

KIC 006936977

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})
006936977-01	OBS	6791.01	36.473115	159.766683	160858.0	2.930	4803.0	3219.1	0.77	5452	46.32	11.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006936977-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

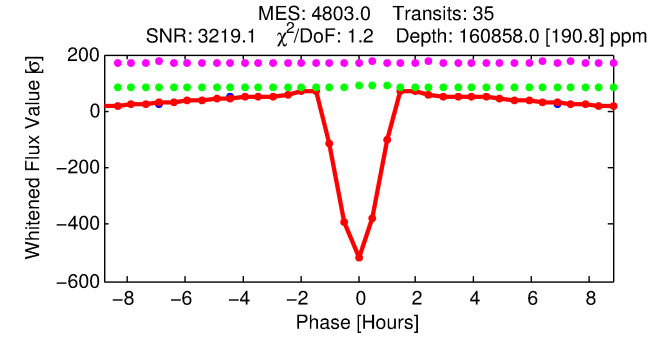
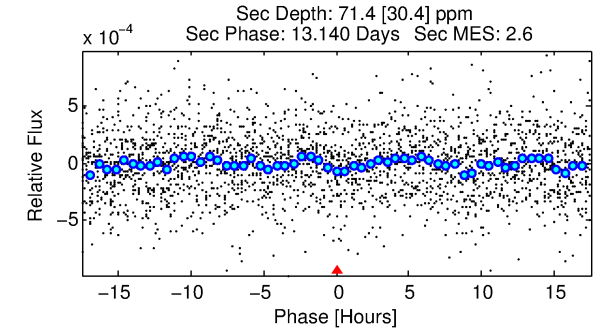
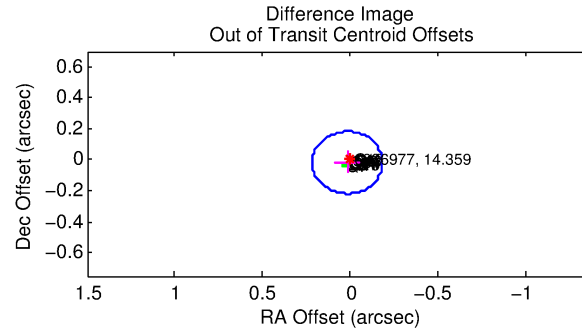
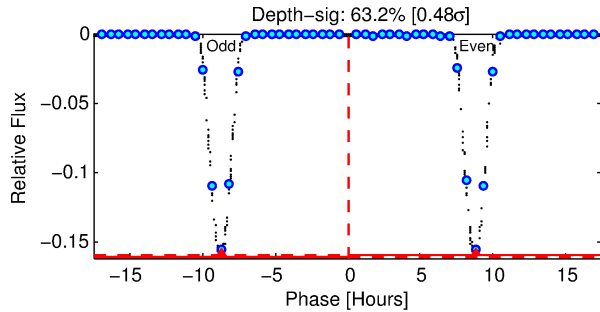
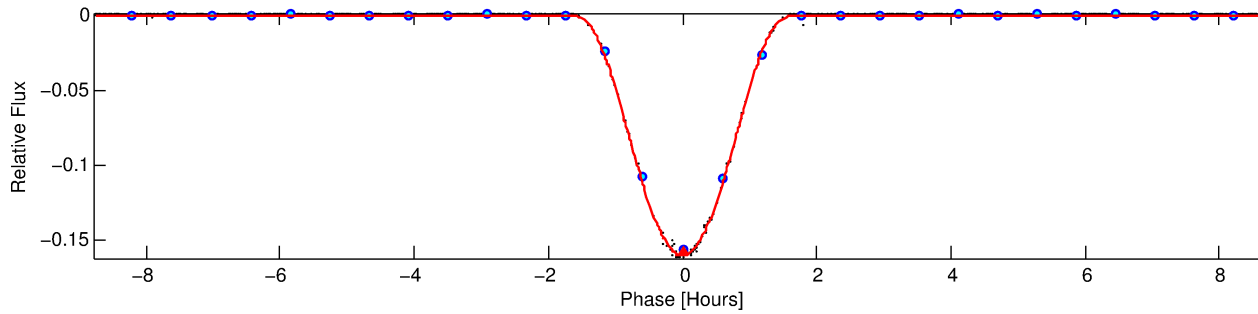
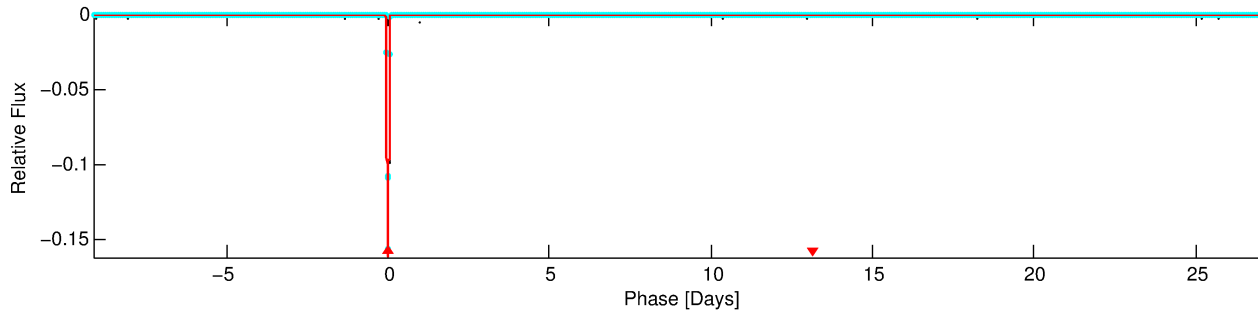
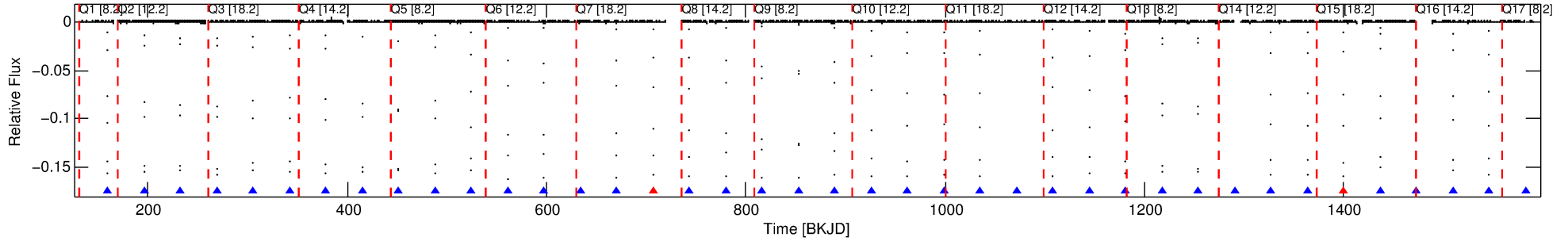
Ephemeris Match Information For 006936977-01

No Significant Match Found

DV One-Page Summary

KIC: 6936977 Candidate: 1 of 1 Period: 36.473 d
KOI: K06791.01 Corr: 0.998

Kp: 14.36 R*: 0.77 Rs Teff: 5452.0 K Logg: 4.59 Fe/H: -0.260



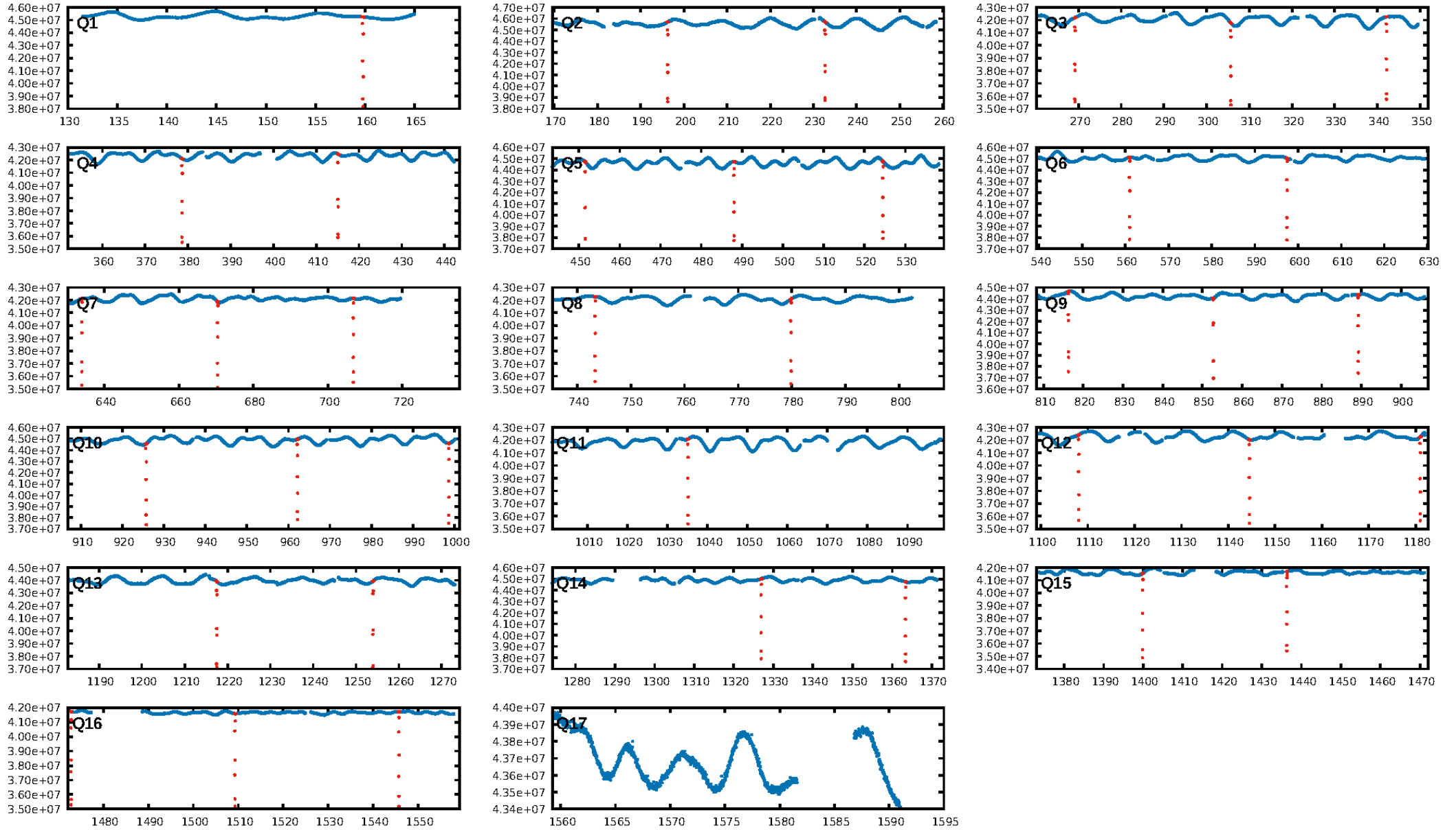
DV Fit Results:

Period = 36.47312 [0.00000] d
Epoch = 159.7667 [0.0000] BKJD
Rp/R* = 0.5542 [0.0398]
a/R* = 120.52 [1.04]
b = 0.90 [0.06]
Seff = 11.25 [2.96]
Teq = 467 [31] K
Rp = 46.32 [9.49] Re
a = 0.2032 [0.0328] AU
Ag = 0.76 [0.38] [-0.64σ]
Teffp = 673 [78] K [2.45σ]

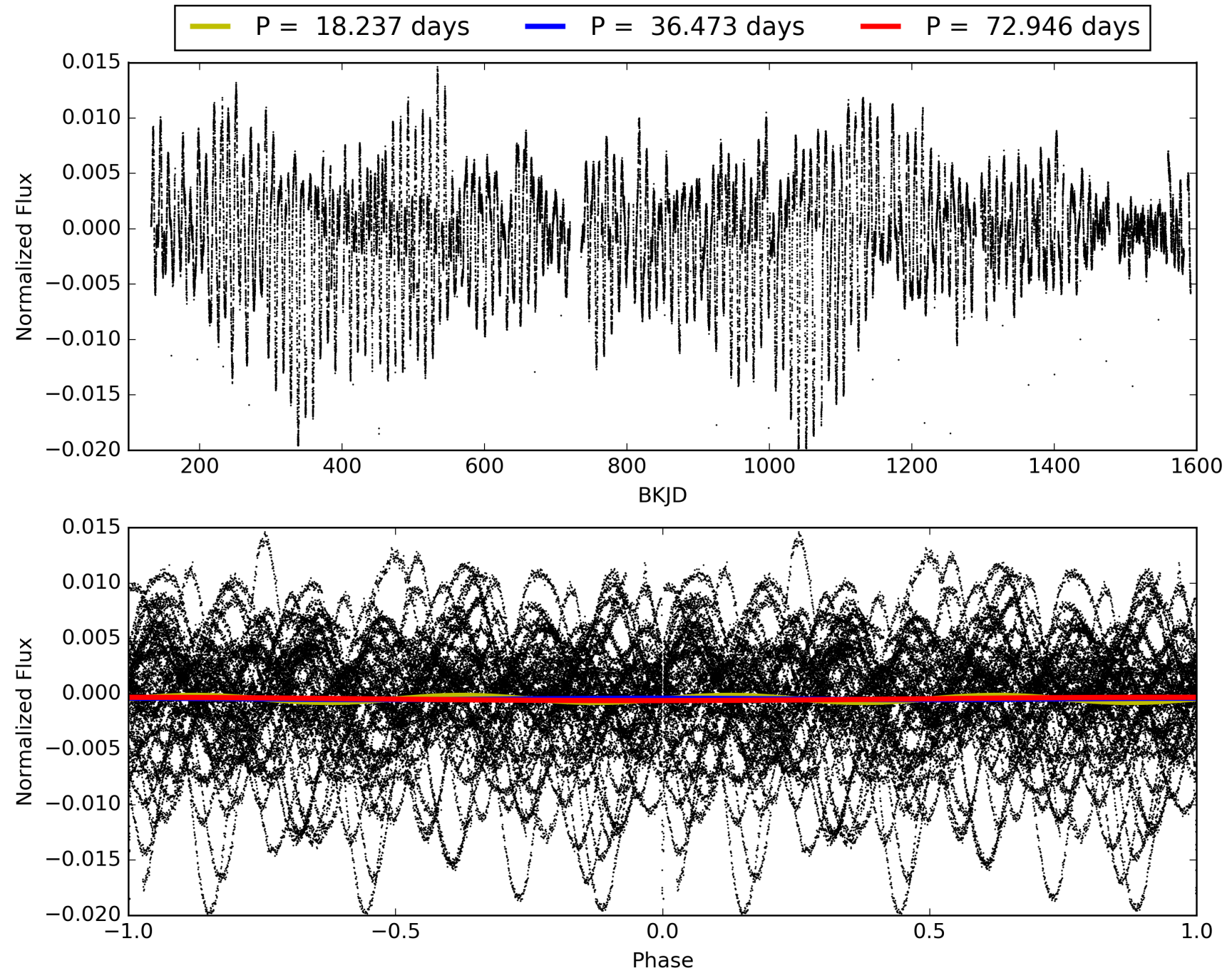
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.3%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.94 [32/34]
GhostDiagnostic-chr: 4.238
Centroid-sig: 0.0%
Centroid-so: 0.195 arcsec [78.58σ]
OotOffset-rm: 0.025 arcsec [0.38σ]
KicOffset-rm: 0.101 arcsec [1.45σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 006936977-01, PDC Light Curves

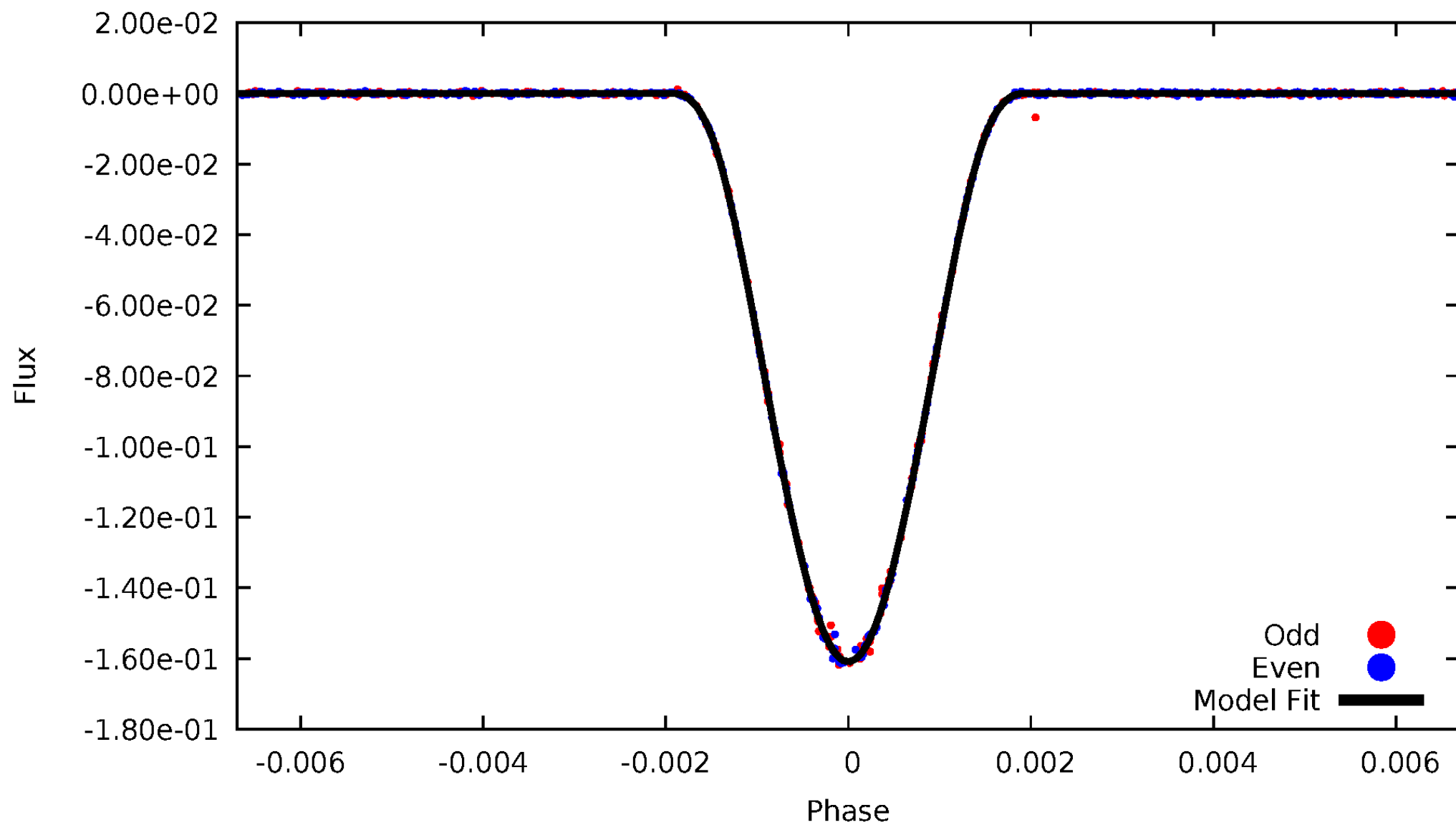


TCE 006936977-01



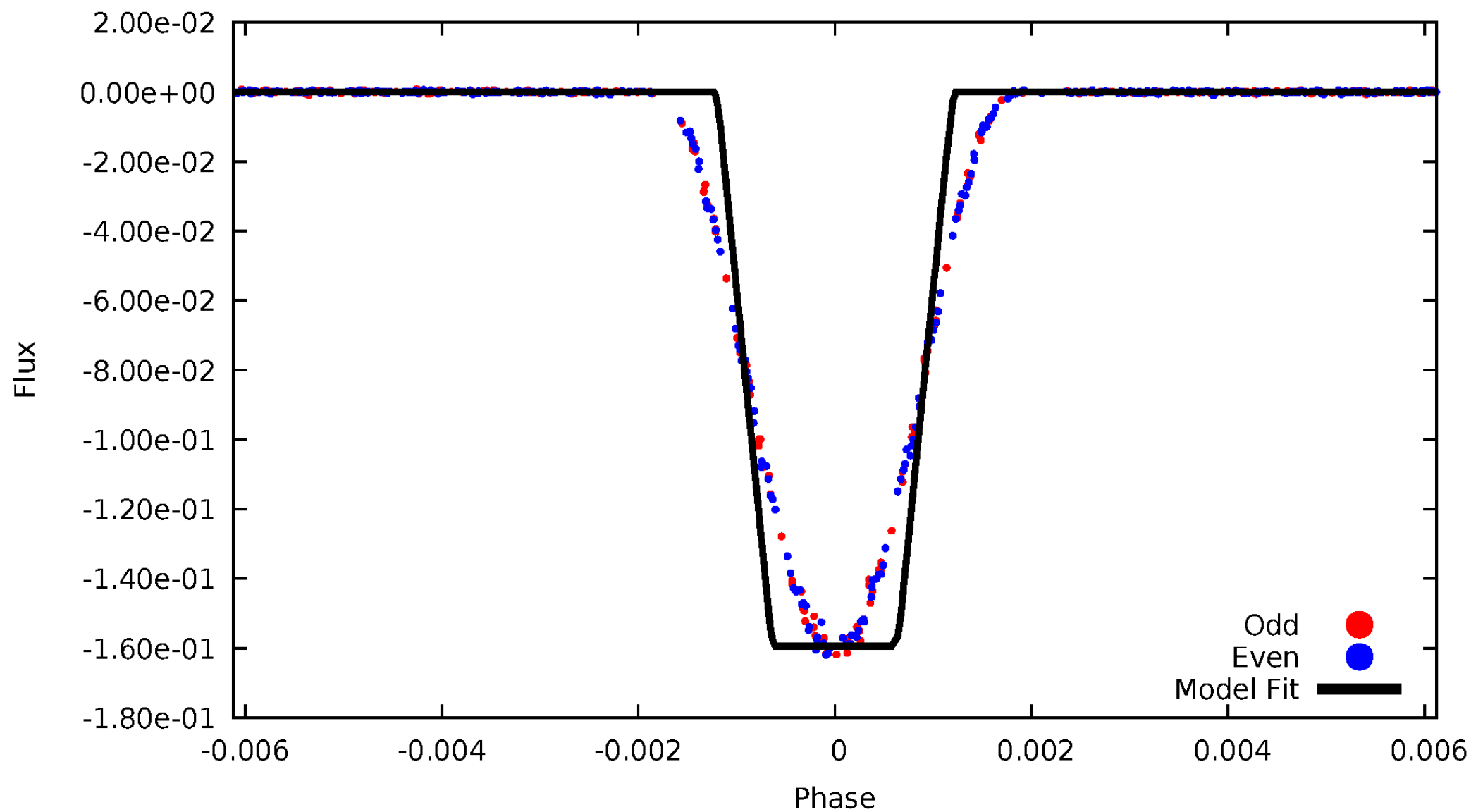
DV Odd/Even

TCE 006936977-01



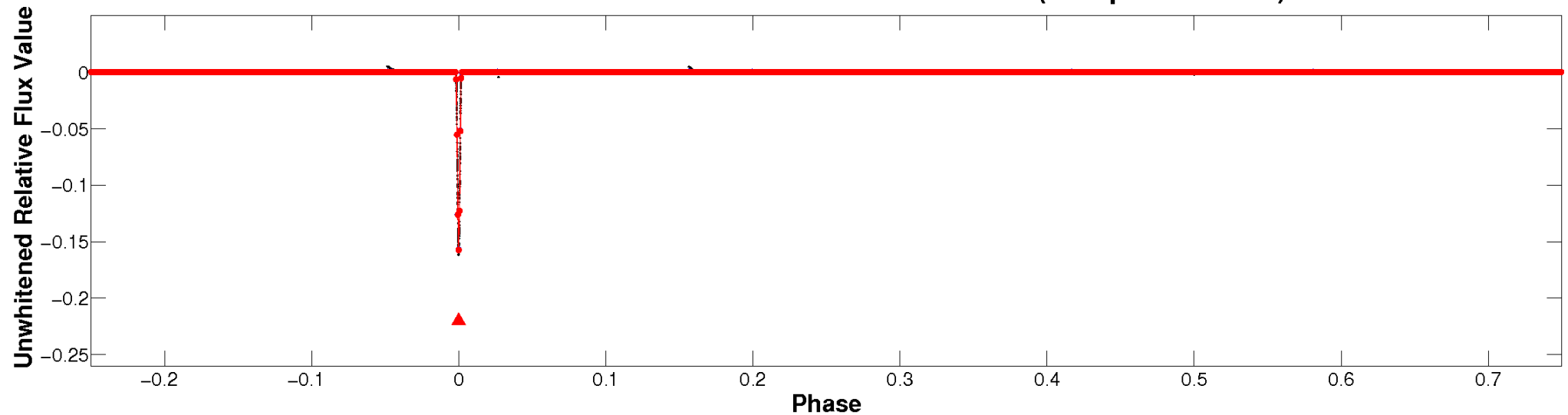
ALT Odd/Even

TCE 006936977-01

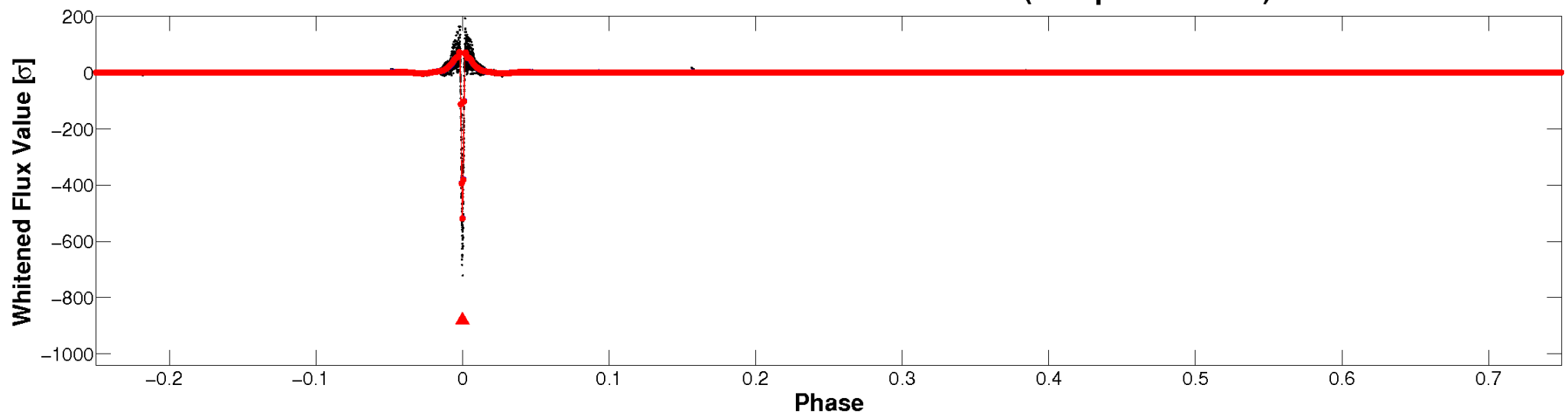


Non-Whitened Vs. Whitened Light Curve

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

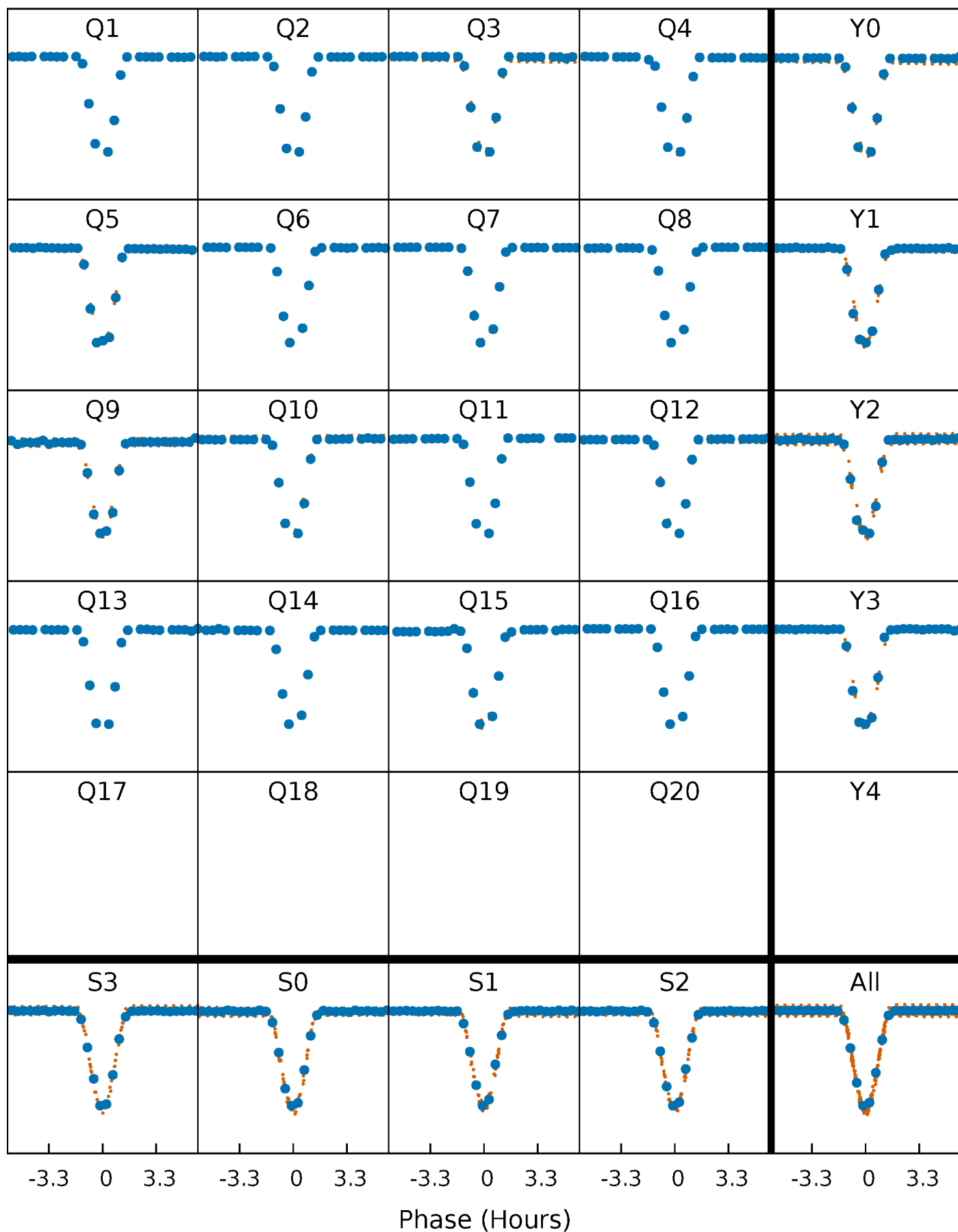


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



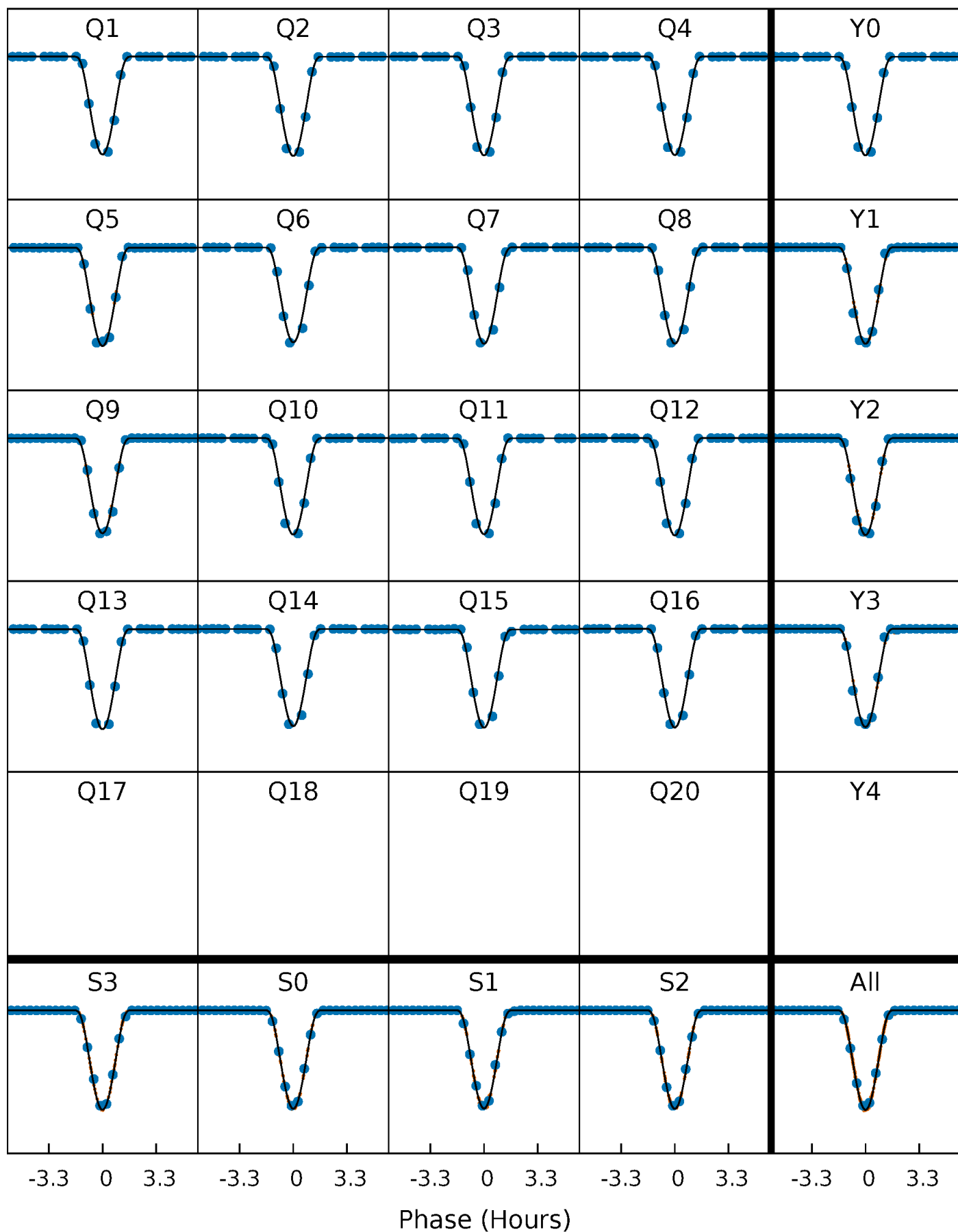
PDC Quarter-Phased Transit Curves

TCE 006936977-01 P= 36.473115 Days $T_0=159.766683$ (BKJD)



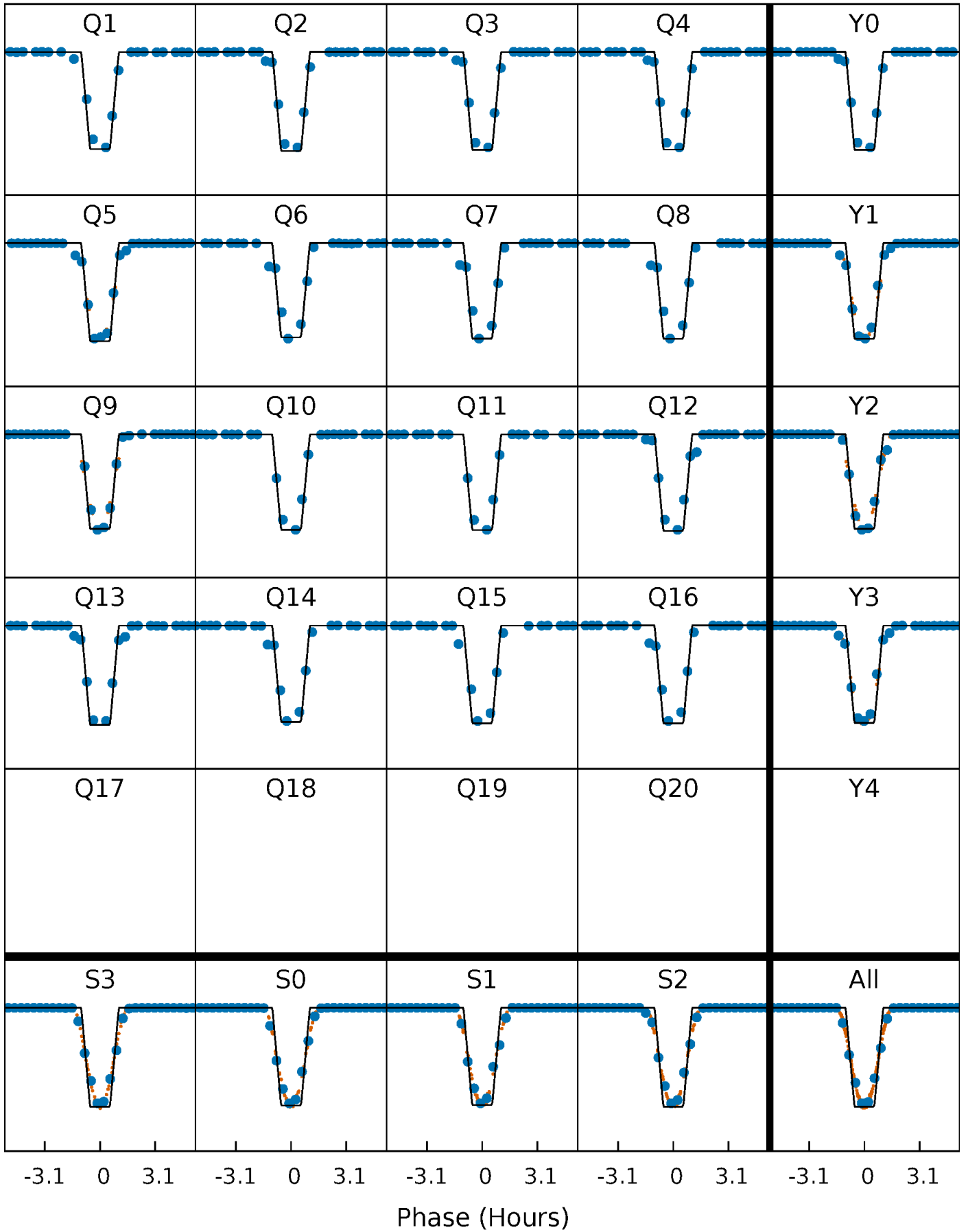
DV Quarter-Phased Transit Curves

TCE 006936977-01 P= 36.473115 Days $T_0=159.766683$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

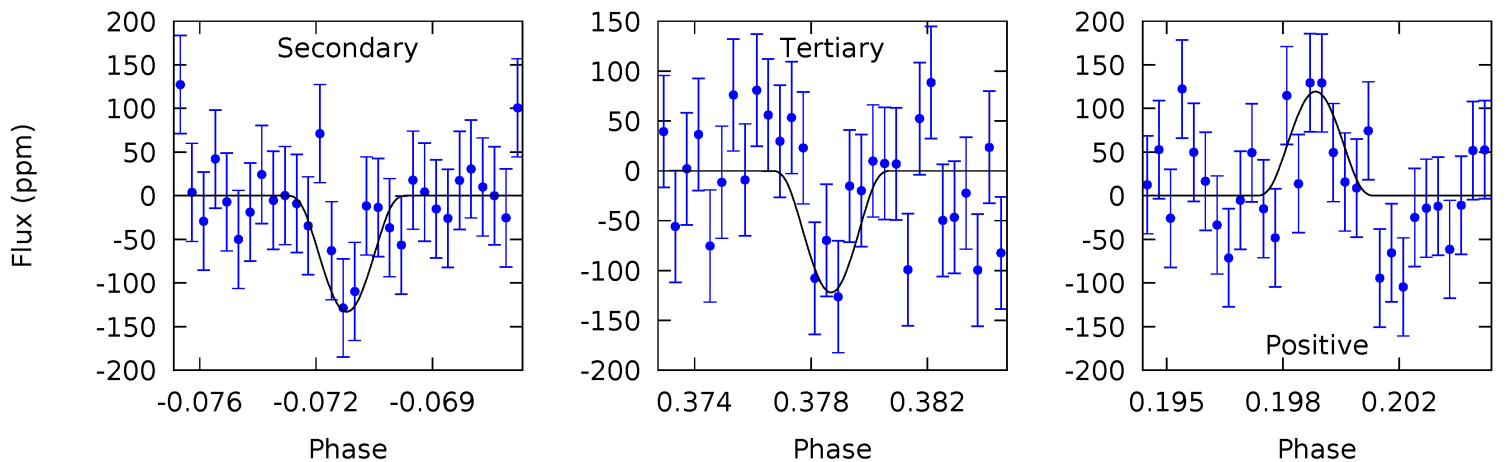
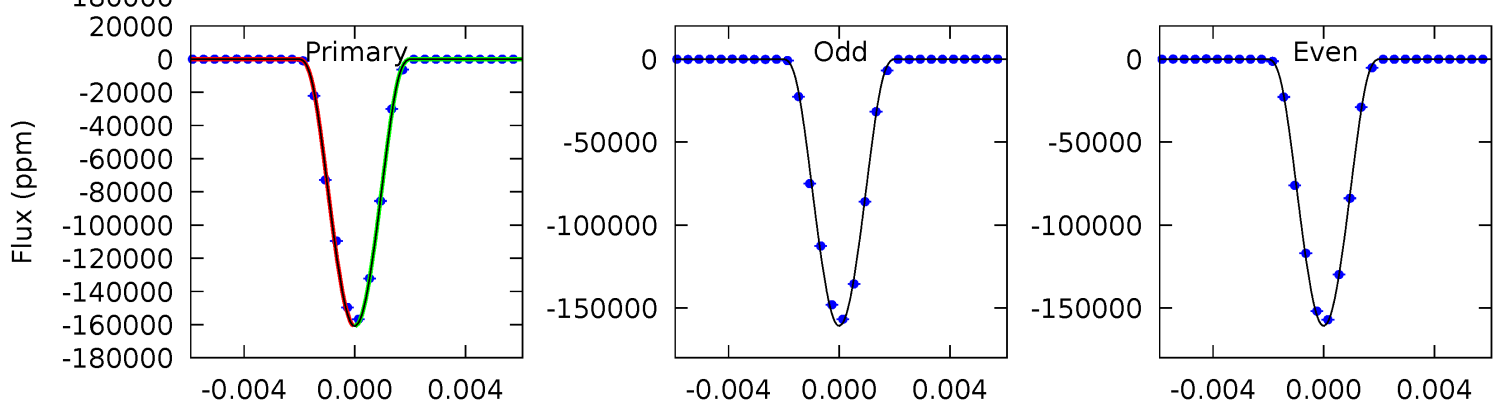
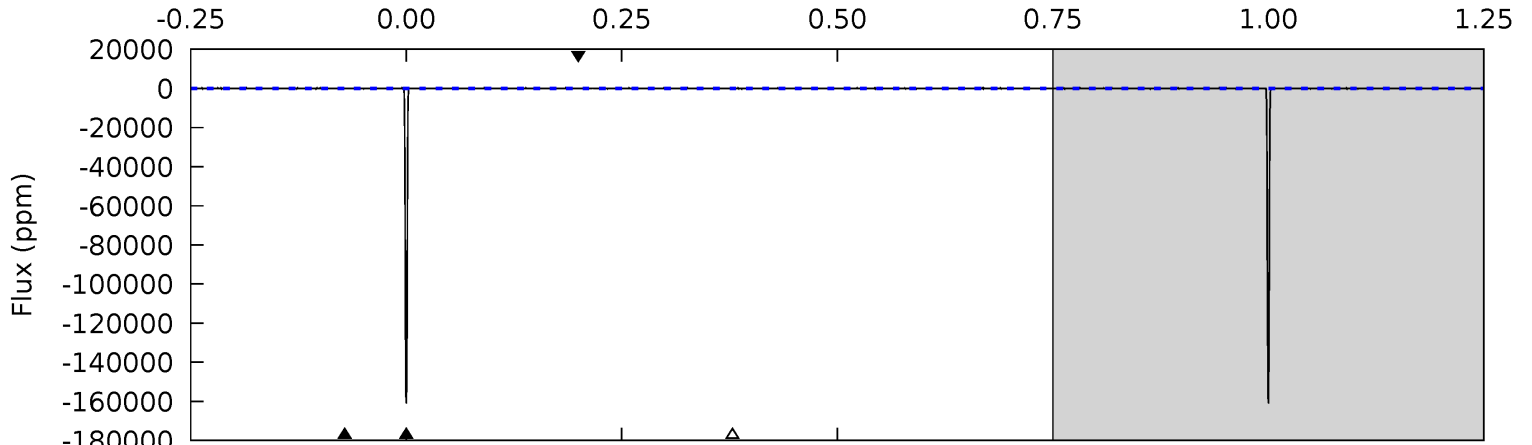
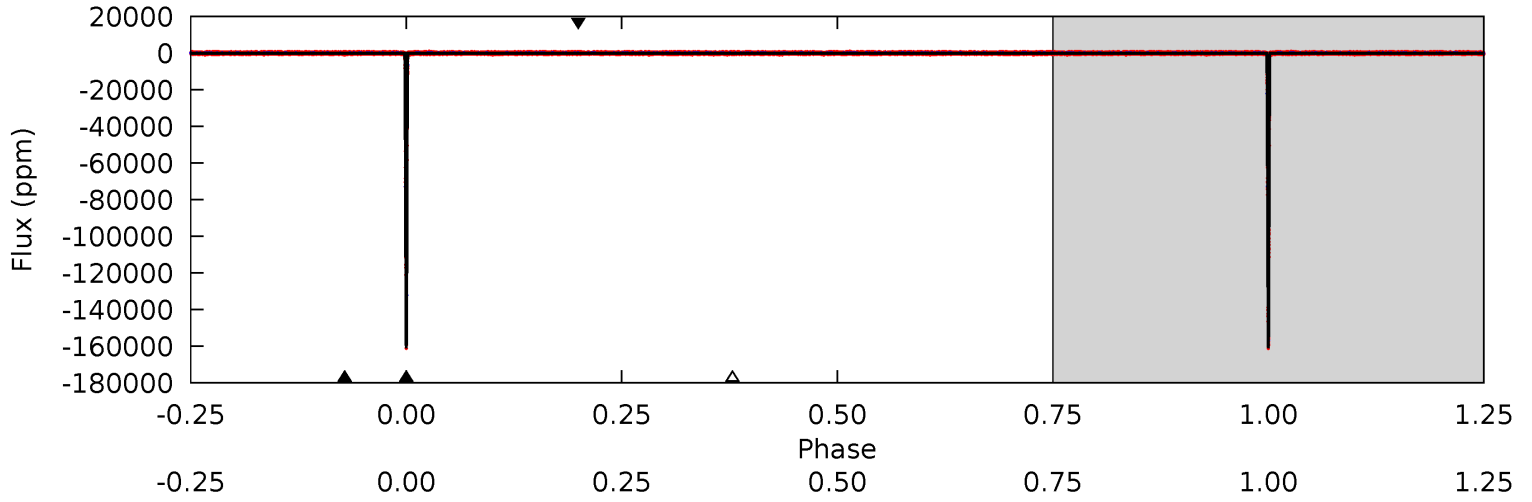
TCE 006936977-01 P= 36.473165 Days $T_0=159.765742$ (BKJD)



DV Model-Shift Uniqueness Test

006936977-01, P = 36.473115 Days, E = 123.293568 Days

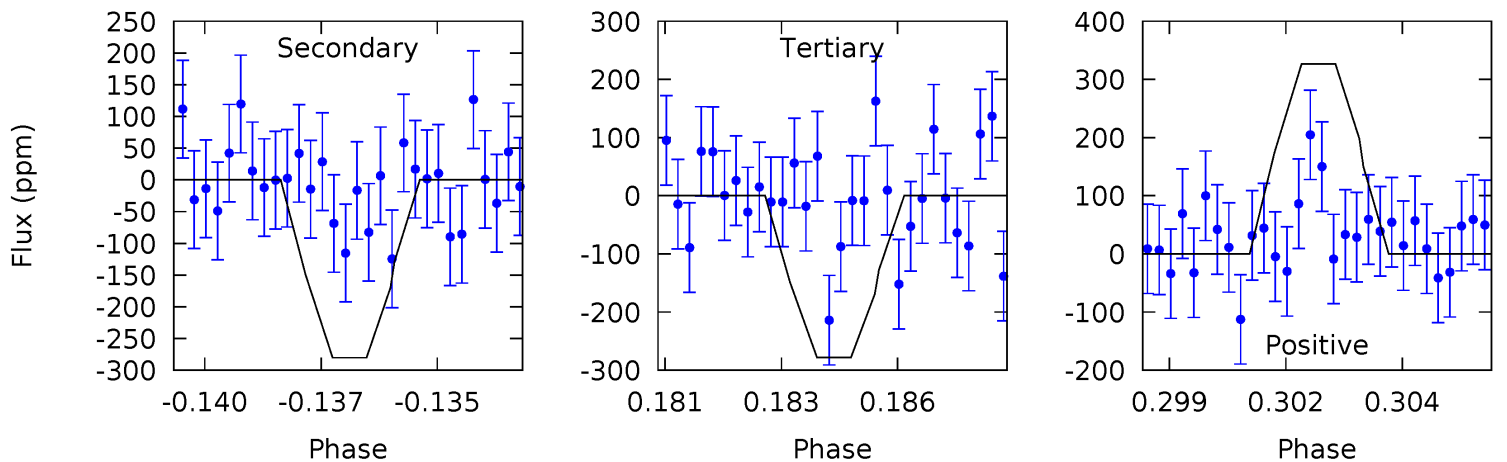
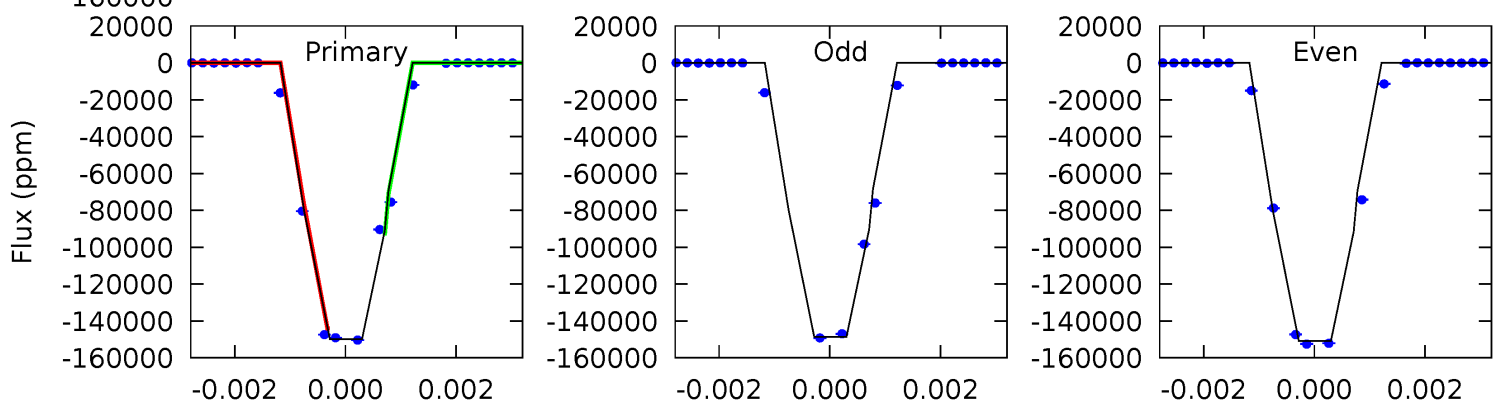
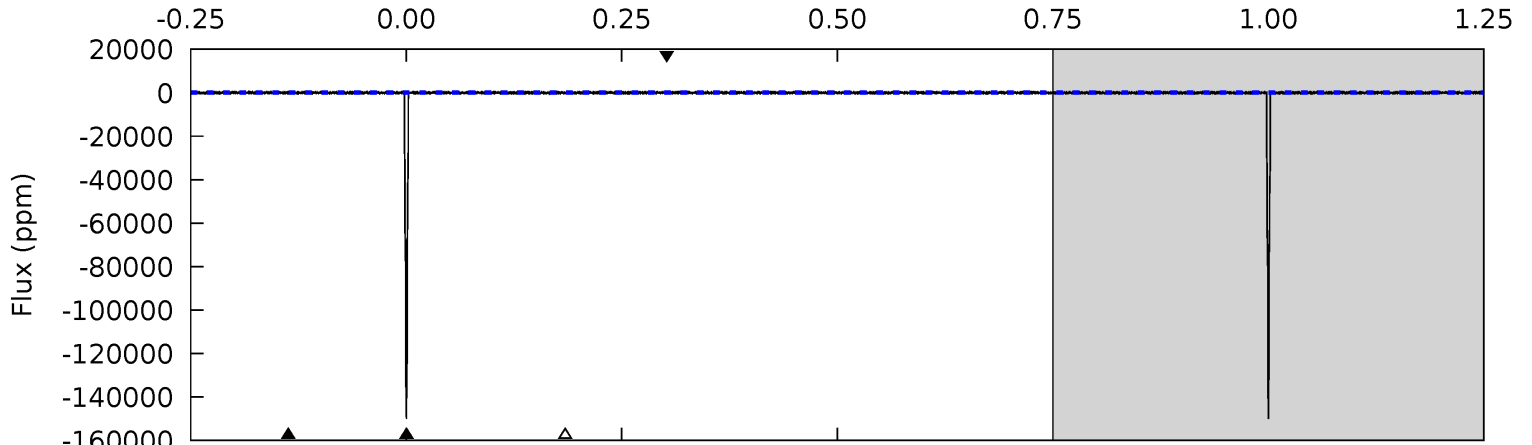
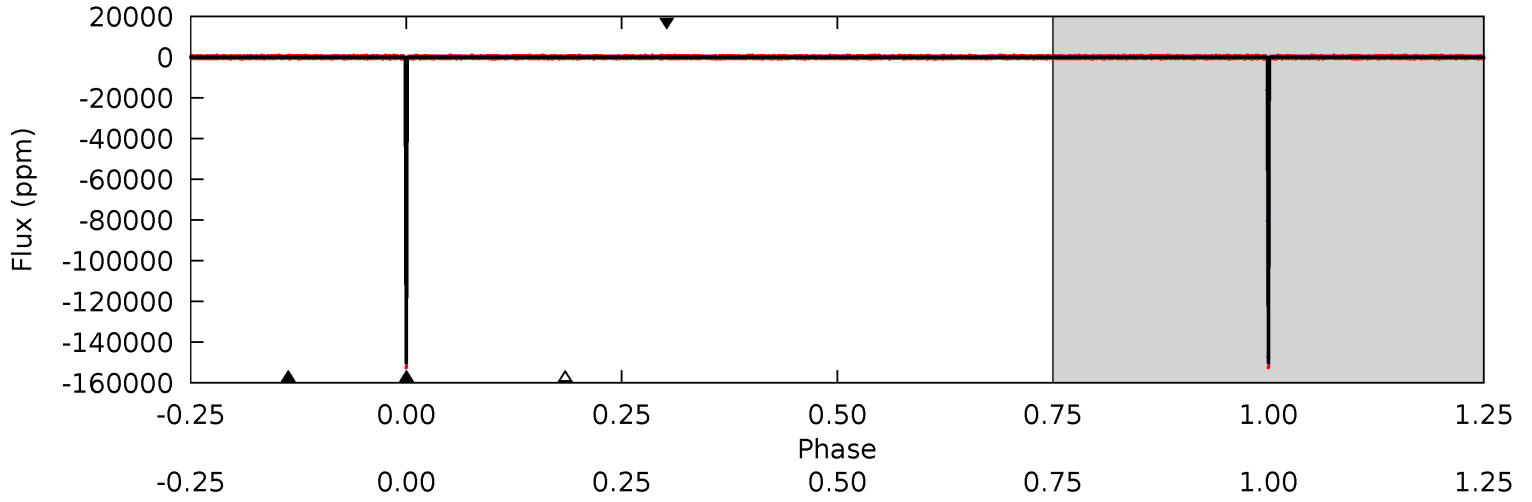
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8581	7.10	6.51	6.37	5.21	2.89	2.00	8574	8574	0.59	0.73	0.17	1.00	0.00	9.28



Alt Model-Shift Uniqueness Test

006936977-01, P = 36.473165 Days, E = 123.292577 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2339	4.37	4.34	5.09	5.29	3.03	1.19	2335	2334	0.03	-0.72	18.7	1.00	0.00	0



Stellar Parameters For KIC 006936977

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5452^{+162}_{-146}	$4.594^{+0.032}_{-0.128}$	$-0.260^{+0.300}_{-0.300}$	$0.766^{+0.147}_{-0.068}$	$0.854^{+0.079}_{-0.098}$	$2.681^{+0.444}_{-0.984}$
	+3%/-3%	+1%/-3%	+115%/-115%	+19%/-9%	+9%/-11%	+17%/-37%
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 006936977-01 / KOI 6791.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-133 ± 19	$48.12^{+5.56}_{-4.78}$	667^{+34}_{-26}	1775^{+48}_{-53}	$1.292^{+0.327}_{-0.308}$
Alt.	-280 ± 64	$34.14^{+5.00}_{-3.64}$	665^{+33}_{-25}	2082^{+70}_{-79}	$5.317^{+1.723}_{-1.636}$

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 $A_{\text{obs}} \gg 1.0$

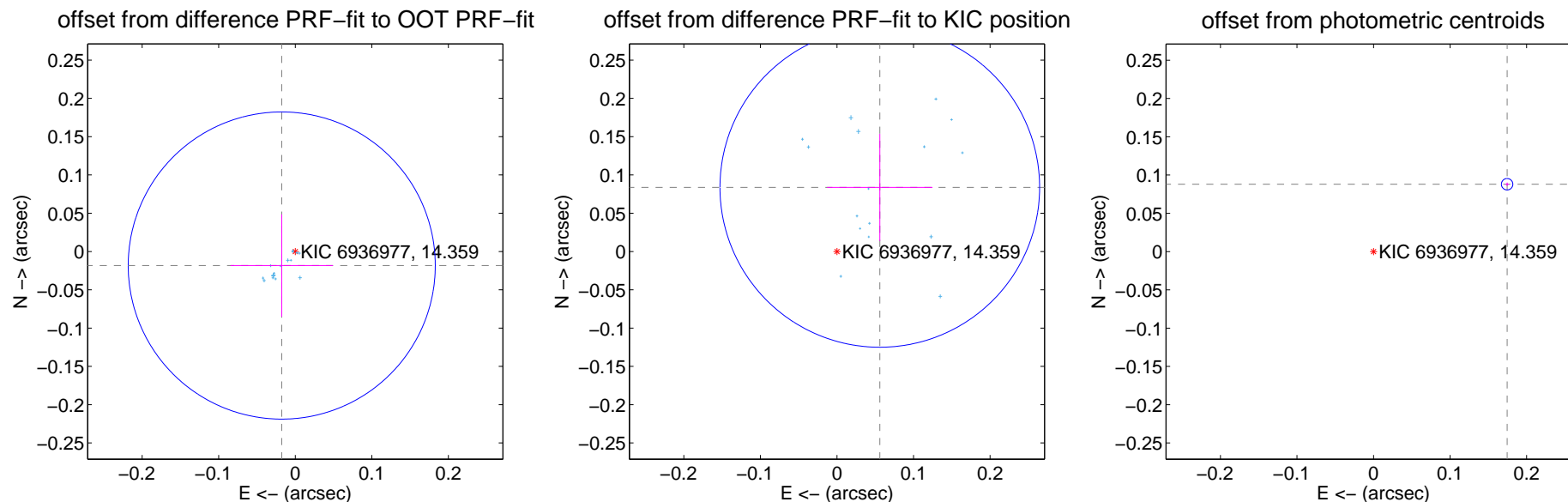
DV Centroid Data

Supplemental centroid analysis for 006936977-01. Kepler magnitude: 14.36. Transit SNR 3219.13

There are 16 quarters with good PRF difference image offsets

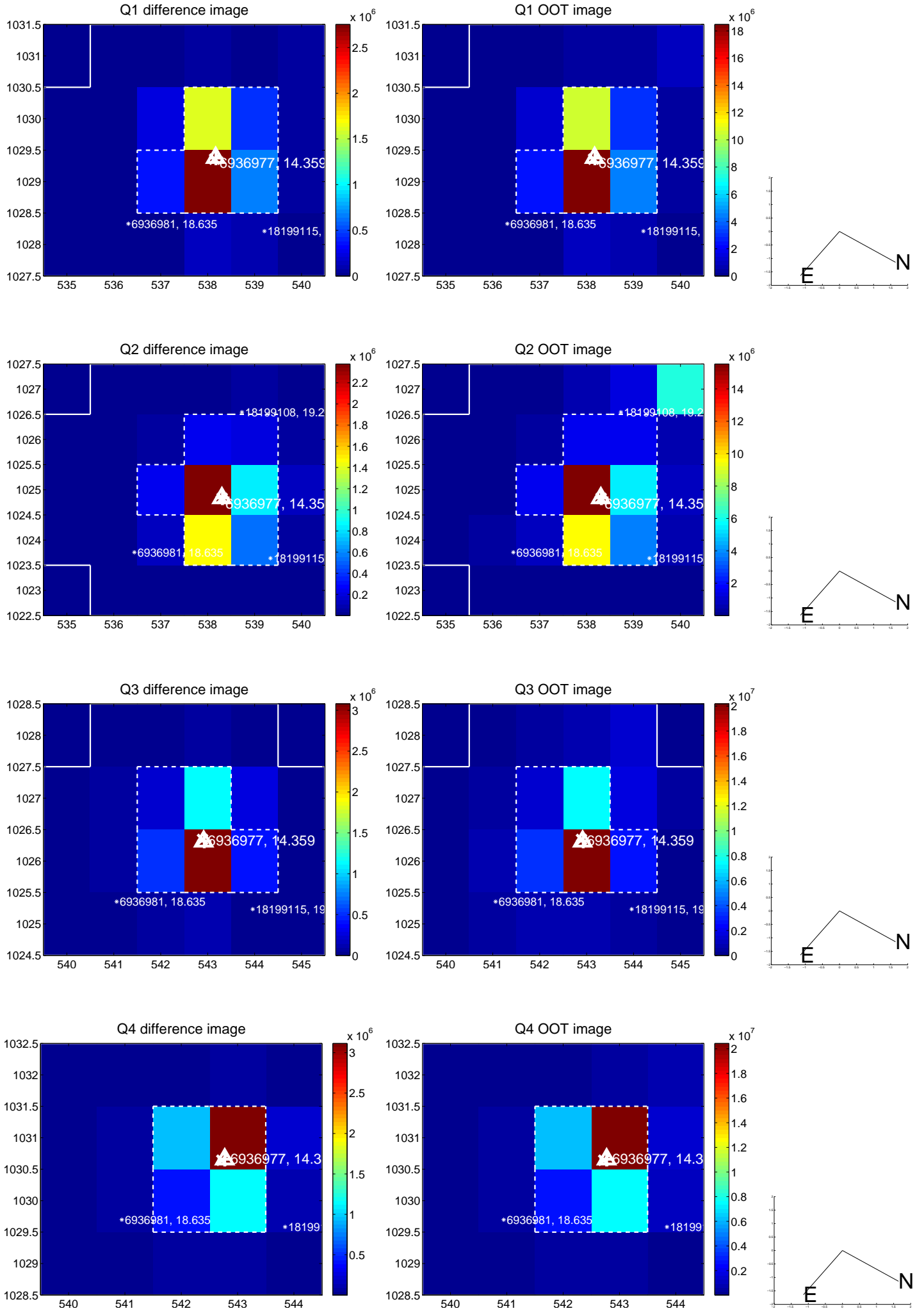
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.38	0.018 ± 0.067	-0.018 ± 0.067
PRF-fit source offset from KIC position	0.101 ± 0.070	1.45	-0.056 ± 0.069	0.084 ± 0.070
photometric centroid source offset	0.20 ± 0.00	78.58	-0.17 ± 0.00	0.09 ± 0.00

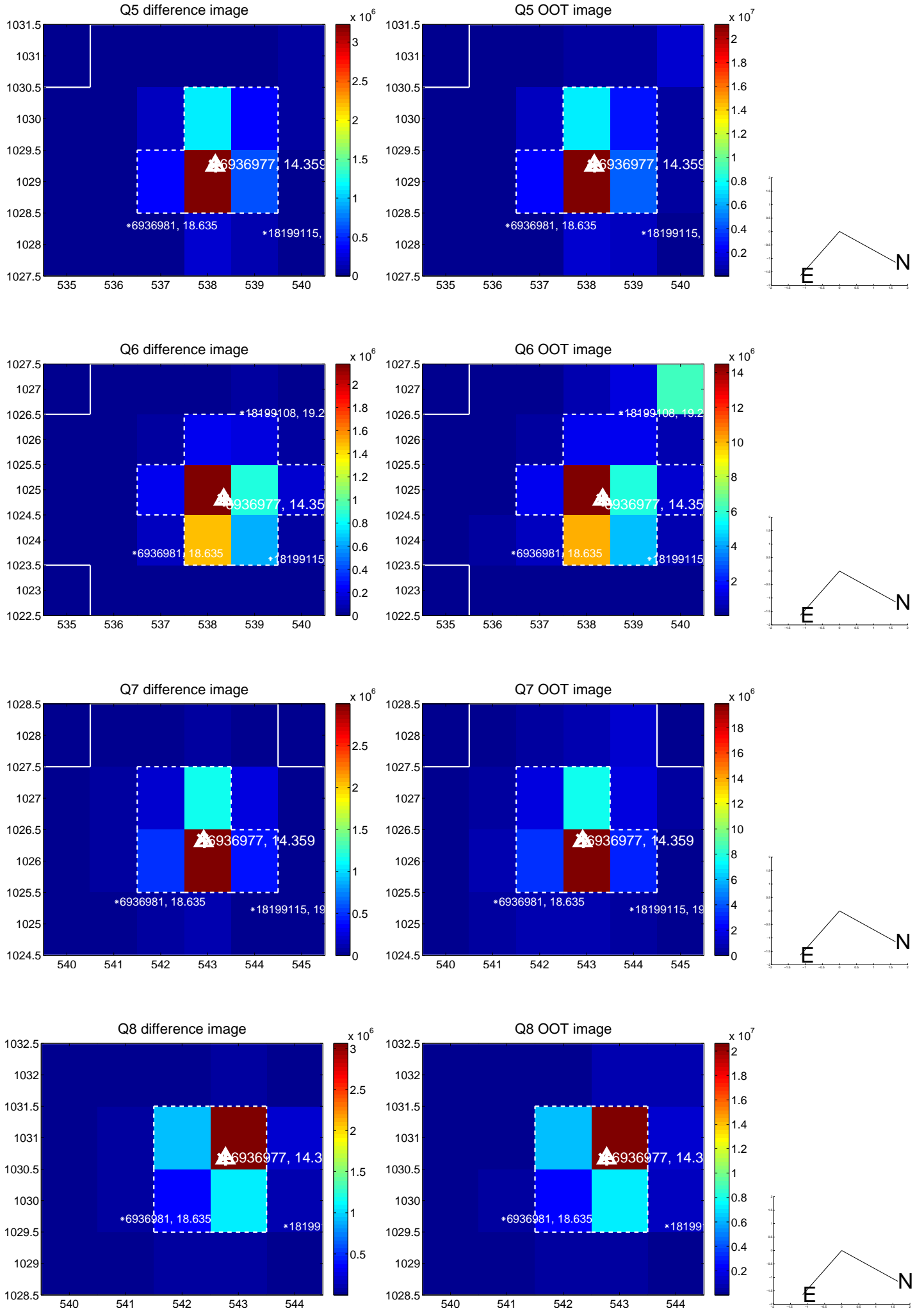


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

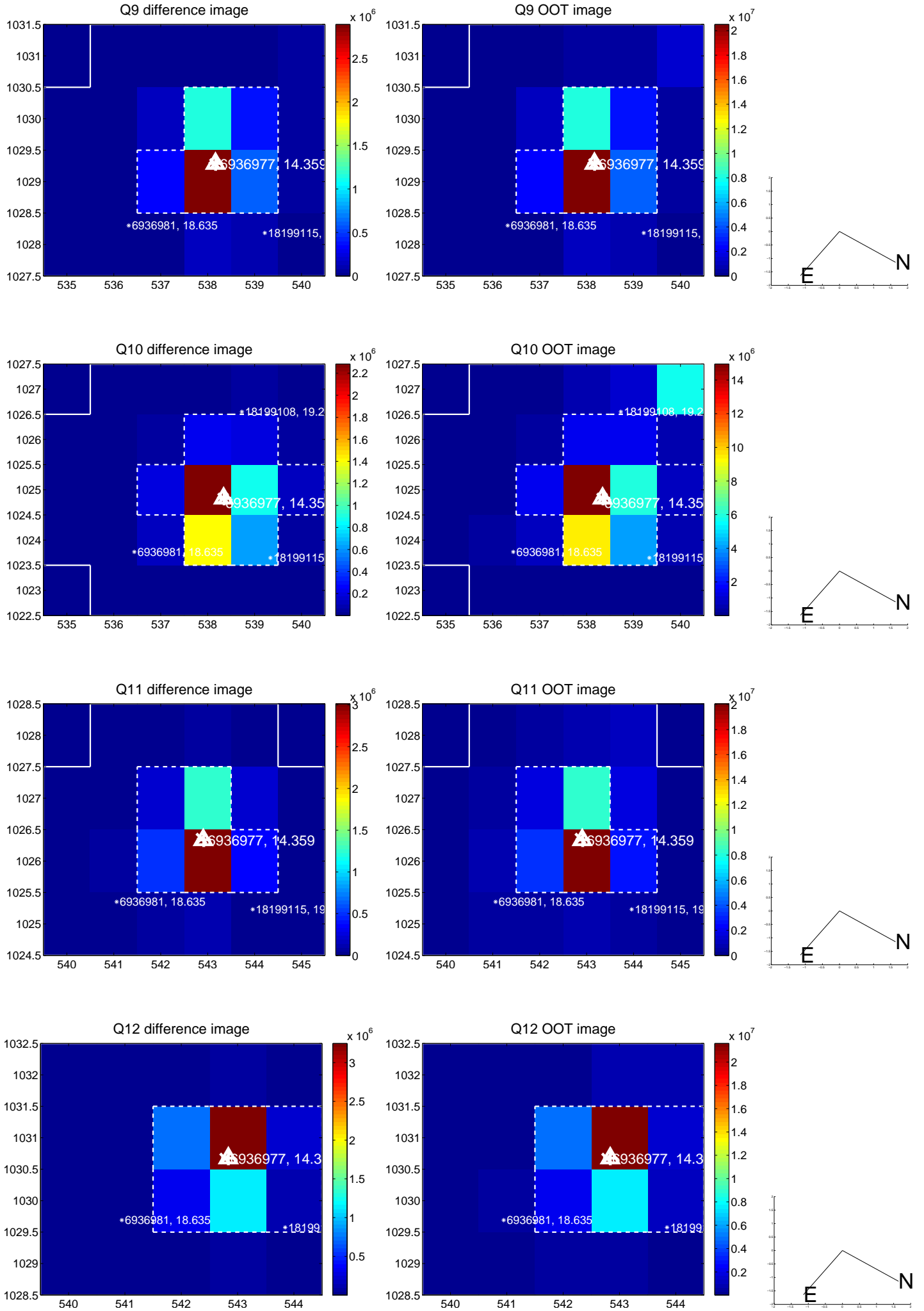
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



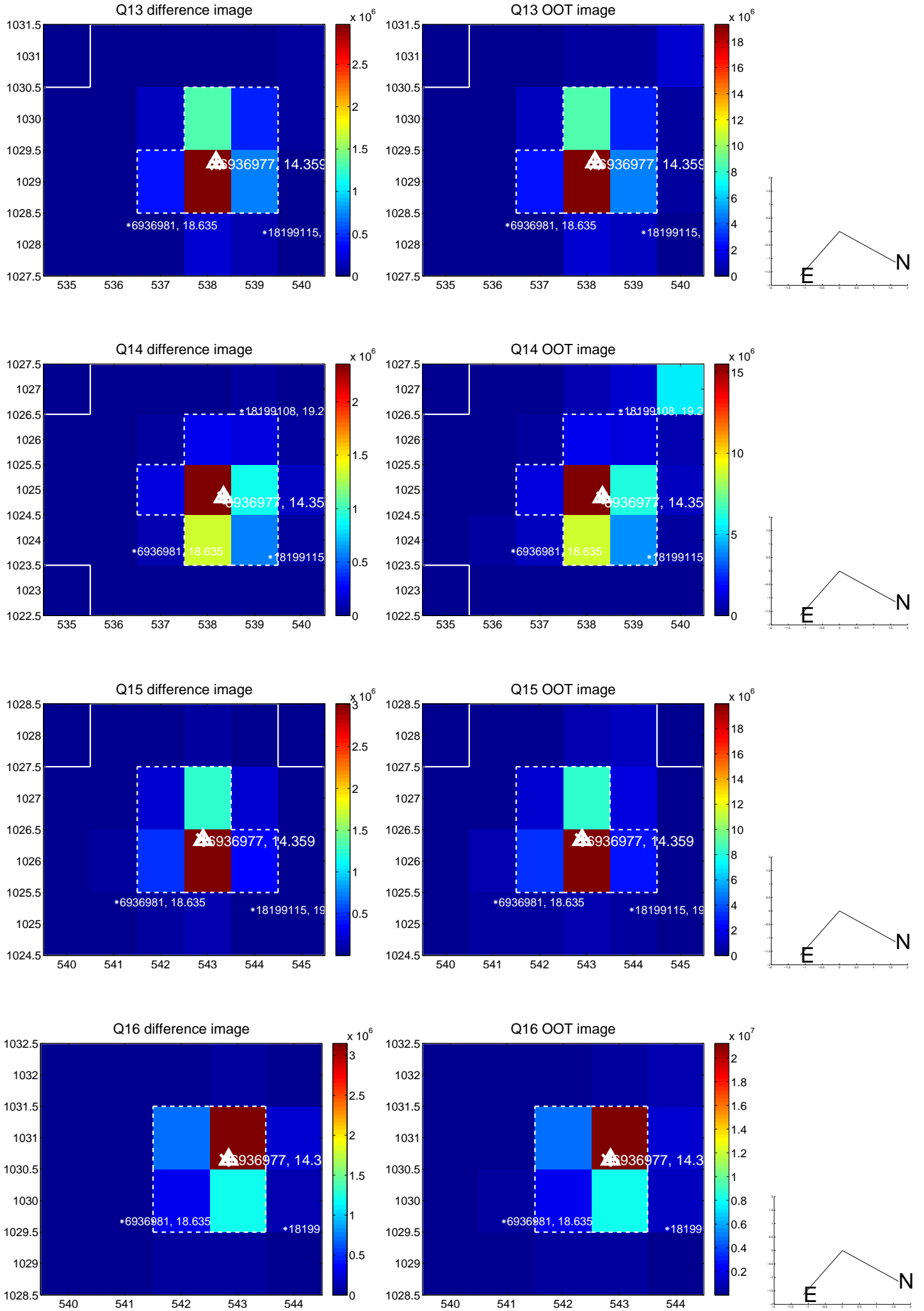
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



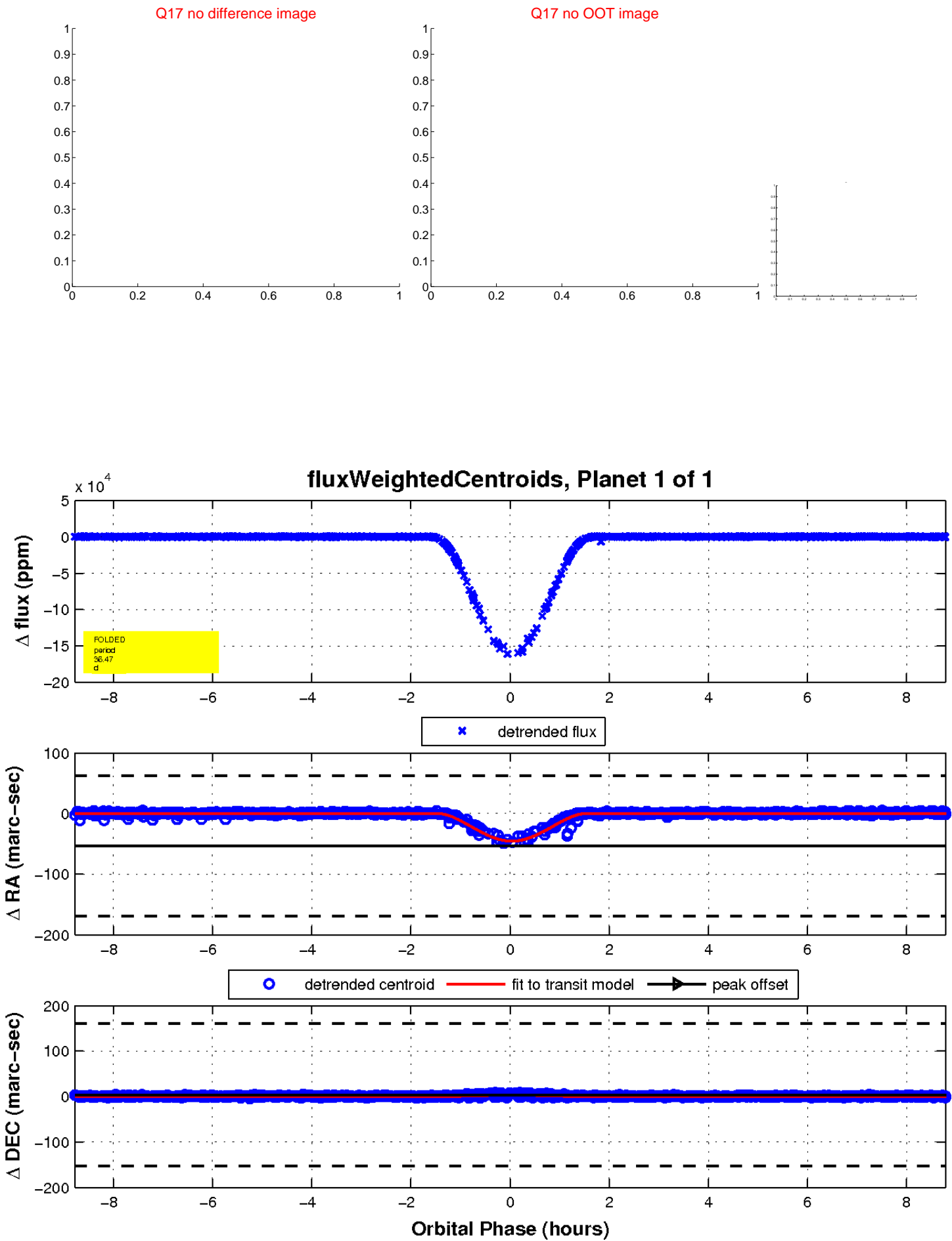
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UKIRT Image

