

KIC 006129694

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})
006129694-01	OBS	4131.01	0.936701	132.231809	13.5	4.835	14.4	12.0	2.91	7843	1.15	50101.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006129694-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

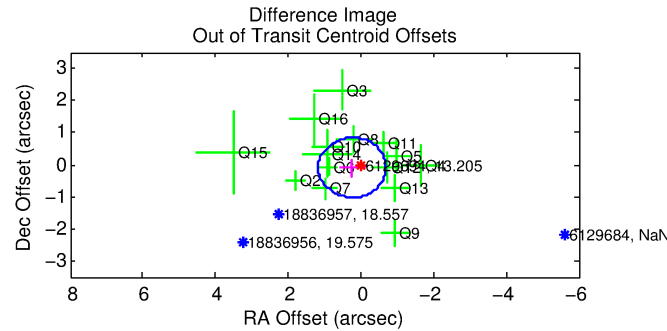
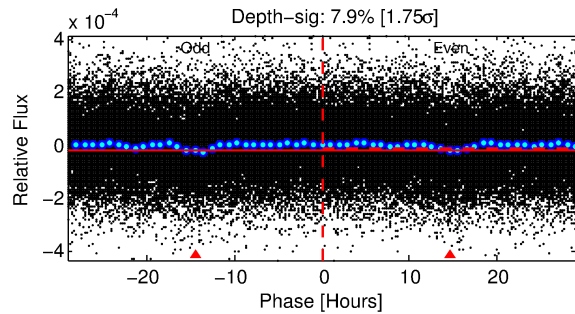
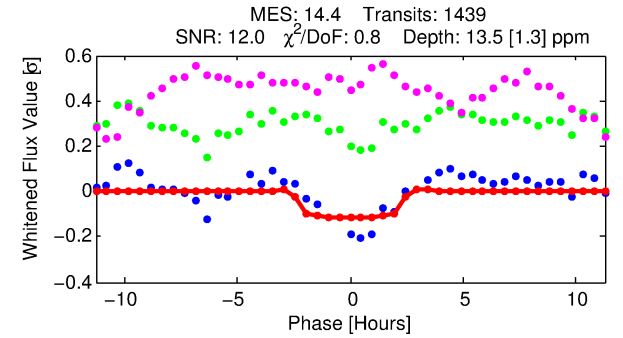
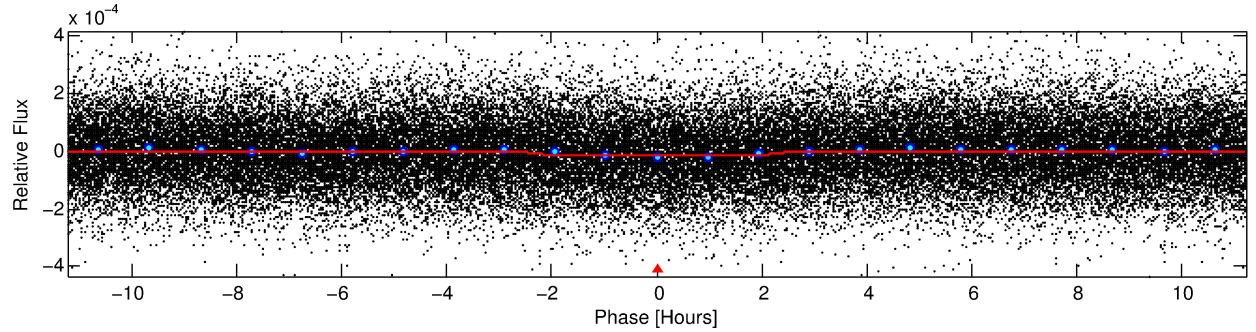
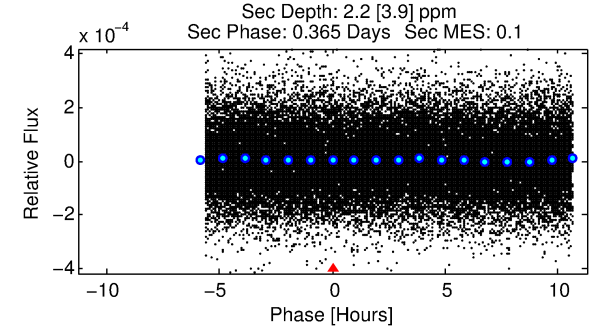
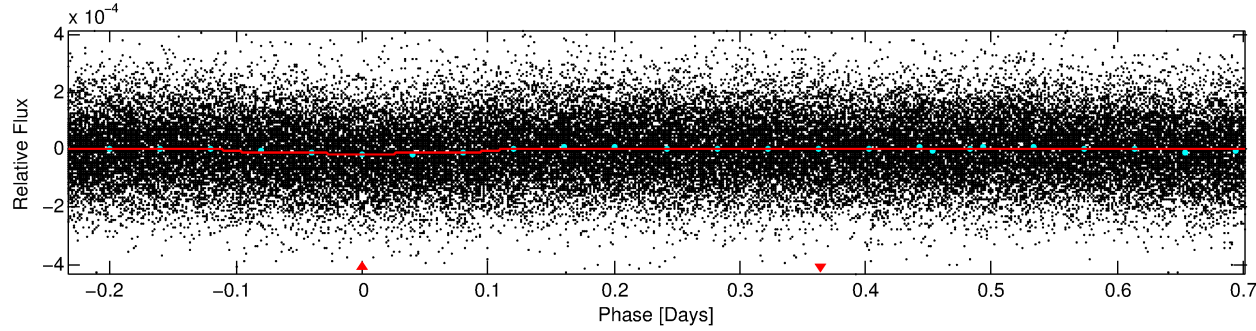
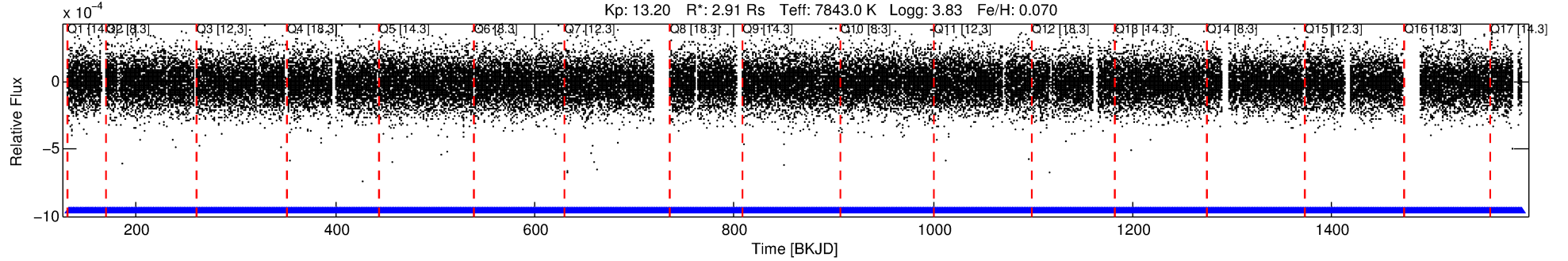
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006129694-01

No Significant Match Found

DV One-Page Summary

KIC: 6129694 Candidate: 1 of 1 Period: 0.937 d
KOI: K04131.01 Corr: 0.889



DV Fit Results:

Period = 0.93670 [0.00001] d
Epoch = 132.2318 [0.0044] BKJD
Rp/R* = 0.0036 [0.0008]
a/R* = 1.35 [0.77]
b = 0.70 [0.93]
Seff = 50101.51 [28791.70]
Teff = 3815 [548] K
Rp = 1.15 [0.52] Re
a = 0.0239 [0.0085] AU
Ag = 0.54 [1.01] [-0.46σ]
Teffp = 5053 [2278] K [0.53σ]

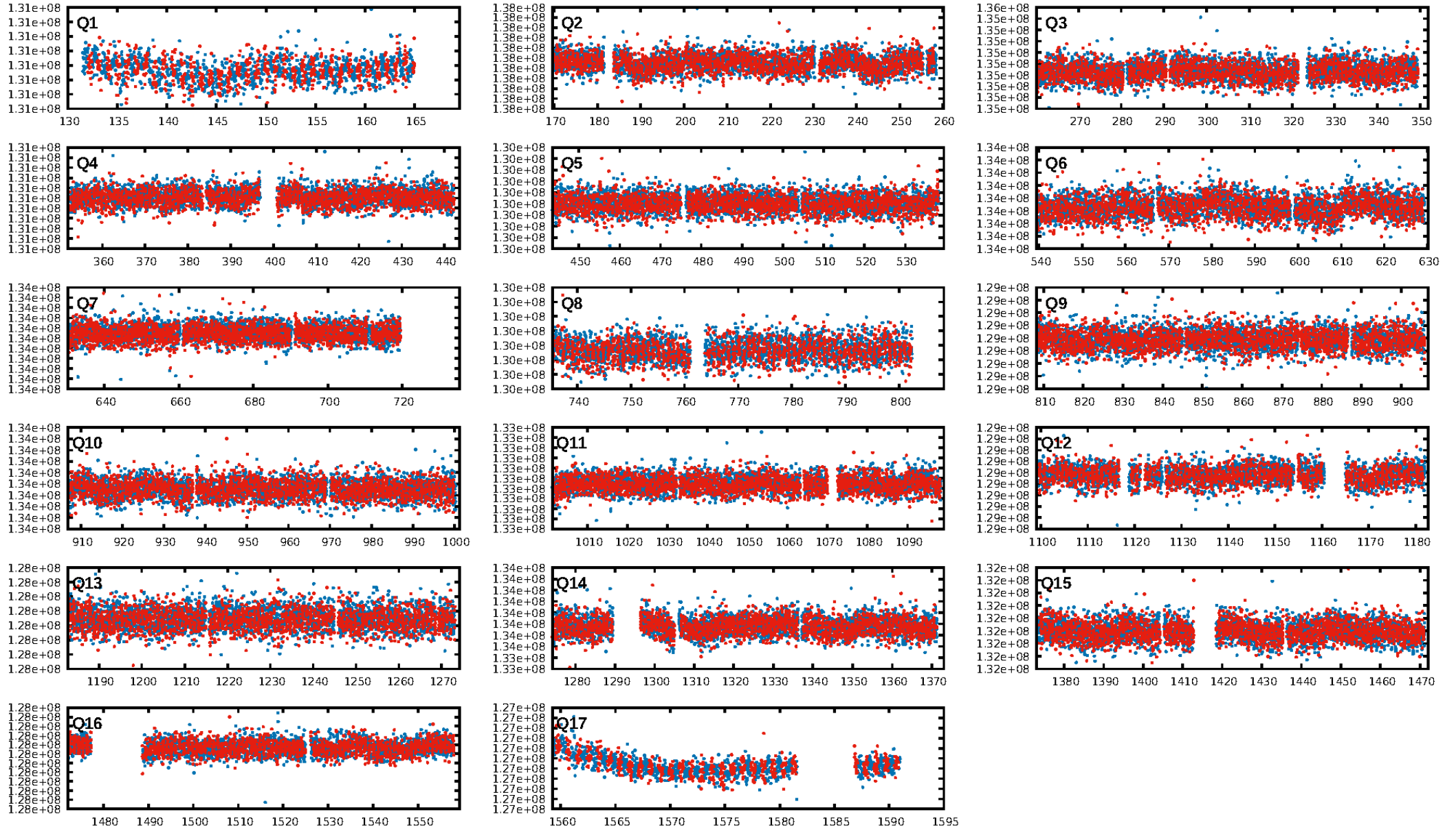
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.33e-37
RollingBand-fgt: 1.00 [1374/1374]
GhostDiagnostic-chr: 2.663
Centroid-sig: 62.9%
Centroid-so: 0.089 arcsec [0.09σ]
OotOffset-rm: 0.262 arcsec [0.84σ]
KicOffset-rm: 0.245 arcsec [0.76σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [17/17]

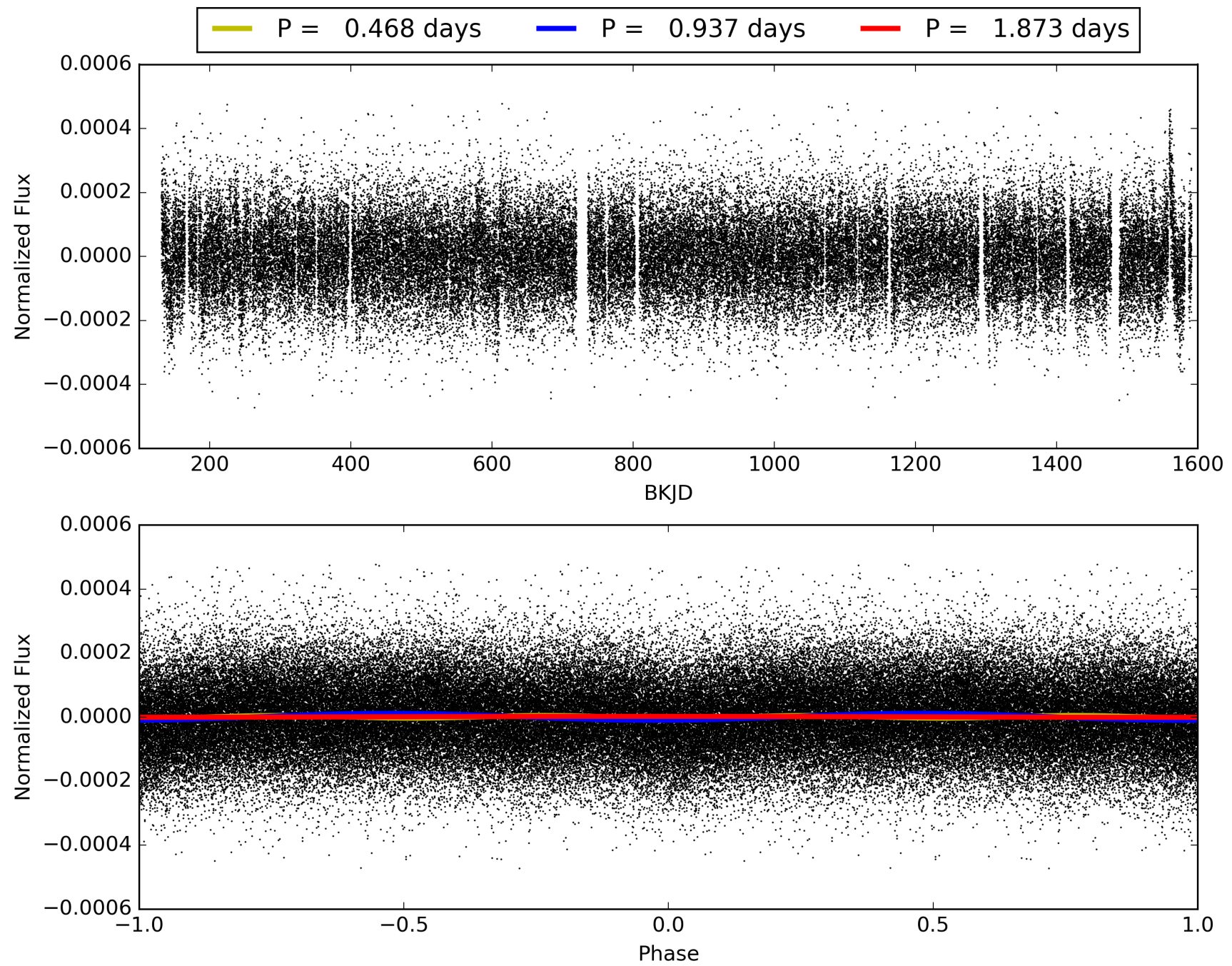
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:43:17 Z

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

TCE 006129694-01, PDC Light Curves

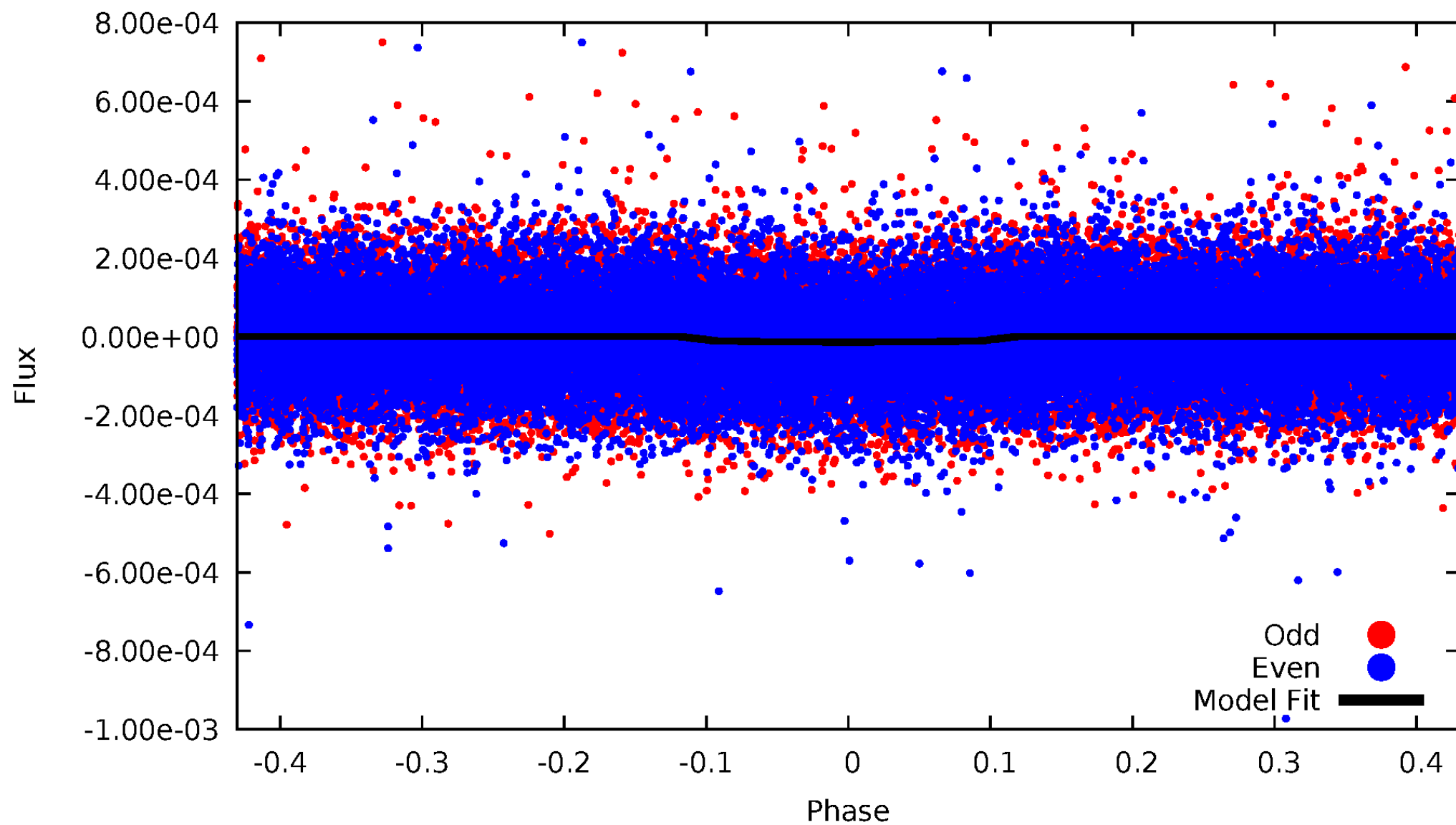


TCE 006129694-01



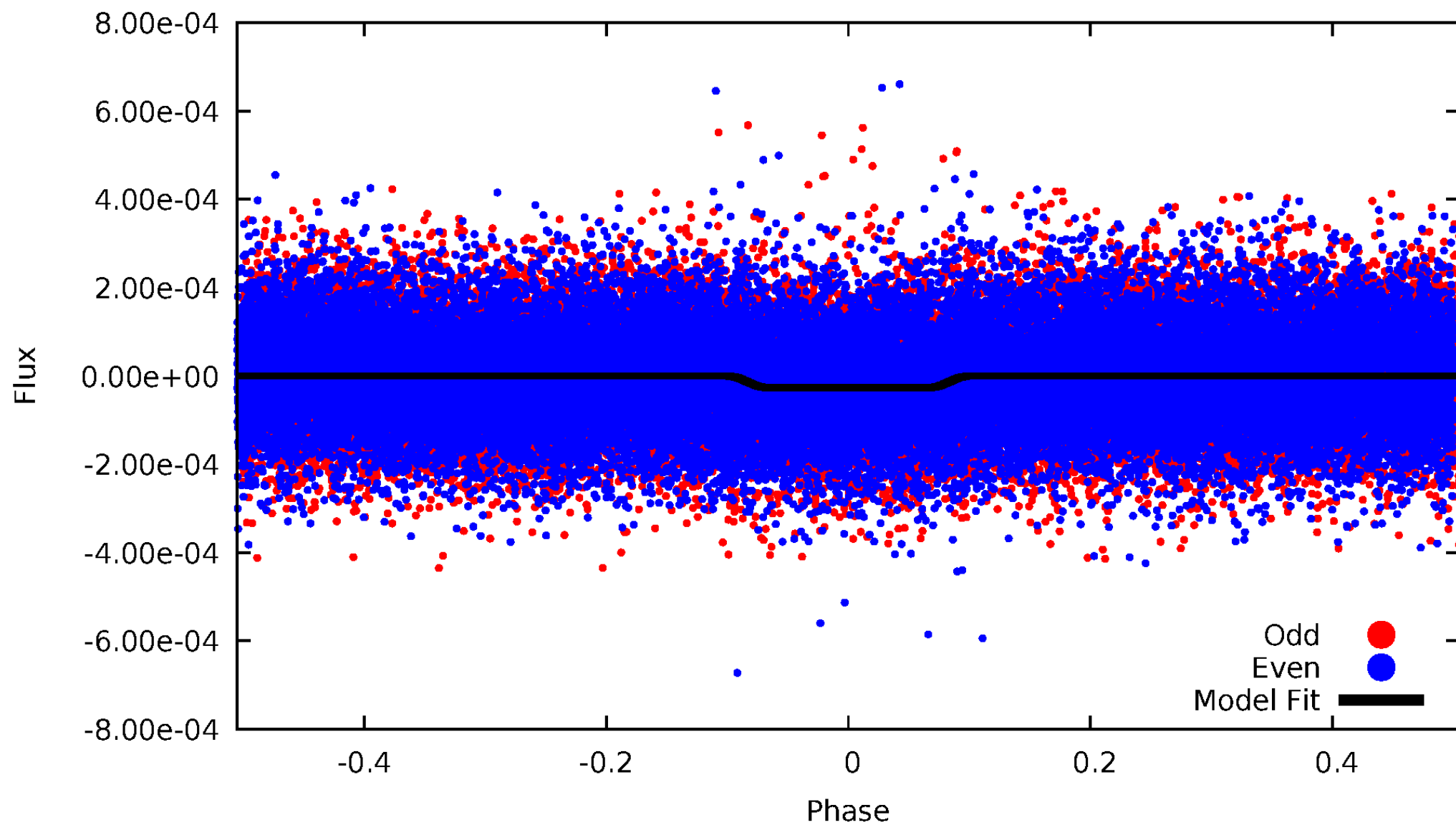
DV Odd/Even

TCE 006129694-01



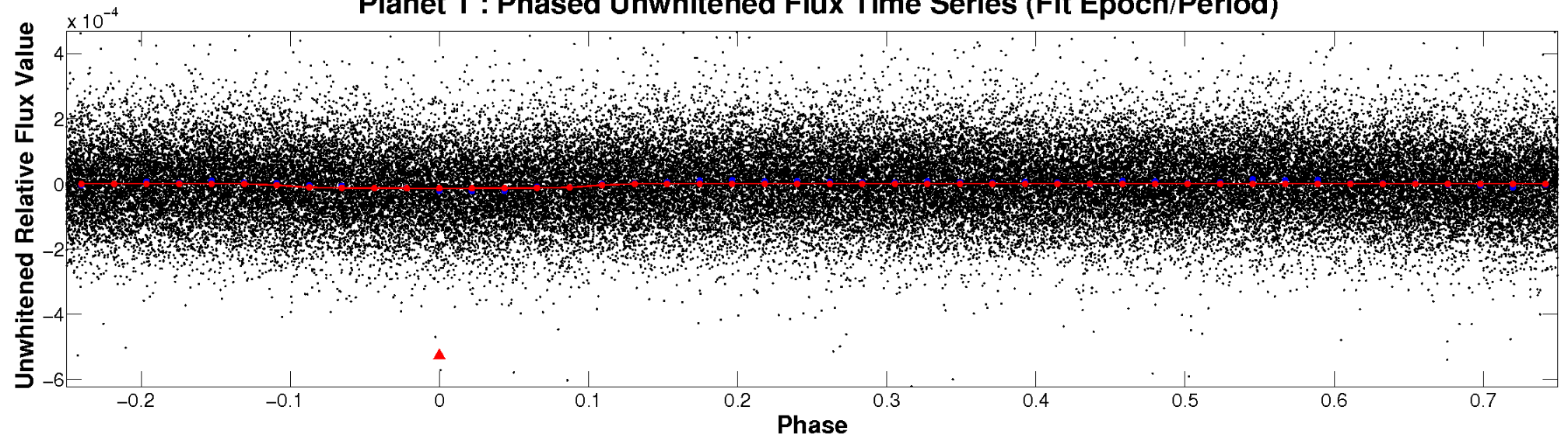
ALT Odd/Even

TCE 006129694-01

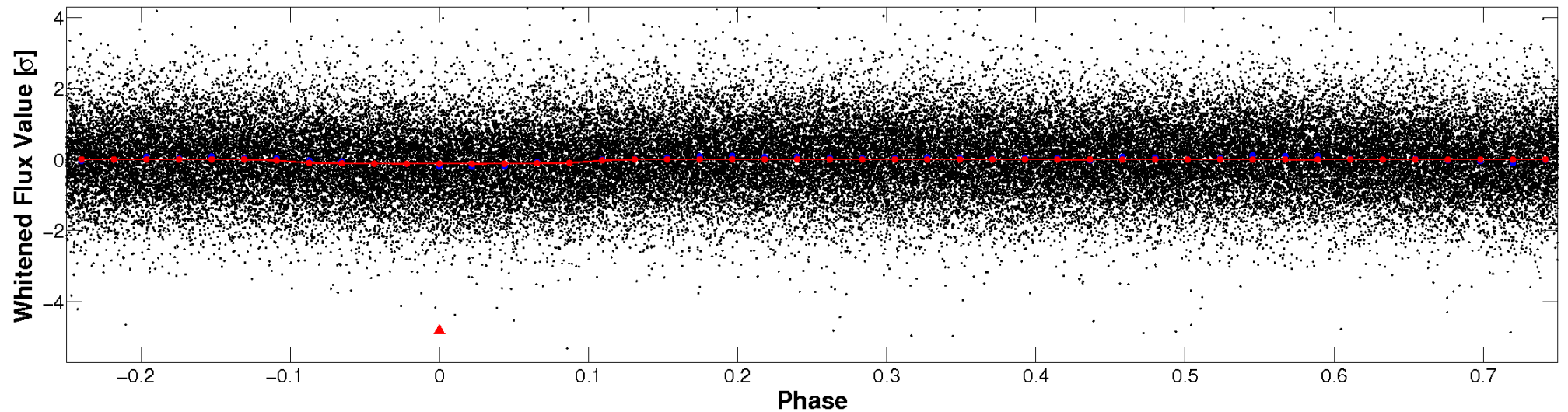


Non-Whitened Vs. Whitened Light Curve

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

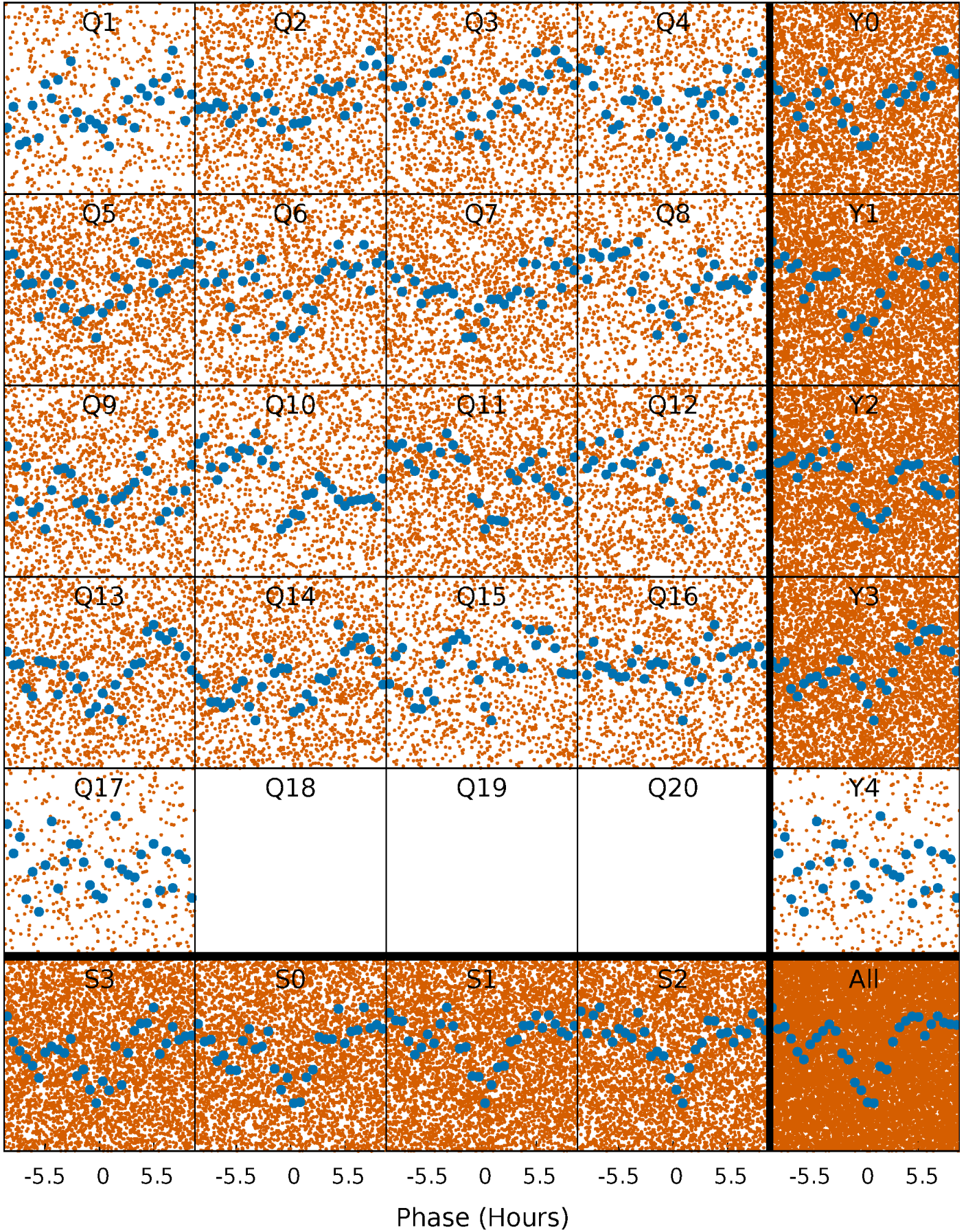


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



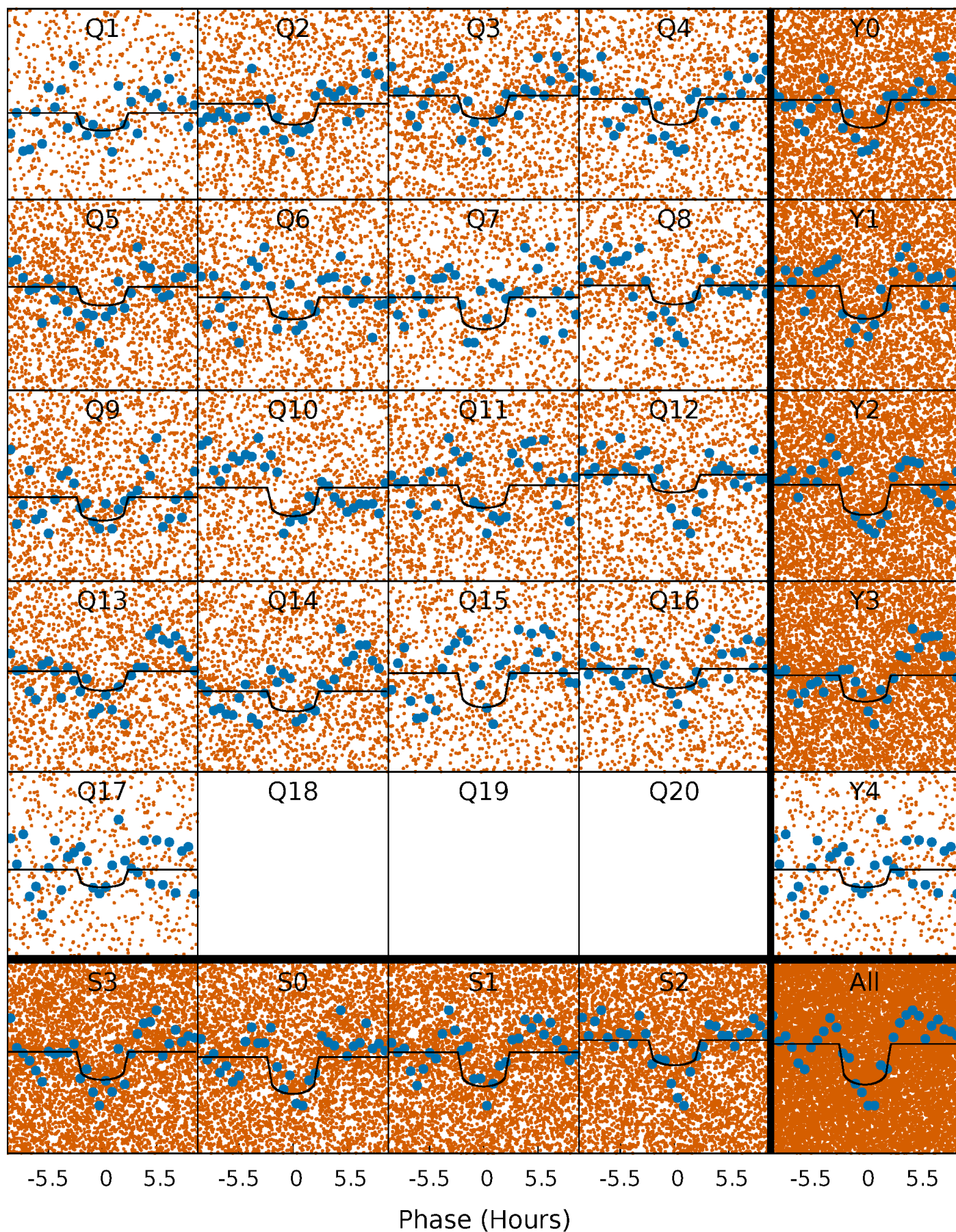
PDC Quarter-Phased Transit Curves

TCE 006129694-01 P= 0.936701 Days $T_0=132.231809$ (BKJD)



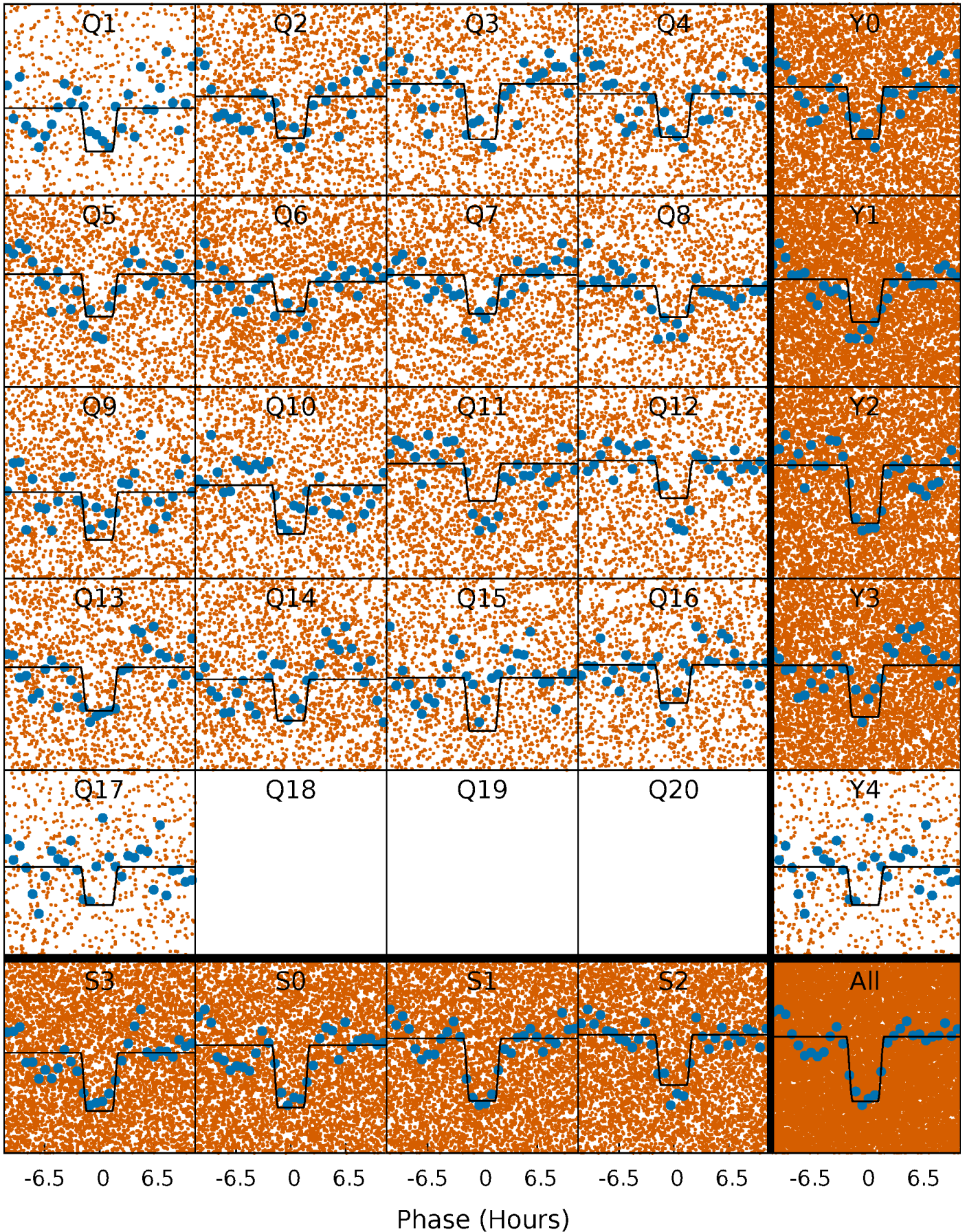
DV Quarter-Phased Transit Curves

TCE 006129694-01 P= 0.936701 Days $T_0=132.231809$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

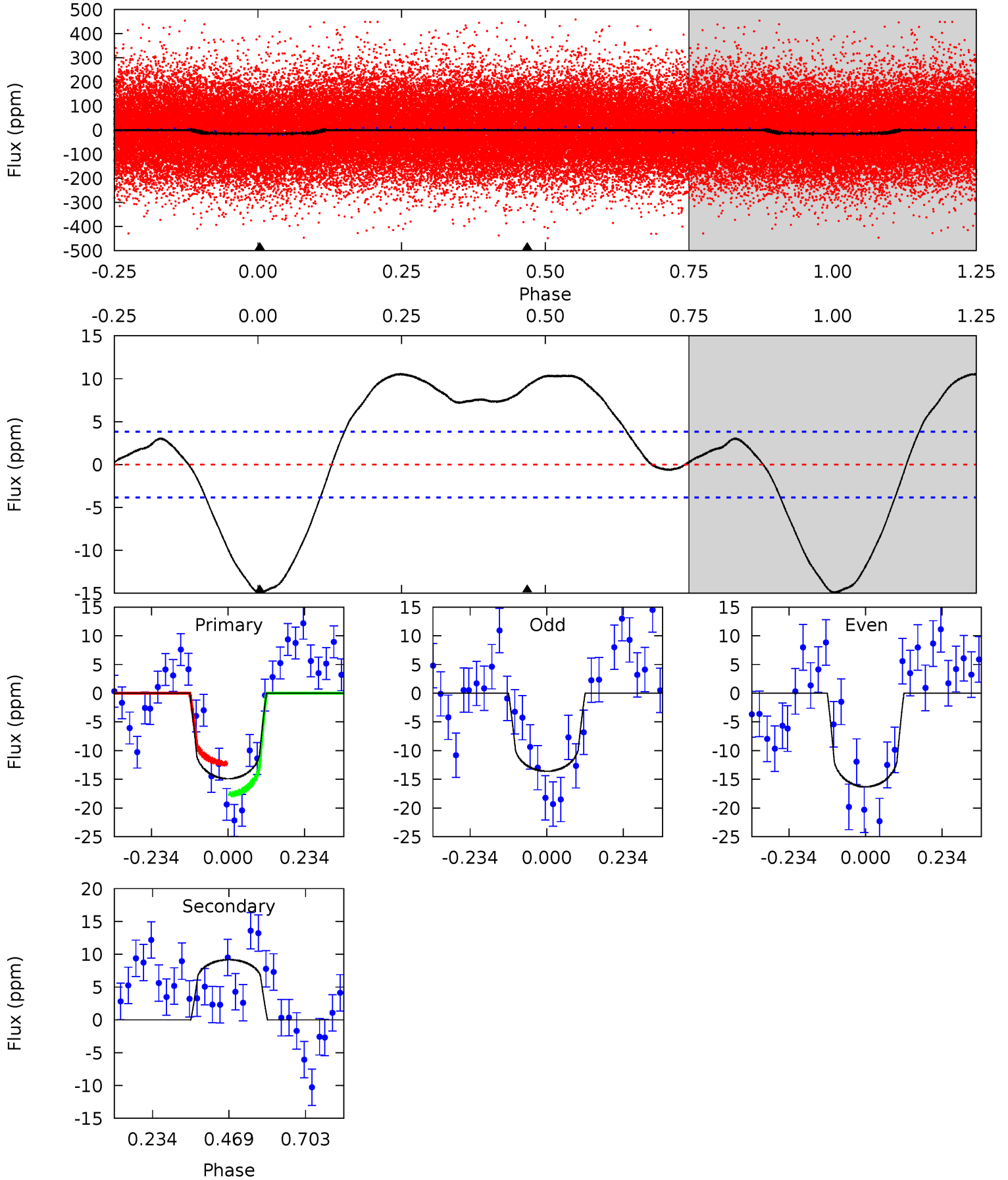
TCE 006129694-01 P= 0.936749 Days $T_0=132.205655$ (BKJD)



DV Model-Shift Uniqueness Test

006129694-01, P = 0.936701 Days, E = 131.295108 Days

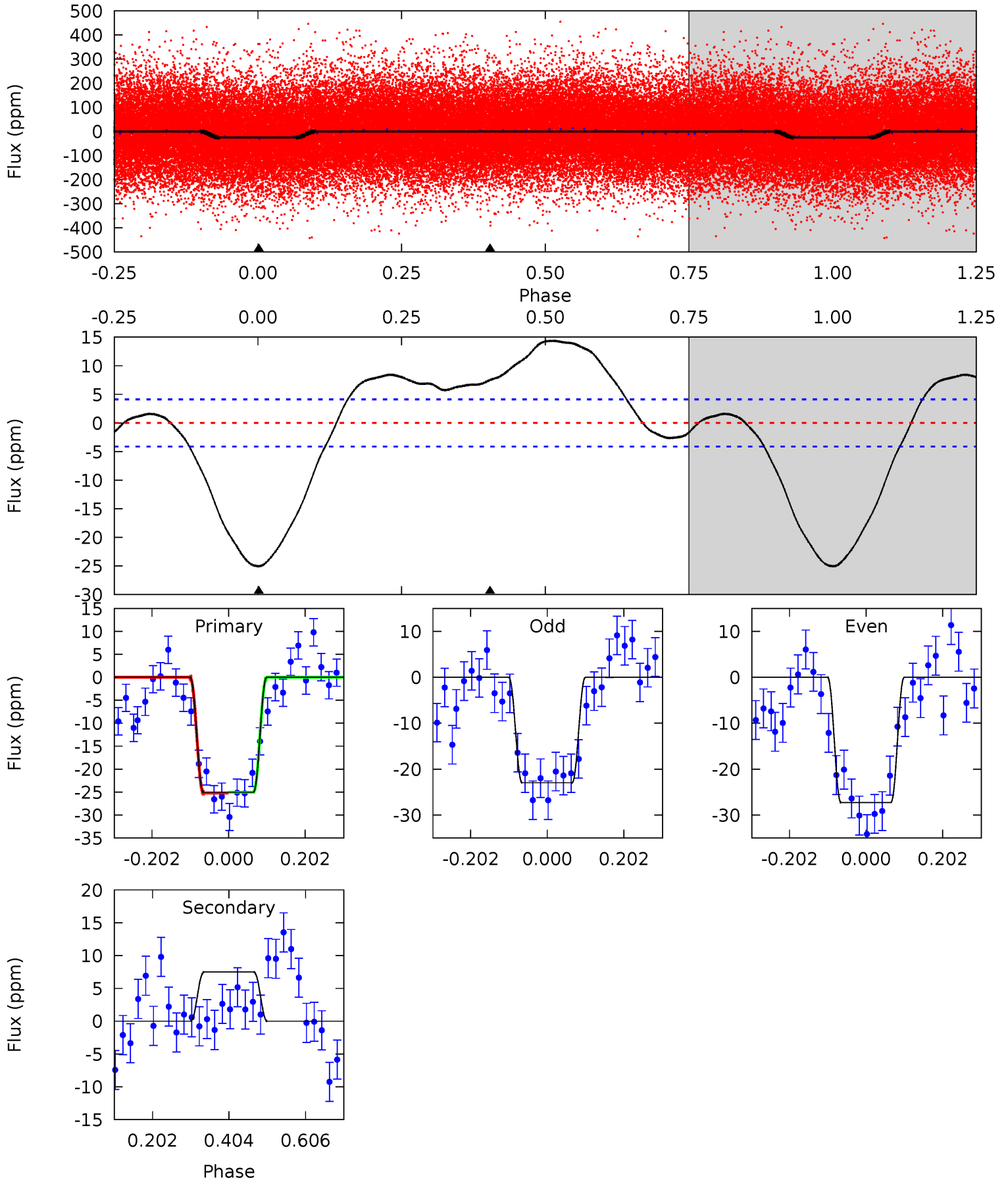
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	-10.5	0	0	4.38	1.19	4.33	17.0	17.0	-10.5	-10.5	1.55	1.02	0.41	3.02



Alt Model-Shift Uniqueness Test

006129694-01, P = 0.936749 Days, E = 131.268906 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.7	-7.99	0	0	4.42	1.28	3.54	26.7	26.7	-7.99	-7.99	2.29	1.09	0.36	0.09



Stellar Parameters For KIC 006129694

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7843^{+218}_{-327}	$3.829^{+0.315}_{-0.105}$	$0.070^{+0.250}_{-0.400}$	$2.909^{+0.490}_{-1.143}$	$2.081^{+0.284}_{-0.527}$	$0.119^{+0.290}_{-0.040}$
	+3%/-4%	+8%/-3%	+357%/-571%	+17%/-39%	+14%/-25%	+244%/-34%
Source	KIC0	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 006129694-01 / KOI 4131.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	9 ± 1	$1.07^{+0.31}_{-0.30}$	5212^{+346}_{-489}	-7300^{+737}_{-1102}	$-2.497^{+0.996}_{-2.034}$
Alt.	7 ± 1	$1.55^{+0.34}_{-0.36}$	5211^{+344}_{-473}	-5999^{+390}_{-436}	$-0.987^{+0.335}_{-0.636}$

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

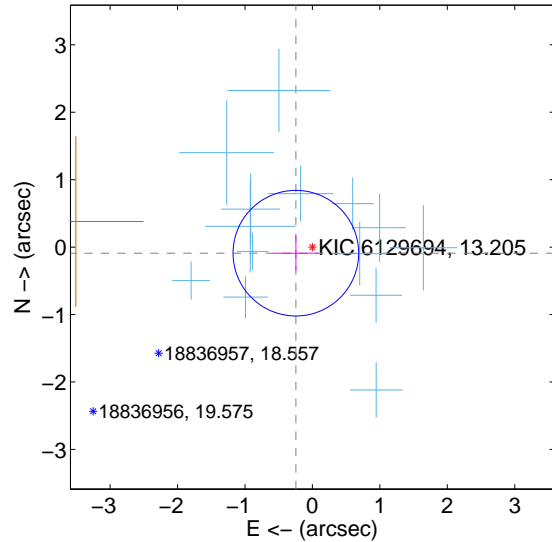
Supplemental centroid analysis for 006129694-01. Kepler magnitude: 13.21. Transit SNR 12.01

There are 14 quarters with good PRF difference image offsets

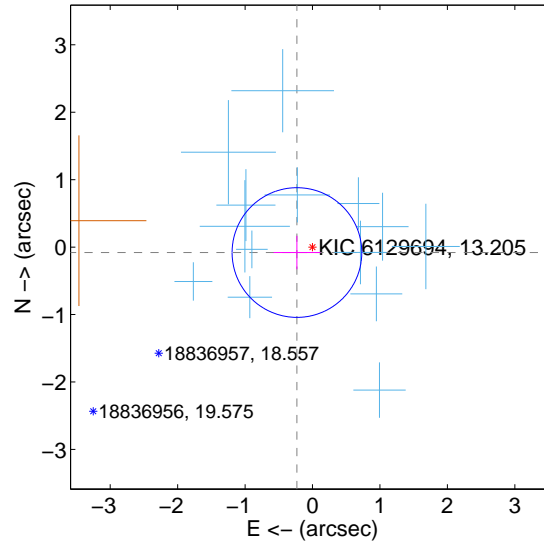
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.262 ± 0.310	0.84	0.246 ± 0.335	-0.090 ± 0.261
PRF-fit source offset from KIC position	0.245 ± 0.320	0.76	0.231 ± 0.348	-0.081 ± 0.249
photometric centroid source offset	0.09 ± 0.97	0.09	-0.08 ± 0.95	-0.04 ± 1.03

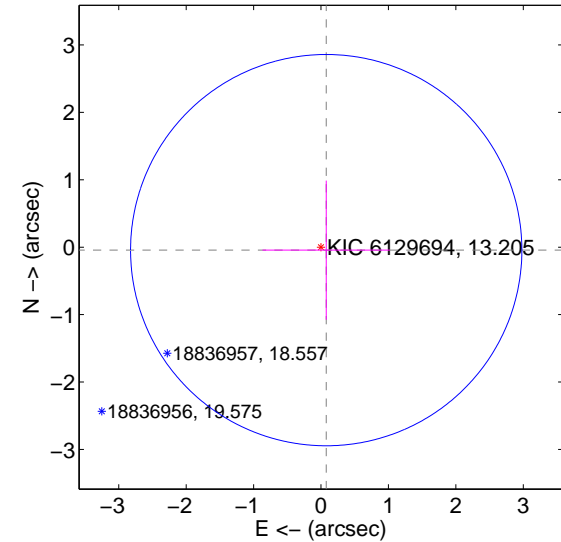
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

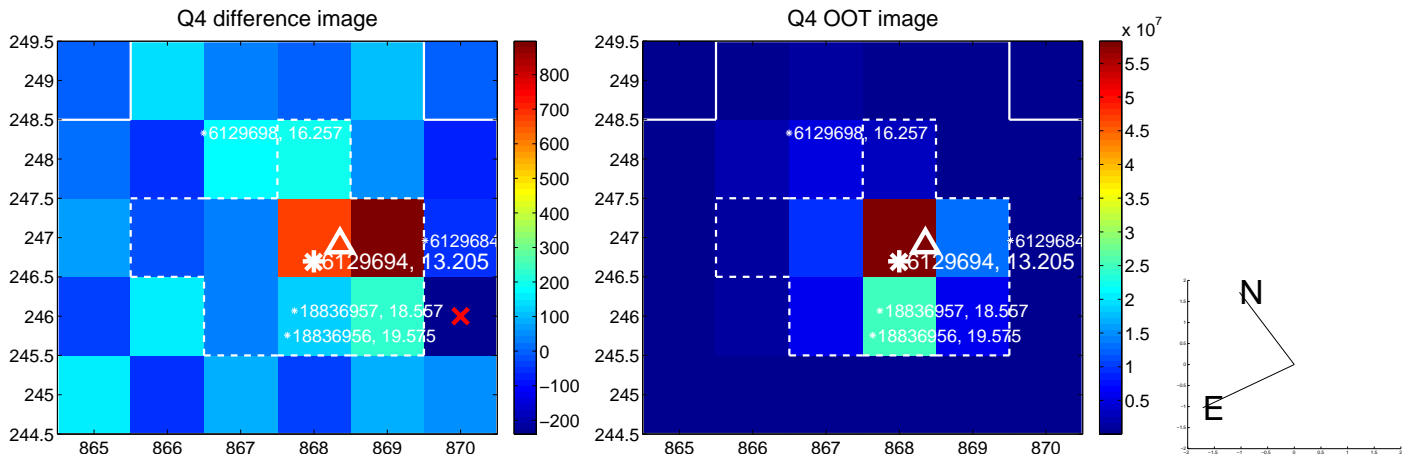
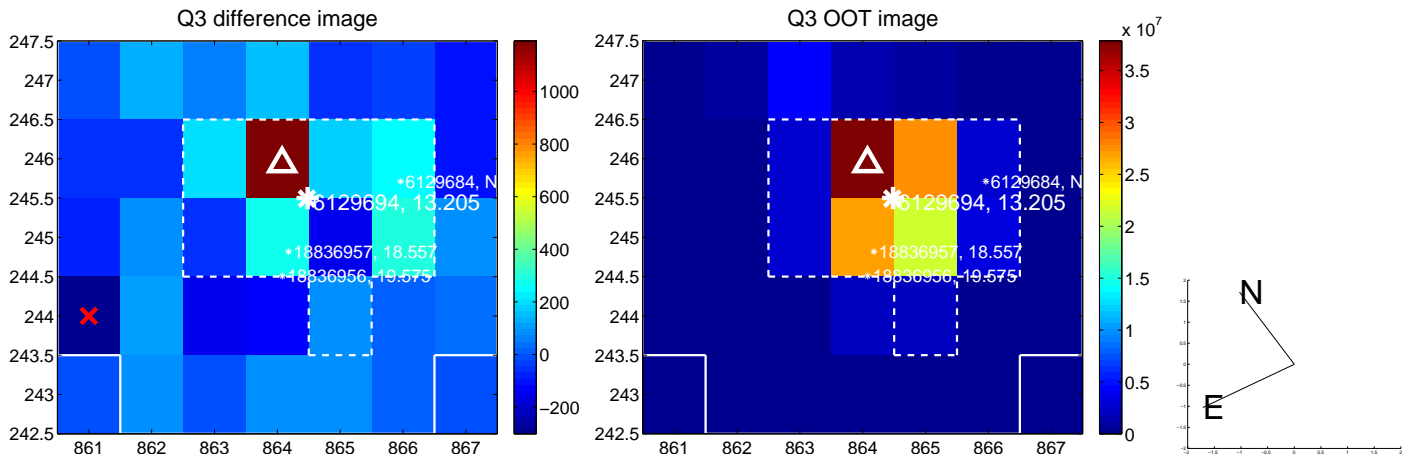
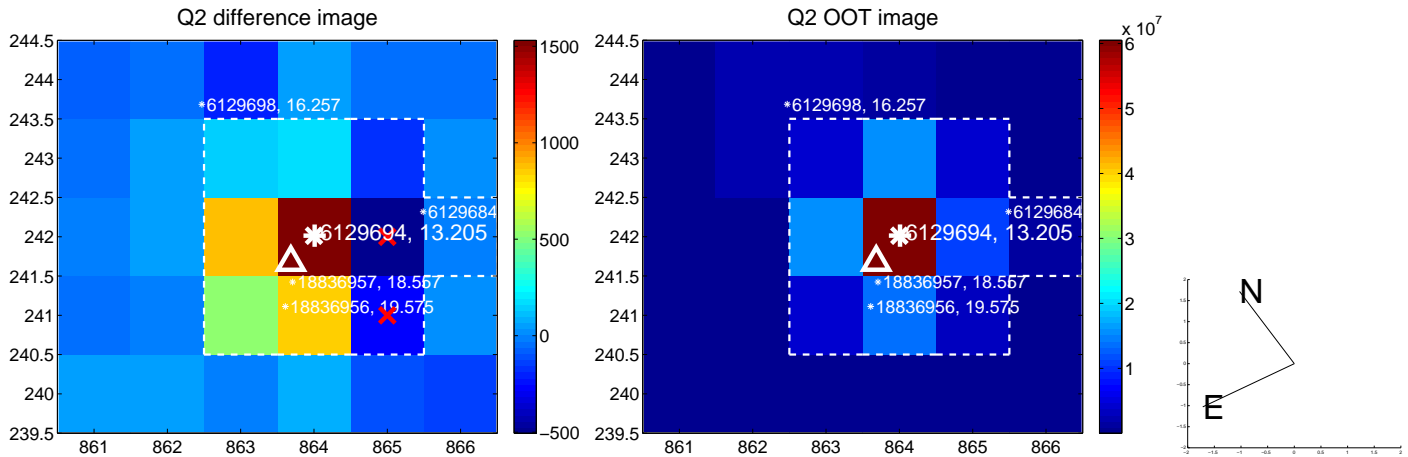
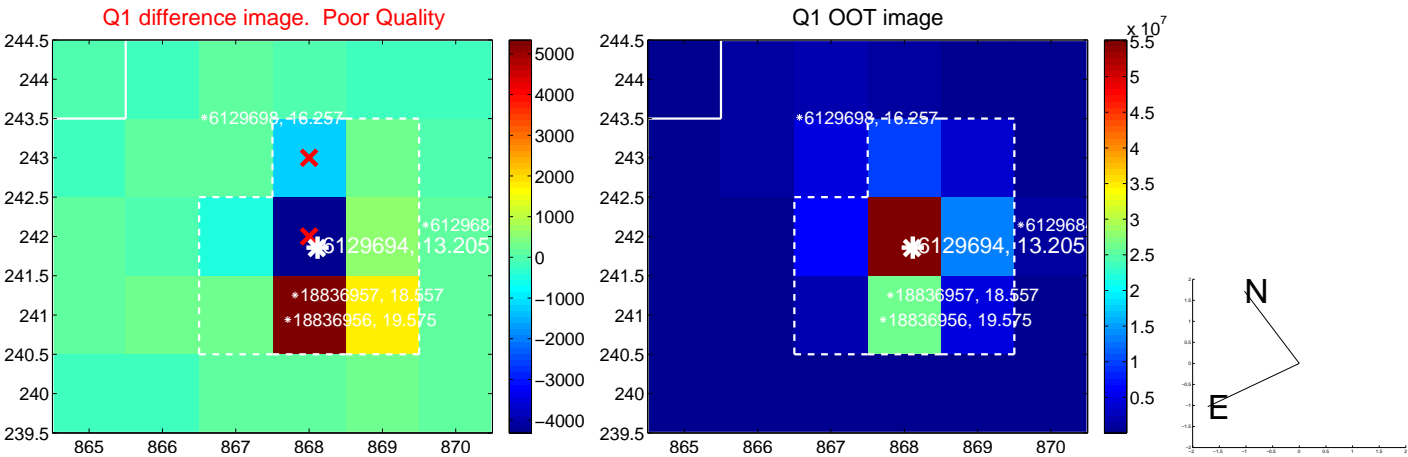


offset from photometric centroids

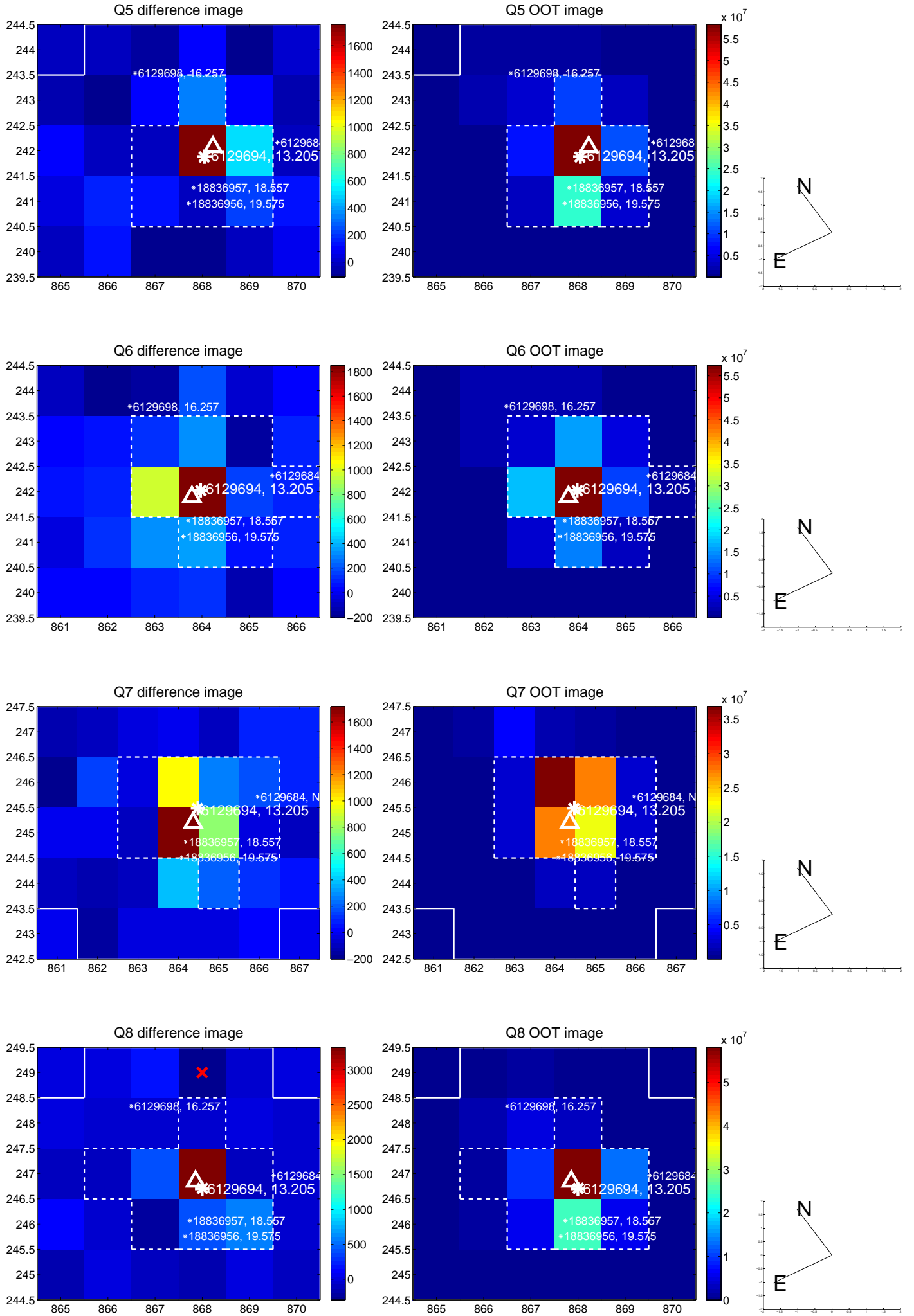


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

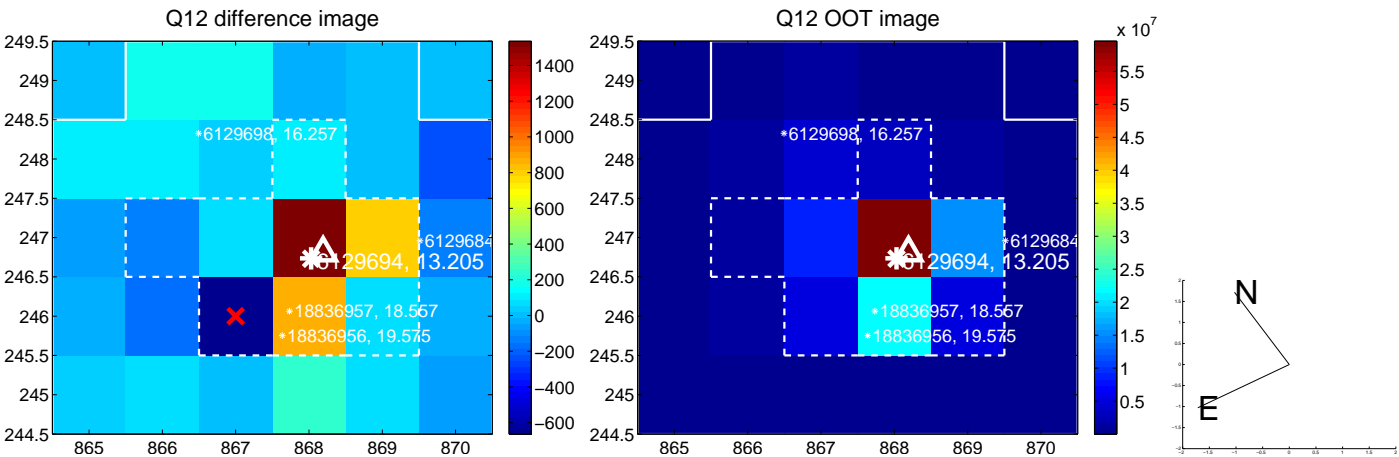
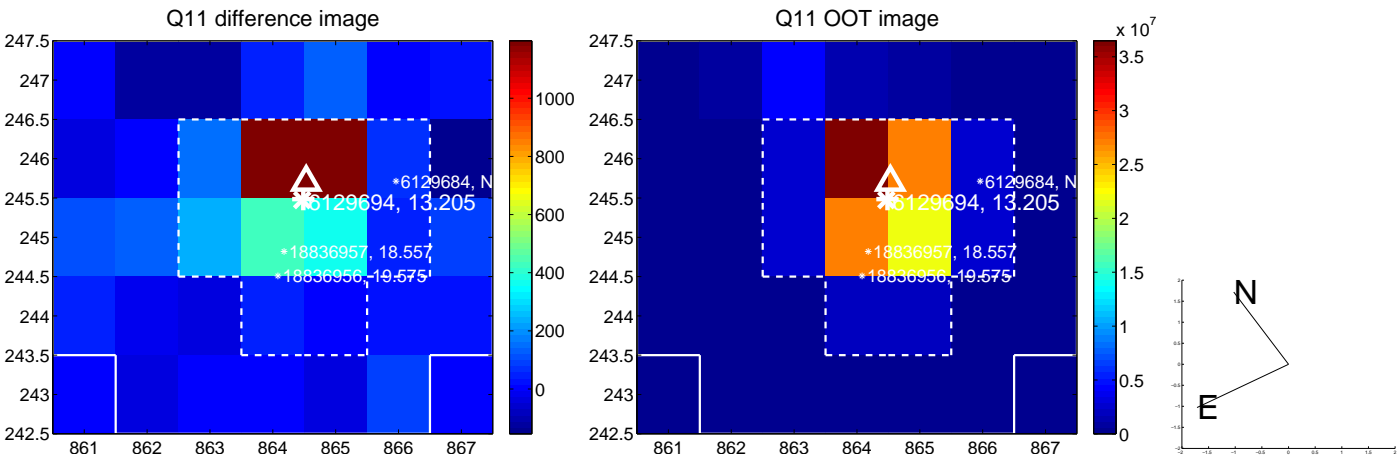
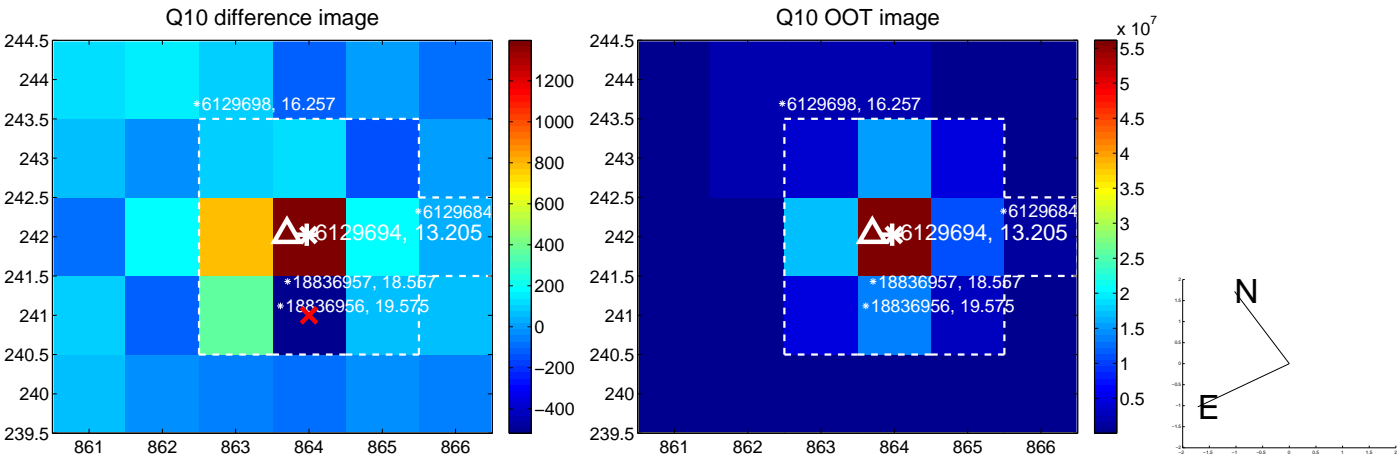
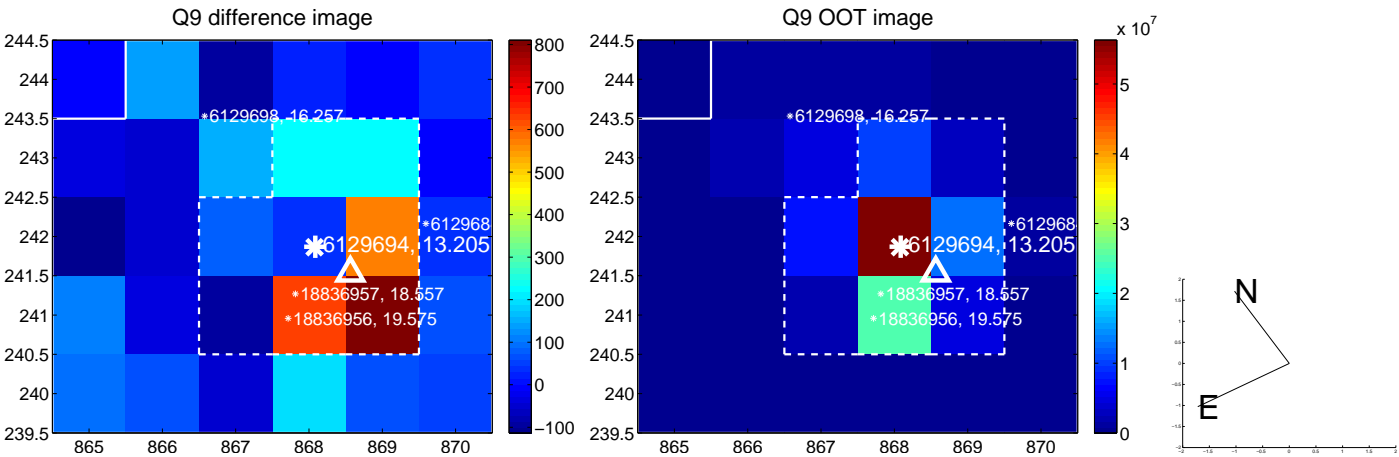
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



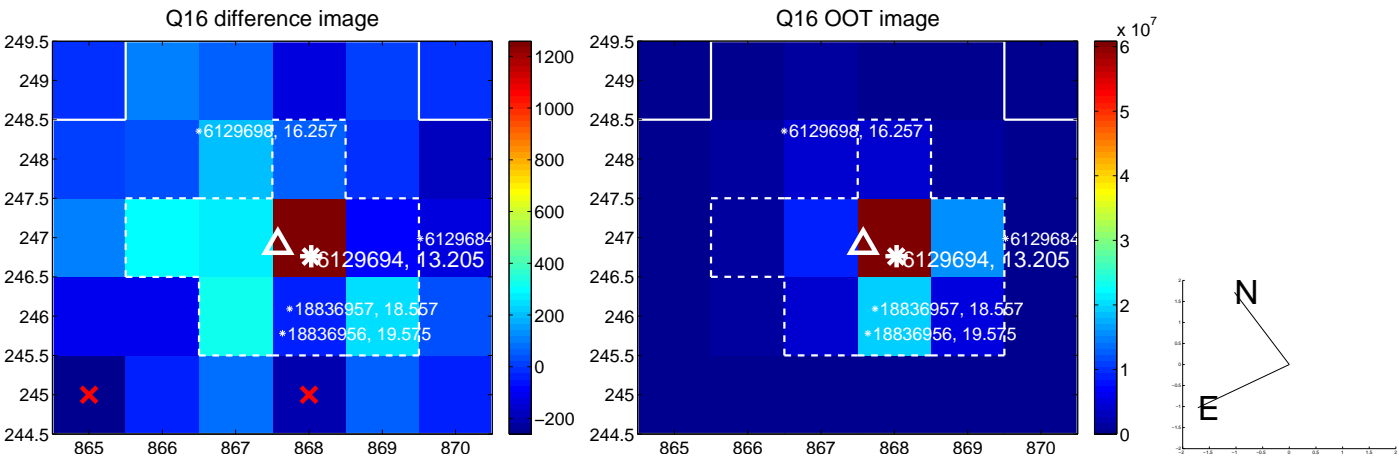
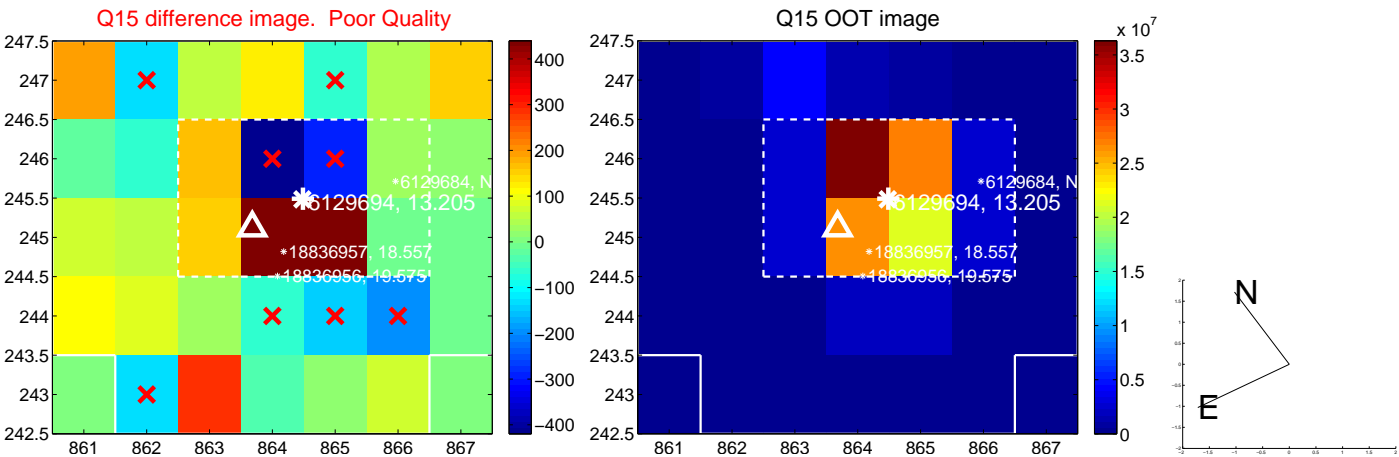
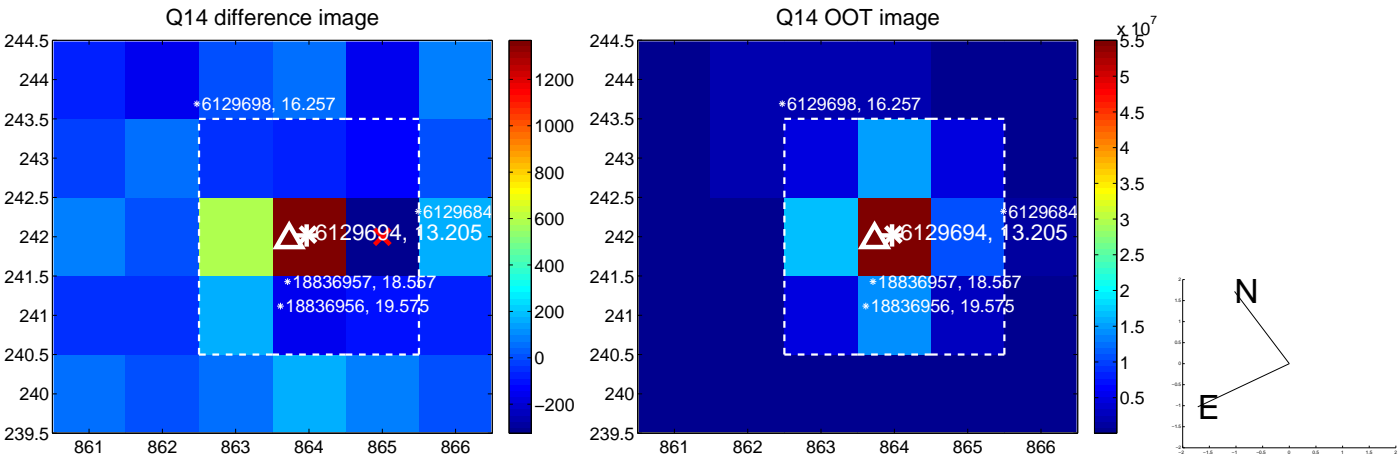
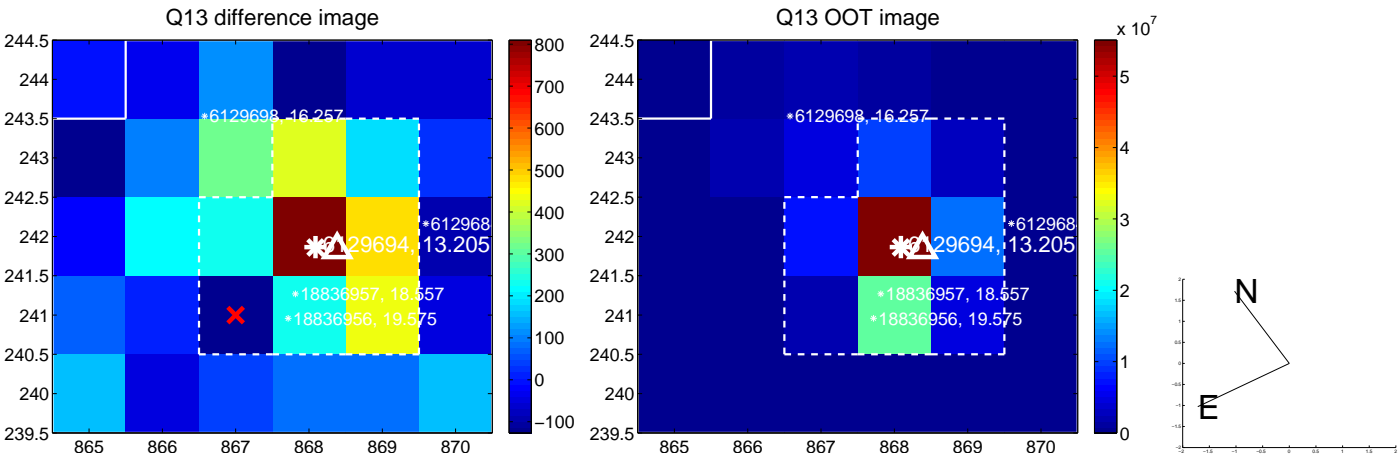
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



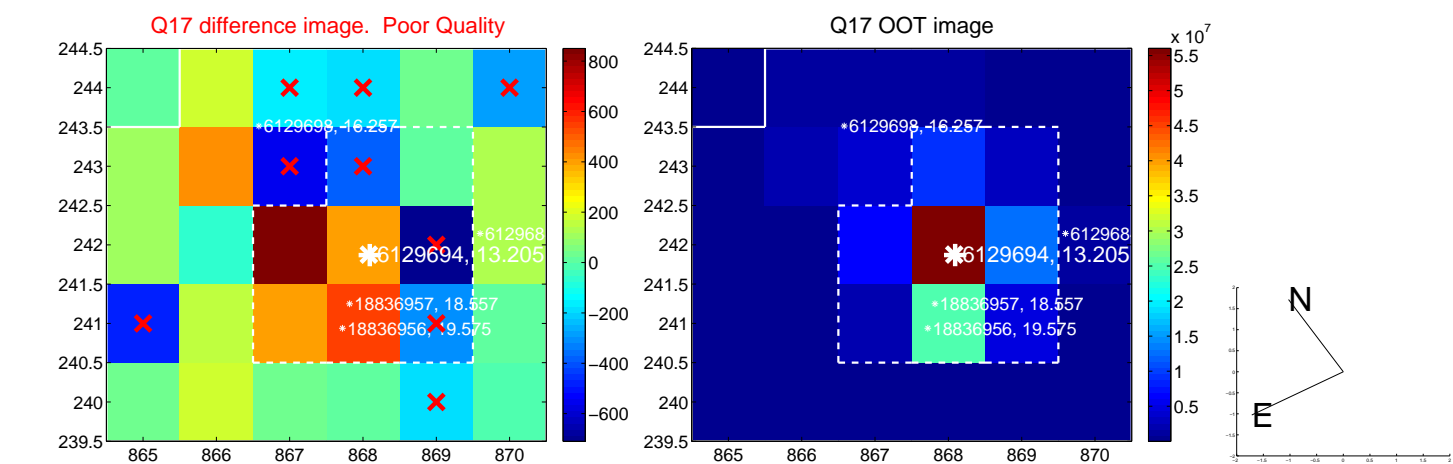
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



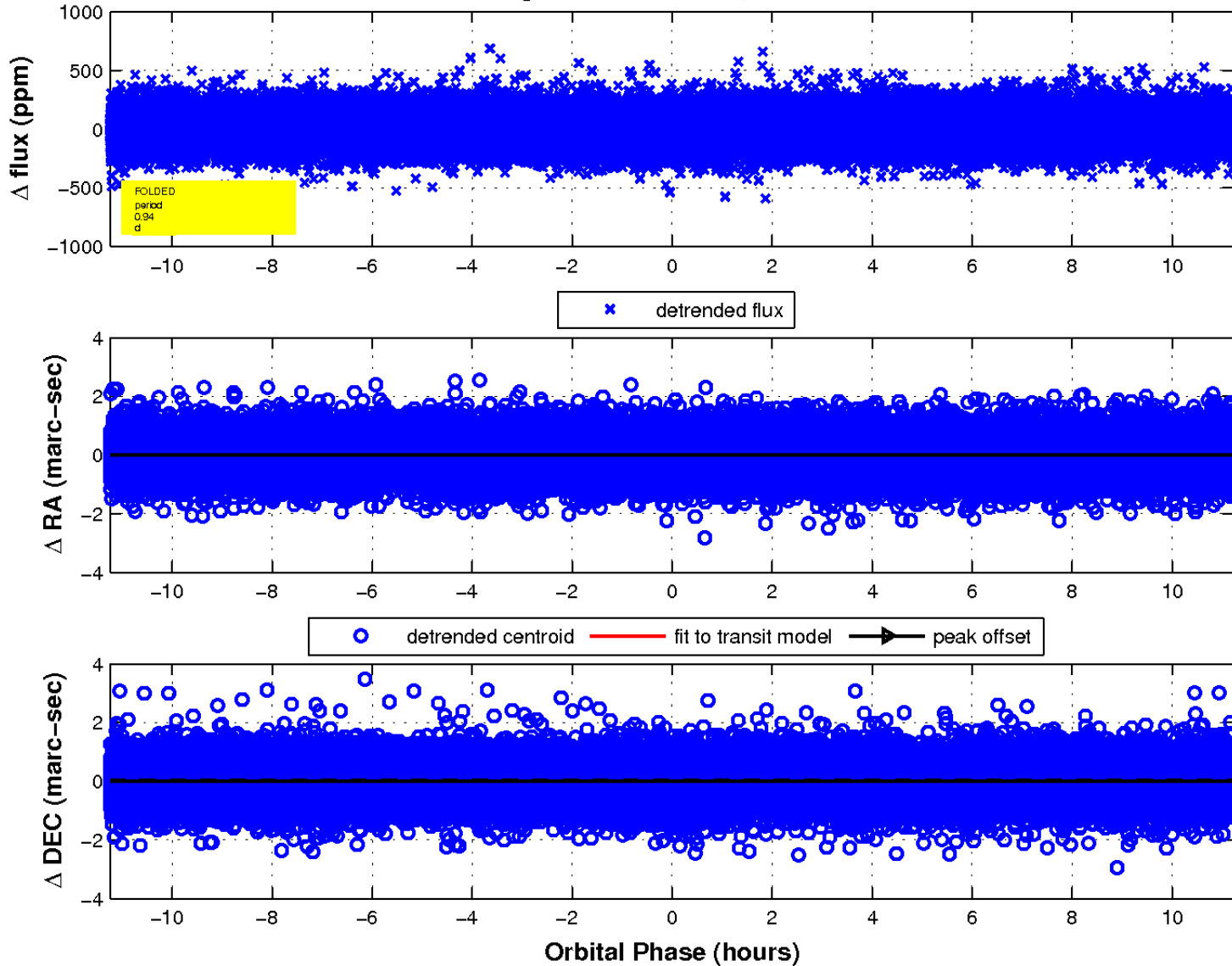
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

