

KIC 005441980

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})
005441980-01	OBS	0607.01	5.893991	132.228127	10894.1	1.344	458.2	499.6	0.89	5713	12.12	185.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005441980-01	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.

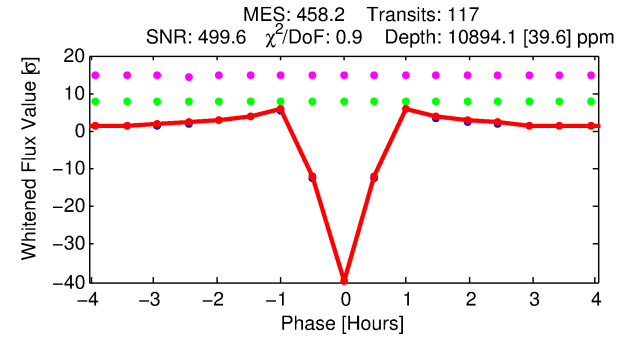
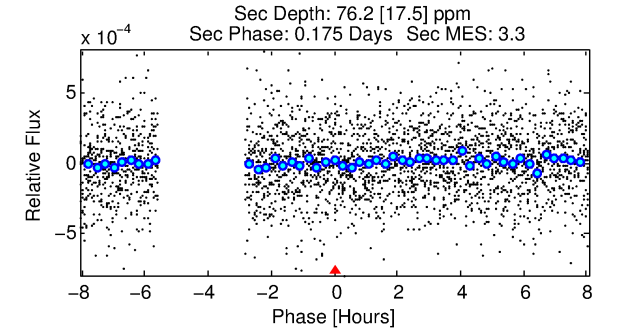
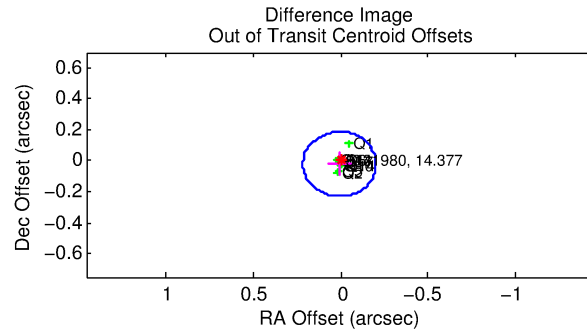
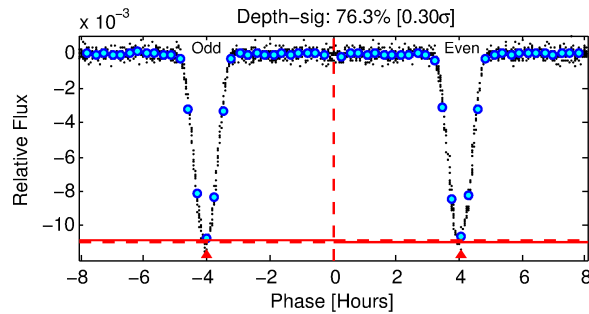
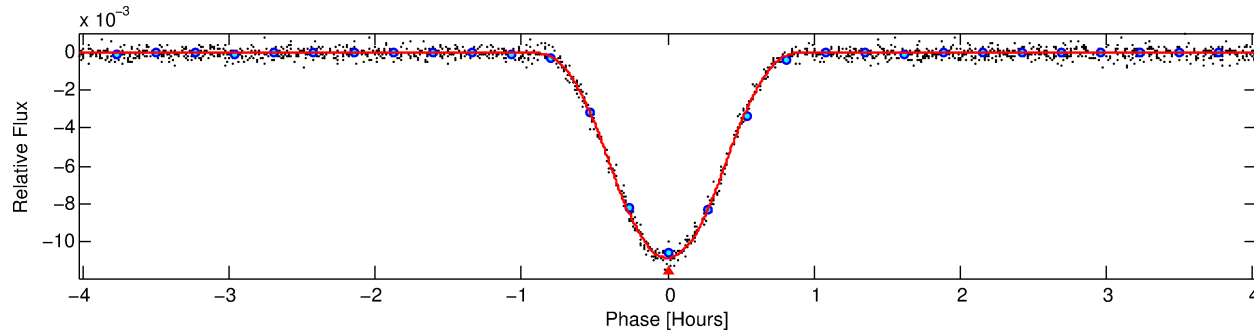
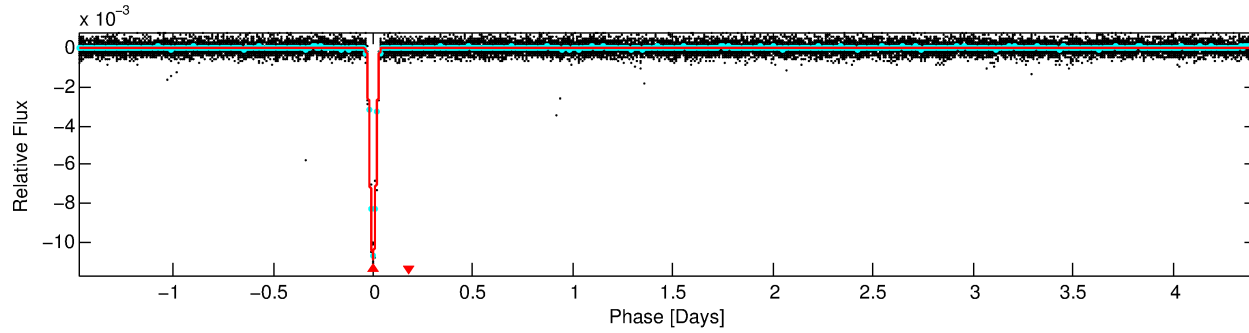
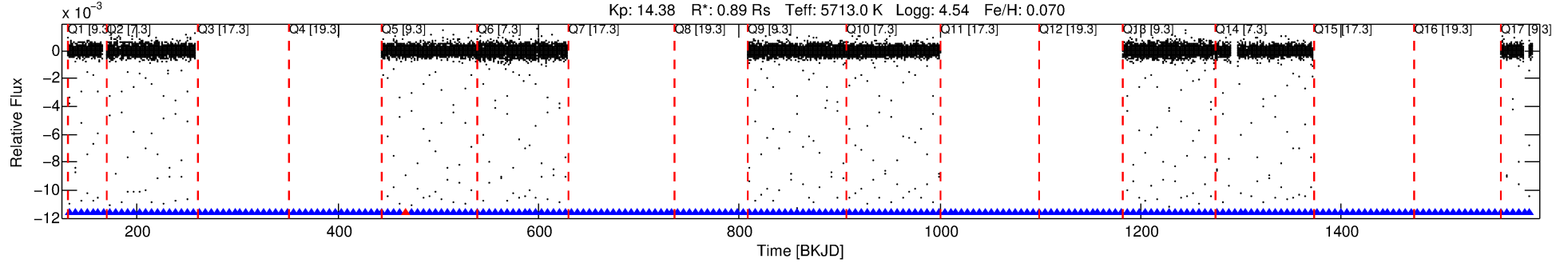
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005441980-01

No Significant Match Found

DV One-Page Summary

KIC: 5441980 Candidate: 1 of 1 Period: 5.894 d
KOI: K00607.01 Corr: 0.998



DV Fit Results:

Period = 5.89399 [0.00000] d
Epoch = 132.2281 [0.0000] BKJD
Rp/R* = 0.1244 [0.0048]
a/R* = 22.27 [0.42]
b = 0.91 [0.01]
Seff = 185.23 [29.33]
Teq = 941 [37] K
Rp = 12.12 [1.38] Re
a = 0.0641 [0.0062] AU
Ag = 1.17 [0.33] [0.51 σ]
Teffp = 1513 [94] K [5.66 σ]

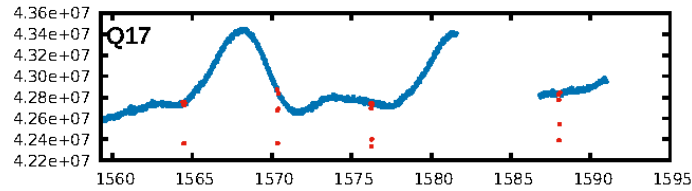
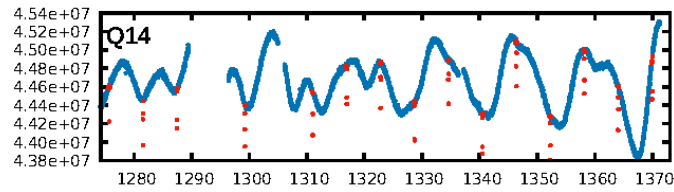
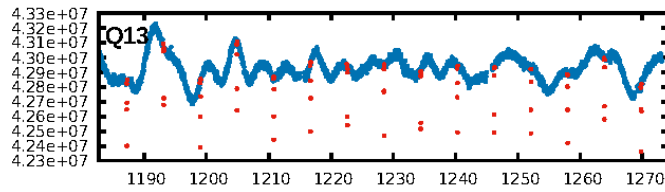
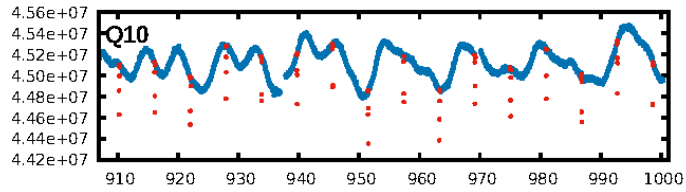
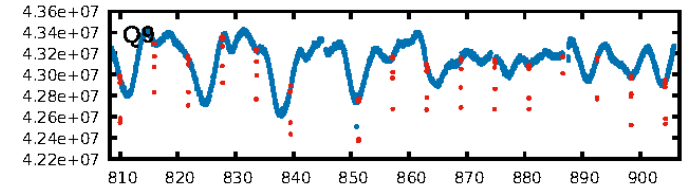
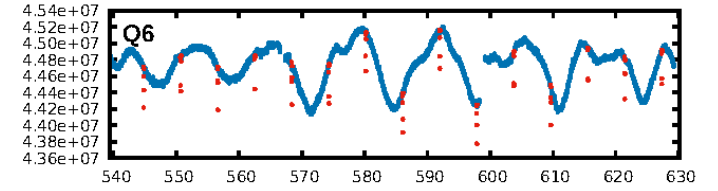
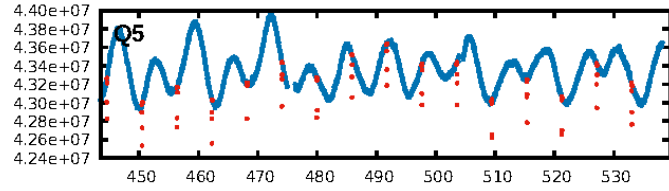
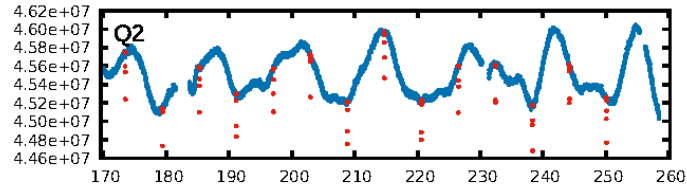
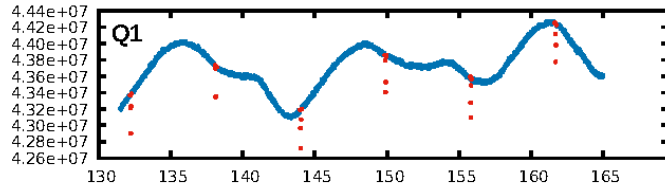
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 67.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.99 [106/107]
GhostDiagnostic-chr: 6.815
Centroid-sig: 9.1%
Centroid-so: 0.335 arcsec [15.13 σ]
OotOffset-rm: 0.022 arcsec [0.32 σ]
KicOffset-rm: 0.301 arcsec [4.00 σ]
OotOffset-st: 4/0/0/5 [9]
KicOffset-st: 4/0/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

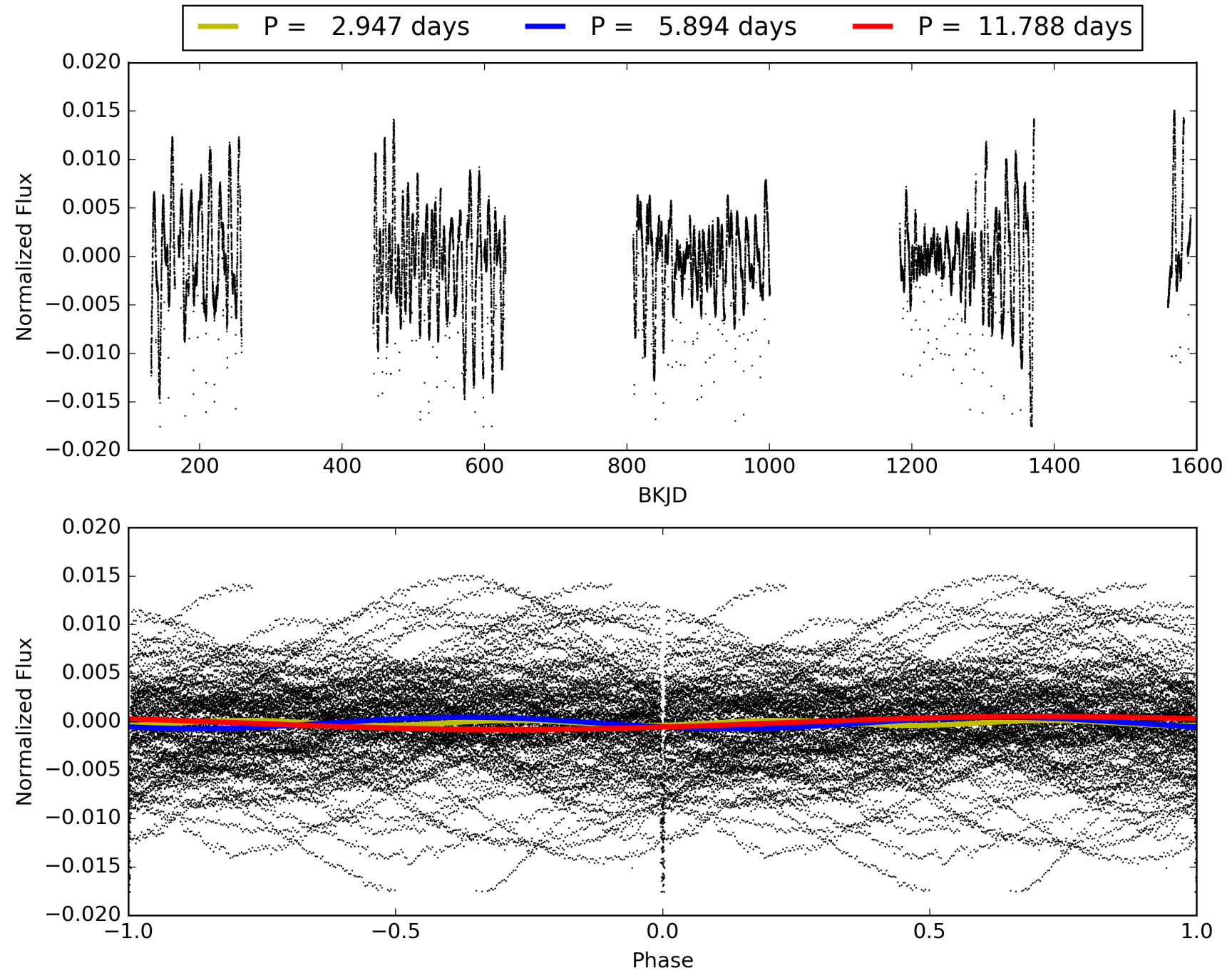
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 10:04:07 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005441980-01, PDC Light Curves

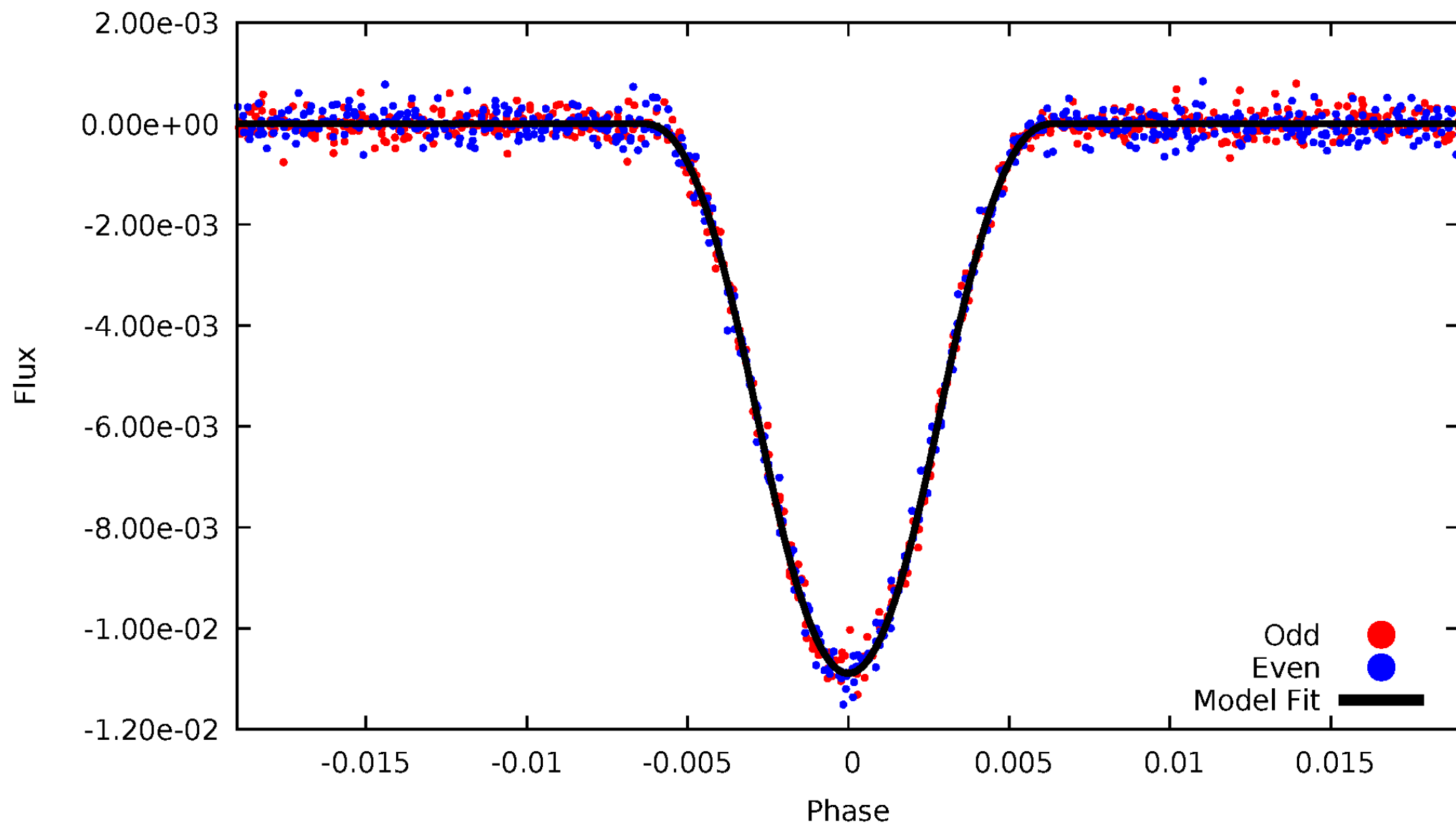


TCE 005441980-01



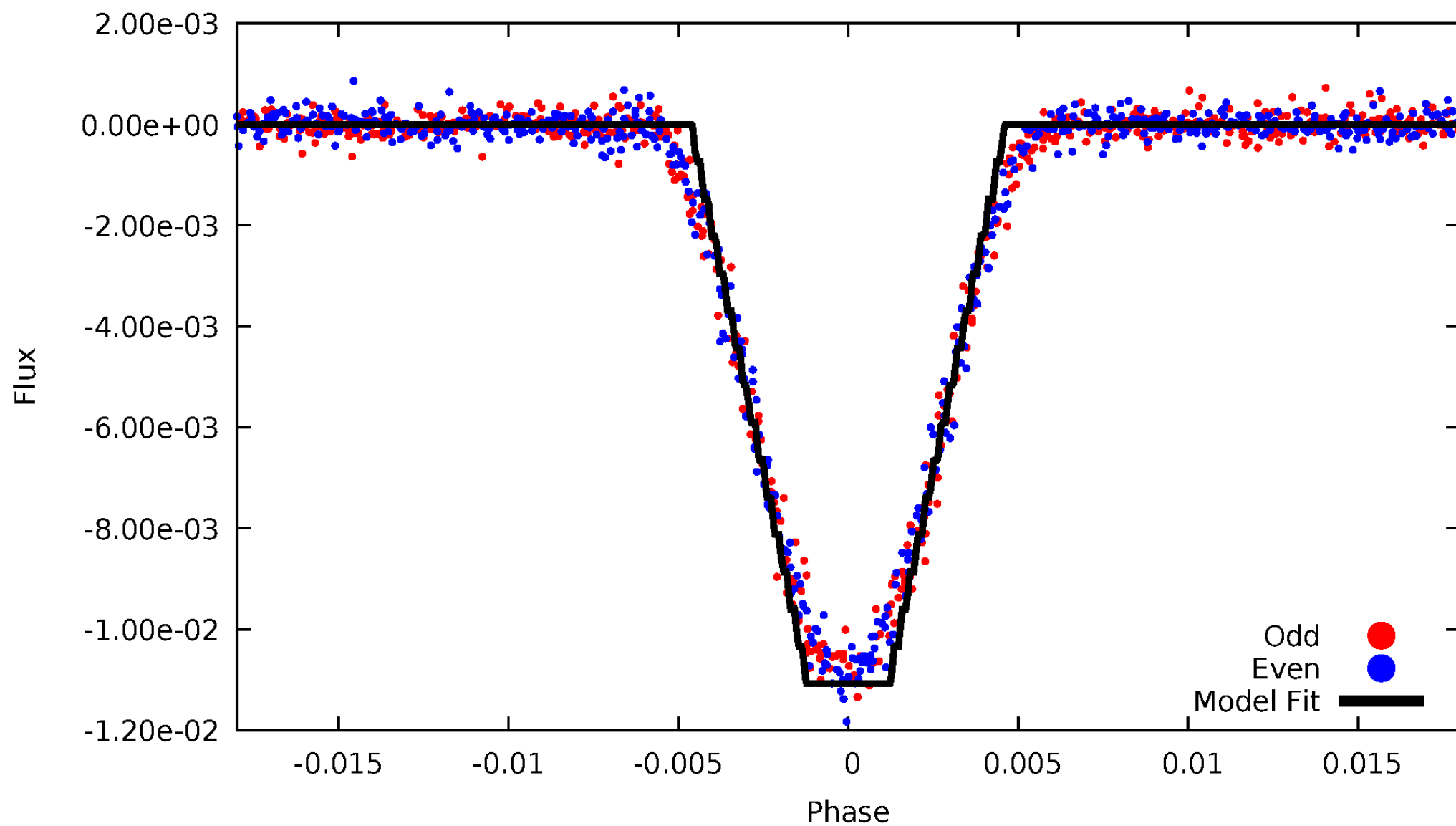
DV Odd/Even

TCE 005441980-01



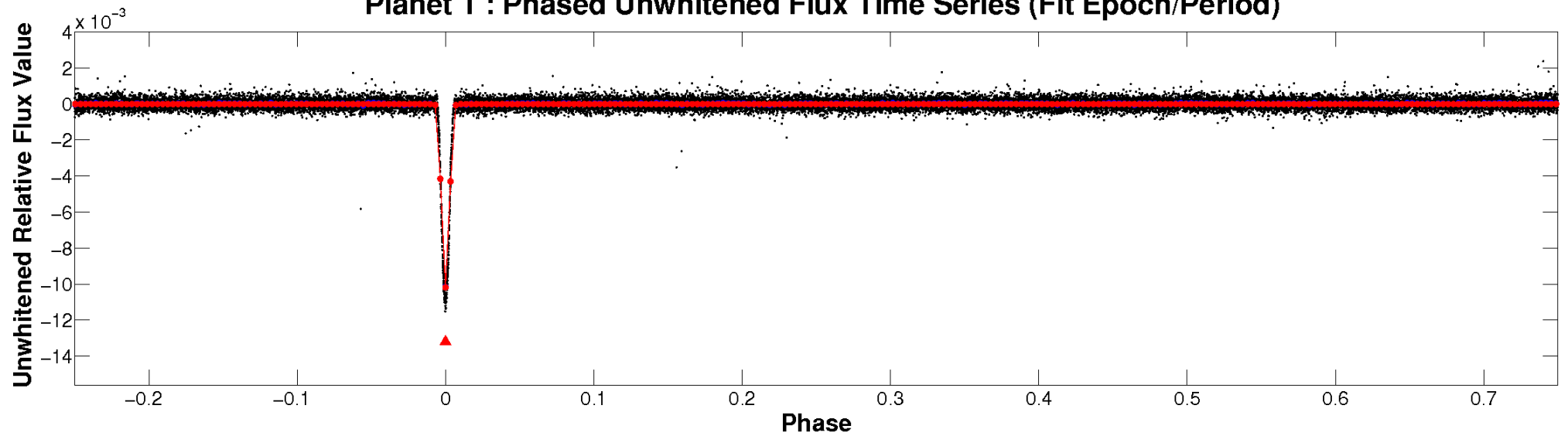
ALT Odd/Even

TCE 005441980-01

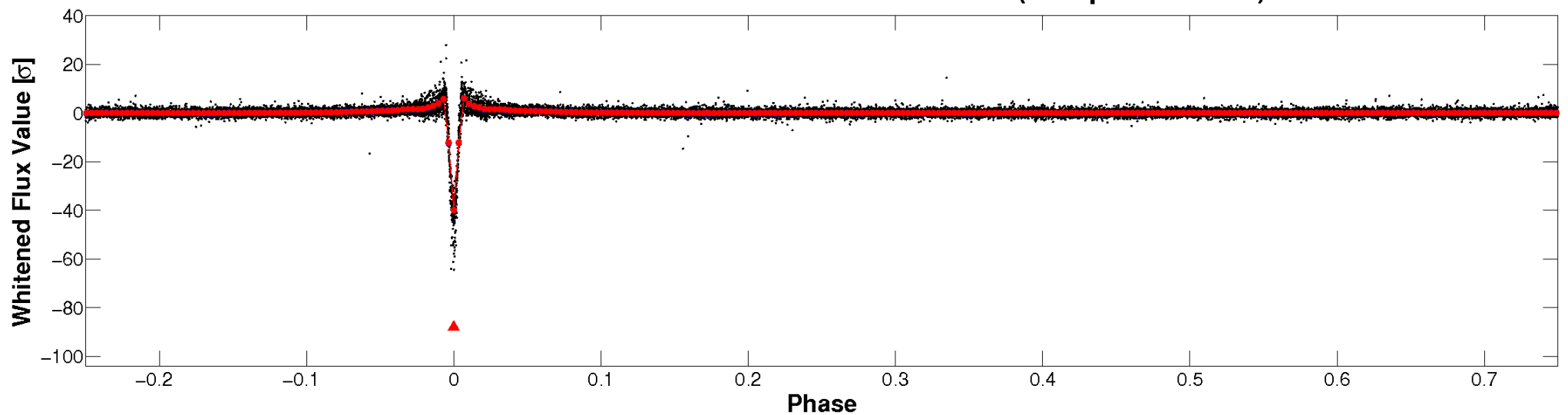


Non-Whitened Vs. Whitened Light Curve

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

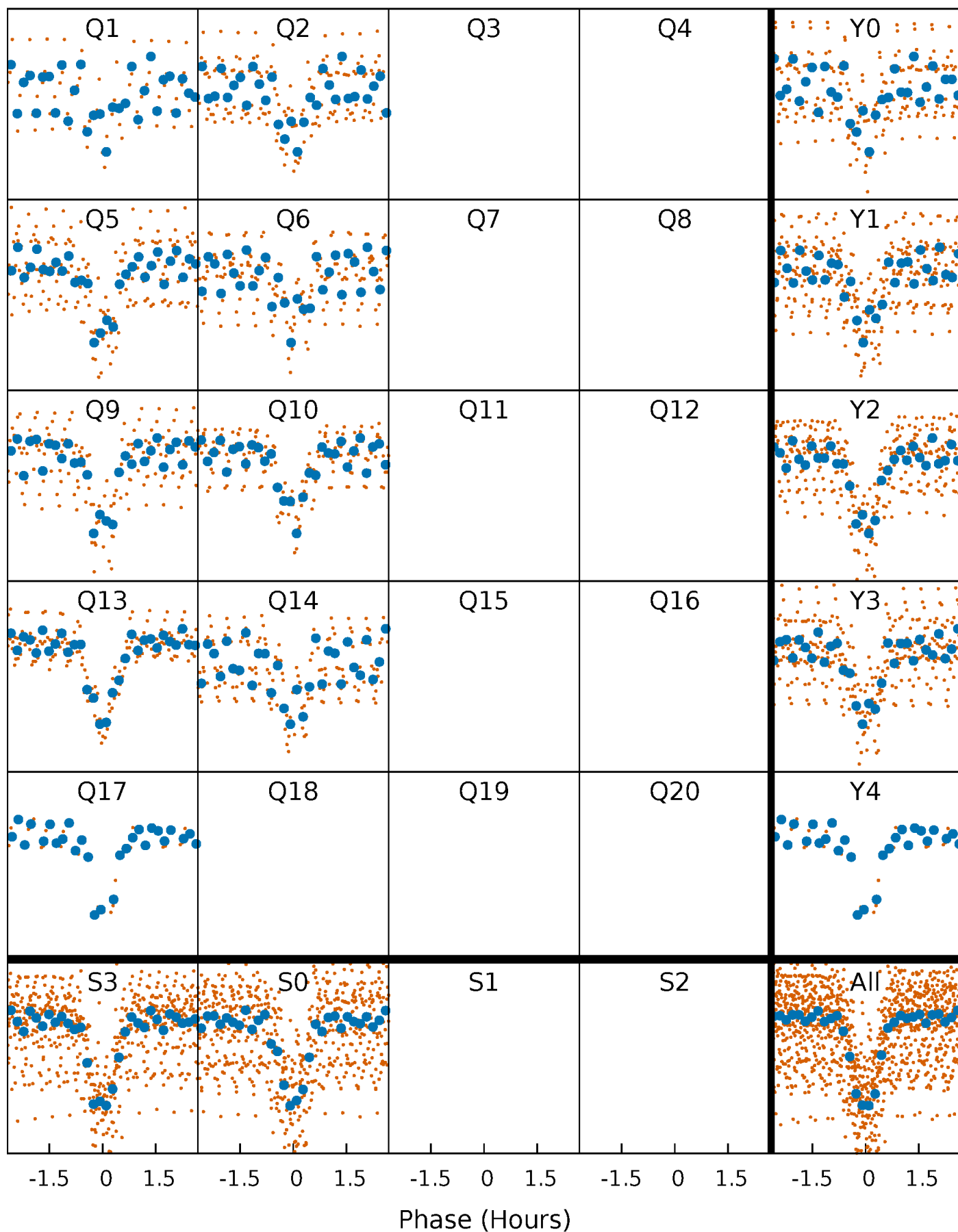


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



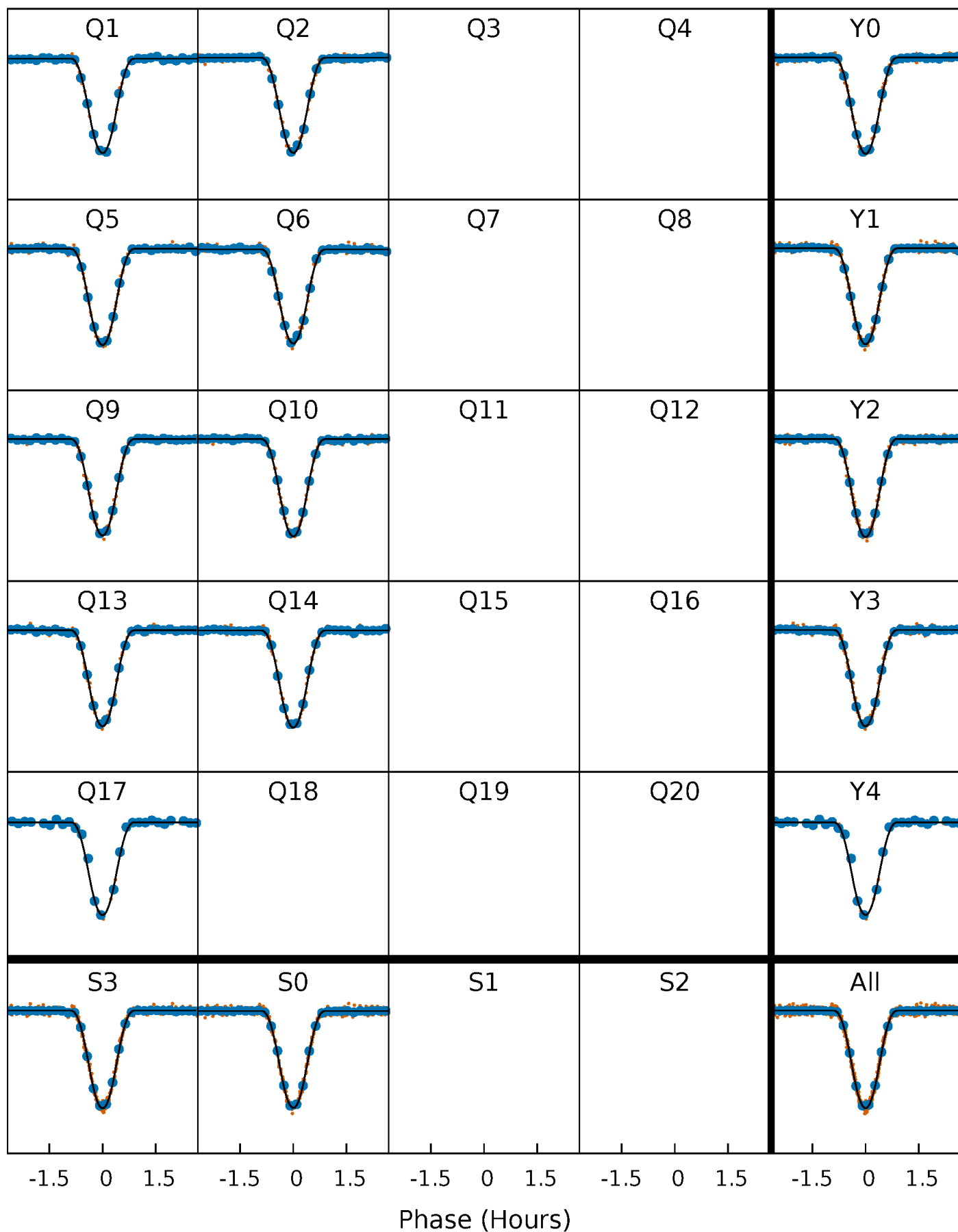
PDC Quarter-Phased Transit Curves

TCE 005441980-01 P= 5.893991 Days $T_0=132.228127$ (BKJD)



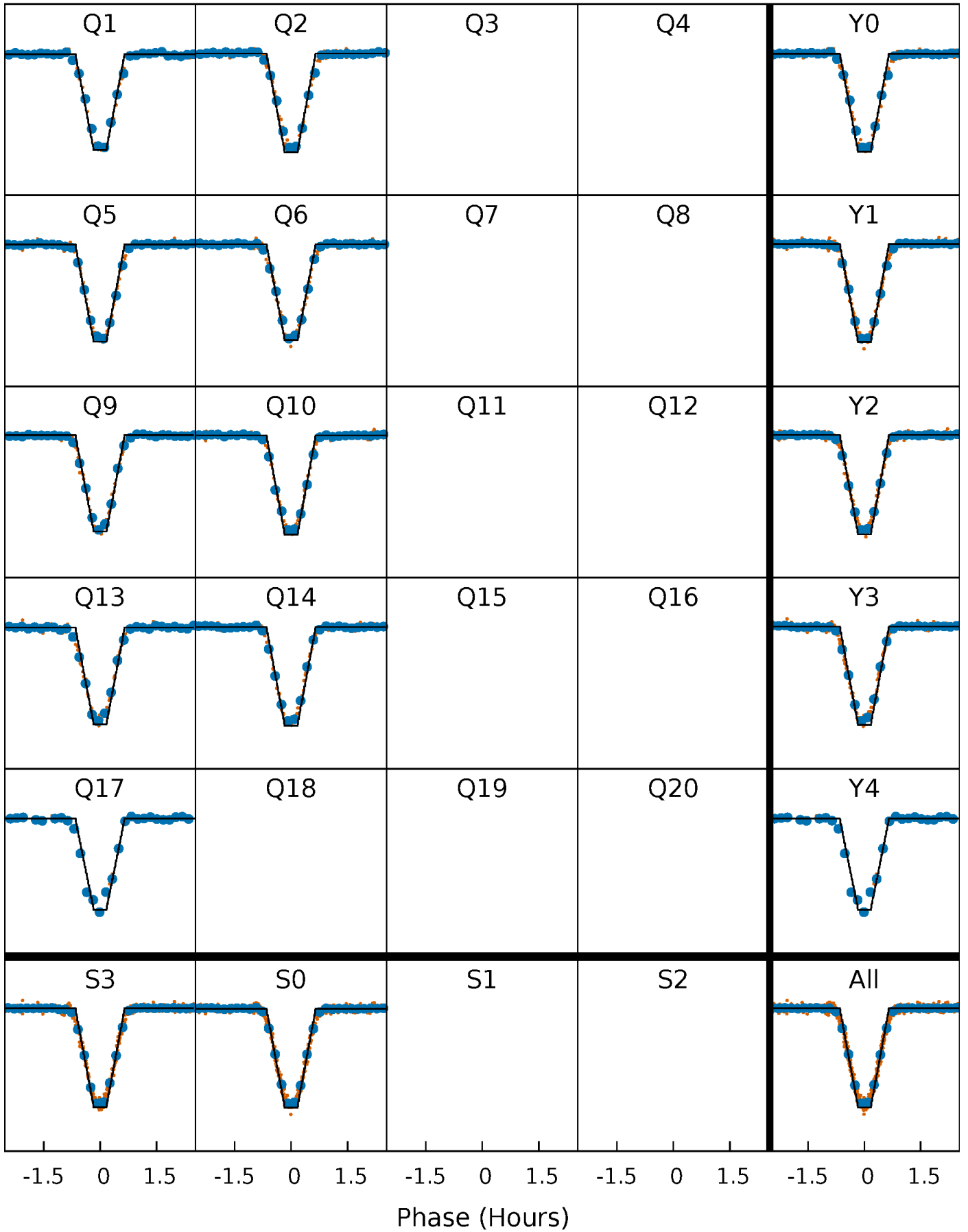
DV Quarter-Phased Transit Curves

TCE 005441980-01 P= 5.893991 Days $T_0=132.228127$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

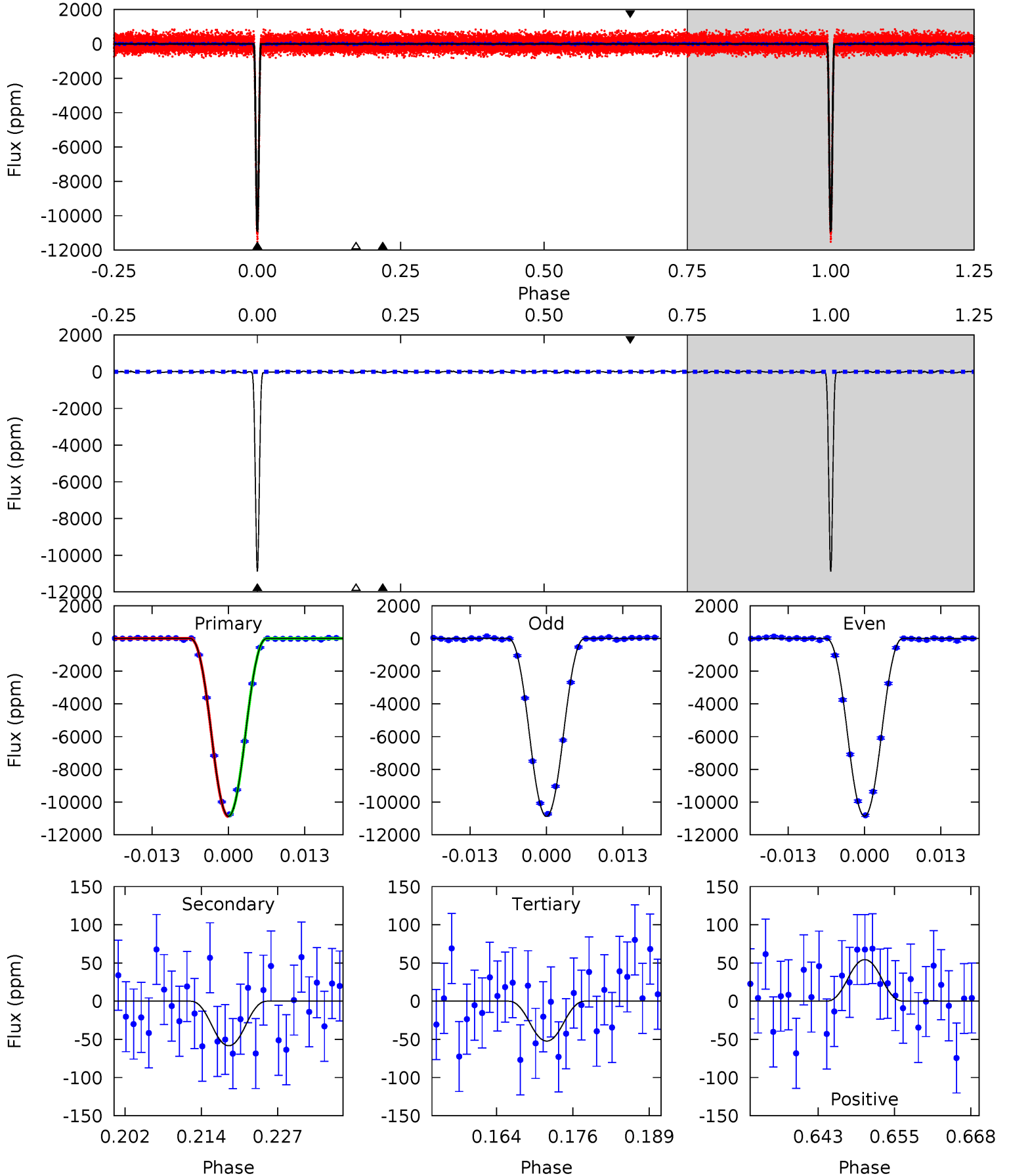
TCE 005441980-01 P= 5.894004 Days $T_0=132.226603$ (BKJD)



DV Model-Shift Uniqueness Test

005441980-01, P = 5.893991 Days, E = 126.334136 Days

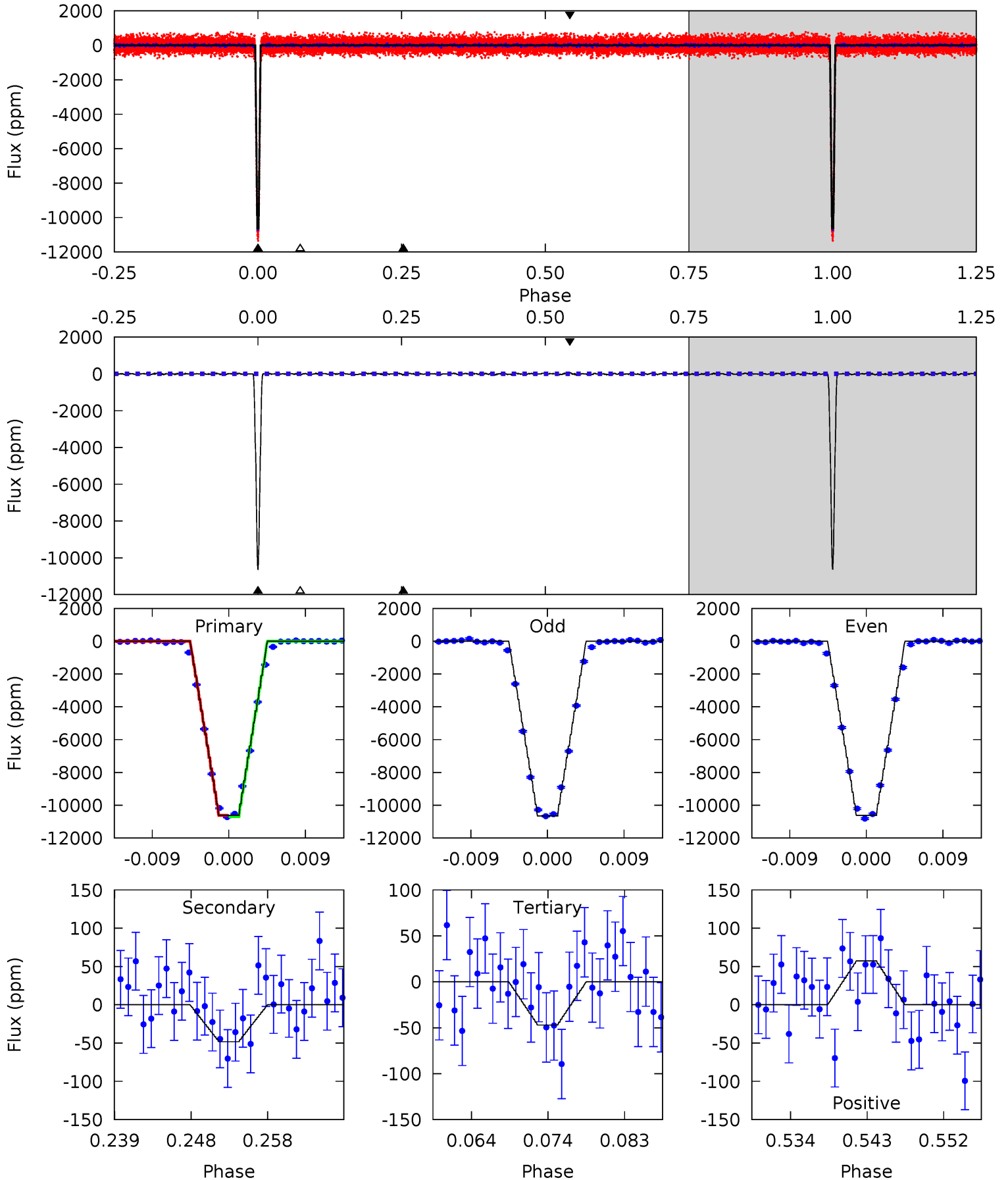
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
968.9	5.20	4.66	4.85	4.98	2.49	1.86	964.2	964.0	0.54	0.35	1.02	1.00	0.00	1.58



Alt Model-Shift Uniqueness Test

005441980-01, P = 5.894004 Days, E = 126.332599 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
823.6	3.74	3.65	4.45	5.04	2.60	1.37	820.0	819.2	0.10	-0.70	1.42	1.00	0.01	0



Stellar Parameters For KIC 005441980

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5713^{+77}_{-77}	$4.541^{+0.013}_{-0.085}$	$0.070^{+0.150}_{-0.150}$	$0.893^{+0.096}_{-0.037}$	$1.010^{+0.046}_{-0.061}$	$2.000^{+0.154}_{-0.514}$
	+1%/-1%	+0%/-2%	+214%/-214%	+11%/-4%	+5%/-6%	+8%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005441980-01 / KOI 0607.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-58 ± 11	$12.40^{+0.80}_{-0.67}$	1333^{+35}_{-28}	2211^{+74}_{-90}	$0.838^{+0.200}_{-0.179}$
Alt.	-48 ± 13	$10.47^{+0.67}_{-0.65}$	1329^{+35}_{-24}	2269^{+85}_{-125}	$0.966^{+0.287}_{-0.261}$

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 $A_{obs} \gg 1.0$

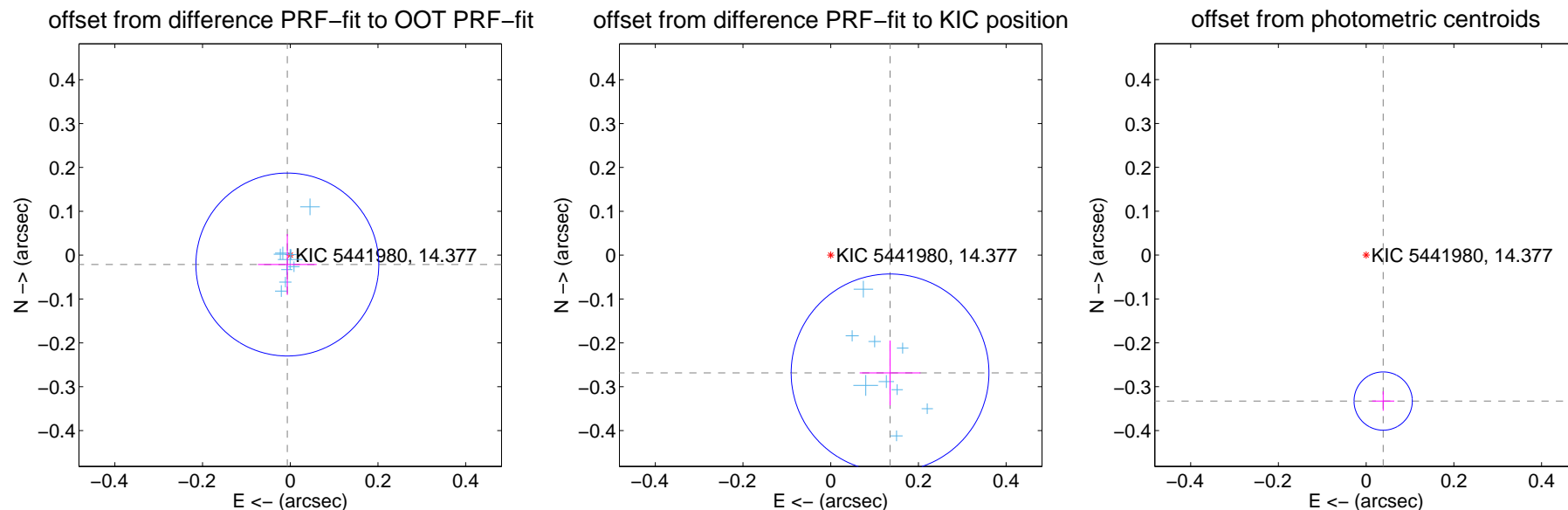
DV Centroid Data

Supplemental centroid analysis for 005441980-01. Kepler magnitude: 14.38. Transit SNR 499.56

There are 9 quarters with good PRF difference image offsets

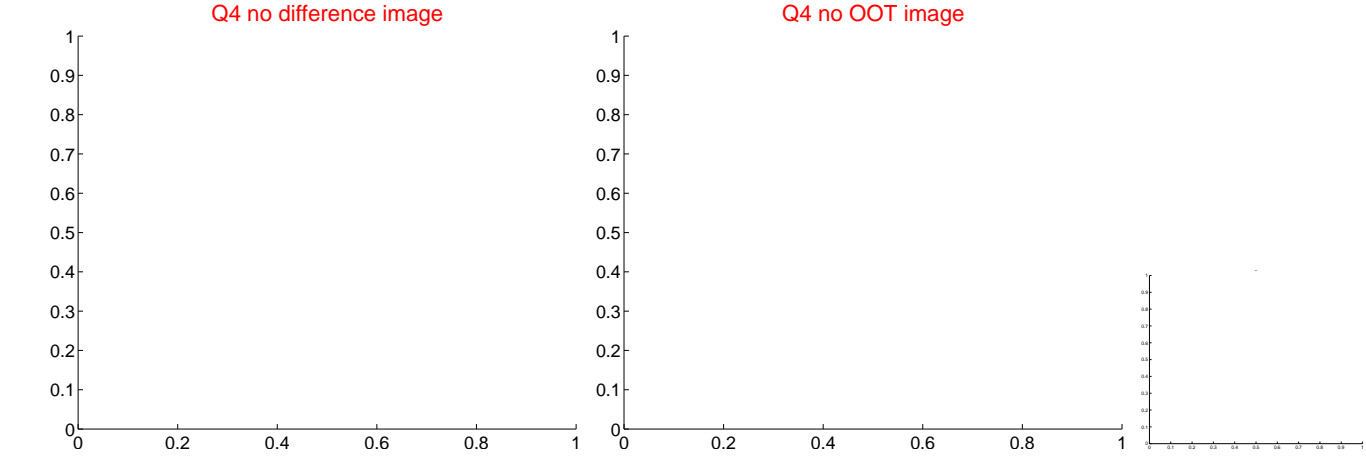
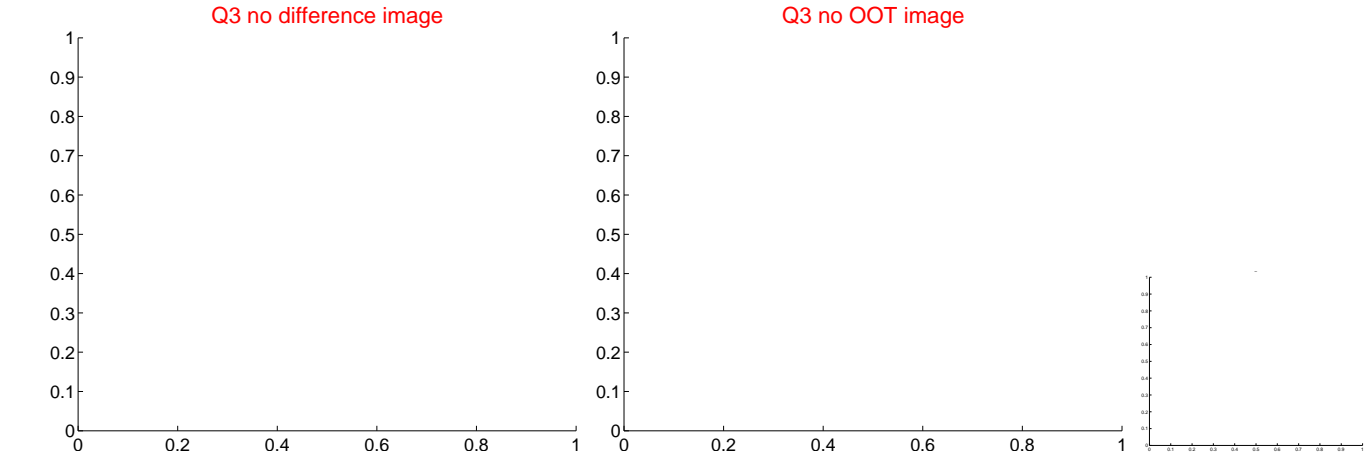
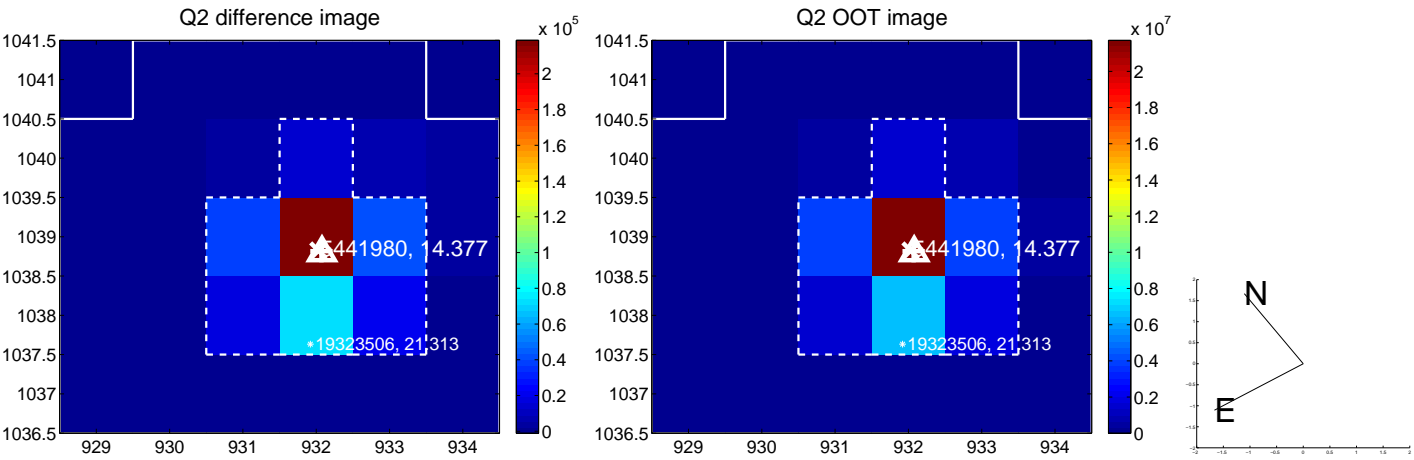
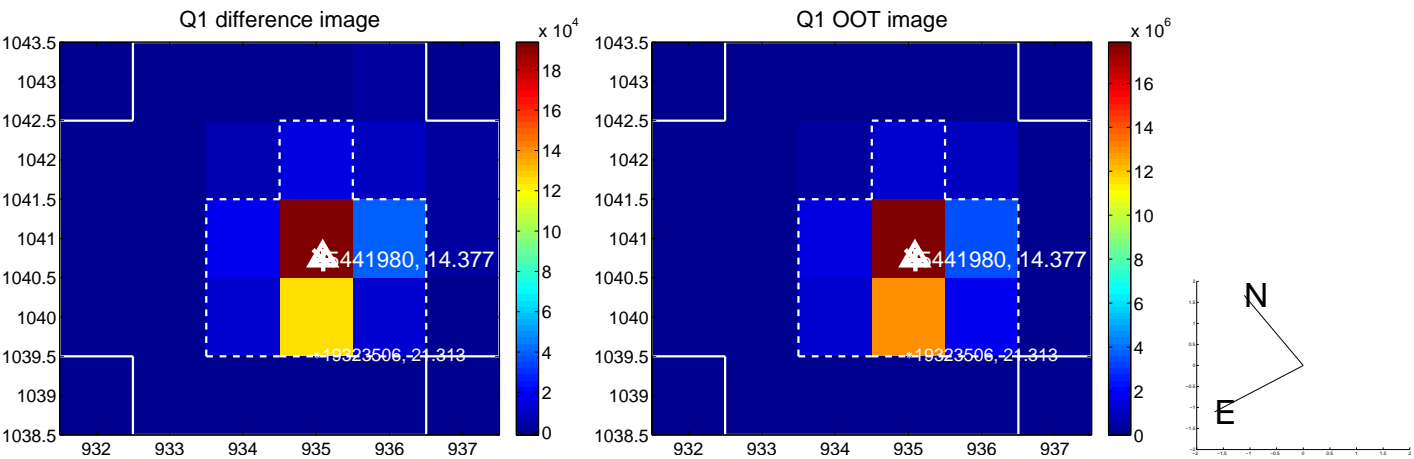
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.022 ± 0.070	0.32	0.007 ± 0.067	-0.021 ± 0.069
PRF-fit source offset from KIC position	0.301 ± 0.075	4.00	-0.135 ± 0.069	-0.268 ± 0.074
photometric centroid source offset	0.34 ± 0.02	15.13	-0.04 ± 0.03	-0.33 ± 0.02

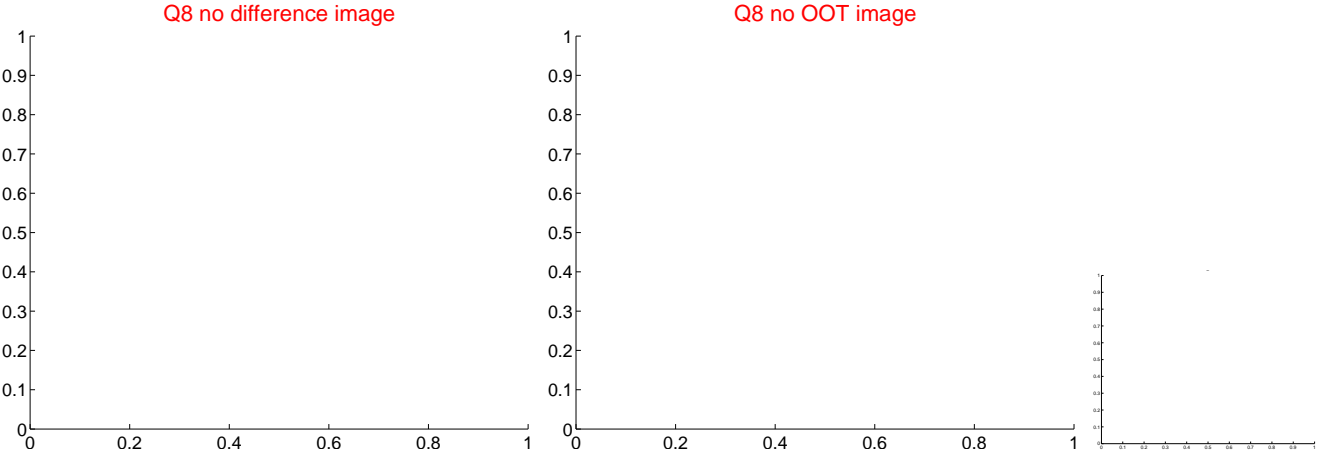
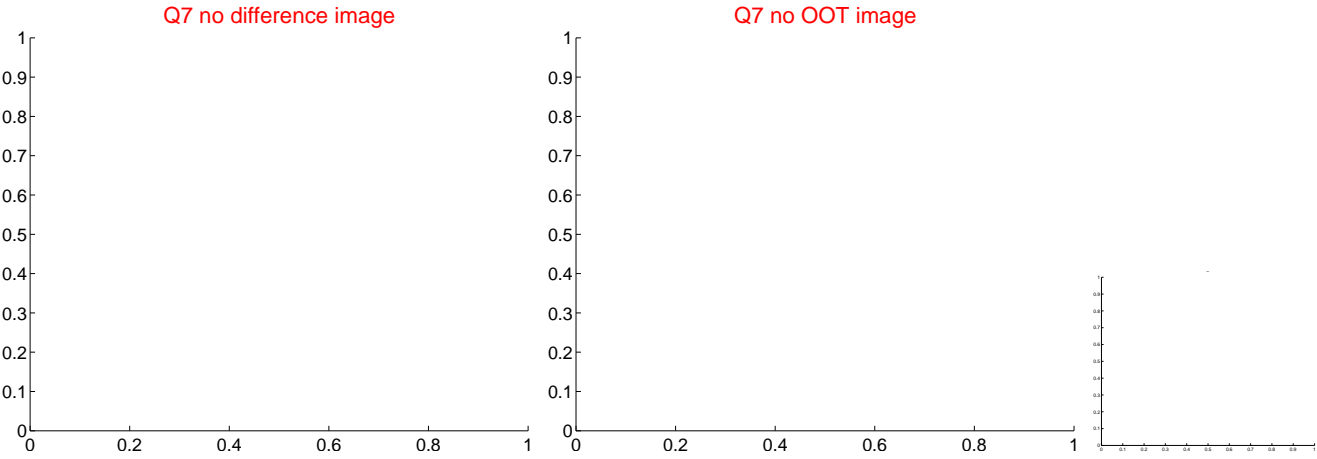
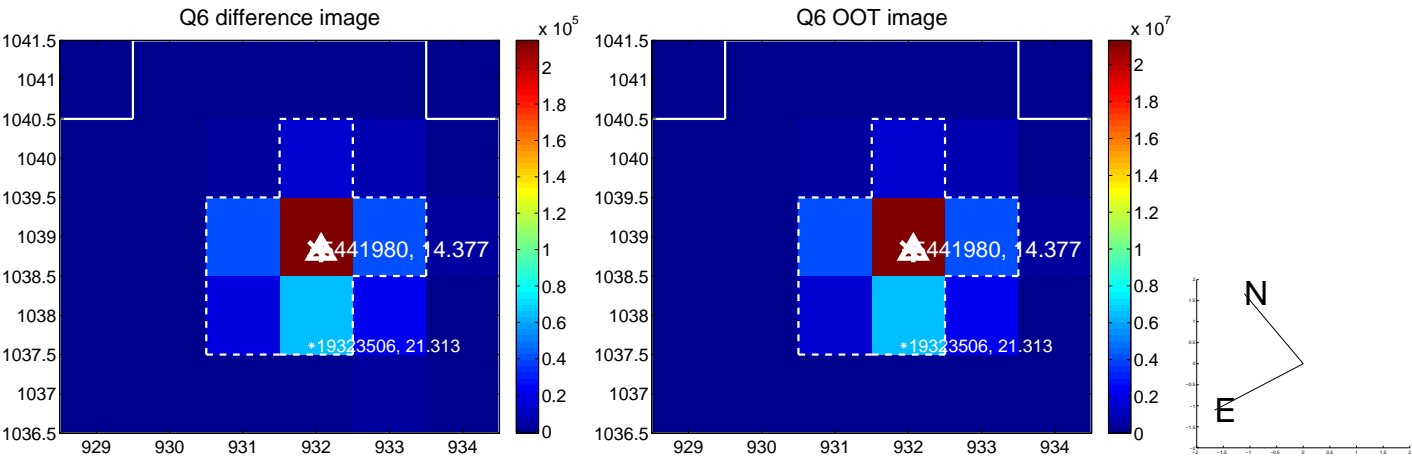
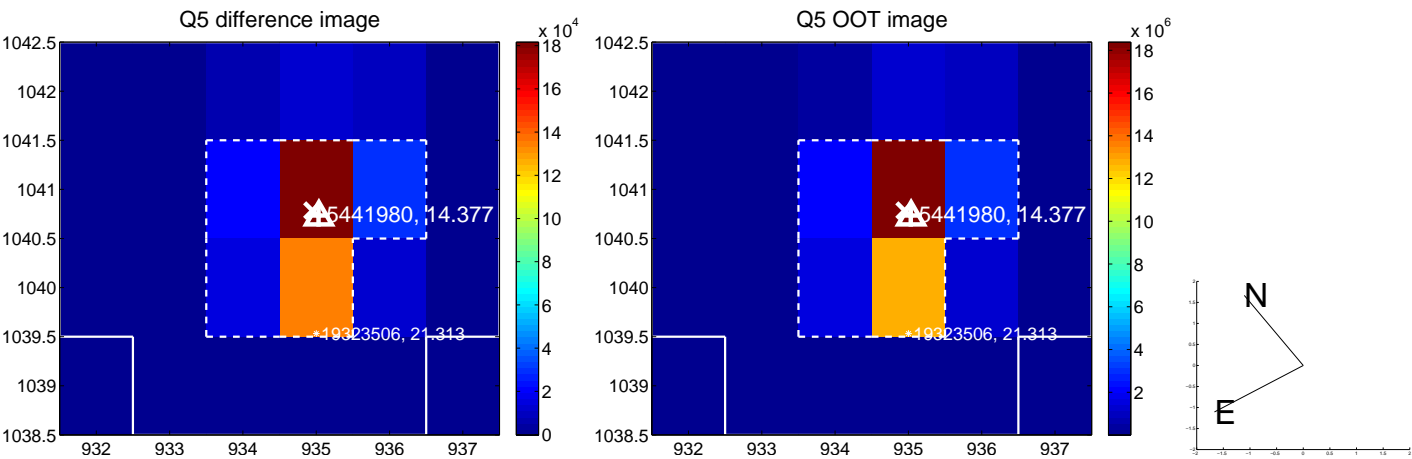


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

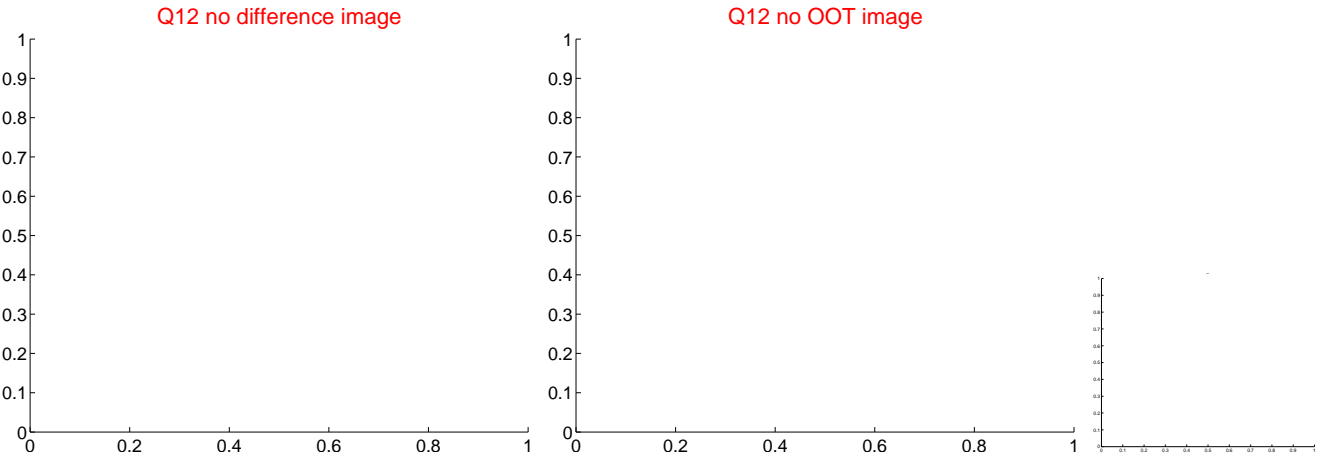
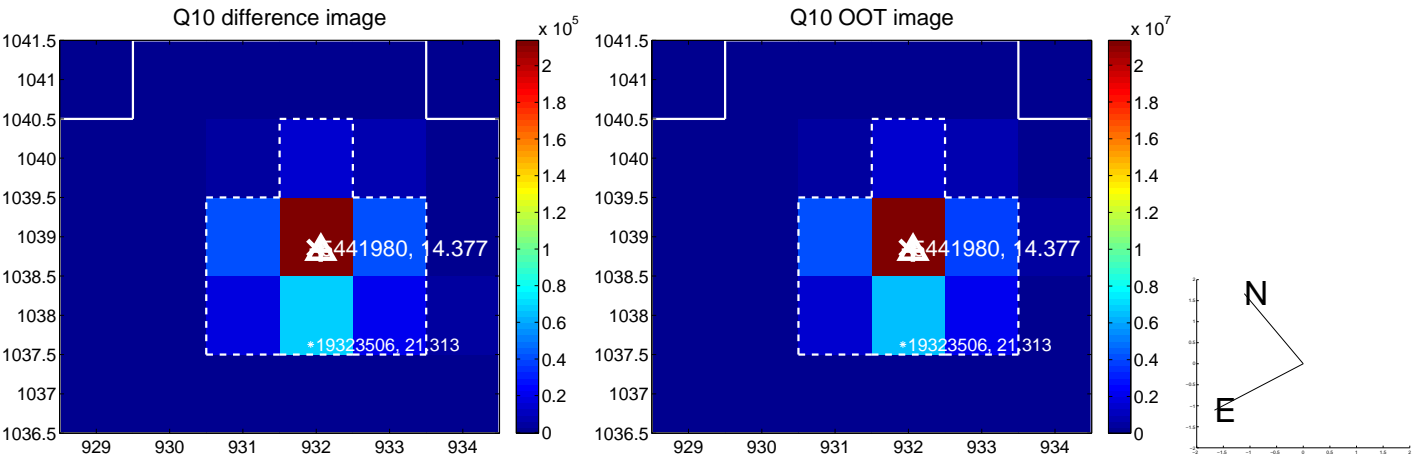
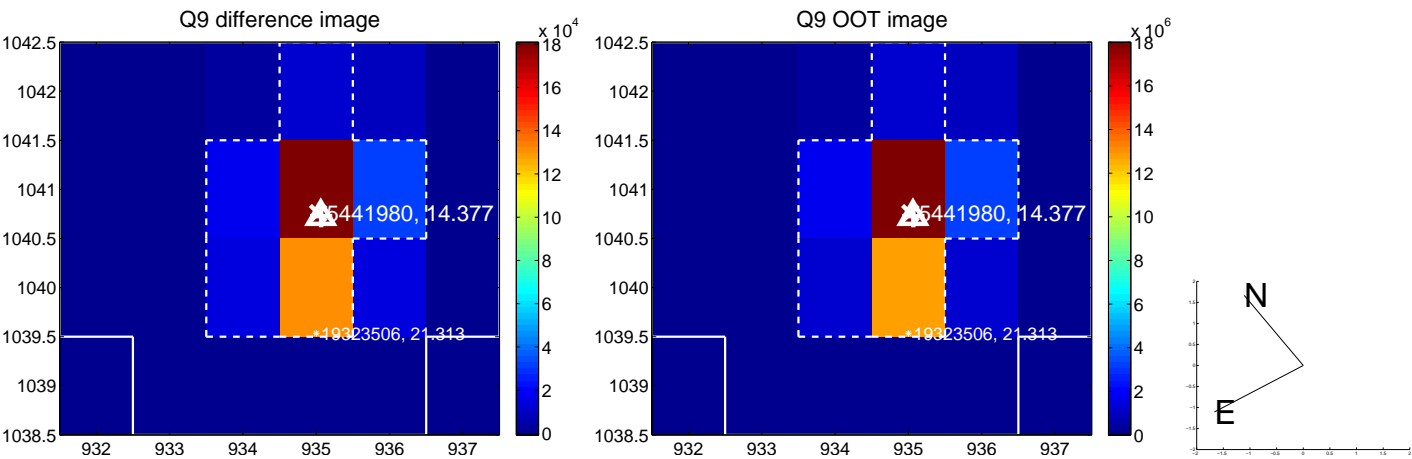
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



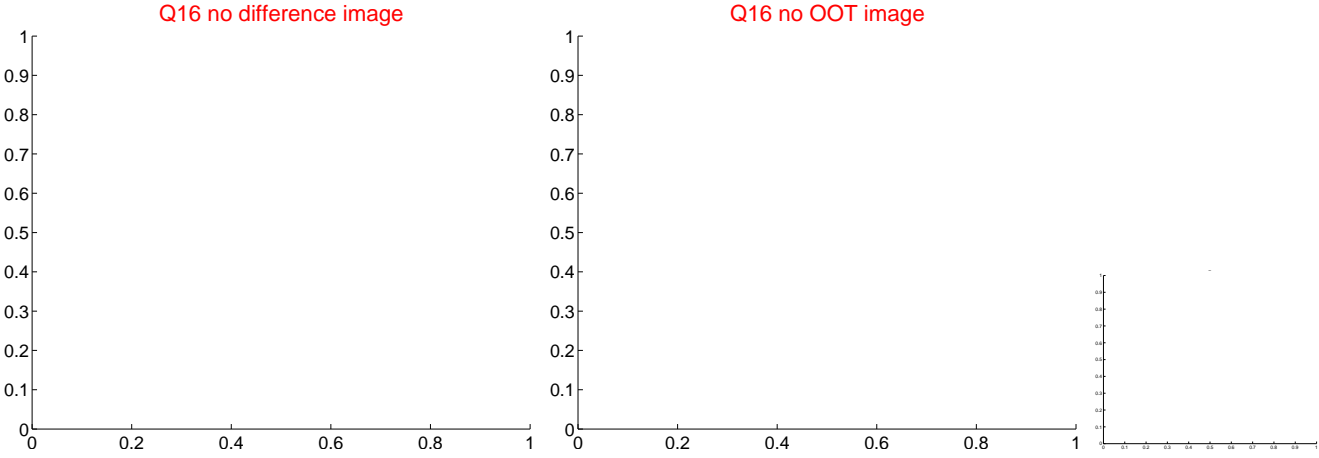
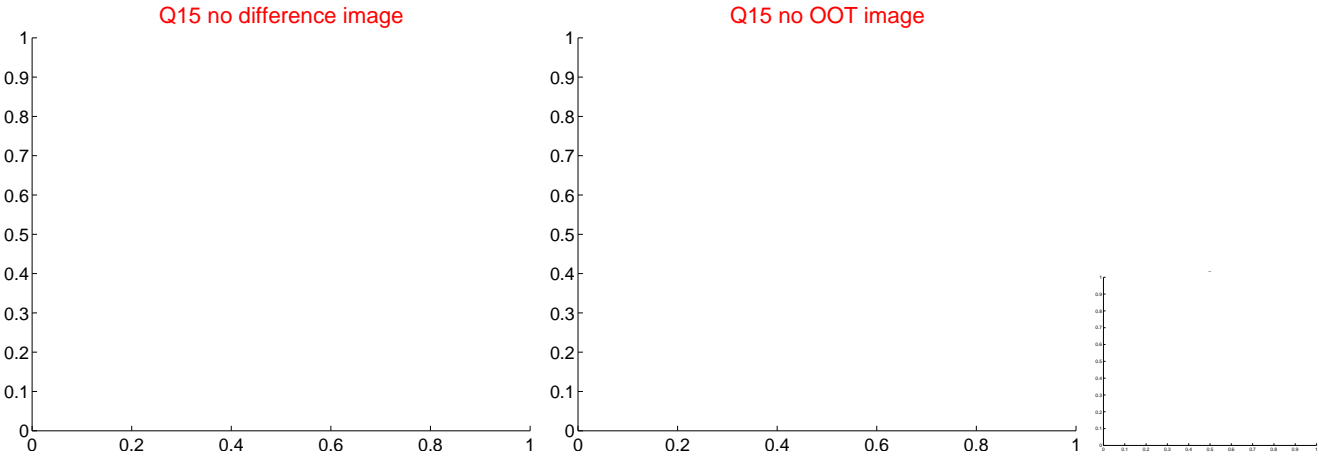
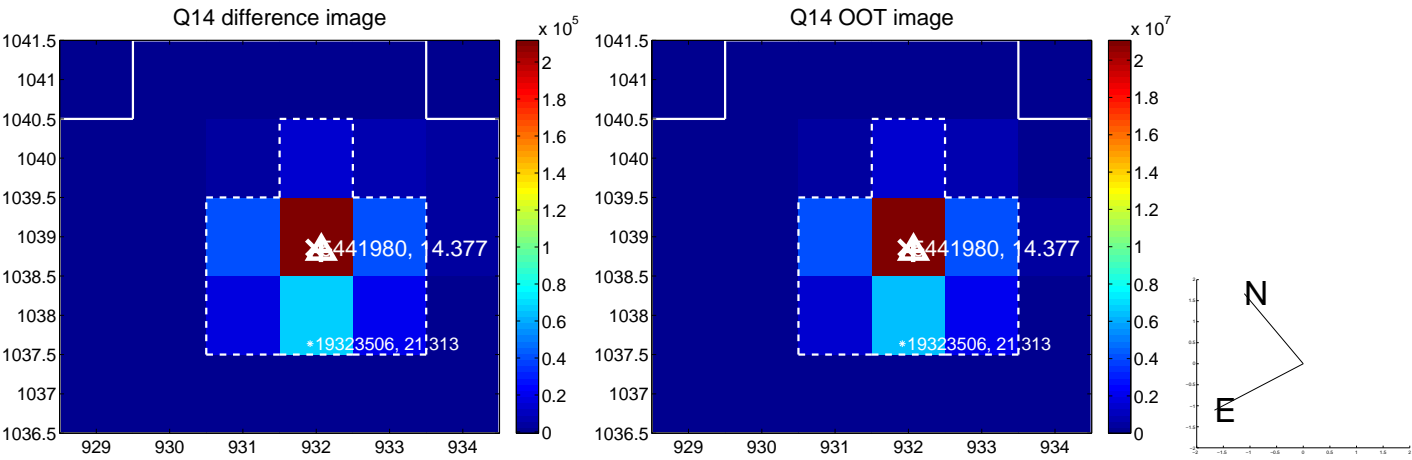
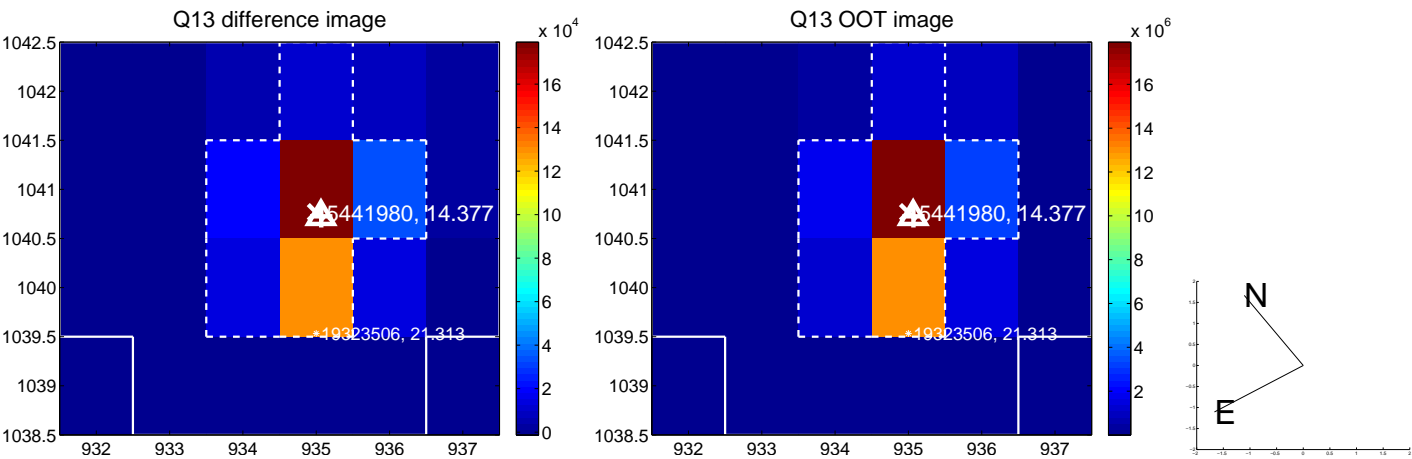
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



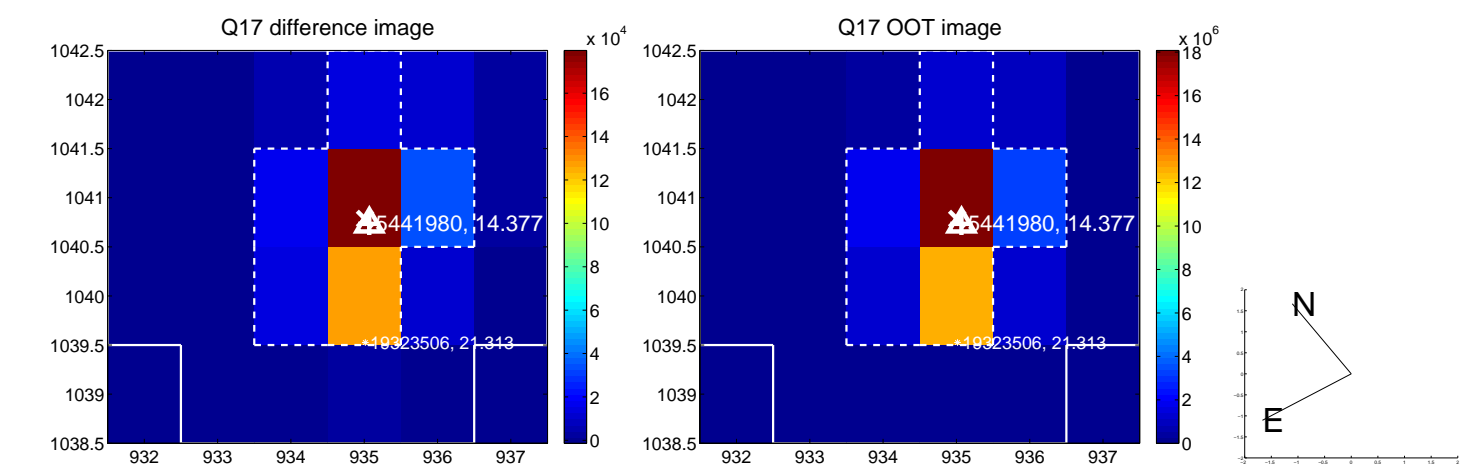
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



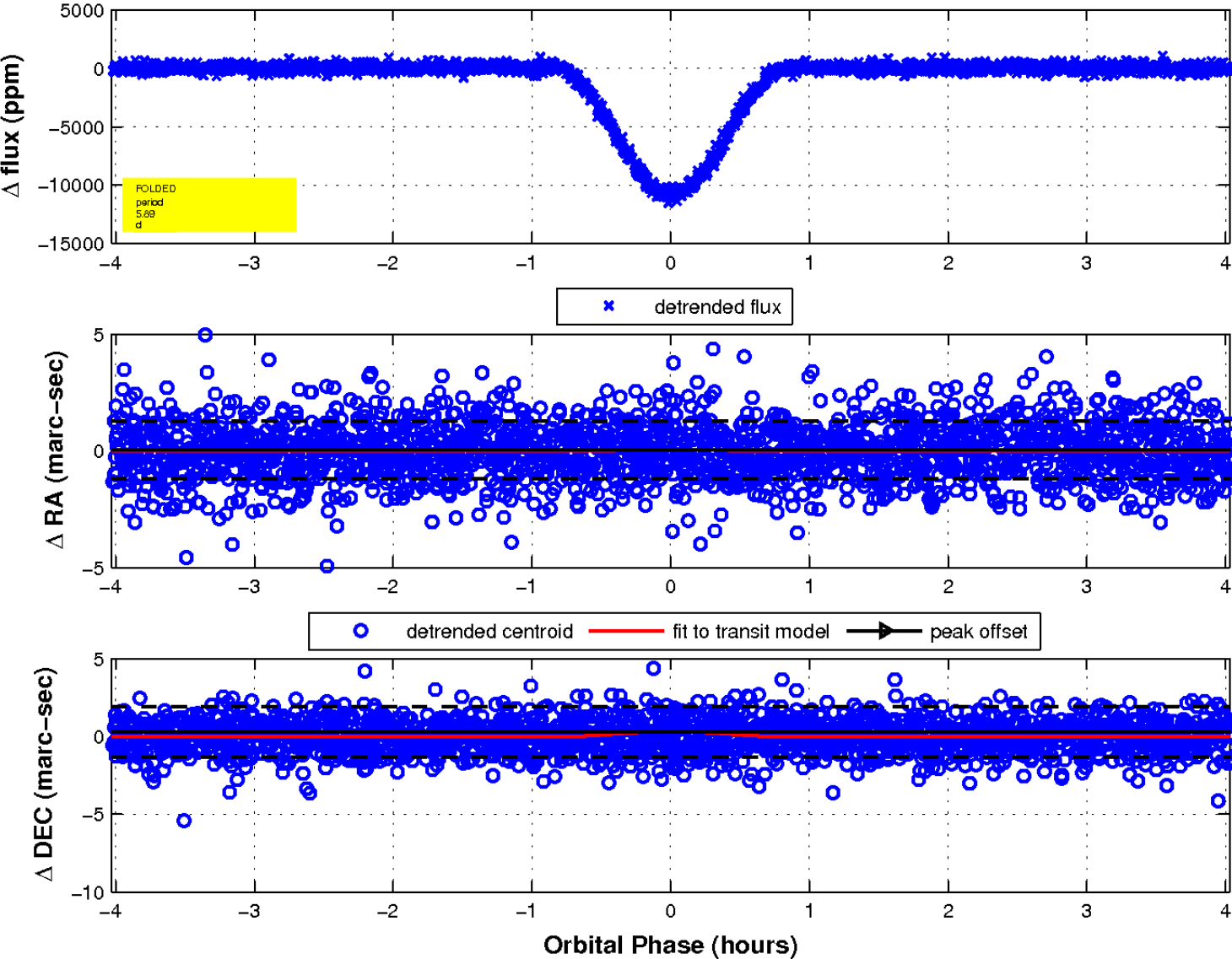
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

