

KIC 001434395

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})
001434395-01	OBS	7623.01	2.222722	131.900279	216.6	2.846	13.5	14.2	20.85	4996	37.37	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001434395-01	OBS	FP	0.01	0	0	1	0	PLANET_IN_STAR—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

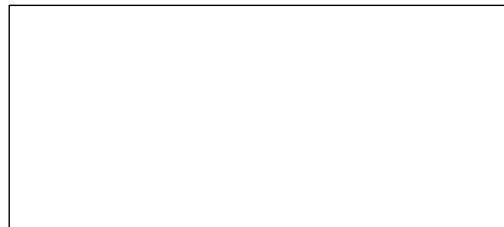
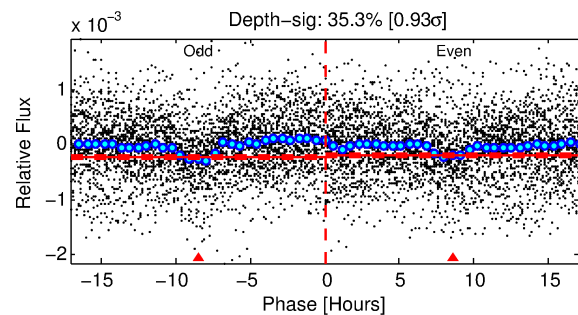
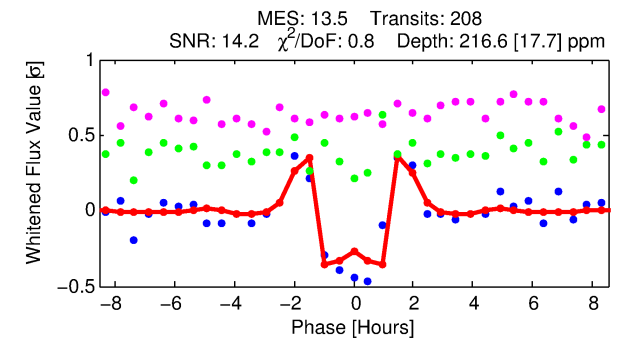
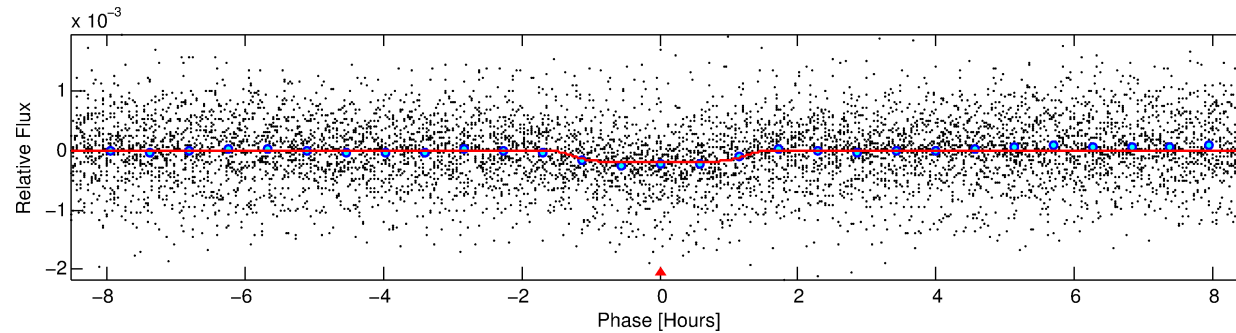
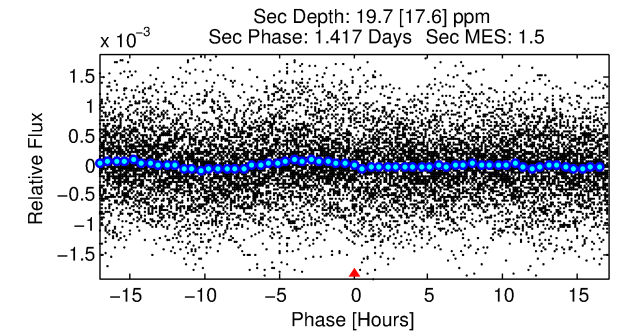
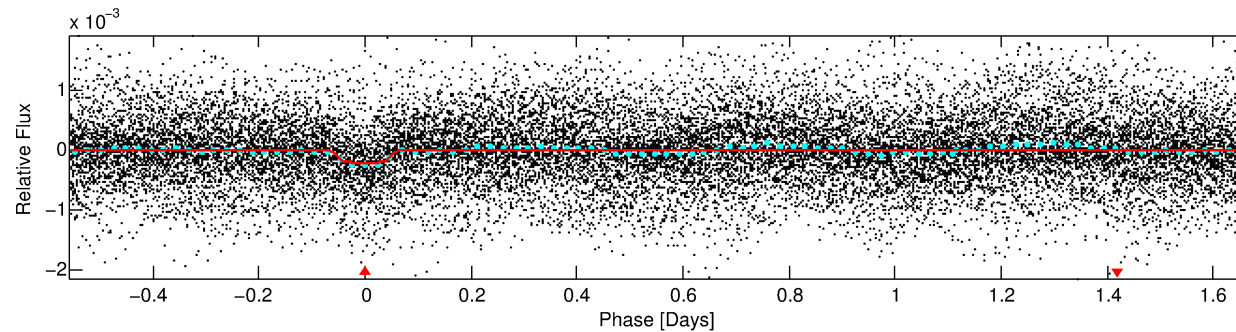
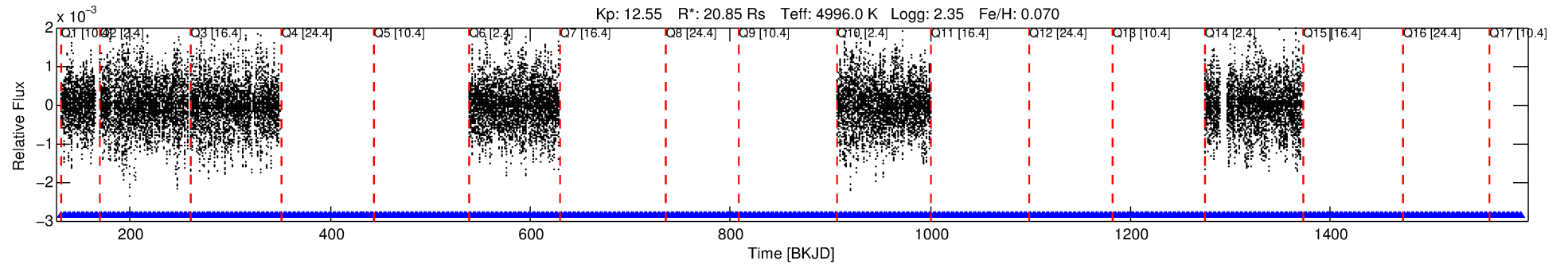
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001434395-01

No Significant Match Found

DV One-Page Summary

KIC: 1434395 Candidate: 1 of 1 Period: 2.223 d



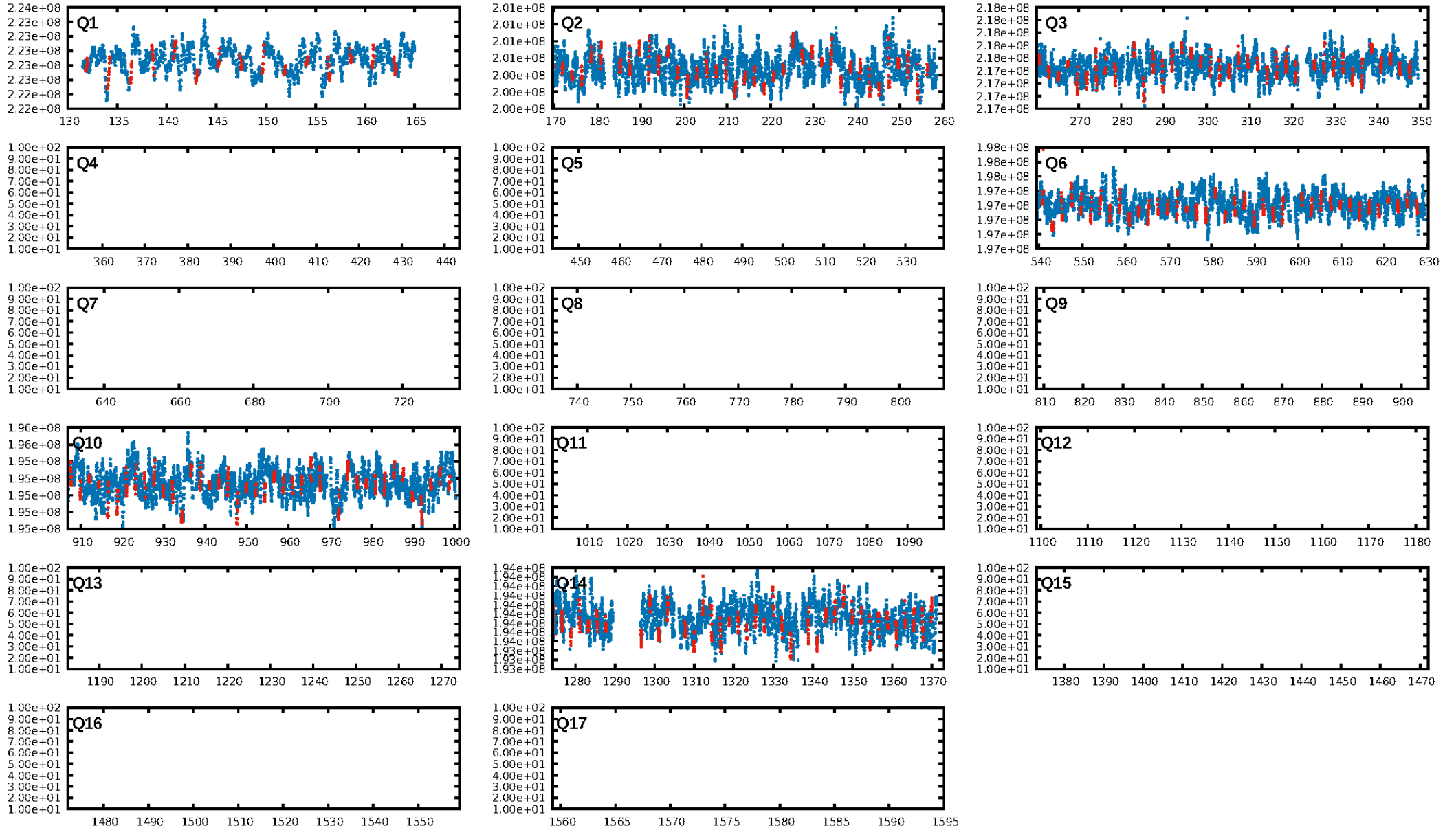
DV Fit Results:

Period = 2.22272 [0.00001] d
Epoch = 131.9003 [0.0010] BKJD
Rp/R* = 0.0164 [0.0028]
a/R* = 2.96 [1.64]
b = 0.90 [0.13]
Seff = N/A
Teq = N/A
Rp = 37.37 [17.00] Re
a = N/A
Ag = N/A
Teffp = N/A

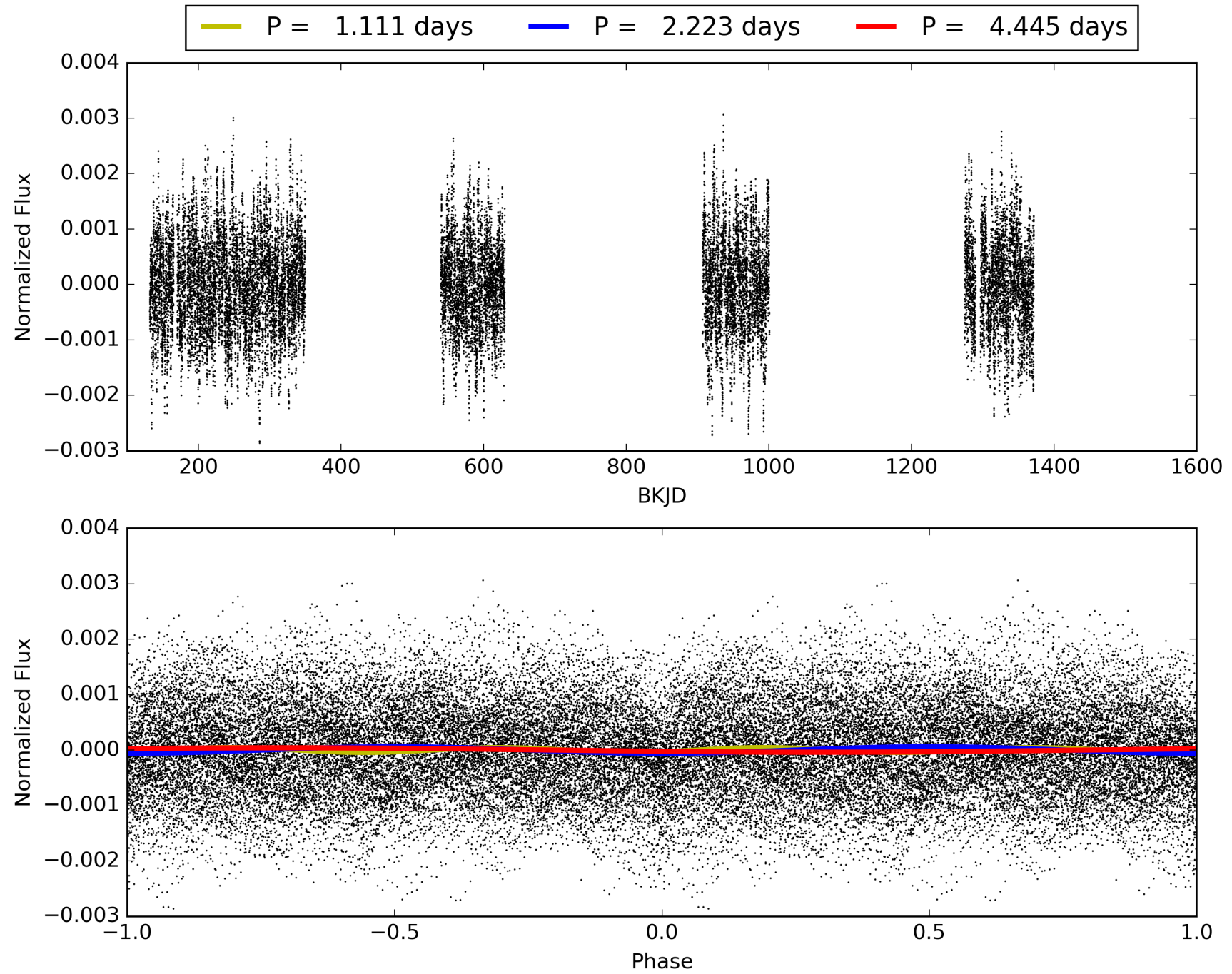
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.83e-40
RollingBand-fgt: 1.00 [193/193]
GhostDiagnostic-chr: -0.2417
Centroid-sig: 0.0%
Centroid-so: 92.253 arcsec [177.87σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [6/6]

TCE 001434395-01, PDC Light Curves

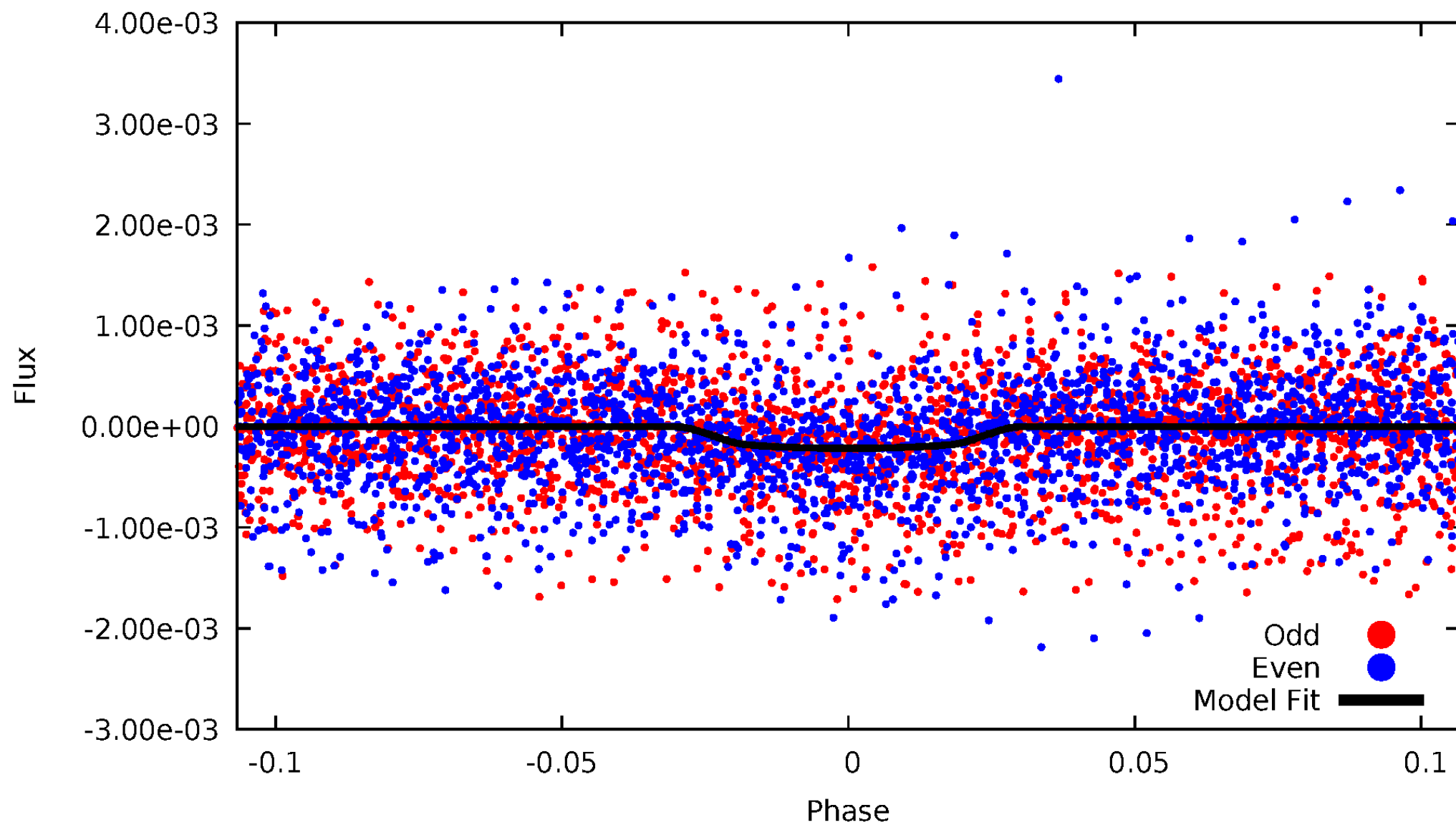


TCE 001434395-01



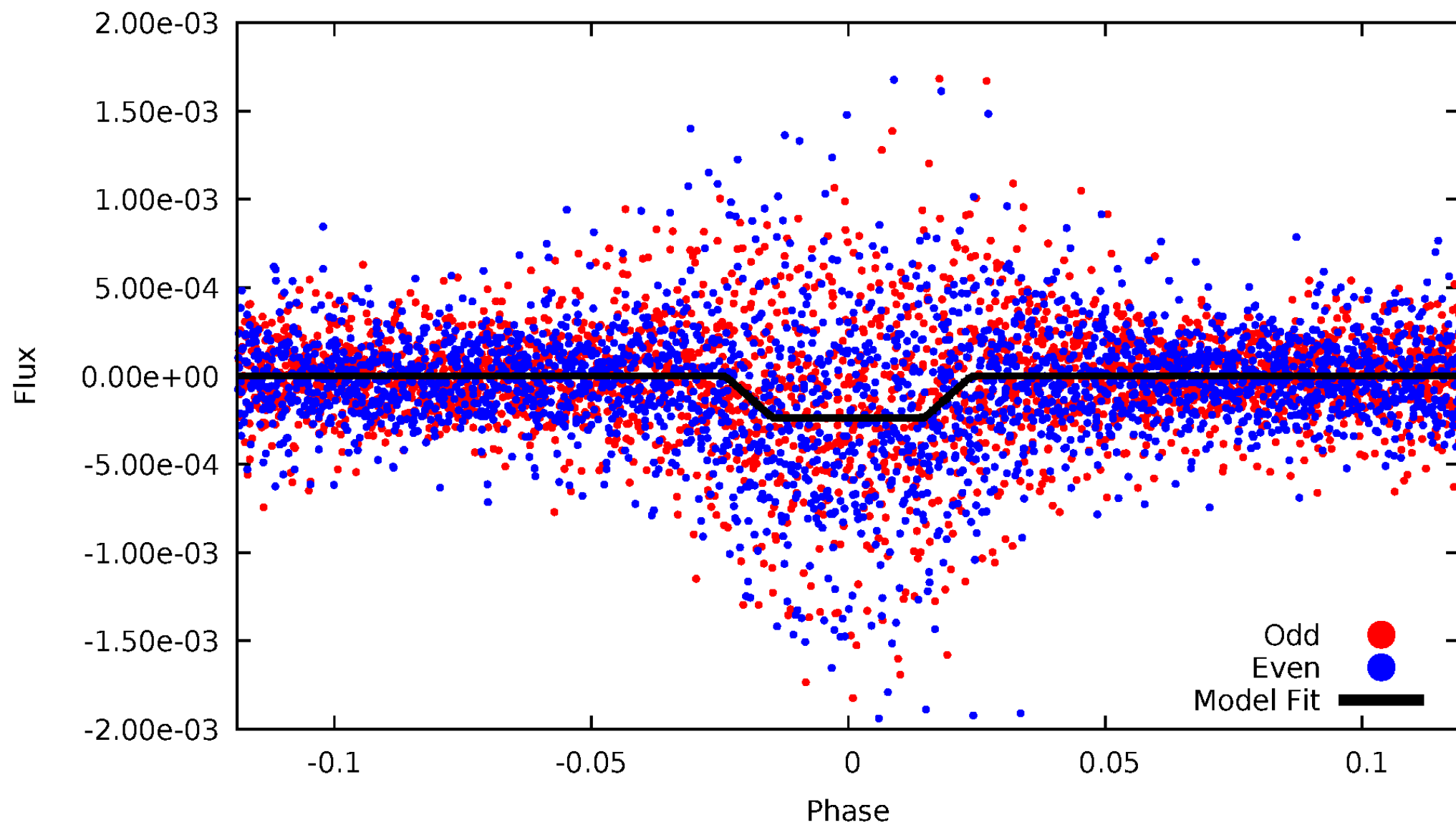
DV Odd/Even

TCE 001434395-01

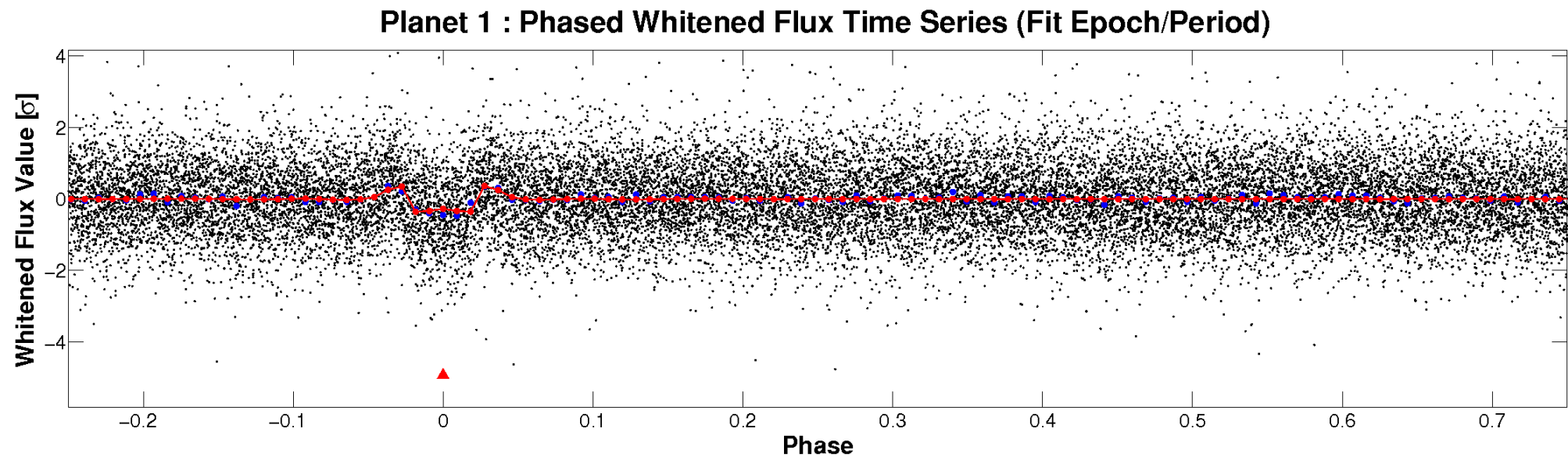
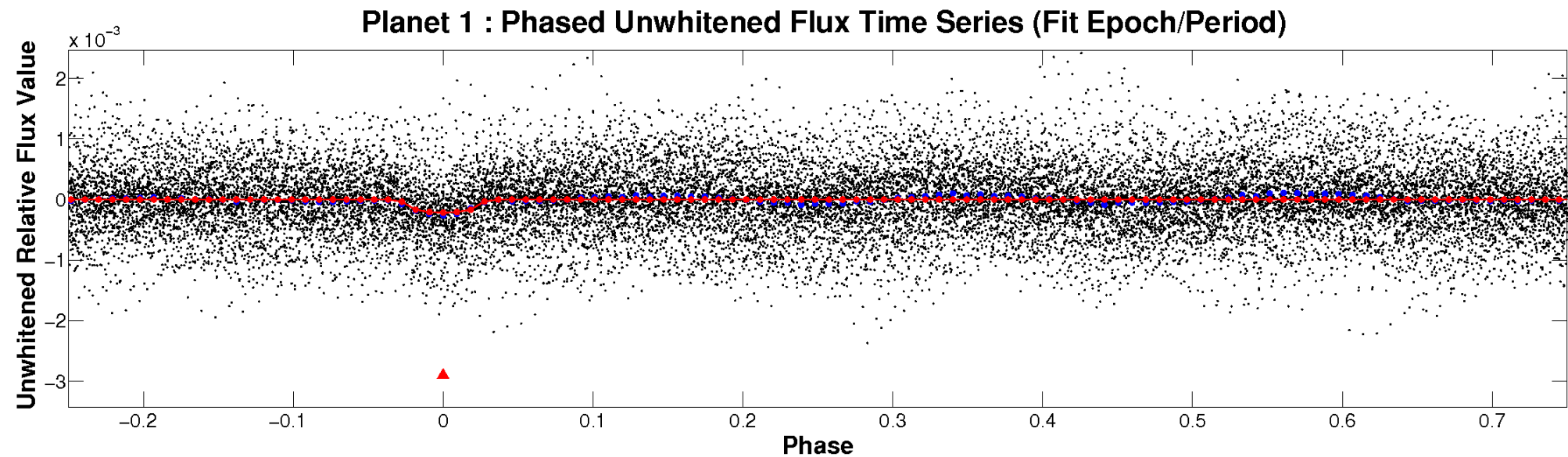


ALT Odd/Even

TCE 001434395-01

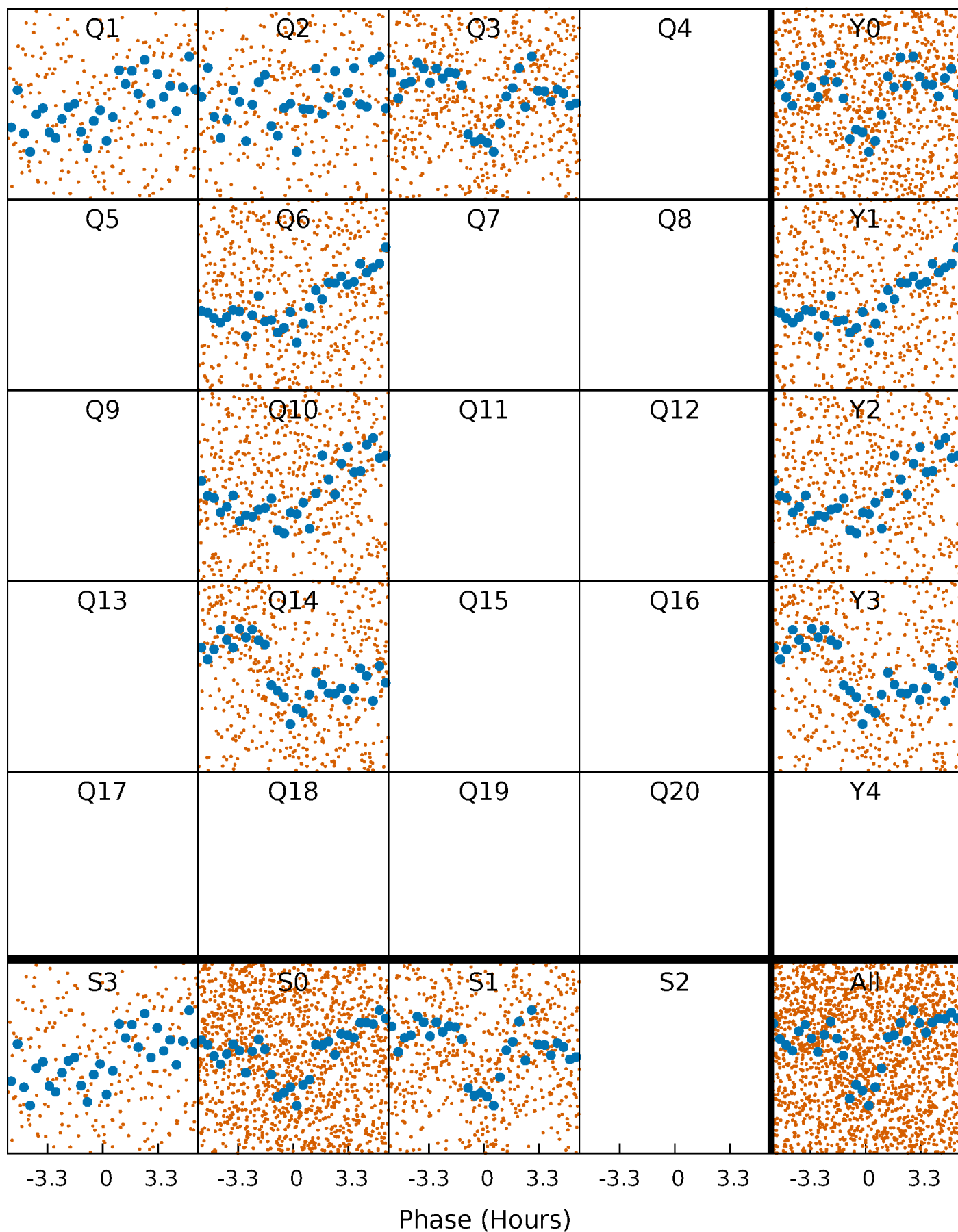


Non-Whitened Vs. Whitened Light Curve



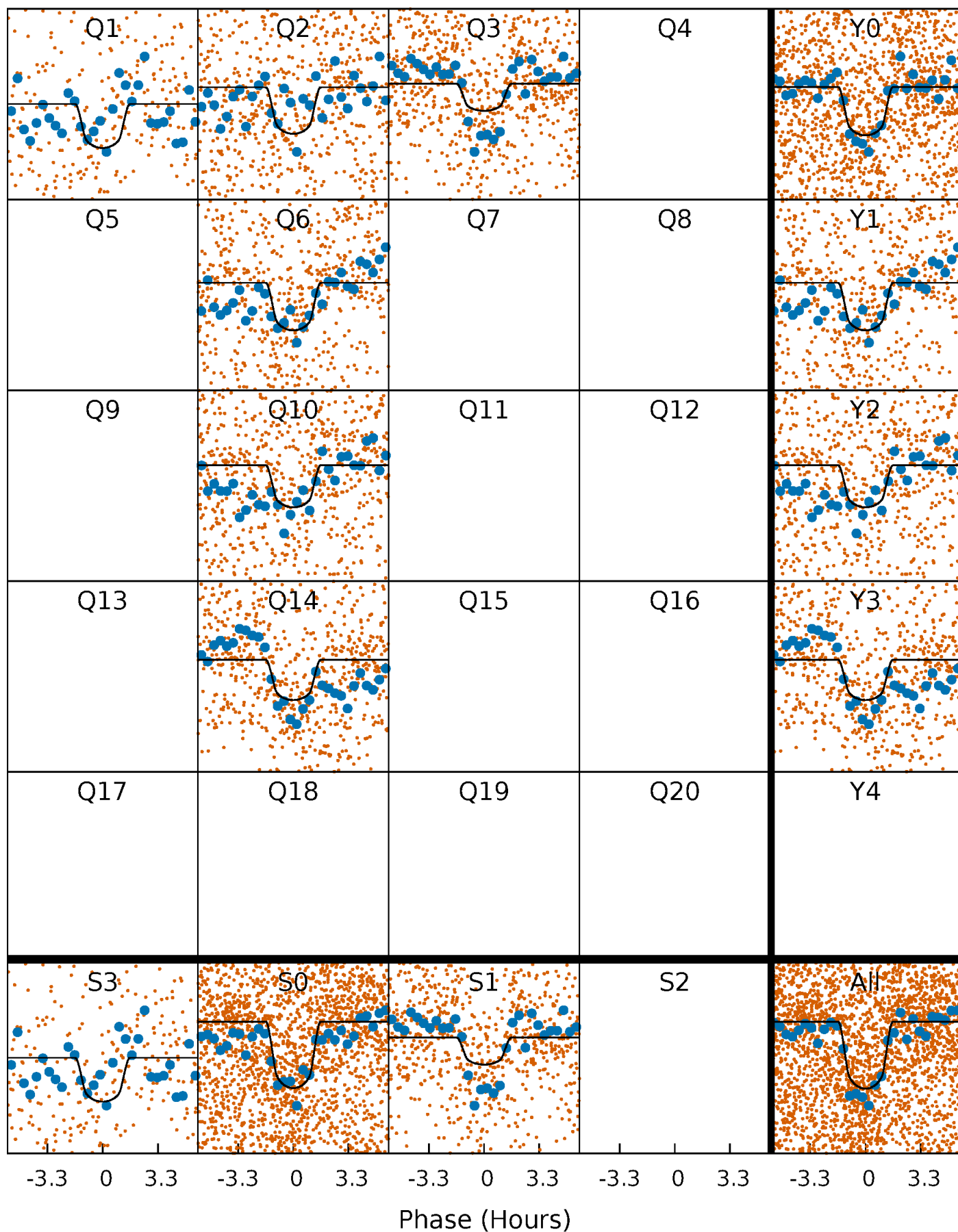
PDC Quarter-Phased Transit Curves

TCE 001434395-01 P= 2.222722 Days $T_0=131.900280$ (BKJD)



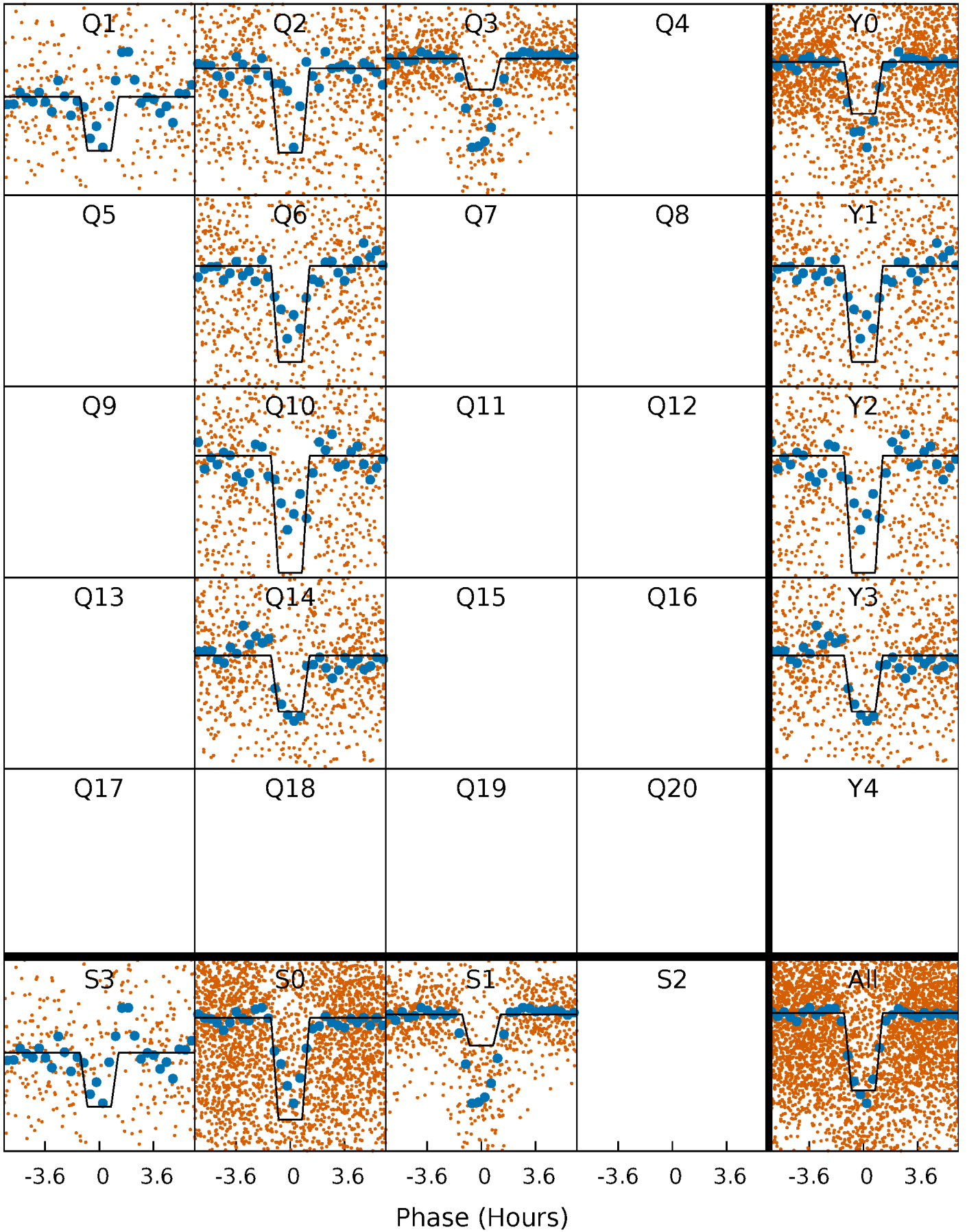
DV Quarter-Phased Transit Curves

TCE 001434395-01 P= 2.222722 Days $T_0=131.900280$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

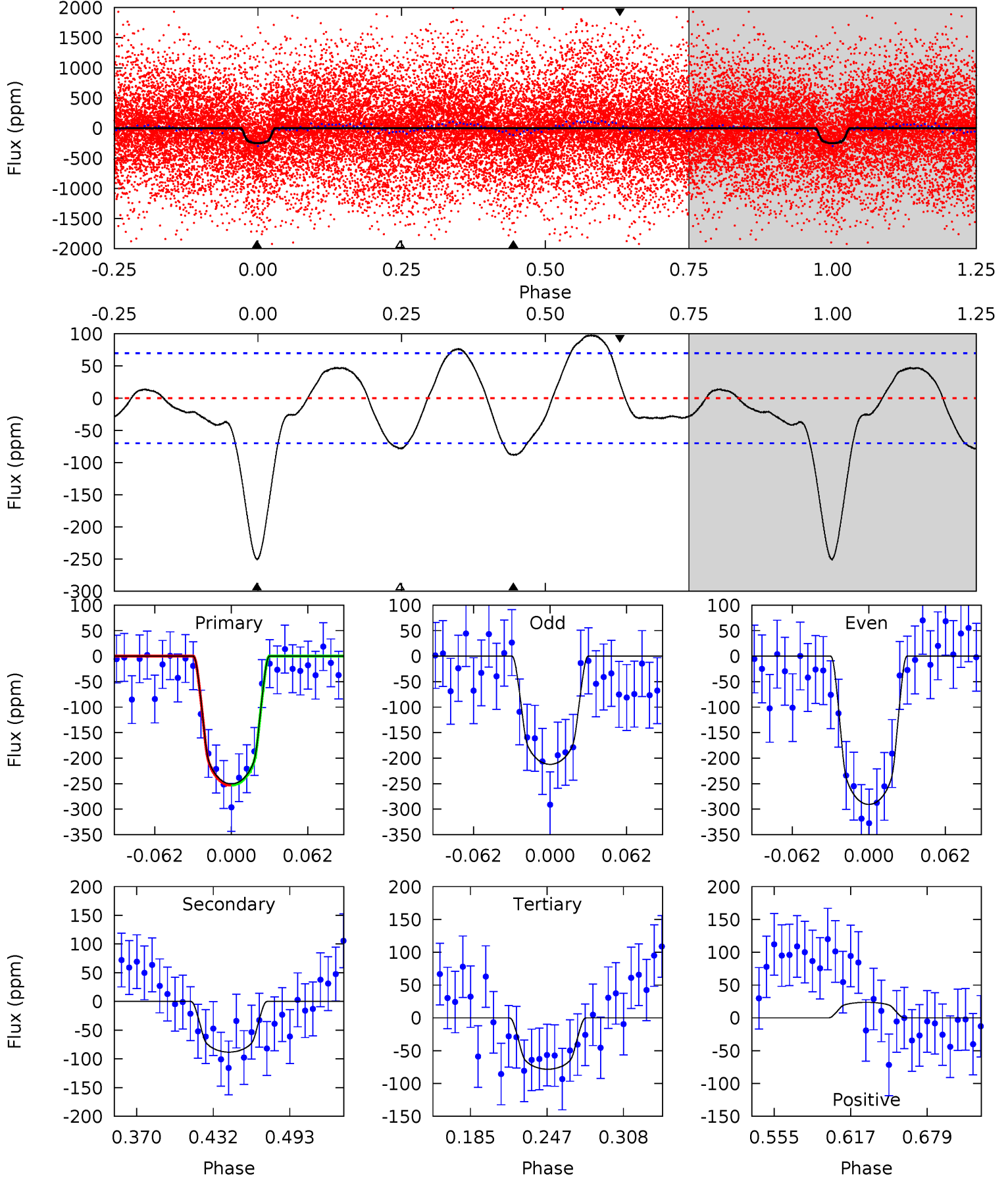
TCE 001434395-01 P= 2.222705 Days $T_0=131.901558$ (BKJD)



DV Model-Shift Uniqueness Test

001434395-01, P = 2.222722 Days, E = 129.677558 Days

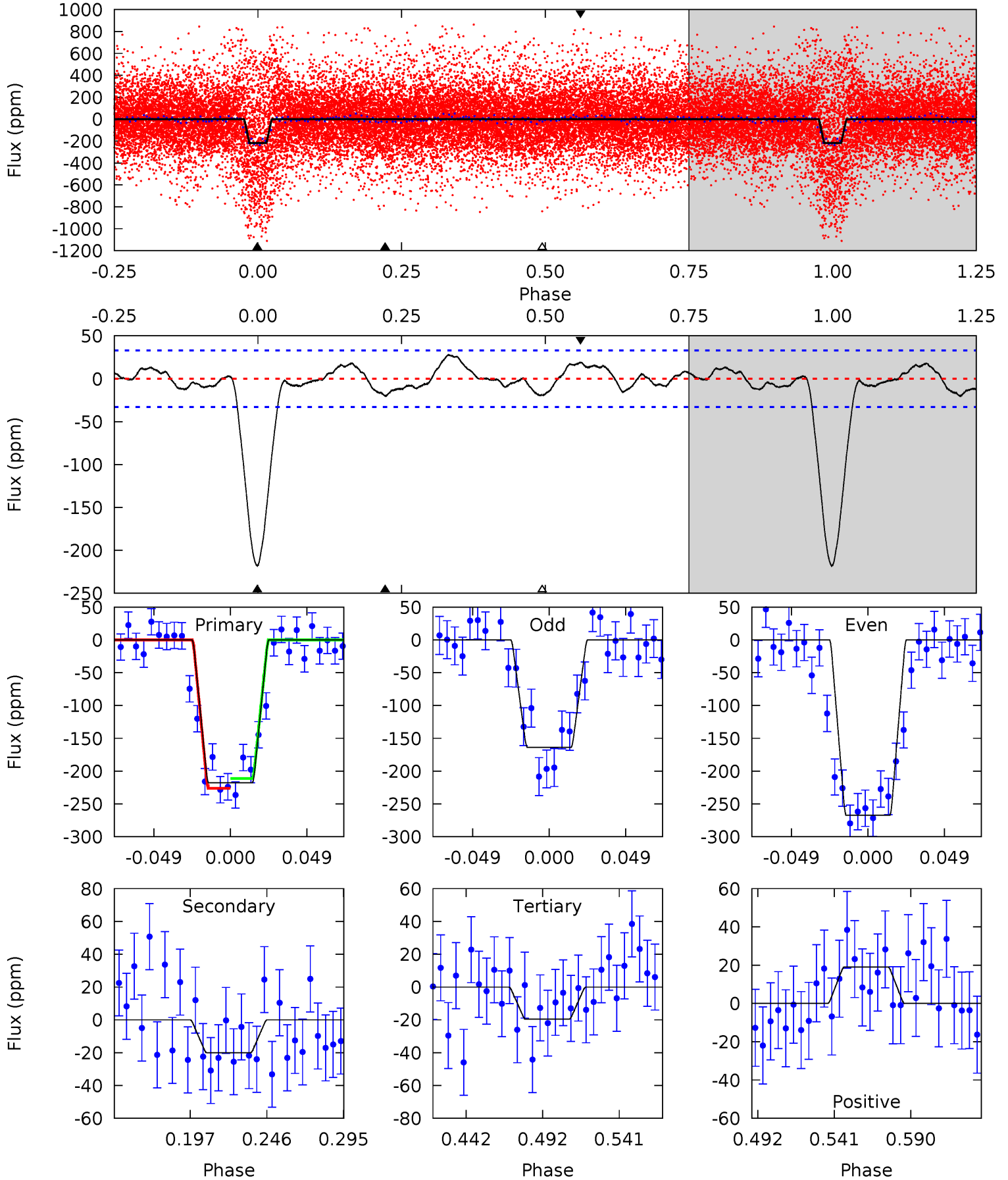
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	5.88	5.22	1.58	4.67	1.87	3.01	11.5	15.1	0.66	4.30	2.62	1.13	0.28	0.01



Alt Model-Shift Uniqueness Test

001434395-01, P = 2.222705 Days, E = 129.678853 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.2	2.86	2.79	2.72	4.71	1.97	1.49	28.4	28.4	0.08	0.14	7.34	0.93	0.11	1.07



Stellar Parameters For KIC 001434395

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4996^{+107}_{-250}	$2.354^{+0.027}_{-0.030}$	$0.070^{+0.150}_{-0.650}$	$20.848^{+0.464}_{-8.811}$	$3.584^{+0.072}_{-2.308}$	$0.001^{+0.000}_{-0.000}$
	+2%/-5%	+1%/-1%	+214%/-929%	+2%/-42%	+2%/-64%	+70%/-8%
Source	PHO1	AST9	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 001434395-01 / KOI 7623.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-88 ± 15	$37.55^{+6.75}_{-6.79}$	6234^{+168}_{-299}	-4676^{+313}_{-221}	$0.089^{+0.048}_{-0.028}$
Alt.	-20 ± 7	$35.37^{+6.66}_{-7.03}$	6236^{+169}_{-299}	-4985^{+251}_{-158}	$0.023^{+0.016}_{-0.009}$

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 $A_{obs} \gg 1.0$

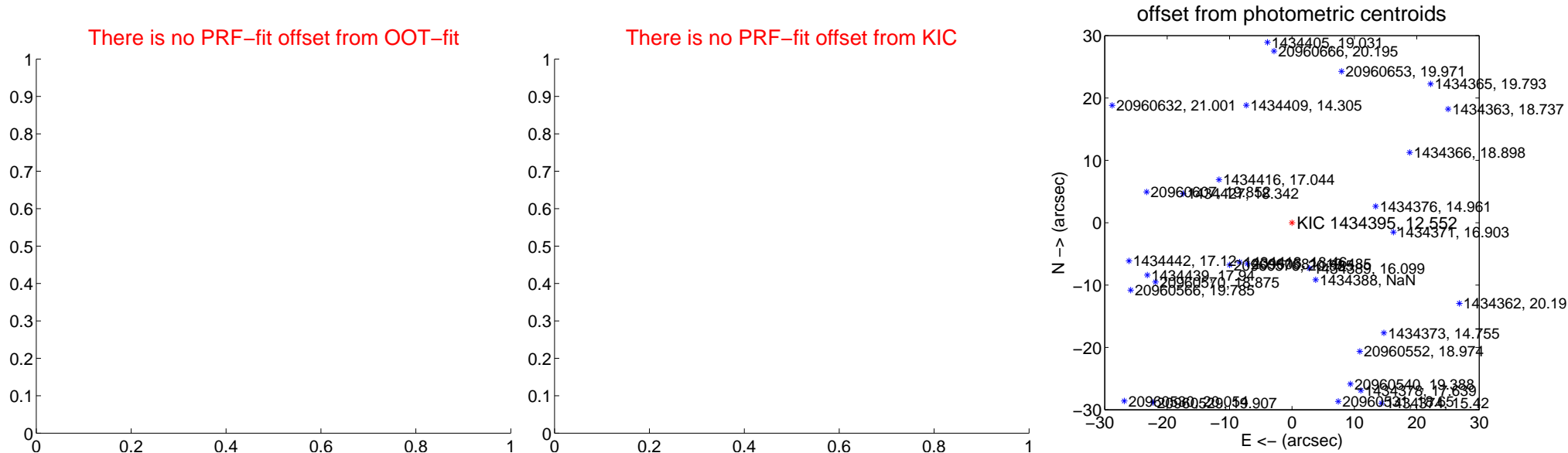
DV Centroid Data

Supplemental centroid analysis for 001434395-01. Kepler magnitude: 12.55. Transit SNR 14.15

There are 0 quarters with good PRF difference image offsets

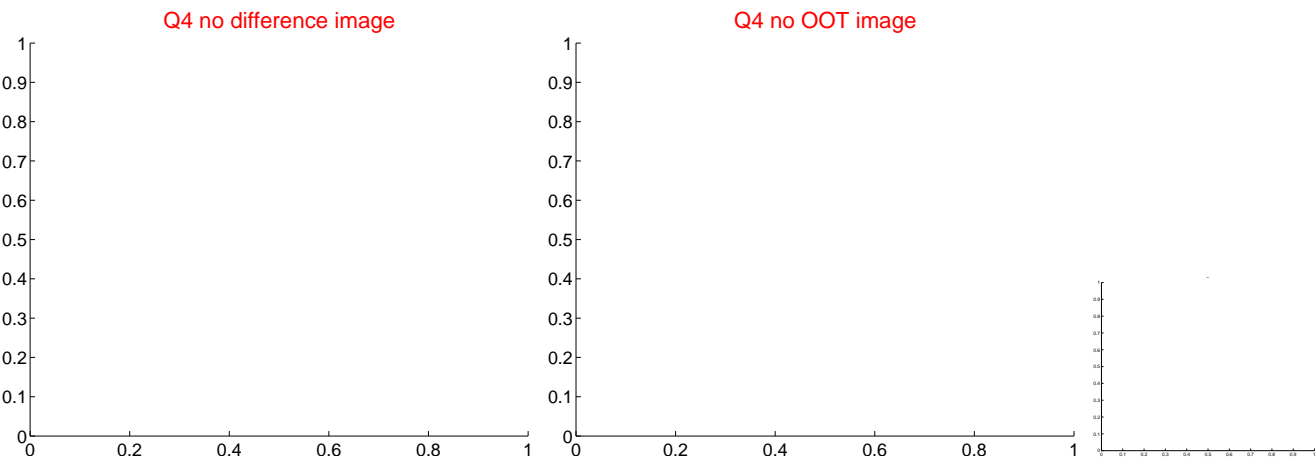
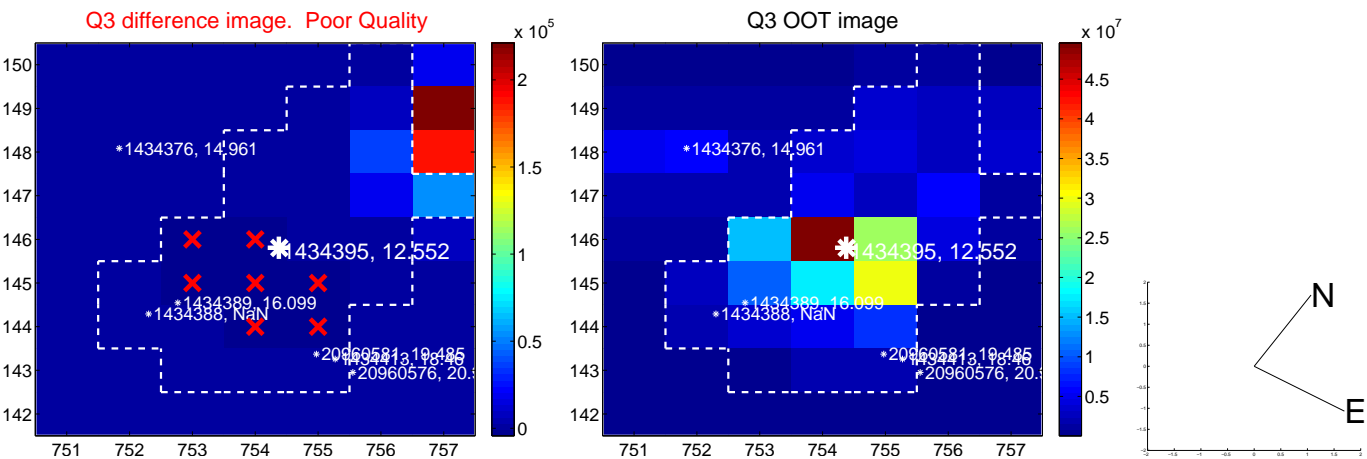
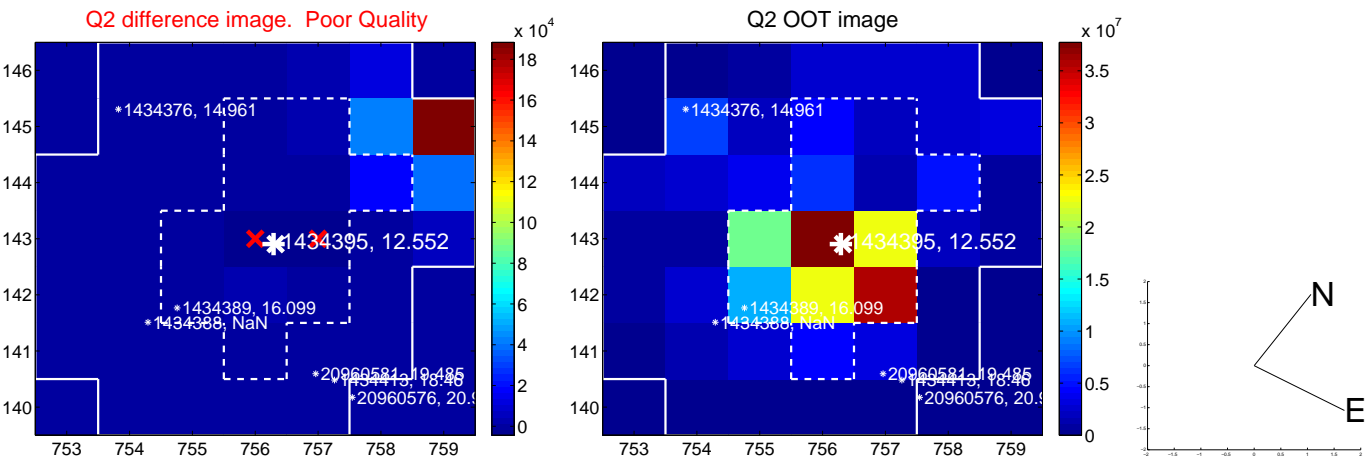
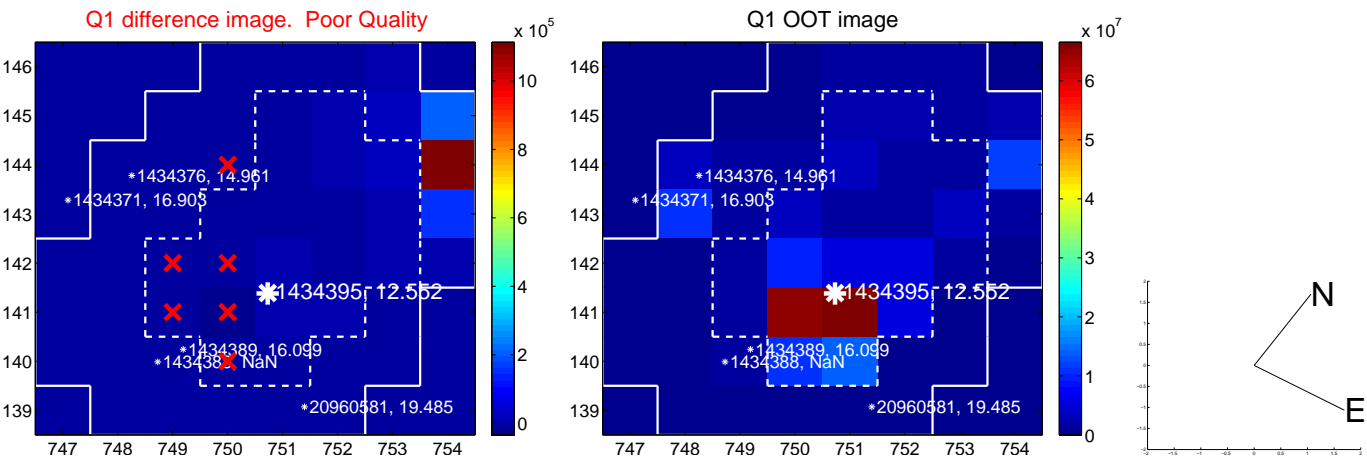
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	92.25 \pm 0.52	177.86	31.31 \pm 0.36	86.77 \pm 0.54

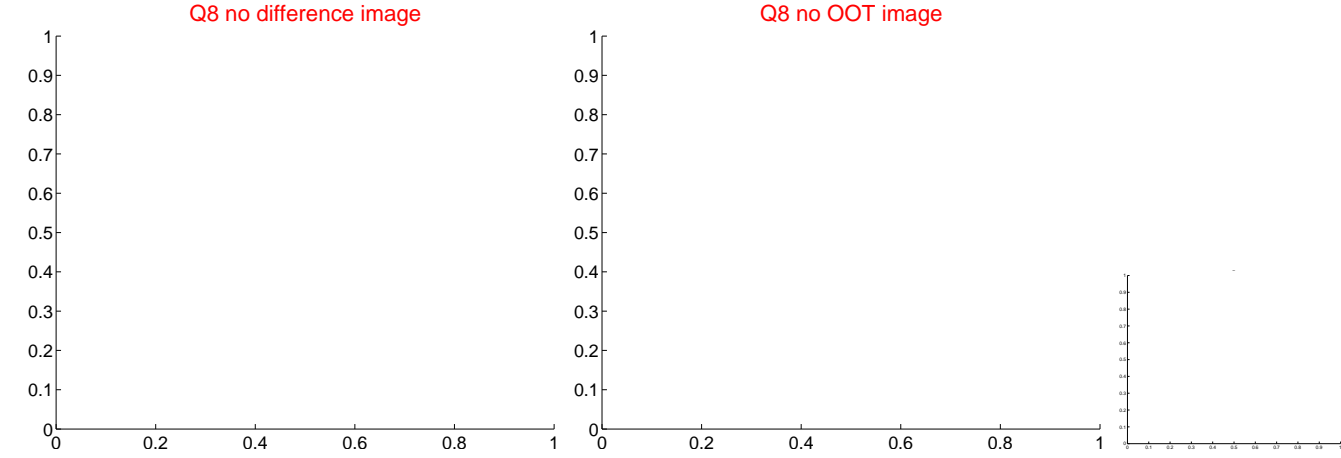
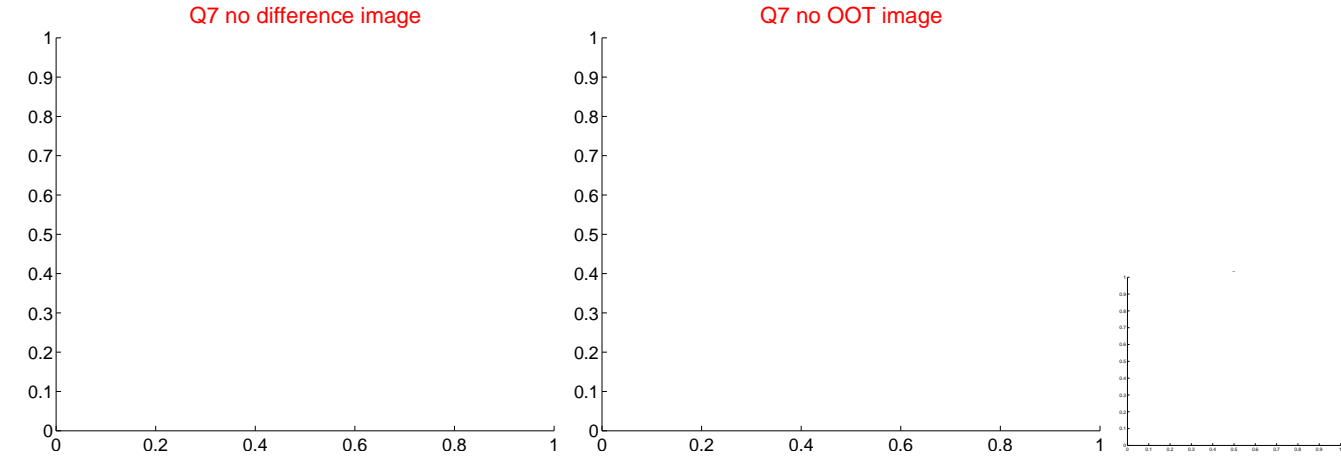
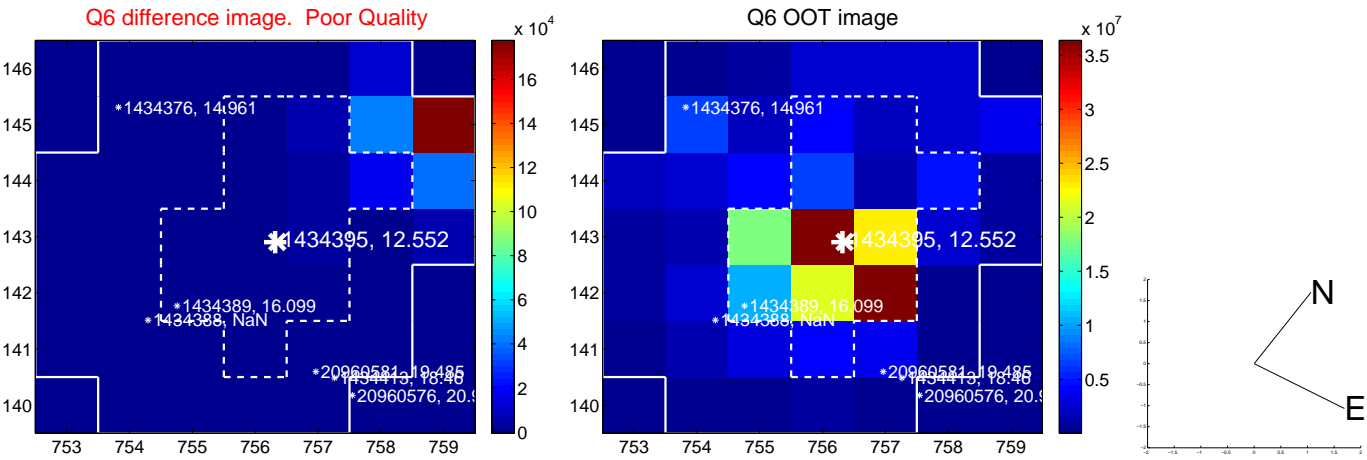


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

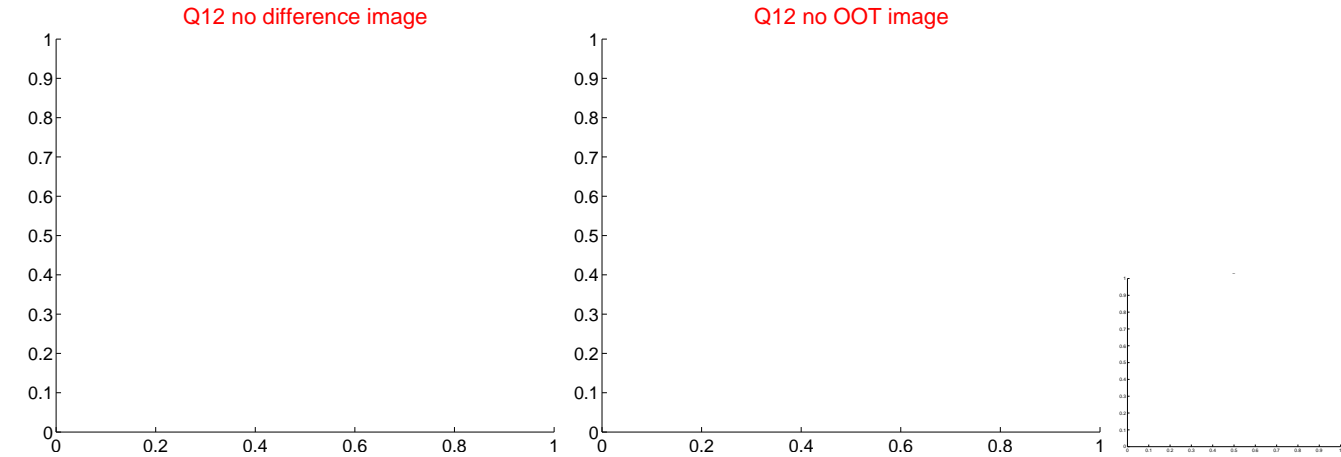
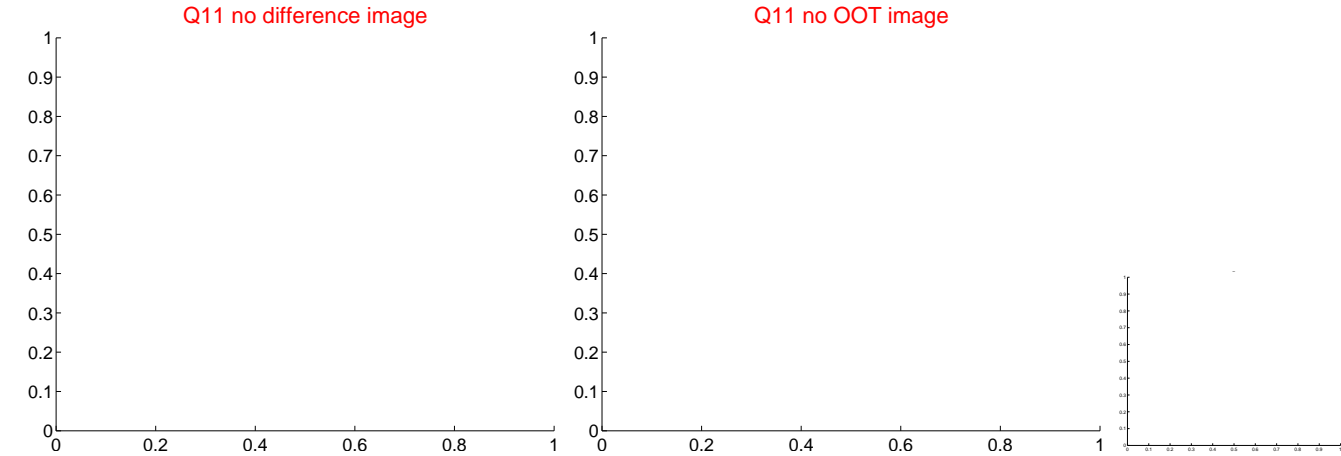
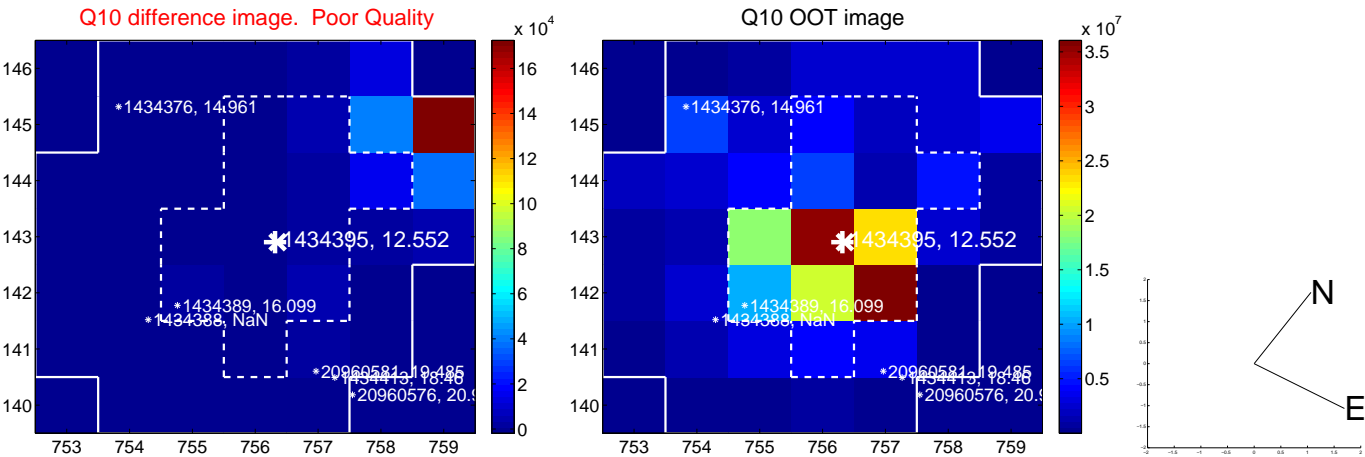
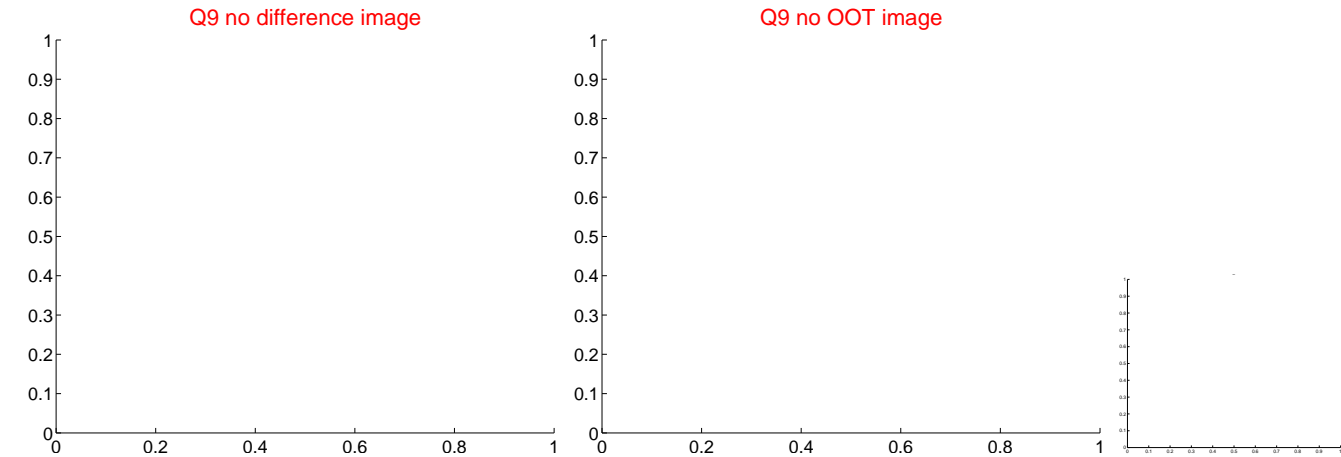
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



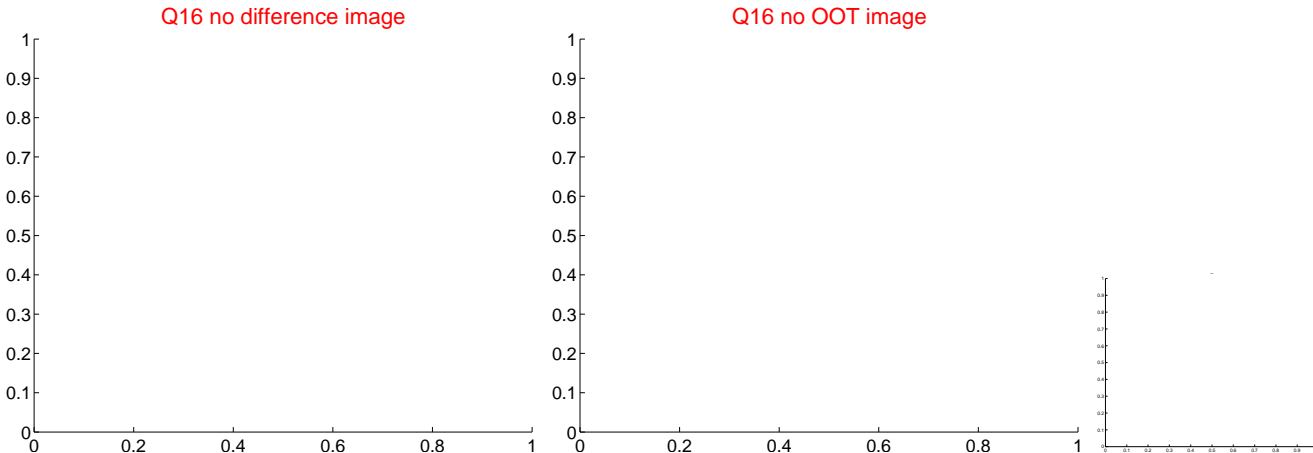
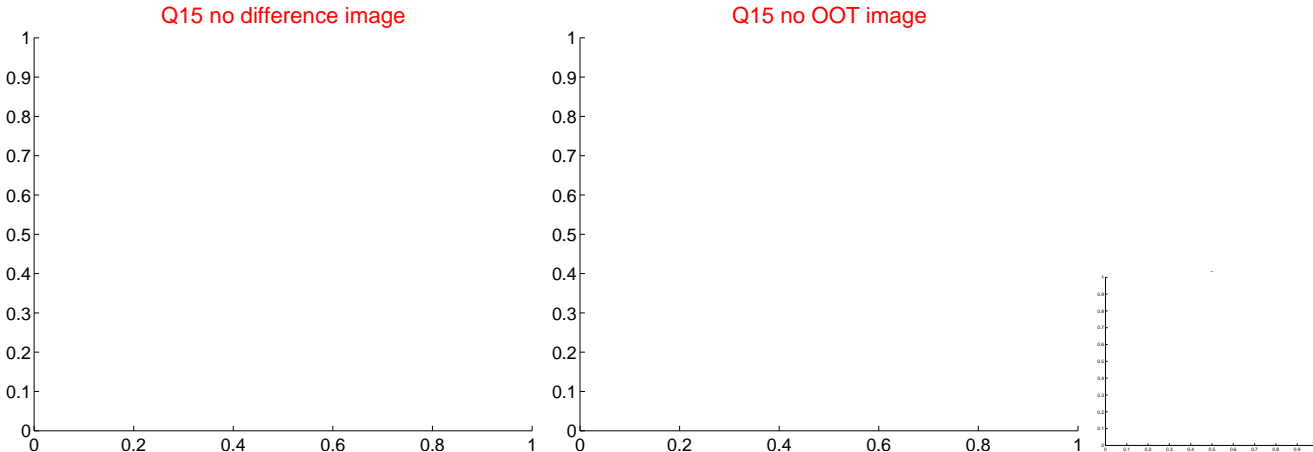
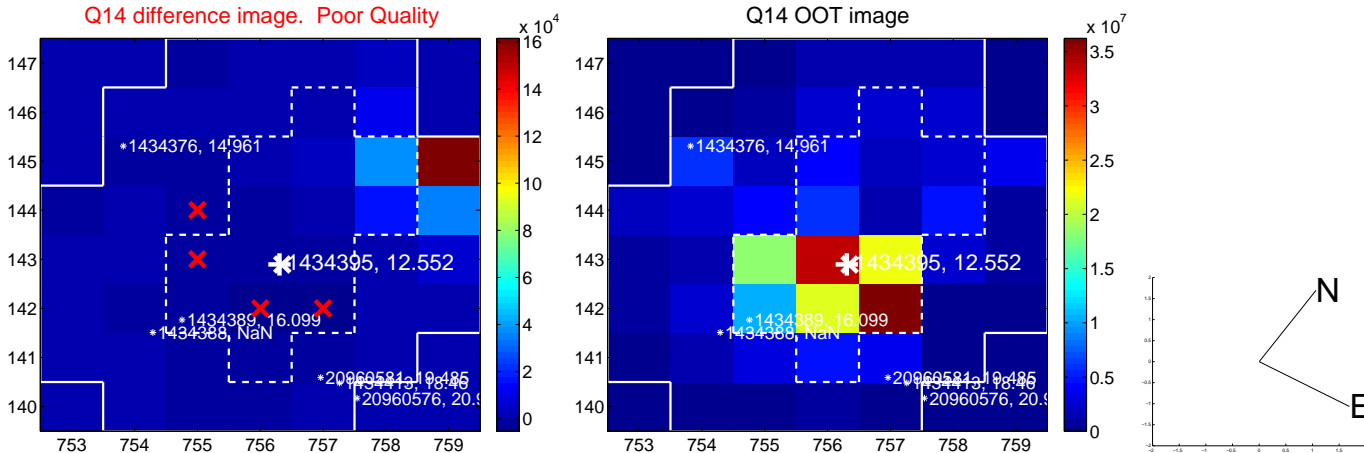
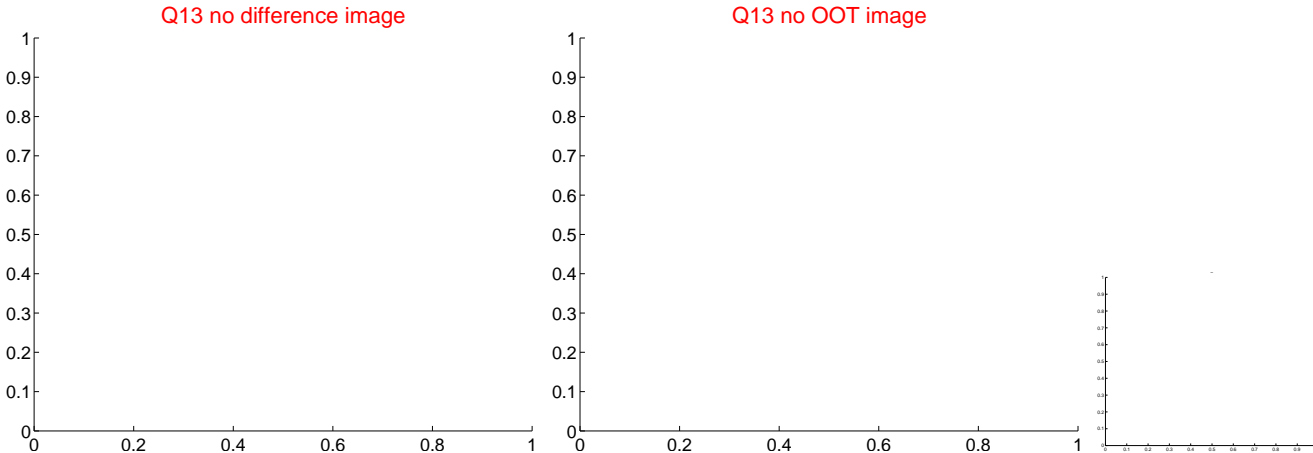
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



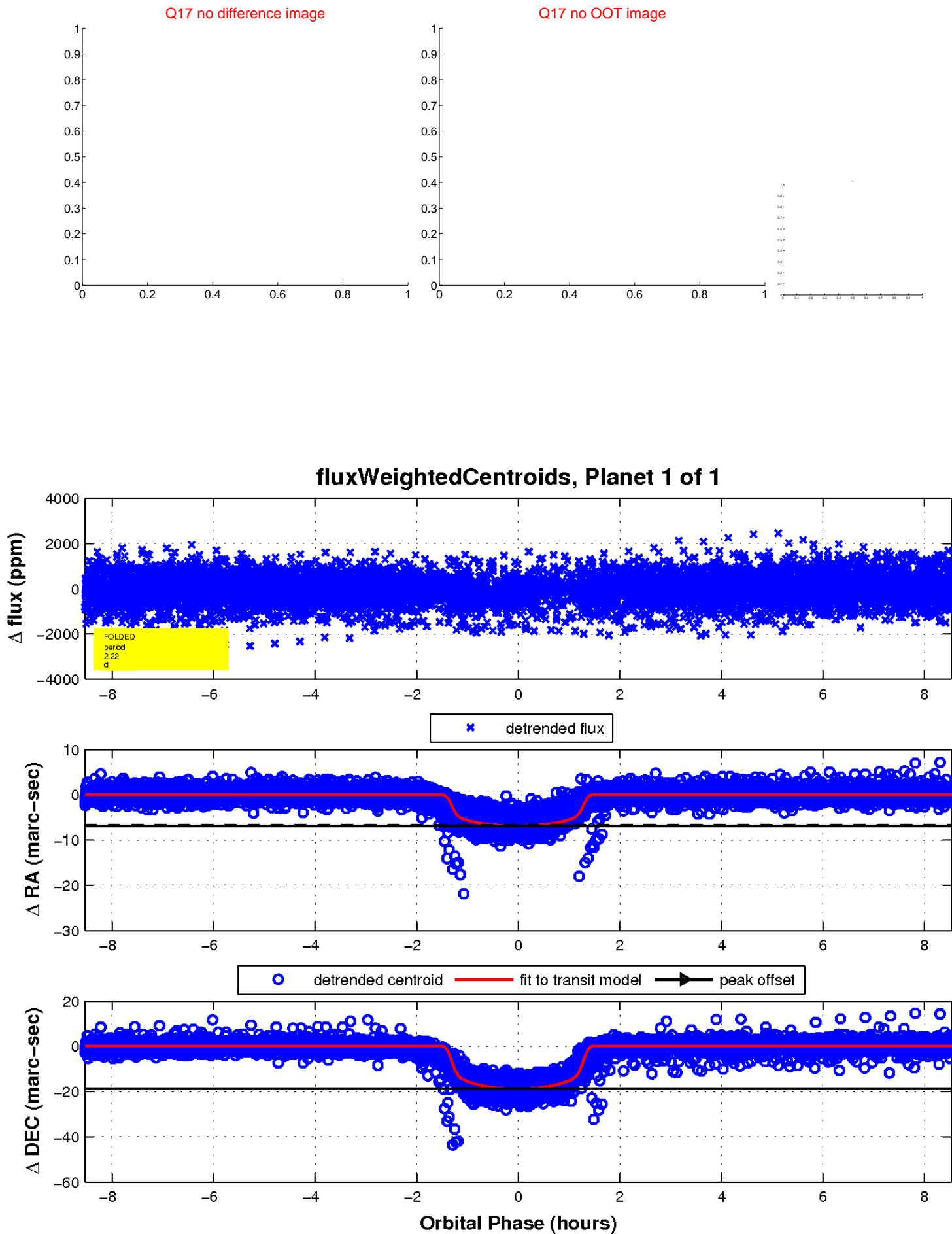
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UKIRT Image

Declination

