

KIC 006119141

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})
006119141-01	OBS	2343.01	29.072545	136.974456	439.7	2.924	16.9	19.9	1.04	5799	2.76	33.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006119141-01	OBS	FP	0.06	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.

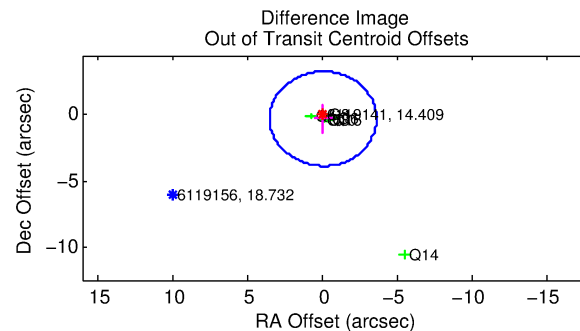
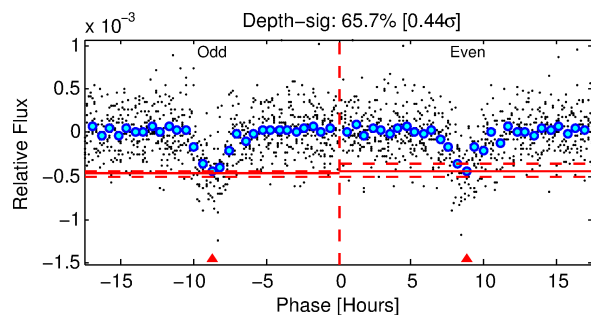
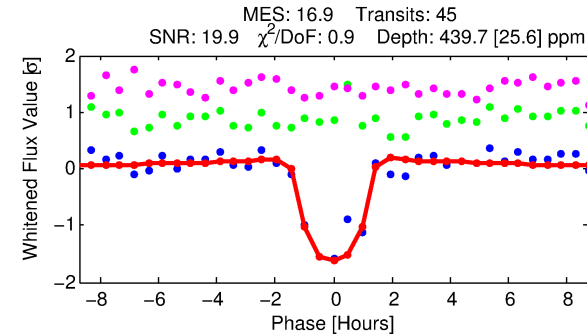
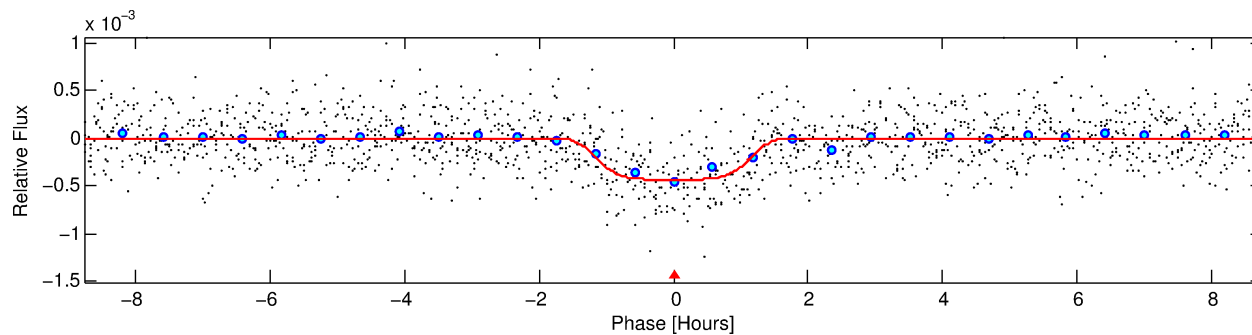
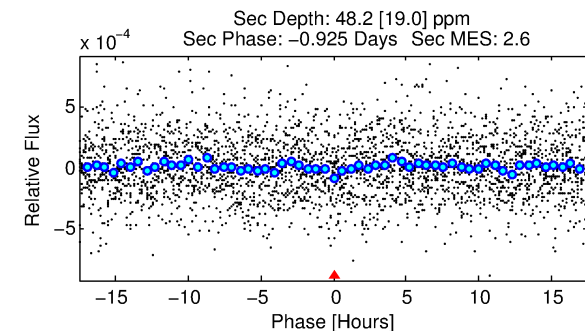
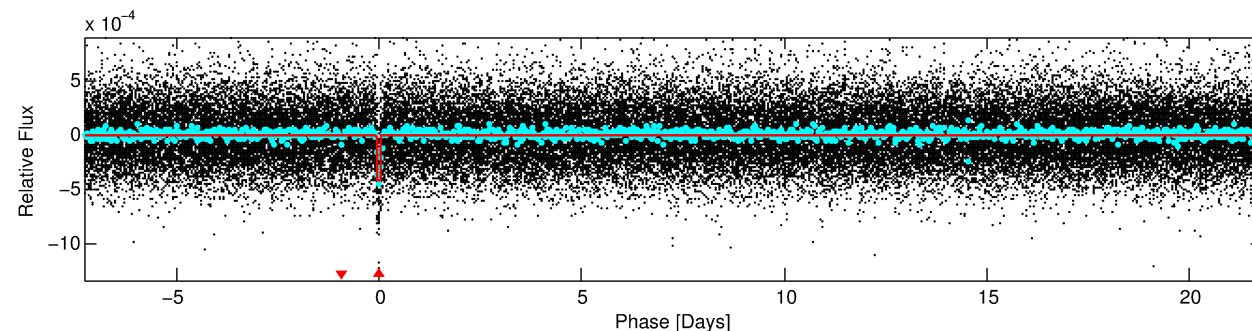
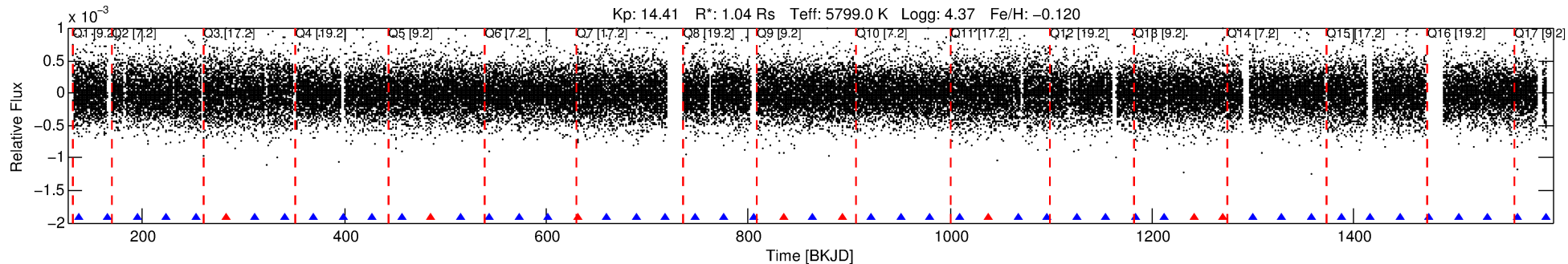
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006119141-01

No Significant Match Found

DV One-Page Summary

KIC: 6119141 Candidate: 1 of 1 Period: 29.073 d
KOI: K02343.01 Corr: 0.940



DV Fit Results:

Period = 29.07255 [0.00012] d
Epoch = 136.9745 [0.0034] BKJD
Rp/R* = 0.0243 [0.0017]
a/R* = 29.53 [8.45]
b = 0.95 [0.03]
Seff = 33.75 [12.43]
Teq = 615 [57] K
Rp = 2.76 [0.82] Re
a = 0.1806 [0.0438] AU
Ag = 113.66 [62.19] [1.81σ]
Teffp = 3103 [336] K [7.31σ]

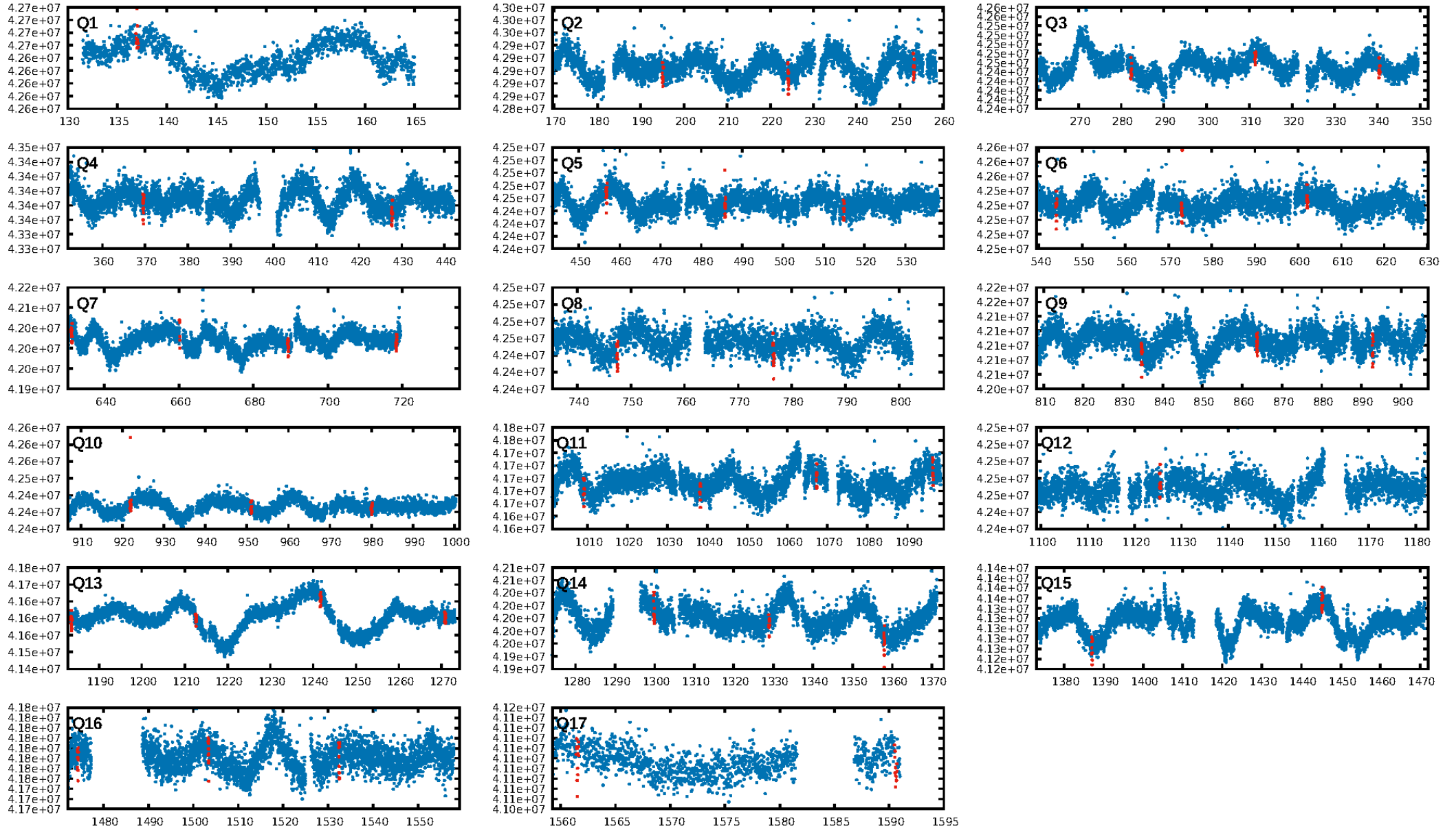
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.75e-60
RollingBand-fgt: 0.81 [34/42]
GhostDiagnostic-chr: 1.921
Centroid-sig: 17.7%
Centroid-so: 1.706 arcsec [2.14σ]
OotOffset-rm: 0.313 arcsec [0.26σ]
OotOffset-st: 3/2/2/0 [7]
KicOffset-rm: 11.493 arcsec [7.34σ]
KicOffset-st: 3/2/2/3 [10]
DiffImageQuality-fgm: 0.60 [6/10]
DiffImageOverlap-fno: 1.00 [17/17]

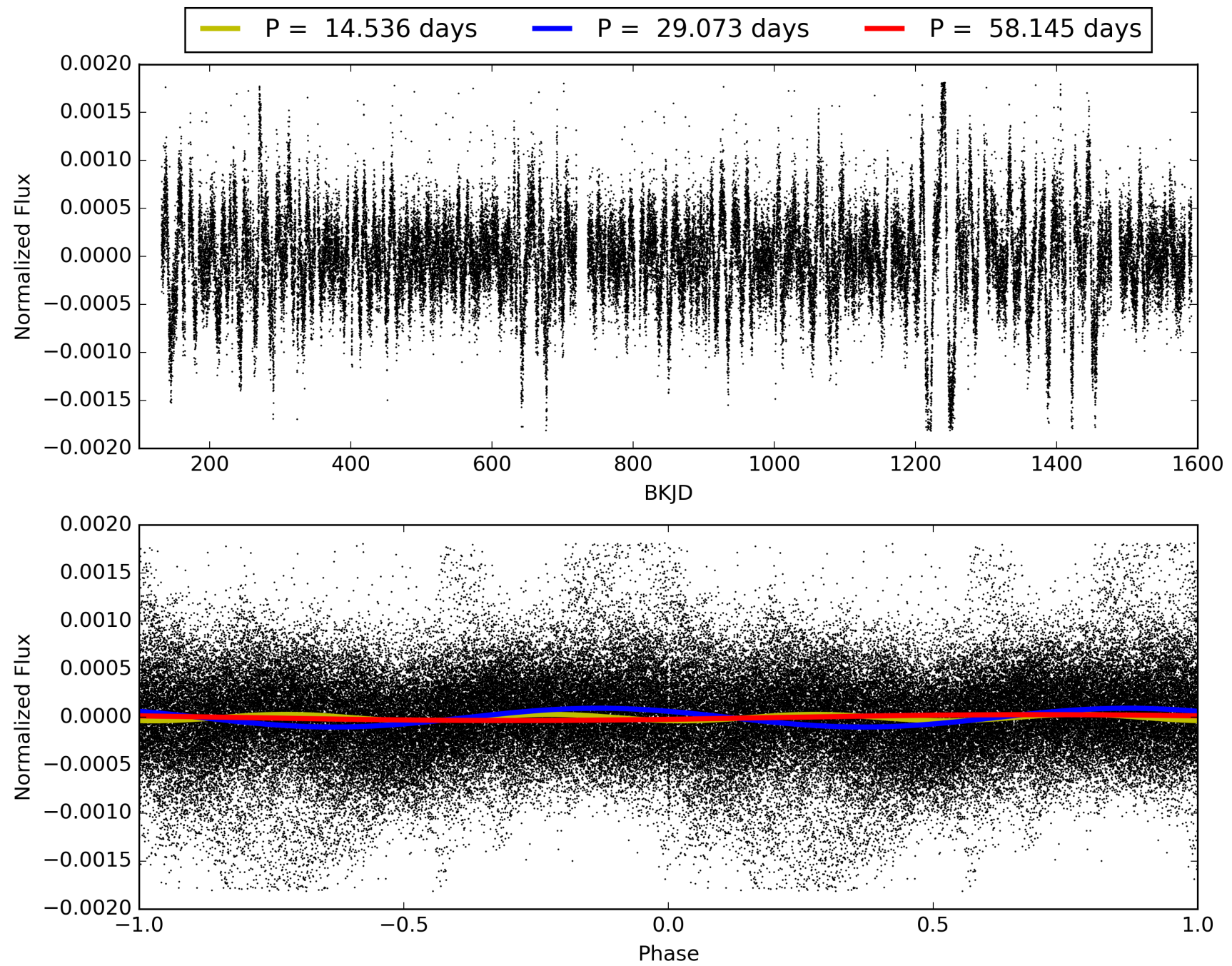
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:17:00 Z

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

TCE 006119141-01, PDC Light Curves

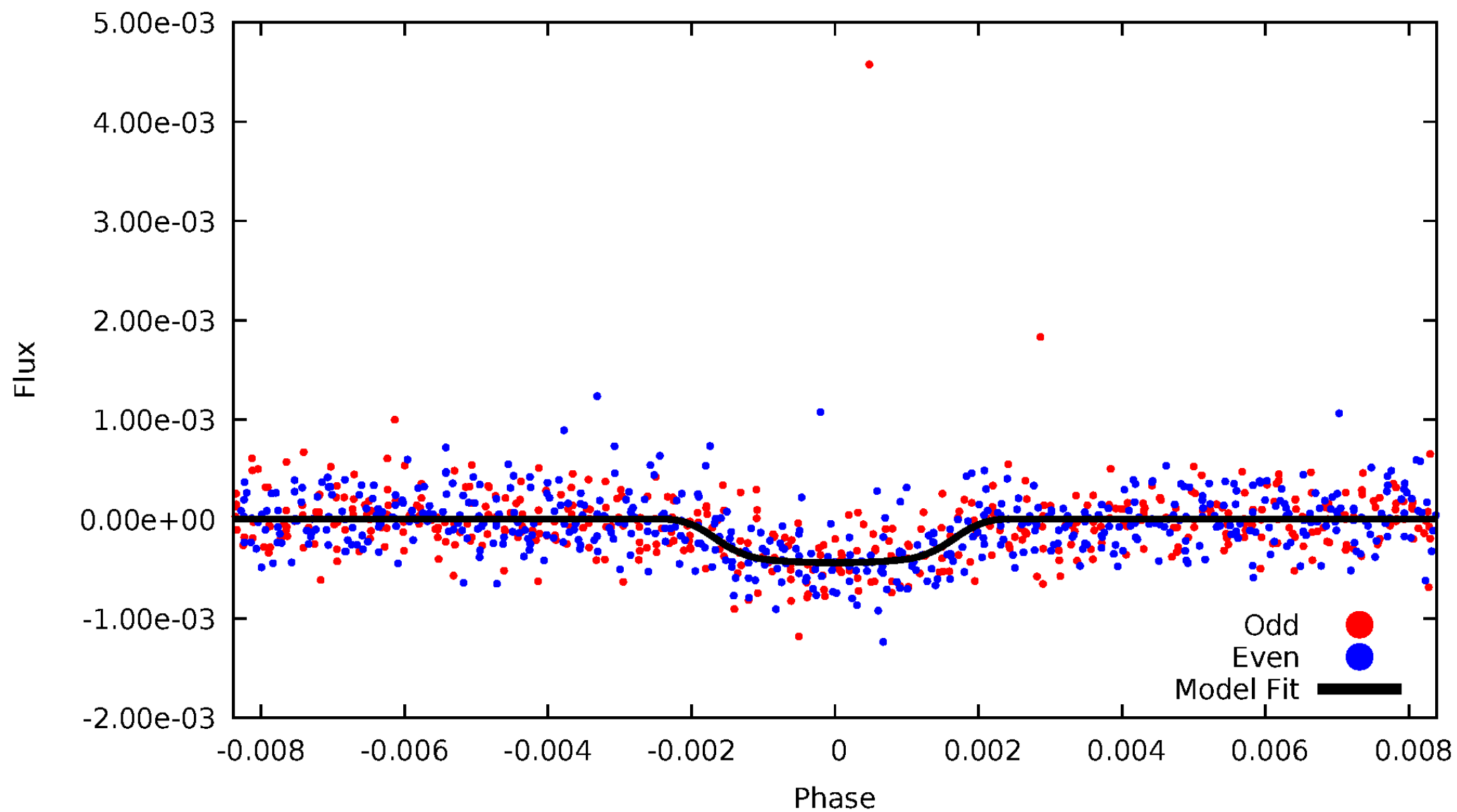


TCE 006119141-01



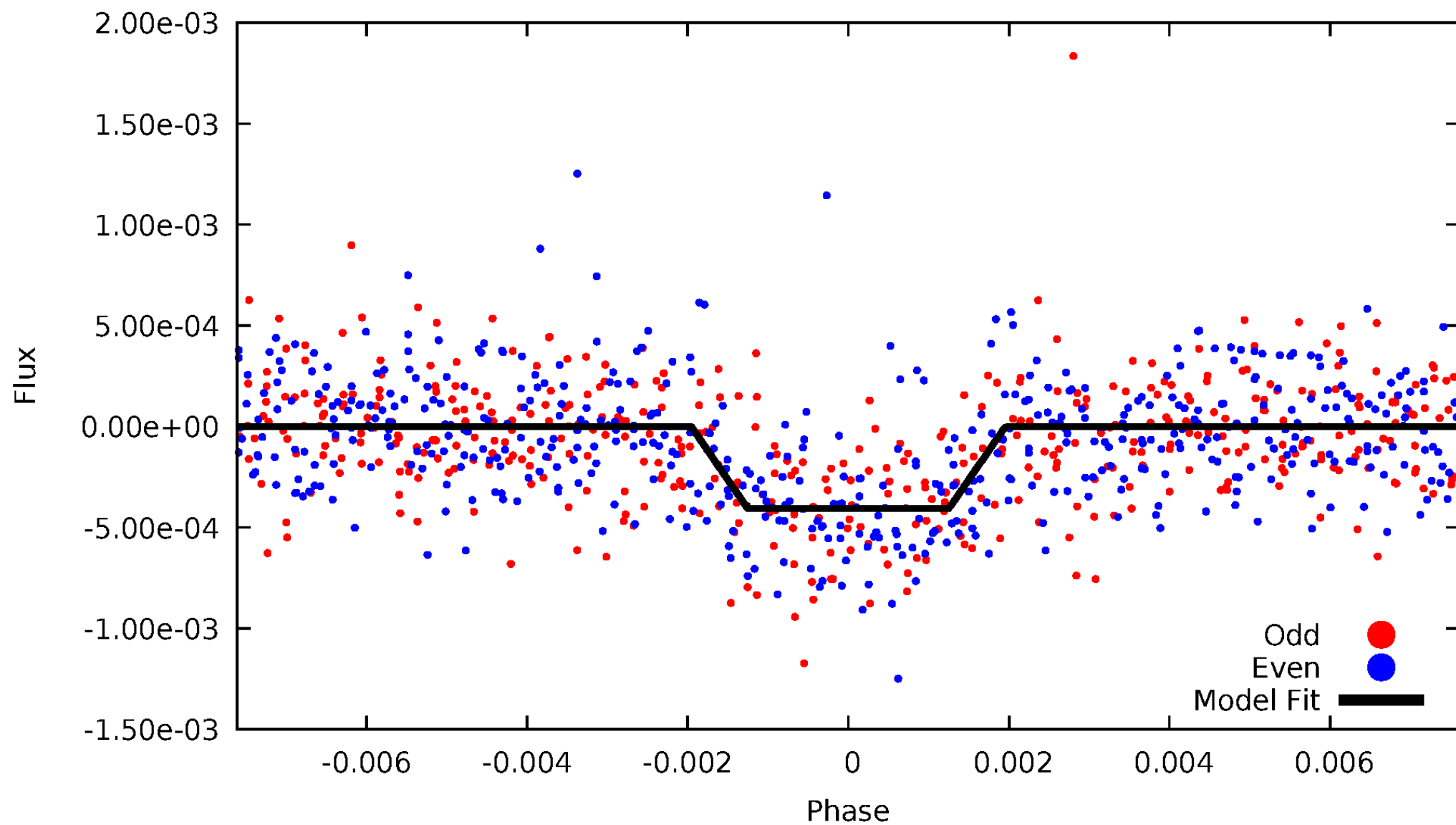
DV Odd/Even

TCE 006119141-01



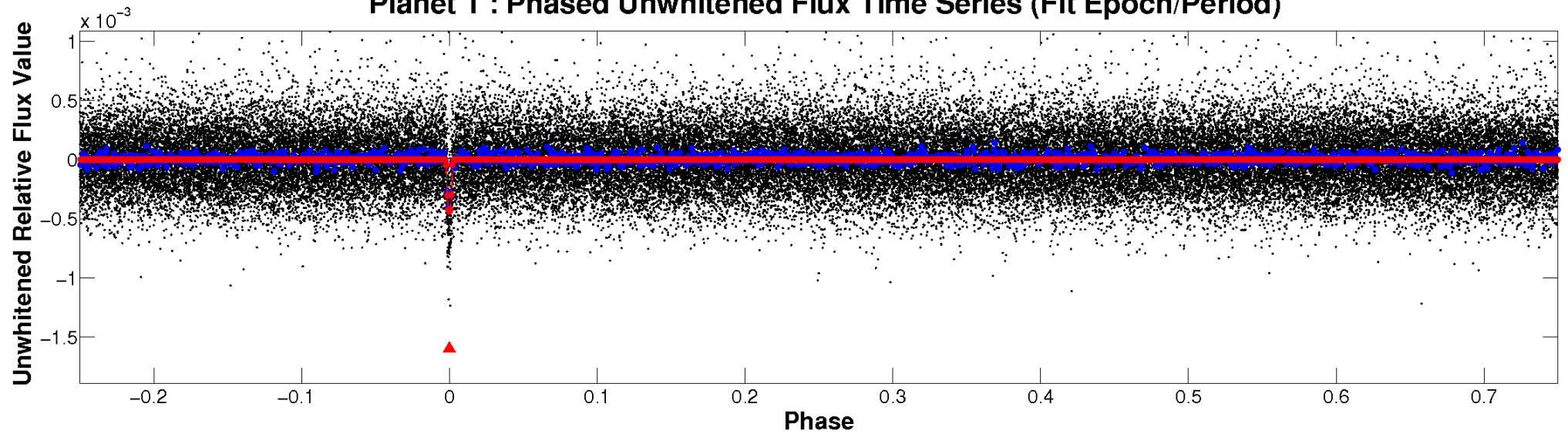
ALT Odd/Even

TCE 006119141-01

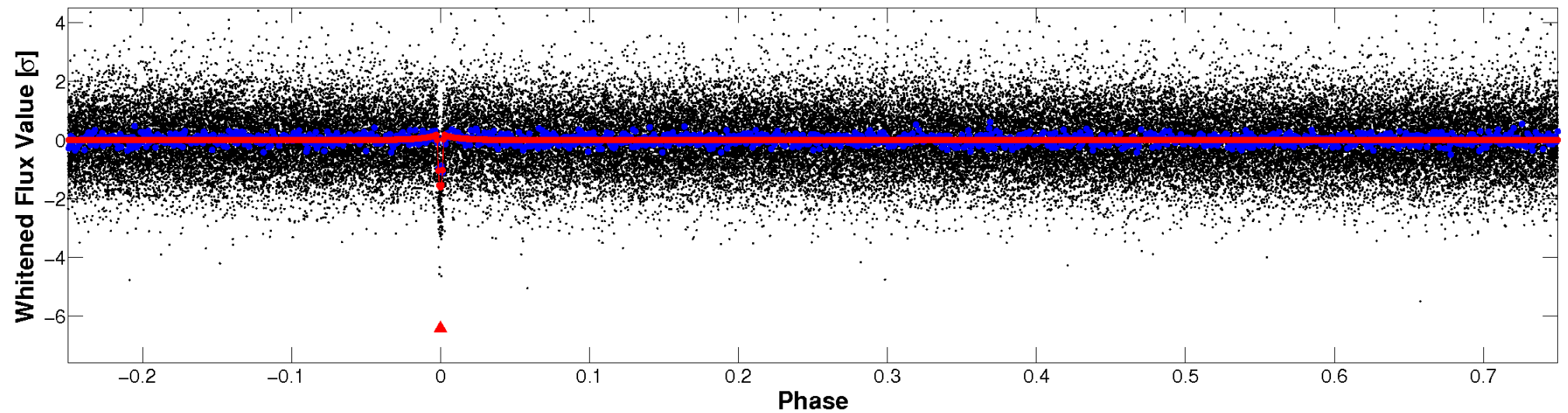


Non-Whitened Vs. Whitened Light Curve

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

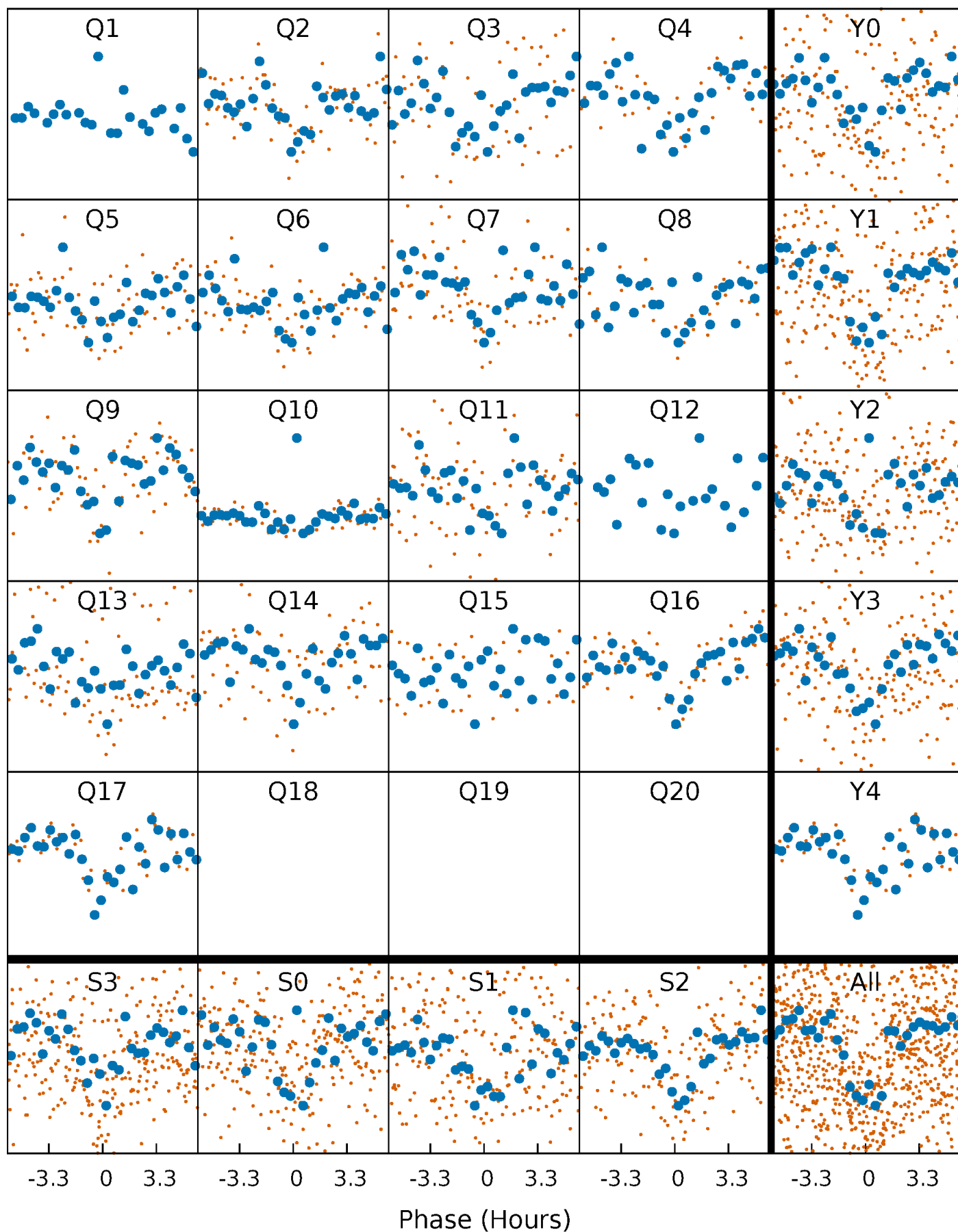


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



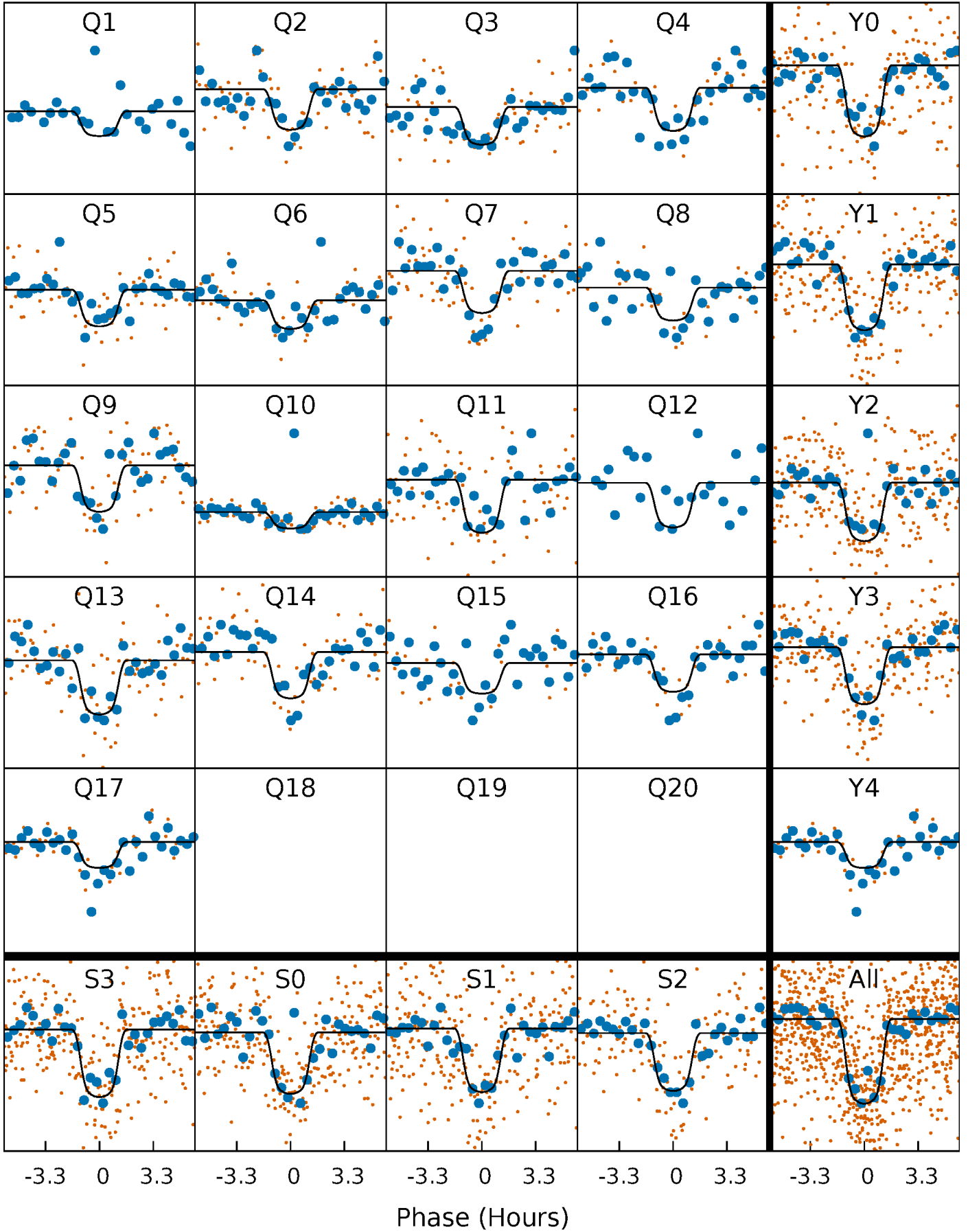
PDC Quarter-Phased Transit Curves

TCE 006119141-01 P= 29.072545 Days $T_0=136.974456$ (BKJD)



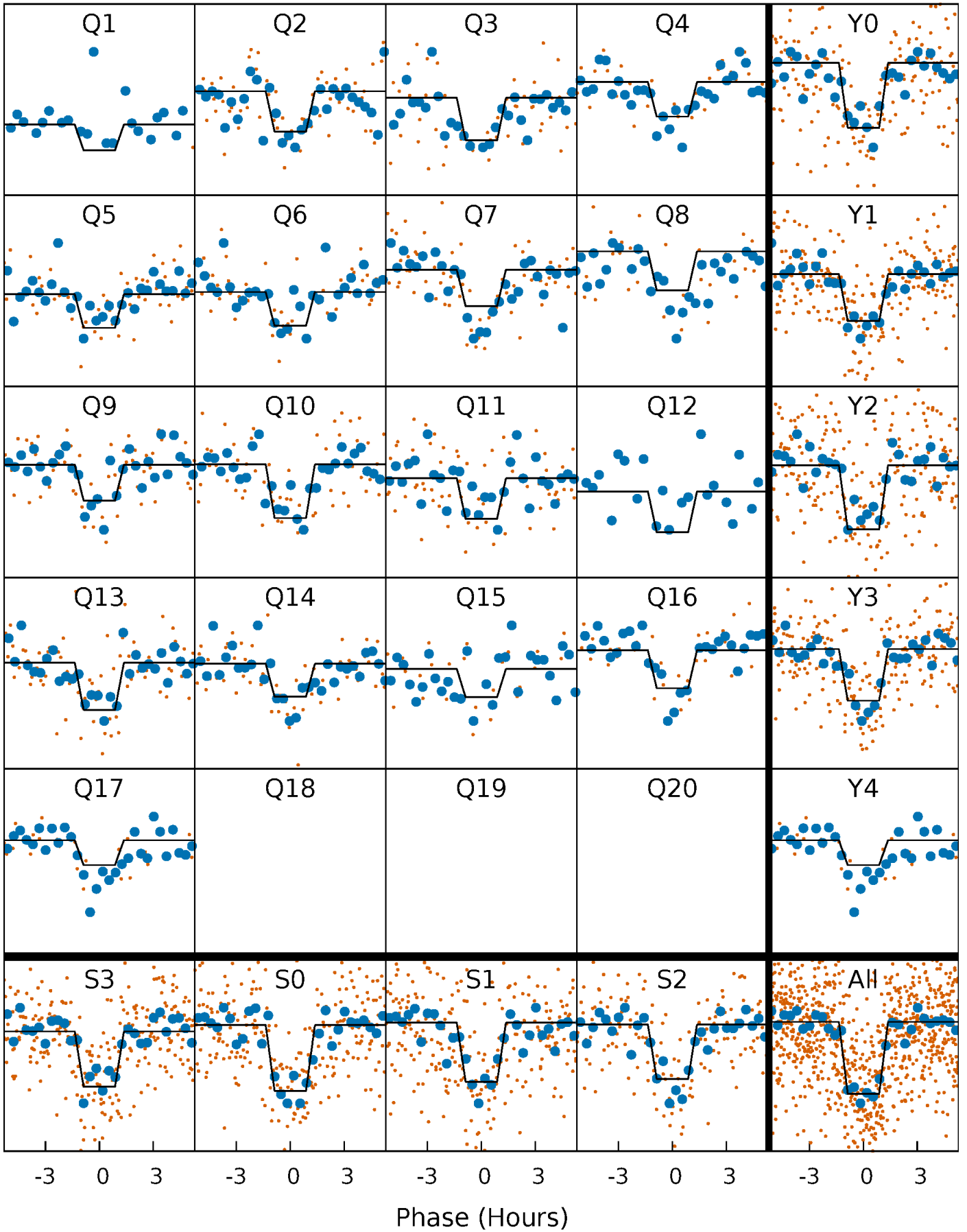
DV Quarter-Phased Transit Curves

TCE 006119141-01 P= 29.072545 Days $T_0=136.974456$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

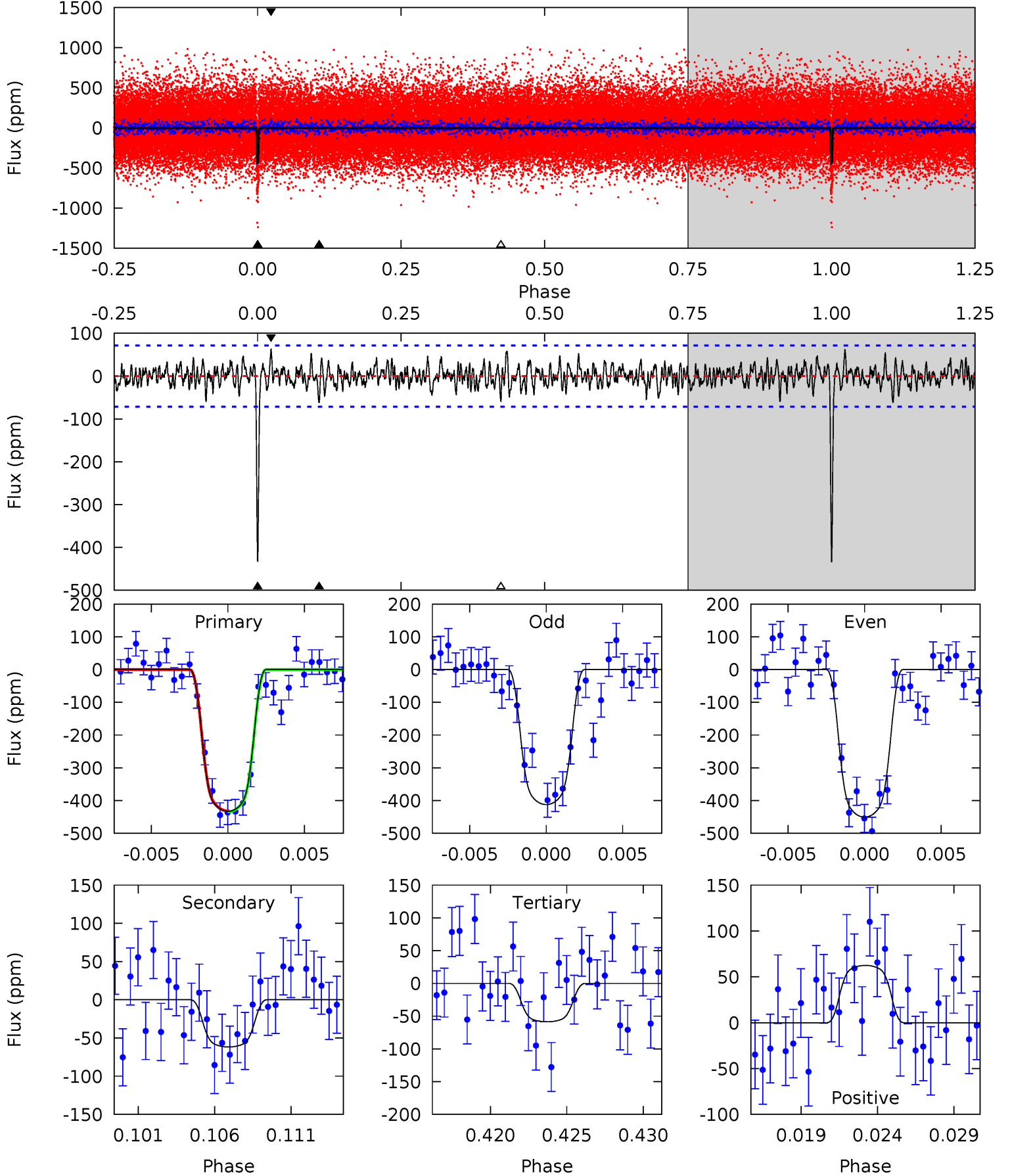
TCE 006119141-01 P= 29.072535 Days $T_0=136.976397$ (BKJD)



DV Model-Shift Uniqueness Test

006119141-01, $P = 29.072545$ Days, $E = 107.901911$ Days

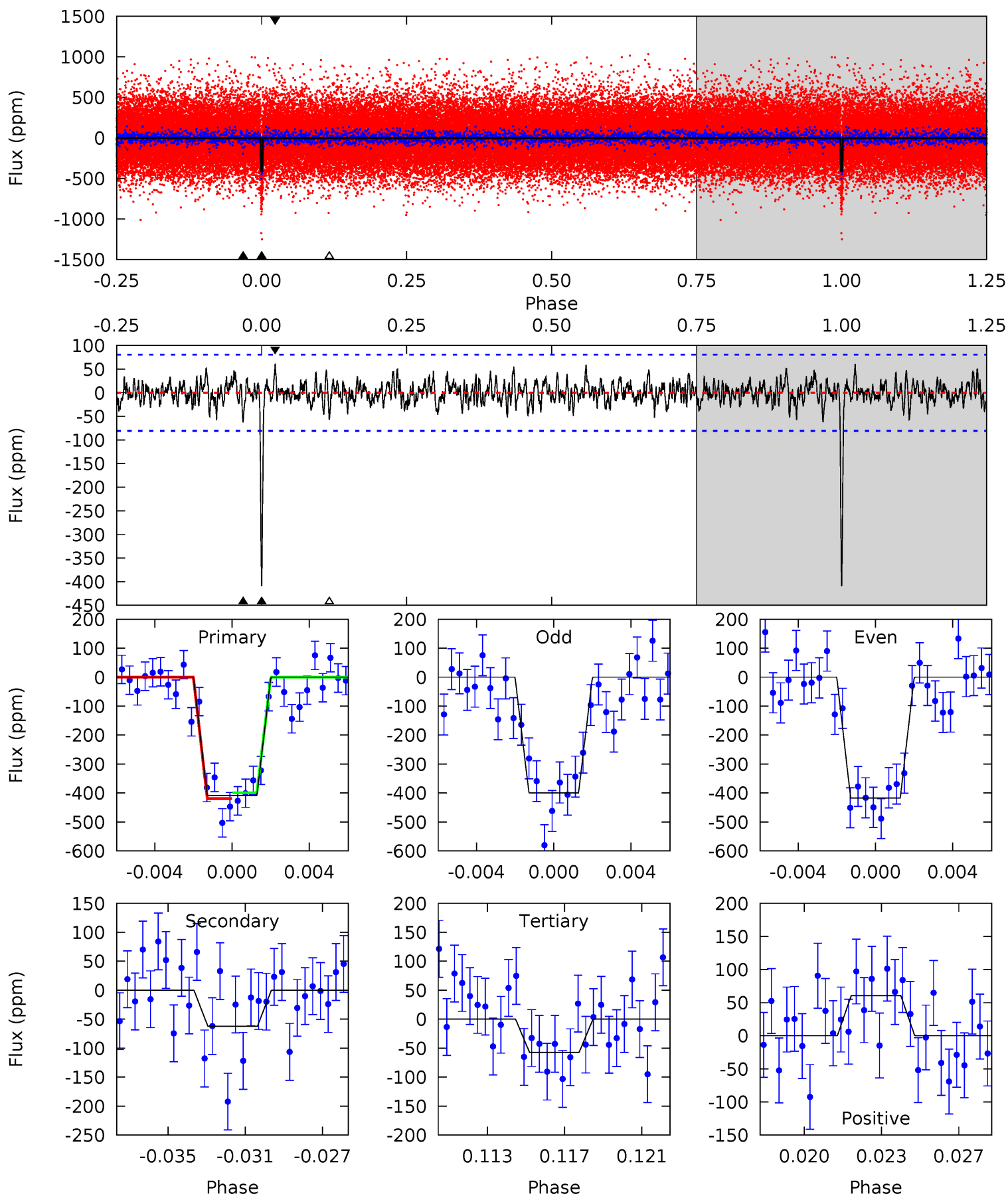
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.3	4.47	4.24	4.51	5.16	2.82	1.35	27.1	26.8	0.23	-0.05	1.38	0.95	0.13	0.10



Alt Model-Shift Uniqueness Test

006119141-01, P = 29.072535 Days, E = 107.903862 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.4	4.02	3.70	3.92	5.20	2.89	1.20	22.7	22.5	0.32	0.10	0.59	0.99	0.13	0.66



Stellar Parameters For KIC 006119141

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5799^{+157}_{-157}	$4.370^{+0.144}_{-0.192}$	$-0.120^{+0.300}_{-0.300}$	$1.042^{+0.301}_{-0.162}$	$0.928^{+0.137}_{-0.095}$	$1.155^{+0.691}_{-0.583}$
	+3%/-3%	+3%/-4%	+250%/-250%	+29%/-16%	+15%/-10%	+60%/-50%
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 006119141-01 / KOI 2343.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-62 ± 14	$2.80^{+0.50}_{-0.35}$	864^{+67}_{-57}	3701^{+175}_{-194}	137^{+60}_{-45}
Alt.	-62 ± 15	$2.30^{+0.42}_{-0.30}$	862^{+59}_{-49}	3950^{+224}_{-225}	209^{+86}_{-74}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

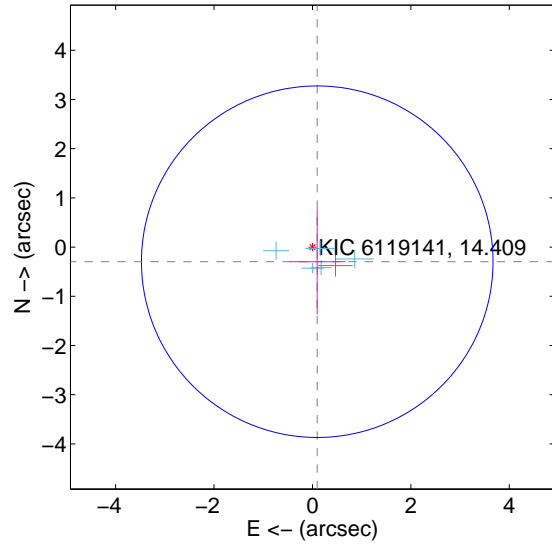
Supplemental centroid analysis for 006119141-01. Kepler magnitude: 14.41. Transit SNR 19.87

There are 6 quarters with good PRF difference image offsets

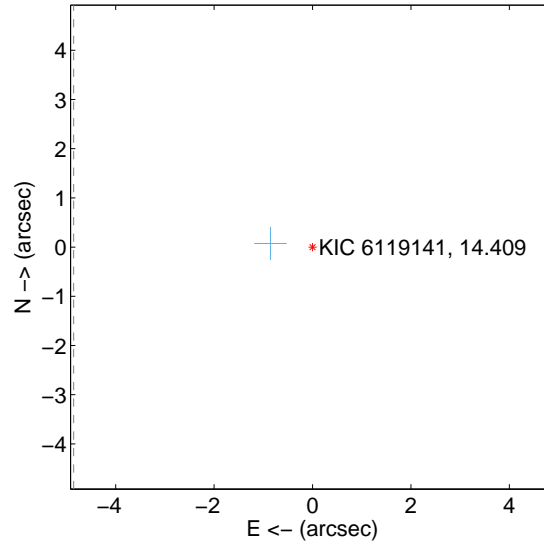
The OOT PRF centroid is offset from the target star catalog position by about 12.71 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.313 ± 1.191	0.26	-0.097 ± 0.566	-0.297 ± 1.075
PRF-fit source offset from KIC position	11.493 ± 1.566	7.34	4.854 ± 0.911	10.417 ± 1.377
photometric centroid source offset	1.71 ± 0.80	2.14	0.47 ± 0.73	1.64 ± 0.80

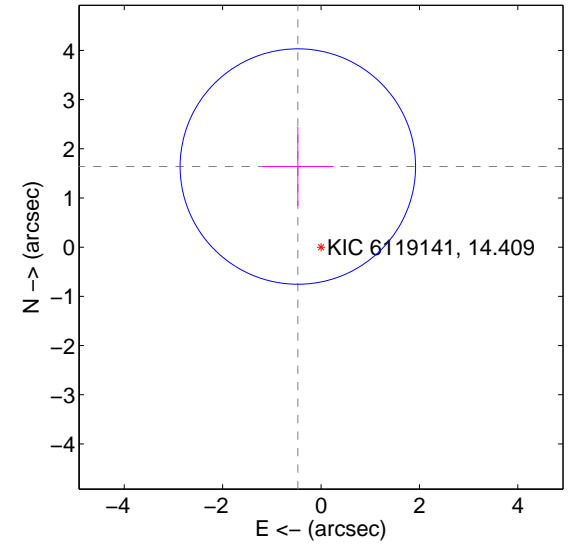
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

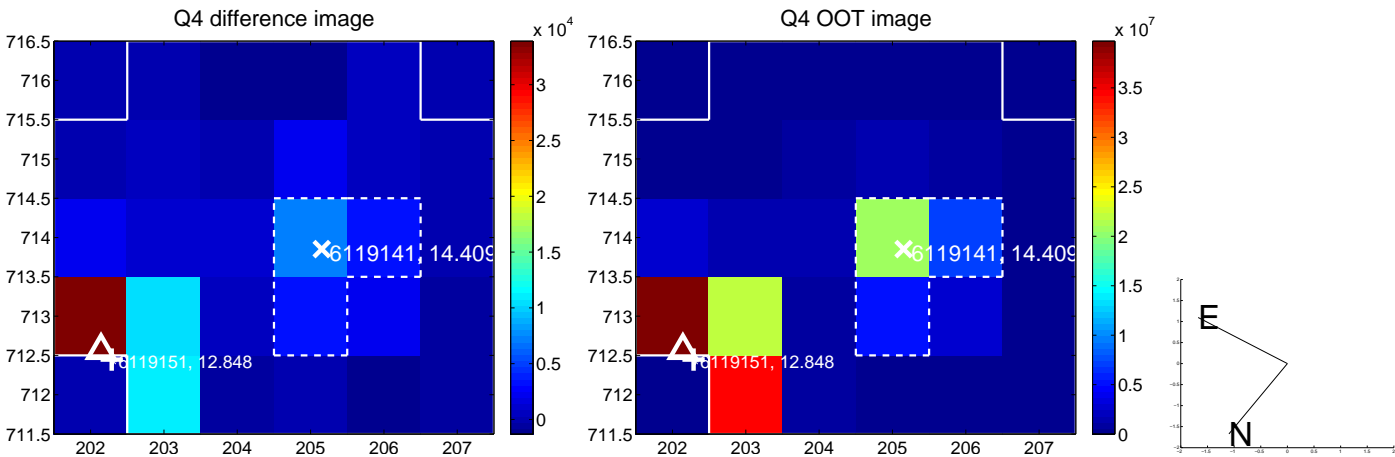
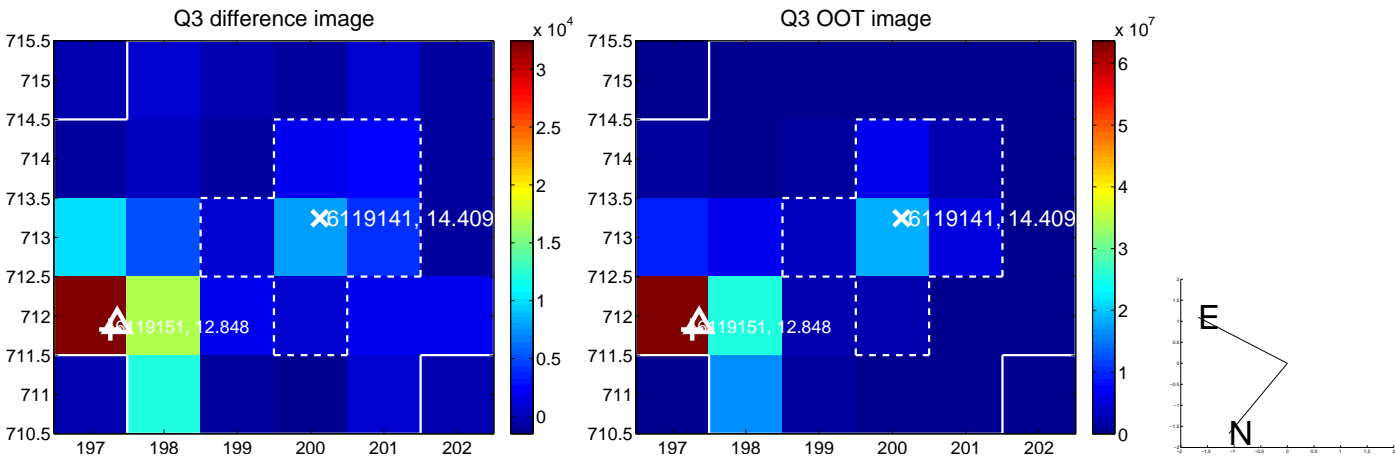
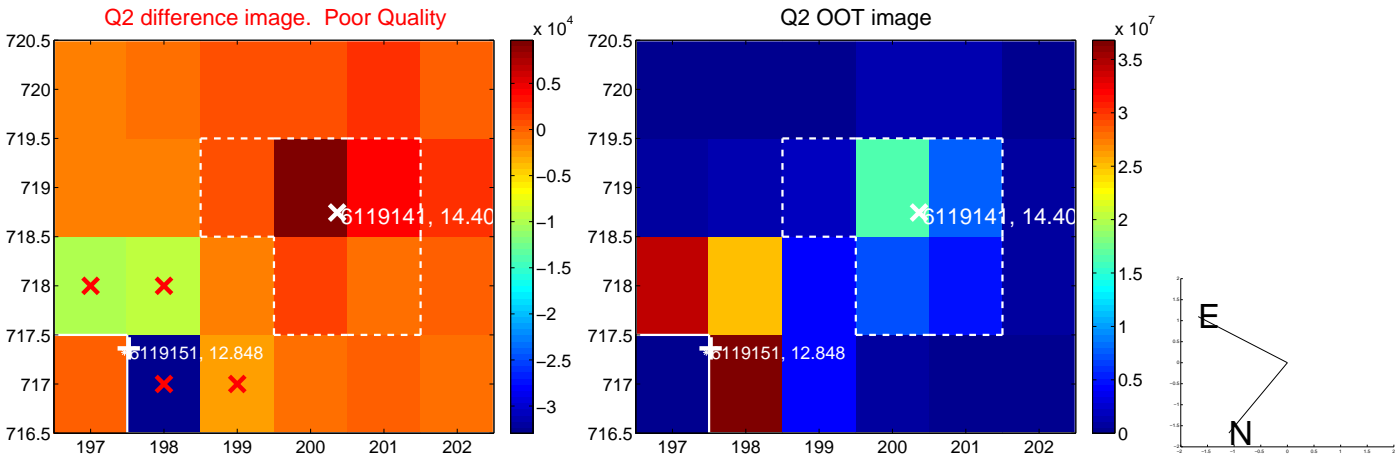
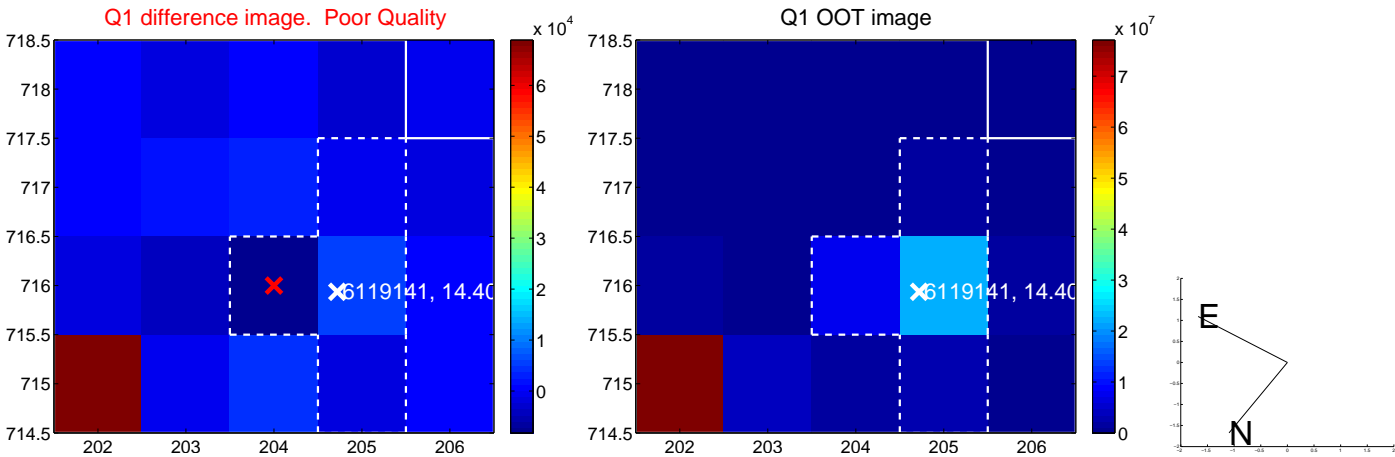


offset from photometric centroids

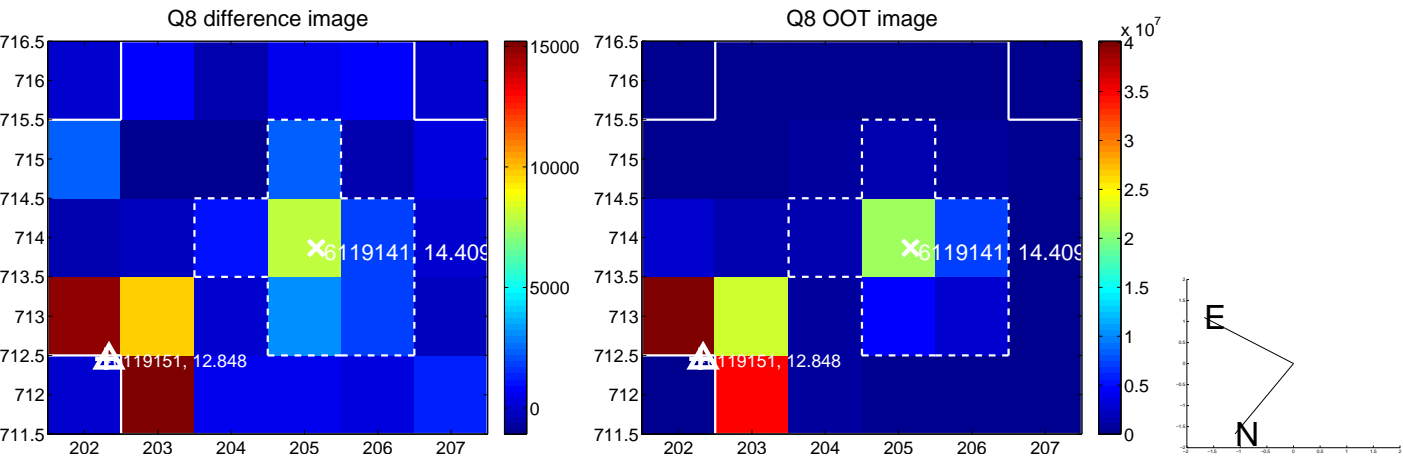
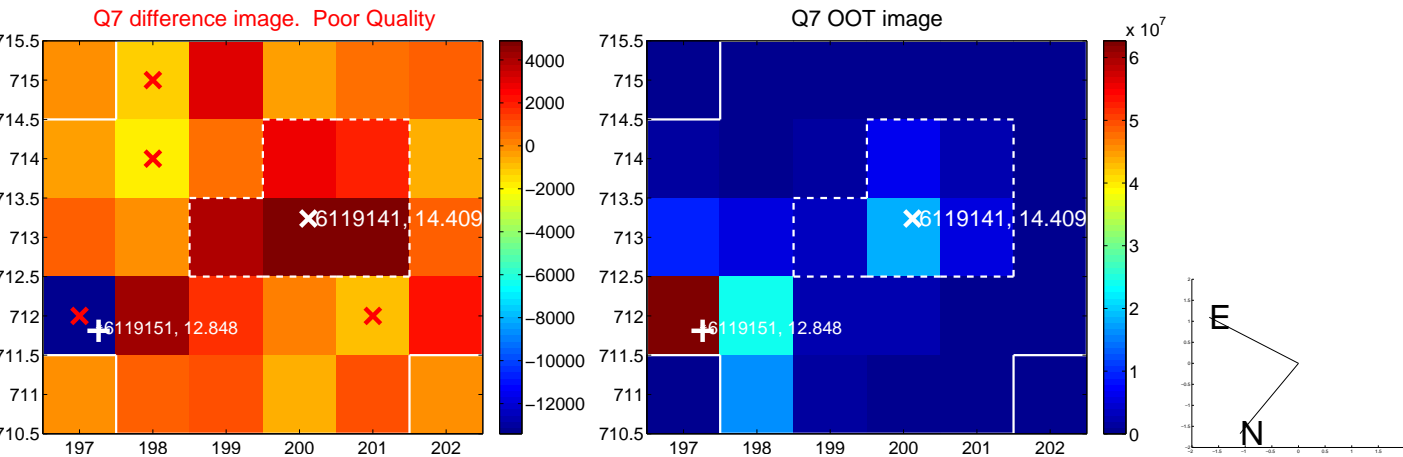
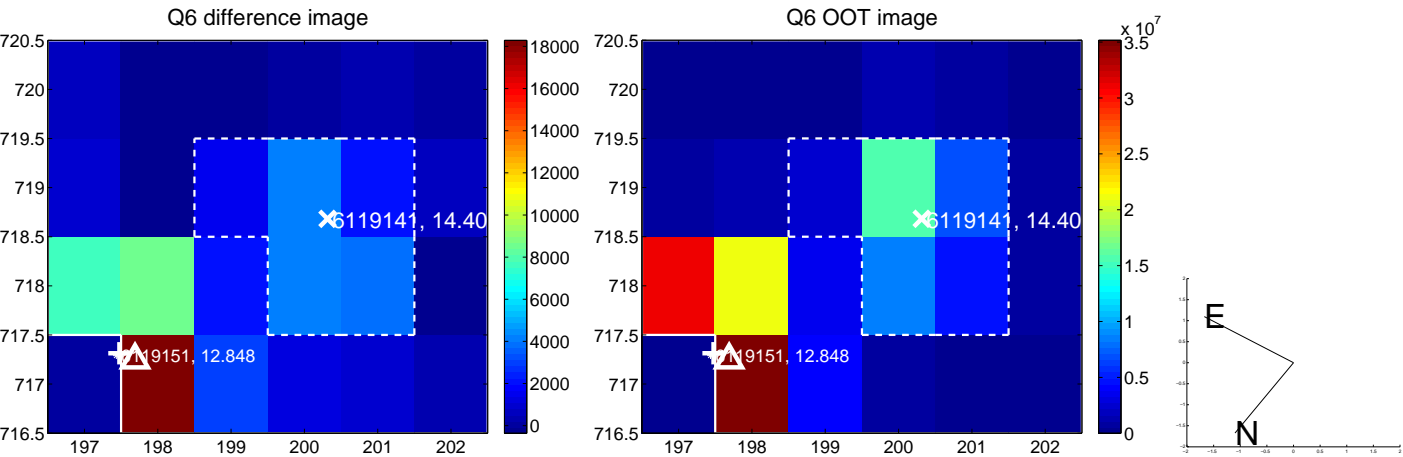
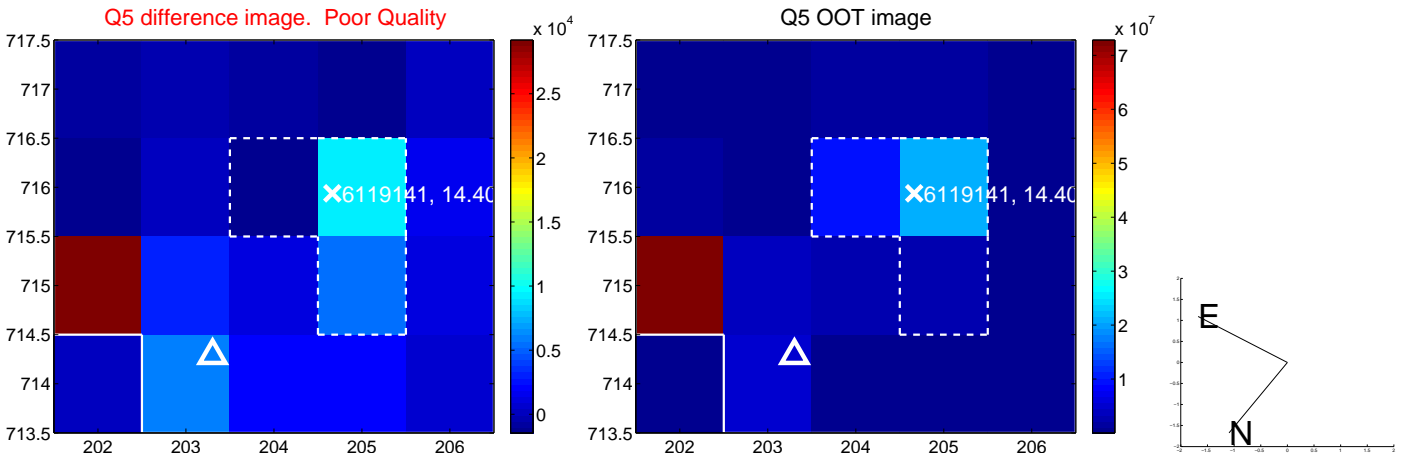


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

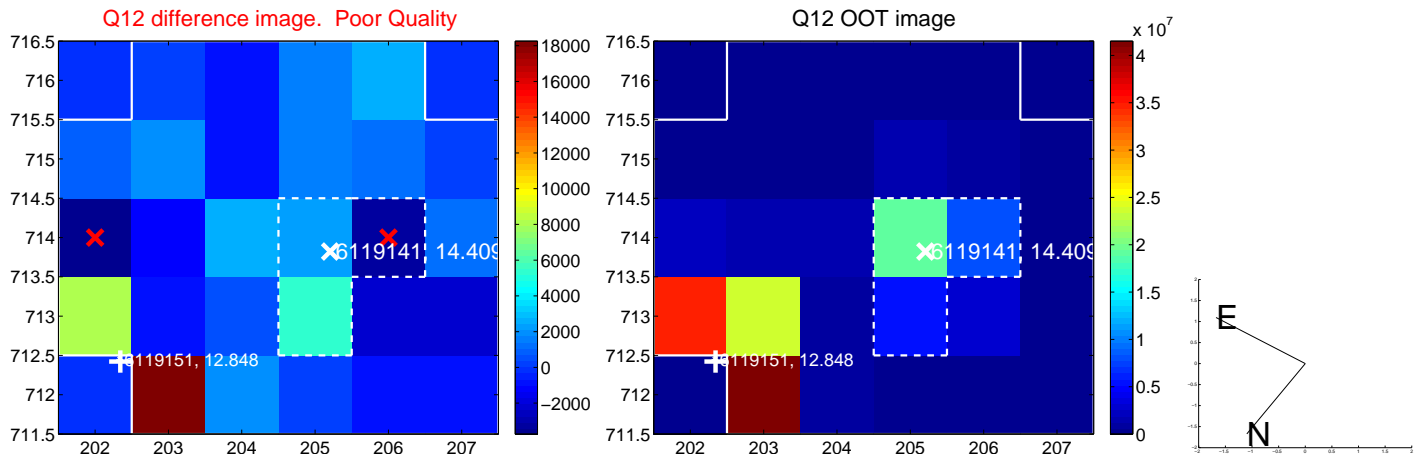
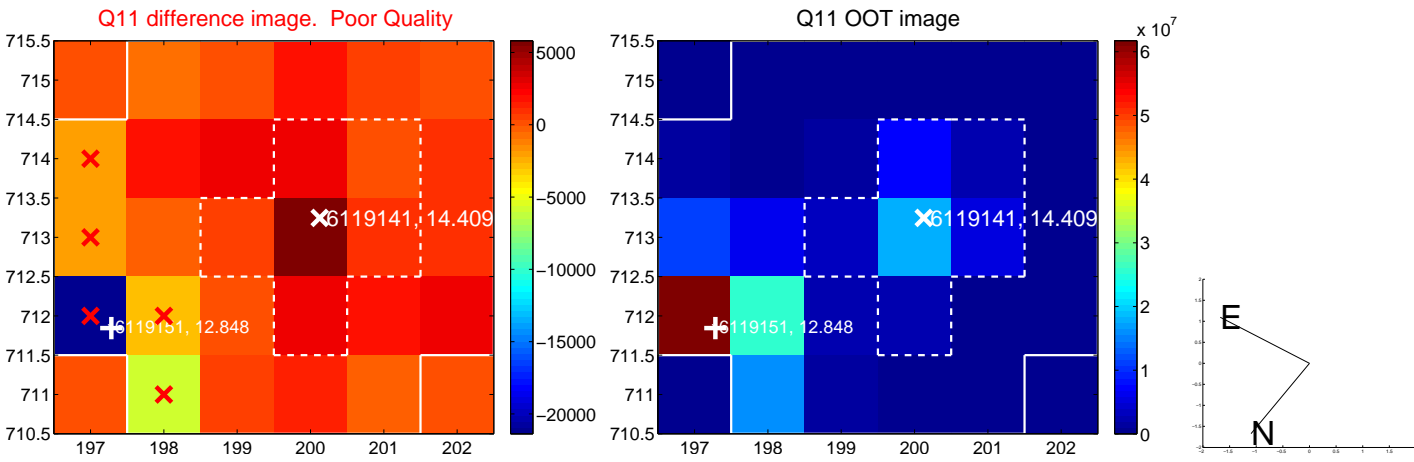
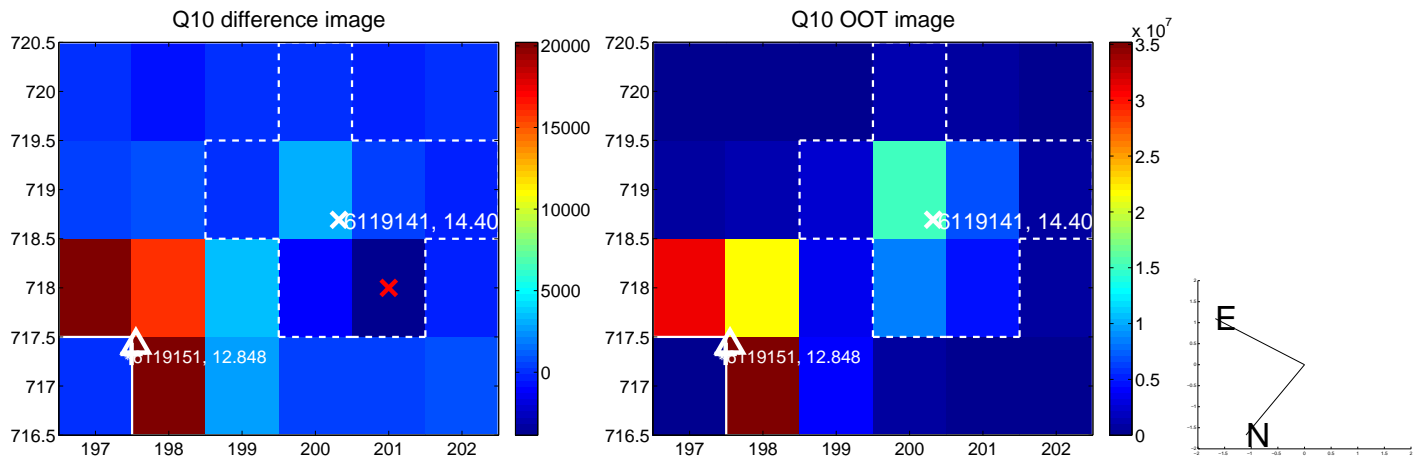
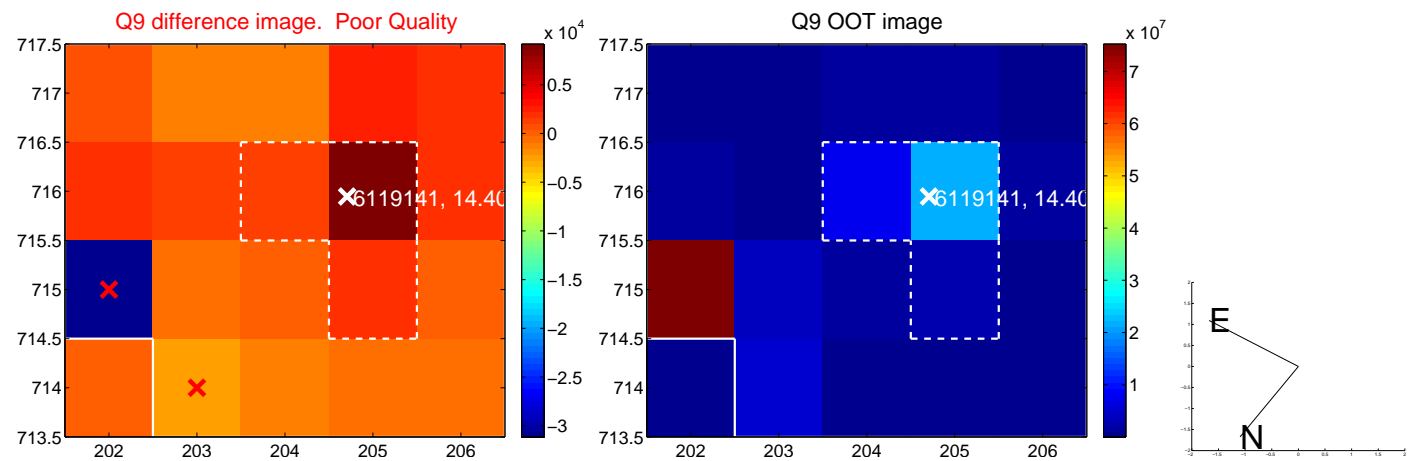
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



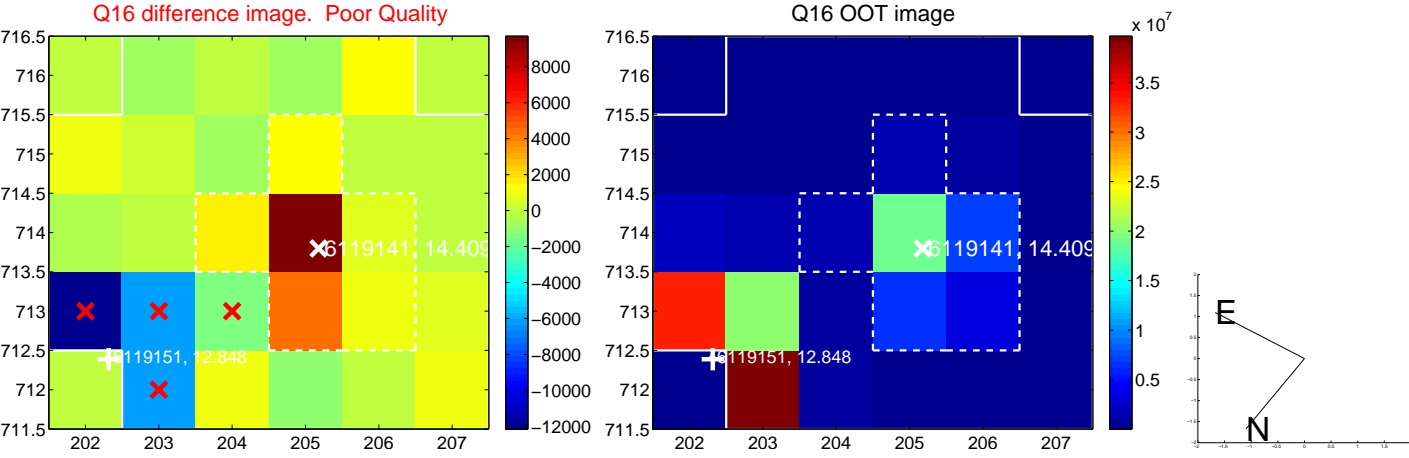
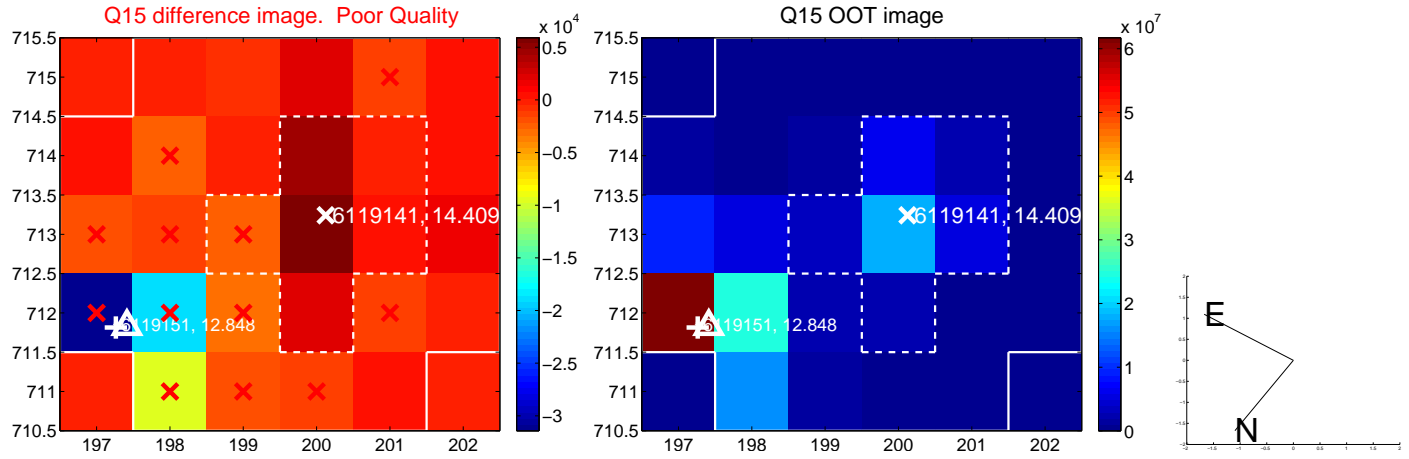
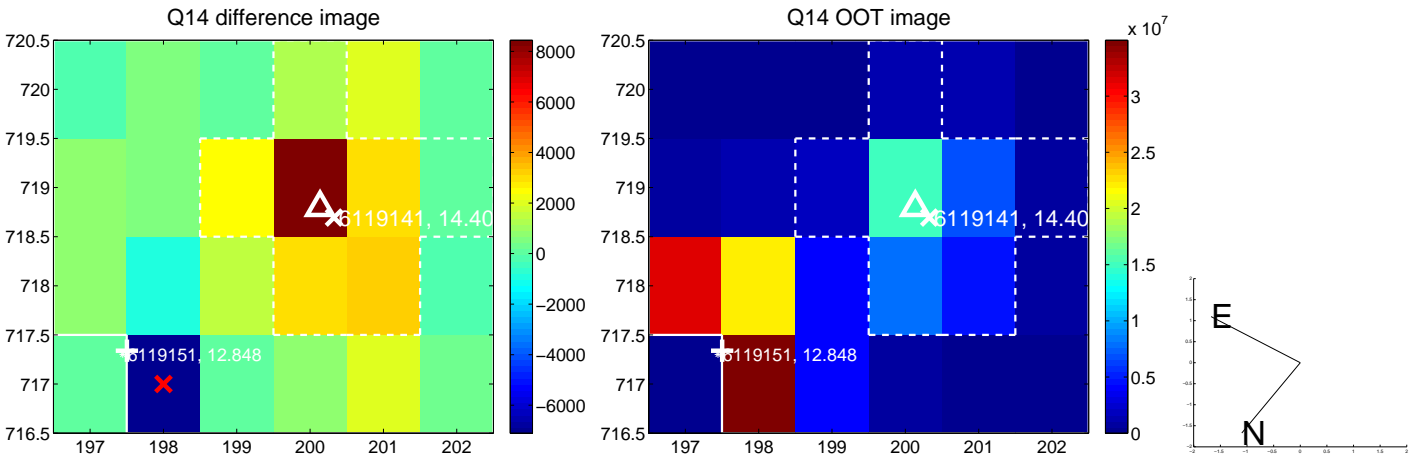
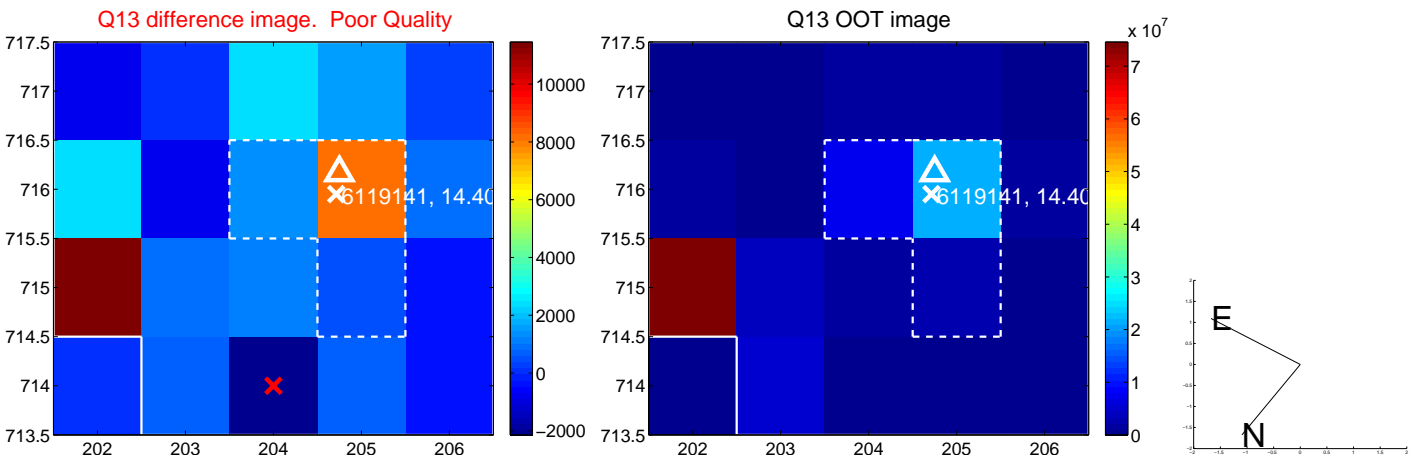
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



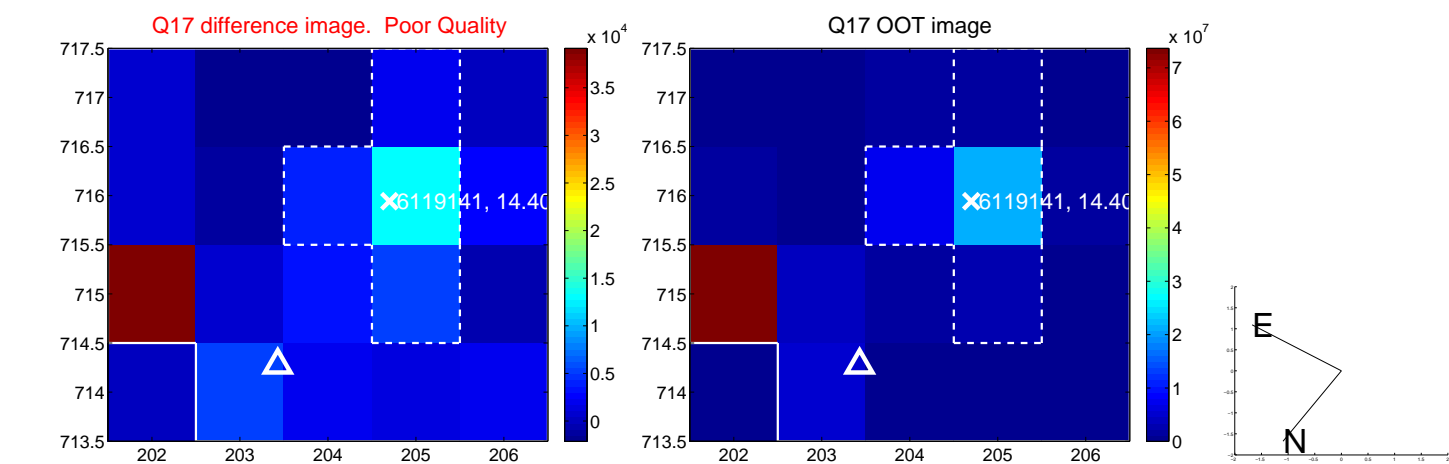
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



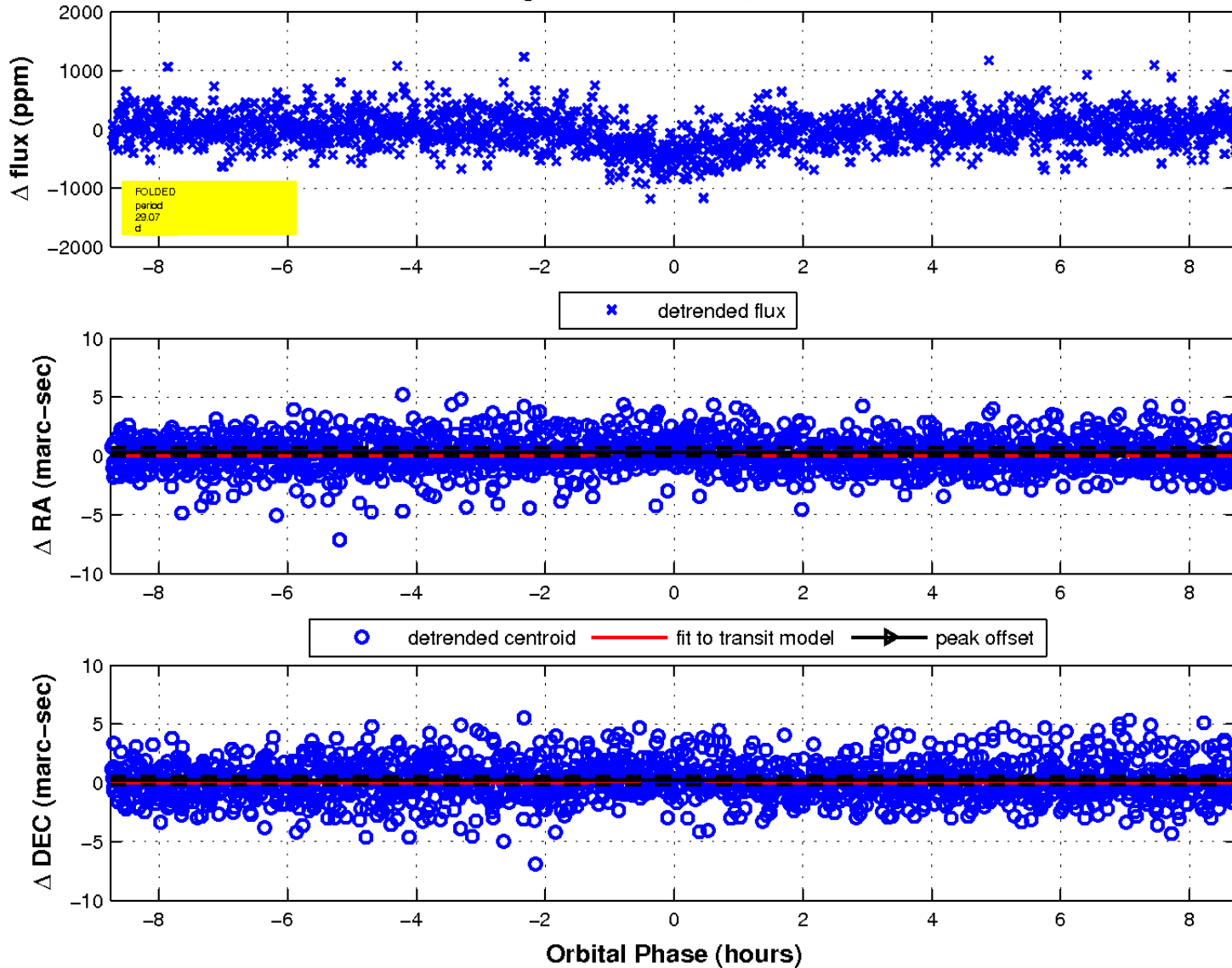
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

