

KIC 006309264

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})
006309264-01	OBS	3387.01	14.282142	136.326500	248.3	2.202	8.4	9.5	0.73	5374	1.37	36.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006309264-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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 006309264-01

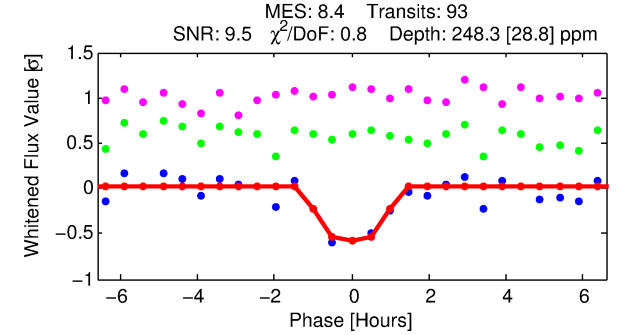
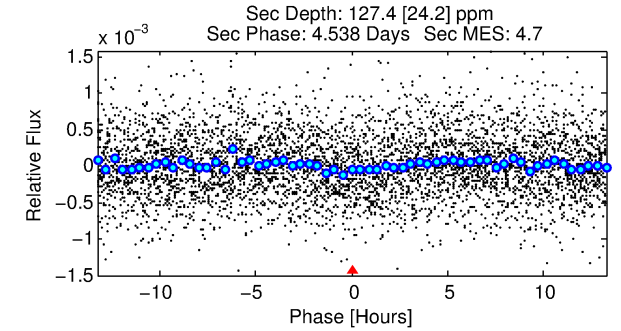
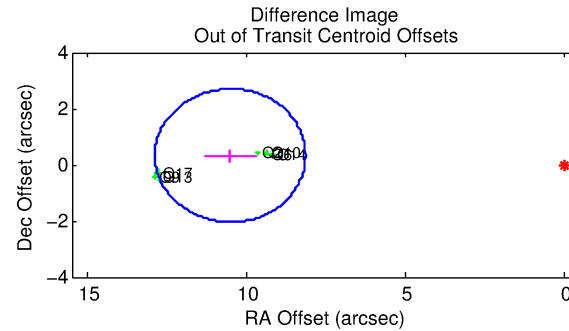
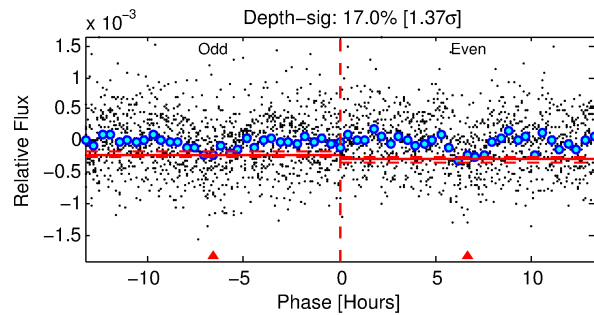
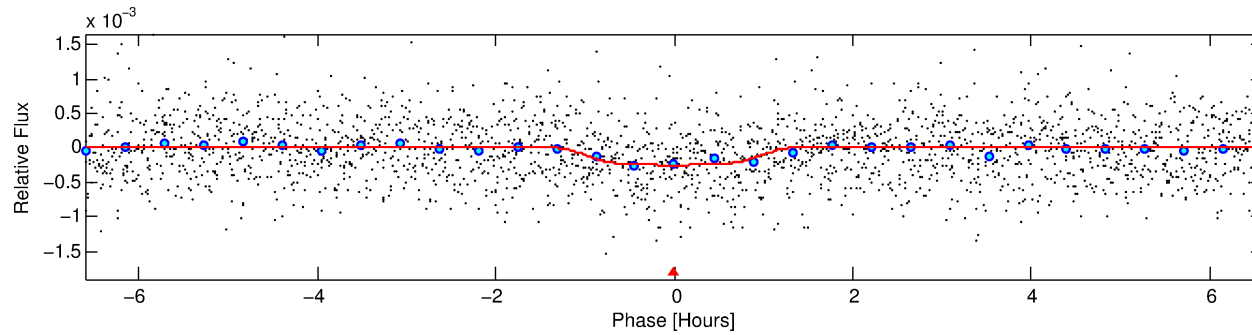
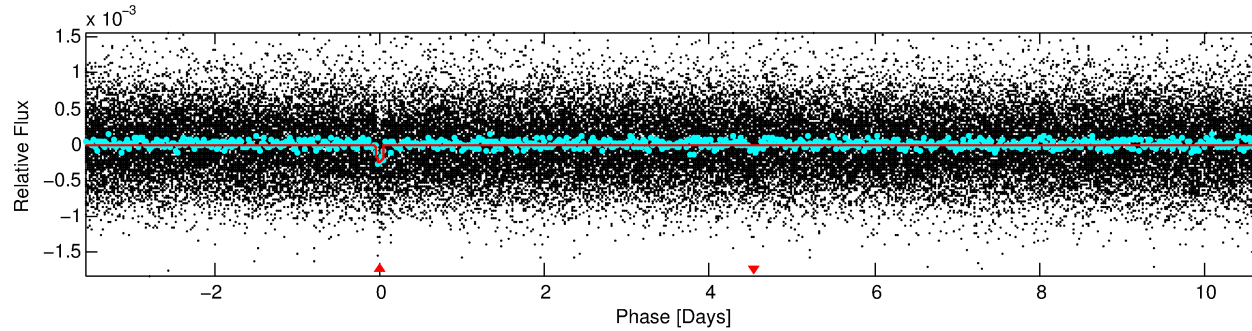
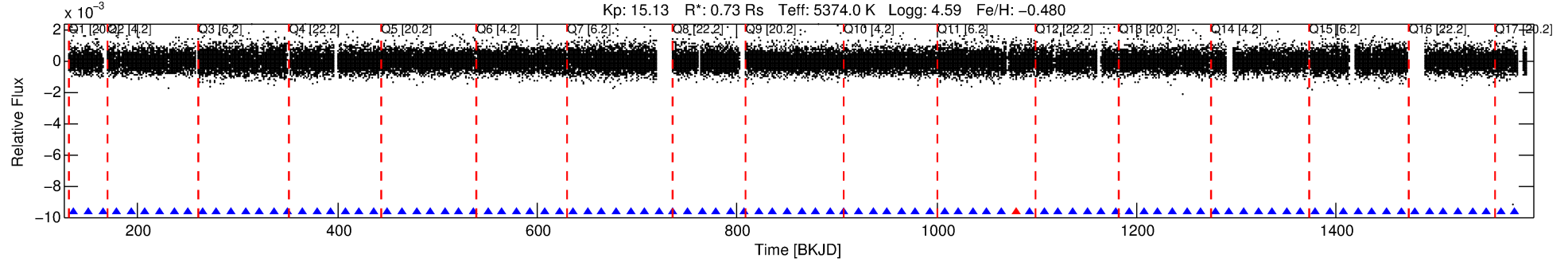
No Significant Match Found

DV One-Page Summary

KIC: 6309264 Candidate: 1 of 1 Period: 14.282 d

KOI: K03387.01 Corr: 0.966

Kp: 15.13 R*: 0.73 Rs Teff: 5374.0 K Logg: 4.59 Fe/H: -0.480



DV Fit Results:

Period = 14.28214 [0.00010] d
Epoch = 136.3265 [0.0057] BKJD
Rp/R* = 0.0173 [0.0121]
a/R* = 23.63 [74.08]
b = 0.90 [0.69]
Seff = 36.11 [7.22]
Teq = 625 [31] K
Rp = 1.37 [0.98] Re
a = 0.1044 [0.0120] AU
Ag = 409.05 [580.75] [0.70σ]
Teffp = 4346 [1538] K [2.42σ]

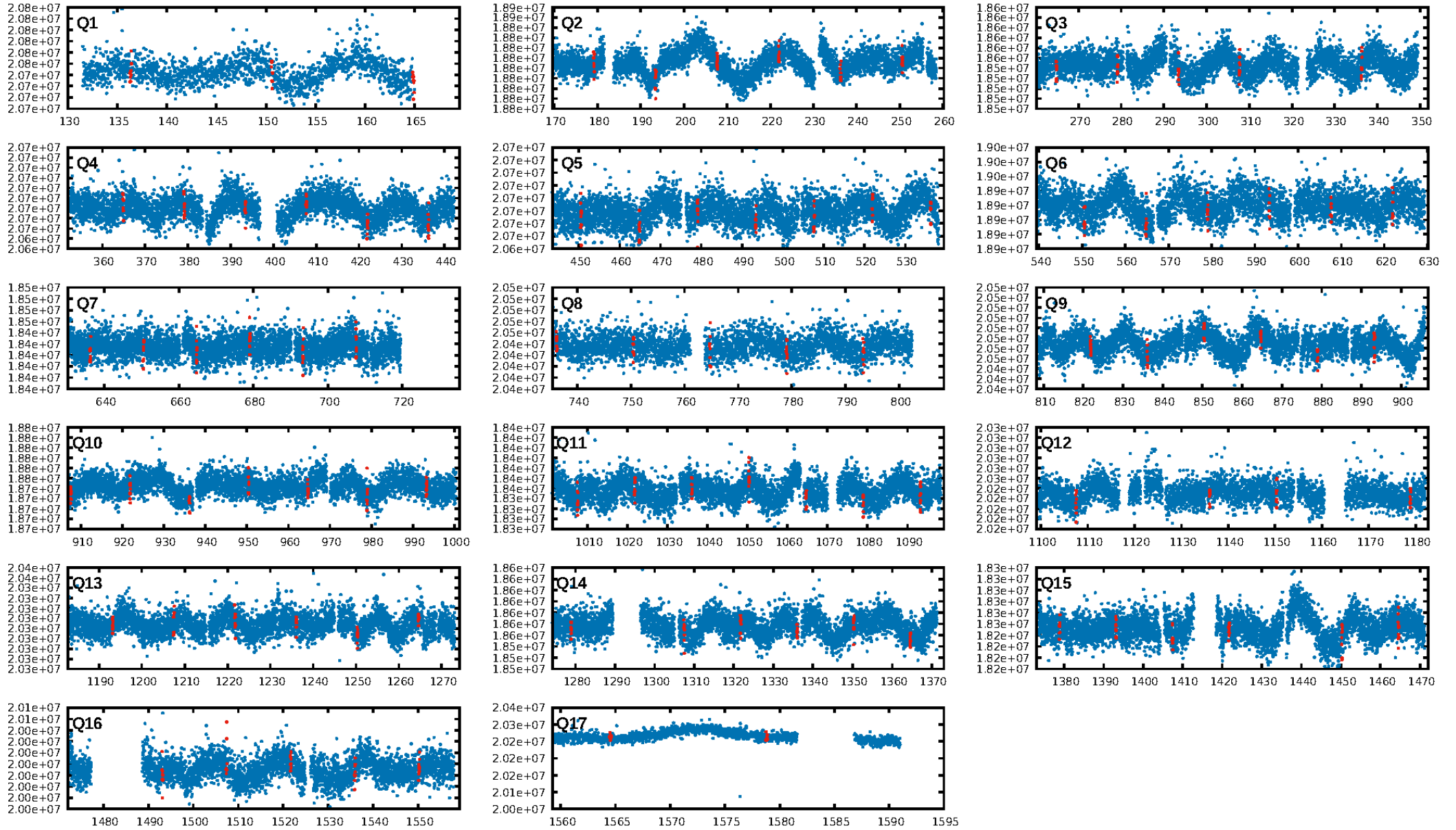
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.41e-17
RollingBand-fgt: 0.99 [87/88]
GhostDiagnostic-chr: -0.4485
Centroid-sig: 0.0%
Centroid-so: 43.463 arcsec [25.09σ]
OotOffset-rm: 10.521 arcsec [13.31σ]
KicOffset-rm: 10.527 arcsec [13.80σ]
OotOffset-st: 4/0/0/3 [7]
KicOffset-st: 4/0/0/3 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [17/17]

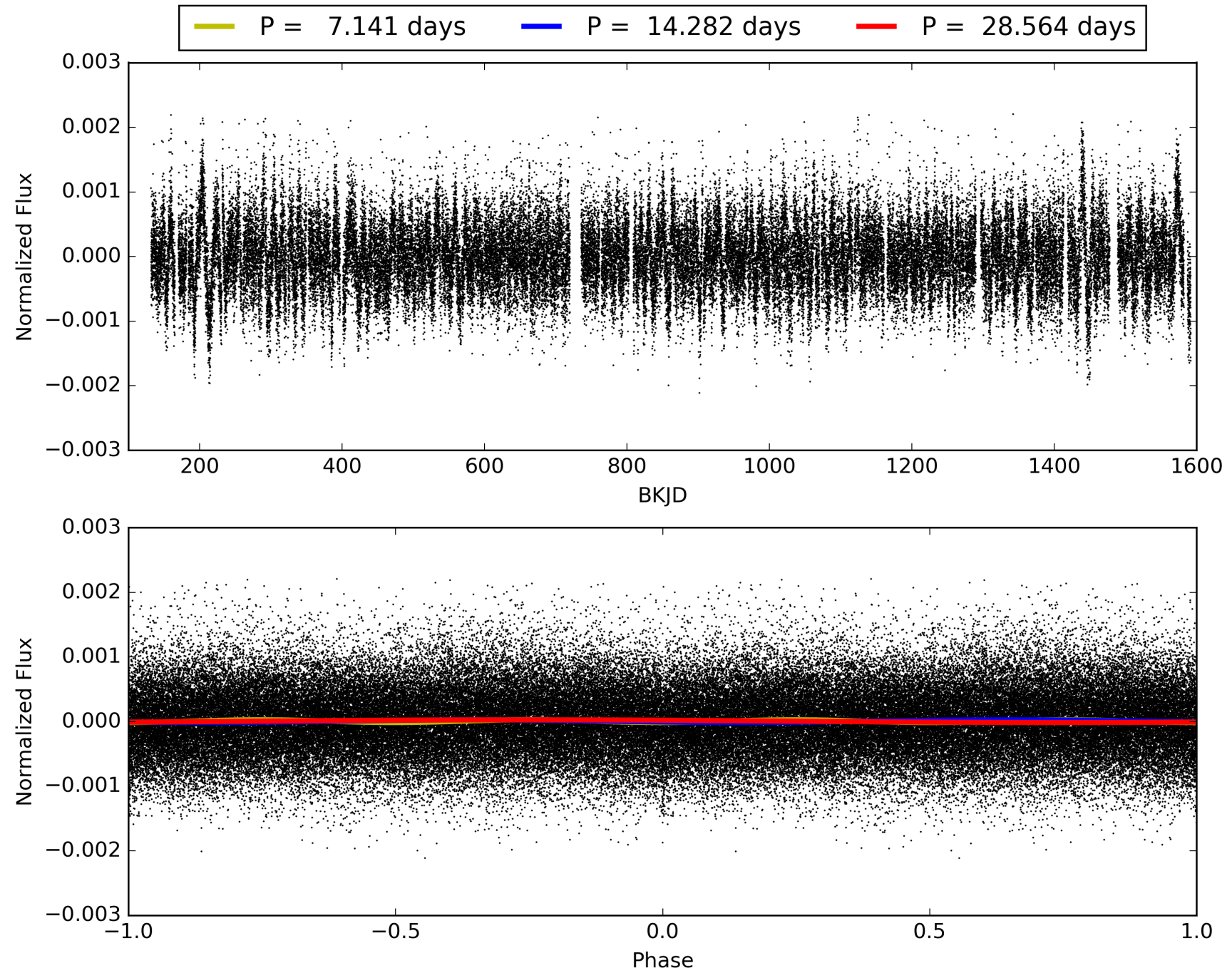
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:40:11 Z

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

TCE 006309264-01, PDC Light Curves

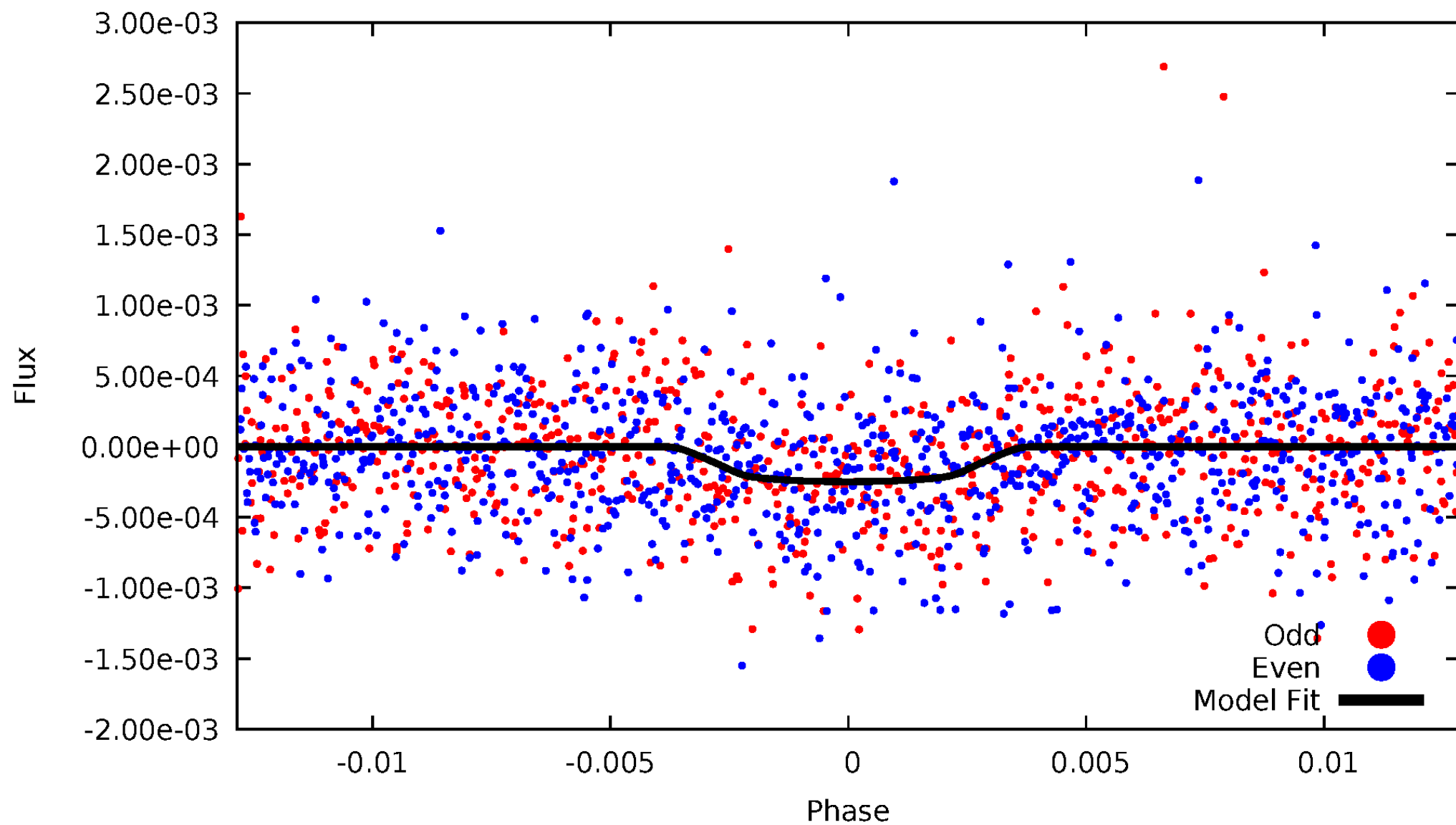


TCE 006309264-01



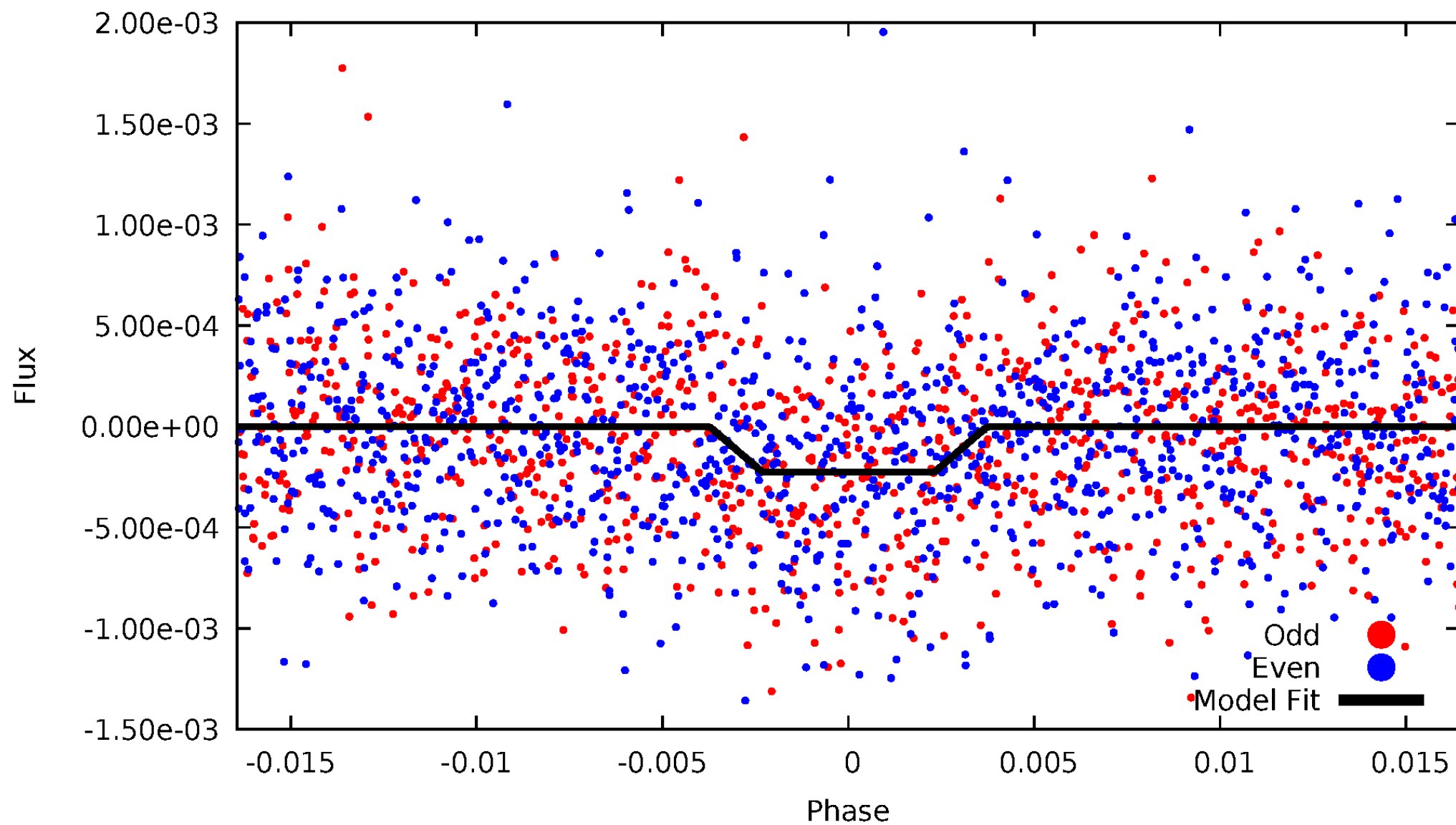
DV Odd/Even

TCE 006309264-01

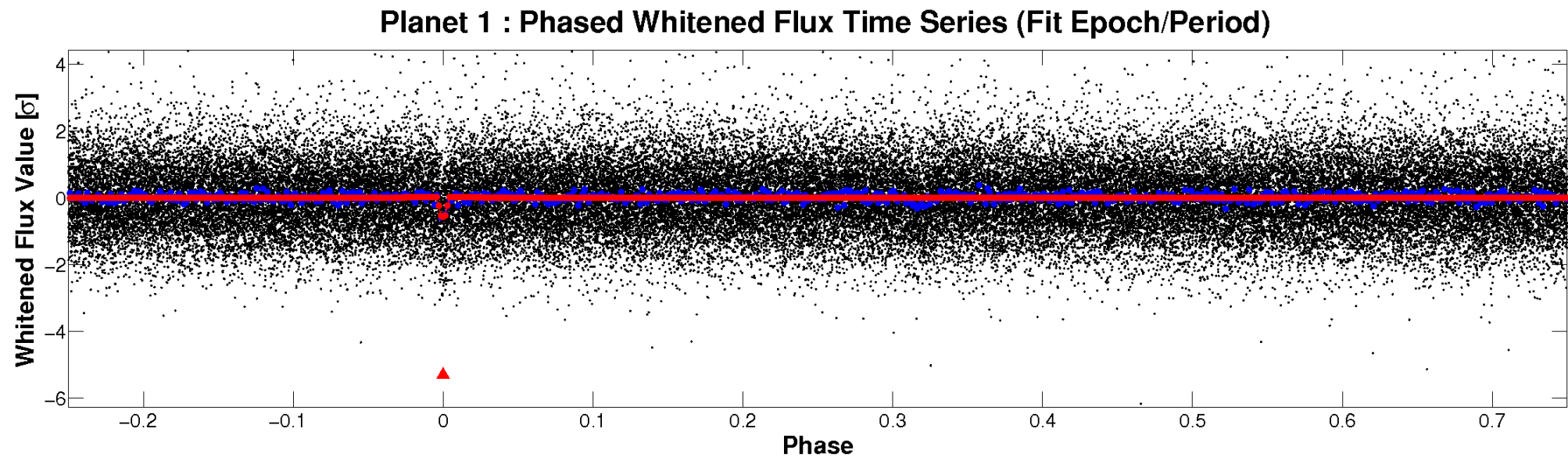
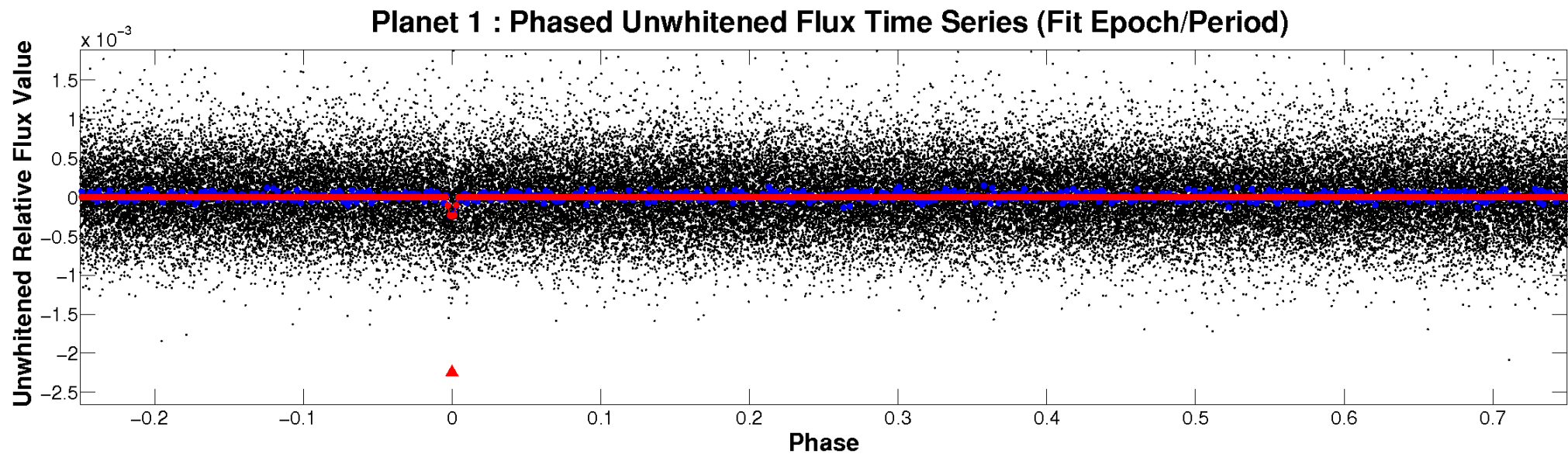


ALT Odd/Even

TCE 006309264-01

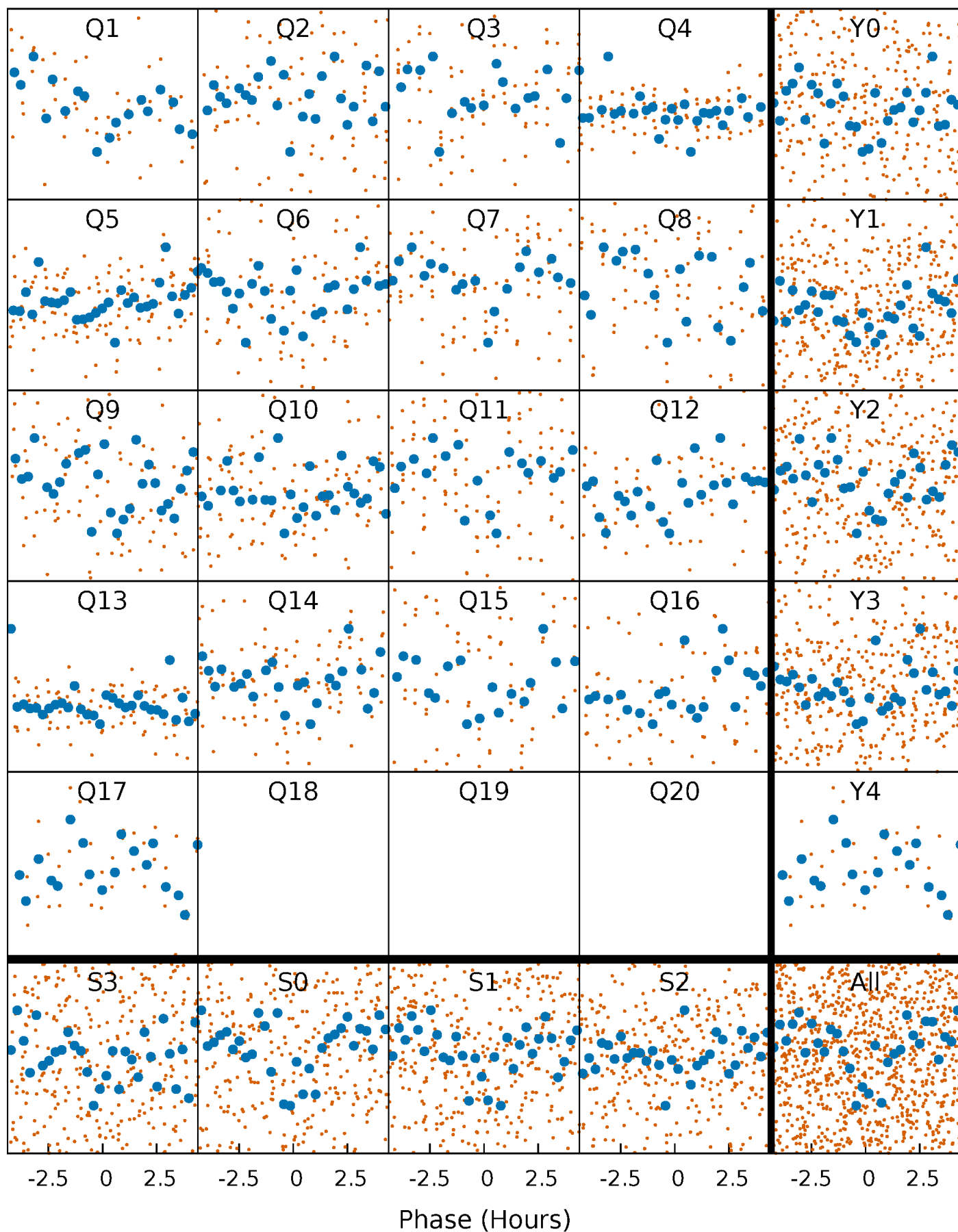


Non-Whitened Vs. Whitened Light Curve



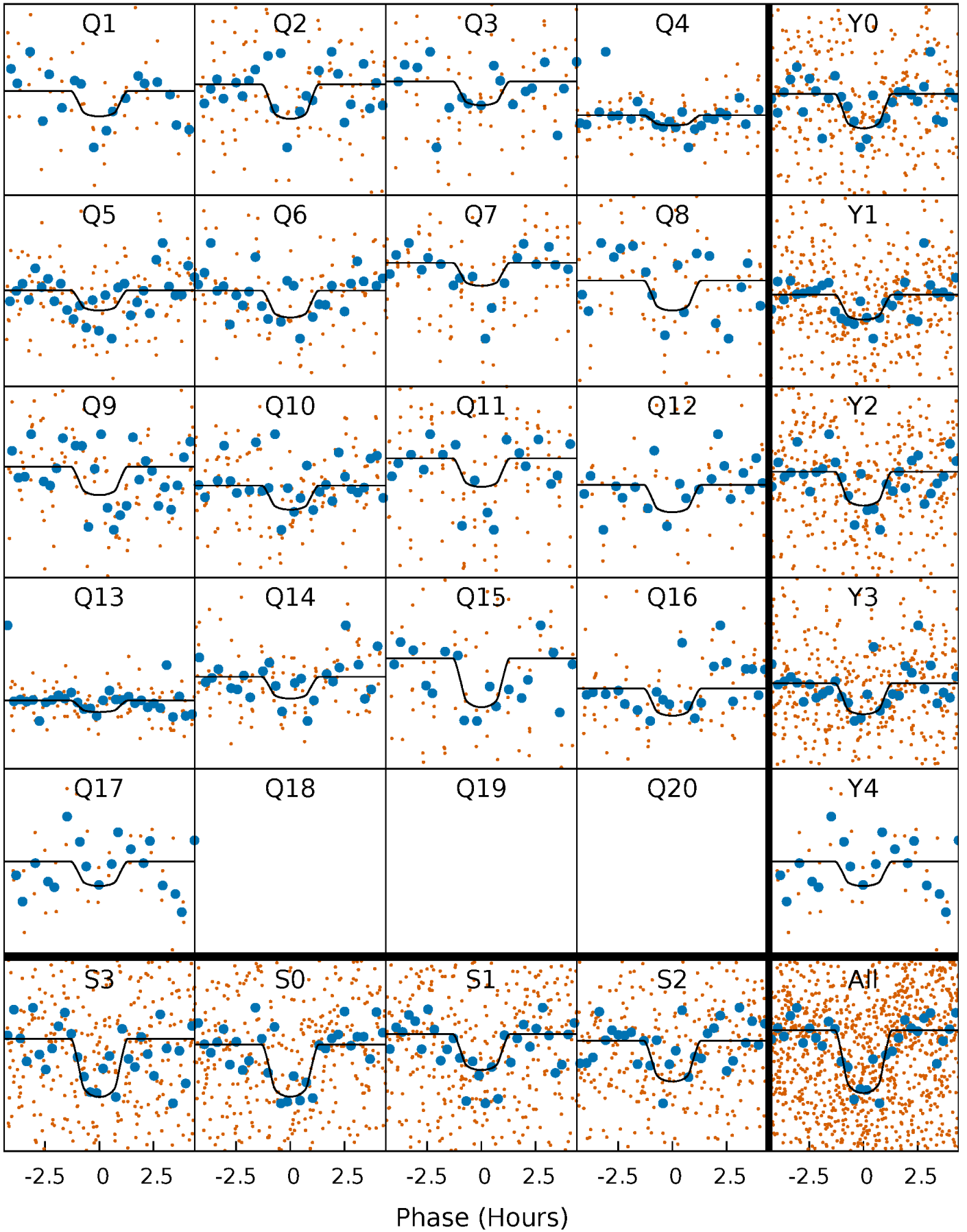
PDC Quarter-Phased Transit Curves

TCE 006309264-01 P= 14.282142 Days $T_0=136.326500$ (BKJD)



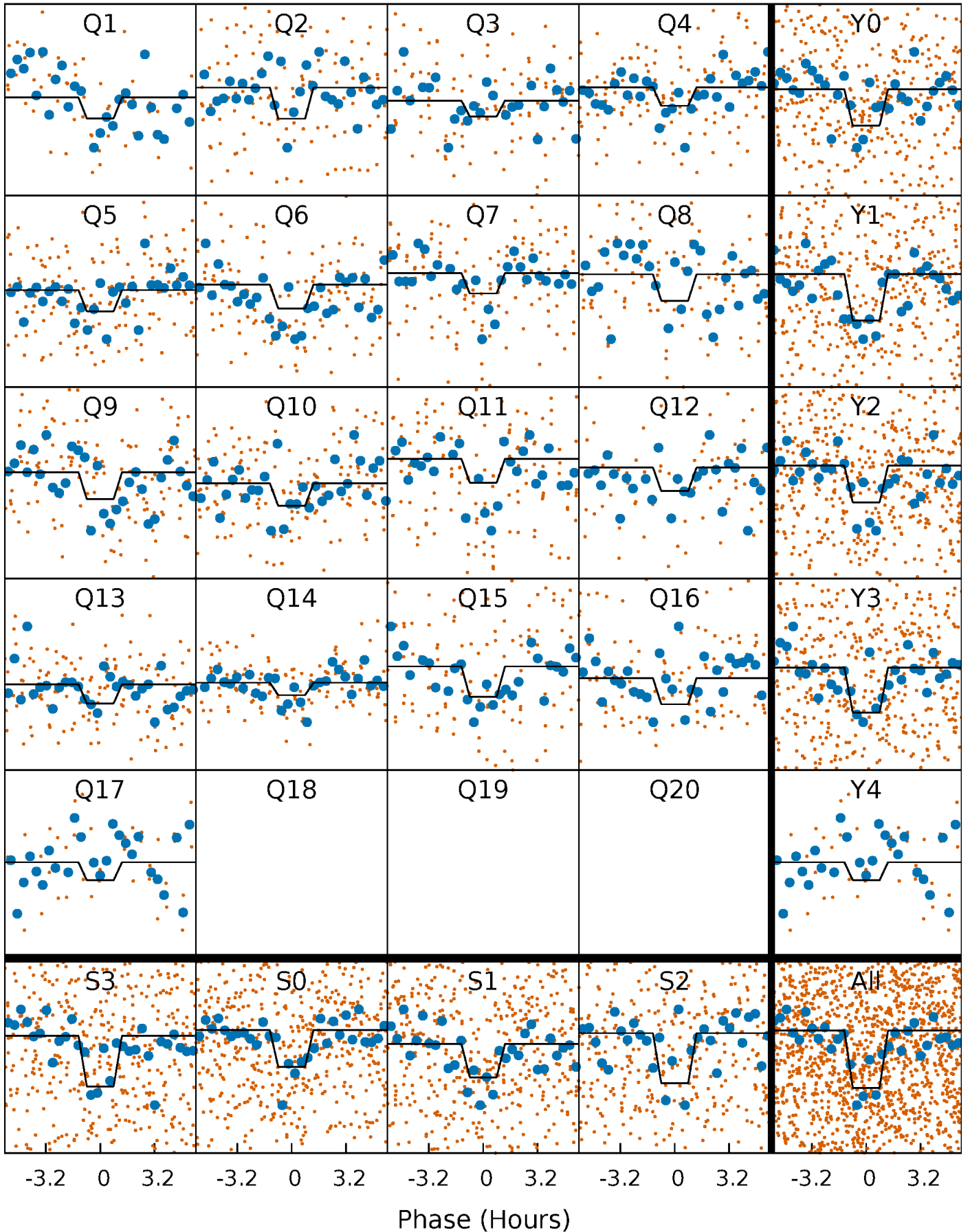
DV Quarter-Phased Transit Curves

TCE 006309264-01 P= 14.282142 Days $T_0=136.326500$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

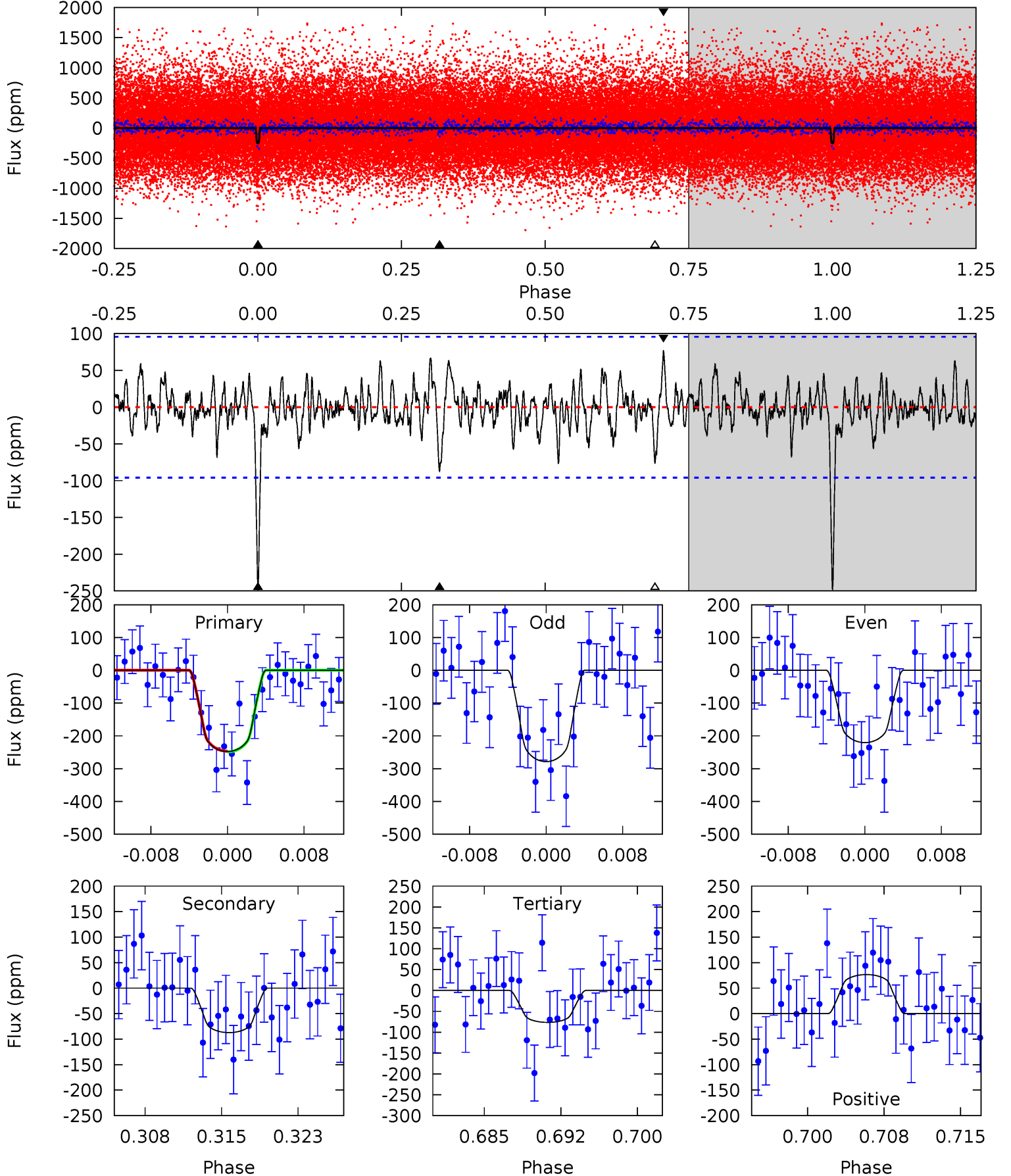
TCE 006309264-01 P= 14.282039 Days $T_0=136.336633$ (BKJD)



DV Model-Shift Uniqueness Test

006309264-01, $P = 14.282142$ Days, $E = 122.044358$ Days

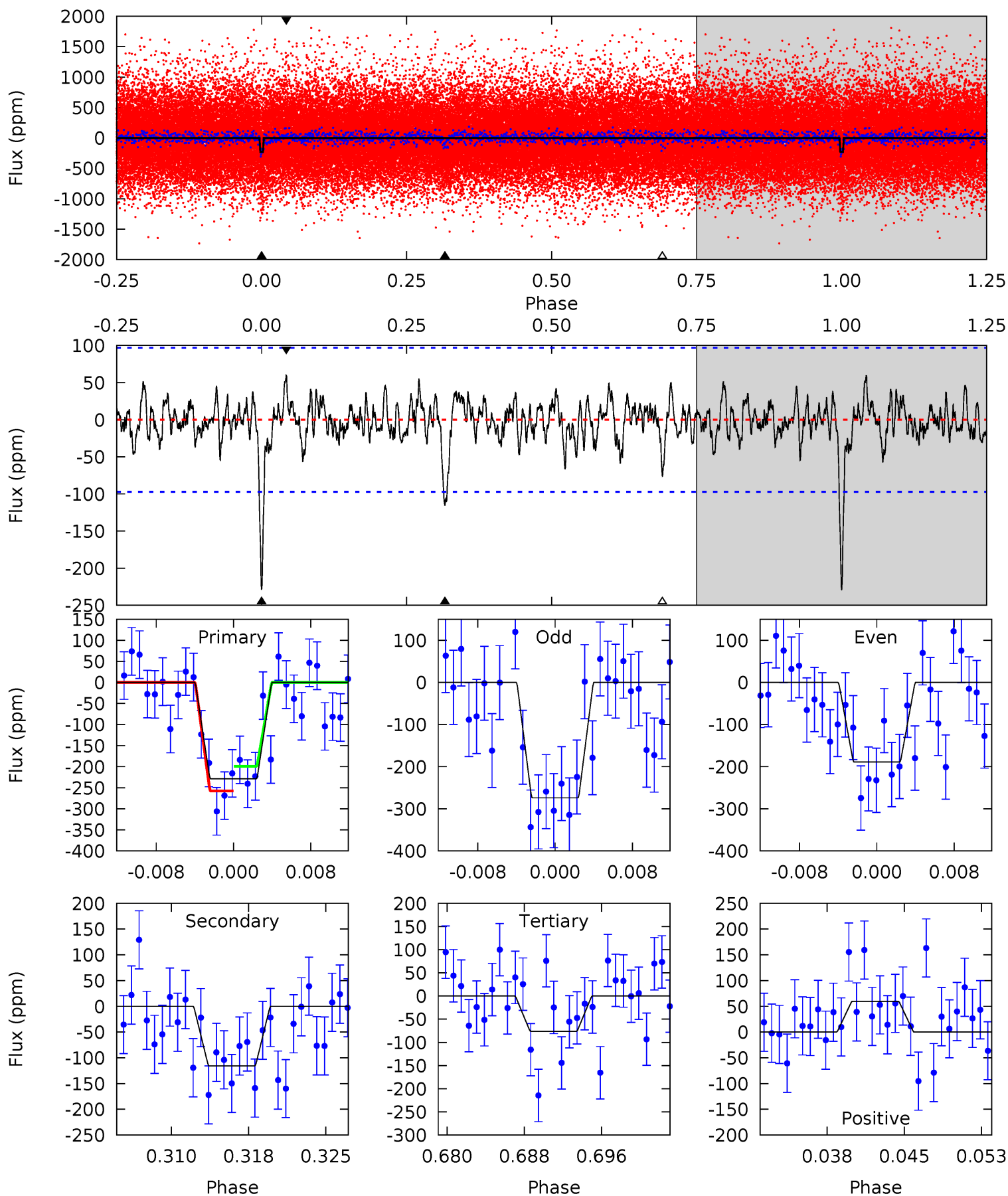
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	4.62	4.06	4.06	5.08	2.67	1.22	9.07	9.07	0.56	0.56	1.54	1.08	0.24	0.05



Alt Model-Shift Uniqueness Test

006309264-01, P = 14.282039 Days, E = 122.054594 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	6.05	3.98	3.13	5.08	2.67	1.11	8.00	8.85	2.07	2.92	2.22	1.06	0.21	1.54



Stellar Parameters For KIC 006309264

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5374^{+160}_{-160}	$4.588^{+0.052}_{-0.084}$	$-0.480^{+0.300}_{-0.300}$	$0.726^{+0.104}_{-0.064}$	$0.744^{+0.092}_{-0.061}$	$2.738^{+0.672}_{-0.712}$
	+3%/-3%	+1%/-2%	+62%/-62%	+14%/-9%	+12%/-8%	+25%/-26%
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 006309264-01 / KOI 3387.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-87 ± 19	$1.45^{+0.90}_{-0.81}$	878^{+41}_{-35}	4119^{+1734}_{-676}	251^{+1033}_{-163}
Alt.	-116 ± 19	$1.30^{+0.91}_{-0.74}$	878^{+40}_{-34}	4549^{+2197}_{-830}	410^{+1849}_{-271}

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 $A_{obs} \gg 1.0$

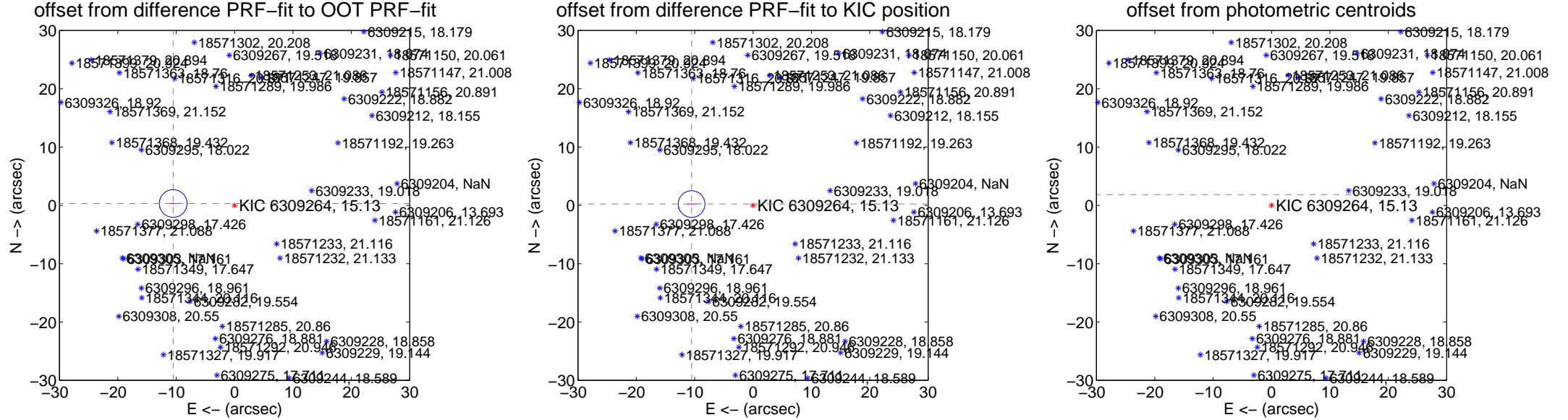
DV Centroid Data

Supplemental centroid analysis for 006309264-01. Kepler magnitude: 15.13. Transit SNR 9.49

There are 7 quarters with good PRF difference image offsets

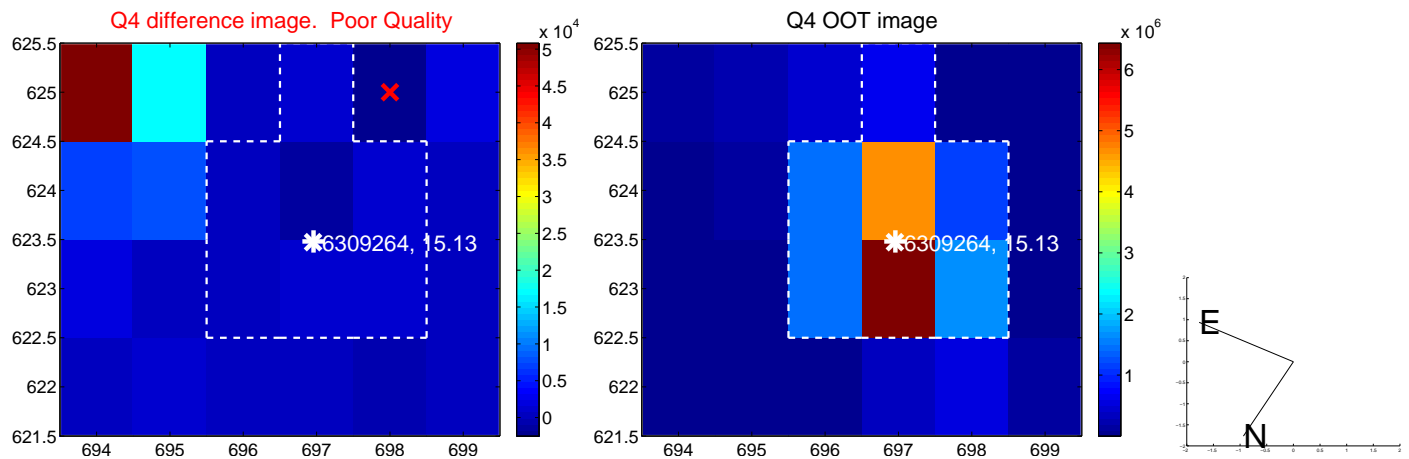
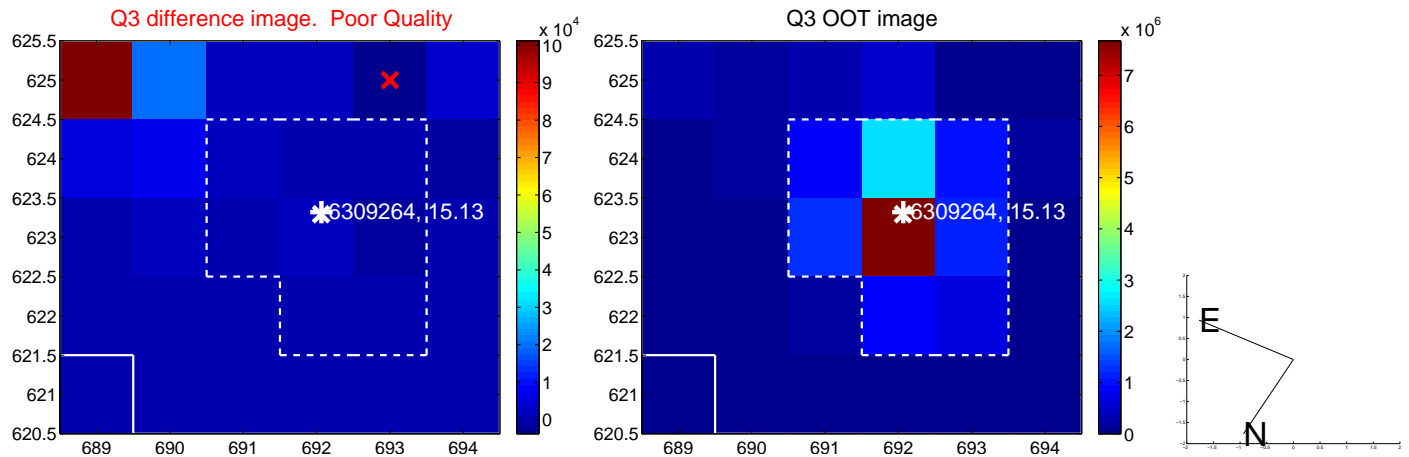
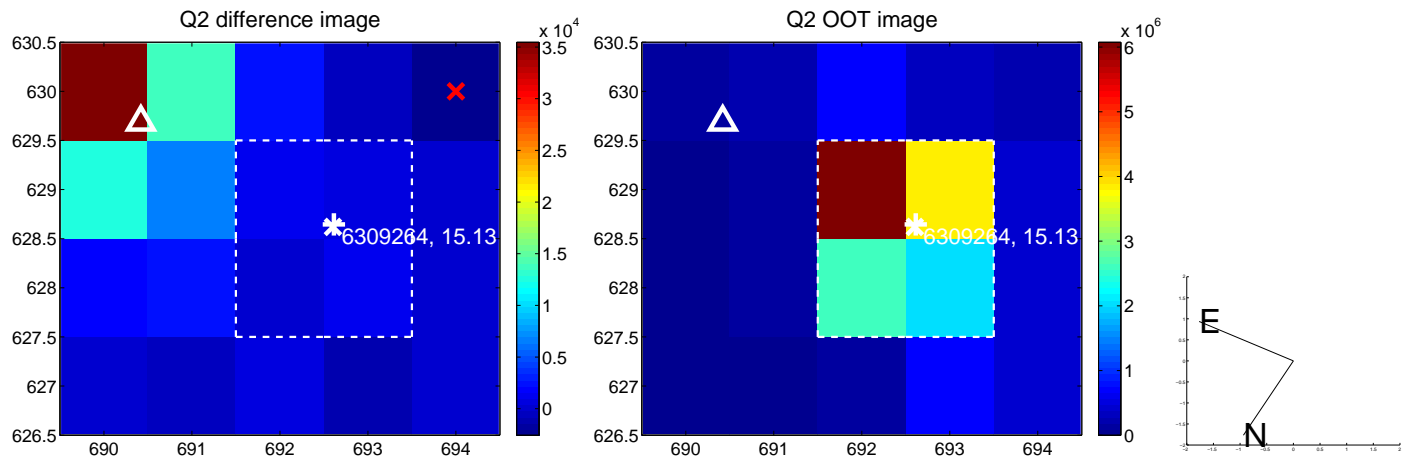
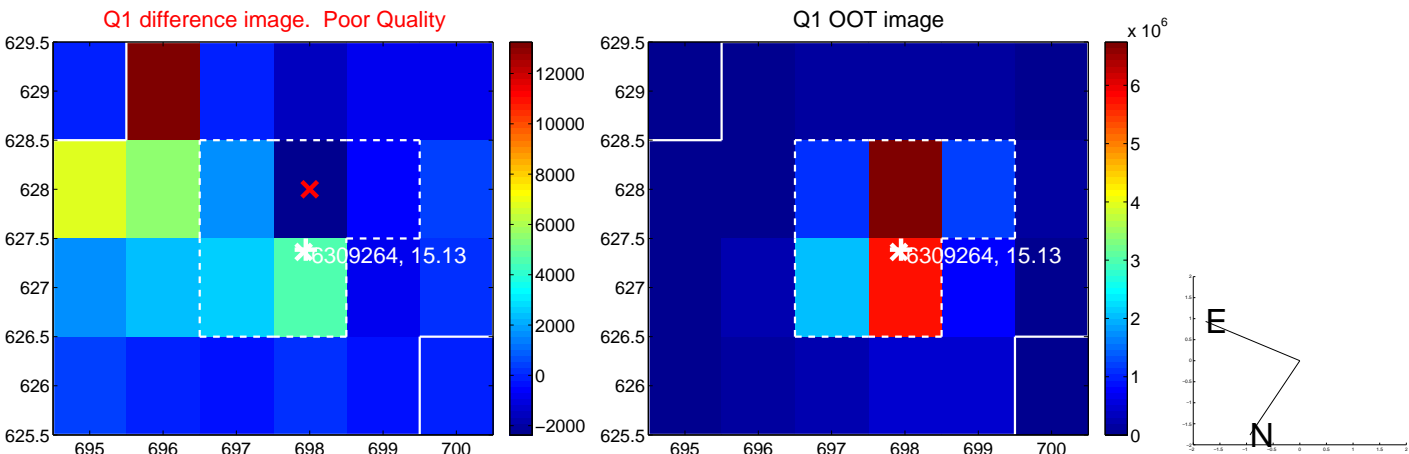
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.521 \pm 0.791	13.31	10.516 \pm 0.797	0.324 \pm 0.193
PRF-fit source offset from KIC position	10.527 \pm 0.763	13.80	10.524 \pm 0.763	0.228 \pm 0.143
photometric centroid source offset	43.46 \pm 1.73	25.09	43.42 \pm 1.73	1.84 \pm 1.54

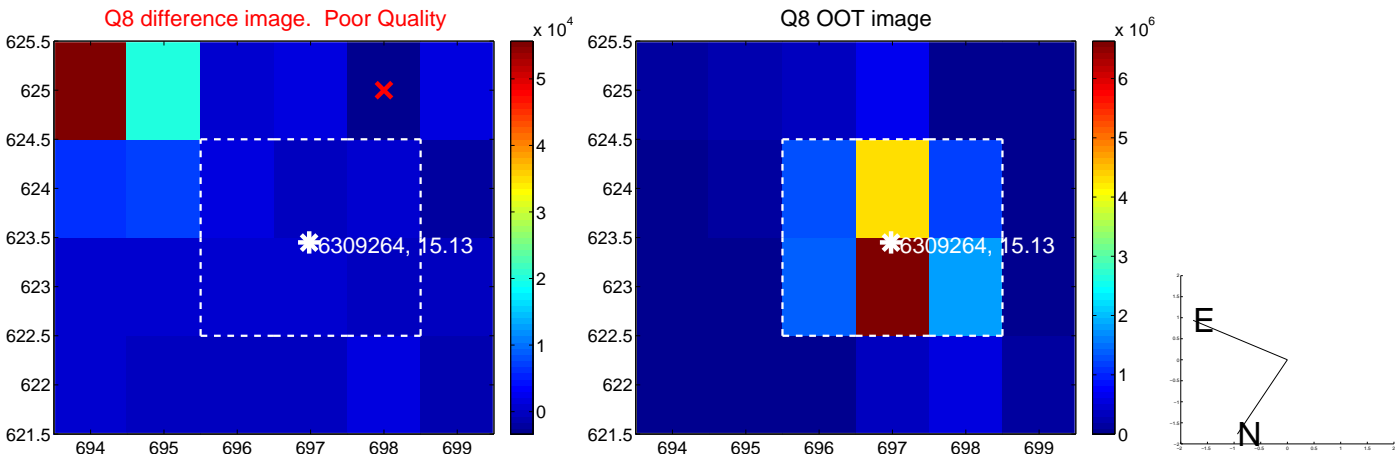
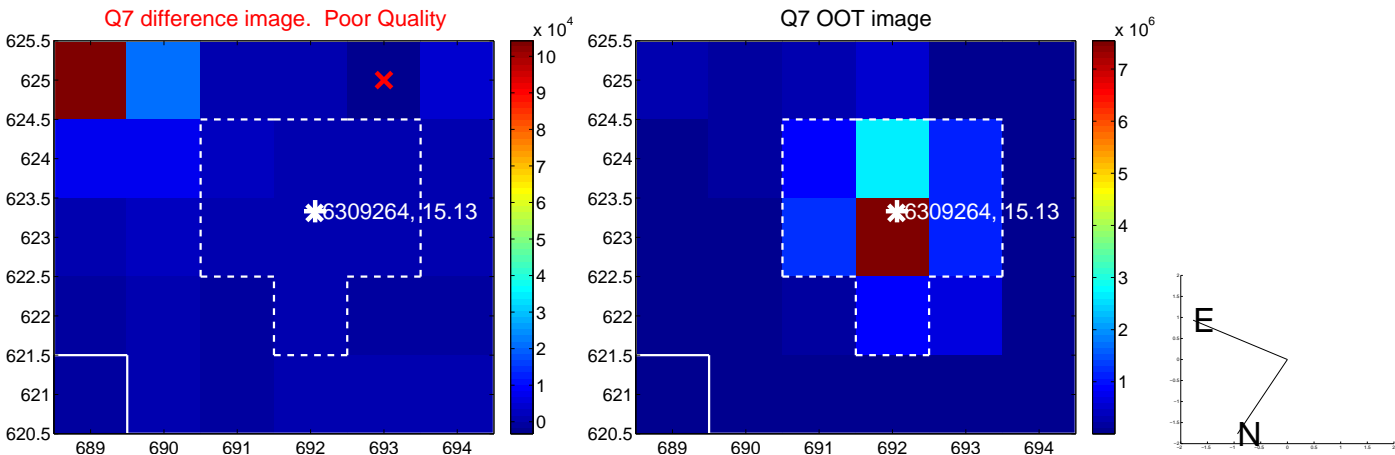
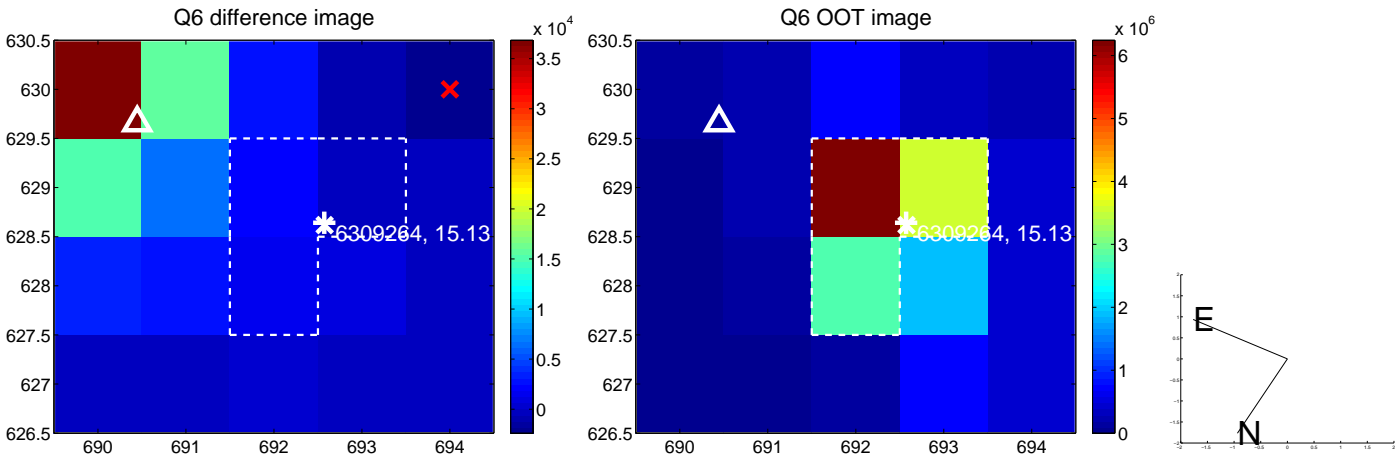
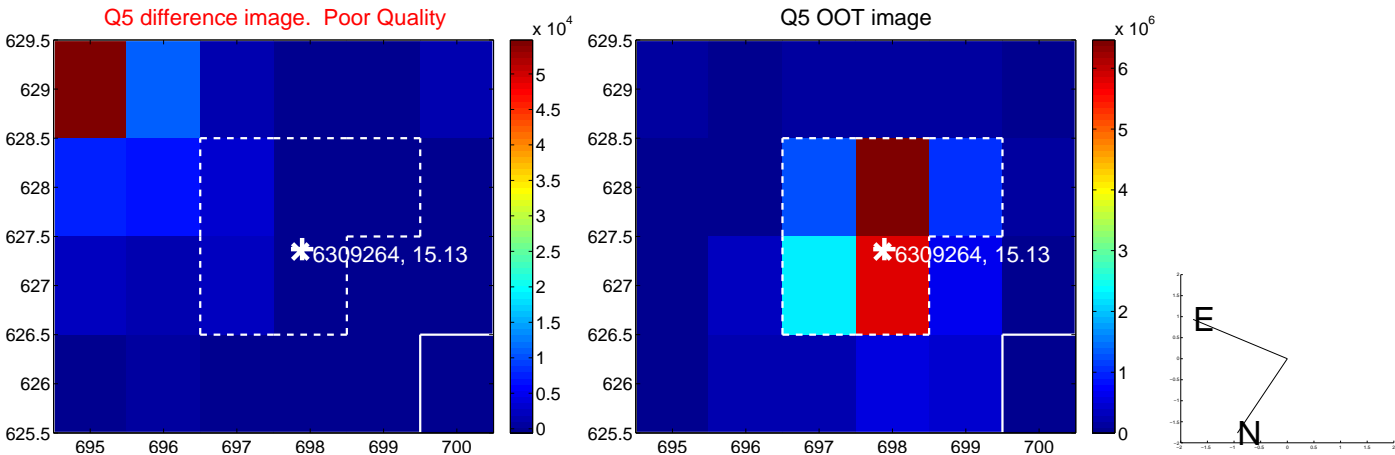


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

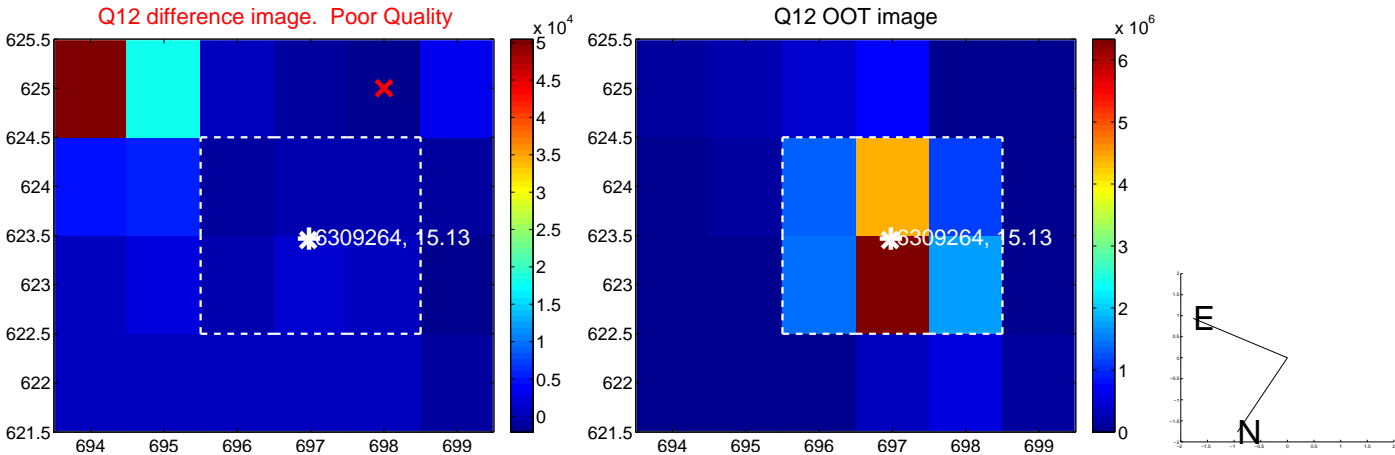
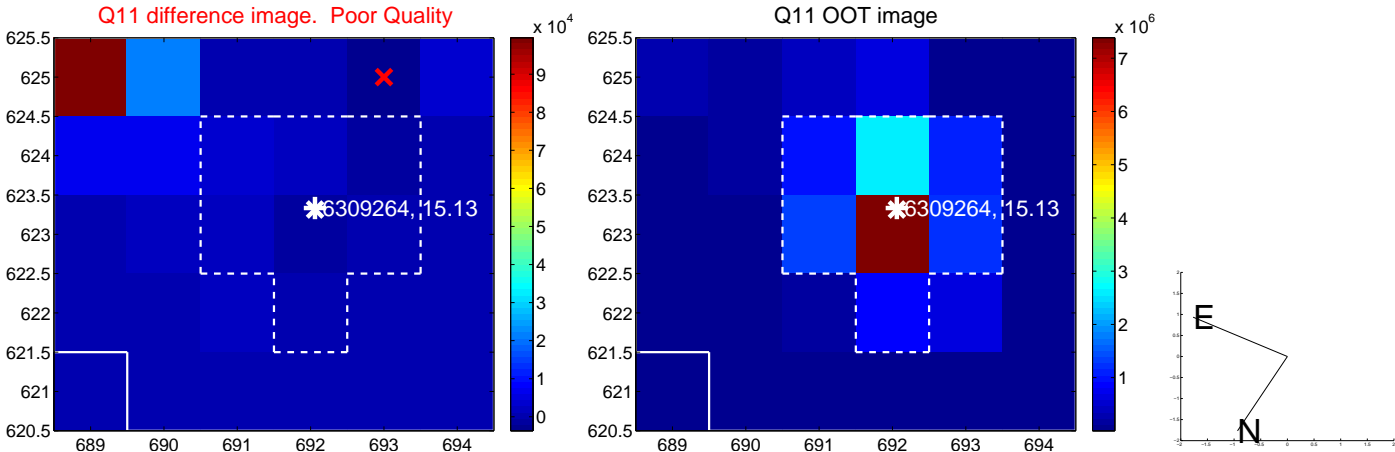
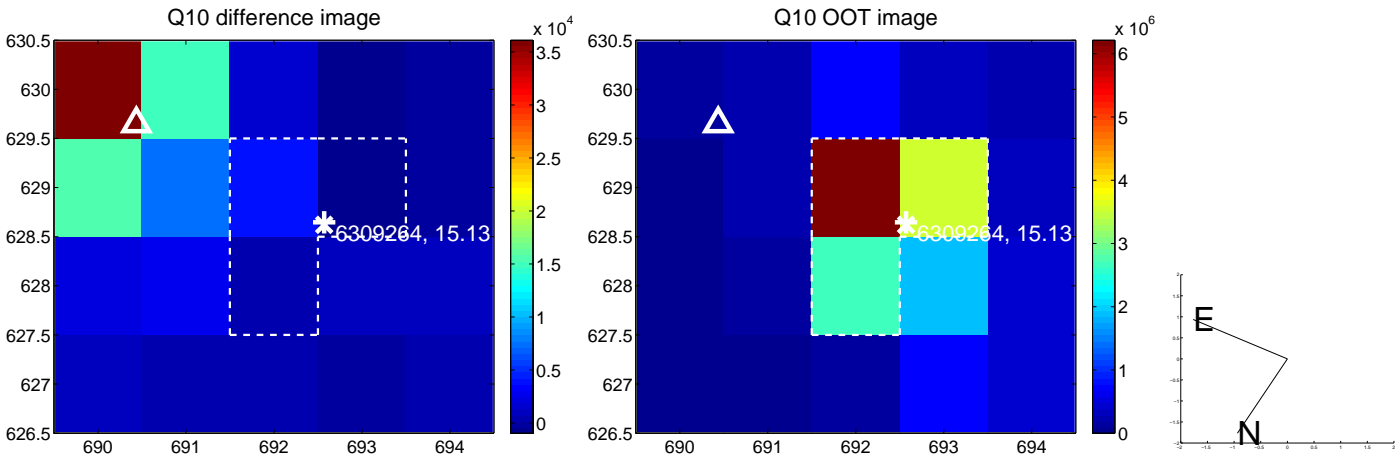
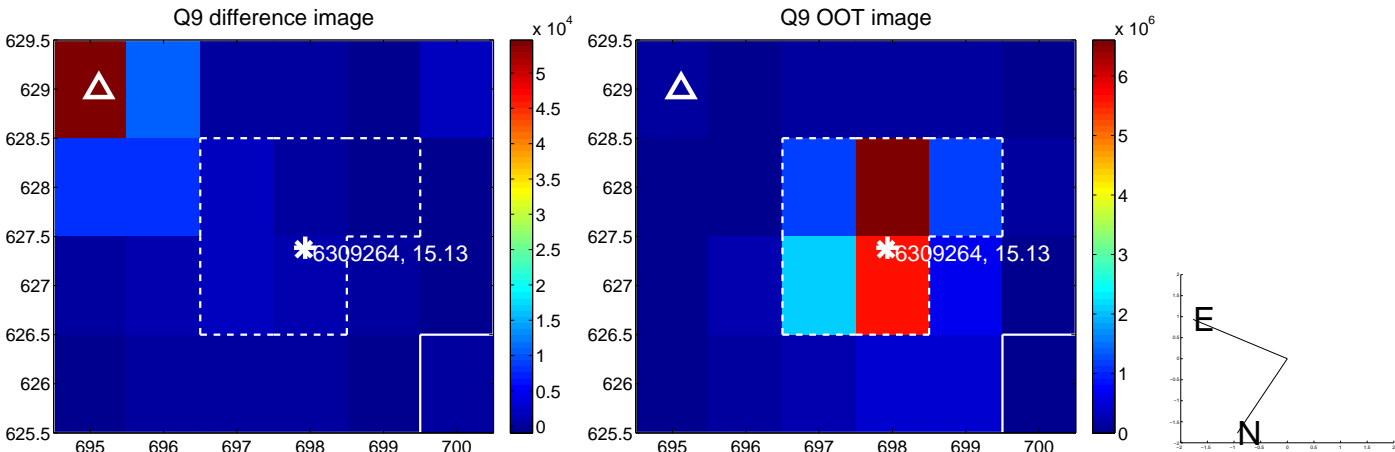
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



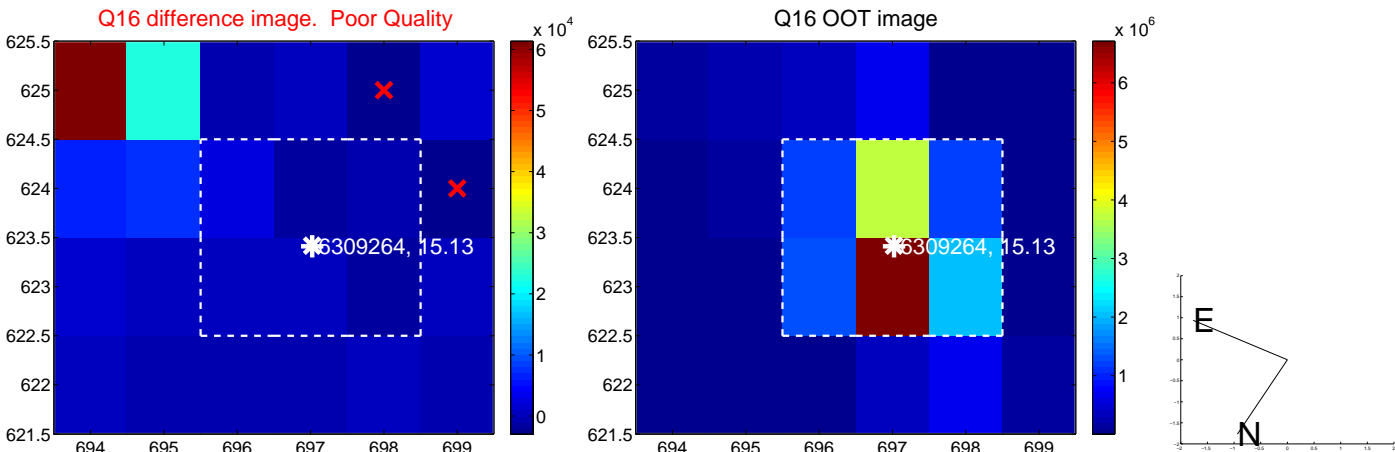
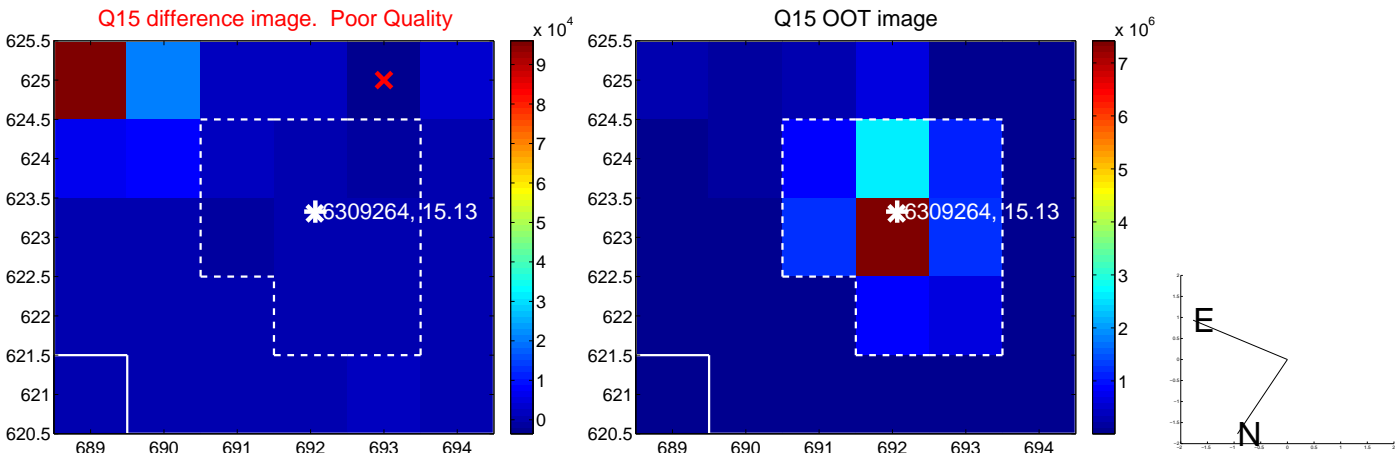
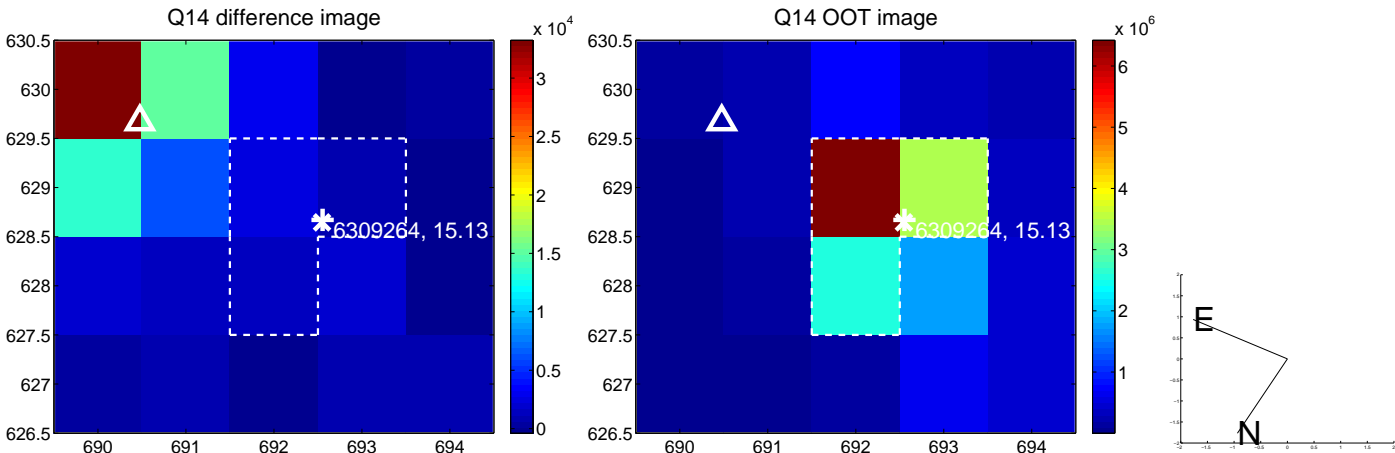
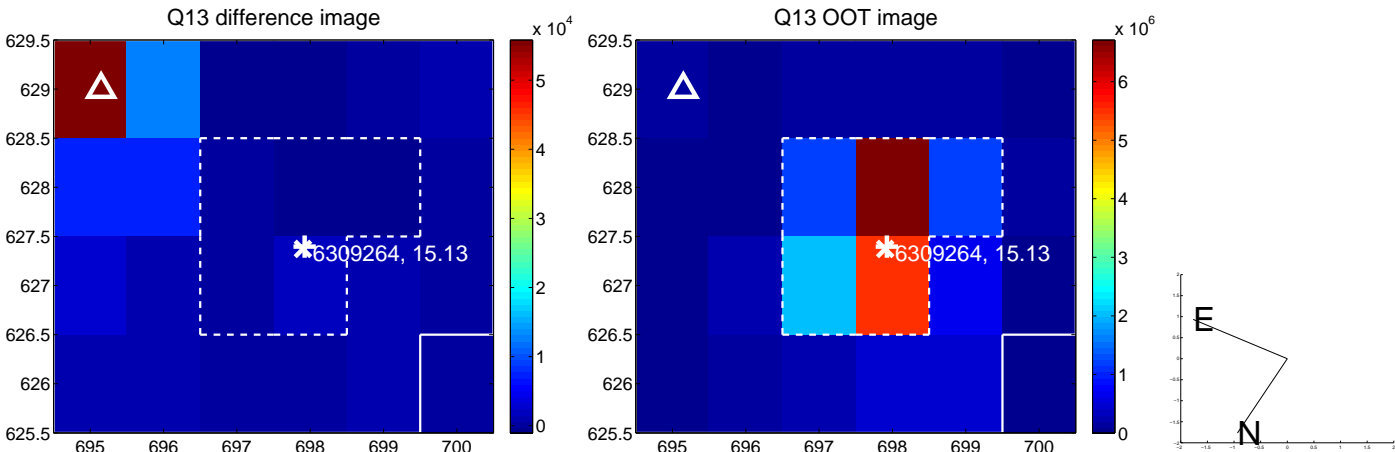
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

