

KIC 009655055

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})
009655055-01	OBS	No	1.548043	131.953763	56.3	13.644	10.5	8.5	3.62	7814	2.76	40347.48

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009655055-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

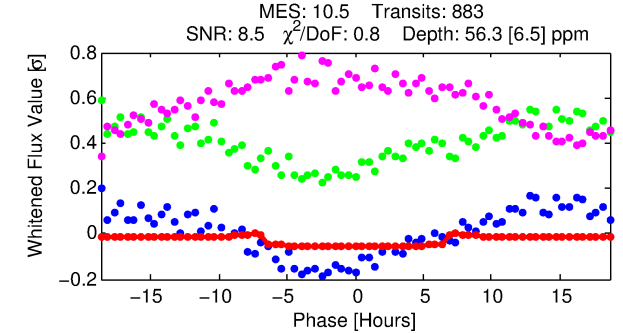
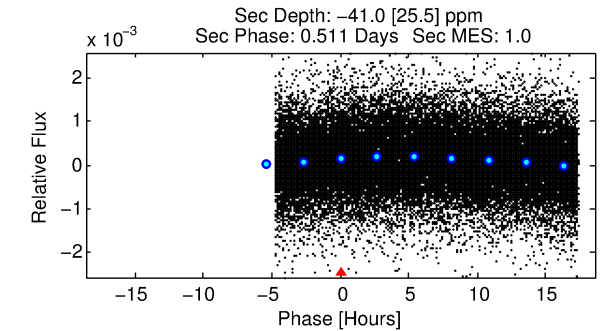
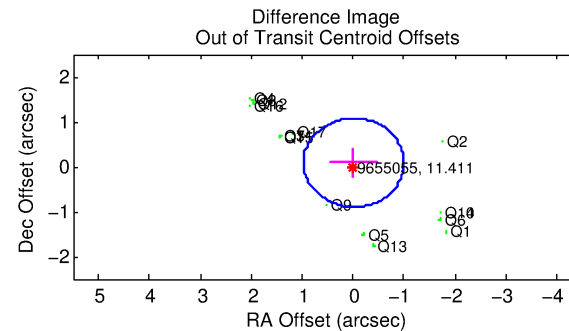
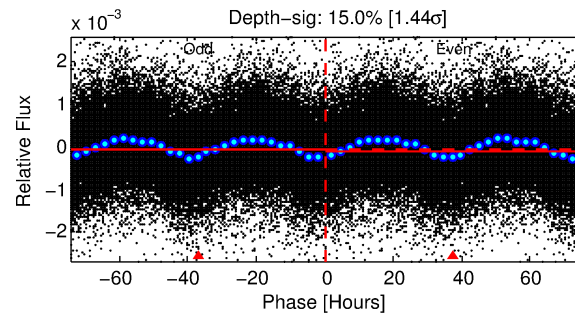
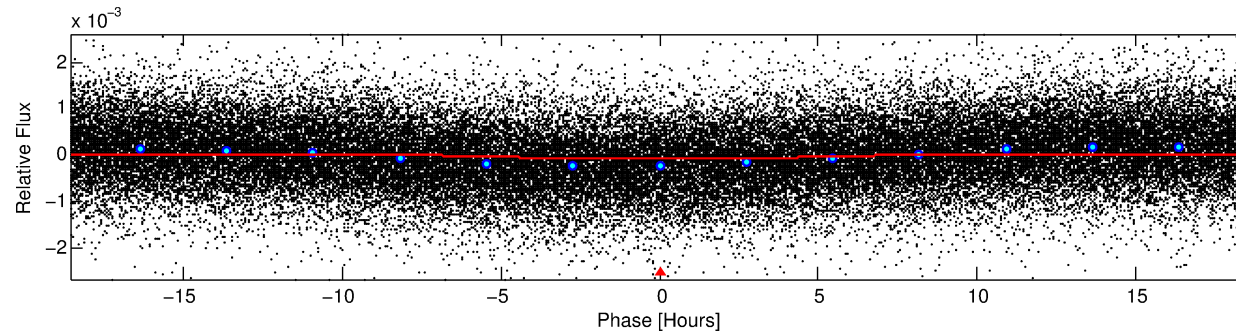
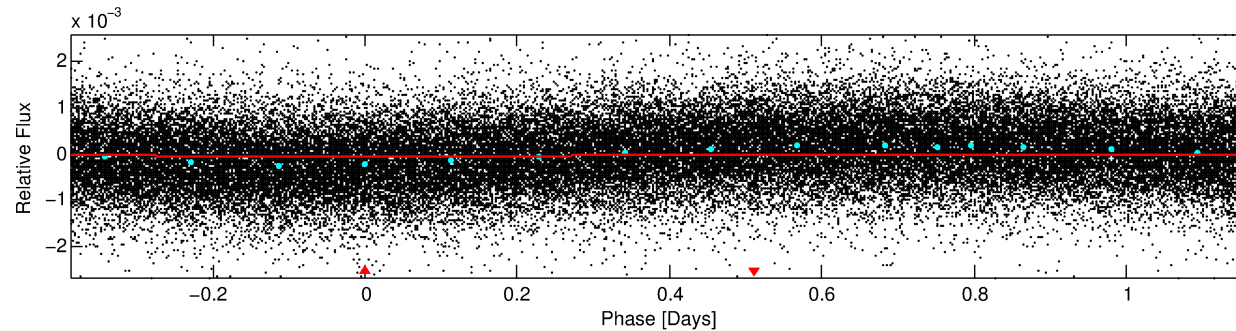
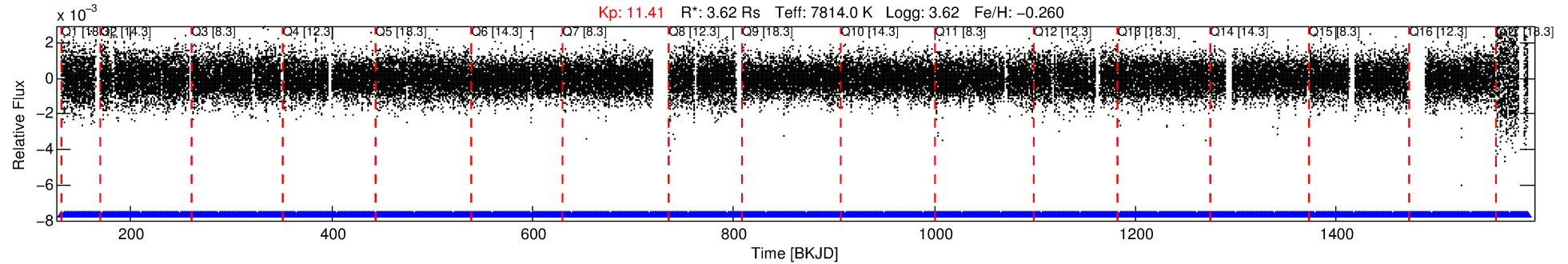
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009655055-01

No Significant Match Found

DV One-Page Summary

KIC: 9655055 Candidate: 1 of 1 Period: 1.548 d



DV Fit Results:

Period = 1.54804 [0.00004] d
Epoch = 131.9538 [0.0080] BKJD
 $R_p/R^* = 0.0070$ [0.0061]
 $a/R^* = 1.09$ [0.82]
 $b = 0.34$ [12.39]
 $\text{Seff} = 40347.48$ [34057.34]
 $T_{\text{eq}} = 3614$ [763] K
 $R_p = 2.76$ [2.78] R_e
 $a = 0.0329$ [0.0168] AU
 $\text{Ag} = \text{N/A}$
 $T_{\text{eff}} = \text{N/A}$

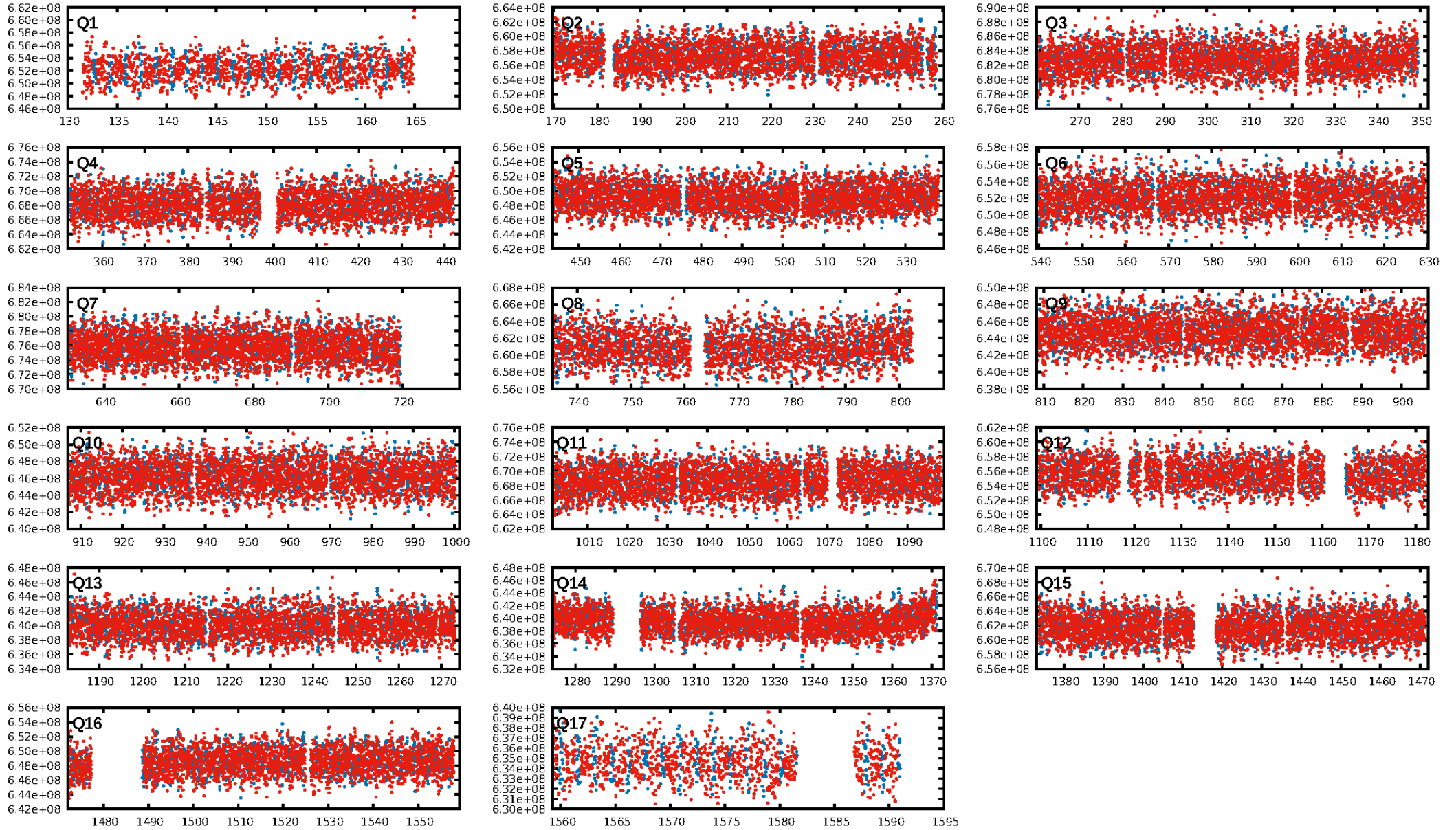
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [843/843]
GhostDiagnostic-chr: 2.028
Centroid-sig: 0.0%
Centroid-so: 2.503 arcsec [9.69 σ]
OotOffset-rm: 0.089 arcsec [0.27 σ]
KicOffset-rm: 0.165 arcsec [0.42 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

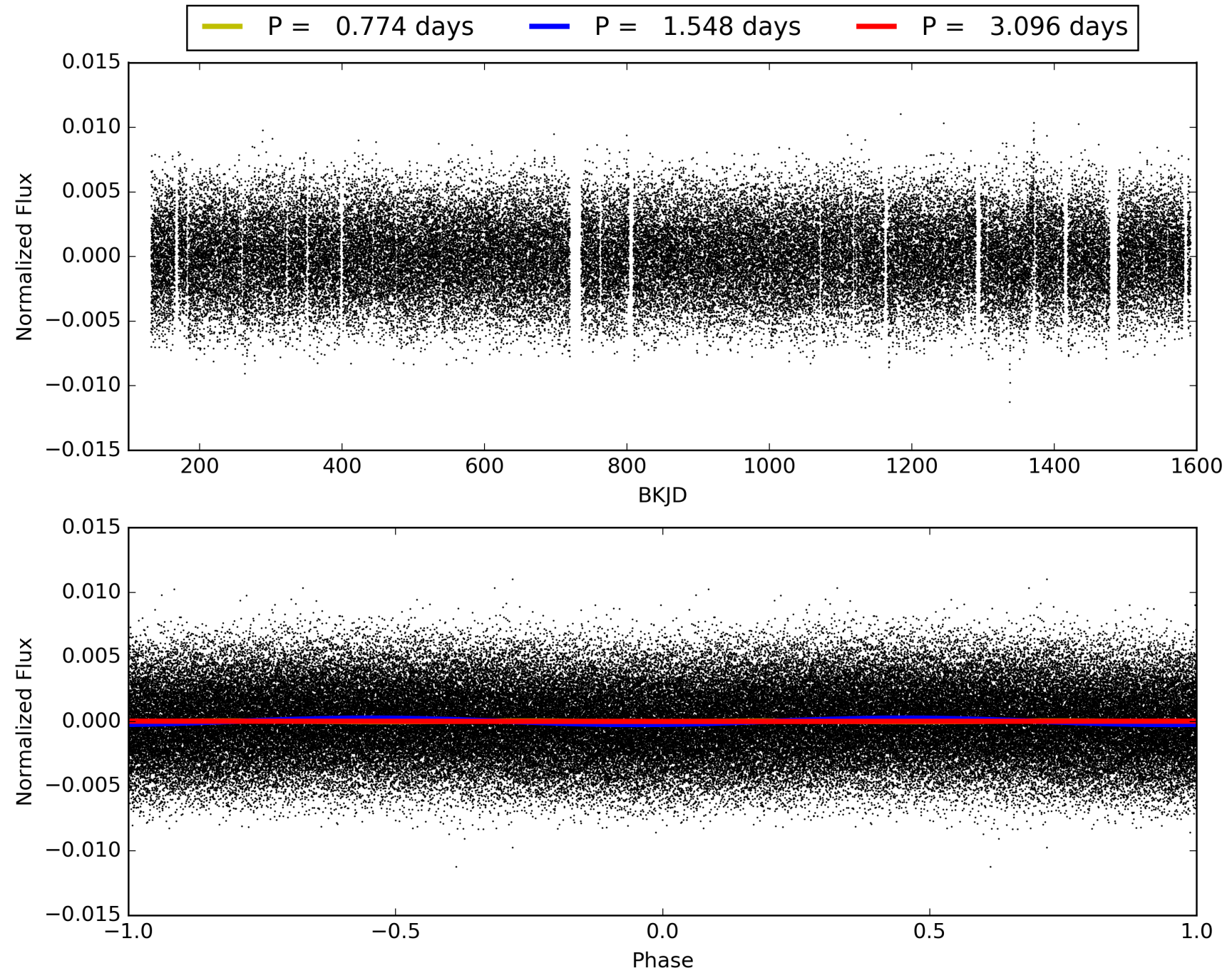
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:11:56 Z

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

TCE 009655055-01, PDC Light Curves

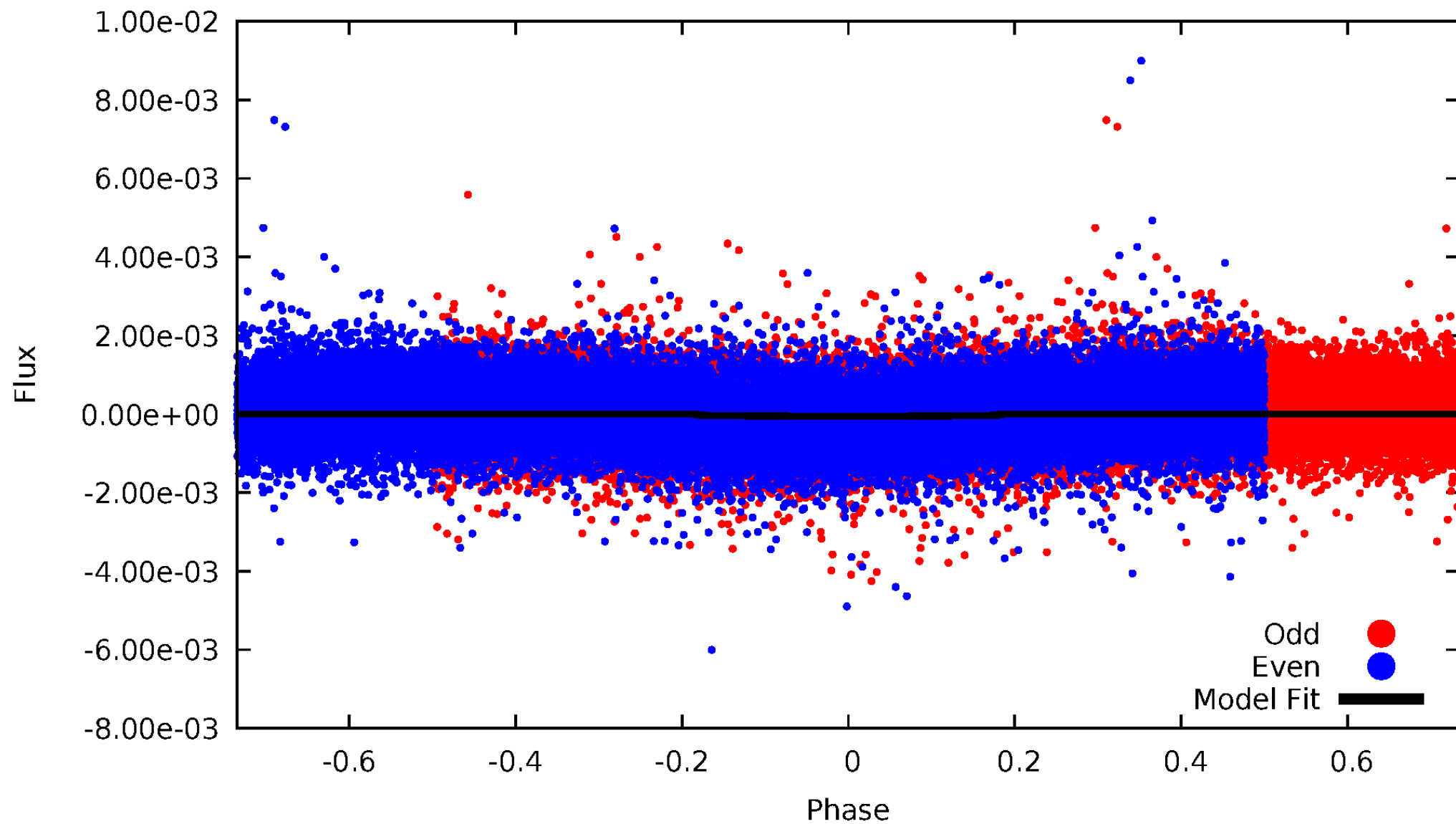


TCE 009655055-01



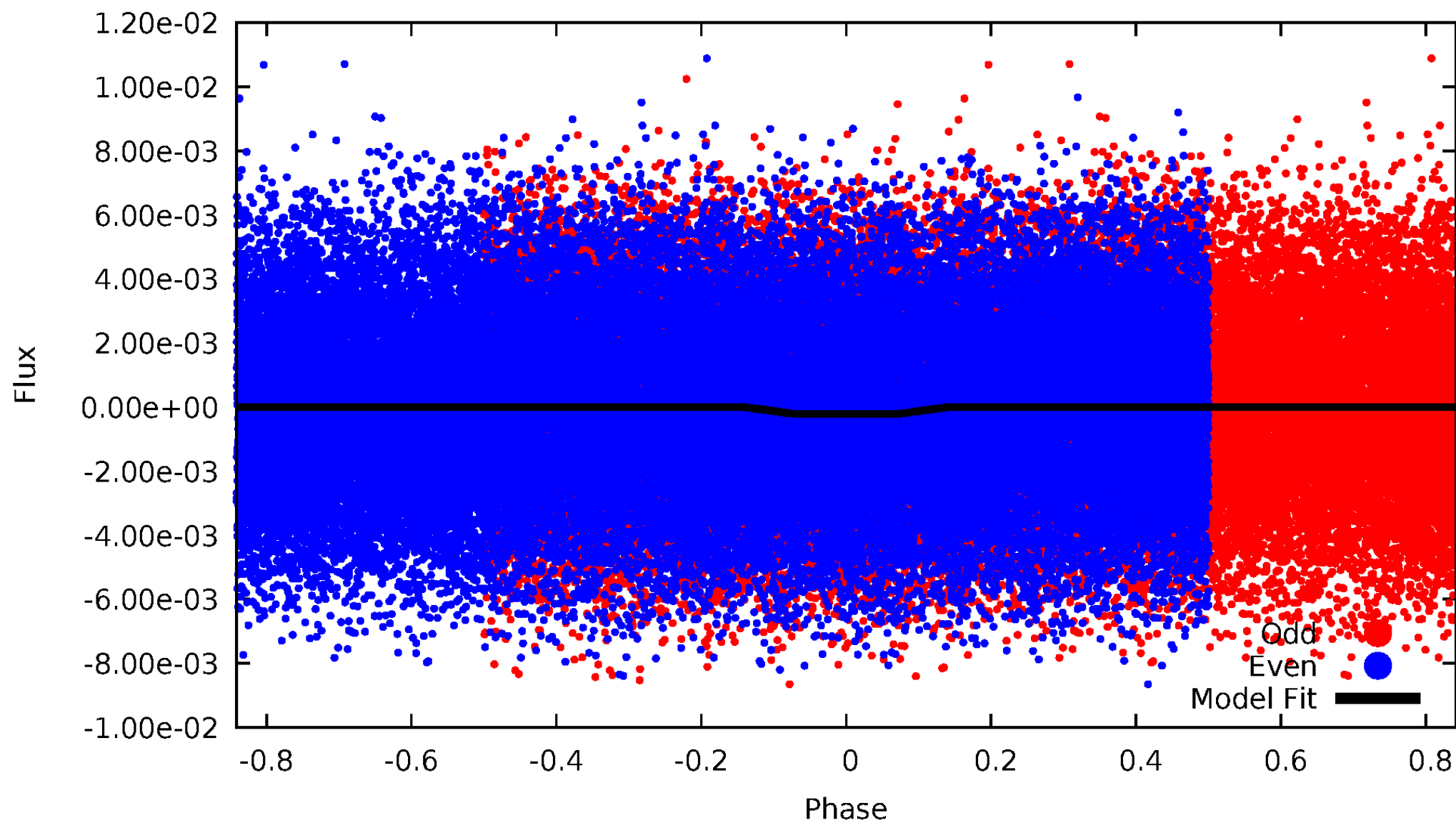
DV Odd/Even

TCE 009655055-01



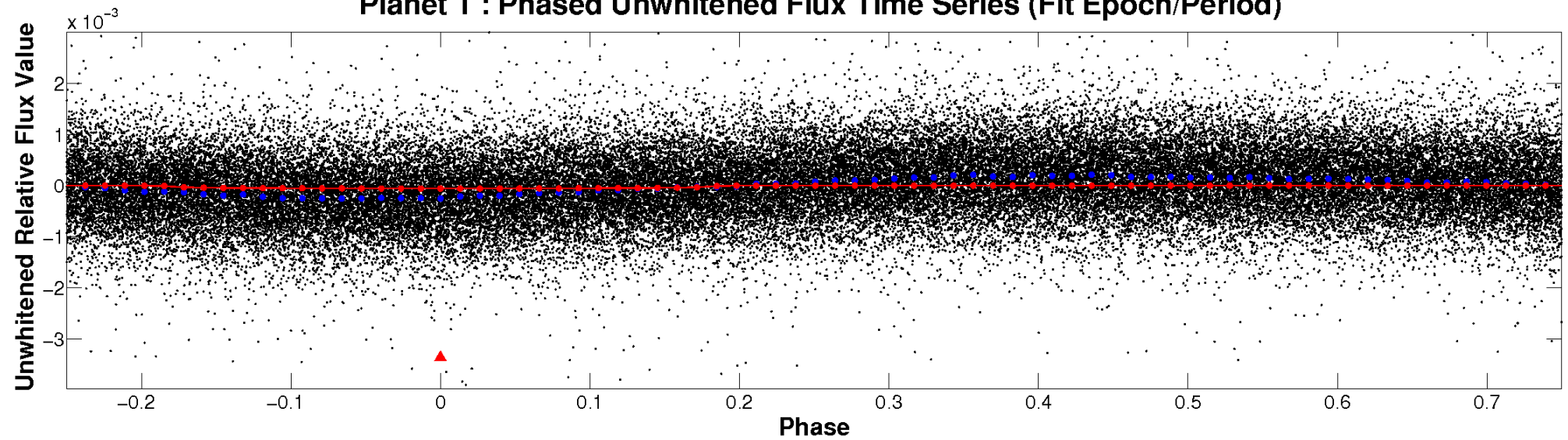
ALT Odd/Even

TCE 009655055-01

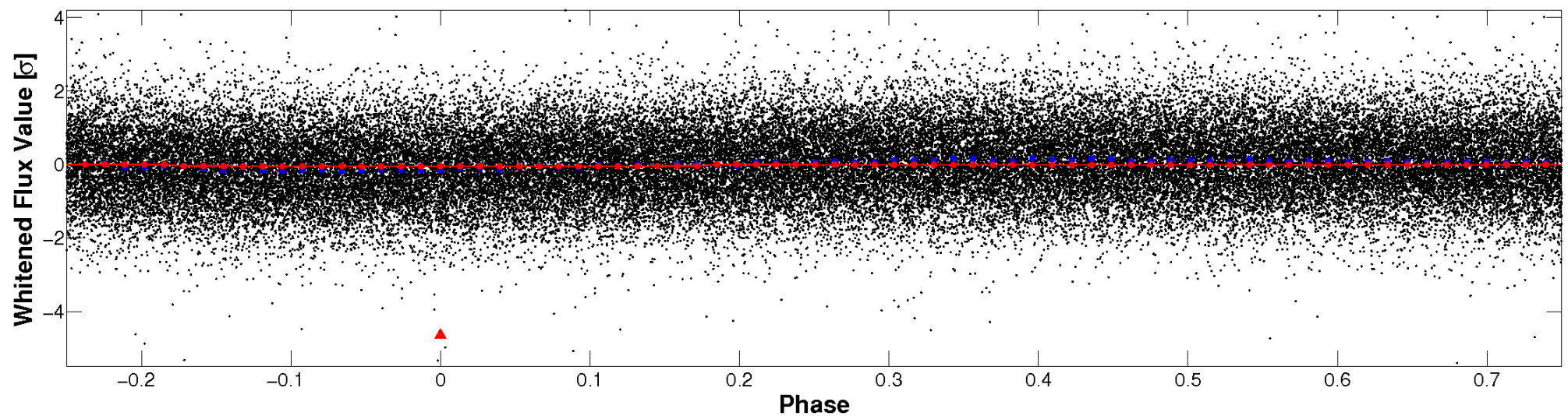


Non-Whitened Vs. Whitened Light Curve

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

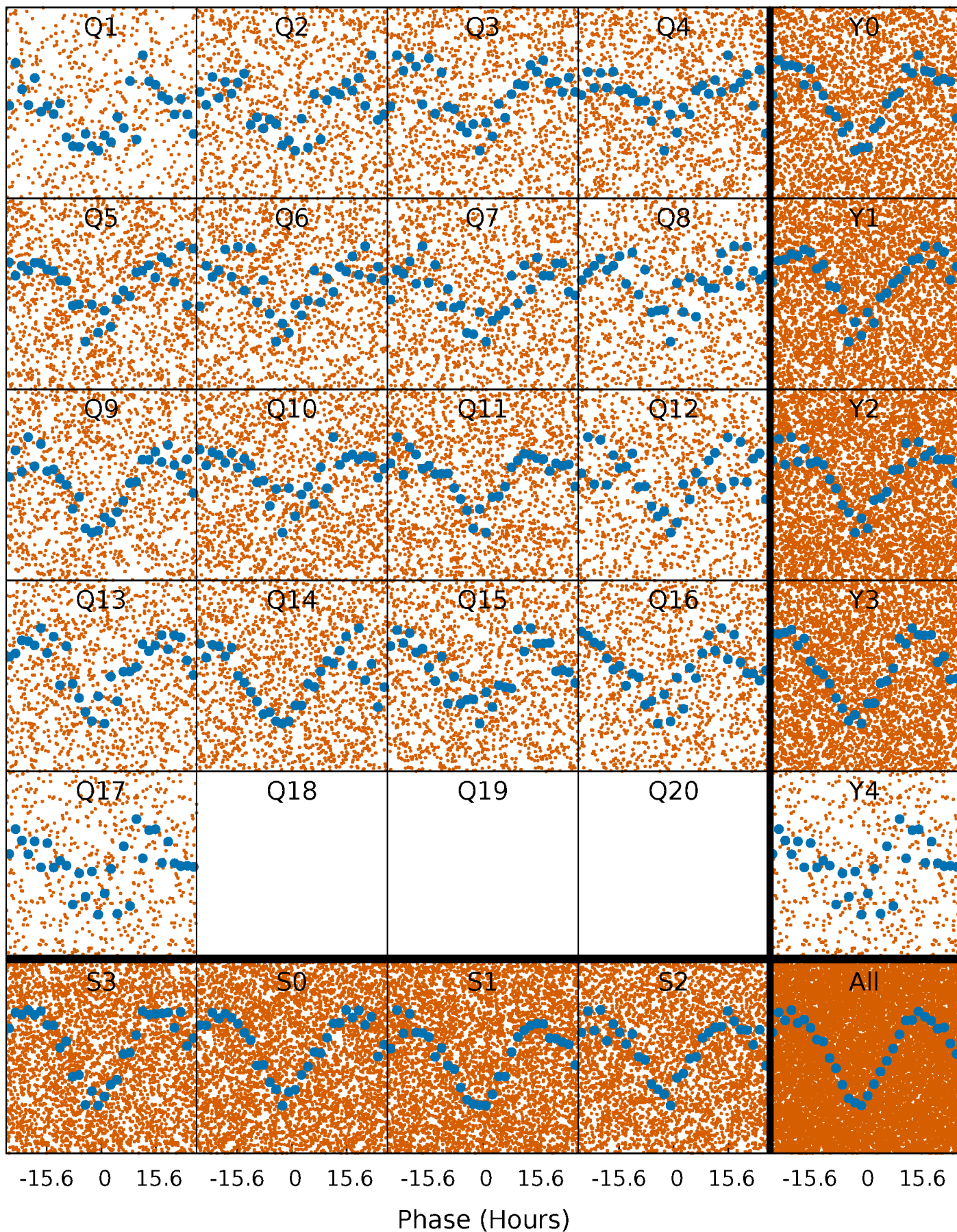


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



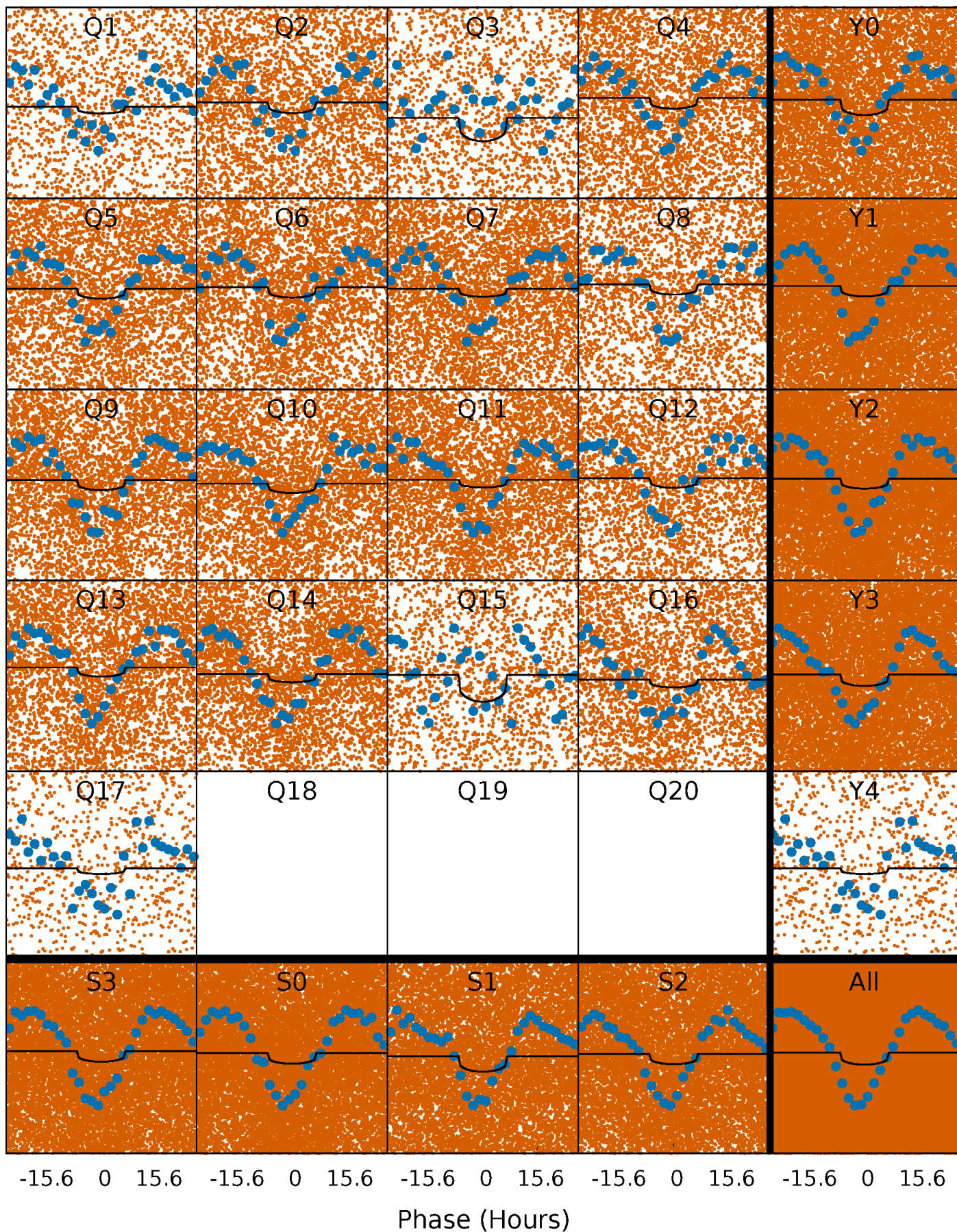
PDC Quarter-Phased Transit Curves

TCE 009655055-01 P= 1.548043 Days $T_0=131.953763$ (BKJD)



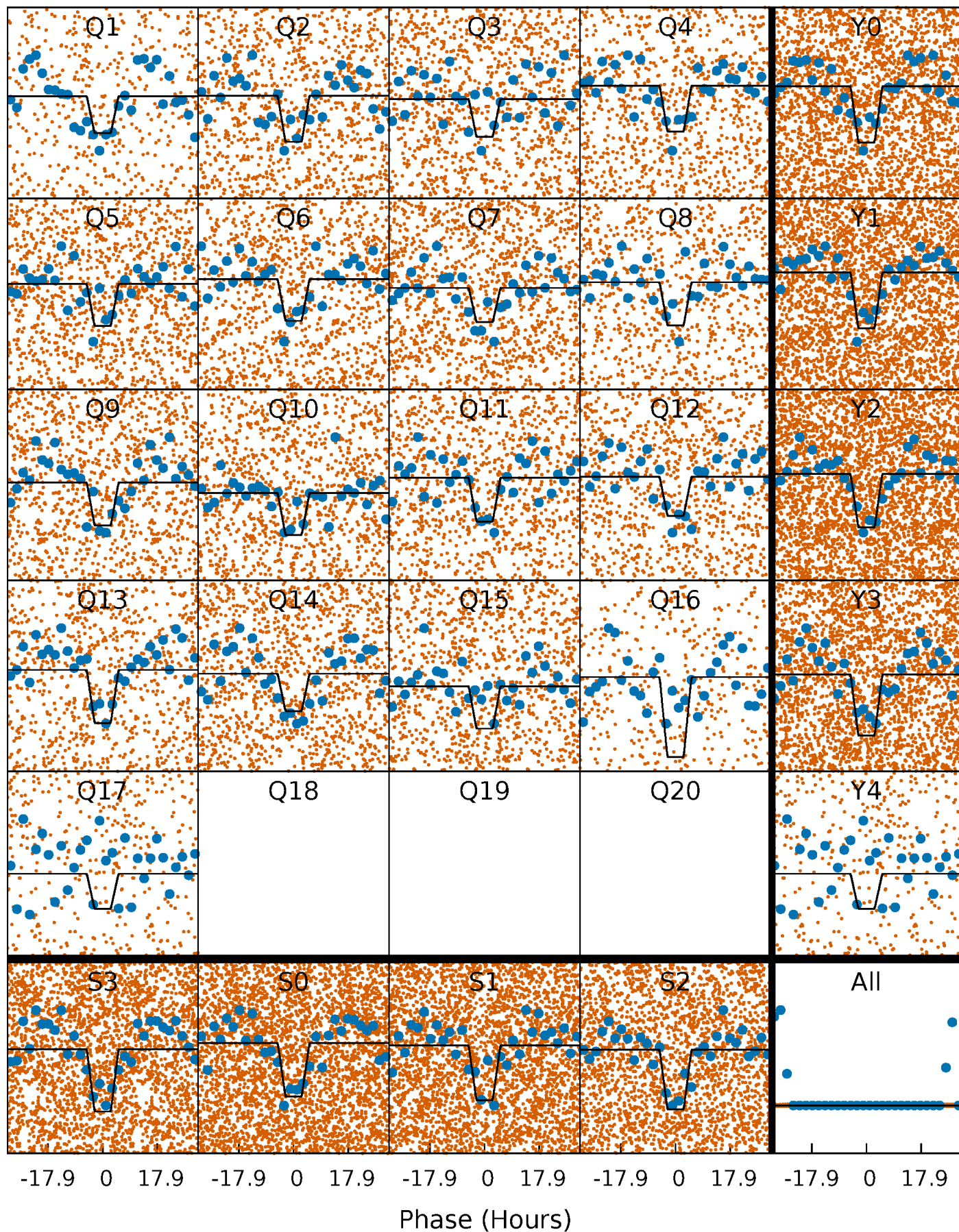
DV Quarter-Phased Transit Curves

TCE 009655055-01 P= 1.548043 Days $T_0=131.953763$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

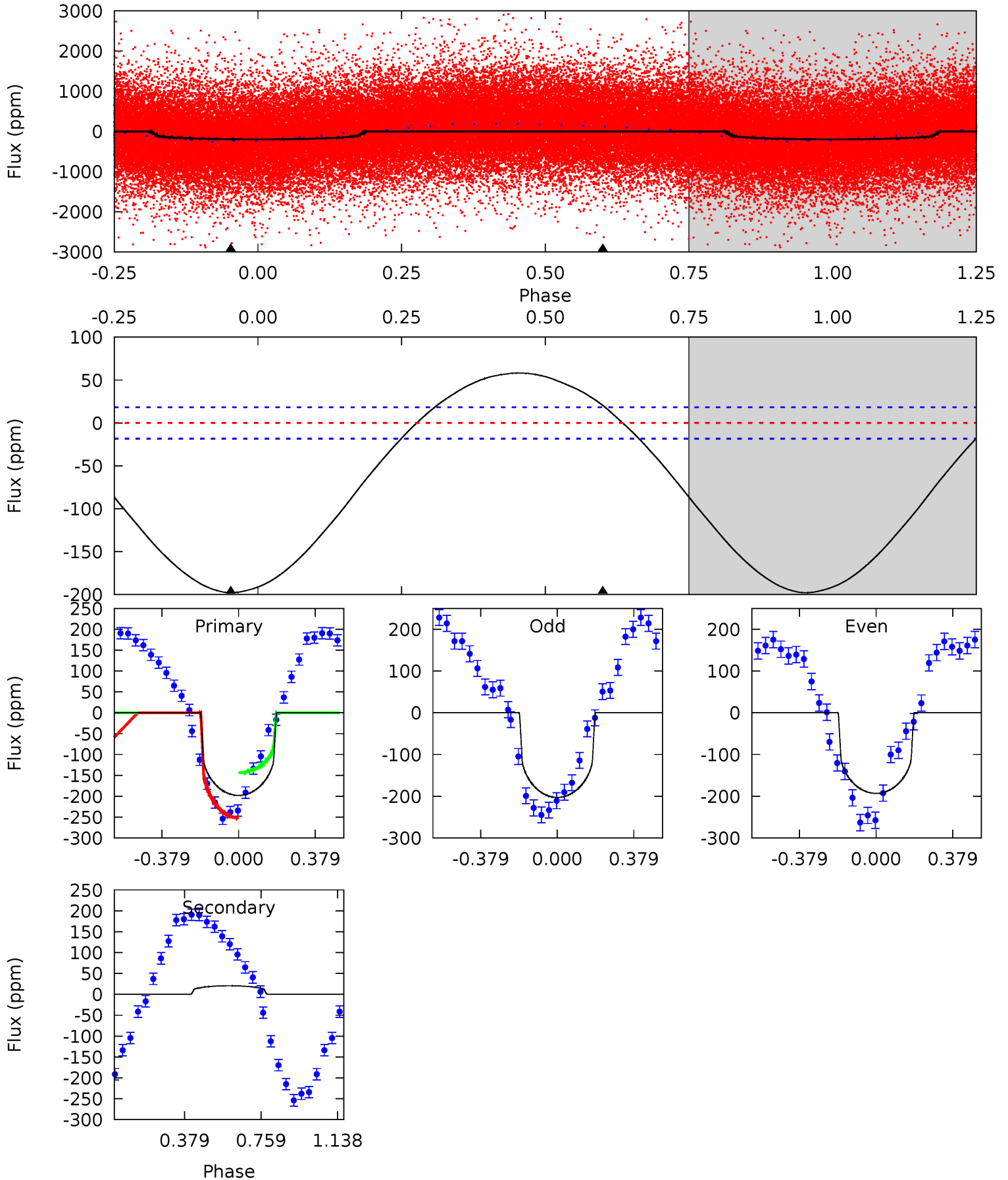
TCE 009655055-01 P= 1.547830 Days $T_0=131.961242$ (BKJD)



DV Model-Shift Uniqueness Test

009655055-01, P = 1.548043 Days, E = 130.405720 Days

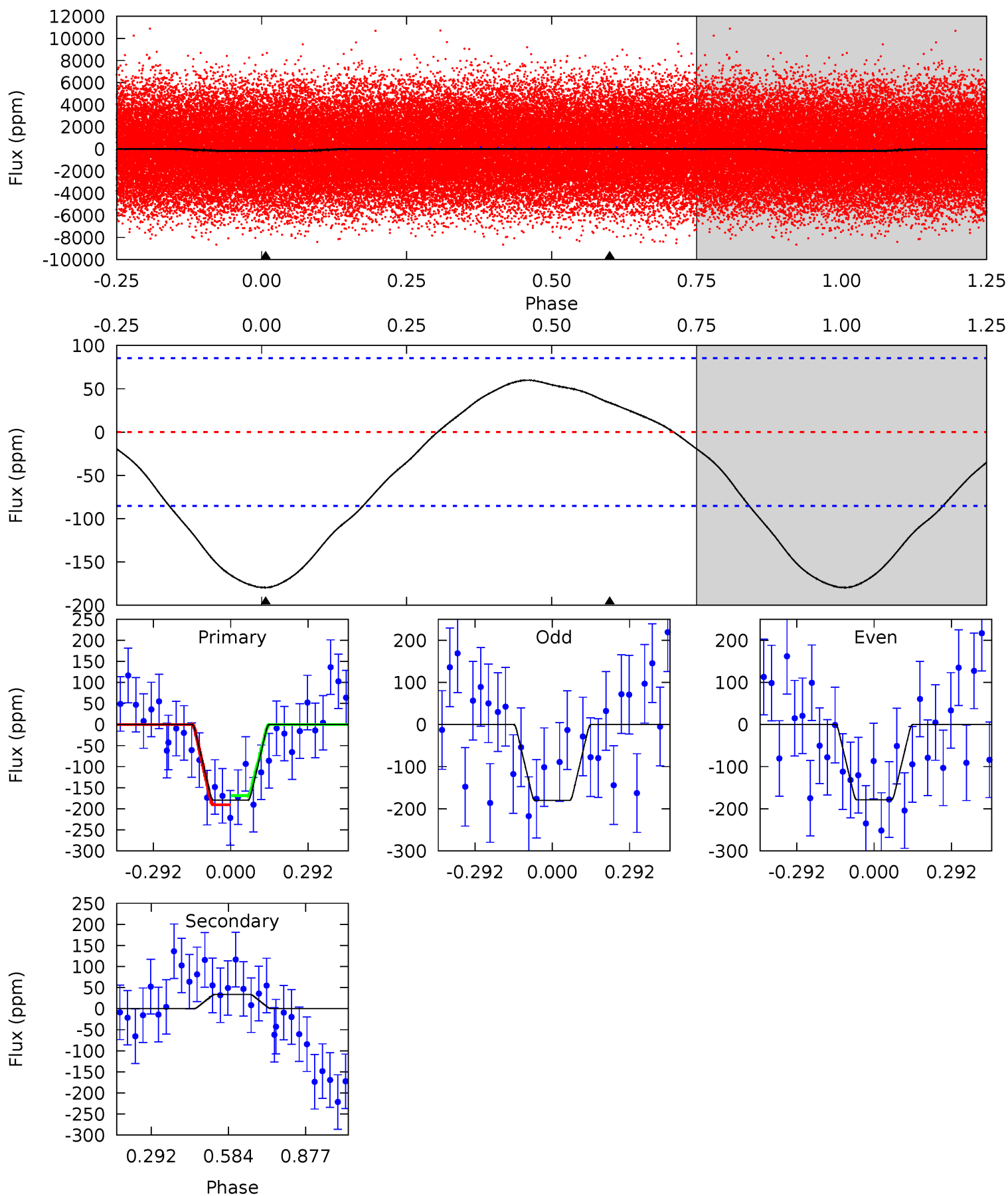
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.1	-4.77	0	0	4.28	0.88	4.30	46.1	46.1	-4.77	-4.77	1.13	1.03	0.23	12.6



Alt Model-Shift Uniqueness Test

009655055-01, P = 1.547830 Days, E = 130.413412 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.12	-1.71	0	0	4.33	1.05	0.89	9.12	9.12	-1.71	-1.71	0.04	1.17	0.25	0.54



Stellar Parameters For KIC 009655055

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7814^{+245}_{-300}	$3.619^{+0.493}_{-0.087}$	$-0.260^{+0.200}_{-0.300}$	$3.620^{+0.617}_{-1.851}$	$1.987^{+0.195}_{-0.487}$	$0.059^{+0.335}_{-0.017}$
	+3%/-4%	+14%/-2%	+77%/-115%	+17%/-51%	+10%/-25%	+568%/-29%
Source	KIC0	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 009655055-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	20 ± 4	$2.77^{+2.30}_{-1.70}$	4886^{+318}_{-635}	-5971^{+993}_{-3961}	$-1.620^{+1.166}_{-8.998}$
Alt.	34 ± 20	$4.98^{+2.80}_{-2.19}$	4817^{+417}_{-584}	-5242^{+714}_{-1415}	$-0.687^{+0.468}_{-2.014}$

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 $A_{obs} \gg 1.0$

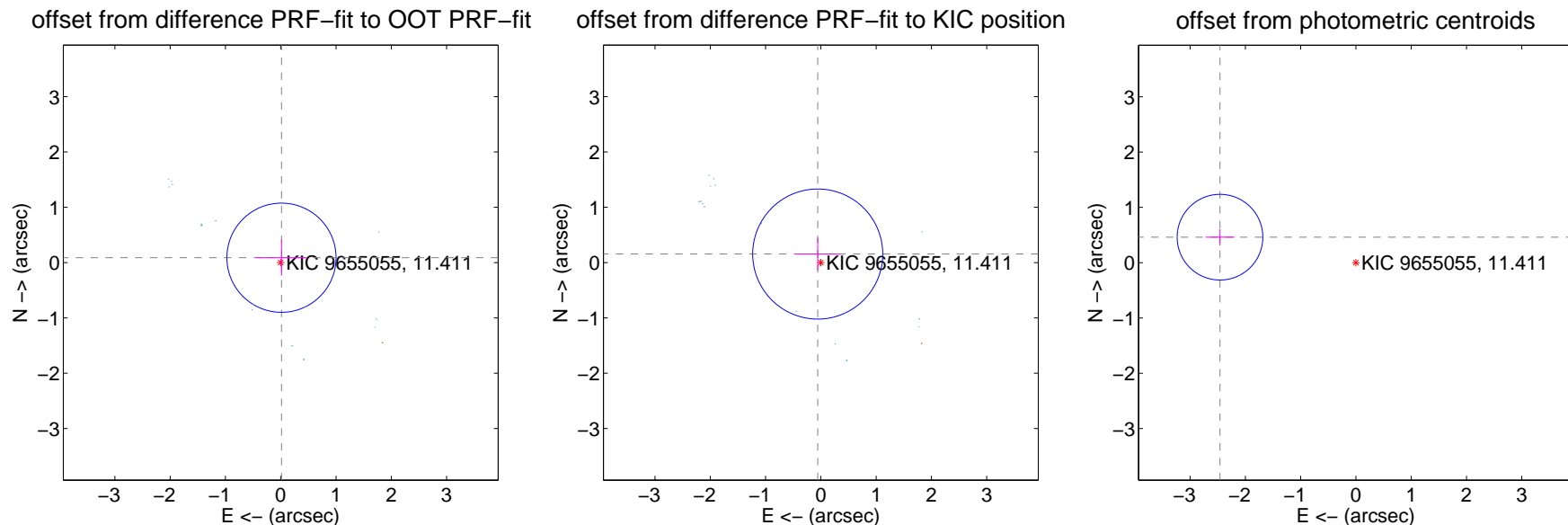
DV Centroid Data

Supplemental centroid analysis for 009655055-01. **Kepler magnitude: 11.41.** Transit SNR 8.48

There are 16 quarters with good PRF difference image offsets

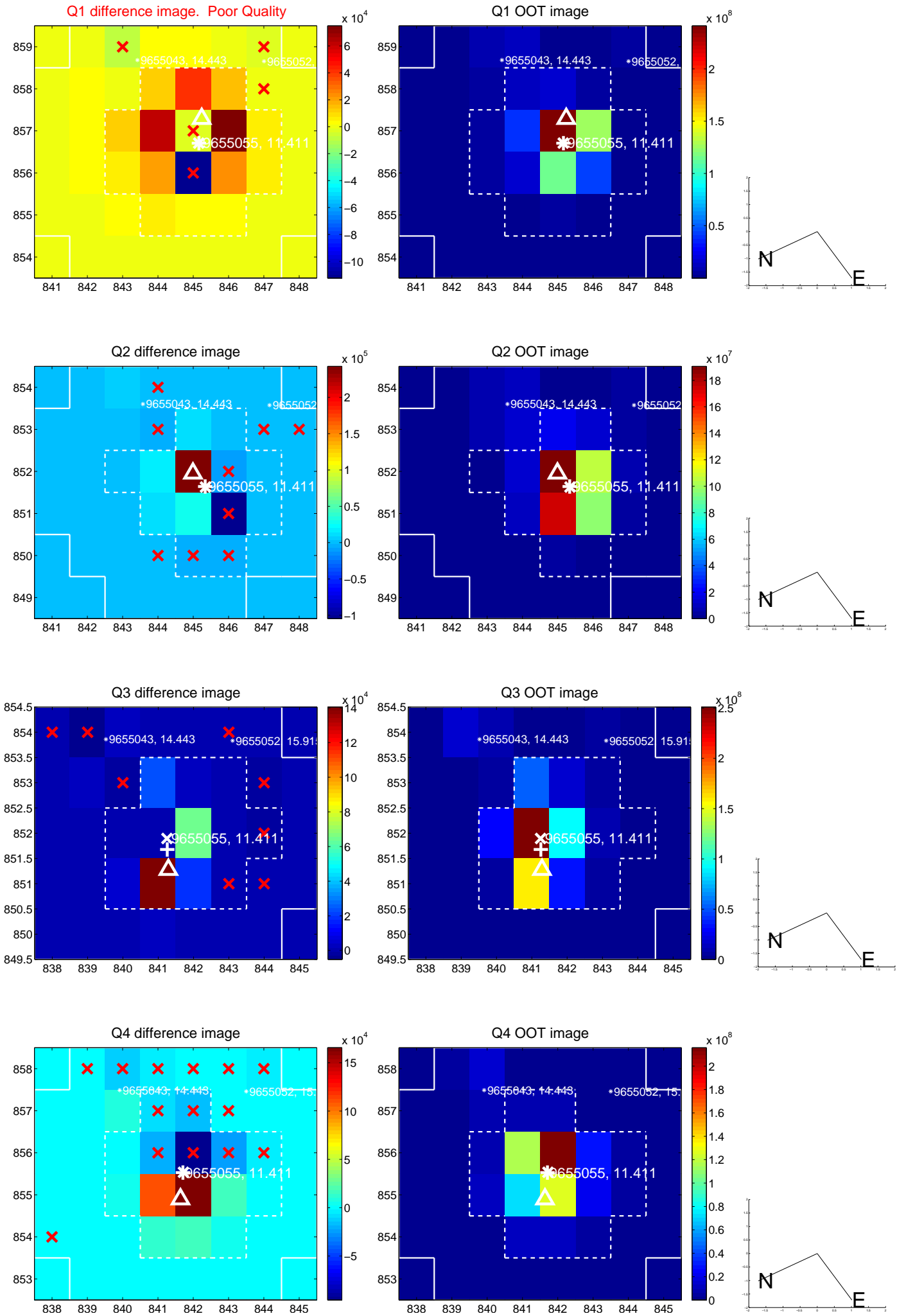
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.089 ± 0.329	0.27	-0.013 ± 0.462	0.088 ± 0.325
PRF-fit source offset from KIC position	0.165 ± 0.392	0.42	0.057 ± 0.401	0.155 ± 0.294
photometric centroid source offset	2.50 ± 0.26	9.69	2.46 ± 0.26	0.46 ± 0.15

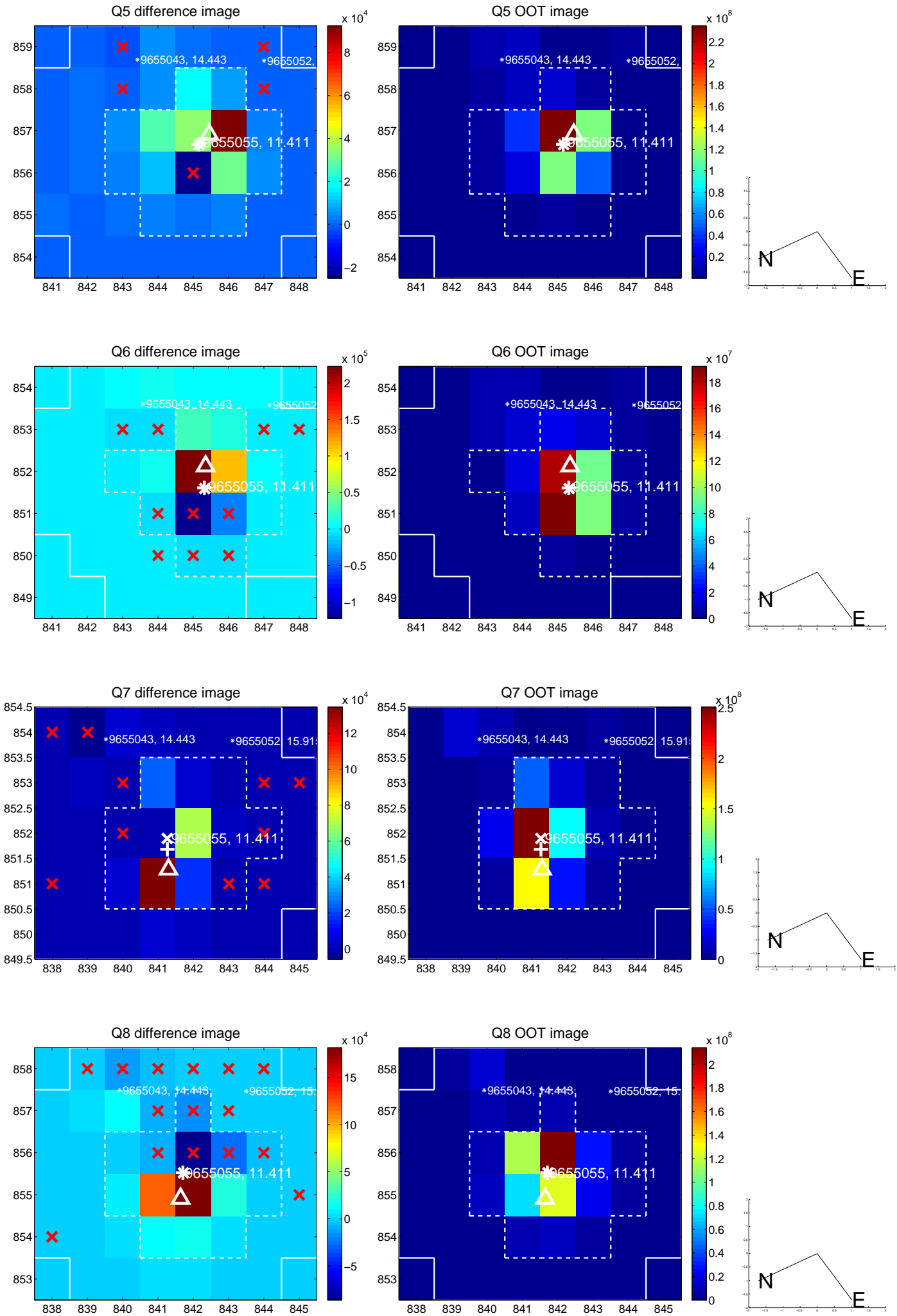


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

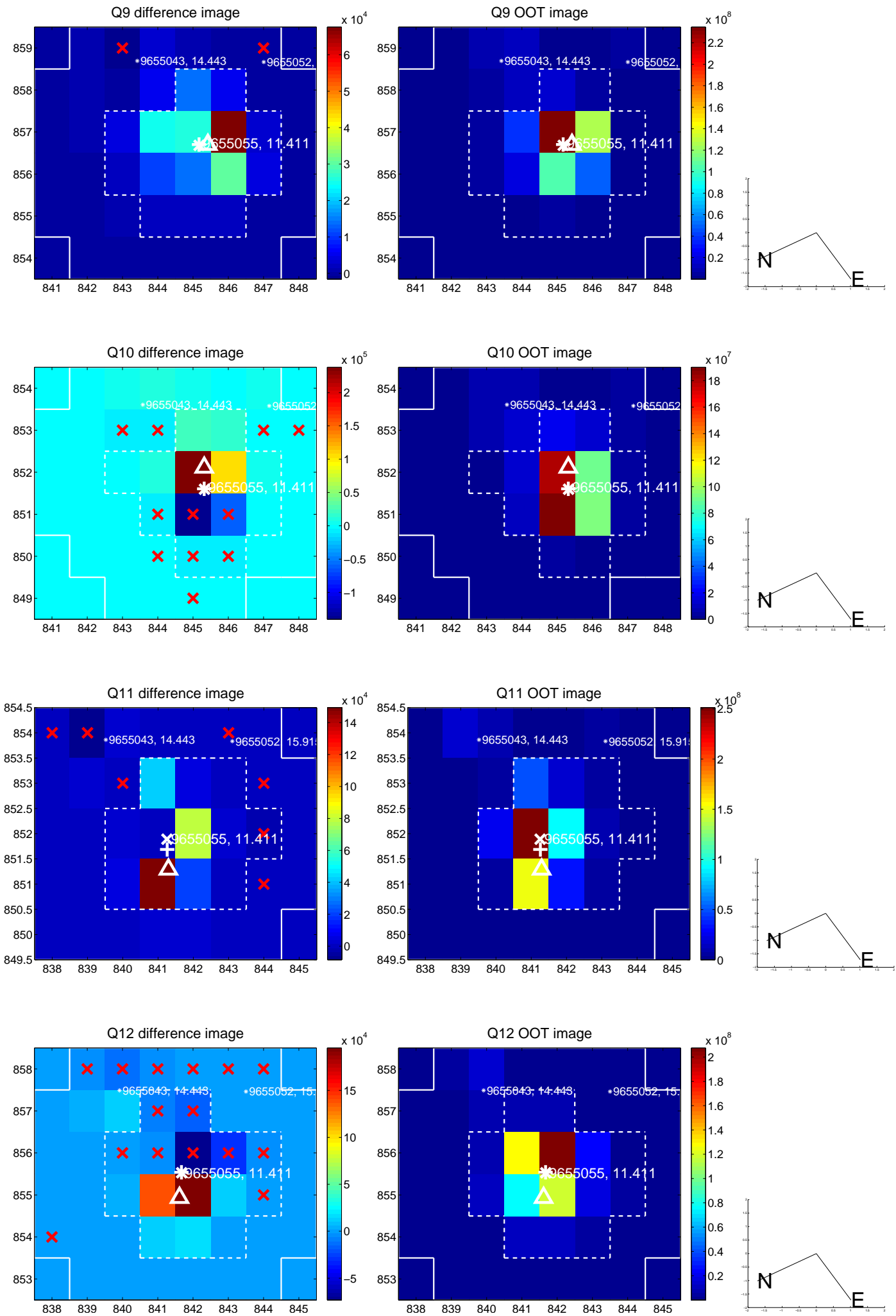
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



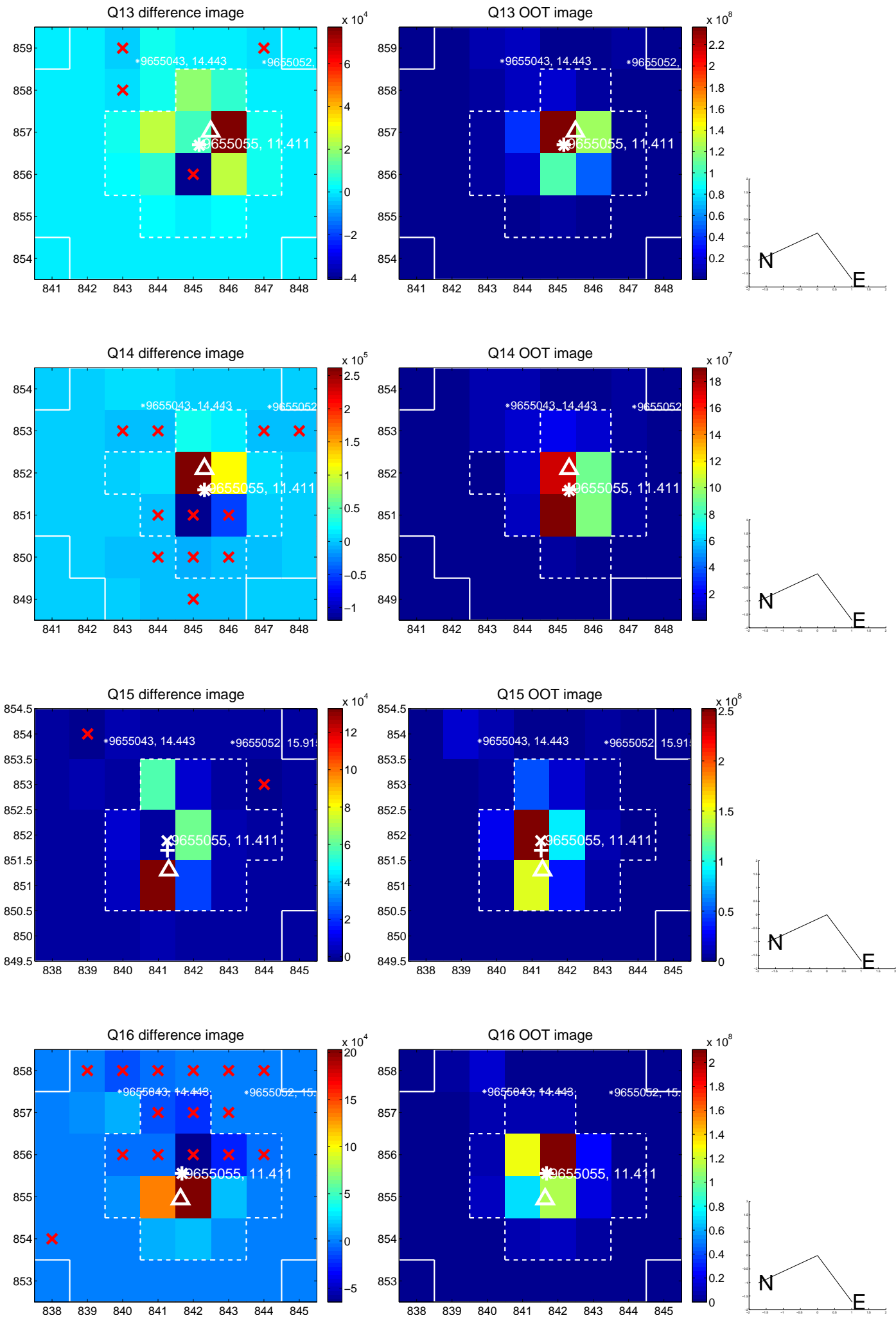
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



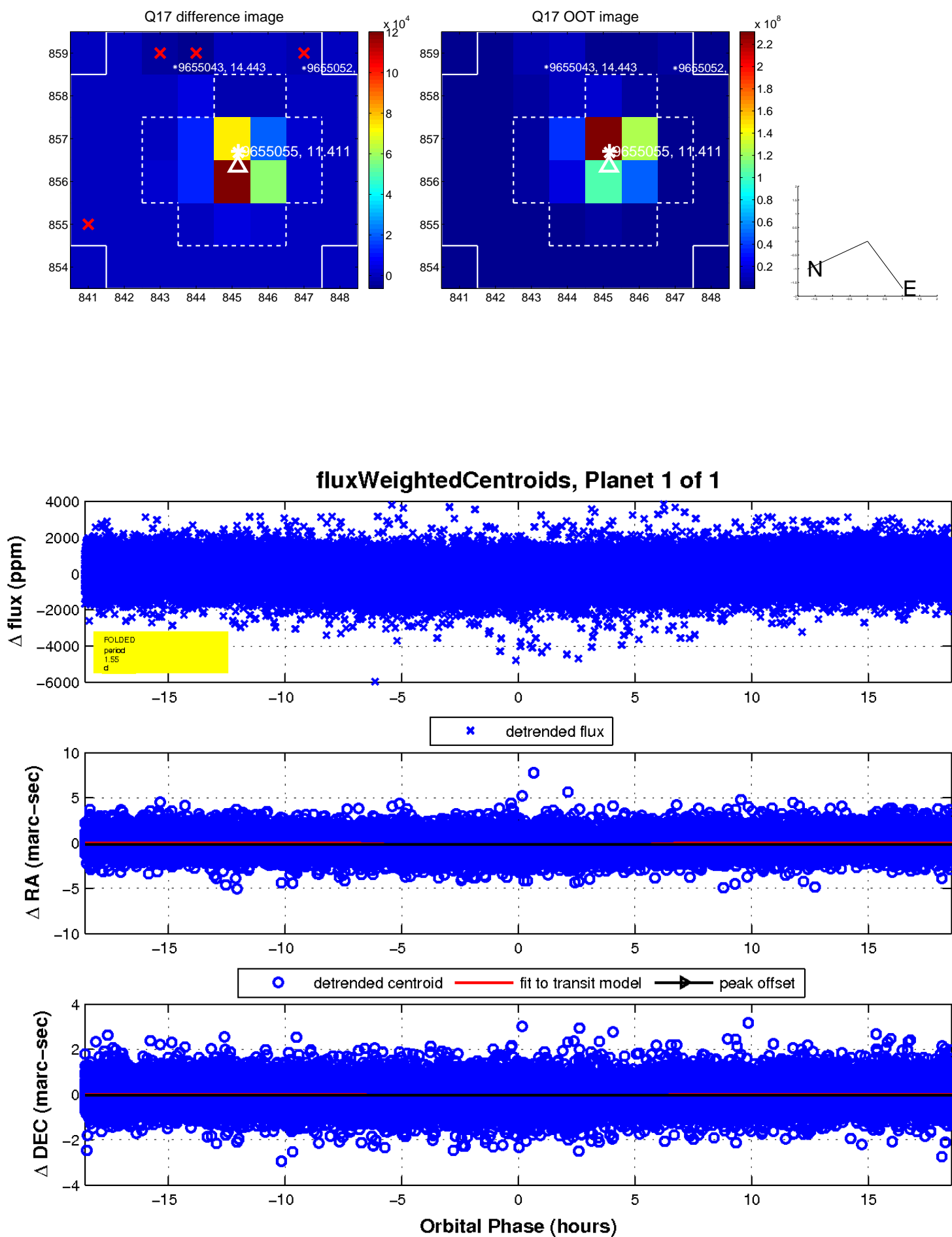
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

