

KIC 008935810

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})
008935810-01	OBS	1395.01	6.230324	137.685561	1494.9	1.640	31.0	36.8	0.86	5477	3.83	138.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935810-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

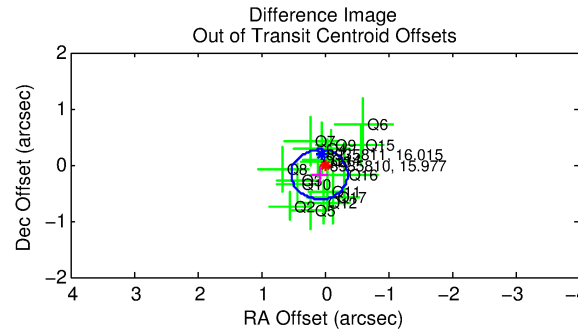
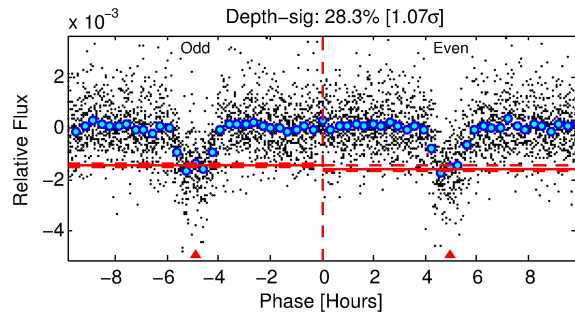
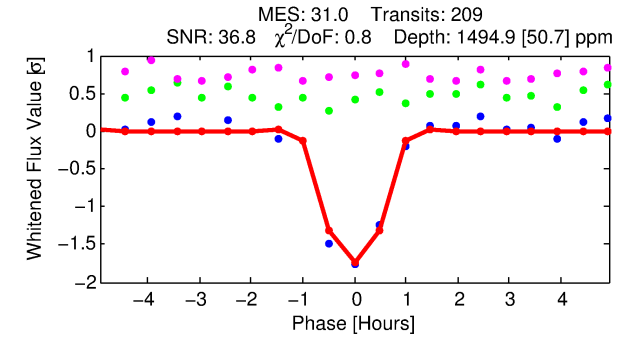
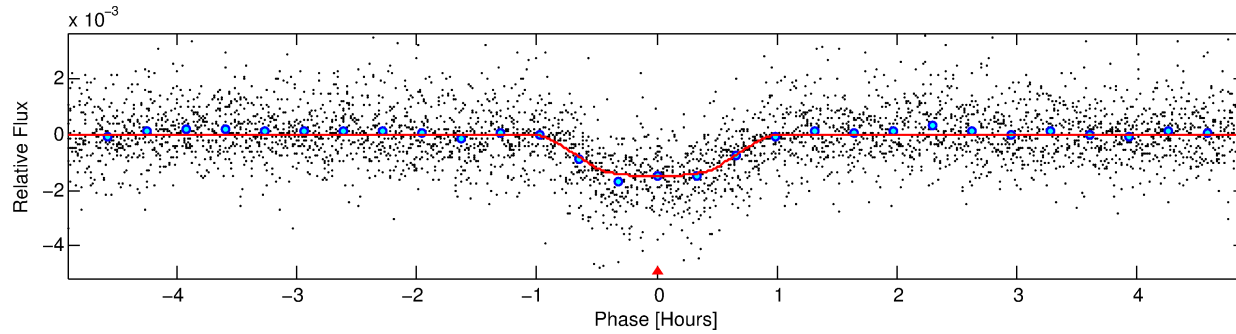
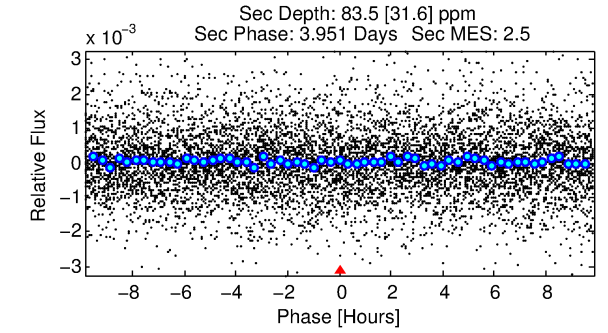
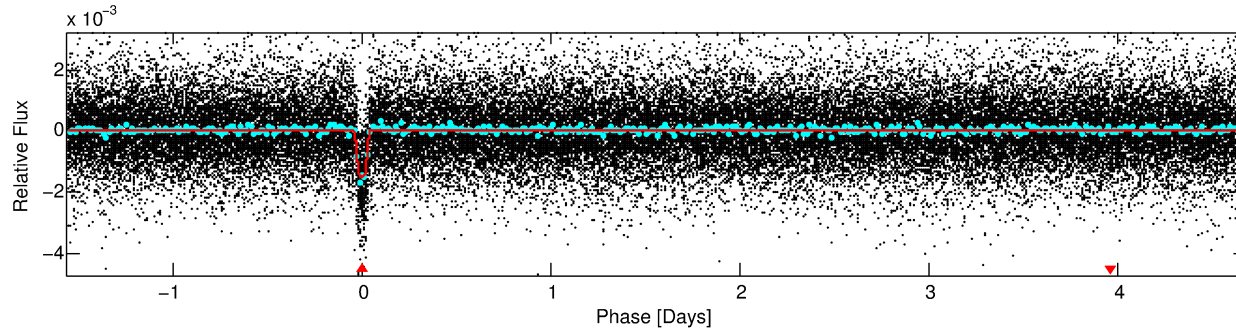
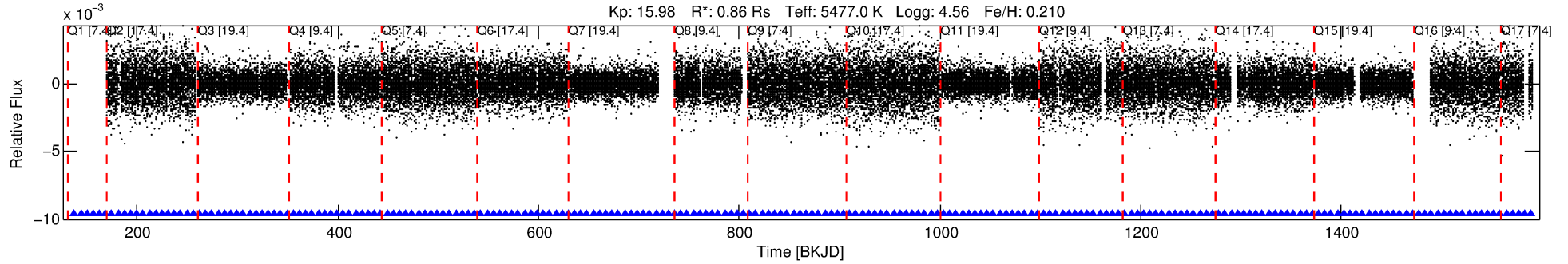
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935810-01

No Significant Match Found

DV One-Page Summary

KIC: 8935810 Candidate: 1 of 1 Period: 6.230 d
KOI: K01395.01 Corr: 0.976



DV Fit Results:

Period = 6.23032 [0.00001] d
Epoch = 137.6856 [0.0011] BKJD
Rp/R* = 0.0405 [0.0080]
a/R* = 18.06 [13.96]
b = 0.83 [0.29]
Seff = 138.80 [42.19]
Teq = 875 [67] K
Rp = 3.83 [1.08] Re
a = 0.0659 [0.0117] AU
Ag = 13.64 [8.33] [1.52σ]
Teffp = 2601 [368] K [4.62σ]

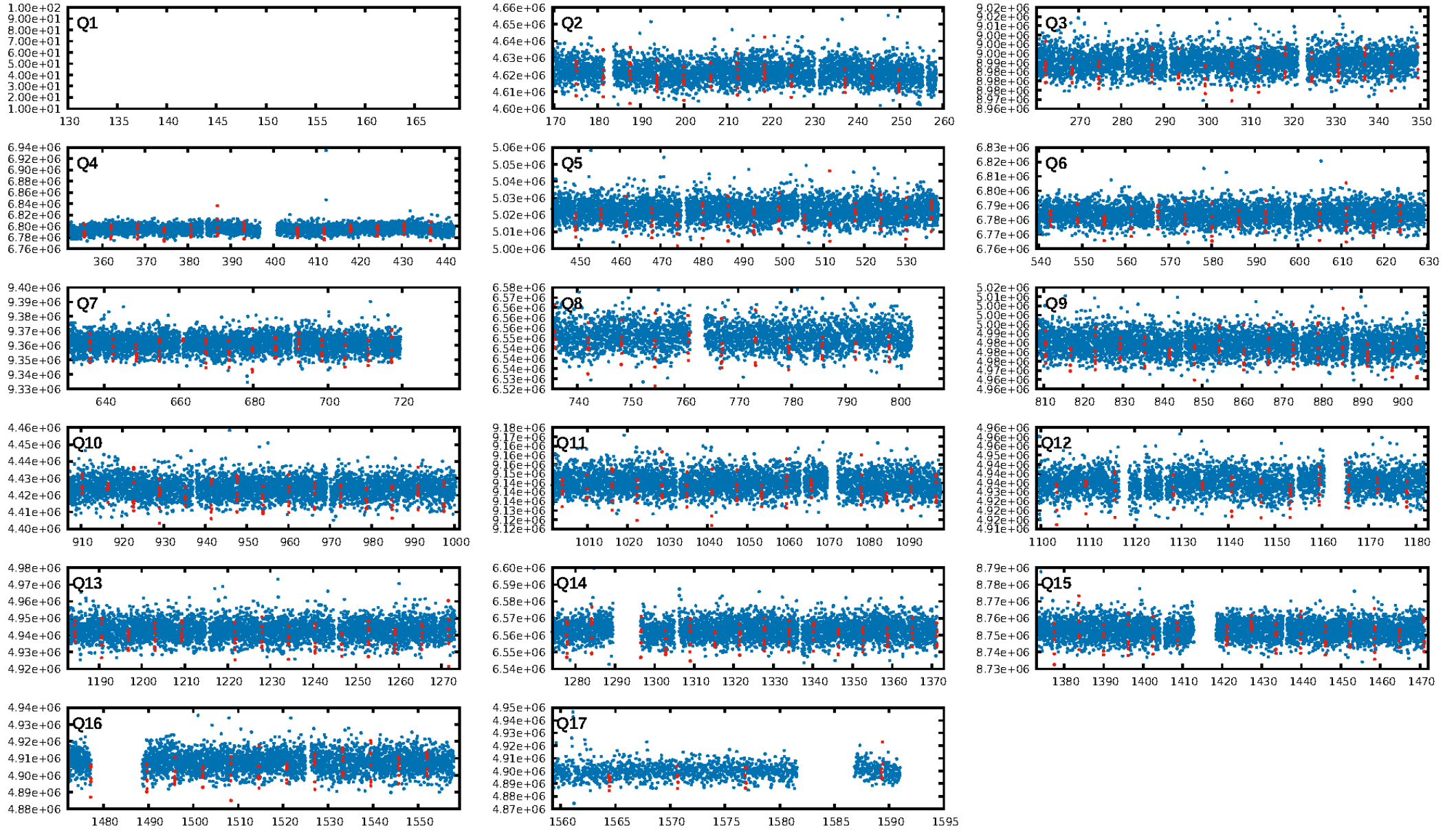
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.14e-209
RollingBand-fgt: 1.00 [205/205]
GhostDiagnostic-chr: 4.416
Centroid-sig: 0.4%
Centroid-so: 0.632 arcsec [2.10σ]
OotOffset-rm: 0.193 arcsec [1.31σ]
KicOffset-rm: 0.147 arcsec [1.02σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

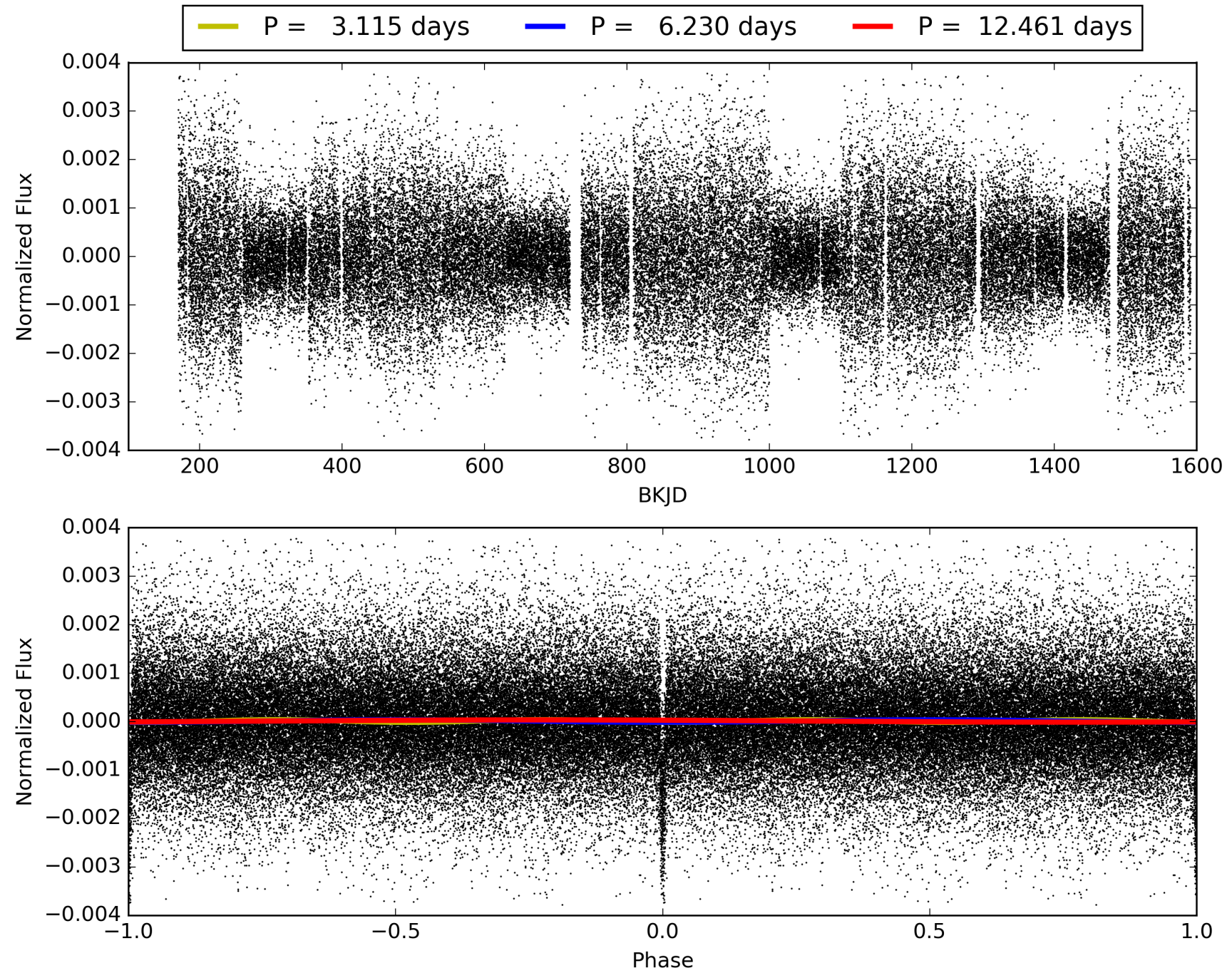
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:27:48 Z

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

TCE 008935810-01, PDC Light Curves

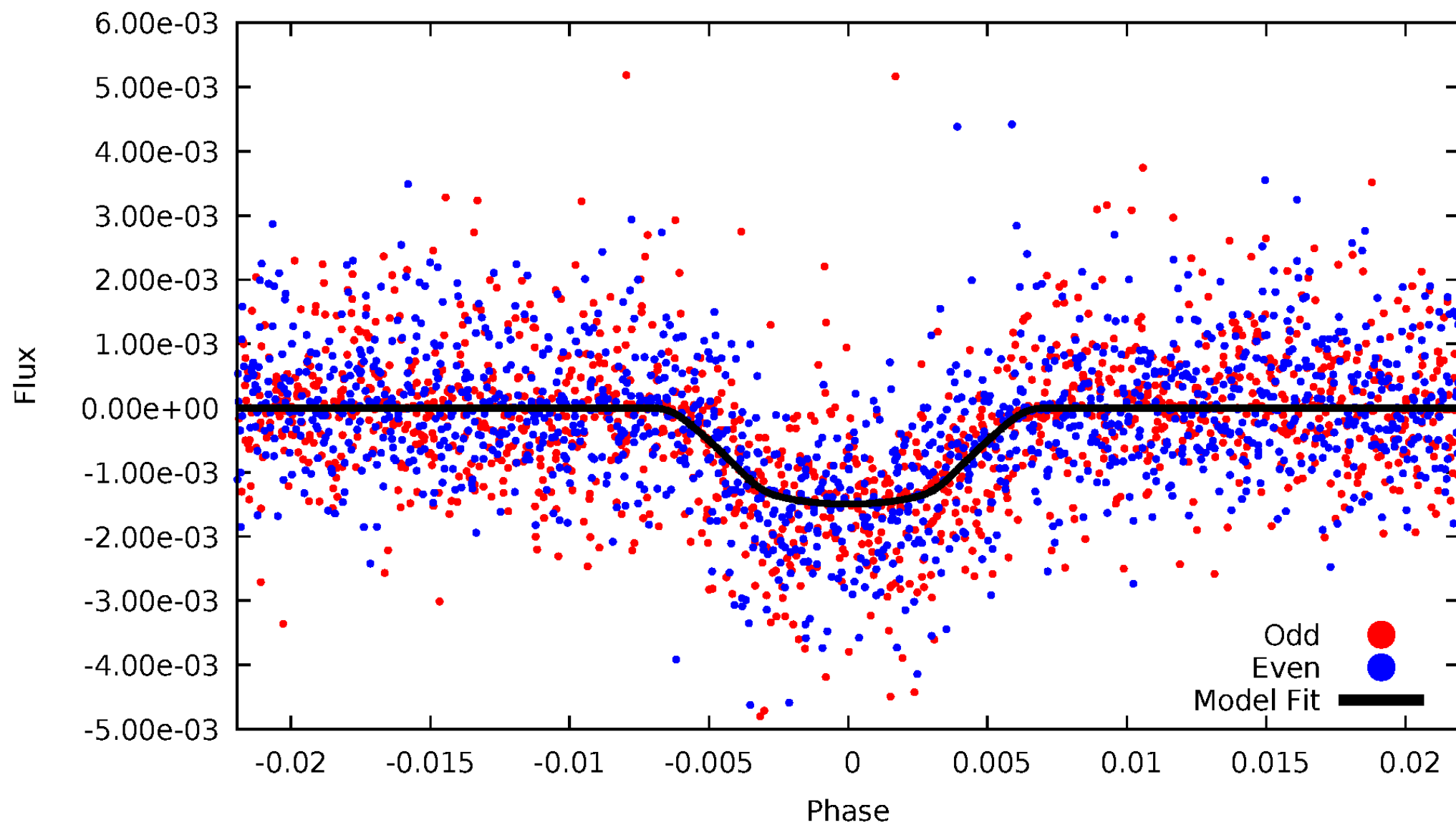


TCE 008935810-01



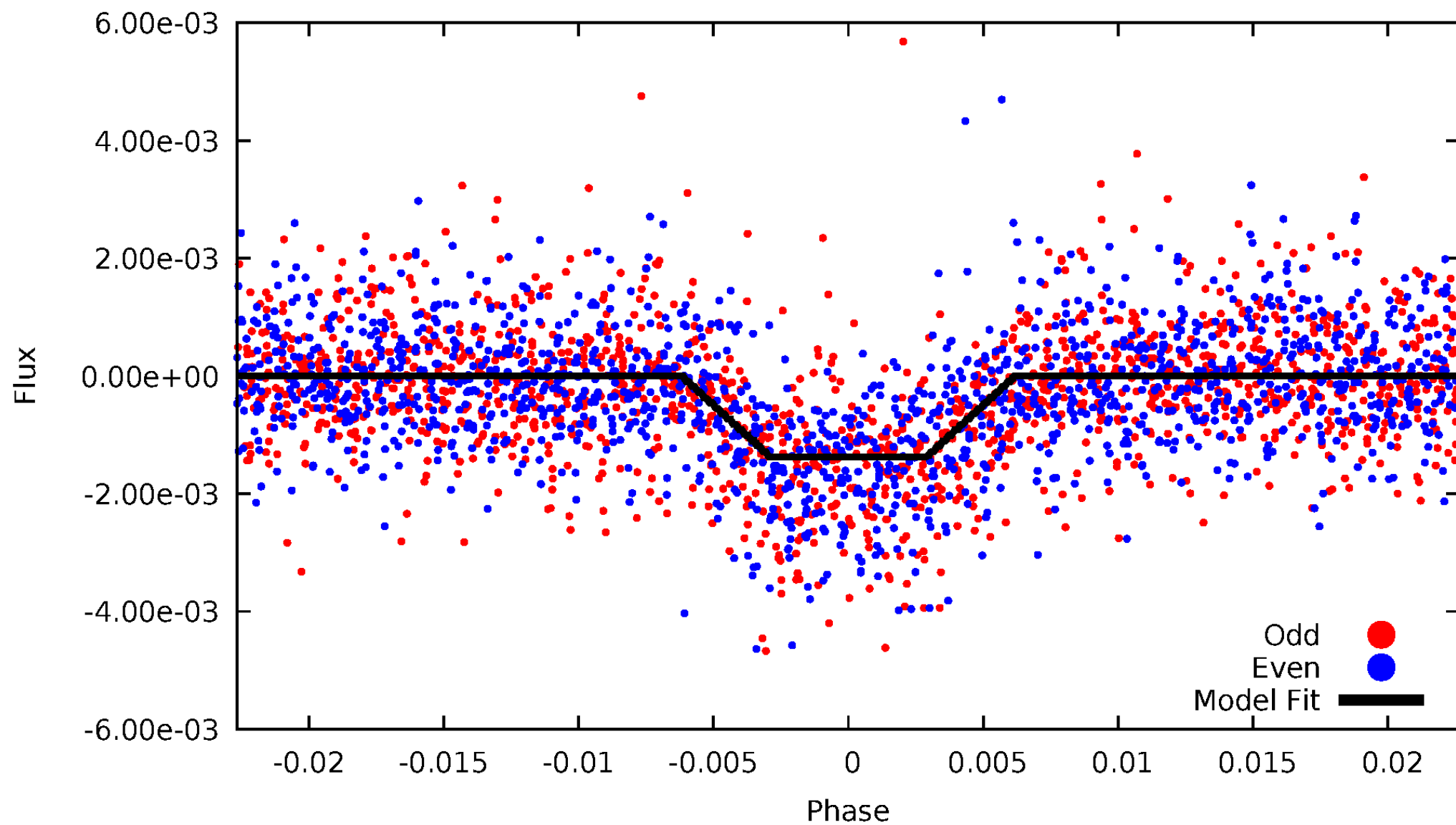
DV Odd/Even

TCE 008935810-01



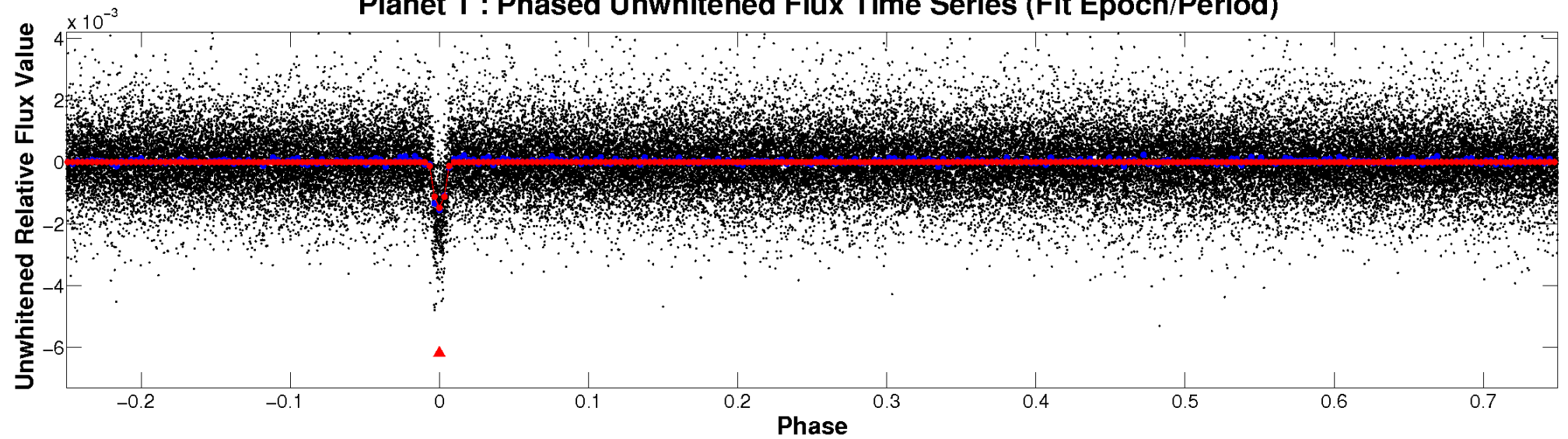
ALT Odd/Even

TCE 008935810-01

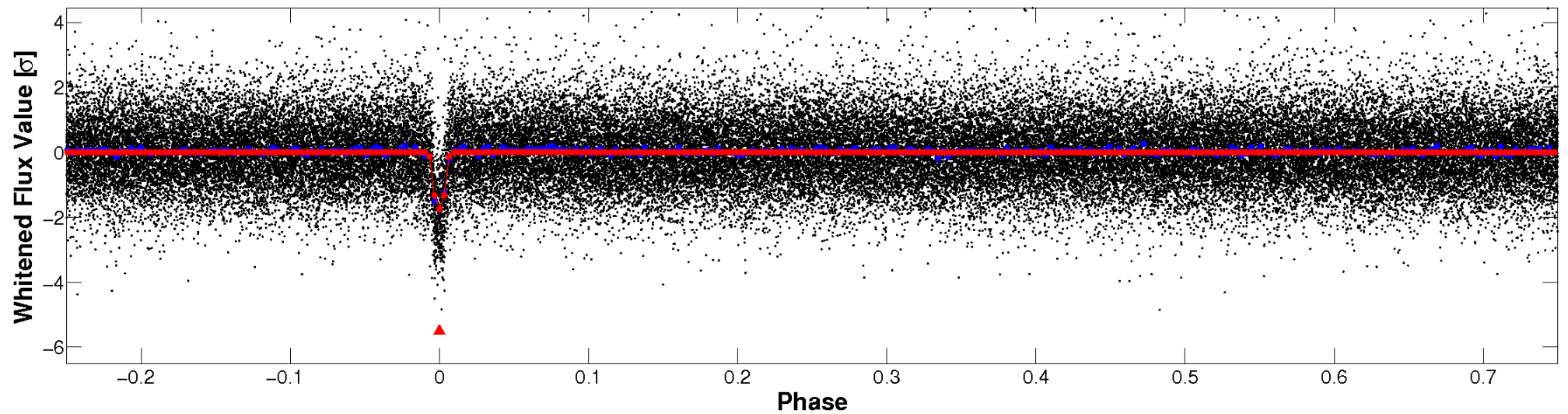


Non-Whitened Vs. Whitened Light Curve

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

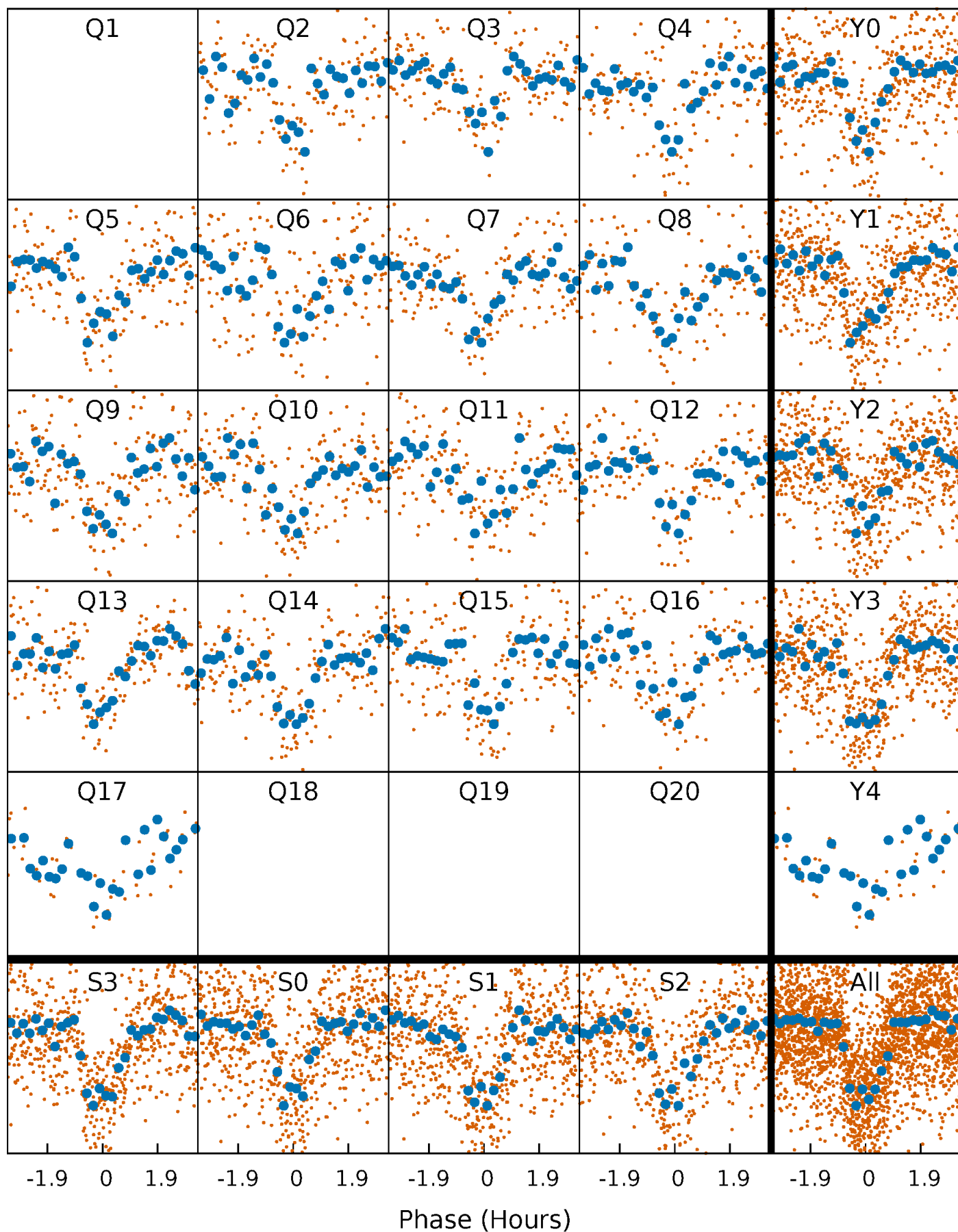


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



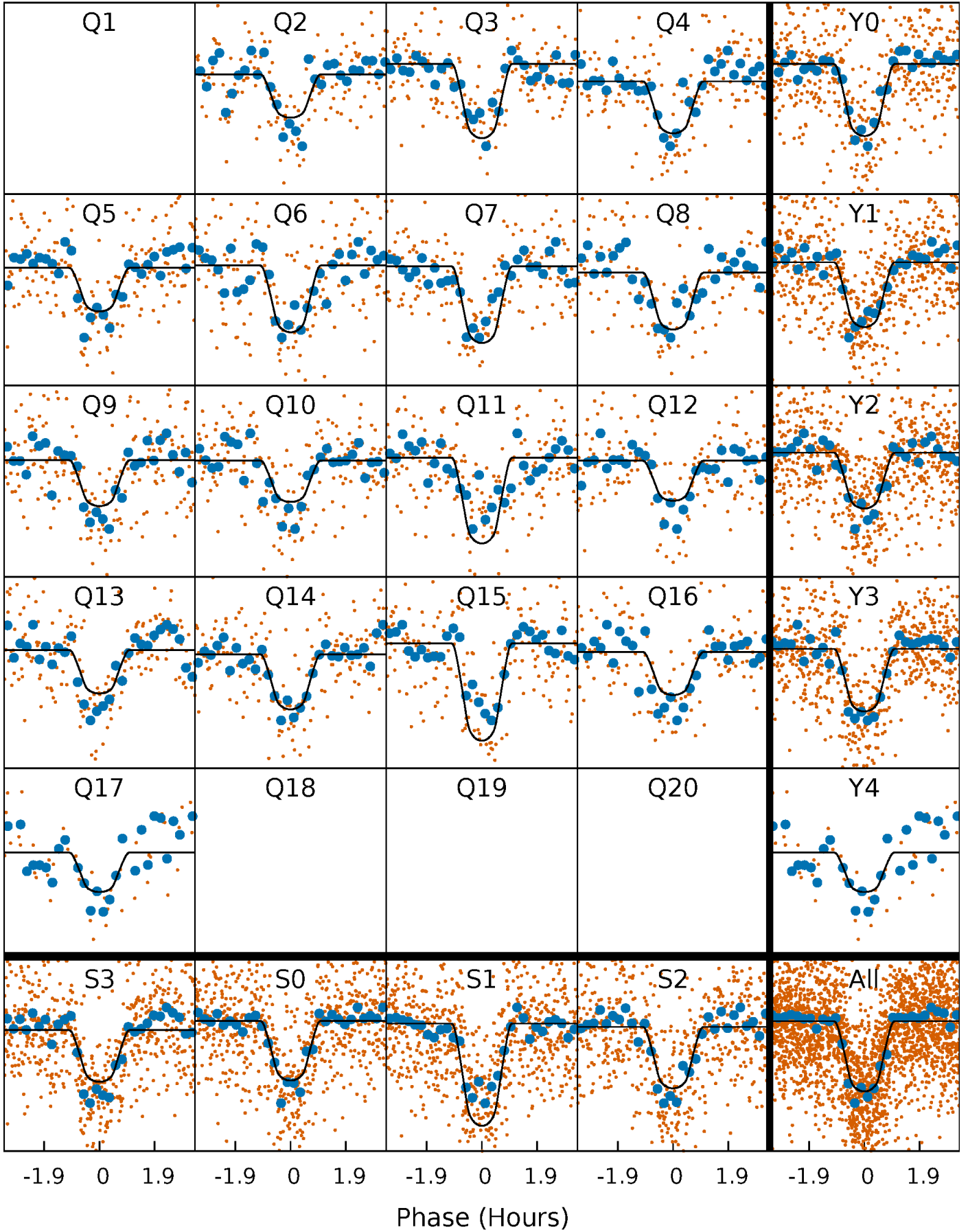
PDC Quarter-Phased Transit Curves

TCE 008935810-01 P= 6.230324 Days $T_0=137.685561$ (BKJD)



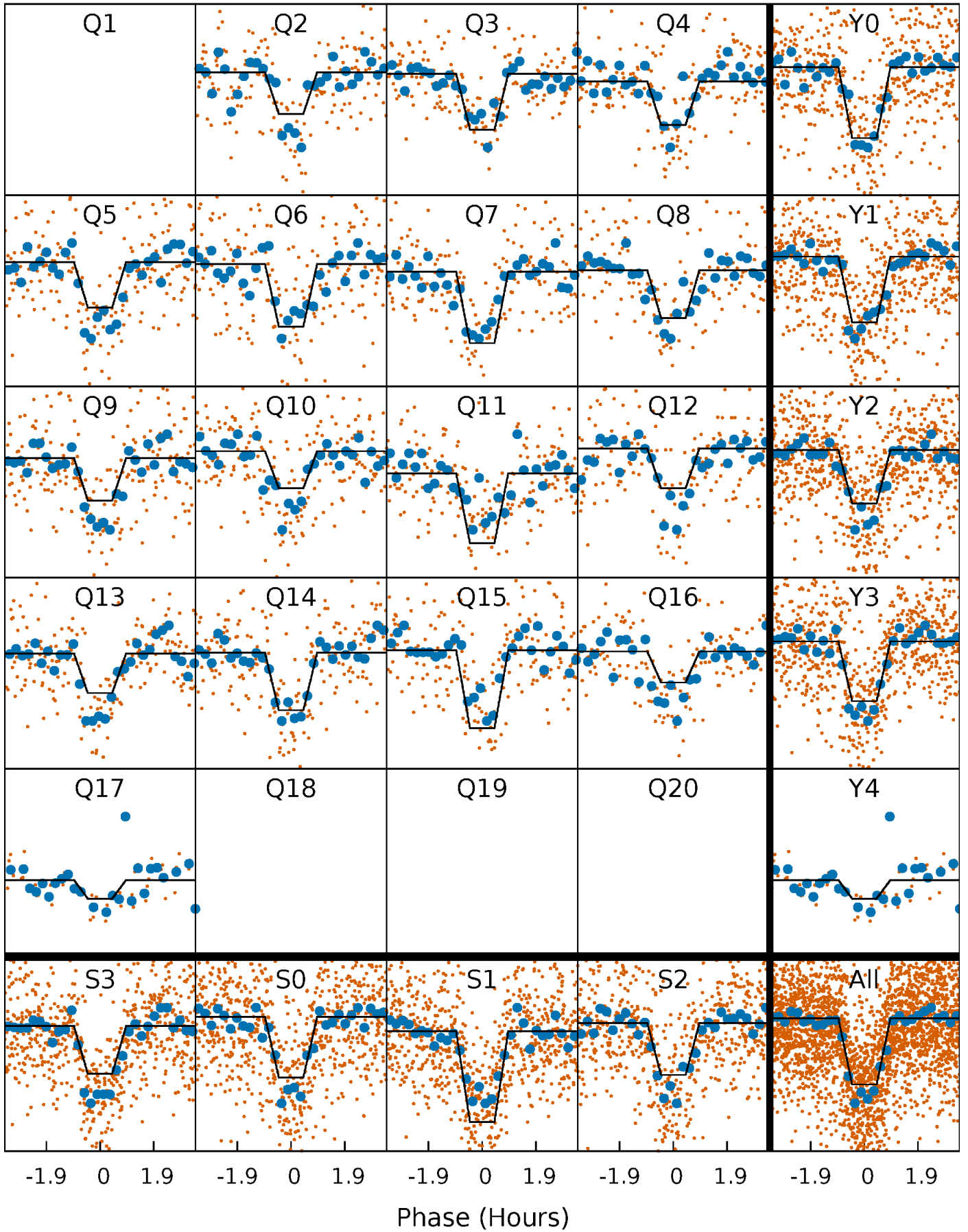
DV Quarter-Phased Transit Curves

TCE 008935810-01 P= 6.230324 Days $T_0=137.685561$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

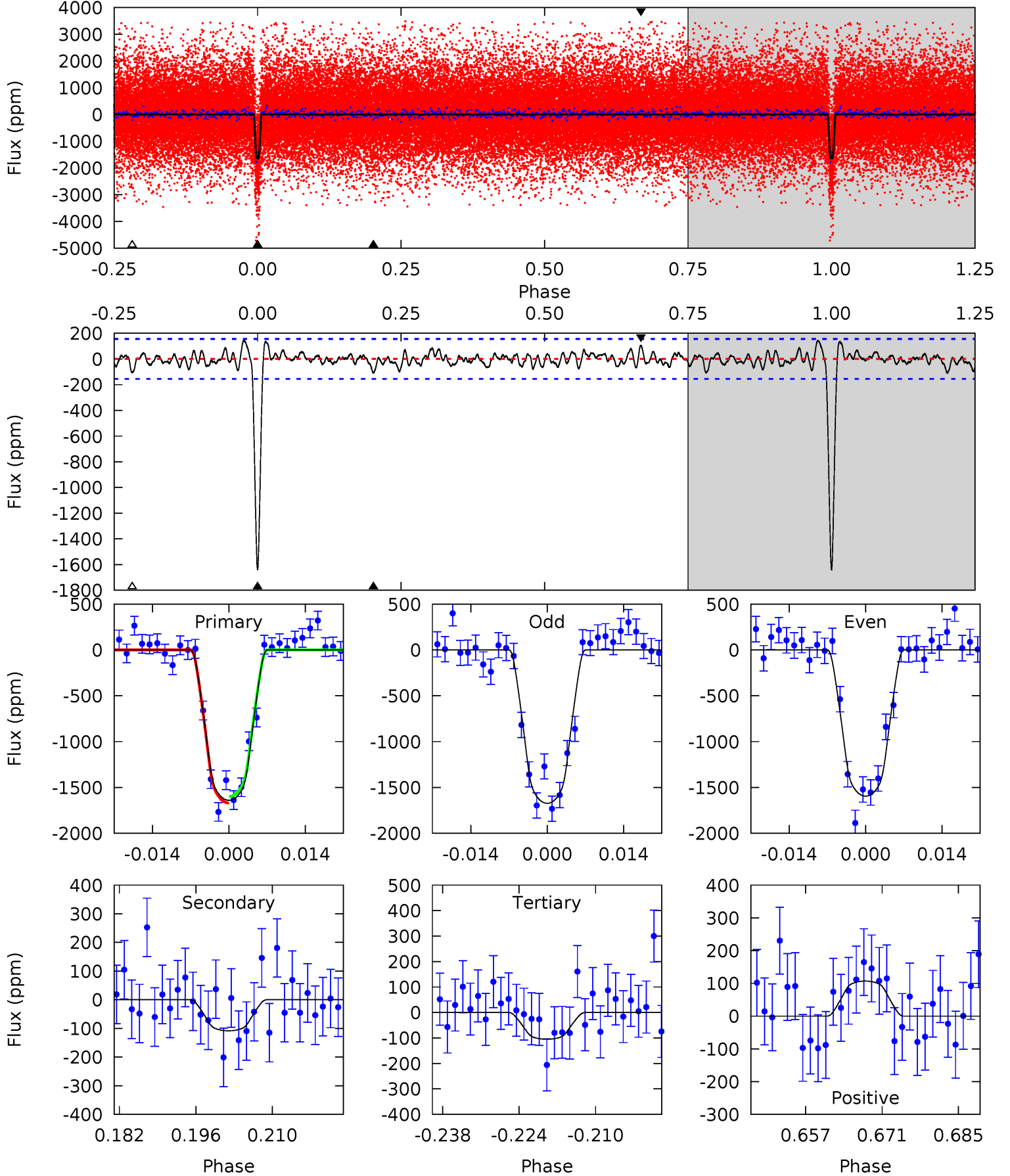
TCE 008935810-01 P= 6.230341 Days $T_0=137.682709$ (BKJD)



DV Model-Shift Uniqueness Test

008935810-01, P = 6.230324 Days, E = 137.685561 Days

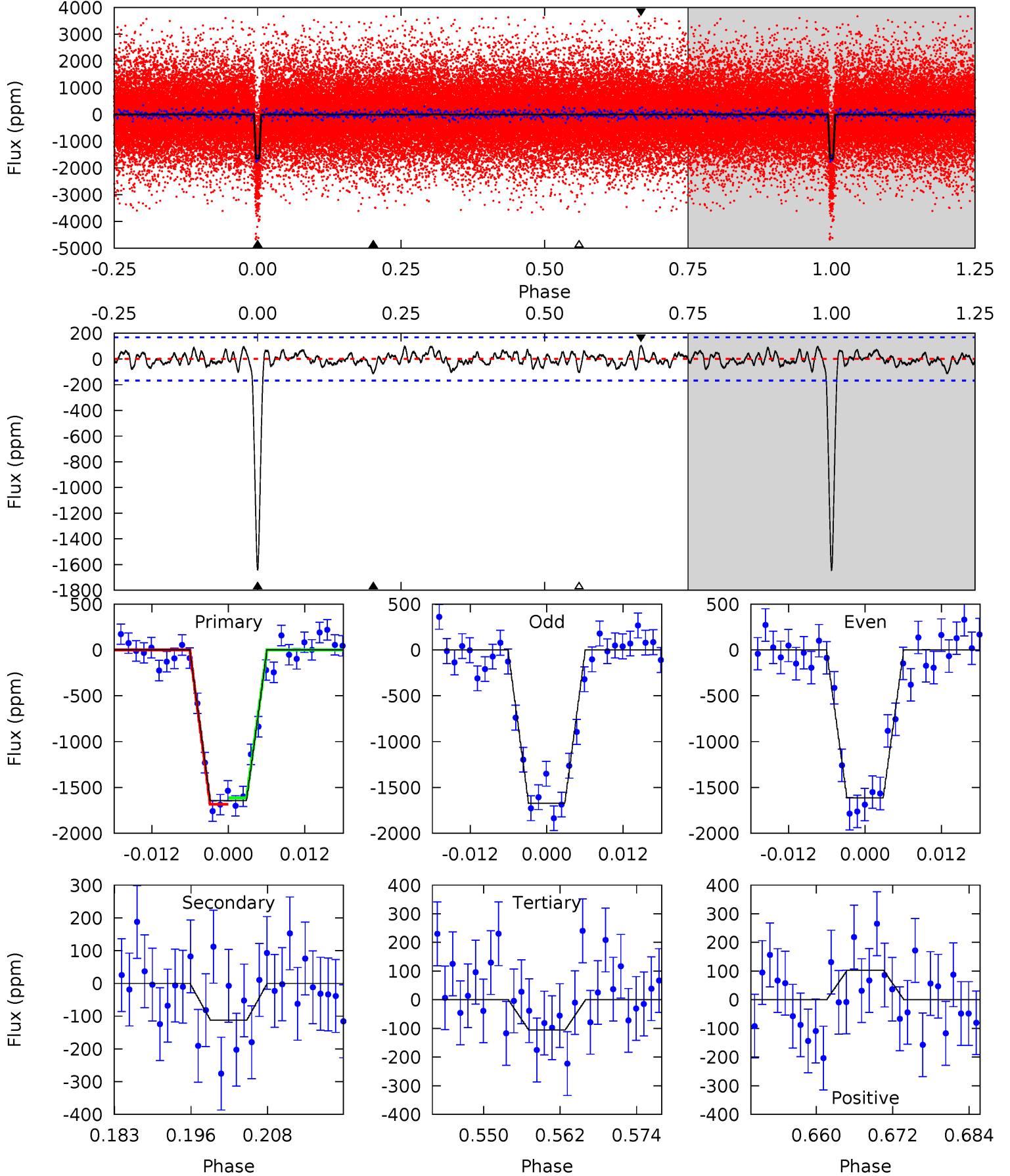
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.2	3.45	3.35	3.41	4.96	2.46	1.24	48.9	48.8	0.10	0.04	1.25	1.00	0.08	1.13



Alt Model-Shift Uniqueness Test

008935810-01, P = 6.230341 Days, E = 137.682709 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.7	3.33	3.13	3.05	4.99	2.51	1.15	45.5	45.6	0.20	0.29	0.85	1.05	0.06	1.02



Stellar Parameters For KIC 008935810

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5477^{+172}_{-191}	$4.557^{+0.027}_{-0.153}$	$0.210^{+0.200}_{-0.300}$	$0.865^{+0.173}_{-0.074}$	$0.983^{+0.065}_{-0.115}$	$2.140^{+0.389}_{-0.886}$
	+3%/-3%	+1%/-3%	+95%/-143%	+20%/-9%	+7%/-12%	+18%/-41%
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 008935810-01 / KOI 1395.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-108 ± 31	$3.95^{+0.94}_{-0.79}$	1248^{+70}_{-52}	3297^{+281}_{-252}	16^{+11}_{-7}
Alt.	-113 ± 34	$3.64^{+0.86}_{-0.81}$	1252^{+66}_{-57}	3403^{+331}_{-286}	19^{+15}_{-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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

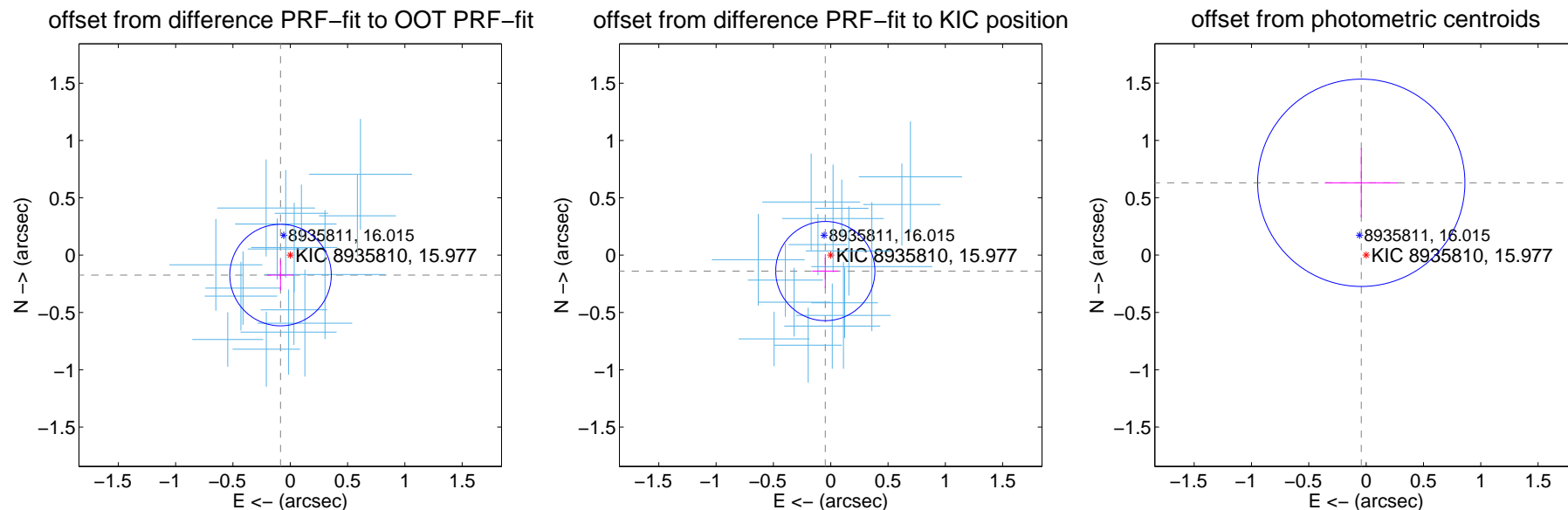
DV Centroid Data

Supplemental centroid analysis for 008935810-01. Kepler magnitude: 15.98. Transit SNR 36.81

There are 16 quarters with good PRF difference image offsets

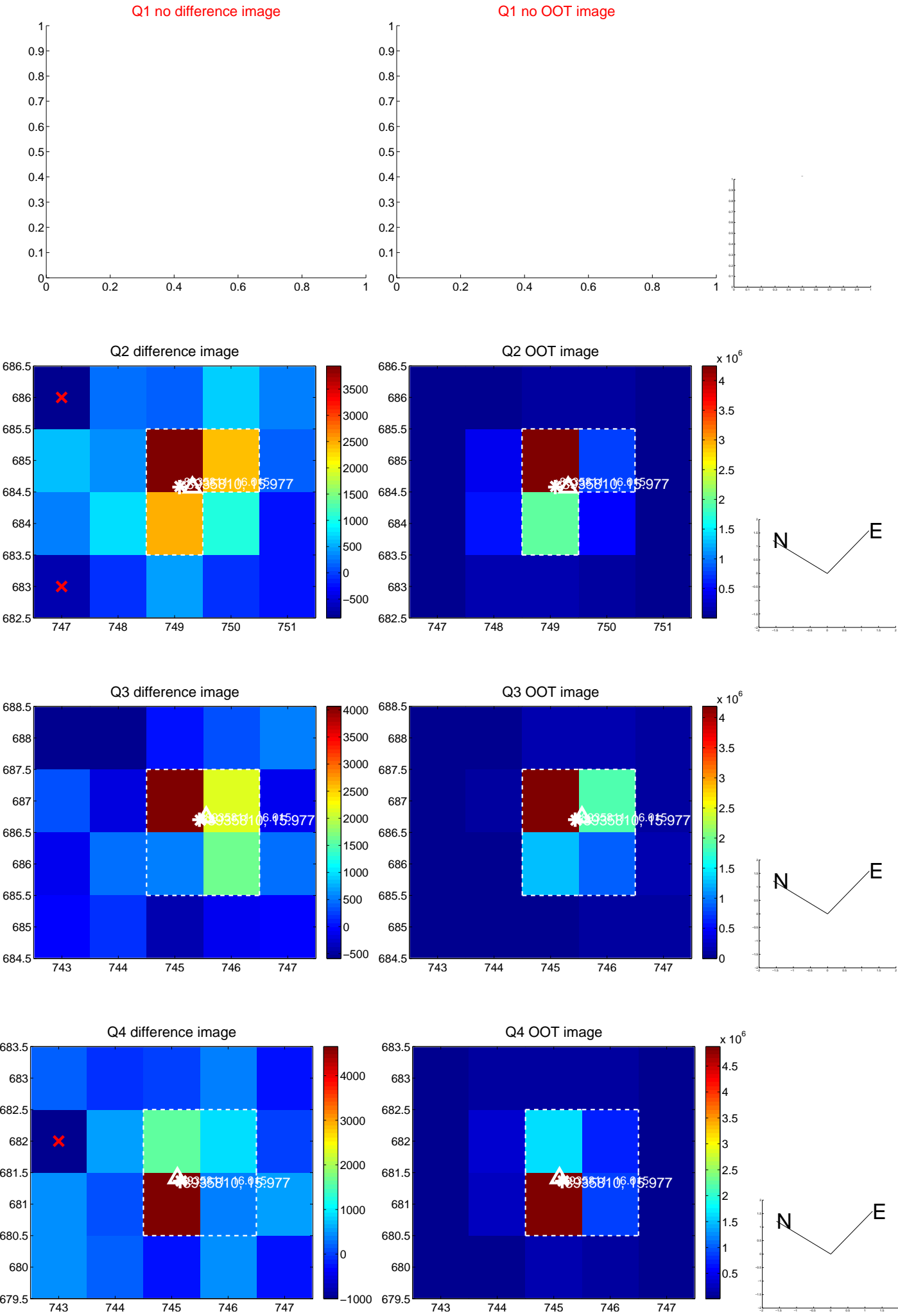
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.193 ± 0.148	1.31	0.085 ± 0.116	-0.174 ± 0.135
PRF-fit source offset from KIC position	0.147 ± 0.144	1.02	0.047 ± 0.114	-0.139 ± 0.147
photometric centroid source offset	0.63 ± 0.30	2.10	0.04 ± 0.32	0.63 ± 0.30

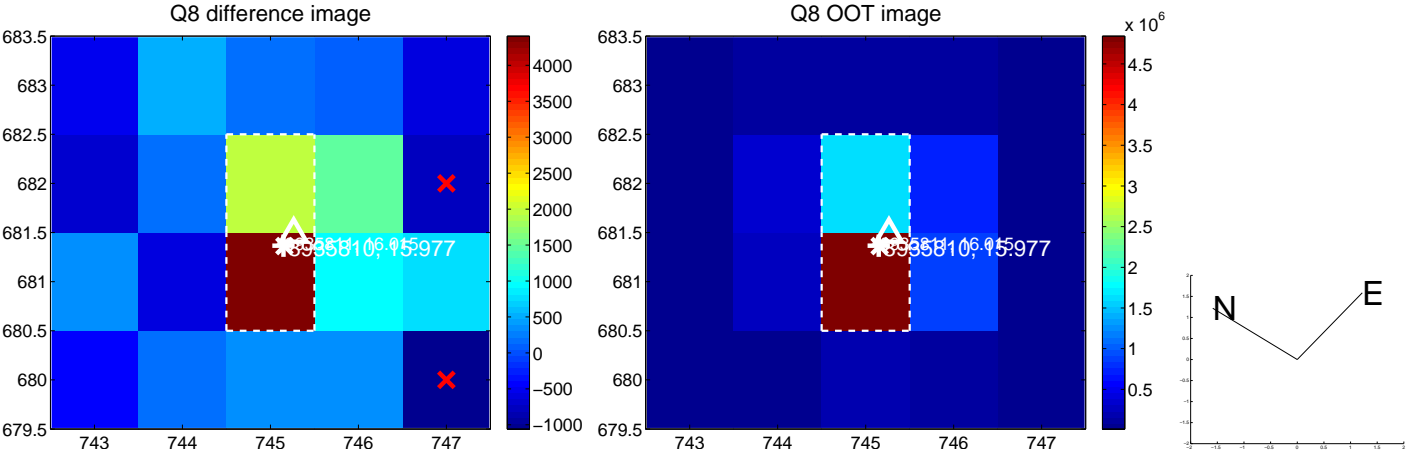
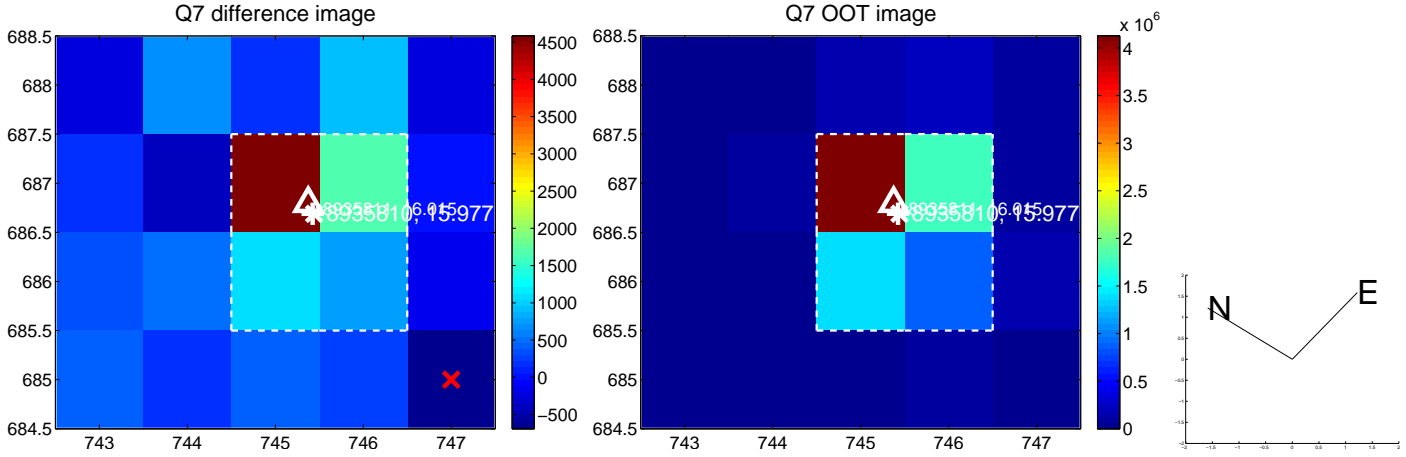
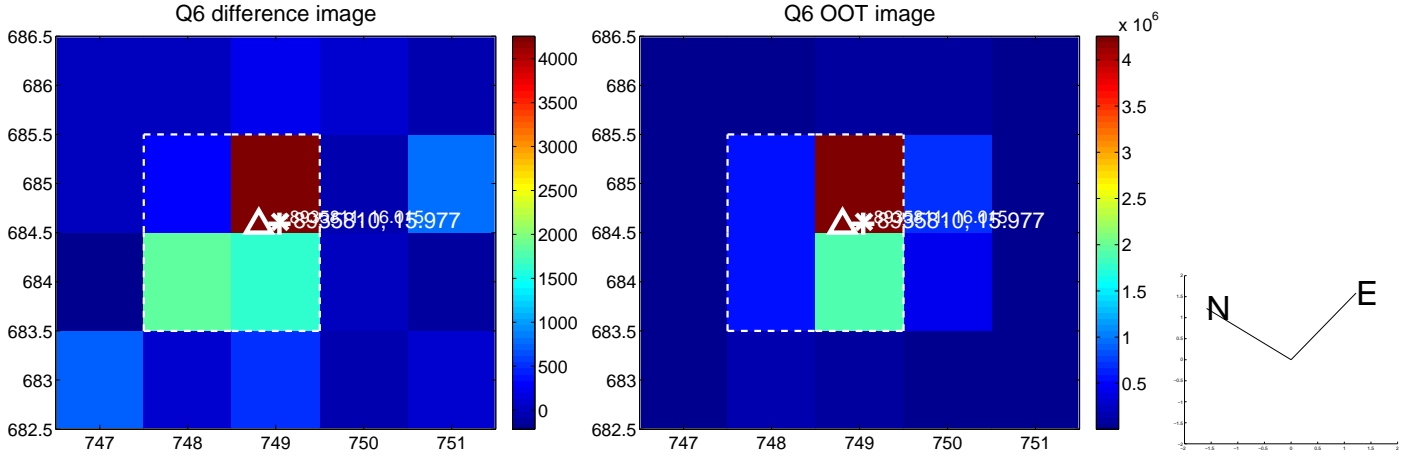
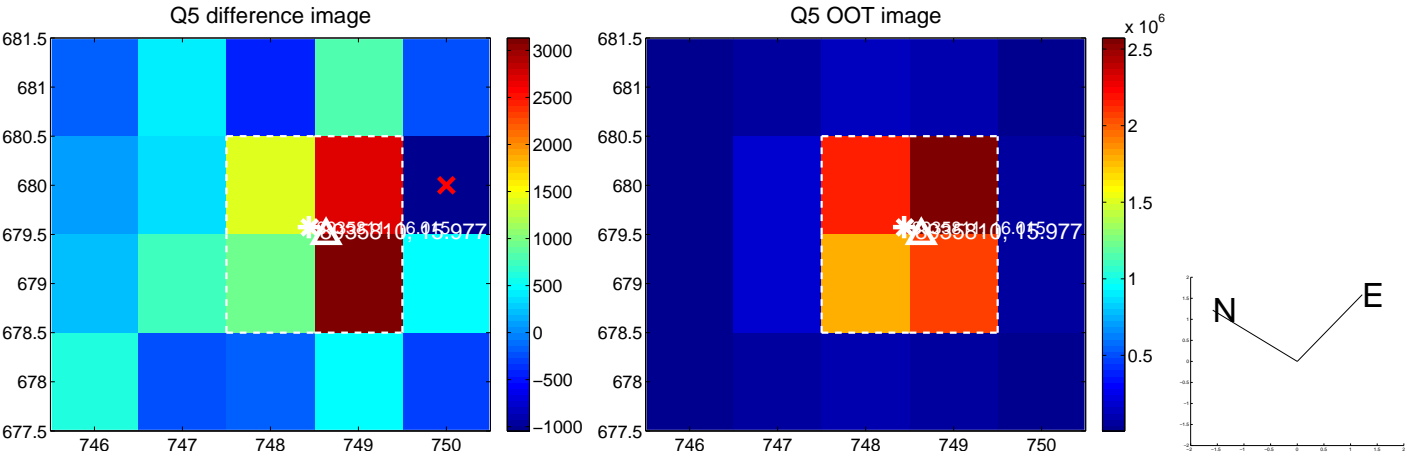


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

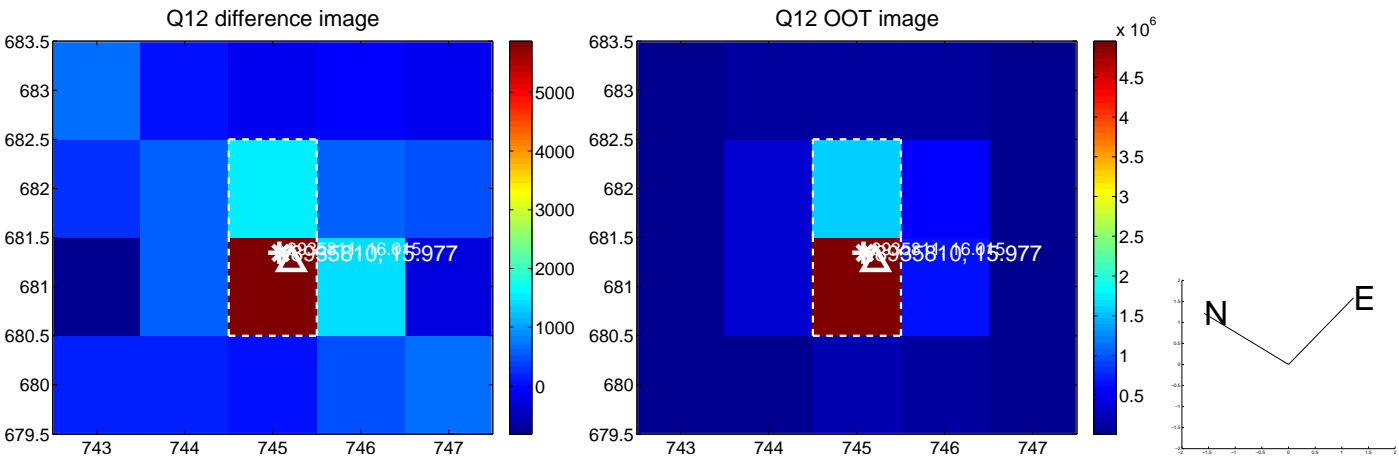
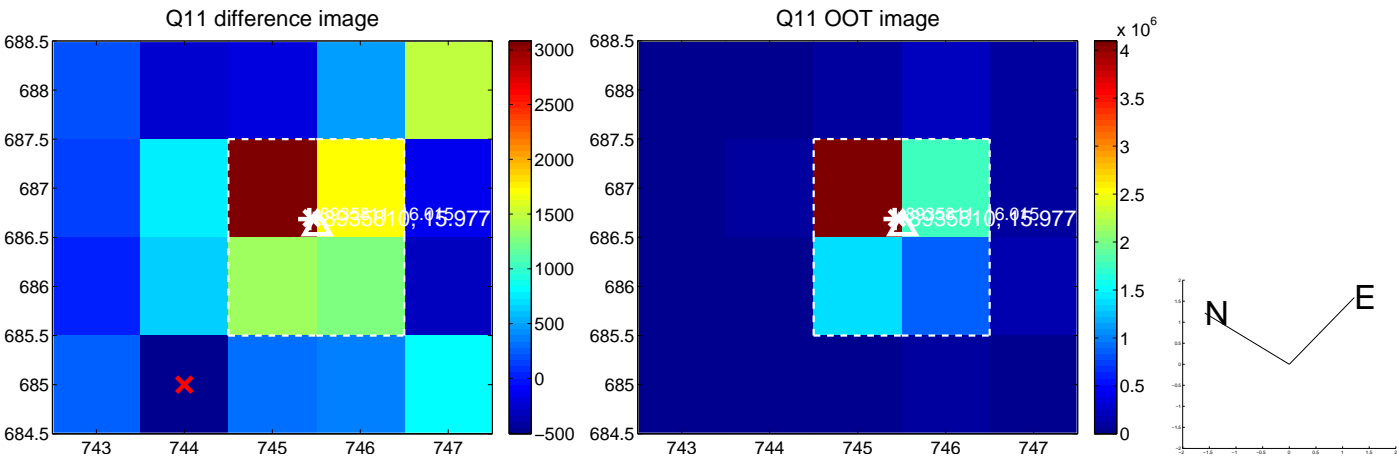
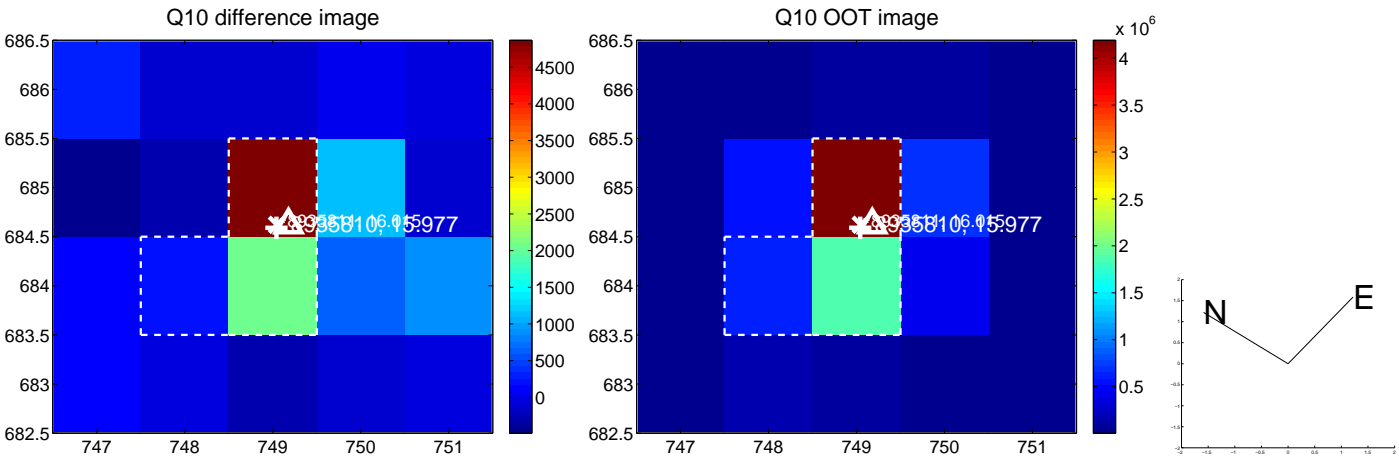
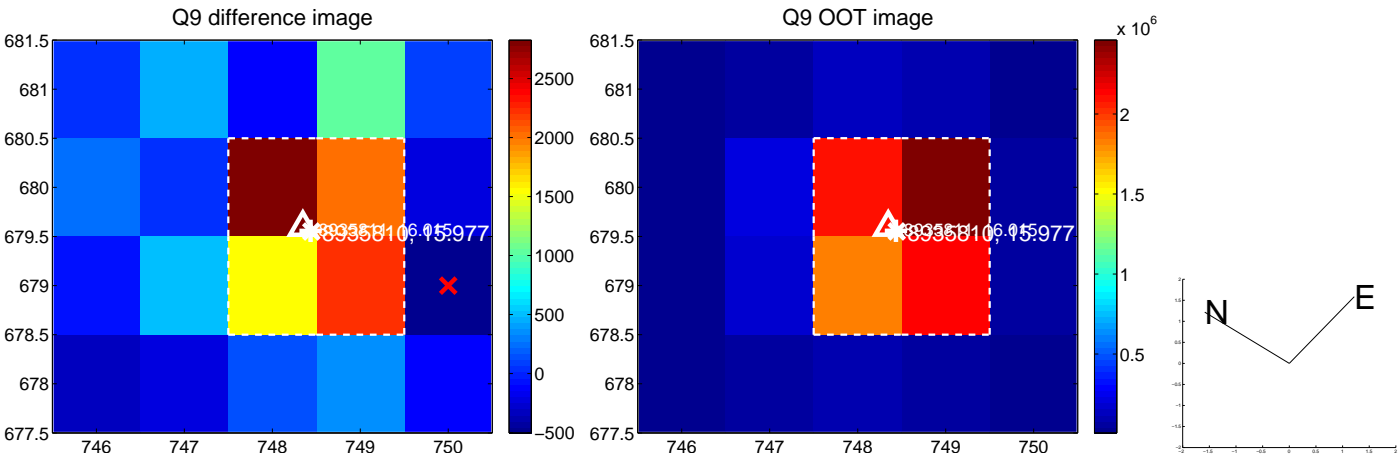
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



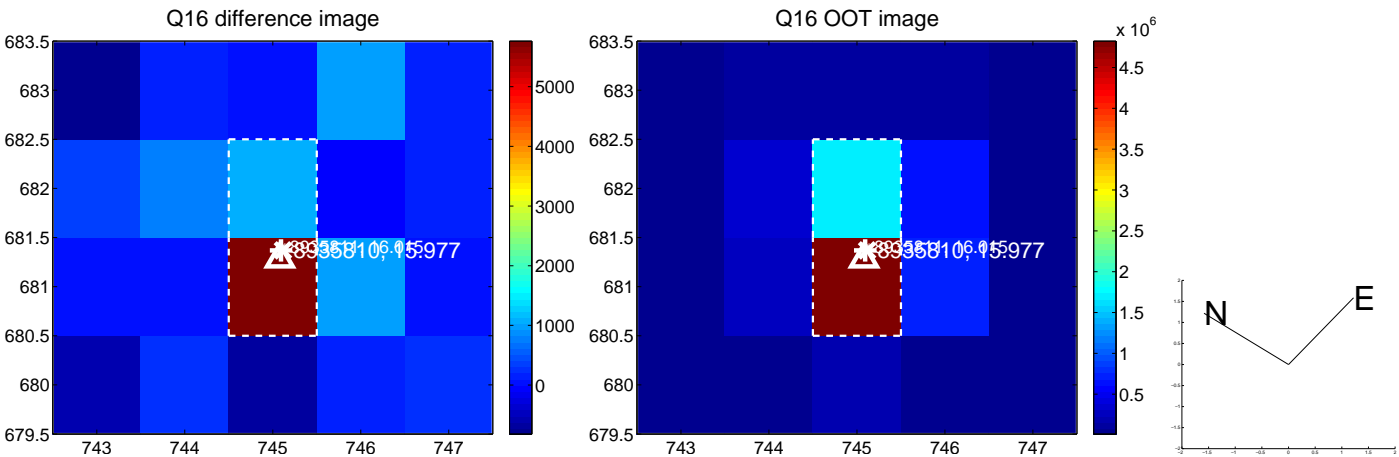
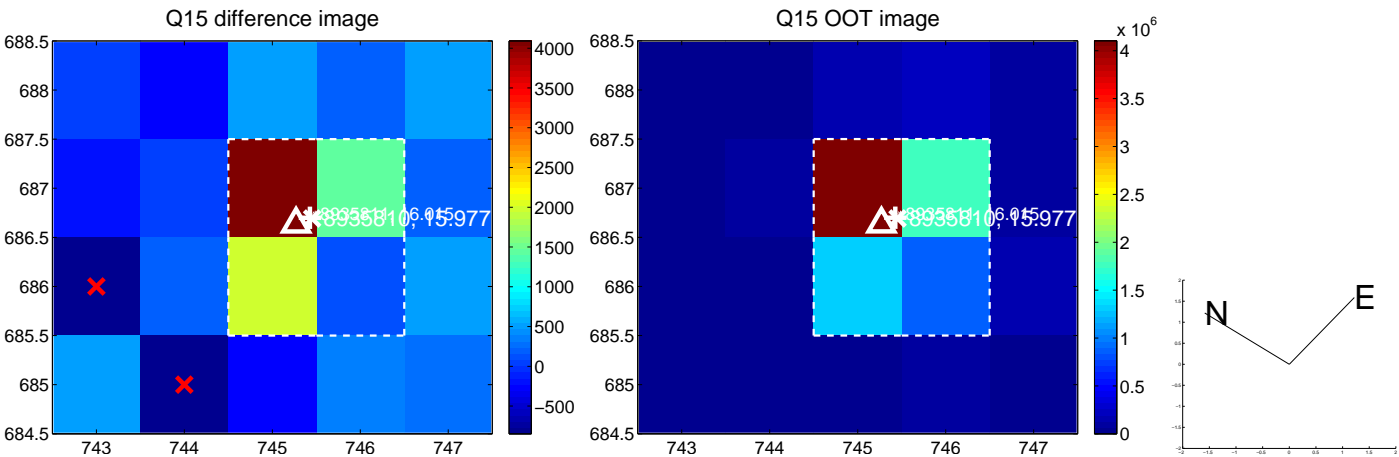
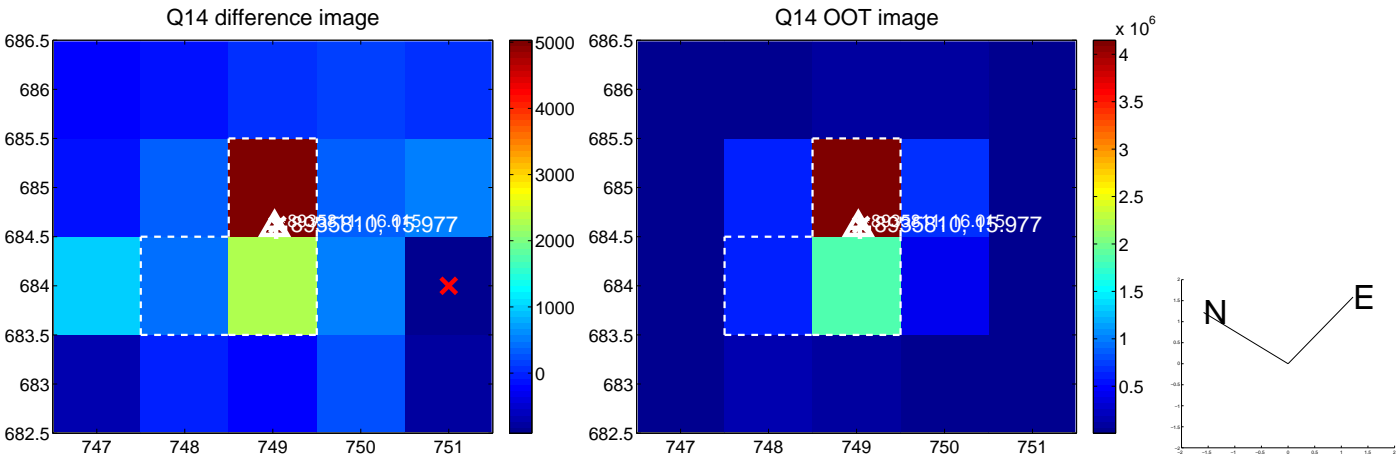
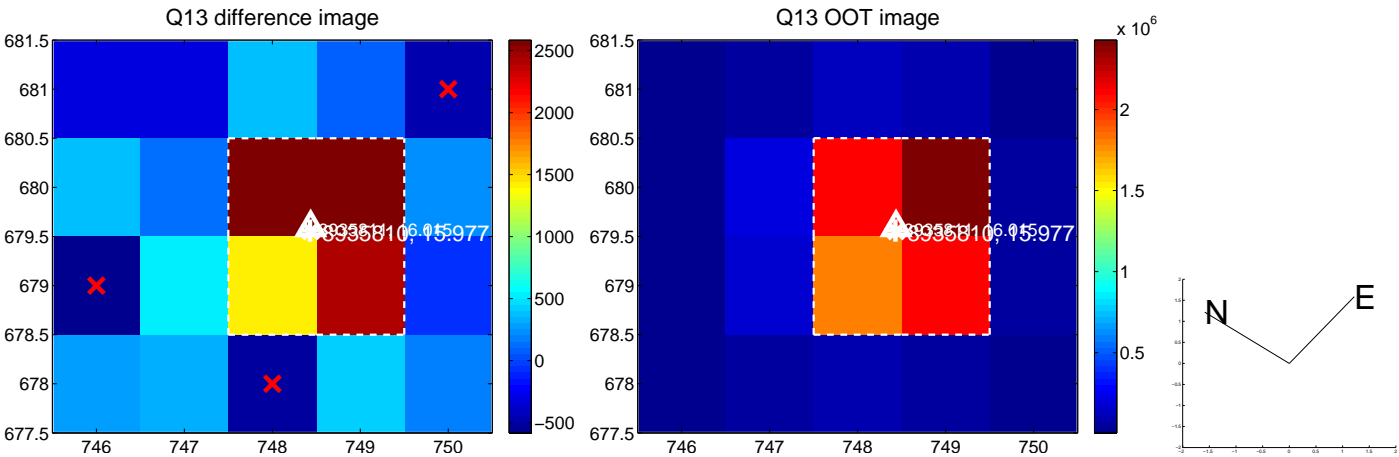
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



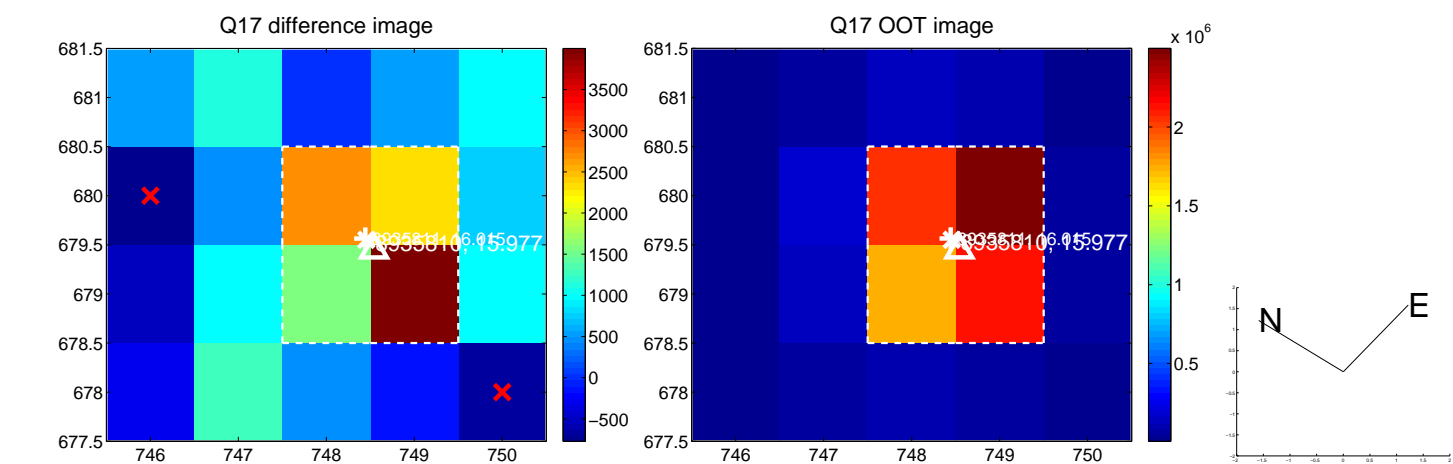
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



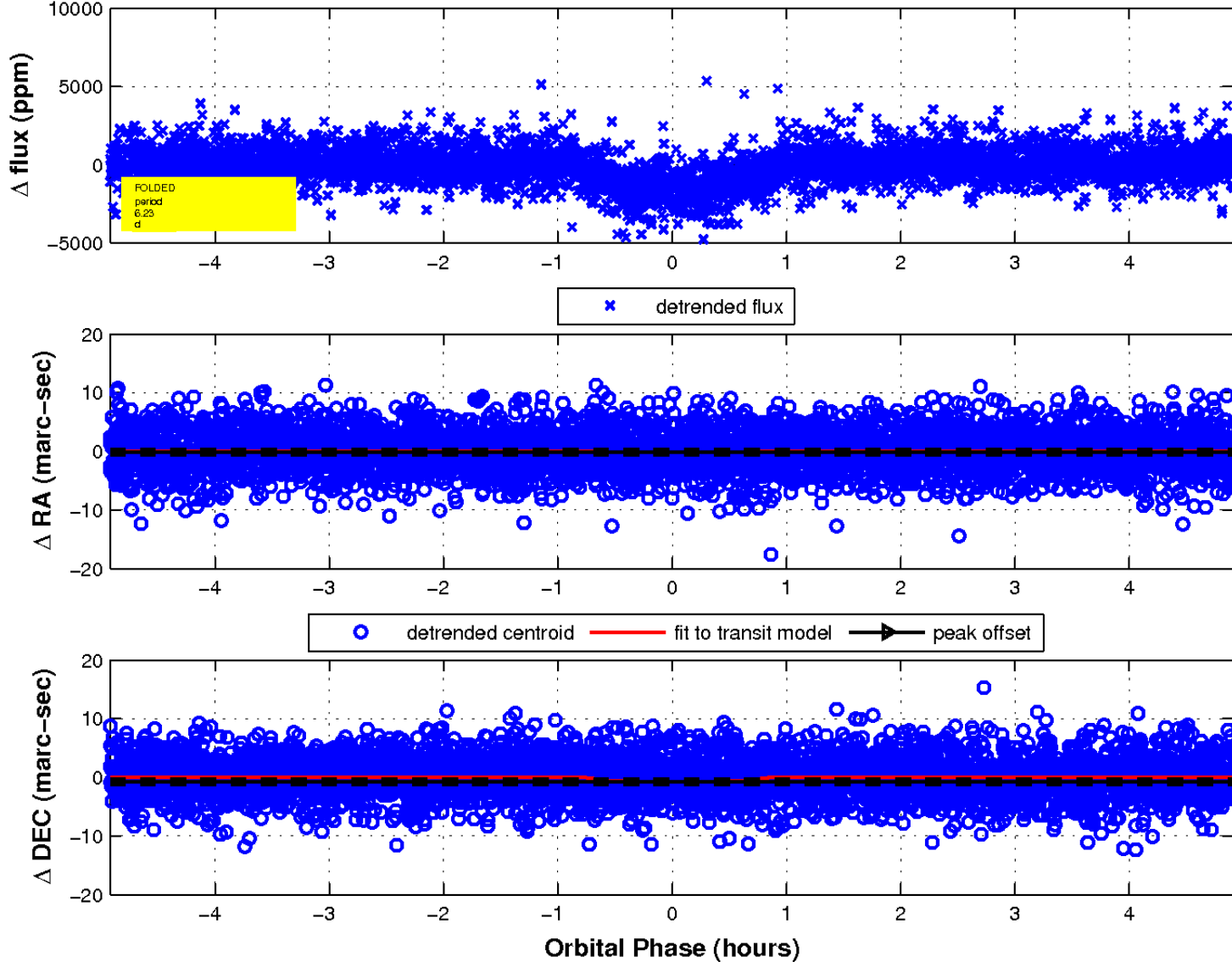
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

