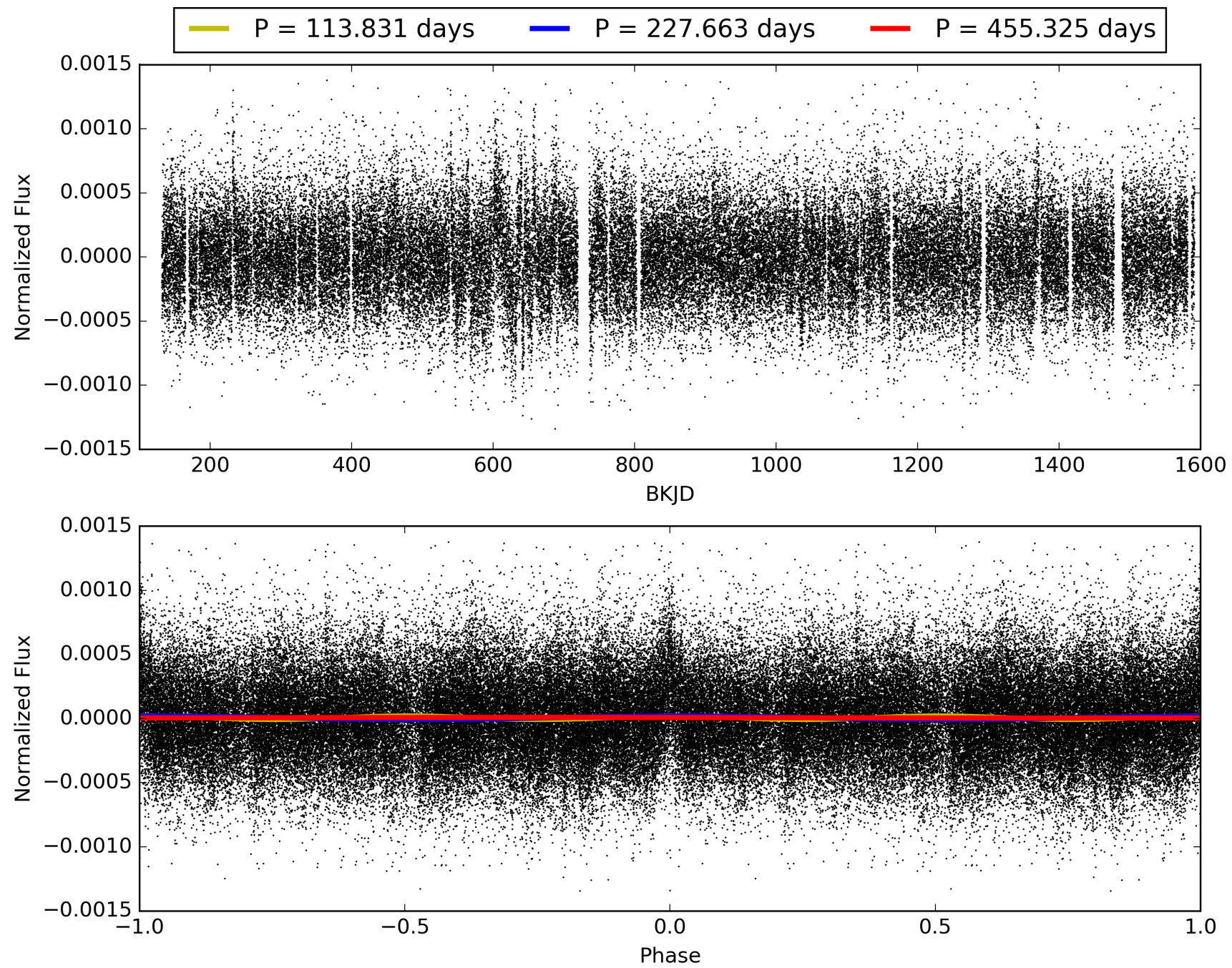
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:55:55 Z

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

TCE 011241814-01, PDC Light Curves

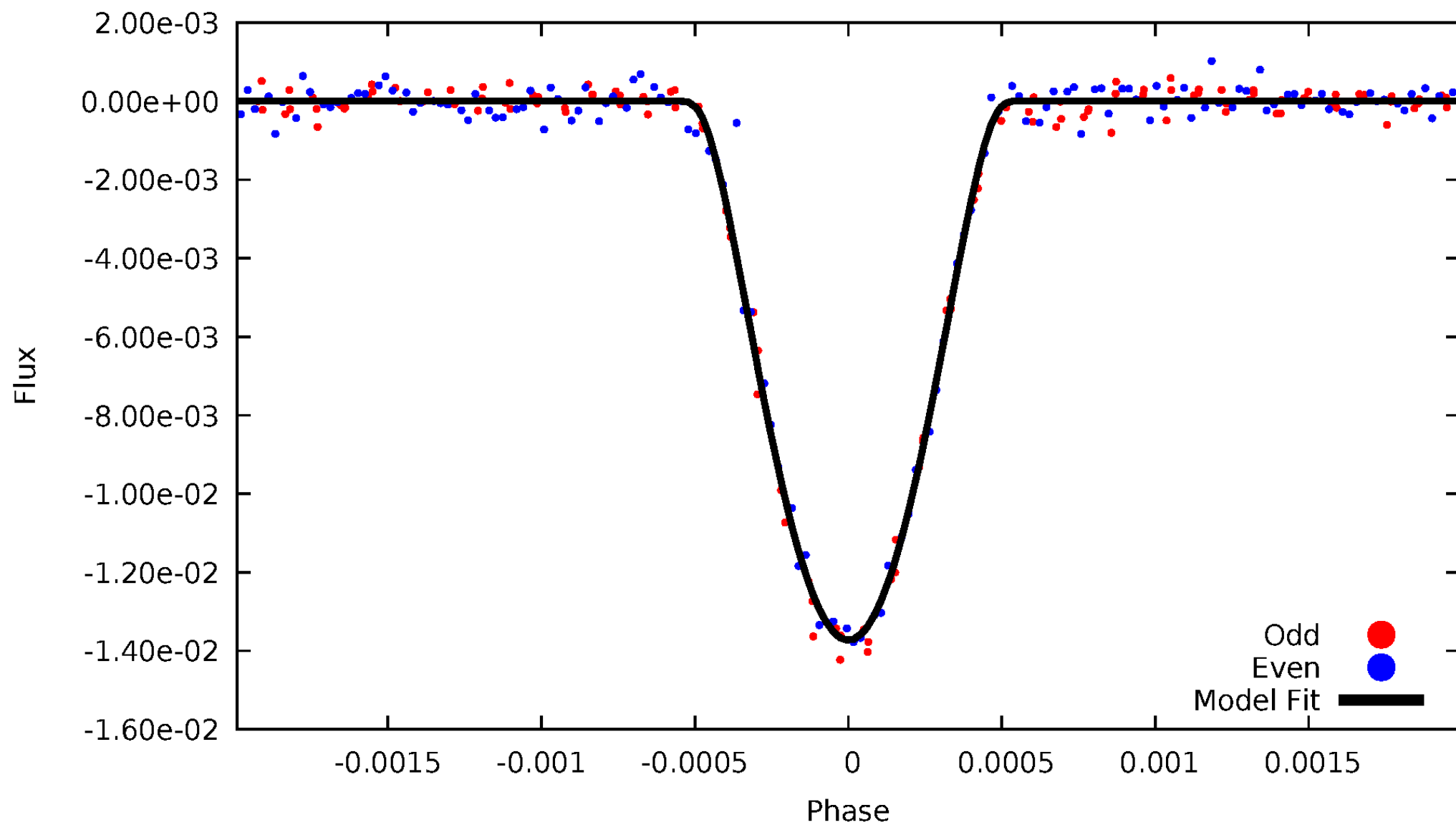


TCE 011241814-01



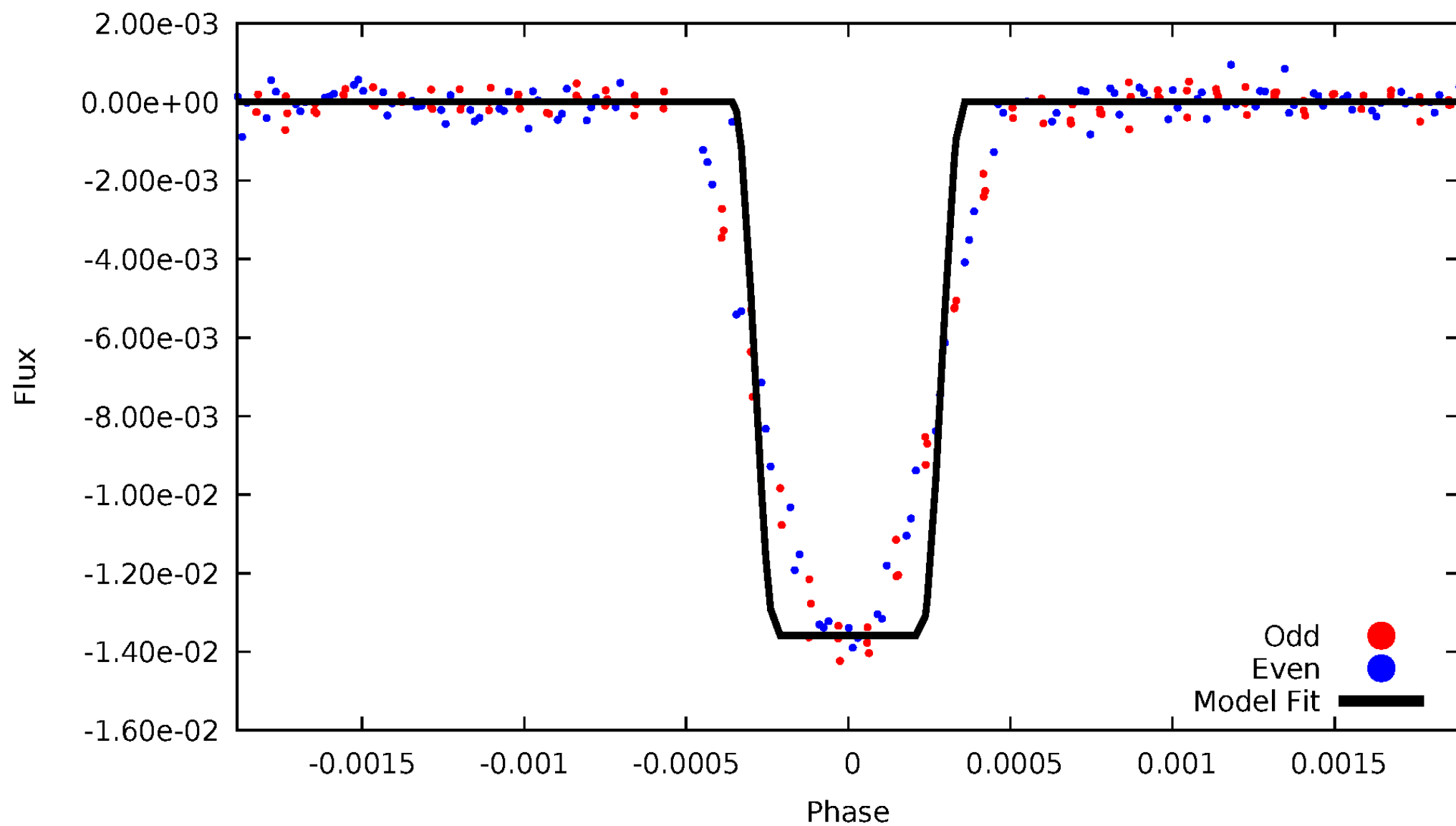
DV Odd/Even

TCE 011241814-01

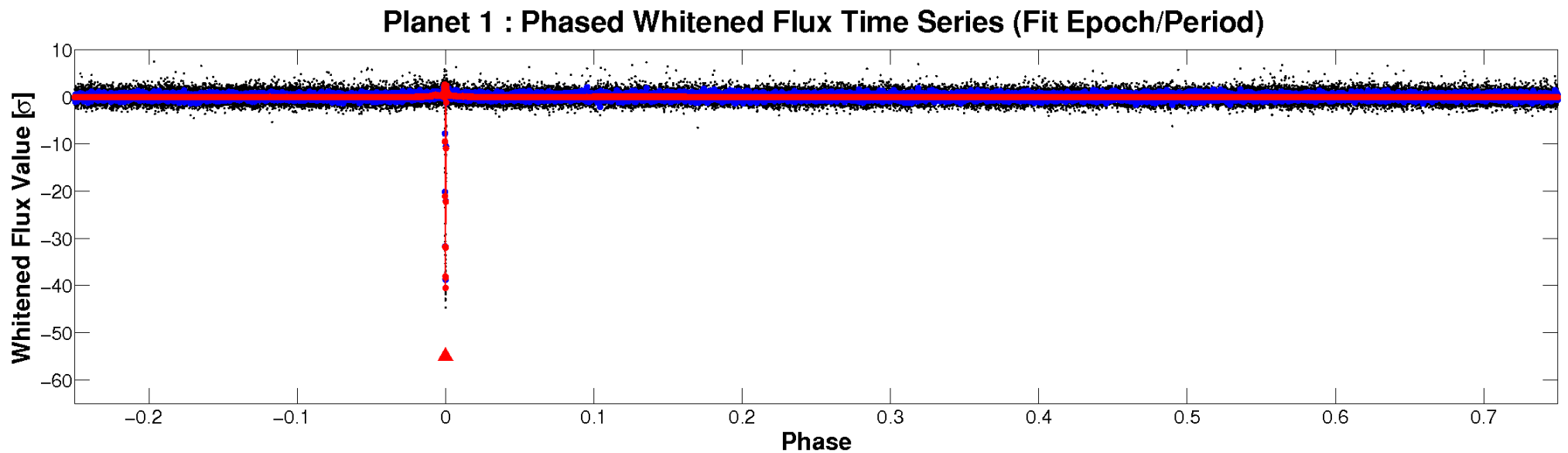
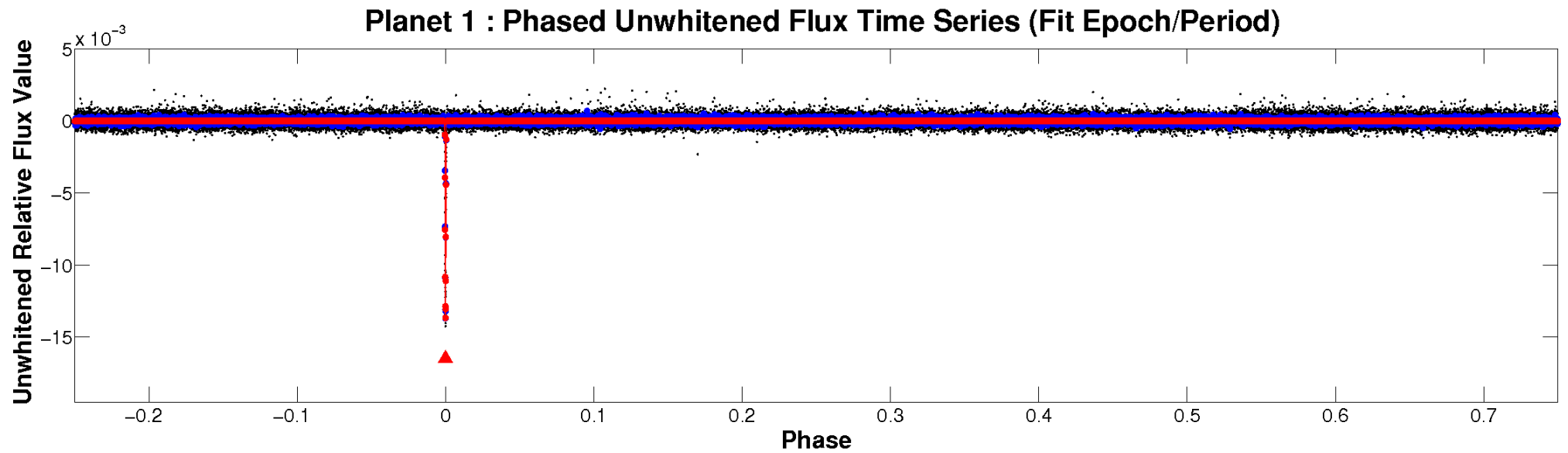


ALT Odd/Even

TCE 011241814-01

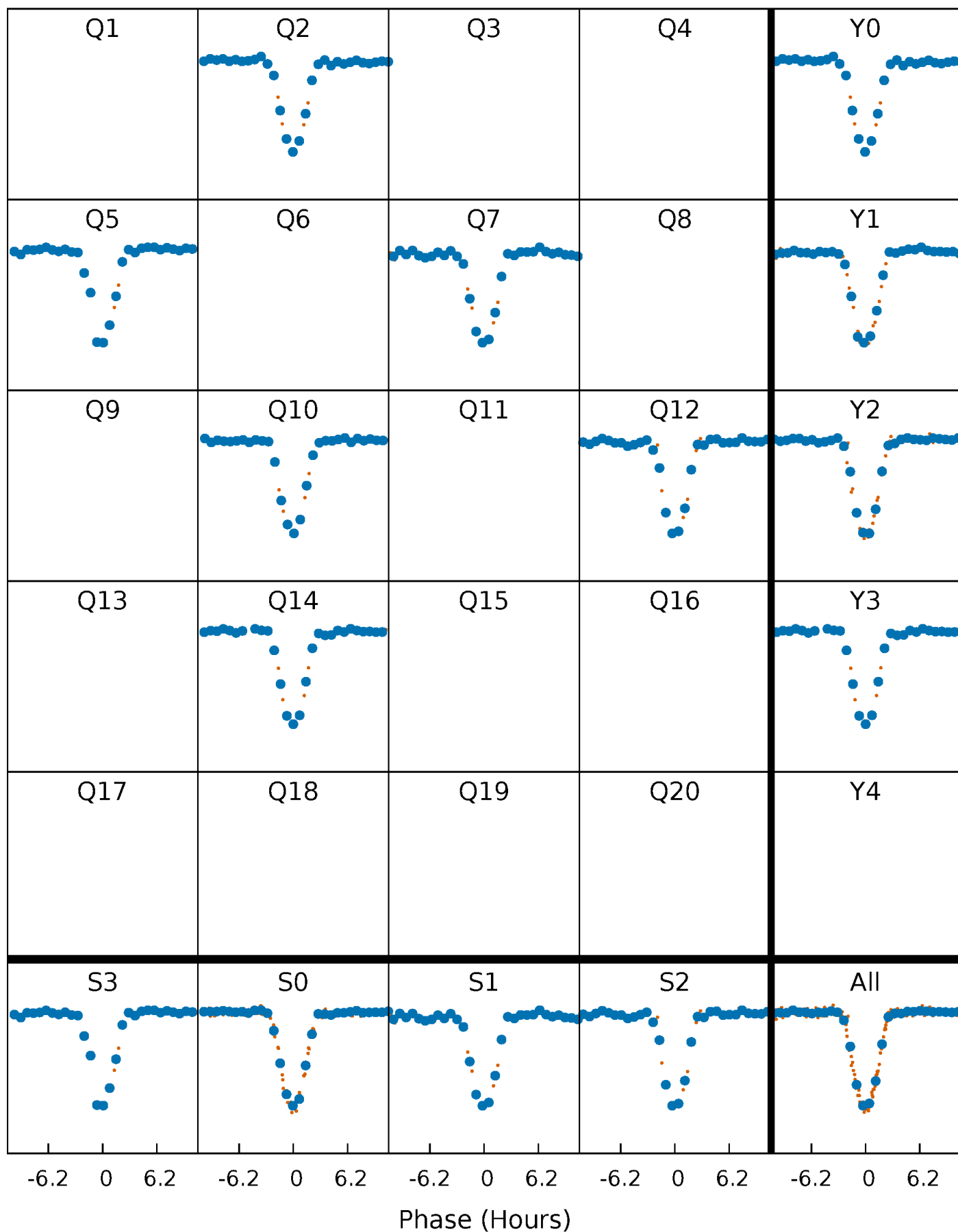


Non-Whitened Vs. Whitened Light Curve



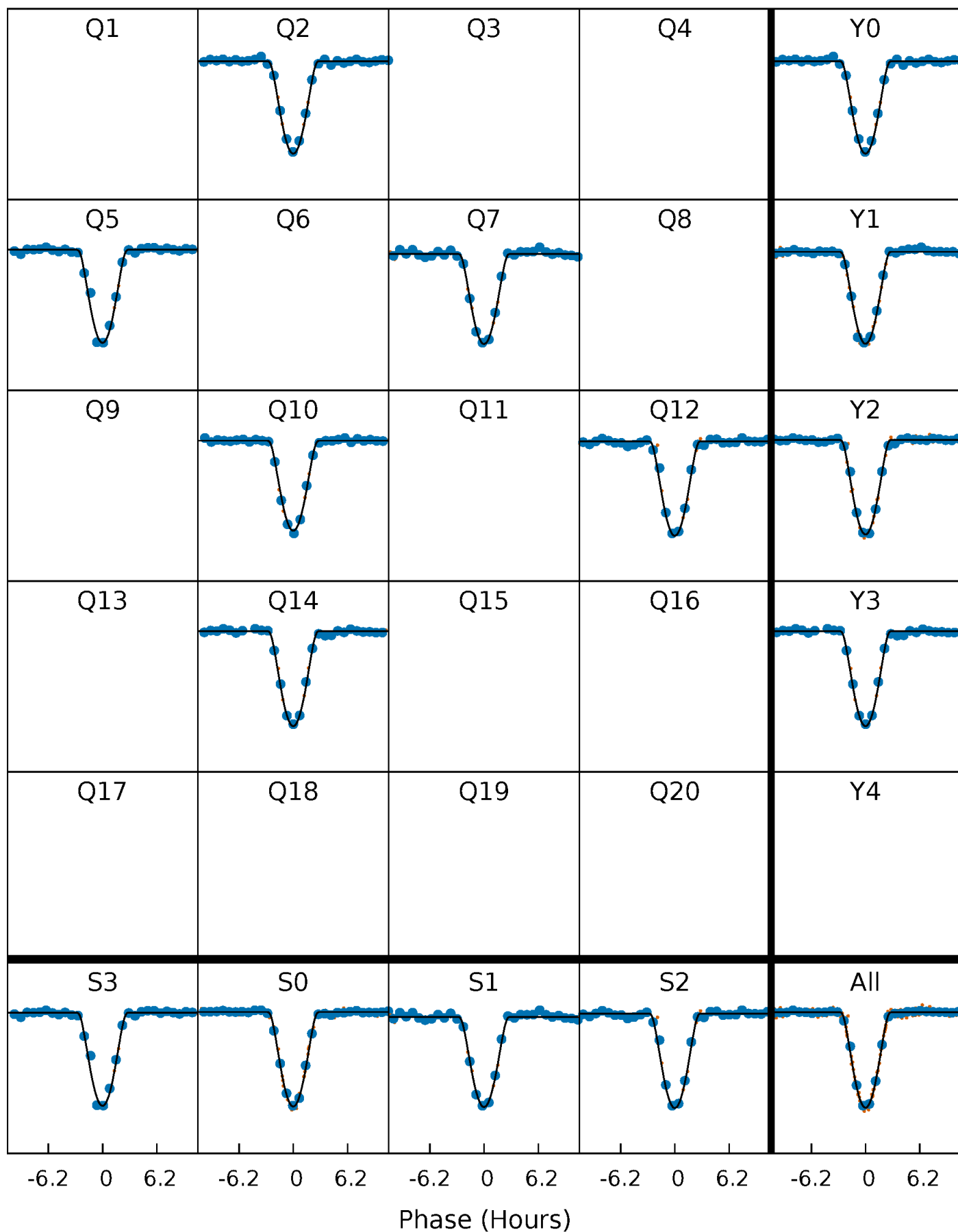
PDC Quarter-Phased Transit Curves

TCE 011241814-01 P=227.662512 Days $T_0=232.242110$ (BKJD)



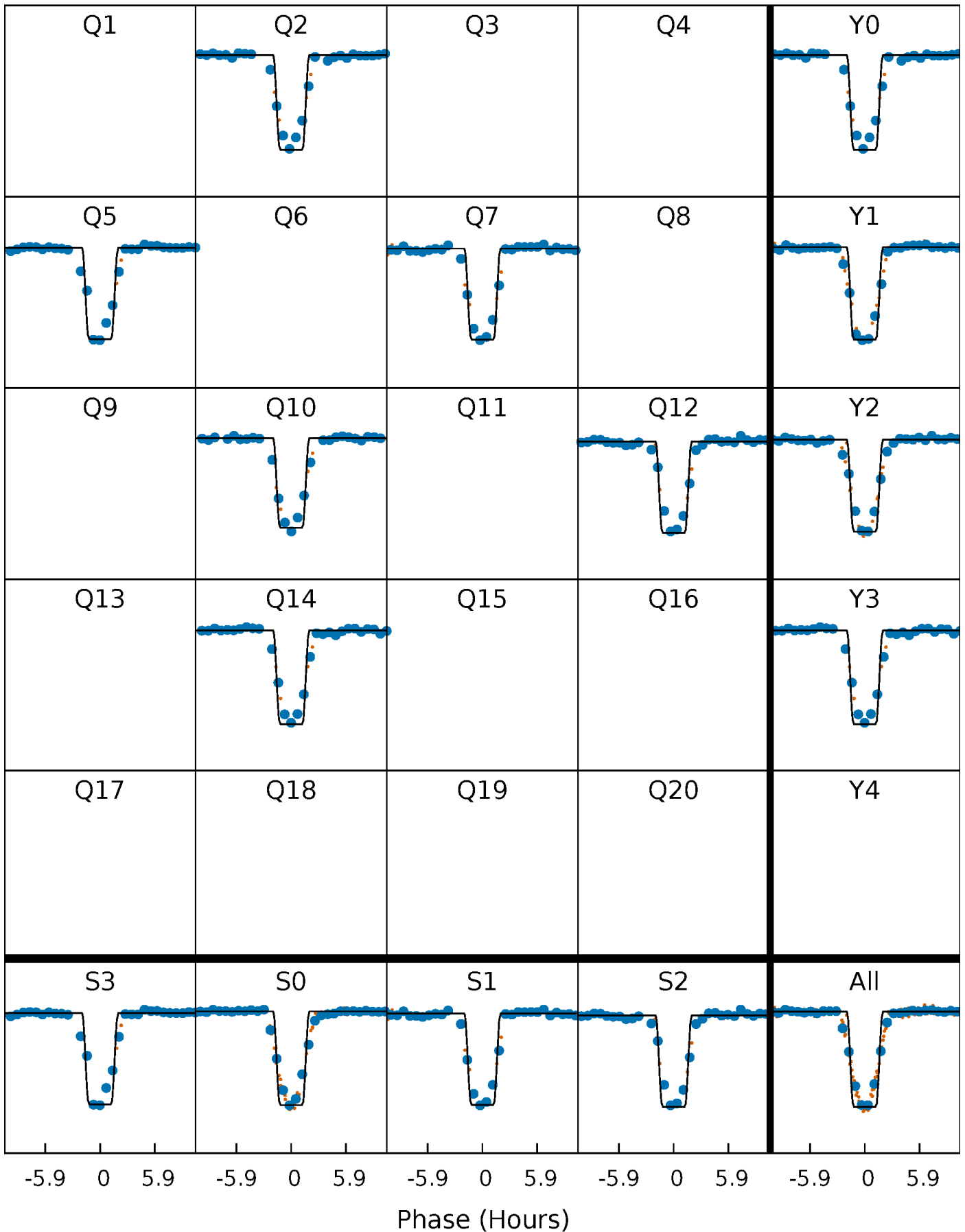
DV Quarter-Phased Transit Curves

TCE 011241814-01 P=227.662512 Days $T_0=232.242110$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

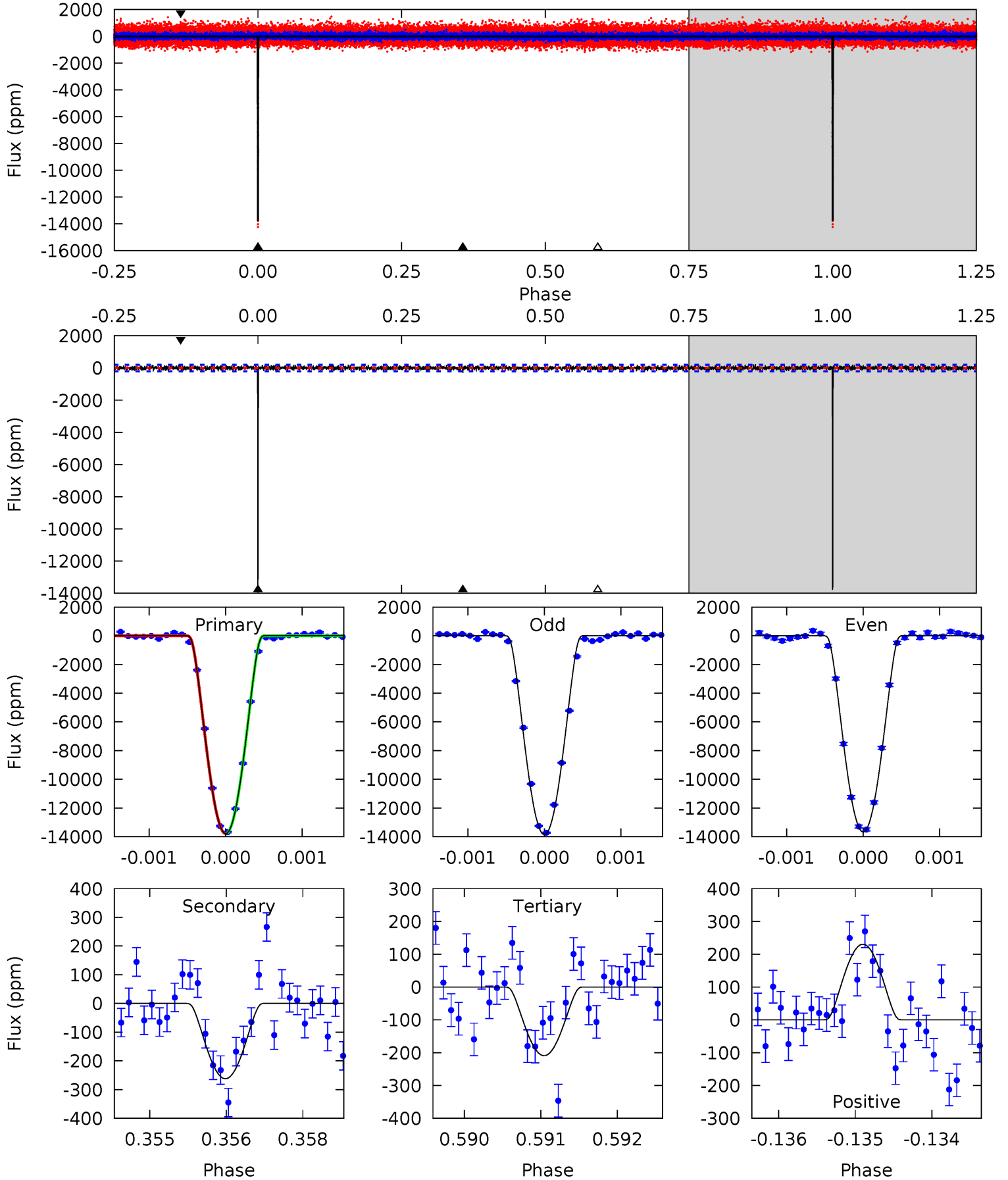
TCE 011241814-01 P=227.661547 Days $T_0=232.244813$ (BKJD)



DV Model-Shift Uniqueness Test

011241814-01, P = 227.662512 Days, E = 4.579598 Days

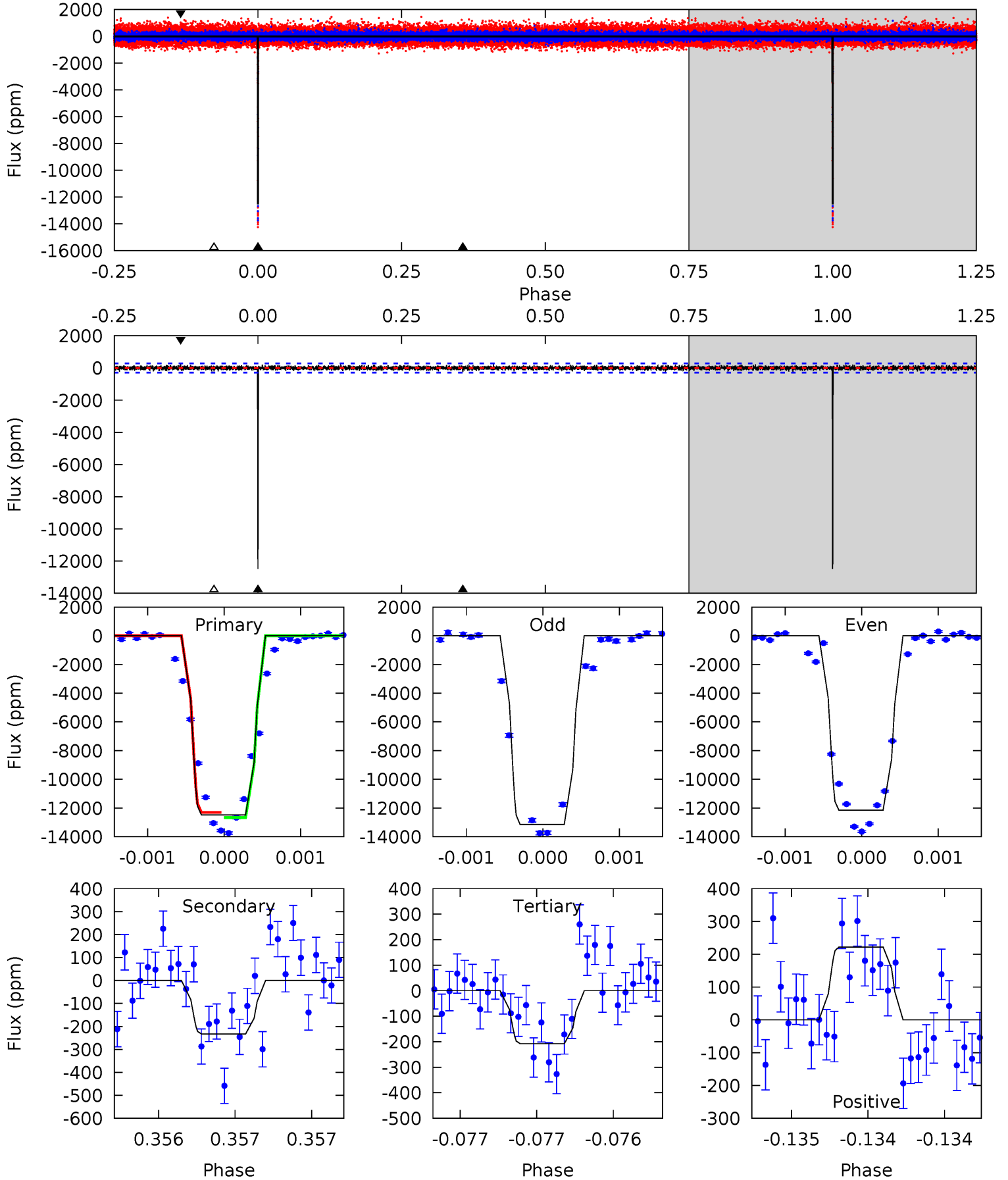
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
367.8	6.99	5.58	6.15	5.44	3.27	1.50	362.3	361.7	1.42	0.85	2.52	1.00	0.02	0.28



Alt Model-Shift Uniqueness Test

011241814-01, P = 227.661547 Days, E = 4.583266 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
237.9	4.43	3.96	4.23	5.52	3.39	1.07	233.9	233.7	0.48	0.21	9.23	1.00	0.02	3.51



Stellar Parameters For KIC 011241814

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6124^{+183}_{-201}	$4.414^{+0.105}_{-0.195}$	$-0.340^{+0.300}_{-0.300}$	$1.007^{+0.305}_{-0.131}$	$0.959^{+0.140}_{-0.102}$	$1.322^{+0.623}_{-0.683}$
	+3%/-3%	+2%/-4%	+88%/-88%	+30%/-13%	+15%/-11%	+47%/-52%
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 011241814-01 / KOI 3717.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-262 ± 37	$19.81^{+5.08}_{-4.83}$	450^{+33}_{-25}	2657^{+208}_{-140}	195^{+146}_{-80}
Alt.	-233 ± 52	$13.09^{+4.68}_{-4.52}$	449^{+35}_{-24}	2929^{+354}_{-254}	388^{+508}_{-191}

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 $A_{\text{obs}} \gg 1.0$

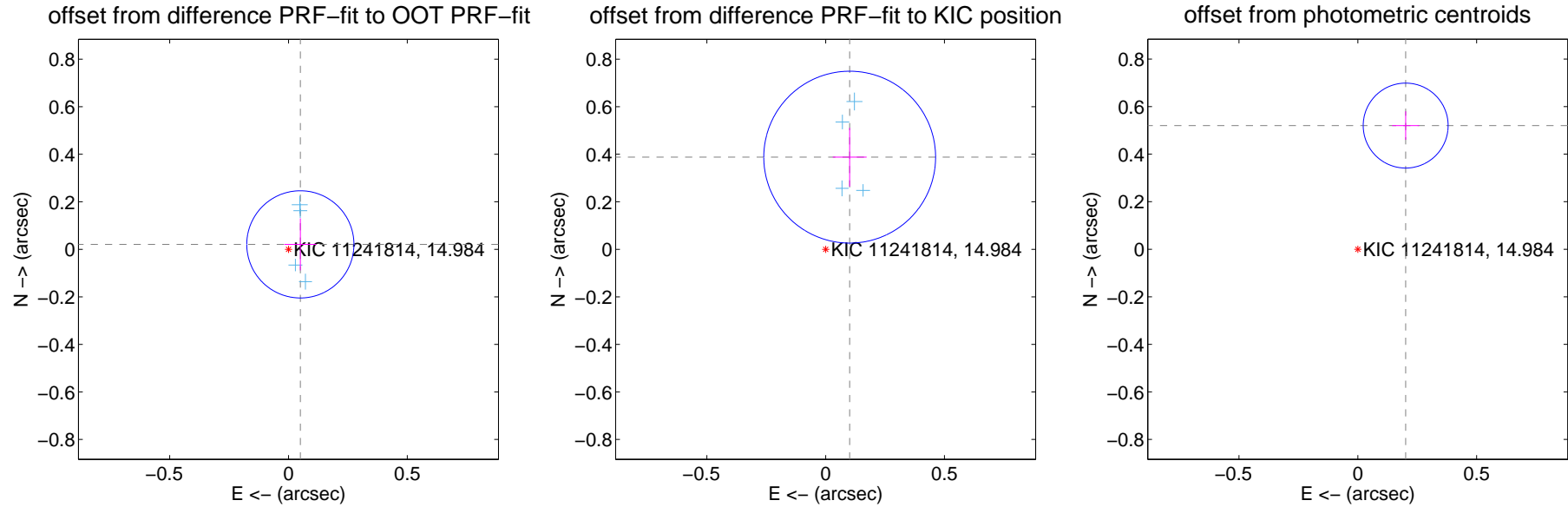
DV Centroid Data

Supplemental centroid analysis for 011241814-01. Kepler magnitude: 14.98. Transit SNR 203.45

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.054 ± 0.075	0.72	-0.050 ± 0.068	0.021 ± 0.109
PRF-fit source offset from KIC position	0.401 ± 0.121	3.32	-0.101 ± 0.071	0.388 ± 0.123
photometric centroid source offset	0.56 ± 0.06	9.37	-0.20 ± 0.06	0.52 ± 0.06

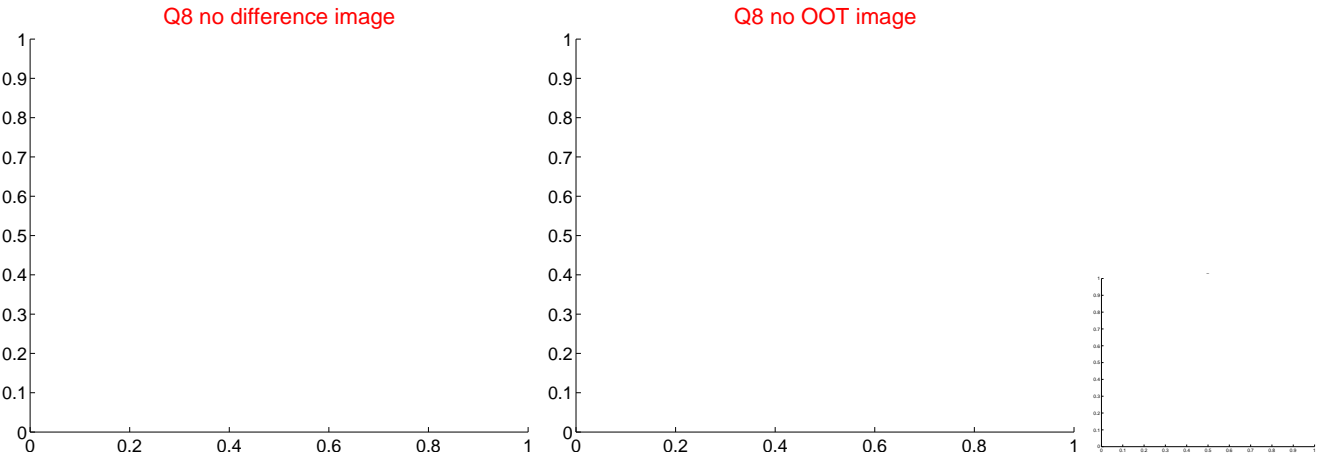
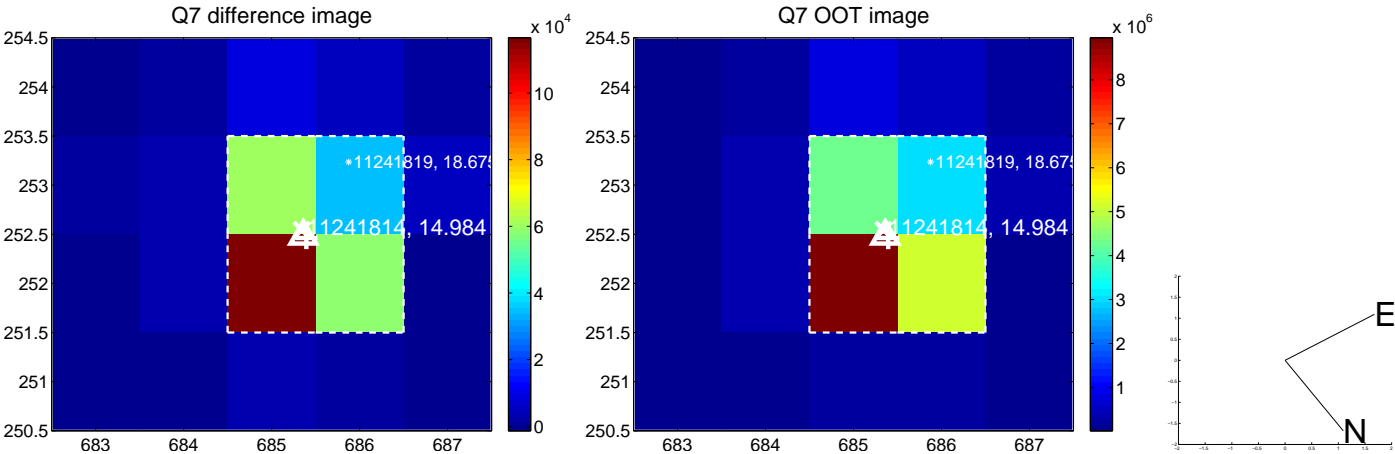
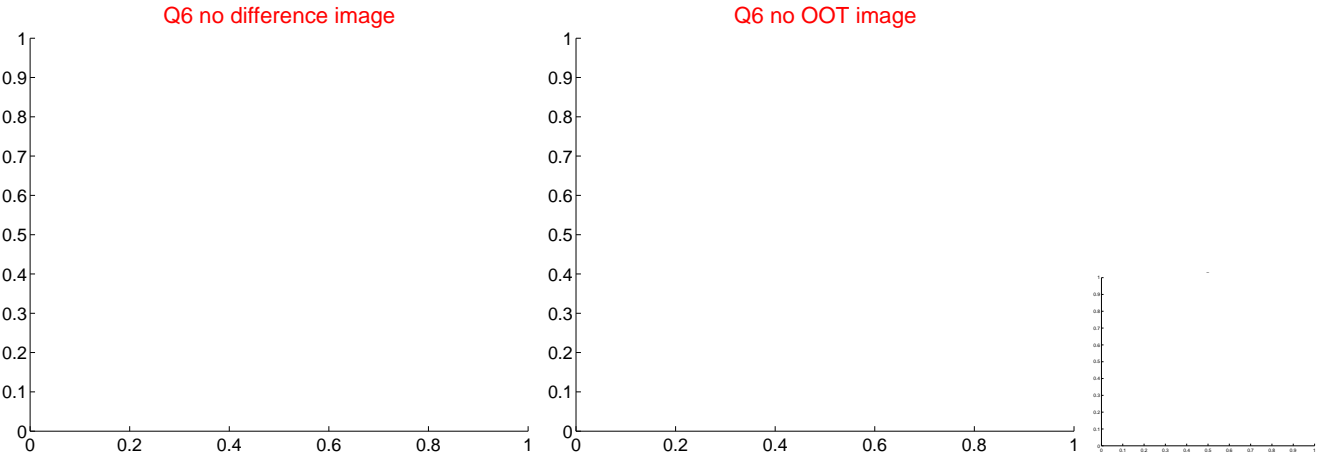
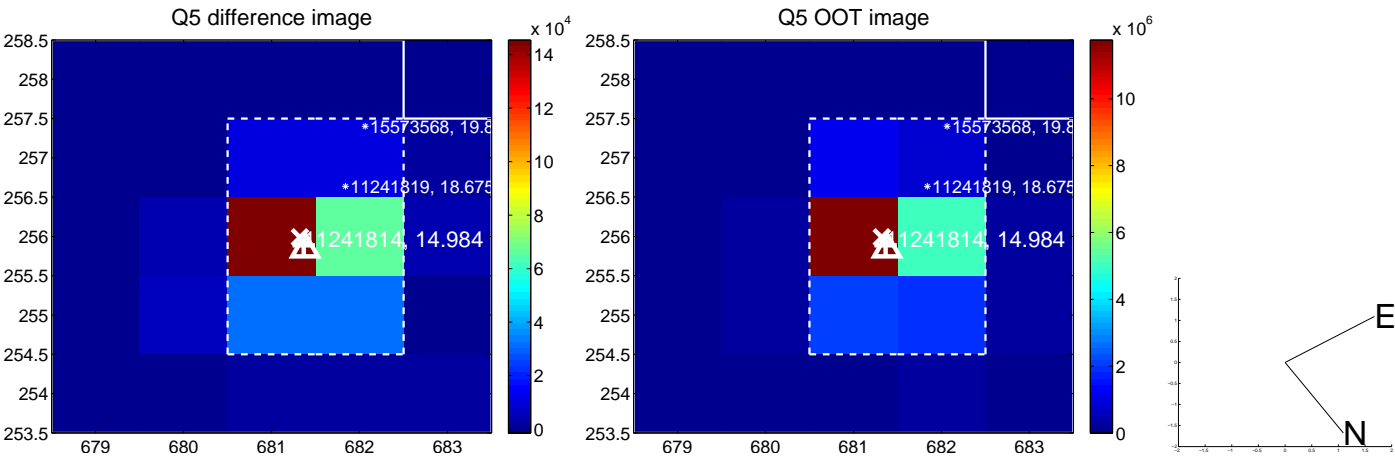


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

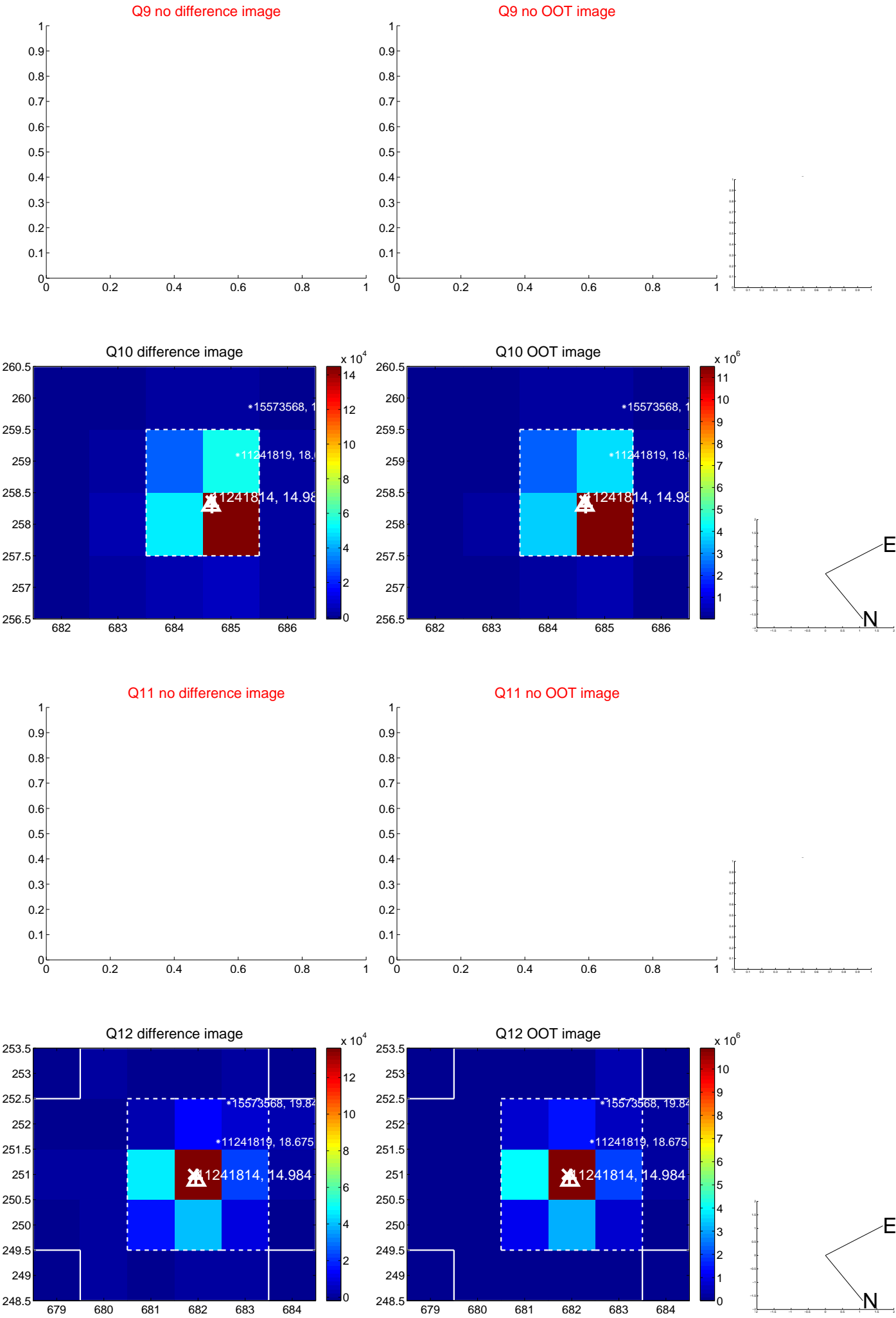
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



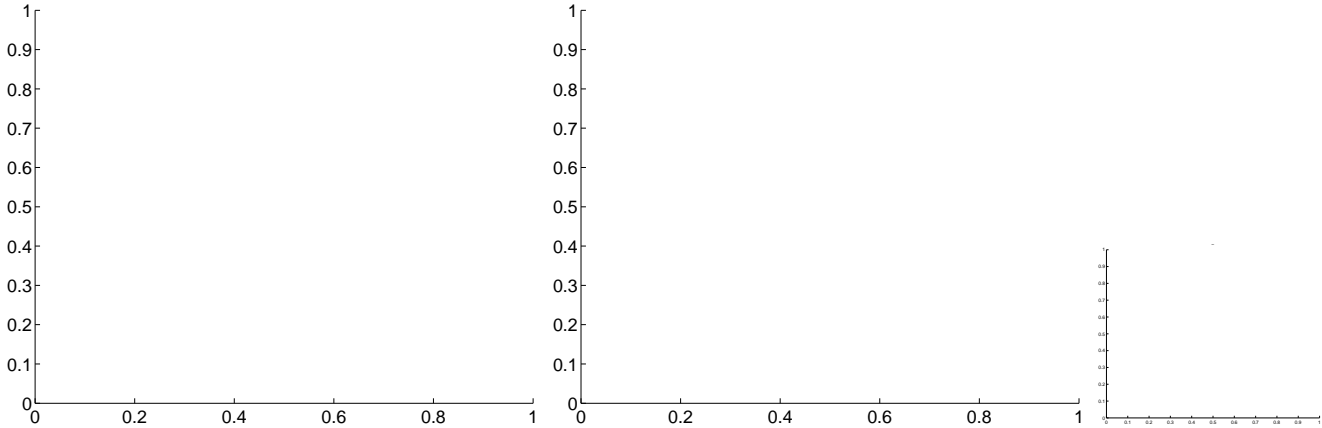
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



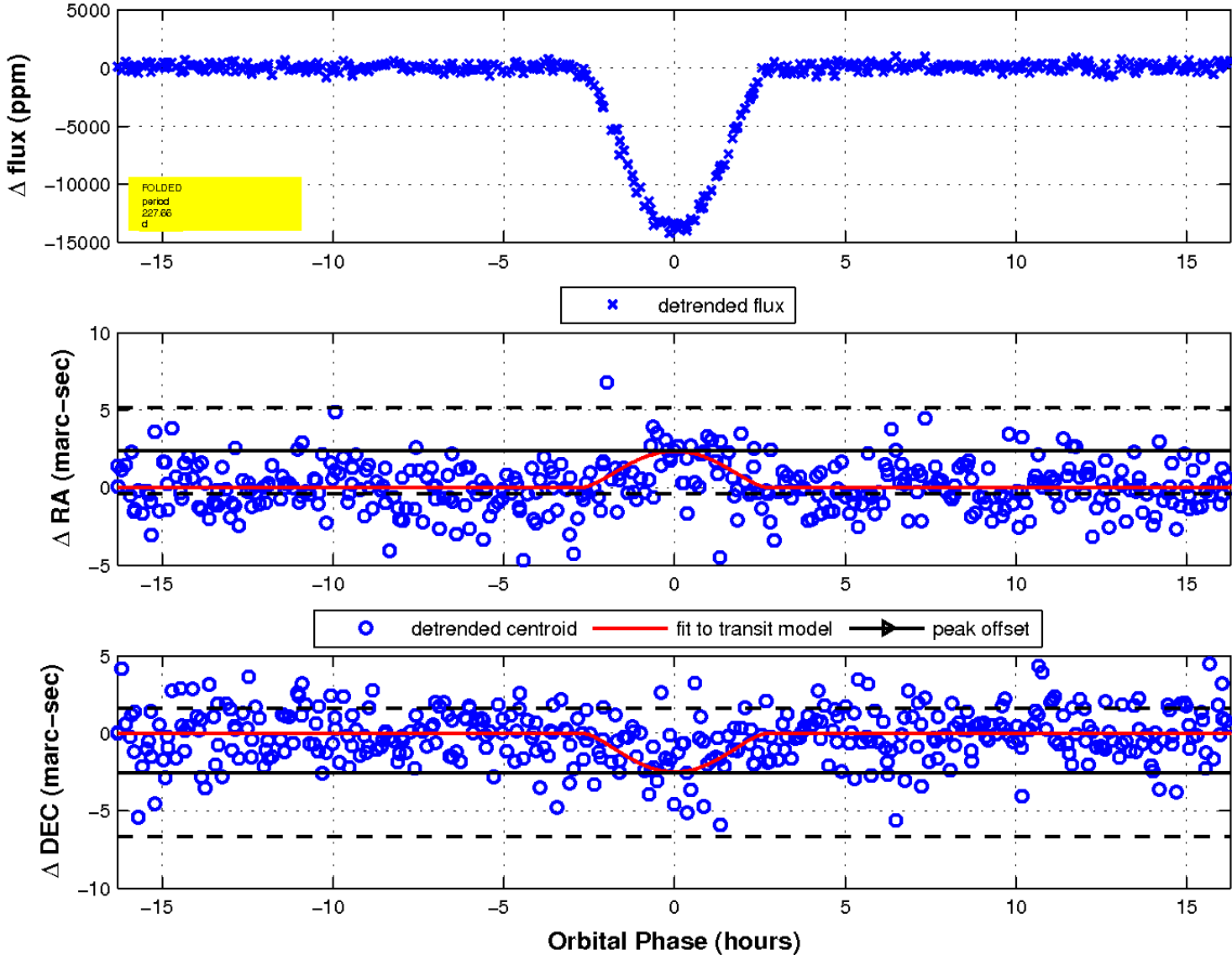
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

