

KIC 011243645

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})
011243645-01	OBS	No	2.201284	131.828723	27.1	8.538	7.5	5.5	0.89	5713	0.53	688.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011243645-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

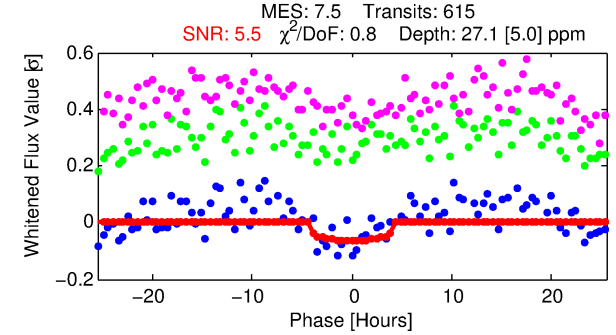
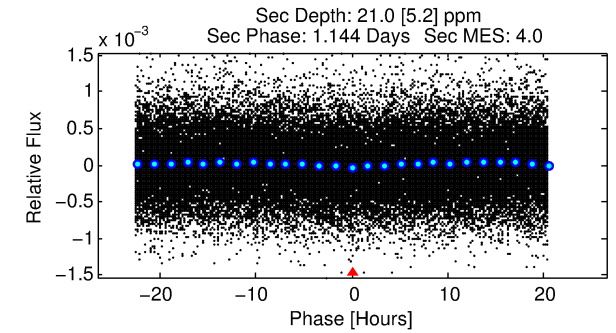
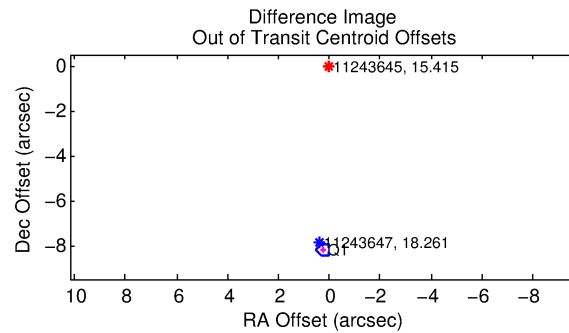
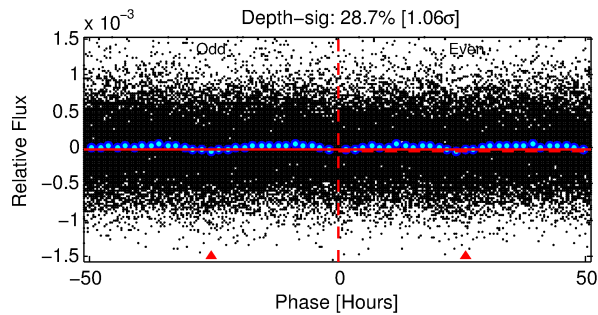
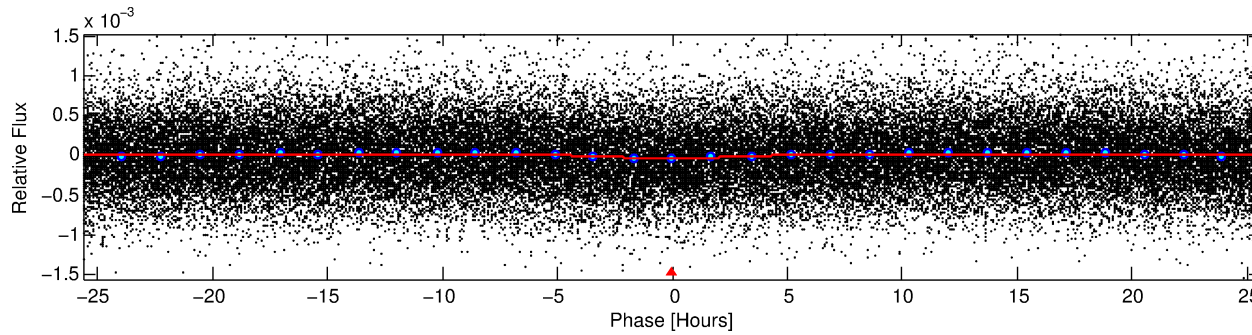
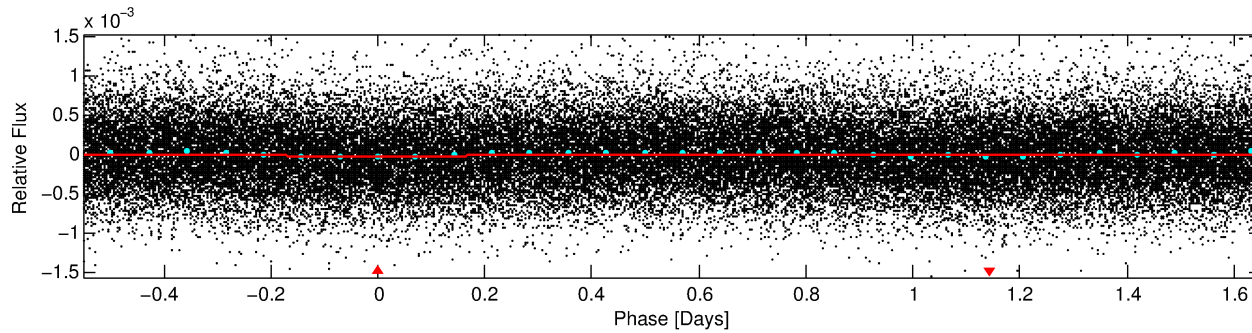
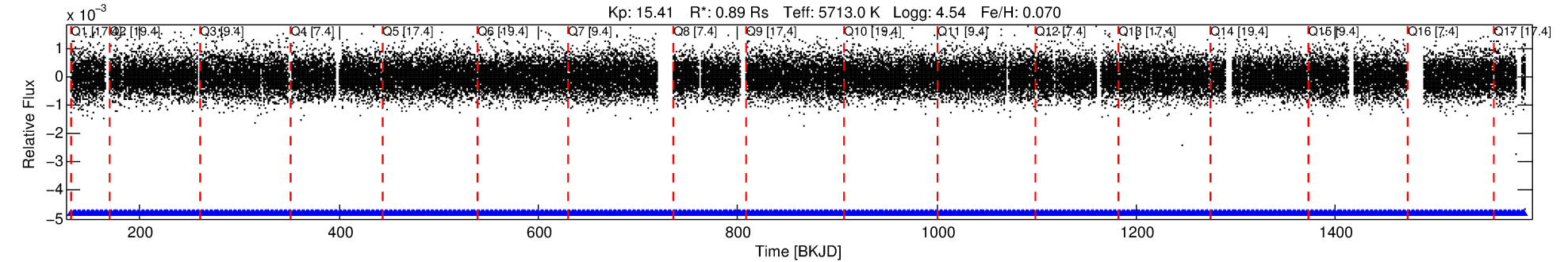
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011243645-01

No Significant Match Found

DV One-Page Summary

KIC: 11243645 Candidate: 1 of 1 Period: 2.201 d



DV Fit Results:

Period = 2.20128 [0.00006] d
Epoch = 131.8287 [0.0166] BKJD
Rp/R* = 0.0054 [0.0049]
a/R* = 1.43 [2.99]
b = 0.83 [1.54]
Seff = 688.68 [242.44]
Teq = 1306 [115] K
Rp = 0.53 [0.49] Re
a = 0.0332 [0.0074] AU
Ag = 46.33 [86.03] [0.53 σ]
Teffp = 5269 [2412] K [1.64 σ]

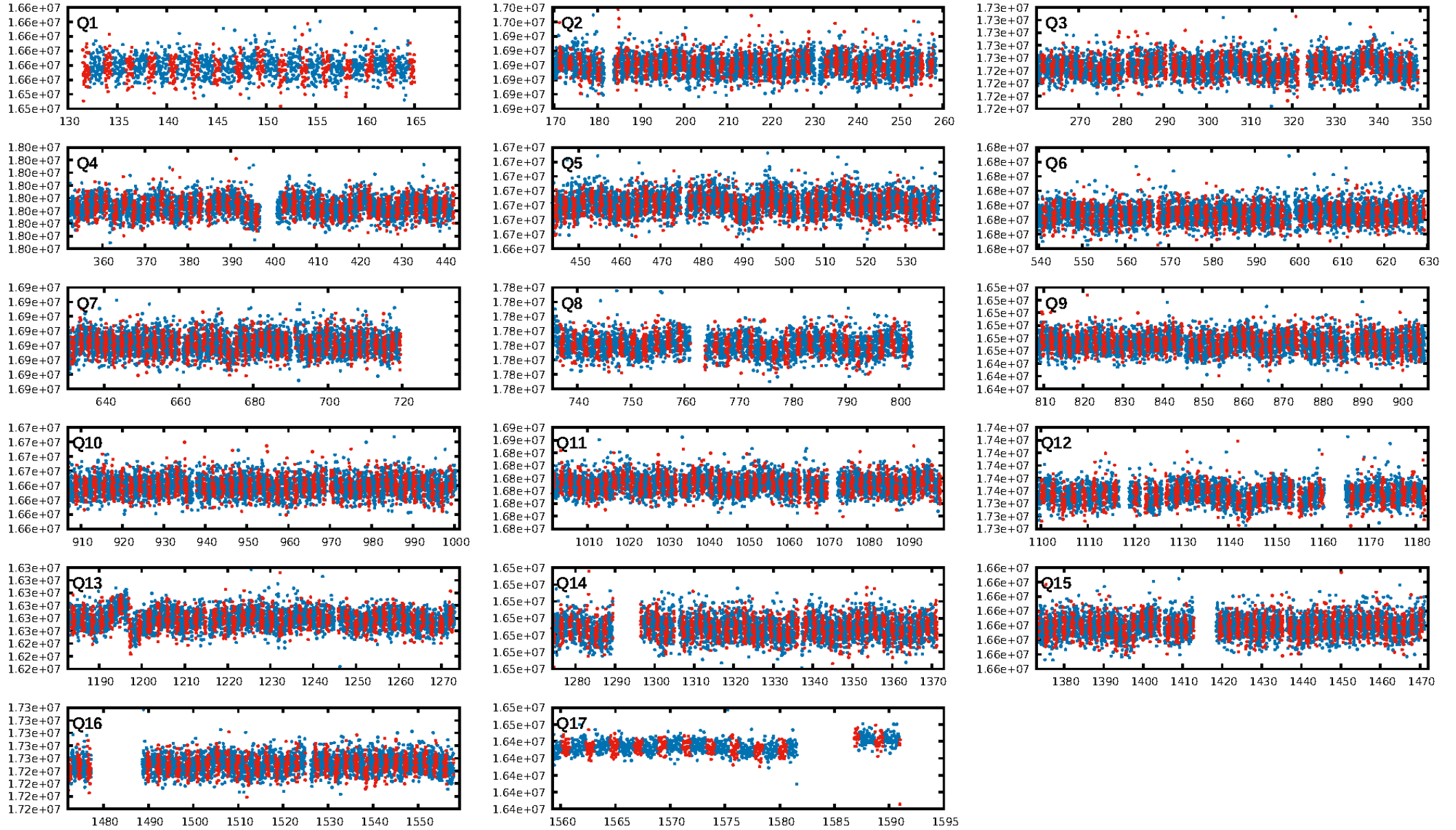
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.34e-11
RollingBand-fgt: 1.00 [587/587]
GhostDiagnostic-chr: -0.1505
Centroid-sig: 31.0%
Centroid-so: 2.799 arcsec [0.93 σ]
OotOffset-rm: 8.217 arcsec [88.67 σ]
KicOffset-rm: 8.231 arcsec [88.82 σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

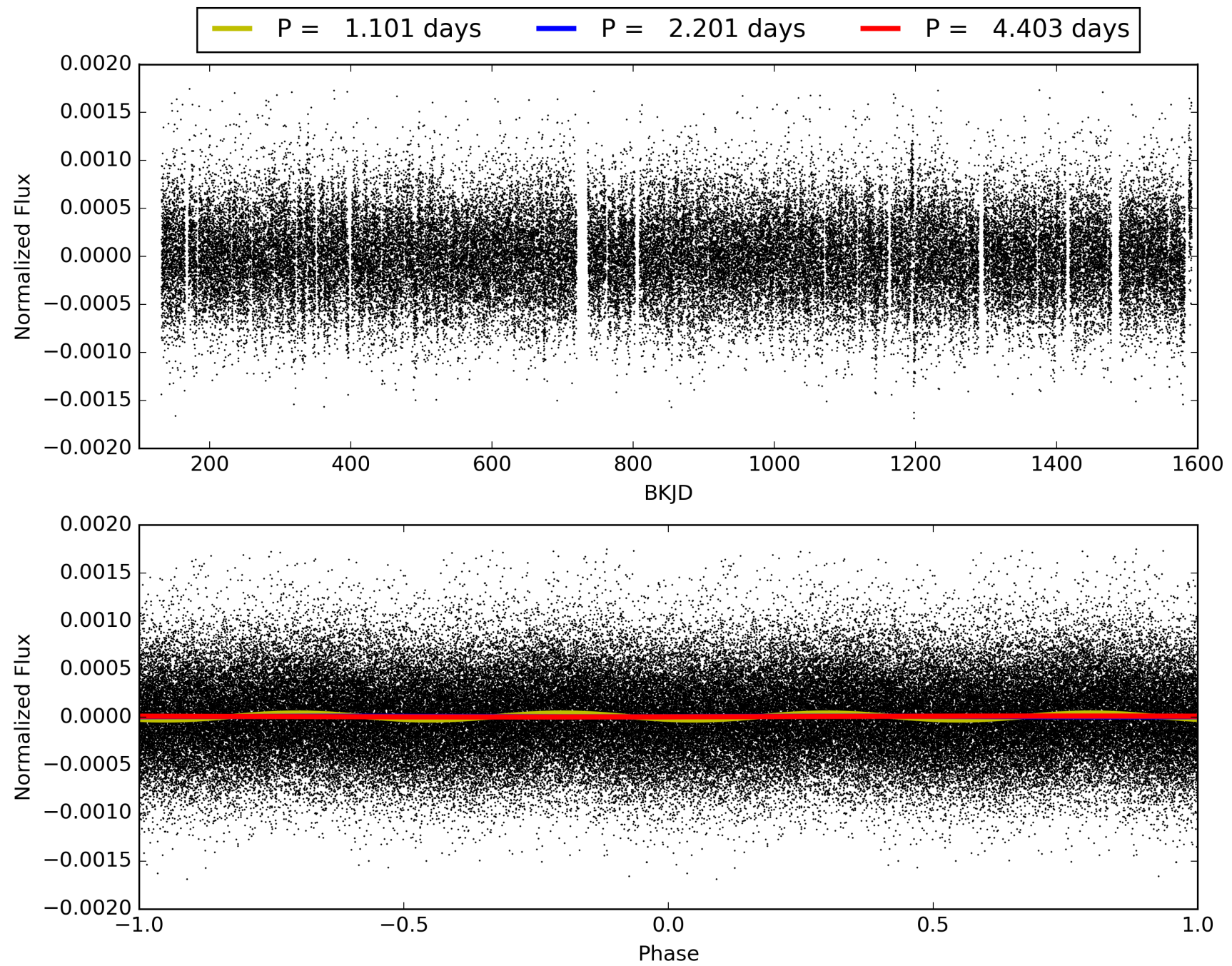
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:31:52 Z

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

TCE 011243645-01, PDC Light Curves

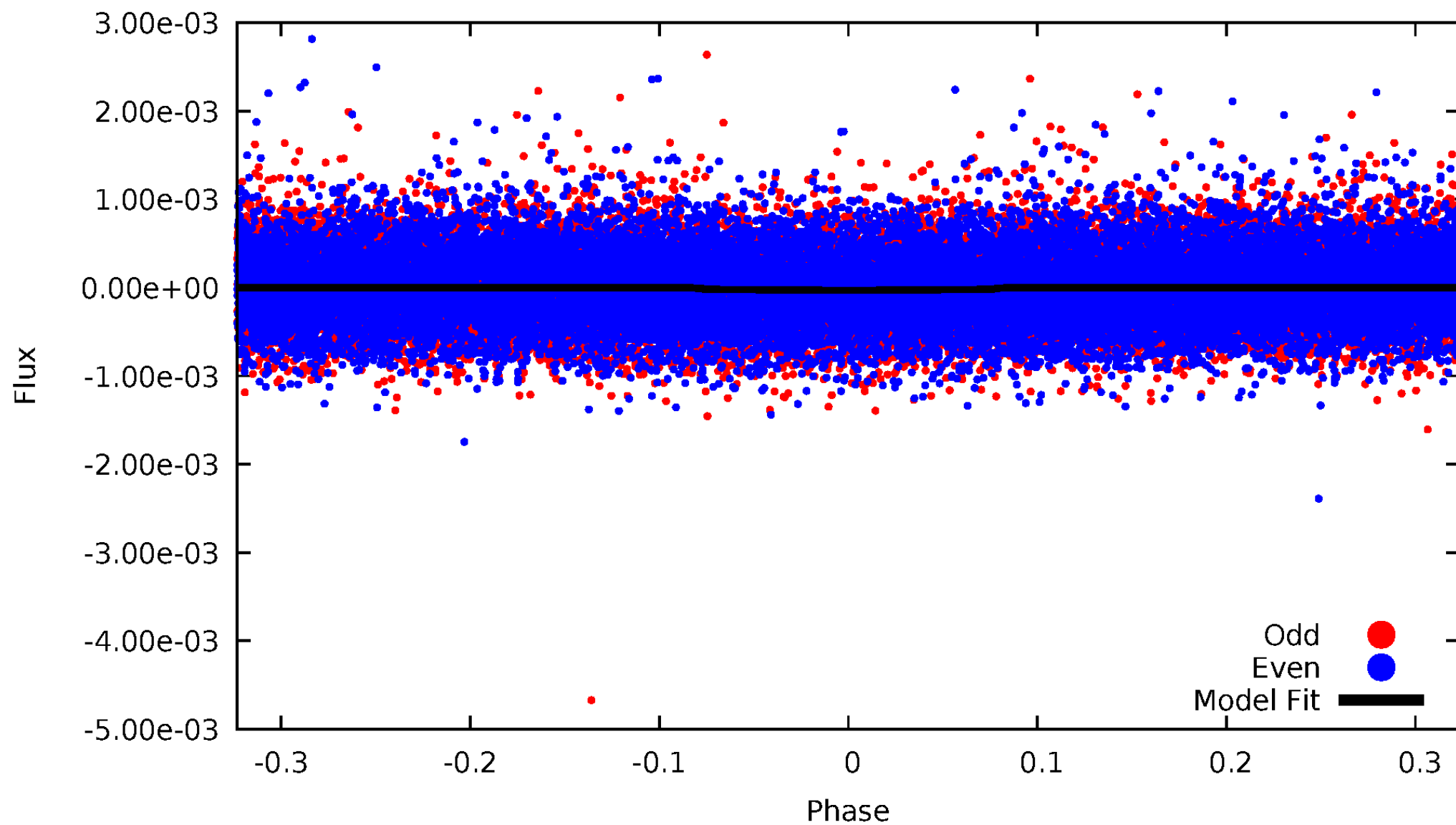


TCE 011243645-01



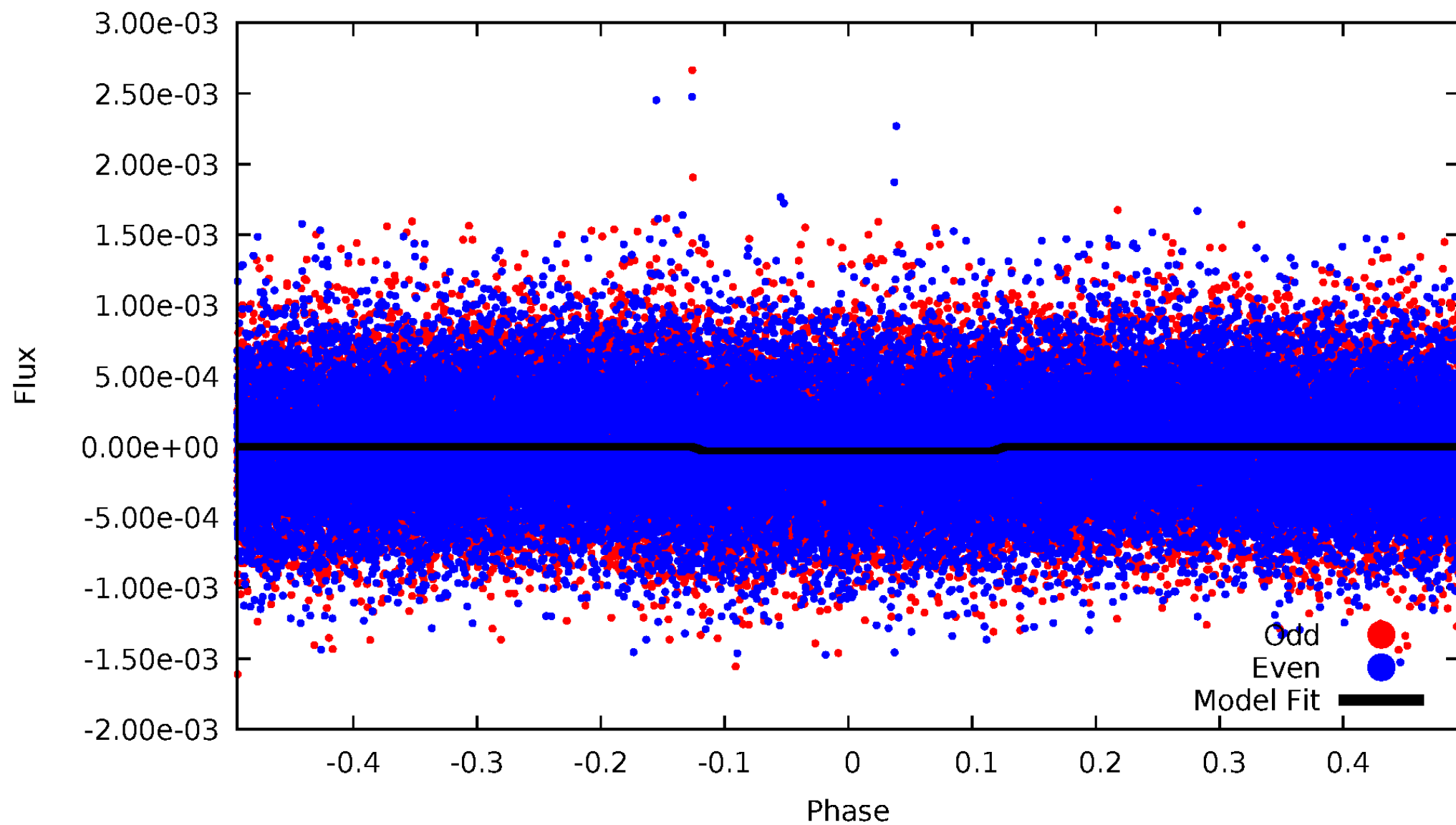
DV Odd/Even

TCE 011243645-01



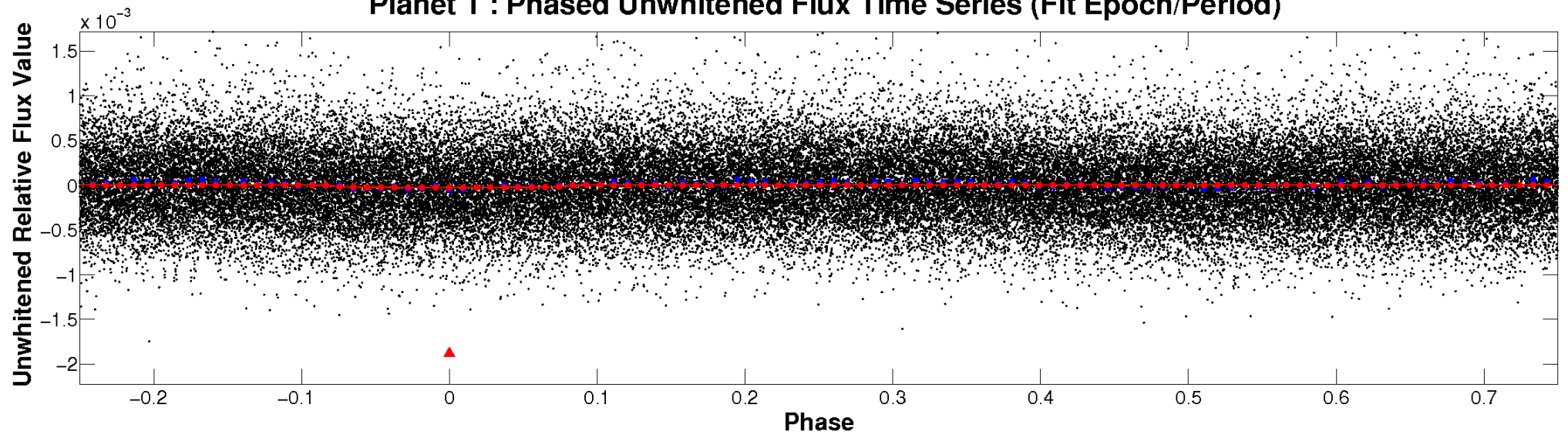
ALT Odd/Even

TCE 011243645-01

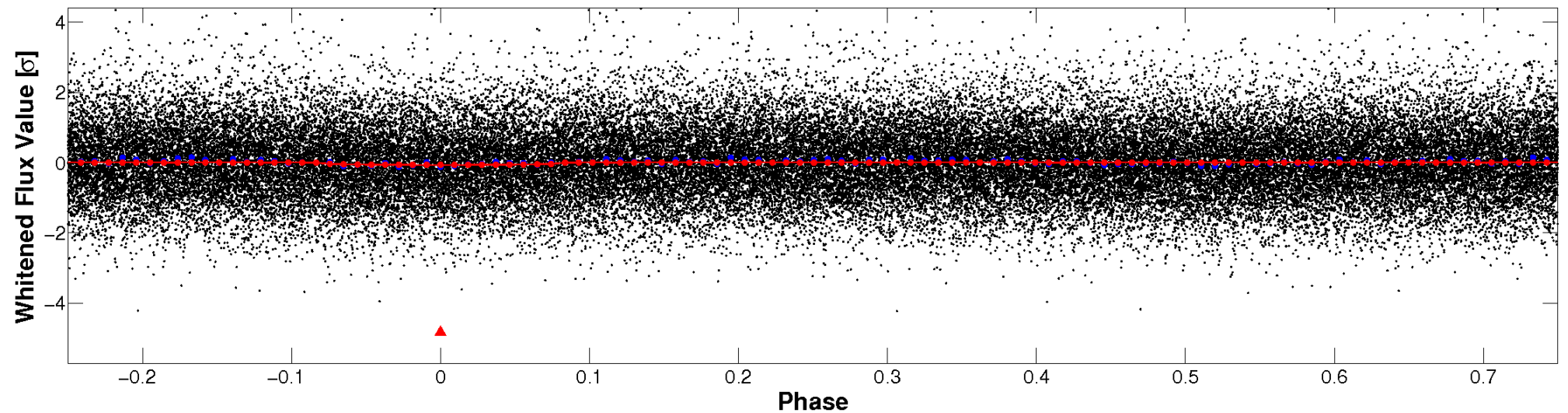


Non-Whitened Vs. Whitened Light Curve

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

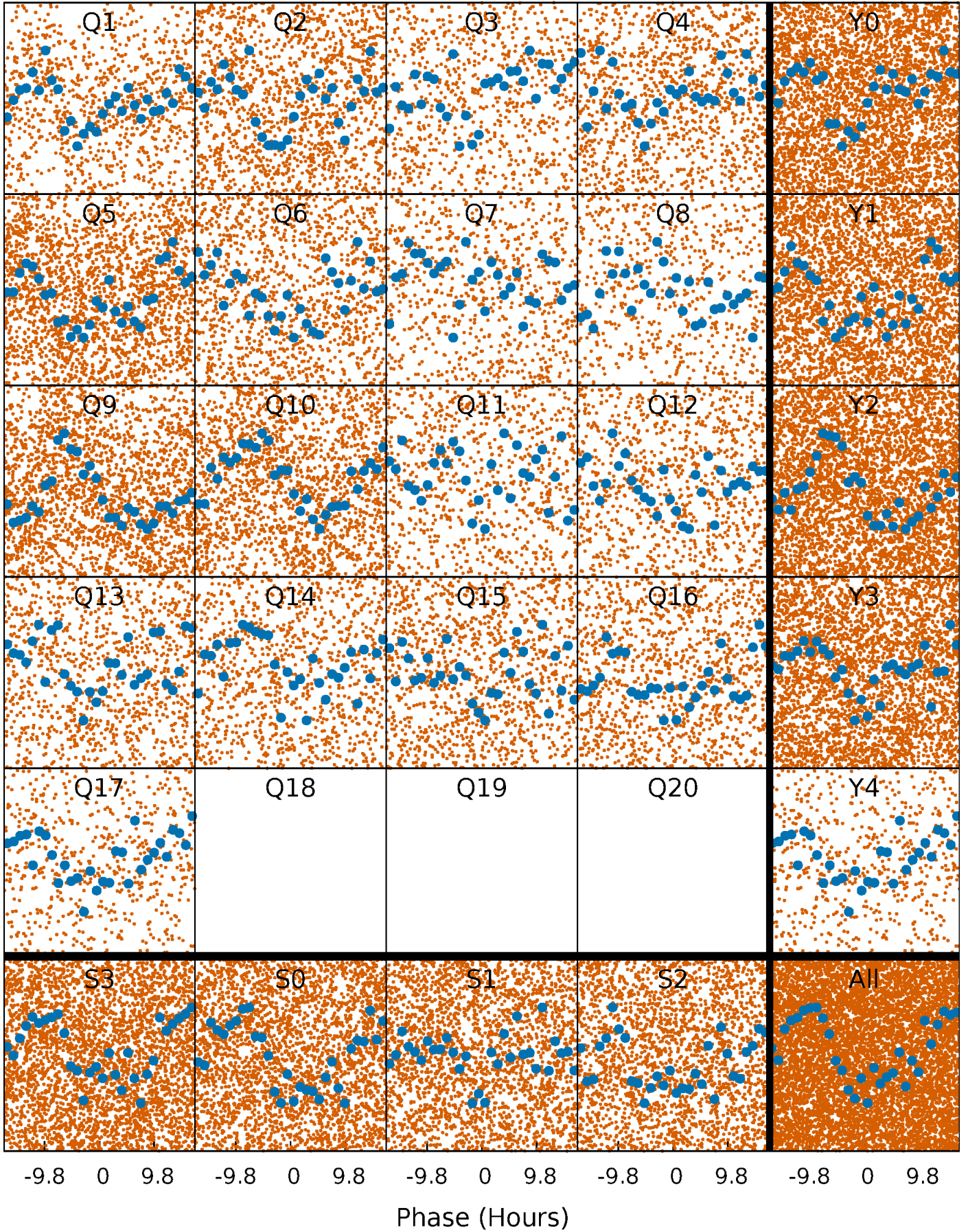


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



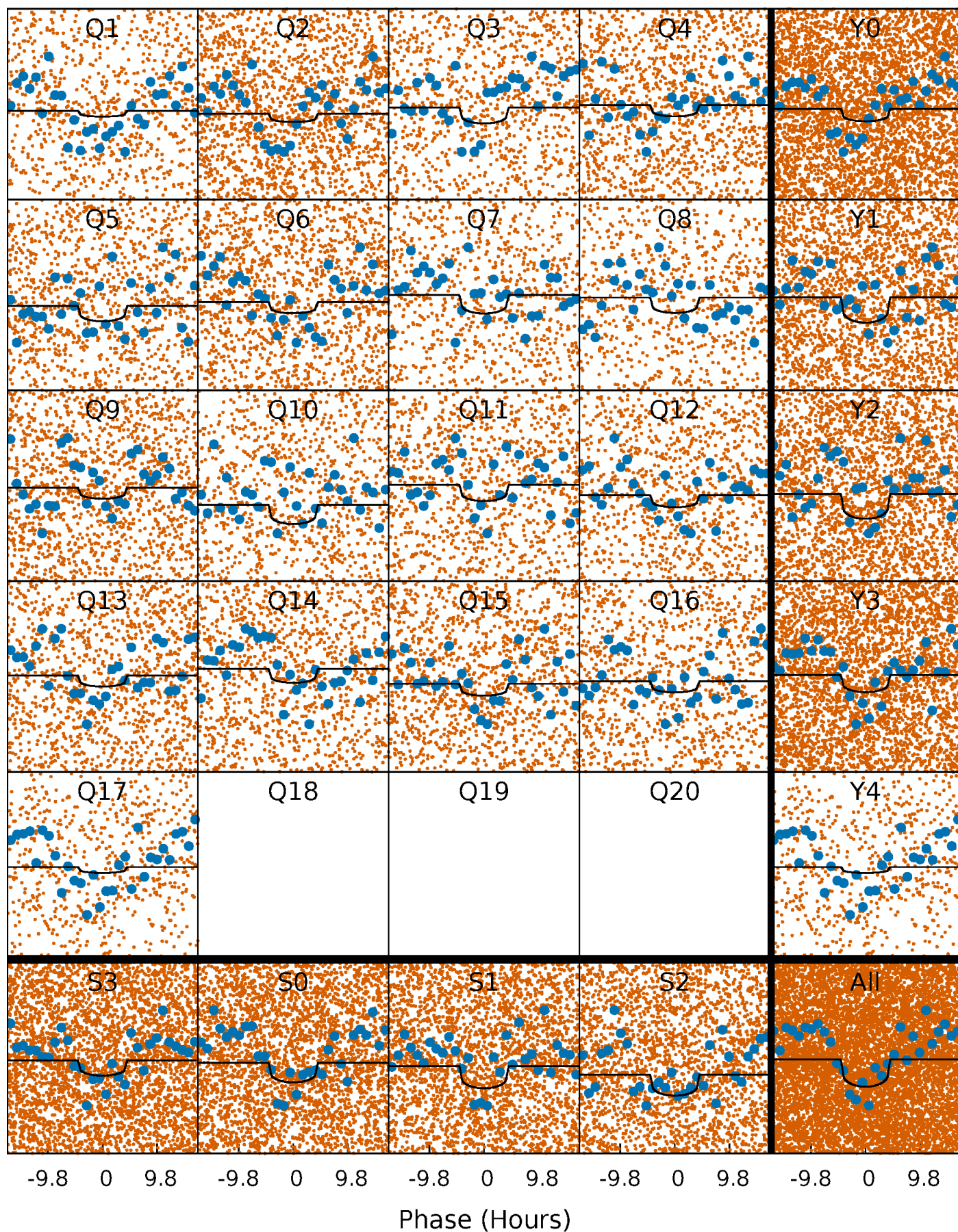
PDC Quarter-Phased Transit Curves

TCE 011243645-01 P= 2.201284 Days $T_0=131.828723$ (BKJD)



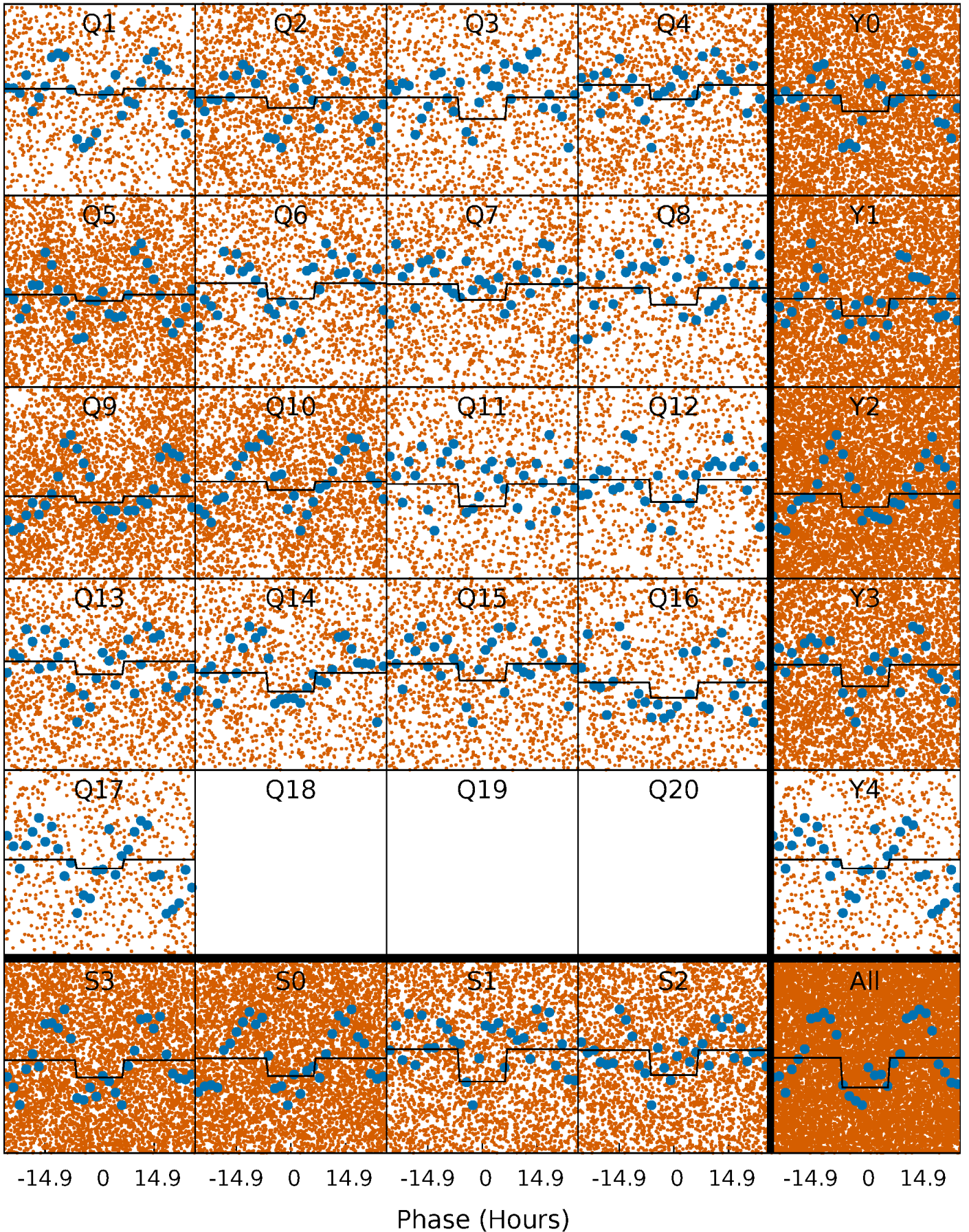
DV Quarter-Phased Transit Curves

TCE 011243645-01 P= 2.201284 Days $T_0=131.828723$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

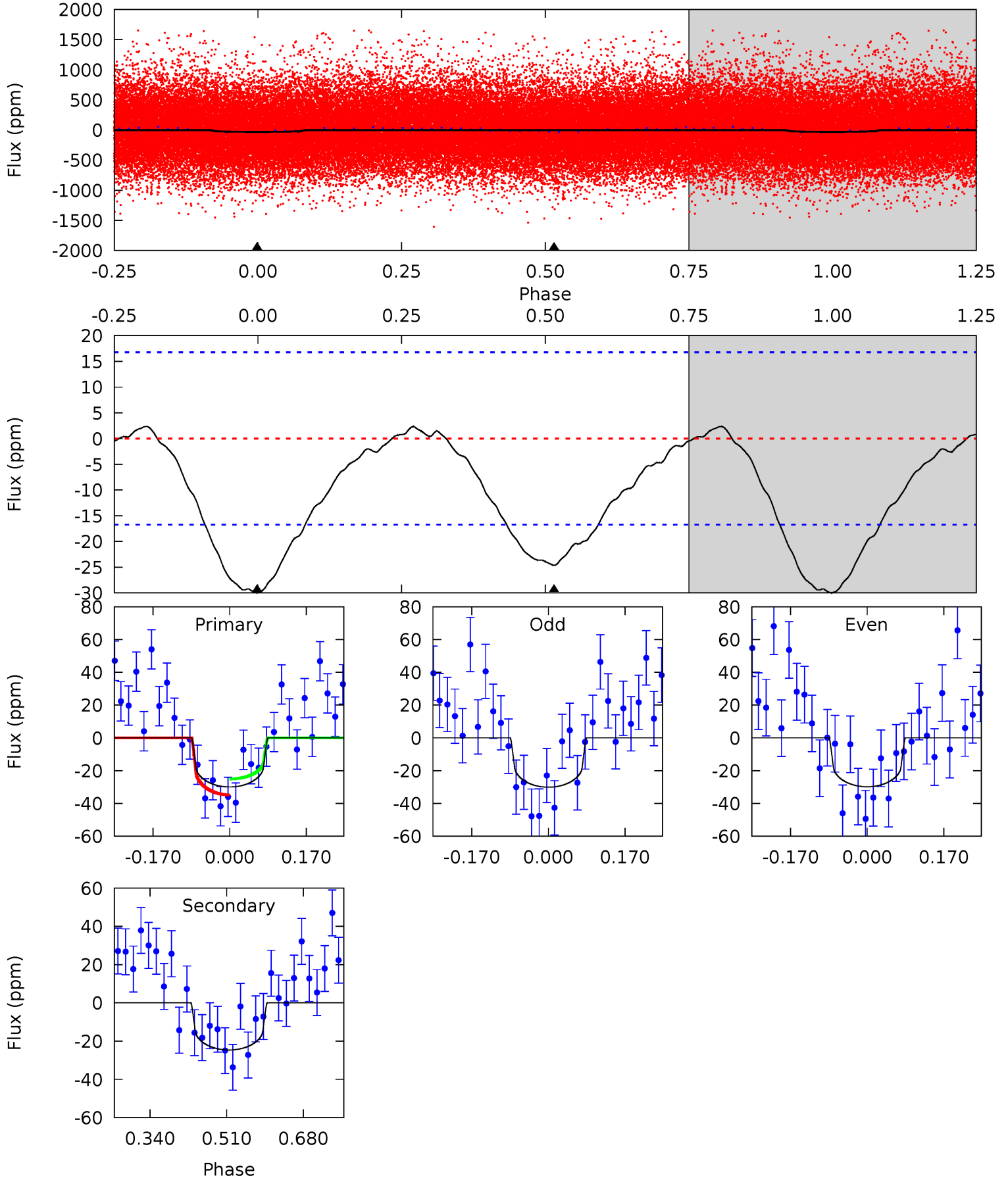
TCE 011243645-01 P= 2.201453 Days $T_0=131.863777$ (BKJD)



DV Model-Shift Uniqueness Test

011243645-01, P = 2.201284 Days, E = 129.627439 Days

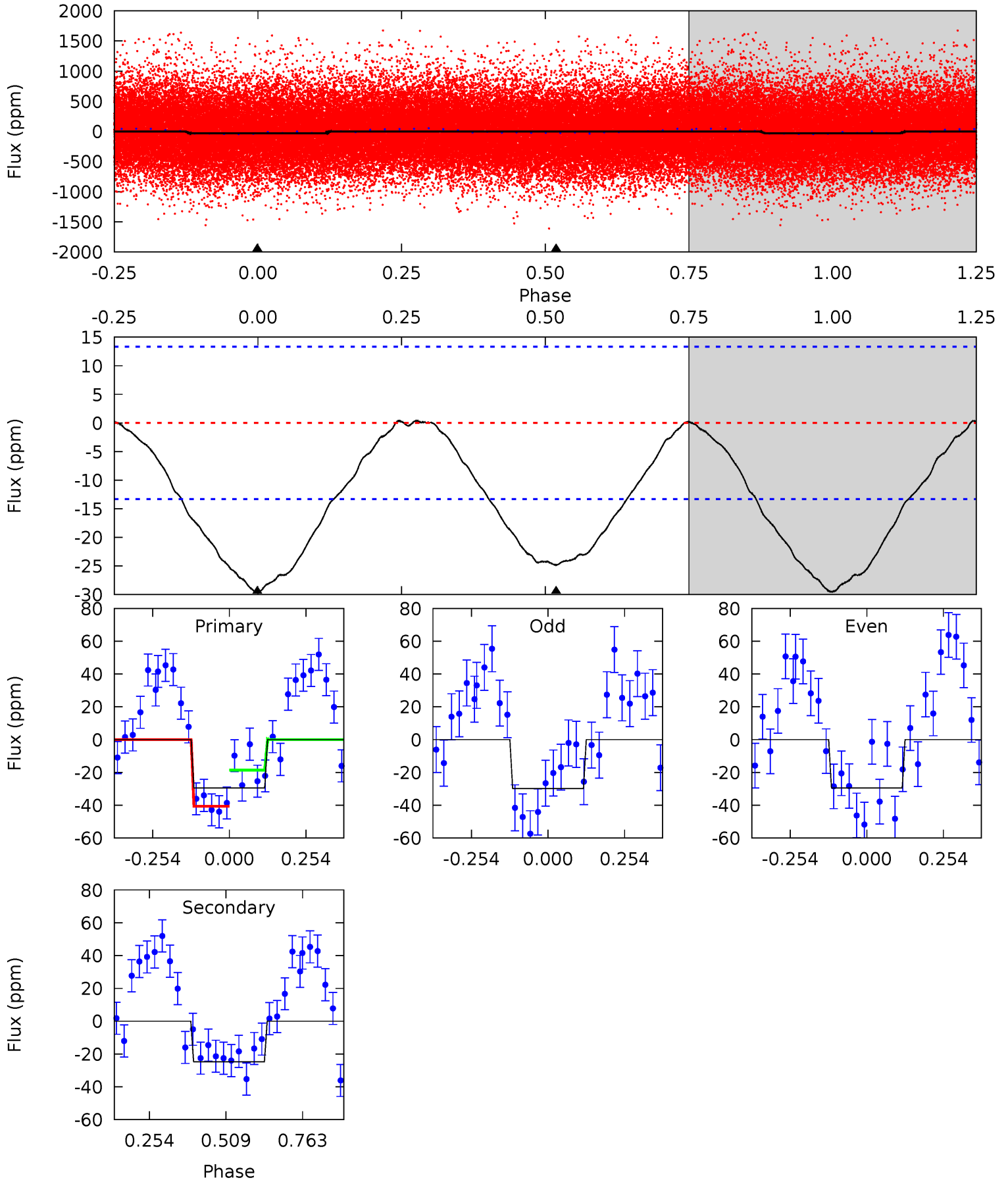
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.96	6.54	0	0	4.45	1.37	0.53	7.96	7.96	6.54	6.54	0.03	1.20	0.07	1.29



Alt Model-Shift Uniqueness Test

011243645-01, P = 2.201453 Days, E = 129.662324 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.66	8.13	0	0	4.36	1.14	0.19	9.66	9.66	8.13	8.13	0.06	1.00	0.01	3.60



Stellar Parameters For KIC 011243645

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5713^{+156}_{-173}	$4.541^{+0.035}_{-0.184}$	$0.070^{+0.200}_{-0.350}$	$0.893^{+0.230}_{-0.077}$	$1.010^{+0.091}_{-0.125}$	$2.000^{+0.367}_{-0.986}$
	+3%/-3%	+1%/-4%	+286%/-500%	+26%/-9%	+9%/-12%	+18%/-49%
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 011243645-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 4	$0.62^{+0.46}_{-0.37}$	1872^{+112}_{-85}	5168^{+3203}_{-993}	37^{+185}_{-24}
Alt.	-25 ± 3	$0.59^{+0.49}_{-0.36}$	1862^{+109}_{-84}	5300^{+3725}_{-1129}	42^{+245}_{-29}

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

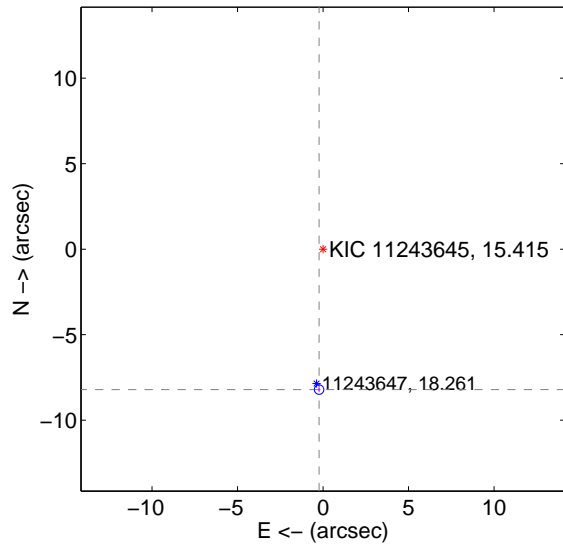
Supplemental centroid analysis for 011243645-01. Kepler magnitude: 15.41. Transit SNR 5.51

There are 1 quarters with good PRF difference image offsets

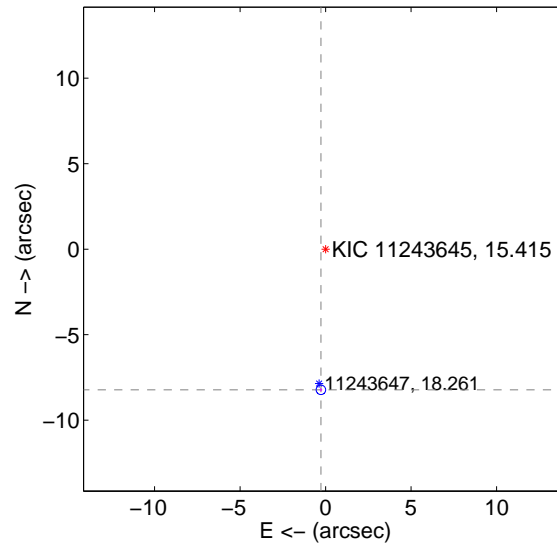
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.217 ± 0.093	88.67	0.231 ± 0.078	-8.214 ± 0.093
PRF-fit source offset from KIC position	8.231 ± 0.093	88.82	0.273 ± 0.078	-8.226 ± 0.093
photometric centroid source offset	2.80 ± 3.00	0.93	0.83 ± 2.49	-2.67 ± 3.04

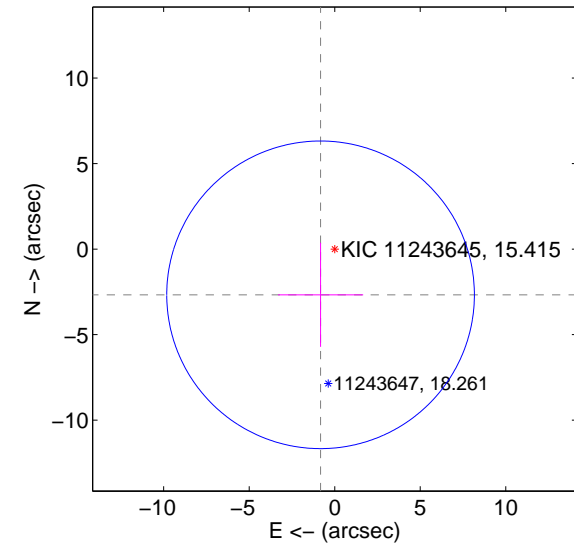
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

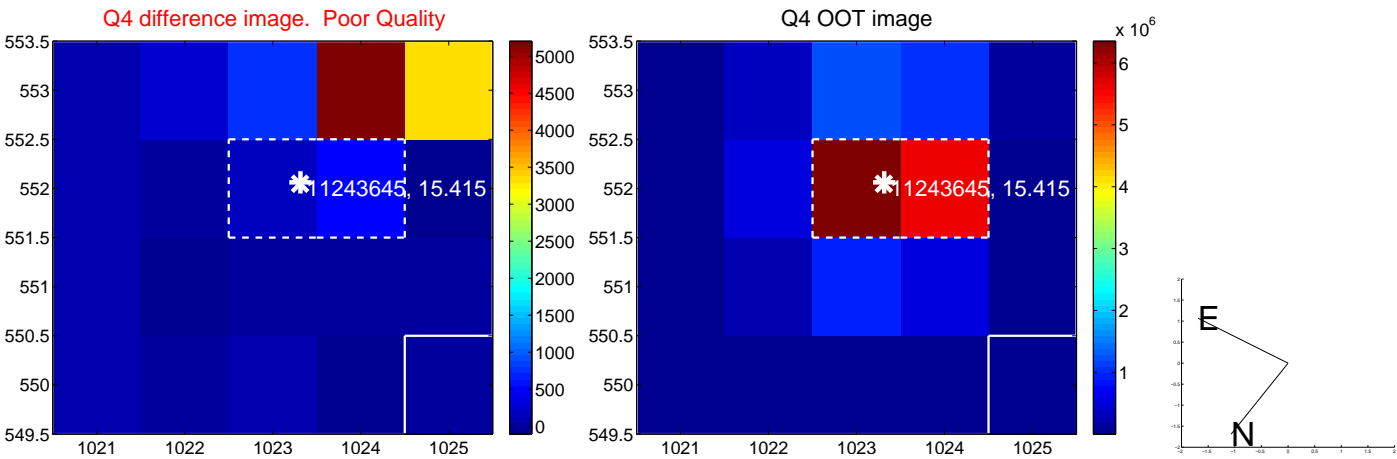
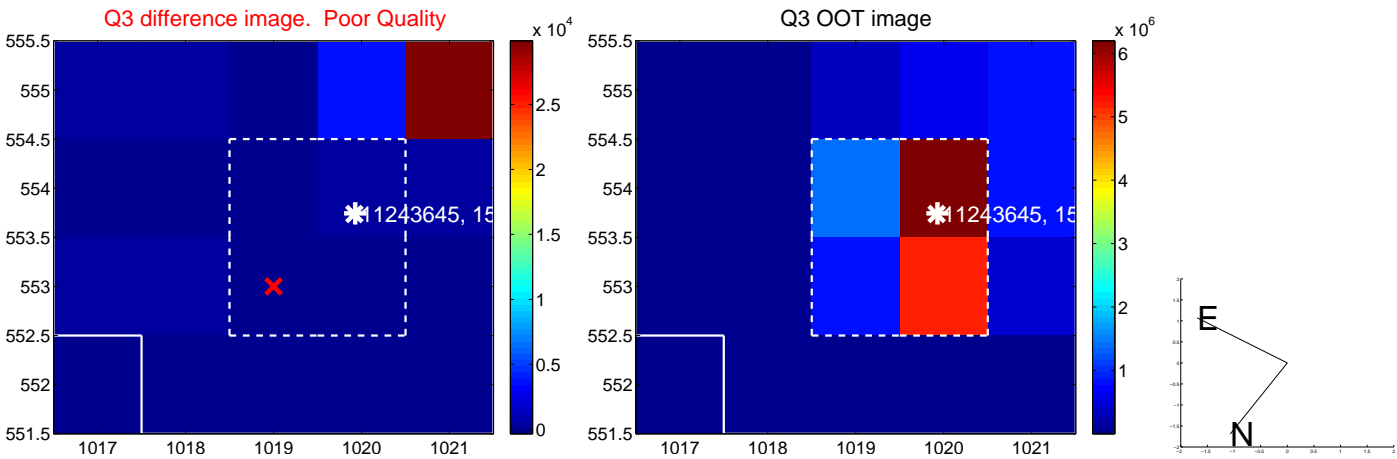
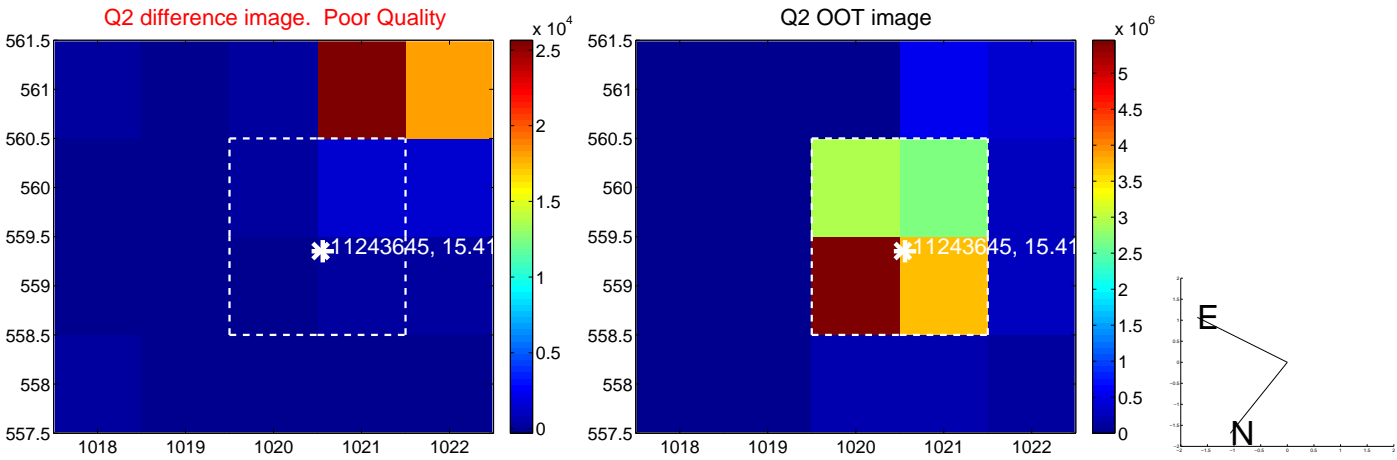
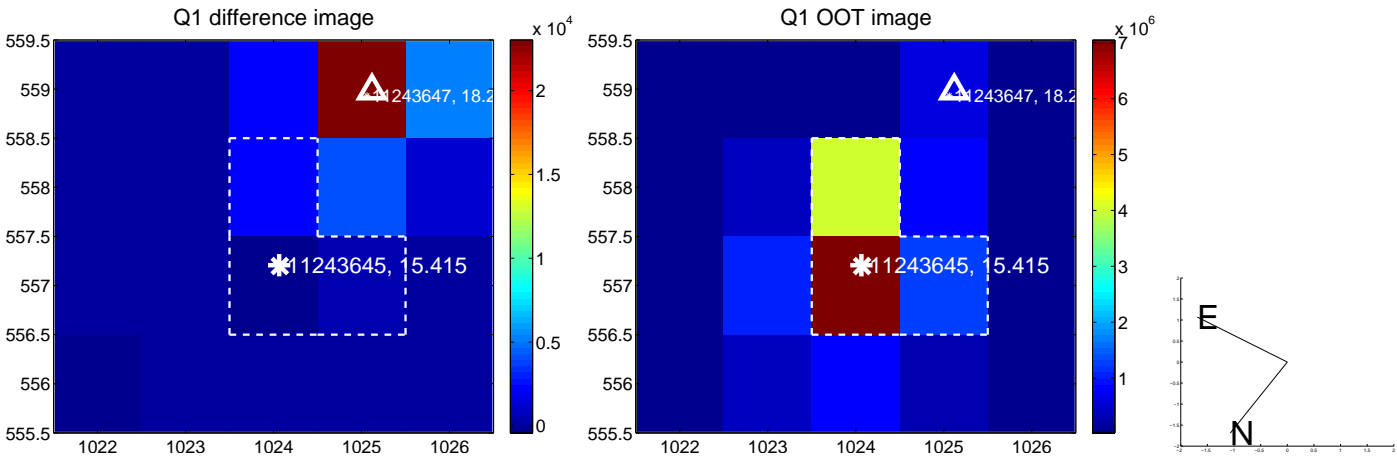


offset from photometric centroids

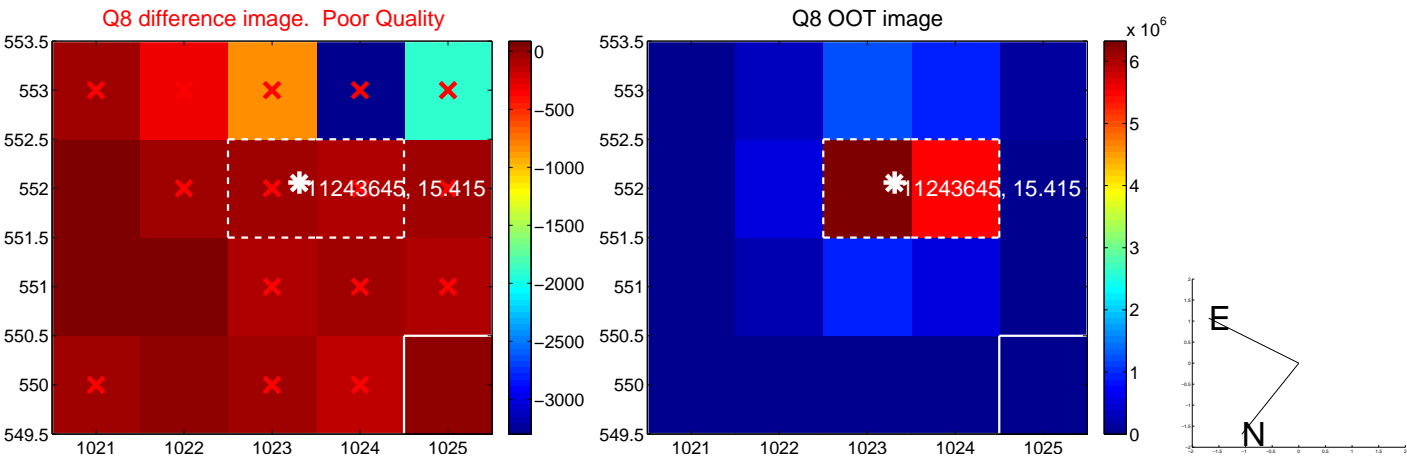
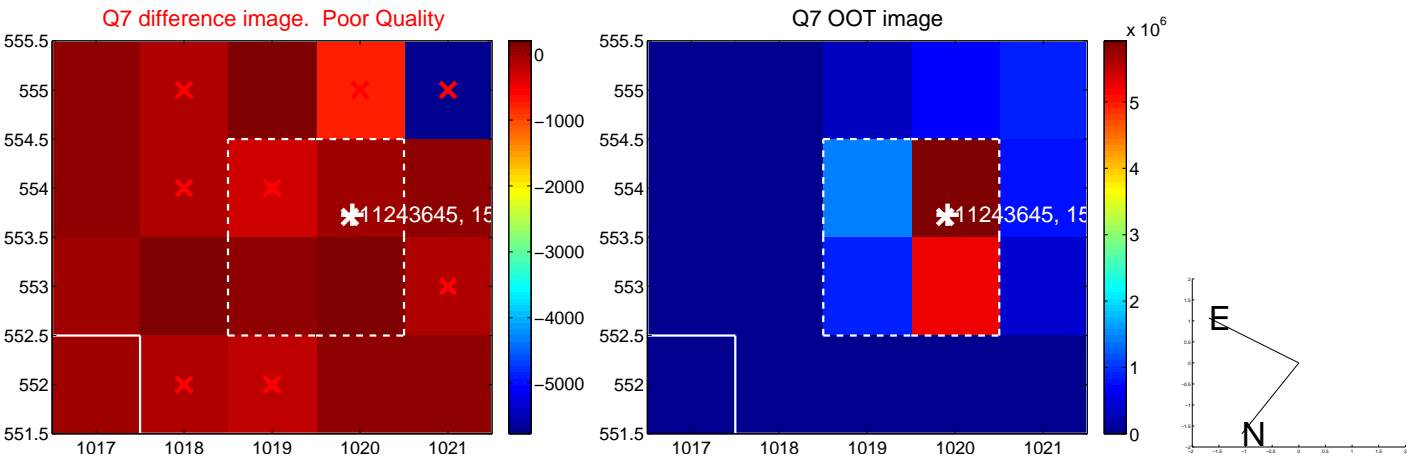
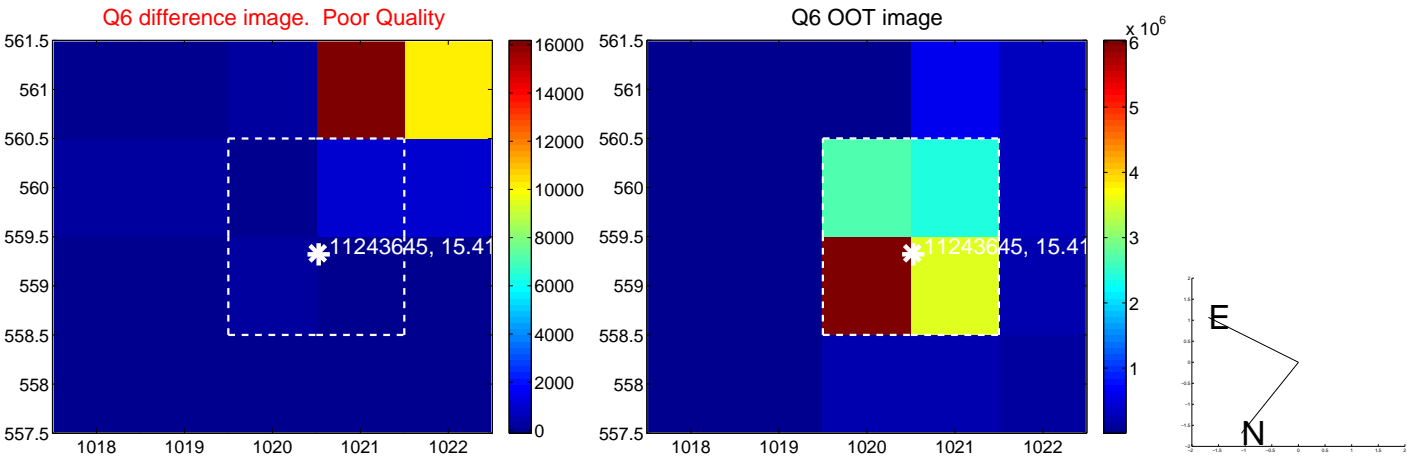
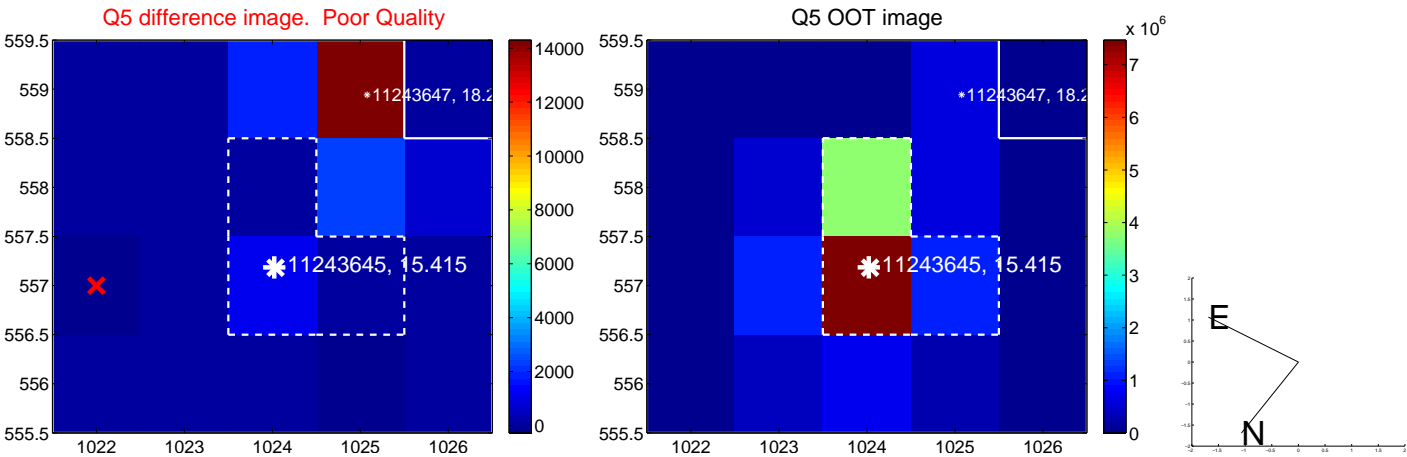


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

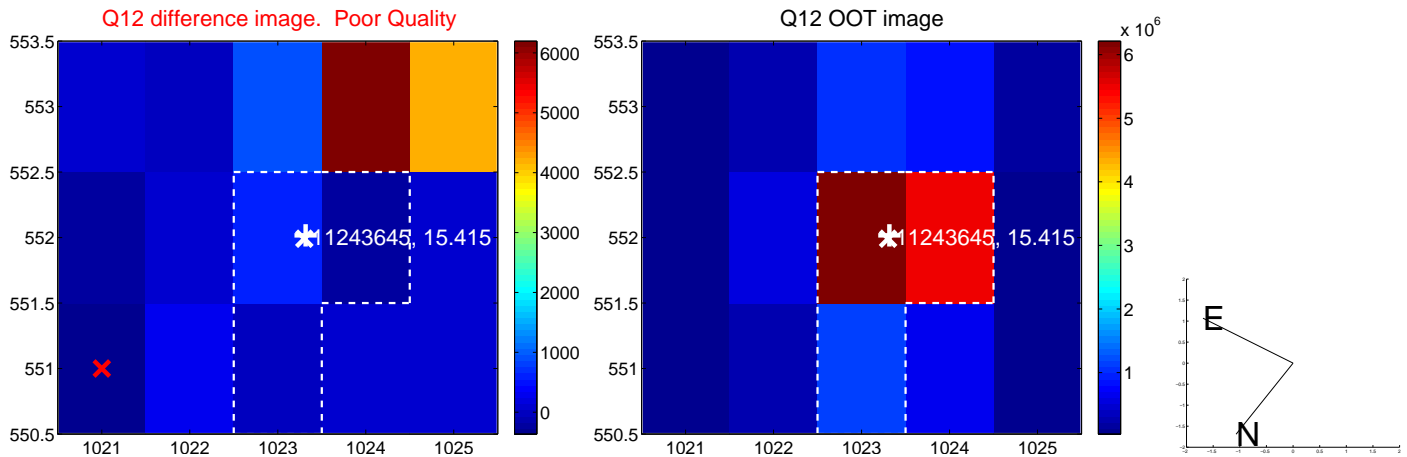
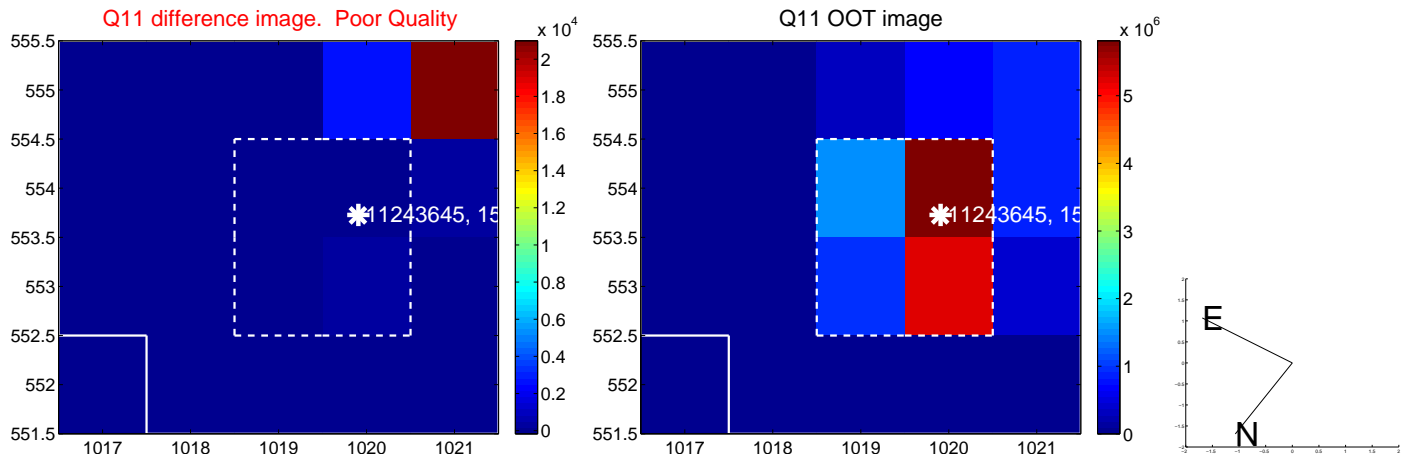
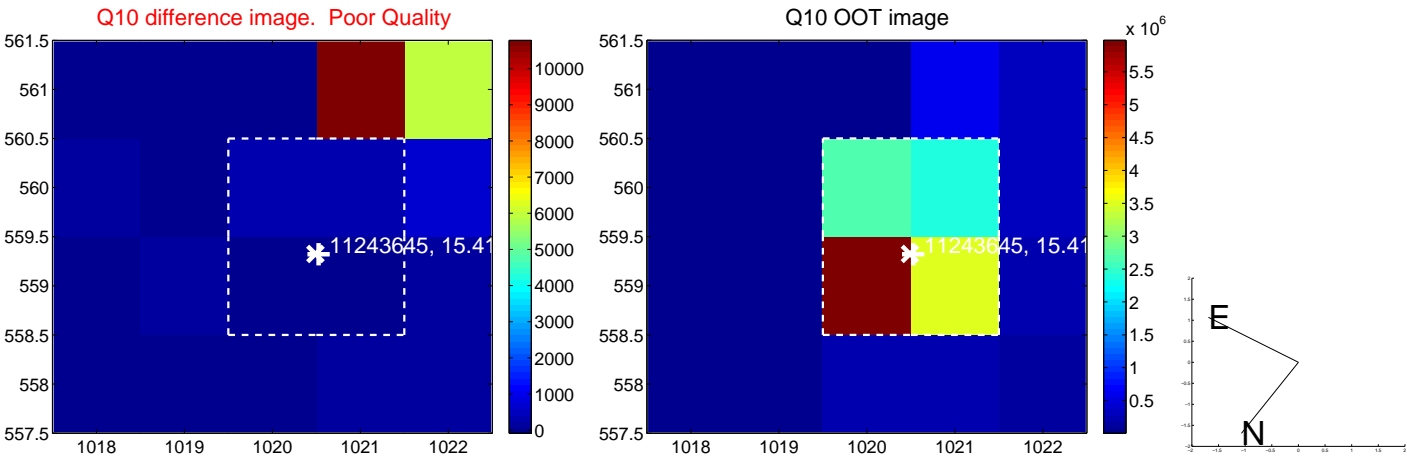
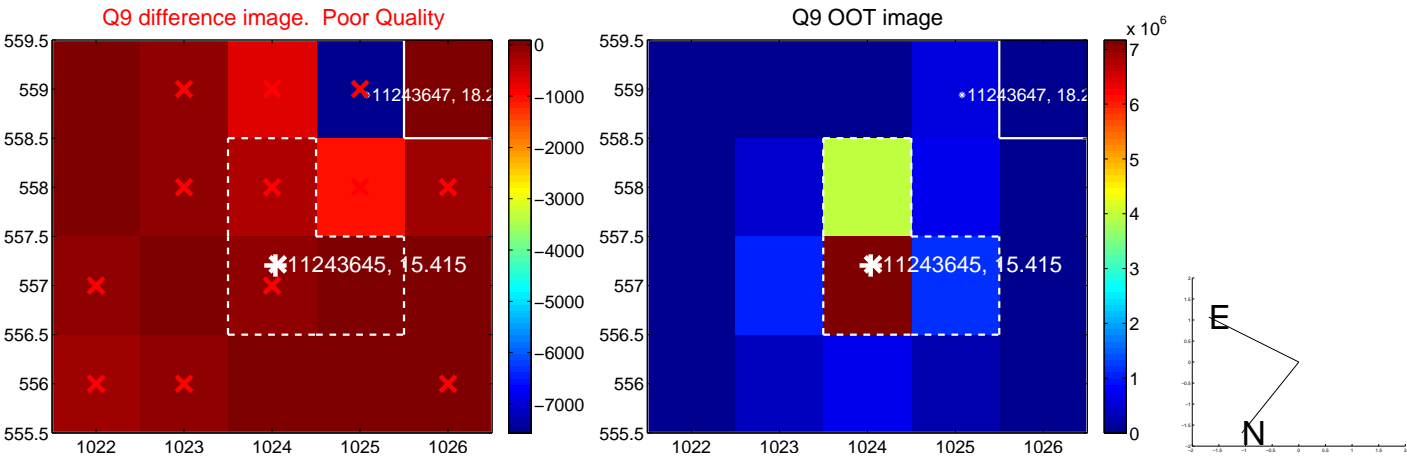
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



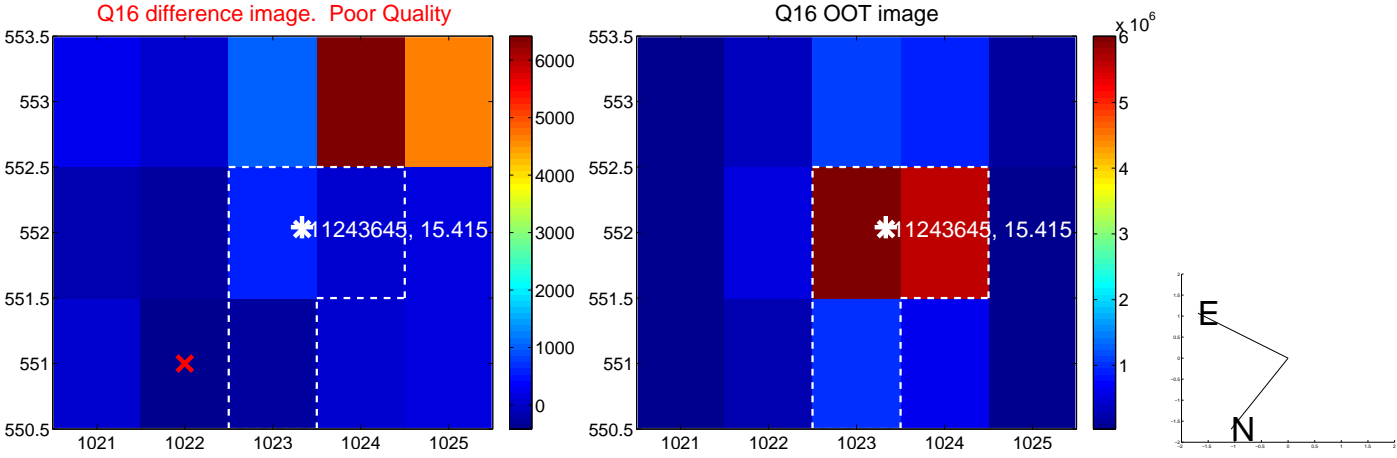
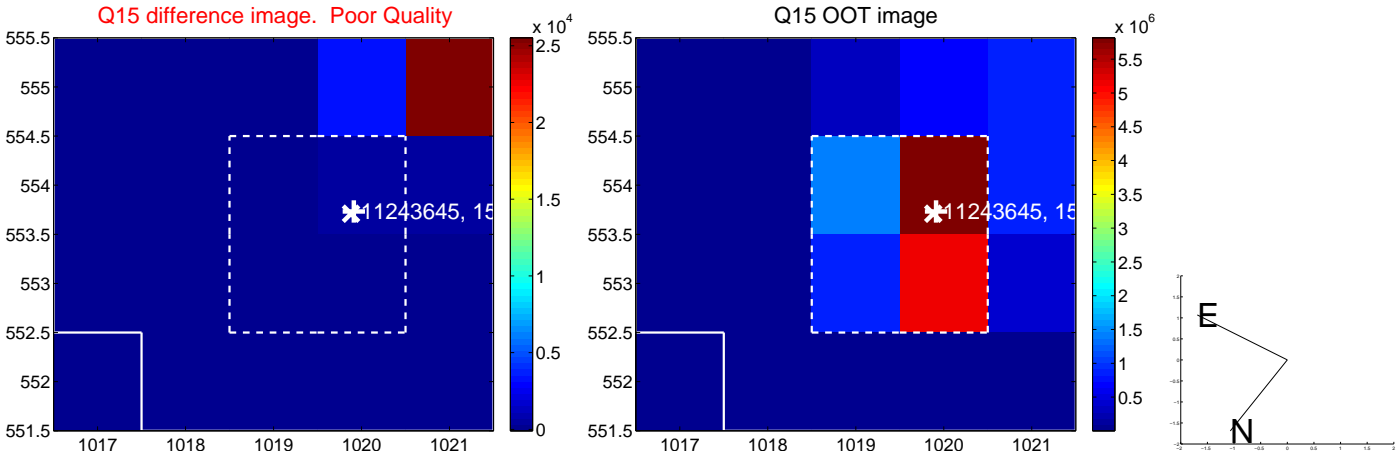
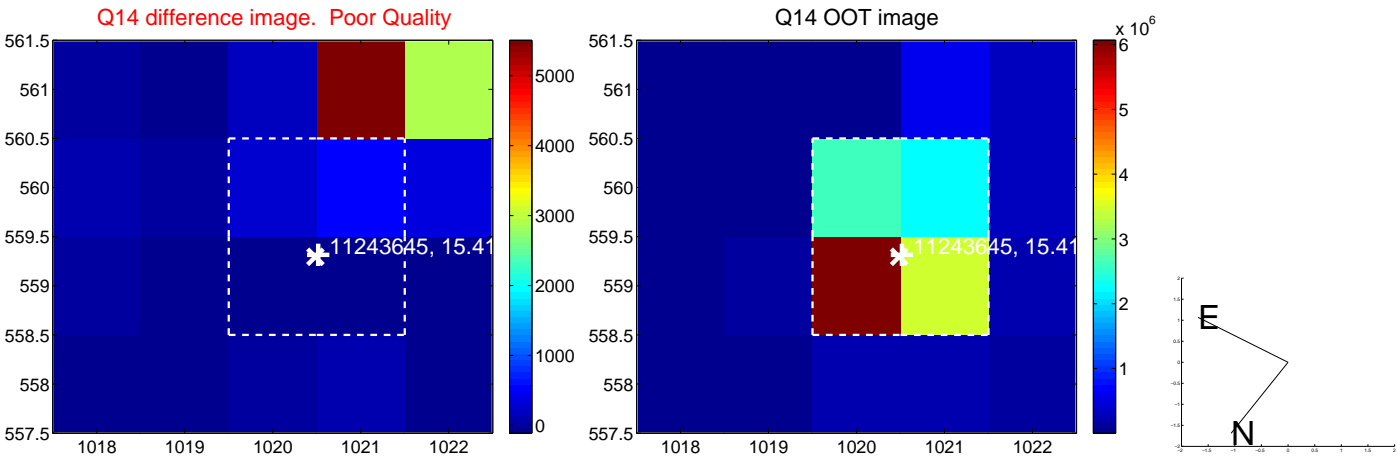
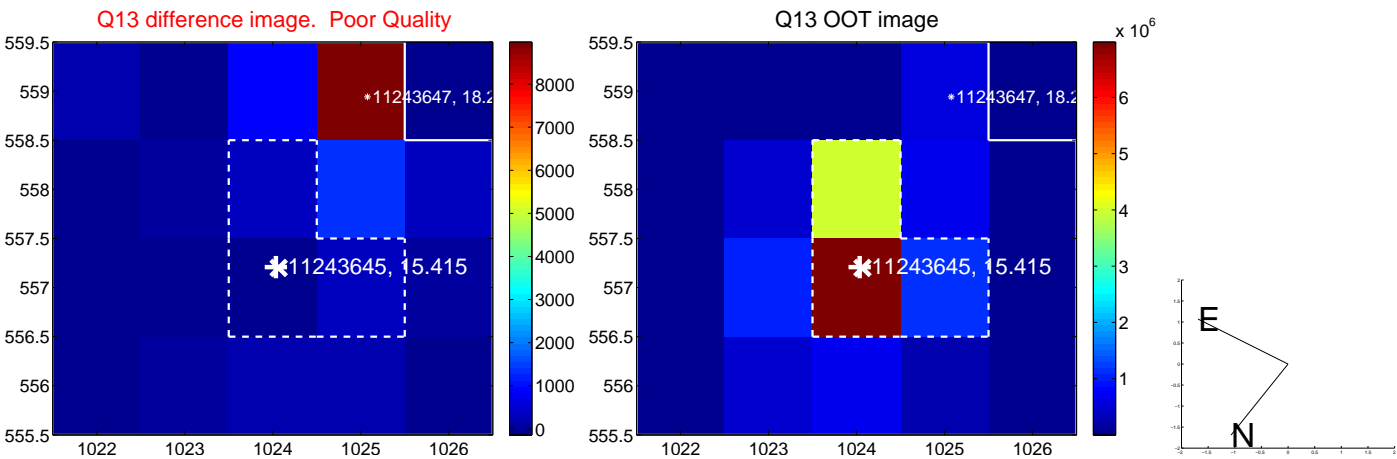
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



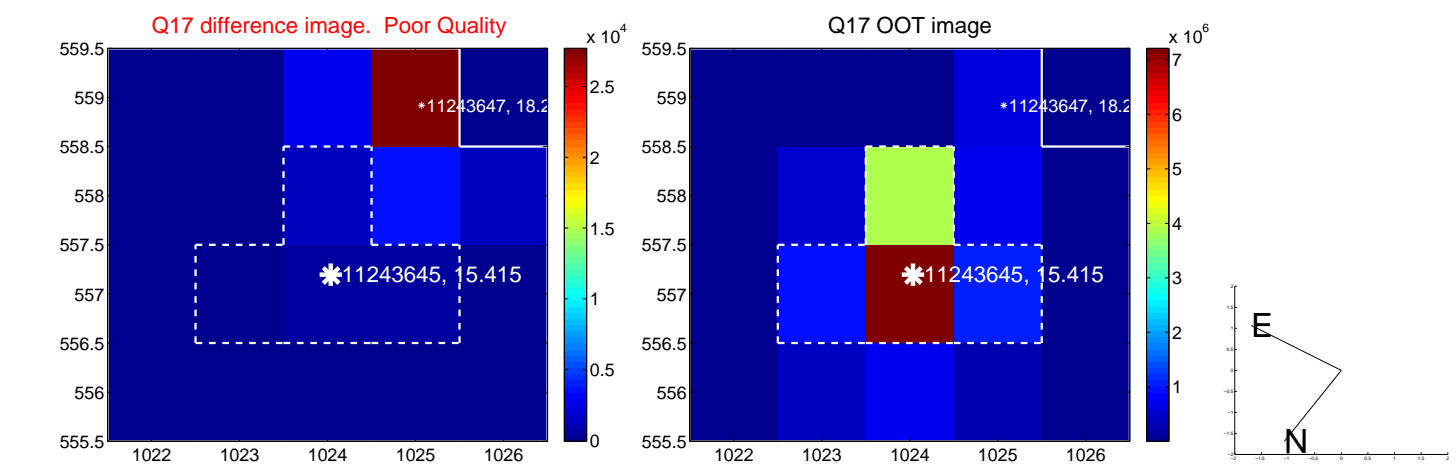
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



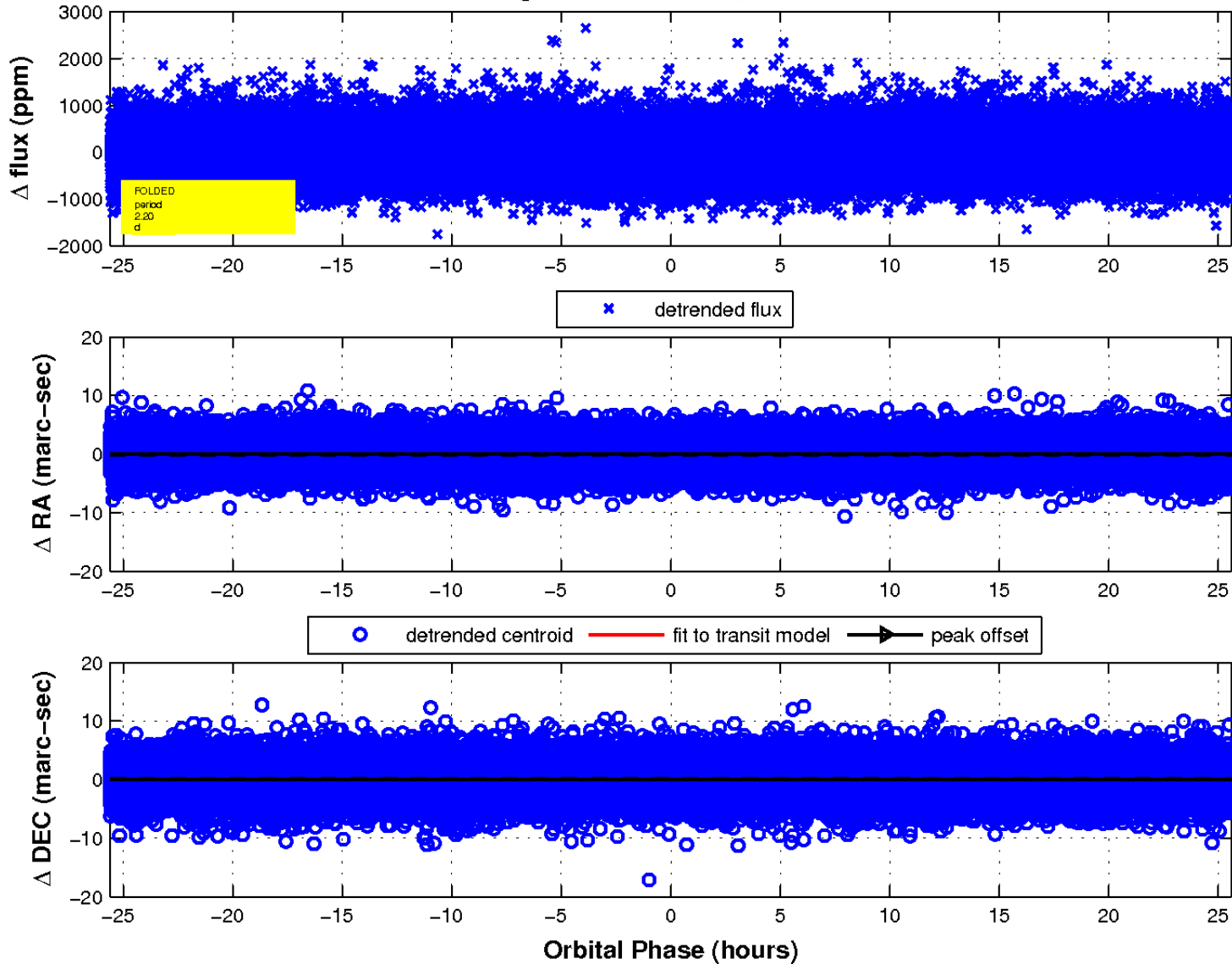
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

