

KIC 006191521

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})
006191521-01	OBS	0847.01	80.872186	203.894934	3523.6	11.107	129.3	128.5	1.24	5510	7.47	9.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006191521-01	OBS	PC	0.94	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.

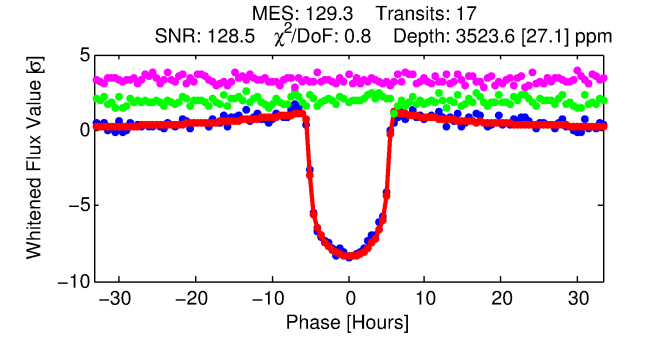
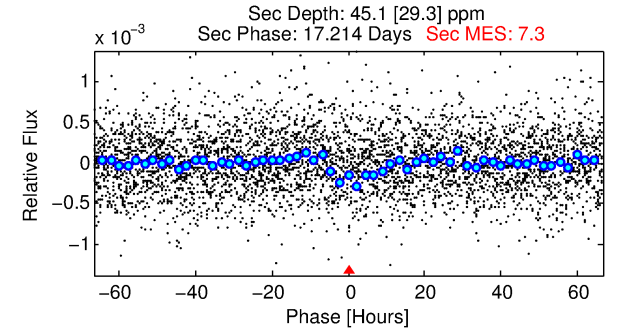
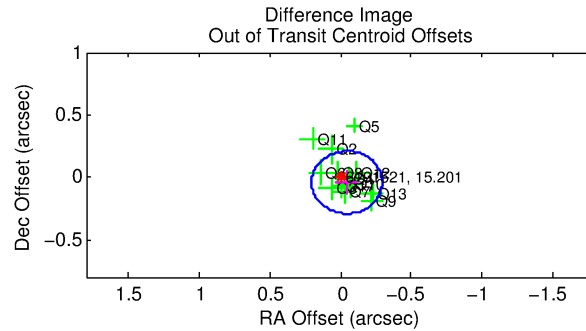
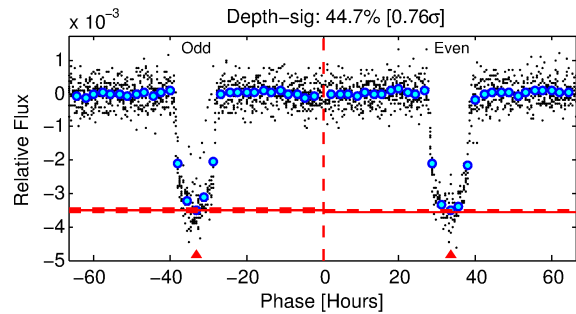
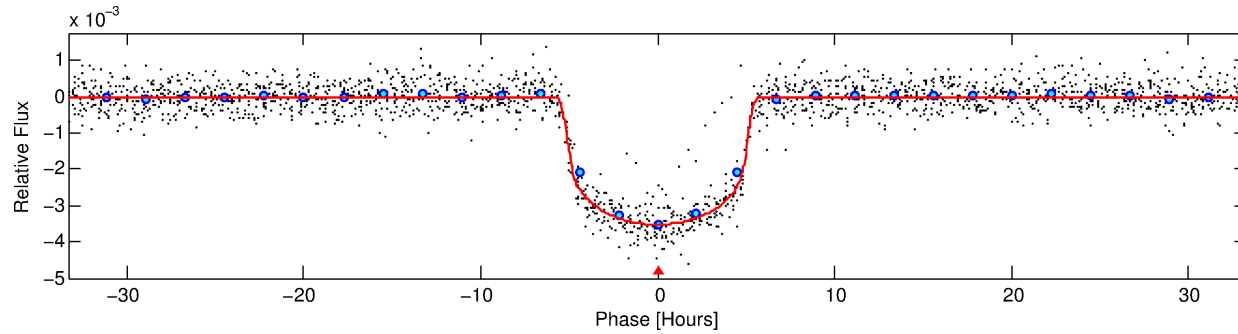
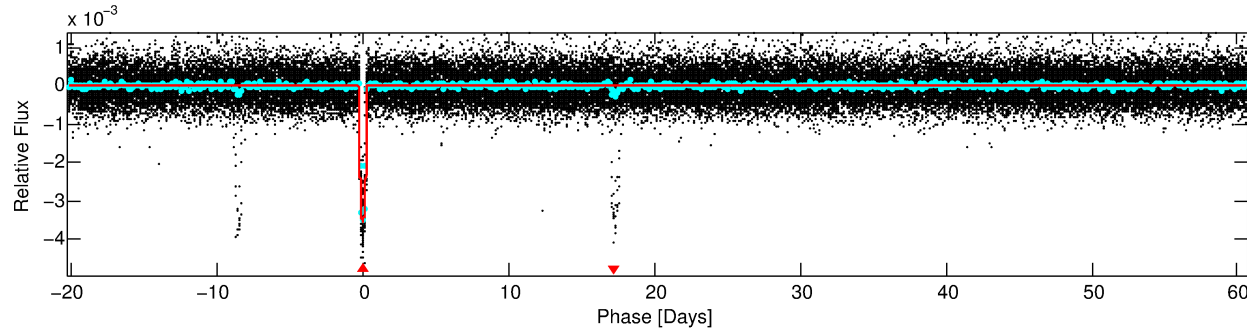
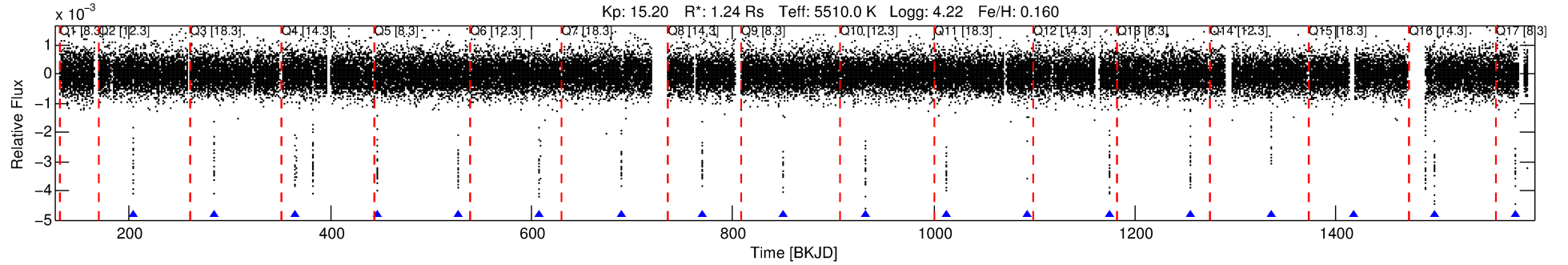
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006191521-01

No Significant Match Found

DV One-Page Summary

KIC: 6191521 Candidate: 1 of 1 Period: 80.872 d
KOI: K00847.01 Corr: 0.998



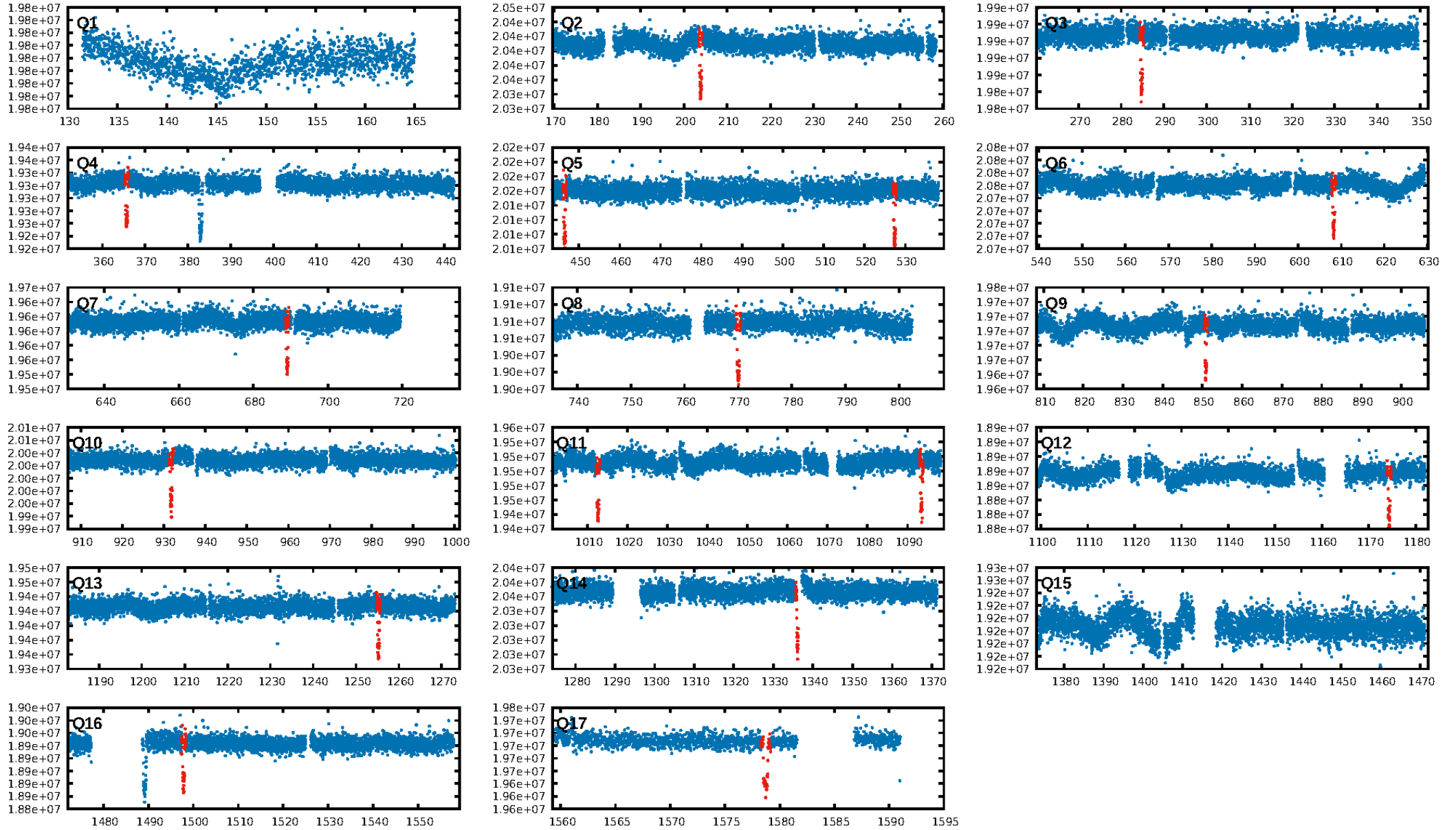
DV Fit Results:

Period = 80.87219 [0.00016] d
Epoch = 203.8949 [0.0014] BKJD
Rp/R* = 0.0553 [0.0012]
a/R* = 51.63 [4.35]
b = 0.50 [0.13]
Seff = 9.90 [3.30]
Teq = 452 [38] K
Rp = 7.47 [1.50] Re
a = 0.3576 [0.0716] AU
Ag = 56.80 [41.44] [1.35 σ]
Teffp = 1920 [314] K [4.64 σ]

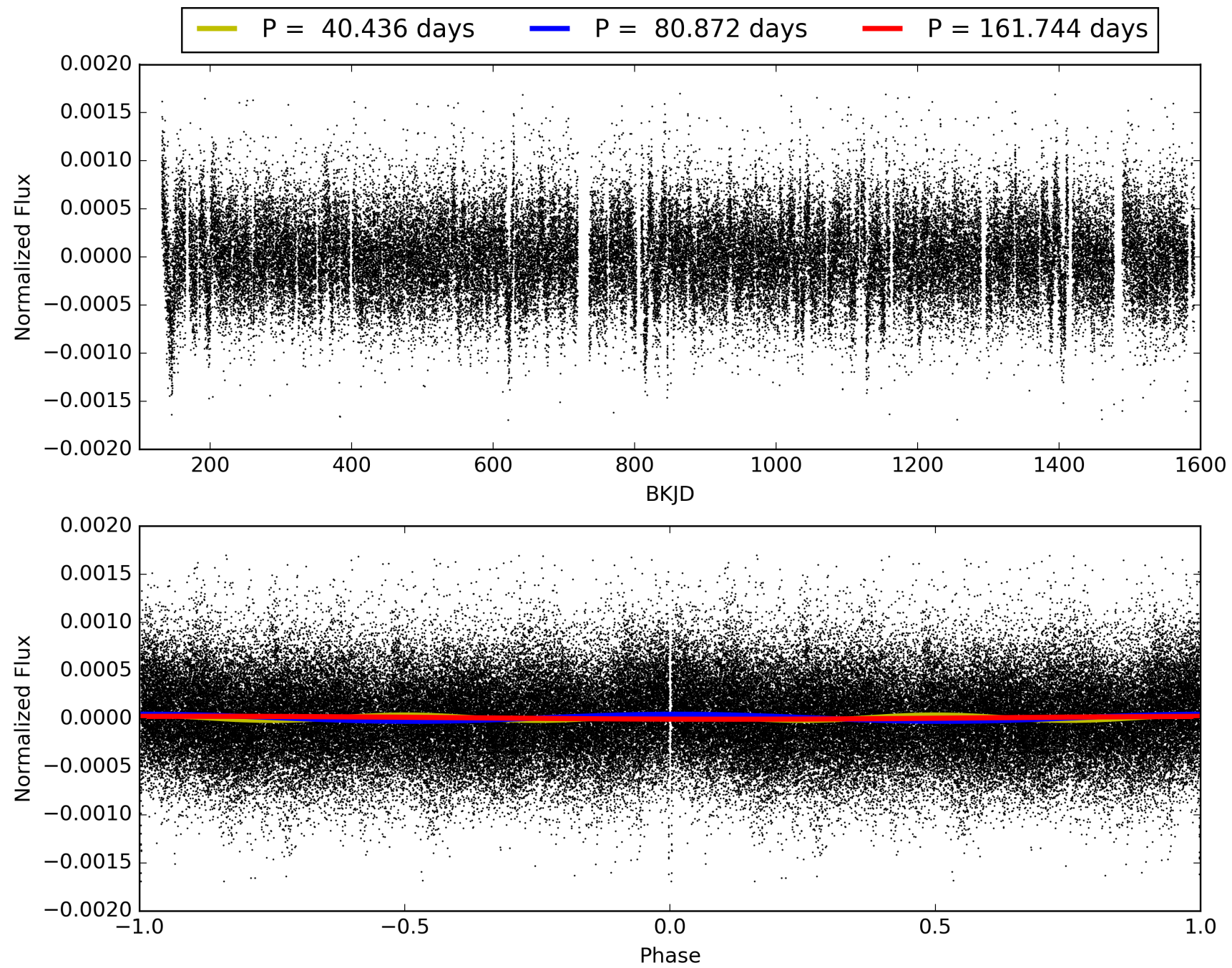
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 33.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [16/16]
GhostDiagnostic-chr: 5.942
Centroid-sig: 40.3%
Centroid-so: 0.076 arcsec [0.90 σ]
OotOffset-rm: 0.061 arcsec [0.73 σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-rm: 0.219 arcsec [2.78 σ]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 006191521-01, PDC Light Curves

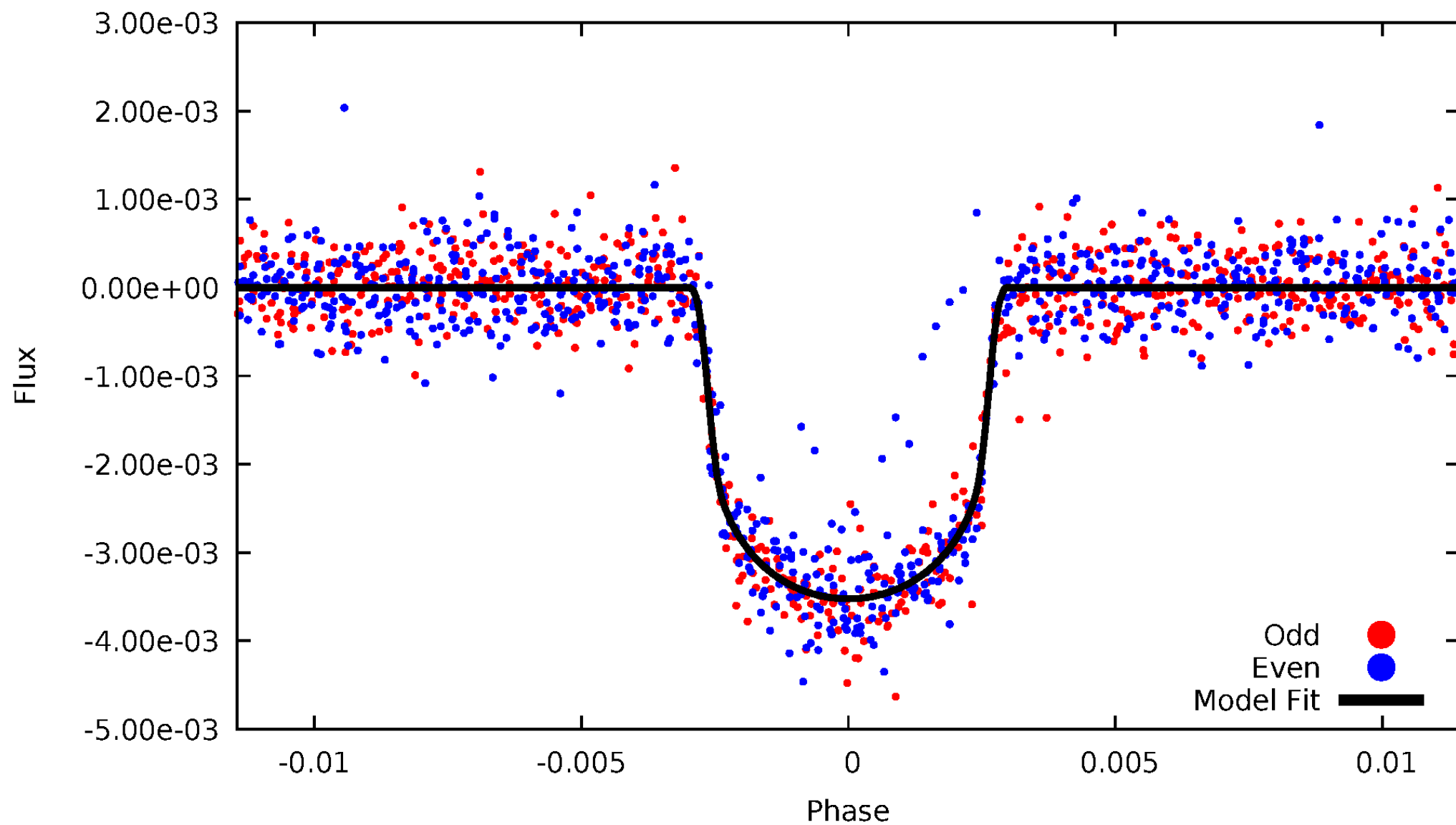


TCE 006191521-01



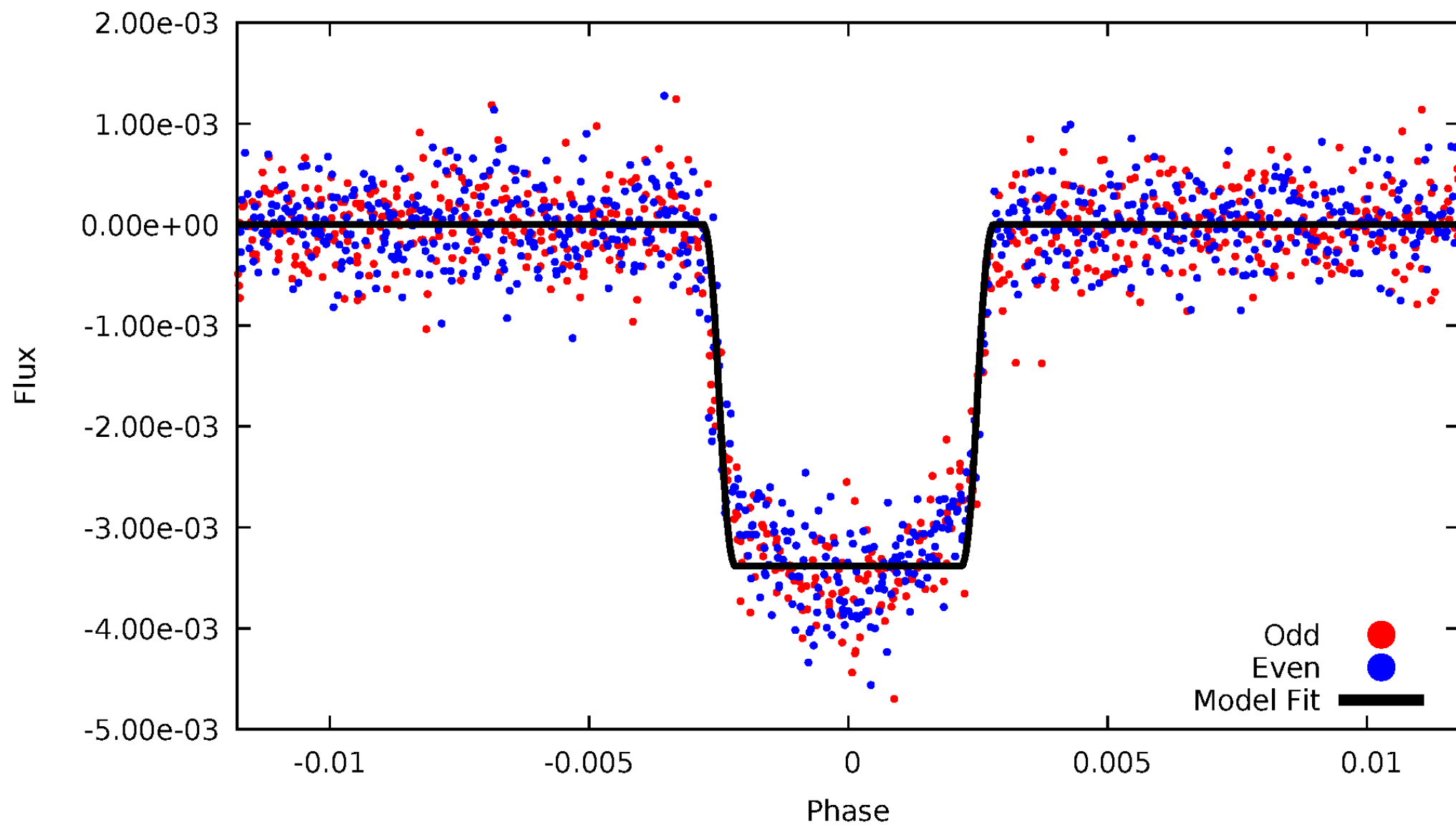
DV Odd/Even

TCE 006191521-01



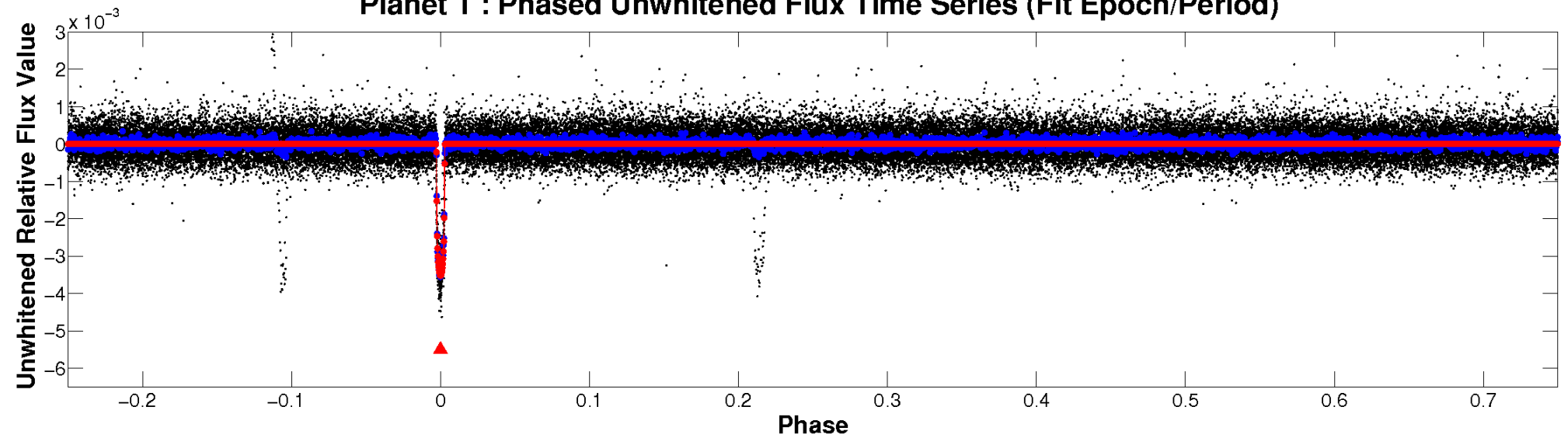
ALT Odd/Even

TCE 006191521-01

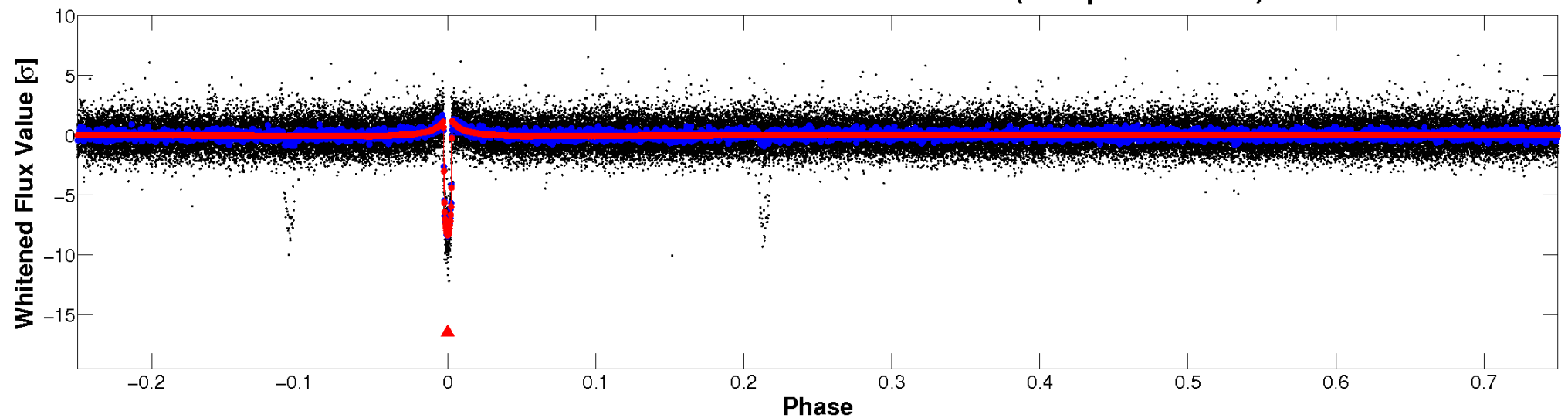


Non-Whitened Vs. Whitened Light Curve

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

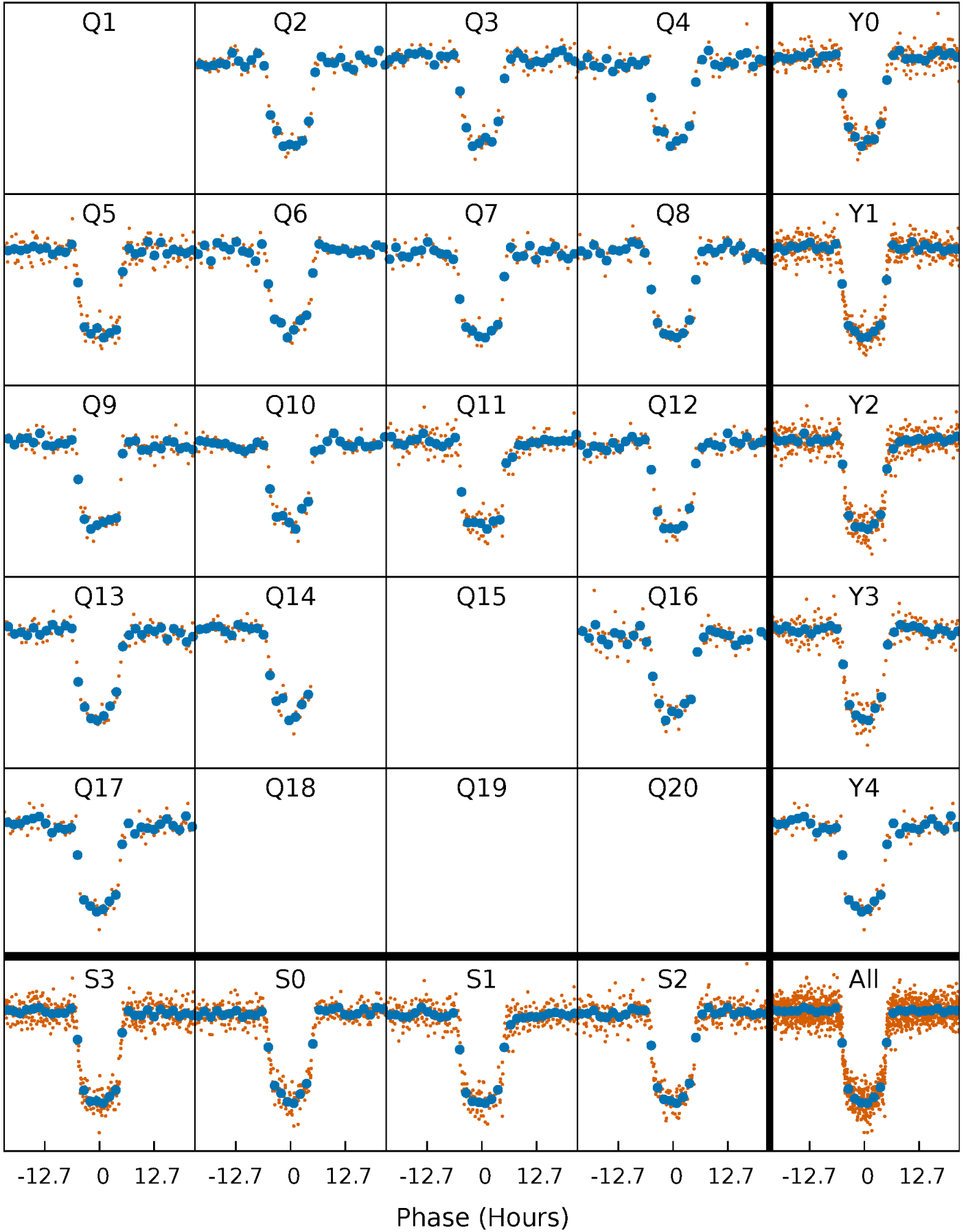


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



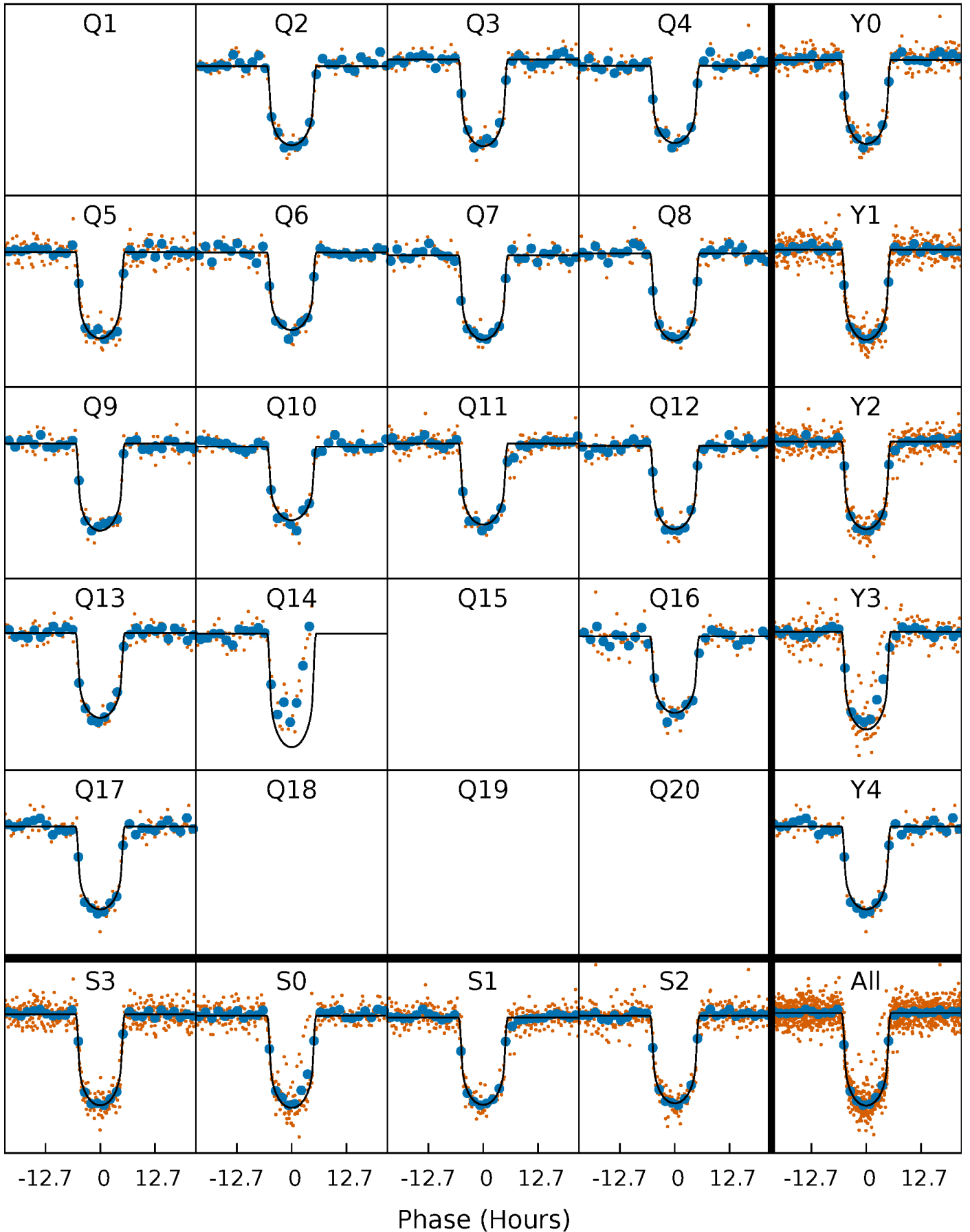
PDC Quarter-Phased Transit Curves

TCE 006191521-01 P= 80.872186 Days $T_0=203.894934$ (BKJD)



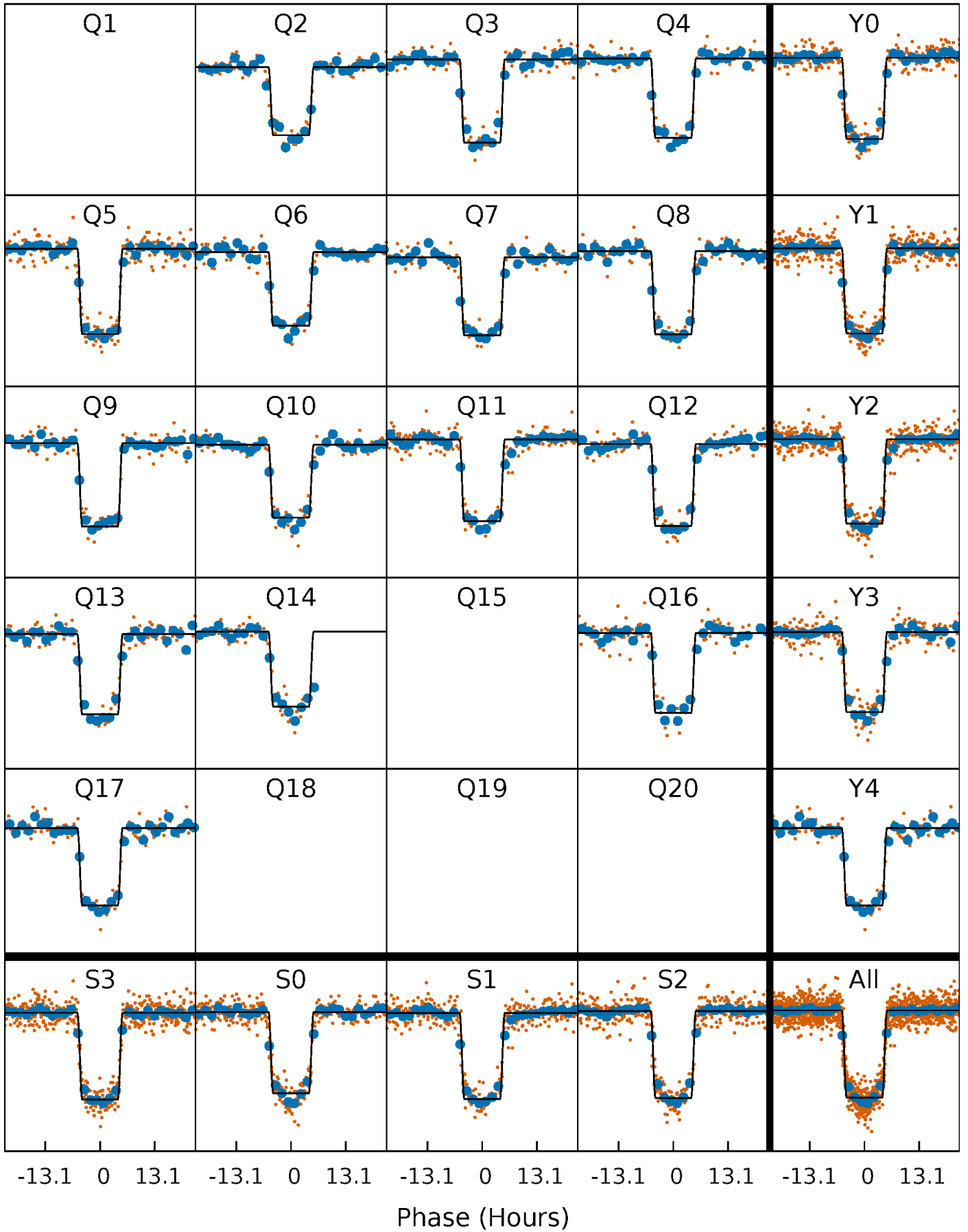
DV Quarter-Phased Transit Curves

TCE 006191521-01 P= 80.872186 Days $T_0=203.894934$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

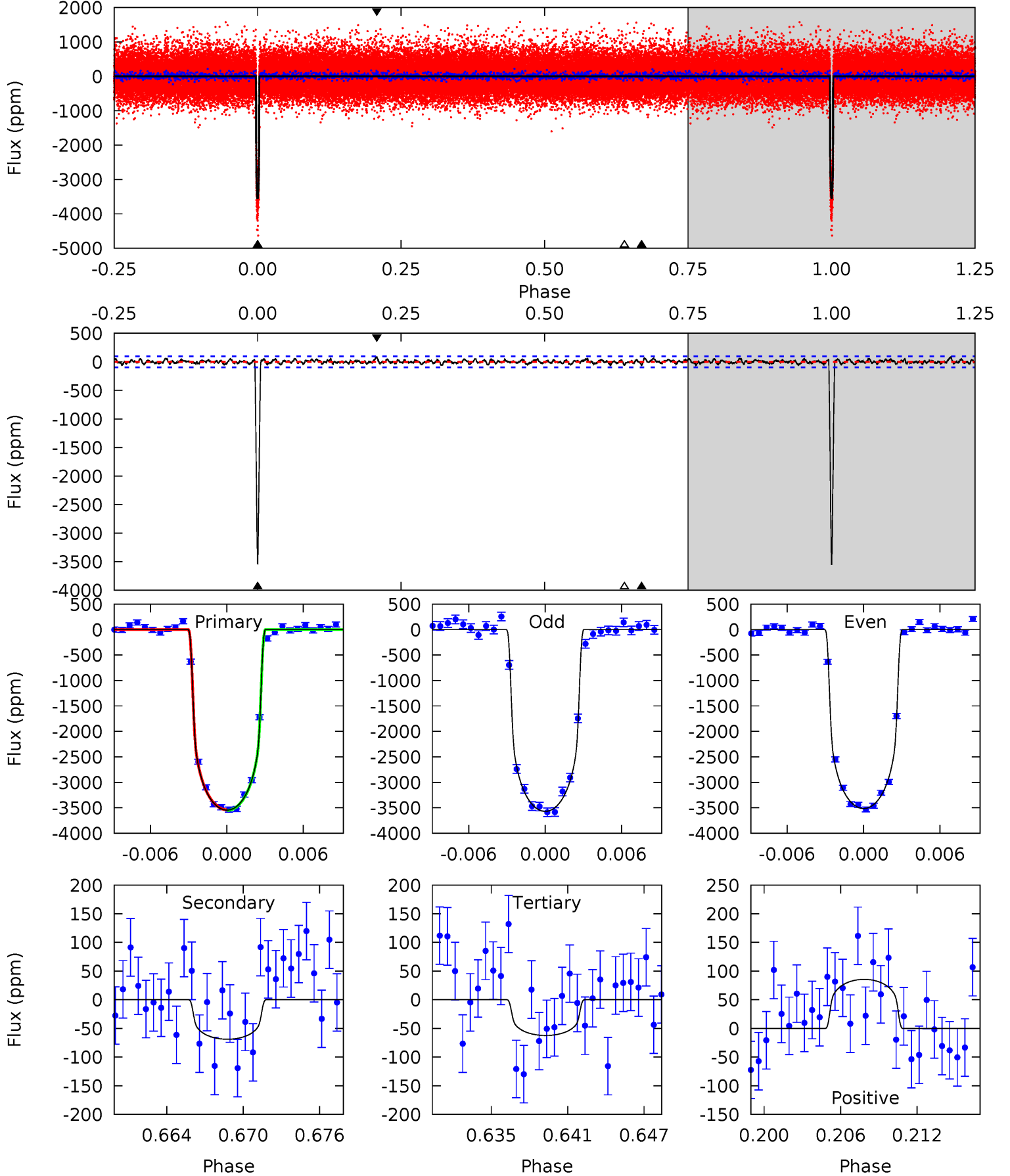
TCE 006191521-01 P= 80.871259 Days $T_0=203.903437$ (BKJD)



DV Model-Shift Uniqueness Test

006191521-01, $P = 80.872186$ Days, $E = 123.022748$ Days

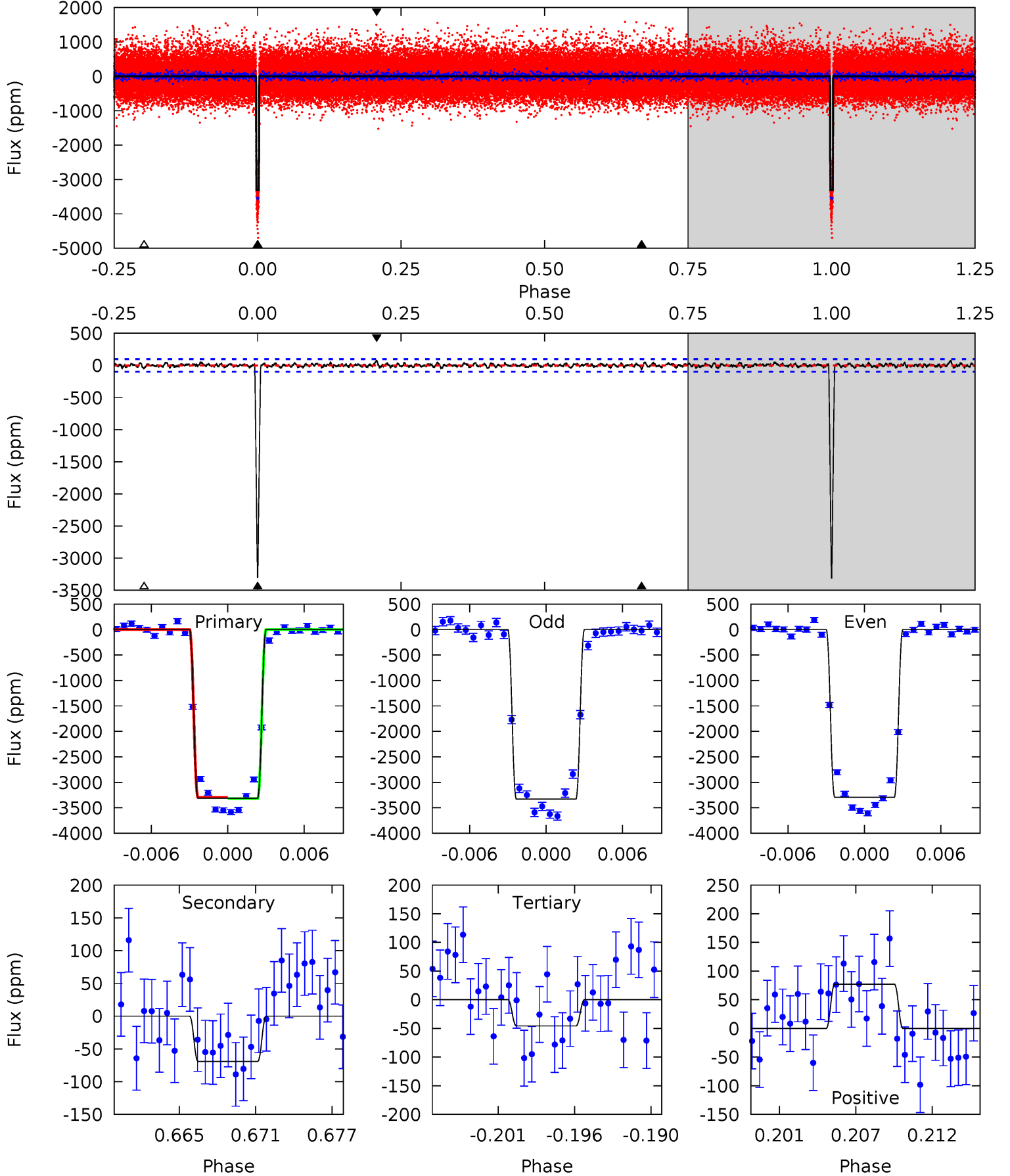
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
186.4	3.62	3.28	4.50	5.13	2.75	1.22	183.1	181.9	0.35	-0.88	1.47	0.98	0.02	0.35



Alt Model-Shift Uniqueness Test

006191521-01, $P = 80.871259$ Days, $E = 123.032178$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
172.8	3.61	2.38	4.03	5.14	2.77	0.93	170.4	168.8	1.22	-0.42	0.94	1.00	0.02	0.62



Stellar Parameters For KIC 006191521

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5510^{+82}_{-71}	$4.222^{+0.195}_{-0.105}$	$0.160^{+0.150}_{-0.100}$	$1.238^{+0.202}_{-0.247}$	$0.932^{+0.066}_{-0.044}$	$0.692^{+0.689}_{-0.213}$
	+1%/-1%	+5%/-2%	+94%/-62%	+16%/-20%	+7%/-5%	+100%/-31%
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 006191521-01 / KOI 0847.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-69 ± 19	$7.42^{+0.73}_{-0.86}$	627^{+31}_{-36}	2855^{+98}_{-123}	90^{+35}_{-29}
Alt.	-69 ± 19	$7.81^{+0.74}_{-0.91}$	630^{+28}_{-38}	2825^{+97}_{-137}	82^{+32}_{-26}

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 $A_{obs} \gg 1.0$

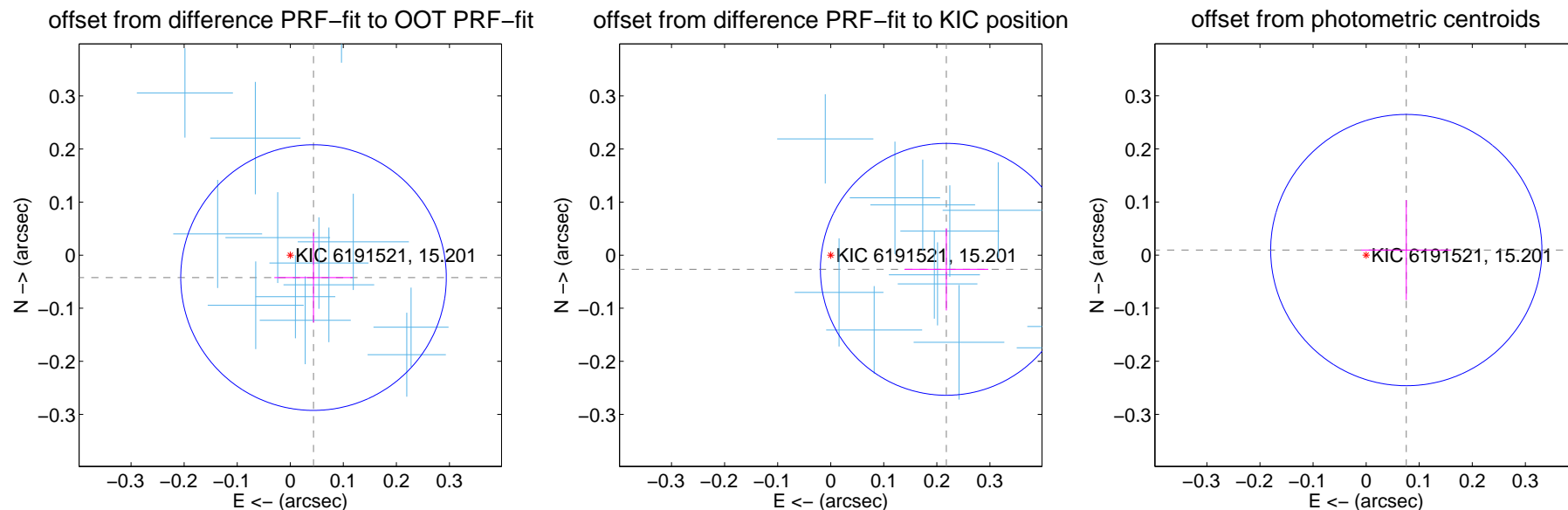
DV Centroid Data

Supplemental centroid analysis for 006191521-01. Kepler magnitude: 15.20. Transit SNR 128.53

There are 13 quarters with good PRF difference image offsets

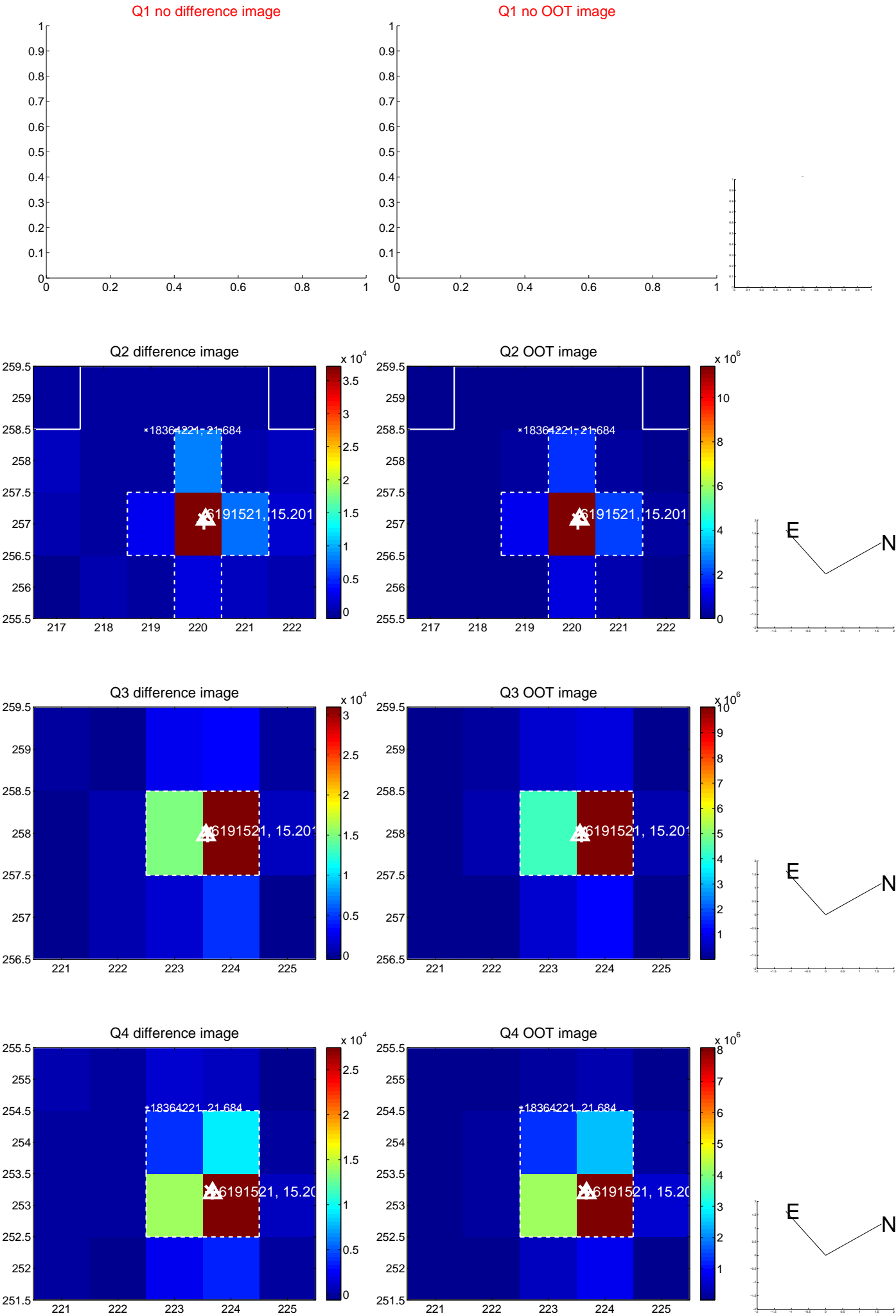
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.061 ± 0.083	0.73	-0.044 ± 0.074	-0.042 ± 0.085
PRF-fit source offset from KIC position	0.219 ± 0.079	2.78	-0.218 ± 0.079	-0.027 ± 0.077
photometric centroid source offset	0.08 ± 0.09	0.90	-0.08 ± 0.08	0.01 ± 0.09

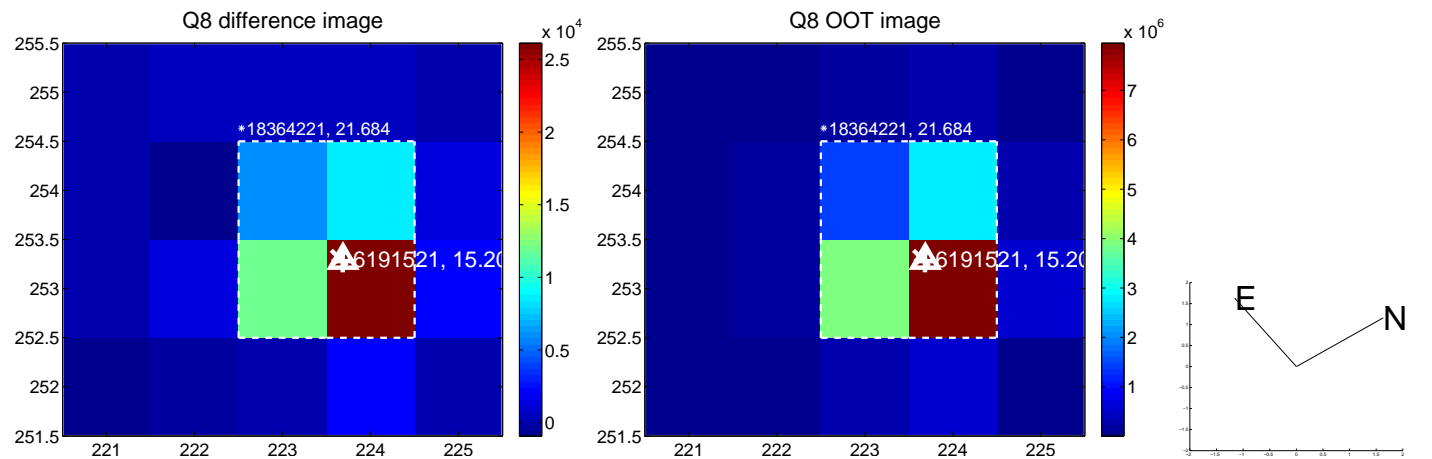
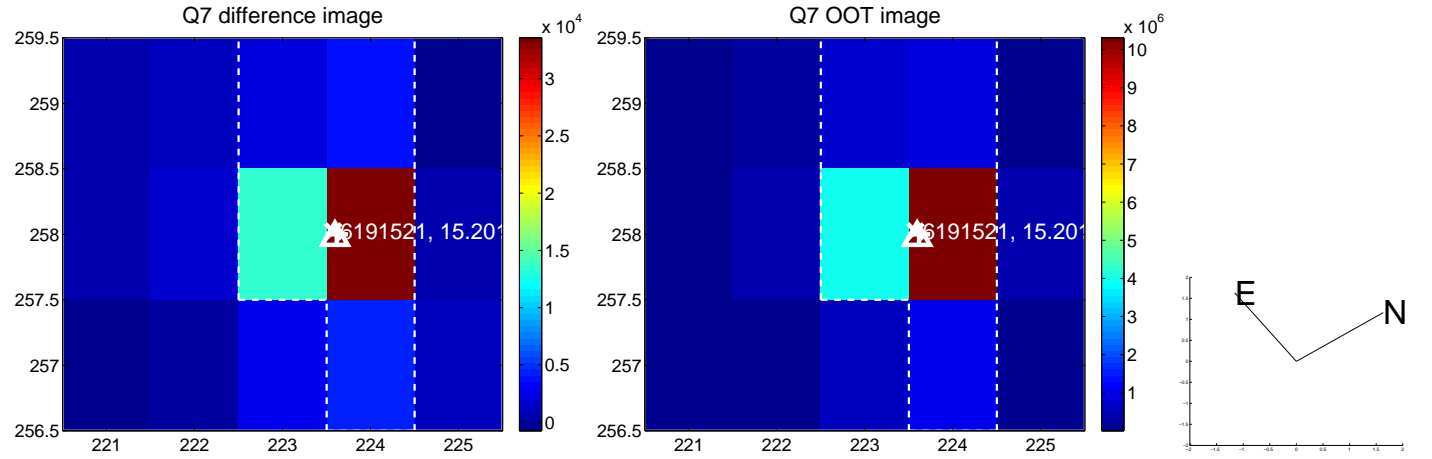
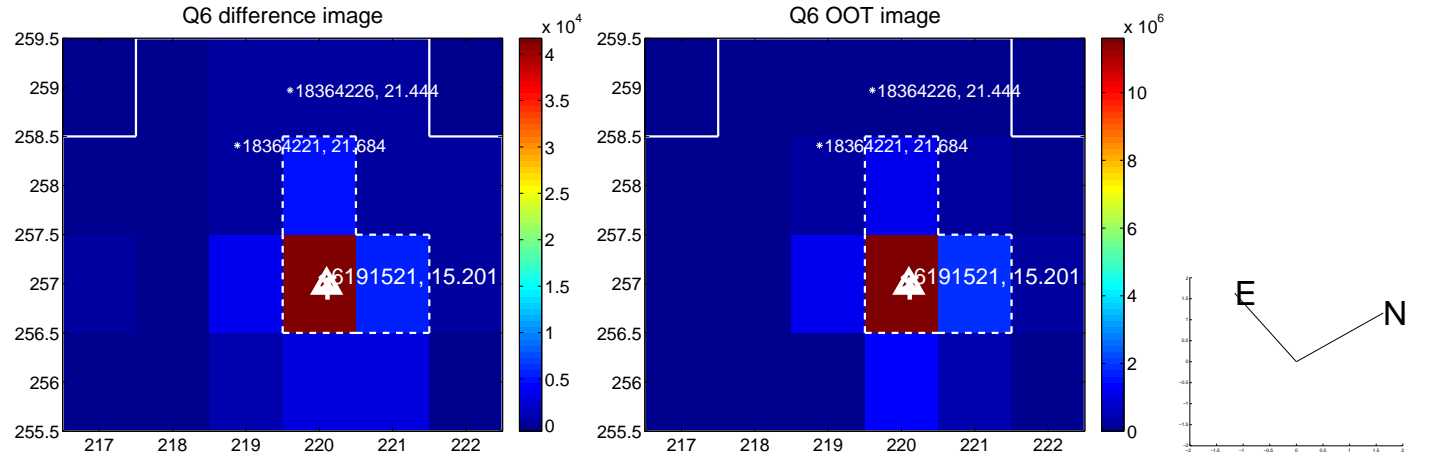
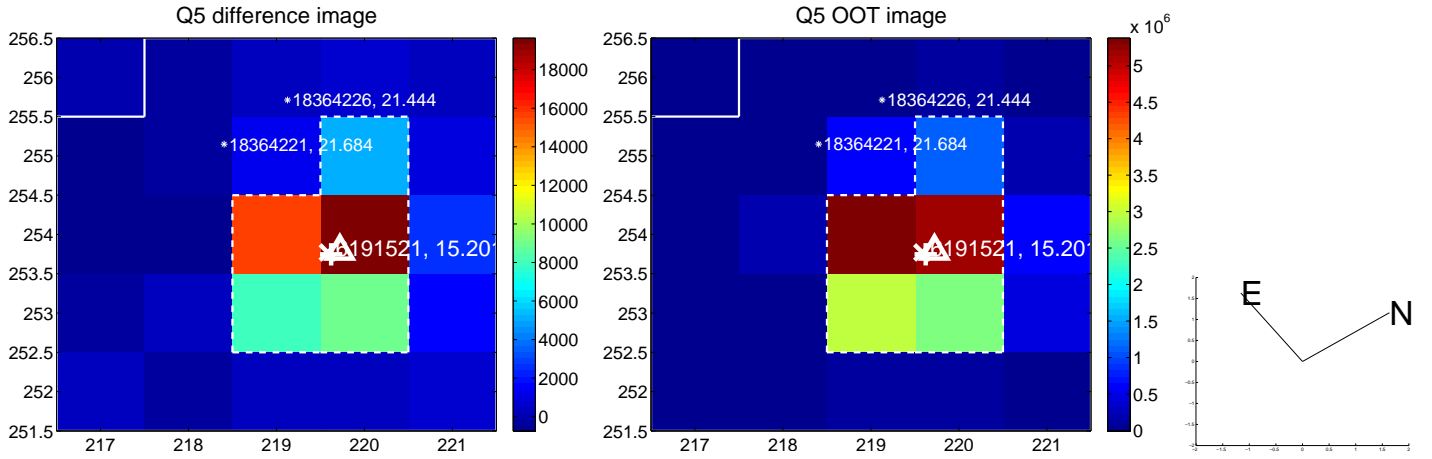


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

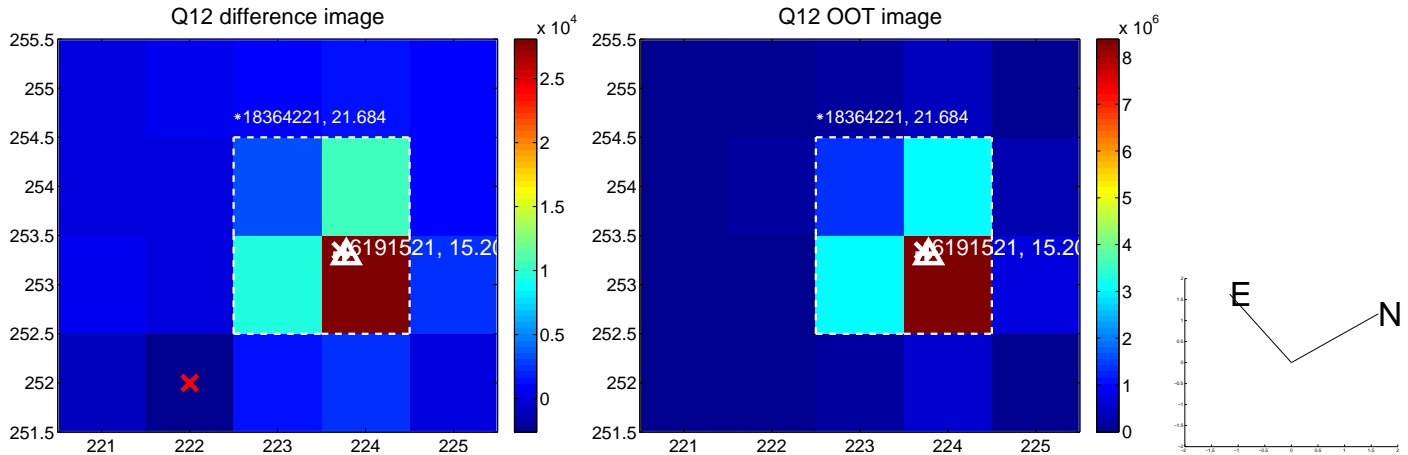
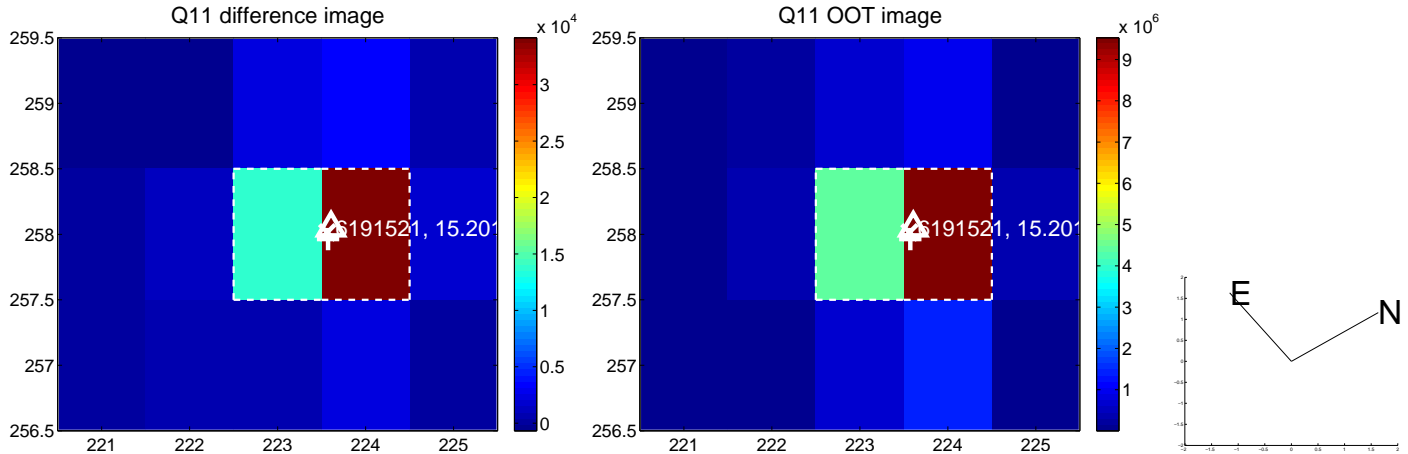
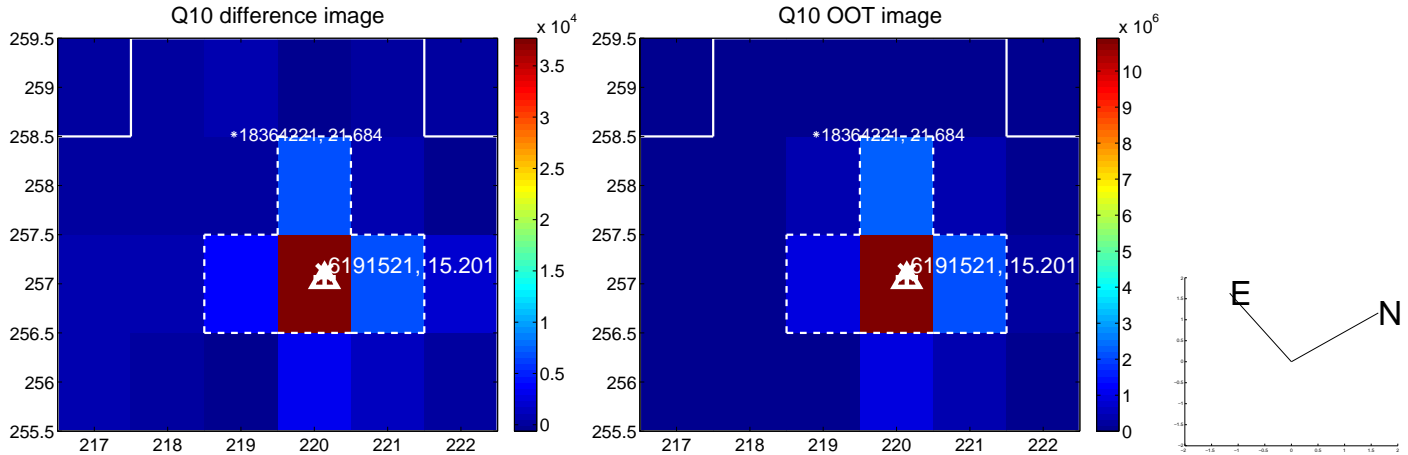
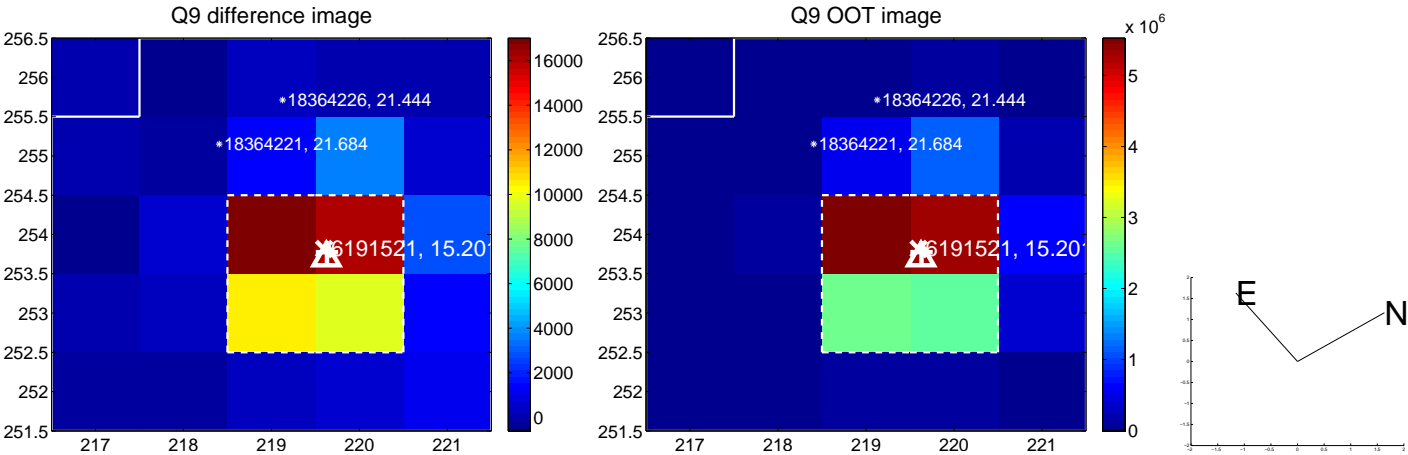
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



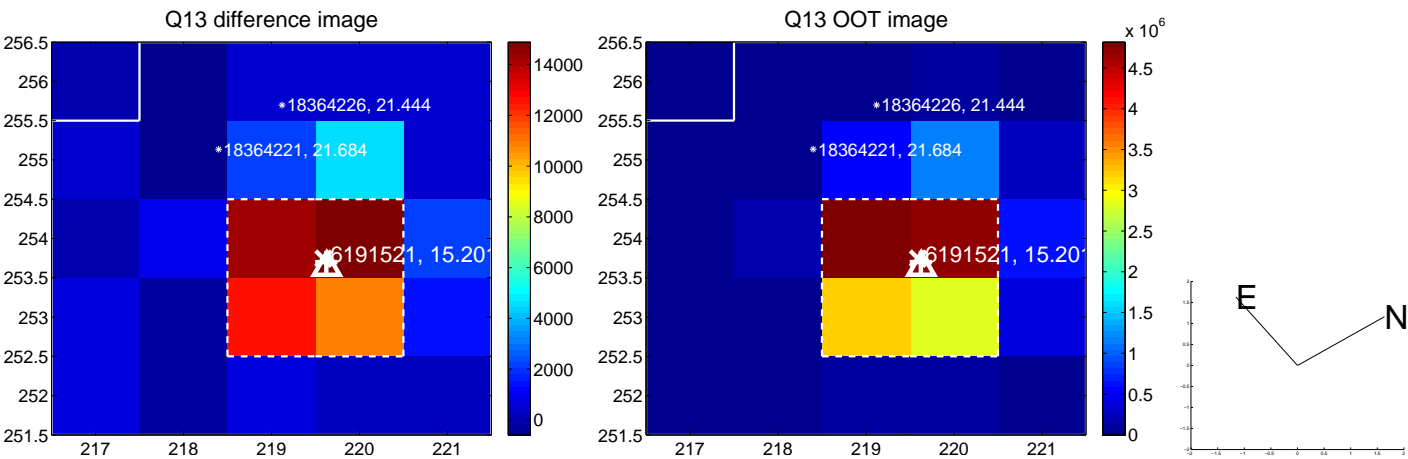
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



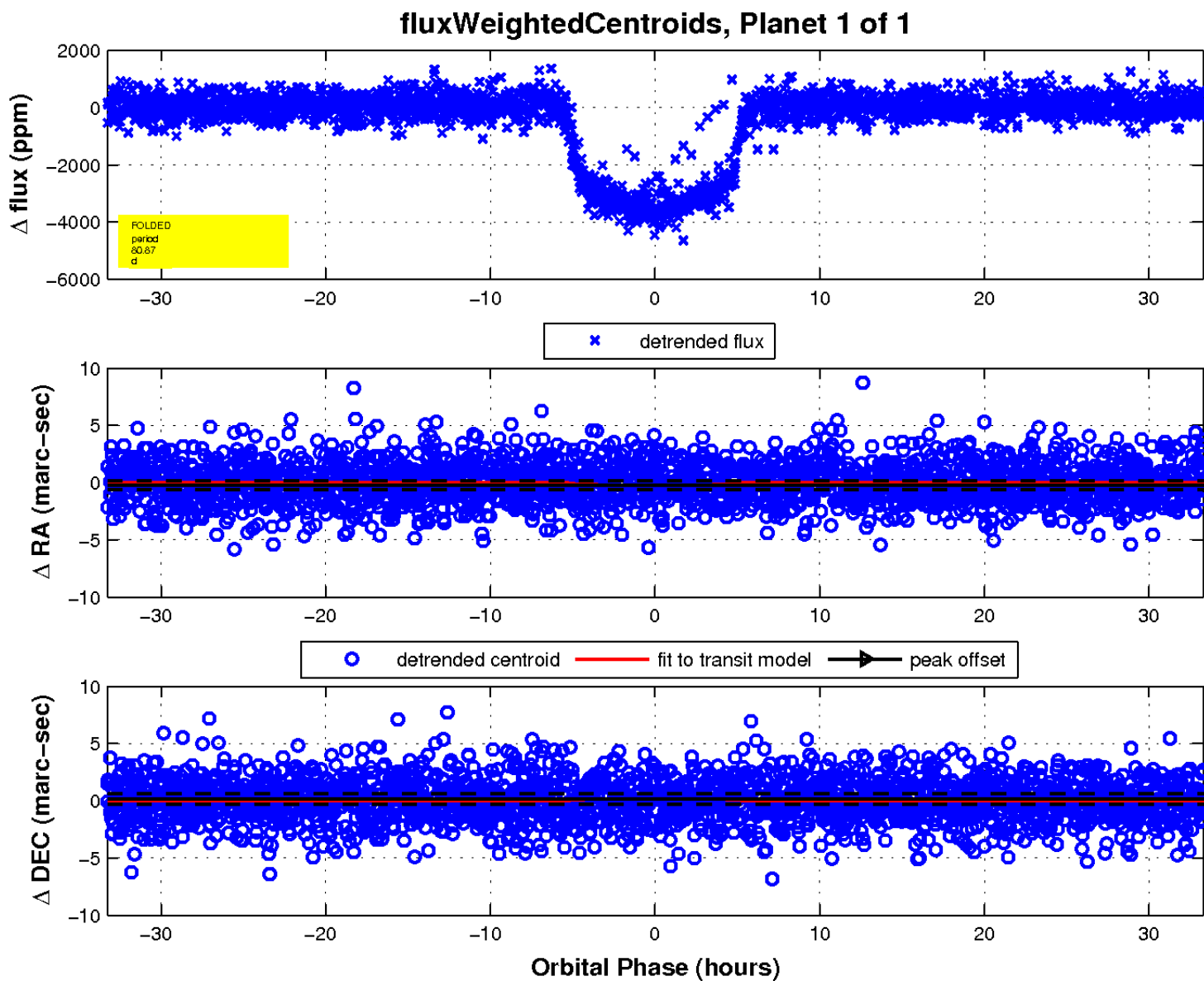
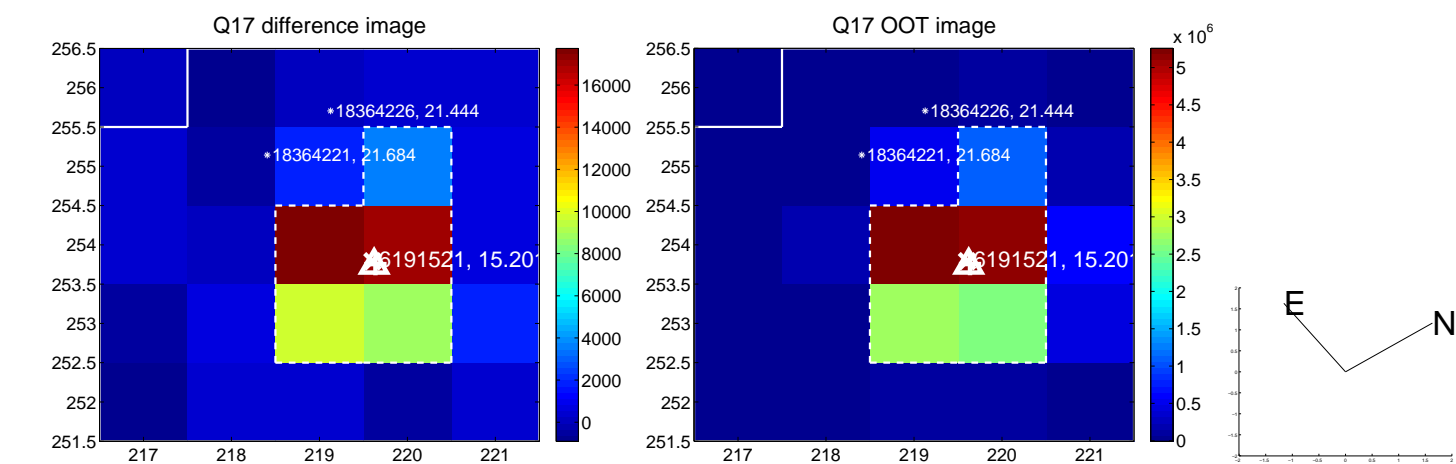
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

