

KIC 006694186

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})
006694186-01	OBS	6031.01	5.554225	135.162336	143747.7	4.796	15810.3	8105.6	0.84	5433	31.93	177.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006694186-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_DV—MOD_SEC_ALT

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.

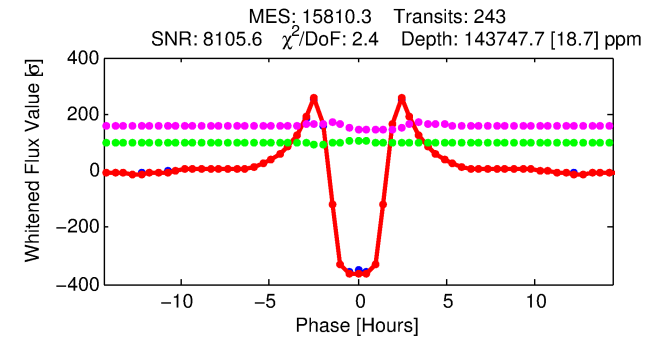
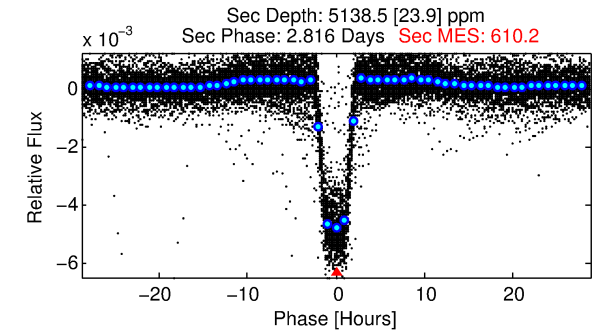
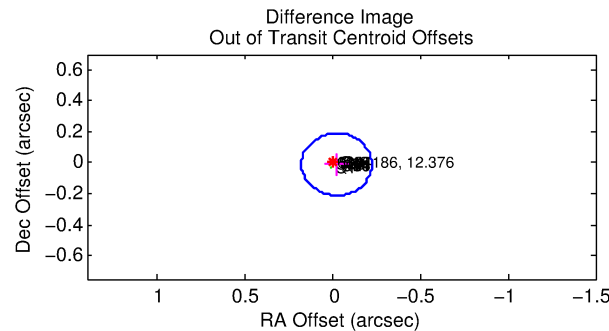
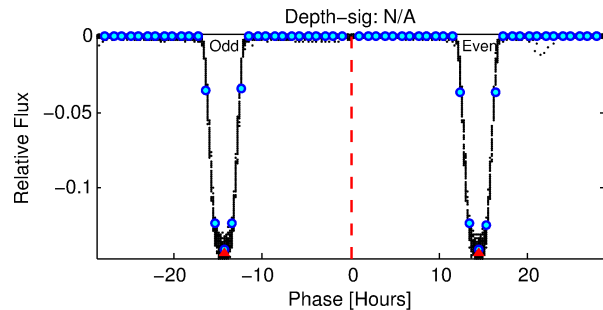
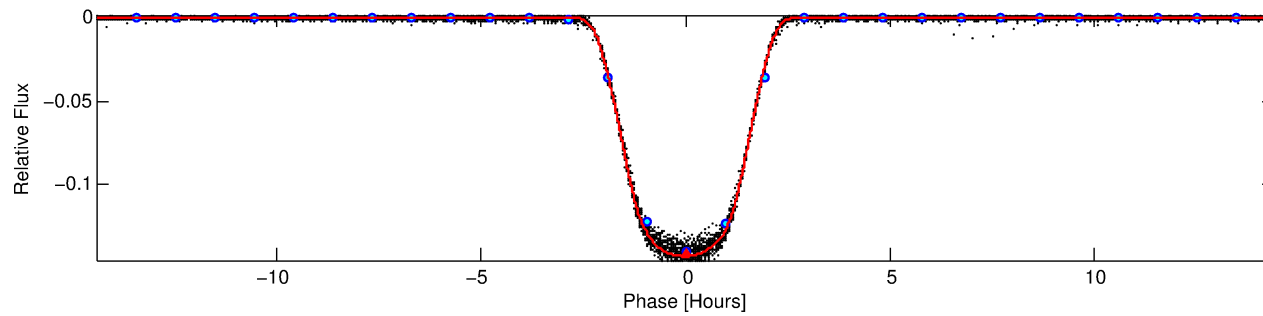
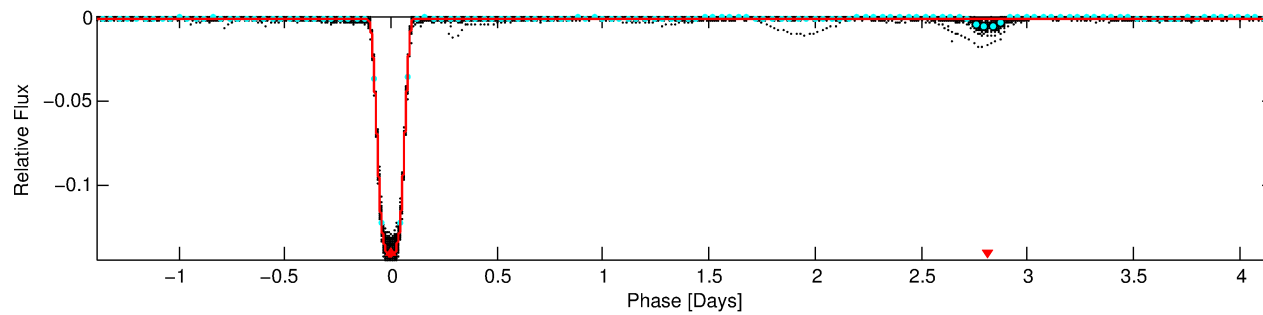
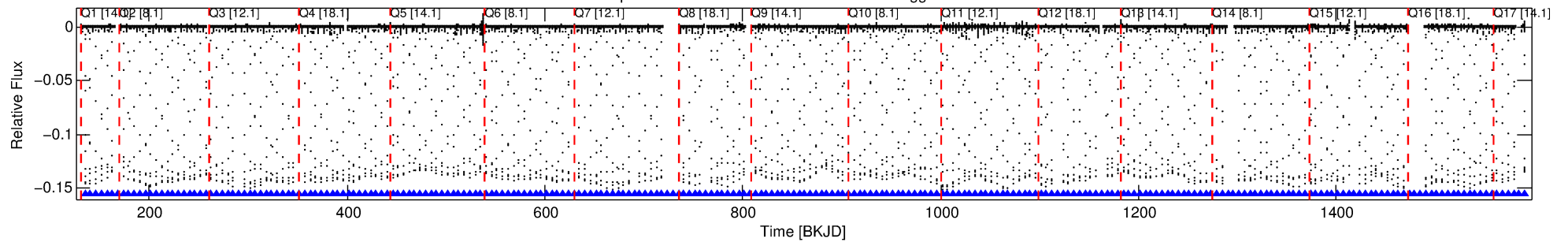
Ephemeris Match Information For 006694186-01

No Significant Match Found

DV One-Page Summary

KIC: 6694186 Candidate: 1 of 1 Period: 5.554 d
KOI: K06031.01 Corr: 0.998

Kp: 12.38 R*: 0.84 Rs Teff: 5433.0 K Logg: 4.46 Fe/H: -0.340



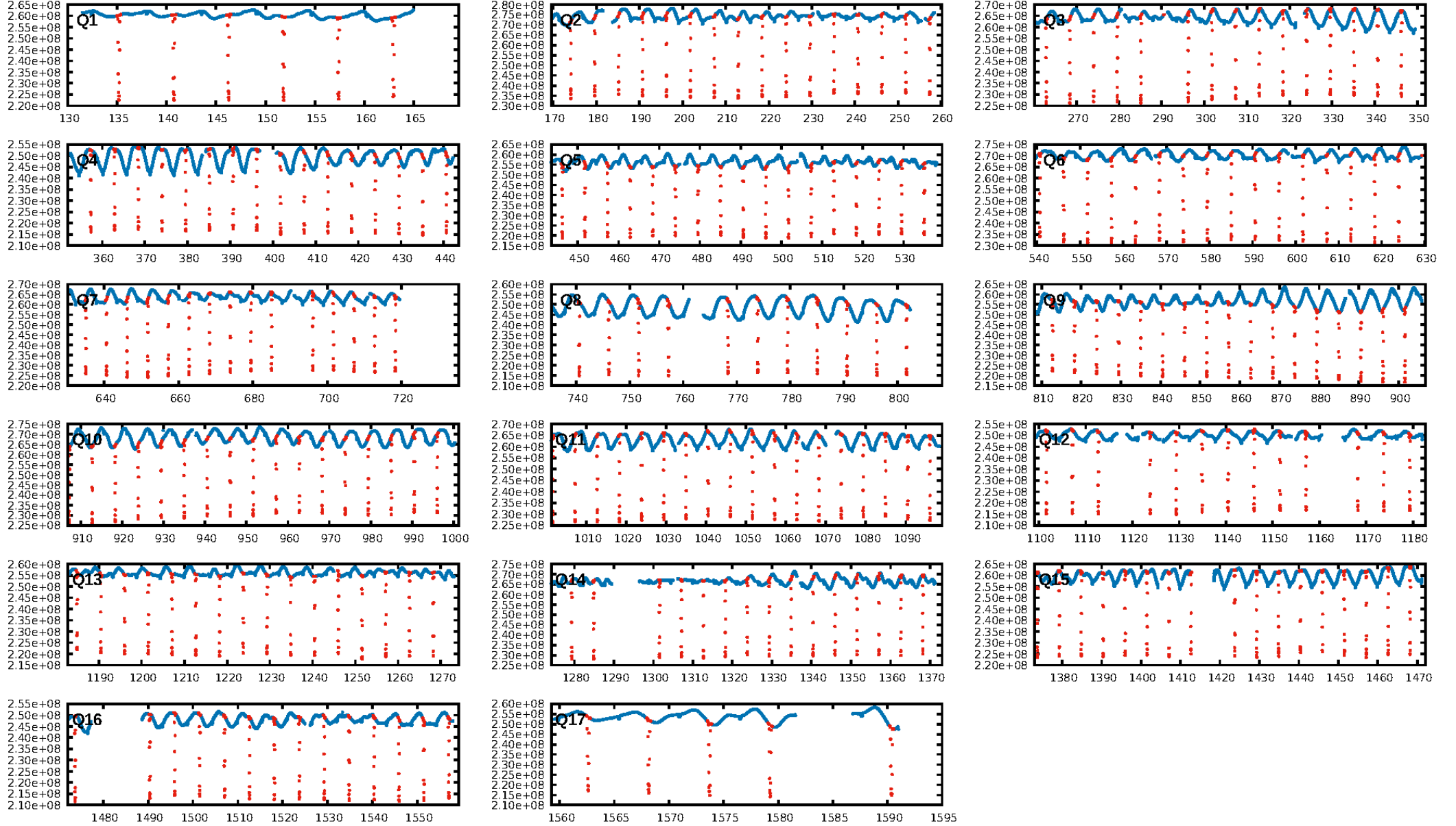
DV Fit Results:

Period = 5.55423 [0.00000] d
Epoch = 135.1623 [0.0000] BKJD
Rp/R* = 0.3471 [0.0000]
a/R* = 11.79 [0.00]
b = 0.22 [0.00]
Seff = 177.33 [56.30]
Teff = 931 [74] K
Rp = 31.93 [6.86] Re
a = 0.0559 [0.0109] AU
Ag = 8.67 [2.59] [2.96σ]
Teffp = 2469 [66] K [15.54σ]

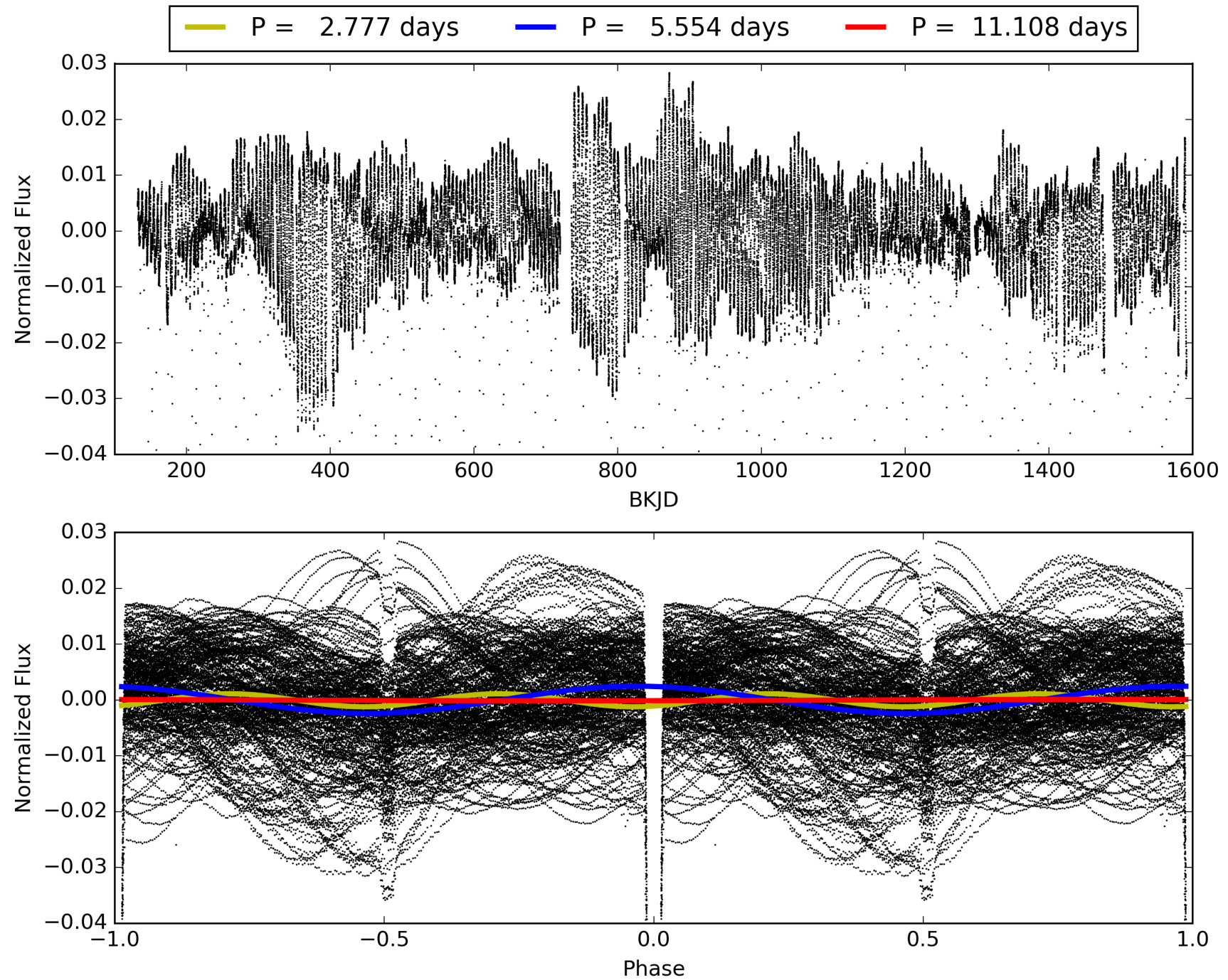
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [232/232]
GhostDiagnostic-chr: 1.93
Centroid-sig: 0.0%
Centroid-so: 0.249 arcsec [957.54σ]
OotOffset-rm: 0.025 arcsec [0.38σ]
KicOffset-rm: 0.143 arcsec [2.04σ]
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 006694186-01, PDC Light Curves

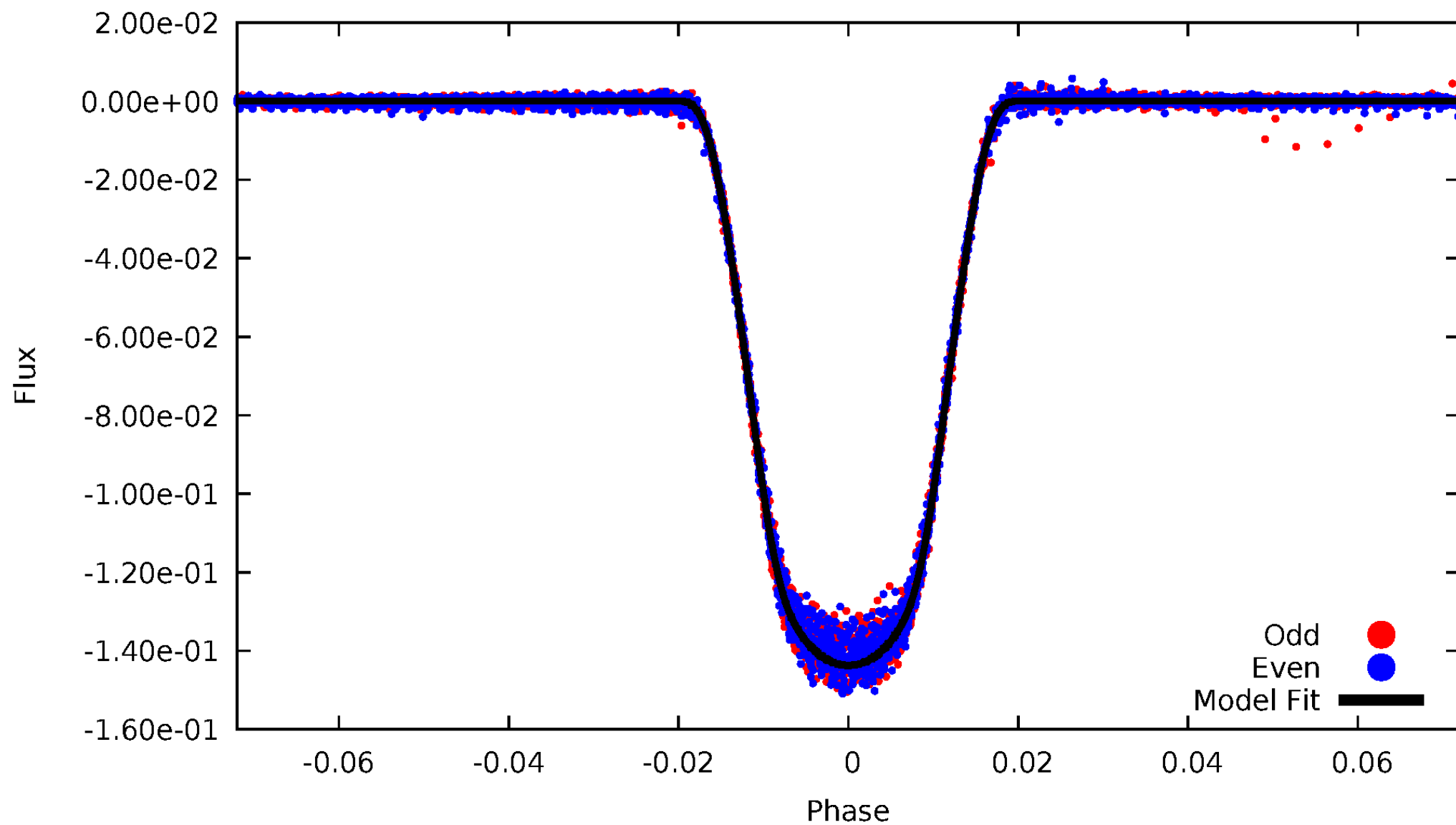


TCE 006694186-01



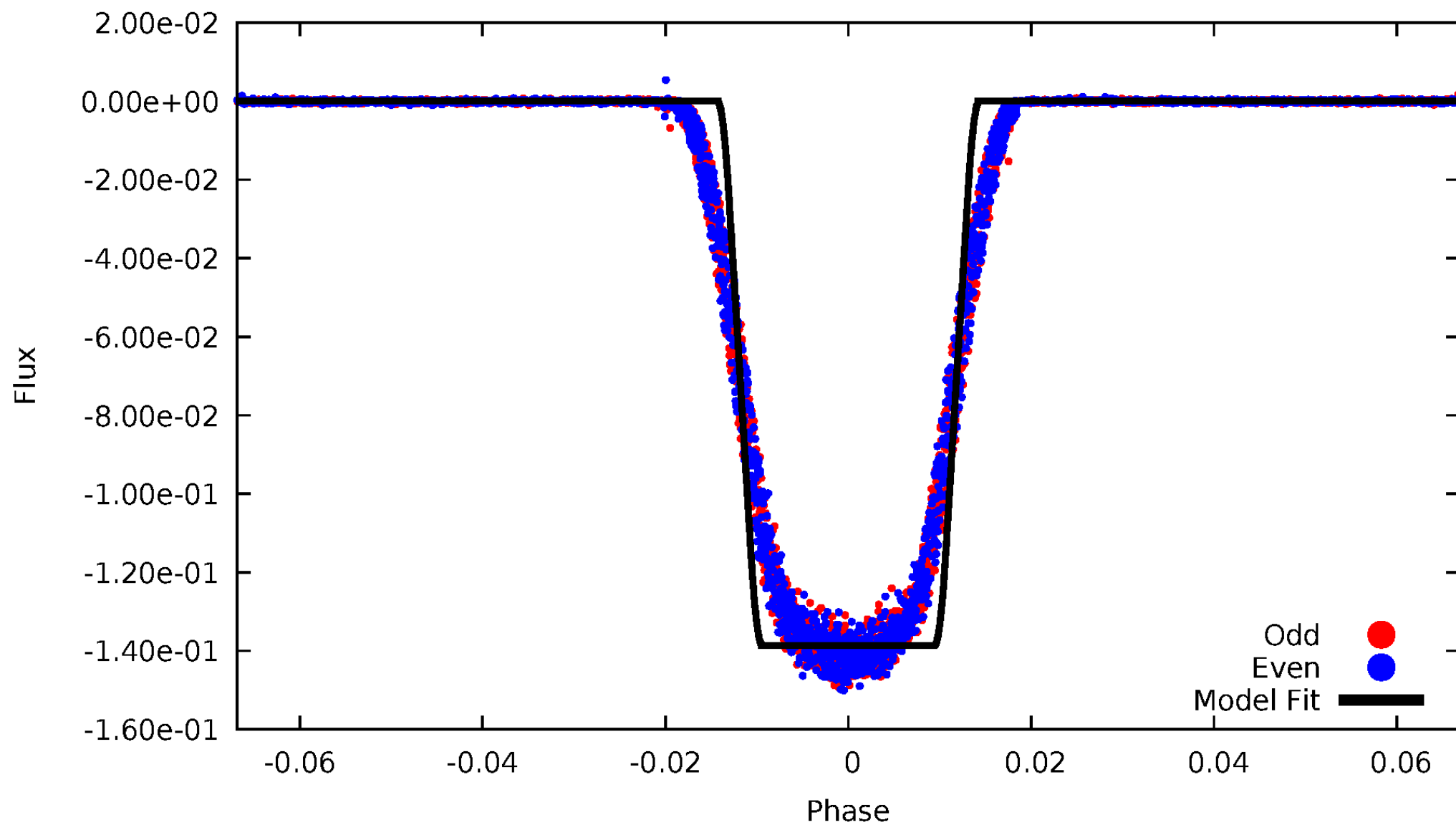
DV Odd/Even

TCE 006694186-01



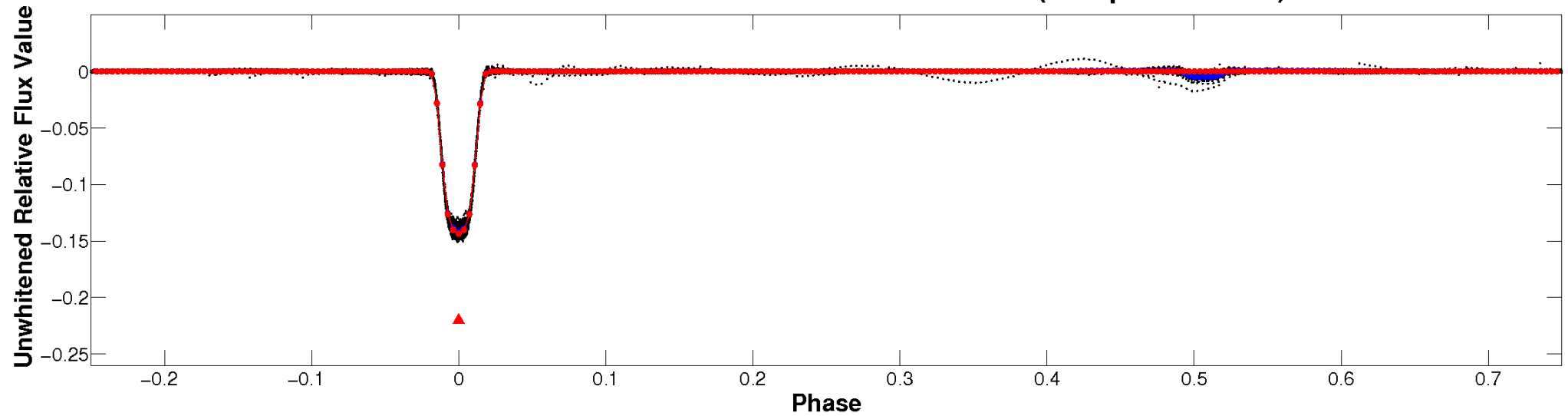
ALT Odd/Even

TCE 006694186-01

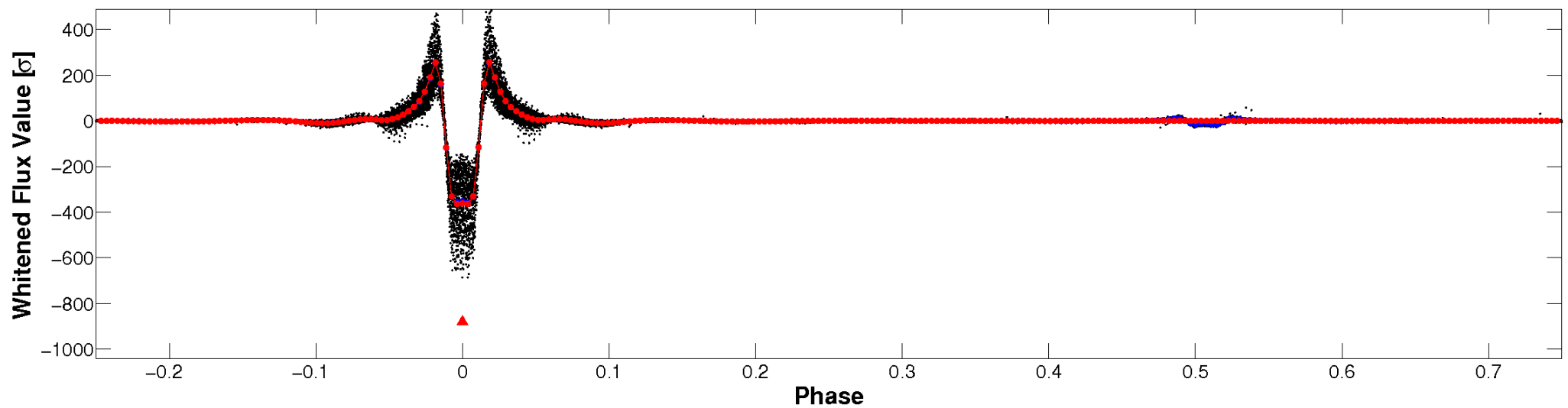


Non-Whitened Vs. Whitened Light Curve

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

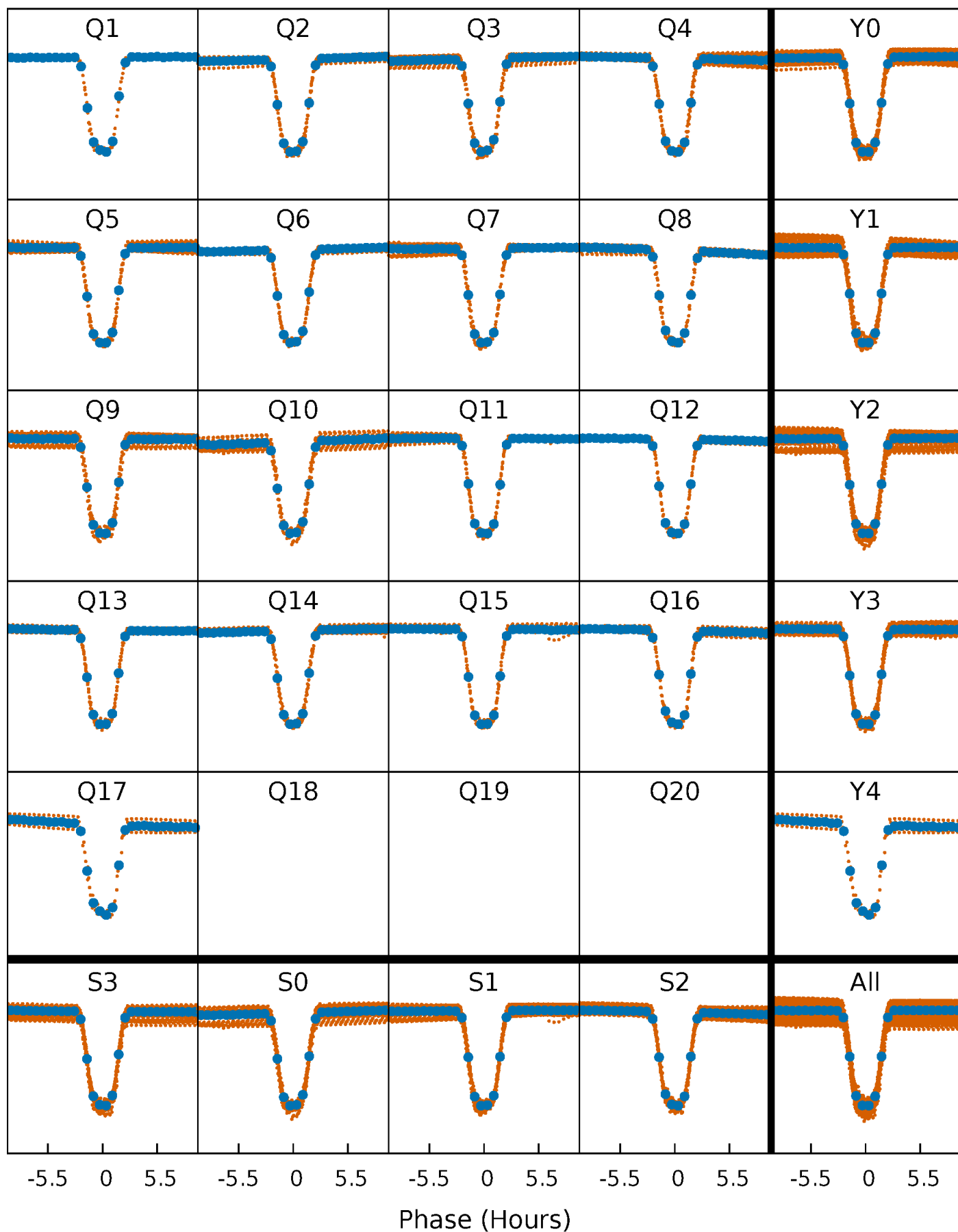


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



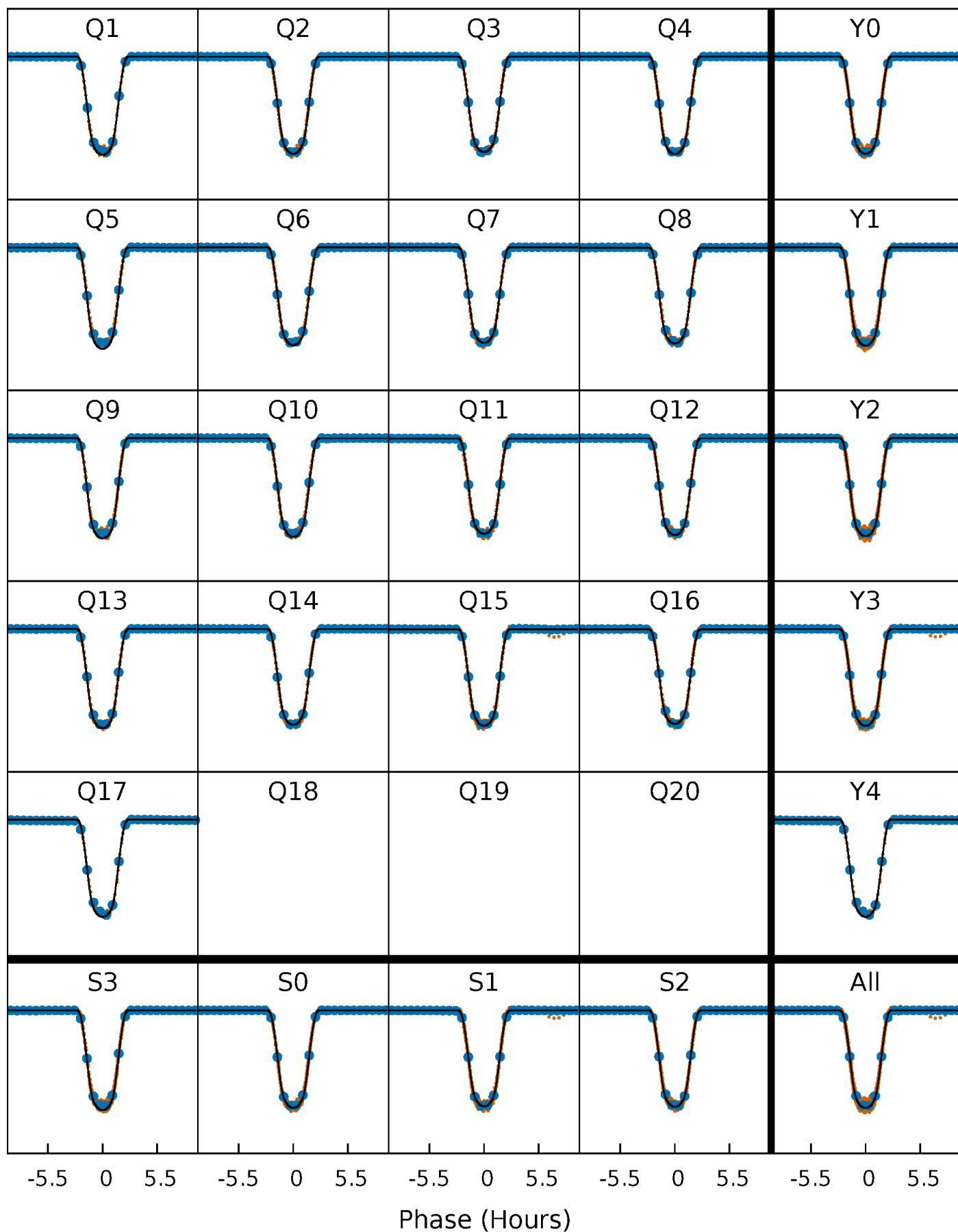
PDC Quarter-Phased Transit Curves

TCE 006694186-01 P= 5.554225 Days $T_0=135.162336$ (BKJD)



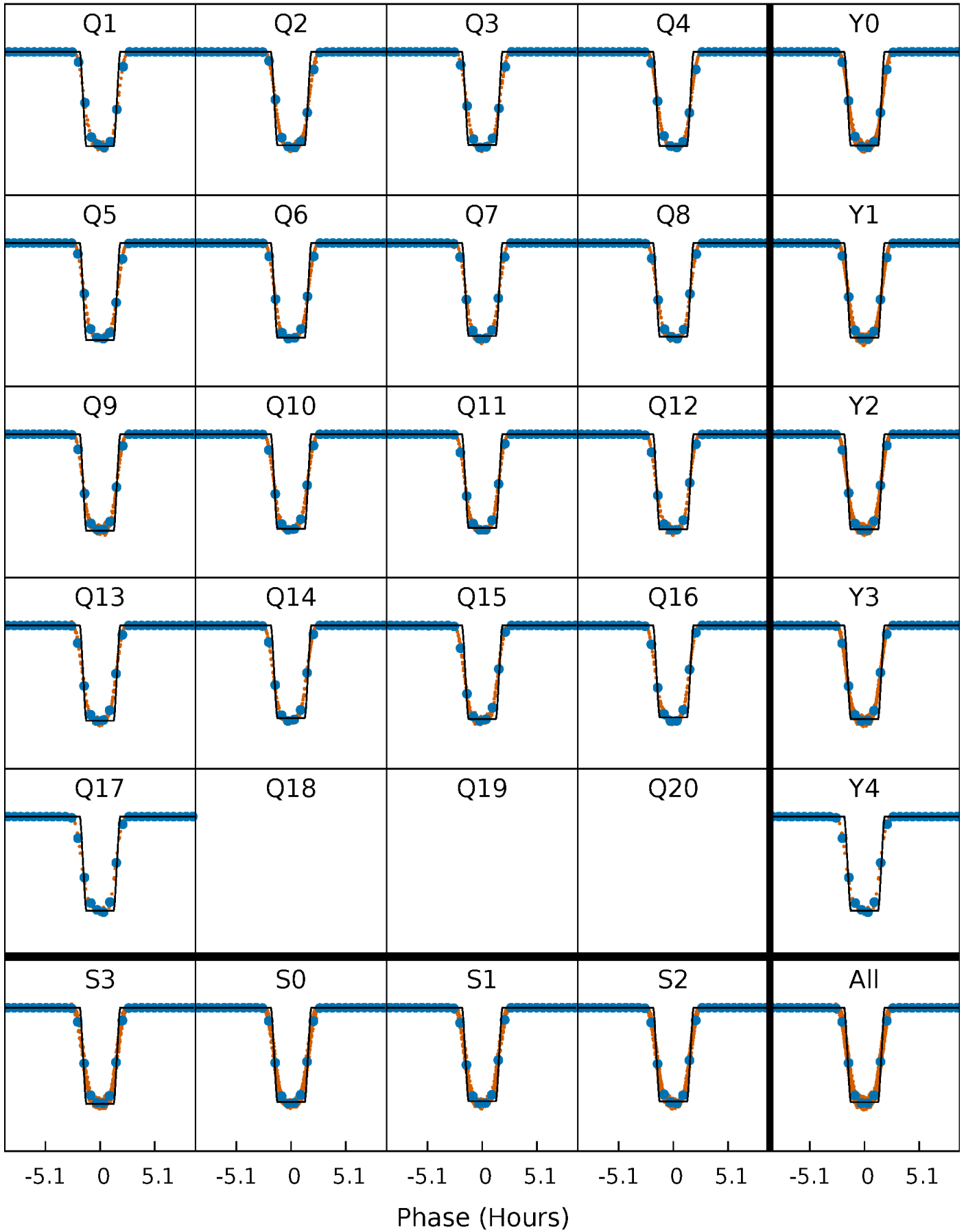
DV Quarter-Phased Transit Curves

TCE 006694186-01 P= 5.554225 Days $T_0=135.162336$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

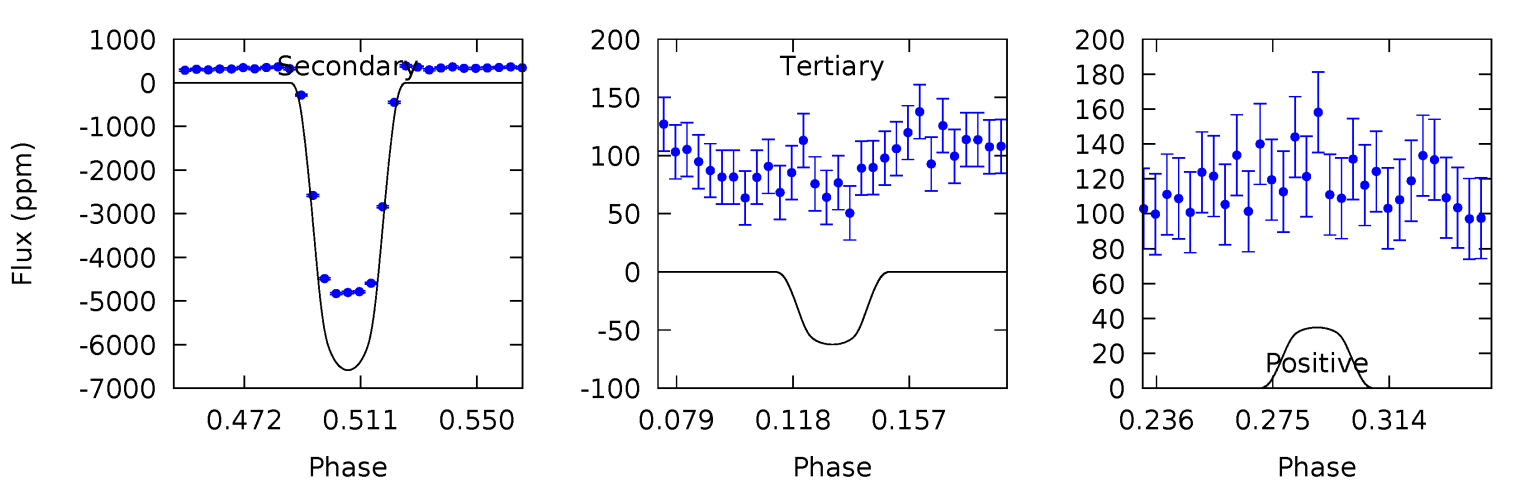
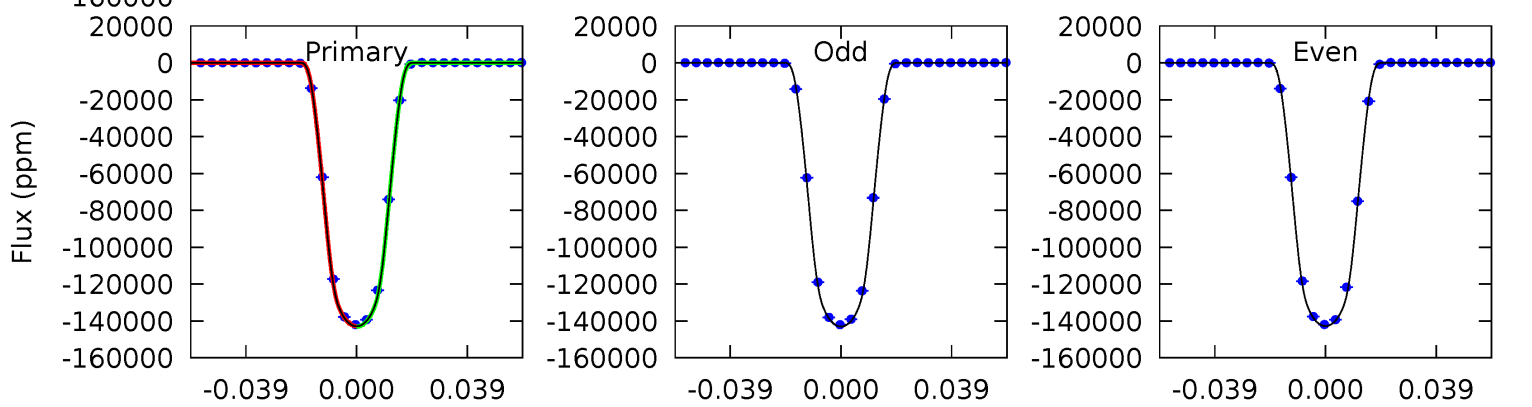
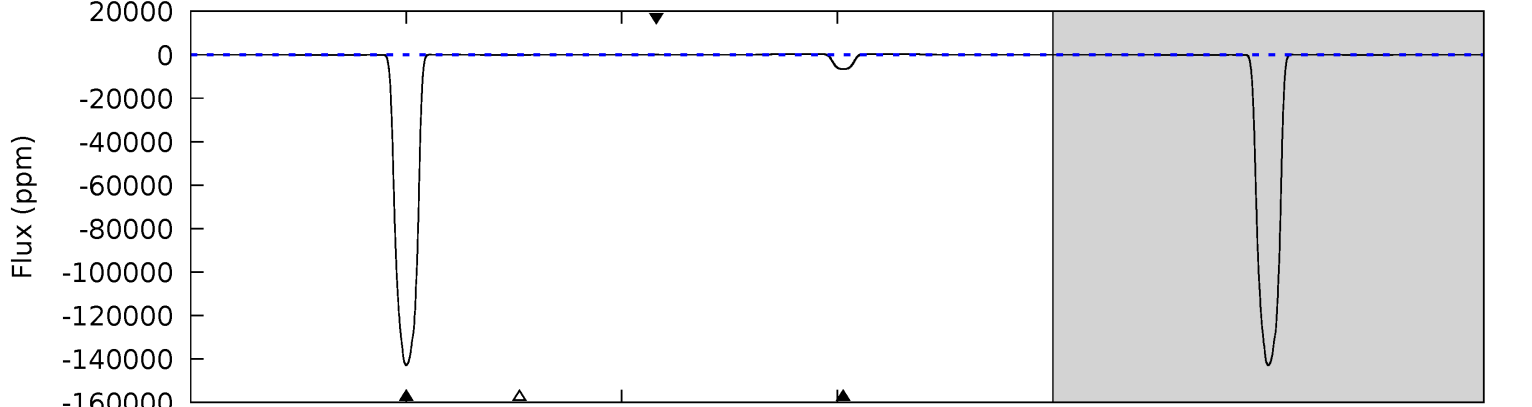
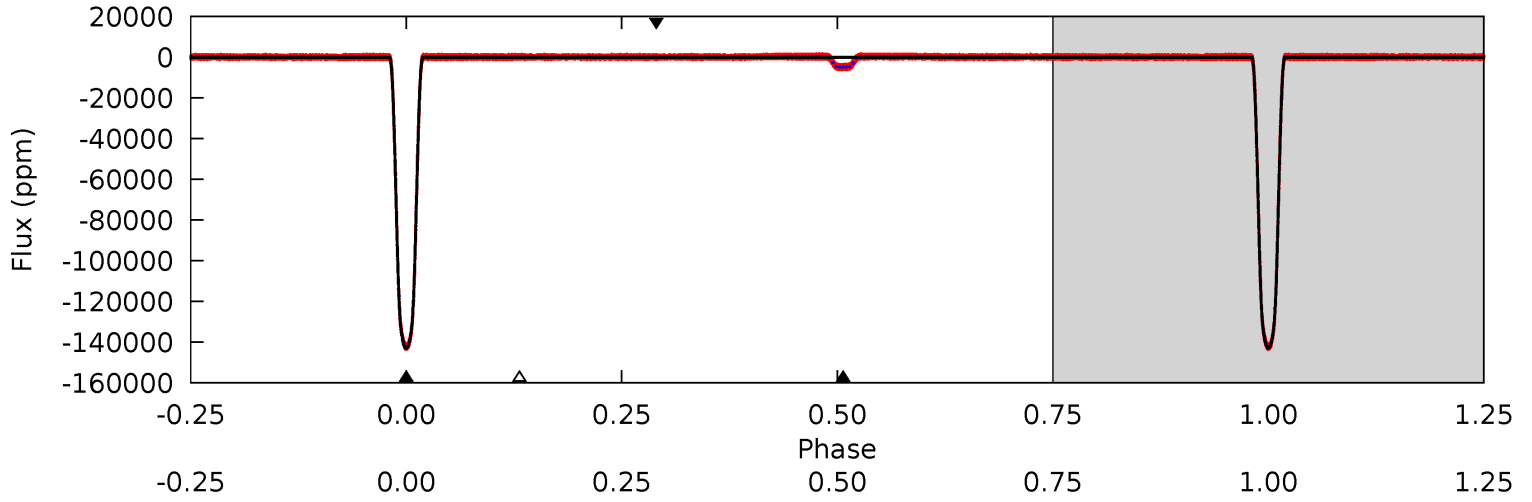
TCE 006694186-01 P= 5.554264 Days $T_0=135.157544$ (BKJD)



DV Model-Shift Uniqueness Test

006694186-01, P = 5.554225 Days, E = 129.608111 Days

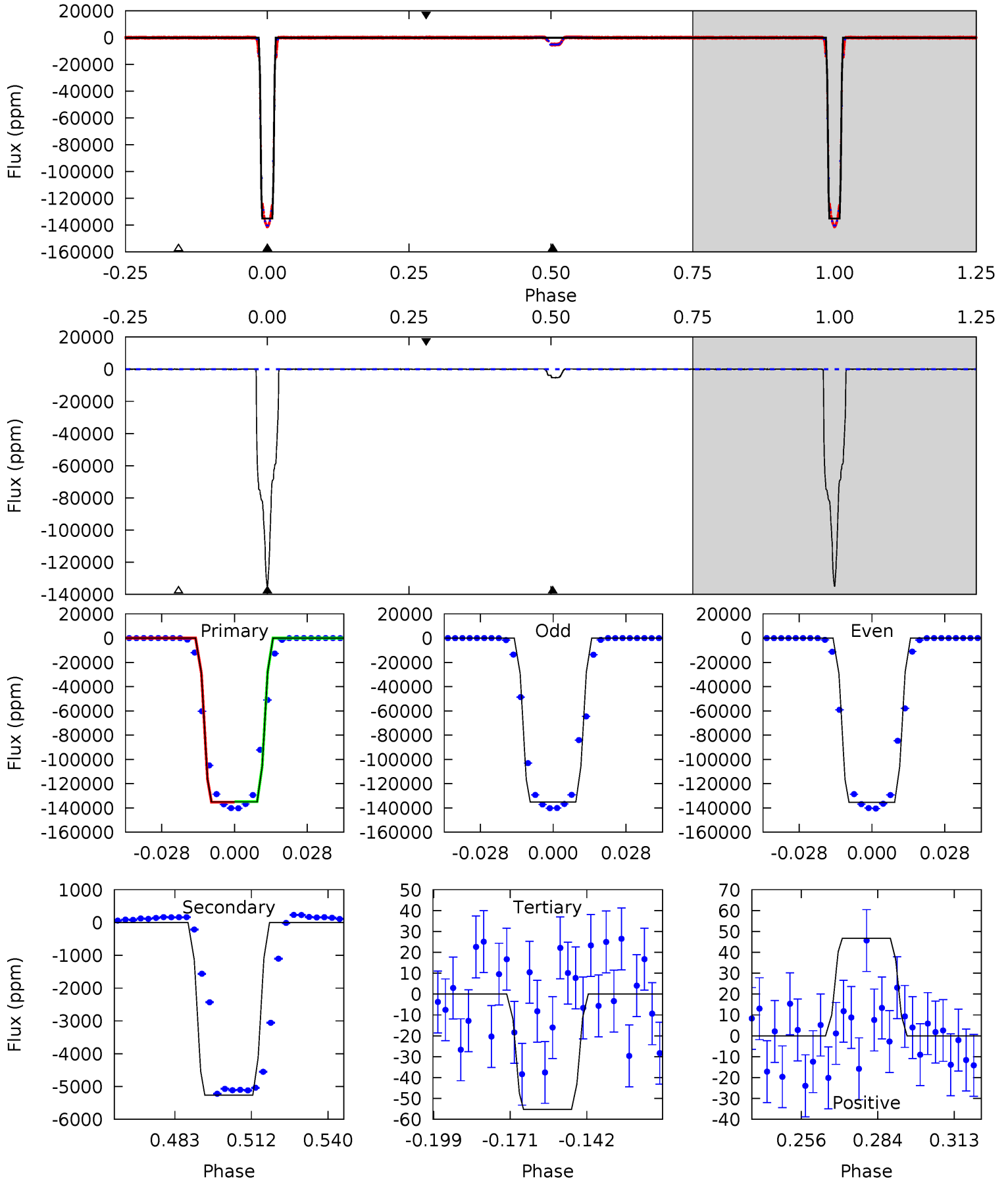
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12542	577.8	5.48	3.06	4.76	2.06	8.35	12536	12539	572.4	574.8	10.8	1.00	0.00	13.9



Alt Model-Shift Uniqueness Test

006694186-01, P = 5.554264 Days, E = 129.603280 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9497	370.0	3.88	3.29	4.82	2.19	2.04	9493	9494	366.2	366.7	12.5	1.00	0.00	15.3



Stellar Parameters For KIC 006694186

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5433^{+145}_{-145}	$4.465^{+0.124}_{-0.171}$	$-0.340^{+0.350}_{-0.300}$	$0.843^{+0.181}_{-0.121}$	$0.756^{+0.119}_{-0.047}$	$1.776^{+1.028}_{-0.801}$
	+3%/-3%	+3%/-4%	+103%/-88%	+21%/-14%	+16%/-6%	+58%/-45%
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 006694186-01 / KOI 6031.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-6585 ± 11	$32.23^{+4.17}_{-2.90}$	1307^{+75}_{-70}	3197^{+59}_{-53}	11^{+2}_{-2}
Alt.	-5262 ± 14	$34.89^{+4.24}_{-3.08}$	1308^{+84}_{-72}	3024^{+51}_{-49}	$7.586^{+1.478}_{-1.464}$

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

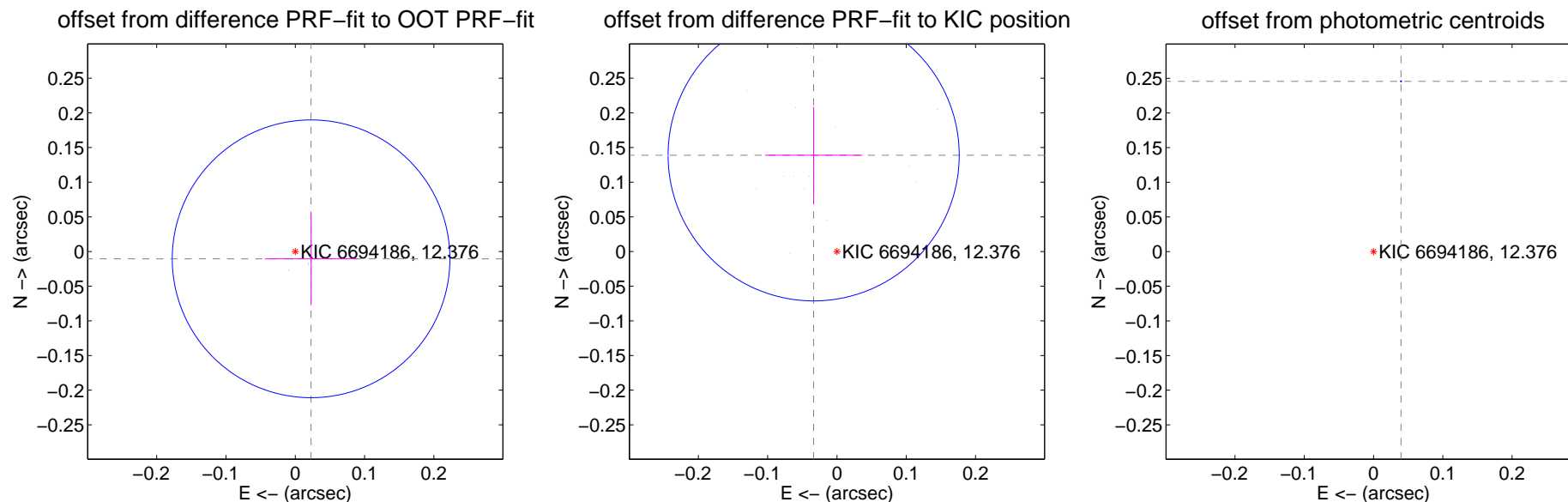
DV Centroid Data

Supplemental centroid analysis for 006694186-01. Kepler magnitude: 12.38. Transit SNR 8105.60

There are 17 quarters with good PRF difference image offsets

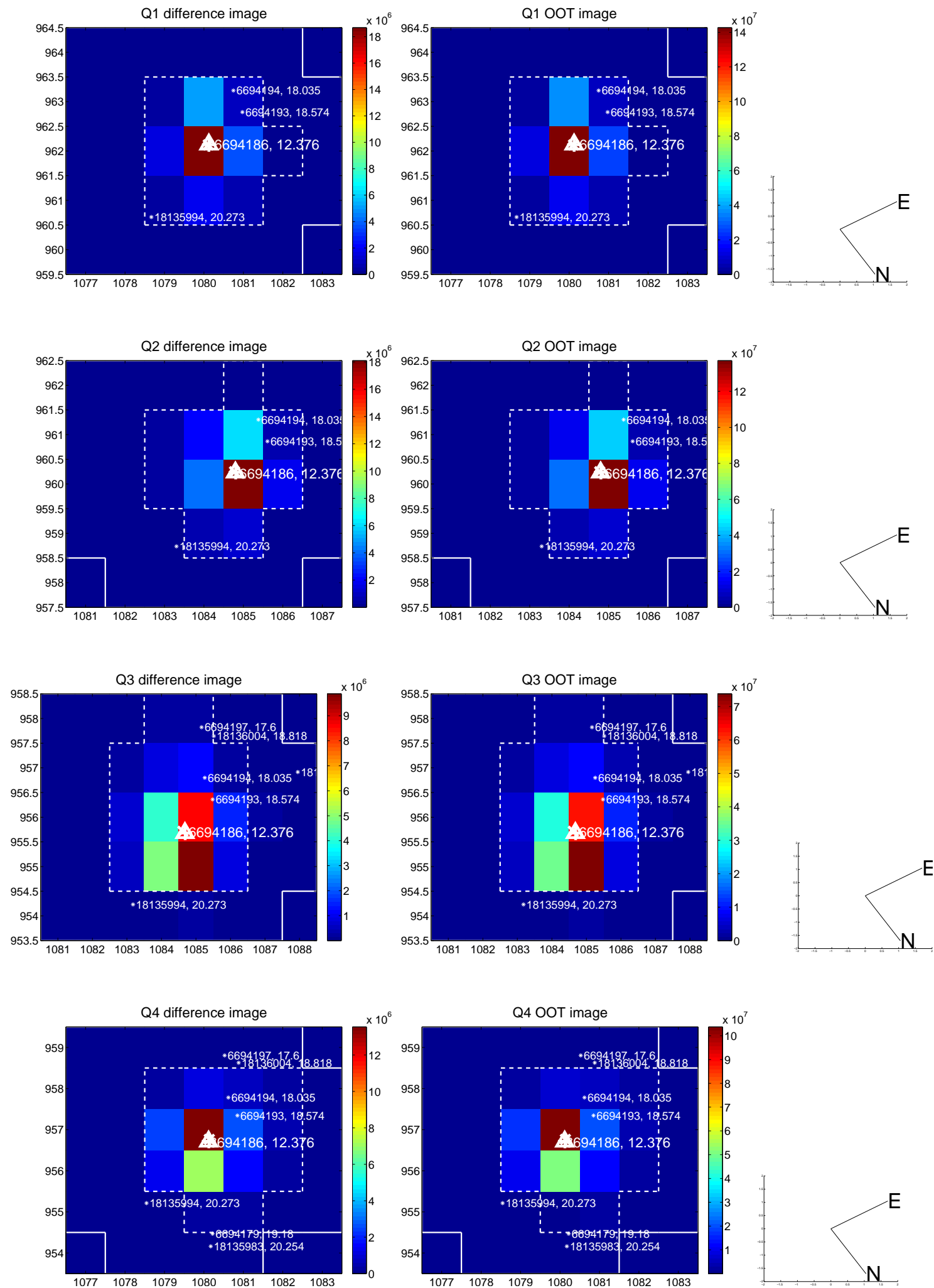
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.025 ± 0.067	0.38	-0.023 ± 0.067	-0.011 ± 0.067
PRF-fit source offset from KIC position	0.143 ± 0.070	2.04	0.034 ± 0.070	0.139 ± 0.070
photometric centroid source offset	0.25 ± 0.00	957.54	-0.04 ± 0.00	0.25 ± 0.00

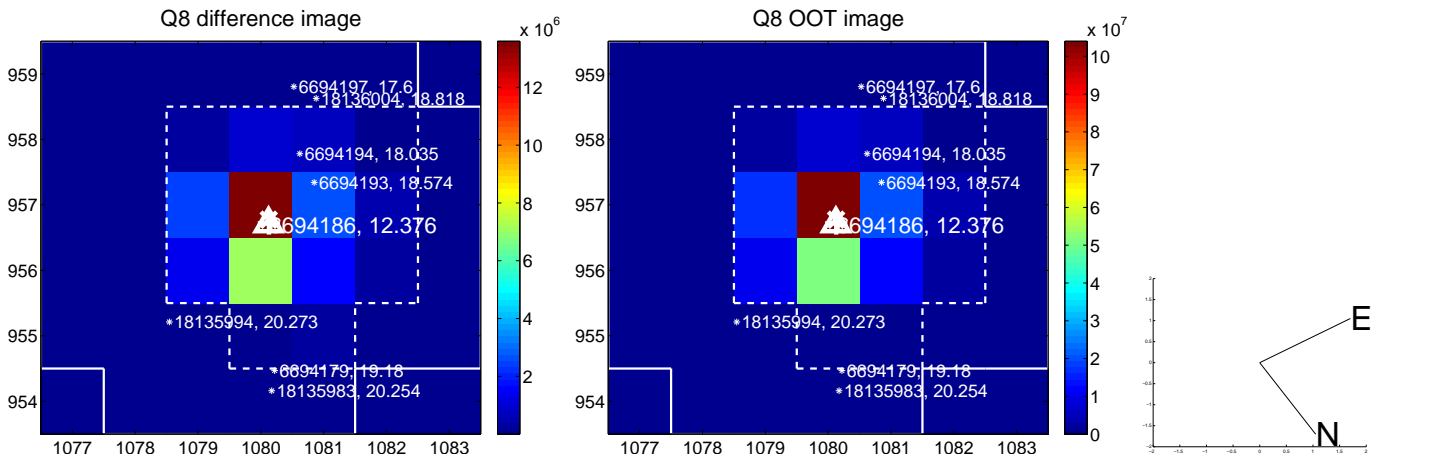
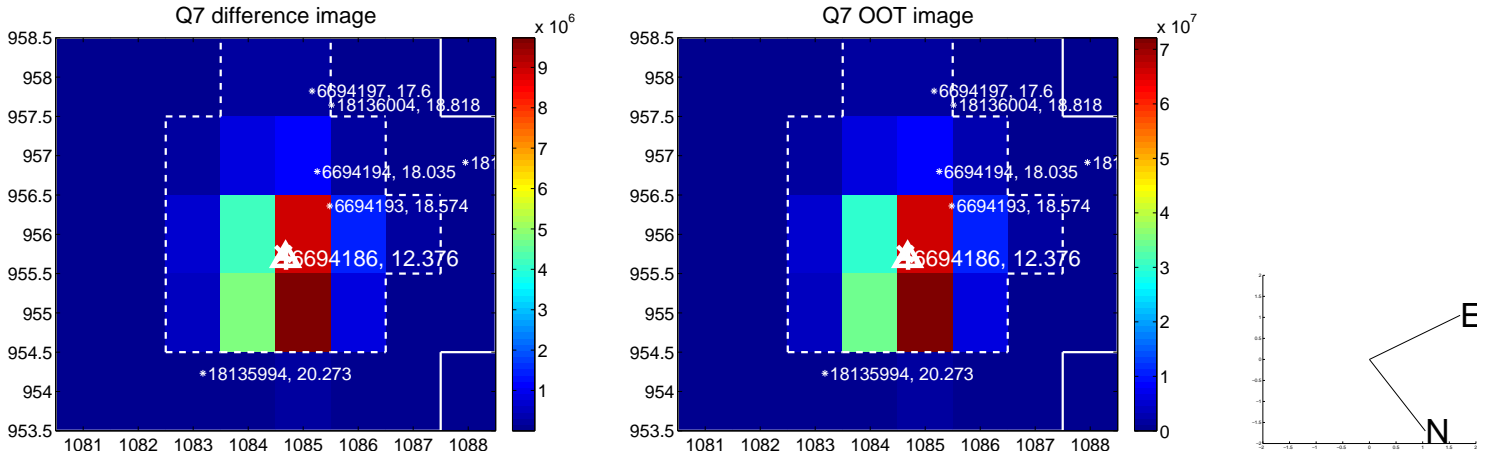
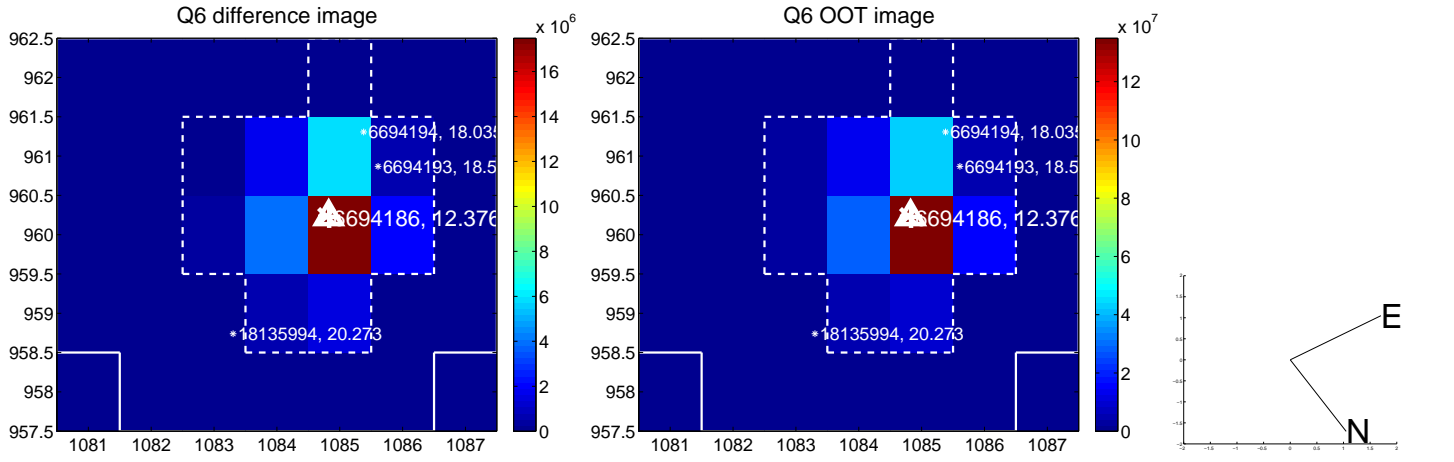
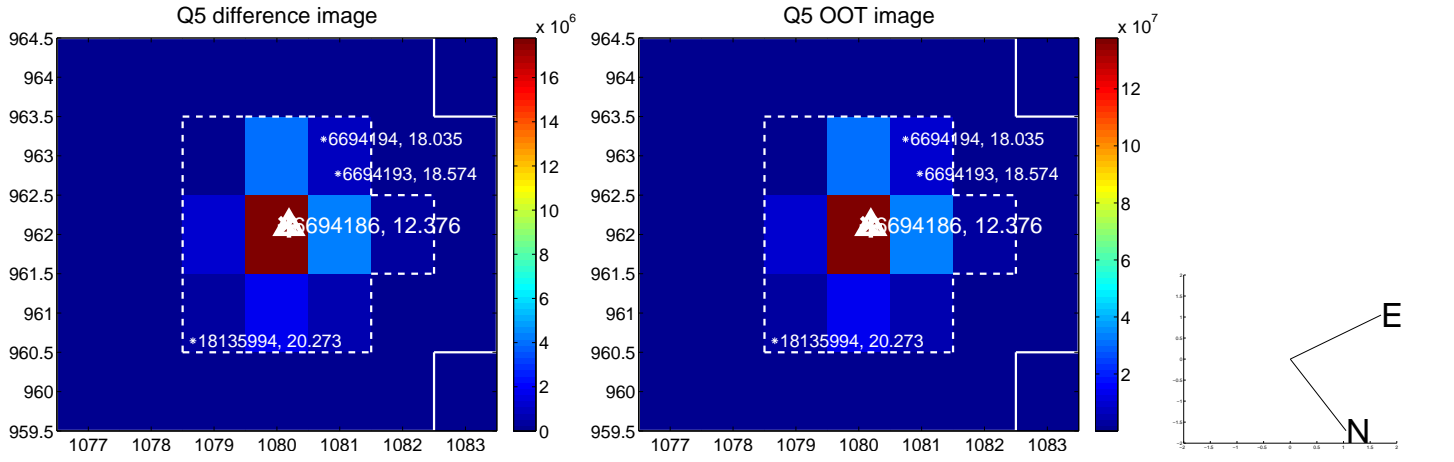


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

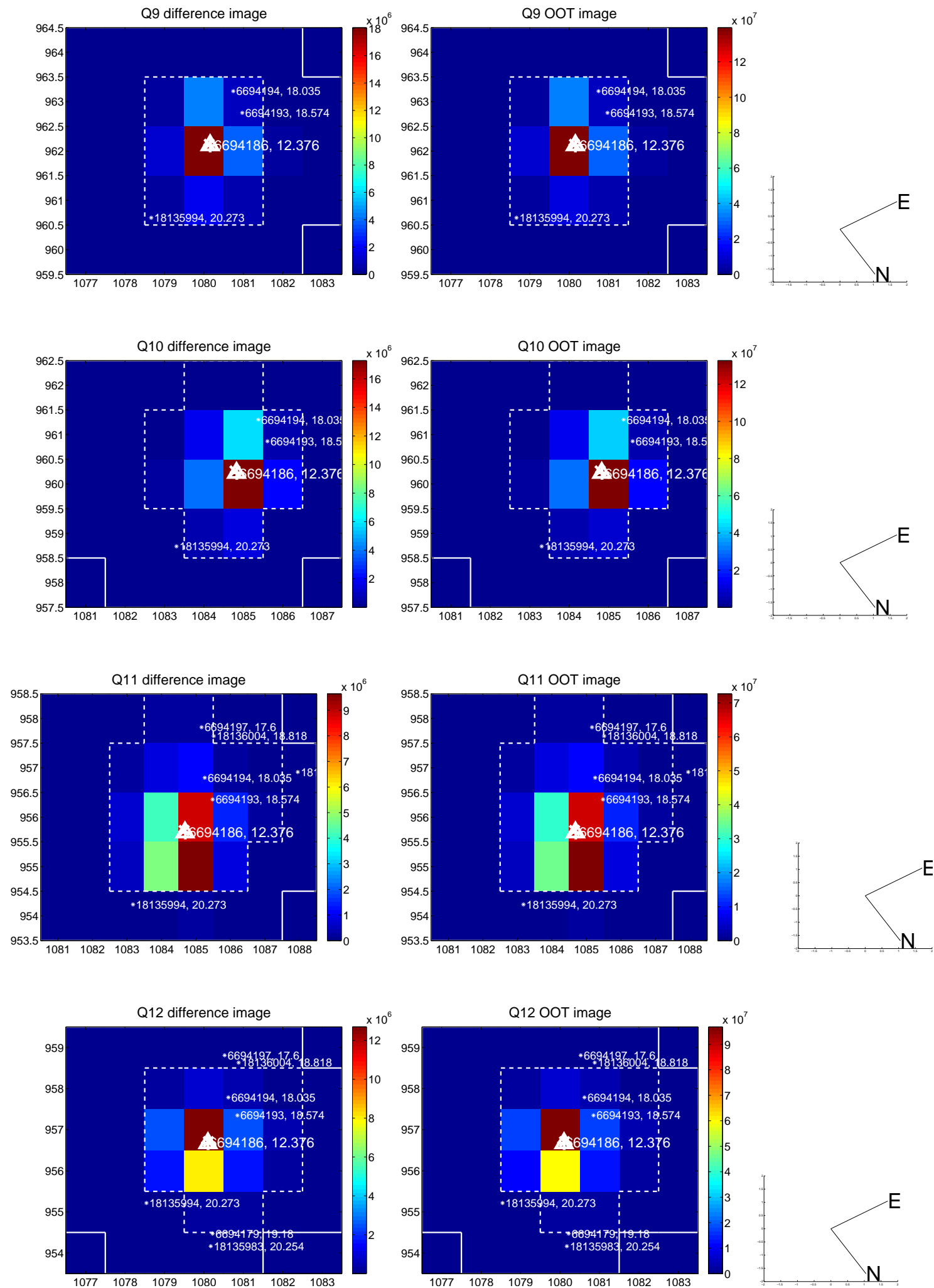
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



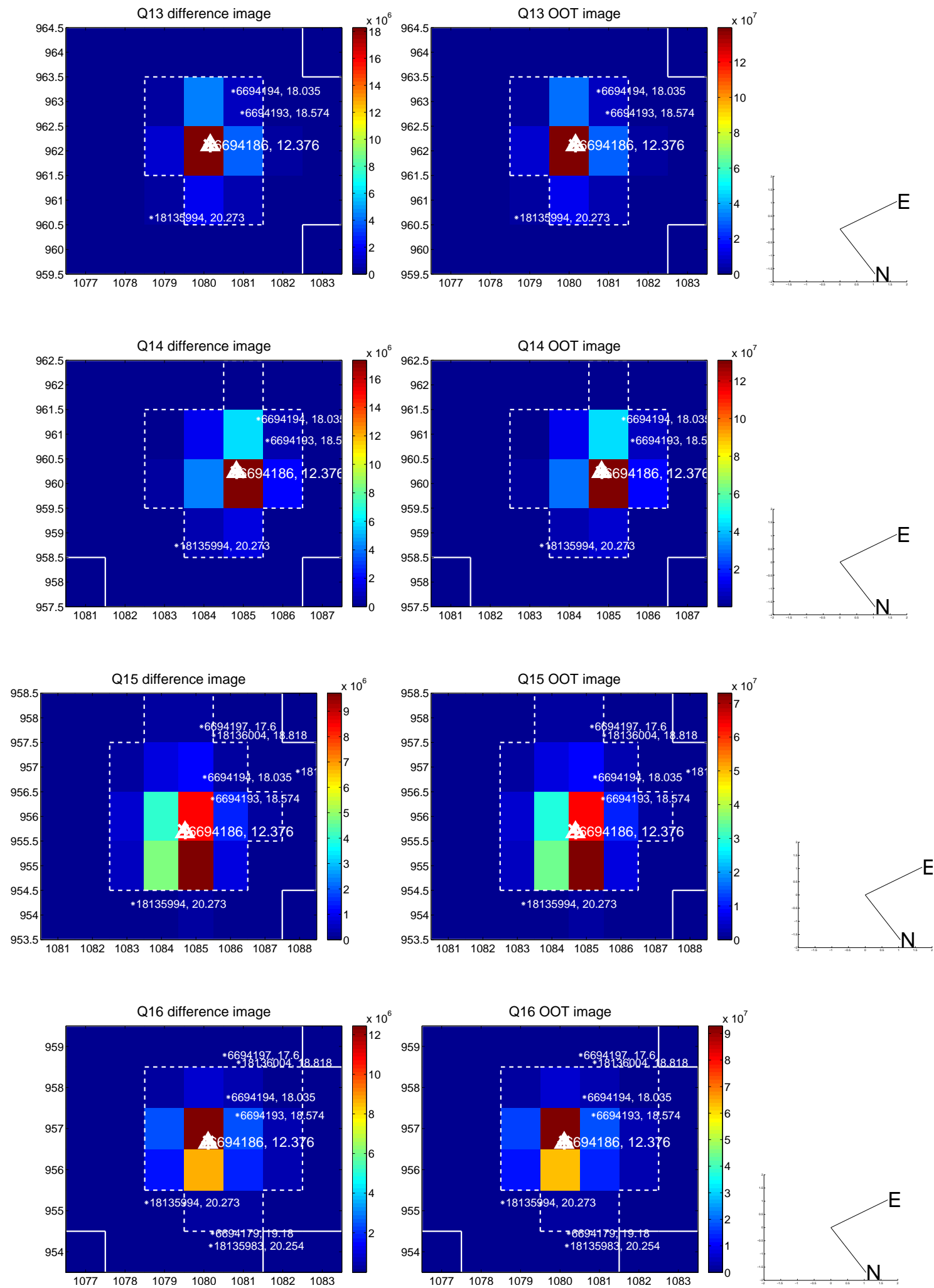
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



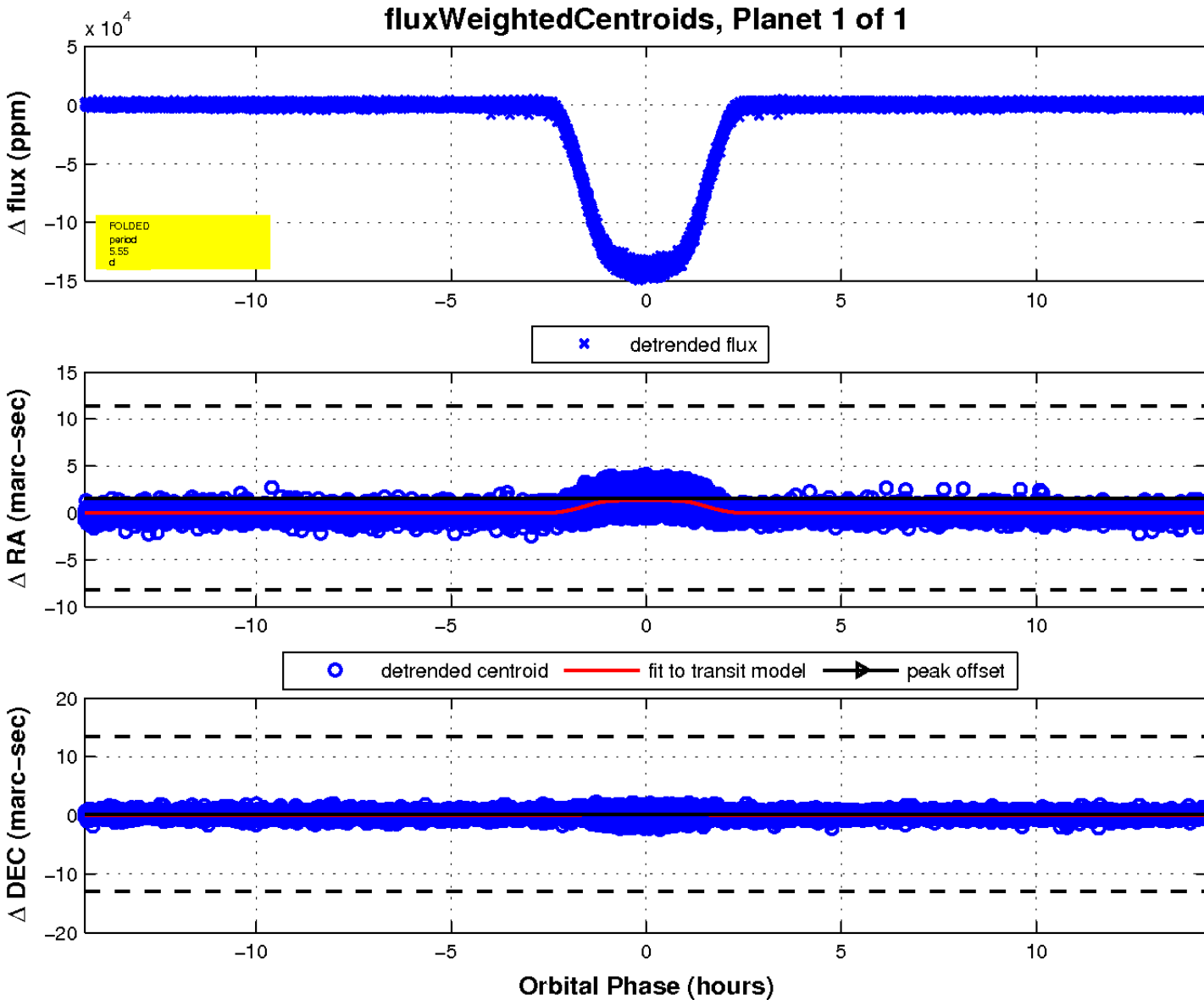
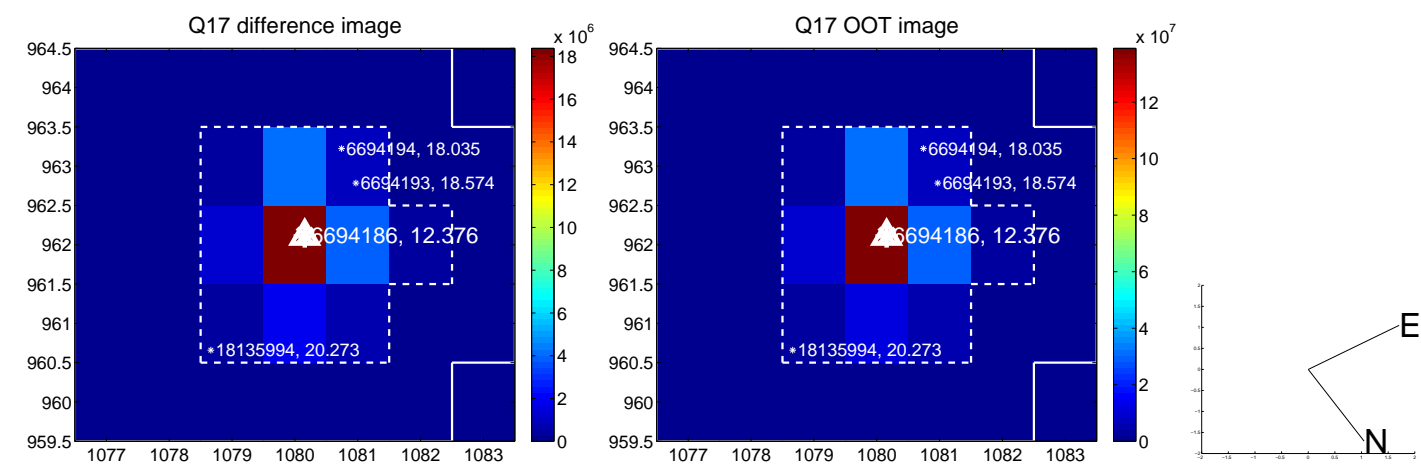
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

