

KIC 002714955

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})
002714955-01	OBS	No	0.968160	131.532946	75.9	9.572	8.5	12.2	1.07	6225	0.93	4074.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002714955-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

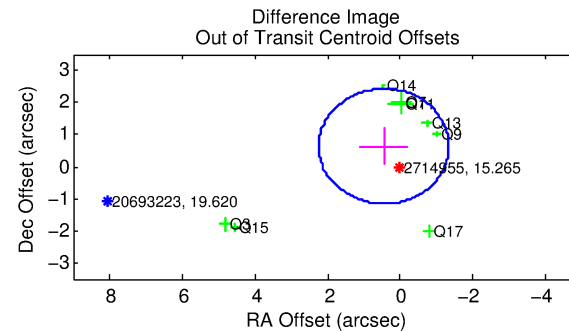
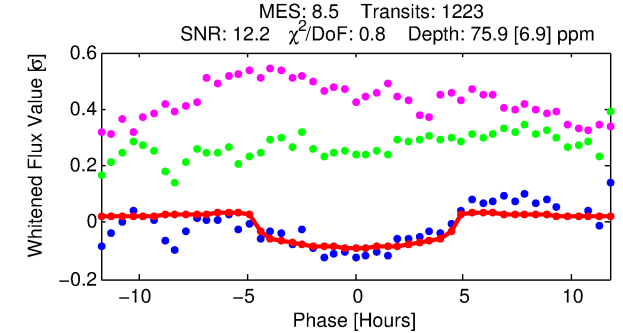
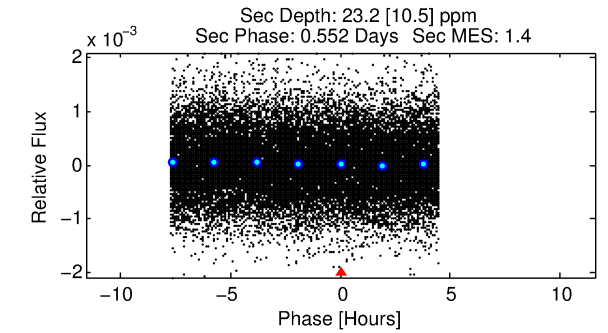
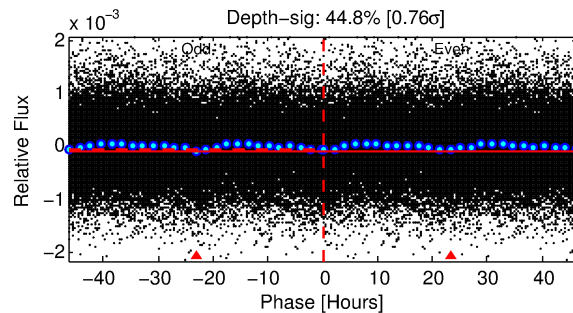
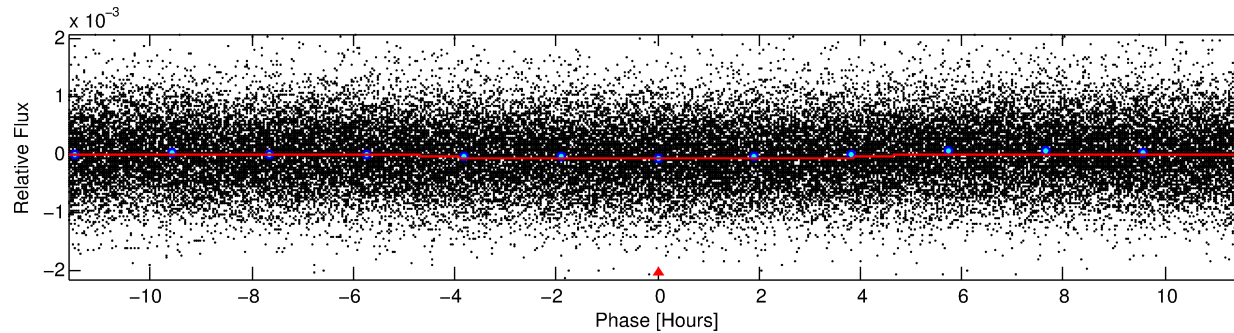
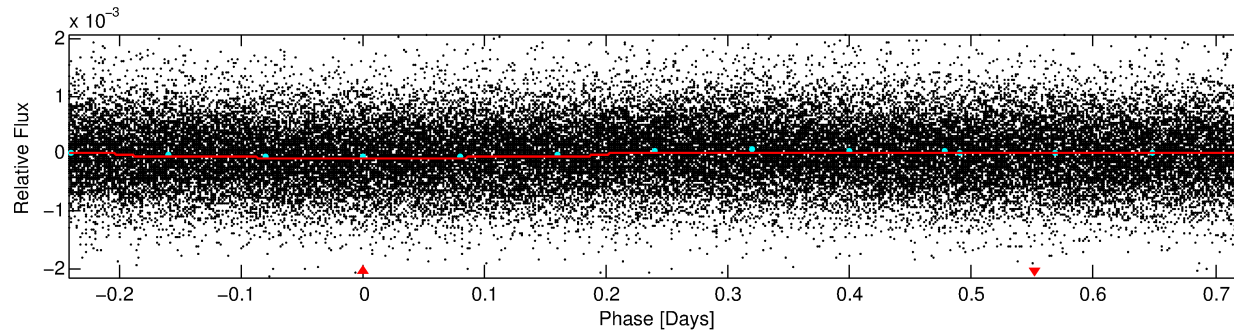
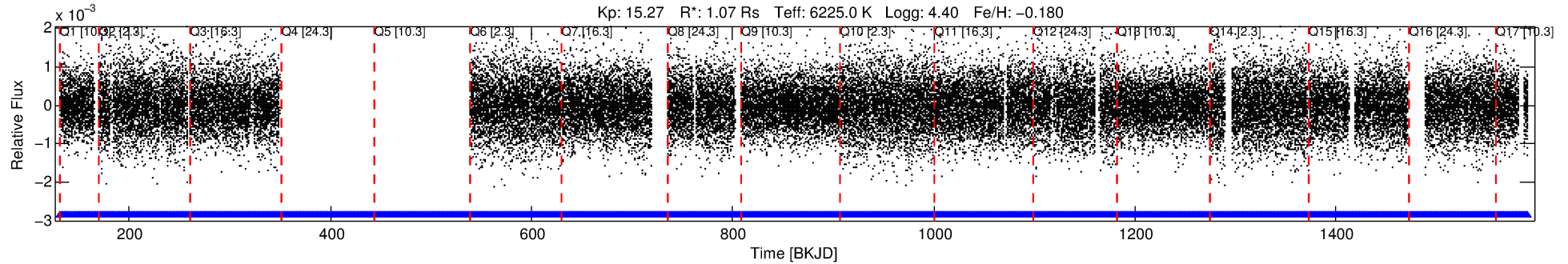
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002714955-01

No Significant Match Found

DV One-Page Summary

KIC: 2714955 Candidate: 1 of 1 Period: 0.968 d



DV Fit Results:

Period = 0.96816 [0.00001] d
Epoch = 131.5329 [0.0058] BKJD
Rp/R* = 0.0080 [0.0061]
a/R* = 1.05 [0.35]
b = 0.02 [236.78]
Seff = 4074.06 [1693.78]
Teq = 2037 [212] K
Rp = 0.93 [0.77] Re
a = 0.0194 [0.0052] AU
Ag = 5.54 [9.05] [0.50 σ]
Teff = 4832 [1928] K [1.44 σ]

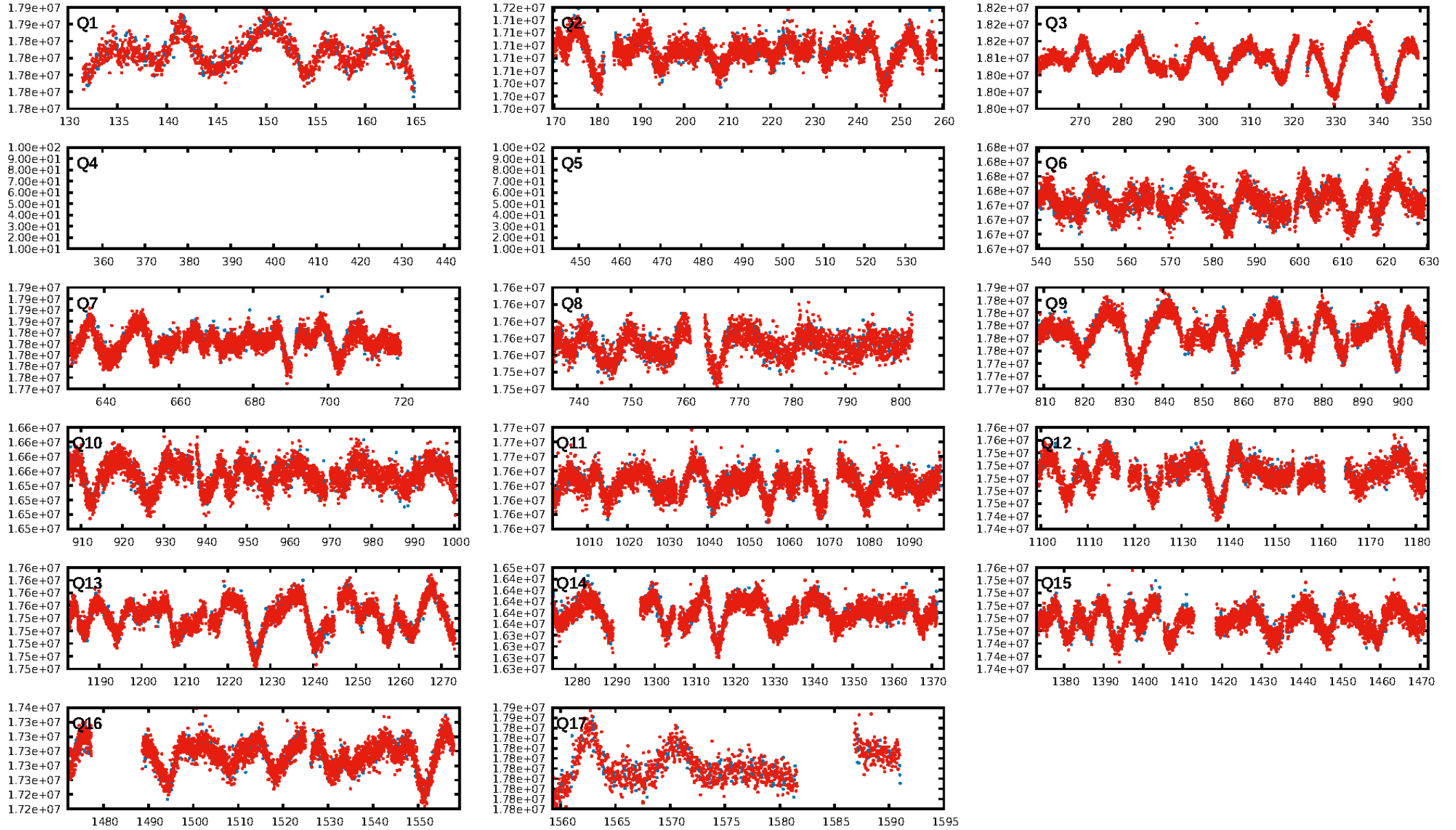
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1160/1160]
GhostDiagnostic-chr: 0.2768
Centroid-sig: 0.0%
Centroid-so: 2.615 arcsec [3.58 σ]
OotOffset-rm: 0.780 arcsec [1.30 σ]
KicOffset-rm: 1.051 arcsec [1.68 σ]
OotOffset-st: 1/4/0/3 [8]
KicOffset-st: 1/4/0/3 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [15/15]

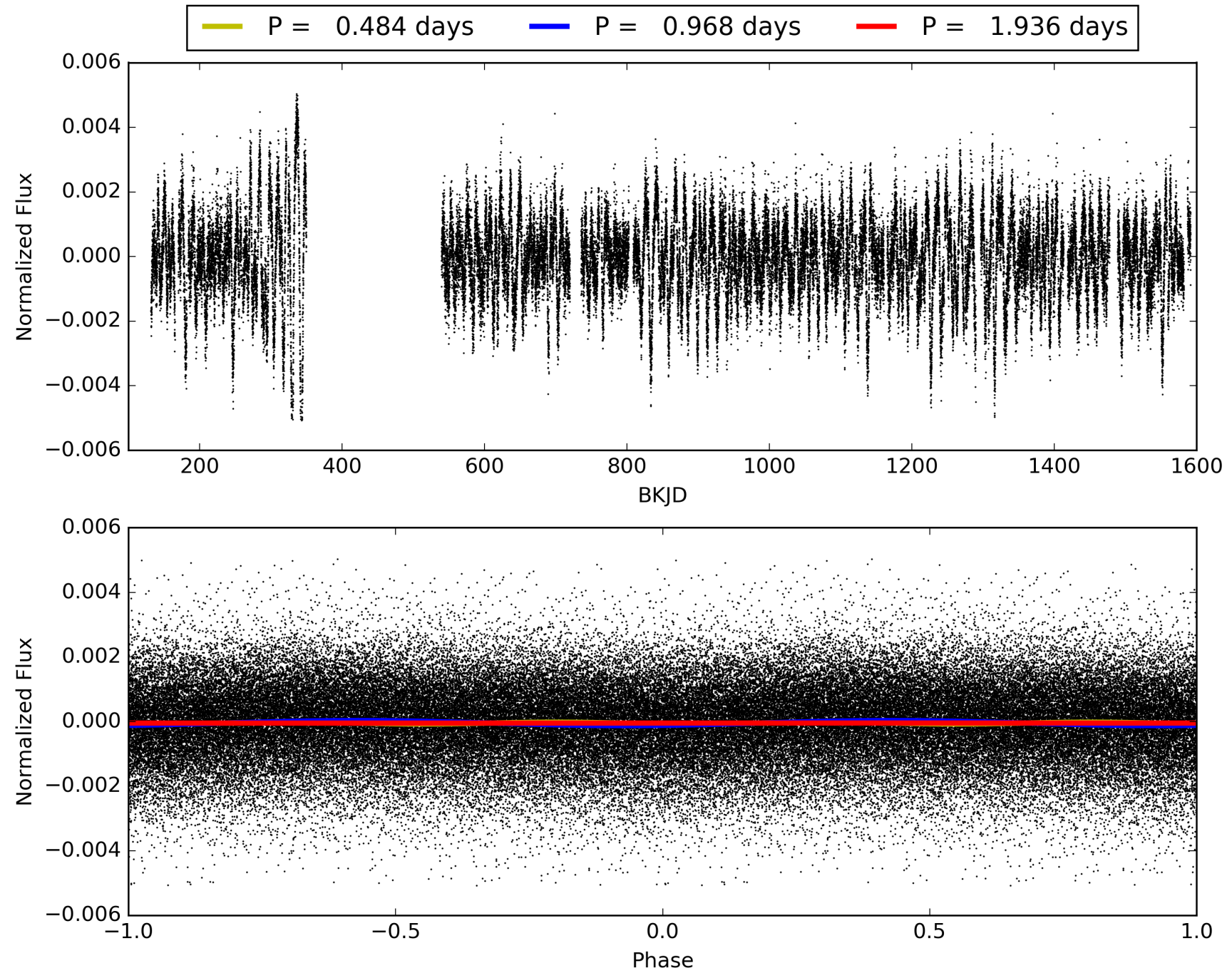
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:28:54 Z

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

TCE 002714955-01, PDC Light Curves

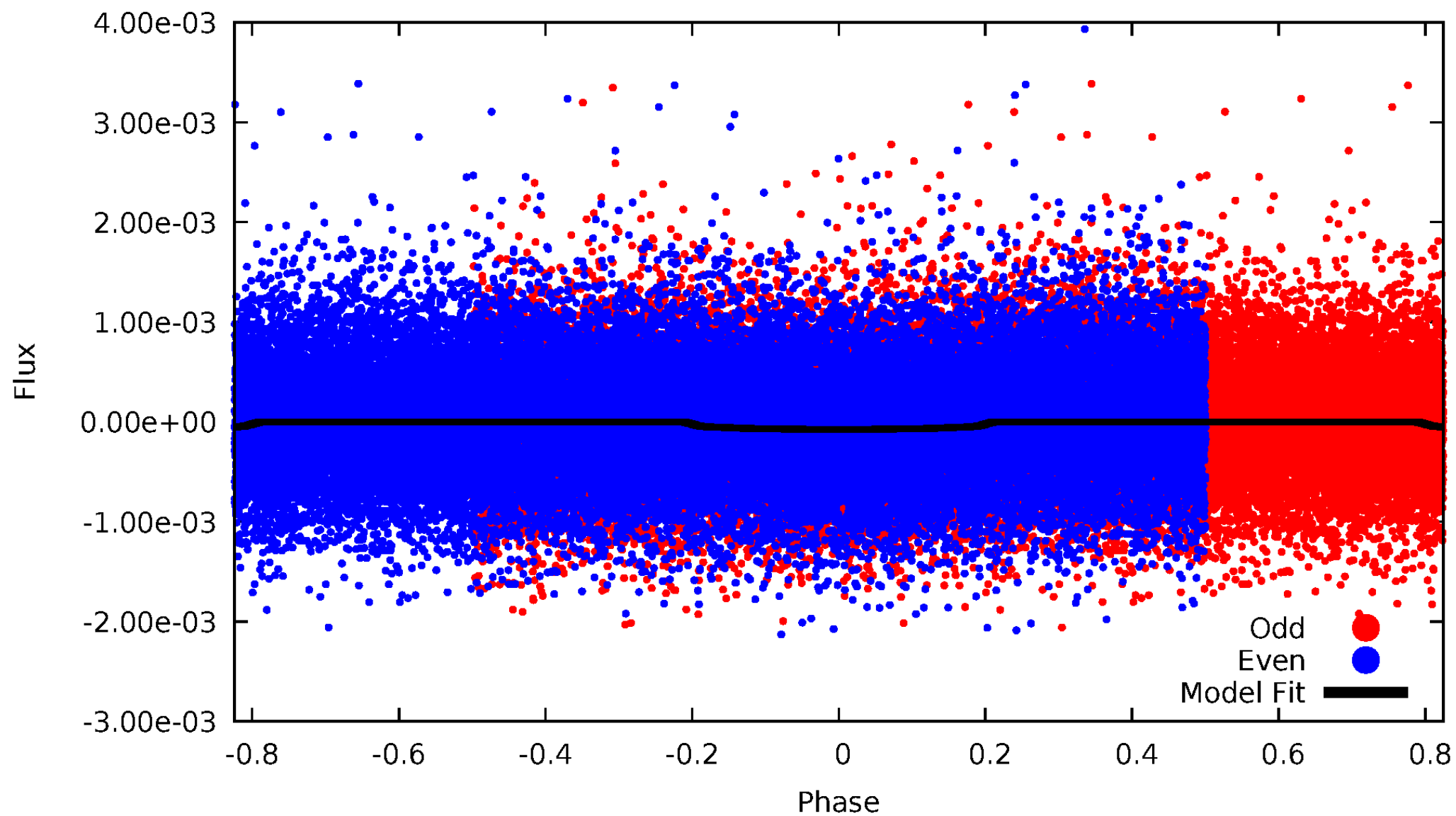


TCE 002714955-01



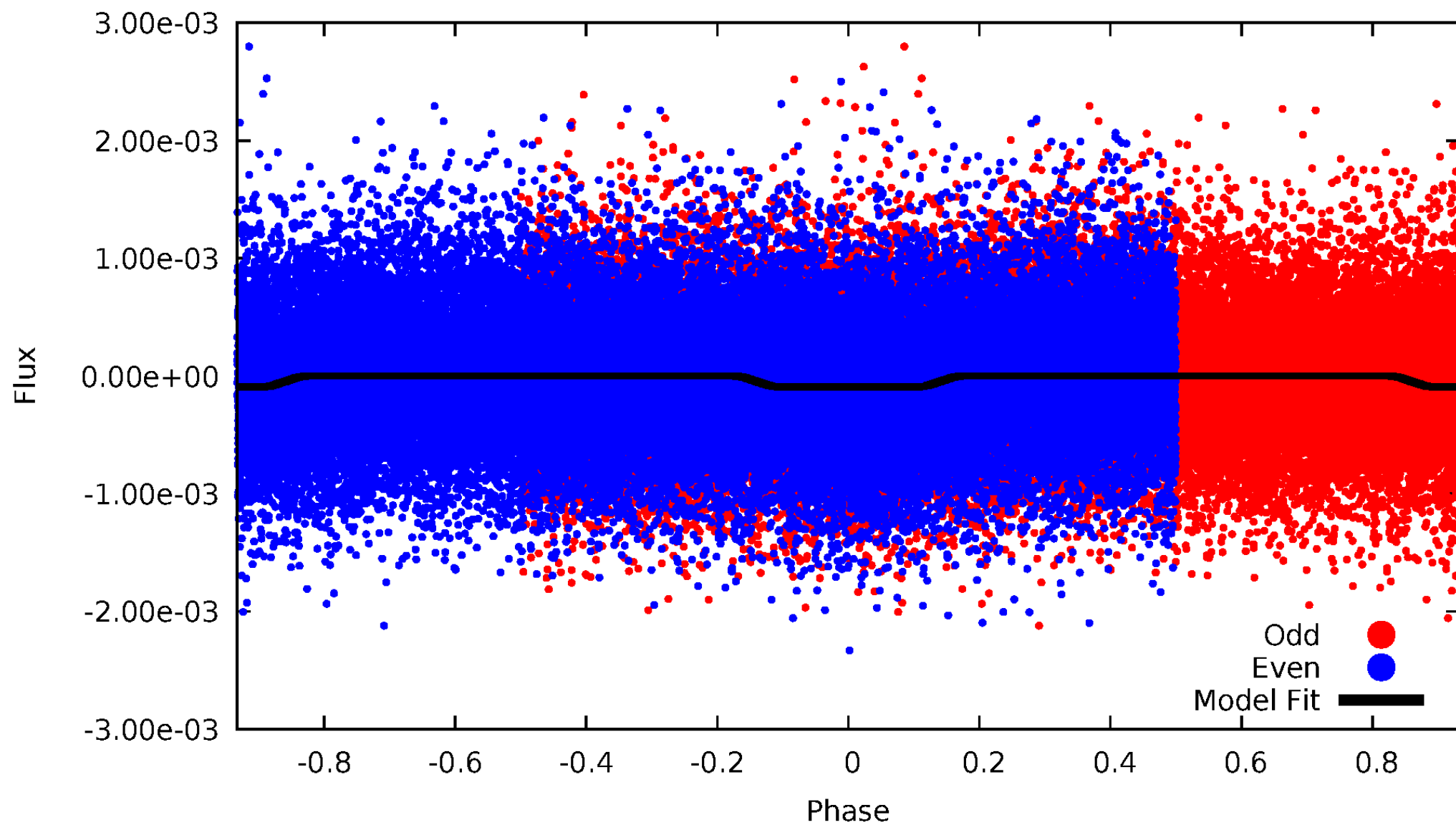
DV Odd/Even

TCE 002714955-01

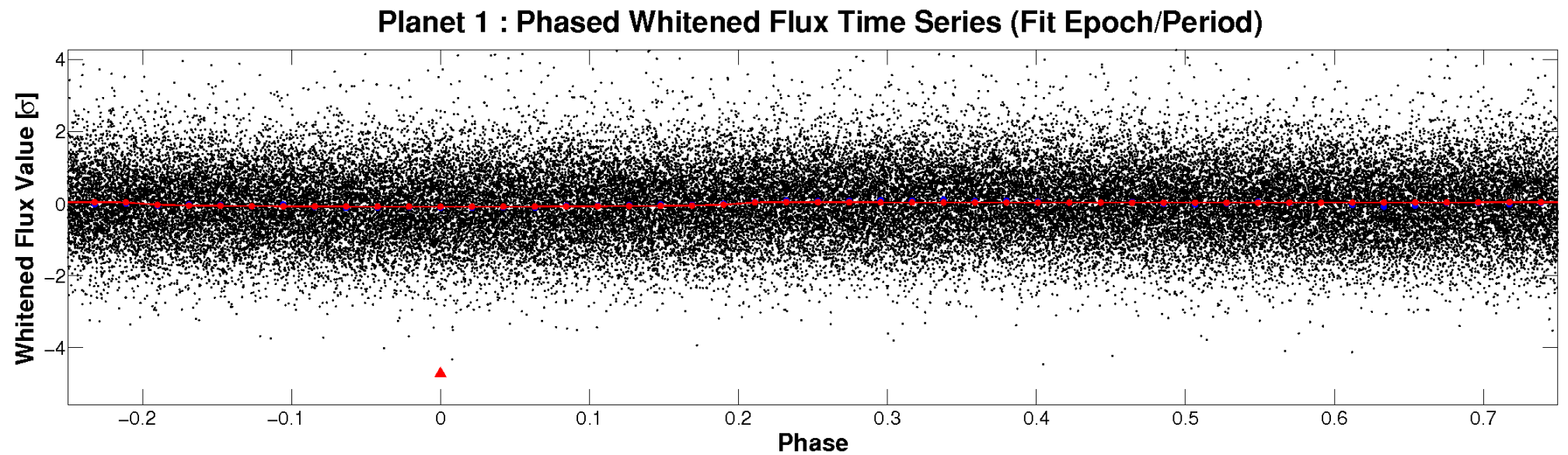
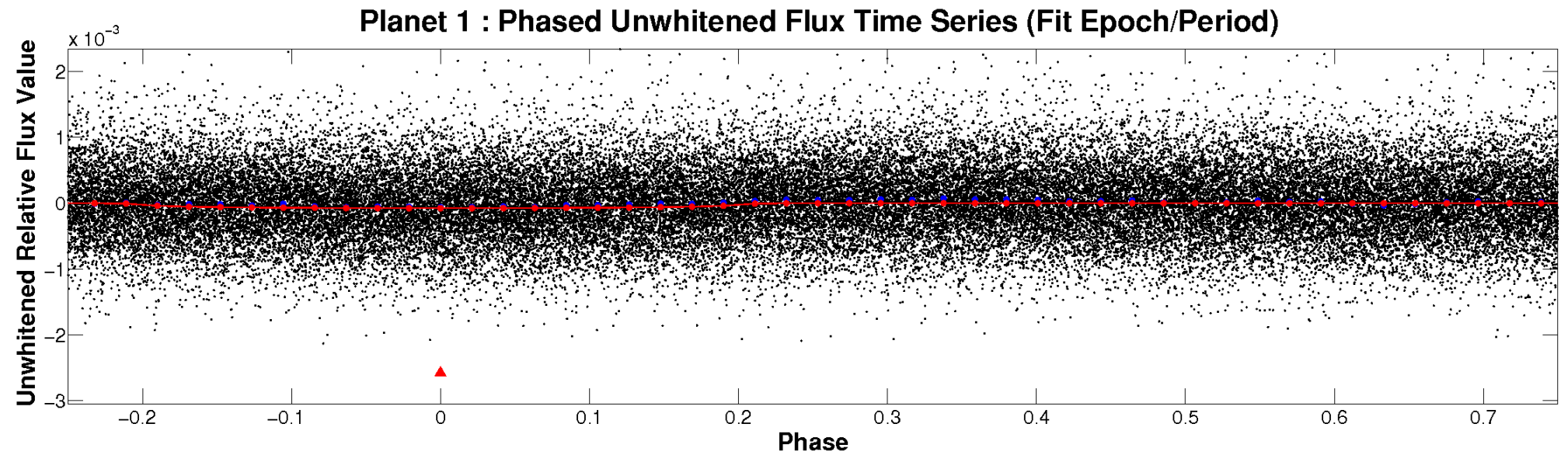


ALT Odd/Even

TCE 002714955-01

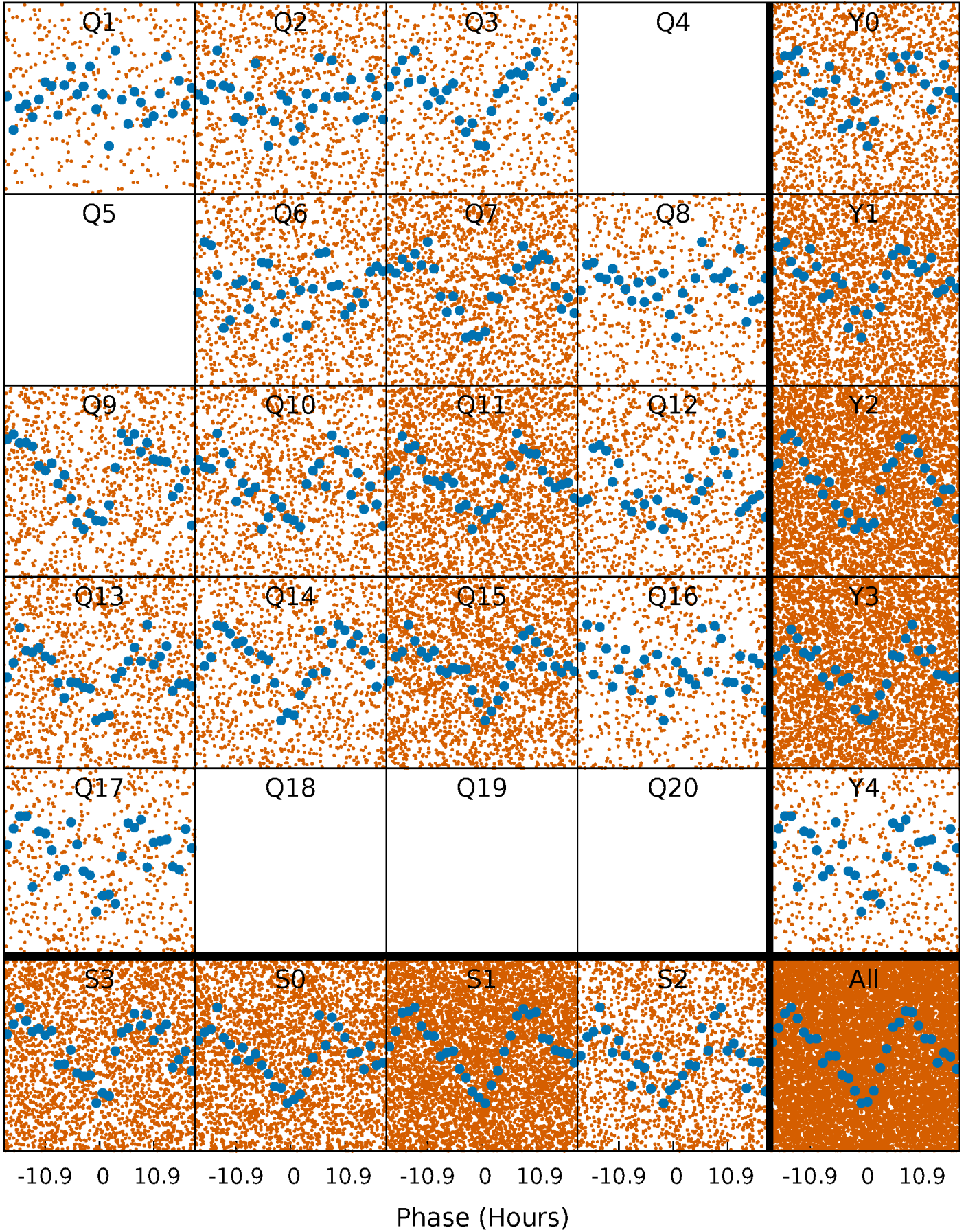


Non-Whitened Vs. Whitened Light Curve



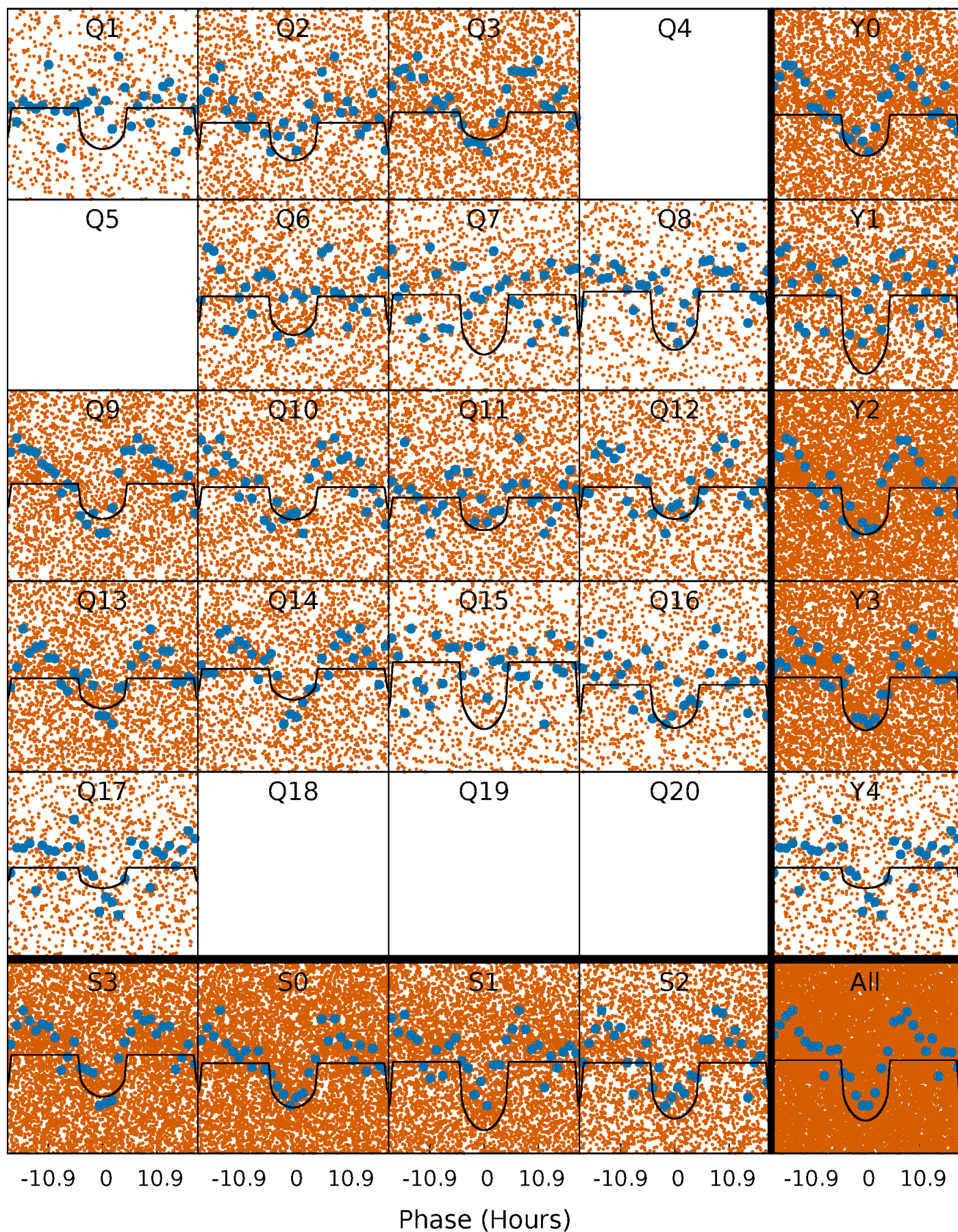
PDC Quarter-Phased Transit Curves

TCE 002714955-01 P= 0.968160 Days $T_0=131.532947$ (BKJD)



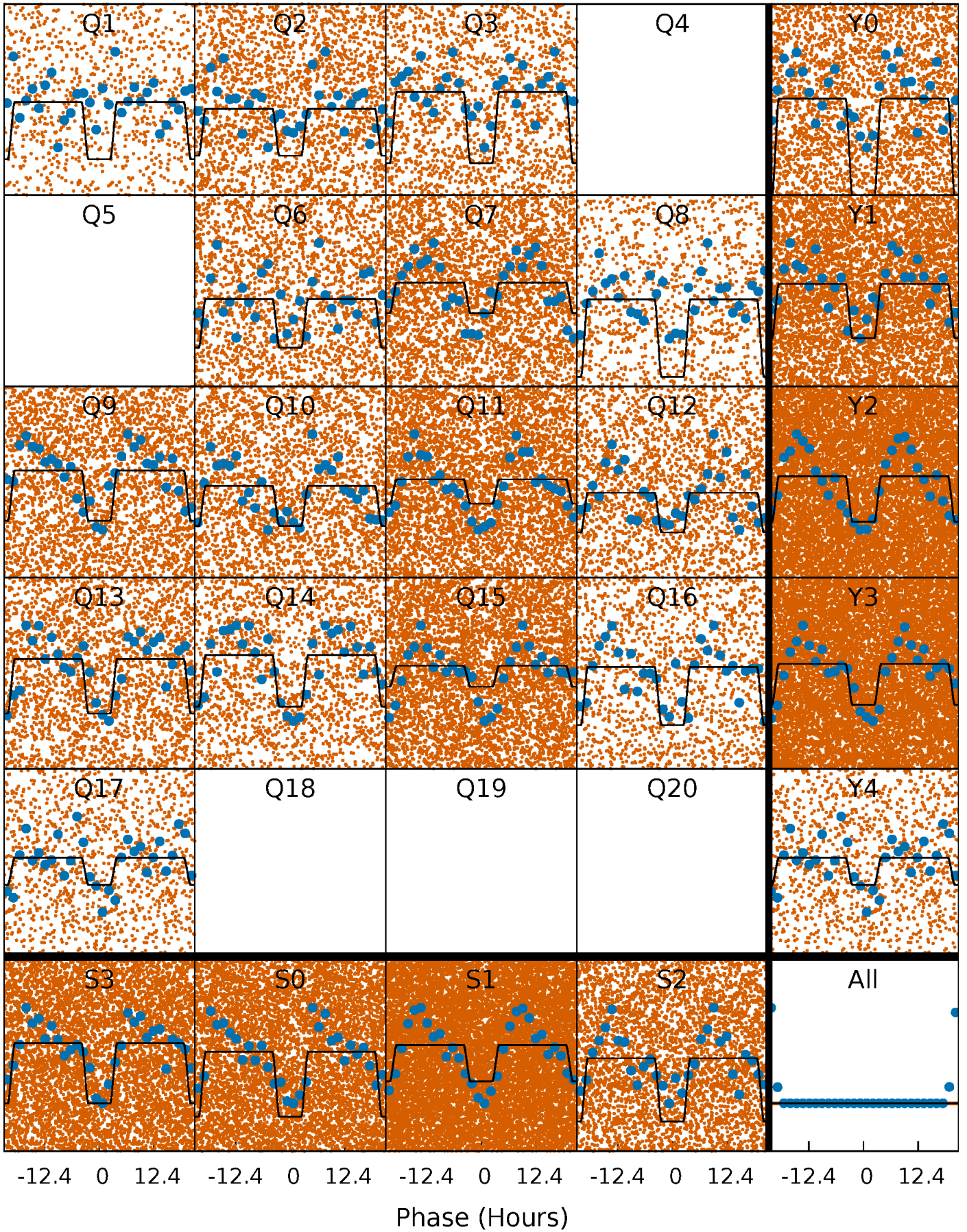
DV Quarter-Phased Transit Curves

TCE 002714955-01 P= 0.968160 Days $T_0=131.532947$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

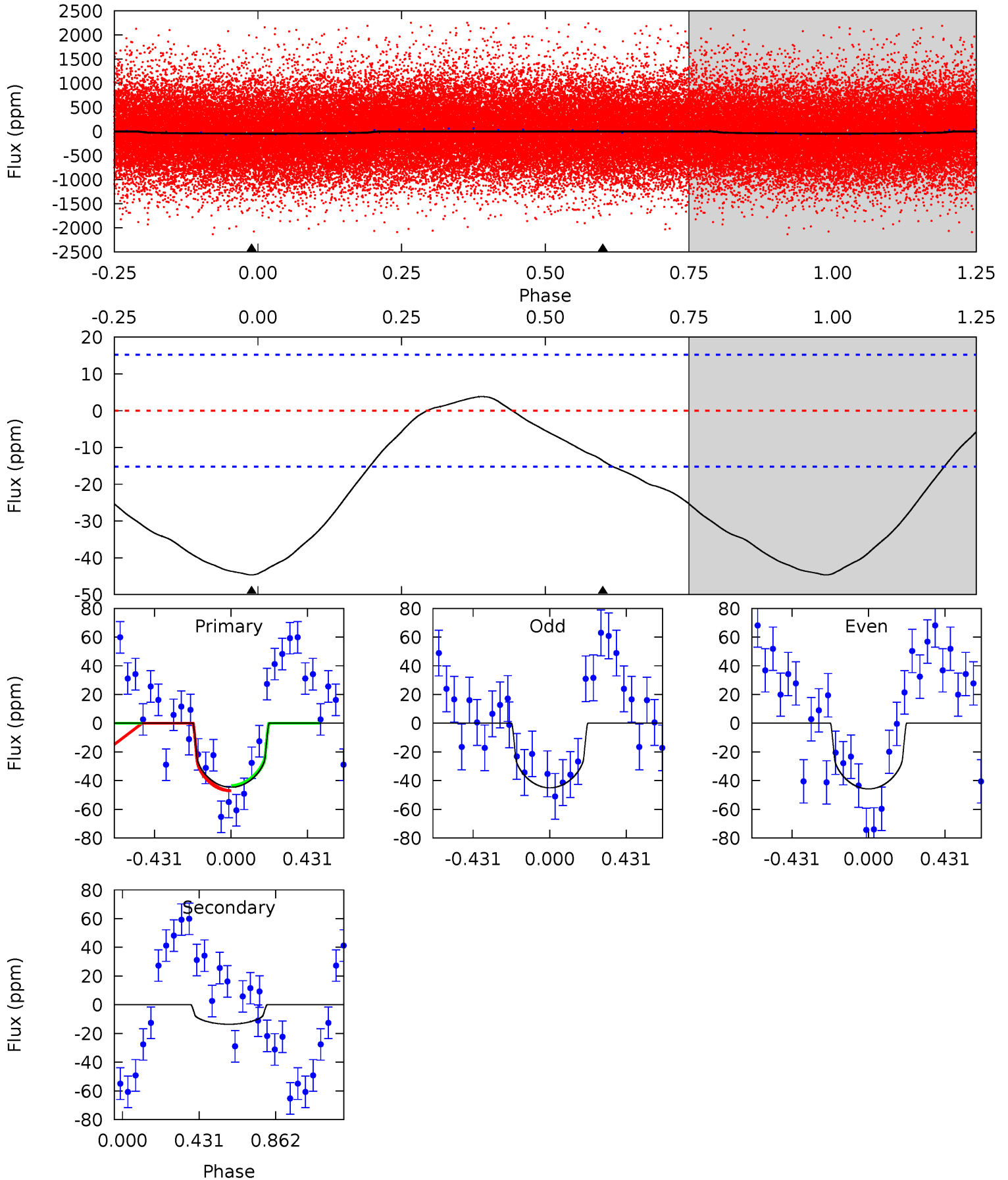
TCE 002714955-01 P= 0.968141 Days $T_0=131.547334$ (BKJD)



DV Model-Shift Uniqueness Test

002714955-01, P = 0.968160 Days, E = 130.564787 Days

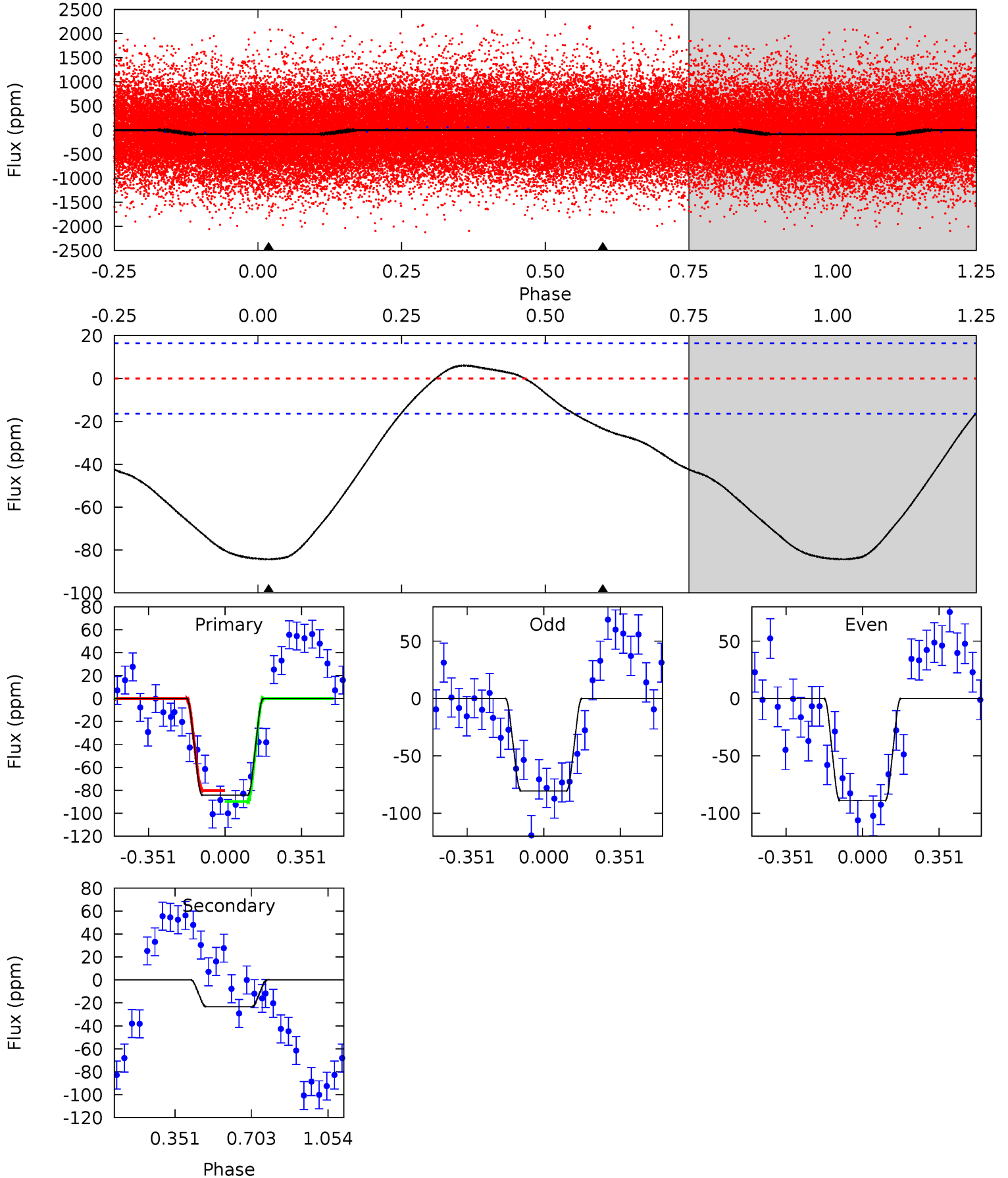
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	3.80	0	0	4.25	0.79	0.72	12.5	12.5	3.80	3.80	0.11	0.97	0.08	0.51



Alt Model-Shift Uniqueness Test

002714955-01, P = 0.968141 Days, E = 130.579193 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	6.12	0	0	4.29	0.93	1.55	22.0	22.0	6.12	6.12	1.10	0.98	0.07	1.22



Stellar Parameters For KIC 002714955

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6225^{+197}_{-241}	$4.397^{+0.090}_{-0.210}$	$-0.180^{+0.250}_{-0.300}$	$1.066^{+0.339}_{-0.145}$	$1.028^{+0.173}_{-0.115}$	$1.195^{+0.464}_{-0.643}$
	+3%/-4%	+2%/-5%	+139%/-167%	+32%/-14%	+17%/-11%	+39%/-54%
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 002714955-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-14 ± 4	$1.04^{+0.73}_{-0.58}$	2884^{+212}_{-174}	4172^{+1930}_{-880}	$2.517^{+10.859}_{-1.704}$
Alt.	-23 ± 4	$1.25^{+0.74}_{-0.70}$	2872^{+214}_{-148}	4371^{+1845}_{-781}	$3.172^{+12.677}_{-1.979}$

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

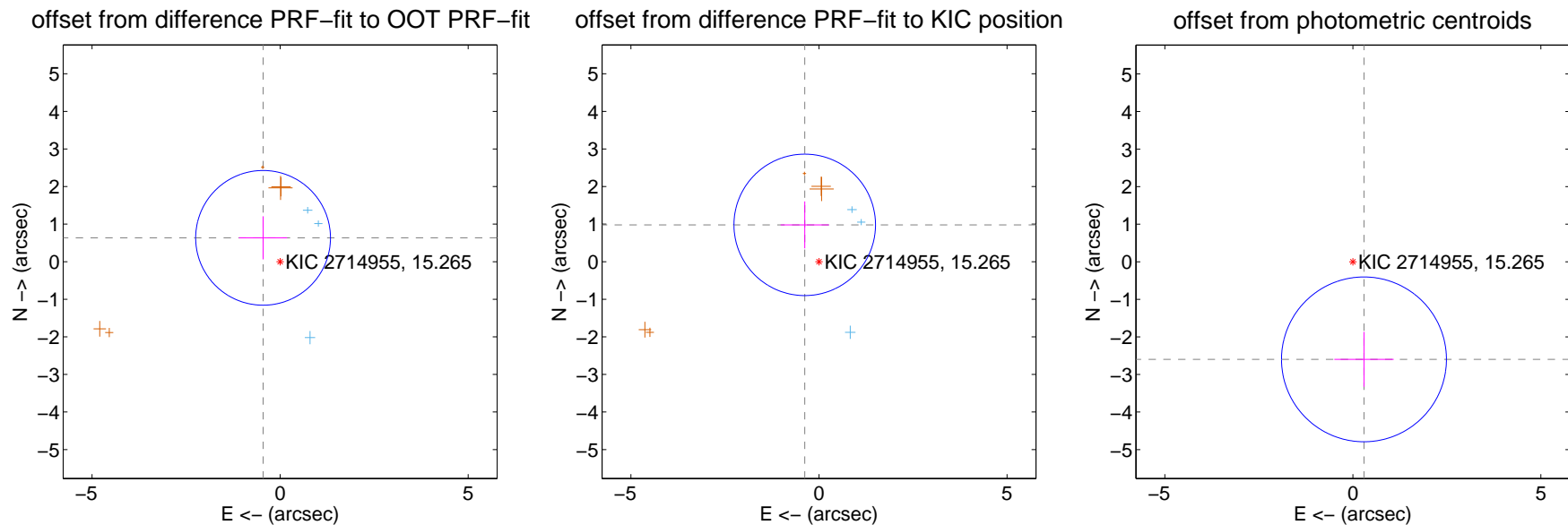
DV Centroid Data

Supplemental centroid analysis for 002714955-01. Kepler magnitude: 15.27. Transit SNR 12.21

There are 3 quarters with good PRF difference image offsets

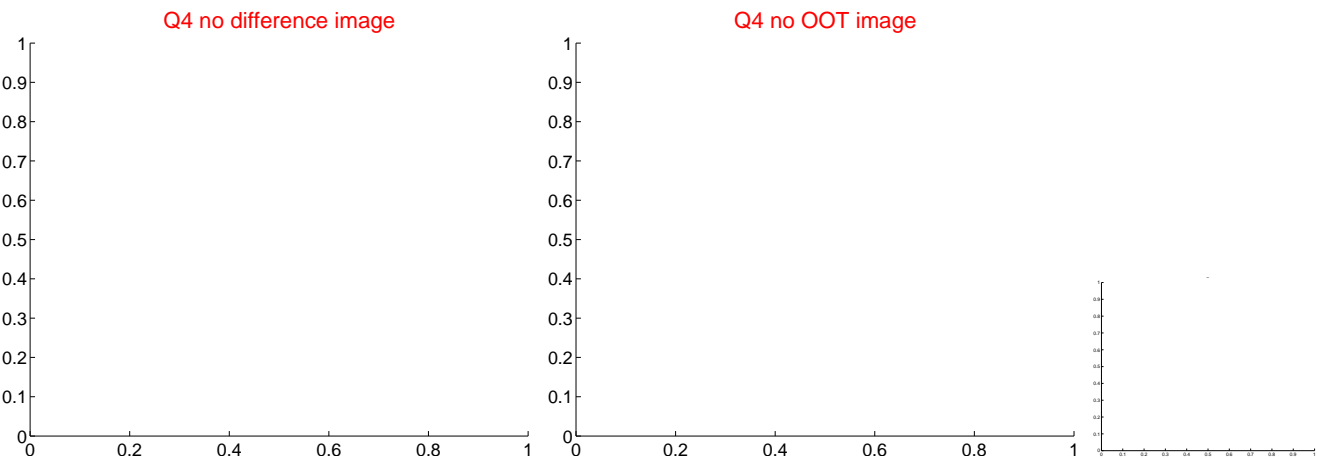
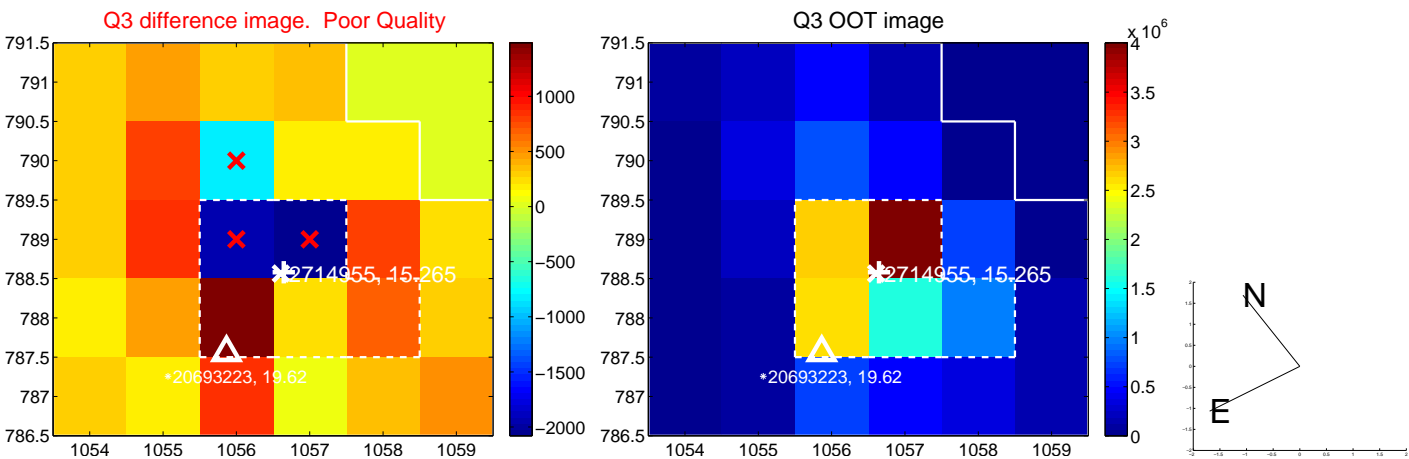
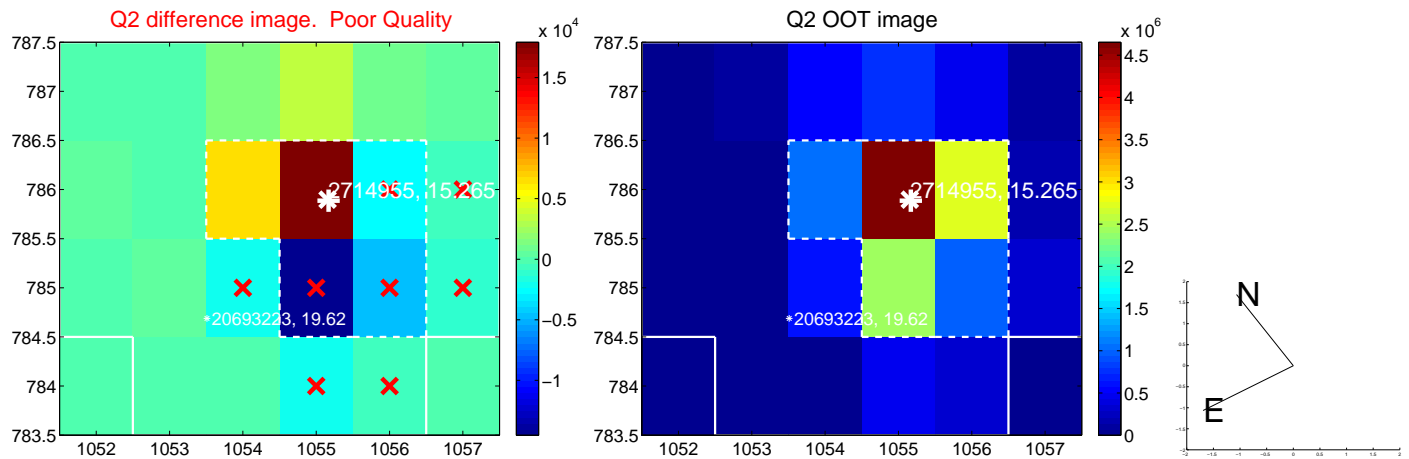
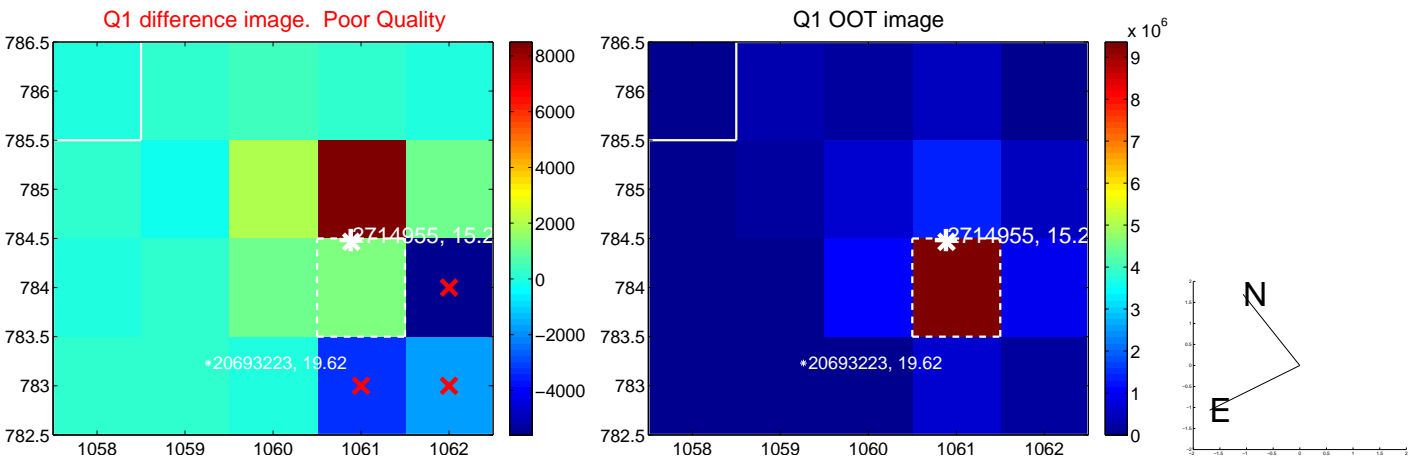
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.780 ± 0.597	1.30	0.453 ± 0.641	0.635 ± 0.574
PRF-fit source offset from KIC position	1.051 ± 0.627	1.68	0.379 ± 0.642	0.980 ± 0.625
photometric centroid source offset	2.61 ± 0.73	3.58	-0.30 ± 0.79	-2.60 ± 0.73

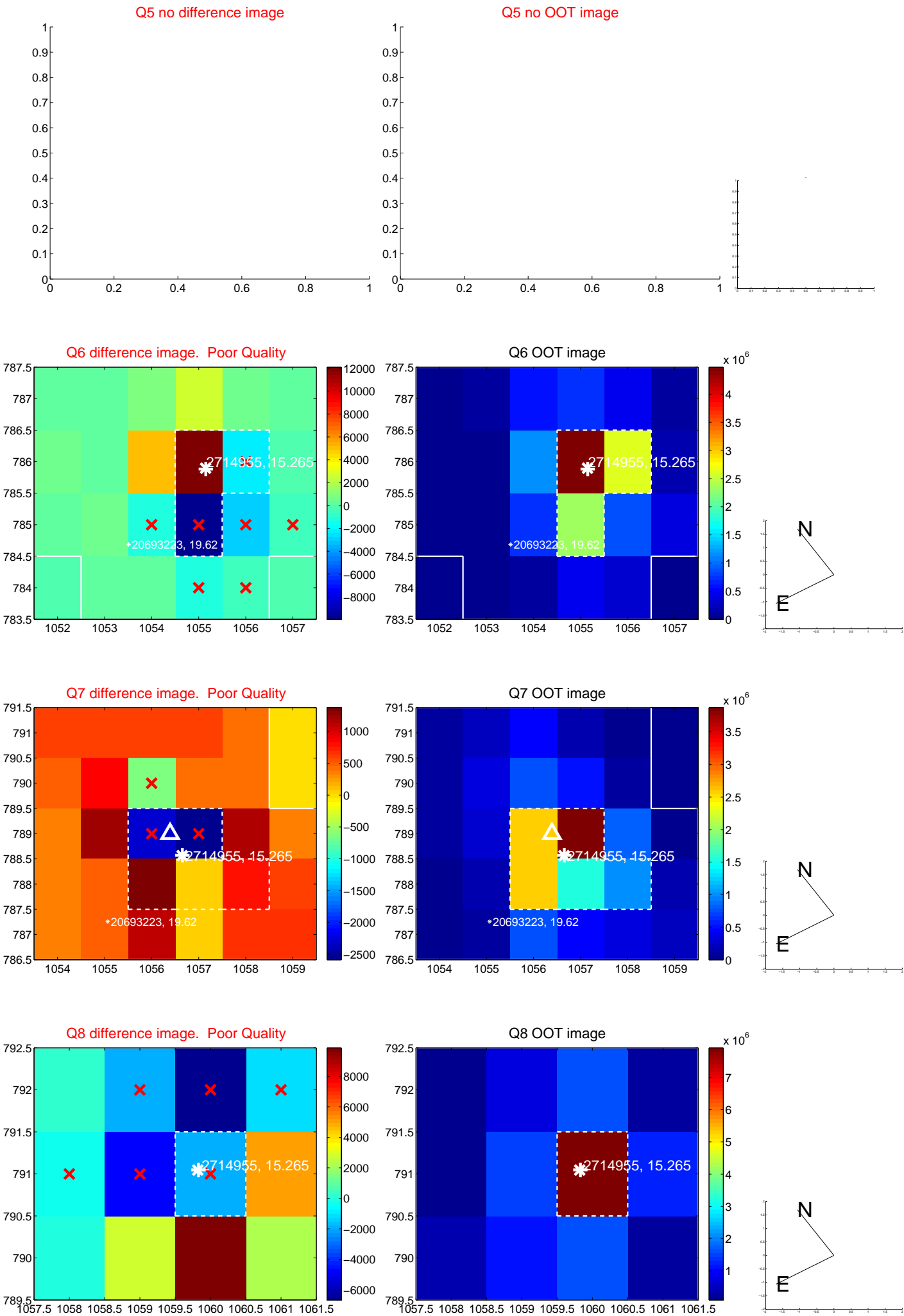


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

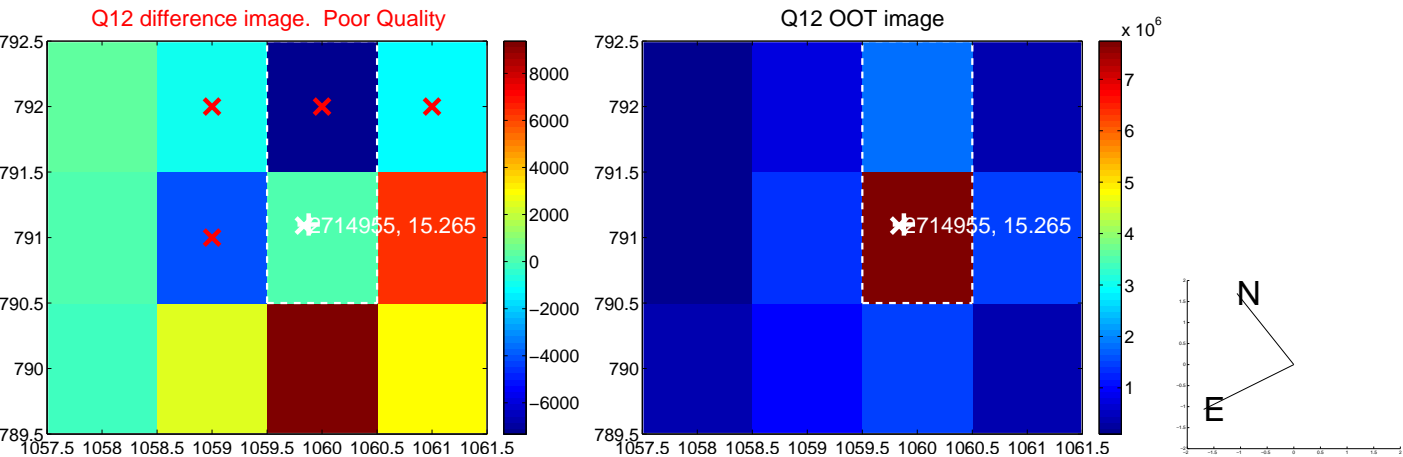
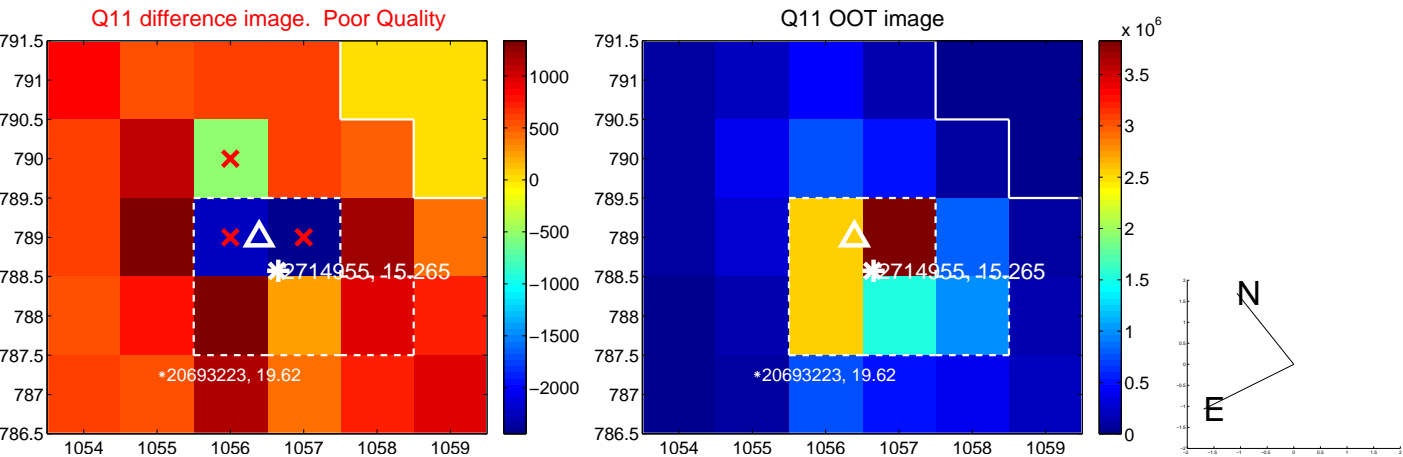
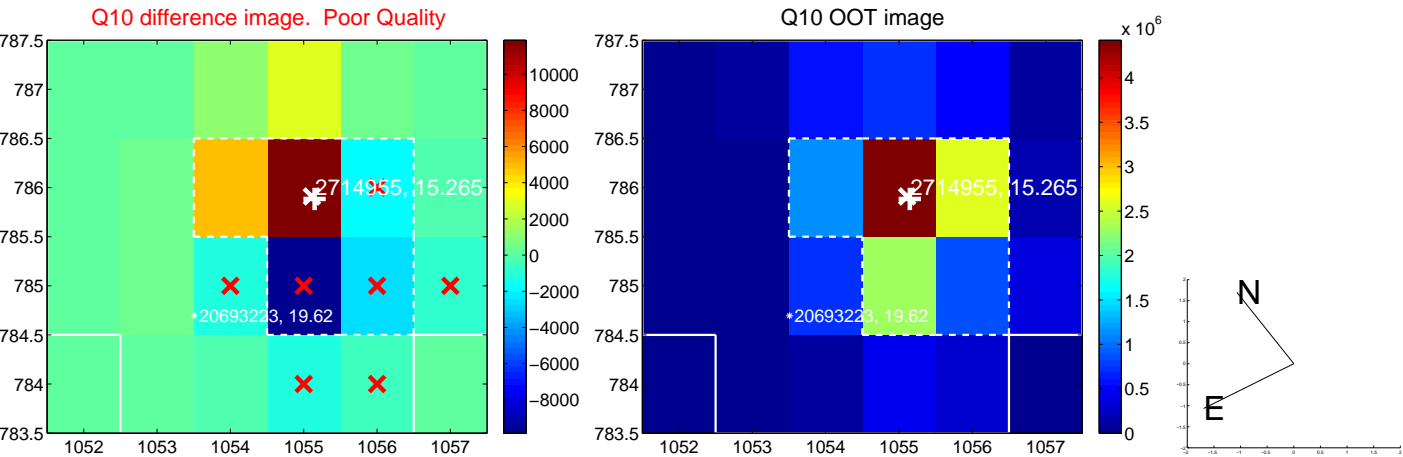
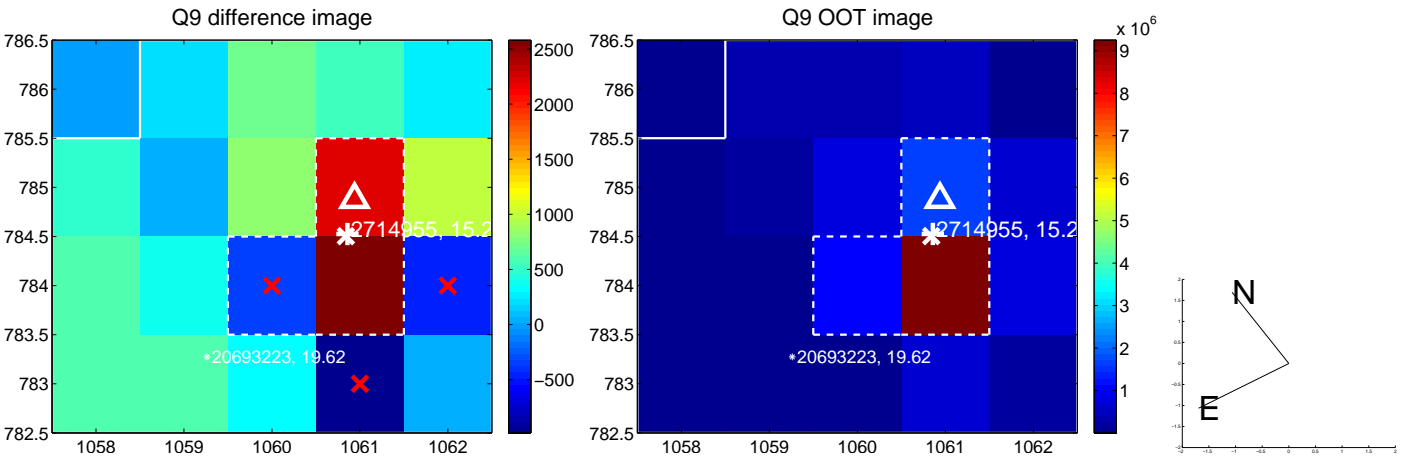
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



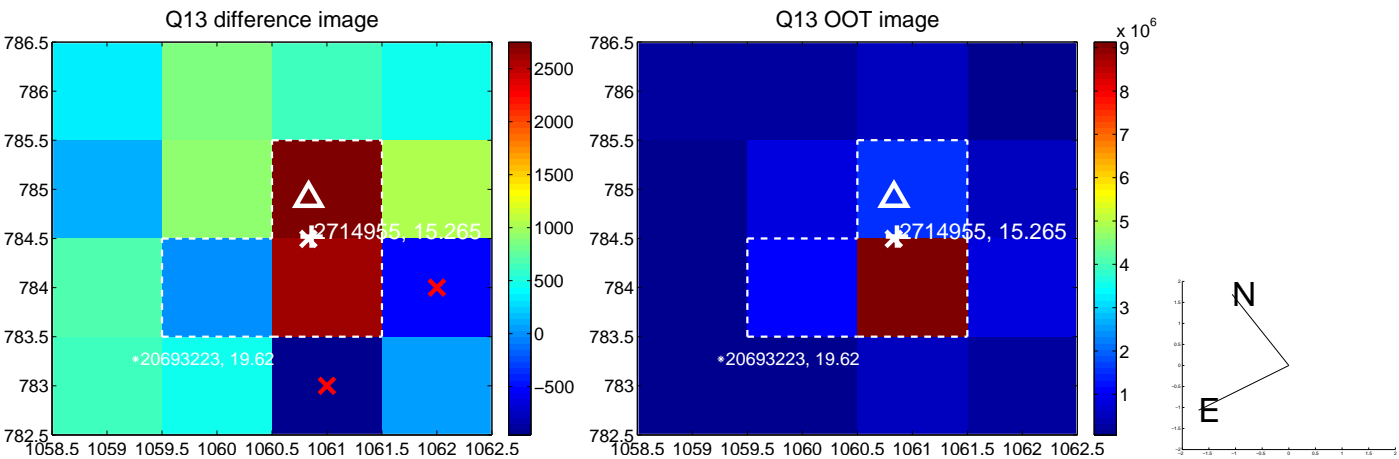
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



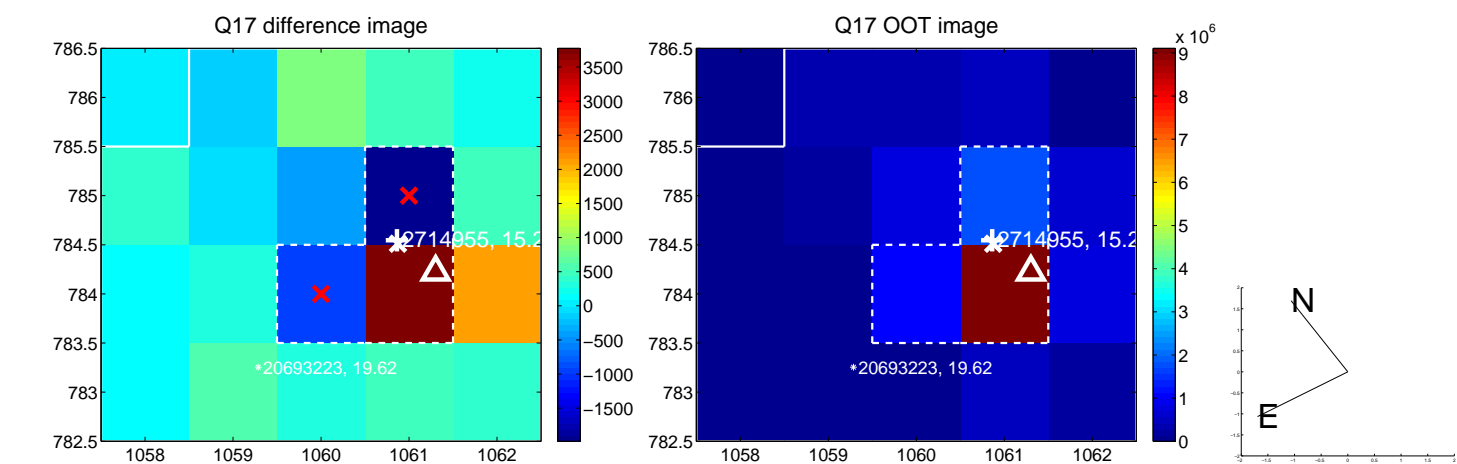
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



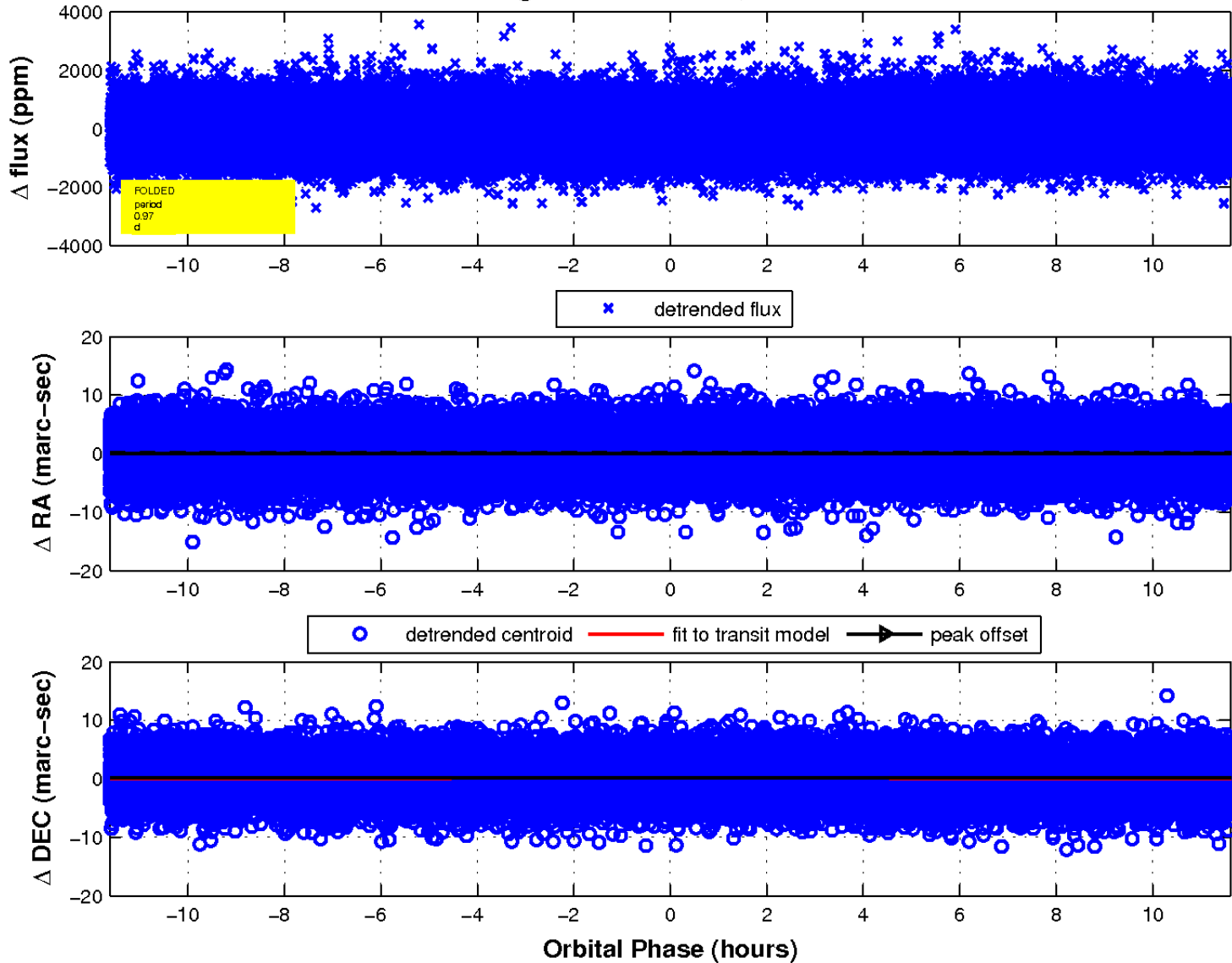
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

