

KIC 011963206

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})
011963206-01	OBS	2820.01	3.009109	131.629589	188.8	2.368	14.8	15.7	0.89	5713	1.46	453.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011963206-01	OBS	PC	1.00	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.

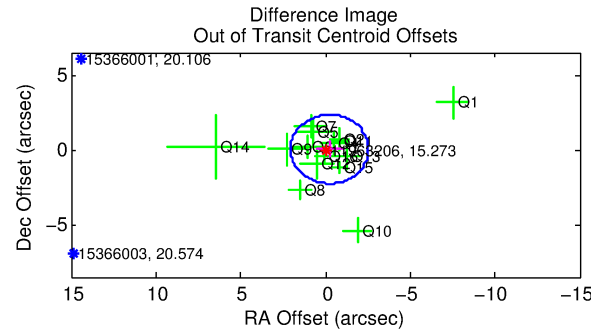
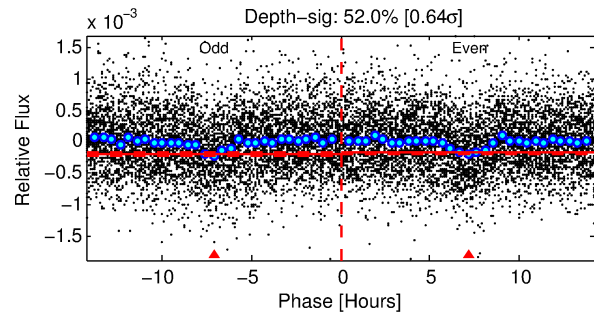
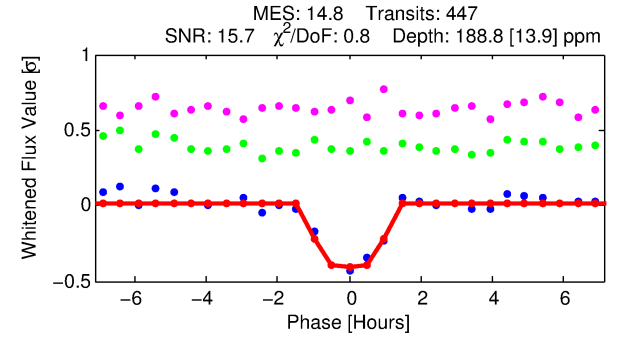
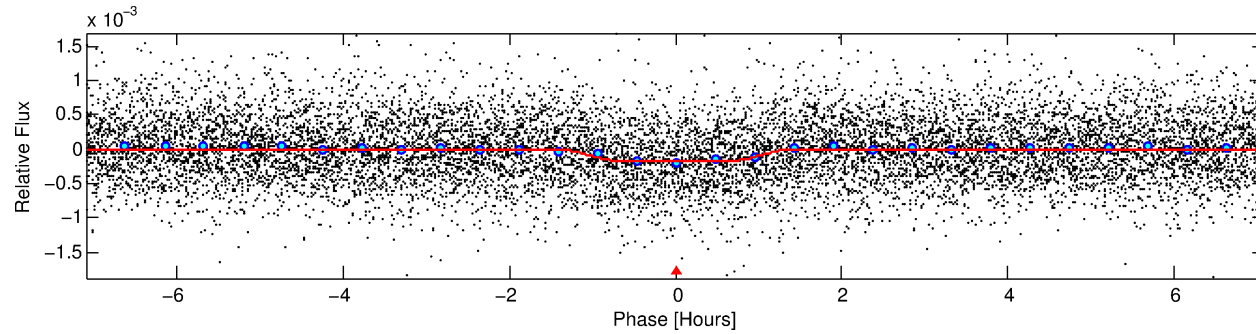
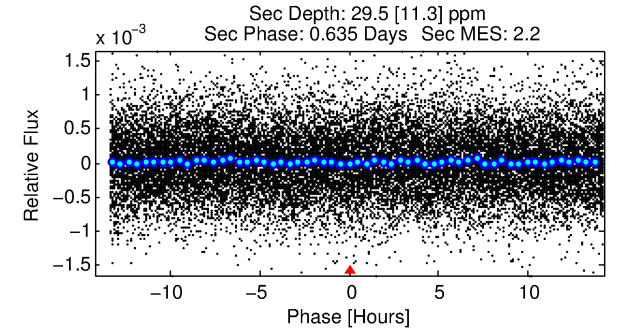
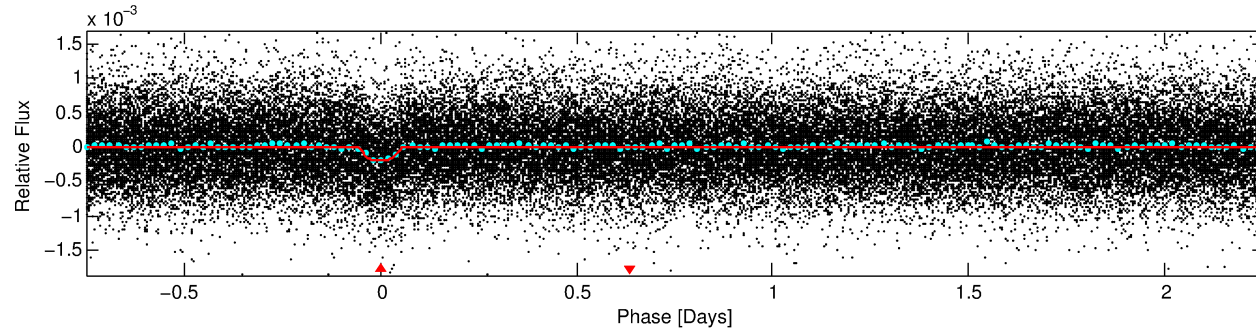
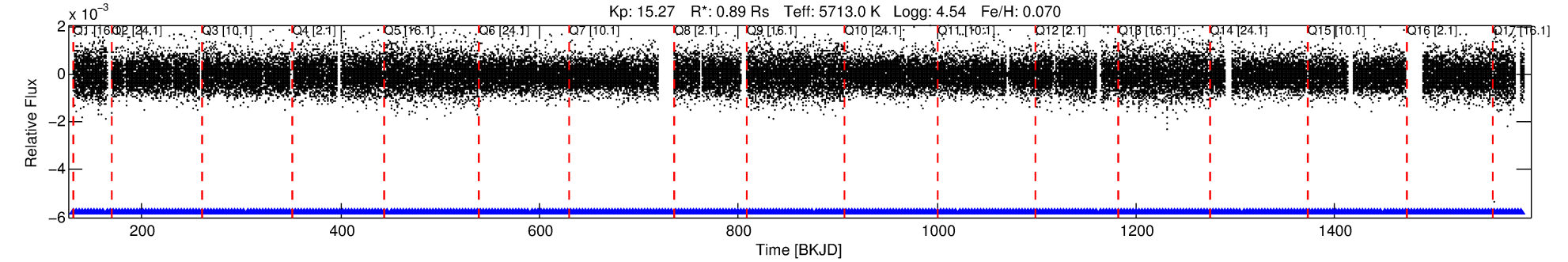
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011963206-01

No Significant Match Found

DV One-Page Summary

KIC: 11963206 Candidate: 1 of 1 Period: 3.009 d
KOI: K02820.01 Corr: 0.966



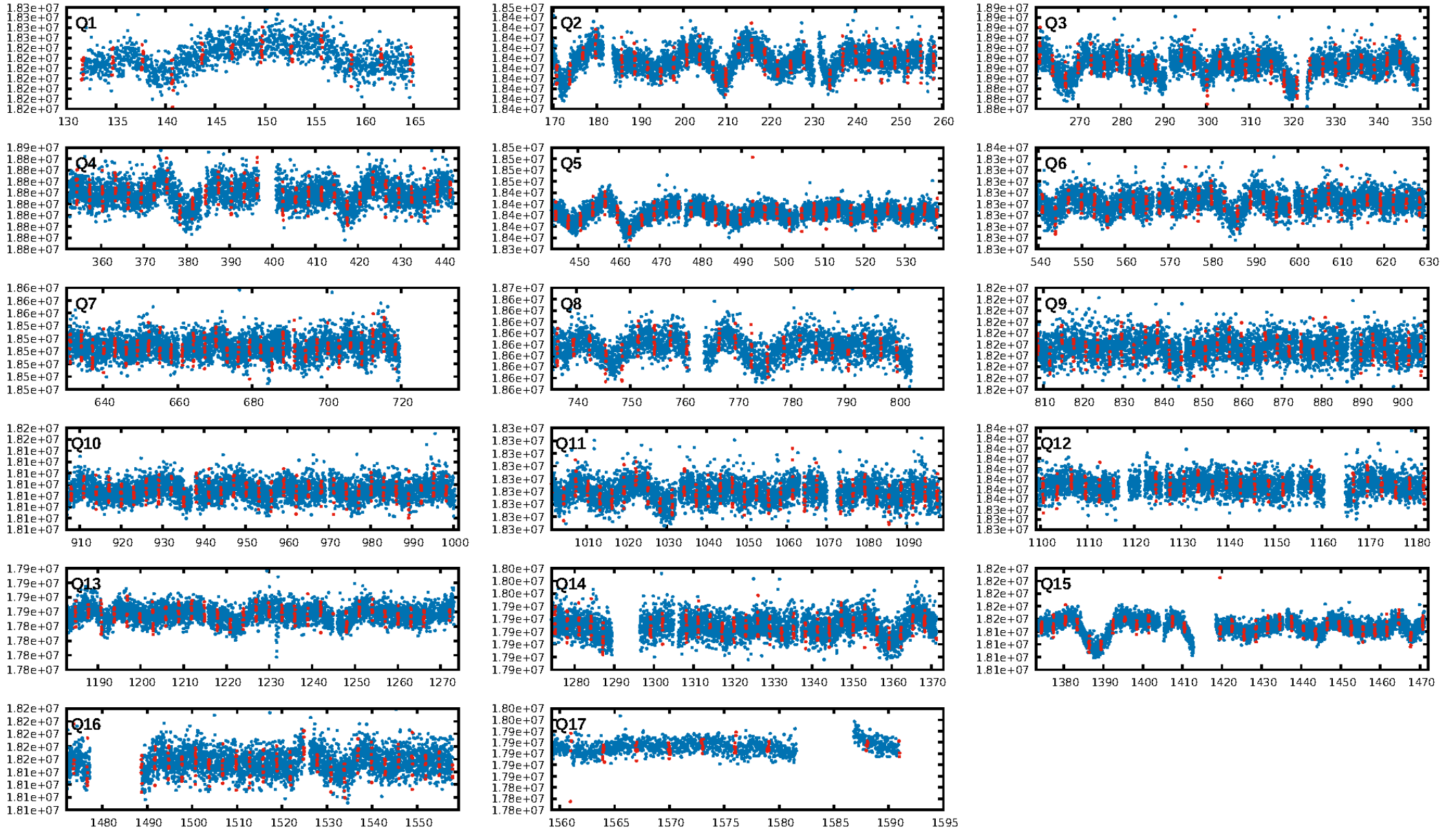
DV Fit Results:

Period = 3.00911 [0.00001] d
Epoch = 131.6296 [0.0025] BKJD
Rp/R* = 0.0150 [0.0069]
a/R* = 4.70 [9.66]
b = 0.90 [0.48]
Seff = 453.94 [84.52]
Teff = 1177 [55] K
Rp = 1.46 [0.70] Re
a = 0.0409 [0.0047] AU
Ag = 12.73 [12.94] [0.91 σ]
Teffp = 3437 [863] K [2.62 σ]

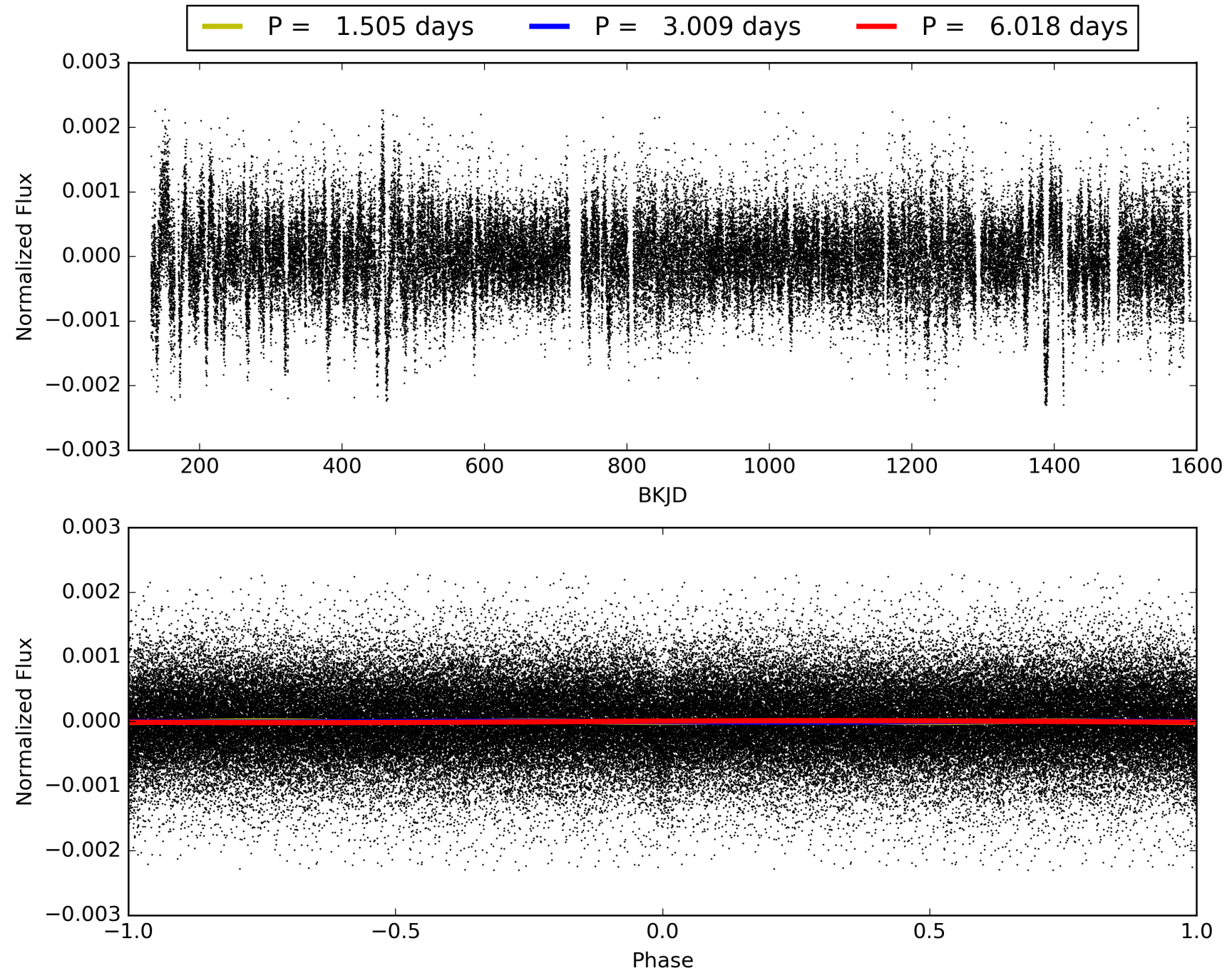
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.89e-49
RollingBand-fgt: 1.00 [426/426]
GhostDiagnostic-chr: 4.522
Centroid-sig: 5.2%
Centroid-so: 1.821 arcsec [1.98 σ]
OotOffset-rm: 0.232 arcsec [0.30 σ]
KicOffset-rm: 0.297 arcsec [0.40 σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.53 [8/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011963206-01, PDC Light Curves

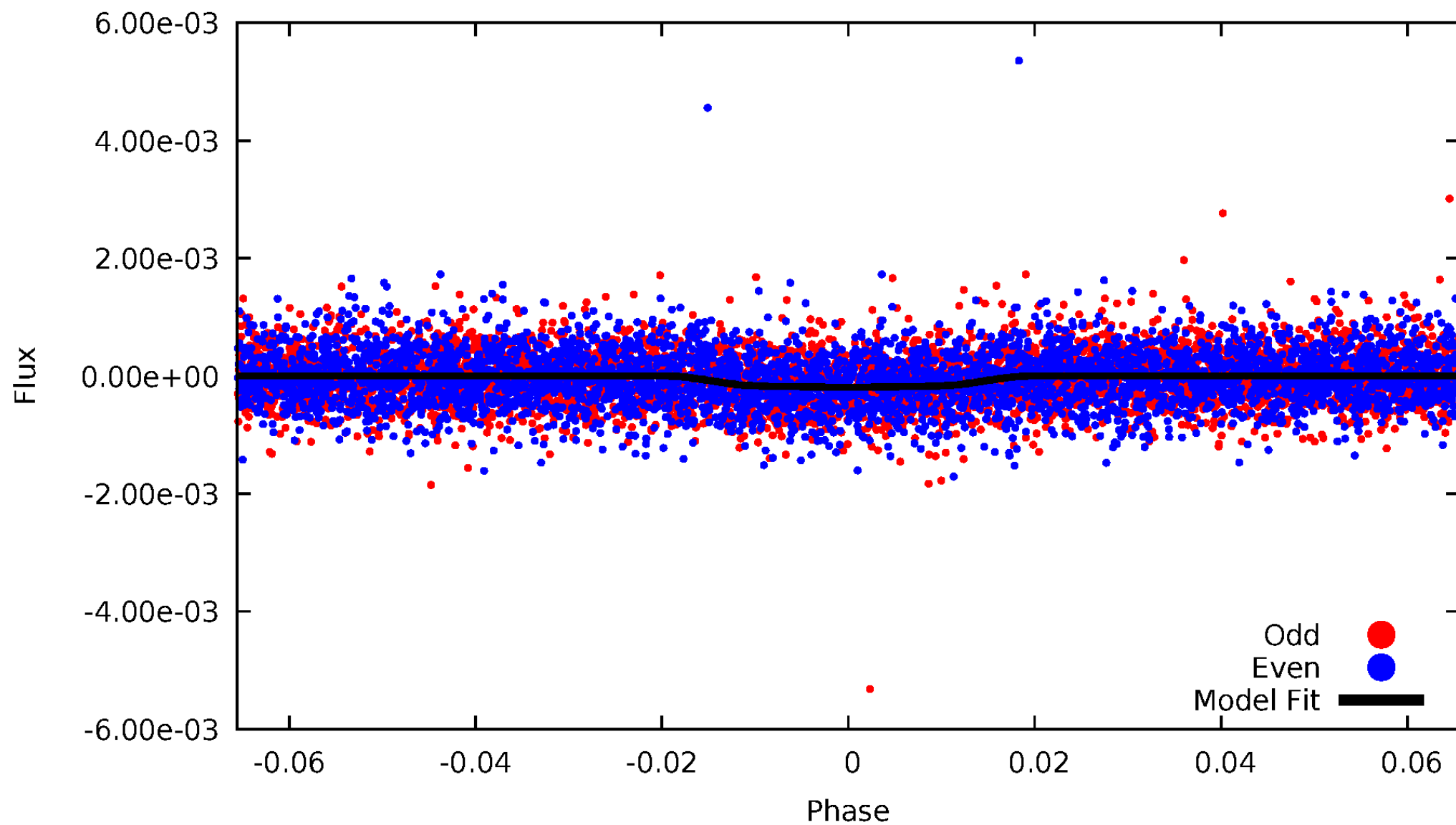


TCE 011963206-01



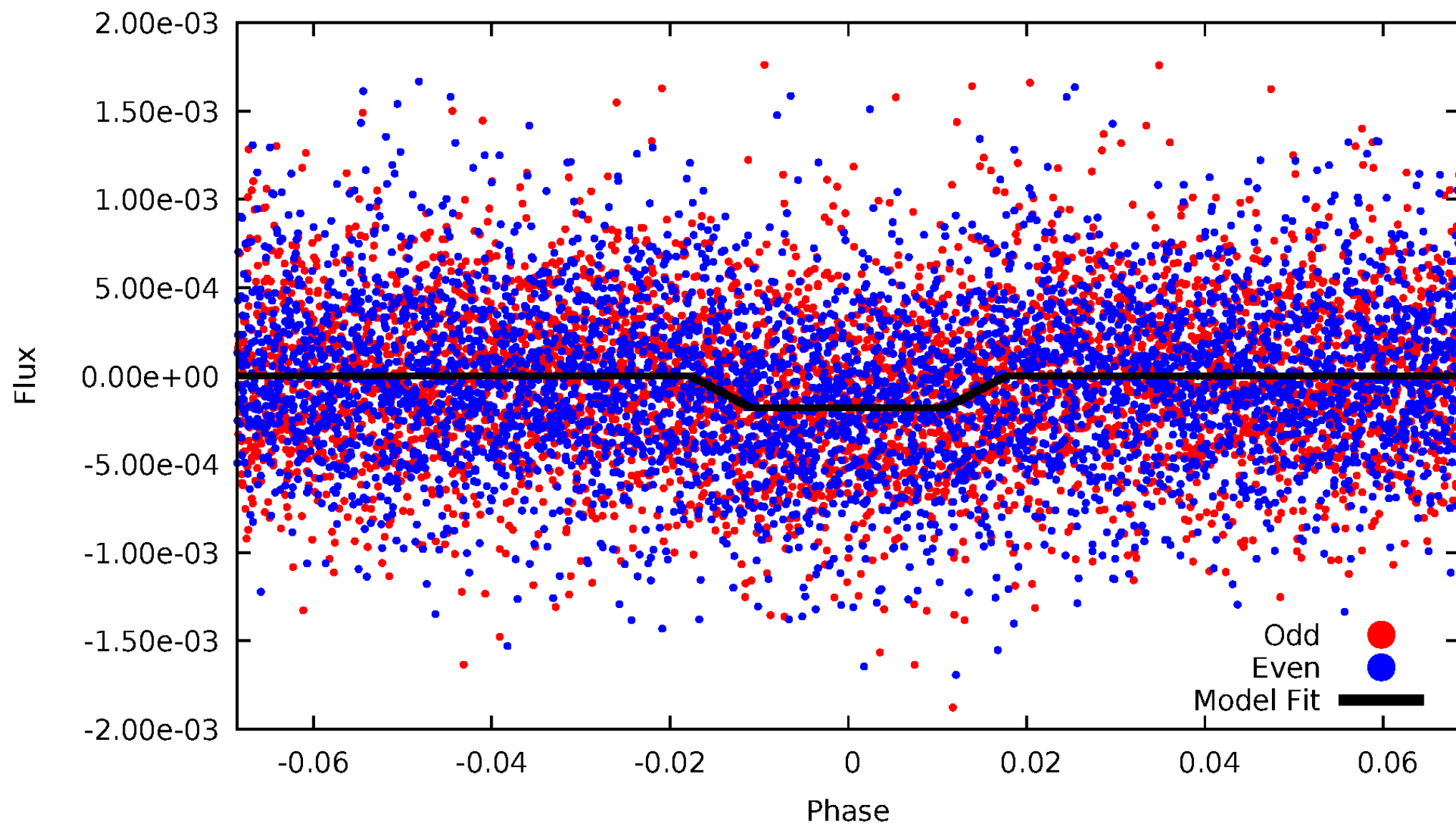
DV Odd/Even

TCE 011963206-01

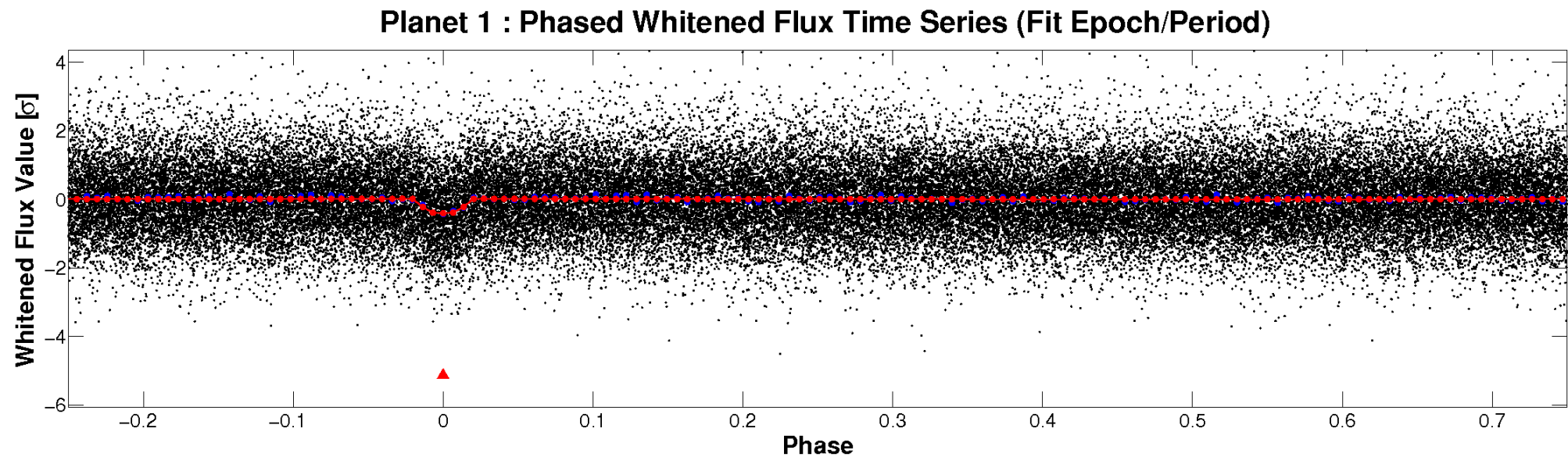
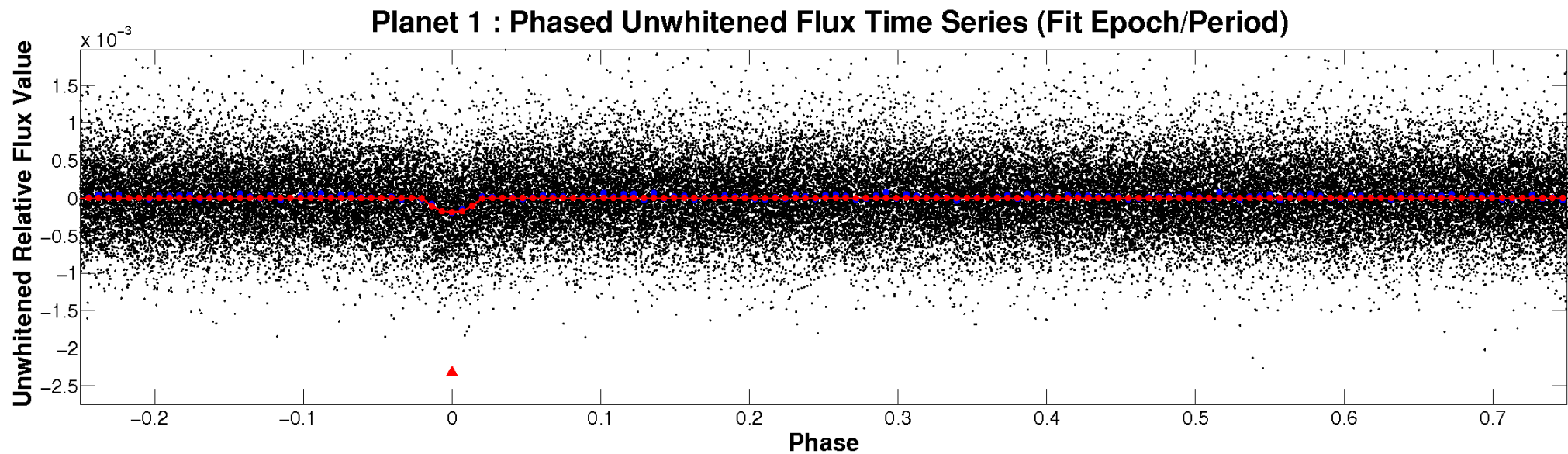


ALT Odd/Even

TCE 011963206-01

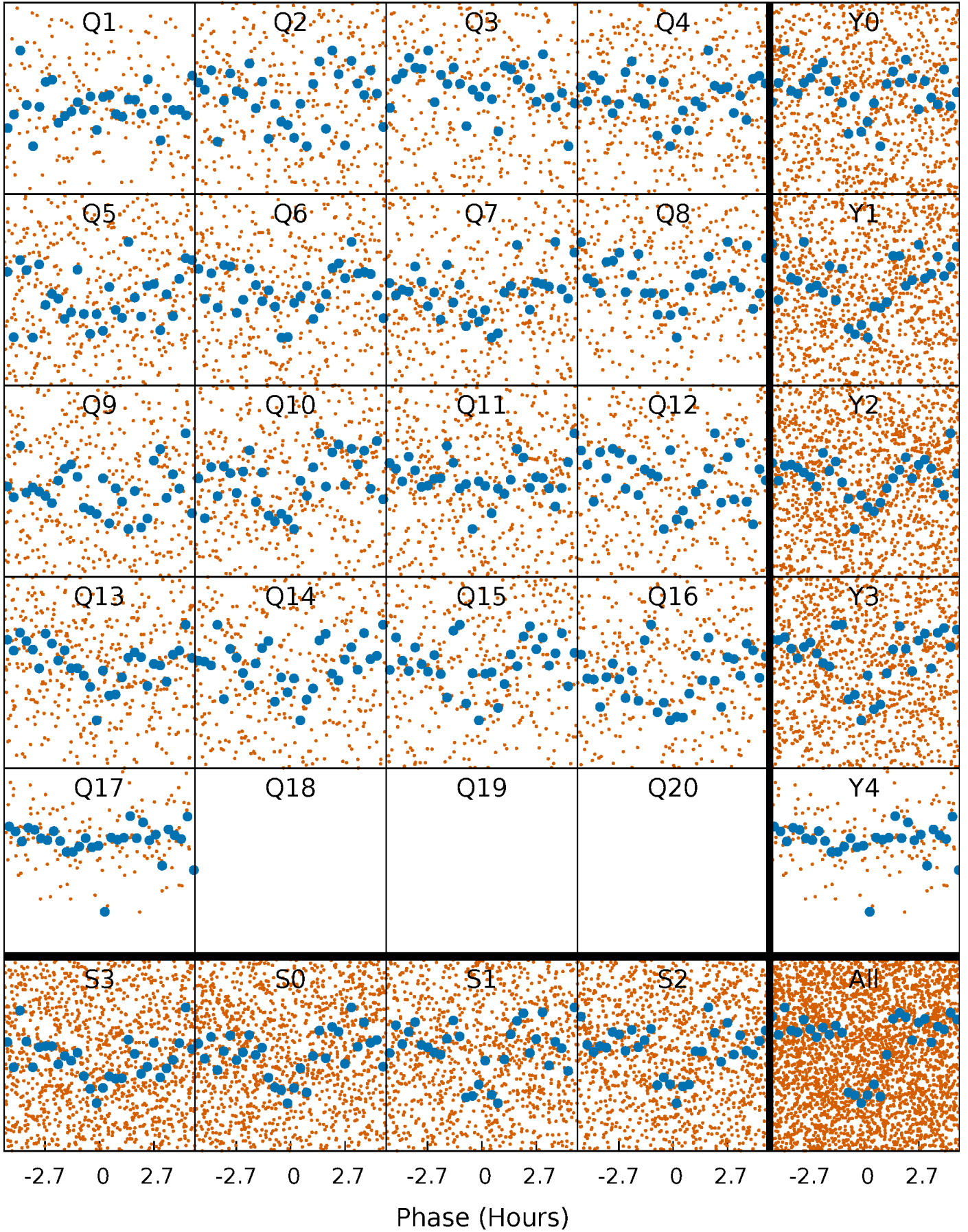


Non-Whitened Vs. Whitened Light Curve



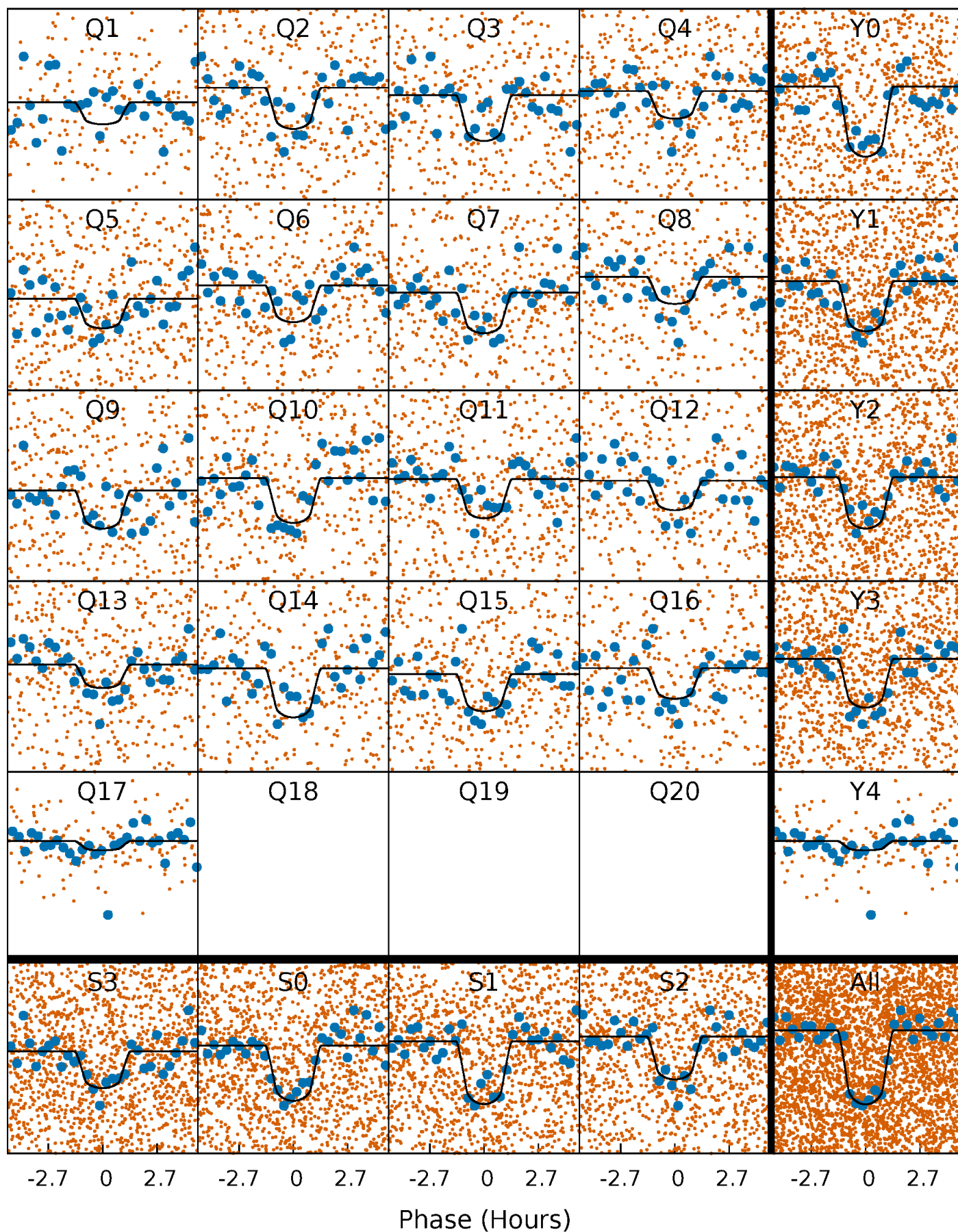
PDC Quarter-Phased Transit Curves

TCE 011963206-01 P= 3.009109 Days $T_0=131.629589$ (BKJD)



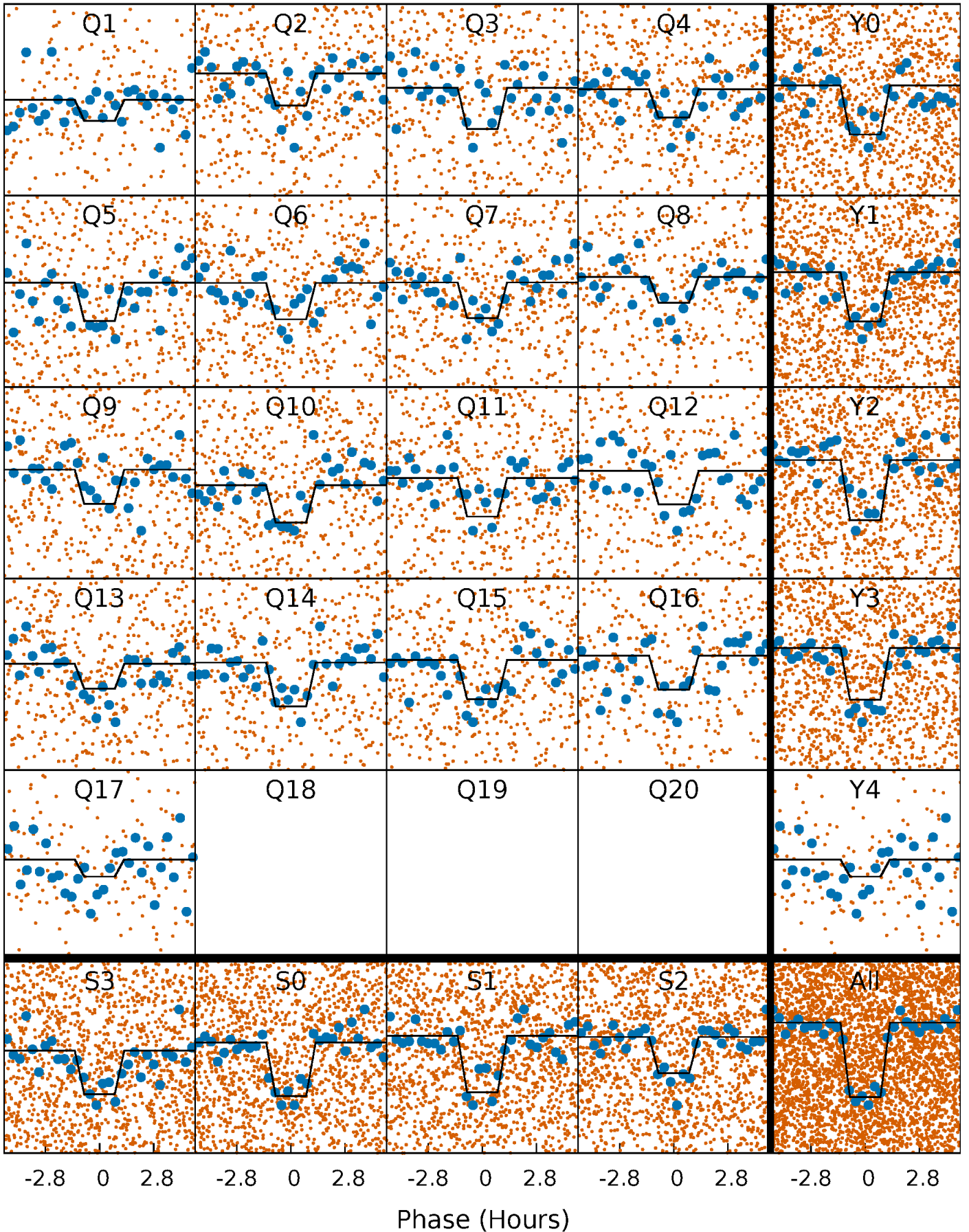
DV Quarter-Phased Transit Curves

TCE 011963206-01 P= 3.009109 Days $T_0=131.629589$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

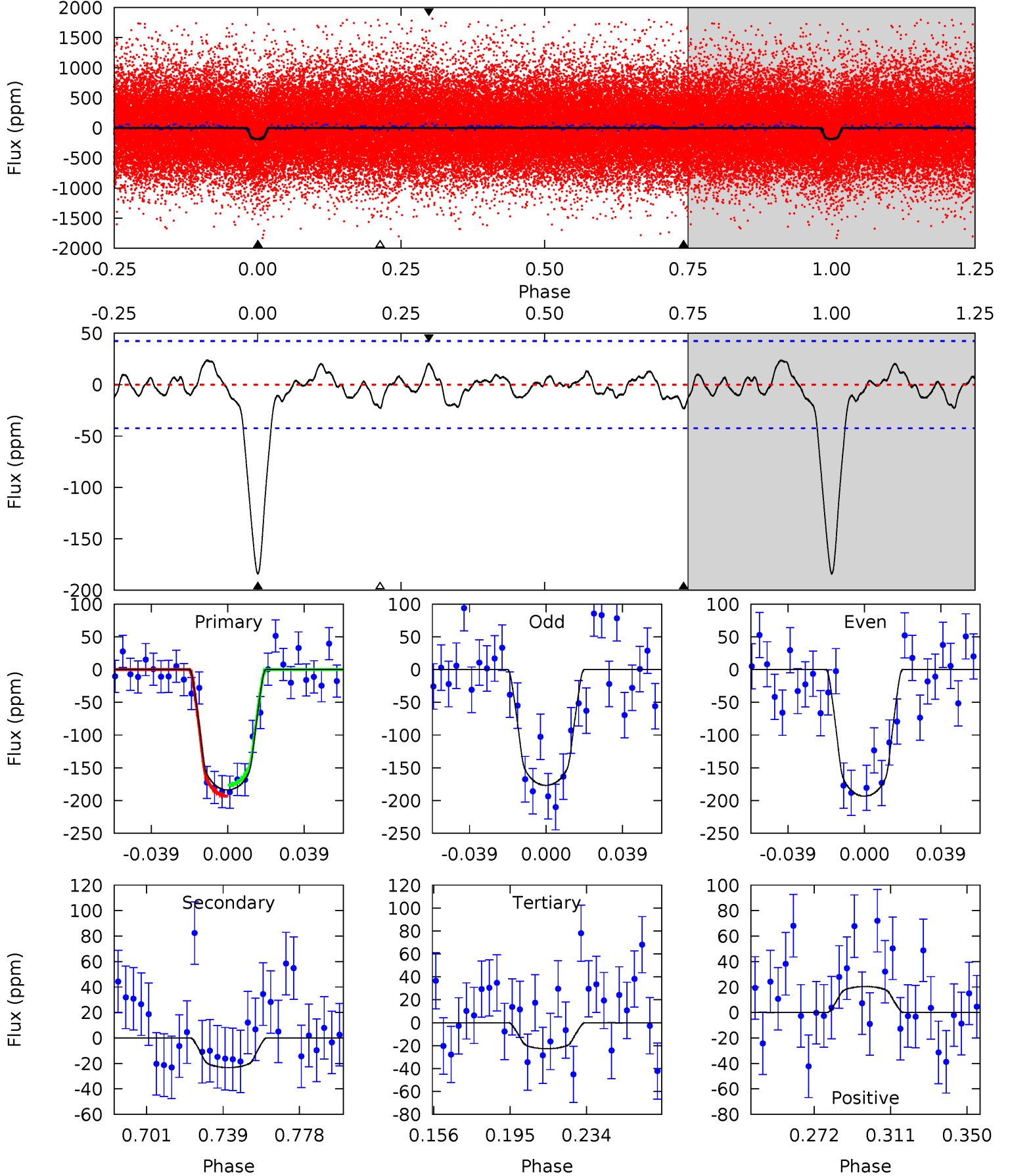
TCE 011963206-01 P= 3.009133 Days $T_0=131.624287$ (BKJD)



DV Model-Shift Uniqueness Test

011963206-01, P = 3.009109 Days, E = 128.620480 Days

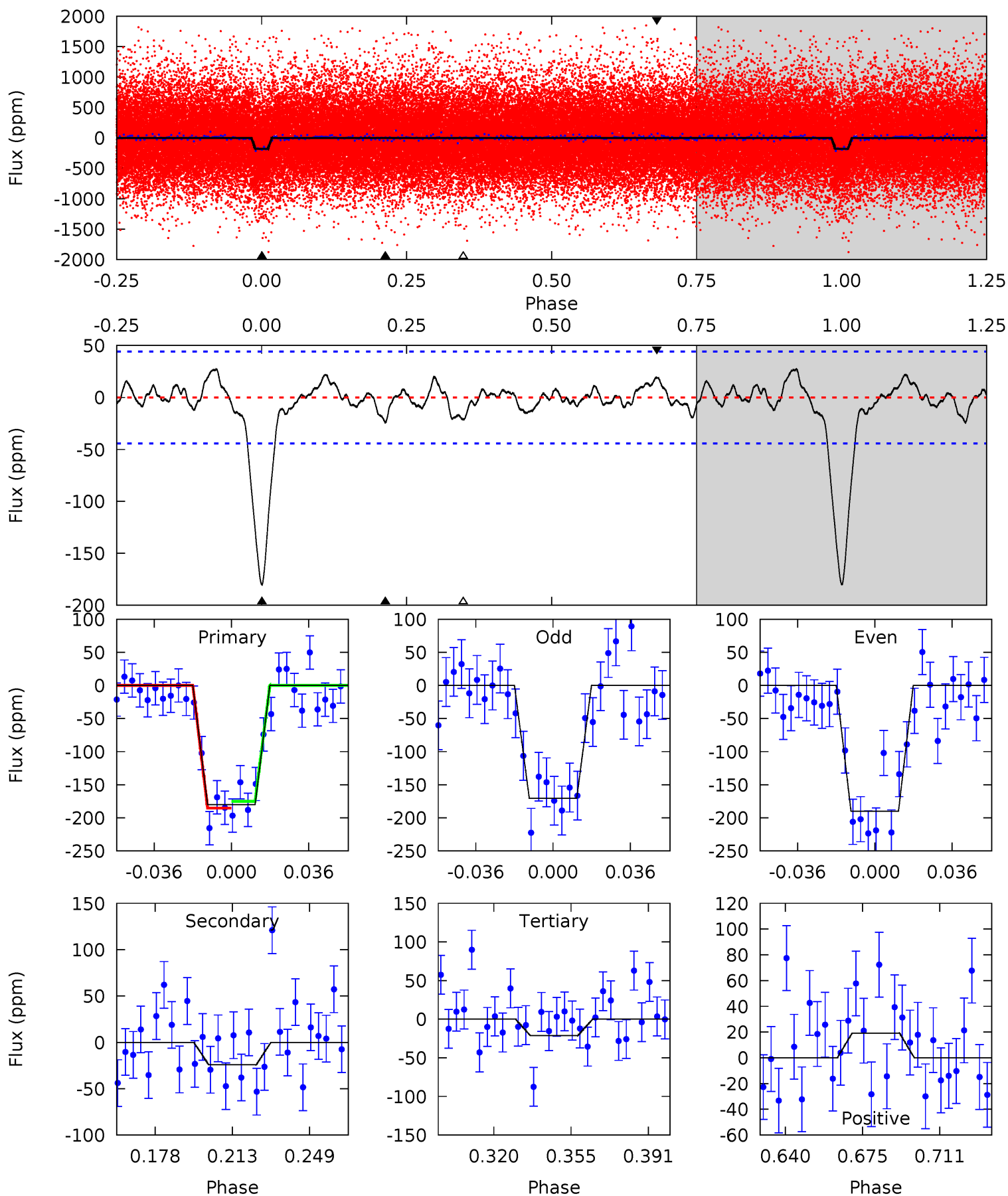
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	2.61	2.56	2.29	4.76	2.07	1.05	18.1	18.4	0.05	0.32	0.94	0.98	0.11	0.95



Alt Model-Shift Uniqueness Test

011963206-01, P = 3.009133 Days, E = 128.615154 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	2.61	2.29	2.07	4.78	2.10	1.05	17.2	17.4	0.32	0.55	1.06	0.97	0.13	0.56



Stellar Parameters For KIC 011963206

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5713^{+68}_{-94}	$4.541^{+0.016}_{-0.099}$	$0.070^{+0.150}_{-0.150}$	$0.893^{+0.114}_{-0.030}$	$1.010^{+0.047}_{-0.062}$	$2.000^{+0.127}_{-0.559}$
	+1%/-2%	+0%/-2%	+214%/-214%	+13%/-3%	+5%/-6%	+6%/-28%
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 011963206-01 / KOI 2820.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-23 ± 9	$1.52^{+0.69}_{-0.64}$	1663^{+51}_{-38}	3605^{+827}_{-494}	$8.849^{+18.950}_{-5.311}$
Alt.	-24 ± 9	$1.38^{+0.70}_{-0.66}$	1662^{+44}_{-34}	3776^{+1031}_{-530}	12^{+30}_{-7}

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

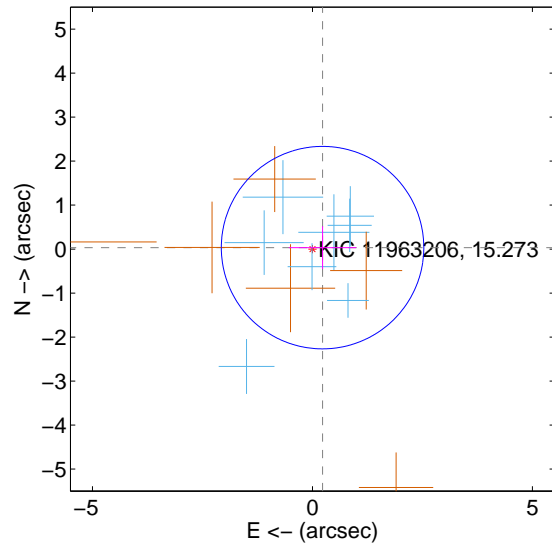
Supplemental centroid analysis for 011963206-01. Kepler magnitude: 15.27. Transit SNR 15.68

There are 8 quarters with good PRF difference image offsets

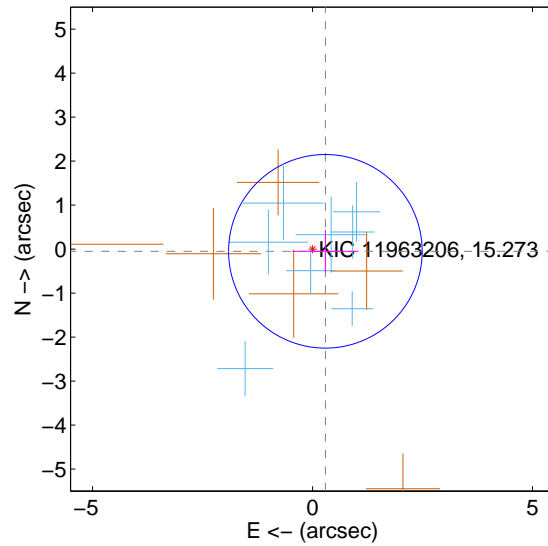
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.232 ± 0.767	0.30	-0.230 ± 0.767	0.033 ± 0.486
PRF-fit source offset from KIC position	0.297 ± 0.734	0.40	-0.292 ± 0.754	-0.050 ± 0.483
photometric centroid source offset	1.82 ± 0.92	1.98	1.51 ± 0.93	-1.02 ± 0.89

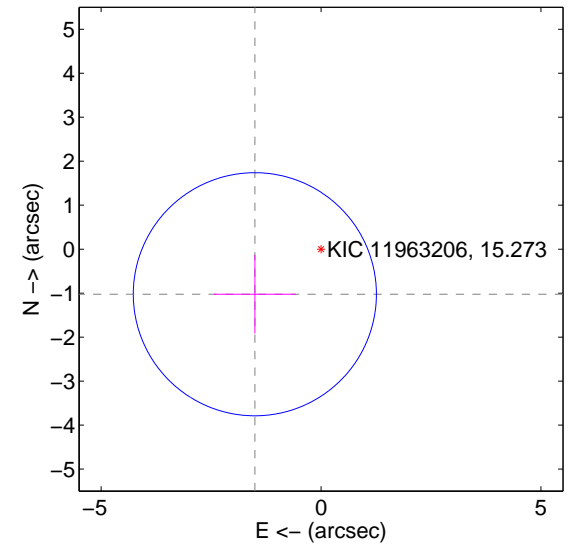
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

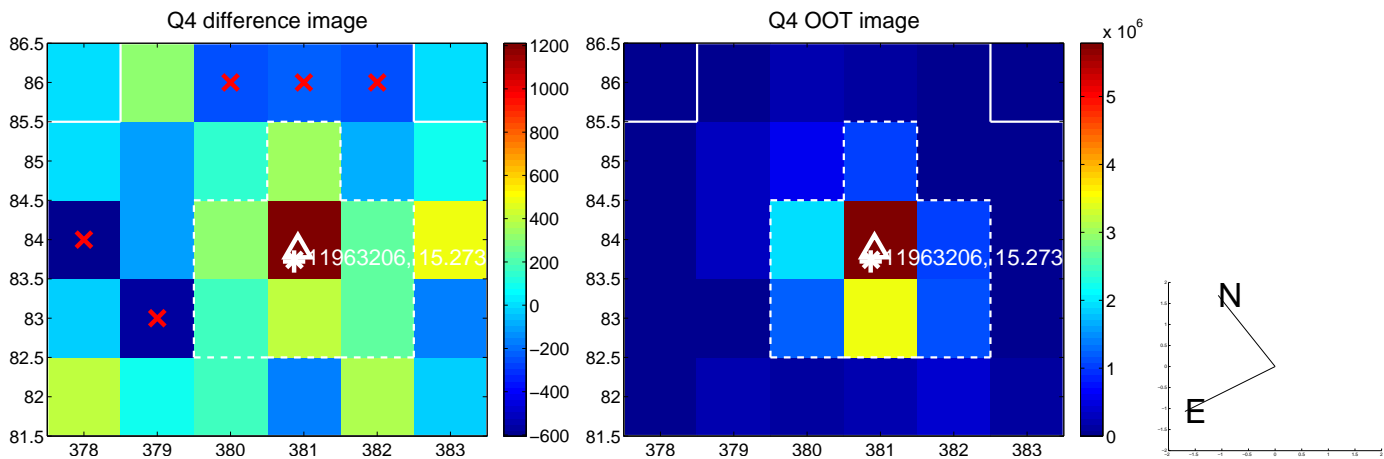
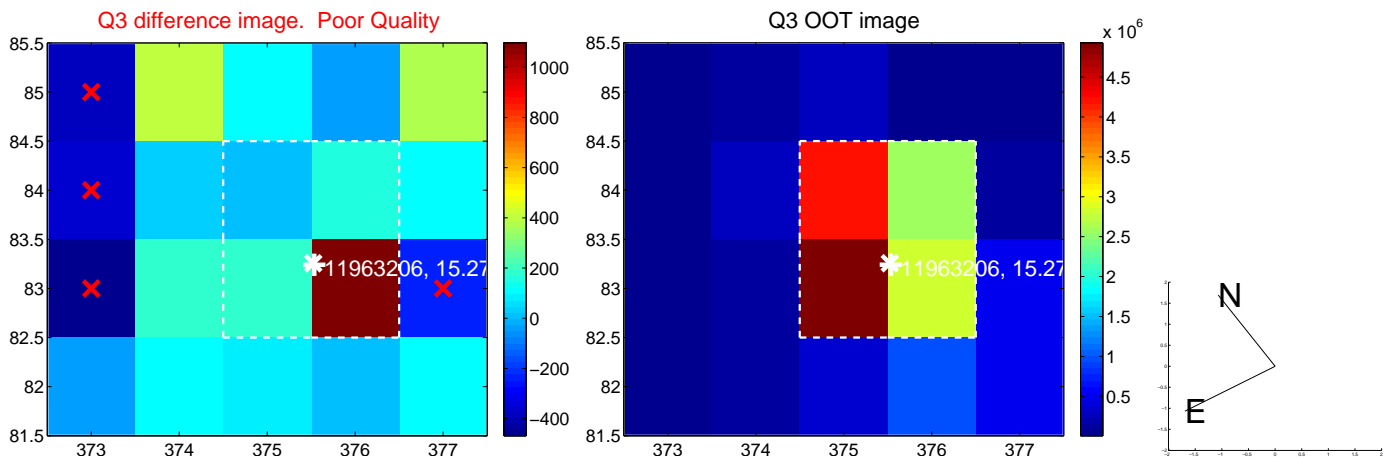
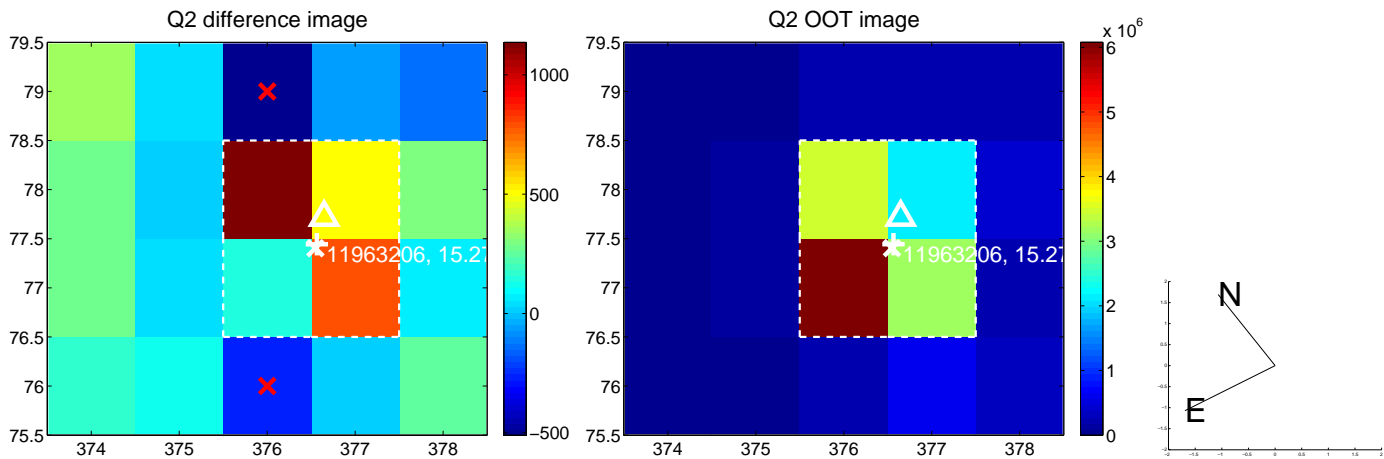
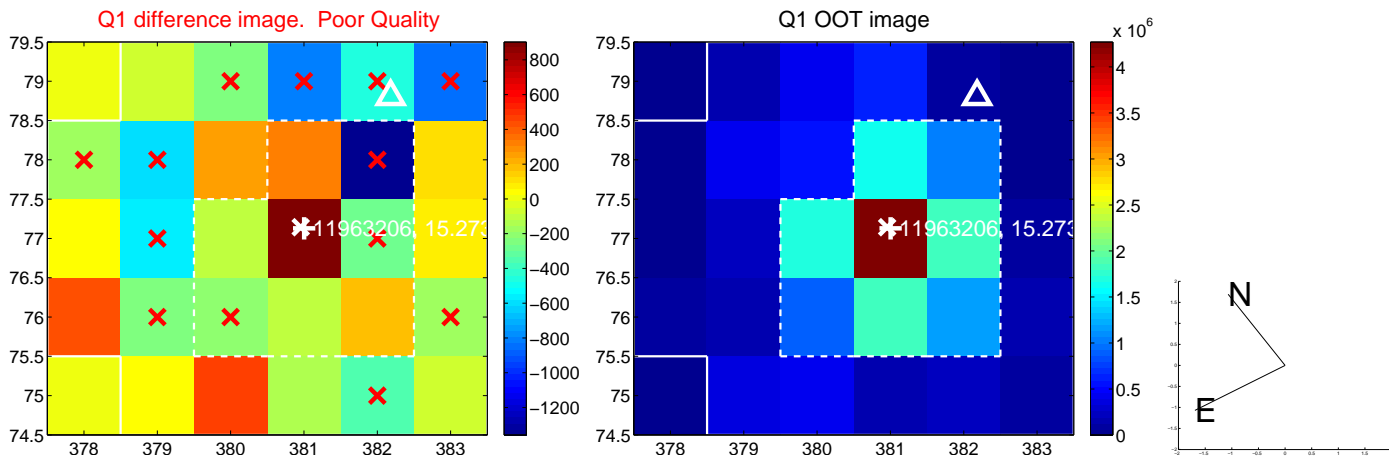


offset from photometric centroids

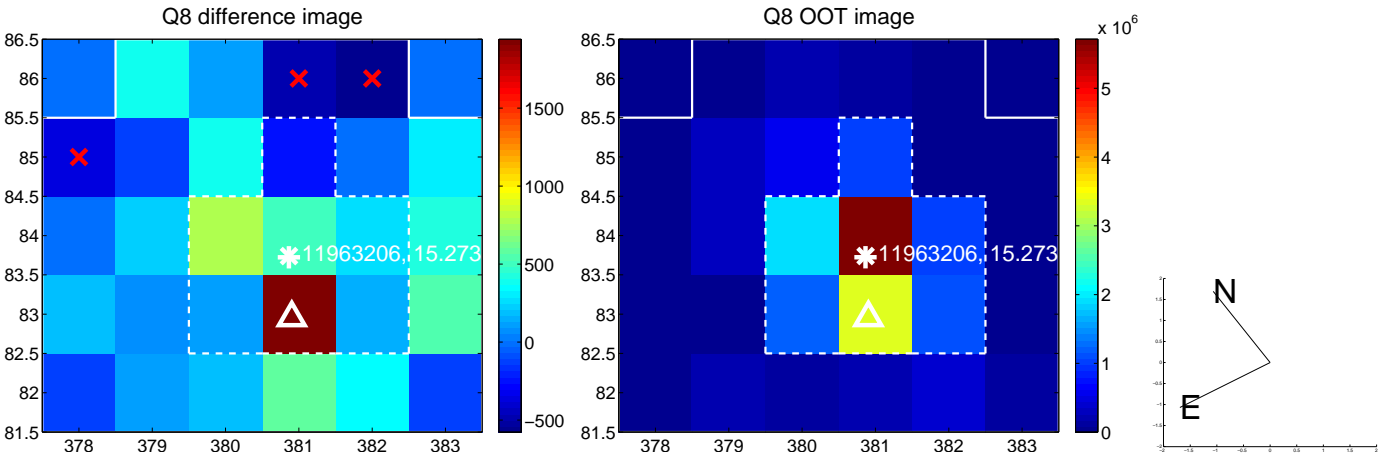
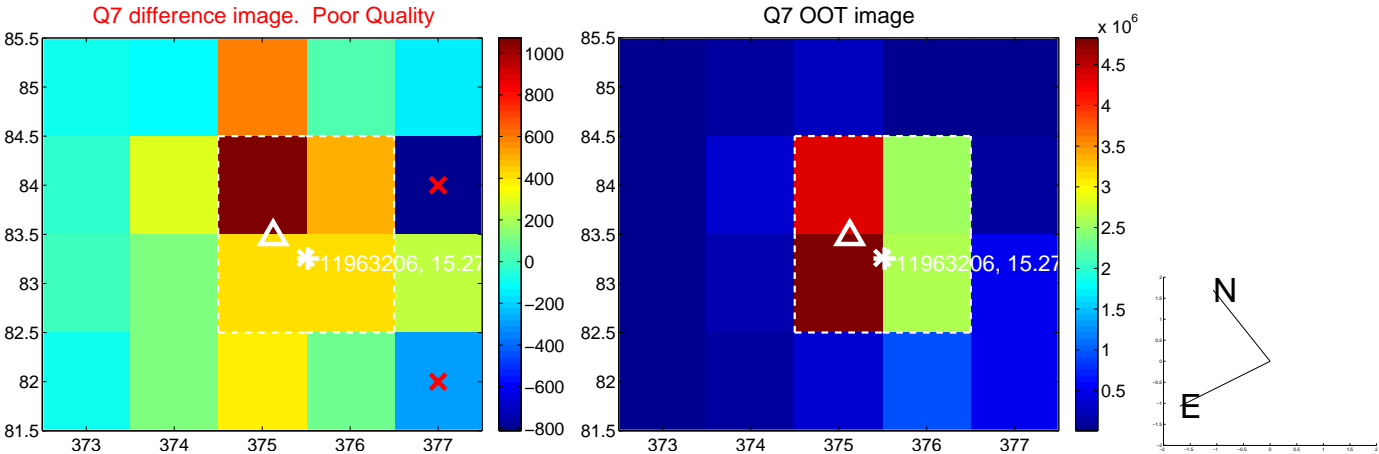
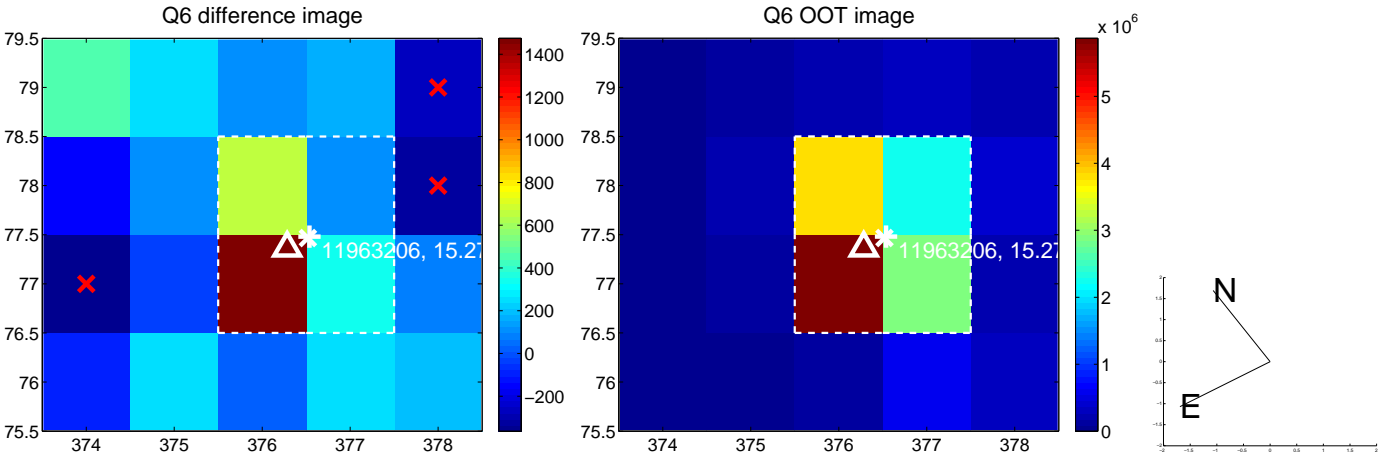
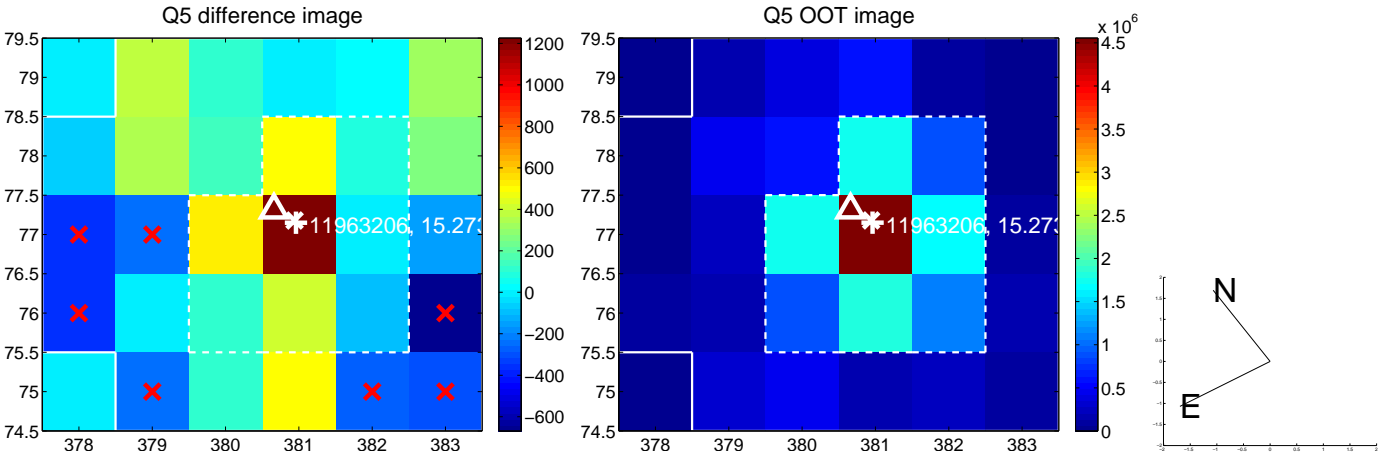


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

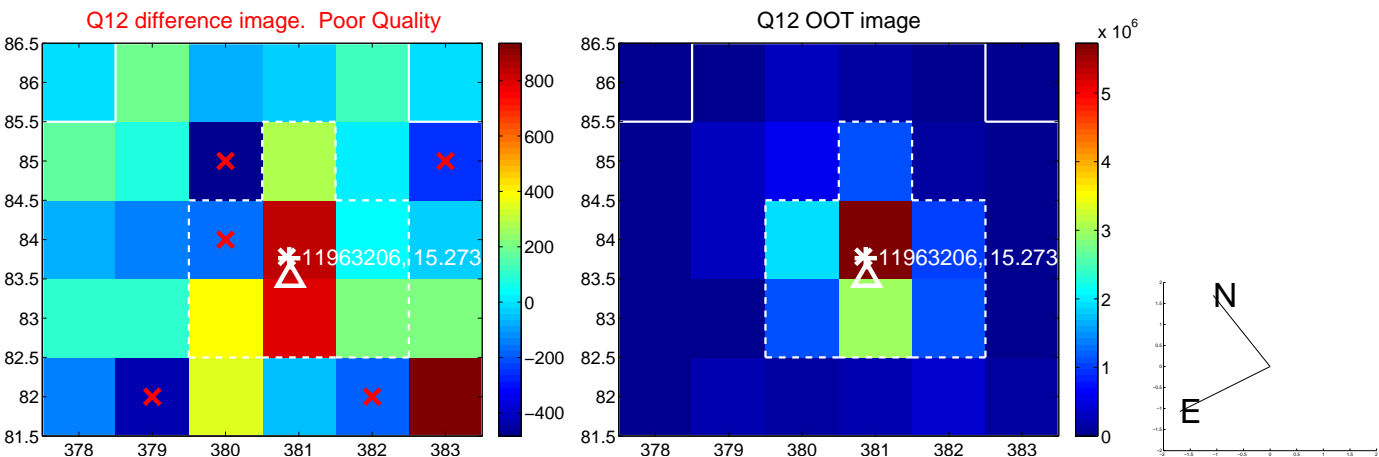
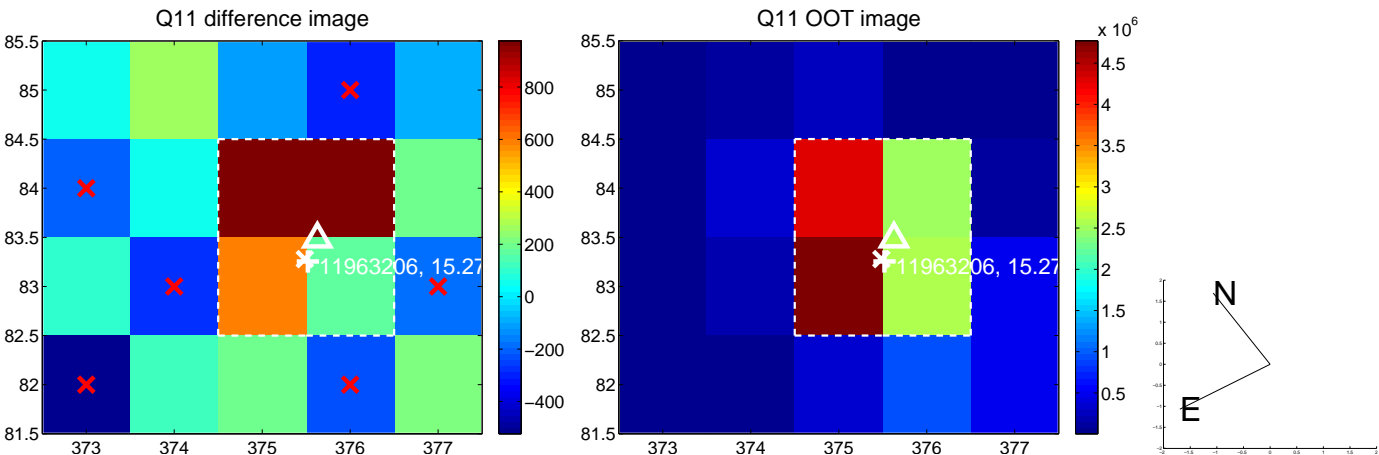
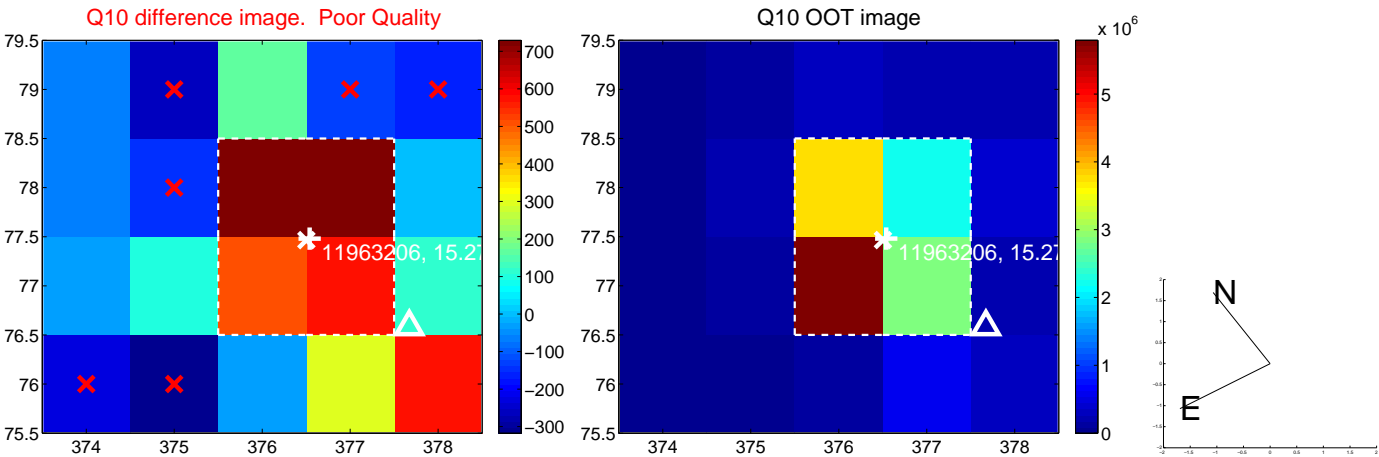
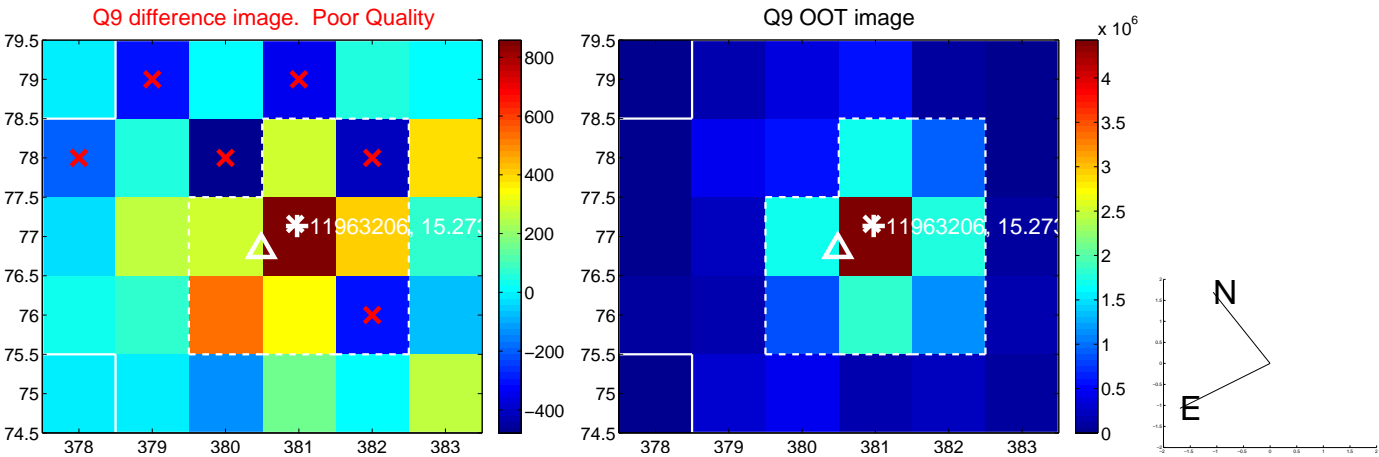
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



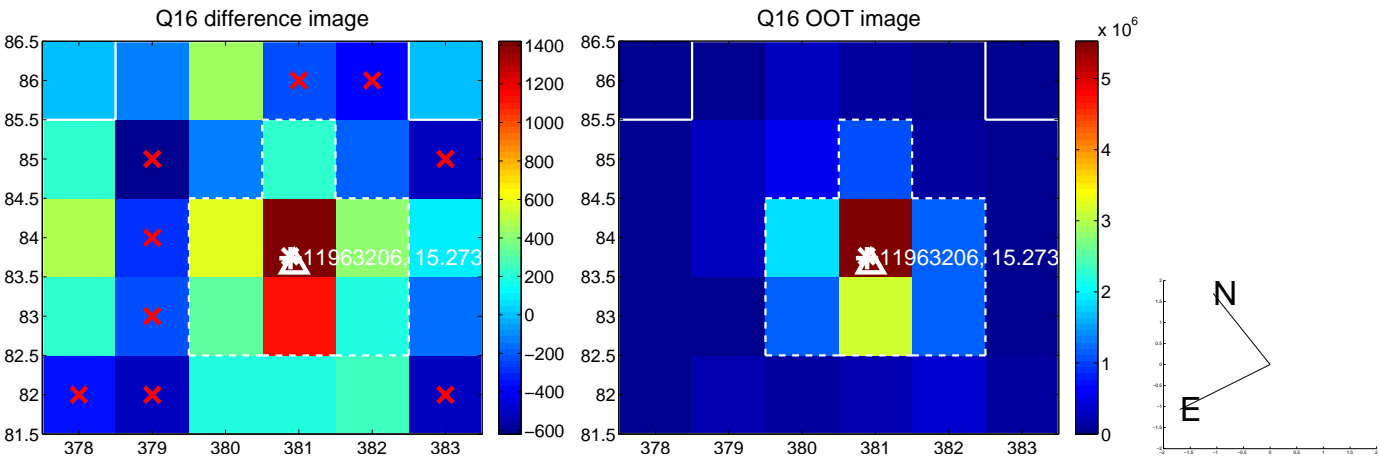
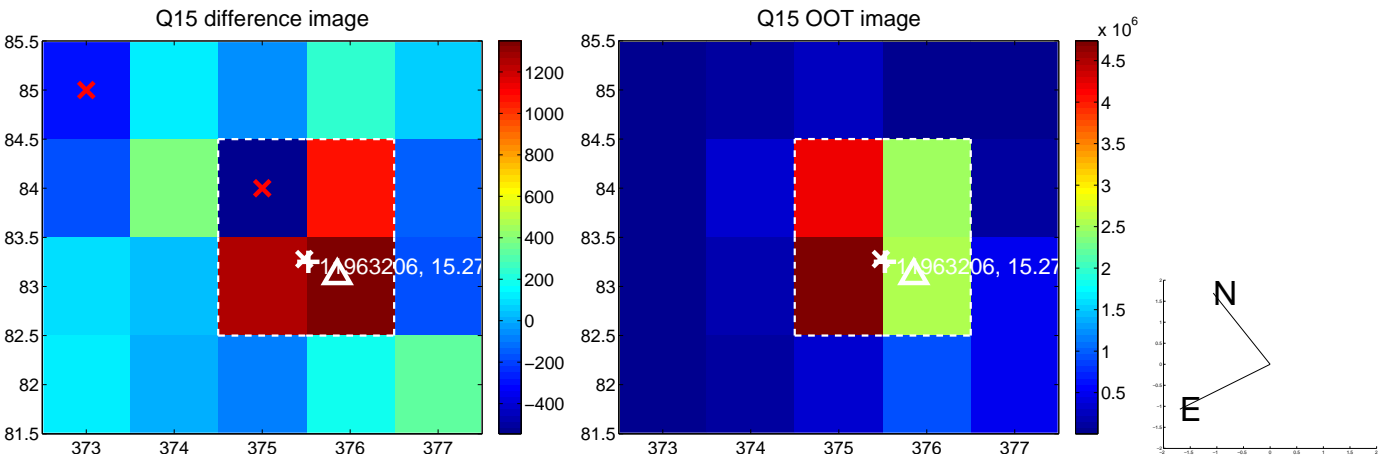
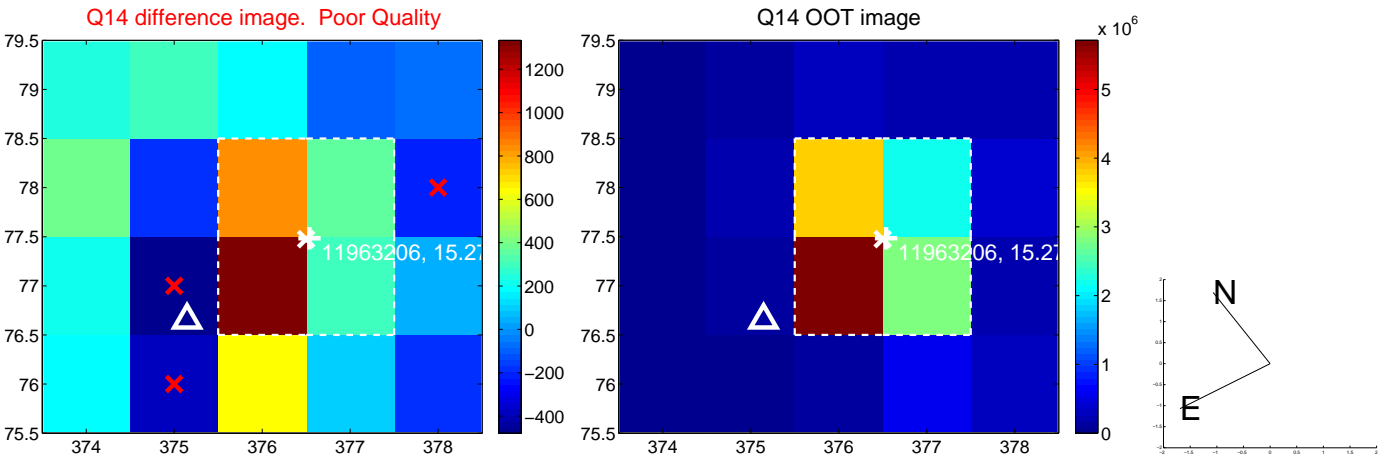
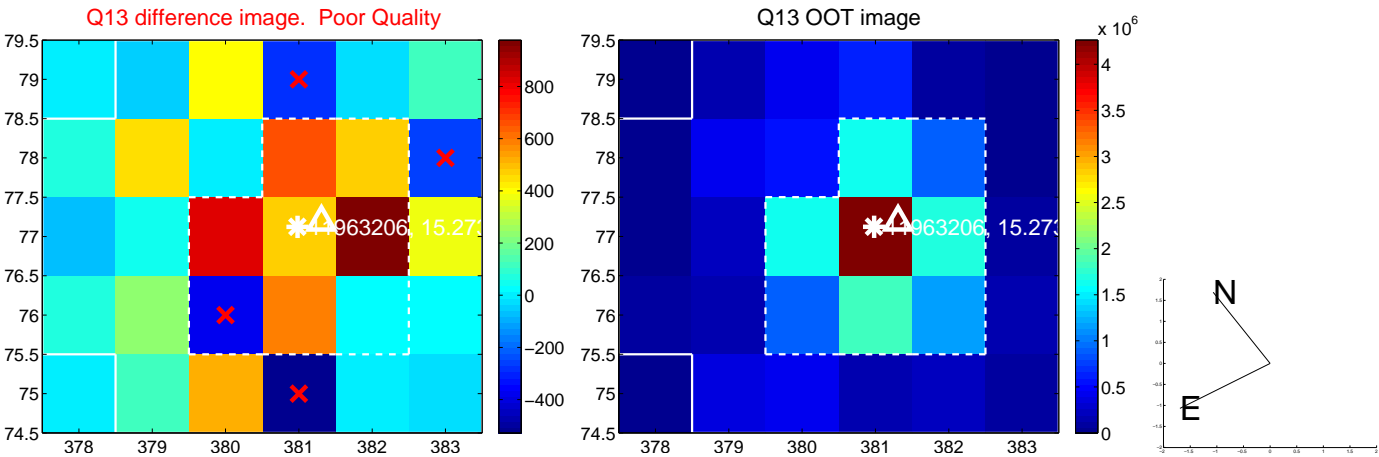
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



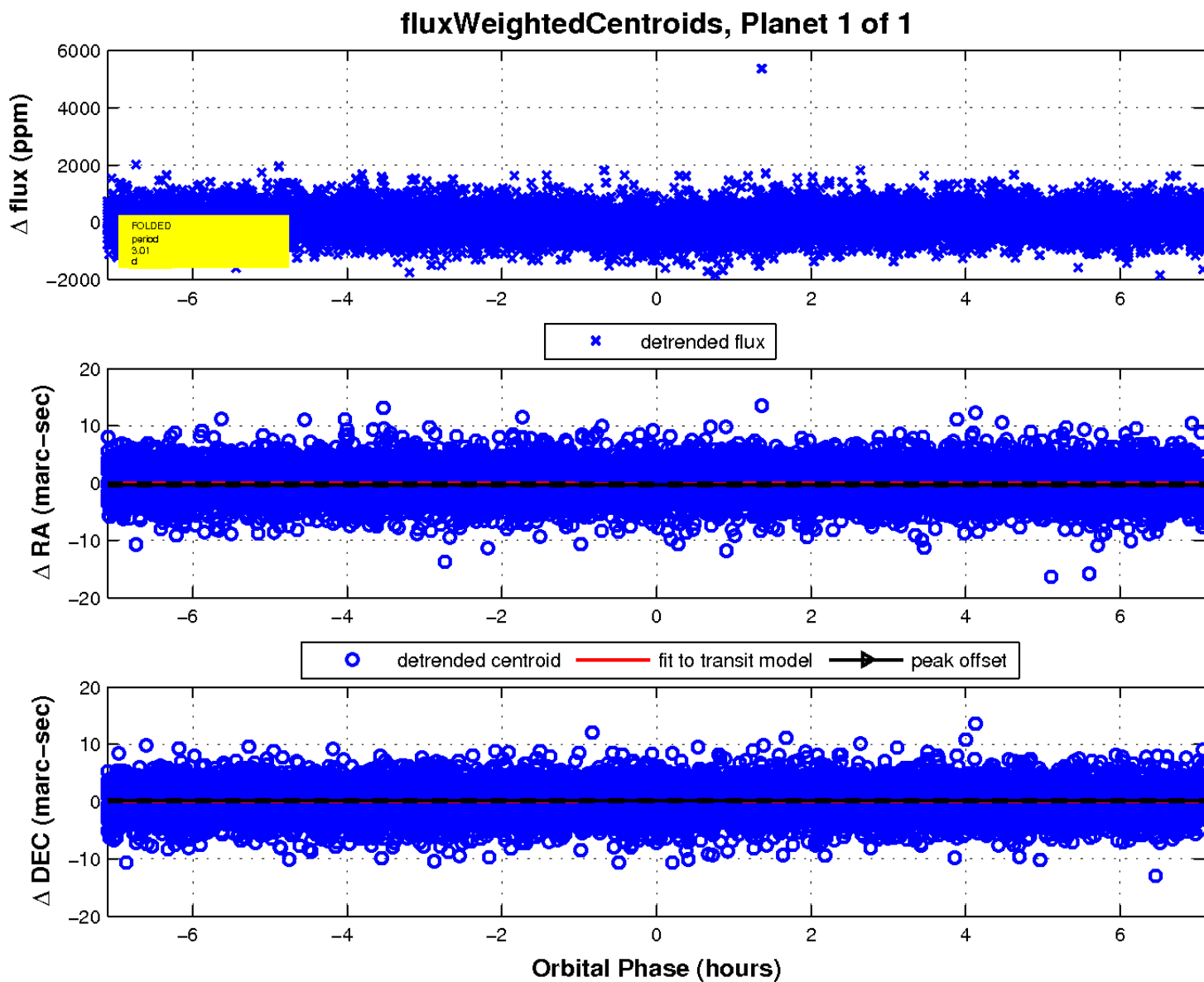
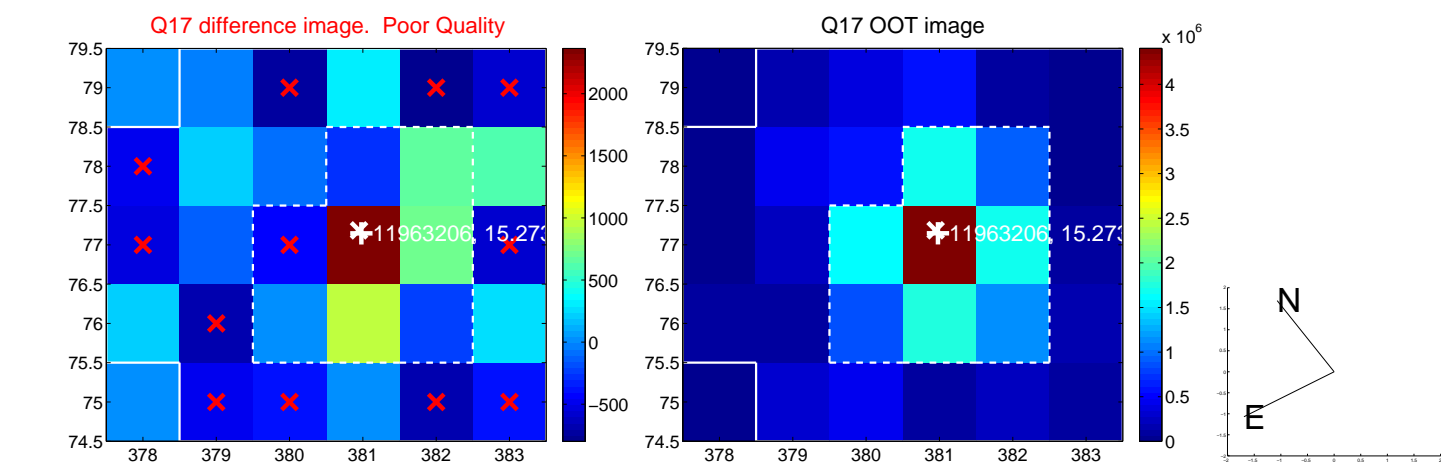
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

