

KIC 006803964

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})
006803964-01	OBS	No	0.524536	131.856314	150.7	1.148	10.0	12.0	1.98	9610	2.80	107669.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006803964-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED

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

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

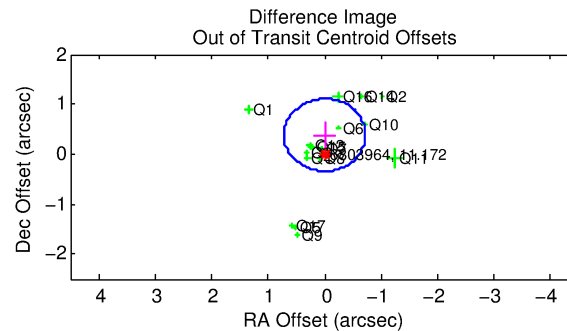
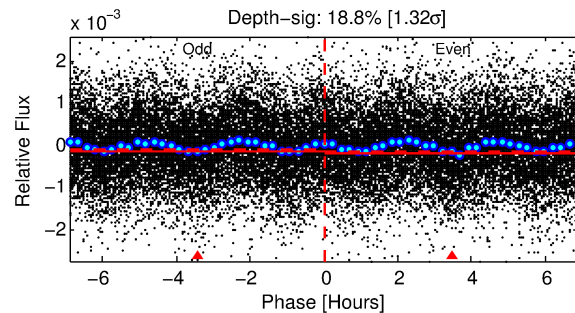
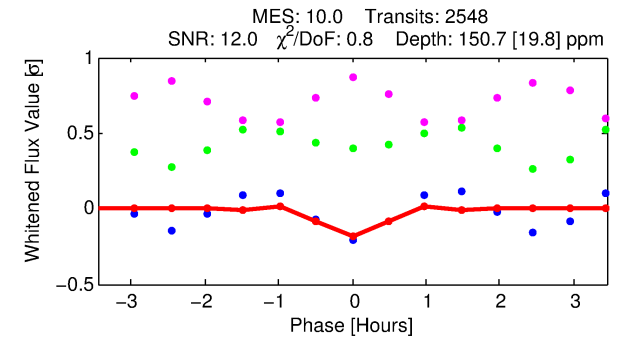
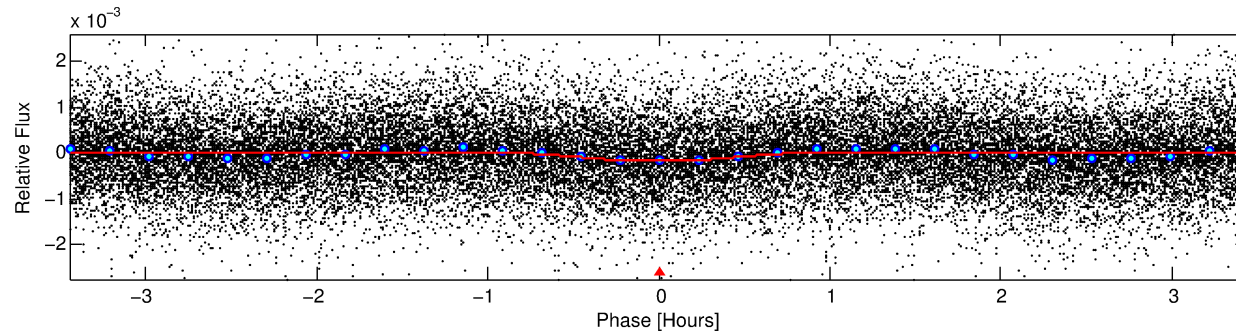
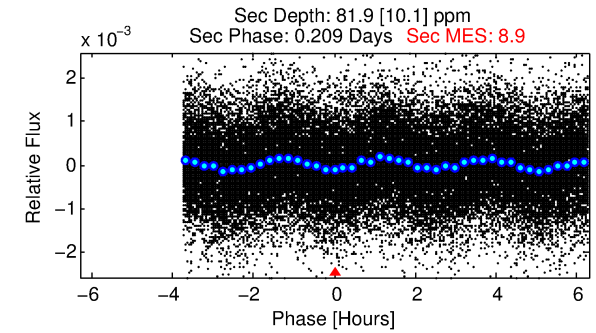
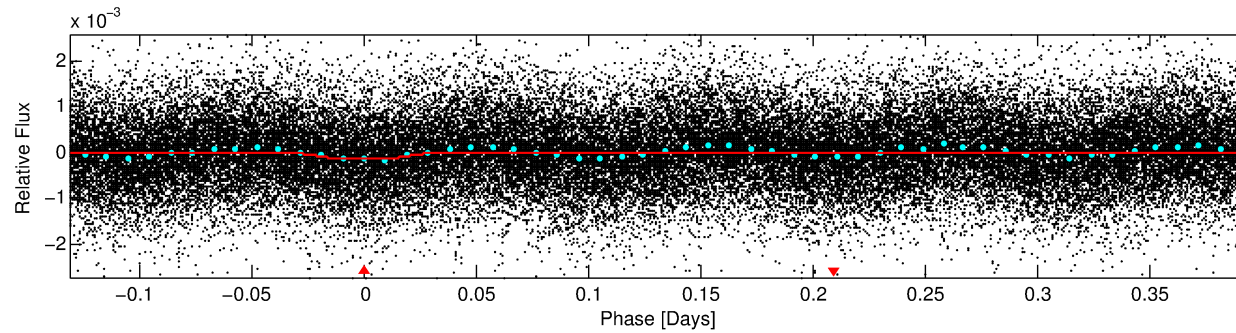
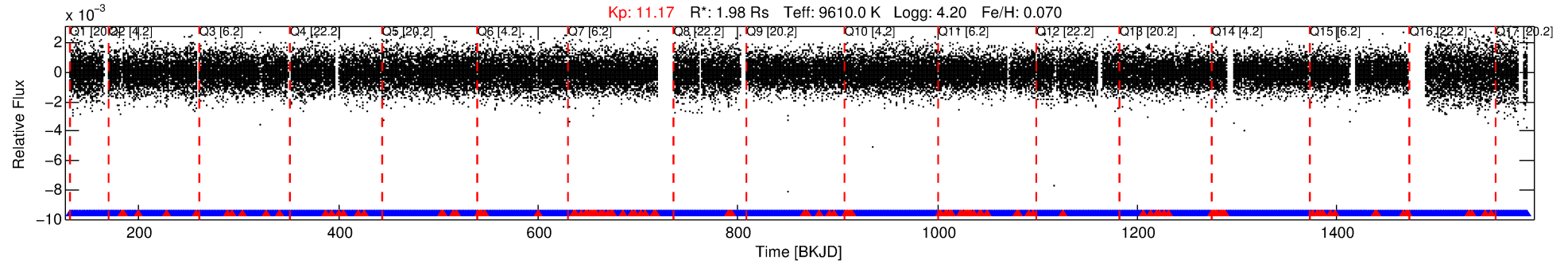
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006803964-01

No Significant Match Found

DV One-Page Summary

KIC: 6803964 Candidate: 1 of 1 Period: 0.525 d



DV Fit Results:

Period = 0.52454 [0.00001] d
Epoch = 131.8563 [0.0013] BKJD
Rp/R* = 0.0130 [0.0042]
a/R* = 1.88 [3.23]
b = 0.90 [0.52]
Seff = 107669.38 [56655.53]
Teq = 4619 [608] K
Rp = 2.80 [1.63] Re
a = 0.0167 [0.0062] AU
Ag = 1.59 [1.31] [0.45σ]
Teffp = 8024 [1354] K [2.29σ]

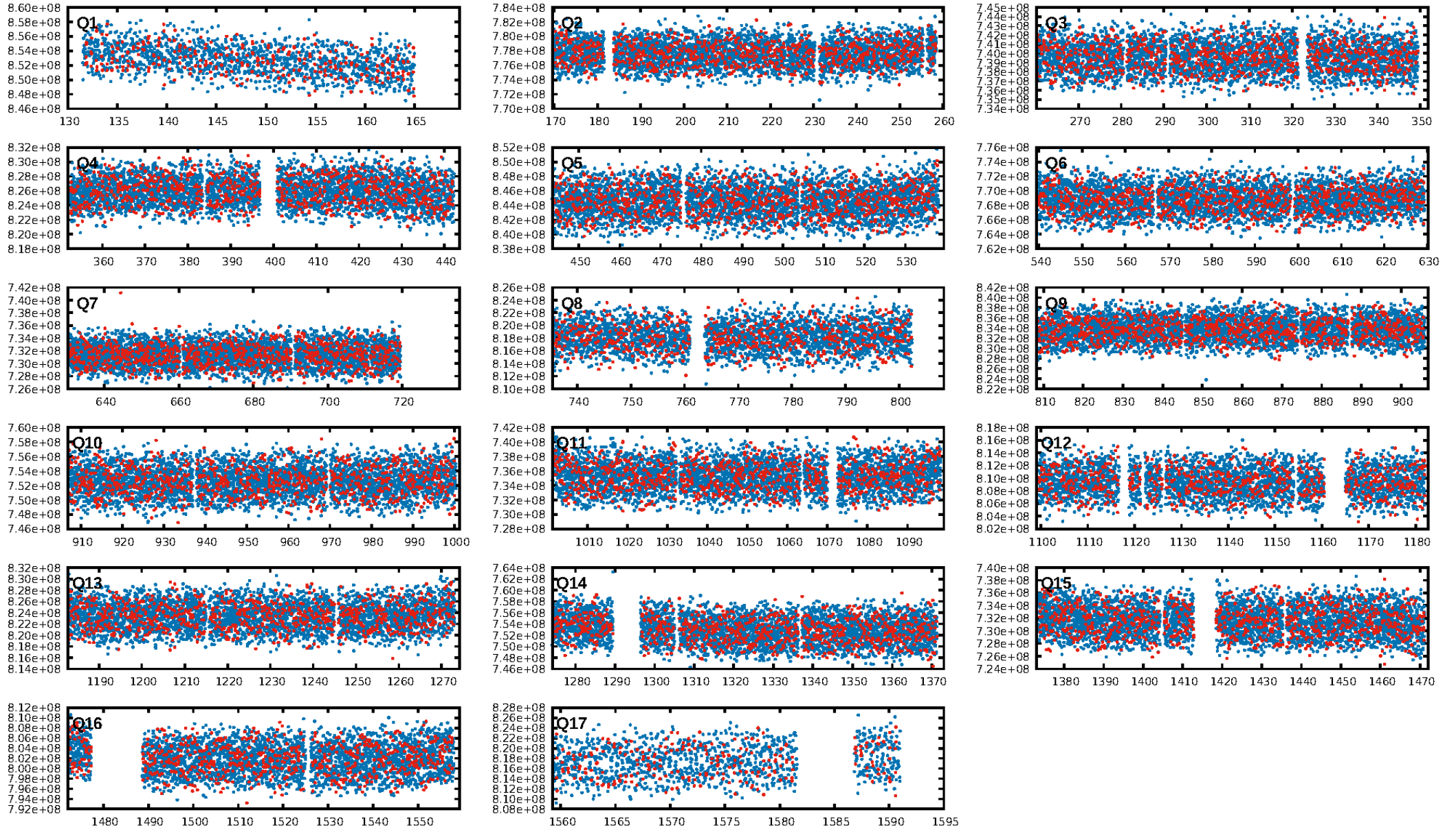
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.44e-22
RollingBand-fgt: 0.95 [2306/2434]
GhostDiagnostic-chr: 3.02
Centroid-sig: 0.0%
Centroid-so: 0.556 arcsec [6.14σ]
OotOffset-rm: 0.386 arcsec [1.60σ]
KicOffset-rm: 0.451 arcsec [1.84σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

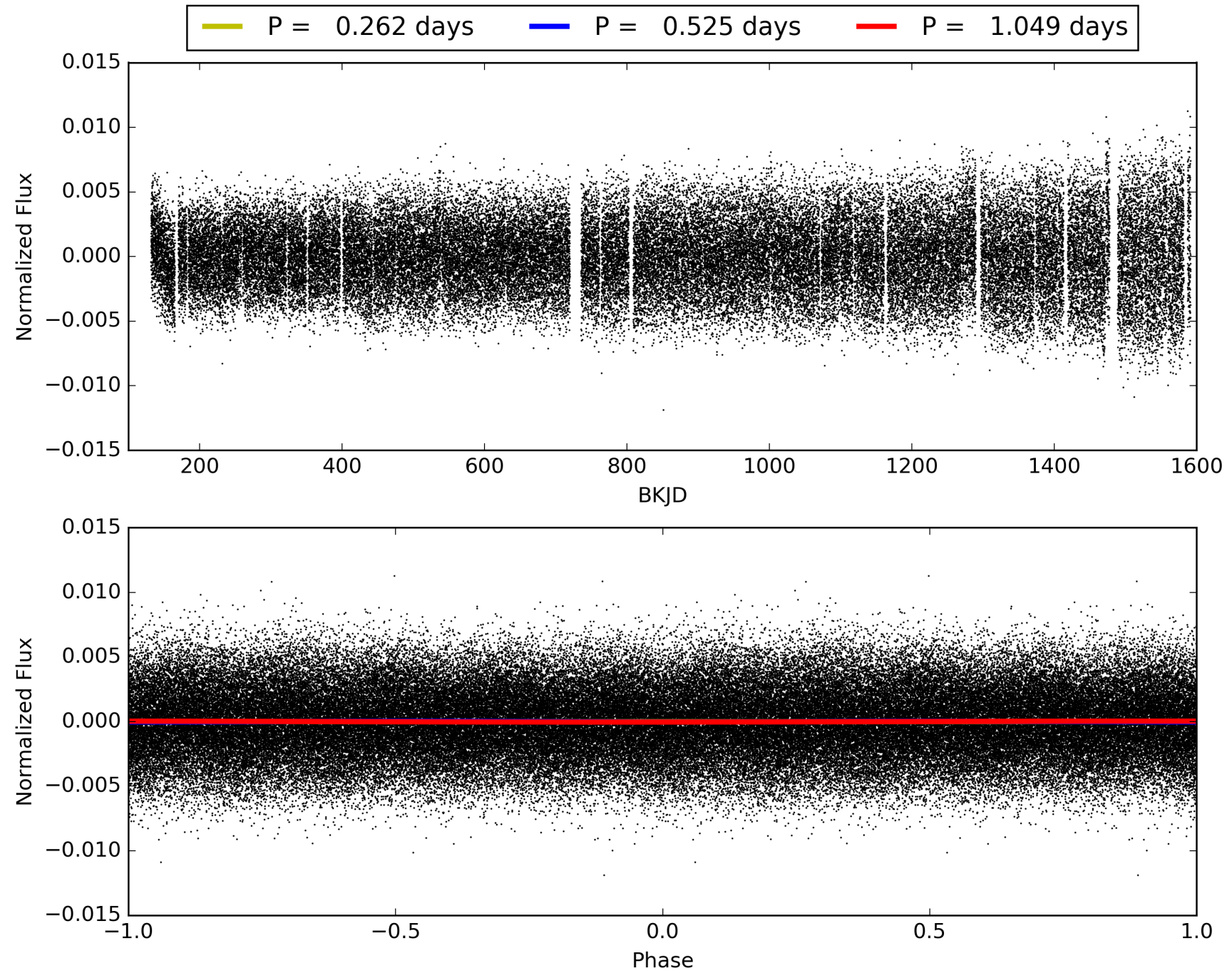
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:54:36 Z

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

TCE 006803964-01, PDC Light Curves

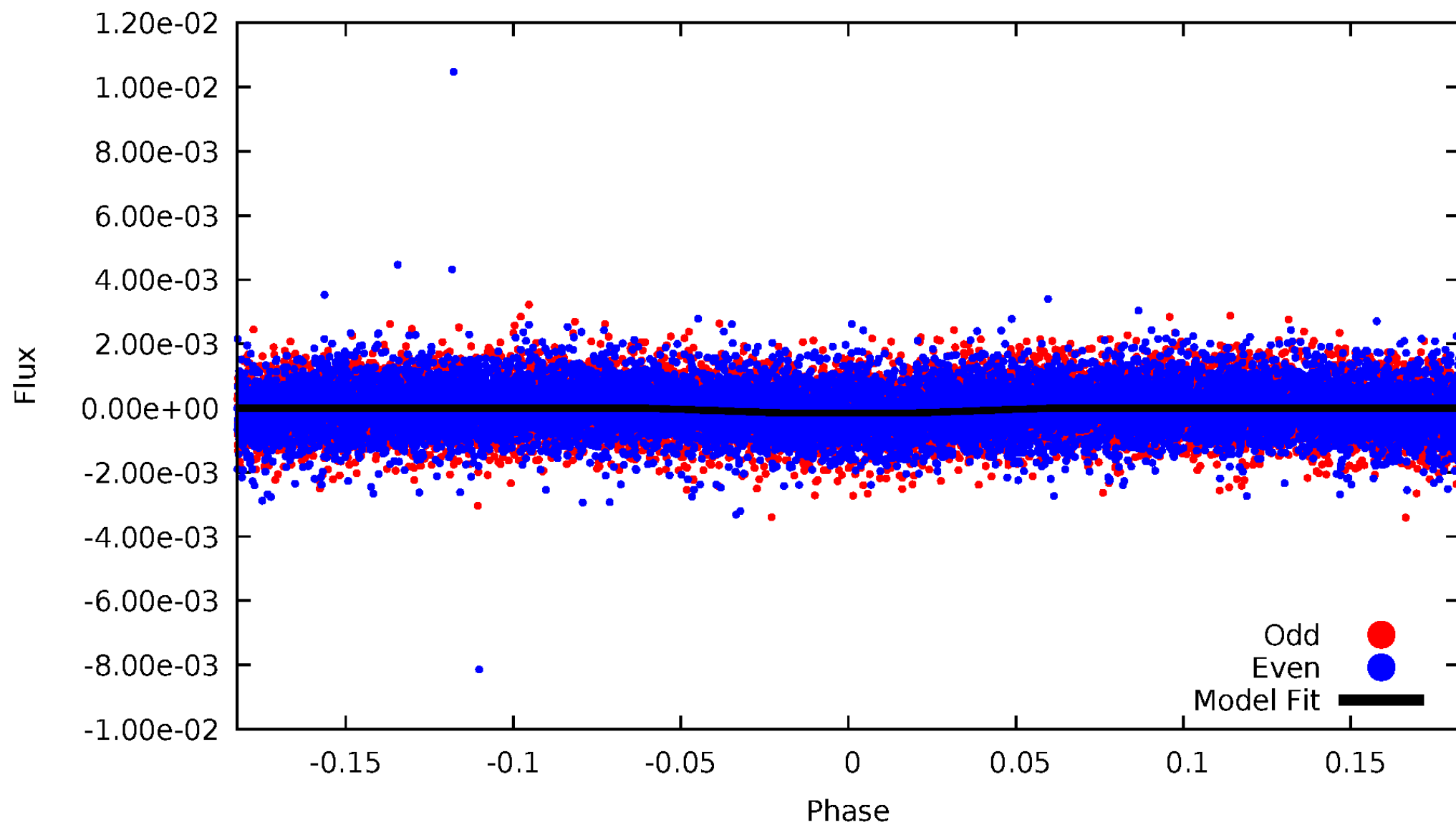


TCE 006803964-01



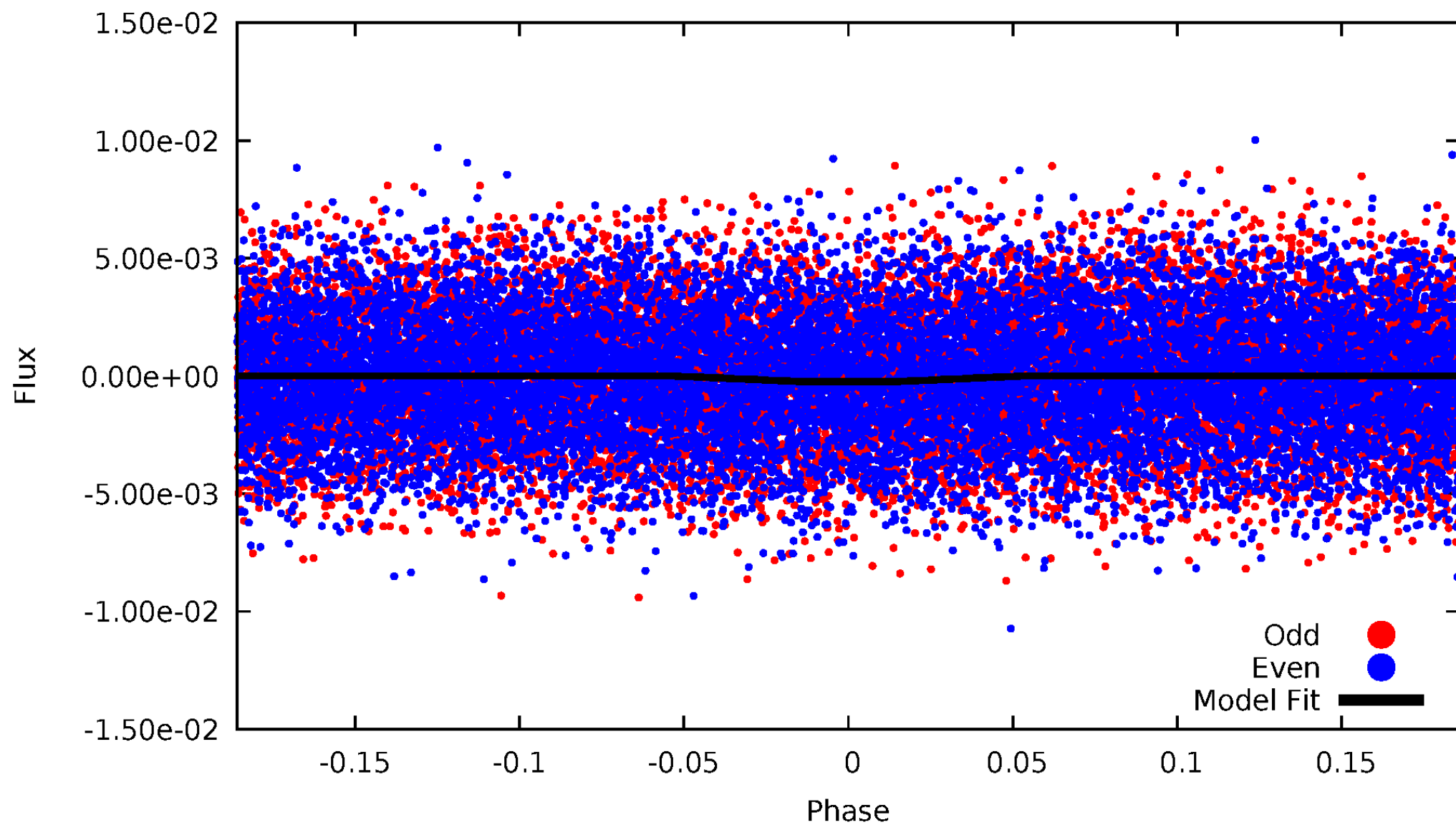
DV Odd/Even

TCE 006803964-01



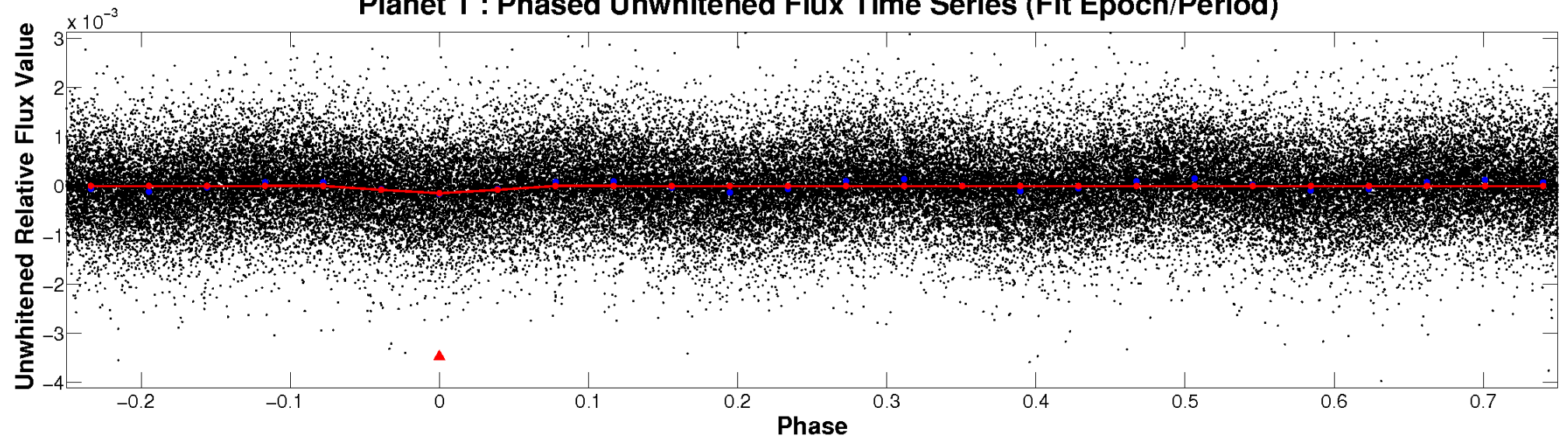
ALT Odd/Even

TCE 006803964-01

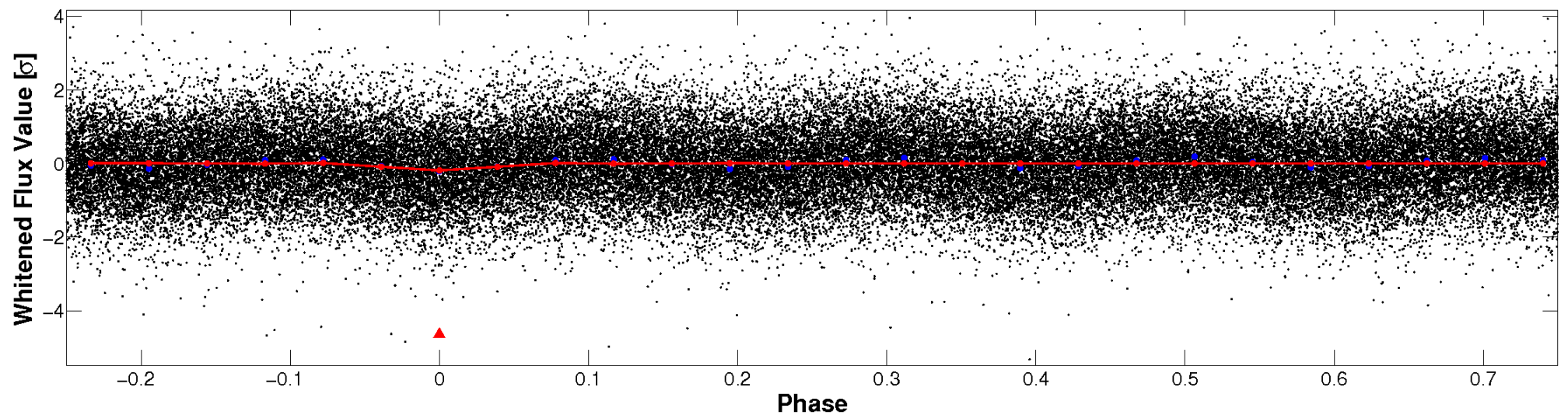


Non-Whitened Vs. Whitened Light Curve

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

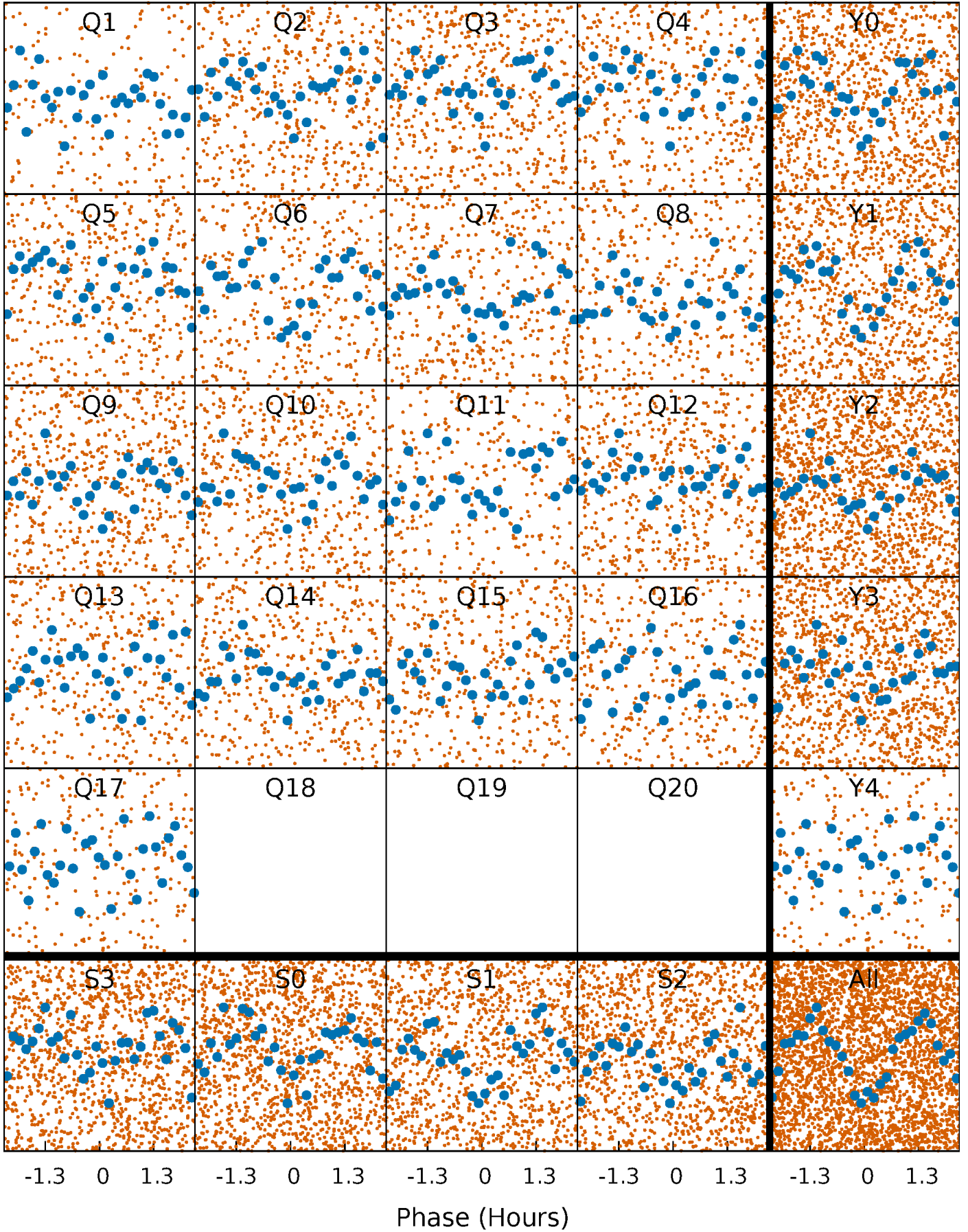


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



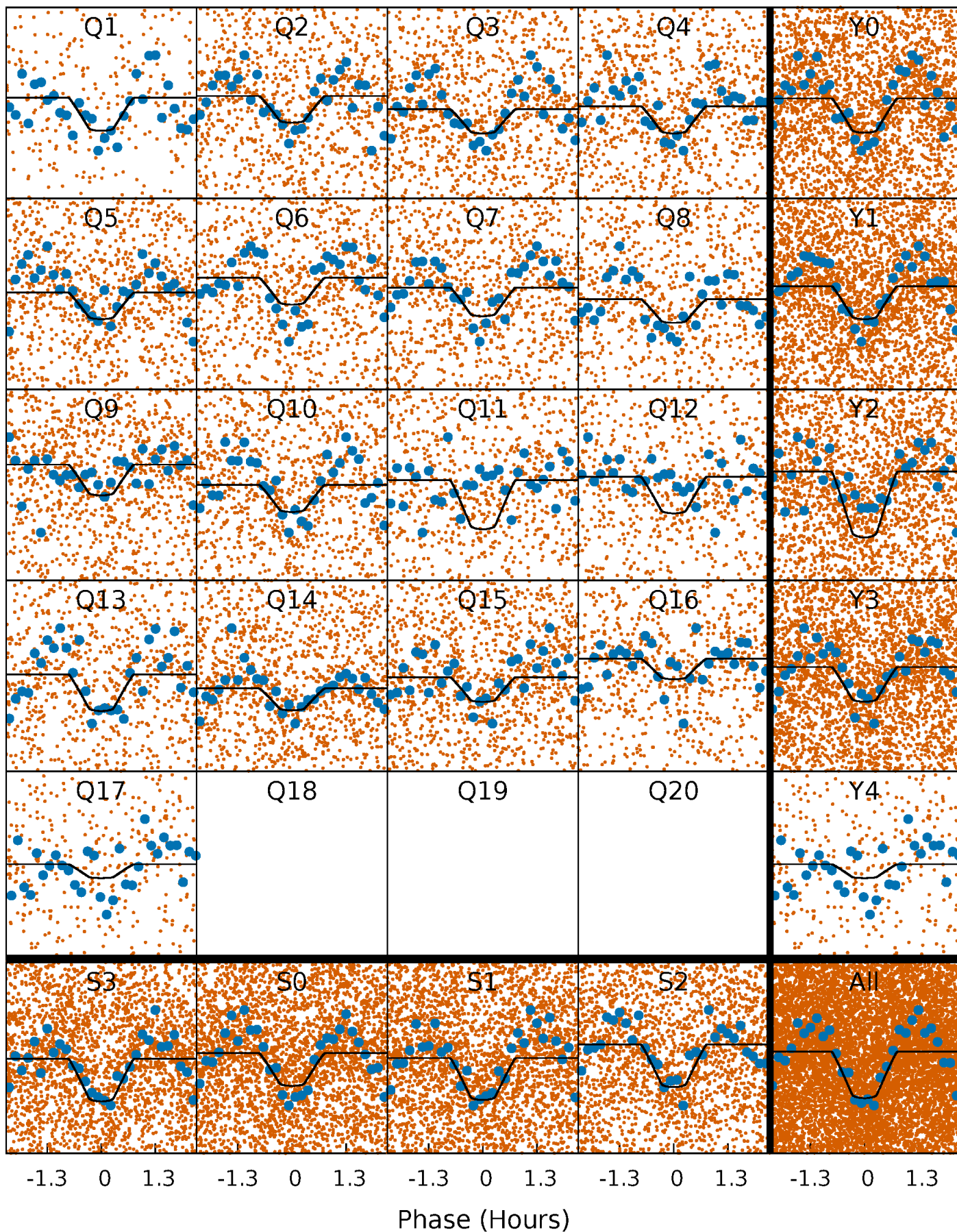
PDC Quarter-Phased Transit Curves

TCE 006803964-01 P= 0.524536 Days $T_0=131.856314$ (BKJD)



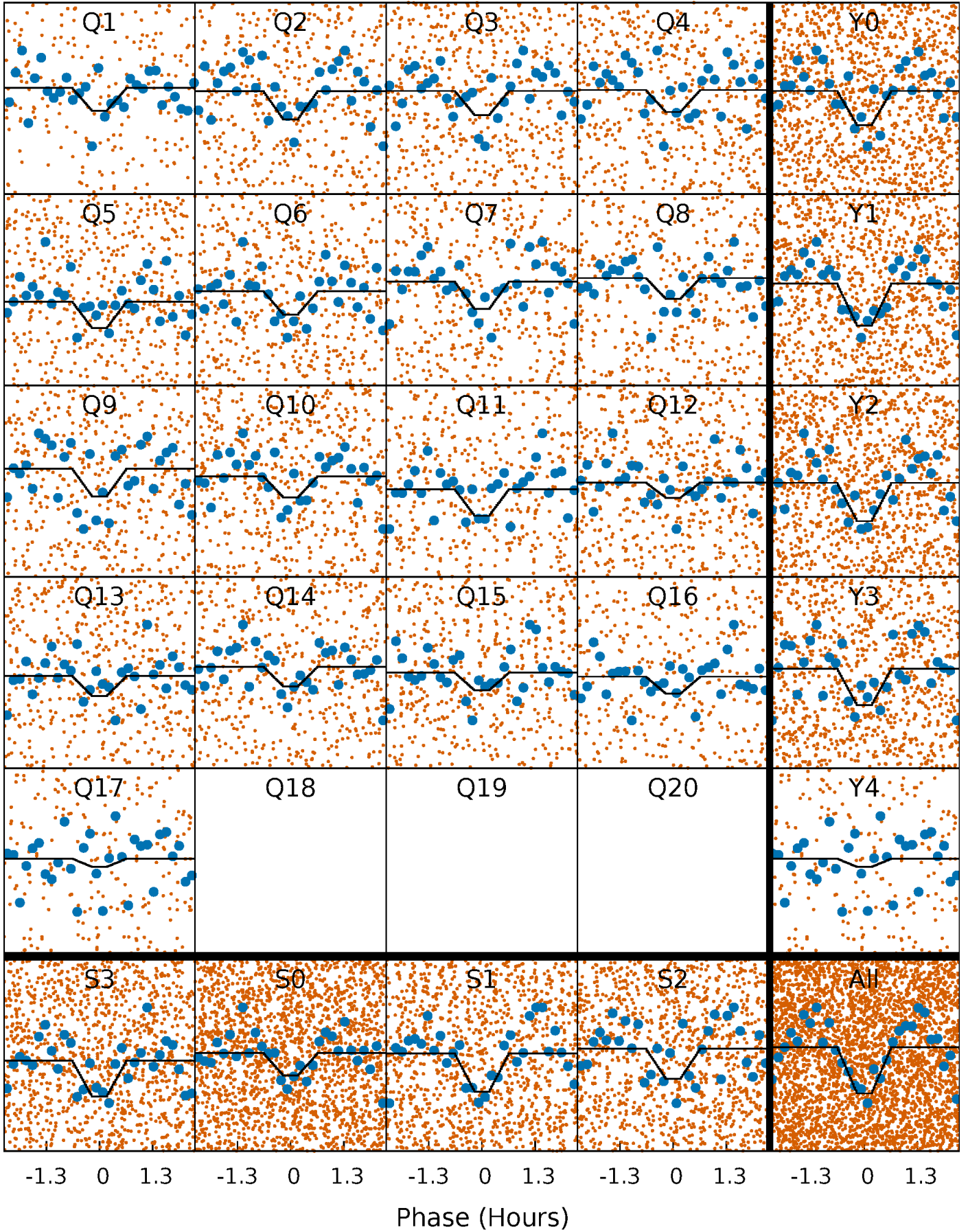
DV Quarter-Phased Transit Curves

TCE 006803964-01 P= 0.524536 Days $T_0=131.856314$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

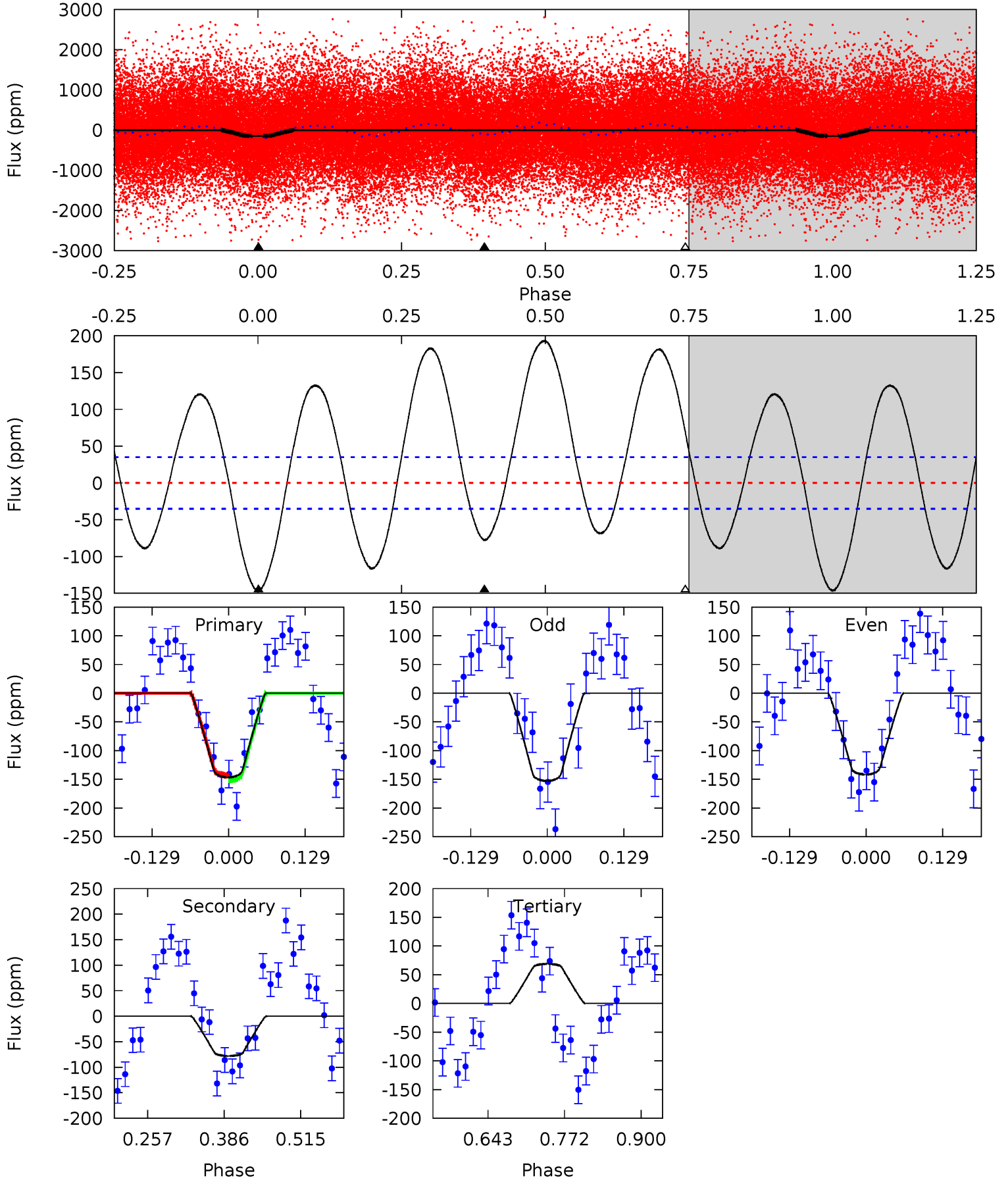
TCE 006803964-01 P= 0.524538 Days $T_0=131.855936$ (BKJD)



DV Model-Shift Uniqueness Test

006803964-01, P = 0.524536 Days, E = 131.331778 Days

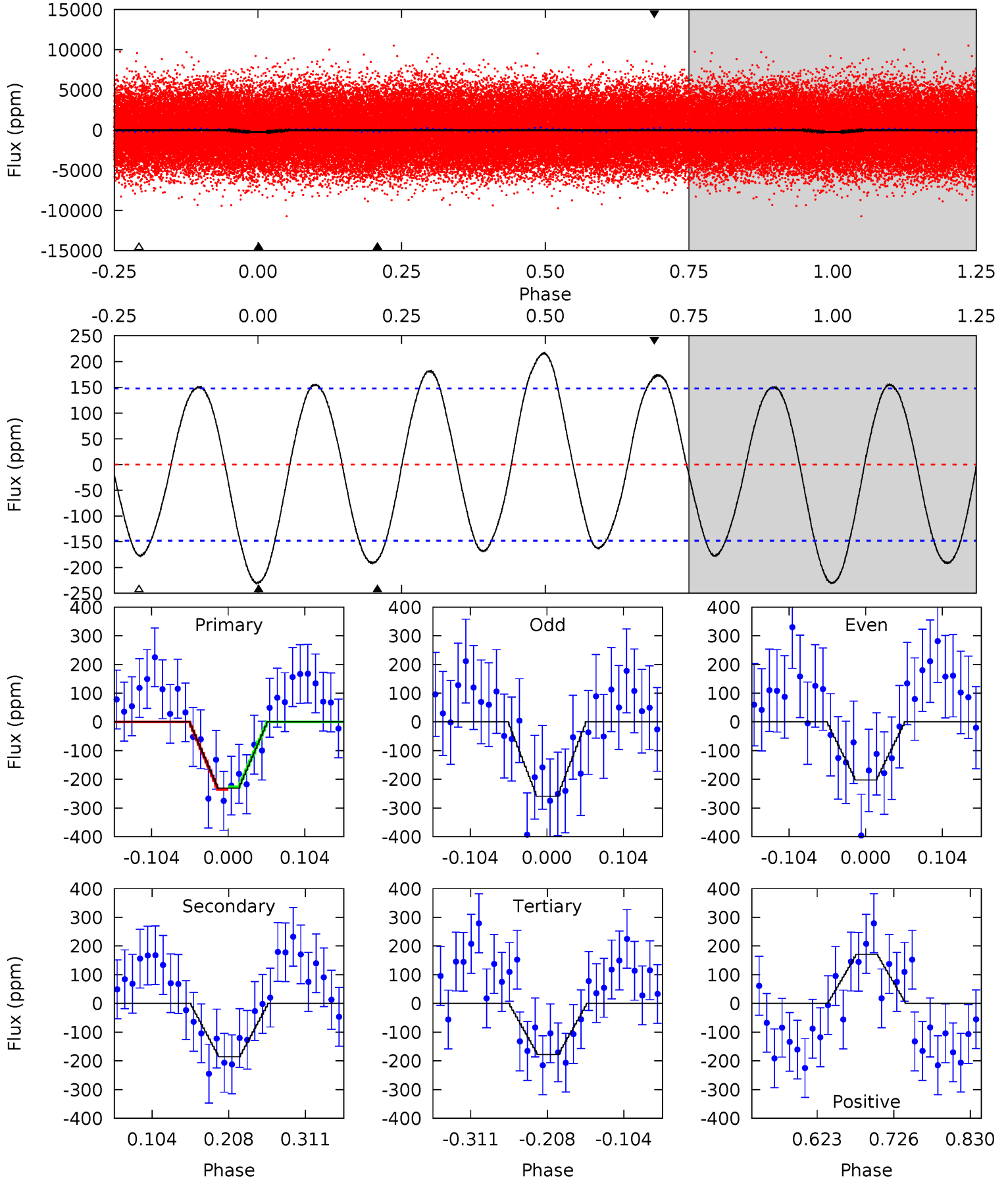
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	10.0	-8.85	0	4.51	1.52	11.1	27.7	18.8	18.9	10.0	0.71	0.99	0.57	0.52



Alt Model-Shift Uniqueness Test

006803964-01, P = 0.524538 Days, E = 131.331398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.12	5.73	5.48	5.27	4.56	1.63	3.84	1.64	1.85	0.25	0.46	0.87	1.04	0.49	0.14



Stellar Parameters For KIC 006803964

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9610^{+272}_{-409}	$4.196^{+0.133}_{-0.247}$	$0.070^{+0.150}_{-0.550}$	$1.977^{+0.957}_{-0.410}$	$2.238^{+0.445}_{-0.495}$	$0.408^{+0.285}_{-0.255}$
	+3%/-4%	+3%/-6%	+214%/-786%	+48%/-21%	+20%/-22%	+70%/-62%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 006803964-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-78 ± 8	$2.78^{+1.15}_{-0.95}$	6517^{+623}_{-462}	7019^{+2540}_{-1407}	$1.496^{+1.863}_{-0.763}$
Alt.	-186 ± 32	$3.43^{+1.21}_{-0.99}$	6508^{+604}_{-475}	8258^{+2245}_{-1348}	$2.272^{+2.143}_{-0.967}$

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

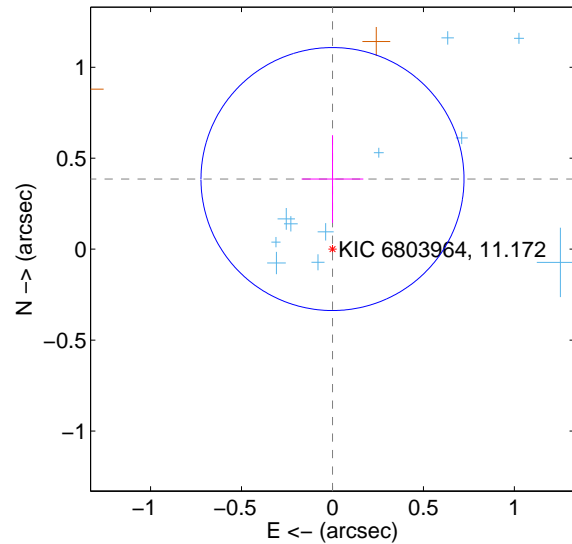
Supplemental centroid analysis for 006803964-01. **Kepler magnitude: 11.17.** Transit SNR 11.98

There are 13 quarters with good PRF difference image offsets

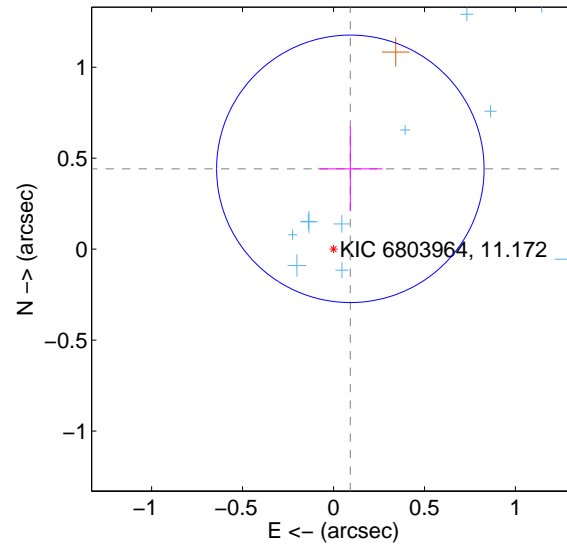
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.386 ± 0.241	1.60	-0.000 ± 0.169	0.386 ± 0.241
PRF-fit source offset from KIC position	0.451 ± 0.245	1.84	-0.093 ± 0.177	0.442 ± 0.231
photometric centroid source offset	0.56 ± 0.09	6.14	-0.50 ± 0.09	0.24 ± 0.09

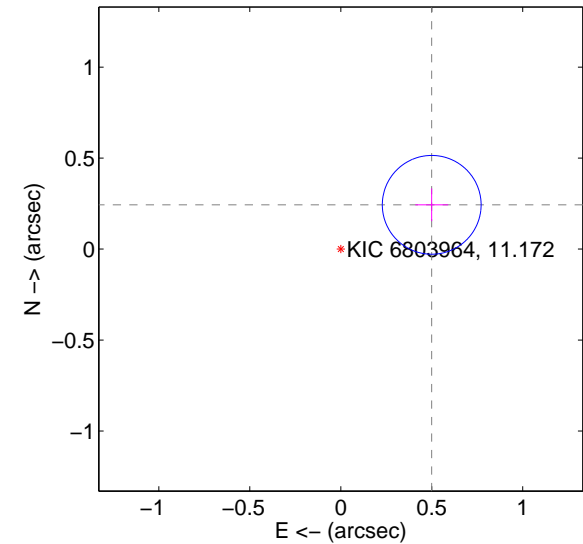
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

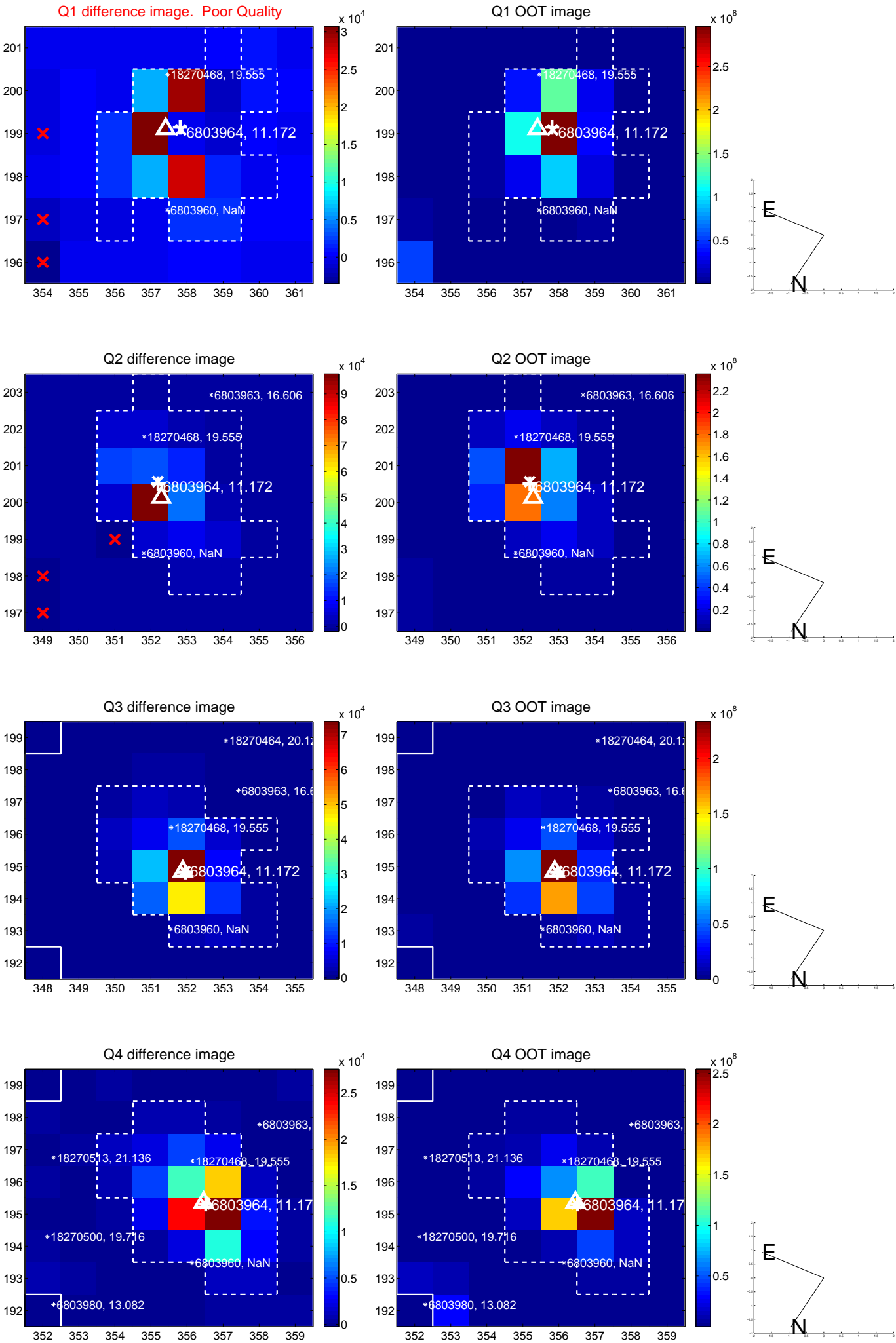


offset from photometric centroids

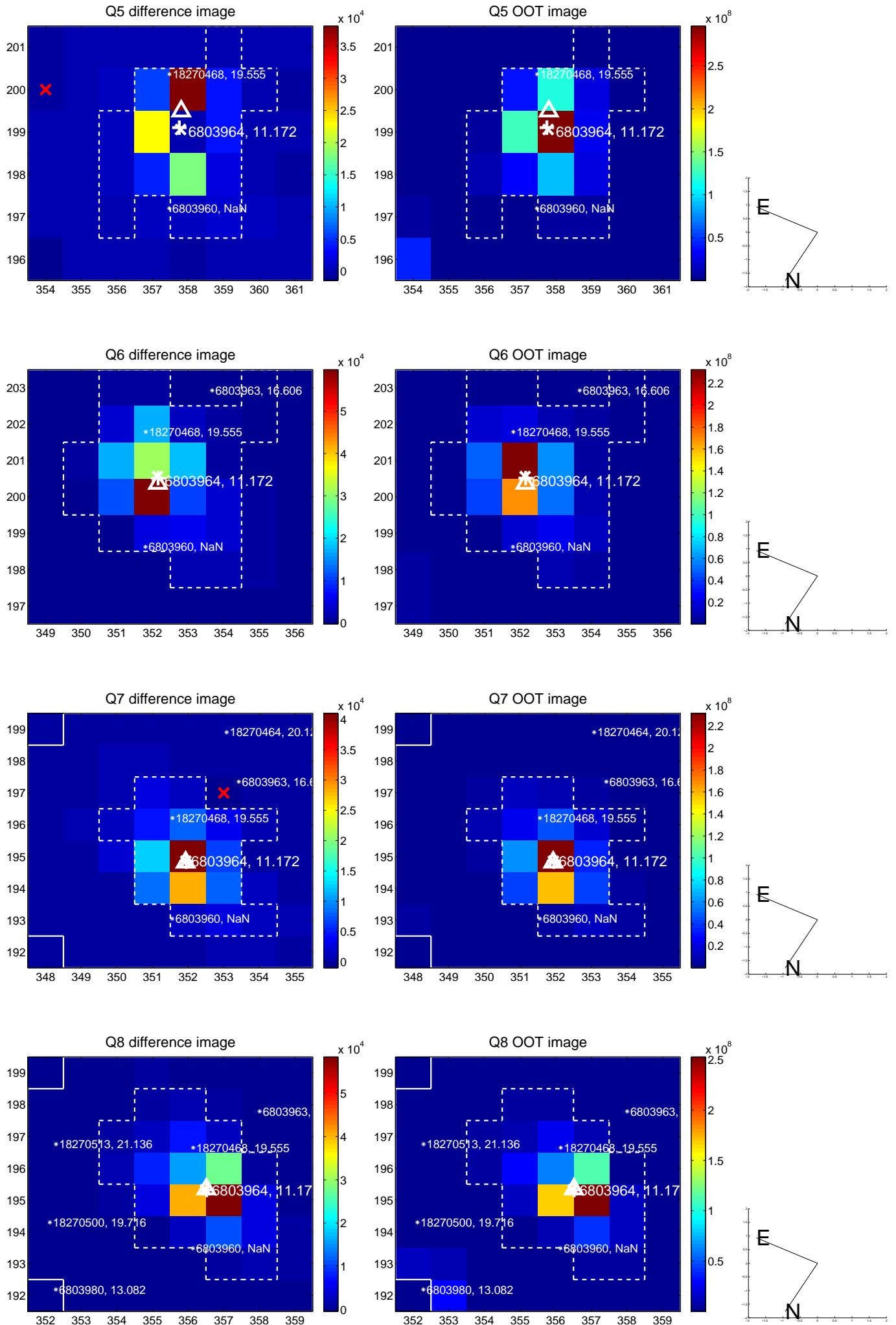


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

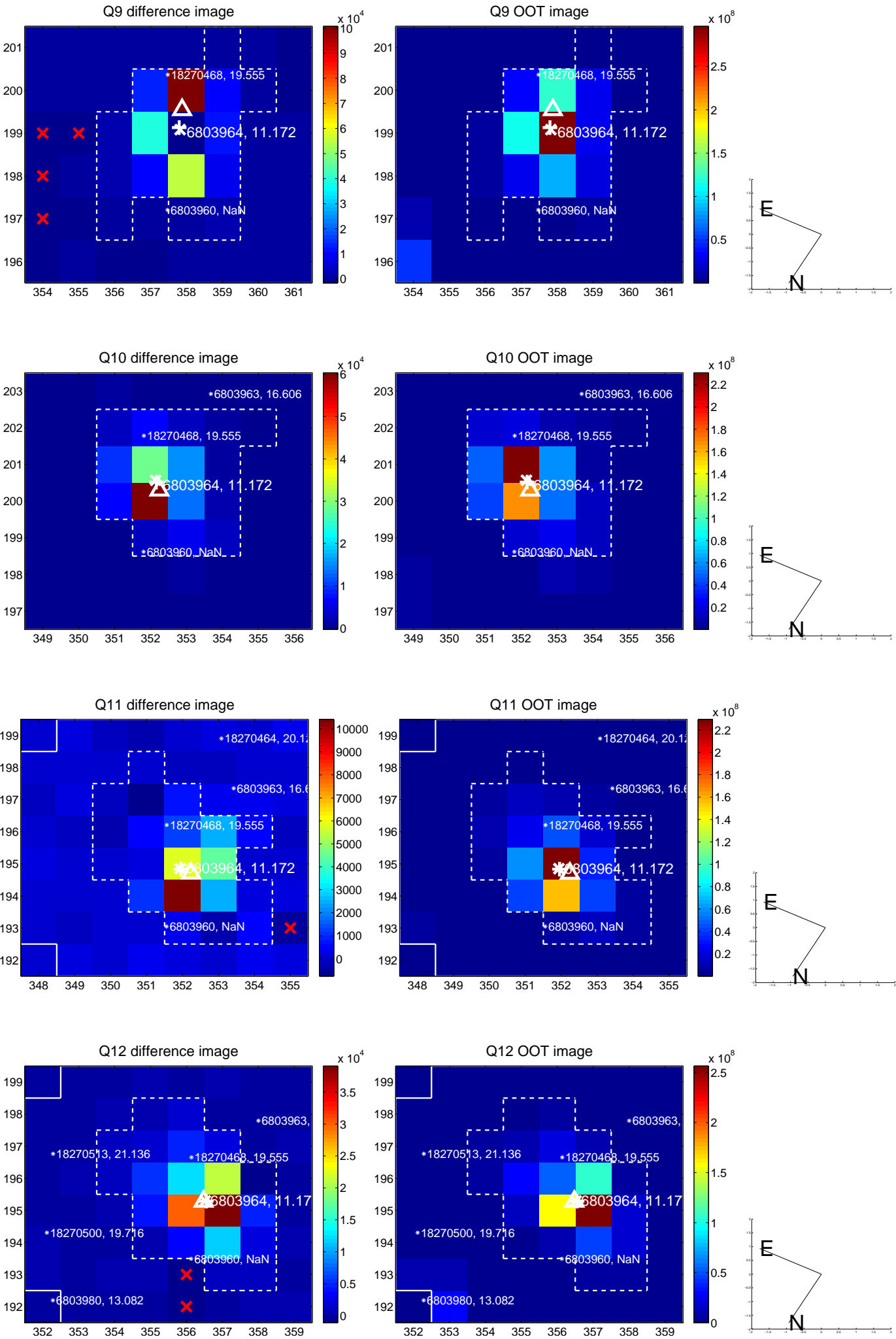
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



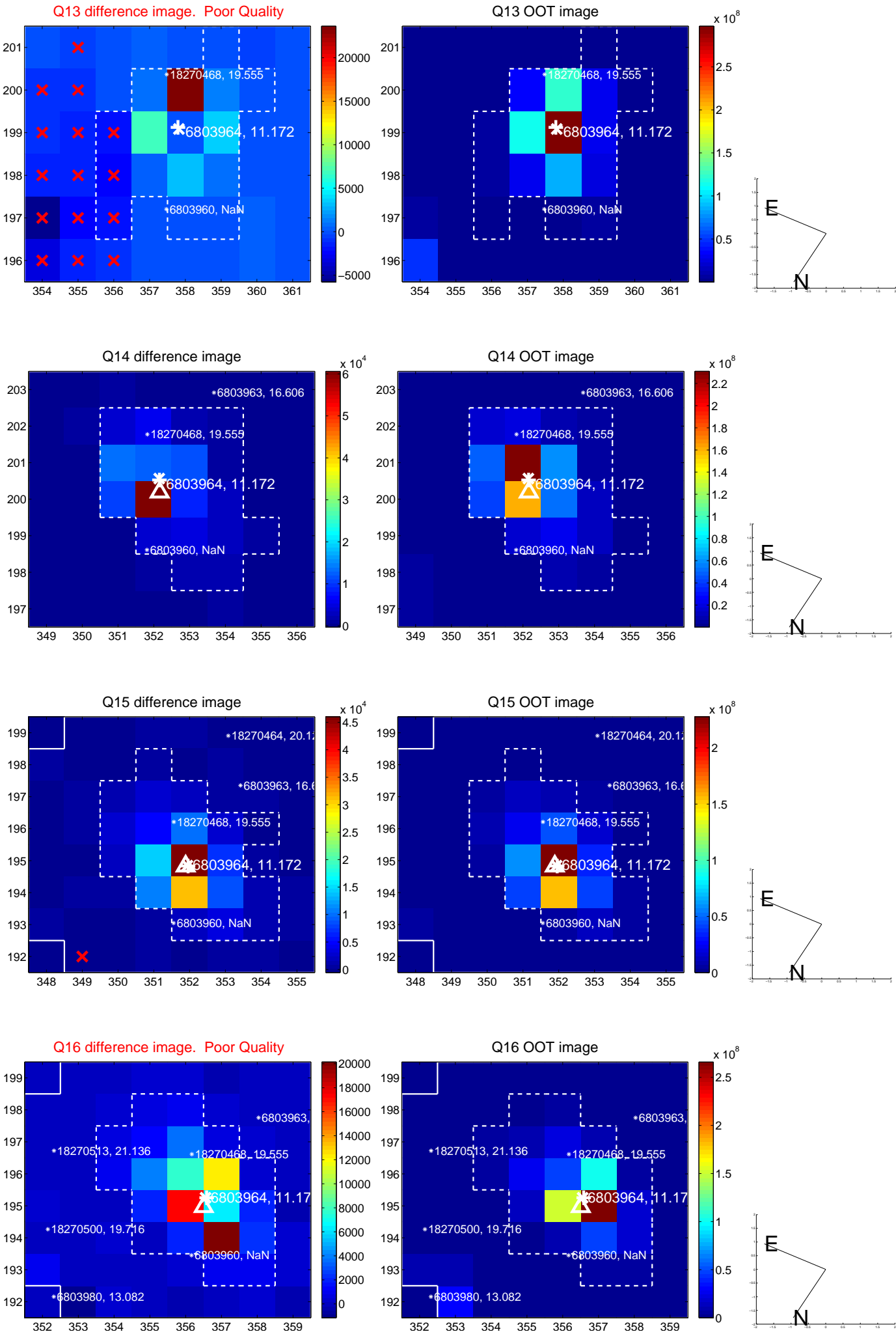
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



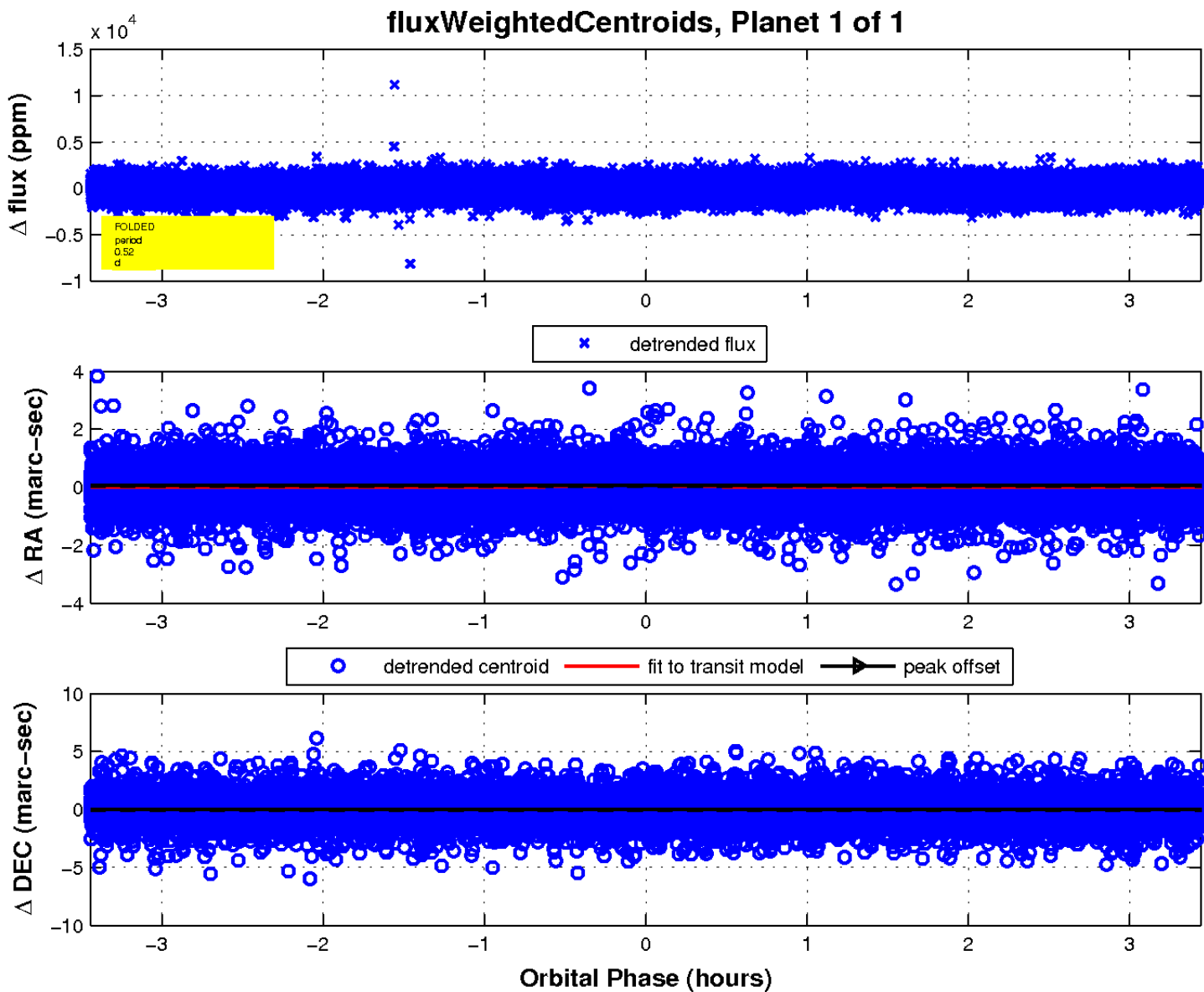
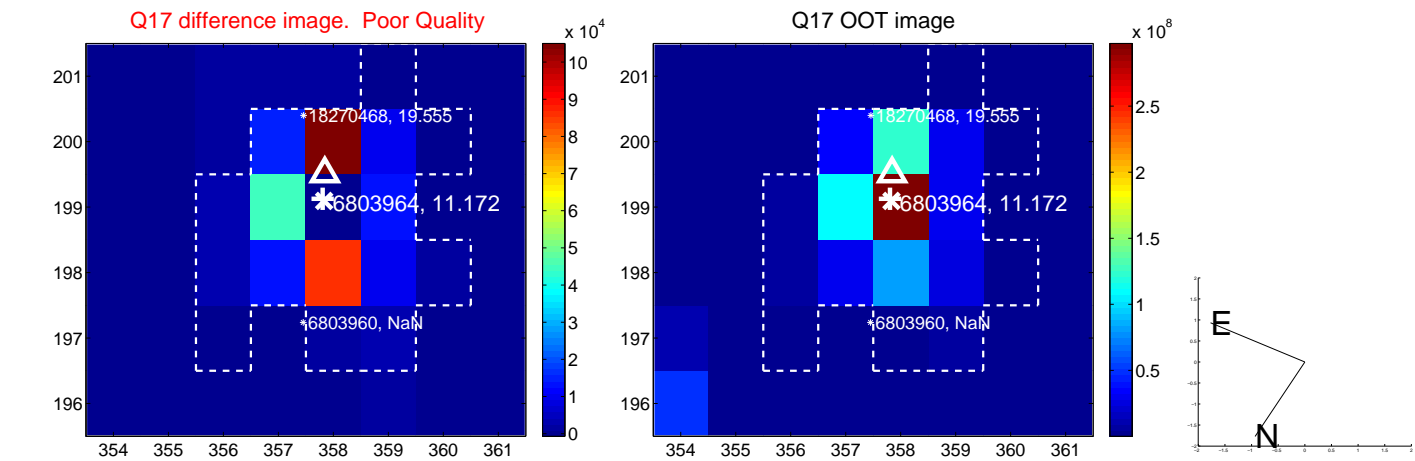
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

