

KIC 006209293

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})
006209293-01	OBS	No	1.041395	131.807981	8.7	9.150	8.1	8.7	3.09	8450	0.93	67555.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006209293-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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

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

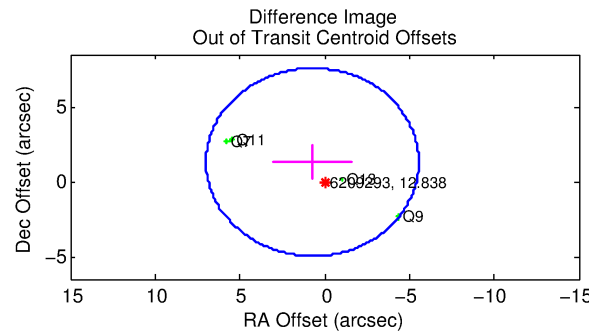
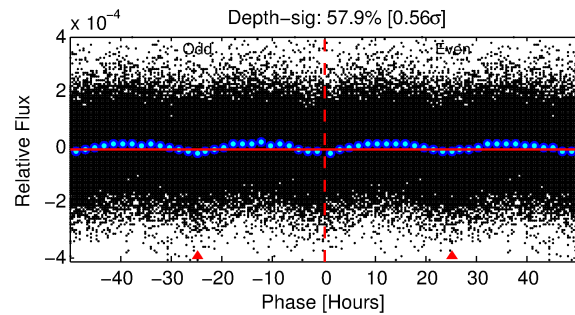
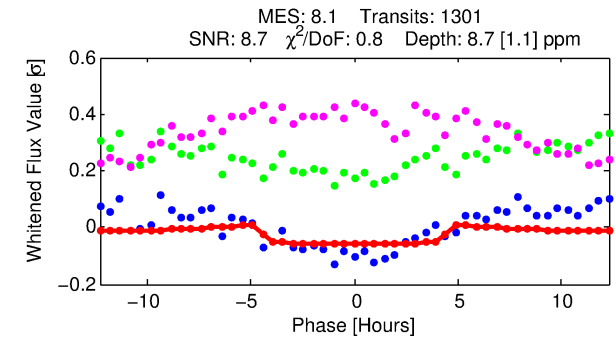
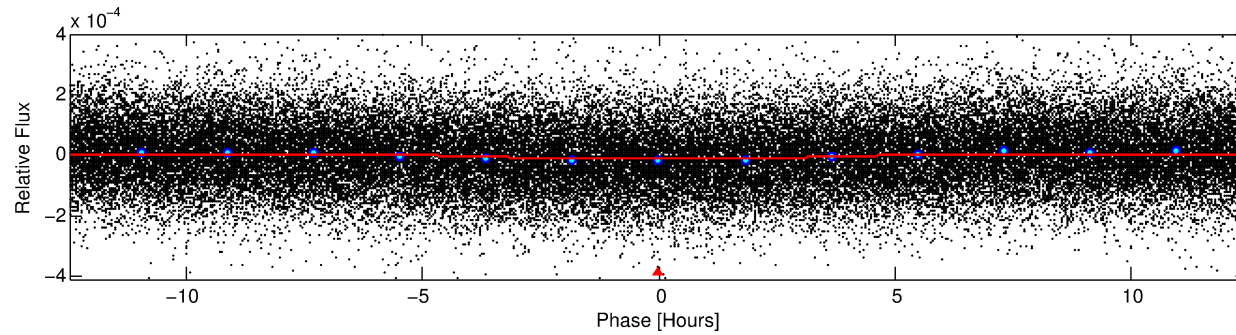
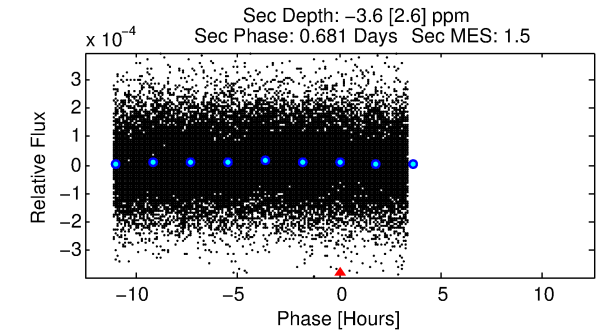
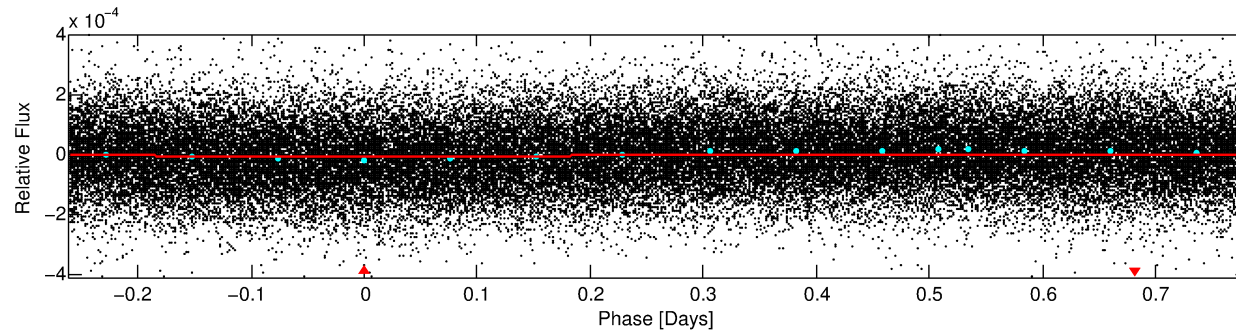
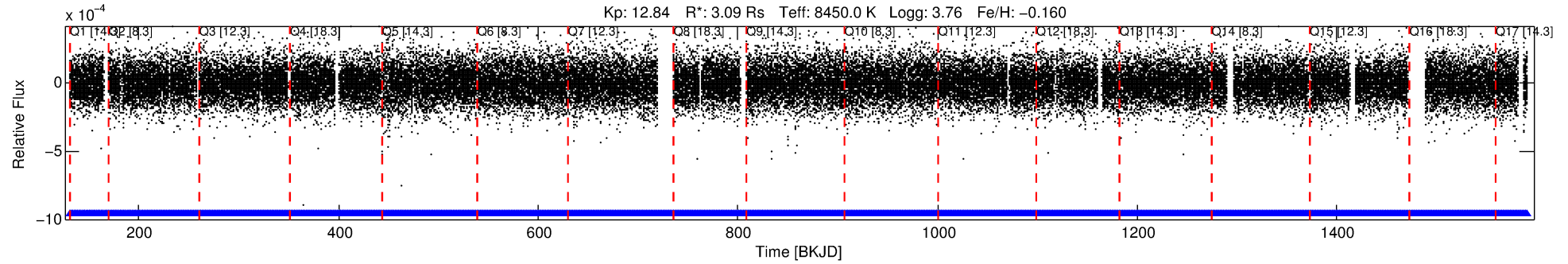
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006209293-01

No Significant Match Found

DV One-Page Summary

KIC: 6209293 Candidate: 1 of 1 Period: 1.041 d



DV Fit Results:

Period = 1.04140 [0.00002] d
Epoch = 131.8080 [0.0078] BKJD
Rp/R* = 0.0027 [0.0023]
a/R* = 1.10 [0.92]
b = 0.02 [318.14]
Seff = 67555.40 [51557.86]
Teff = 4111 [784] K
Rp = 0.93 [0.88] Re
a = 0.0254 [0.0116] AU
Ag = N/A
Teffp = N/A

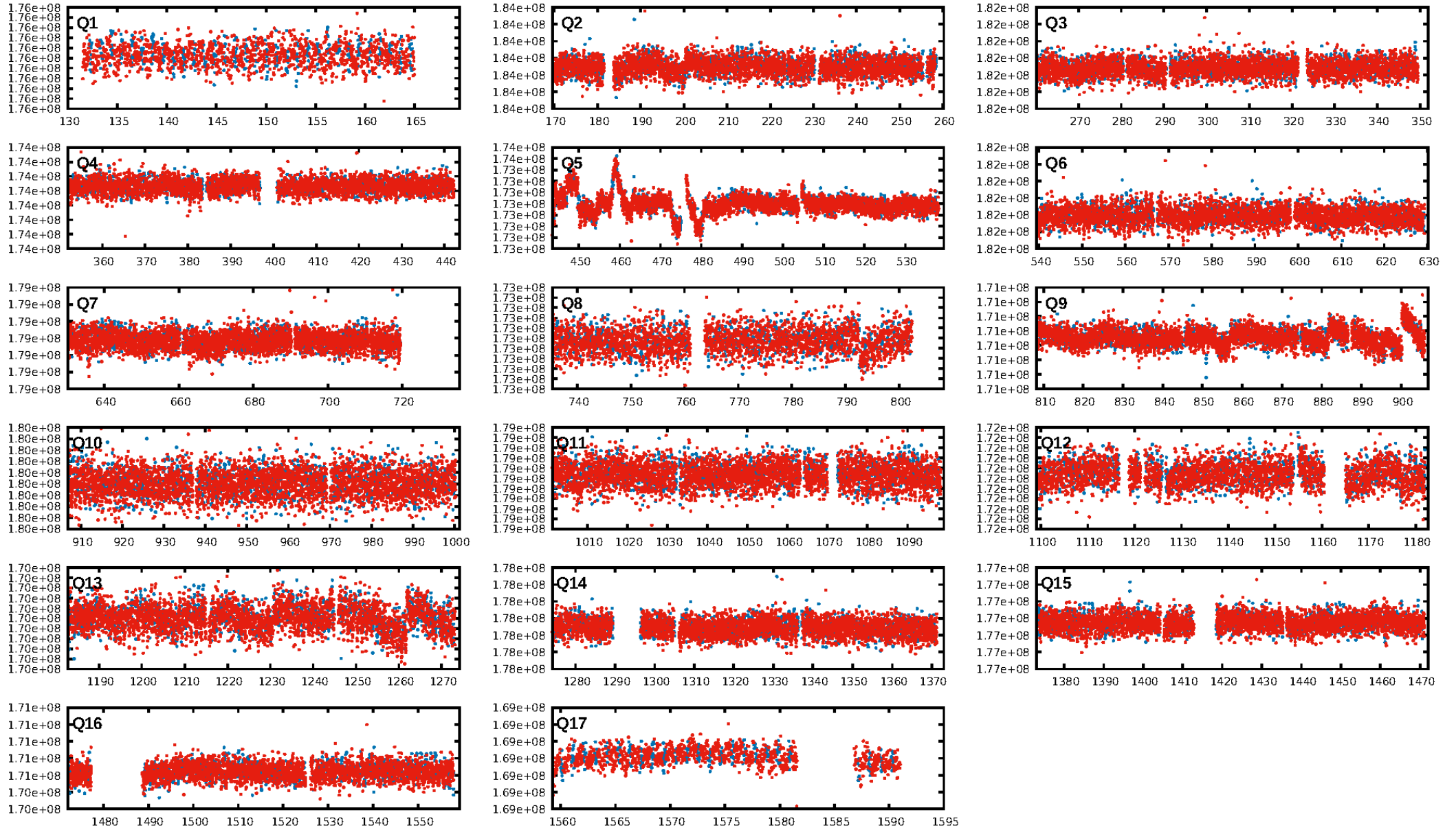
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1241/1241]
GhostDiagnostic-chr: 4.181
Centroid-sig: 3.1%
Centroid-so: 1.492 arcsec [1.36σ]
OotOffset-rm: 1.485 arcsec [0.71σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-rm: 1.427 arcsec [0.84σ]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

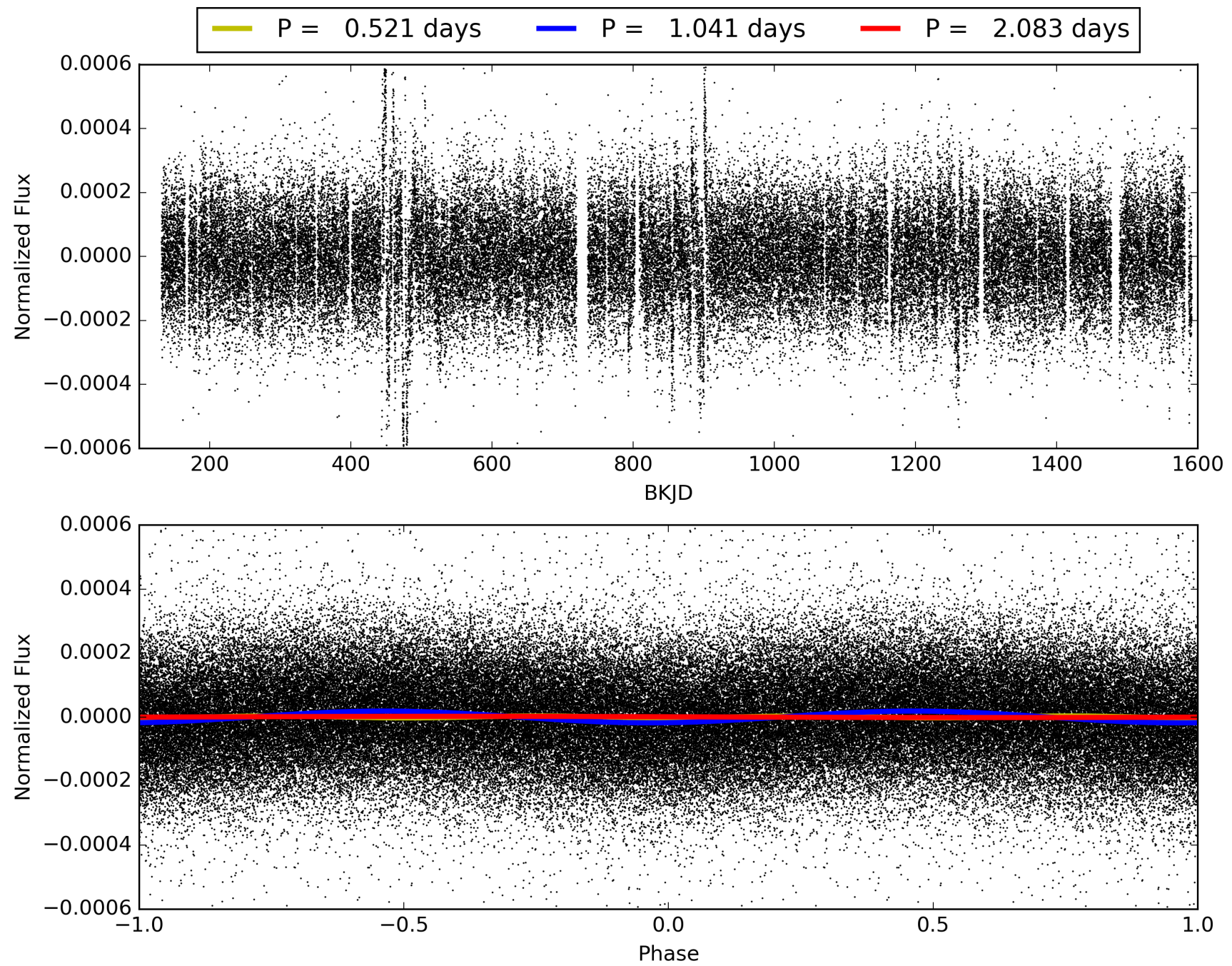
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:49:15 Z

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

TCE 006209293-01, PDC Light Curves

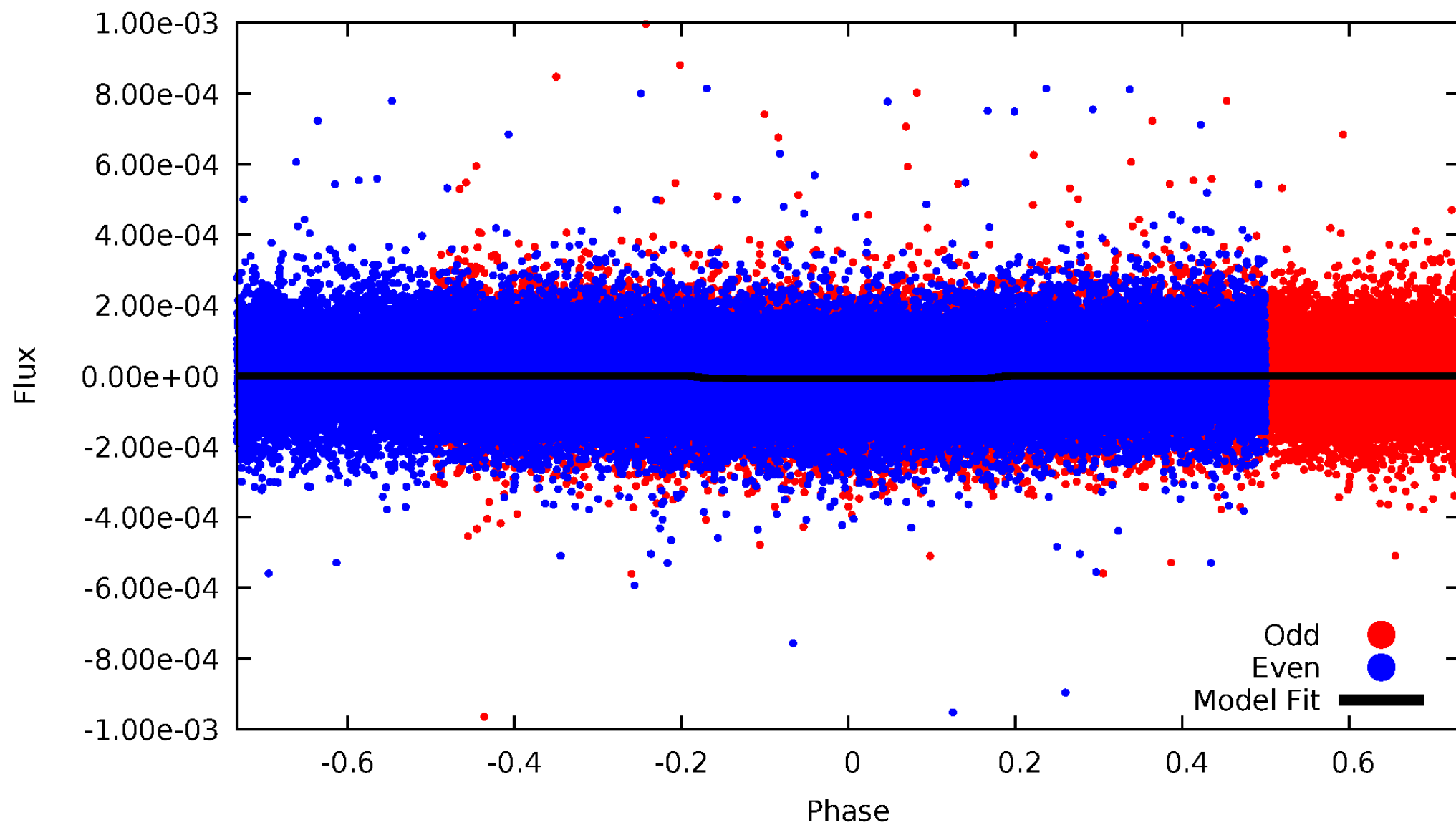


TCE 006209293-01



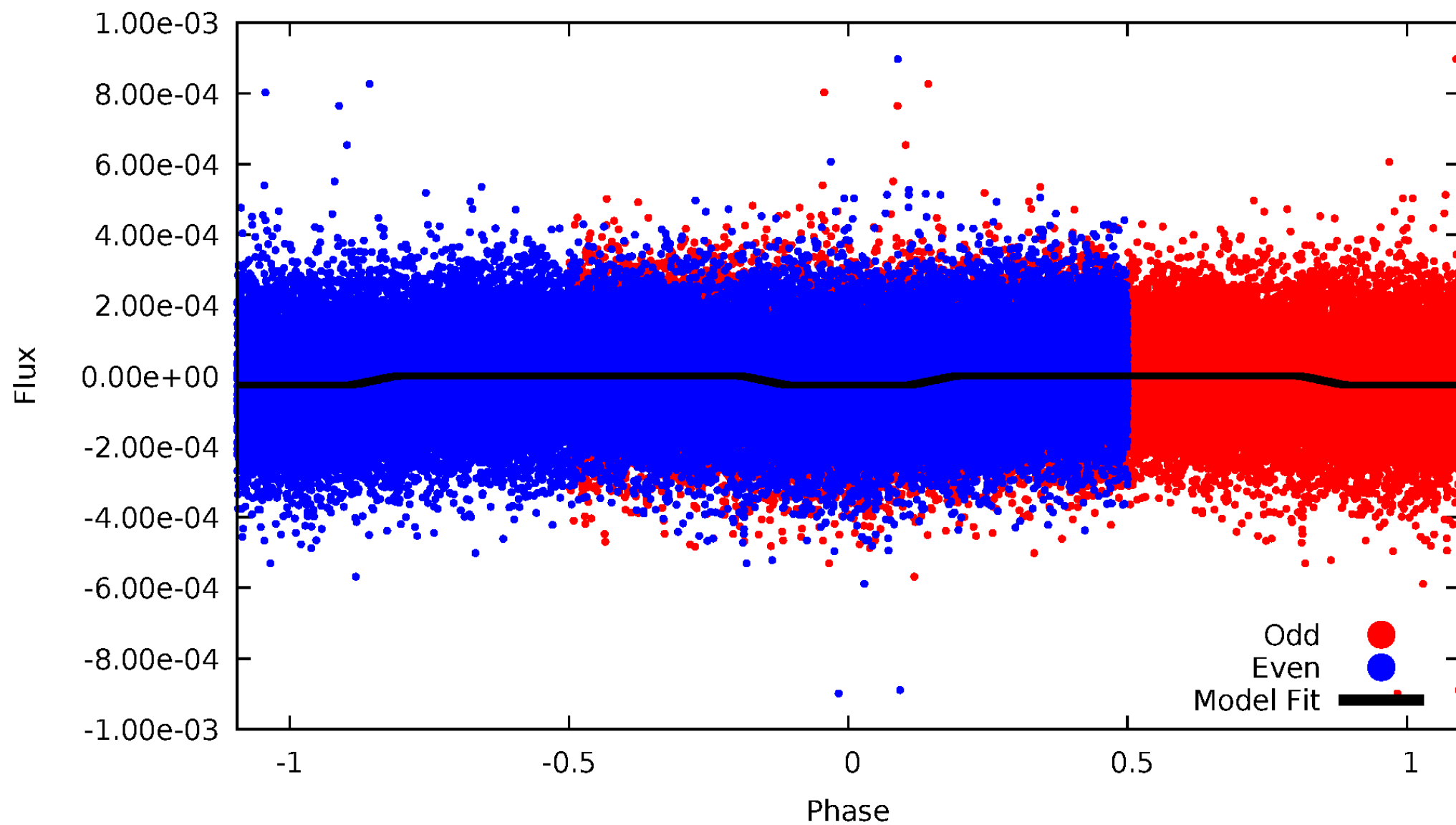
DV Odd/Even

TCE 006209293-01



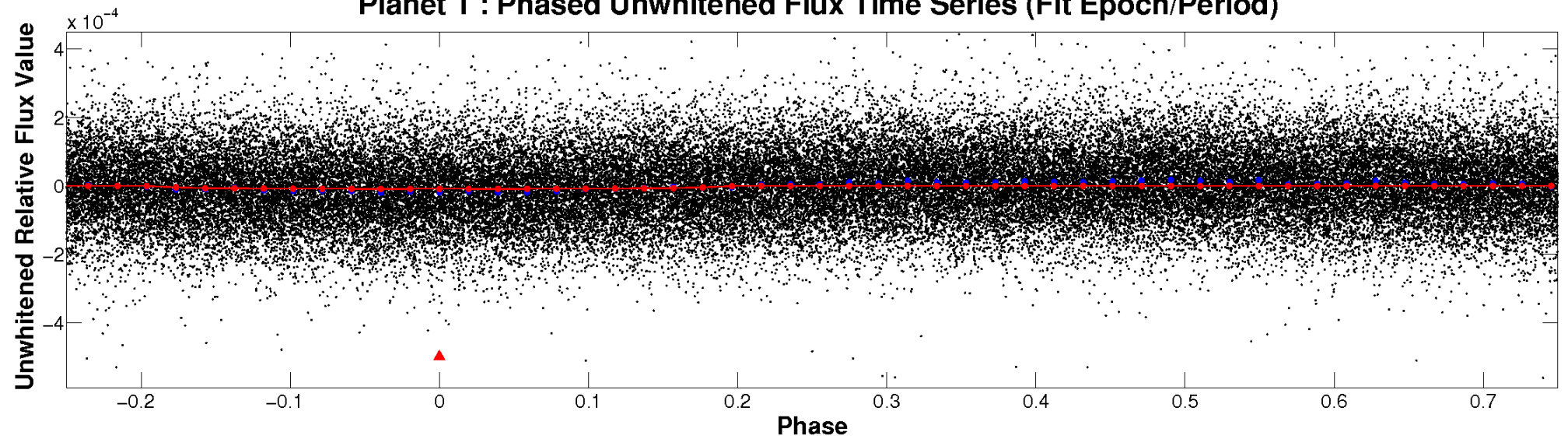
ALT Odd/Even

TCE 006209293-01

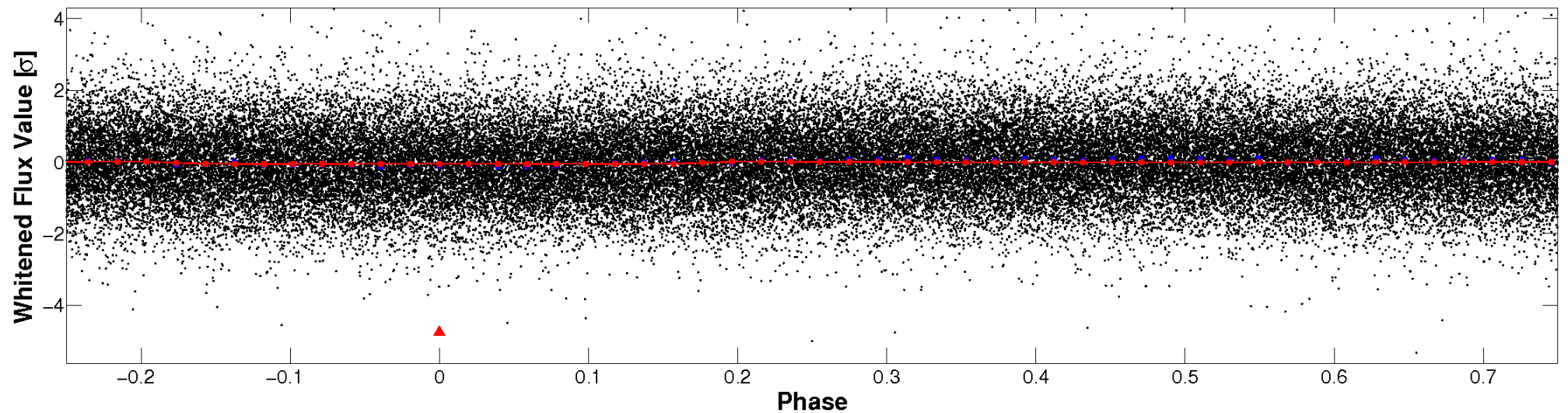


Non-Whitened Vs. Whitened Light Curve

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

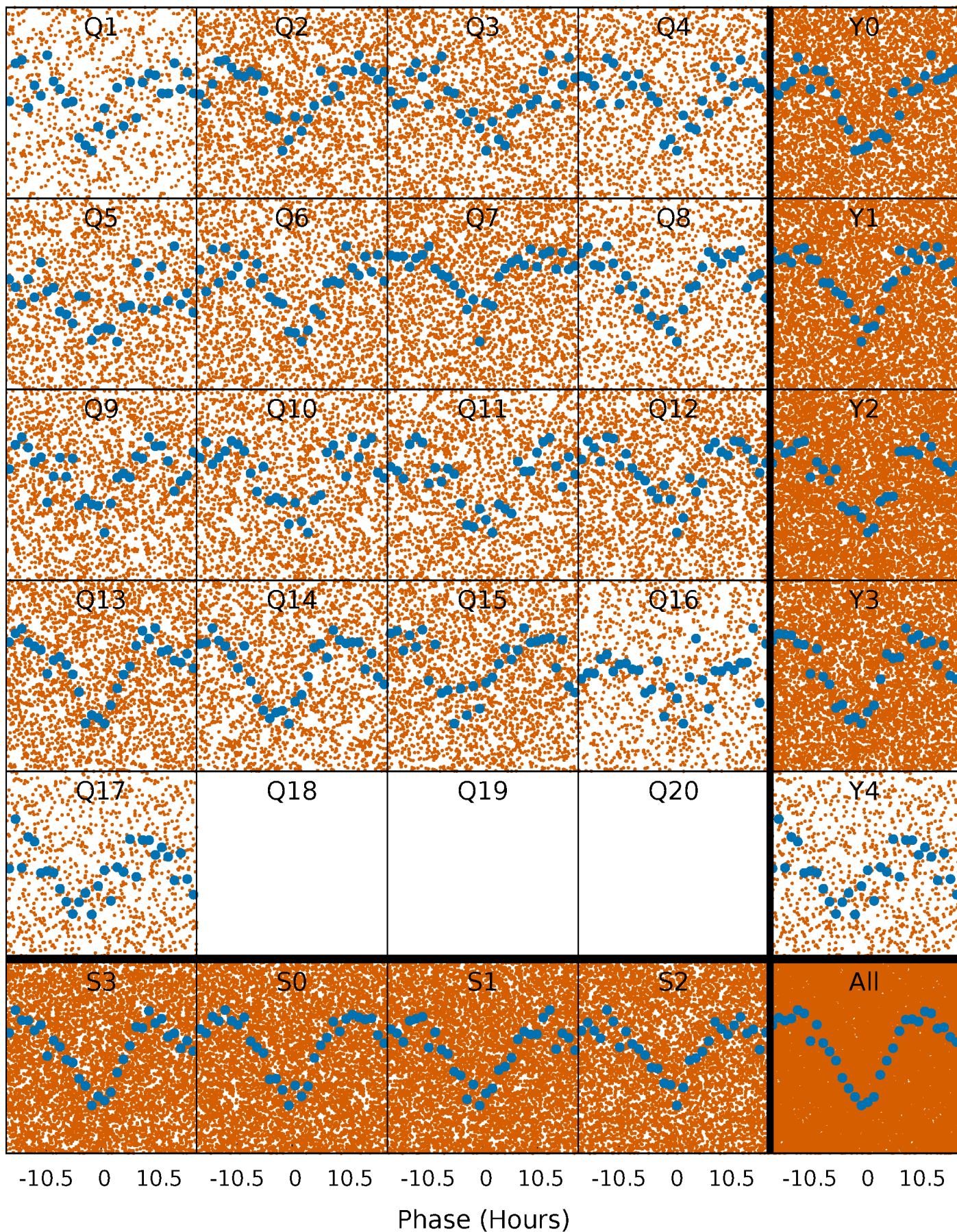


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



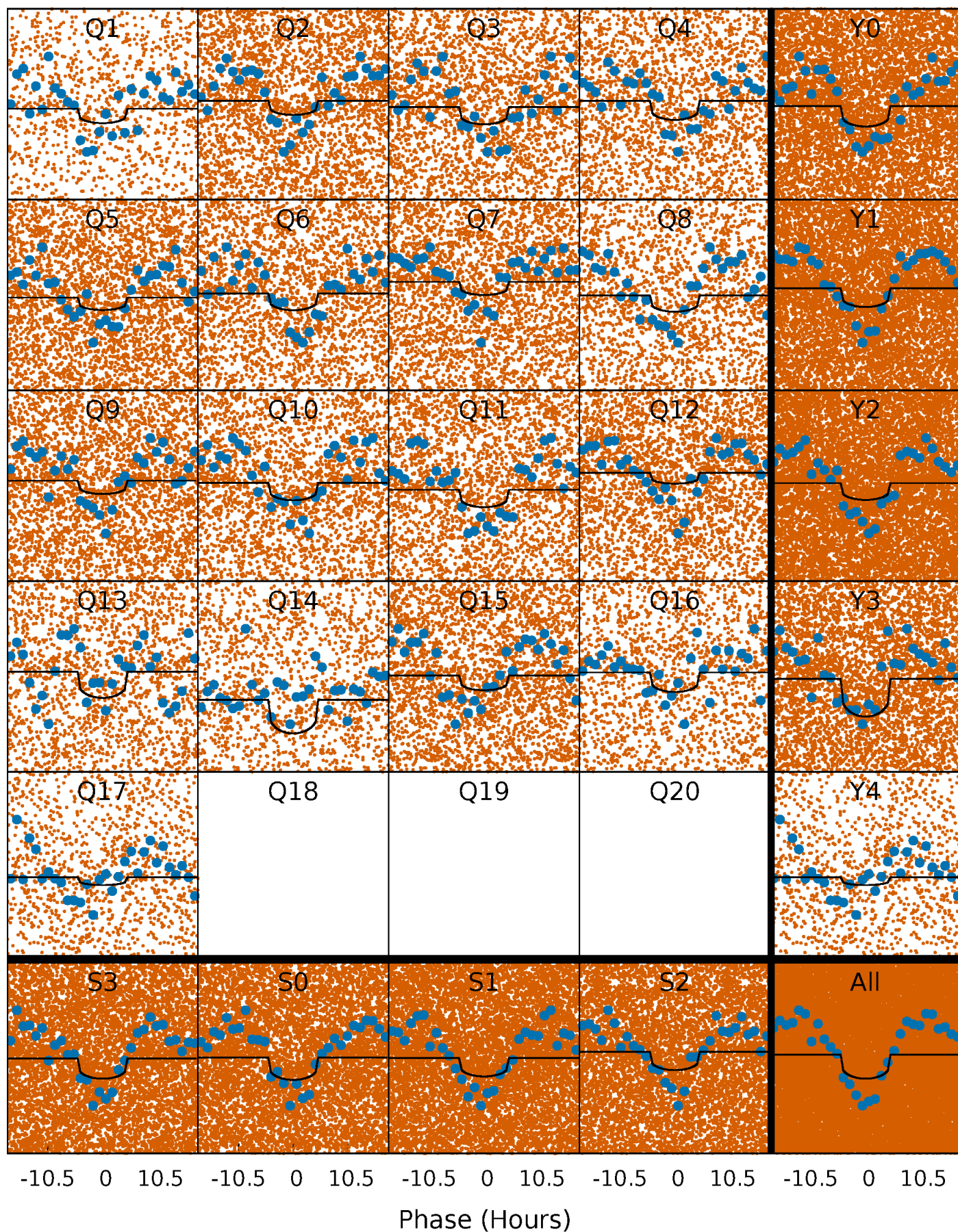
PDC Quarter-Phased Transit Curves

TCE 006209293-01 P= 1.041395 Days $T_0=131.807981$ (BKJD)



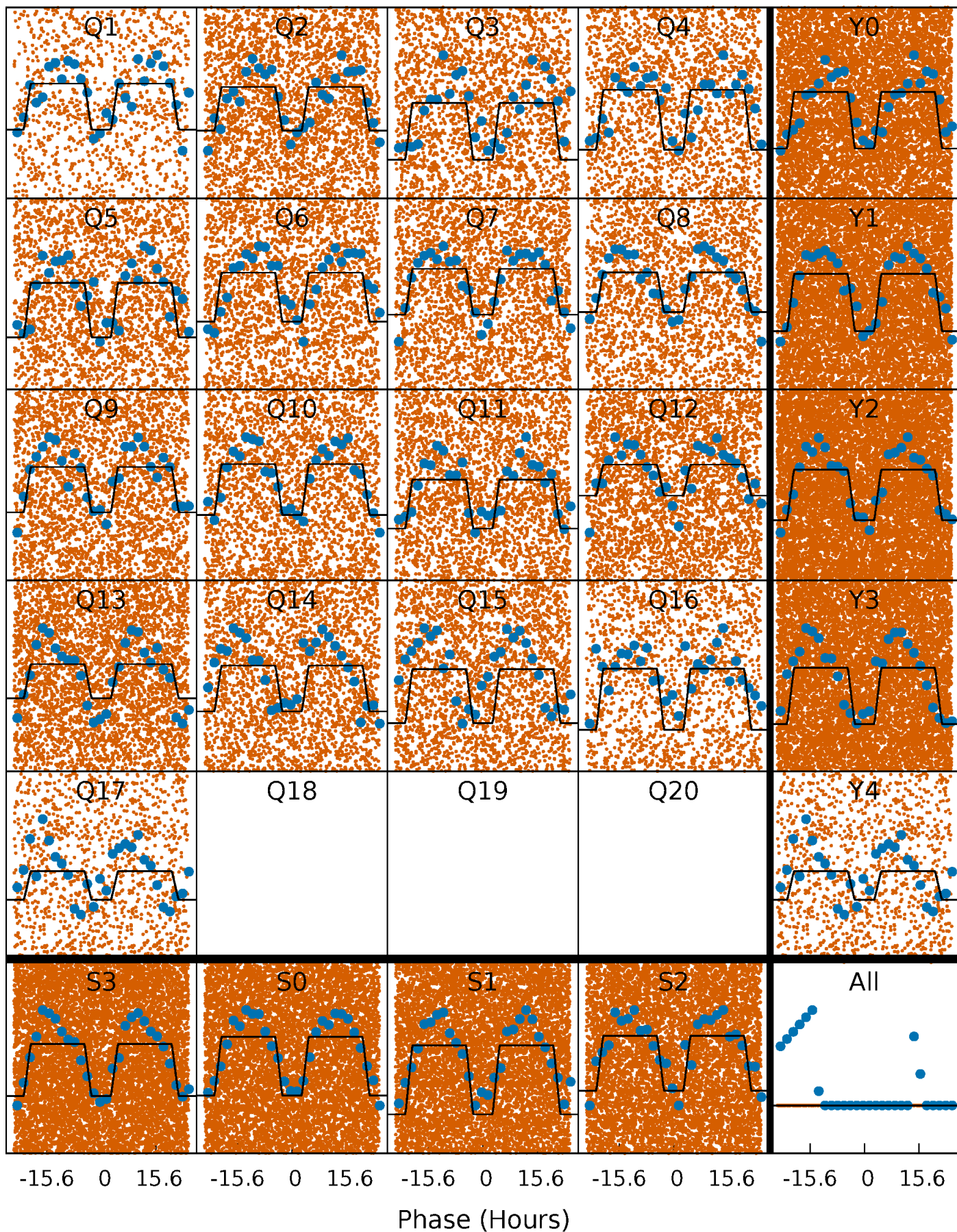
DV Quarter-Phased Transit Curves

TCE 006209293-01 P= 1.041395 Days $T_0=131.807981$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

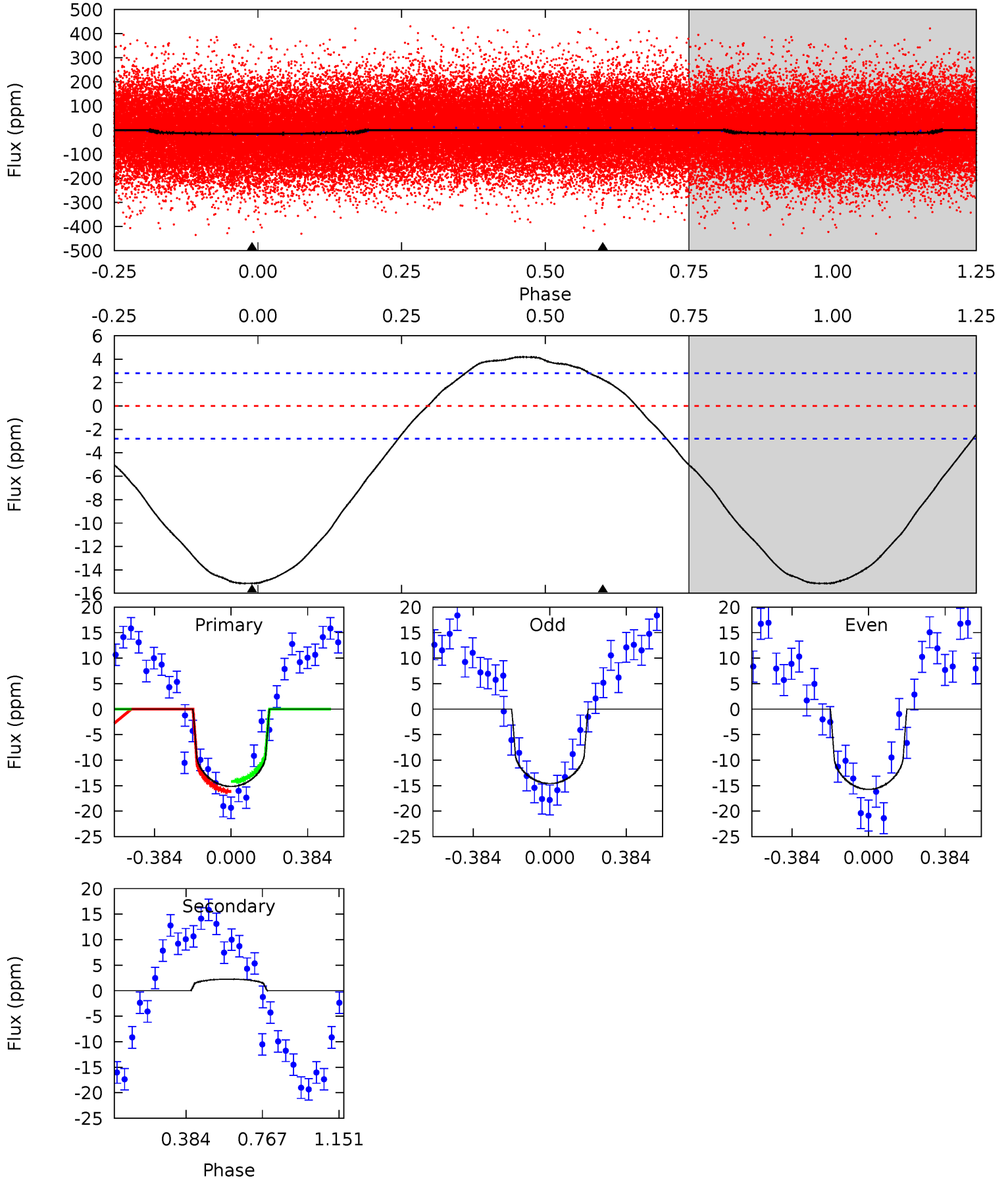
TCE 006209293-01 P= 1.041474 Days $T_0=131.731833$ (BKJD)



DV Model-Shift Uniqueness Test

006209293-01, P = 1.041395 Days, E = 130.766586 Days

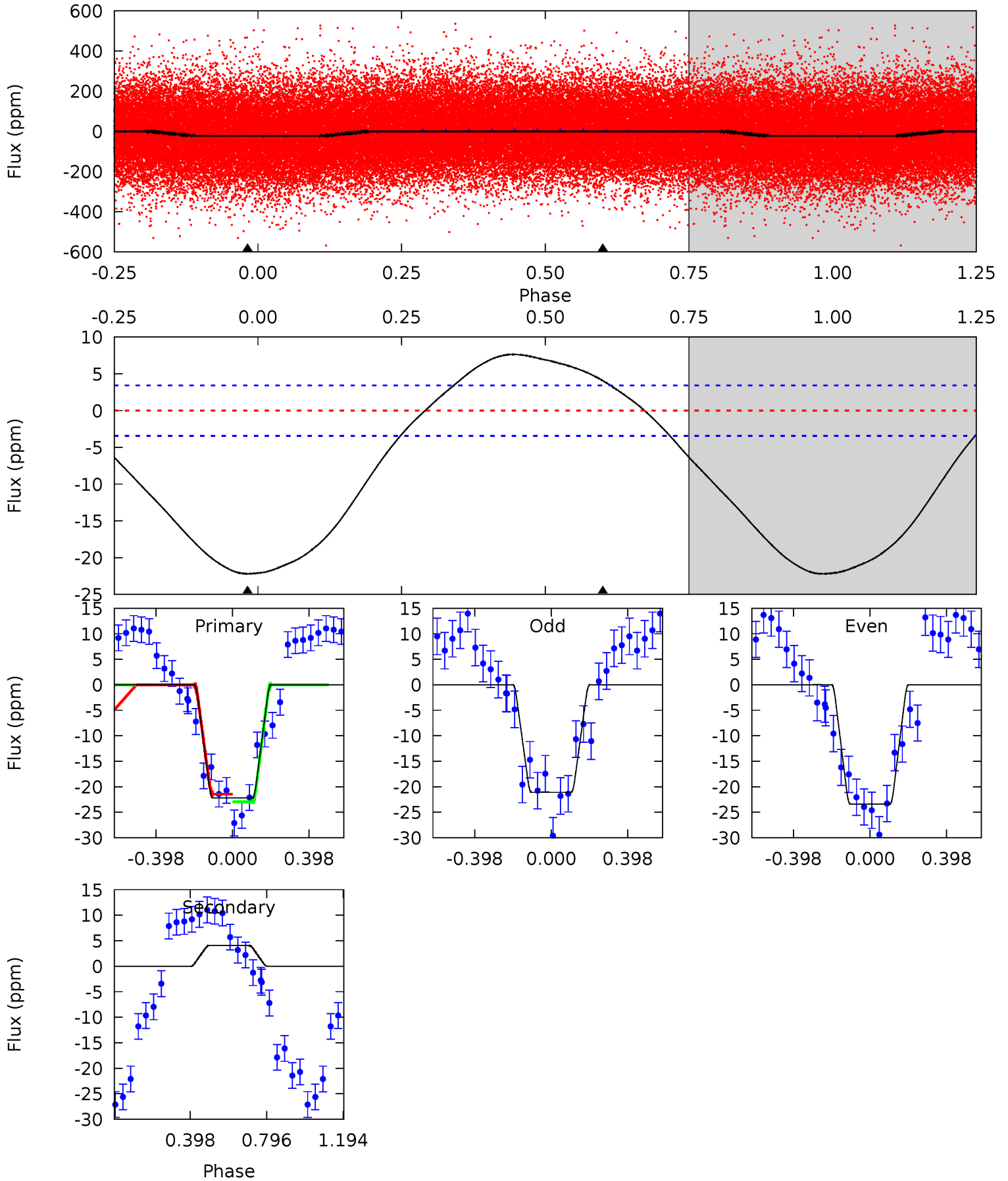
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.2	-3.46	0	0	4.27	0.87	2.28	23.2	23.2	-3.46	-3.46	0.86	1.02	0.22	1.49



Alt Model-Shift Uniqueness Test

006209293-01, P = 1.041474 Days, E = 130.690359 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.6	-5.05	0	0	4.27	0.85	2.69	27.6	27.6	-5.05	-5.05	1.43	1.01	0.26	0.93



Stellar Parameters For KIC 006209293

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8450^{+234}_{-381}	$3.763^{+0.440}_{-0.137}$	$-0.160^{+0.350}_{-0.350}$	$3.092^{+0.874}_{-1.420}$	$2.024^{+0.332}_{-0.457}$	$0.096^{+0.381}_{-0.040}$
	+3%/-5%	+12%/-4%	+219%/-219%	+28%/-46%	+16%/-23%	+395%/-42%
Source	KIC0	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 006209293-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 1	$0.94^{+0.75}_{-0.59}$	5585^{+460}_{-706}	-6170^{+976}_{-3790}	$-0.930^{+0.666}_{-5.698}$
Alt.	4 ± 1	$1.56^{+0.88}_{-0.72}$	5558^{+492}_{-653}	-5740^{+633}_{-1291}	$-0.590^{+0.358}_{-1.347}$

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

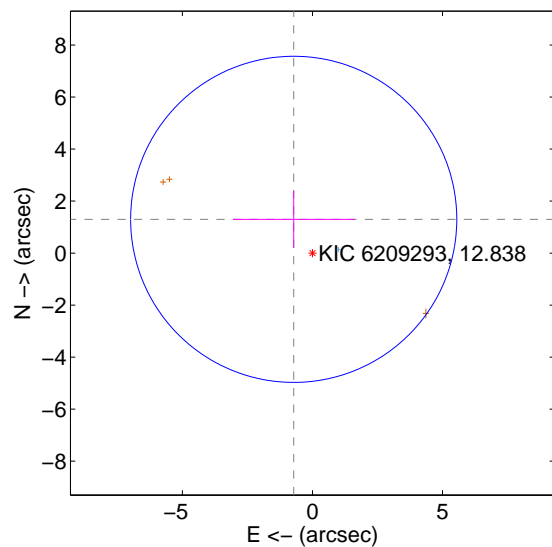
Supplemental centroid analysis for 006209293-01. Kepler magnitude: 12.84. Transit SNR 8.67

There are 1 quarters with good PRF difference image offsets

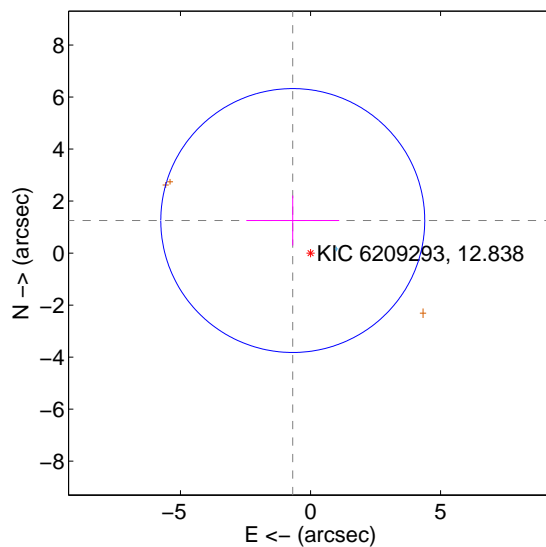
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.485 ± 2.091	0.71	0.720 ± 2.338	1.298 ± 1.099
PRF-fit source offset from KIC position	1.427 ± 1.692	0.84	0.683 ± 1.785	1.252 ± 0.961
photometric centroid source offset	1.49 ± 1.10	1.36	-0.78 ± 1.15	-1.27 ± 1.07

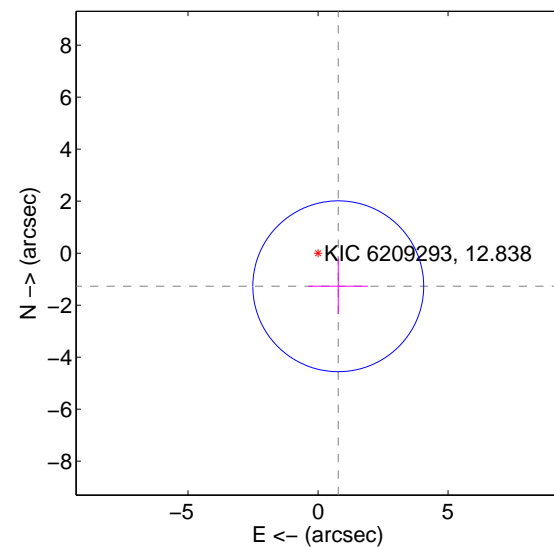
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

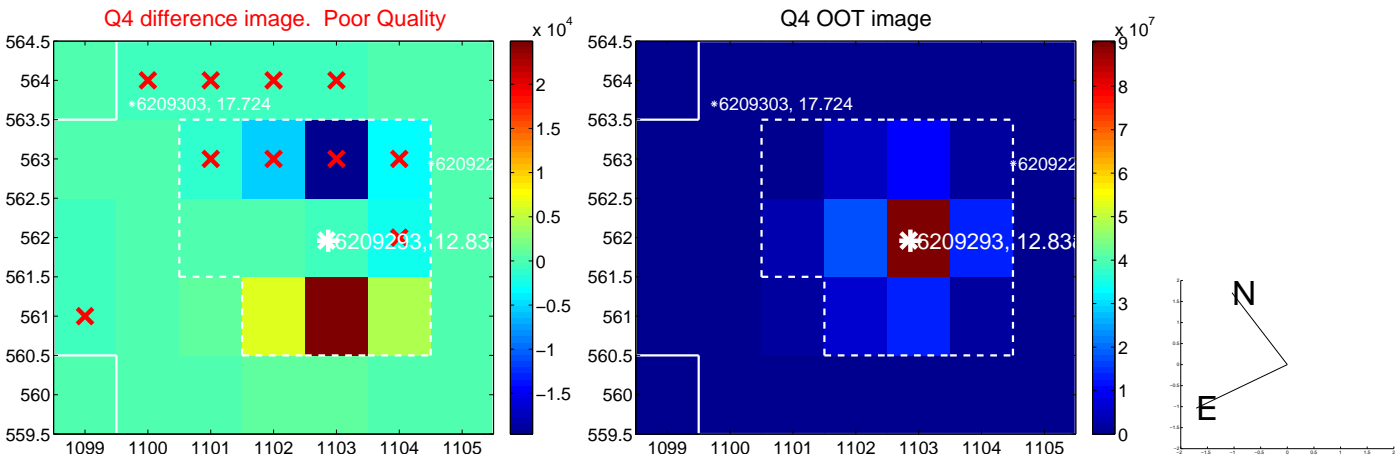
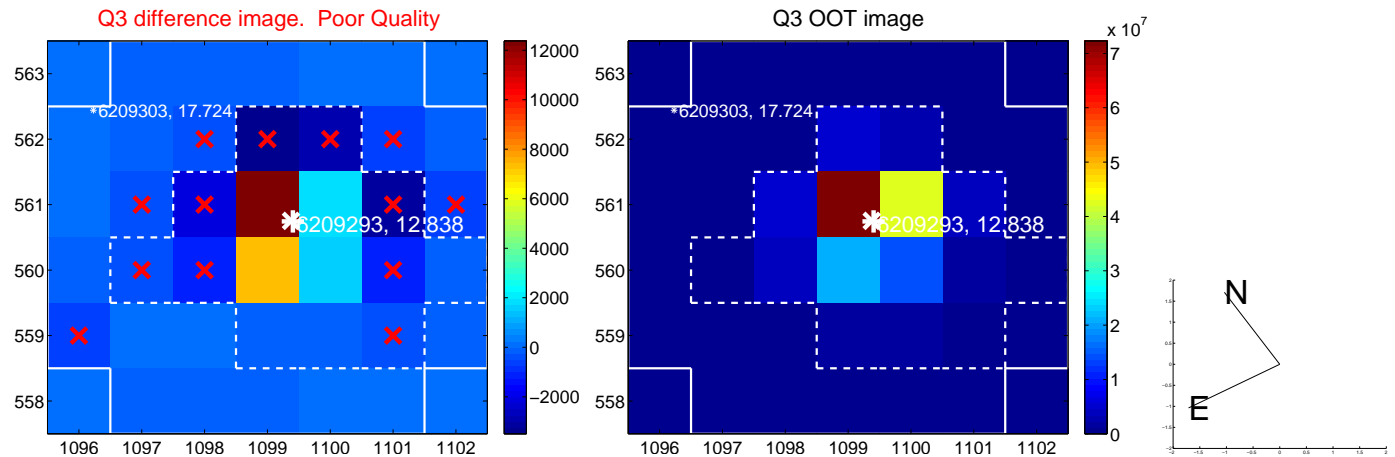
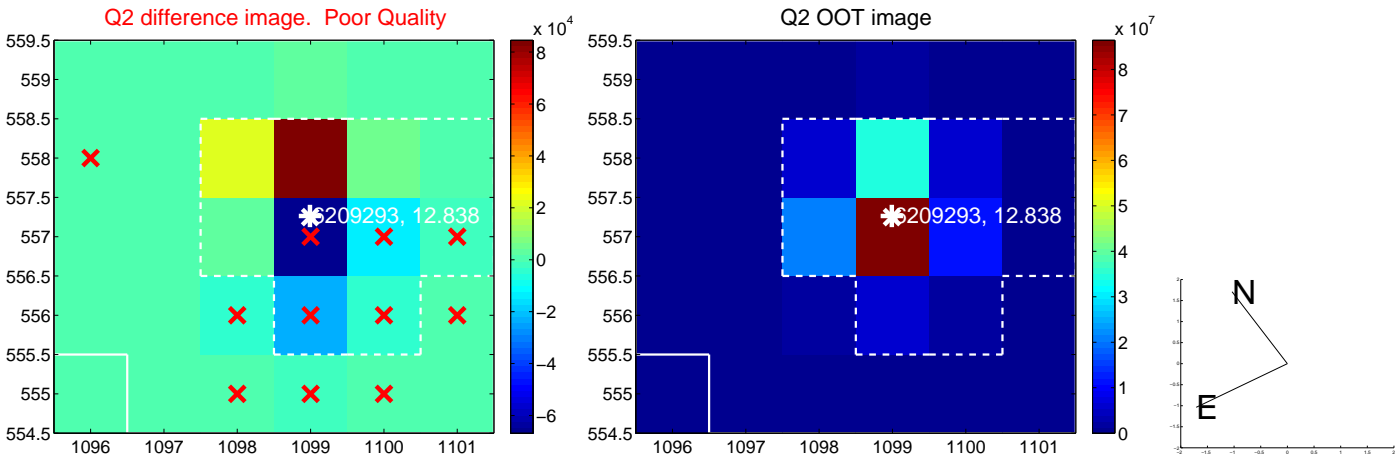
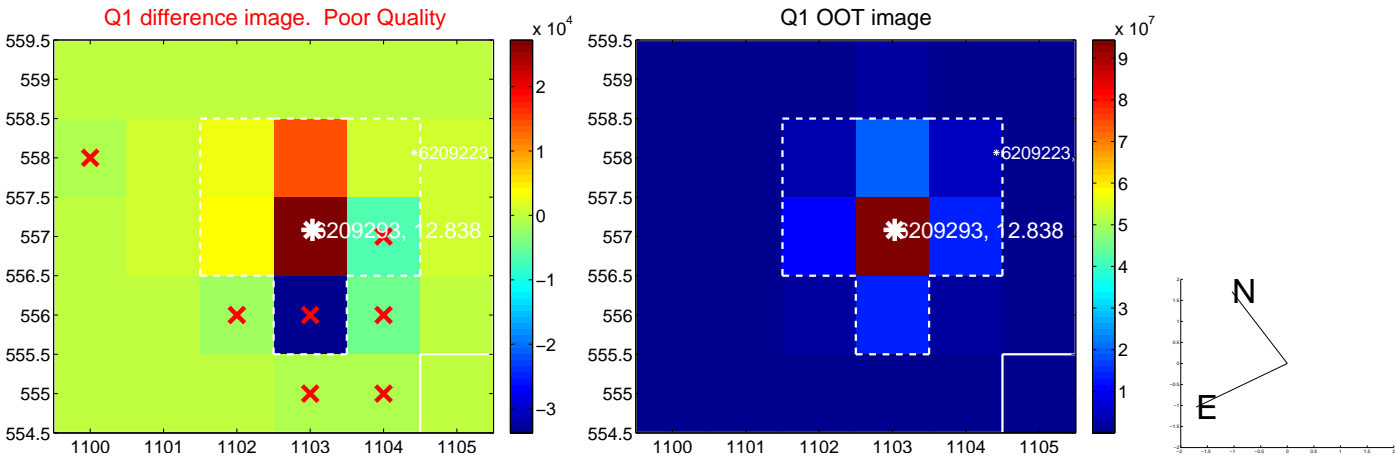


offset from photometric centroids

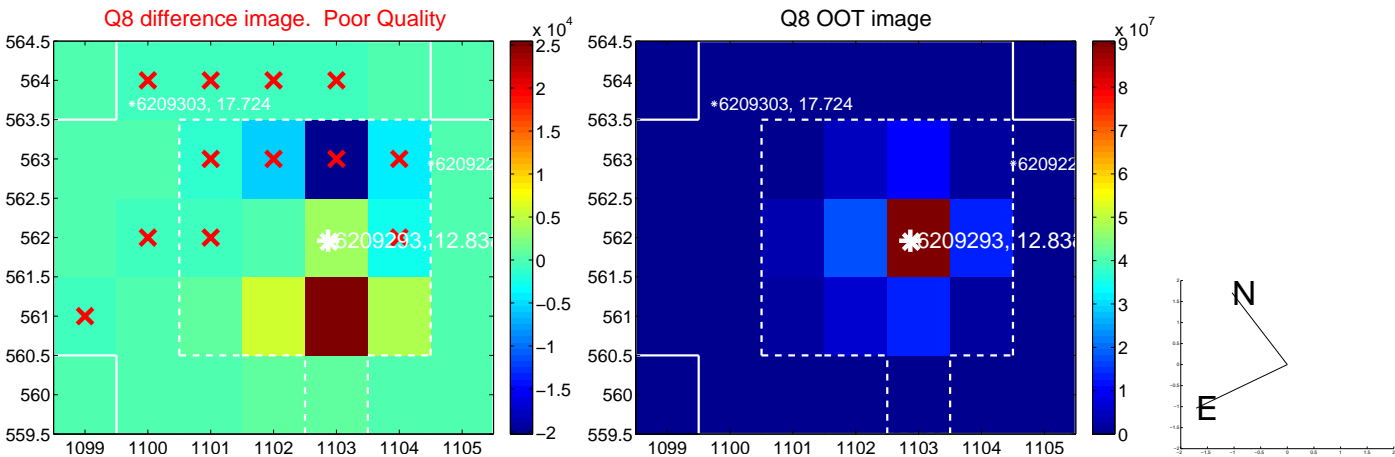
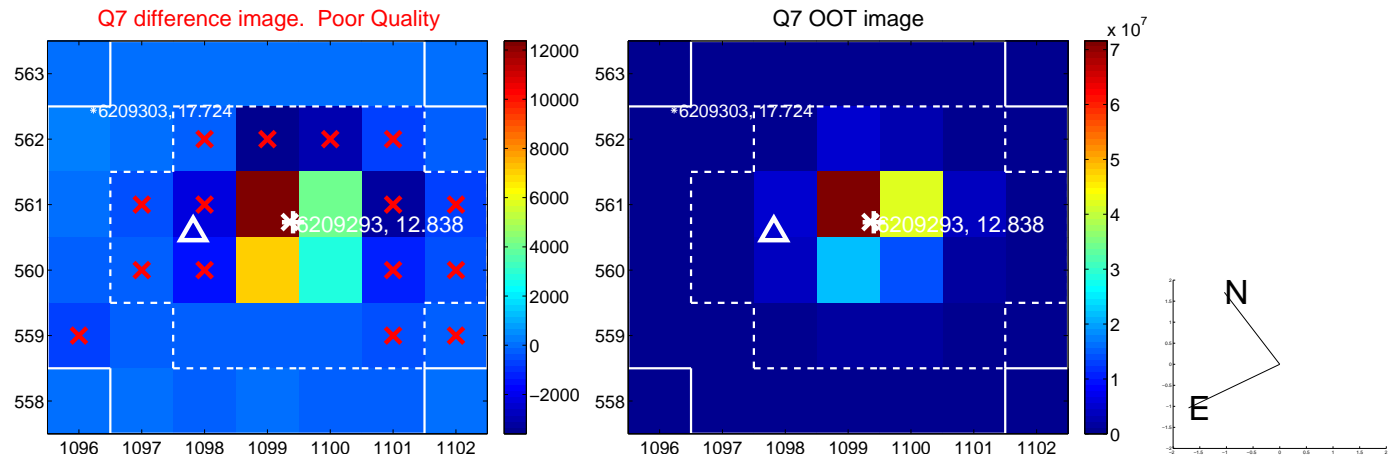
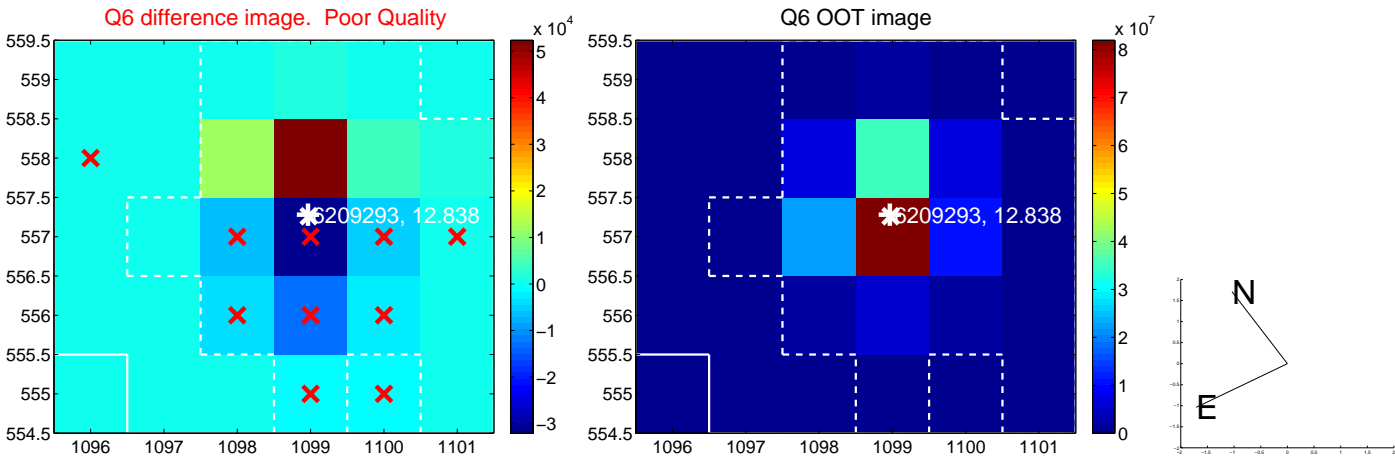
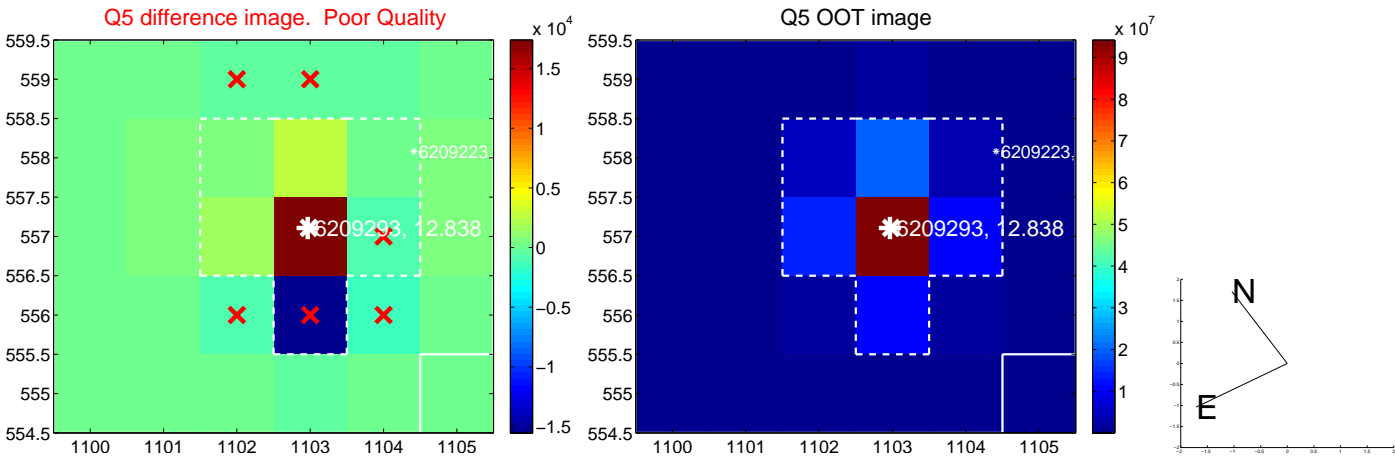


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

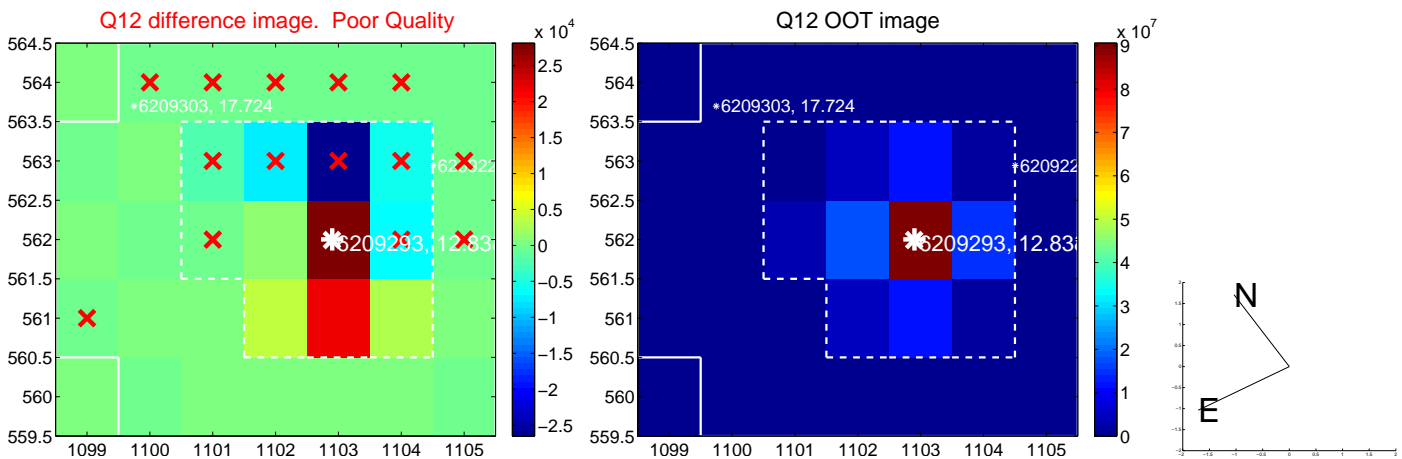
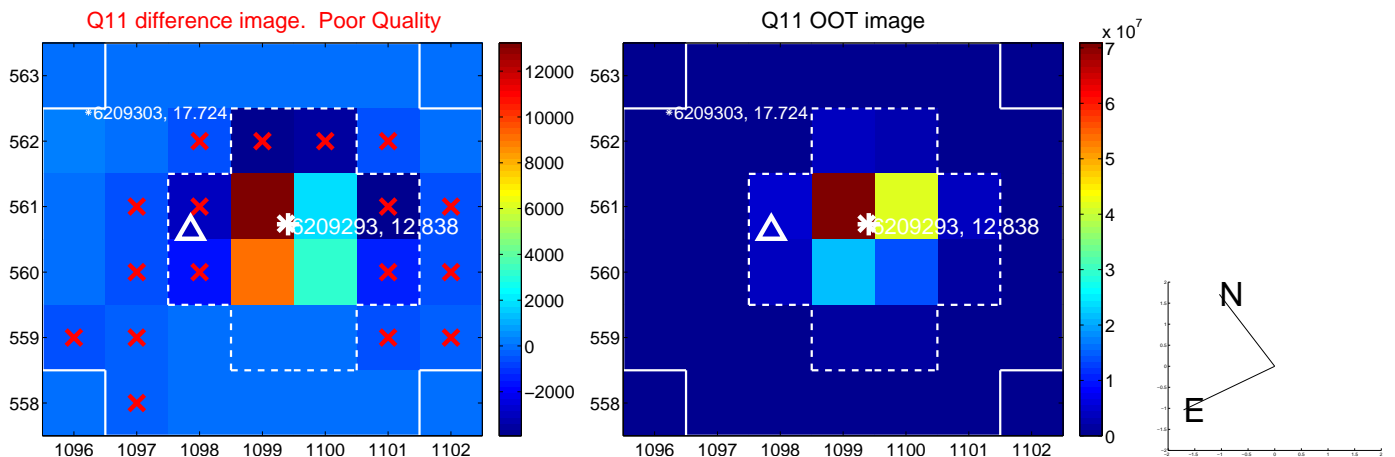
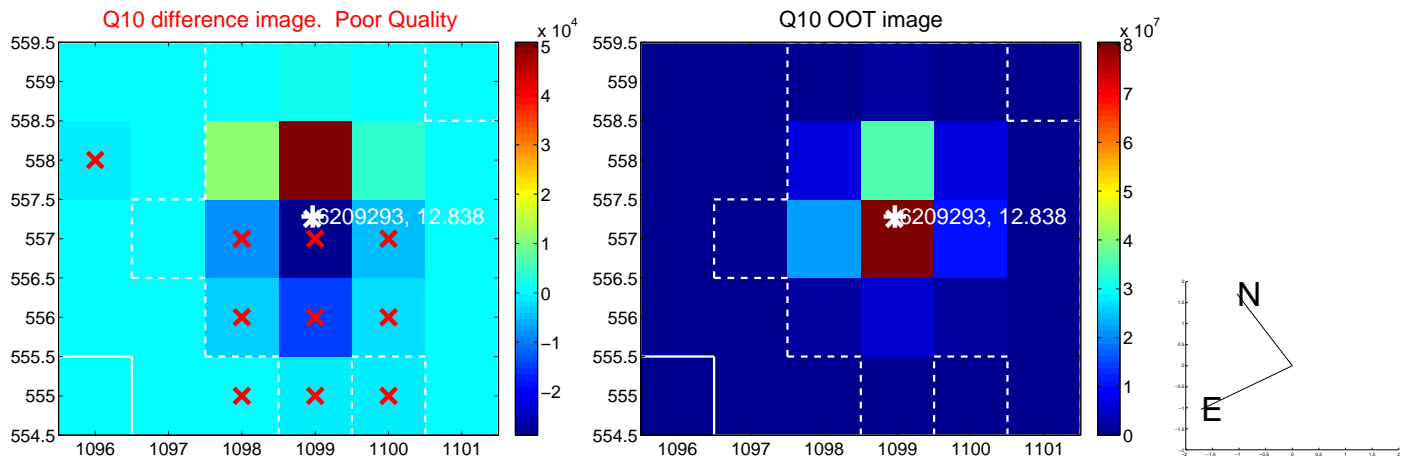
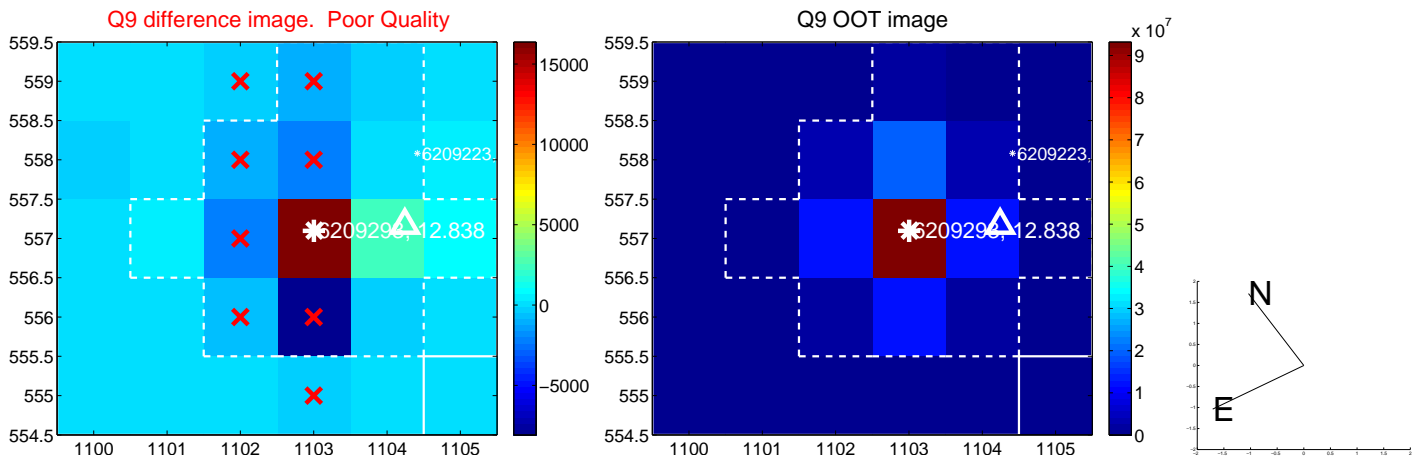
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



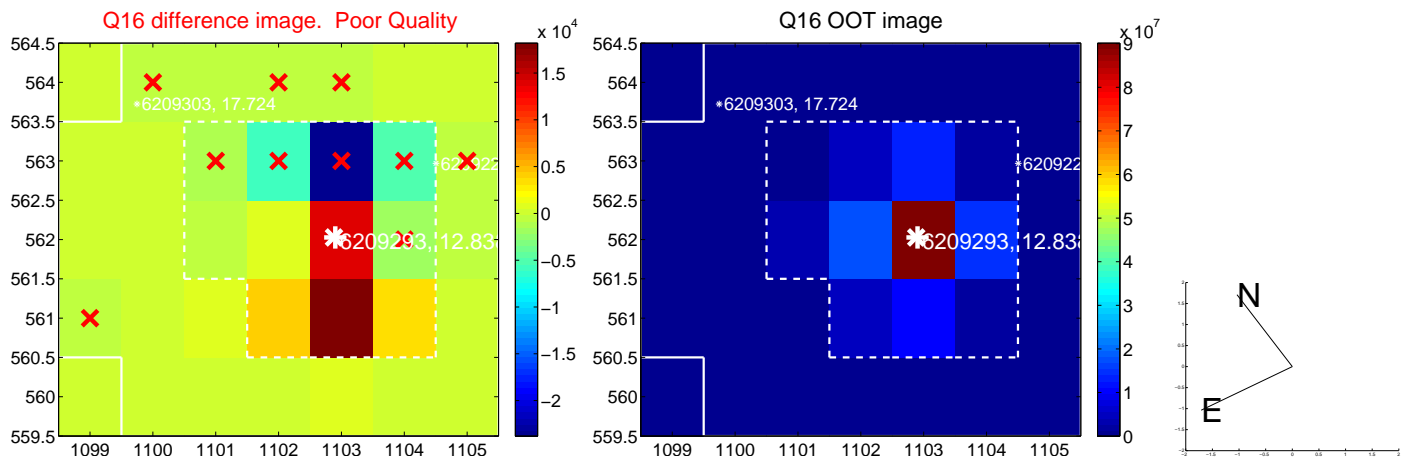
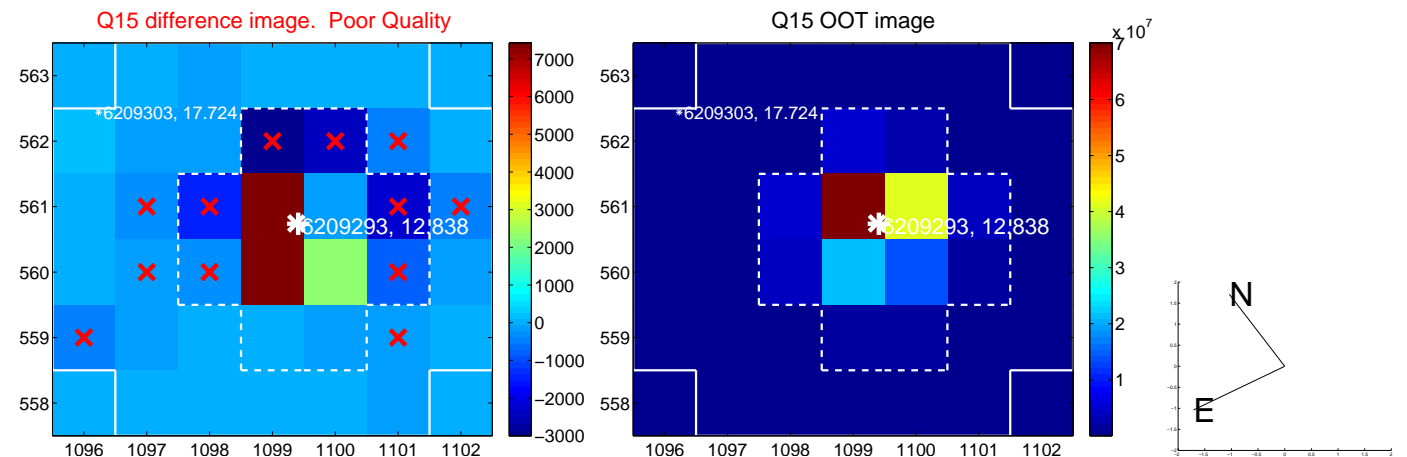
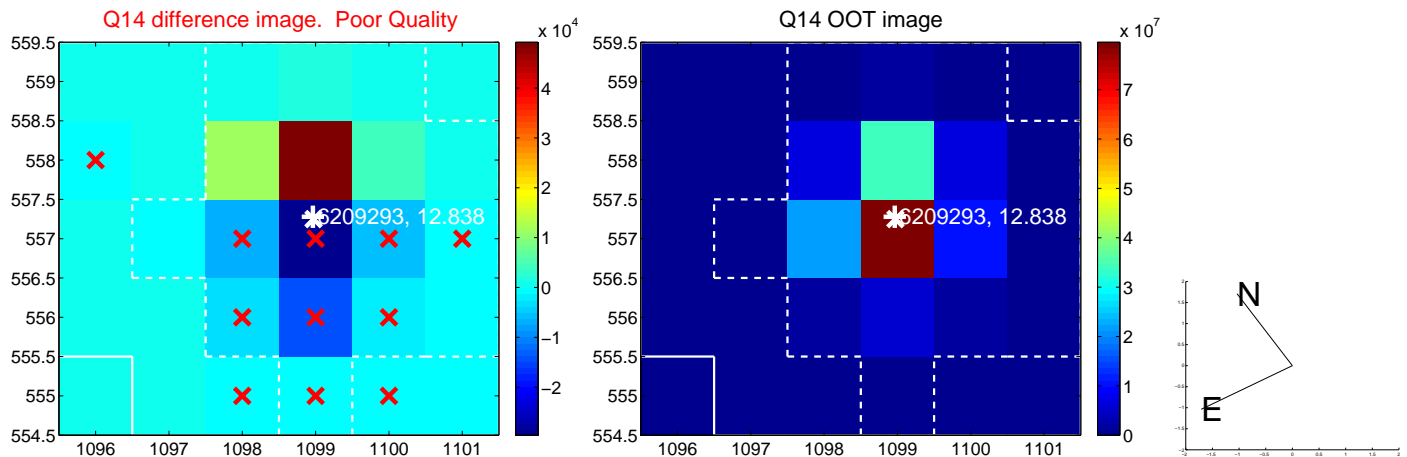
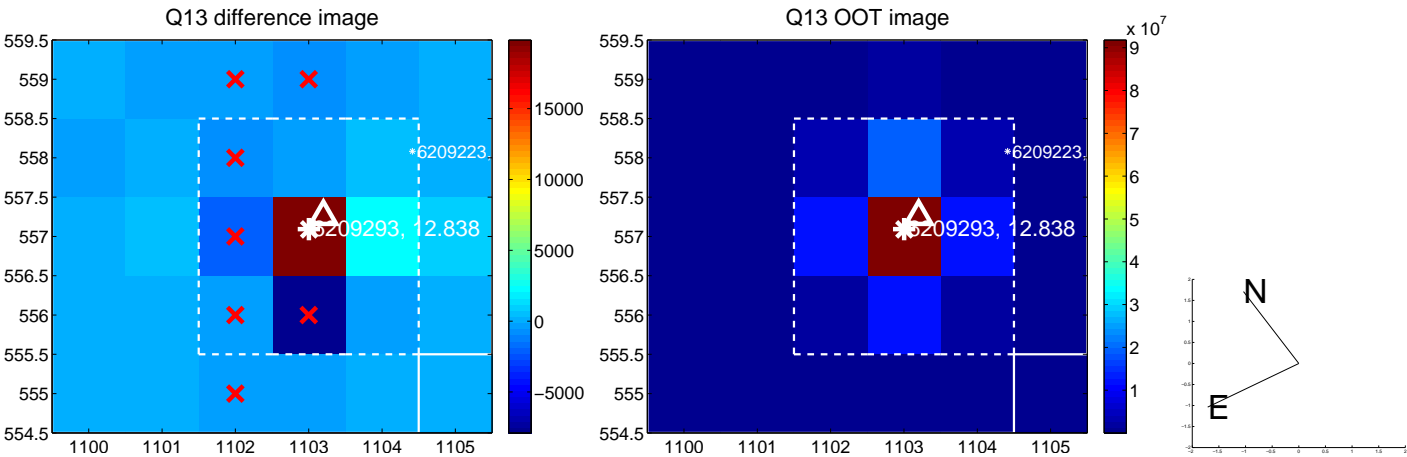
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



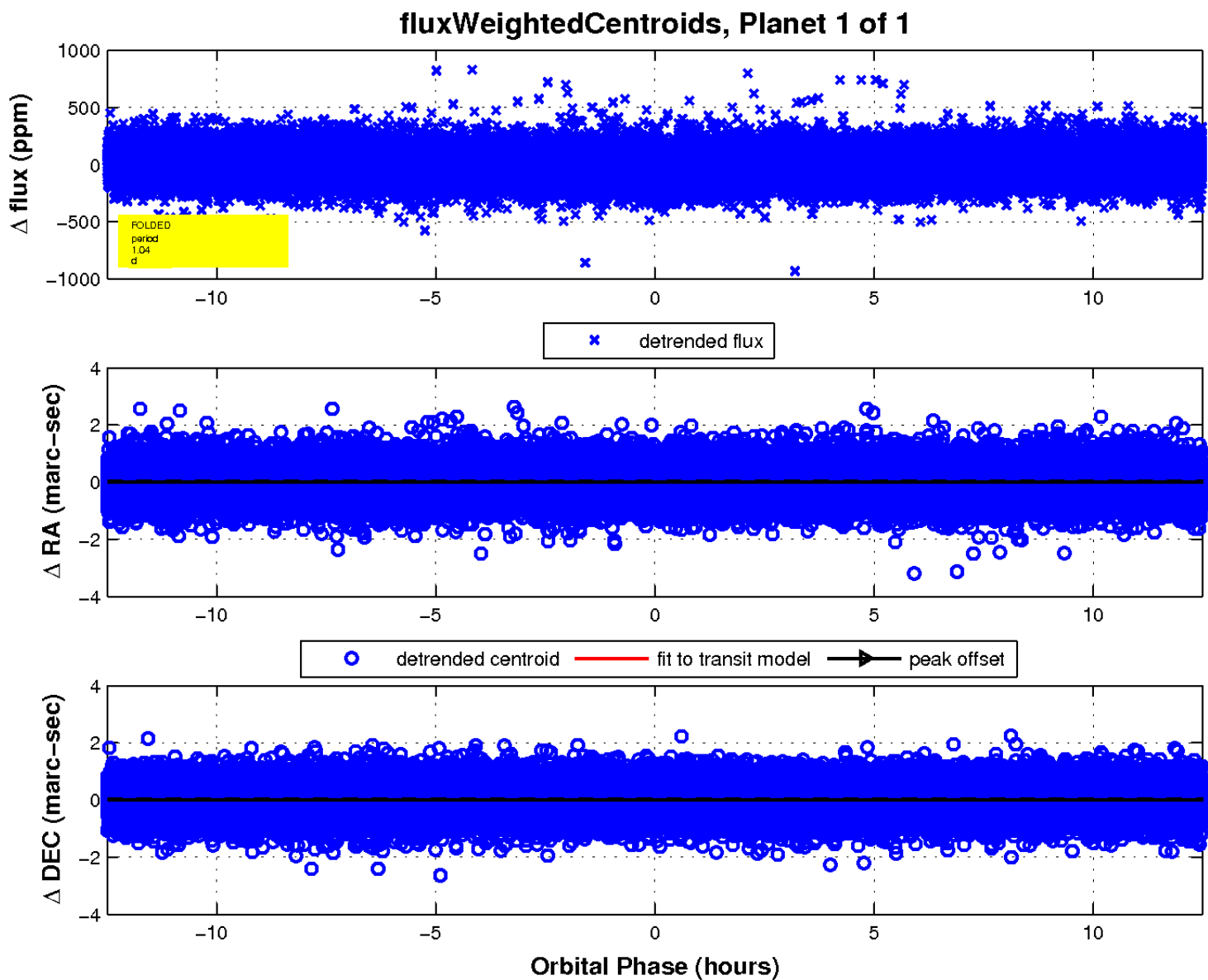
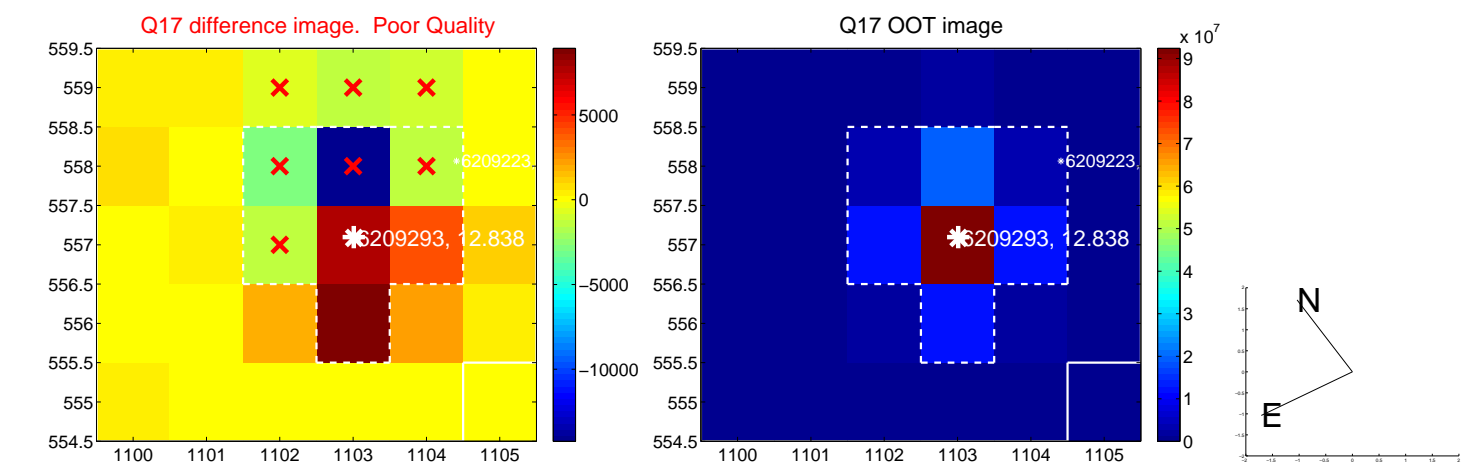
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

