

KIC 009852050

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})
009852050-01	OBS	No	1.116585	131.717795	0.0	4.183	7.8	0.0	1.73	6694	0.01	10064.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009852050-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

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

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

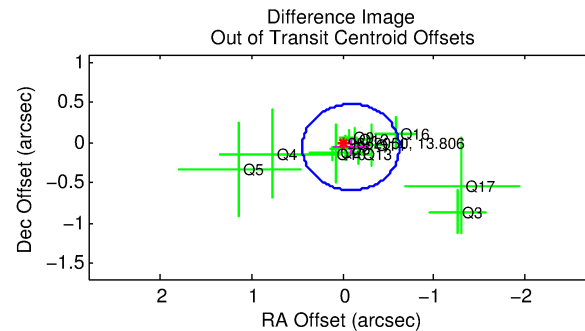
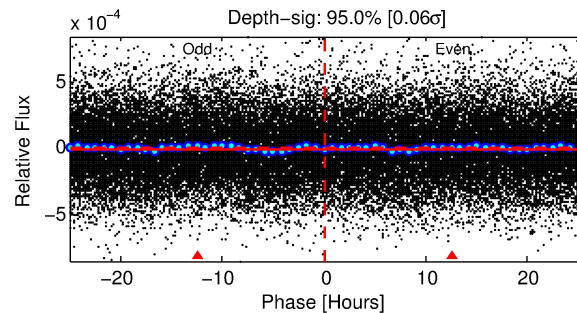
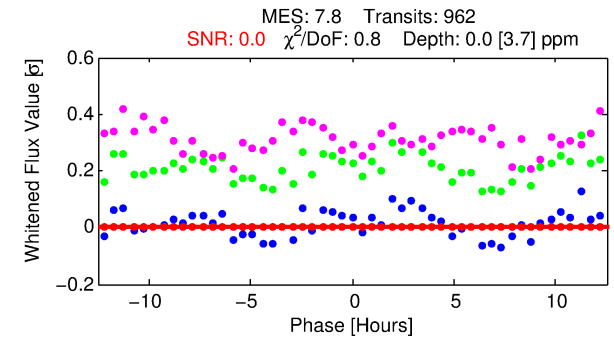
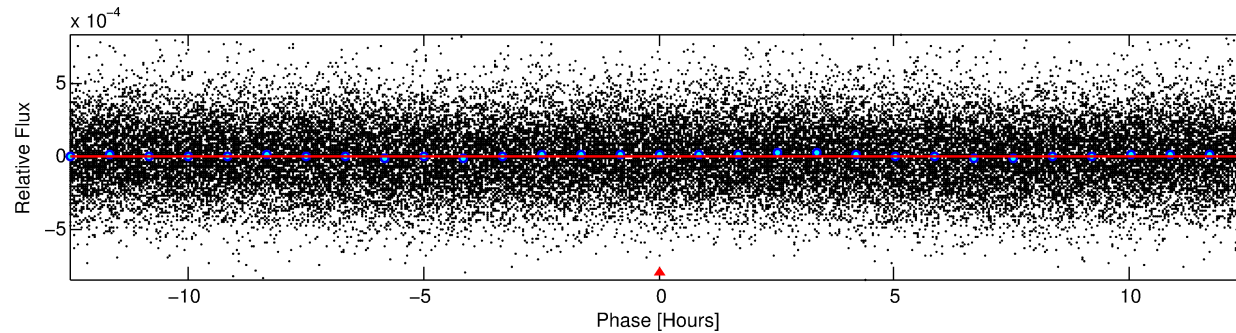
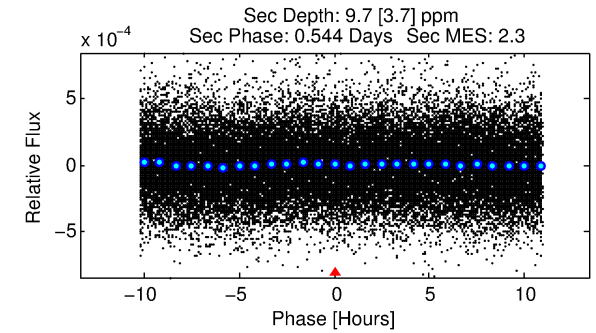
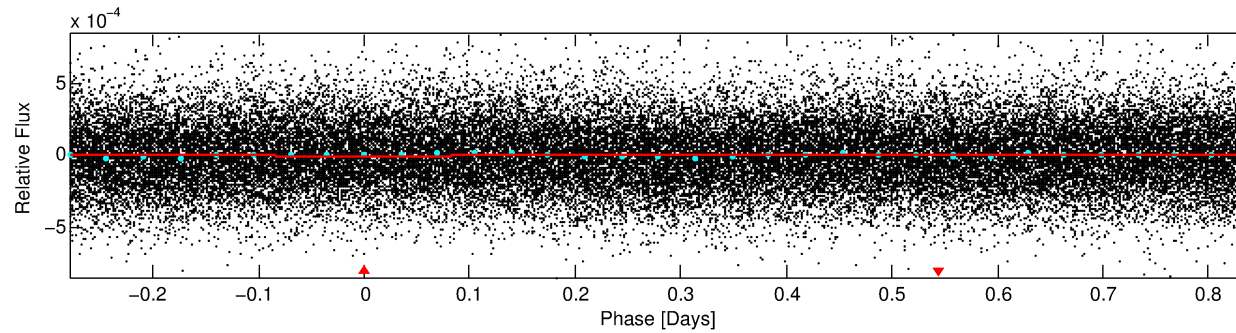
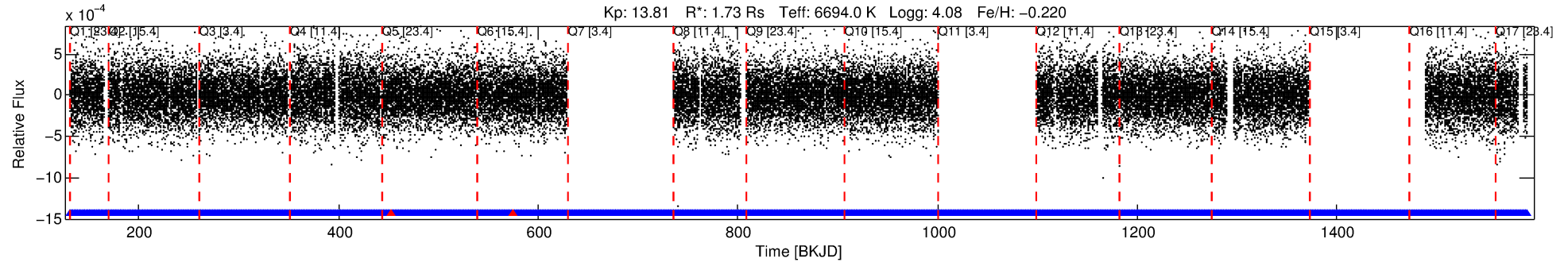
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009852050-01

No Significant Match Found

DV One-Page Summary

KIC: 9852050 Candidate: 1 of 1 Period: 1.117 d
KOI: K07240 Corr: No Ephemeris Match



DV Fit Results:

Period = 1.11658 [0.18636] d
Epoch = 131.7178 [57.3348] BKJD
Rp/R* = 0.0001 [0.0419]
a/R* = 1.24 [95.07]
b = 0.92 [61.15]
Seff = 10064.99 [5085.75]
Teq = 2554 [323] K
Rp = 0.01 [7.92] Re
a = 0.0232 [0.0068] AU
Ag = 28753.89 [45655980.91] [0.00σ]
Teffp = 51421 [20413310] K [0.00σ]

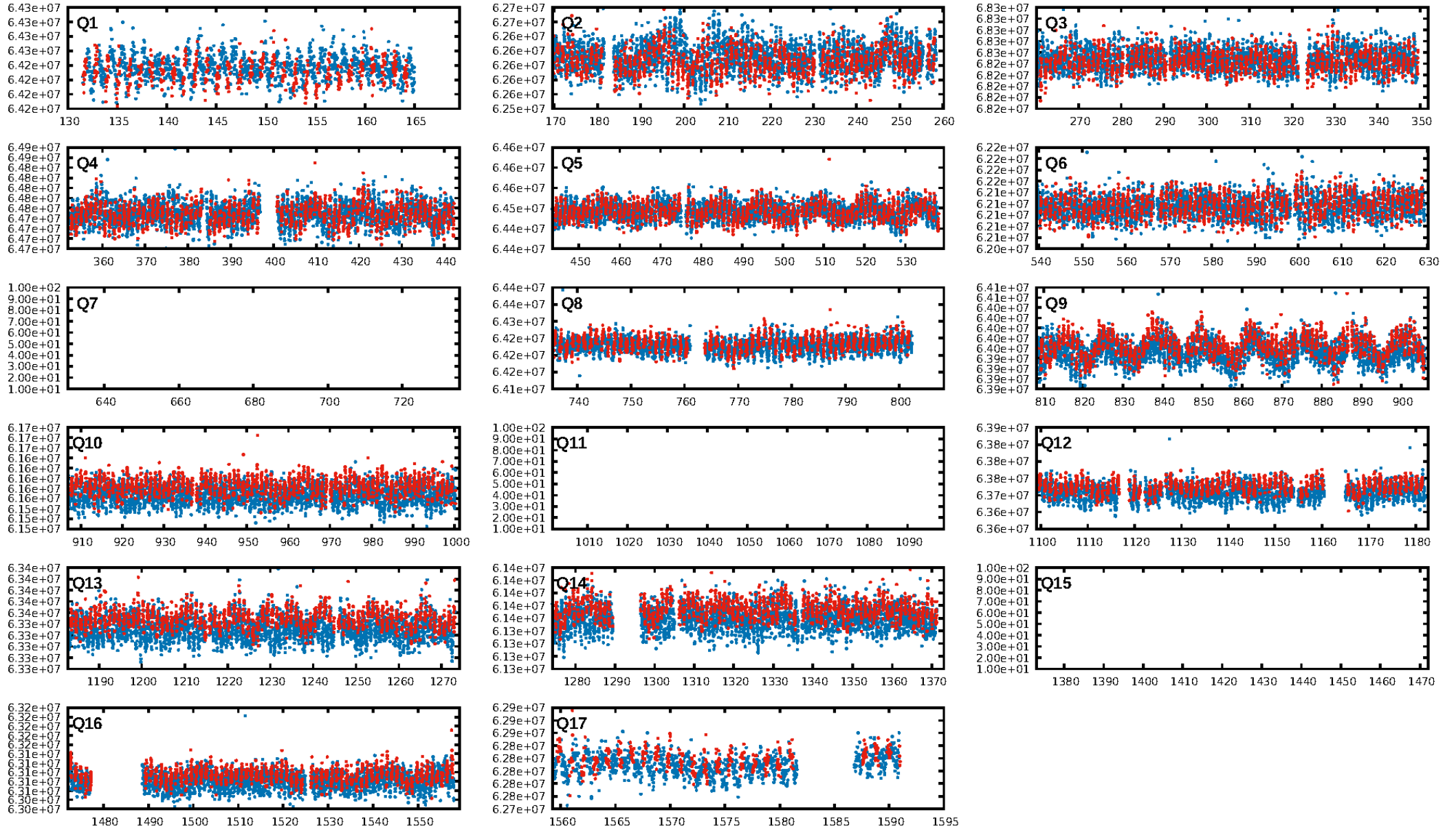
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.41e-12
RollingBand-fgt: 1.00 [906/908]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.105 arcsec [0.59σ]
KicOffset-rm: 0.087 arcsec [0.74σ]
OotOffset-st: 3/1/4/4 [12]
KicOffset-st: 3/1/4/4 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 1.00 [14/14]

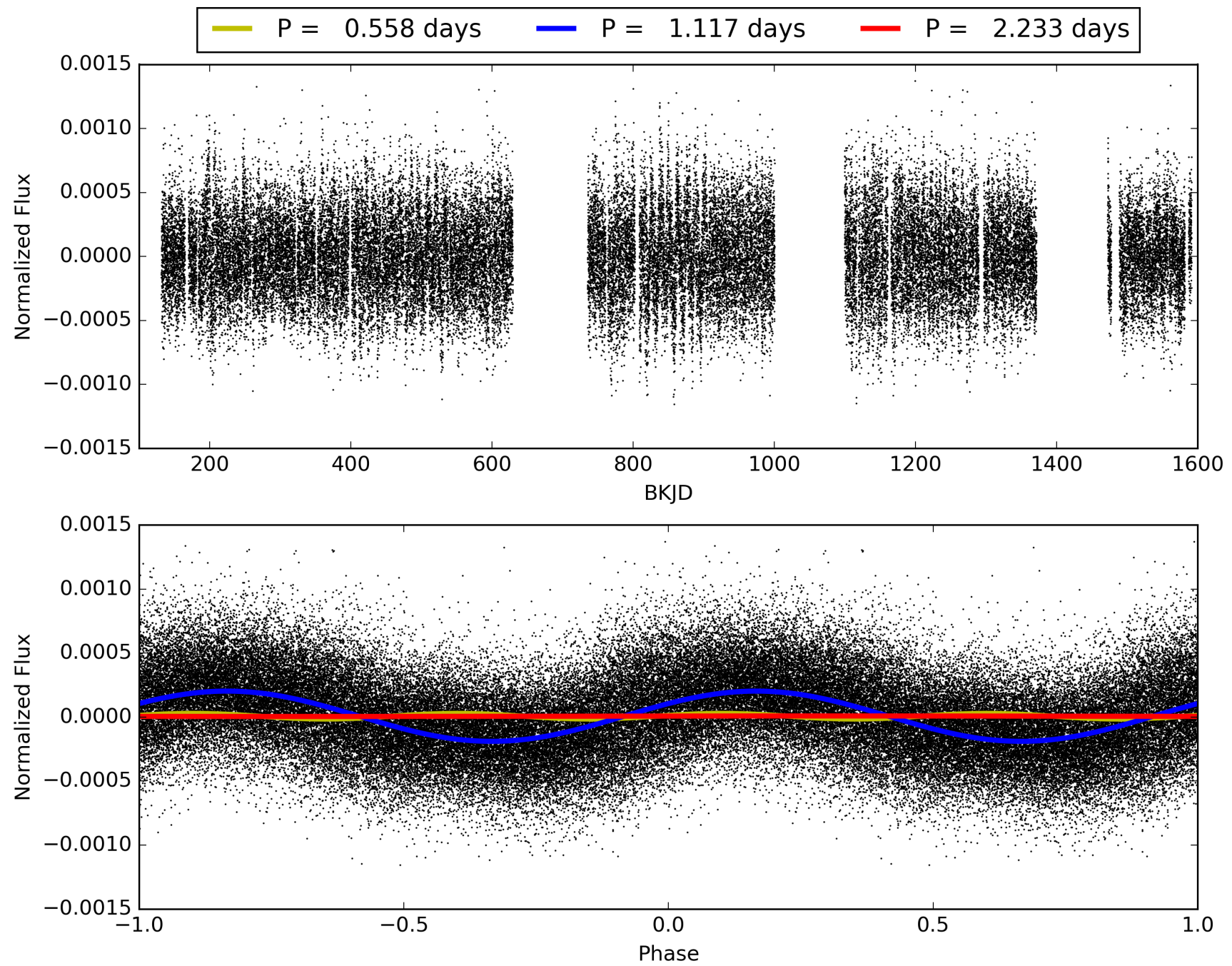
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:53:24 Z

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

TCE 009852050-01, PDC Light Curves

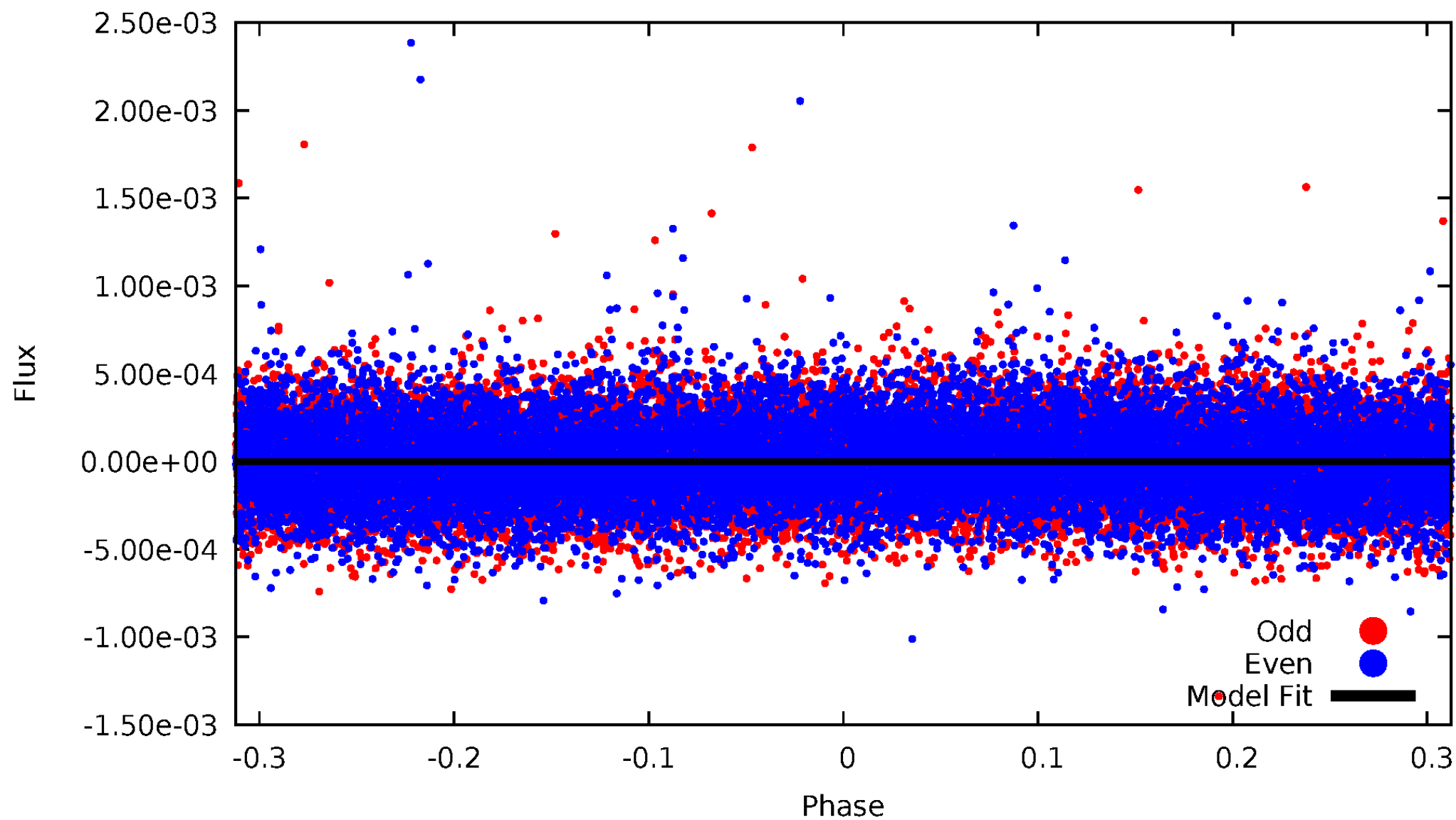


TCE 009852050-01



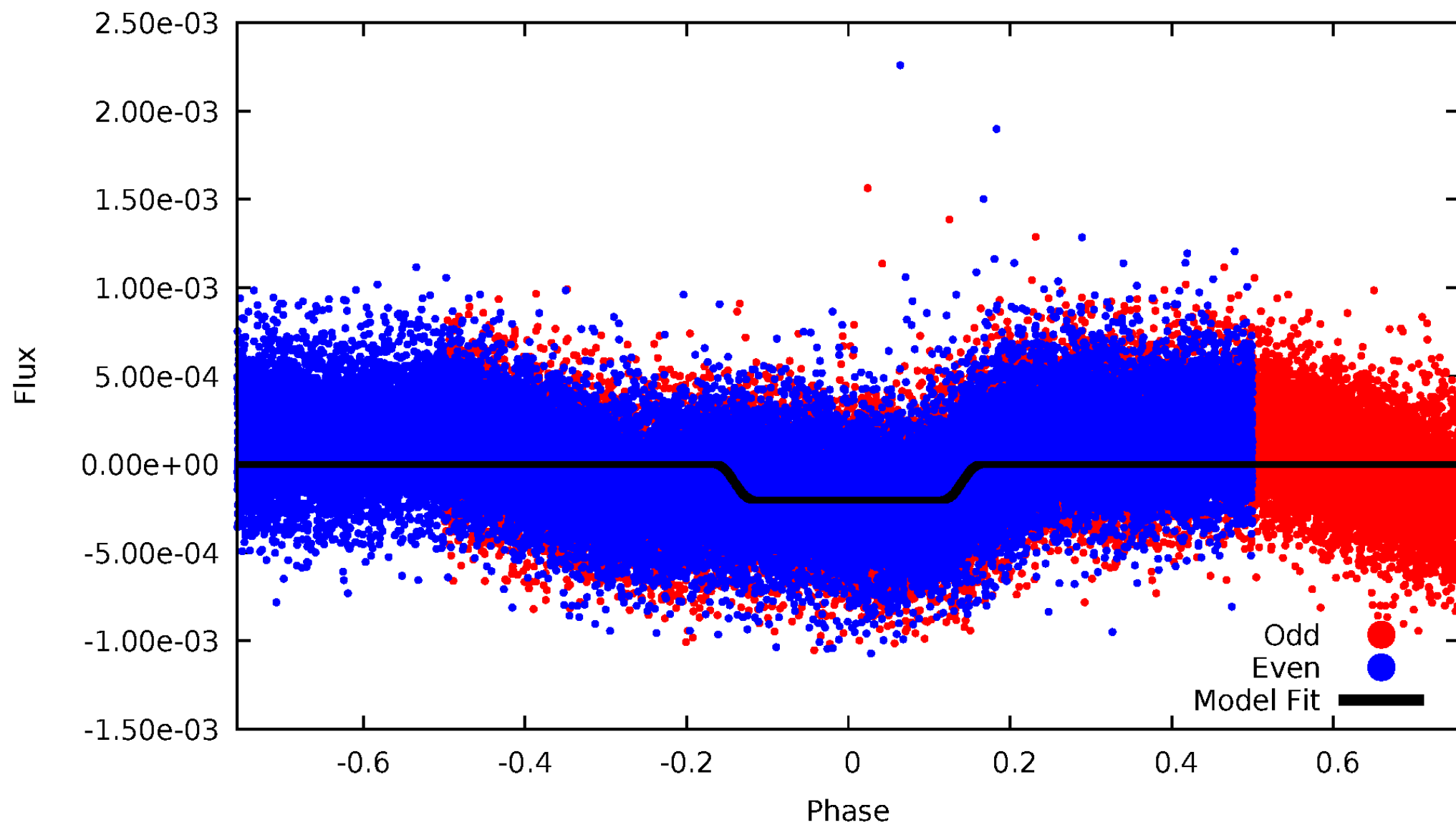
DV Odd/Even

TCE 009852050-01



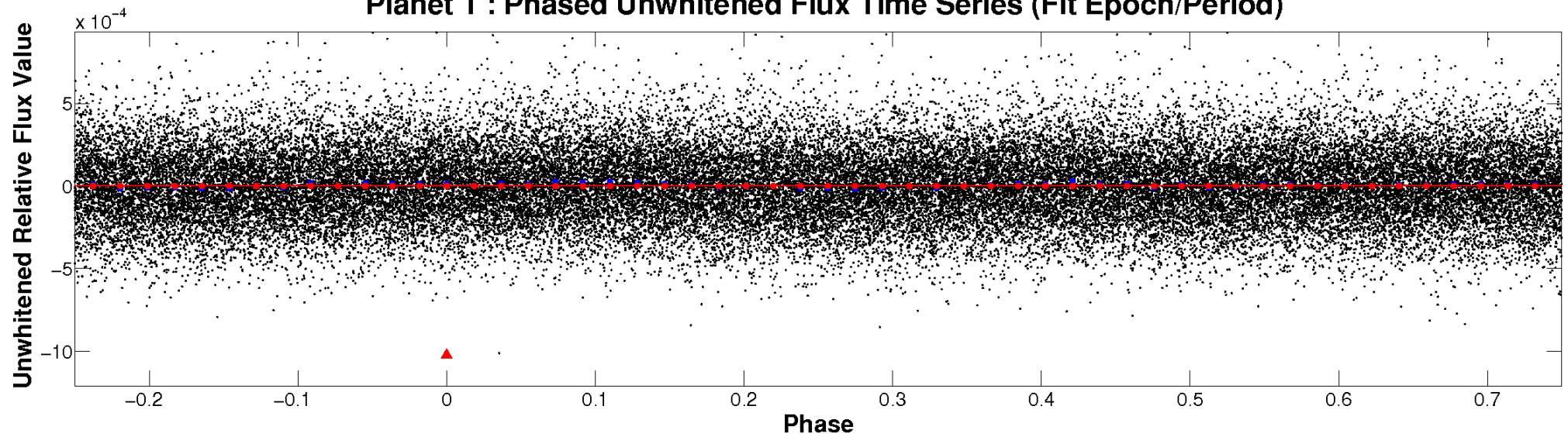
ALT Odd/Even

TCE 009852050-01

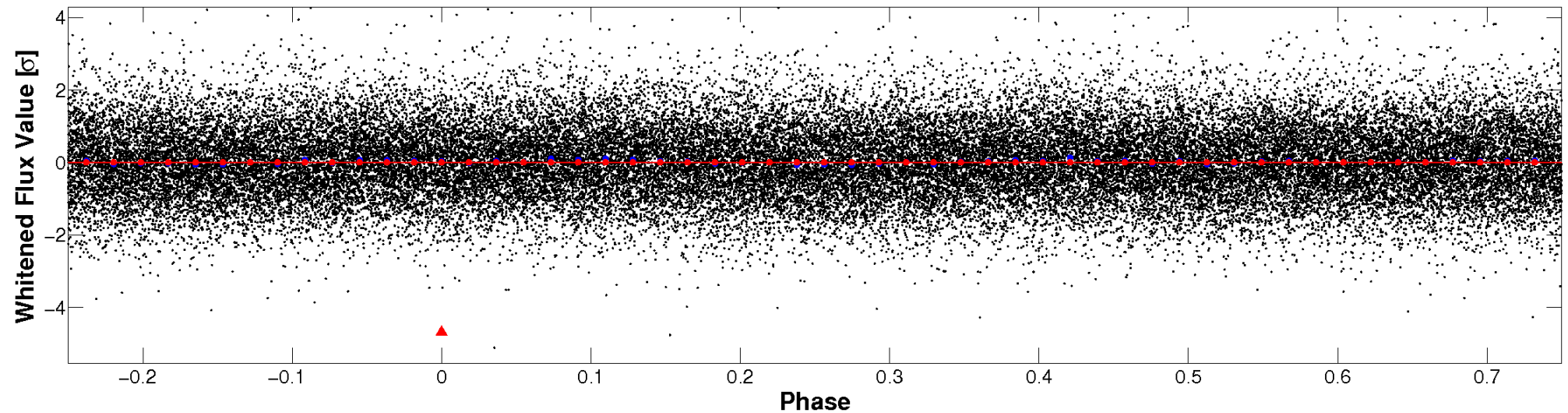


Non-Whitened Vs. Whitened Light Curve

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

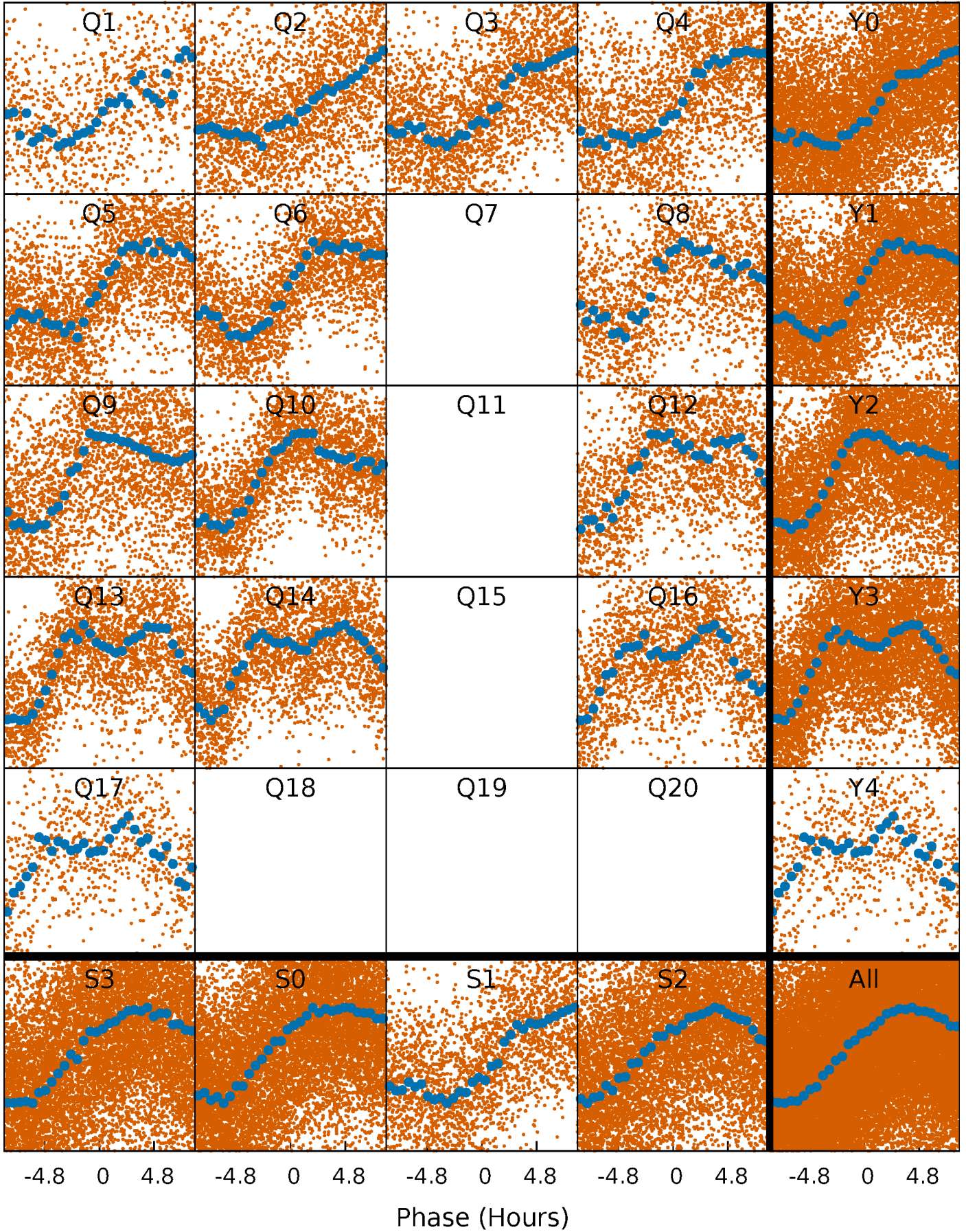


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



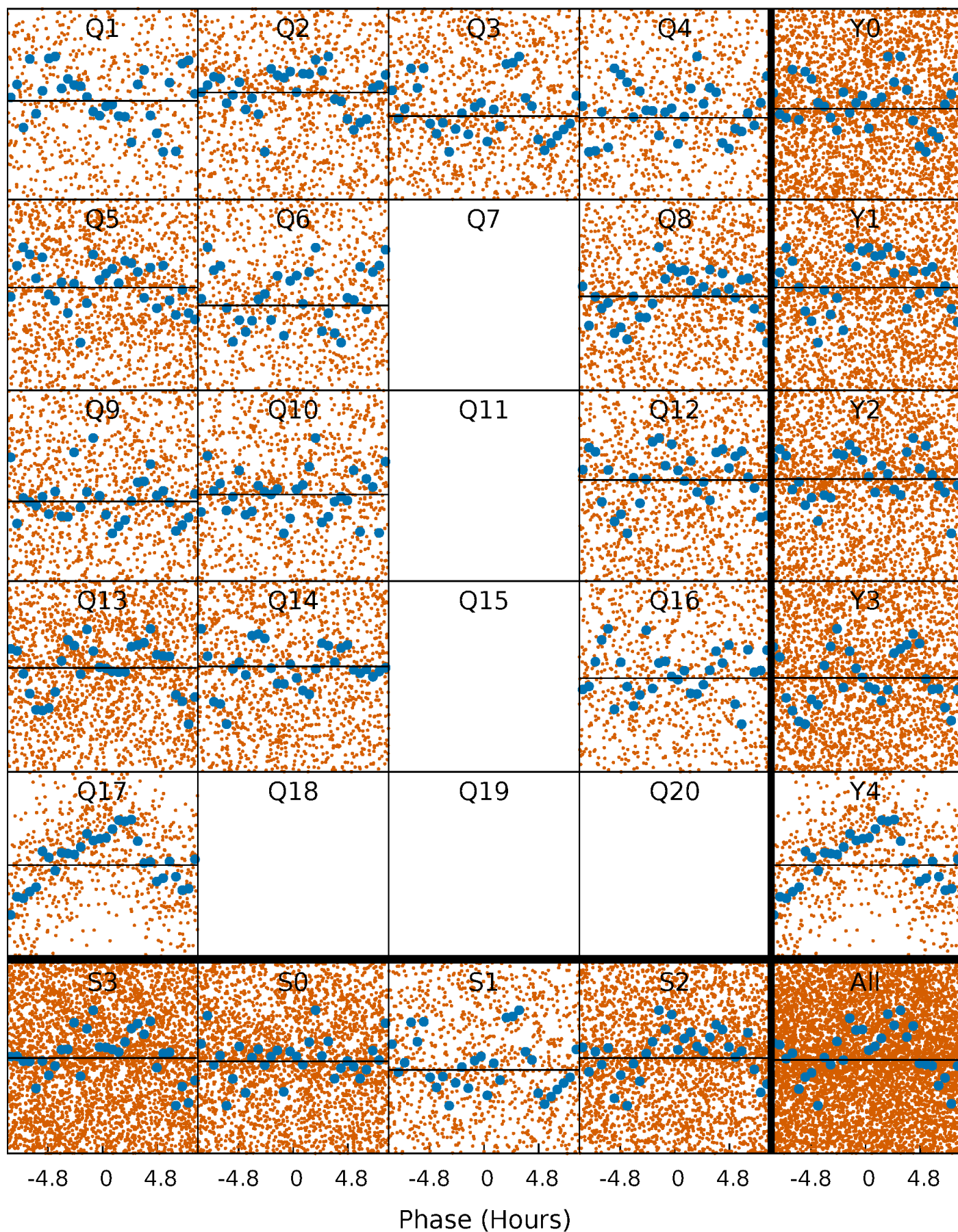
PDC Quarter-Phased Transit Curves

TCE 009852050-01 P= 1.116585 Days $T_0=131.717795$ (BKJD)



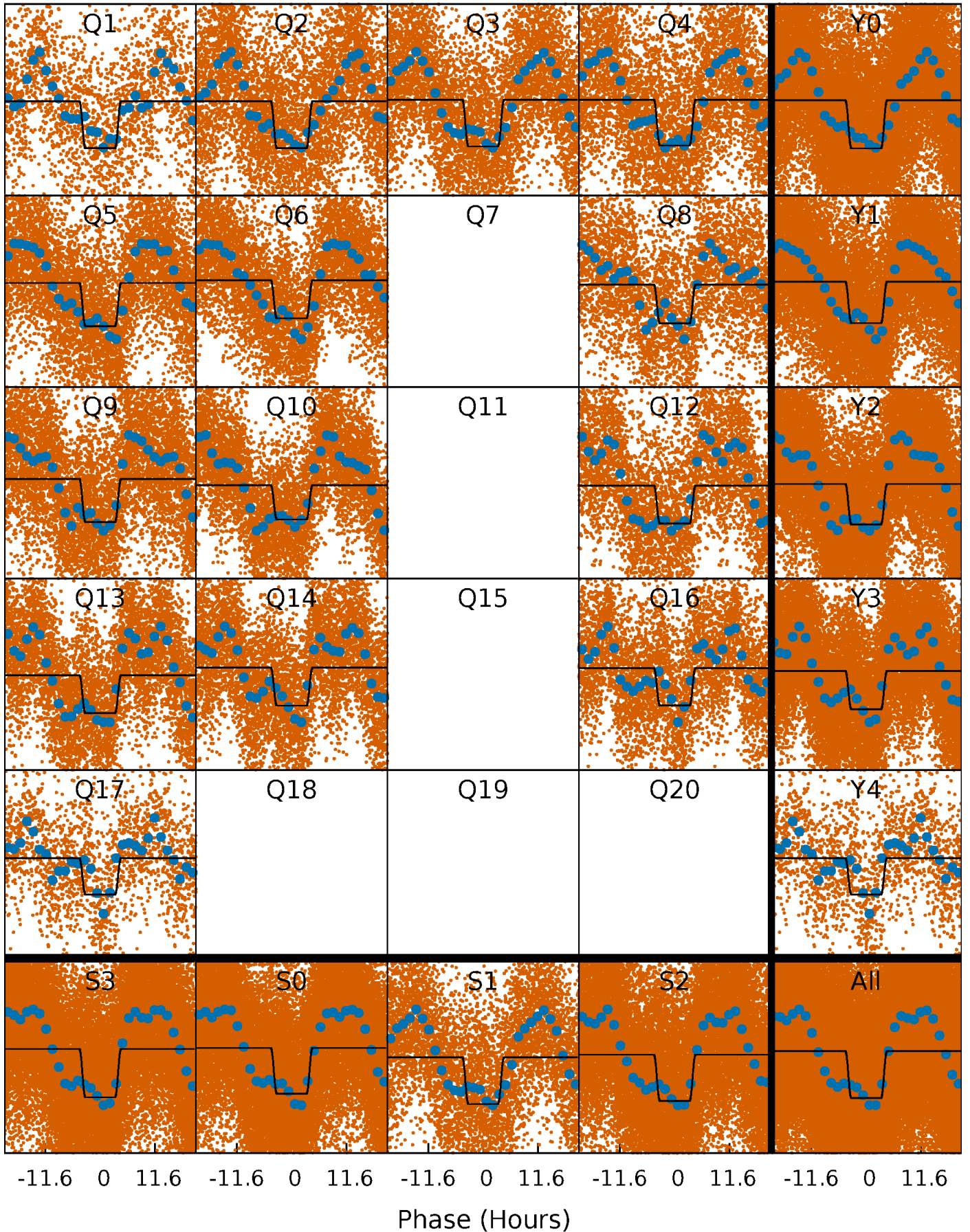
DV Quarter-Phased Transit Curves

TCE 009852050-01 P= 1.116585 Days $T_0=131.717795$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

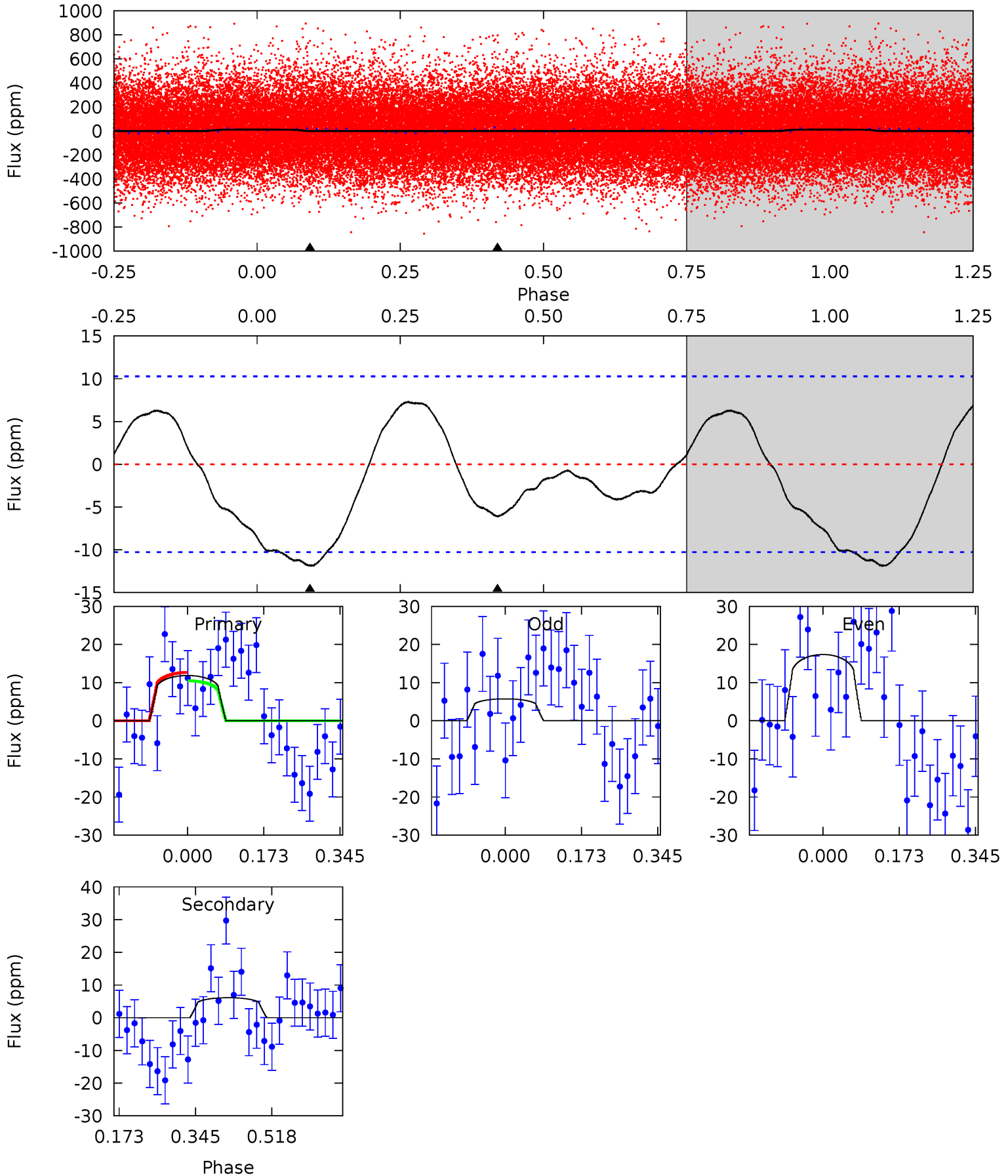
TCE 009852050-01 P= 1.116422 Days $T_0=131.543511$ (BKJD)



DV Model-Shift Uniqueness Test

009852050-01, P = 1.116585 Days, E = 130.601210 Days

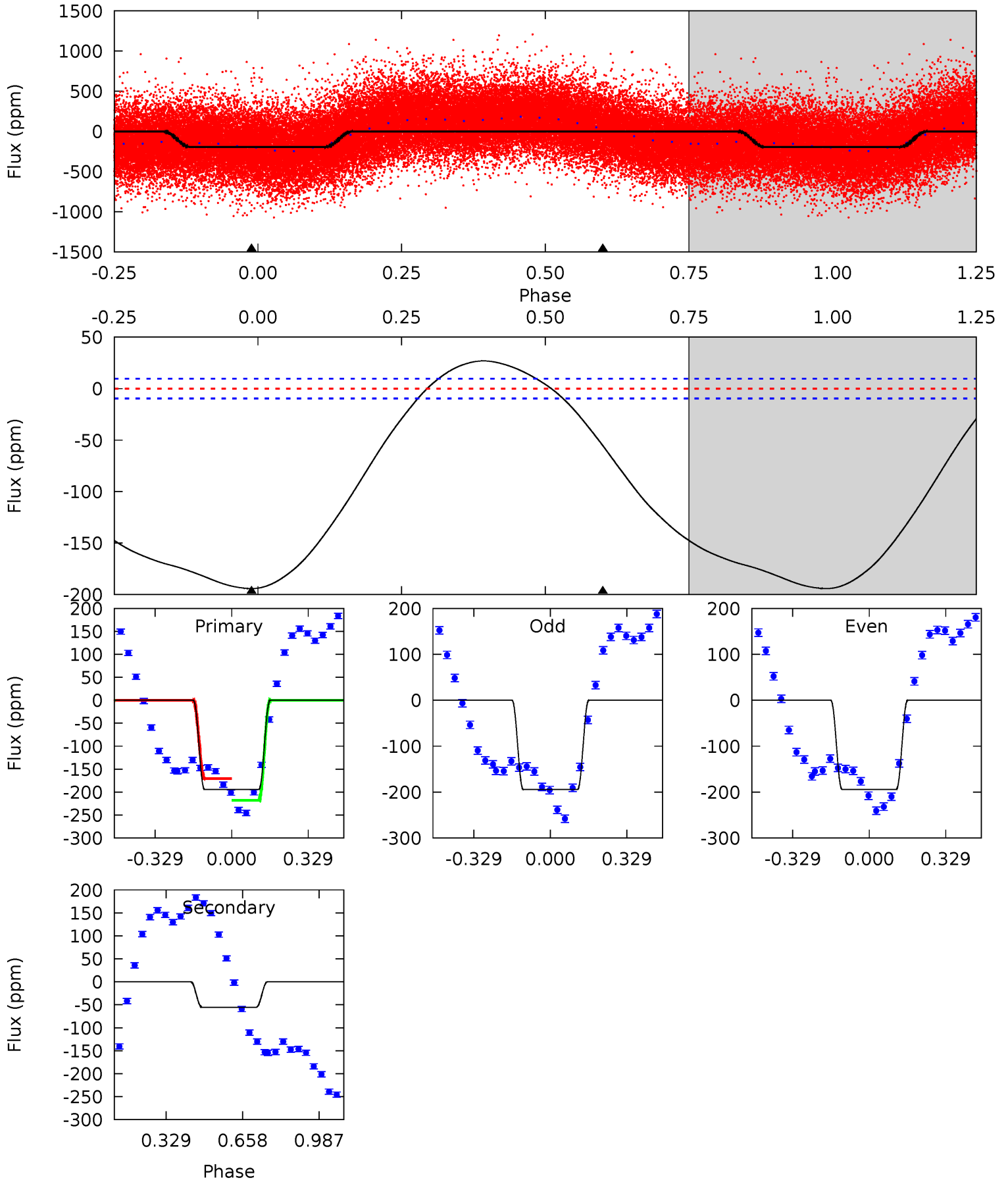
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.14	2.65	0	0	4.45	1.36	1.62	5.14	5.14	2.65	2.65	2.52	0.96	0.38	0.47



Alt Model-Shift Uniqueness Test

009852050-01, P = 1.116422 Days, E = 130.427089 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
87.0	24.8	0	0	4.31	0.98	7.17	87.0	87.0	24.8	24.8	0.06	1.02	0.12	10.9



Stellar Parameters For KIC 009852050

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6694^{+181}_{-262}	$4.084^{+0.246}_{-0.164}$	$-0.220^{+0.250}_{-0.300}$	$1.732^{+0.511}_{-0.511}$	$1.333^{+0.196}_{-0.261}$	$0.361^{+0.551}_{-0.167}$
	+3%/-4%	+6%/-4%	+114%/-136%	+30%/-30%	+15%/-20%	+153%/-46%
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 009852050-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6 ± 2	$4.94^{+5.77}_{-3.45}$	3524^{+357}_{-331}	-3177^{+6774}_{-327}	$0.064^{+0.694}_{-0.050}$
Alt.	-55 ± 2	$5.99^{+6.44}_{-4.19}$	3538^{+382}_{-324}	3046^{+2584}_{-6290}	$0.445^{+4.484}_{-0.341}$

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

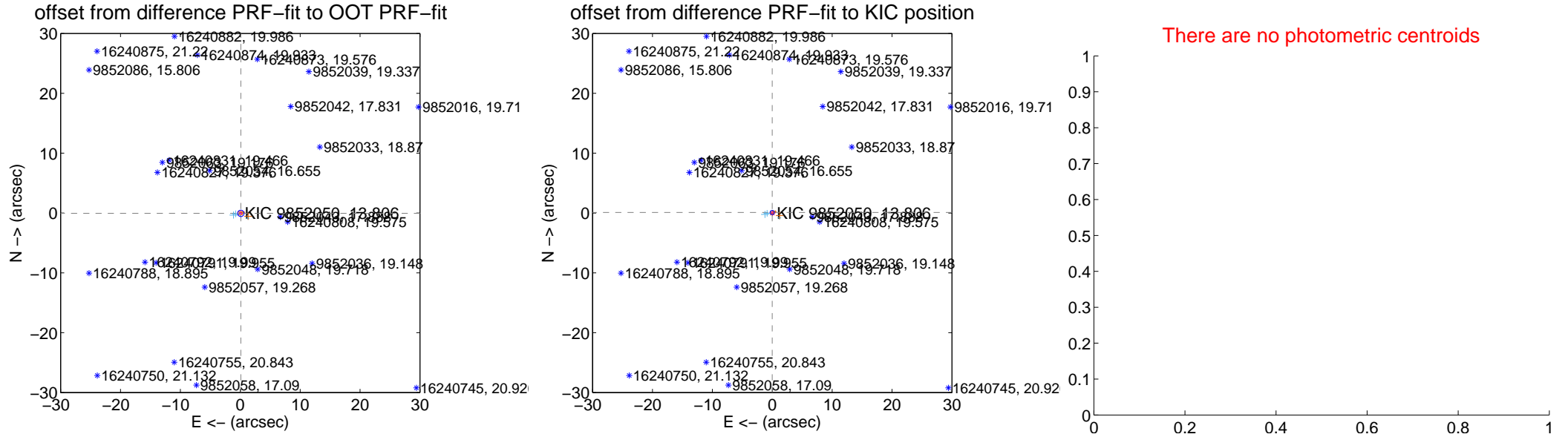
DV Centroid Data

Supplemental centroid analysis for 009852050-01. Kepler magnitude: 13.81. Transit SNR 0.00

There are 4 quarters with good PRF difference image offsets

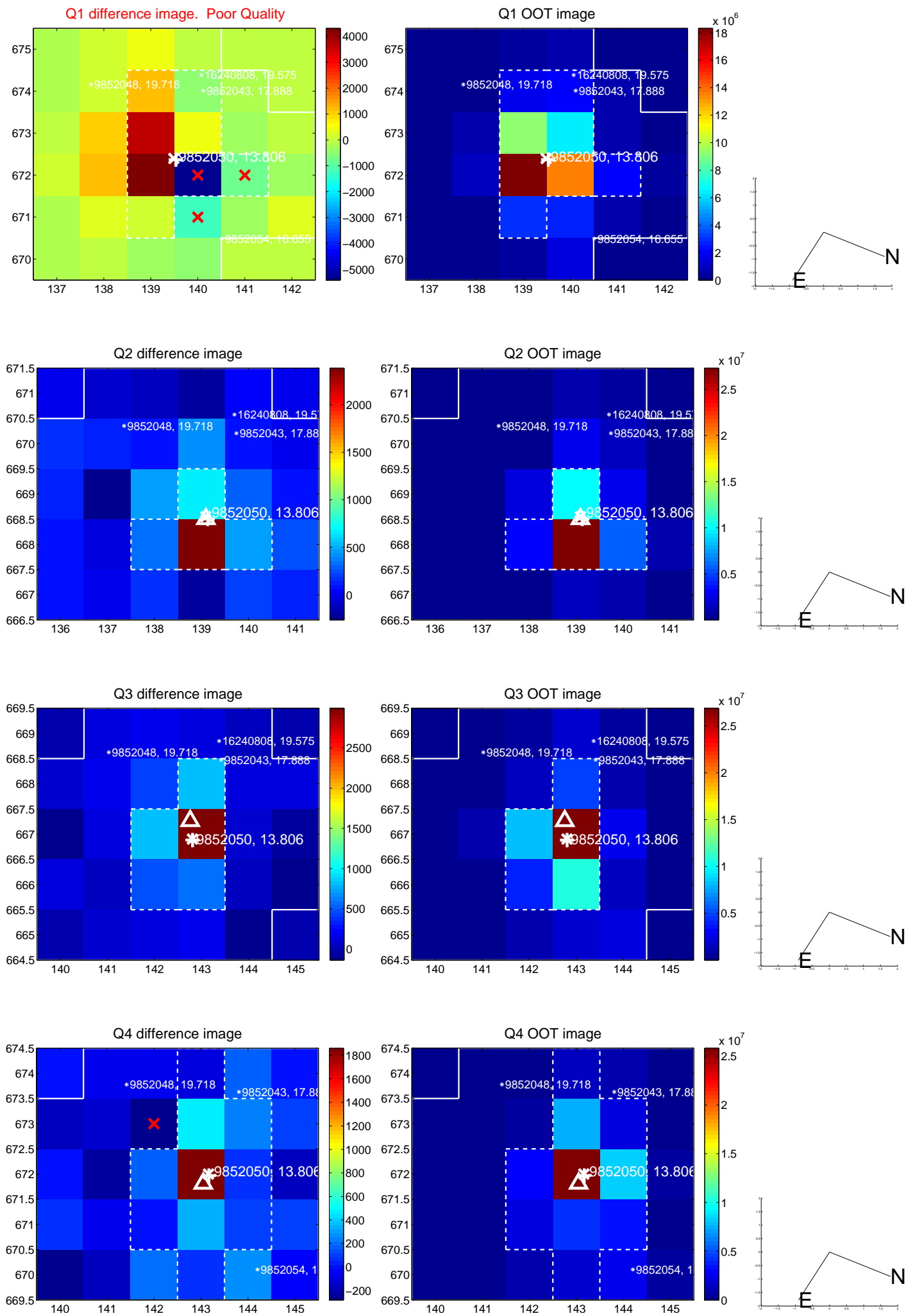
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.105 ± 0.179	0.59	-0.089 ± 0.185	-0.056 ± 0.101
PRF-fit source offset from KIC position	0.087 ± 0.118	0.74	0.003 ± 0.123	0.087 ± 0.118
photometric centroid source offset	—	—	—	—

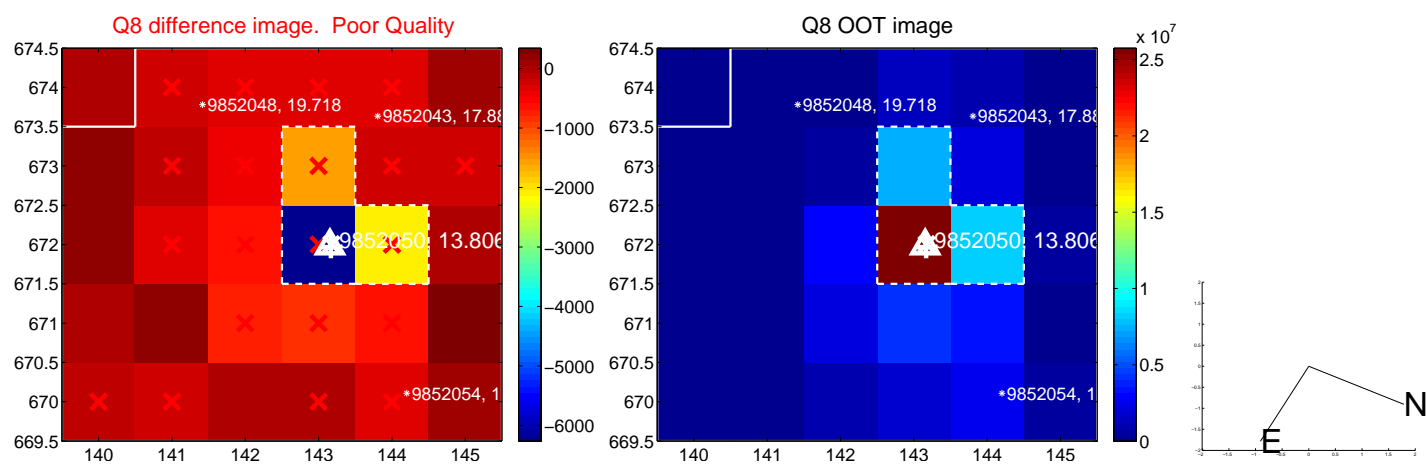
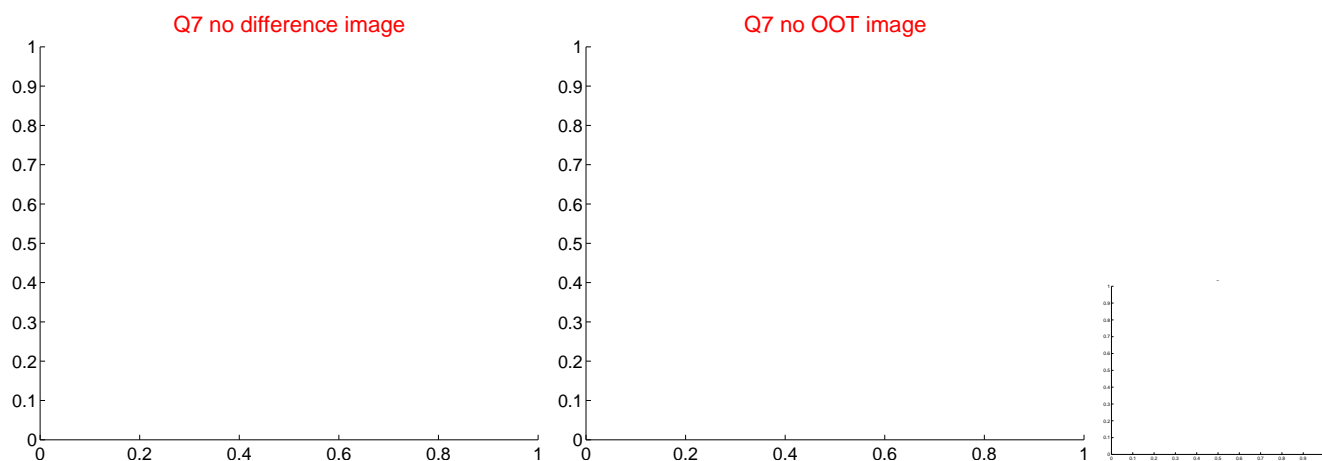
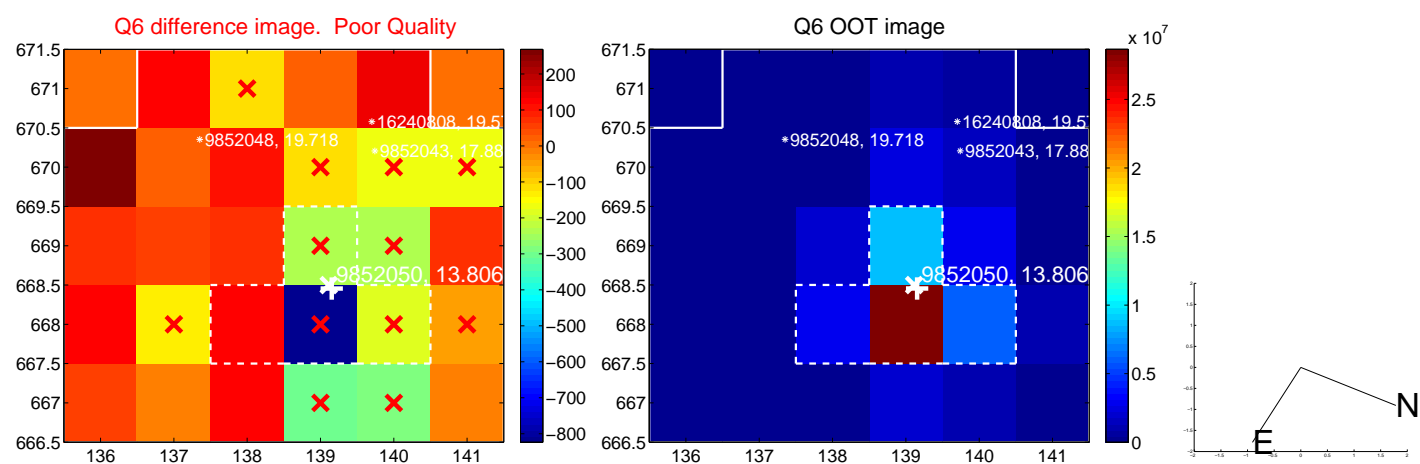
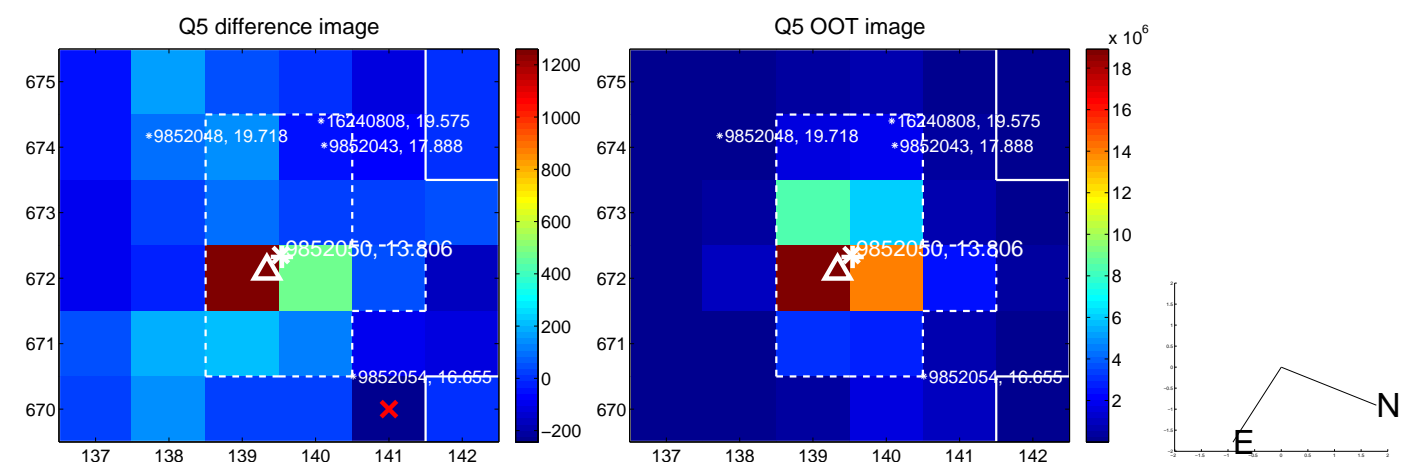


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

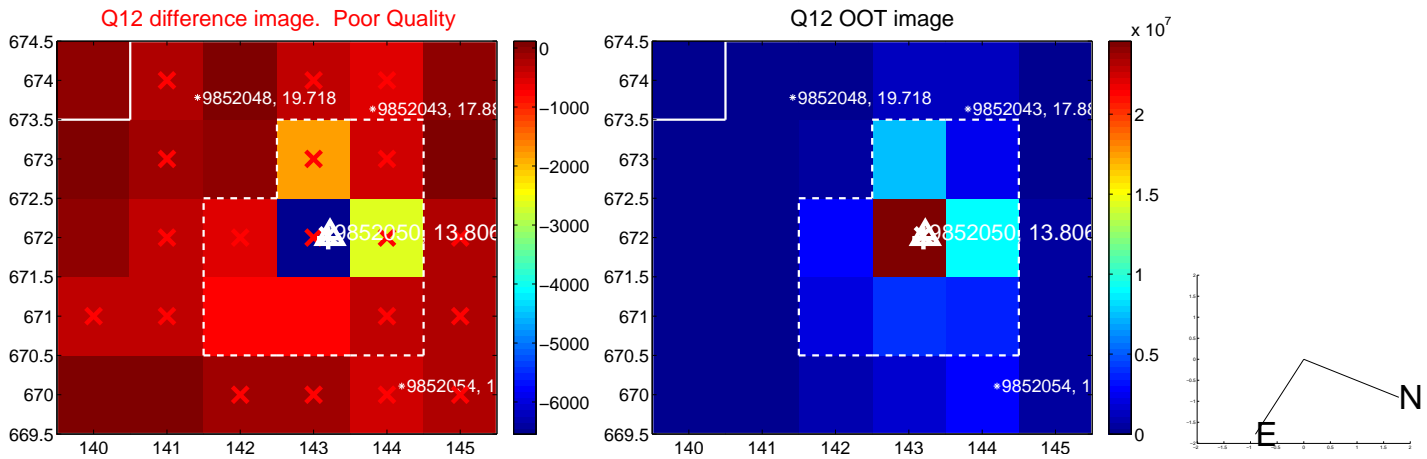
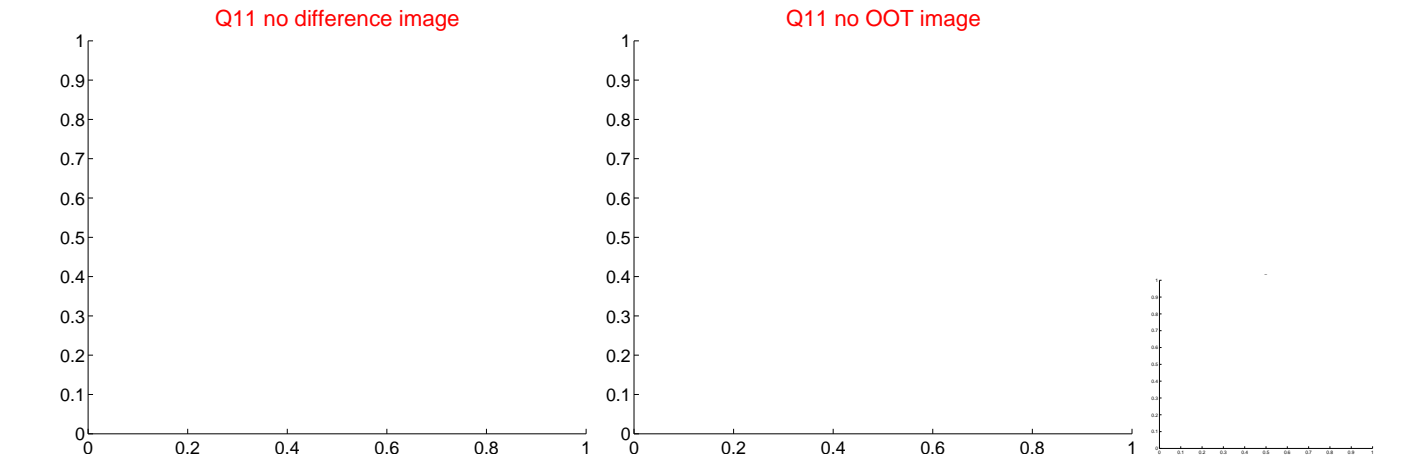
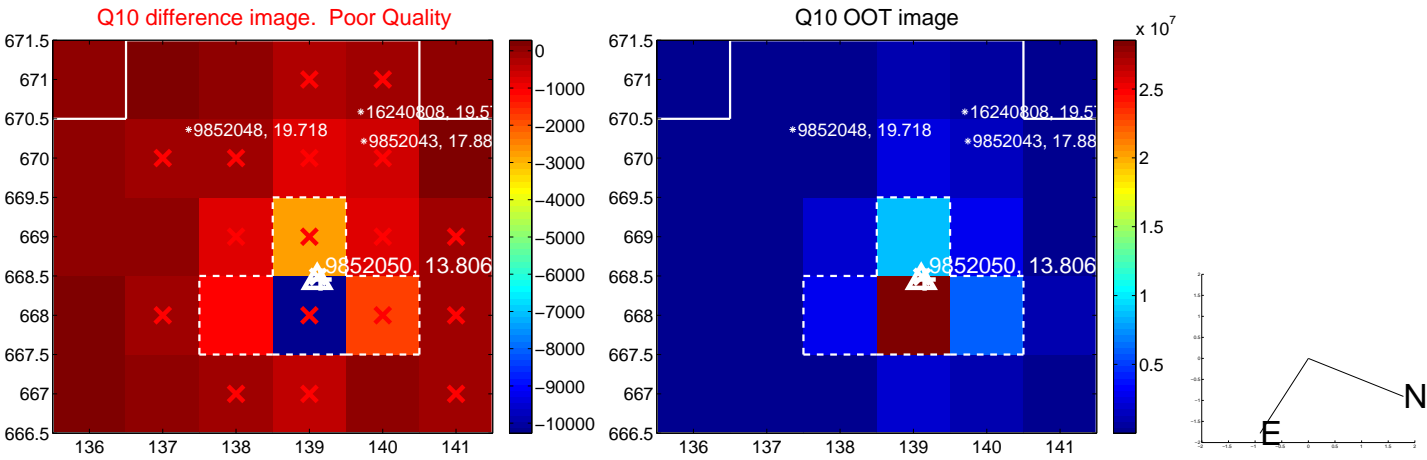
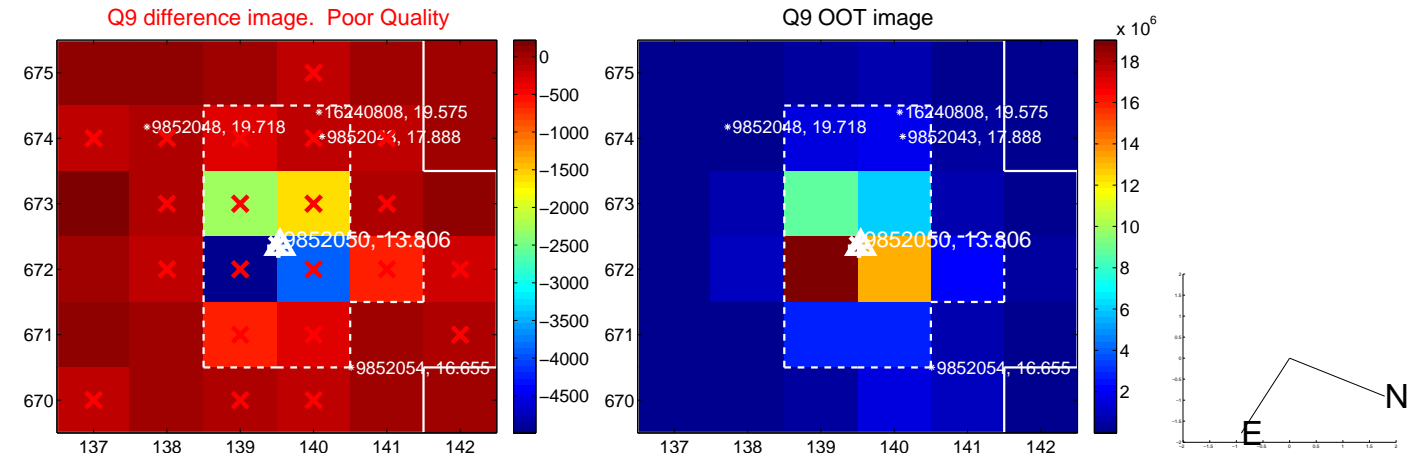
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



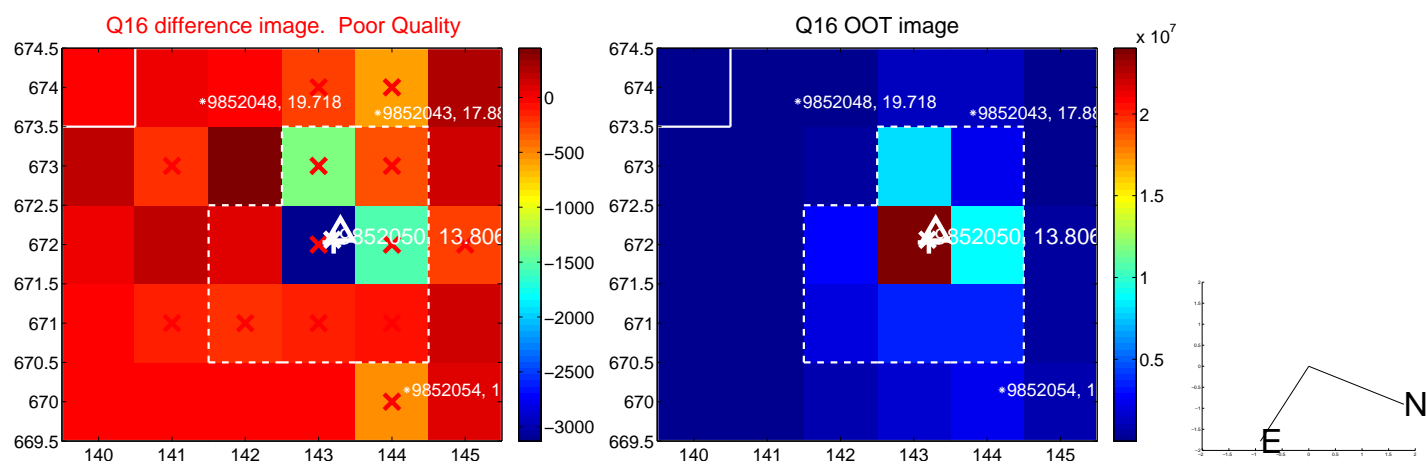
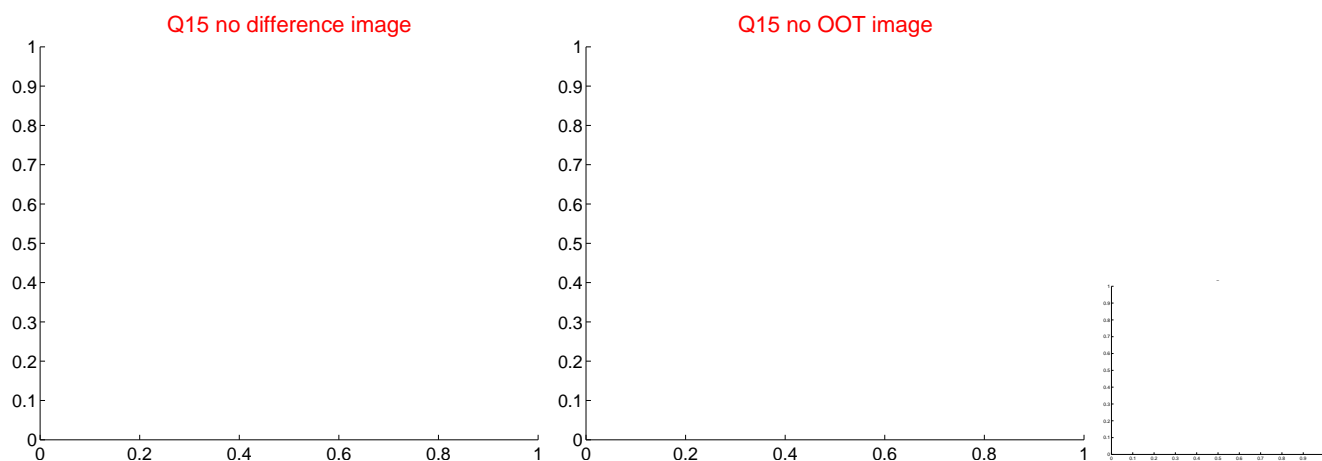
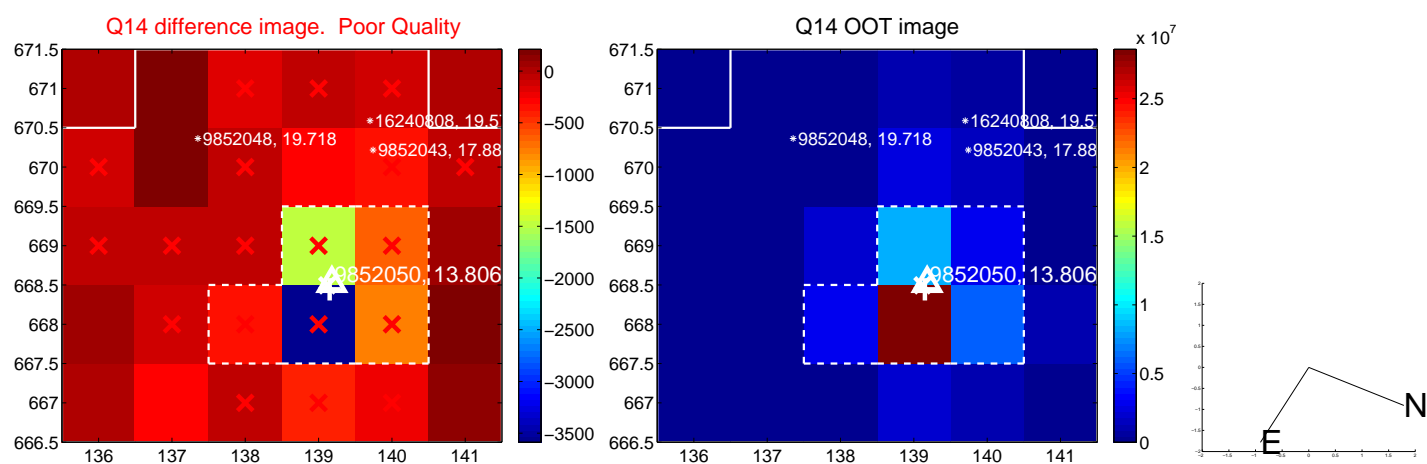
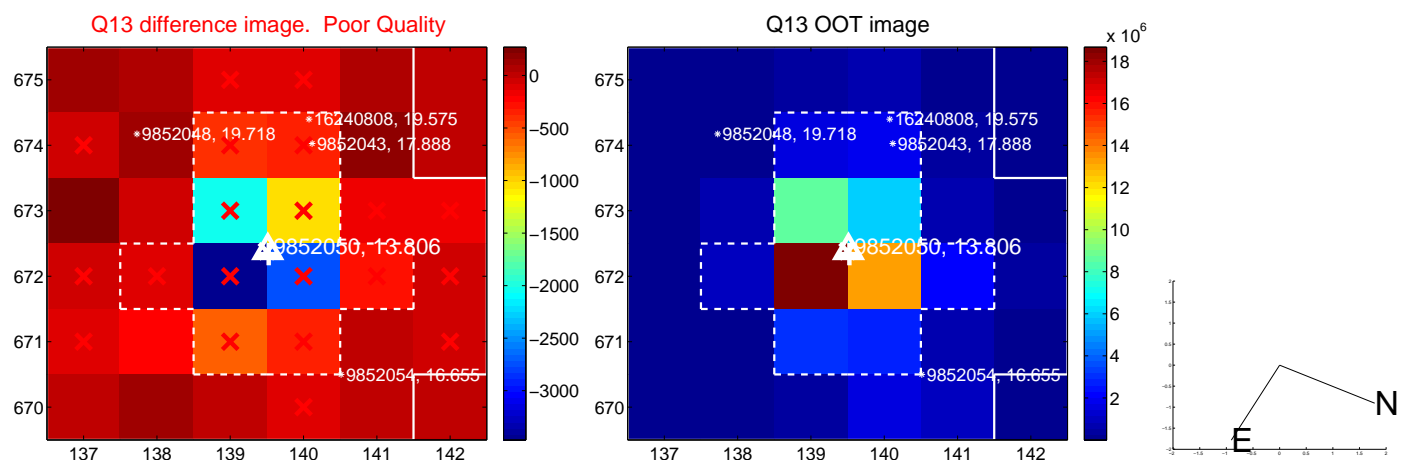
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



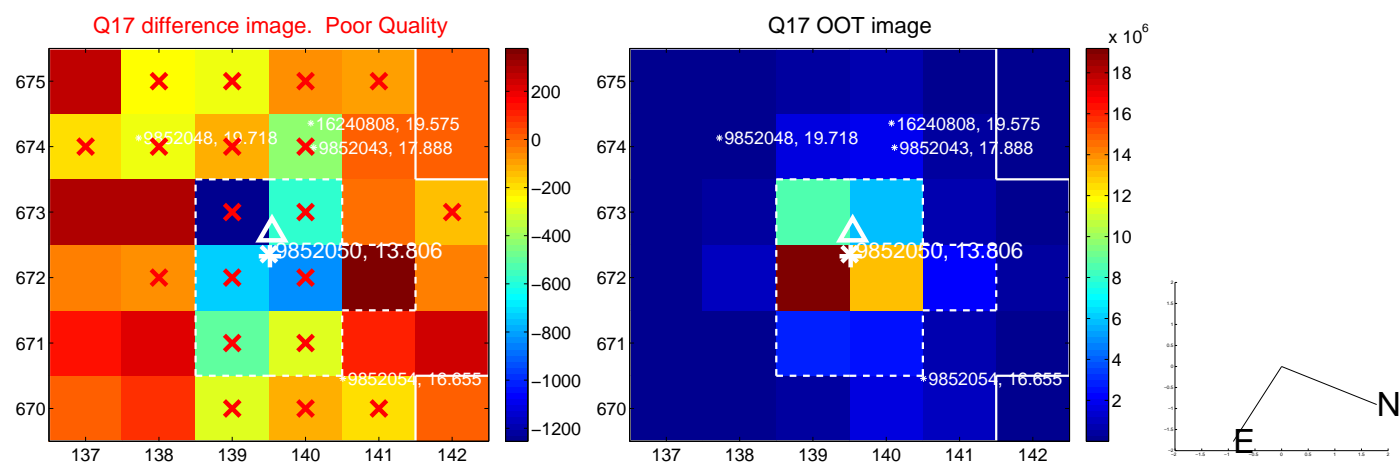
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

