

KIC 001865042

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})
001865042-01	OBS	1002.01	3.481594	132.987942	133.0	1.896	19.8	23.0	1.02	5405	1.43	423.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001865042-01	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.

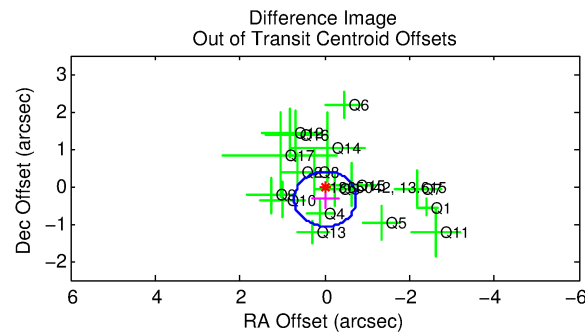
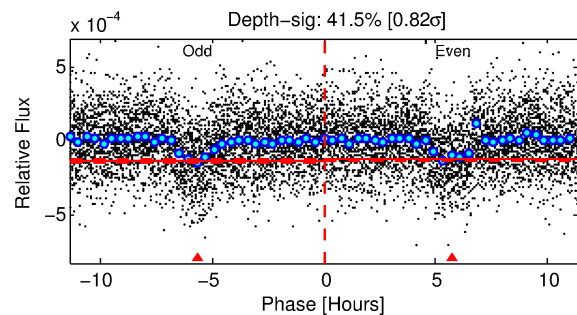
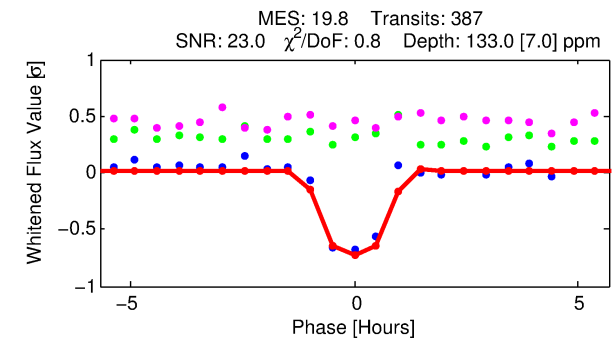
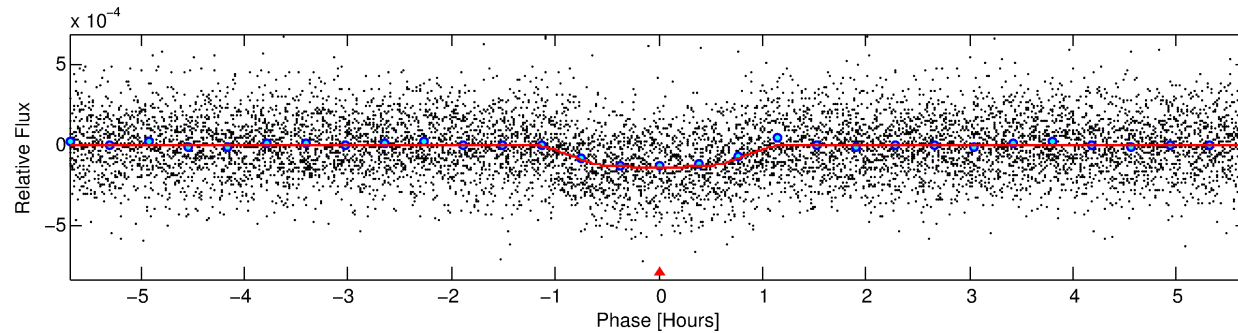
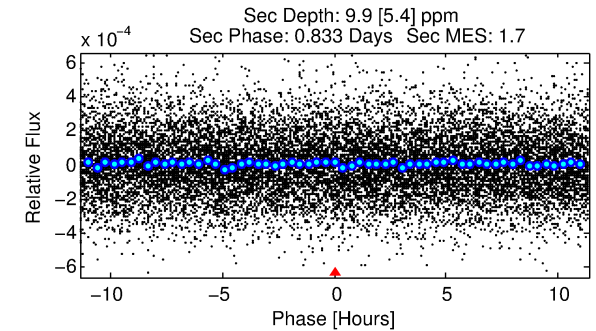
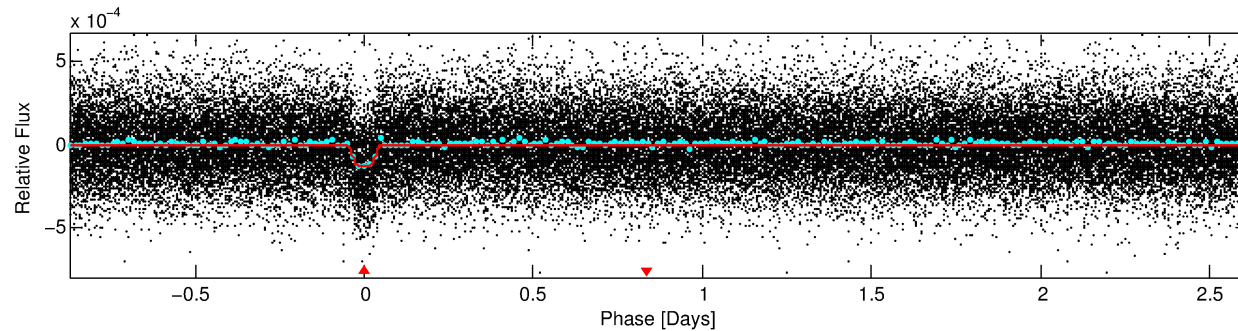
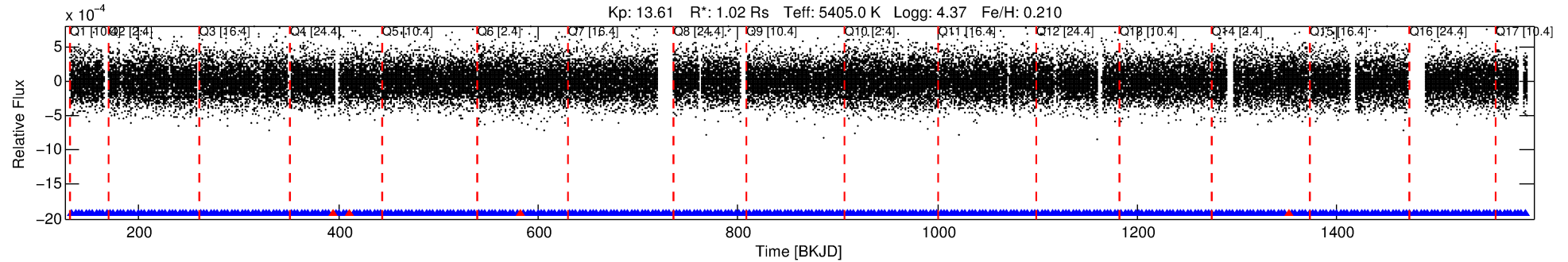
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001865042-01

No Significant Match Found

DV One-Page Summary

KIC: 1865042 Candidate: 1 of 1 Period: 3.482 d
KOI: K01002.01 Corr: 0.980



DV Fit Results:

Period = 3.48159 [0.00001] d
Epoch = 132.9879 [0.0015] BKJD
Rp/R* = 0.0128 [0.0053]
a/R* = 6.55 [11.37]
b = 0.90 [0.38]
Seff = 423.32 [92.72]
Teq = 1157 [63] K
Rp = 1.43 [0.61] Re
a = 0.0434 [0.0054] AU
Ag = 5.07 [5.10] [0.80σ]
Teffp = 2683 [664] K [2.29σ]

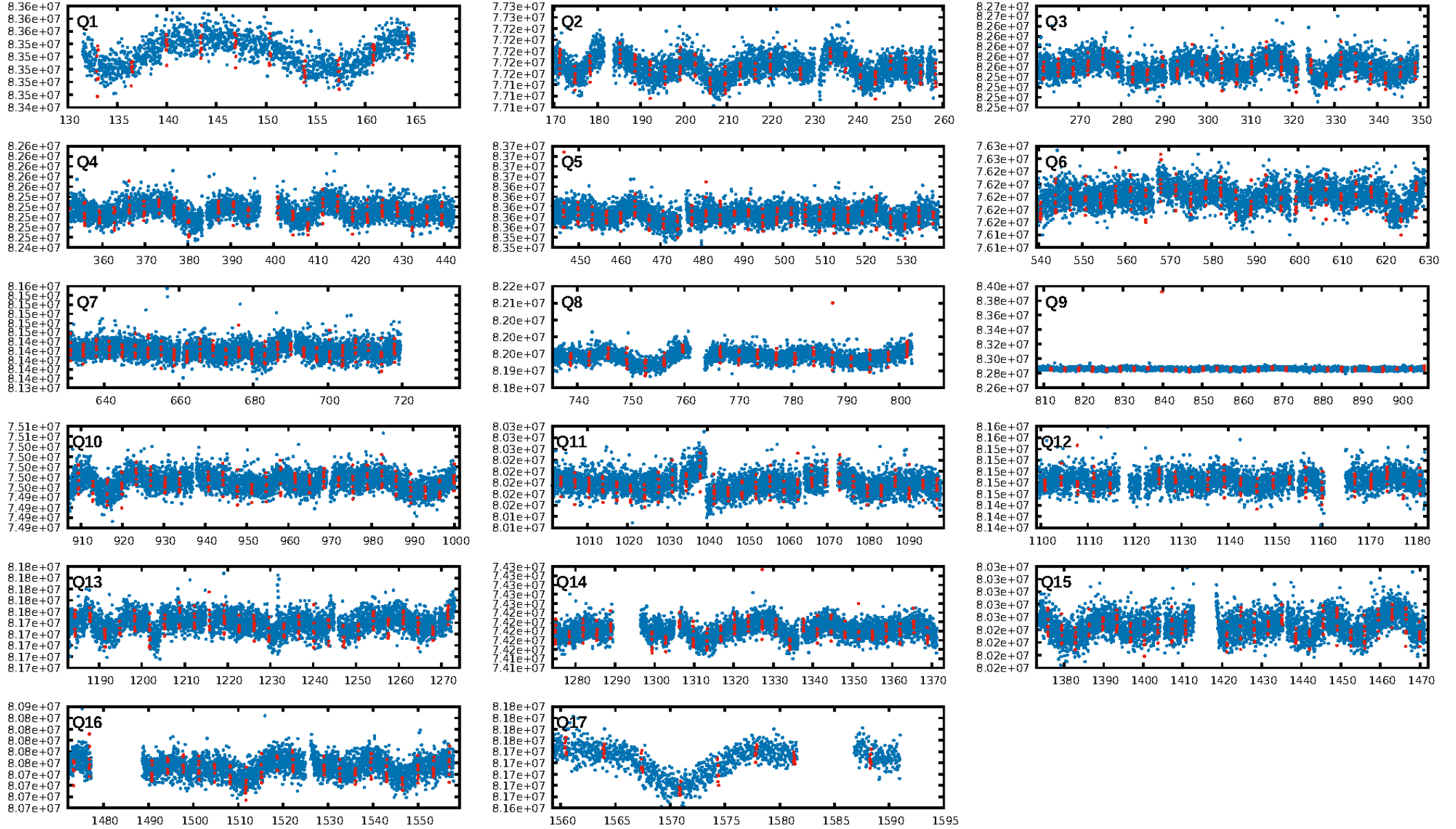
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.77e-85
RollingBand-fgt: 0.99 [365/369]
GhostDiagnostic-chr: 2.681
Centroid-sig: 64.1%
Centroid-so: 0.807 arcsec [1.22σ]
OotOffset-rm: 0.335 arcsec [1.37σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.209 arcsec [0.76σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

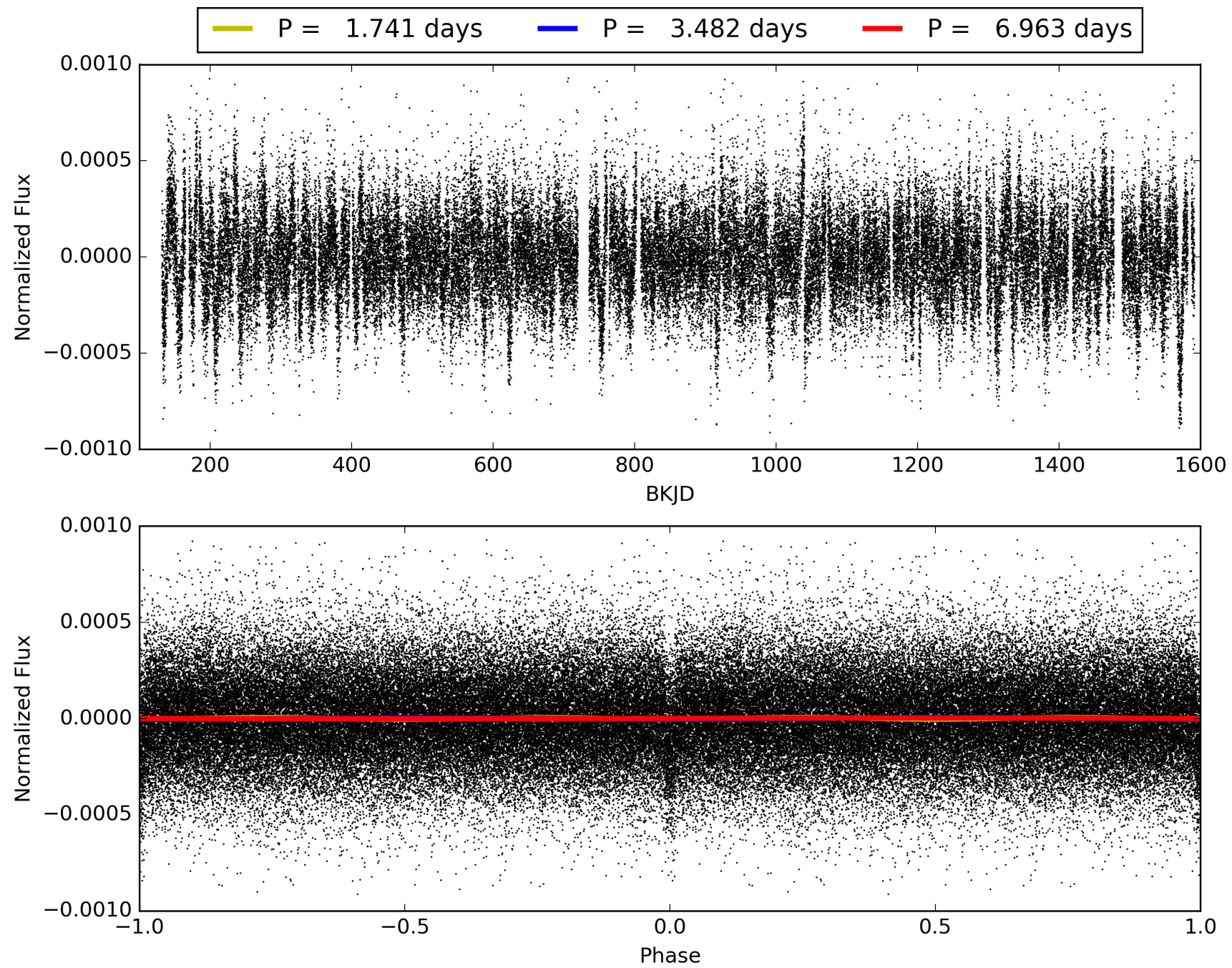
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:32:57 Z

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

TCE 001865042-01, PDC Light Curves

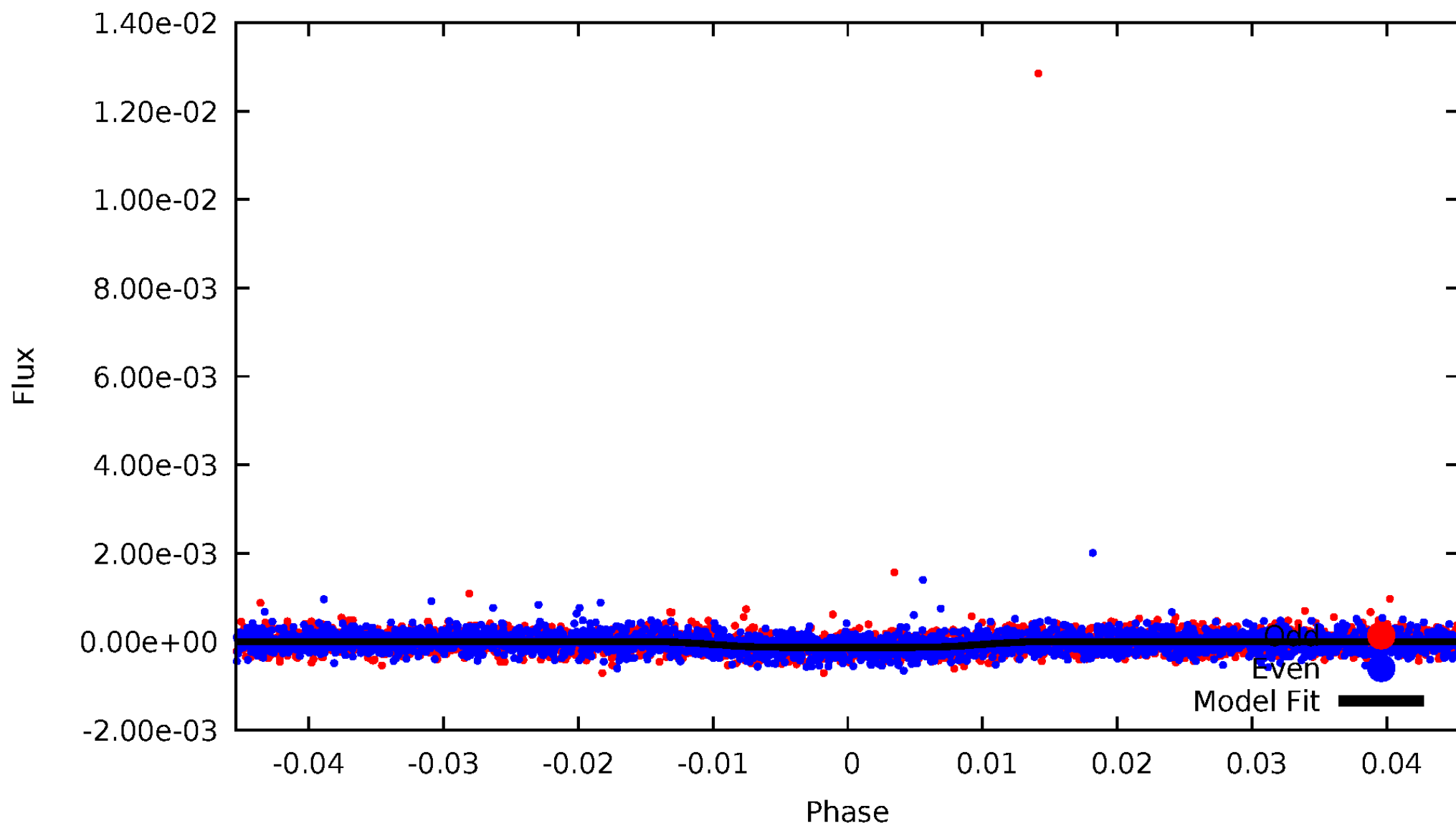


TCE 001865042-01



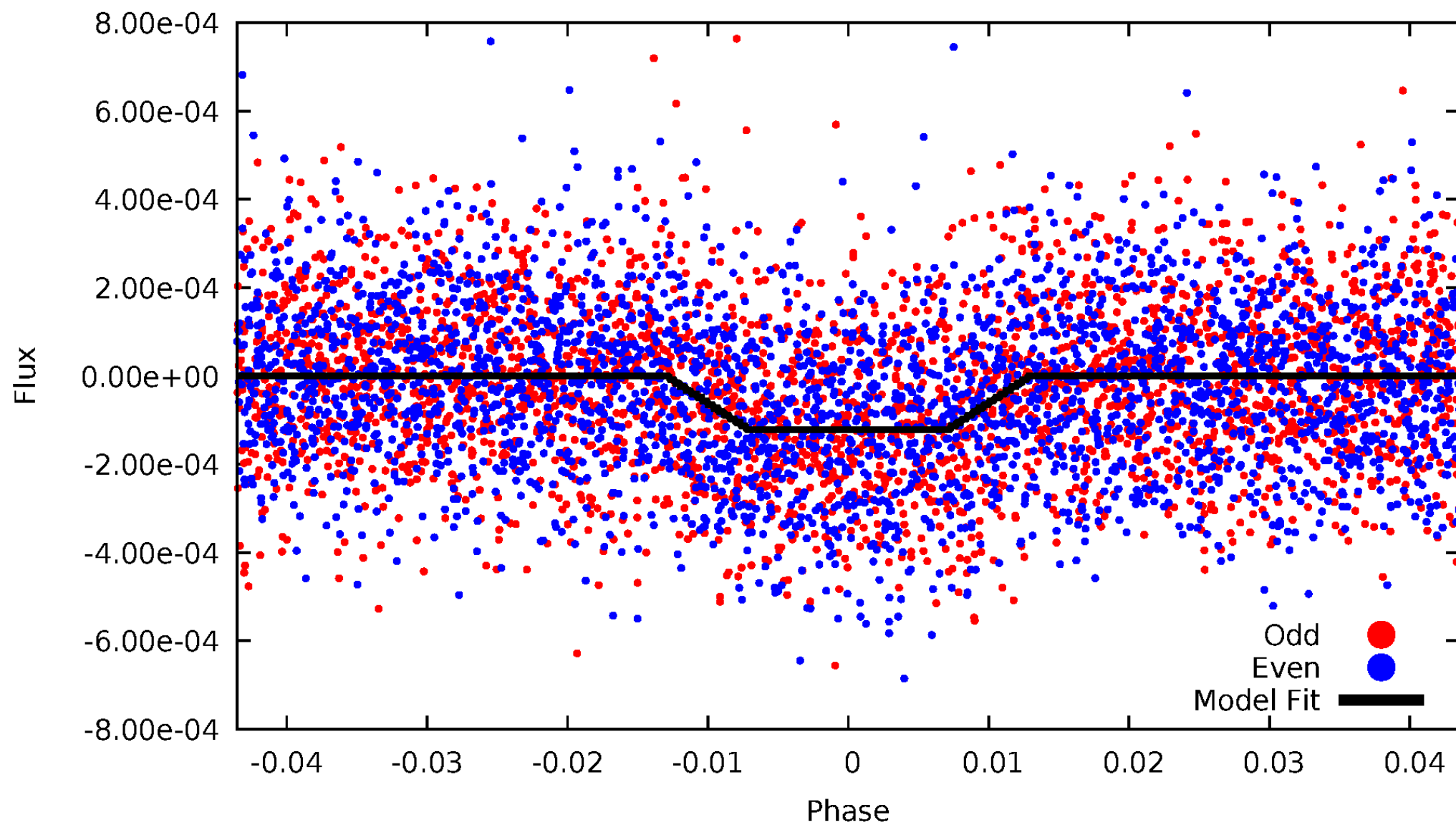
DV Odd/Even

TCE 001865042-01



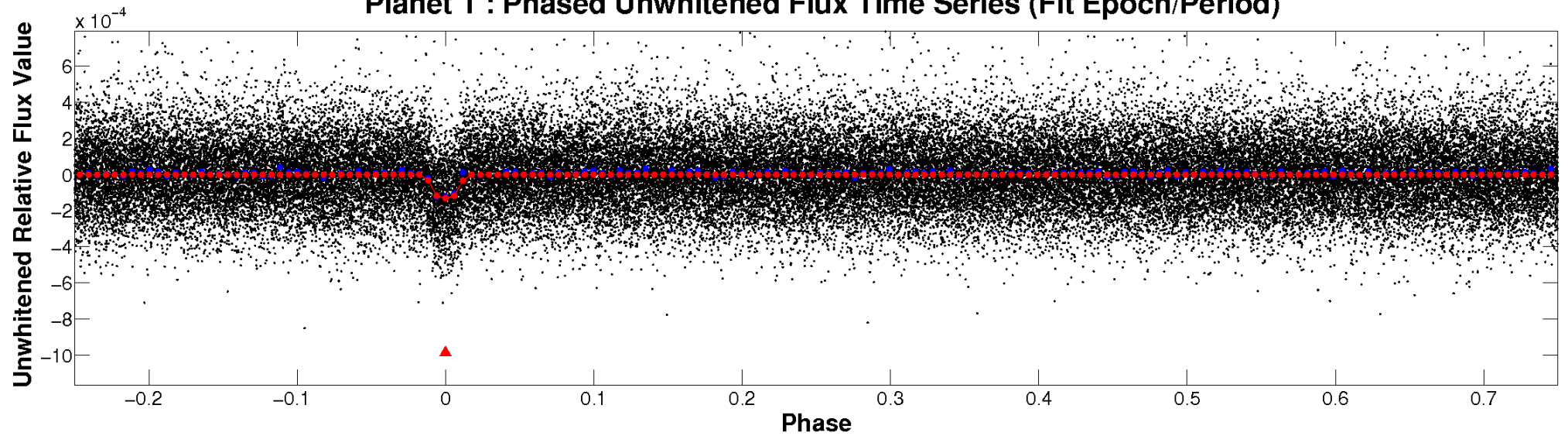
ALT Odd/Even

TCE 001865042-01

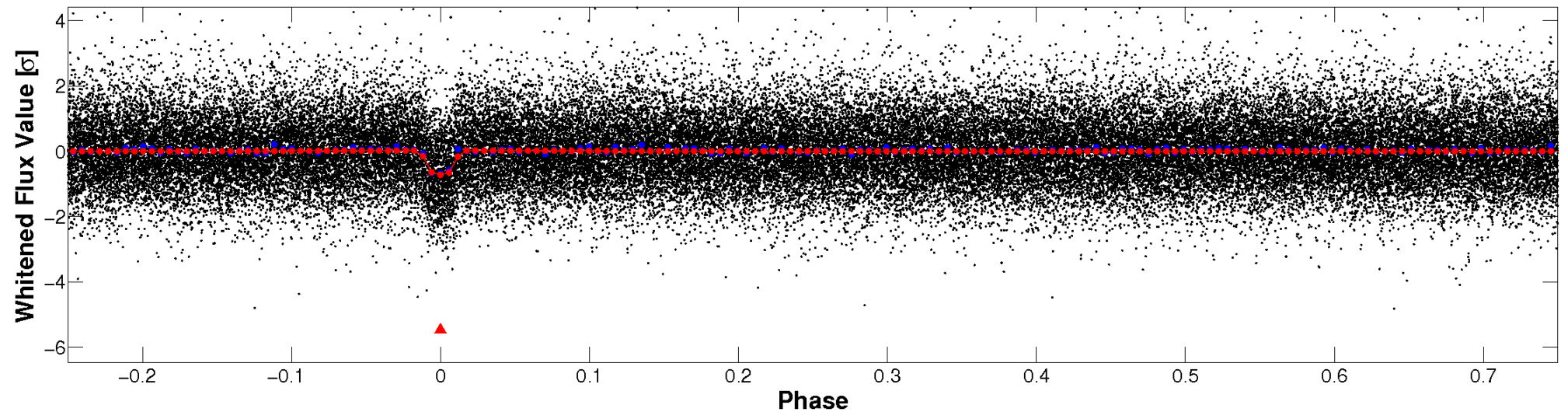


Non-Whitened Vs. Whitened Light Curve

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

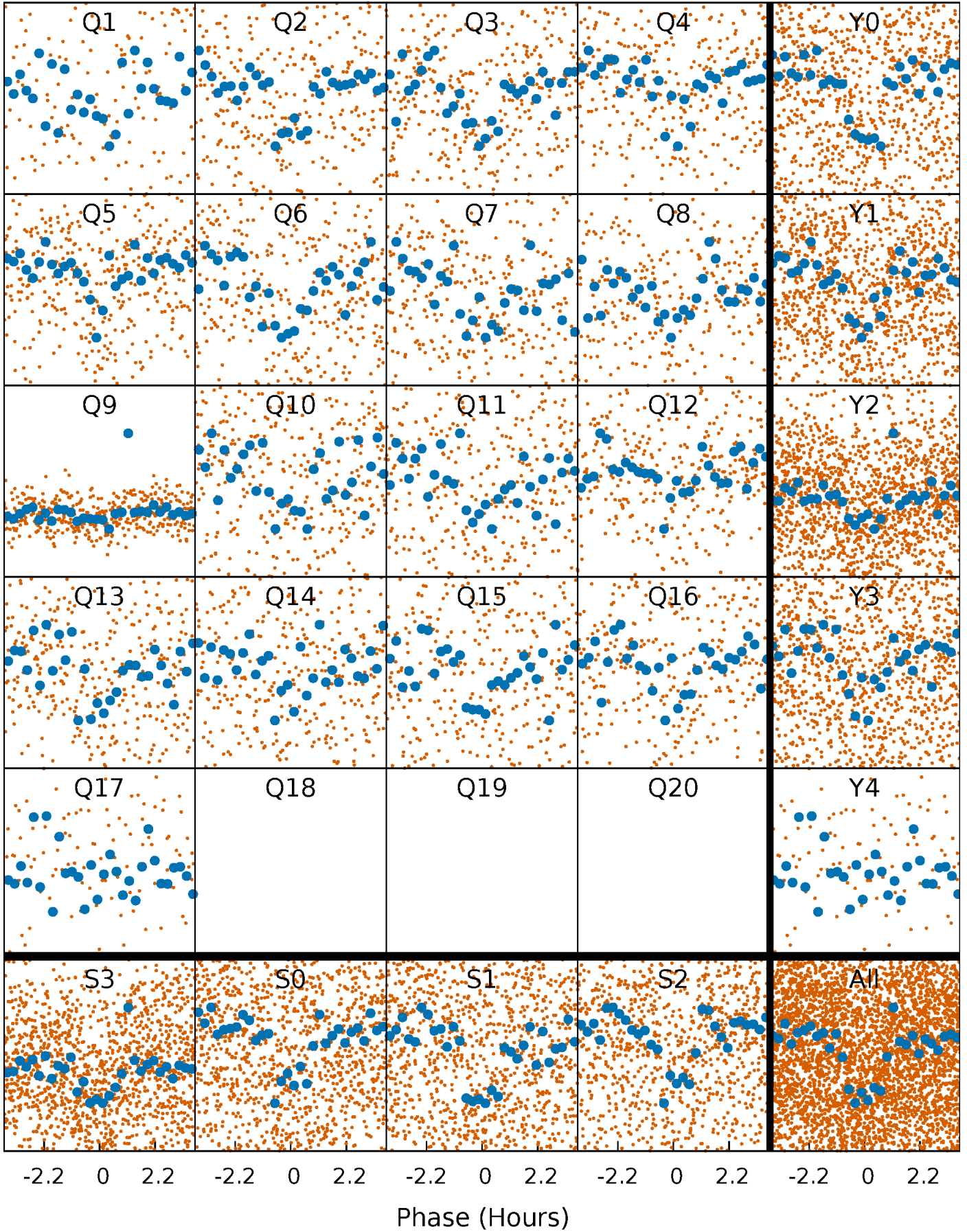


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



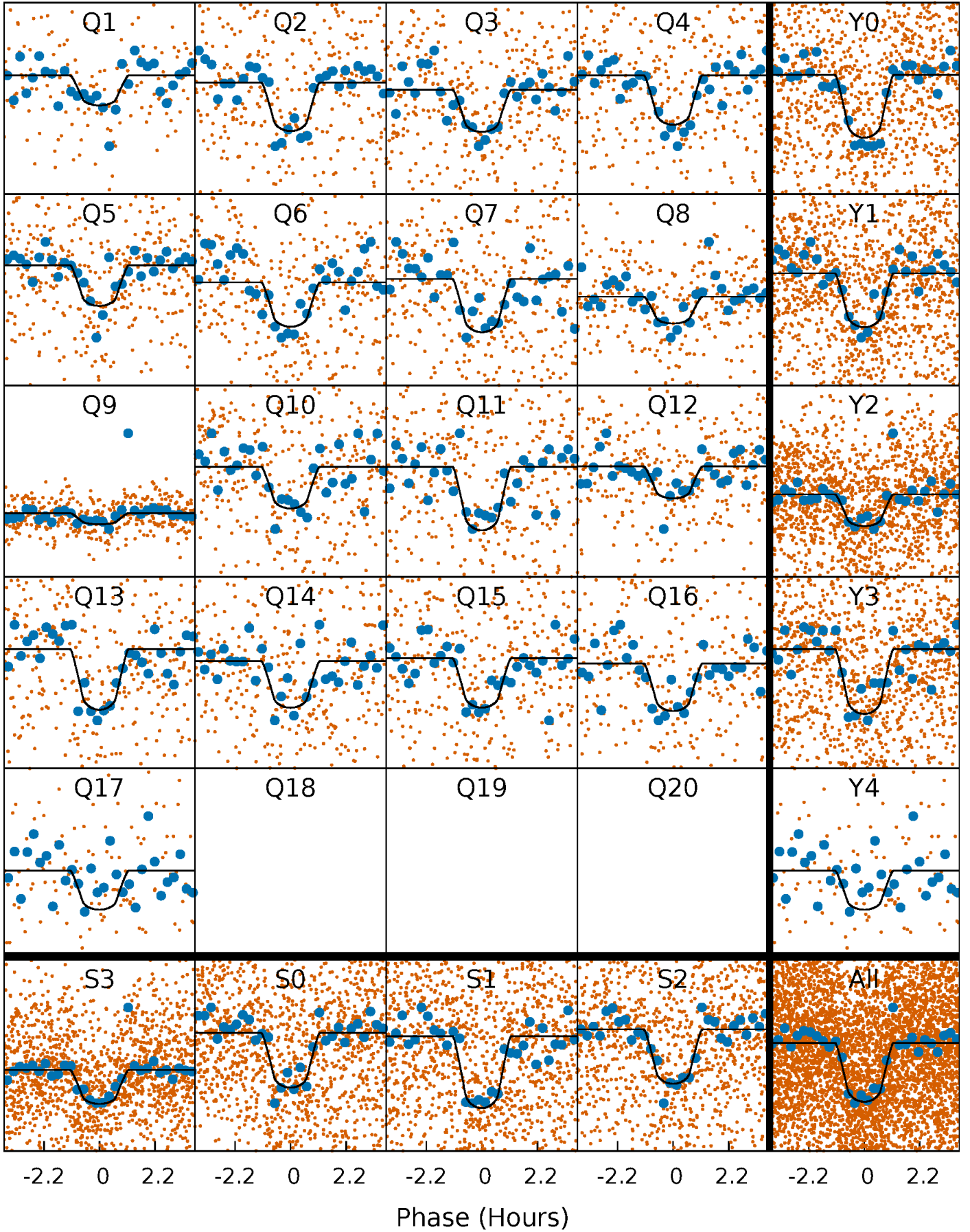
PDC Quarter-Phased Transit Curves

TCE 001865042-01 P= 3.481594 Days $T_0=132.987942$ (BKJD)



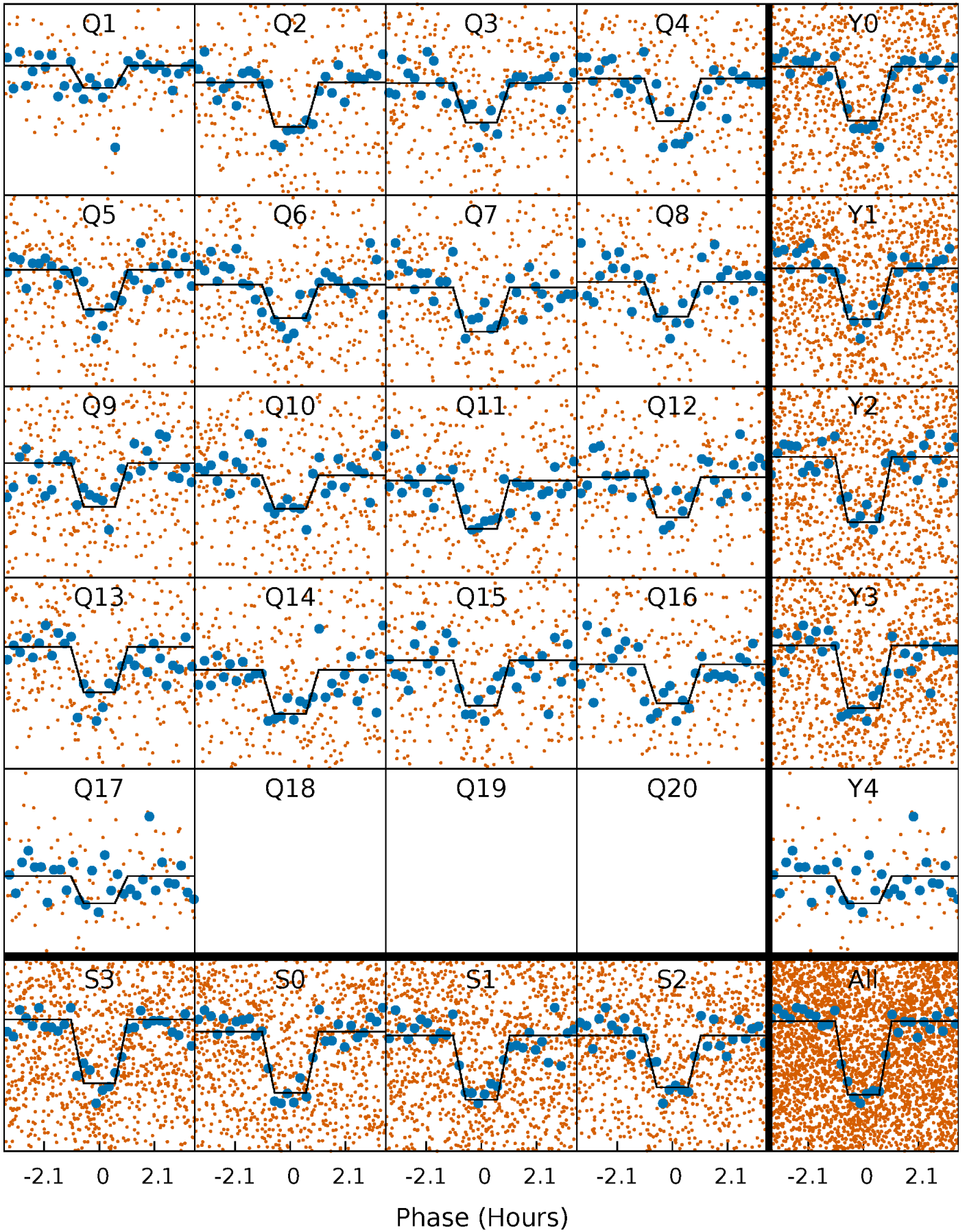
DV Quarter-Phased Transit Curves

TCE 001865042-01 P= 3.481594 Days $T_0=132.987942$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

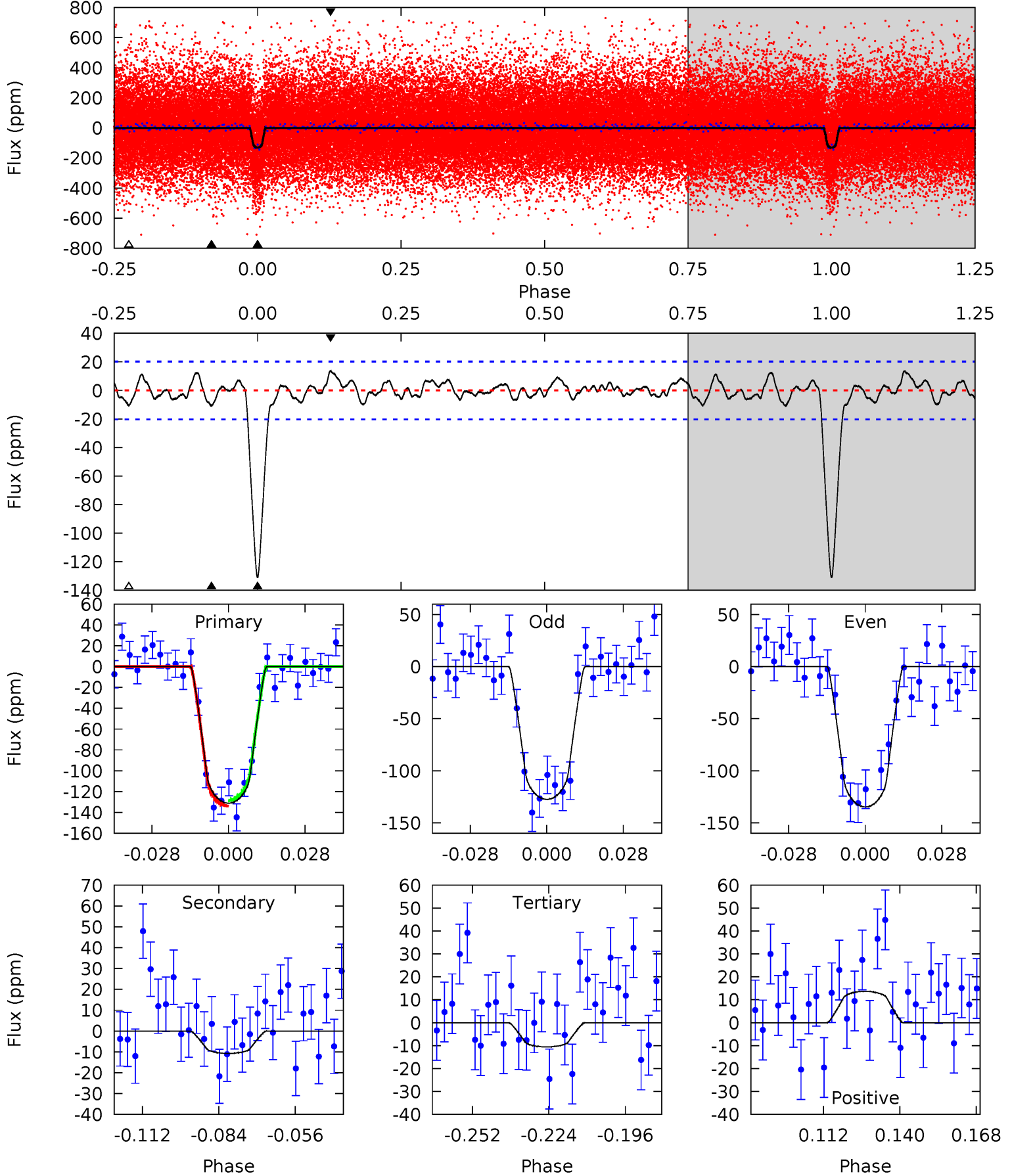
TCE 001865042-01 P= 3.481616 Days $T_0=132.983747$ (BKJD)



DV Model-Shift Uniqueness Test

001865042-01, P = 3.481594 Days, E = 129.506348 Days

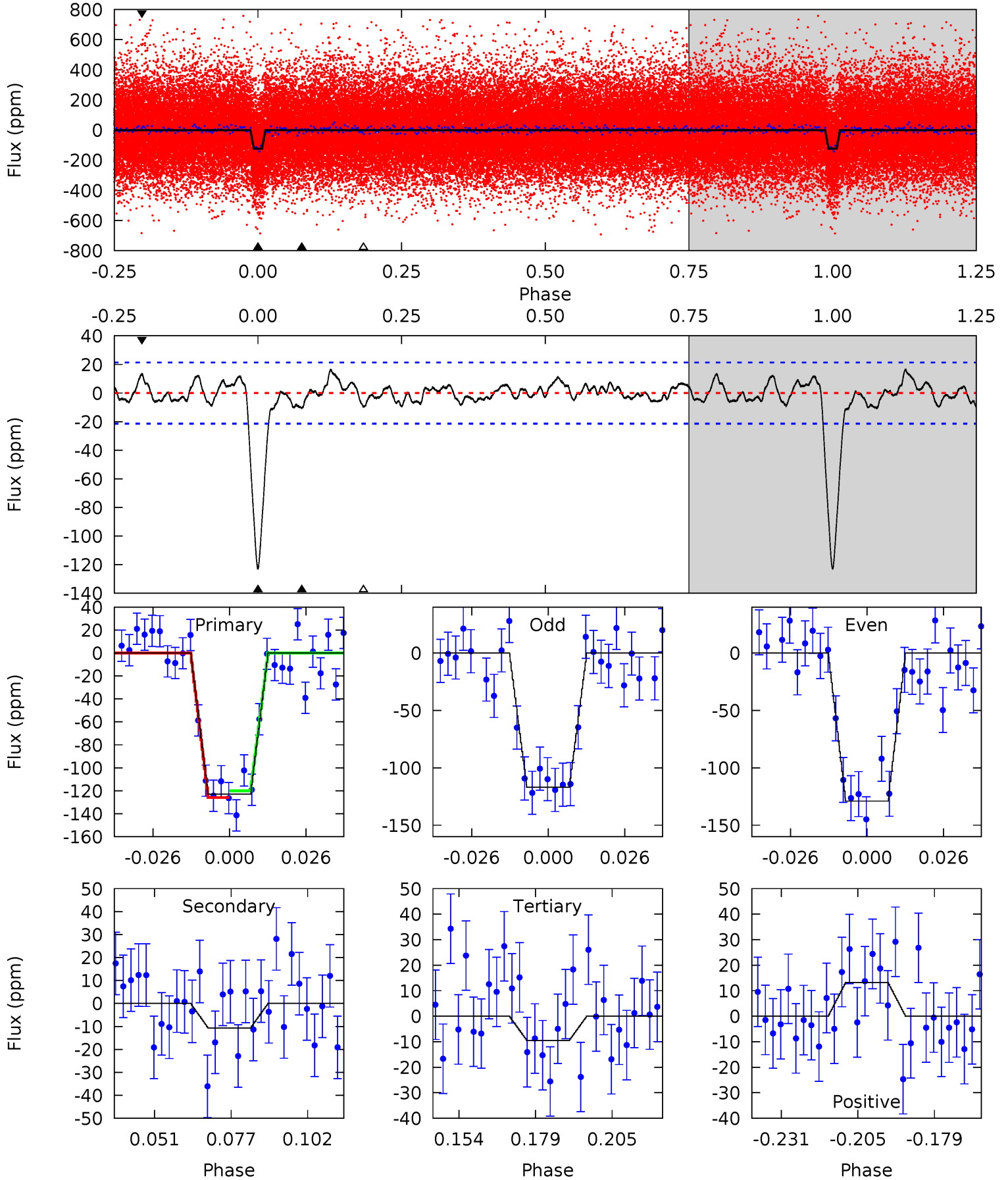
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.3	2.57	2.53	3.26	4.83	2.20	1.10	28.8	28.0	0.04	-0.70	0.87	0.94	0.09	0.66



Alt Model-Shift Uniqueness Test

001865042-01, P = 3.481616 Days, E = 129.502131 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.9	2.42	2.15	2.99	4.84	2.23	1.17	25.7	24.9	0.27	-0.57	1.35	0.91	0.12	0.66



Stellar Parameters For KIC 001865042

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5405^{+108}_{-97}	$4.374^{+0.121}_{-0.088}$	$0.210^{+0.150}_{-0.150}$	$1.022^{+0.129}_{-0.129}$	$0.902^{+0.061}_{-0.038}$	$1.188^{+0.615}_{-0.344}$
	+2%/-2%	+3%/-2%	+71%/-71%	+13%/-13%	+7%/-4%	+52%/-29%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 001865042-01 / KOI 1002.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-11 ± 4	$1.44^{+0.59}_{-0.61}$	1609^{+61}_{-73}	3218^{+660}_{-397}	$5.235^{+11.454}_{-3.086}$
Alt.	-11 ± 4	$1.26^{+0.59}_{-0.58}$	1609^{+62}_{-71}	3356^{+772}_{-435}	$6.807^{+15.803}_{-4.094}$

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 $A_{obs} \gg 1.0$

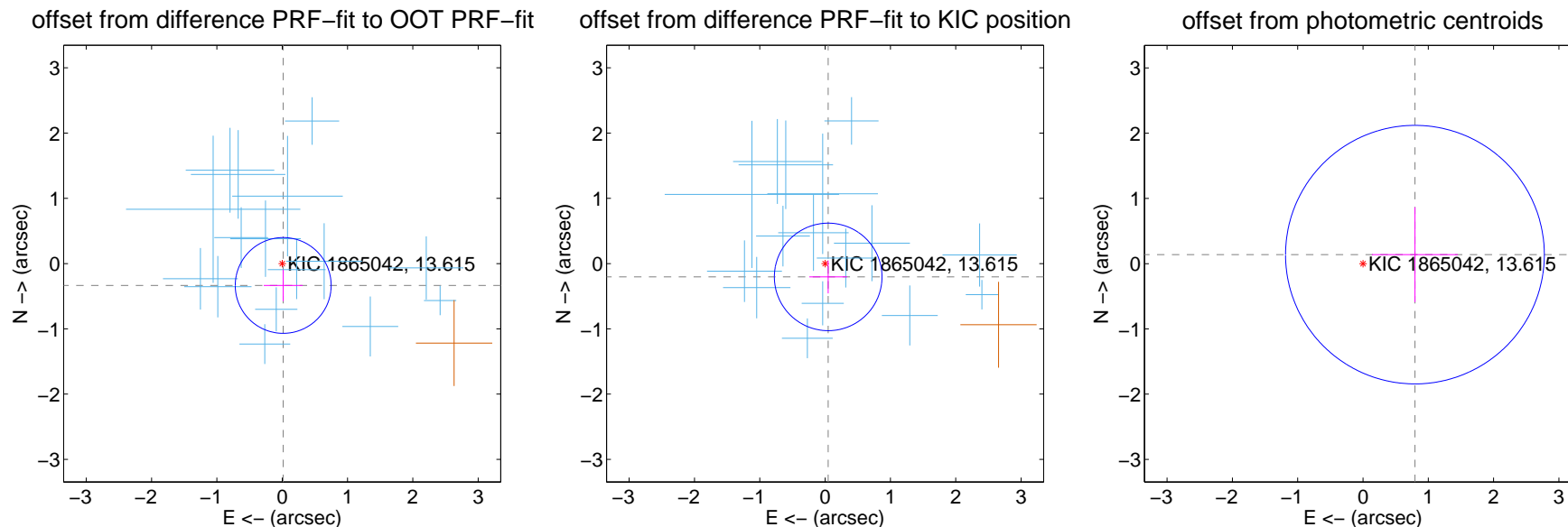
DV Centroid Data

Supplemental centroid analysis for 001865042-01. Kepler magnitude: 13.62. Transit SNR 22.95

There are 16 quarters with good PRF difference image offsets

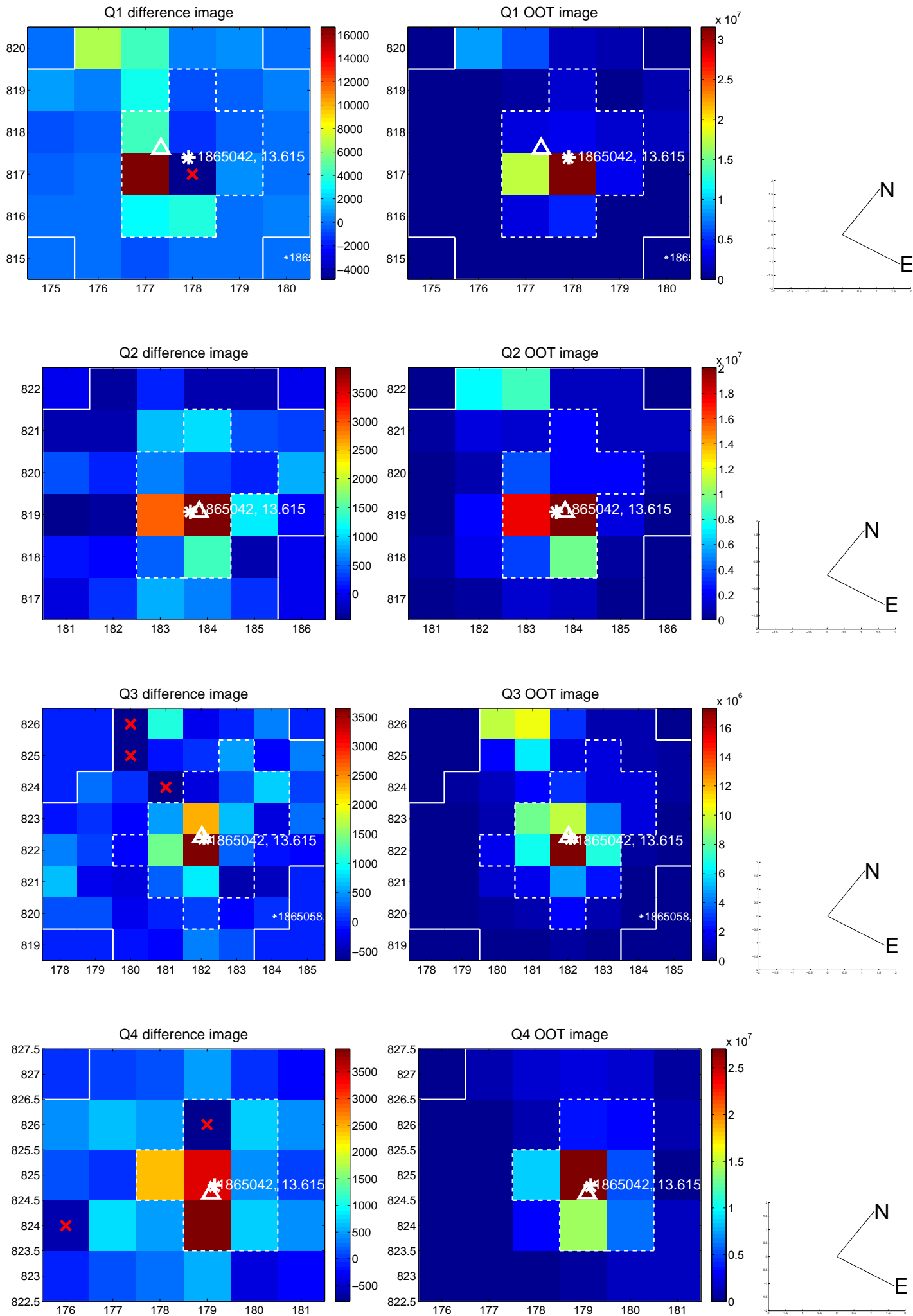
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.335 ± 0.245	1.37	-0.015 ± 0.298	-0.335 ± 0.241
PRF-fit source offset from KIC position	0.209 ± 0.275	0.76	-0.047 ± 0.289	-0.204 ± 0.253
photometric centroid source offset	0.81 ± 0.66	1.22	-0.80 ± 0.66	0.14 ± 0.73

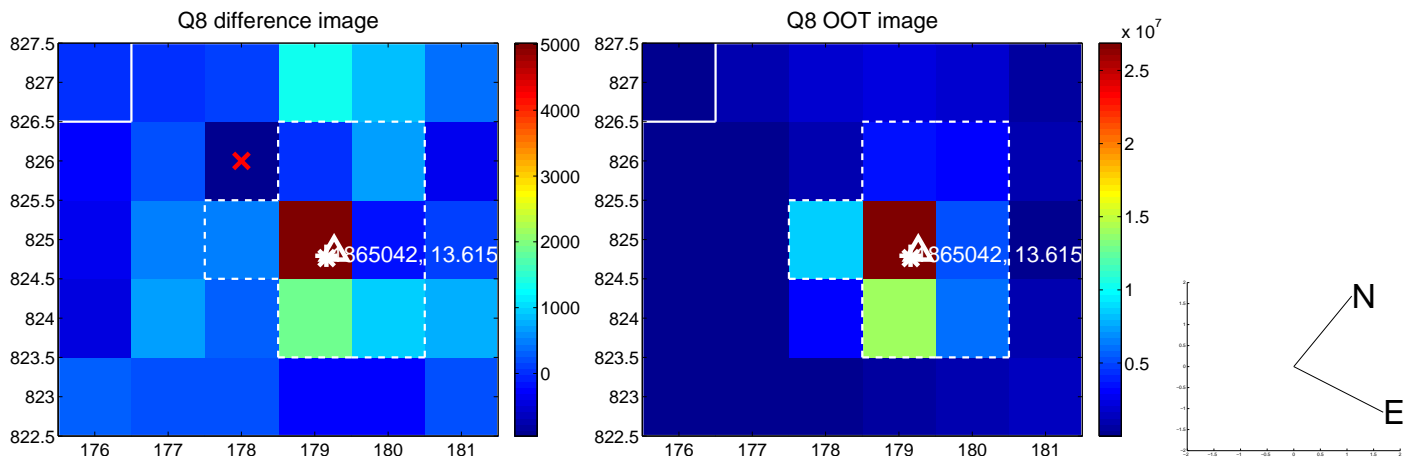
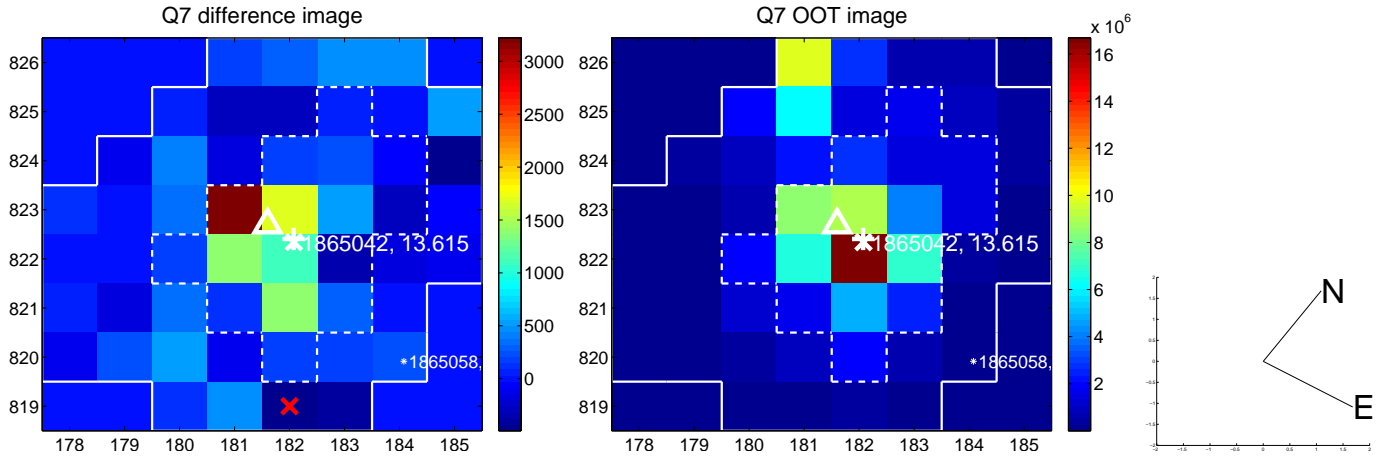
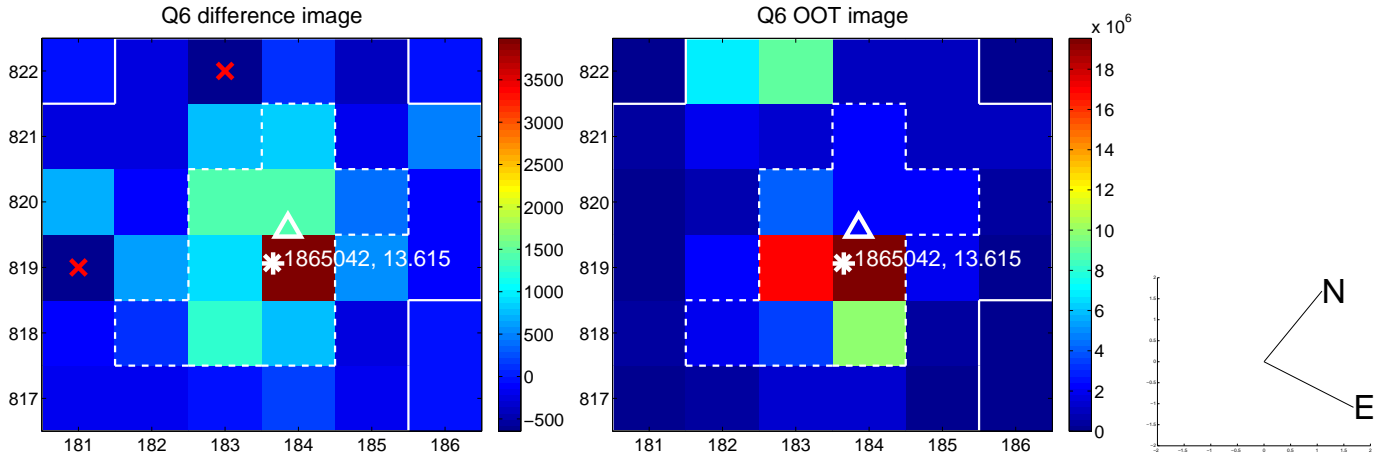
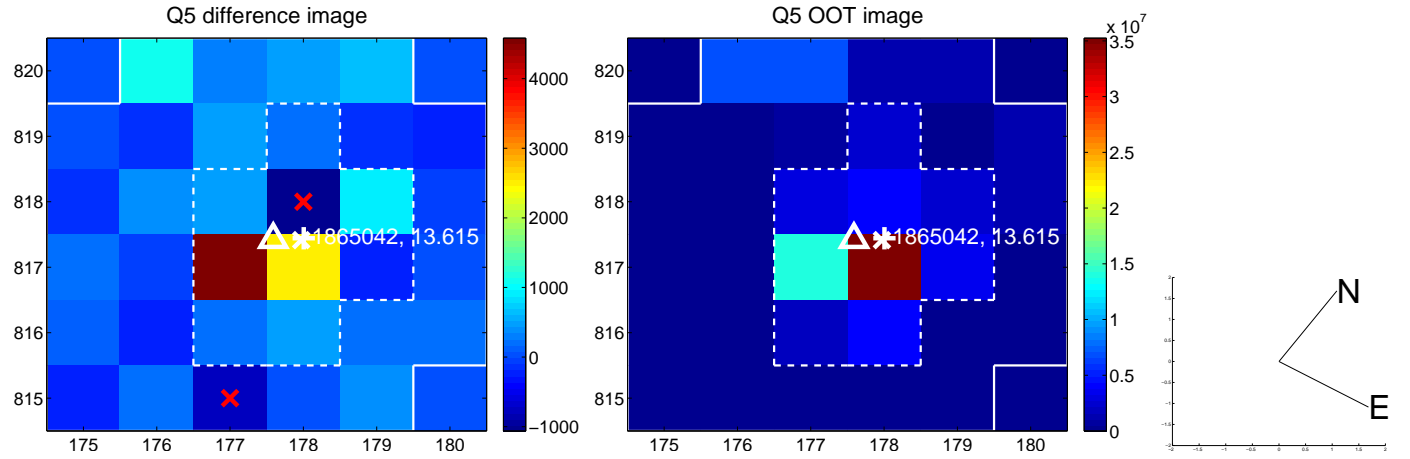


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

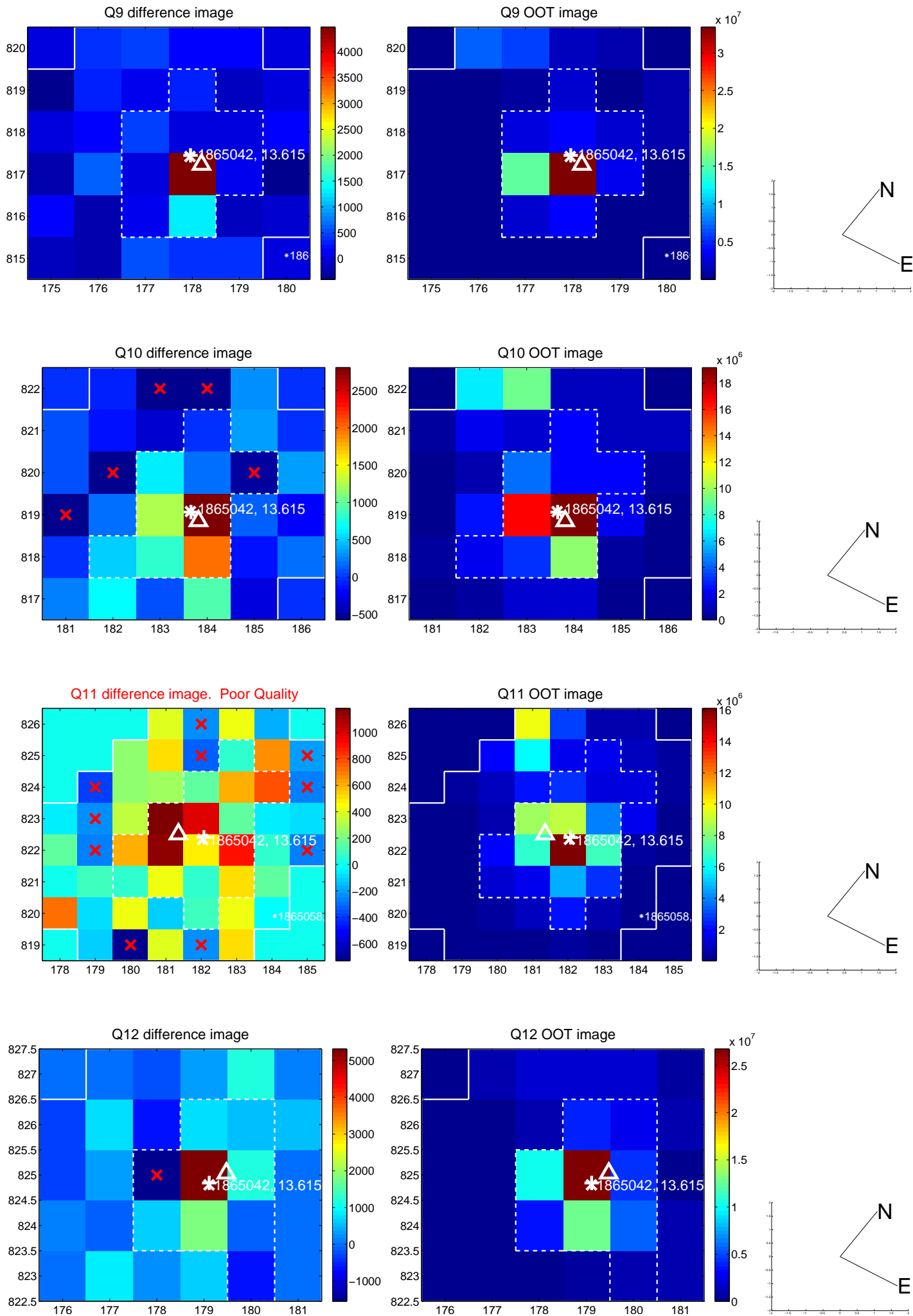
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



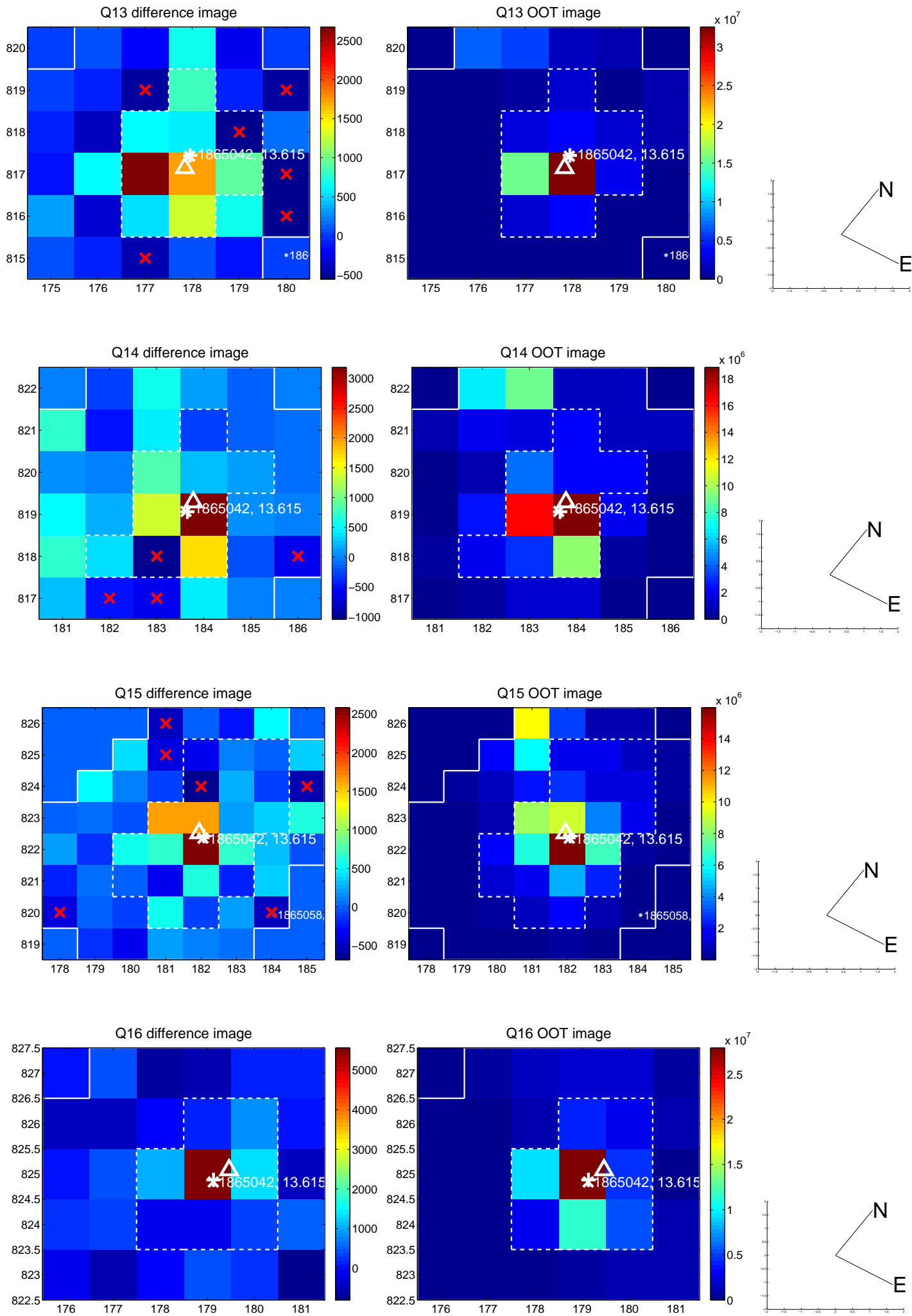
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

