

KIC 006046299

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})
006046299-01	OBS	No	2.707879	131.720379	45.8	9.405	7.1	6.6	0.72	5587	0.51	369.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006046299-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

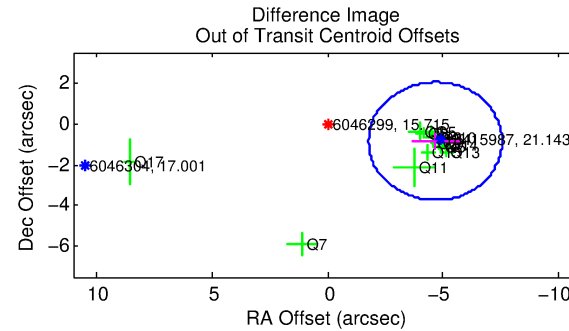
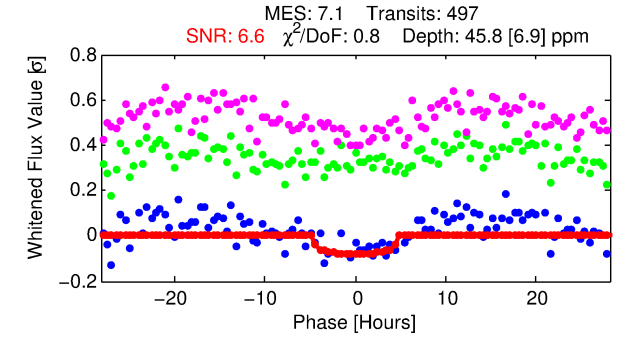
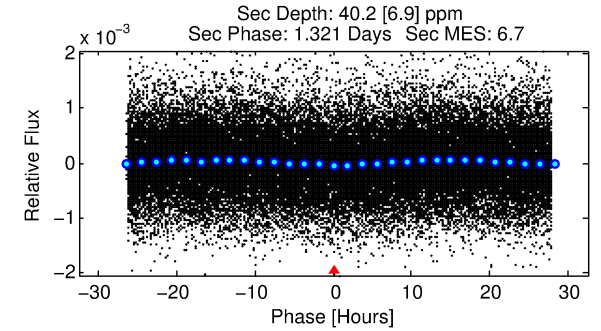
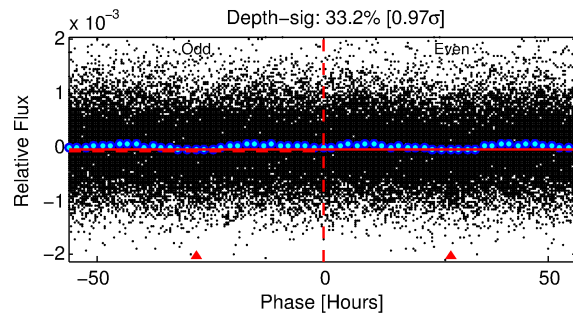
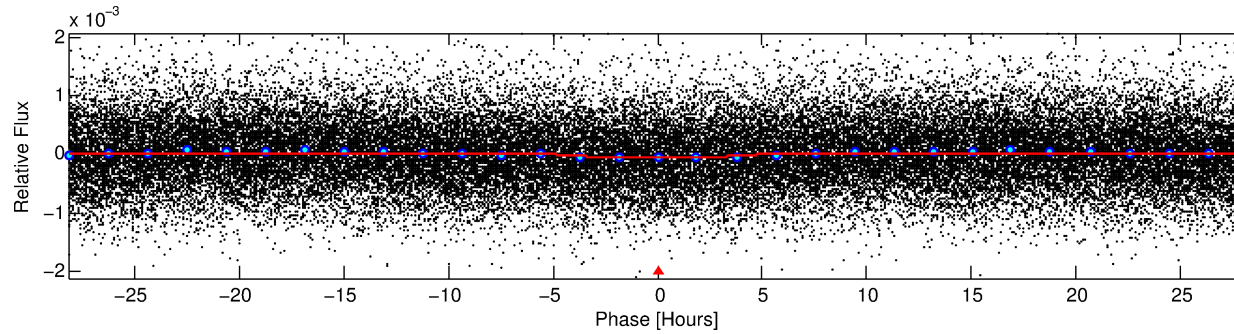
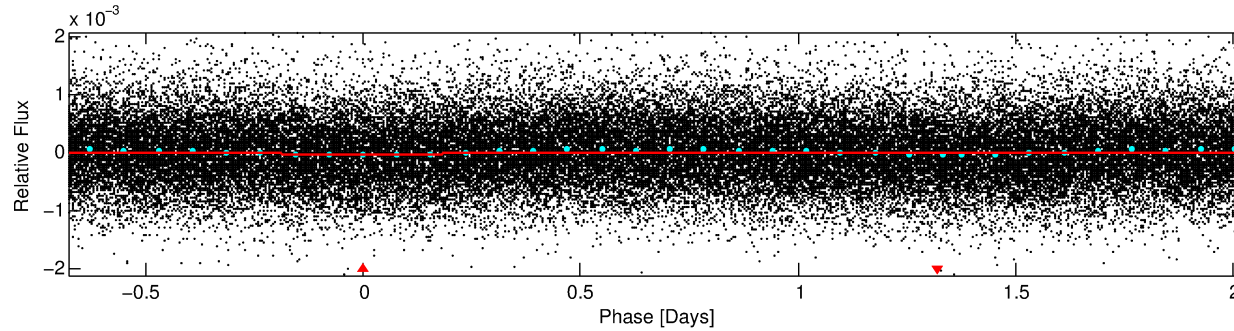
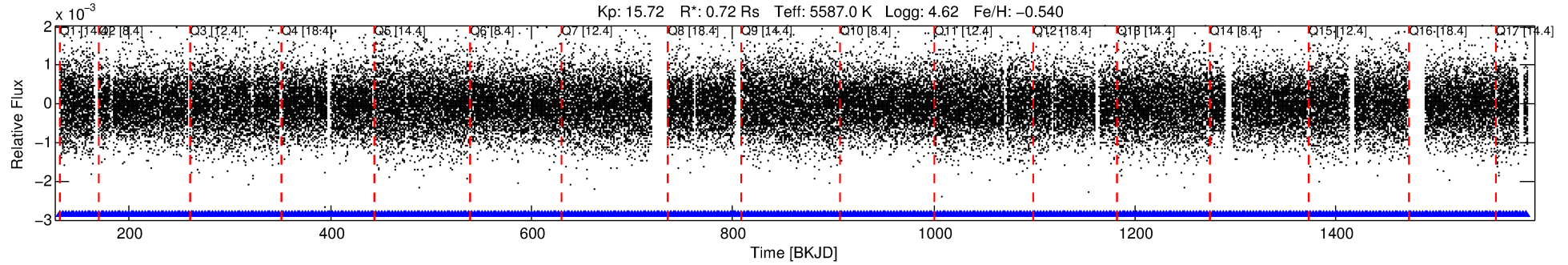
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006046299-01

No Significant Match Found

DV One-Page Summary

KIC: 6046299 Candidate: 1 of 1 Period: 2.708 d



DV Fit Results:

Period = 2.70788 [0.00007] d
Epoch = 131.7204 [0.0154] BKJD
Rp/R* = 0.0065 [0.0082]
a/R* = 1.94 [8.22]
b = 0.60 [6.25]
Seff = 369.20 [93.34]
Teq = 1118 [71] K
Rp = 0.51 [0.65] Re
a = 0.0352 [0.0055] AU
Ag = 105.22 [268.32] [0.39 σ]
Teffp = 5535 [3519] K [1.25 σ]

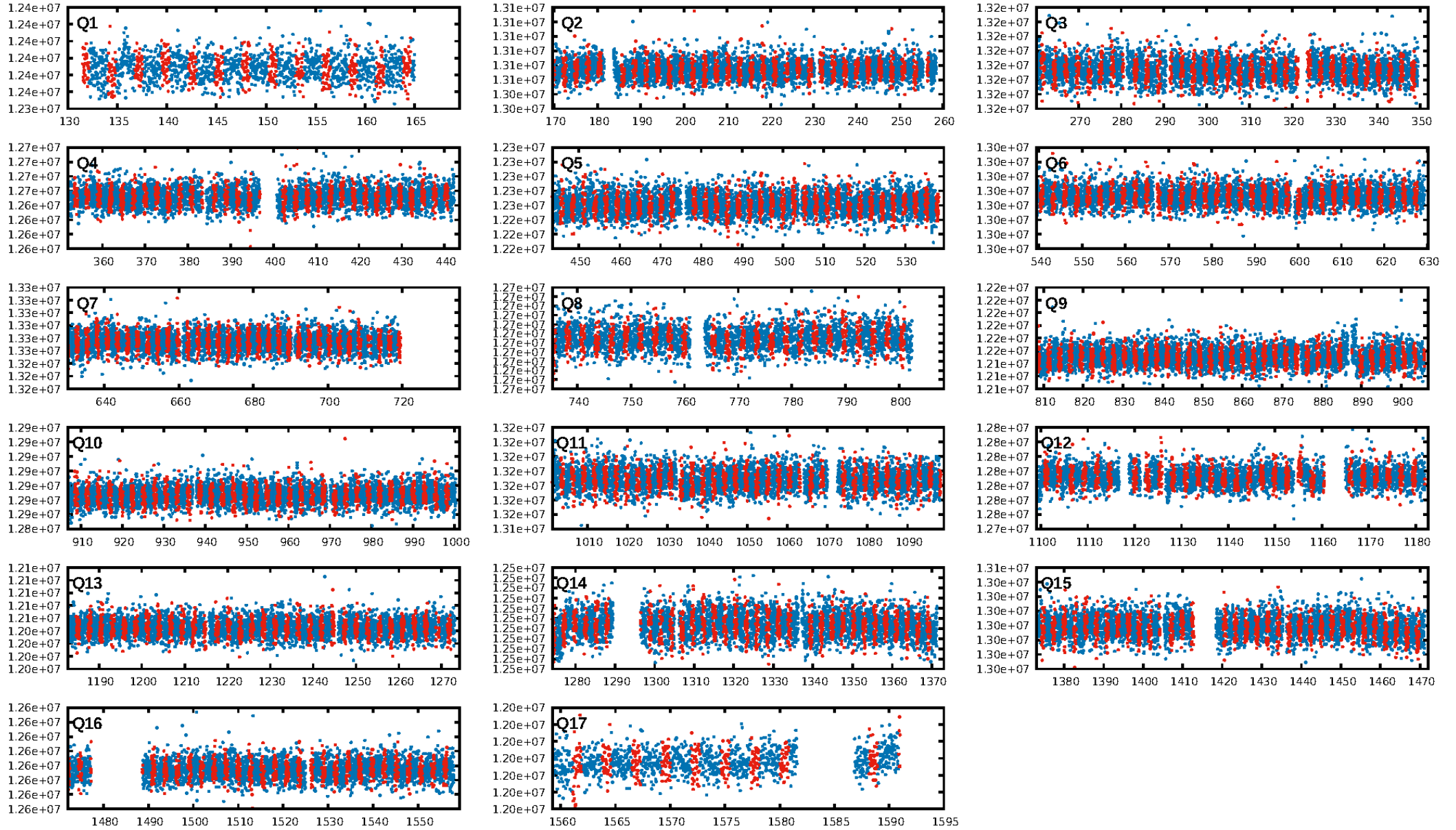
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.72e-11
RollingBand-fgt: 1.00 [475/475]
GhostDiagnostic-chr: 0.8626
Centroid-sig: 0.0%
Centroid-so: 8.831 arcsec [2.93 σ]
OotOffset-rm: 4.741 arcsec [4.93 σ]
KicOffset-rm: 4.798 arcsec [5.26 σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 0.67 [10/15]
DiffImageOverlap-fno: 1.00 [17/17]

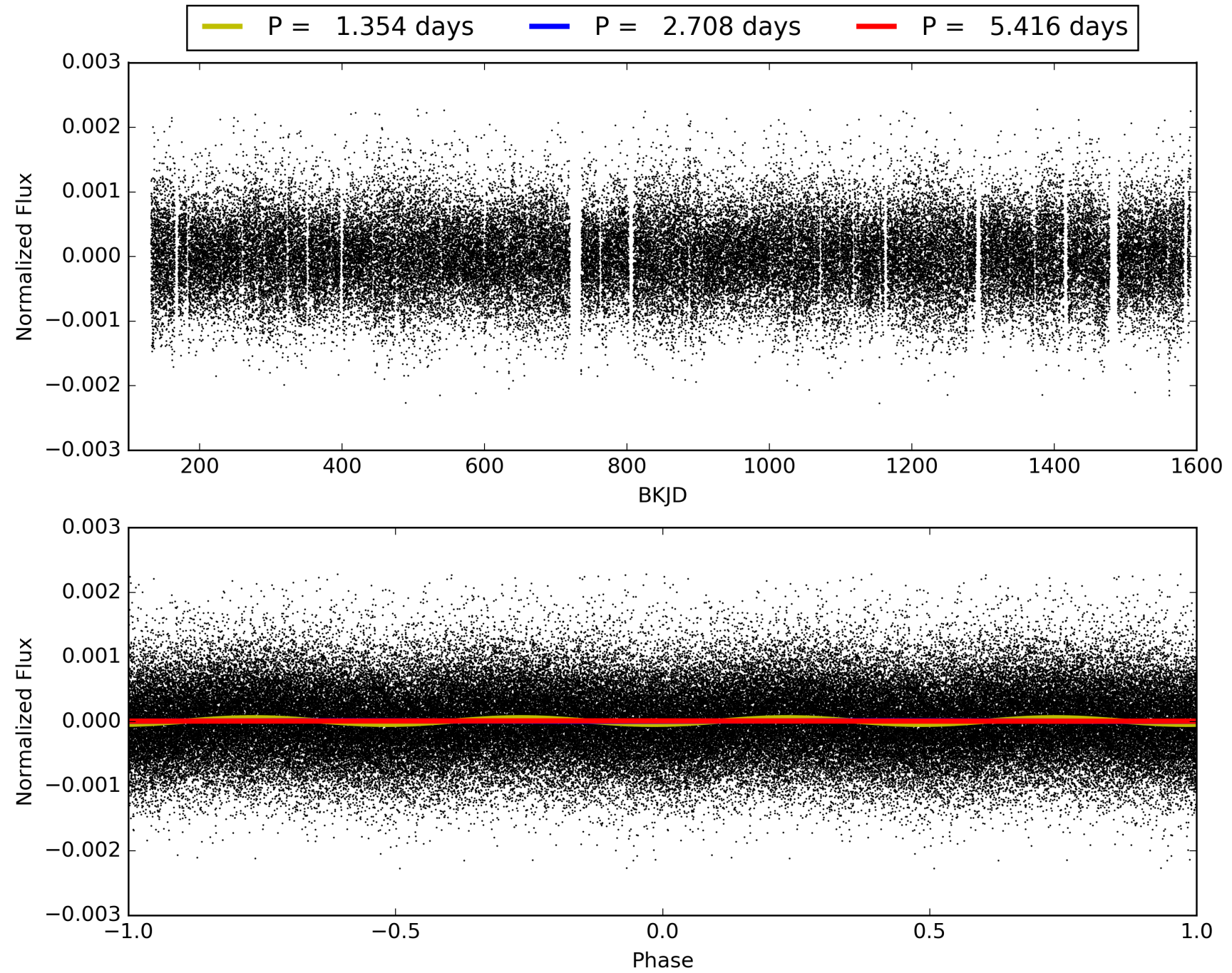
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:08:22 Z

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

TCE 006046299-01, PDC Light Curves

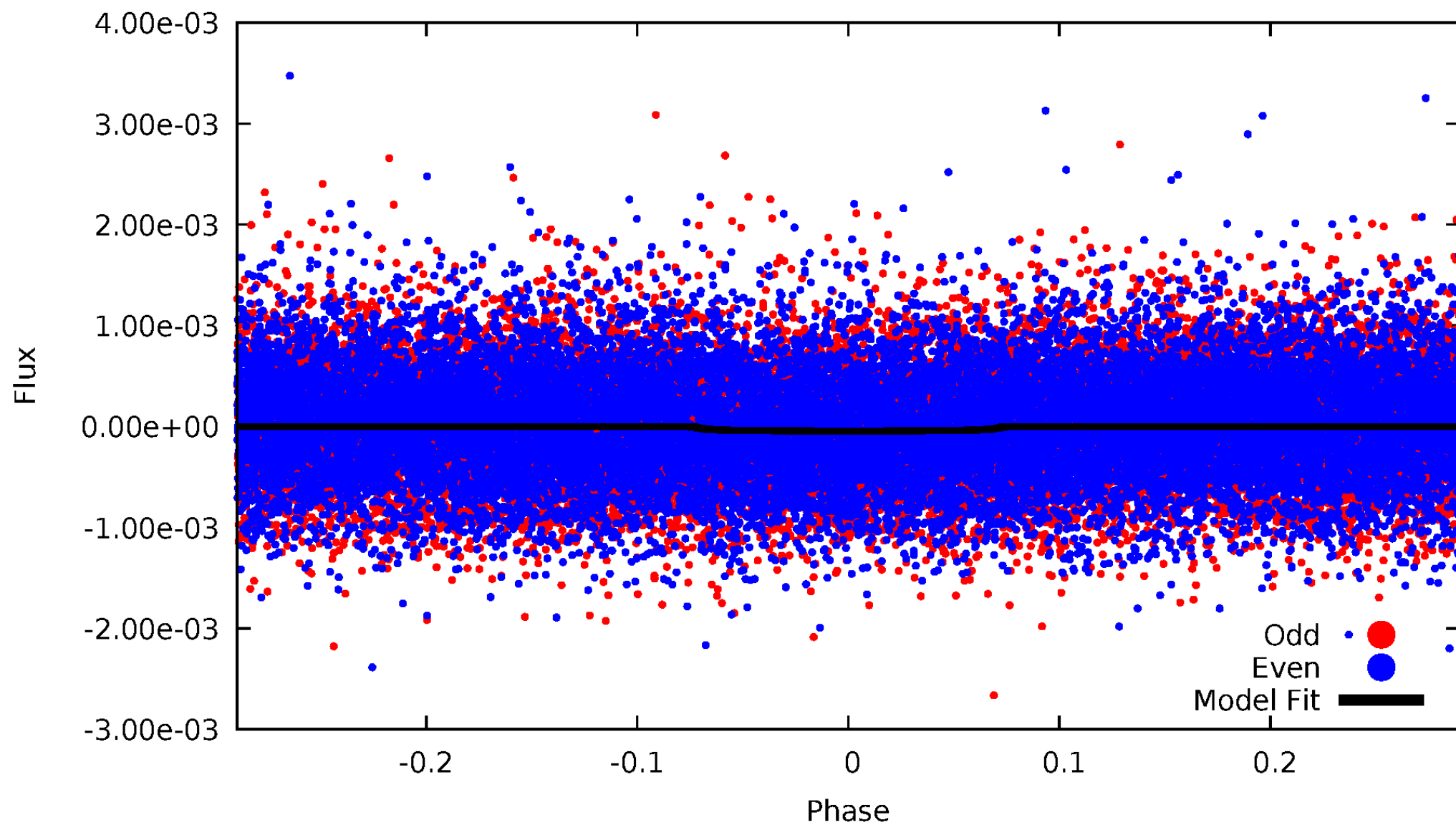


TCE 006046299-01



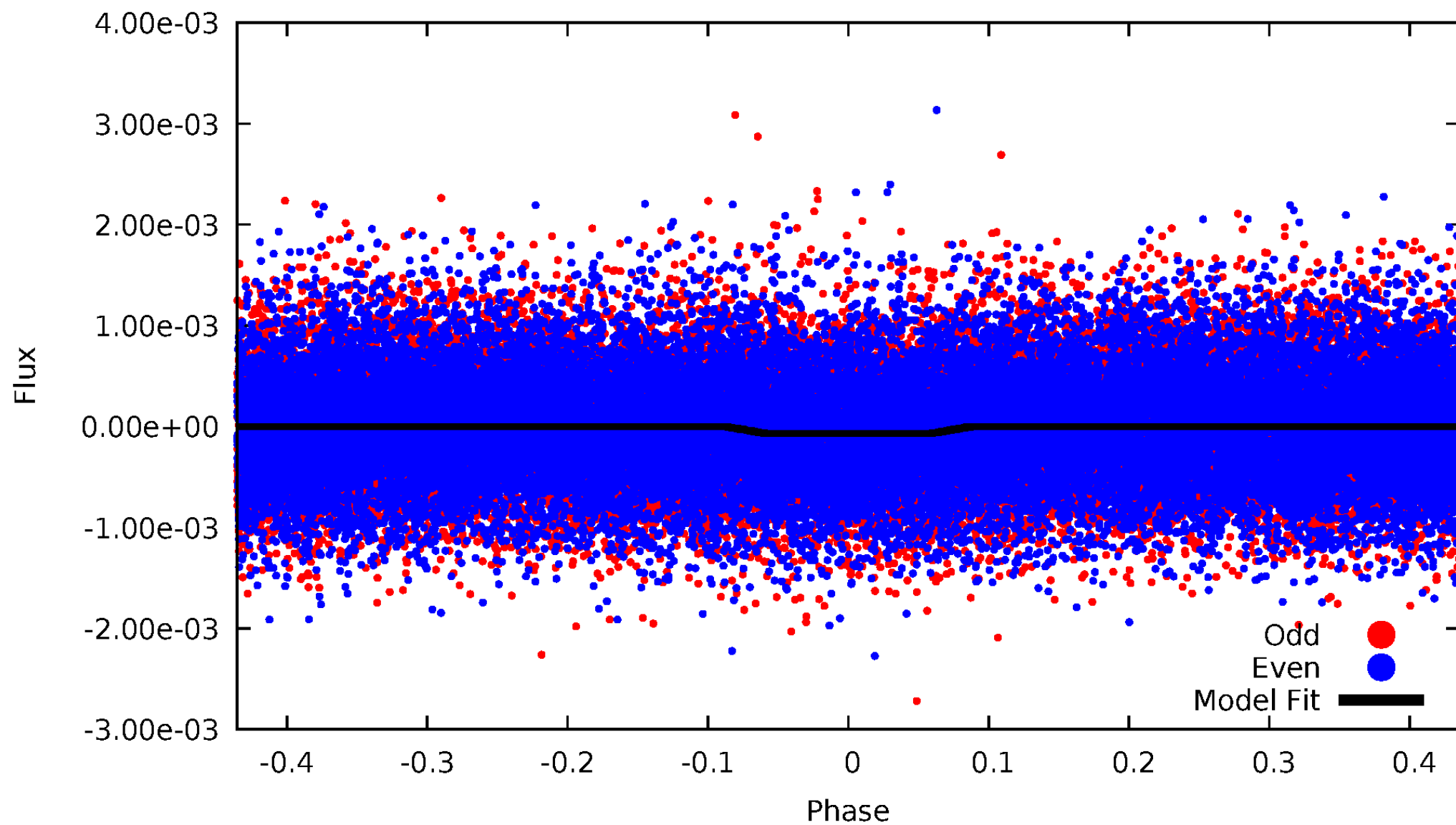
DV Odd/Even

TCE 006046299-01



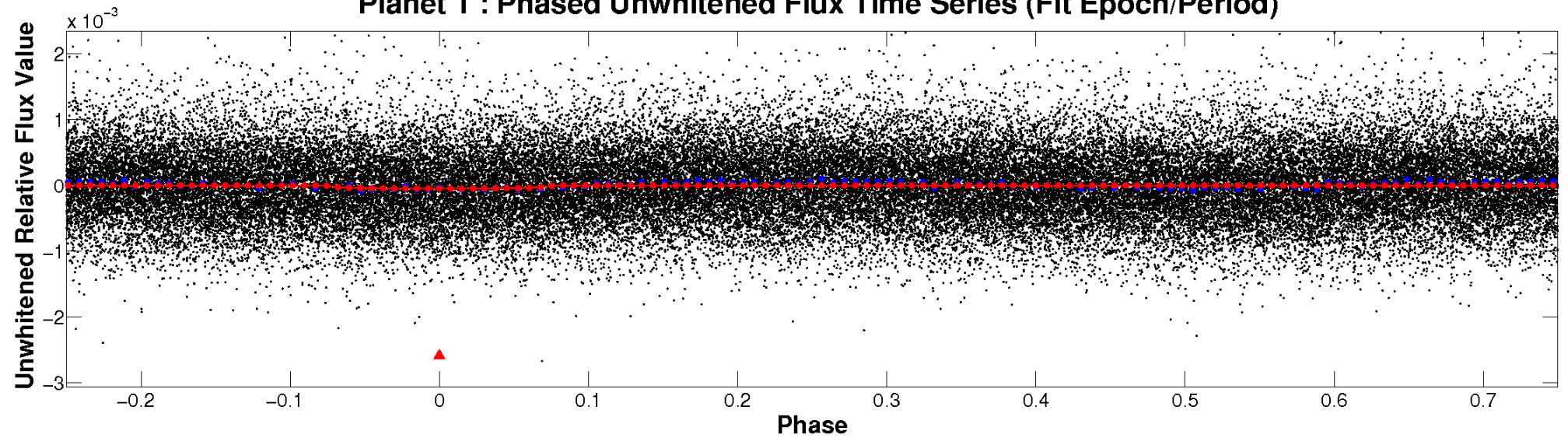
ALT Odd/Even

TCE 006046299-01

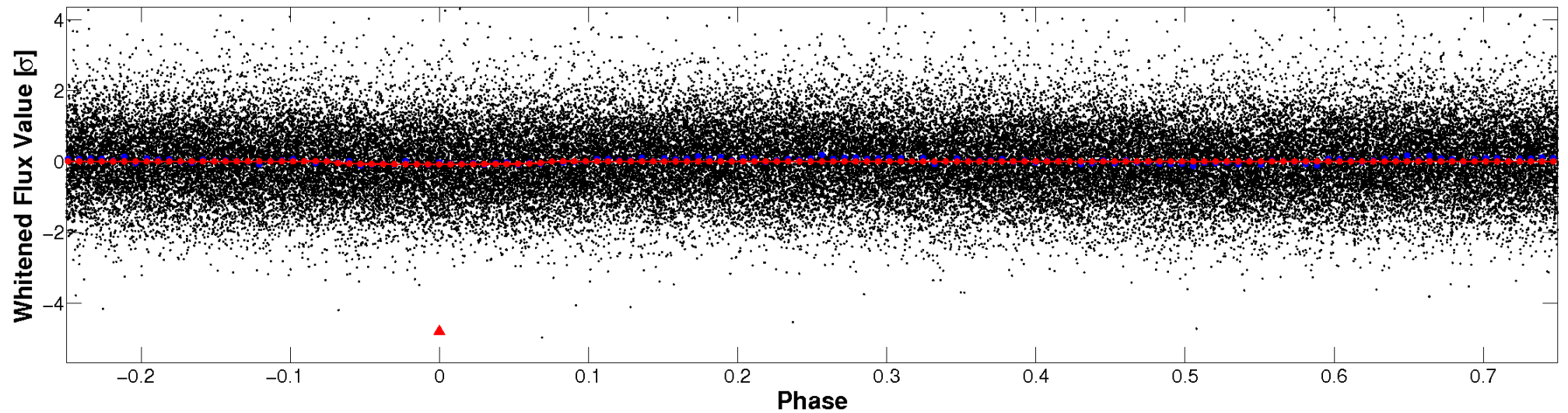


Non-Whitened Vs. Whitened Light Curve

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

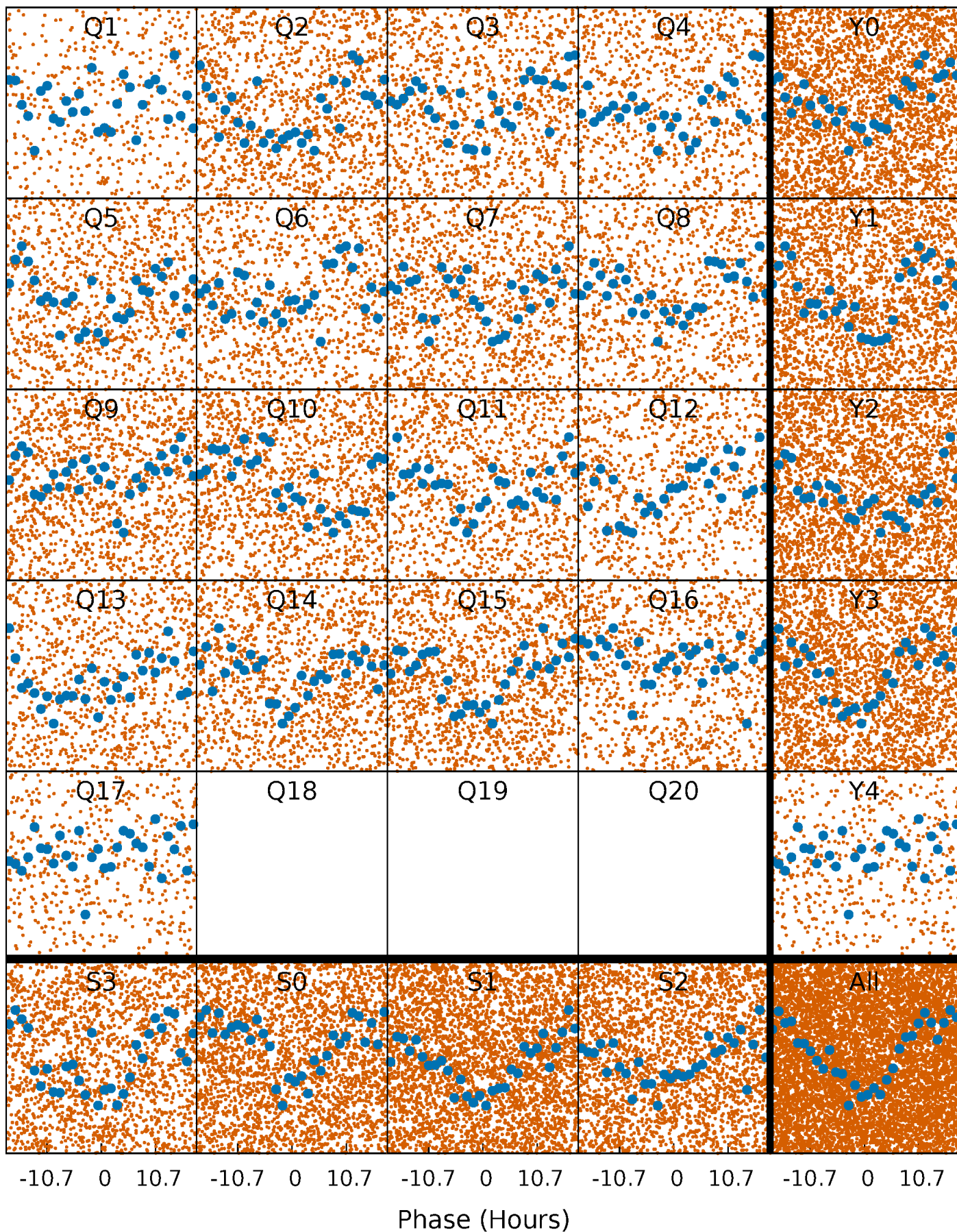


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



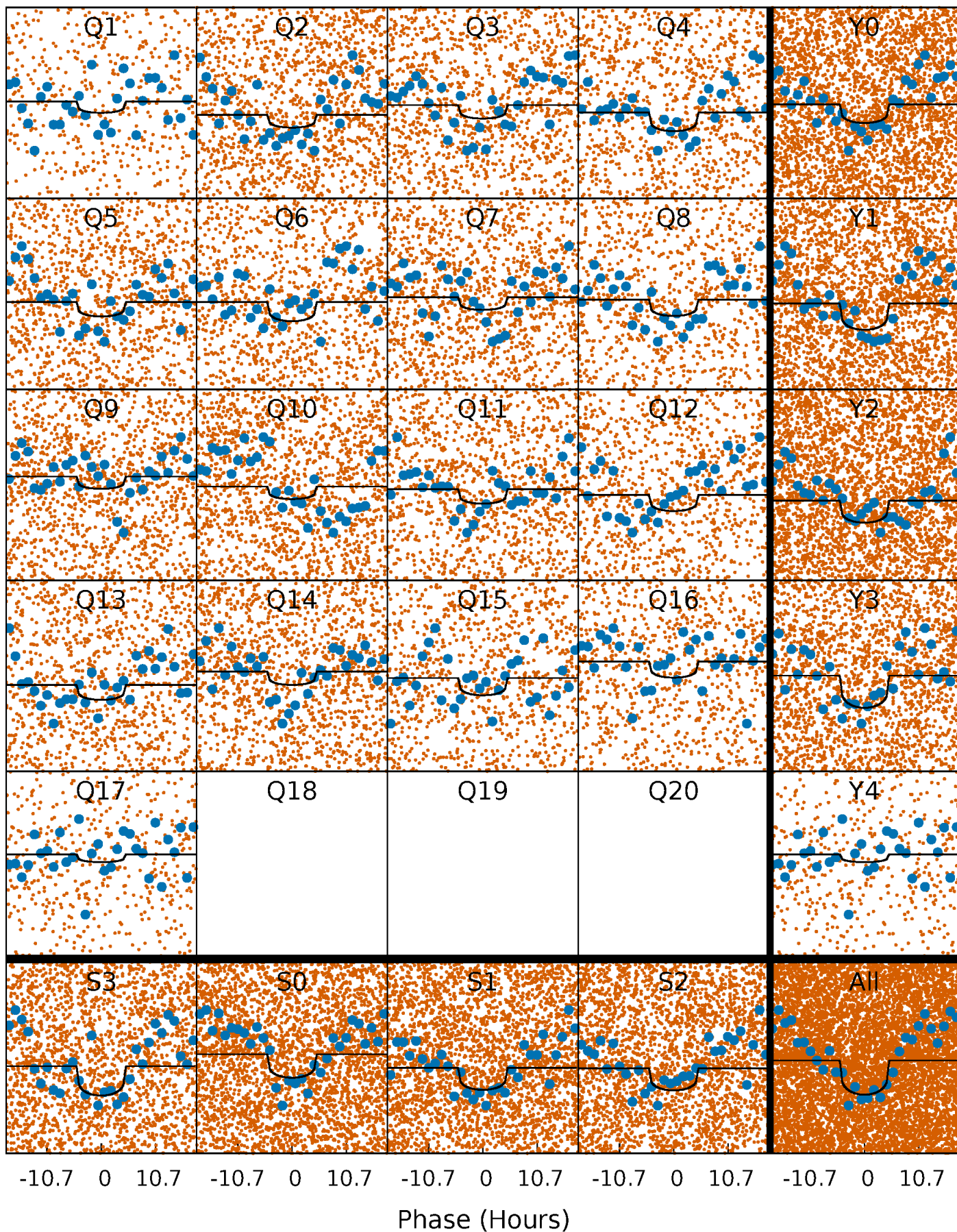
PDC Quarter-Phased Transit Curves

TCE 006046299-01 P= 2.707879 Days $T_0=131.720380$ (BKJD)



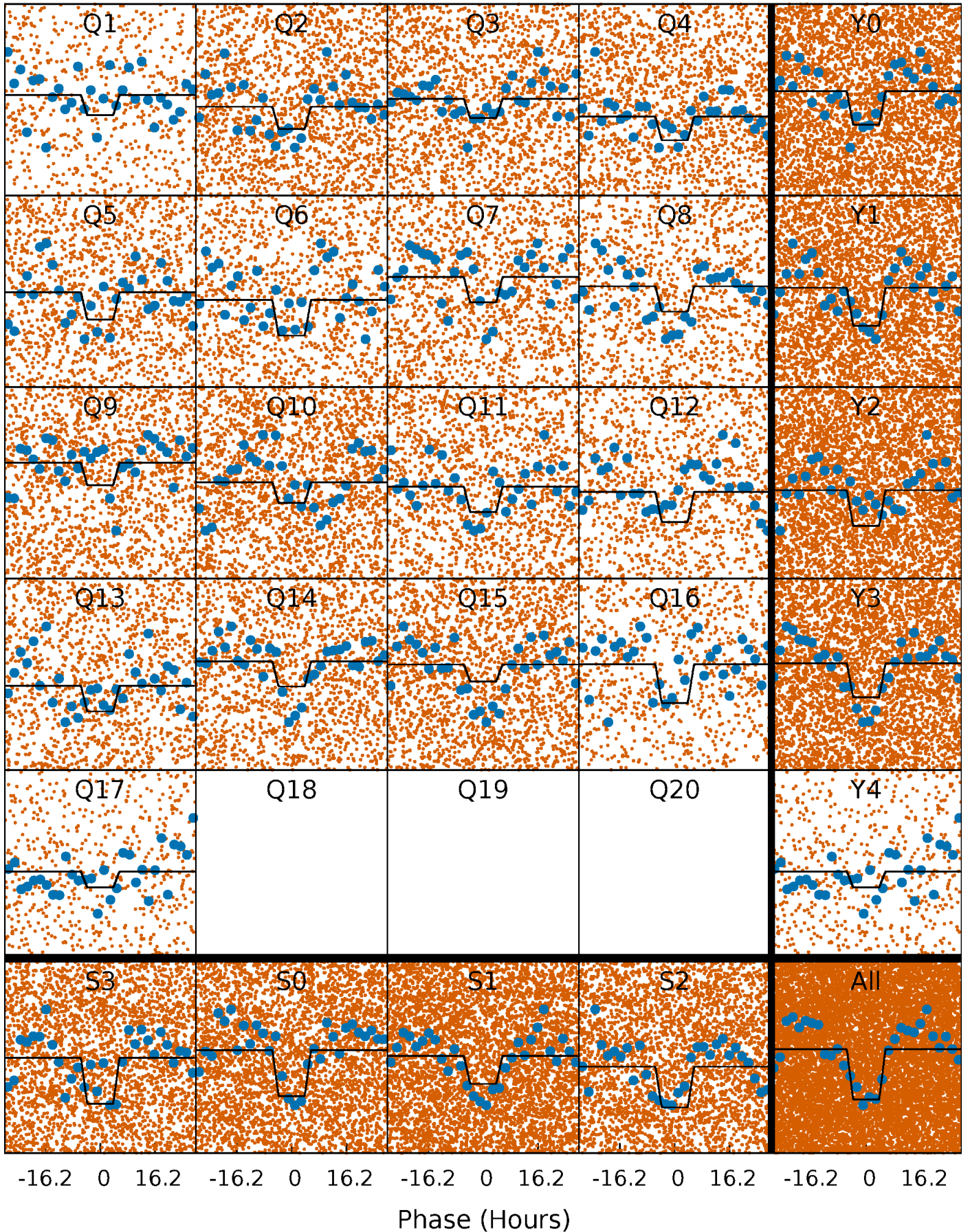
DV Quarter-Phased Transit Curves

TCE 006046299-01 P= 2.707879 Days $T_0=131.720380$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

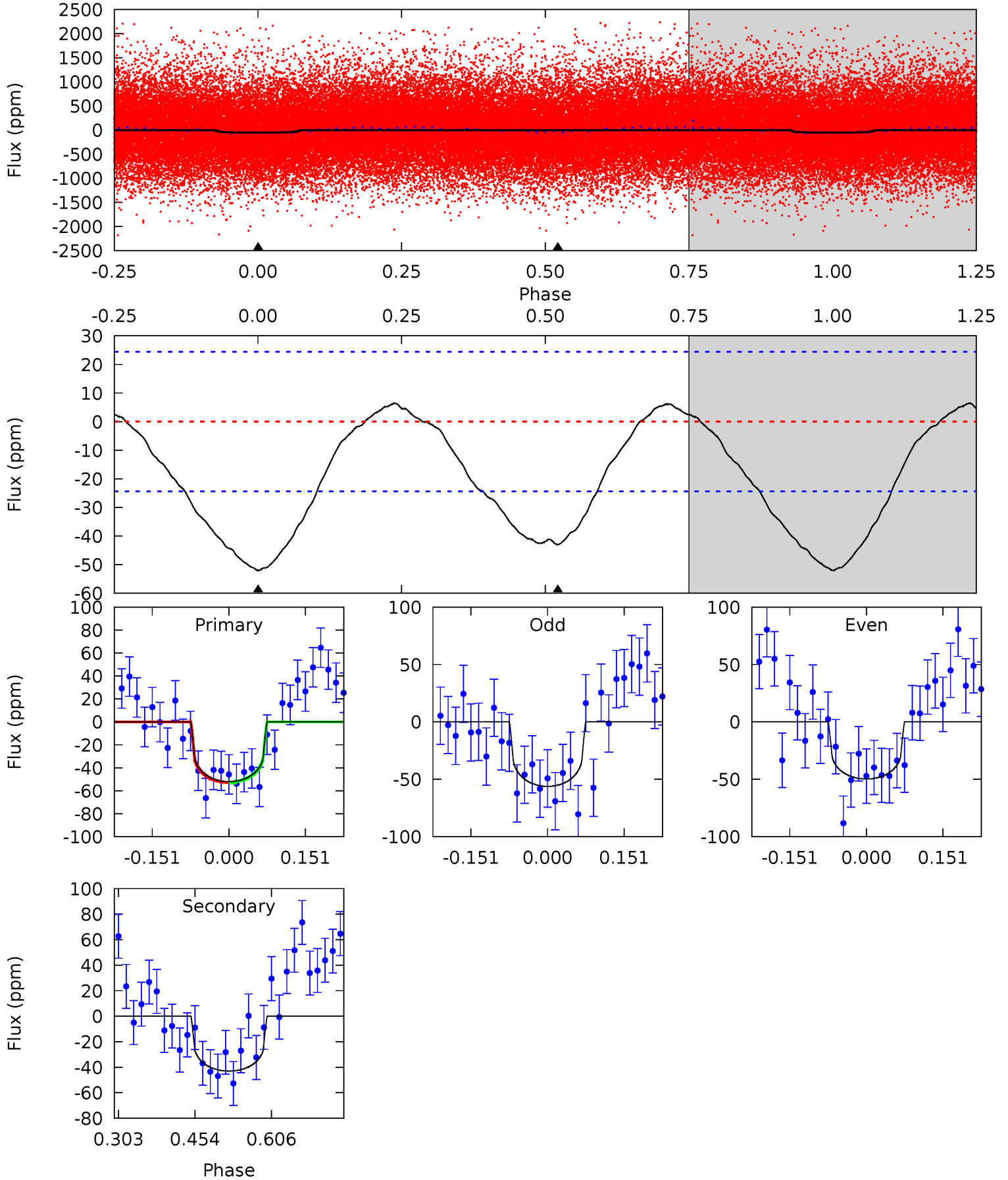
TCE 006046299-01 P= 2.707489 Days $T_0=131.813072$ (BKJD)



DV Model-Shift Uniqueness Test

006046299-01, P = 2.707879 Days, E = 129.012501 Days

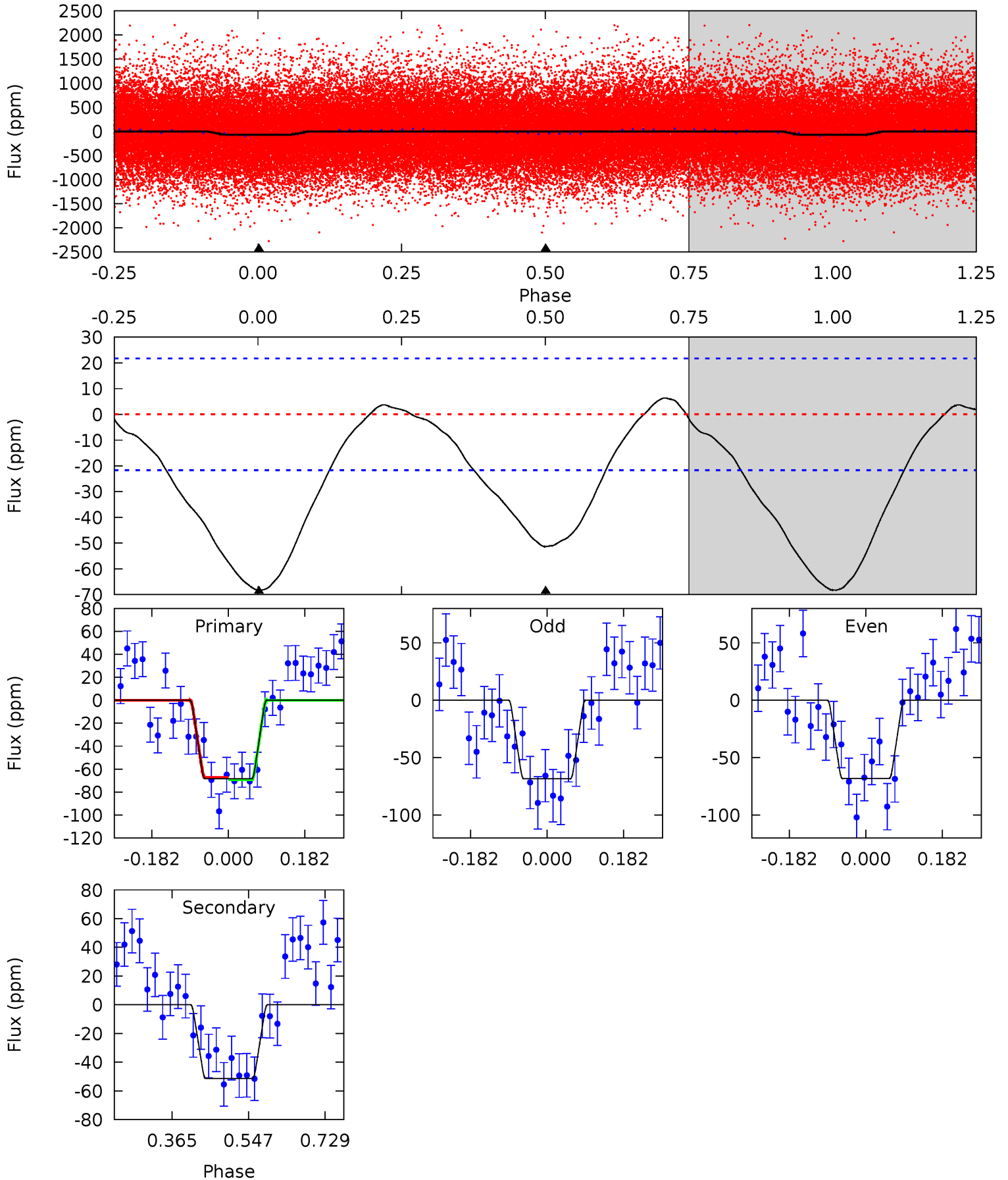
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	7.89	0	0	4.48	1.43	1.29	9.55	9.55	7.89	7.89	0.59	1.12	0.11	0.02



Alt Model-Shift Uniqueness Test

006046299-01, P = 2.707489 Days, E = 129.105583 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	10.5	0	0	4.44	1.33	1.10	14.0	14.0	10.5	10.5	0.01	0.92	0.09	0.19



Stellar Parameters For KIC 006046299

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5587^{+167}_{-167}	$4.618^{+0.037}_{-0.120}$	$-0.540^{+0.300}_{-0.300}$	$0.724^{+0.136}_{-0.049}$	$0.811^{+0.077}_{-0.086}$	$3.006^{+0.482}_{-1.080}$
	+3%/-3%	+1%/-3%	+56%/-56%	+19%/-7%	+9%/-11%	+16%/-36%
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 006046299-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-43 ± 5	$0.71^{+0.58}_{-0.45}$	1590^{+72}_{-66}	4909^{+3232}_{-1008}	58^{+367}_{-41}
Alt.	-51 ± 5	$0.79^{+0.68}_{-0.49}$	1580^{+77}_{-58}	4878^{+3125}_{-1016}	56^{+340}_{-40}

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 $A_{\text{obs}} \gg 1.0$

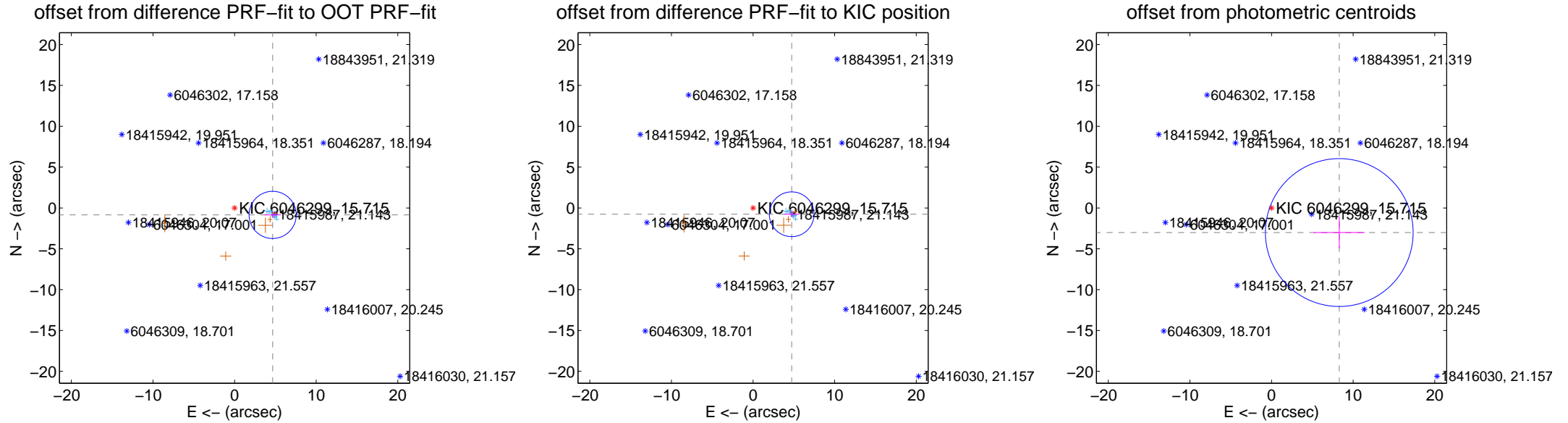
DV Centroid Data

Supplemental centroid analysis for 006046299-01. Kepler magnitude: 15.71. Transit SNR 6.63

There are 10 quarters with good PRF difference image offsets

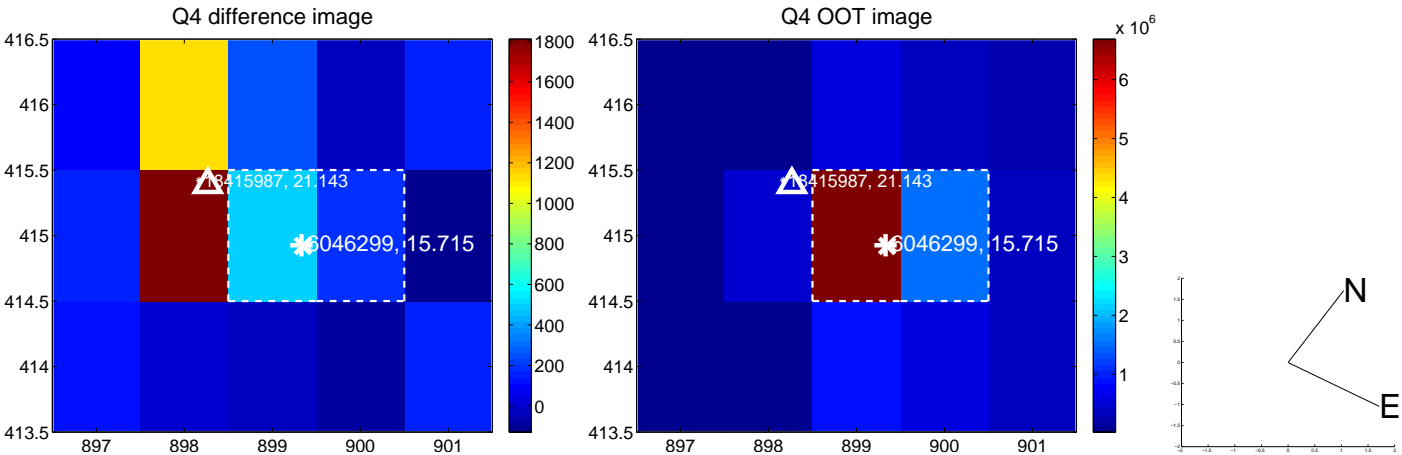
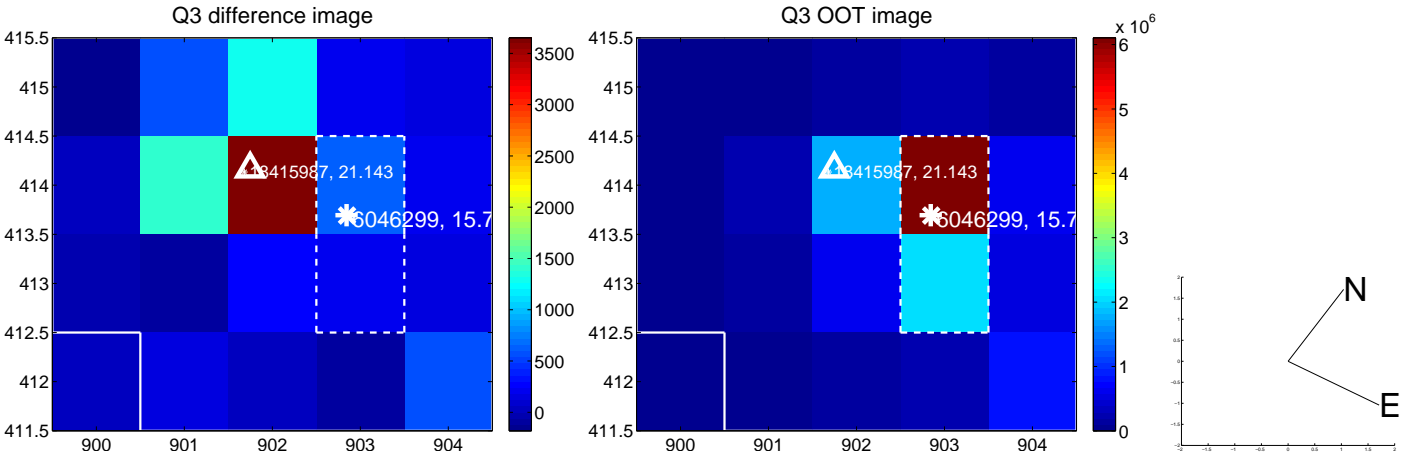
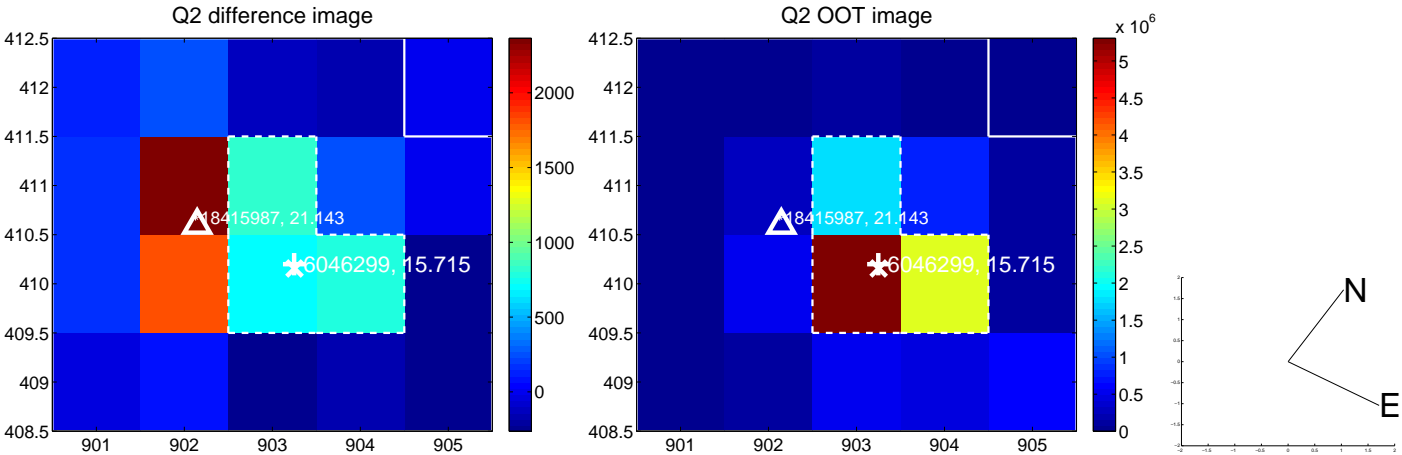
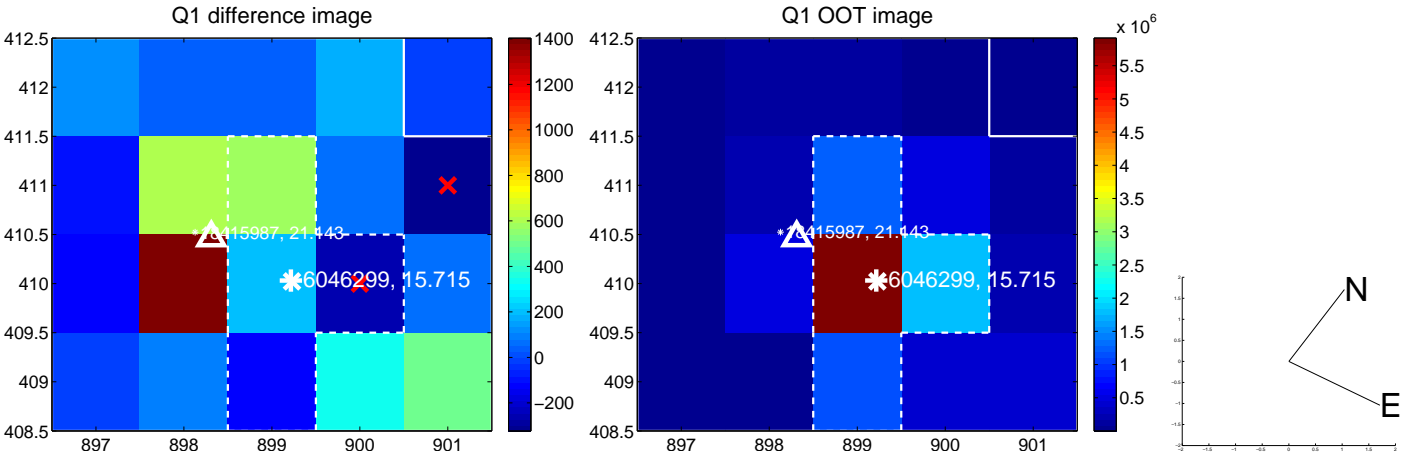
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.741 ± 0.963	4.93	-4.664 ± 1.007	-0.851 ± 0.351
PRF-fit source offset from KIC position	4.798 ± 0.913	5.26	-4.736 ± 0.958	-0.772 ± 0.386
photometric centroid source offset	8.83 ± 3.02	2.93	-8.30 ± 3.13	-3.01 ± 1.95

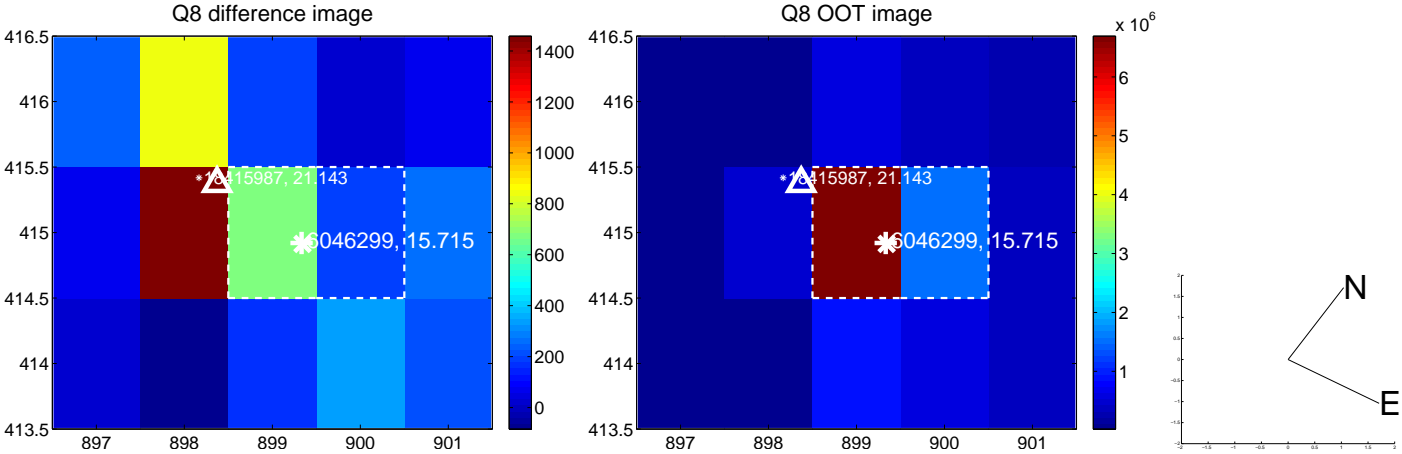
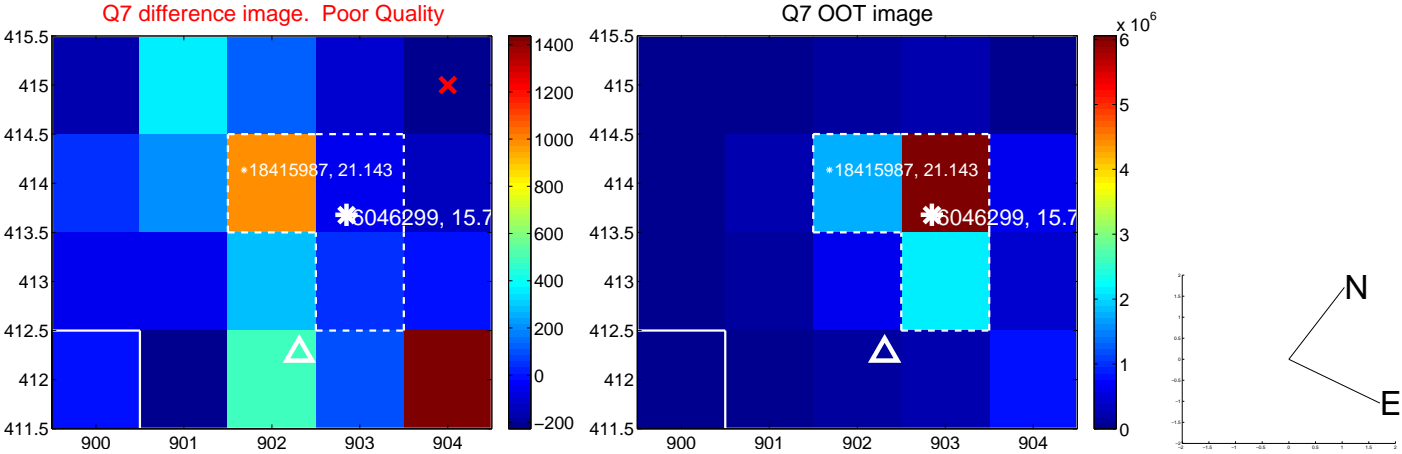
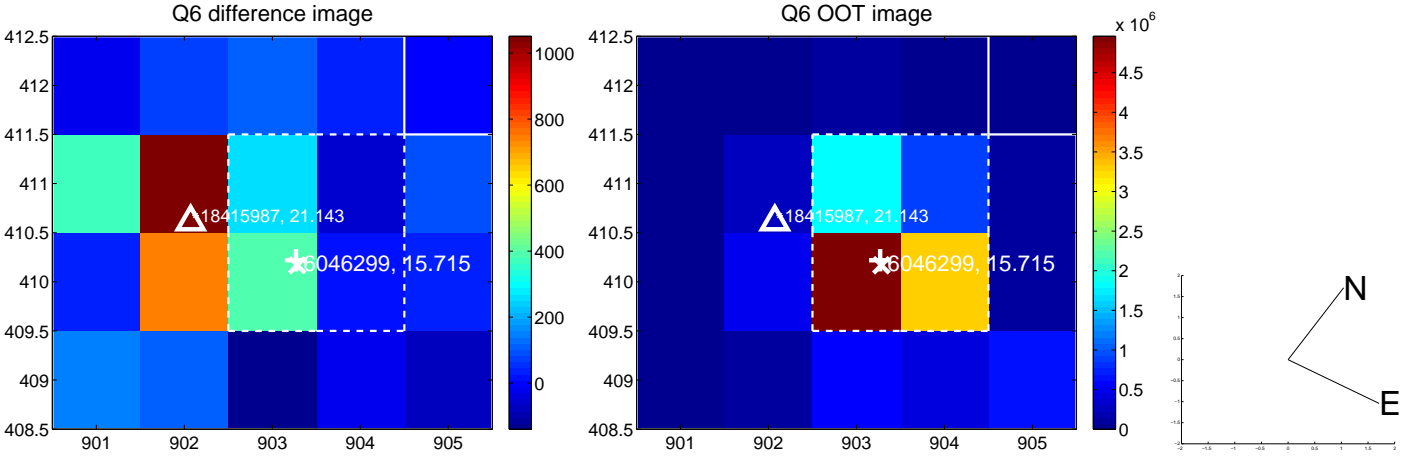
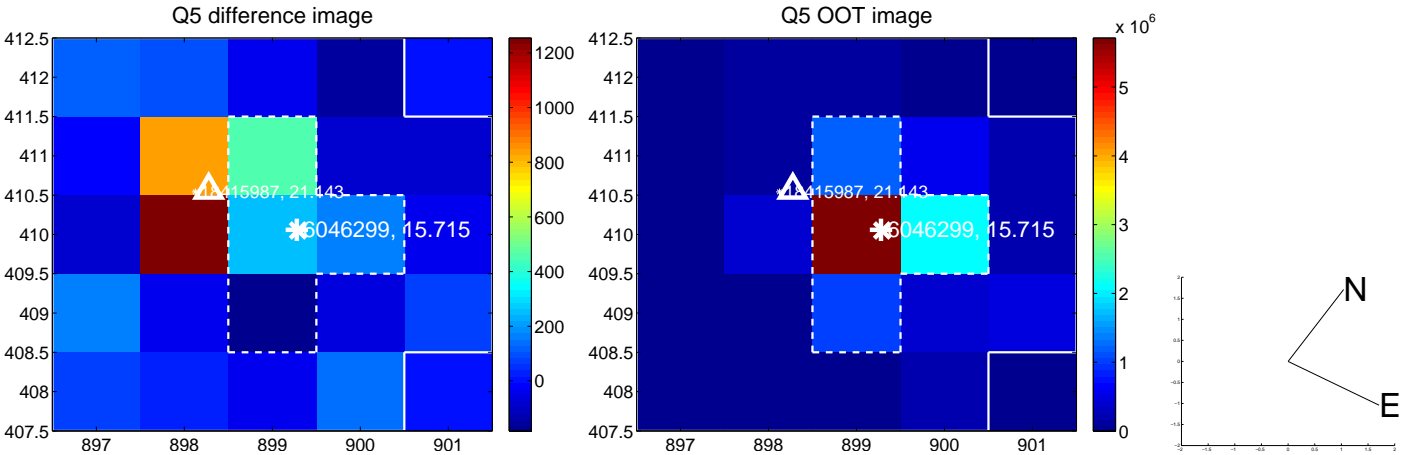


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

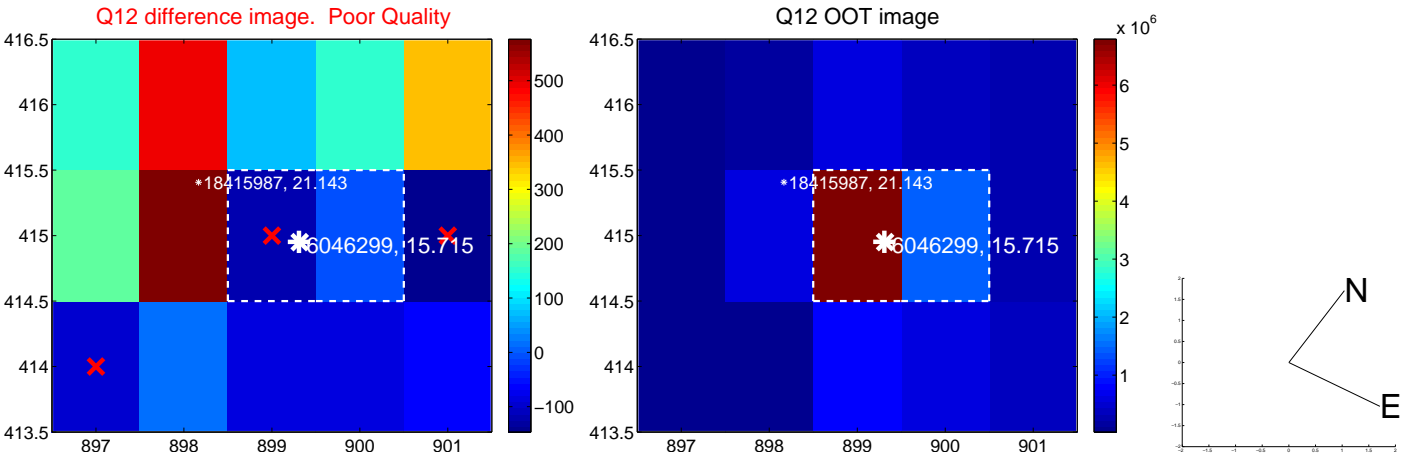
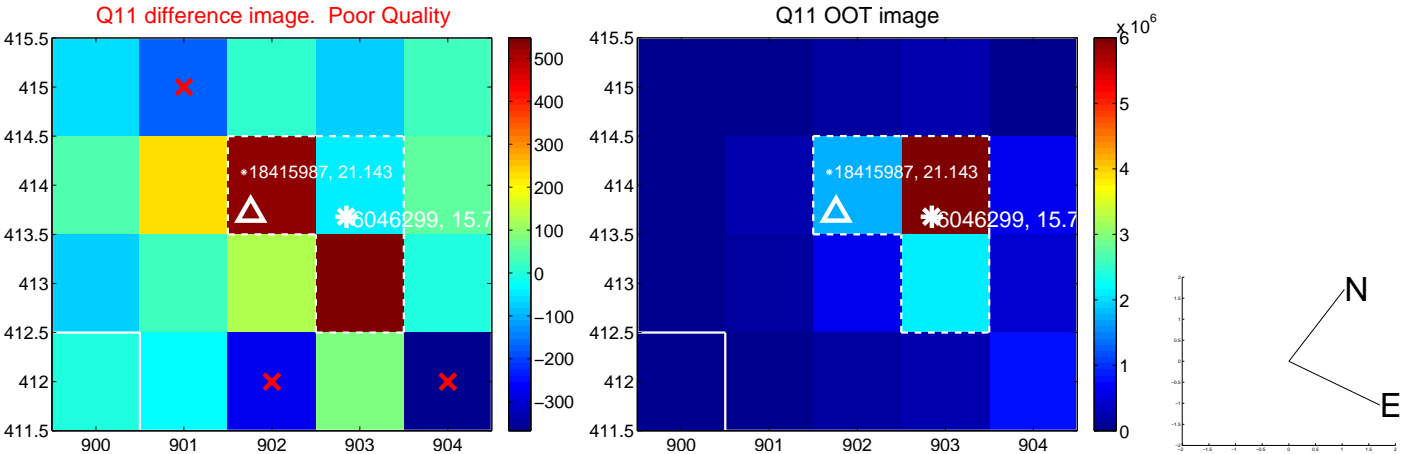
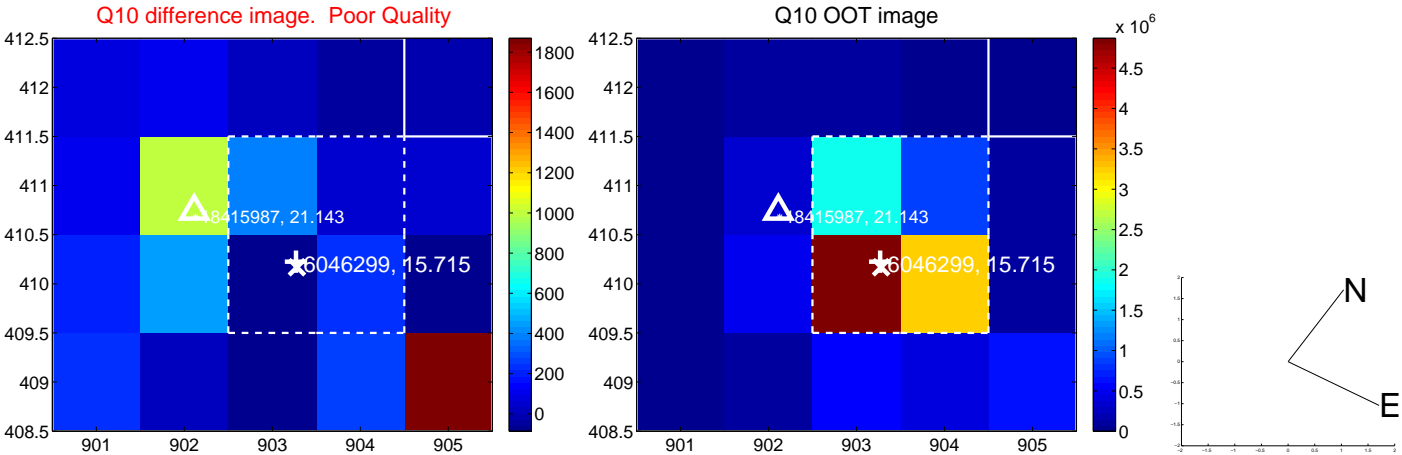
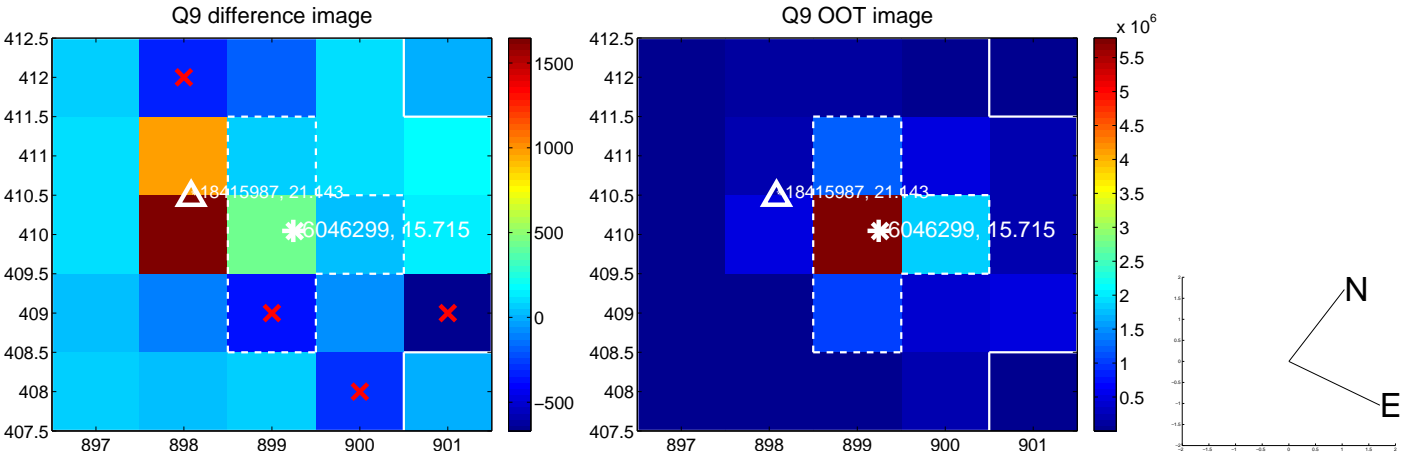
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



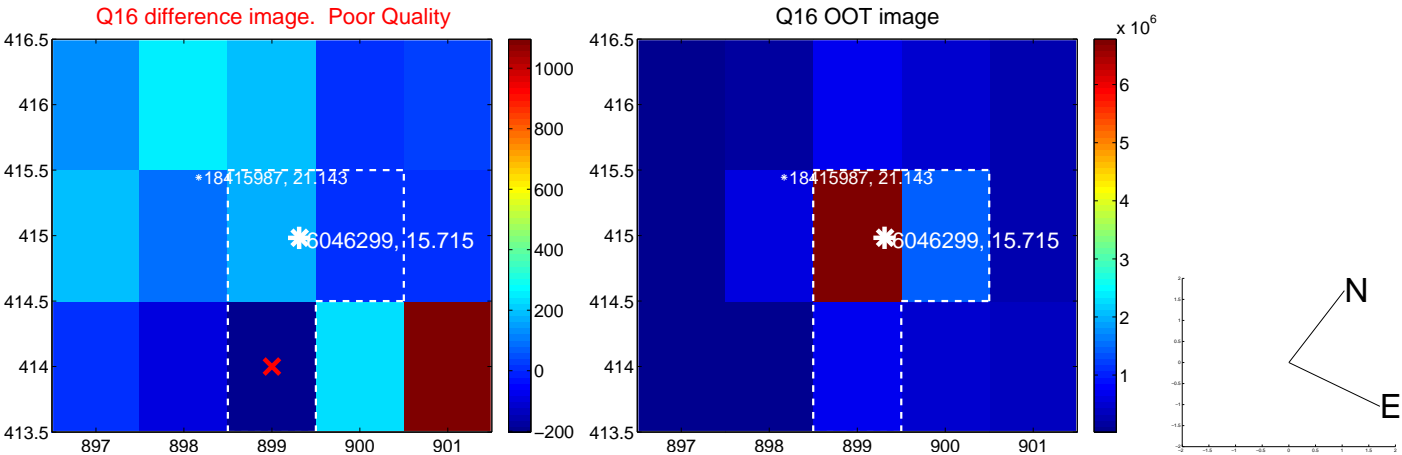
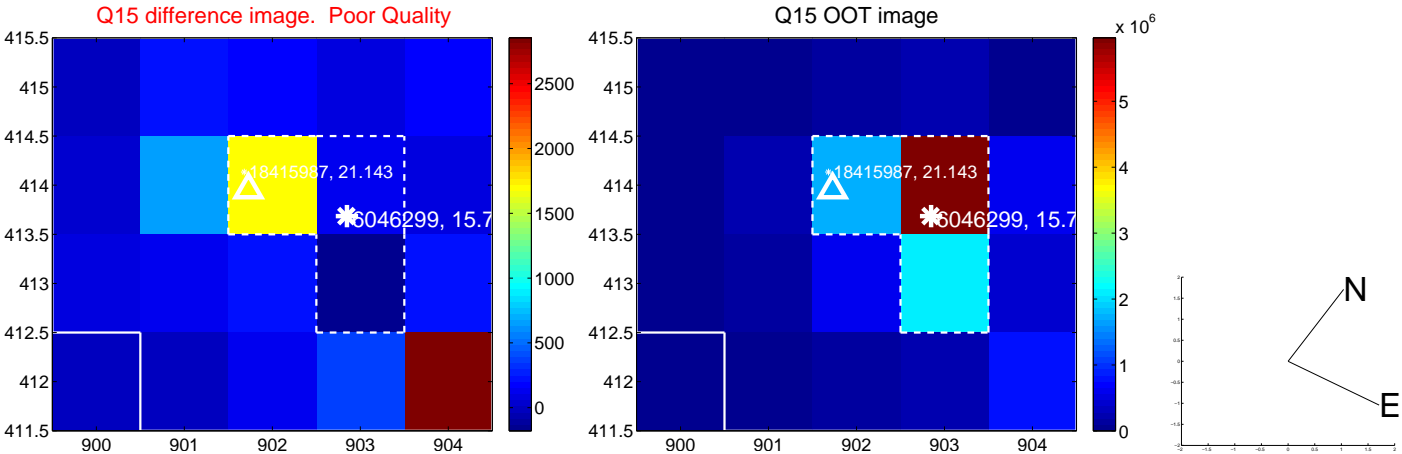
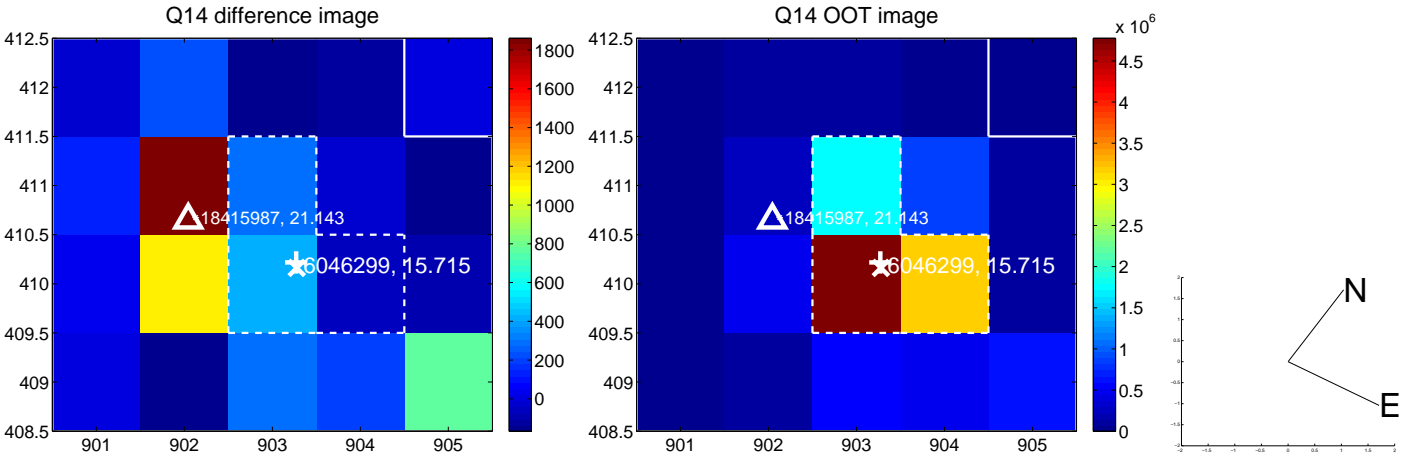
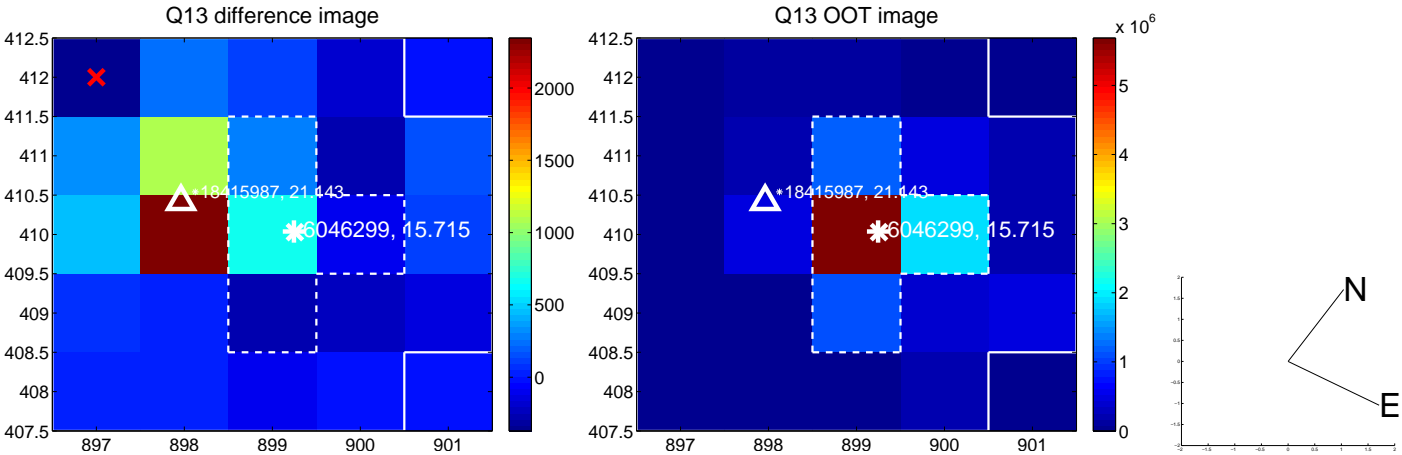
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



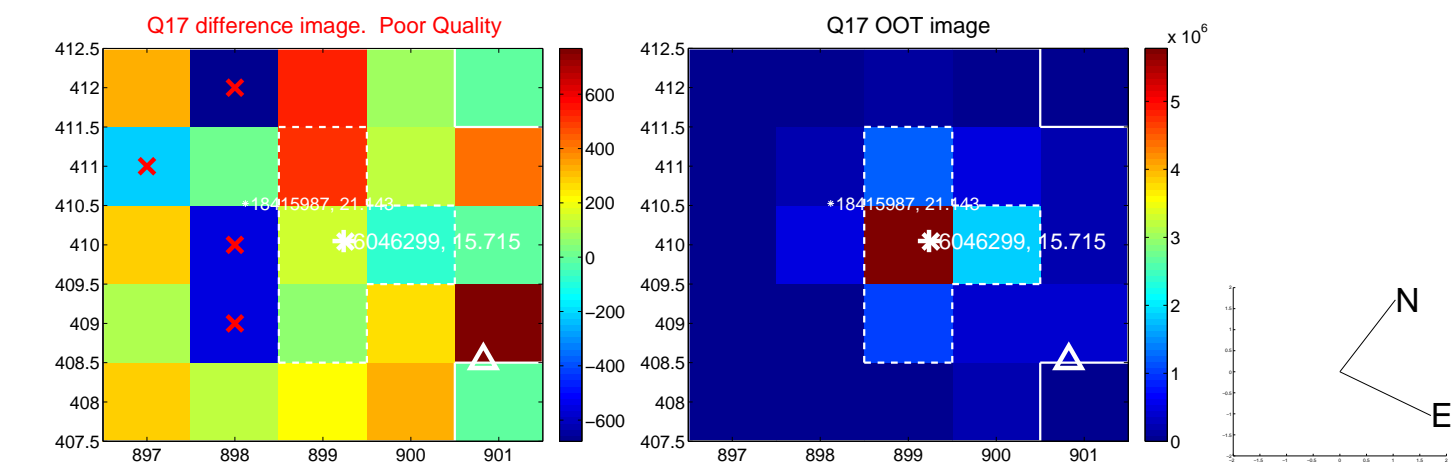
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



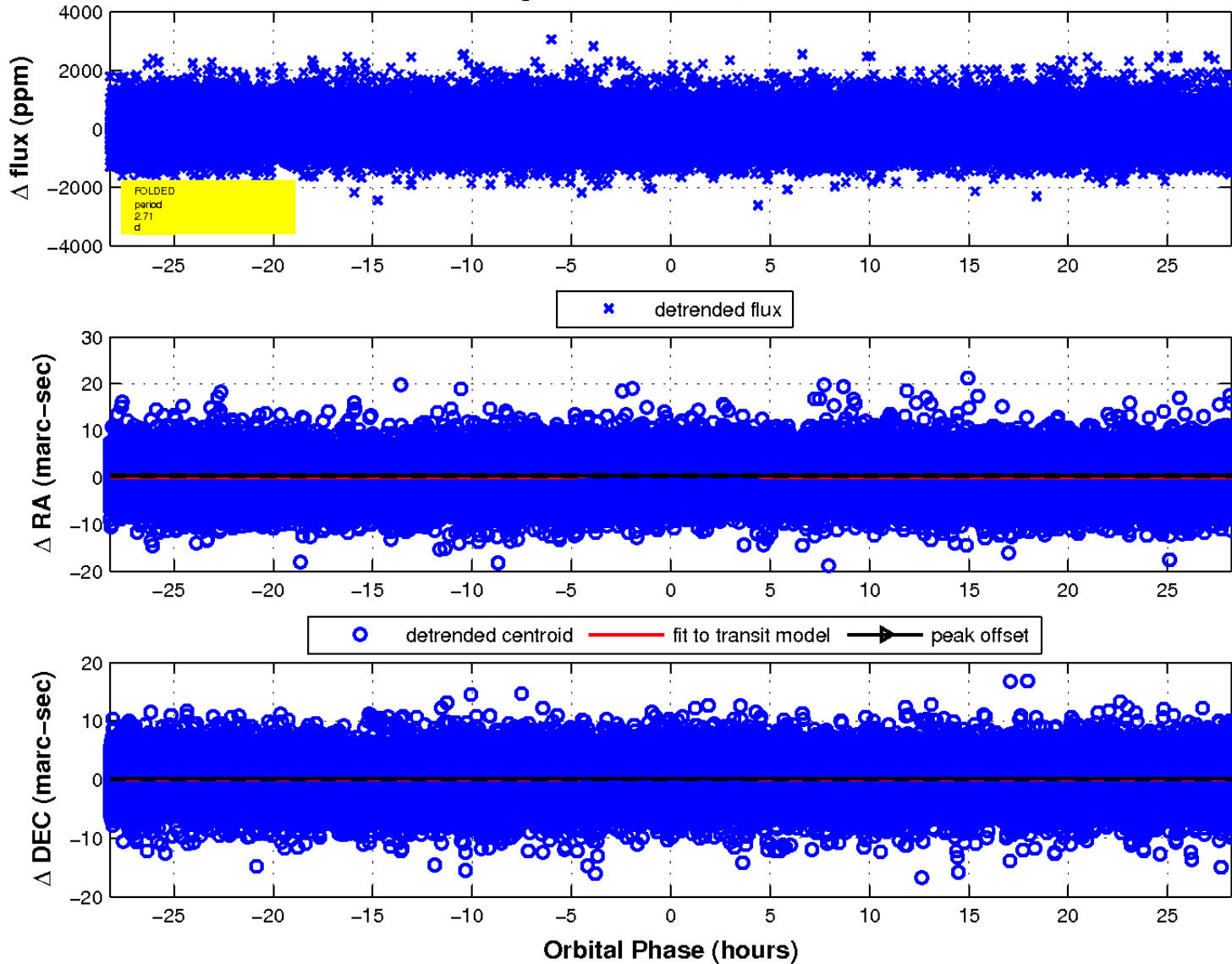
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

