

KIC 008058127

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})
008058127-01	OBS	No	0.900952	131.840909	219.3	6.286	14.4	21.9	2.79	7231	4.23	40485.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008058127-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_KIC_POS

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

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

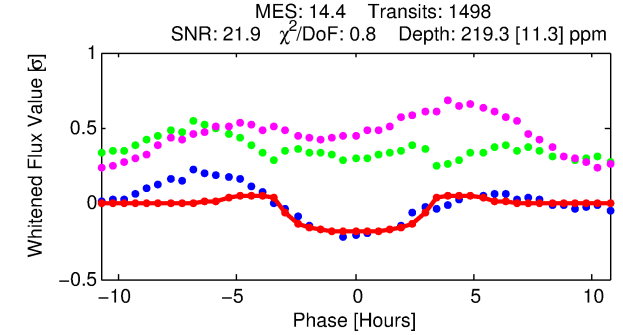
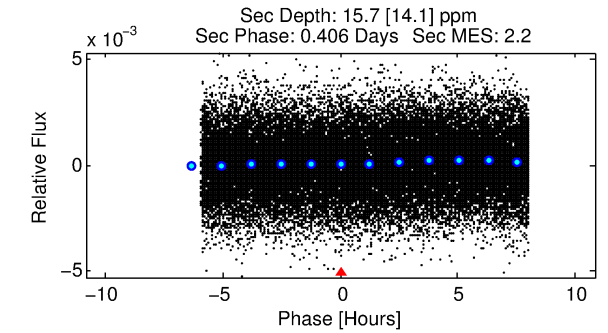
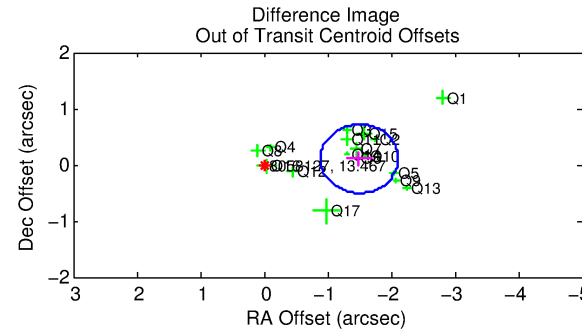
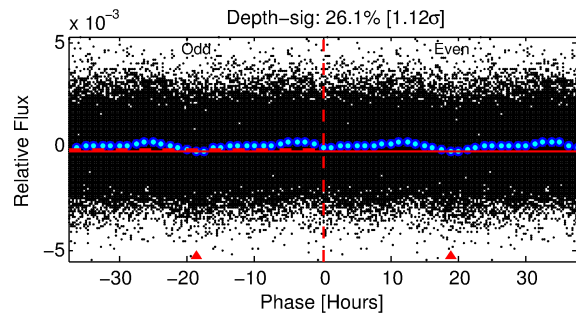
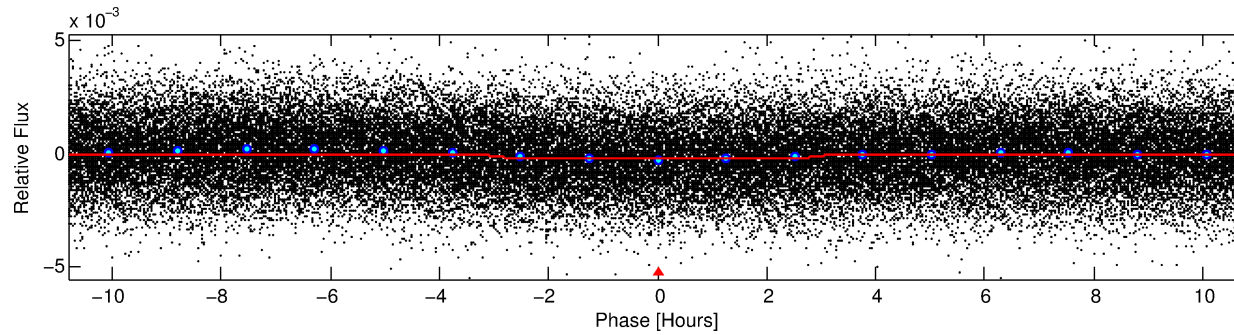
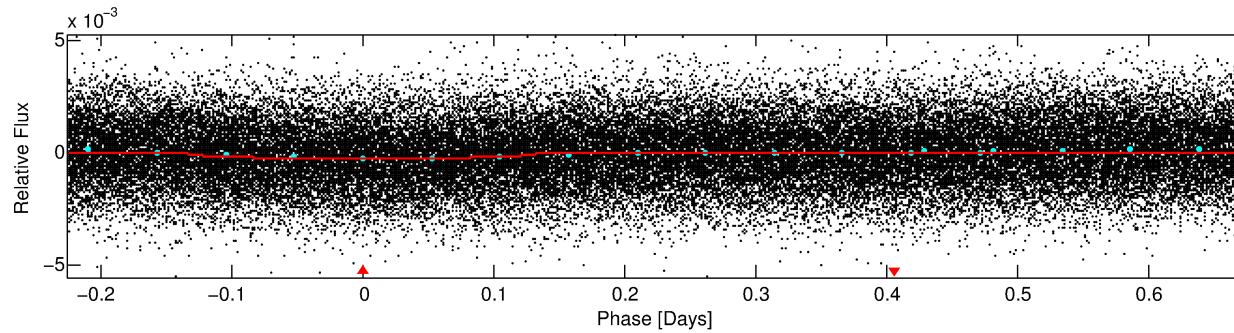
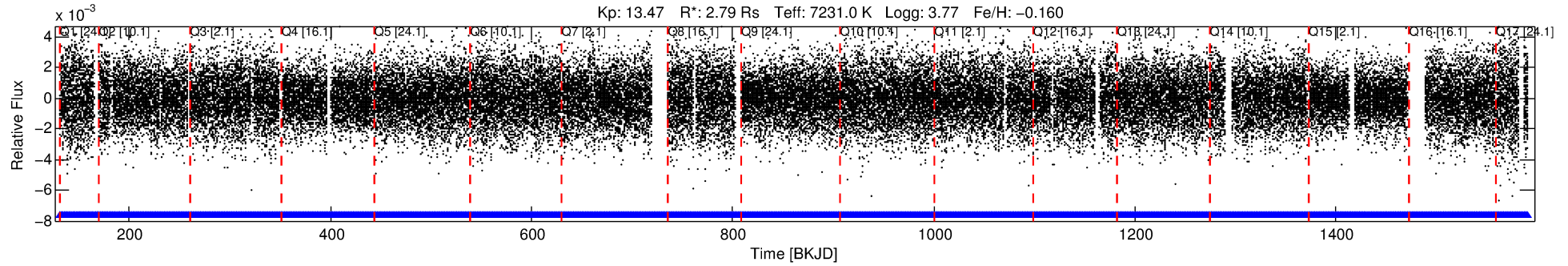
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008058127-01

No Significant Match Found

DV One-Page Summary

KIC: 8058127 Candidate: 1 of 1 Period: 0.901 d



DV Fit Results:

Period = 0.90095 [0.00001] d
Epoch = 131.8409 [0.0030] BKJD
Rp/R* = 0.0139 [0.0096]
a/R* = 1.23 [1.54]
b = 0.45 [6.69]
Seff = 40485.79 [29592.58]
Teq = 3617 [661] K
Rp = 4.23 [3.43] Re
a = 0.0217 [0.0094] AU
Ag = 0.23 [0.41] [-1.90 σ]
Teffp = 3860 [1593] K [0.14 σ]

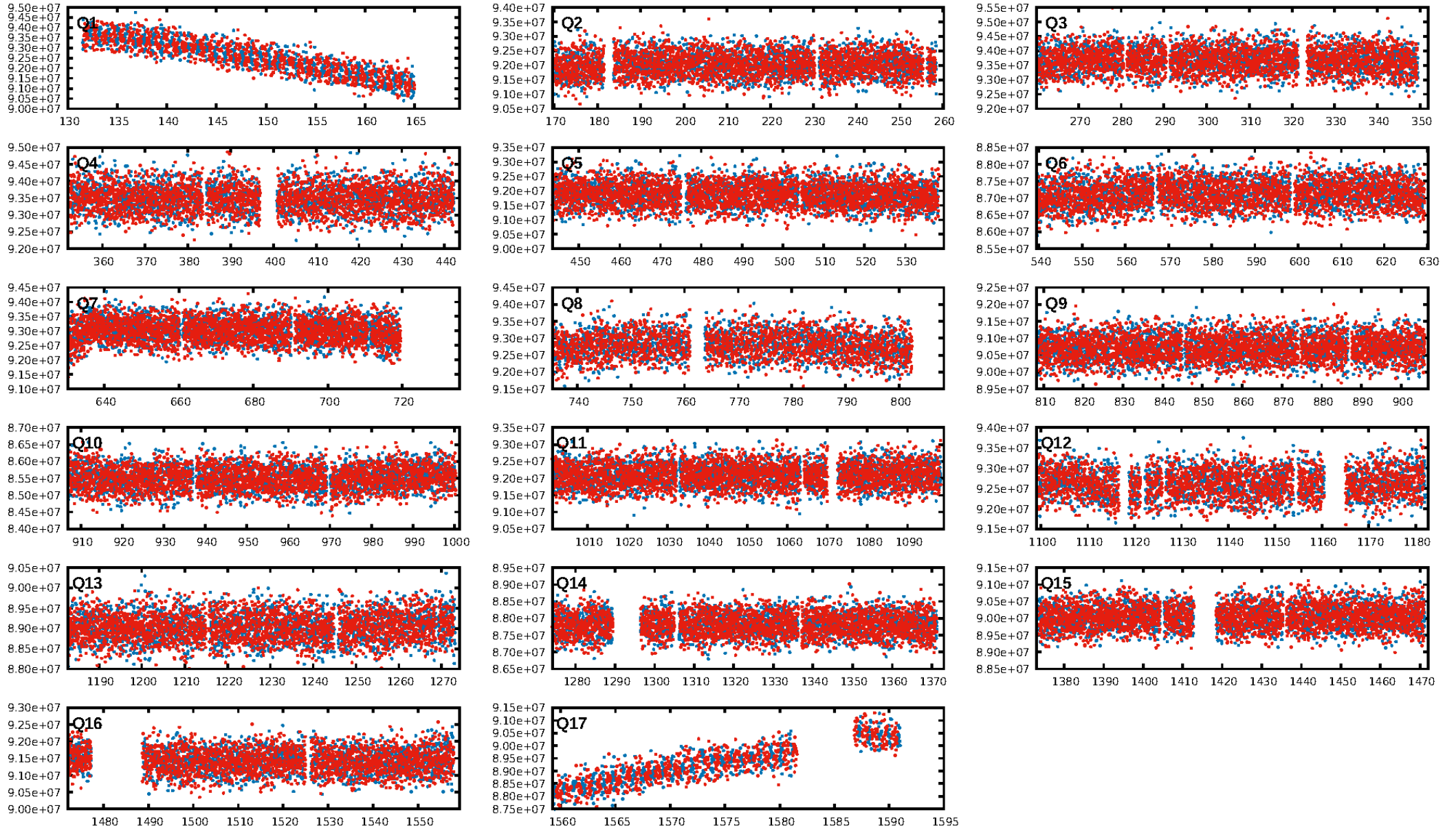
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.21e-36
RollingBand-fgt: 1.00 [1431/1431]
GhostDiagnostic-chr: 0.9743
Centroid-sig: 0.0%
Centroid-so: 0.190 arcsec [1.50 σ]
OotOffset-rm: 1.500 arcsec [7.37 σ]
KicOffset-rm: 0.560 arcsec [2.80 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]

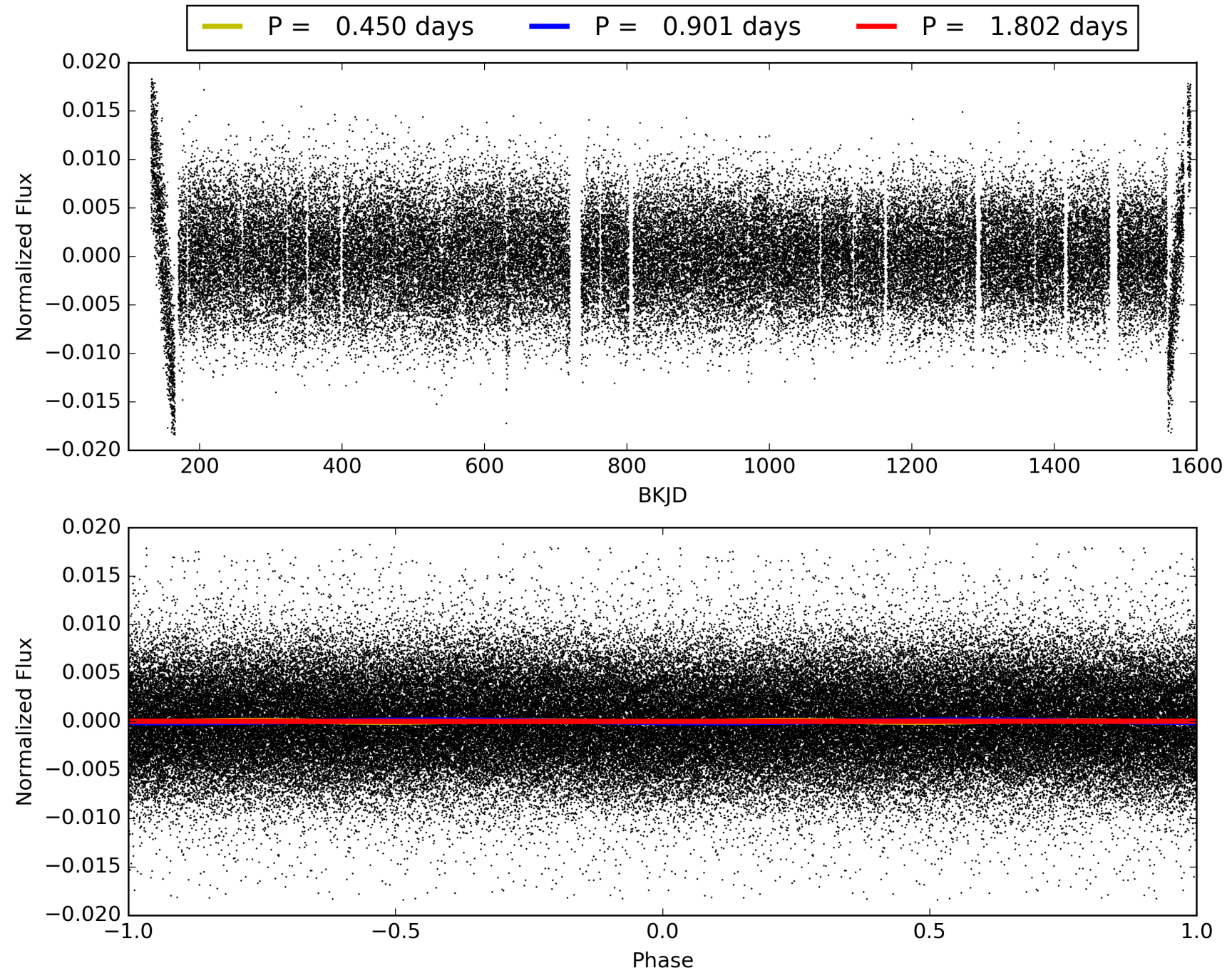
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:39:31 Z

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

TCE 008058127-01, PDC Light Curves

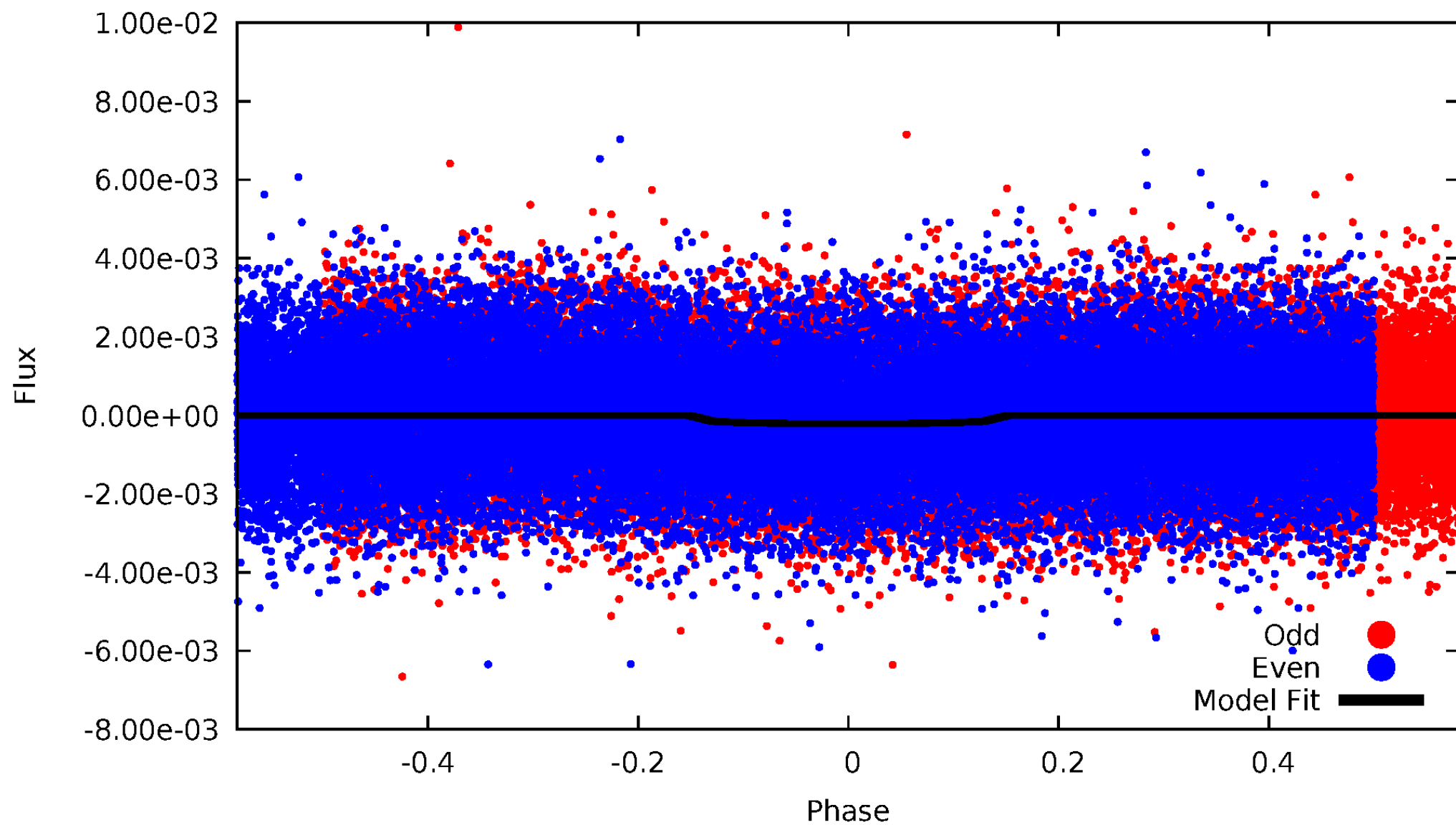


TCE 008058127-01



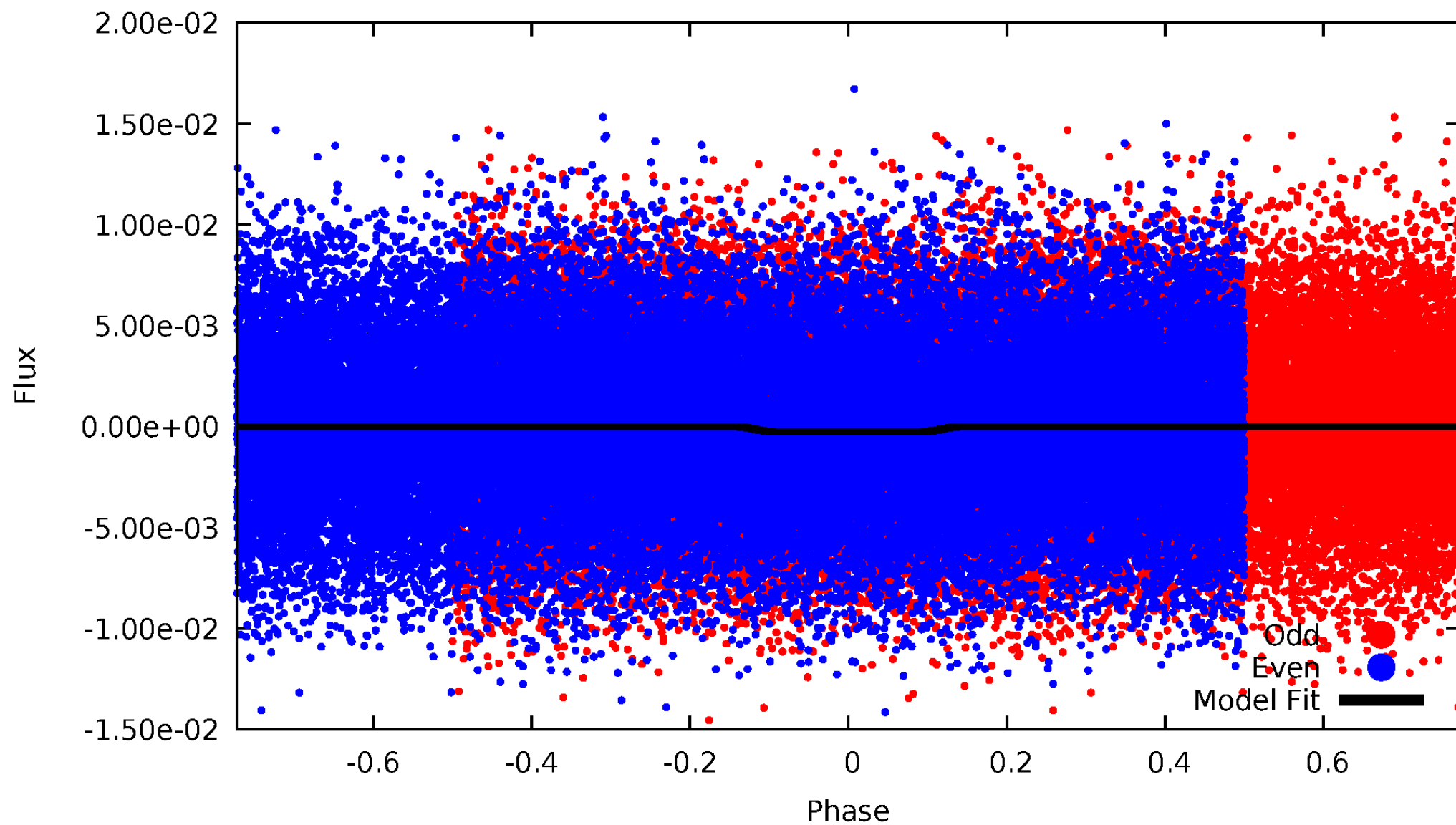
DV Odd/Even

TCE 008058127-01

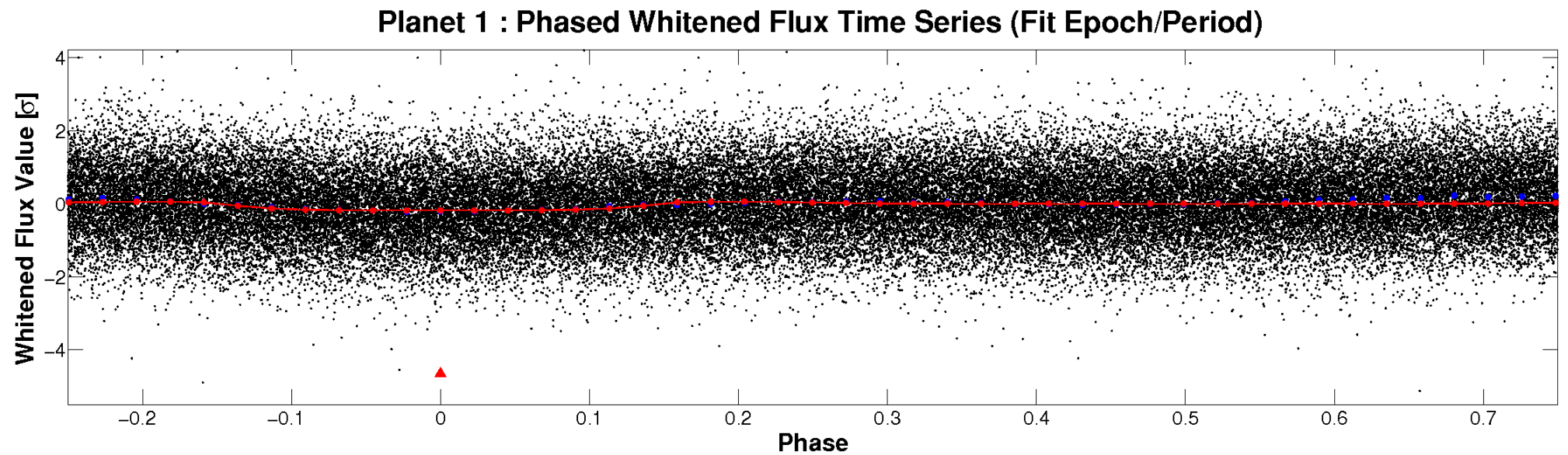
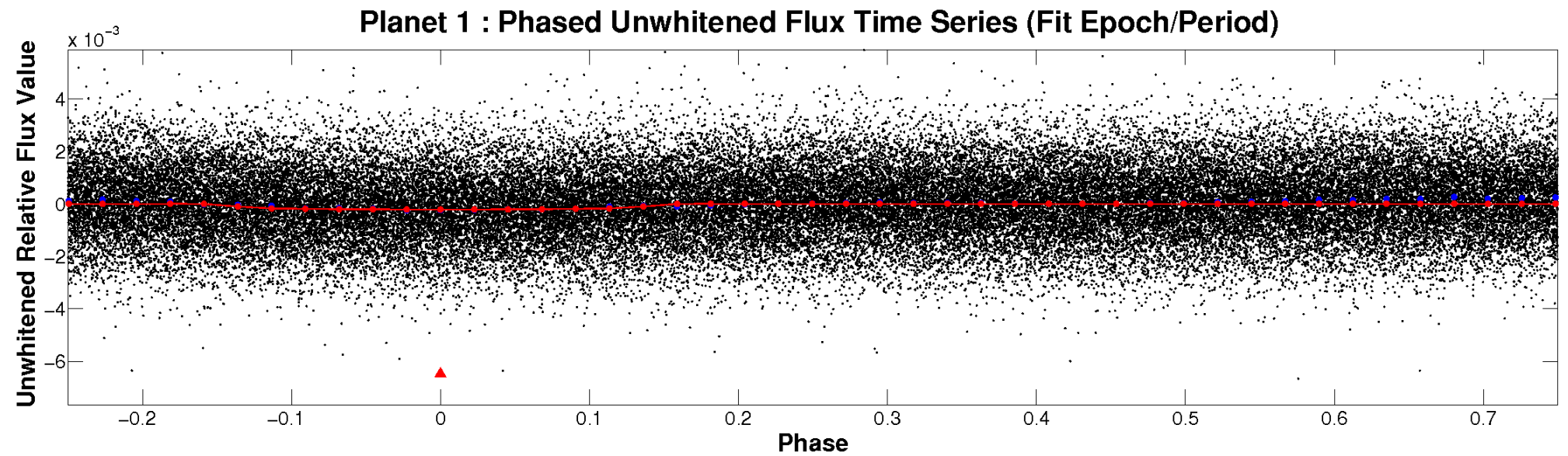


ALT Odd/Even

TCE 008058127-01

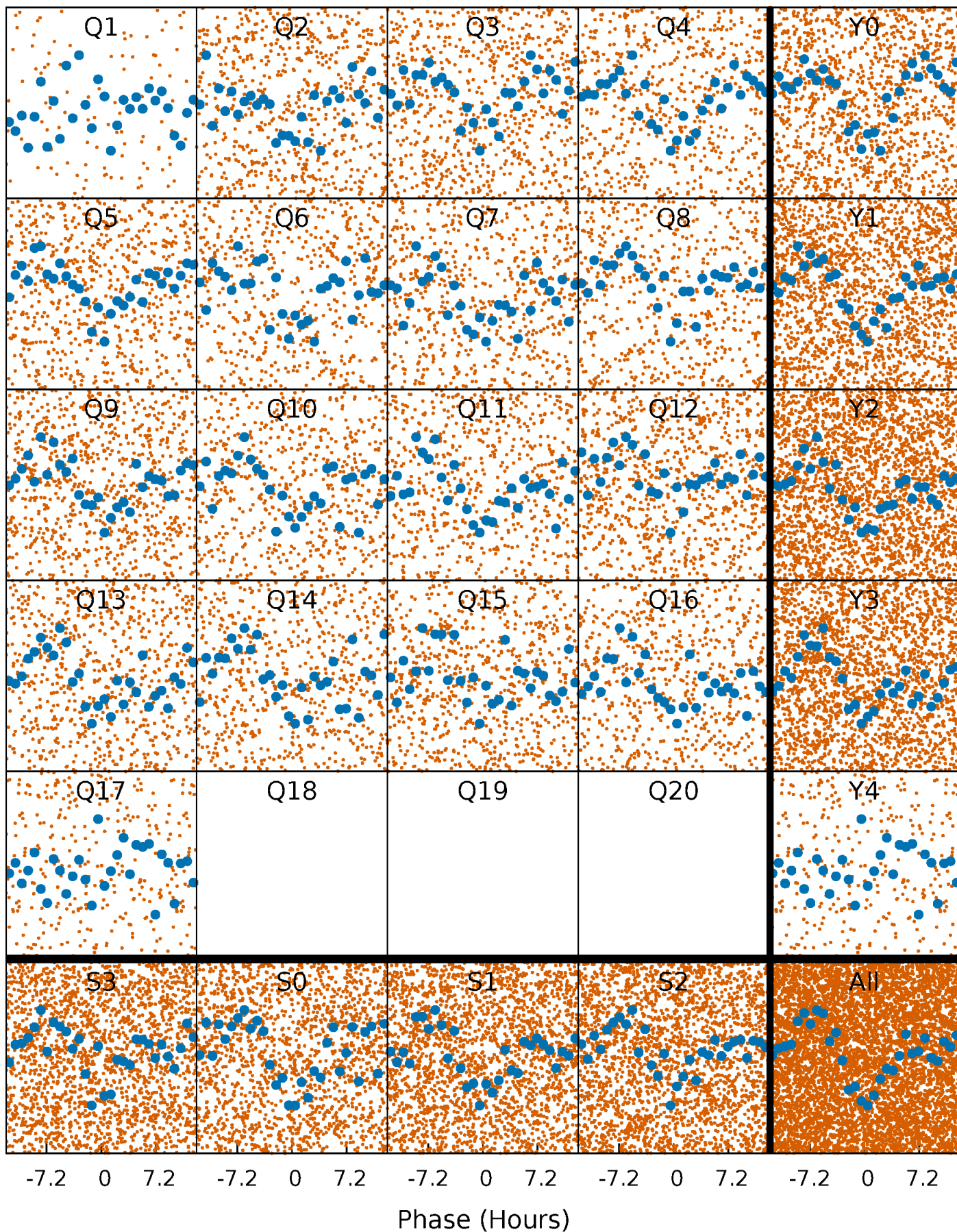


Non-Whitened Vs. Whitened Light Curve



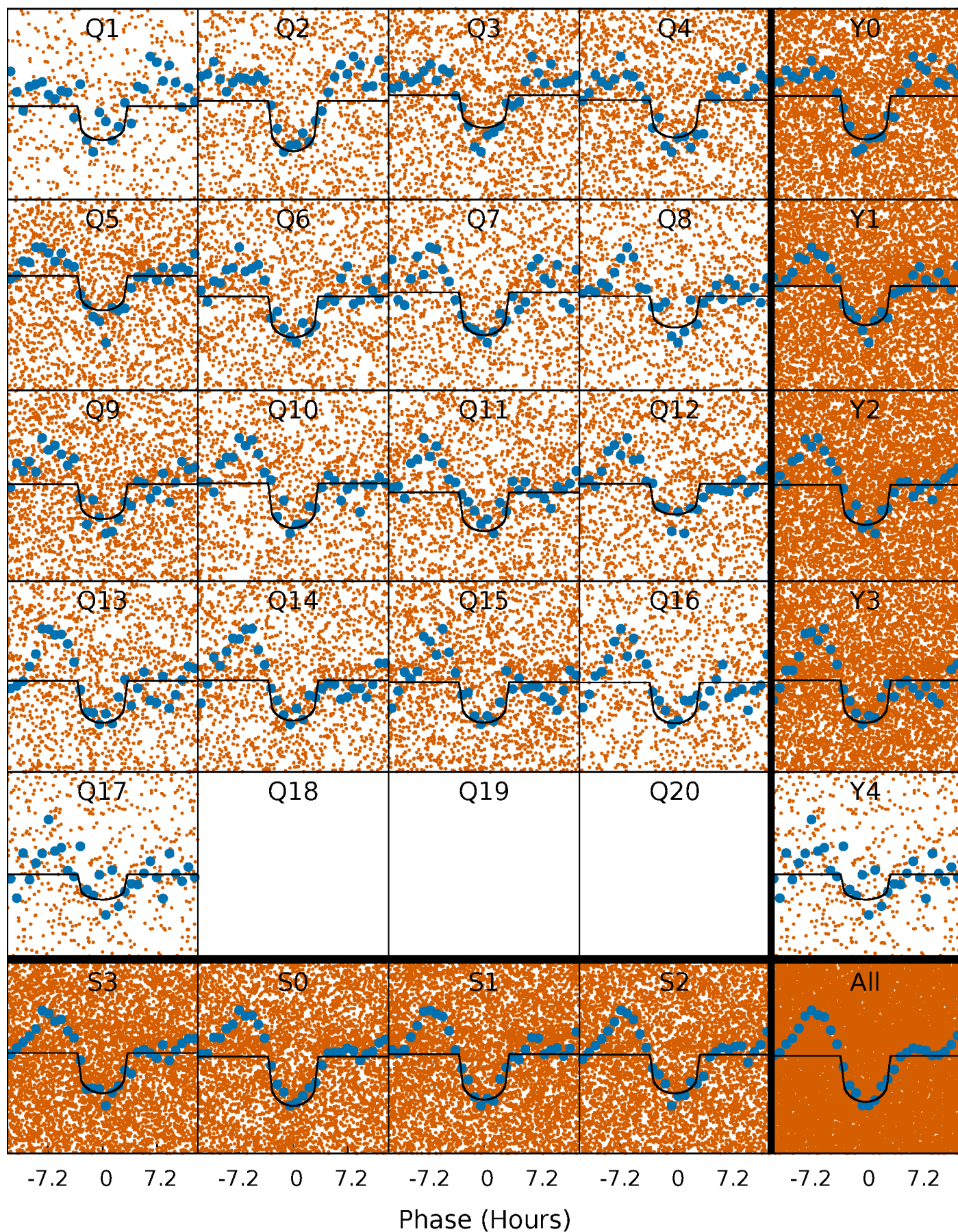
PDC Quarter-Phased Transit Curves

TCE 008058127-01 P= 0.900952 Days $T_0=131.840909$ (BKJD)



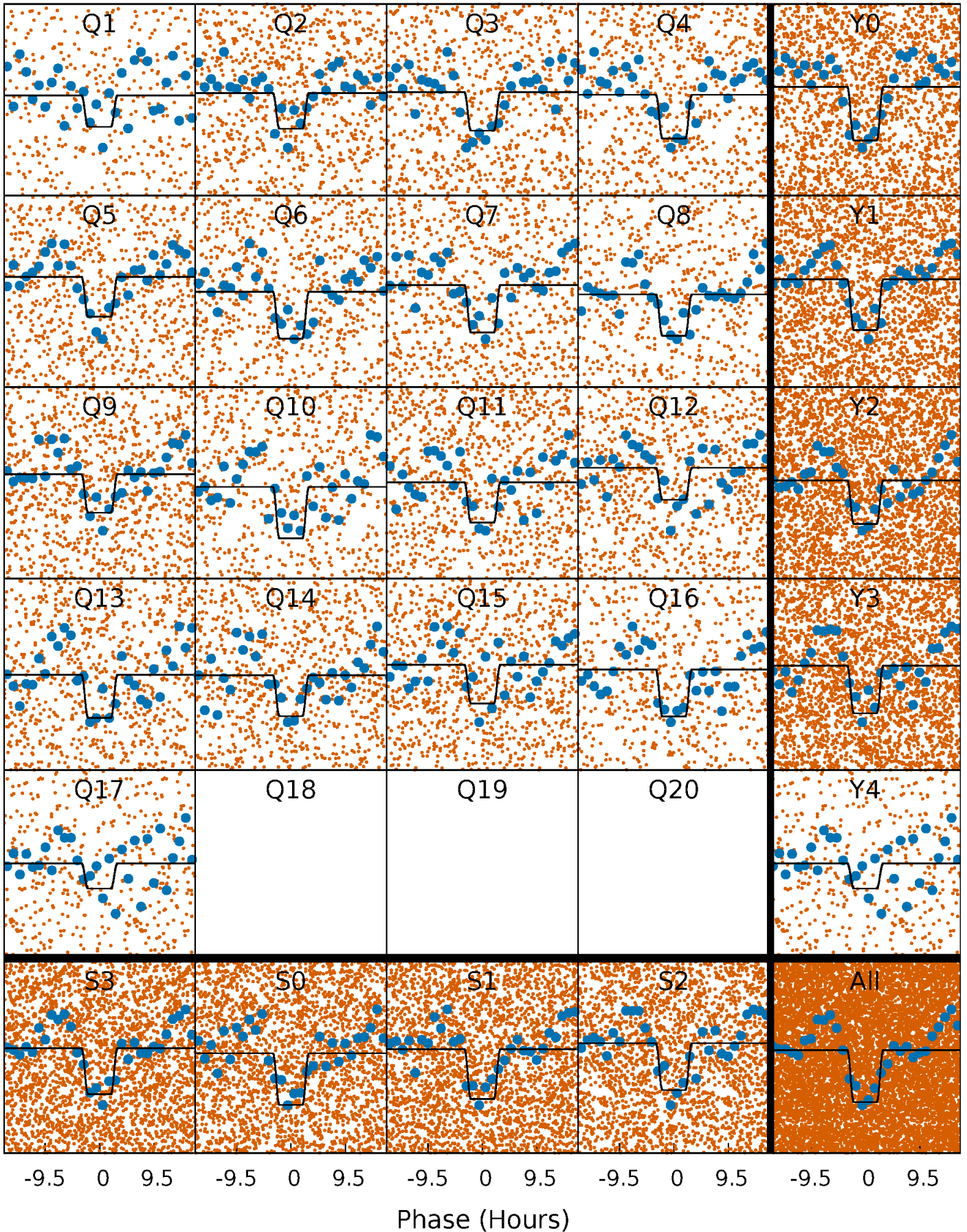
DV Quarter-Phased Transit Curves

TCE 008058127-01 P= 0.900952 Days $T_0=131.840909$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

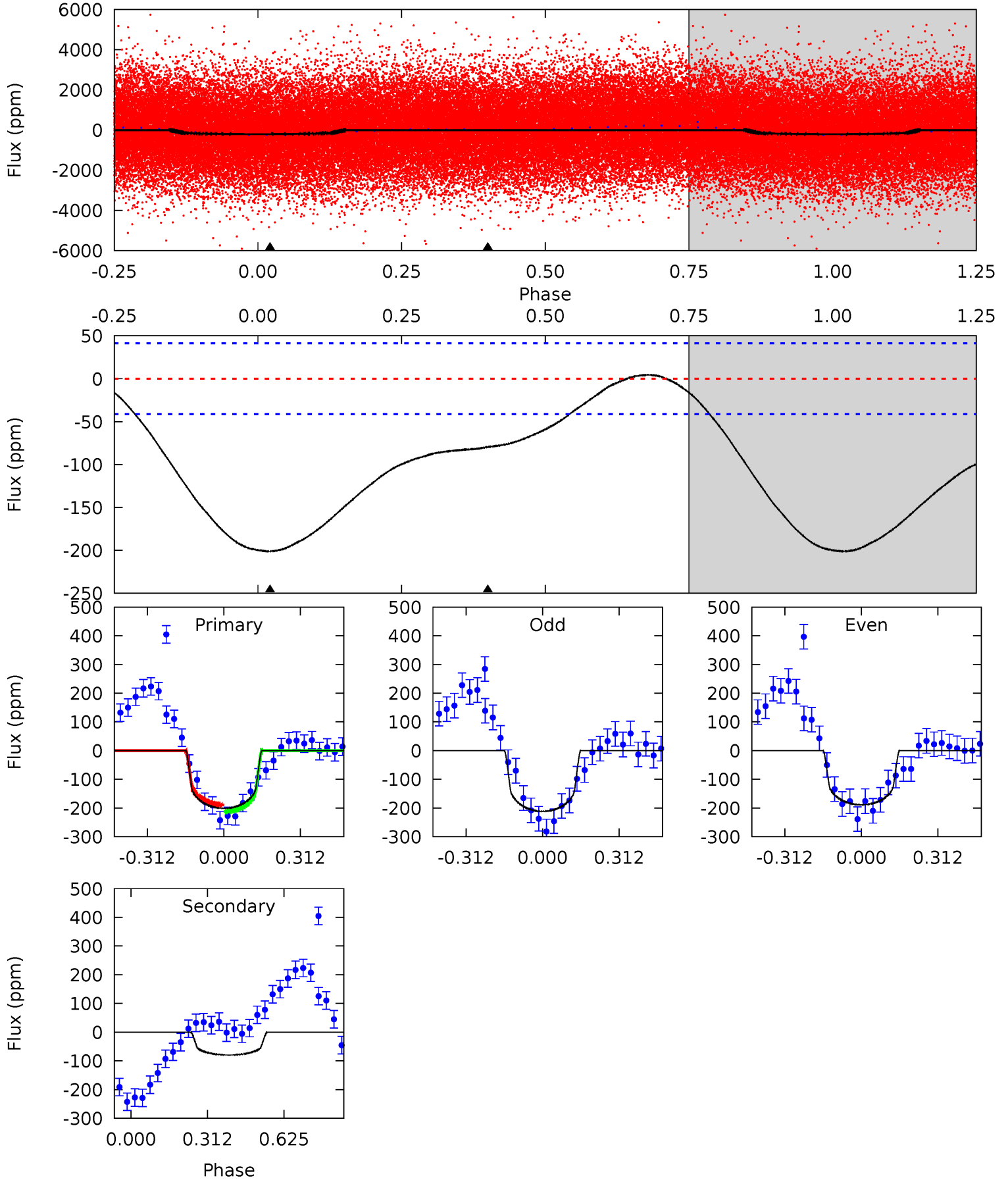
TCE 008058127-01 P= 0.900937 Days $T_0=131.865986$ (BKJD)



DV Model-Shift Uniqueness Test

008058127-01, P = 0.900952 Days, E = 130.939957 Days

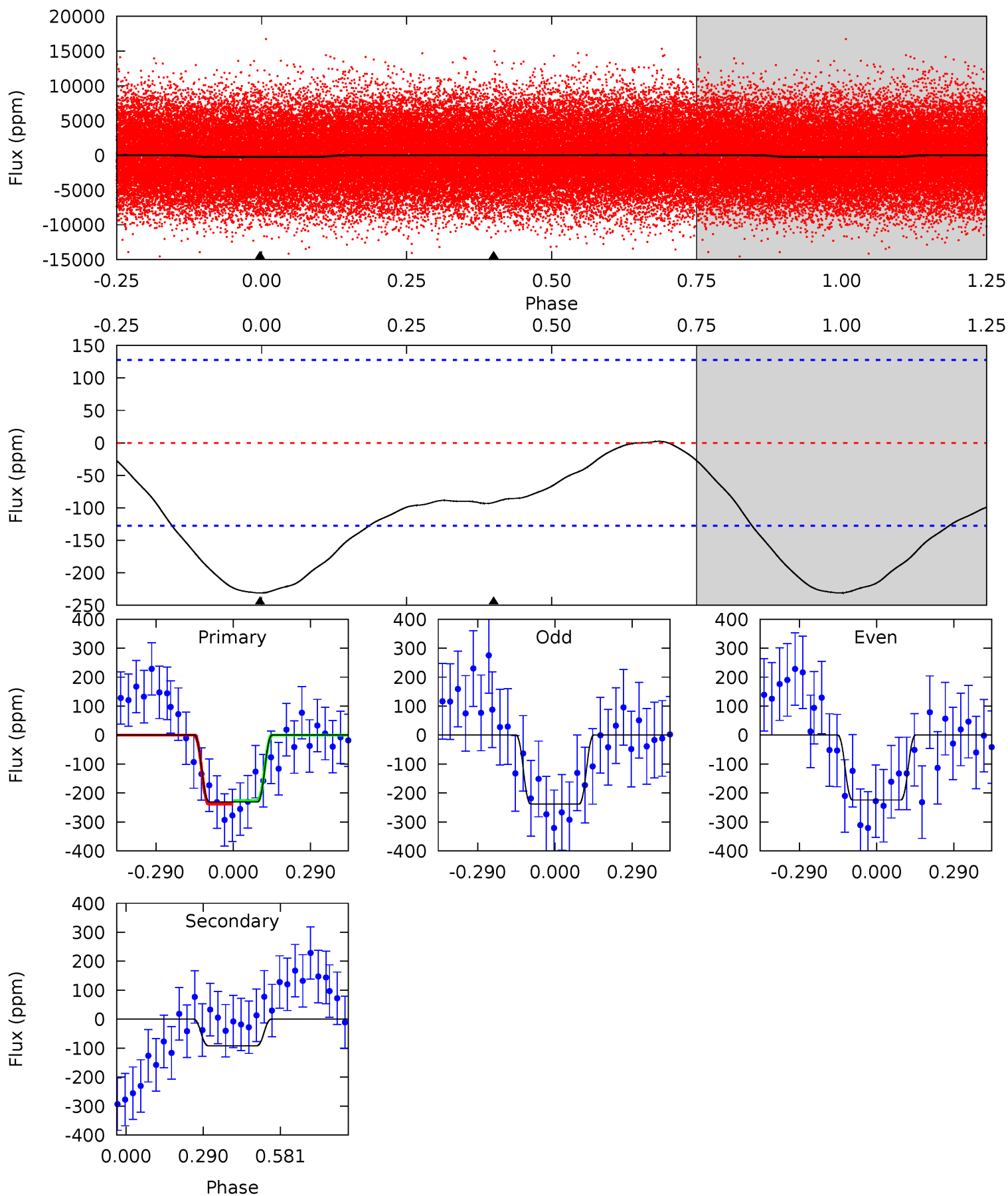
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.1	8.33	0	0	4.32	1.01	0.87	21.1	21.1	8.33	8.33	1.19	1.05	0.02	1.16



Alt Model-Shift Uniqueness Test

008058127-01, P = 0.900937 Days, E = 130.965049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.85	3.12	0	0	4.34	1.06	0.29	7.85	7.85	3.12	3.12	0.24	1.03	0.01	0.20



Stellar Parameters For KIC 008058127

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7231^{+226}_{-302}	$3.771^{+0.425}_{-0.100}$	$-0.160^{+0.250}_{-0.350}$	$2.785^{+0.509}_{-1.187}$	$1.669^{+0.168}_{-0.392}$	$0.109^{+0.399}_{-0.036}$
	+3%/-4%	+11%/-3%	+156%/-219%	+18%/-43%	+10%/-23%	+366%/-33%
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 008058127-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-80 ± 10	$4.01^{+2.84}_{-2.10}$	4924^{+327}_{-594}	5148^{+2993}_{-1404}	$1.212^{+4.879}_{-0.768}$
Alt.	-92 ± 29	$4.39^{+2.93}_{-2.37}$	4899^{+367}_{-592}	5117^{+2951}_{-1595}	$1.194^{+4.266}_{-0.782}$

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 $A_{obs} \gg 1.0$

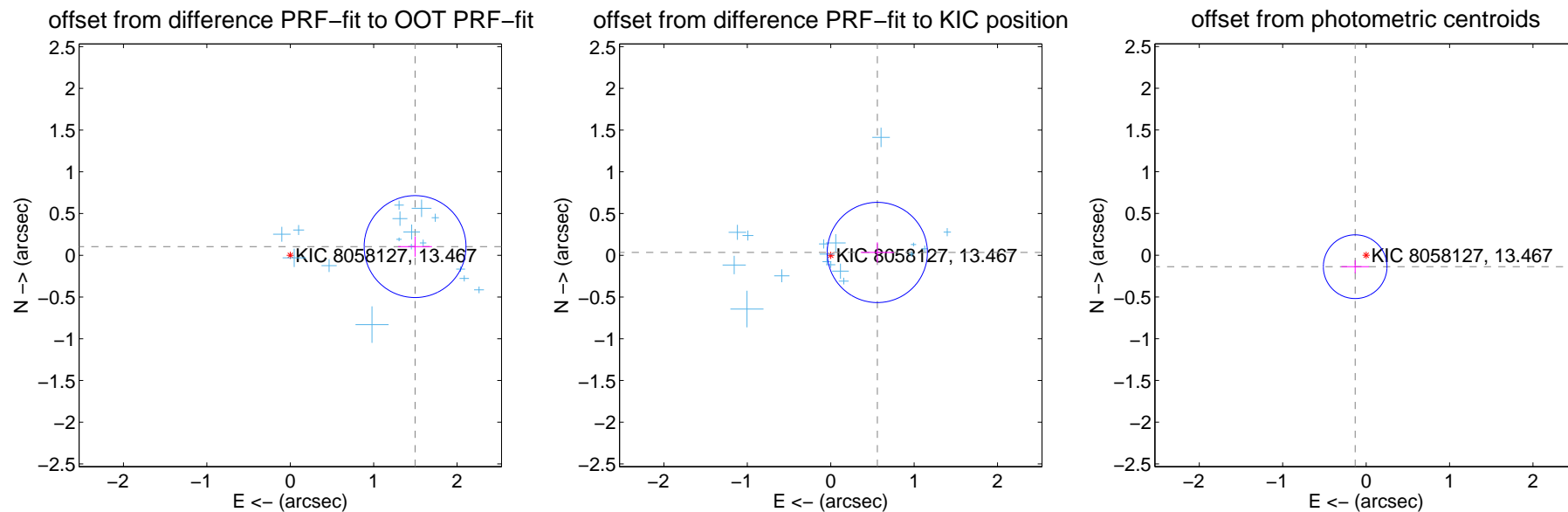
DV Centroid Data

Supplemental centroid analysis for 008058127-01. Kepler magnitude: 13.47. Transit SNR 21.90

There are 17 quarters with good PRF difference image offsets

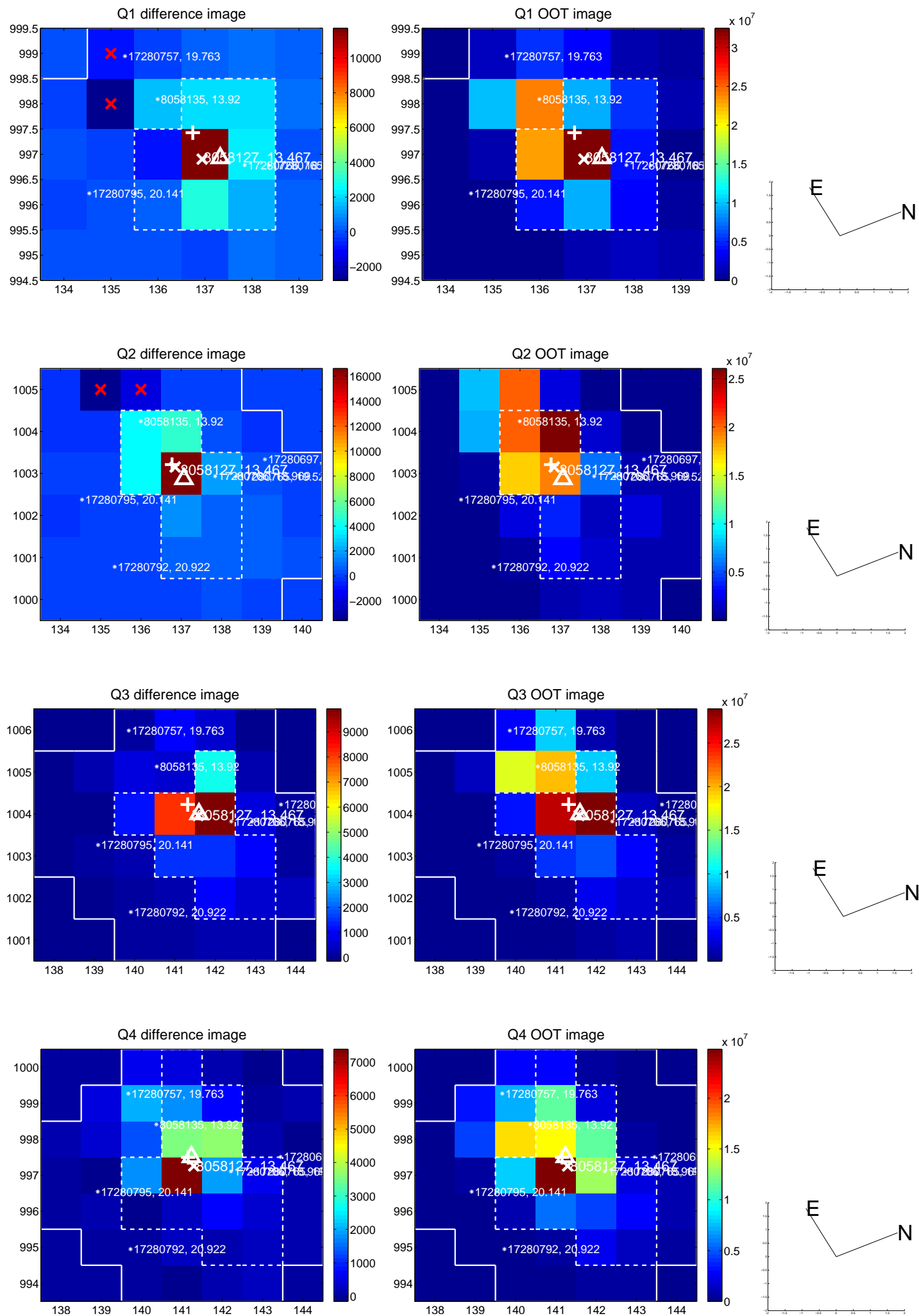
The direct PRF centroid is offset from the target star catalog position by about 1.99 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.500 \pm 0.204	7.37	-1.497 \pm 0.202	0.104 \pm 0.121
PRF-fit source offset from KIC position	0.560 \pm 0.200	2.80	-0.559 \pm 0.199	0.034 \pm 0.122
photometric centroid source offset	0.19 \pm 0.13	1.50	0.13 \pm 0.17	-0.14 \pm 0.08

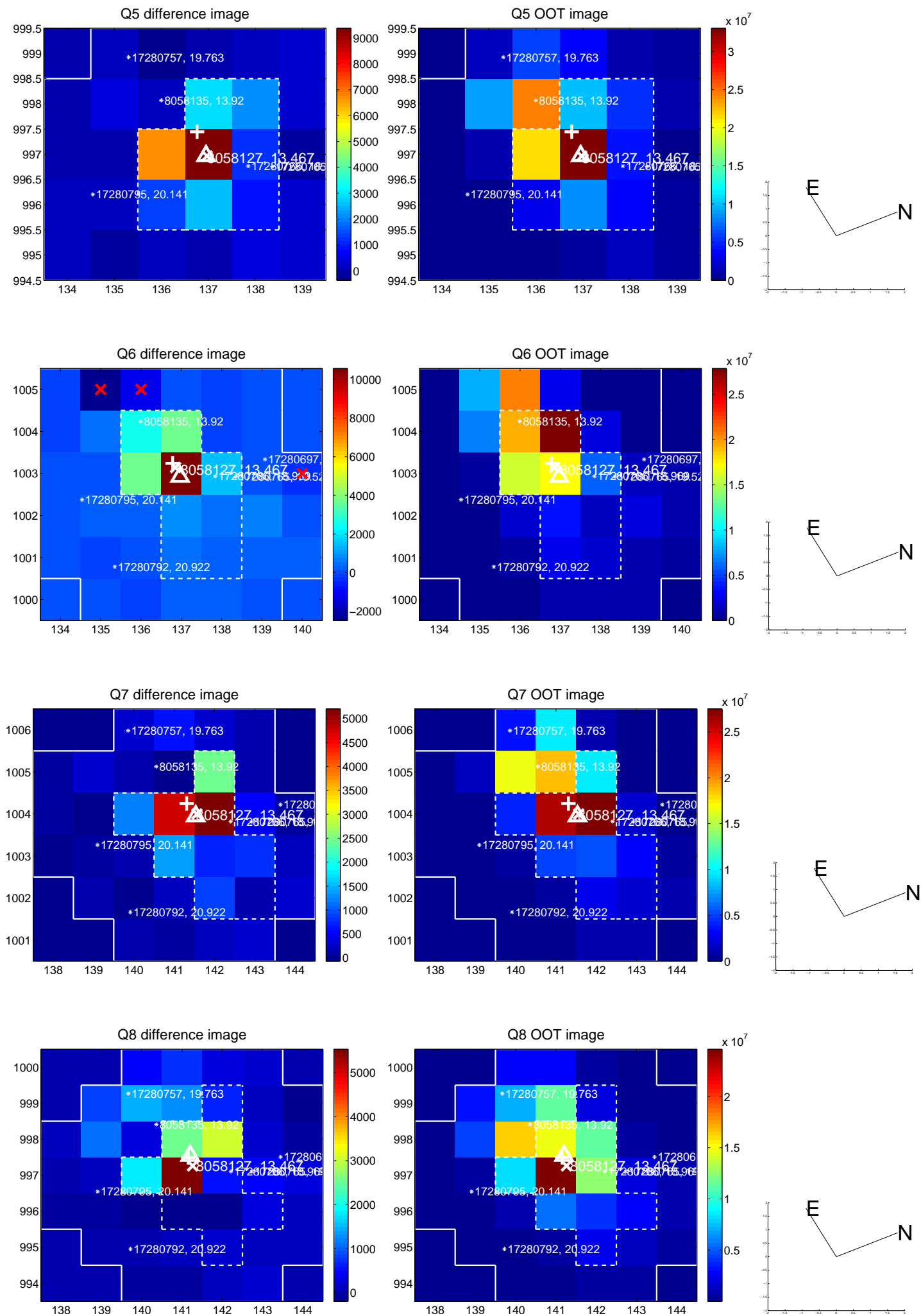


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

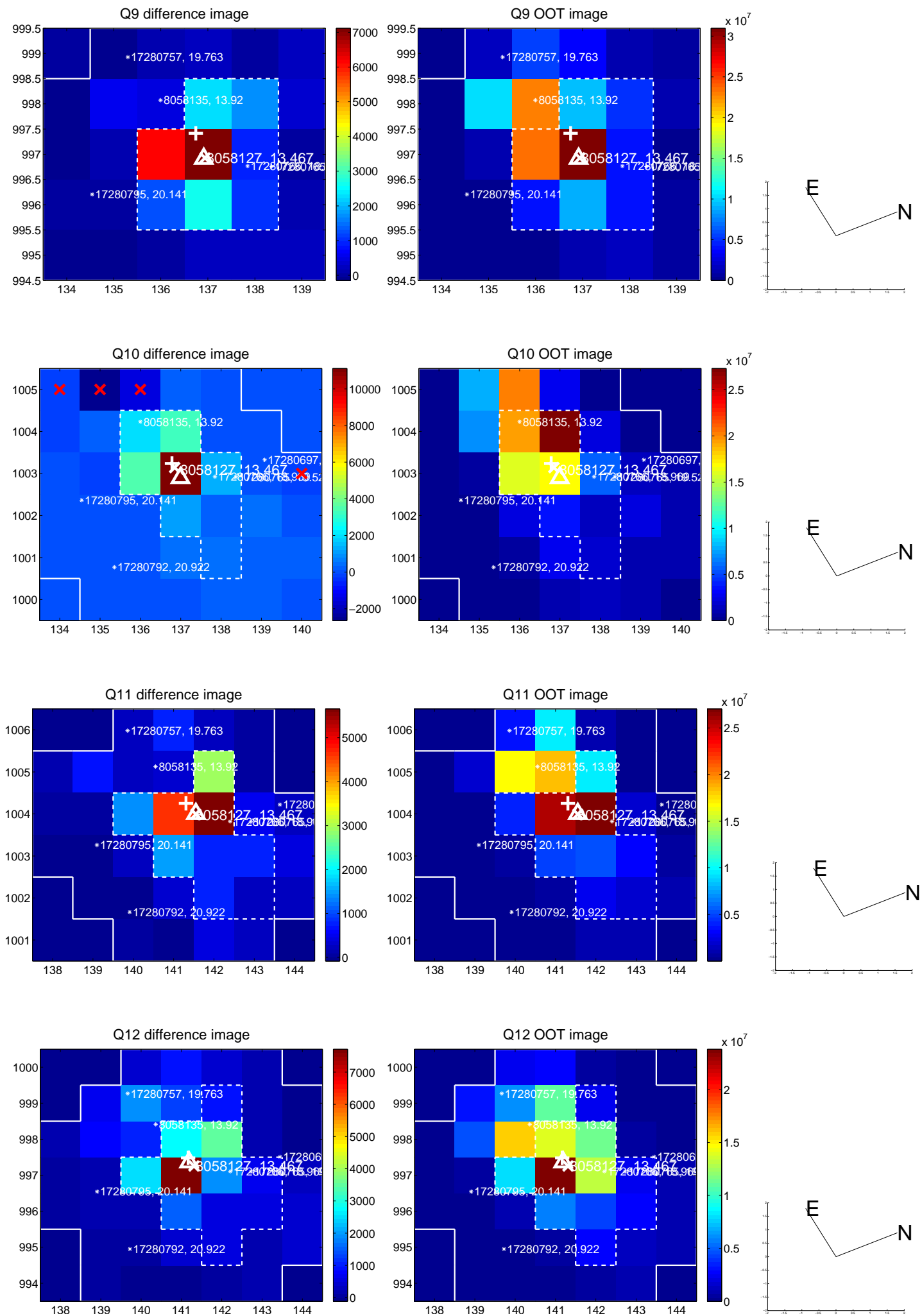
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



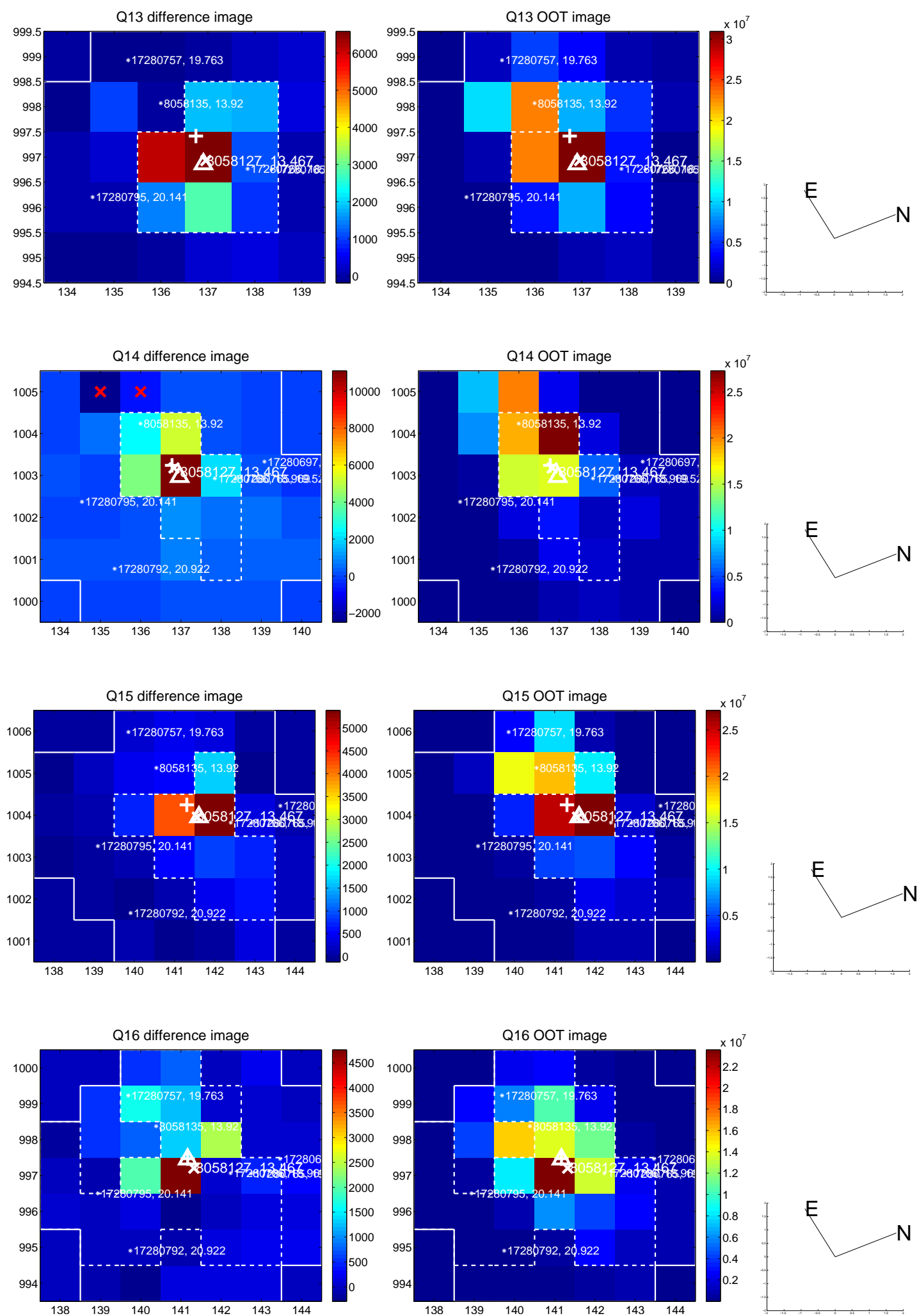
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



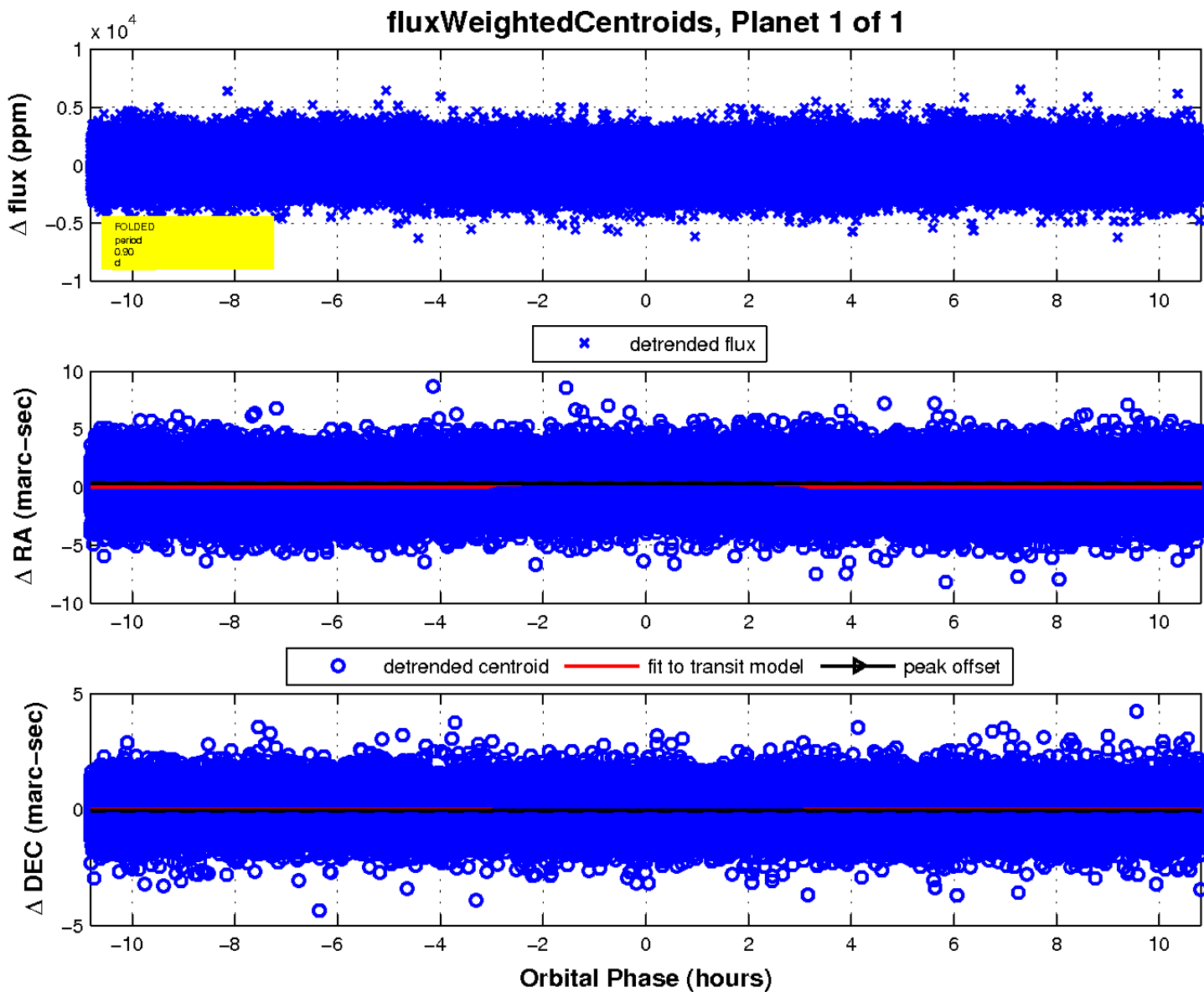
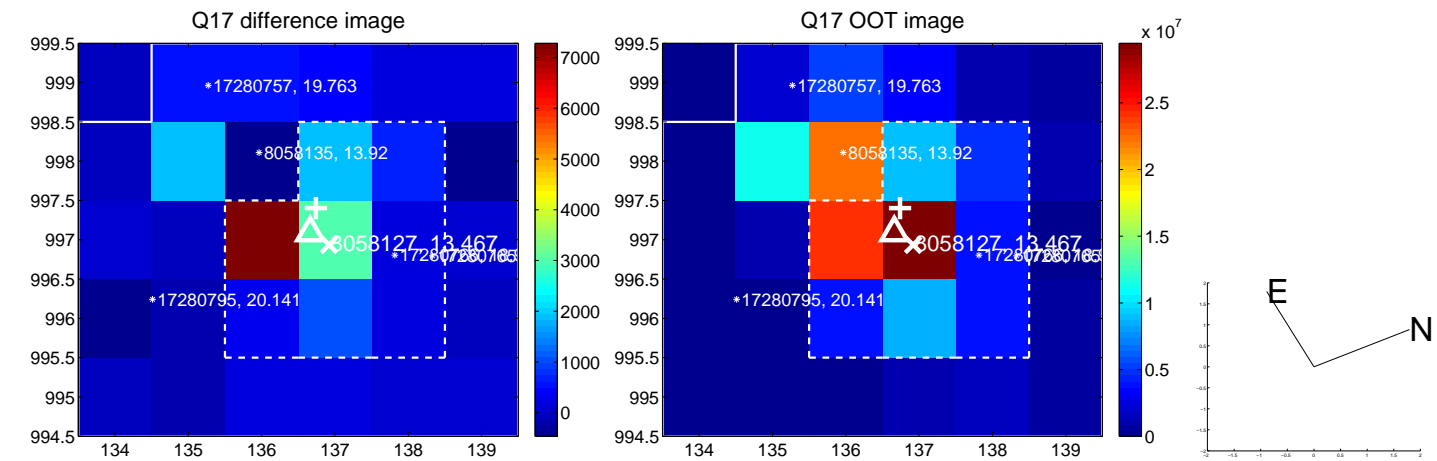
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

