

KIC 009272719

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})
009272719-01	OBS	No	466.100639	278.087726	192.0	8.671	7.6	6.6	1.50	6183	2.19	1.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009272719-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

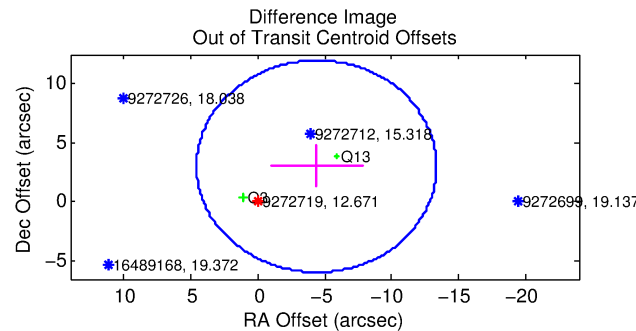
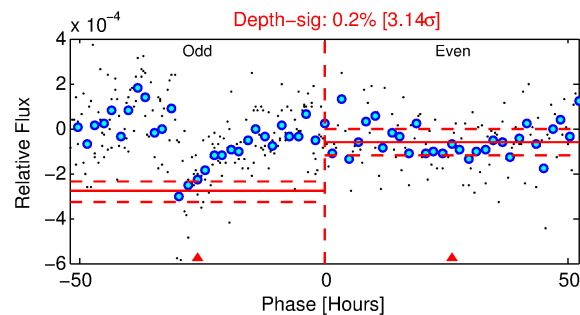
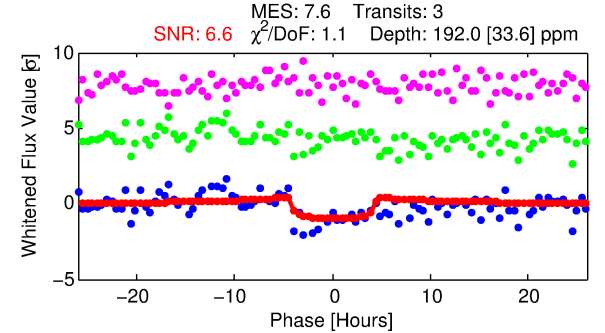
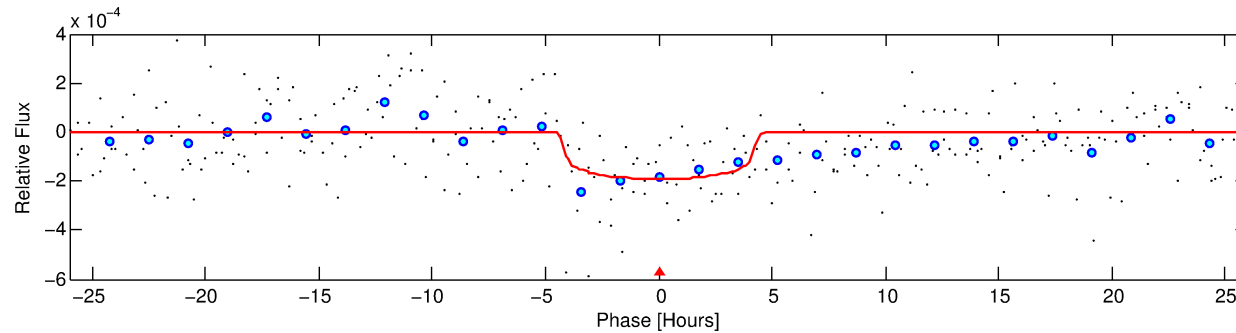
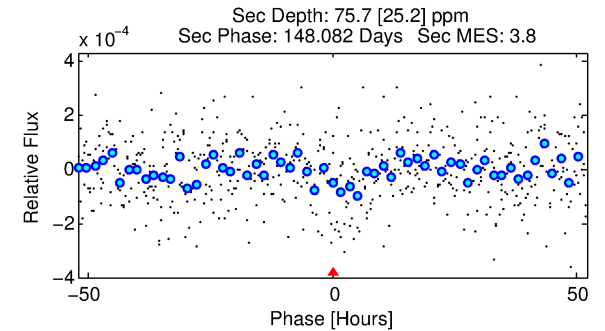
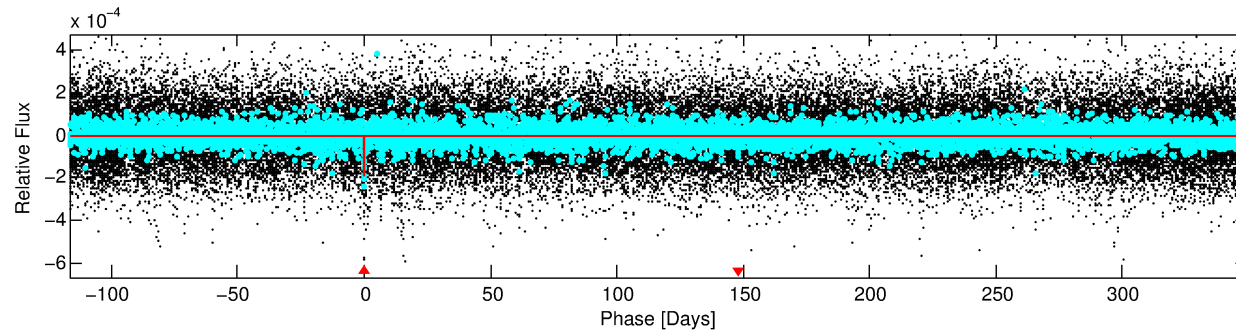
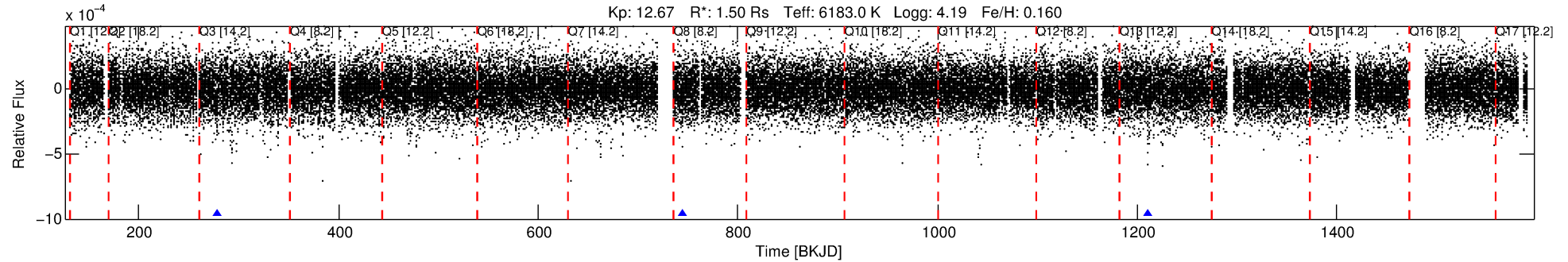
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009272719-01

No Significant Match Found

DV One-Page Summary

KIC: 9272719 Candidate: 1 of 1 Period: 466.101 d



DV Fit Results:

Period = 466.10064 [0.01129] d
Epoch = 278.0877 [0.0154] BKJD
Rp/R* = 0.0134 [0.0109]
a/R* = 317.27 [1259.57]
b = 0.66 [3.47]
Seff = 1.82 [0.71]
Teq = 296 [29] K
Rp = 2.19 [1.90] Re
a = 1.2697 [0.3187] AU
Ag = 13951.78 [23616.96] [0.59σ]
Teffp = 4979 [2070] K [2.26σ]

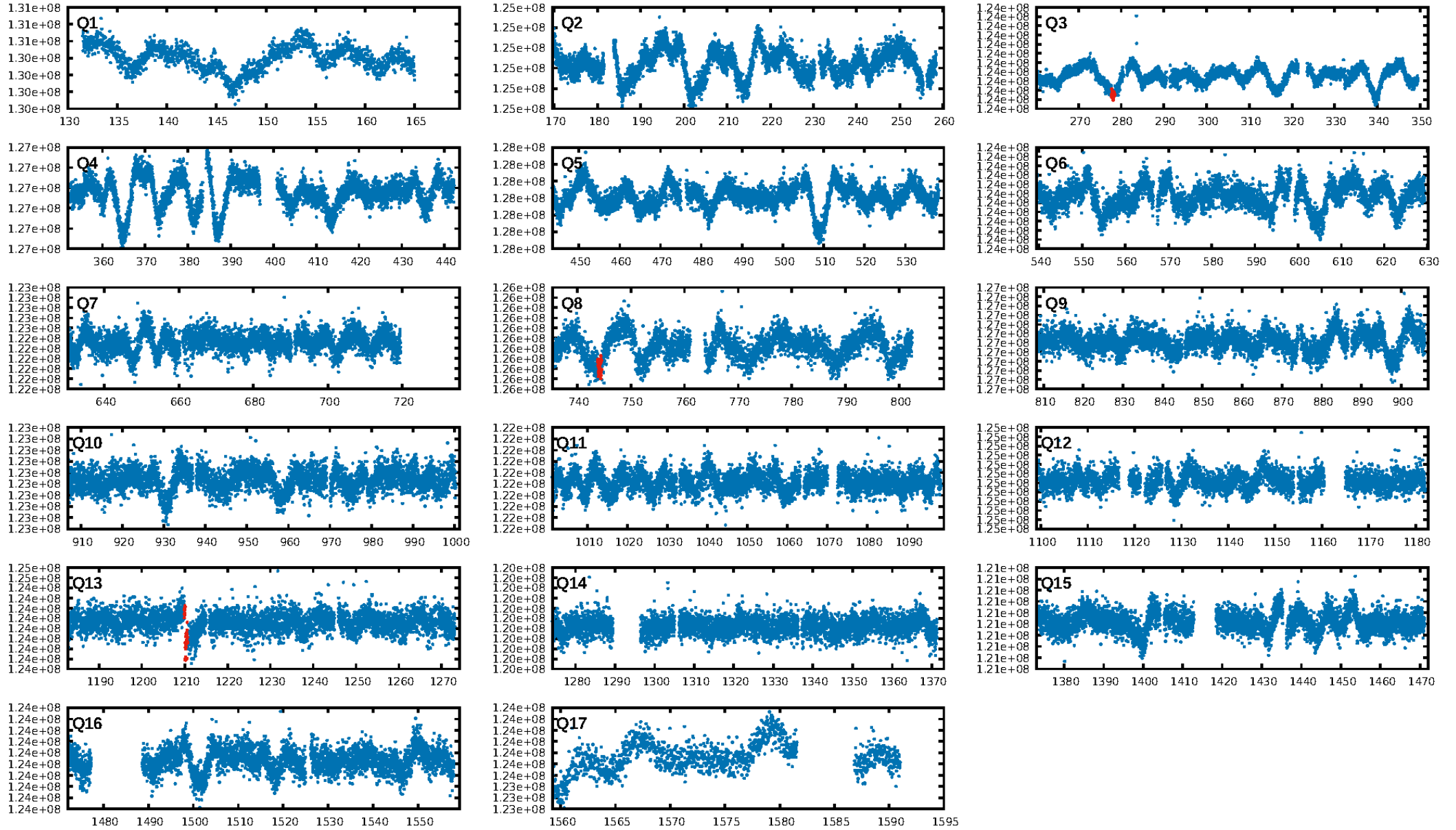
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.9%
ModelChiSquareGof-sig: 99.5%
Bootstrap-pfa: 2.78e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.762
Centroid-sig: 12.3%
Centroid-so: 2.978 arcsec [1.96σ]
OotOffset-rm: 5.336 arcsec [1.79σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-rm: 5.594 arcsec [1.87σ]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

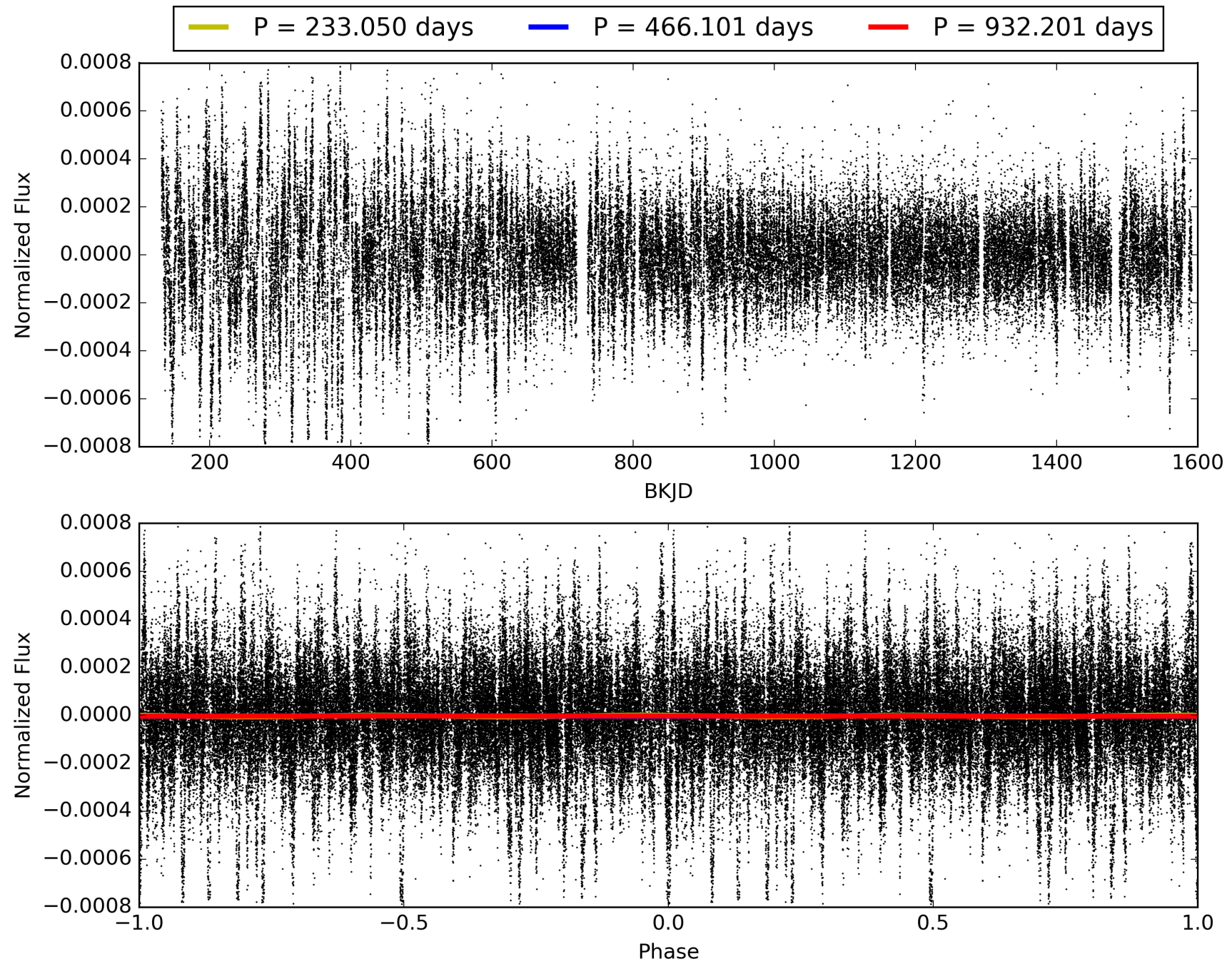
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:32:55 Z

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

TCE 009272719-01, PDC Light Curves

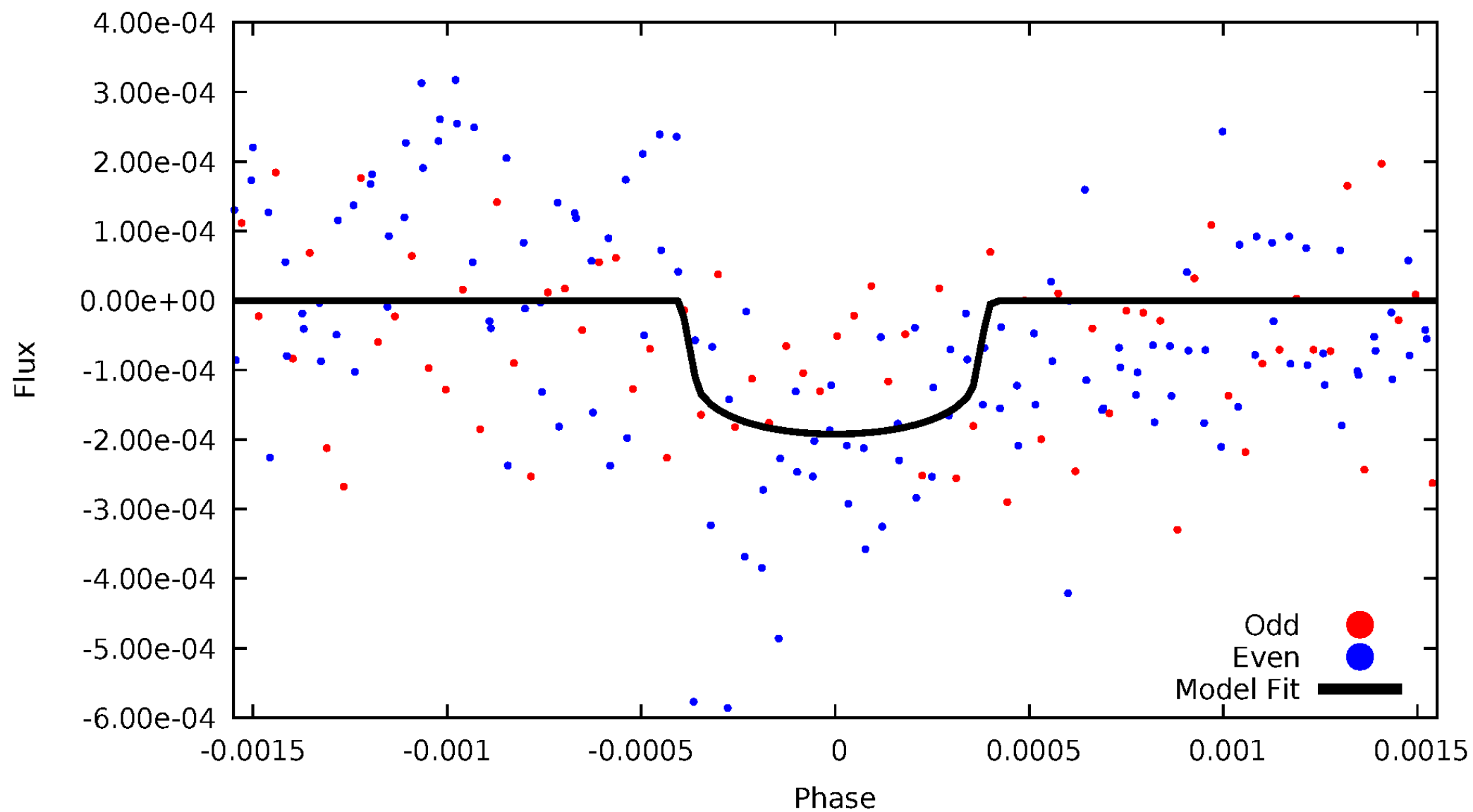


TCE 009272719-01



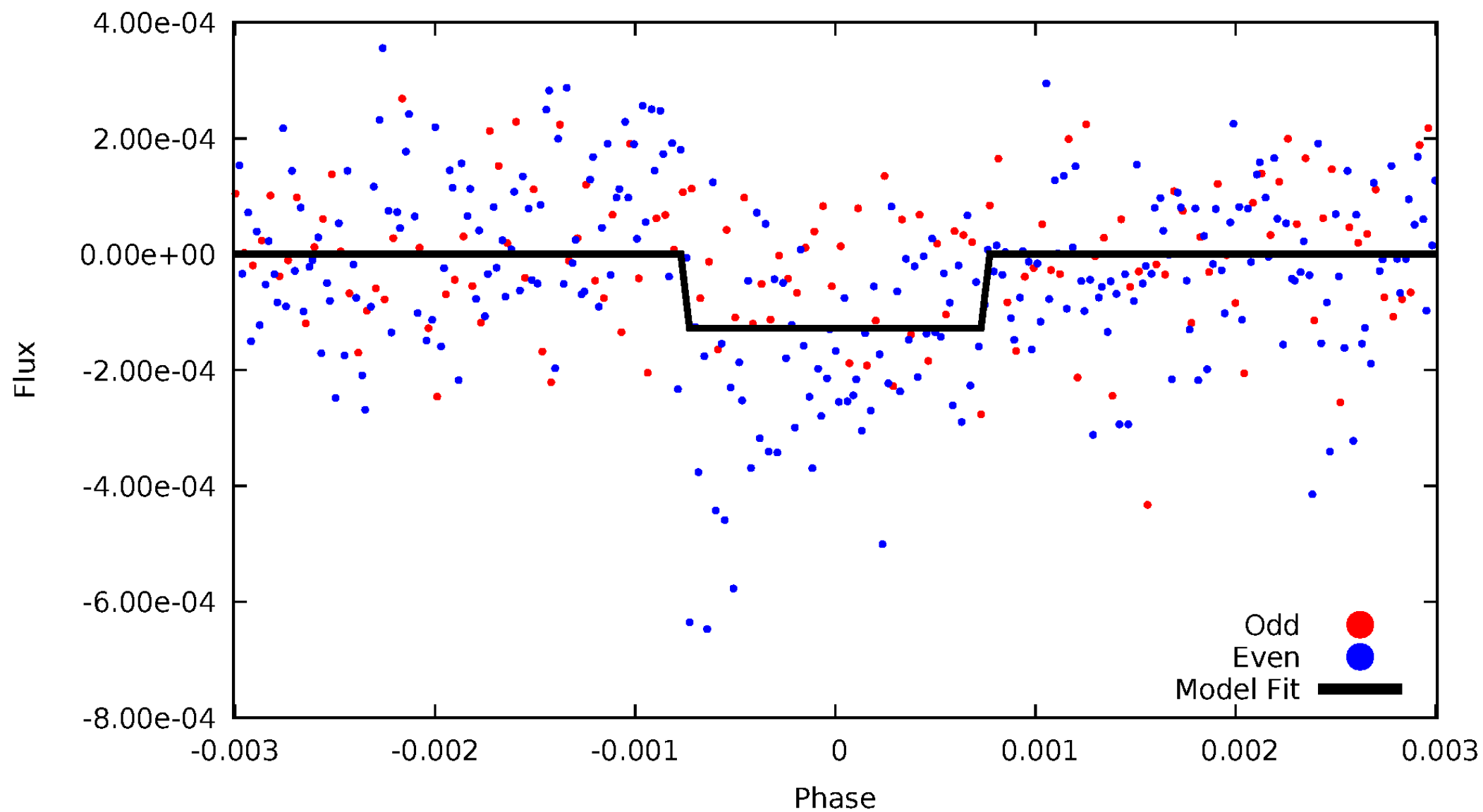
DV Odd/Even

TCE 009272719-01

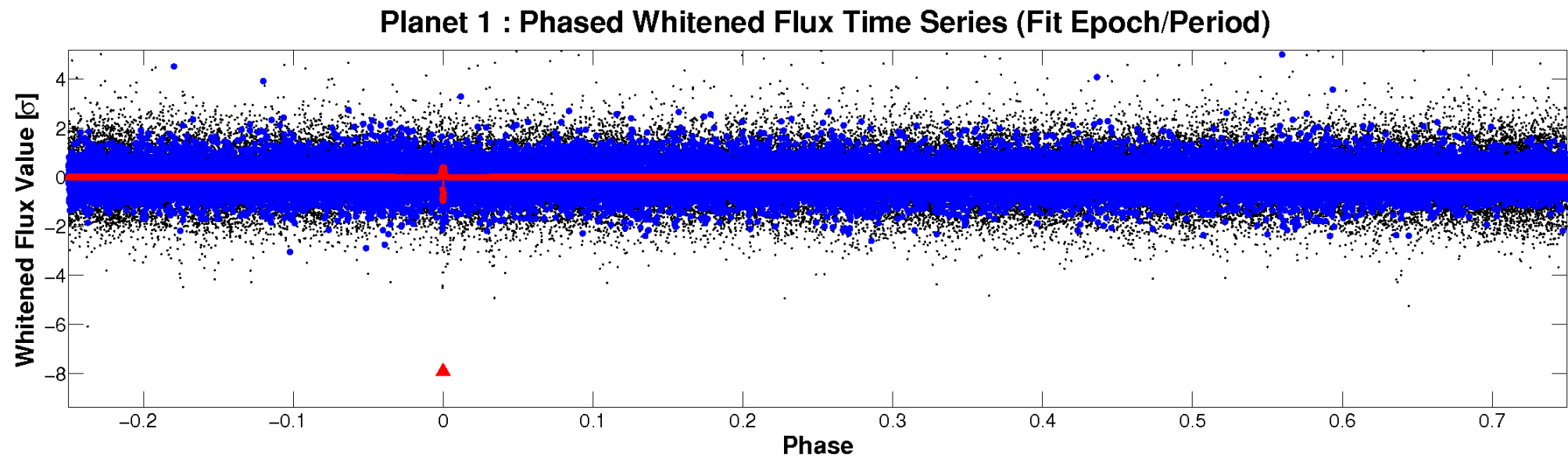
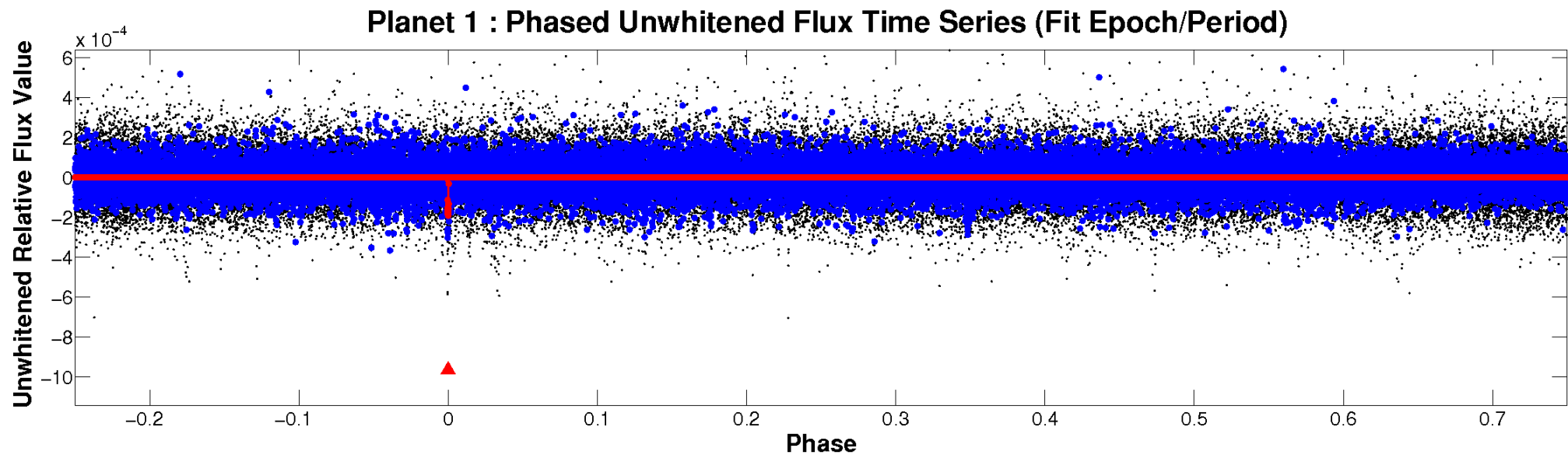


ALT Odd/Even

TCE 009272719-01

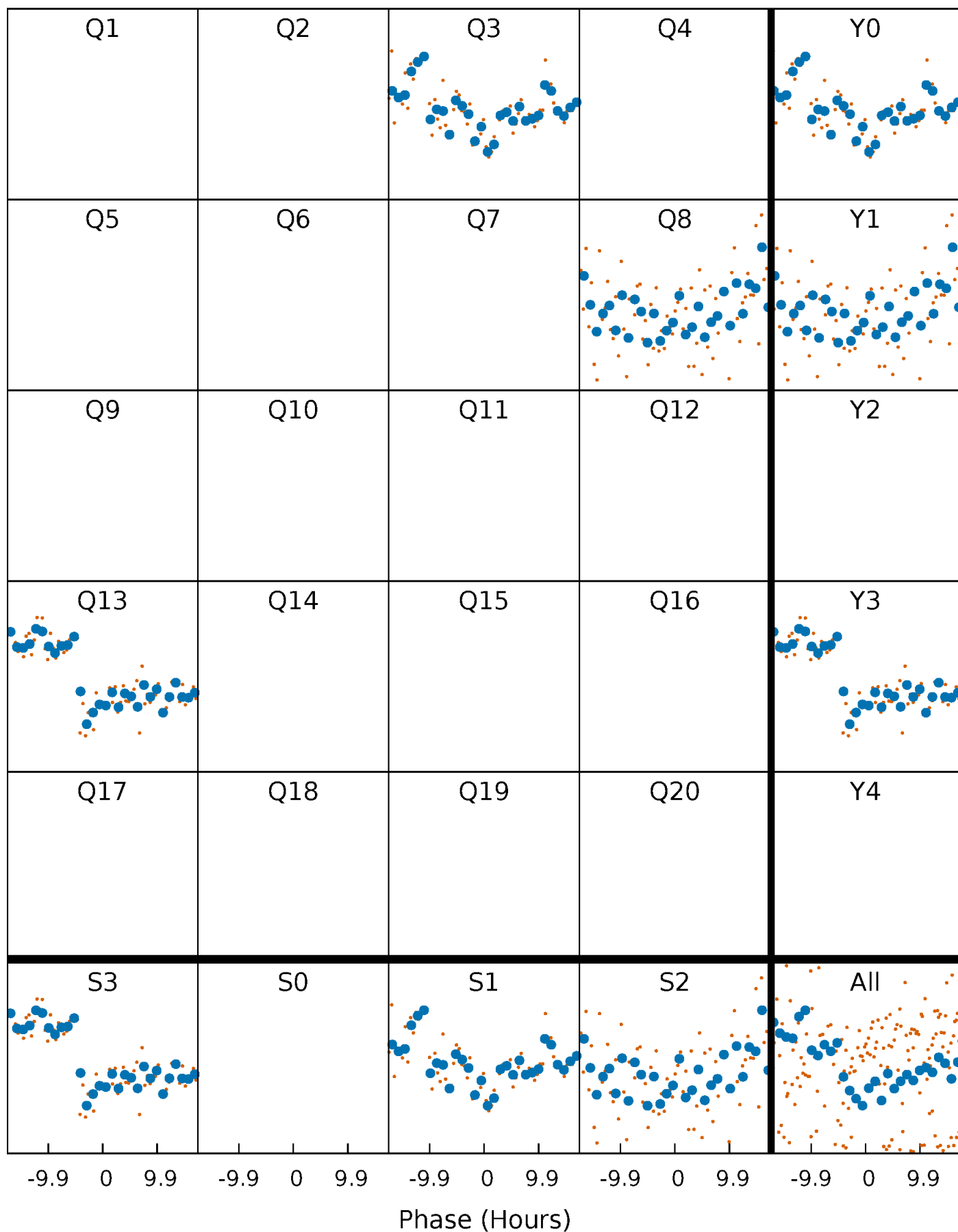


Non-Whitened Vs. Whitened Light Curve



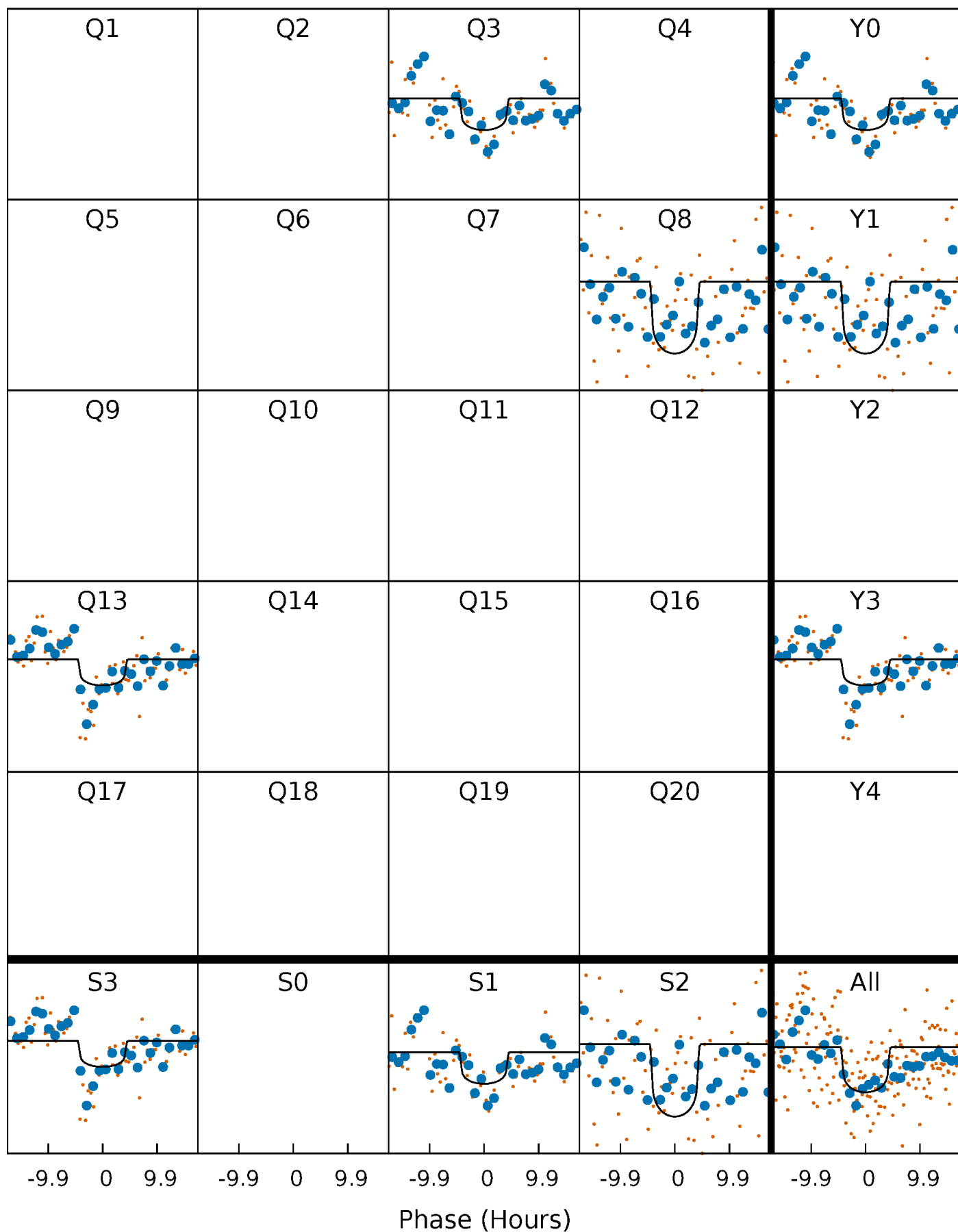
PDC Quarter-Phased Transit Curves

TCE 009272719-01 P=466.100639 Days $T_0=278.087726$ (BKJD)



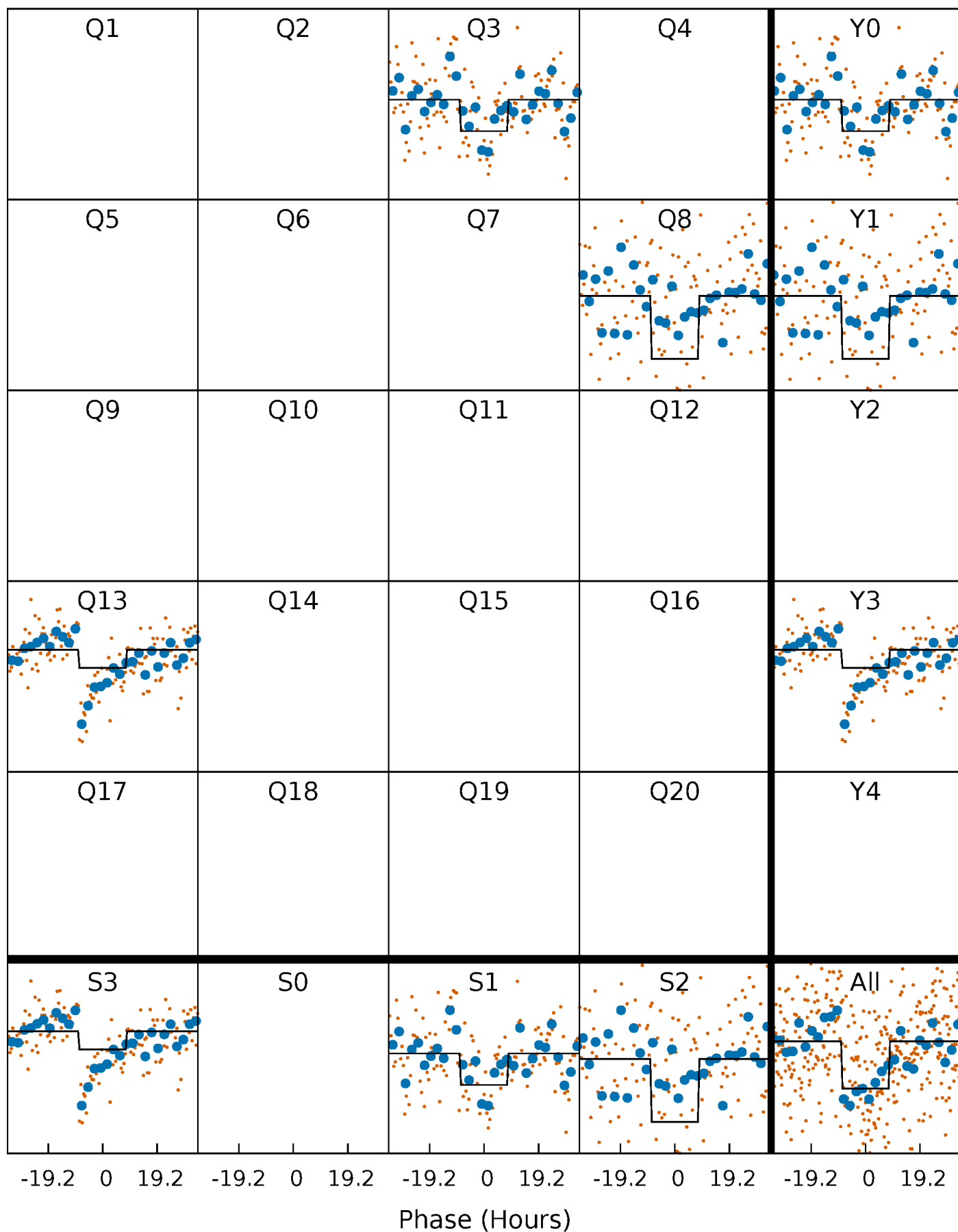
DV Quarter-Phased Transit Curves

TCE 009272719-01 P=466.100639 Days $T_0=278.087726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

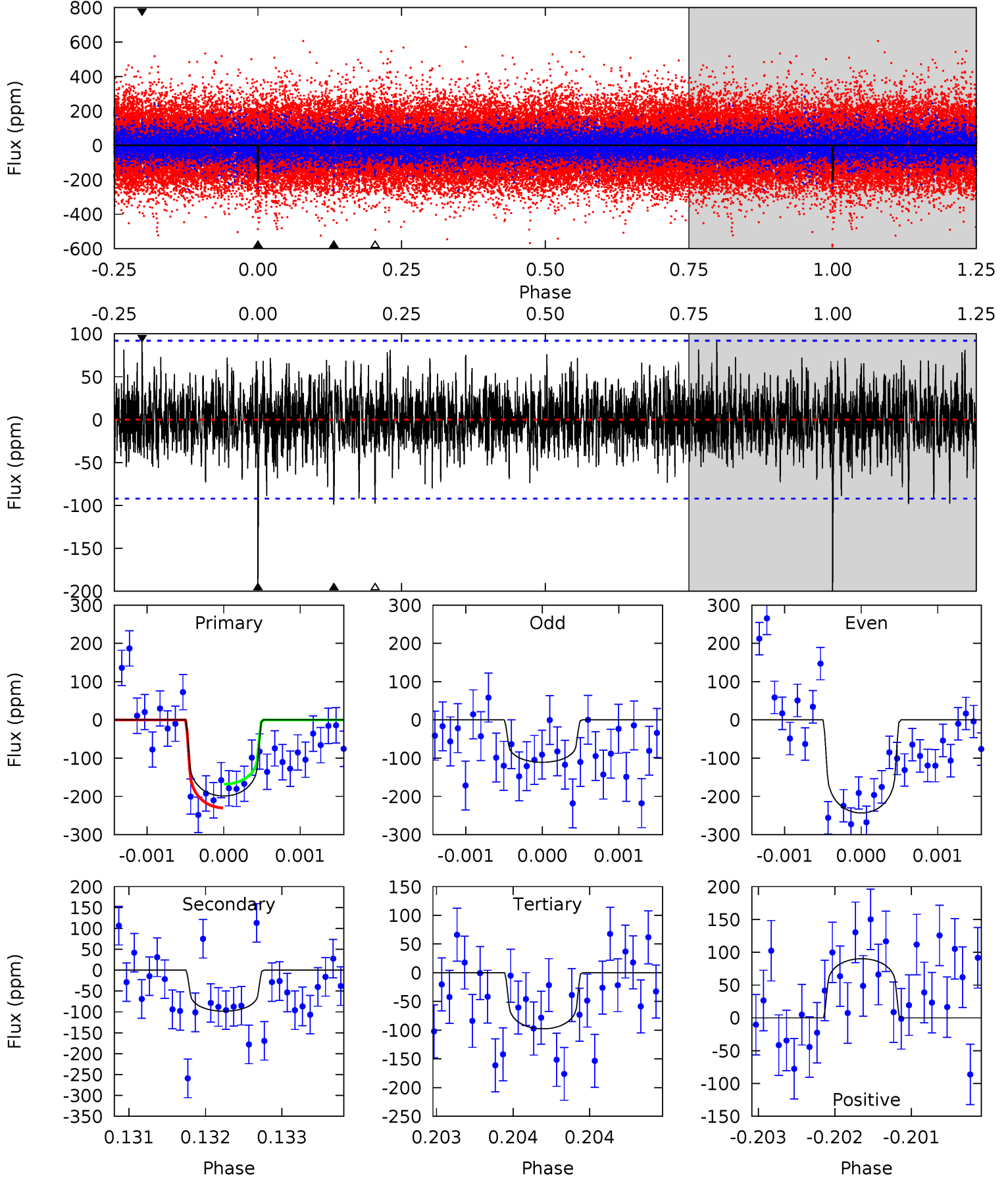
TCE 009272719-01 P=466.198483 Days $T_0=278.061467$ (BKJD)



DV Model-Shift Uniqueness Test

009272719-01, P = 466.100639 Days, E = 278.087726 Days

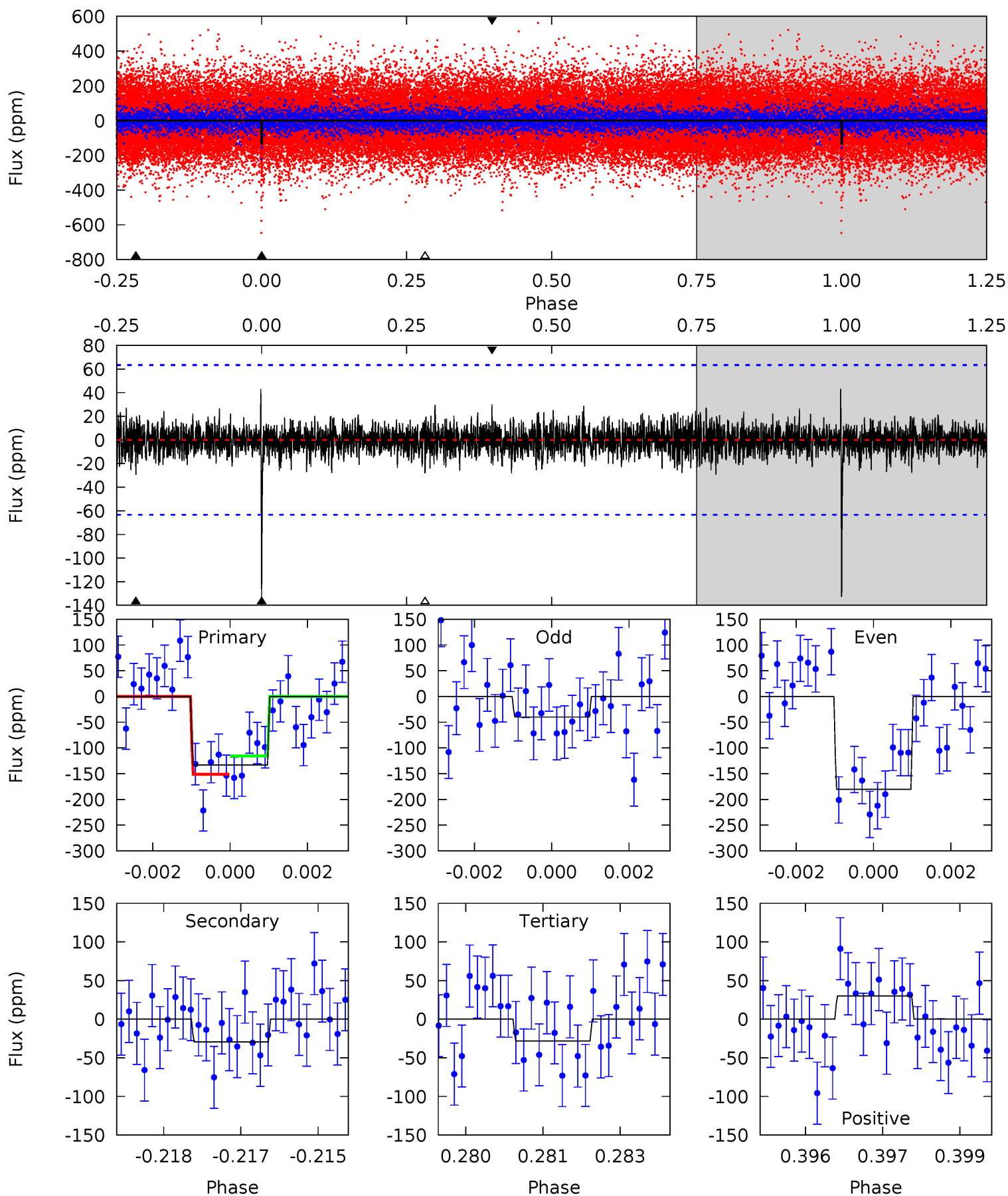
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	5.87	5.83	5.38	5.49	3.35	1.43	6.04	6.50	0.04	0.49	3.74	0.95	0.31	1.85



Alt Model-Shift Uniqueness Test

009272719-01, P = 466.198483 Days, E = 278.061467 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	2.50	2.40	2.55	5.38	3.17	0.68	8.89	8.74	0.10	-0.05	5.64	1.39	0.25	1.51



Stellar Parameters For KIC 009272719

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6183^{+190}_{-253}	$4.186^{+0.190}_{-0.190}$	$0.160^{+0.200}_{-0.300}$	$1.498^{+0.459}_{-0.375}$	$1.260^{+0.170}_{-0.208}$	$0.527^{+0.557}_{-0.273}$
	+3%/-4%	+5%/-5%	+125%/-188%	+31%/-25%	+13%/-17%	+106%/-52%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 009272719-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-98 ± 17	$2.34^{+1.78}_{-1.51}$	415^{+34}_{-32}	5122^{+3657}_{-984}	$15411^{+106885}_{-10386}$
Alt.	-29 ± 12	$2.11^{+1.71}_{-1.35}$	415^{+33}_{-30}	4147^{+2572}_{-744}	5348^{+41625}_{-3821}

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

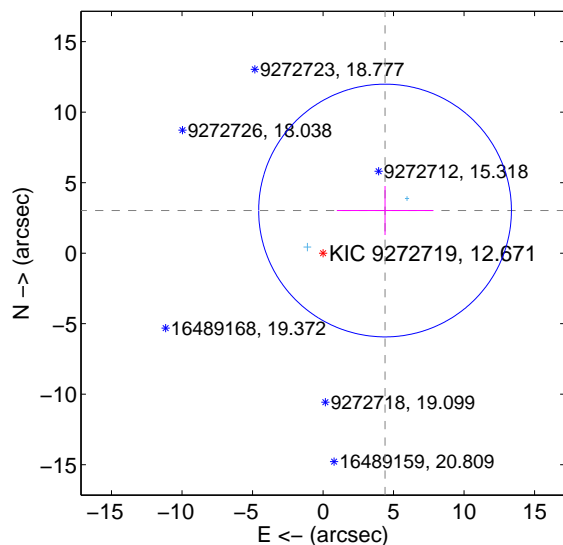
Supplemental centroid analysis for 009272719-01. Kepler magnitude: 12.67. Transit SNR 6.61

There are 2 quarters with good PRF difference image offsets

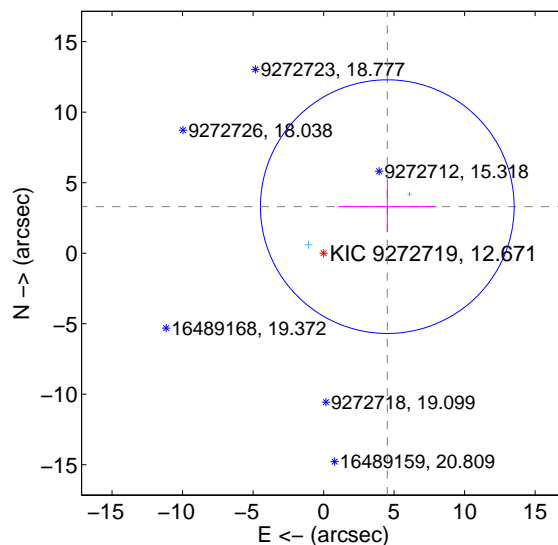
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.336 ± 2.986	1.79	-4.397 ± 3.422	3.023 ± 1.735
PRF-fit source offset from KIC position	5.594 ± 2.997	1.87	-4.517 ± 3.468	3.299 ± 1.810
photometric centroid source offset	2.98 ± 1.52	1.96	-2.14 ± 1.50	2.07 ± 1.54

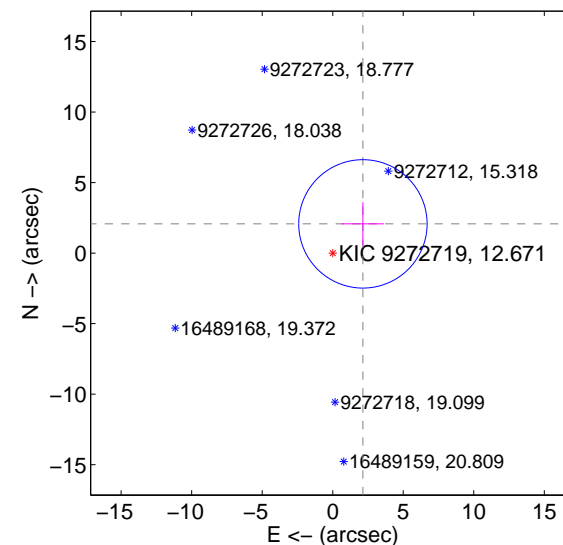
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

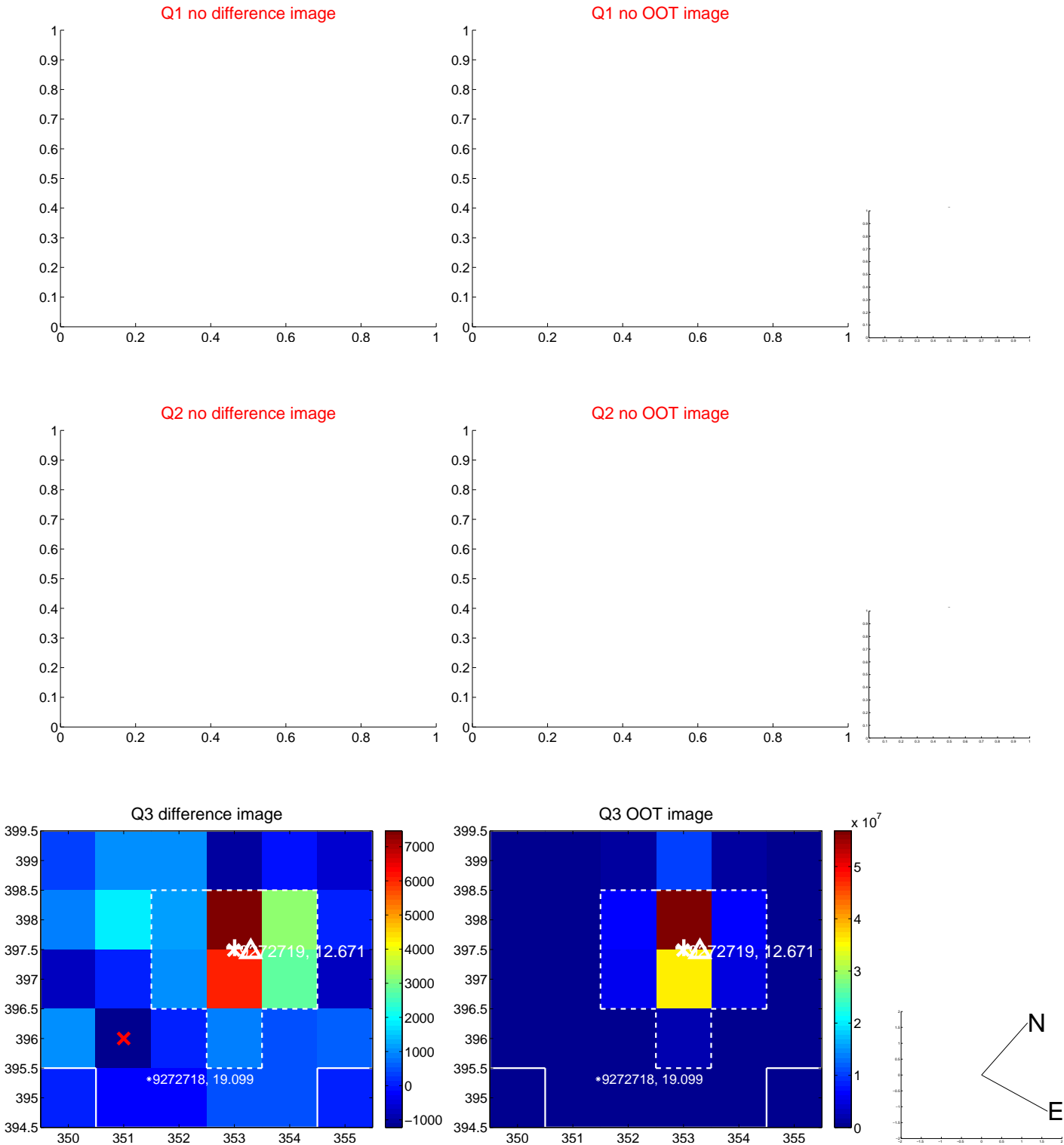


offset from photometric centroids

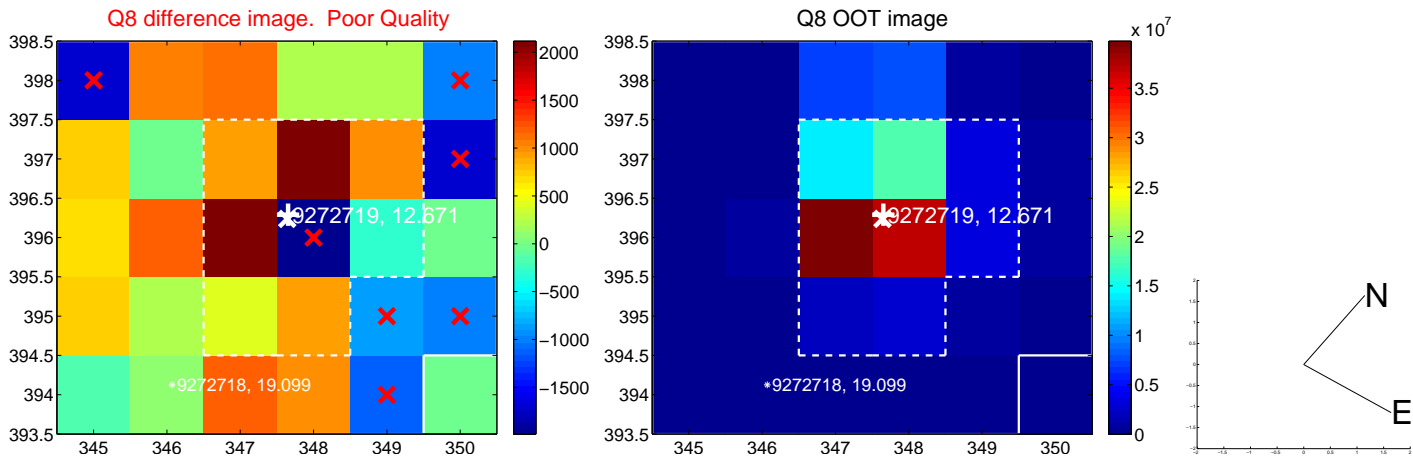
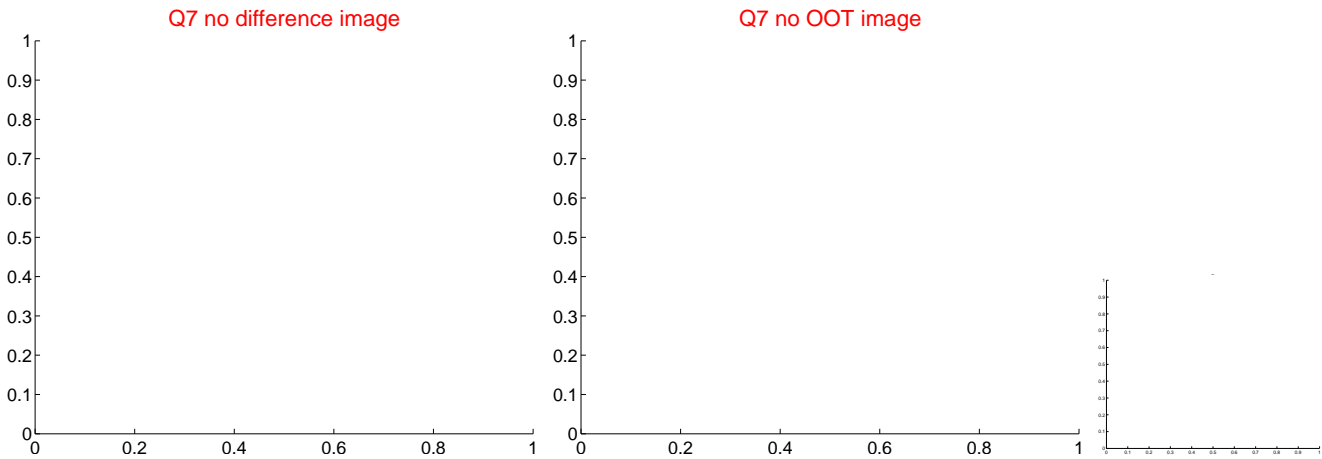
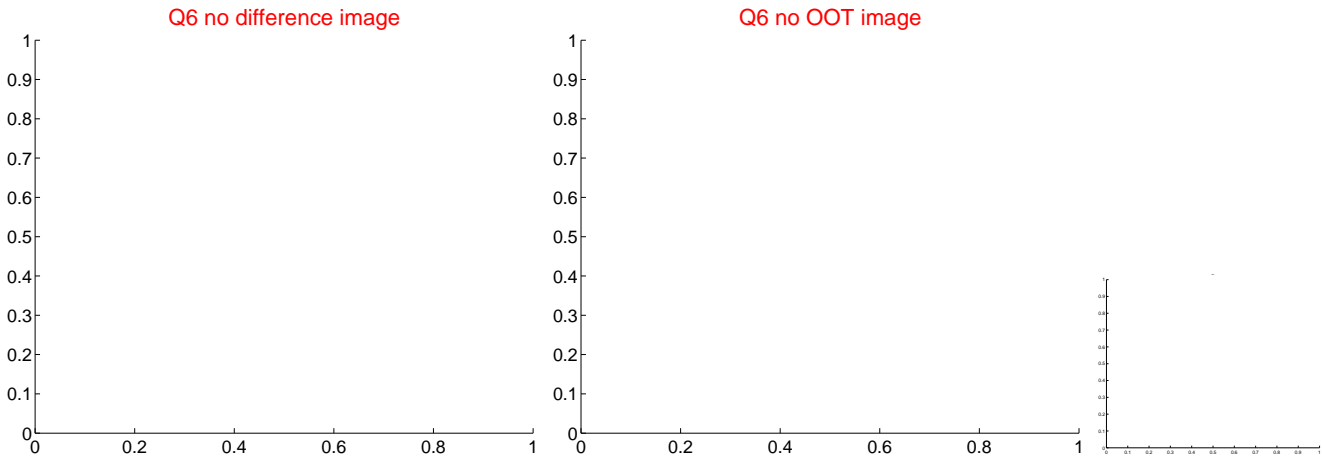
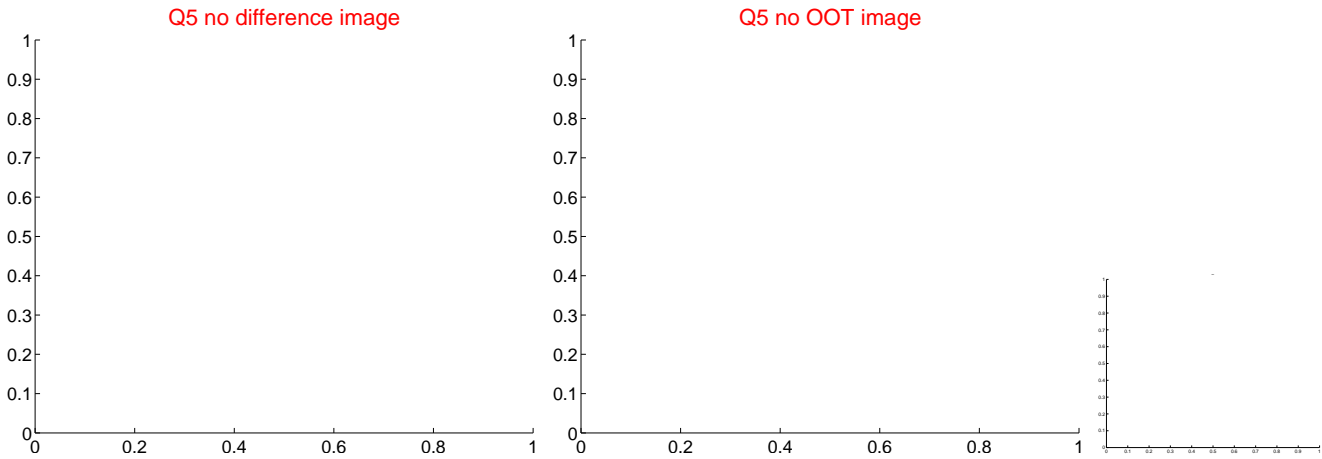


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

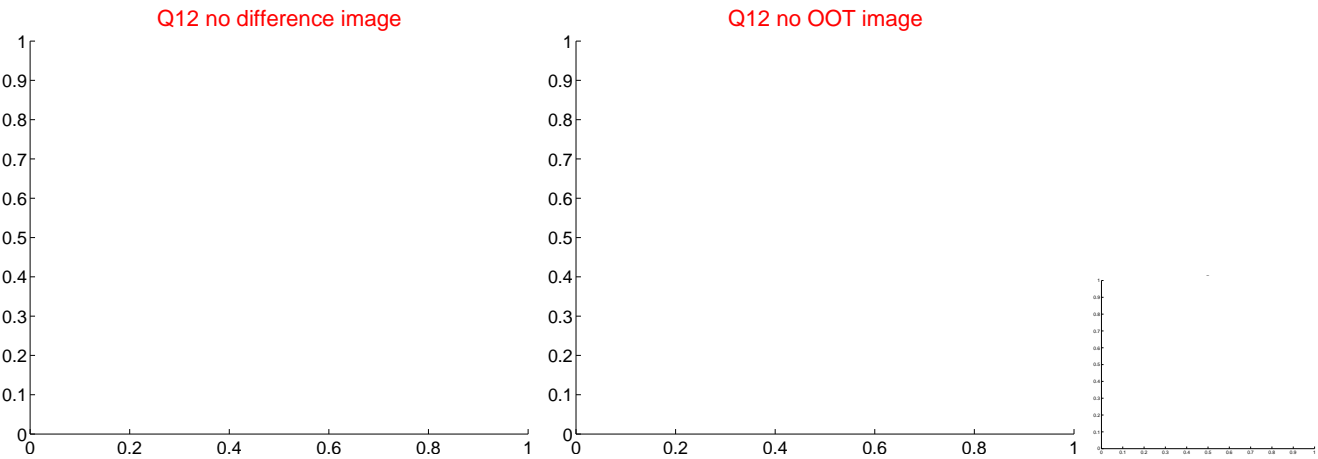
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



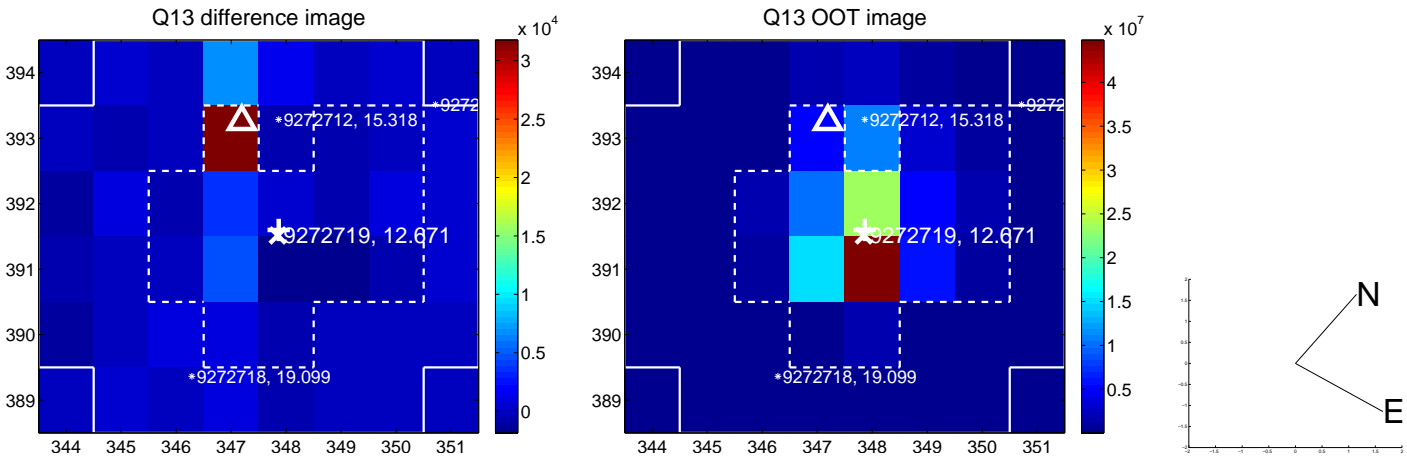
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



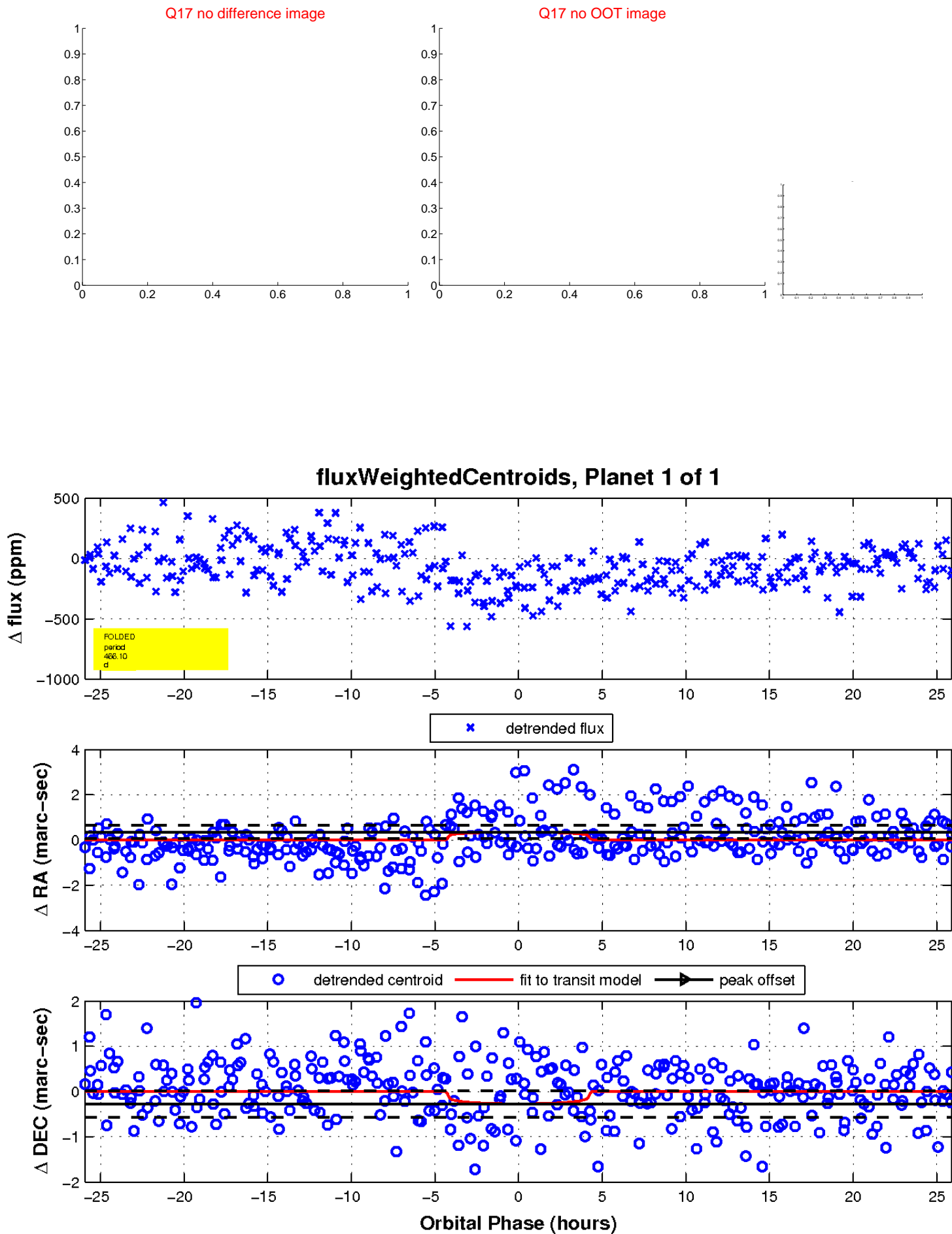
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

