

KIC 011294931

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})
011294931-01	OBS	No	0.614284	131.586453	67.4	6.313	15.9	21.0	1.51	6944	1.27	21154.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011294931-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

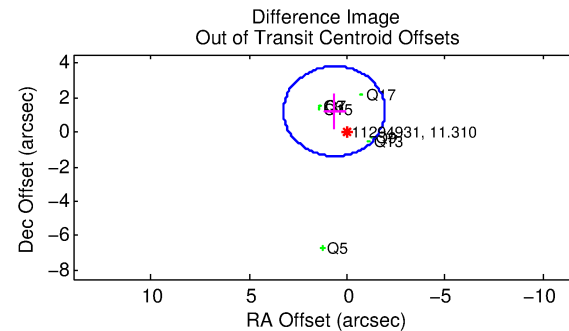
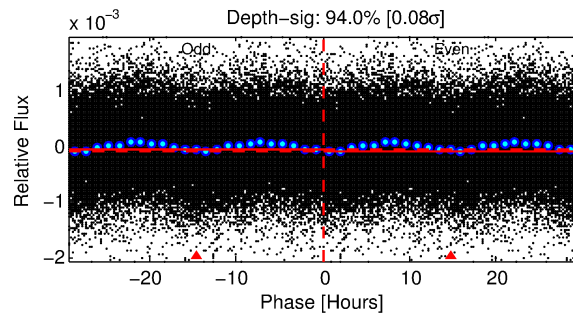
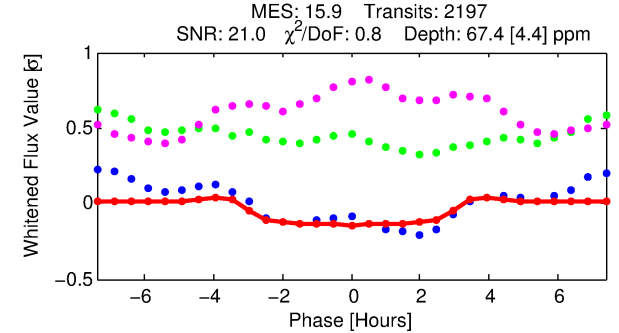
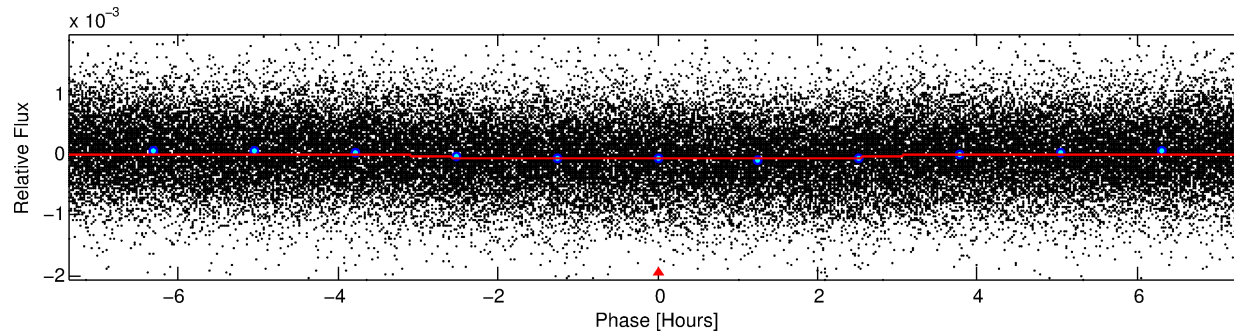
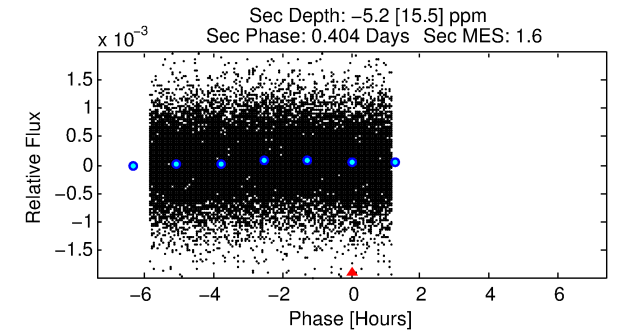
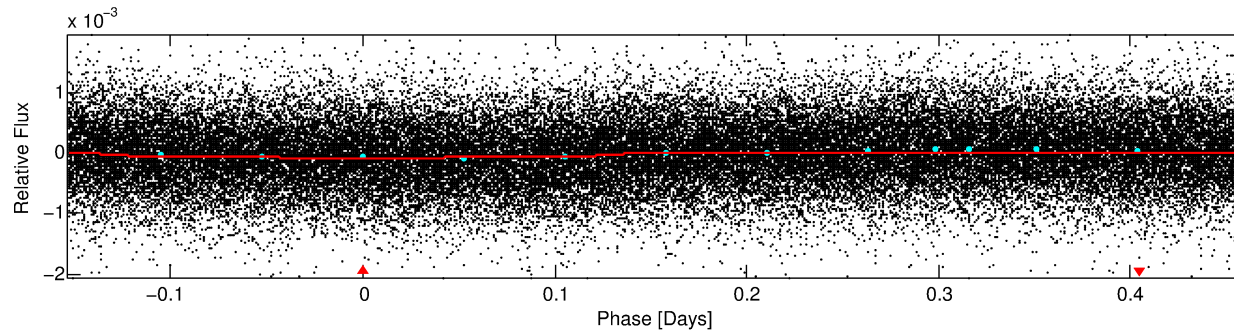
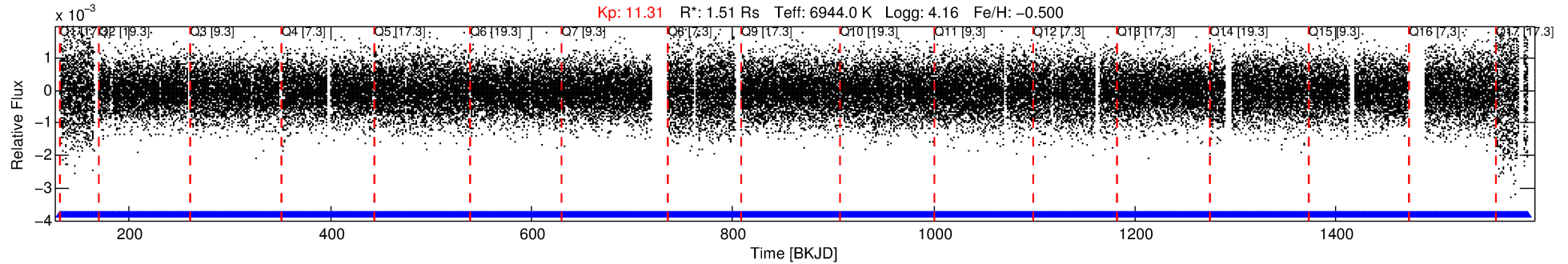
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011294931-01

No Significant Match Found

DV One-Page Summary

KIC: 11294931 Candidate: 1 of 1 Period: 0.614 d



DV Fit Results:

Period = 0.61428 [0.00001] d
Epoch = 131.5865 [0.0029] BKJD
 $R_p/R^* = 0.0077$ [0.0034]
 $a/R^* = 1.03$ [0.15]
 $b = 0.33$ [6.88]
 $\text{Seff} = 21154.38$ [8020.15]
 $\text{Teq} = 3075$ [291] K
 $R_p = 1.27$ [0.67] R_e
 $a = 0.0150$ [0.0035] AU
 $\text{Ag} = \text{N/A}$
 $\text{Teff} = \text{N/A}$

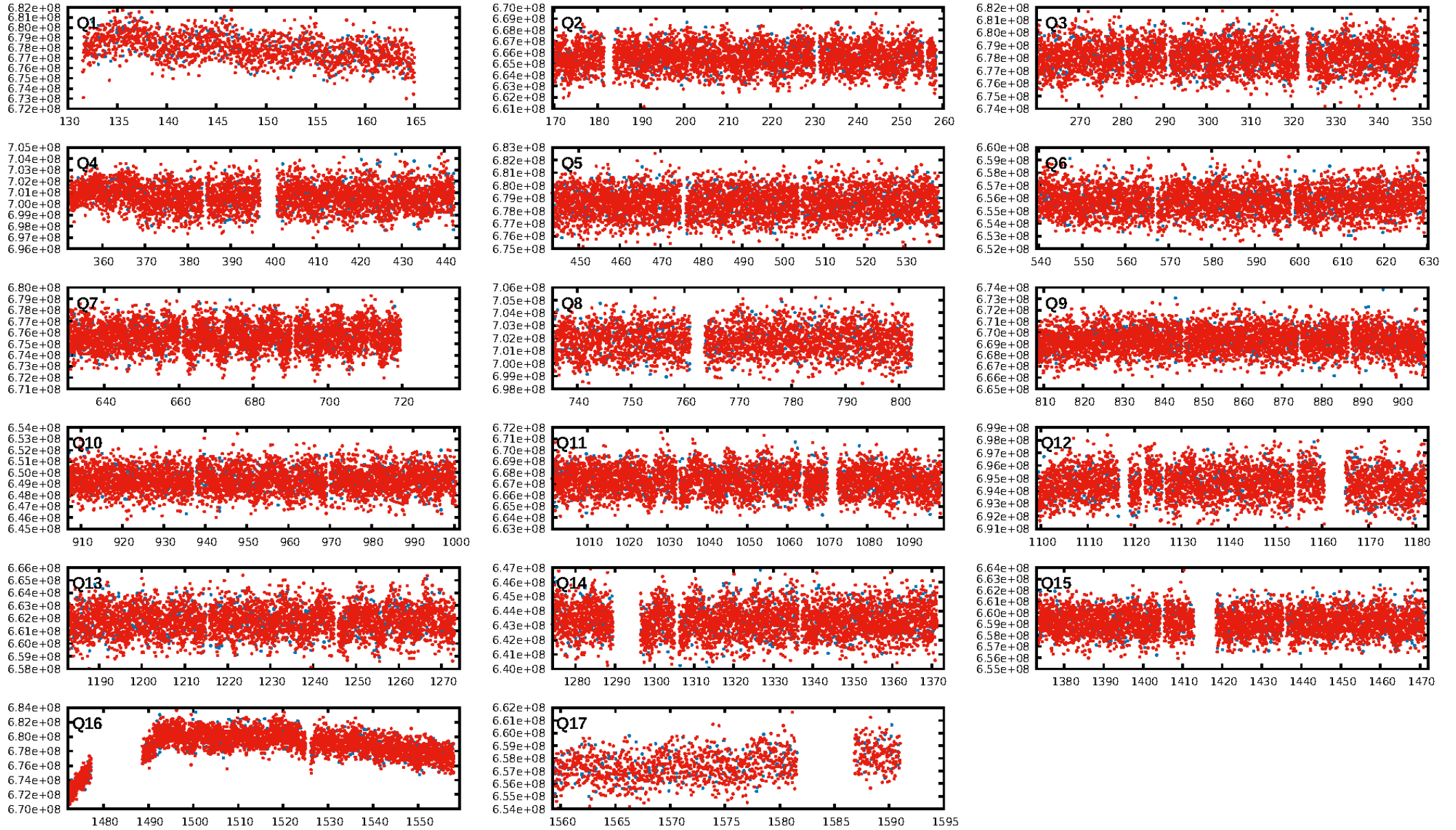
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2097/2097]
GhostDiagnostic-chr: 1.872
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.377 arcsec [1.59 σ]
KicOffset-rm: 1.351 arcsec [1.47 σ]
OotOffset-st: 0/3/0/4 [7]
KicOffset-st: 0/3/0/4 [7]
DiffImageQuality-fgm: 0.29 [2/7]
DiffImageOverlap-fno: 1.00 [17/17]

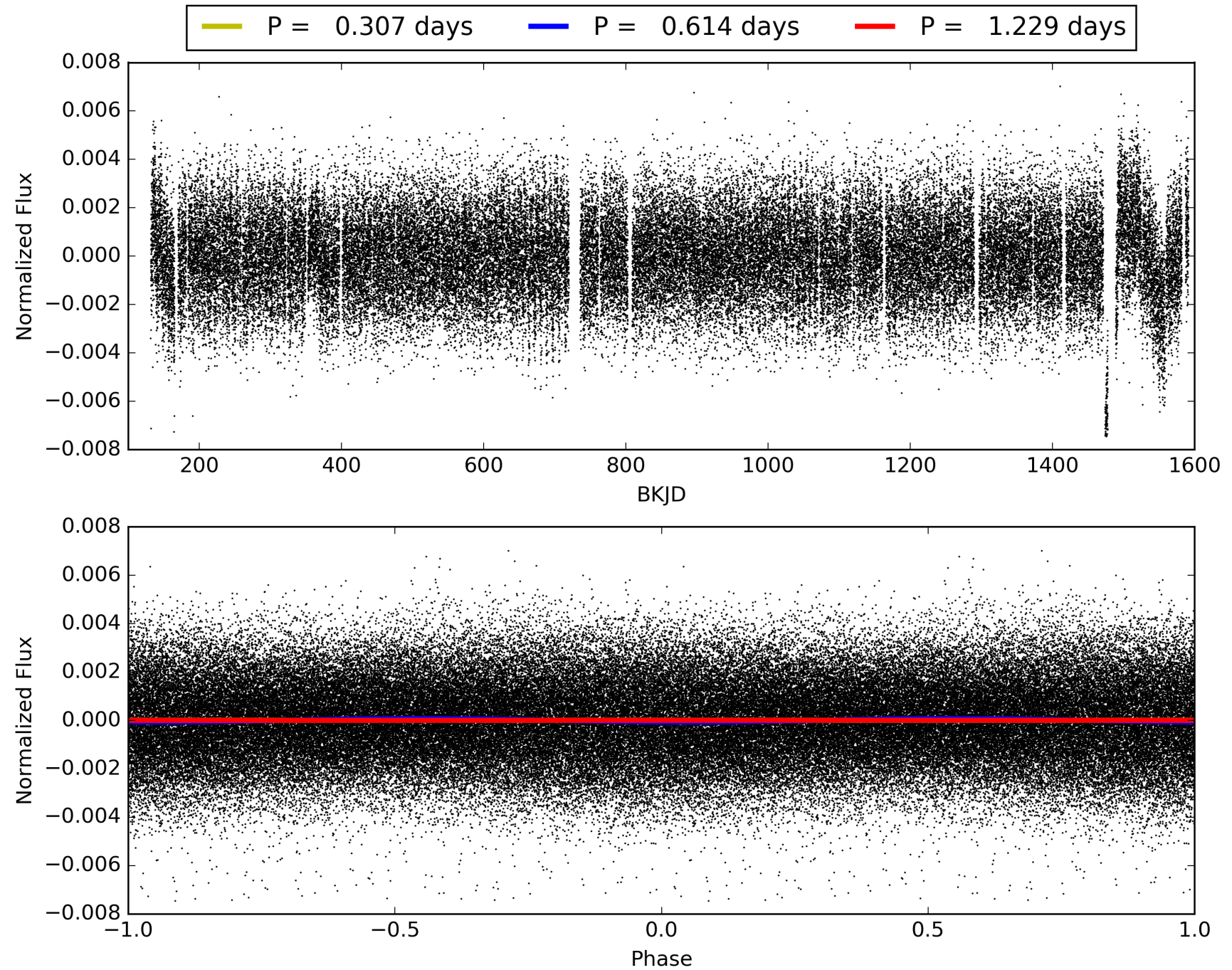
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:48:35 Z

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

TCE 011294931-01, PDC Light Curves

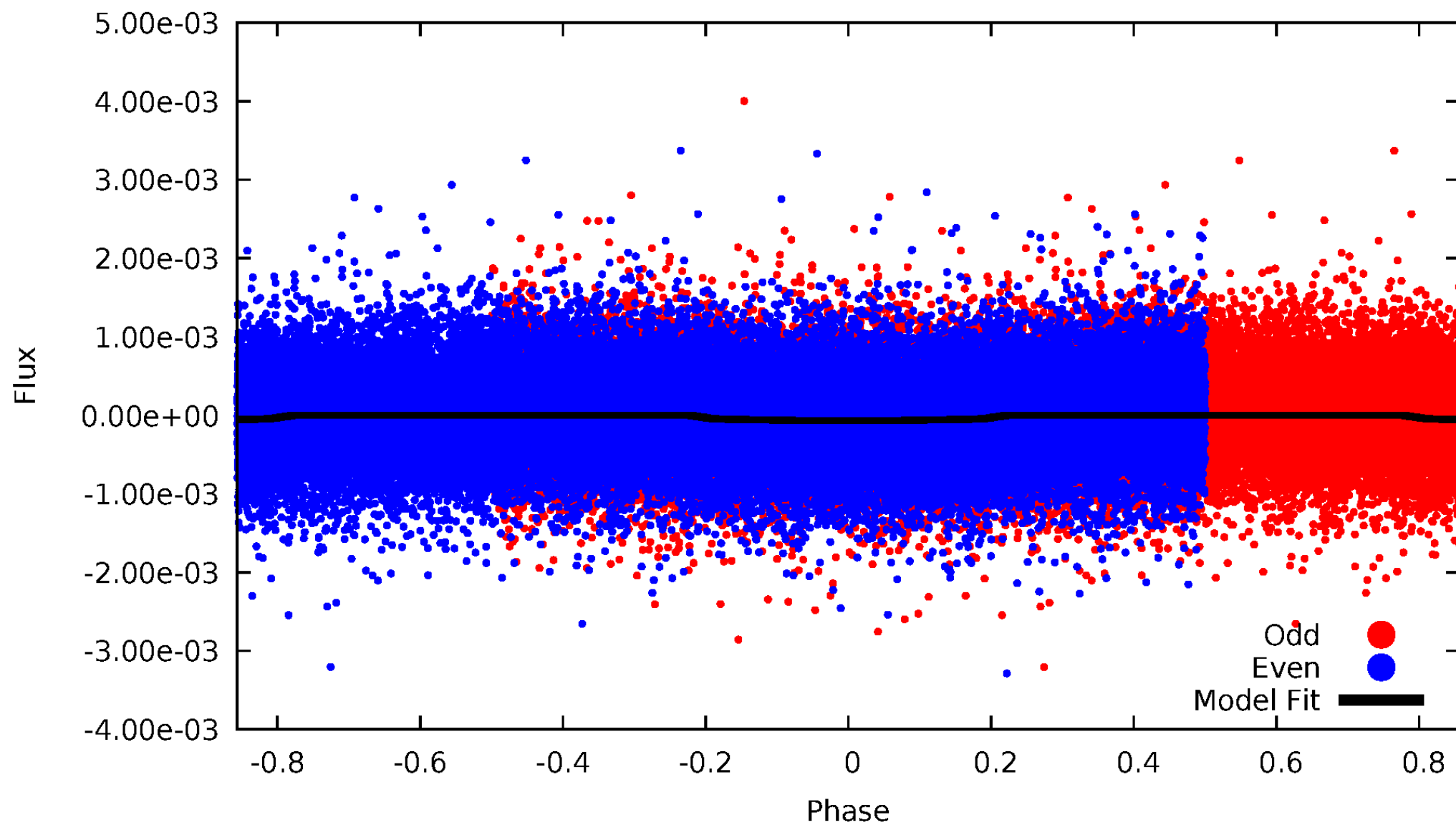


TCE 011294931-01



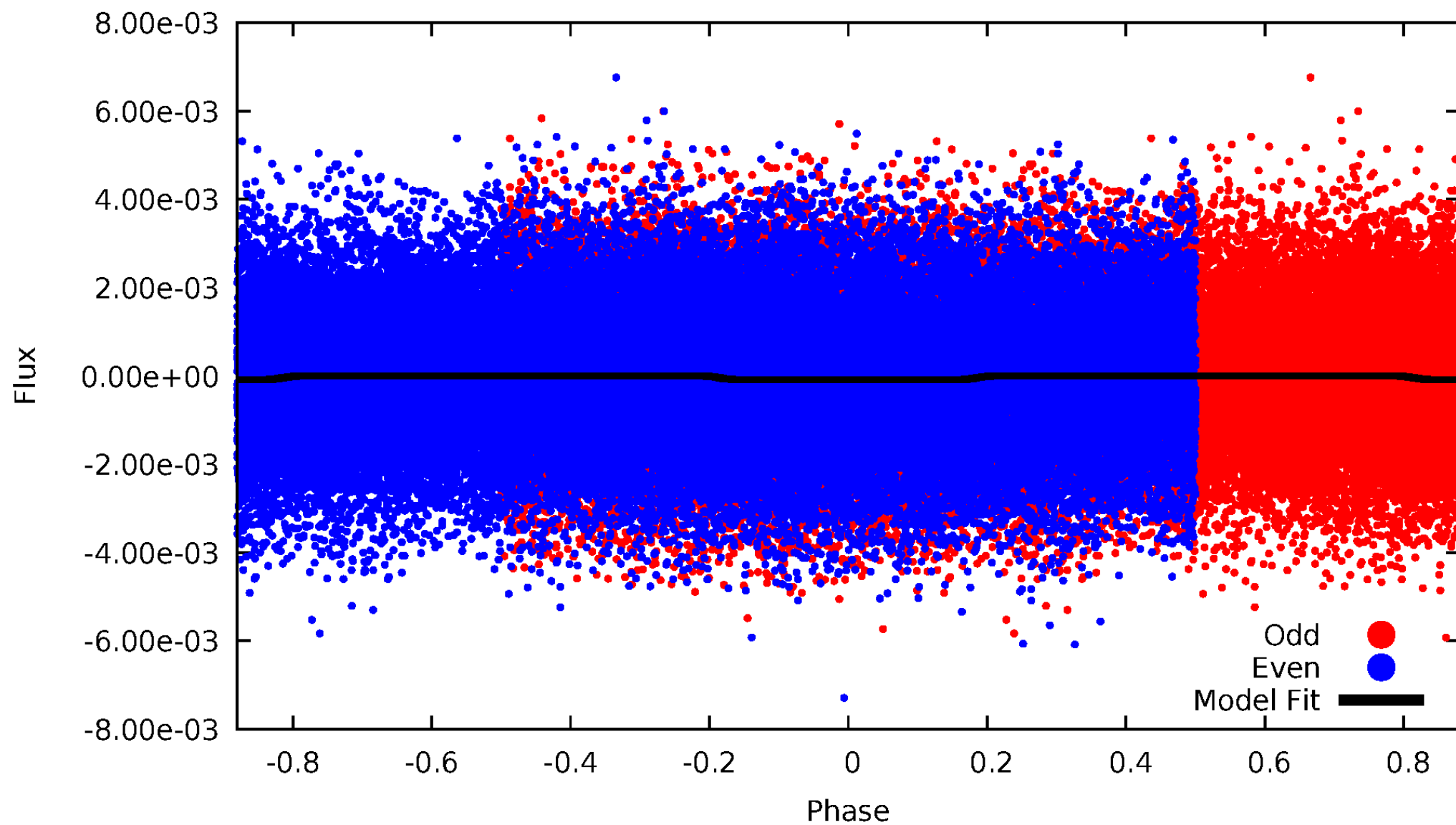
DV Odd/Even

TCE 011294931-01



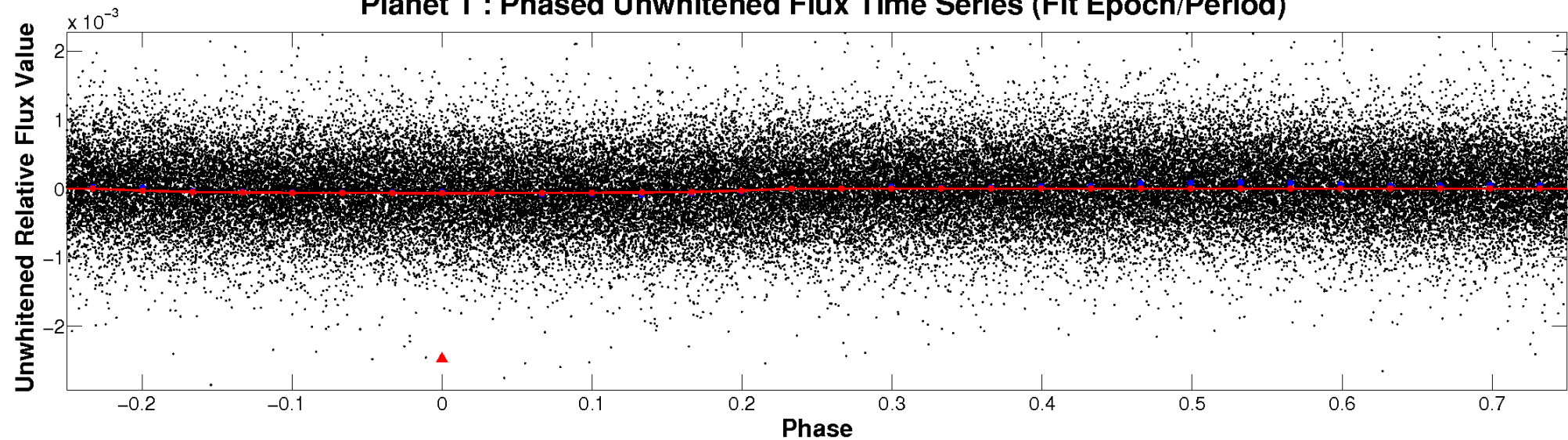
ALT Odd/Even

TCE 011294931-01

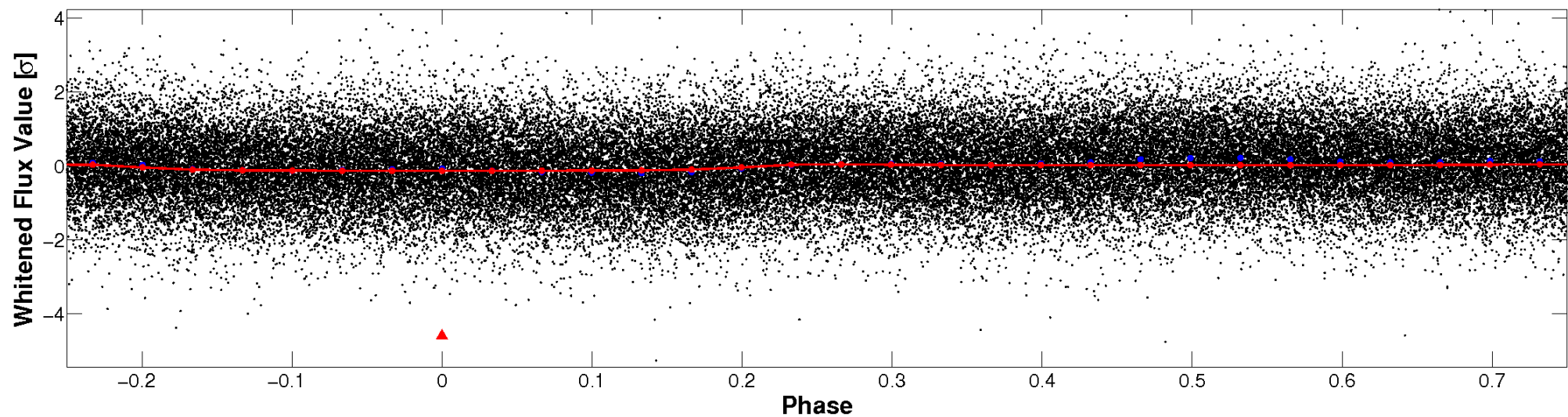


Non-Whitened Vs. Whitened Light Curve

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

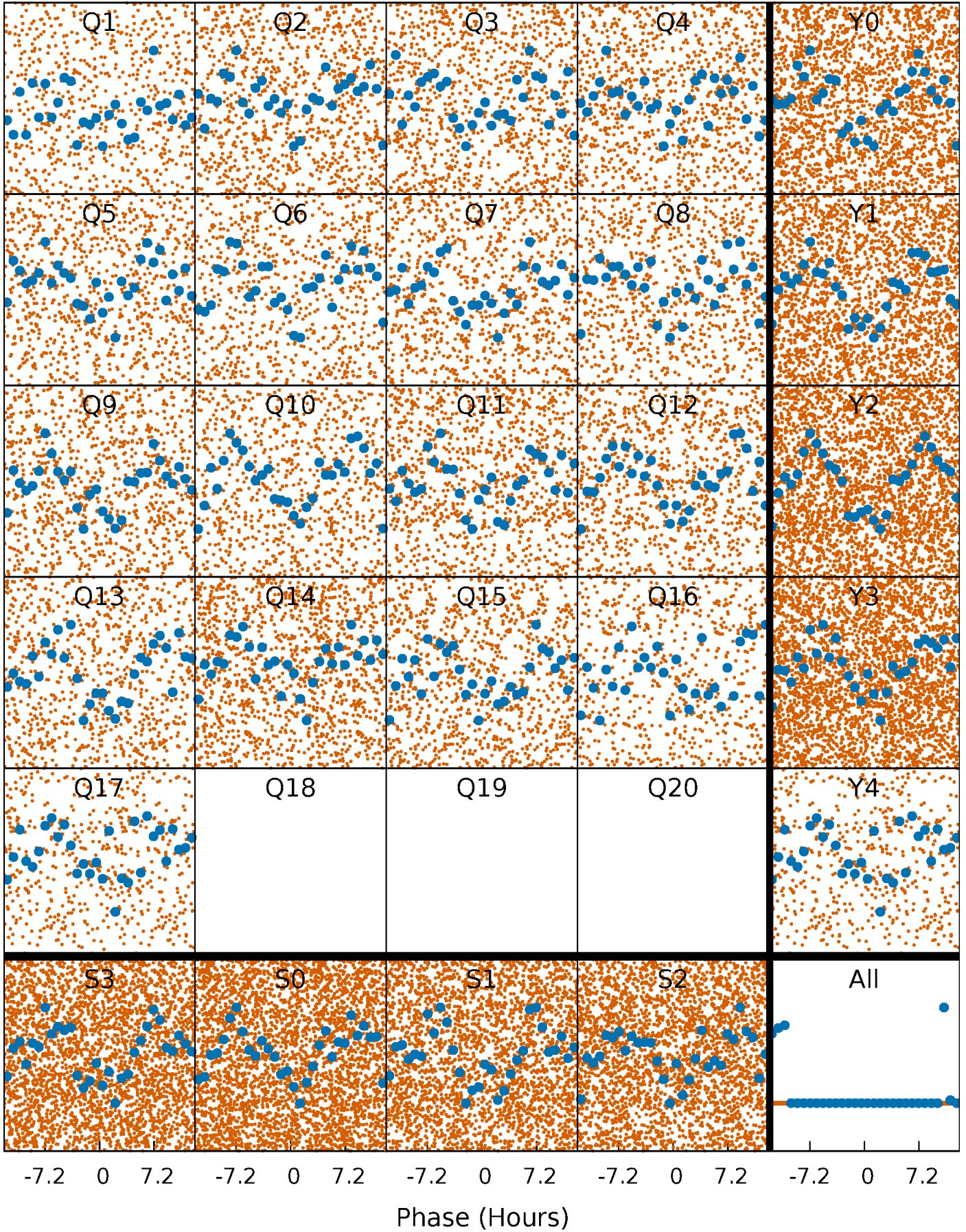


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



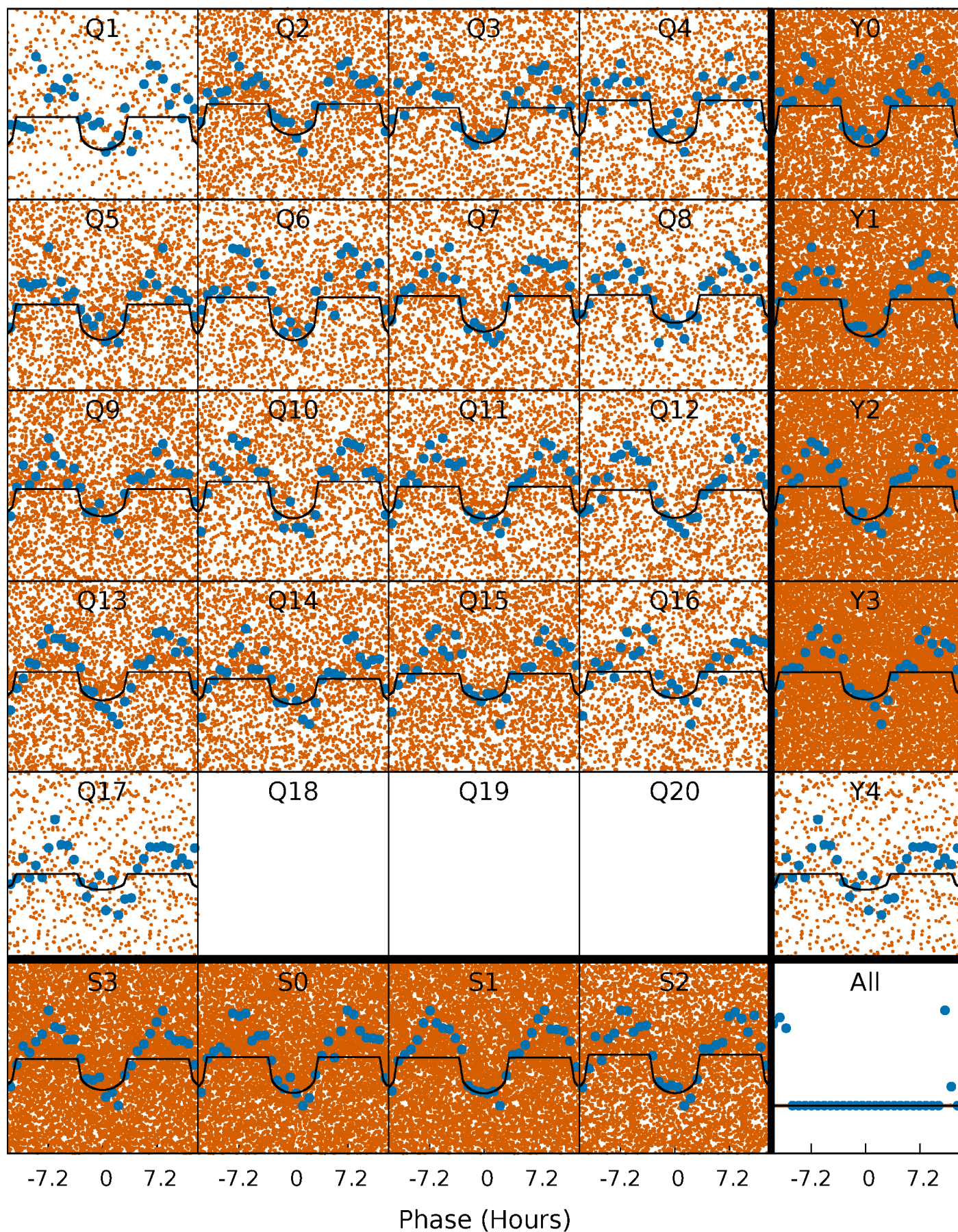
PDC Quarter-Phased Transit Curves

TCE 011294931-01 P= 0.614284 Days $T_0=131.586453$ (BKJD)



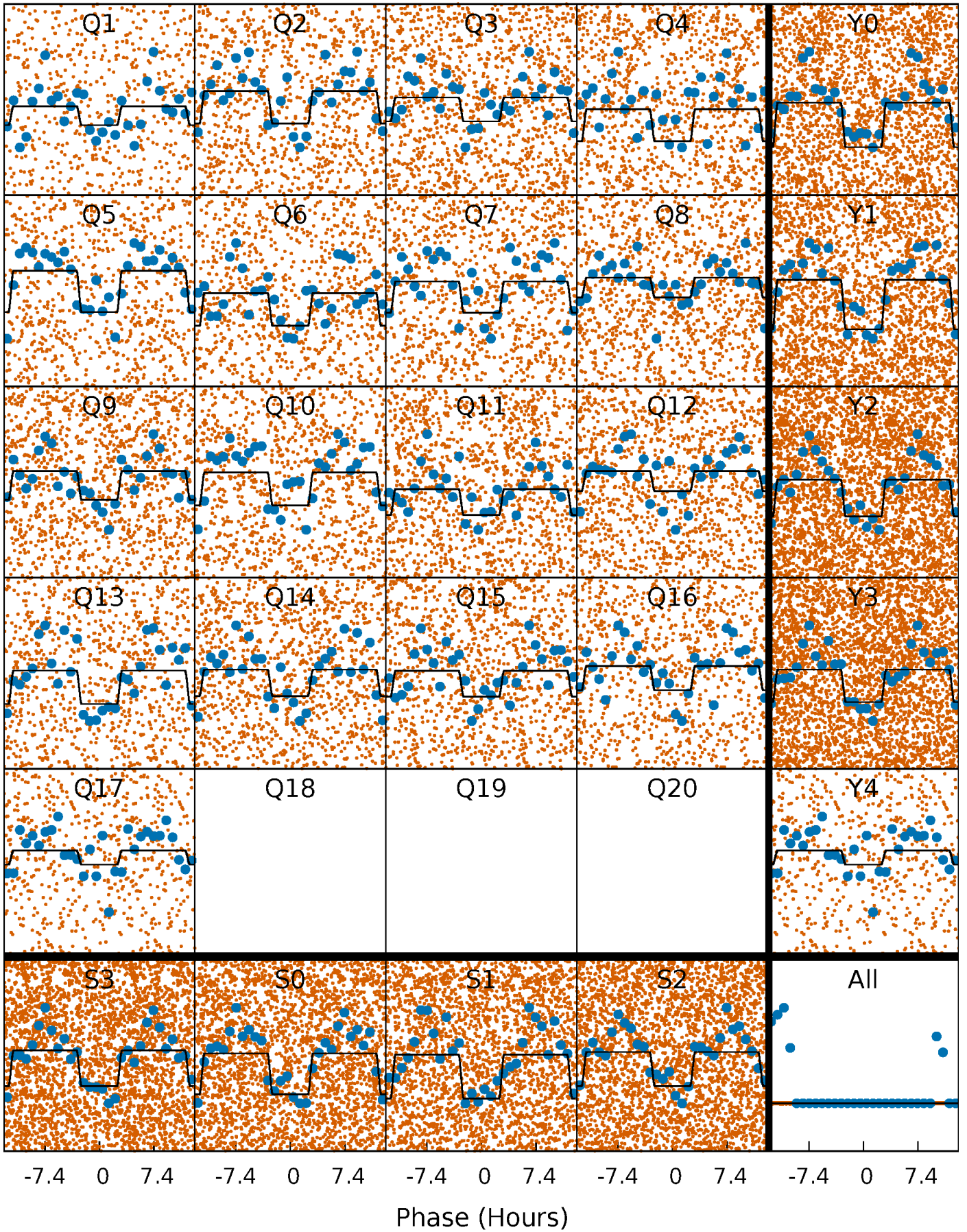
DV Quarter-Phased Transit Curves

TCE 011294931-01 P= 0.614284 Days $T_0=131.586453$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

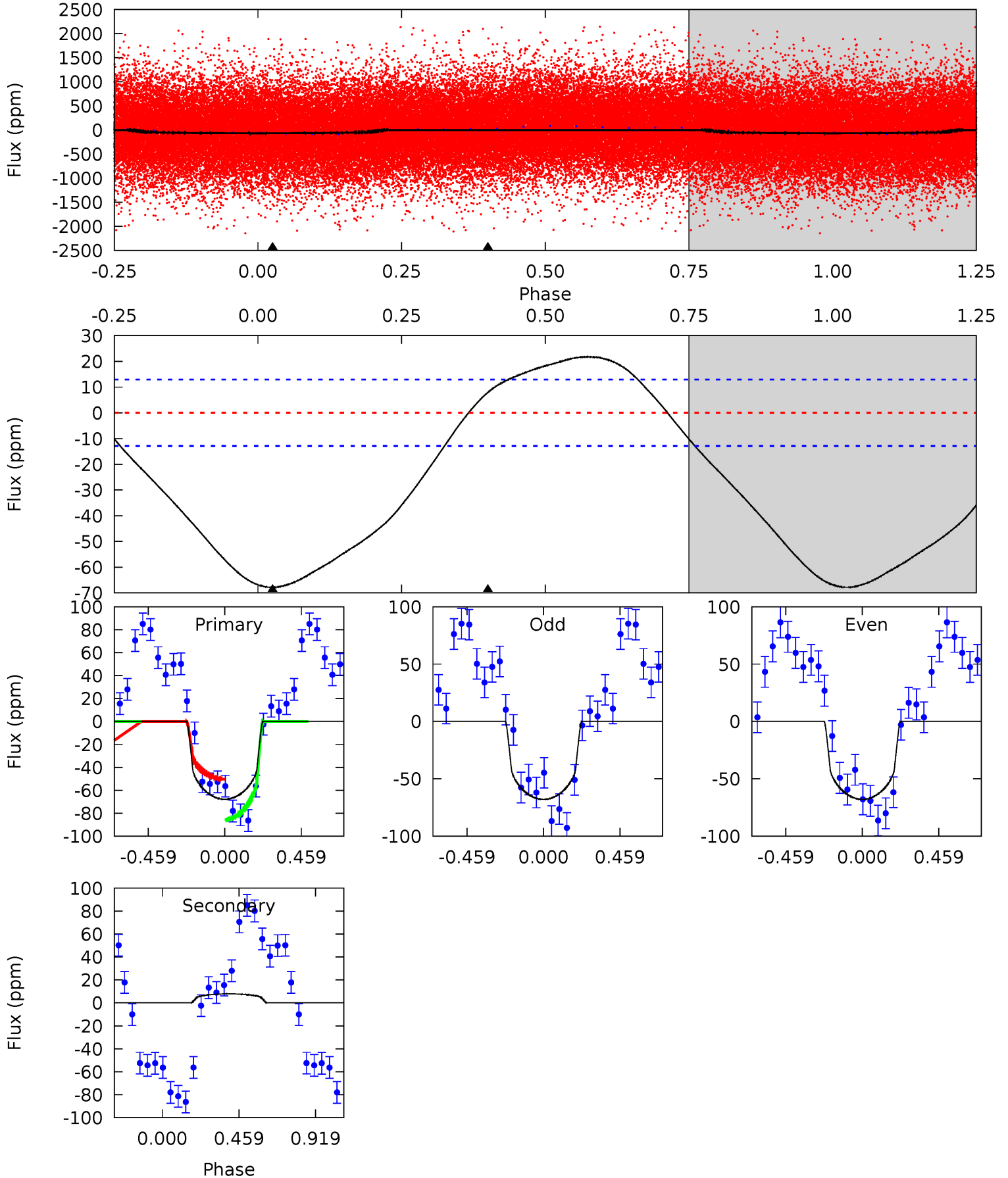
TCE 011294931-01 P= 0.614302 Days $T_0=131.577187$ (BKJD)



DV Model-Shift Uniqueness Test

011294931-01, P = 0.614284 Days, E = 130.972169 Days

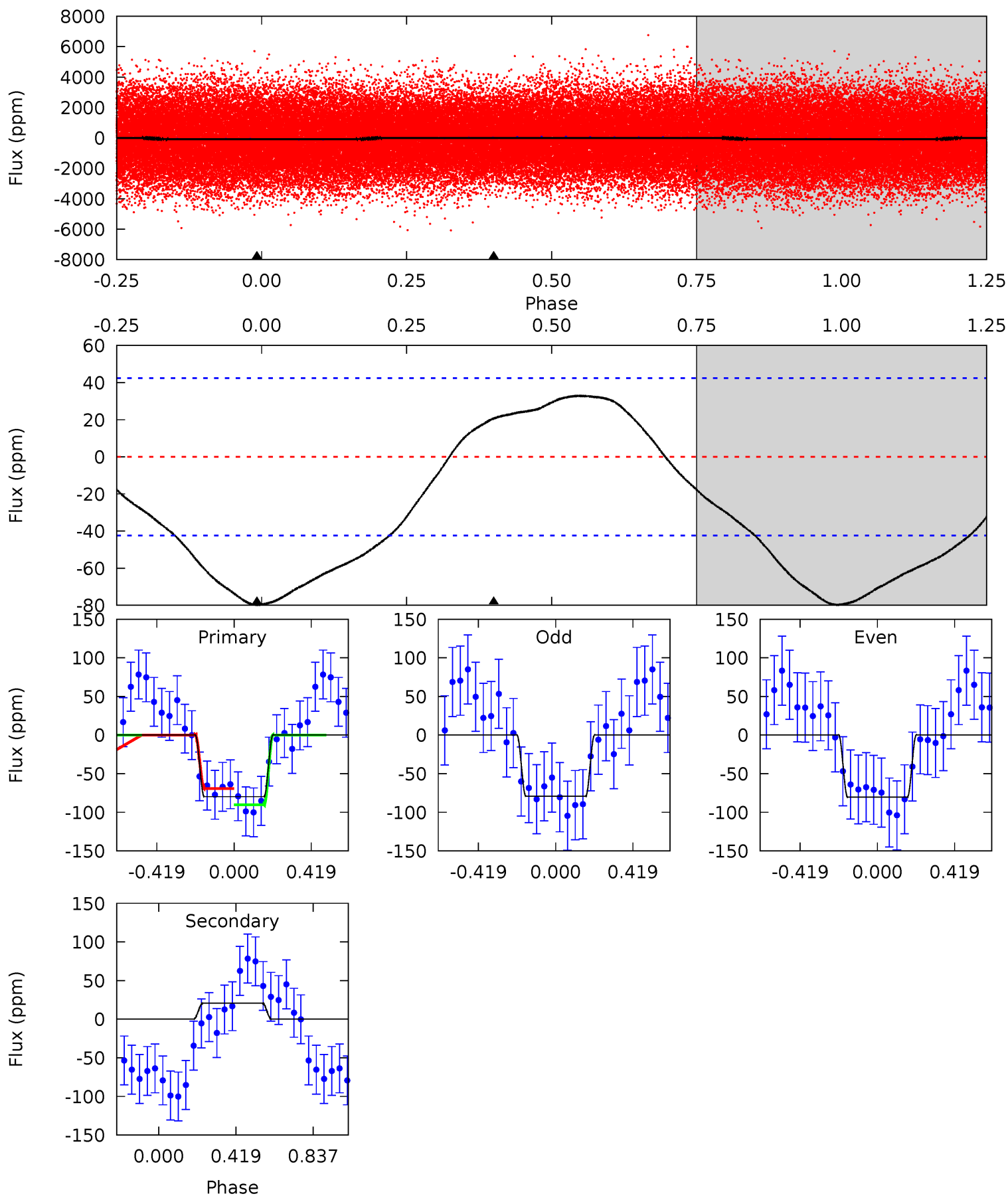
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.2	-2.59	0	0	4.23	0.74	2.55	22.2	22.2	-2.59	-2.59	0.01	0.98	0.24	5.74



Alt Model-Shift Uniqueness Test

011294931-01, P = 0.614302 Days, E = 130.962885 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.01	-2.06	0	0	4.25	0.81	1.09	8.01	8.01	-2.06	-2.06	0.05	1.02	0.29	1.05



Stellar Parameters For KIC 011294931

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6944^{+216}_{-288}	$4.156^{+0.185}_{-0.185}$	$-0.500^{+0.250}_{-0.300}$	$1.513^{+0.428}_{-0.390}$	$1.195^{+0.185}_{-0.166}$	$0.486^{+0.560}_{-0.228}$
	+3%/-4%	+4%/-4%	+50%/-60%	+28%/-26%	+15%/-14%	+115%/-47%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011294931-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	8 ± 3	$1.25^{+0.60}_{-0.58}$	4284^{+356}_{-328}	-4757^{+496}_{-1152}	$-0.608^{+0.376}_{-1.598}$
Alt.	21 ± 10	$1.46^{+0.64}_{-0.53}$	4292^{+318}_{-310}	-5193^{+678}_{-1275}	$-1.130^{+0.704}_{-2.236}$

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 $A_{obs} \gg 1.0$

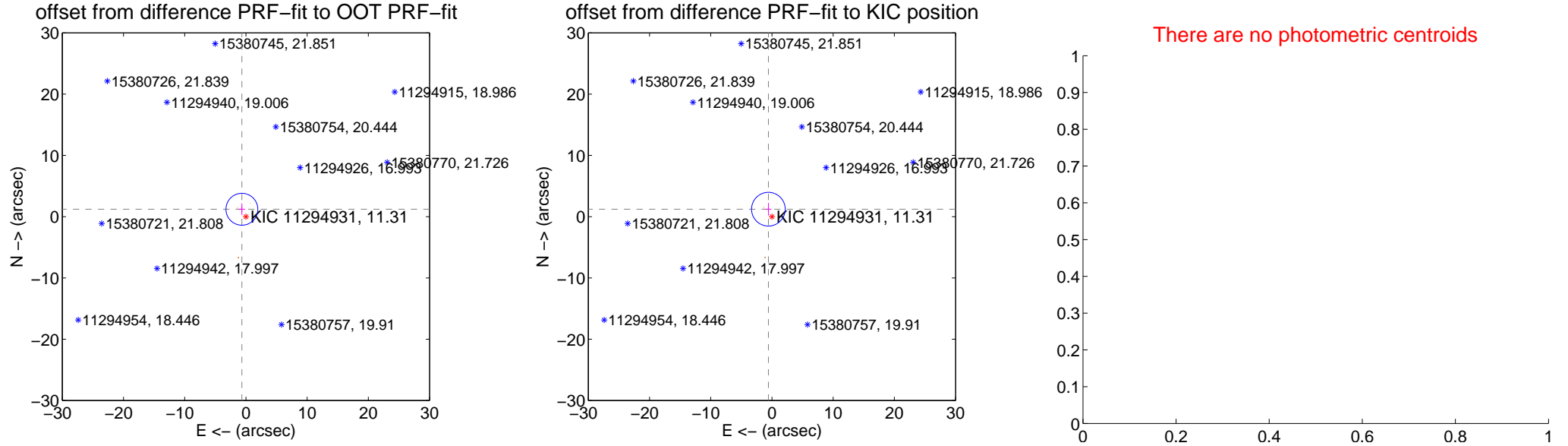
DV Centroid Data

Supplemental centroid analysis for 011294931-01. **Kepler magnitude: 11.31.** Transit SNR 21.05

There are 2 quarters with good PRF difference image offsets

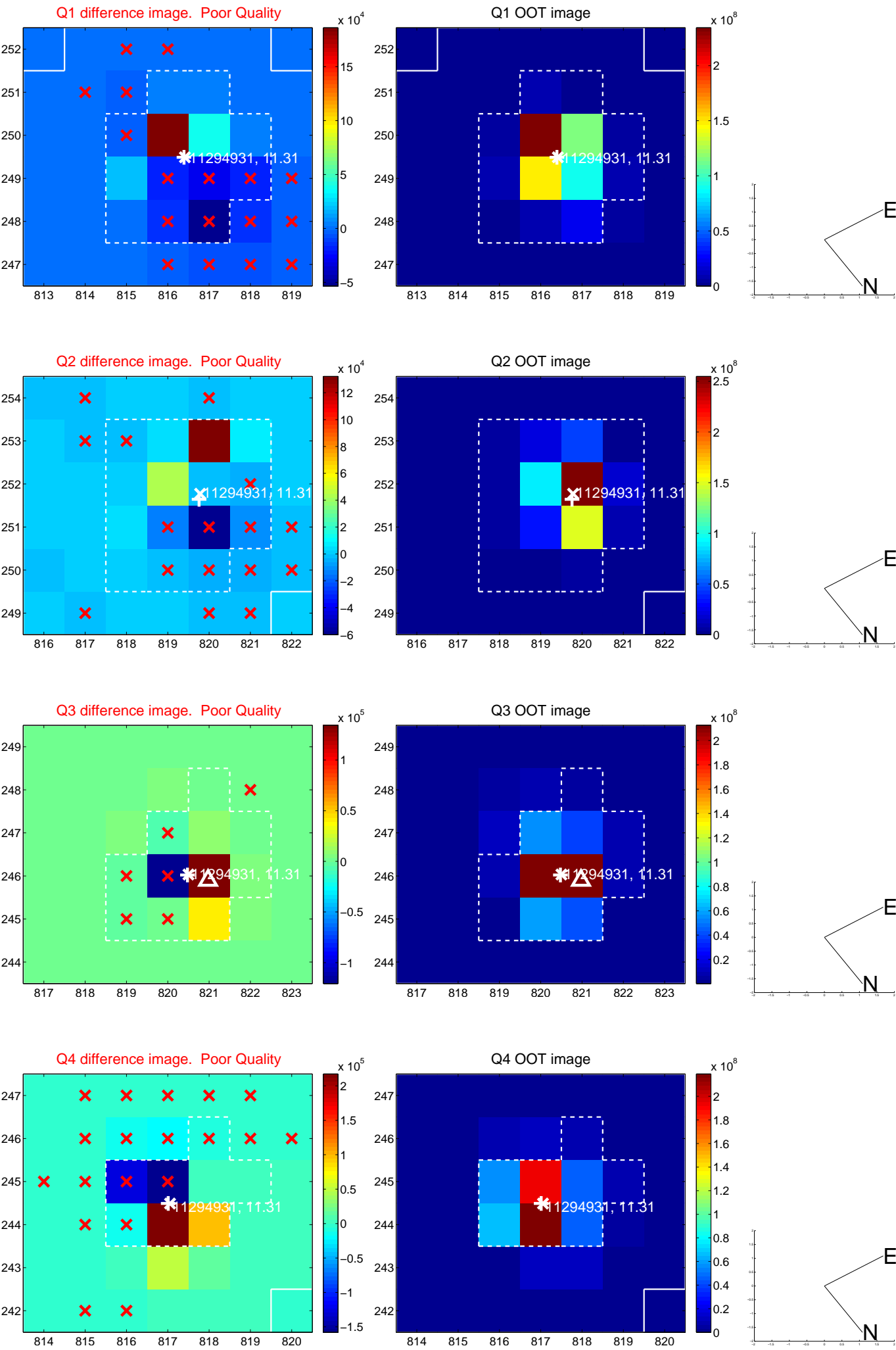
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.377 ± 0.867	1.59	0.659 ± 0.521	1.209 ± 0.956
PRF-fit source offset from KIC position	1.351 ± 0.917	1.47	0.581 ± 0.479	1.220 ± 1.029
photometric centroid source offset	—	—	—	—

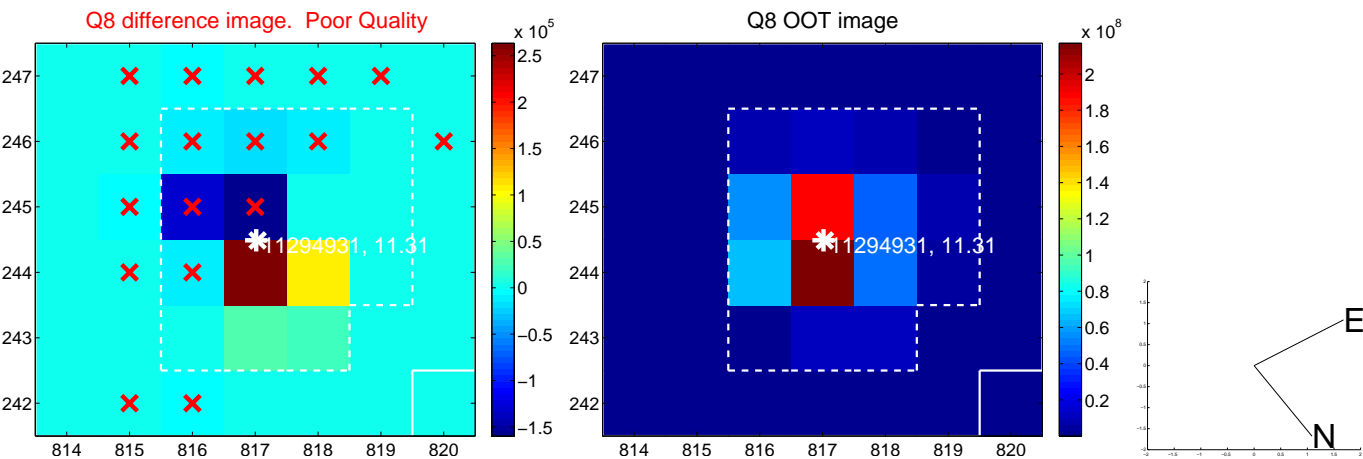
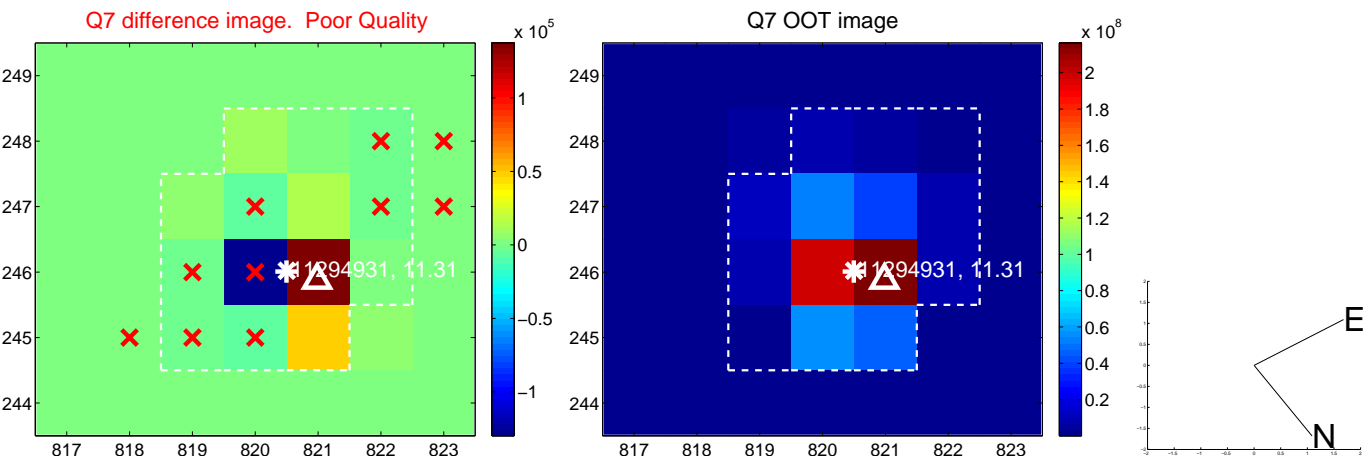
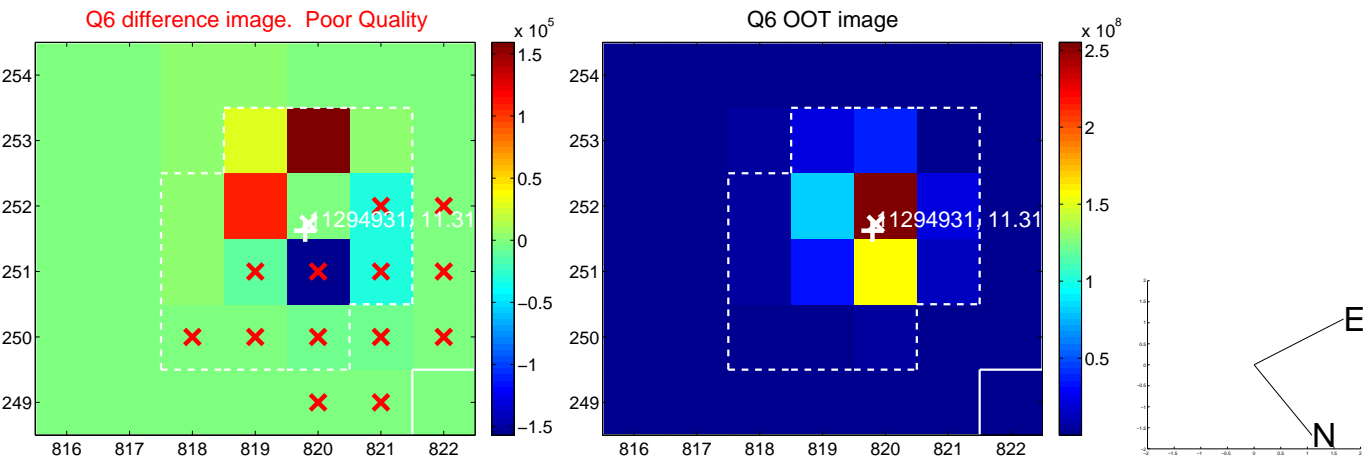
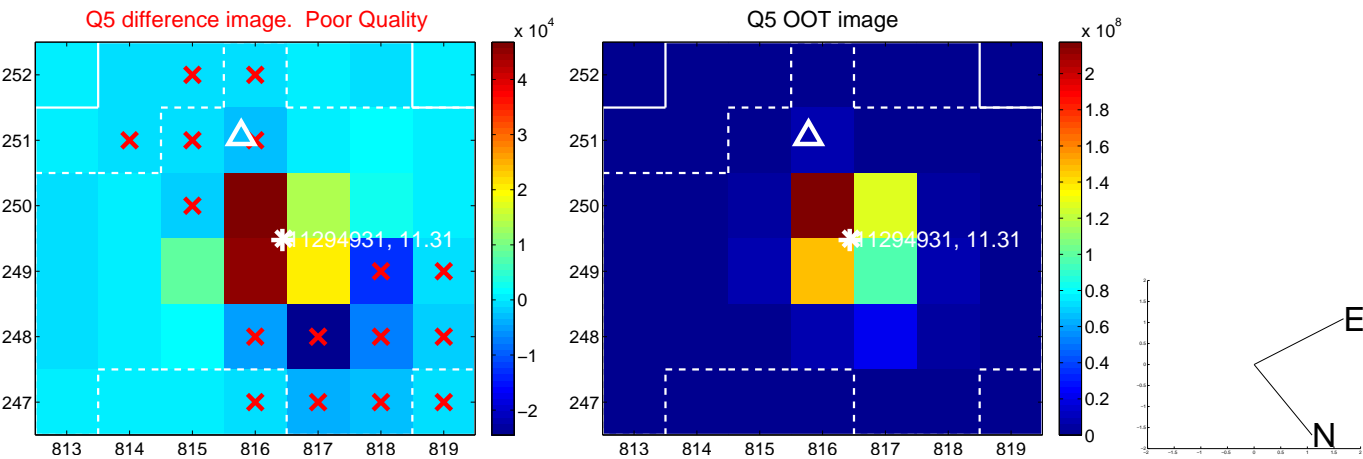


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

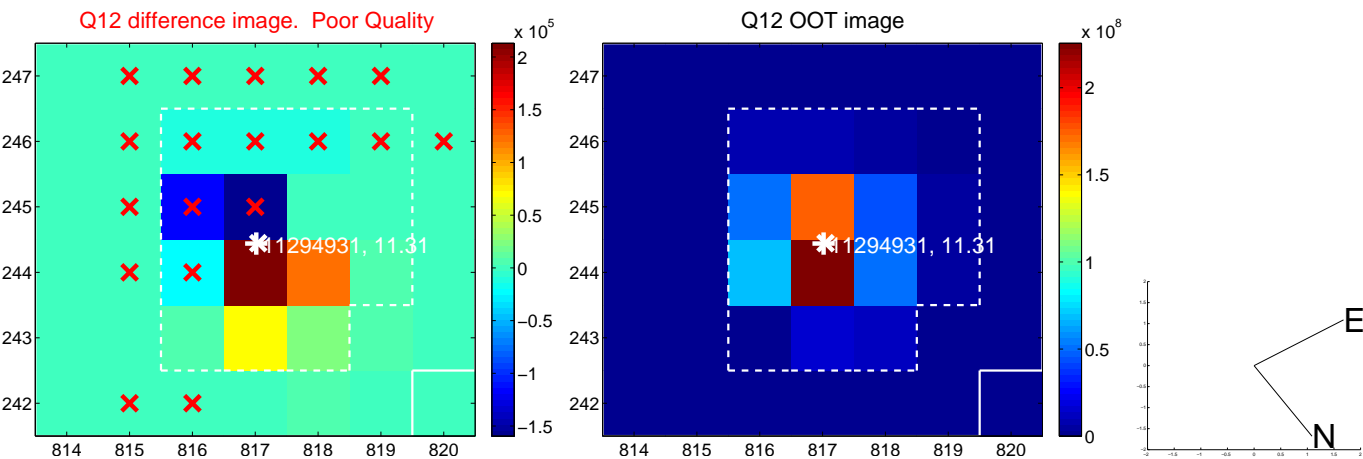
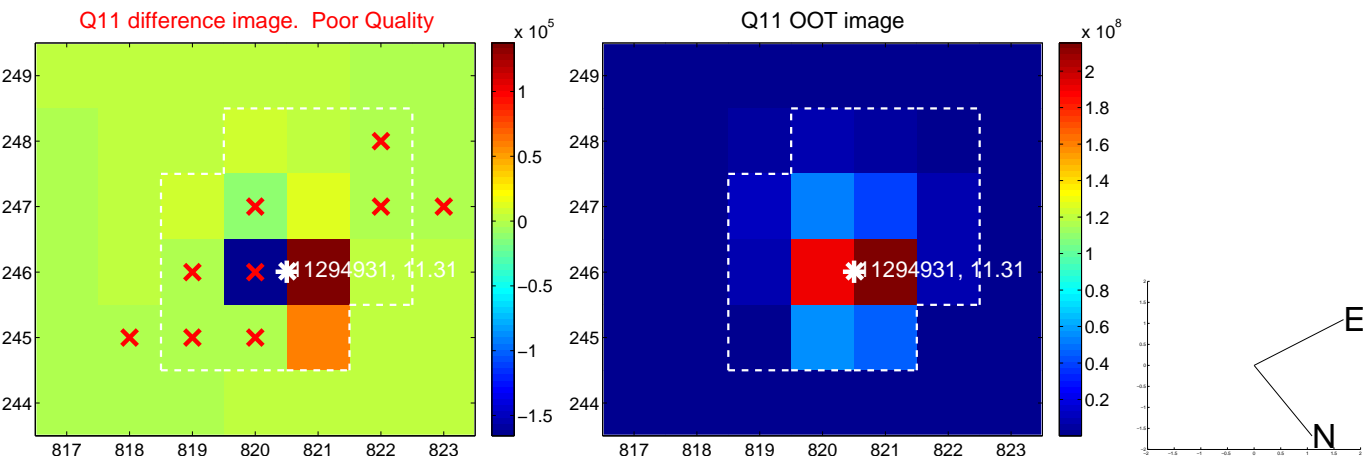
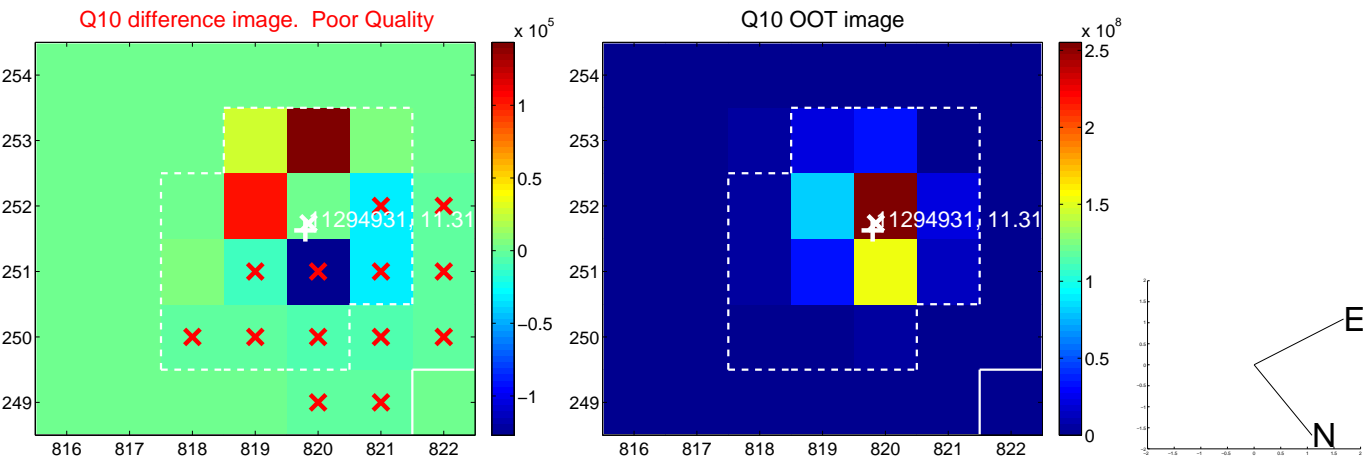
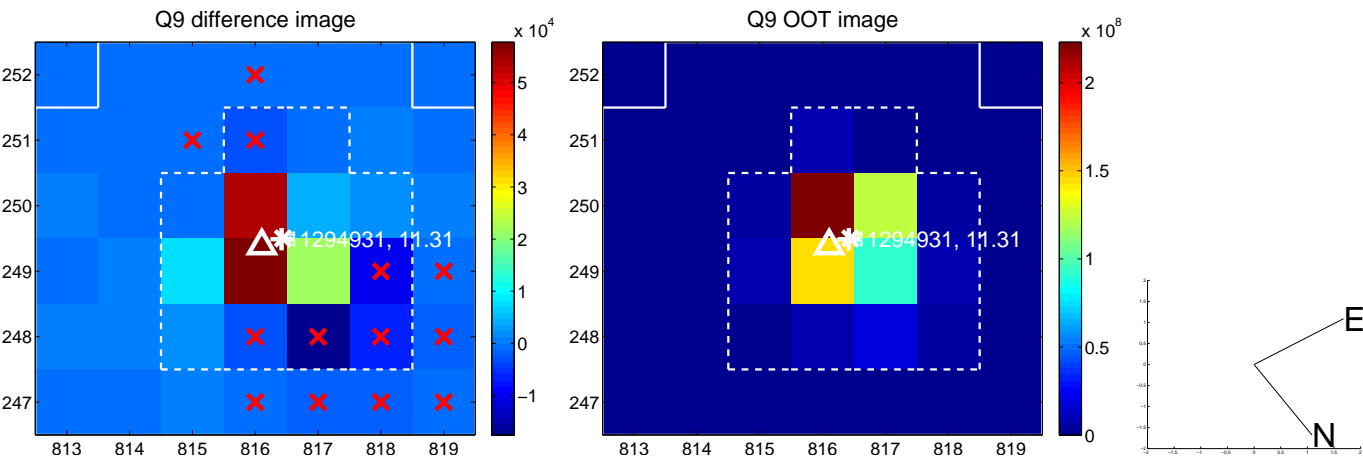
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



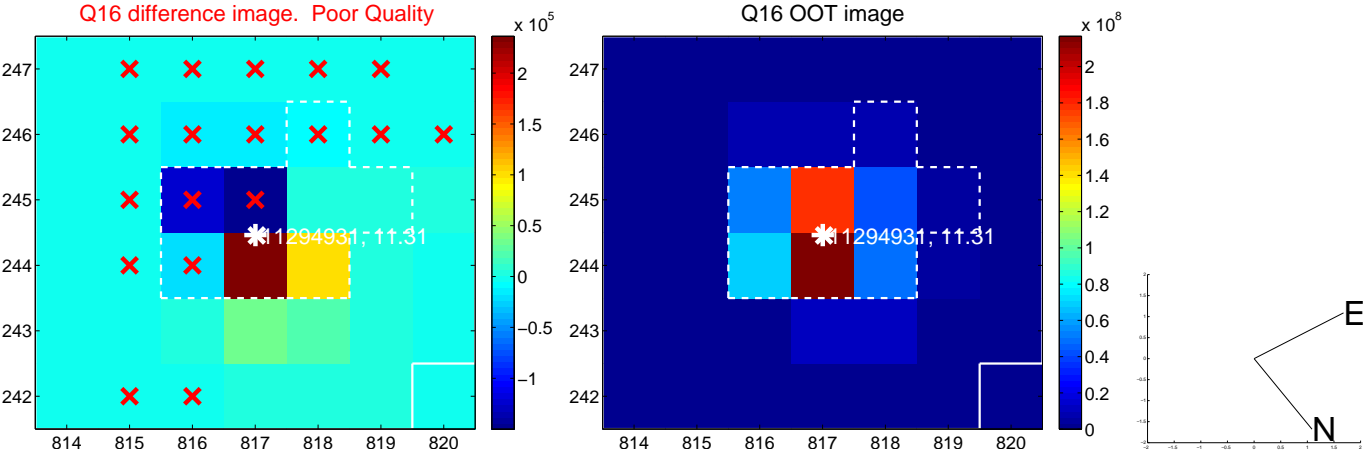
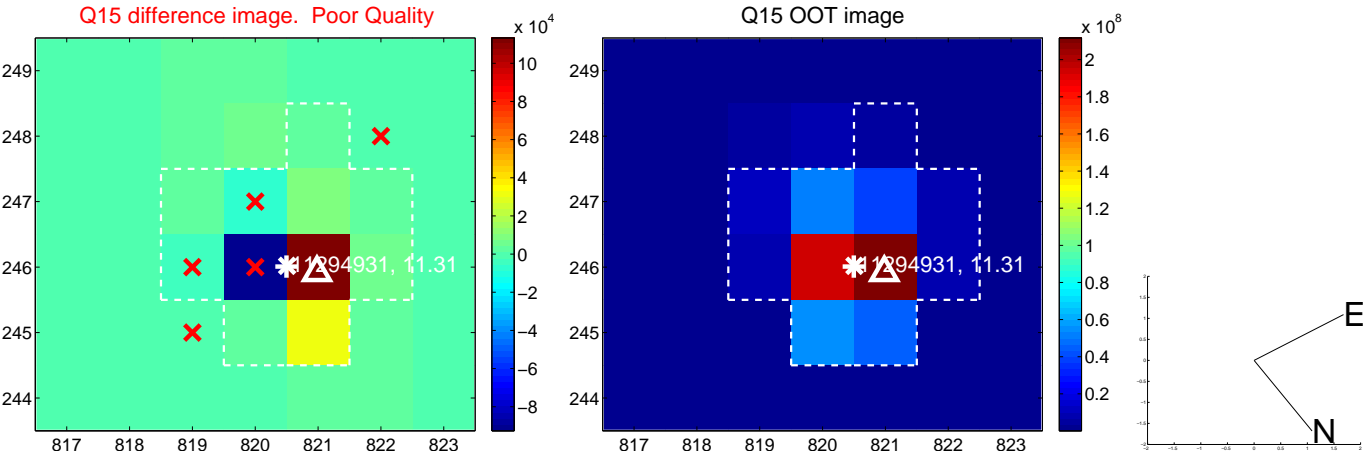
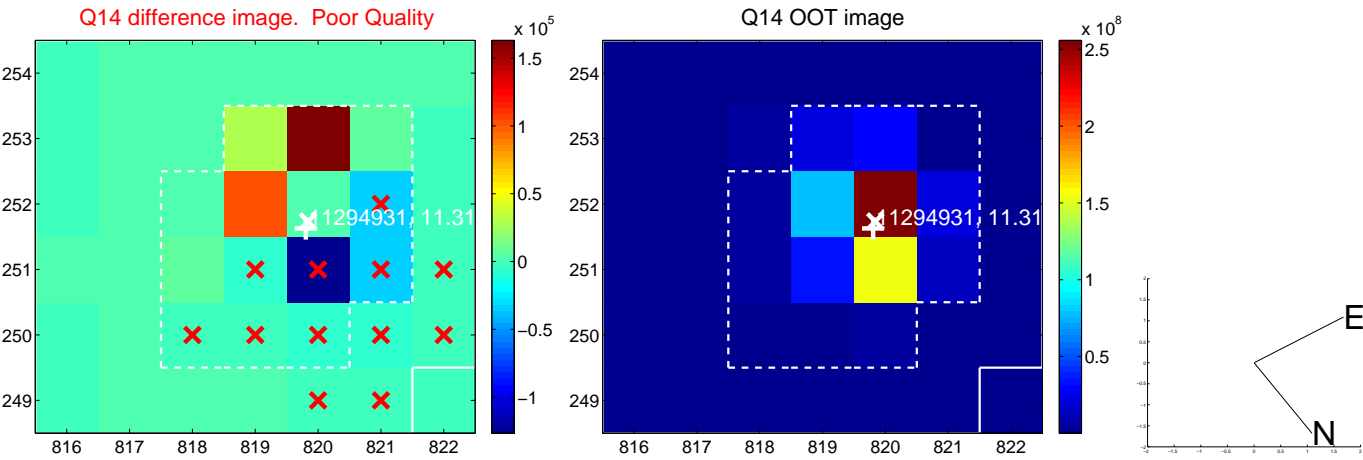
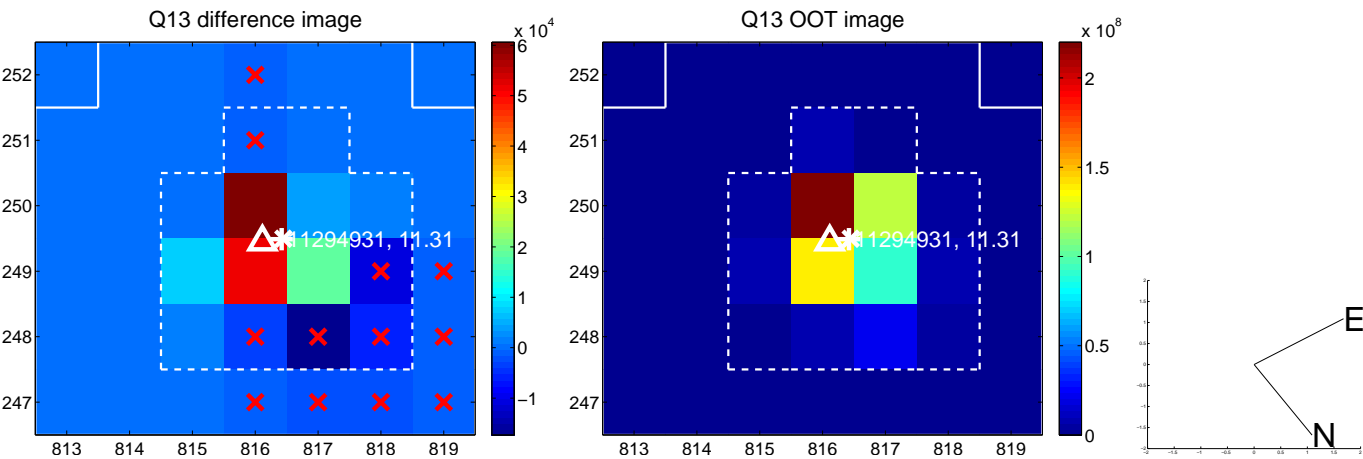
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



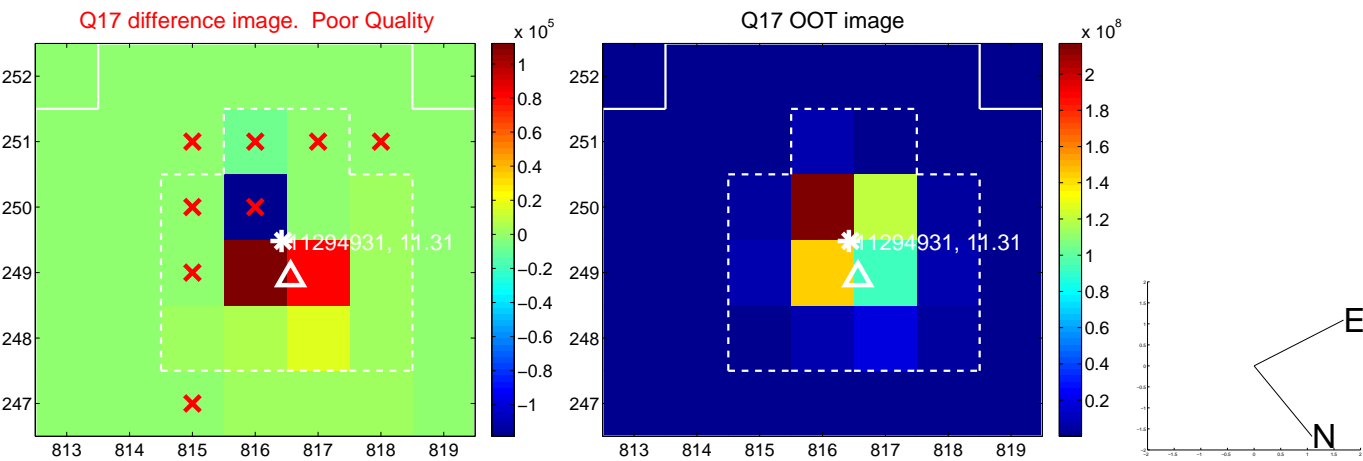
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

