

KIC 005693165

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})
005693165-01	OBS	No	3.495817	134.510718	34.2	10.235	8.0	8.0	1.74	6820	1.19	2308.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005693165-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

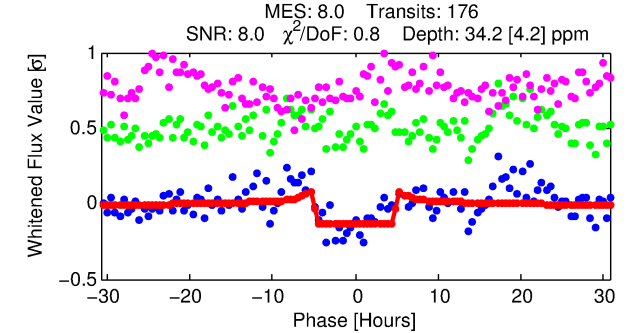
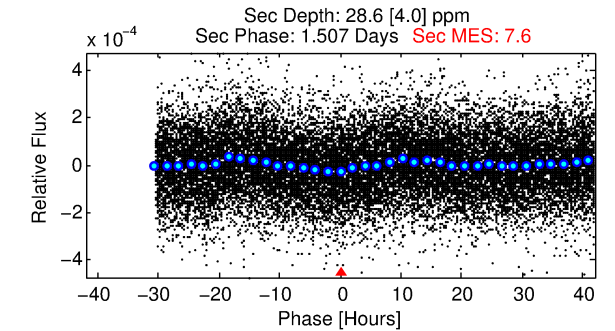
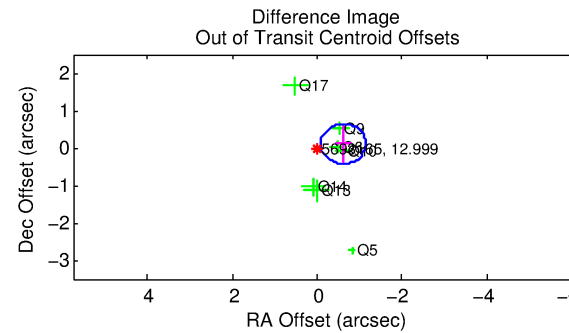
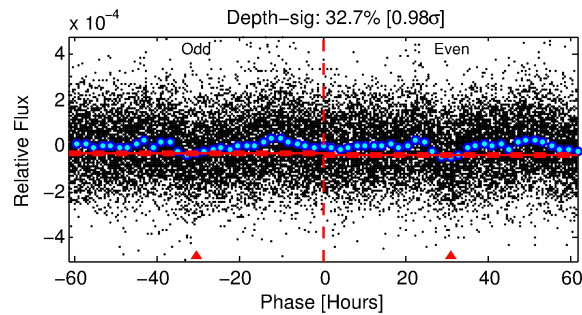
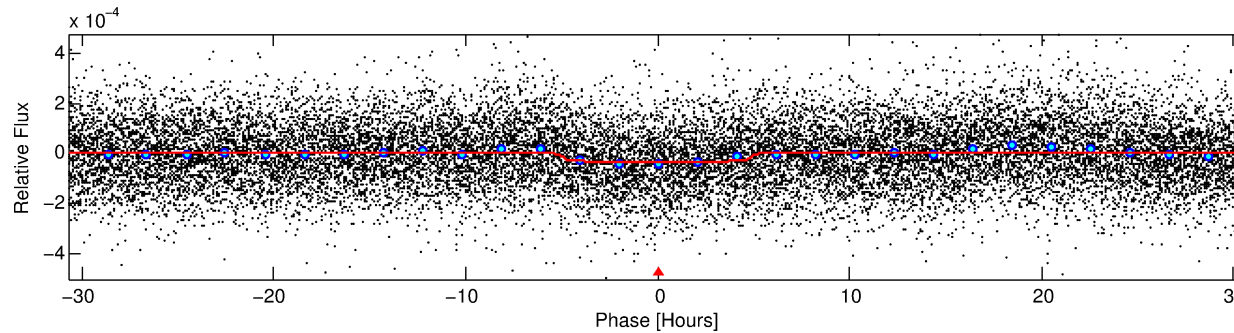
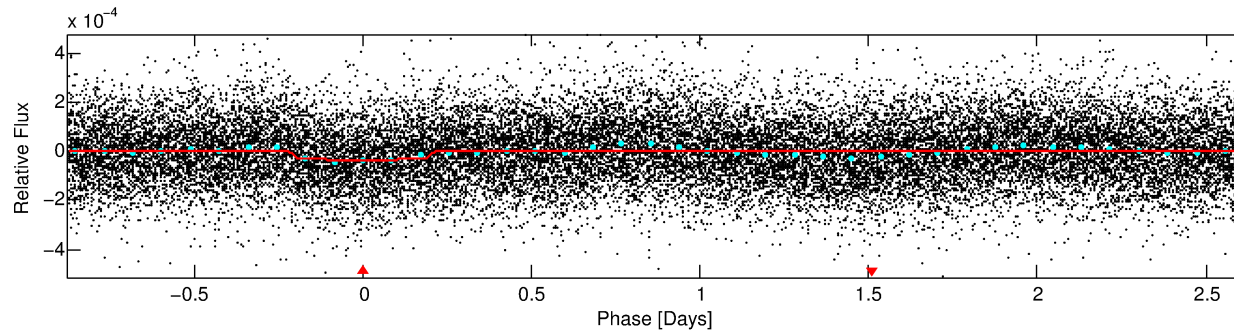
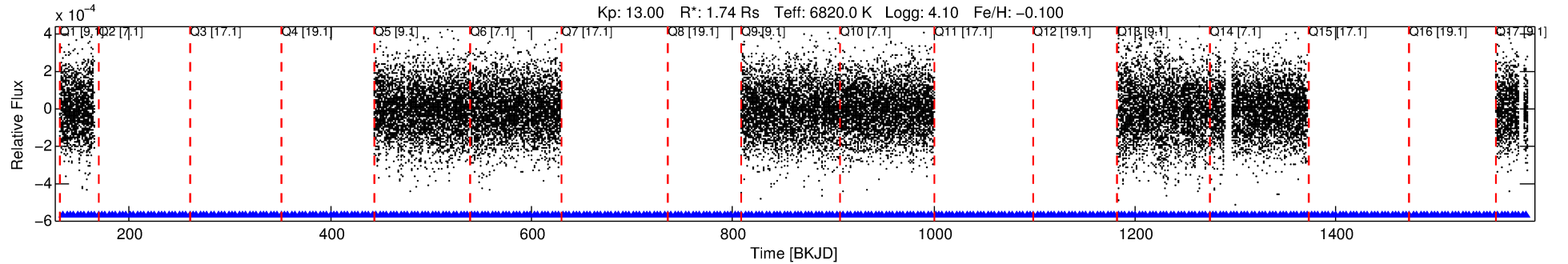
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005693165-01

No Significant Match Found

DV One-Page Summary

KIC: 5693165 Candidate: 1 of 1 Period: 3.496 d



DV Fit Results:

Period = 3.49582 [0.00004] d
Epoch = 134.5107 [0.0077] BKJD
Rp/R* = 0.0062 [0.0011]
a/R* = 1.50 [0.82]
b = 0.90 [0.21]
Seff = 2308.51 [781.73]
Teq = 1767 [150] K
Rp = 1.19 [0.34] Re
a = 0.0505 [0.0100] AU
Ag = 28.49 [13.66] [2.01 σ]
Teffp = 6314 [652] K [6.80 σ]

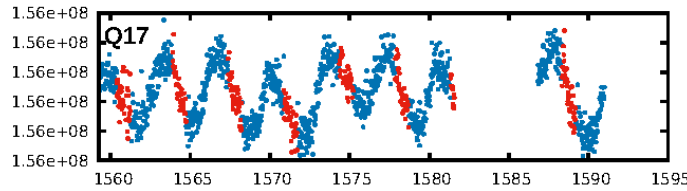
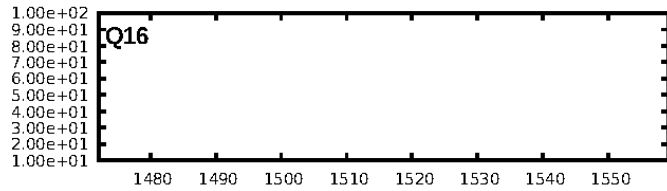
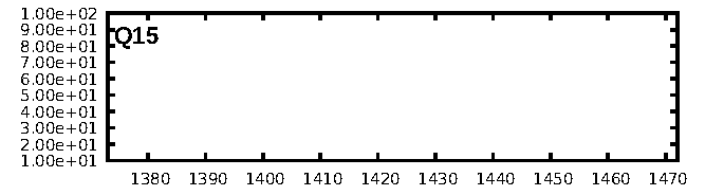
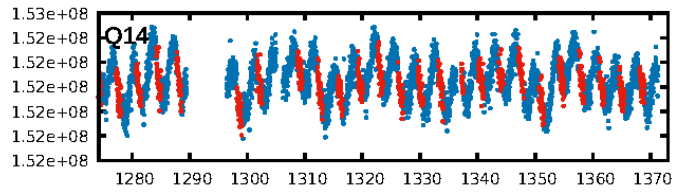
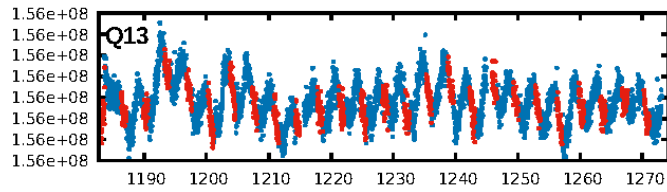
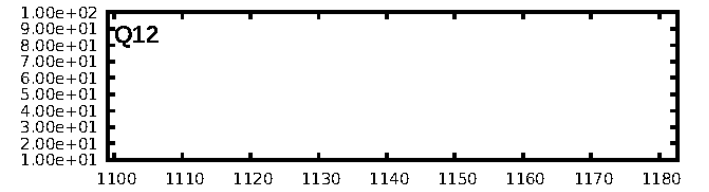
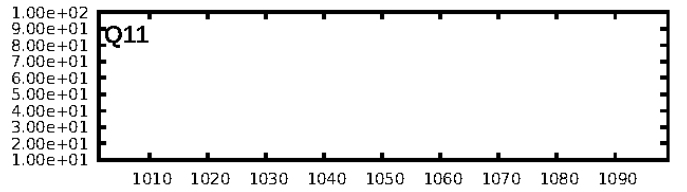
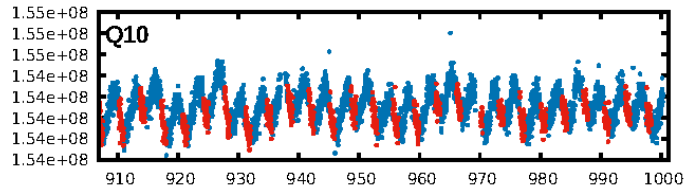
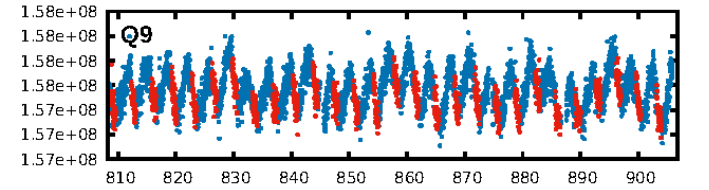
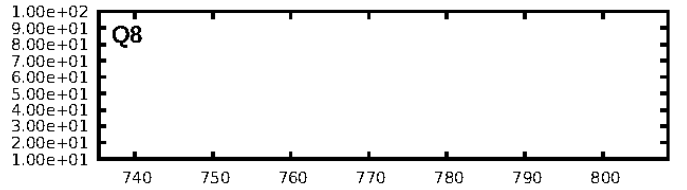
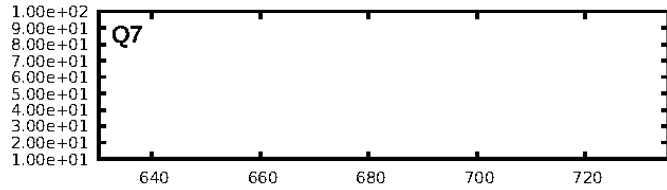
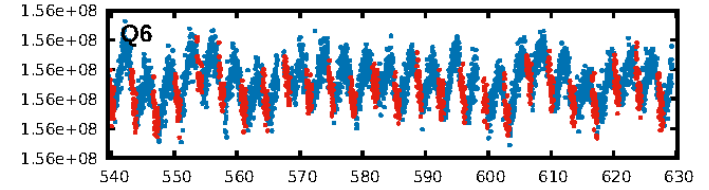
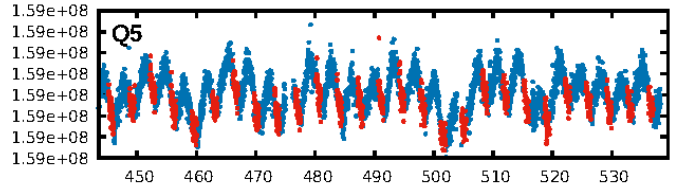
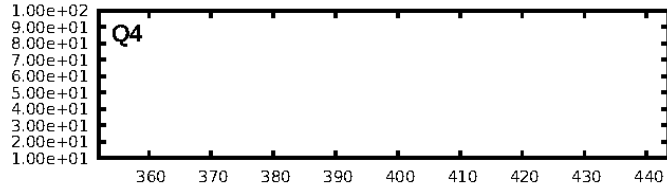
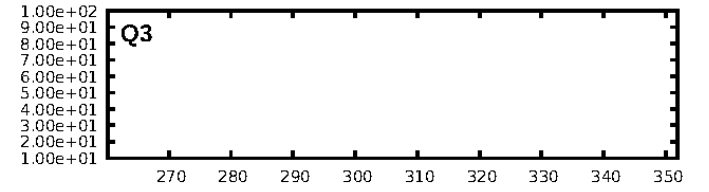
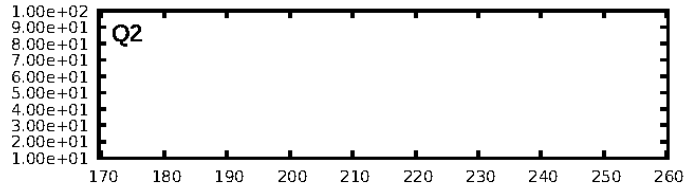
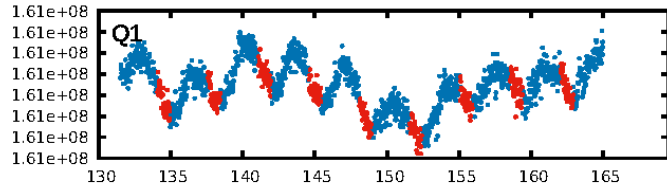
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.70e-12
RollingBand-fgt: 1.00 [159/159]
GhostDiagnostic-chr: 3.973
Centroid-sig: 3.1%
Centroid-so: 0.939 arcsec [1.46 σ]
OotOffset-rm: 0.629 arcsec [3.54 σ]
KicOffset-rm: 0.630 arcsec [3.82 σ]
OotOffset-st: 3/0/0/4 [7]
KicOffset-st: 3/0/0/4 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [8/8]

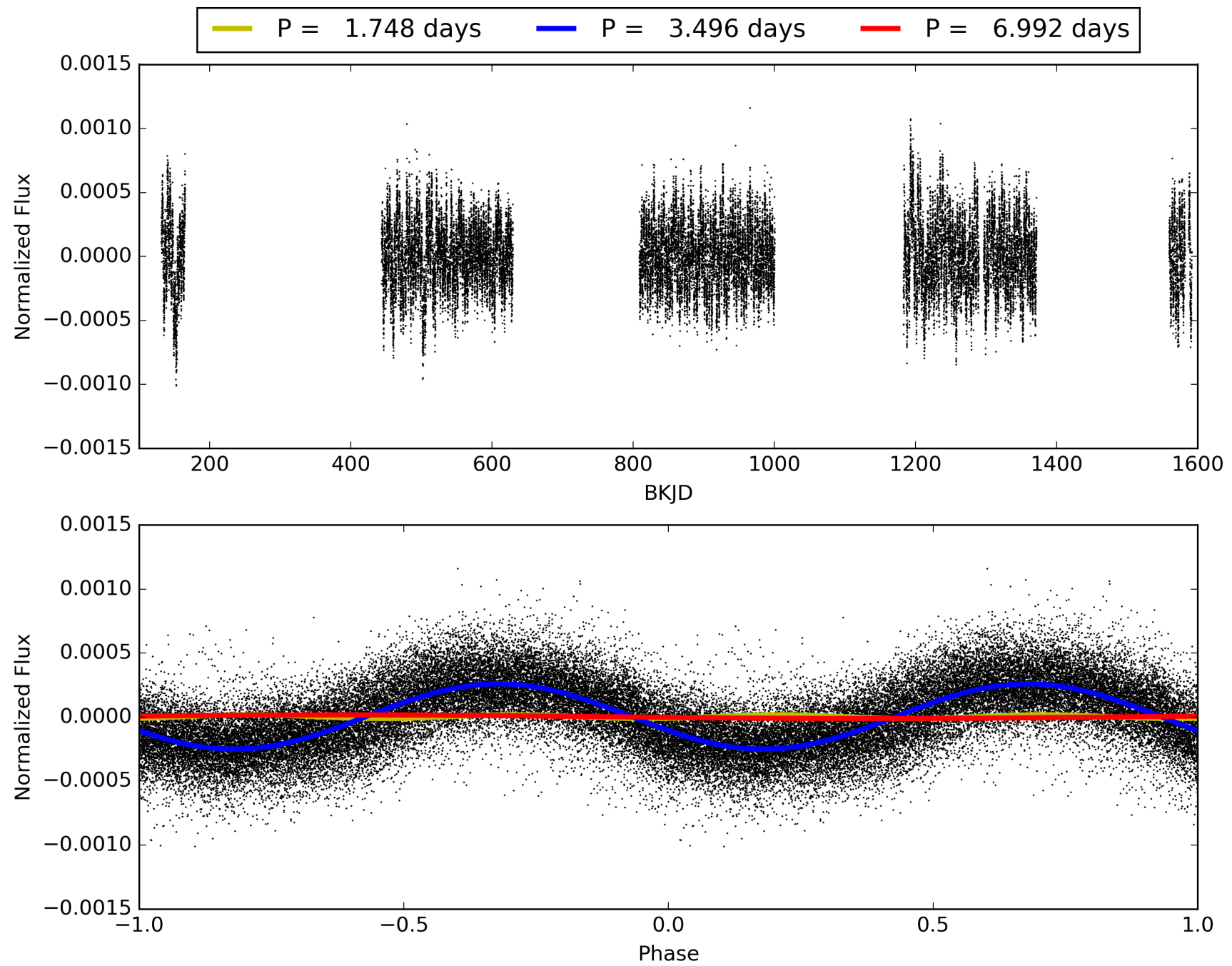
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:11:30 Z

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

TCE 005693165-01, PDC Light Curves

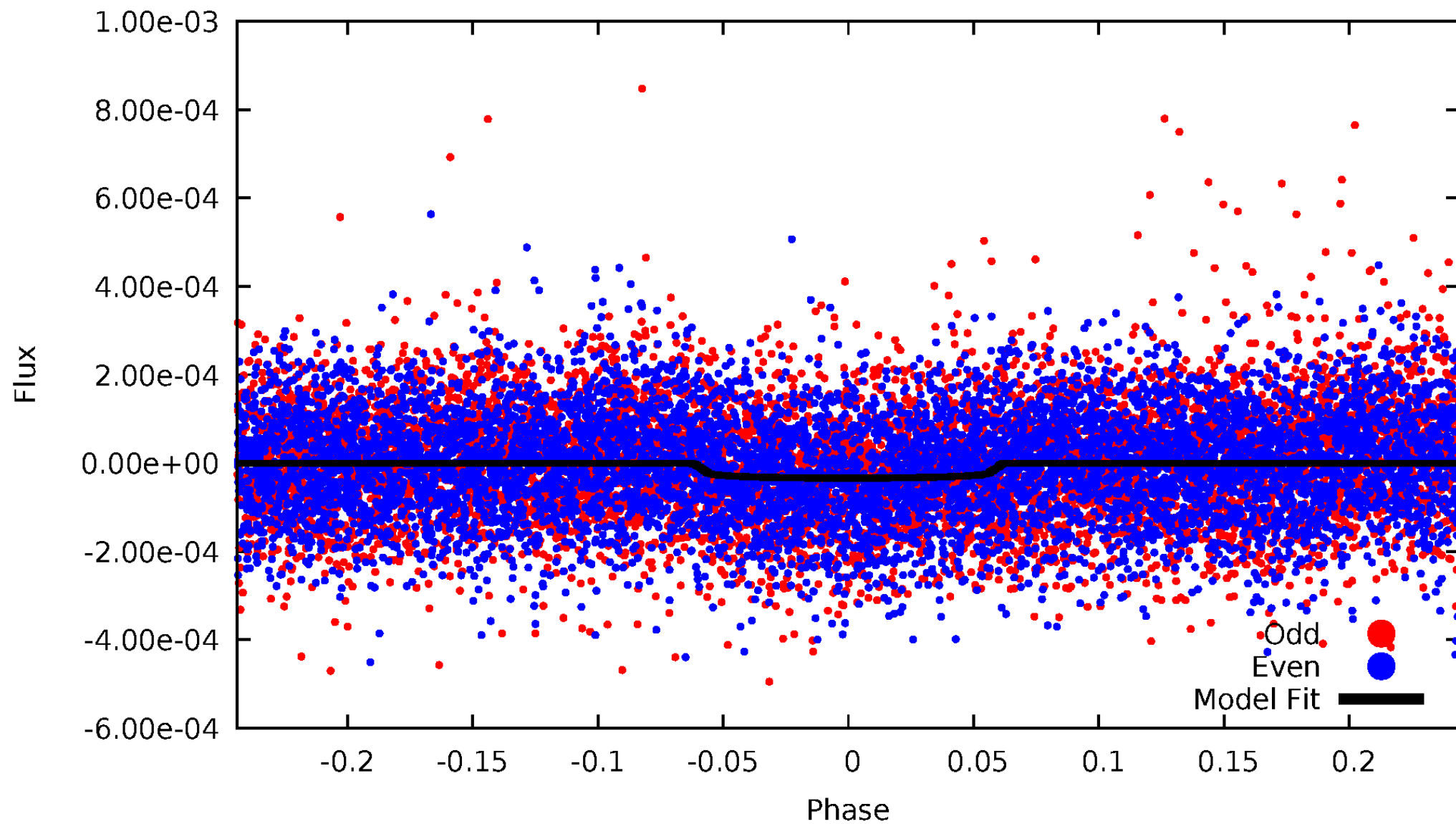


TCE 005693165-01



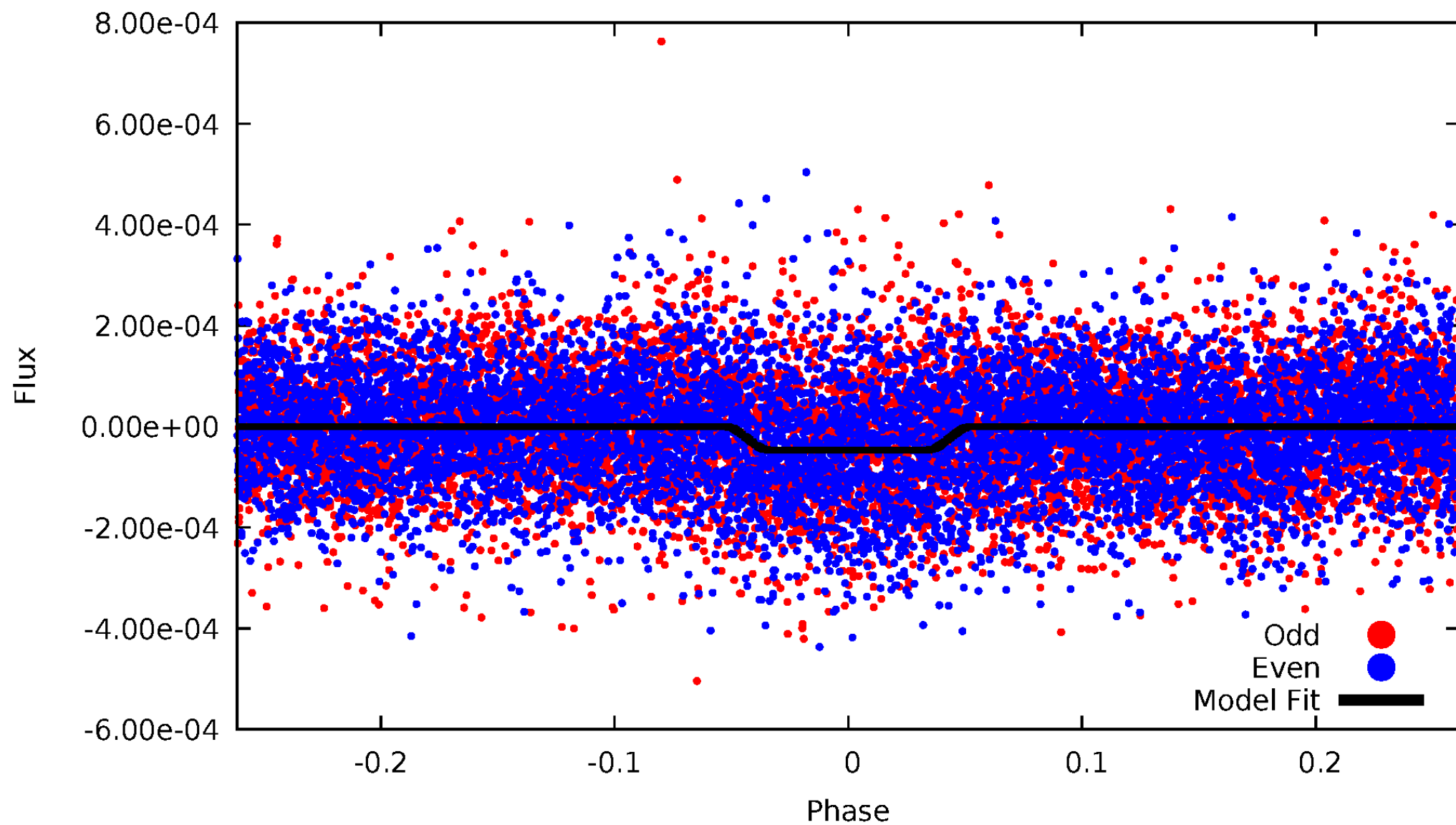
DV Odd/Even

TCE 005693165-01



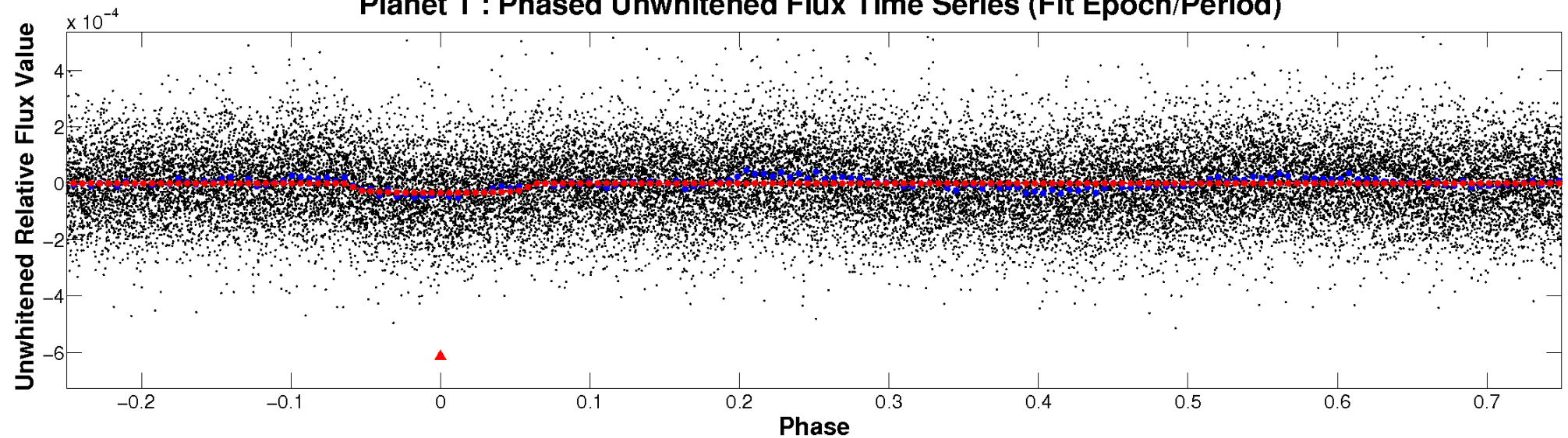
ALT Odd/Even

TCE 005693165-01

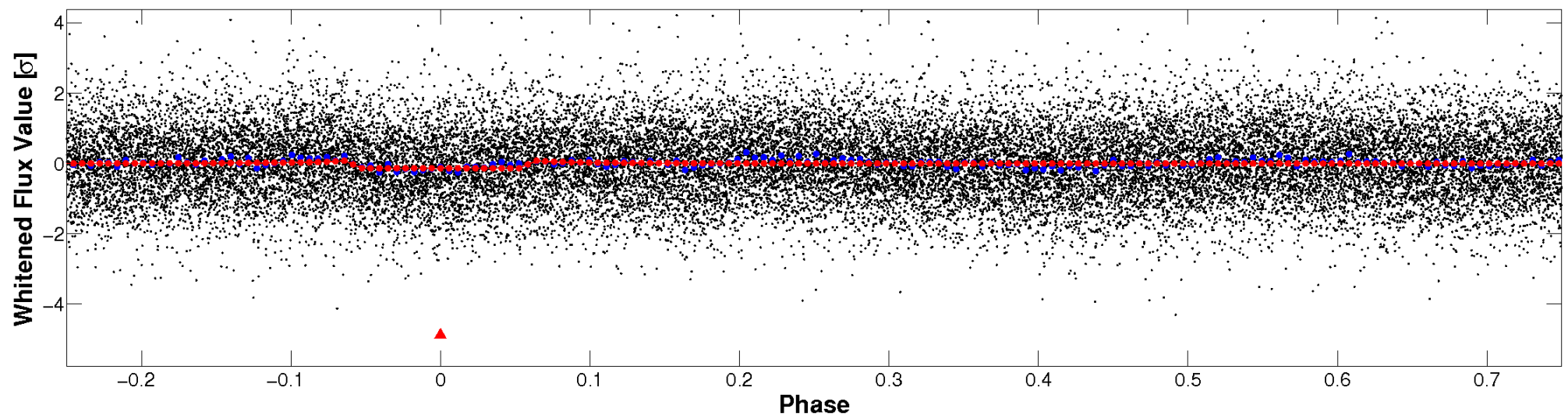


Non-Whitened Vs. Whitened Light Curve

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

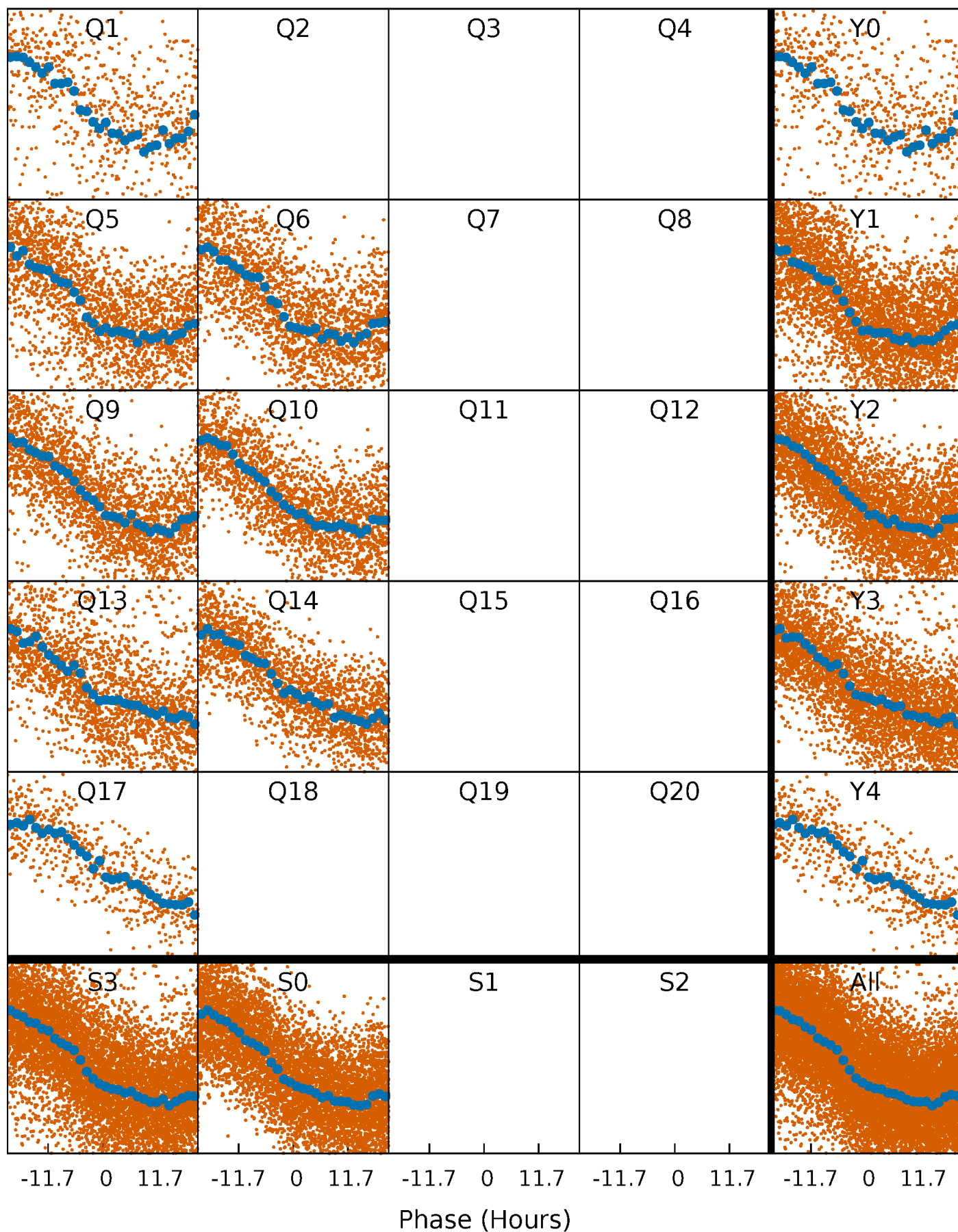


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



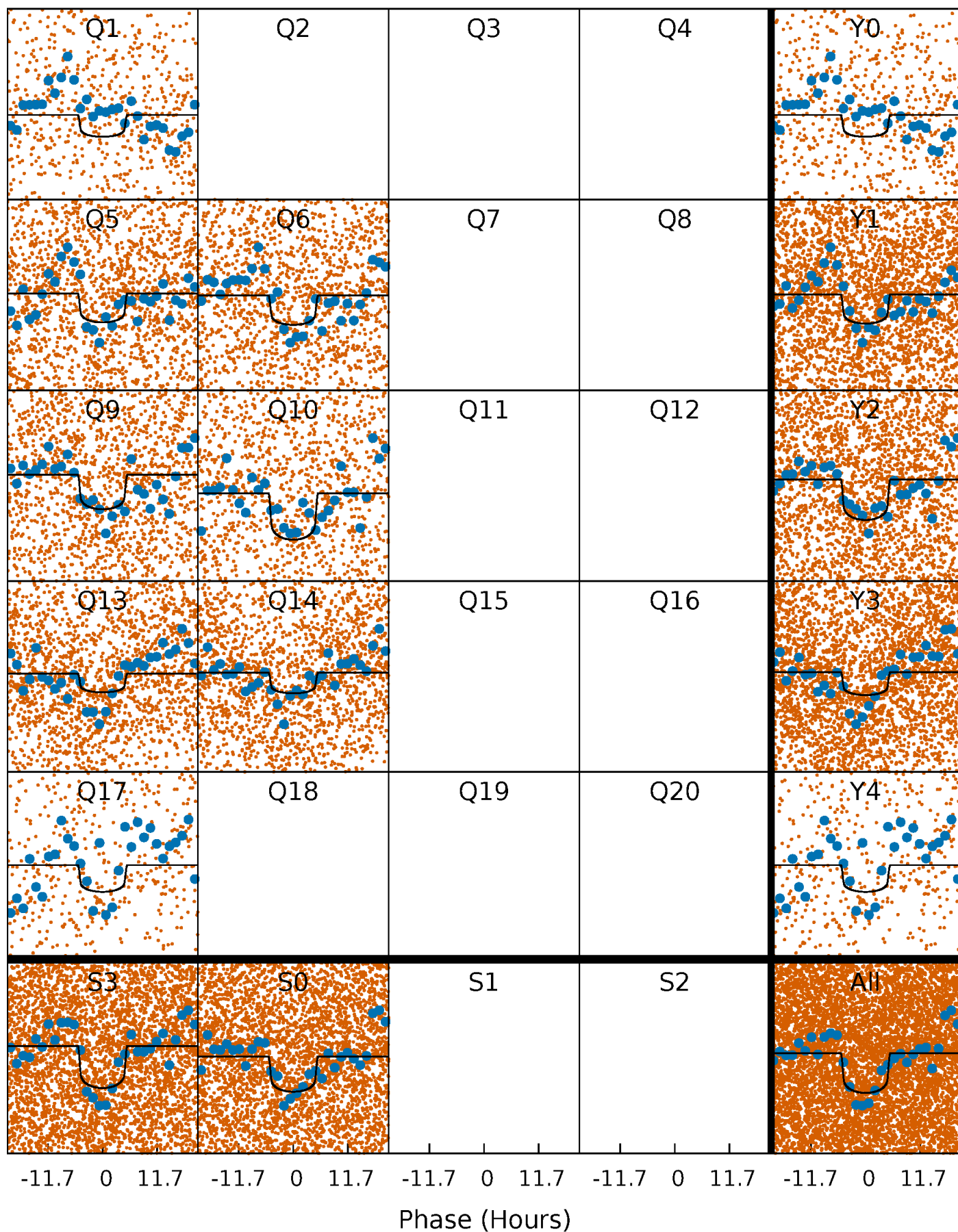
PDC Quarter-Phased Transit Curves

TCE 005693165-01 P= 3.495817 Days $T_0=134.510718$ (BKJD)



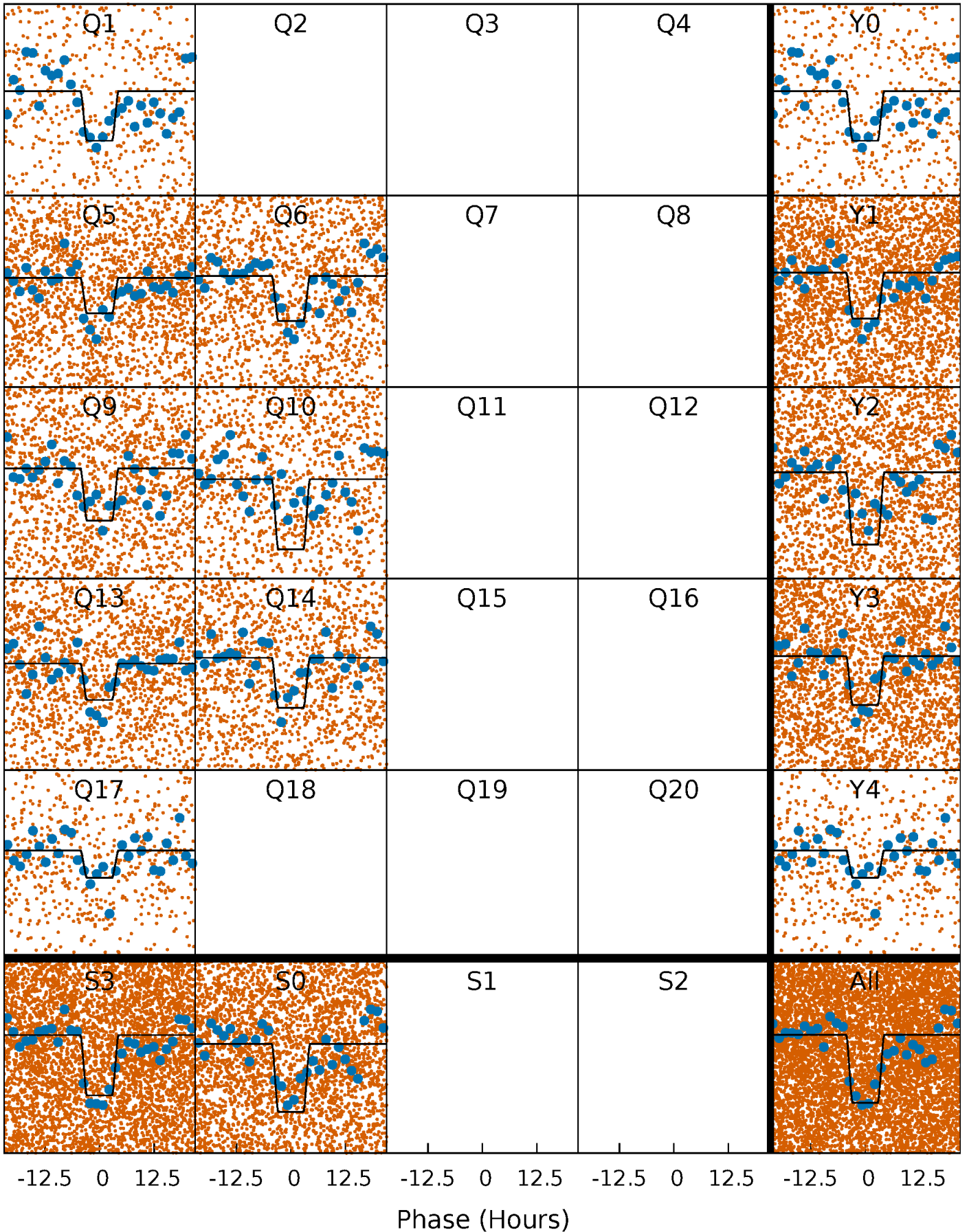
DV Quarter-Phased Transit Curves

TCE 005693165-01 P= 3.495817 Days $T_0=134.510718$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

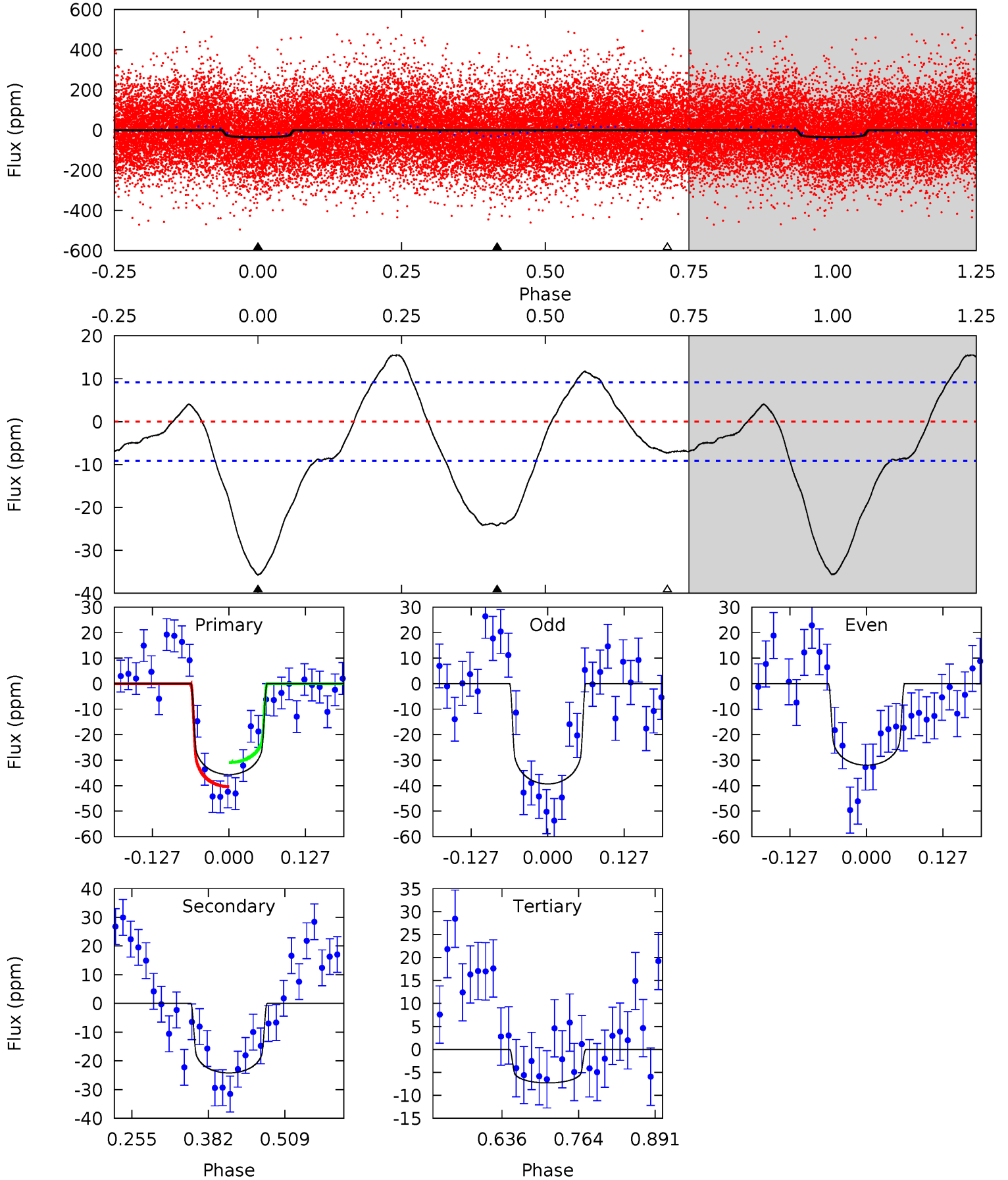
TCE 005693165-01 P= 3.495759 Days $T_0=134.508408$ (BKJD)



DV Model-Shift Uniqueness Test

005693165-01, P = 3.495817 Days, E = 131.014901 Days

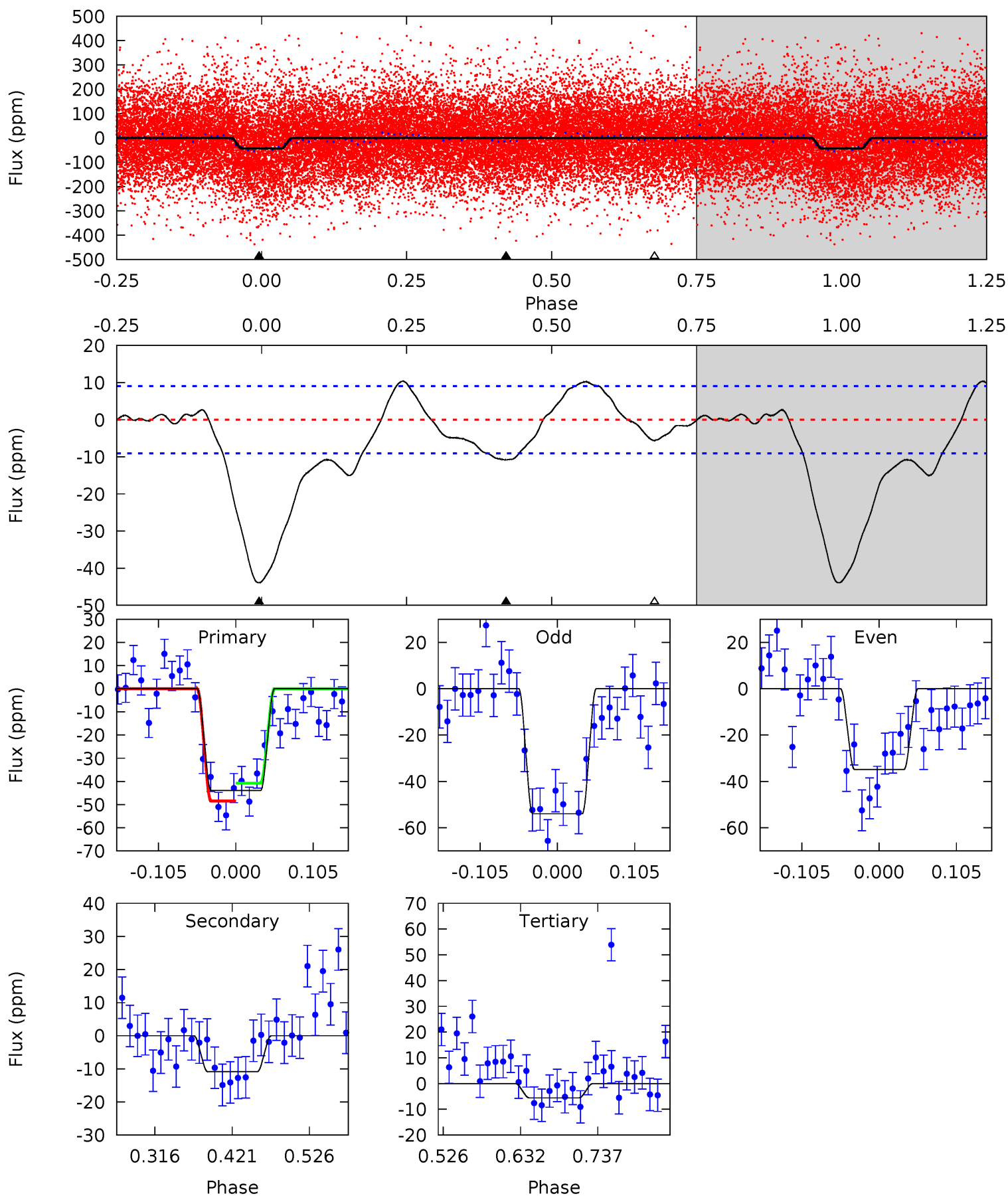
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.6	11.9	3.61	0	4.51	1.52	3.66	14.0	17.6	8.34	11.9	1.82	1.18	0.30	2.33



Alt Model-Shift Uniqueness Test

005693165-01, P = 3.495759 Days, E = 131.012649 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	5.46	2.80	0	4.55	1.62	3.26	19.3	22.1	2.66	5.46	4.82	0.95	0.19	1.95



Stellar Parameters For KIC 005693165

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6820^{+189}_{-283}	$4.103^{+0.165}_{-0.135}$	$-0.100^{+0.250}_{-0.300}$	$1.742^{+0.396}_{-0.396}$	$1.409^{+0.163}_{-0.245}$	$0.375^{+0.341}_{-0.156}$
	+3%/-4%	+4%/-3%	+250%/-300%	+23%/-23%	+12%/-17%	+91%/-42%
Source	KIC0	FLK73	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 005693165-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 2	$1.15^{+0.27}_{-0.22}$	2462^{+155}_{-162}	6037^{+687}_{-524}	25^{+13}_{-8}
Alt.	-11 ± 2	$1.29^{+0.28}_{-0.24}$	2462^{+153}_{-161}	4758^{+421}_{-335}	$8.838^{+4.959}_{-3.076}$

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

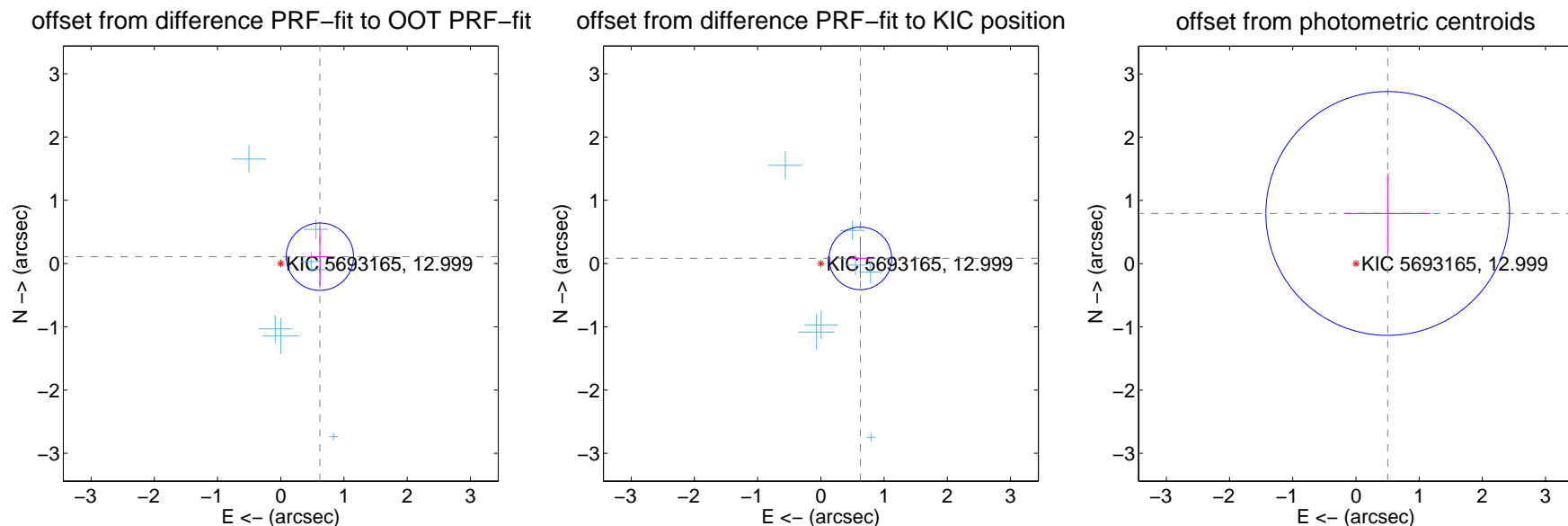
DV Centroid Data

Supplemental centroid analysis for 005693165-01. Kepler magnitude: 13.00. Transit SNR 7.99

There are 7 quarters with good PRF difference image offsets

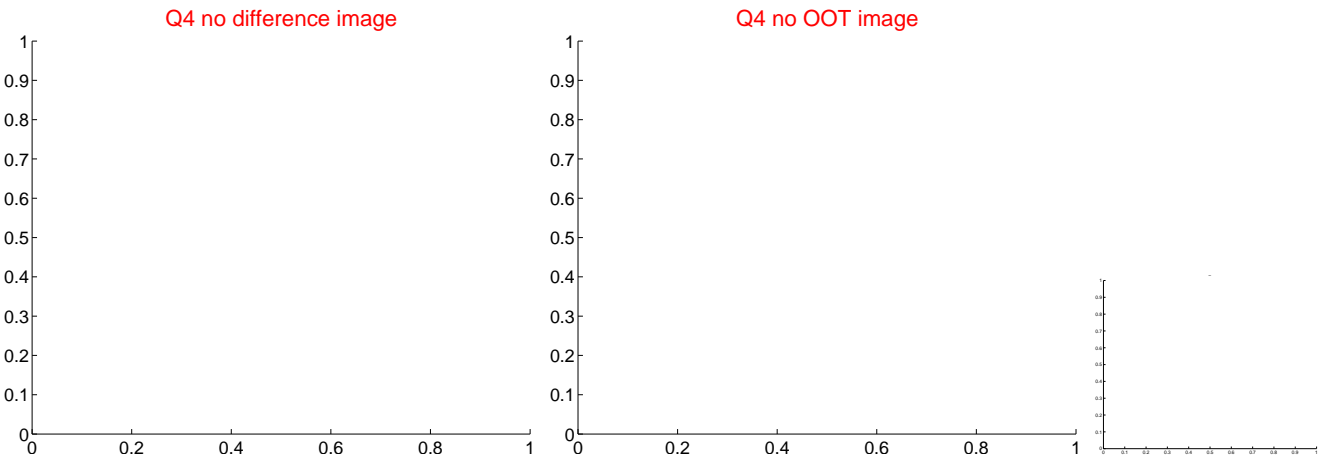
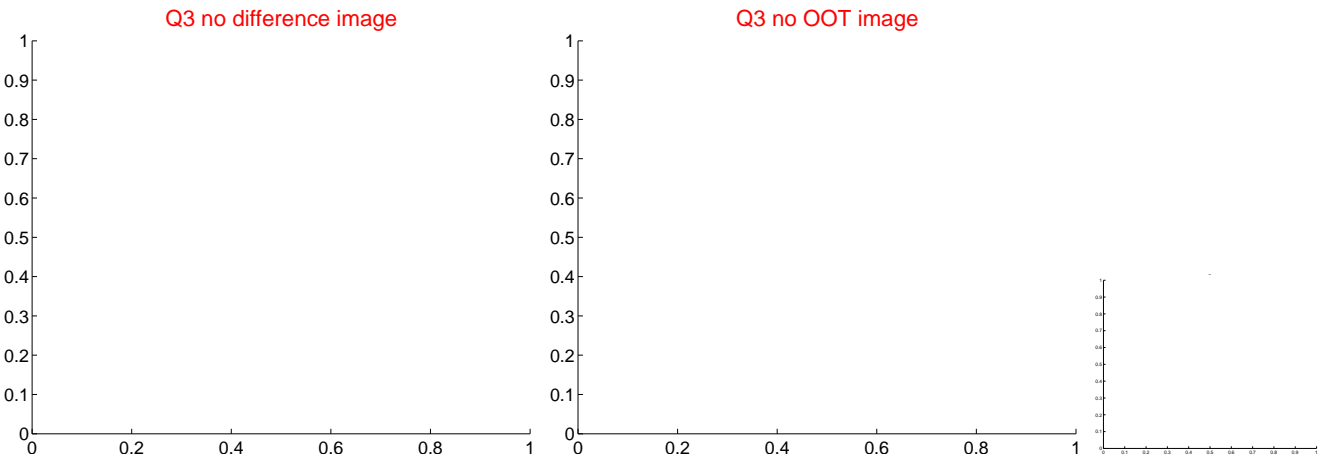
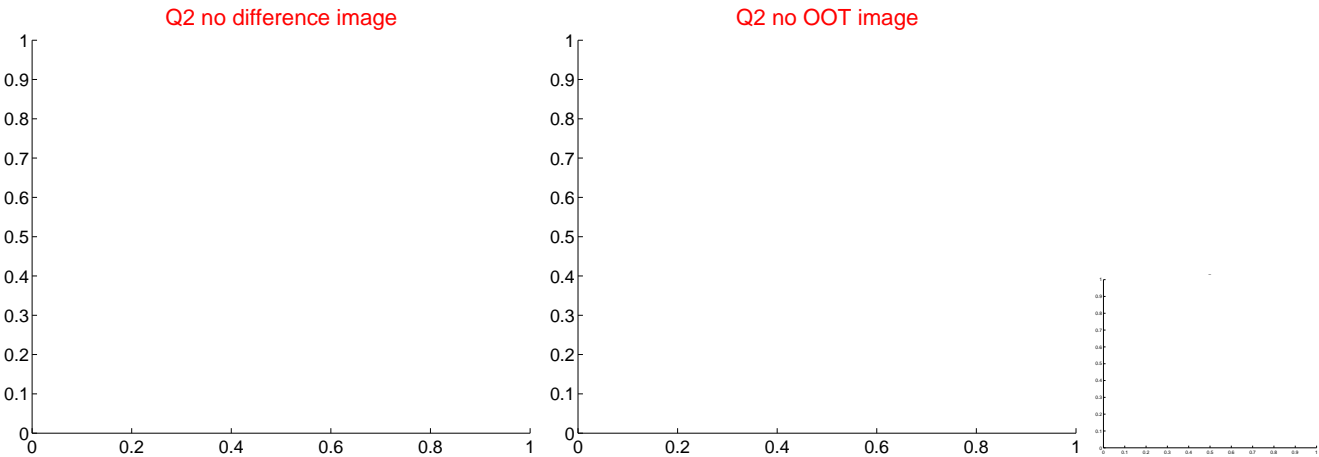
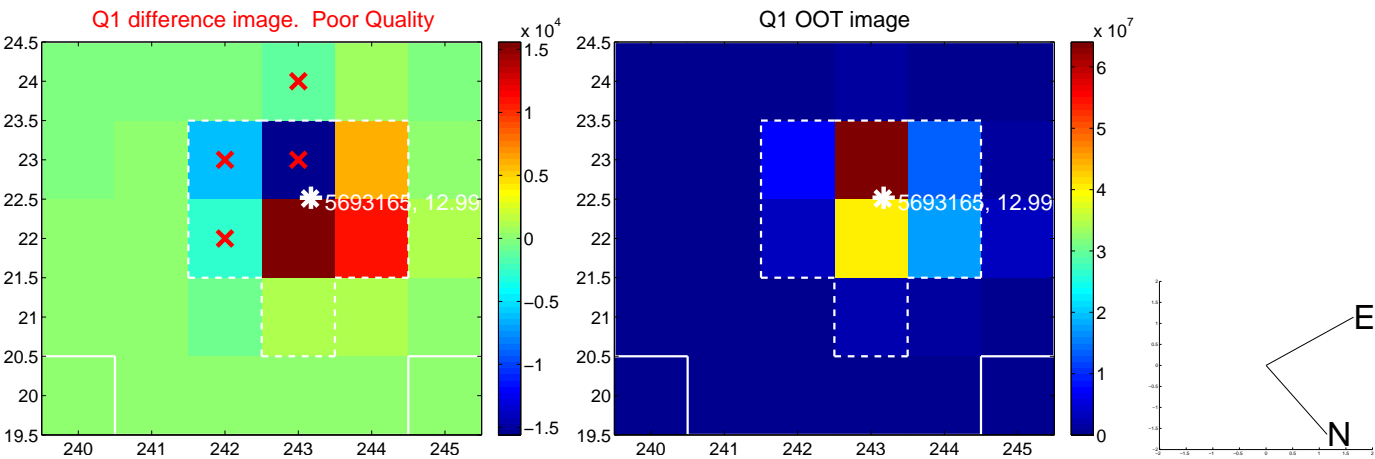
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.629 ± 0.177	3.54	-0.619 ± 0.175	0.108 ± 0.460
PRF-fit source offset from KIC position	0.630 ± 0.165	3.82	-0.625 ± 0.161	0.082 ± 0.318
photometric centroid source offset	0.94 ± 0.64	1.46	-0.50 ± 0.68	0.79 ± 0.63

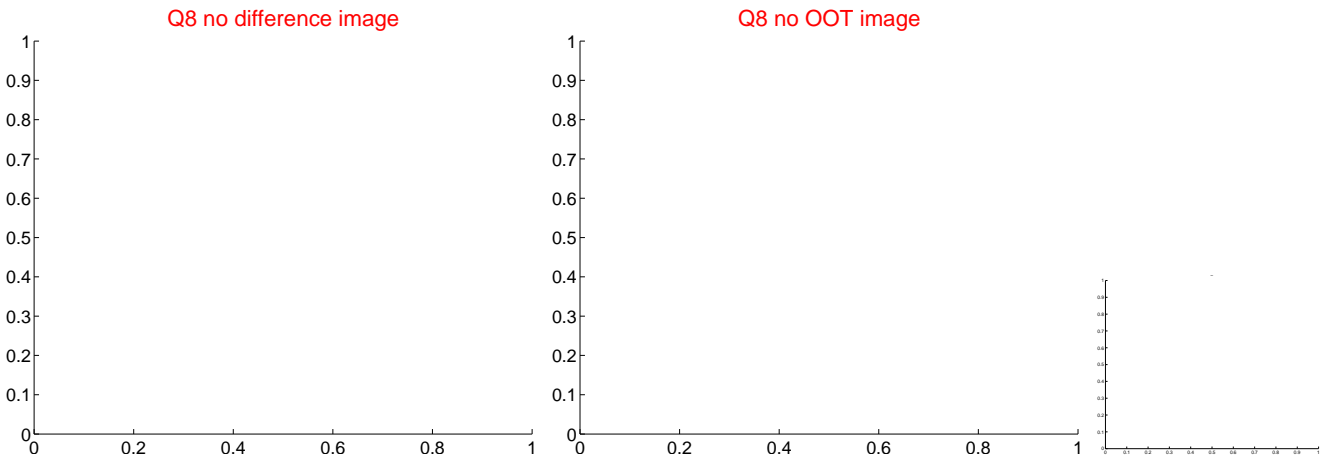
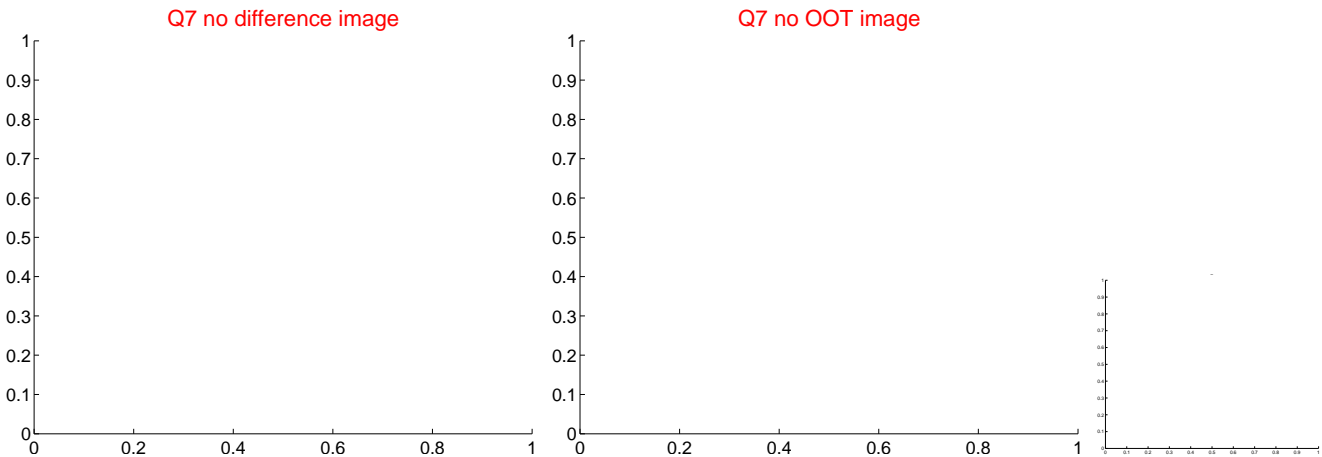
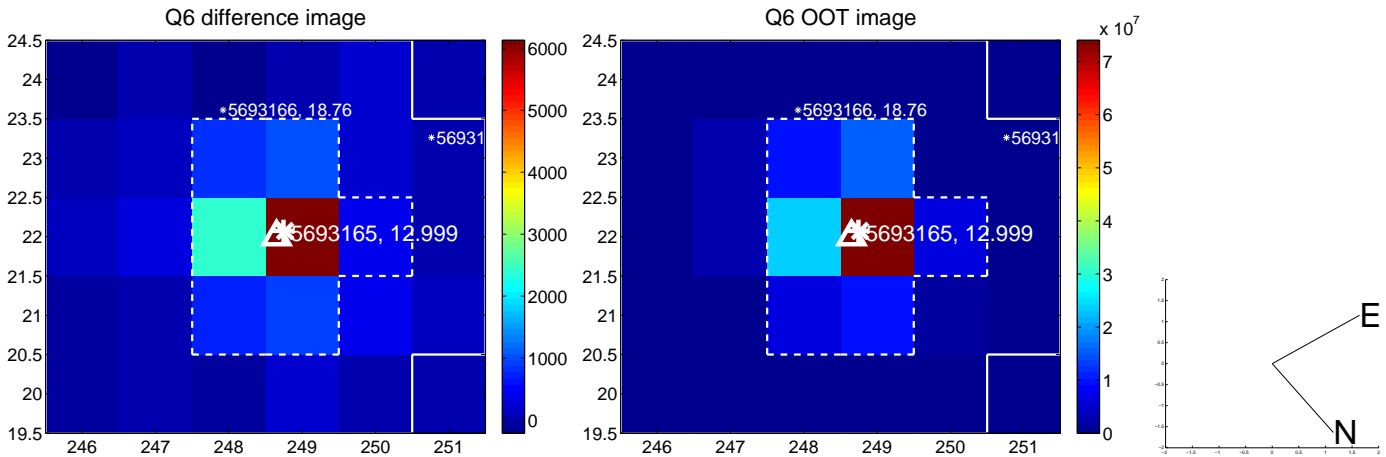
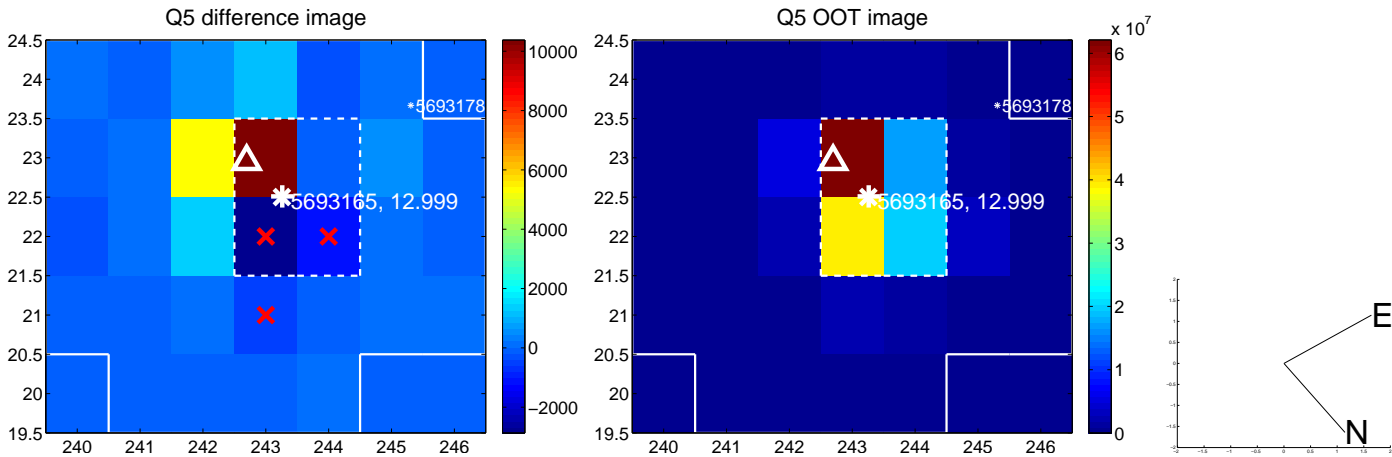


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

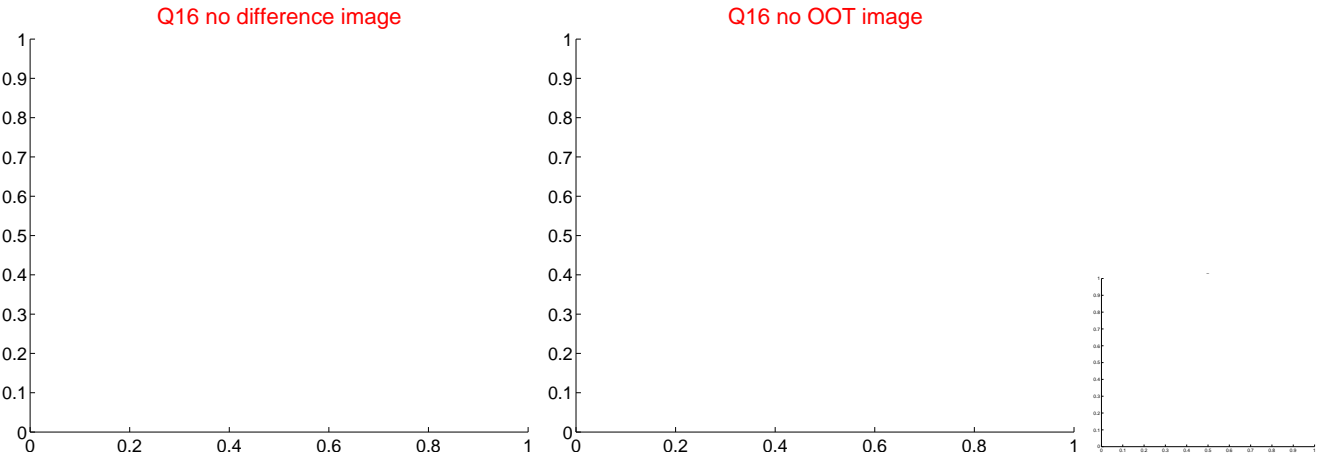
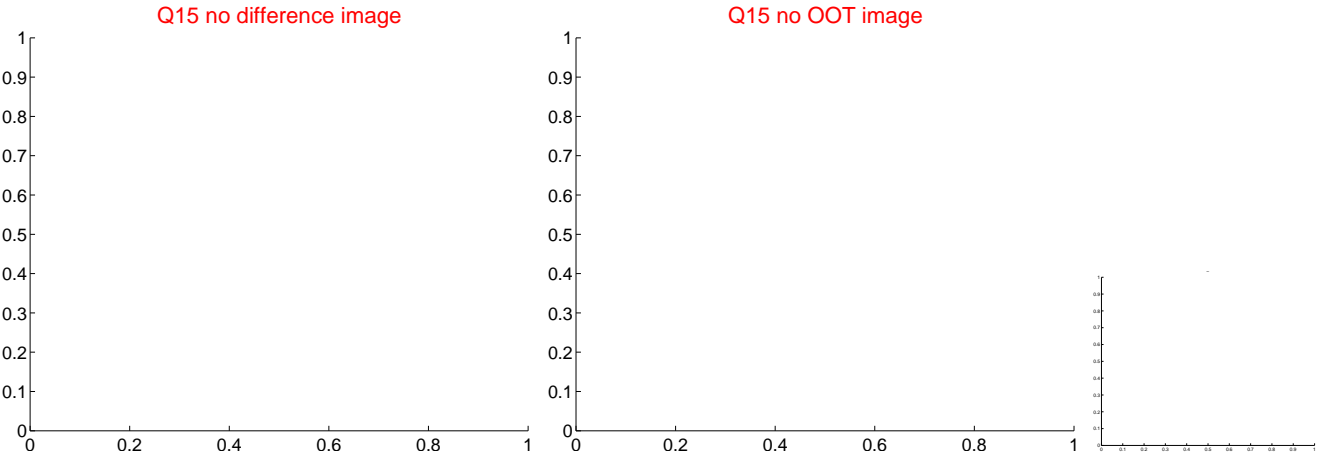
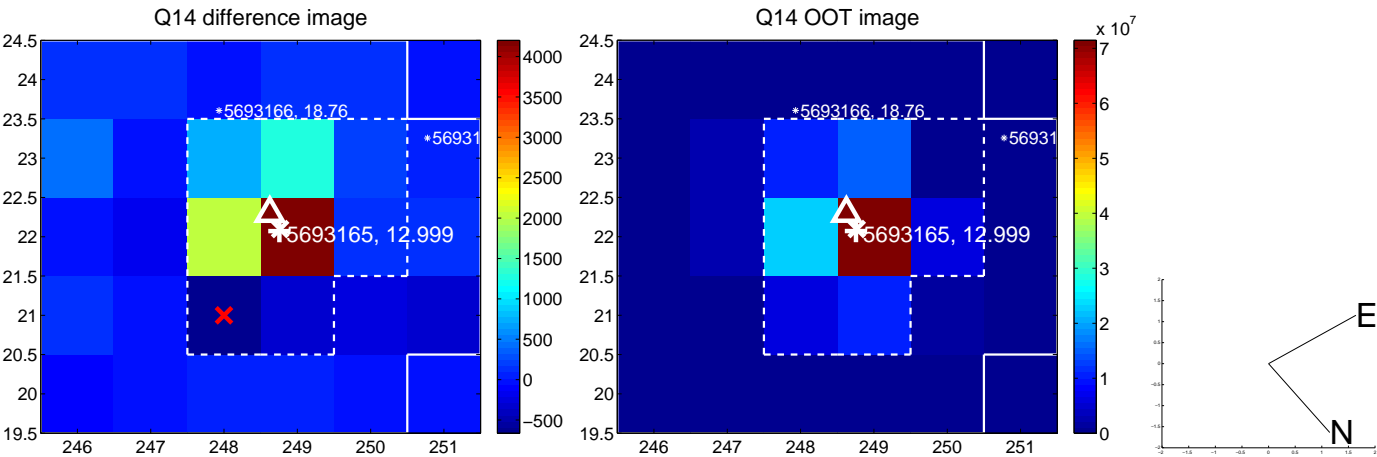
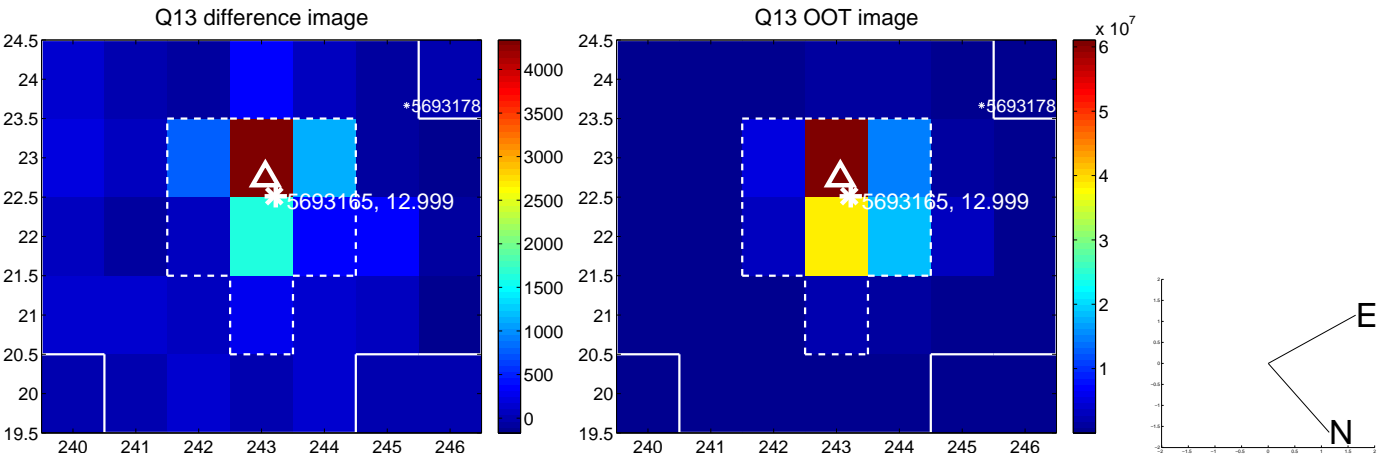
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



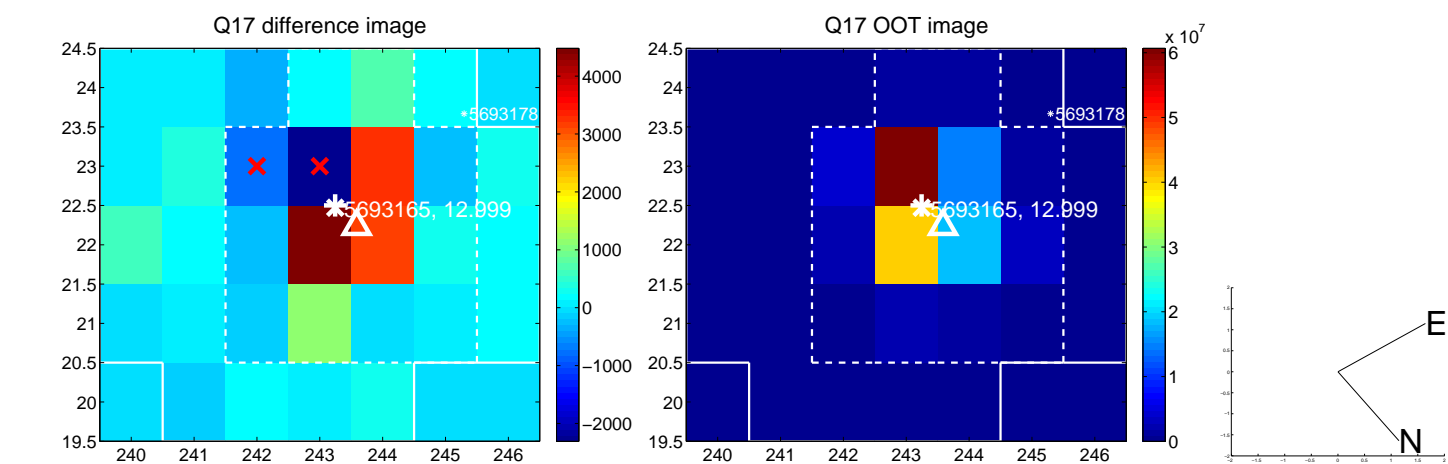
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



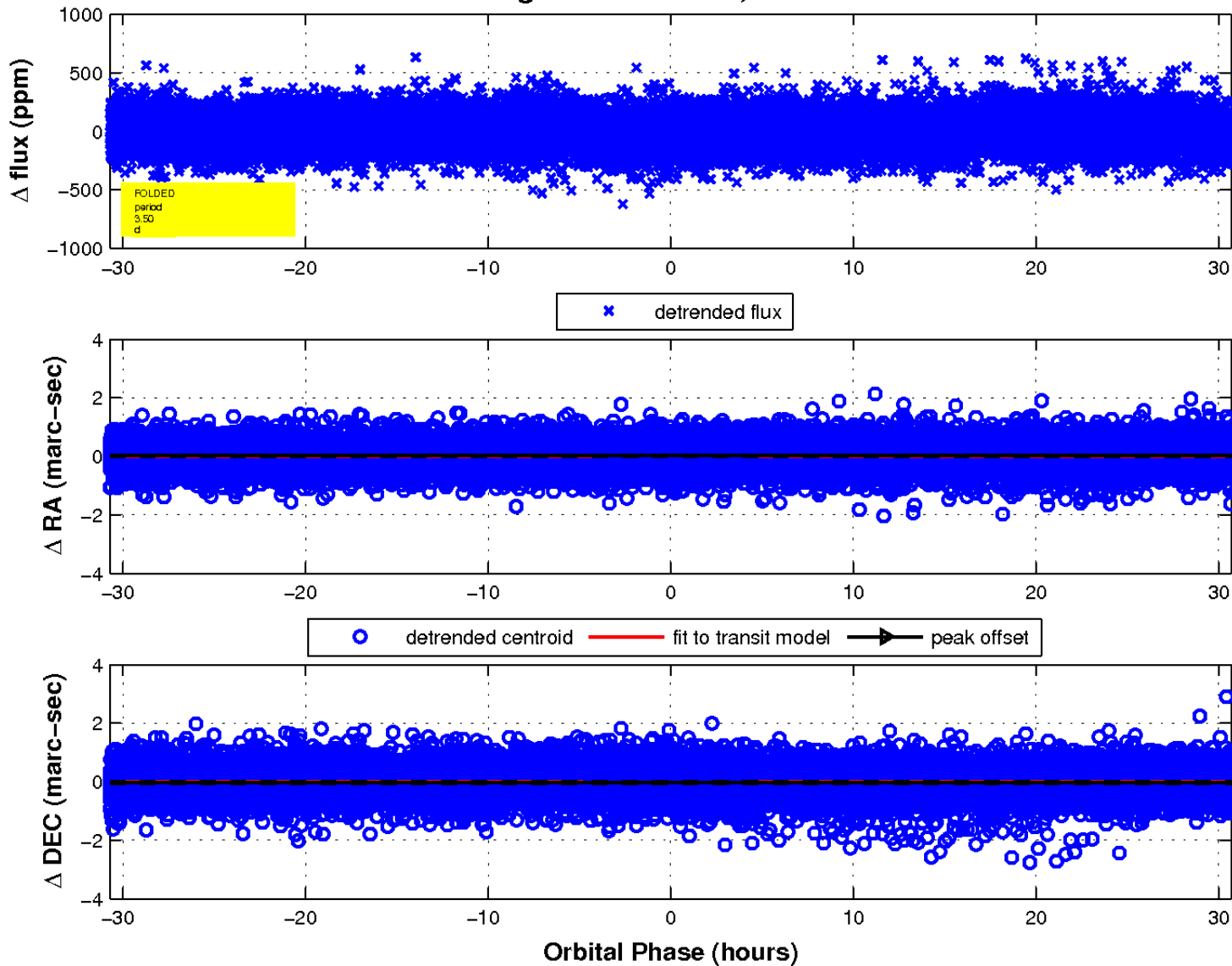
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

