

KIC 003660943

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})
003660943-01	OBS	No	8.994670	137.584953	55.7	36.961	8.3	10.9	1.19	6469	1.00	267.11

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003660943-01	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.

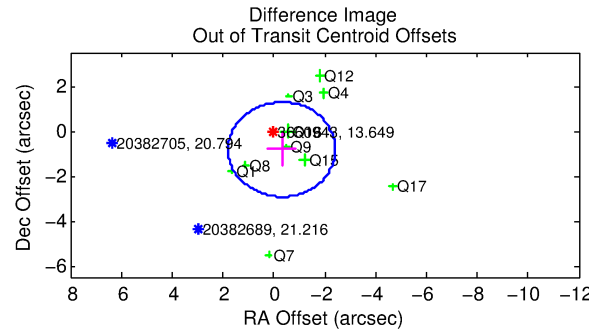
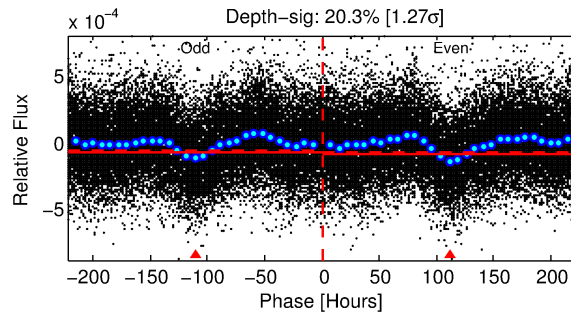
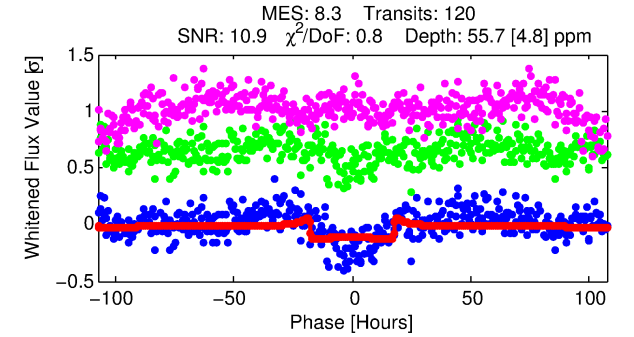
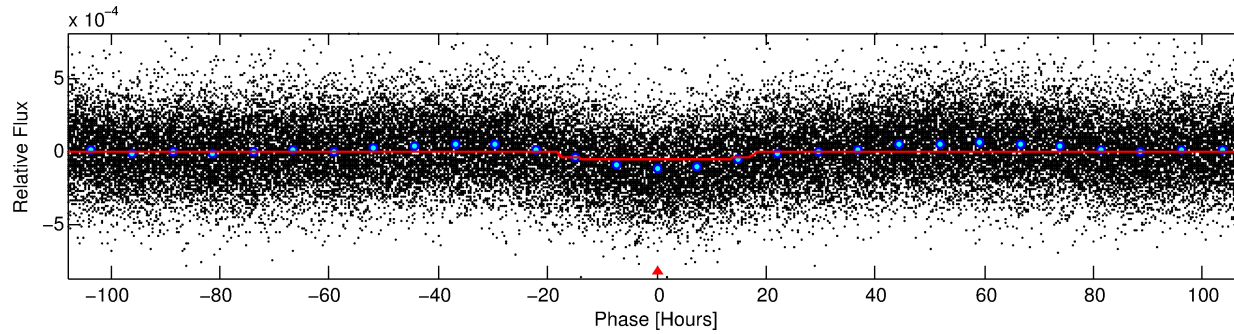
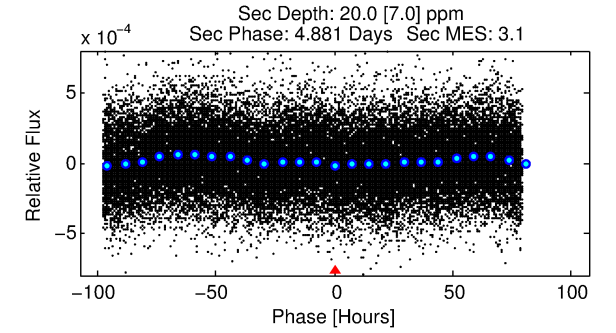
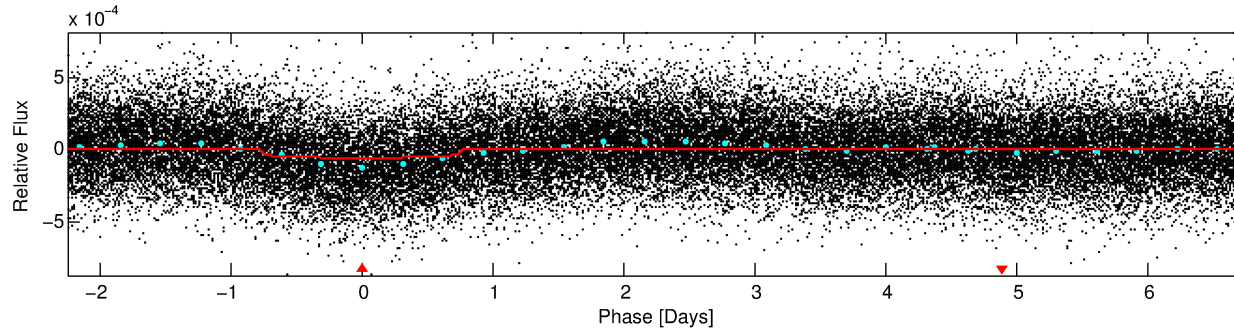
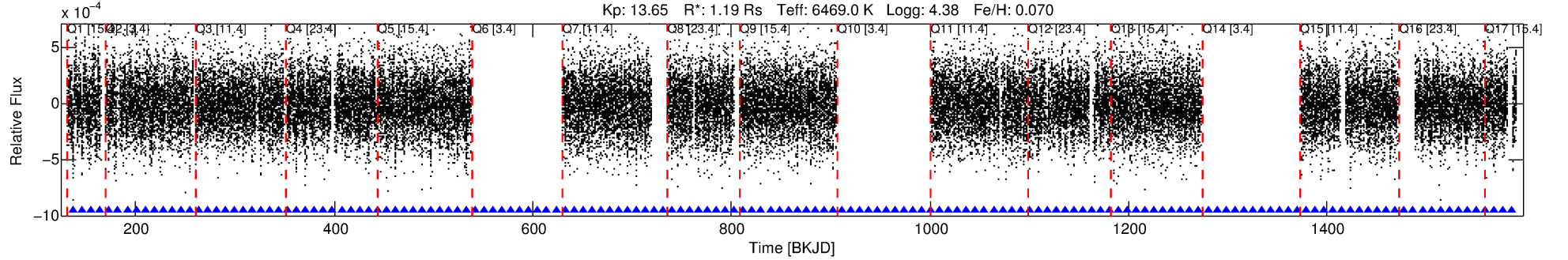
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003660943-01

No Significant Match Found

DV One-Page Summary

KIC: 3660943 Candidate: 1 of 1 Period: 8.995 d



DV Fit Results:

Period = 8.99467 [0.00024] d
Epoch = 137.5850 [0.0213] BKJD
Rp/R* = 0.0077 [0.0007]
a/R* = 1.37 [0.27]
b = 0.84 [0.15]
Seff = 267.11 [110.50]
Teq = 1031 [107] K
Rp = 1.00 [0.36] Re
a = 0.0914 [0.0255] AU
Ag = 91.76 [50.95] [1.78σ]
Teffp = 4933 [509] K [7.50σ]

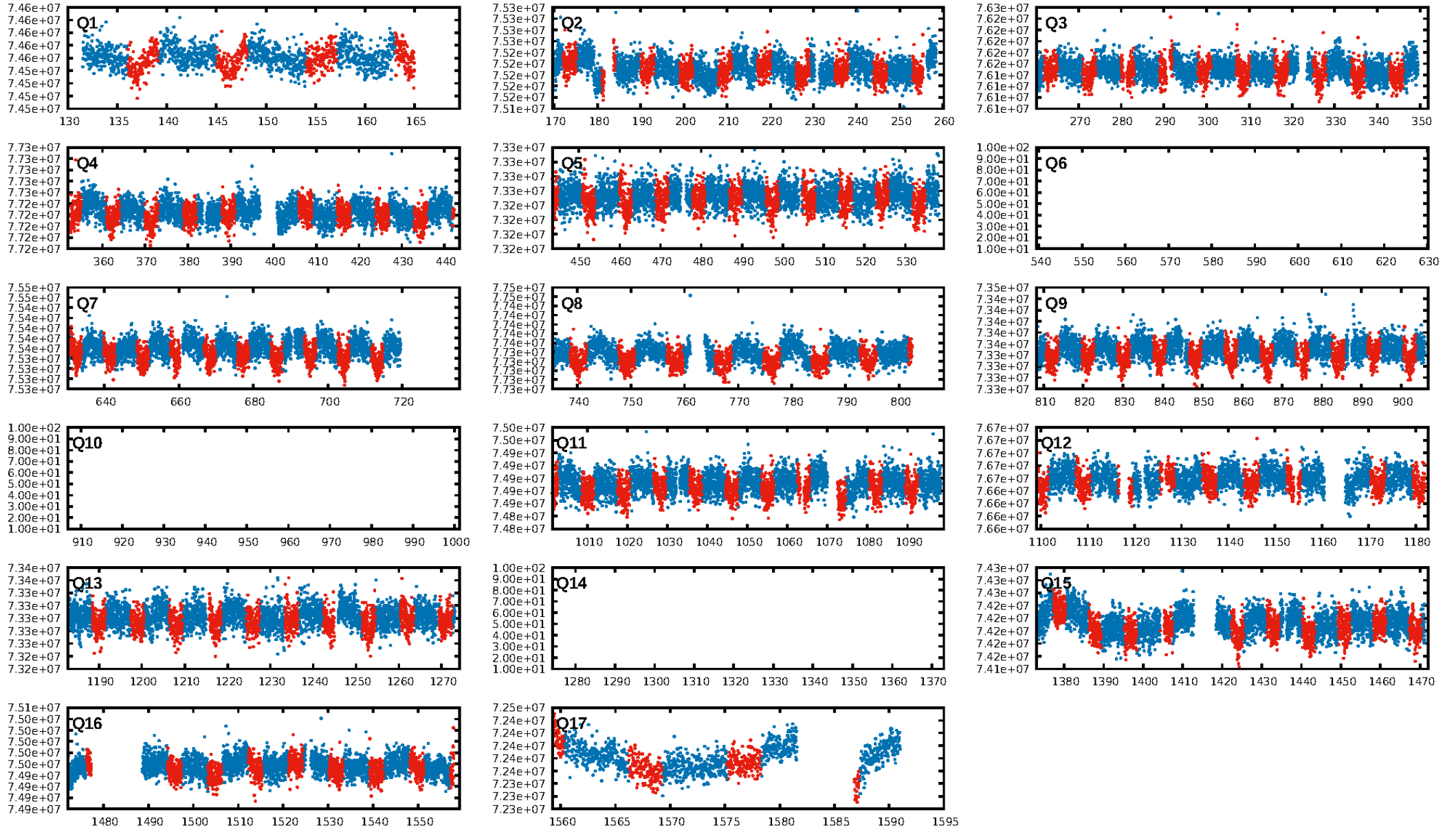
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.60e-16
RollingBand-fgt: 1.00 [113/113]
GhostDiagnostic-chr: 1.945
Centroid-sig: 17.9%
Centroid-so: 0.609 arcsec [0.90σ]
OotOffset-rm: 0.885 arcsec [1.26σ]
KicOffset-rm: 0.737 arcsec [1.05σ]
OotOffset-st: 0/3/4/3 [10]
KicOffset-st: 0/3/4/3 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 1.00 [14/14]

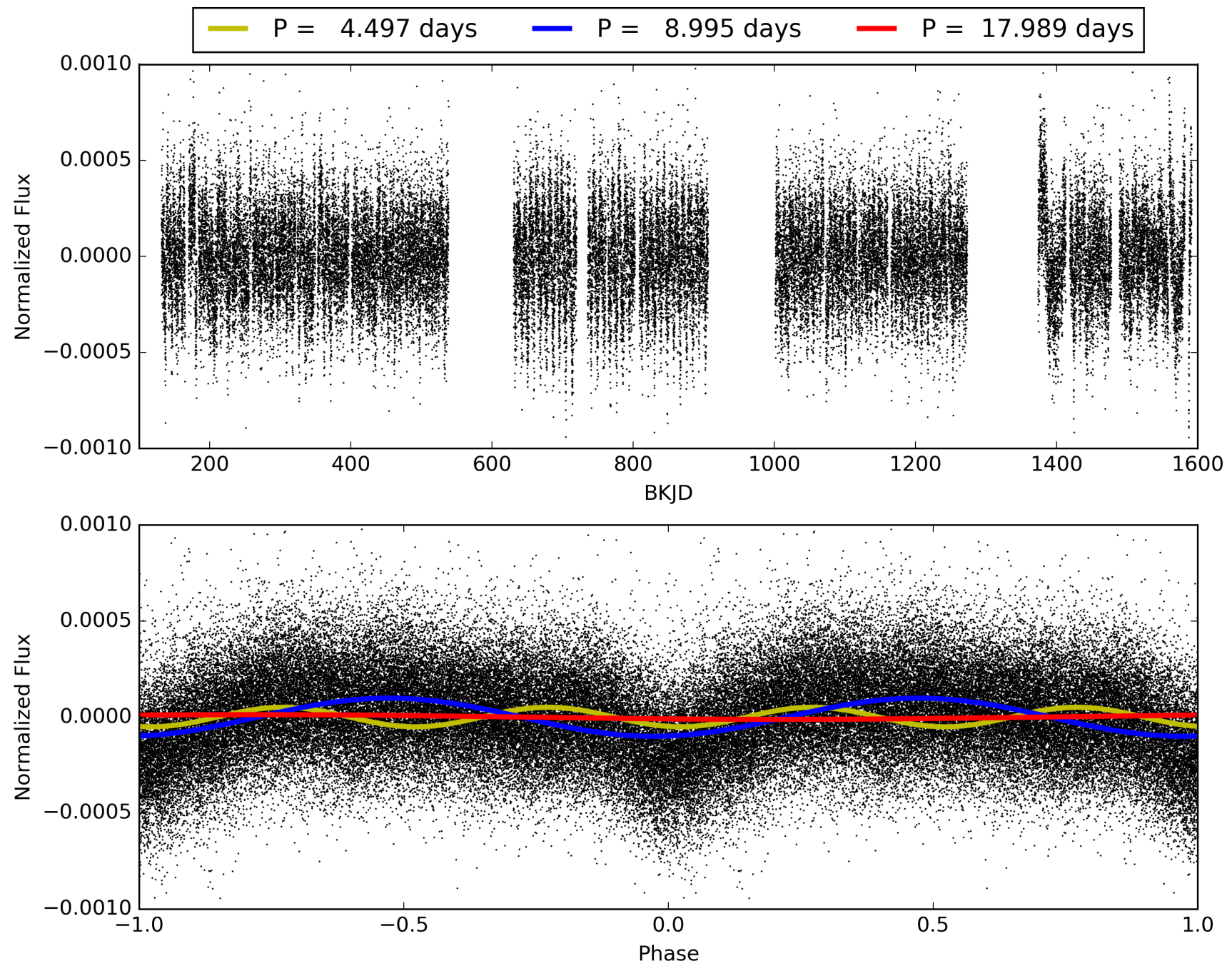
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:01:20 Z

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

TCE 003660943-01, PDC Light Curves

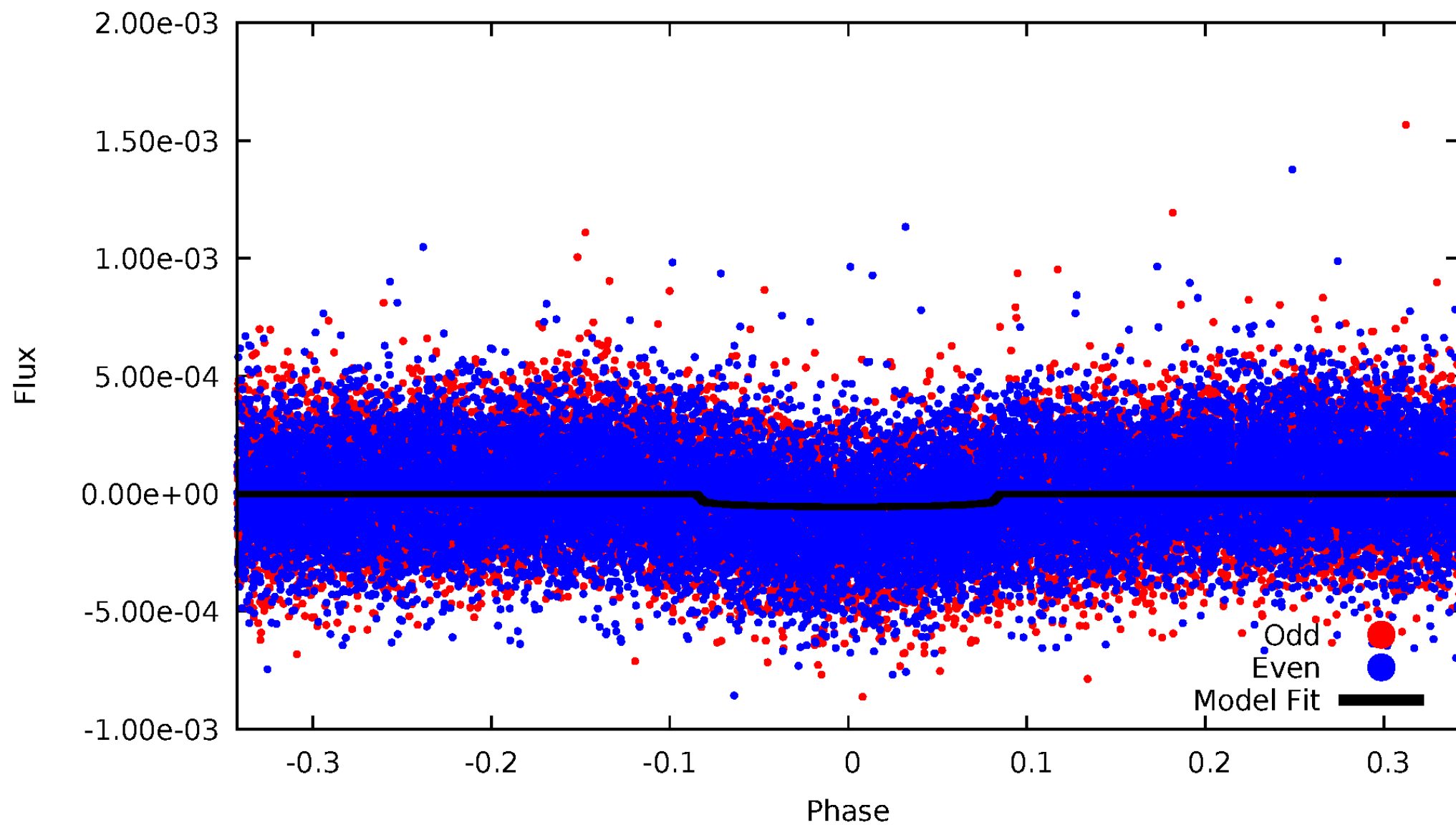


TCE 003660943-01



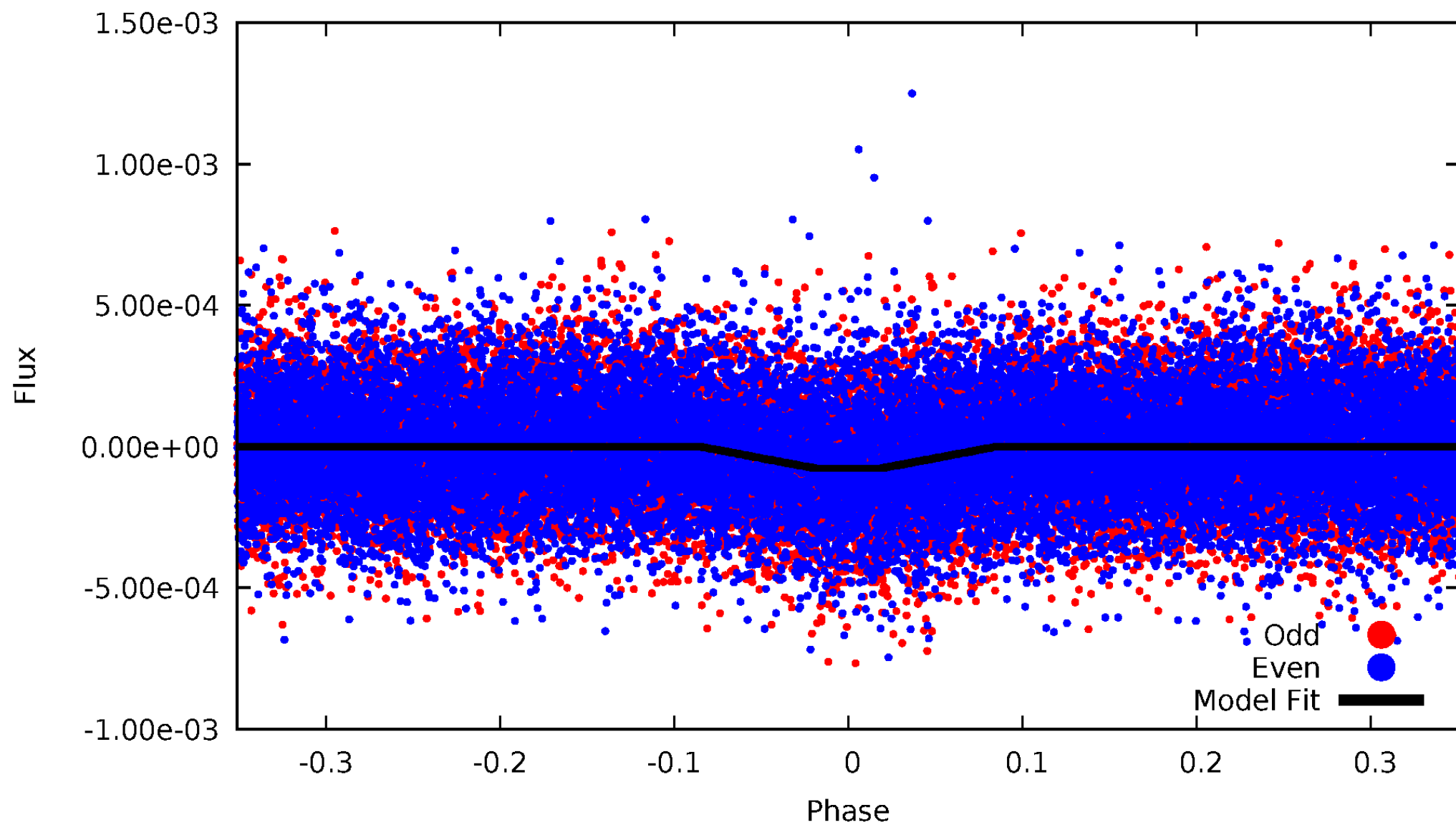
DV Odd/Even

TCE 003660943-01

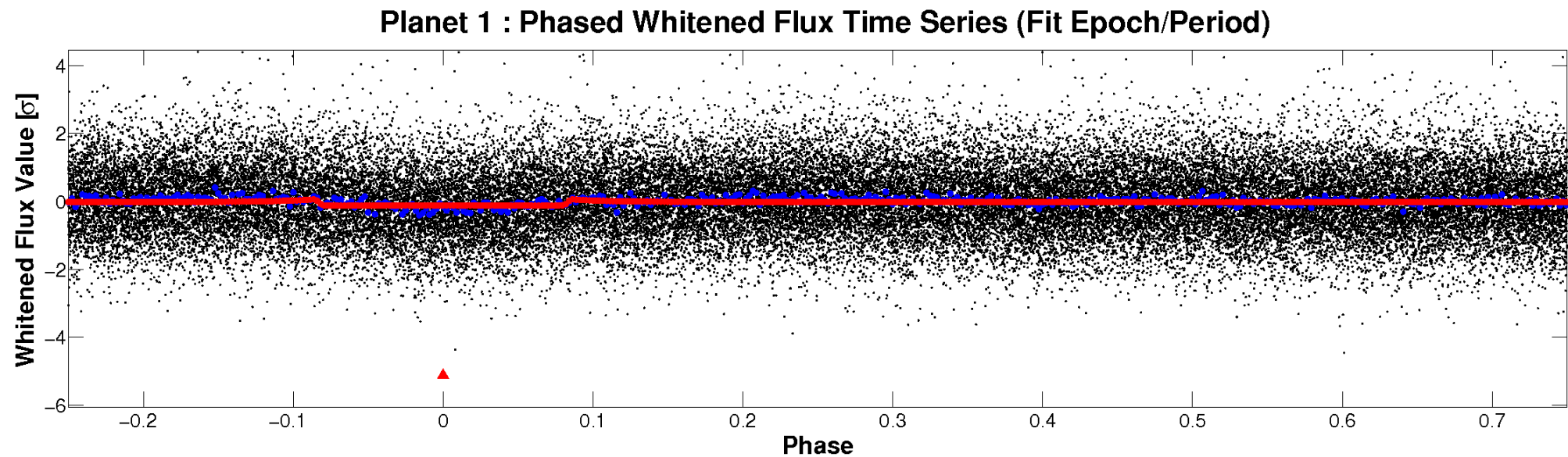
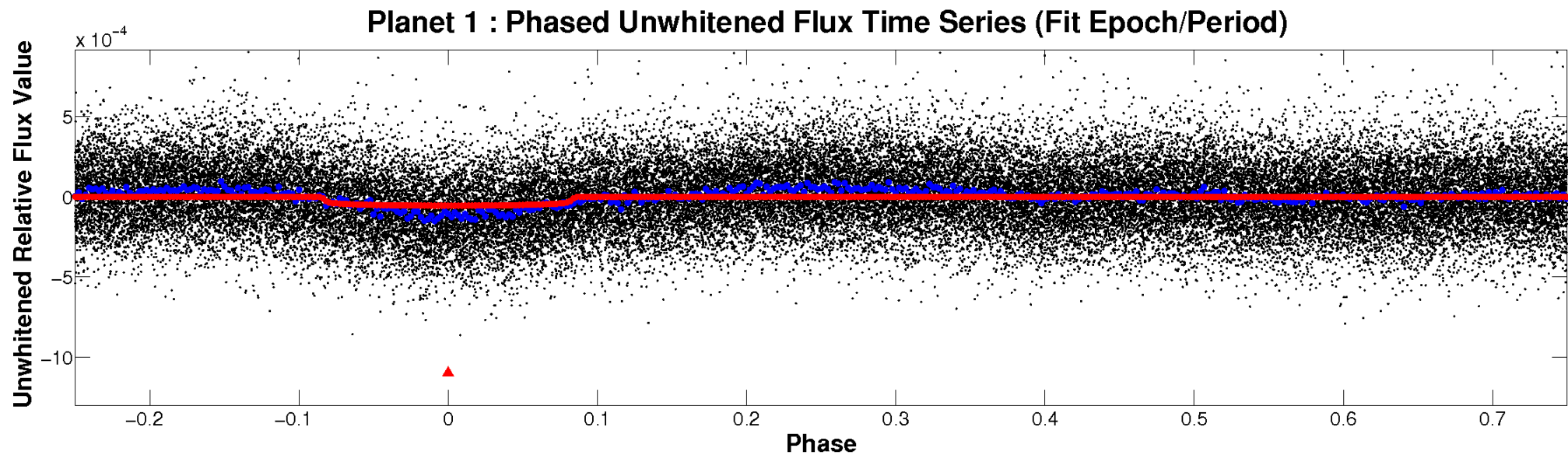


ALT Odd/Even

TCE 003660943-01

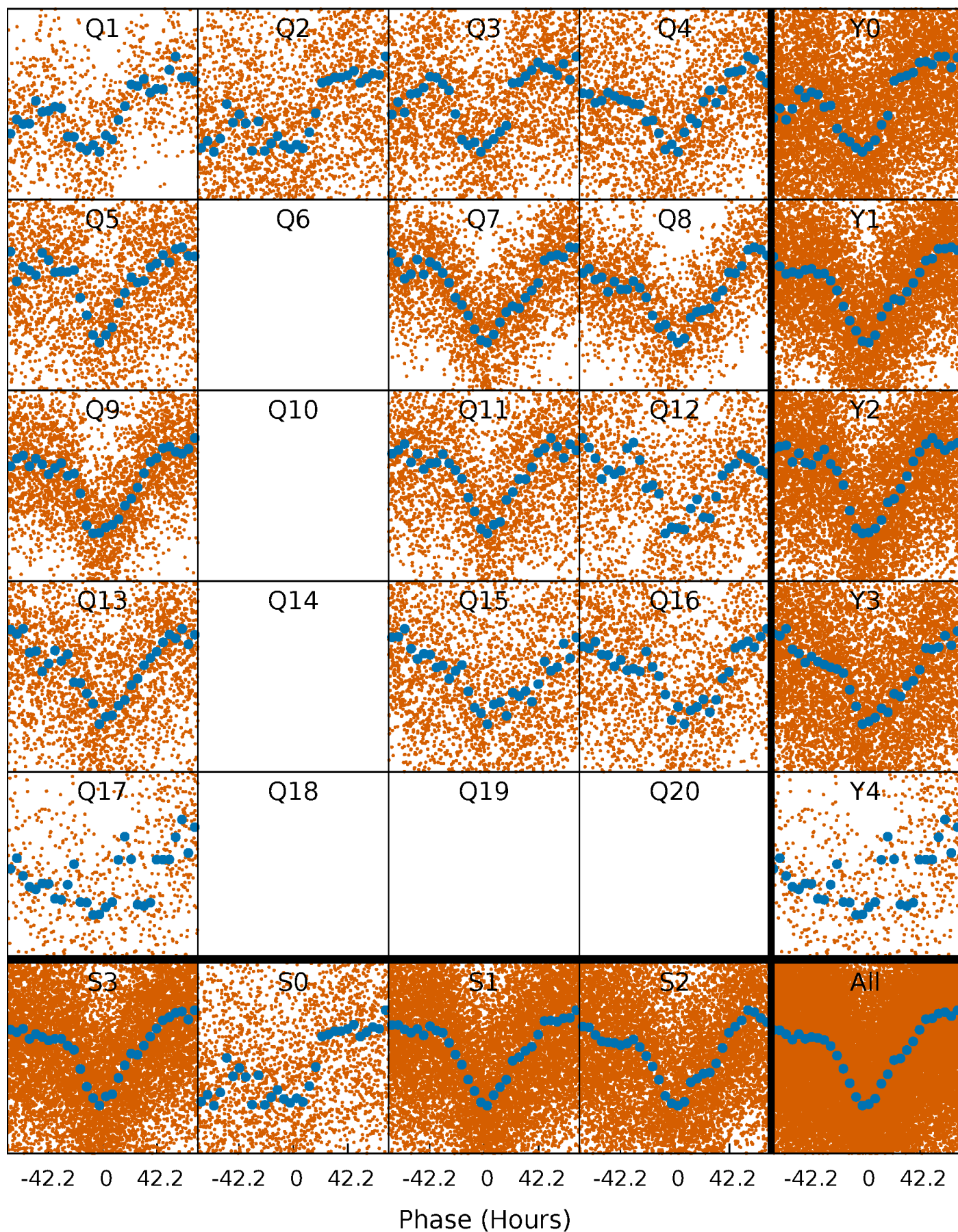


Non-Whitened Vs. Whitened Light Curve



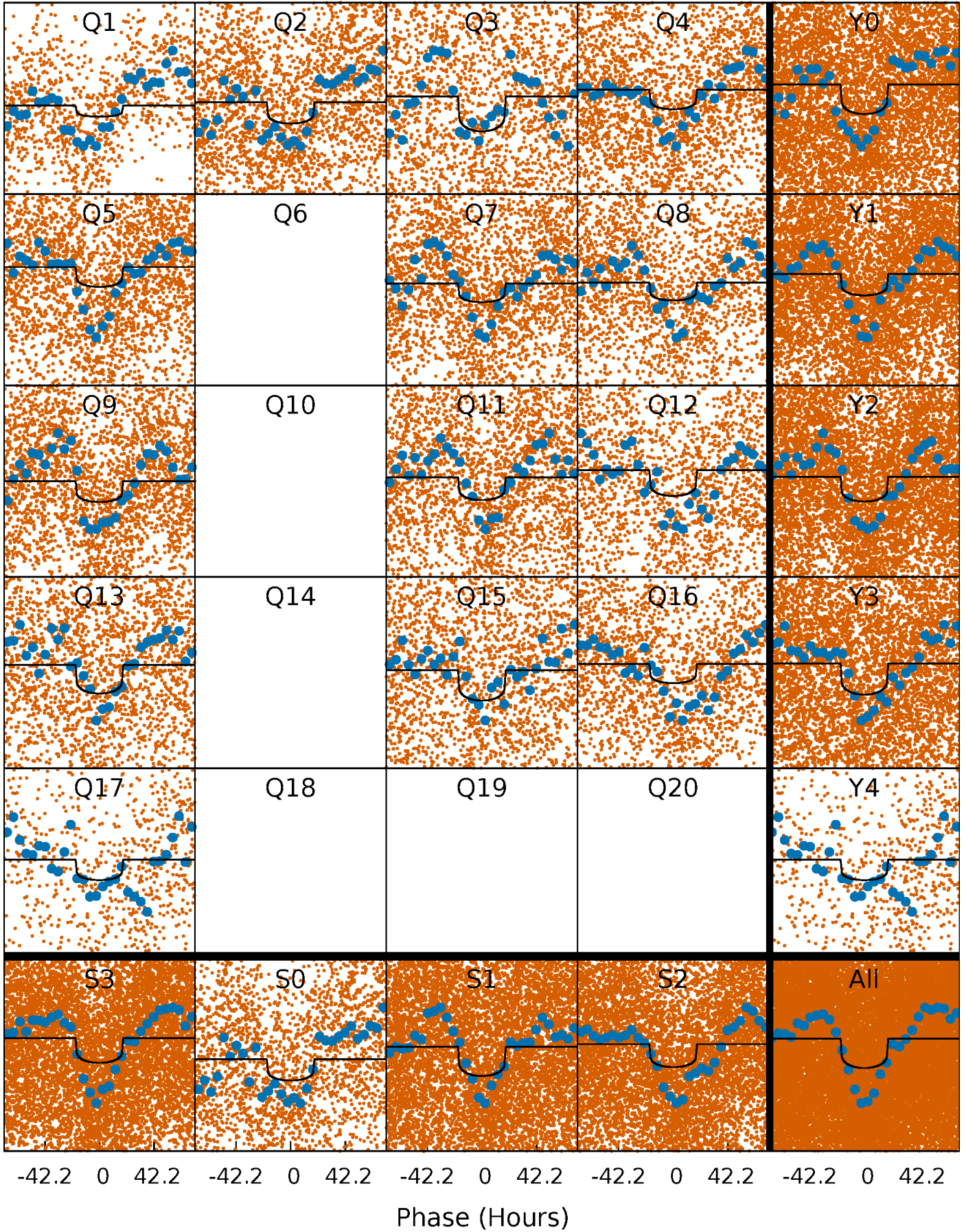
PDC Quarter-Phased Transit Curves

TCE 003660943-01 P= 8.994670 Days $T_0=137.584953$ (BKJD)



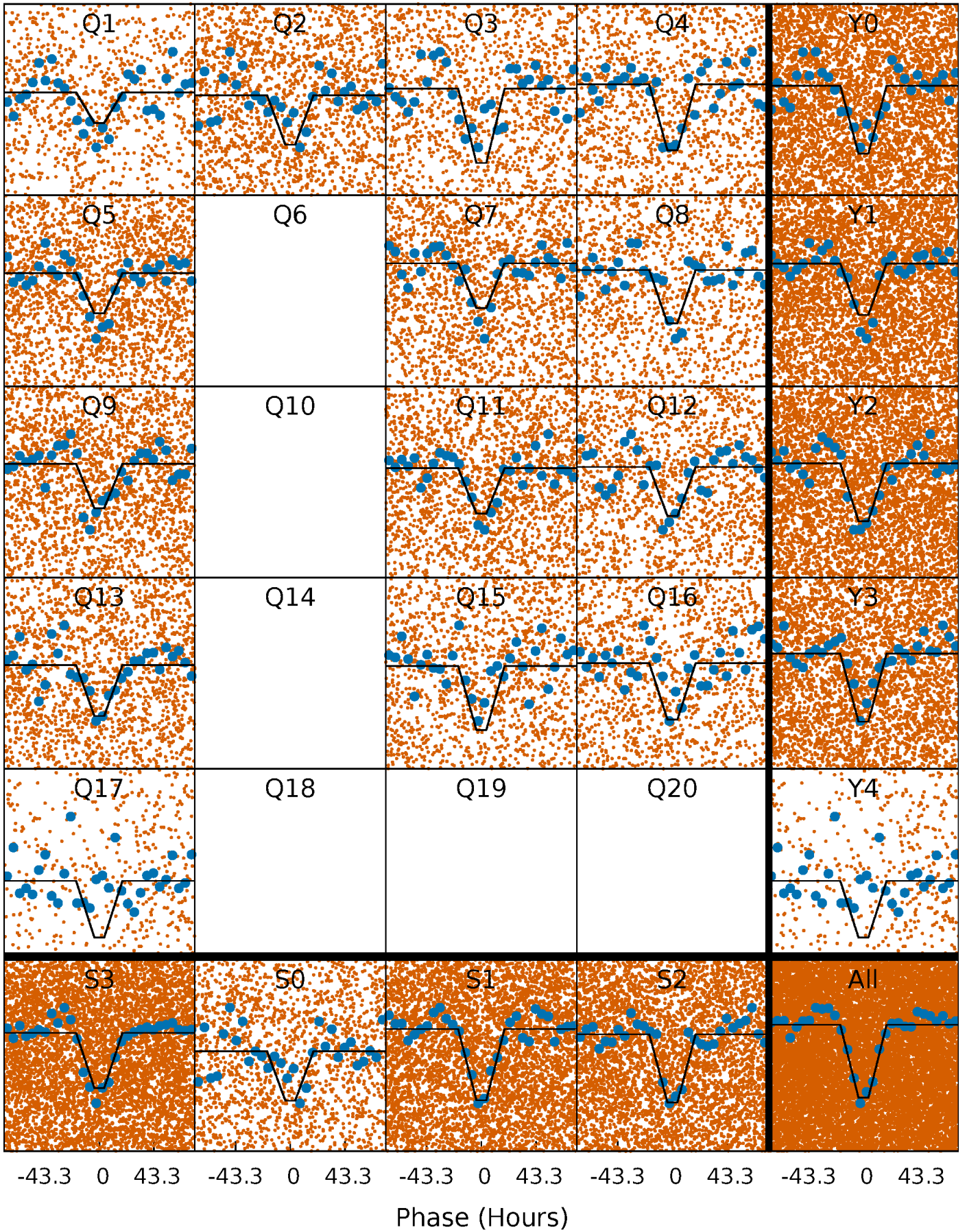
DV Quarter-Phased Transit Curves

TCE 003660943-01 P= 8.994670 Days $T_0=137.584953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

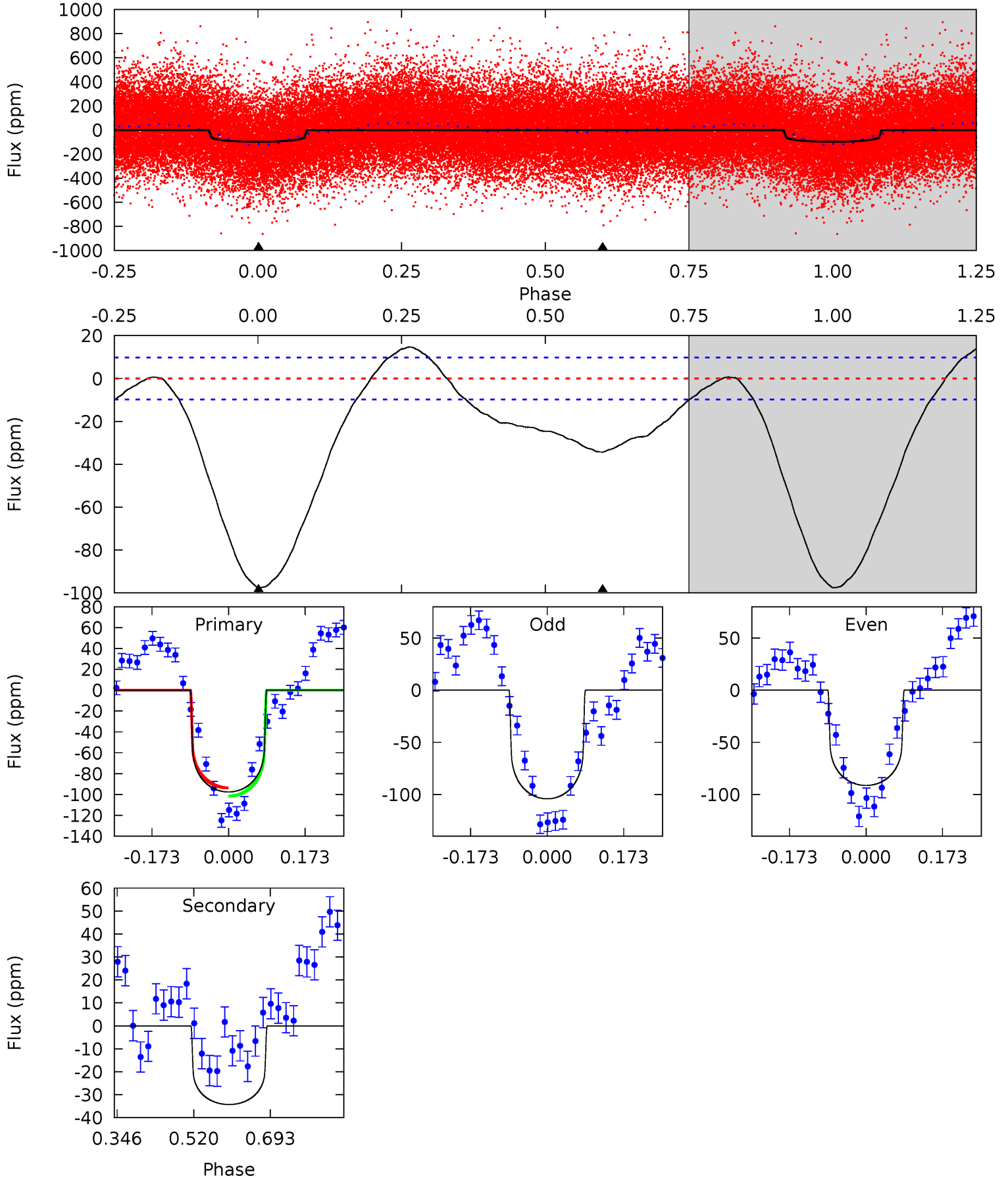
TCE 003660943-01 P= 8.995263 Days $T_0=137.529847$ (BKJD)



DV Model-Shift Uniqueness Test

003660943-01, P = 8.994670 Days, E = 128.590283 Days

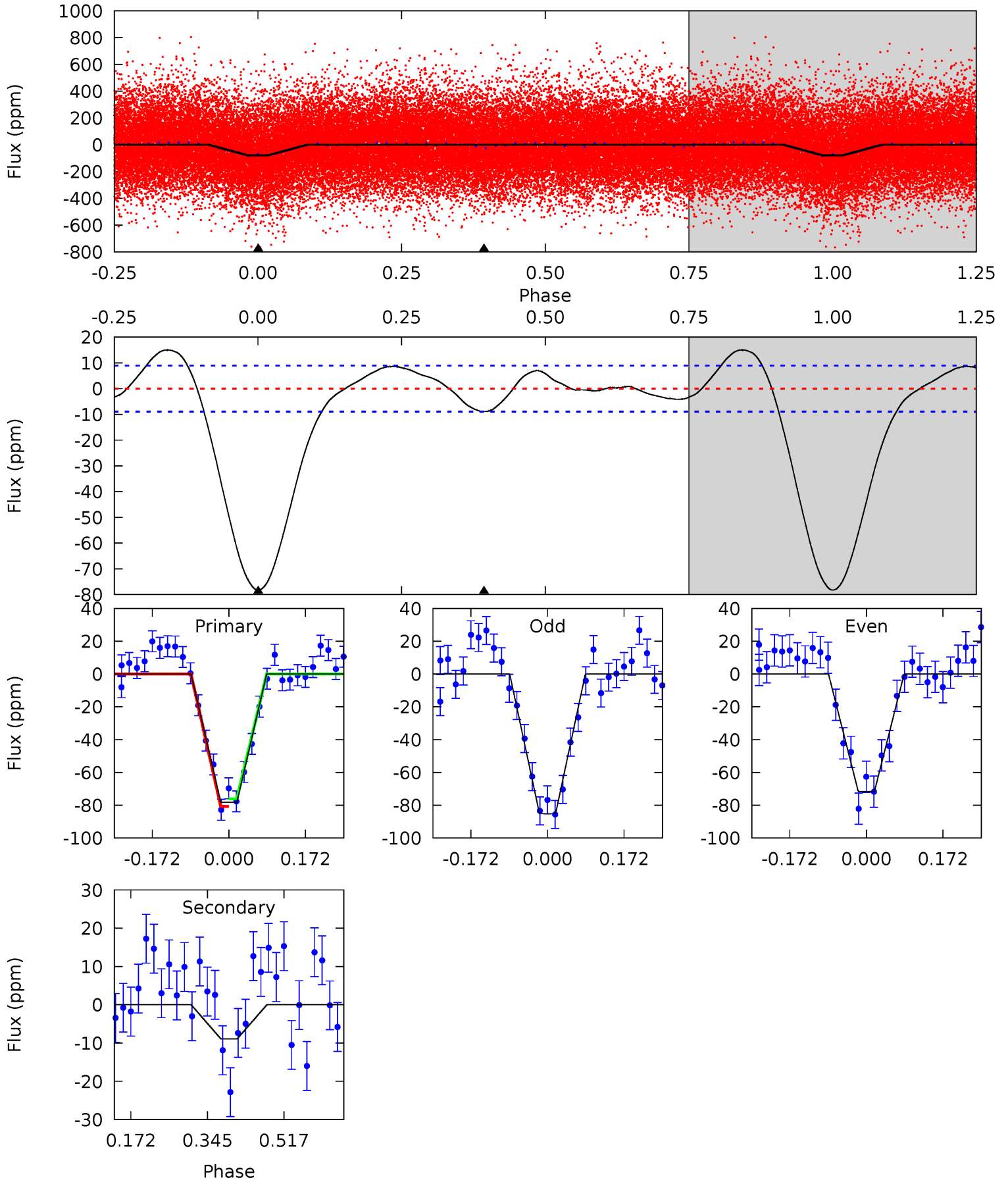
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	15.6	0	0	4.45	1.36	4.74	44.3	44.3	15.6	15.6	2.91	0.94	0.13	1.82



Alt Model-Shift Uniqueness Test

003660943-01, P = 8.995263 Days, E = 128.534584 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.0	4.46	0	0	4.45	1.36	2.25	39.0	39.0	4.46	4.46	3.36	0.98	0.16	1.13



Stellar Parameters For KIC 003660943

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6469^{+145}_{-209}	$4.385^{+0.052}_{-0.208}$	$0.070^{+0.250}_{-0.300}$	$1.193^{+0.410}_{-0.109}$	$1.260^{+0.171}_{-0.171}$	$1.047^{+0.295}_{-0.550}$
	+2%/-3%	+1%/-5%	+357%/-429%	+34%/-9%	+14%/-14%	+28%/-53%
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 003660943-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-34 ± 2	$1.04^{+0.19}_{-0.13}$	1470^{+111}_{-70}	5630^{+282}_{-269}	142^{+41}_{-36}
Alt.	-9 ± 2	$1.18^{+0.22}_{-0.14}$	1468^{+101}_{-69}	4037^{+227}_{-225}	28^{+11}_{-9}

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

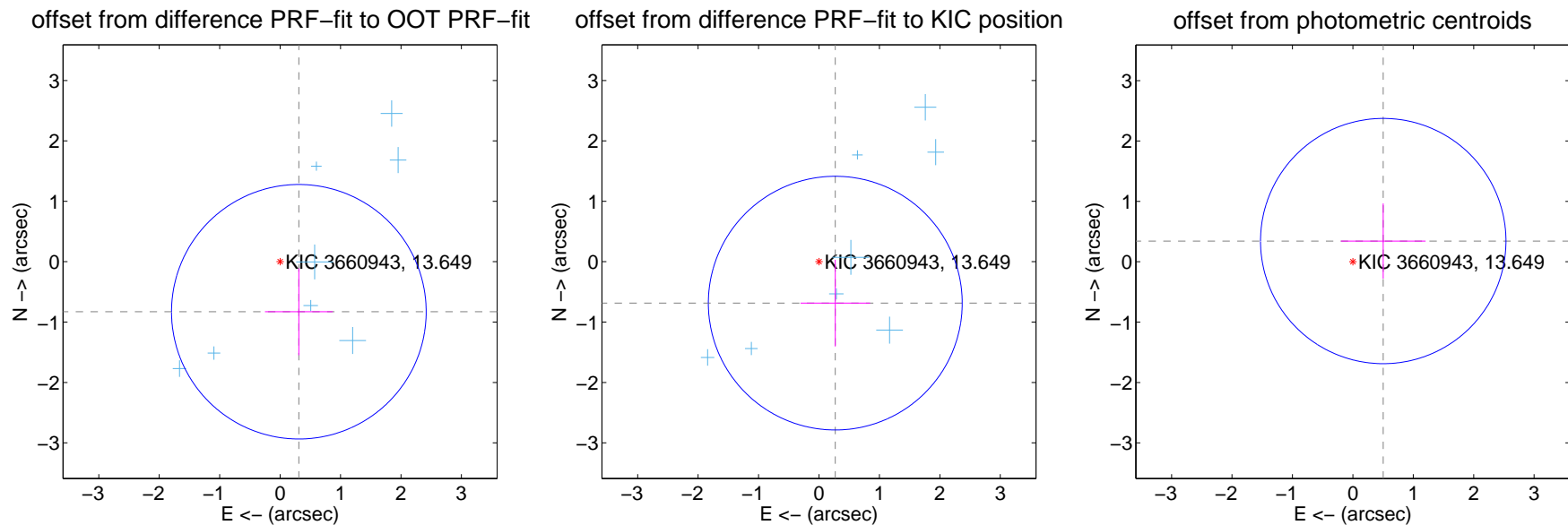
DV Centroid Data

Supplemental centroid analysis for 003660943-01. Kepler magnitude: 13.65. Transit SNR 10.93

There are 8 quarters with good PRF difference image offsets

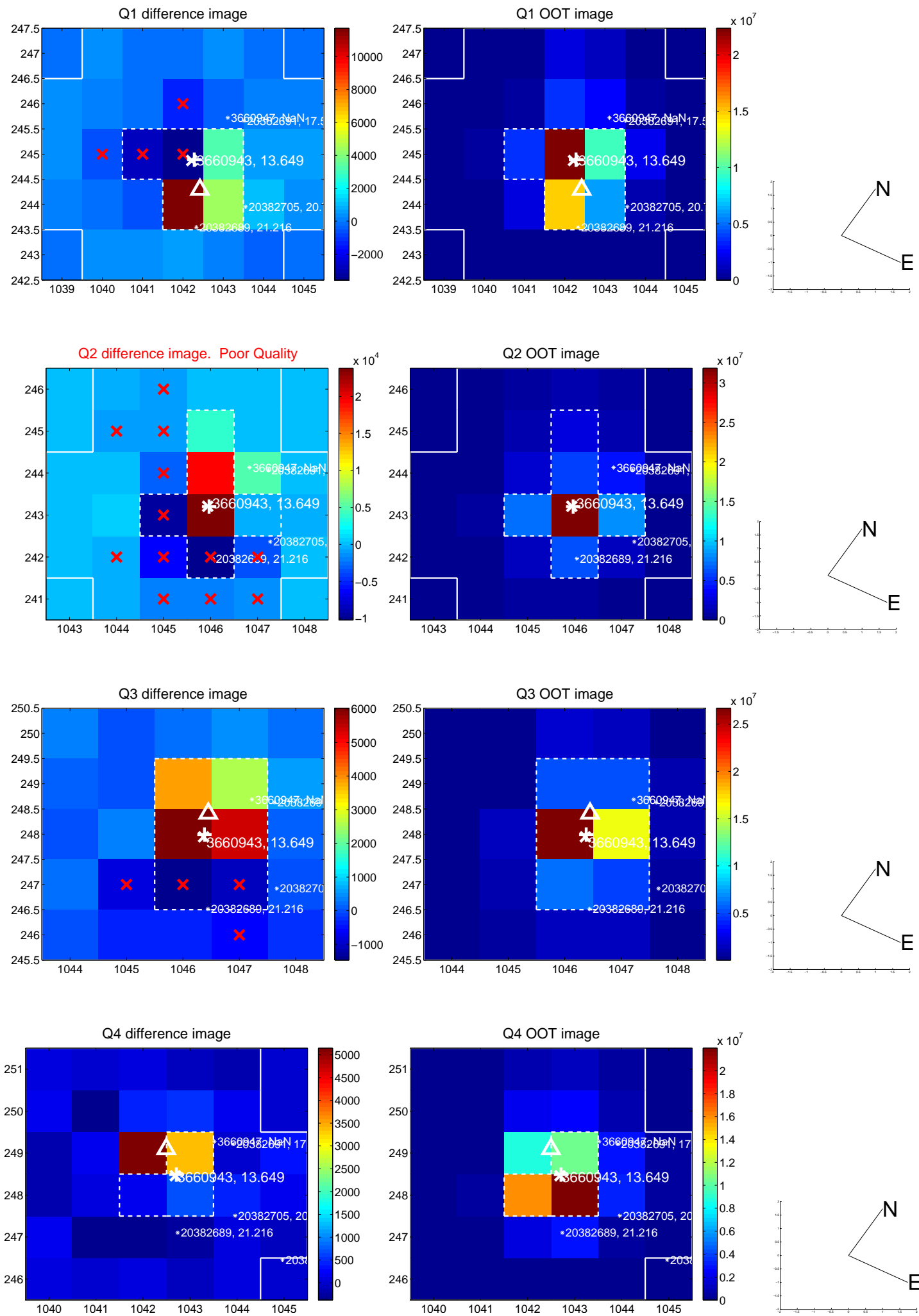
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.885 ± 0.702	1.26	-0.310 ± 0.561	-0.829 ± 0.720
PRF-fit source offset from KIC position	0.737 ± 0.700	1.05	-0.270 ± 0.575	-0.686 ± 0.717
photometric centroid source offset	0.61 ± 0.68	0.90	-0.50 ± 0.70	0.34 ± 0.62

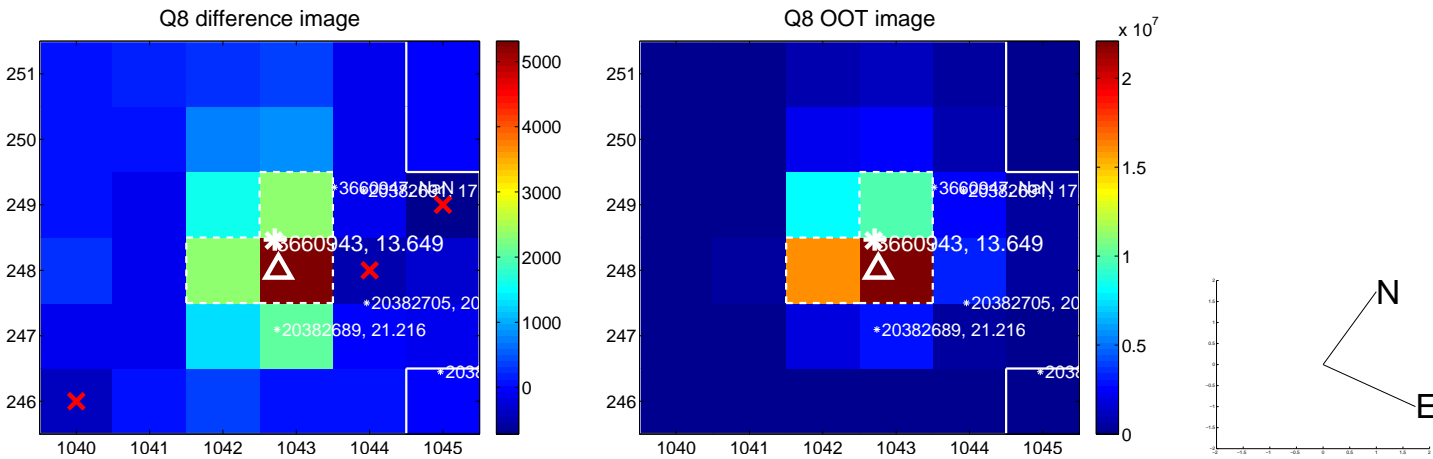
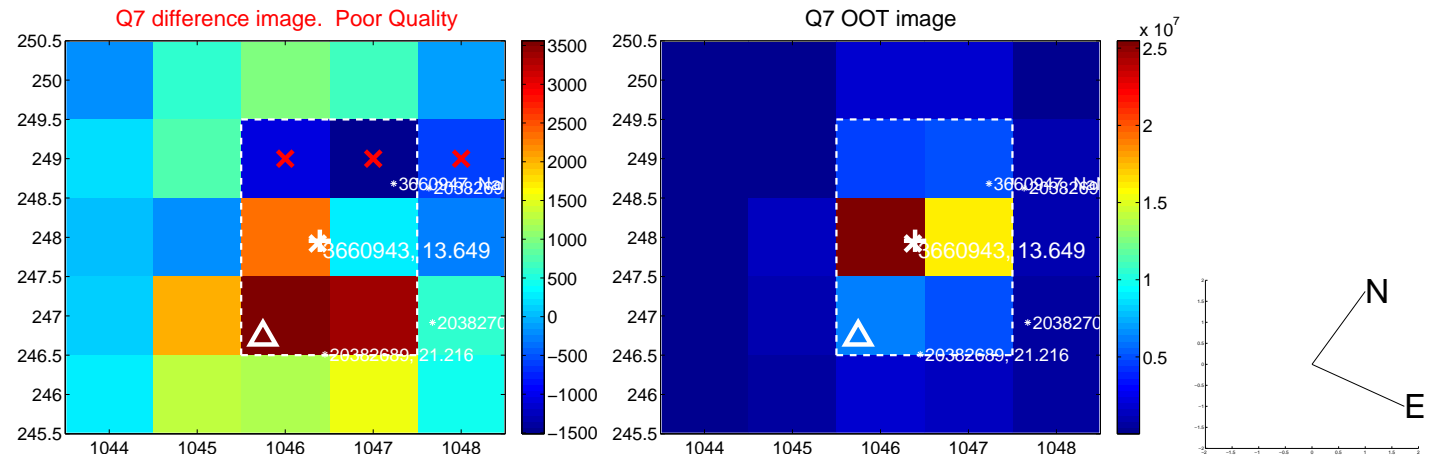
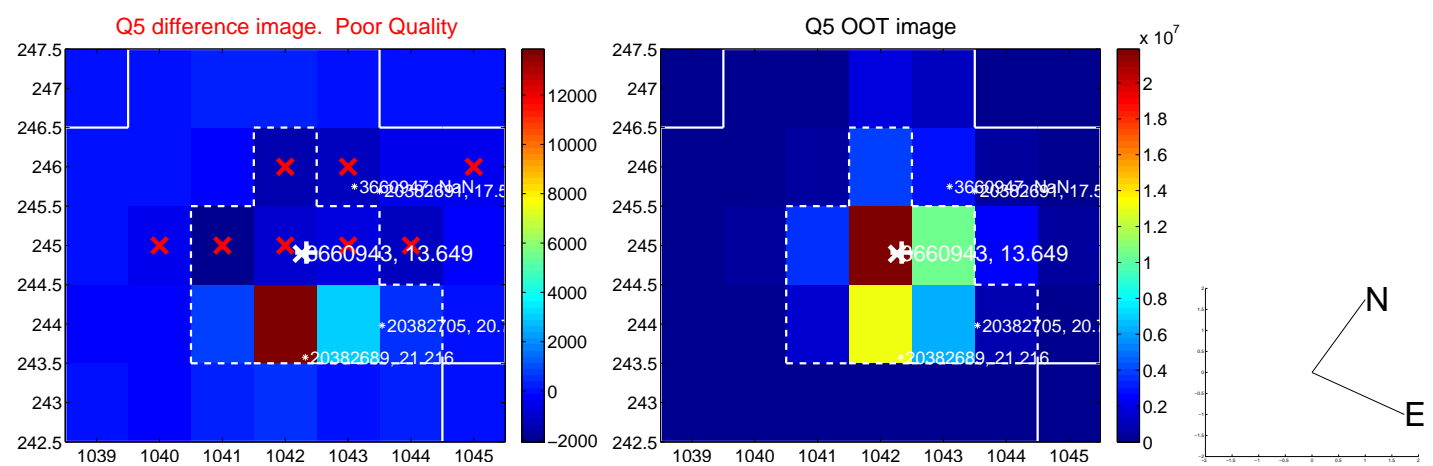


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

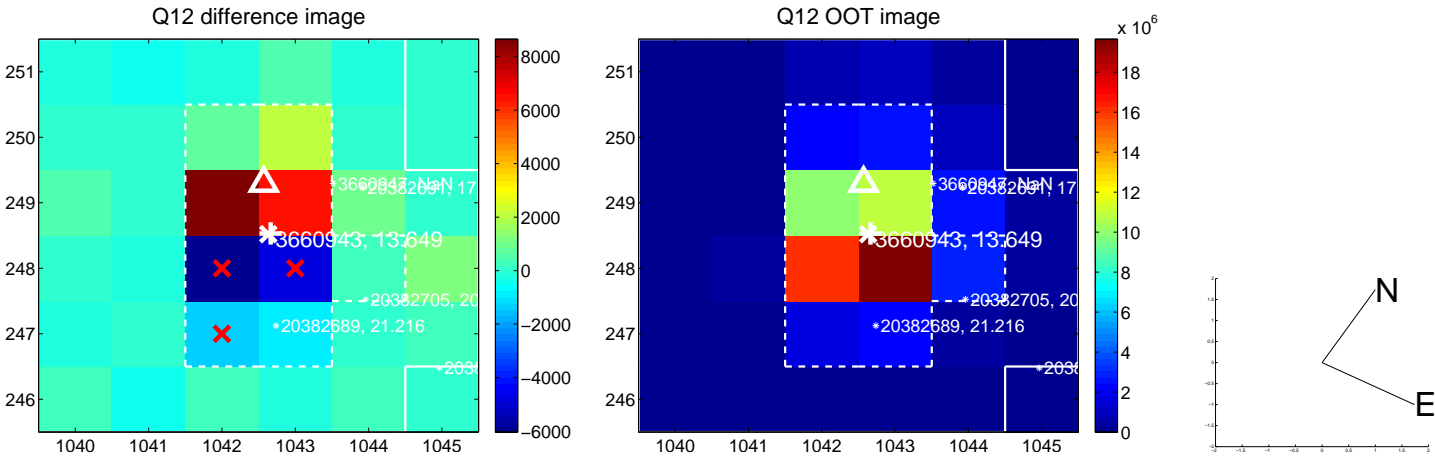
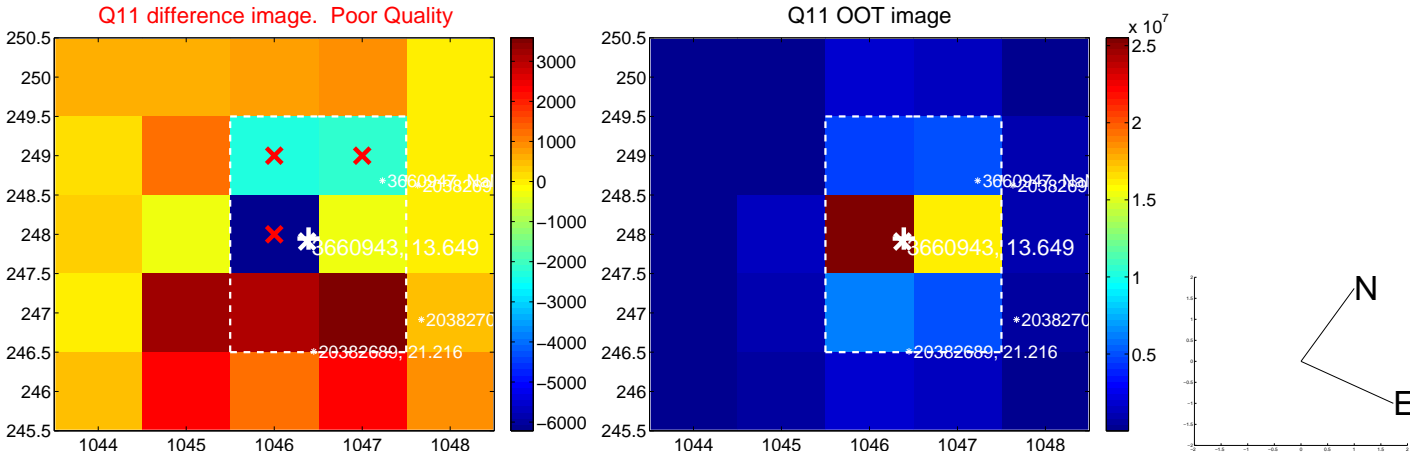
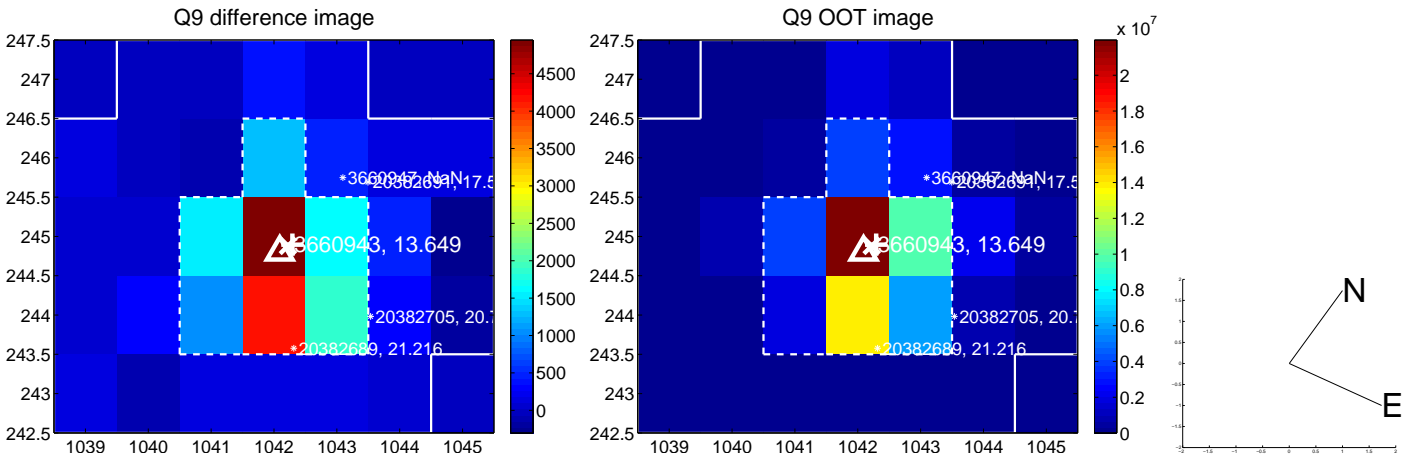
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



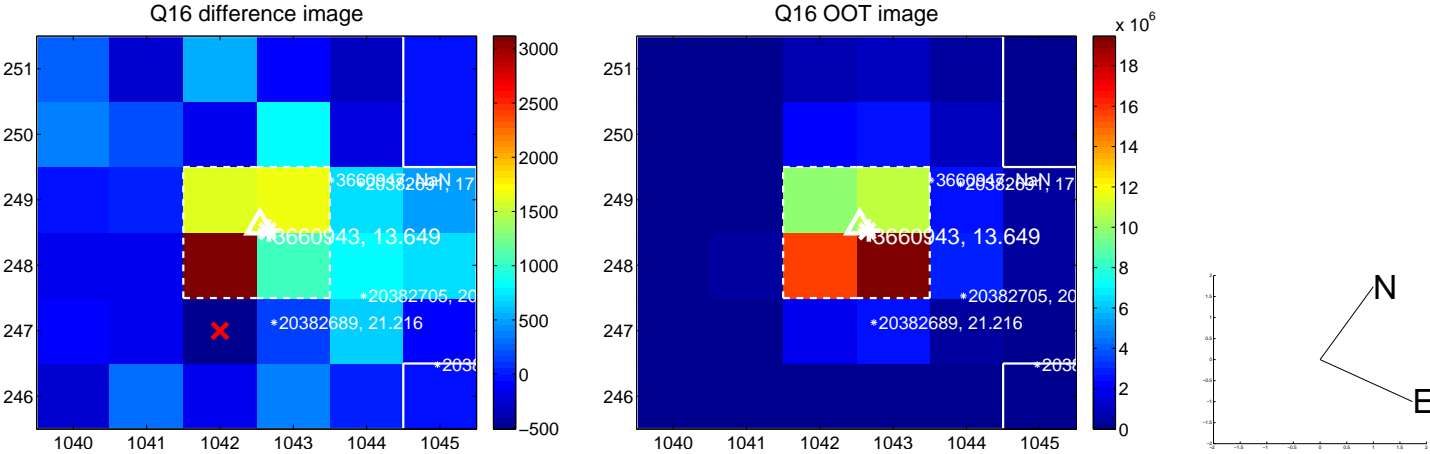
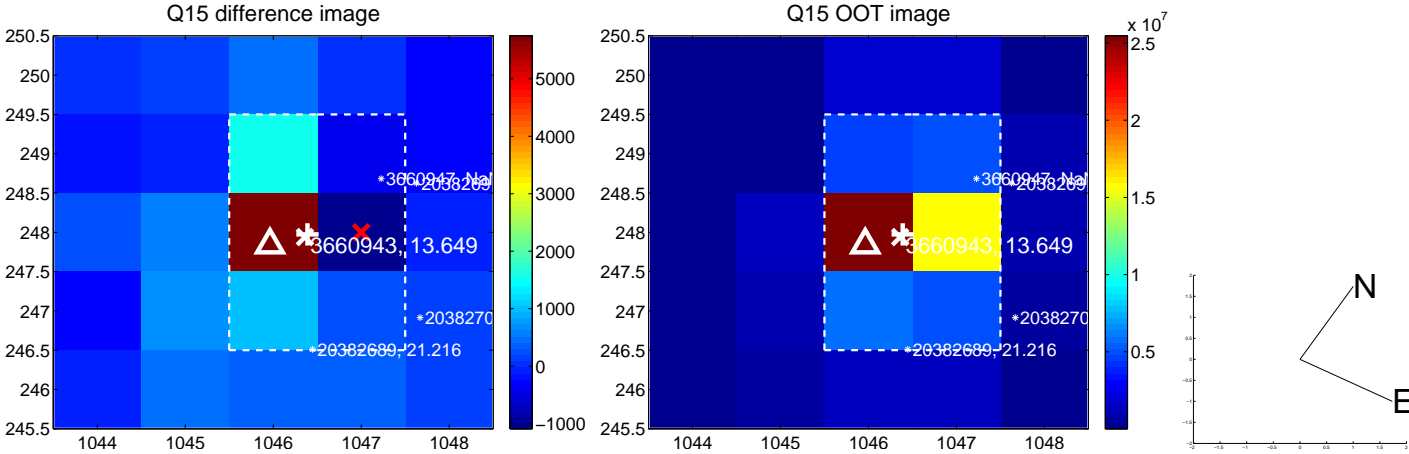
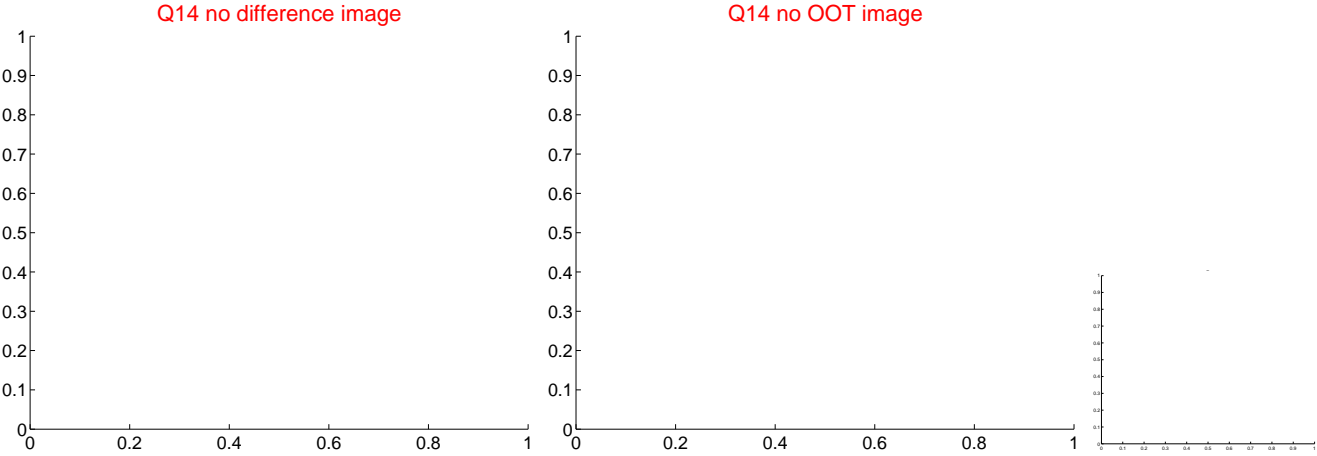
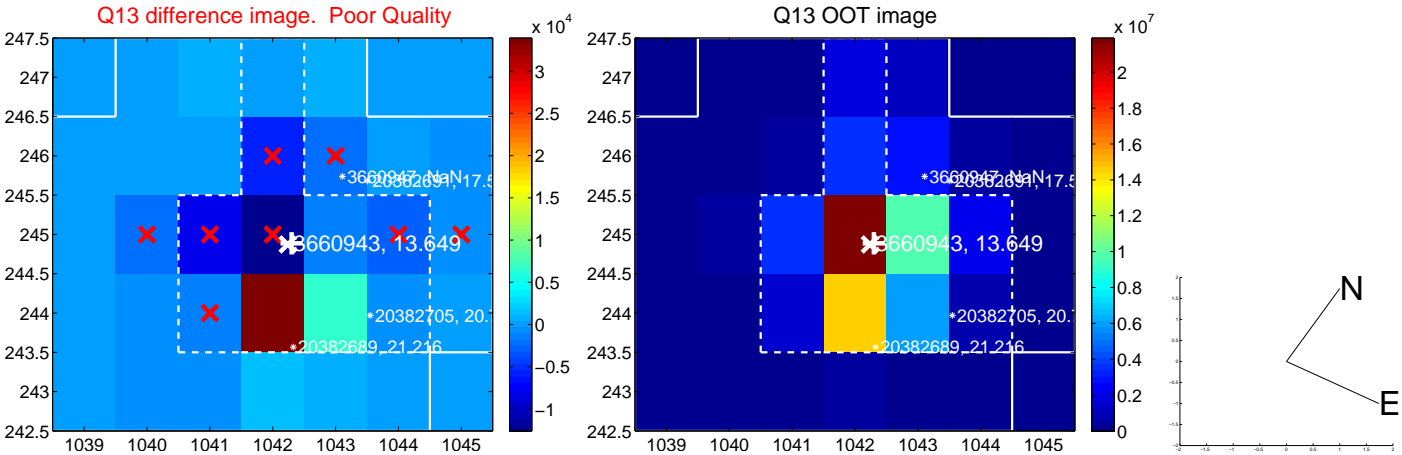
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



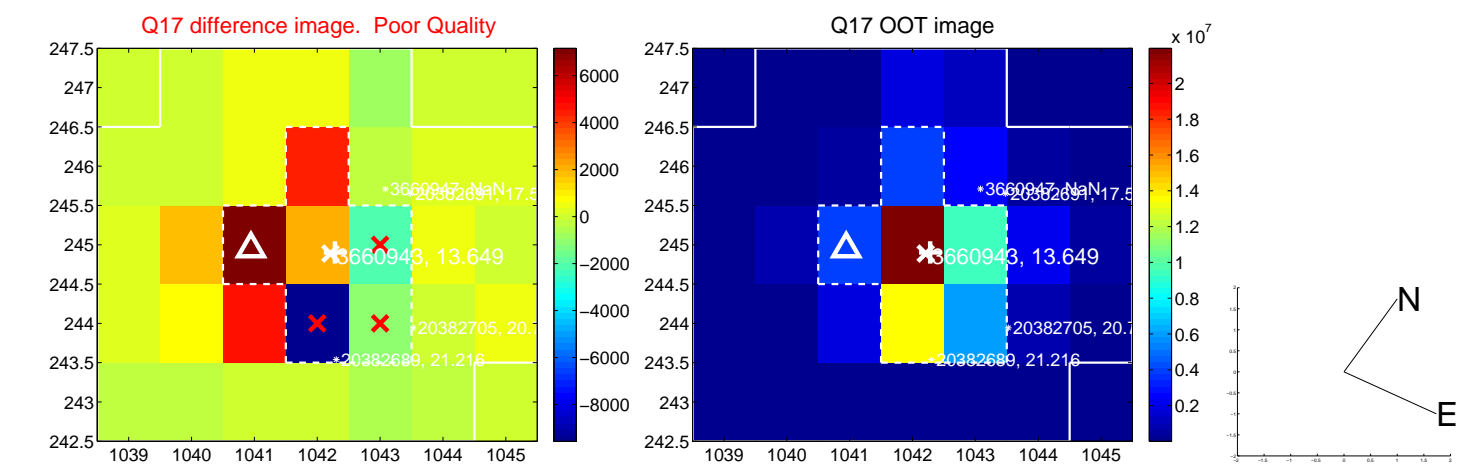
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



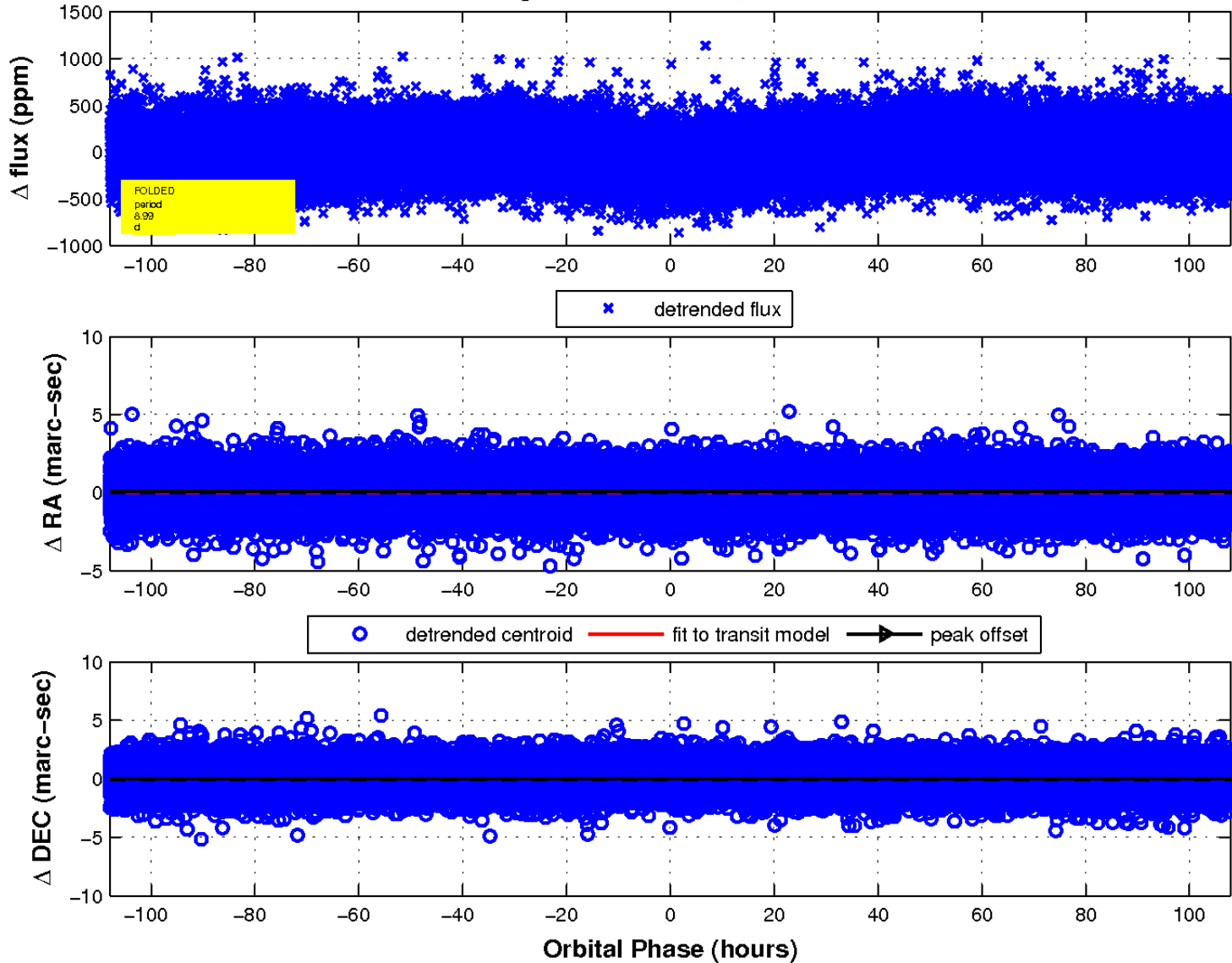
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

