

KIC 006181674

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})
006181674-01	OBS	No	0.857299	131.738011	14.6	7.063	8.5	6.1	1.67	7140	0.66	16262.03

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006181674-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

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

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

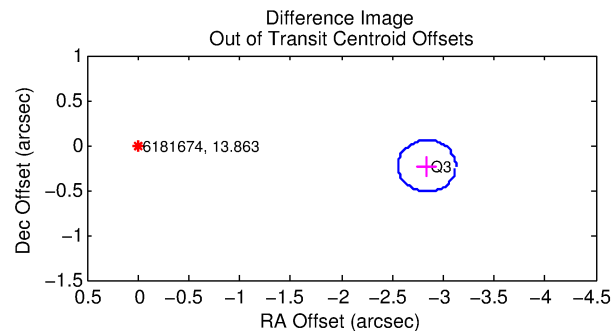
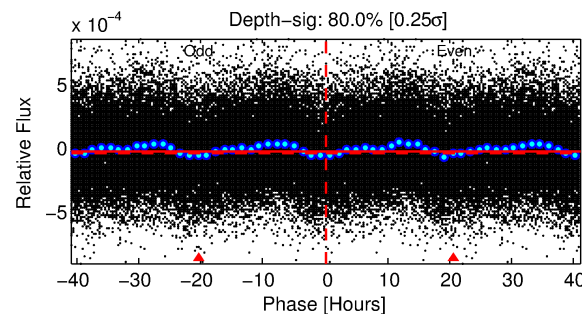
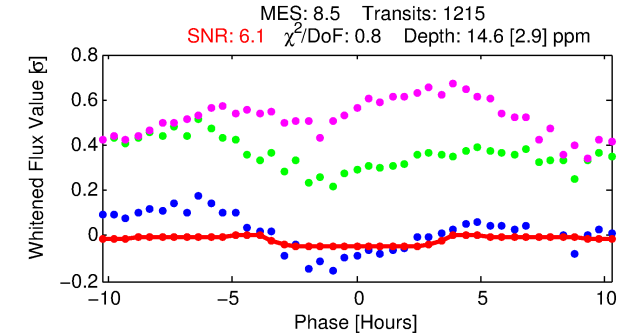
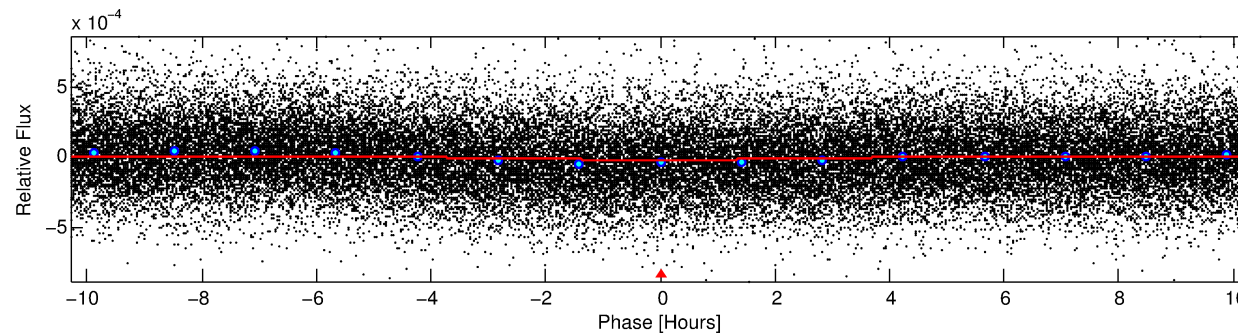
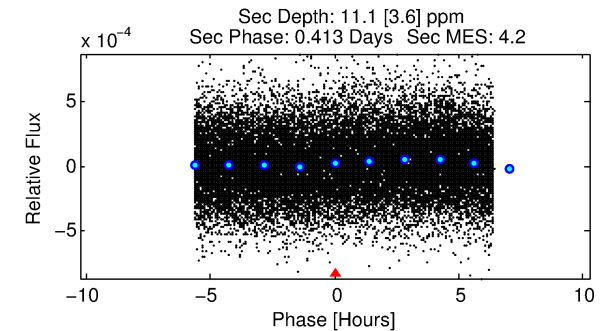
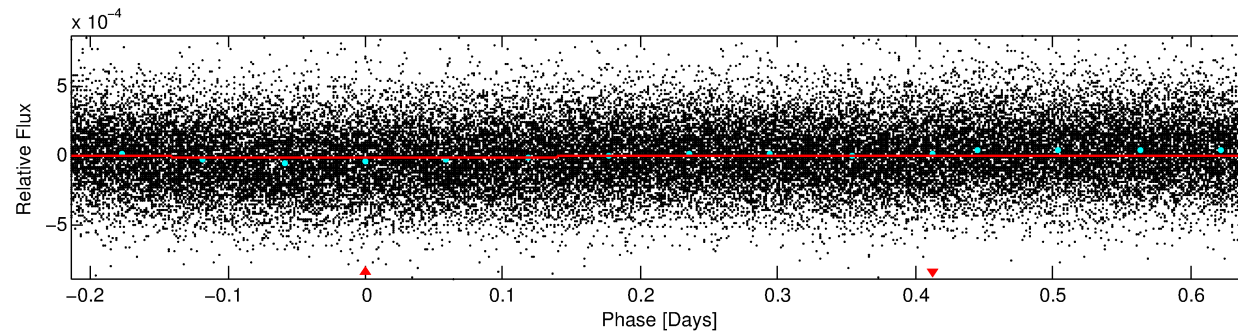
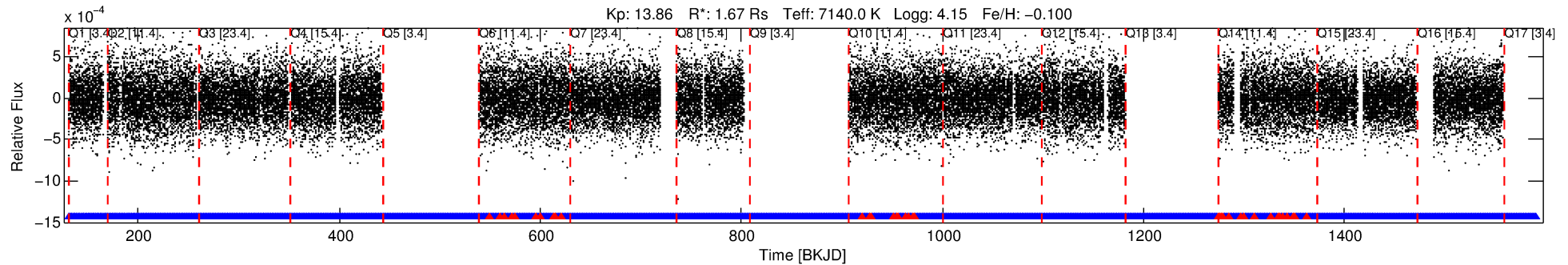
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006181674-01

No Significant Match Found

DV One-Page Summary

KIC: 6181674 Candidate: 1 of 1 Period: 0.857 d



DV Fit Results:

Period = 0.85730 [0.00003] d
Epoch = 131.7380 [0.0099] BKJD
Rp/R* = 0.0036 [0.0060]
a/R* = 1.11 [1.99]
b = 0.50 [14.87]
Seff = 16262.03 [6389.30]
Teq = 2880 [283] K
Rp = 0.66 [1.11] Re
a = 0.0200 [0.0051] AU
Ag = 5.56 [18.50] [0.25σ]
Teffp = 6836 [5659] K [0.70σ]

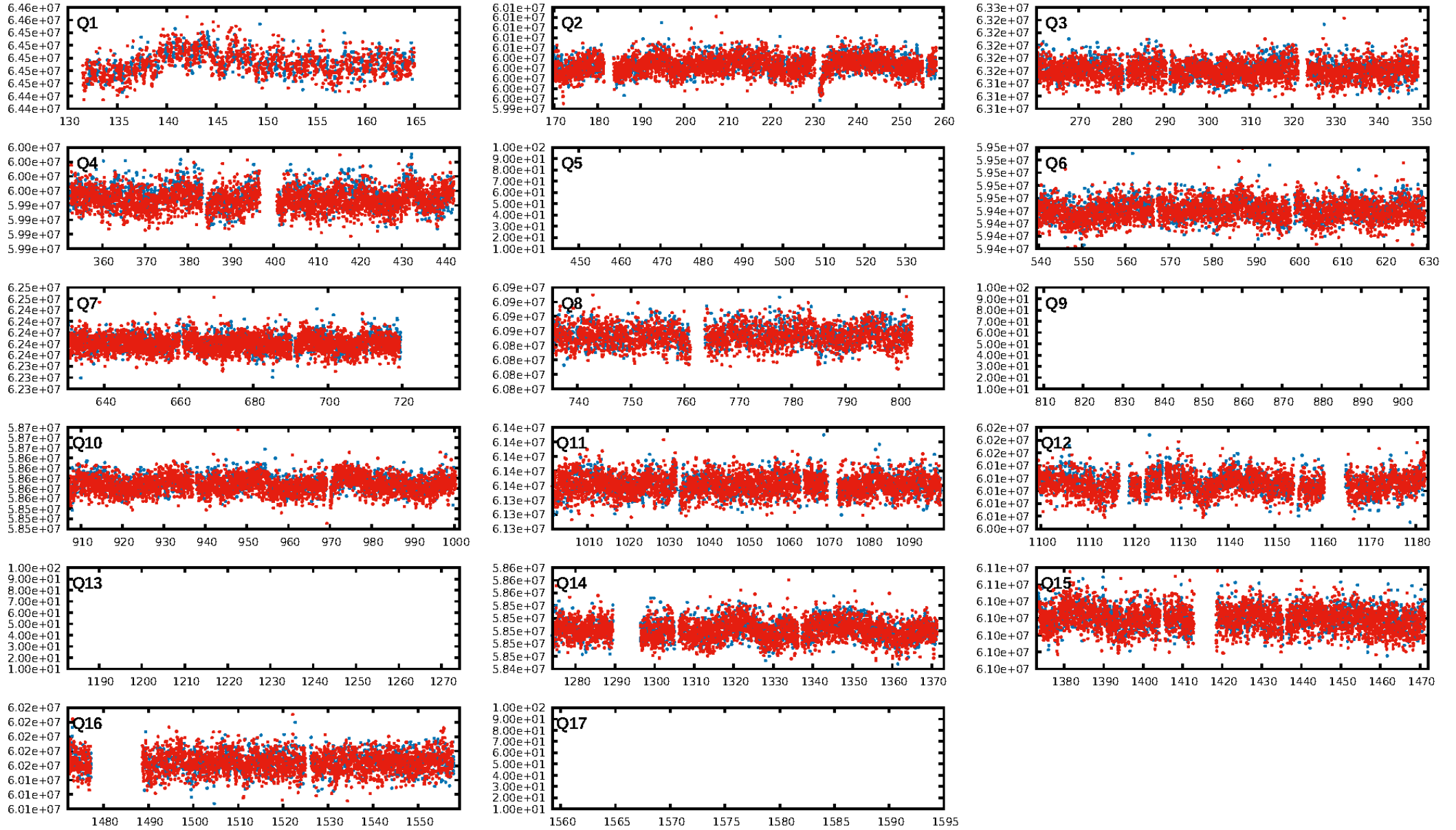
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.96 [1134/1176]
GhostDiagnostic-chr: 3.65
Centroid-sig: 0.0%
Centroid-so: 5.131 arcsec [2.39σ]
OotOffset-rm: 2.847 arcsec [29.88σ]
KicOffset-rm: 3.005 arcsec [31.57σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [13/13]

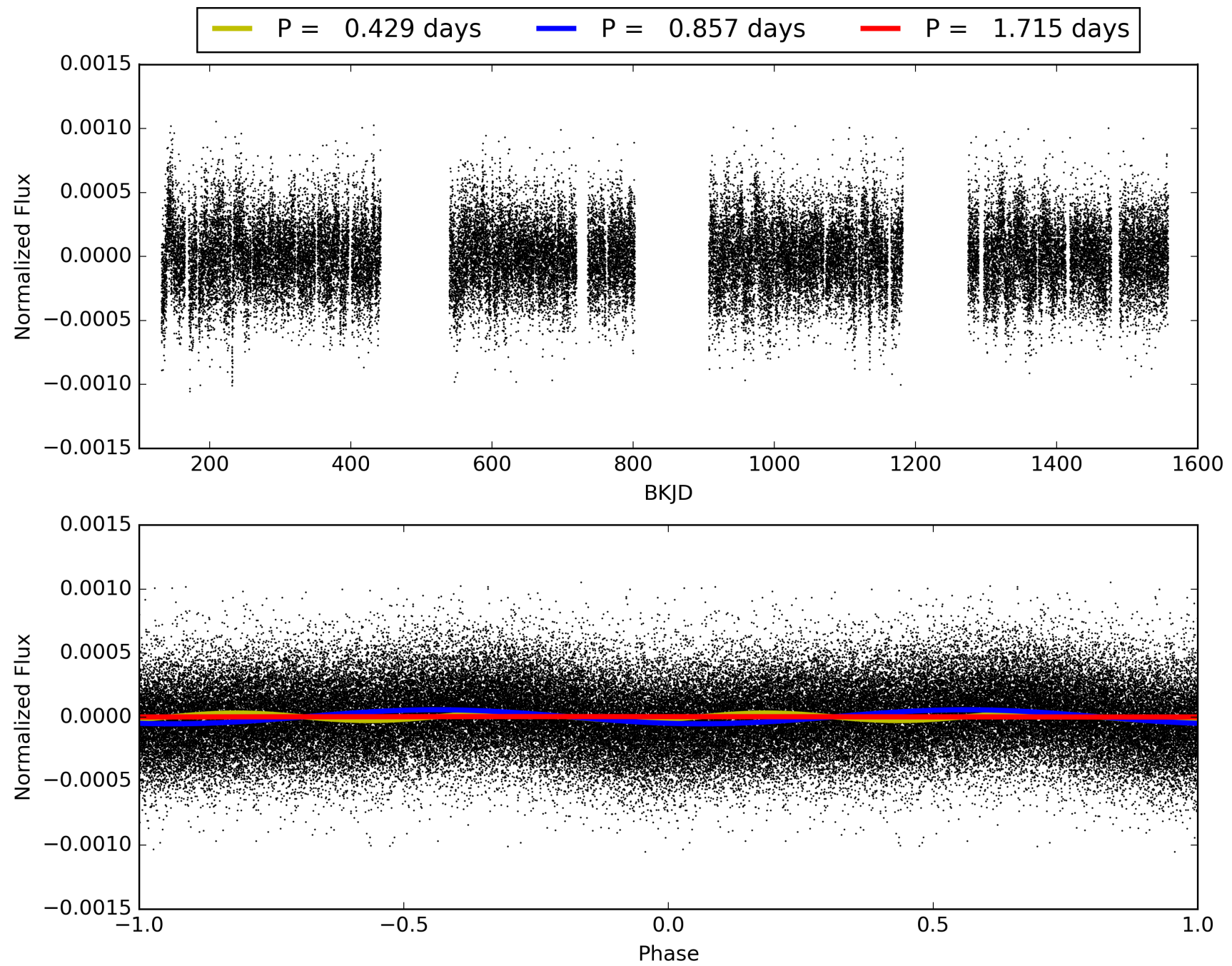
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 04:47:36 Z

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

TCE 006181674-01, PDC Light Curves

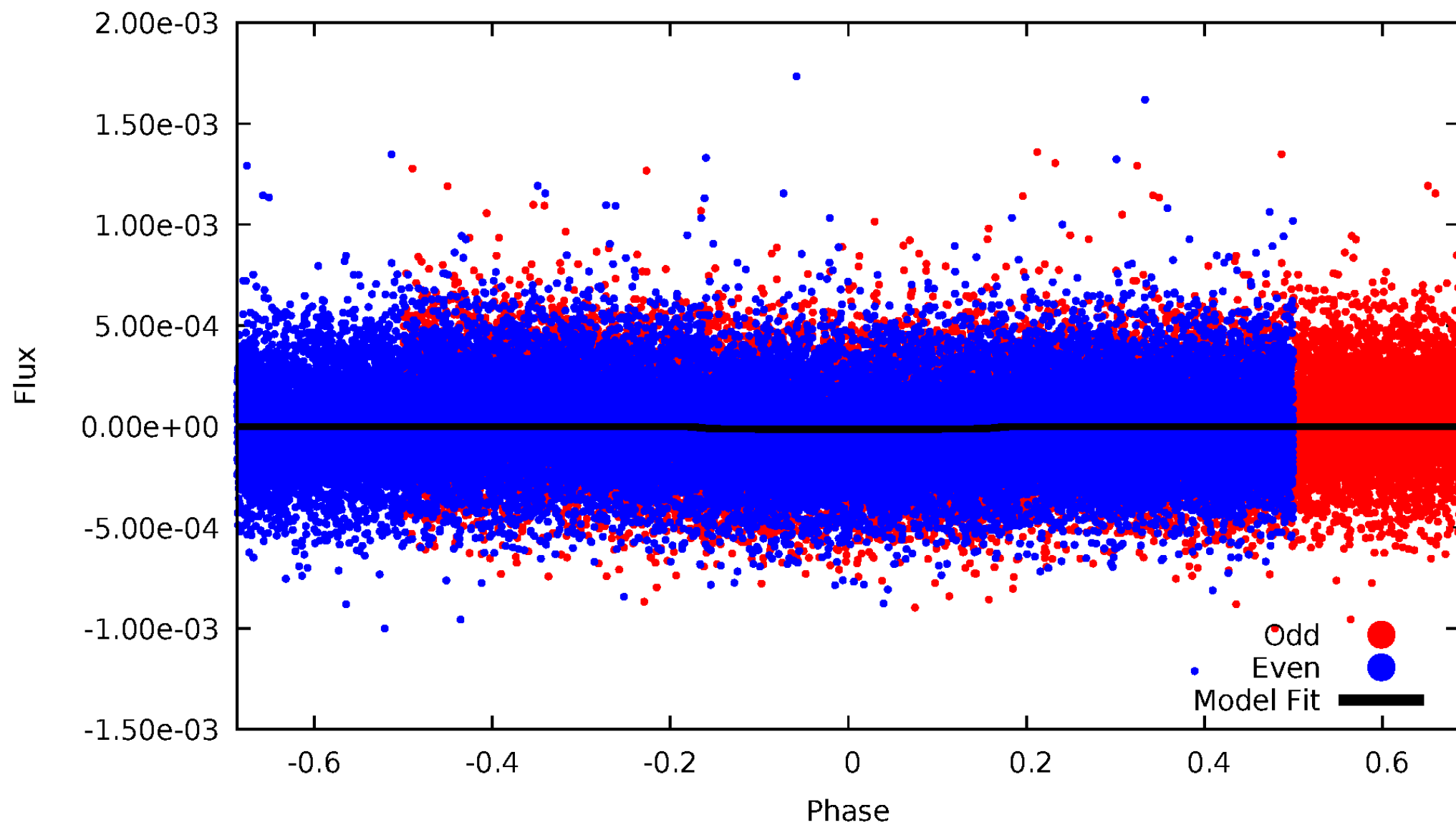


TCE 006181674-01



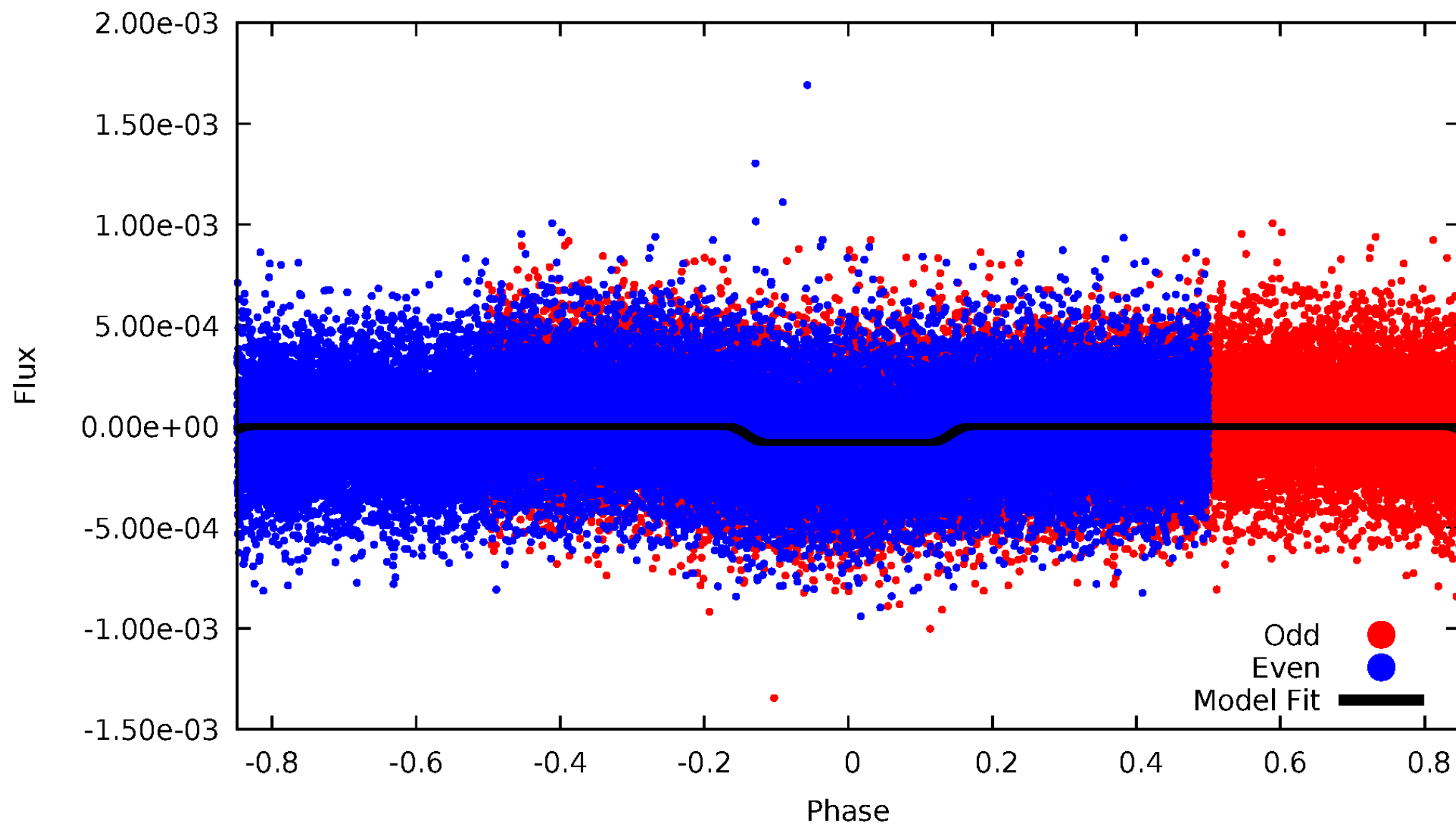
DV Odd/Even

TCE 006181674-01



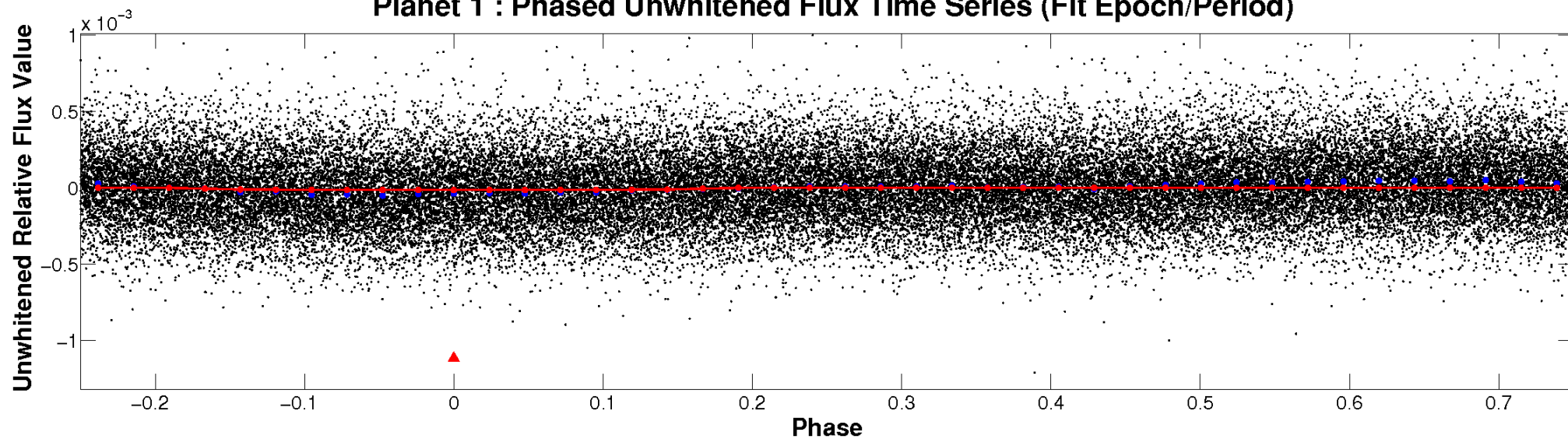
ALT Odd/Even

TCE 006181674-01

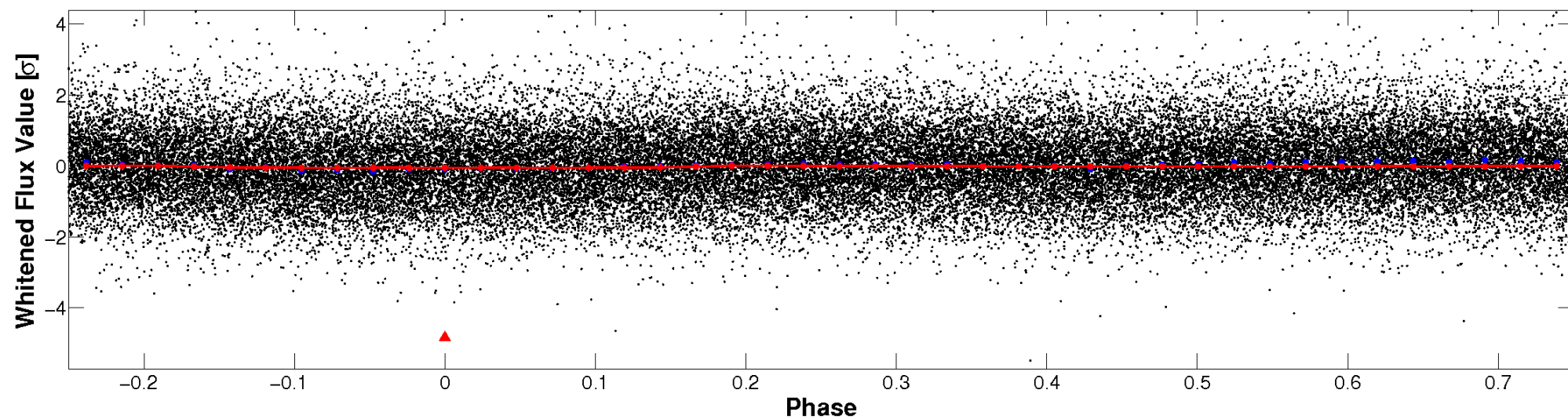


Non-Whitened Vs. Whitened Light Curve

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

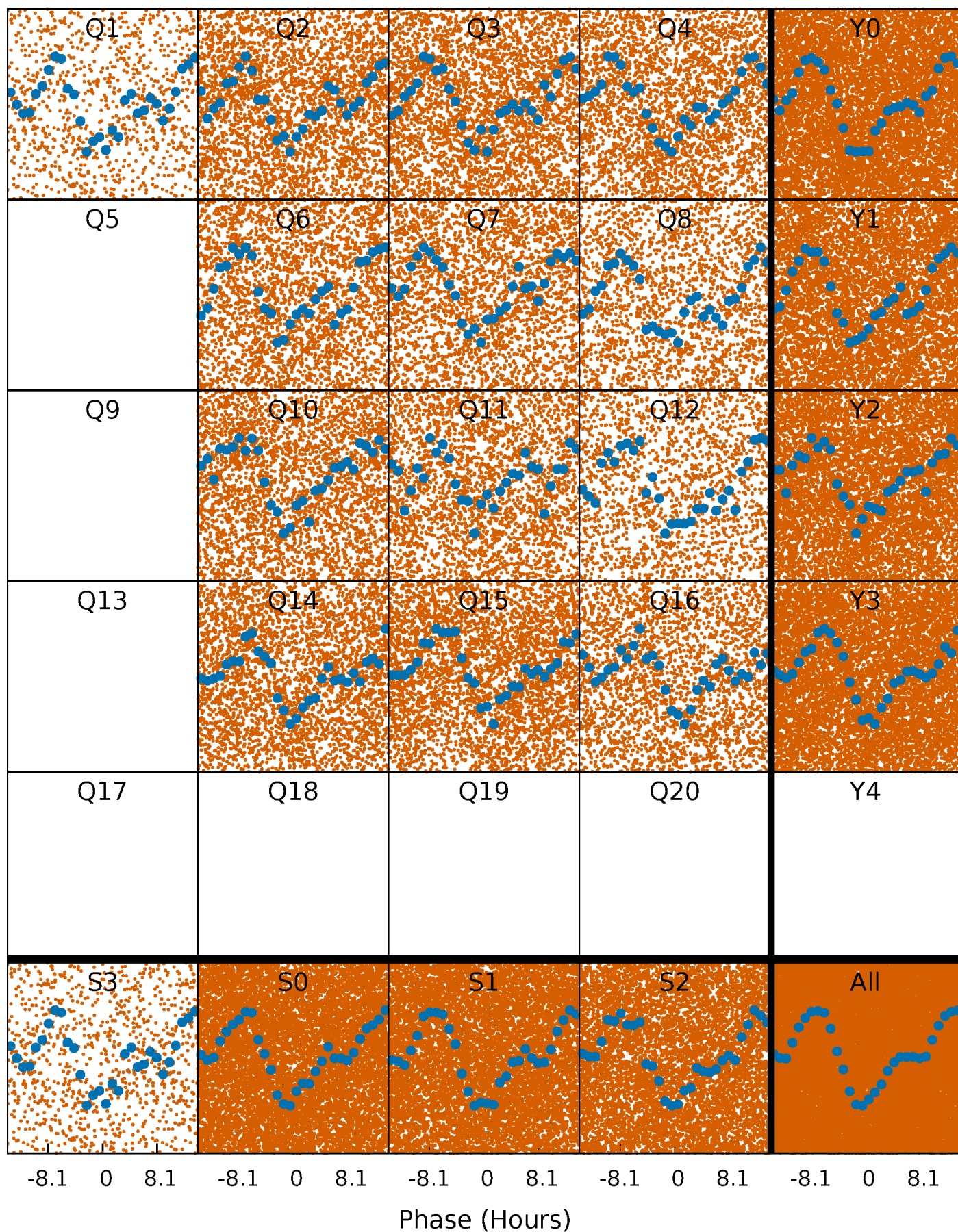


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



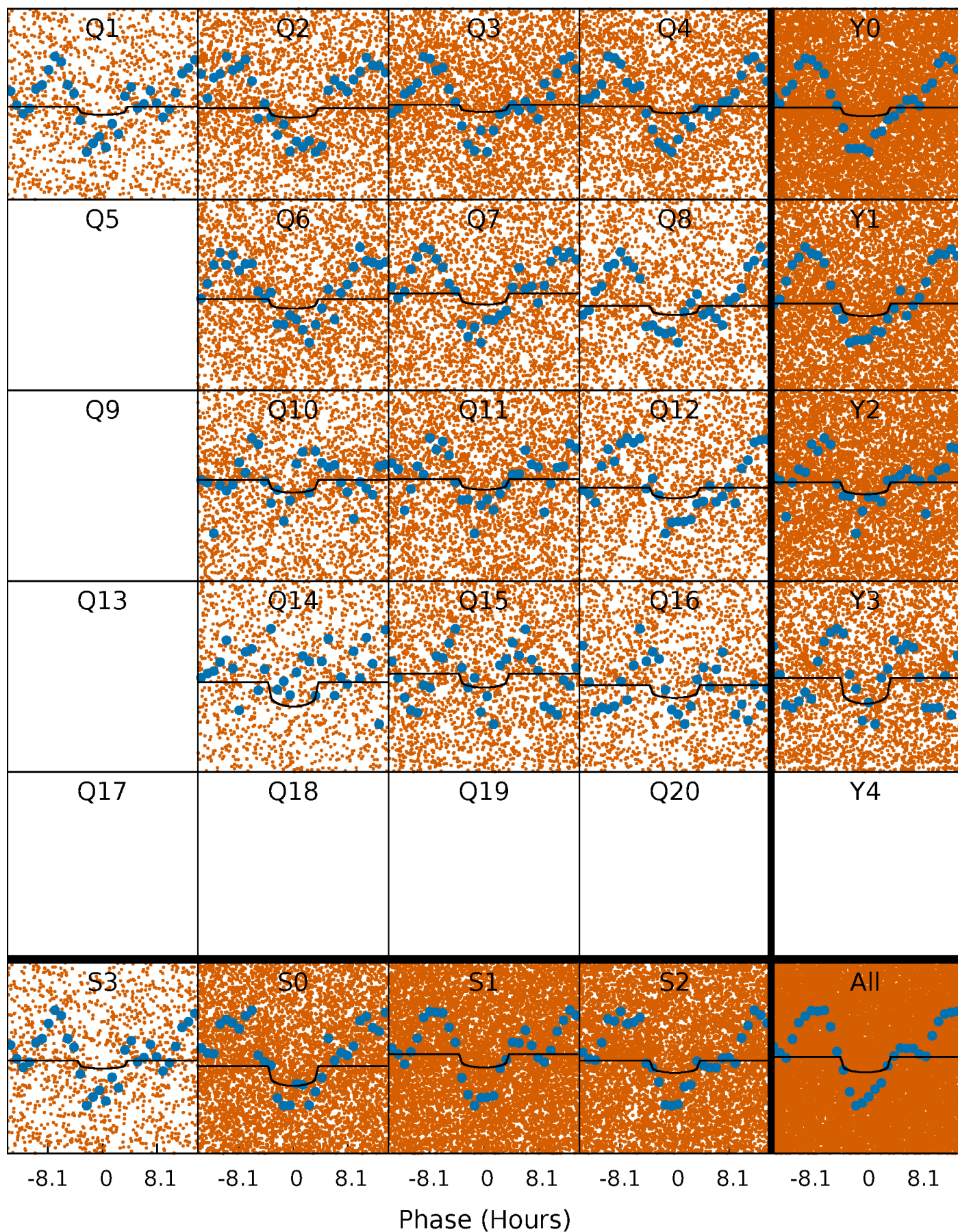
PDC Quarter-Phased Transit Curves

TCE 006181674-01 P= 0.857299 Days $T_0=131.738011$ (BKJD)



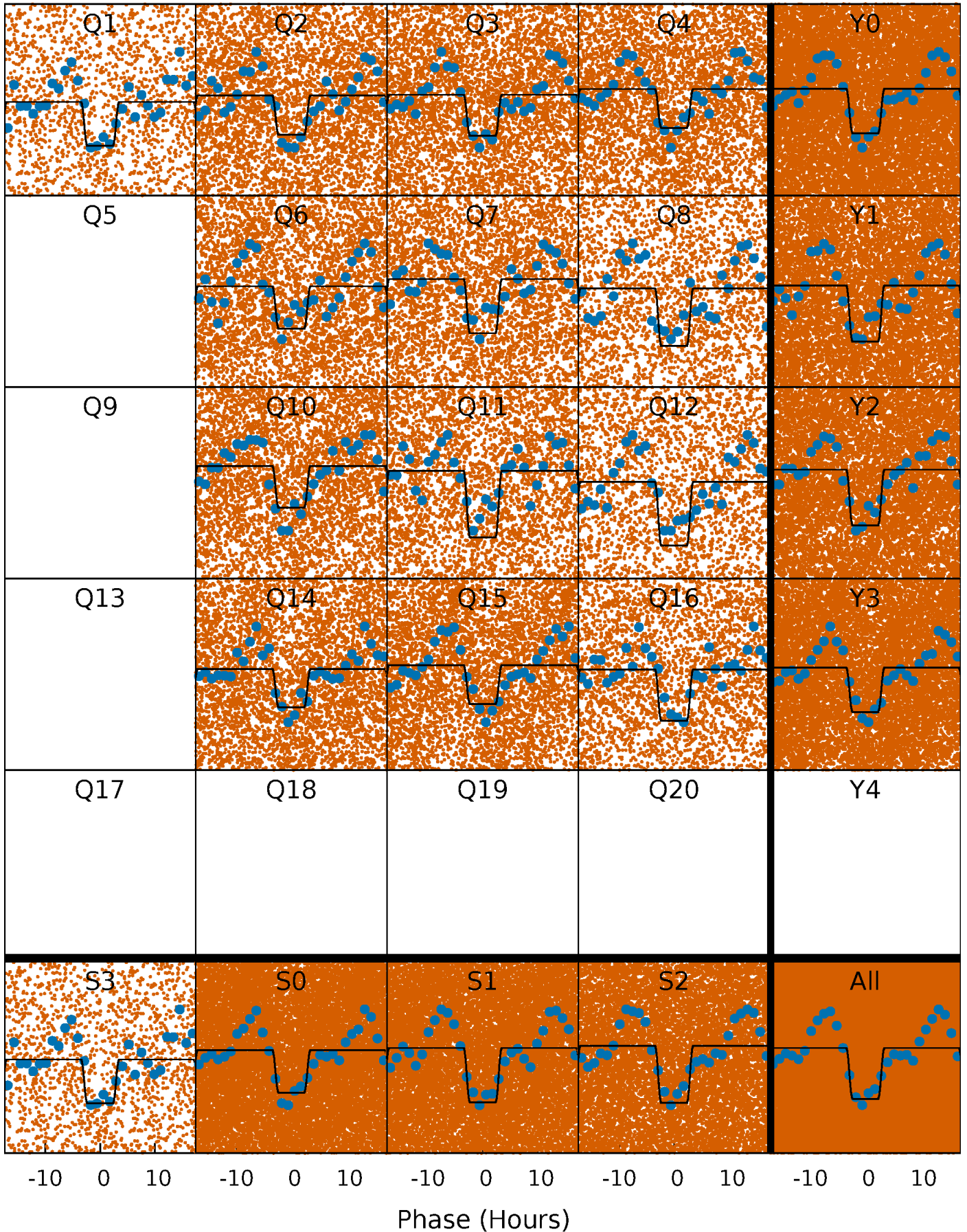
DV Quarter-Phased Transit Curves

TCE 006181674-01 P= 0.857299 Days $T_0=131.738011$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

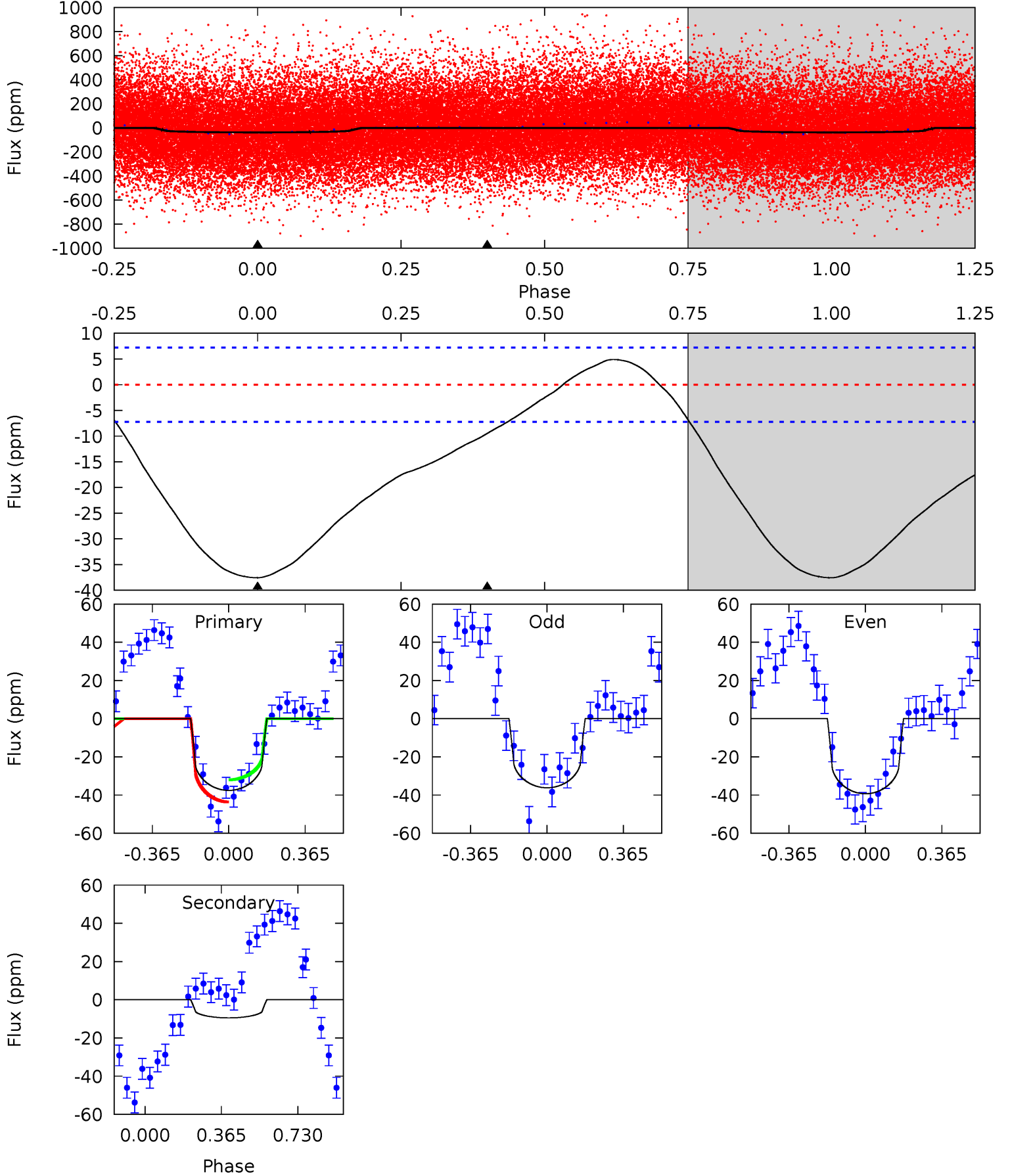
TCE 006181674-01 P= 0.857334 Days $T_0=131.703274$ (BKJD)



DV Model-Shift Uniqueness Test

006181674-01, P = 0.857299 Days, E = 130.880712 Days

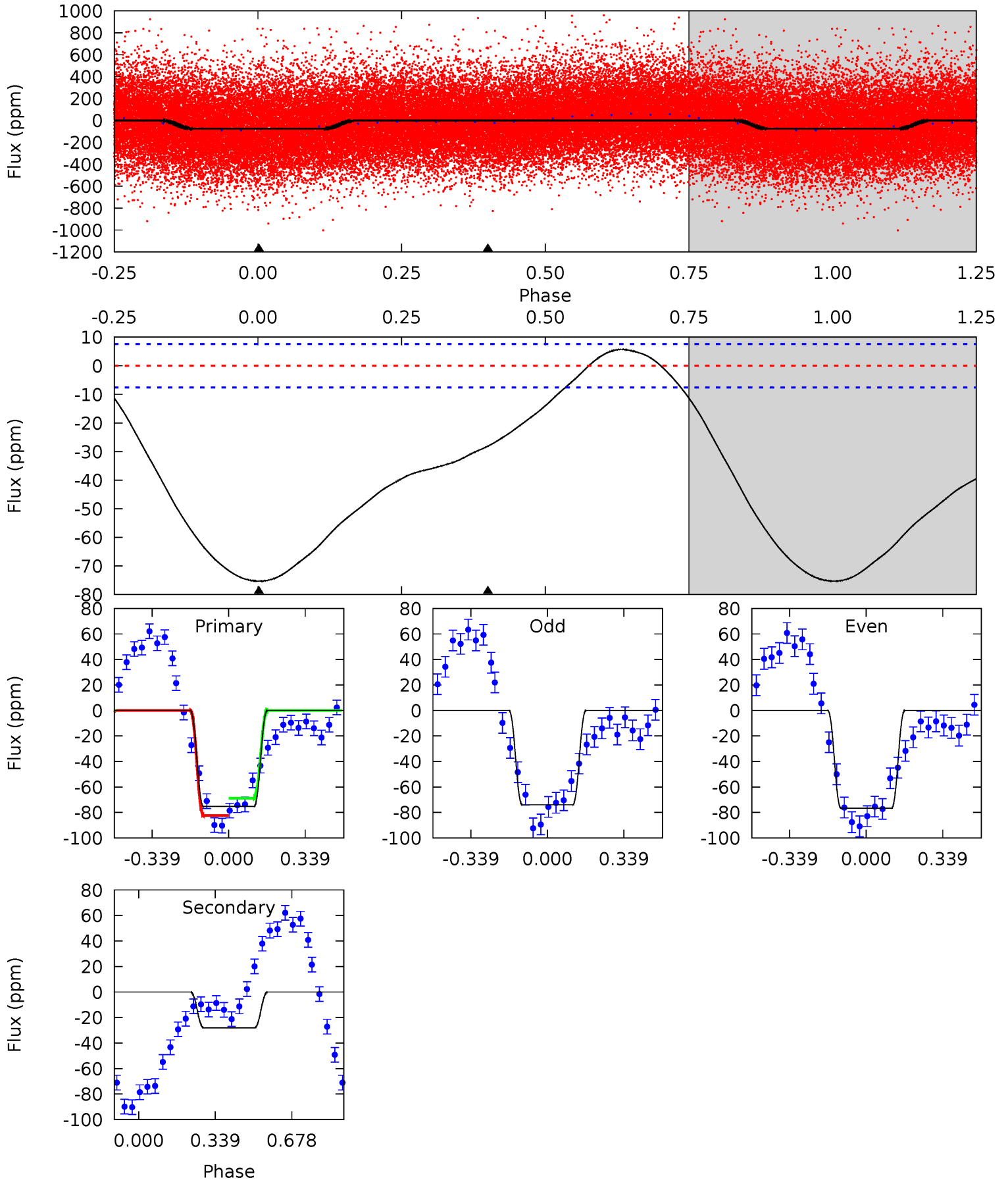
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	5.63	0	0	4.29	0.91	1.93	22.3	22.3	5.63	5.63	0.93	0.98	0.12	3.46



Alt Model-Shift Uniqueness Test

006181674-01, P = 0.857334 Days, E = 130.845940 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.8	16.0	0	0	4.30	0.96	2.94	42.8	42.8	16.0	16.0	0.76	0.98	0.07	3.78



Stellar Parameters For KIC 006181674

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7140^{+200}_{-275}	$4.154^{+0.128}_{-0.192}$	$-0.100^{+0.250}_{-0.350}$	$1.673^{+0.525}_{-0.306}$	$1.459^{+0.218}_{-0.239}$	$0.439^{+0.288}_{-0.235}$
	+3%/-4%	+3%/-5%	+250%/-350%	+31%/-18%	+15%/-16%	+66%/-54%
Source	PHO1	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 006181674-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 2	$1.01^{+0.97}_{-0.67}$	4074^{+299}_{-272}	5112^{+4815}_{-1628}	$1.953^{+17.415}_{-1.443}$
Alt.	-28 ± 2	$1.78^{+1.18}_{-1.00}$	4044^{+323}_{-240}	5143^{+2888}_{-1188}	$1.966^{+8.380}_{-1.257}$

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

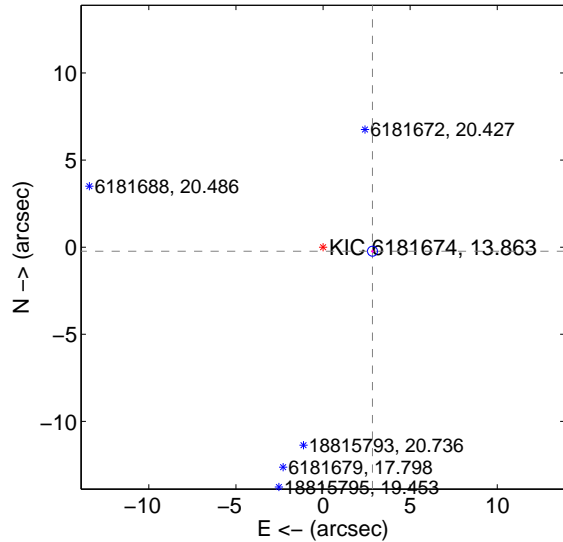
Supplemental centroid analysis for 006181674-01. Kepler magnitude: 13.86. Transit SNR 6.13

There are 0 quarters with good PRF difference image offsets

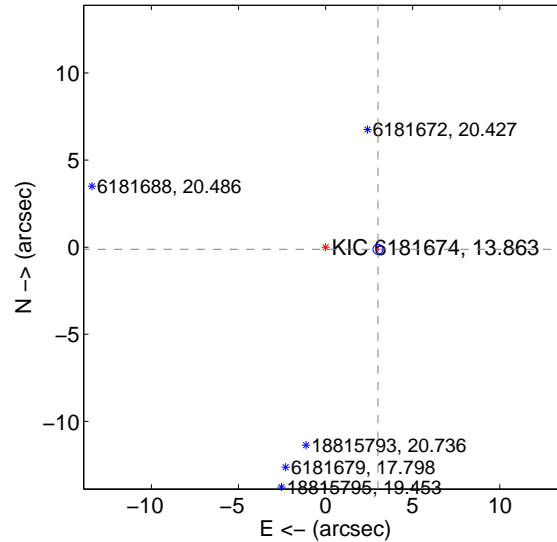
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.847 ± 0.095	29.88	-2.837 ± 0.095	-0.232 ± 0.106
PRF-fit source offset from KIC position	3.005 ± 0.095	31.57	-3.003 ± 0.095	-0.121 ± 0.106
photometric centroid source offset	5.13 ± 2.15	2.39	-0.71 ± 2.03	-5.08 ± 2.15

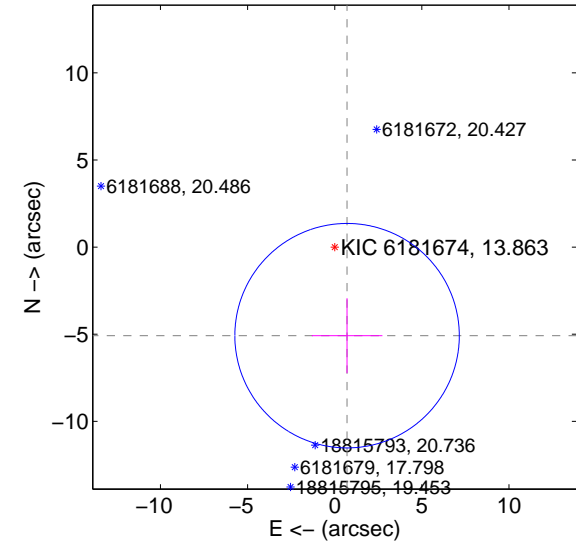
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

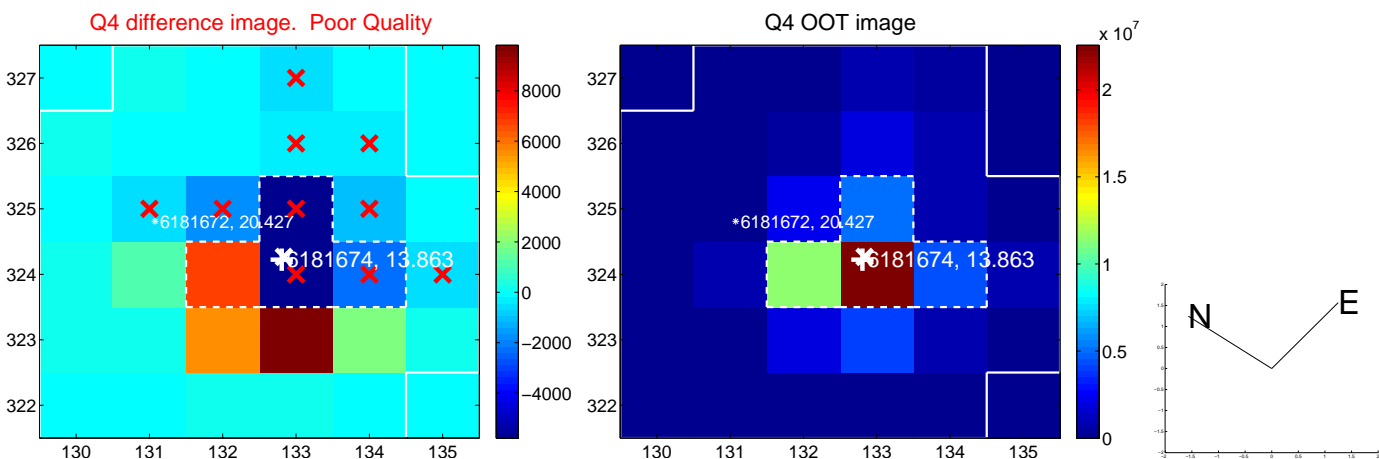
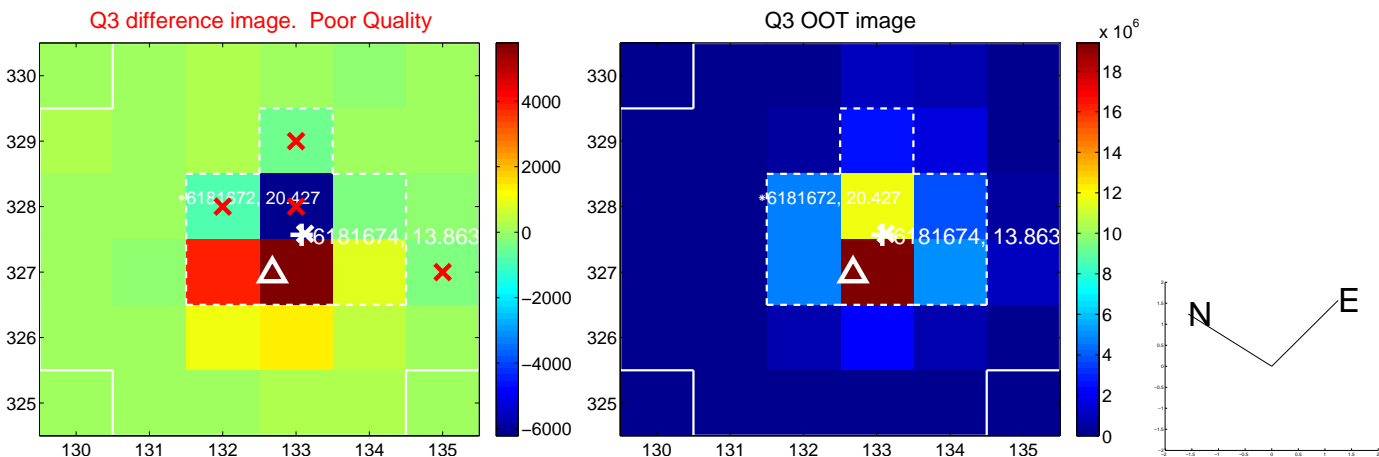
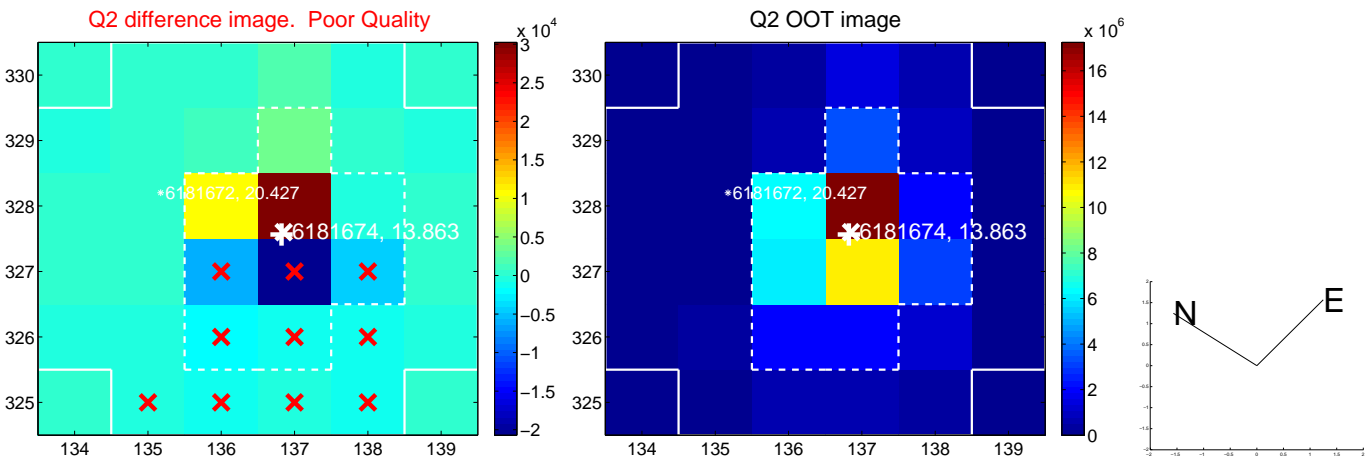
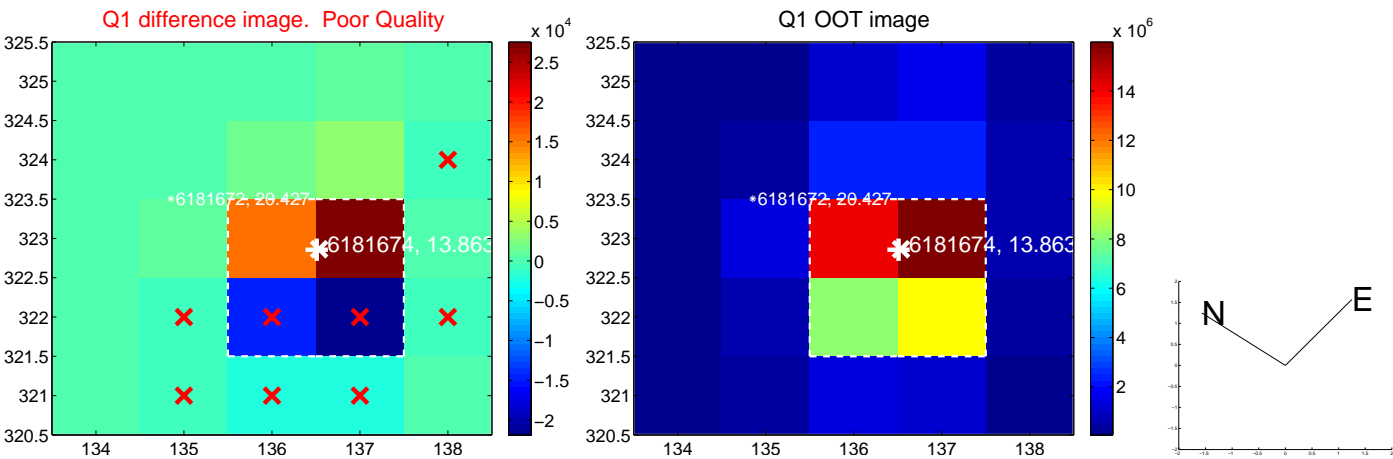


offset from photometric centroids

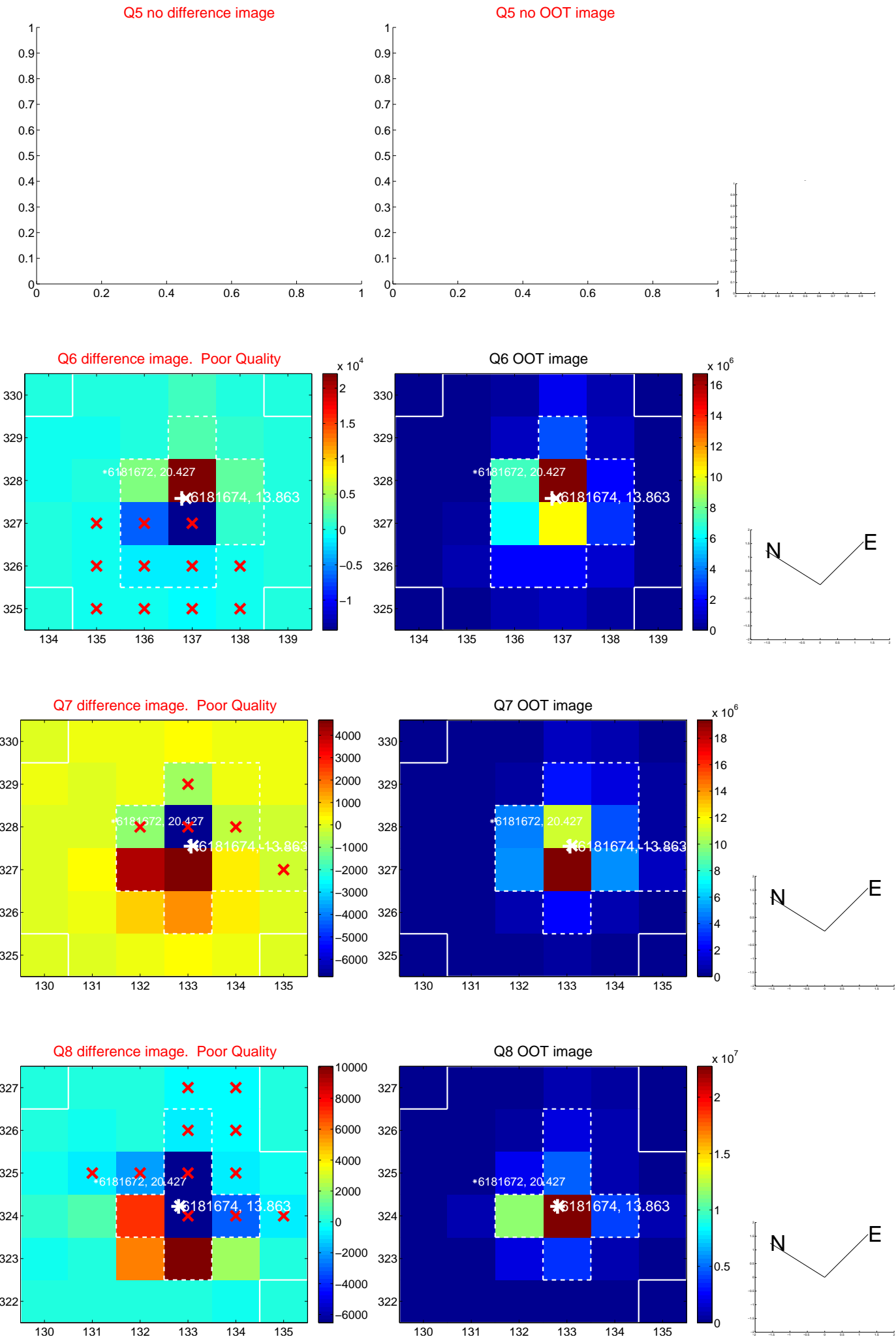


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

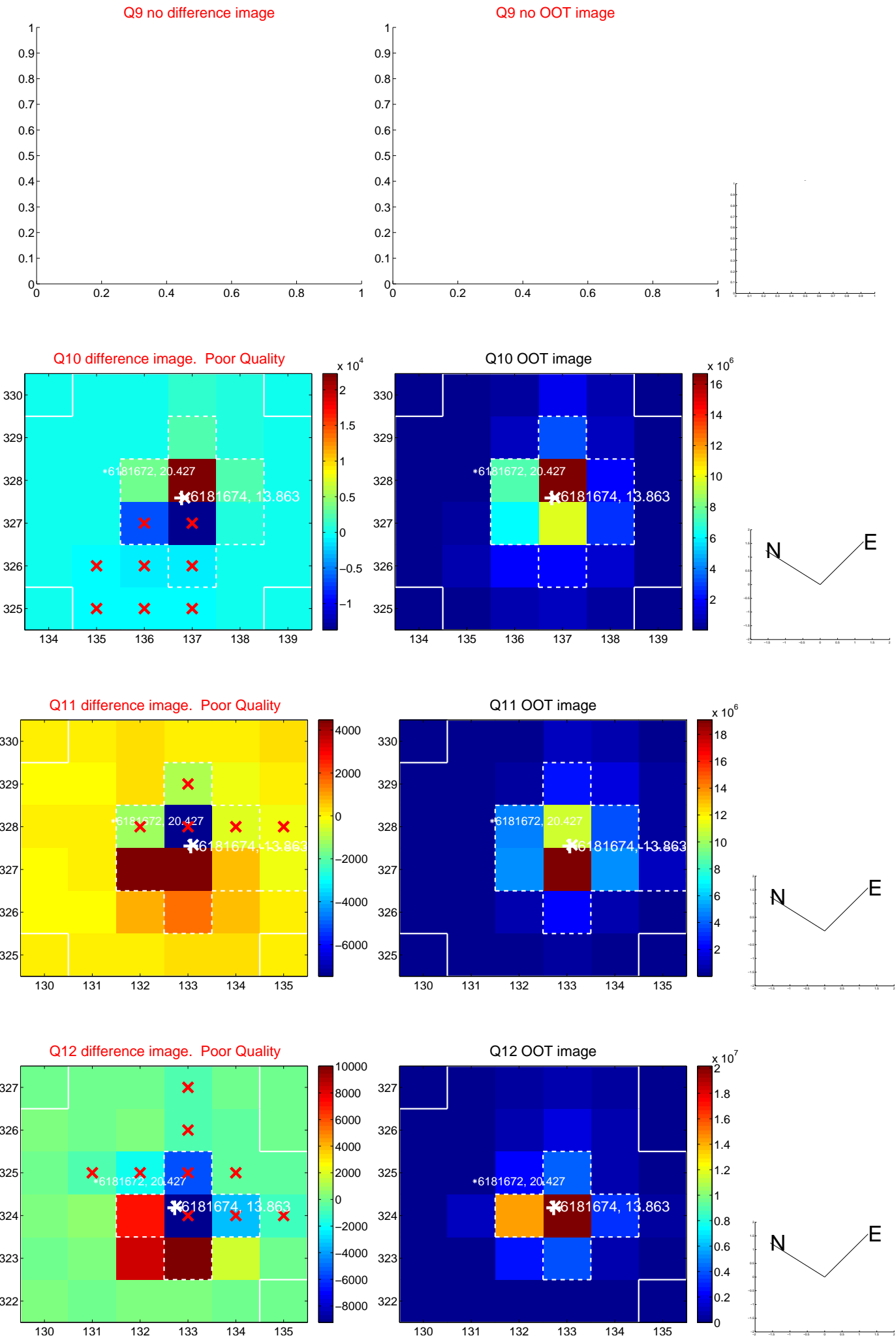
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



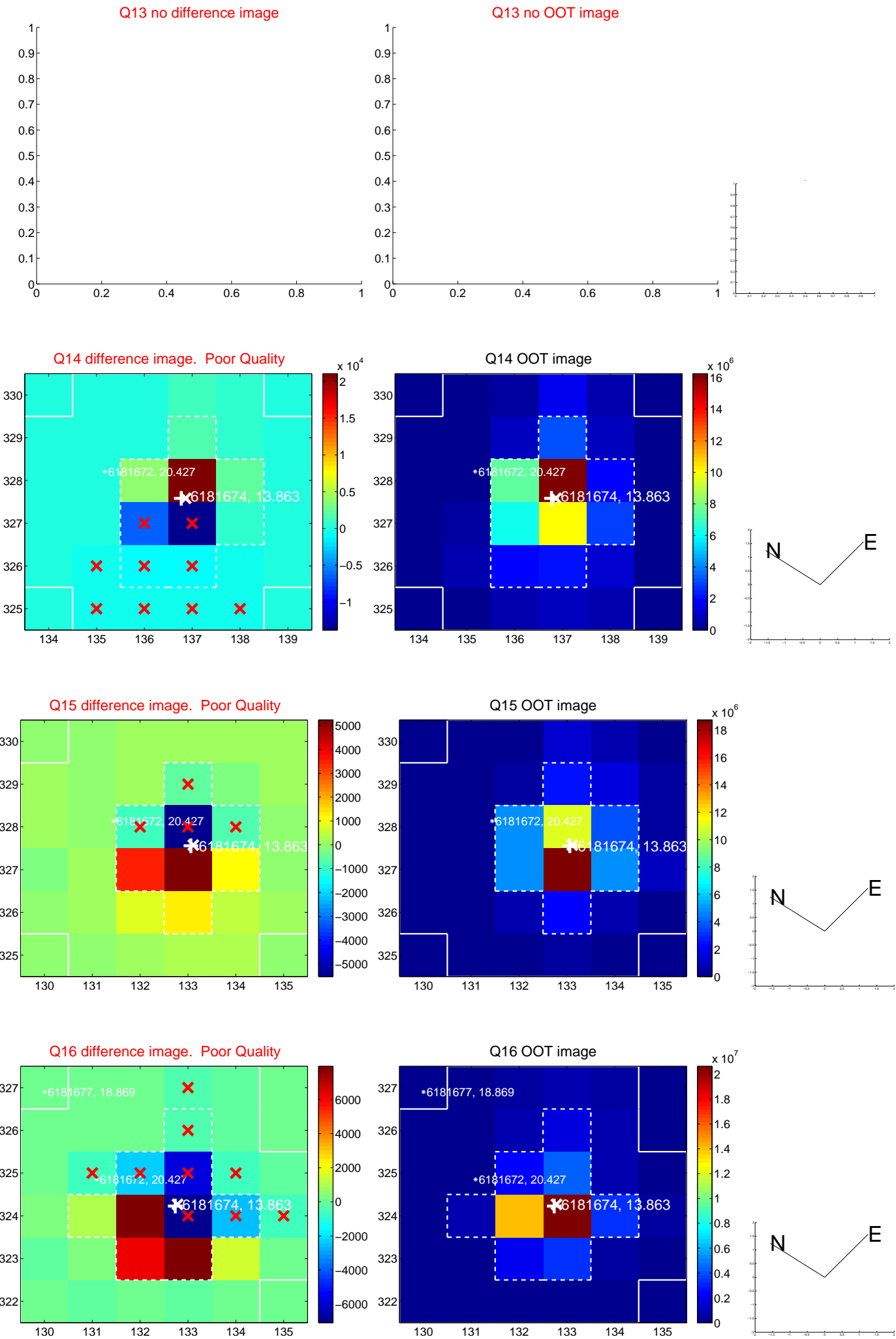
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



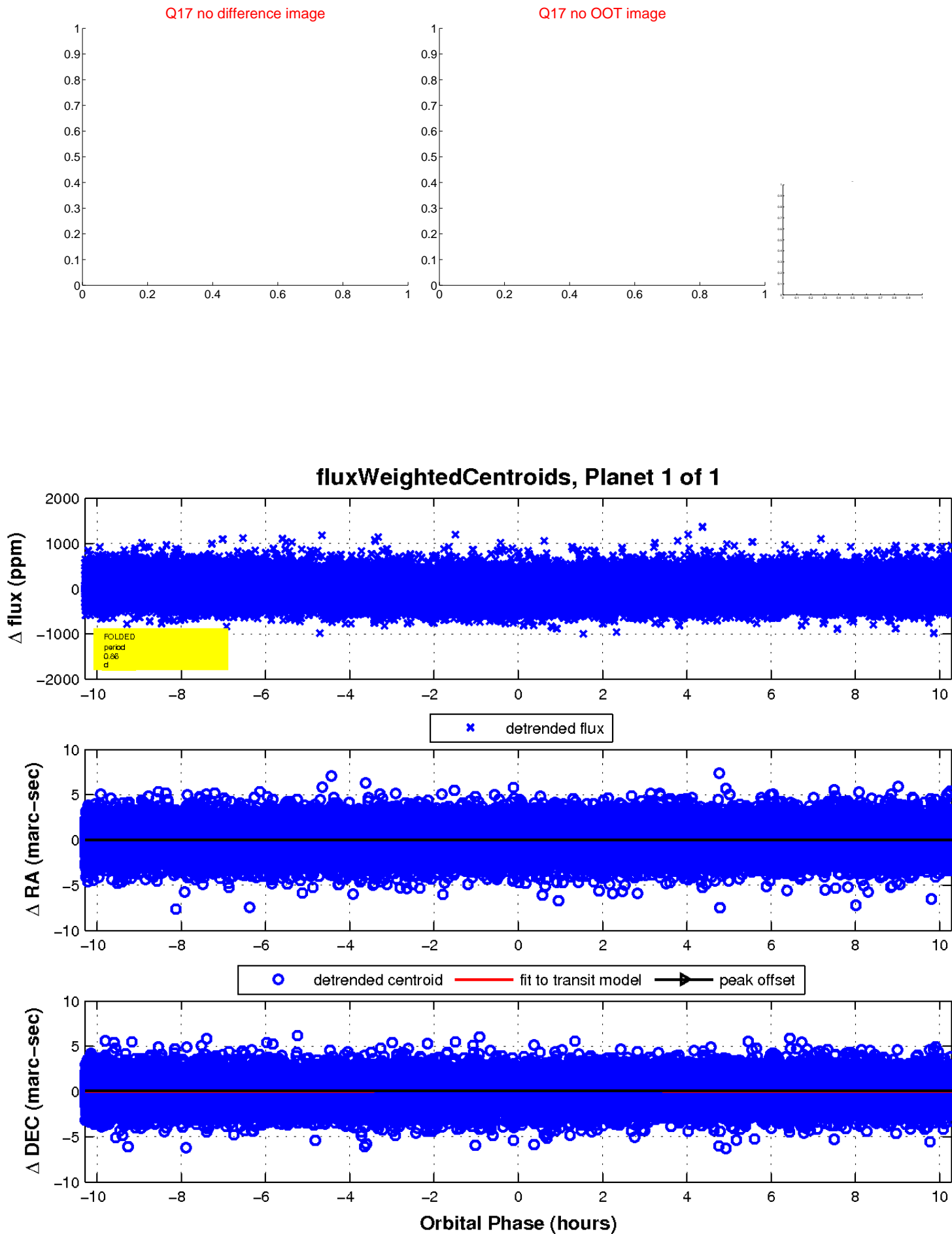
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

