

KIC 005095232

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})
005095232-01	OBS	No	566.851751	439.673648	239.9	5.257	10.7	8.2	0.74	4857	1.25	0.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005095232-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS

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

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

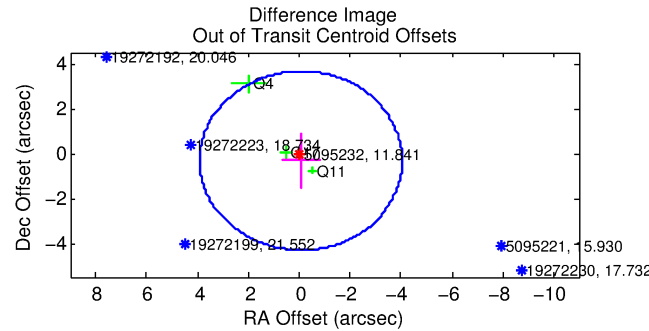
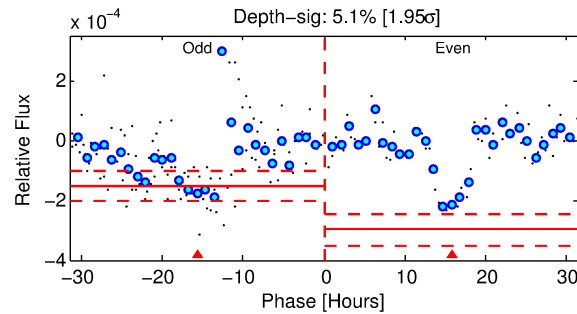
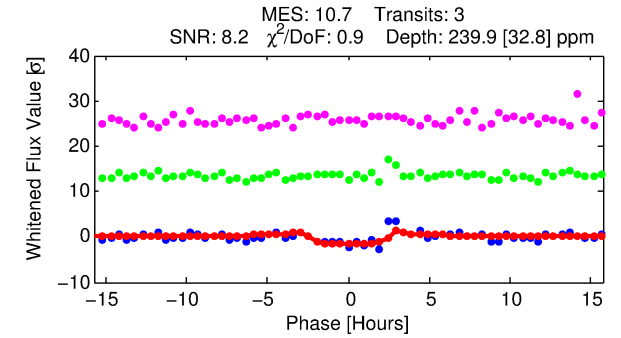
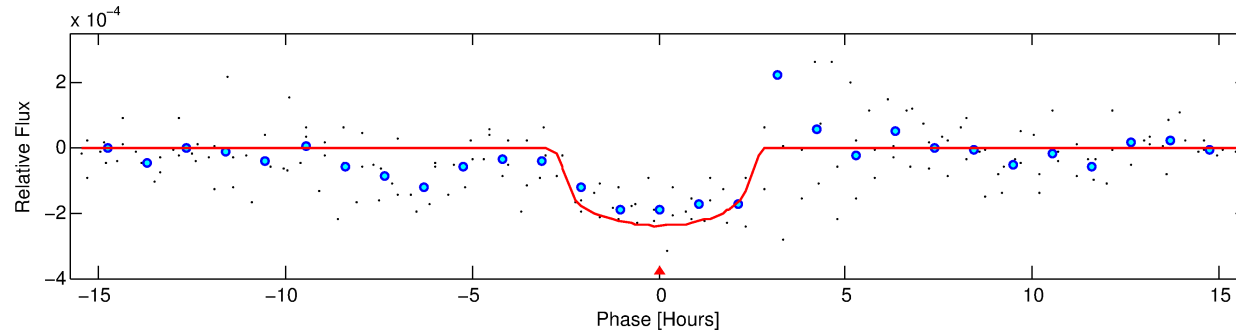
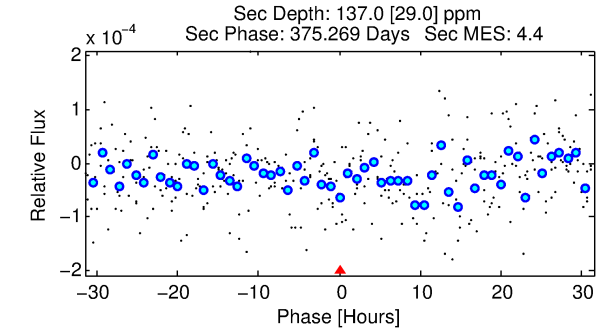
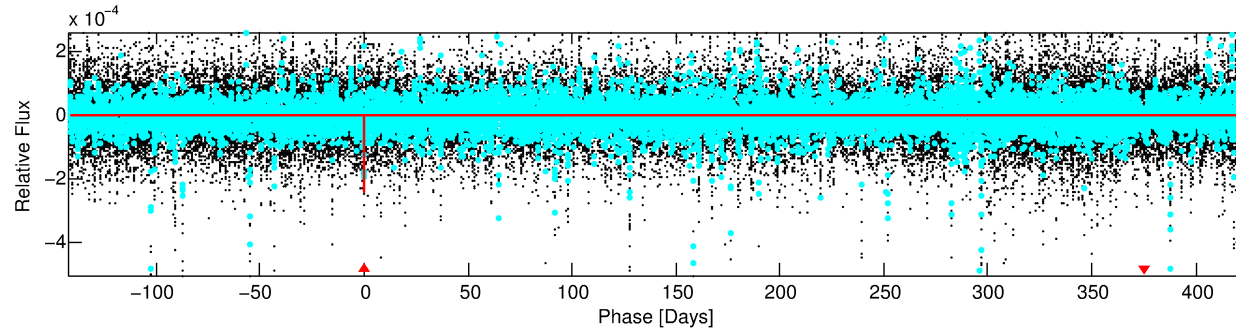
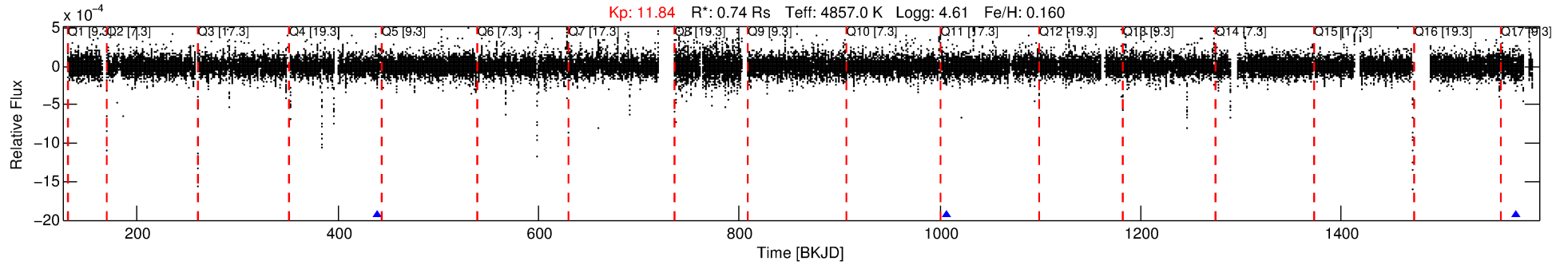
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005095232-01

No Significant Match Found

DV One-Page Summary

KIC: 5095232 Candidate: 1 of 1 Period: 566.852 d



DV Fit Results:

Period = 566.85175 [0.00558] d
Epoch = 439.6736 [0.0074] BKJD
Rp/R* = 0.0154 [0.0098]
a/R* = 574.52 [1257.70]
b = 0.74 [1.37]
Seff = 0.18 [0.02]
Teq = 165 [5] K
Rp = 1.25 [0.80] Re
a = 1.2512 [0.0704] AU
Ag = 75674.71 [98266.68] [0.77 σ]
Teffp = 4234 [1373] K [2.96 σ]

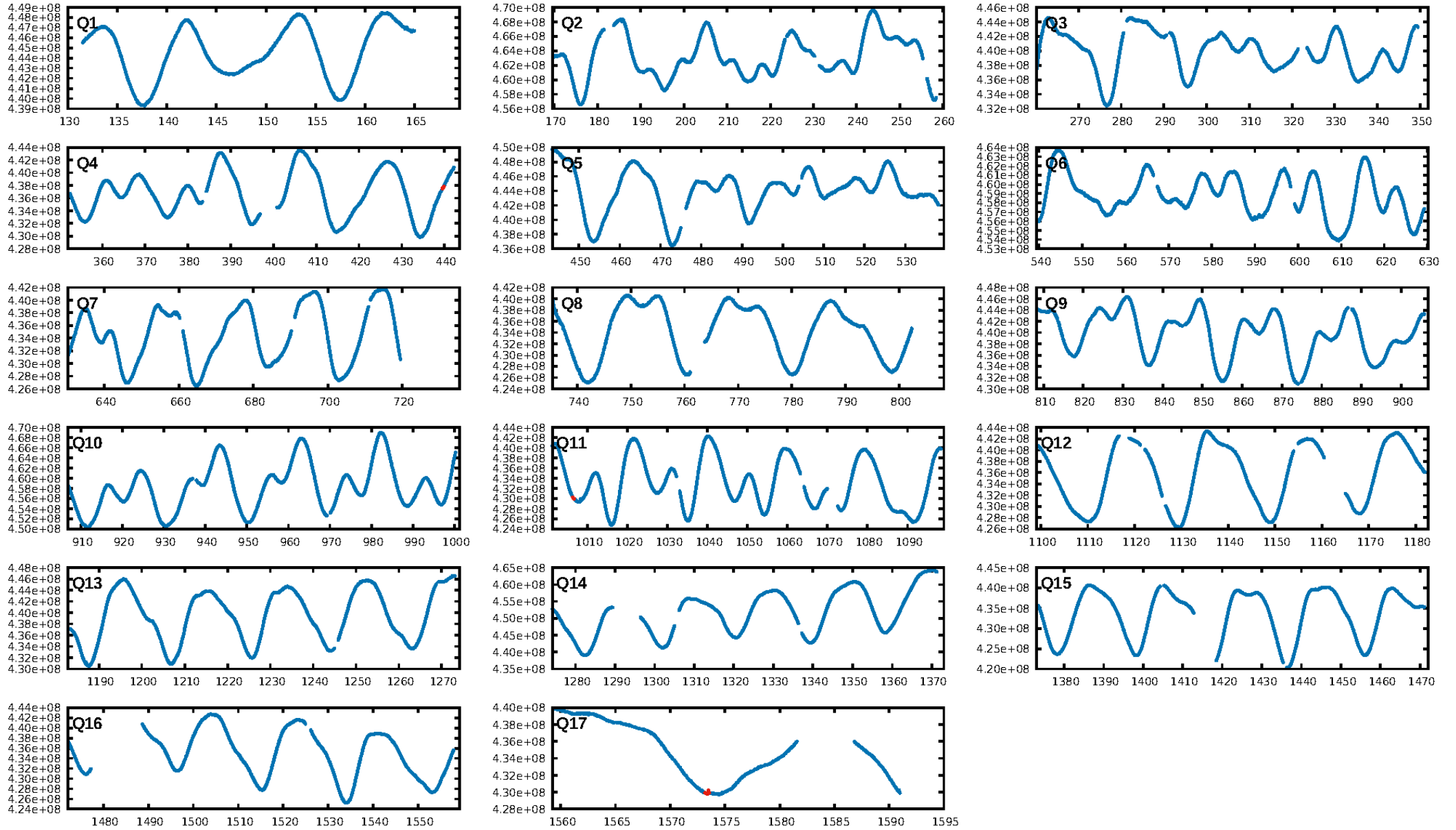
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.8%
ModelChiSquareGof-sig: 98.0%
Bootstrap-pfa: 3.14e-08
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: -0.6354
Centroid-sig: 13.6%
Centroid-so: 1.042 arcsec [1.25 σ]
OotOffset-rm: 0.331 arcsec [0.25 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-rm: 0.377 arcsec [0.74 σ]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

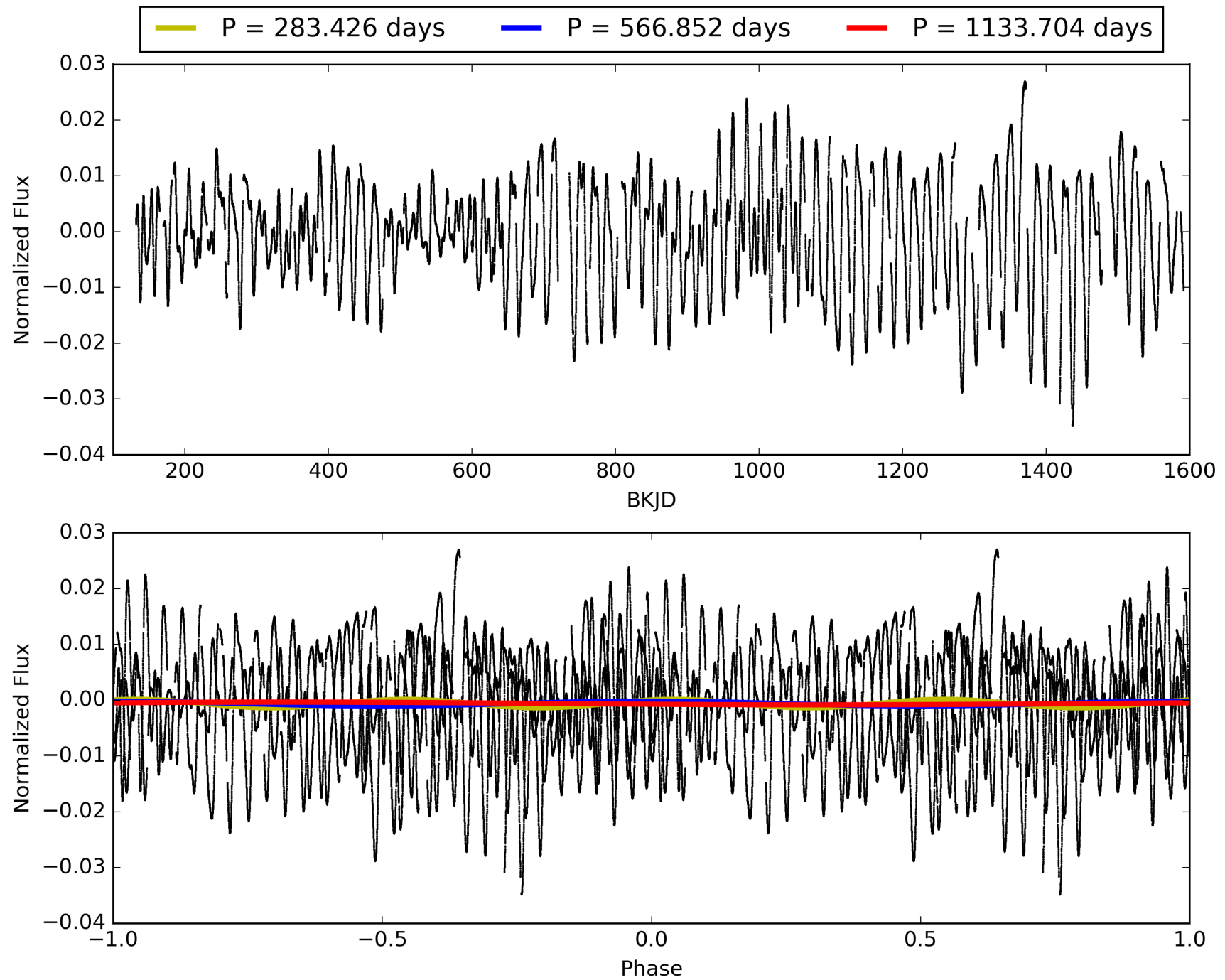
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 04:33:54 Z

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

TCE 005095232-01, PDC Light Curves

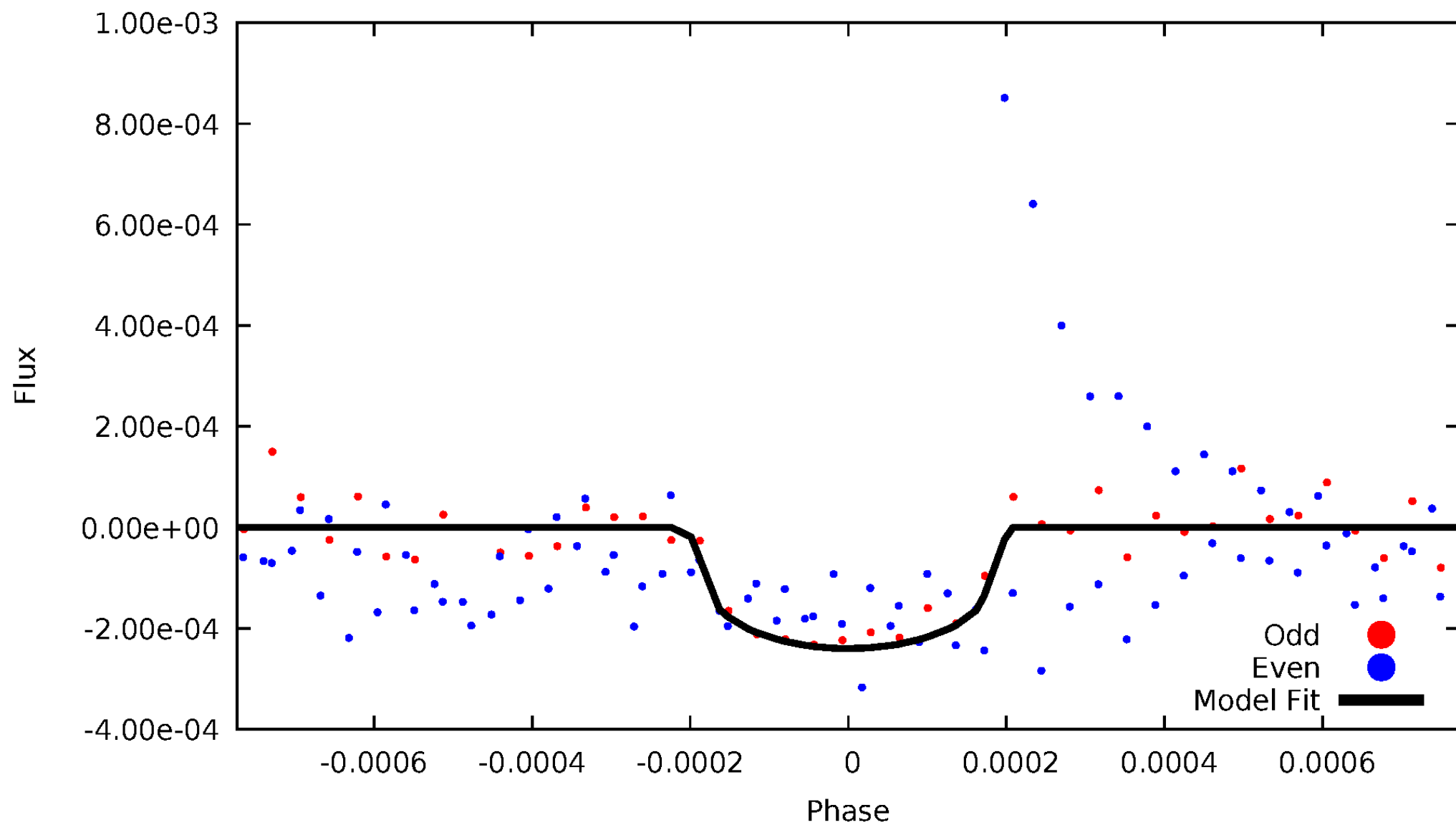


TCE 005095232-01



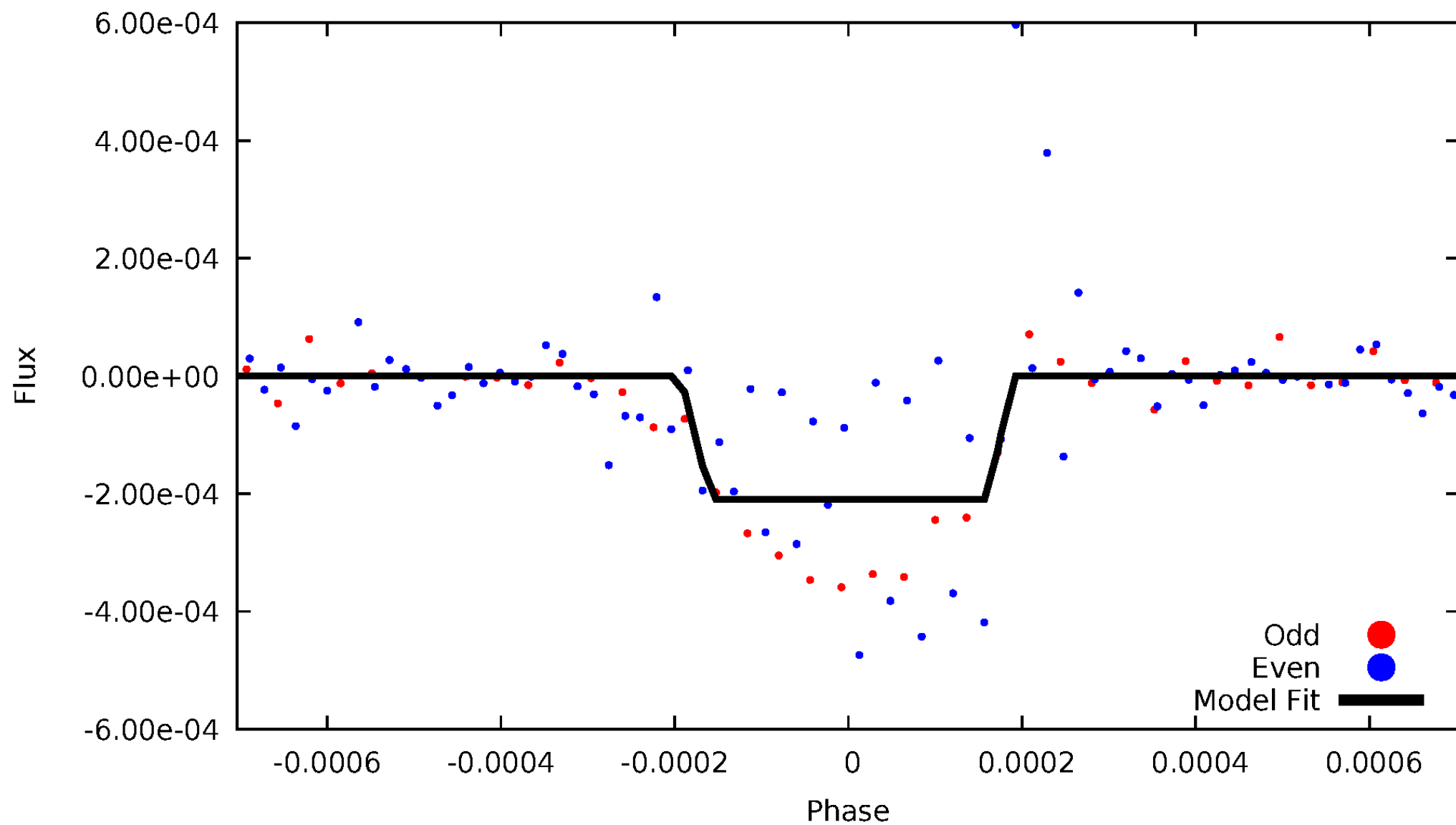
DV Odd/Even

TCE 005095232-01

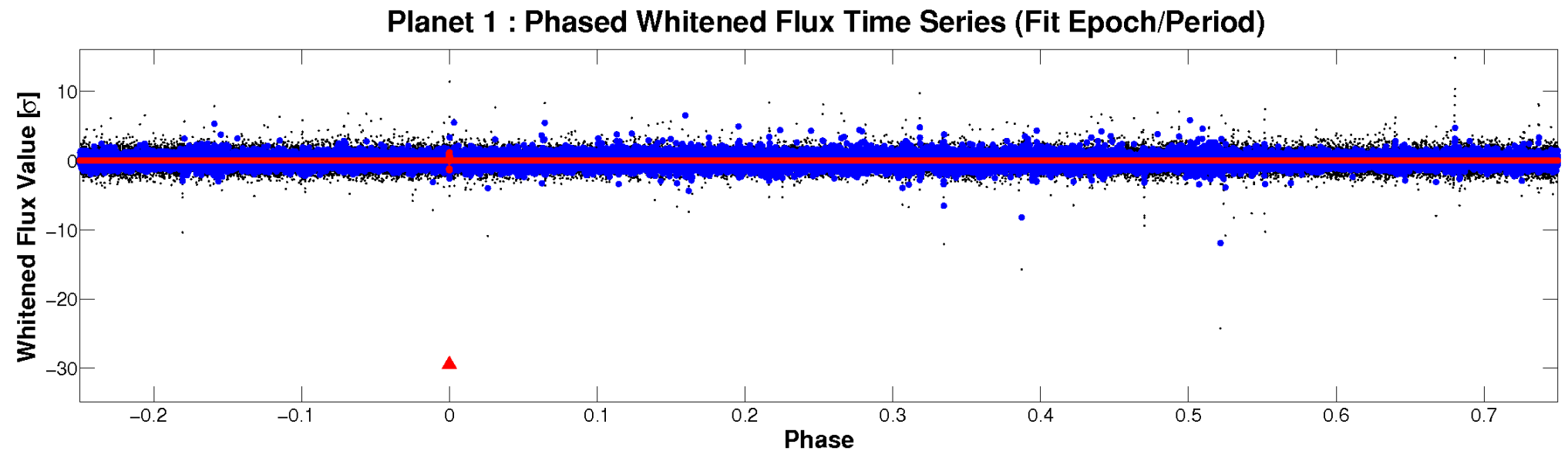
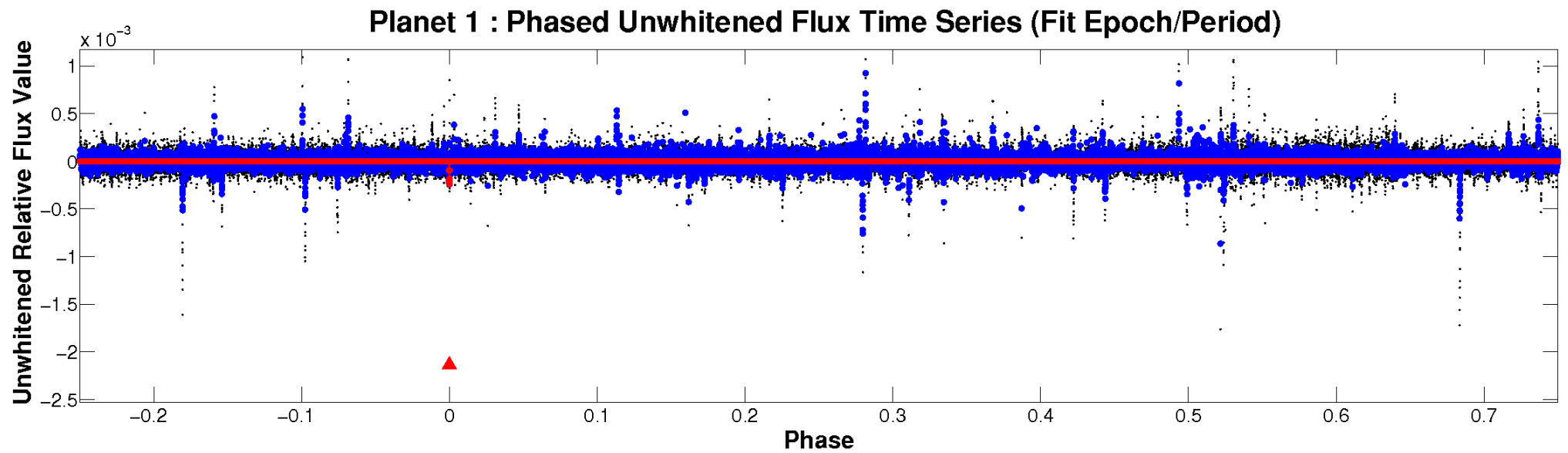


ALT Odd/Even

TCE 005095232-01

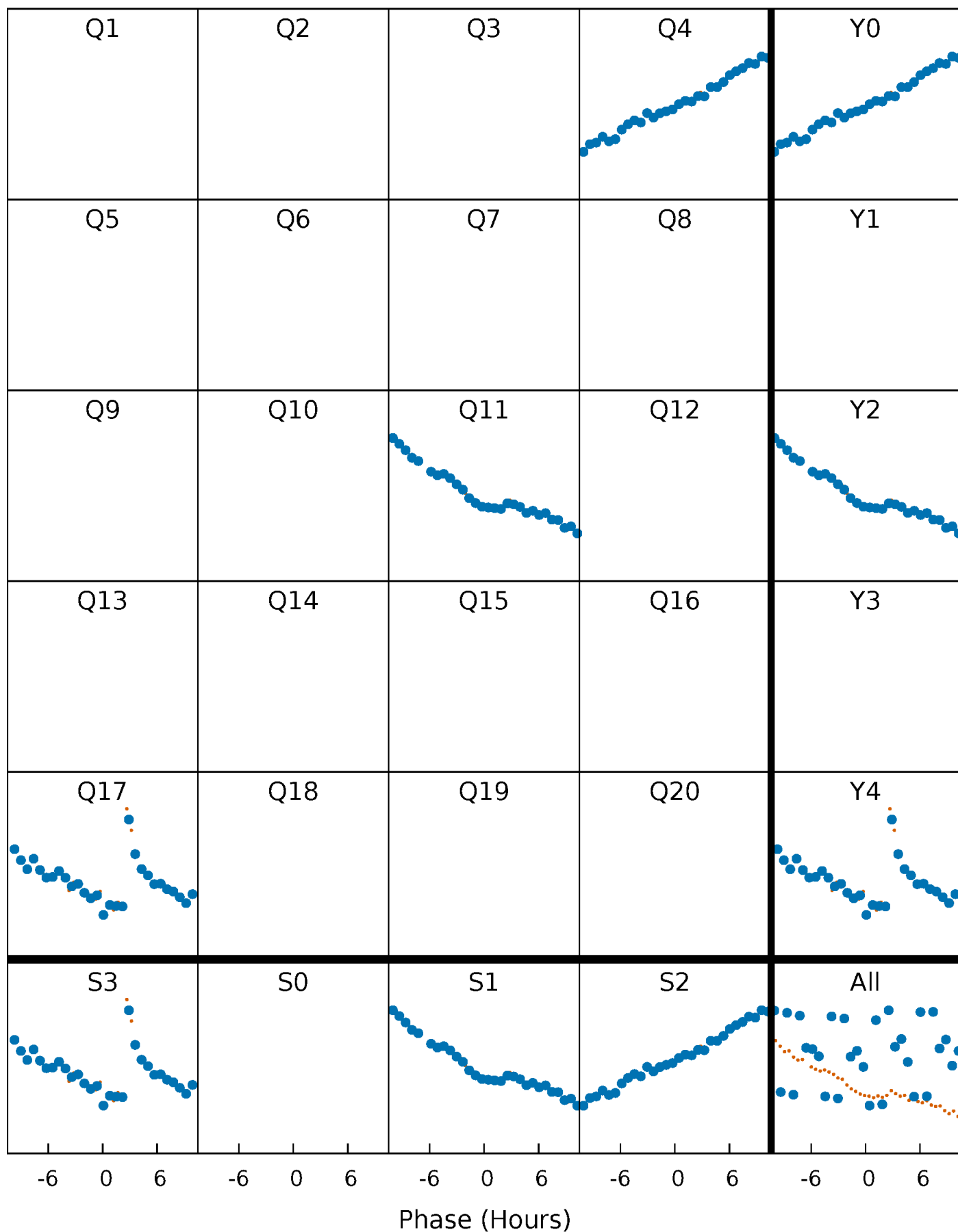


Non-Whitened Vs. Whitened Light Curve



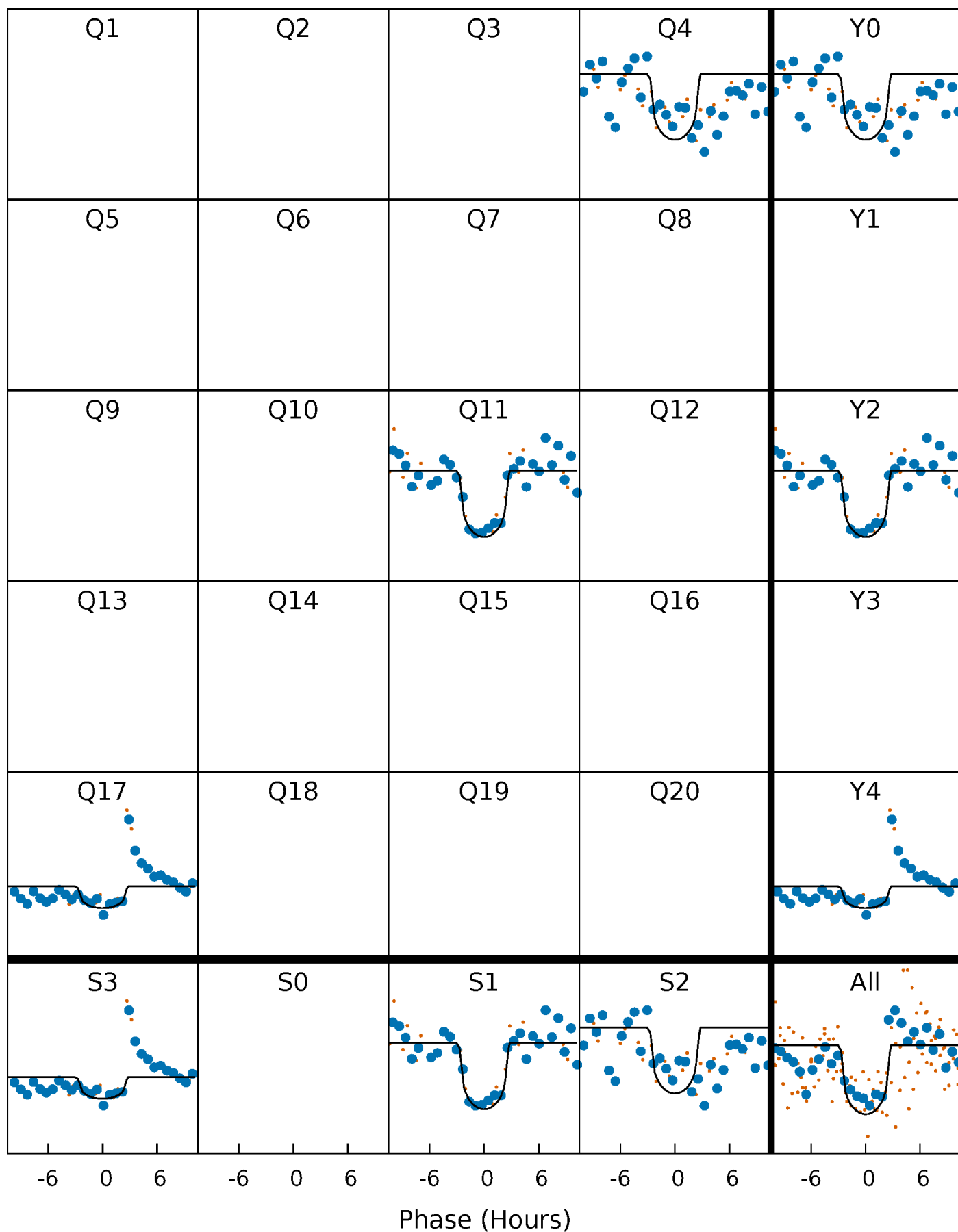
PDC Quarter-Phased Transit Curves

TCE 005095232-01 P=566.851751 Days $T_0=439.673648$ (BKJD)



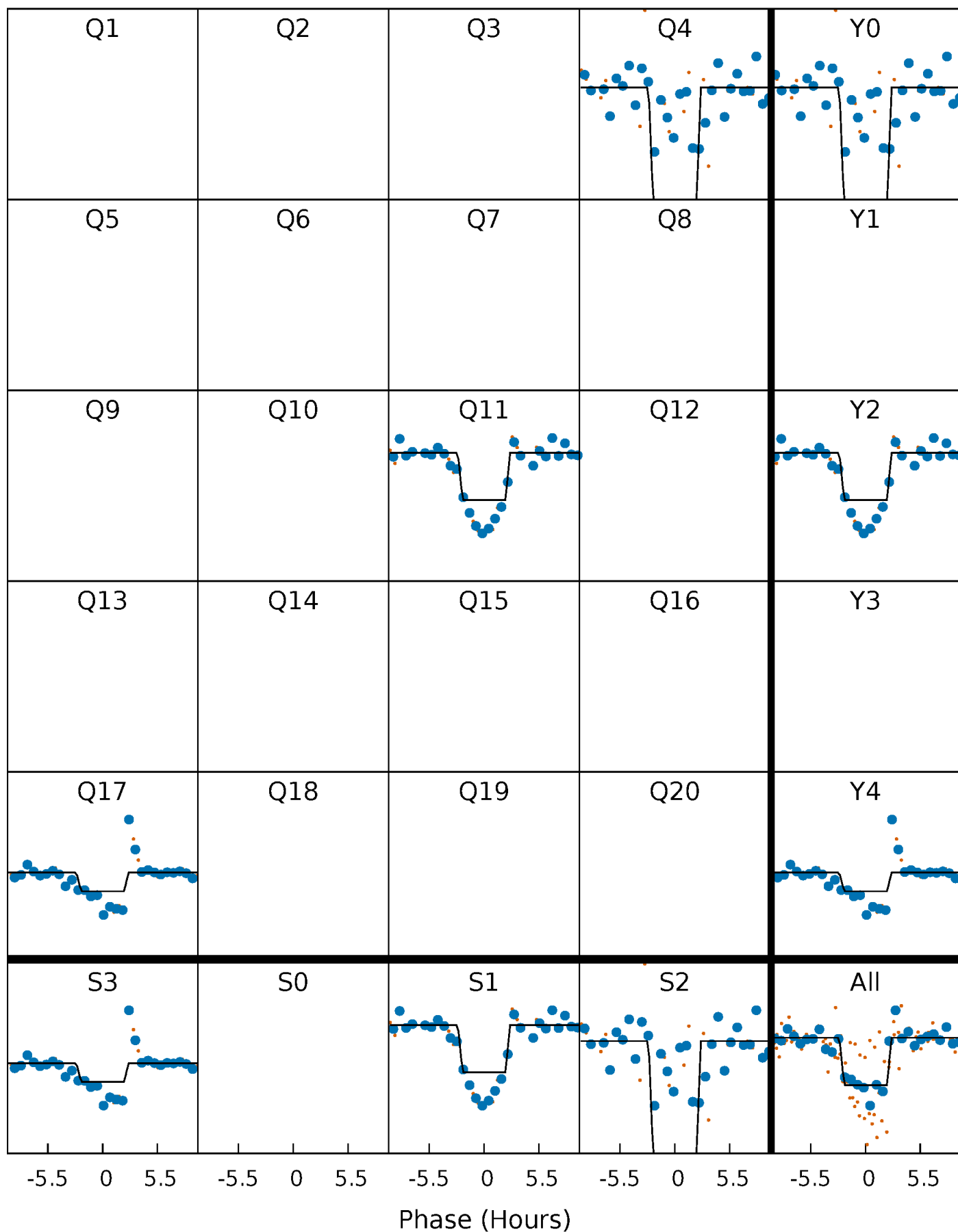
DV Quarter-Phased Transit Curves

TCE 005095232-01 P=566.851751 Days $T_0=439.673648$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

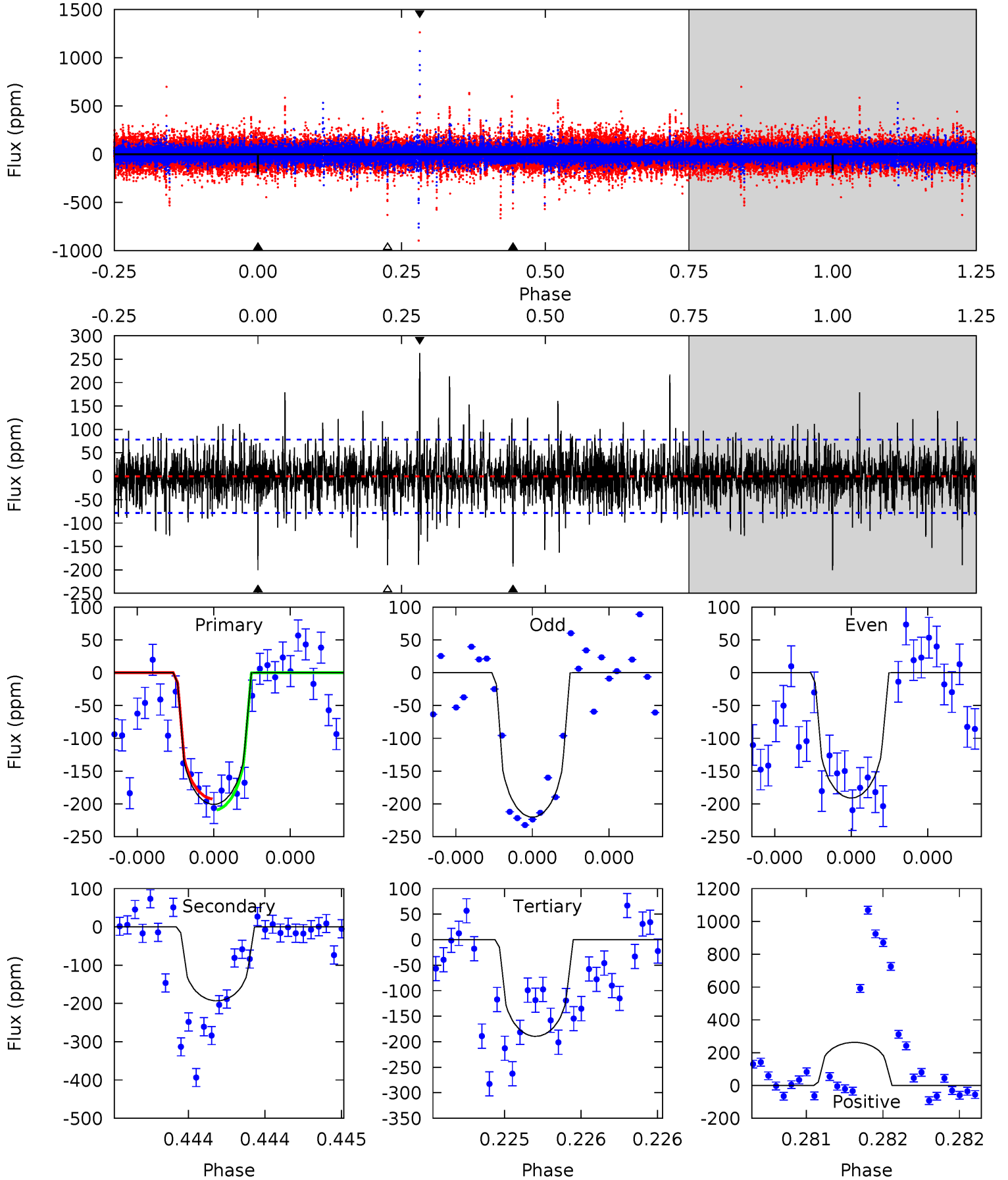
TCE 005095232-01 P=566.854199 Days $T_0=439.671493$ (BKJD)



DV Model-Shift Uniqueness Test

005095232-01, P = 566.851751 Days, E = 439.673648 Days

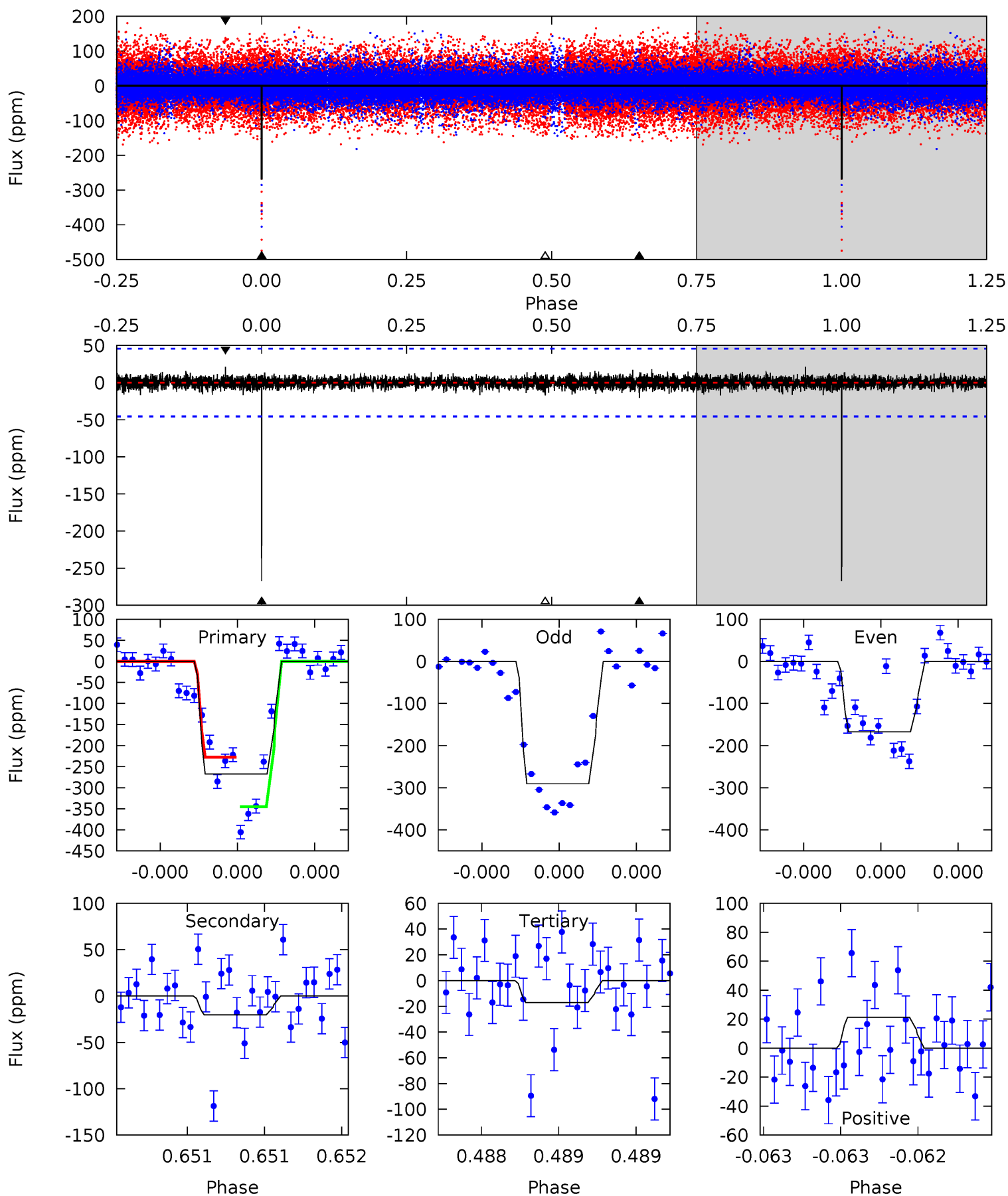
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	13.8	13.5	18.8	5.60	3.53	2.39	0.81	-4.45	0.26	-4.99	0.92	1.02	0.57	0.60



Alt Model-Shift Uniqueness Test

005095232-01, P = 566.854199 Days, E = 439.671493 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.0	2.51	2.11	2.63	5.63	3.56	0.49	30.9	30.4	0.40	-0.11	8.22	0.78	0.07	7.08



Stellar Parameters For KIC 005095232

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4857^{+87}_{-77}	$4.606^{+0.012}_{-0.051}$	$0.160^{+0.150}_{-0.150}$	$0.743^{+0.045}_{-0.026}$	$0.824^{+0.025}_{-0.050}$	$2.827^{+0.224}_{-0.490}$
	+2%/-2%	+0%/-1%	+94%/-94%	+6%/-3%	+3%/-6%	+8%/-17%
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 005095232-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-193 ± 14	$1.33^{+0.76}_{-0.75}$	233^{+6}_{-4}	4572^{+2207}_{-688}	$94526^{+399900}_{-55471}$
Alt.	-20 ± 8	$1.25^{+0.78}_{-0.74}$	233^{+5}_{-5}	3185^{+1062}_{-461}	10950^{+50095}_{-7486}

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

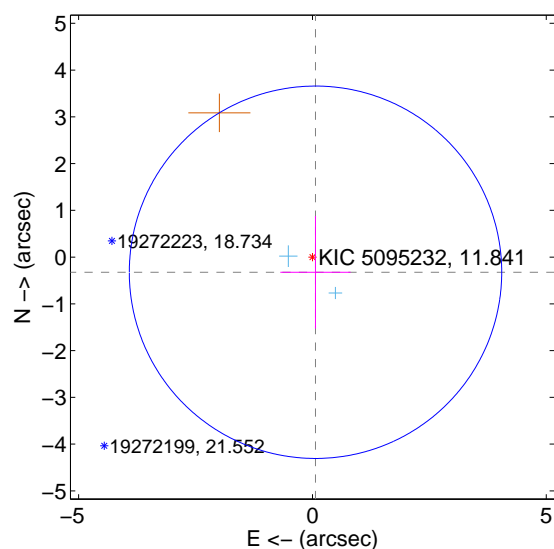
Supplemental centroid analysis for 005095232-01. **Kepler magnitude: 11.84.** Transit SNR 8.20

There are 2 quarters with good PRF difference image offsets

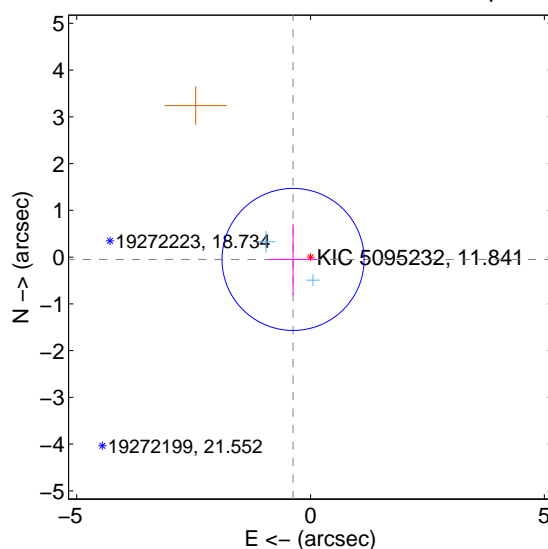
The direct PRF centroid is offset from the target star catalog position by about 0.53 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.331 ± 1.328	0.25	-0.066 ± 0.752	-0.324 ± 1.205
PRF-fit source offset from KIC position	0.377 ± 0.506	0.74	0.374 ± 0.501	-0.050 ± 0.758
photometric centroid source offset	1.04 ± 0.83	1.25	0.95 ± 0.78	-0.43 ± 1.05

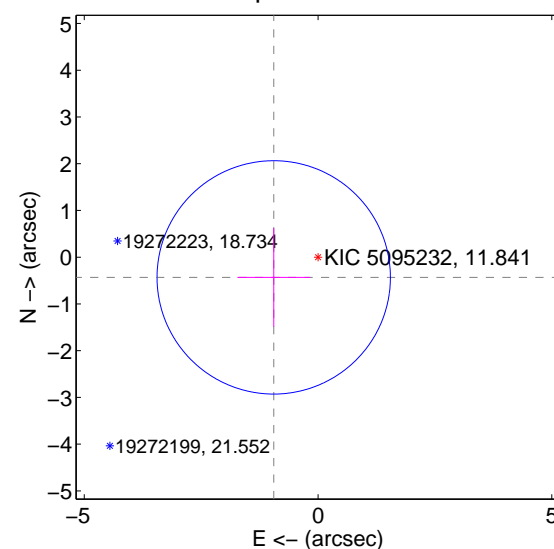
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

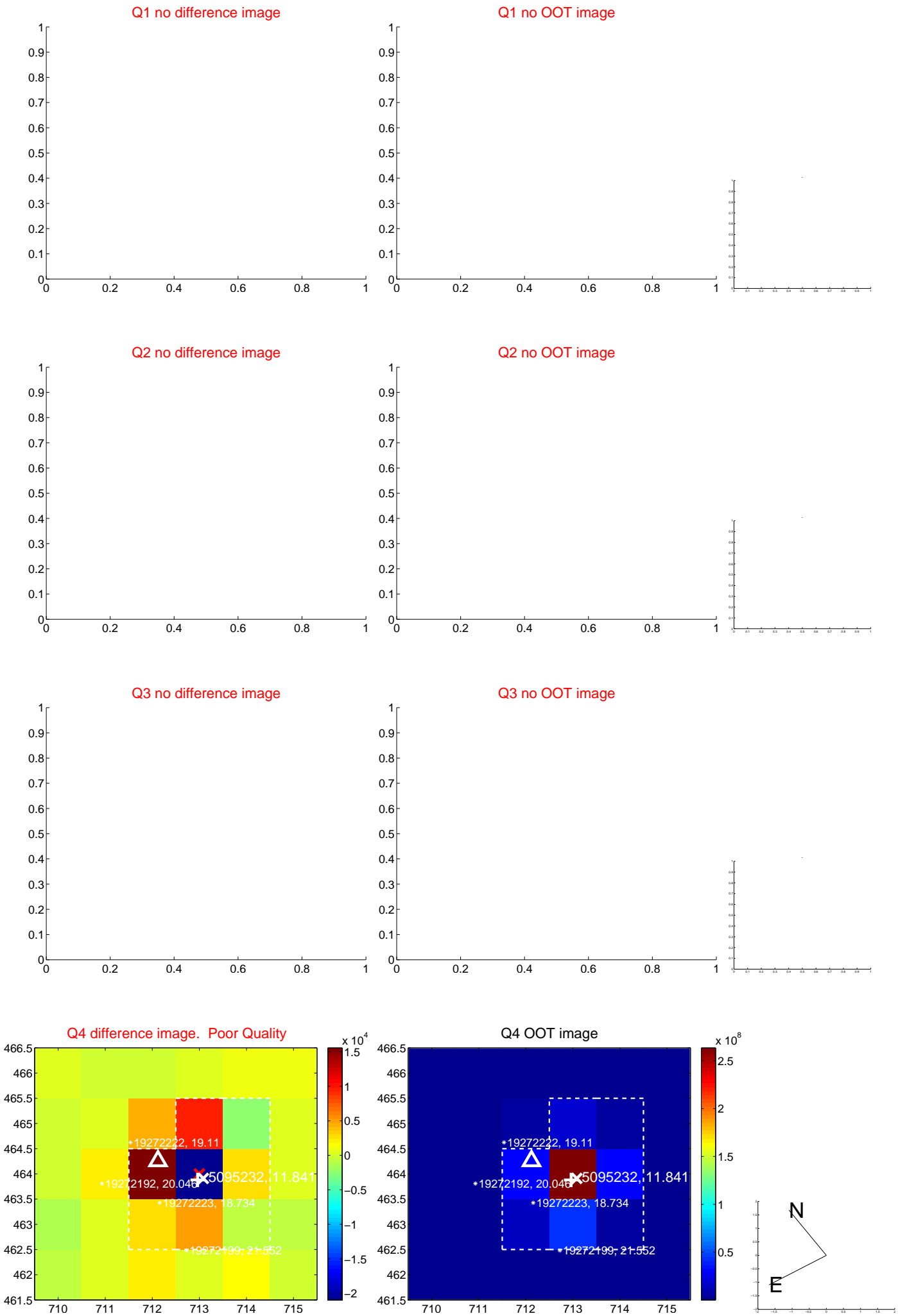


offset from photometric centroids



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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: 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.

Q9 no difference image



Q9 no OOT image



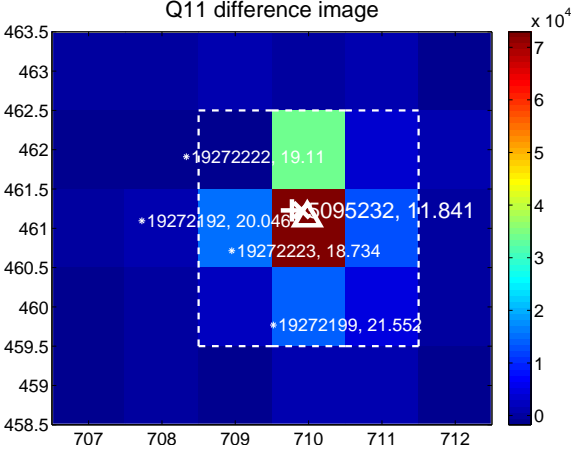
Q10 no difference image



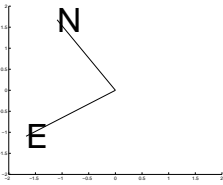
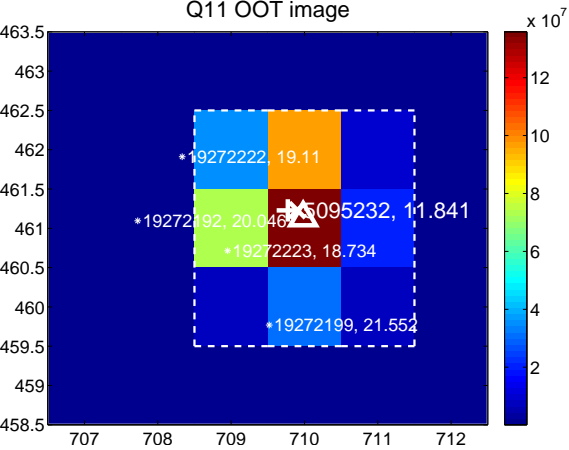
Q10 no OOT image



Q11 difference image



Q11 OOT image



Q12 no difference image



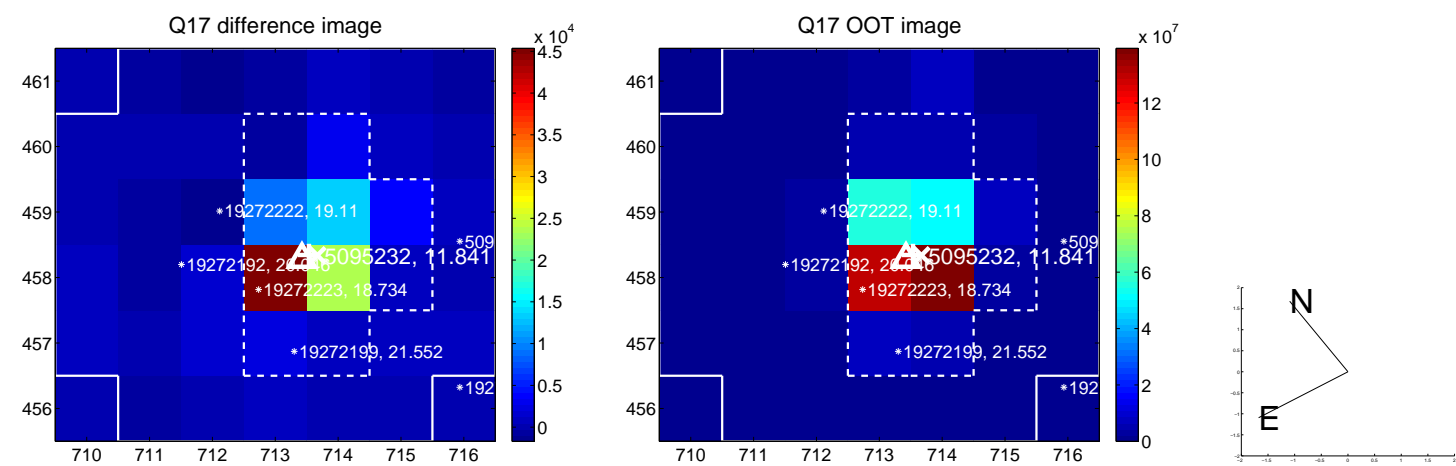
Q12 no OOT image



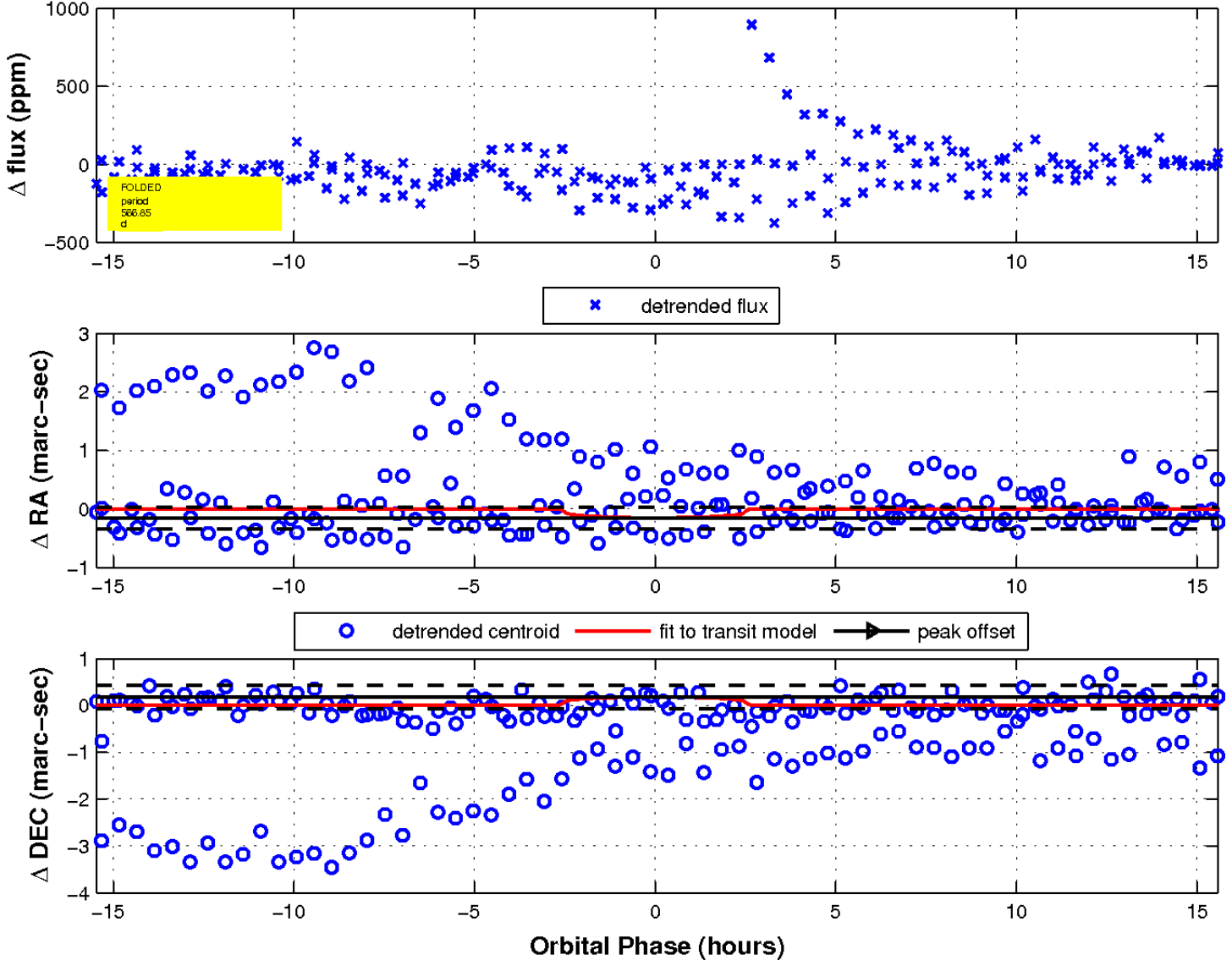
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

