

KIC 010263598

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})
010263598-01	OBS	7995.01	145.743623	199.644628	390.1	12.507	7.4	8.1	8.04	5096	16.67	74.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010263598-01	OBS	FP	0.09	1	0	0	0	INDIV_TRANS_SKYE

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

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

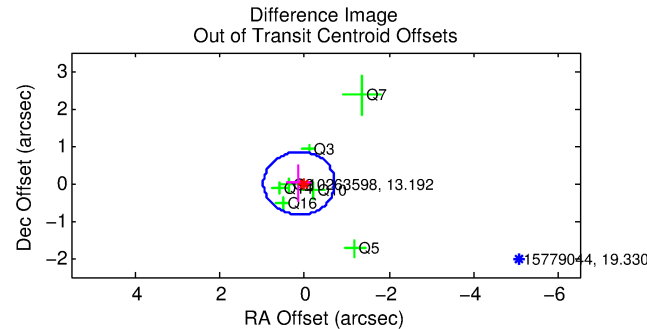
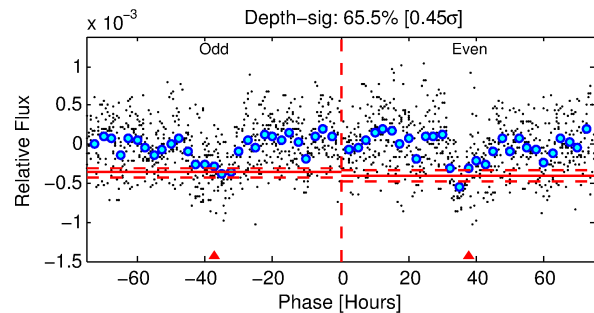
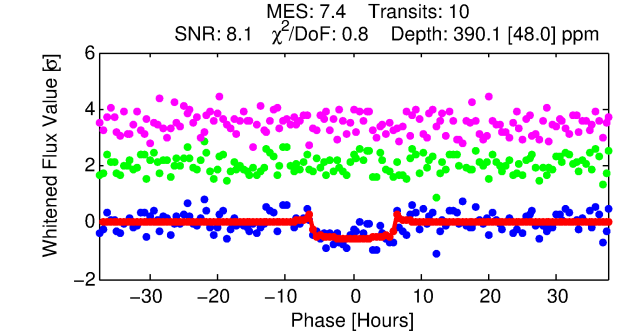
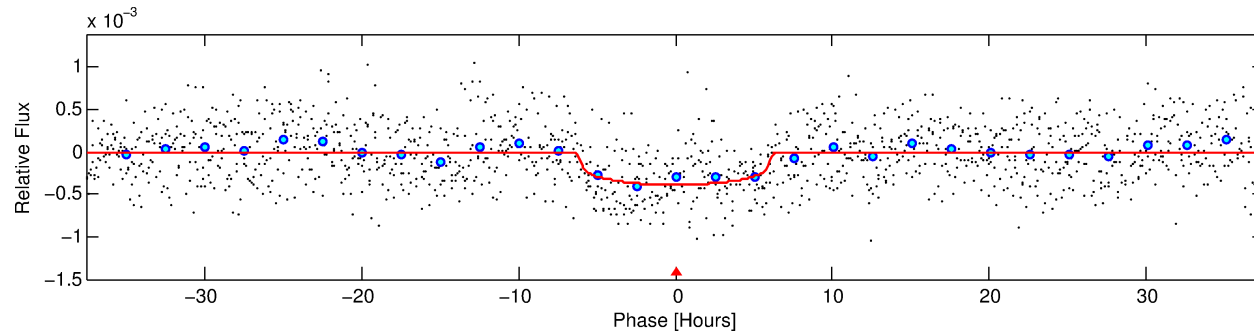
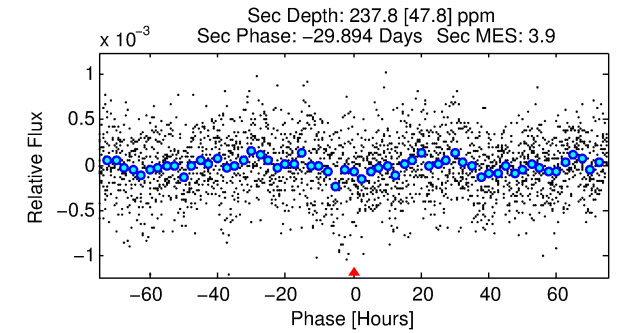
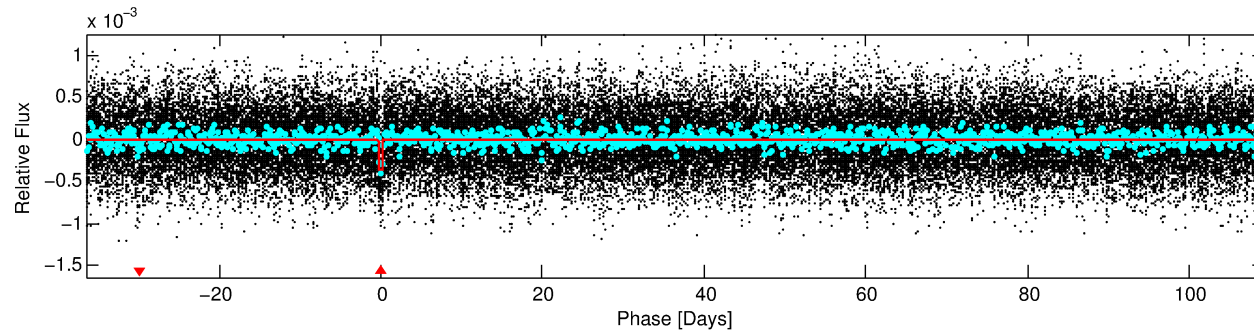
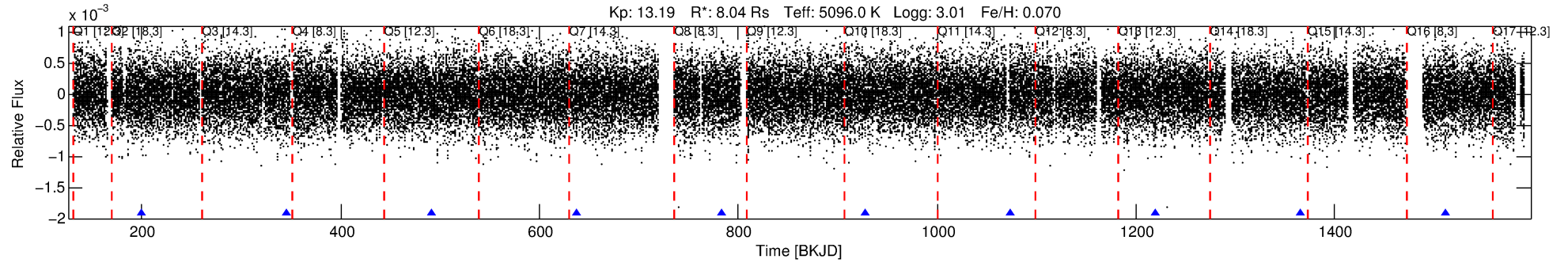
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010263598-01

No Significant Match Found

DV One-Page Summary

KIC: 10263598 Candidate: 1 of 1 Period: 145.744 d



DV Fit Results:

Period = 145.74362 [0.00199] d
Epoch = 199.6446 [0.0111] BKJD
Rp/R* = 0.0190 [0.0055]
a/R* = 69.37 [71.16]
b = 0.66 [0.90]
Seff = 74.21 [19.73]
Teq = 748 [50] K
Rp = 16.67 [7.03] Re
a = 0.7253 [0.1489] AU
Ag = 247.69 [160.63] [1.54 σ]
Teffp = 4590 [729] K [5.26 σ]

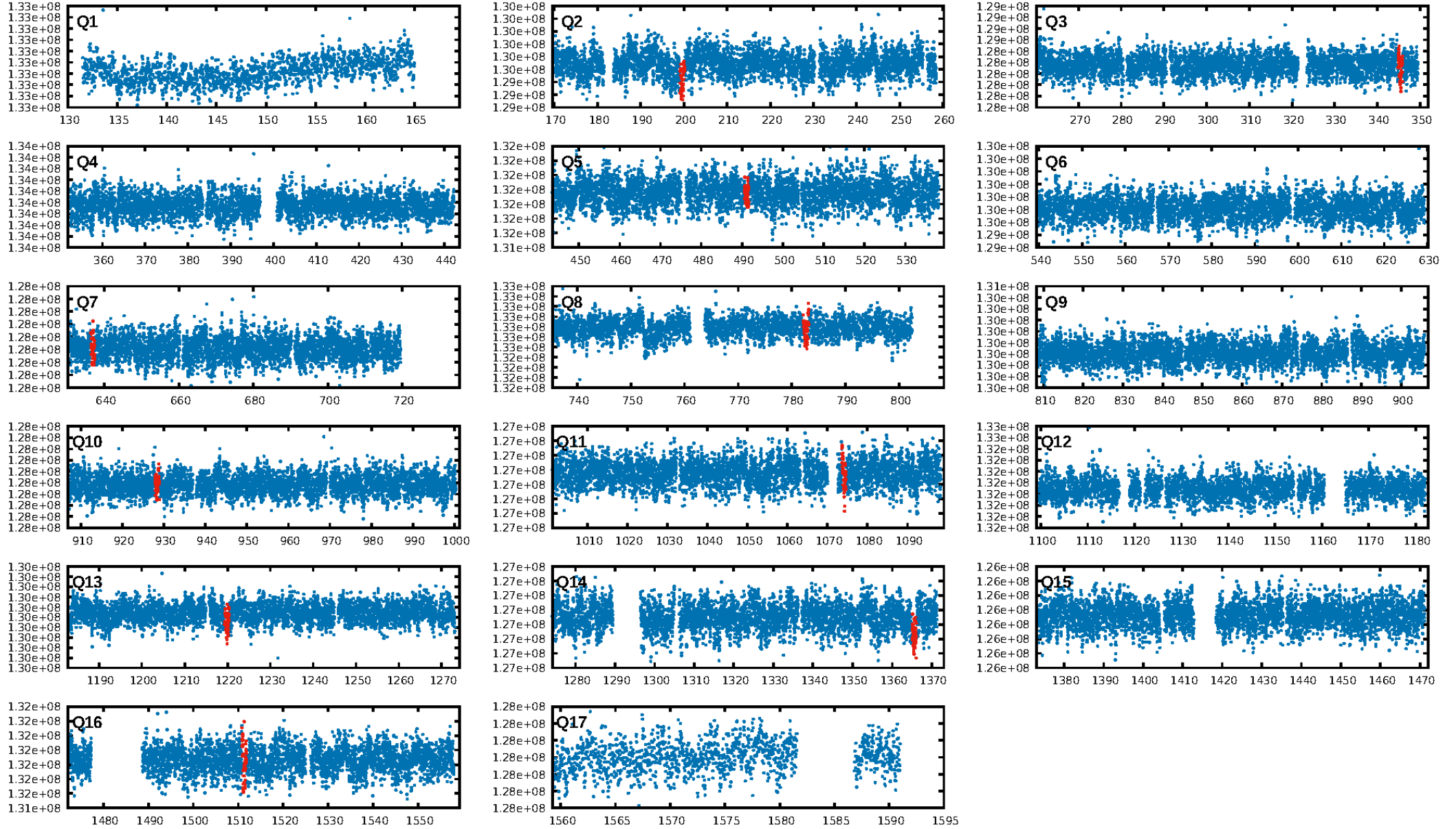
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 26.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.18e-13
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: -7.539
Centroid-sig: 1.1%
Centroid-so: 0.855 arcsec [2.15 σ]
OotOffset-rm: 0.122 arcsec [0.44 σ]
KicOffset-rm: 0.268 arcsec [0.88 σ]
OotOffset-st: 2/2/2/1 [7]
KicOffset-st: 2/2/2/1 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [7/7]

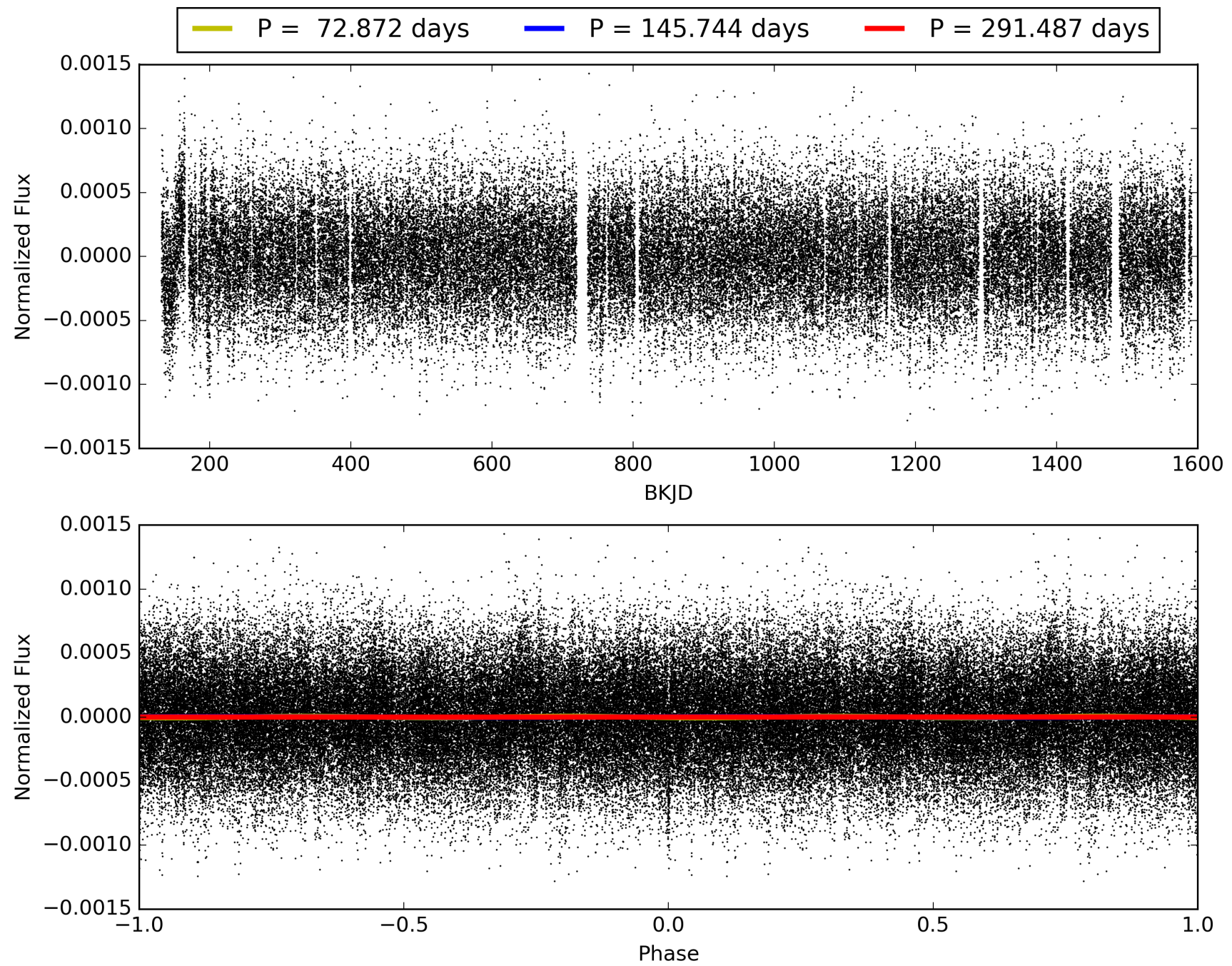
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:16:11 Z

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

TCE 010263598-01, PDC Light Curves

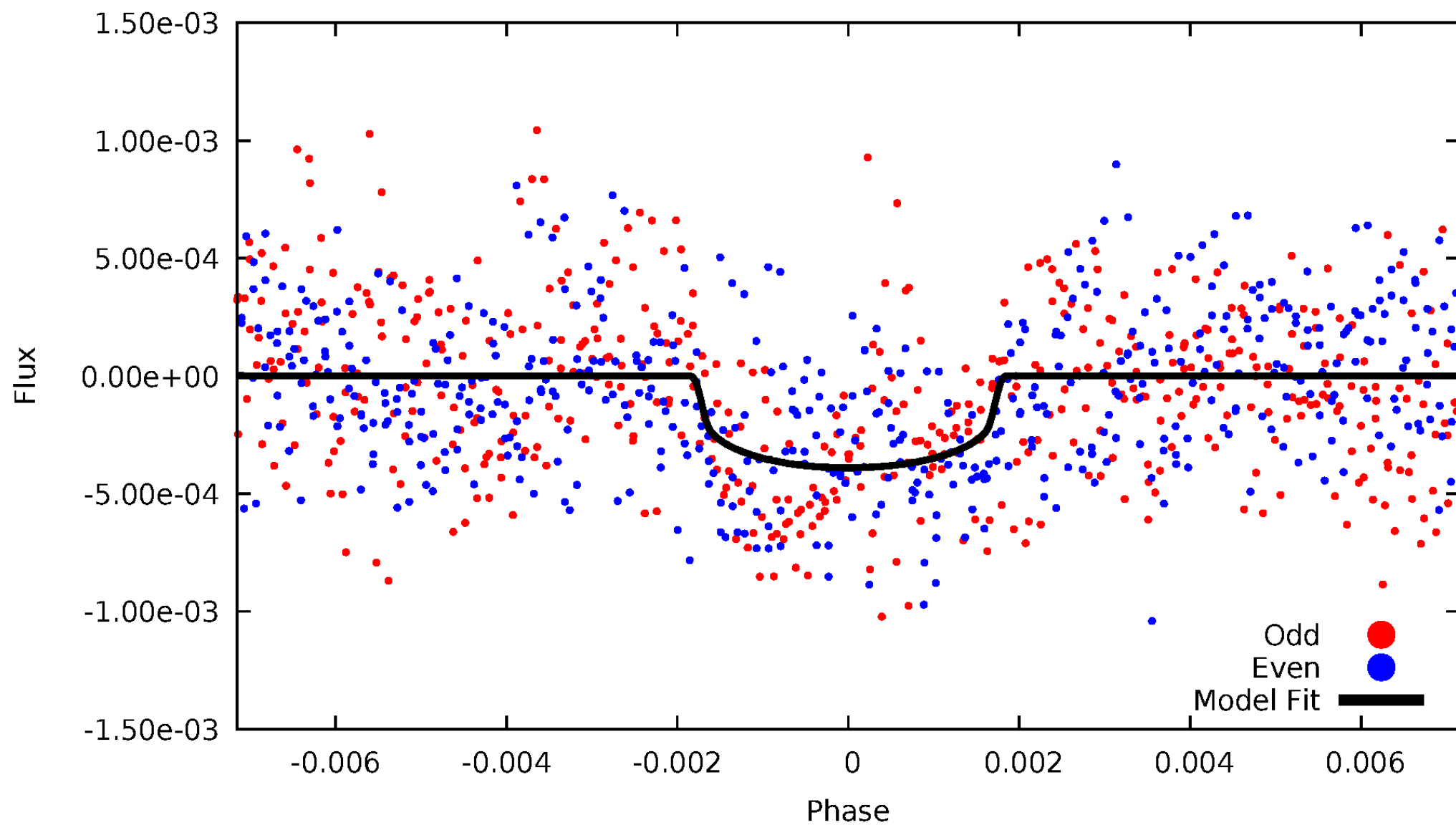


TCE 010263598-01



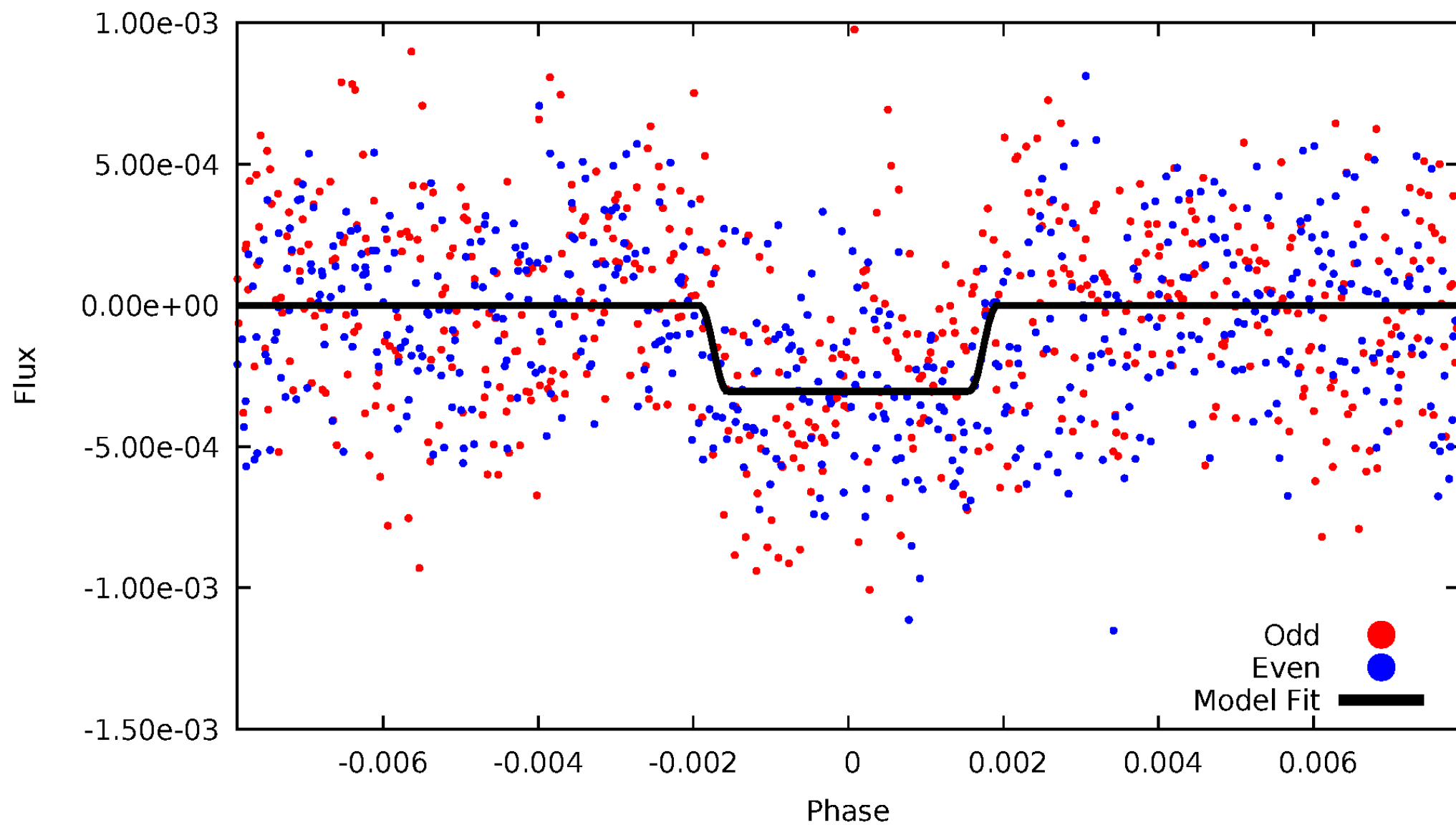
DV Odd/Even

TCE 010263598-01

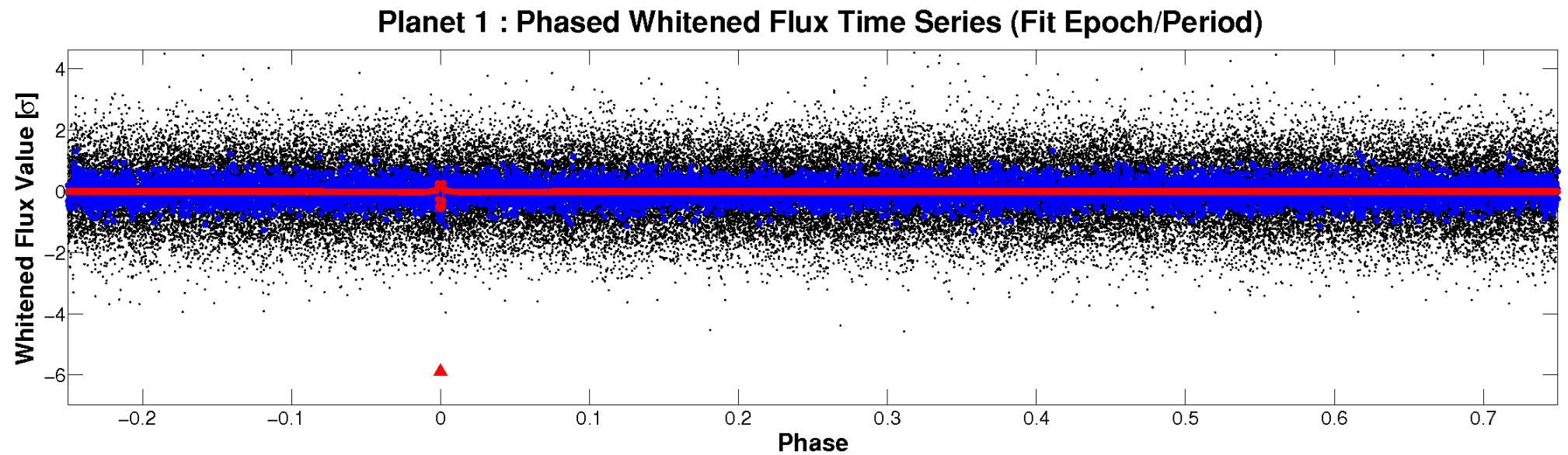
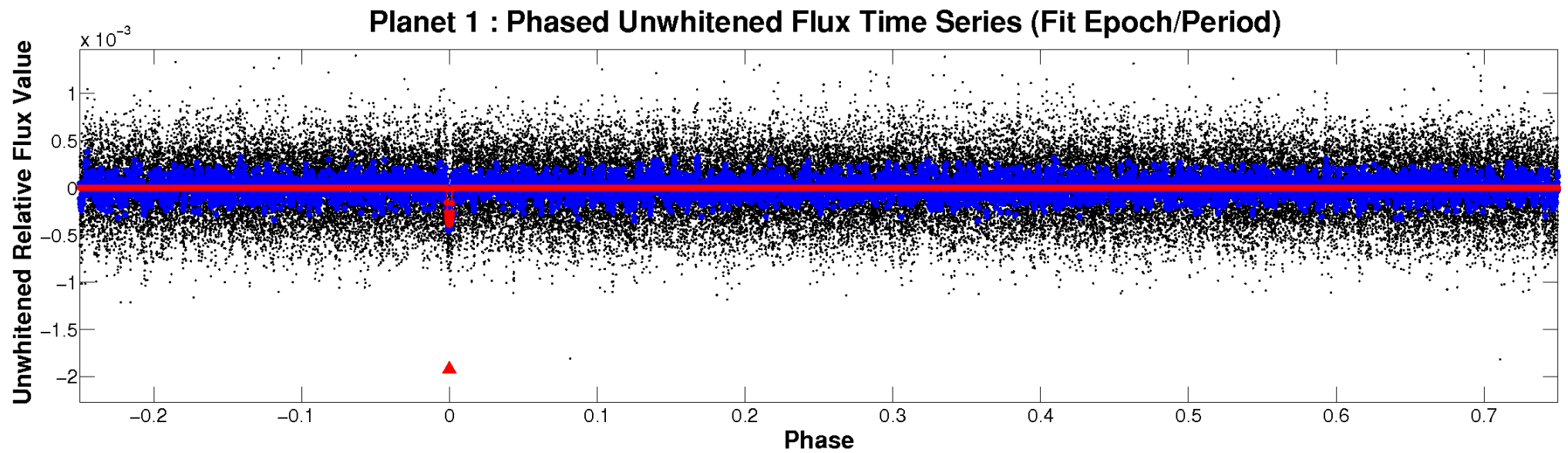


ALT Odd/Even

TCE 010263598-01

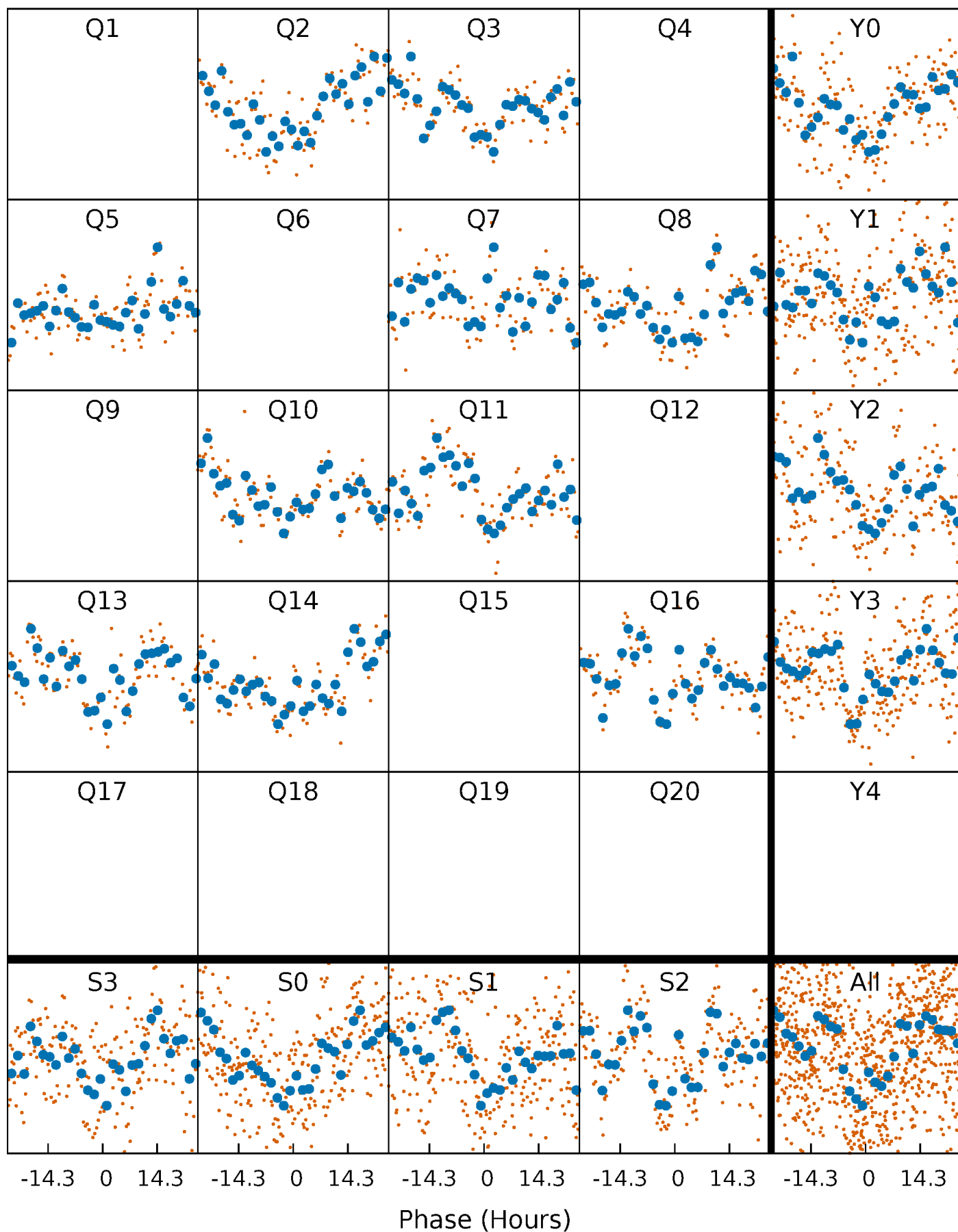


Non-Whitened Vs. Whitened Light Curve



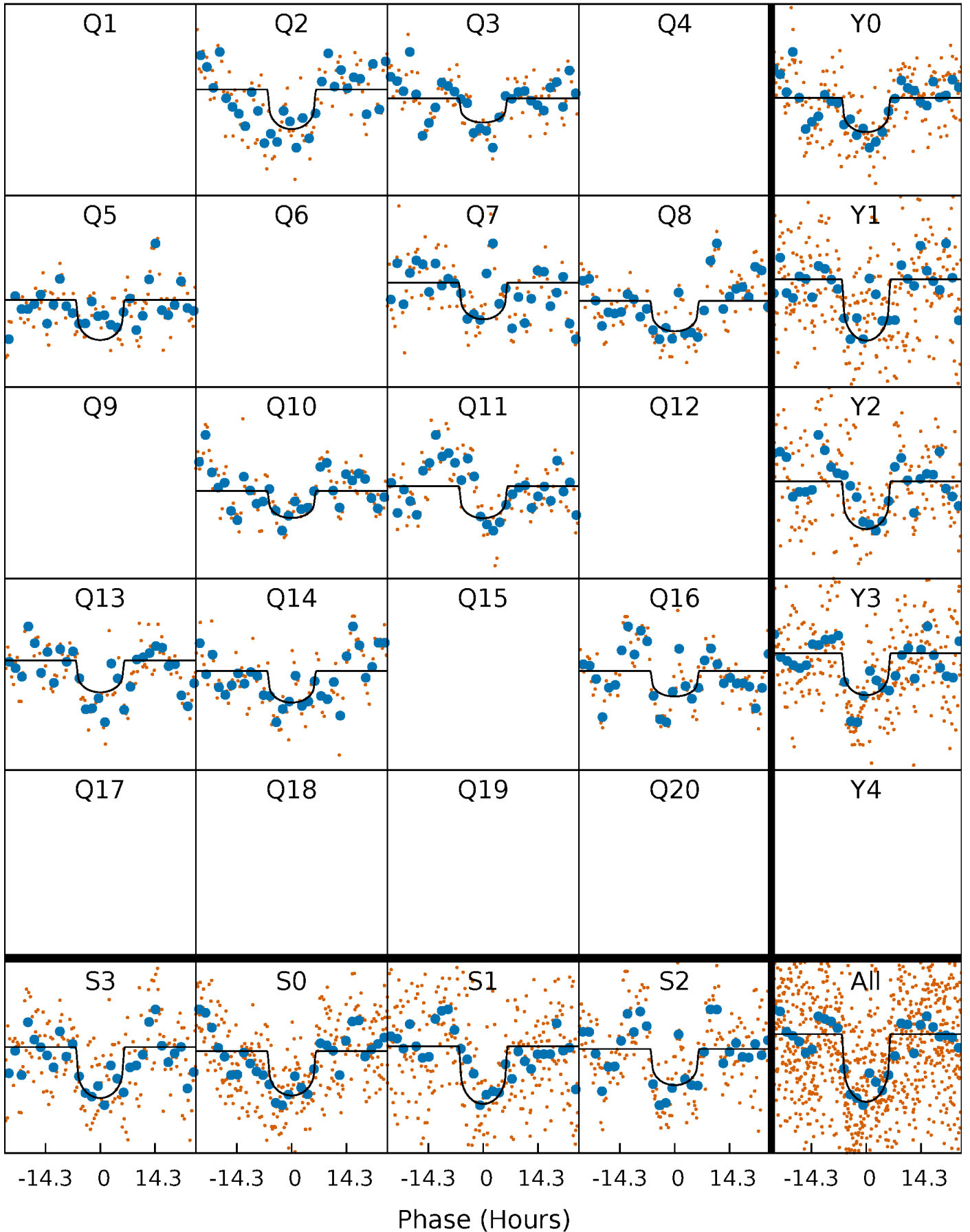
PDC Quarter-Phased Transit Curves

TCE 010263598-01 $P=145.743623$ Days $T_0=199.644628$ (BKJD)



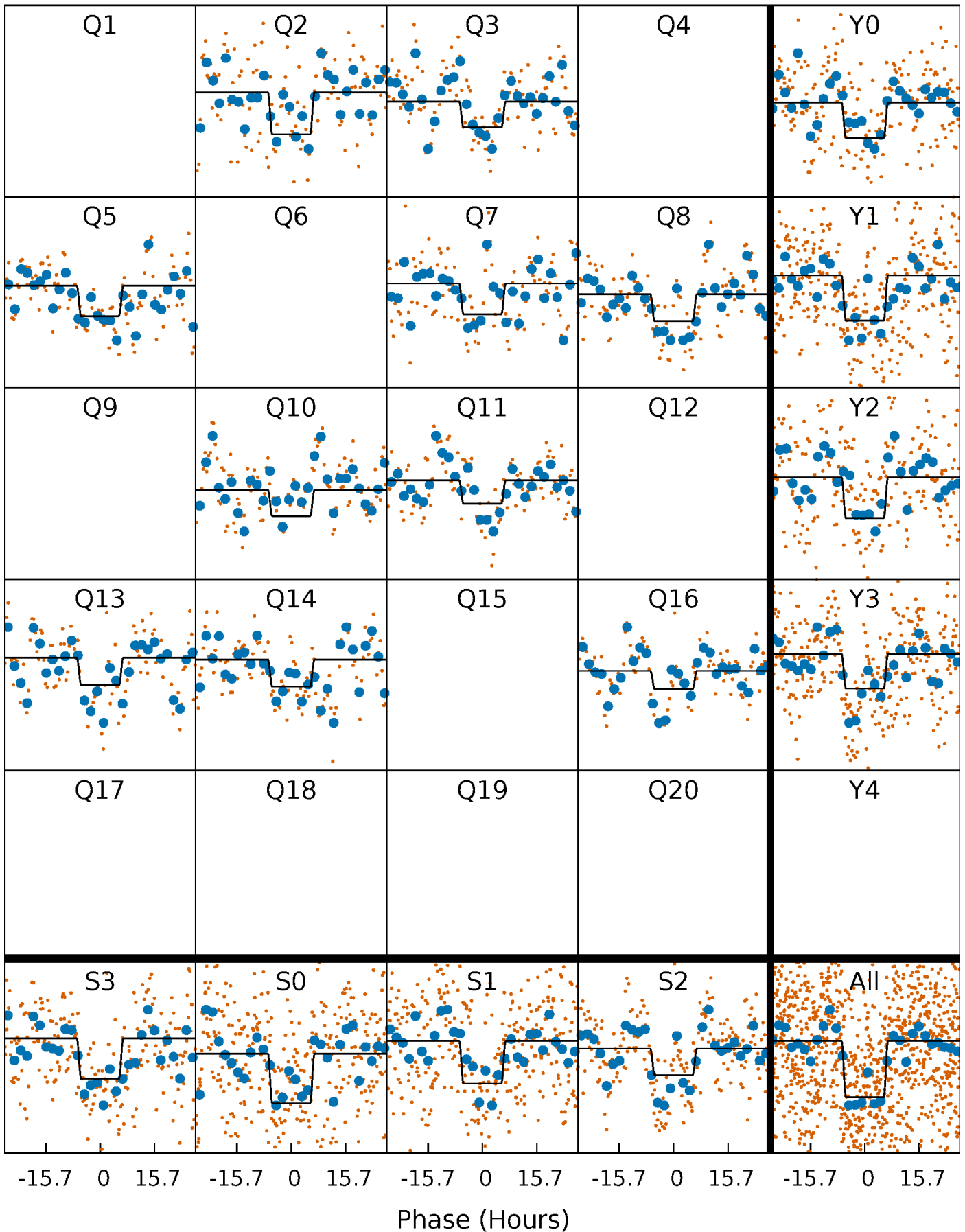
DV Quarter-Phased Transit Curves

TCE 010263598-01 P=145.743623 Days $T_0=199.644628$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

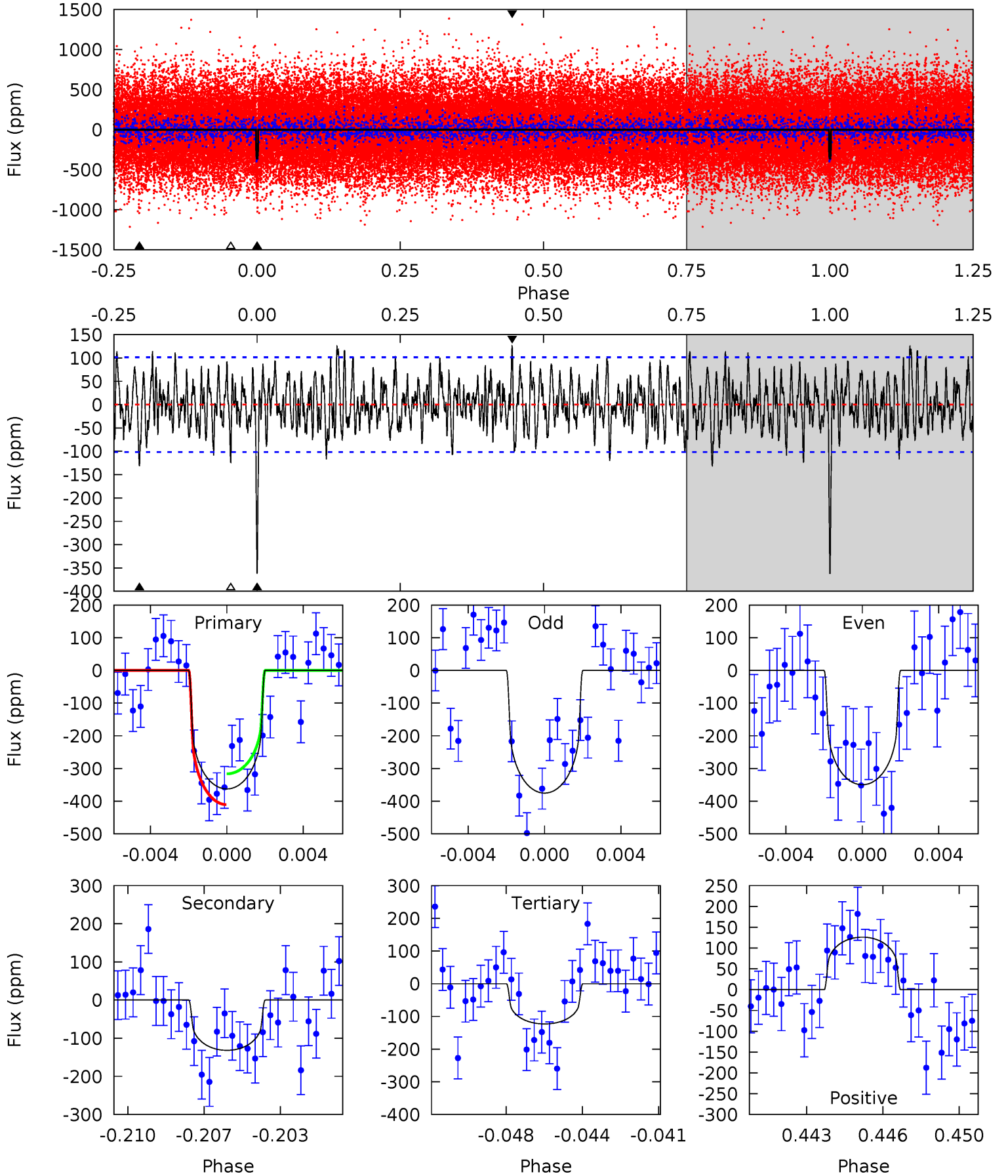
TCE 010263598-01 $P=145.745772$ Days $T_0=199.646846$ (BKJD)



DV Model-Shift Uniqueness Test

010263598-01, $P = 145.743623$ Days, $E = 53.901005$ Days

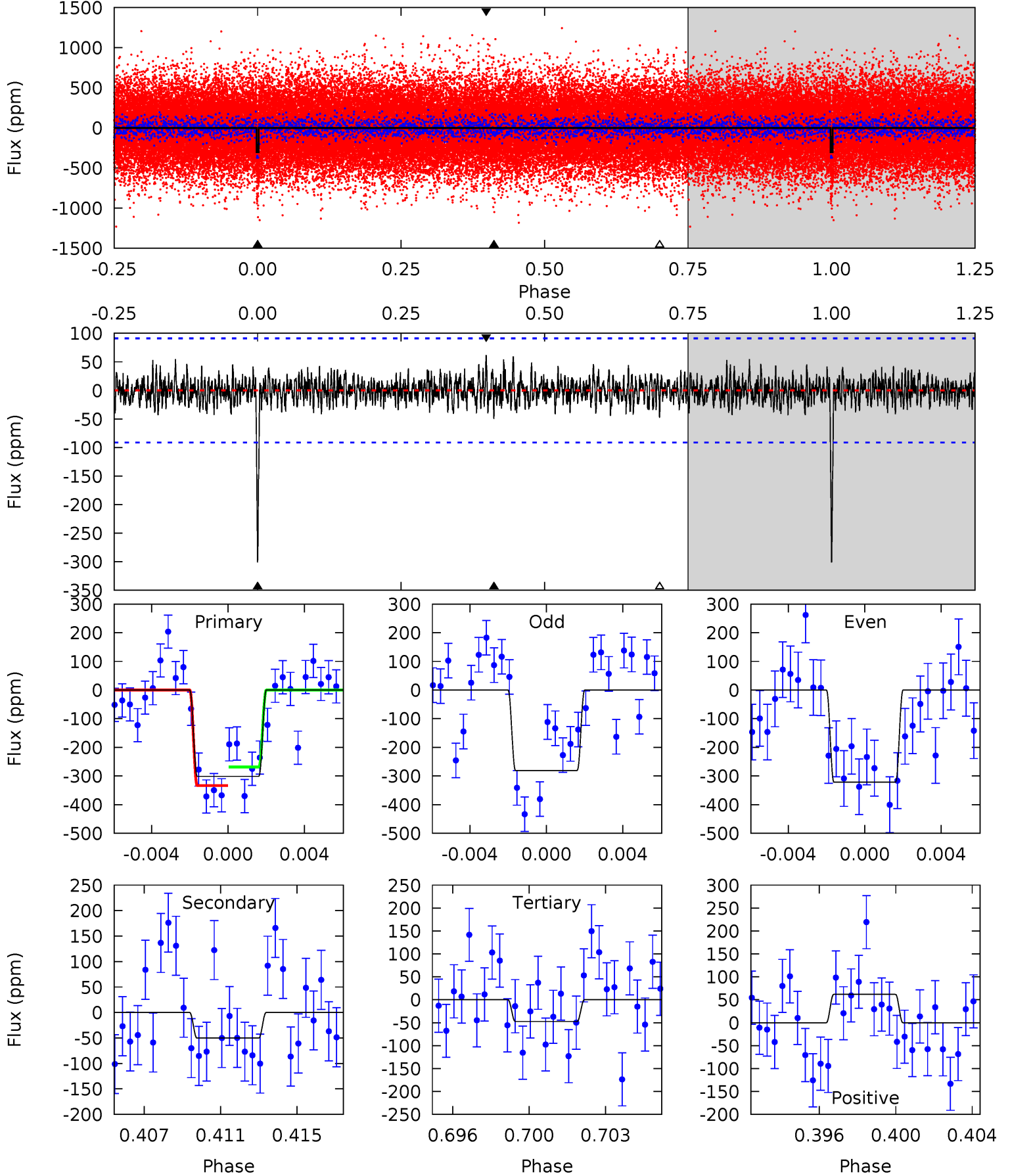
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	6.78	6.33	6.48	5.21	2.90	2.22	12.3	12.2	0.45	0.29	0.66	0.87	0.26	2.43



Alt Model-Shift Uniqueness Test

010263598-01, $P = 145.745772$ Days, $E = 53.901074$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	2.86	2.71	3.53	5.21	2.89	0.96	14.5	13.7	0.15	-0.67	1.16	0.94	0.17	1.85



Stellar Parameters For KIC 010263598

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5096^{+59}_{-209}	$3.007^{+0.030}_{-0.030}$	$0.070^{+0.150}_{-0.450}$	$8.038^{+0.461}_{-2.460}$	$2.394^{+0.221}_{-1.253}$	$0.006^{+0.003}_{-0.000}$
	+1%/-4%	+1%/-1%	+214%/-643%	+6%/-31%	+9%/-52%	+48%/-7%
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 010263598-01 / KOI 7995.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-132 ± 19	$16.71^{+5.41}_{-5.28}$	1045^{+22}_{-45}	4144^{+602}_{-395}	138^{+145}_{-60}
Alt.	-50 ± 18	$15.32^{+5.00}_{-5.19}$	1044^{+23}_{-40}	3609^{+580}_{-380}	62^{+82}_{-31}

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

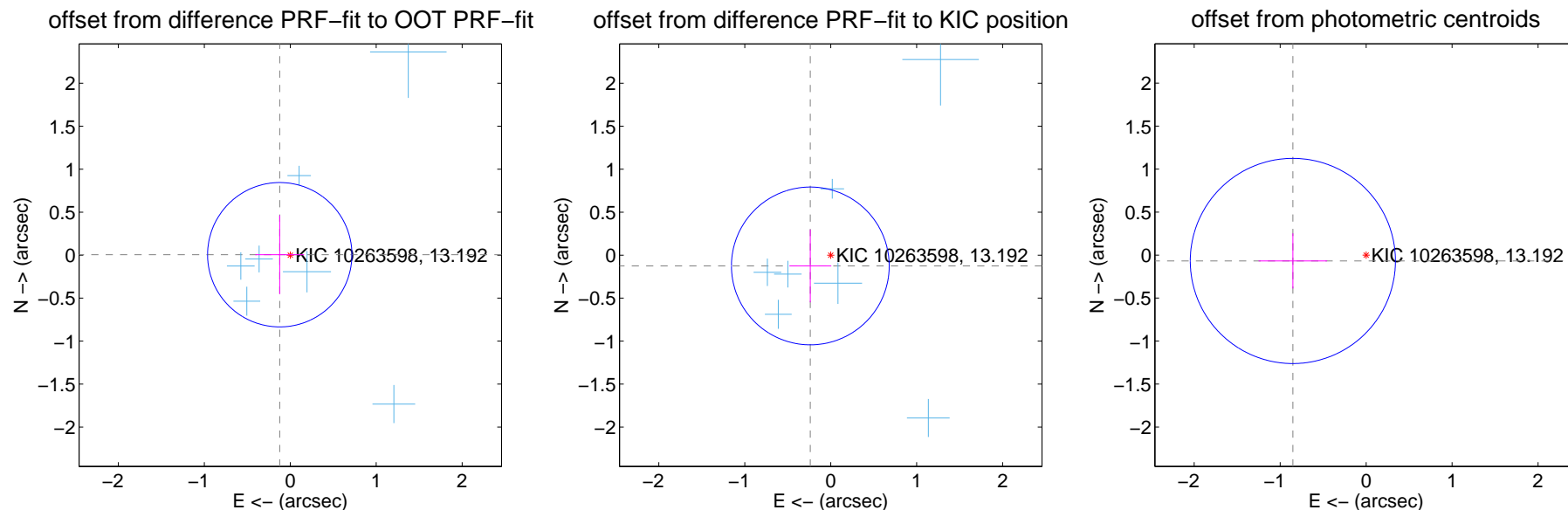
DV Centroid Data

Supplemental centroid analysis for 010263598-01. Kepler magnitude: 13.19. Transit SNR 8.10

There are 7 quarters with good PRF difference image offsets

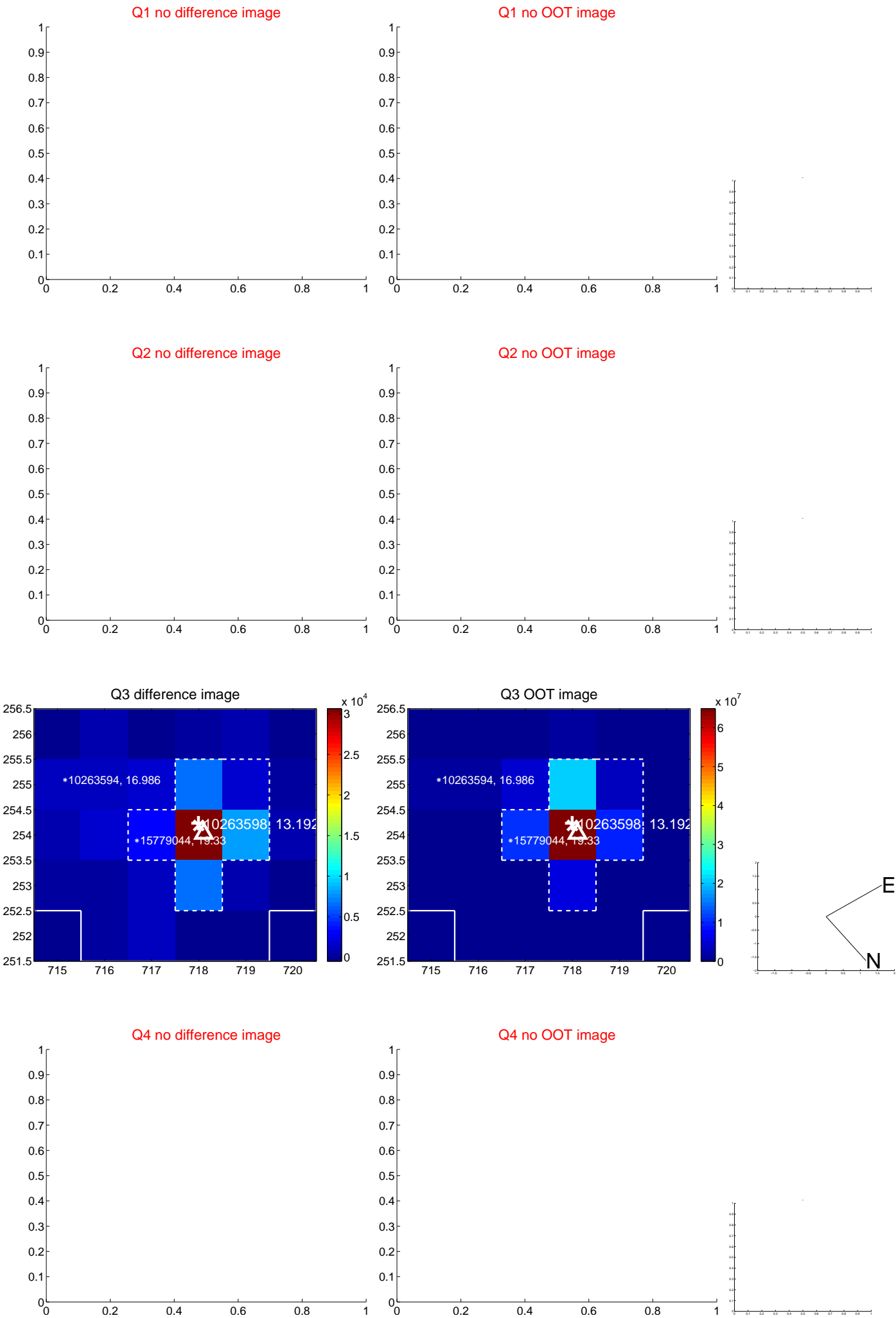
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.122 ± 0.280	0.44	0.122 ± 0.284	0.005 ± 0.458
PRF-fit source offset from KIC position	0.268 ± 0.306	0.88	0.237 ± 0.244	-0.125 ± 0.423
photometric centroid source offset	0.85 ± 0.40	2.15	0.85 ± 0.40	-0.07 ± 0.32

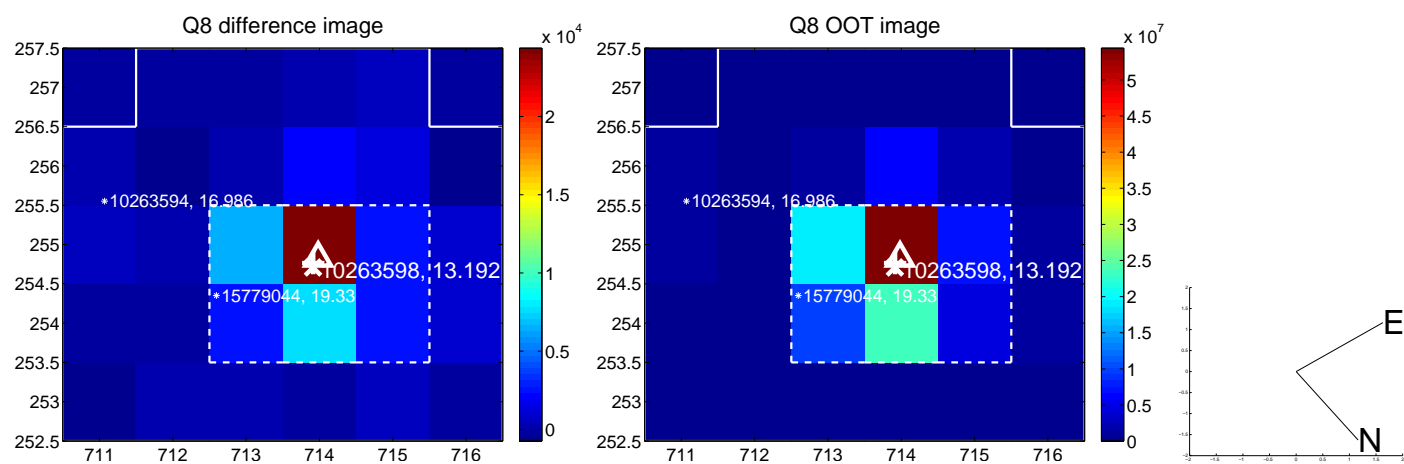
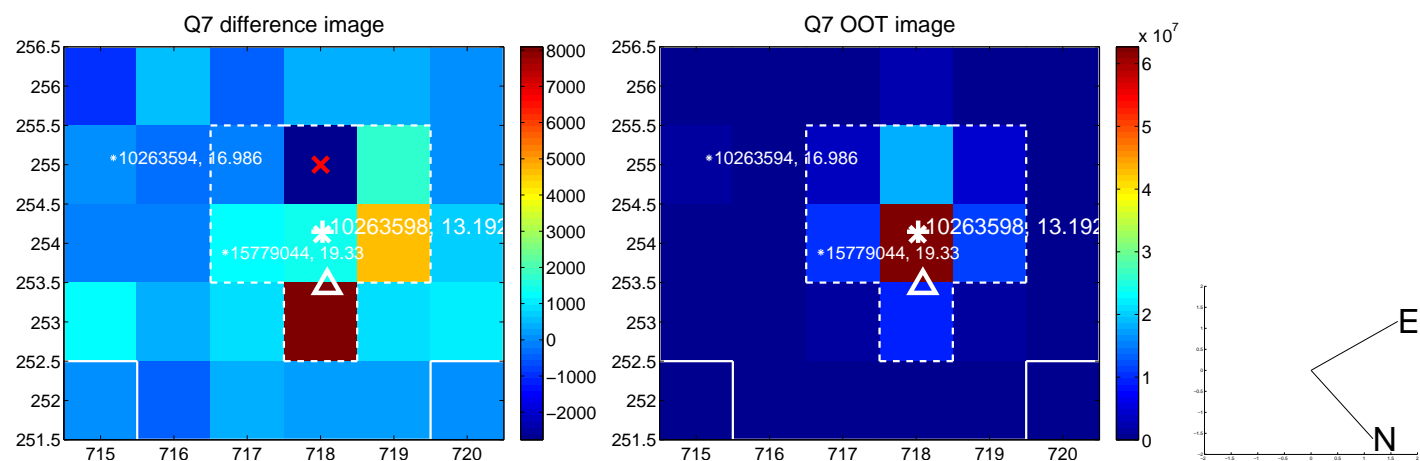
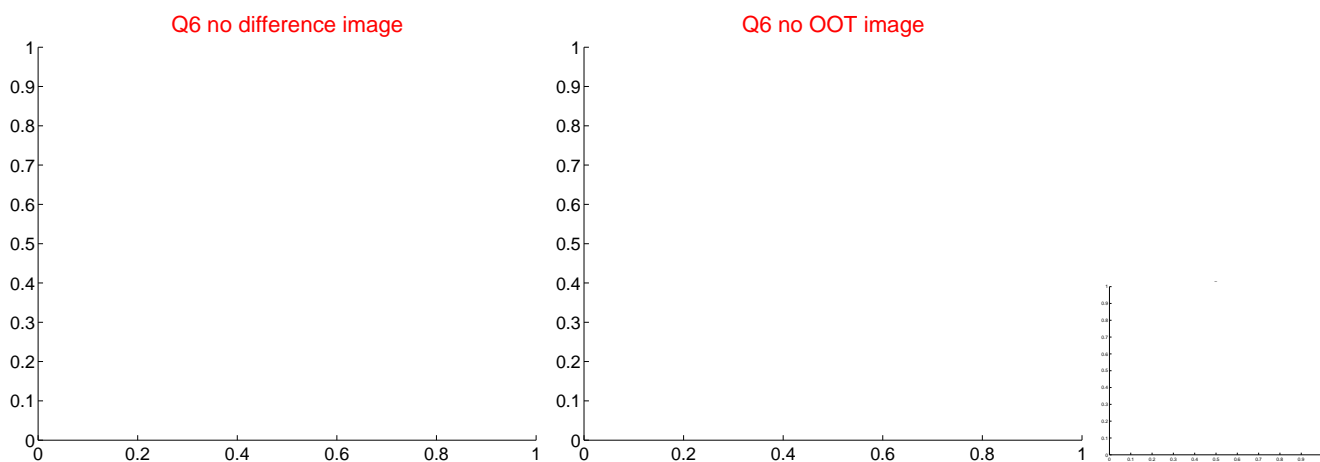
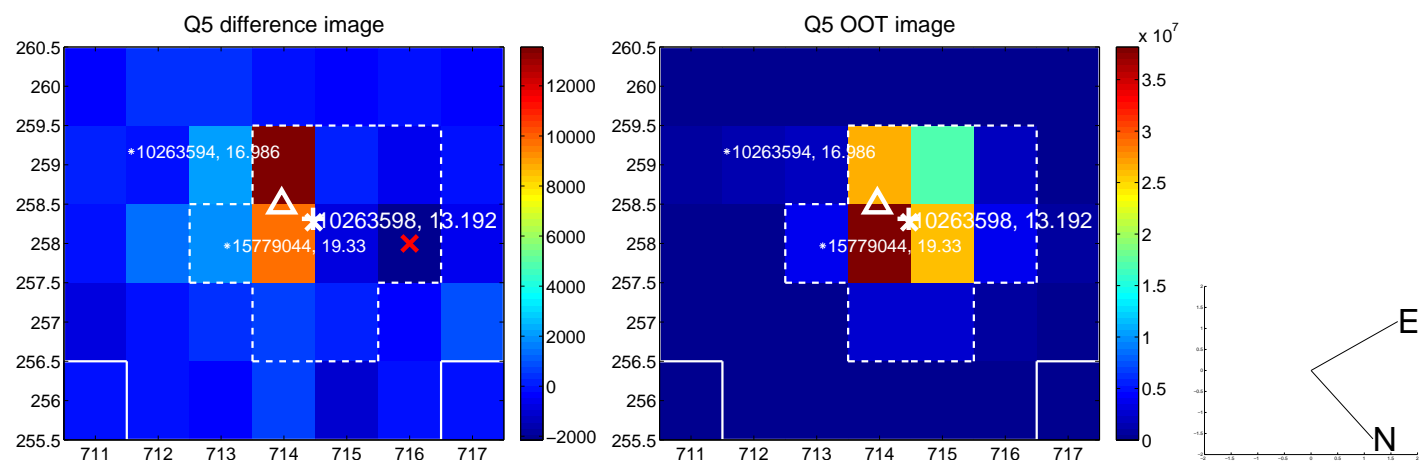


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

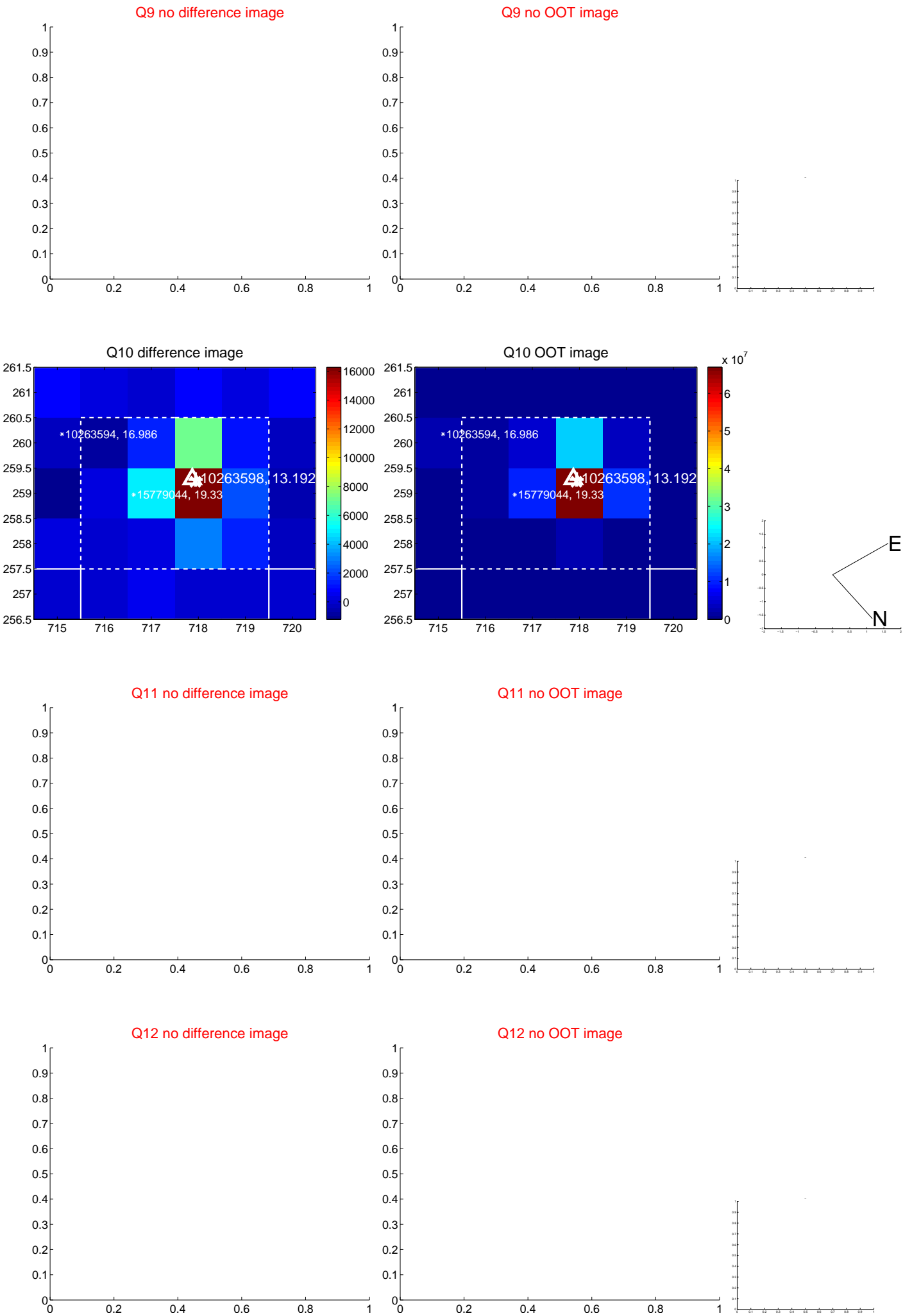
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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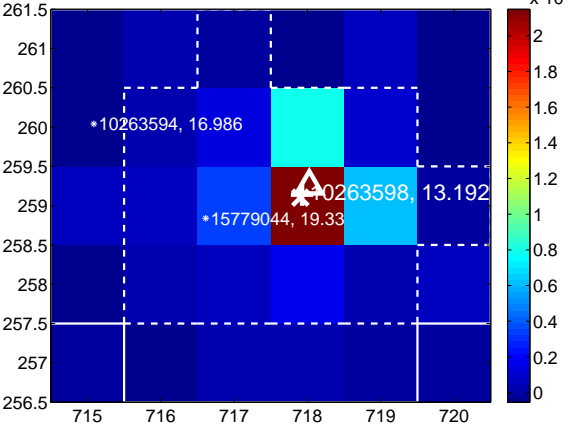
Q13 no difference image



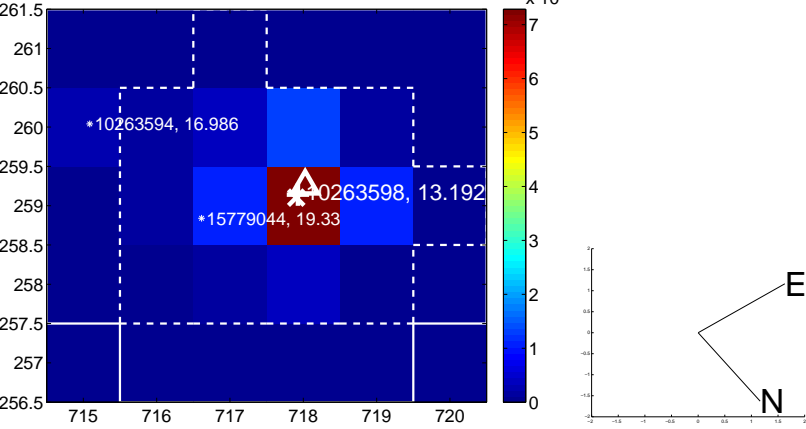
Q13 no OOT image



Q14 difference image



Q14 OOT image



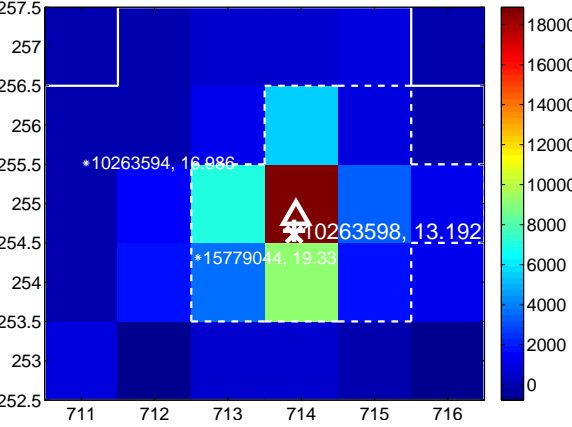
Q15 no difference image



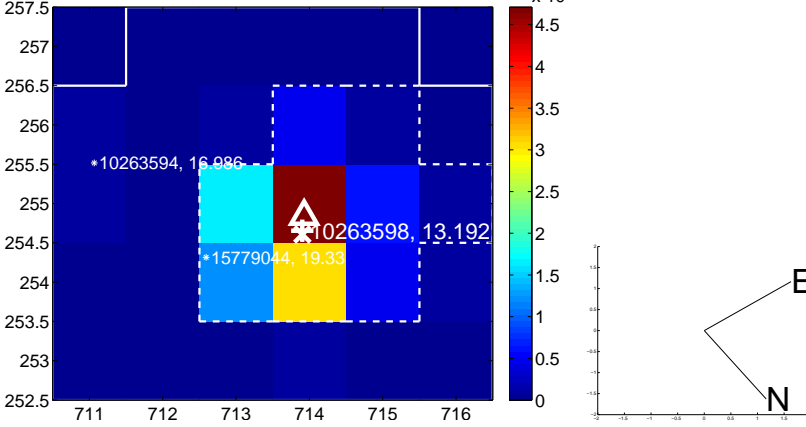
Q15 no OOT image



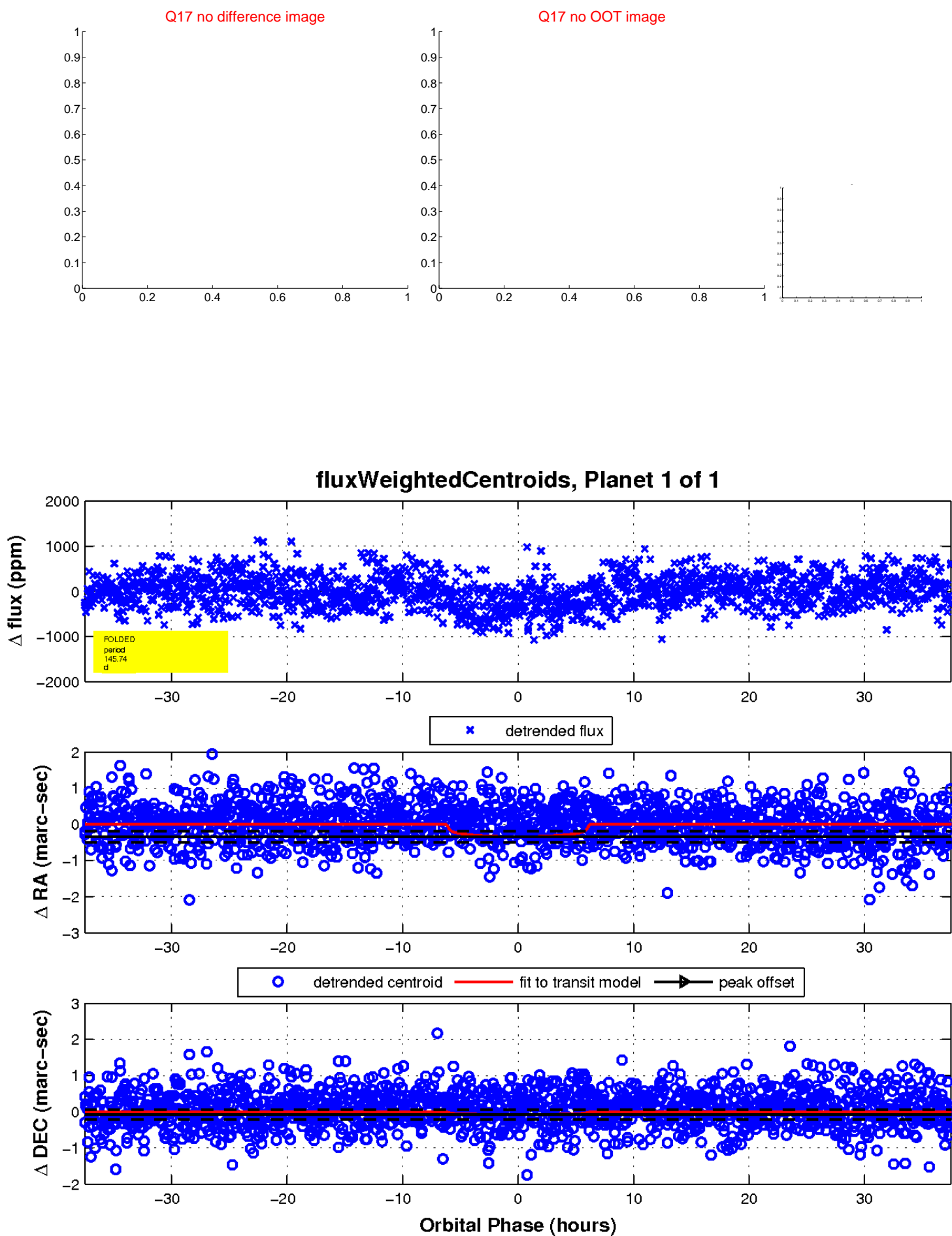
Q16 difference image



Q16 OOT image



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



UKIRT Image

