

KIC 011624249

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})
011624249-01	OBS	0356.01	1.827077	132.158536	1150.0	2.204	263.5	262.6	1.77	5311	7.15	2940.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011624249-01	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.

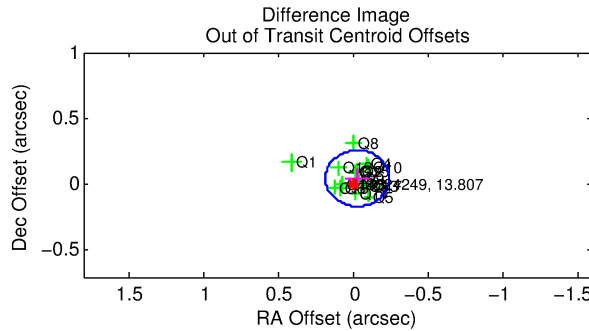
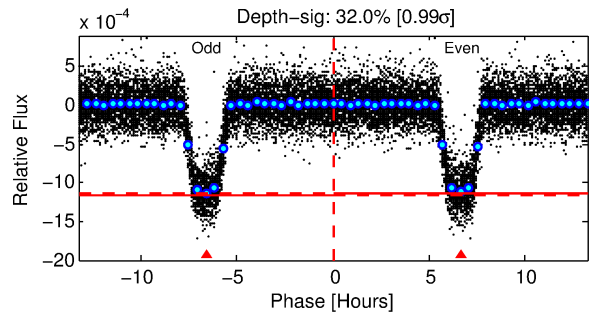
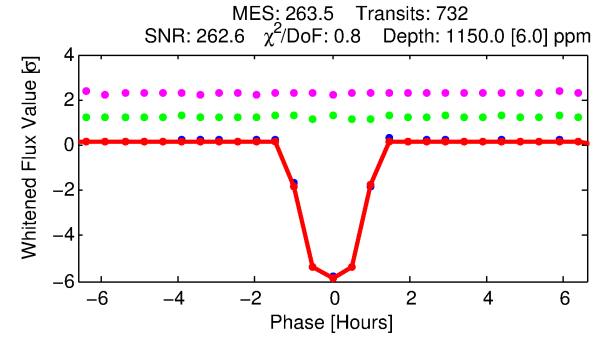
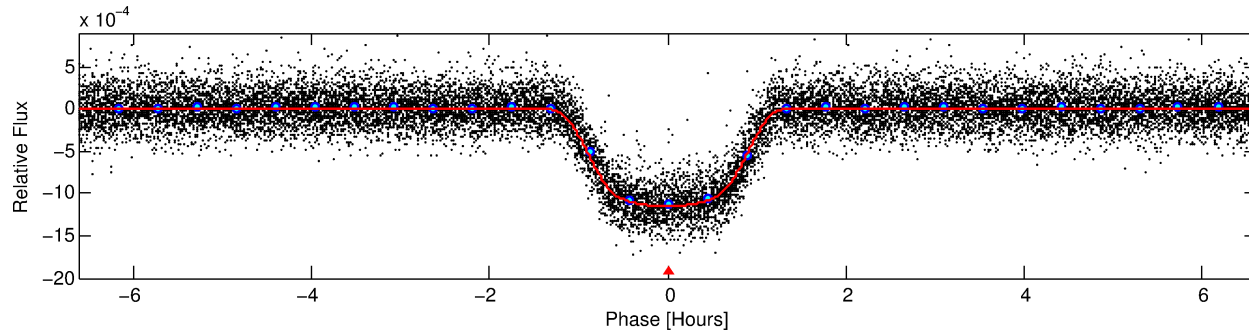
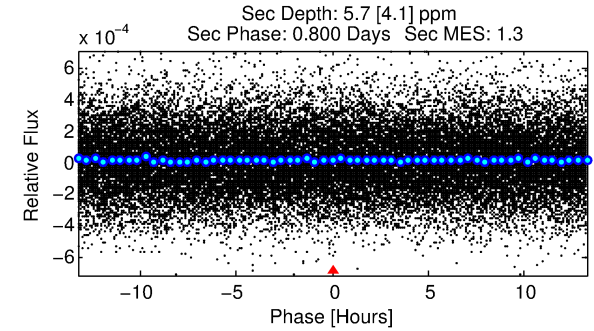
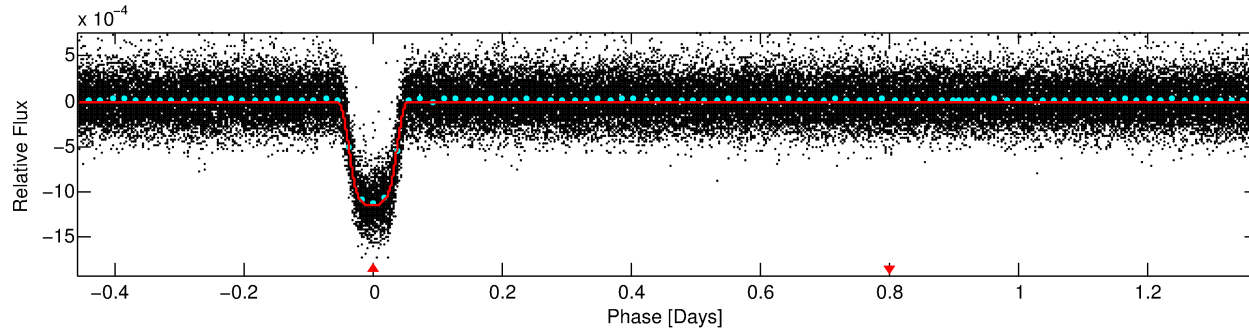
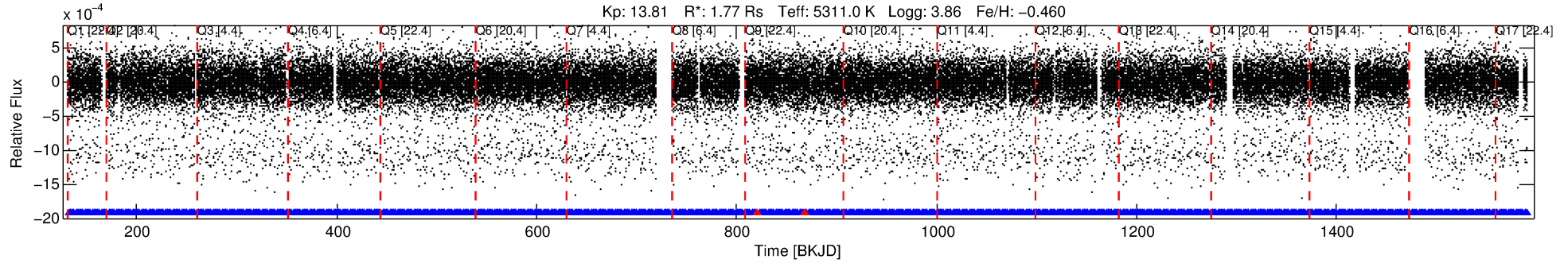
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011624249-01

No Significant Match Found

DV One-Page Summary

KIC: 11624249 Candidate: 1 of 1 Period: 1.827 d
KOI: K00356.01 Corr: 0.942



DV Fit Results:

Period = 1.82708 [0.00000] d
Epoch = 132.1585 [0.0001] BKJD
Rp/R* = 0.0371 [0.0004]
a/R* = 3.47 [0.15]
b = 0.89 [0.01]
Seff = 2940.42 [3596.29]
Teq = 1878 [574] K
Rp = 7.15 [4.29] Re
a = 0.0275 [0.0193] AU
Ag = 0.05 [0.07] [-14.39σ]
Teffp = 1350 [247] K [-0.84σ]

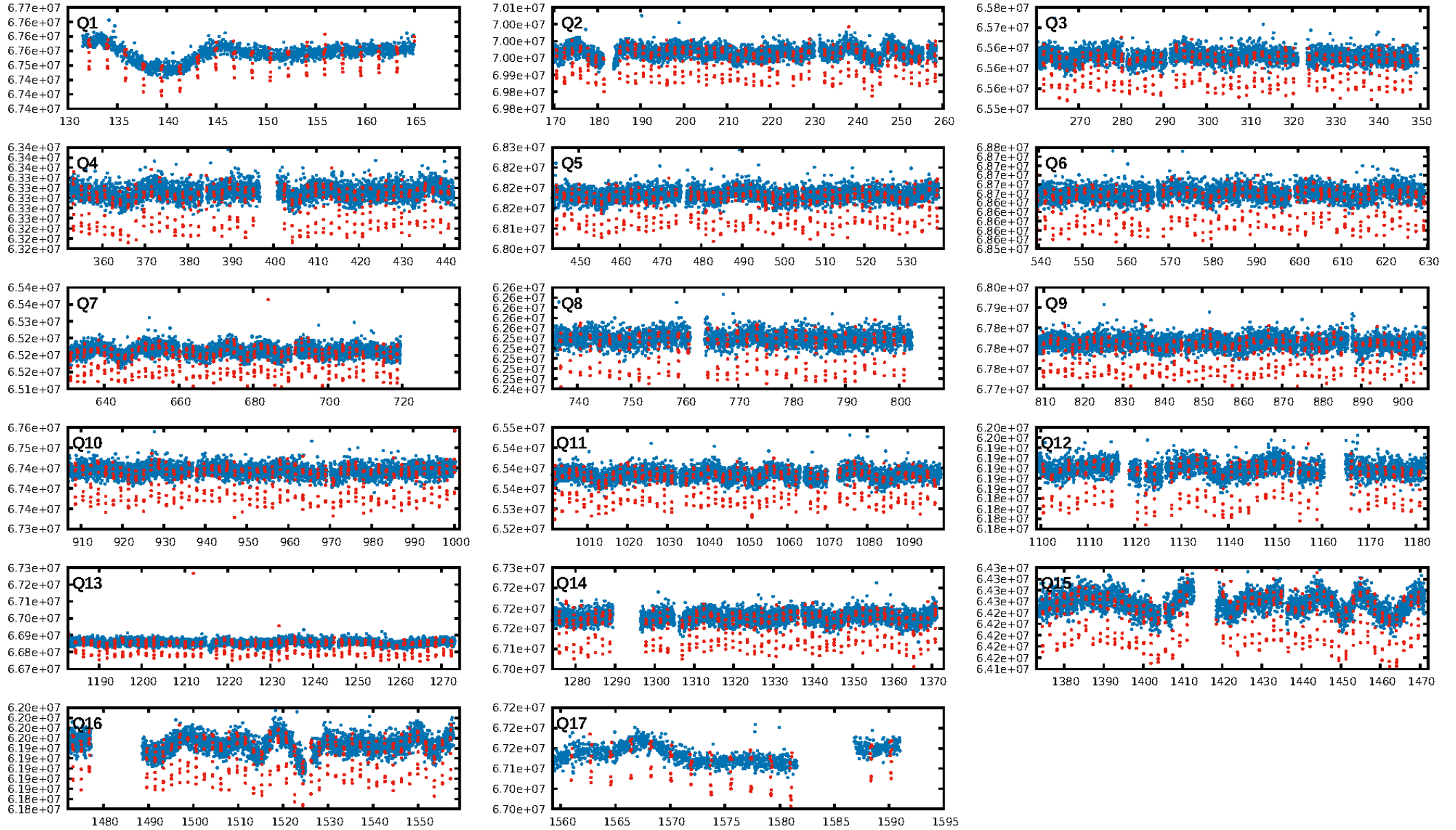
DV Diagnostic Results:

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 [698/700]
GhostDiagnostic-chr: 5.512
Centroid-sig: 0.0%
Centroid-so: 0.283 arcsec [5.58σ]
OotOffset-rm: 0.055 arcsec [0.77σ]
KicOffset-rm: 0.076 arcsec [1.03σ]
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]

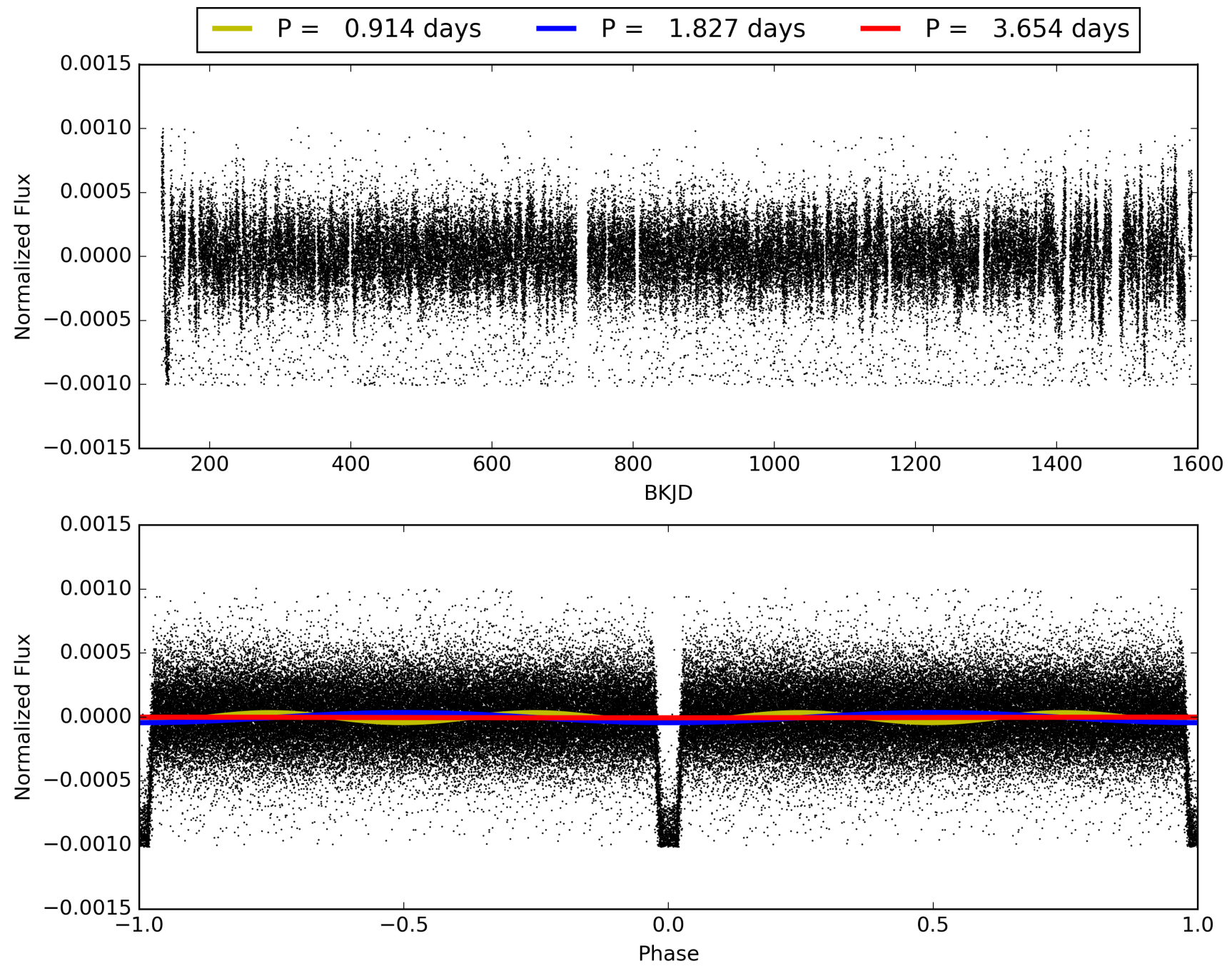
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:10:13 Z

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

TCE 011624249-01, PDC Light Curves

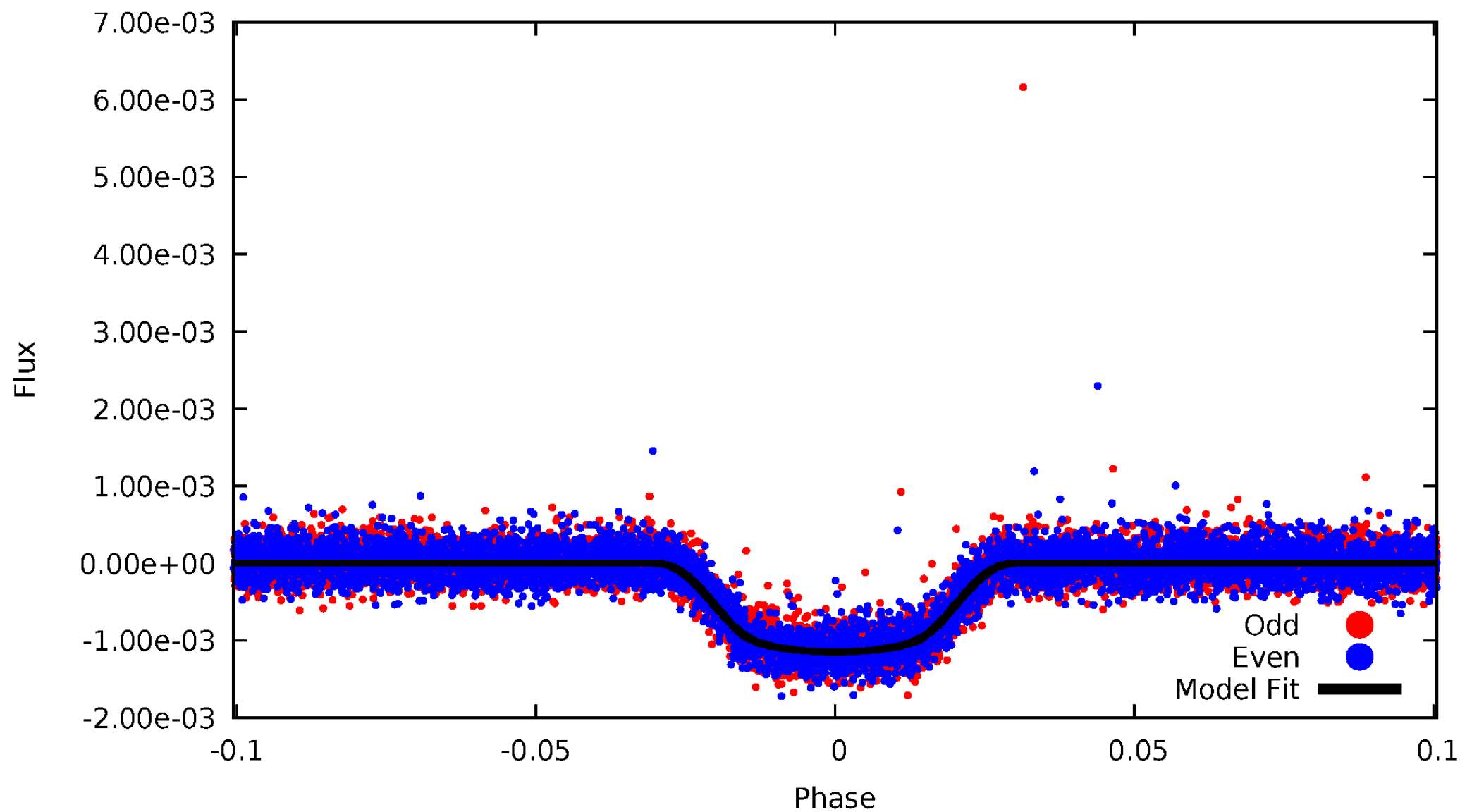


TCE 011624249-01



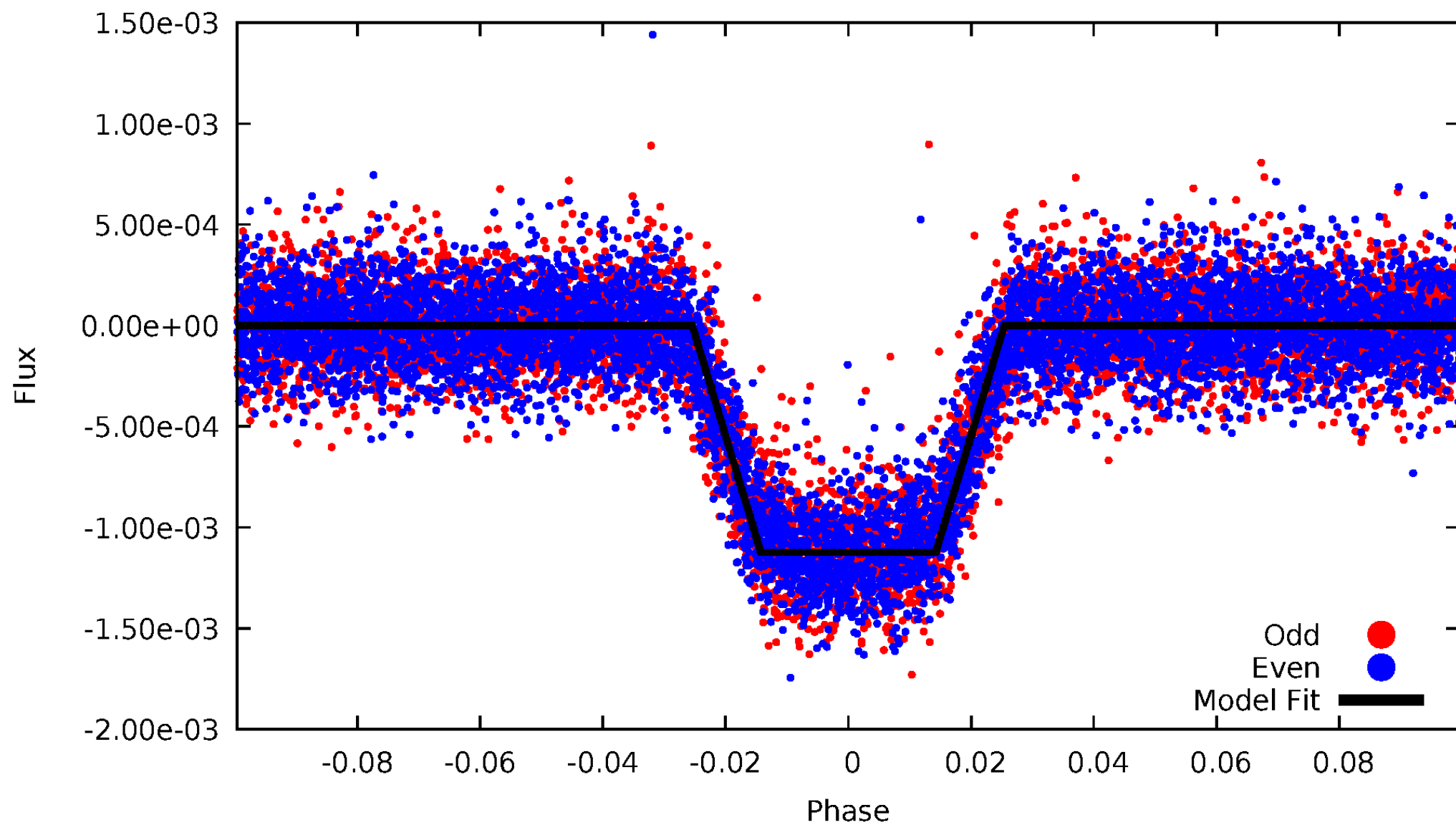
DV Odd/Even

TCE 011624249-01

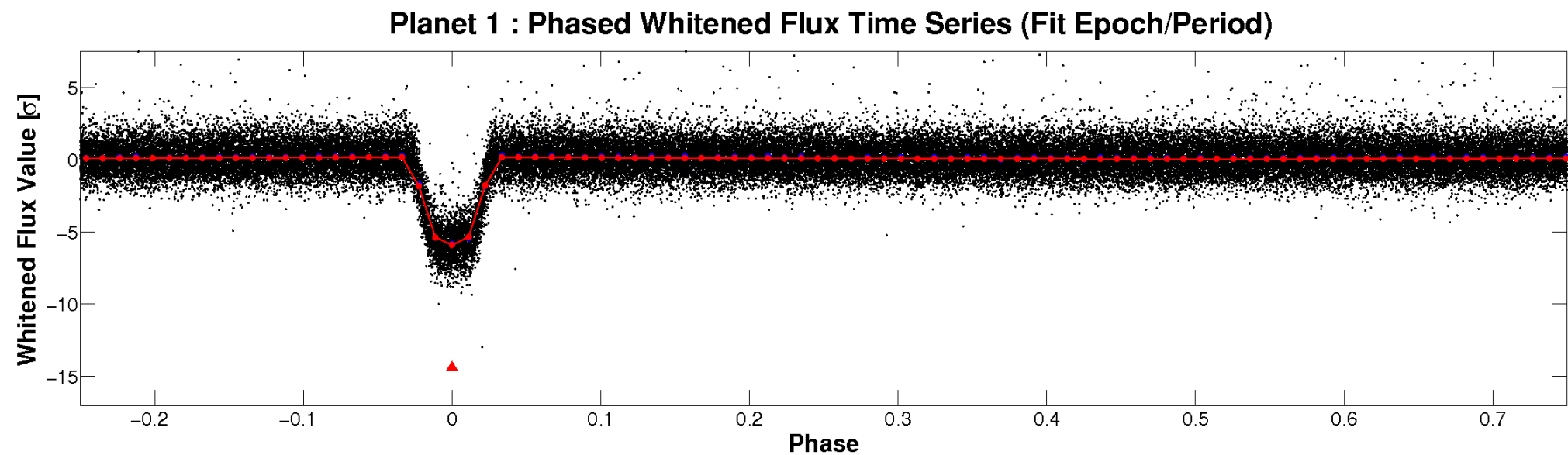
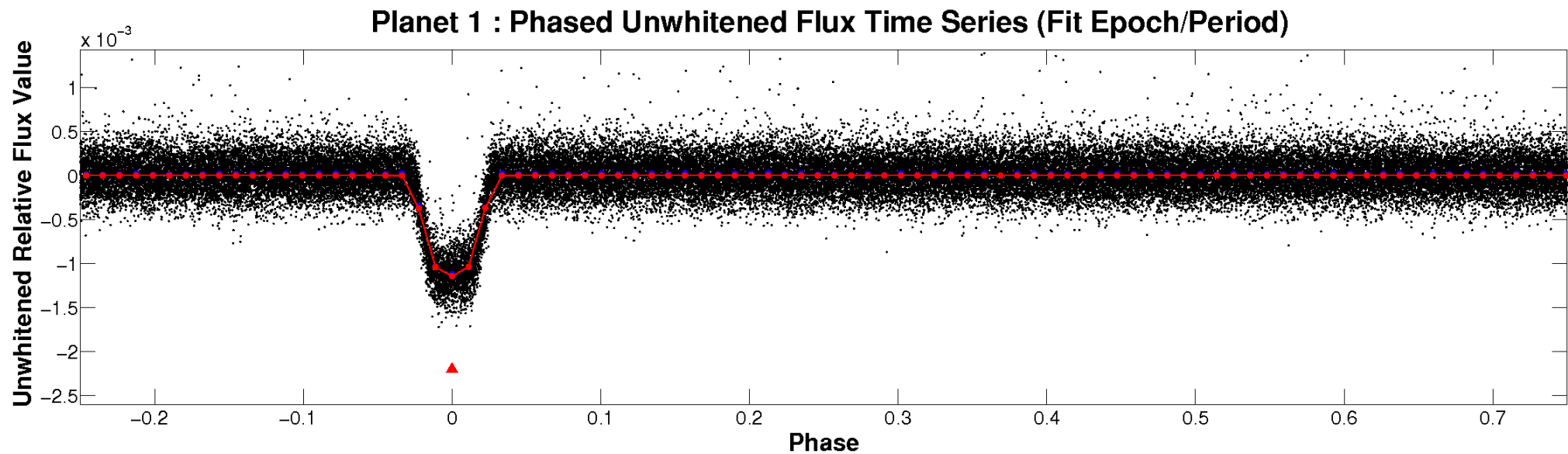


ALT Odd/Even

TCE 011624249-01

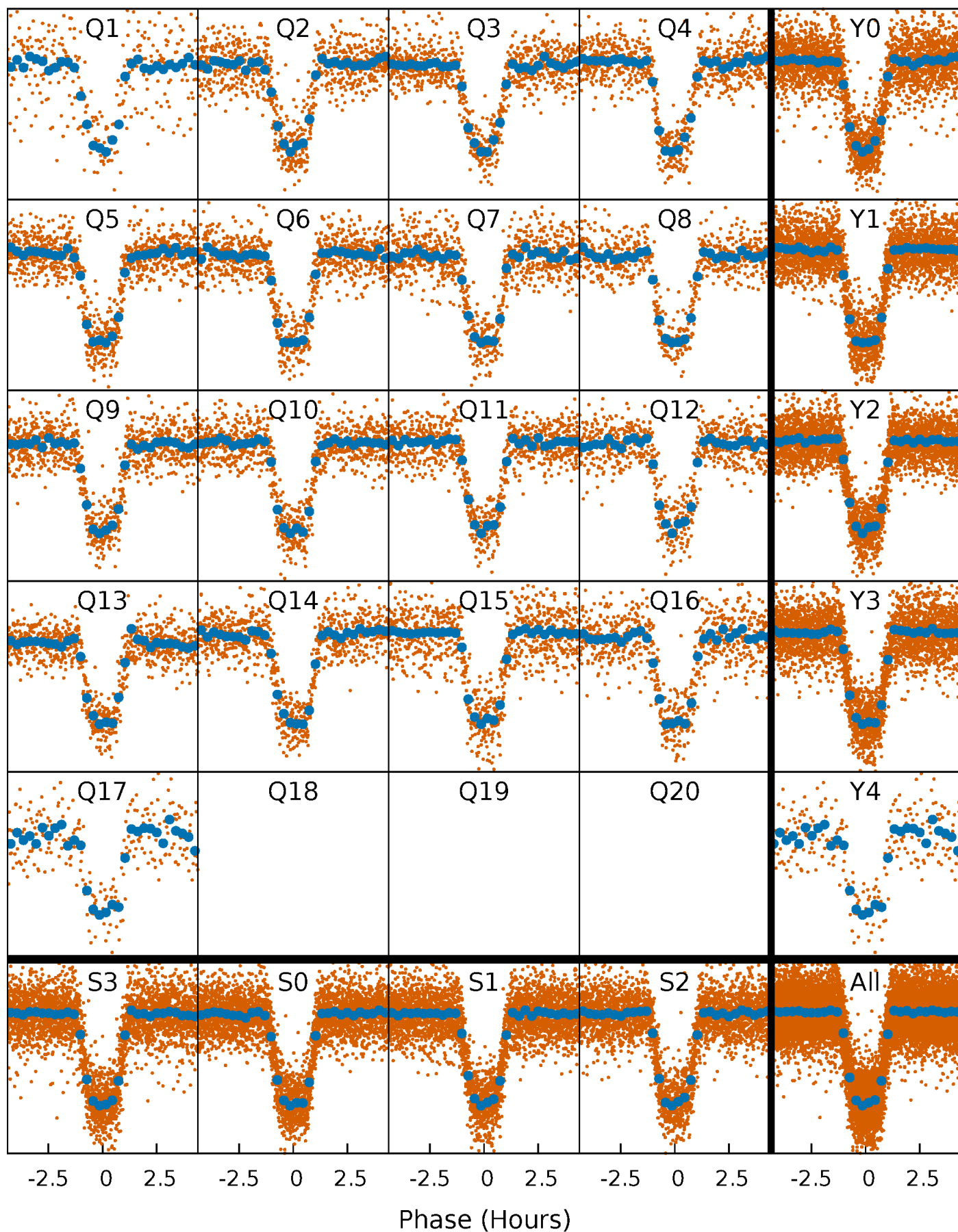


Non-Whitened Vs. Whitened Light Curve



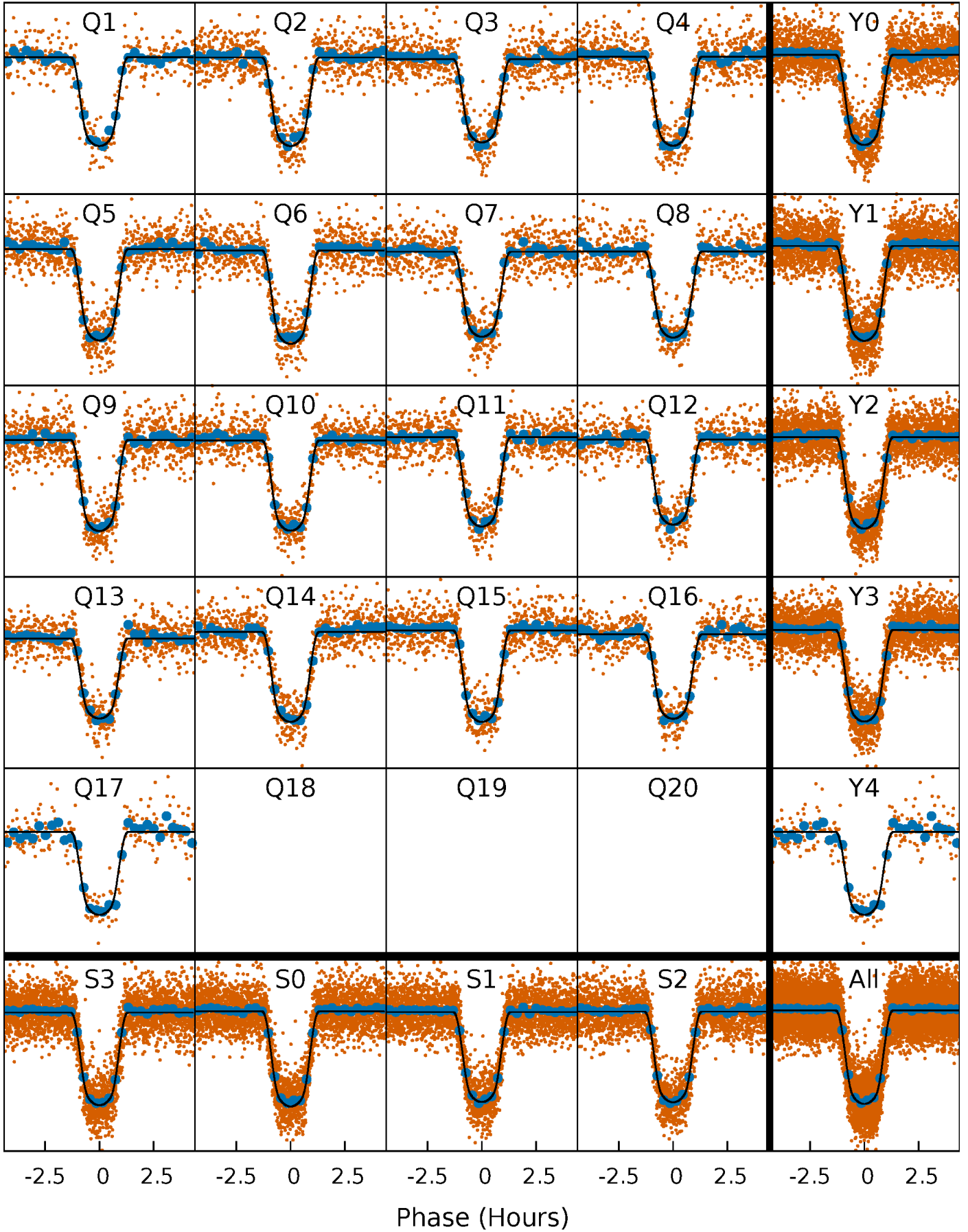
PDC Quarter-Phased Transit Curves

TCE 011624249-01 P= 1.827077 Days $T_0=132.158536$ (BKJD)



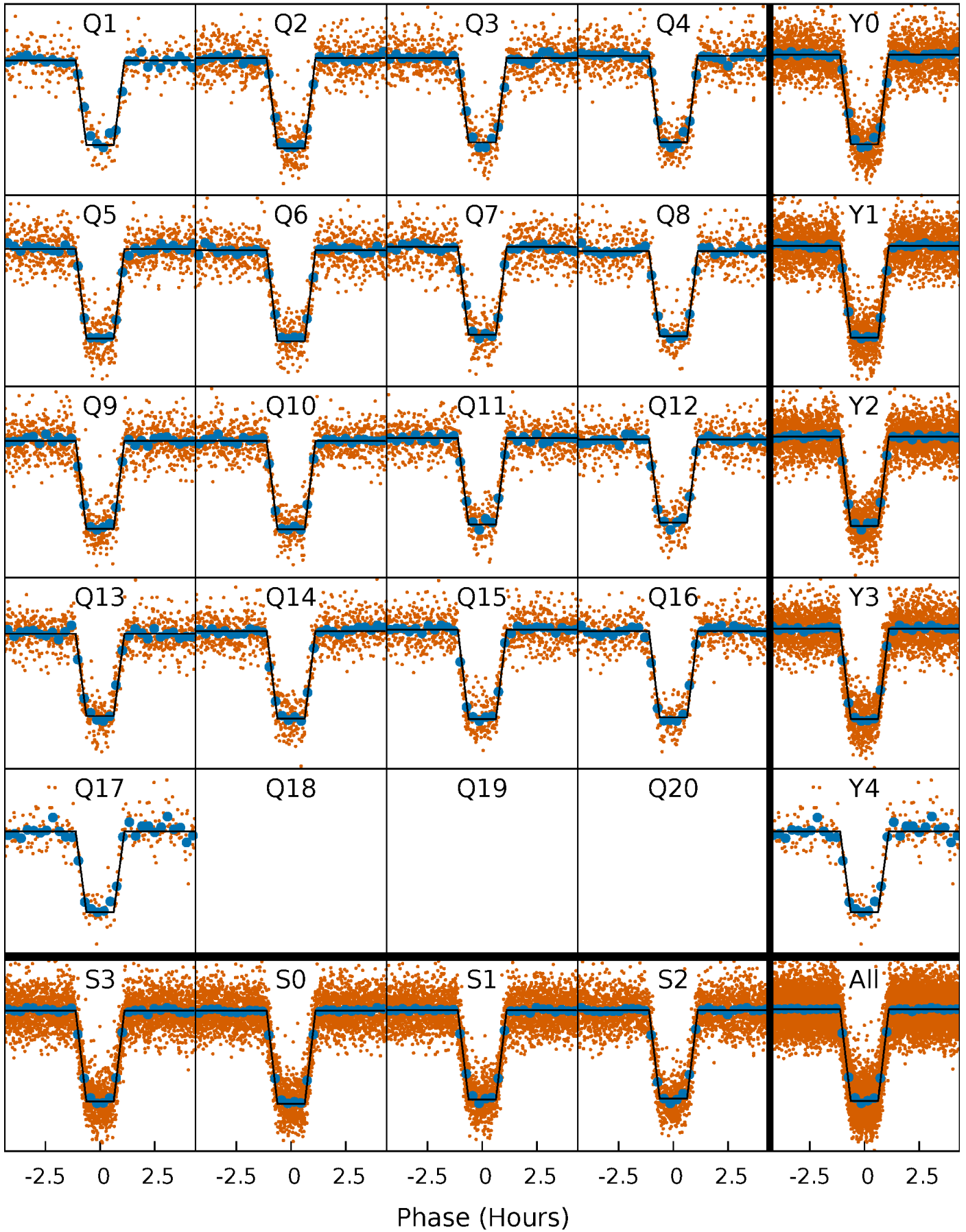
DV Quarter-Phased Transit Curves

TCE 011624249-01 P= 1.827077 Days $T_0=132.158536$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

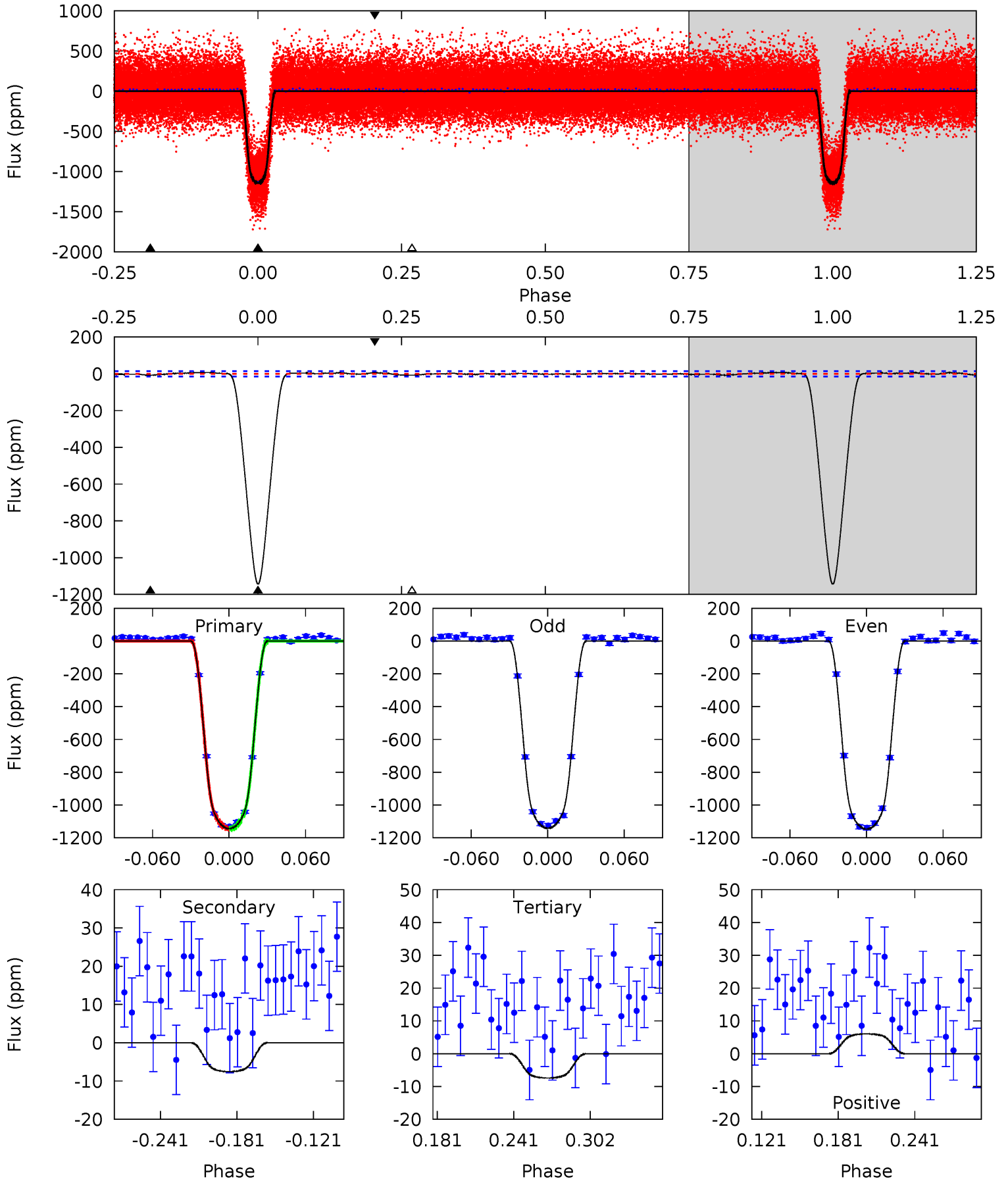
TCE 011624249-01 P= 1.827088 Days $T_0=132.154554$ (BKJD)



DV Model-Shift Uniqueness Test

011624249-01, P = 1.827077 Days, E = 130.331459 Days

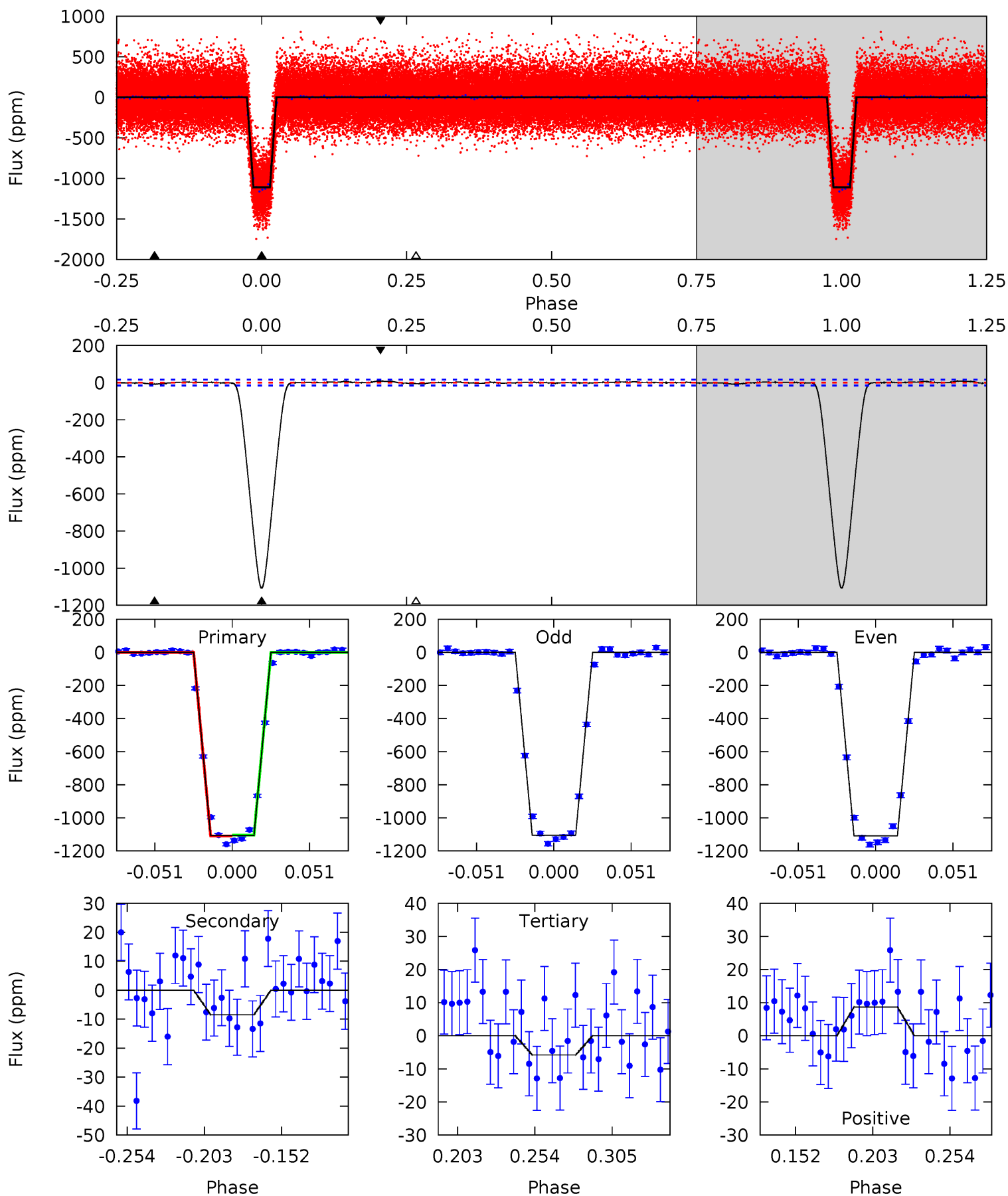
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
375.2	2.47	2.44	1.98	4.67	1.88	1.01	372.8	373.2	0.04	0.50	0.85	0.99	0.01	0.73



Alt Model-Shift Uniqueness Test

011624249-01, P = 1.827088 Days, E = 130.327466 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
333.6	2.54	1.75	2.61	4.71	1.95	0.79	331.9	331.0	0.79	-0.07	0.56	0.99	0.01	0.81



Stellar Parameters For KIC 011624249

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5311^{+159}_{-159}	$3.864^{+0.749}_{-0.321}$	$-0.460^{+0.300}_{-0.300}$	$1.769^{+1.060}_{-1.060}$	$0.834^{+0.119}_{-0.131}$	$0.212^{+2.537}_{-0.155}$
	+3%/-3%	+19%/-8%	+65%/-65%	+60%/-60%	+14%/-16%	+1196%/-73%
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 011624249-01 / KOI 0356.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8 ± 3	$6.98^{+2.26}_{-2.33}$	2602^{+384}_{-491}	-2742^{+396}_{-272}	$0.064^{+0.086}_{-0.035}$
Alt.	-8 ± 3	$6.22^{+1.83}_{-1.89}$	2555^{+381}_{-406}	-2690^{+431}_{-262}	$0.090^{+0.113}_{-0.047}$

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 $A_{obs} \gg 1.0$

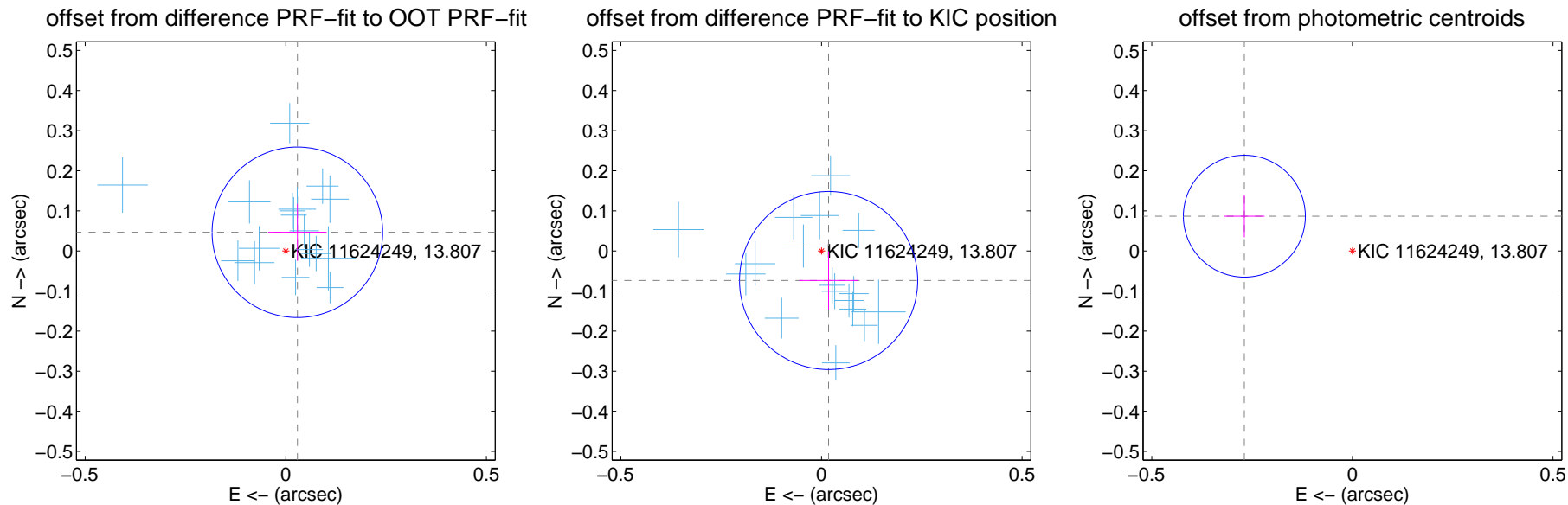
DV Centroid Data

Supplemental centroid analysis for 011624249-01. Kepler magnitude: 13.81. Transit SNR 262.64

There are 17 quarters with good PRF difference image offsets

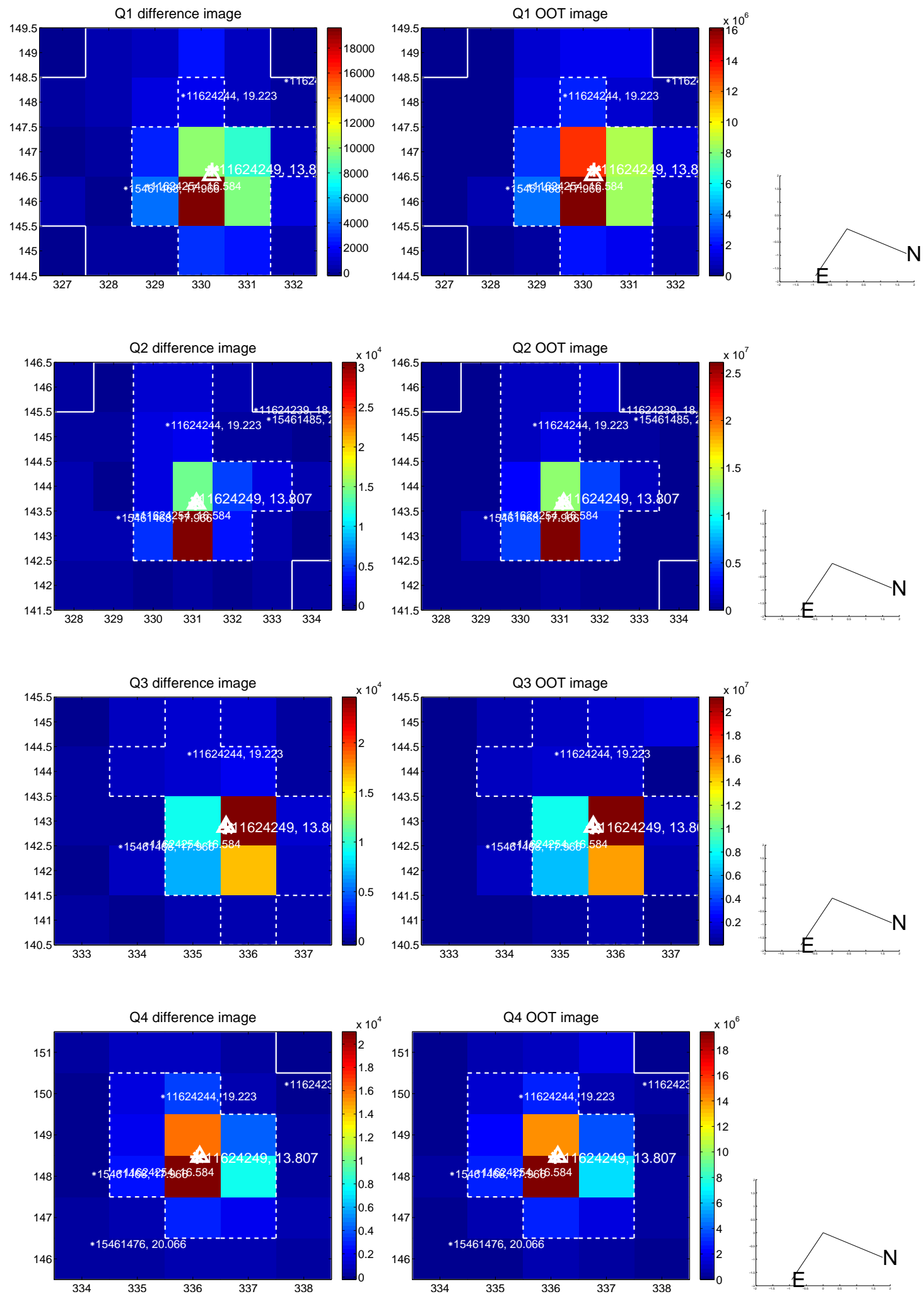
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.055 ± 0.071	0.77	-0.029 ± 0.073	0.046 ± 0.071
PRF-fit source offset from KIC position	0.076 ± 0.074	1.03	-0.018 ± 0.073	-0.074 ± 0.073
photometric centroid source offset	0.28 ± 0.05	5.58	0.27 ± 0.05	0.09 ± 0.05

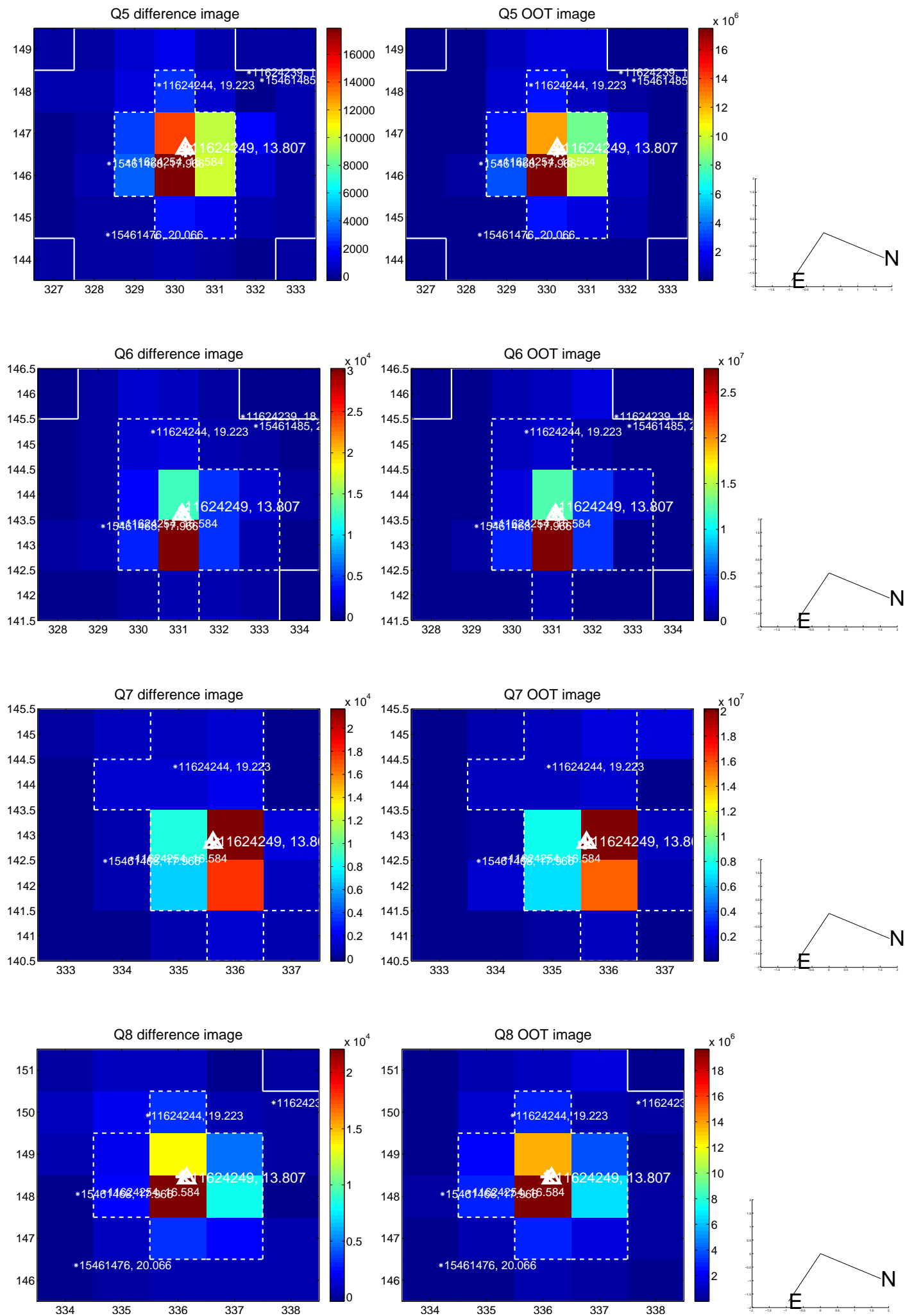


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

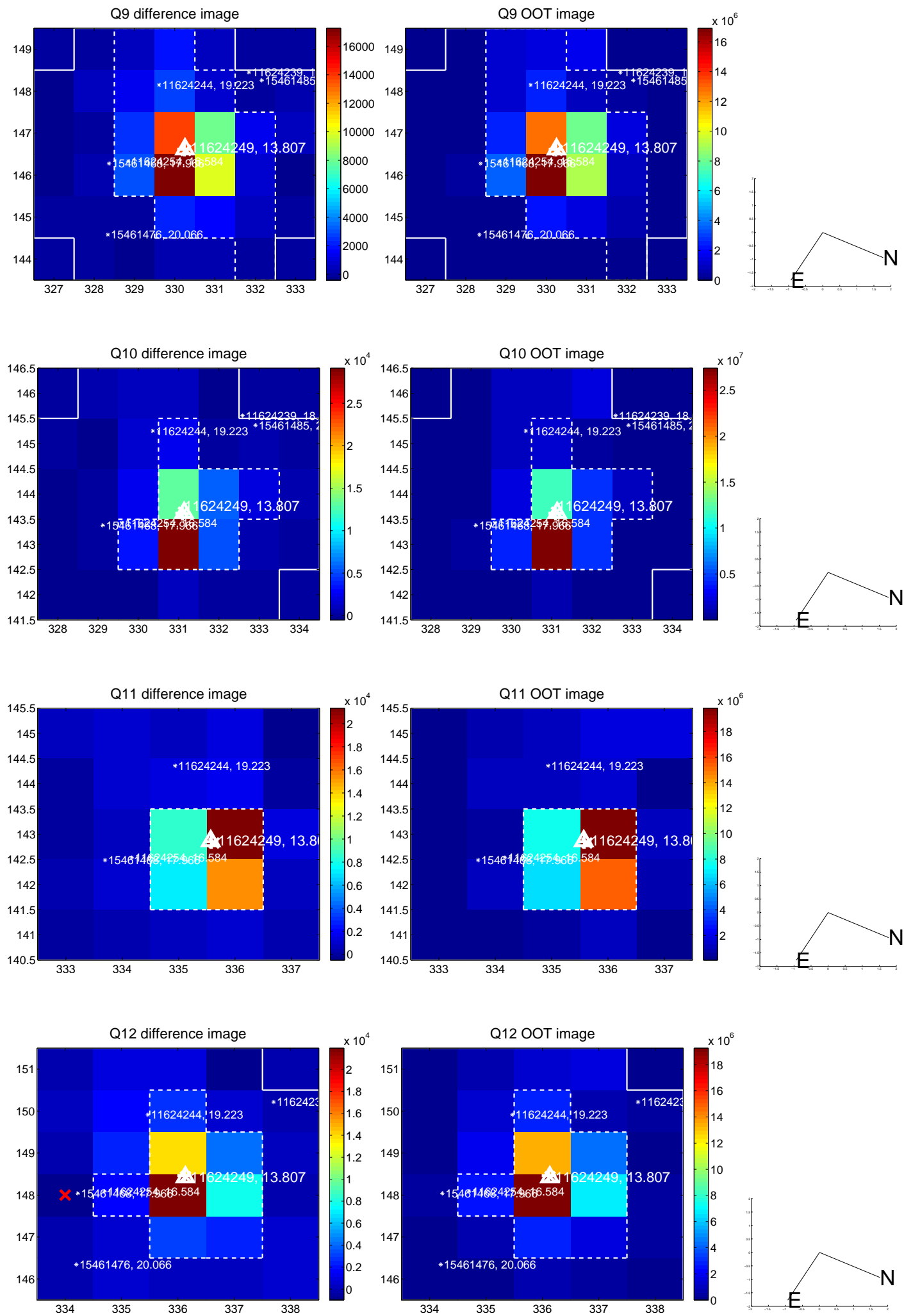
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



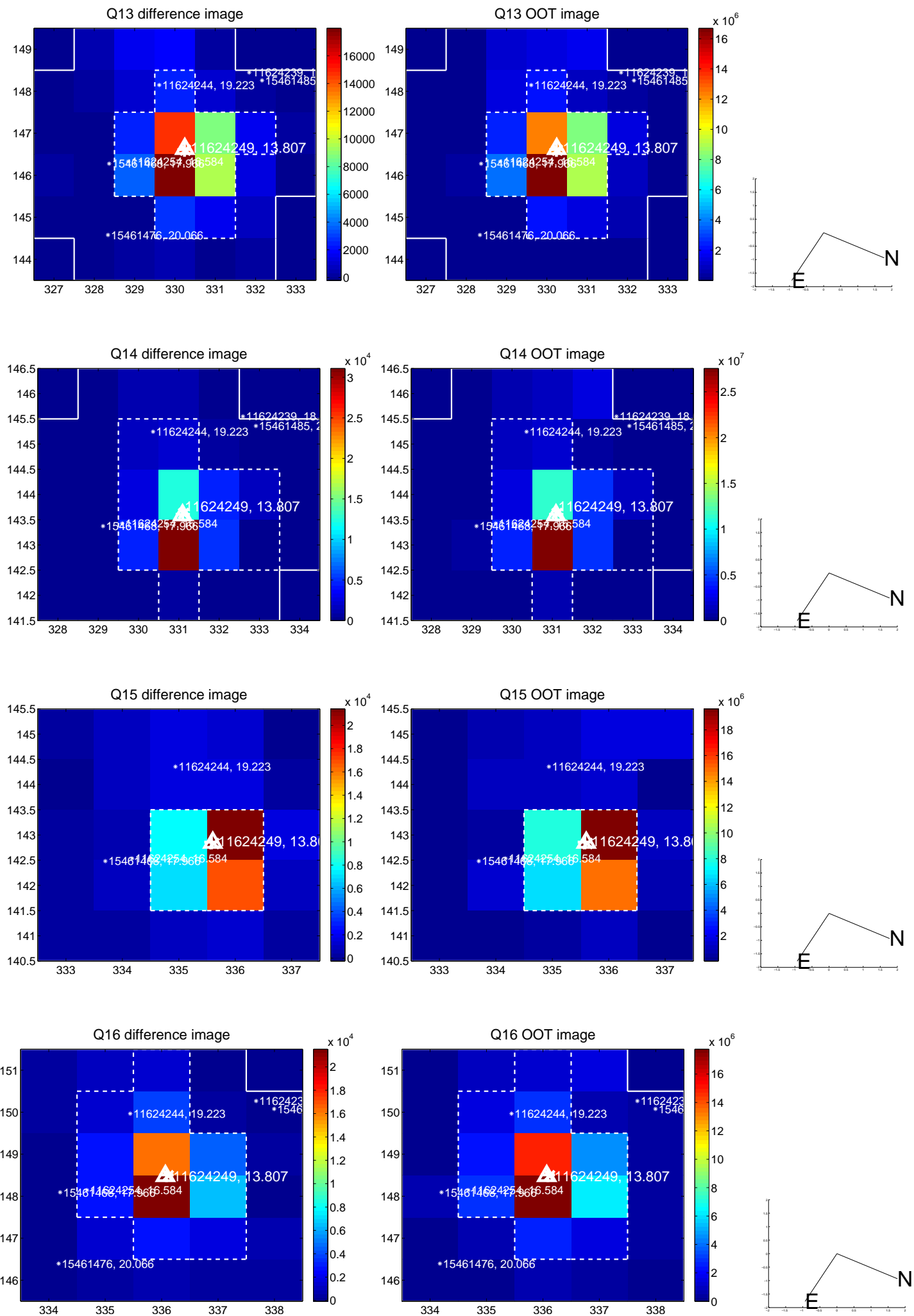
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



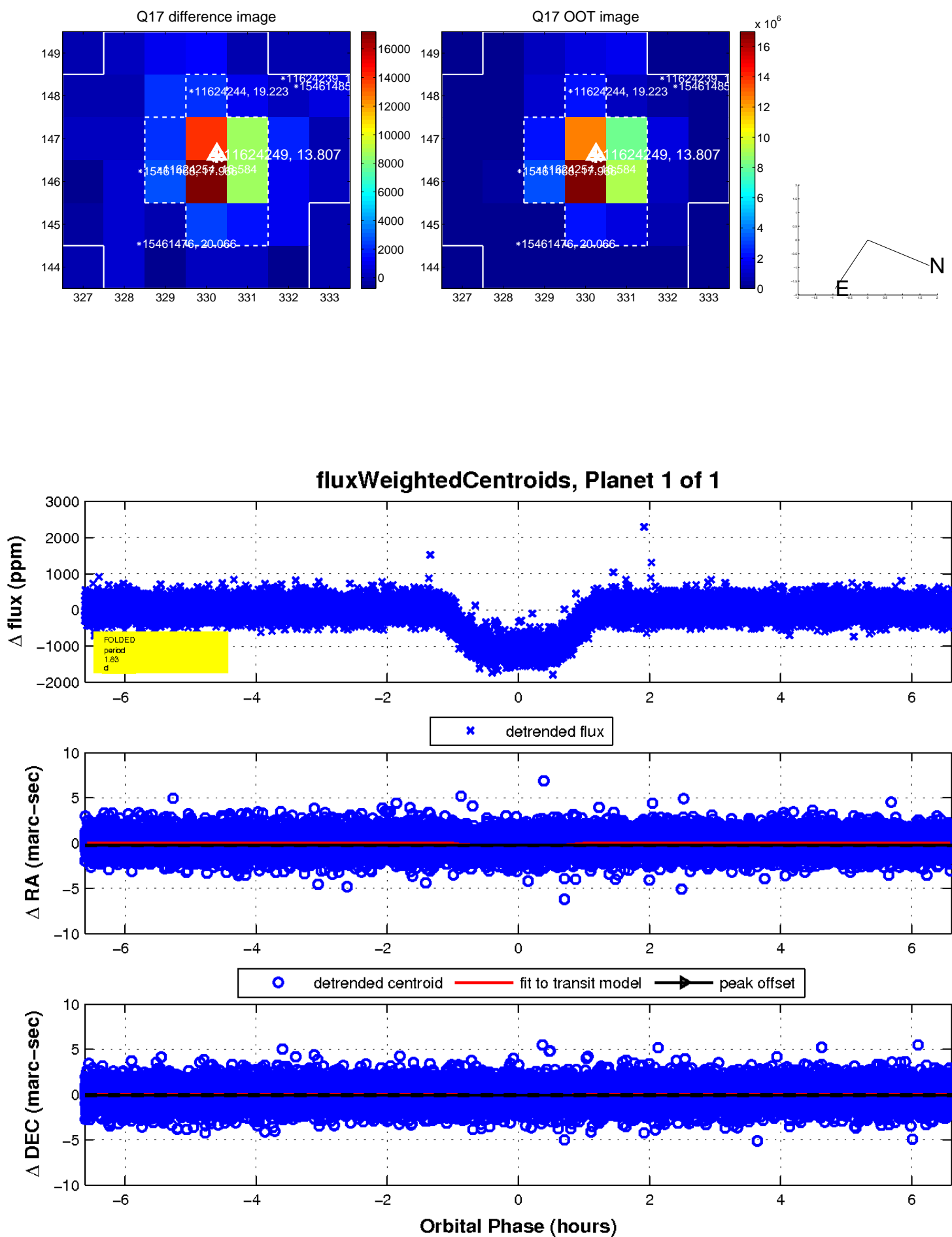
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

