

KIC 003003224

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})
003003224-01	OBS	No	0.801669	131.839119	236.4	2.500	7.8	-1.0	2.31	8027	3.60	44876.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003003224-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

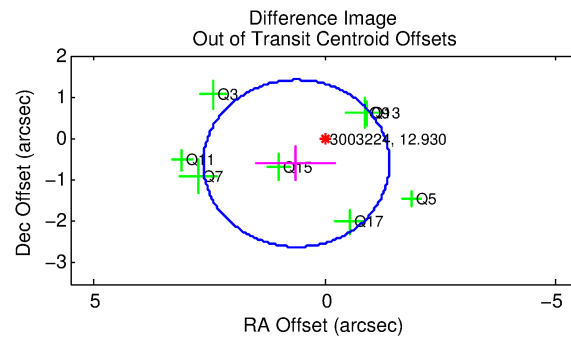
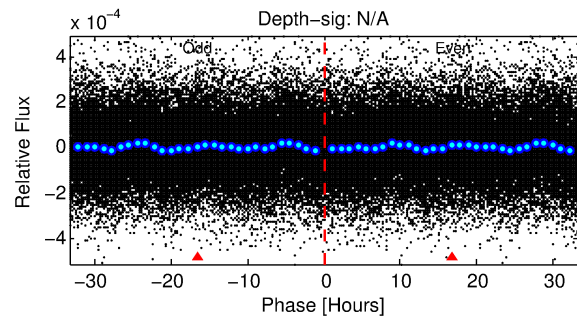
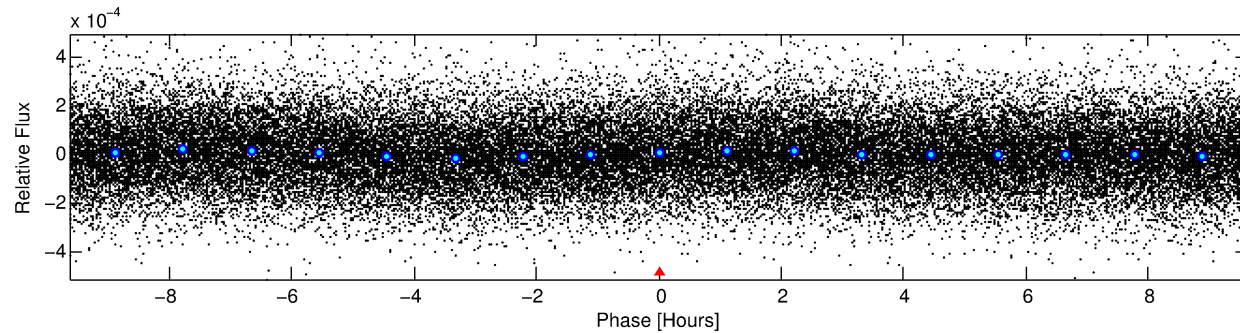
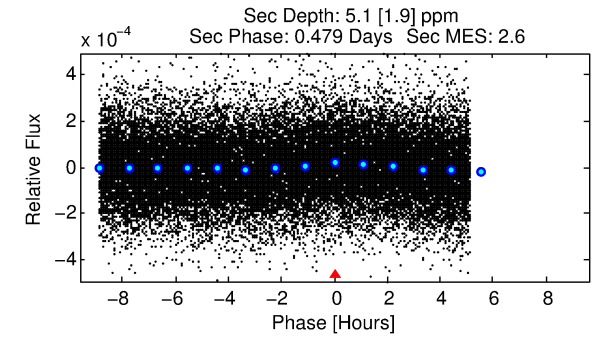
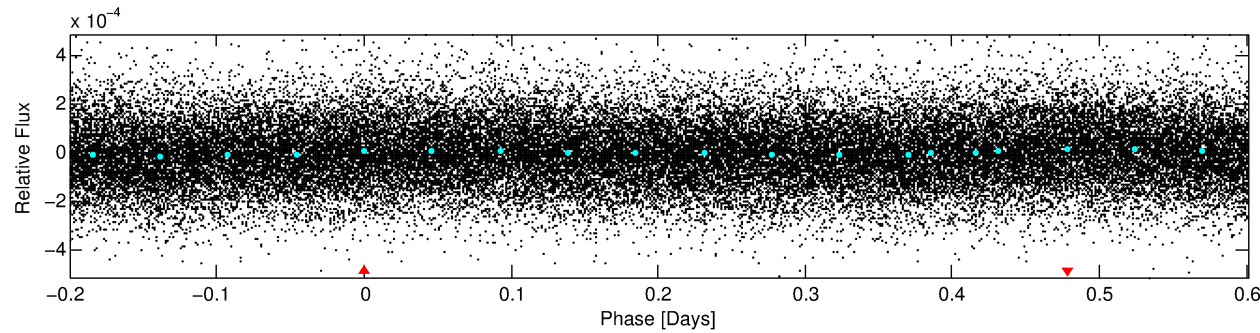
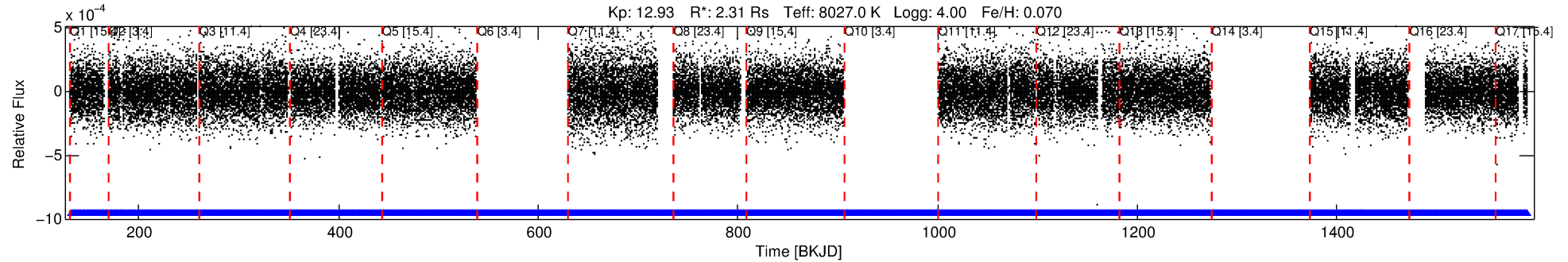
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003003224-01

No Significant Match Found

DV One-Page Summary

KIC: 3003224 Candidate: 1 of 1 Period: 0.802 d



TPS TCE Results:

Period = 0.80167 d
Epoch = 131.8391 BKJD

DV fit results are unavailable

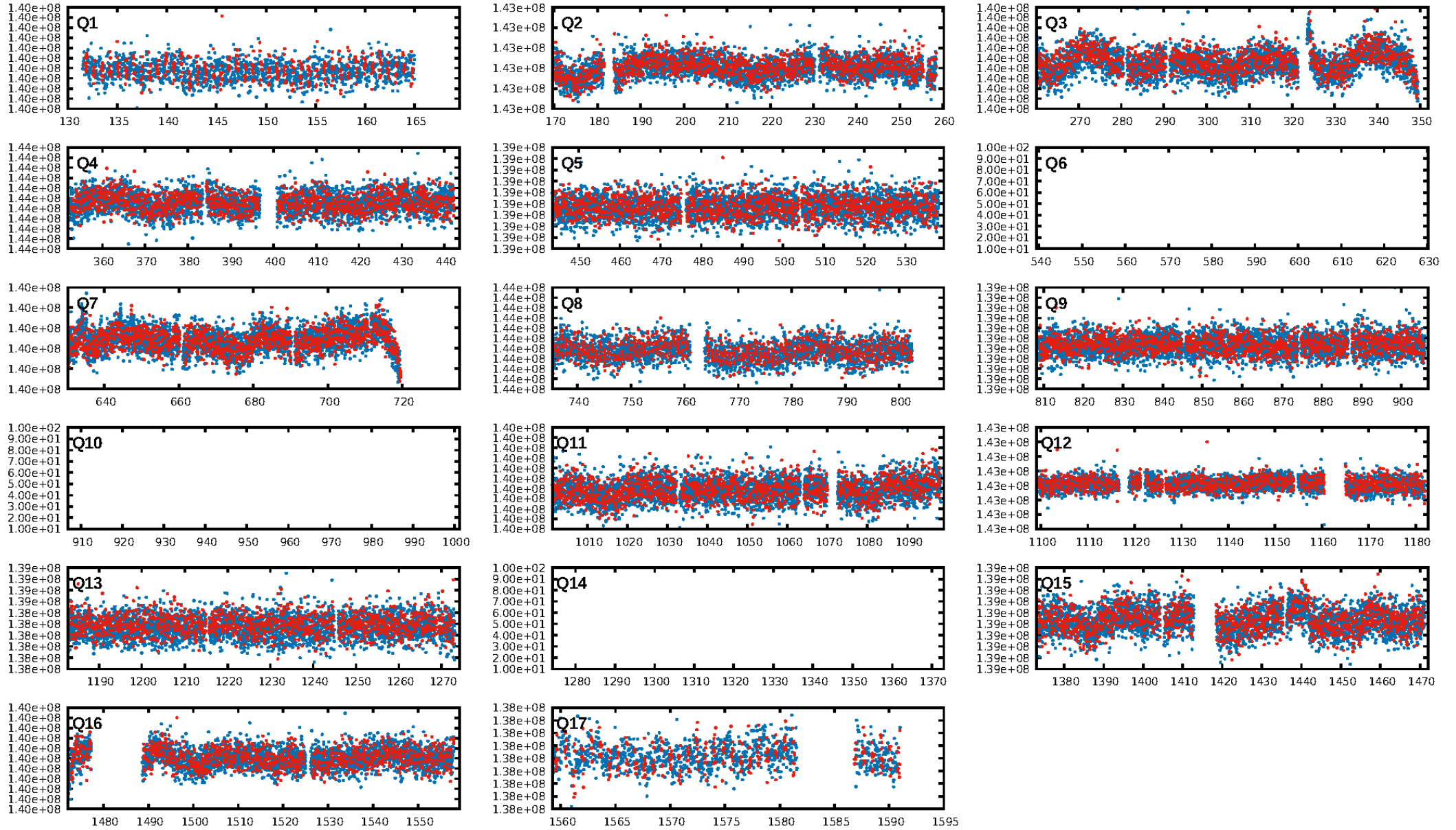
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.84e-14
RollingBand-fgt: 1.00 [1269/1269]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.855 arcsec [1.28σ]
KicOffset-rm: 0.928 arcsec [1.35σ]
OotOffset-st: 0/4/0/4 [8]
KicOffset-st: 0/4/0/4 [8]
DiffImageQuality-fgm: 0.88 [7/8]
DiffImageOverlap-fno: 1.00 [14/14]

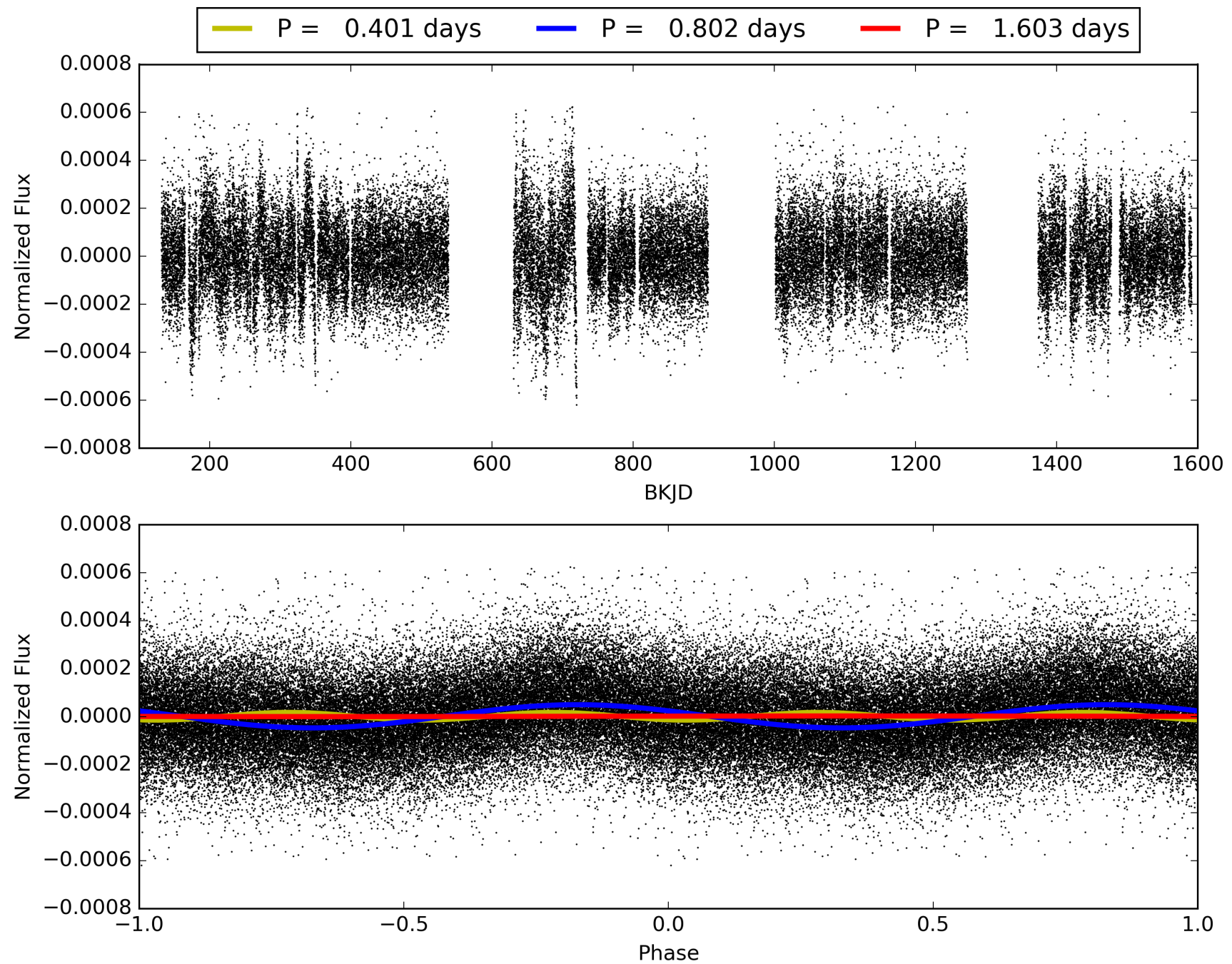
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:54:10 Z

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

TCE 003003224-01, PDC Light Curves

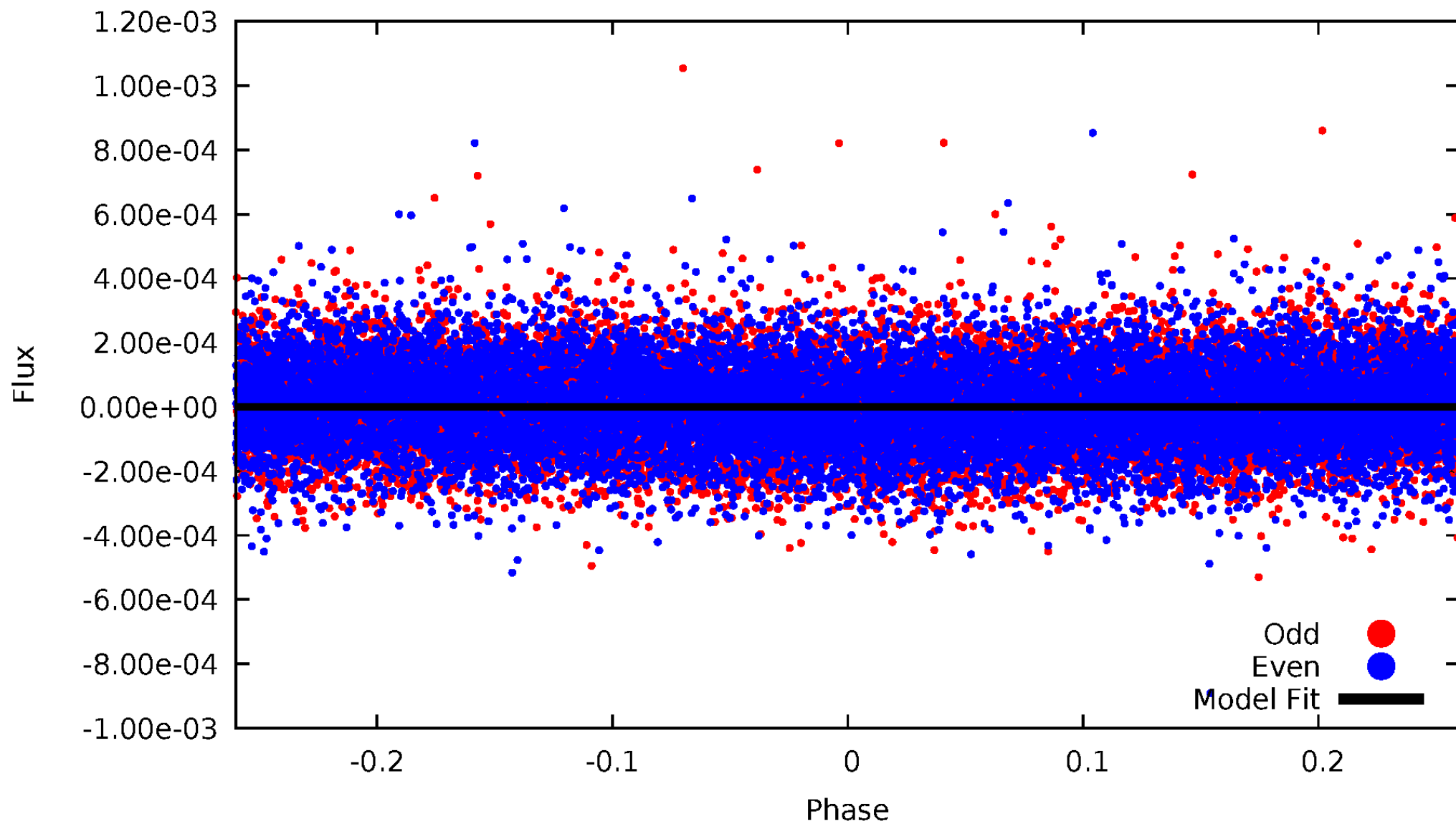


TCE 003003224-01



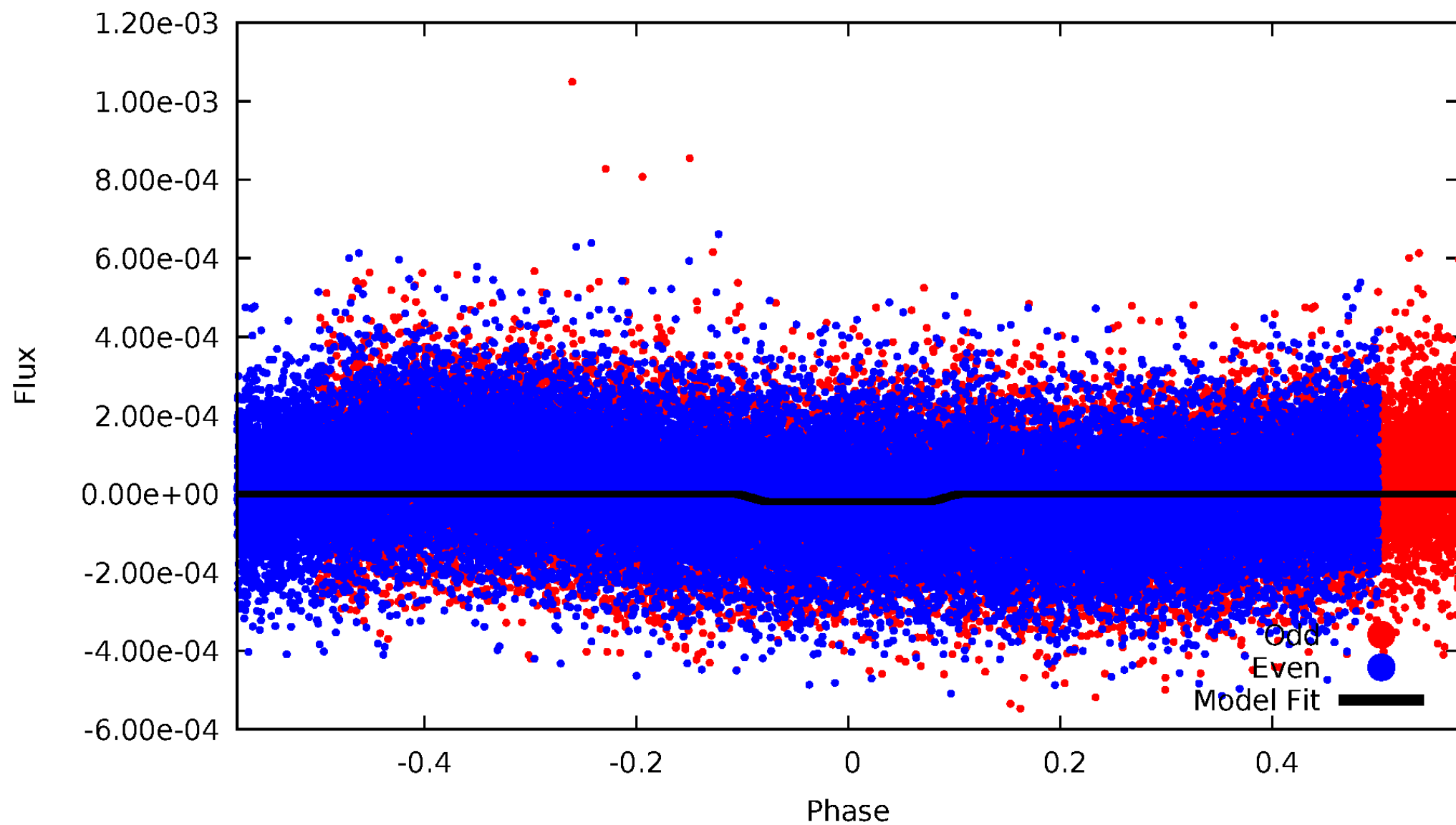
DV Odd/Even

TCE 003003224-01



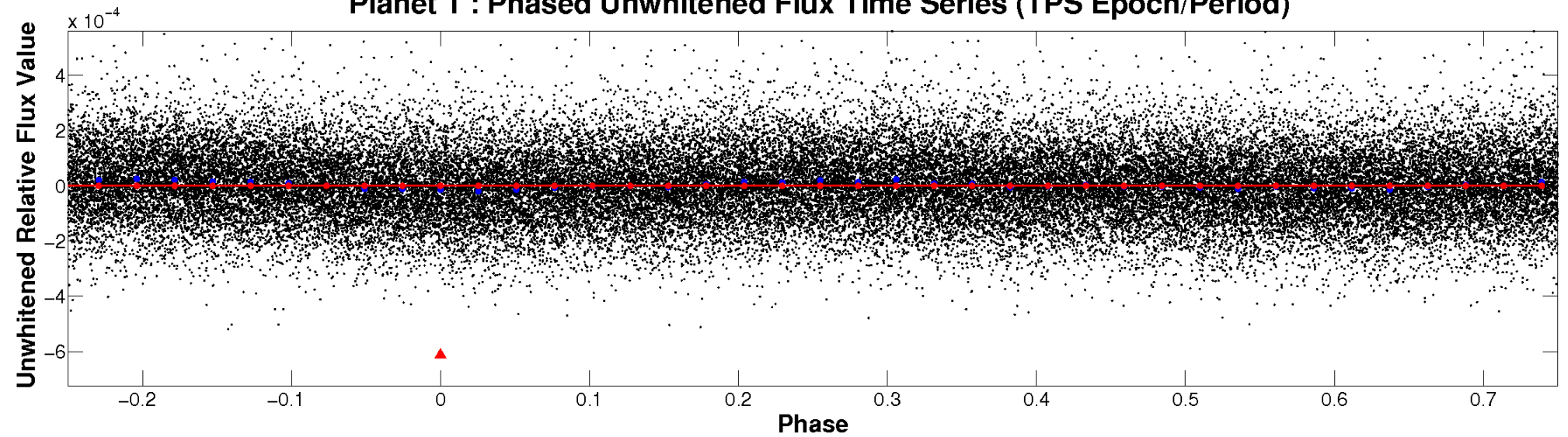
ALT Odd/Even

TCE 003003224-01



Non-Whitened Vs. Whitened Light Curve

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

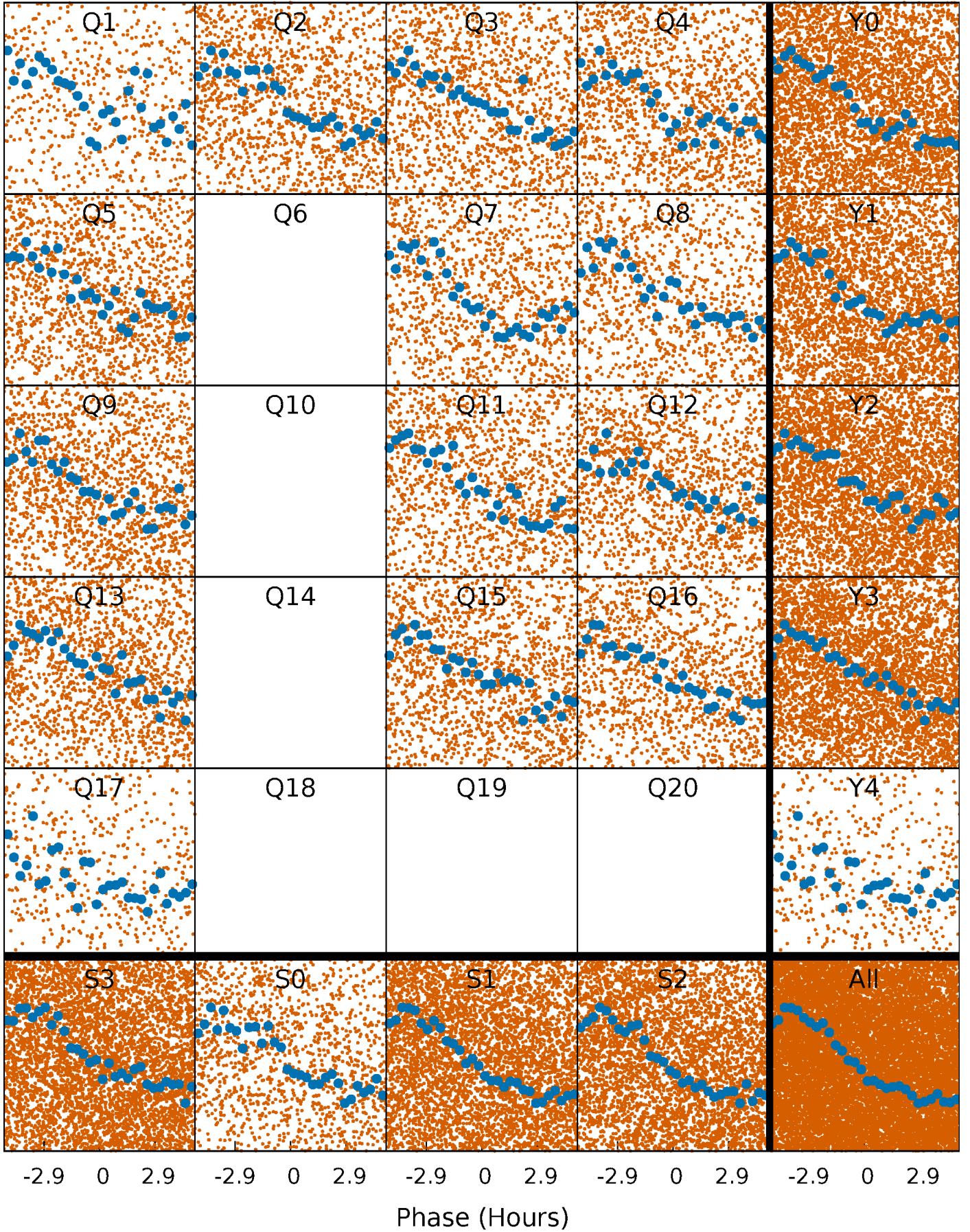


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



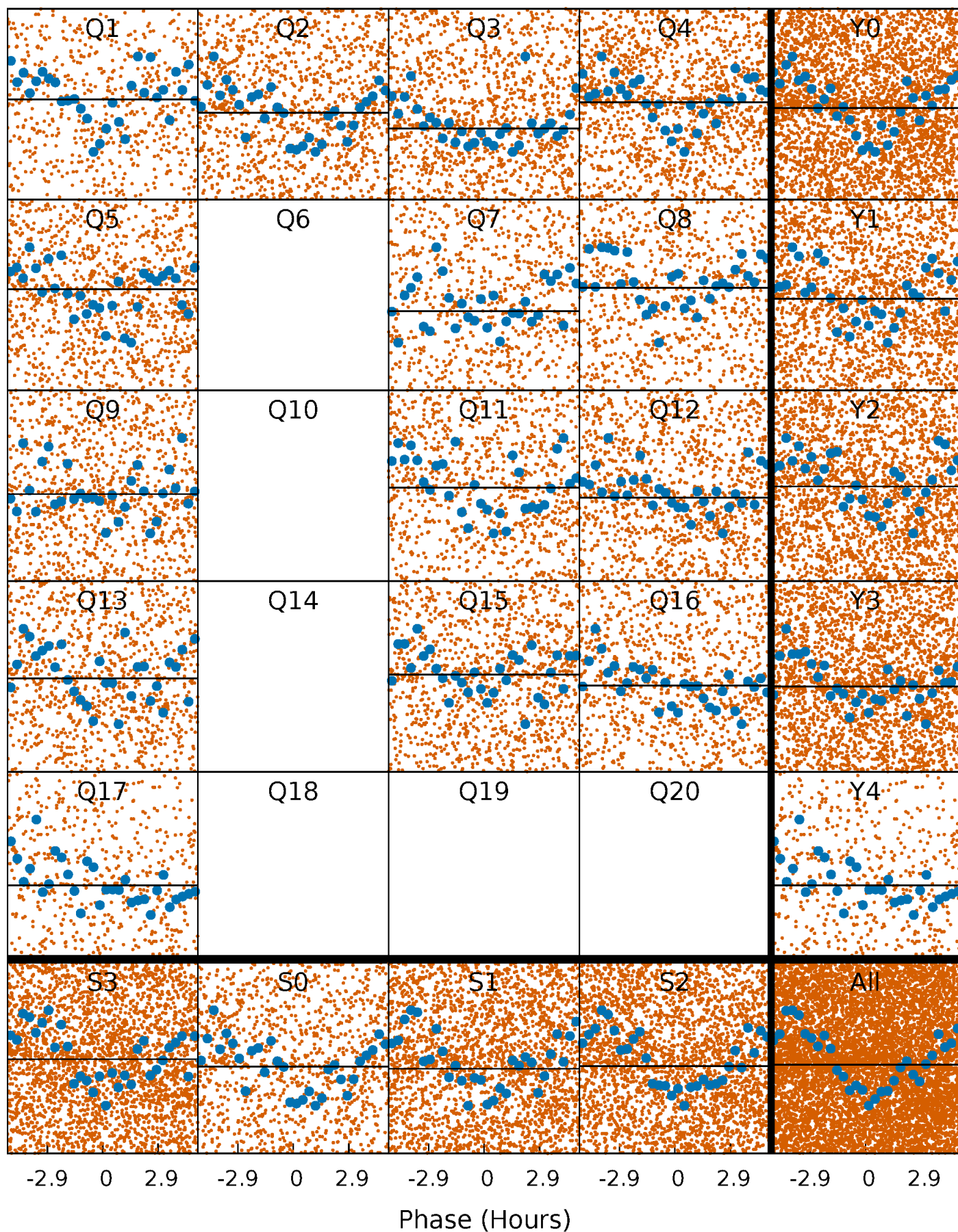
PDC Quarter-Phased Transit Curves

TCE 003003224-01 P= 0.801669 Days $T_0=131.839119$ (BKJD)



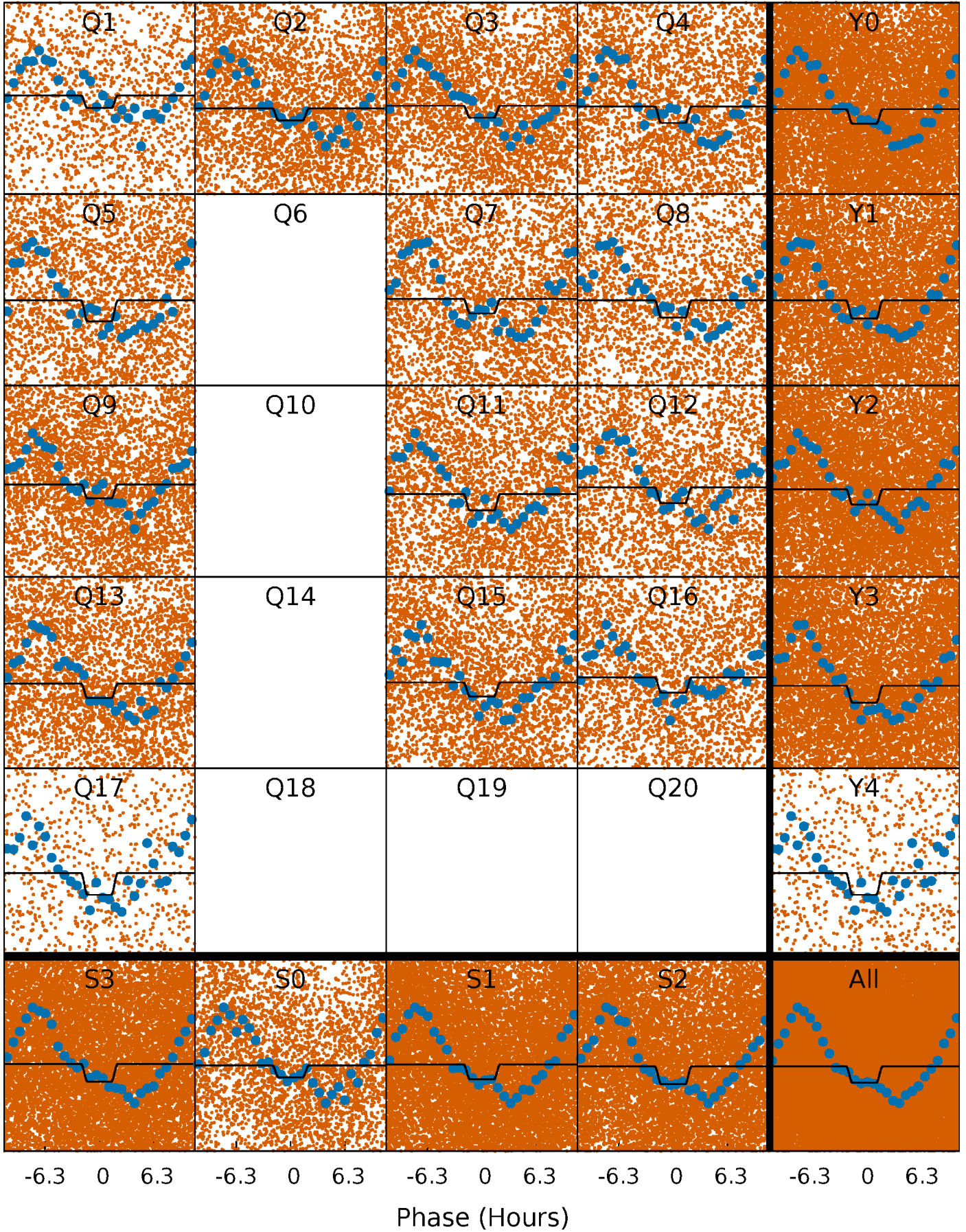
DV Quarter-Phased Transit Curves

TCE 003003224-01 P= 0.801669 Days $T_0=131.839119$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

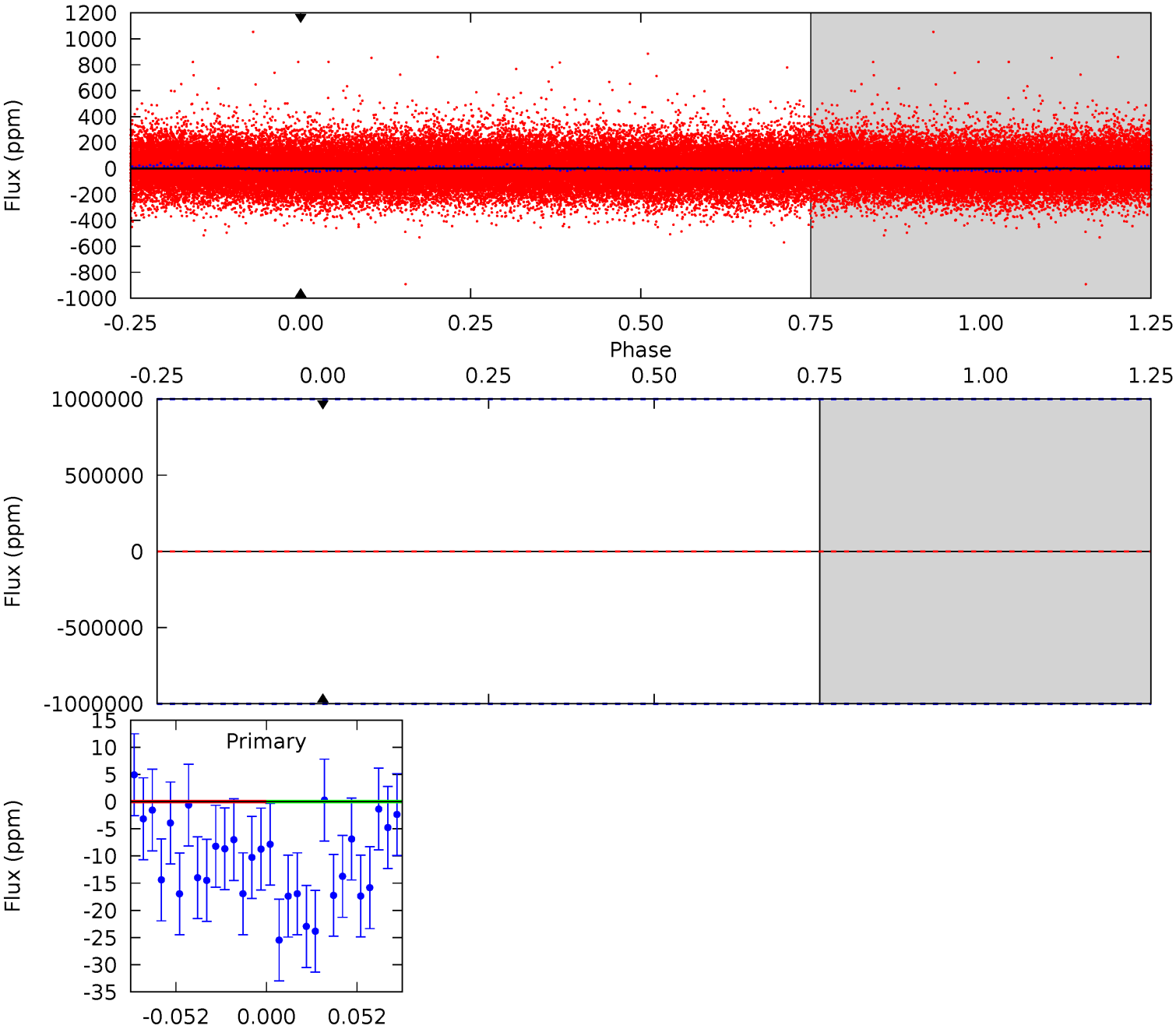
TCE 003003224-01 P= 0.801669 Days $T_0=131.991888$ (BKJD)



DV Model-Shift Uniqueness Test

003003224-01, P = 0.801669 Days, E = 131.037450 Days

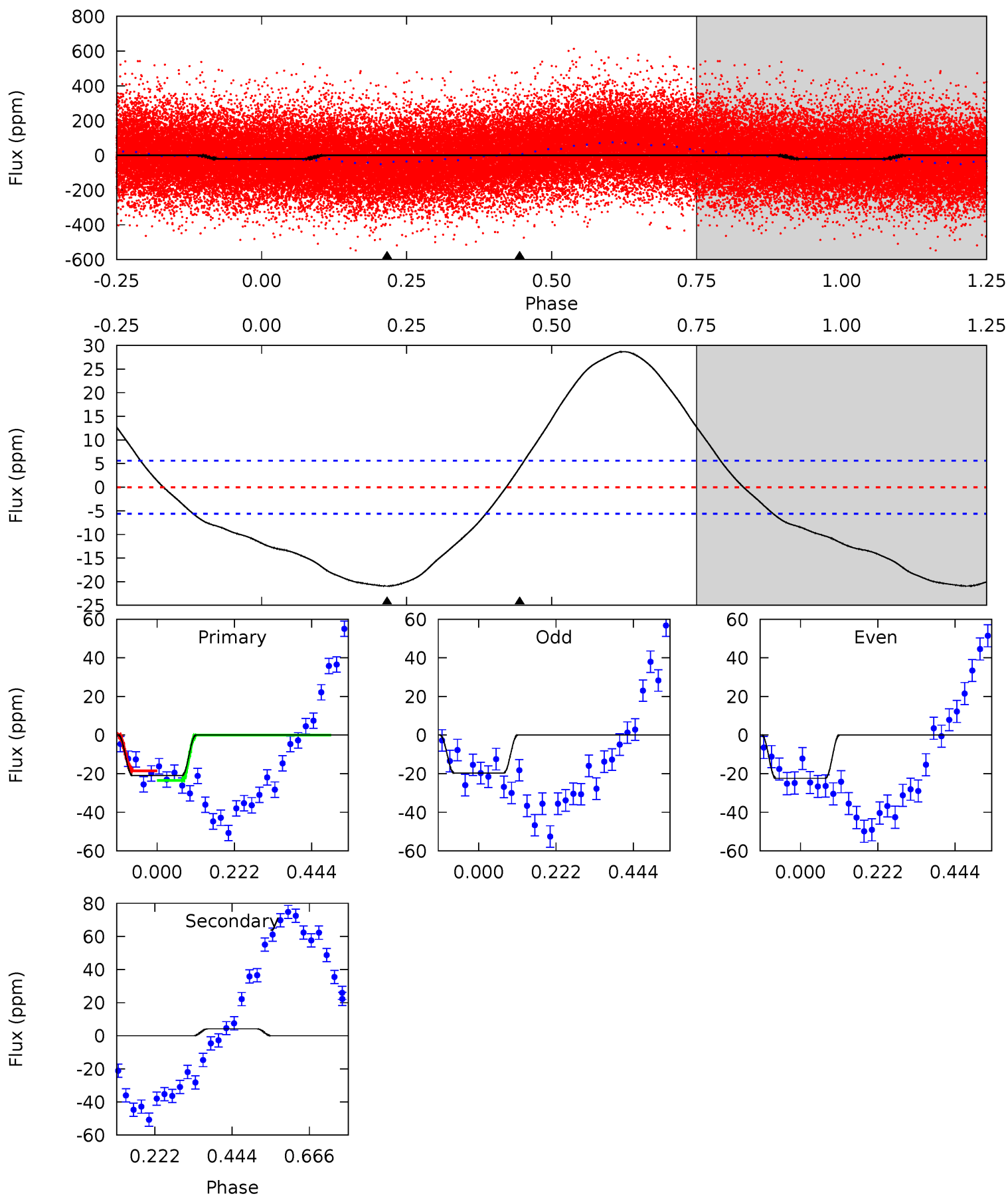
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

003003224-01, P = 0.801669 Days, E = 131.190219 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	-3.23	0	0	4.39	1.22	9.12	16.4	16.4	-3.23	-3.23	1.08	0.96	0.58	1.94



Stellar Parameters For KIC 003003224

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8027^{+88}_{-72}	$3.997^{+0.126}_{-0.073}$	$0.070^{+0.150}_{-0.250}$	$2.314^{+0.228}_{-0.423}$	$1.940^{+0.163}_{-0.217}$	$0.220^{+0.152}_{-0.051}$
	+1%/-1%	+3%/-2%	+214%/-357%	+10%/-18%	+8%/-11%	+69%/-23%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 003003224-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$18.49^{+19.65}_{-13.10}$	5181^{+163}_{-226}	-6406^{+51061}_{-41782}	$-1.619^{+118.603}_{-137.840}$
Alt.	4 ± 1	$18.30^{+19.39}_{-12.51}$	5185^{+158}_{-204}	-4387^{+127}_{-140}	$-0.003^{+0.002}_{-0.030}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

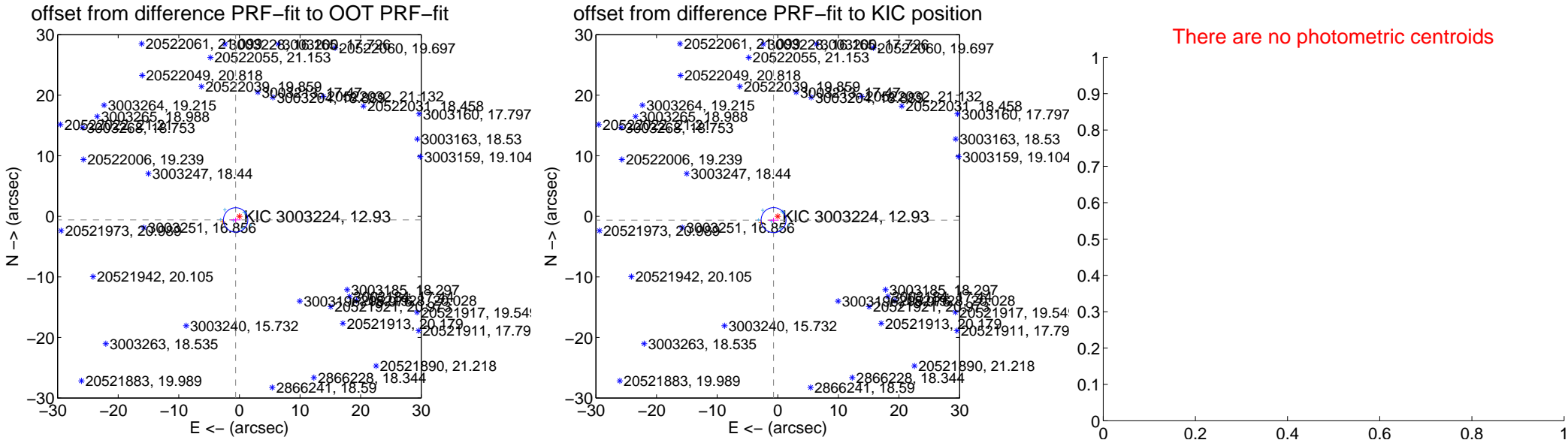
DV Centroid Data

Supplemental centroid analysis for 003003224-01. Kepler magnitude: 12.93. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

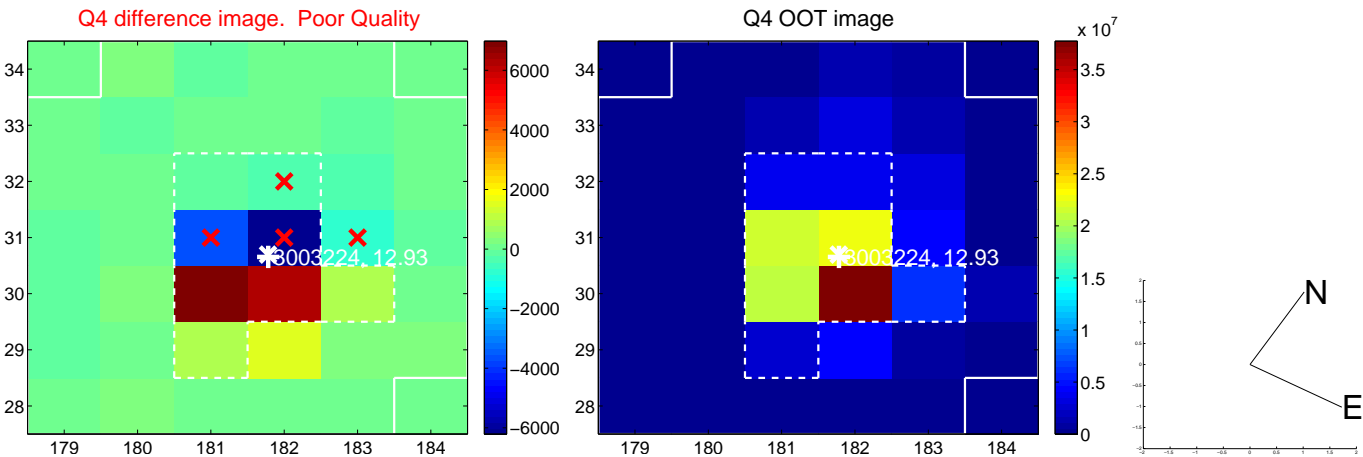
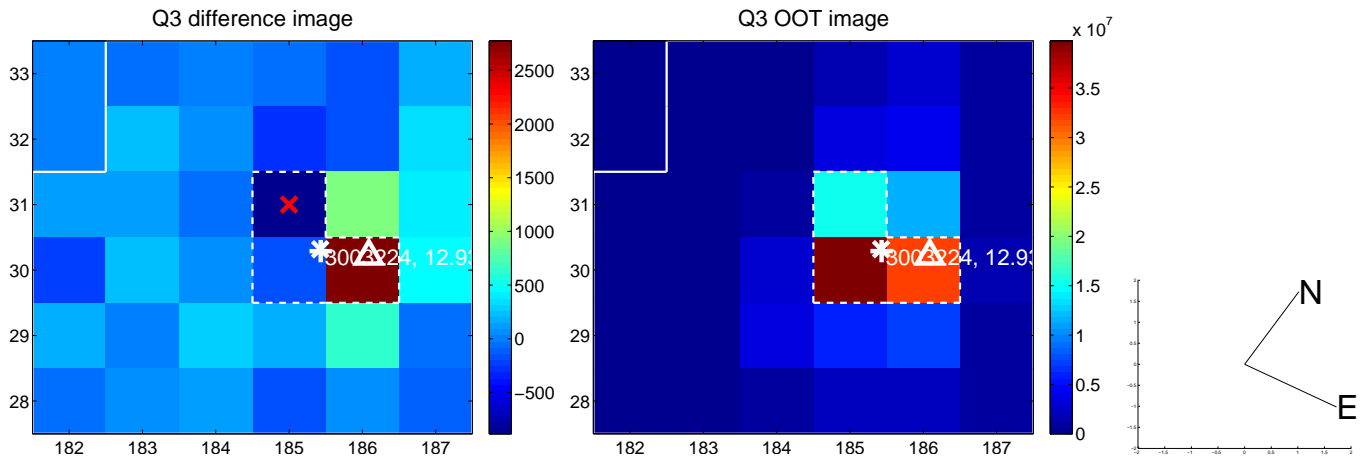
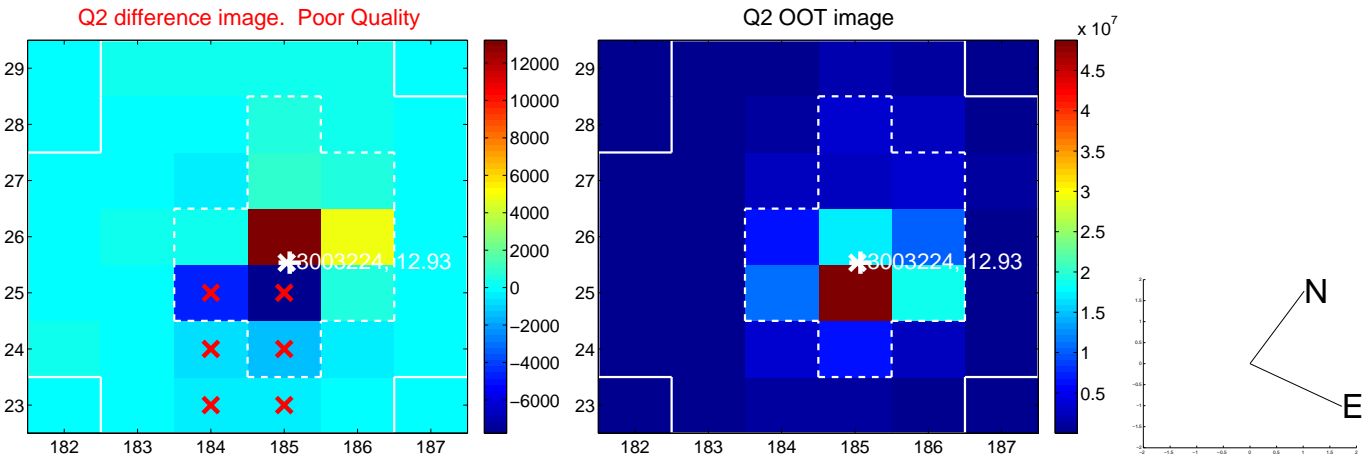
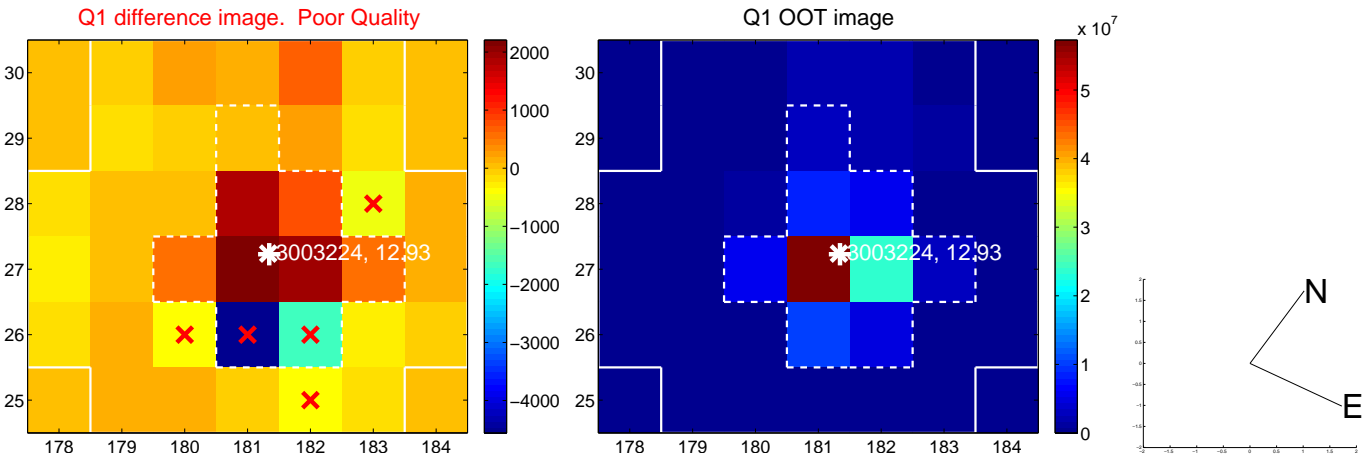
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.855 ± 0.671	1.28	0.613 ± 0.848	-0.596 ± 0.406
PRF-fit source offset from KIC position	0.928 ± 0.686	1.35	0.686 ± 0.850	-0.625 ± 0.408
photometric centroid source offset	—	—	—	—

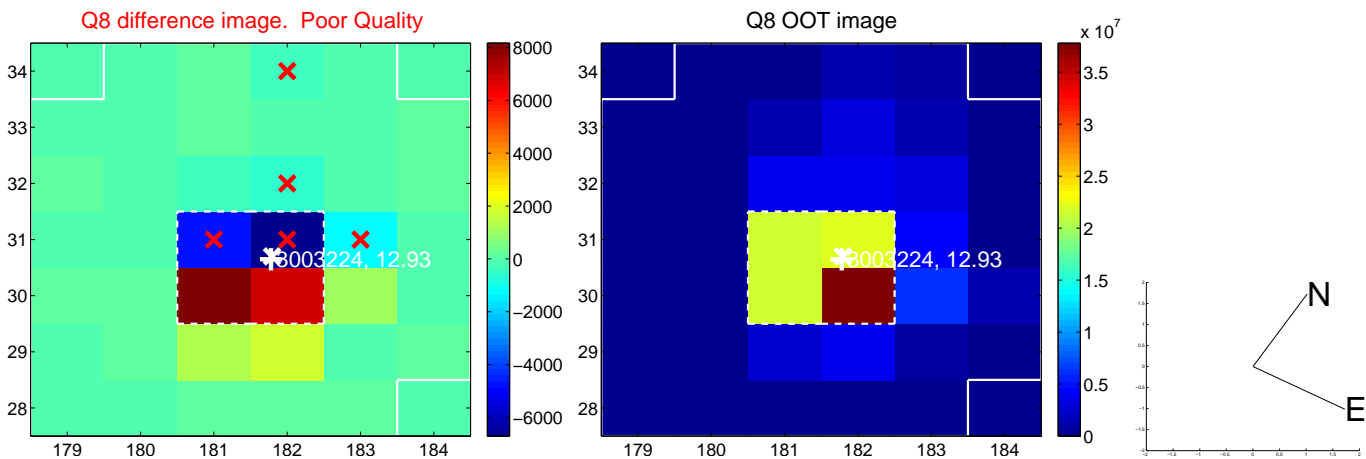
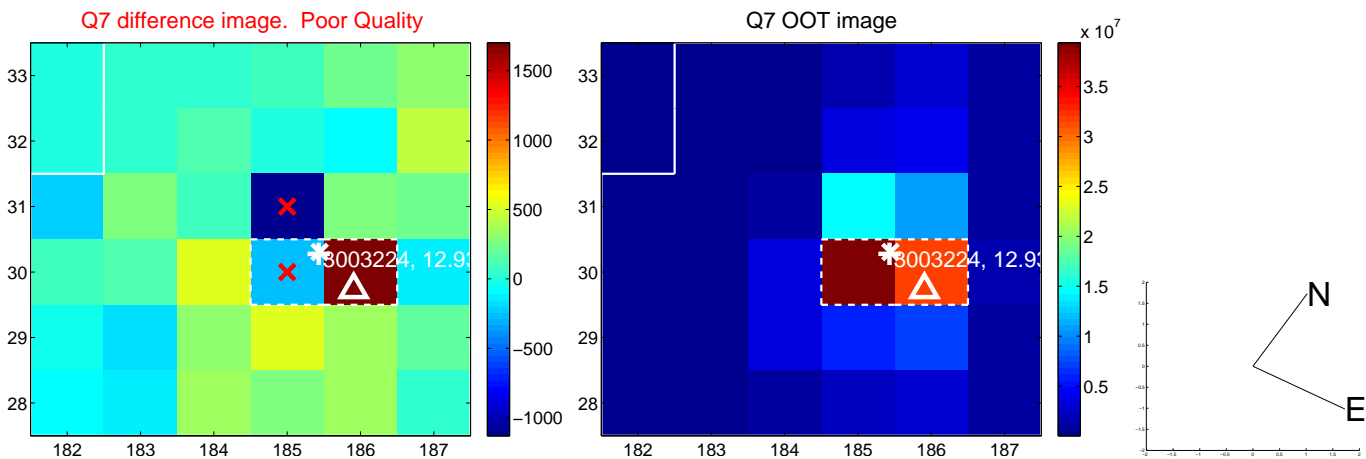
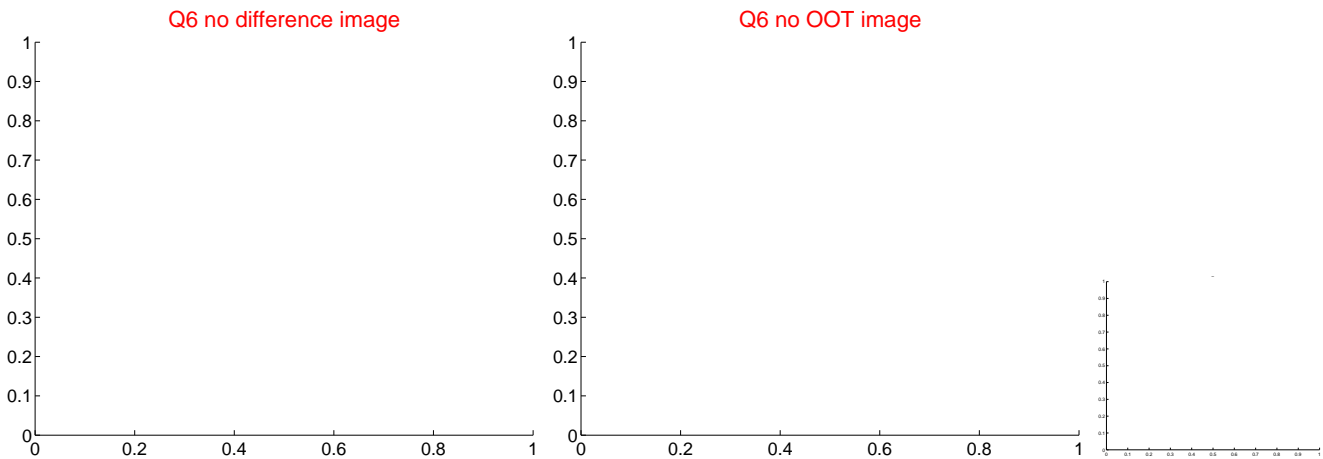
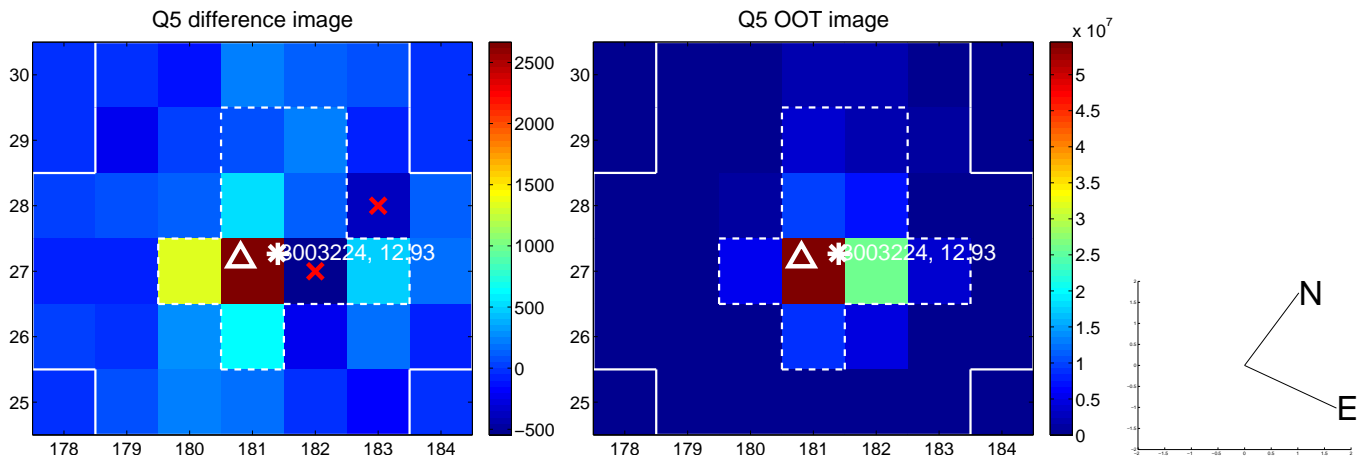


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

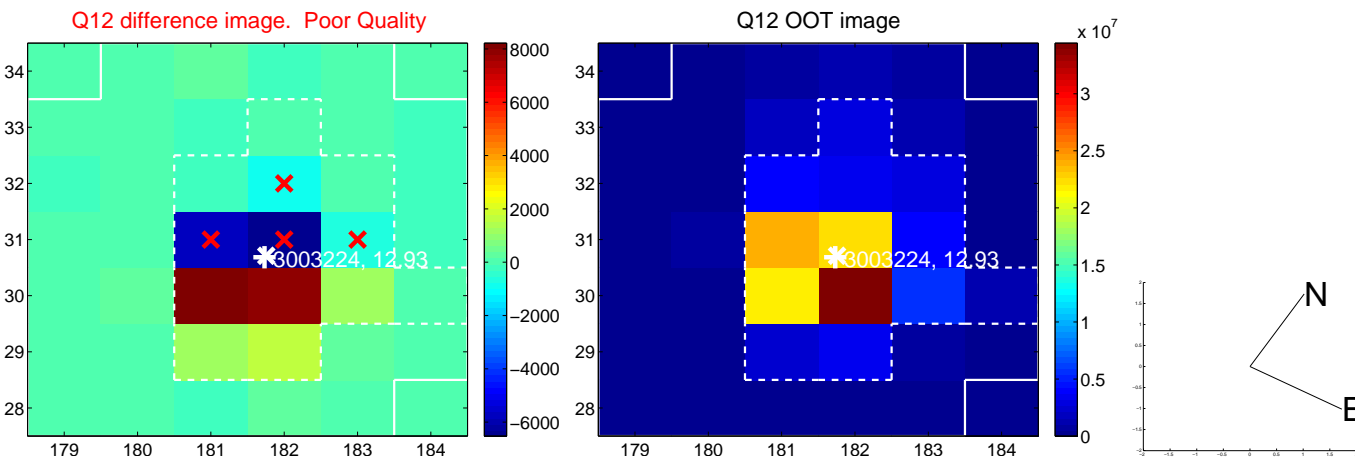
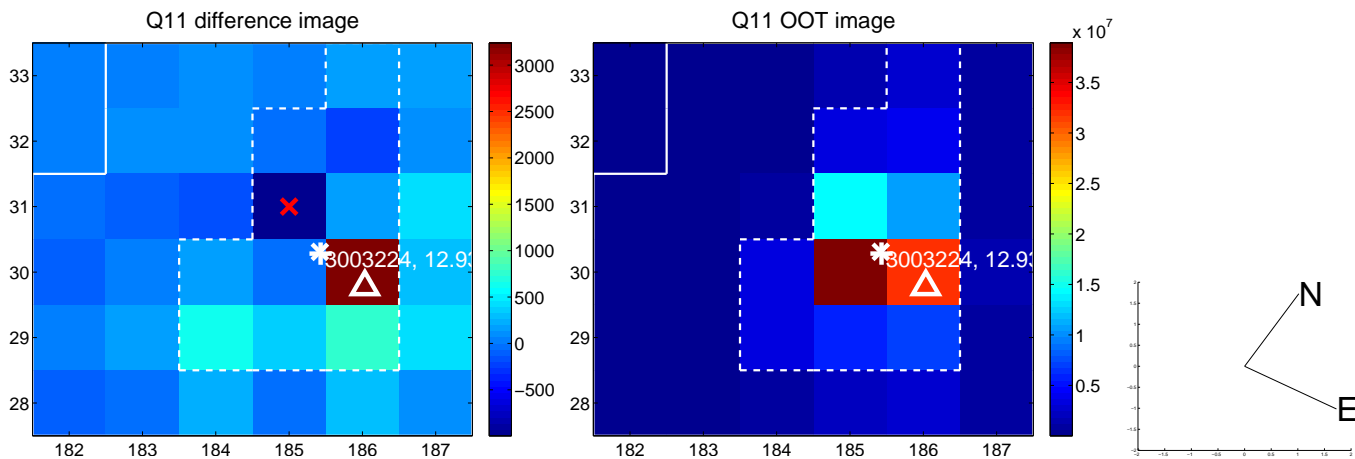
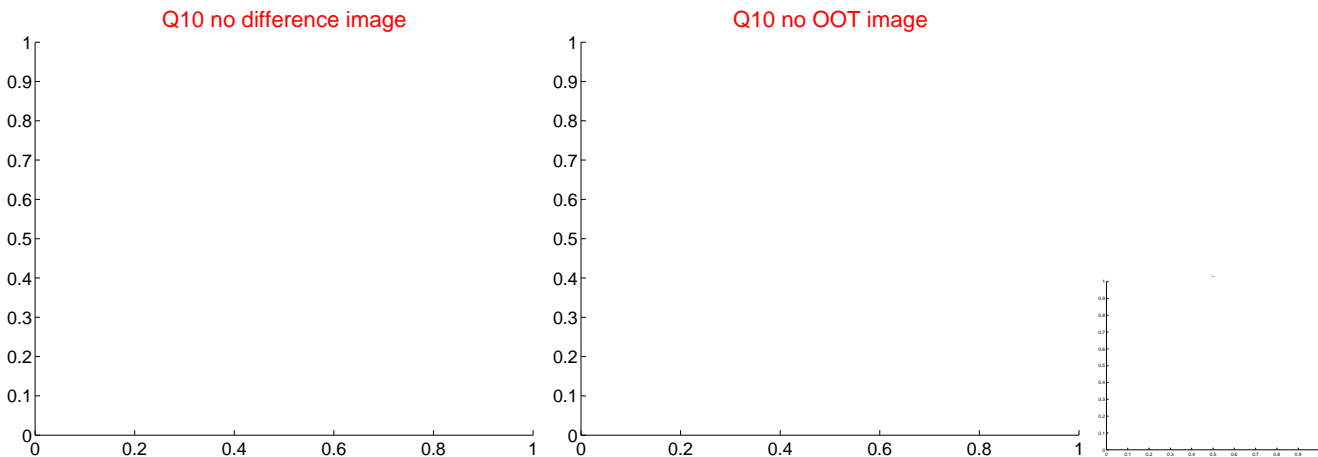
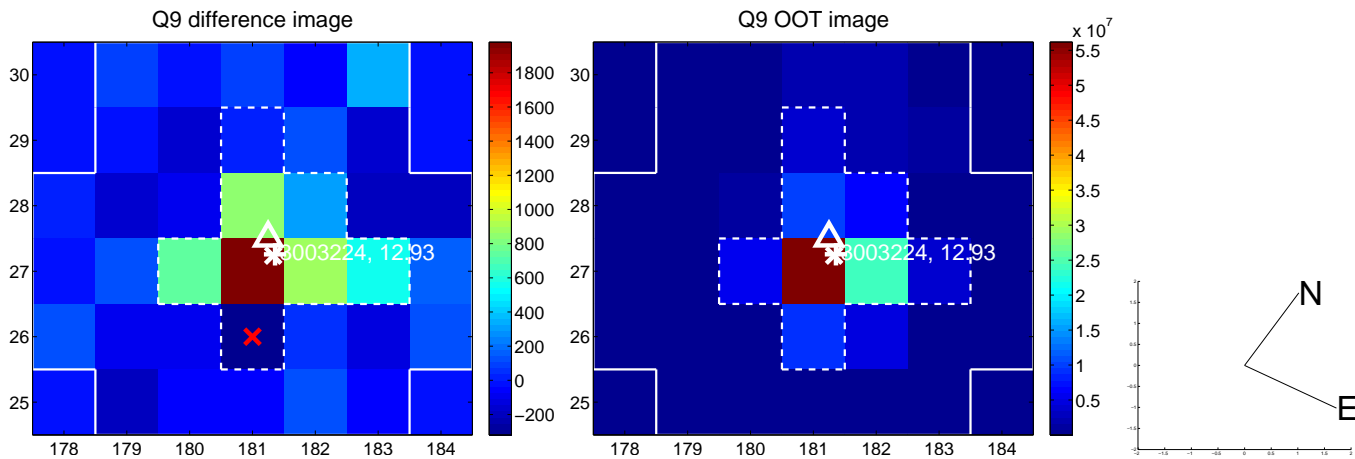
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



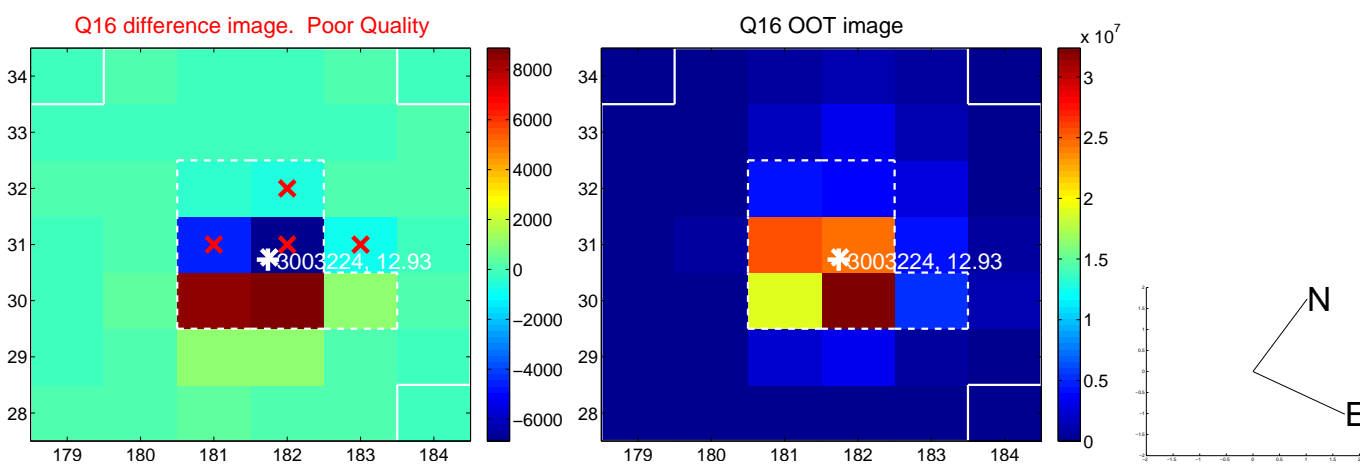
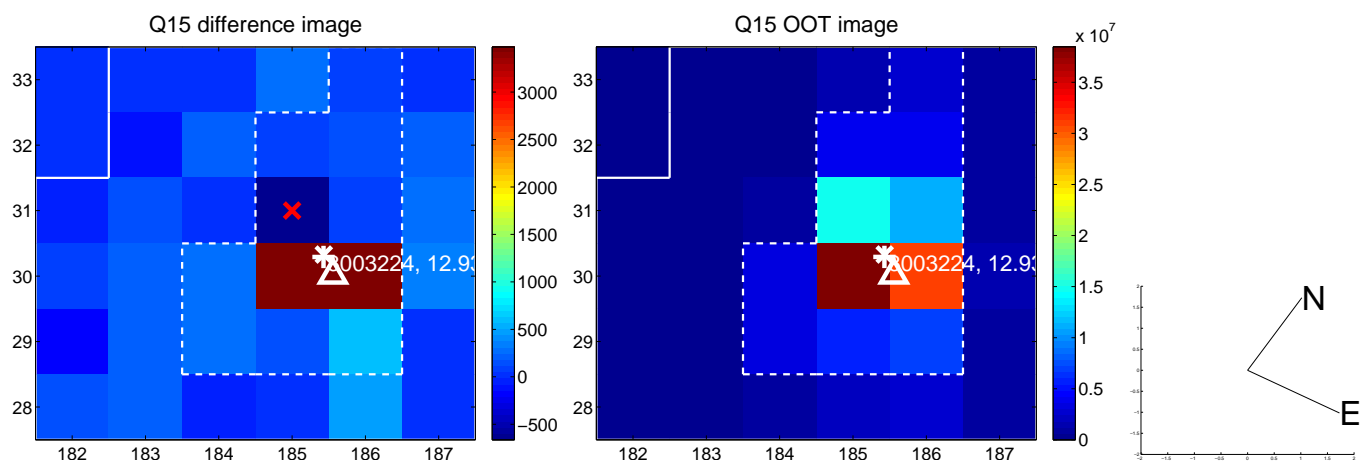
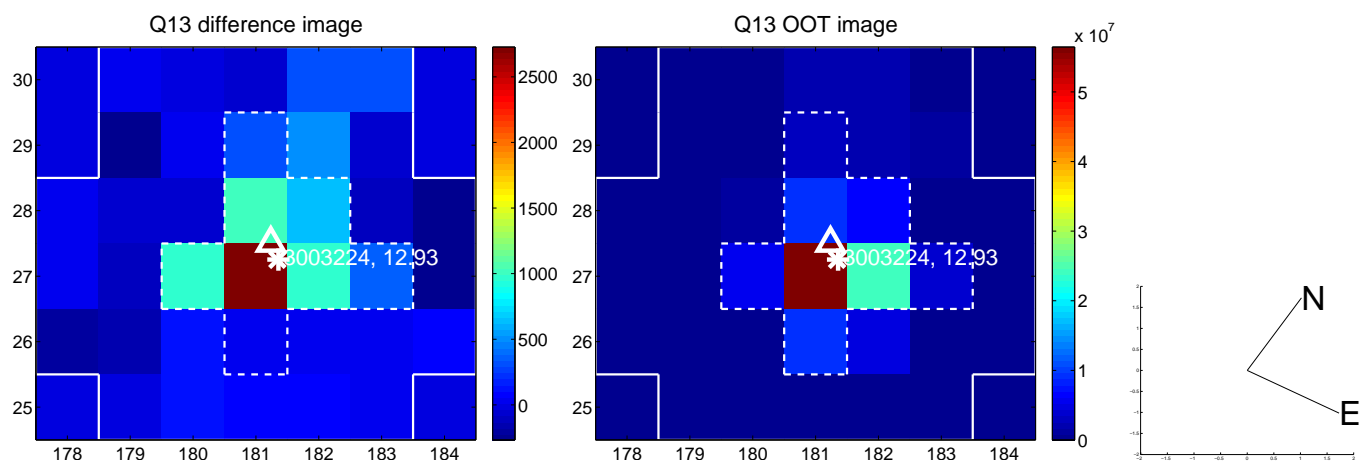
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



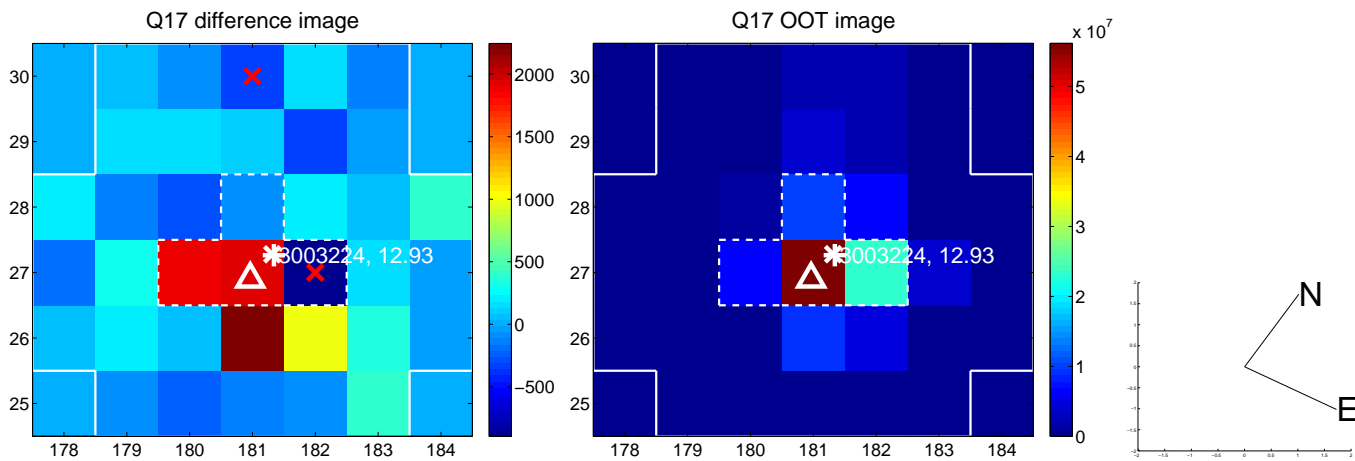
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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folded centroid time series figure for this object.

UKIRT Image

Declination

