

KIC 005992210

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})
005992210-01	OBS	4271.01	0.641077	132.137616	71.2	1.520	11.3	12.9	0.96	6077	0.95	5507.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005992210-01	OBS	FP	0.01	0	0	1	0	CENT_RESOLVED_OFFSET

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.

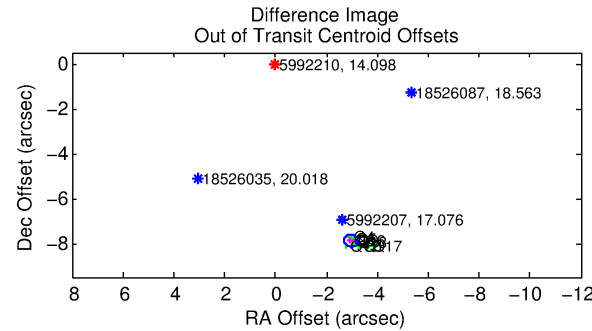
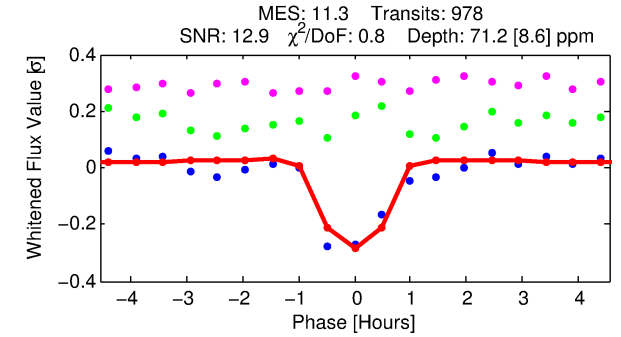
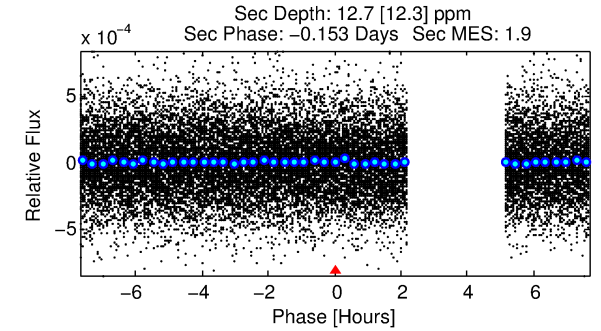
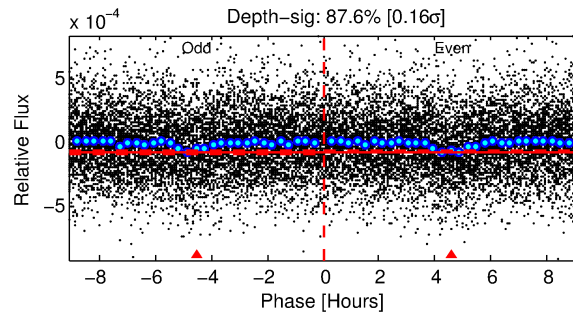
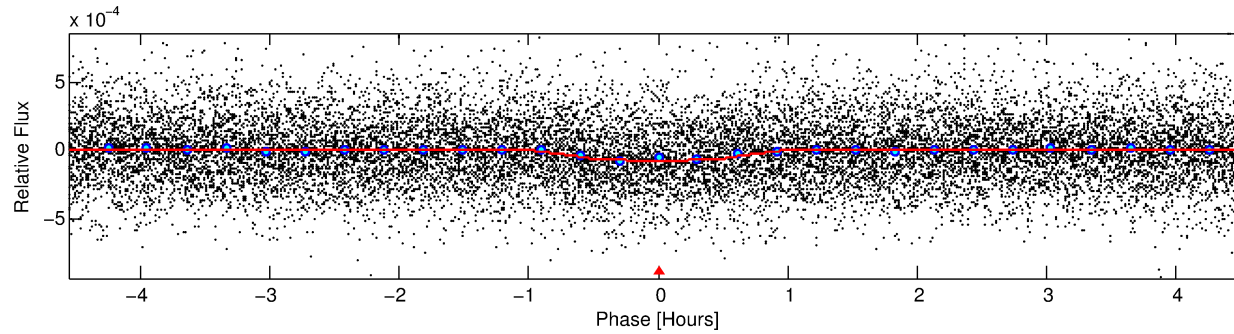
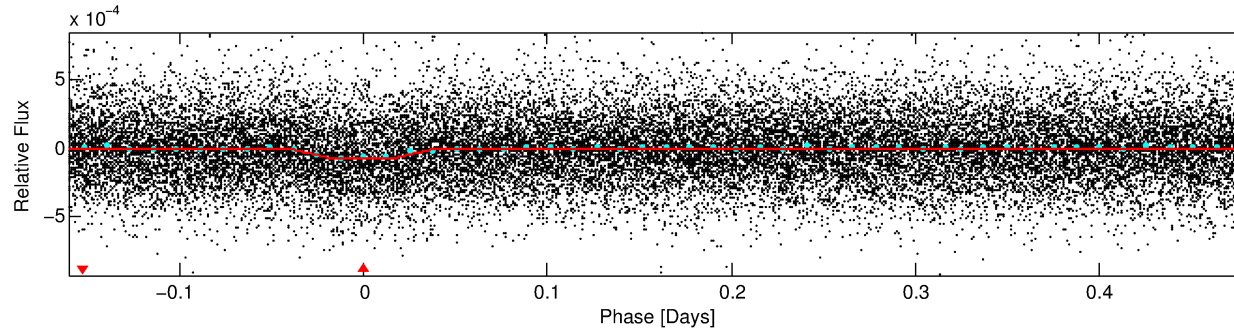
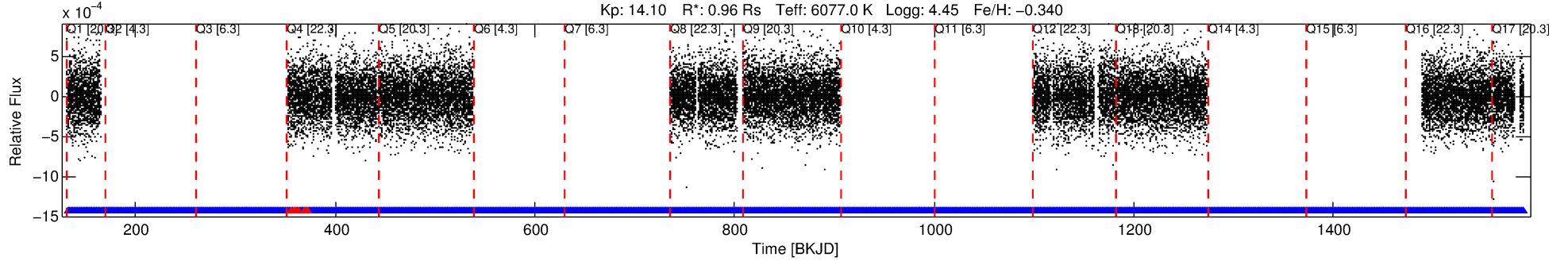
Ephemeris Match Information For 005992210-01

No Significant Match Found

DV One-Page Summary

KIC: 5992210 Candidate: 1 of 1 Period: 0.641 d
KOI: K04271.01 Corr: 0.922

Kp: 14.10 R*: 0.96 Rs Teff: 6077.0 K Logg: 4.45 Fe/H: -0.340



DV Fit Results:

Period = 0.64108 [0.00001] d
Epoch = 132.1376 [0.0016] BKJD
Rp/R* = 0.0091 [0.0045]
a/R* = 1.76 [3.19]
b = 0.90 [0.59]
Seff = 5507.06 [2174.03]
Teq = 2197 [217] K
Rp = 0.95 [0.56] Re
a = 0.0143 [0.0036] AU
Ag = 1.58 [2.27] [0.25σ]
Teffp = 3805 [1333] K [1.19σ]

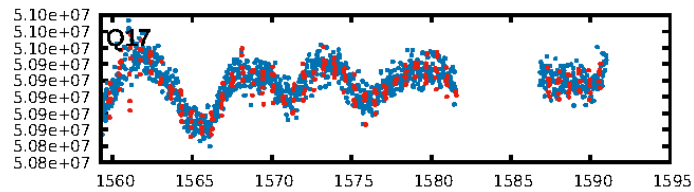
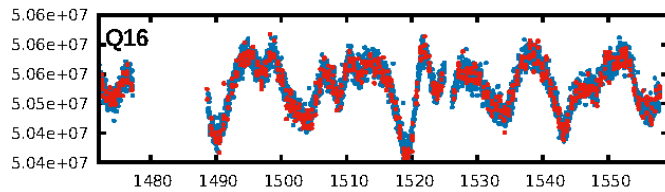
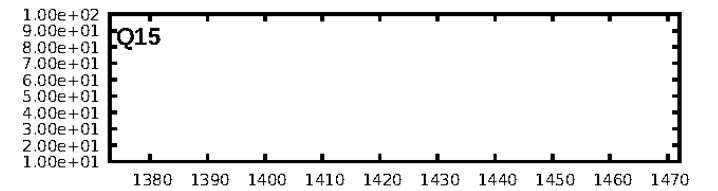
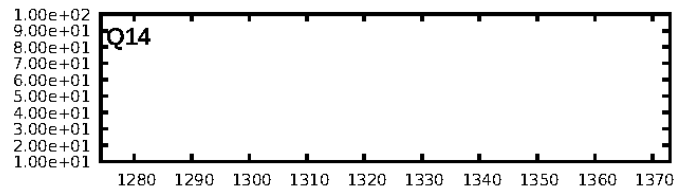
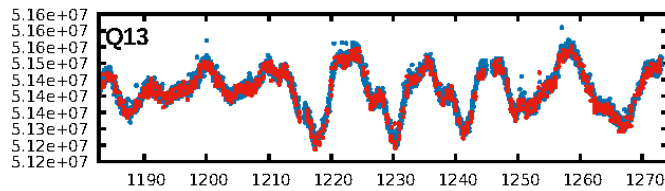
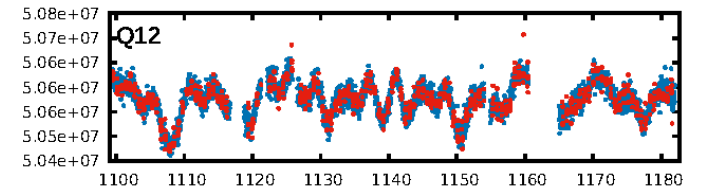
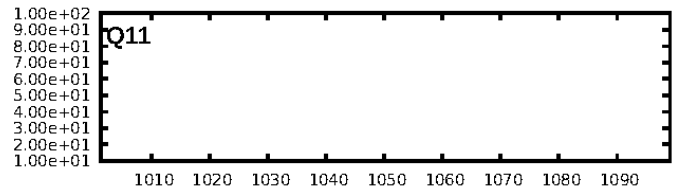
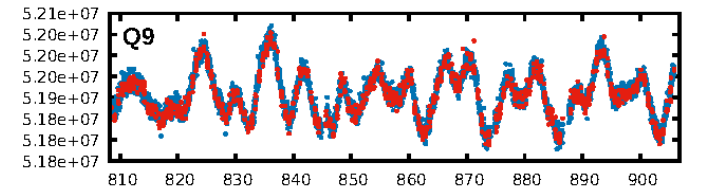
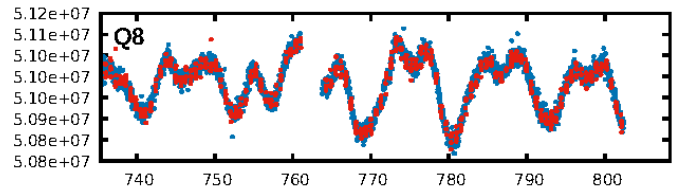
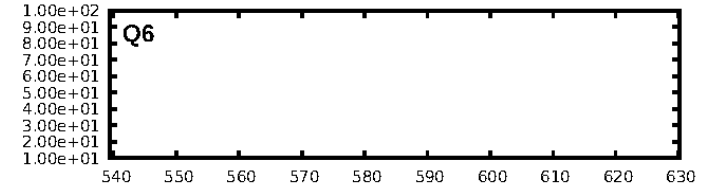
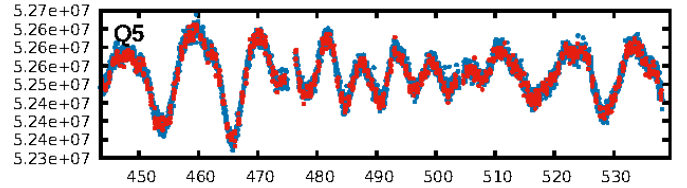
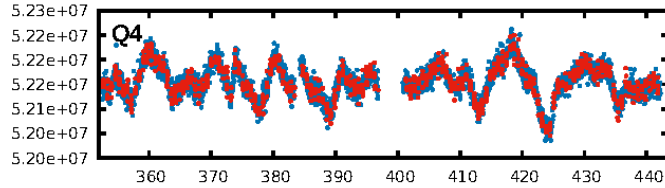
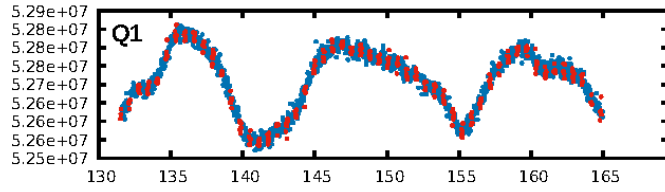
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.09e-27
RollingBand-fgt: 0.99 [878/884]
GhostDiagnostic-chr: -0.5007
Centroid-sig: 0.0%
Centroid-so: 10.616 arcsec [9.64σ]
OotOffset-rm: 8.424 arcsec [92.14σ]
KicOffset-rm: 8.517 arcsec [88.47σ]
OotOffset-st: 0/0/4/5 [9]
KicOffset-st: 0/0/4/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

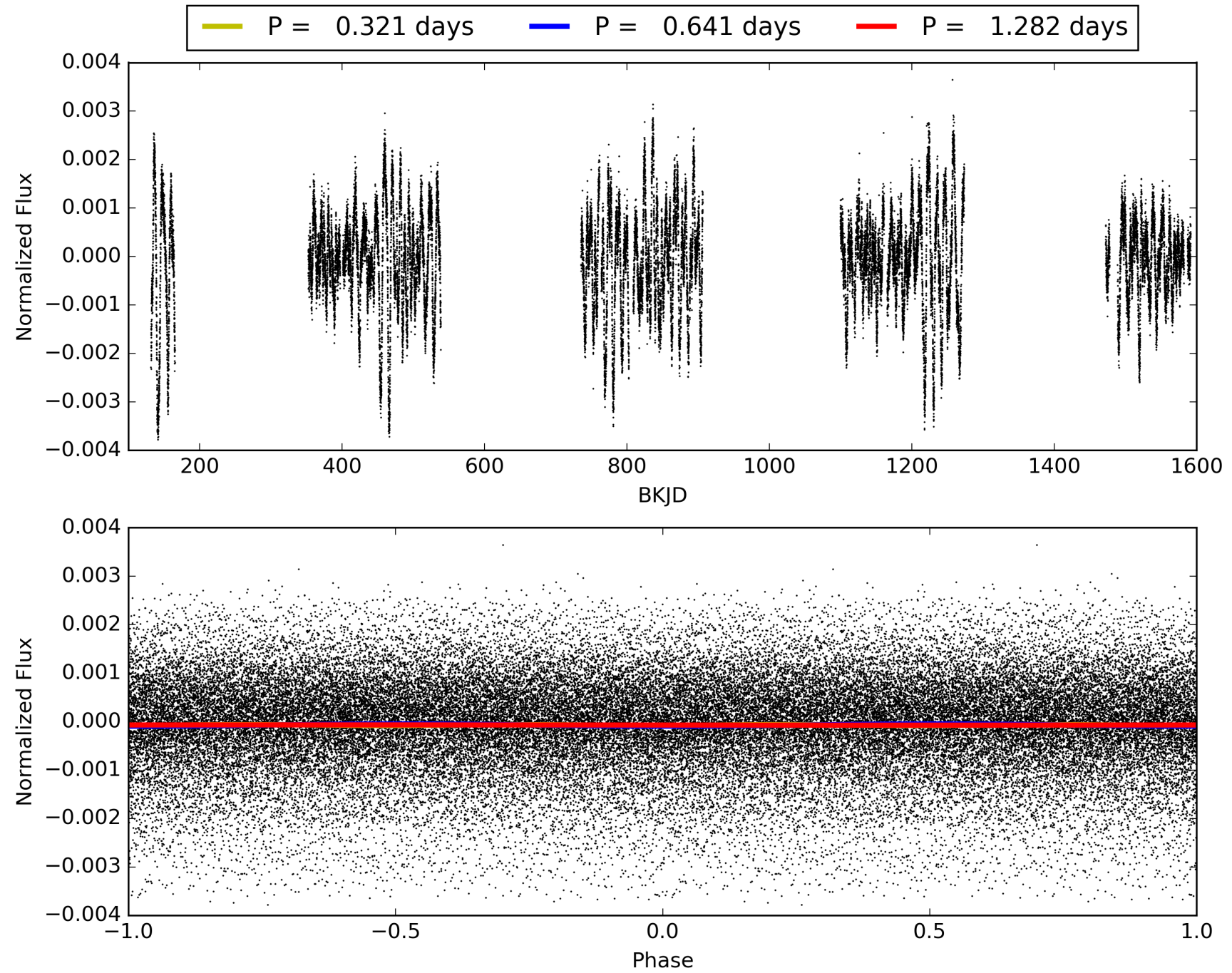
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 13:32:44 Z

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

TCE 005992210-01, PDC Light Curves

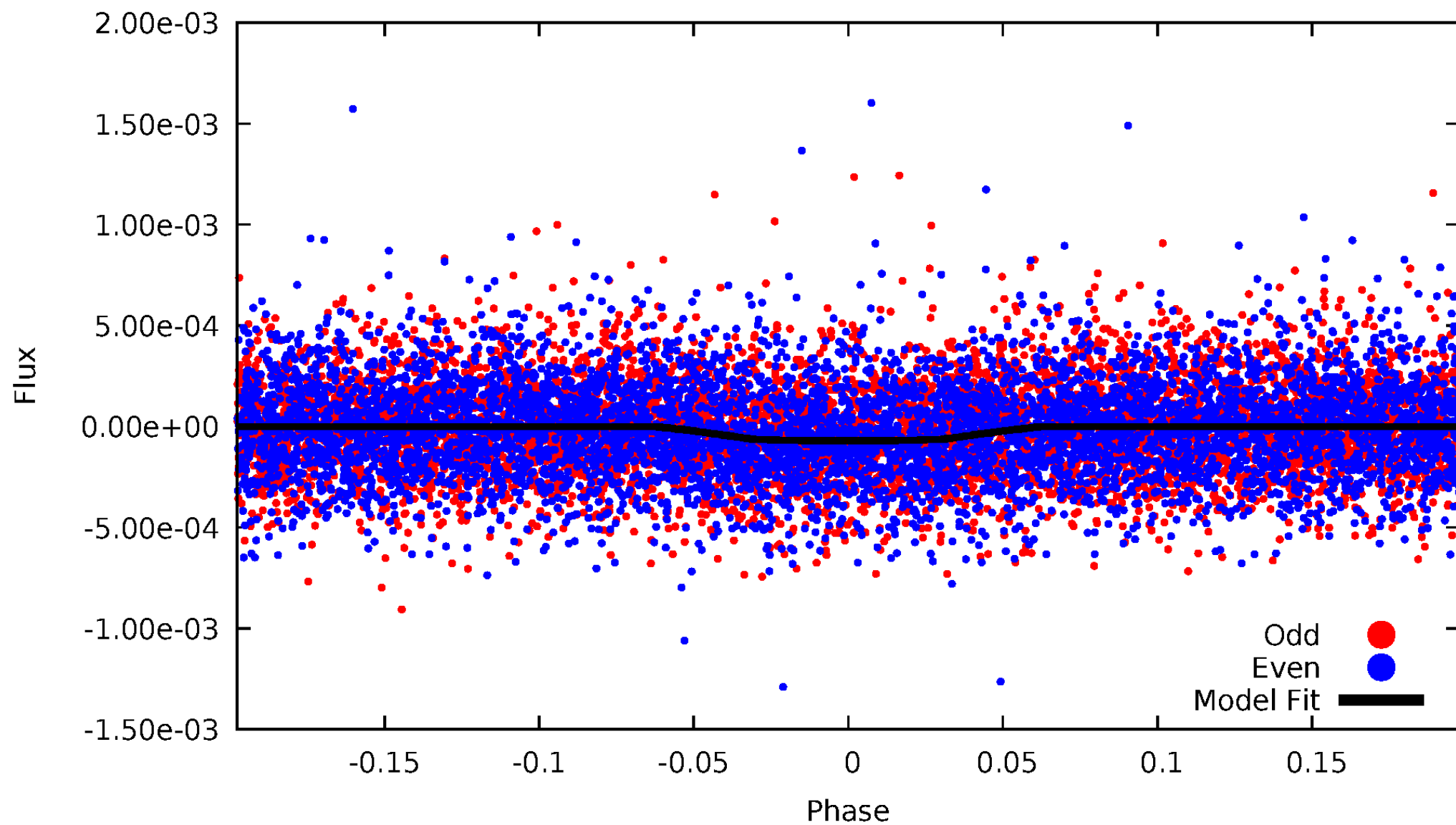


TCE 005992210-01



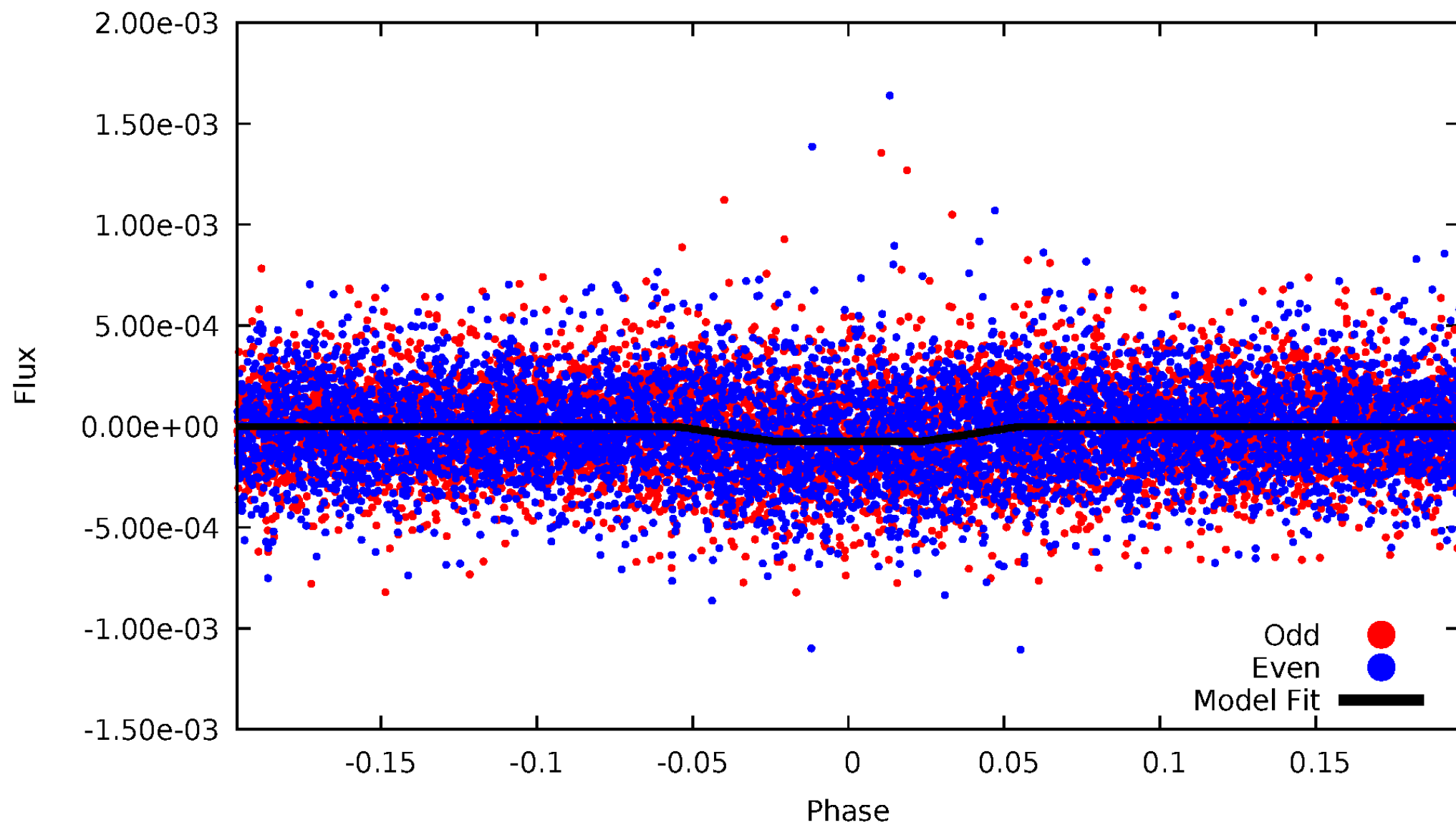
DV Odd/Even

TCE 005992210-01



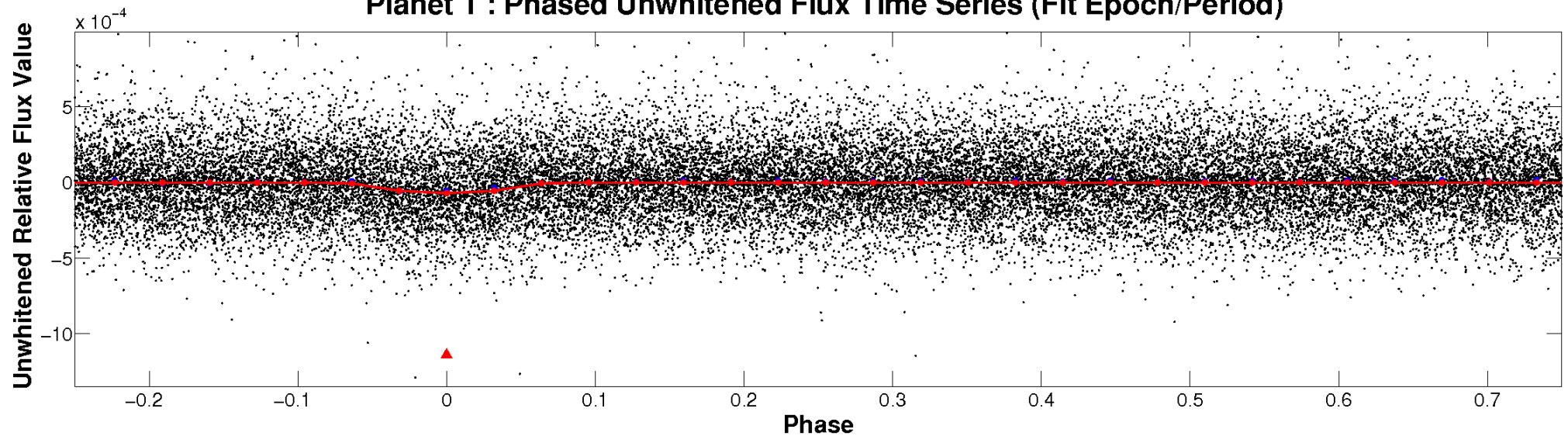
ALT Odd/Even

TCE 005992210-01

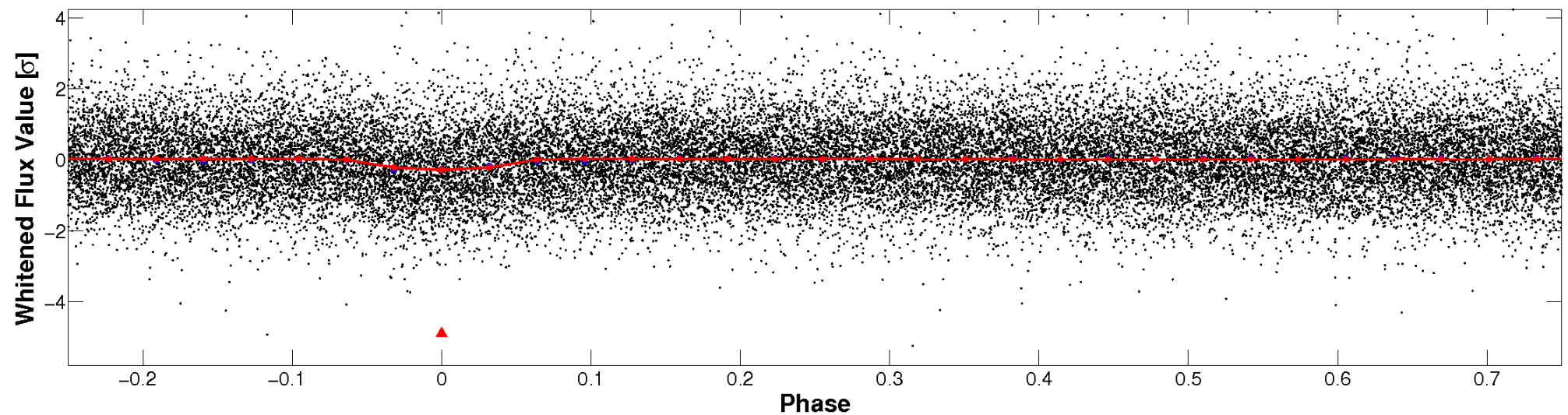


Non-Whitened Vs. Whitened Light Curve

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

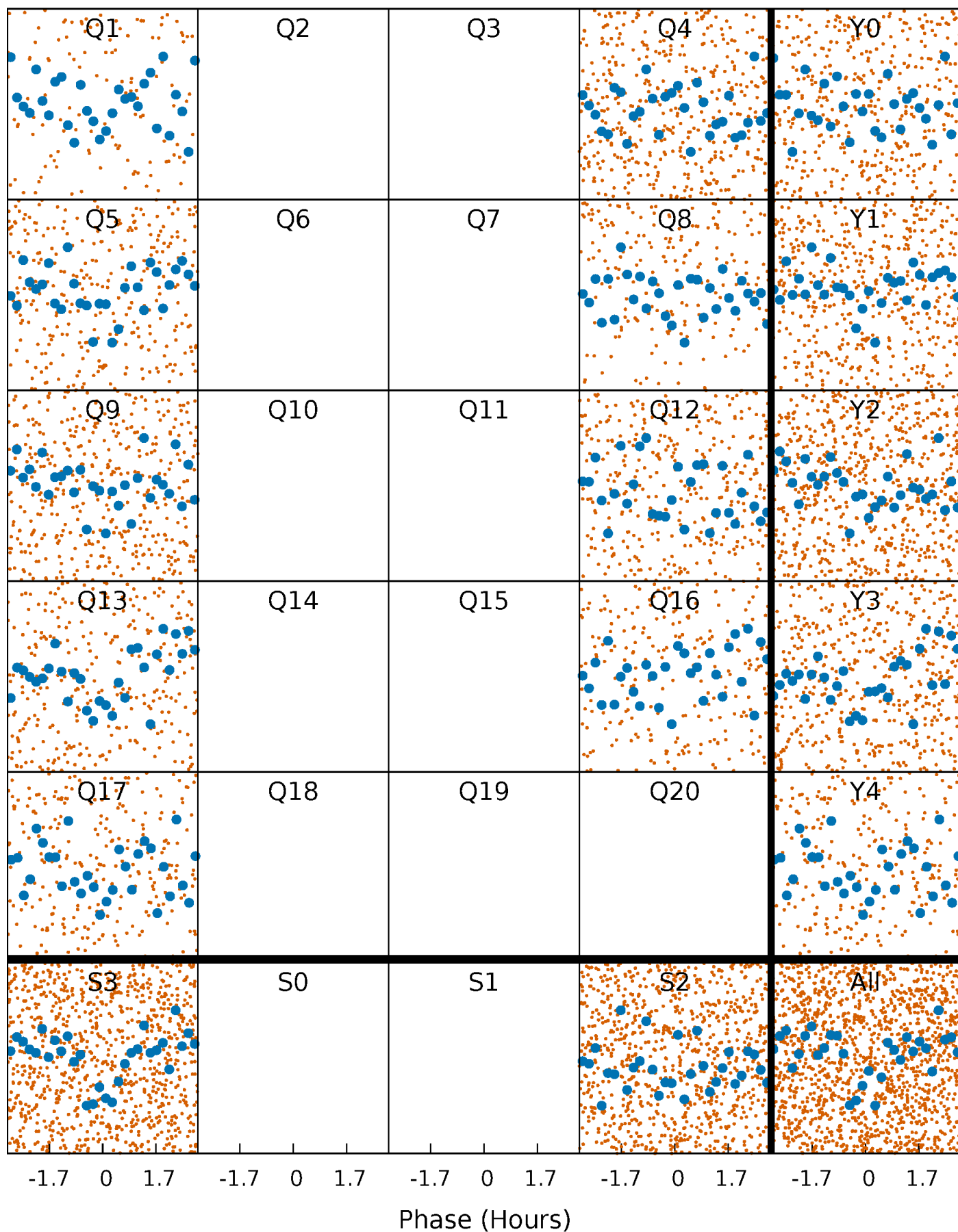


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



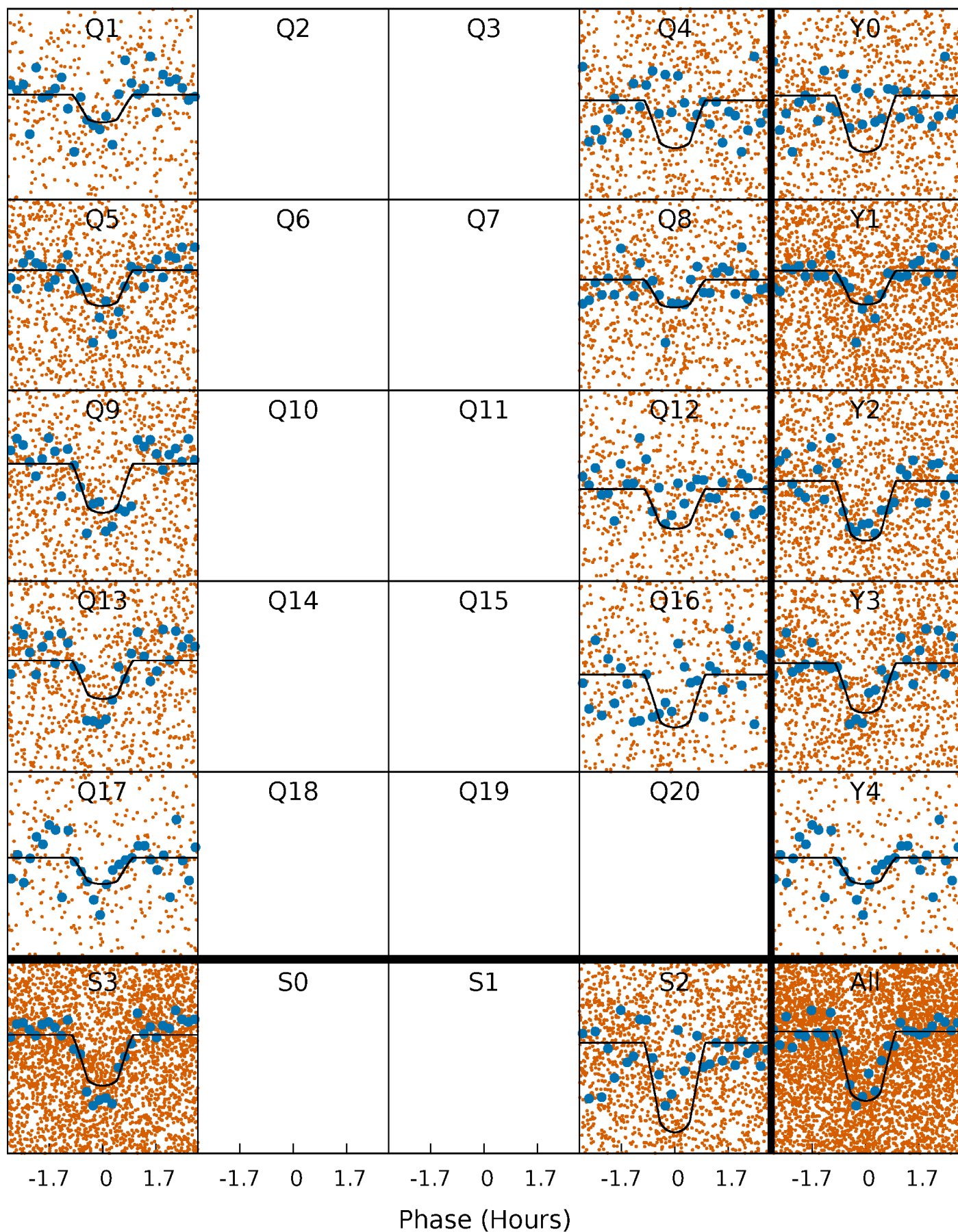
PDC Quarter-Phased Transit Curves

TCE 005992210-01 P= 0.641077 Days $T_0=132.137616$ (BKJD)



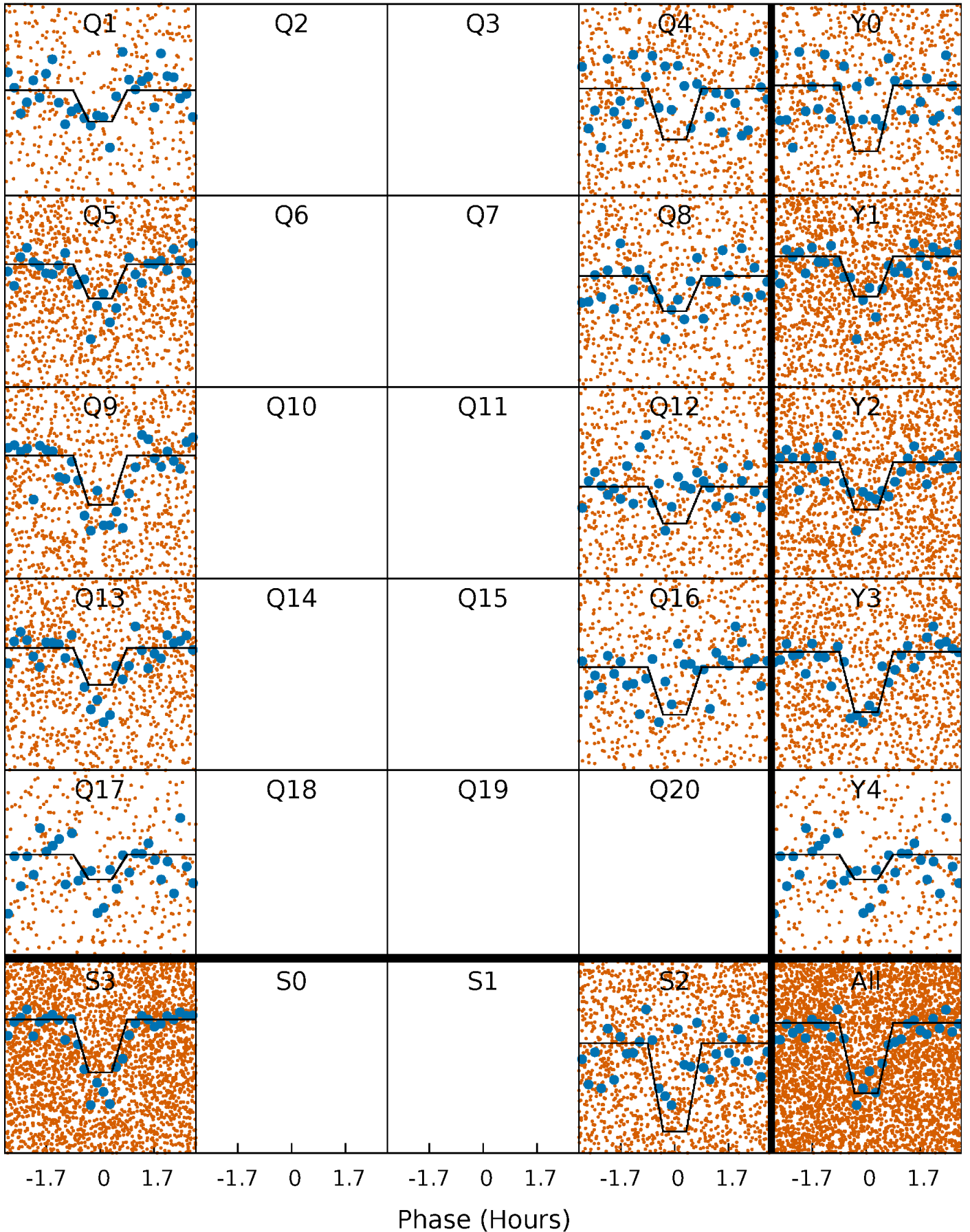
DV Quarter-Phased Transit Curves

TCE 005992210-01 P= 0.641077 Days $T_0=132.137616$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

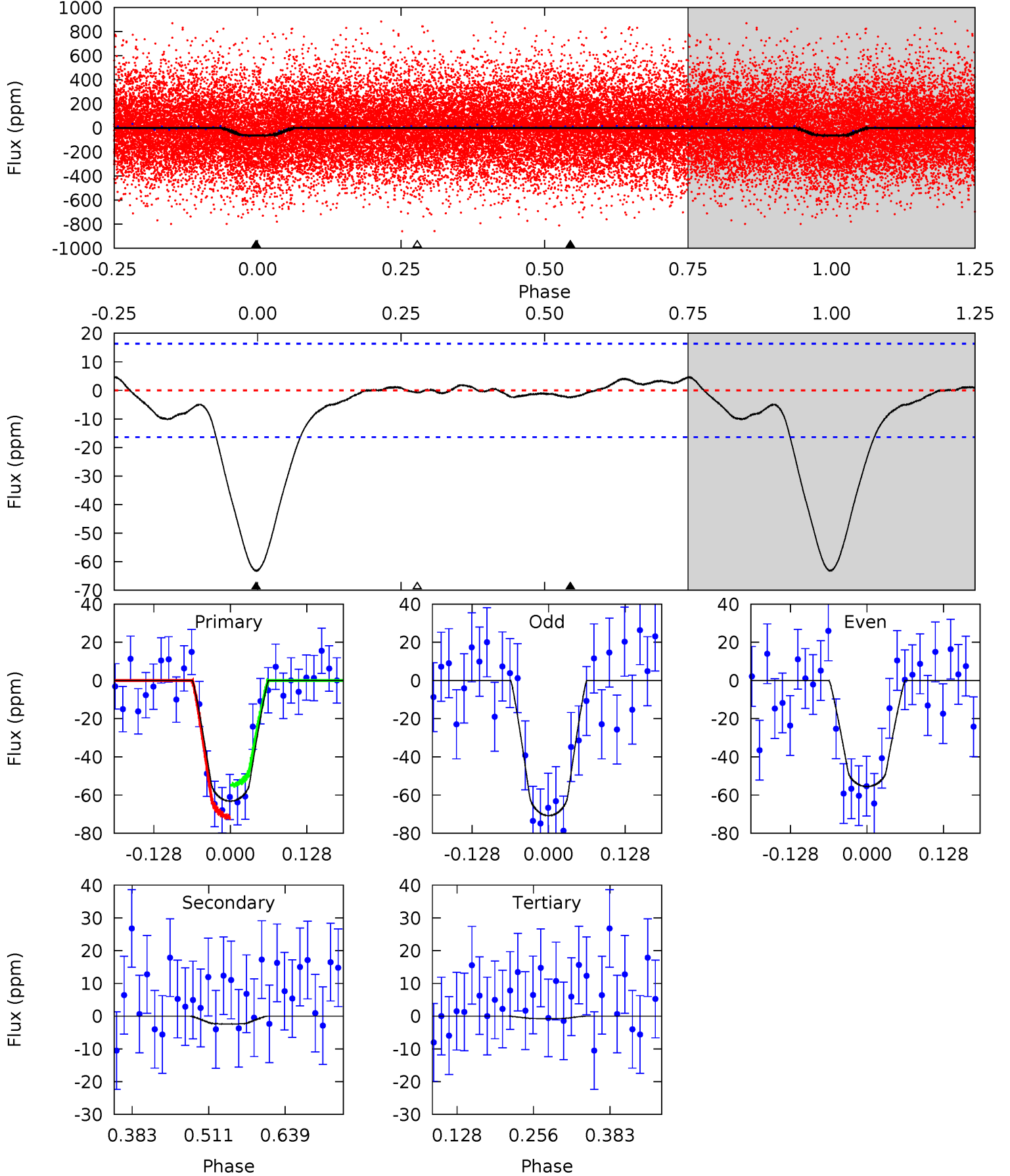
TCE 005992210-01 P= 0.641074 Days $T_0=132.139343$ (BKJD)



DV Model-Shift Uniqueness Test

005992210-01, P = 0.641077 Days, E = 131.496539 Days

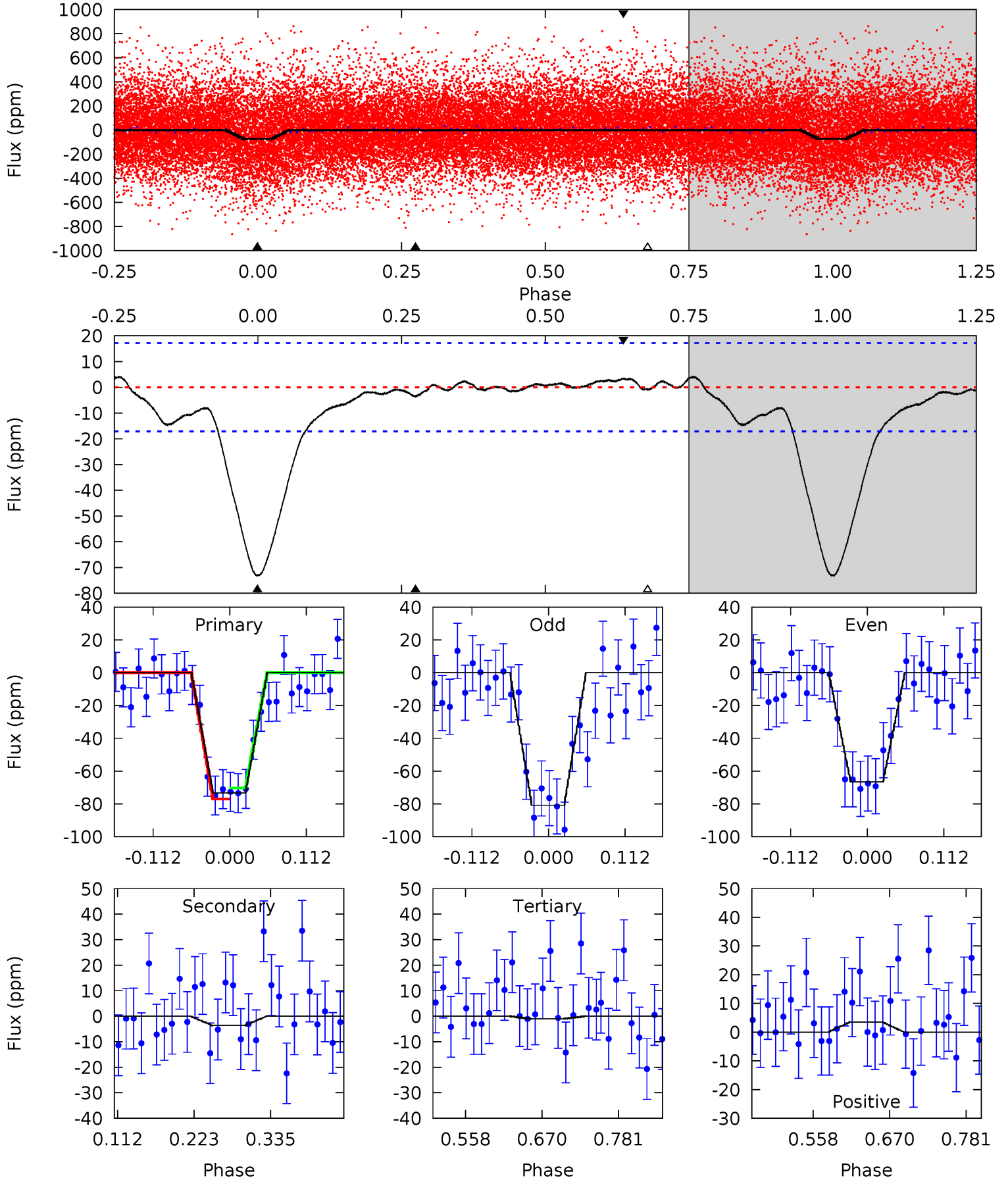
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	0.67	0.21	0	4.51	1.52	1.01	17.2	17.4	0.46	0.67	2.10	0.96	0.07	2.30



Alt Model-Shift Uniqueness Test

005992210-01, $P = 0.641074$ Days, $E = 131.498269$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.4	0.95	0.27	0.93	4.54	1.59	1.31	19.1	18.5	0.68	0.02	1.90	1.00	0.05	0.91



Stellar Parameters For KIC 005992210

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6077^{+191}_{-234}	$4.451^{+0.084}_{-0.196}$	$-0.340^{+0.300}_{-0.300}$	$0.961^{+0.294}_{-0.126}$	$0.953^{+0.128}_{-0.116}$	$1.511^{+0.559}_{-0.791}$
	+3%/-4%	+2%/-4%	+88%/-88%	+31%/-13%	+13%/-12%	+37%/-52%
Source	KIC0	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 005992210-01 / KOI 4271.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 4	$1.02^{+0.51}_{-0.48}$	3116^{+219}_{-166}	-2607^{+6253}_{-734}	$0.224^{+0.826}_{-0.322}$
Alt.	-4 ± 4	$0.95^{+0.50}_{-0.51}$	3115^{+240}_{-174}	2787^{+1428}_{-5992}	$0.421^{+1.608}_{-0.427}$

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

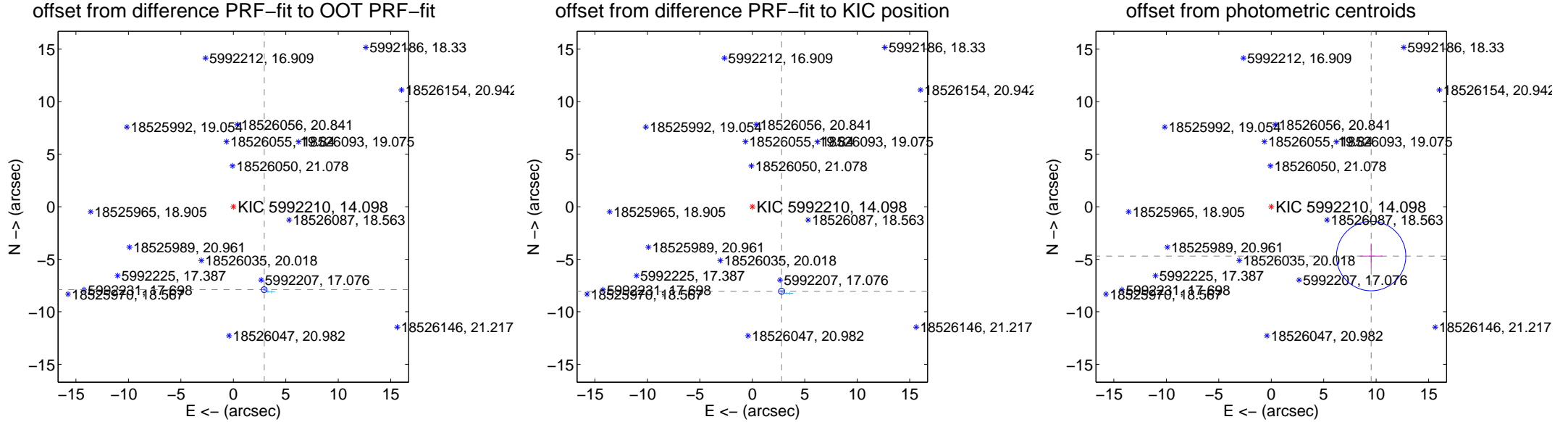
DV Centroid Data

Supplemental centroid analysis for 005992210-01. Kepler magnitude: 14.10. Transit SNR 12.90

There are 9 quarters with good PRF difference image offsets

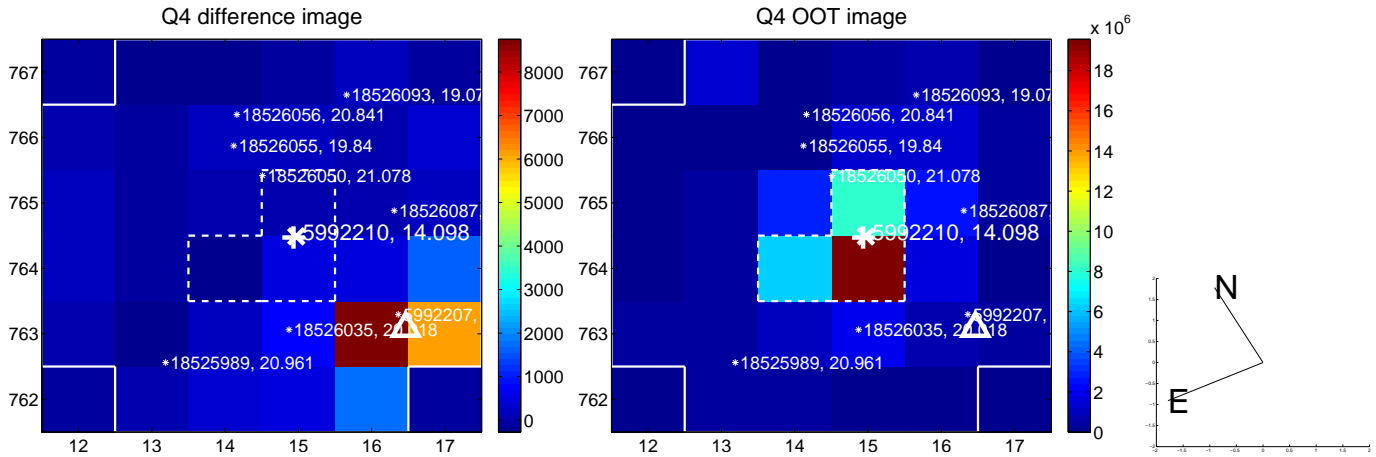
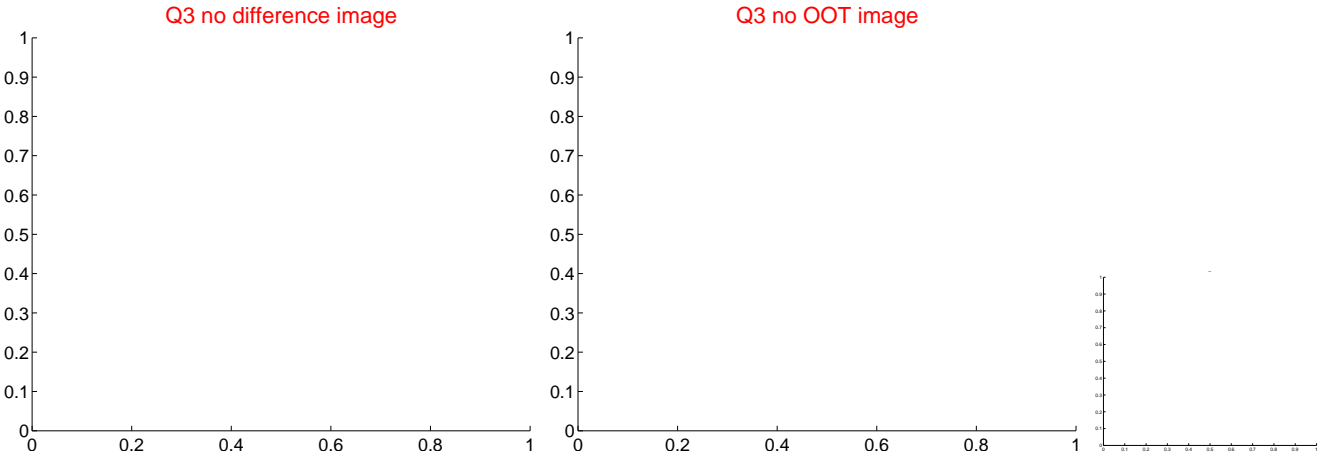
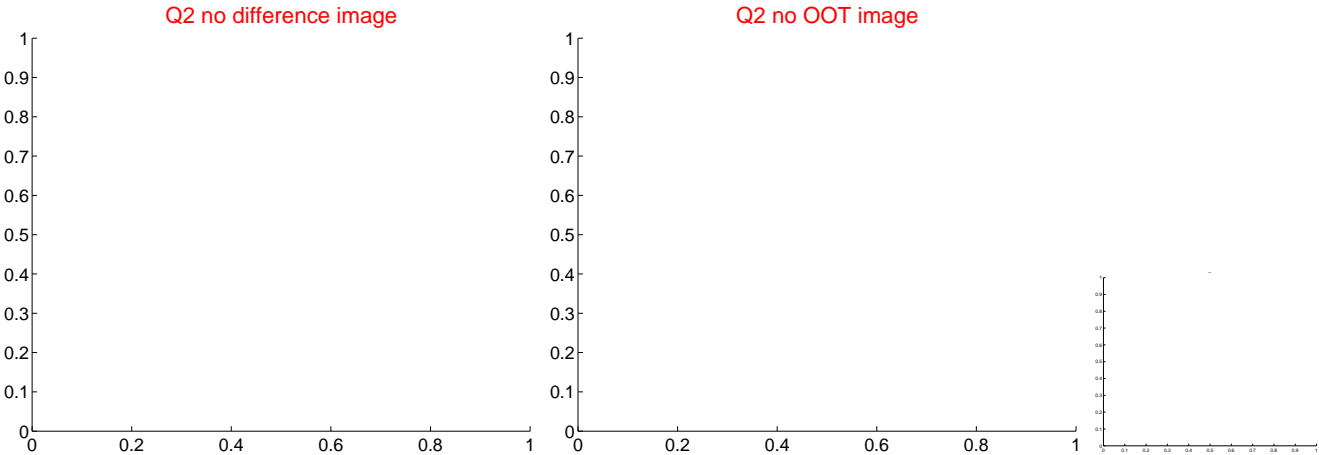
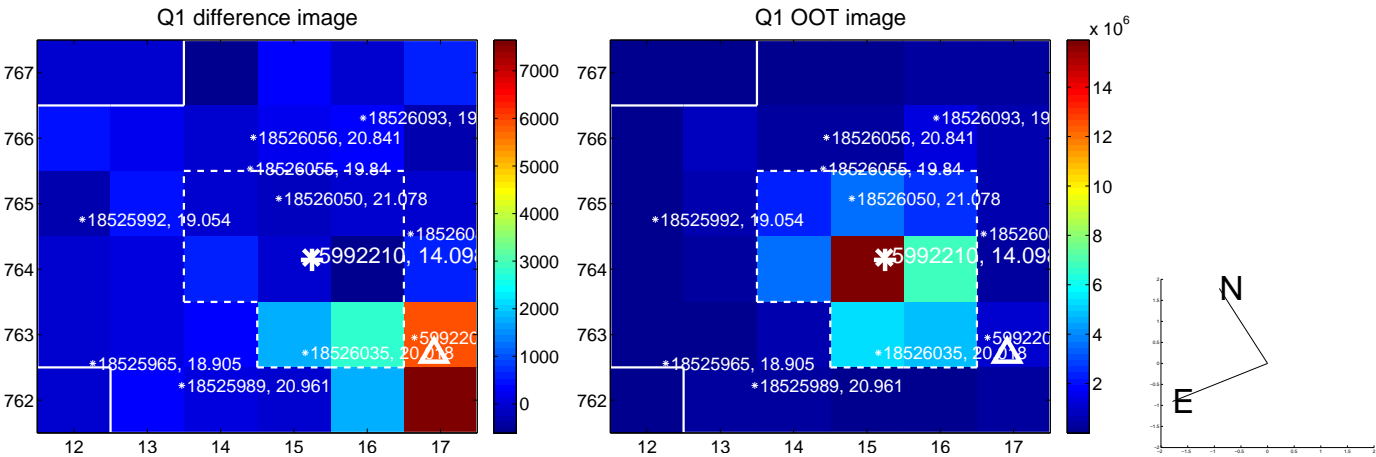
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.424 ± 0.091	92.14	-2.942 ± 0.100	-7.893 ± 0.083
PRF-fit source offset from KIC position	8.517 ± 0.096	88.47	-2.792 ± 0.114	-8.047 ± 0.085
photometric centroid source offset	10.62 ± 1.10	9.64	-9.52 ± 1.08	-4.70 ± 1.20

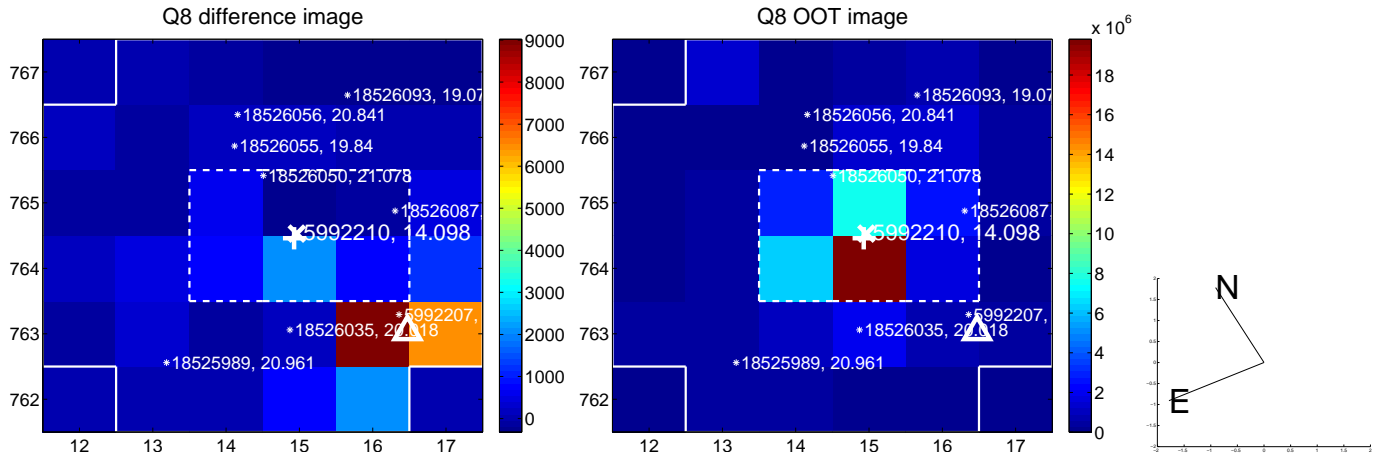
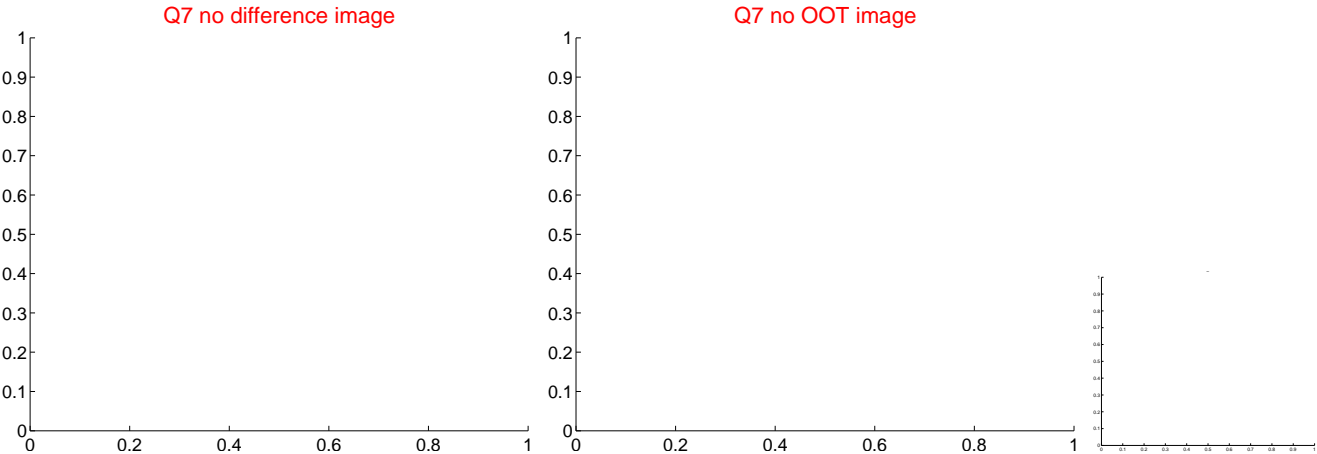
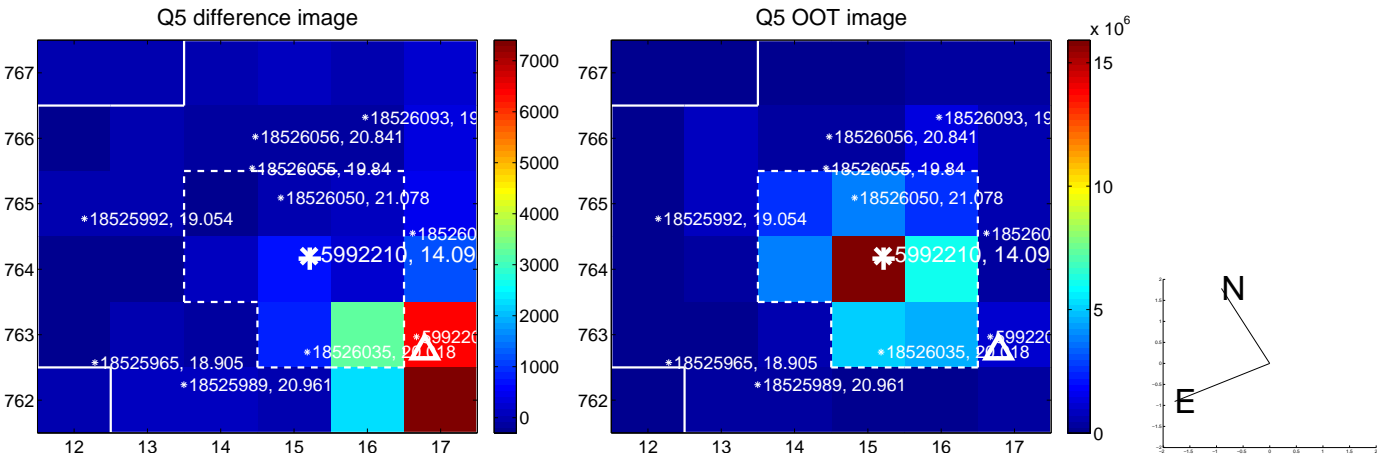


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

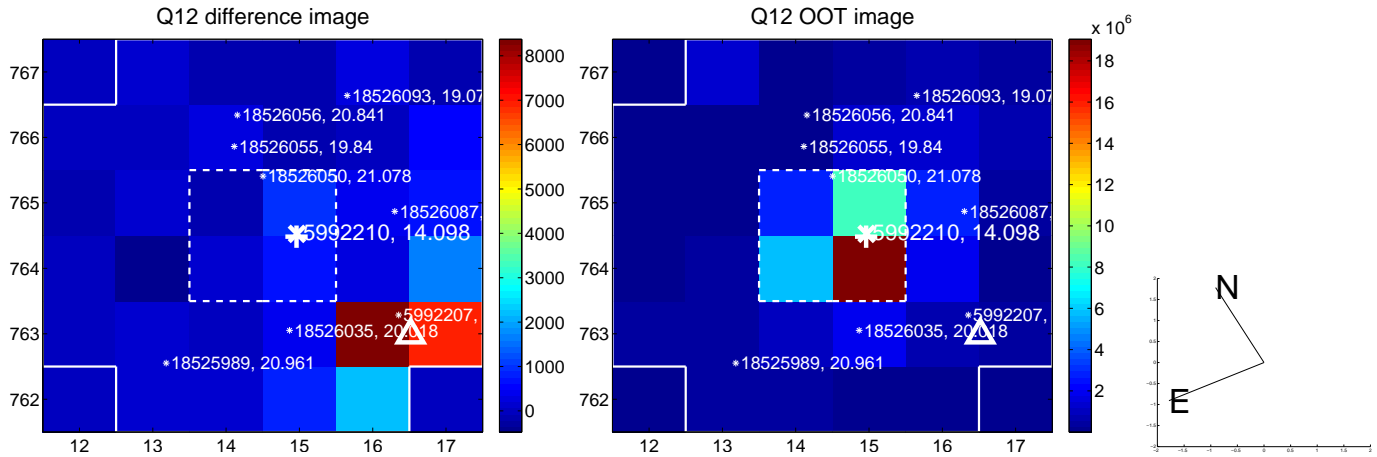
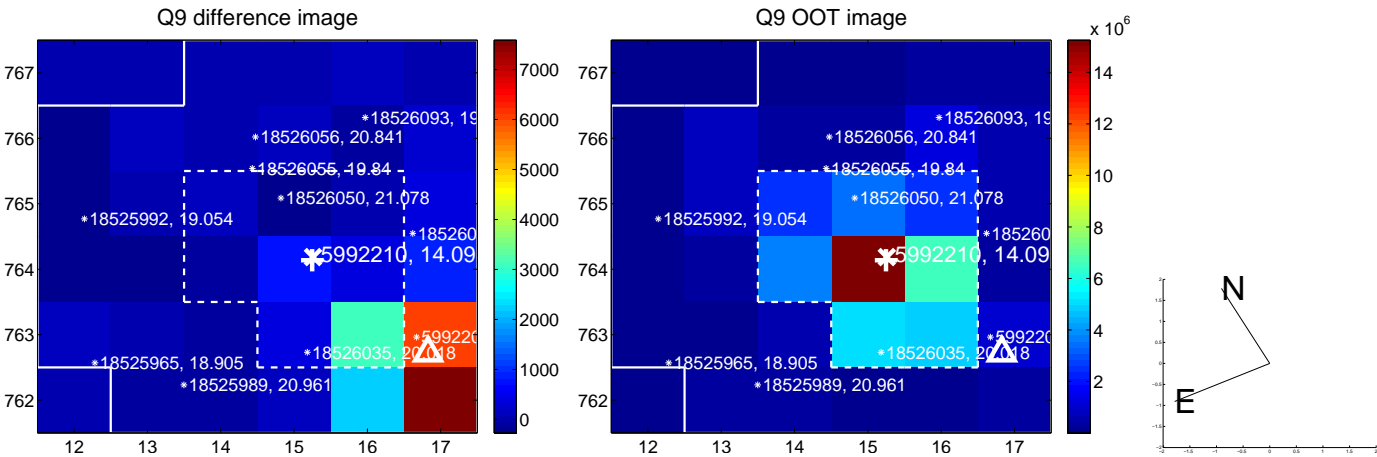
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



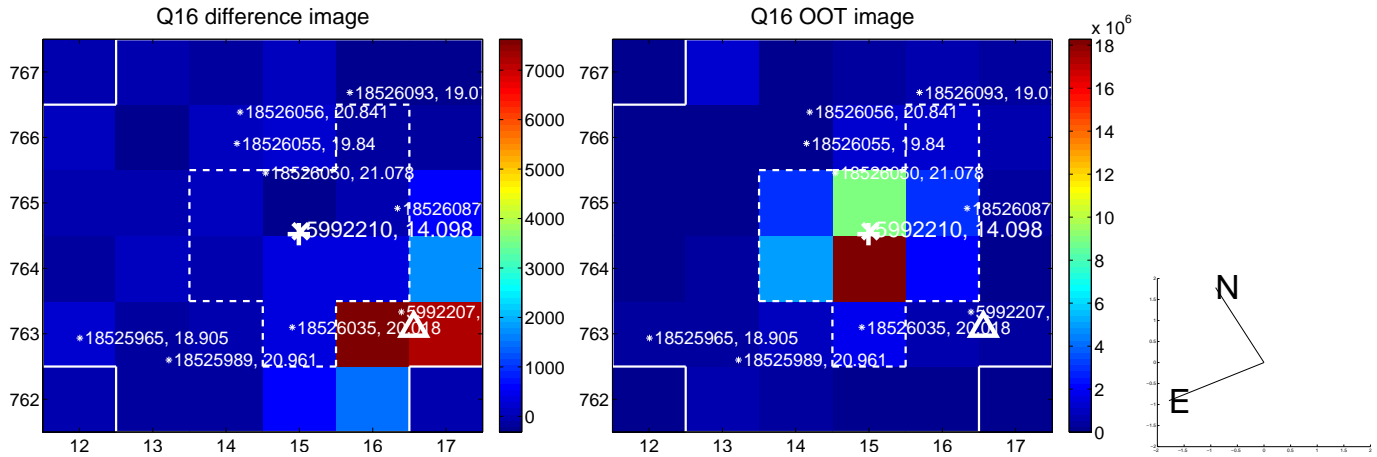
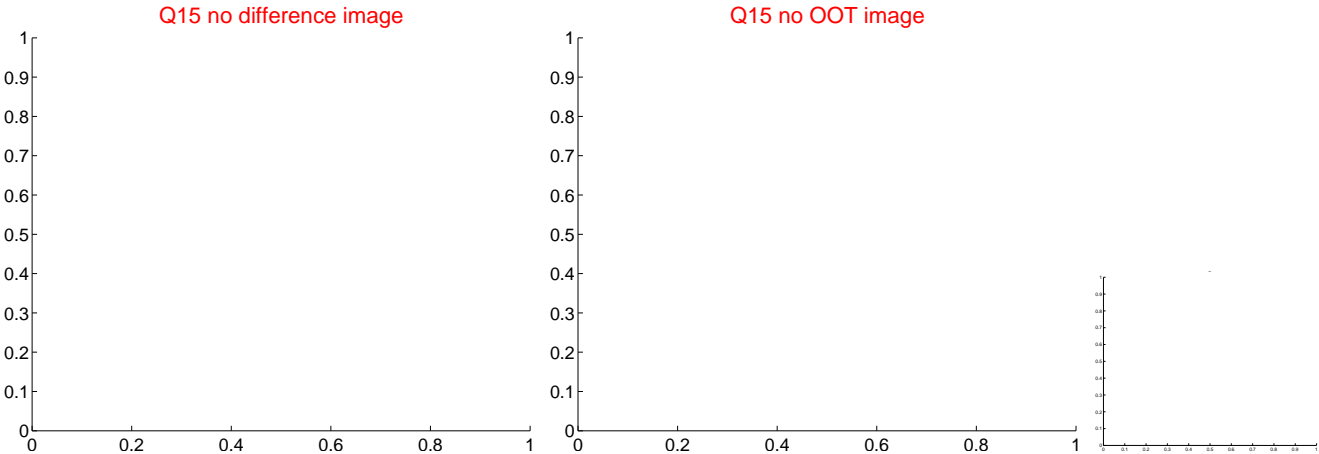
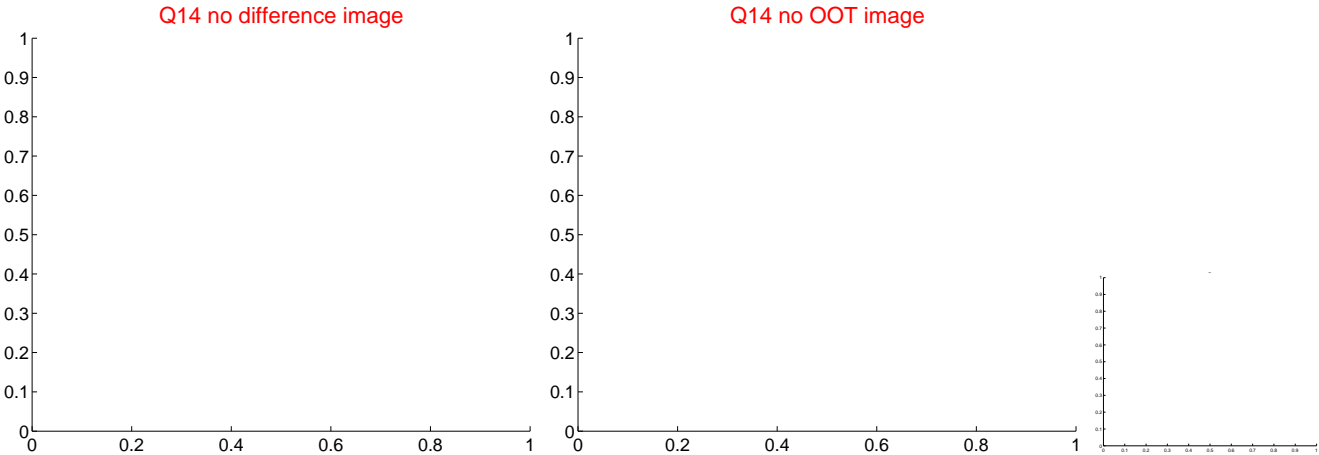
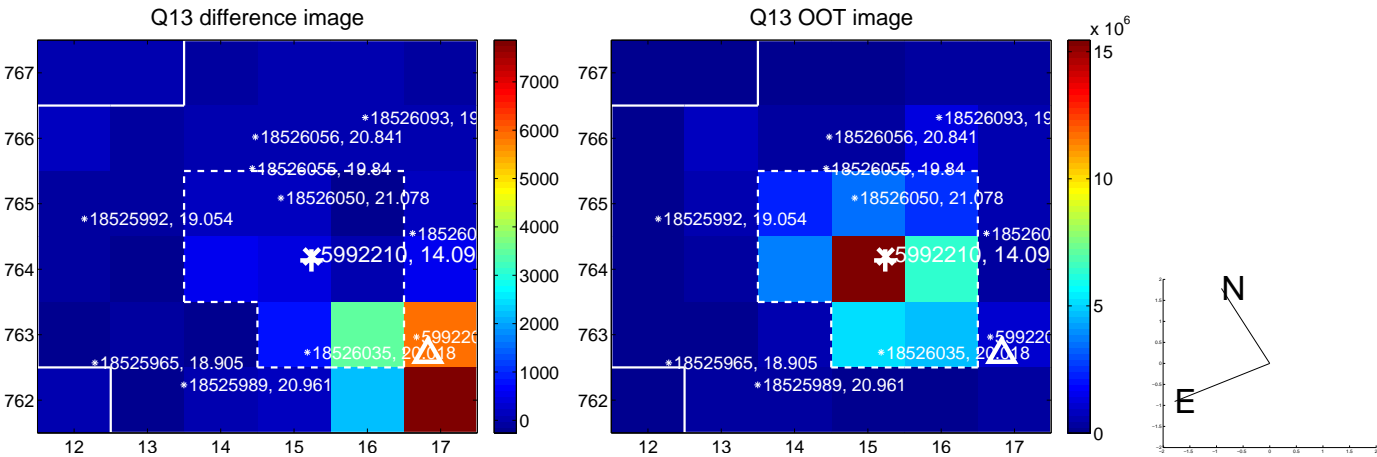
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



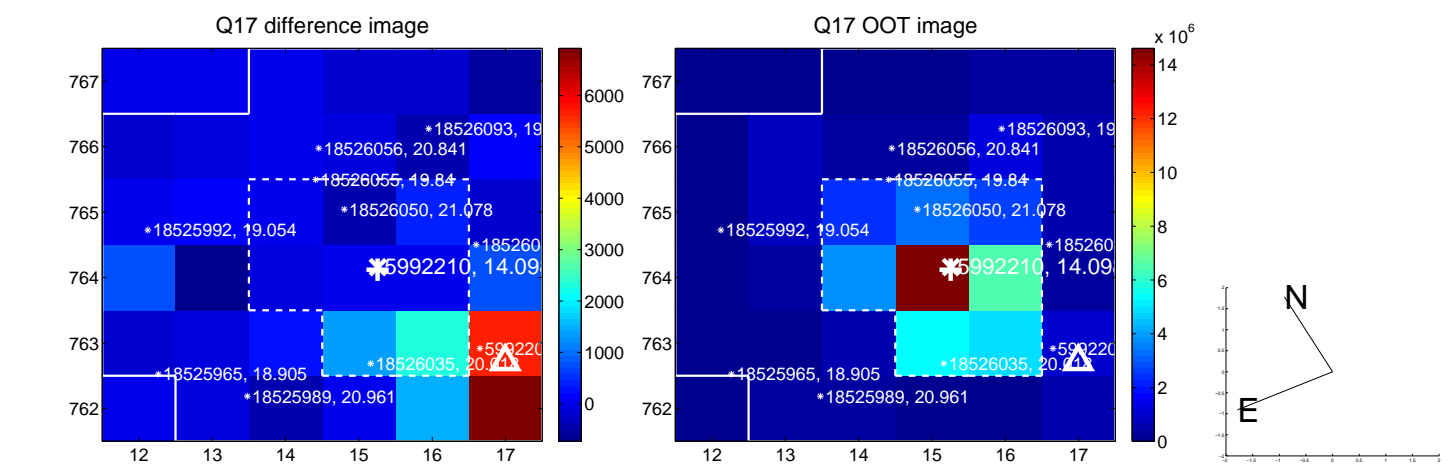
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



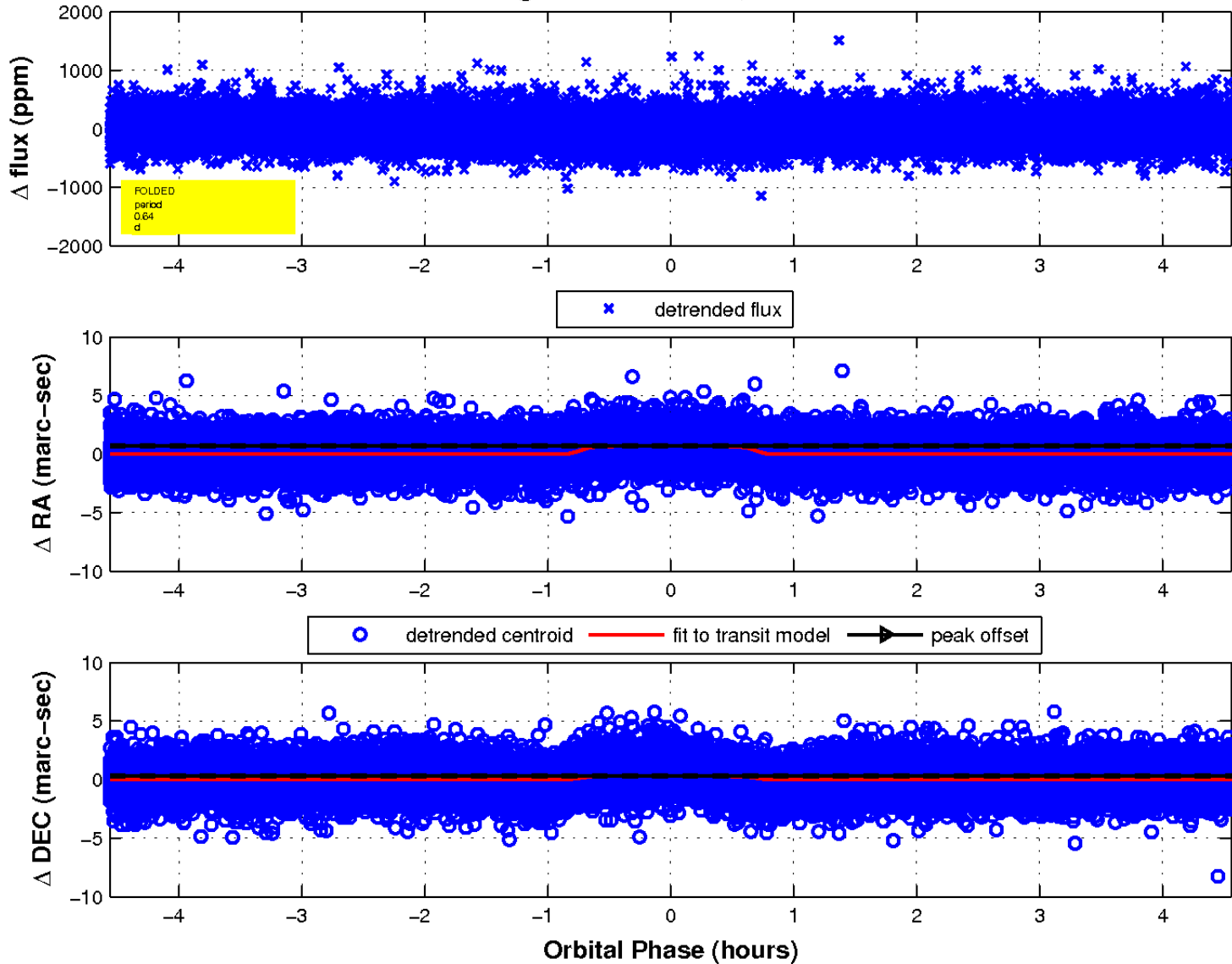
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

