

KIC 008654122

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})
008654122-01	OBS	No	3.906163	135.382616	0.1	28.591	8.1	0.0	1.11	6569	0.03	809.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008654122-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—CENT_KIC_POS

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

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

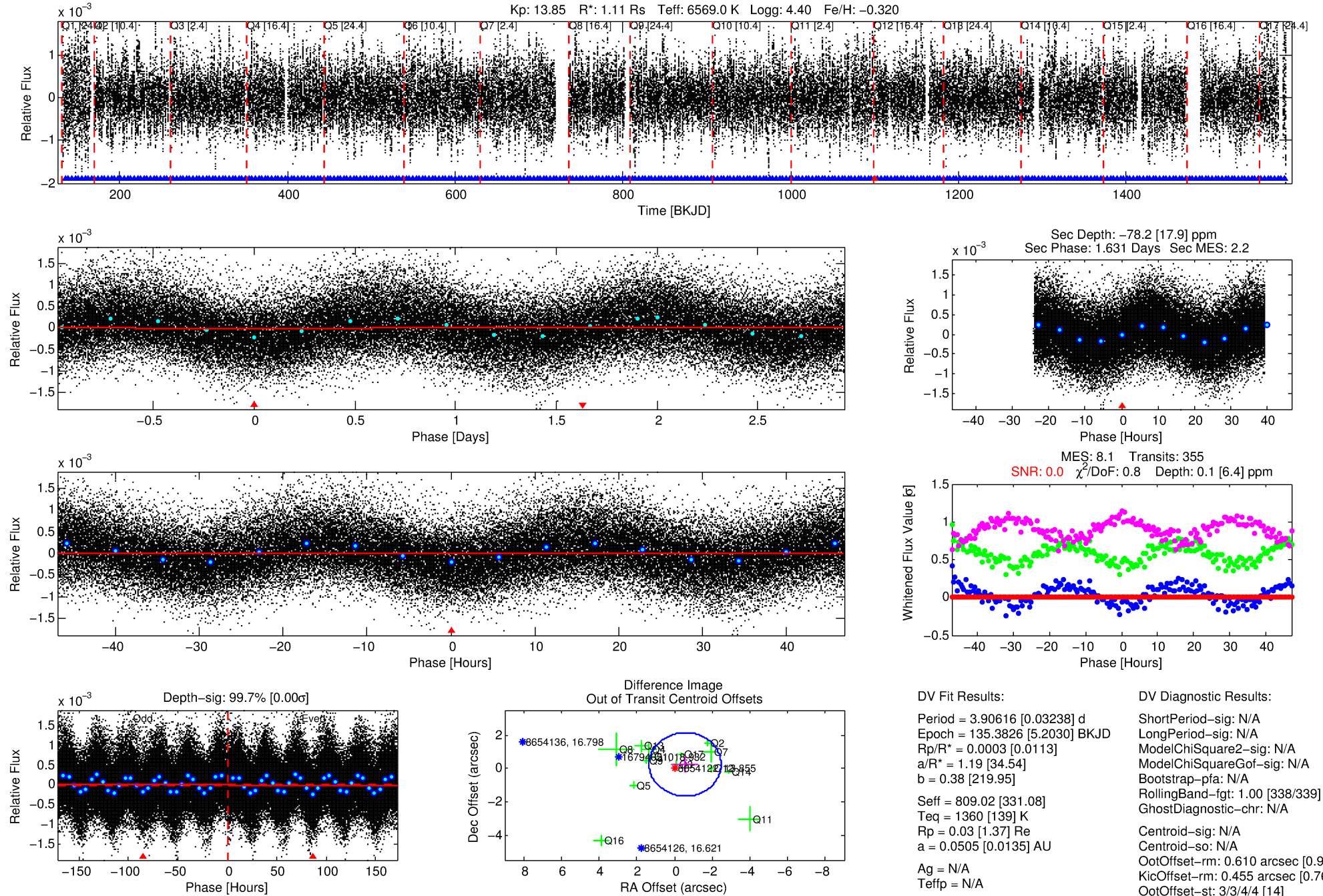
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008654122-01

No Significant Match Found

DV One-Page Summary

KIC: 8654122 Candidate: 1 of 1 Period: 3.906 d



DV Fit Results:

Period = 3.90616 [0.03238] d
Epoch = 135.3826 [5.2030] BKJD
Rp/R* = 0.0003 [0.0113]
a/R* = 1.19 [34.54]
b = 0.38 [219.95]
Seff = 809.02 [331.08]
Teq = 1360 [139] K
Rp = 0.03 [1.37] Re
a = 0.0505 [0.0135] AU
Ag = N/A
Teffp = N/A

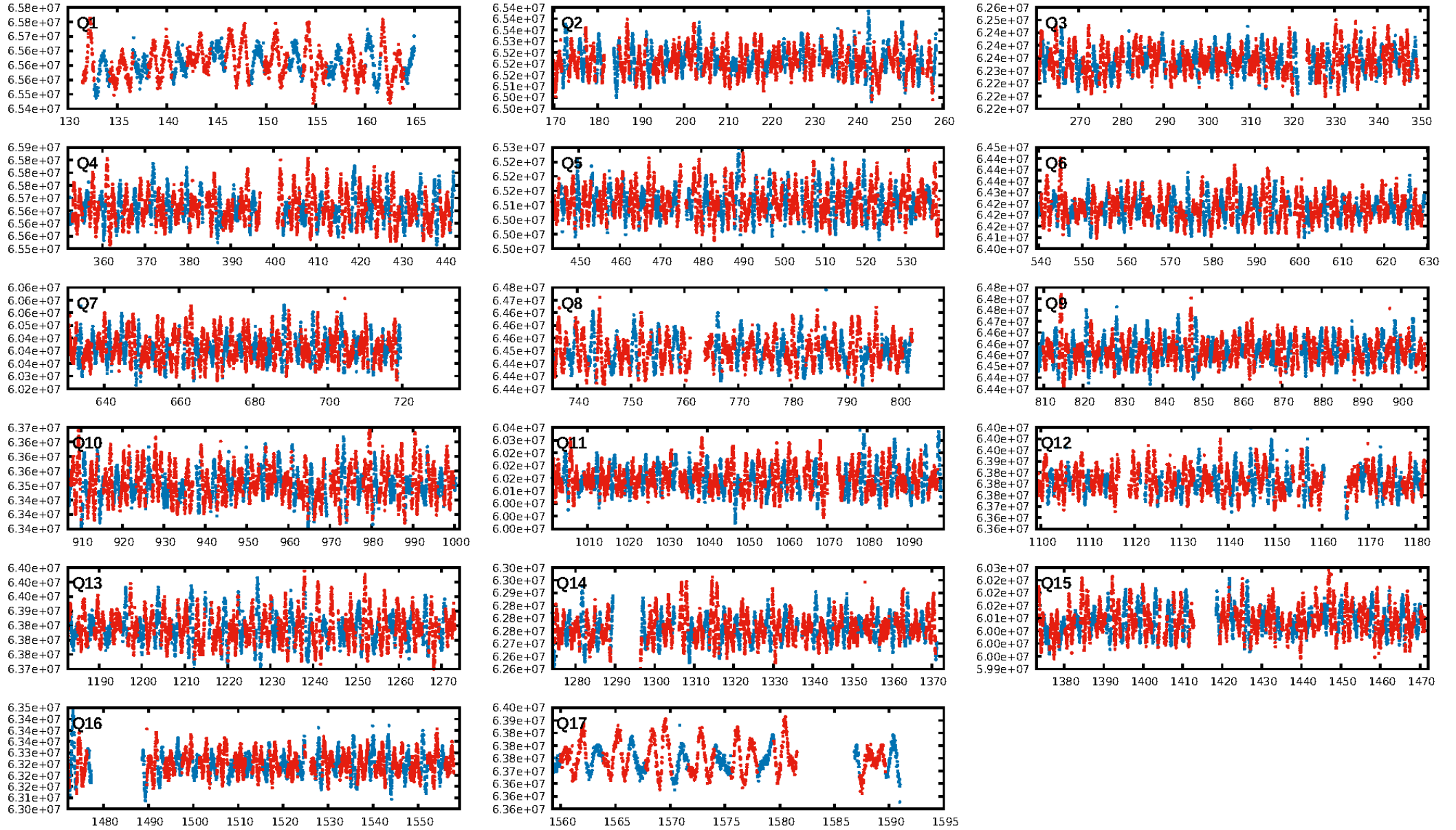
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [338/339]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.610 arcsec [0.96 σ]
KicOffset-rm: 0.455 arcsec [0.76 σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [17/17]

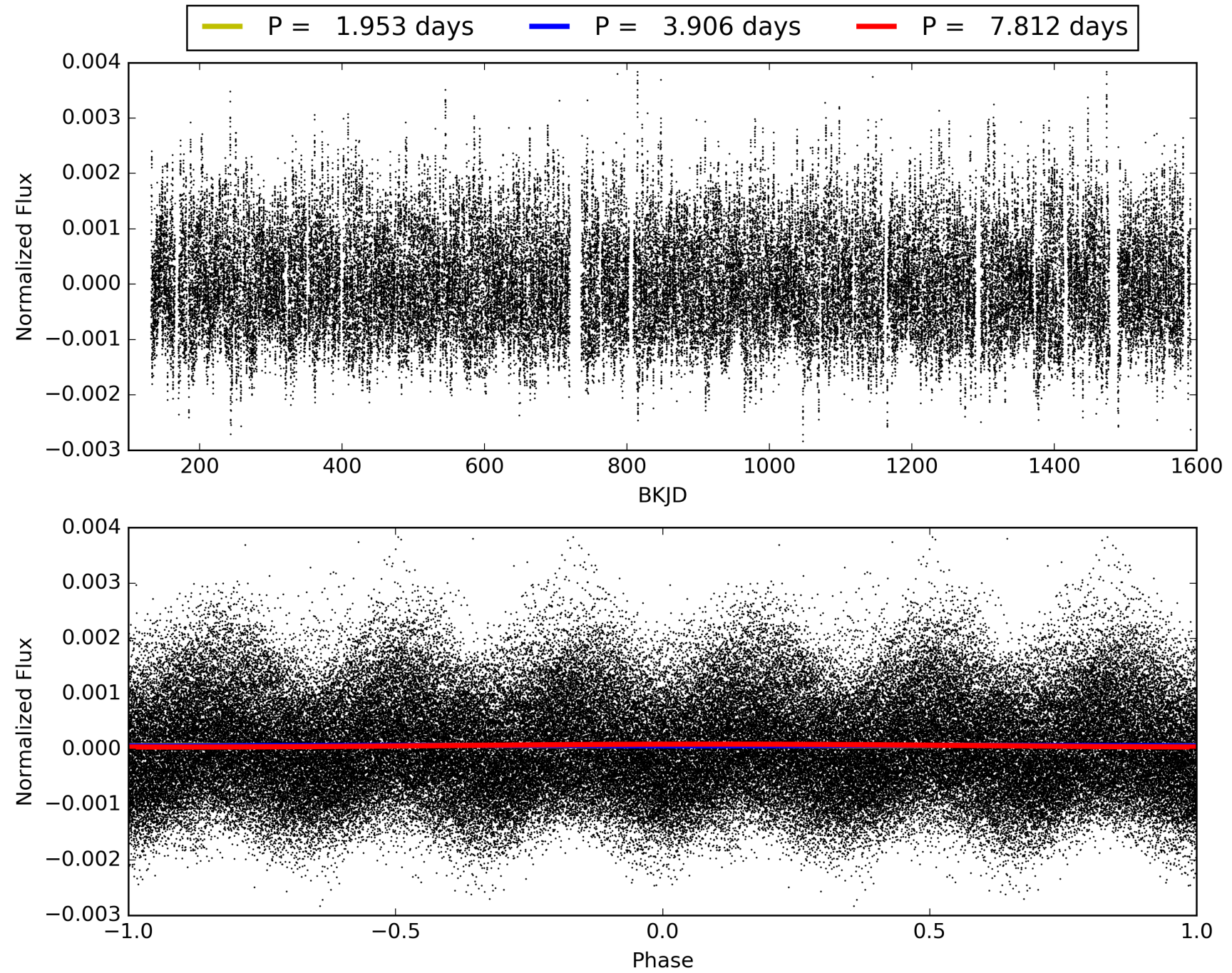
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:38:50 Z

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

TCE 008654122-01, PDC Light Curves

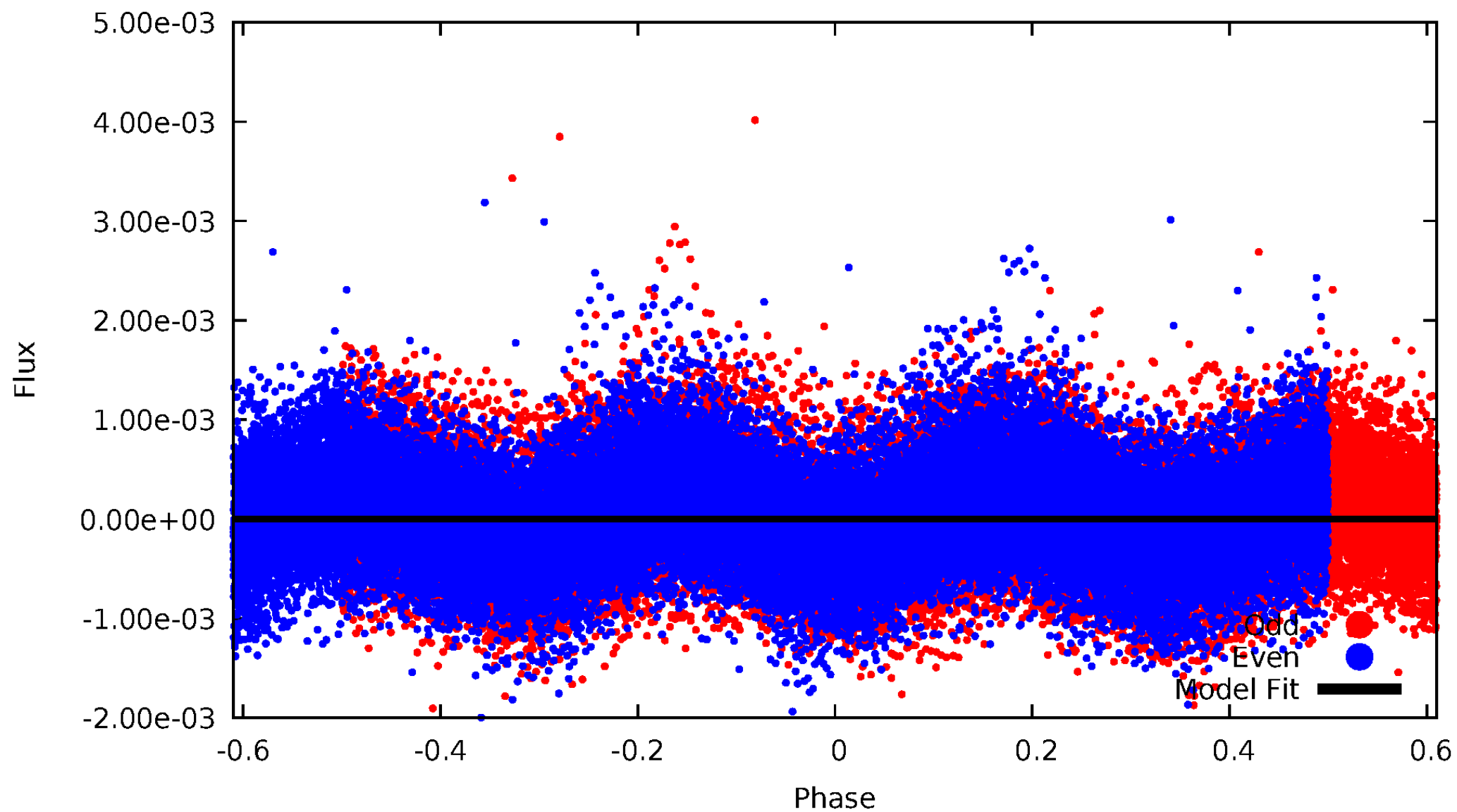


TCE 008654122-01



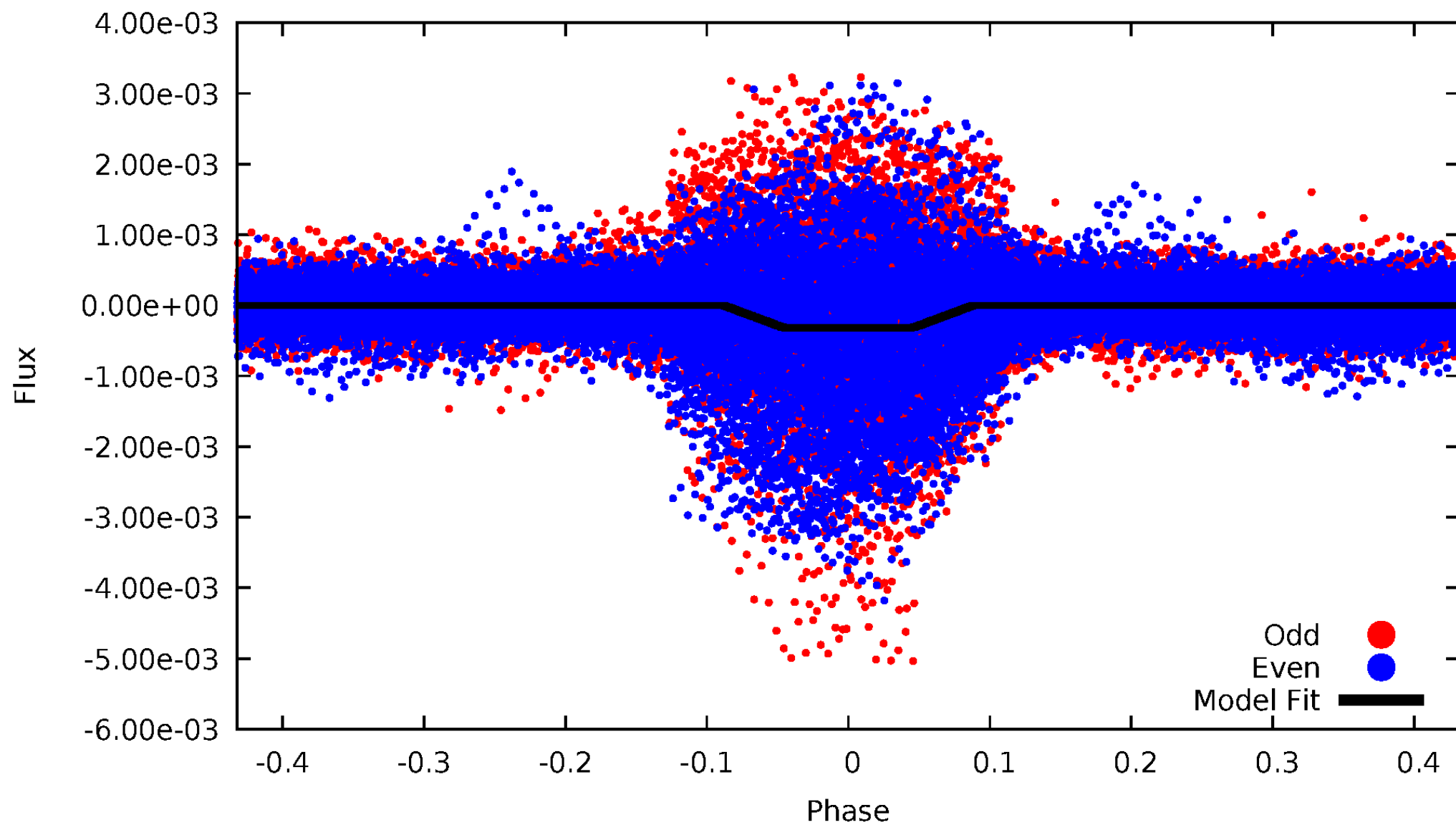
DV Odd/Even

TCE 008654122-01



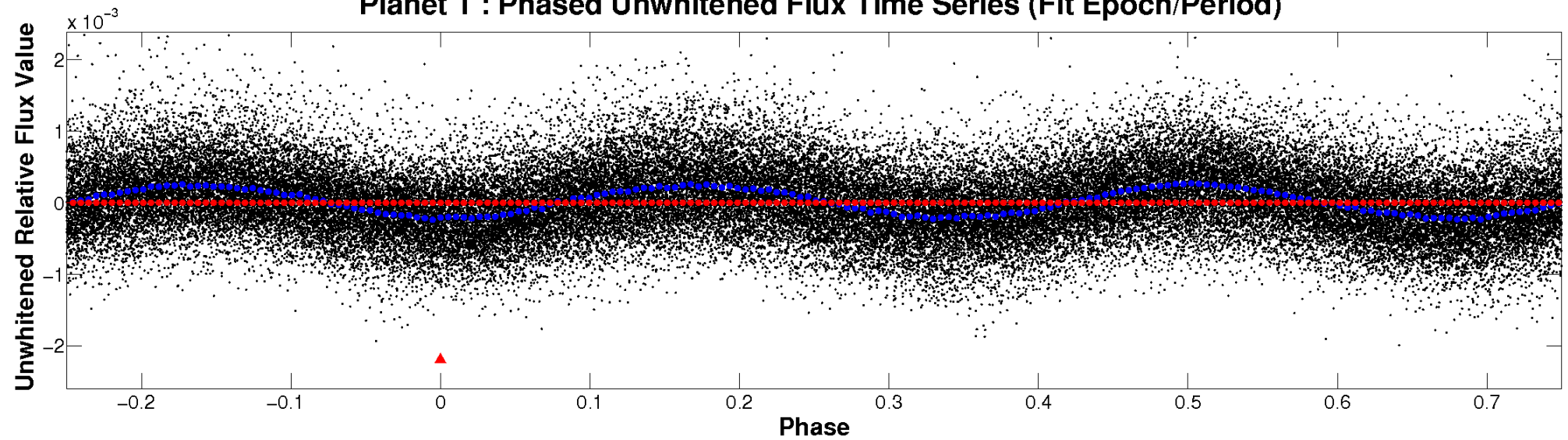
ALT Odd/Even

TCE 008654122-01

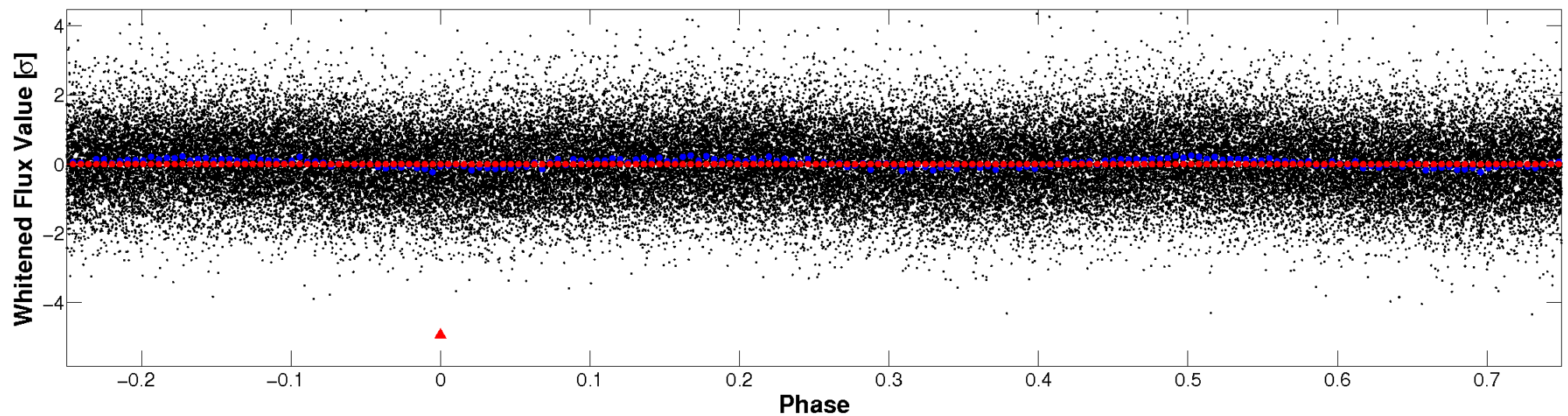


Non-Whitened Vs. Whitened Light Curve

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

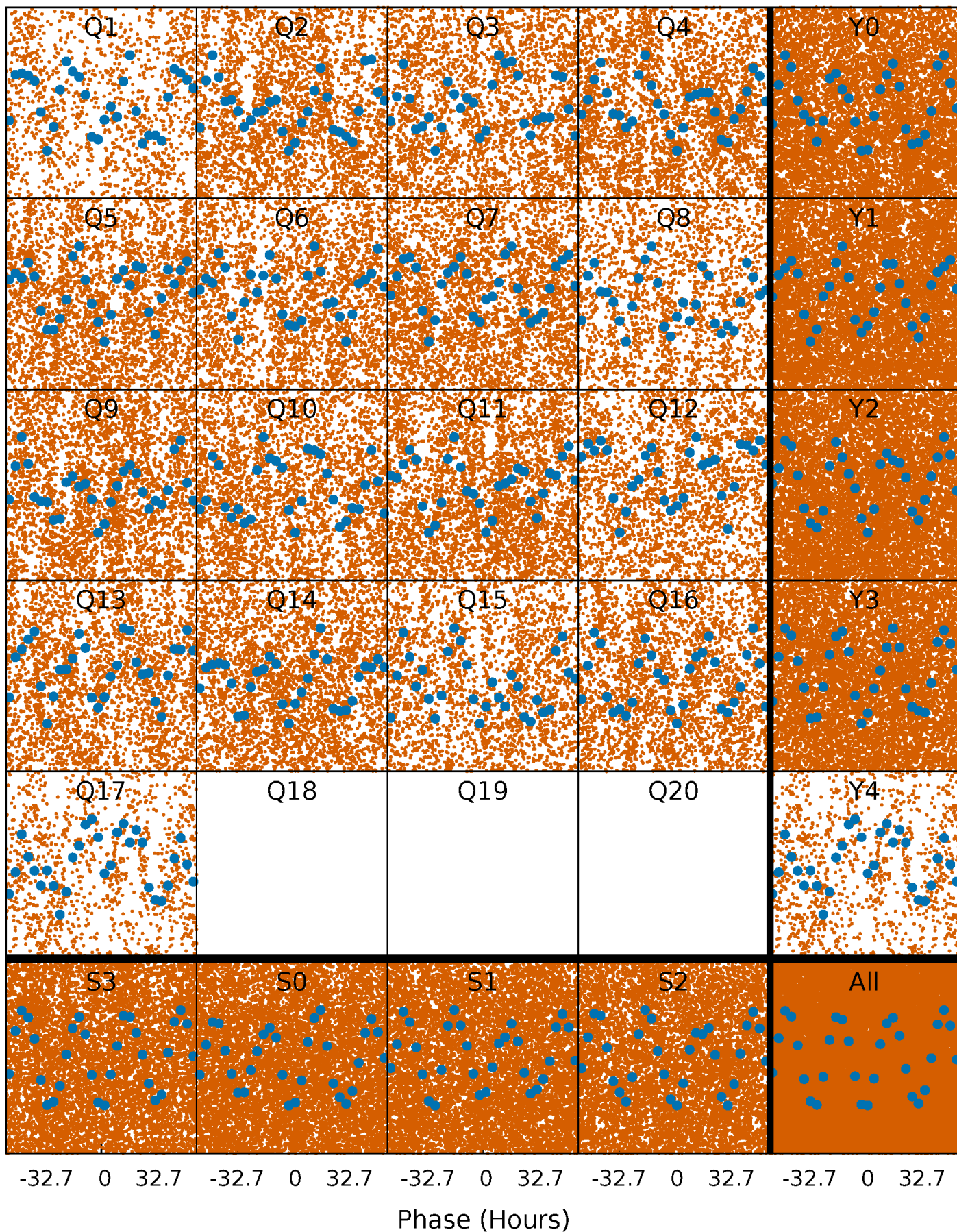


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



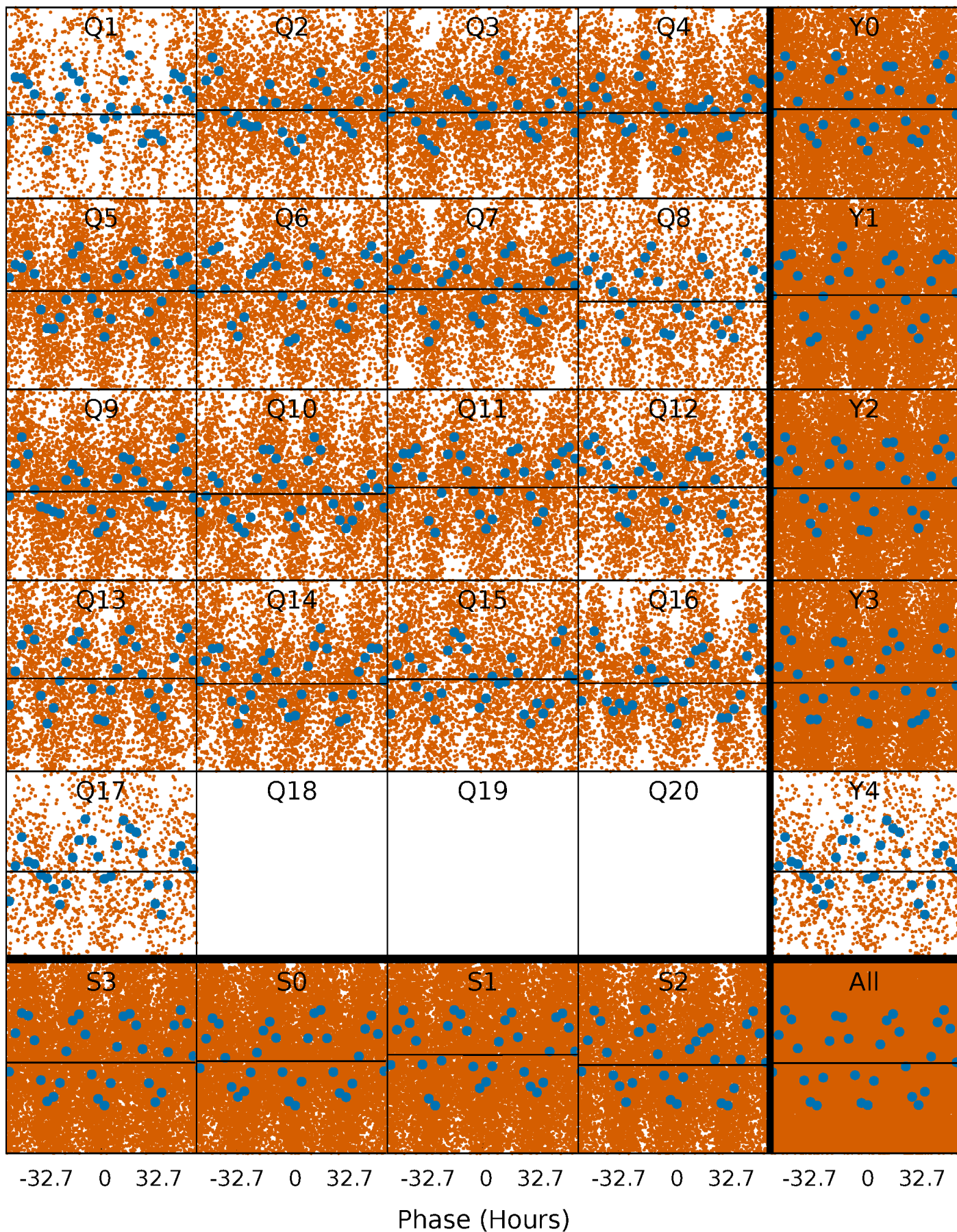
PDC Quarter-Phased Transit Curves

TCE 008654122-01 P= 3.906163 Days $T_0=135.382616$ (BKJD)



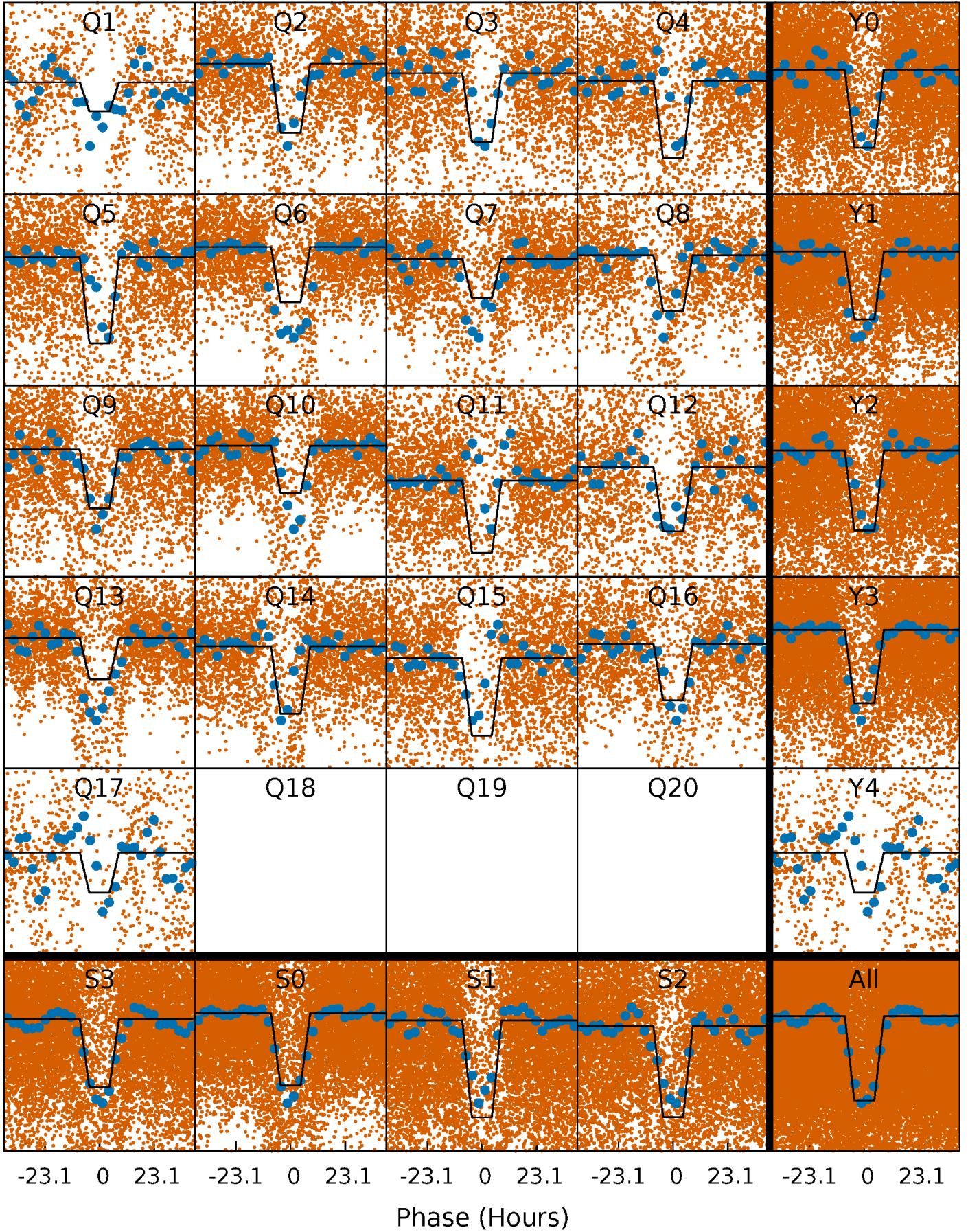
DV Quarter-Phased Transit Curves

TCE 008654122-01 P= 3.906163 Days $T_0=135.382616$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

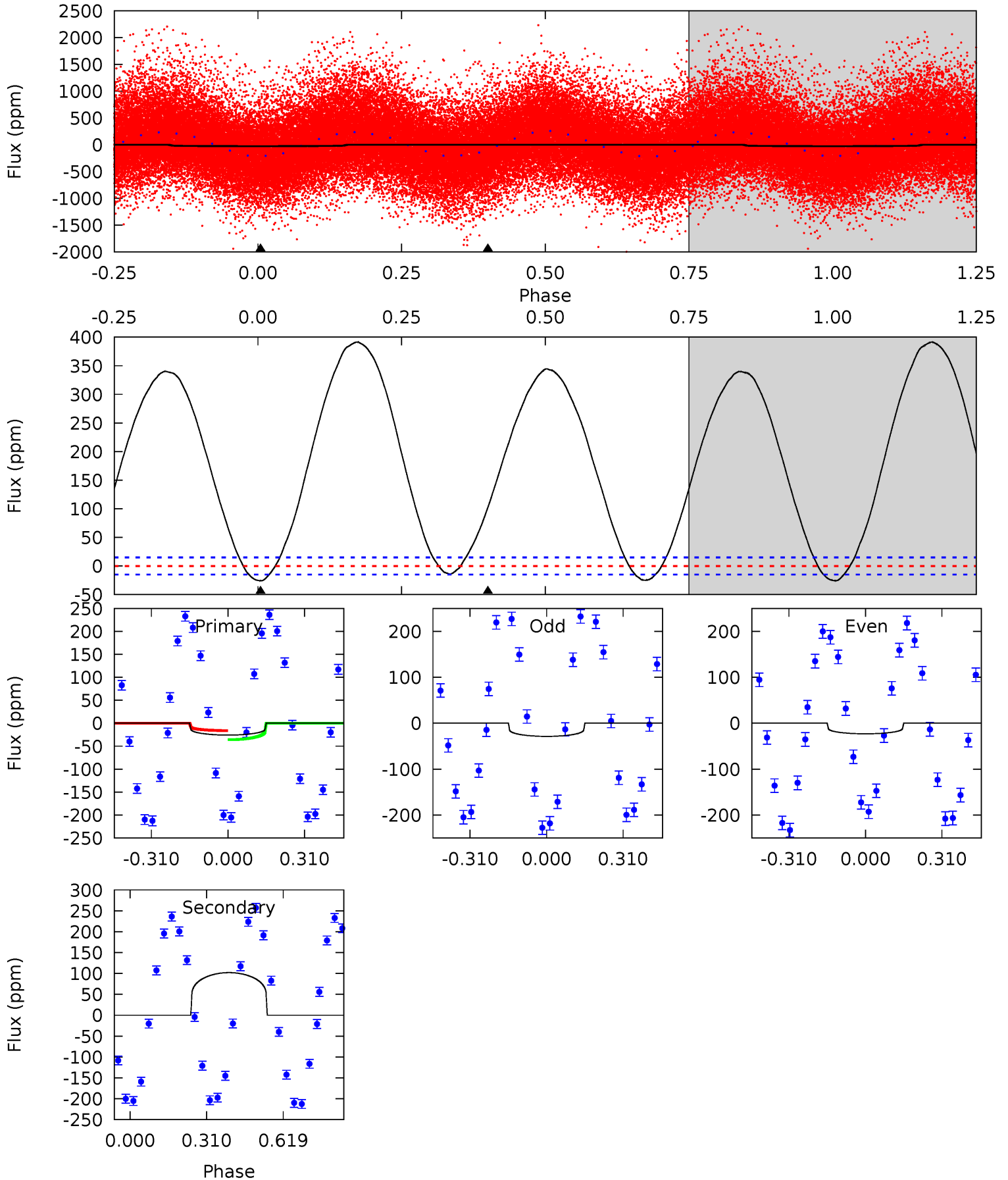
TCE 008654122-01 P= 3.90625 Days $T_0=135.361255$ (BKJD)



DV Model-Shift Uniqueness Test

008654122-01, P = 3.906163 Days, E = 131.476453 Days

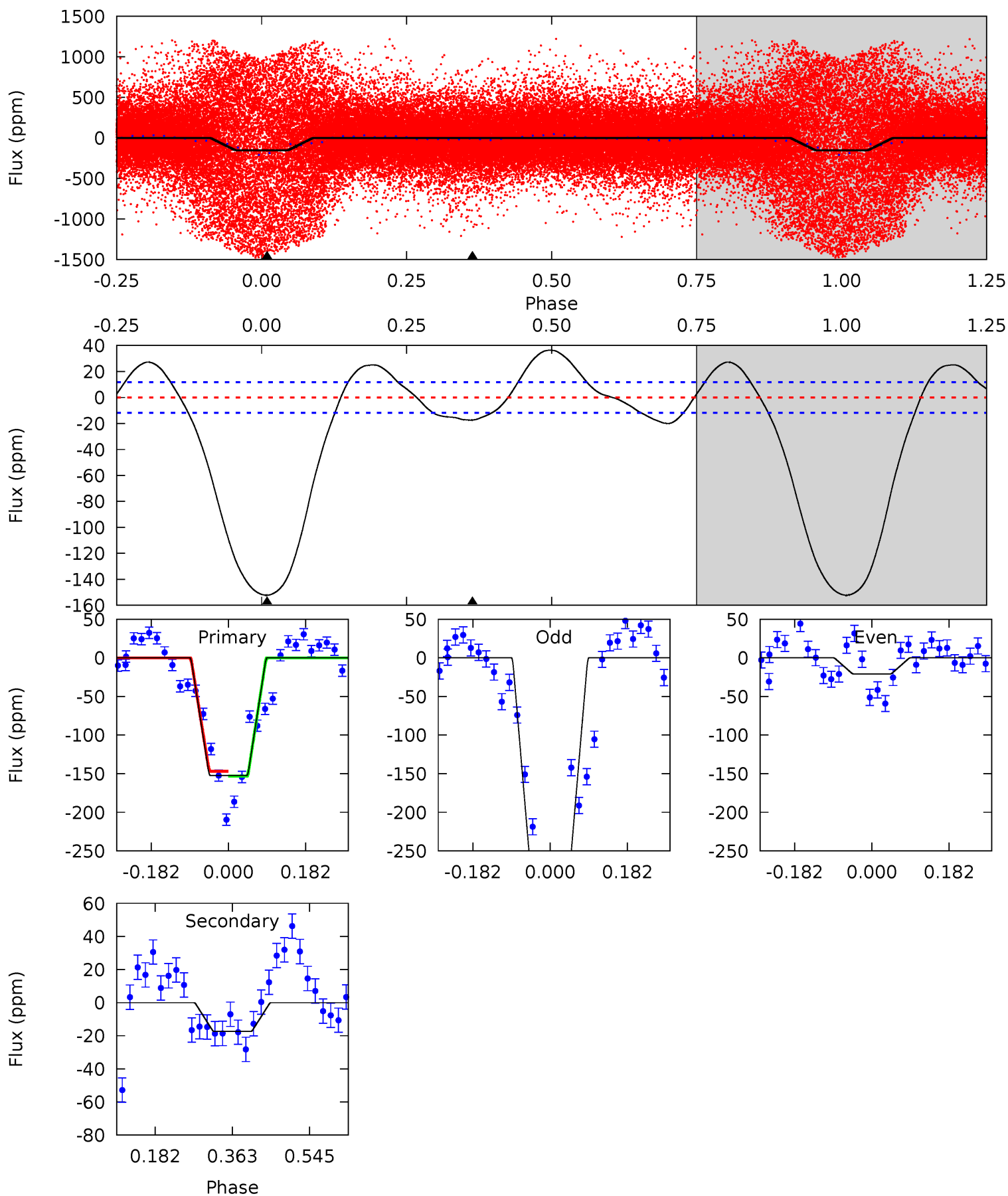
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.49	-29.5	0	0	4.32	1.02	15.2	7.49	7.49	-29.5	-29.5	0.84	0.85	0.94	2.96



Alt Model-Shift Uniqueness Test

008654122-01, P = 3.906250 Days, E = 131.455005 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.2	6.53	0	0	4.44	1.34	5.68	57.2	57.2	6.53	6.53	37.0	1.59	0.19	1.14



Stellar Parameters For KIC 008654122

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6569^{+158}_{-218}	$4.397^{+0.070}_{-0.210}$	$-0.320^{+0.250}_{-0.300}$	$1.112^{+0.357}_{-0.119}$	$1.126^{+0.165}_{-0.150}$	$1.152^{+0.346}_{-0.633}$
	+2%/-3%	+2%/-5%	+78%/-94%	+32%/-11%	+15%/-13%	+30%/-55%
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 008654122-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	102 ± 3	$0.99^{+1.14}_{-0.70}$	1924^{+140}_{-97}	-7618^{+2473}_{-12526}	$-143.266^{+112.621}_{-1368.776}$
Alt.	-17 ± 3	$2.30^{+1.52}_{-1.24}$	1931^{+153}_{-101}	3561^{+1159}_{-578}	$4.479^{+16.478}_{-2.865}$

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

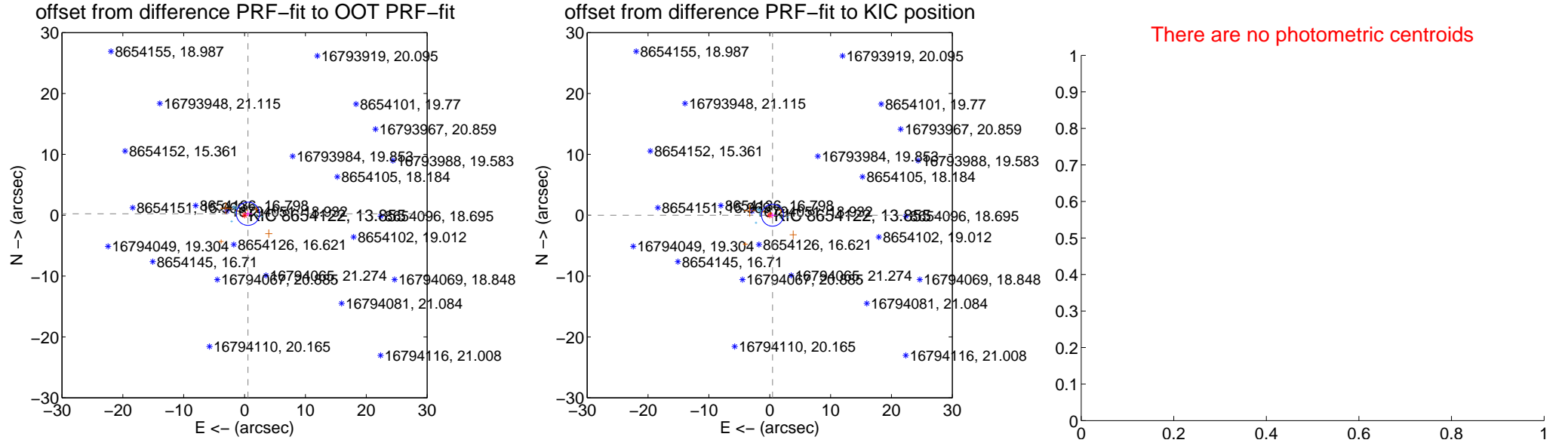
DV Centroid Data

Supplemental centroid analysis for 008654122-01. Kepler magnitude: 13.86. Transit SNR 0.01

There are 7 quarters with good PRF difference image offsets

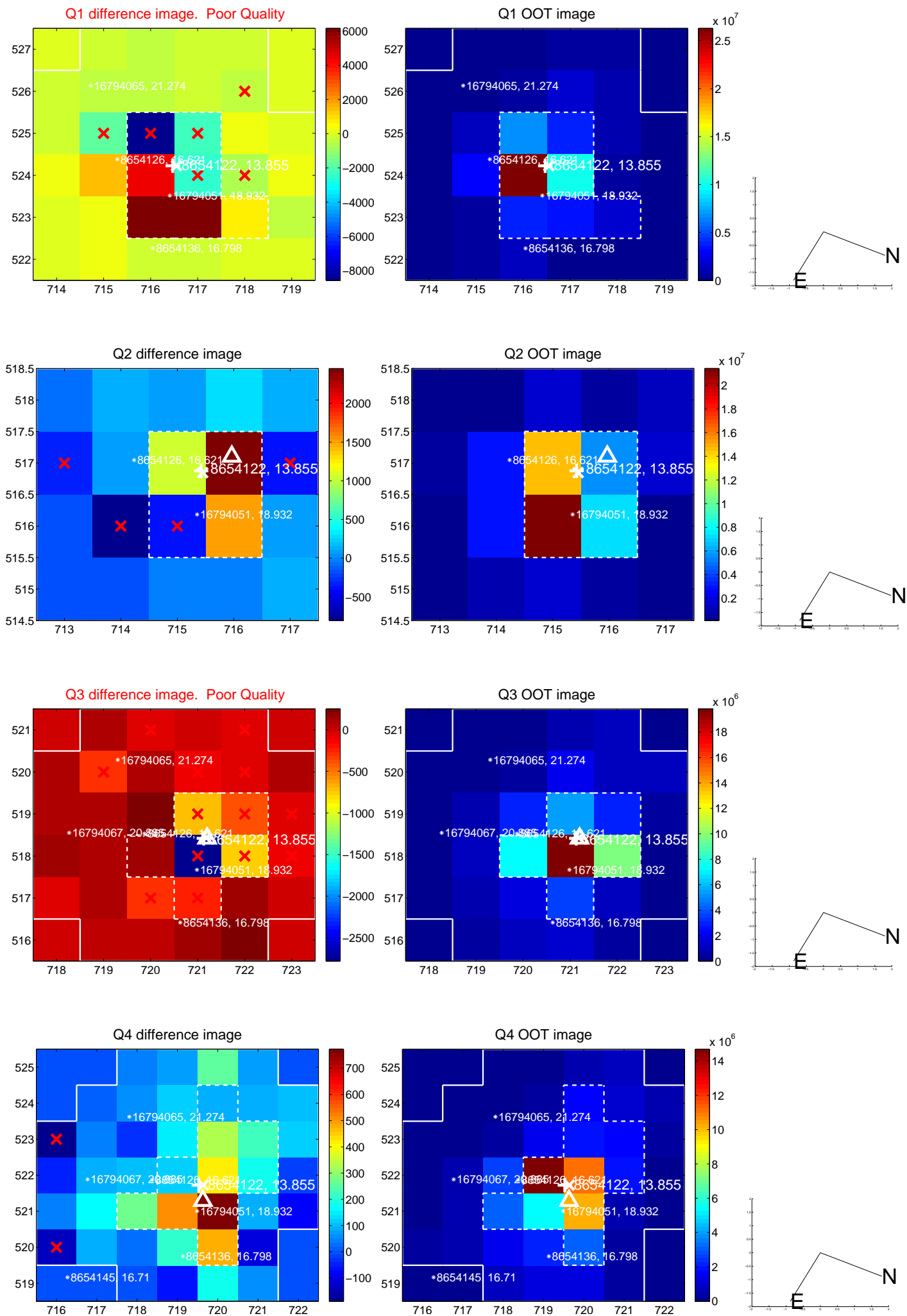
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.610 ± 0.635	0.96	-0.561 ± 0.654	0.239 ± 0.449
PRF-fit source offset from KIC position	0.455 ± 0.600	0.76	-0.455 ± 0.600	-0.004 ± 0.430
photometric centroid source offset	—	—	—	—

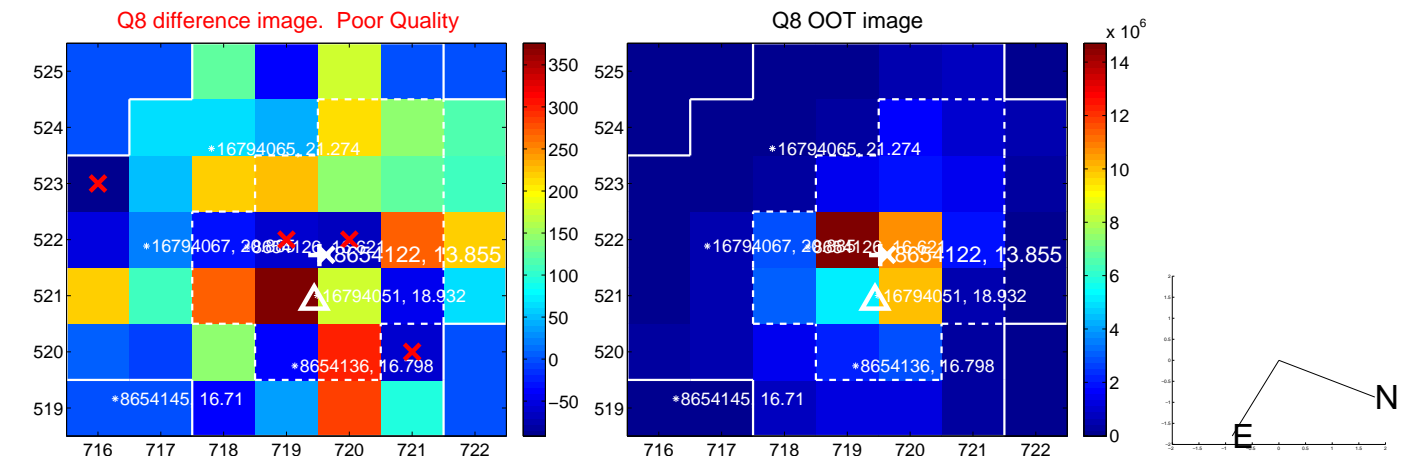
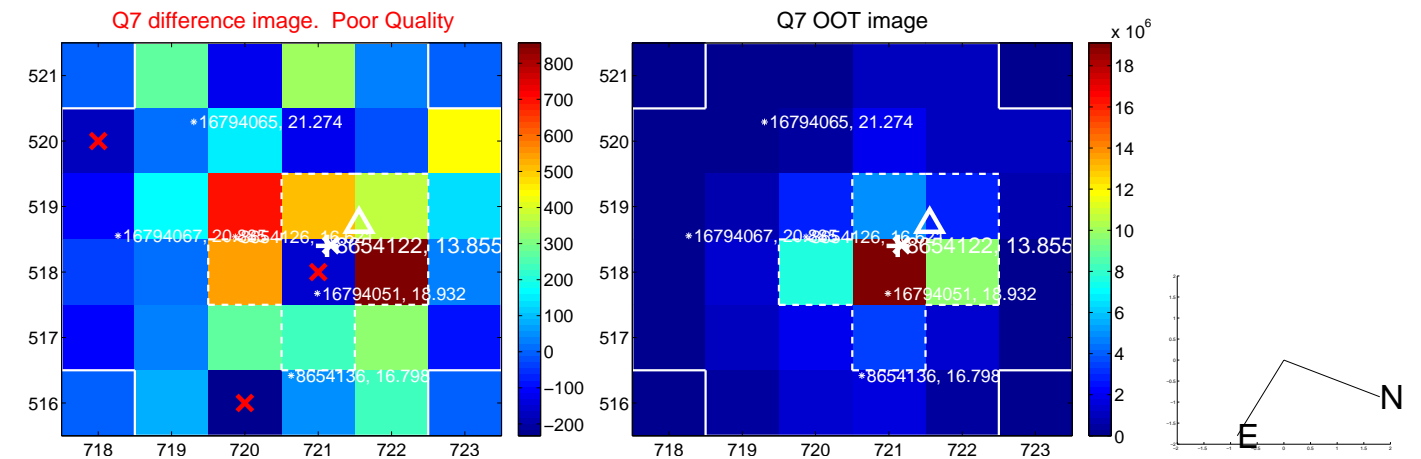
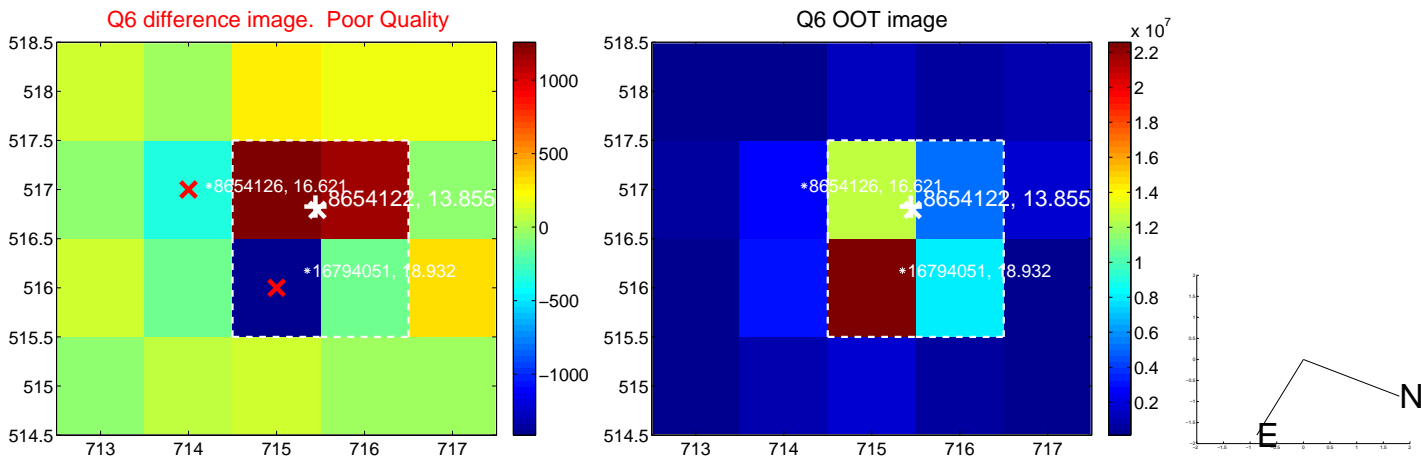
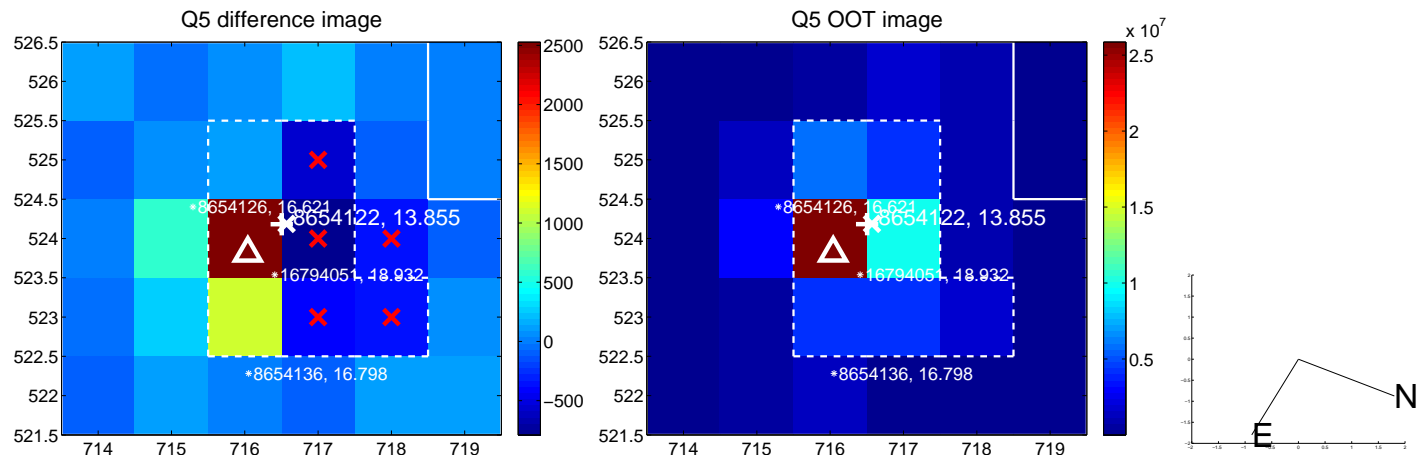


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

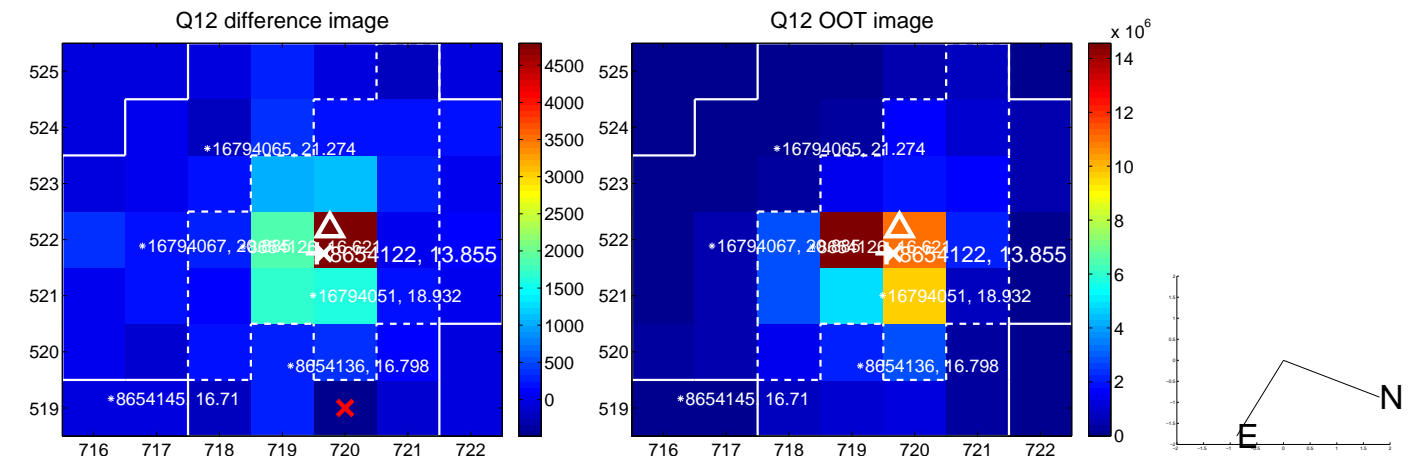
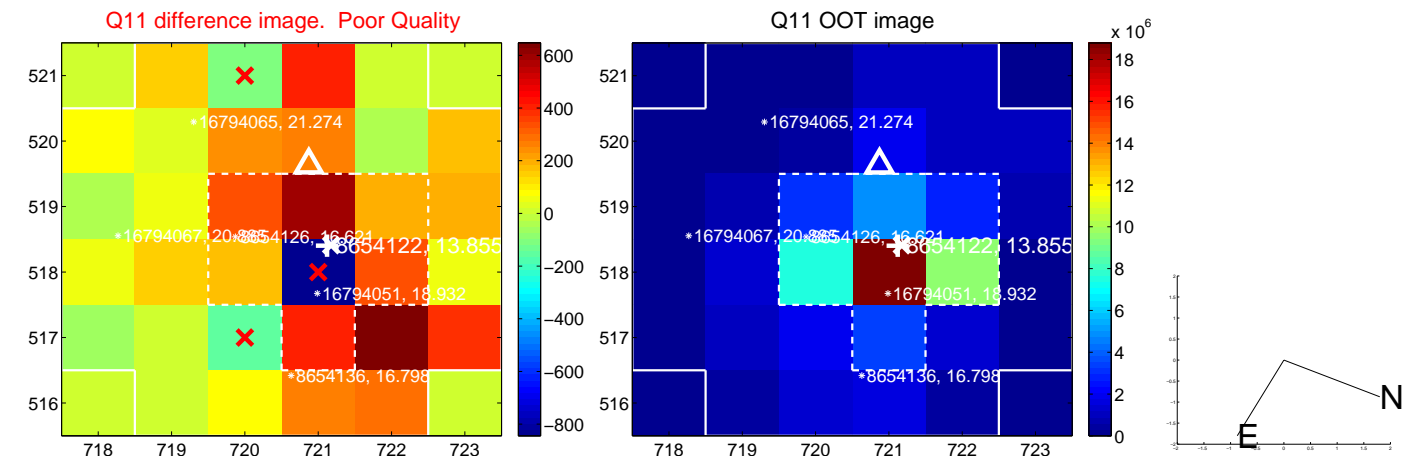
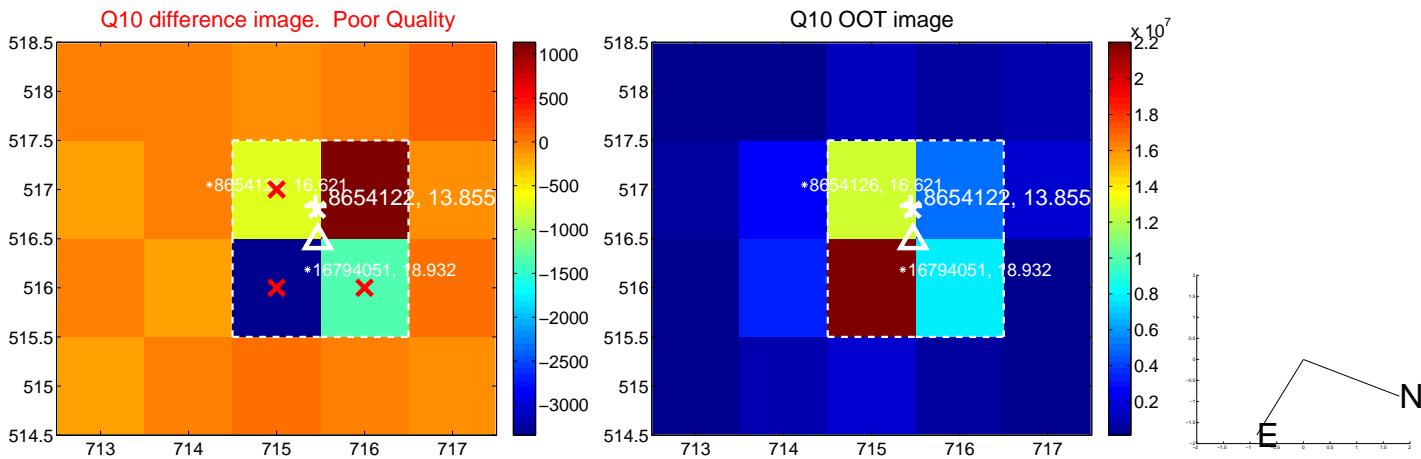
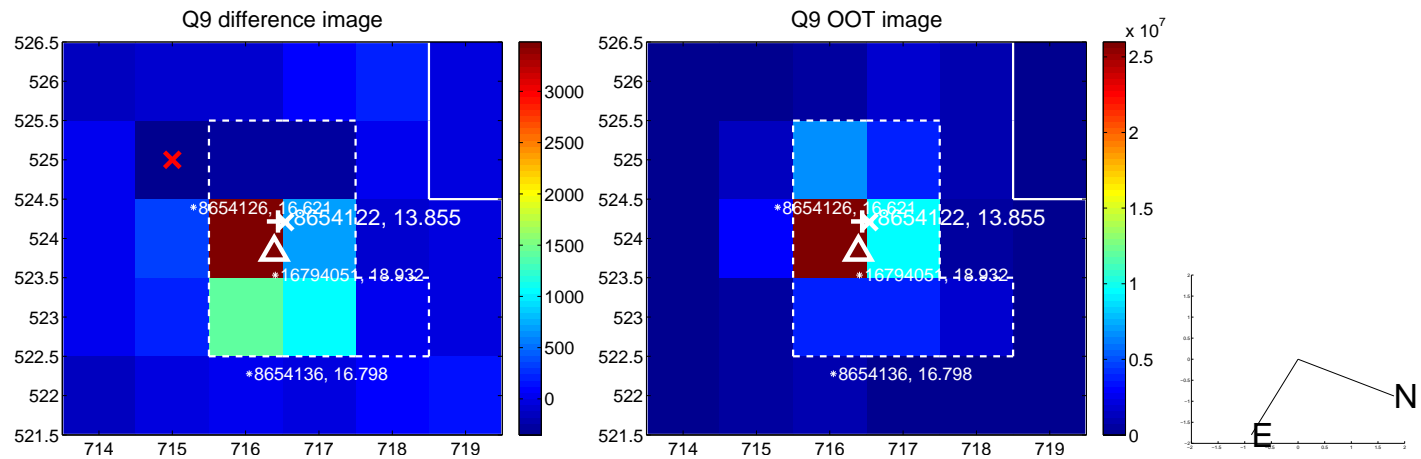
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



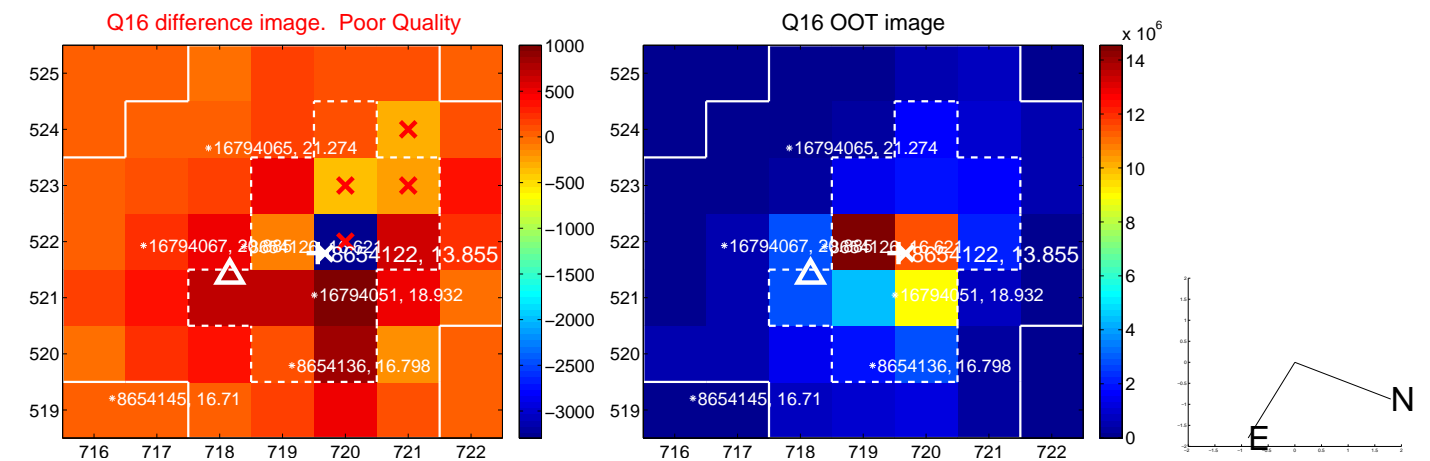
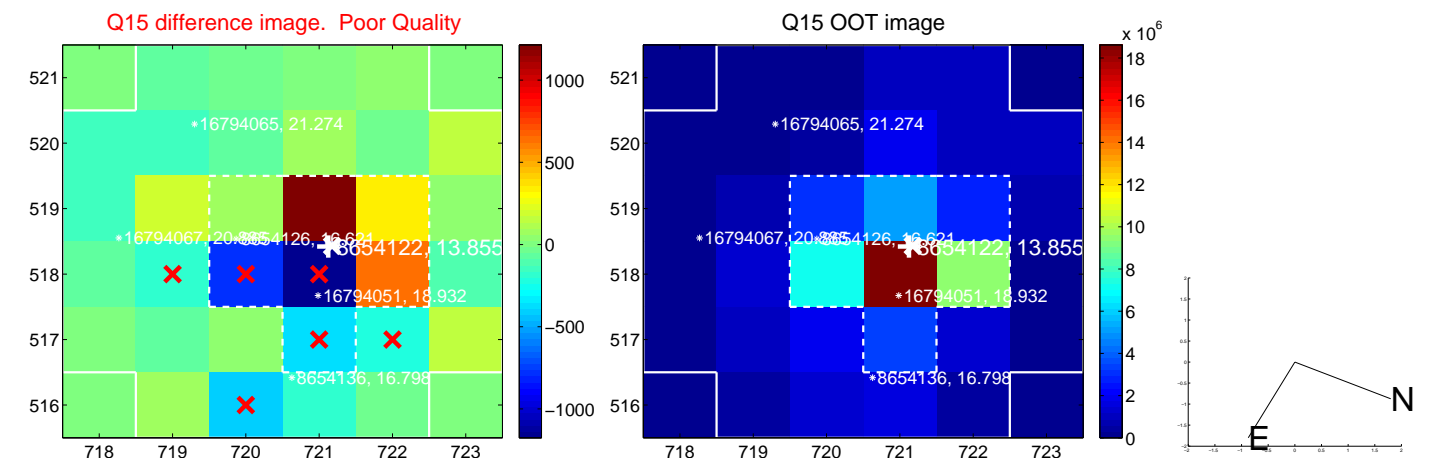
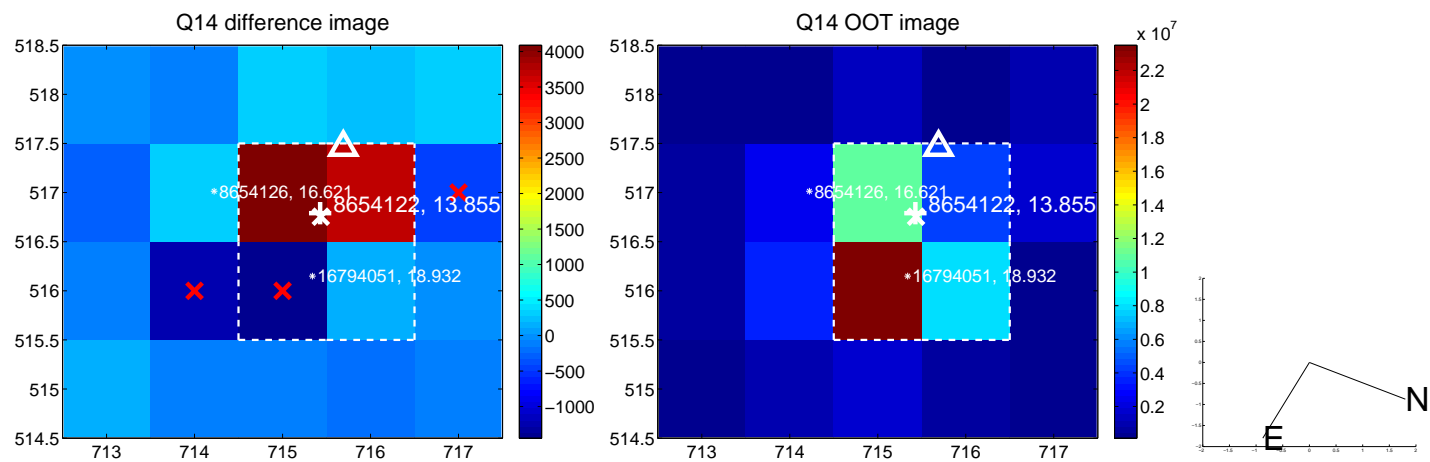
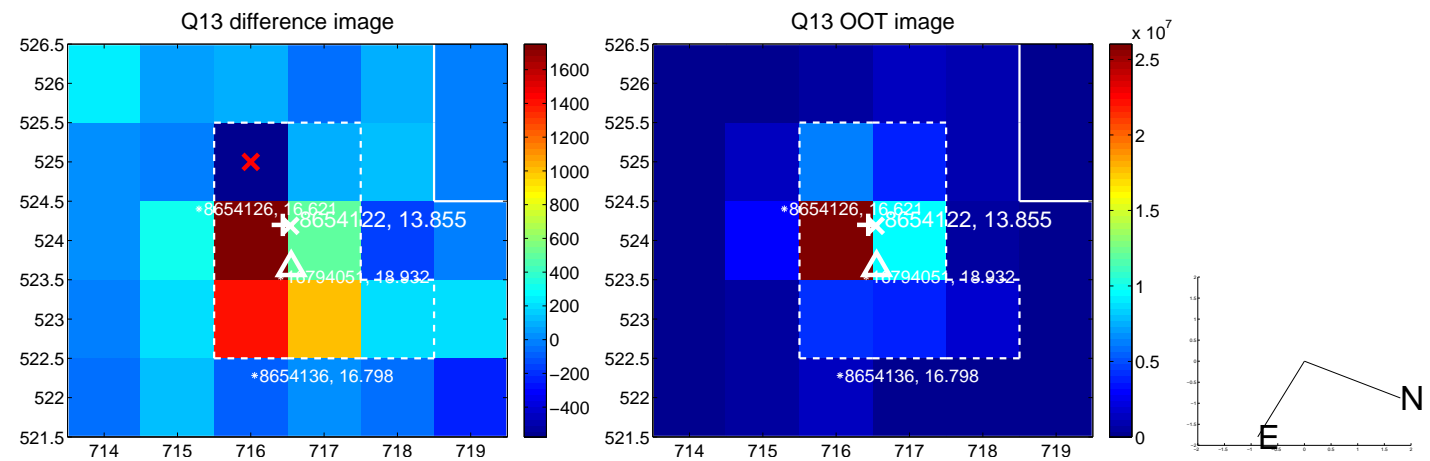
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



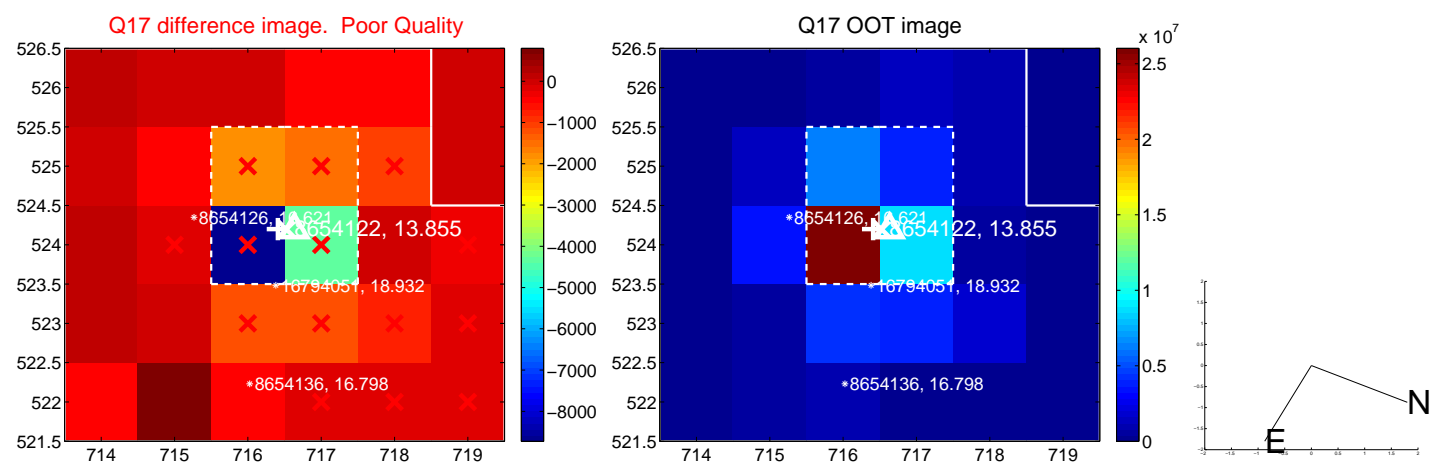
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

