

KIC 008183911

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})
008183911-01	OBS	1018.01	8.306960	137.085880	149.0	2.717	14.5	15.7	2.12	5300	3.89	571.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008183911-01	OBS	FP	0.00	0	0	1	0	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.

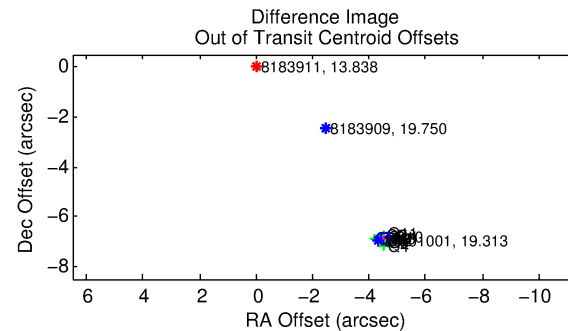
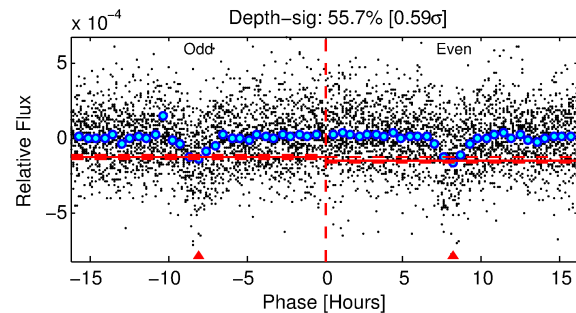
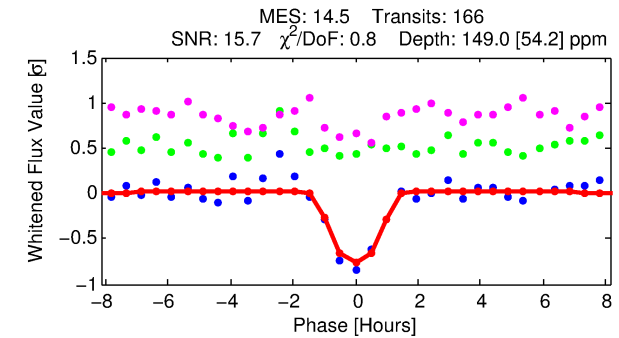
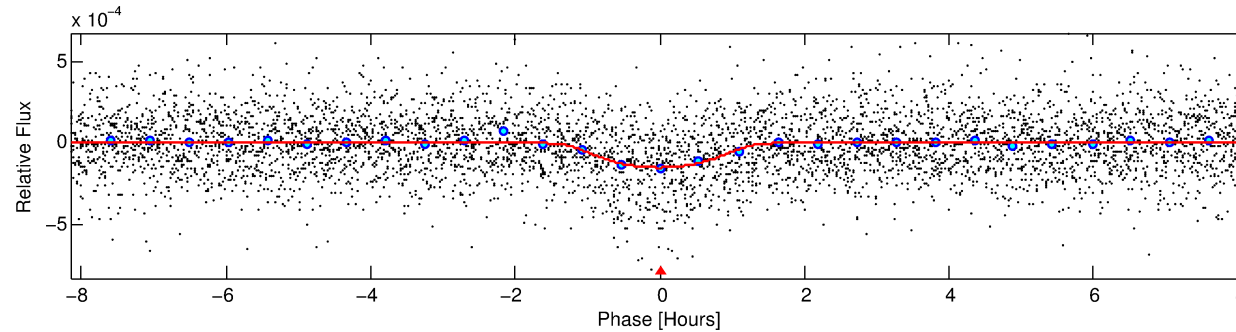
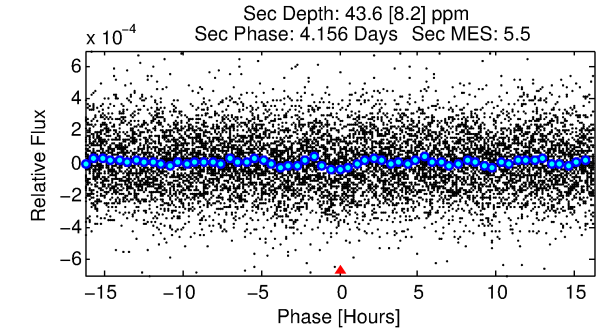
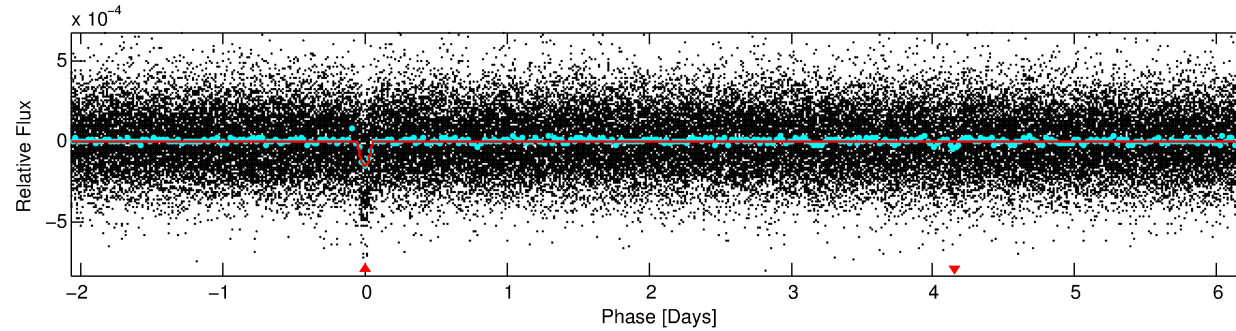
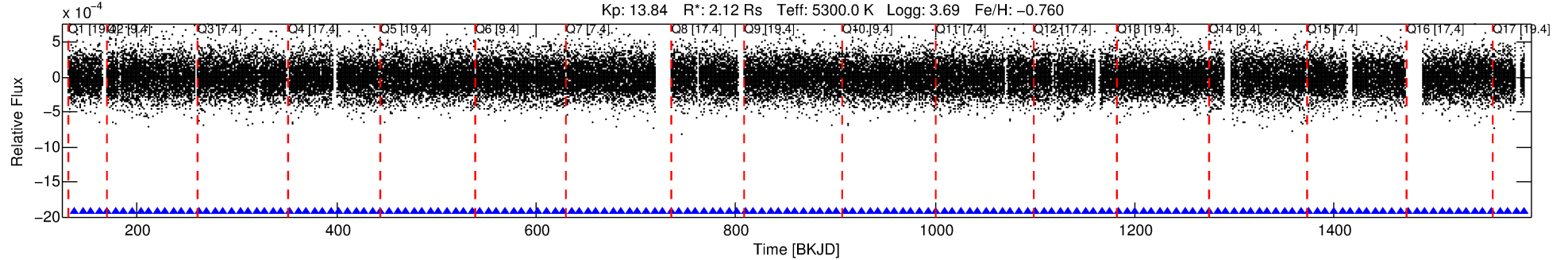
Ephemeris Match Information For 008183911-01

No Significant Match Found

DV One-Page Summary

KIC: 8183911 Candidate: 1 of 1 Period: 8.307 d
KOI: K01018.01 Corr: 0.963

Kp: 13.84 R*: 2.12 Rs Teff: 5300.0 K Logg: 3.69 Fe/H: -0.760



DV Fit Results:

Period = 8.30696 [0.00004] d
Epoch = 137.0859 [0.0041] BKJD
Rp/R* = 0.0168 [0.0071]
a/R* = 5.75 [1.60]
b = 0.99 [0.02]
Seff = 571.27 [854.34]
Teq = 1247 [466] K
Rp = 3.89 [3.29] Re
a = 0.0747 [0.0640] AU
Ag = 8.85 [15.25] [0.51σ]
Teffp = 3325 [728] K [2.40σ]

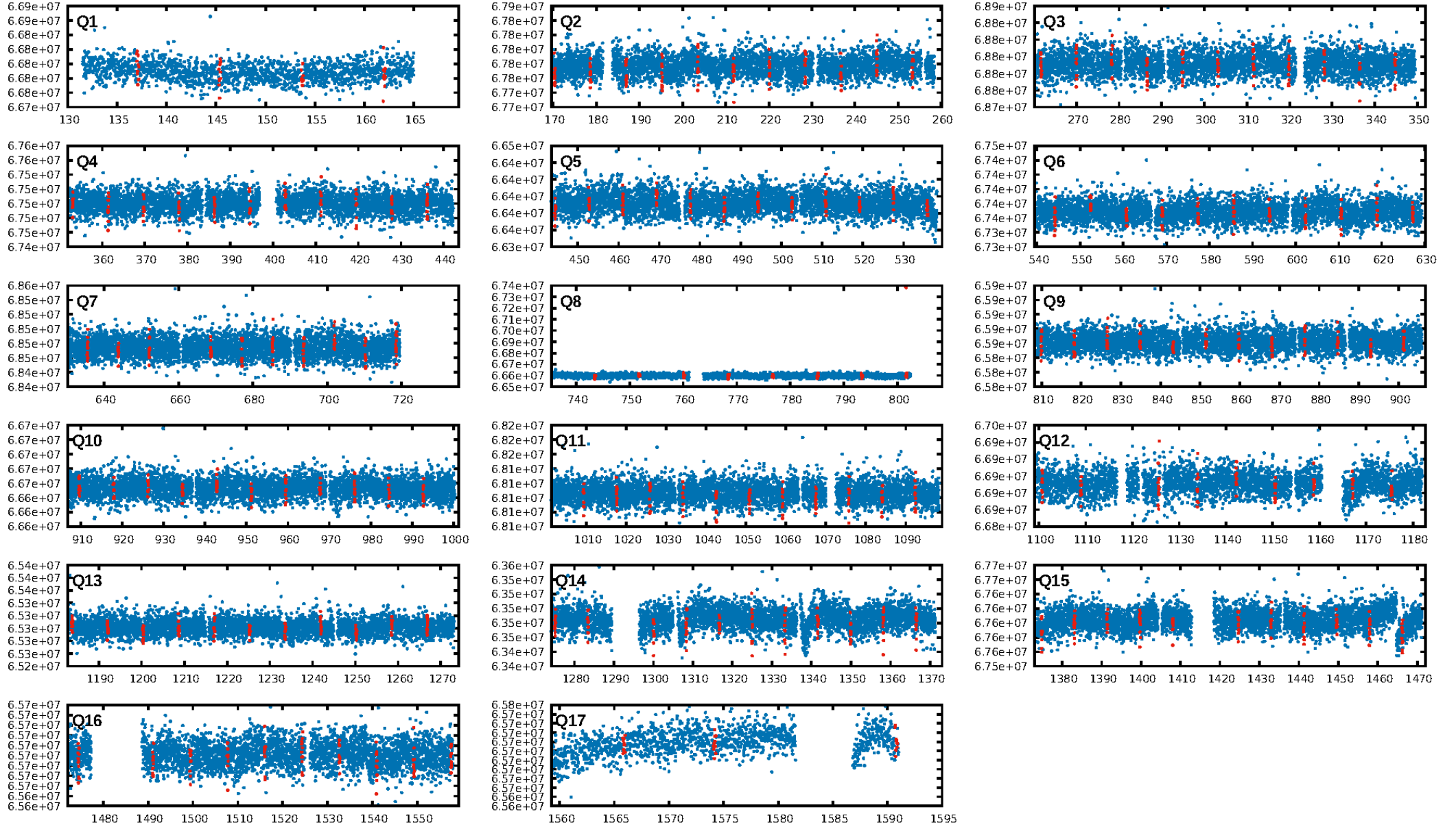
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.53e-46
RollingBand-fgt: 1.00 [159/159]
GhostDiagnostic-chr: -0.1685
Centroid-sig: 0.0%
Centroid-so: 28.199 arcsec [37.95σ]
OotOffset-rm: 8.200 arcsec [104.88σ]
KicOffset-rm: 8.175 arcsec [104.92σ]
OotOffset-st: 4/4/4/0 [12]
KicOffset-st: 4/4/4/0 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [17/17]

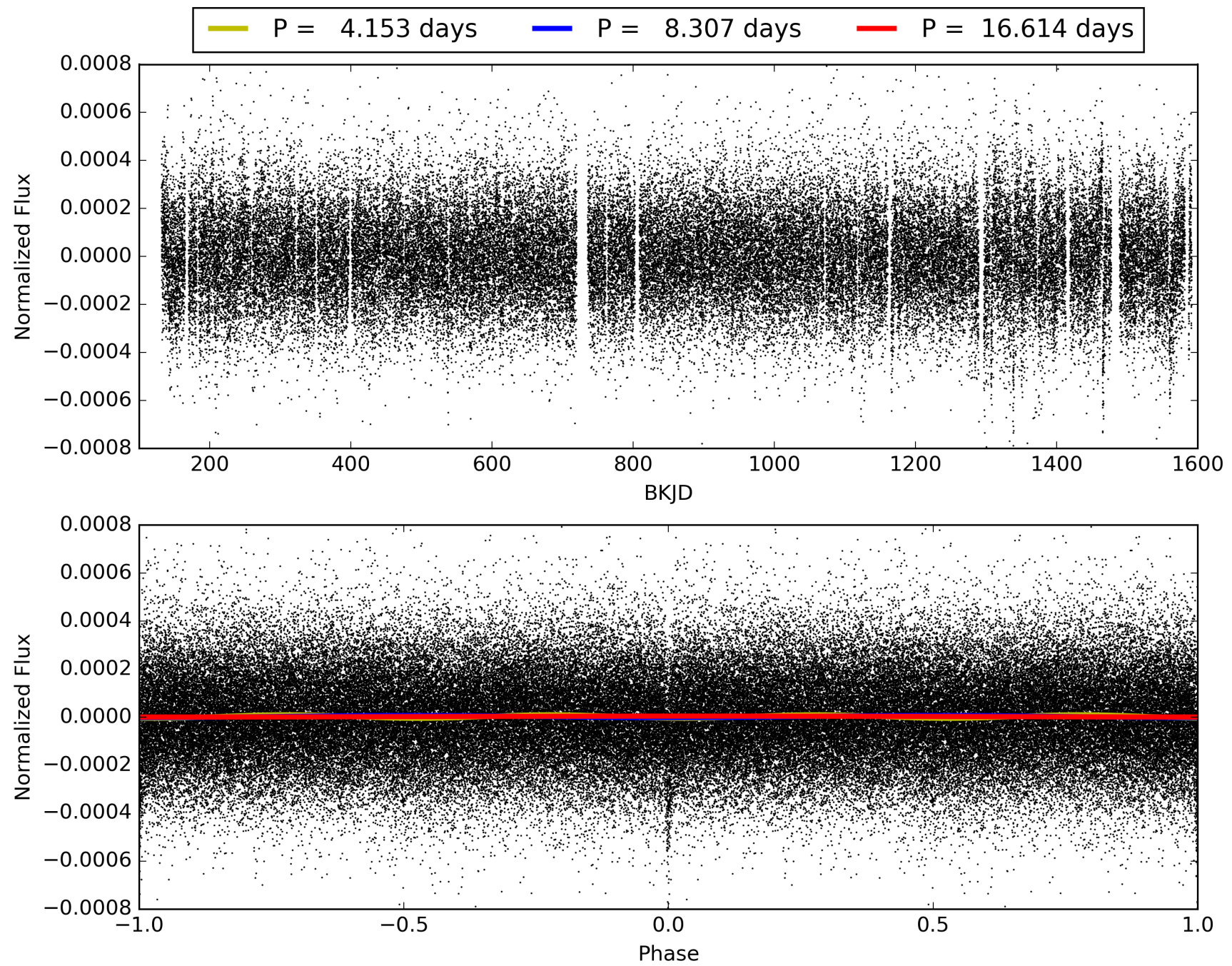
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:03:07 Z

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

TCE 008183911-01, PDC Light Curves

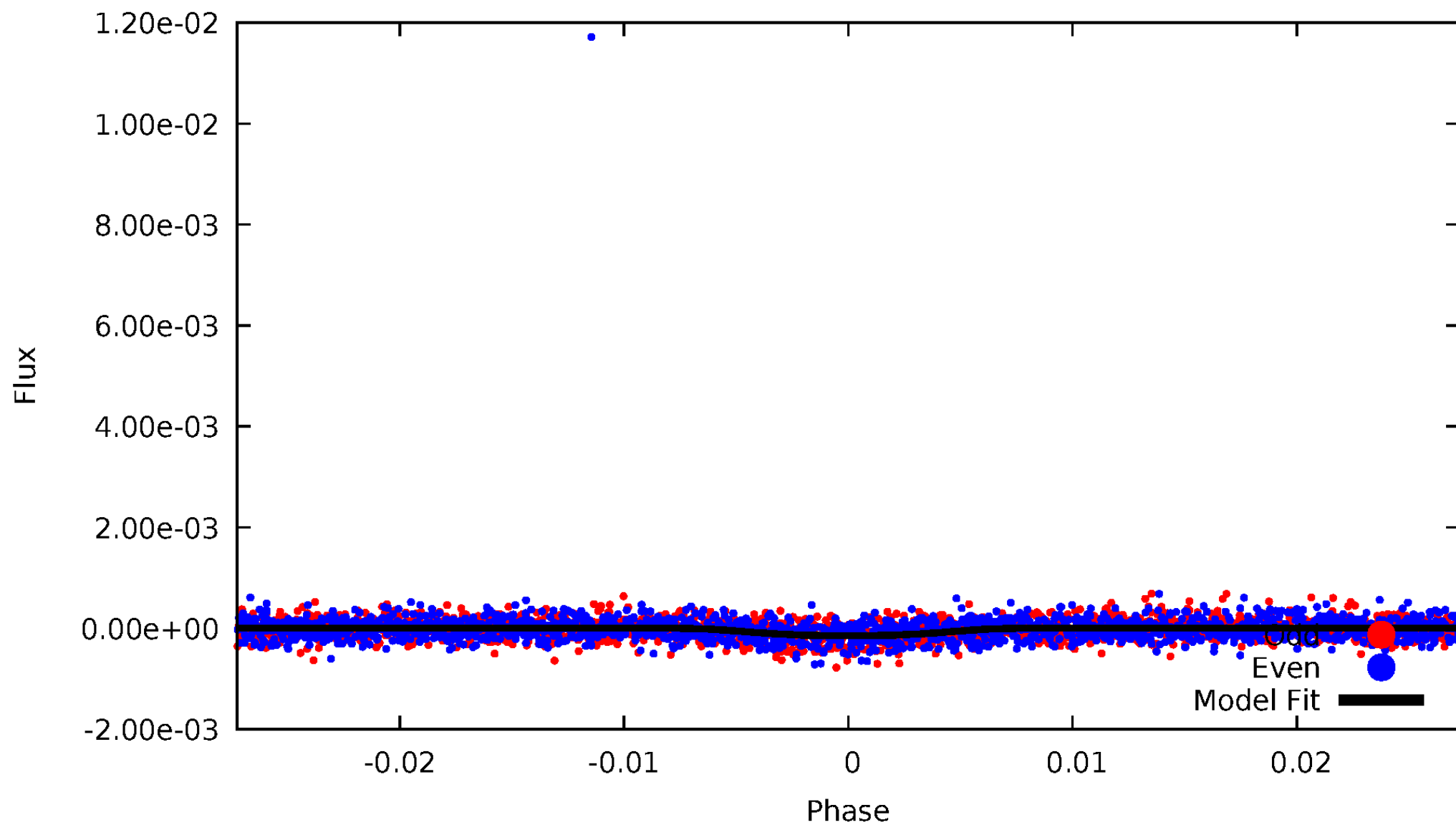


TCE 008183911-01



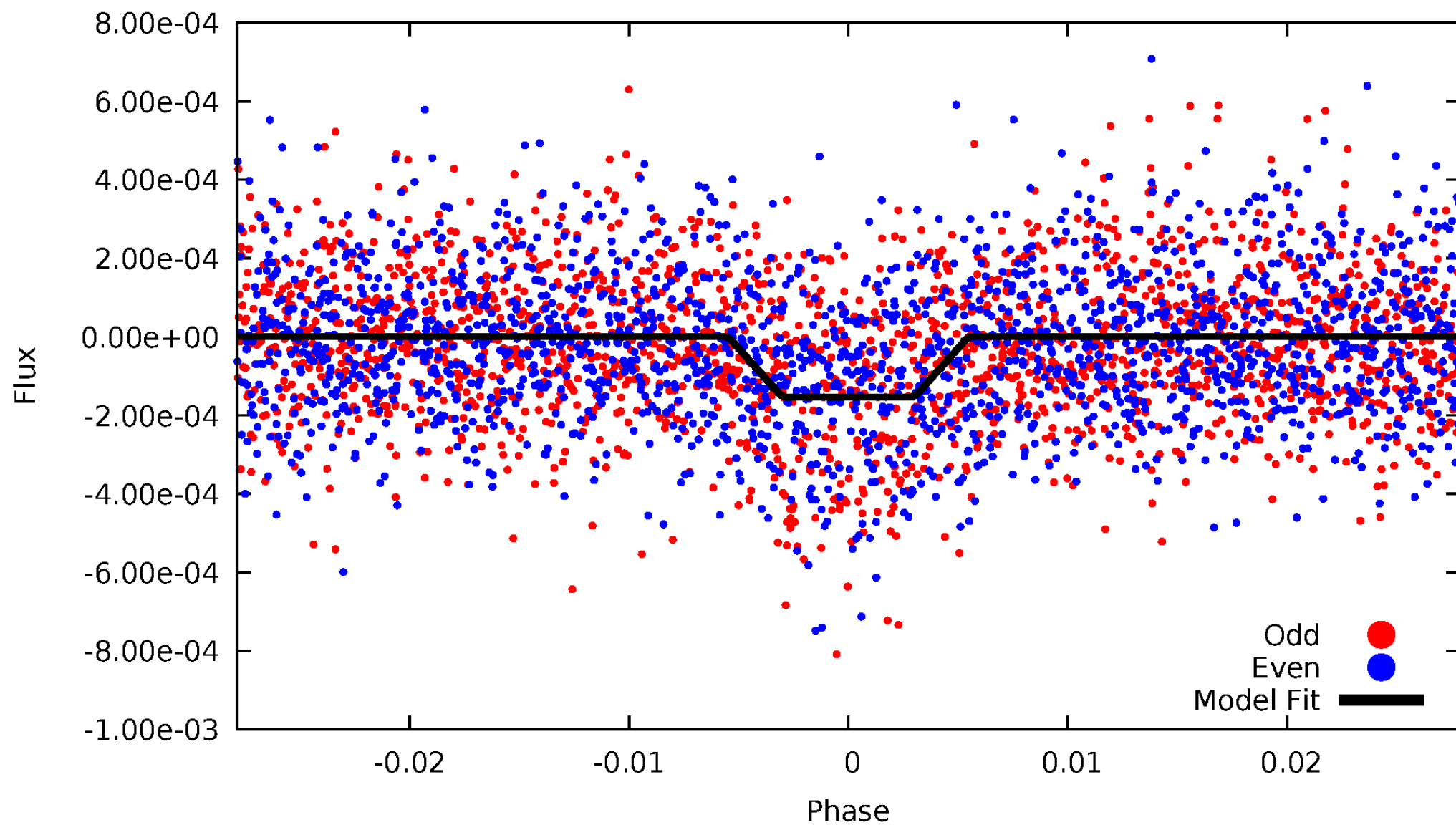
DV Odd/Even

TCE 008183911-01

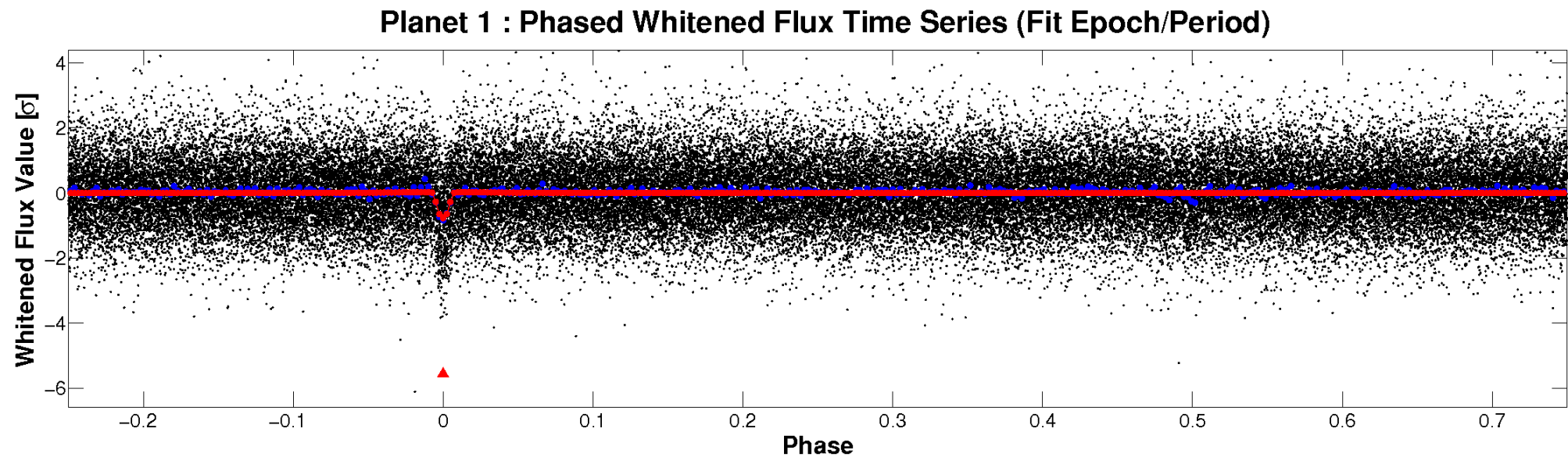
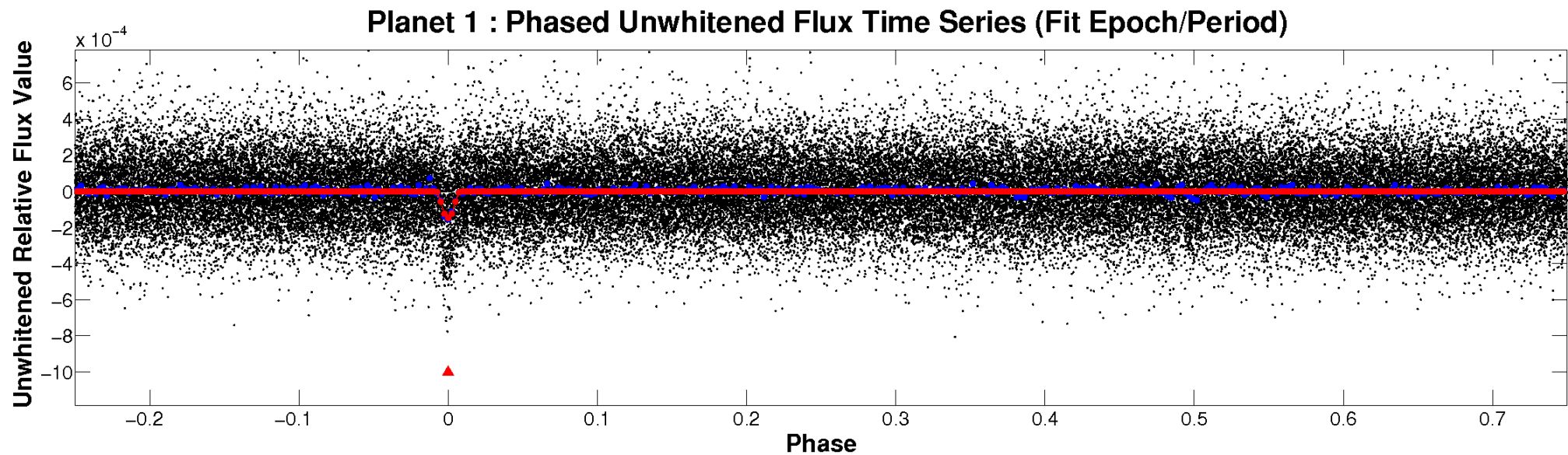


ALT Odd/Even

TCE 008183911-01

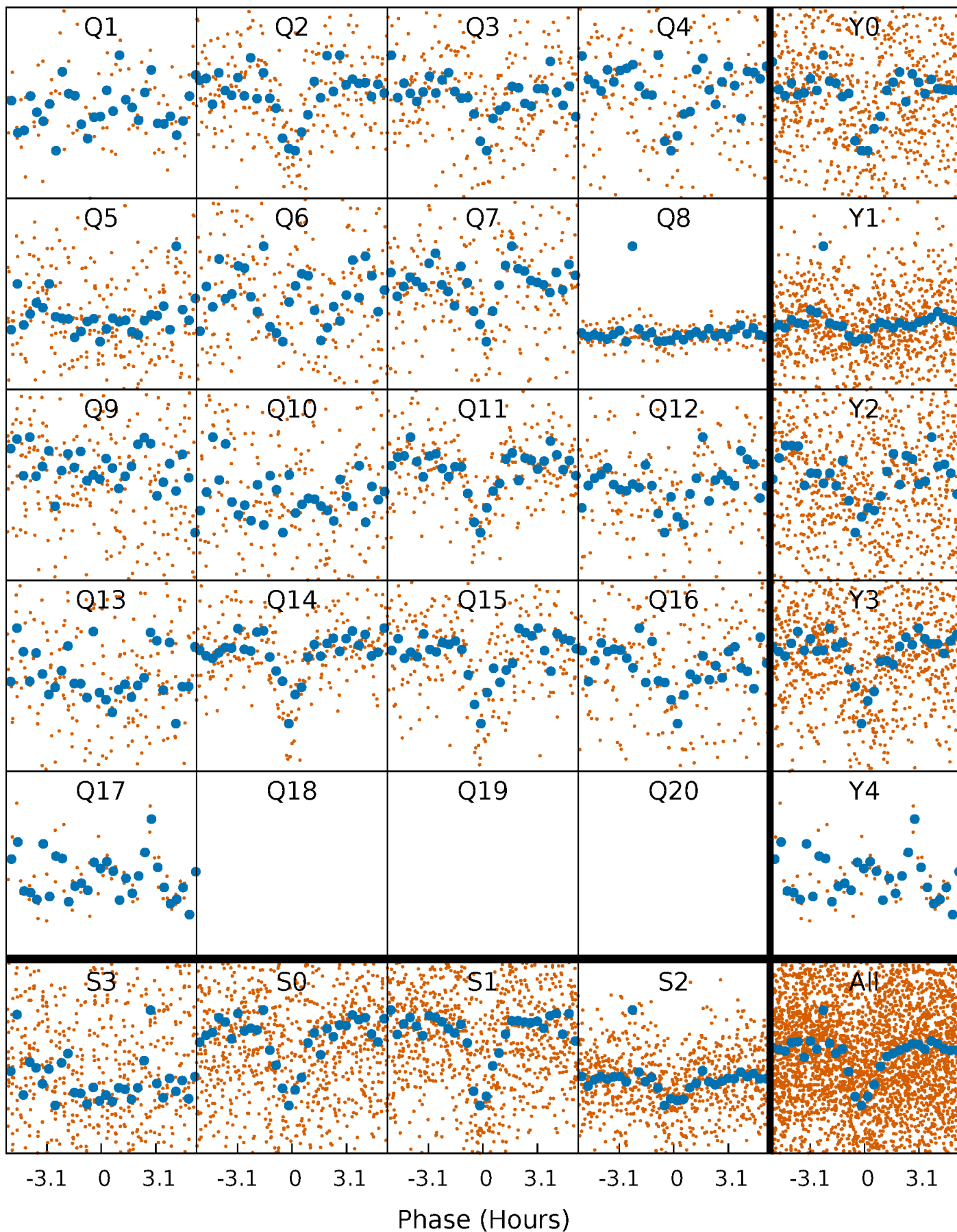


Non-Whitened Vs. Whitened Light Curve



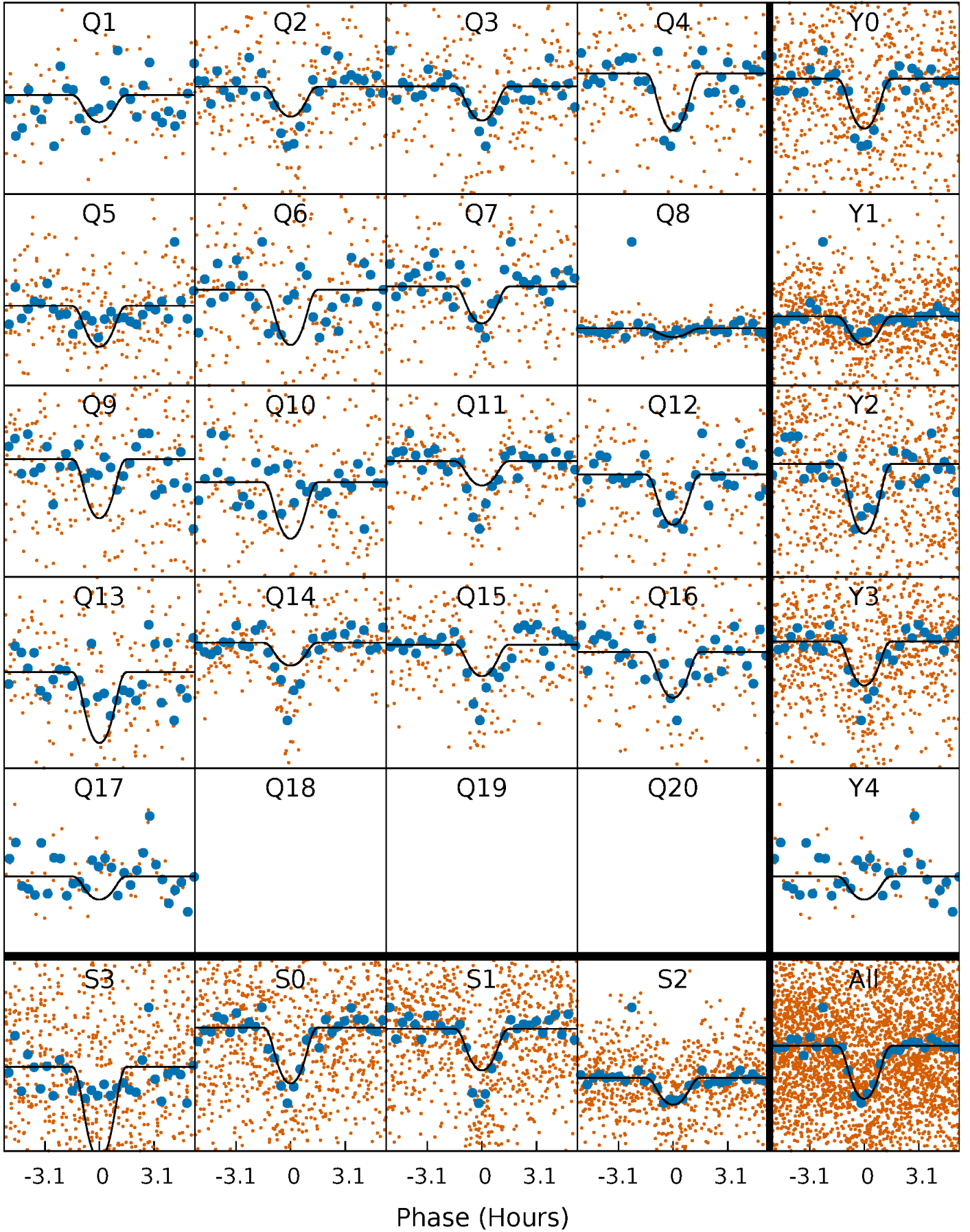
PDC Quarter-Phased Transit Curves

TCE 008183911-01 P= 8.306960 Days $T_0=137.085880$ (BKJD)



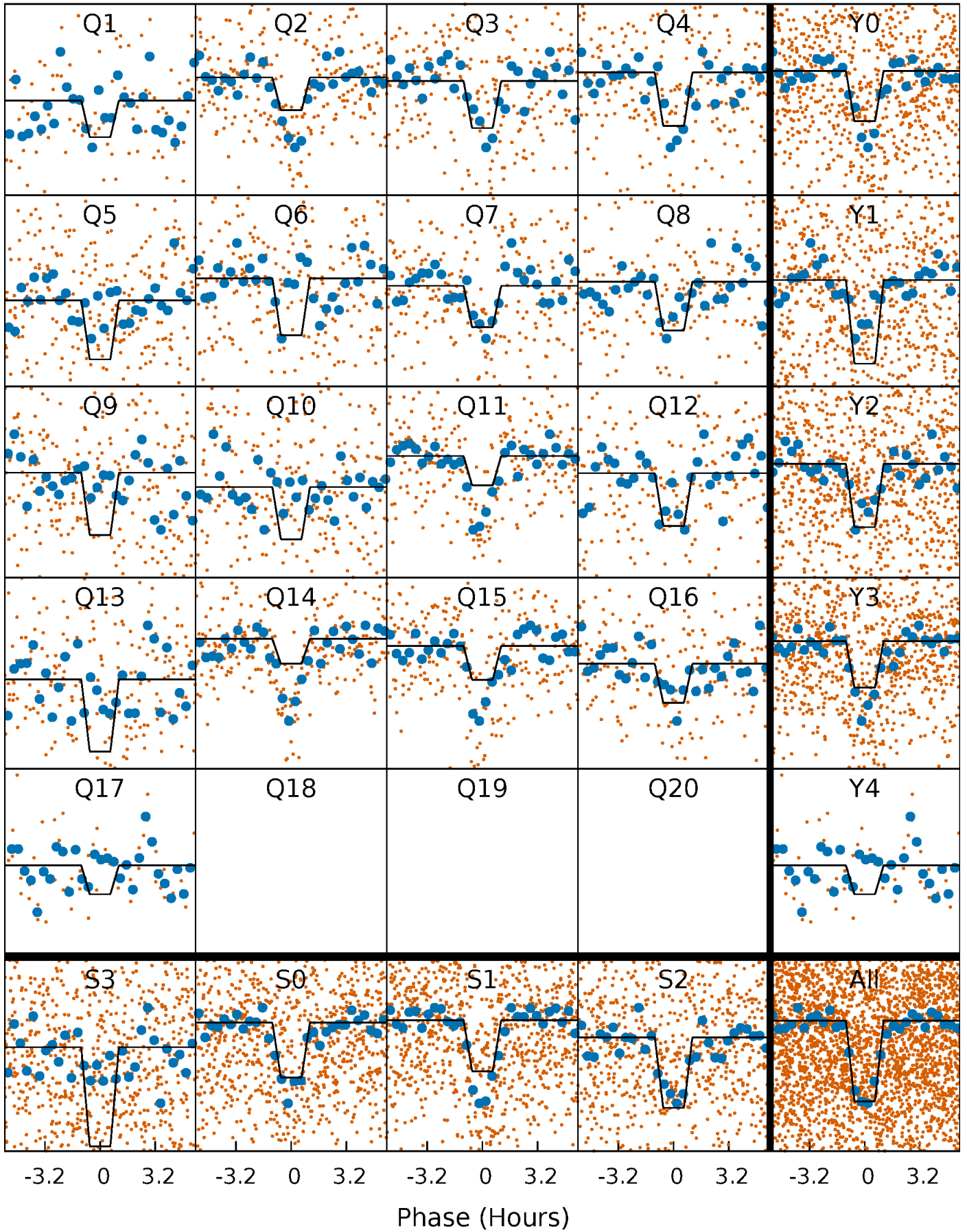
DV Quarter-Phased Transit Curves

TCE 008183911-01 P= 8.306960 Days $T_0=137.085880$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

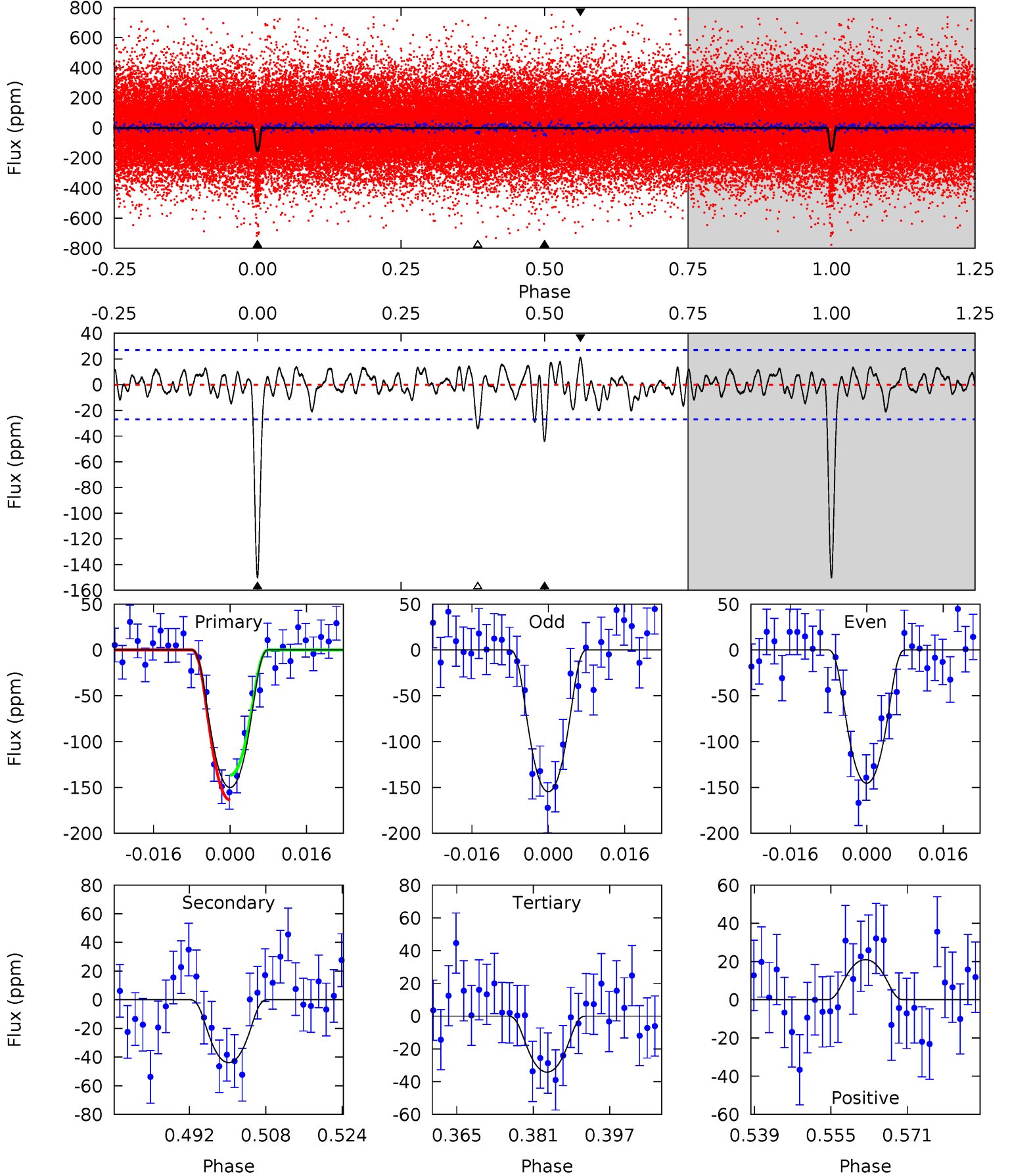
TCE 008183911-01 P= 8.306990 Days $T_0=137.081506$ (BKJD)



DV Model-Shift Uniqueness Test

008183911-01, P = 8.306960 Days, E = 128.778920 Days

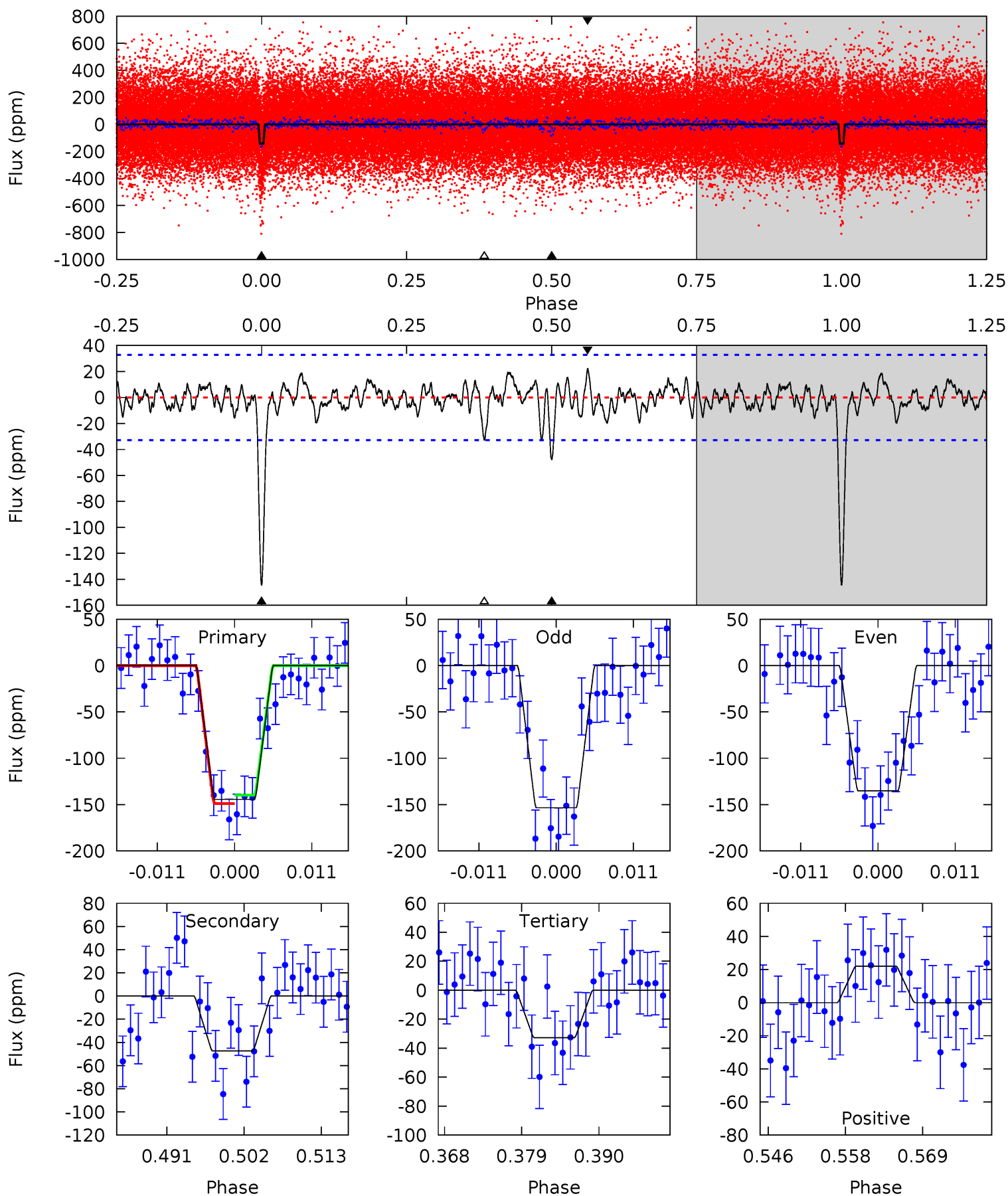
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.5	8.02	6.25	3.84	4.94	2.41	1.52	21.2	23.6	1.77	4.19	0.85	1.09	0.12	2.46



Alt Model-Shift Uniqueness Test

008183911-01, P = 8.306990 Days, E = 128.774516 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	7.24	5.01	3.36	5.01	2.54	1.26	17.0	18.7	2.23	3.88	1.41	1.11	0.13	0.69



Stellar Parameters For KIC 008183911

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5300^{+140}_{-172}	$3.690^{+0.917}_{-0.327}$	$-0.760^{+0.300}_{-0.300}$	$2.124^{+1.272}_{-1.555}$	$0.804^{+0.217}_{-0.144}$	$0.118^{+4.114}_{-0.085}$
	+3%/-3%	+25%/-9%	+39%/-39%	+60%/-73%	+27%/-18%	+3478%/-72%
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 008183911-01 / KOI 1018.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-44 ± 5	$3.60^{+2.26}_{-1.80}$	1708^{+276}_{-337}	3667^{+806}_{-396}	11^{+31}_{-7}
Alt.	-47 ± 7	$2.53^{+2.11}_{-1.53}$	1699^{+286}_{-337}	4208^{+1487}_{-682}	23^{+120}_{-16}

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

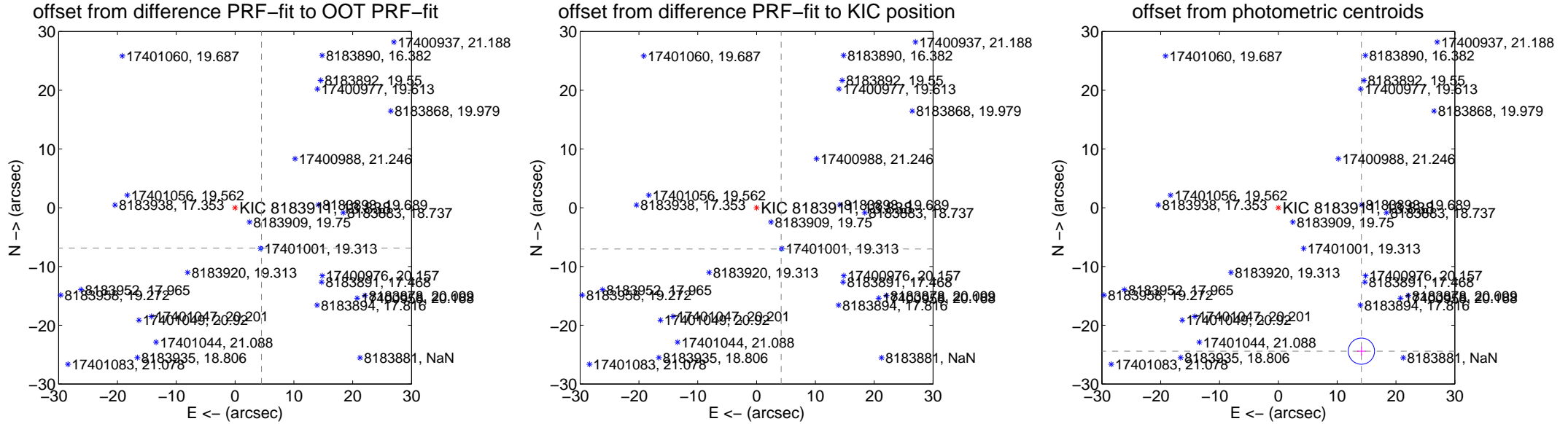
DV Centroid Data

Supplemental centroid analysis for 008183911-01. Kepler magnitude: 13.84. Transit SNR 15.71

There are 12 quarters with good PRF difference image offsets

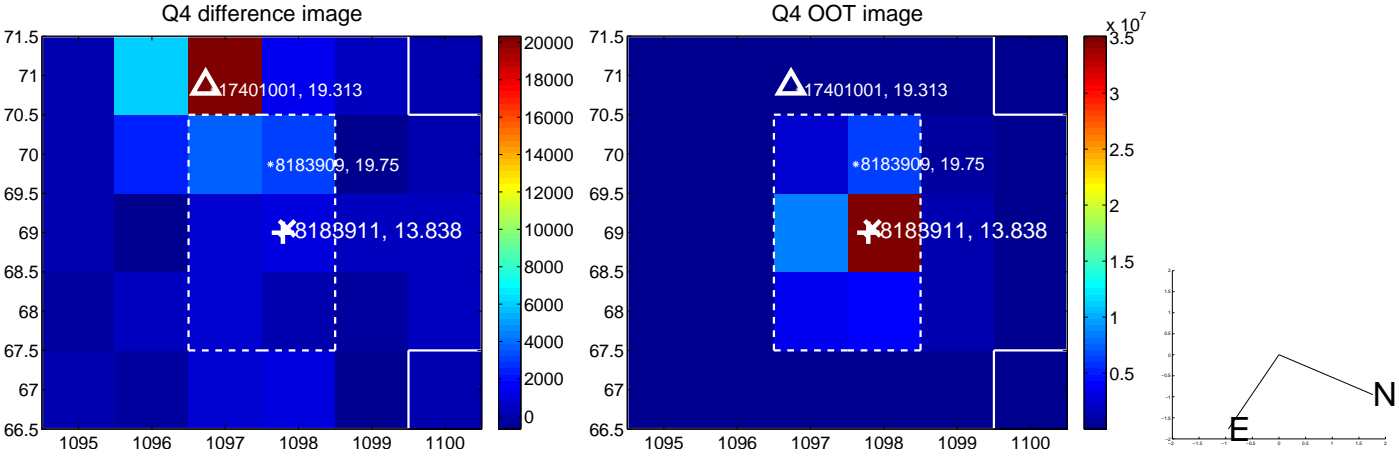
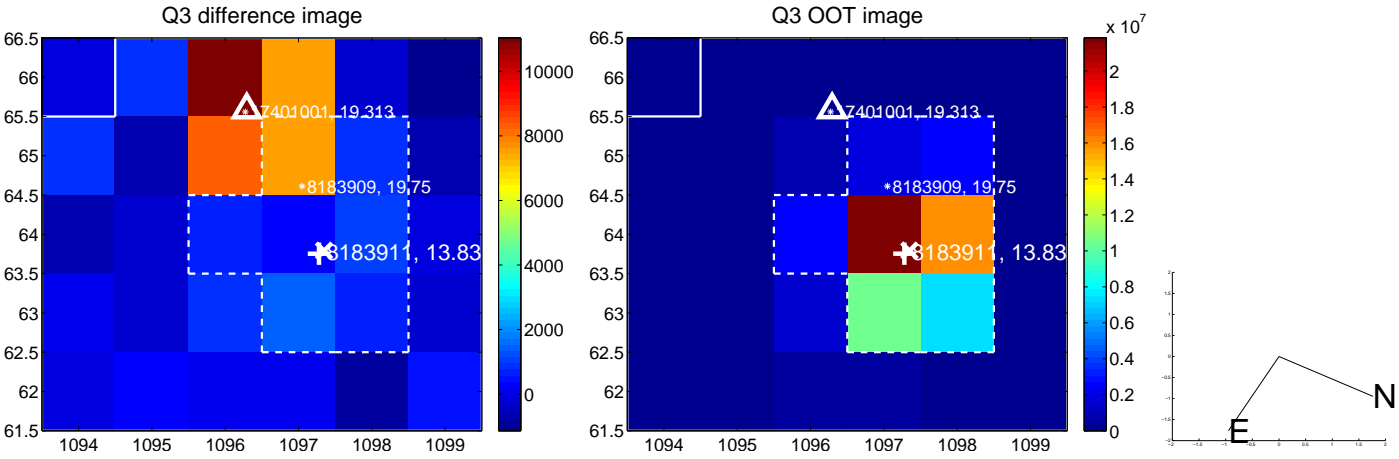
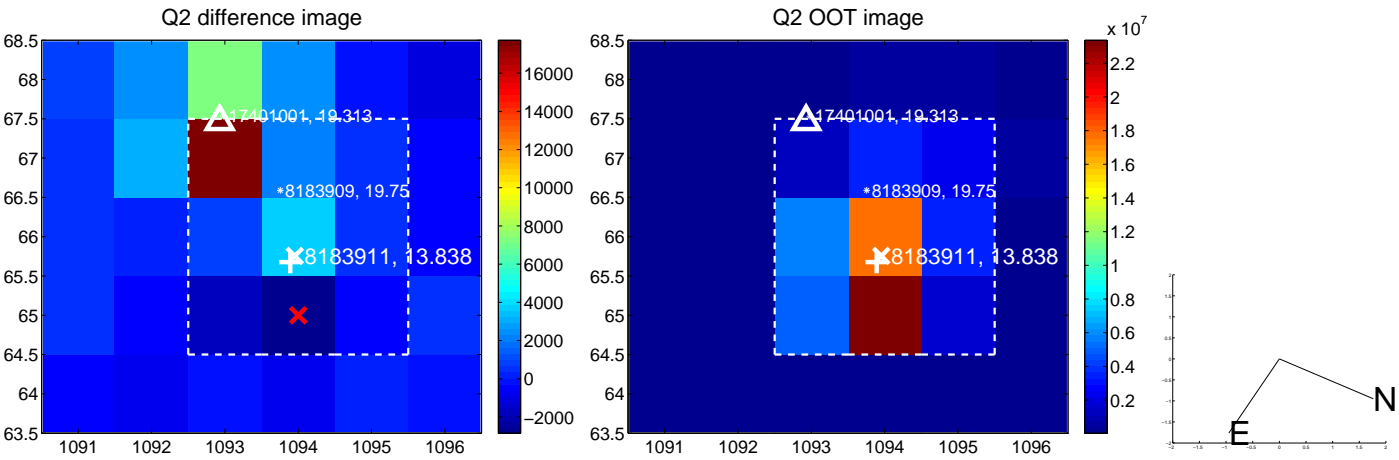
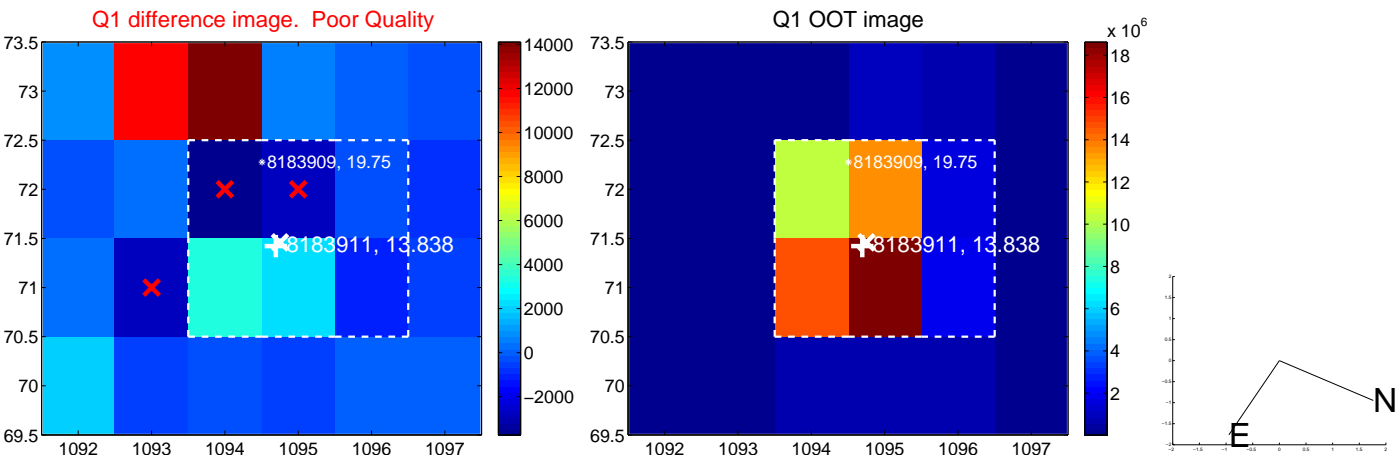
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.200 ± 0.078	104.88	-4.492 ± 0.075	-6.860 ± 0.079
PRF-fit source offset from KIC position	8.175 ± 0.078	104.92	-4.187 ± 0.074	-7.021 ± 0.079
photometric centroid source offset	28.20 ± 0.74	37.95	-14.12 ± 0.74	-24.41 ± 0.74

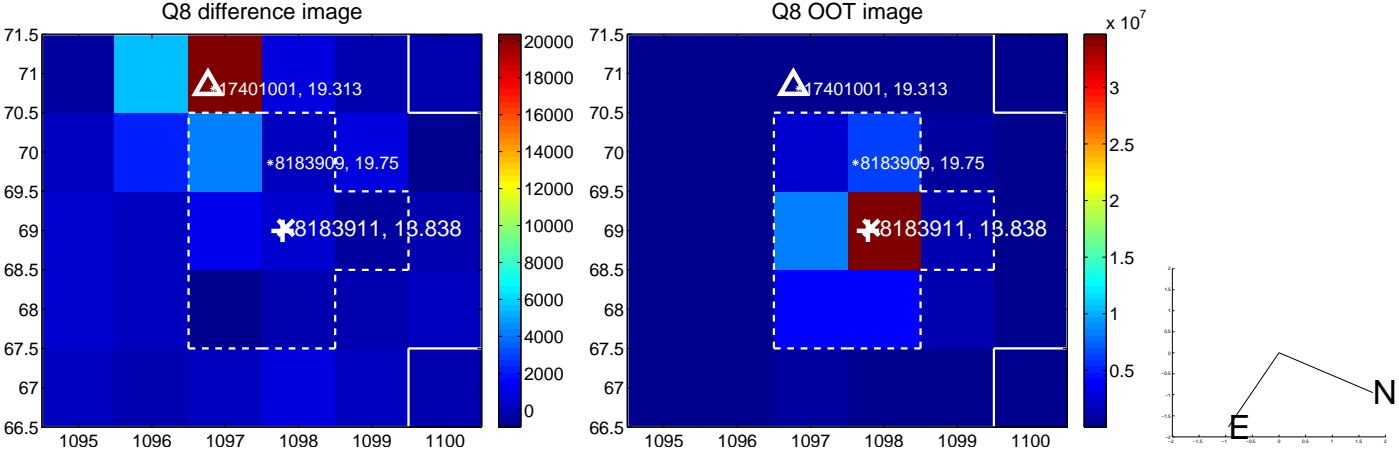
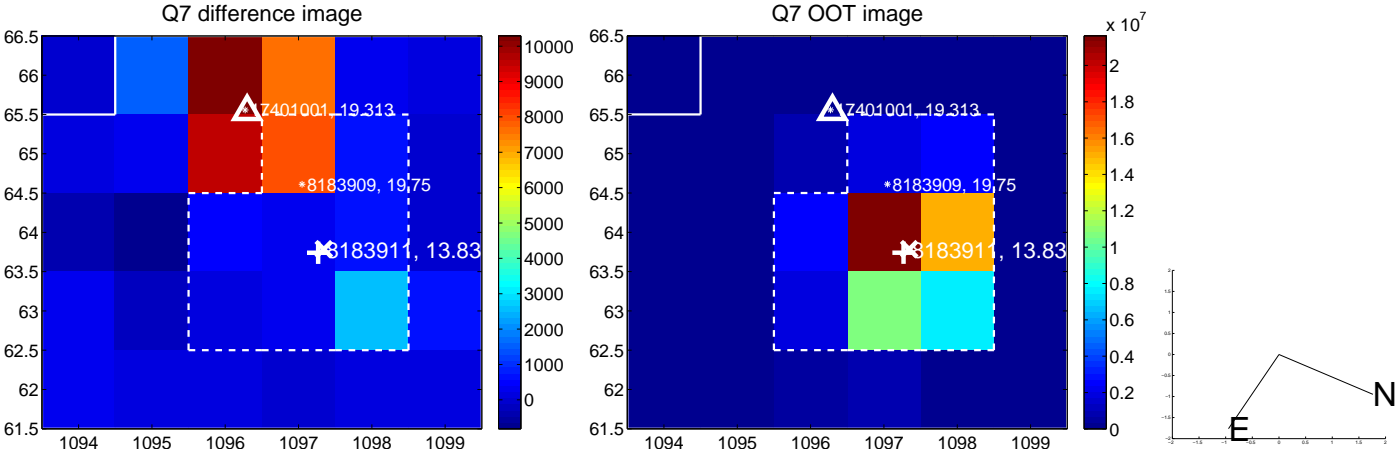
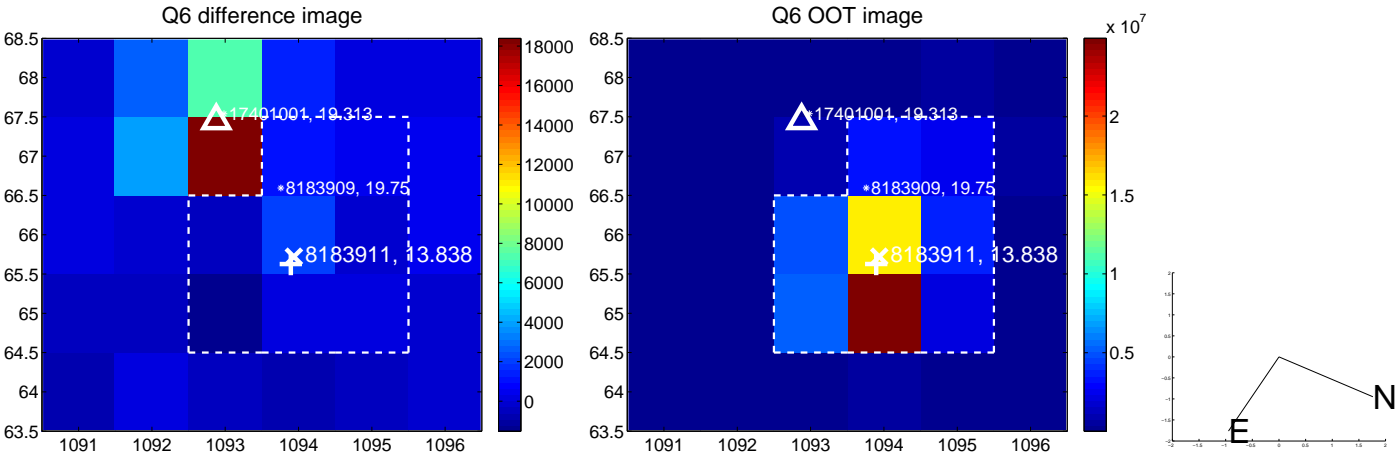
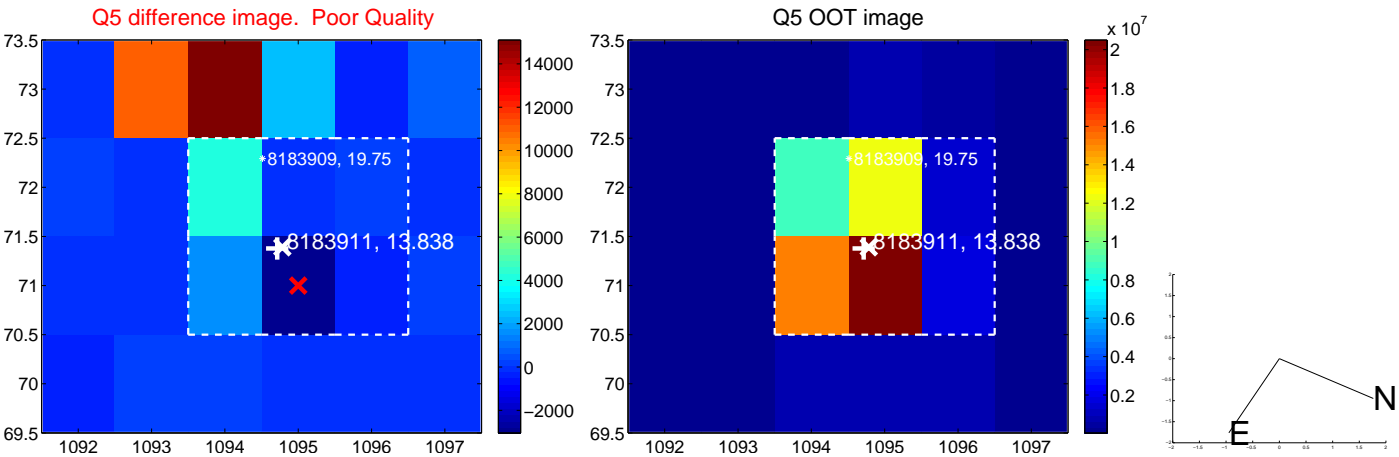


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

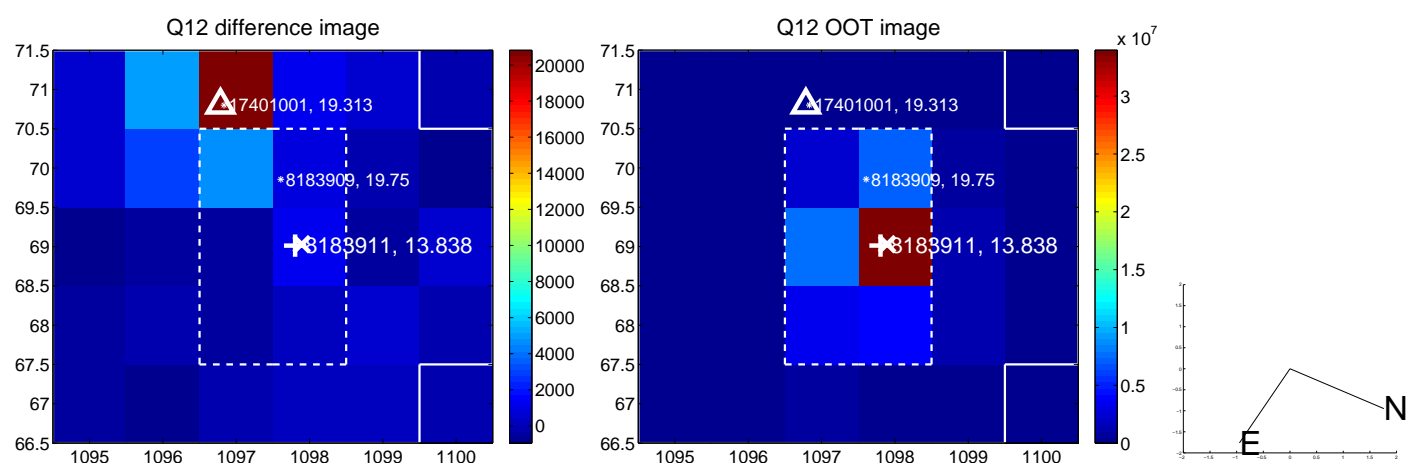
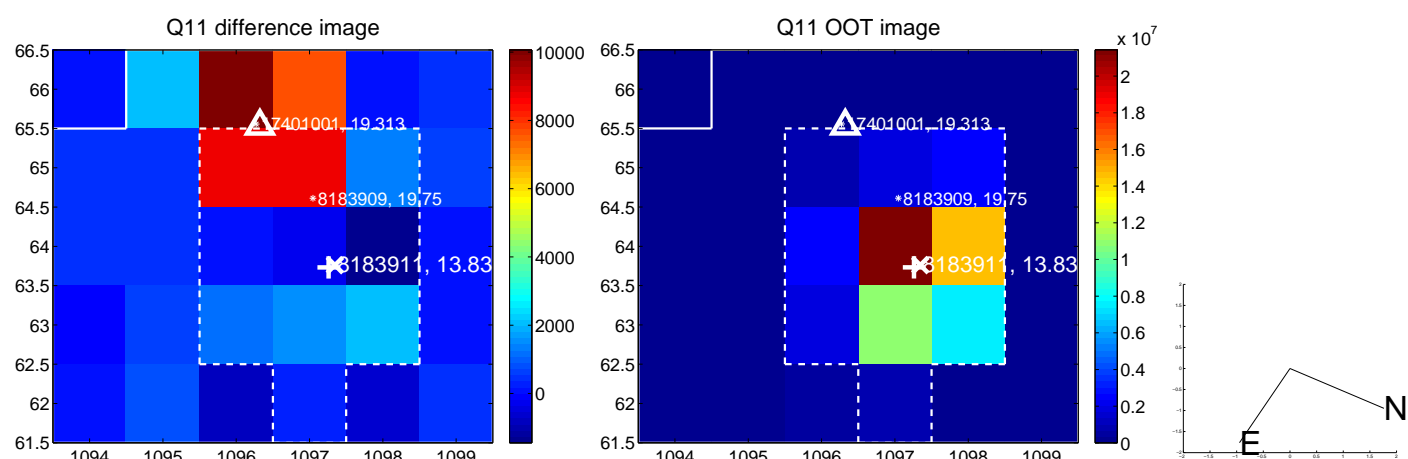
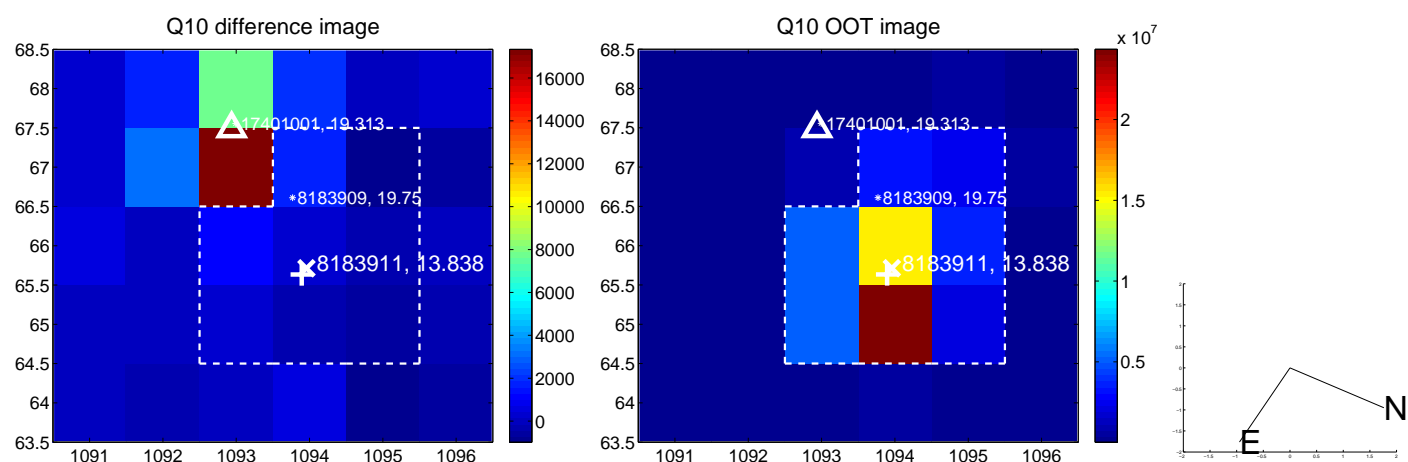
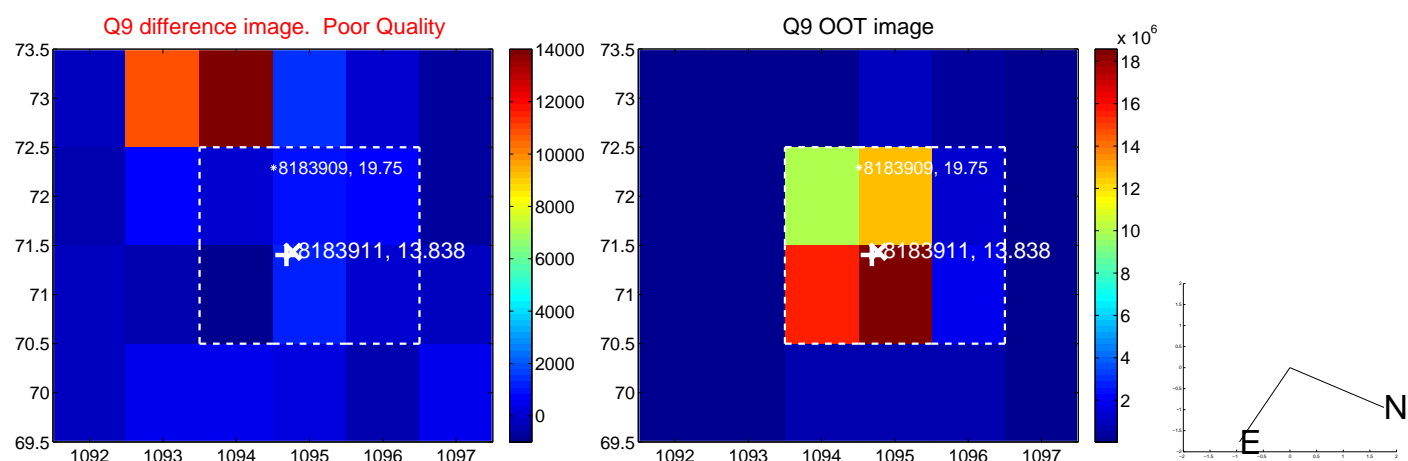
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



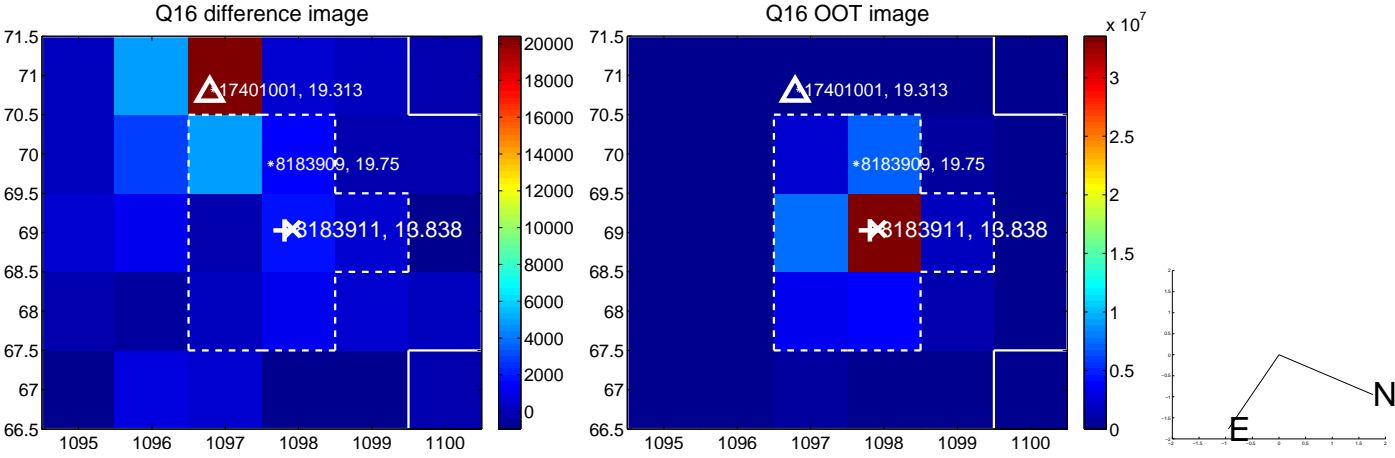
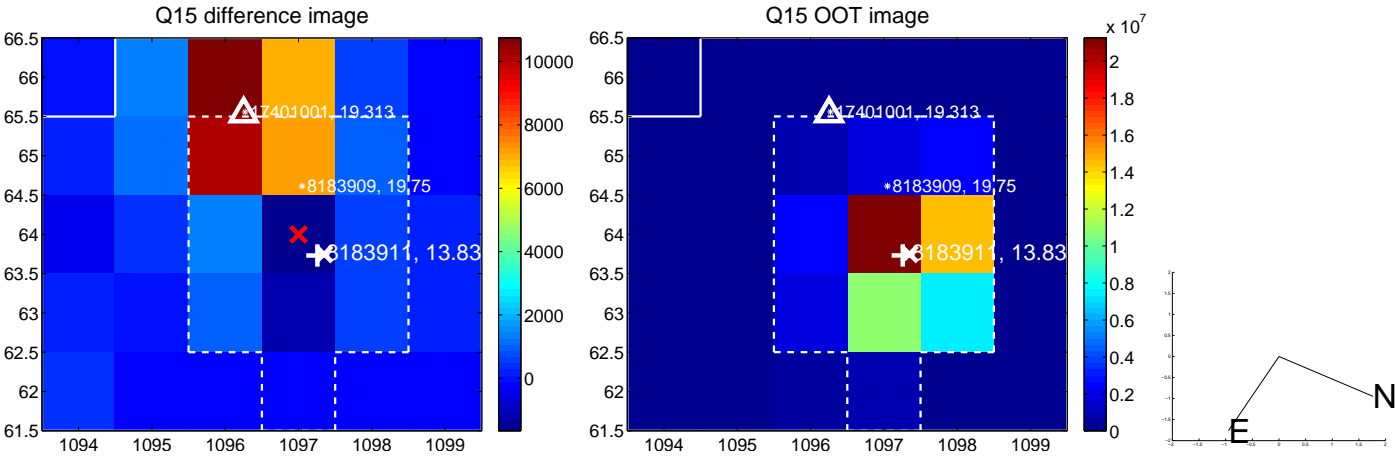
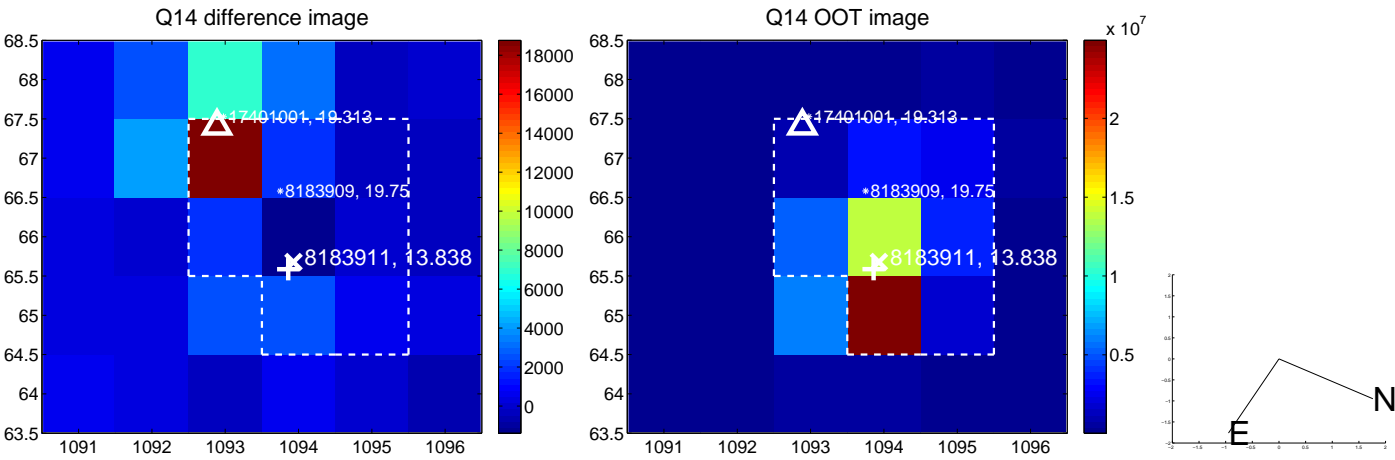
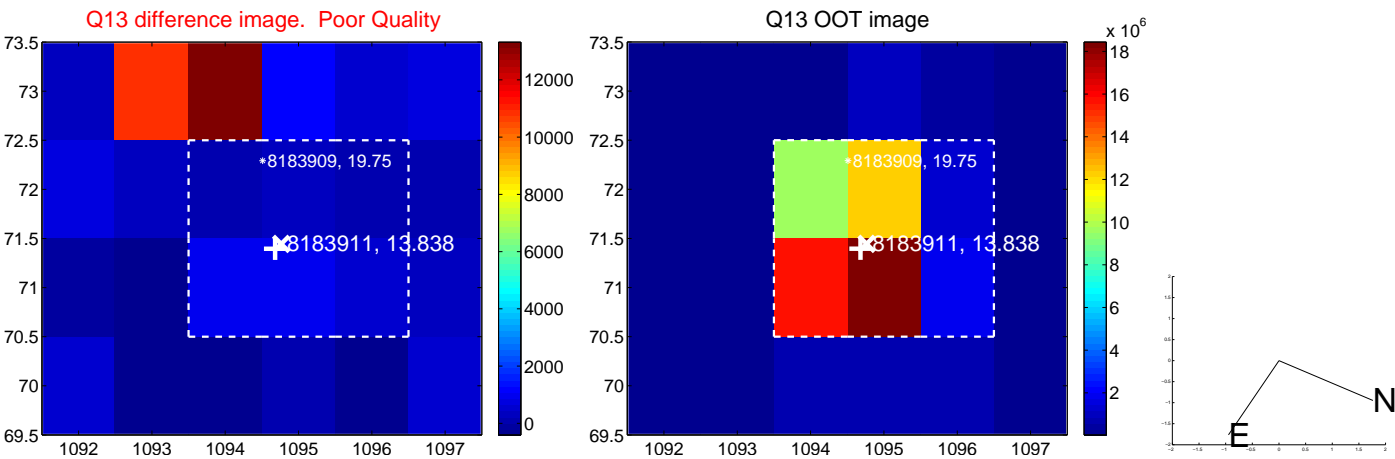
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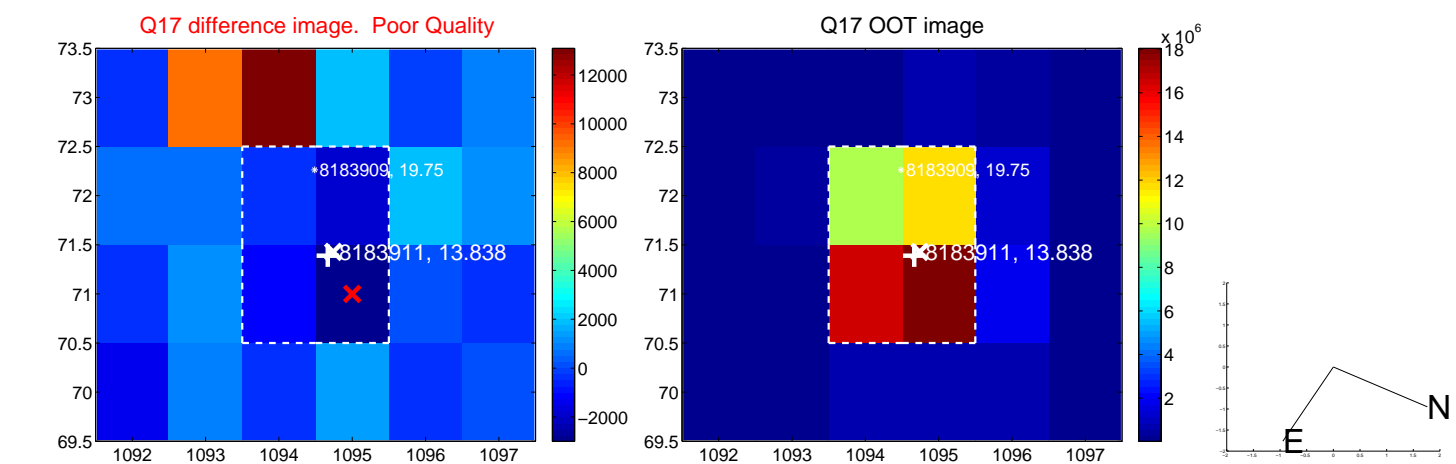
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



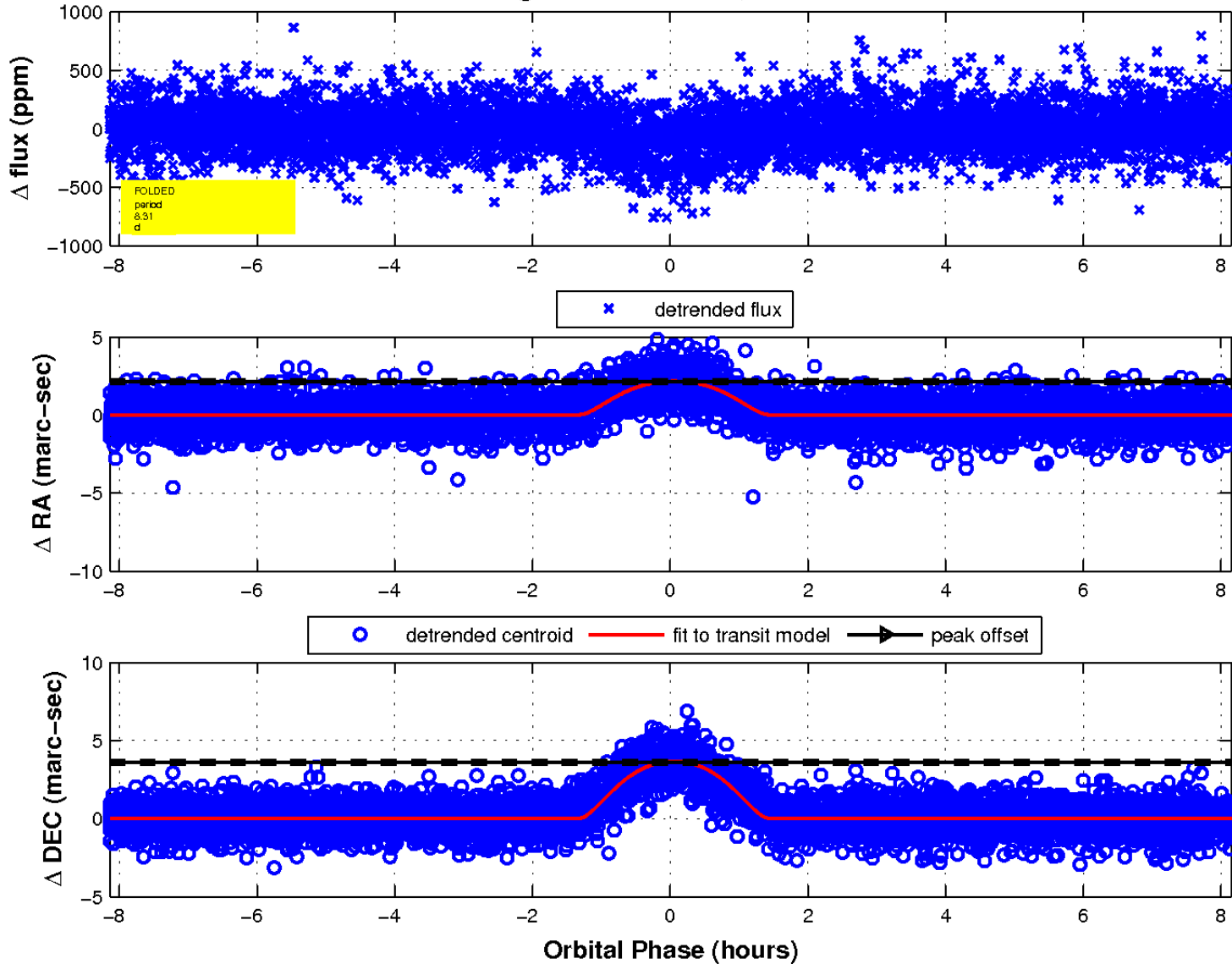
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

