

KIC 005208962

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})
005208962-01	OBS	4912.01	0.876817	131.792154	39.6	1.625	8.0	6.7	1.76	6102	1.32	9906.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005208962-01	OBS	PC	0.97	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.

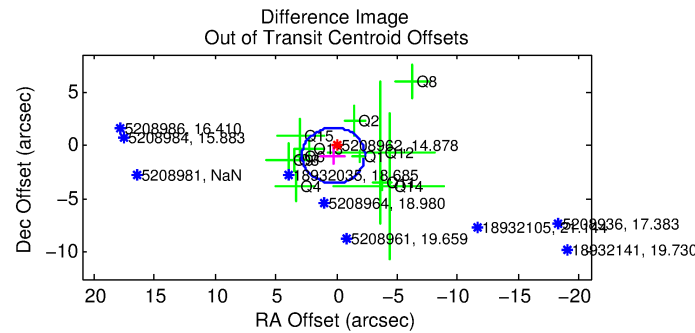
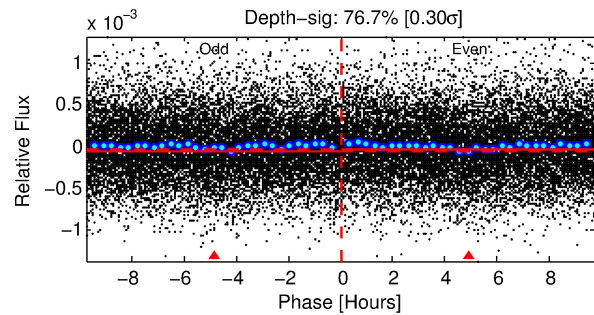
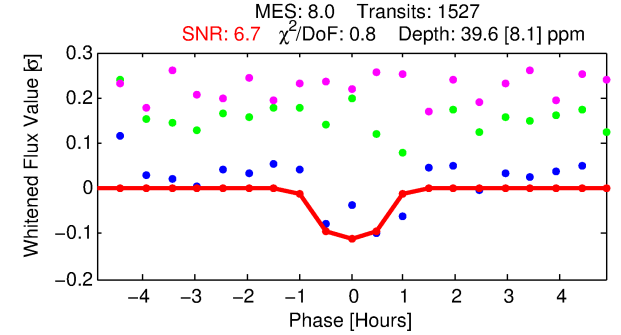
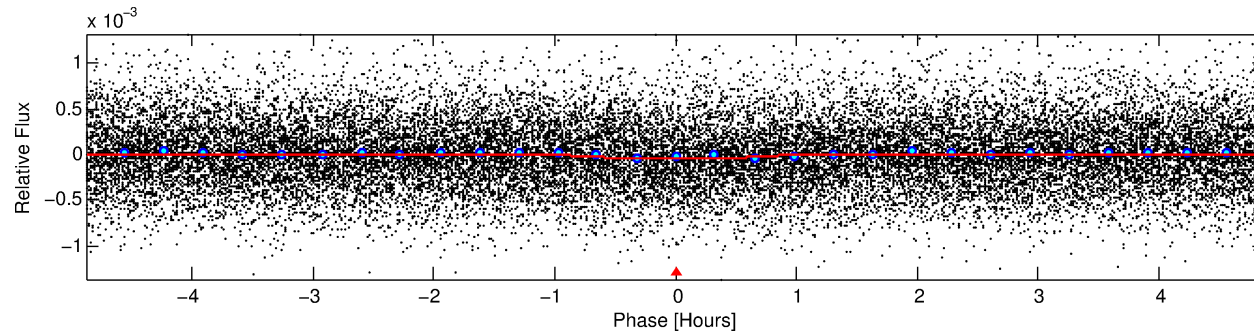
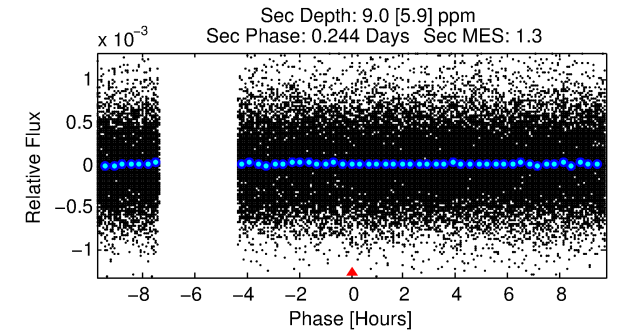
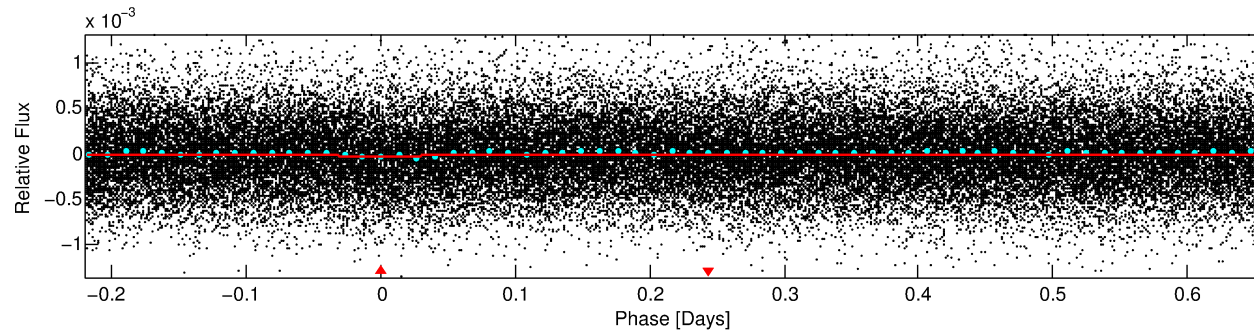
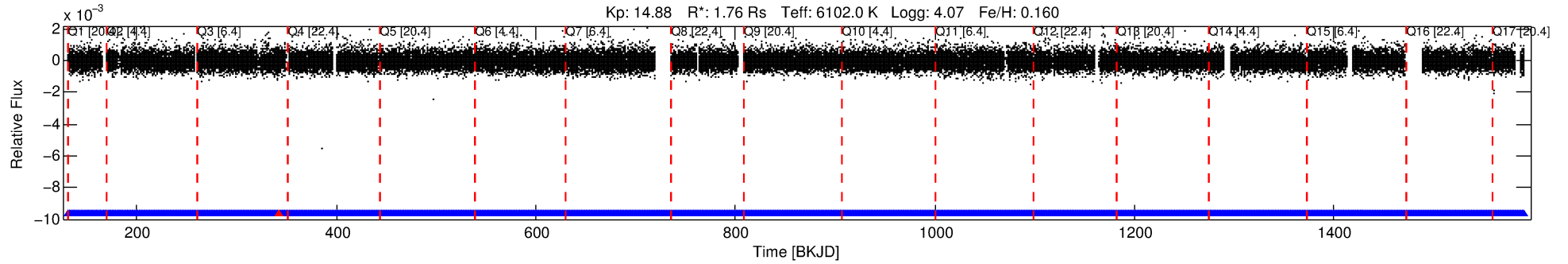
Ephemeris Match Information For 005208962-01

No Significant Match Found

DV One-Page Summary

KIC: 5208962 Candidate: 1 of 1 Period: 0.877 d

KOI: K04912.01 Corr: 0.784



DV Fit Results:

Period = 0.87682 [0.00002] d
Epoch = 131.7922 [0.0037] BKJD
Rp/R* = 0.0069 [0.0067]
a/R* = 1.99 [7.57]
b = 0.91 [0.95]
Seff = 9906.51 [3104.48]
Teq = 2544 [199] K
Rp = 1.32 [1.32] Re
a = 0.0197 [0.0040] AU
Ag = 1.09 [2.25] [0.04σ]
Teffp = 4018 [2055] K [0.71σ]

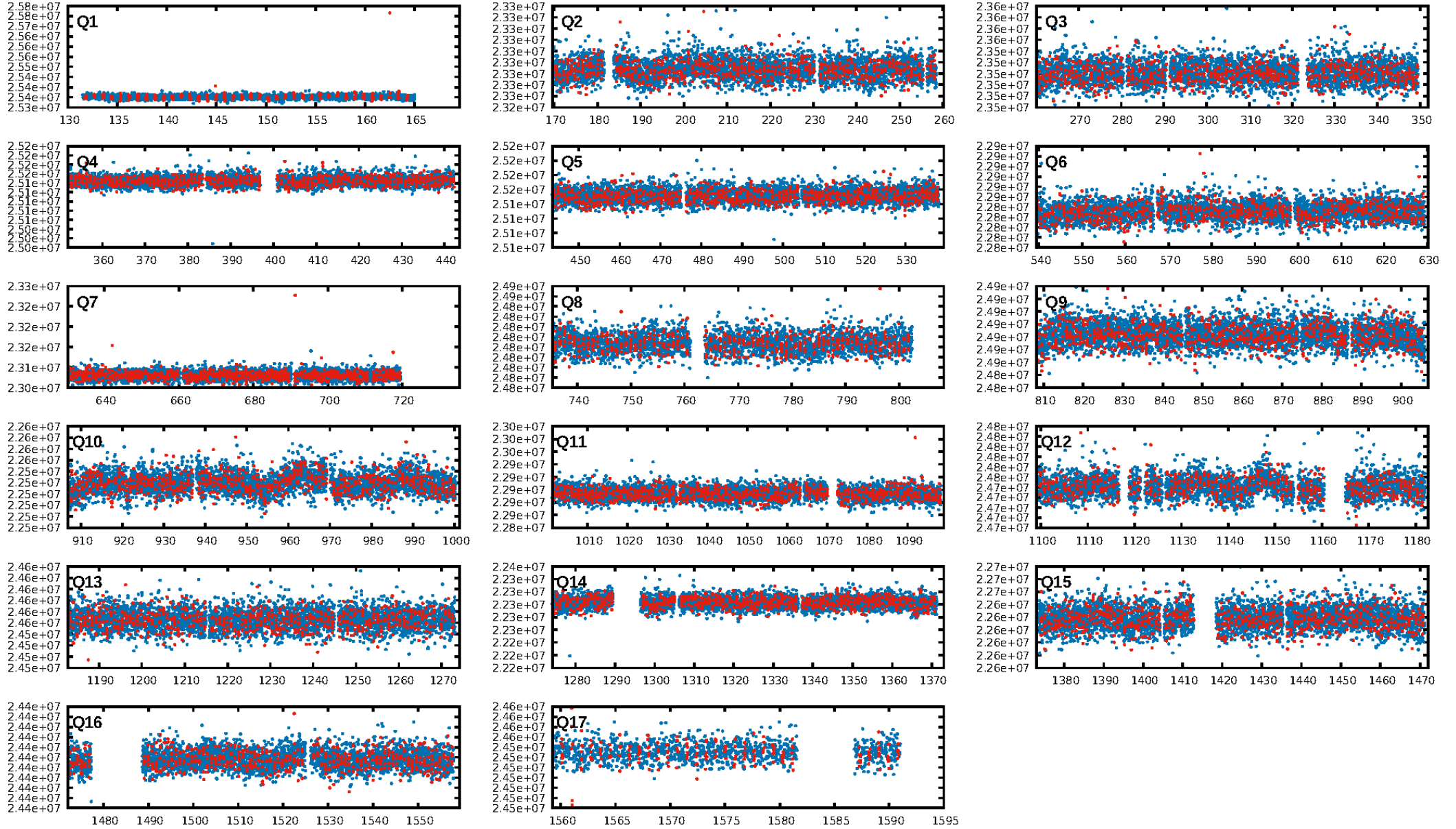
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.29e-17
RollingBand-fgt: 1.00 [1457/1458]
GhostDiagnostic-chr: 0.4449
Centroid-sig: 19.2%
Centroid-so: 2.680 arcsec [1.15σ]
OotOffset-rm: 0.993 arcsec [1.15σ]
KicOffset-rm: 1.198 arcsec [1.28σ]
OotOffset-st: 3/3/3 [12]
KicOffset-st: 3/3/3 [12]
DiffImageQuality-fgm: 0.25 [3/12]
DiffImageOverlap-fno: 1.00 [17/17]

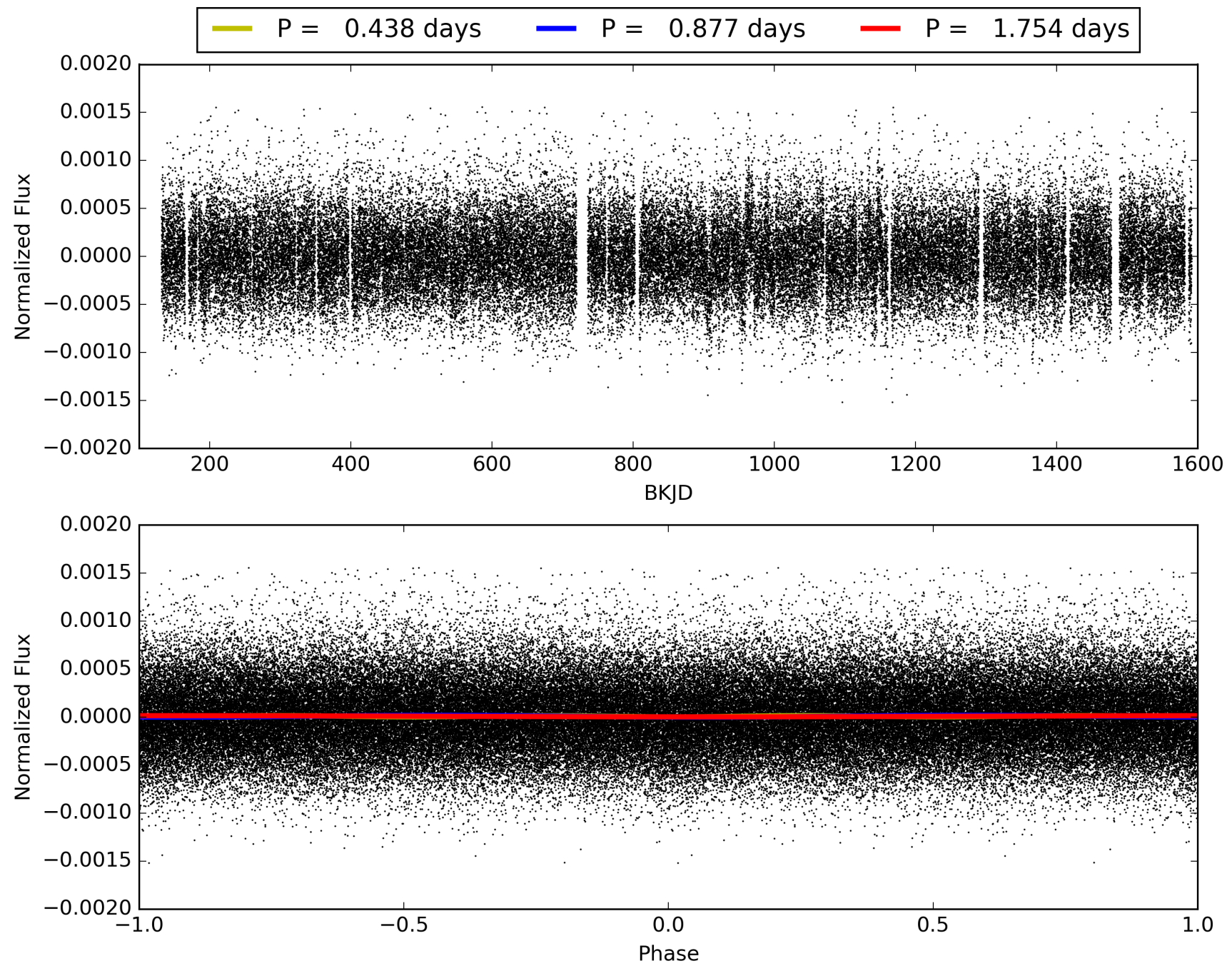
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:45:12 Z

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

TCE 005208962-01, PDC Light Curves

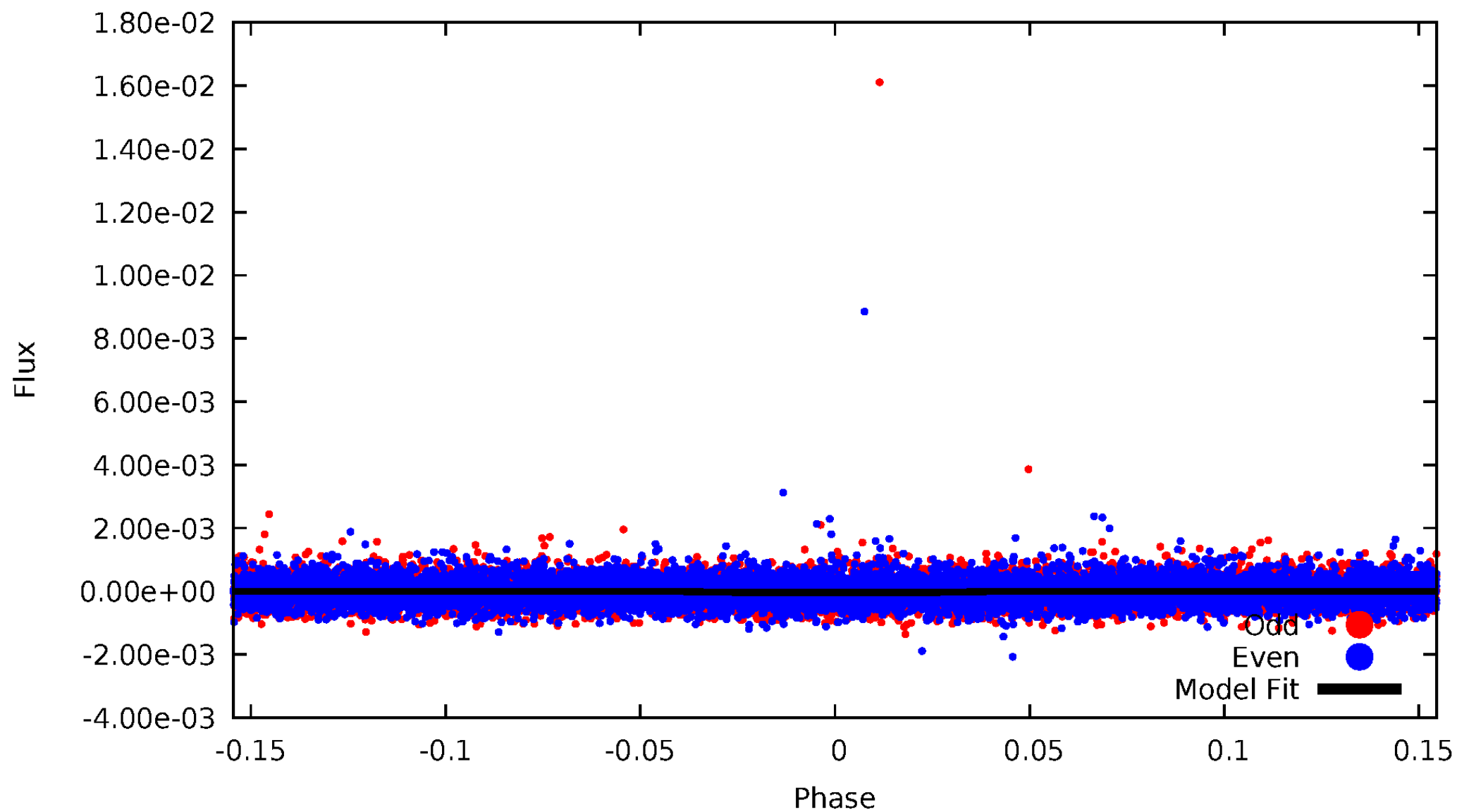


TCE 005208962-01



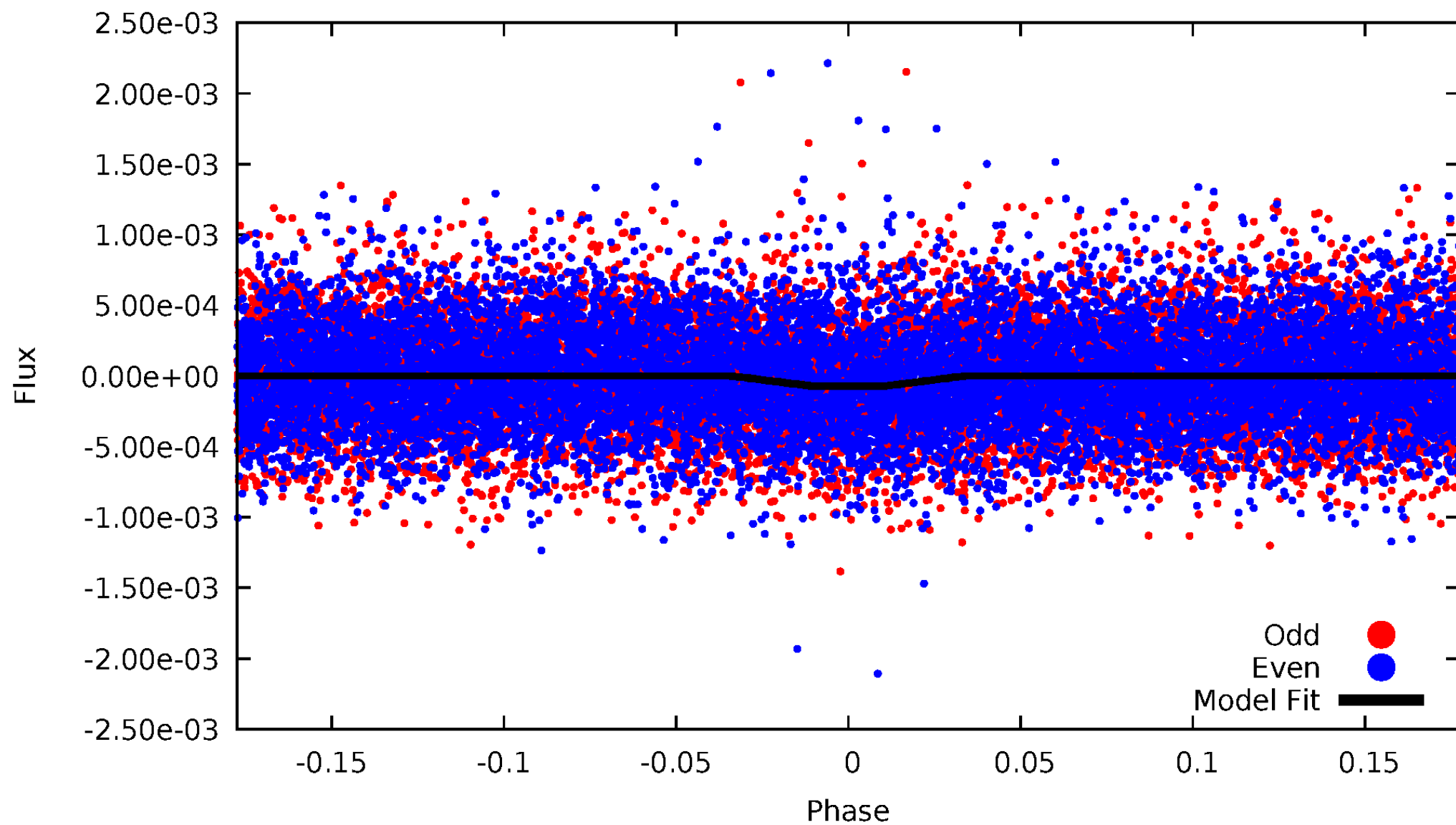
DV Odd/Even

TCE 005208962-01



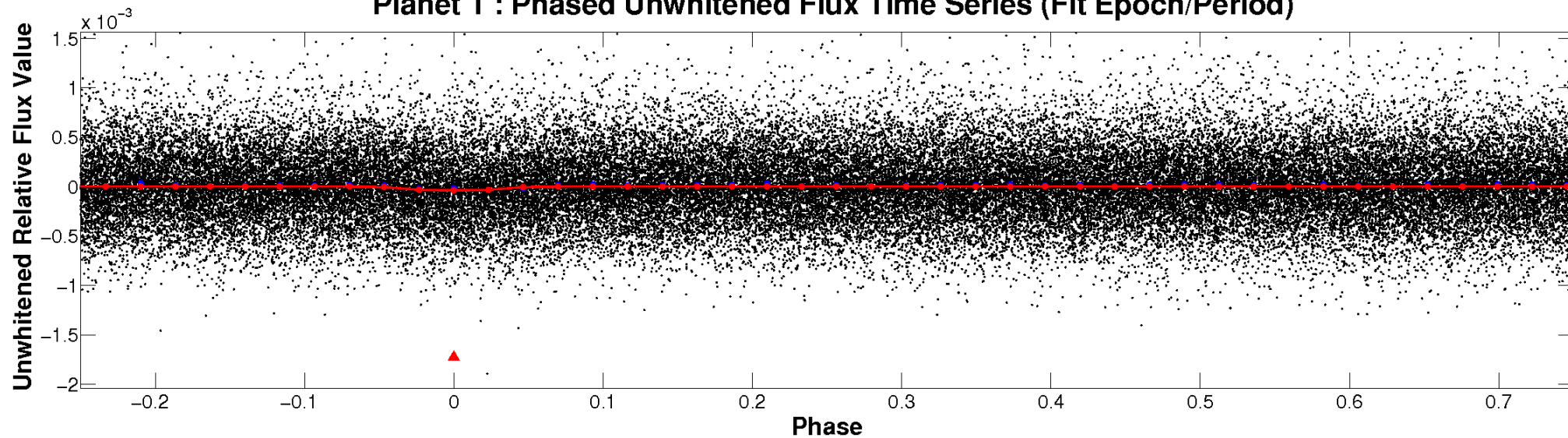
ALT Odd/Even

TCE 005208962-01

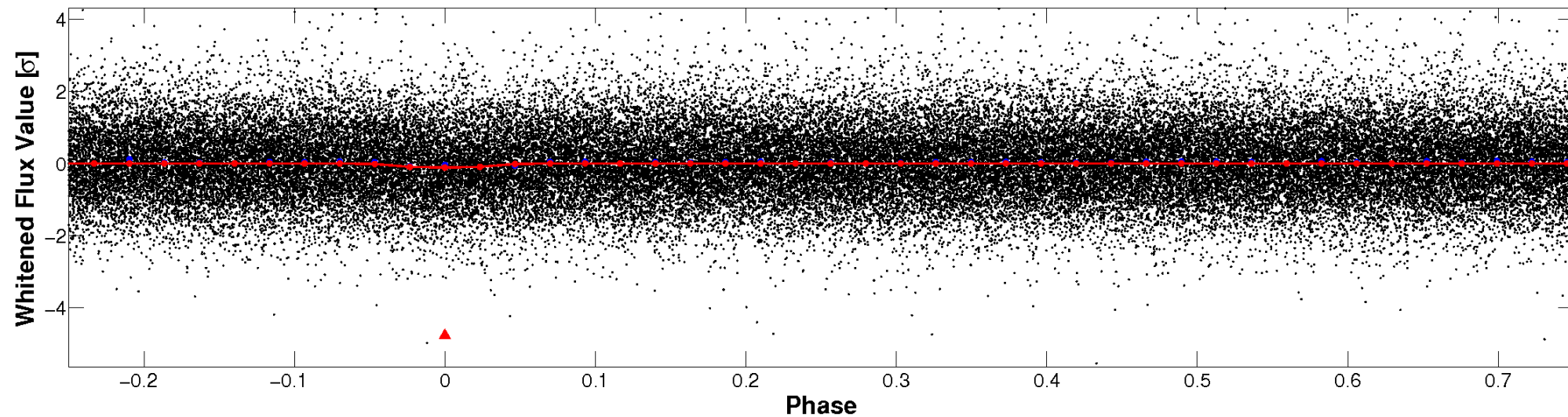


Non-Whitened Vs. Whitened Light Curve

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

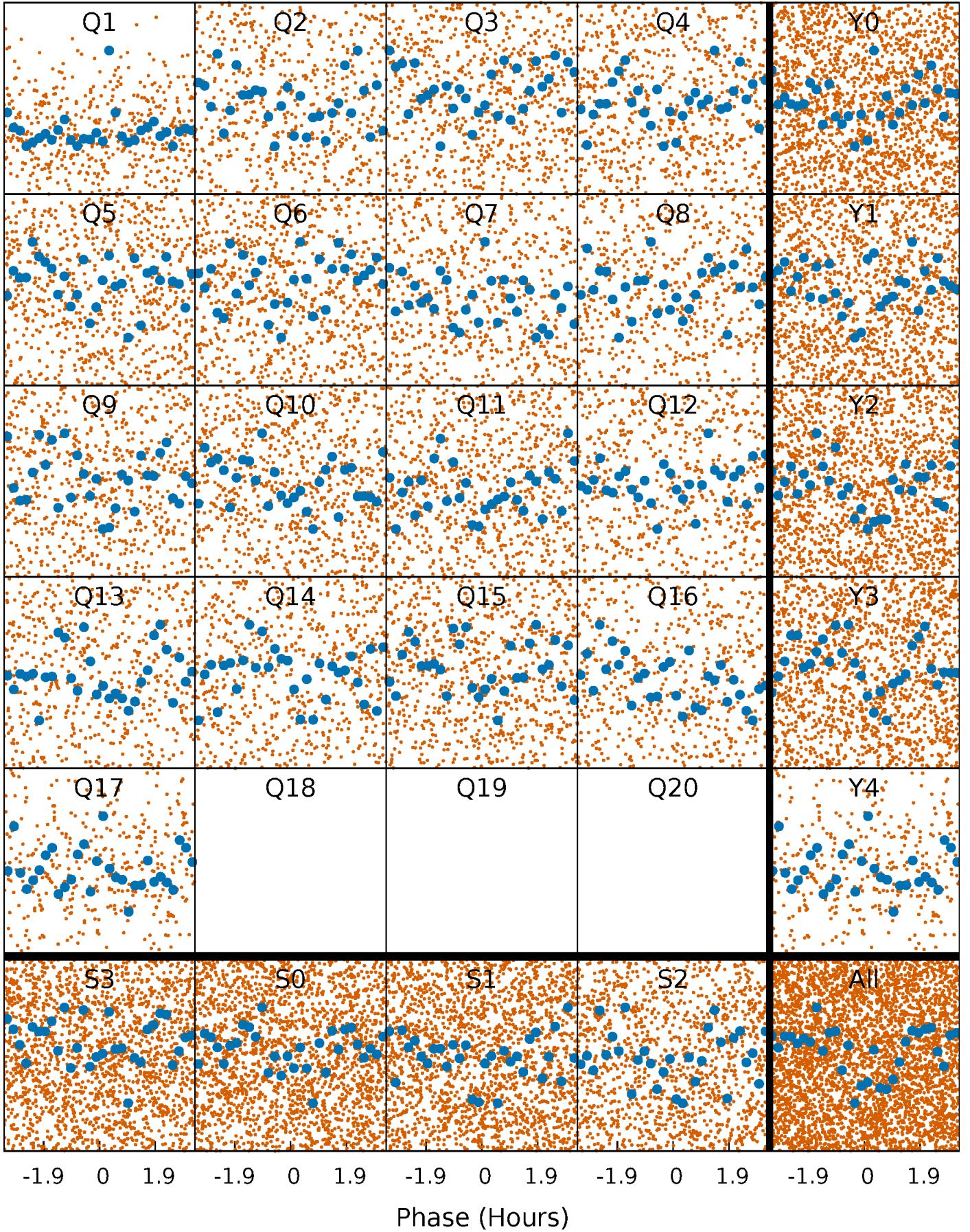


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



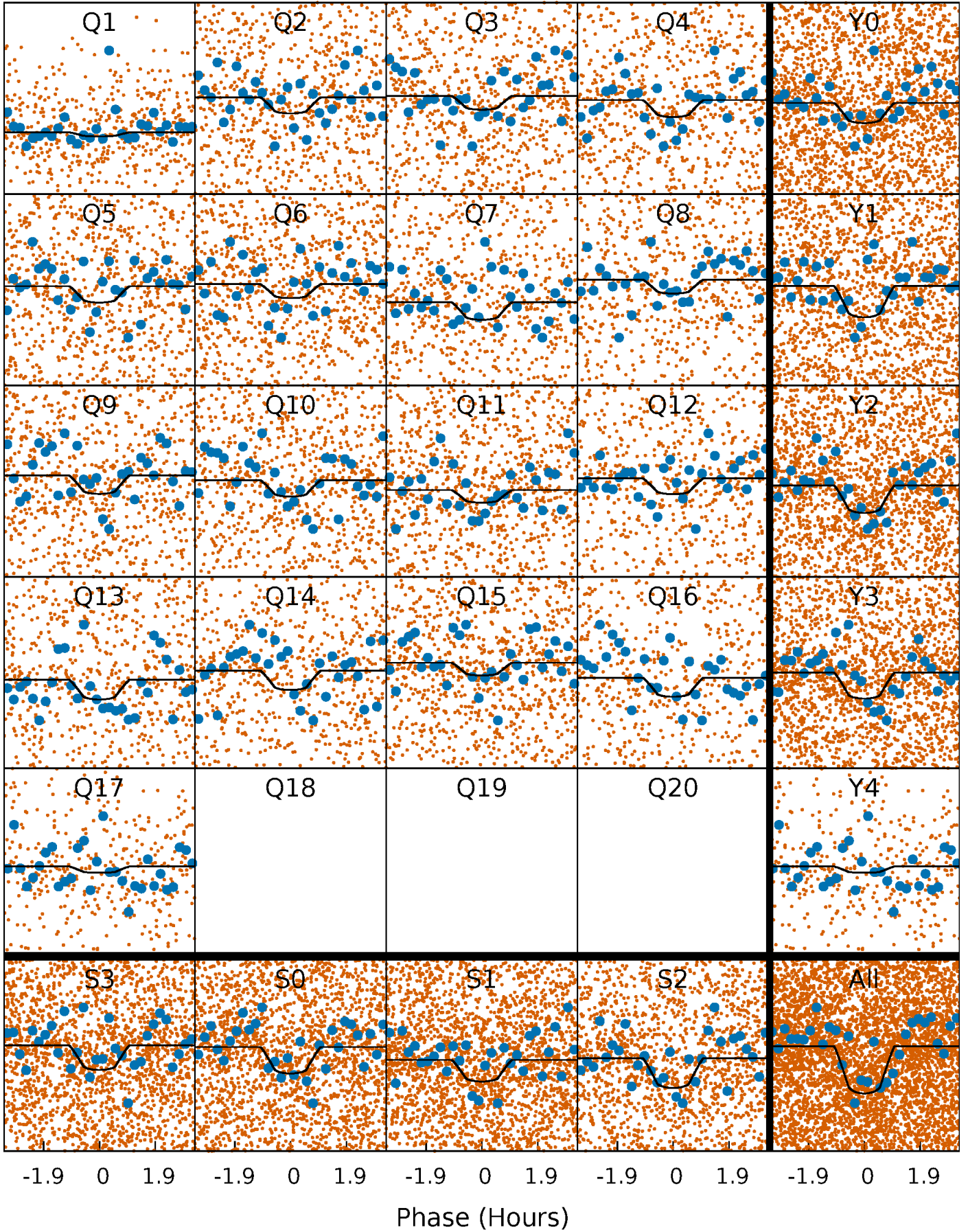
PDC Quarter-Phased Transit Curves

TCE 005208962-01 P= 0.876817 Days $T_0=131.792155$ (BKJD)



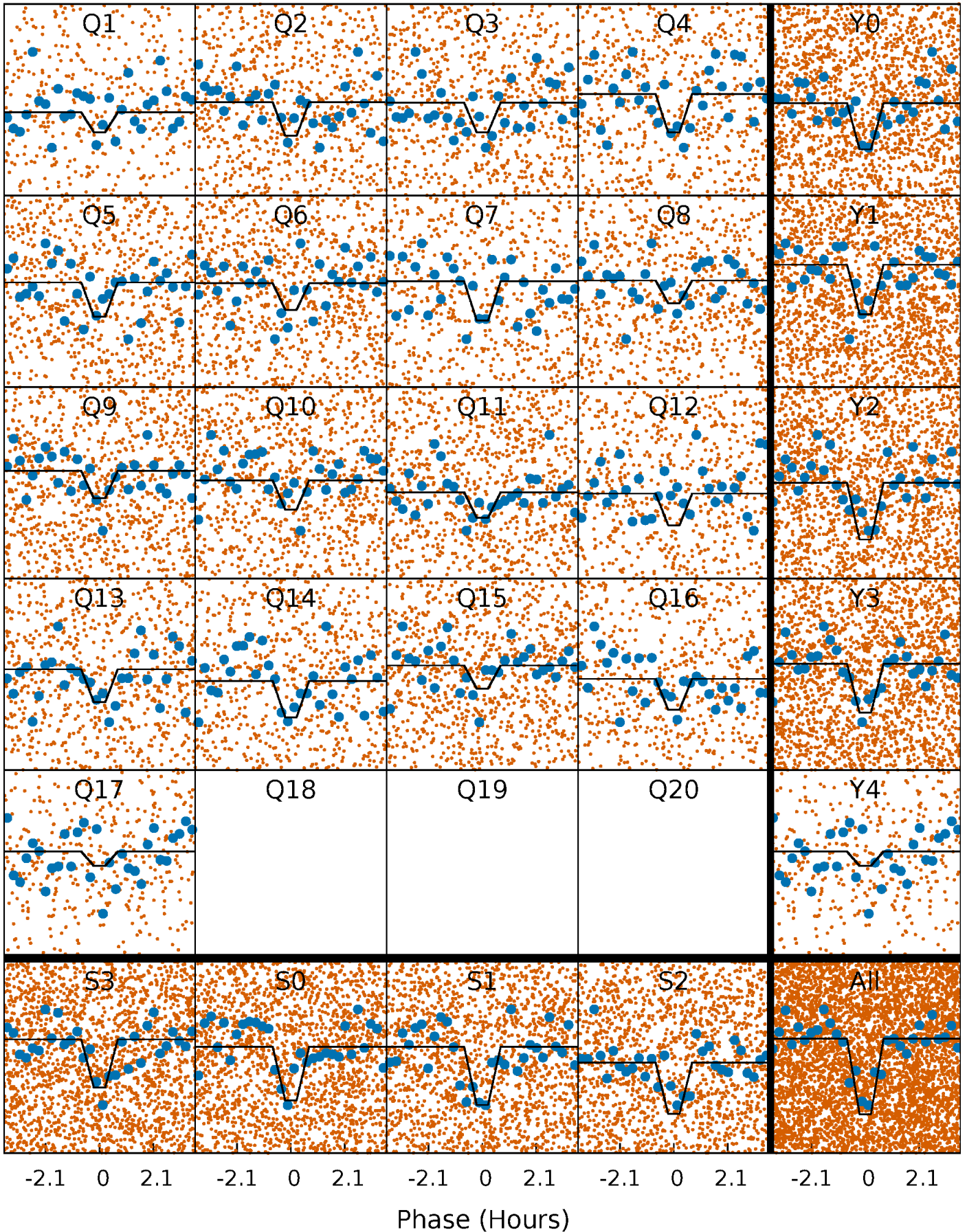
DV Quarter-Phased Transit Curves

TCE 005208962-01 P= 0.876817 Days $T_0=131.792155$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

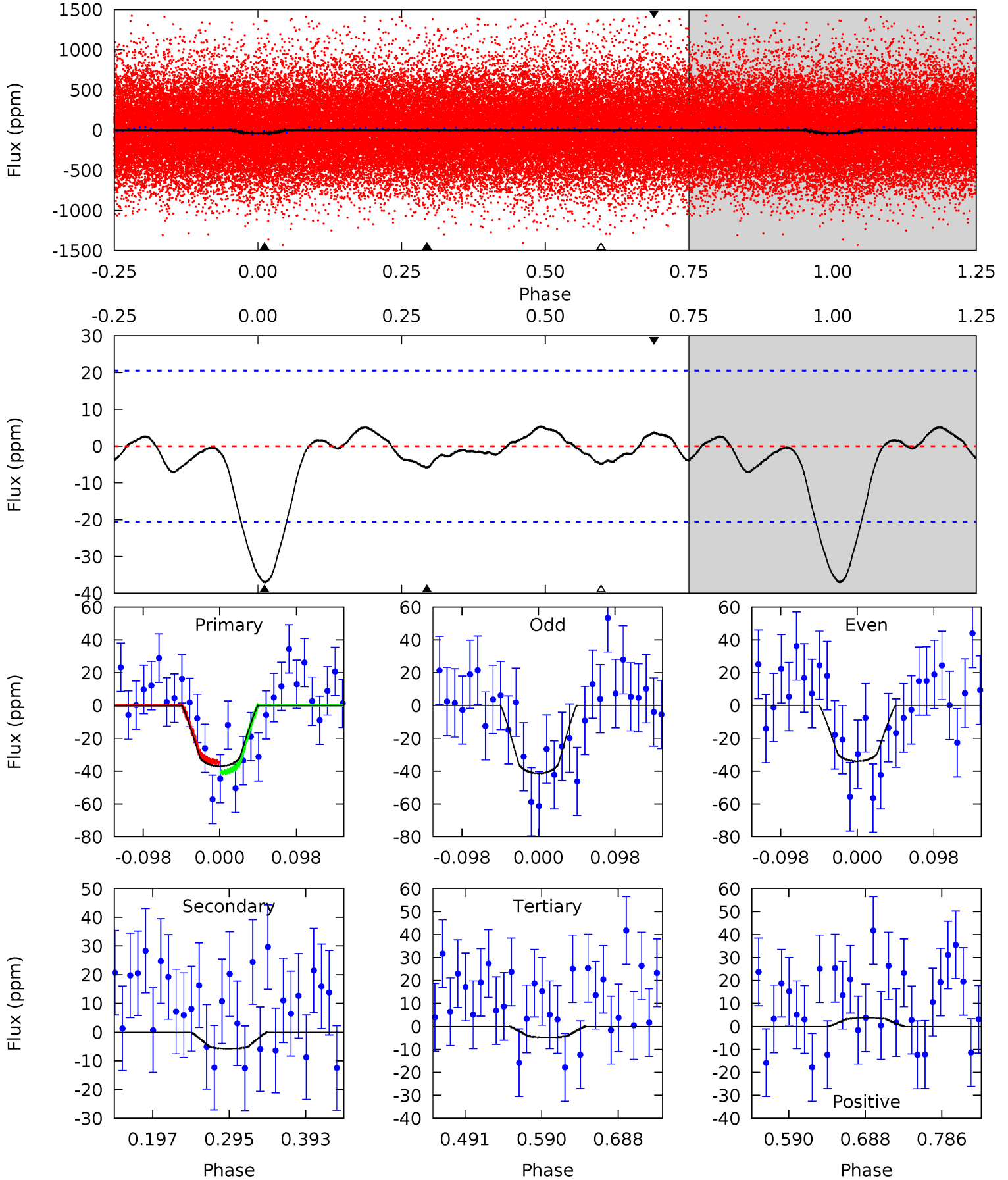
TCE 005208962-01 P= 0.876850 Days $T_0=131.771485$ (BKJD)



DV Model-Shift Uniqueness Test

005208962-01, P = 0.876817 Days, E = 130.915338 Days

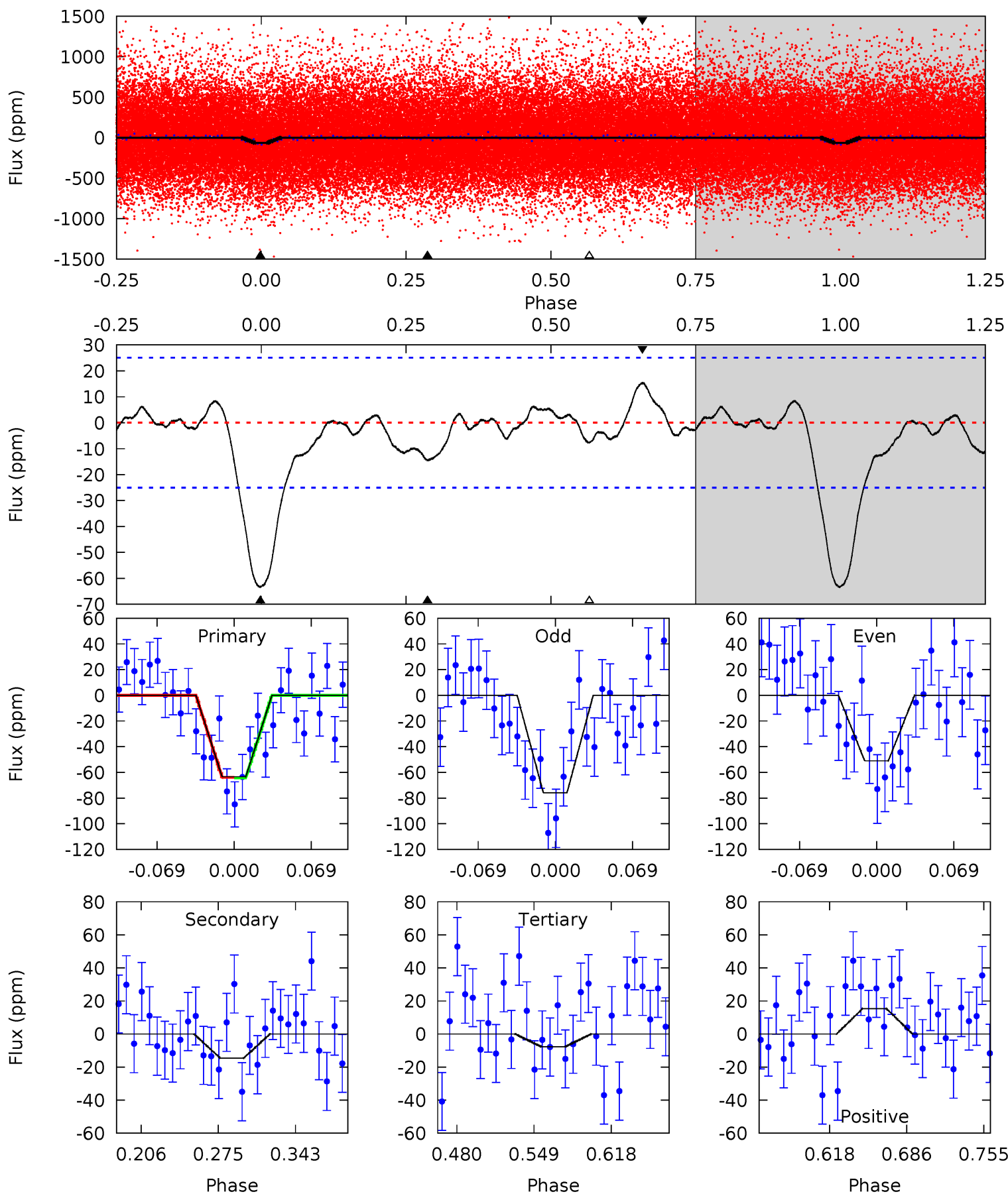
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.24	1.29	1.06	0.82	4.57	1.65	0.69	7.17	7.41	0.22	0.46	0.83	0.79	0.13	0.70



Alt Model-Shift Uniqueness Test

005208962-01, P = 0.876850 Days, E = 130.894635 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	2.69	1.43	2.85	4.64	1.82	0.92	10.3	8.90	1.26	-0.16	2.31	1.00	0.20	0.03



Stellar Parameters For KIC 005208962

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6102^{+79}_{-85}	$4.069^{+0.174}_{-0.116}$	$0.160^{+0.150}_{-0.100}$	$1.756^{+0.295}_{-0.406}$	$1.320^{+0.116}_{-0.174}$	$0.343^{+0.318}_{-0.122}$
	+1%/-1%	+4%/-3%	+94%/-62%	+17%/-23%	+9%/-13%	+93%/-36%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005208962-01 / KOI 4912.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6 ± 4	$1.52^{+1.14}_{-0.96}$	3546^{+172}_{-202}	3008^{+2112}_{-6320}	$0.426^{+3.049}_{-0.358}$
Alt.	-15 ± 5	$1.71^{+1.20}_{-0.93}$	3546^{+163}_{-210}	3933^{+1778}_{-1652}	$1.020^{+3.868}_{-0.703}$

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 $A_{obs} \gg 1.0$

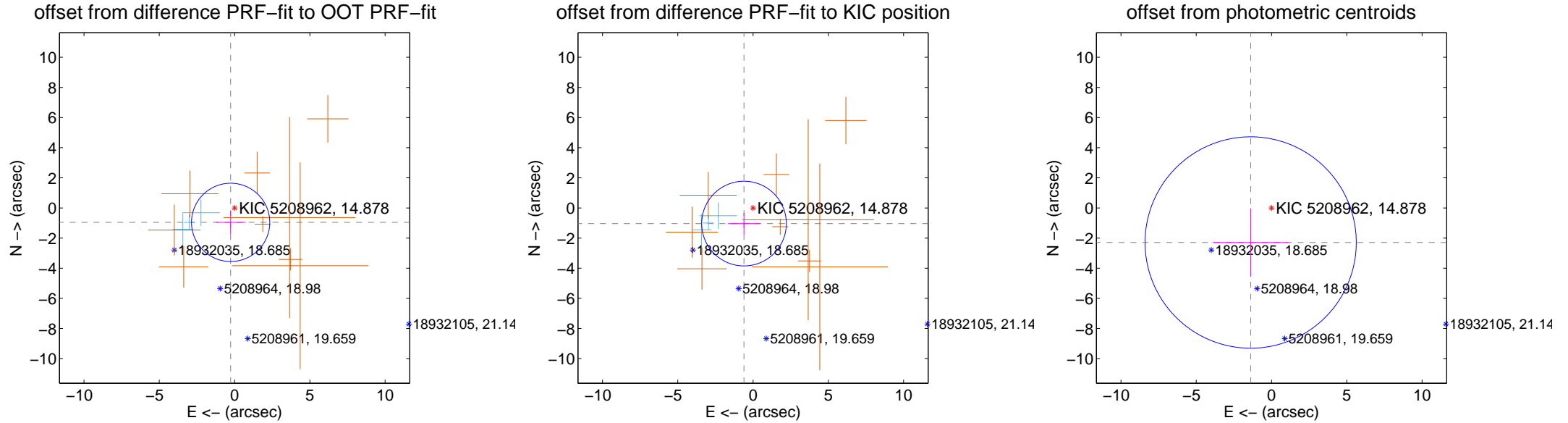
DV Centroid Data

Supplemental centroid analysis for 005208962-01. Kepler magnitude: 14.88. Transit SNR 6.69

There are 3 quarters with good PRF difference image offsets

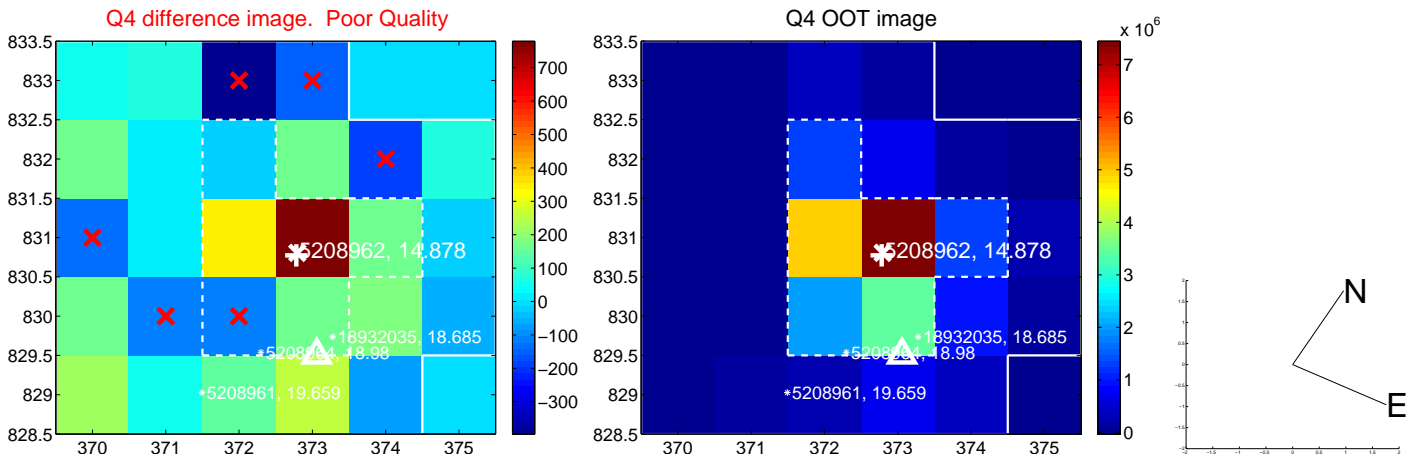
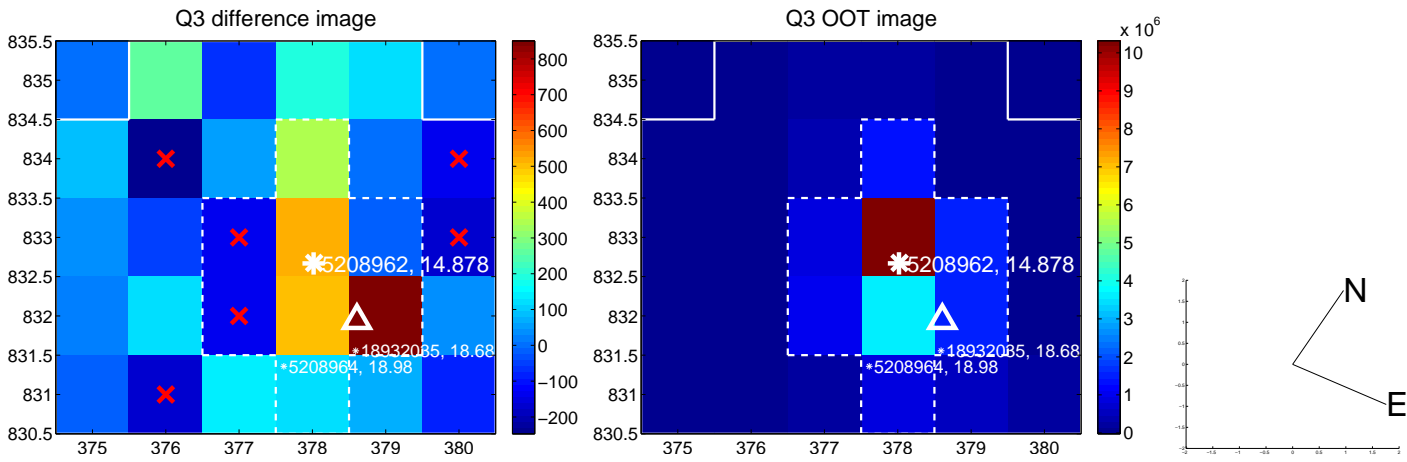
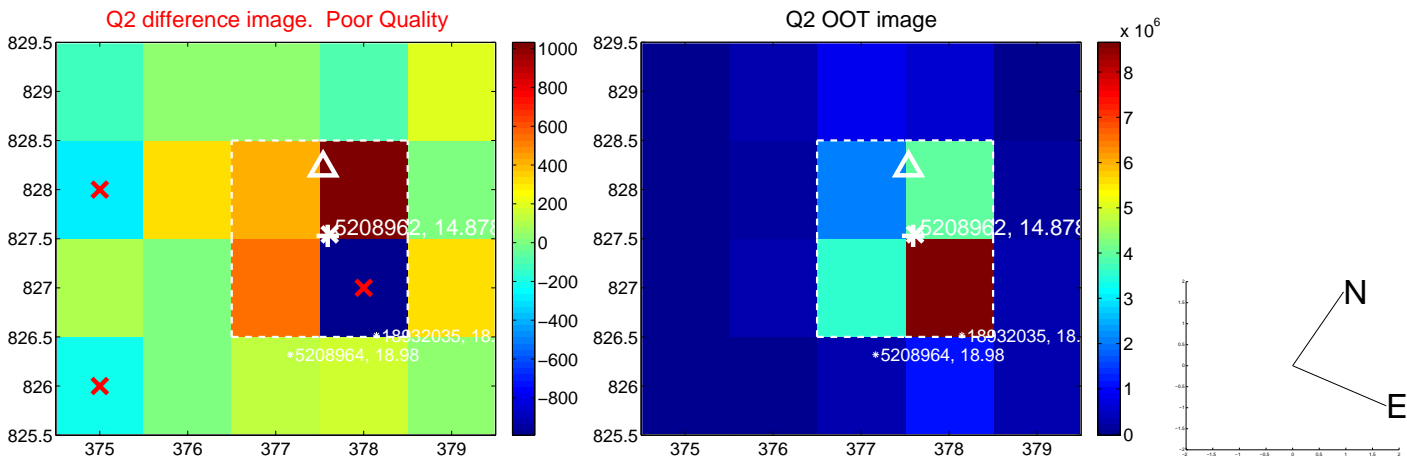
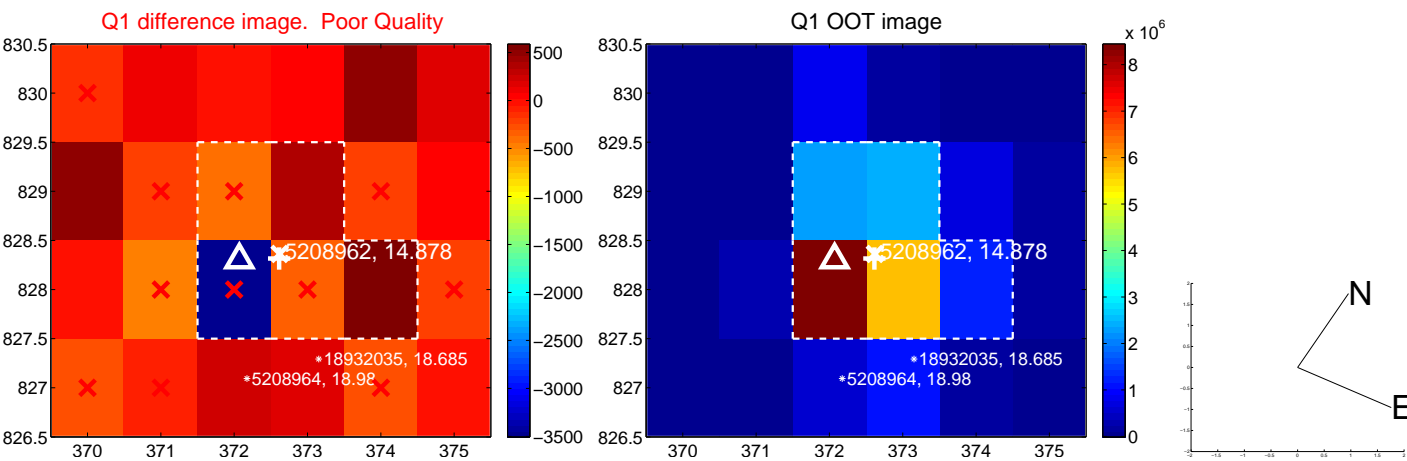
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.993 ± 0.866	1.15	0.262 ± 0.990	-0.958 ± 0.766
PRF-fit source offset from KIC position	1.198 ± 0.937	1.28	0.601 ± 1.060	-1.037 ± 0.715
photometric centroid source offset	2.68 ± 2.34	1.15	1.39 ± 2.52	-2.29 ± 2.27

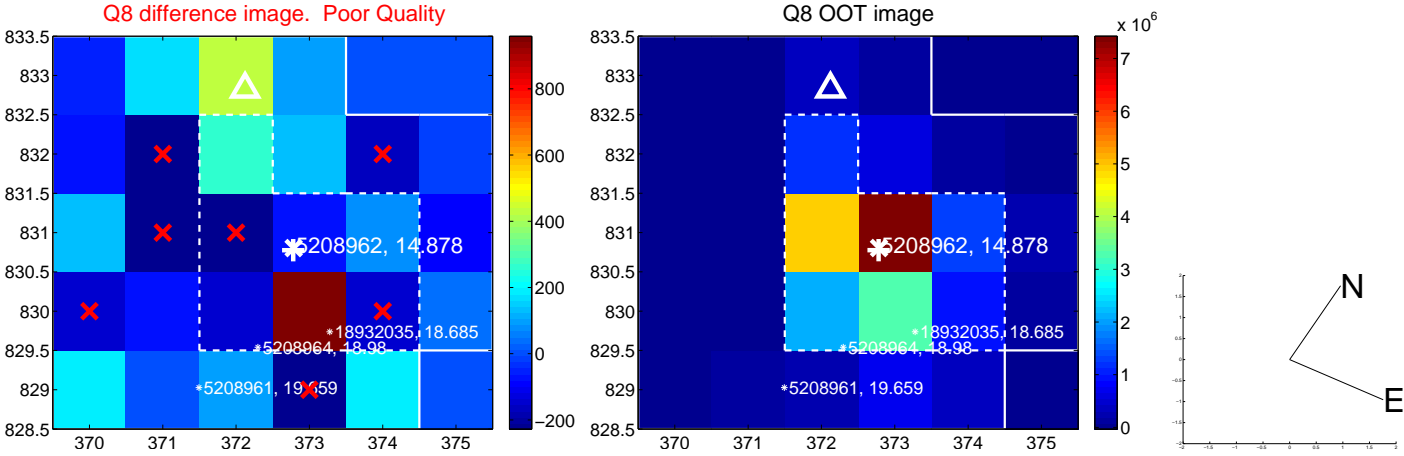
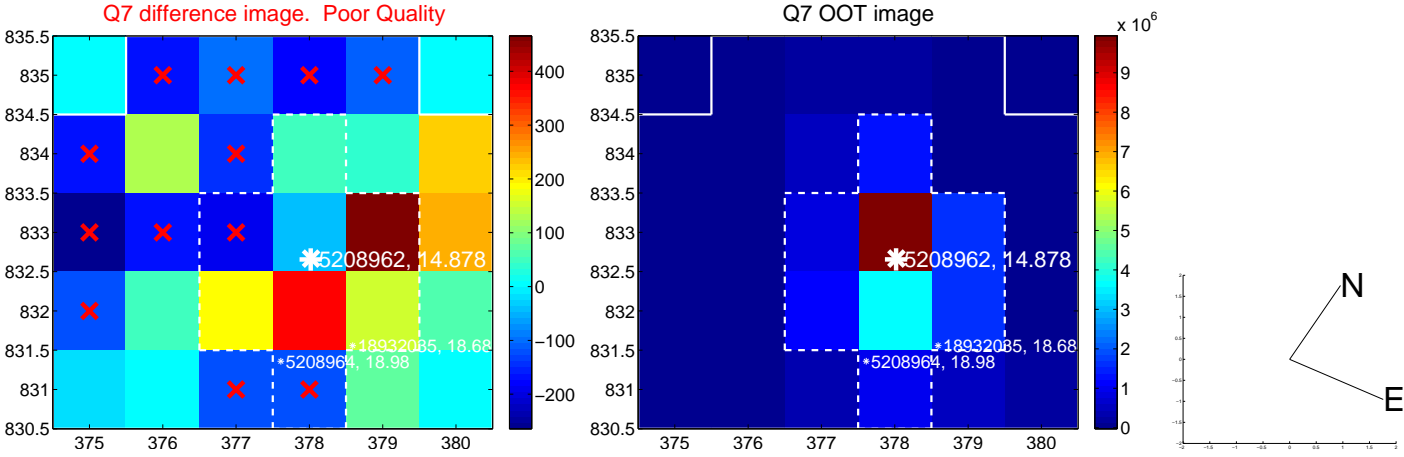
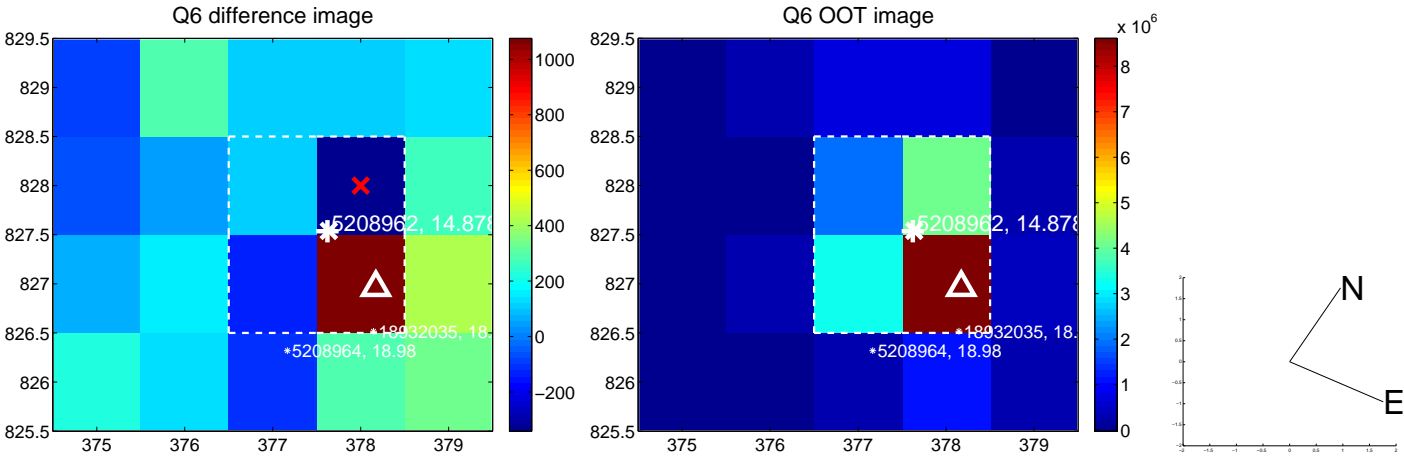
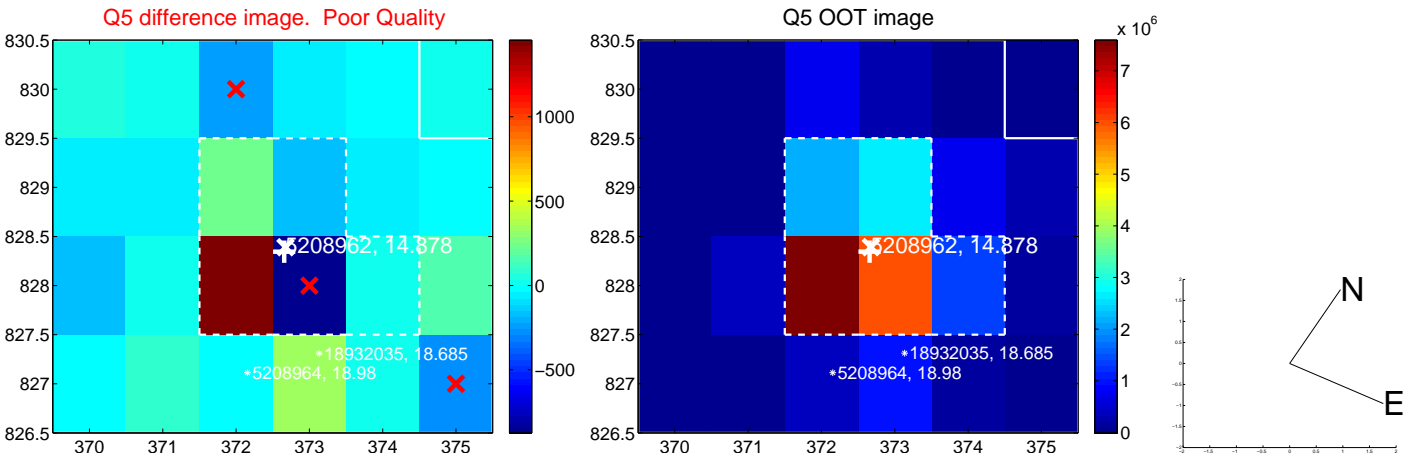


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

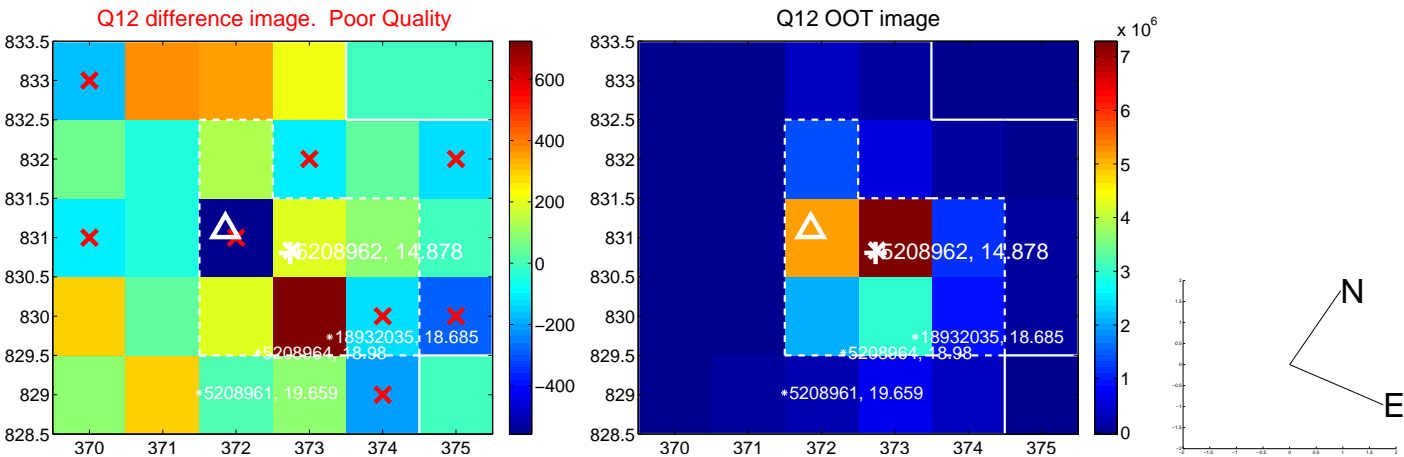
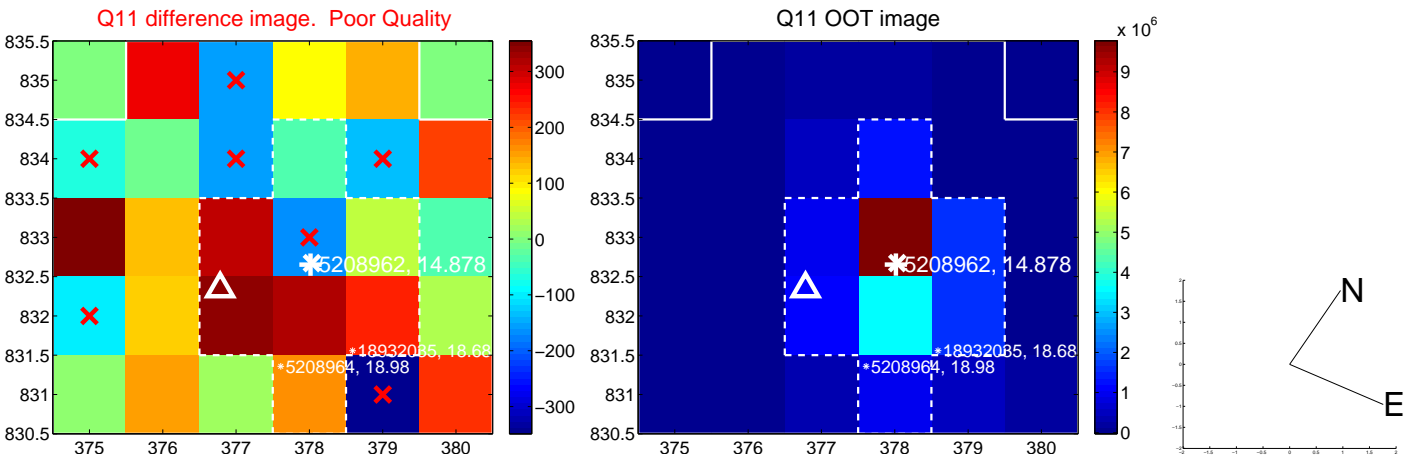
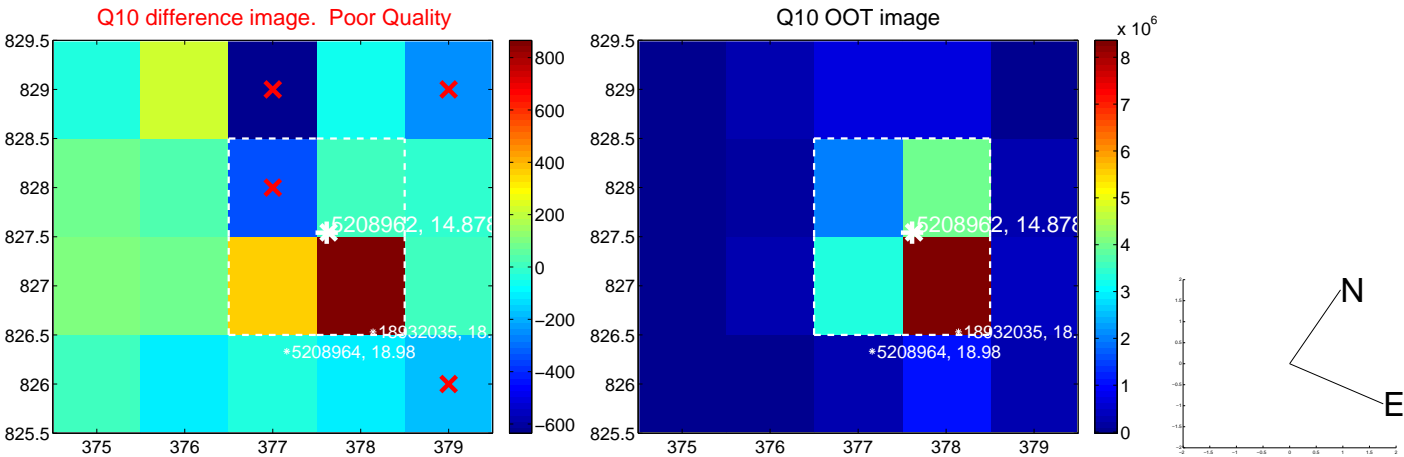
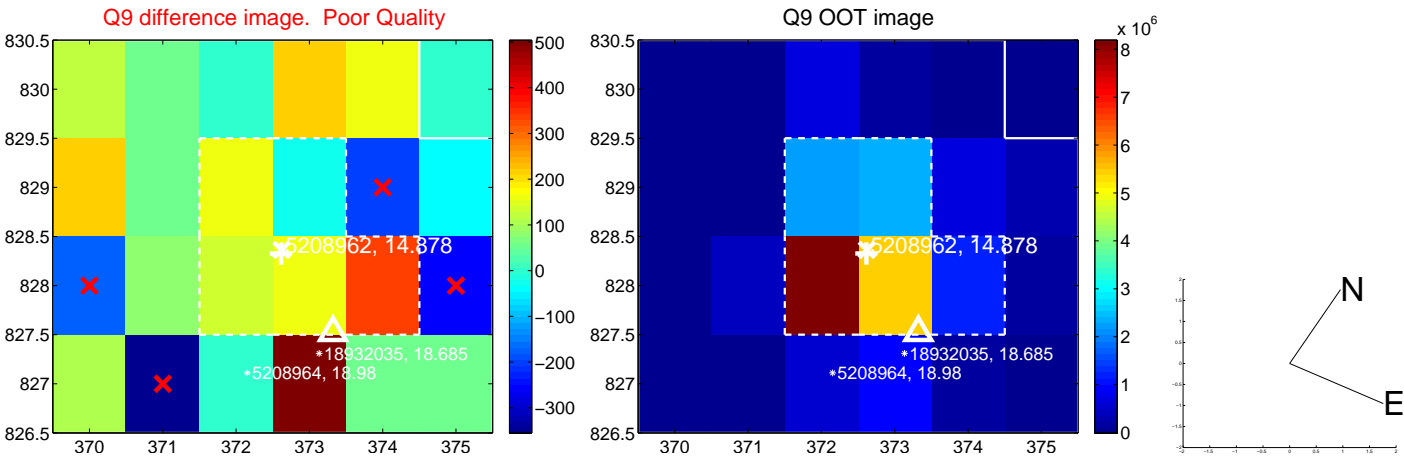
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



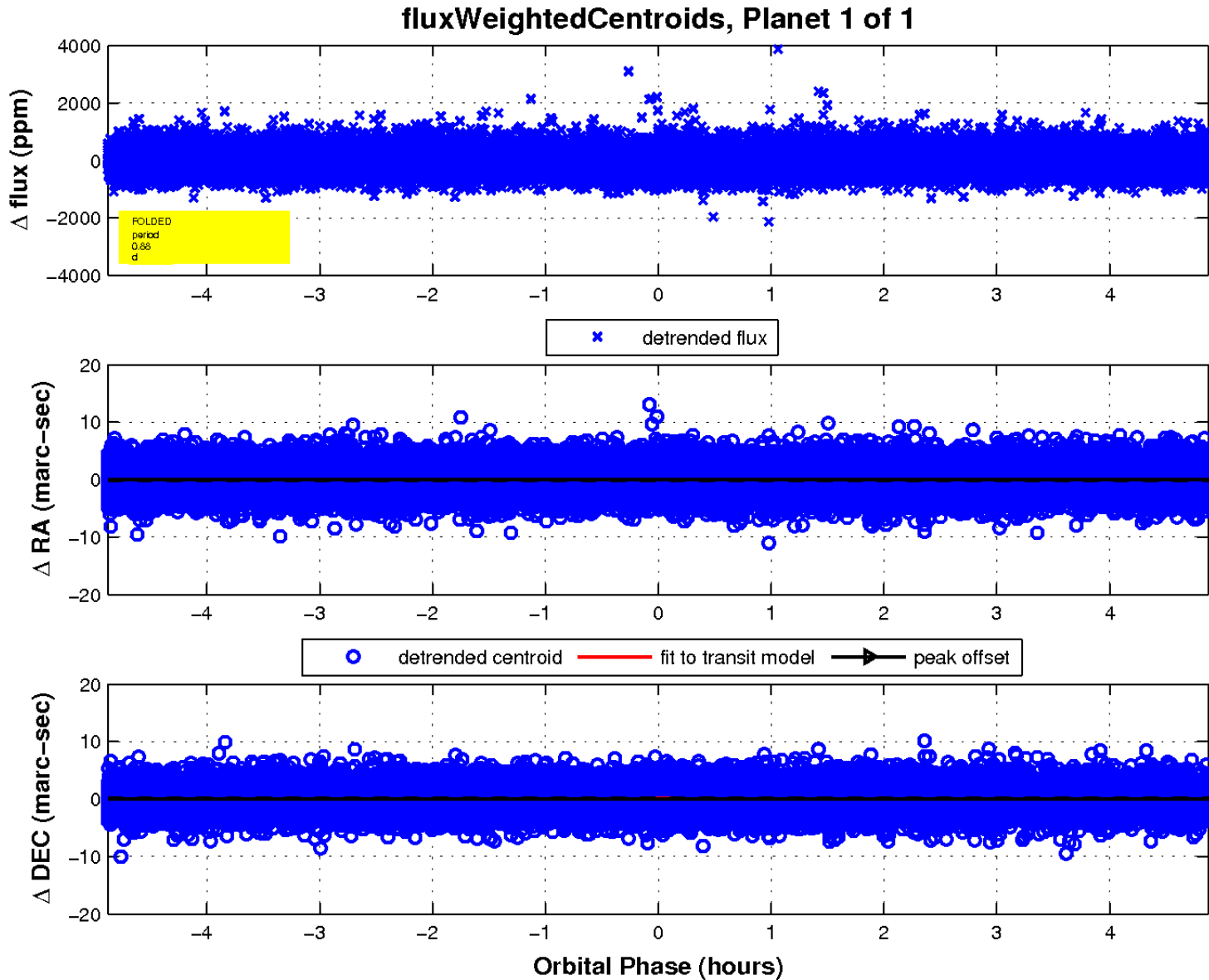
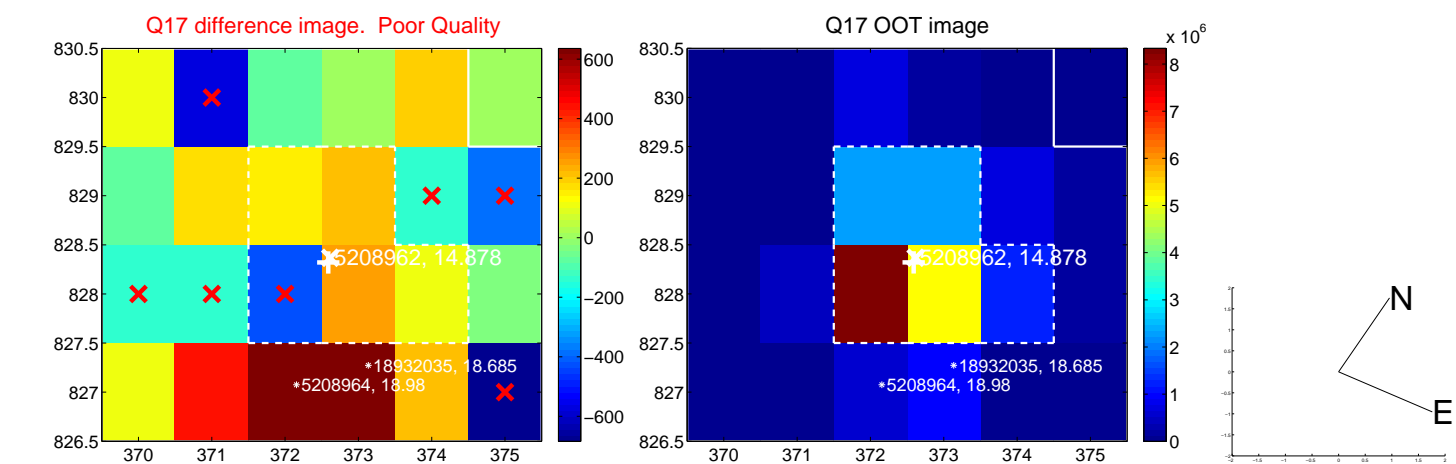
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

