

KIC 006864536

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})
006864536-01	OBS	No	2.325142	132.575331	7.5	22.726	9.4	7.9	1.58	6126	0.45	2547.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006864536-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

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

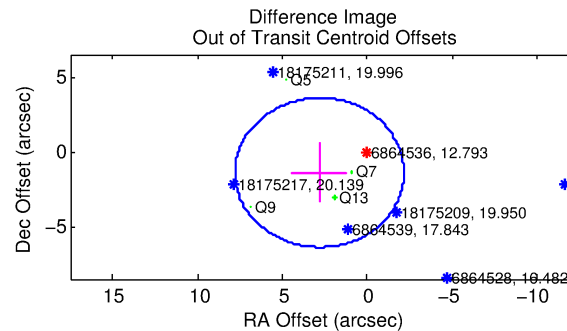
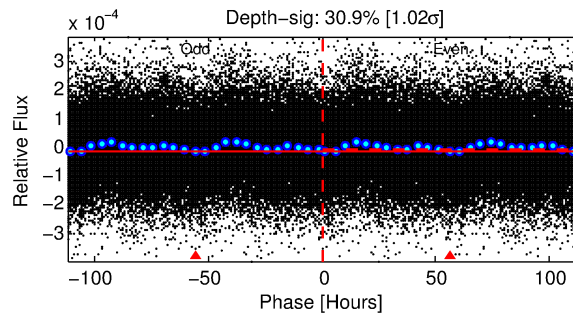
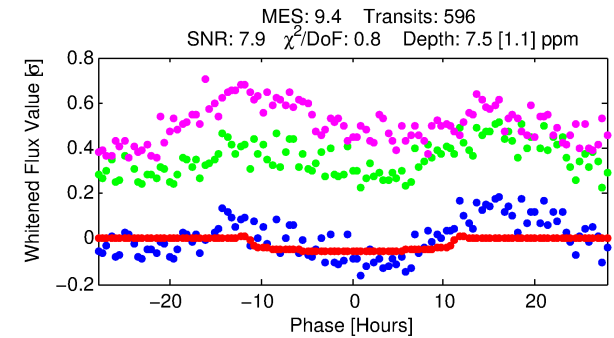
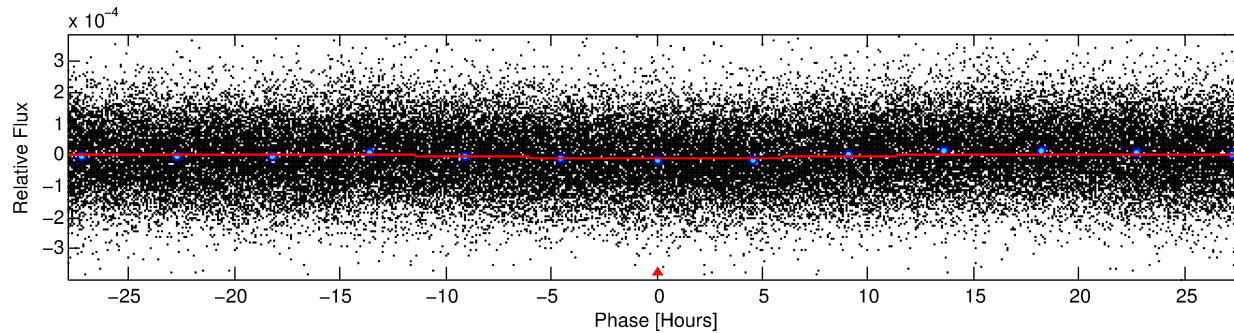
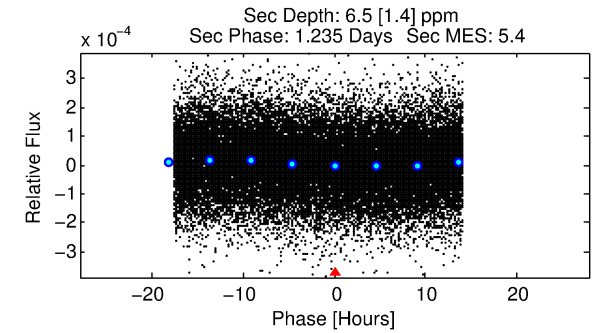
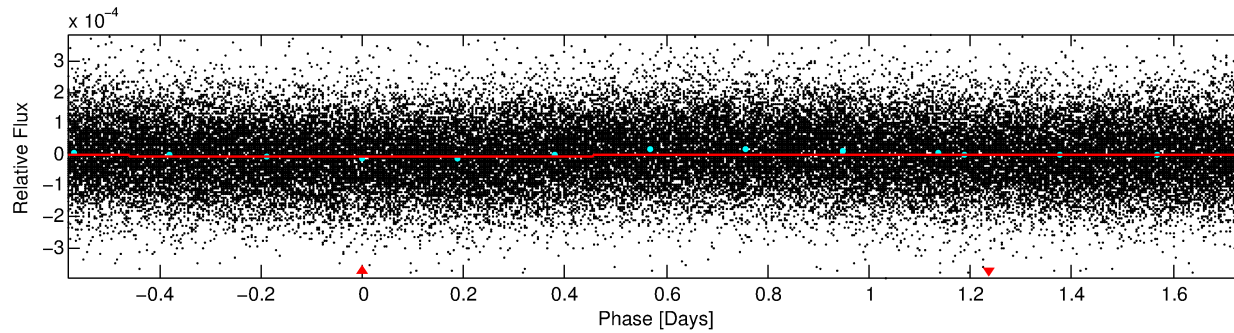
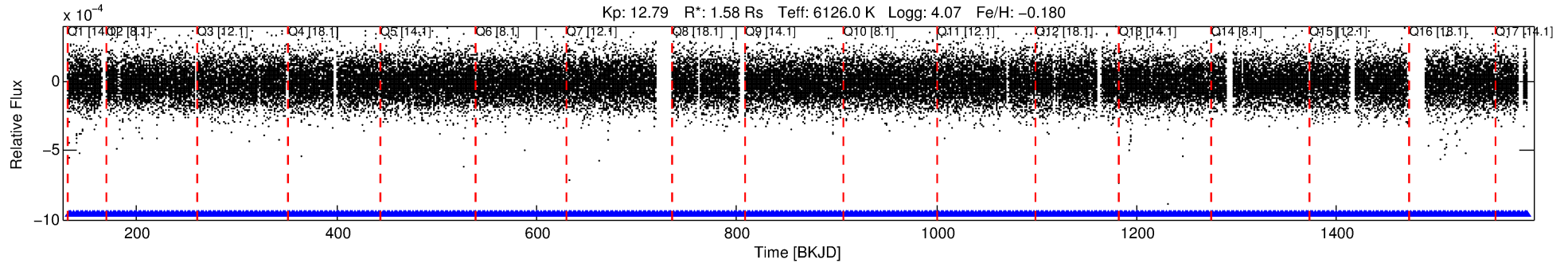
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006864536-01

No Significant Match Found

DV One-Page Summary

KIC: 6864536 Candidate: 1 of 1 Period: 2.325 d



DV Fit Results:

Period = 2.32514 [0.00008] d
Epoch = 132.5753 [0.0198] BKJD
Rp/R* = 0.0026 [0.0023]
a/R* = 1.03 [0.27]
b = 0.61 [4.71]
Seff = 2547.46 [1132.89]
Teq = 1812 [201] K
Rp = 0.45 [0.42] Re
a = 0.0352 [0.0094] AU
Ag = 21.58 [39.46] [0.52σ]
Teffp = 6036 [2690] K [1.57σ]

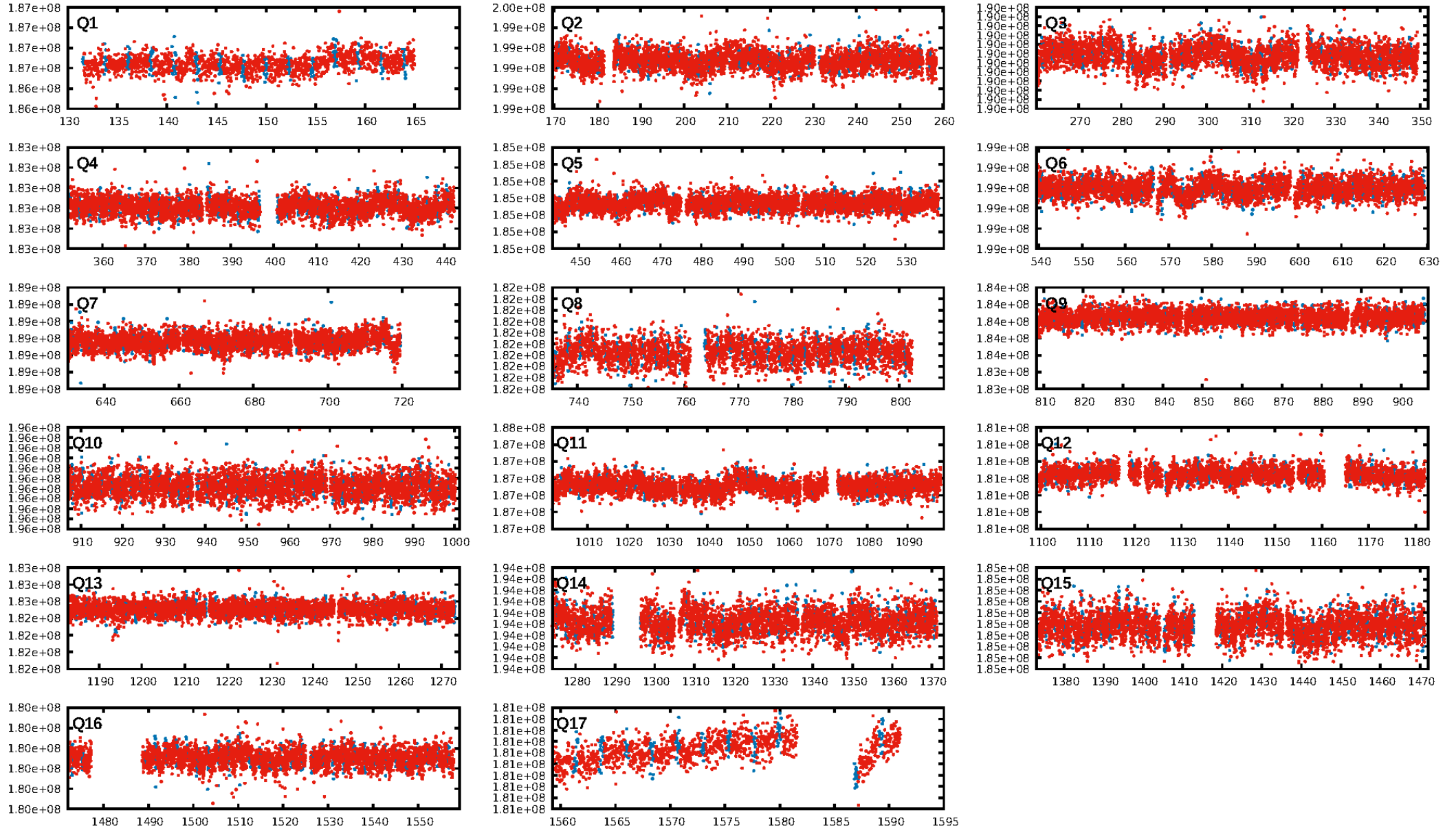
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [569/569]
GhostDiagnostic-chr: -1.862
Centroid-sig: 0.0%
Centroid-so: 5.026 arcsec [3.78σ]
OotOffset-rm: 3.136 arcsec [1.89σ]
OotOffset-st: 0/1/0/3 [4]
KicOffset-rm: 2.929 arcsec [1.76σ]
KicOffset-st: 0/1/0/3 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

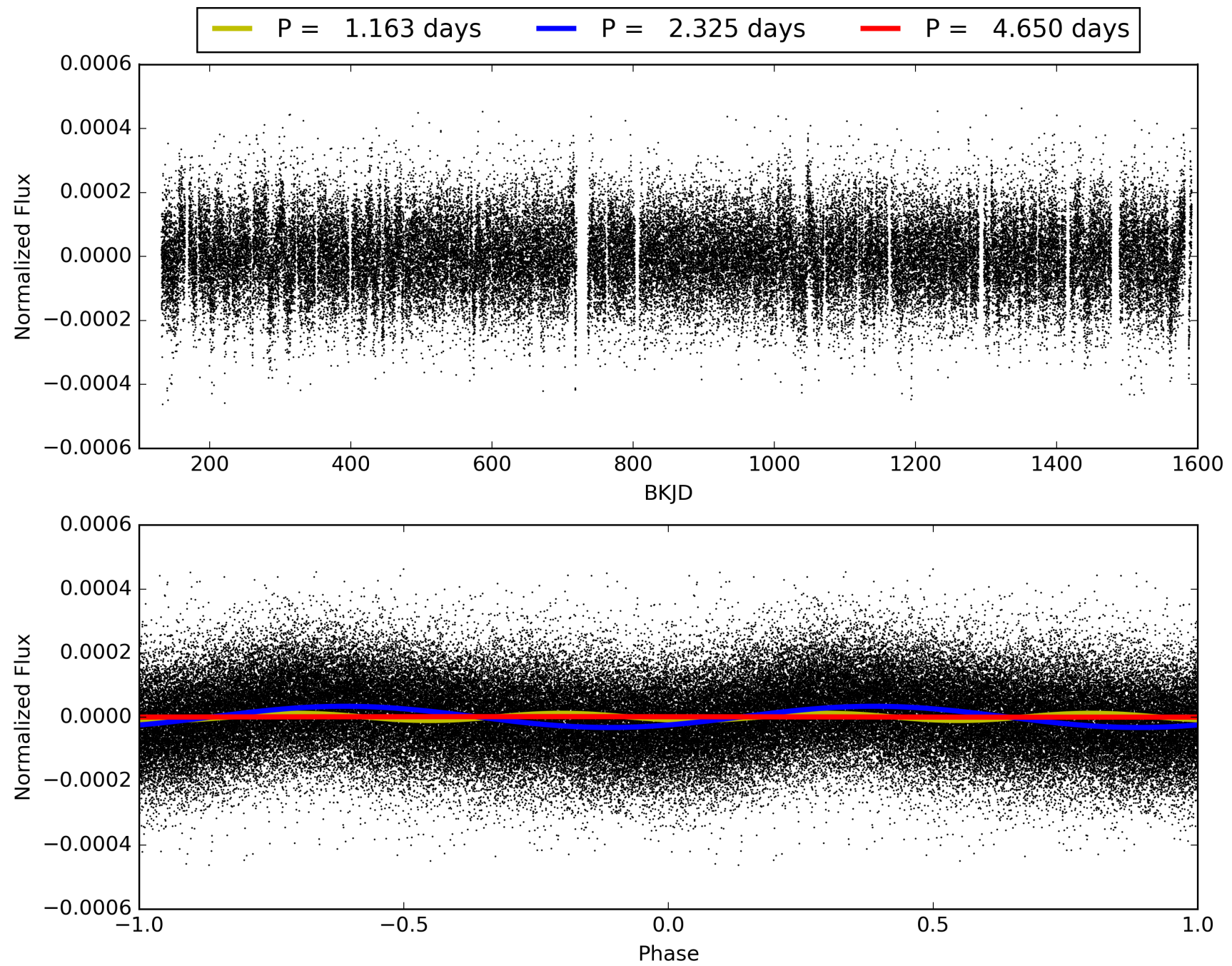
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:42:41 Z

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

TCE 006864536-01, PDC Light Curves

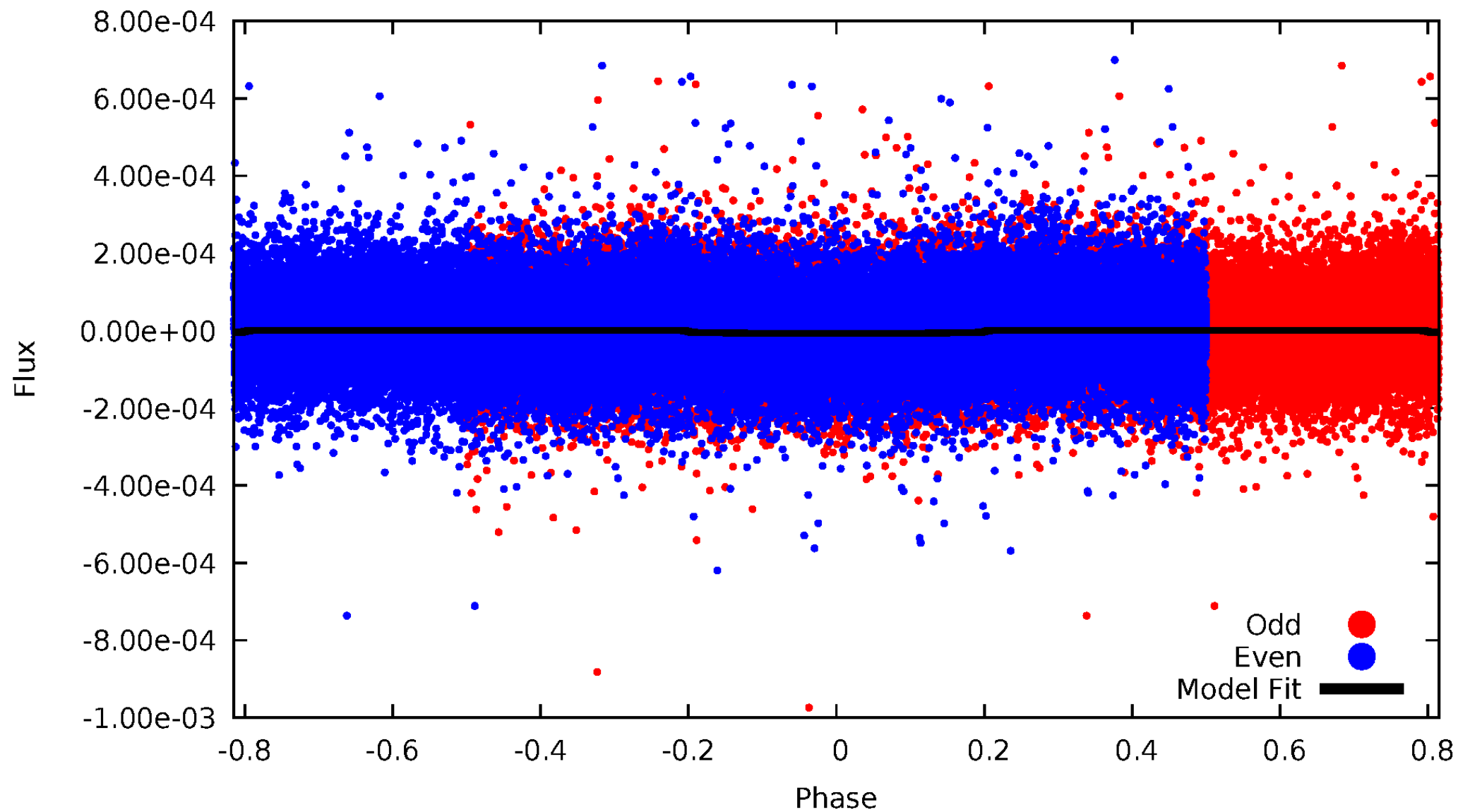


TCE 006864536-01



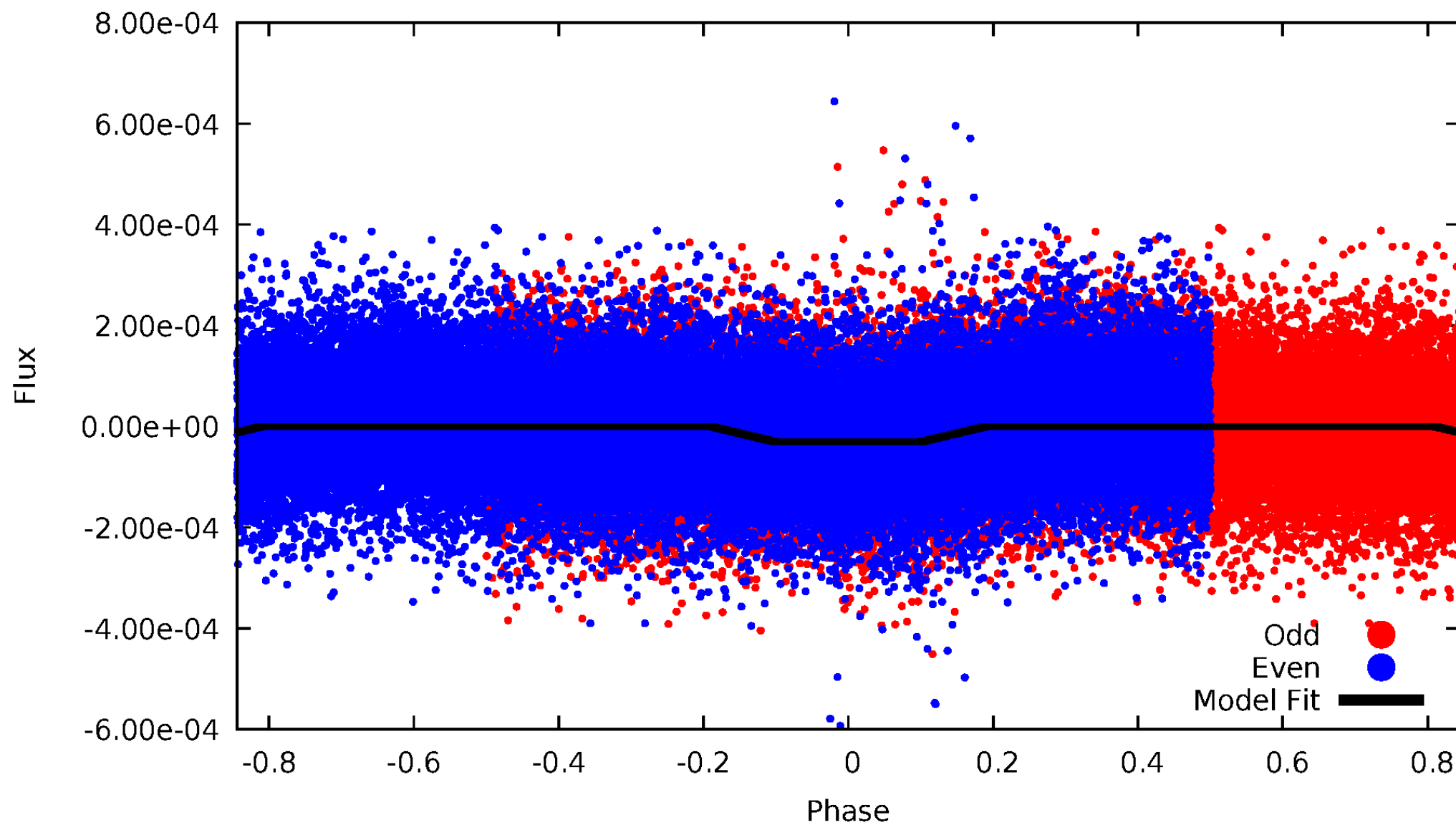
DV Odd/Even

TCE 006864536-01



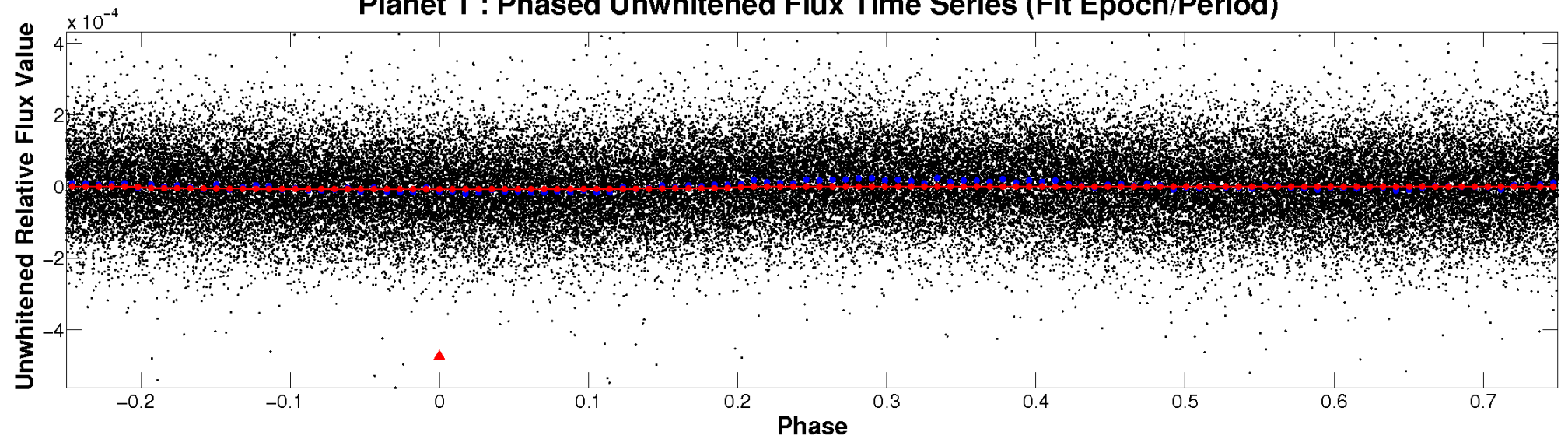
ALT Odd/Even

TCE 006864536-01

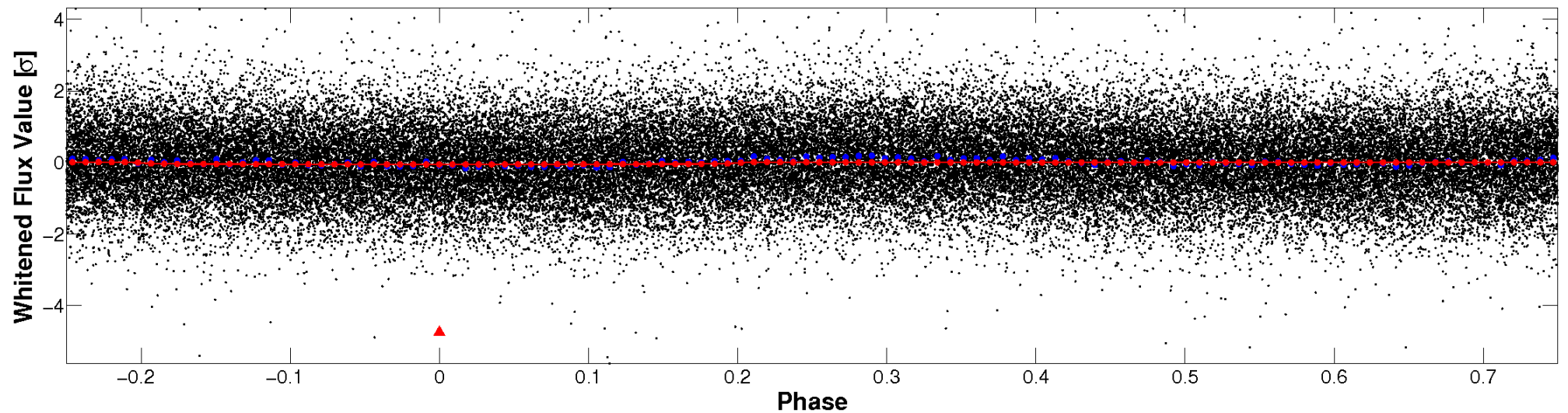


Non-Whitened Vs. Whitened Light Curve

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

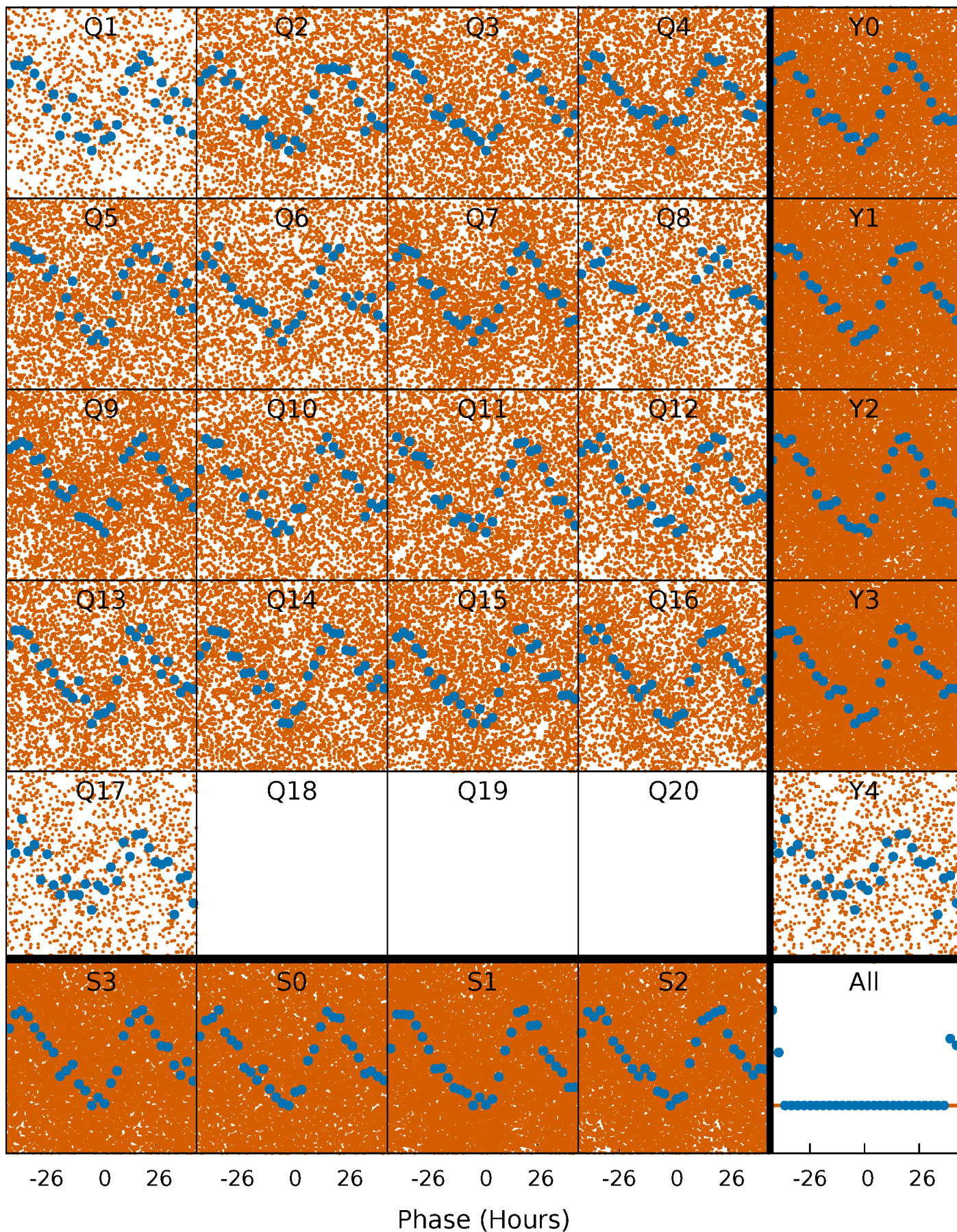


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



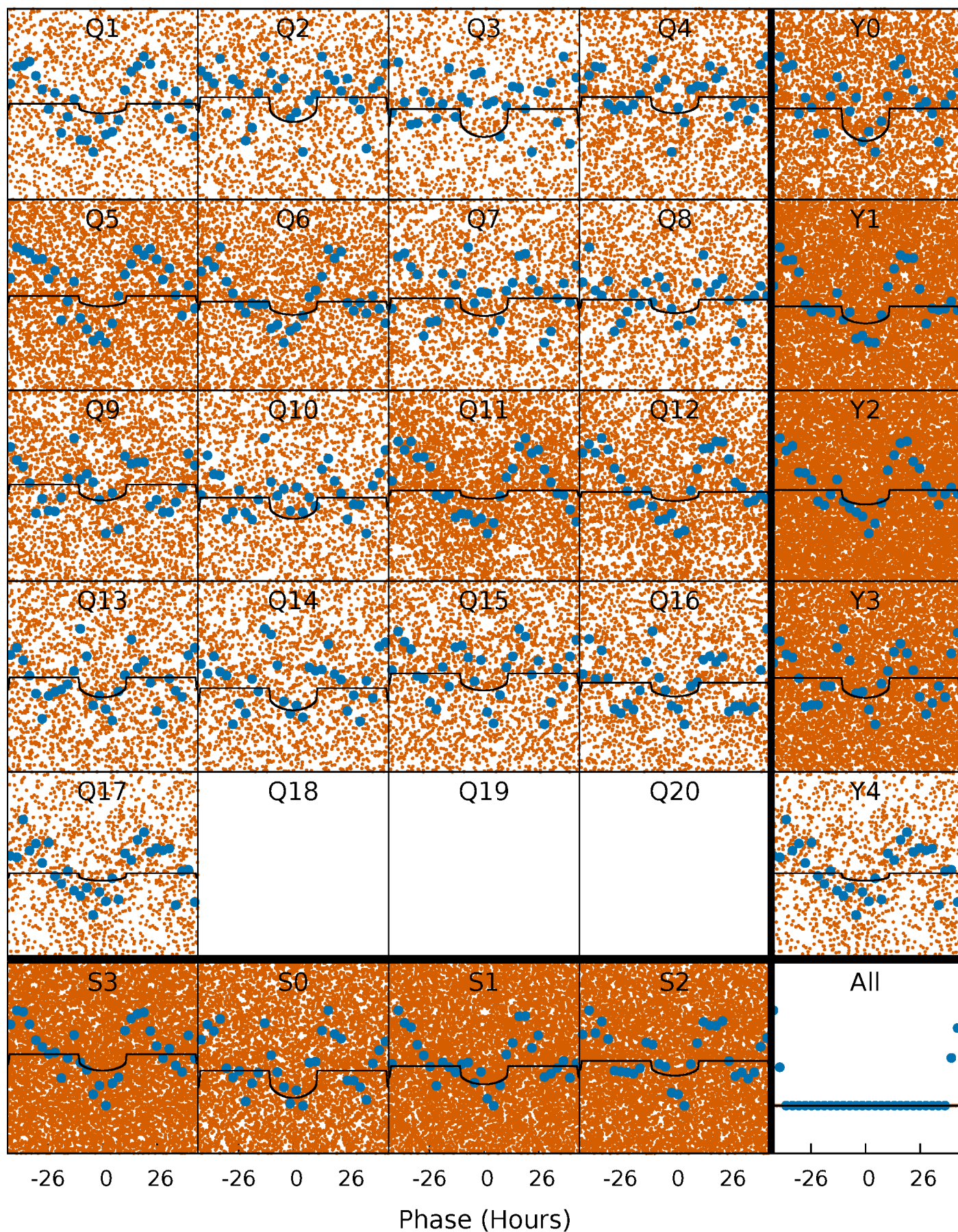
PDC Quarter-Phased Transit Curves

TCE 006864536-01 P= 2.325142 Days $T_0=132.575331$ (BKJD)



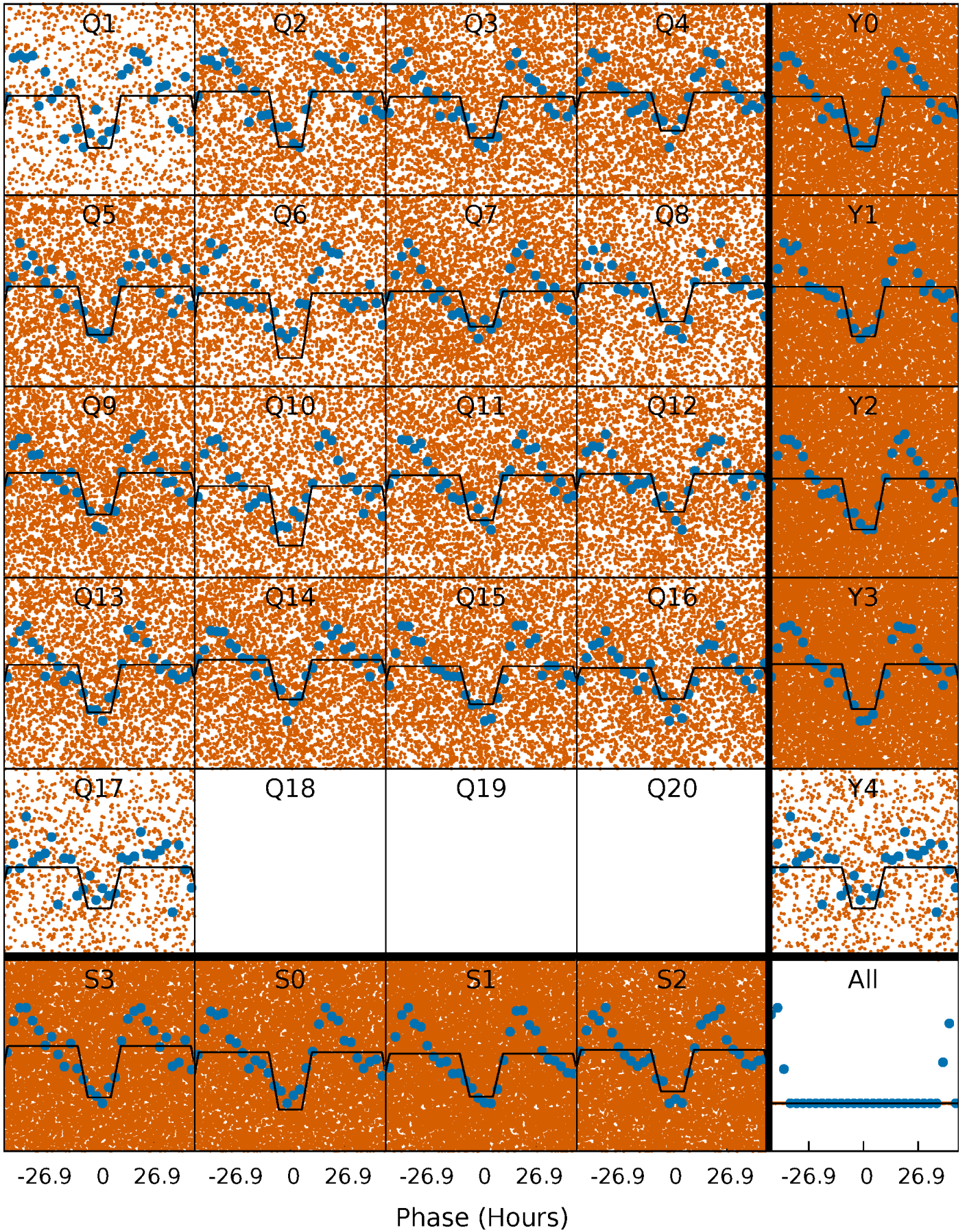
DV Quarter-Phased Transit Curves

TCE 006864536-01 P= 2.325142 Days $T_0=132.575331$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

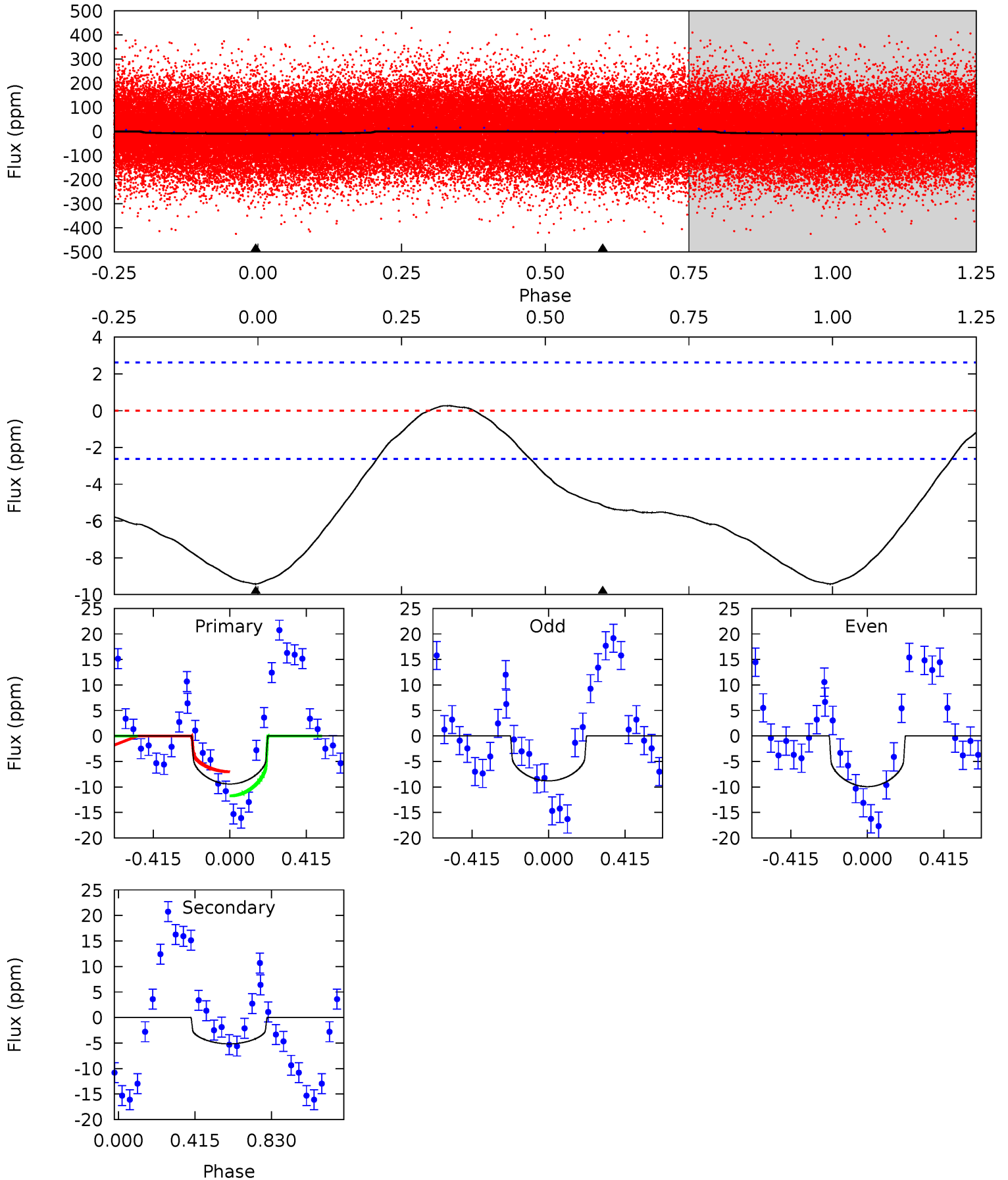
TCE 006864536-01 P= 2.325090 Days $T_0=132.563099$ (BKJD)



DV Model-Shift Uniqueness Test

006864536-01, P = 2.325142 Days, E = 130.250189 Days

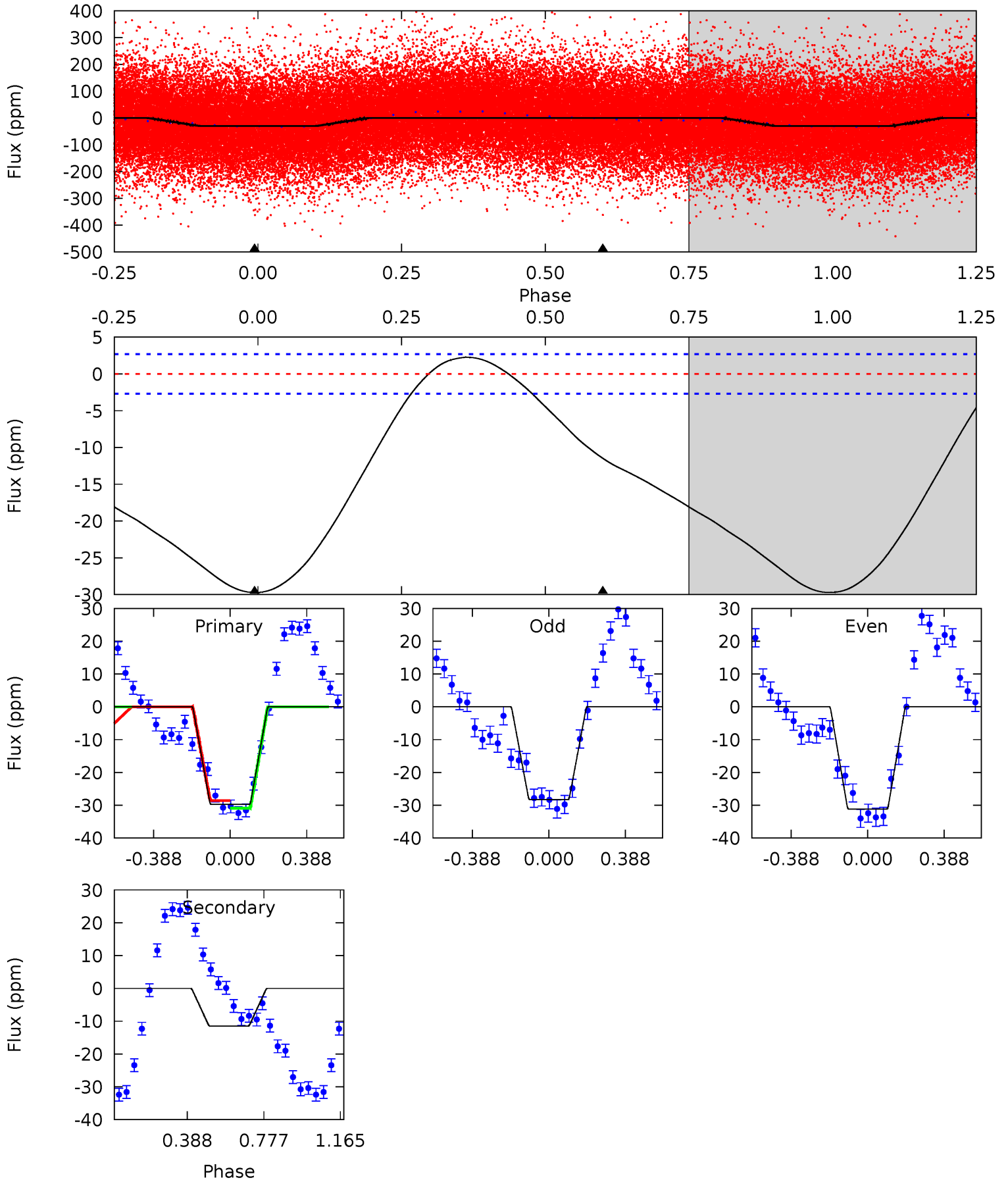
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	8.36	0	0	4.26	0.81	0.74	15.3	15.3	8.36	8.36	0.92	1.20	0.03	3.94



Alt Model-Shift Uniqueness Test

006864536-01, P = 2.325090 Days, E = 130.238009 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
47.1	18.2	0	0	4.27	0.86	3.35	47.1	47.1	18.2	18.2	2.26	1.07	0.07	1.88



Stellar Parameters For KIC 006864536

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6126^{+167}_{-186}	$4.071^{+0.252}_{-0.126}$	$-0.180^{+0.300}_{-0.300}$	$1.580^{+0.354}_{-0.433}$	$1.074^{+0.189}_{-0.138}$	$0.383^{+0.526}_{-0.142}$
	+3%/-3%	+6%/-3%	+167%/-167%	+22%/-27%	+18%/-13%	+137%/-37%
Source	PHO1	FLK73	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 006864536-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 1	$0.50^{+0.37}_{-0.29}$	2499^{+159}_{-200}	5299^{+3506}_{-1075}	15^{+73}_{-10}
Alt.	-11 ± 1	$0.96^{+0.44}_{-0.41}$	2504^{+153}_{-187}	4774^{+1316}_{-648}	$8.544^{+17.550}_{-4.439}$

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 $A_{obs} \gg 1.0$

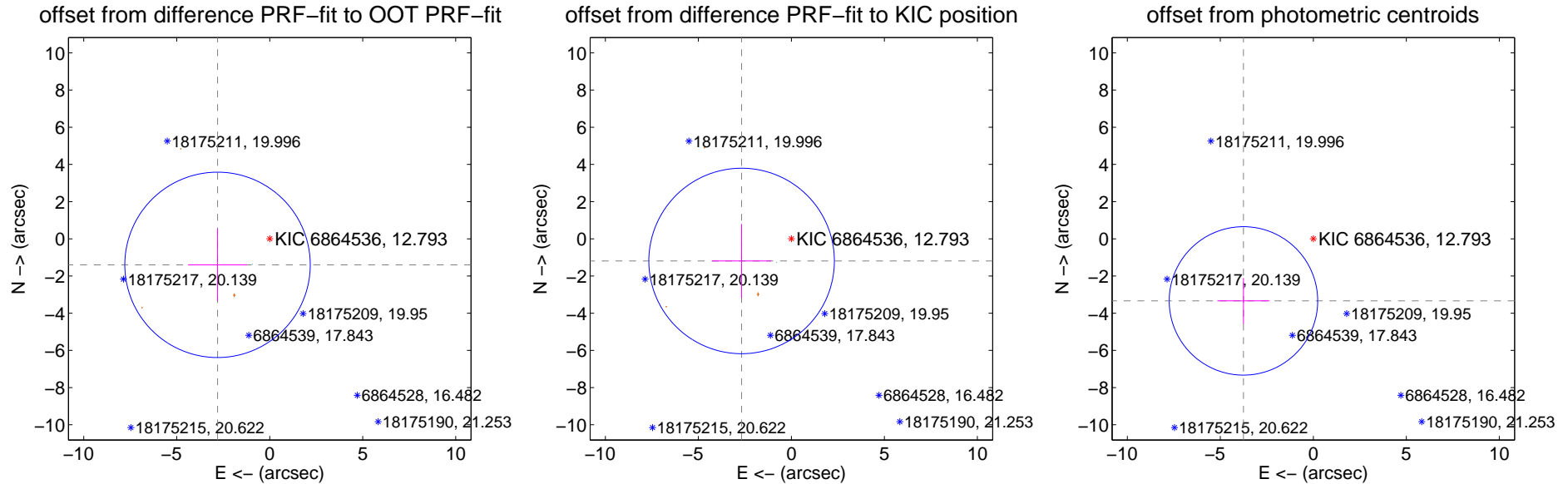
DV Centroid Data

Supplemental centroid analysis for 006864536-01. Kepler magnitude: 12.79. Transit SNR 7.86

There are 1 quarters with good PRF difference image offsets

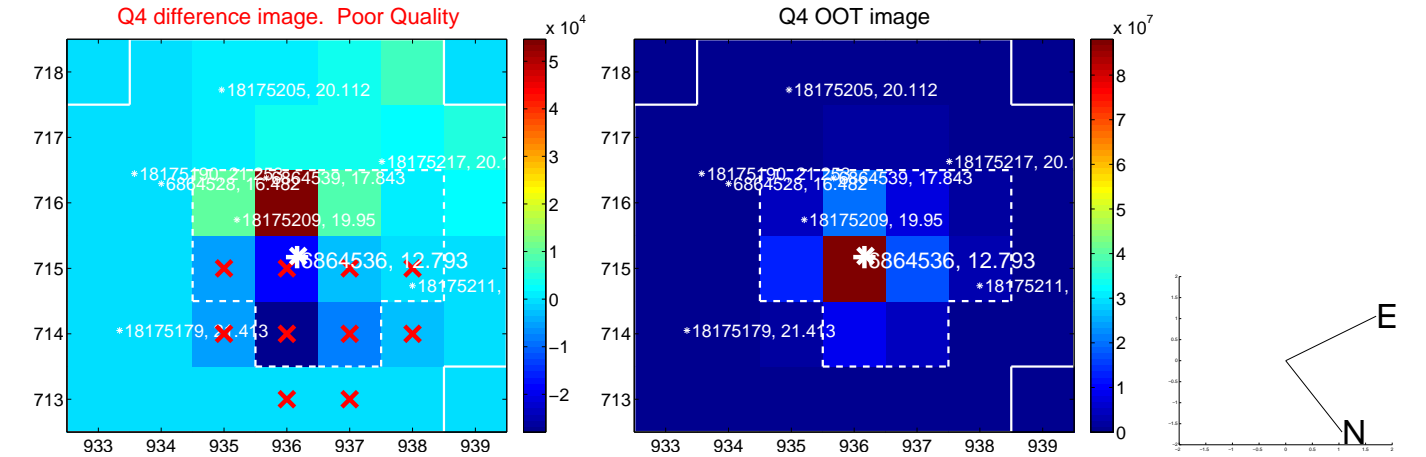
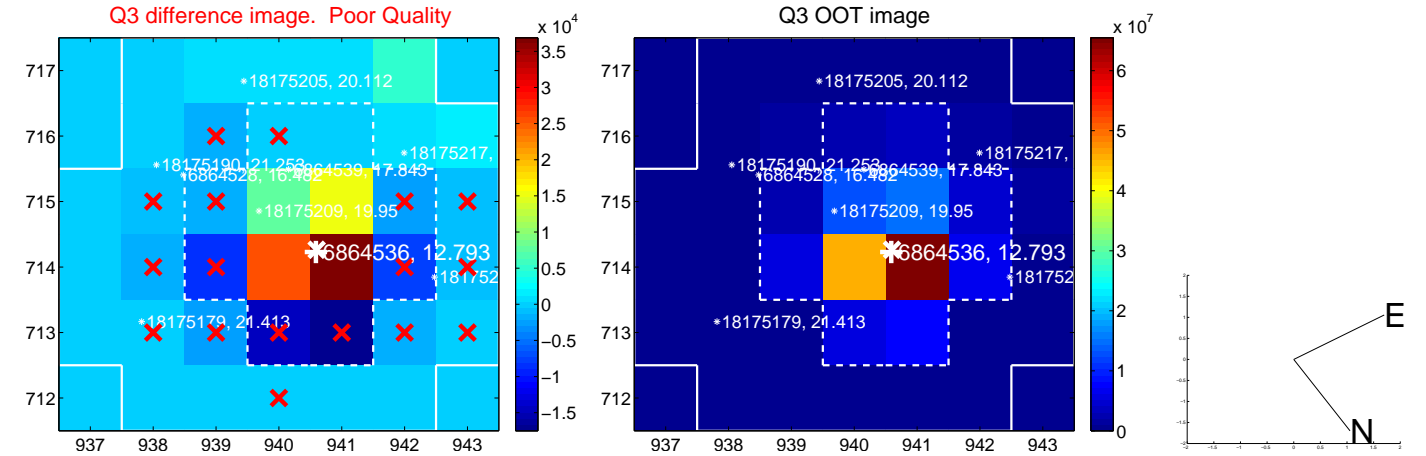
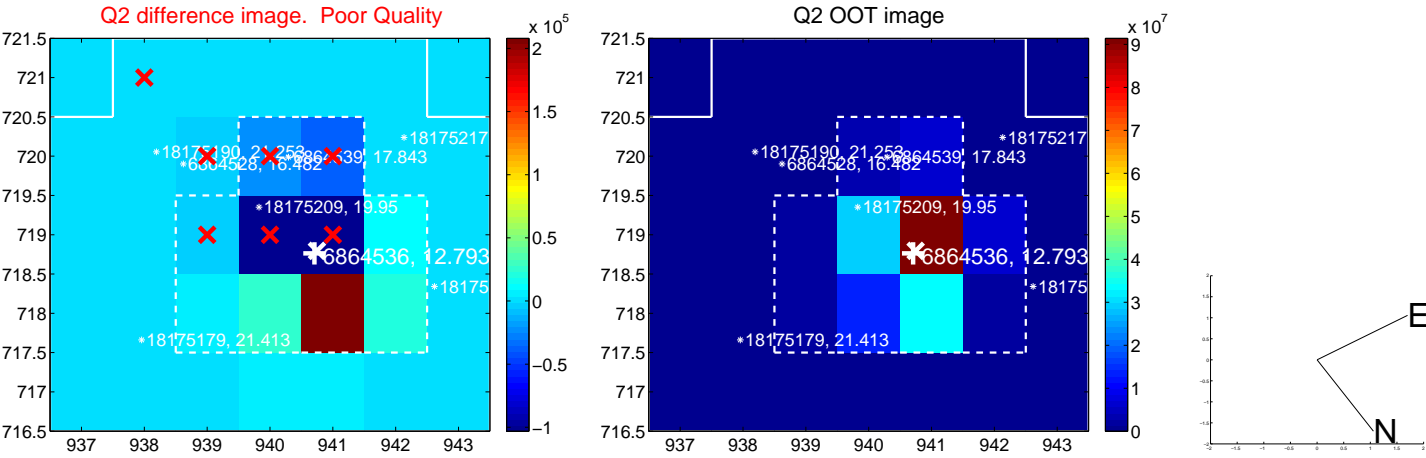
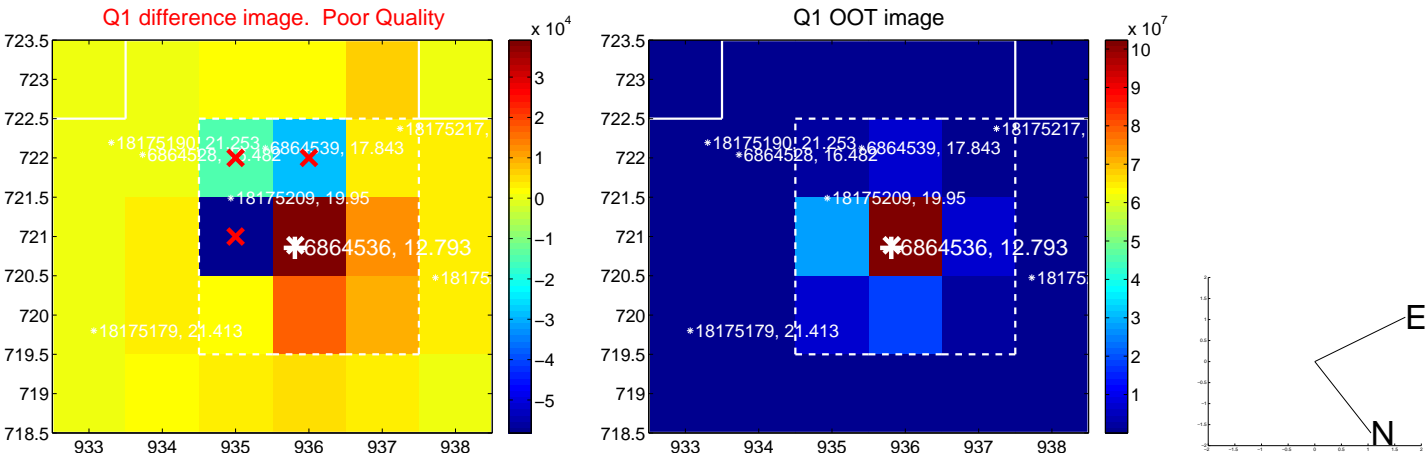
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.136 ± 1.661	1.89	2.806 ± 1.587	-1.400 ± 1.932
PRF-fit source offset from KIC position	2.929 ± 1.662	1.76	2.676 ± 1.589	-1.191 ± 1.993
photometric centroid source offset	5.03 ± 1.33	3.78	3.76 ± 1.40	-3.34 ± 1.23

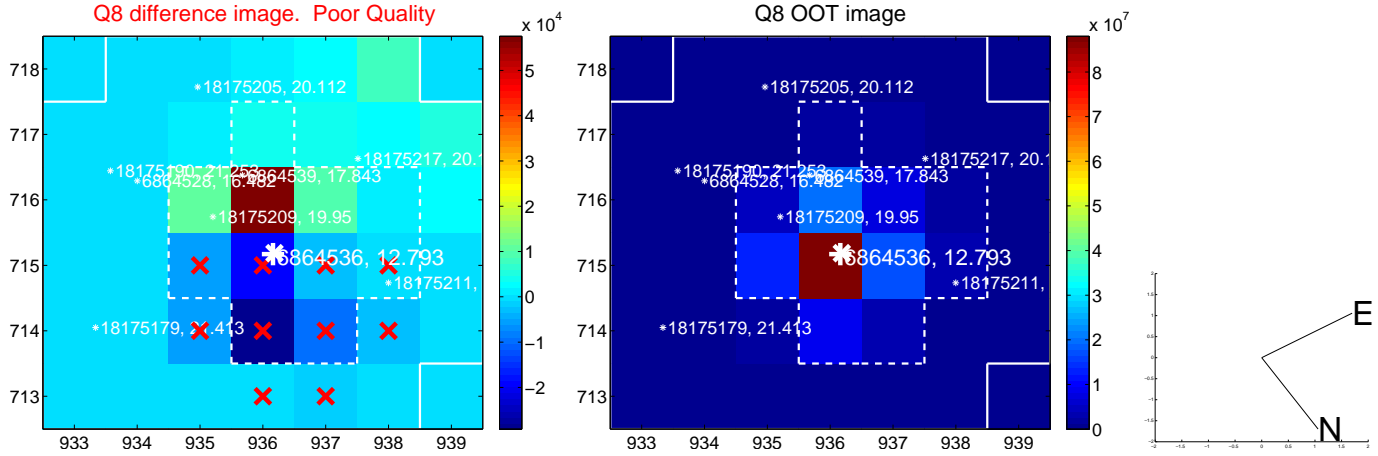
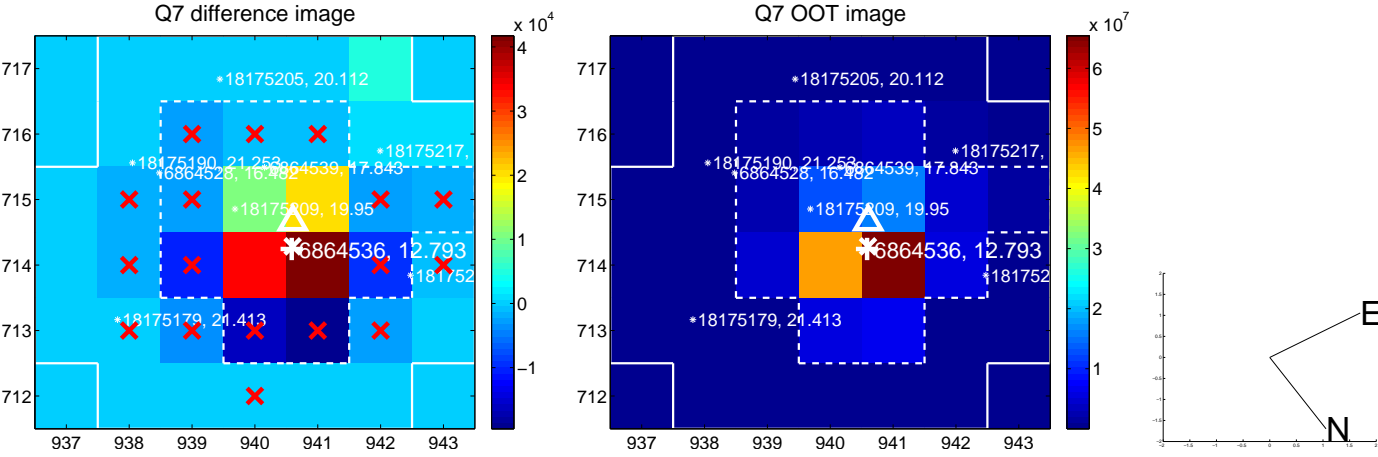
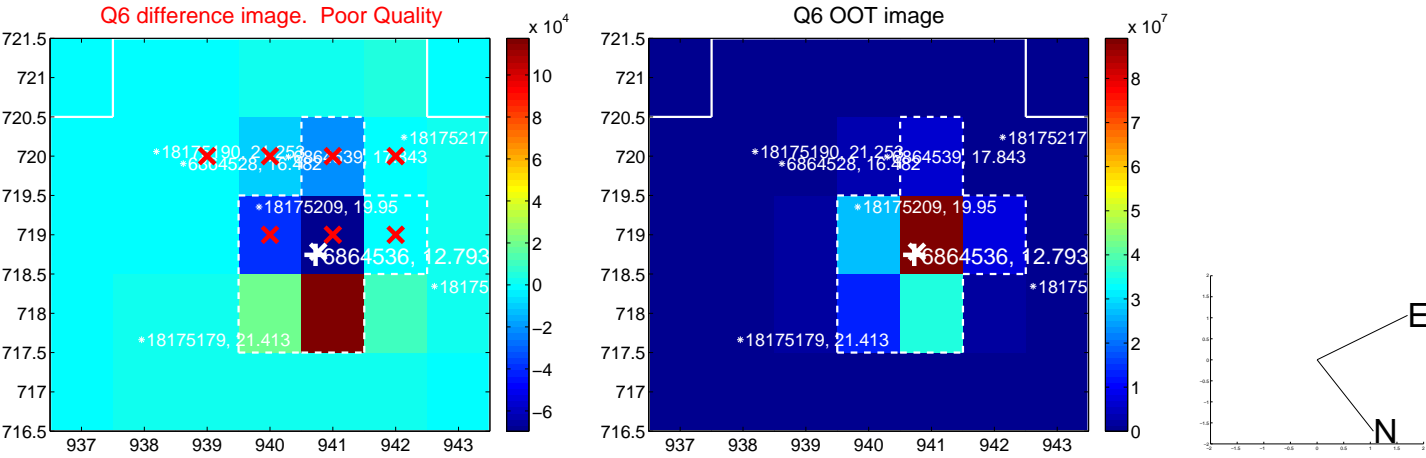
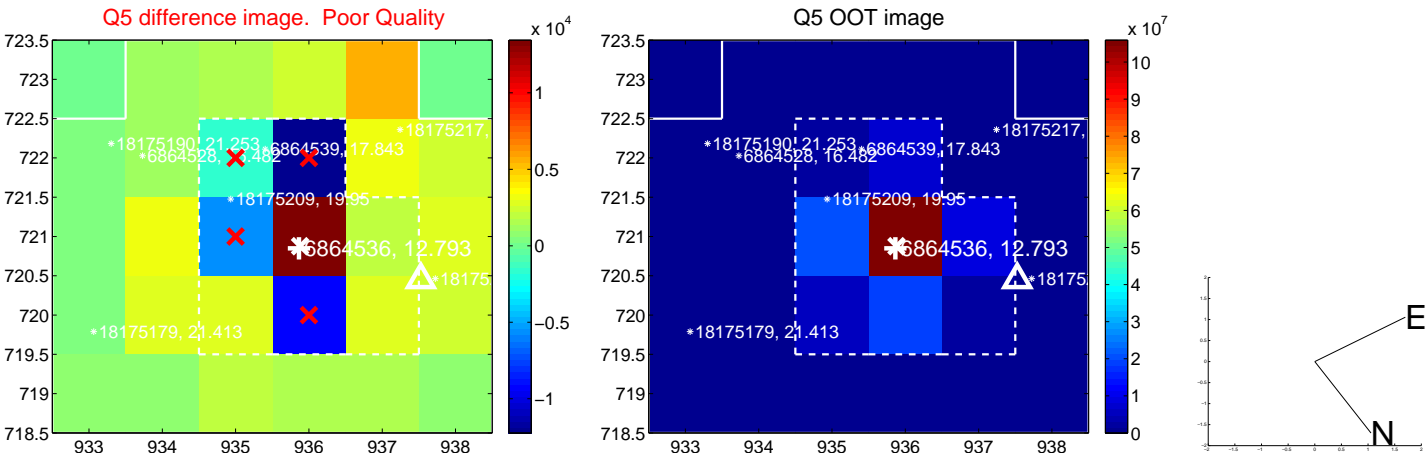


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

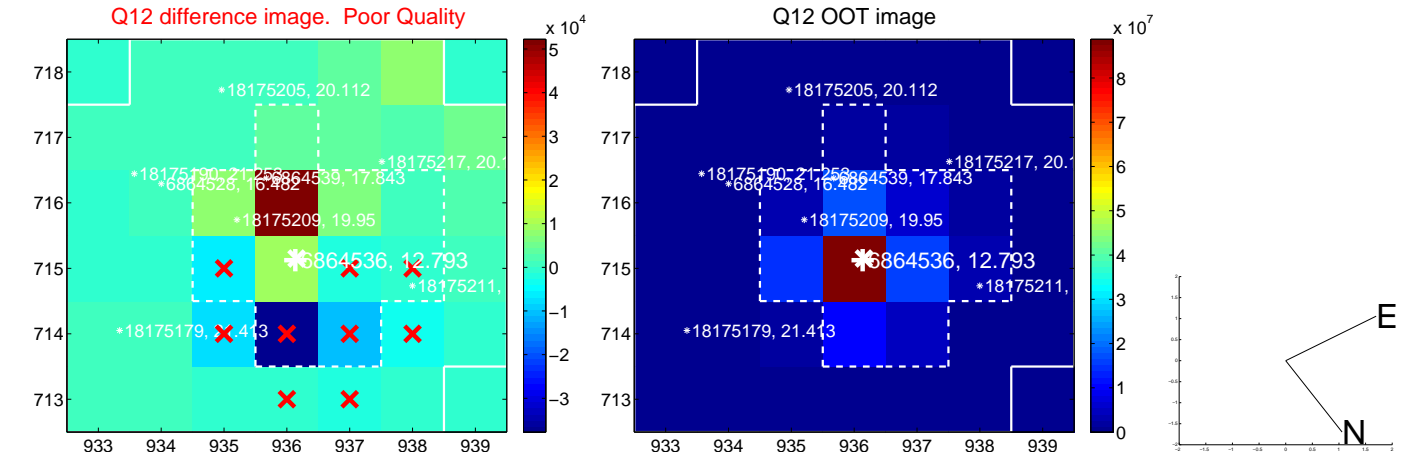
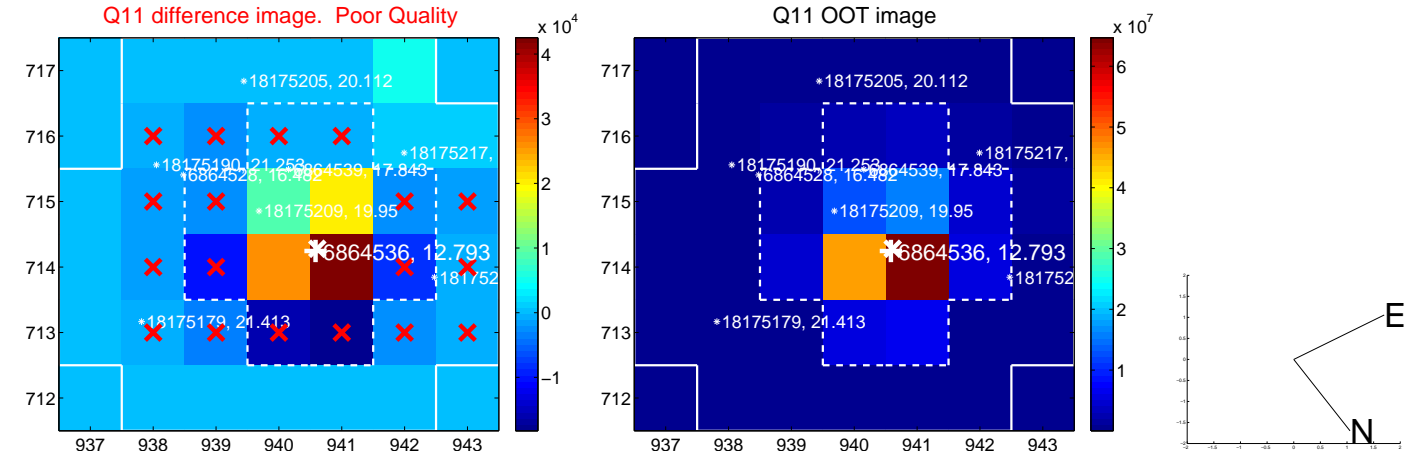
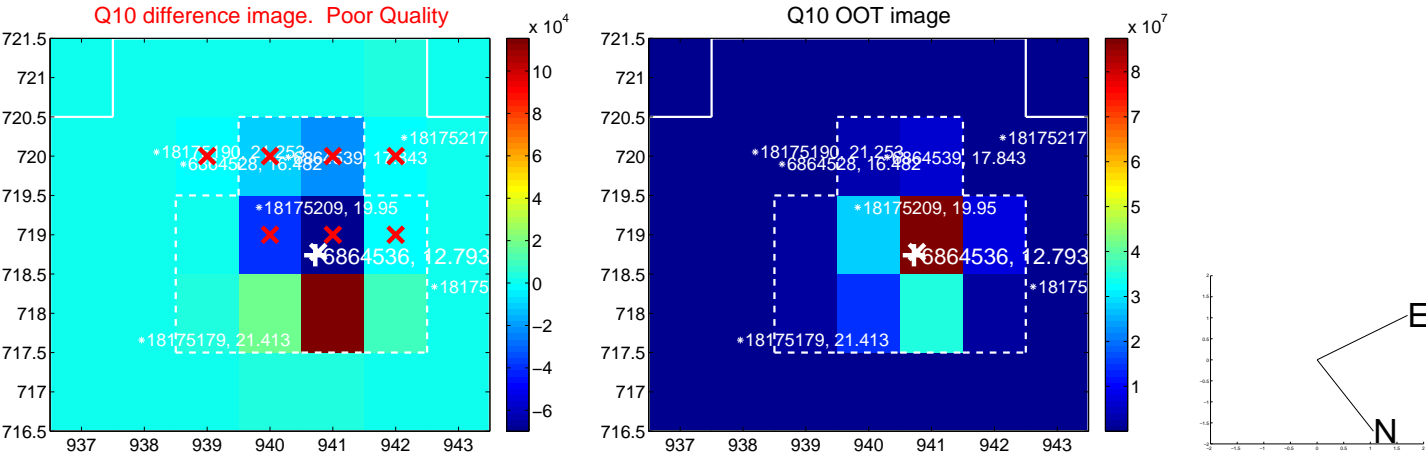
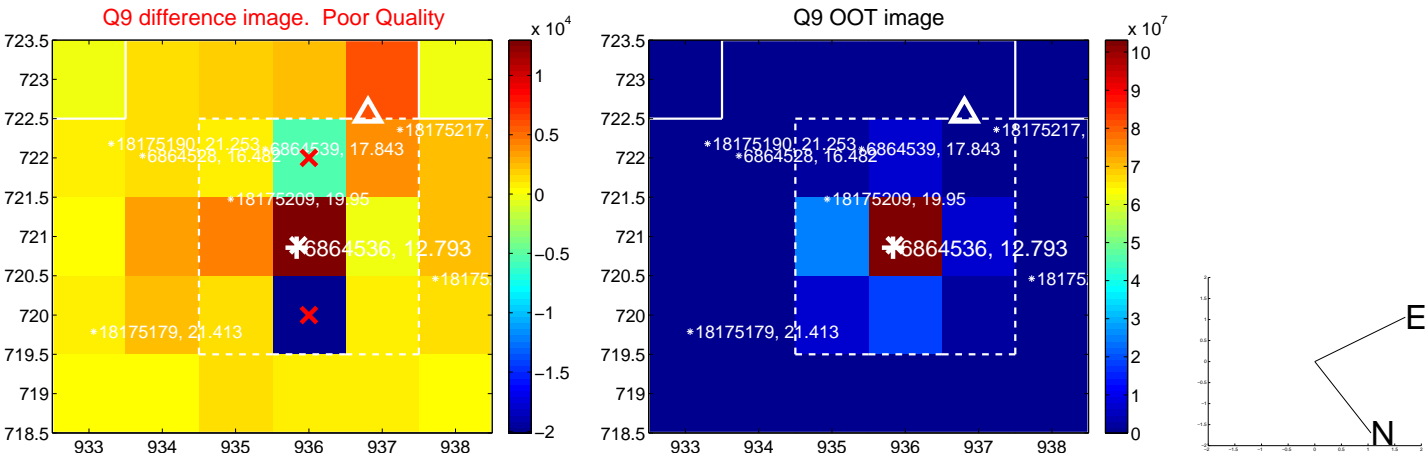
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



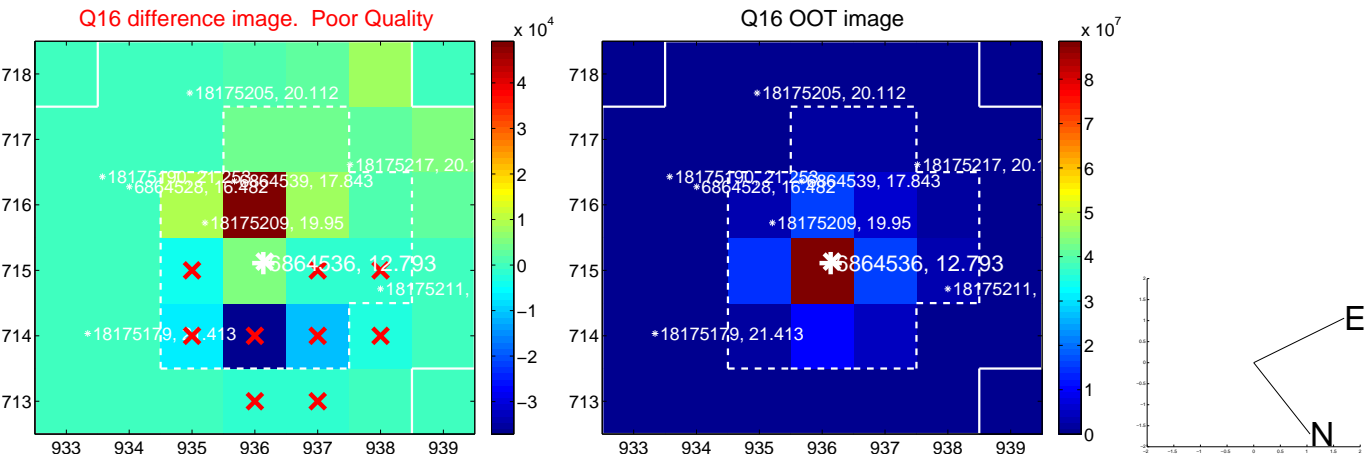
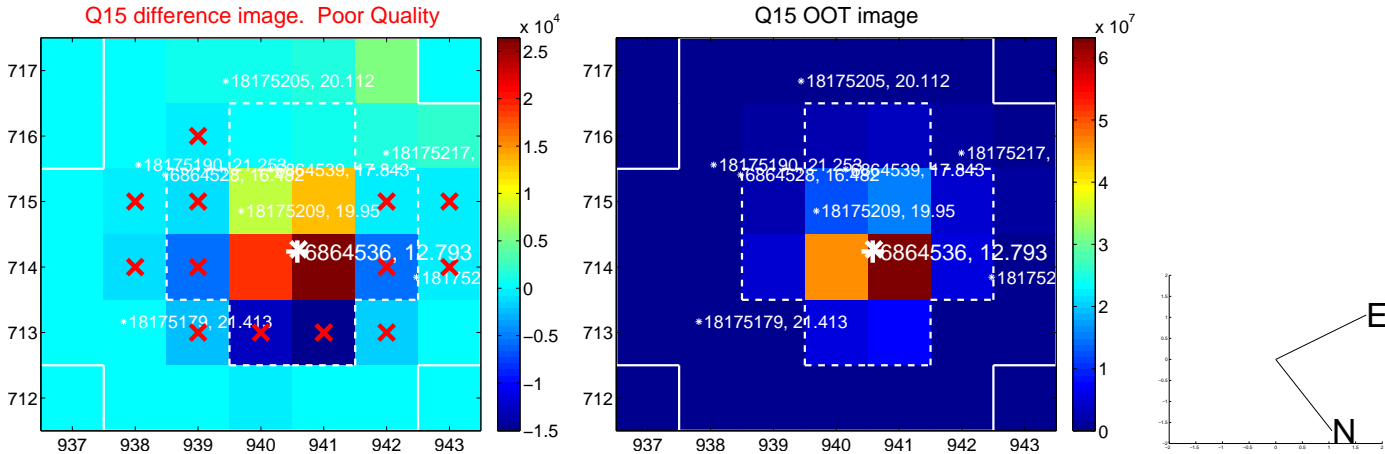
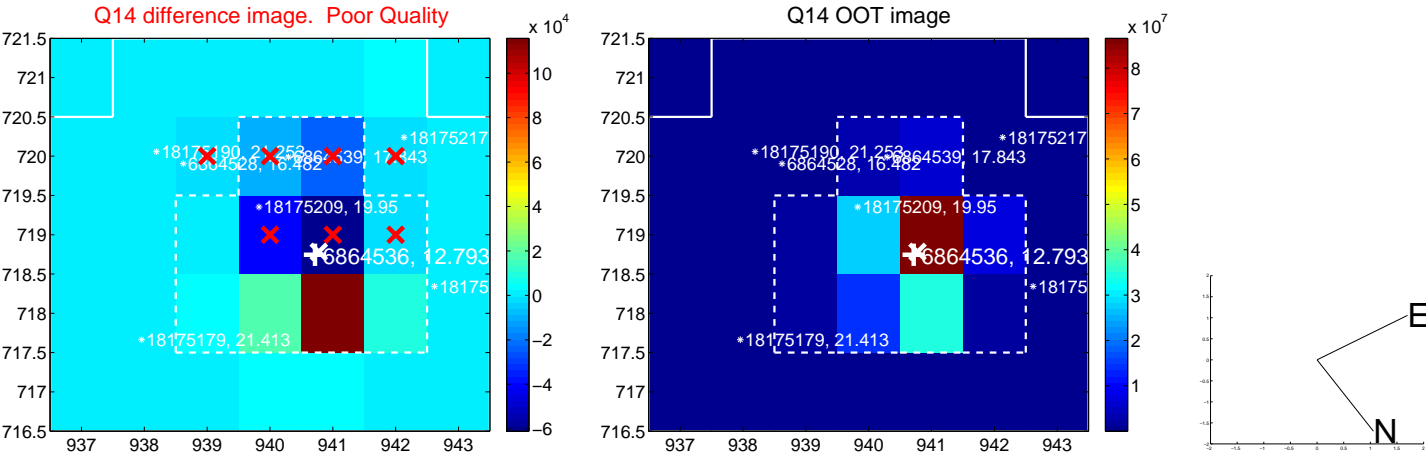
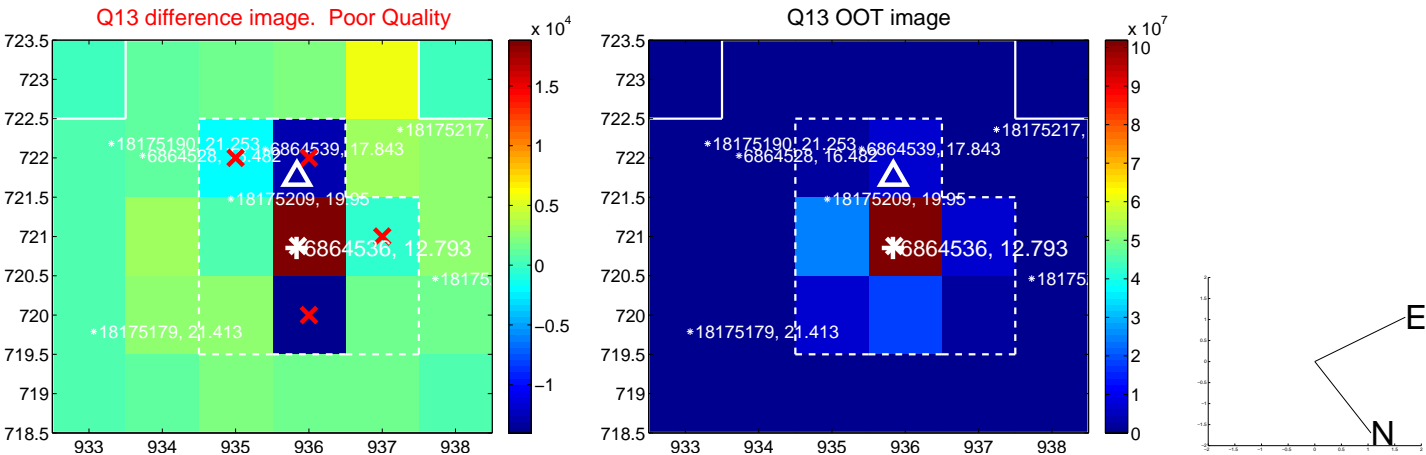
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



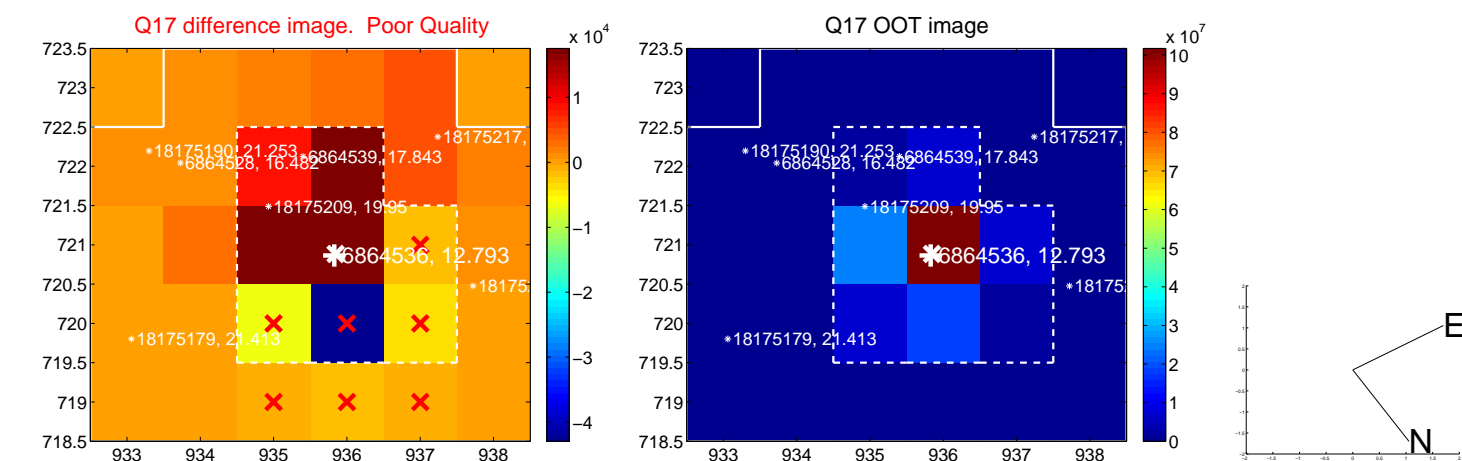
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



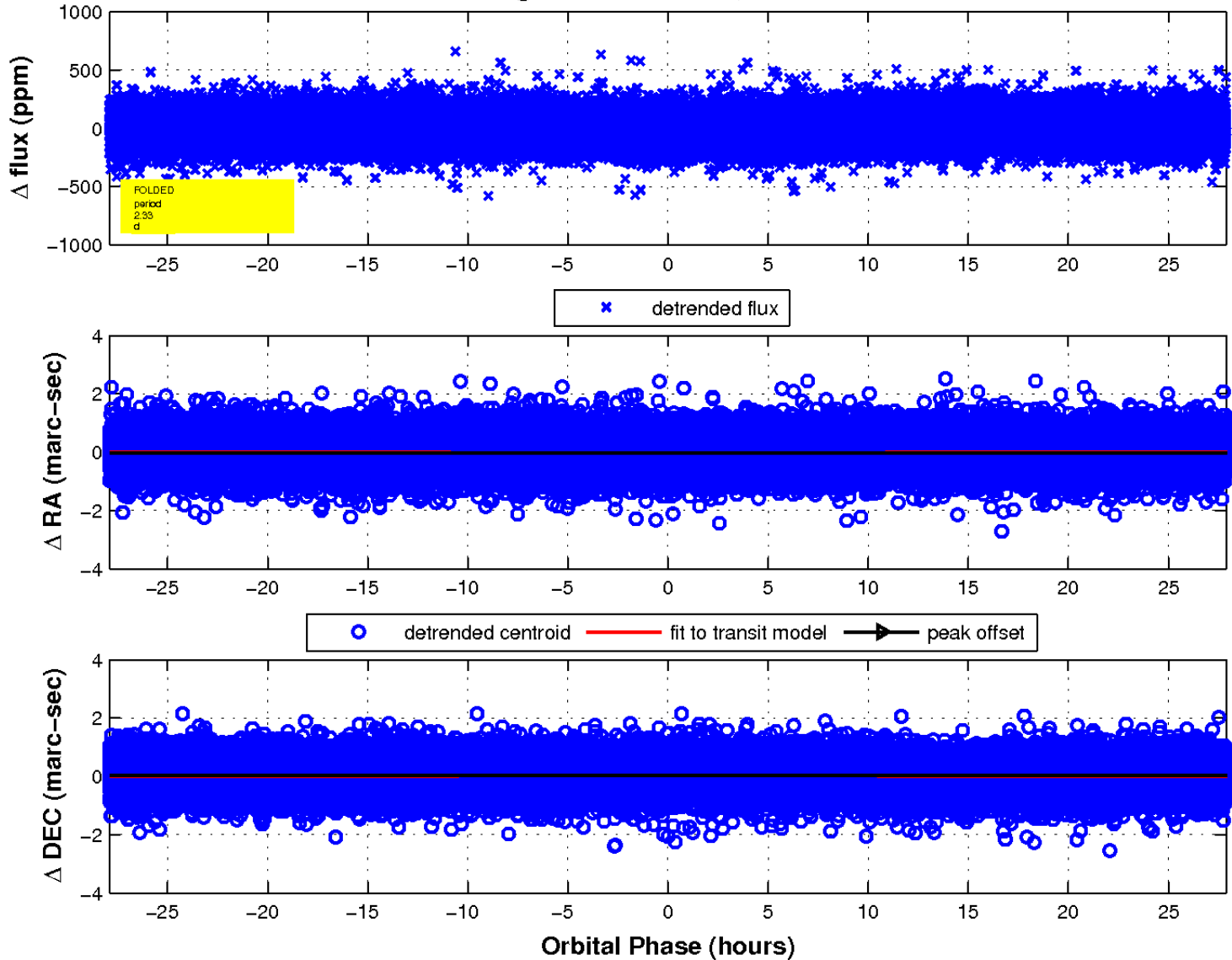
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

