

KIC 008492026

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})
008492026-01	OBS	2016.01	4.306553	132.442322	258.0	4.125	31.4	35.0	1.03	6108	1.95	453.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008492026-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

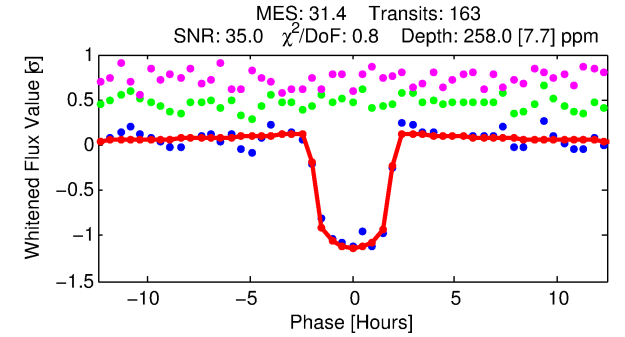
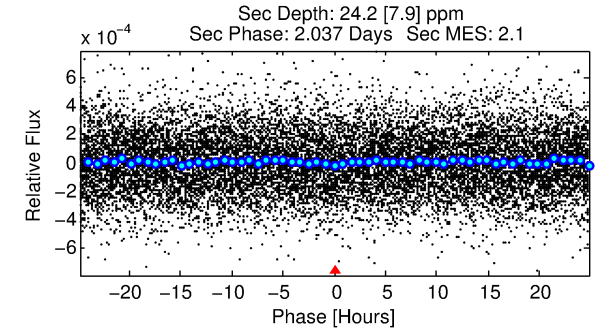
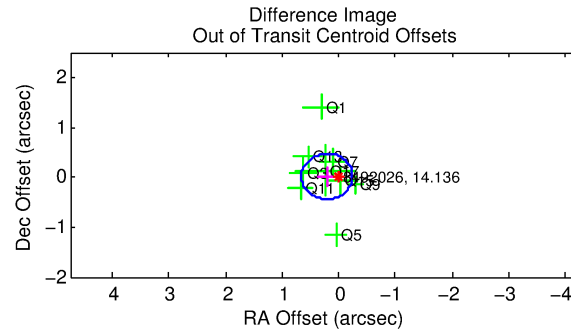
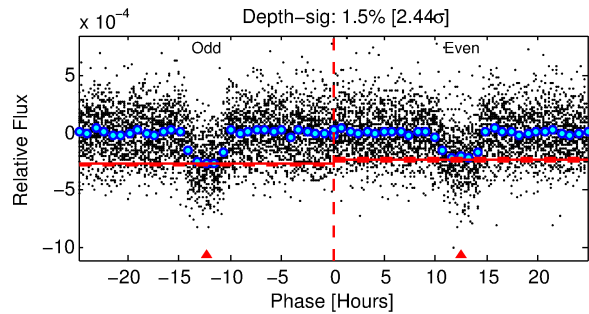
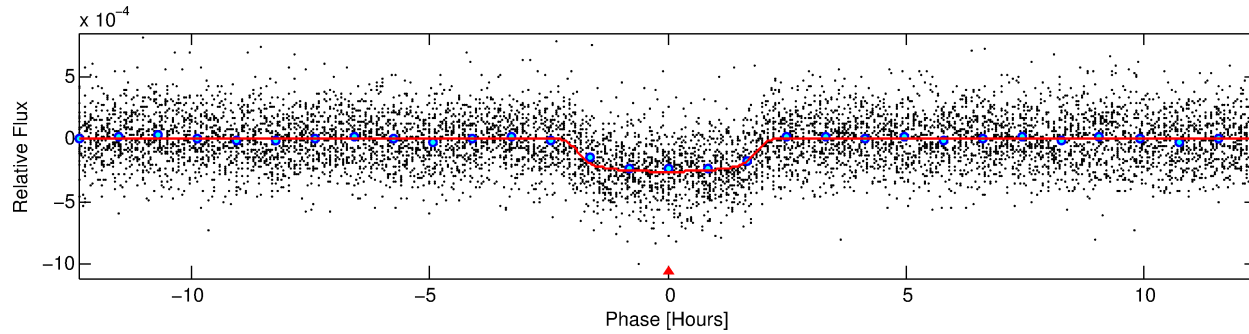
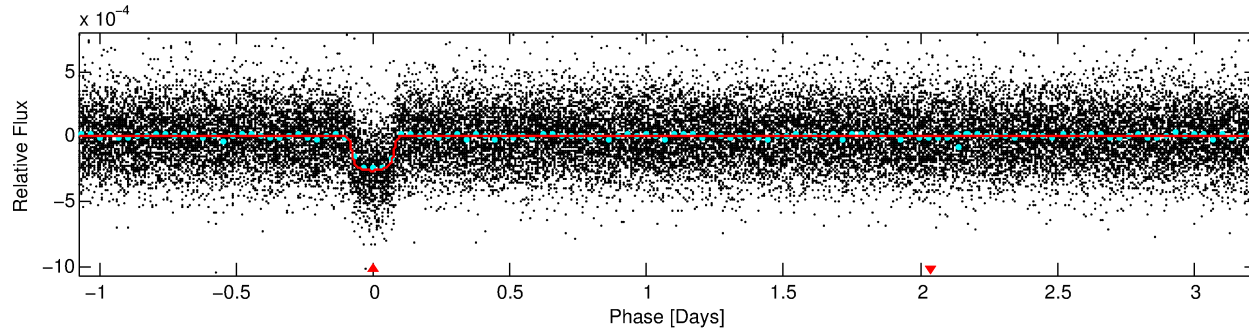
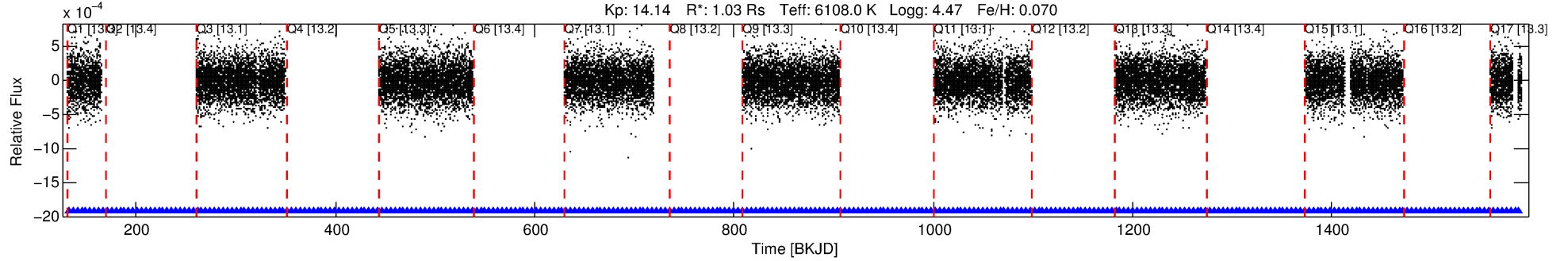
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008492026-01

No Significant Match Found

DV One-Page Summary

KIC: 8492026 Candidate: 1 of 1 Period: 4.307 d
KOI: K02016.01 Corr: 0.993



DV Fit Results:

Period = 4.30655 [0.00001] d
Epoch = 132.4423 [0.0018] BKJD
Rp/R* = 0.0174 [0.0015]
a/R* = 3.91 [1.62]
b = 0.90 [0.10]
Seff = 453.81 [200.66]
Teq = 1177 [130] K
Rp = 1.95 [0.70] Re
a = 0.0540 [0.0156] AU
Ag = 10.18 [5.67] [1.62 σ]
Teffp = 3251 [328] K [5.88 σ]

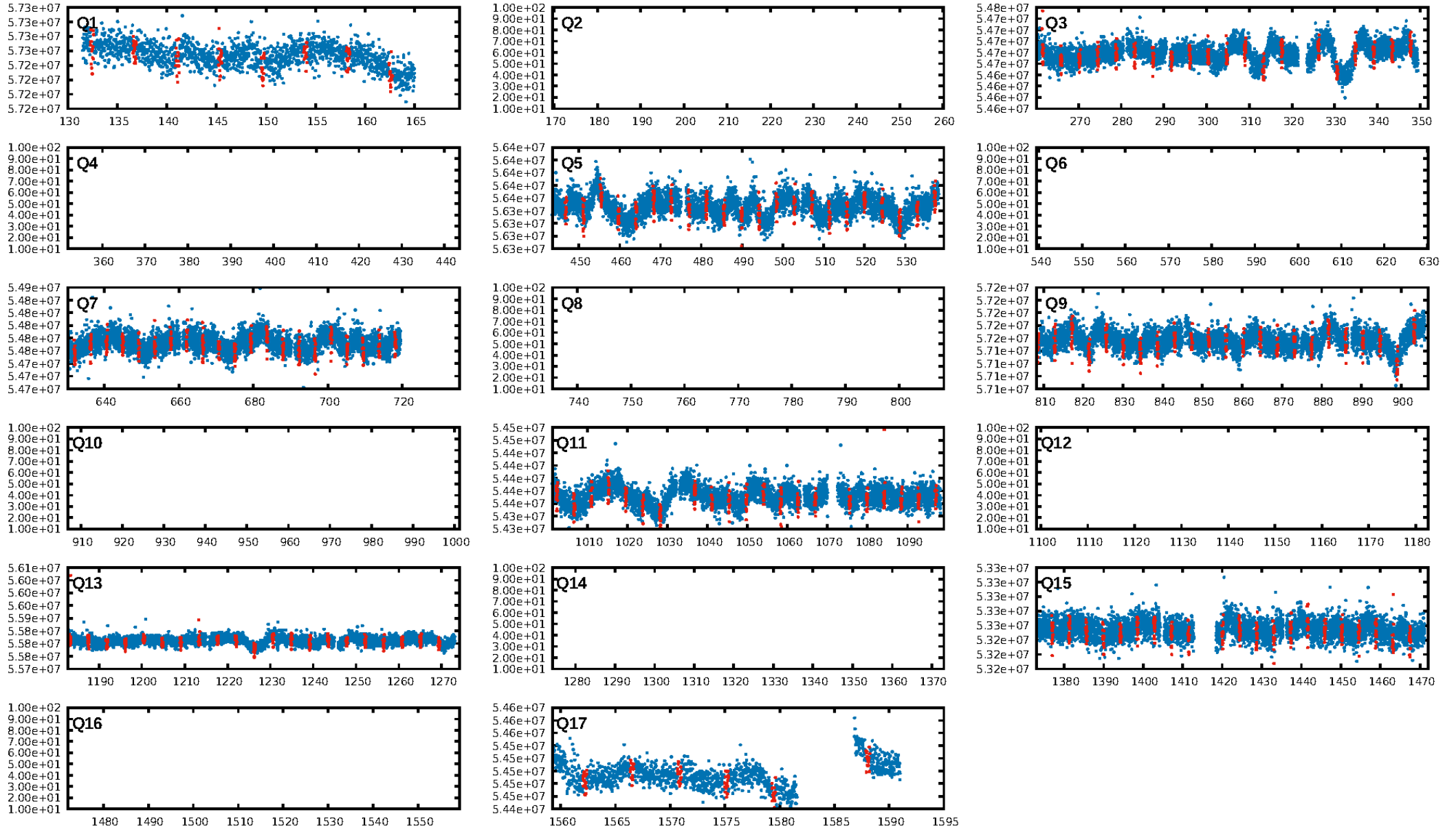
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.32e-210
RollingBand-fgt: 1.00 [149/149]
GhostDiagnostic-chr: 5.735
Centroid-sig: 1.8%
Centroid-so: 0.603 arcsec [1.71 σ]
OotOffset-rm: 0.211 arcsec [1.39 σ]
KicOffset-rm: 0.228 arcsec [1.24 σ]
OotOffset-st: 0/4/0/5 [9]
KicOffset-st: 0/4/0/5 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [9/9]

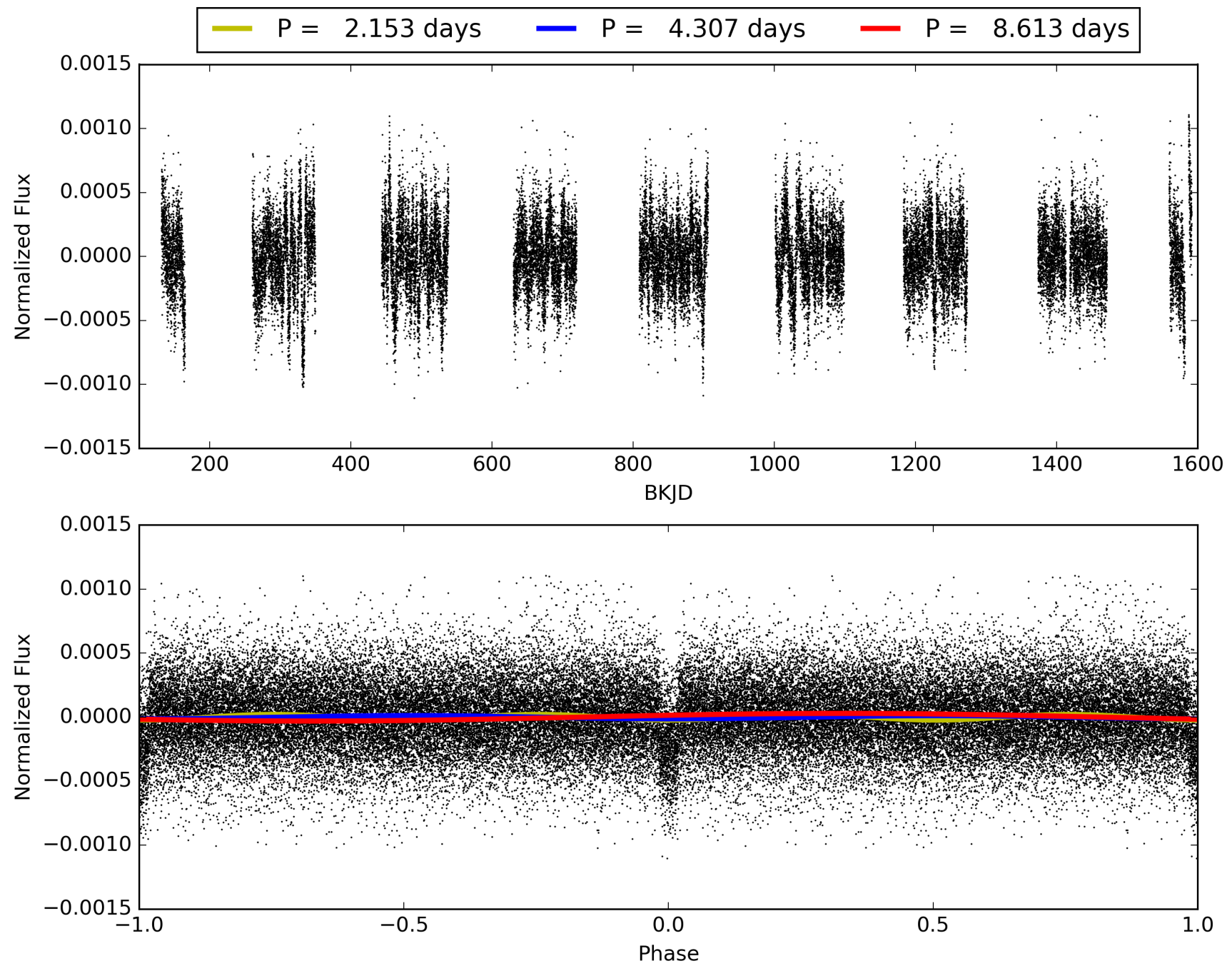
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:03:59 Z

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

TCE 008492026-01, PDC Light Curves

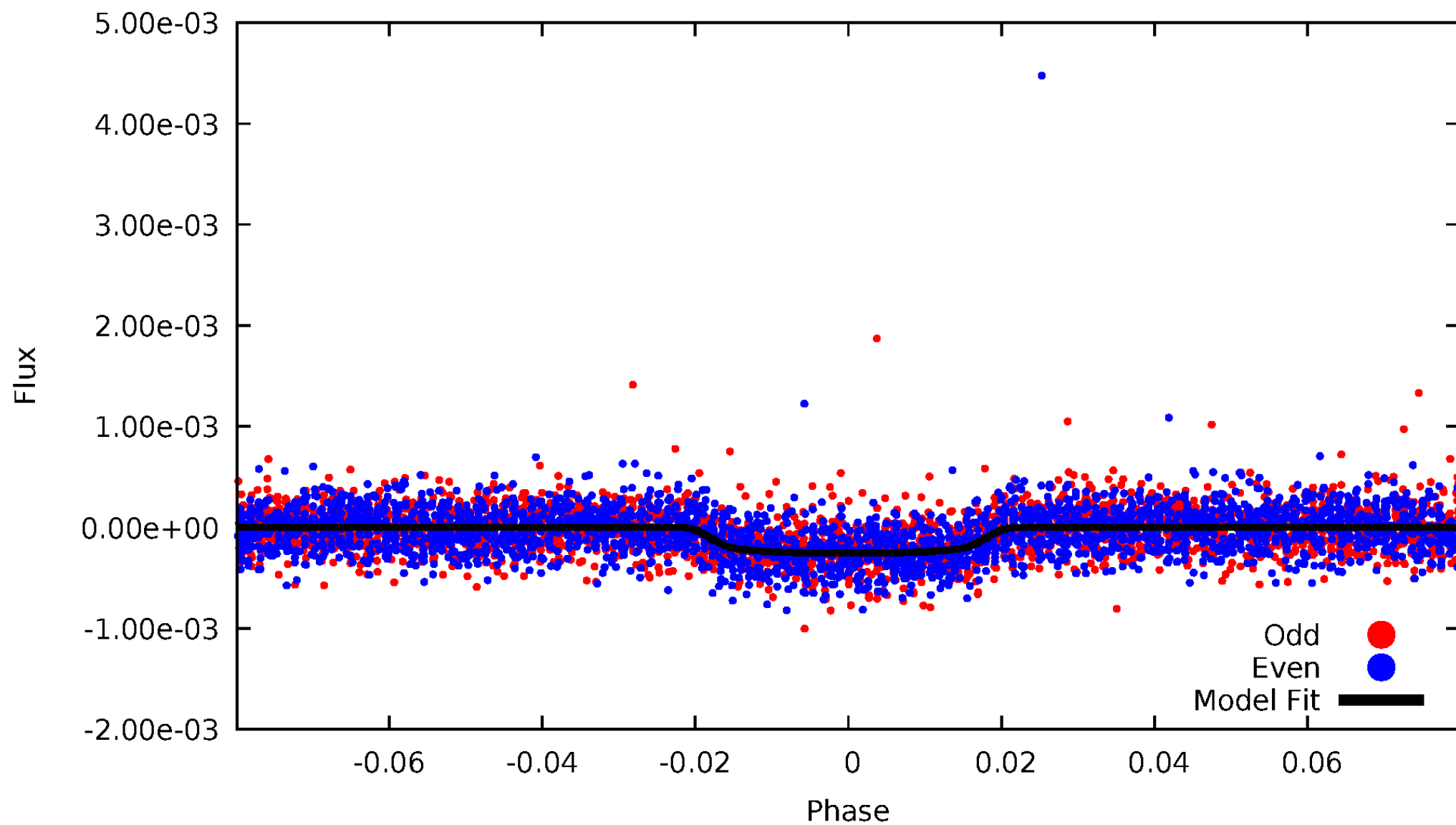


TCE 008492026-01



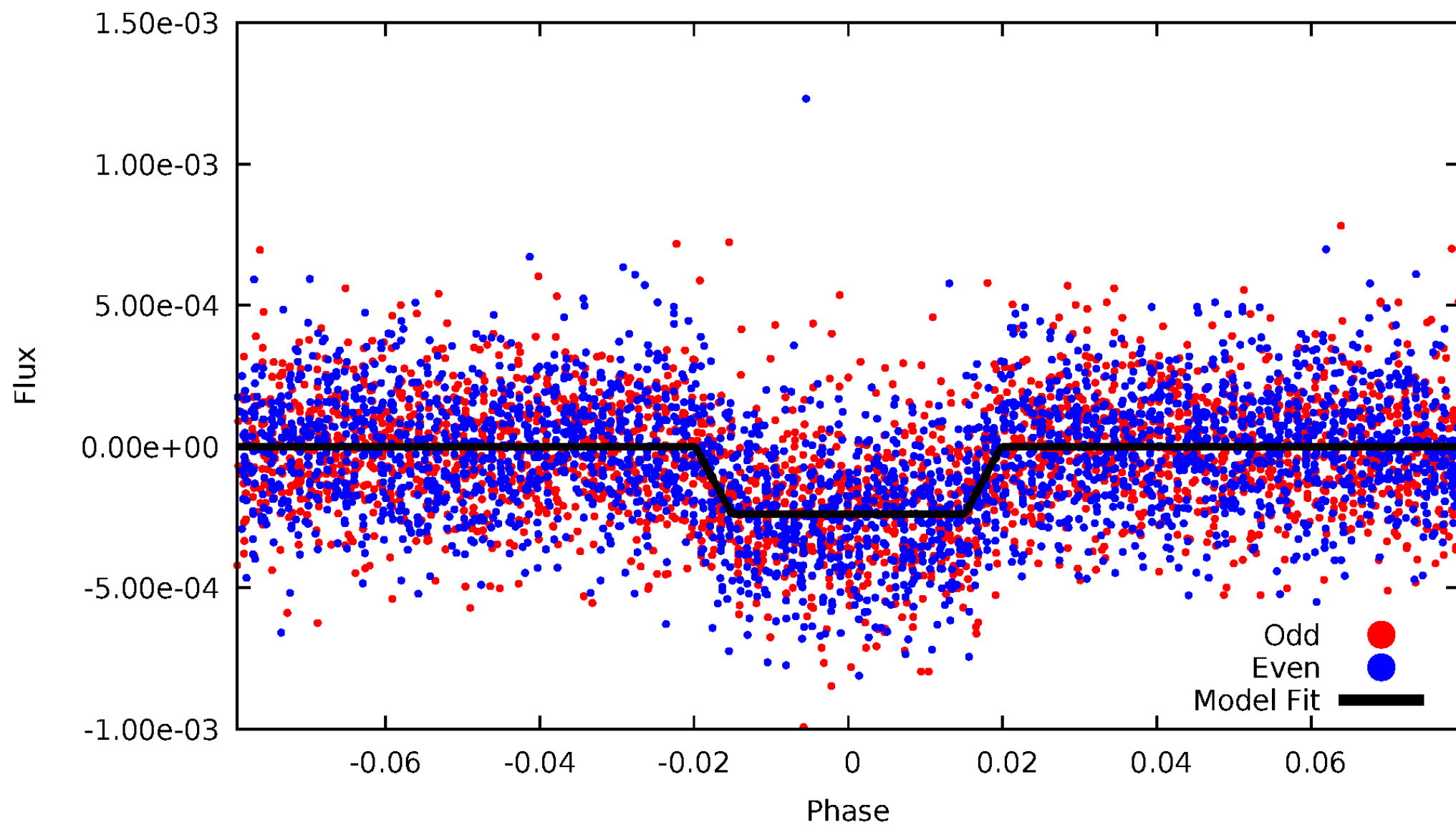
DV Odd/Even

TCE 008492026-01

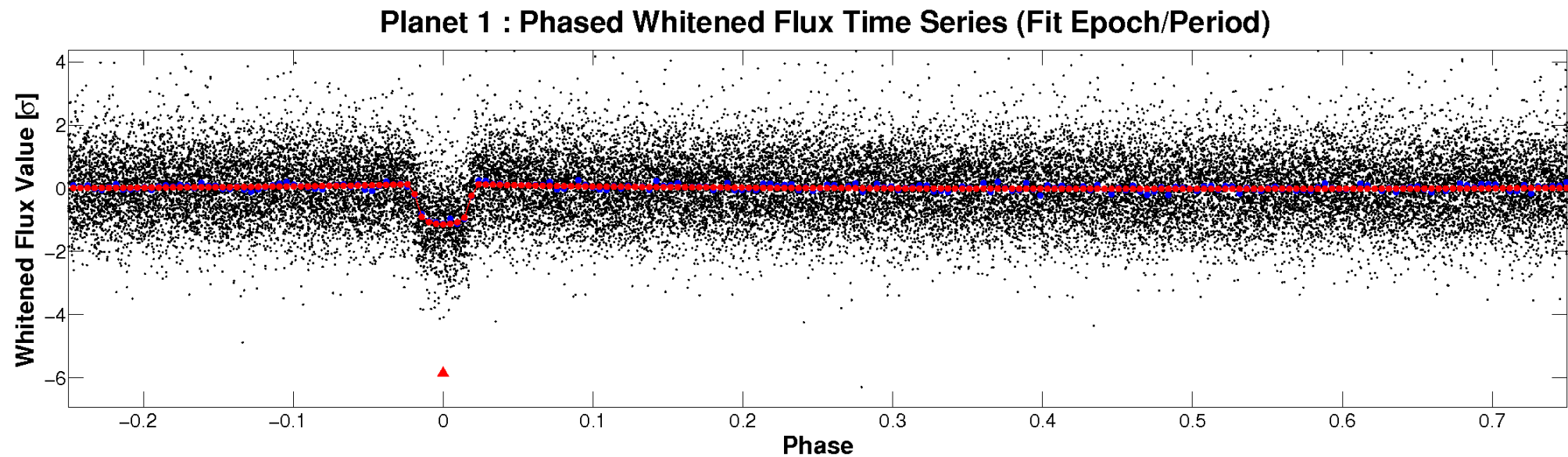
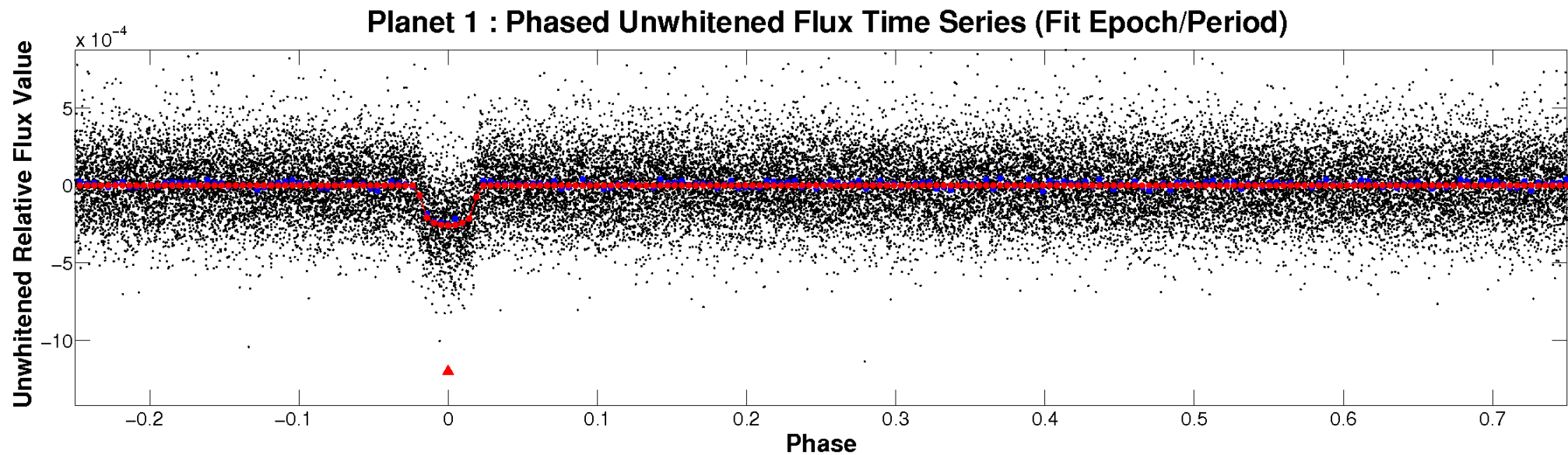


ALT Odd/Even

TCE 008492026-01

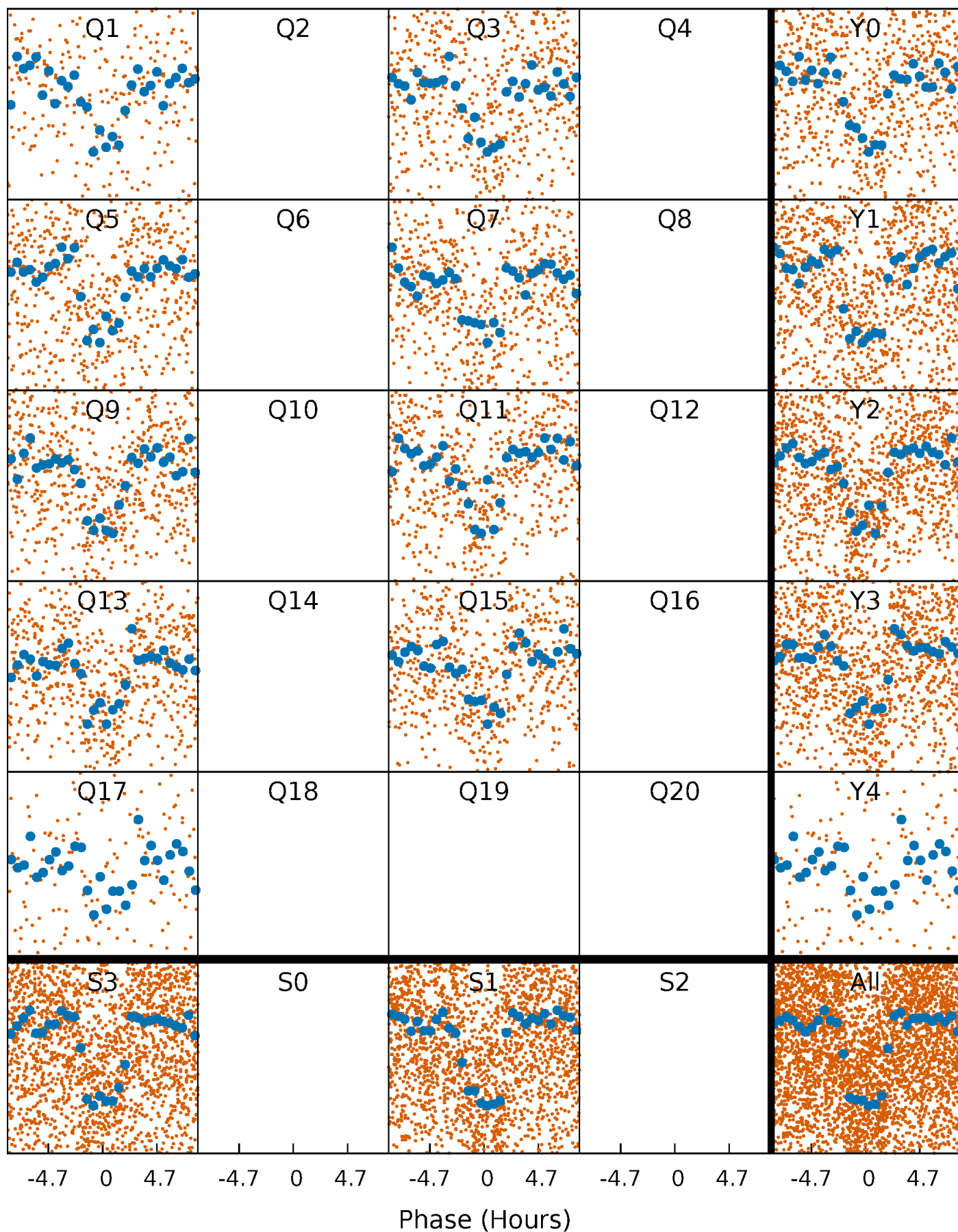


Non-Whitened Vs. Whitened Light Curve



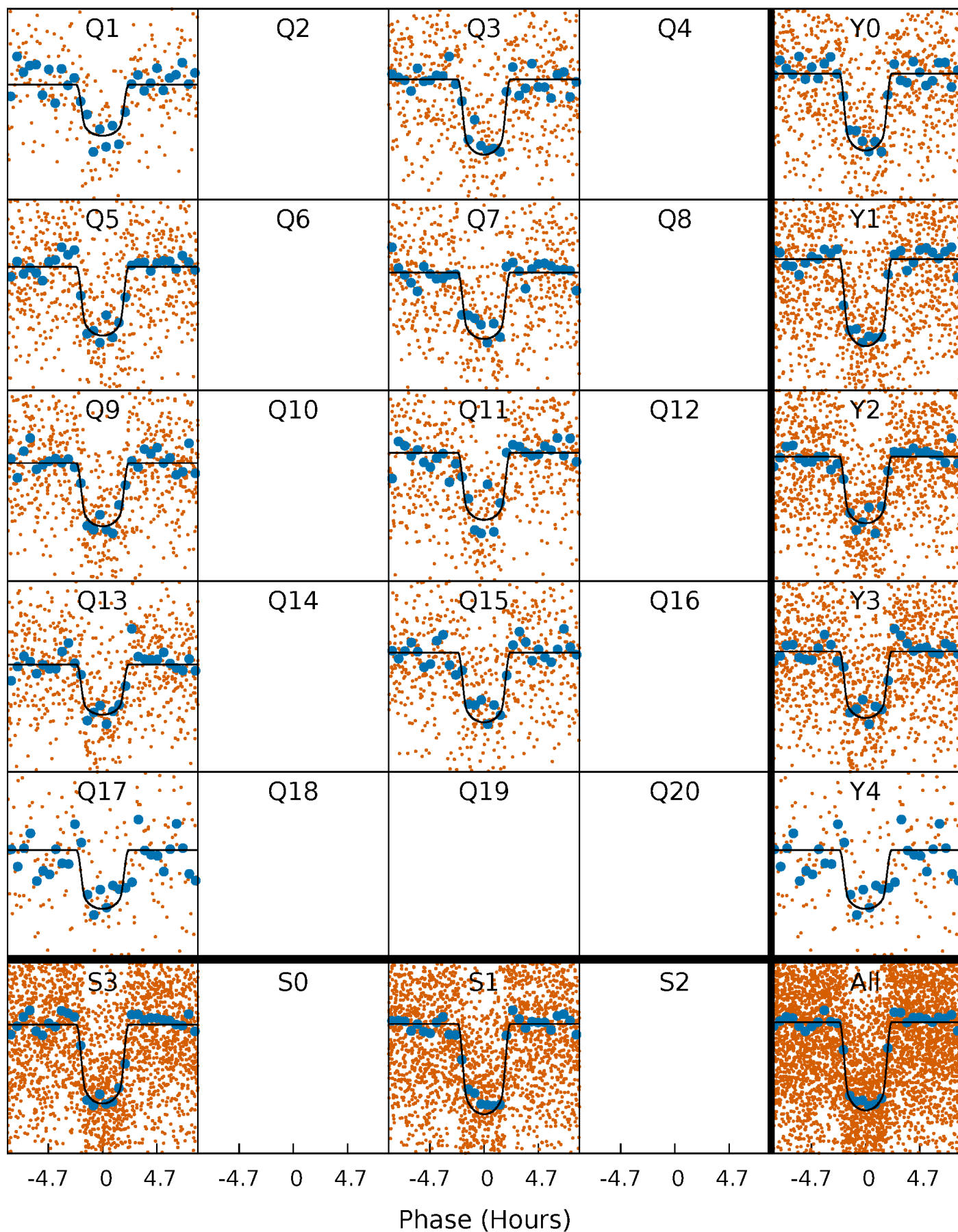
PDC Quarter-Phased Transit Curves

TCE 008492026-01 P= 4.306553 Days $T_0=132.442322$ (BKJD)



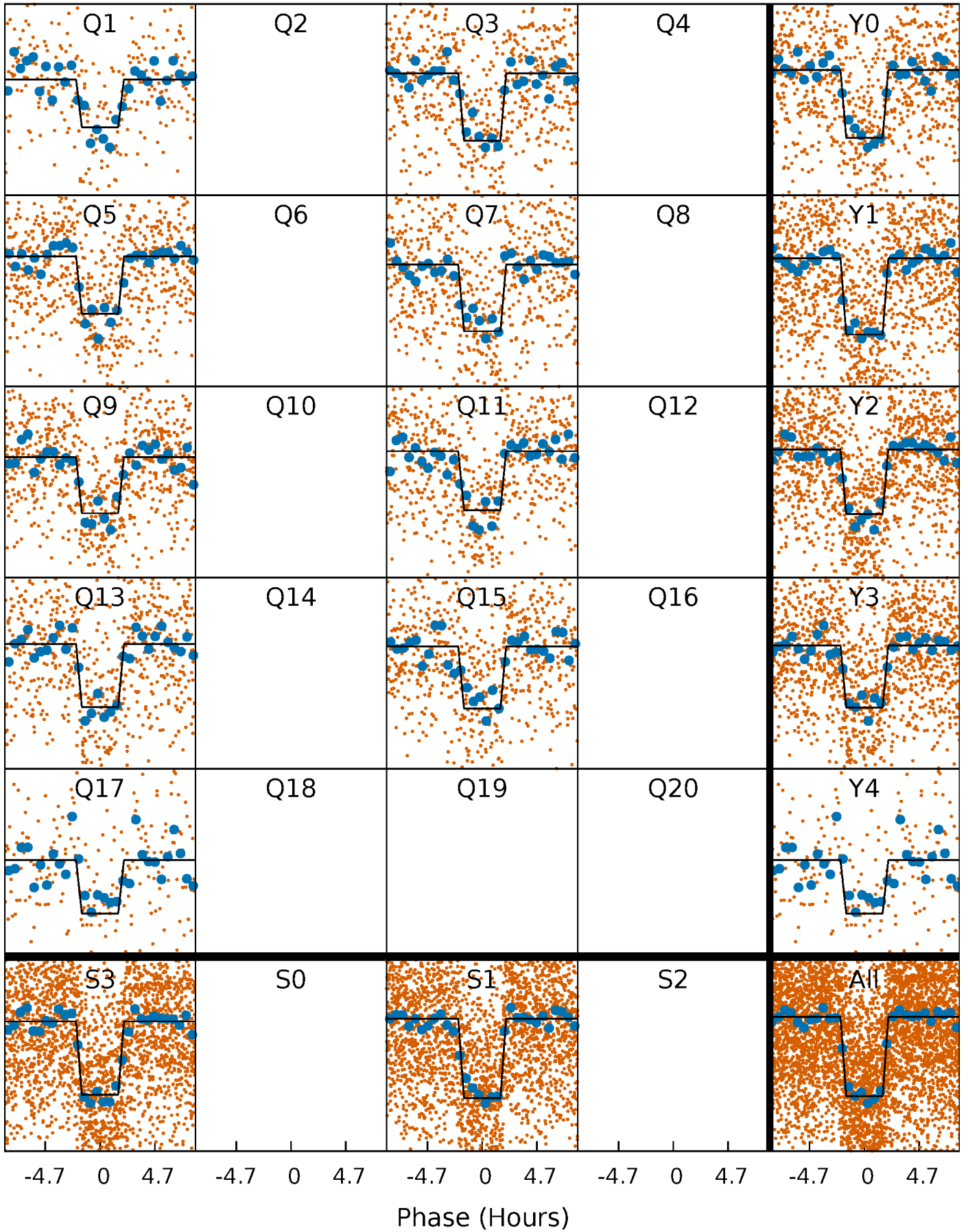
DV Quarter-Phased Transit Curves

TCE 008492026-01 P= 4.306553 Days $T_0=132.442322$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

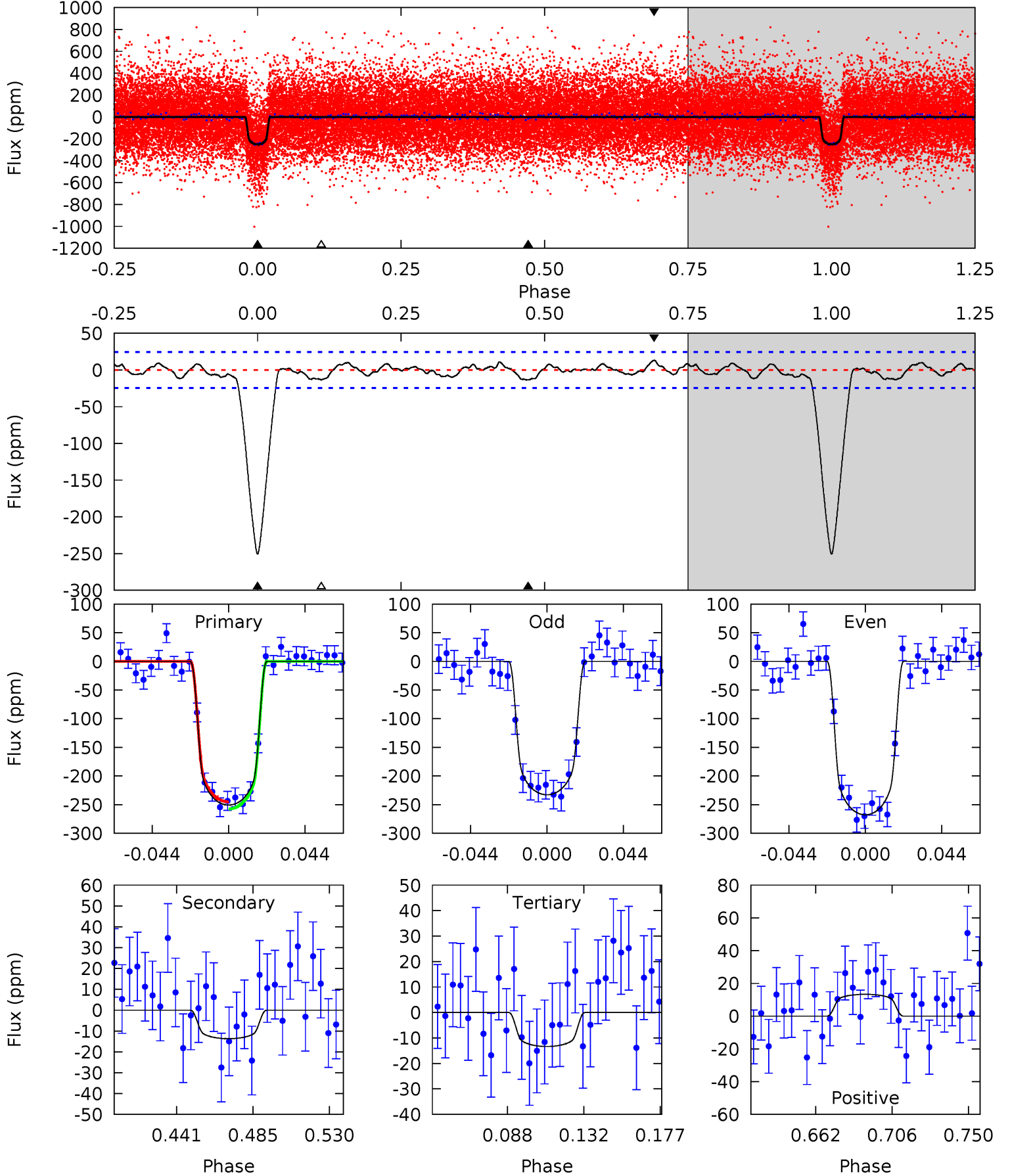
TCE 008492026-01 P= 4.306565 Days $T_0=132.440845$ (BKJD)



DV Model-Shift Uniqueness Test

008492026-01, P = 4.306553 Days, E = 128.135769 Days

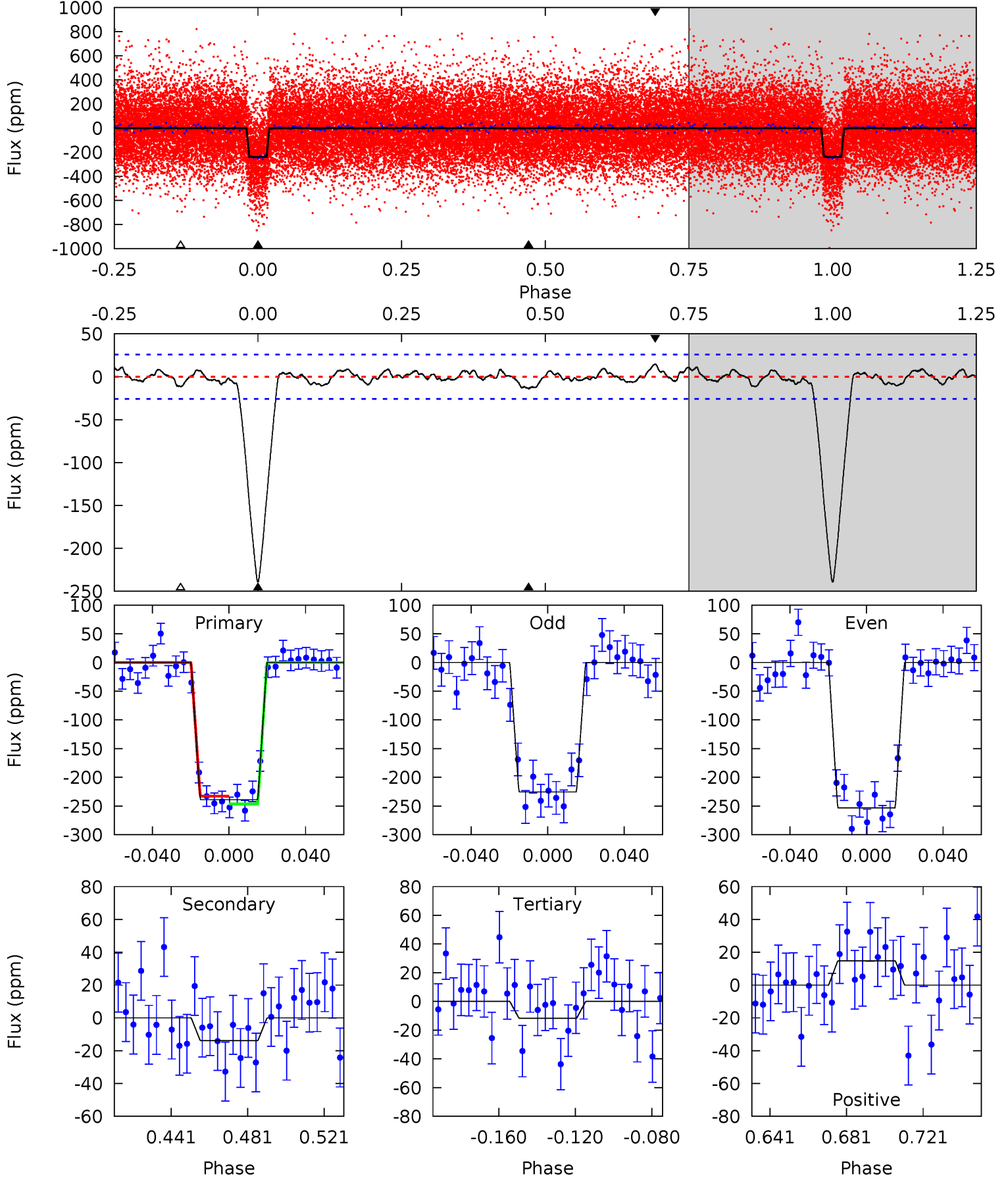
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.4	2.64	2.58	2.57	4.73	2.01	1.10	45.8	45.8	0.06	0.07	3.38	0.94	0.05	1.19



Alt Model-Shift Uniqueness Test

008492026-01, P = 4.306565 Days, E = 128.134280 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.1	2.56	2.16	2.72	4.75	2.05	0.94	41.9	41.4	0.41	-0.15	2.57	0.97	0.06	1.26



Stellar Parameters For KIC 008492026

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6108^{+193}_{-236}	$4.466^{+0.056}_{-0.224}$	$0.070^{+0.250}_{-0.300}$	$1.030^{+0.357}_{-0.119}$	$1.132^{+0.153}_{-0.153}$	$1.457^{+0.337}_{-0.826}$
	+3%/-4%	+1%/-5%	+357%/-429%	+35%/-12%	+14%/-14%	+23%/-57%
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 008492026-01 / KOI 2016.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 5	$2.04^{+0.39}_{-0.24}$	1689^{+129}_{-95}	3304^{+220}_{-284}	$4.848^{+2.629}_{-2.109}$
Alt.	-14 ± 5	$1.83^{+0.35}_{-0.27}$	1691^{+122}_{-101}	3456^{+228}_{-288}	$6.333^{+3.550}_{-2.843}$

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

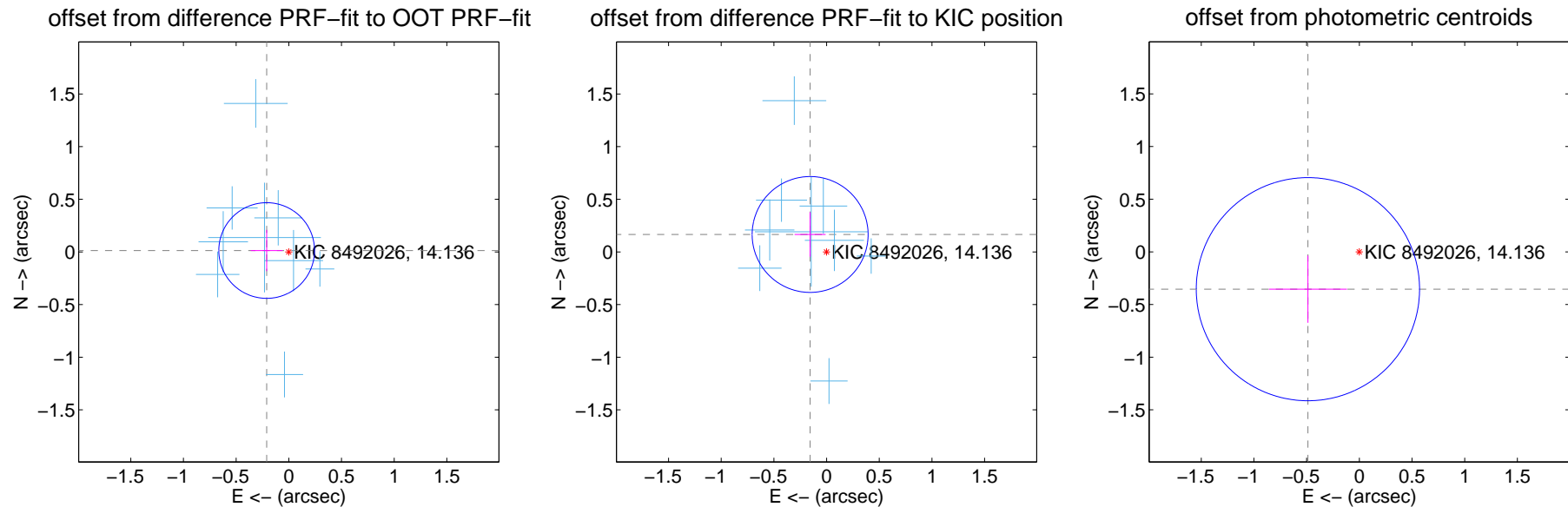
DV Centroid Data

Supplemental centroid analysis for 008492026-01. Kepler magnitude: 14.14. Transit SNR 35.03

There are 9 quarters with good PRF difference image offsets

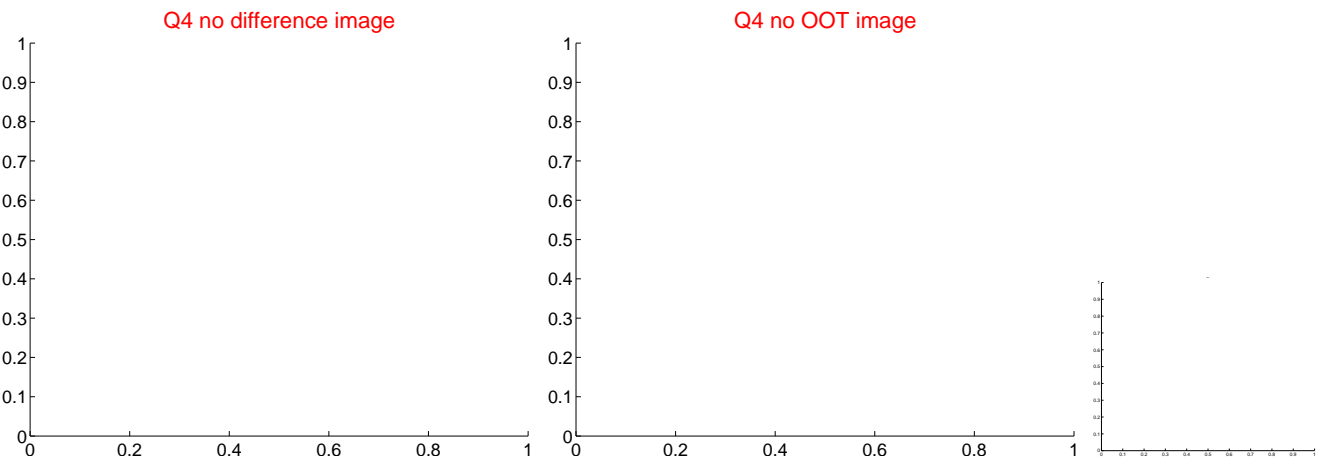
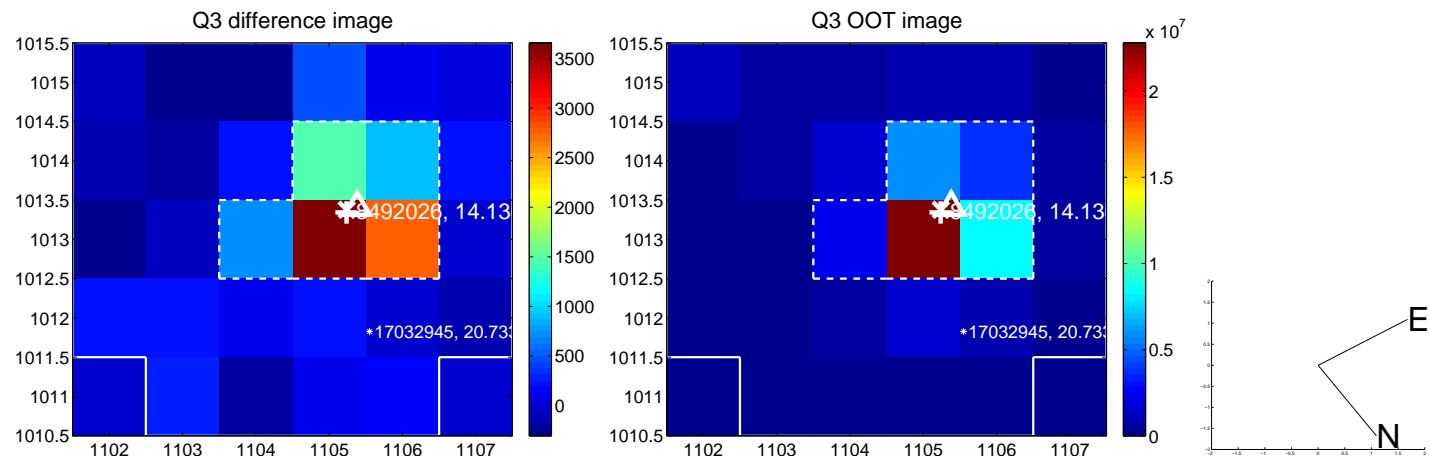
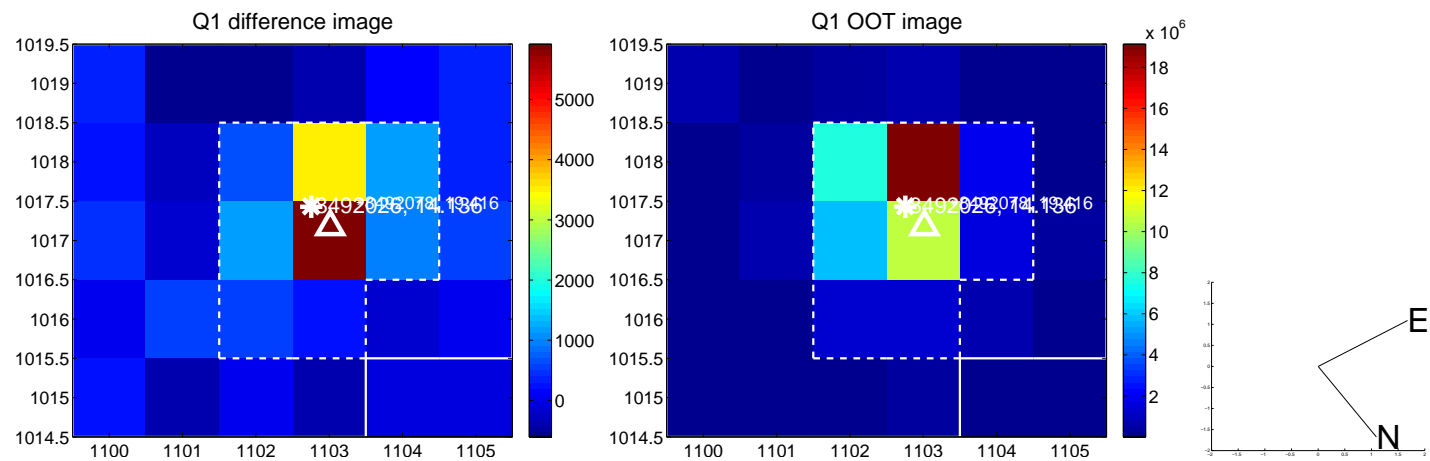
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.211 ± 0.151	1.39	0.210 ± 0.151	0.013 ± 0.196
PRF-fit source offset from KIC position	0.228 ± 0.183	1.24	0.156 ± 0.148	0.166 ± 0.210
photometric centroid source offset	0.60 ± 0.35	1.71	0.49 ± 0.37	-0.35 ± 0.32

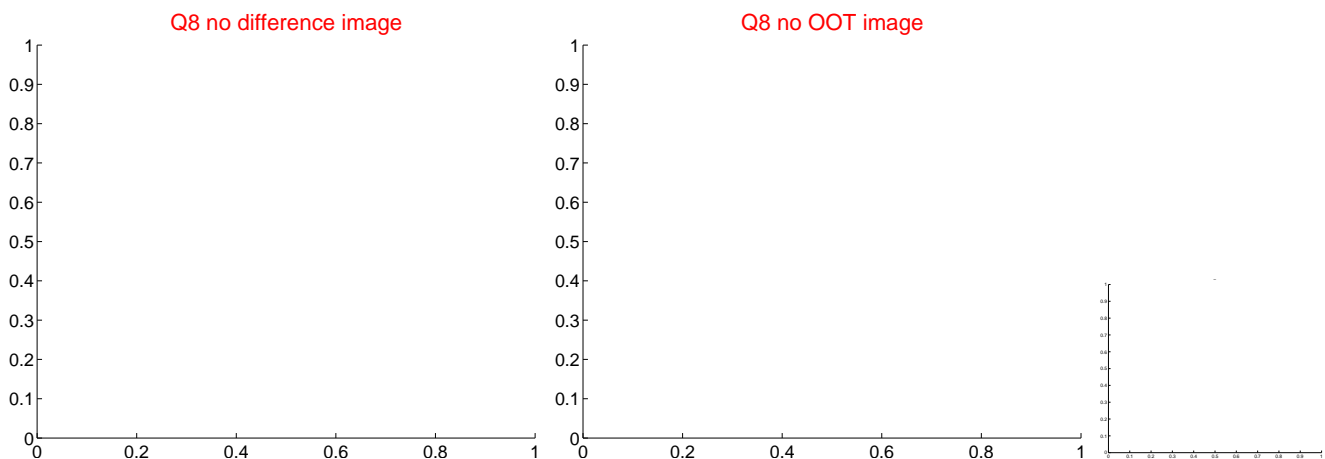
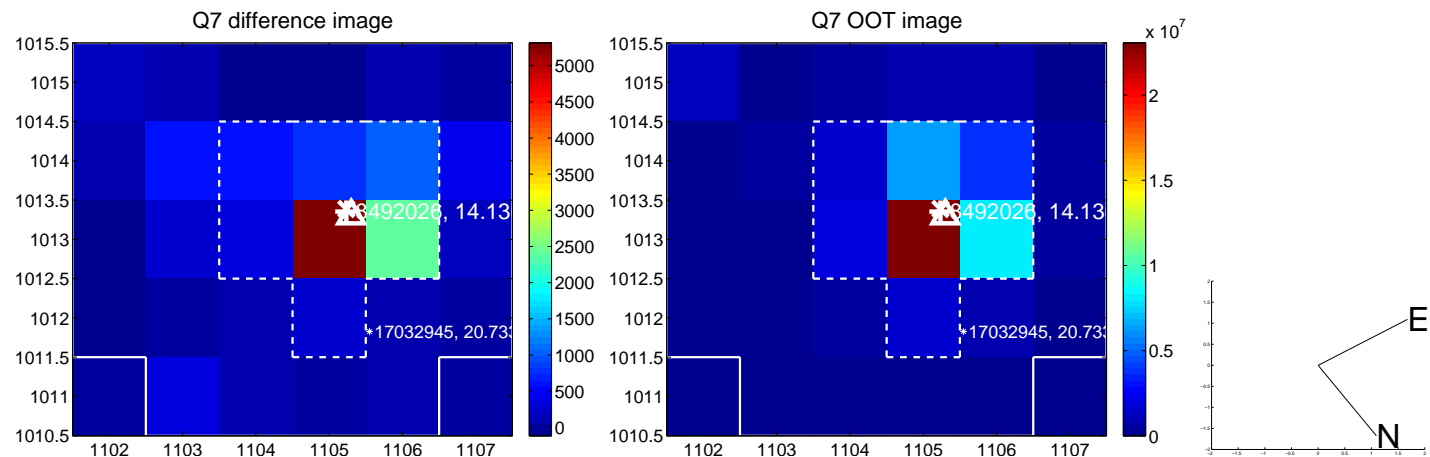
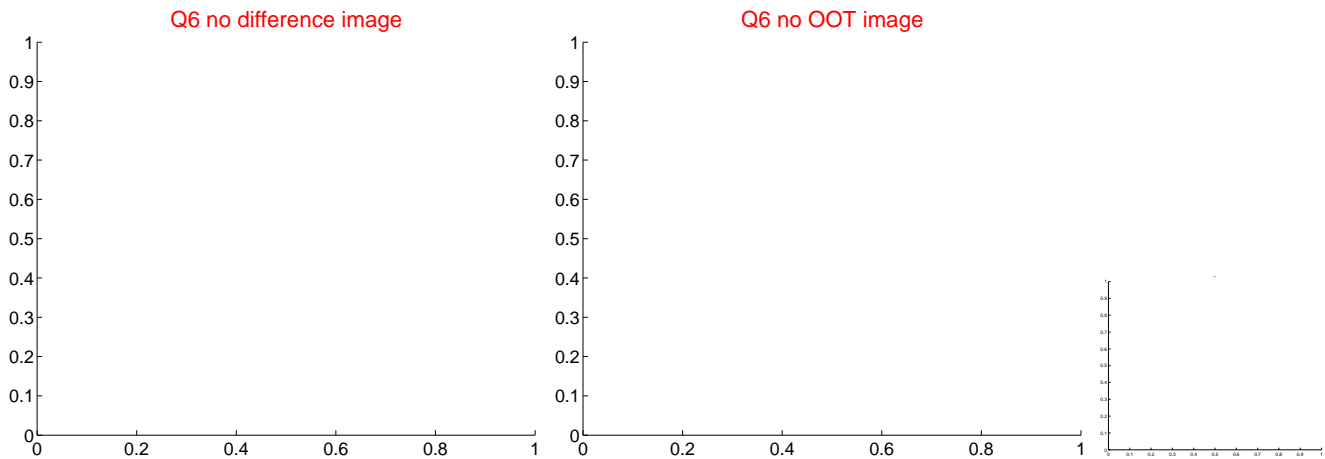
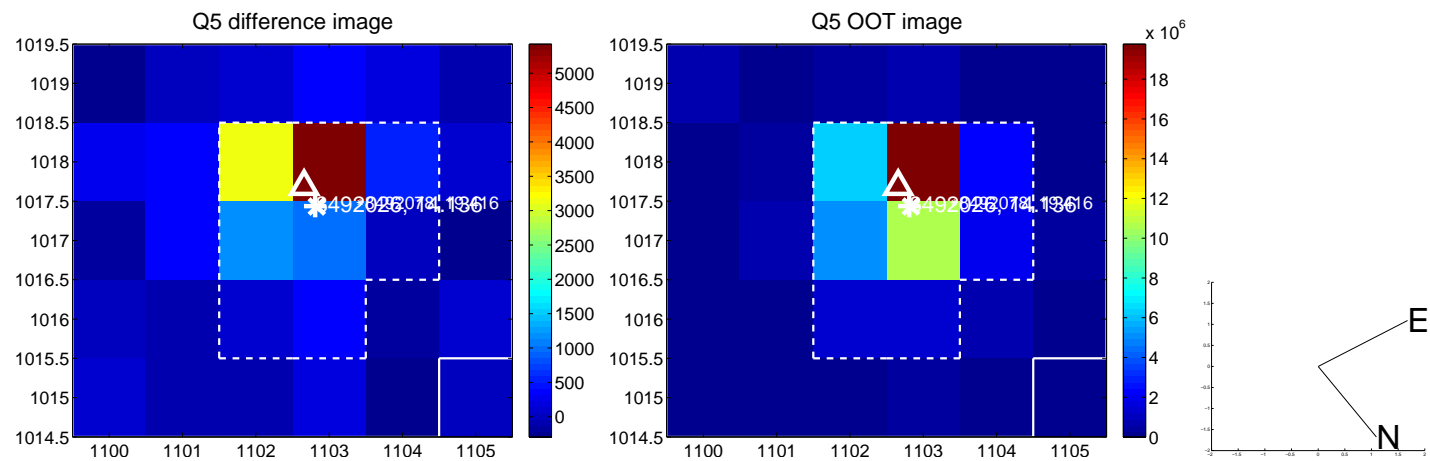


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

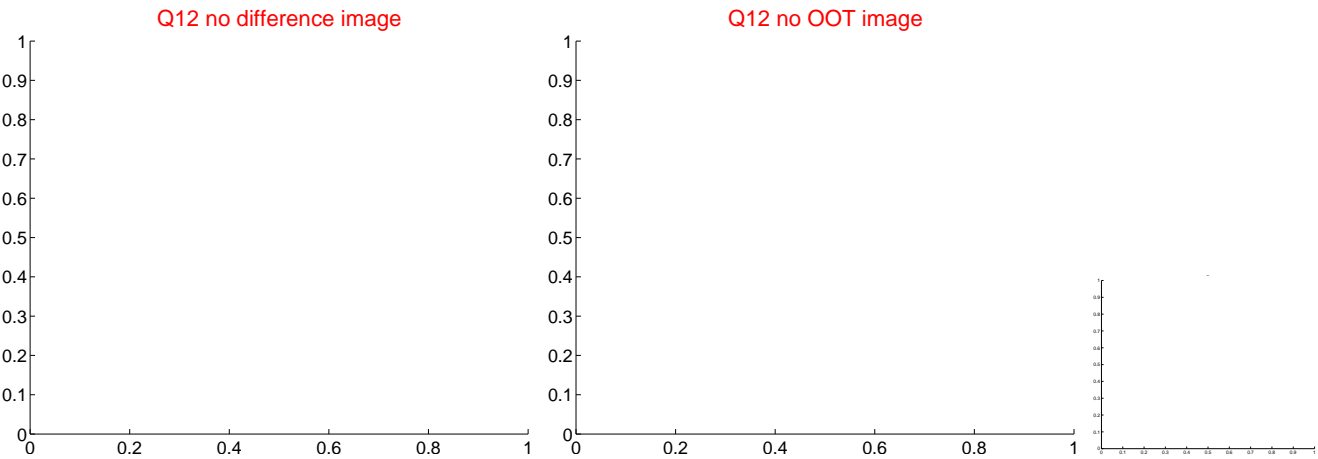
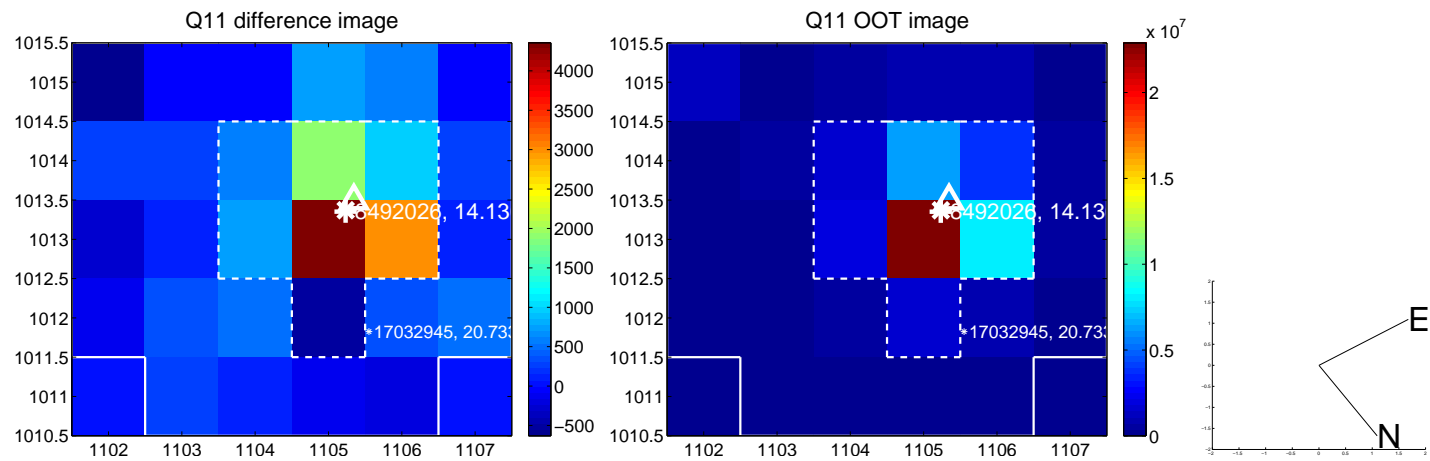
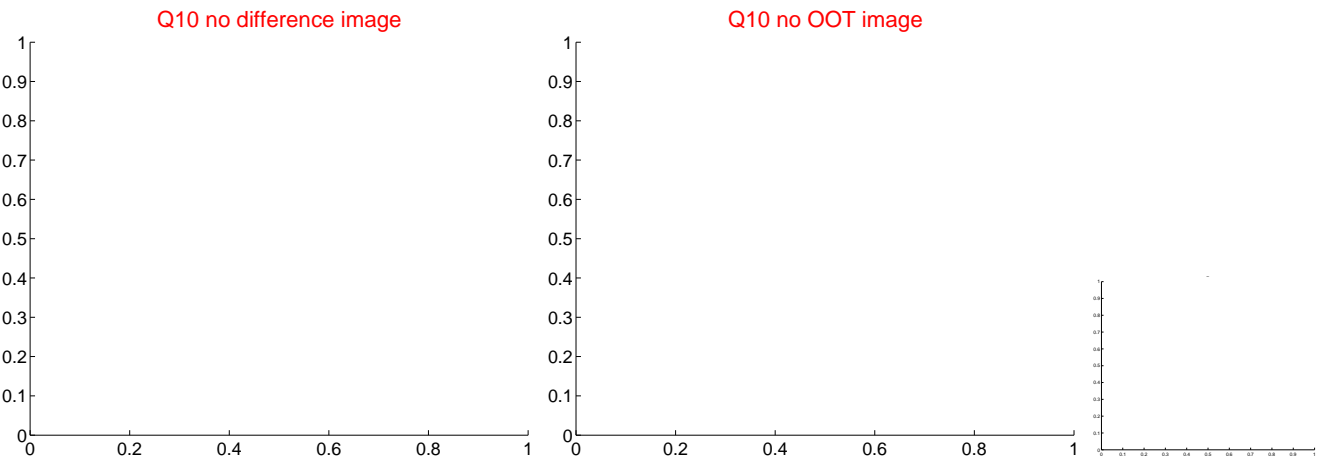
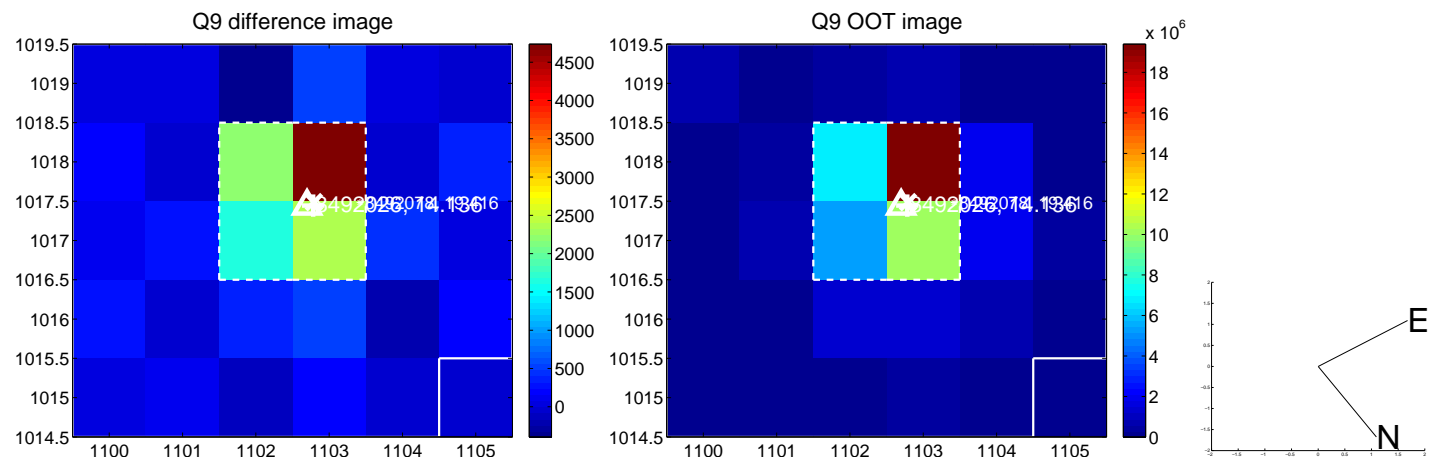
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



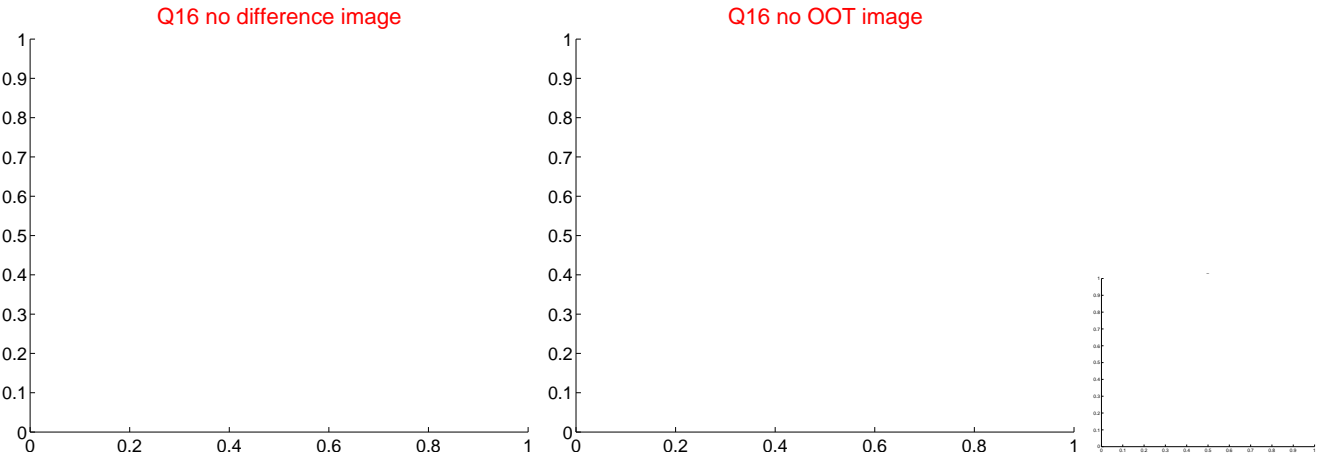
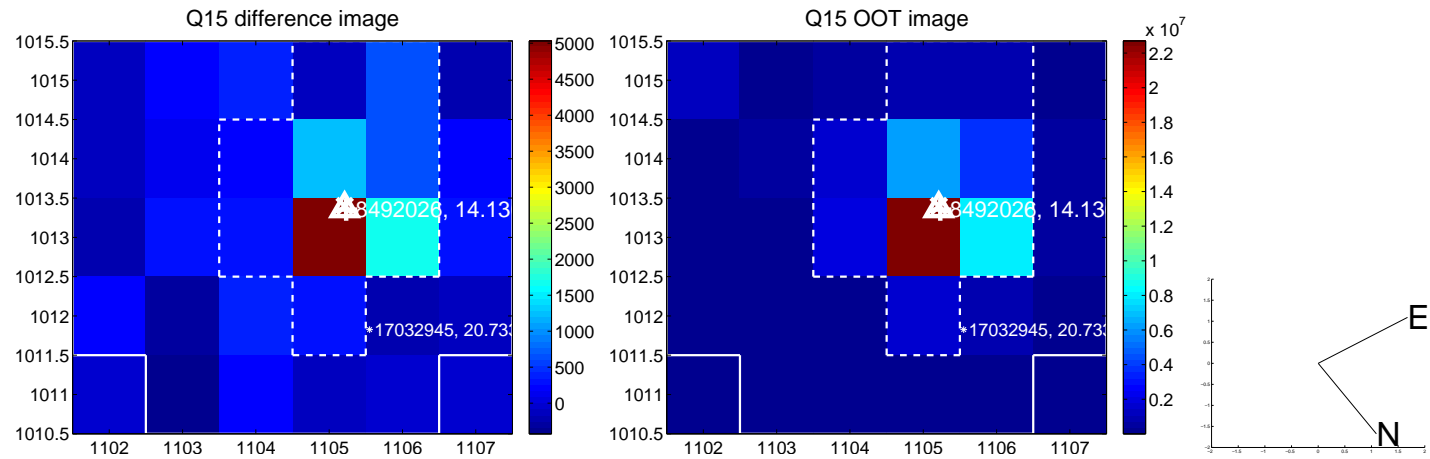
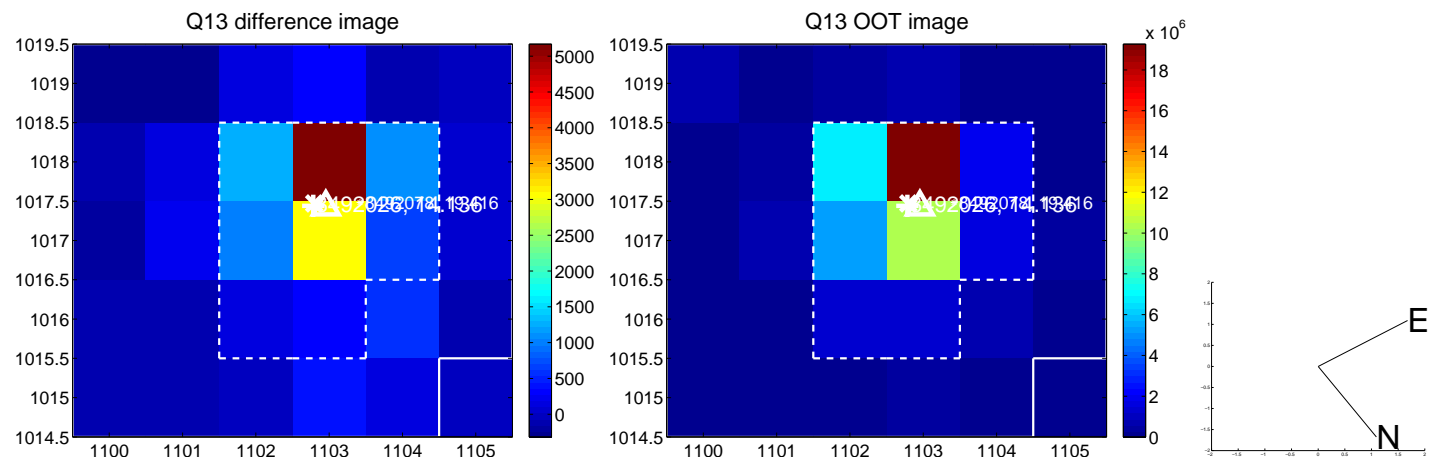
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



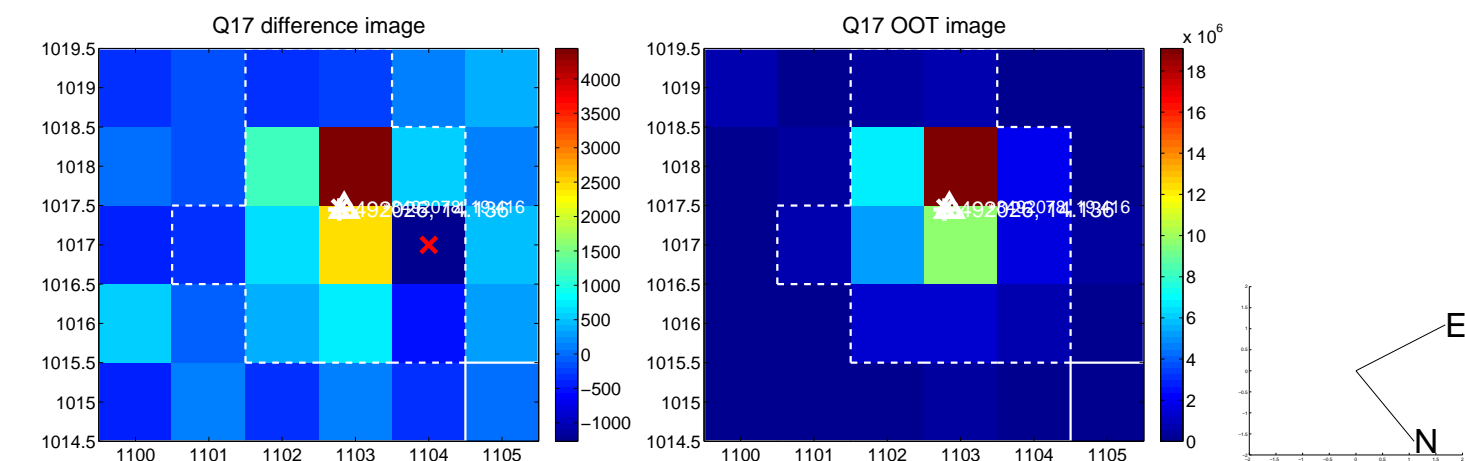
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



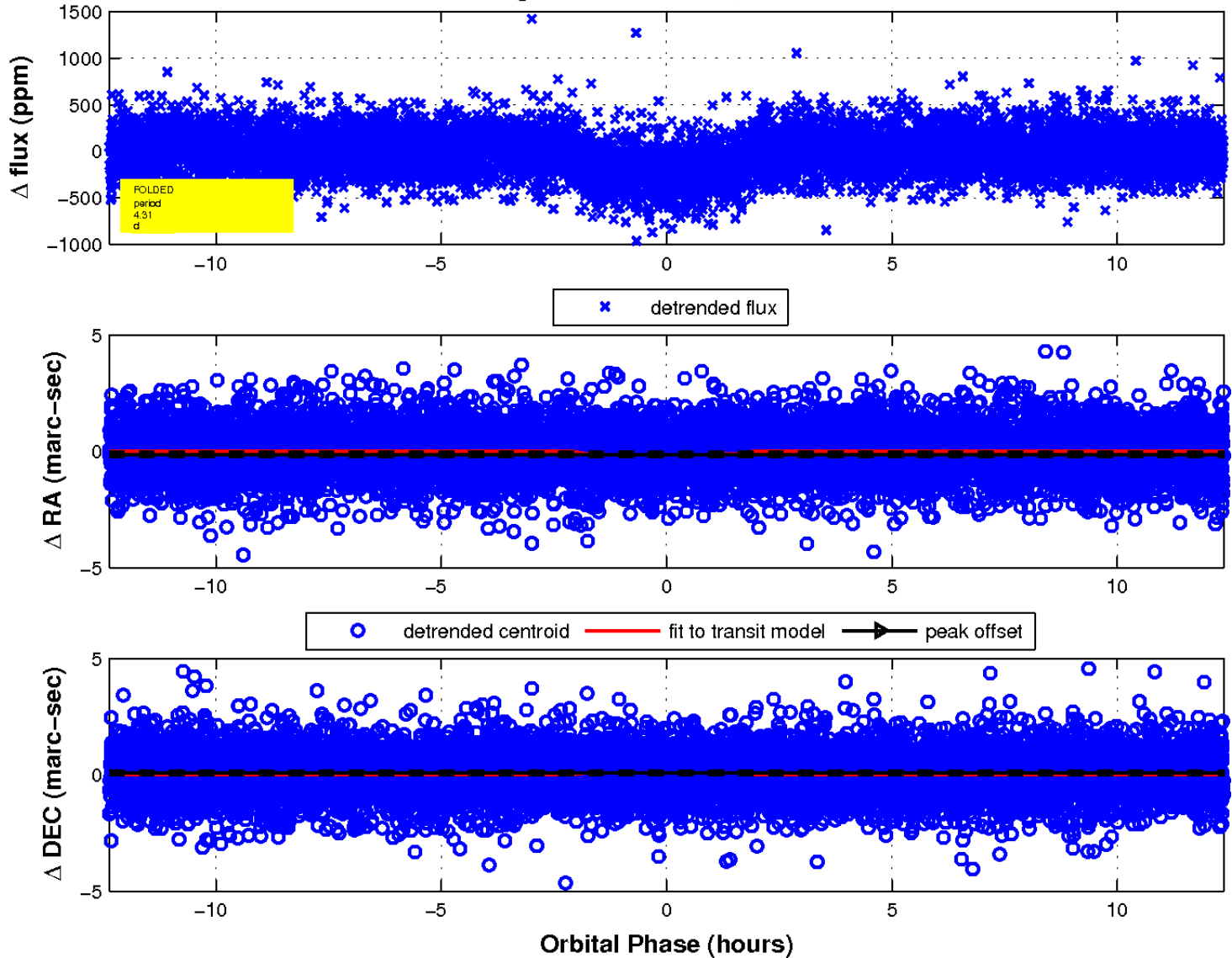
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

