

KIC 006032920

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})
006032920-01	OBS	7757.01	10.828765	134.932781	95.1	0.905	7.7	8.0	0.79	5862	0.86	78.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006032920-01	OBS	FP	0.47	1	0	0	0	MOD_NONUNIQ_ALT

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

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

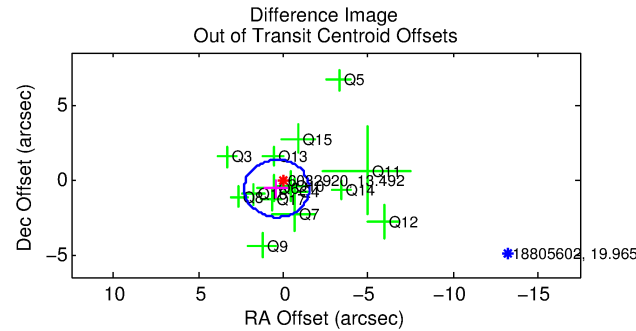
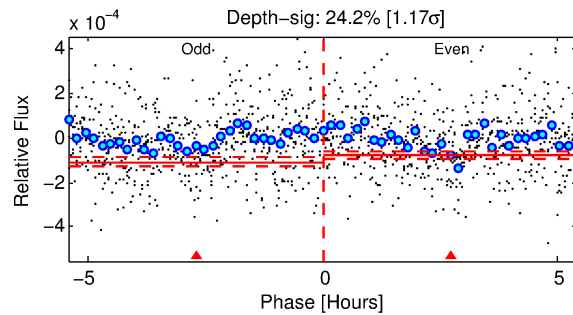
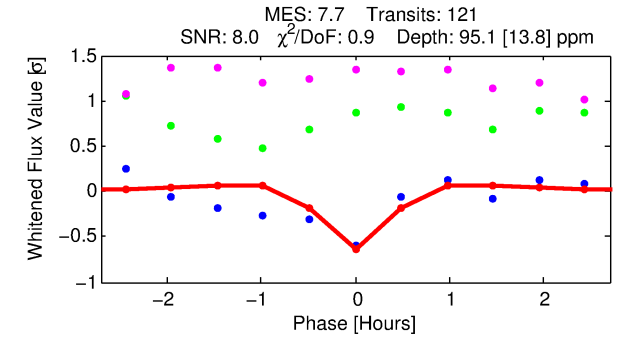
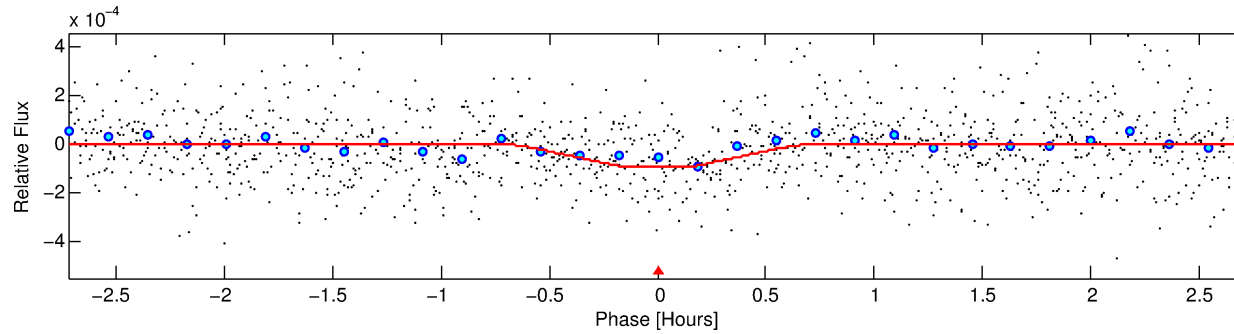
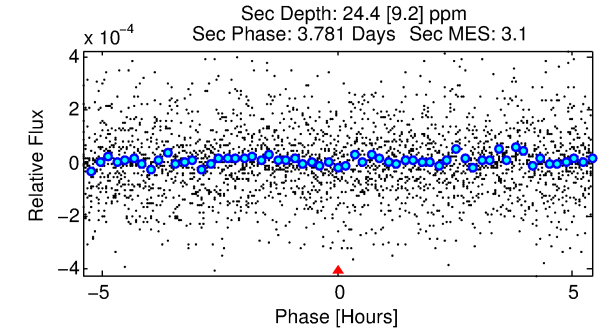
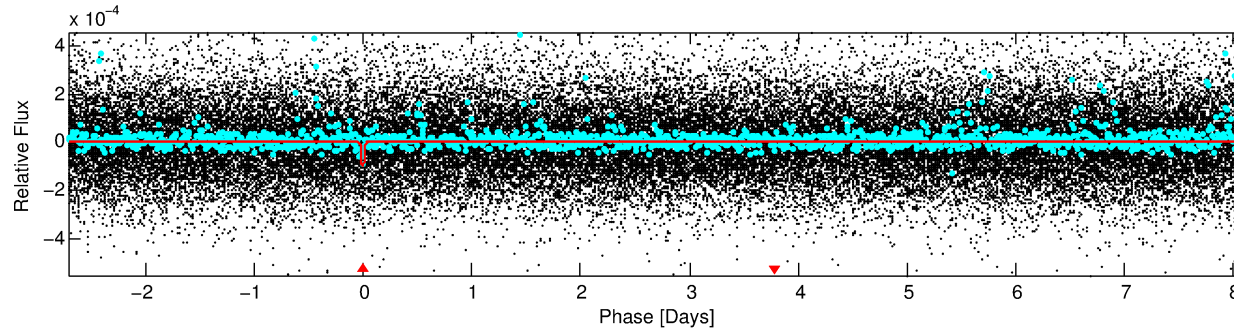
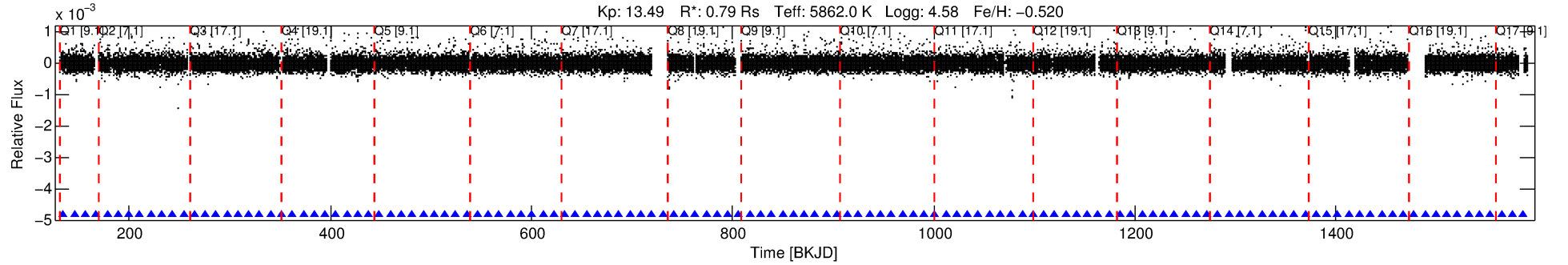
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006032920-01

No Significant Match Found

DV One-Page Summary

KIC: 6032920 Candidate: 1 of 1 Period: 10.829 d



DV Fit Results:

Period = 10.82876 [0.00005] d
Epoch = 134.9328 [0.0037] BKJD
Rp/R* = 0.0101 [0.0048]
a/R* = 54.54 [129.62]
b = 0.81 [0.99]
Seff = 78.38 [26.62]
Teq = 759 [64] K
Rp = 0.86 [0.47] Re
a = 0.0912 [0.0202] AU
Ag = 150.39 [160.34] [0.93σ]
Teff = 4108 [1050] K [3.18σ]

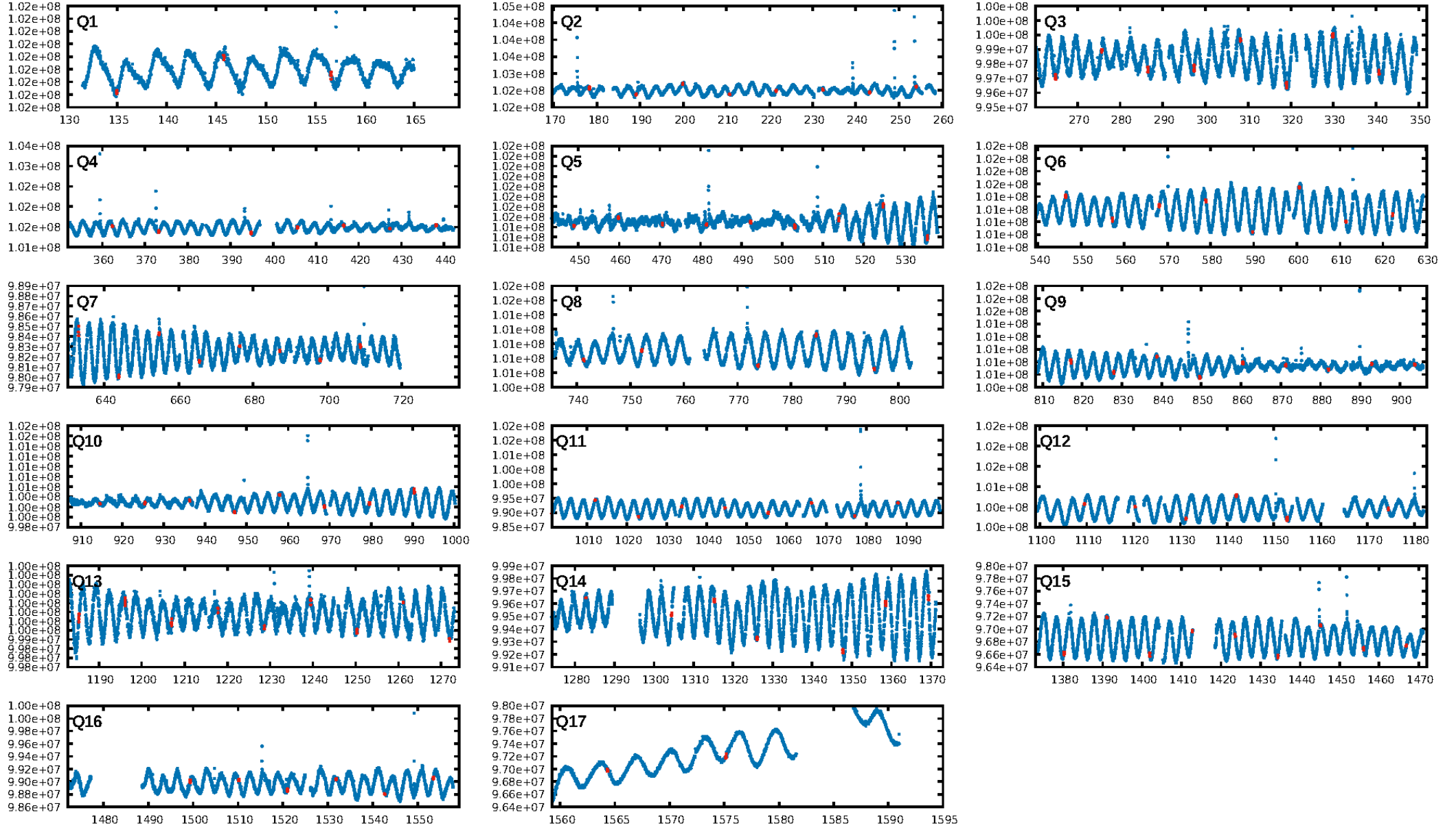
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 97.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.10e-12
RollingBand-fgt: 1.00 [116/116]
GhostDiagnostic-chr: -0.8423
Centroid-sig: 3.3%
Centroid-so: 2.069 arcsec [1.63σ]
OotOffset-rm: 0.713 arcsec [1.12σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-rm: 0.612 arcsec [0.87σ]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 1.00 [17/17]

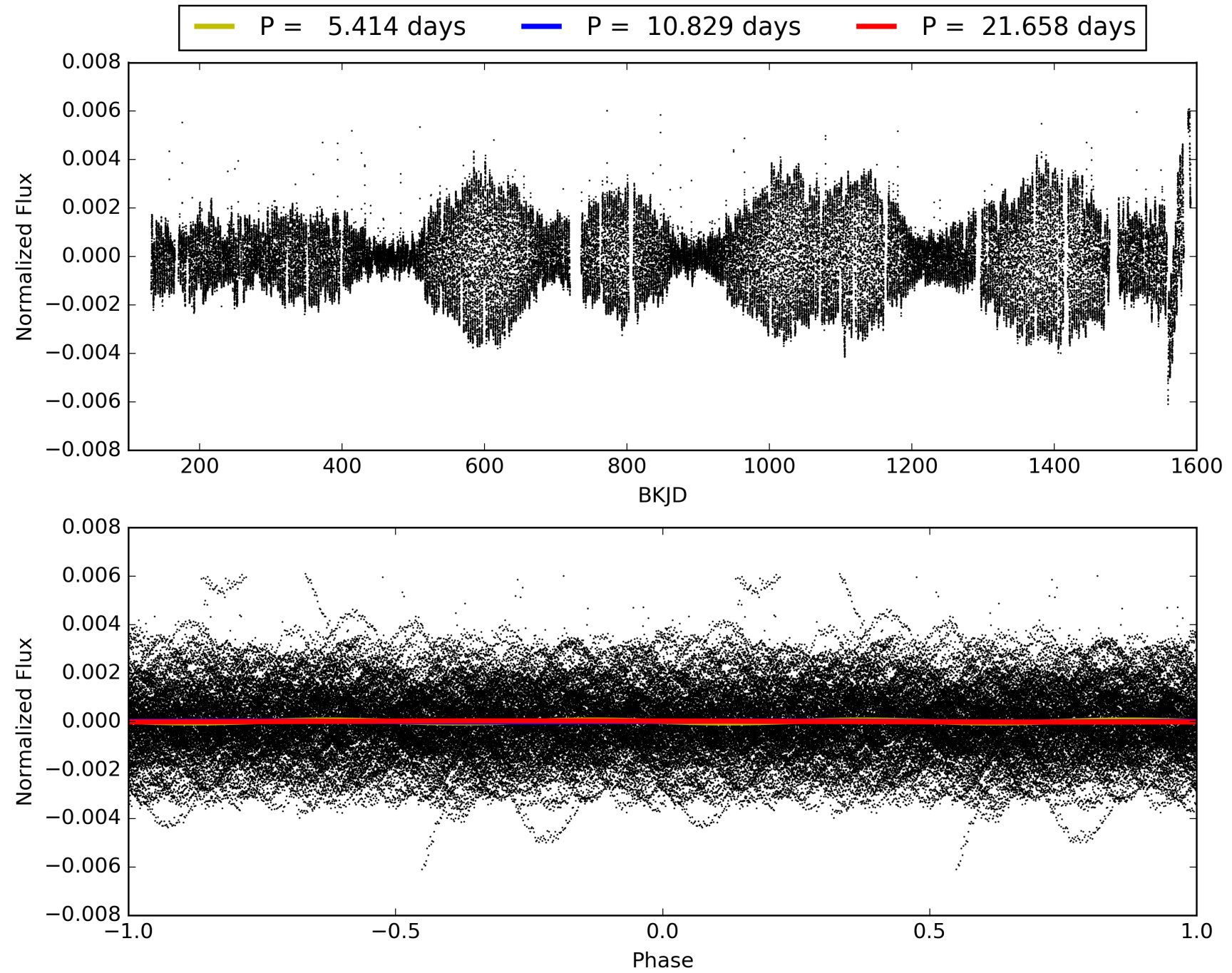
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:34:35 Z

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

TCE 006032920-01, PDC Light Curves

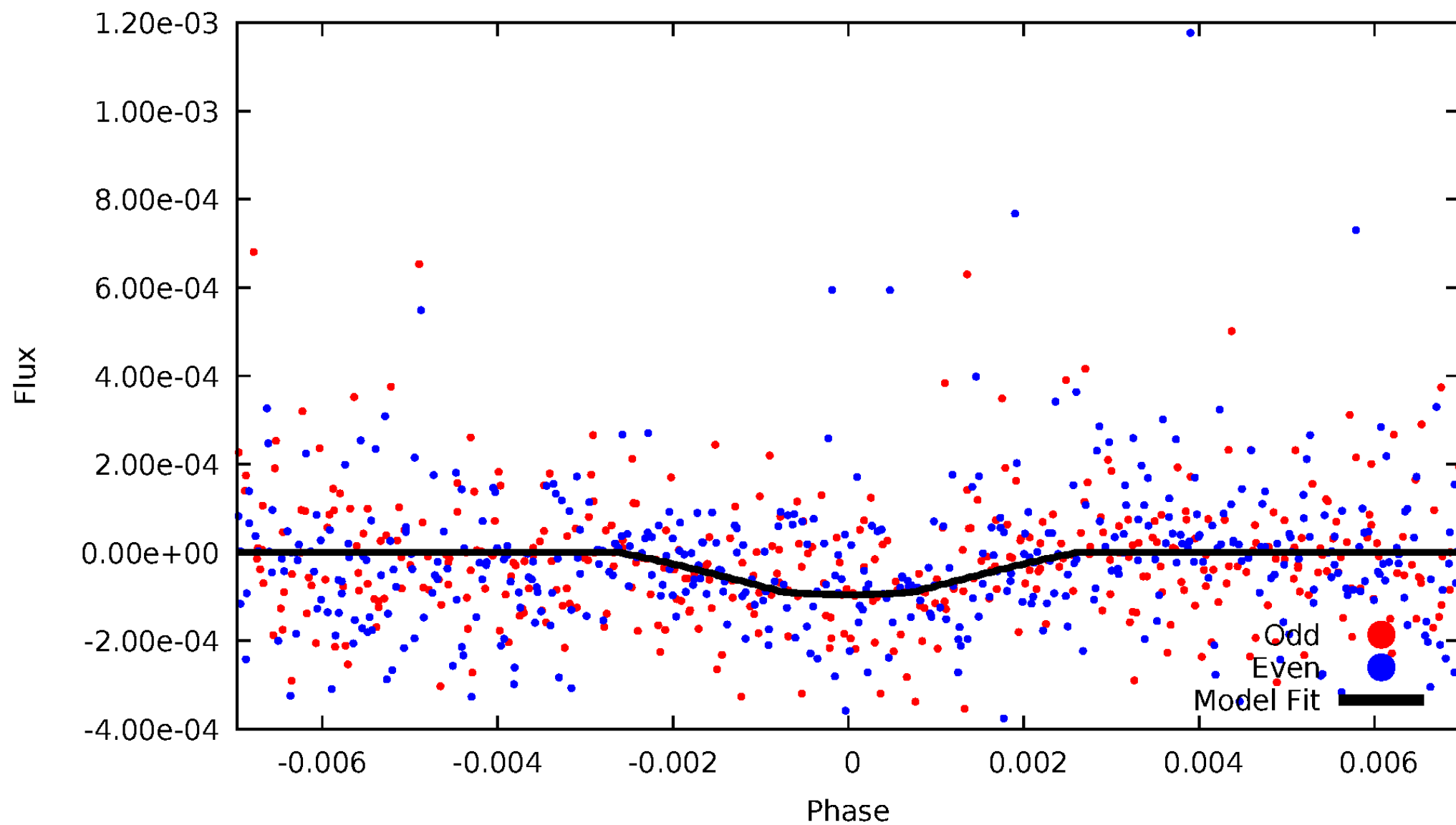


TCE 006032920-01



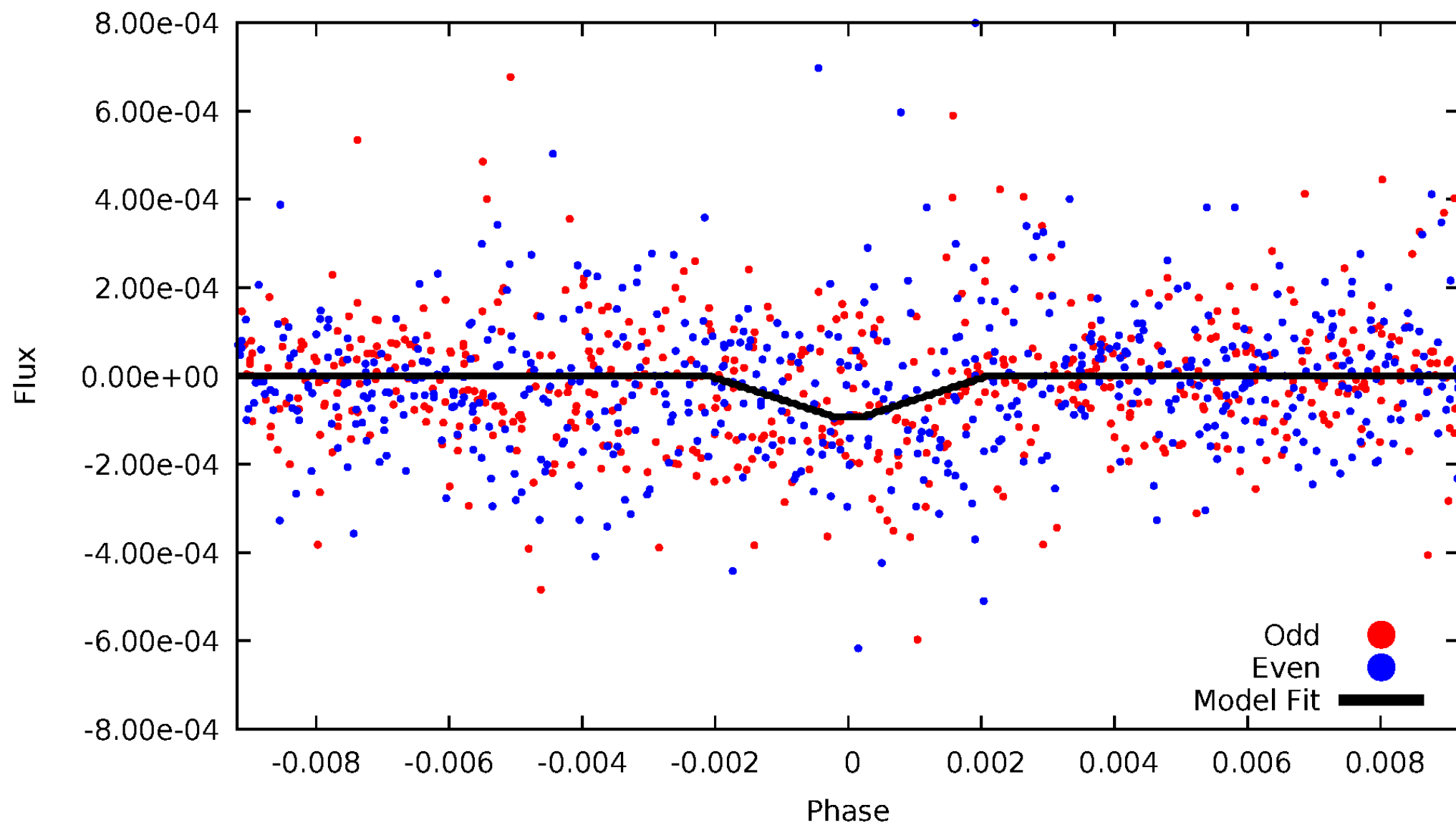
DV Odd/Even

TCE 006032920-01



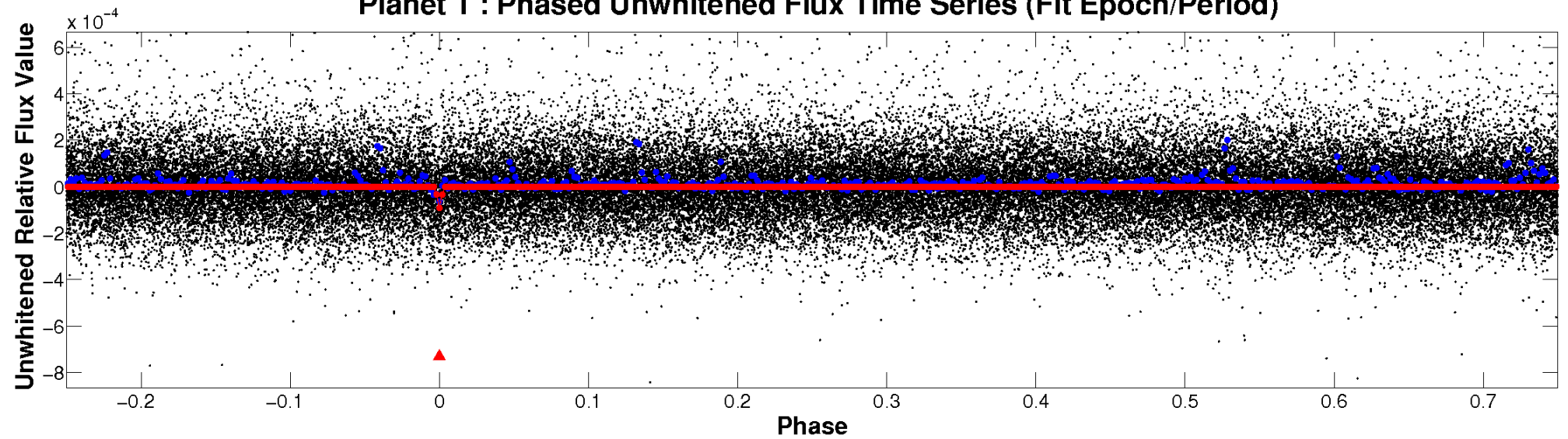
ALT Odd/Even

TCE 006032920-01

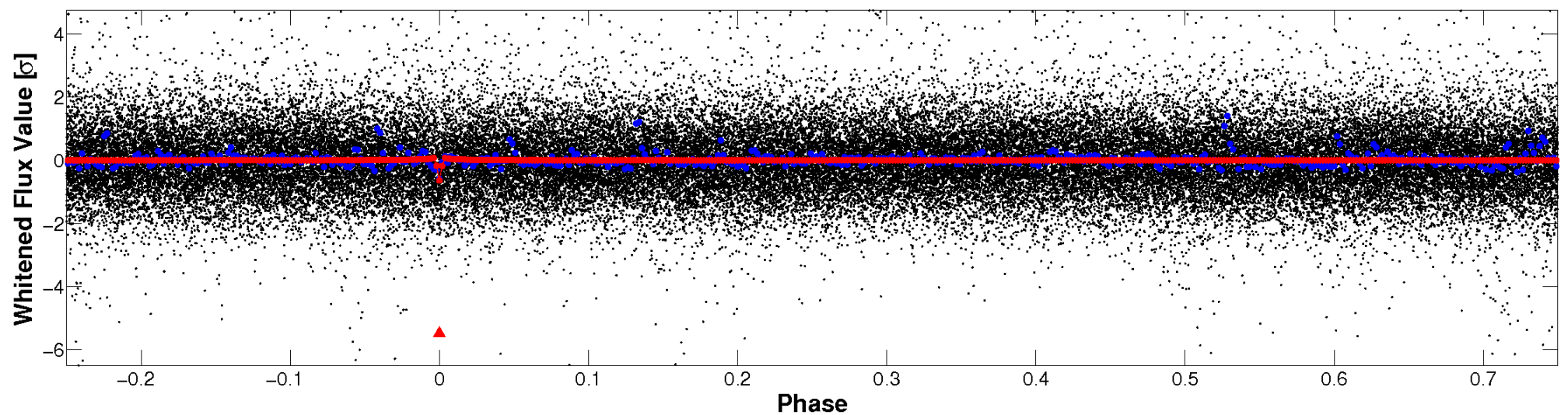


Non-Whitened Vs. Whitened Light Curve

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

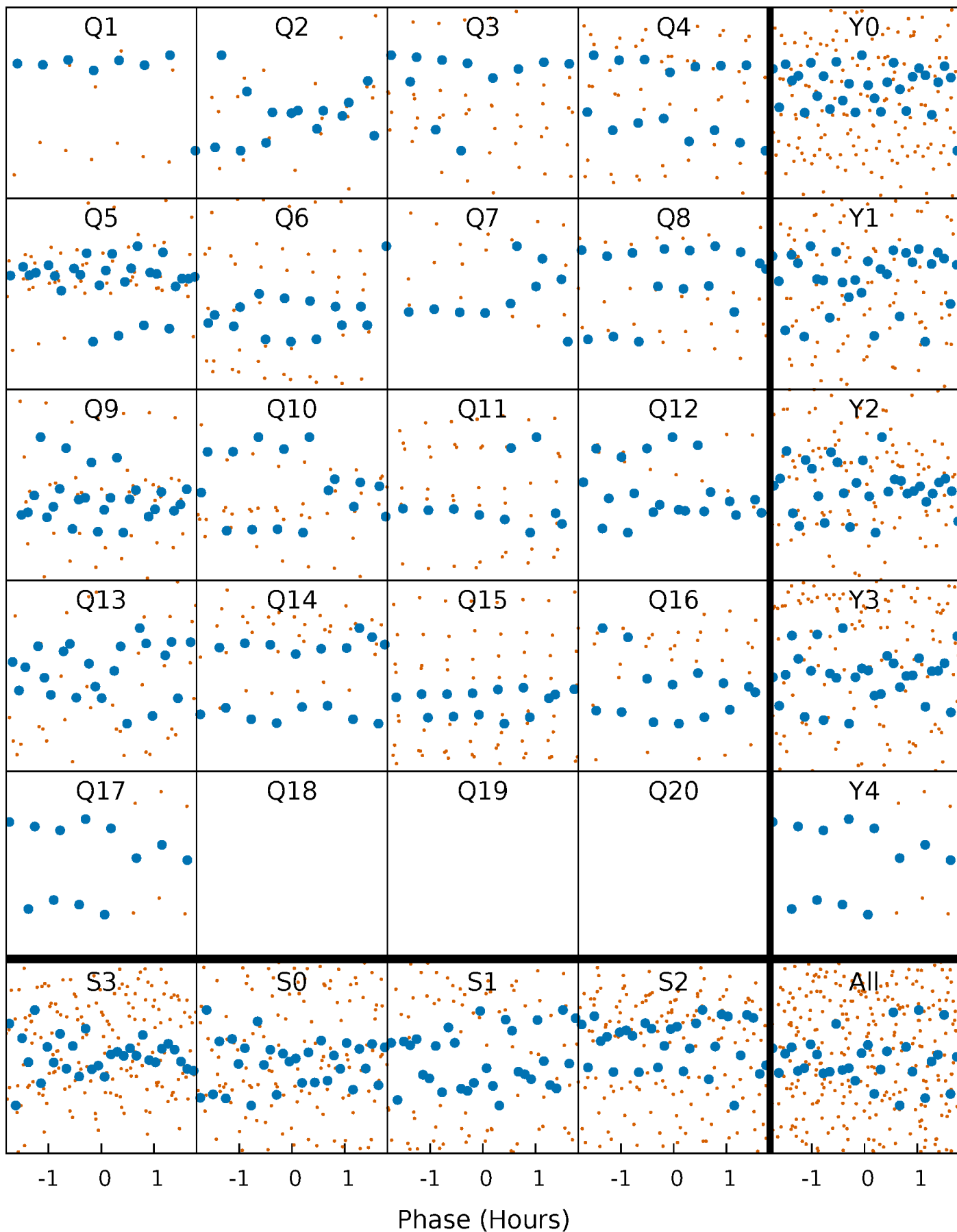


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



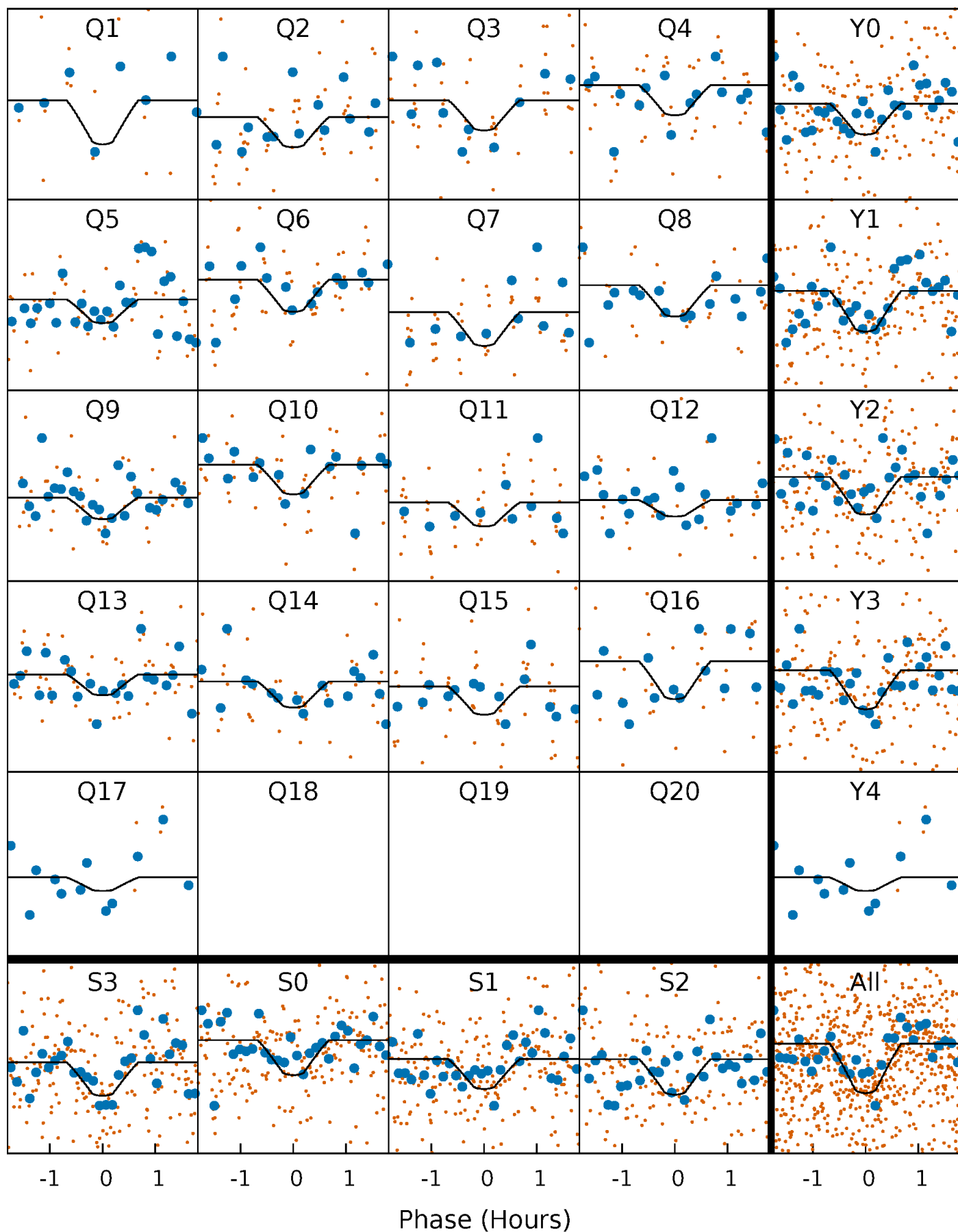
PDC Quarter-Phased Transit Curves

TCE 006032920-01 P= 10.828765 Days $T_0=134.932781$ (BKJD)



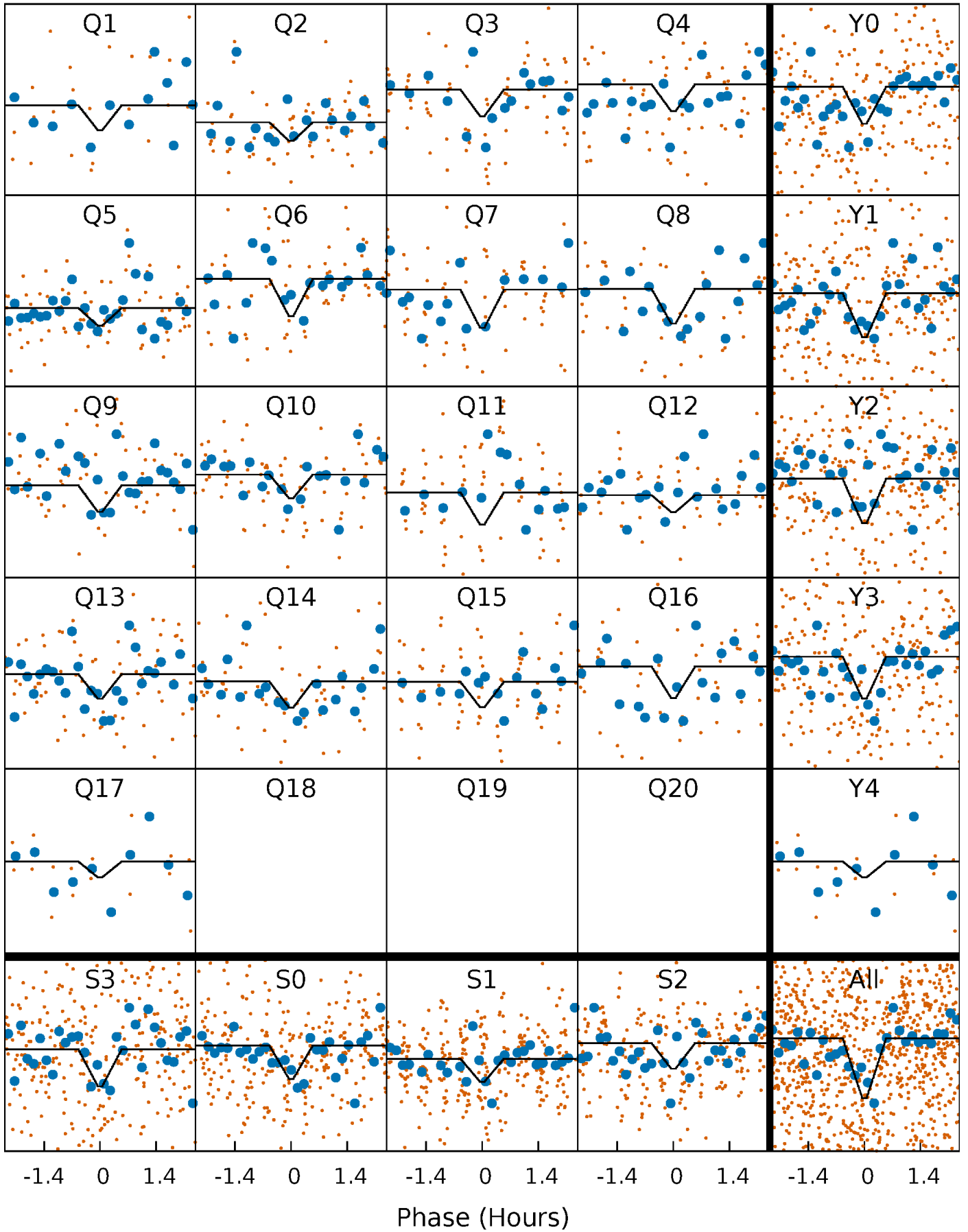
DV Quarter-Phased Transit Curves

TCE 006032920-01 P= 10.828765 Days $T_0=134.932781$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

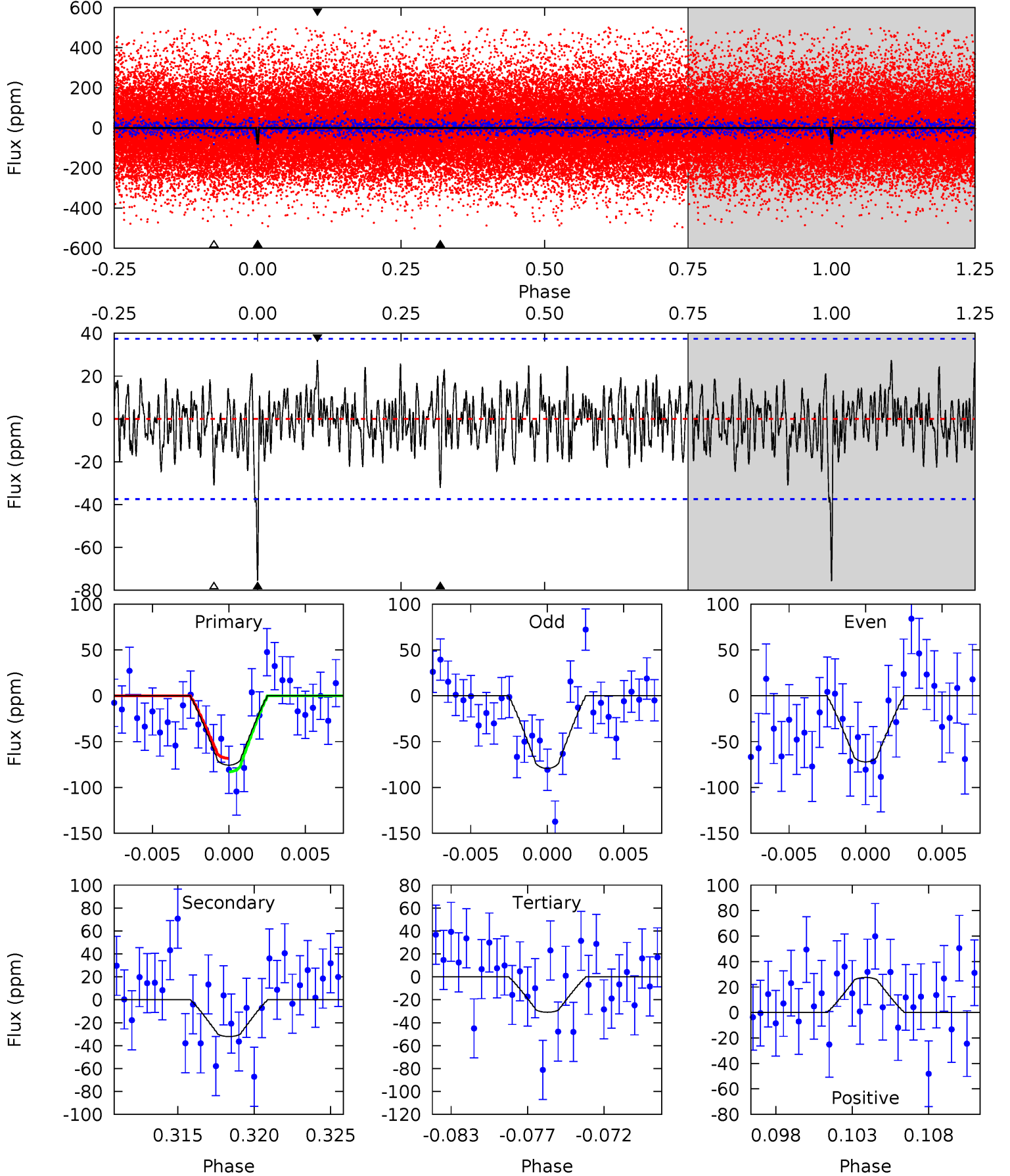
TCE 006032920-01 P= 10.828695 Days $T_0=134.935915$ (BKJD)



DV Model-Shift Uniqueness Test

006032920-01, P = 10.828765 Days, E = 124.104016 Days

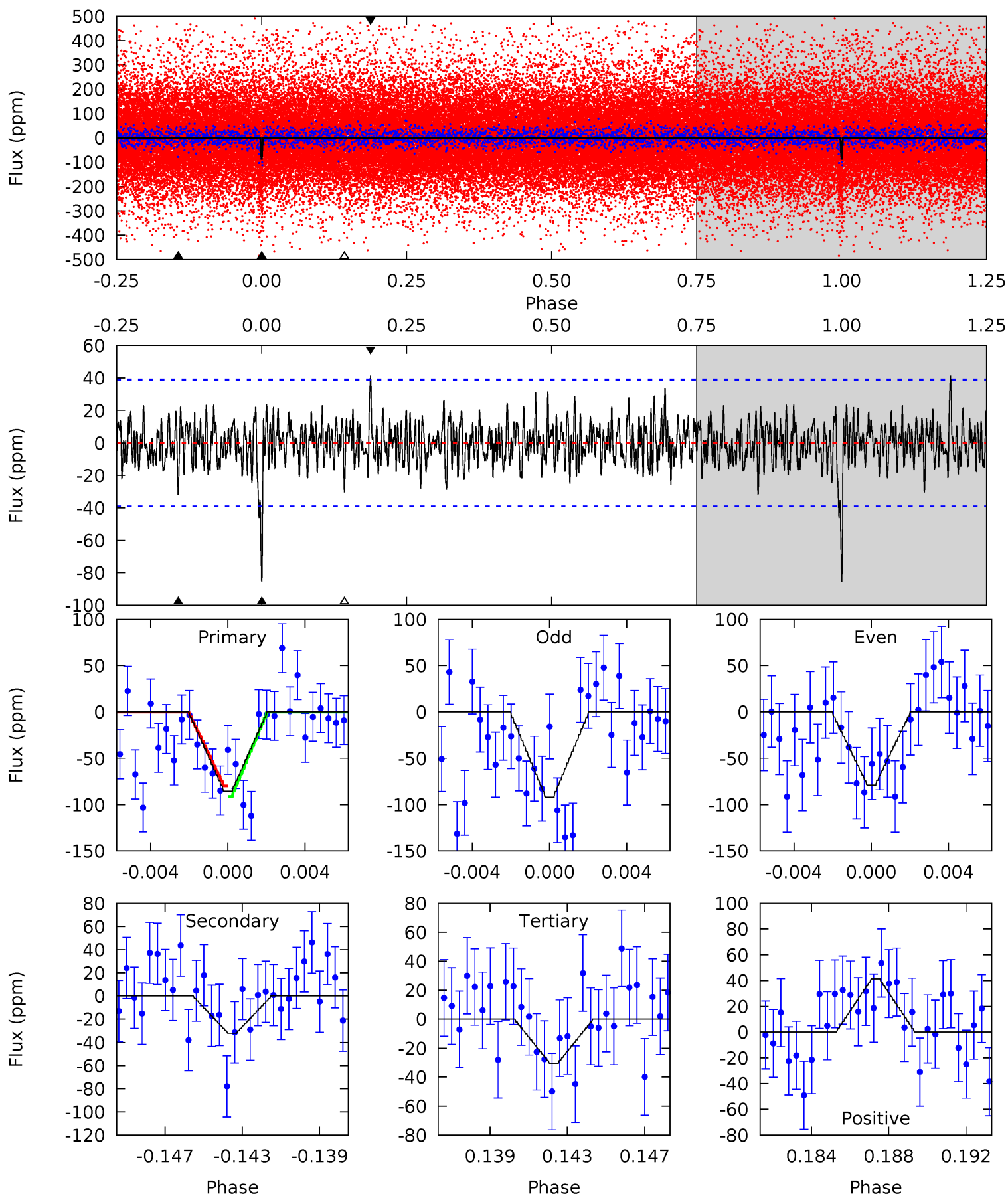
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	4.42	4.25	3.78	5.15	2.80	1.31	6.16	6.63	0.17	0.64	0.49	0.76	0.27	1.02



Alt Model-Shift Uniqueness Test

006032920-01, P = 10.828695 Days, E = 124.107220 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	4.28	4.05	5.50	5.19	2.87	1.44	7.31	5.86	0.23	-1.22	0.86	0.80	0.33	0.77



Stellar Parameters For KIC 006032920

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5862^{+141}_{-159}	$4.584^{+0.033}_{-0.176}$	$-0.520^{+0.300}_{-0.300}$	$0.785^{+0.206}_{-0.069}$	$0.865^{+0.088}_{-0.088}$	$2.517^{+0.446}_{-1.210}$
	+2%/-3%	+1%/-4%	+58%/-58%	+26%/-9%	+10%/-10%	+18%/-48%
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 006032920-01 / KOI 7757.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-32 ± 7	$0.92^{+0.48}_{-0.40}$	1081^{+69}_{-44}	4516^{+1321}_{-649}	169^{+366}_{-97}
Alt.	-32 ± 8	$0.88^{+0.44}_{-0.43}$	1079^{+68}_{-39}	4586^{+1648}_{-628}	183^{+533}_{-103}

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 $A_{obs} \gg 1.0$

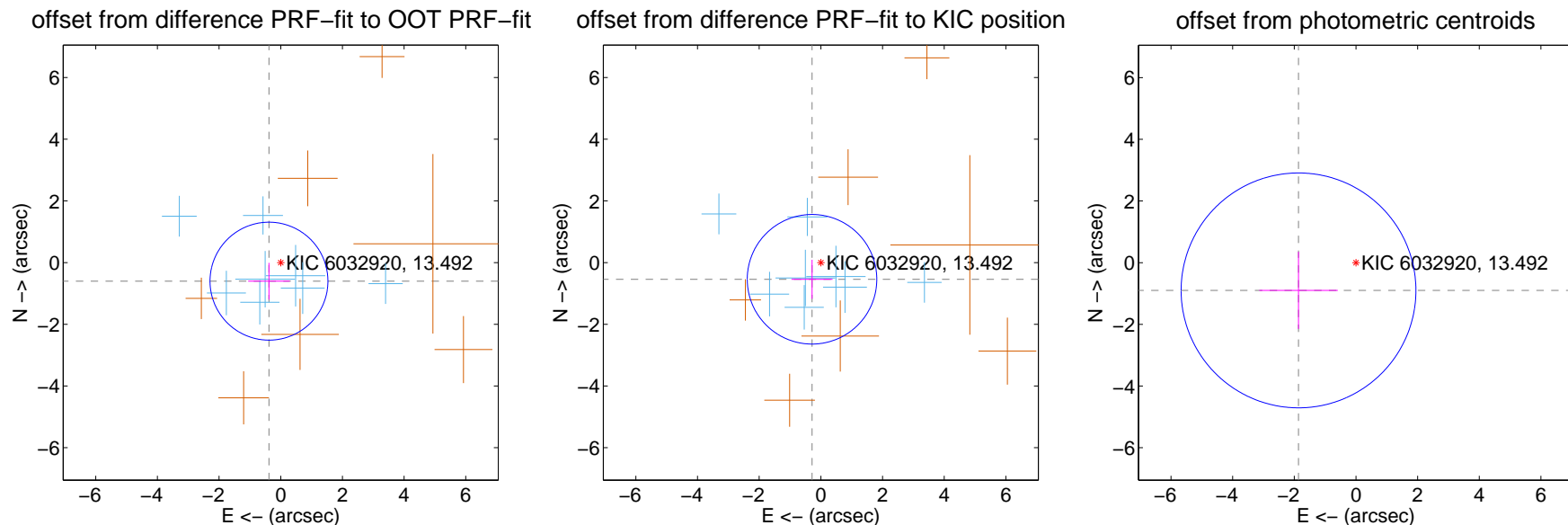
DV Centroid Data

Supplemental centroid analysis for 006032920-01. Kepler magnitude: 13.49. Transit SNR 8.04

There are 8 quarters with good PRF difference image offsets

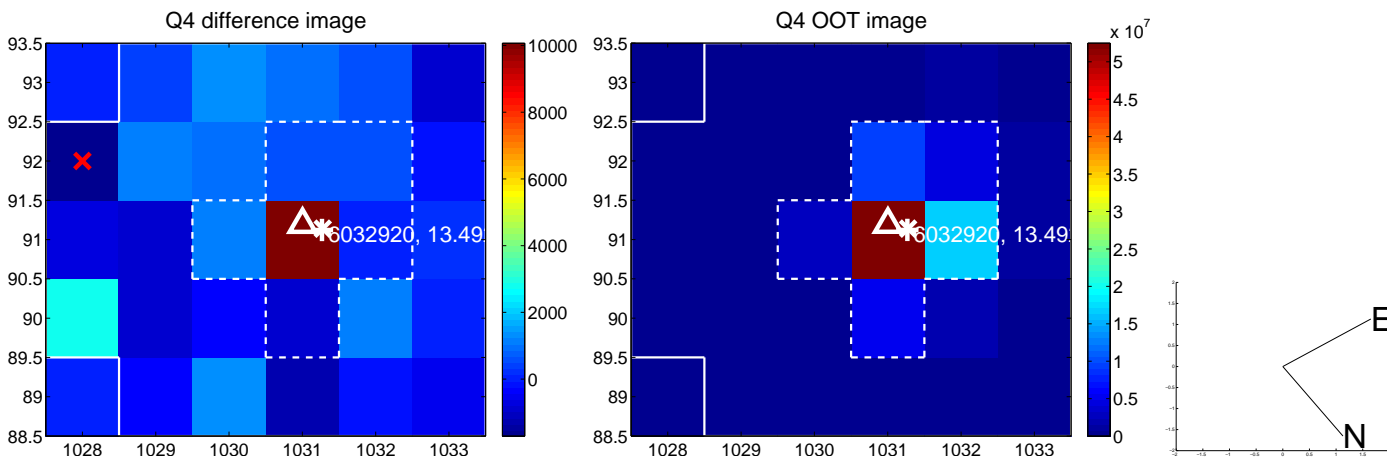
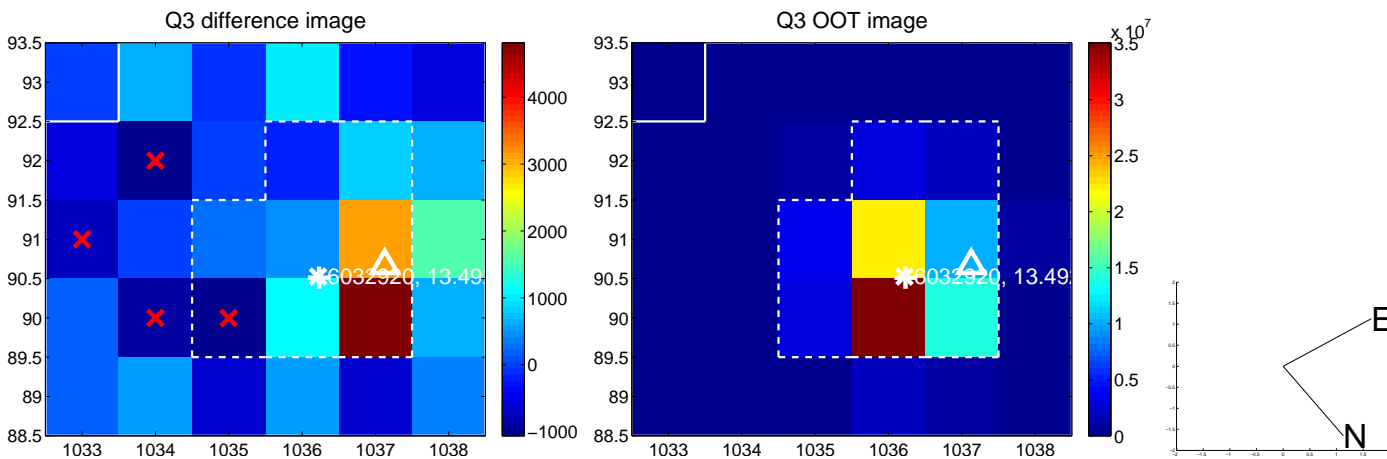
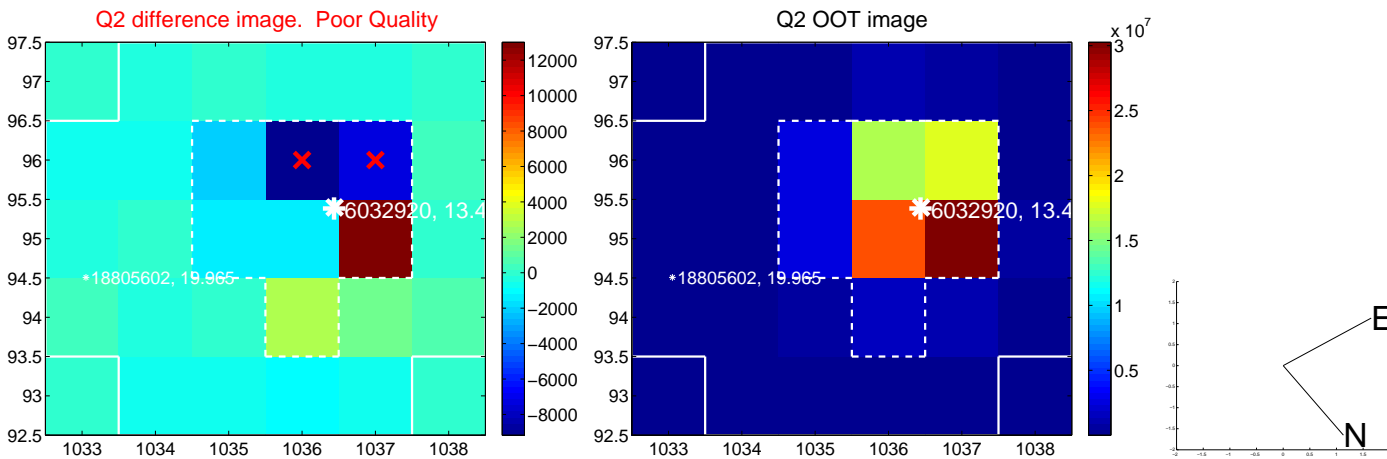
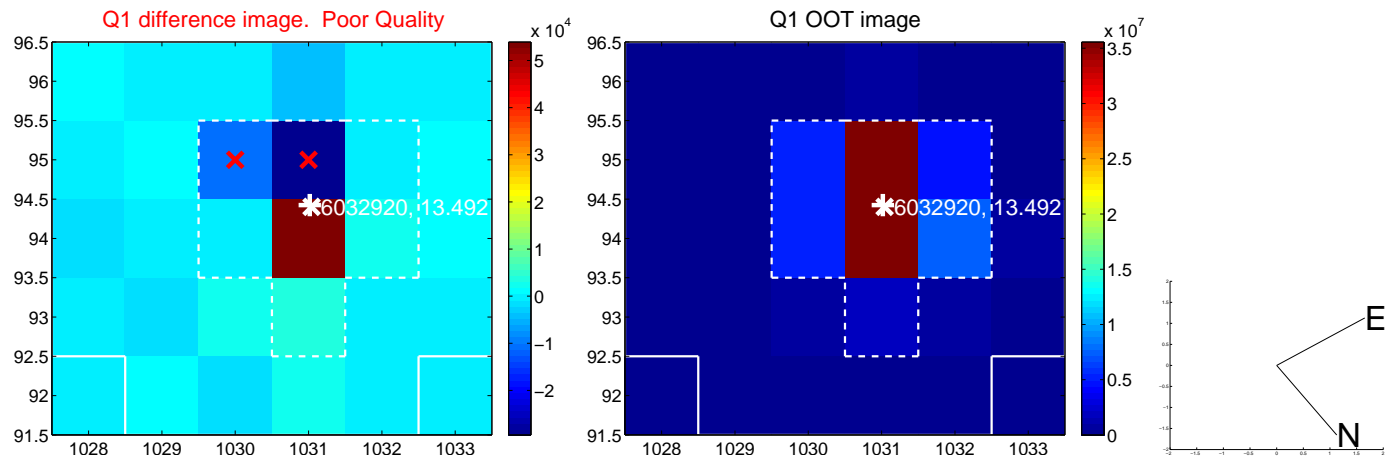
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.713 ± 0.637	1.12	0.382 ± 0.673	-0.602 ± 0.594
PRF-fit source offset from KIC position	0.612 ± 0.700	0.87	0.287 ± 0.667	-0.541 ± 0.632
photometric centroid source offset	2.07 ± 1.27	1.63	1.86 ± 1.27	-0.90 ± 1.25

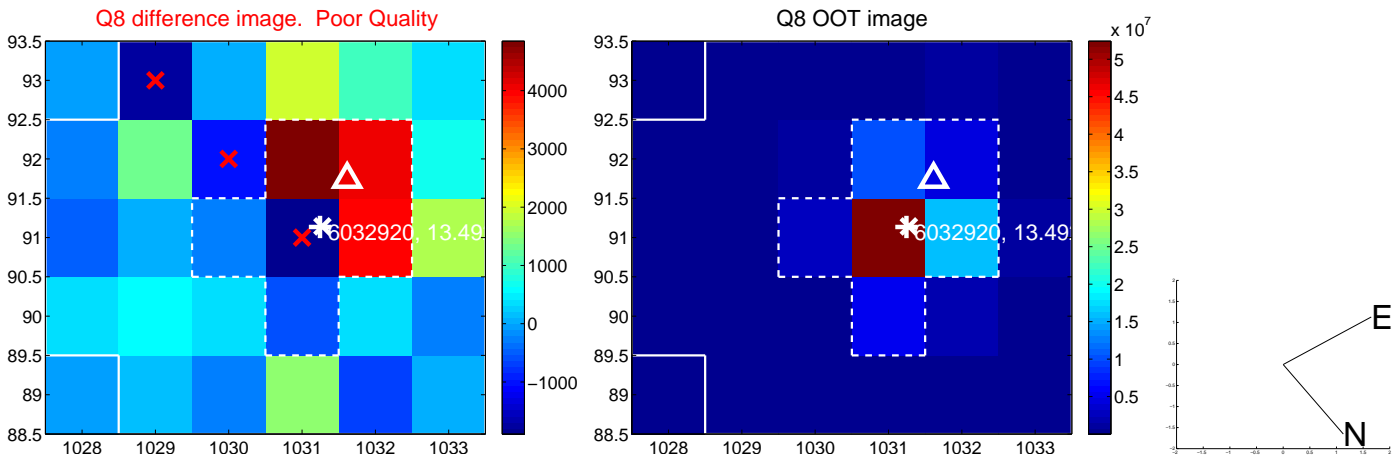
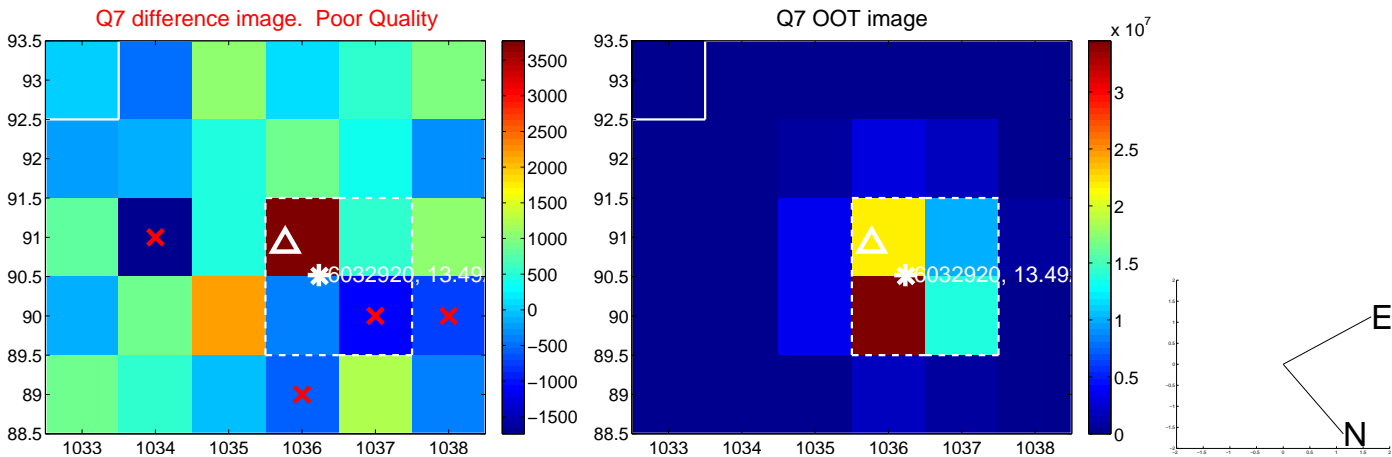
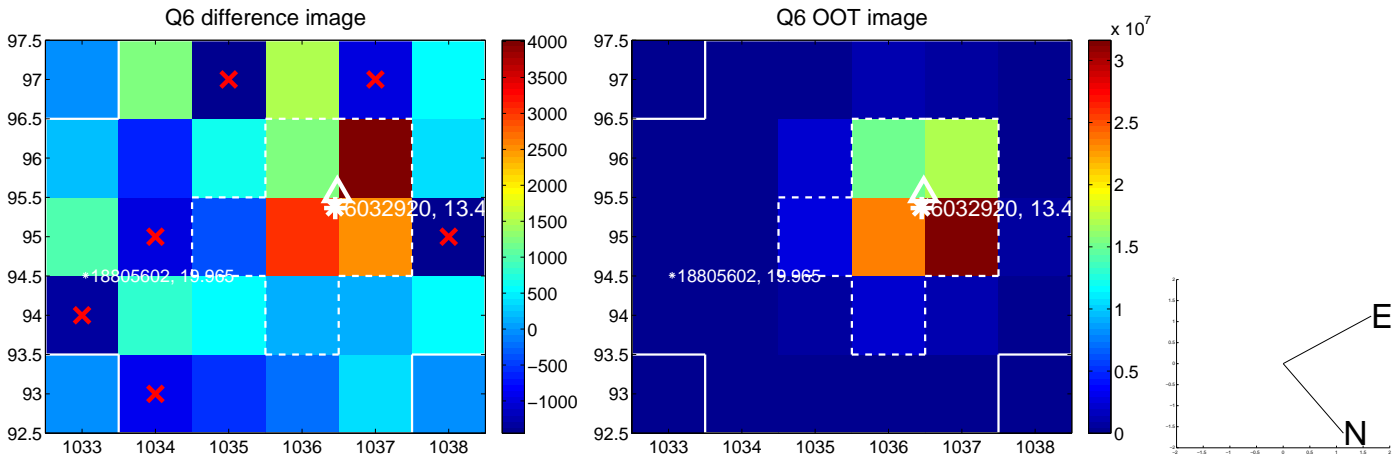
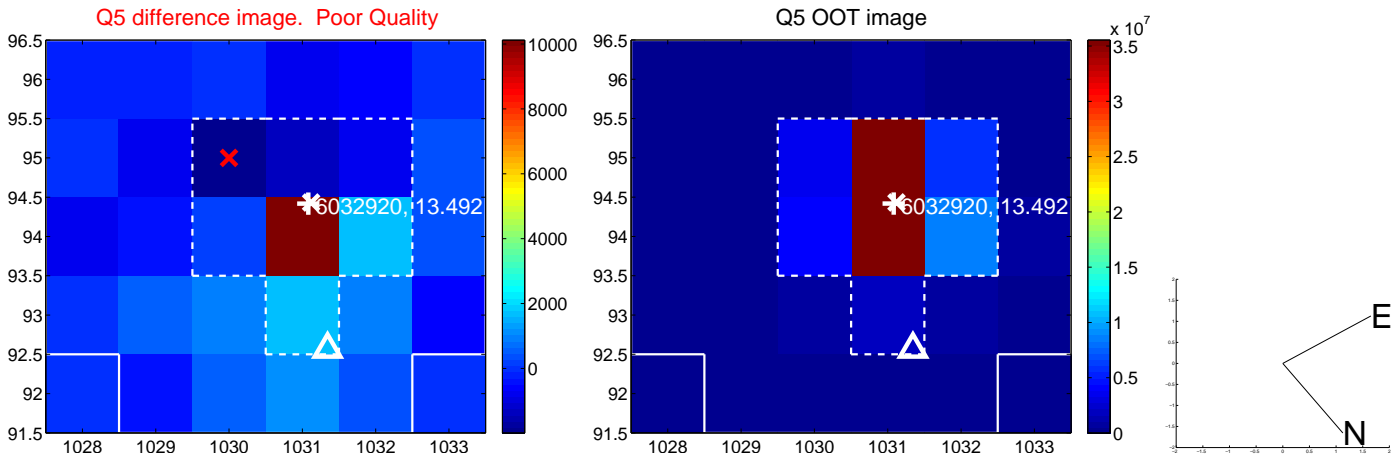


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

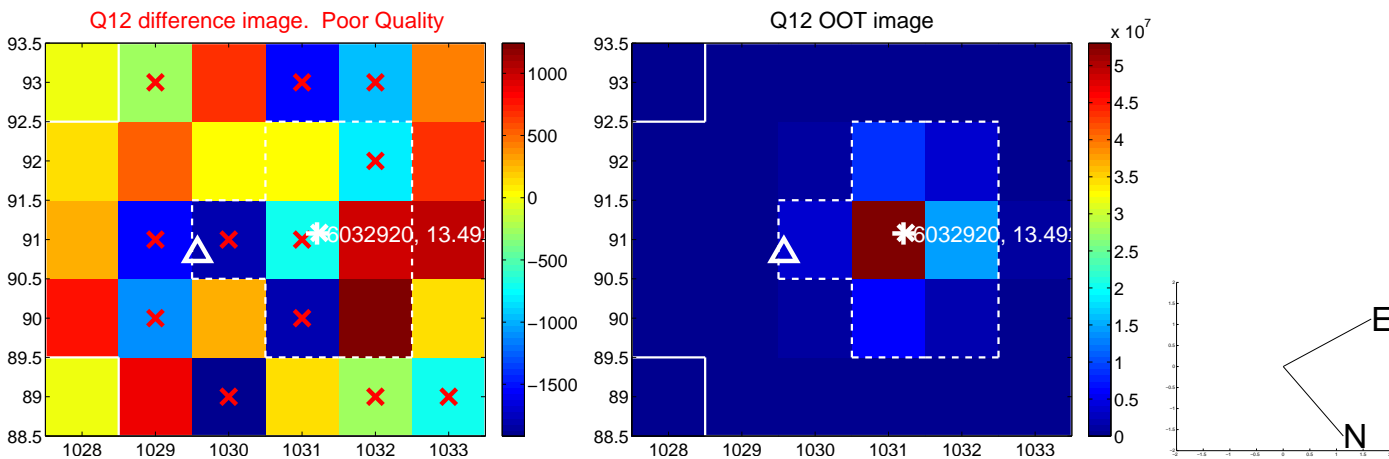
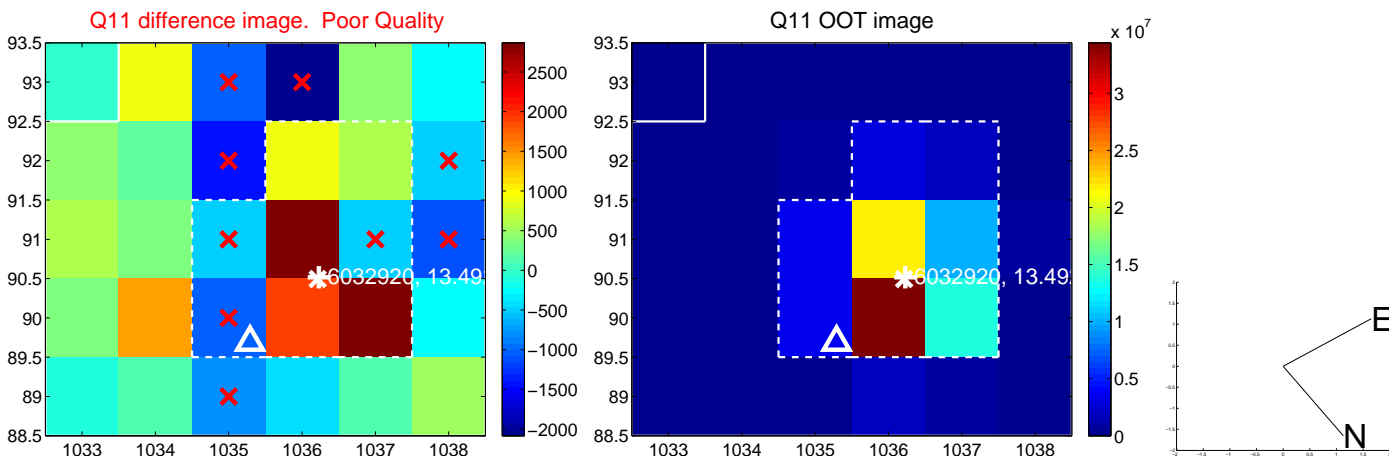
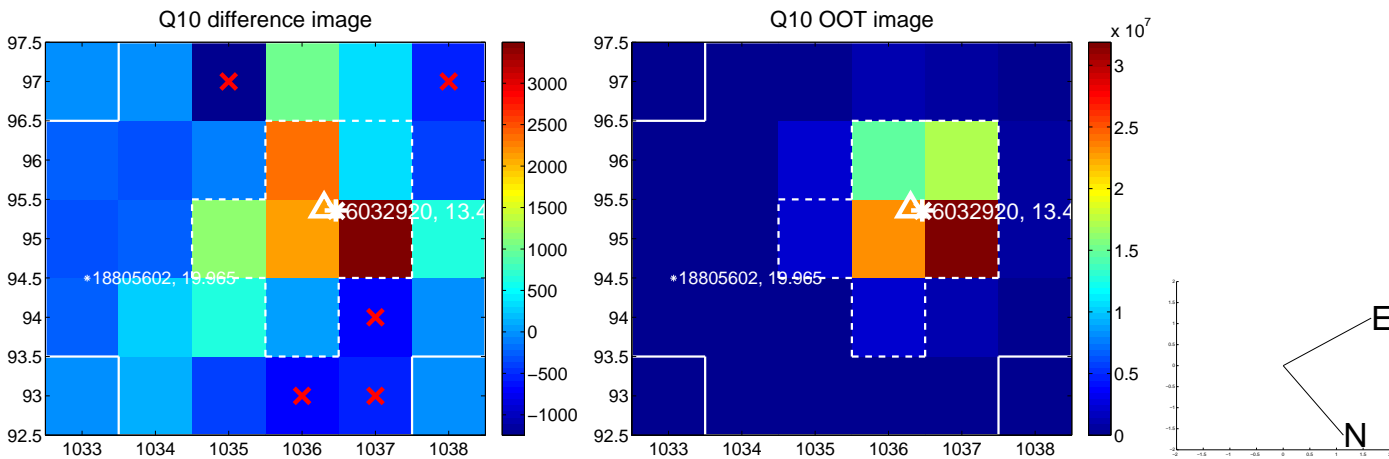
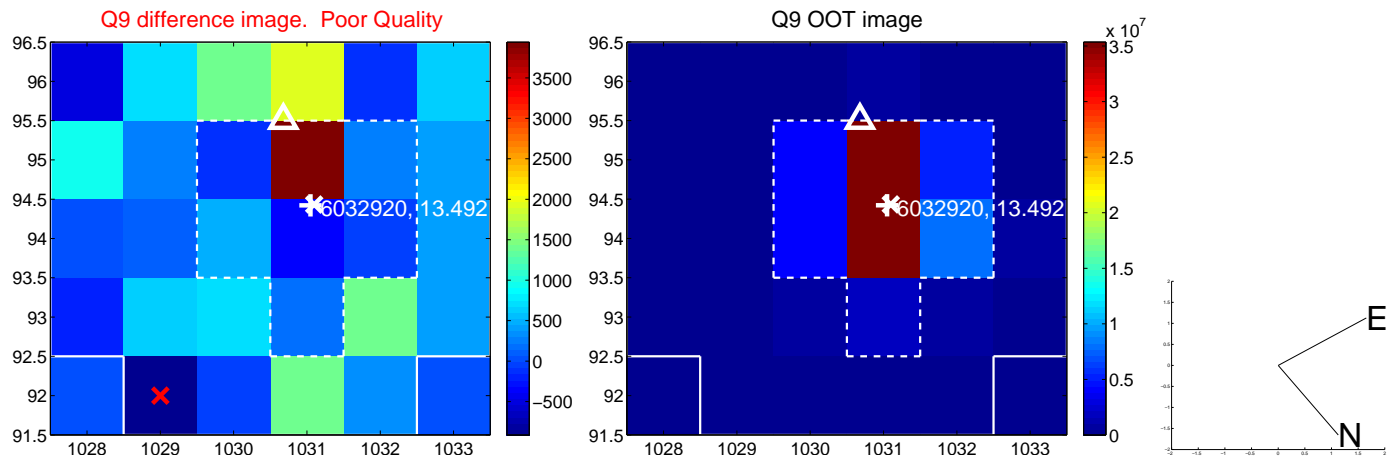
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



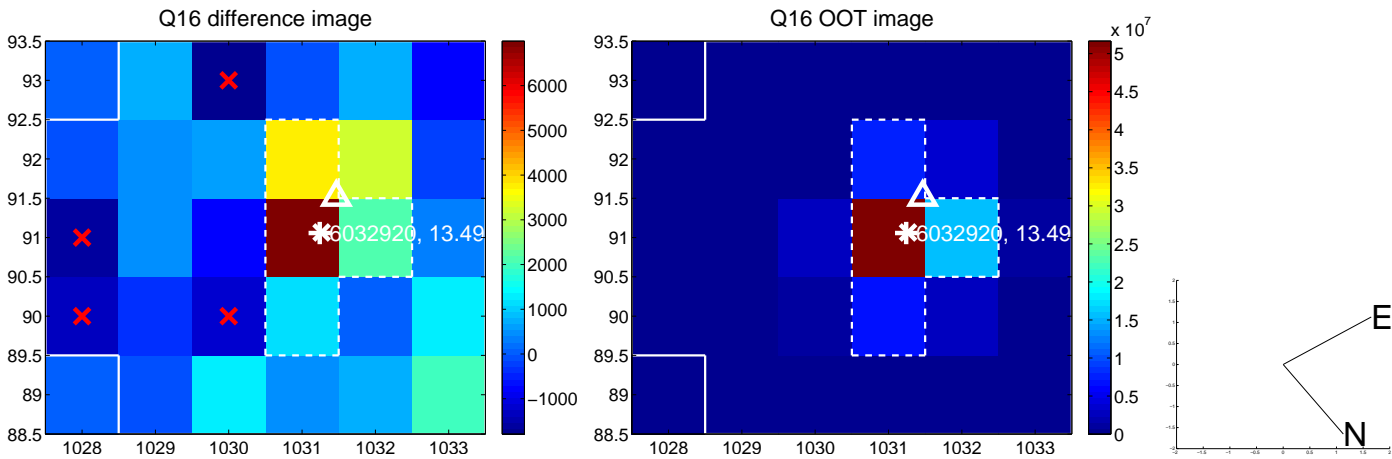
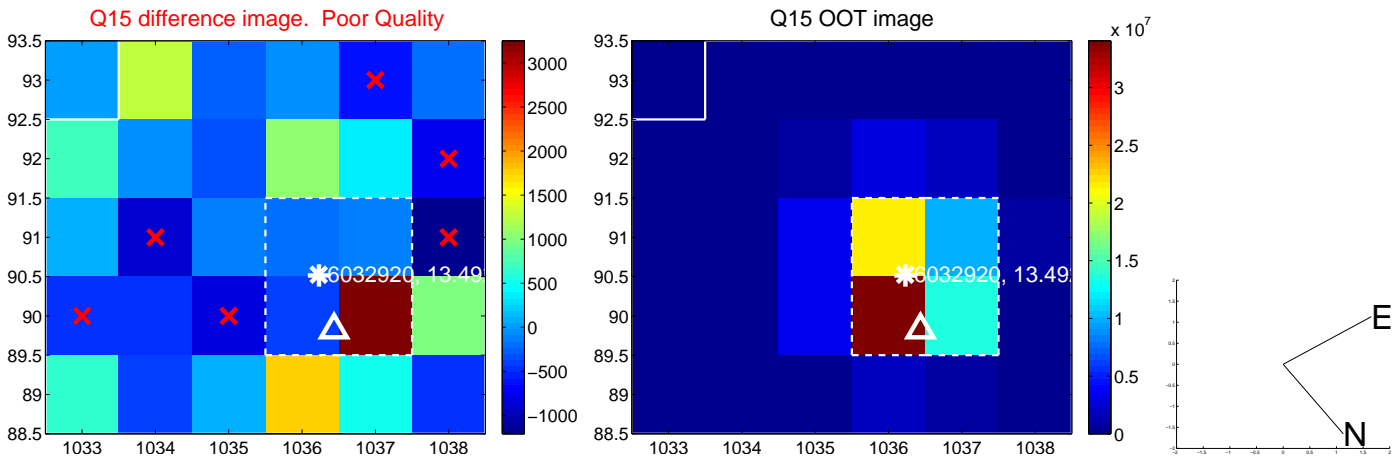
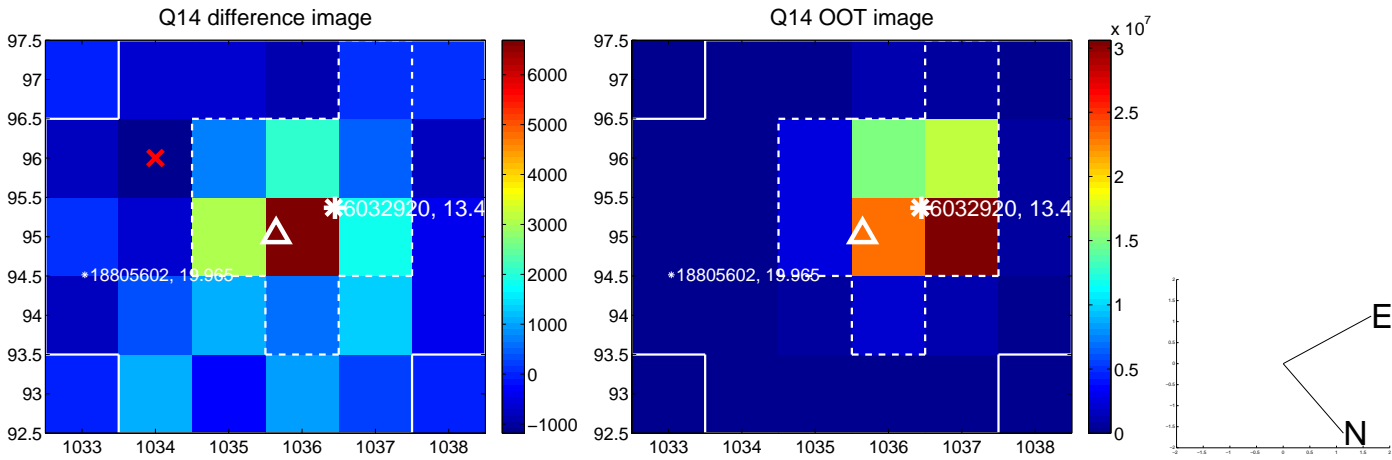
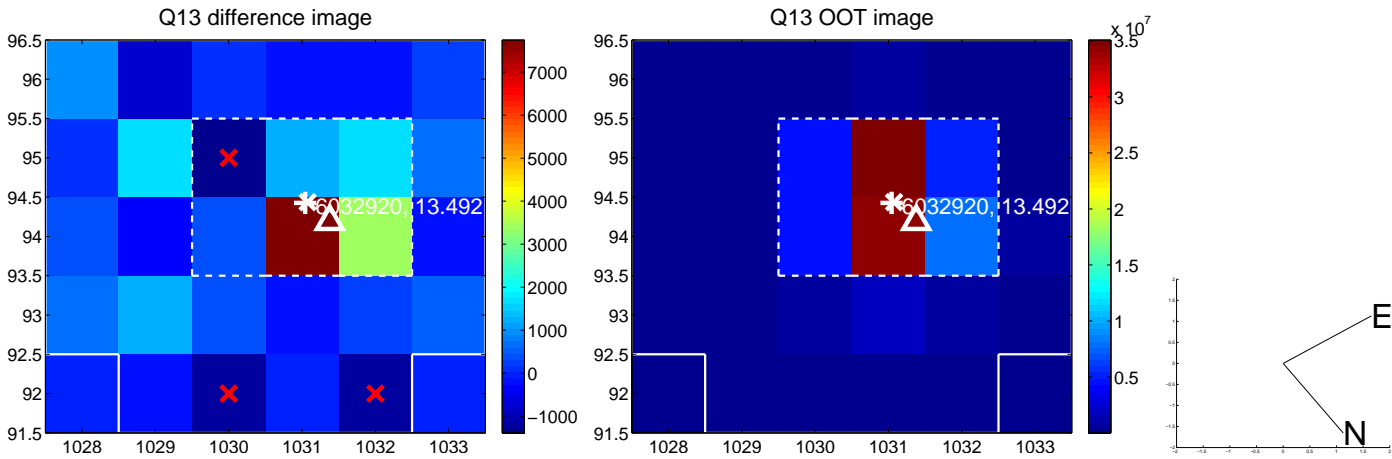
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



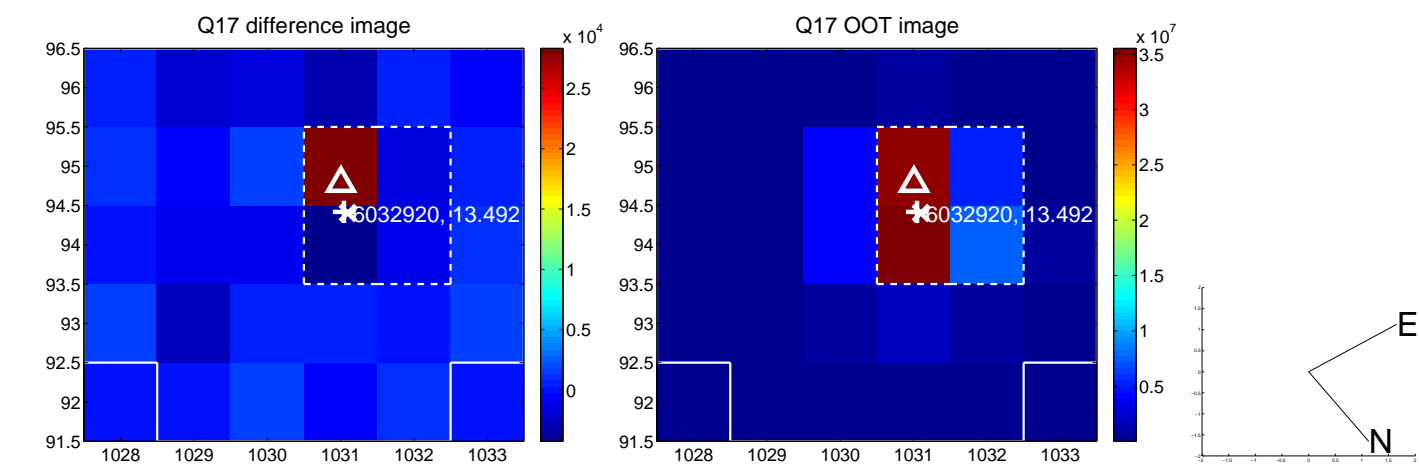
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



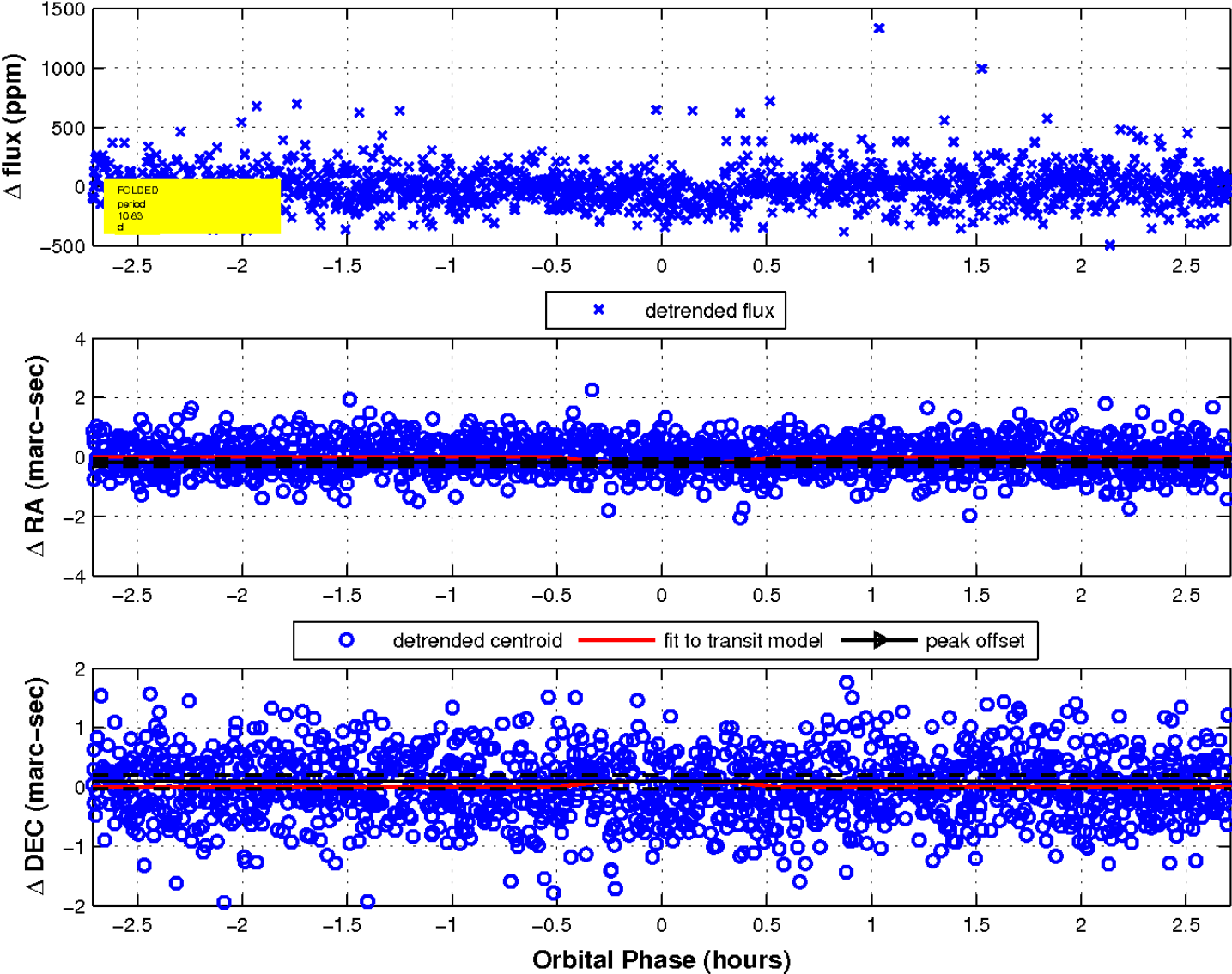
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

