

KIC 007849854

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})
007849854-01	OBS	0897.01	2.052348	132.949128	14274.8	2.182	943.8	1056.5	1.08	5855	13.67	1188.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007849854-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

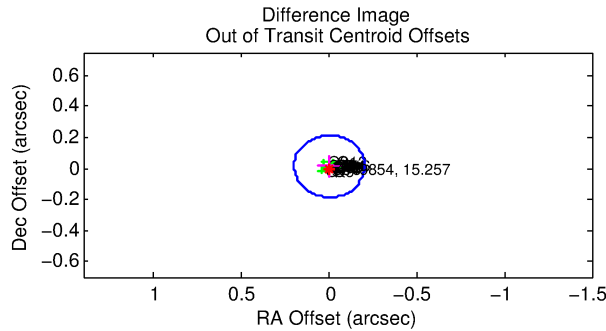
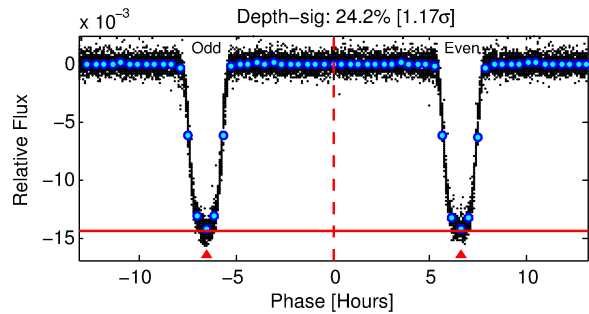
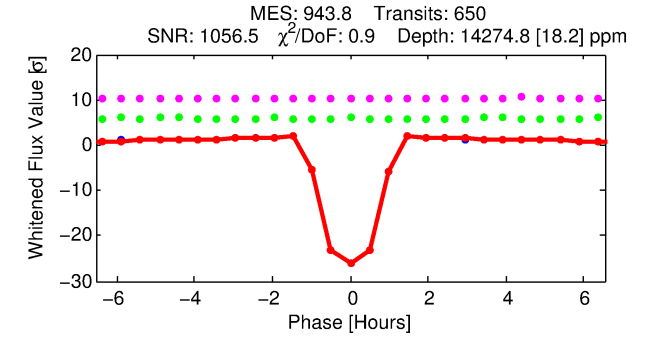
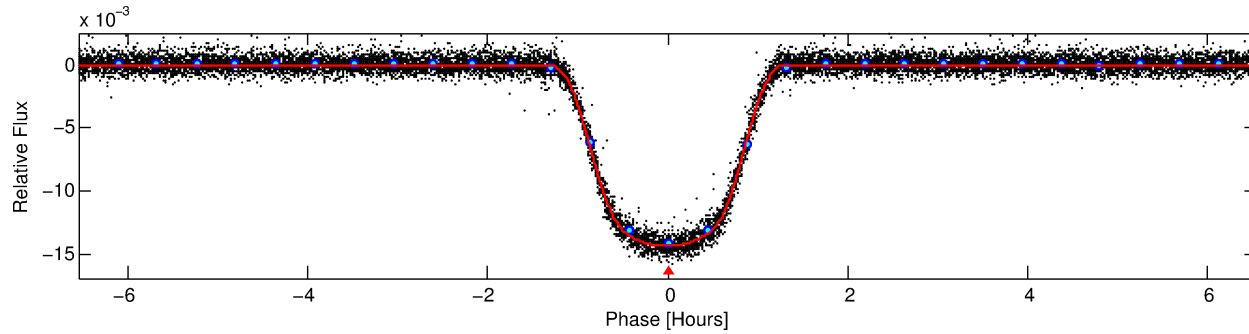
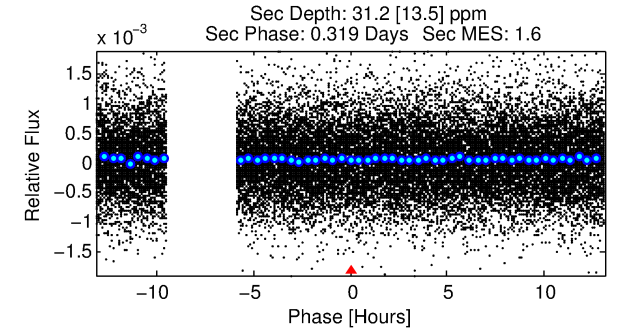
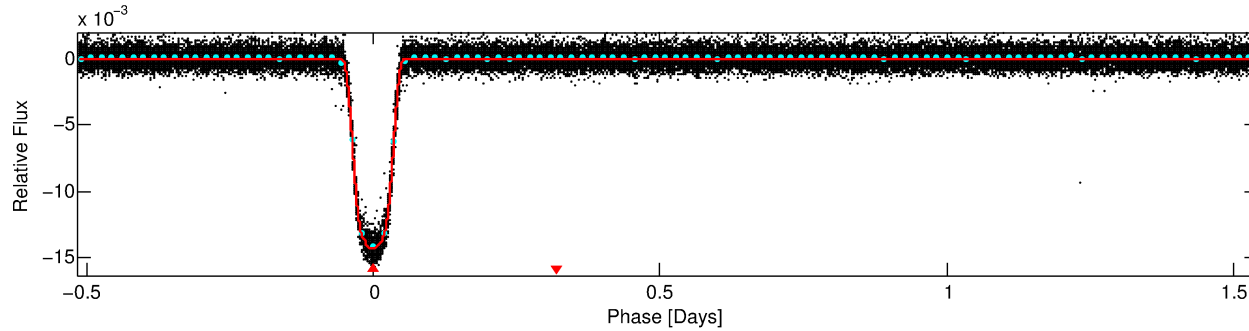
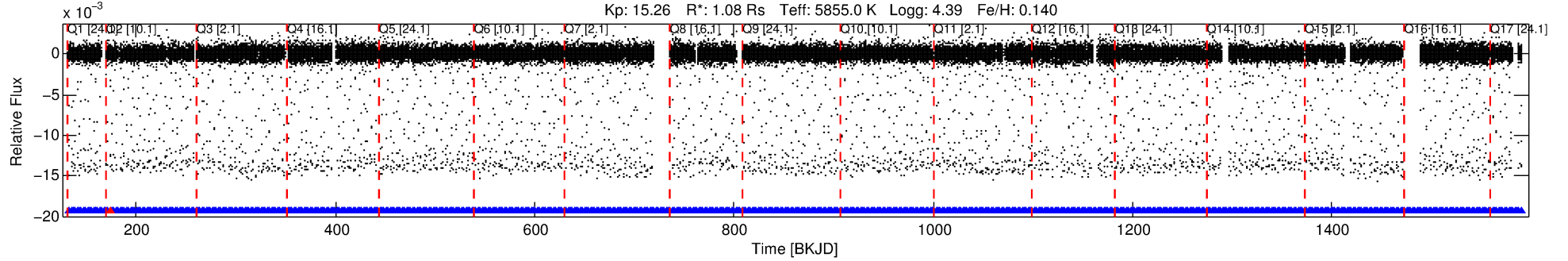
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007849854-01

No Significant Match Found

DV One-Page Summary

KIC: 7849854 Candidate: 1 of 1 Period: 2.052 d
KOI: K00897.01 Corr: 0.976



DV Fit Results:

Period = 2.05235 [0.00000] d
Epoch = 132.9491 [0.0000] BKJD
Rp/R* = 0.1160 [0.0003]
a/R* = 6.54 [0.06]
b = 0.66 [0.01]
Seff = 1188.37 [265.10]
Teq = 1497 [83] K
Rp = 13.67 [2.10] Re
a = 0.0321 [0.0045] AU
Ag = 0.10 [0.05] [-19.71 σ]
Teffp = 1285 [140] K [-1.30 σ]

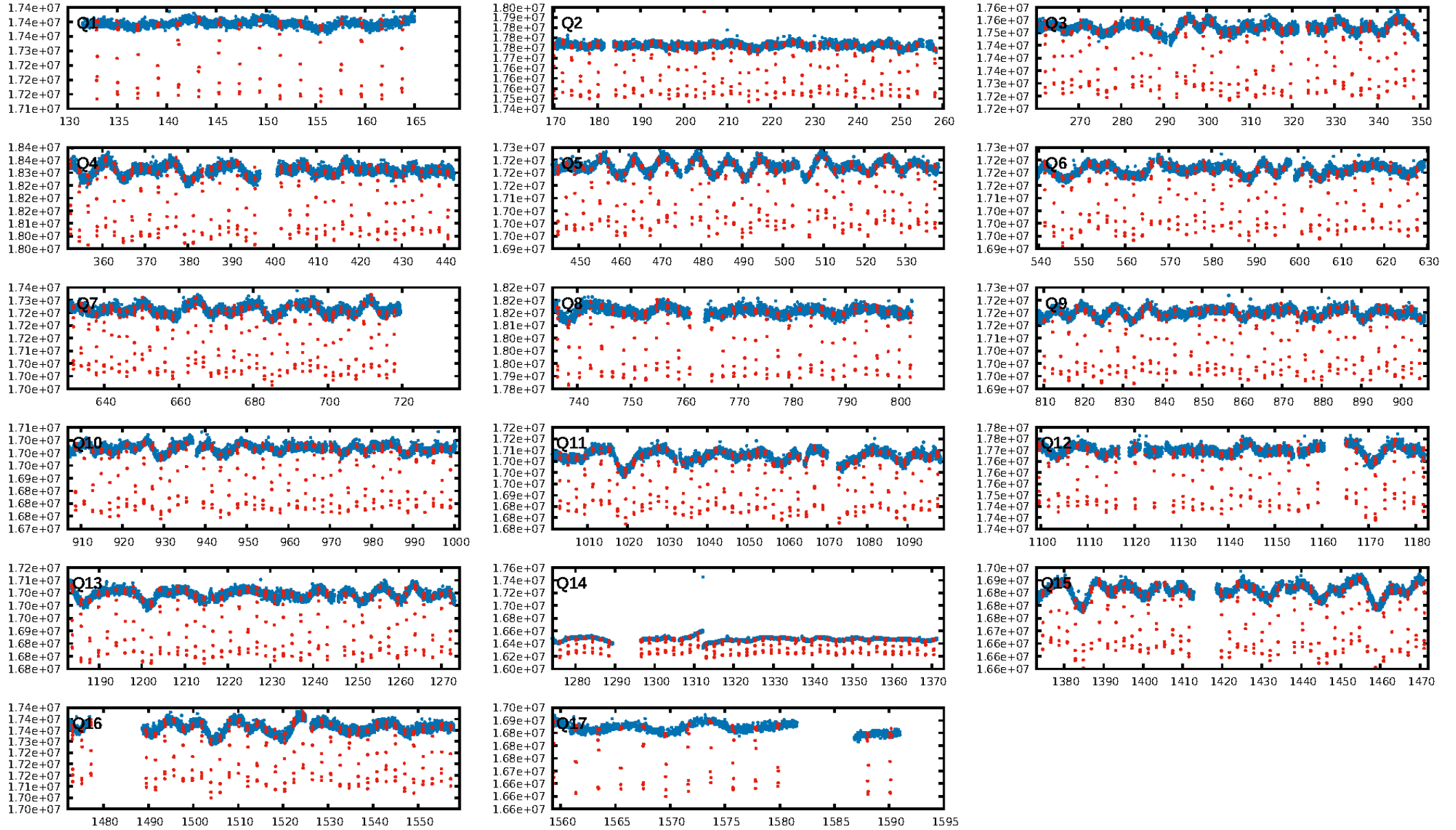
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [620/621]
GhostDiagnostic-chr: 3.097
Centroid-sig: 0.0%
Centroid-so: 0.347 arcsec [26.61 σ]
OotOffset-rm: 0.014 arcsec [0.22 σ]
KicOffset-rm: 0.078 arcsec [1.09 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

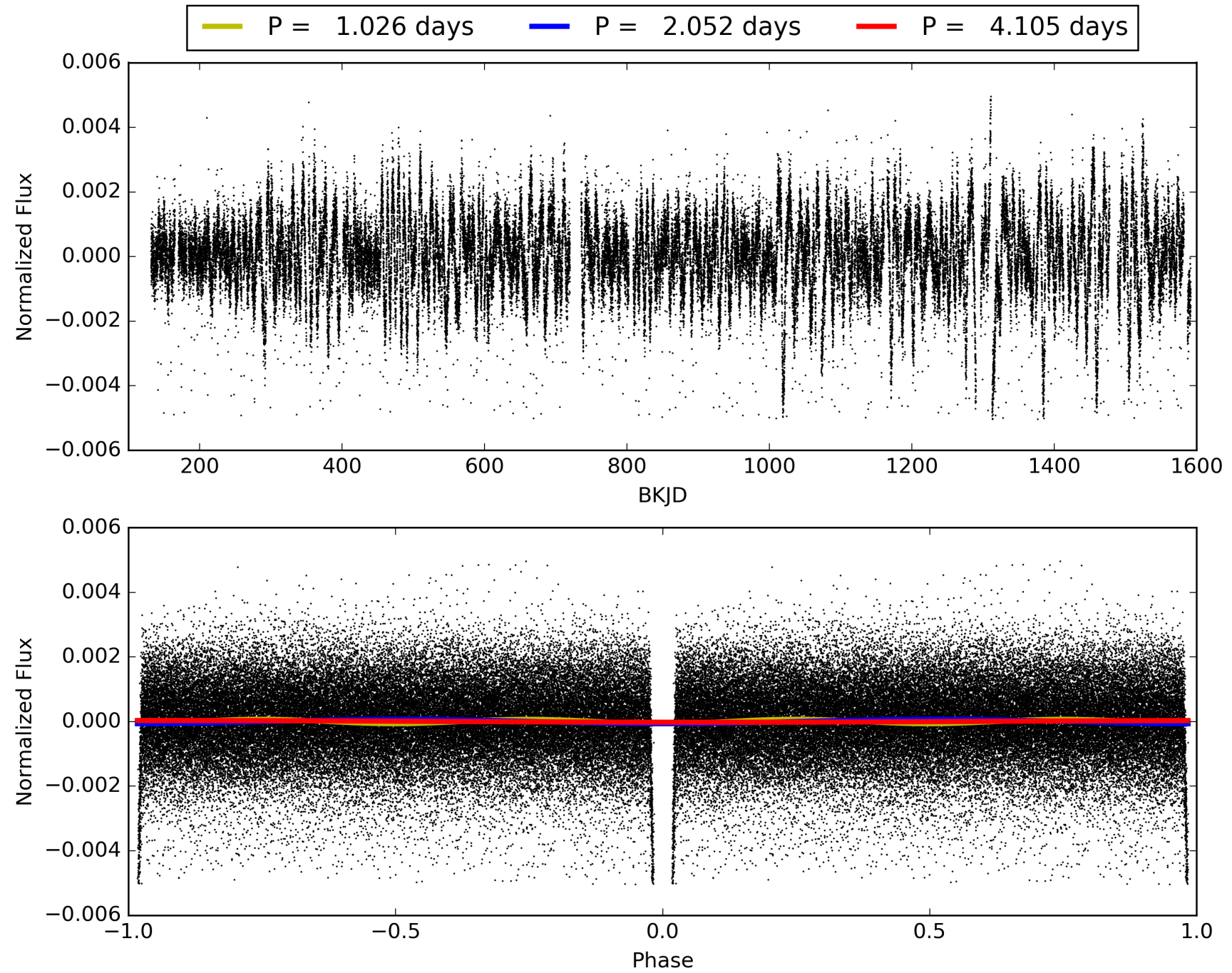
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 12:05:58 Z

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

TCE 007849854-01, PDC Light Curves

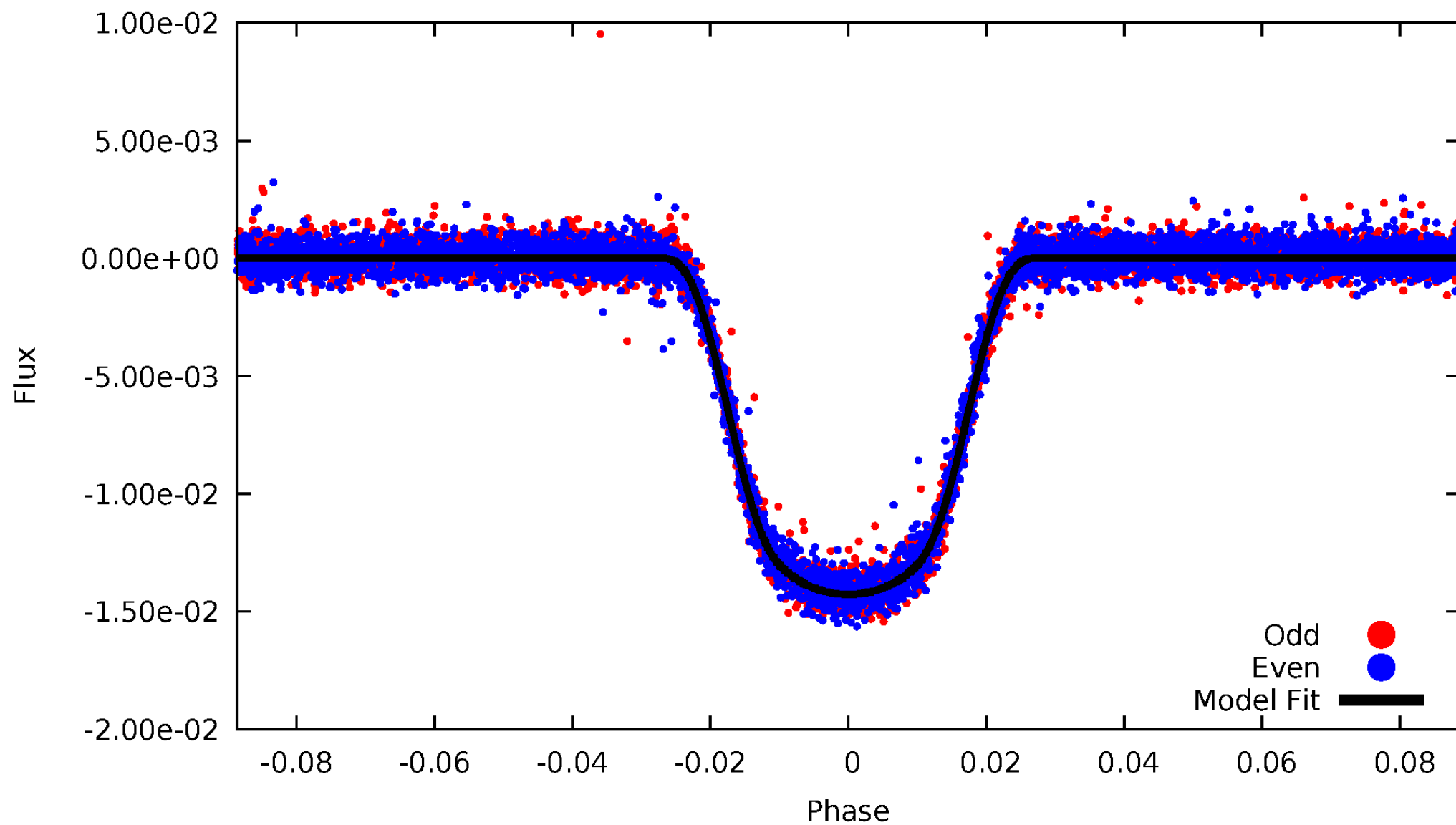


TCE 007849854-01



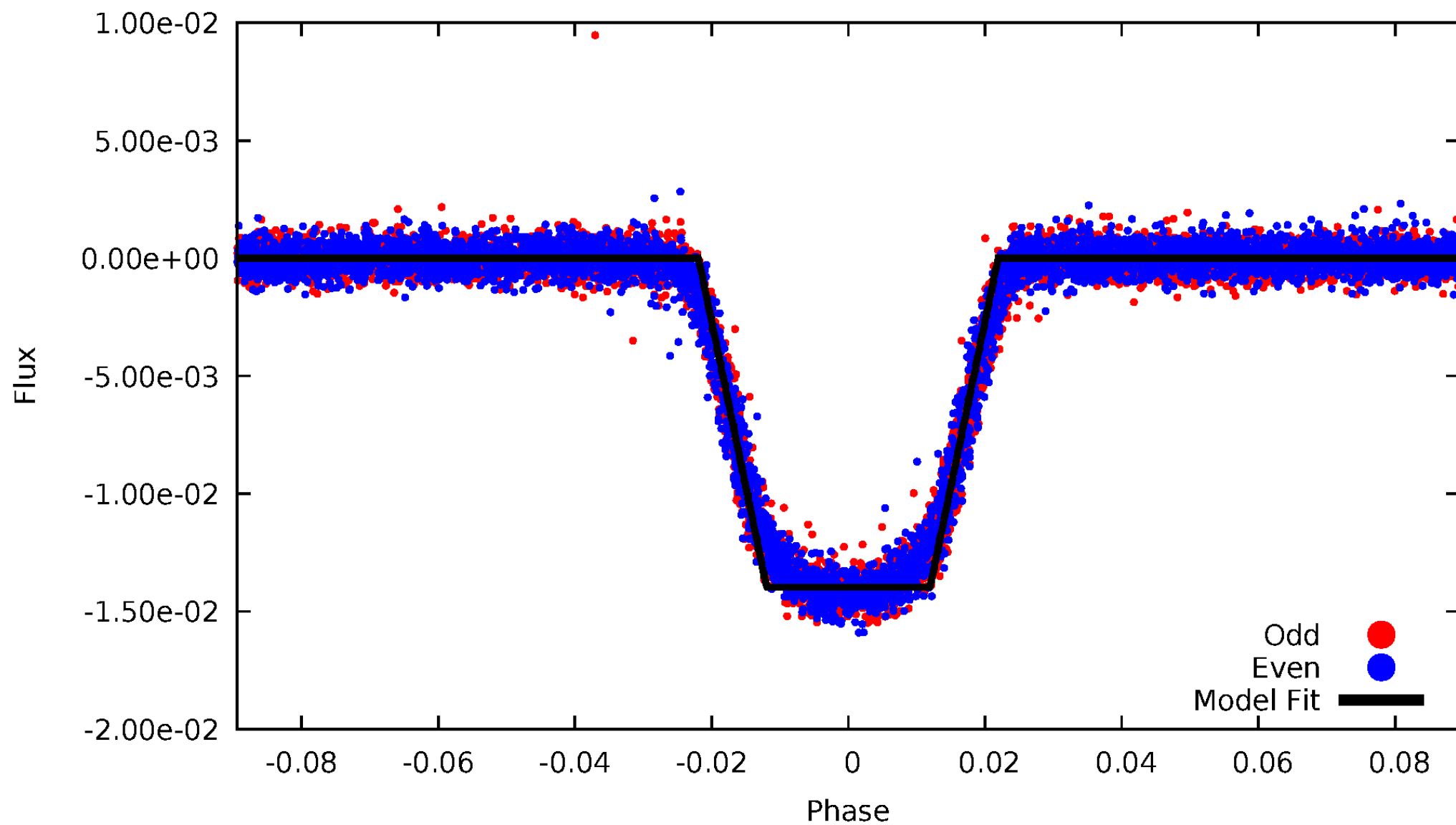
DV Odd/Even

TCE 007849854-01



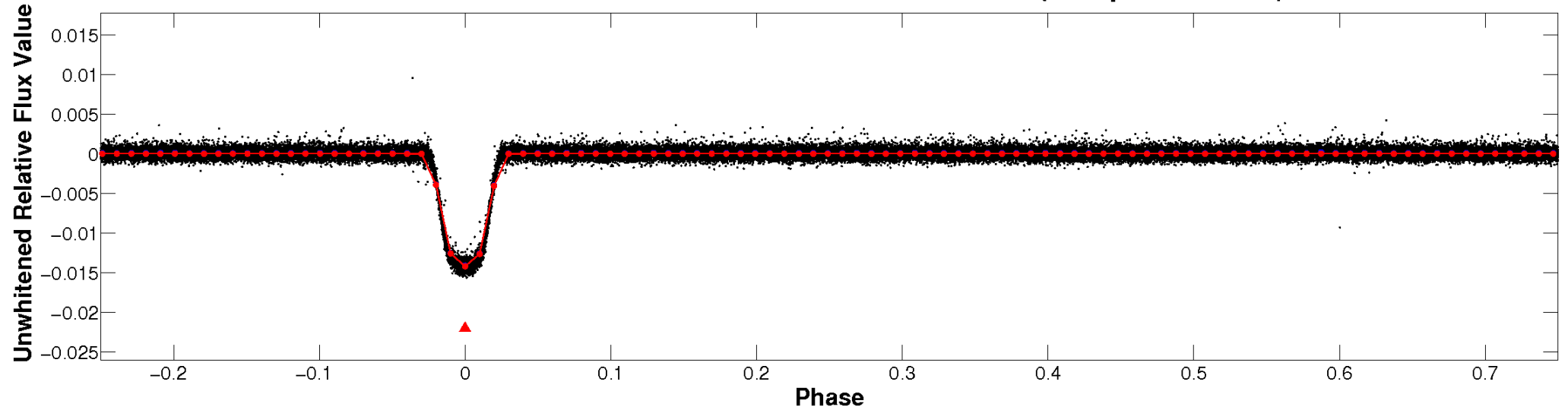
ALT Odd/Even

TCE 007849854-01

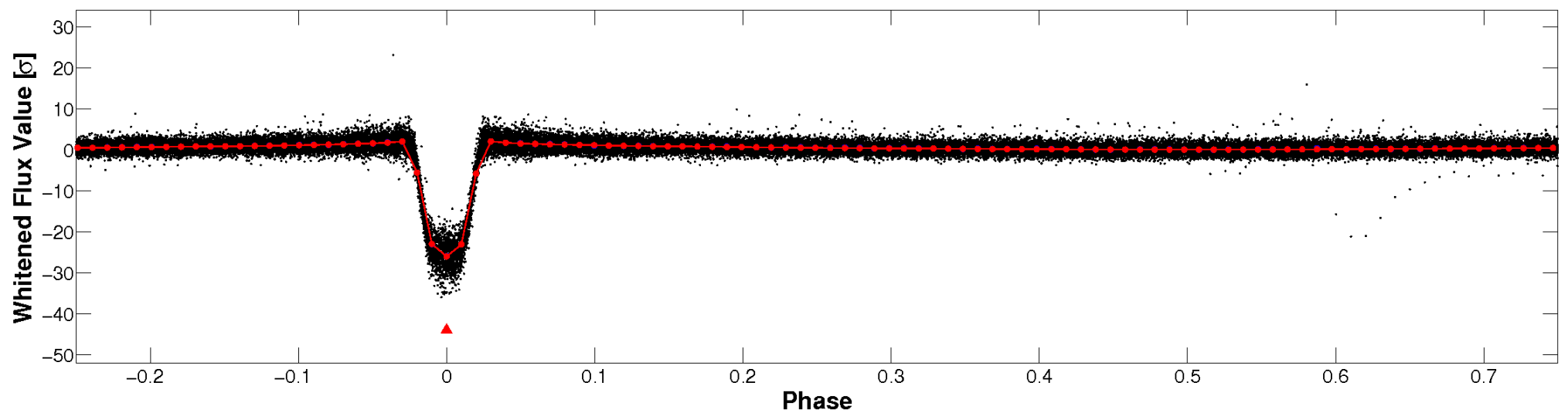


Non-Whitened Vs. Whitened Light Curve

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

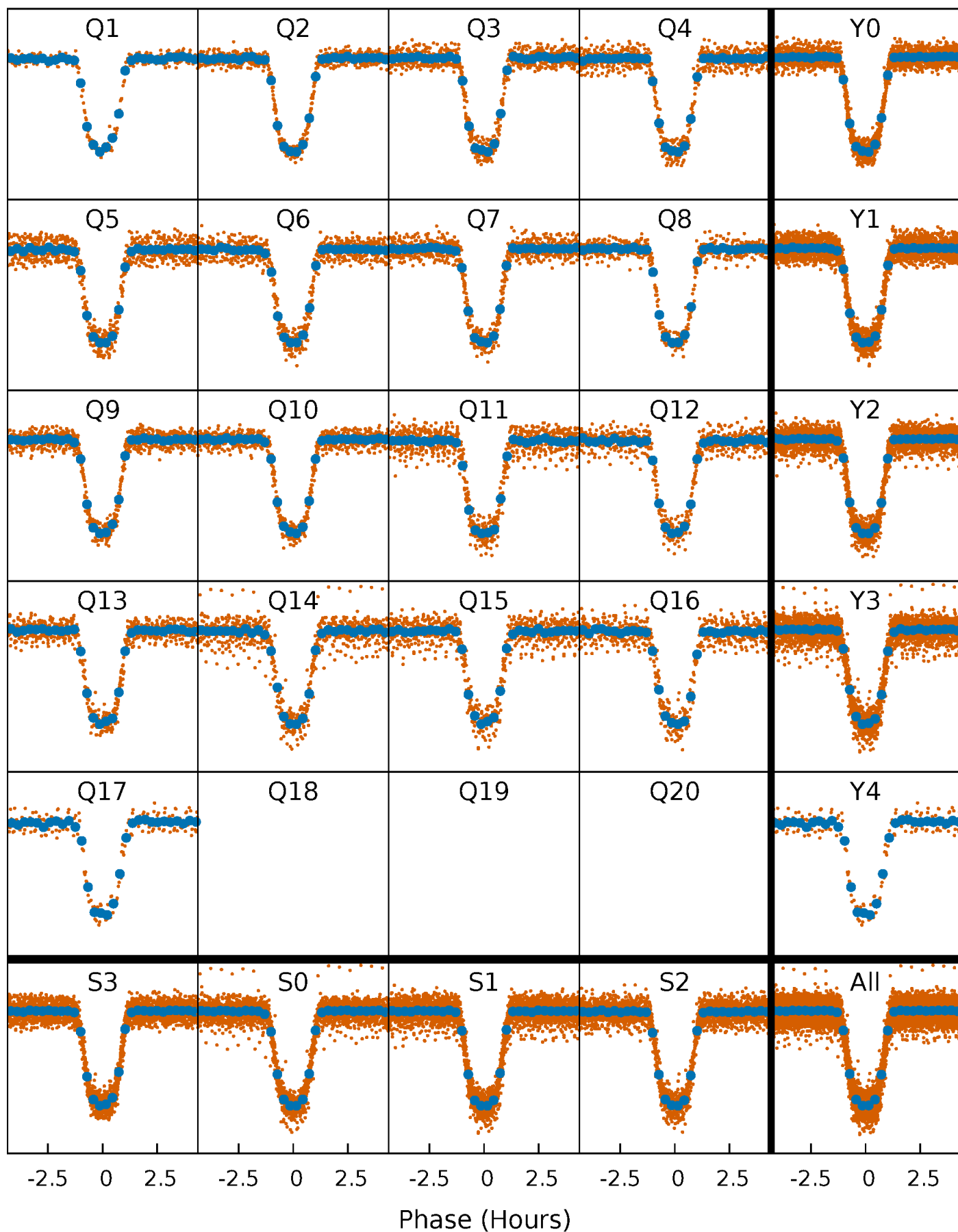


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



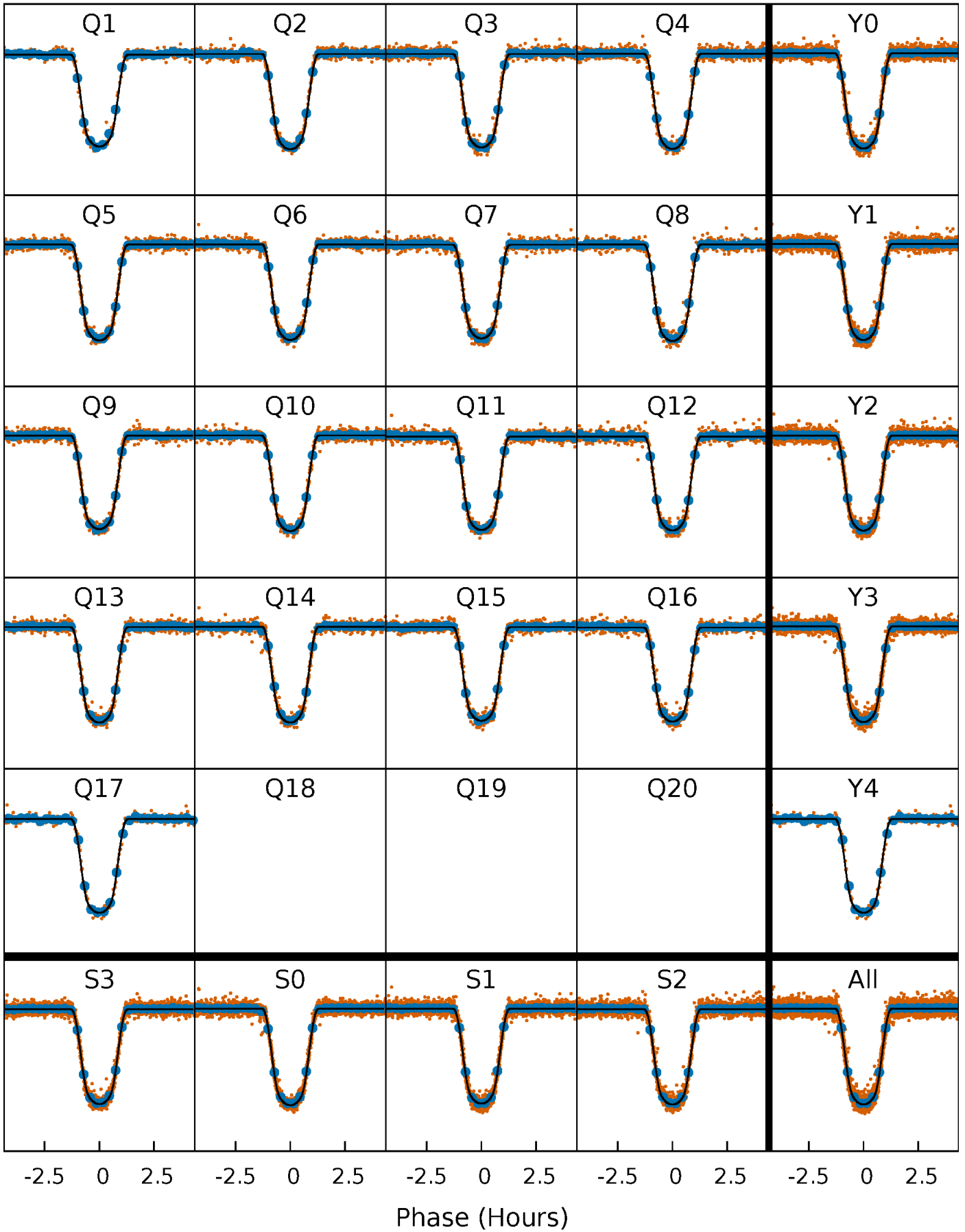
PDC Quarter-Phased Transit Curves

TCE 007849854-01 P= 2.052348 Days $T_0=132.949129$ (BKJD)



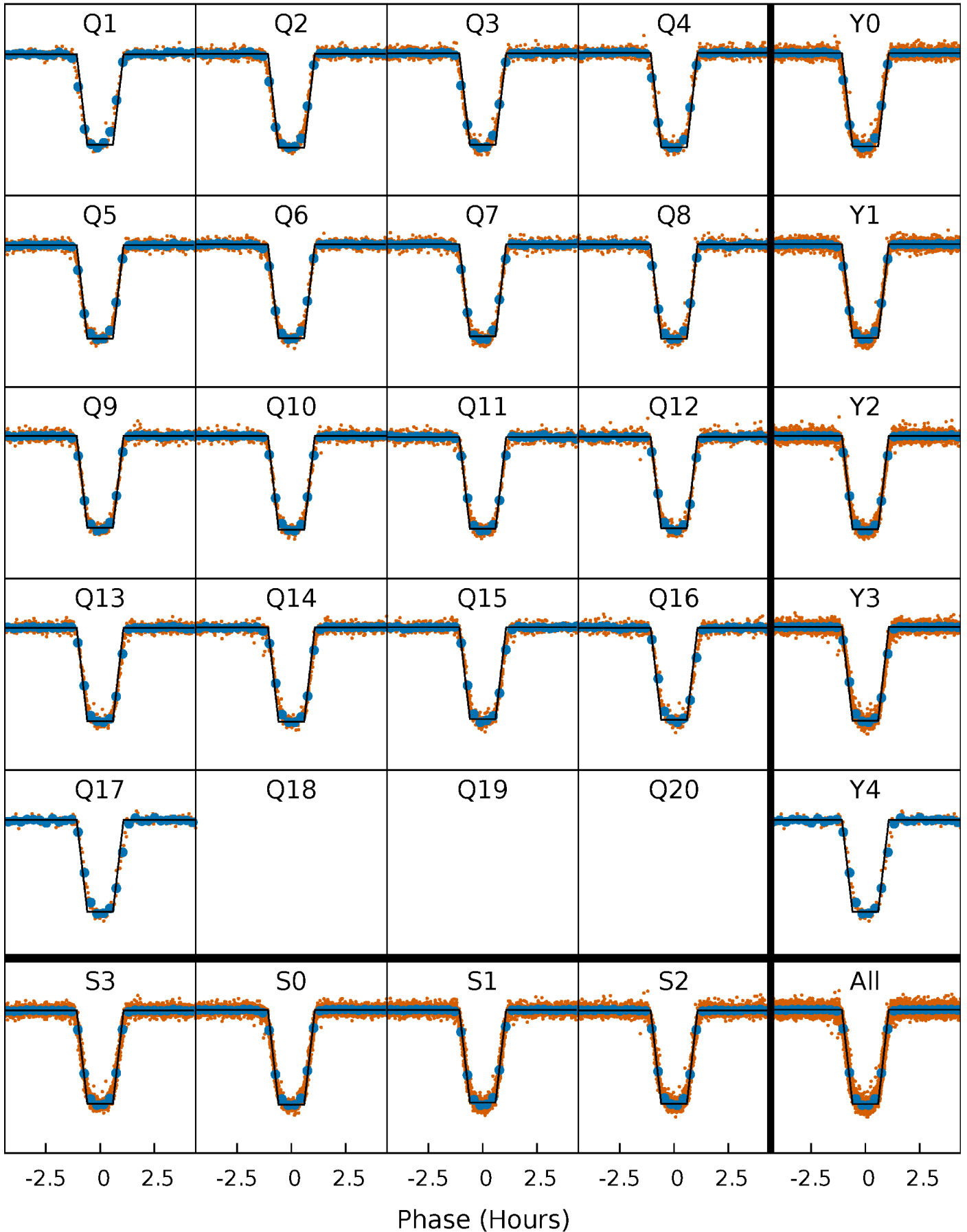
DV Quarter-Phased Transit Curves

TCE 007849854-01 P= 2.052348 Days $T_0=132.949129$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

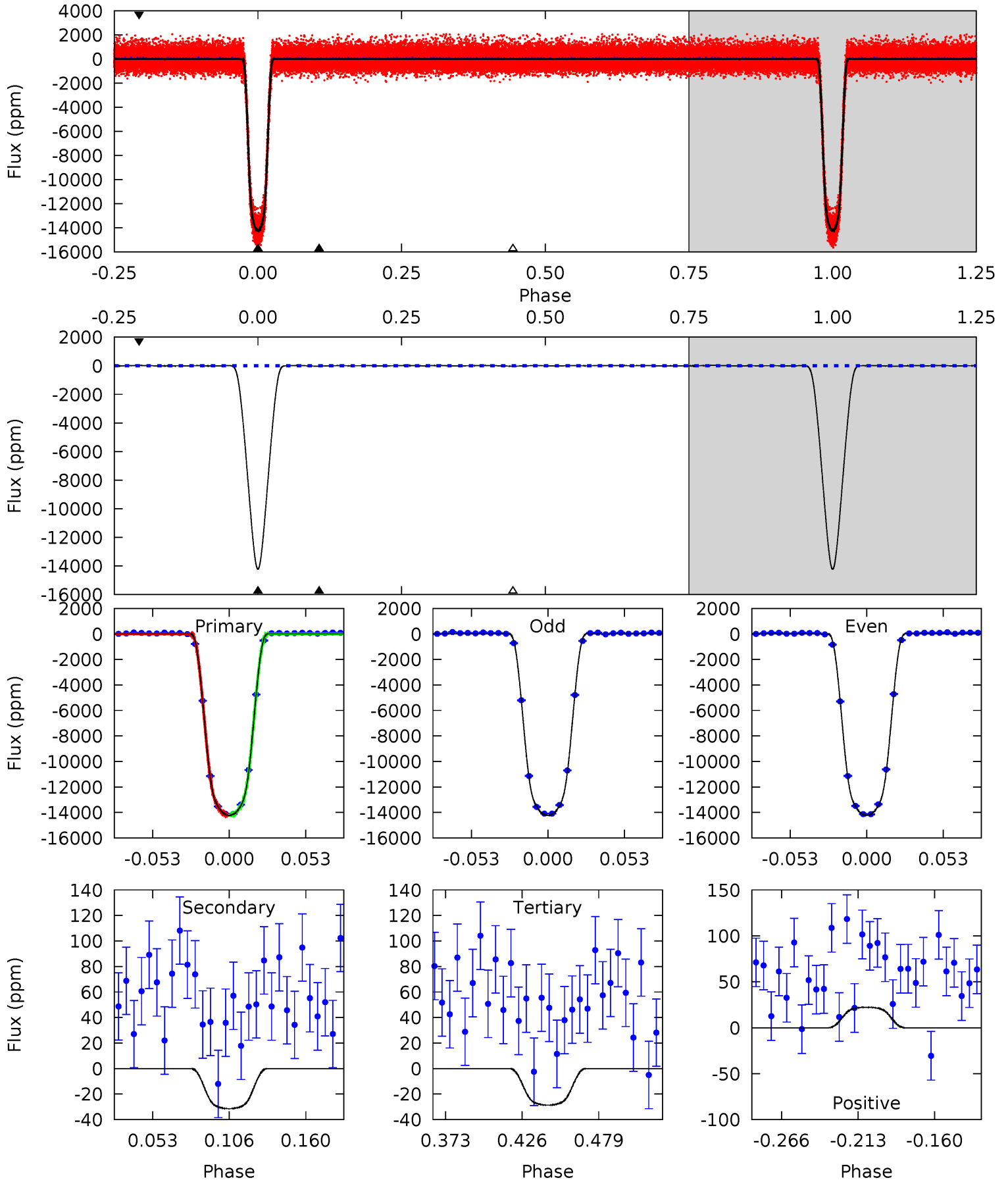
TCE 007849854-01 P= 2.052341 Days $T_0=132.951572$ (BKJD)



DV Model-Shift Uniqueness Test

007849854-01, P = 2.052348 Days, E = 130.896781 Days

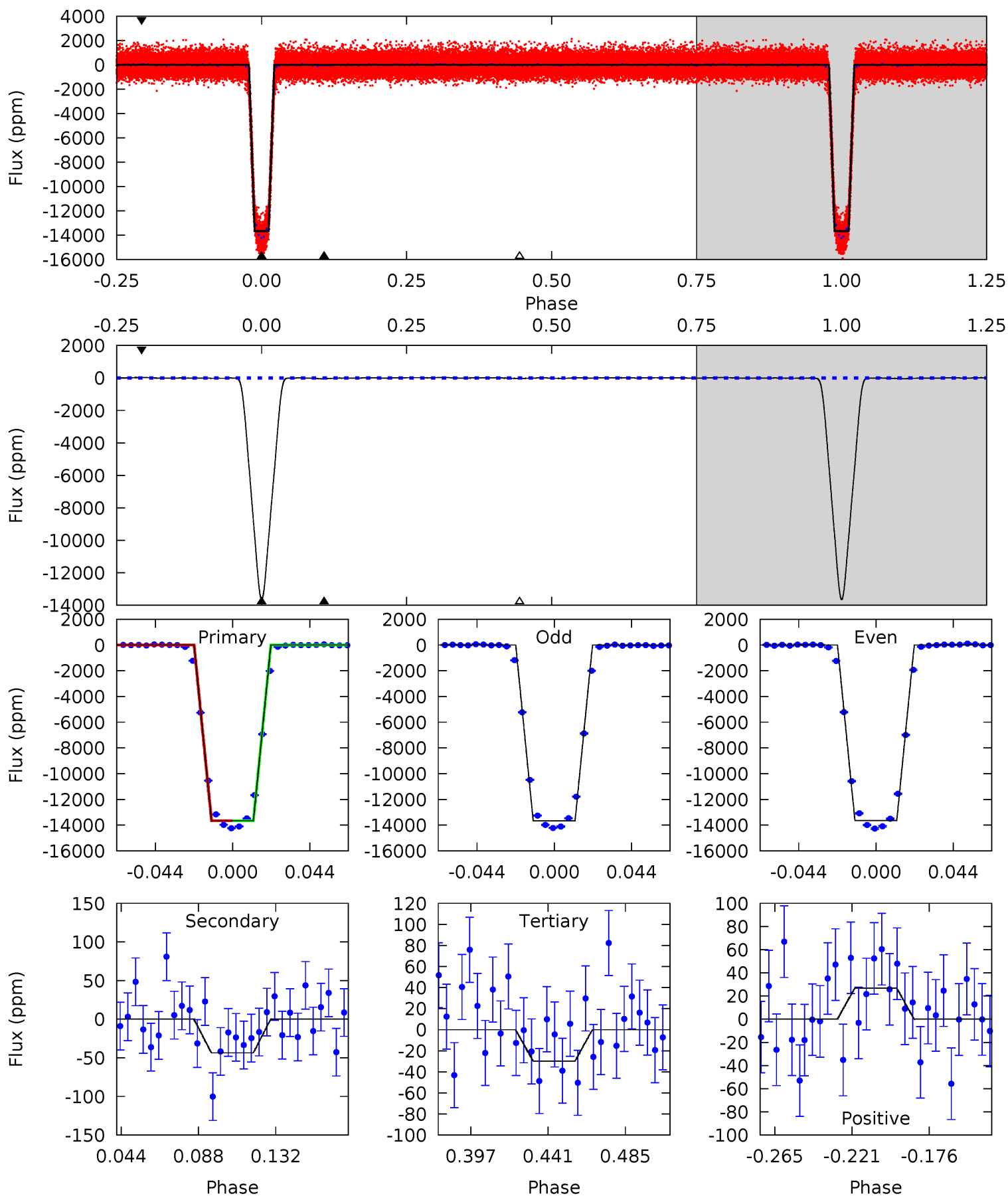
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1638	3.63	3.30	2.57	4.70	1.93	1.14	1635	1636	0.32	1.06	0.80	1.00	0.00	0.23



Alt Model-Shift Uniqueness Test

007849854-01, P = 2.052341 Days, E = 130.899231 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1400	4.48	3.06	2.75	4.73	2.01	1.18	1397	1398	1.42	1.73	1.33	1.00	0.00	0.13



Stellar Parameters For KIC 007849854

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5855^{+70}_{-88}	$4.393^{+0.076}_{-0.123}$	$0.140^{+0.150}_{-0.150}$	$1.080^{+0.166}_{-0.097}$	$1.049^{+0.070}_{-0.064}$	$1.174^{+0.354}_{-0.407}$
	+1%/-2%	+2%/-3%	+107%/-107%	+15%/-9%	+7%/-6%	+30%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 007849854-01 / KOI 0897.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-31 ± 9	$13.65^{+1.31}_{-0.77}$	2094^{+92}_{-65}	-2442^{+76}_{-71}	$0.093^{+0.031}_{-0.028}$
Alt.	-44 ± 10	$14.06^{+1.25}_{-0.81}$	2100^{+91}_{-66}	-2397^{+85}_{-88}	$0.124^{+0.033}_{-0.032}$

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 $A_{obs} \gg 1.0$

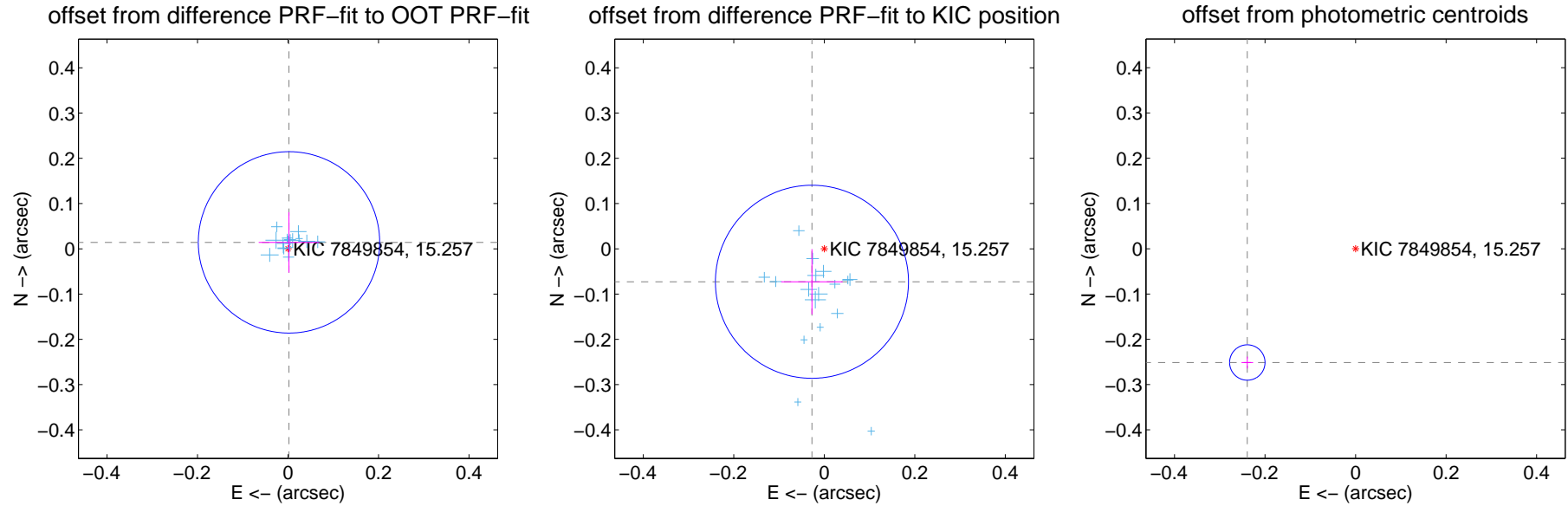
DV Centroid Data

Supplemental centroid analysis for 007849854-01. Kepler magnitude: 15.26. Transit SNR 1056.46

There are 17 quarters with good PRF difference image offsets

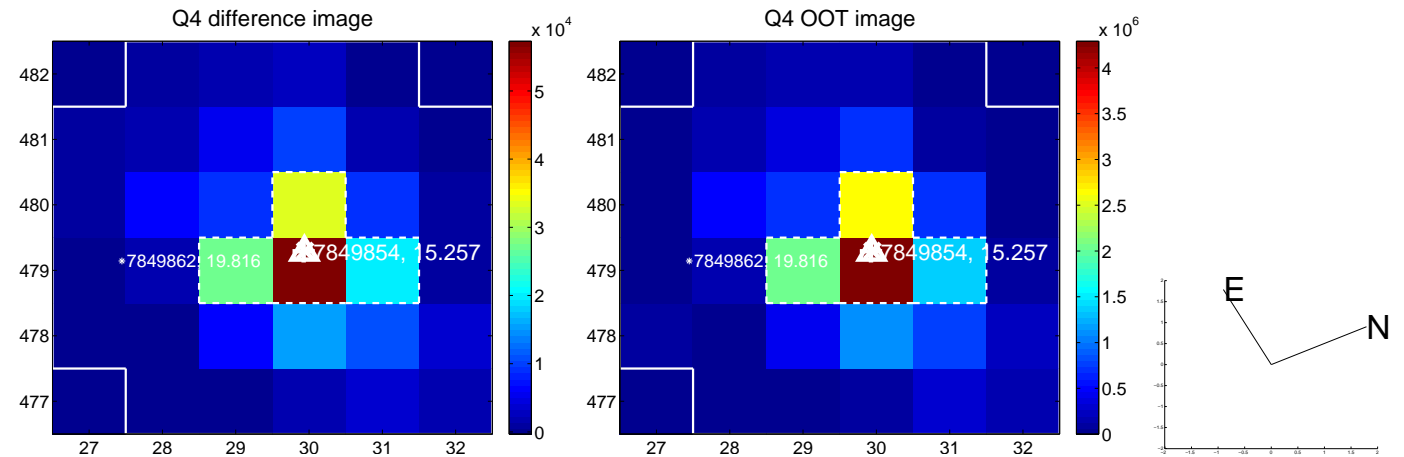
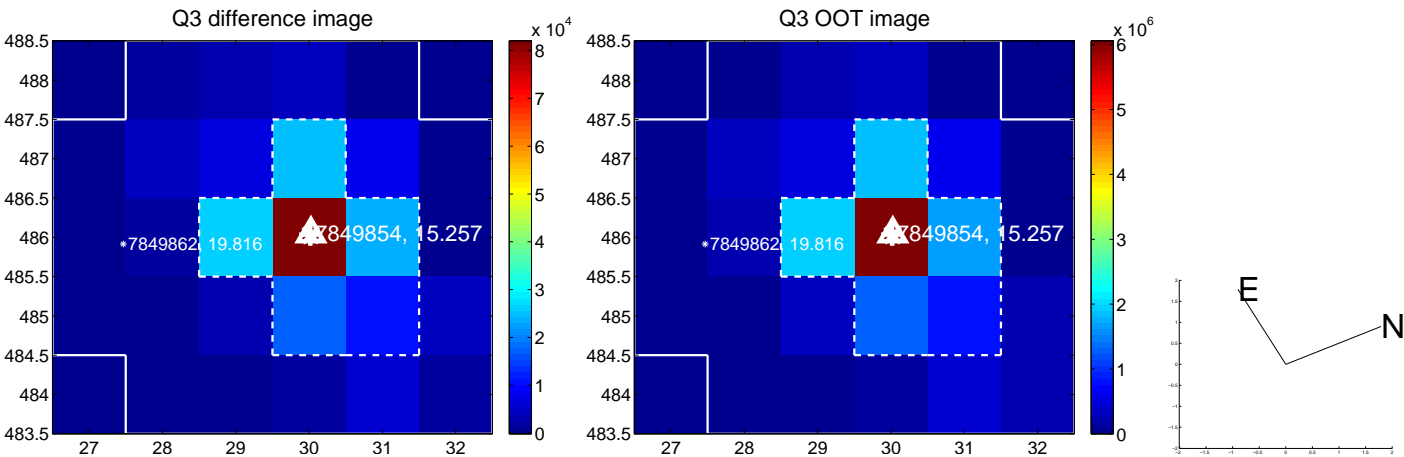
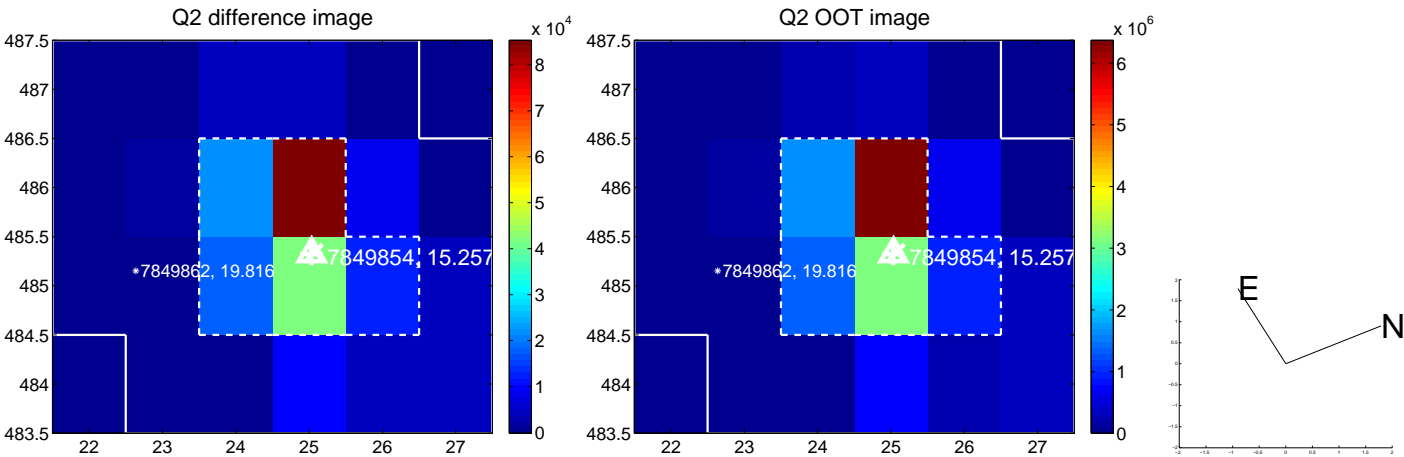
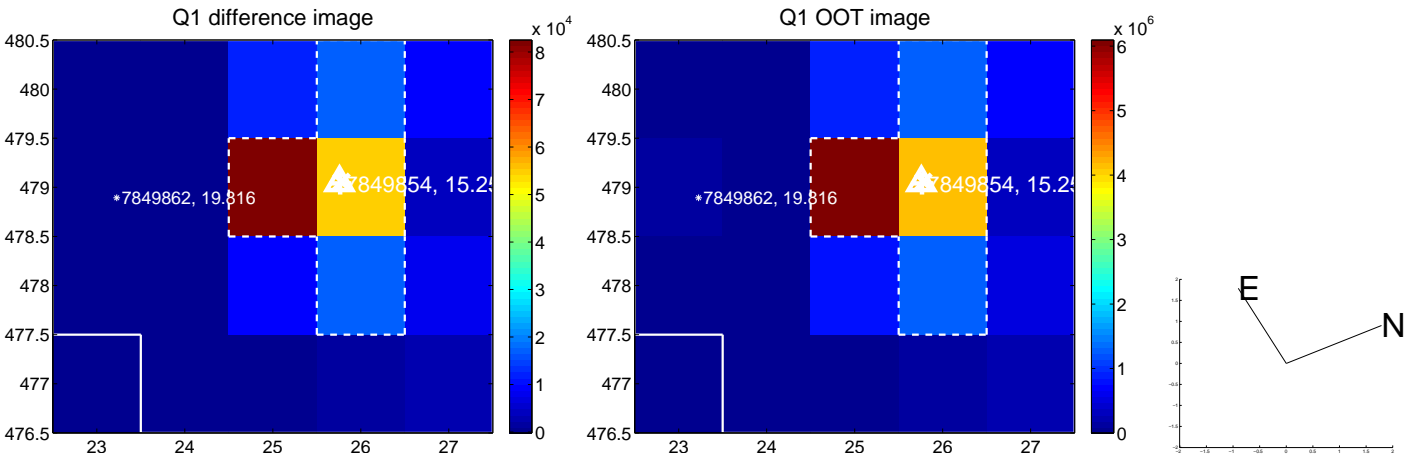
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.014 ± 0.067	0.22	-0.002 ± 0.067	0.014 ± 0.067
PRF-fit source offset from KIC position	0.078 ± 0.071	1.09	0.027 ± 0.068	-0.073 ± 0.072
photometric centroid source offset	0.35 ± 0.01	26.61	0.24 ± 0.01	-0.25 ± 0.01

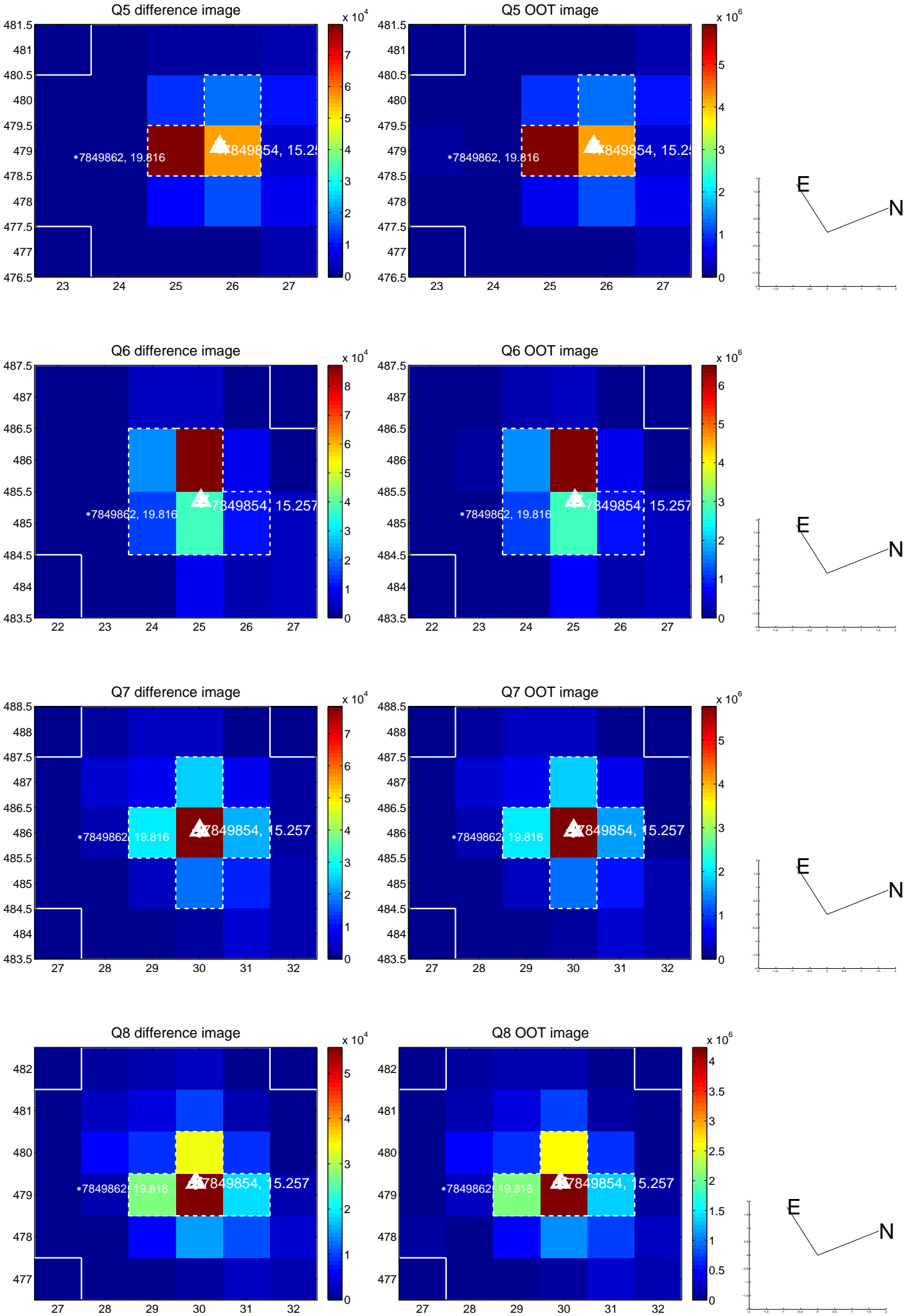


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

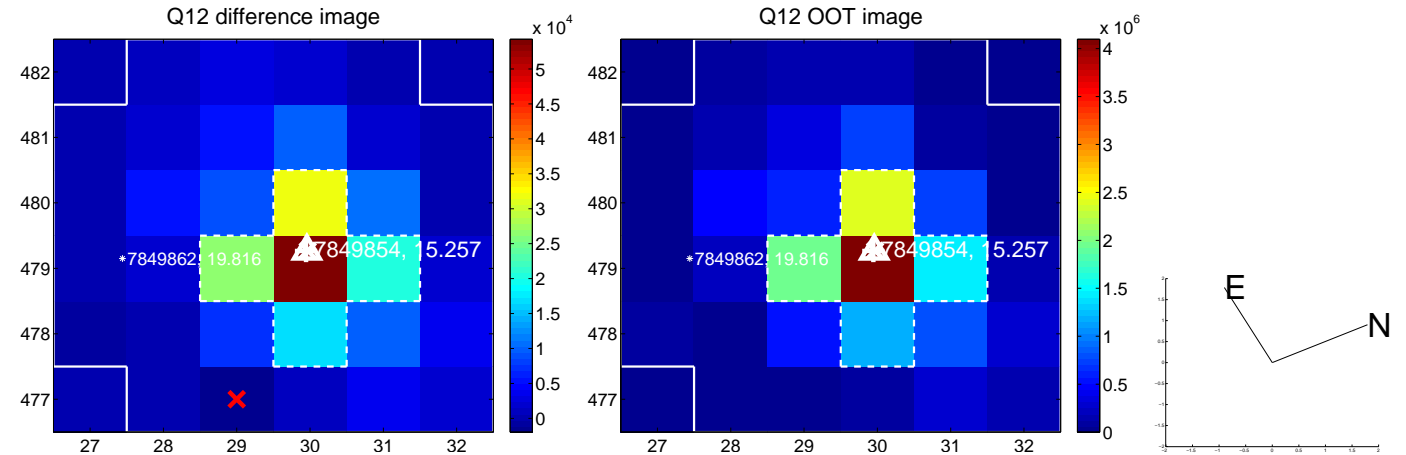
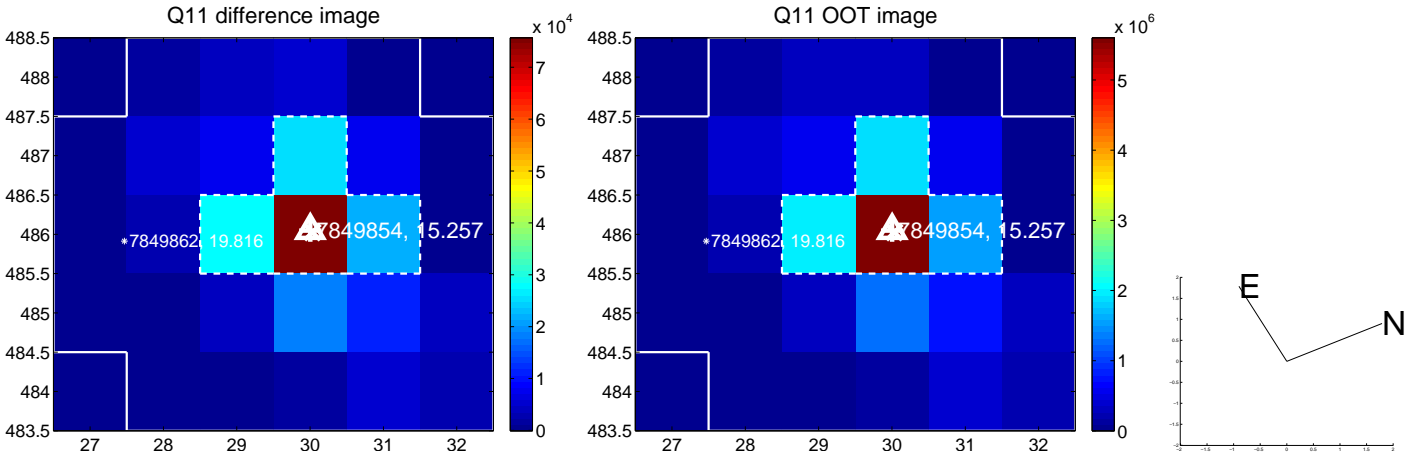
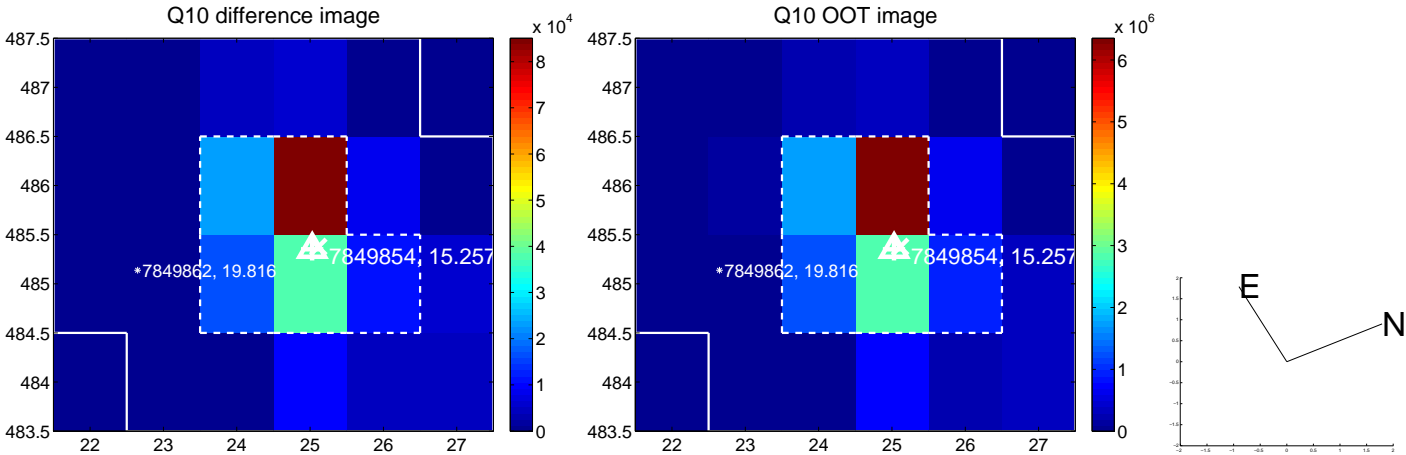
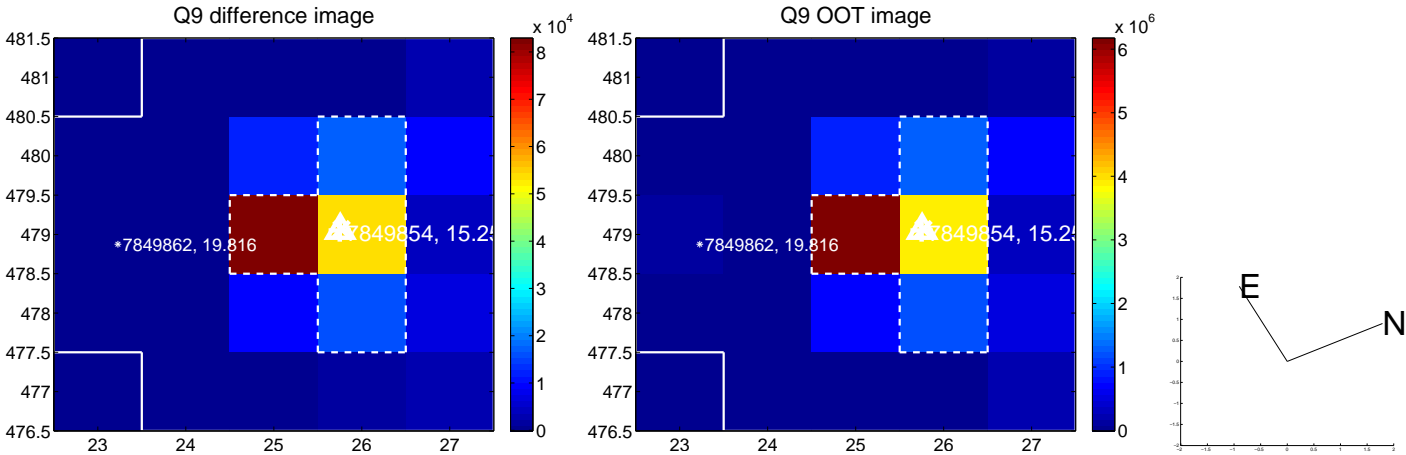
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



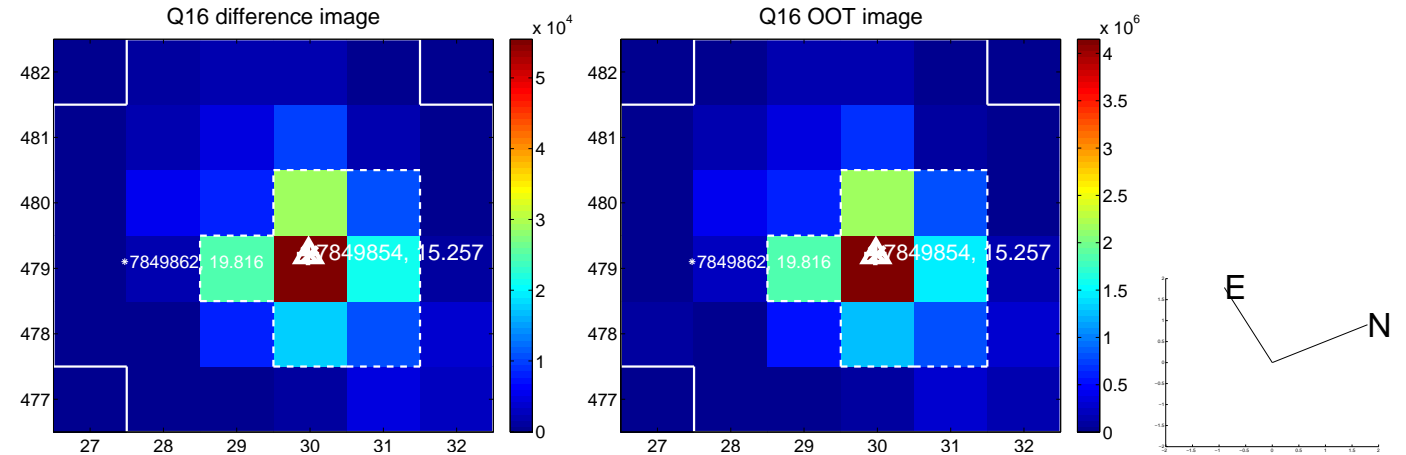
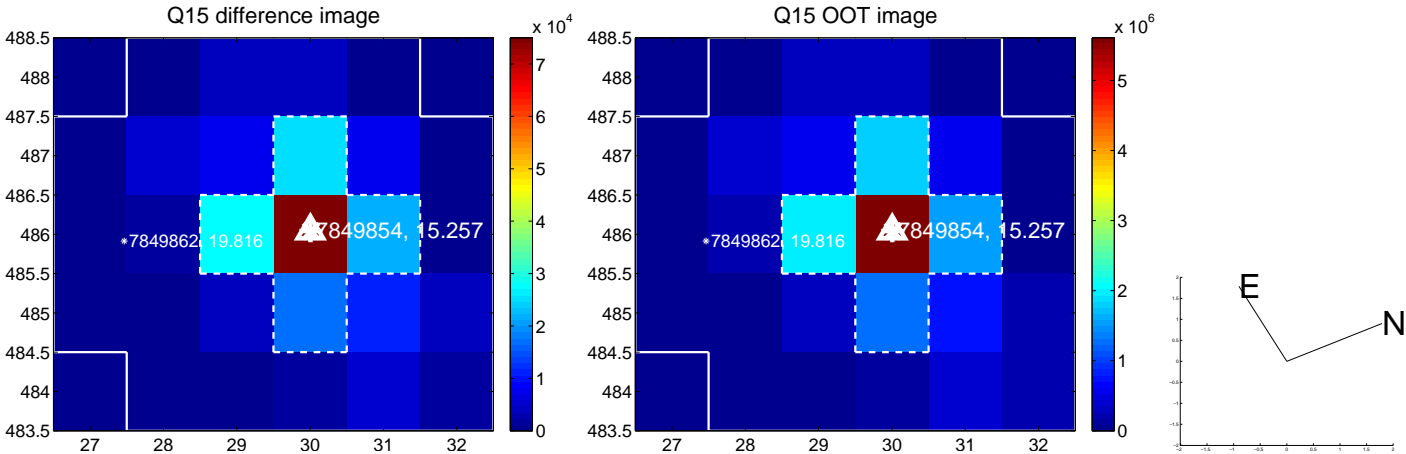
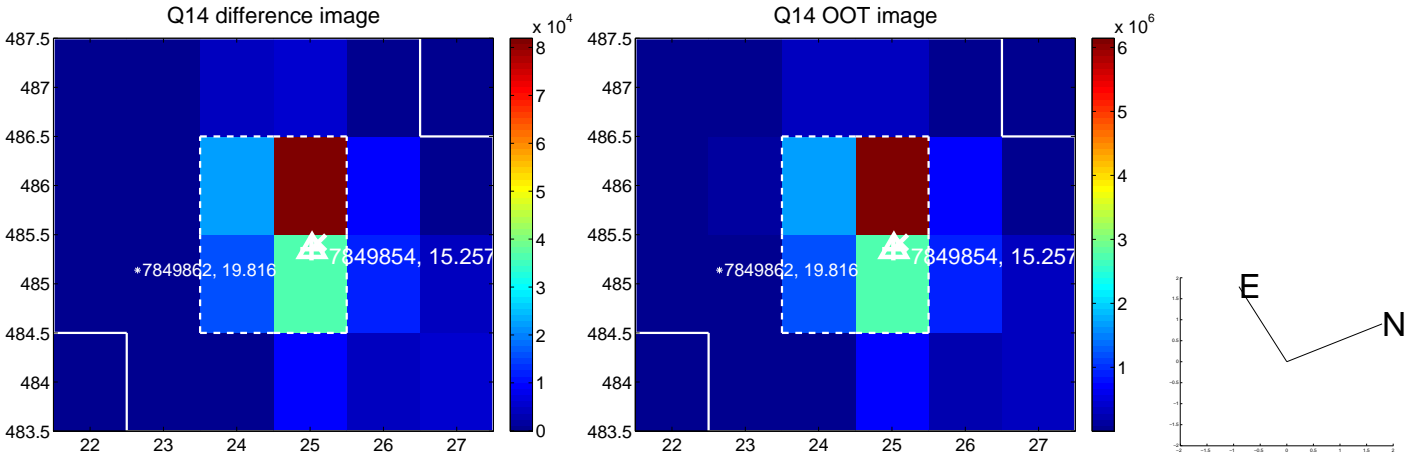
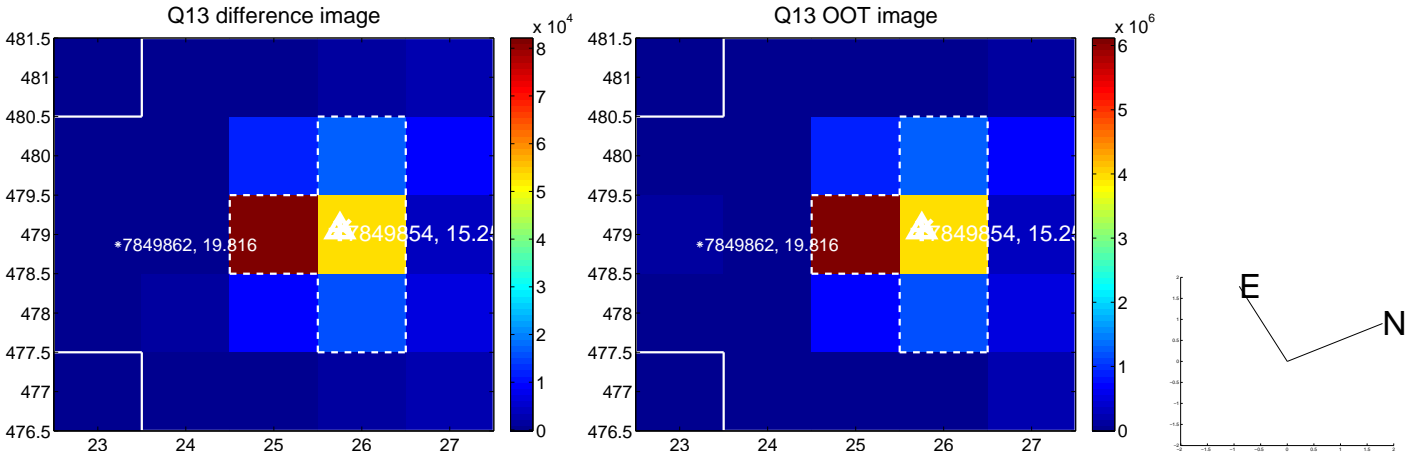
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



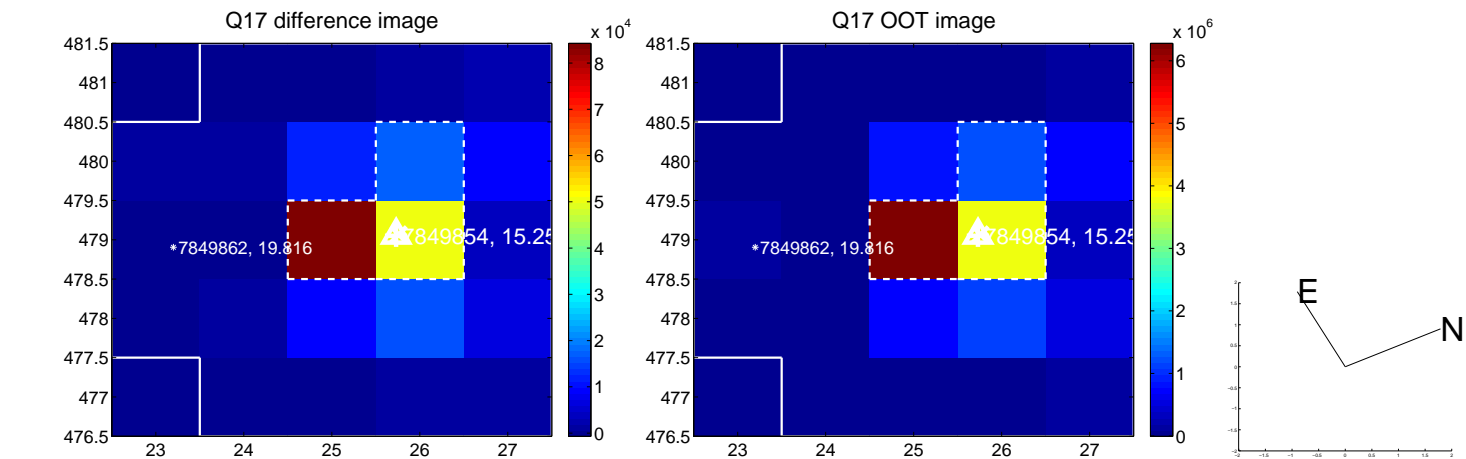
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



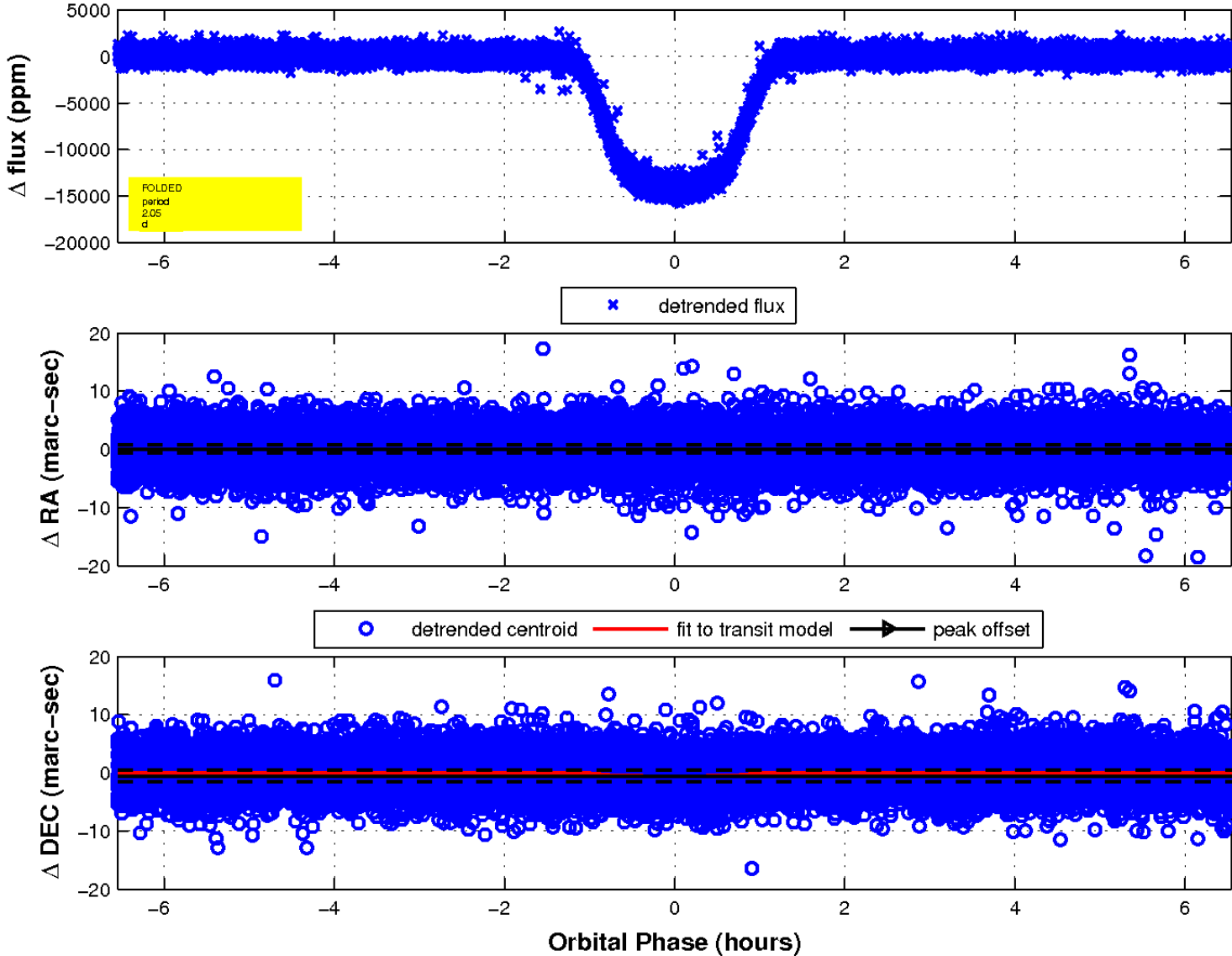
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

