

KIC 004349935

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})
004349935-01	OBS	6403.01	0.791937	131.994107	16.5	4.255	10.5	4.6	0.62	4447	0.25	677.37

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004349935-01	OBS	FP	0.00	1	0	0	0	LPP_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 004349935-01

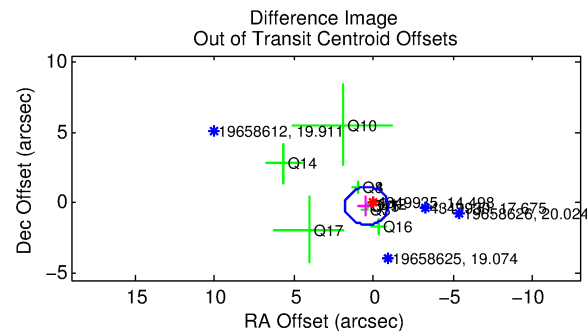
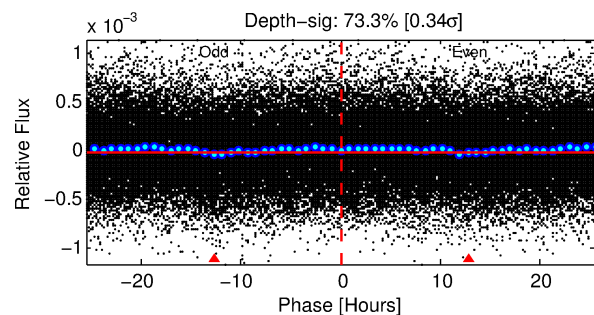
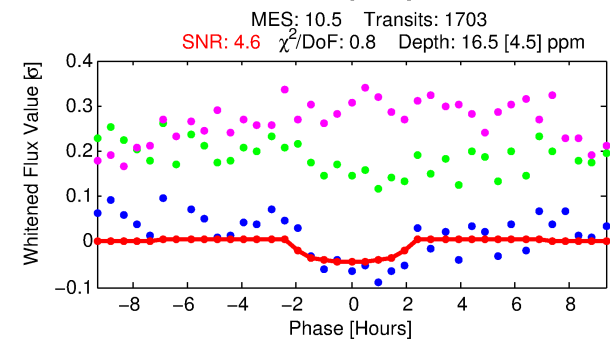
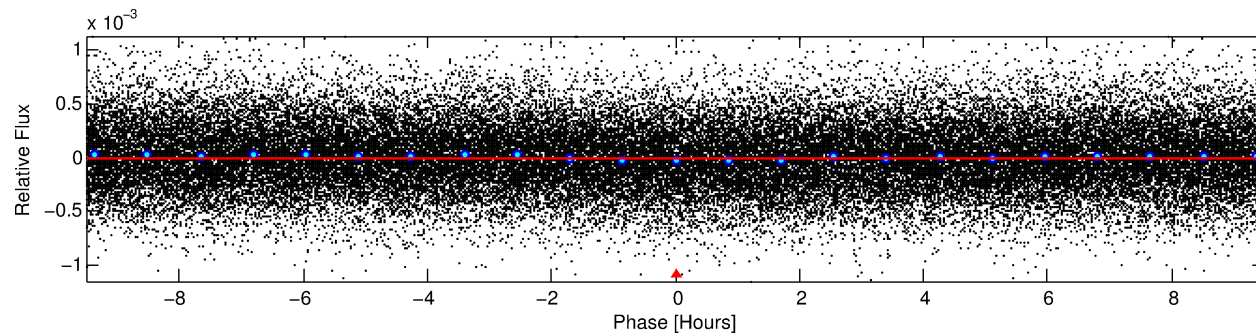
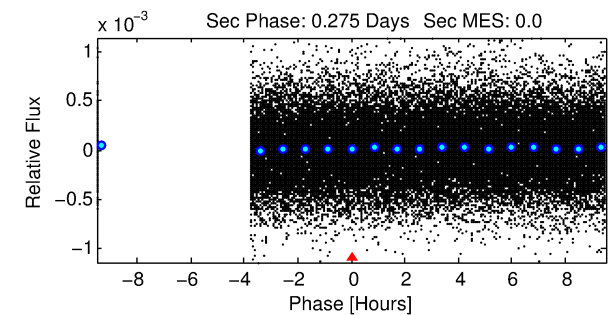
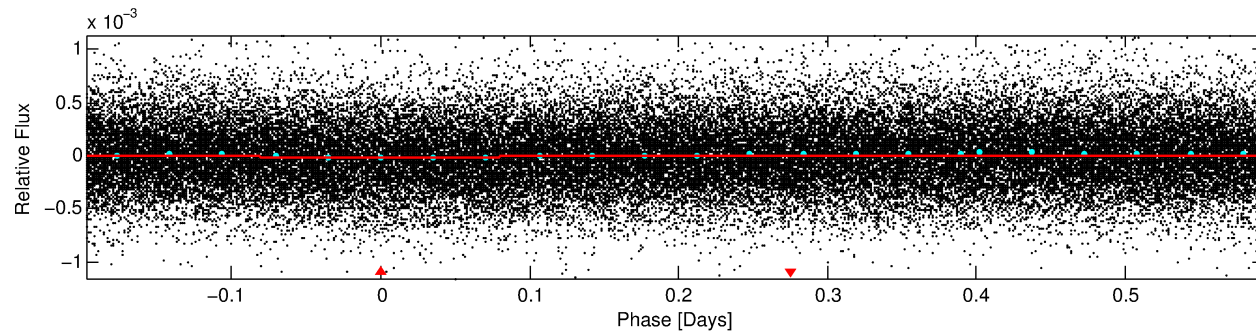
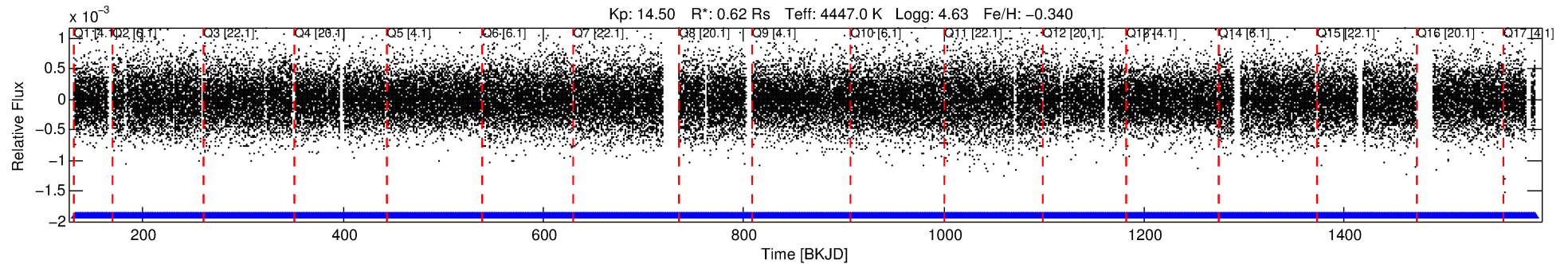
No Significant Match Found

DV One-Page Summary

KIC: 4349935 Candidate: 1 of 1 Period: 0.792 d

KOI: K06403 Corr: No Ephemeris Match

Kp: 14.50 R*: 0.62 Rs Teff: 4447.0 K Logg: 4.63 Fe/H: -0.340



DV Fit Results:

Period = 0.79194 [0.00002] d
Epoch = 131.9941 [0.0103] BKJD
Rp/R* = 0.0036 [0.0060]
a/R* = 1.50 [4.38]
b = 0.33 [14.46]
Seff = 677.37 [105.49]
Teff = 1301 [51] K
Rp = 0.25 [0.41] Re
a = 0.0142 [0.0010] AU
Ag = N/A
Teffp = N/A

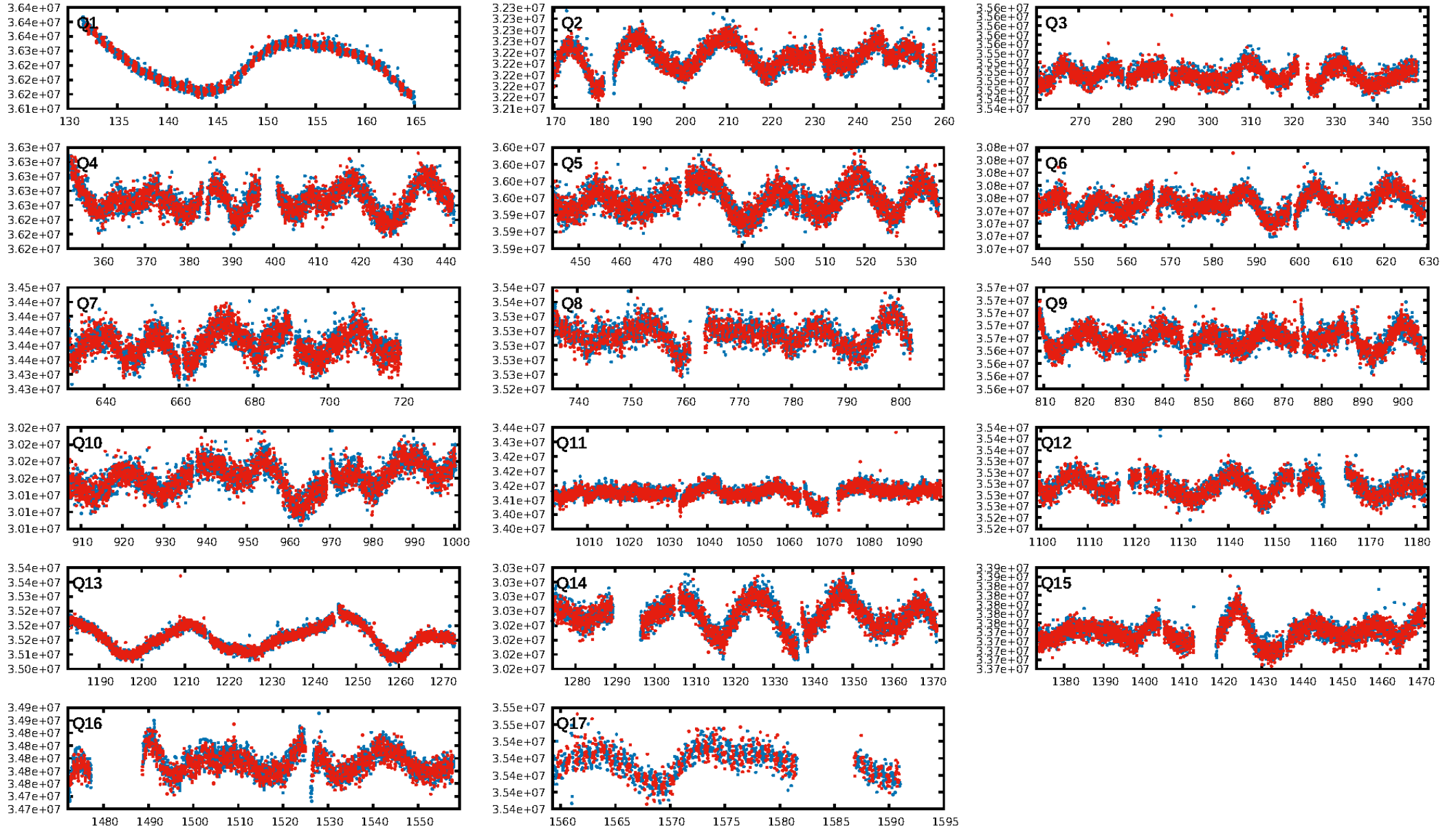
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.01e-20
RollingBand-fgt: 1.00 [1627/1627]
GhostDiagnostic-chr: 5.942
Centroid-sig: 0.9%
Centroid-so: 4.327 arcsec [1.85σ]
OotOffset-rm: 0.484 arcsec [1.08σ]
KicOffset-rm: 0.303 arcsec [0.48σ]
OotOffset-st: 2/4/4/1 [11]
KicOffset-st: 2/4/4/1 [11]
DiffImageQuality-fgm: 0.73 [8/11]
DiffImageOverlap-fno: 1.00 [17/17]

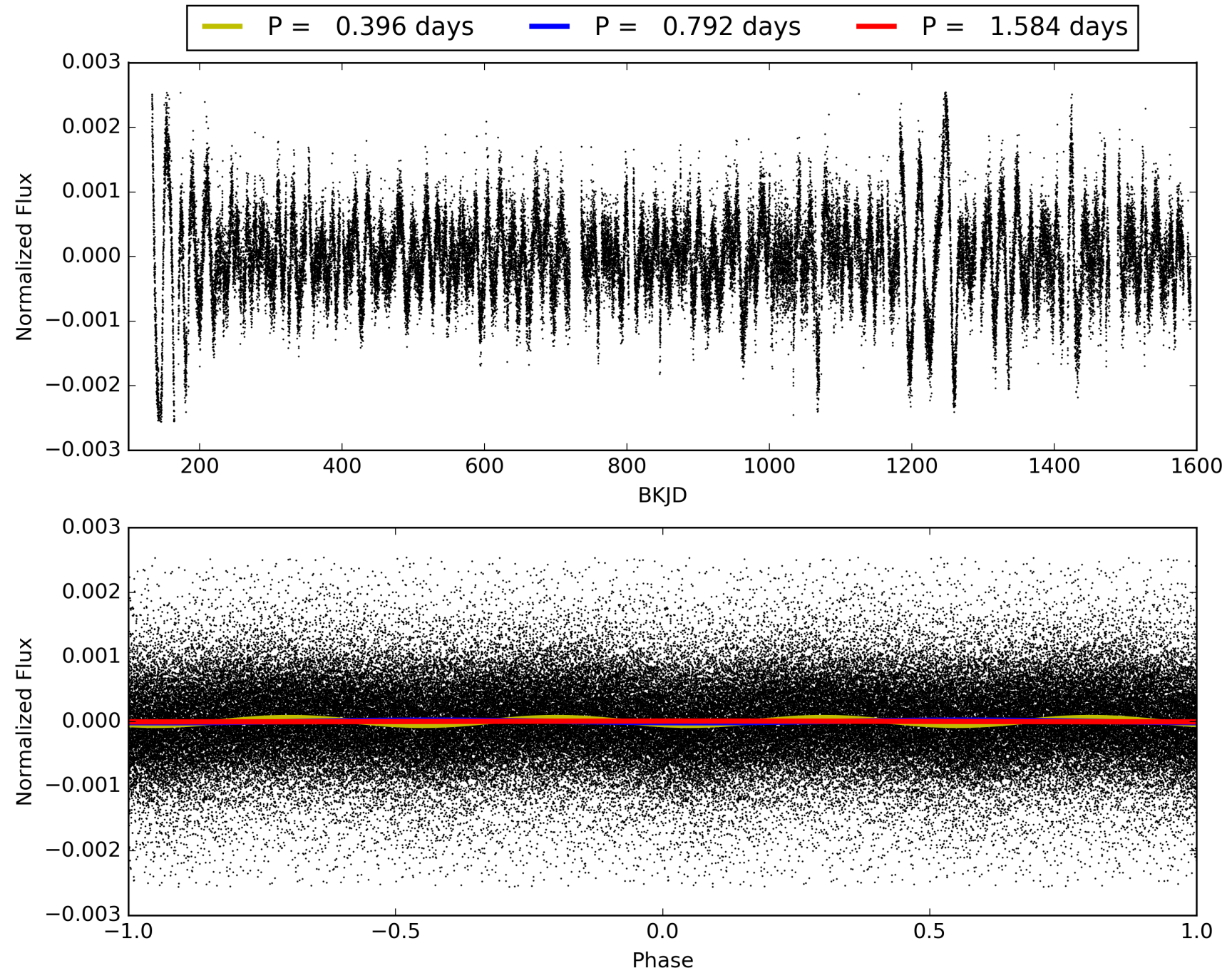
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:23:07 Z

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

TCE 004349935-01, PDC Light Curves

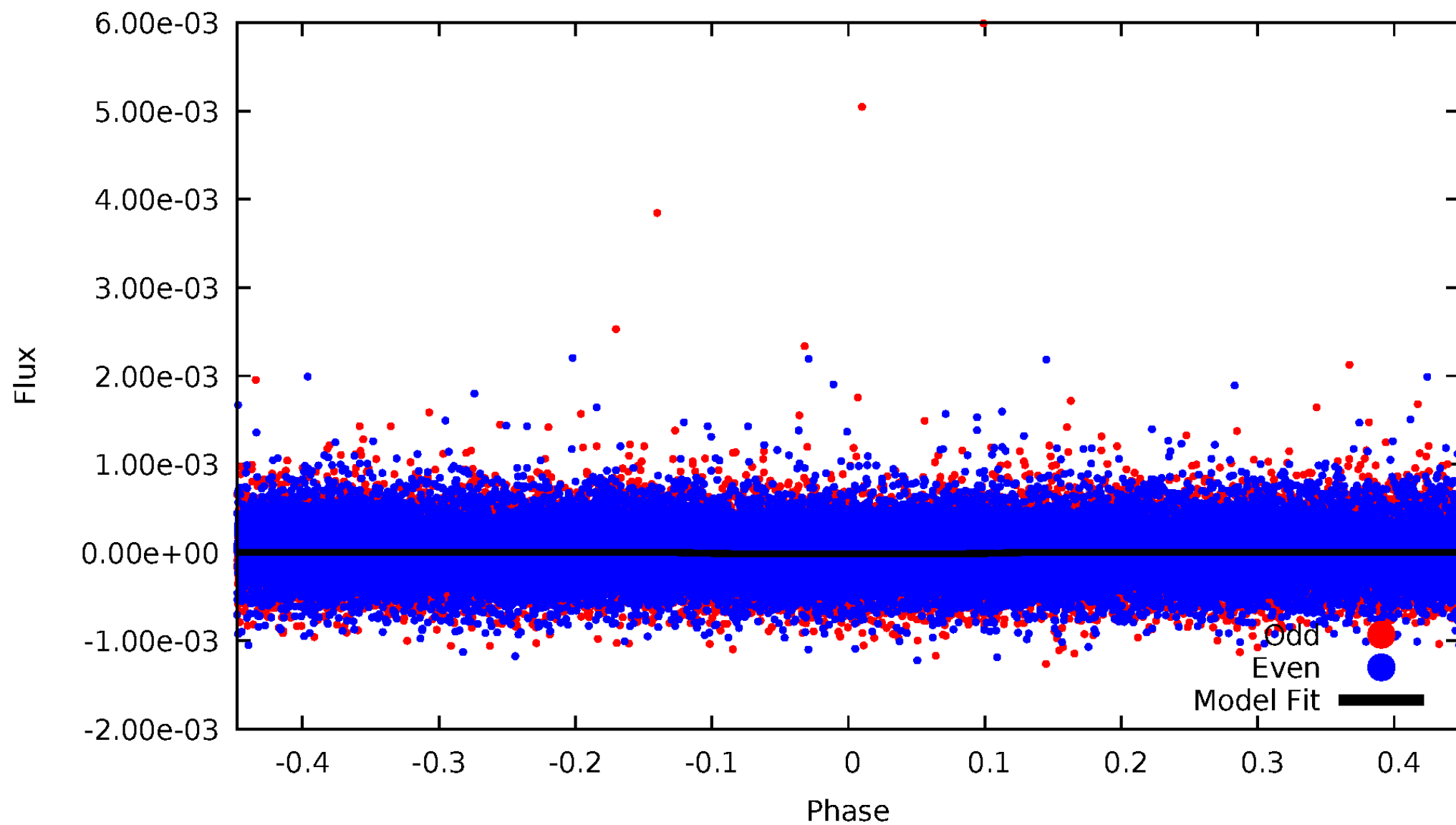


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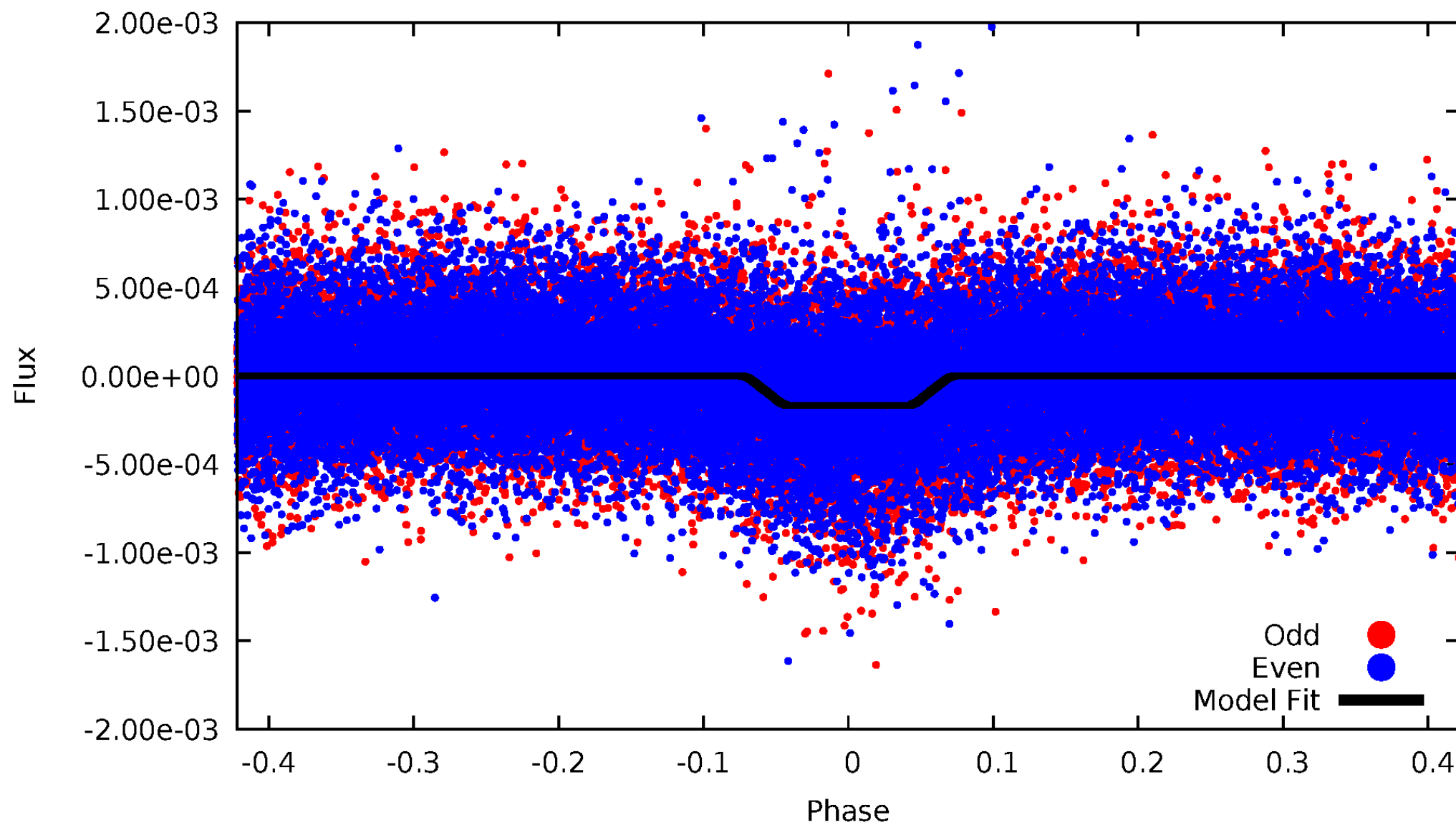
DV Odd/Even

TCE 004349935-01

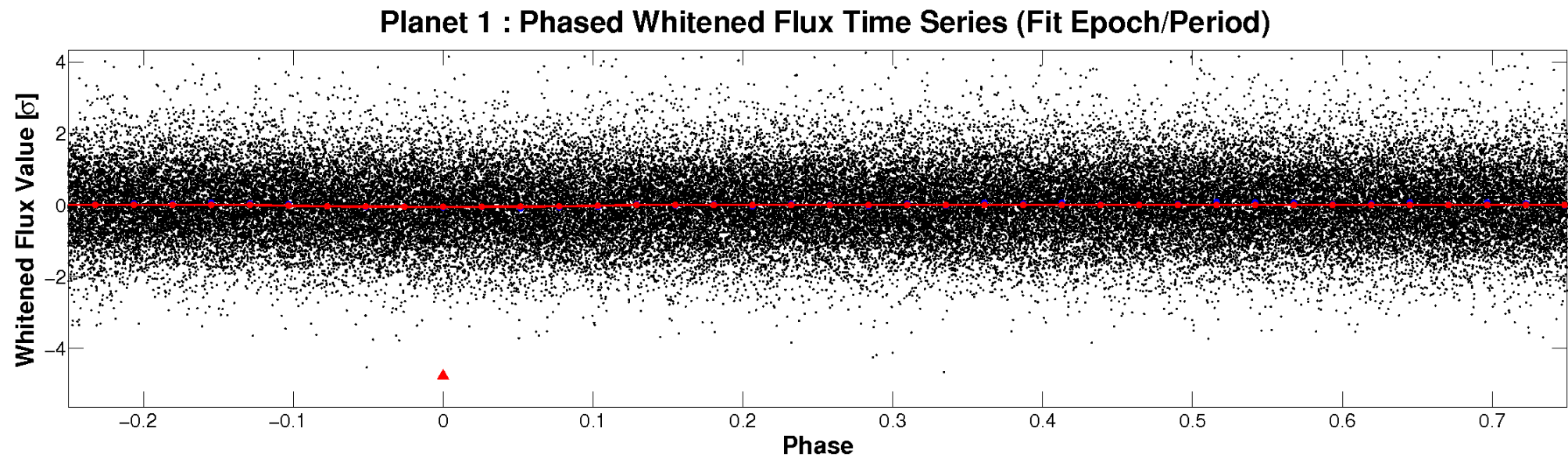
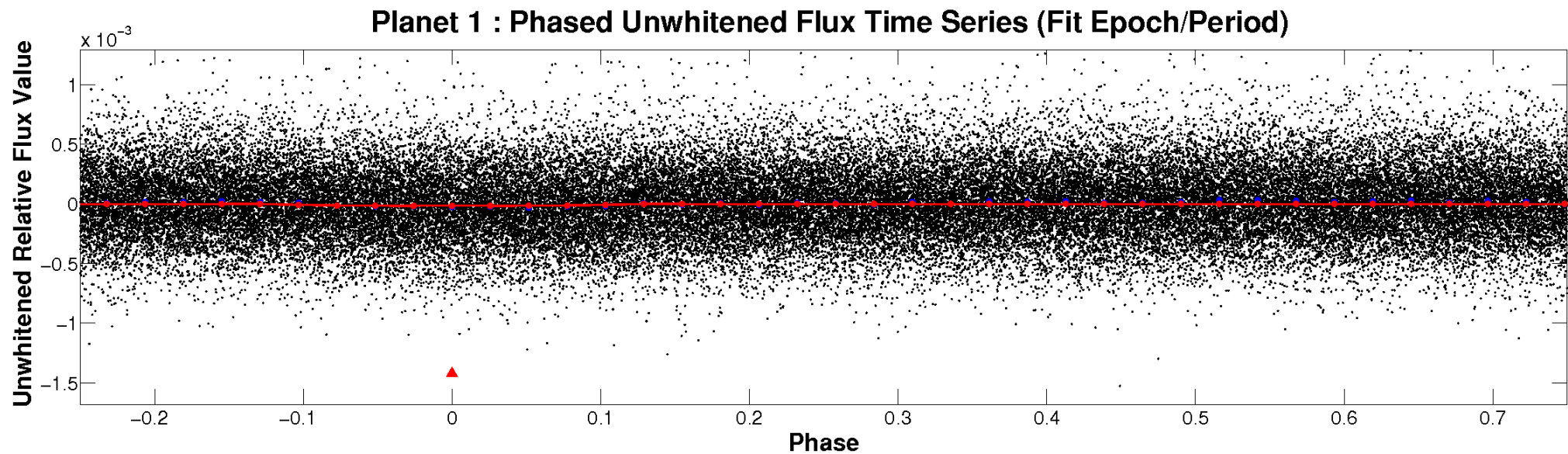


ALT Odd/Even

TCE 004349935-01

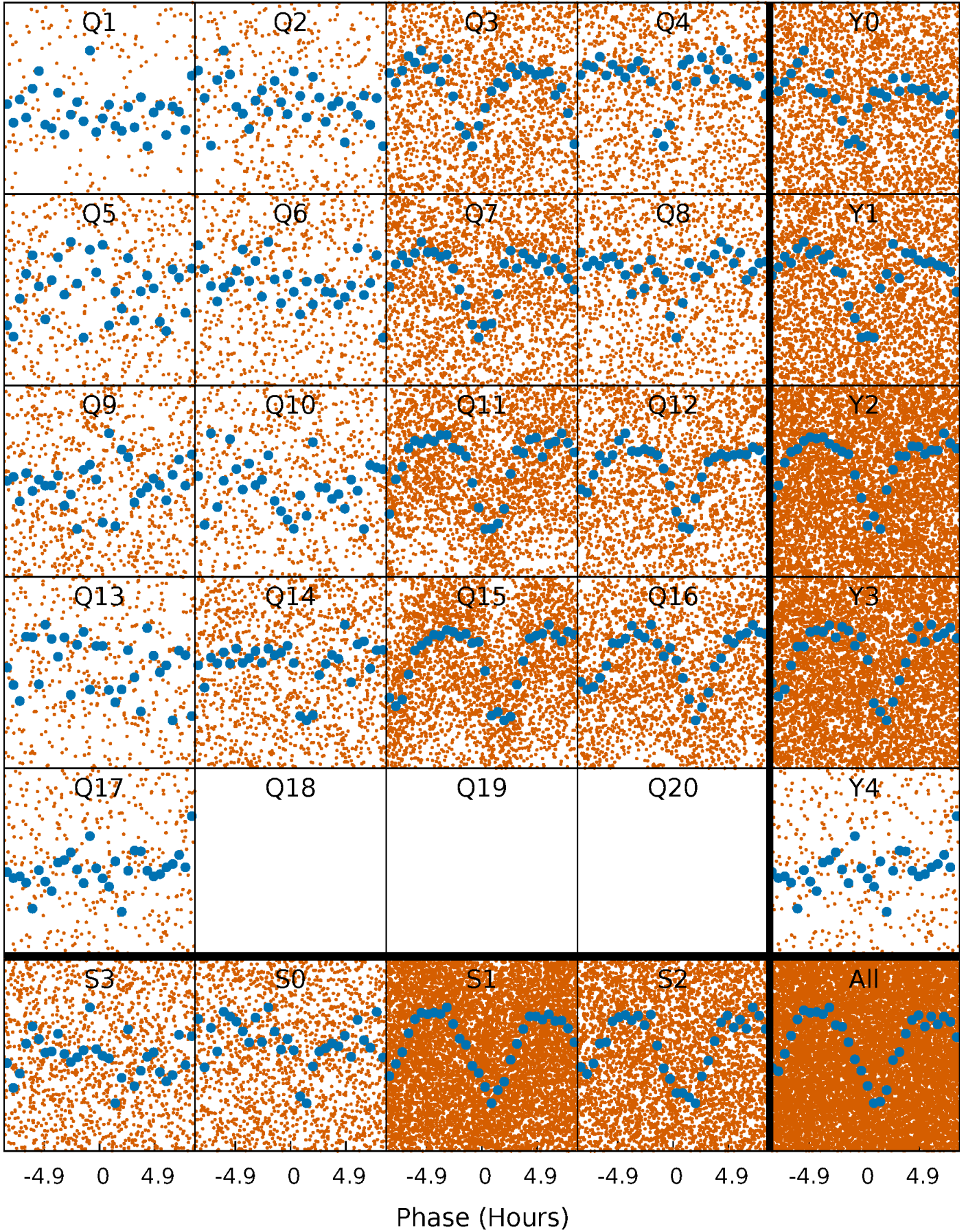


Non-Whitened Vs. Whitened Light Curve



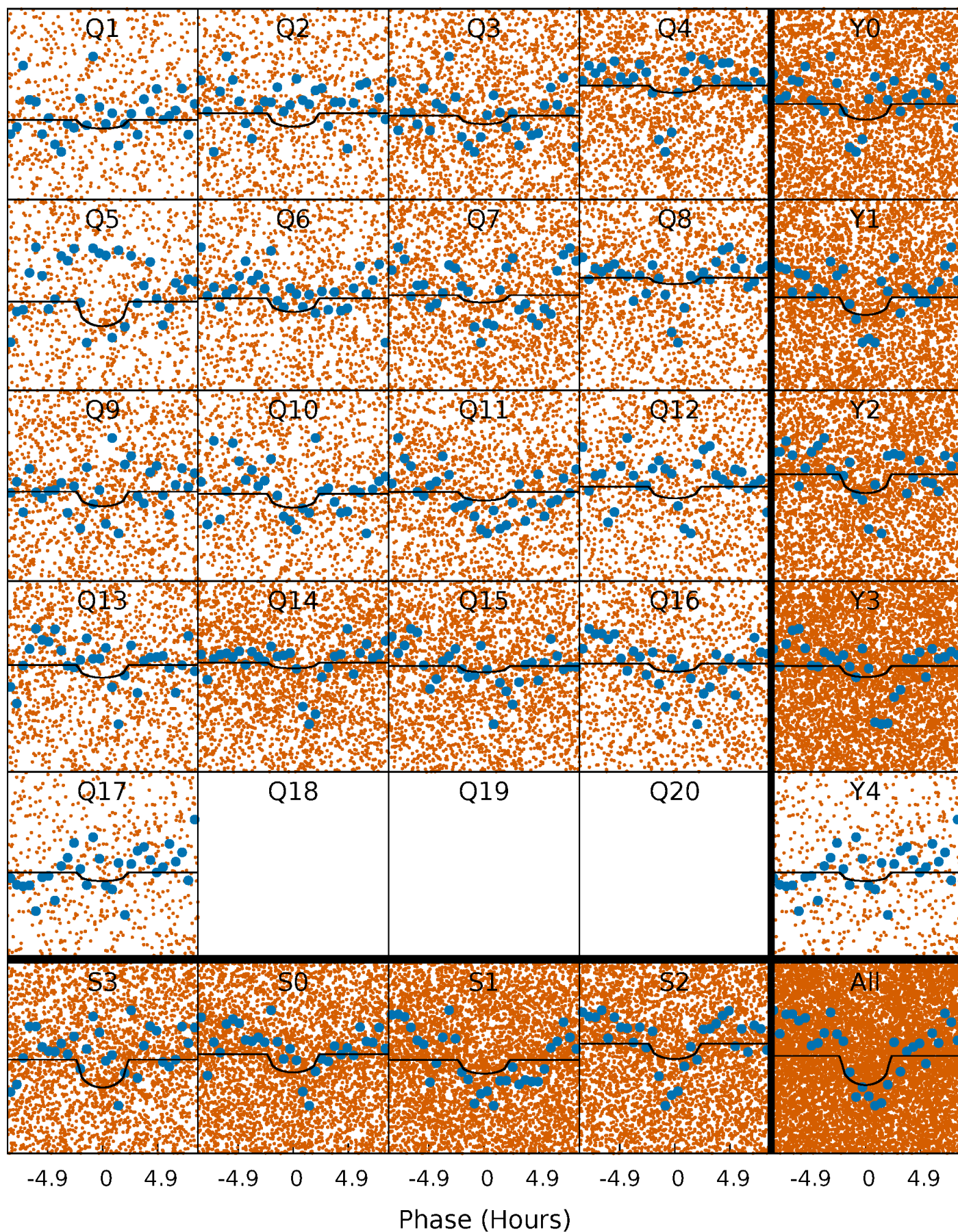
PDC Quarter-Phased Transit Curves

TCE 004349935-01 P= 0.791937 Days $T_0=131.994108$ (BKJD)



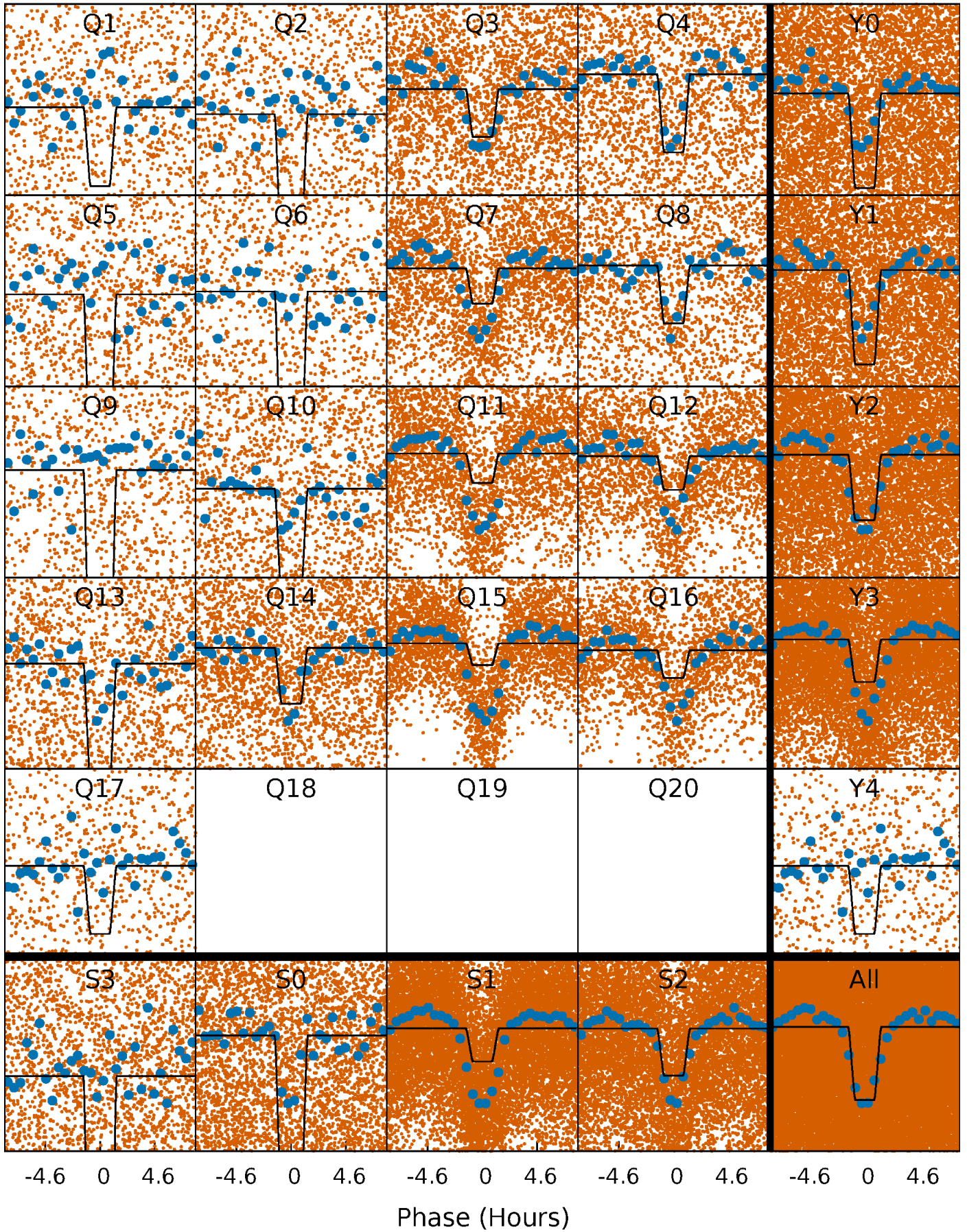
DV Quarter-Phased Transit Curves

TCE 004349935-01 P= 0.791937 Days $T_0=131.994108$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

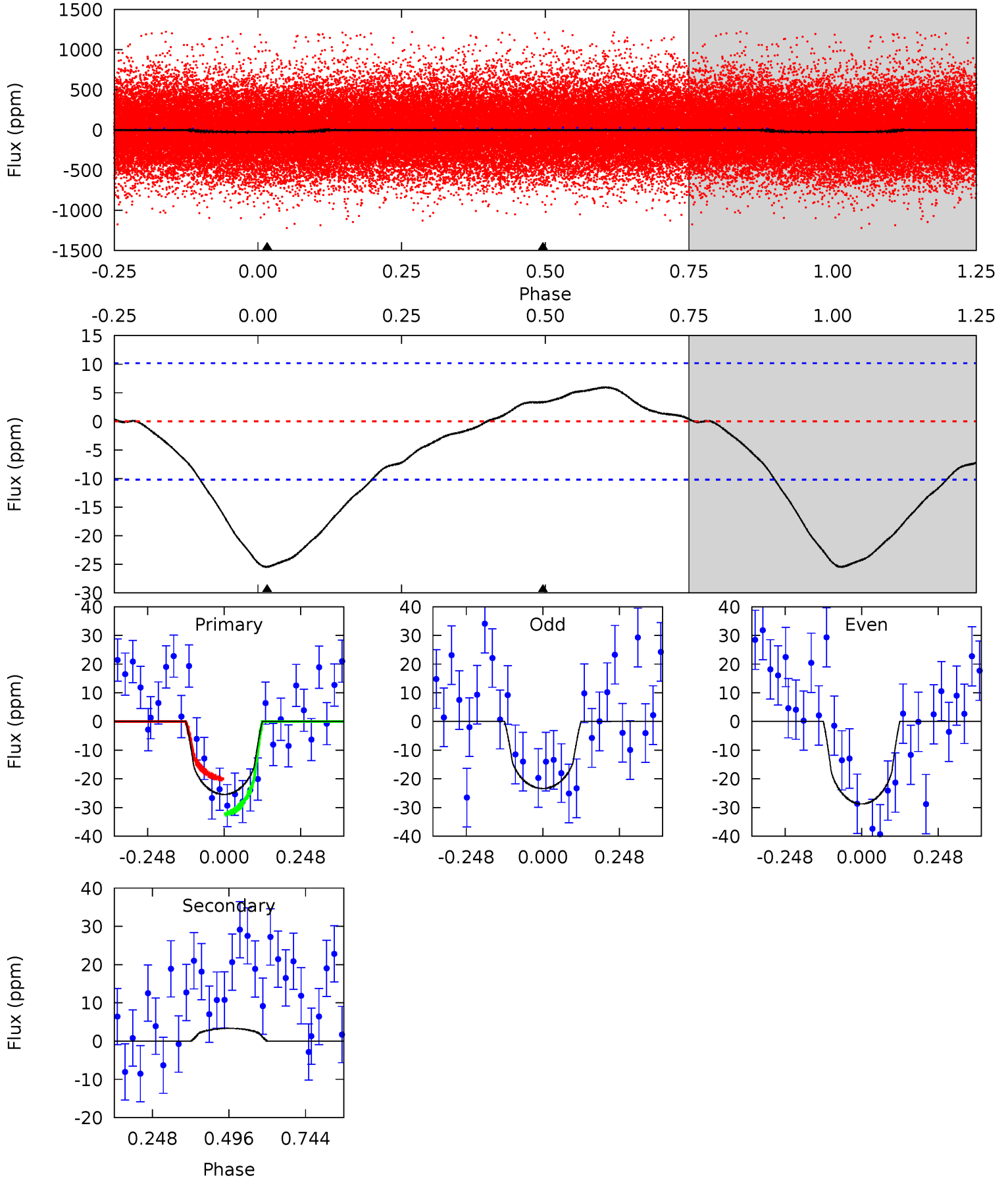
TCE 004349935-01 P= 0.792013 Days $T_0=131.939394$ (BKJD)



DV Model-Shift Uniqueness Test

004349935-01, P = 0.791937 Days, E = 131.202171 Days

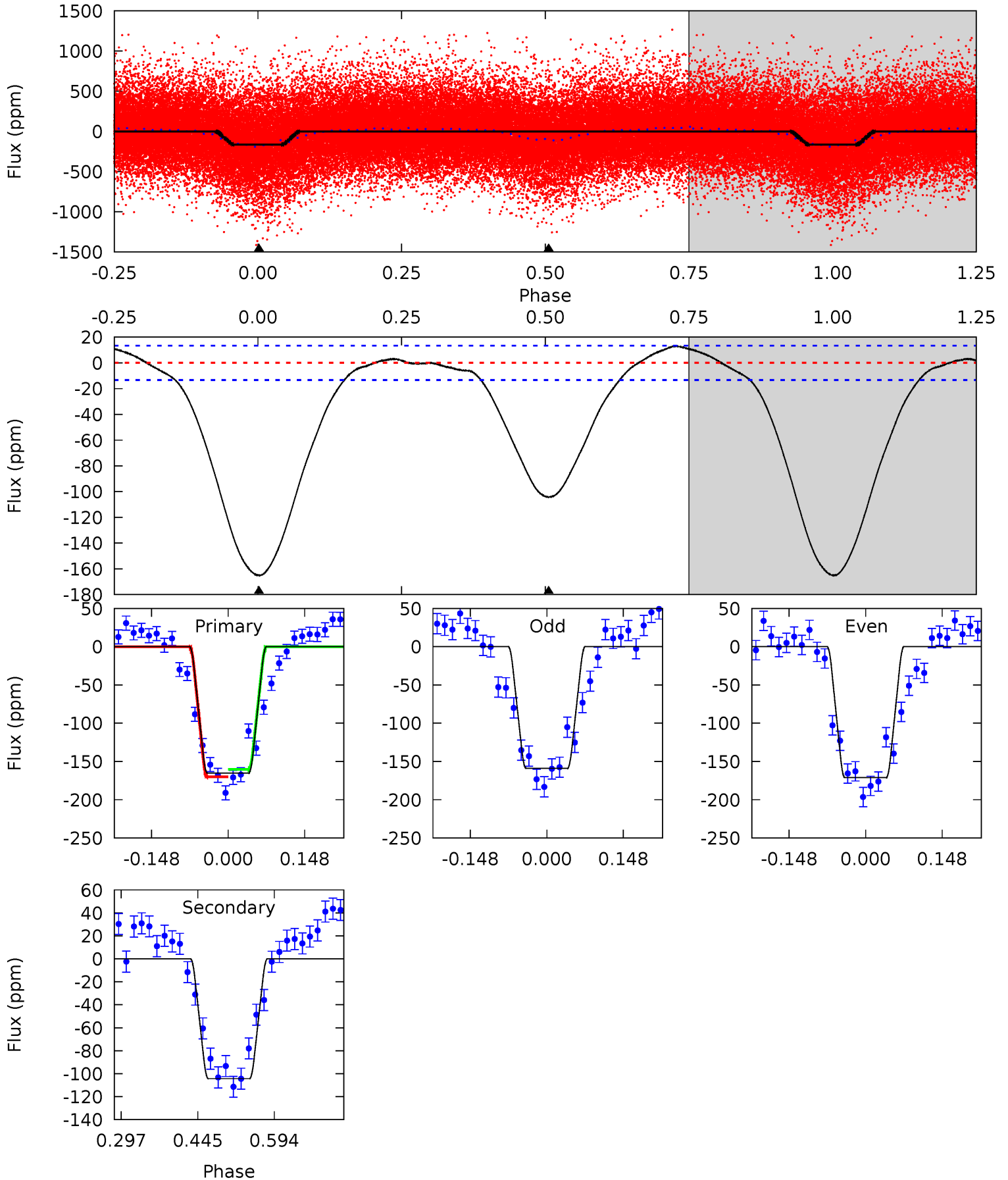
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	-1.43	0	0	4.37	1.16	1.42	10.9	10.9	-1.43	-1.43	1.16	1.03	0.19	2.65



Alt Model-Shift Uniqueness Test

004349935-01, P = 0.792013 Days, E = 131.147381 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.6	35.1	0	0	4.48	1.45	2.07	55.6	55.6	35.1	35.1	2.03	1.17	0.07	1.64



Stellar Parameters For KIC 004349935

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4447^{+120}_{-133}	$4.632^{+0.052}_{-0.024}$	$-0.340^{+0.300}_{-0.300}$	$0.625^{+0.050}_{-0.056}$	$0.611^{+0.074}_{-0.043}$	$3.528^{+0.810}_{-0.401}$
	+3%/-3%	+1%/-1%	+88%/-88%	+8%/-9%	+12%/-7%	+23%/-11%
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 004349935-01 / KOI 6403.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	3 ± 2	$0.39^{+0.35}_{-0.26}$	1805^{+60}_{-61}	-3041^{+466}_{-1172}	$-2.195^{+1.776}_{-16.059}$
Alt.	-104 ± 3	$0.88^{+0.42}_{-0.39}$	1806^{+56}_{-66}	4032^{+1076}_{-491}	15^{+32}_{-8}

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

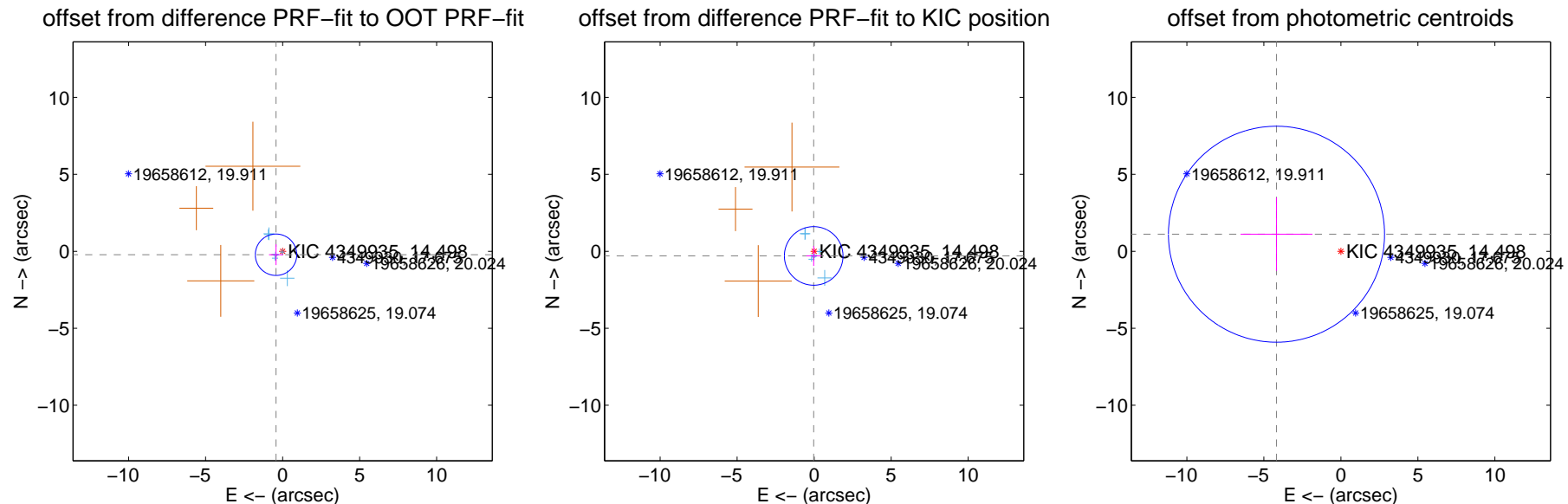
DV Centroid Data

Supplemental centroid analysis for 004349935-01. Kepler magnitude: 14.50. Transit SNR 4.56

There are 8 quarters with good PRF difference image offsets

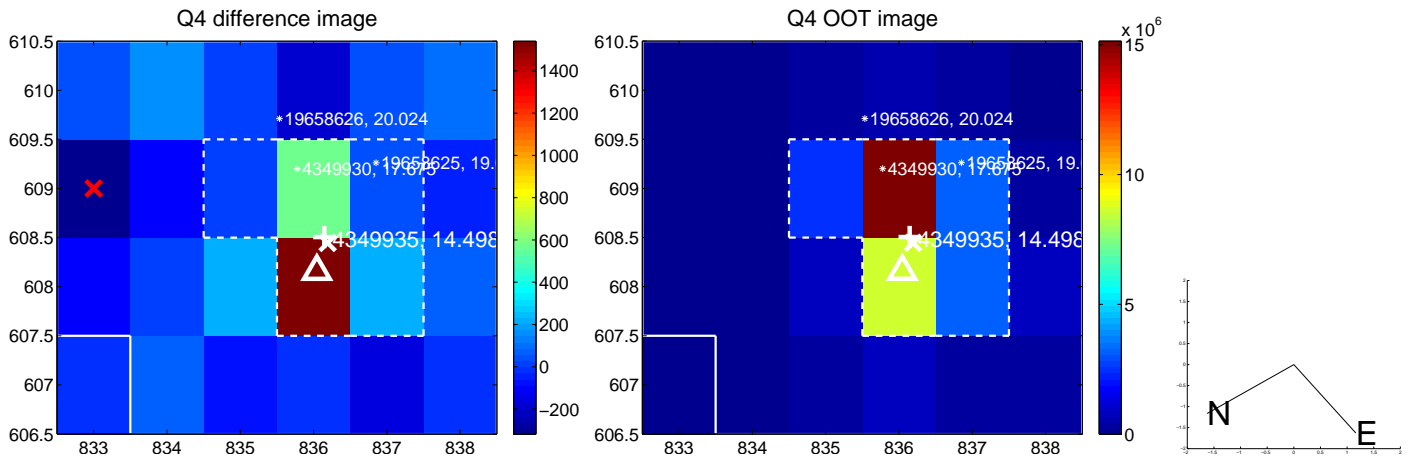
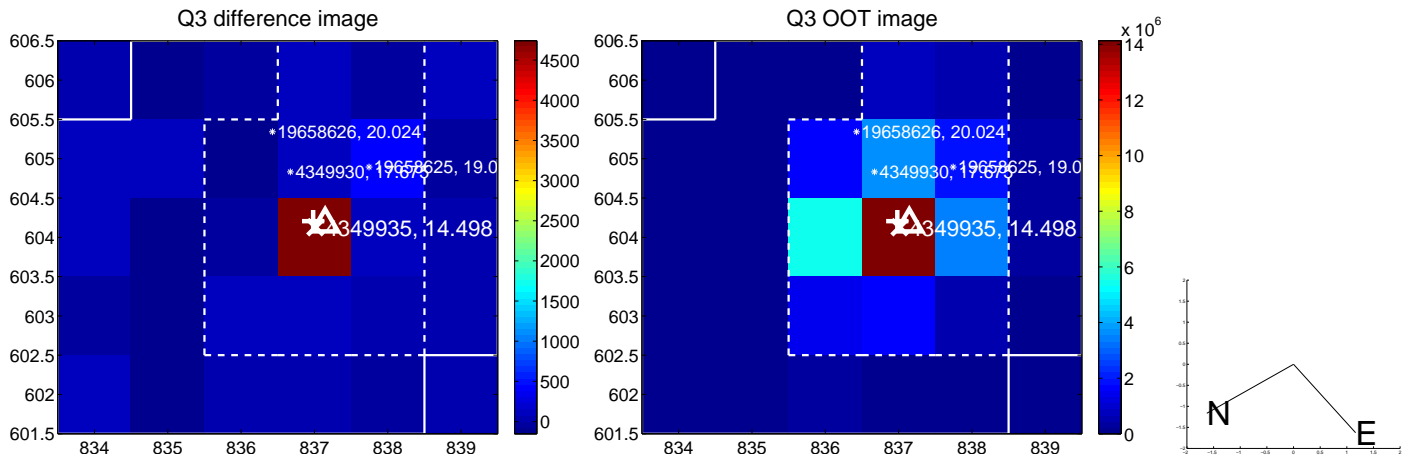
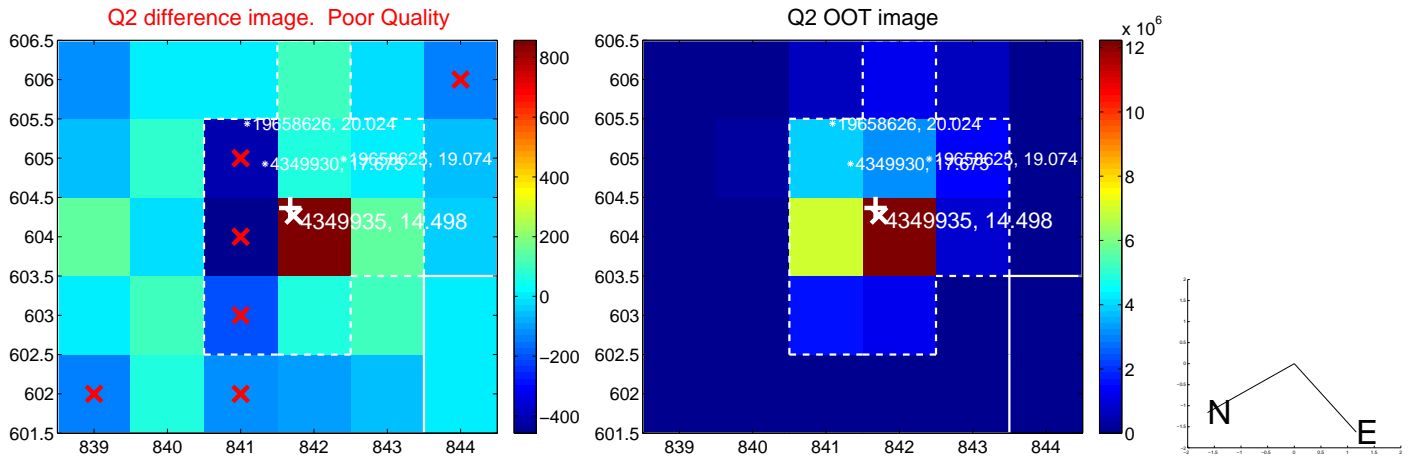
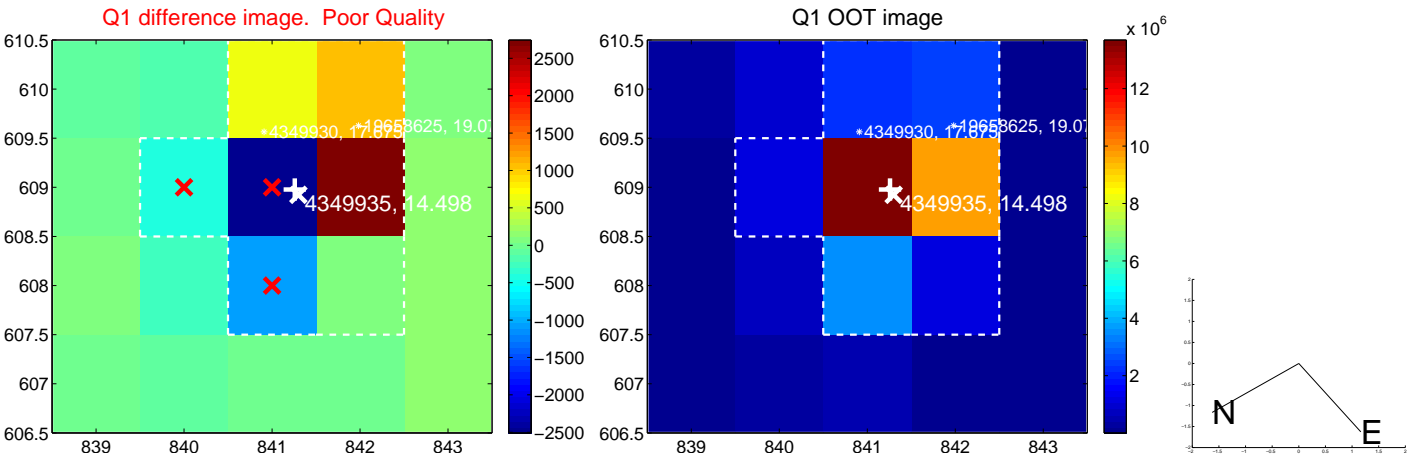
The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.484 ± 0.448	1.08	0.429 ± 0.458	-0.224 ± 0.677
PRF-fit source offset from KIC position	0.303 ± 0.634	0.48	0.029 ± 0.476	-0.302 ± 0.645
photometric centroid source offset	4.33 ± 2.34	1.85	4.18 ± 2.34	1.11 ± 2.38

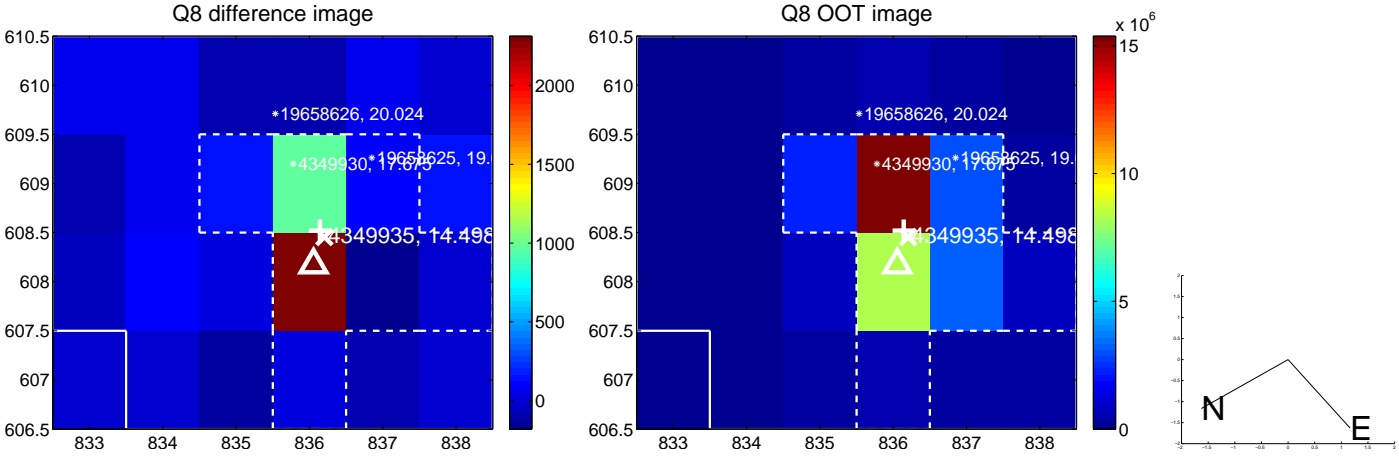
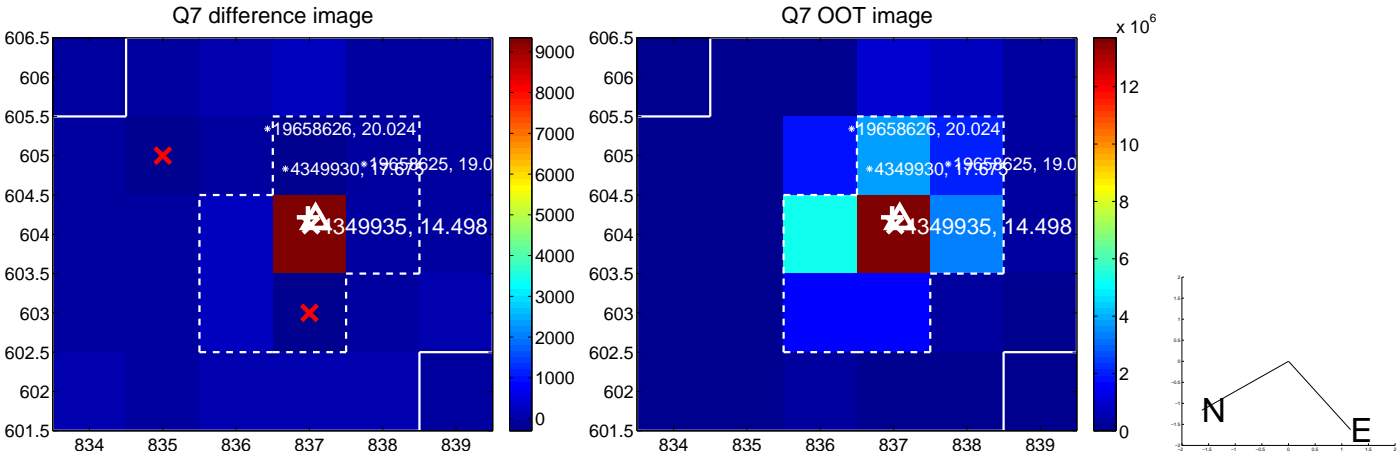
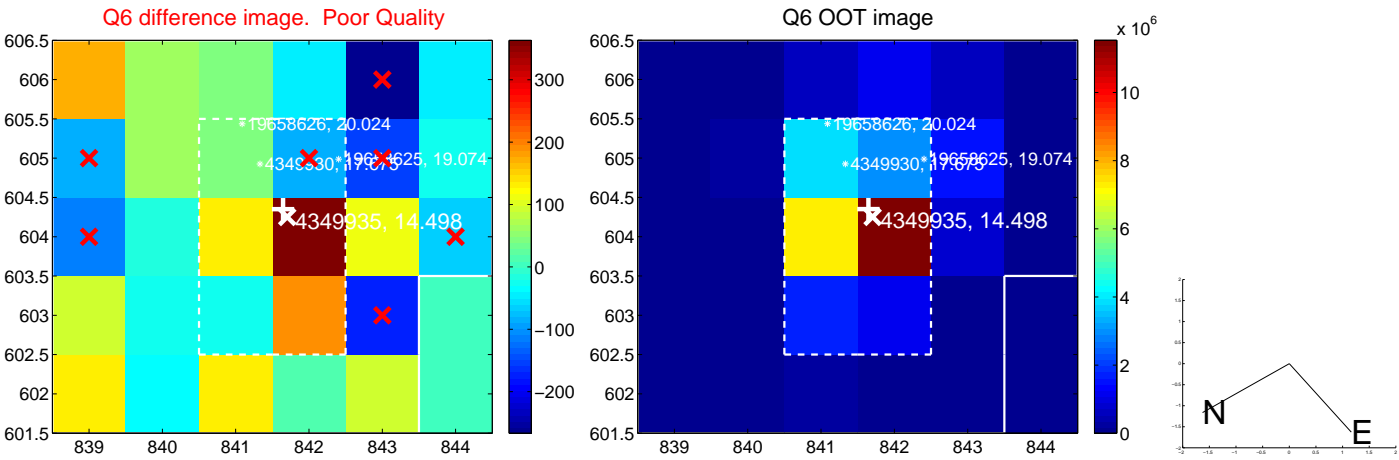
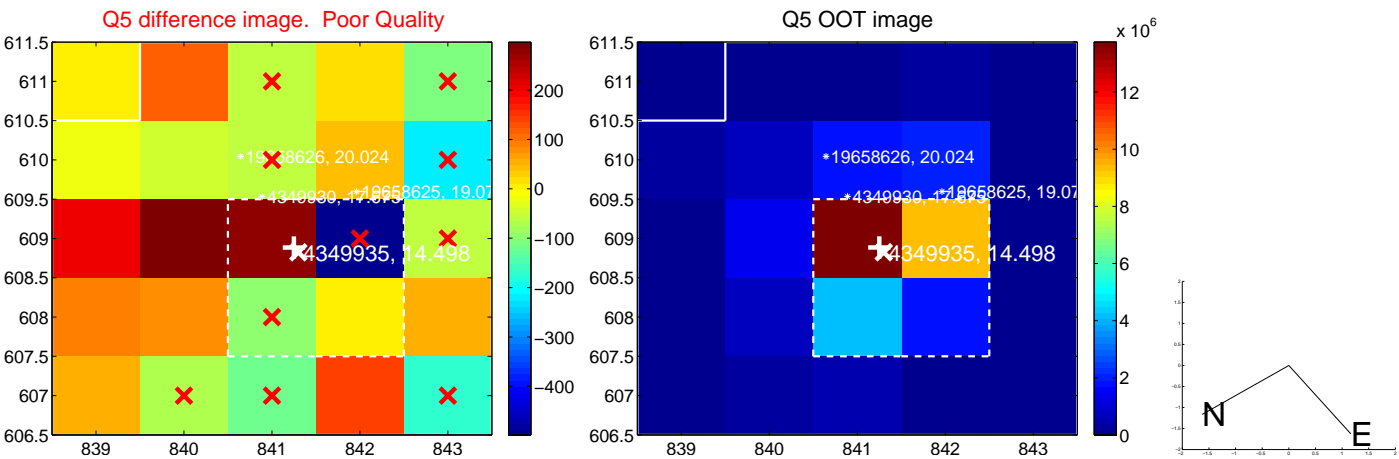


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

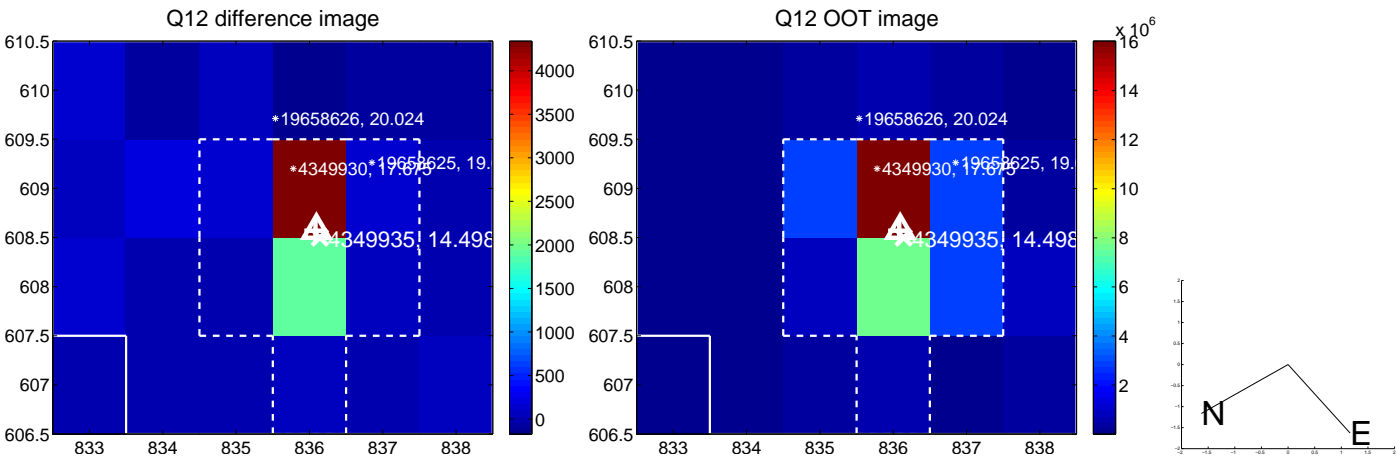
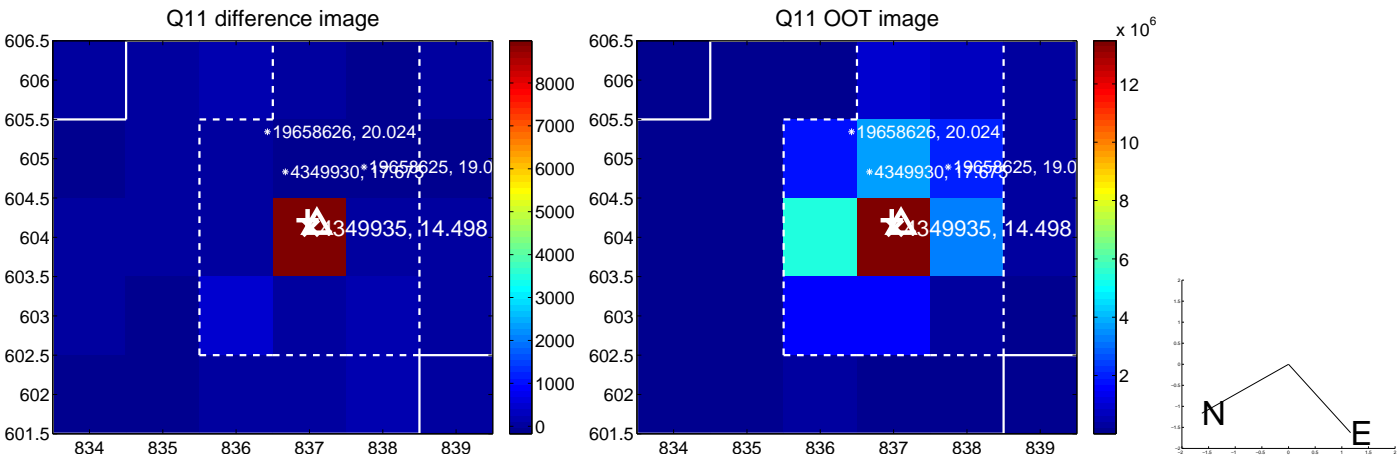
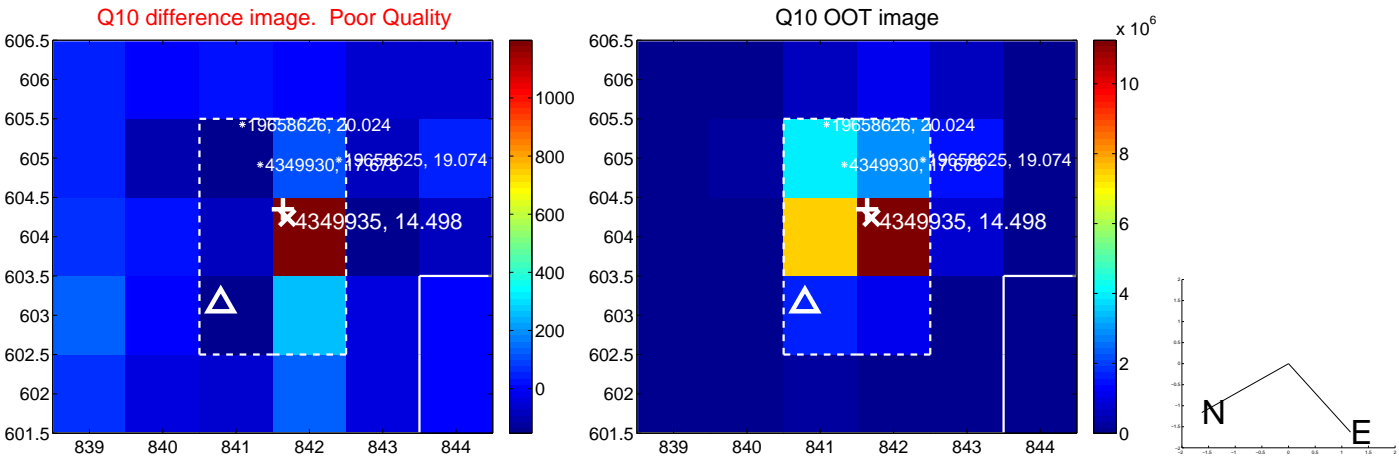
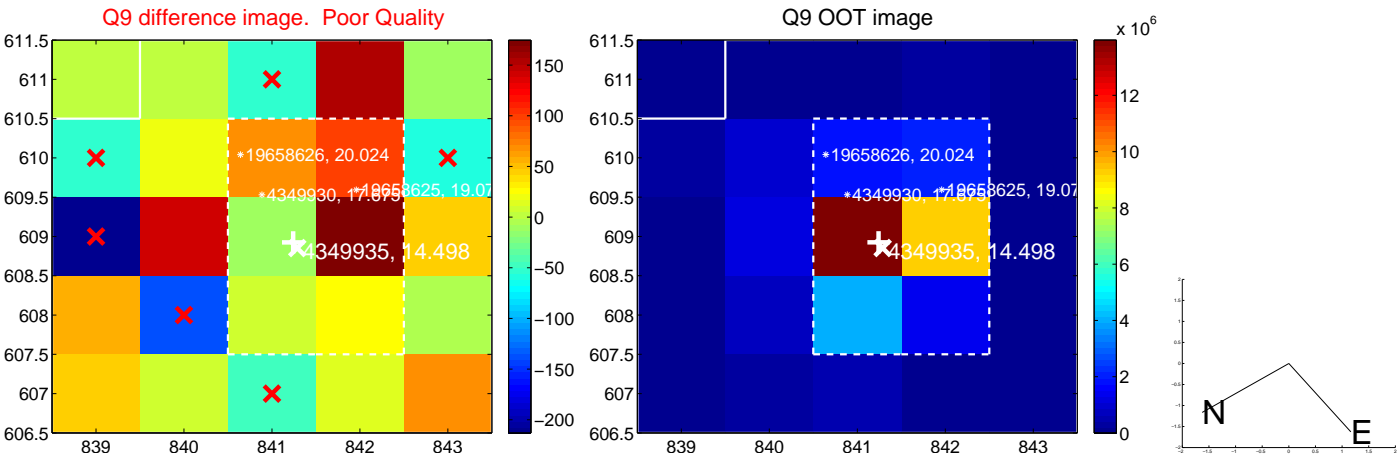
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



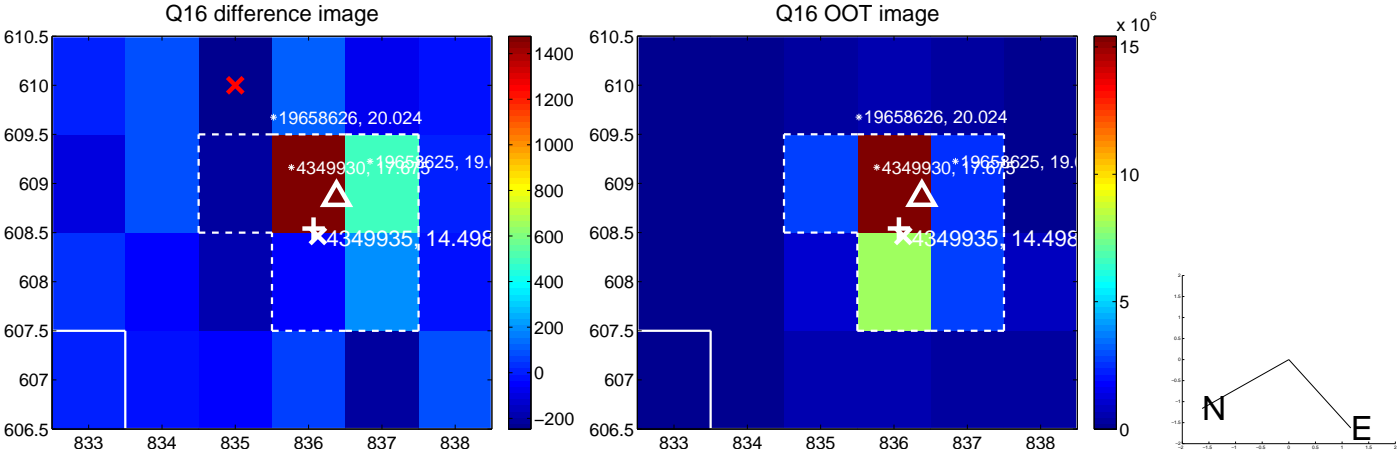
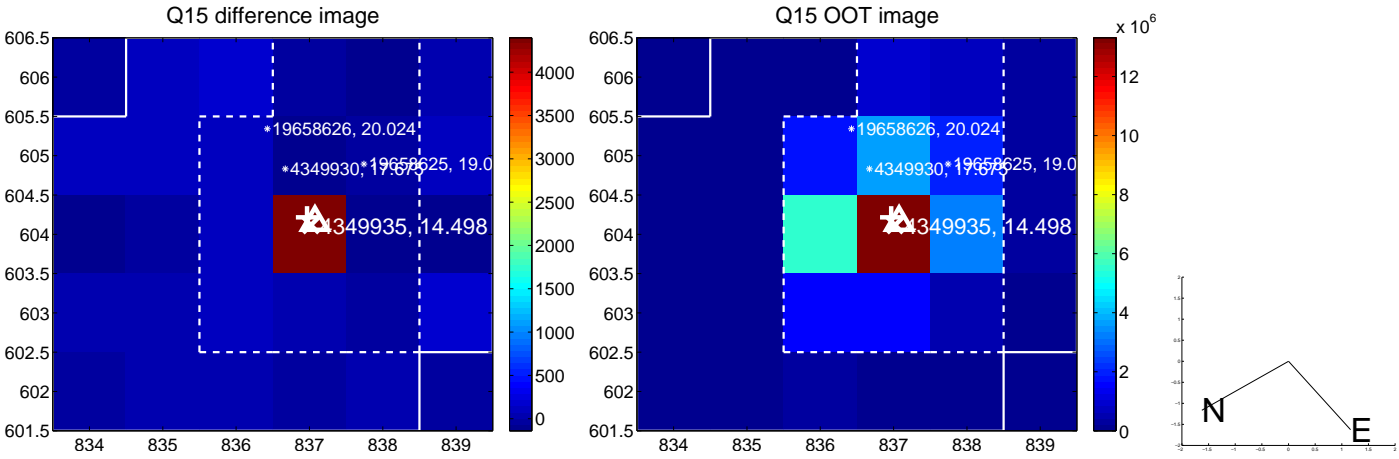
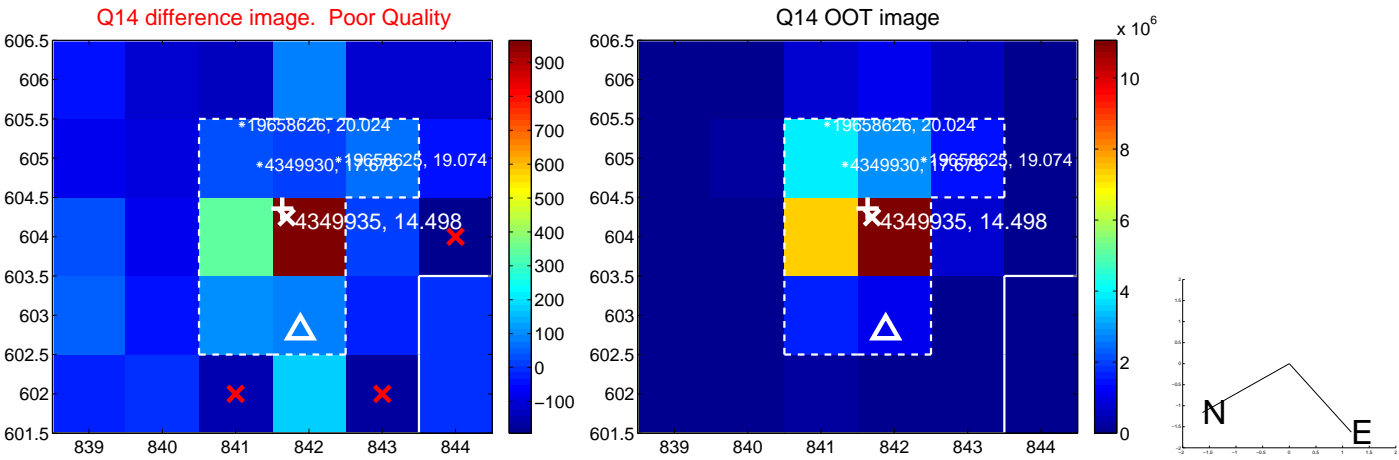
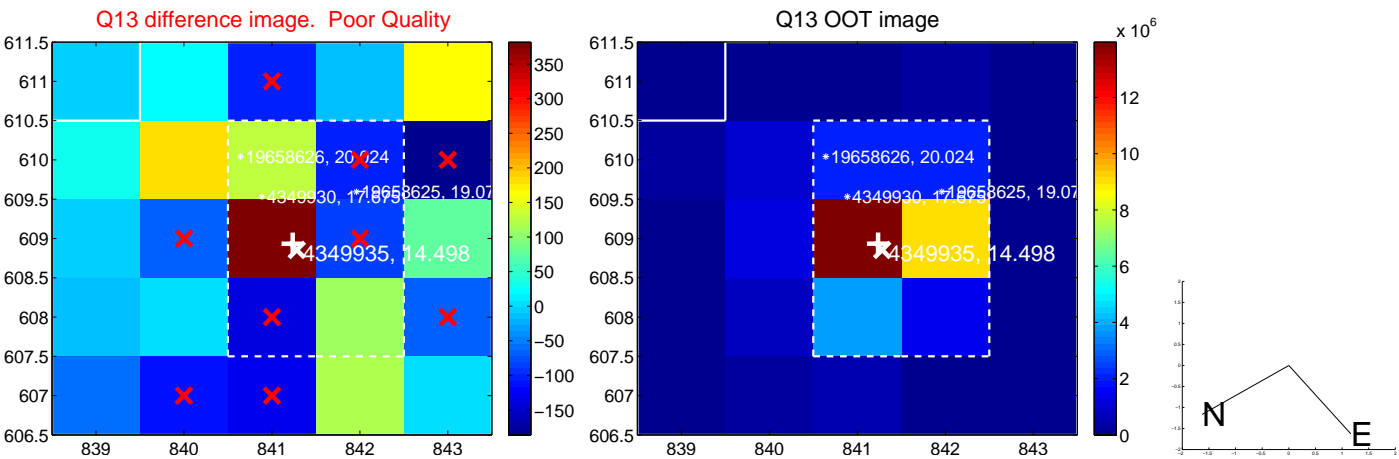
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



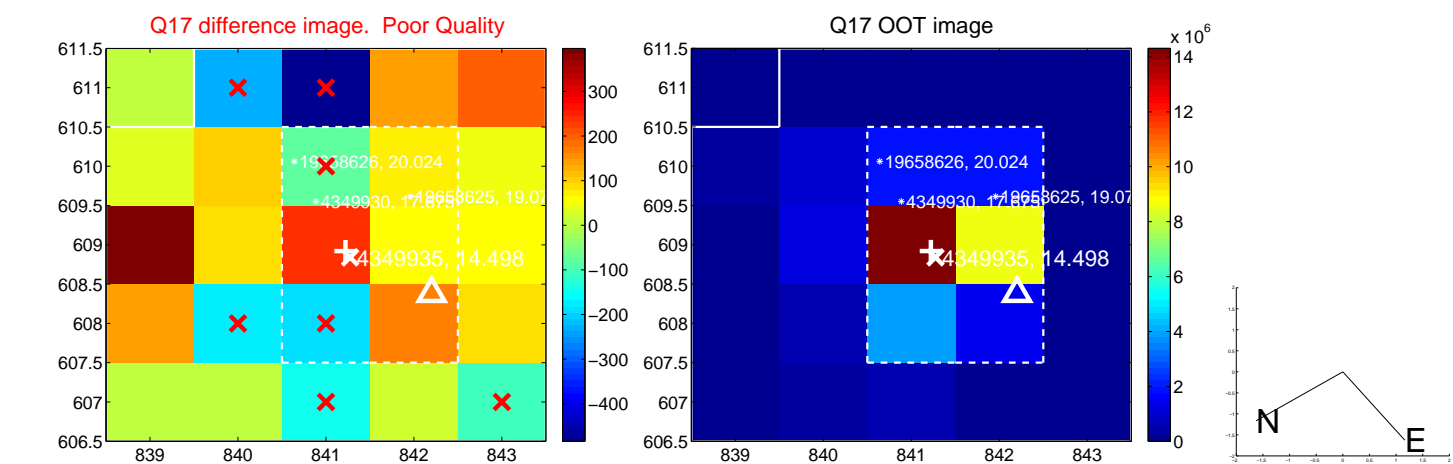
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



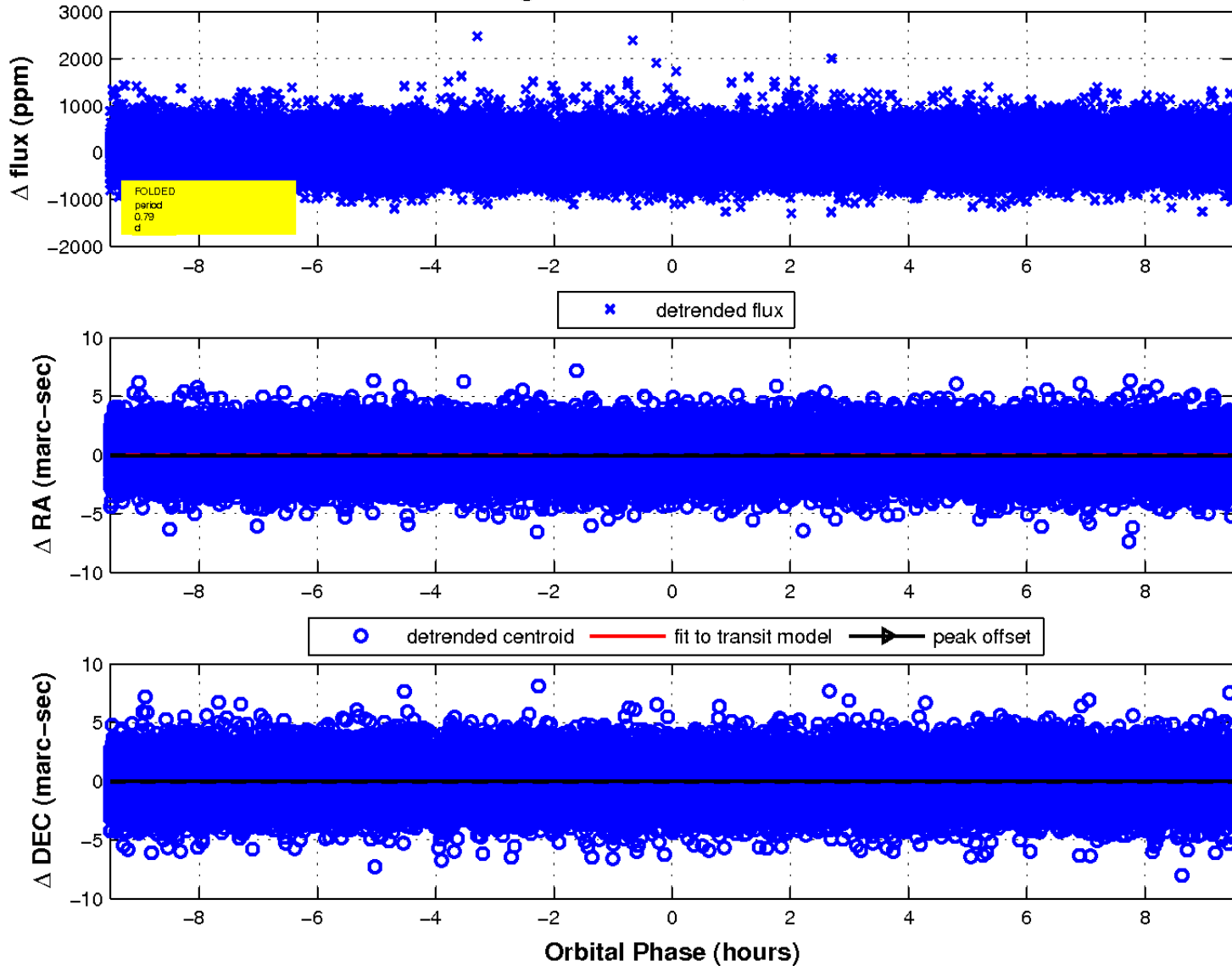
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

