

KIC 011359879

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})
011359879-01	OBS	0128.01	4.942783	136.329469	11134.6	3.328	1927.6	1873.2	0.98	5514	10.89	244.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011359879-01	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.

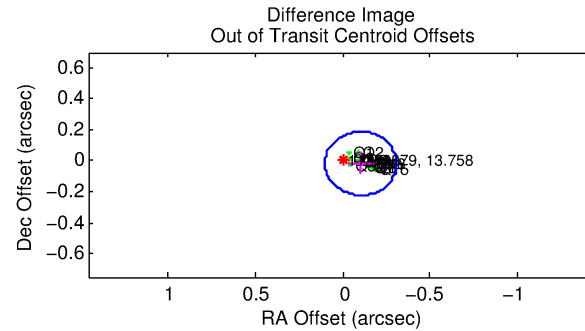
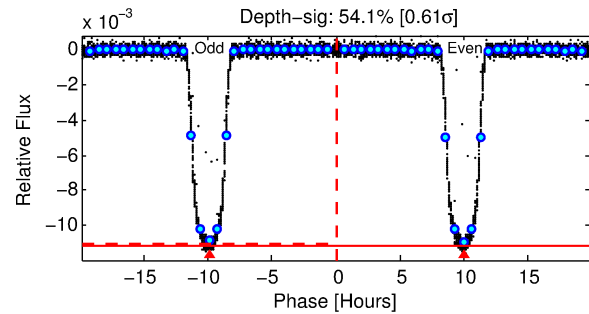
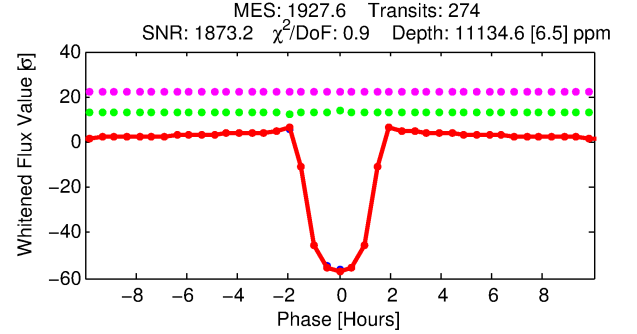
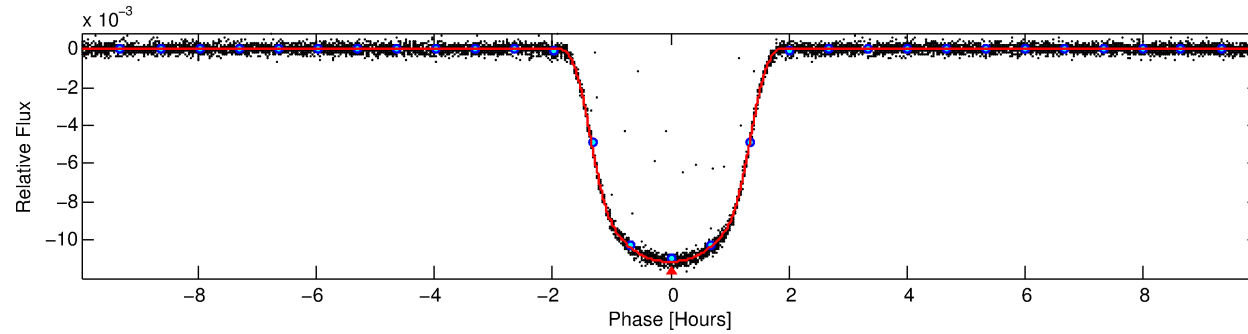
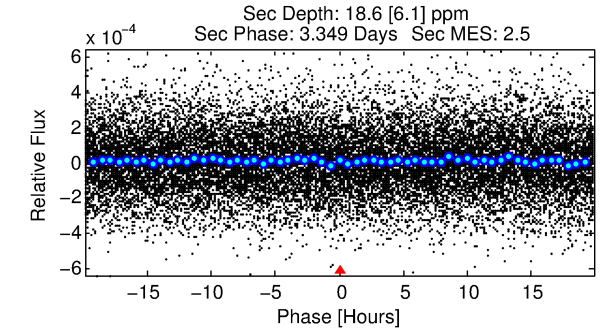
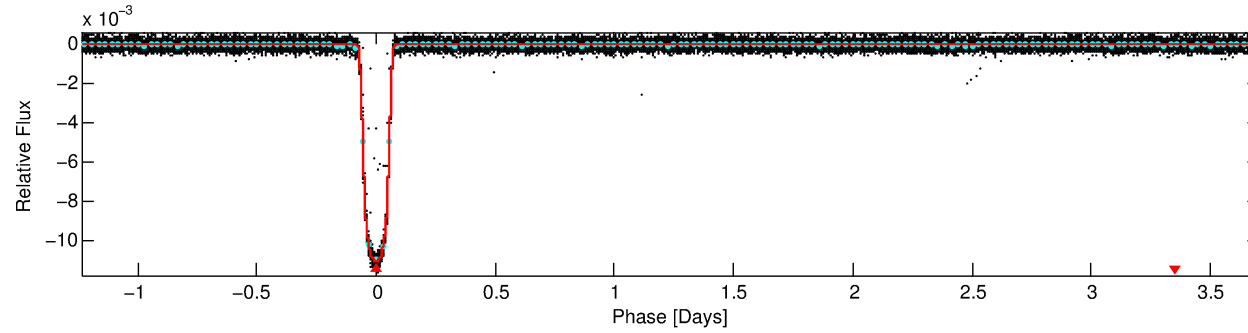
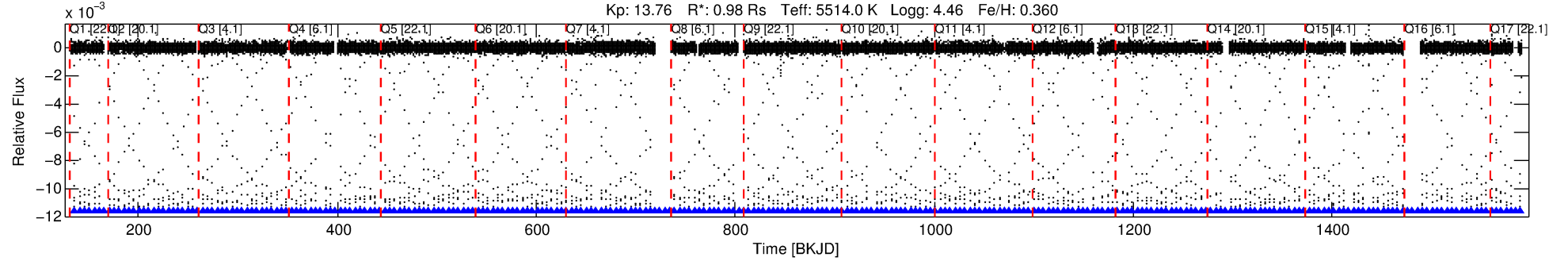
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011359879-01

No Significant Match Found

DV One-Page Summary

KIC: 11359879 Candidate: 1 of 1 Period: 4.943 d
KOI: K00128.01 Name: Kepler-15b Corr: 0.989



DV Fit Results:

Period = 4.94278 [0.00000] d
Epoch = 136.3295 [0.0000] BKJD
Rp/R* = 0.1021 [0.0001]
a/R* = 10.05 [0.05]
b = 0.66 [0.00]
Seff = 244.92 [50.78]
Teq = 1009 [52] K
Rp = 10.89 [1.48] Re
a = 0.0569 [0.0070] AU
Ag = 0.28 [0.11] [-6.80 σ]
Teffp = 1133 [96] K [1.14 σ]

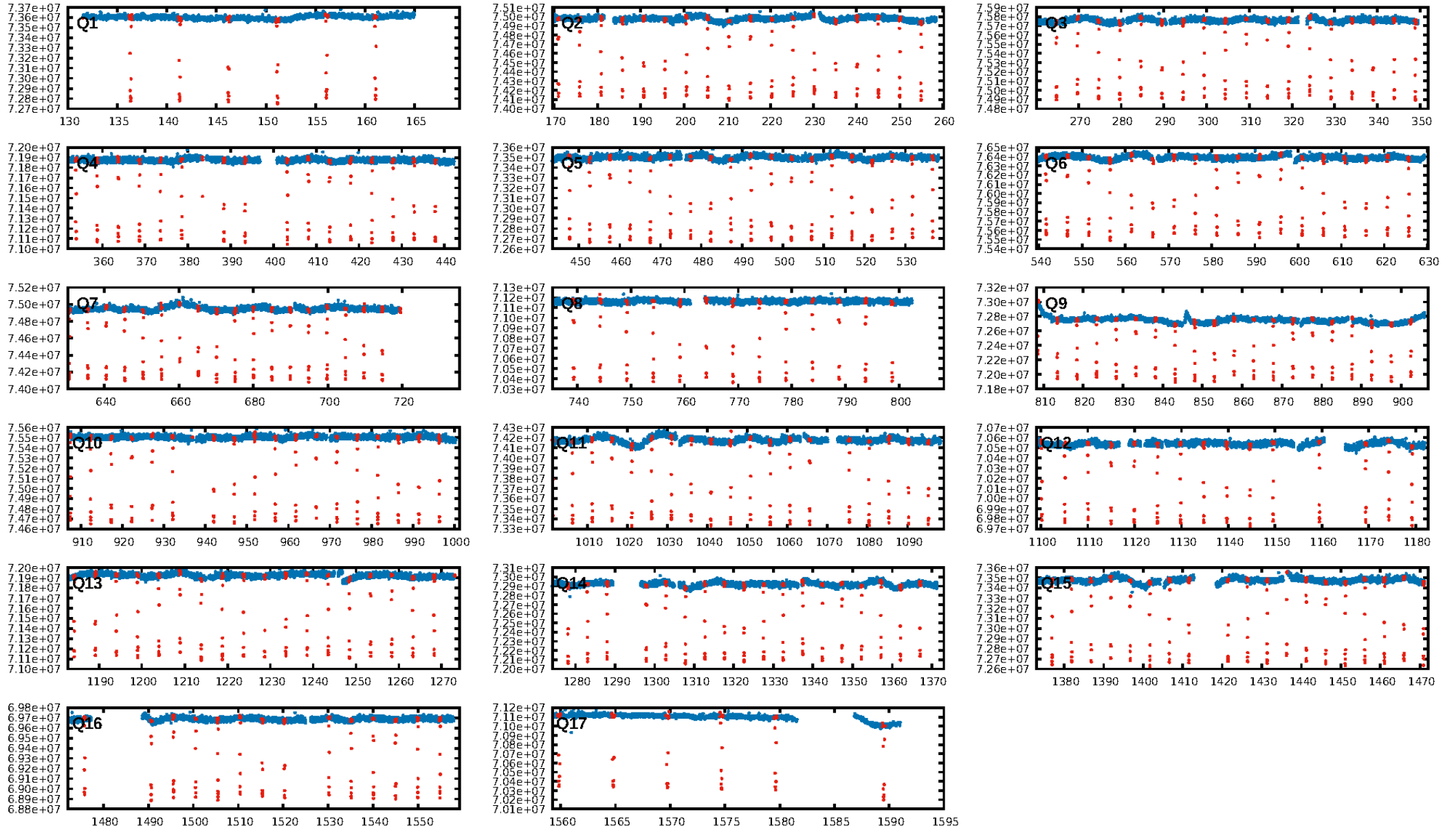
DV Diagnostic Results:

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 [262/262]
GhostDiagnostic-chr: 8.433
Centroid-sig: 0.0%
Centroid-so: 0.246 arcsec [36.92 σ]
OotOffset-rm: 0.104 arcsec [1.53 σ]
KicOffset-rm: 0.154 arcsec [2.28 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]

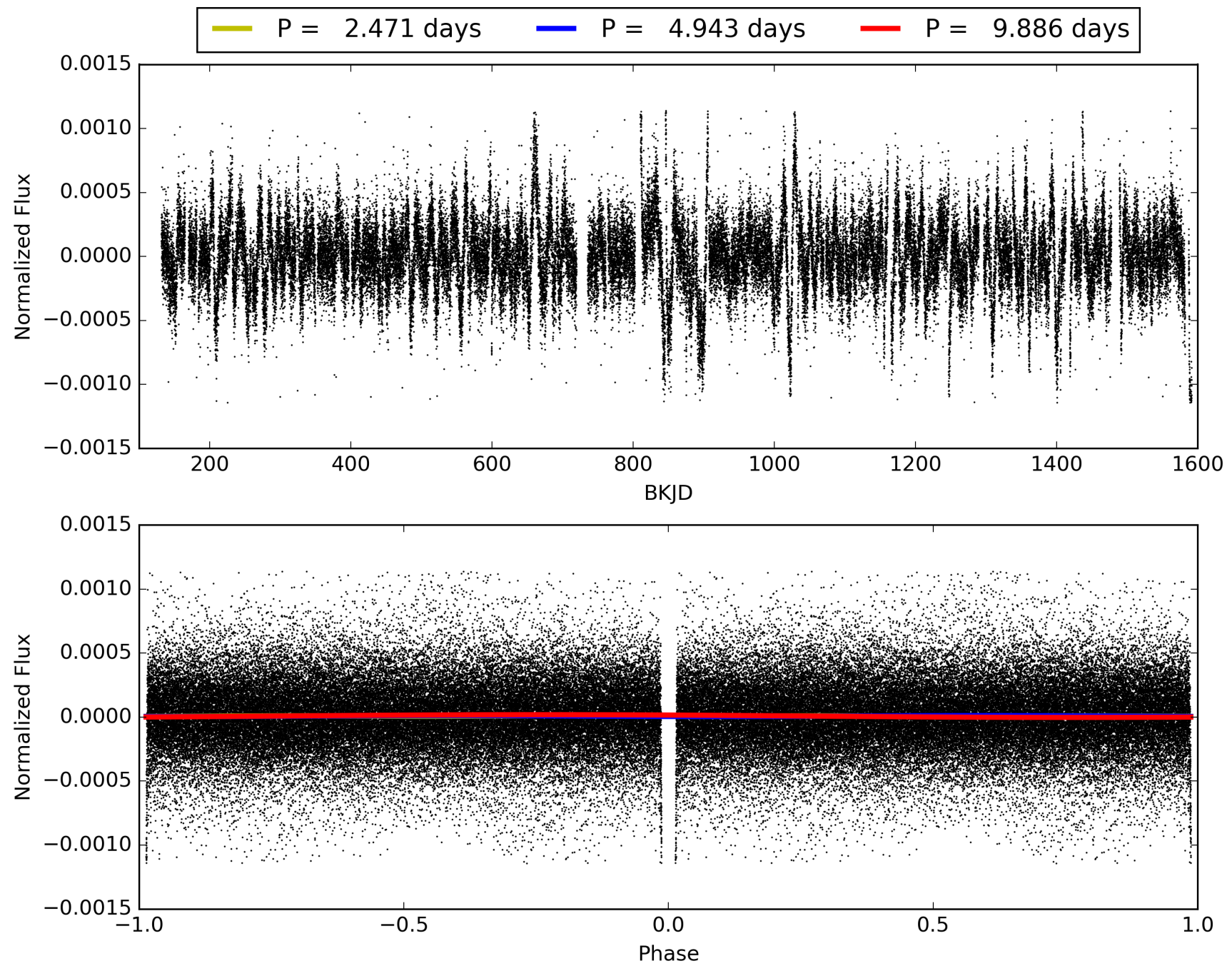
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:43:06 Z

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

TCE 011359879-01, PDC Light Curves

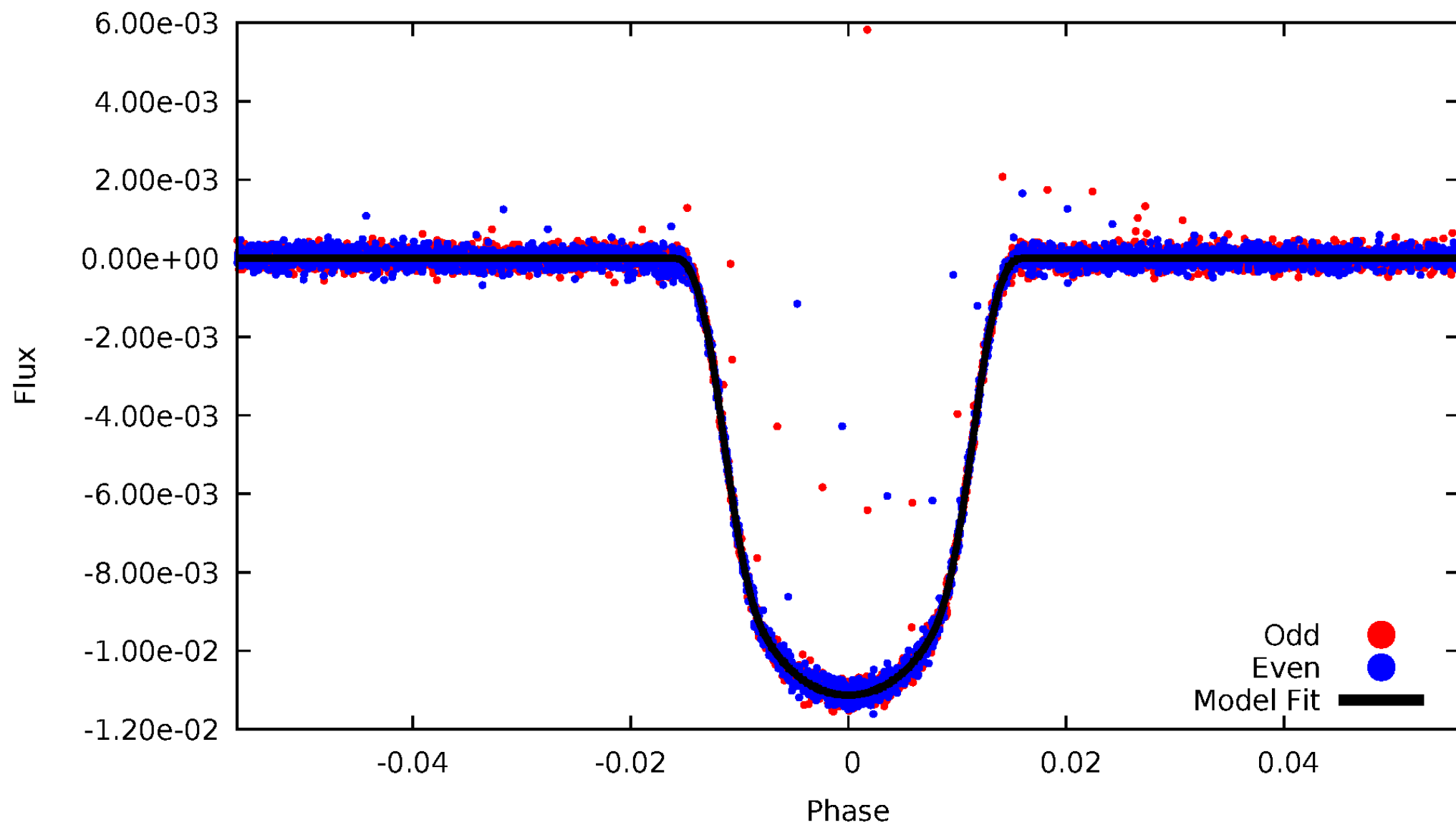


TCE 011359879-01



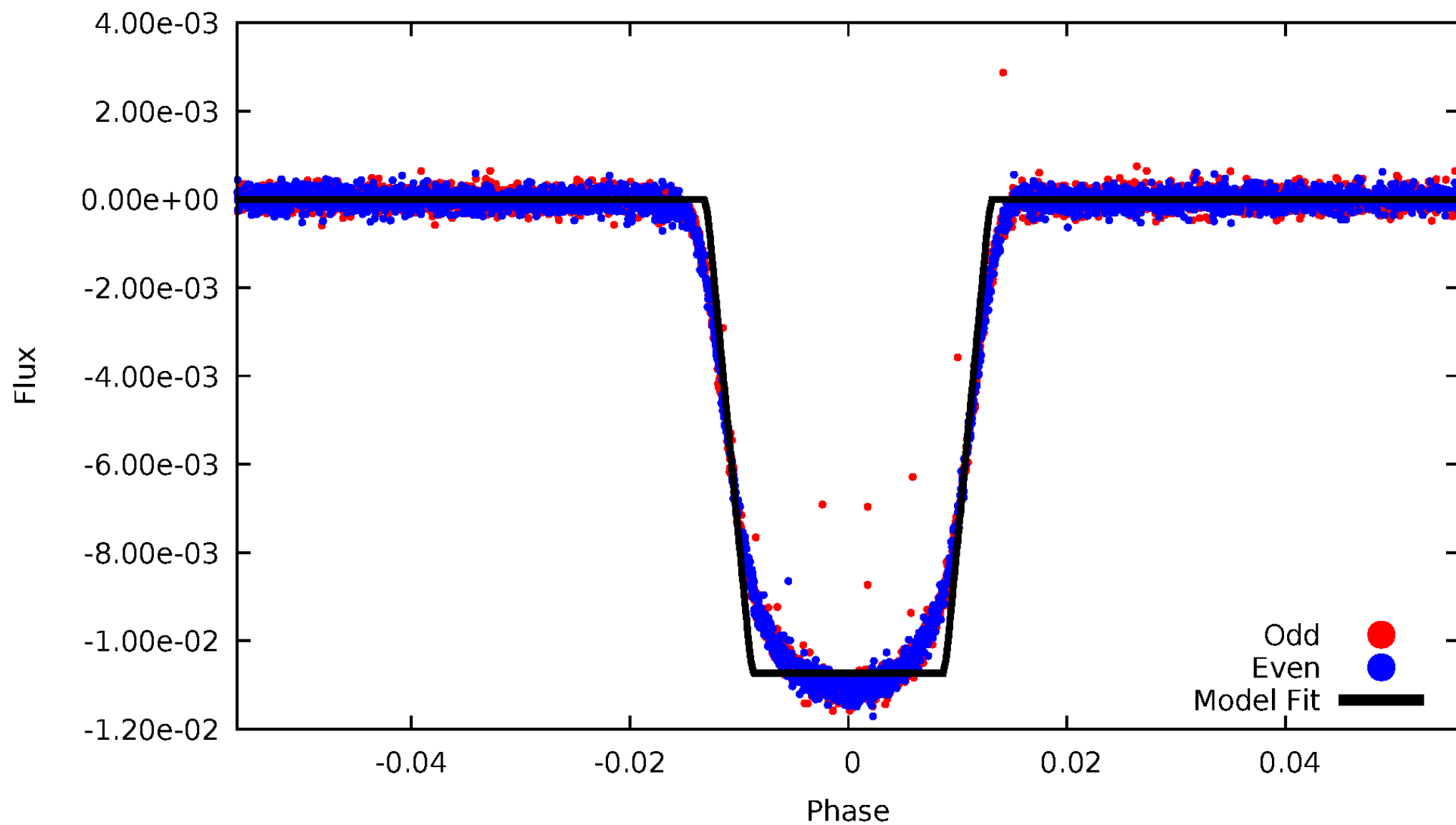
DV Odd/Even

TCE 011359879-01



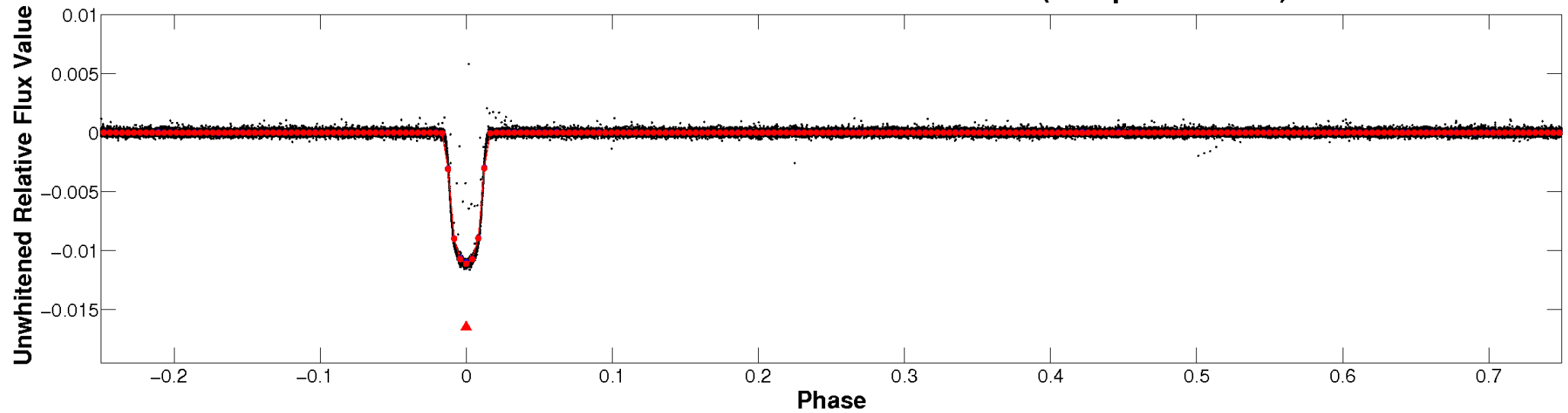
ALT Odd/Even

TCE 011359879-01

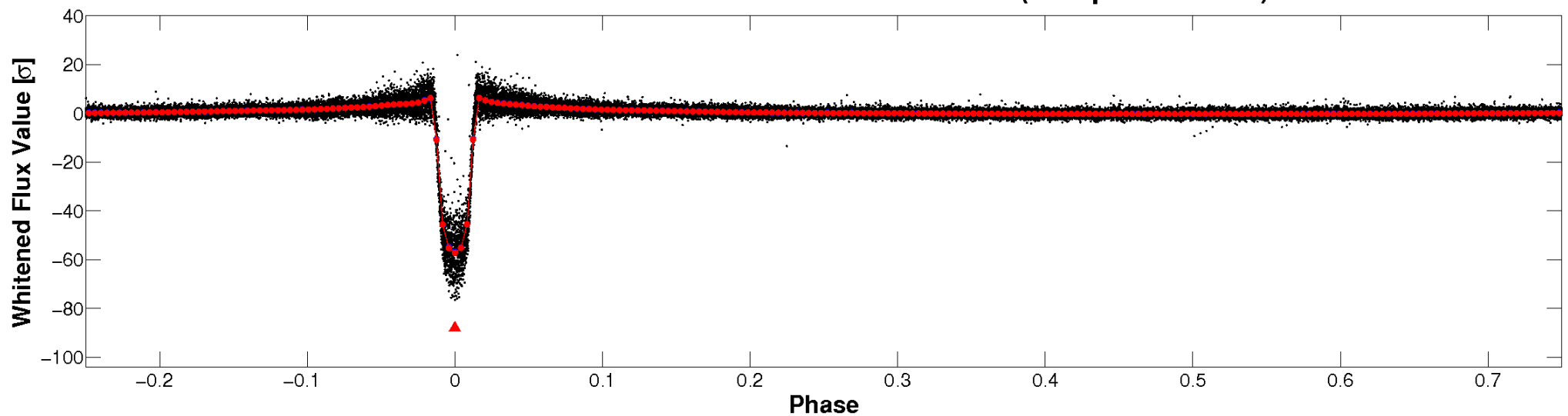


Non-Whitened Vs. Whitened Light Curve

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

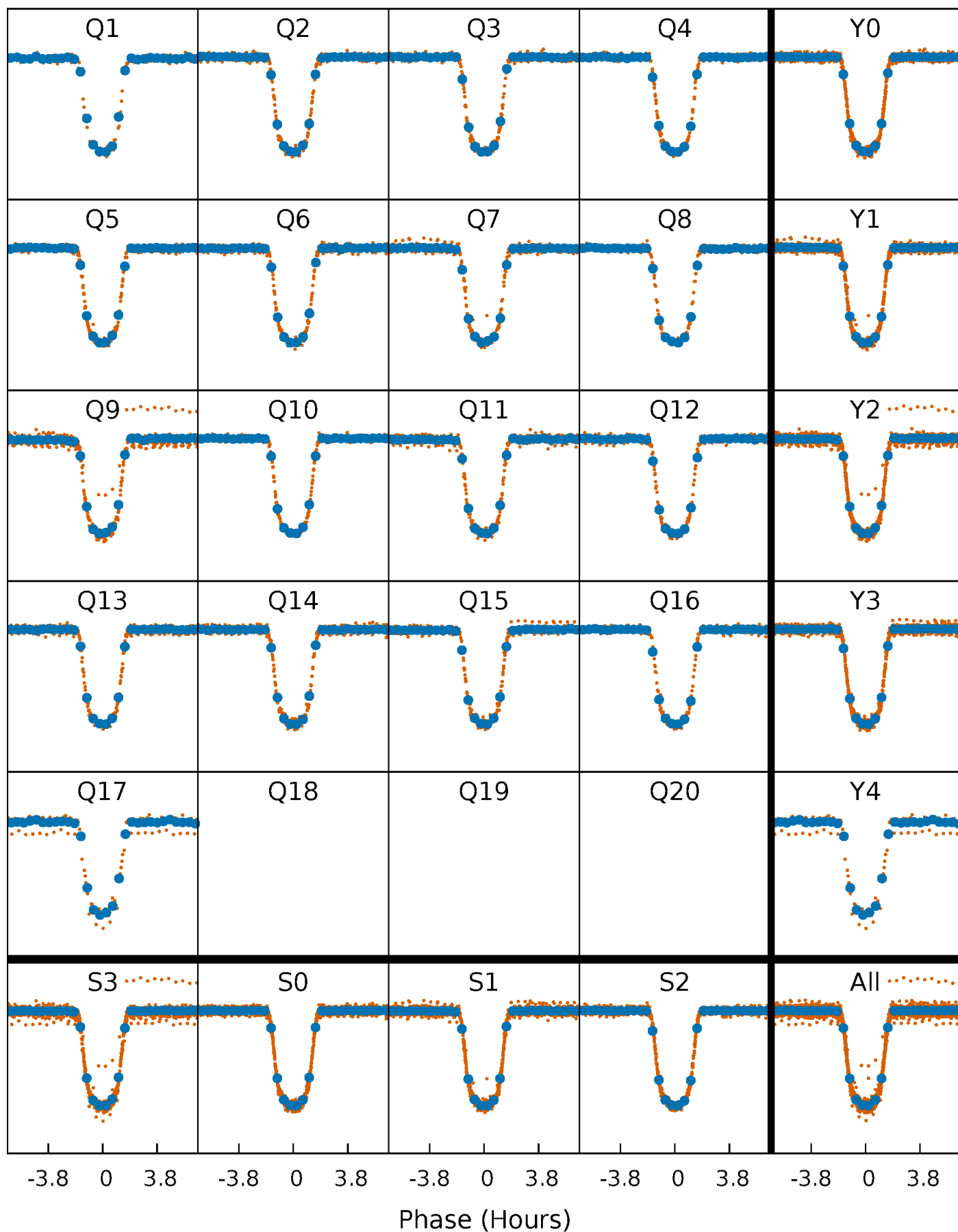


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



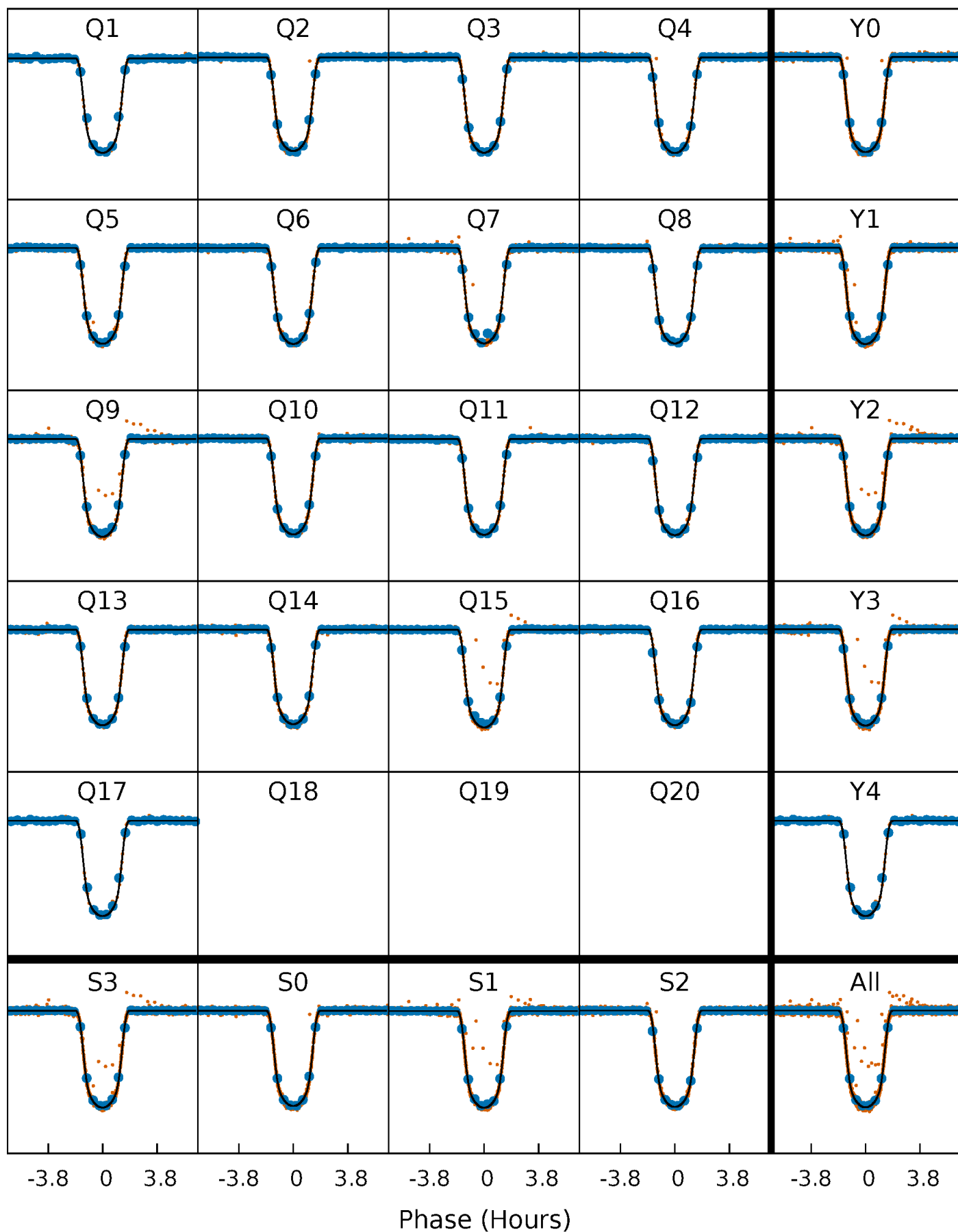
PDC Quarter-Phased Transit Curves

TCE 011359879-01 P= 4.942783 Days $T_0=136.329469$ (BKJD)



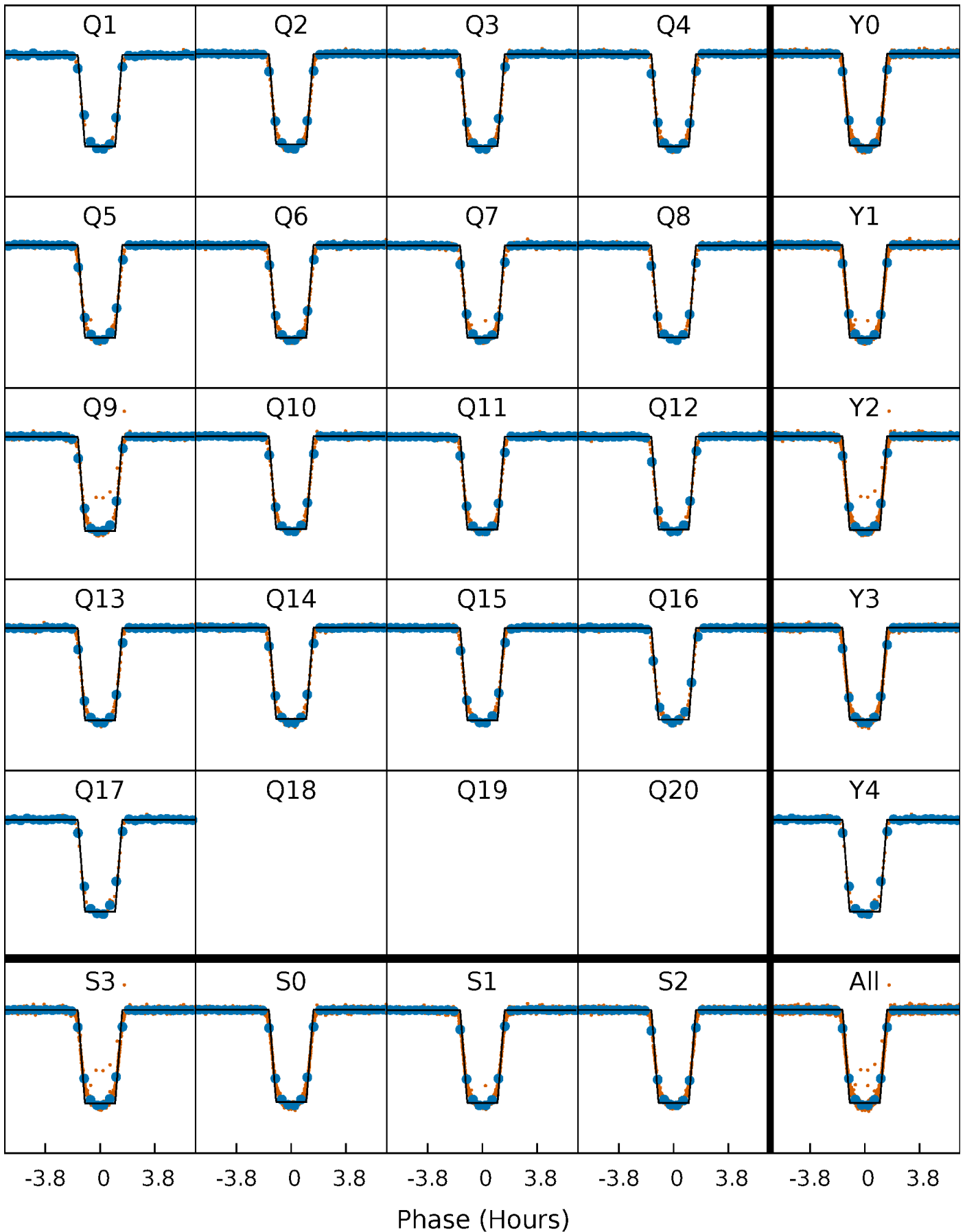
DV Quarter-Phased Transit Curves

TCE 011359879-01 P= 4.942783 Days $T_0=136.329469$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

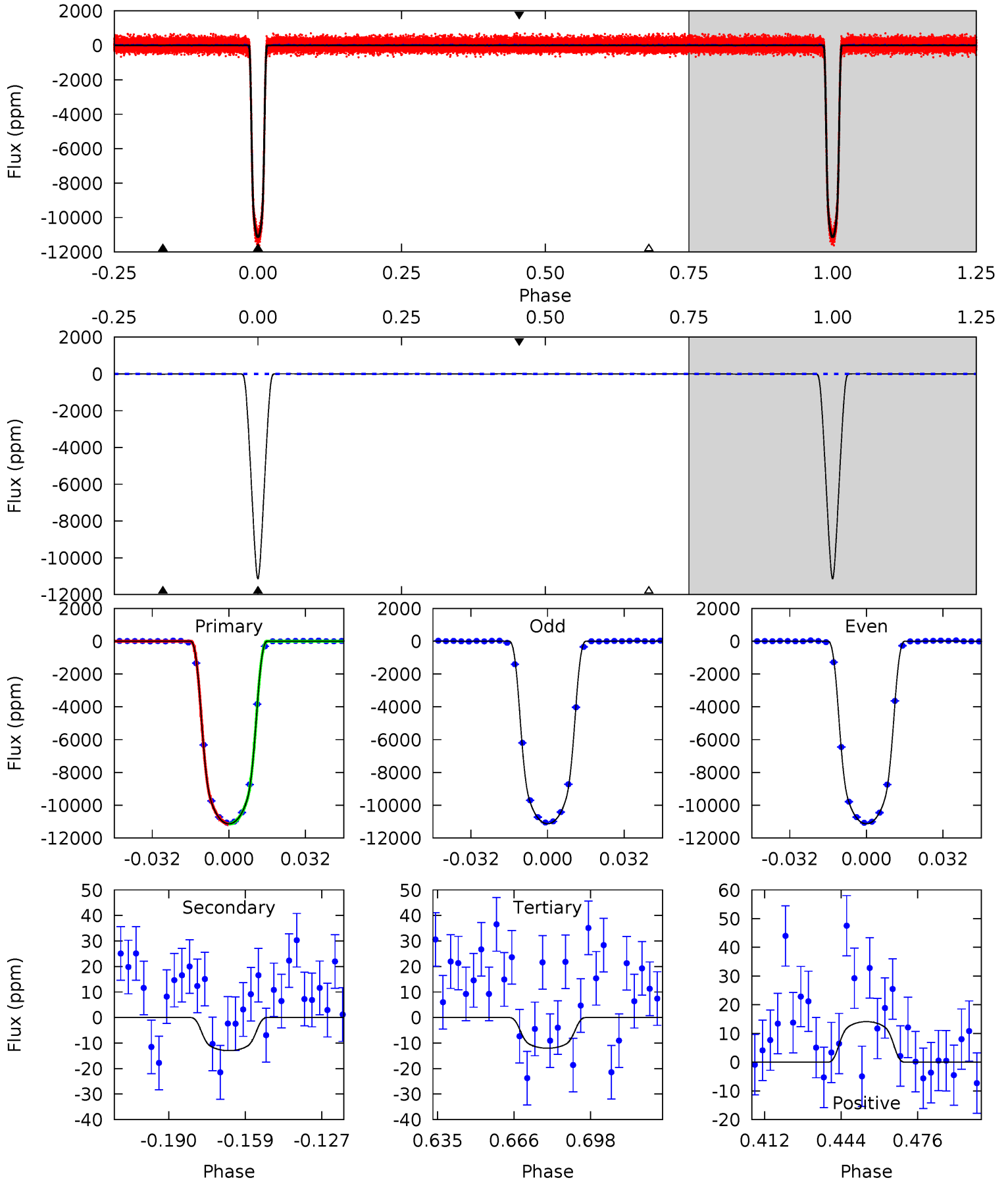
TCE 011359879-01 P= 4.942786 Days $T_0=136.329033$ (BKJD)



DV Model-Shift Uniqueness Test

011359879-01, P = 4.942783 Days, E = 131.386686 Days

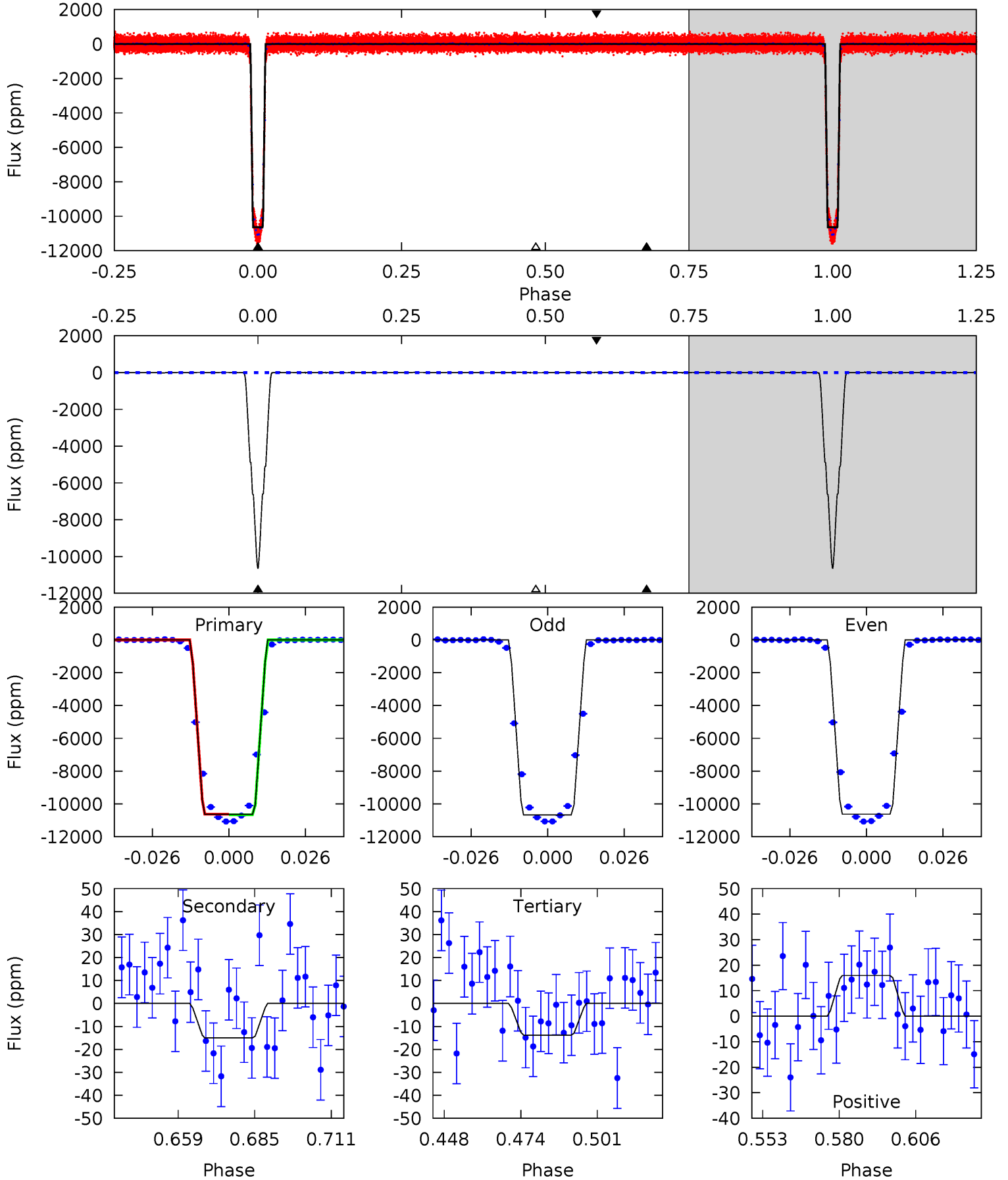
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2960	3.45	3.20	3.75	4.80	2.15	1.40	2957	2957	0.25	-0.31	0.48	0.99	0.00	3.55



Alt Model-Shift Uniqueness Test

011359879-01, P = 4.942786 Days, E = 131.386247 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2267	3.20	2.94	3.40	4.84	2.22	1.17	2264	2264	0.26	-0.20	4.29	1.00	0.00	4.55



Stellar Parameters For KIC 011359879

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5514^{+98}_{-109}	$4.459^{+0.051}_{-0.110}$	$0.360^{+0.100}_{-0.150}$	$0.978^{+0.133}_{-0.067}$	$1.003^{+0.046}_{-0.061}$	$1.511^{+0.287}_{-0.505}$
	+2%/-2%	+1%/-2%	+28%/-42%	+14%/-7%	+5%/-6%	+19%/-33%
Source	SPE27	SPE27	SPE27	DSEP		

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

Secondary Eclipse Parameters for KIC 011359879-01 / KOI 0128.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-13 ± 4	$10.98^{+0.86}_{-0.48}$	1419^{+55}_{-42}	-1931^{+135}_{-91}	$0.185^{+0.058}_{-0.056}$
Alt.	-15 ± 5	$11.06^{+0.91}_{-0.46}$	1415^{+54}_{-41}	-1866^{+340}_{-133}	$0.218^{+0.073}_{-0.072}$

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

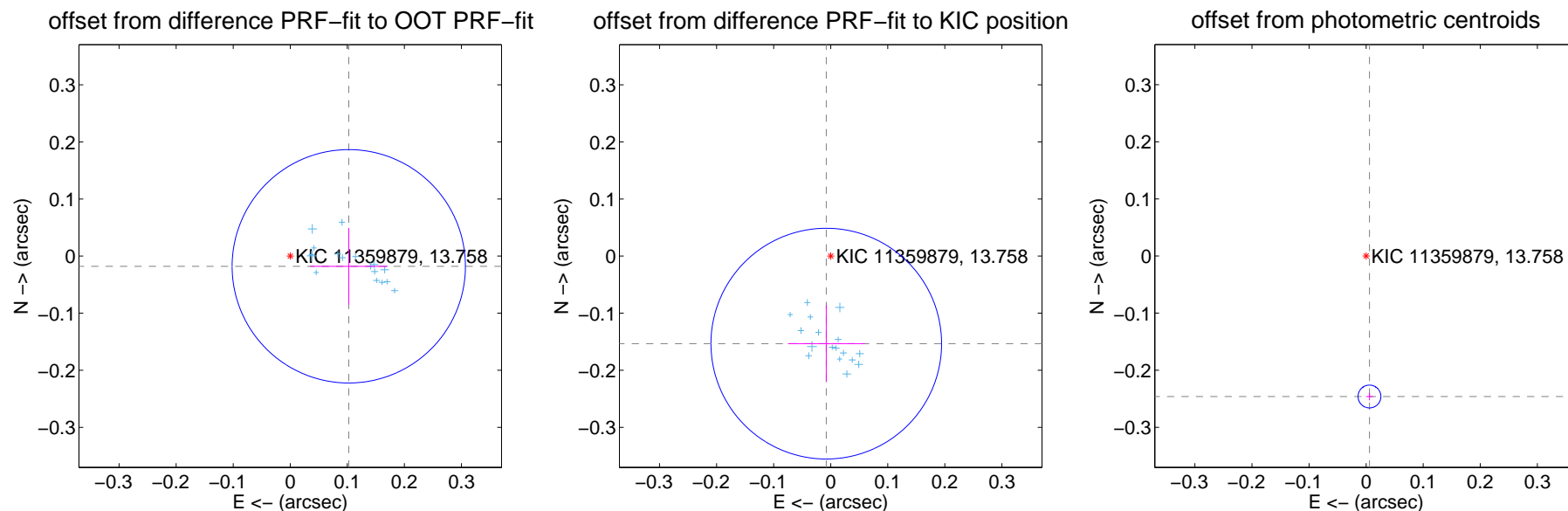
DV Centroid Data

Supplemental centroid analysis for 011359879-01. Kepler magnitude: 13.76. Transit SNR 1873.16

There are 17 quarters with good PRF difference image offsets

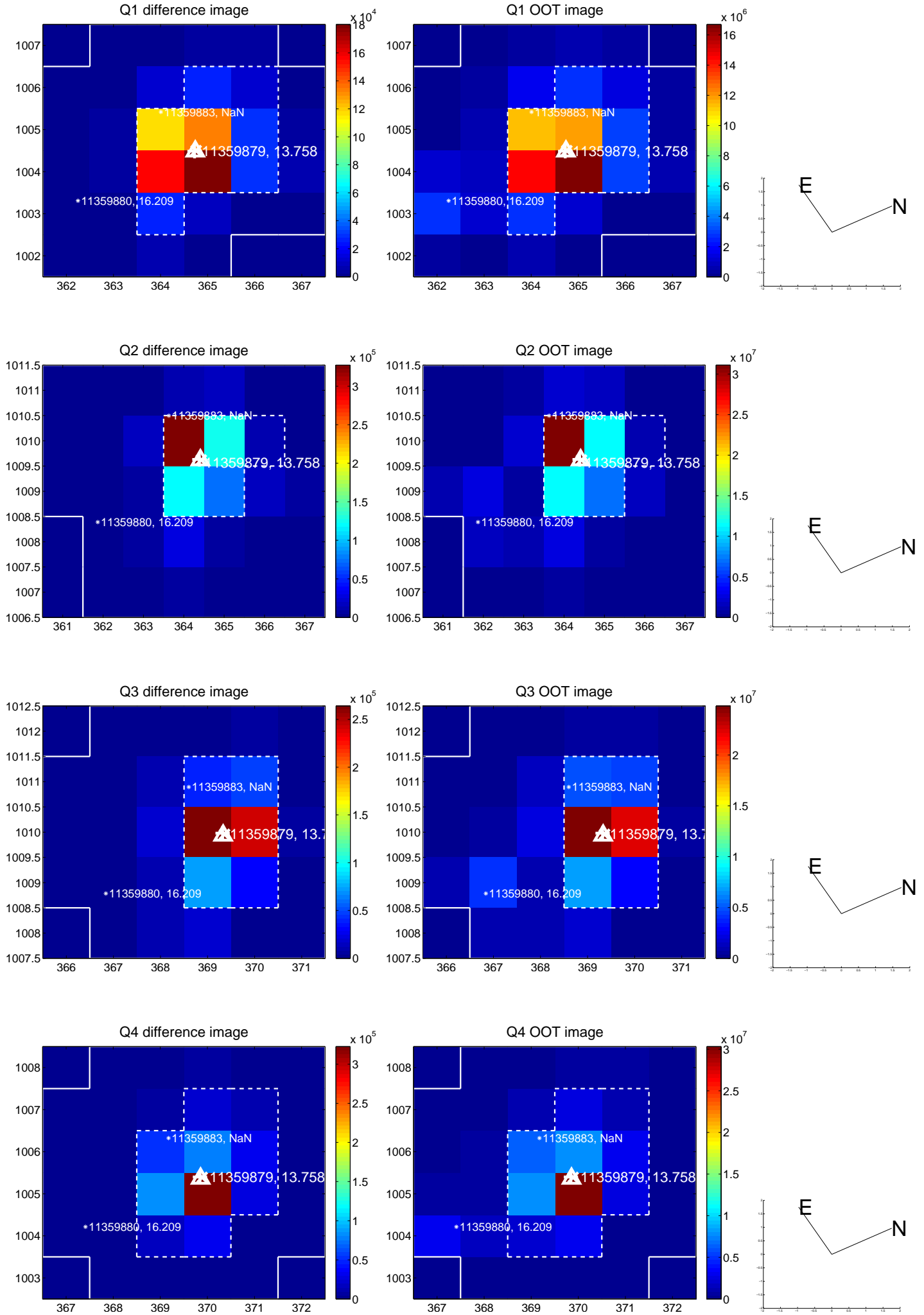
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.104 ± 0.068	1.53	-0.103 ± 0.068	-0.018 ± 0.067
PRF-fit source offset from KIC position	0.154 ± 0.067	2.28	0.008 ± 0.067	-0.153 ± 0.067
photometric centroid source offset	0.25 ± 0.01	36.92	-0.01 ± 0.01	-0.25 ± 0.01

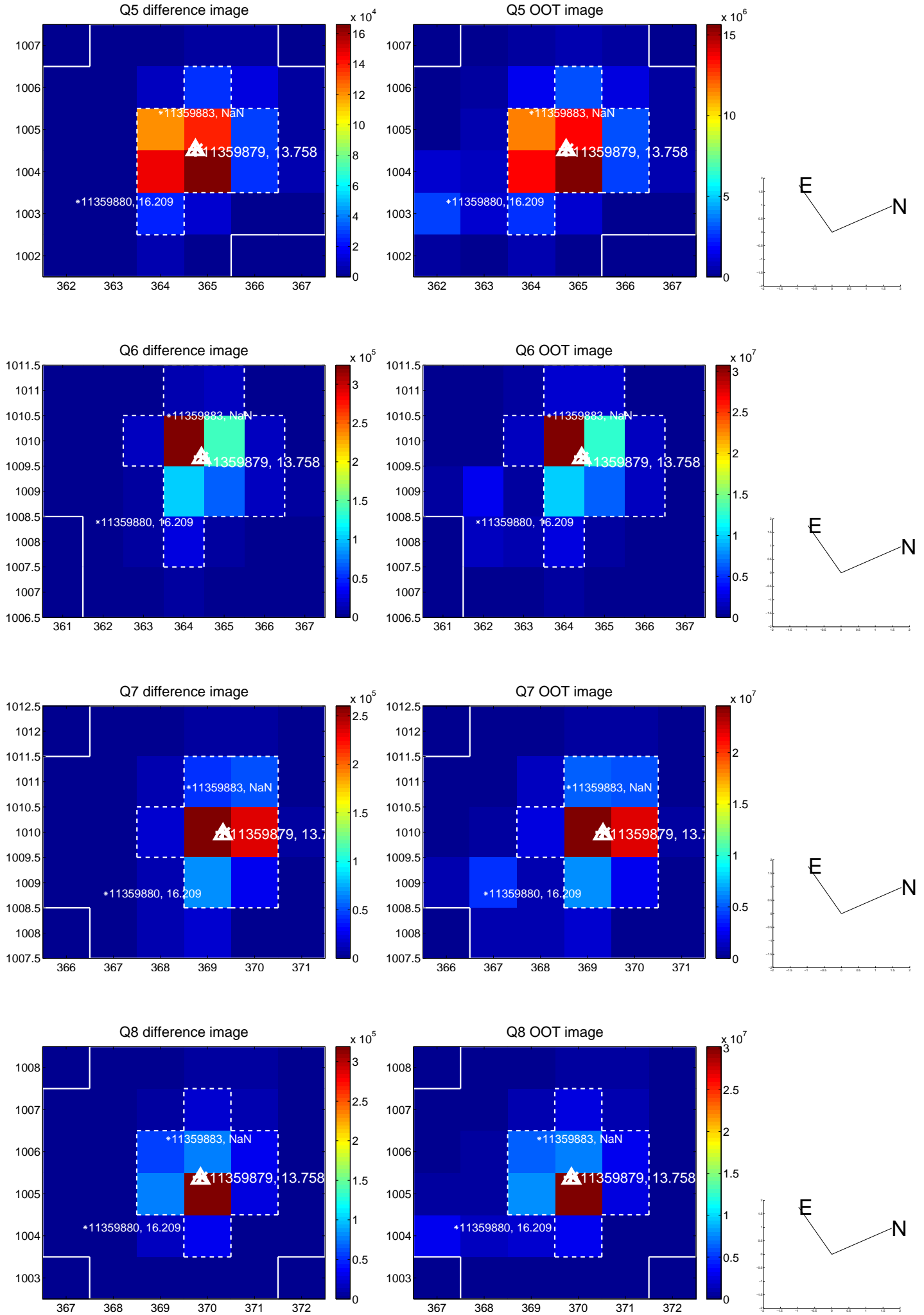


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

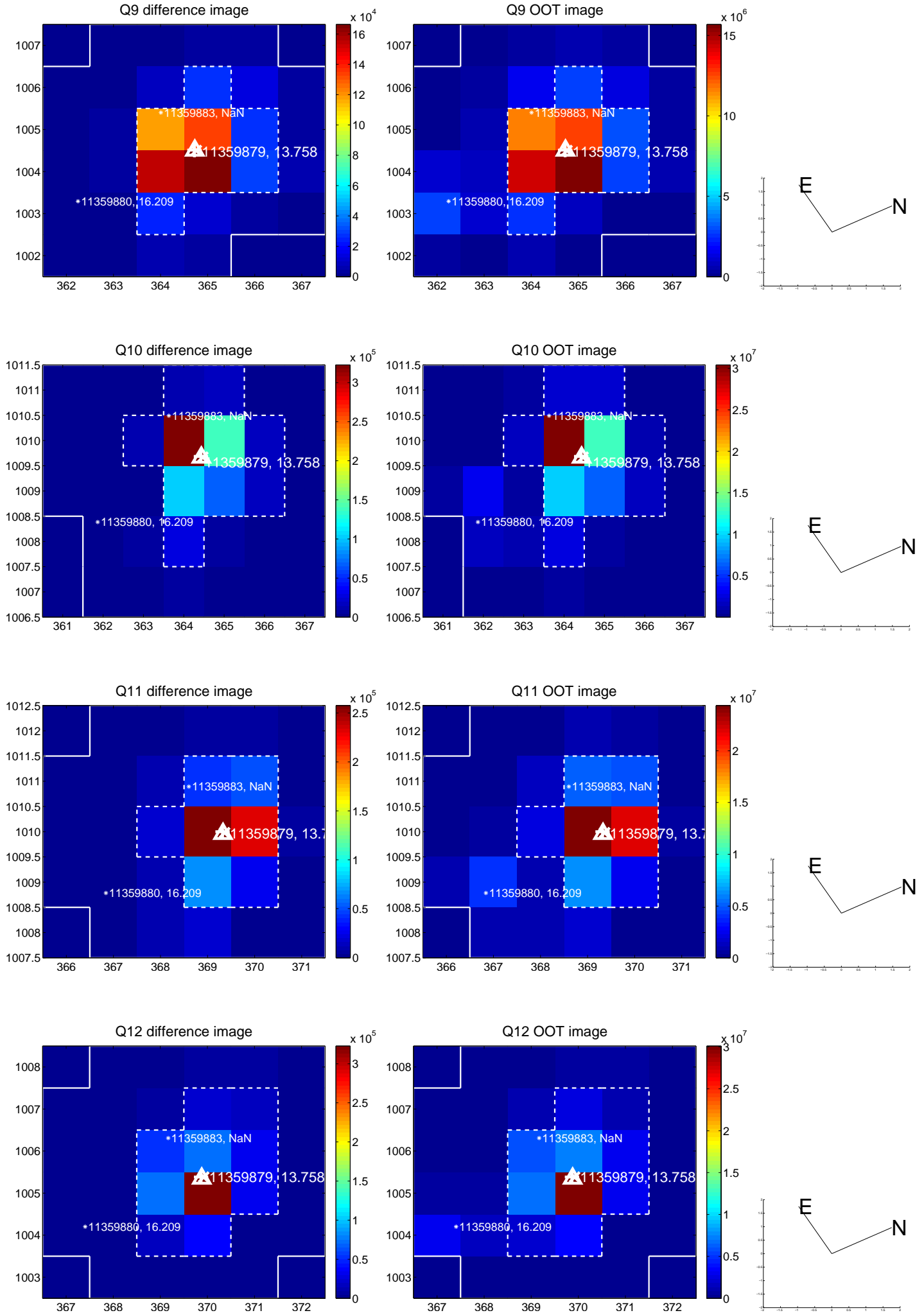
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



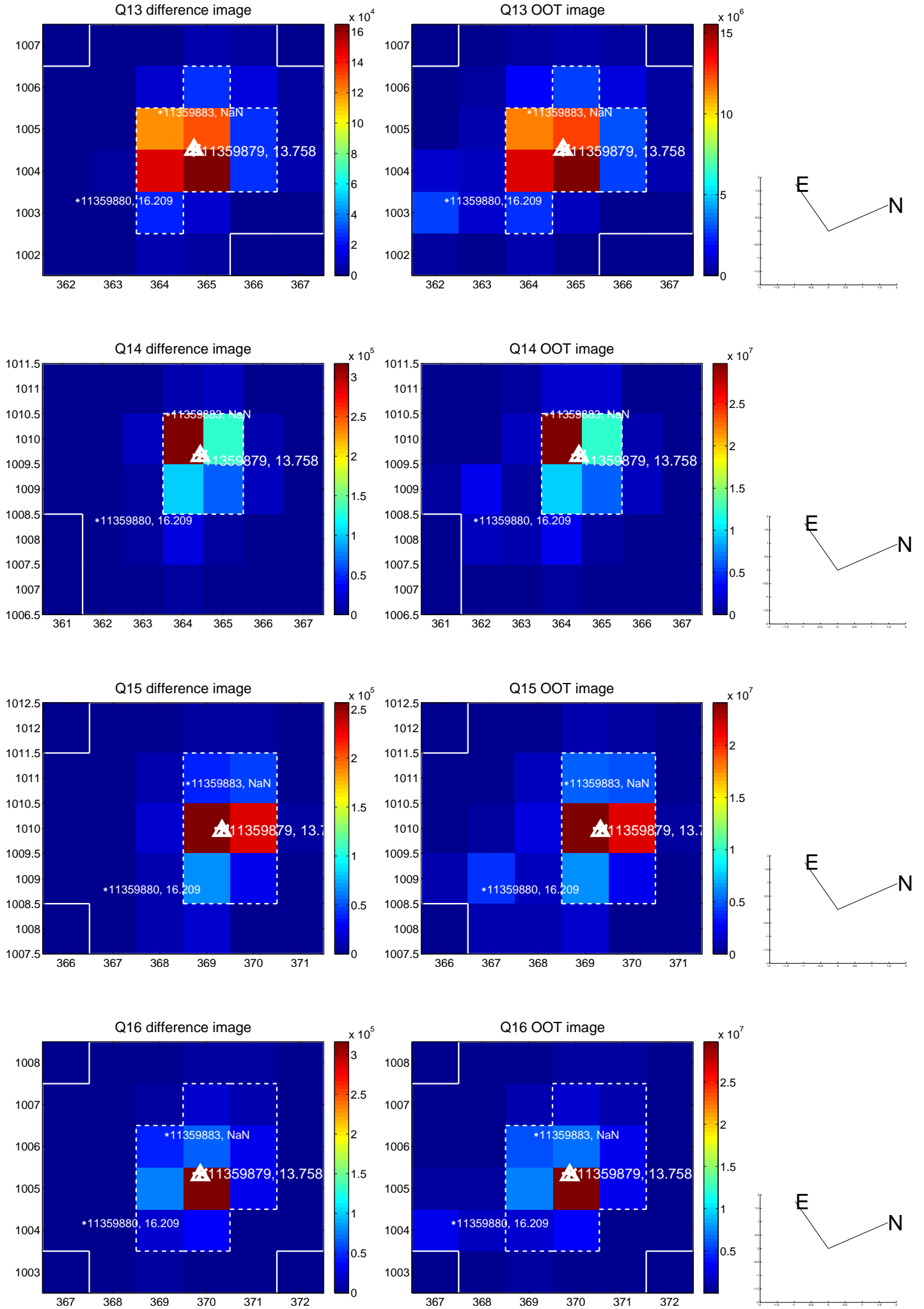
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



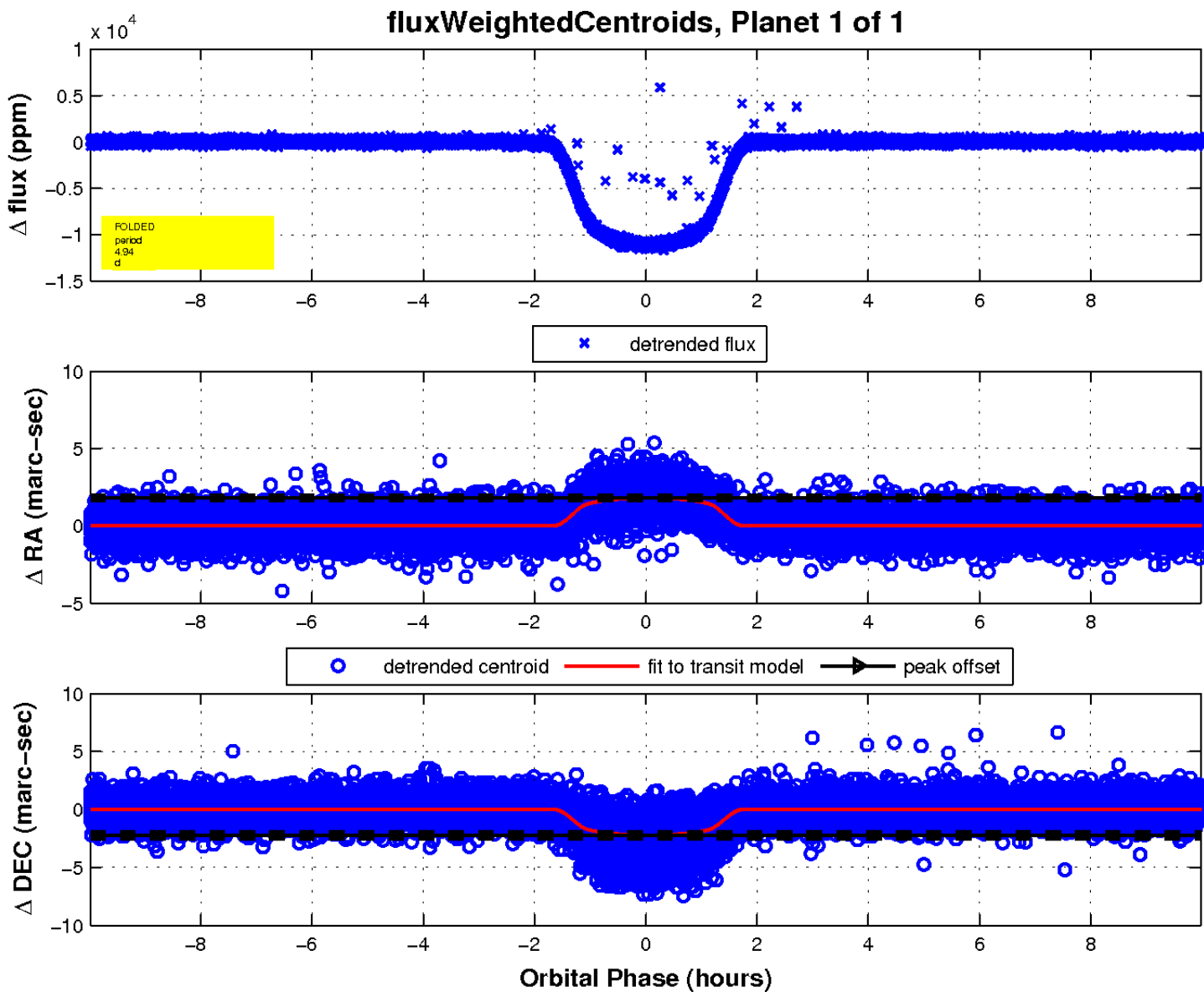
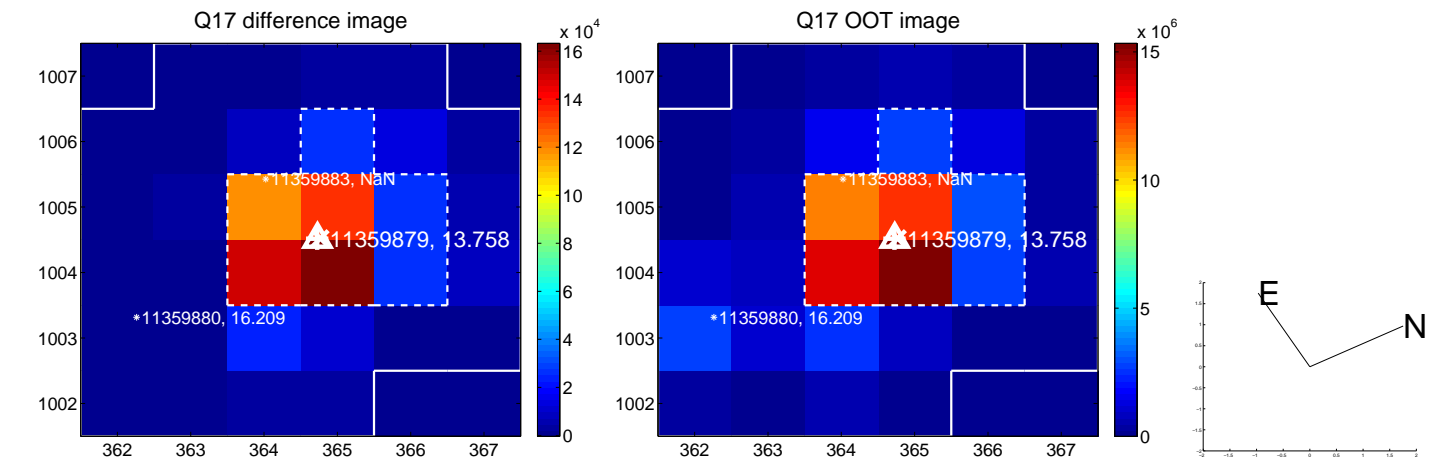
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

