

KIC 008381204

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})
008381204-01	OBS	2145.01	8.326491	135.590202	268.3	5.465	23.3	25.4	1.00	6057	1.85	183.08

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008381204-01	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.

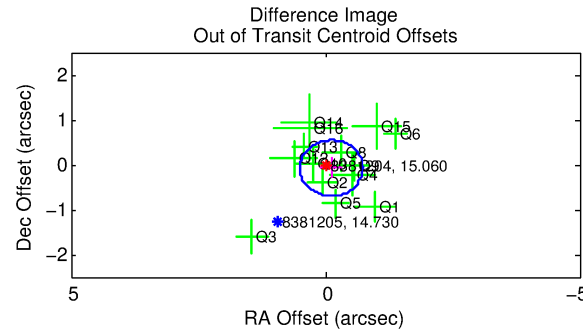
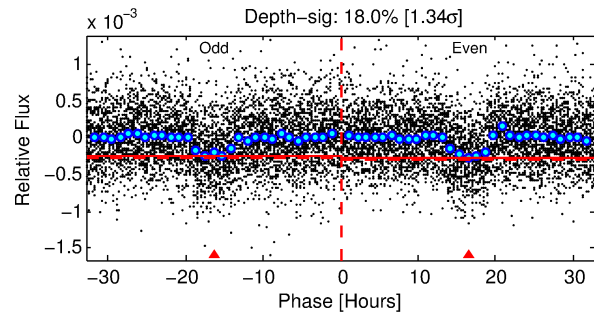
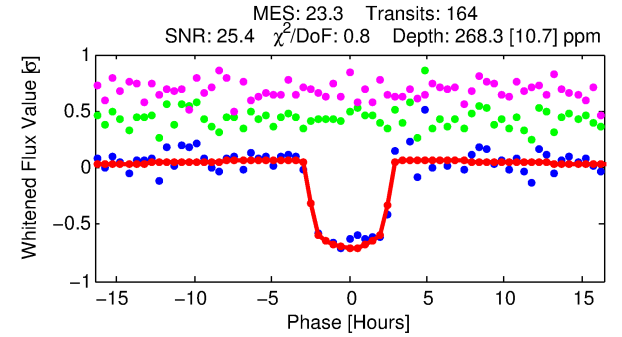
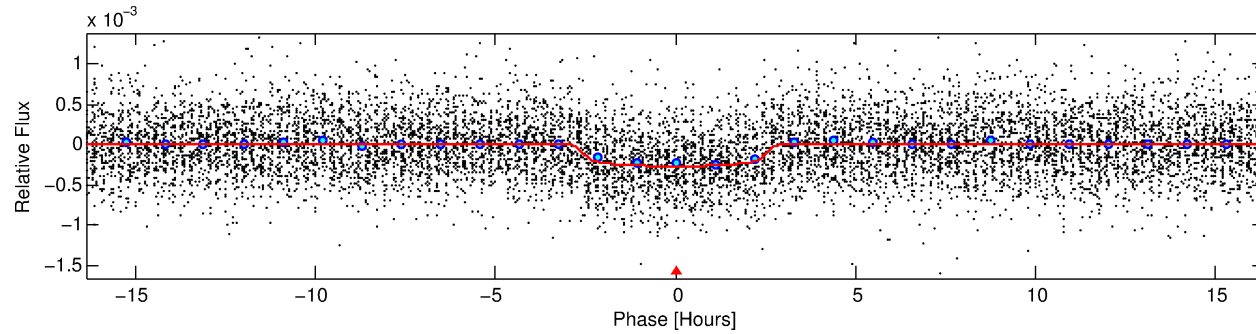
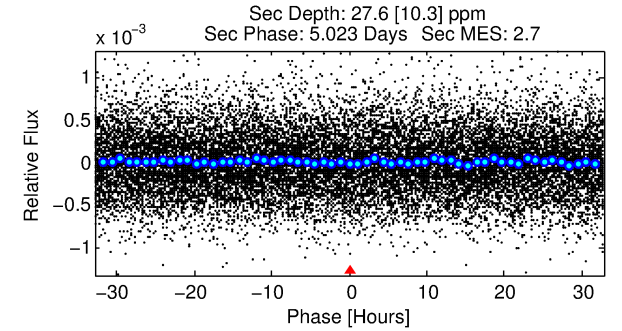
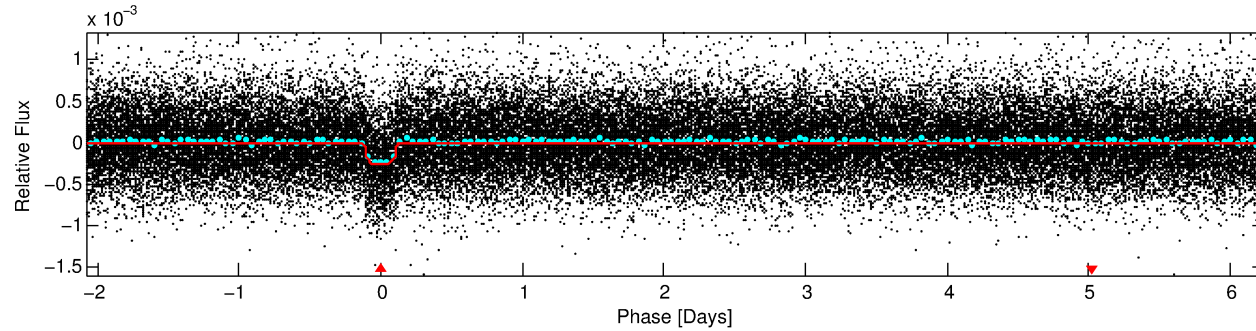
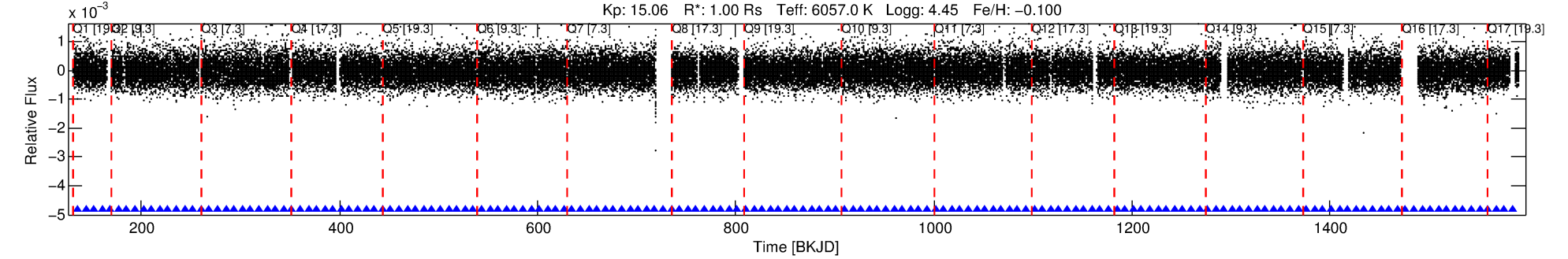
Ephemeris Match Information For 008381204-01

No Significant Match Found

DV One-Page Summary

KIC: 8381204 Candidate: 1 of 1 Period: 8.326 d

KOI: K02145.01 Corr: 0.991



DV Fit Results:

Period = 8.32649 [0.00004] d
Epoch = 135.5902 [0.0037] BKJD
Rp/R* = 0.0170 [0.0035]
a/R* = 6.69 [6.79]
b = 0.84 [0.36]
Seff = 183.08 [78.93]
Teff = 938 [101] K
Rp = 1.85 [0.72] Re
a = 0.0812 [0.0227] AU
Ag = 29.14 [20.13] [1.40σ]
Teffp = 3369 [484] K [4.92σ]

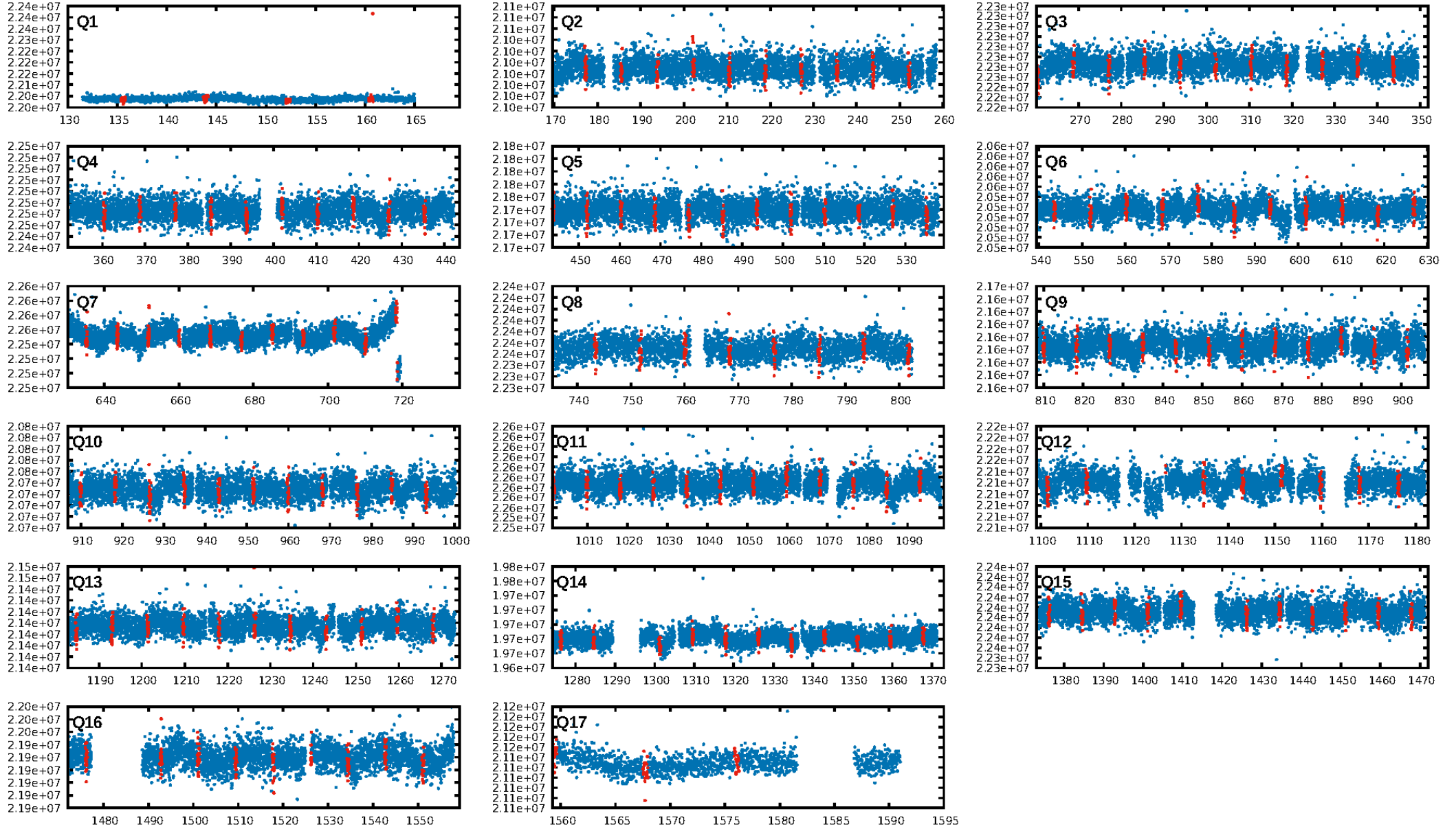
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.76e-115
RollingBand-fgt: 1.00 [157/157]
GhostDiagnostic-chr: 5.838
Centroid-sig: 33.5%
Centroid-so: 0.368 arcsec [0.76σ]
OotOffset-rm: 0.139 arcsec [0.67σ]
KicOffset-rm: 0.218 arcsec [1.06σ]
OotOffset-st: 4/2/4/4 [14]
KicOffset-st: 4/2/4/4 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [17/17]

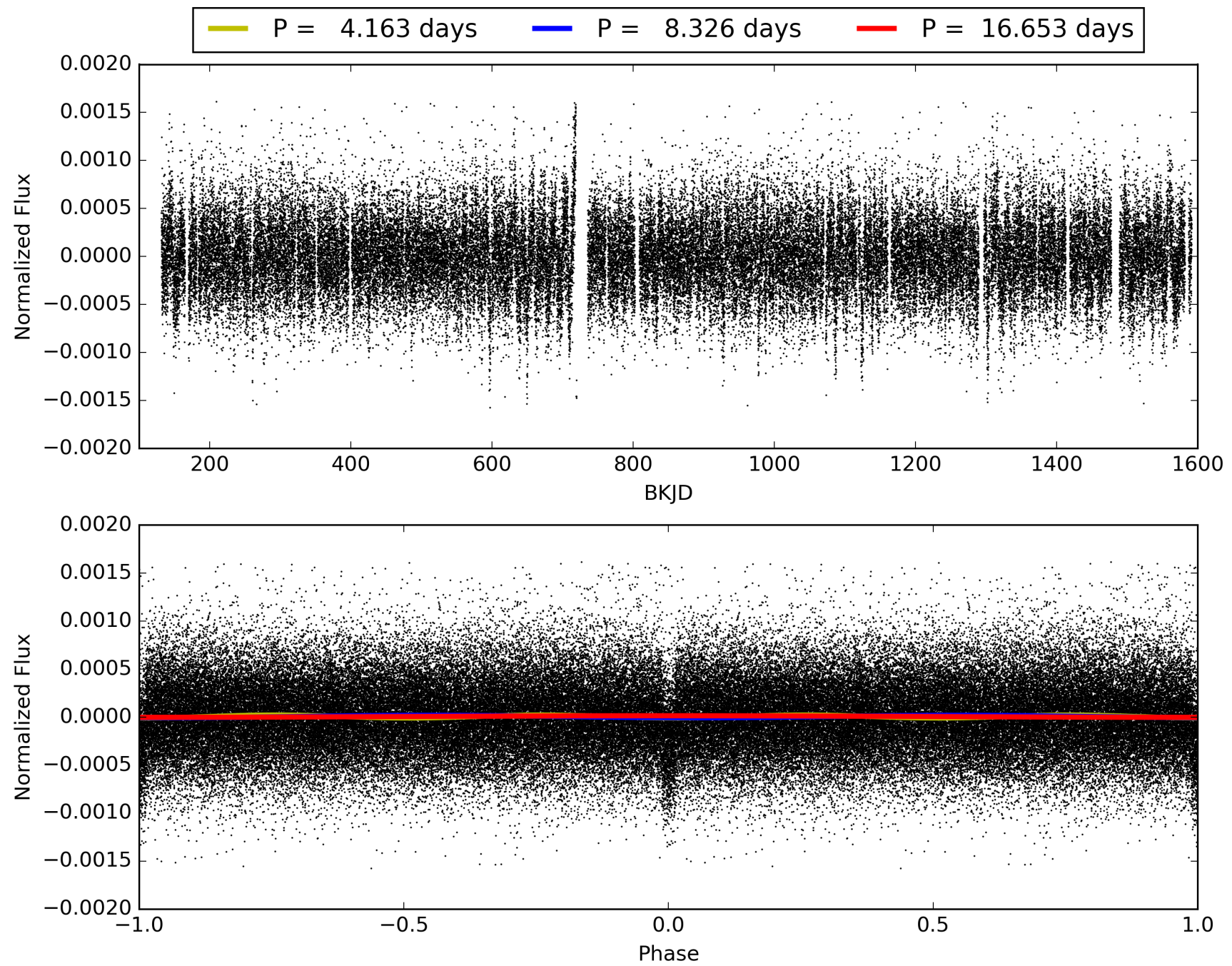
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:41:41 Z

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

TCE 008381204-01, PDC Light Curves

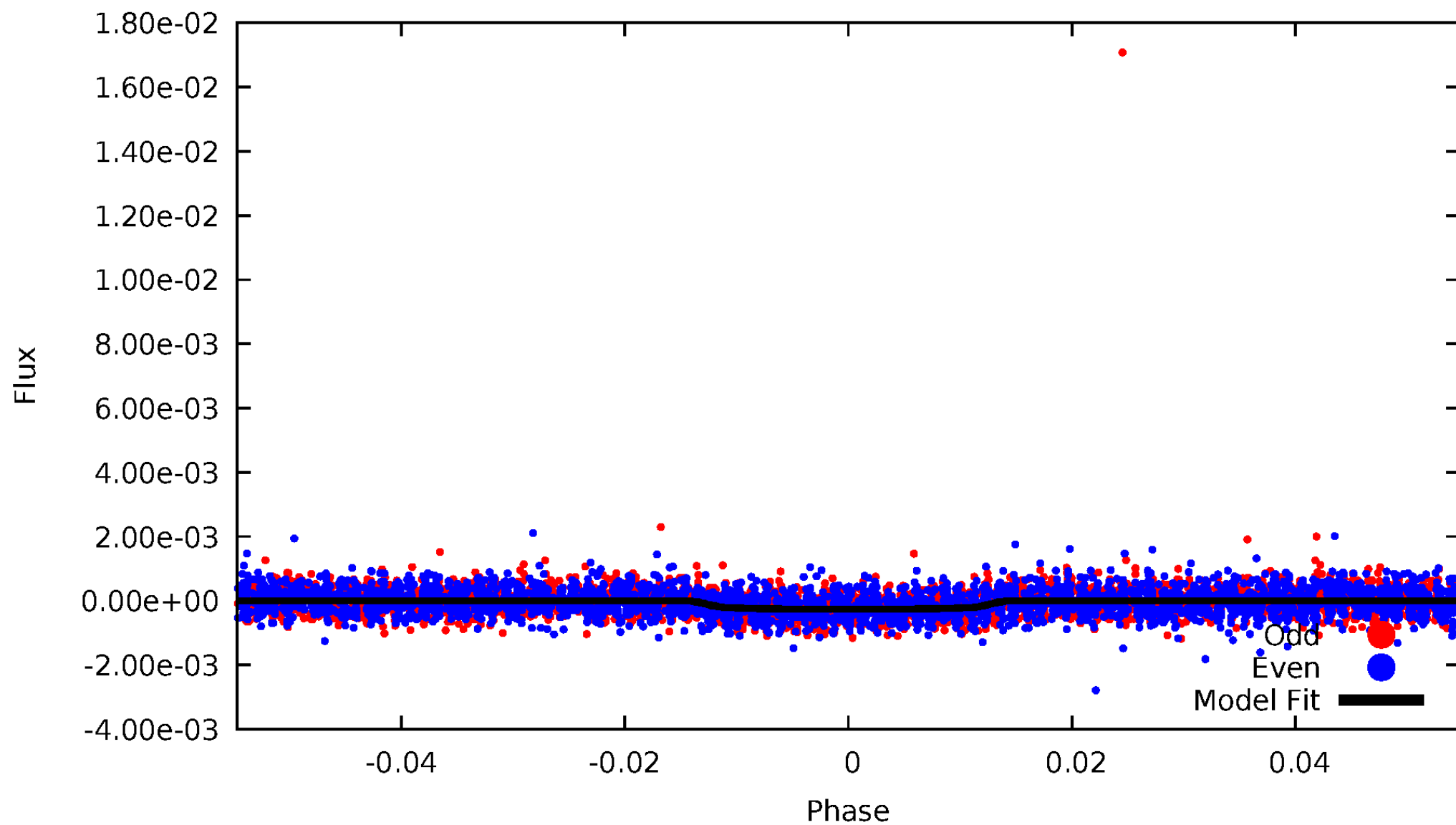


TCE 008381204-01



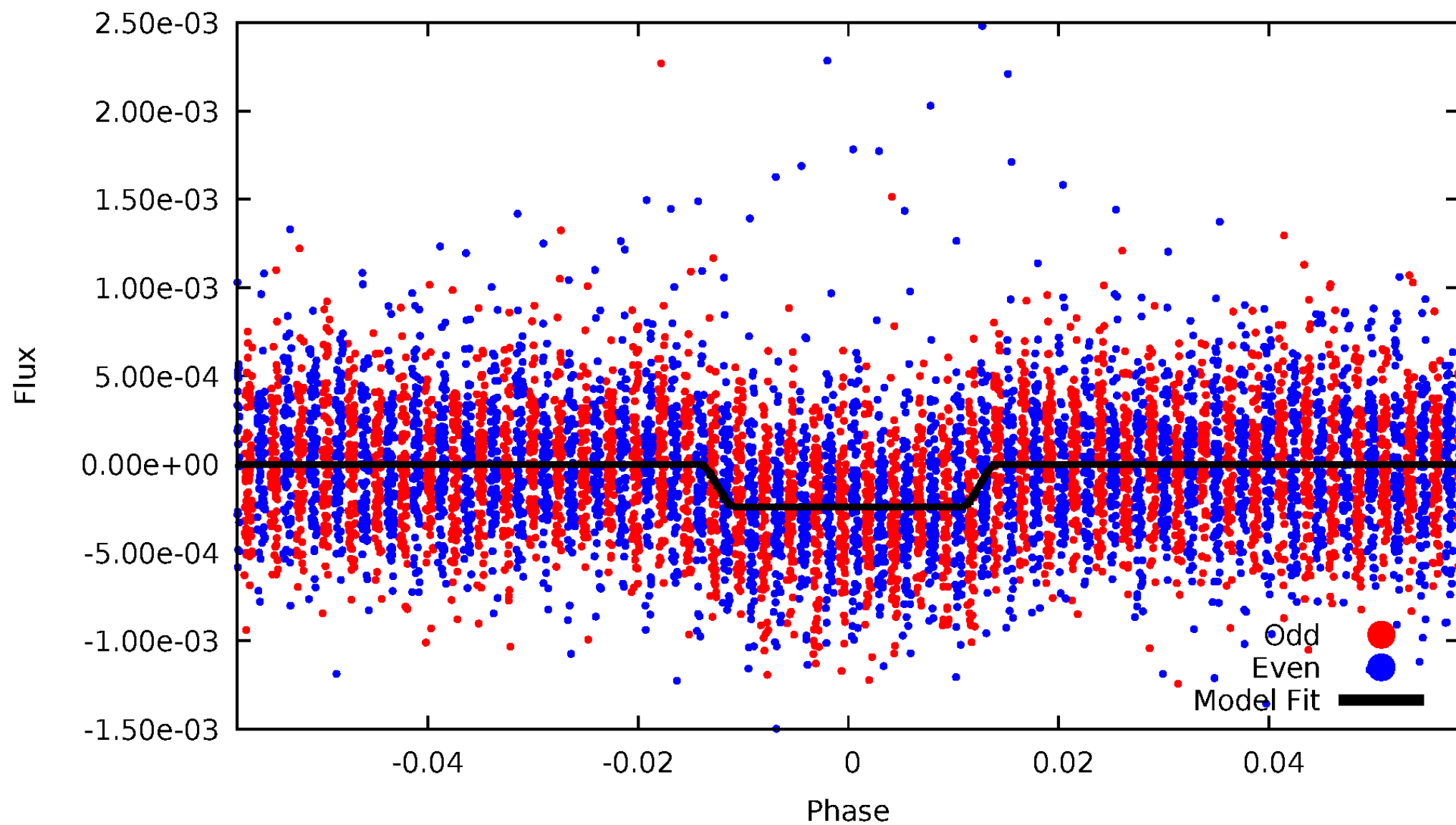
DV Odd/Even

TCE 008381204-01



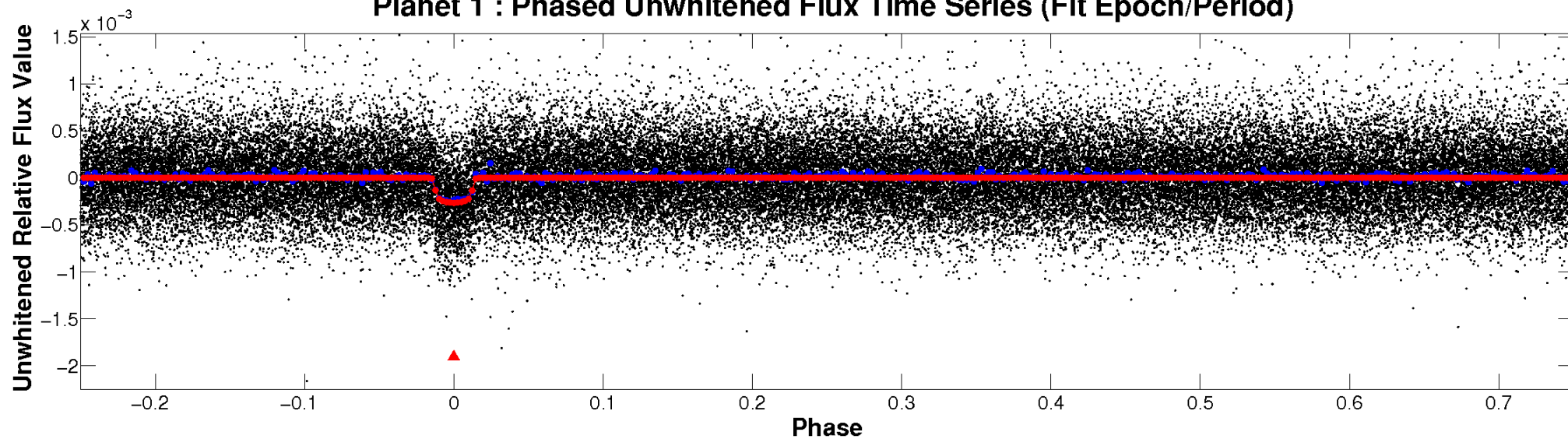
ALT Odd/Even

TCE 008381204-01

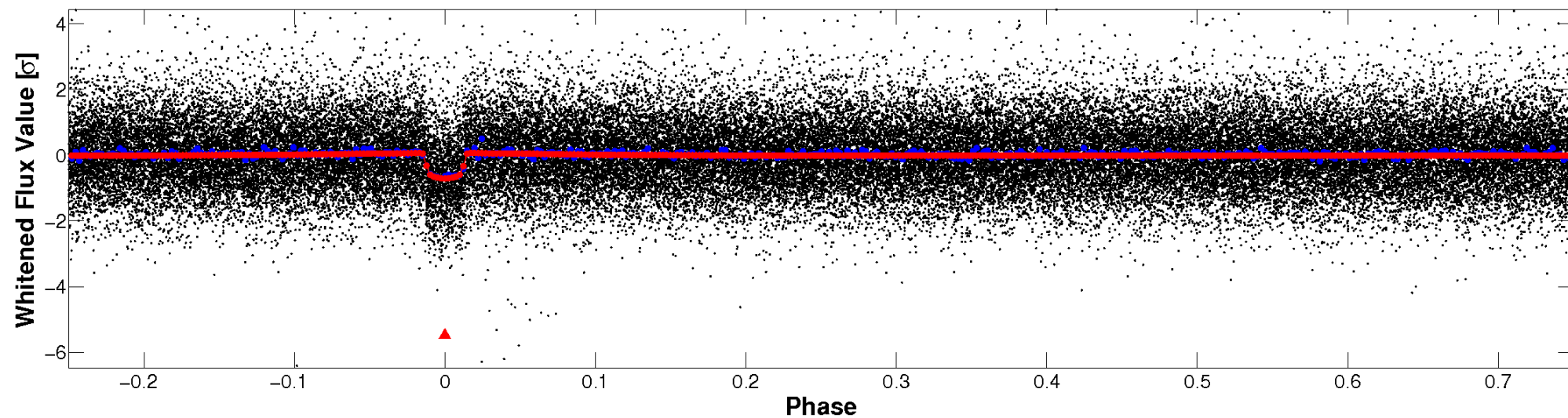


Non-Whitened Vs. Whitened Light Curve

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

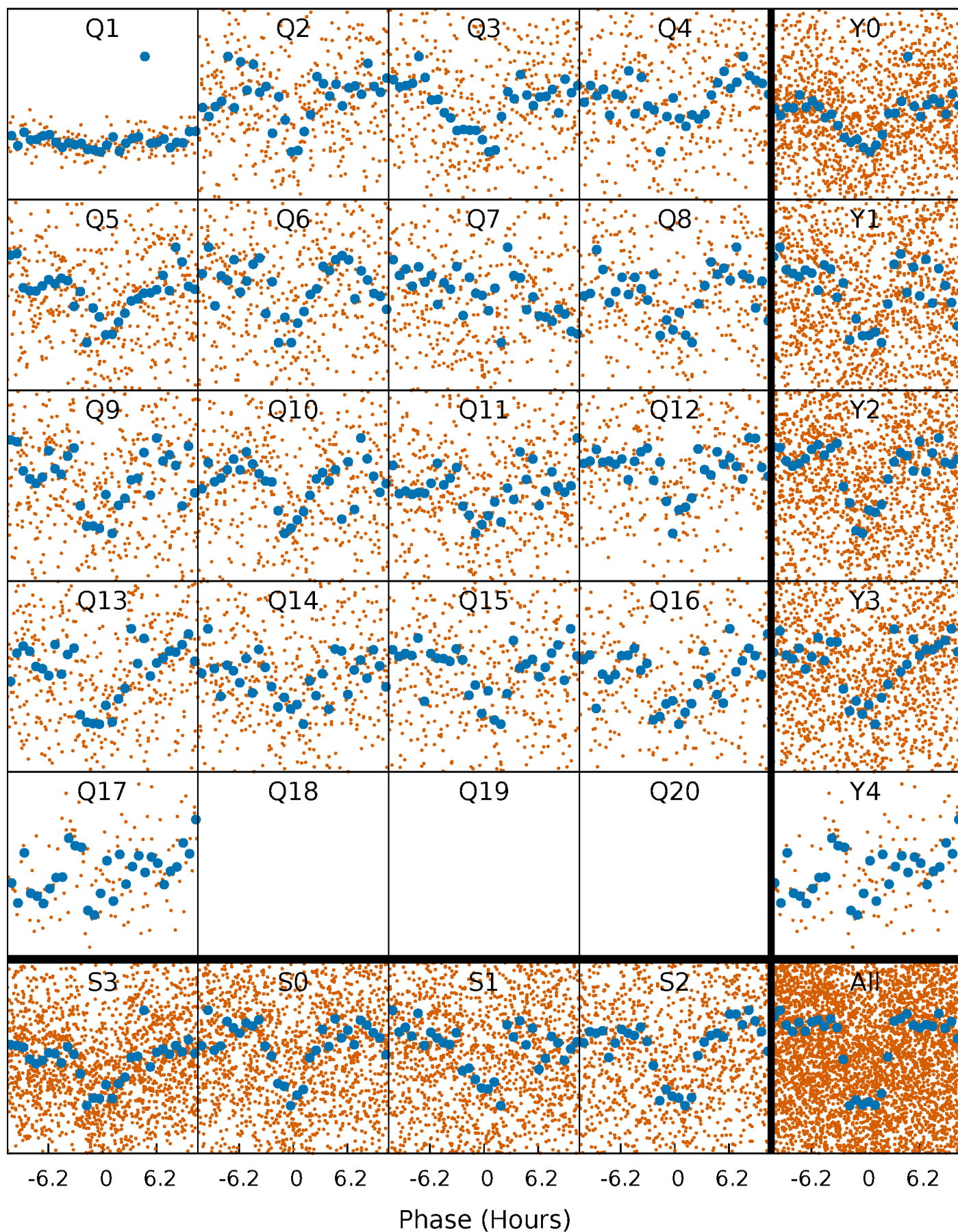


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



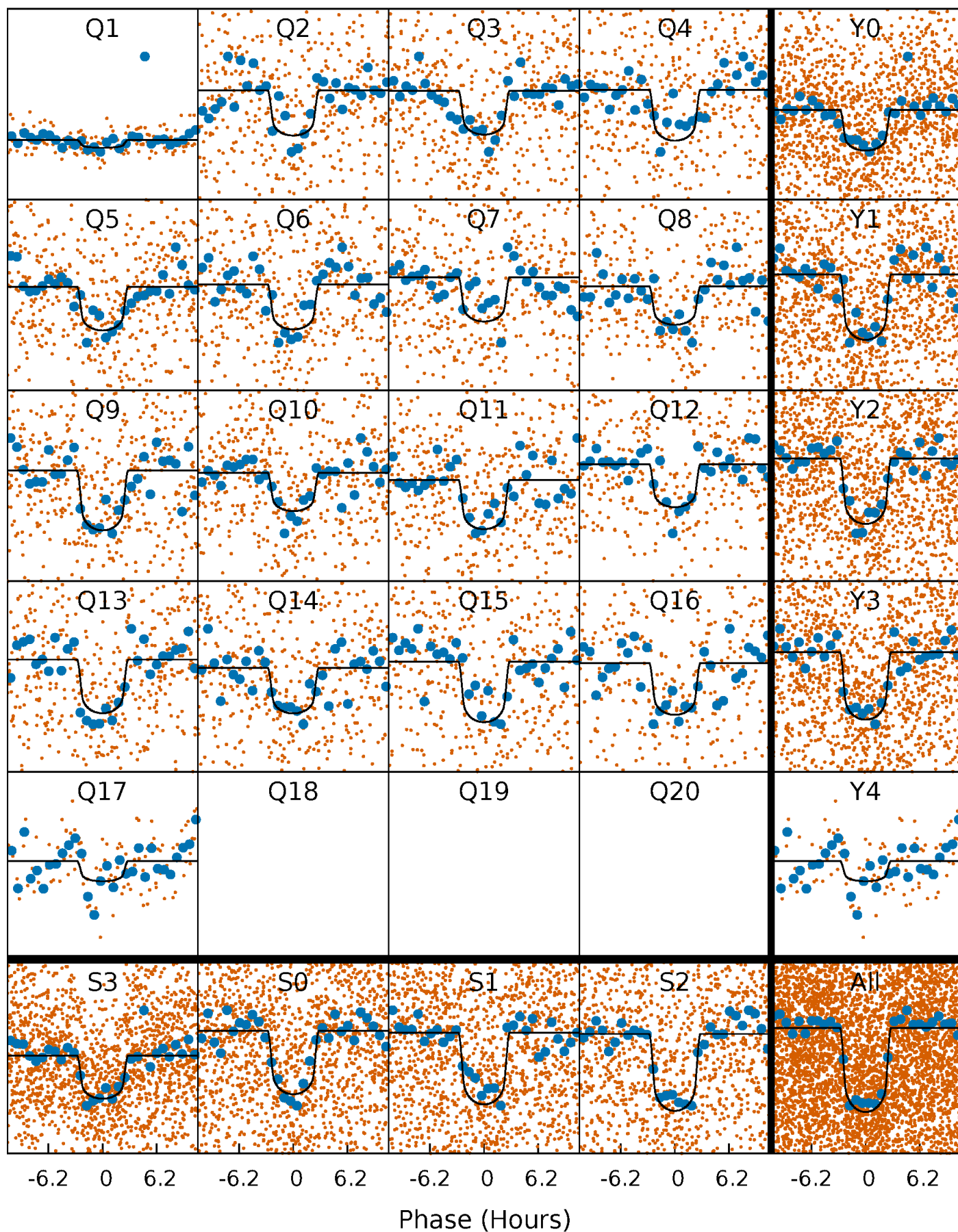
PDC Quarter-Phased Transit Curves

TCE 008381204-01 P= 8.326491 Days $T_0=135.590202$ (BKJD)



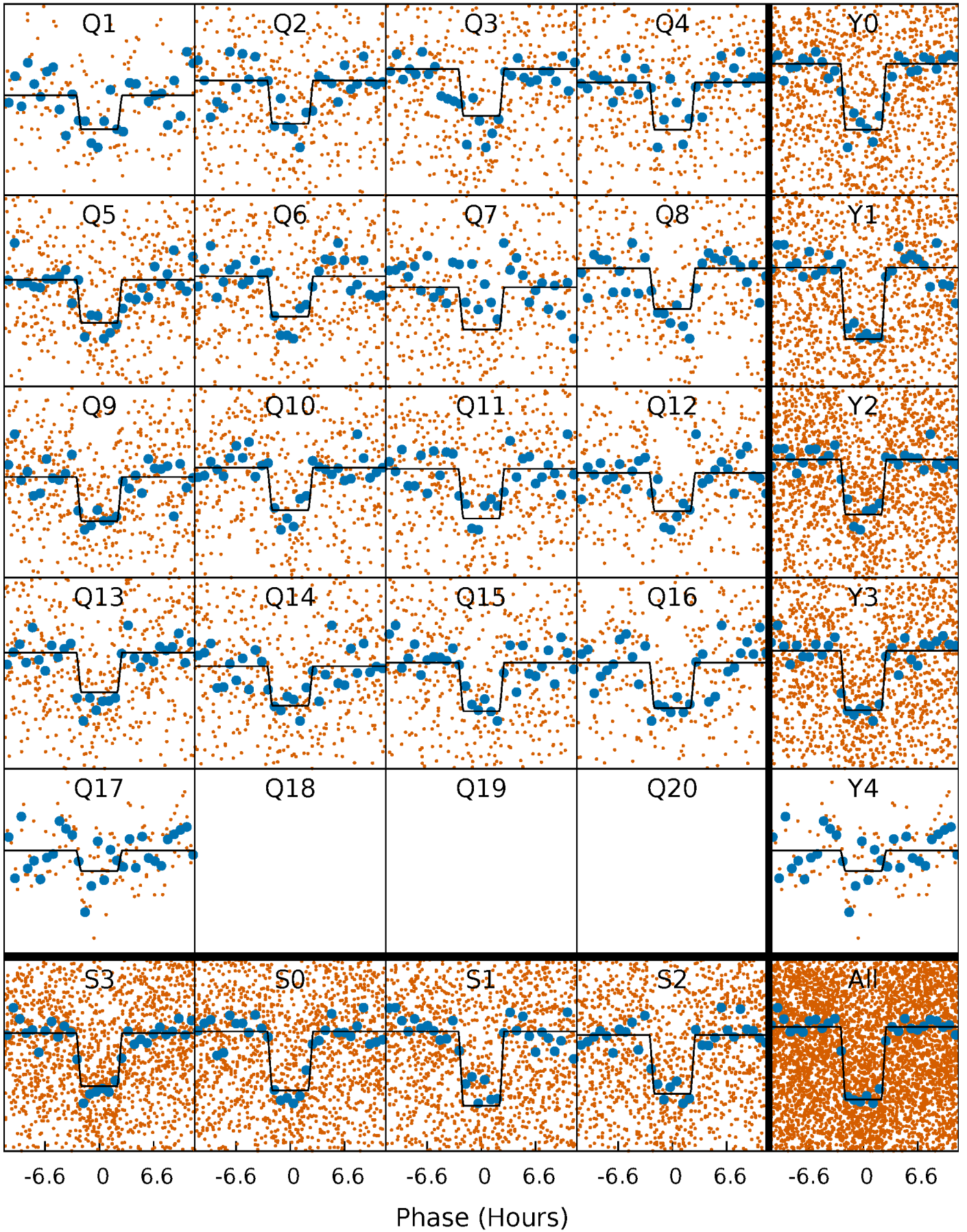
DV Quarter-Phased Transit Curves

TCE 008381204-01 P= 8.326491 Days $T_0=135.590202$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

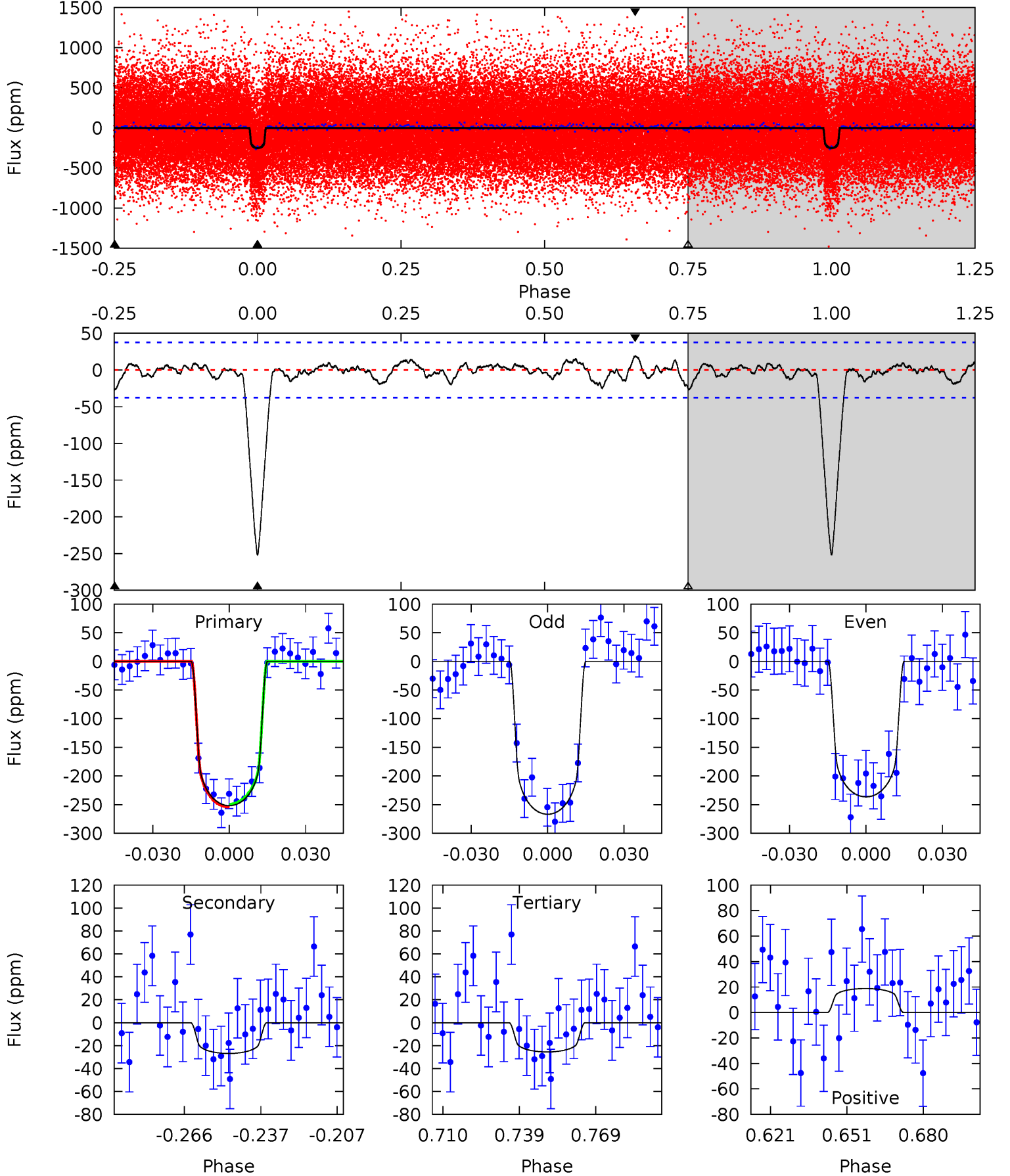
TCE 008381204-01 P= 8.326680 Days $T_0=135.573687$ (BKJD)



DV Model-Shift Uniqueness Test

008381204-01, P = 8.326491 Days, E = 127.263711 Days

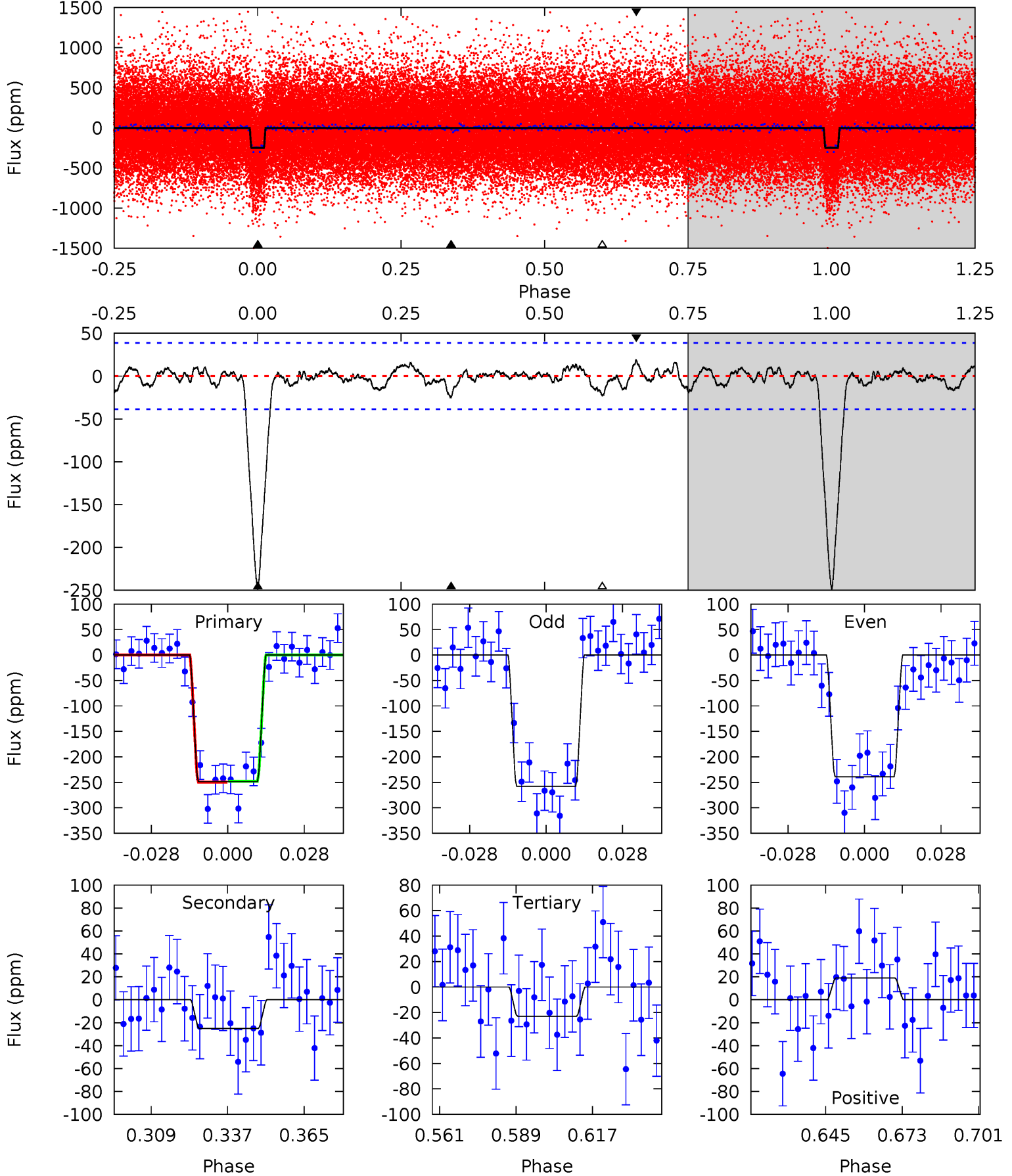
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.2	3.43	3.27	2.41	4.81	2.18	1.03	28.9	29.8	0.17	1.03	1.94	0.97	0.07	0.30



Alt Model-Shift Uniqueness Test

008381204-01, P = 8.326680 Days, E = 127.247007 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.0	3.13	2.87	2.38	4.82	2.20	0.93	28.2	28.7	0.27	0.75	1.18	0.95	0.07	0.09



Stellar Parameters For KIC 008381204

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6057^{+189}_{-210}	$4.450^{+0.056}_{-0.224}$	$-0.100^{+0.250}_{-0.300}$	$1.000^{+0.330}_{-0.110}$	$1.024^{+0.153}_{-0.126}$	$1.444^{+0.426}_{-0.737}$
	+3%/-3%	+1%/-5%	+250%/-300%	+33%/-11%	+15%/-12%	+30%/-51%
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 008381204-01 / KOI 2145.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 8	$1.93^{+0.47}_{-0.45}$	1338^{+102}_{-66}	3756^{+366}_{-326}	25^{+19}_{-11}
Alt.	-25 ± 8	$1.80^{+0.51}_{-0.43}$	1343^{+100}_{-66}	3791^{+417}_{-340}	26^{+24}_{-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 $A_{obs} \gg 1.0$

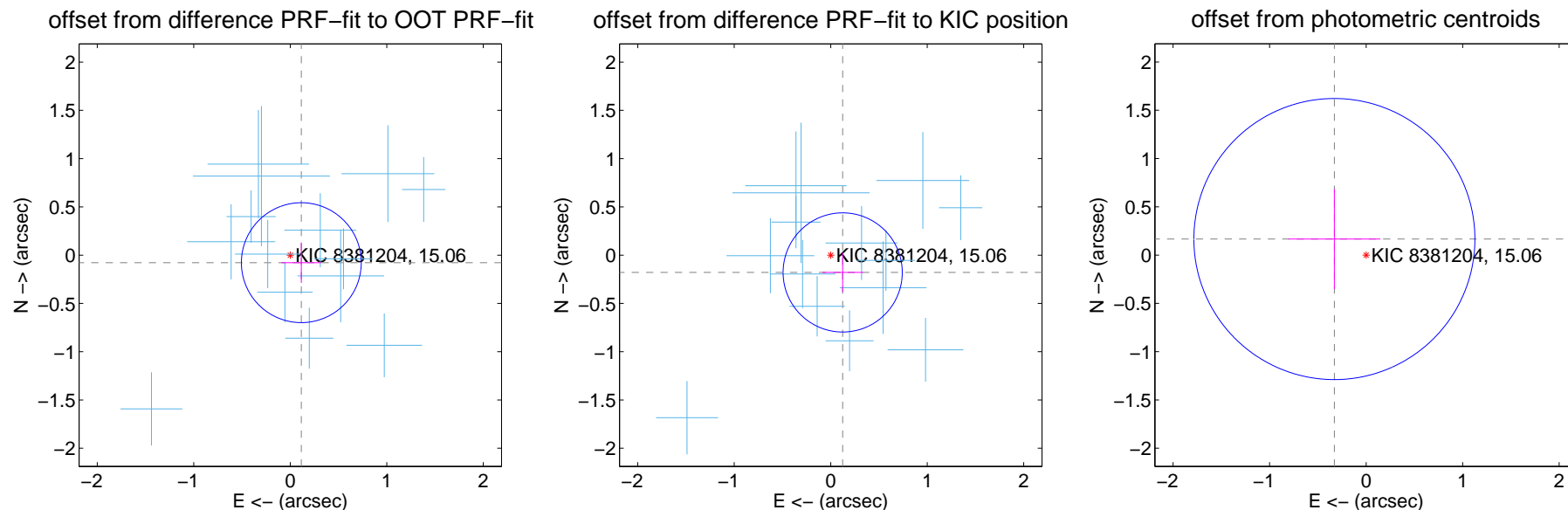
DV Centroid Data

Supplemental centroid analysis for 008381204-01. Kepler magnitude: 15.06. Transit SNR 25.35

There are 14 quarters with good PRF difference image offsets

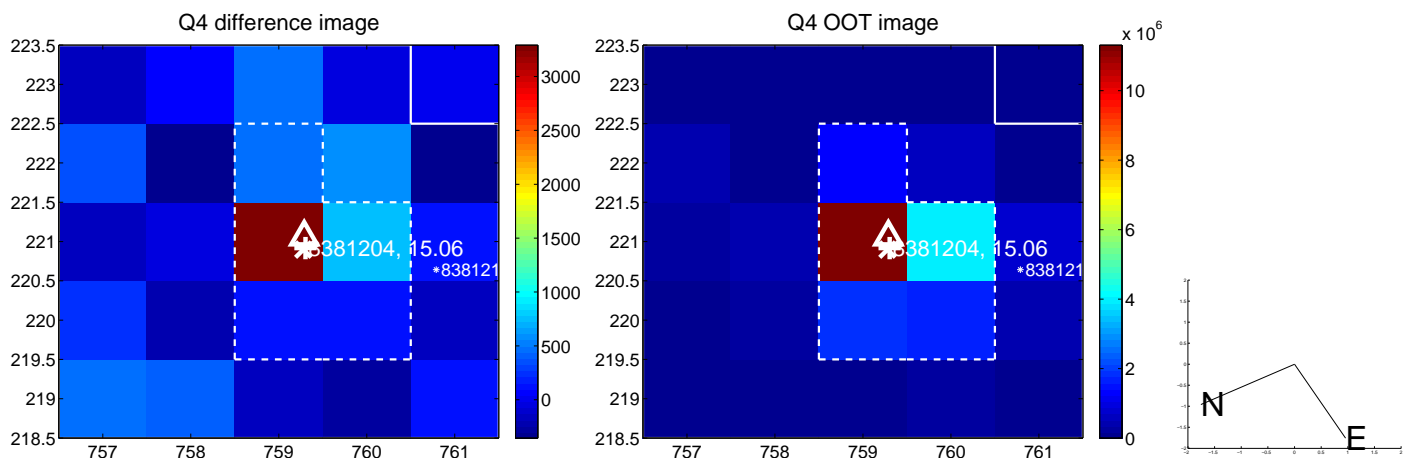
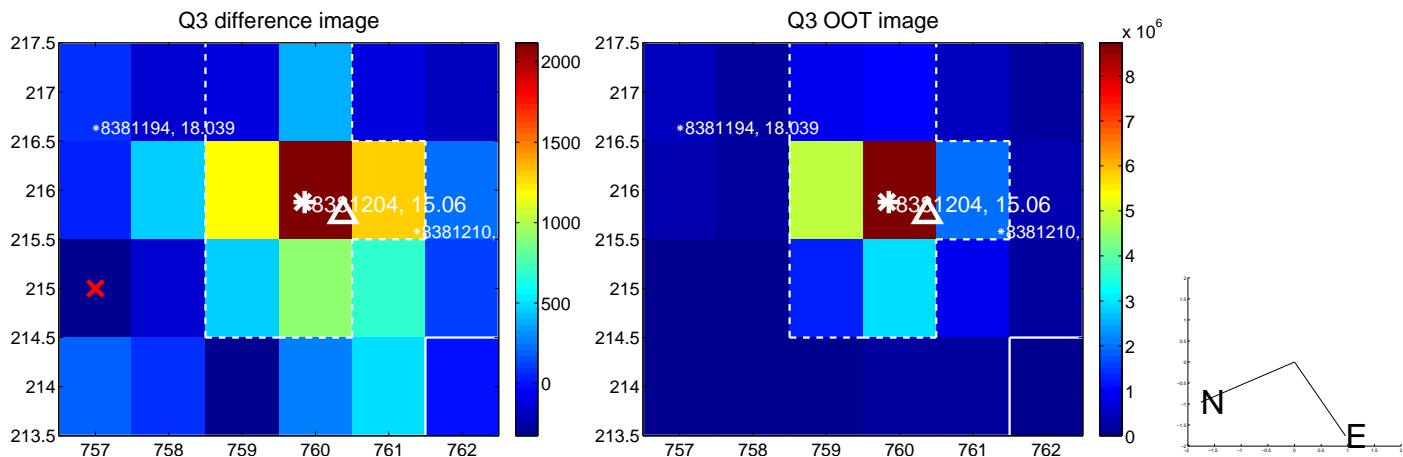
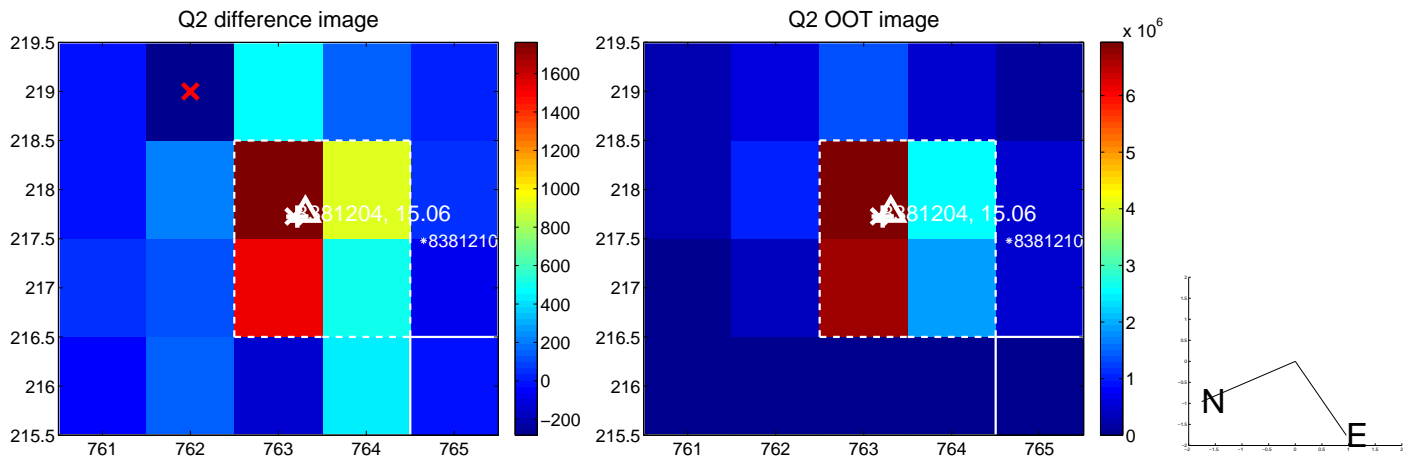
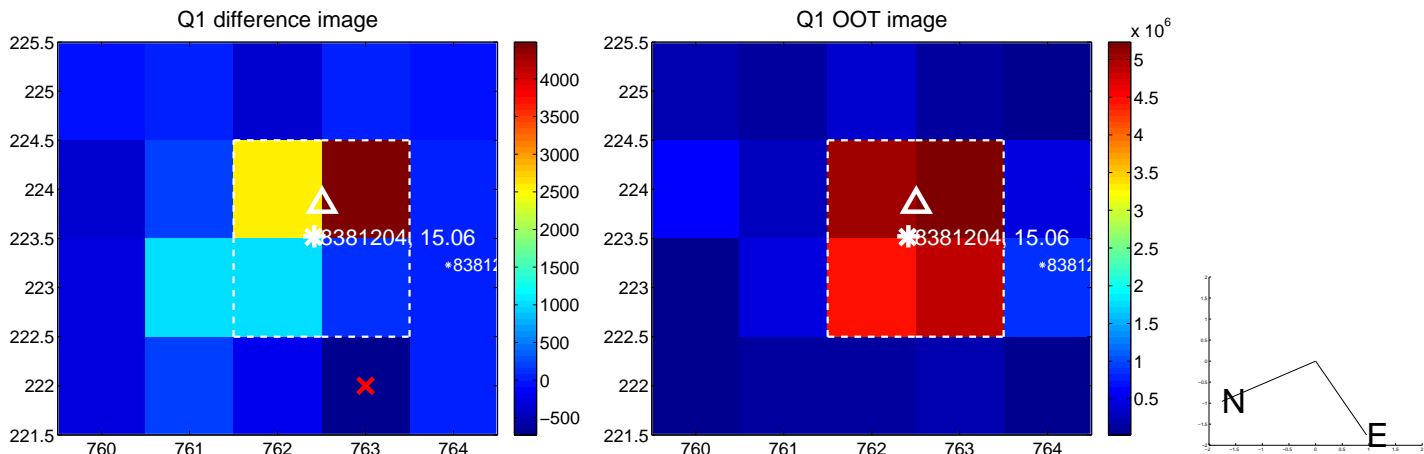
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.139 ± 0.207	0.67	-0.115 ± 0.206	-0.078 ± 0.209
PRF-fit source offset from KIC position	0.218 ± 0.206	1.06	-0.124 ± 0.211	-0.179 ± 0.203
photometric centroid source offset	0.37 ± 0.49	0.76	0.33 ± 0.48	0.17 ± 0.52

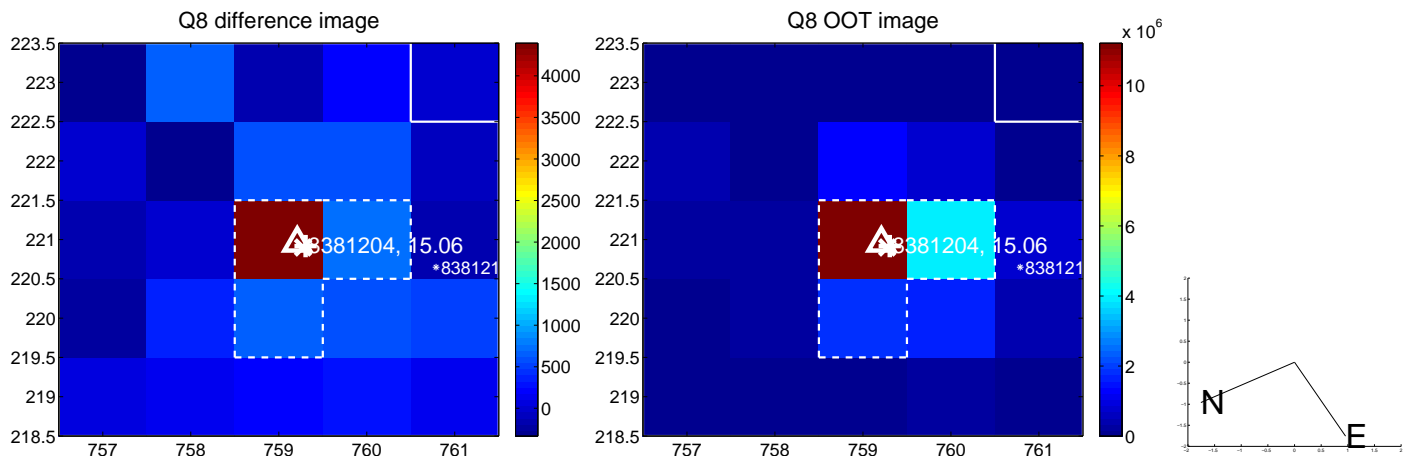
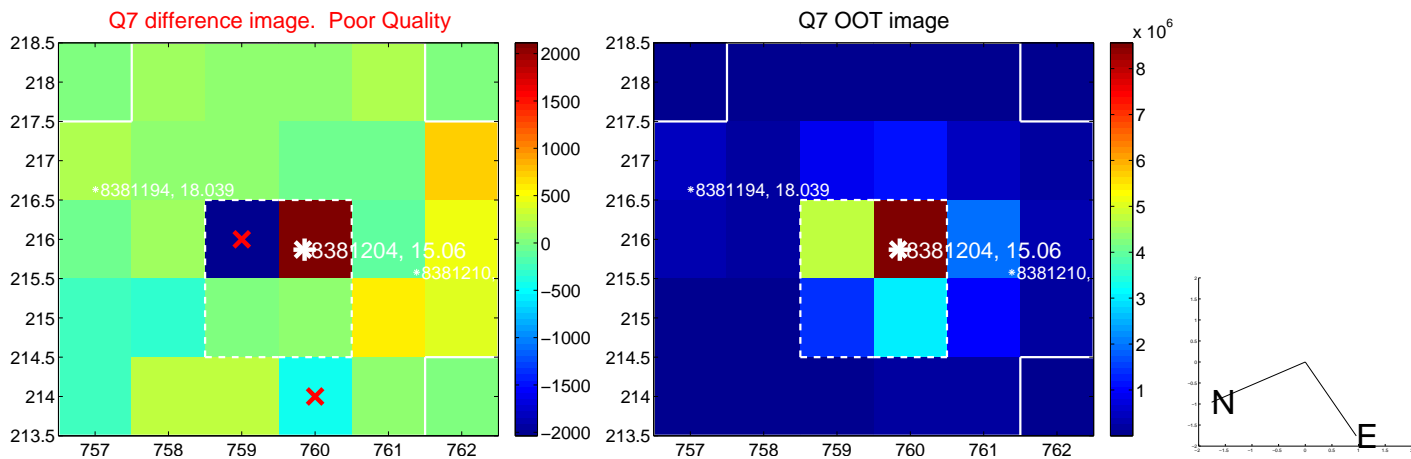
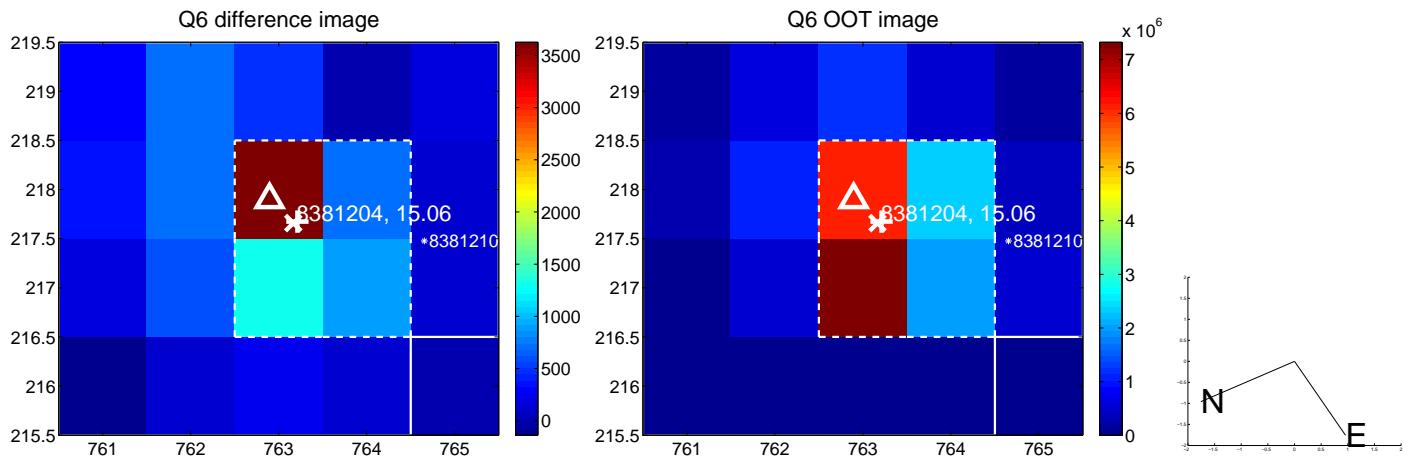
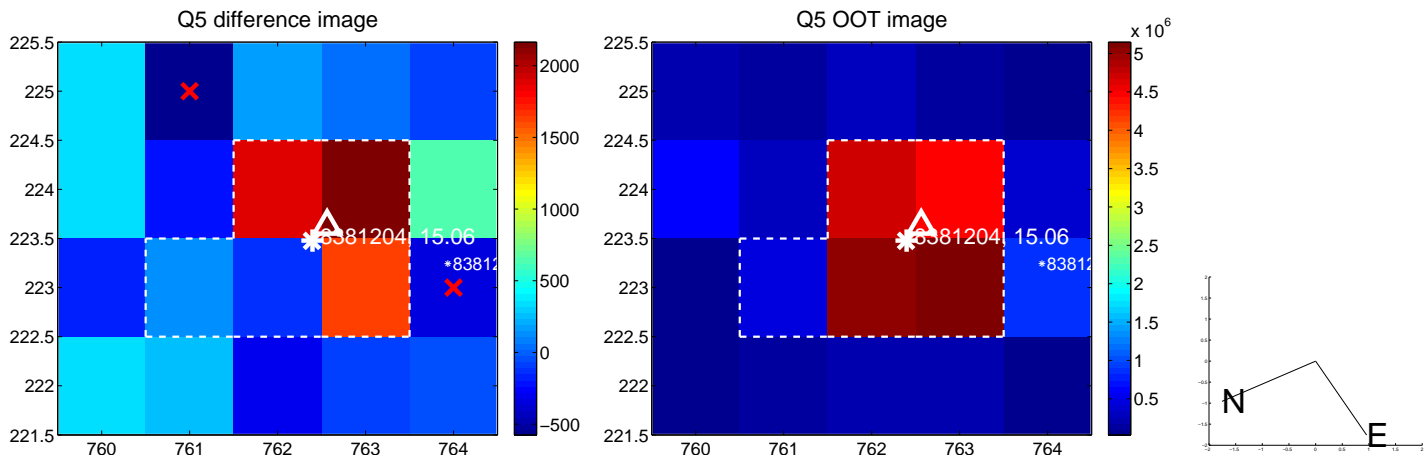


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

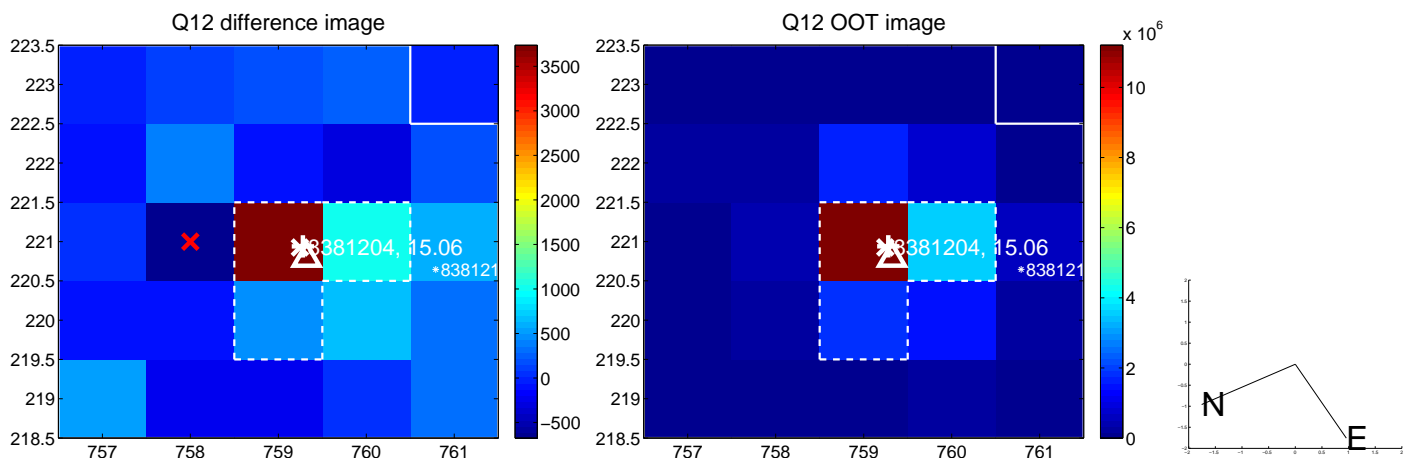
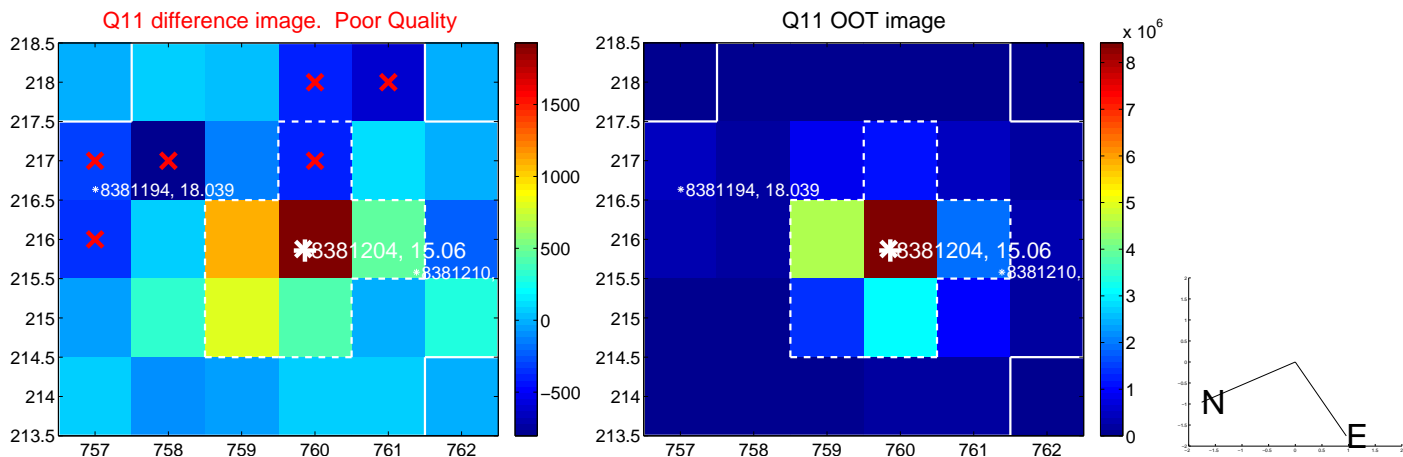
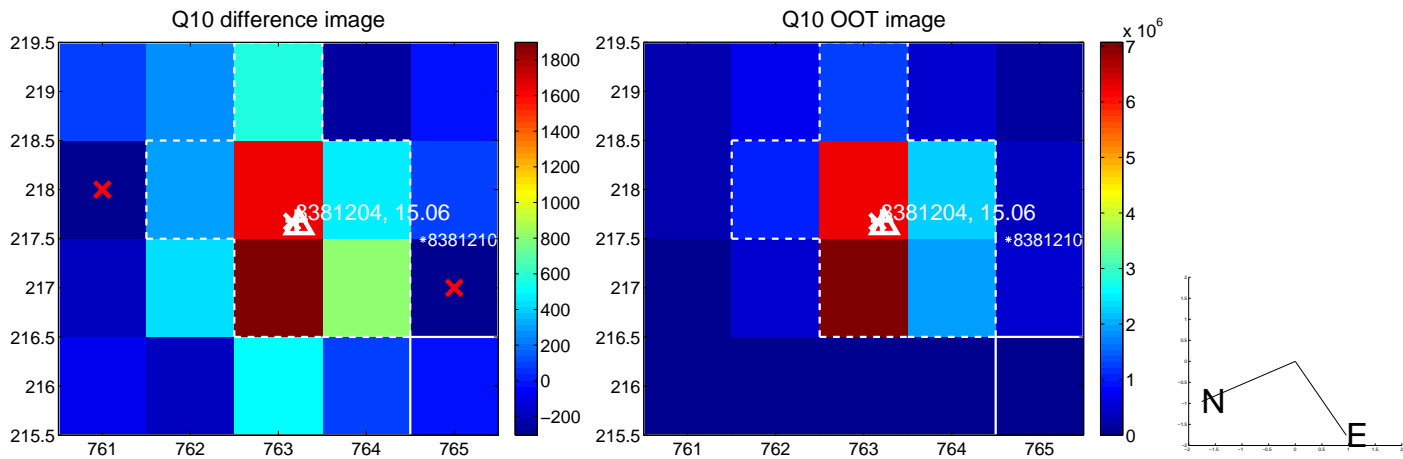
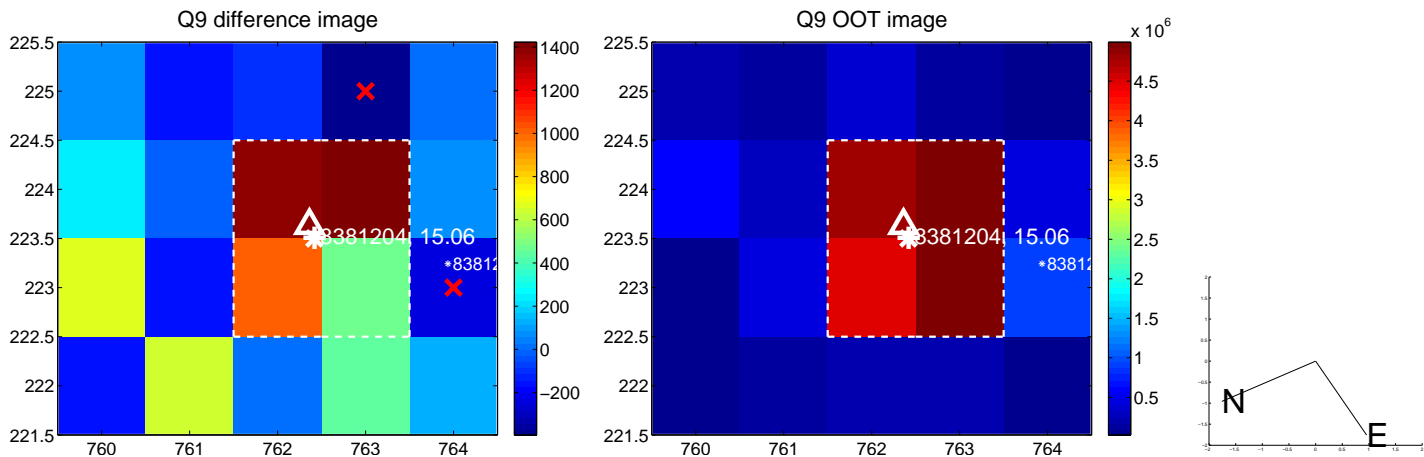
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



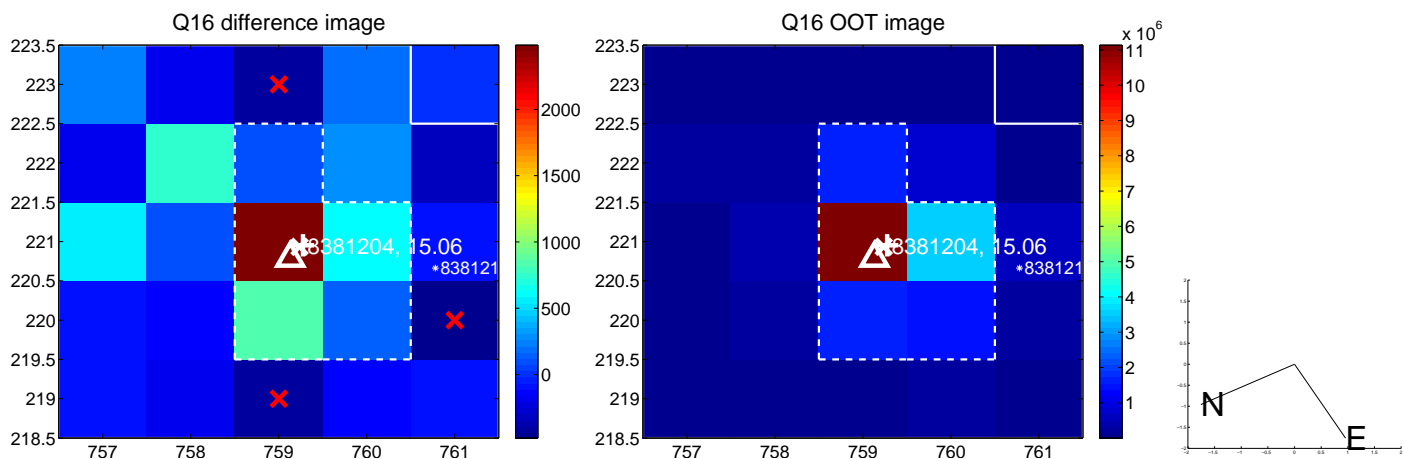
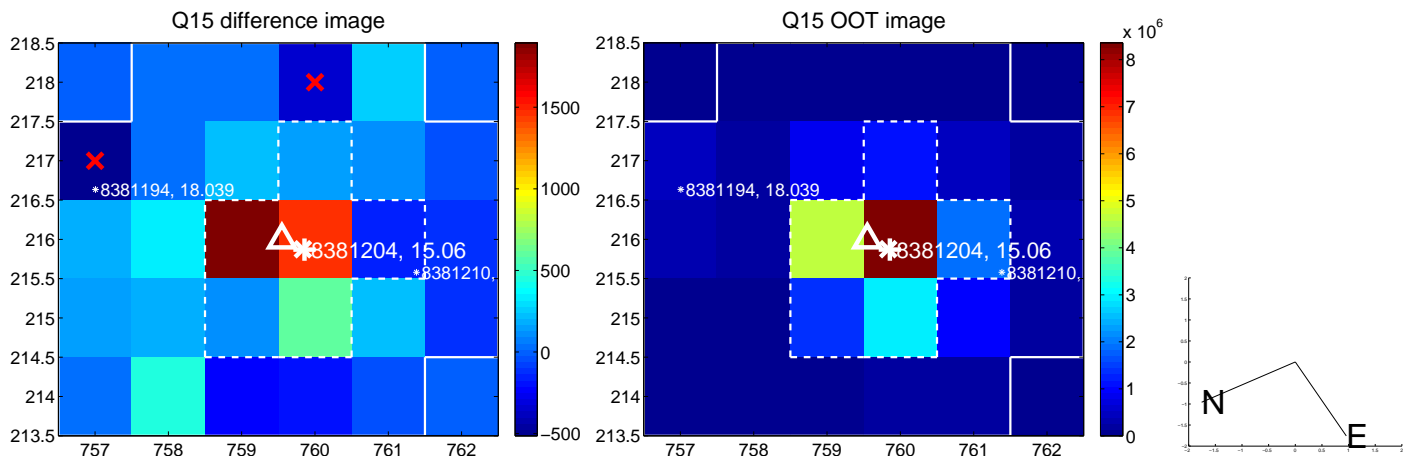
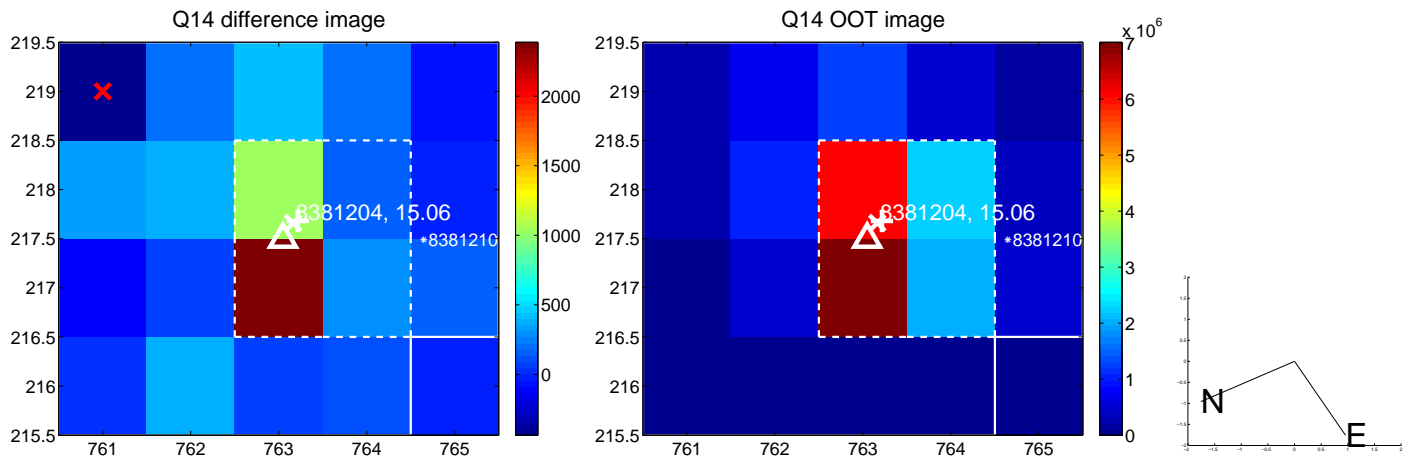
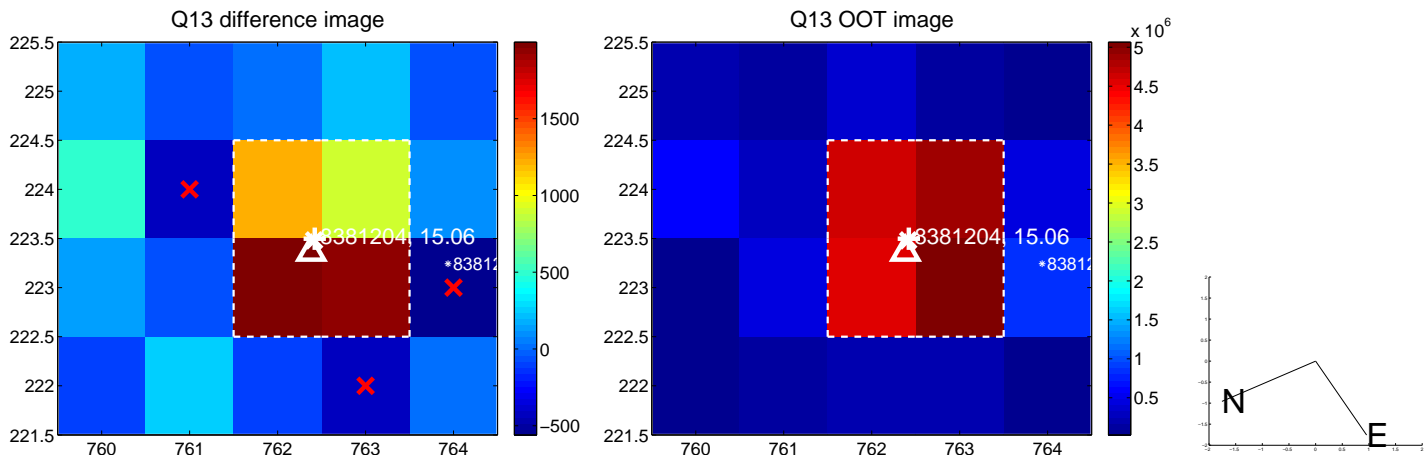
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



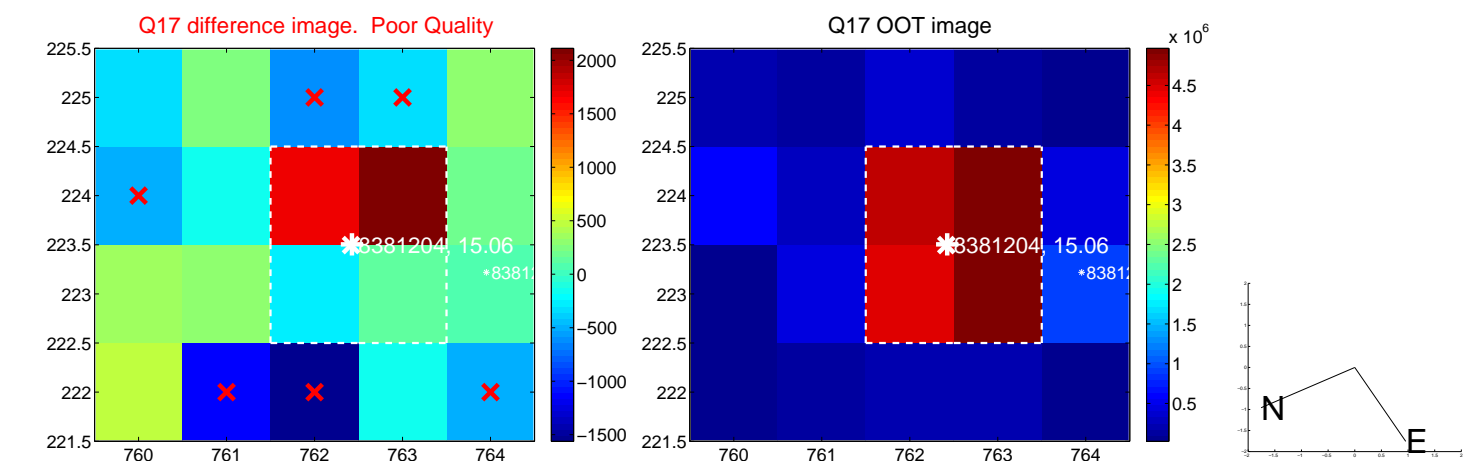
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



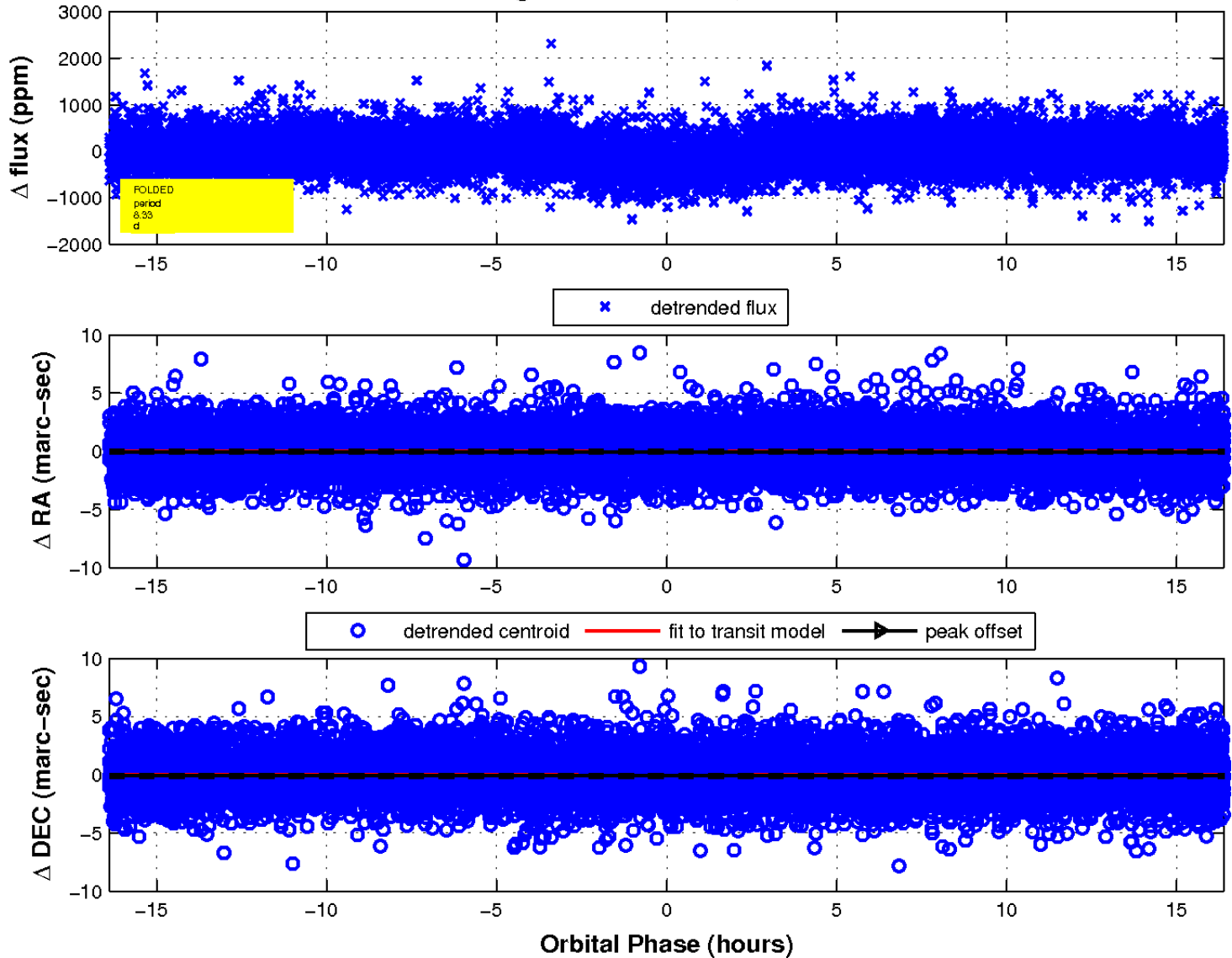
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

