

KIC 008908544

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})
008908544-01	OBS	No	4.034817	134.275669	34.1	24.081	9.9	11.4	1.53	6604	1.06	1367.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008908544-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

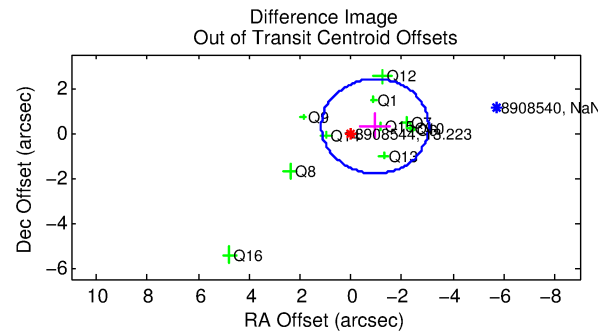
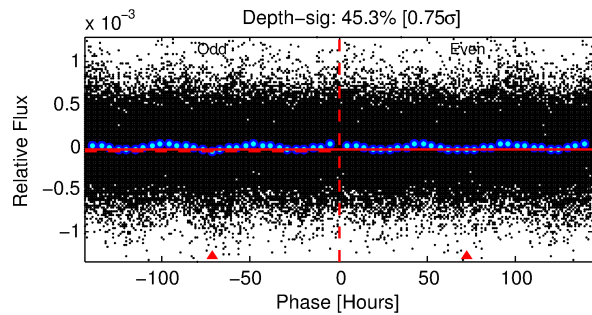
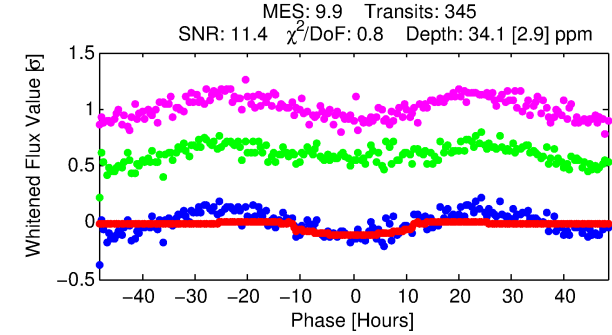
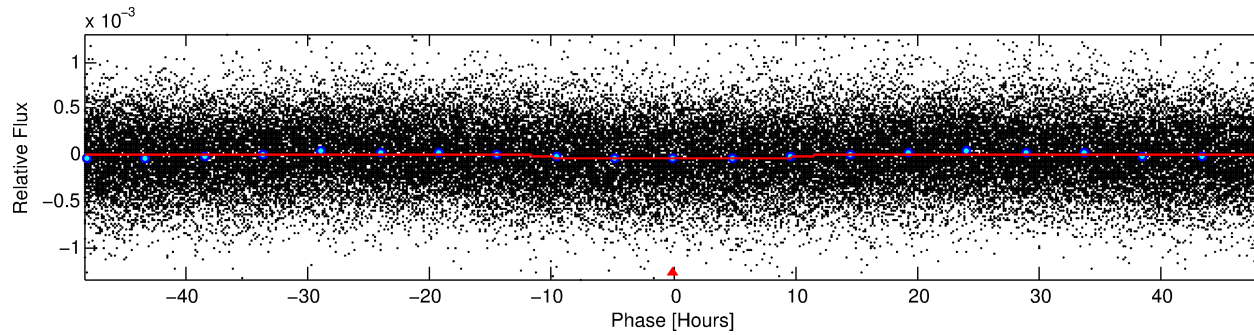
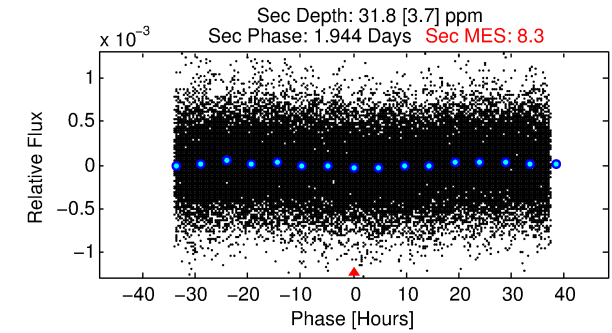
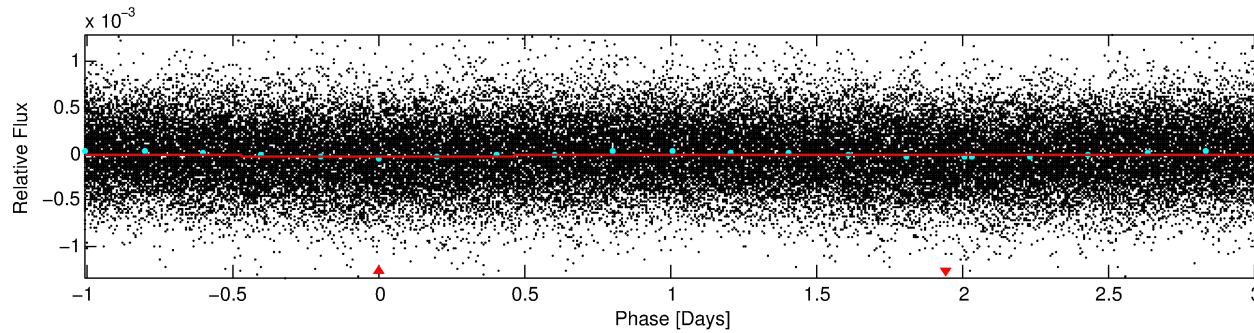
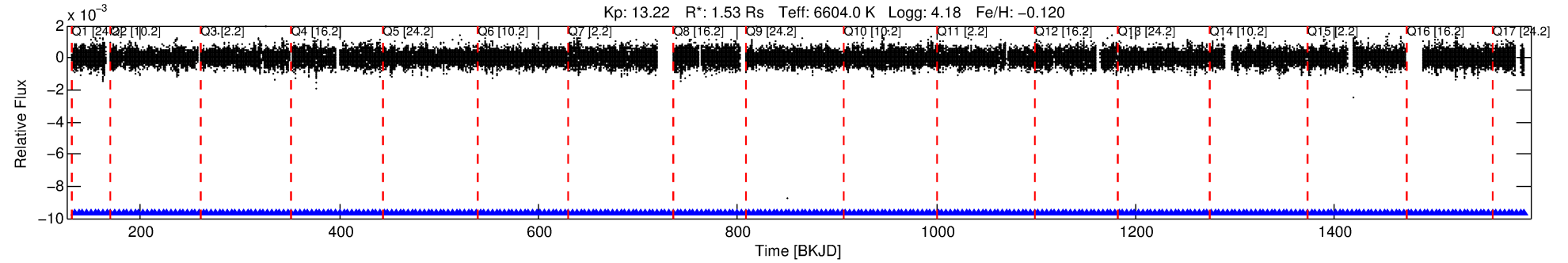
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008908544-01

No Significant Match Found

DV One-Page Summary

KIC: 8908544 Candidate: 1 of 1 Period: 4.035 d



DV Fit Results:

Period = 4.03482 [0.00013] d
Epoch = 134.2757 [0.0225] BKJD
Rp/R* = 0.0064 [0.0006]
a/R* = 1.08 [0.08]
b = 0.92 [0.08]
Seff = 1367.92 [491.78]
Teff = 1551 [139] K
Rp = 1.06 [0.33] Re
a = 0.0539 [0.0129] AU
Ag = 44.97 [17.79] [2.47σ]
Teffp = 6209 [390] K [11.25σ]

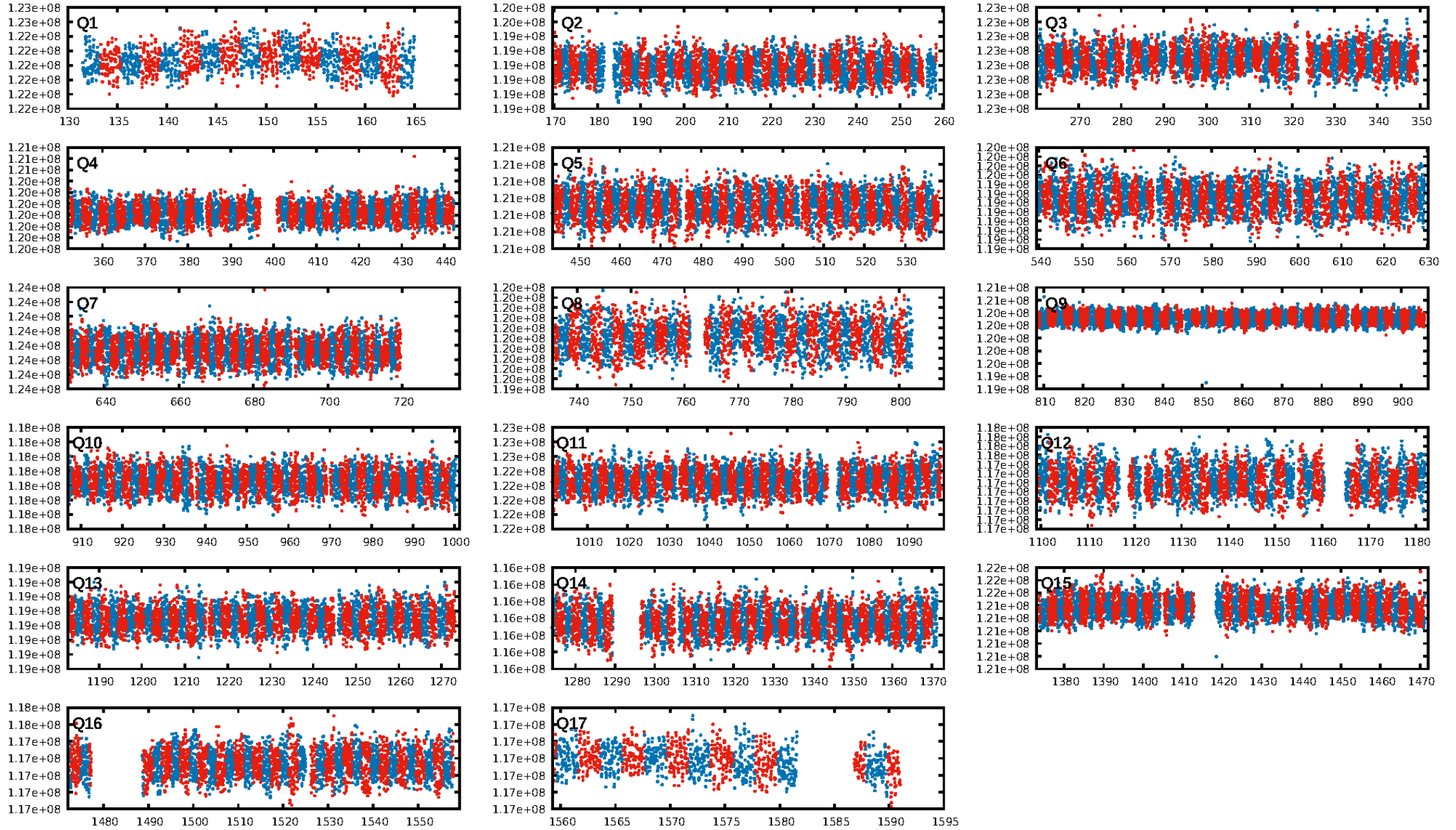
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.01e-24
RollingBand-fgt: 1.00 [330/330]
GhostDiagnostic-chr: 4.532
Centroid-sig: 27.8%
Centroid-so: 0.888 arcsec [1.22σ]
OotOffset-rm: 0.996 arcsec [1.42σ]
KicOffset-rm: 1.068 arcsec [1.45σ]
OotOffset-st: 3/2/3/3 [11]
KicOffset-st: 3/2/3/3 [11]
DiffImageQuality-fgm: 0.82 [9/11]
DiffImageOverlap-fno: 1.00 [17/17]

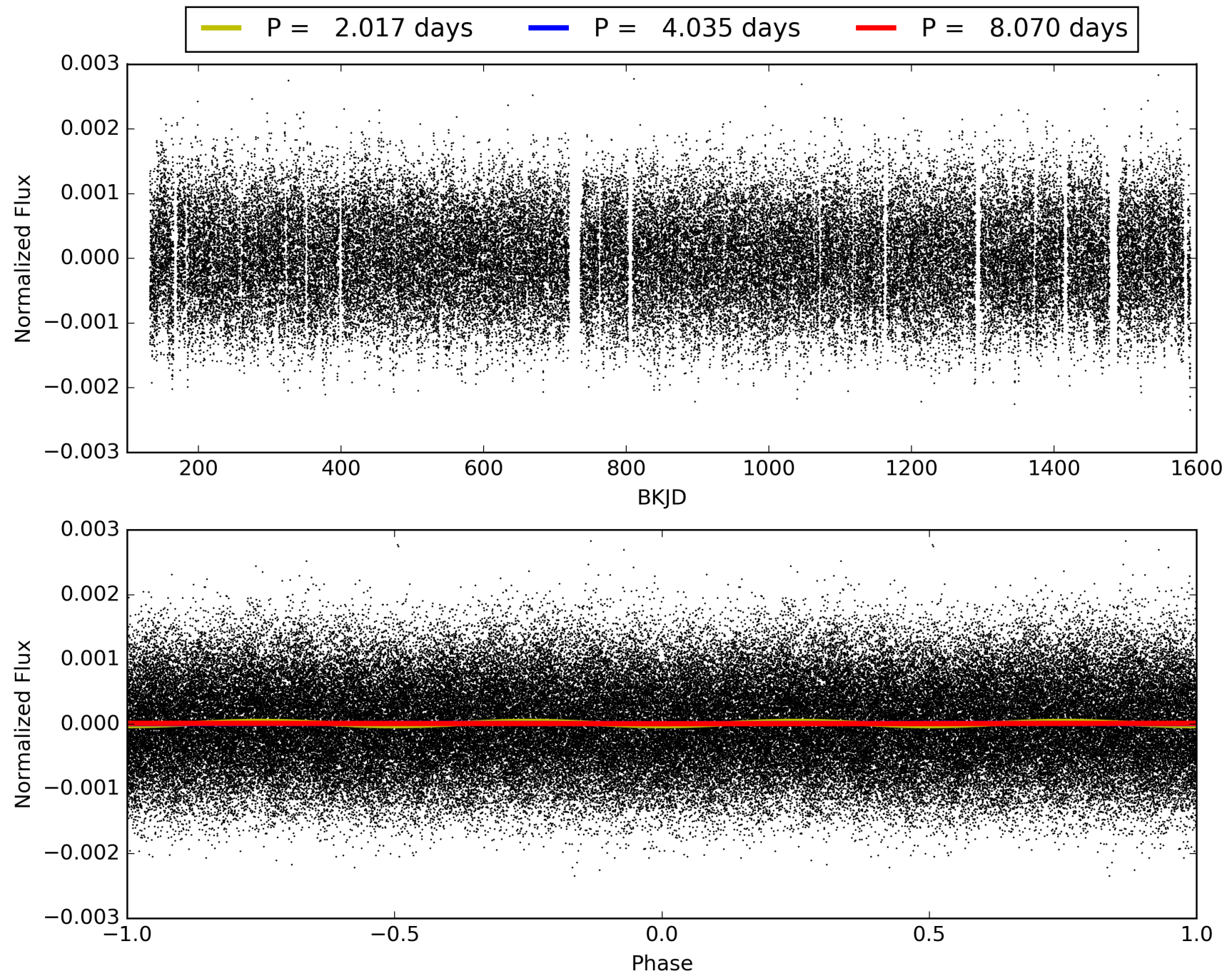
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:32:38 Z

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

TCE 008908544-01, PDC Light Curves

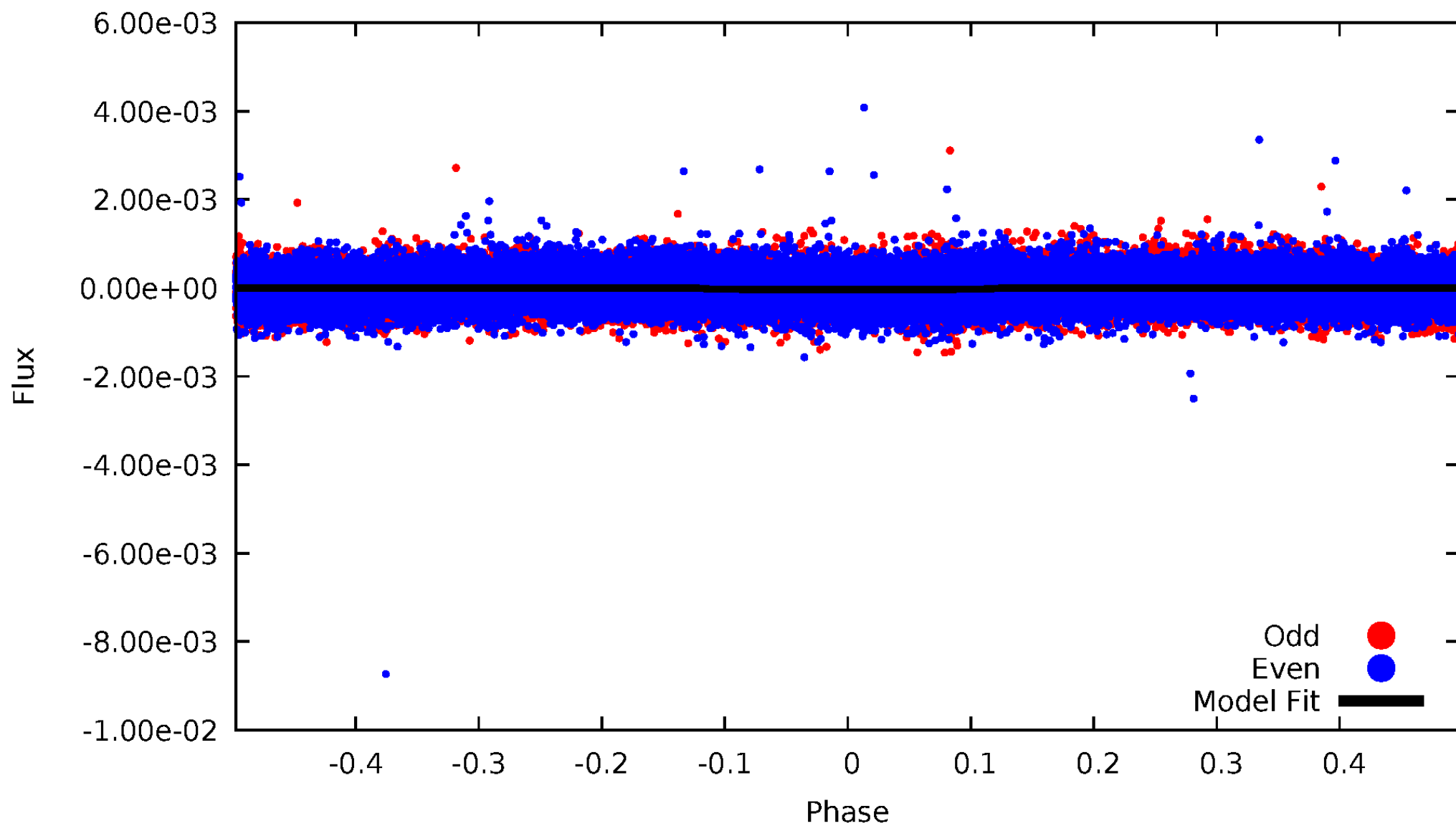


TCE 008908544-01



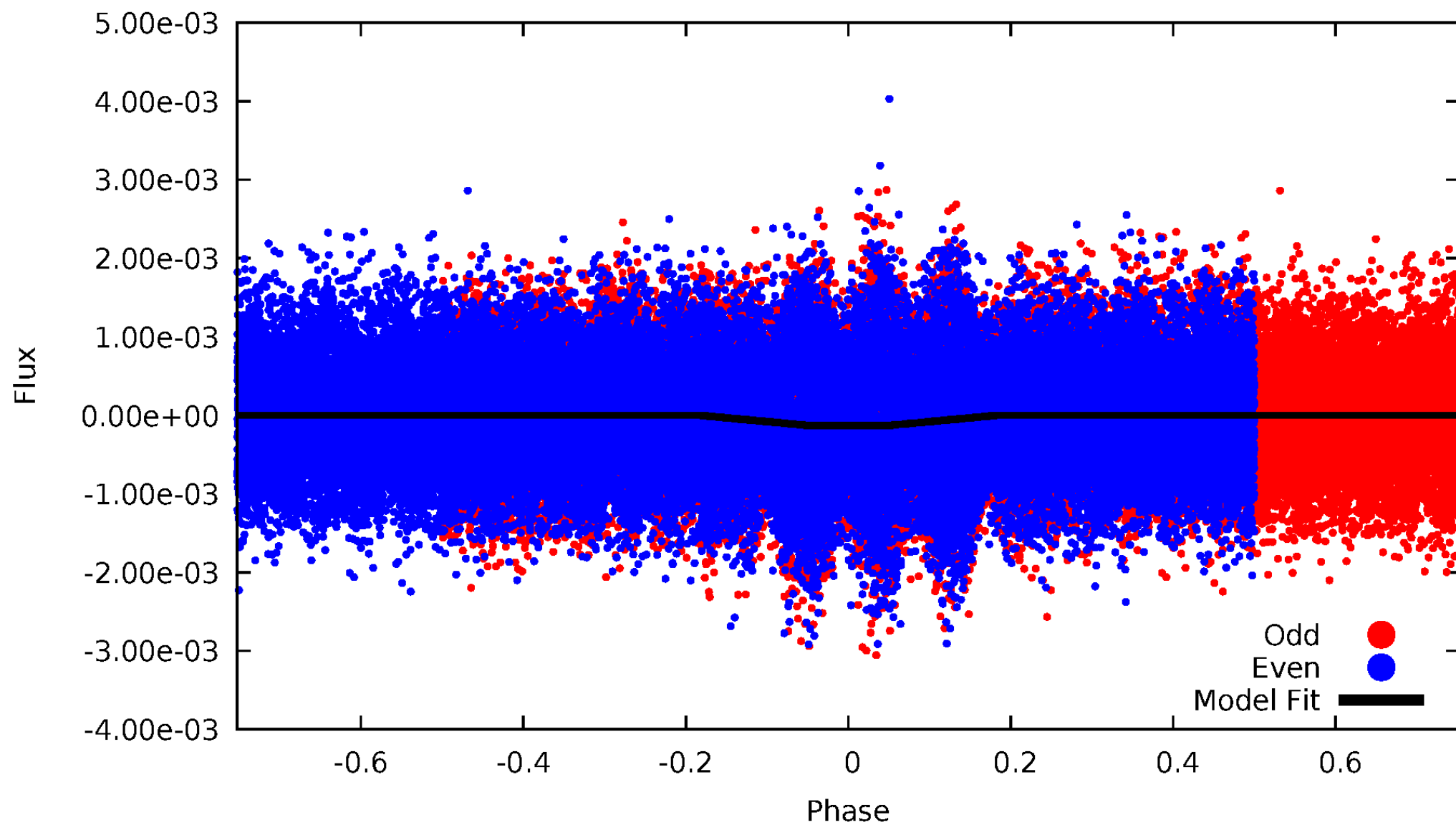
DV Odd/Even

TCE 008908544-01



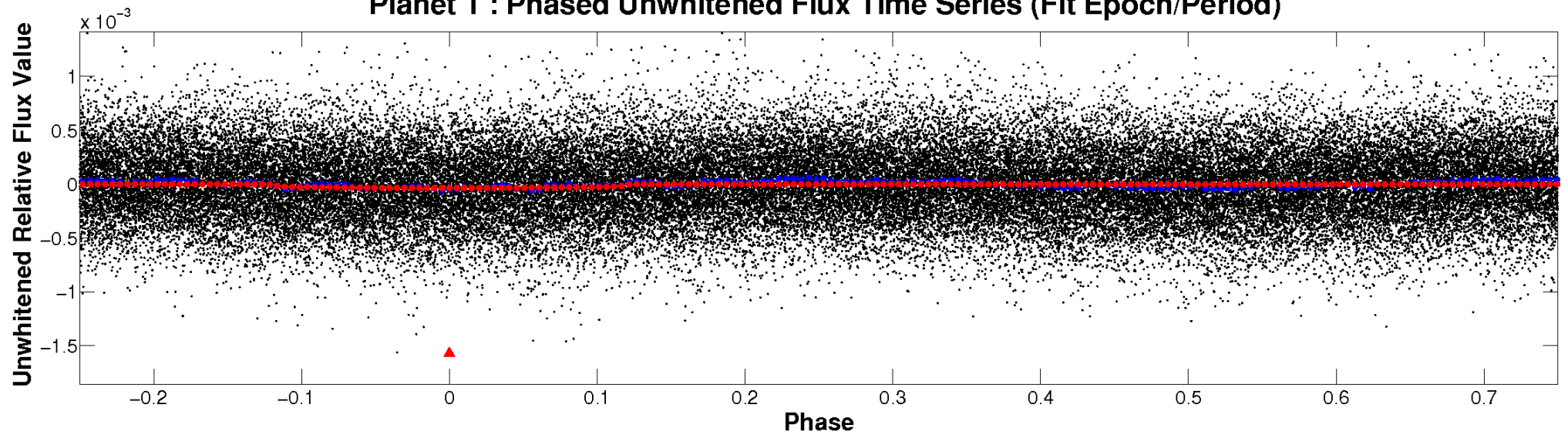
ALT Odd/Even

TCE 008908544-01

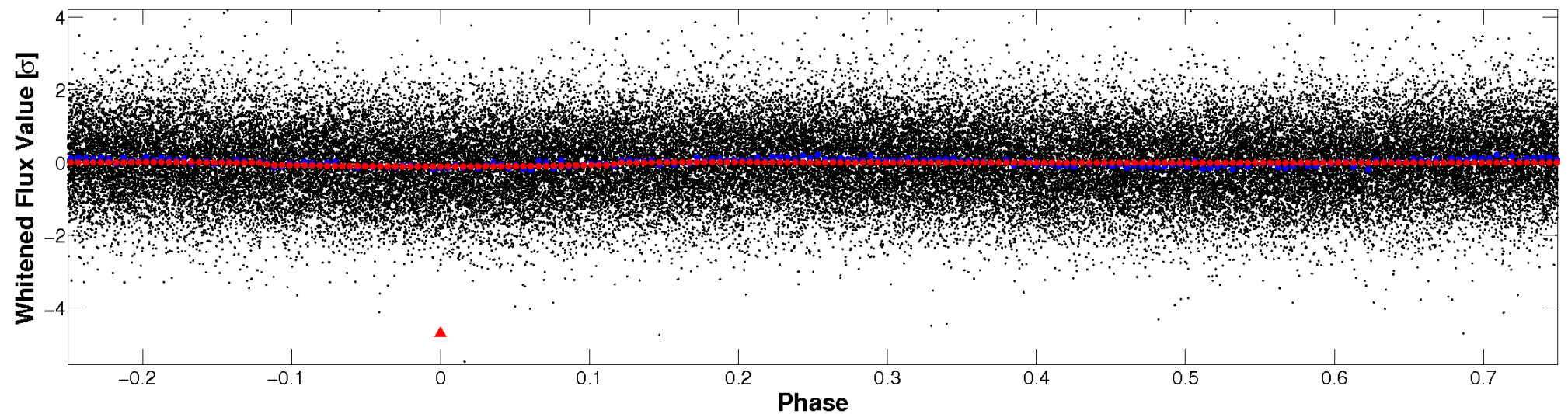


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

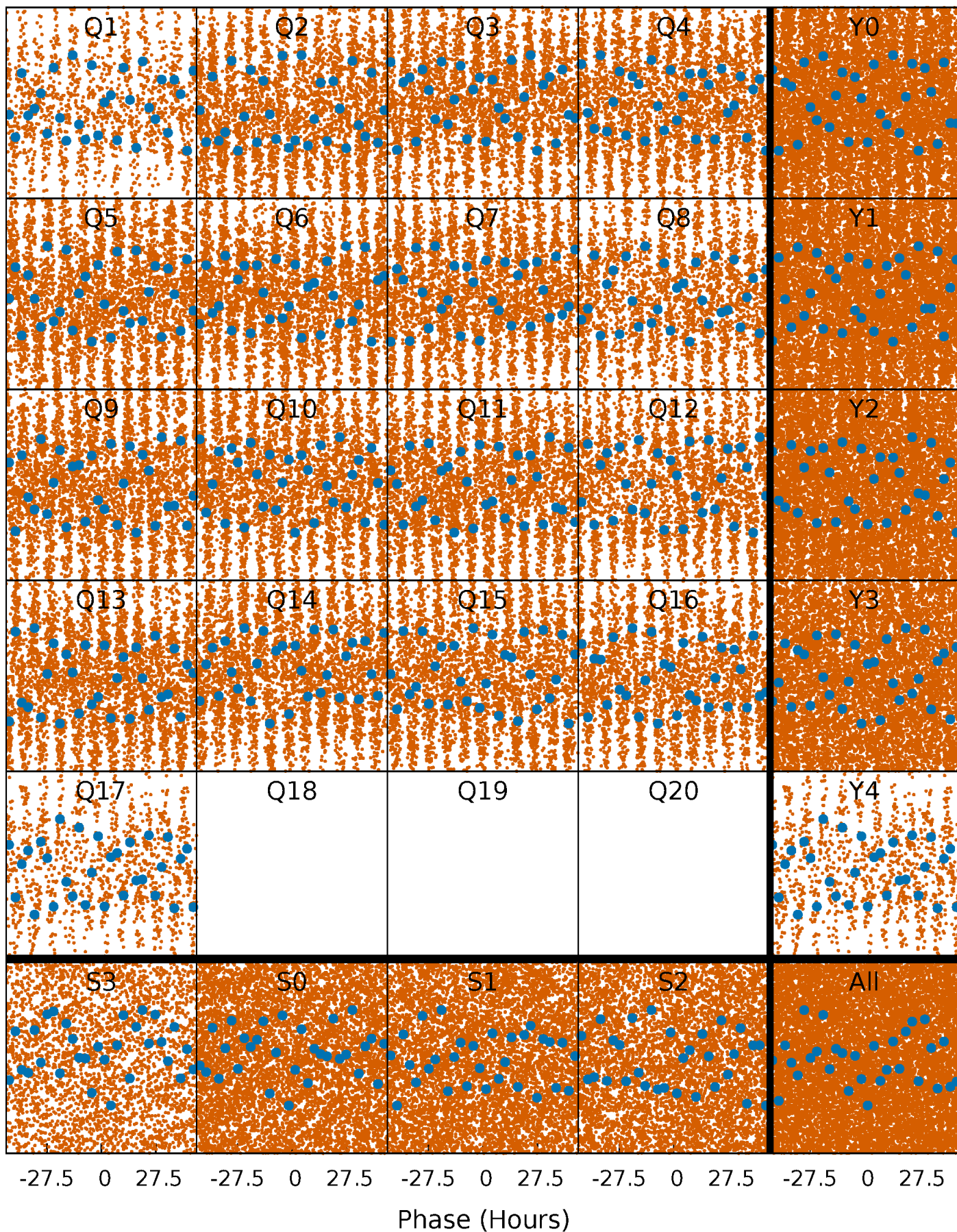


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



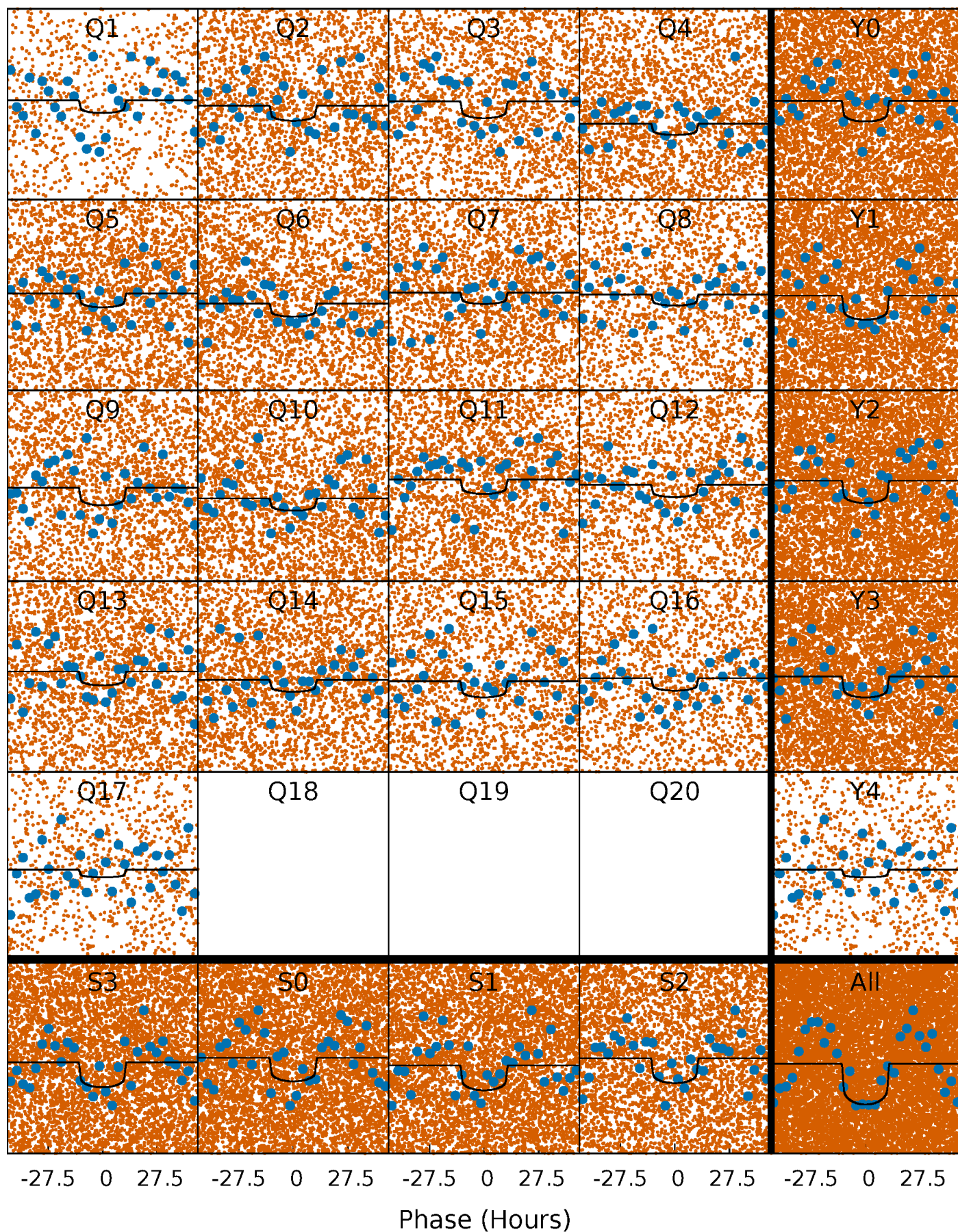
PDC Quarter-Phased Transit Curves

TCE 008908544-01 P= 4.034817 Days $T_0=134.275669$ (BKJD)



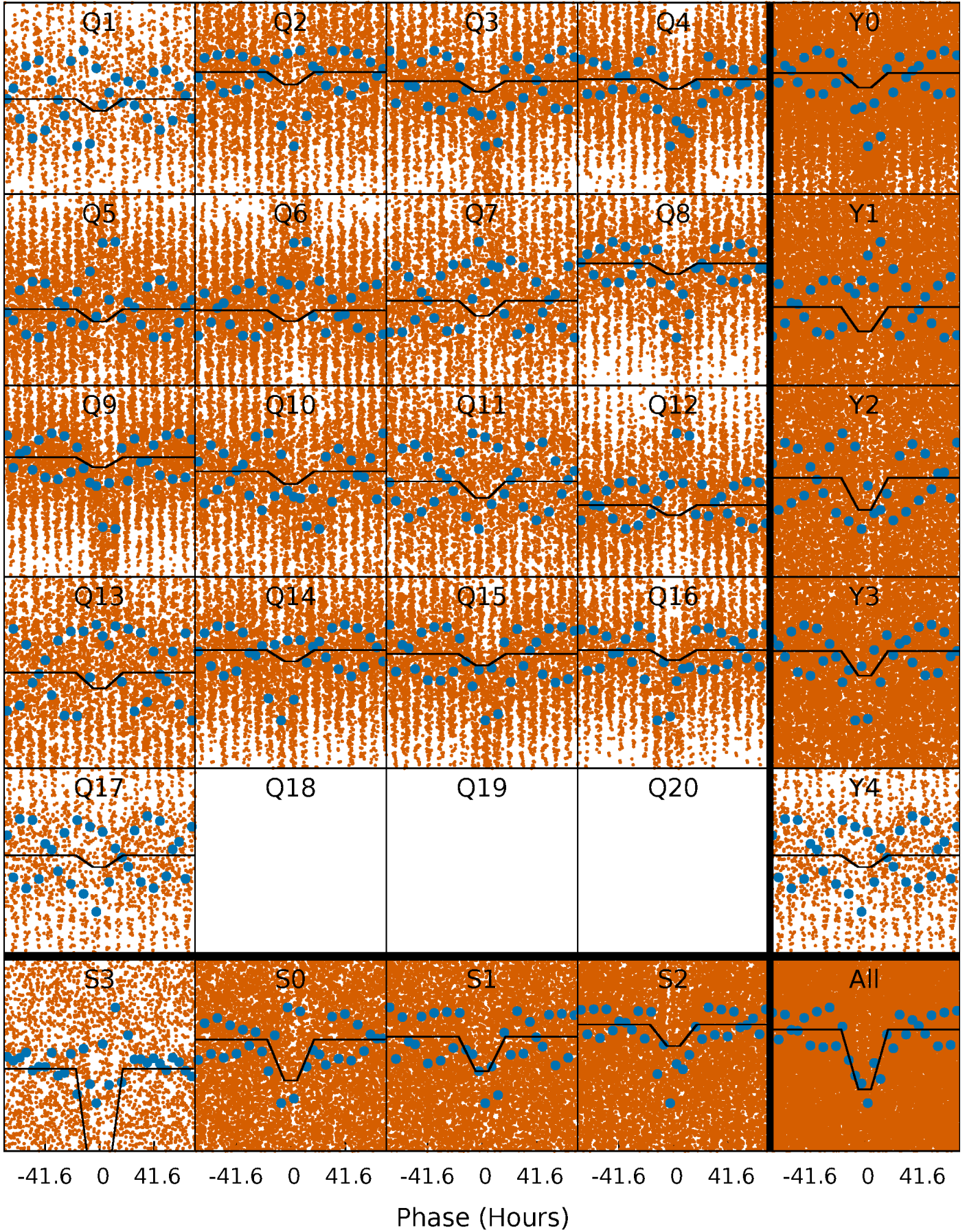
DV Quarter-Phased Transit Curves

TCE 008908544-01 P= 4.034817 Days $T_0=134.275669$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

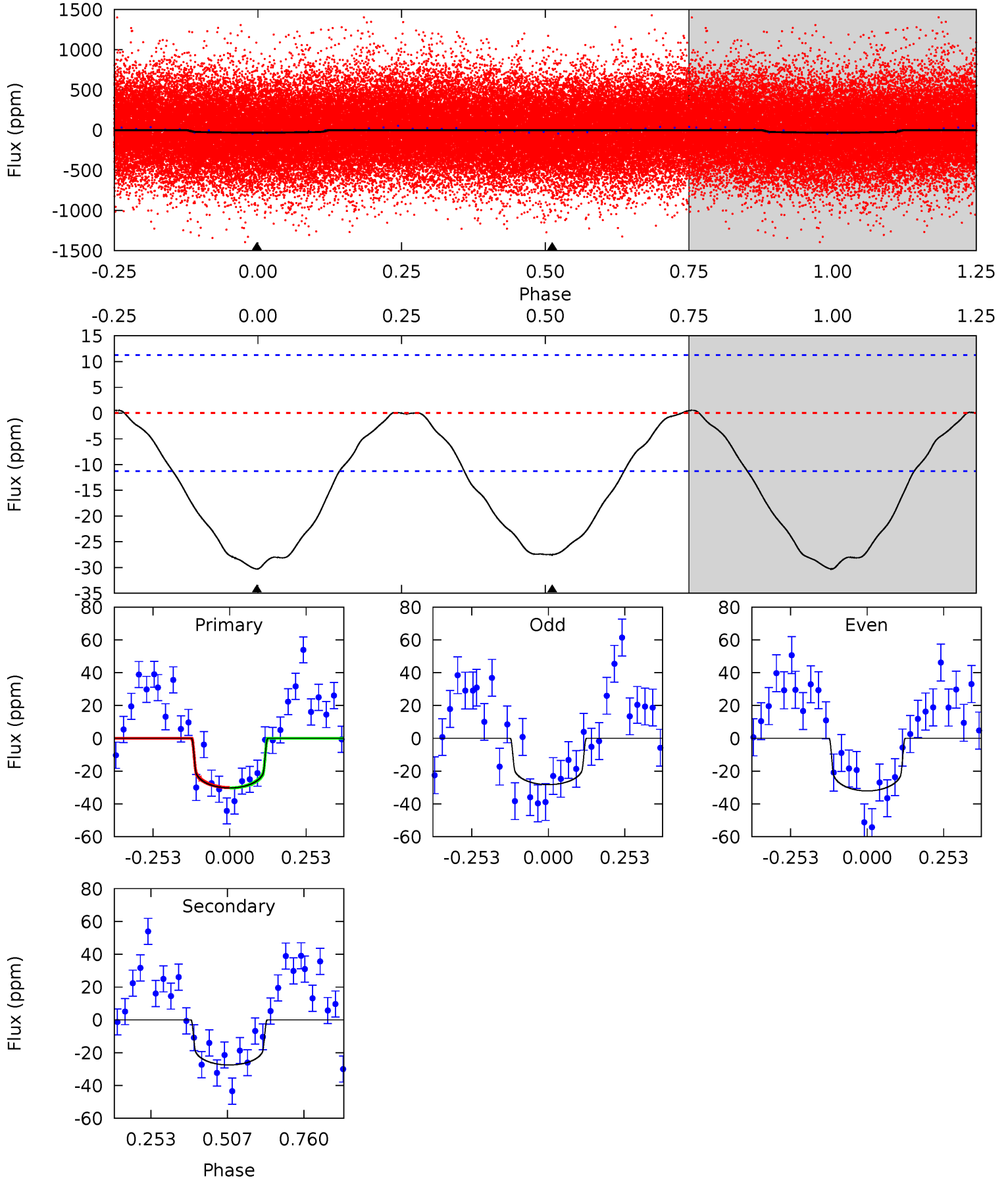
TCE 008908544-01 P= 4.034597 Days $T_0=134.187487$ (BKJD)



DV Model-Shift Uniqueness Test

008908544-01, P = 4.034817 Days, E = 130.240852 Days

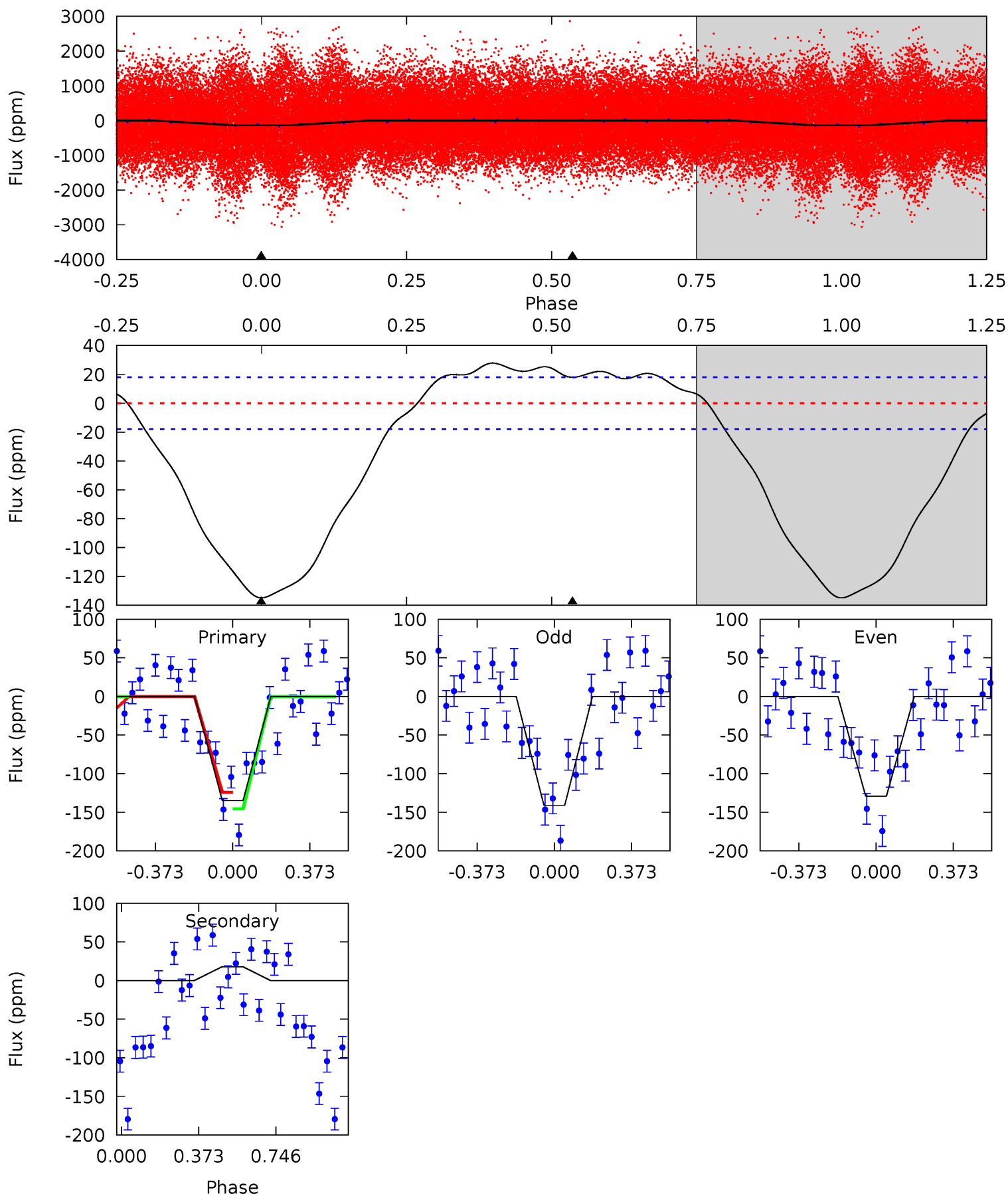
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	10.6	0	0	4.37	1.14	0.14	11.7	11.7	10.6	10.6	0.73	1.24	0.02	0.05



Alt Model-Shift Uniqueness Test

008908544-01, P = 4.034597 Days, E = 130.152890 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.0	-4.25	0	0	4.28	0.89	2.29	32.0	32.0	-4.25	-4.25	1.41	0.59	0.17	2.31



Stellar Parameters For KIC 008908544

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6604^{+161}_{-221}	$4.178^{+0.175}_{-0.175}$	$-0.120^{+0.250}_{-0.300}$	$1.526^{+0.453}_{-0.329}$	$1.283^{+0.180}_{-0.220}$	$0.509^{+0.432}_{-0.255}$
	+2%/-3%	+4%/-4%	+208%/-250%	+30%/-22%	+14%/-17%	+85%/-50%
Source	PHO1	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 008908544-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-28 ± 3	$1.05^{+0.20}_{-0.15}$	2152^{+164}_{-145}	5928^{+359}_{-313}	39^{+15}_{-11}
Alt.	18 ± 4	$1.89^{+0.30}_{-0.26}$	2160^{+152}_{-144}	-4269^{+224}_{-213}	$-7.810^{+2.626}_{-3.191}$

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 $A_{obs} \gg 1.0$

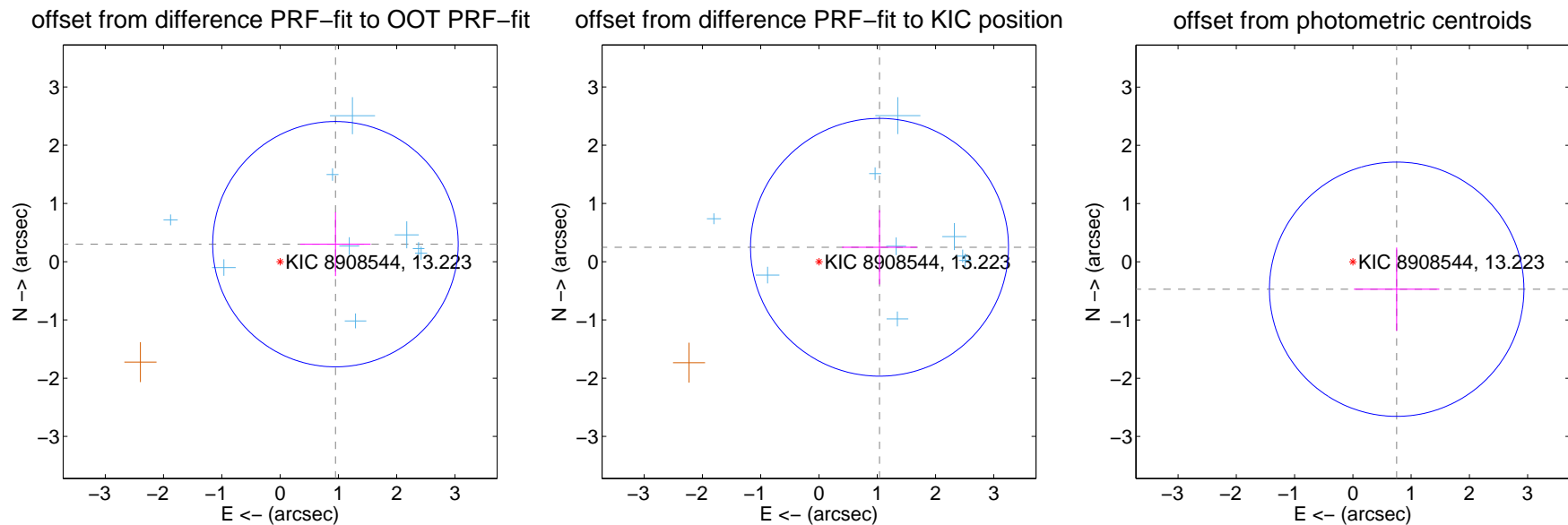
DV Centroid Data

Supplemental centroid analysis for 008908544-01. Kepler magnitude: 13.22. Transit SNR 11.36

There are 9 quarters with good PRF difference image offsets

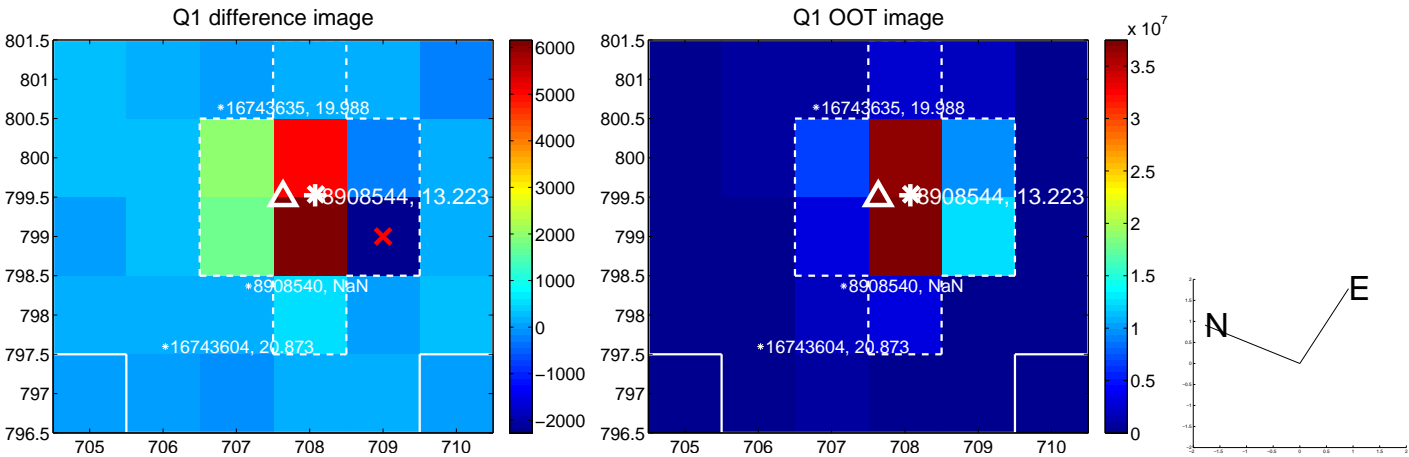
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.996 ± 0.702	1.42	-0.950 ± 0.604	0.301 ± 0.549
PRF-fit source offset from KIC position	1.068 ± 0.738	1.45	-1.038 ± 0.643	0.248 ± 0.637
photometric centroid source offset	0.89 ± 0.73	1.22	-0.75 ± 0.73	-0.47 ± 0.71

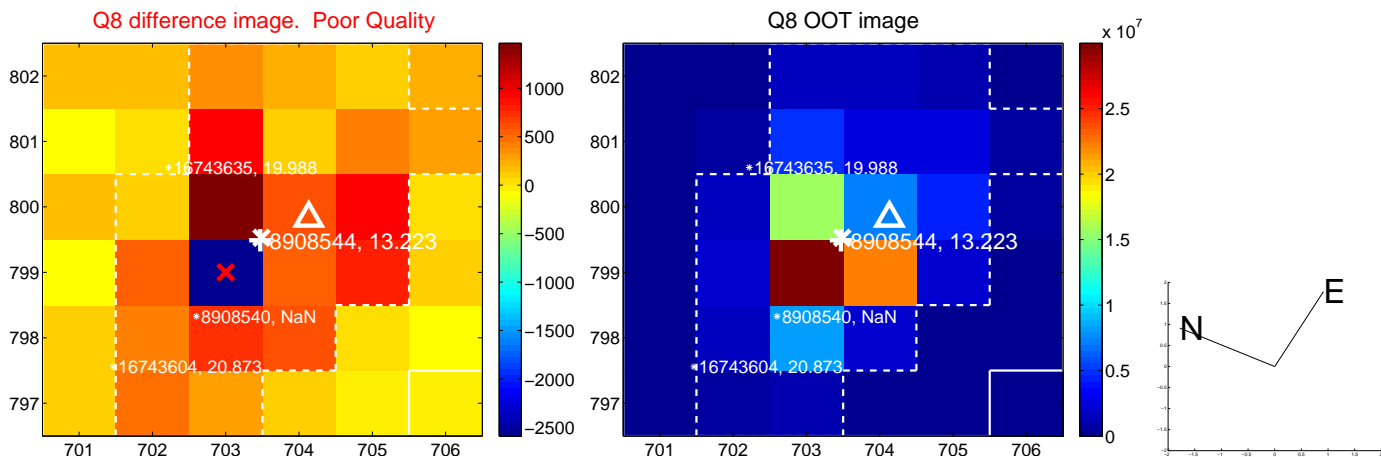
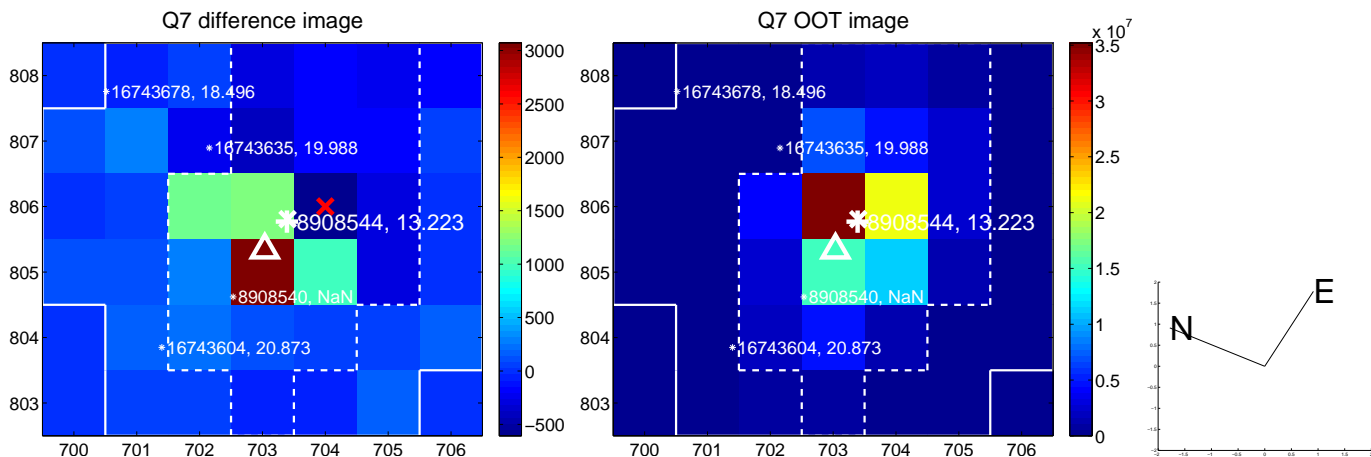
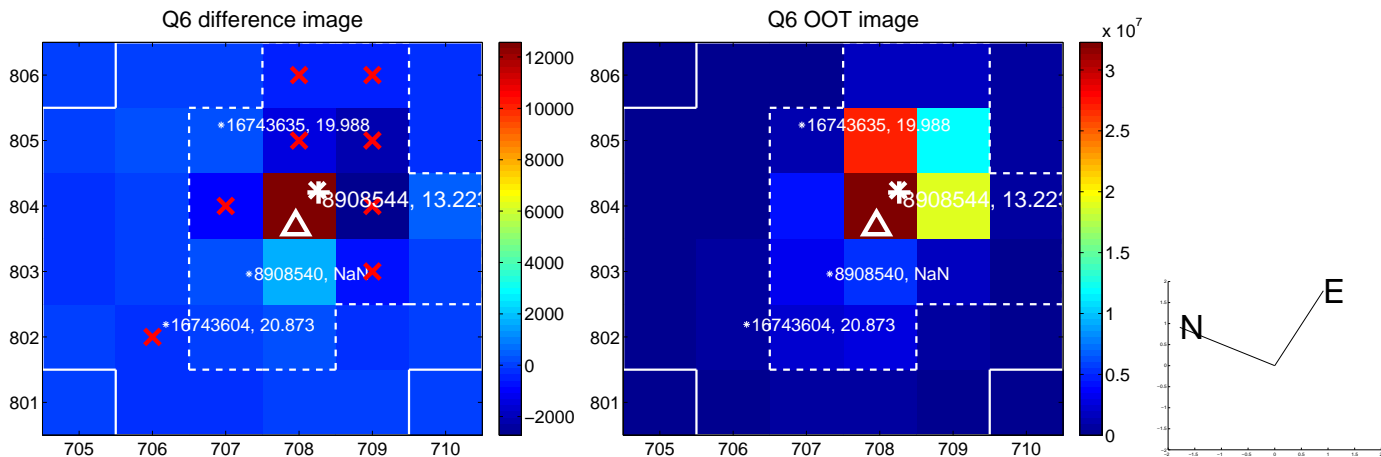
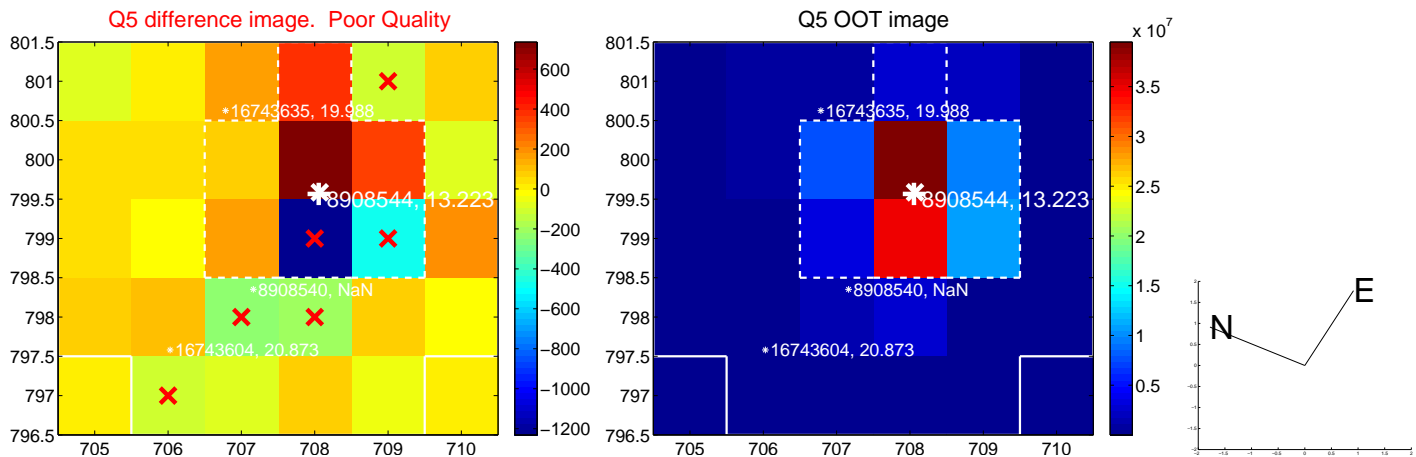


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

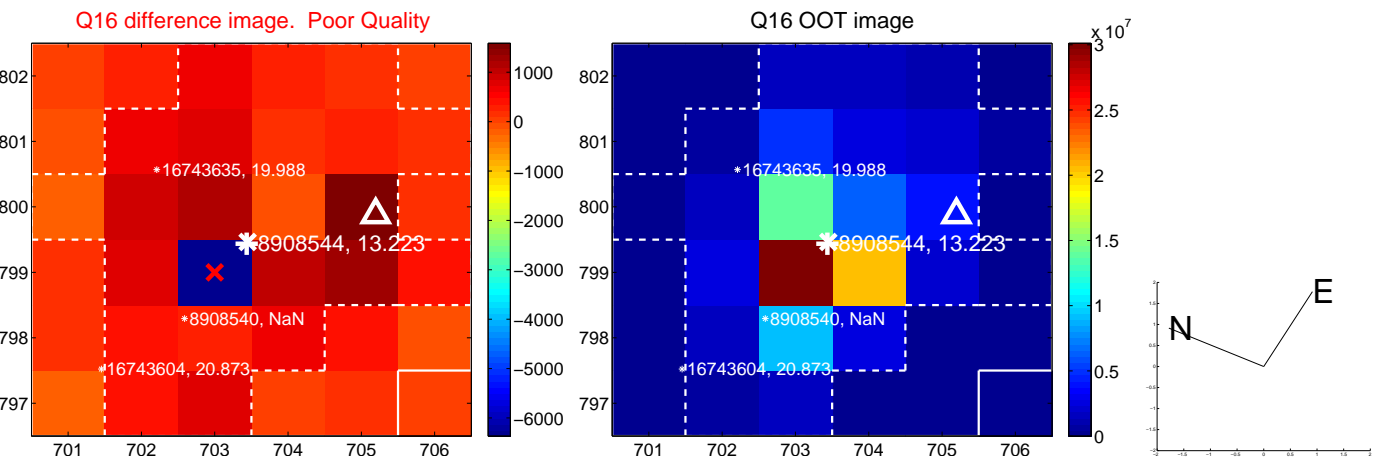
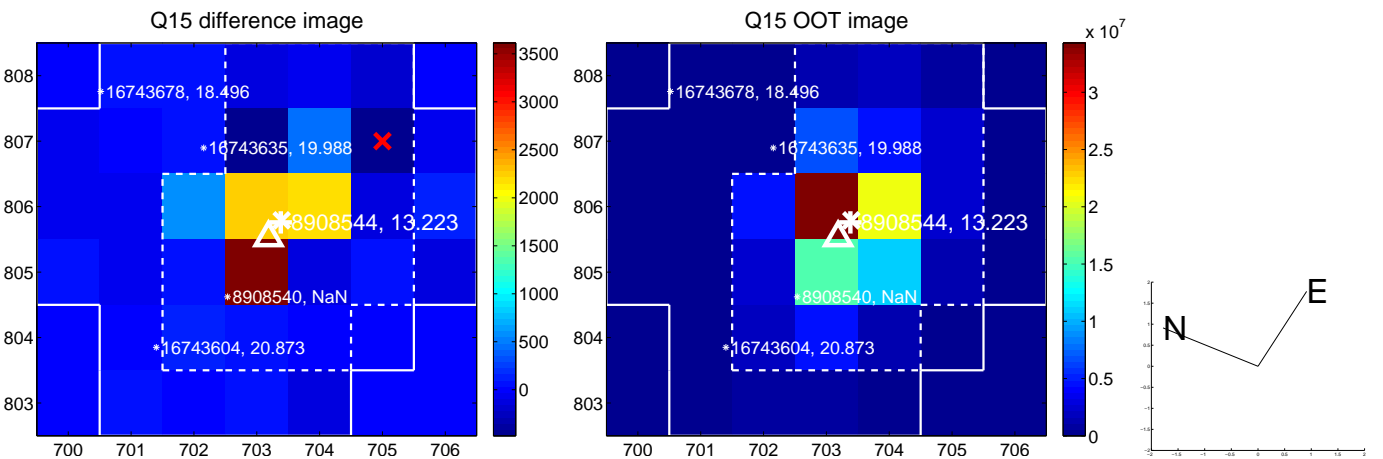
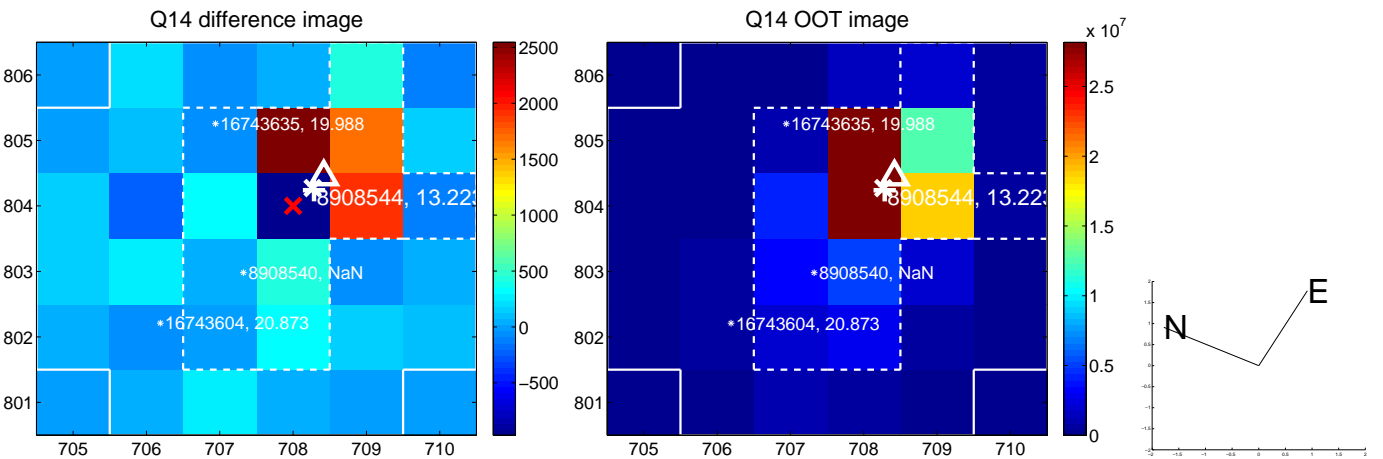
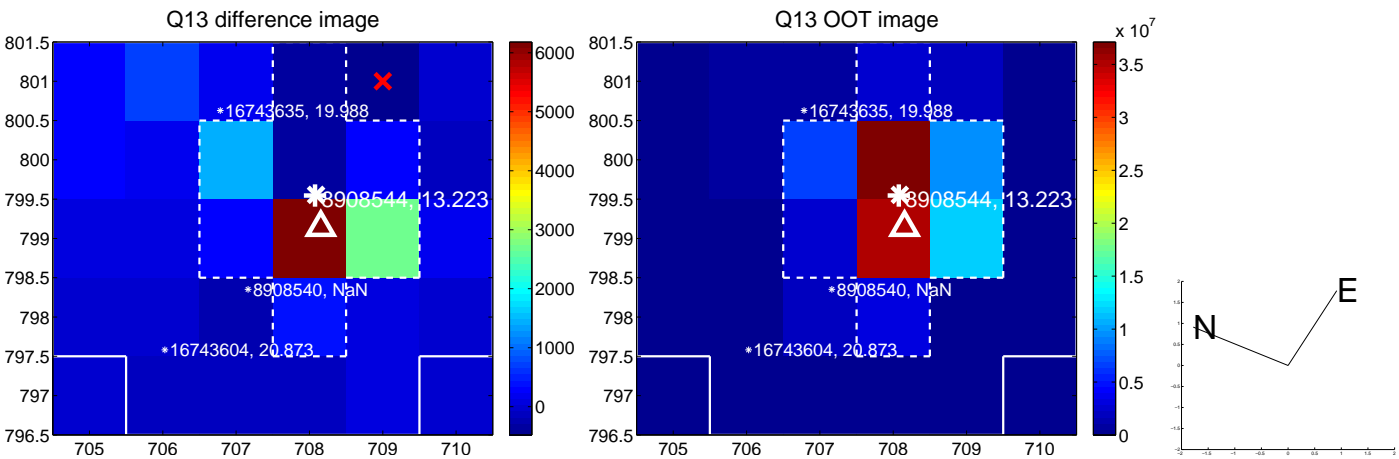
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



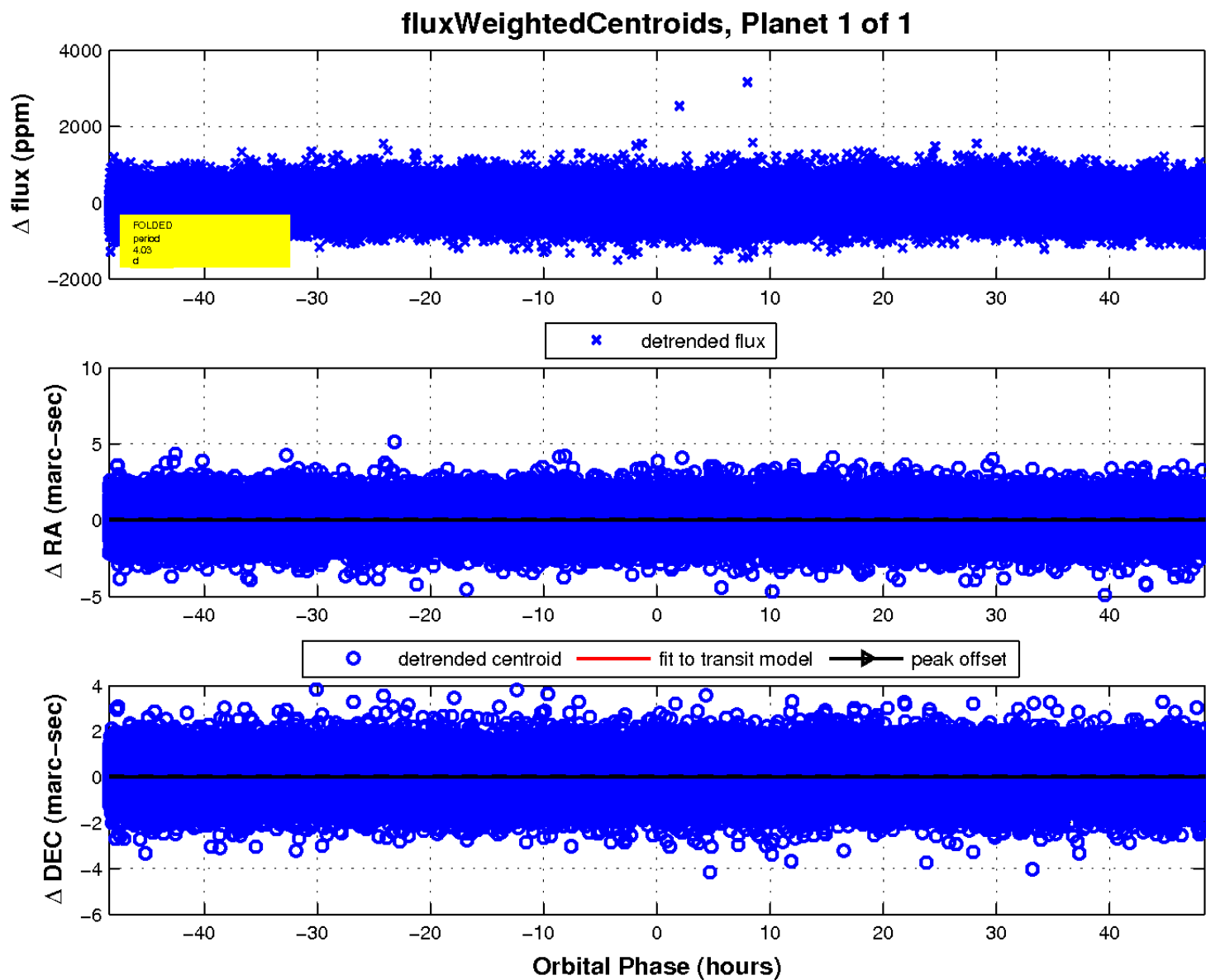
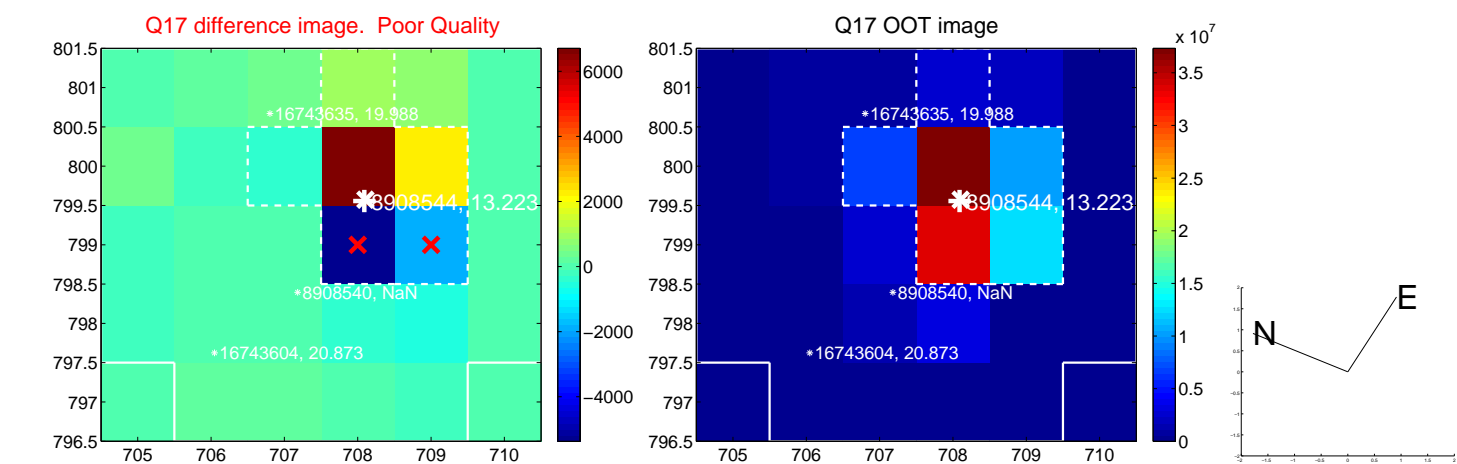
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

