

KIC 003456945

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})
003456945-01	OBS	No	1.073006	131.838322	48.2	3.184	14.2	12.6	1.48	6798	1.19	8295.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003456945-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT

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

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

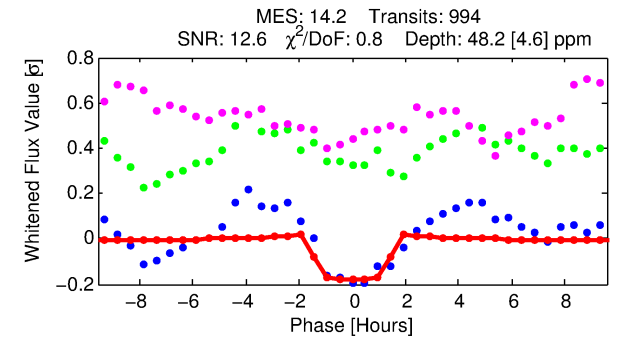
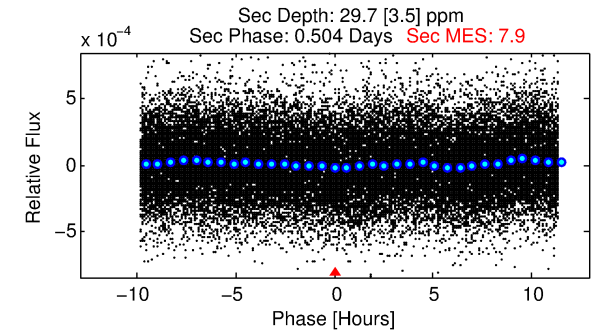
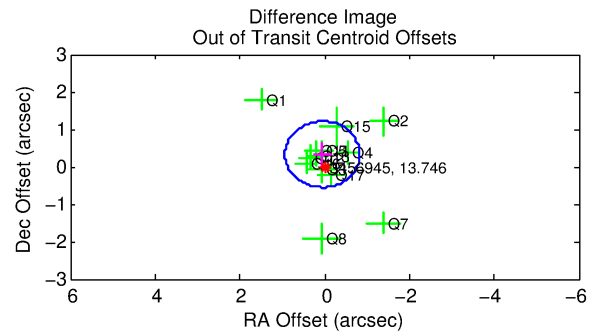
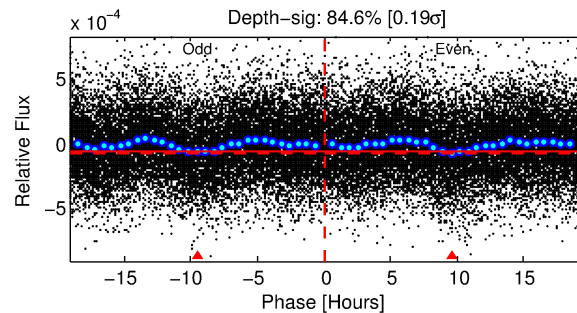
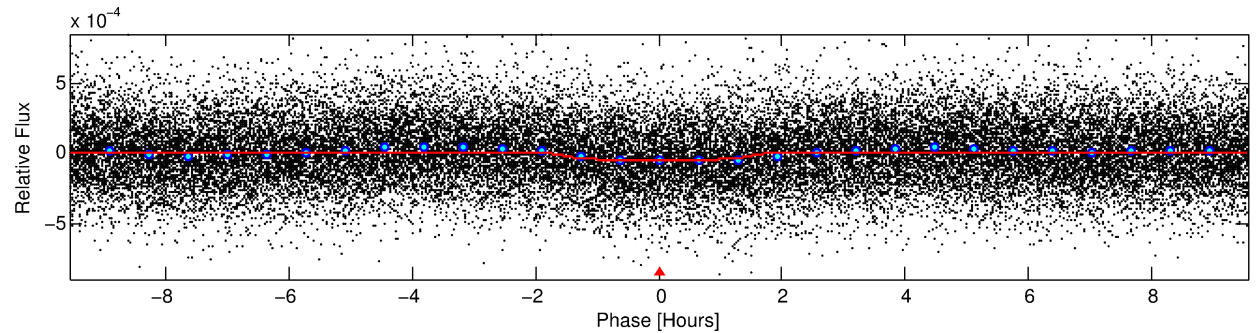
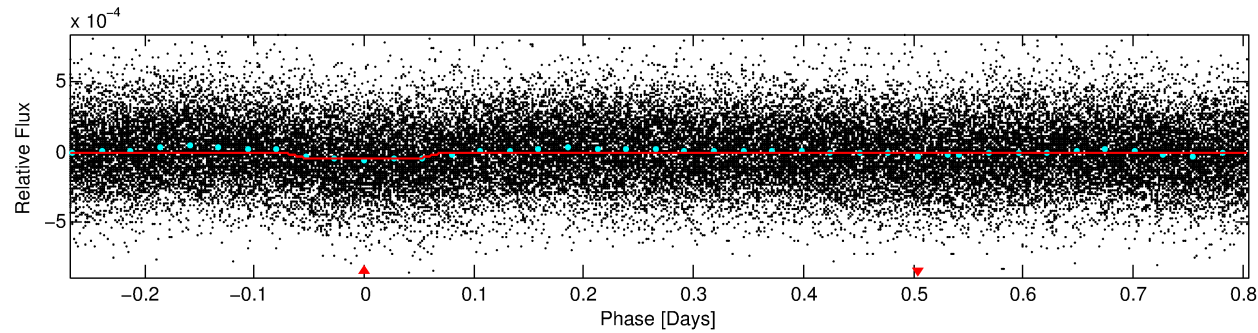
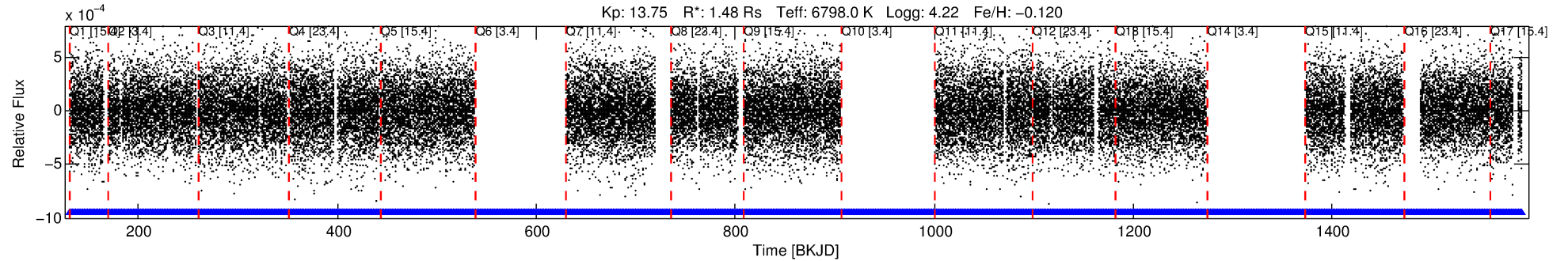
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003456945-01

No Significant Match Found

DV One-Page Summary

KIC: 3456945 Candidate: 1 of 1 Period: 1.073 d



DV Fit Results:

Period = 1.07301 [0.00001] d
Epoch = 131.8383 [0.0028] BKJD
Rp/R* = 0.0073 [0.0028]
a/R* = 1.55 [2.04]
b = 0.89 [0.56]
Seff = 8295.61 [3217.20]
Teq = 2434 [236] K
Rp = 1.19 [0.59] Re
a = 0.0225 [0.0058] AU
Ag = 5.90 [4.97] [0.98σ]
Teffp = 5863 [1142] K [2.94σ]

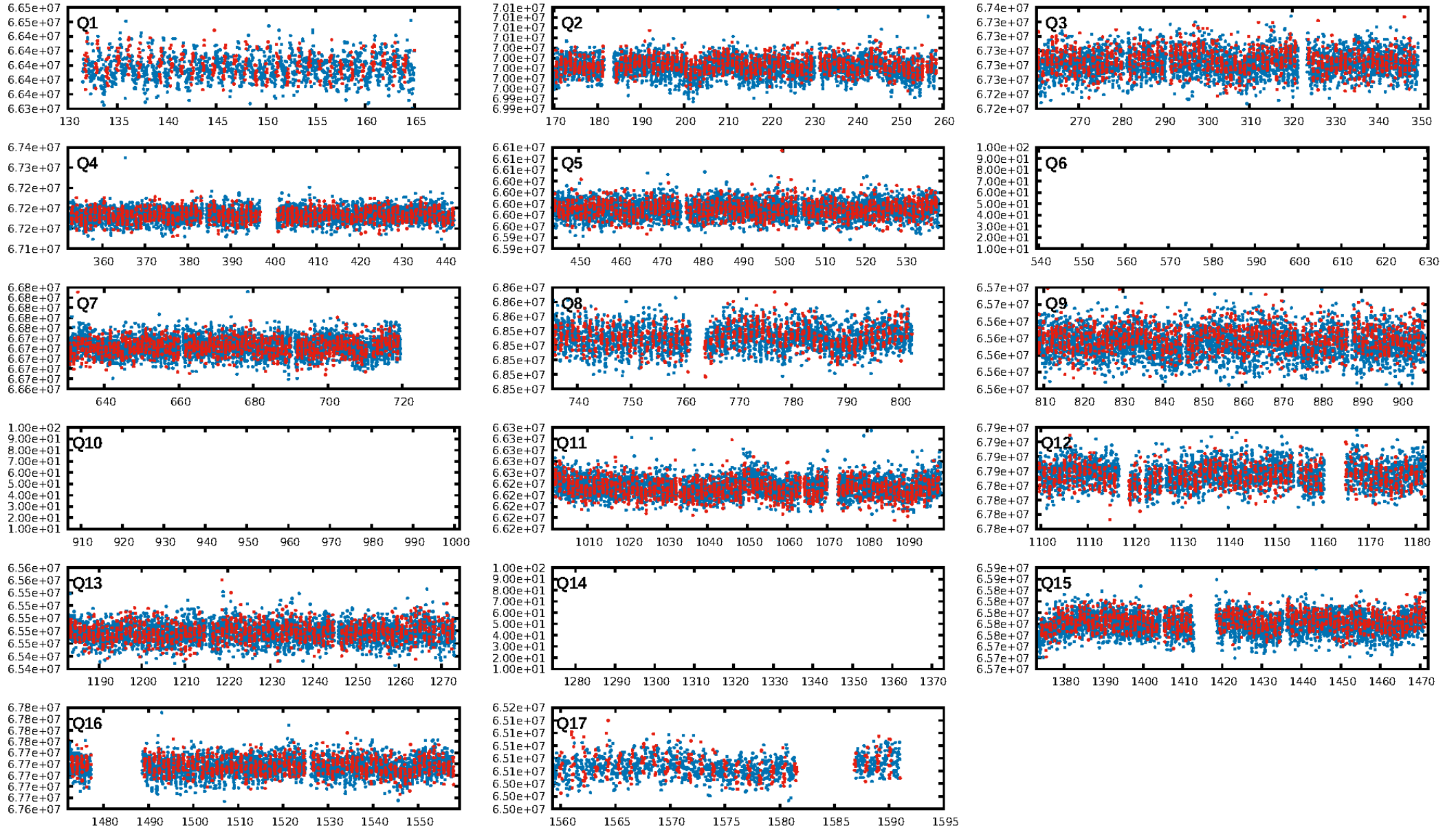
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.90e-38
RollingBand-fgt: 1.00 [938/938]
GhostDiagnostic-chr: 2.47
Centroid-sig: 60.1%
Centroid-so: 0.557 arcsec [0.69σ]
OotOffset-rm: 0.334 arcsec [1.14σ]
KicOffset-rm: 0.410 arcsec [1.52σ]
OotOffset-st: 1/4/4/4 [13]
KicOffset-st: 1/4/4/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [14/14]

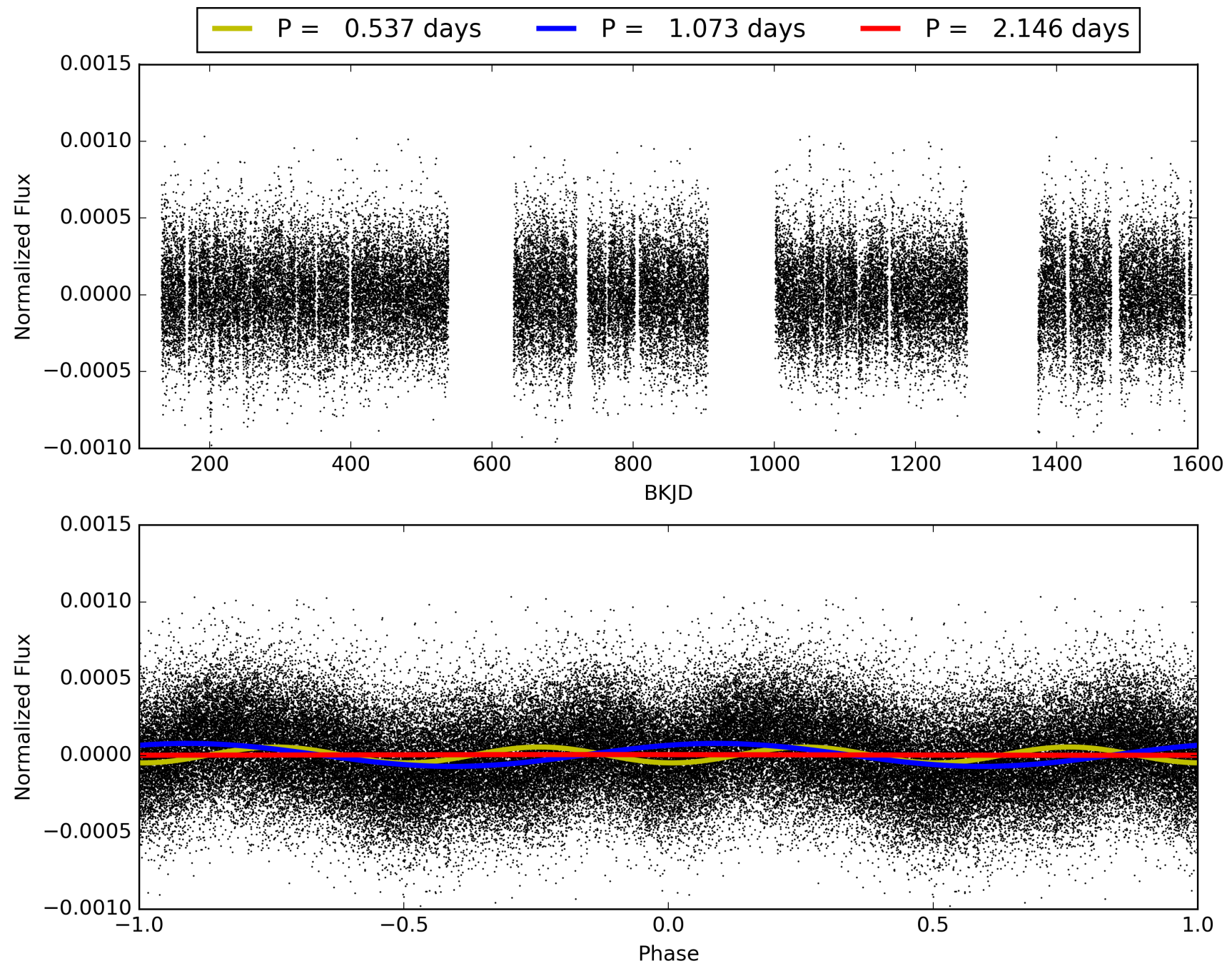
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 17:13:17 Z

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

TCE 003456945-01, PDC Light Curves

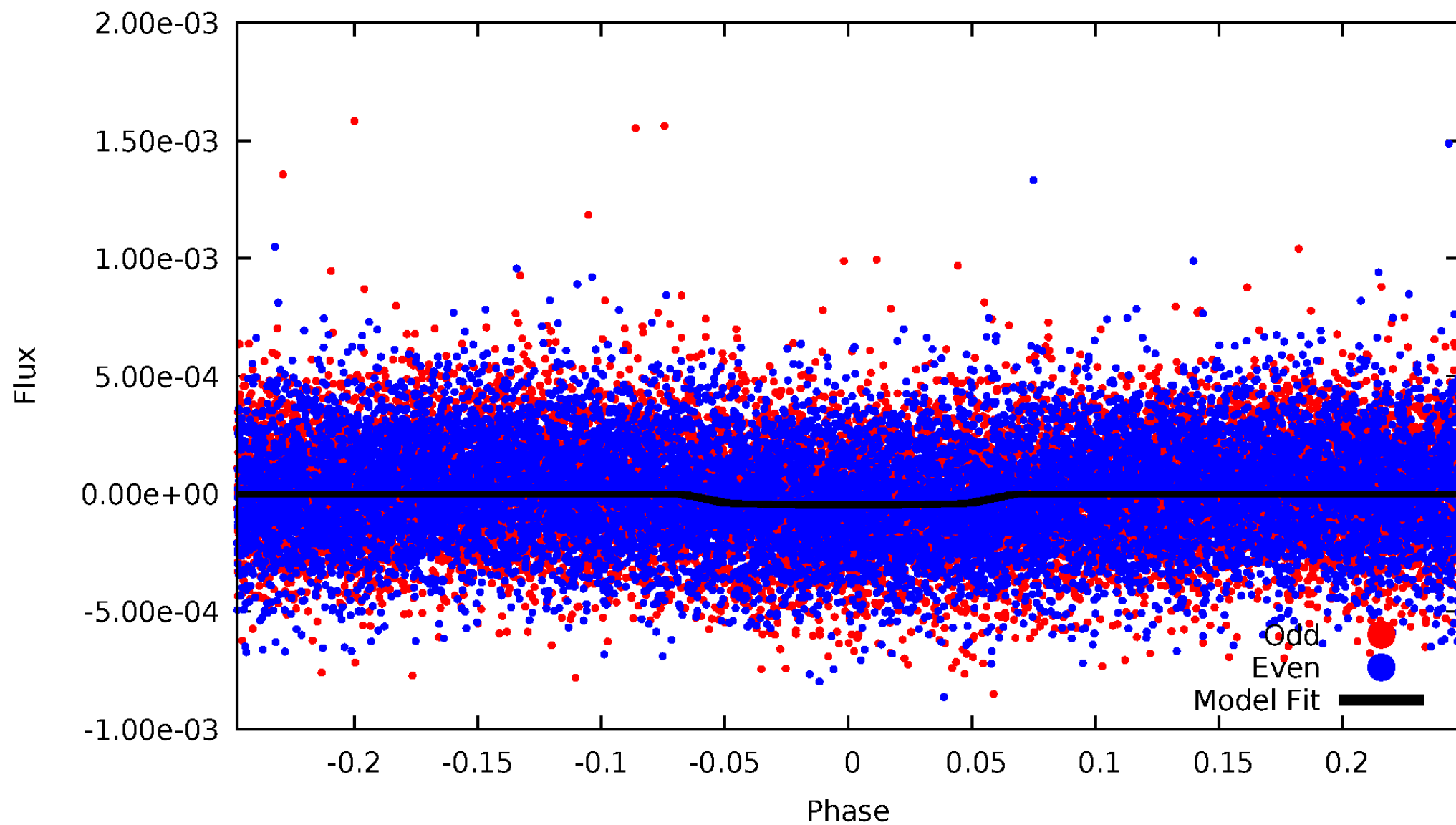


TCE 003456945-01



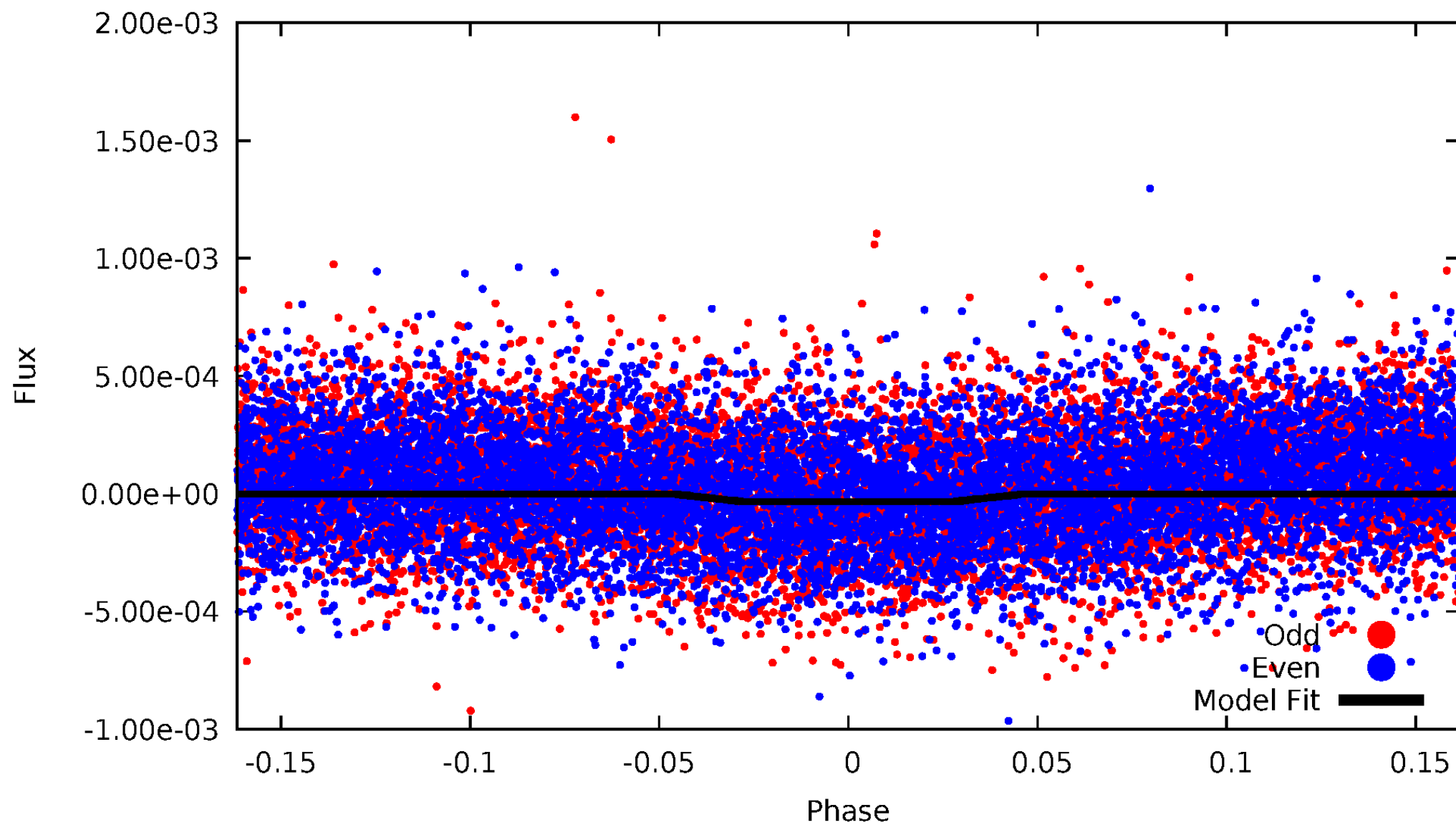
DV Odd/Even

TCE 003456945-01



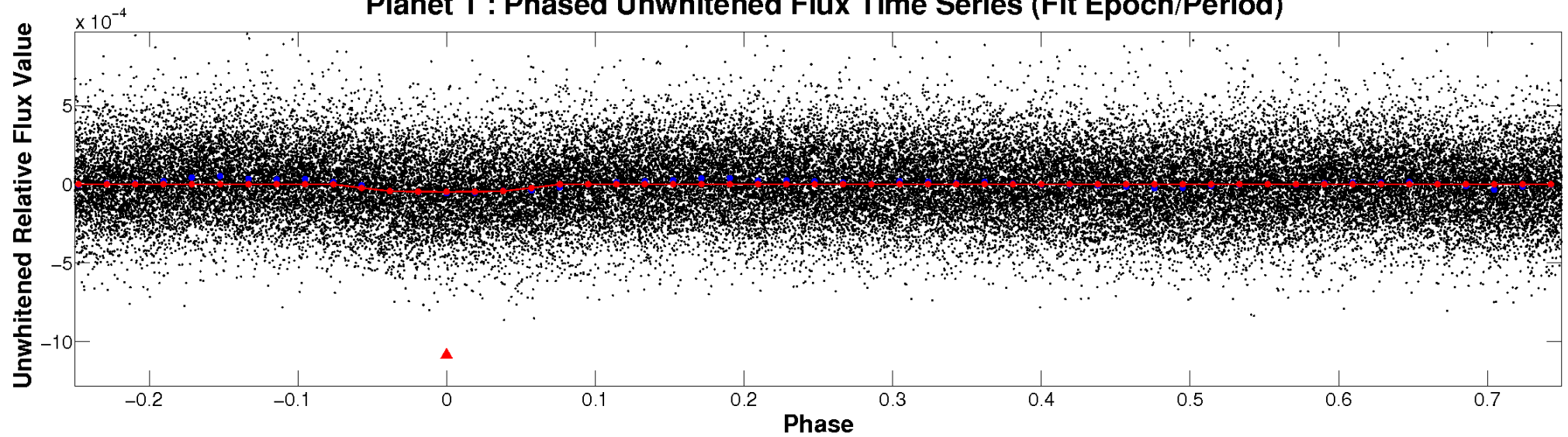
ALT Odd/Even

TCE 003456945-01

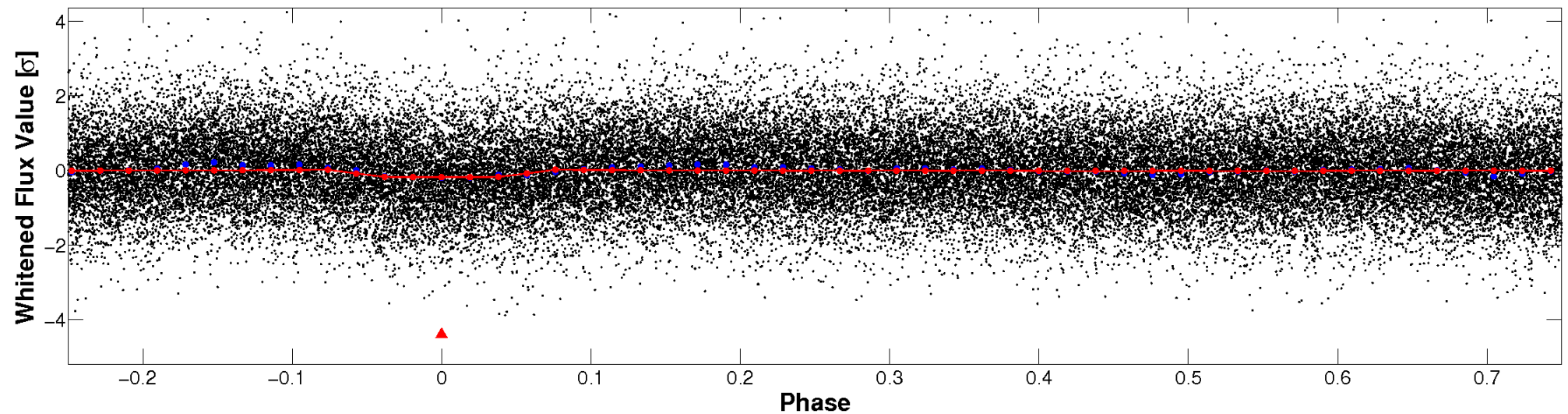


Non-Whitened Vs. Whitened Light Curve

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

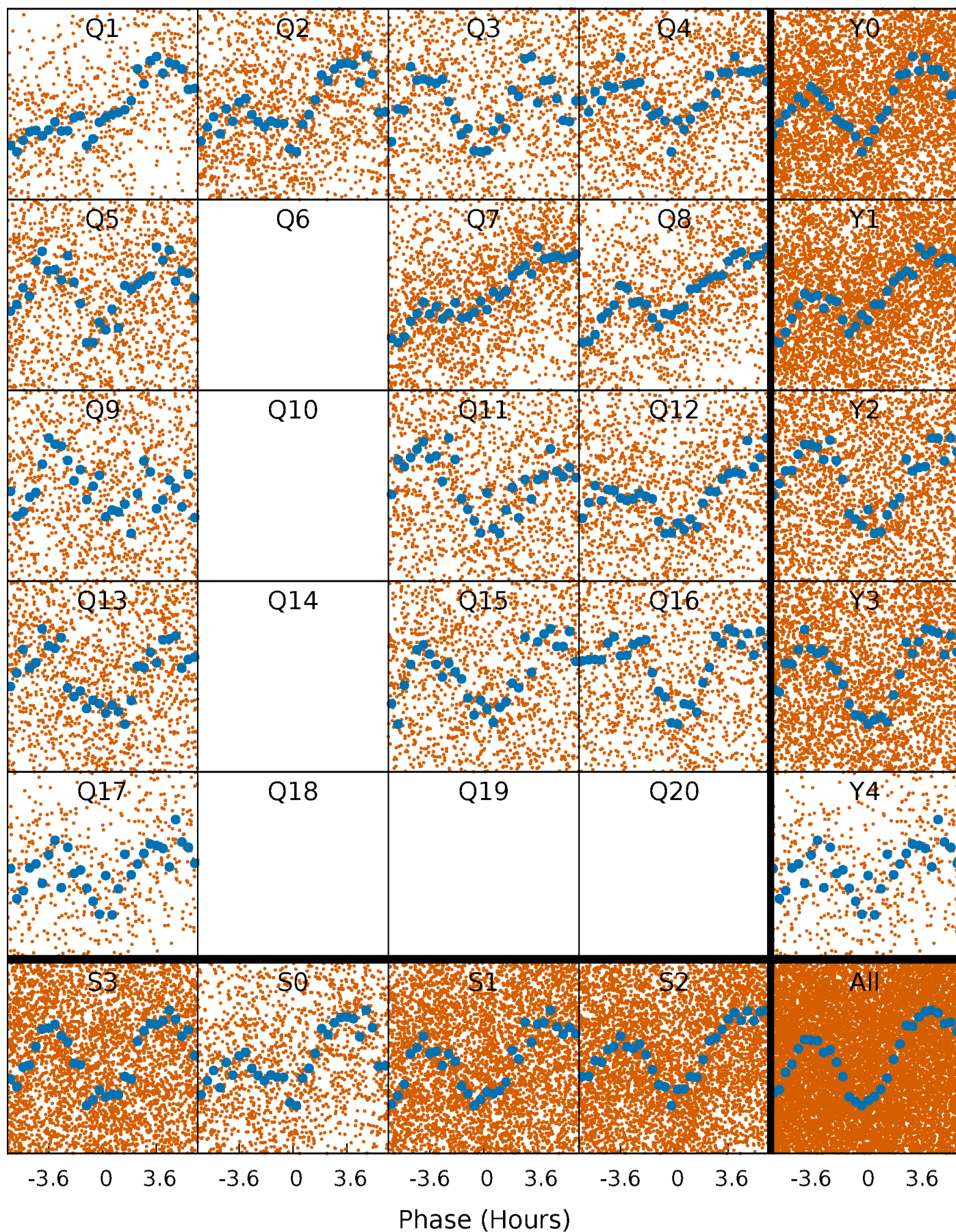


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



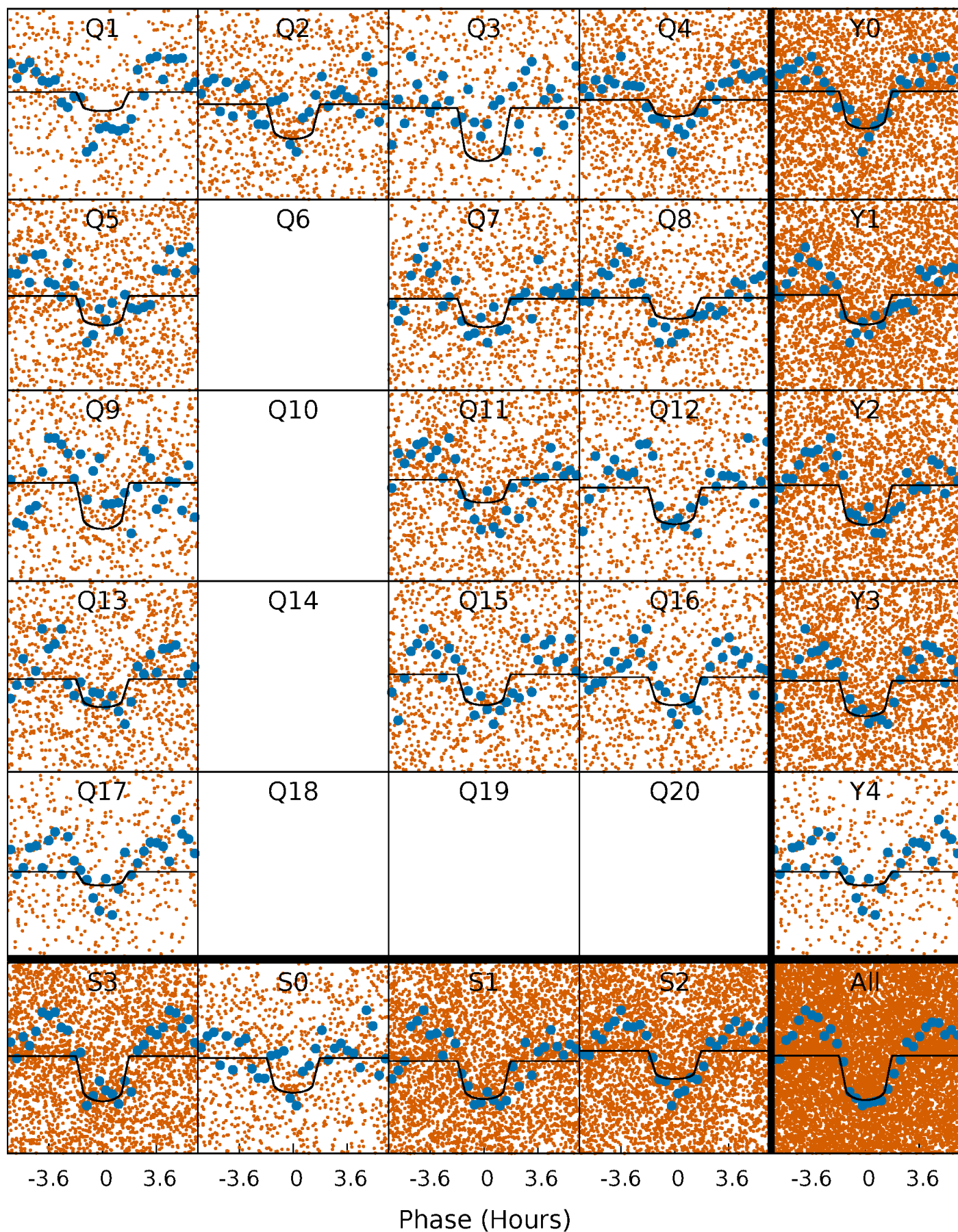
PDC Quarter-Phased Transit Curves

TCE 003456945-01 P= 1.073006 Days $T_0=131.838322$ (BKJD)



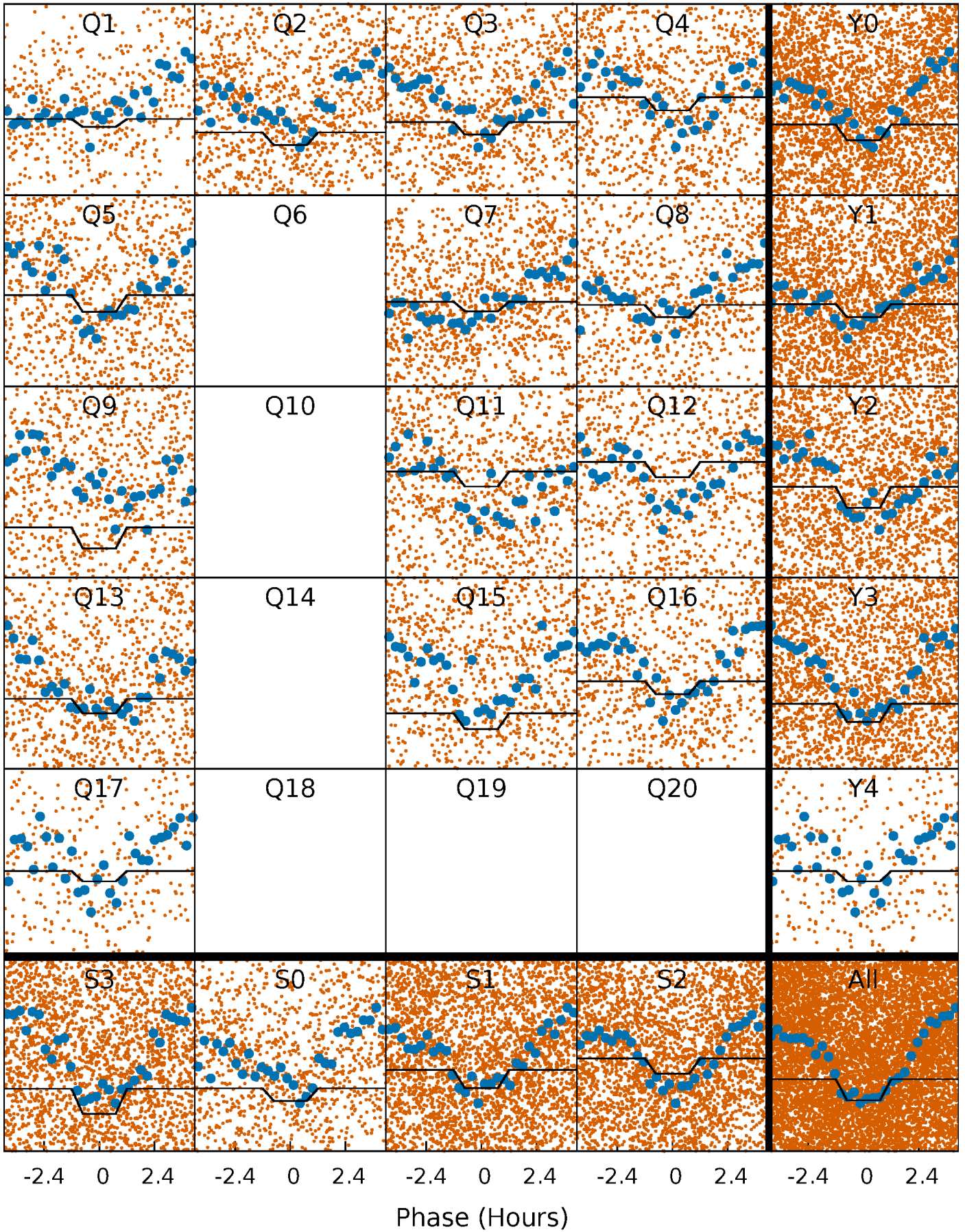
DV Quarter-Phased Transit Curves

TCE 003456945-01 P= 1.073006 Days $T_0=131.838322$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

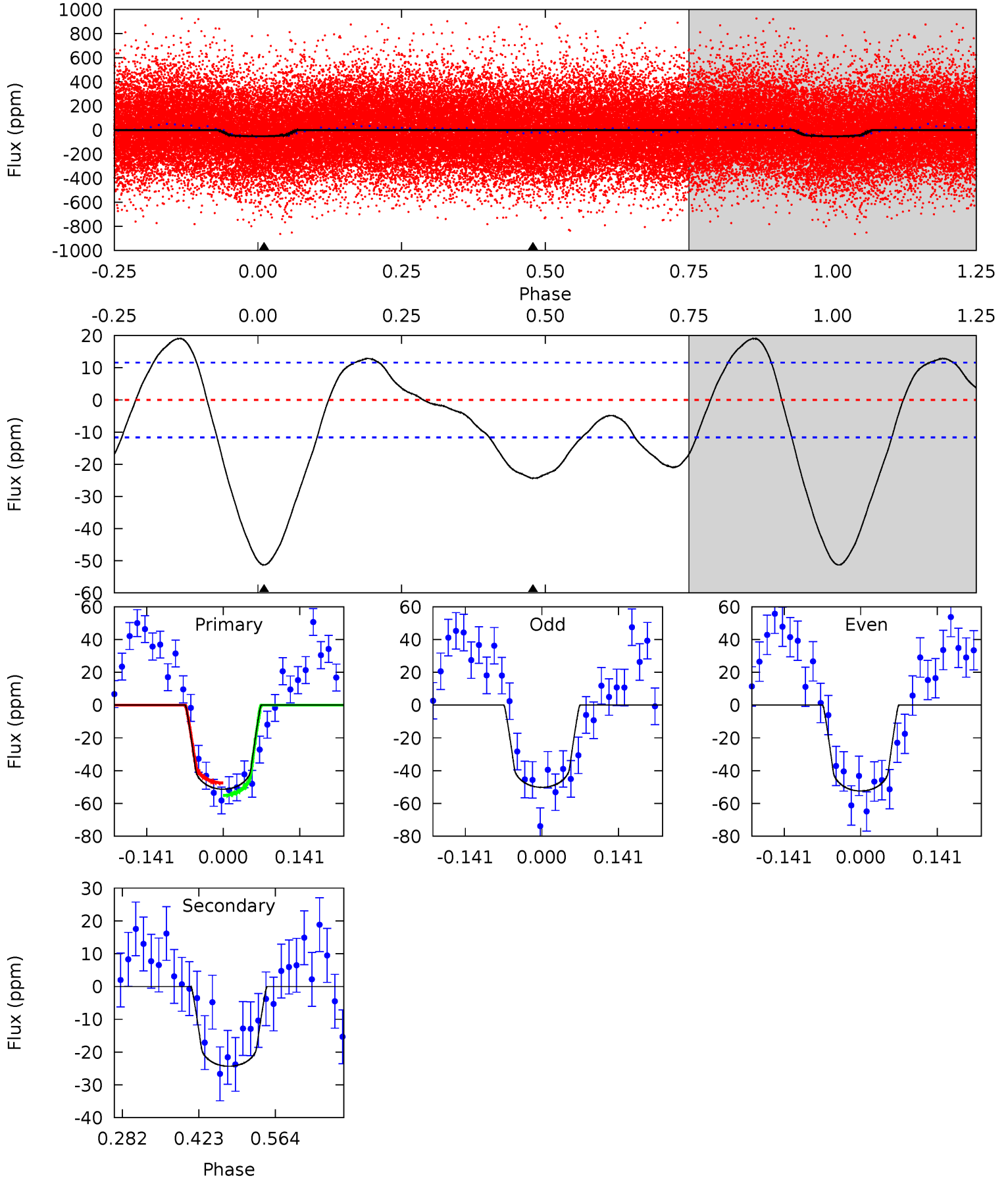
TCE 003456945-01 P= 1.073025 Days $T_0=131.816718$ (BKJD)



DV Model-Shift Uniqueness Test

003456945-01, P = 1.073006 Days, E = 130.765316 Days

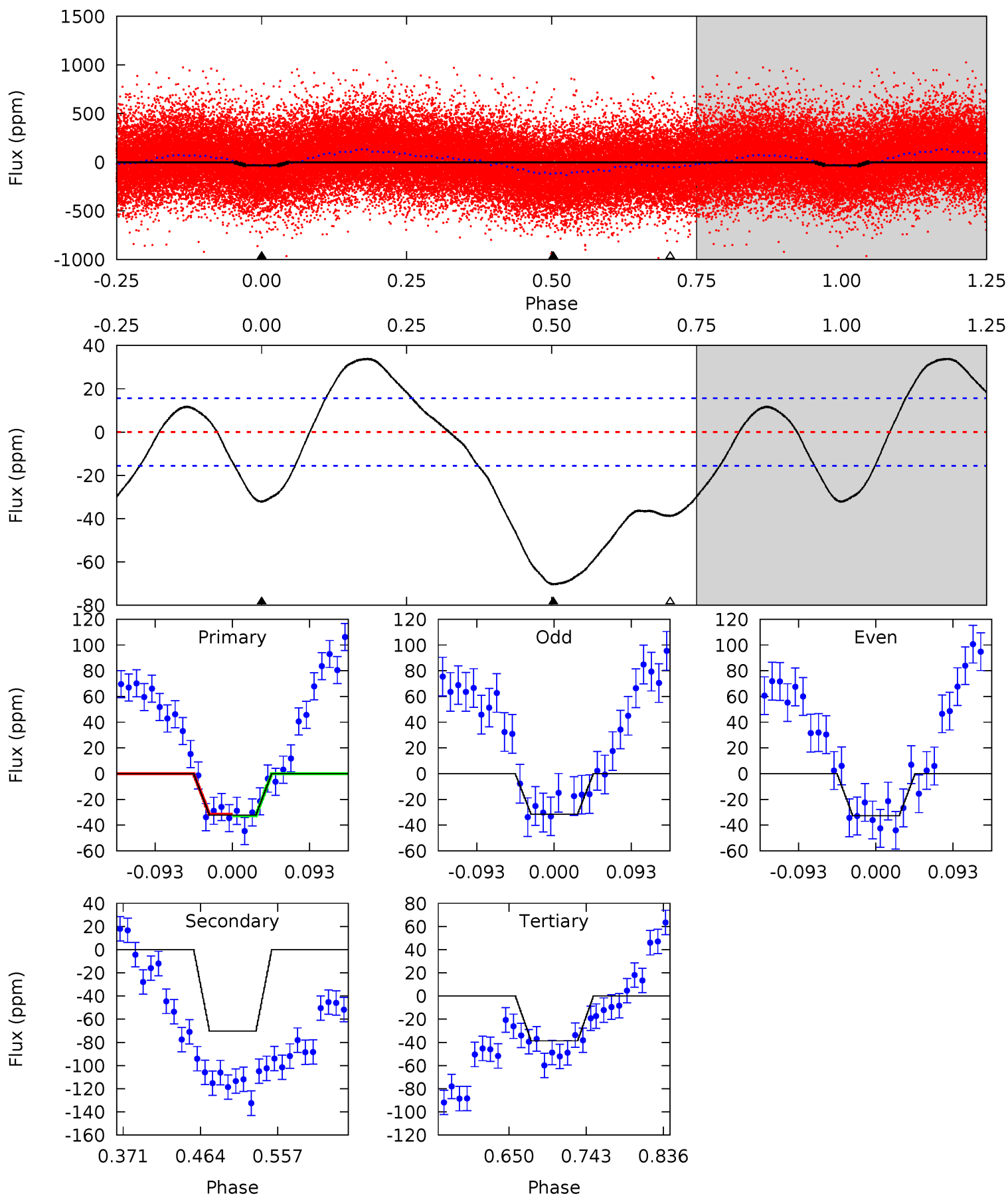
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	9.41	0	0	4.49	1.47	4.69	19.8	19.8	9.41	9.41	0.44	1.06	0.27	1.48



Alt Model-Shift Uniqueness Test

003456945-01, P = 1.073025 Days, E = 130.743693 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.42	20.6	11.4	0	4.58	1.68	7.35	-1.94	9.42	9.26	20.6	0.18	1.08	0.32	0.18



Stellar Parameters For KIC 003456945

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6798^{+189}_{-259}	$4.217^{+0.124}_{-0.186}$	$-0.120^{+0.250}_{-0.350}$	$1.482^{+0.475}_{-0.292}$	$1.329^{+0.204}_{-0.204}$	$0.575^{+0.347}_{-0.289}$
	+3%/-4%	+3%/-4%	+208%/-292%	+32%/-20%	+15%/-15%	+60%/-50%
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 003456945-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-24 ± 3	$1.20^{+0.50}_{-0.42}$	3418^{+258}_{-208}	5449^{+1297}_{-795}	$4.576^{+6.052}_{-2.300}$
Alt.	-70 ± 3	$0.97^{+0.48}_{-0.45}$	3424^{+269}_{-207}	8347^{+4624}_{-1721}	21^{+51}_{-12}

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 $A_{obs} \gg 1.0$

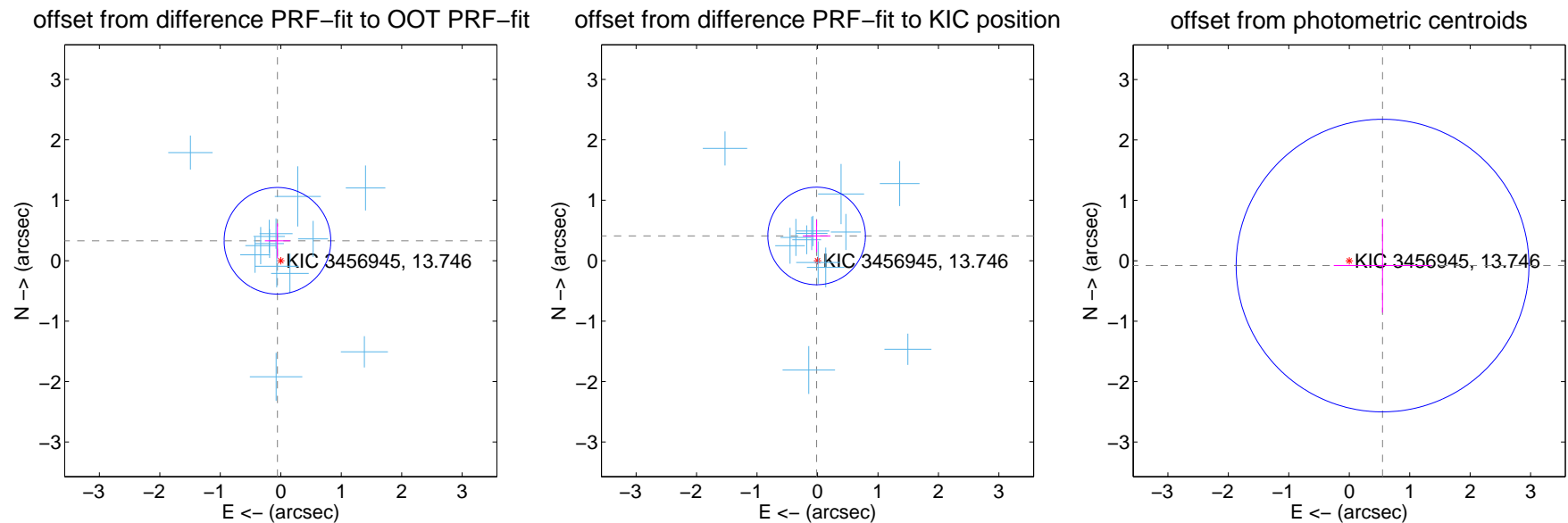
DV Centroid Data

Supplemental centroid analysis for 003456945-01. Kepler magnitude: 13.75. Transit SNR 12.60

There are 13 quarters with good PRF difference image offsets

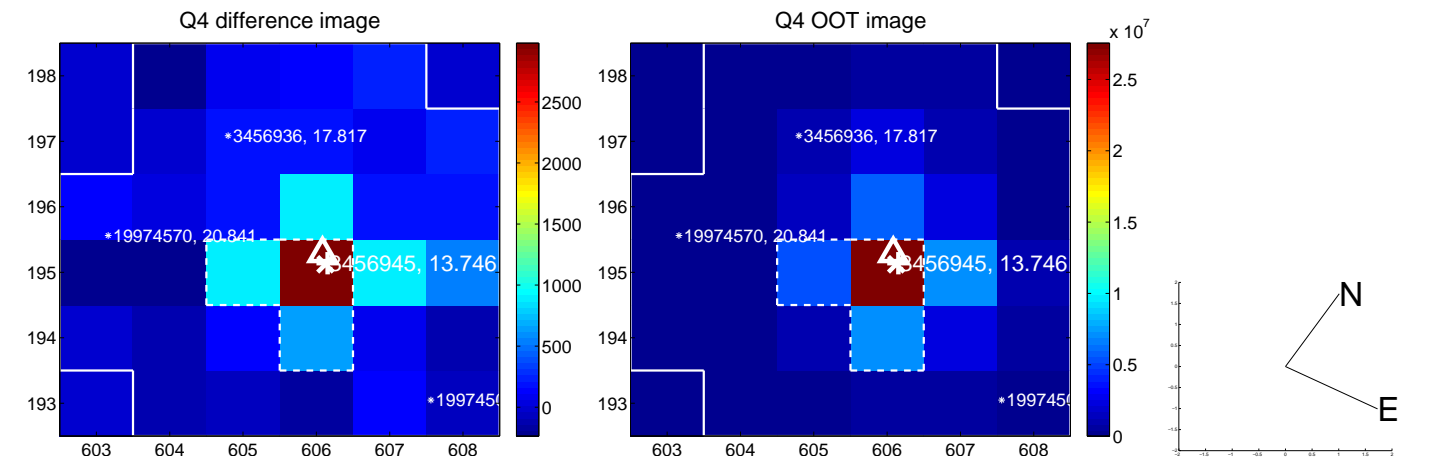
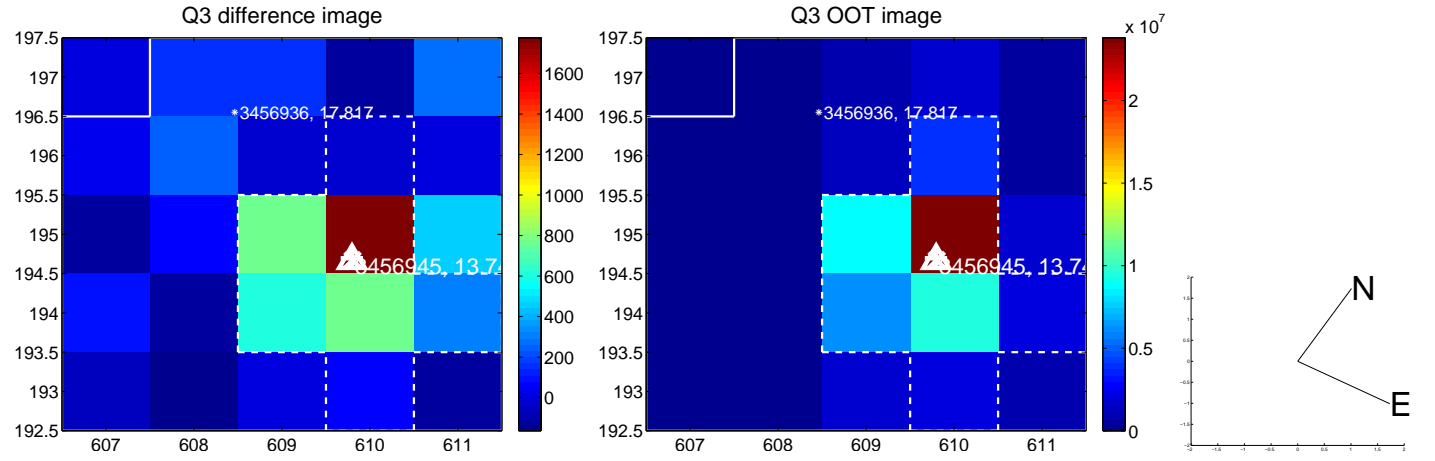
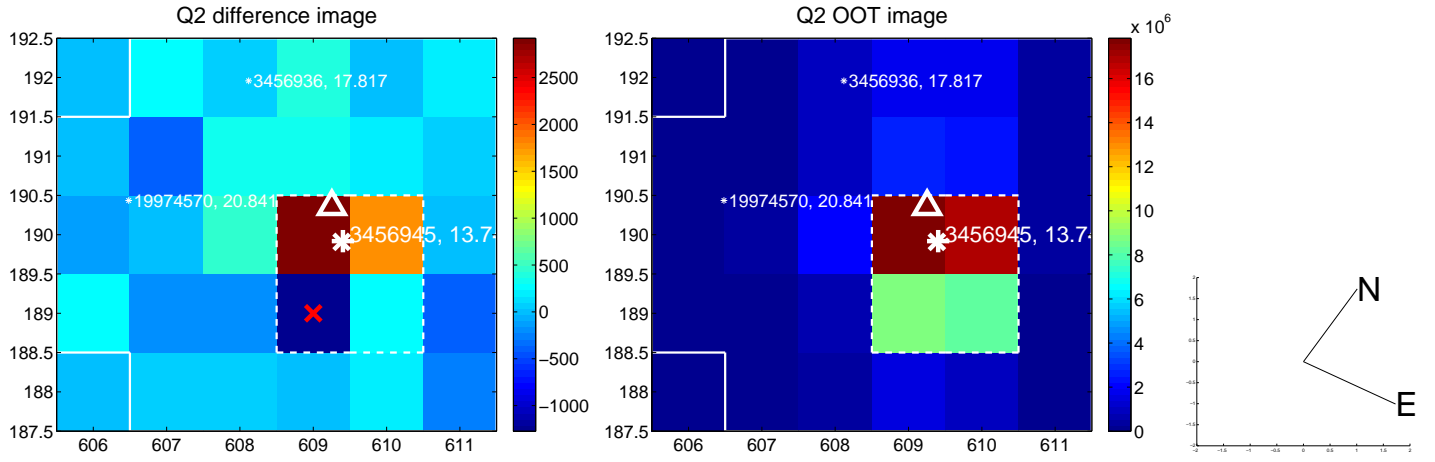
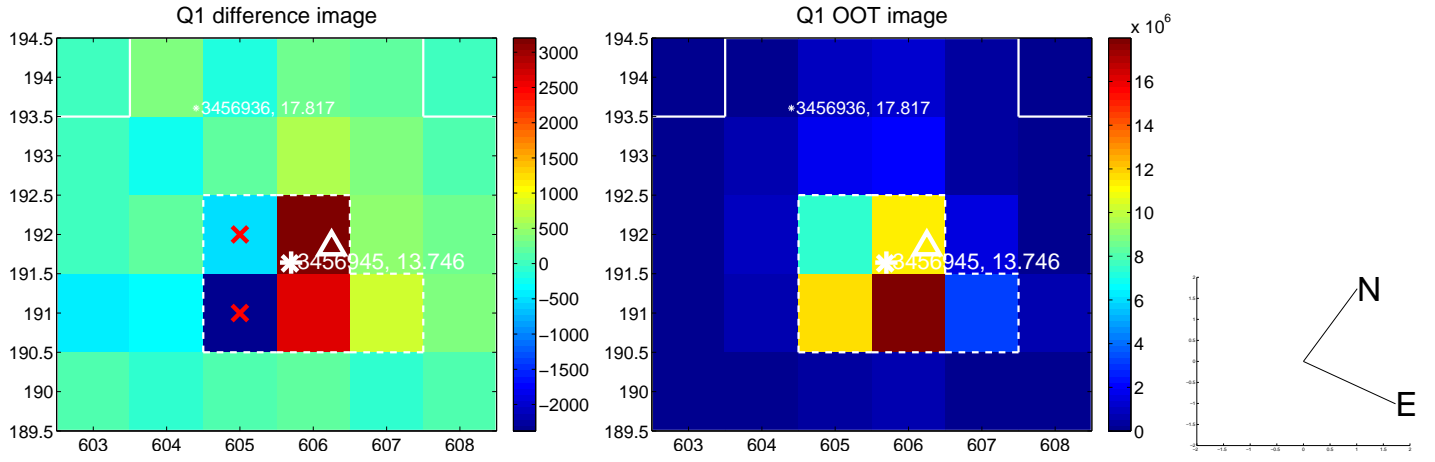
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.334 ± 0.294	1.14	0.055 ± 0.207	0.329 ± 0.287
PRF-fit source offset from KIC position	0.410 ± 0.269	1.52	0.015 ± 0.227	0.409 ± 0.266
photometric centroid source offset	0.56 ± 0.81	0.69	-0.55 ± 0.81	-0.08 ± 0.78

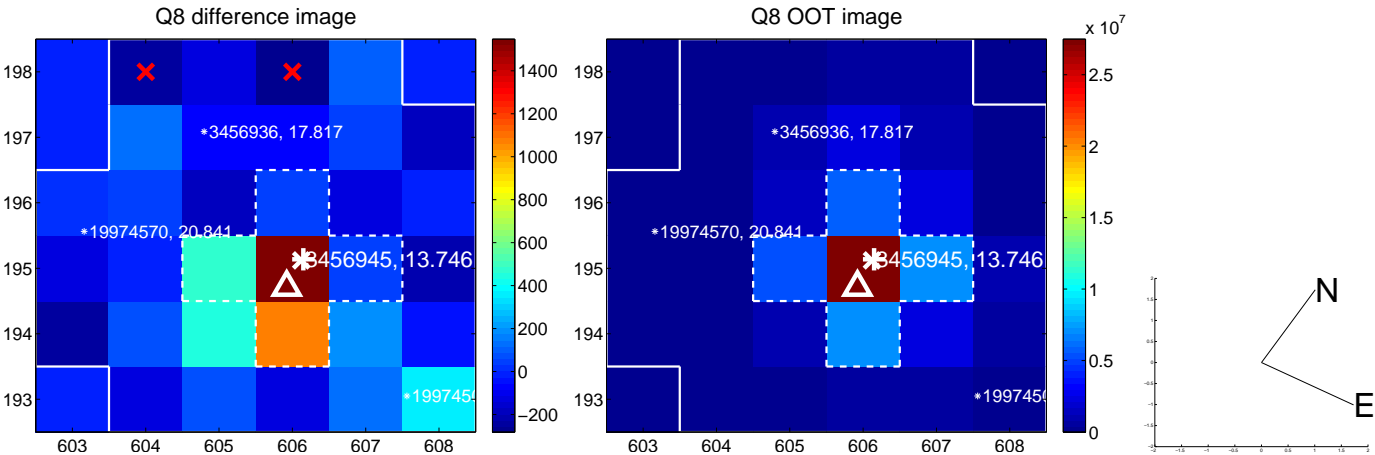
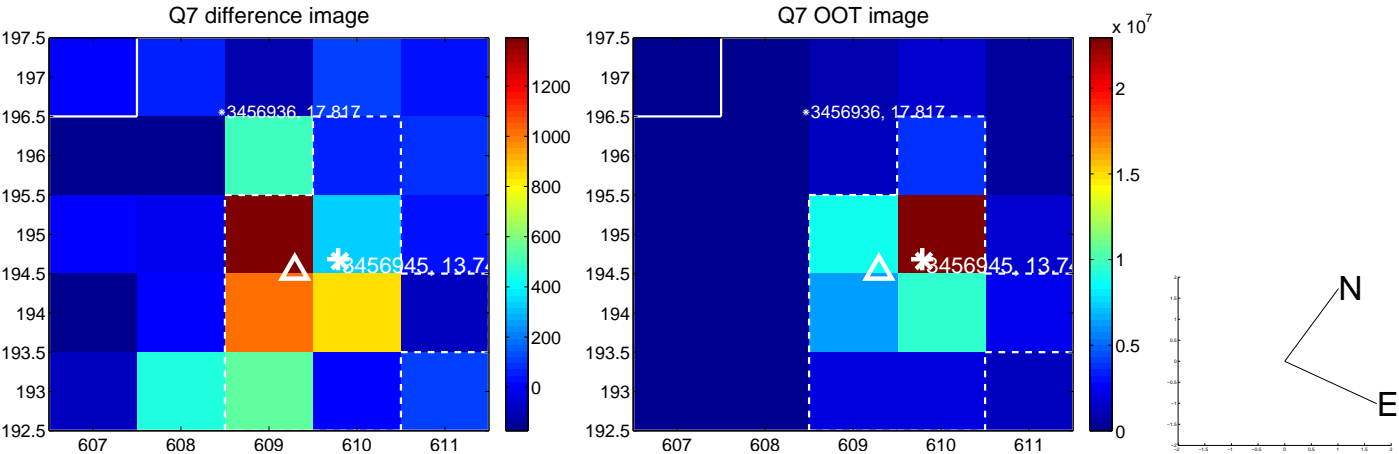
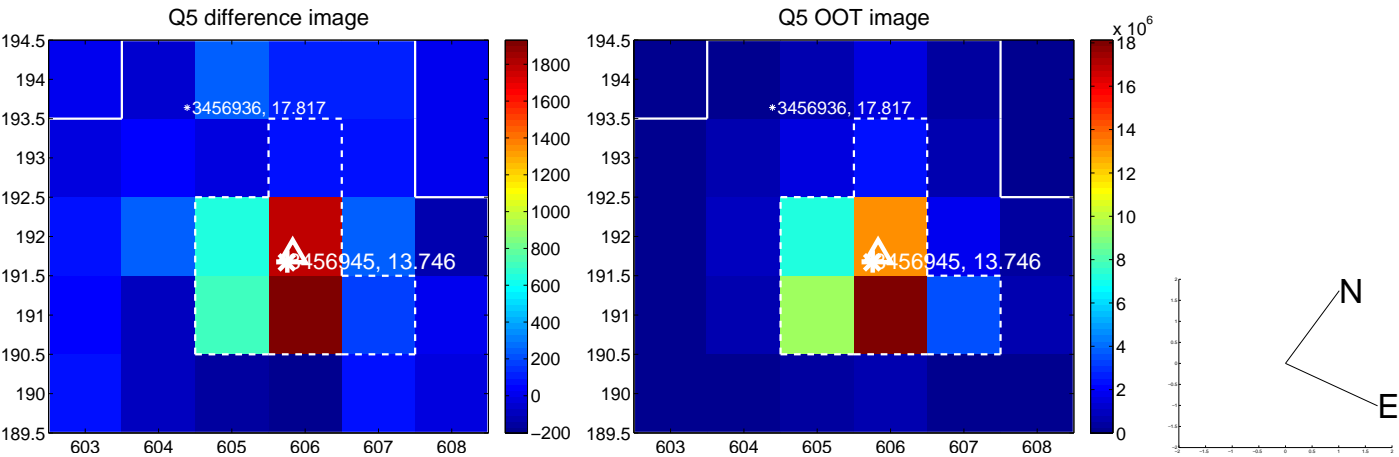


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

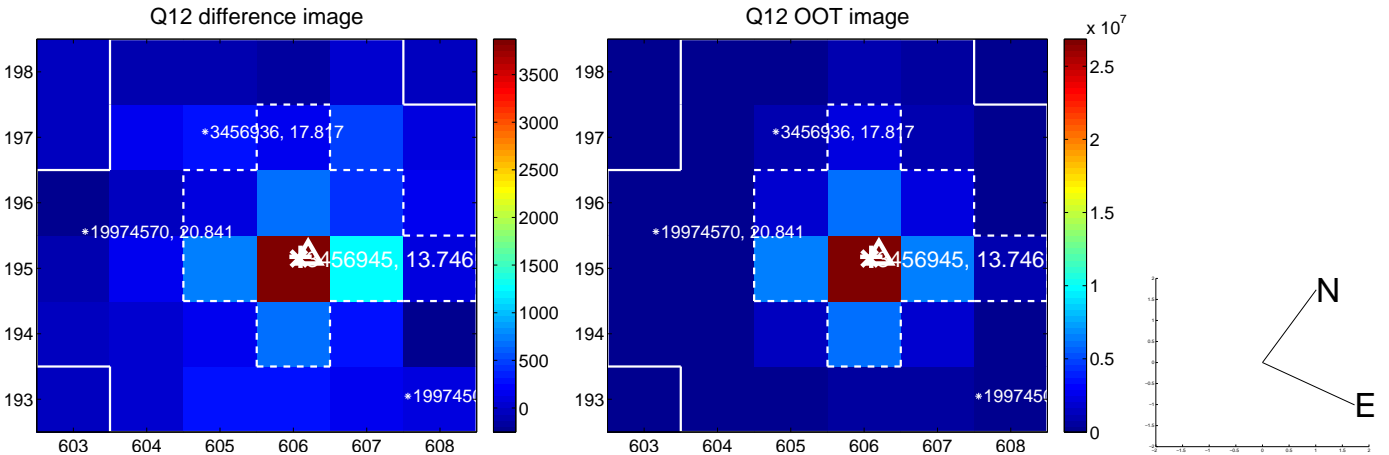
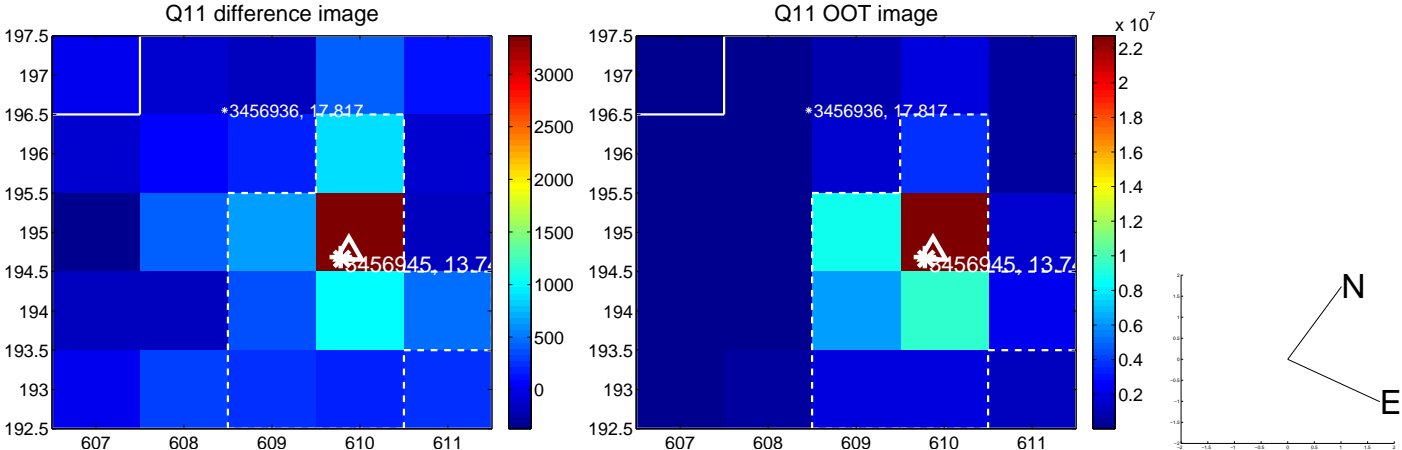
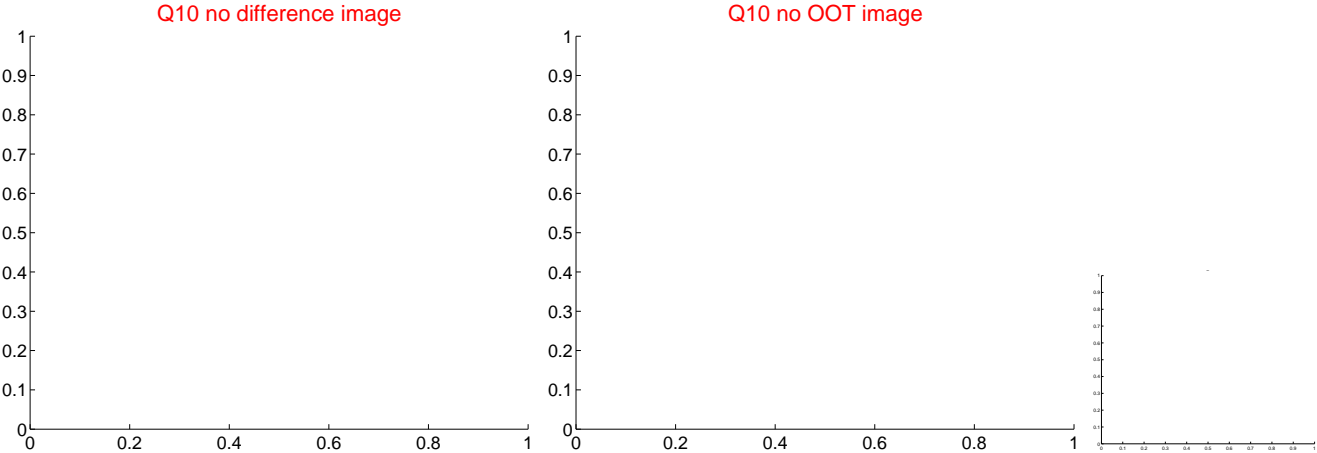
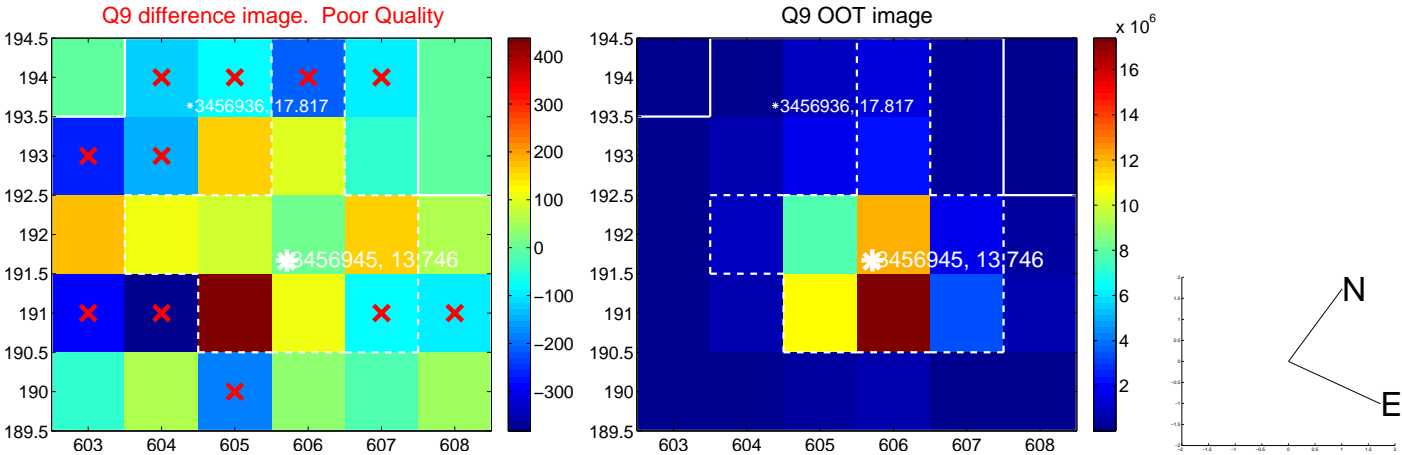
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



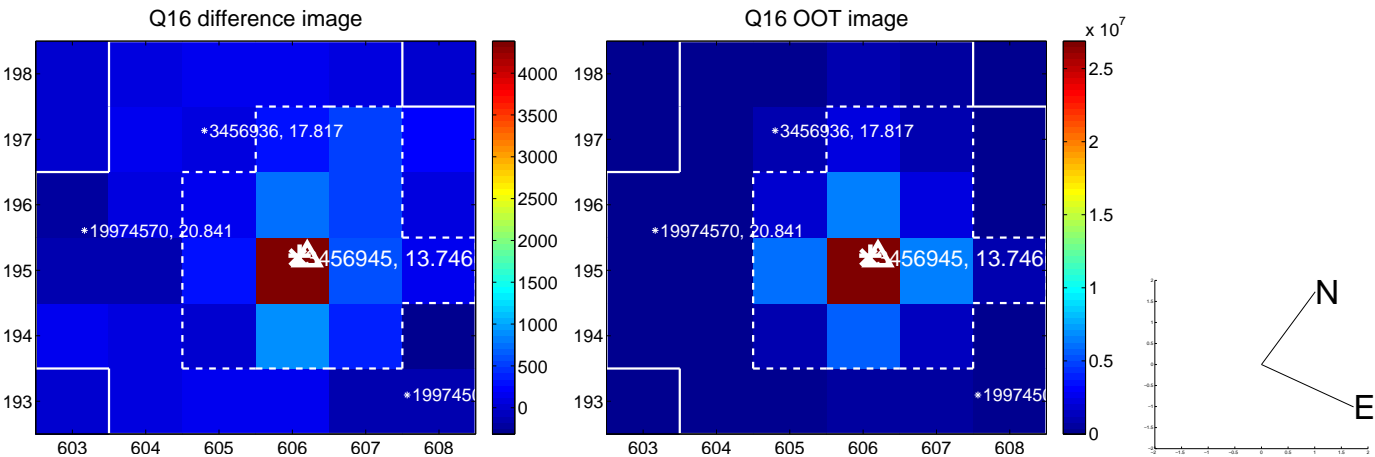
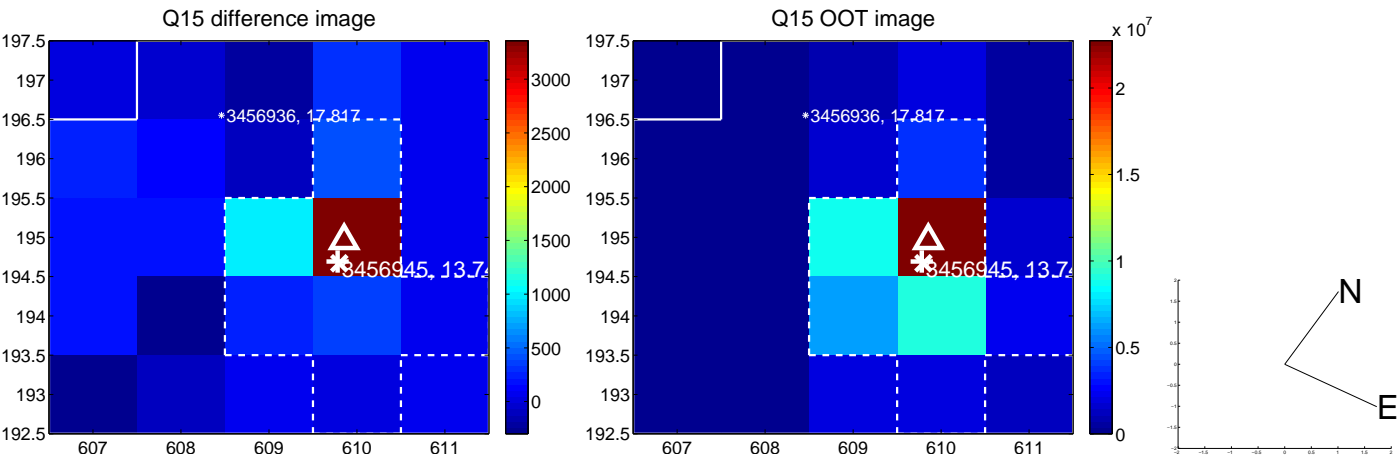
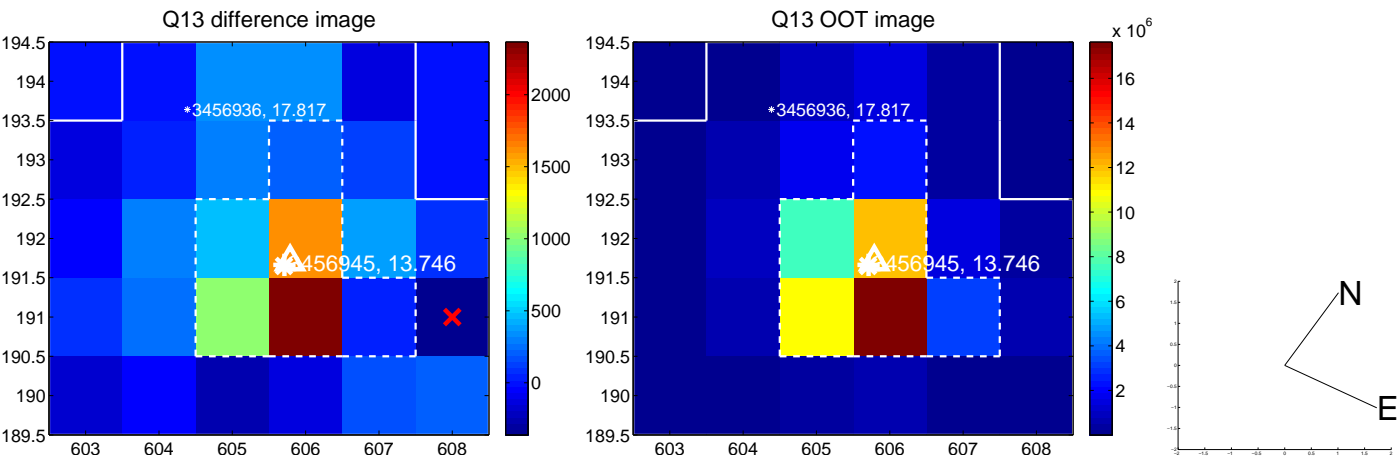
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



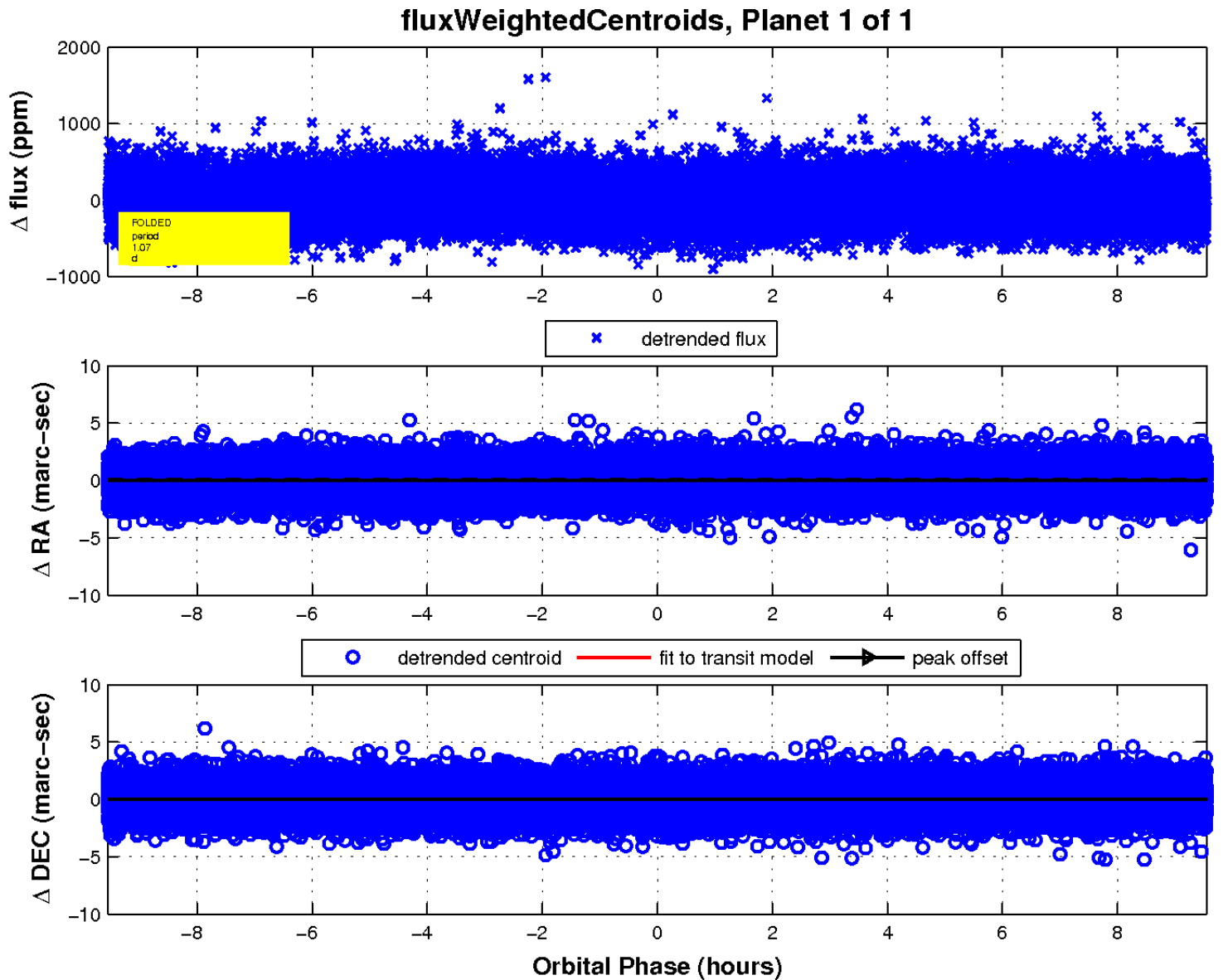
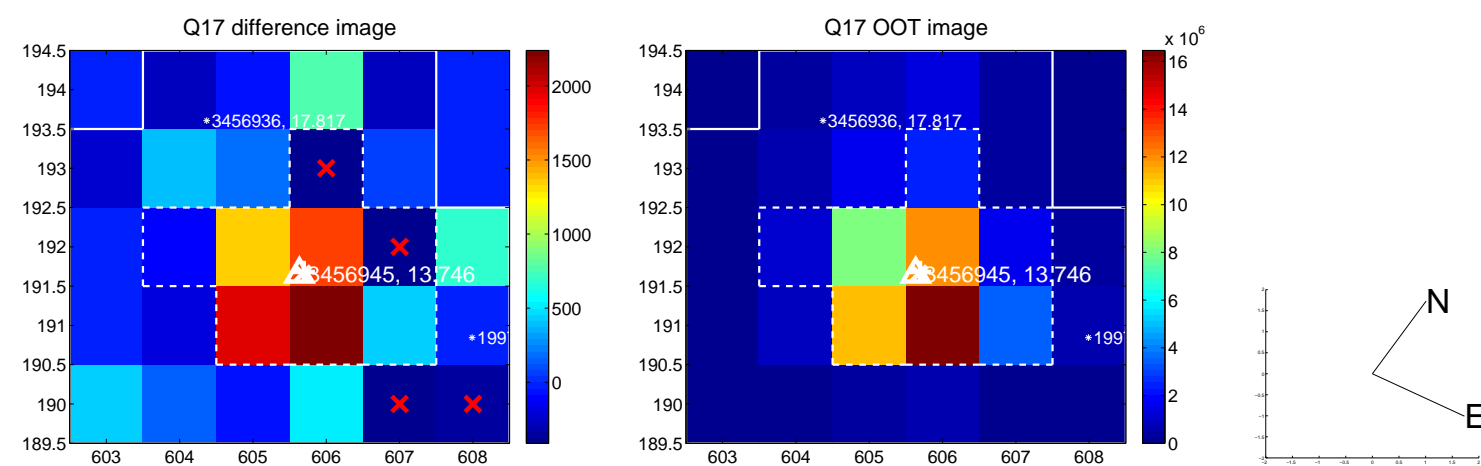
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

