

KIC 009279669

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})
009279669-01	OBS	0585.01	3.722159	134.338382	732.9	2.134	59.2	67.9	0.81	5617	2.57	283.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009279669-01	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.

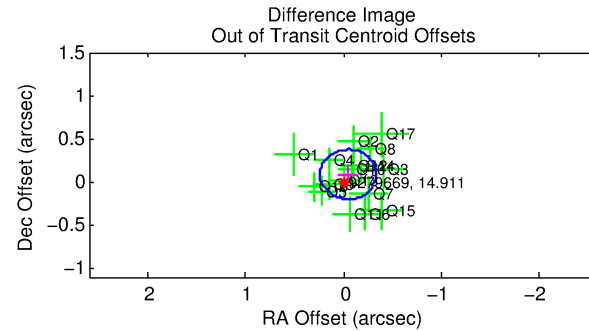
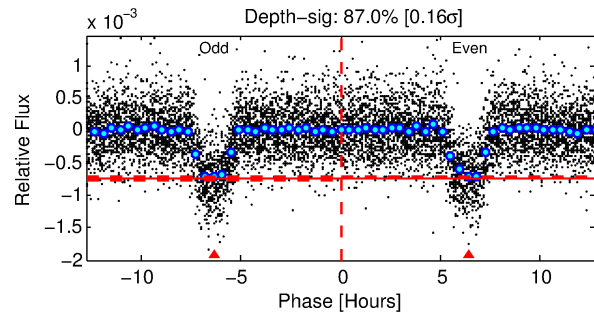
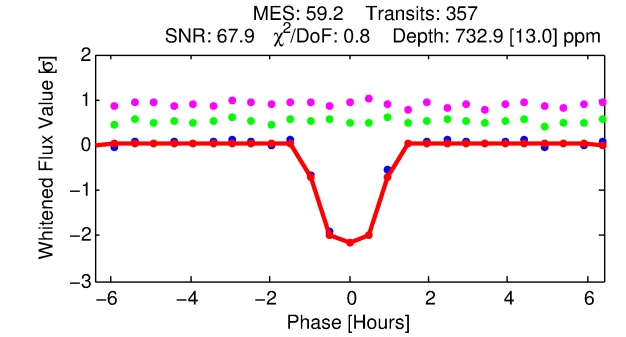
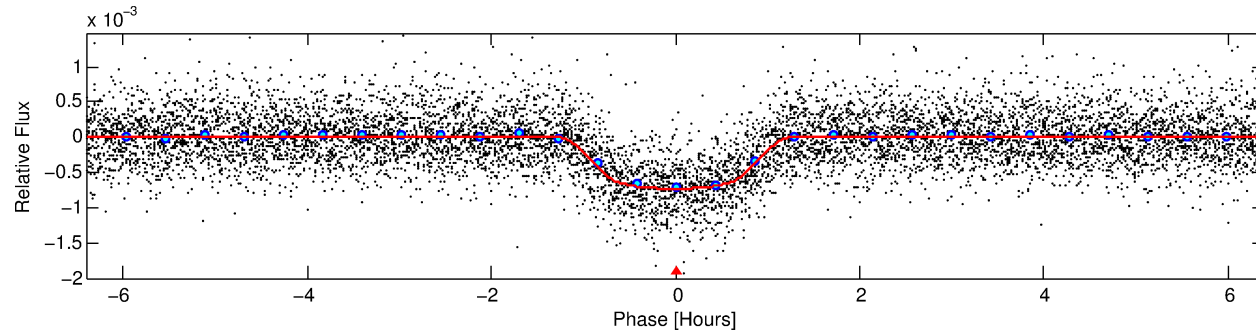
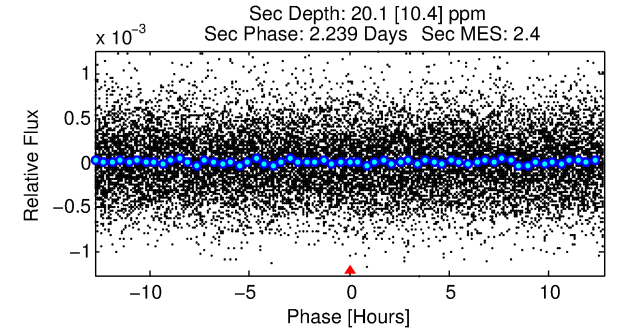
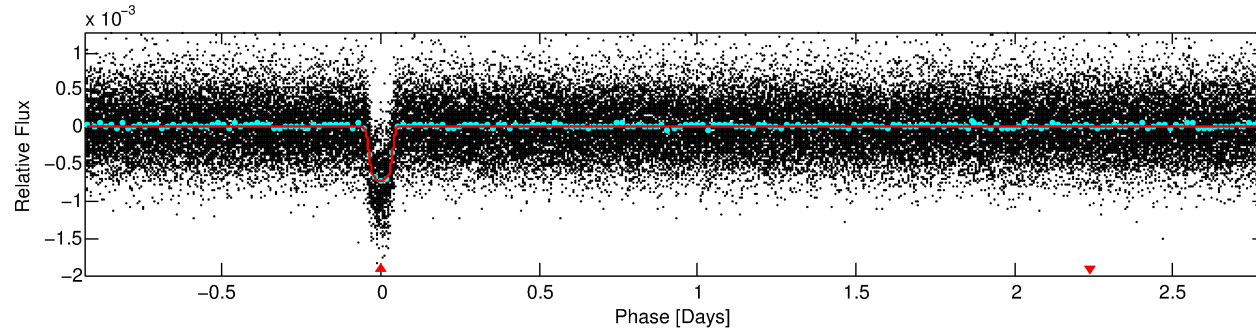
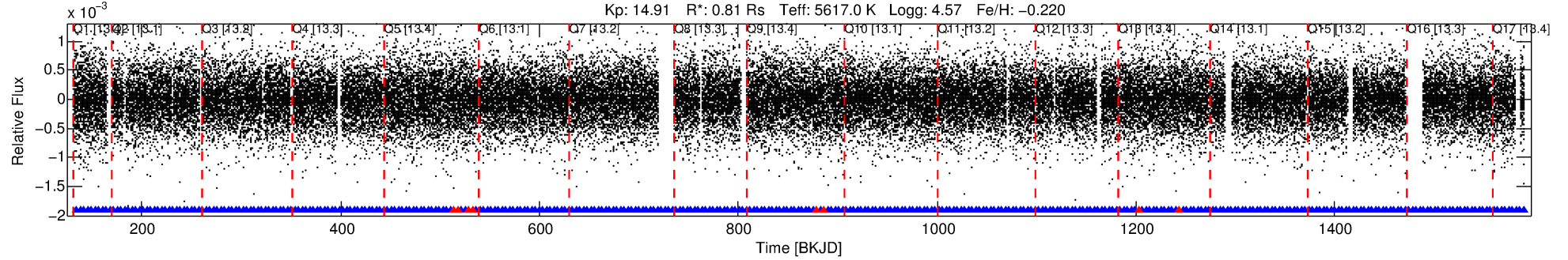
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009279669-01

No Significant Match Found

DV One-Page Summary

KIC: 9279669 Candidate: 1 of 1 Period: 3.722 d
KOI: K00585.01 Corr: 0.966



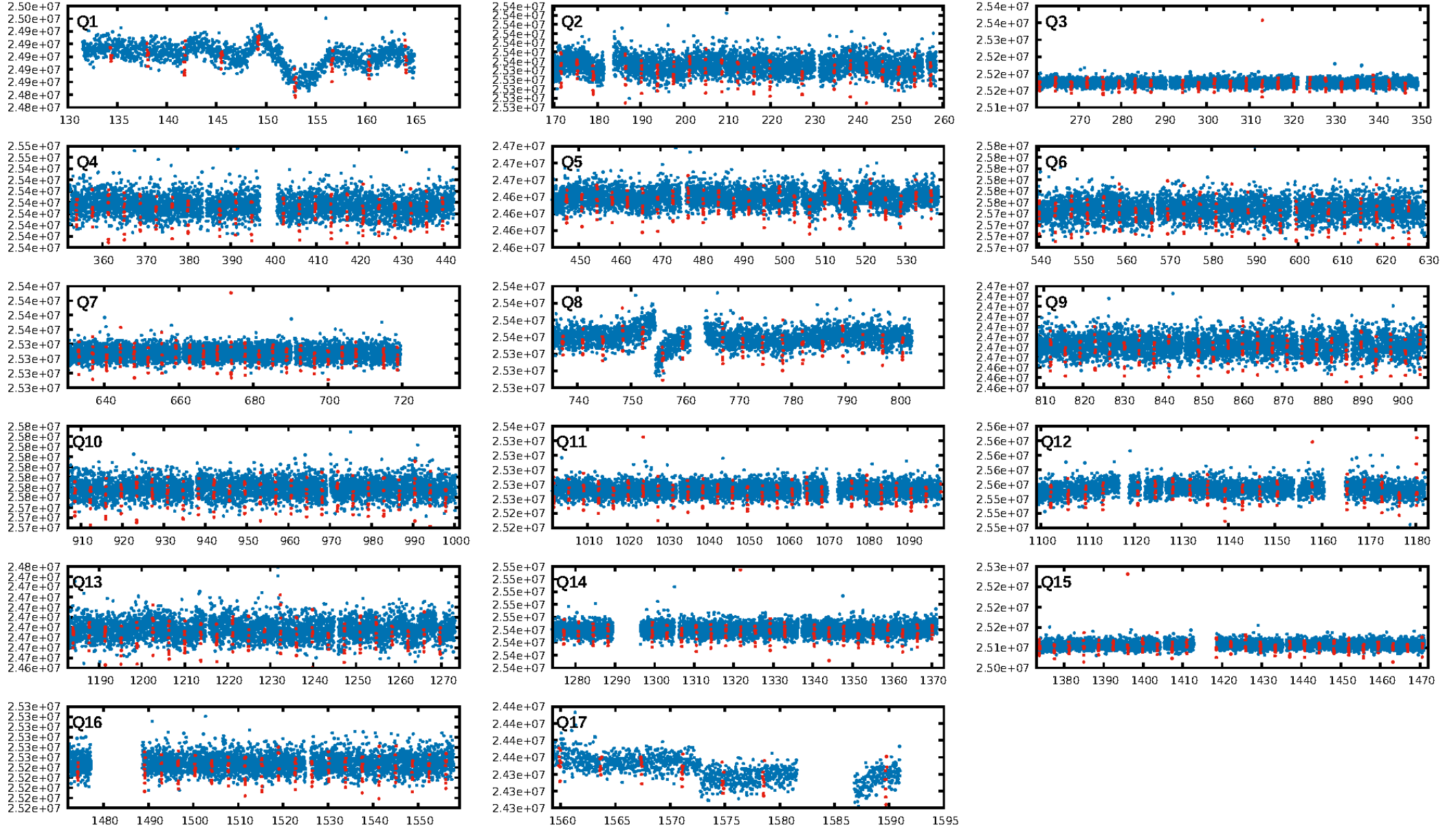
DV Fit Results:

Period = 3.72216 [0.00000] d
Epoch = 134.3384 [0.0006] BKJD
Rp/R* = 0.0292 [0.0020]
a/R* = 7.04 [2.06]
b = 0.89 [0.07]
Seff = 283.62 [84.53]
Teff = 1046 [78] K
Rp = 2.57 [0.61] Re
a = 0.0452 [0.0086] AU
Ag = 3.42 [2.06] [1.17σ]
Teffp = 2199 [301] K [3.71σ]

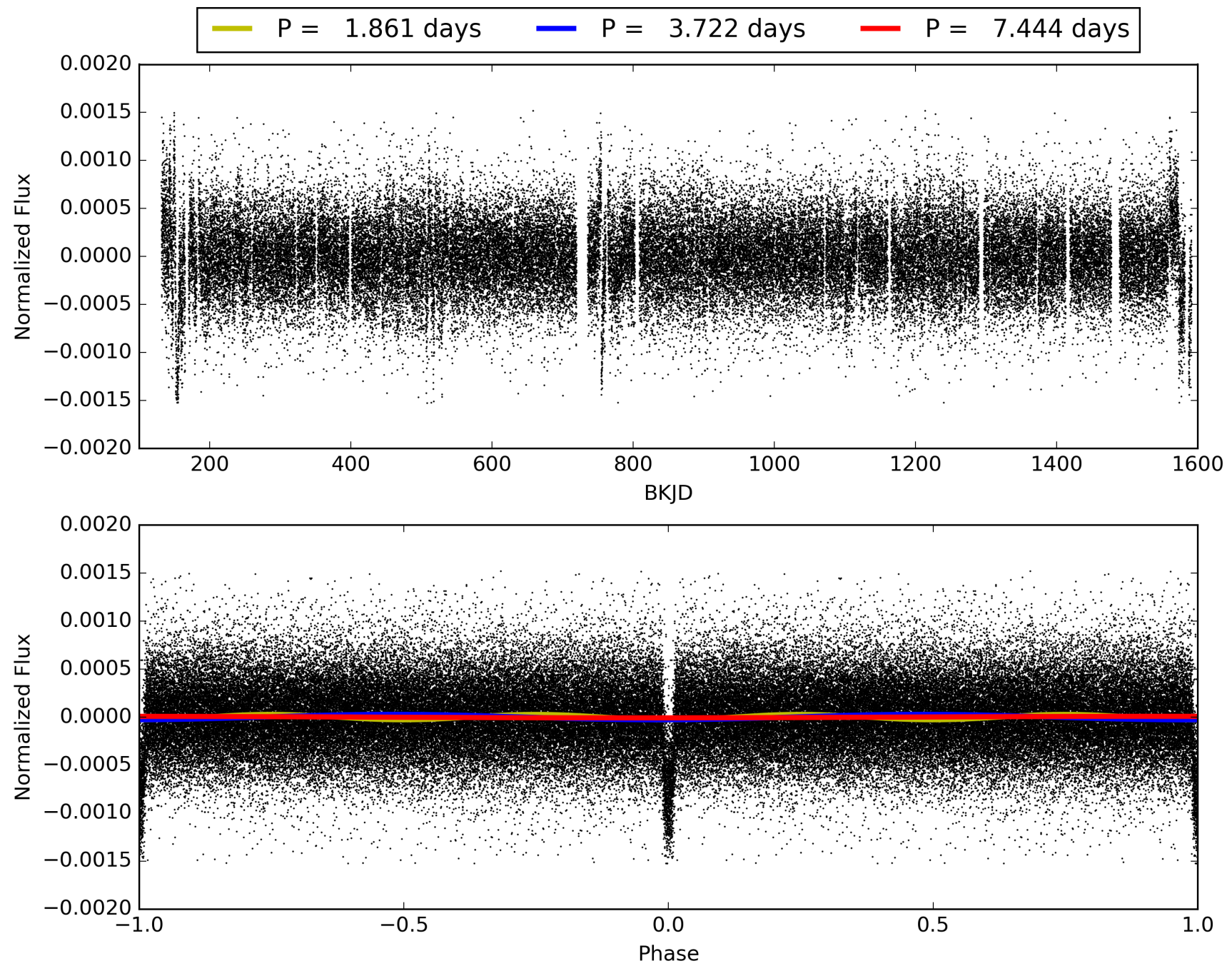
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.98 [333/341]
GhostDiagnostic-chr: 4.522
Centroid-sig: 0.0%
Centroid-so: 0.172 arcsec [0.80σ]
OotOffset-rm: 0.098 arcsec [1.03σ]
KicOffset-rm: 0.038 arcsec [0.42σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009279669-01, PDC Light Curves

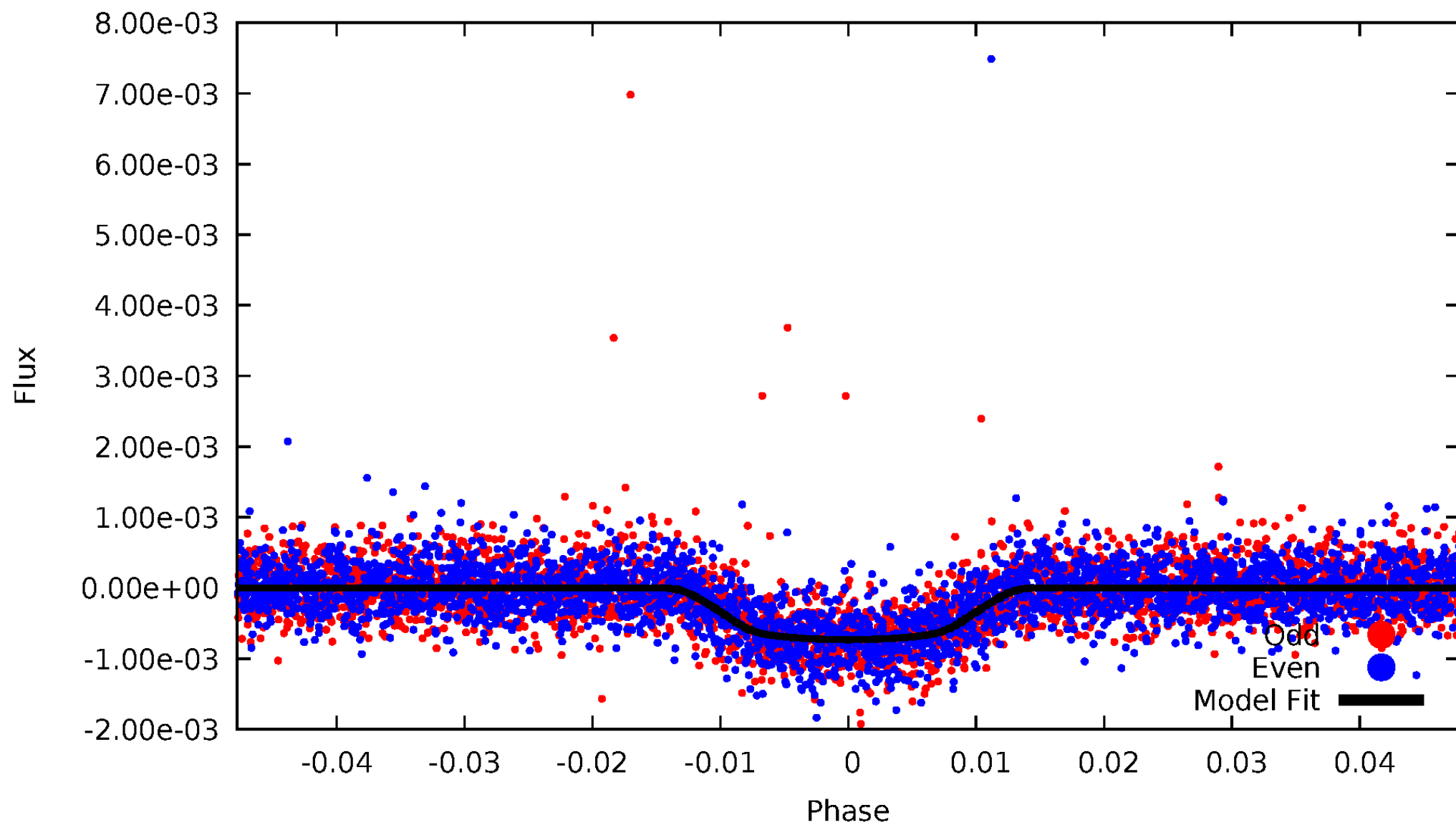


TCE 009279669-01



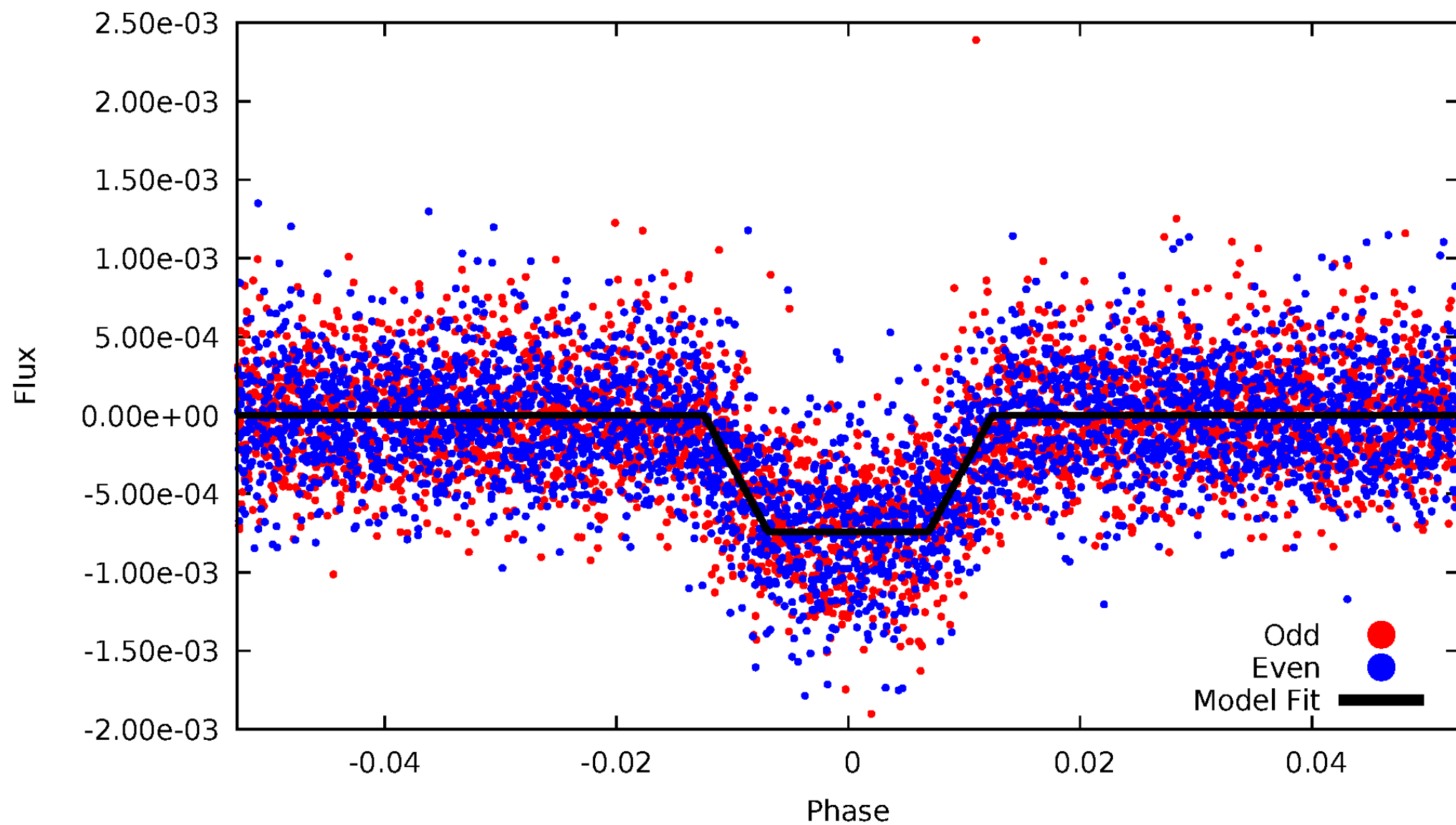
DV Odd/Even

TCE 009279669-01



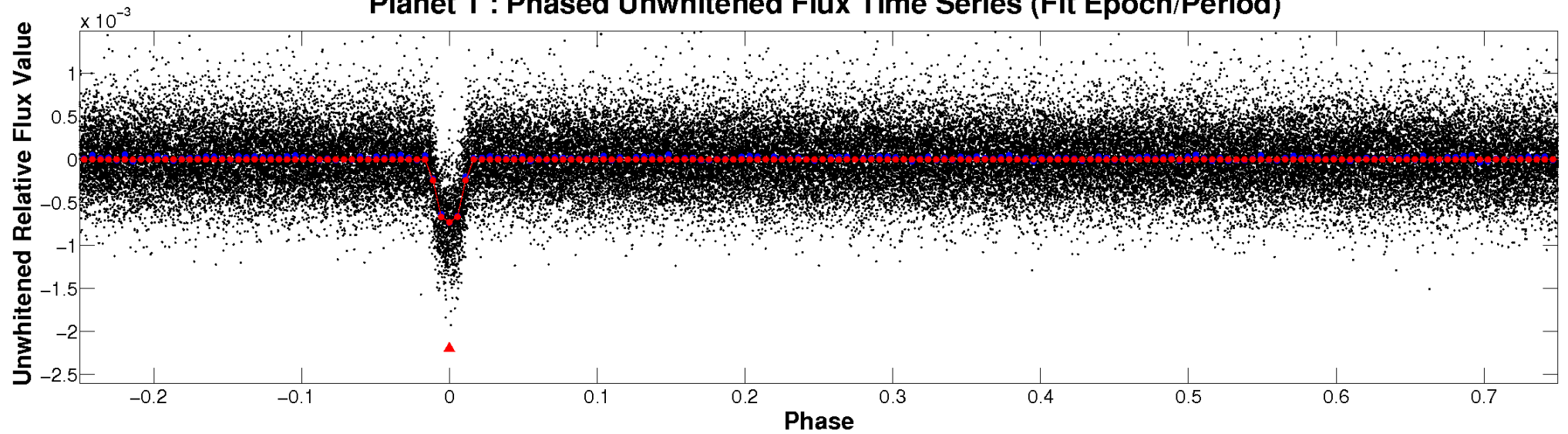
ALT Odd/Even

TCE 009279669-01

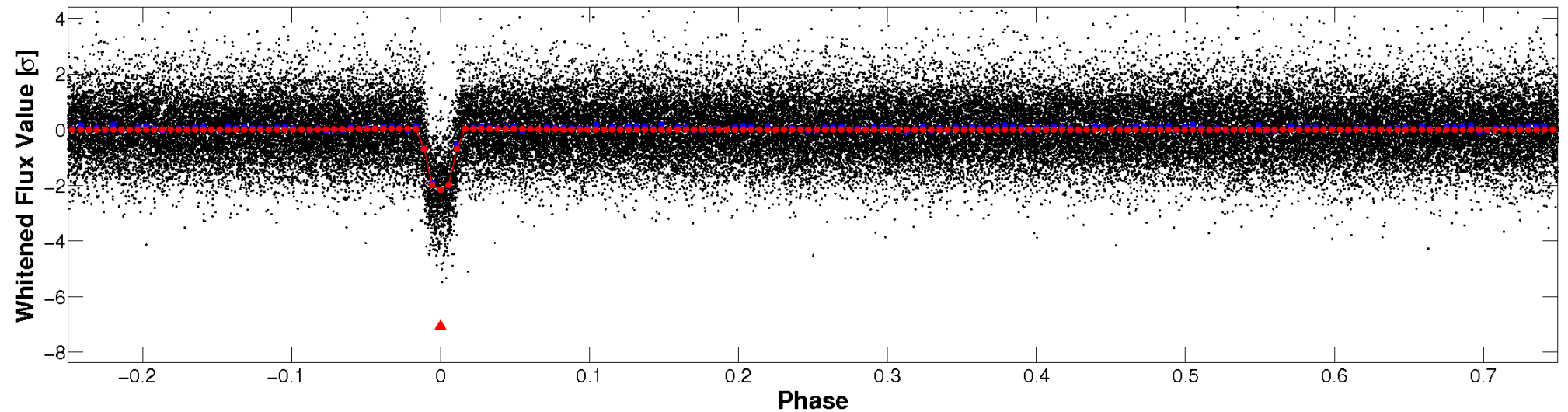


Non-Whitened Vs. Whitened Light Curve

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

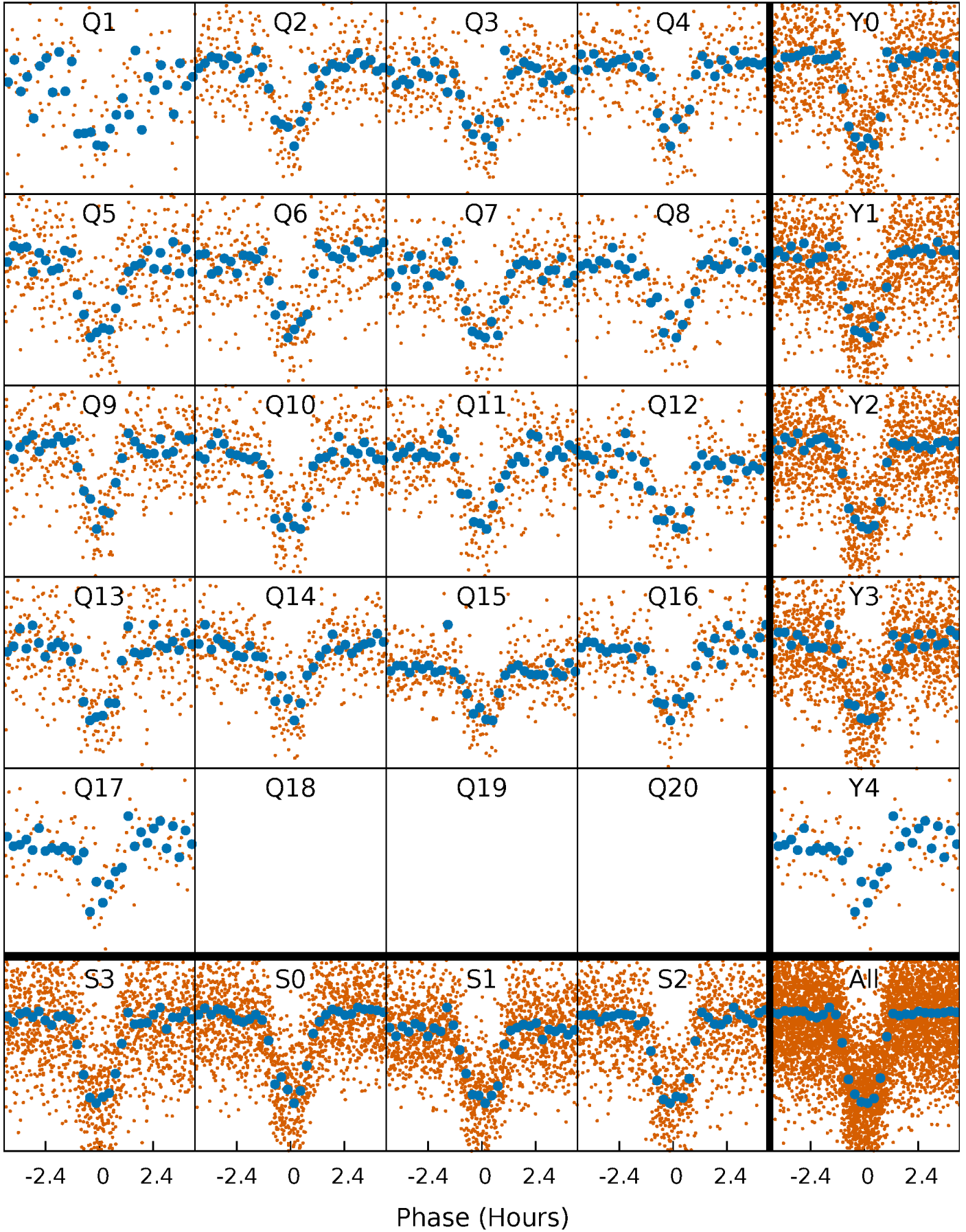


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



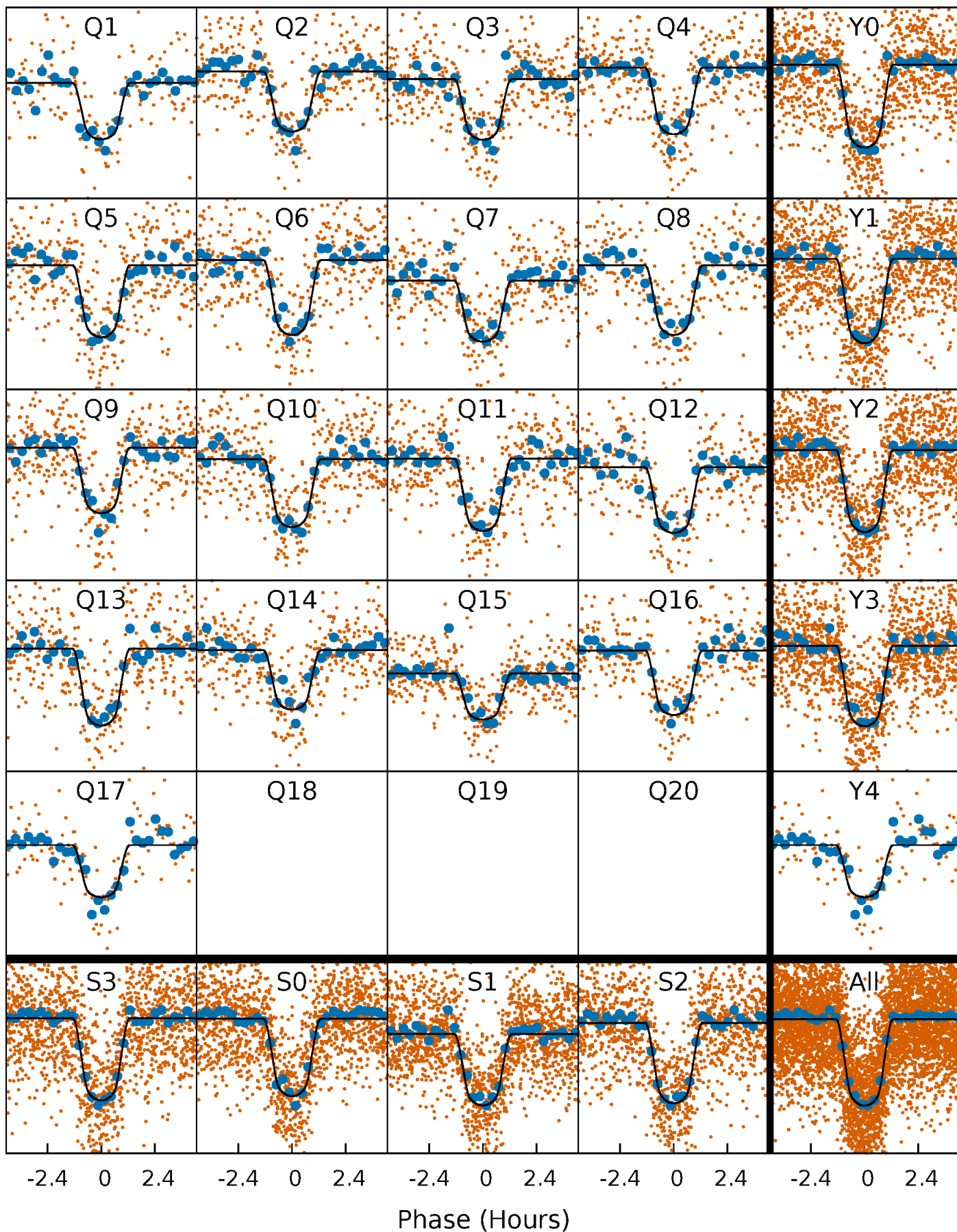
PDC Quarter-Phased Transit Curves

TCE 009279669-01 P= 3.722159 Days $T_0=134.338382$ (BKJD)



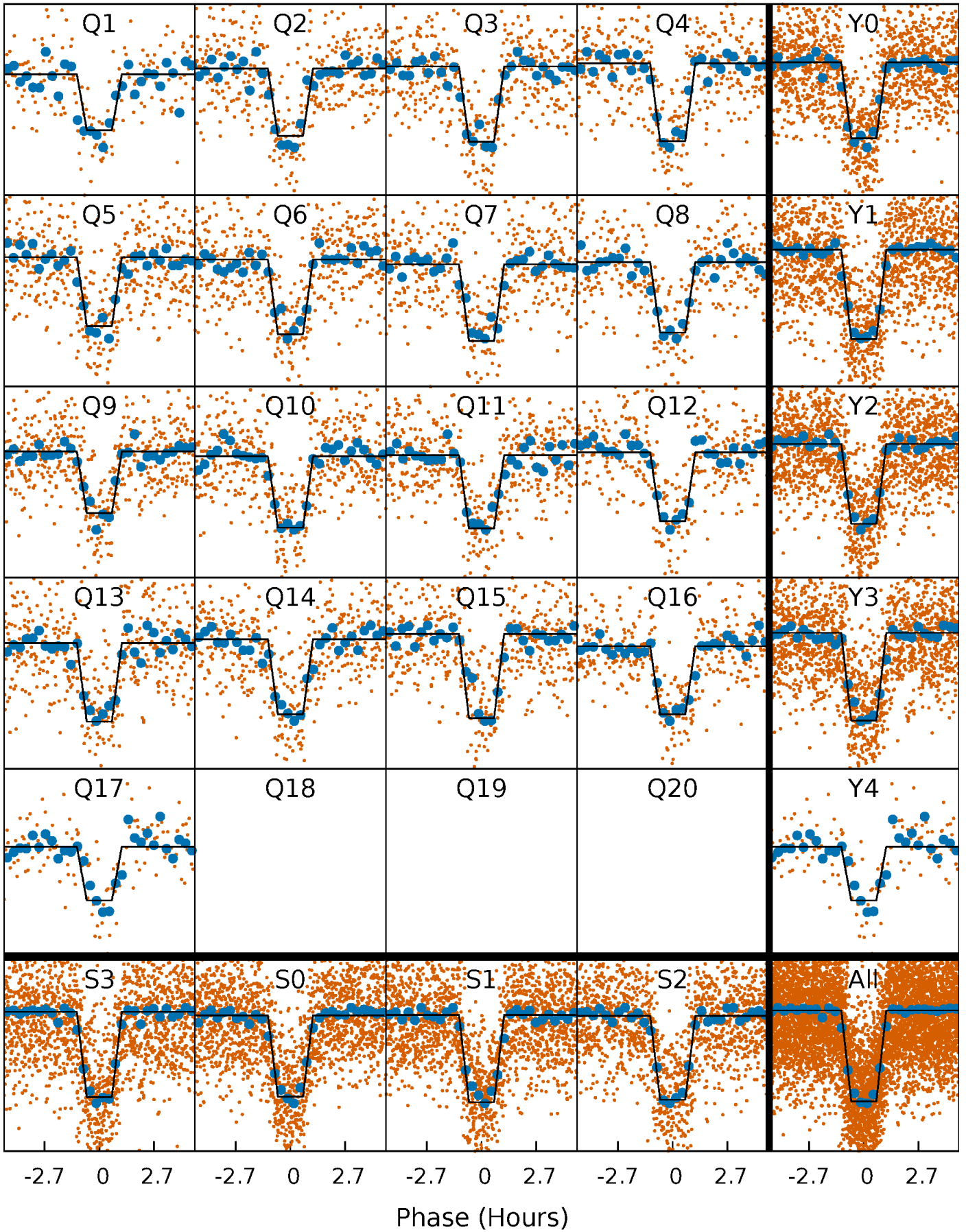
DV Quarter-Phased Transit Curves

TCE 009279669-01 P= 3.722159 Days $T_0=134.338382$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

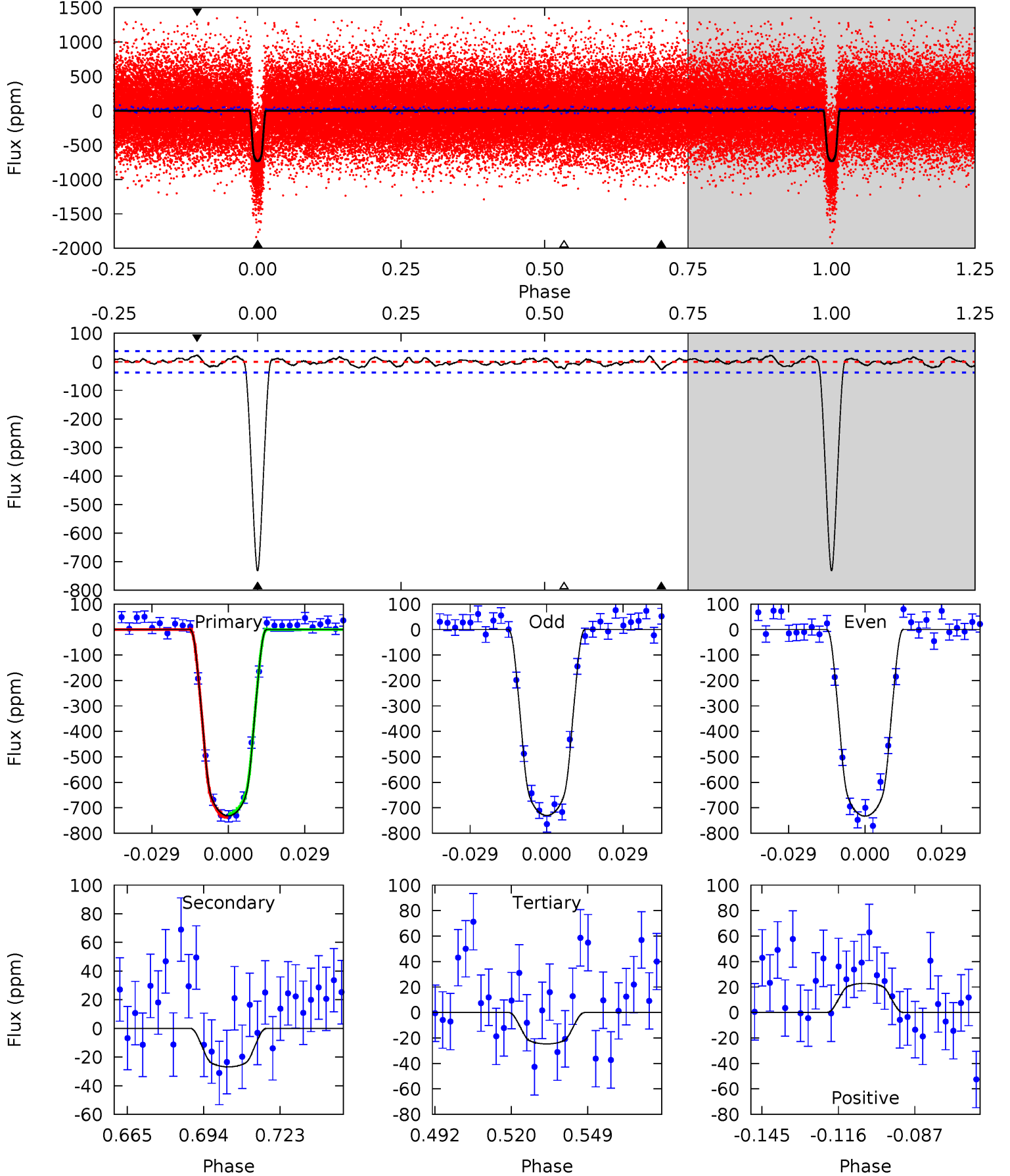
TCE 009279669-01 P= 3.722132 Days $T_0=134.343460$ (BKJD)



DV Model-Shift Uniqueness Test

009279669-01, P = 3.722159 Days, E = 130.616223 Days

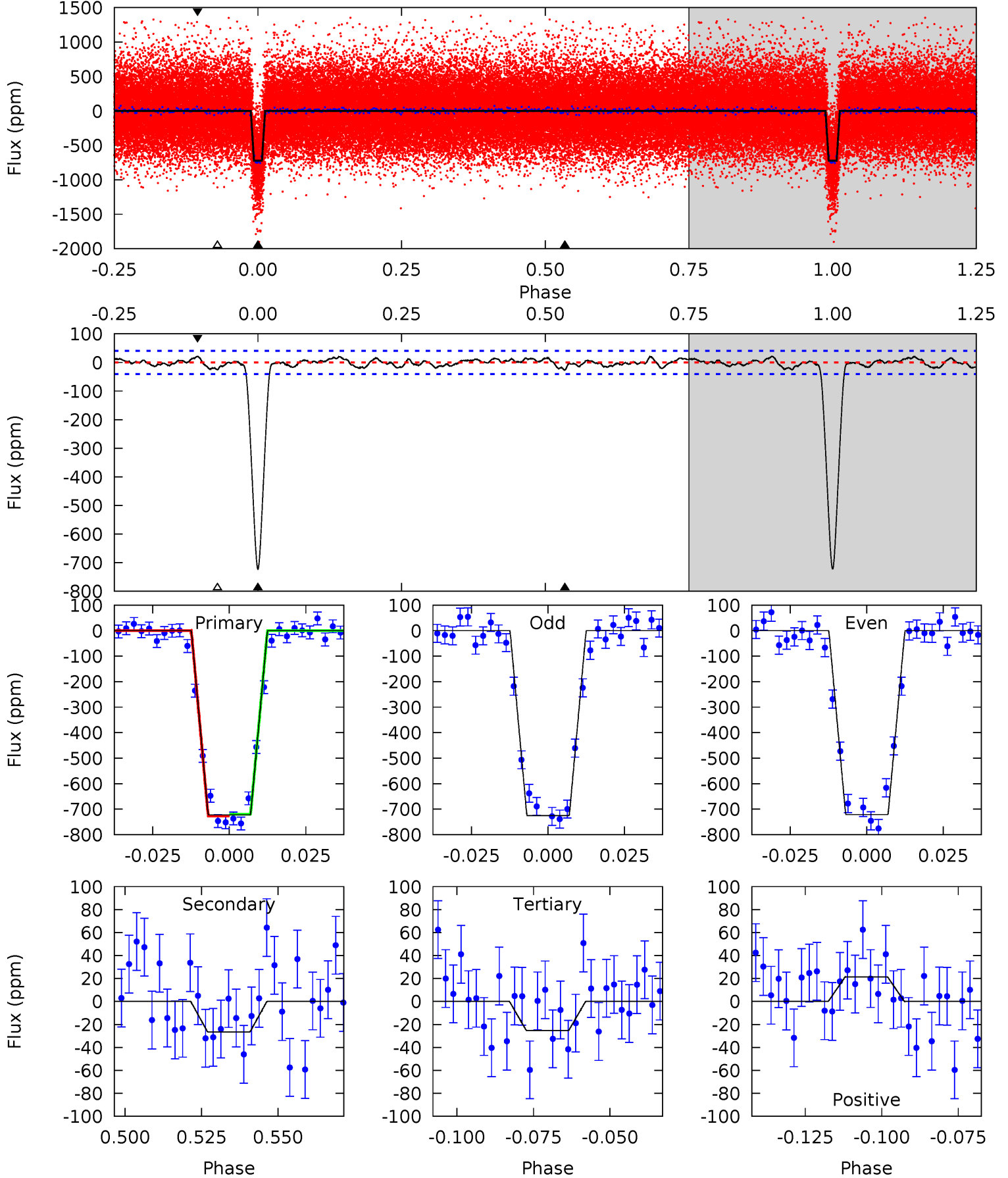
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
93.9	3.44	3.17	2.93	4.82	2.18	1.19	90.7	91.0	0.28	0.51	0.16	0.99	0.03	0.77



Alt Model-Shift Uniqueness Test

009279669-01, P = 3.722132 Days, E = 130.621328 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
85.8	3.15	3.00	2.54	4.85	2.24	1.16	82.8	83.2	0.15	0.61	0.25	1.01	0.03	0.38



Stellar Parameters For KIC 009279669

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5617^{+152}_{-152}	$4.574^{+0.038}_{-0.152}$	$-0.220^{+0.300}_{-0.300}$	$0.806^{+0.182}_{-0.073}$	$0.897^{+0.088}_{-0.107}$	$2.412^{+0.467}_{-0.990}$
	+3%/-3%	+1%/-3%	+136%/-136%	+23%/-9%	+10%/-12%	+19%/-41%
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 009279669-01 / KOI 0585.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 8	$2.65^{+0.33}_{-0.27}$	1491^{+77}_{-59}	2996^{+151}_{-165}	$4.171^{+1.740}_{-1.355}$
Alt.	-27 ± 8	$2.48^{+0.33}_{-0.26}$	1492^{+76}_{-65}	3052^{+166}_{-188}	$4.756^{+1.981}_{-1.686}$

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 $A_{obs} \gg 1.0$

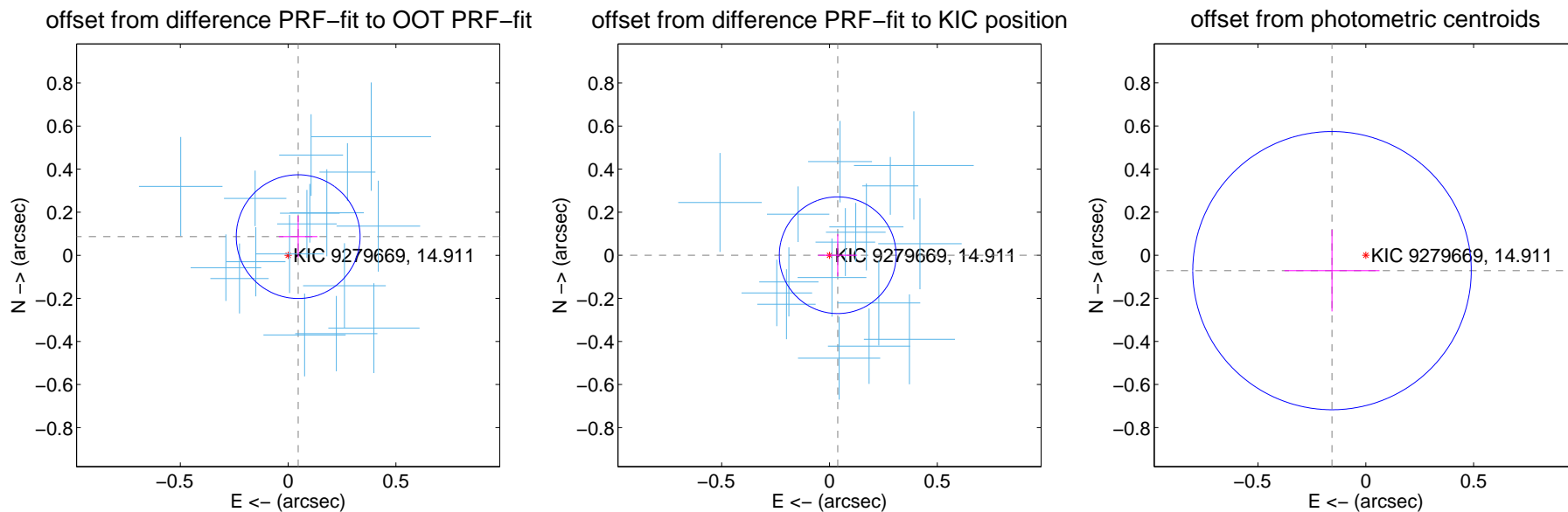
DV Centroid Data

Supplemental centroid analysis for 009279669-01. Kepler magnitude: 14.91. Transit SNR 67.92

There are 17 quarters with good PRF difference image offsets

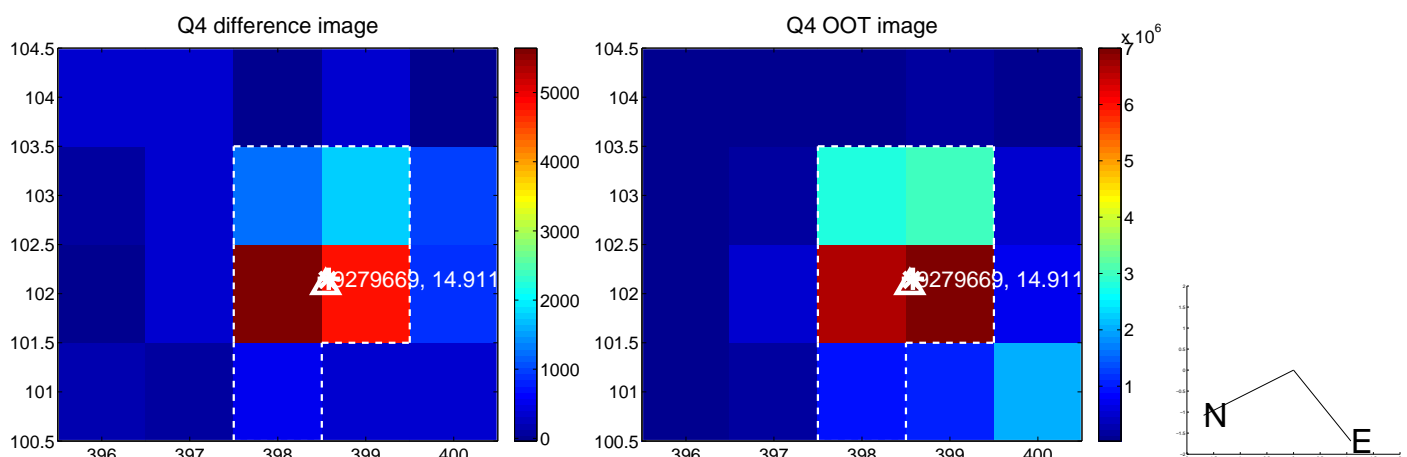
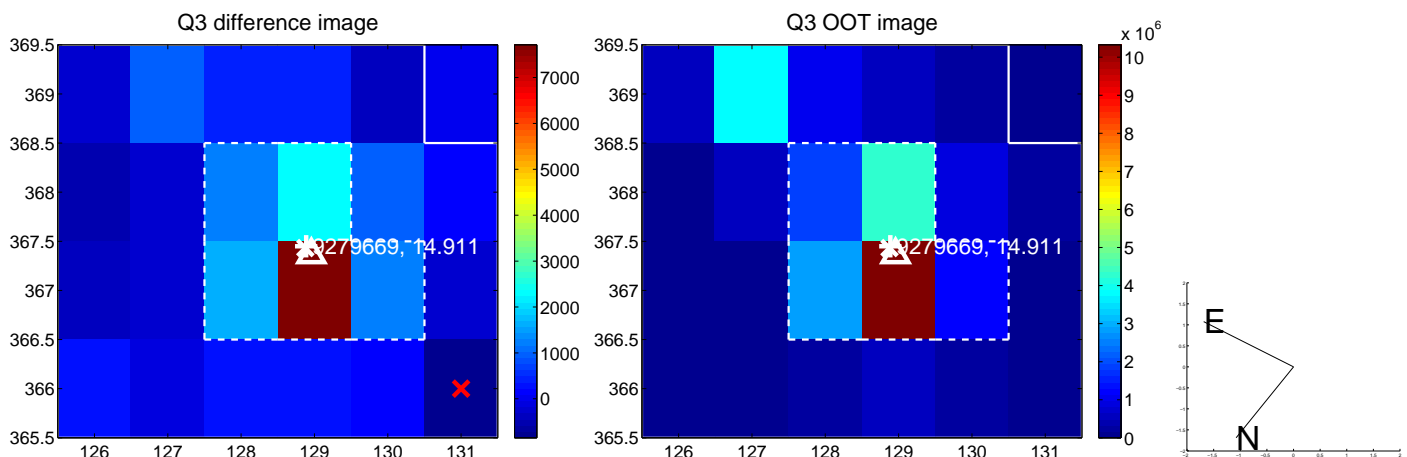
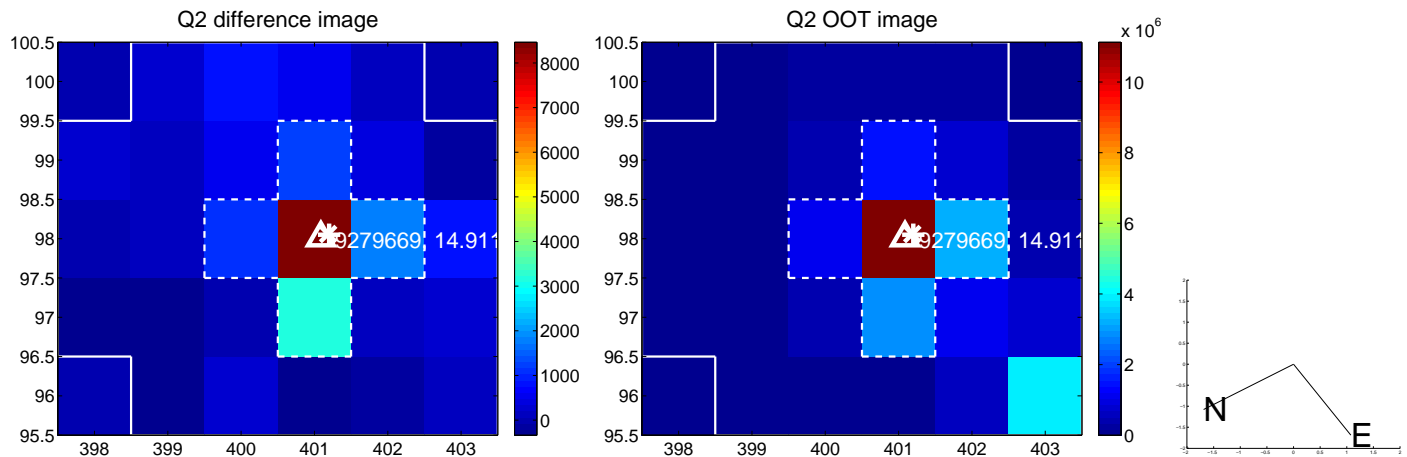
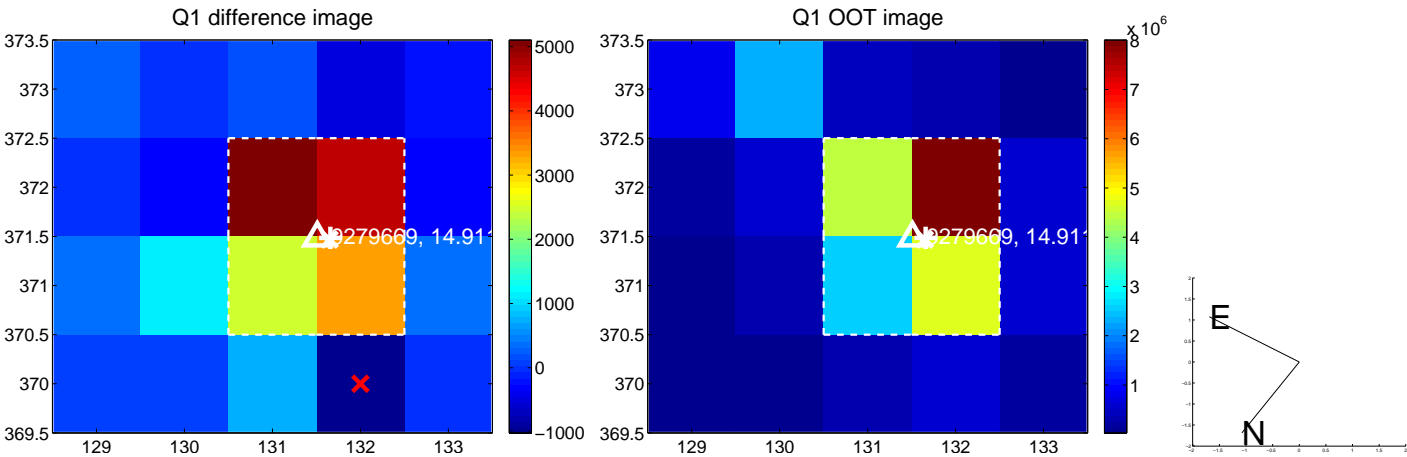
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.098 ± 0.096	1.03	-0.047 ± 0.089	0.087 ± 0.097
PRF-fit source offset from KIC position	0.038 ± 0.090	0.42	-0.038 ± 0.090	0.000 ± 0.097
photometric centroid source offset	0.17 ± 0.22	0.80	0.16 ± 0.22	-0.07 ± 0.19

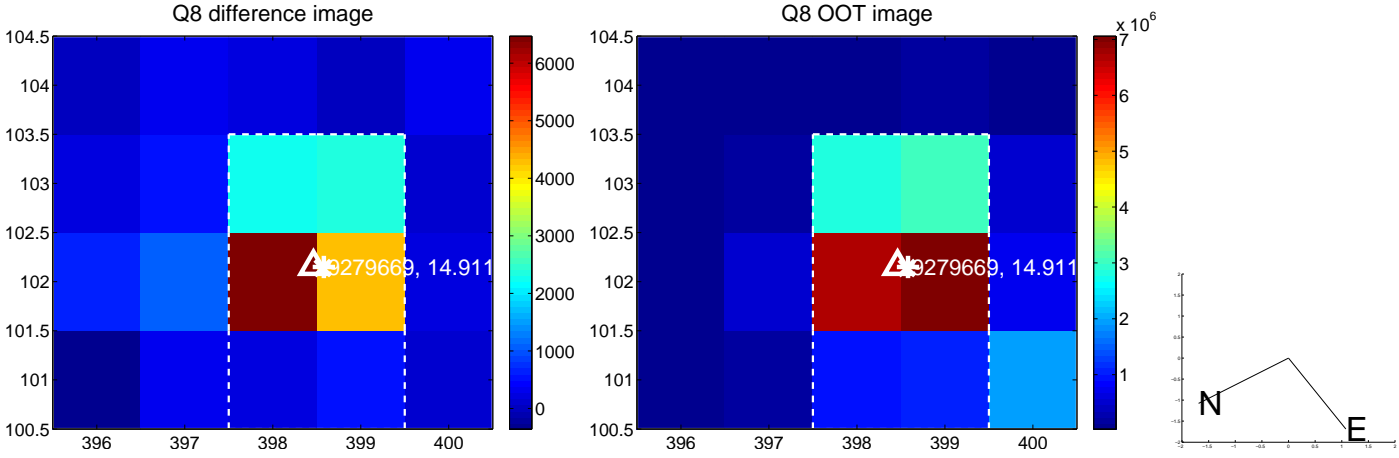
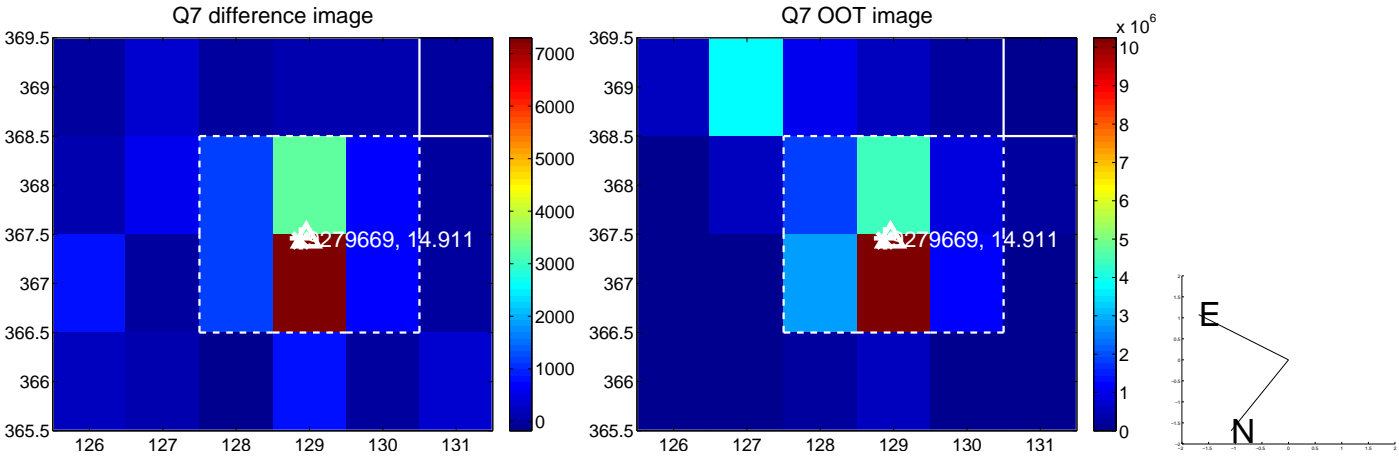
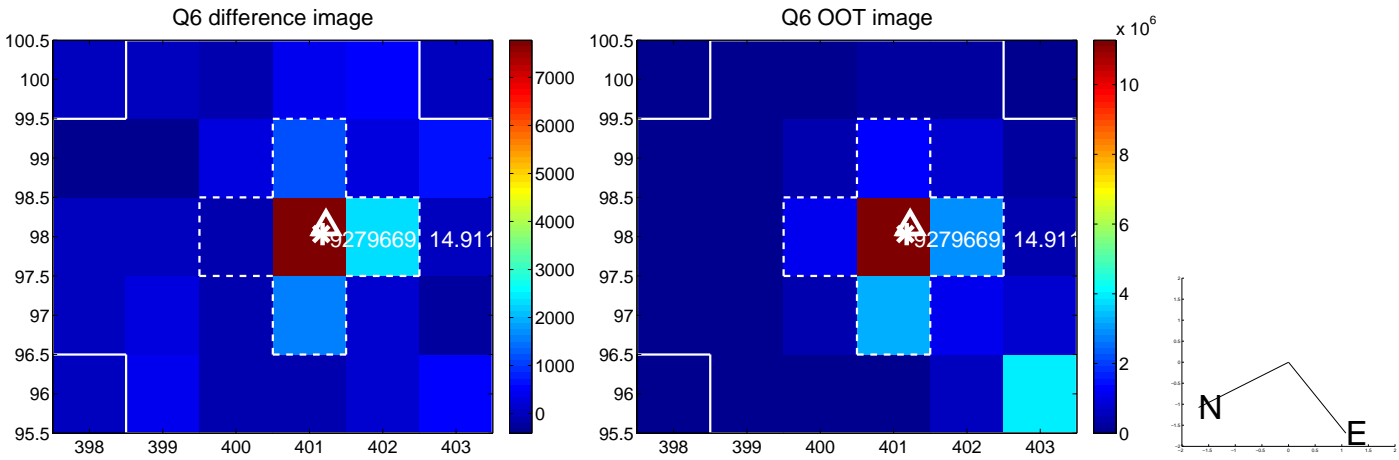
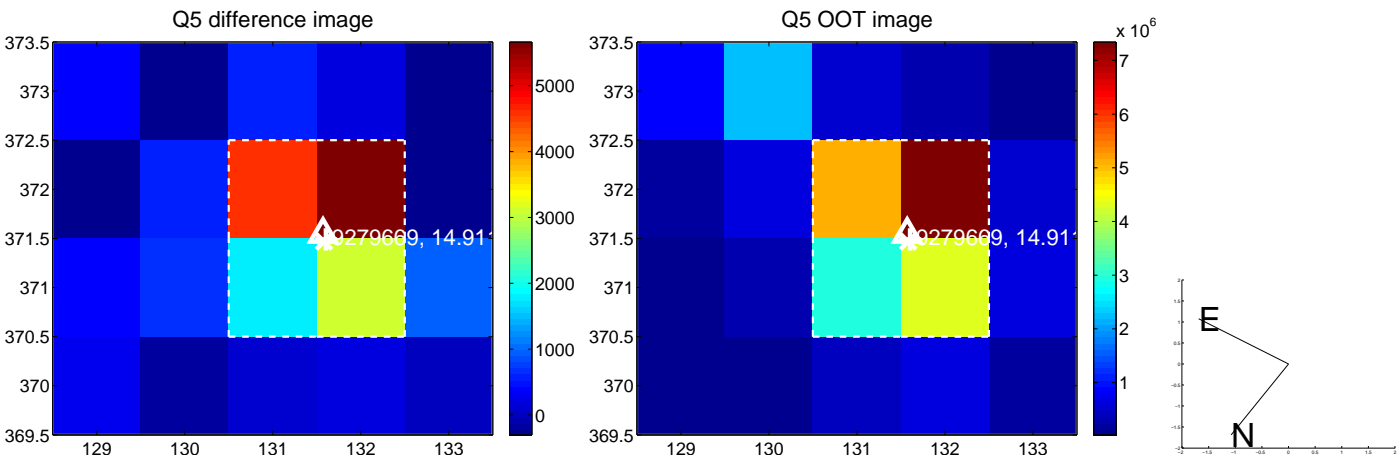


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

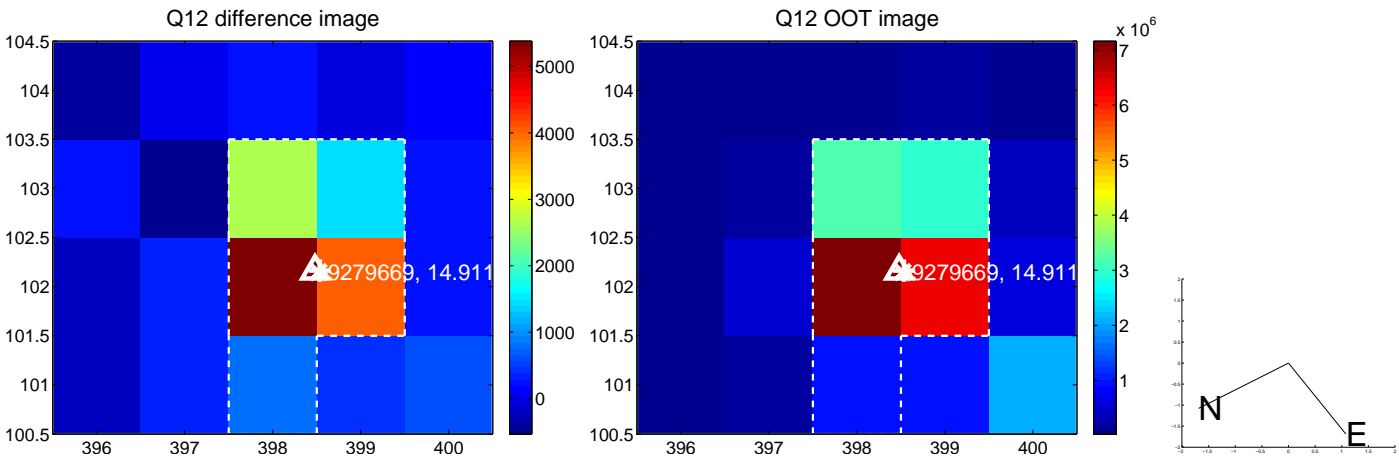
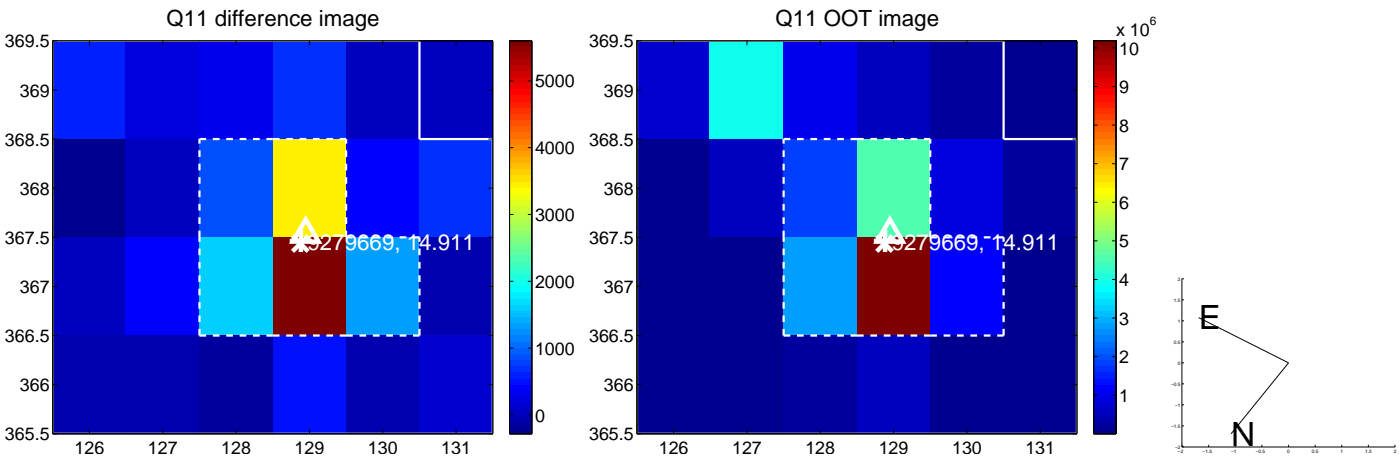
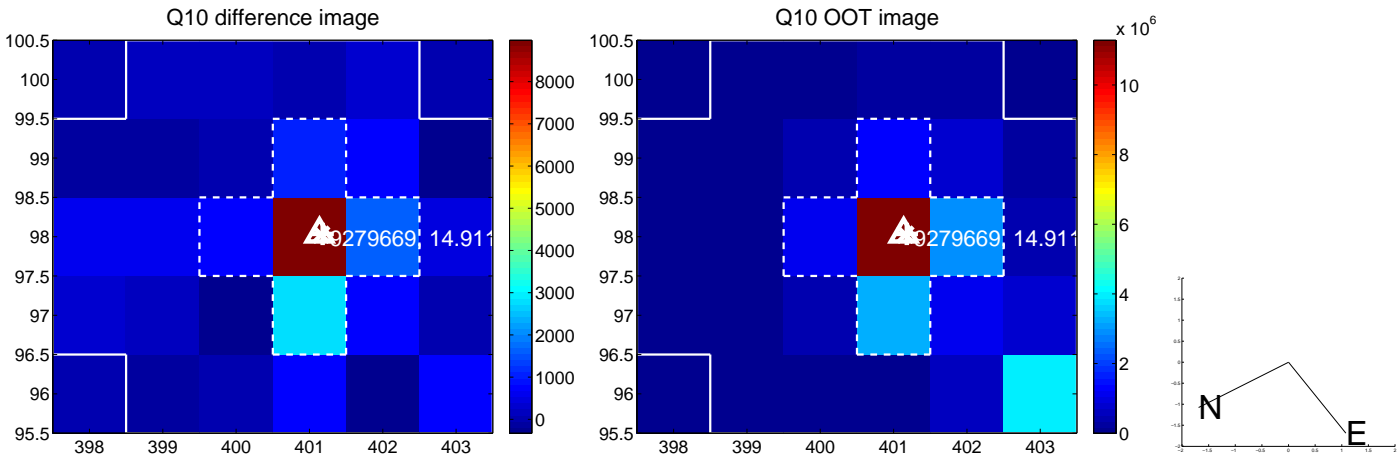
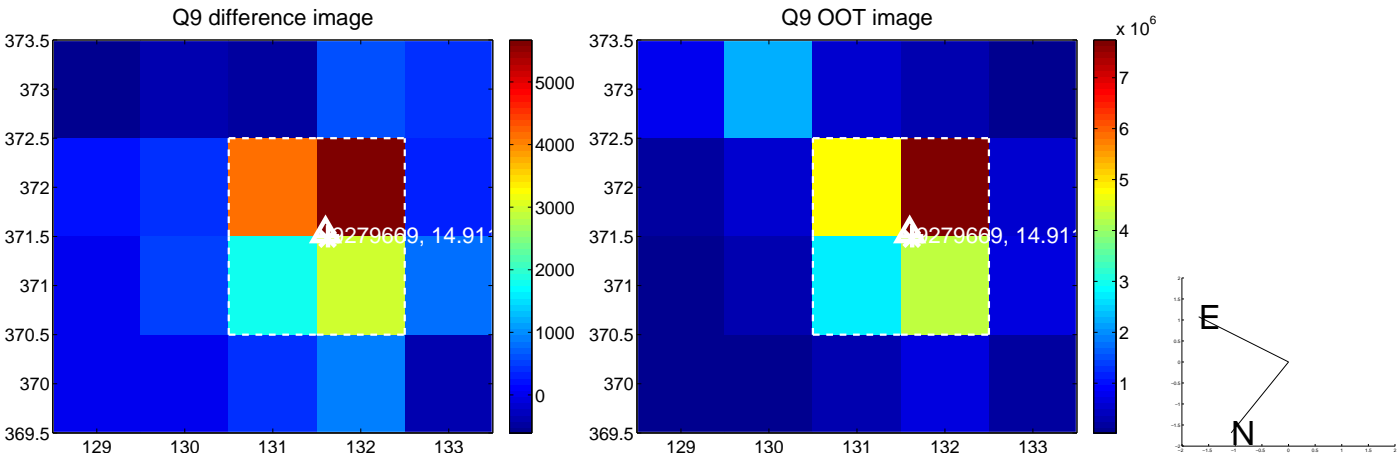
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



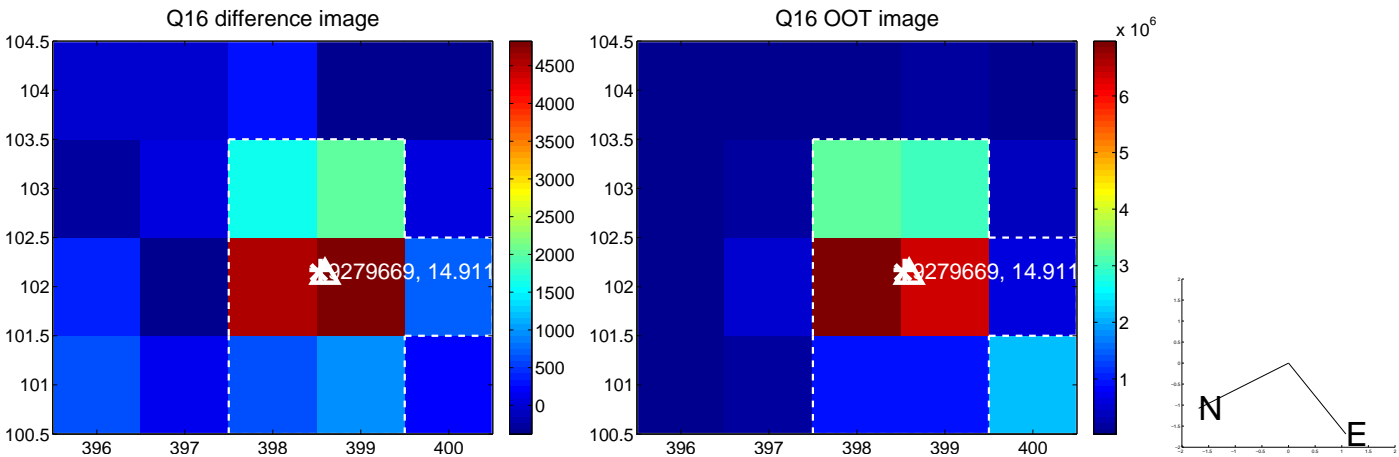
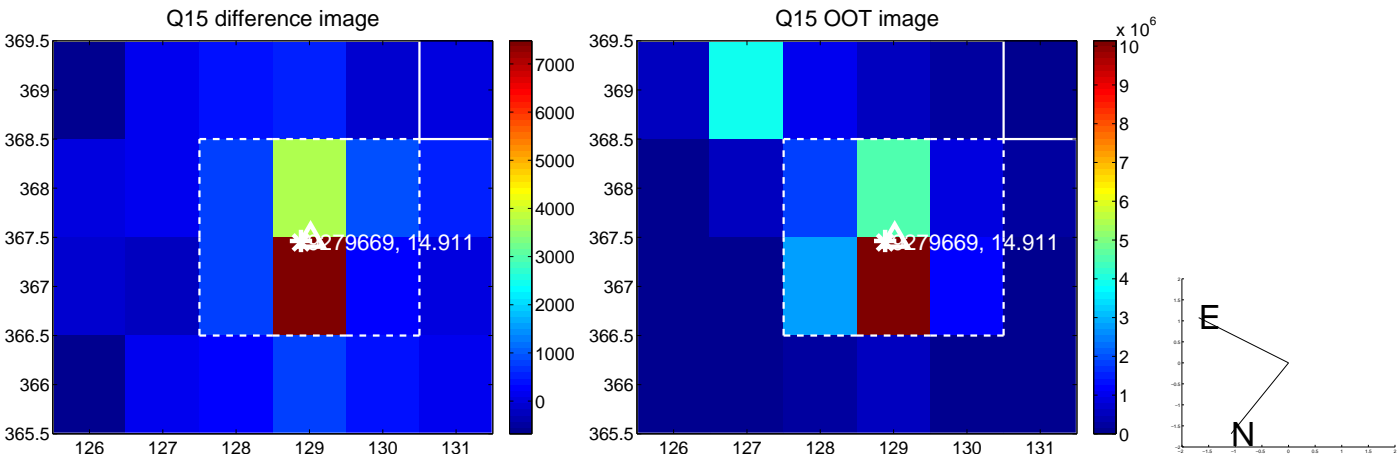
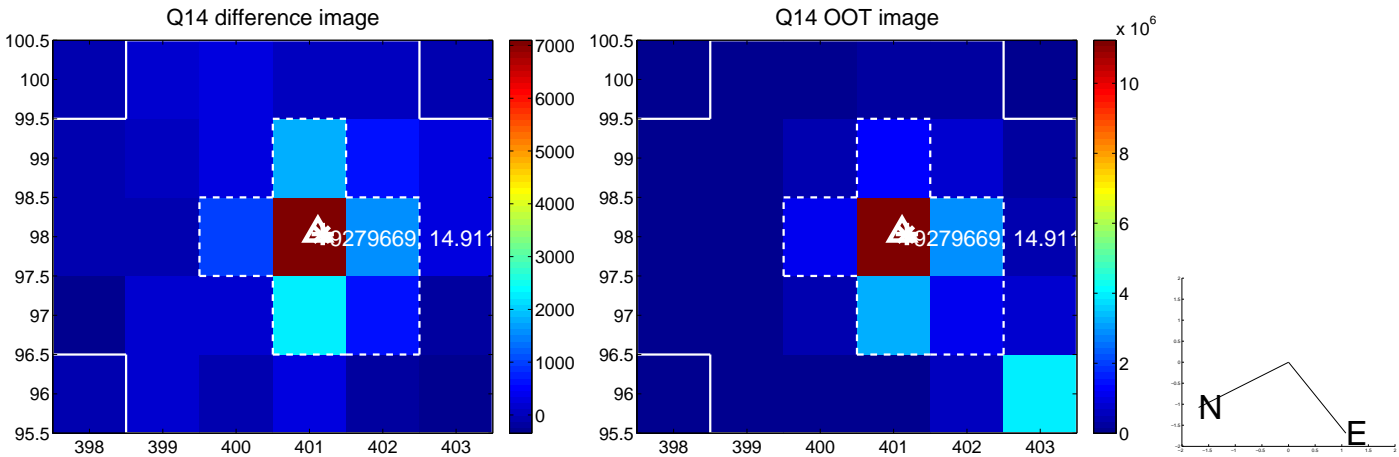
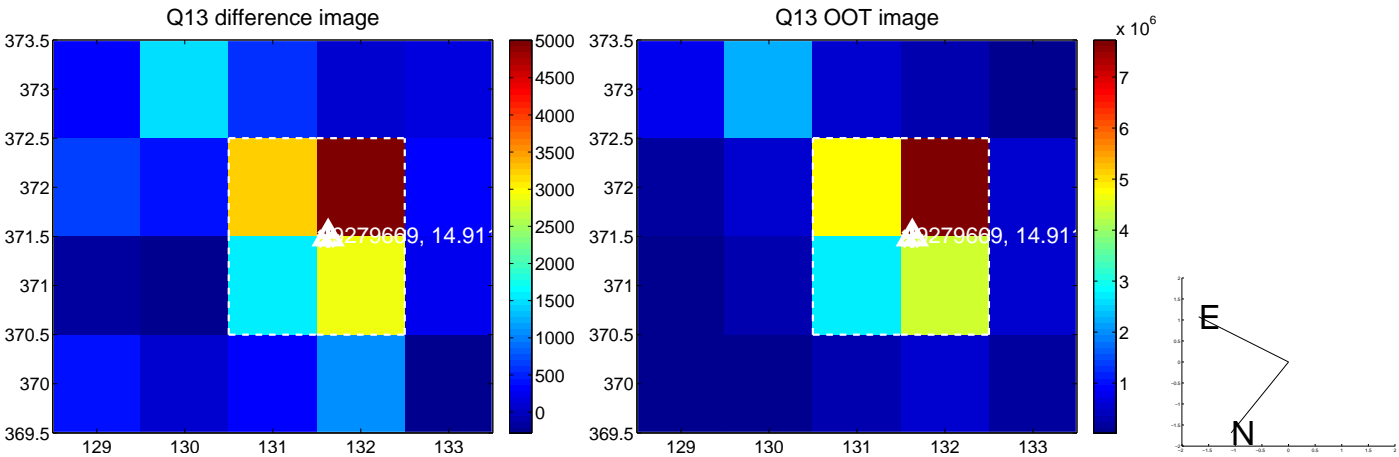
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



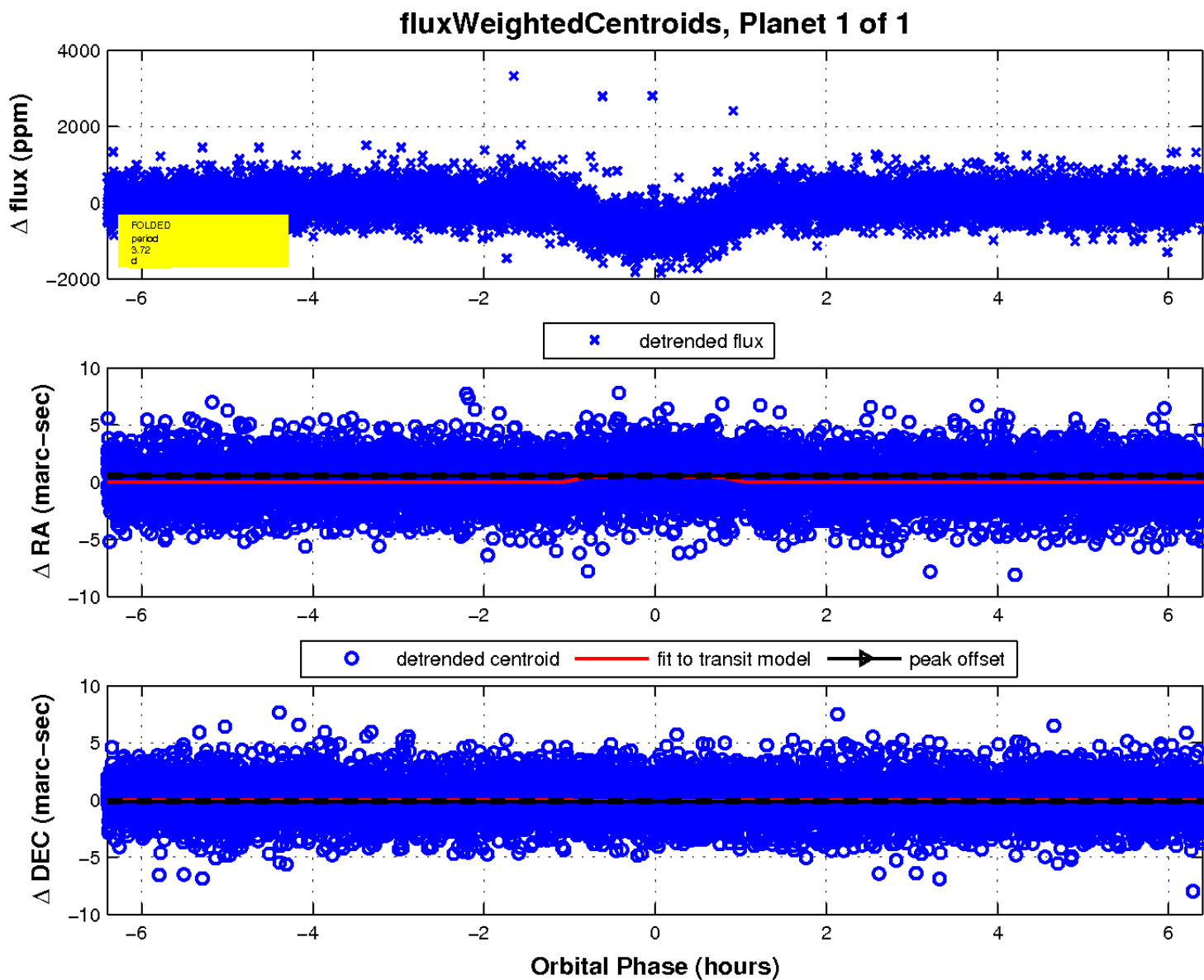
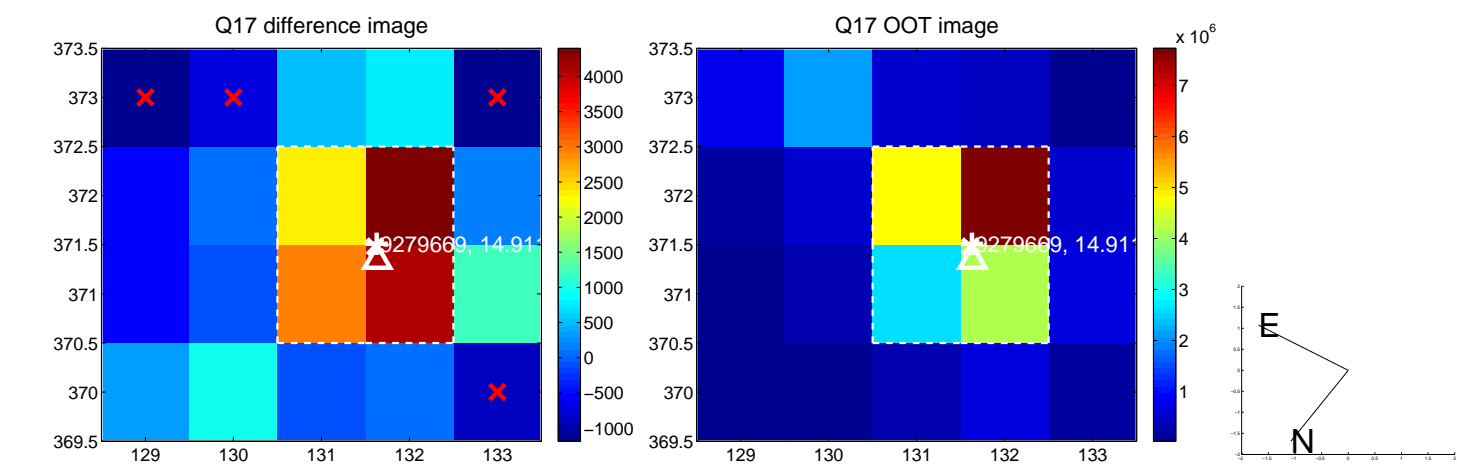
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

