

KIC 005025464

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})
005025464-01	OBS	No	0.714388	132.196997	24.0	2.681	8.4	7.1	1.89	7564	1.07	31147.40

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005025464-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

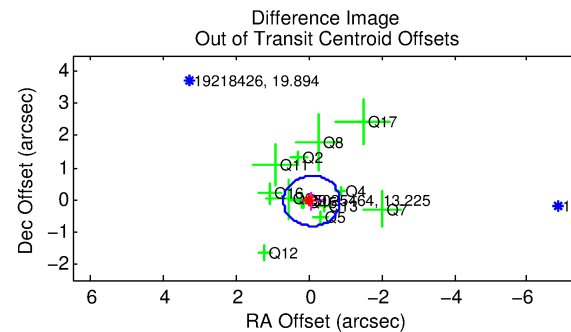
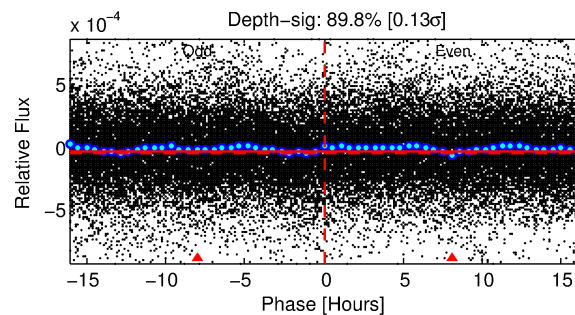
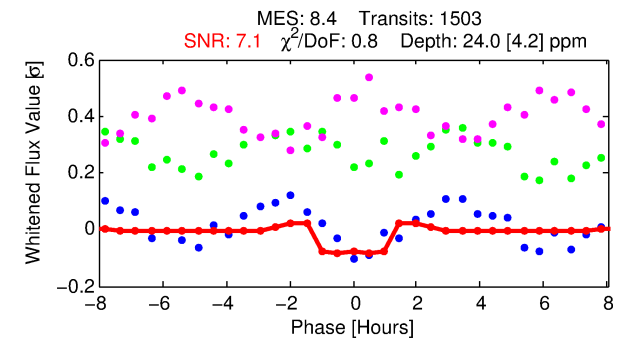
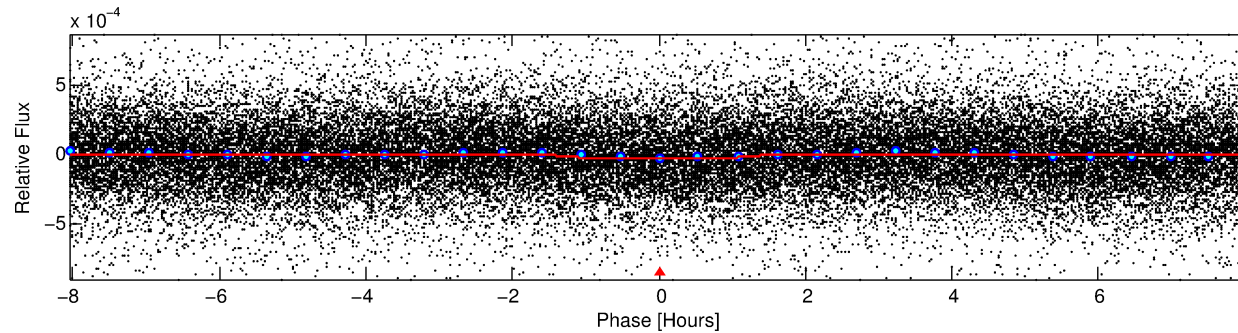
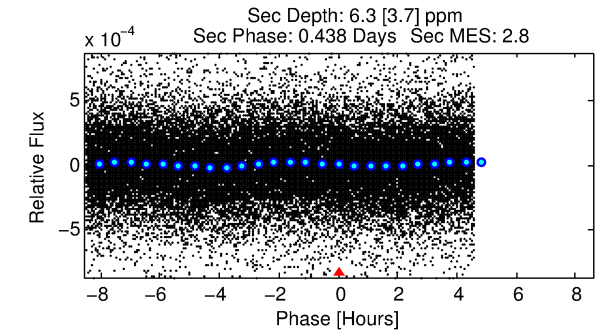
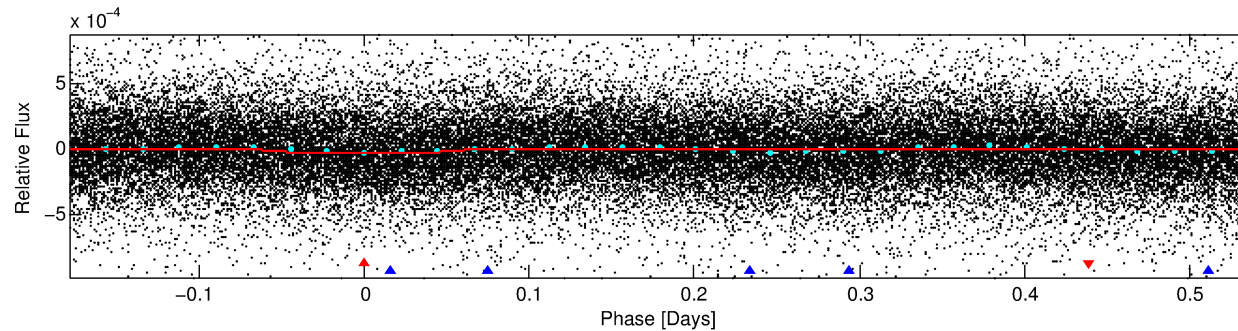
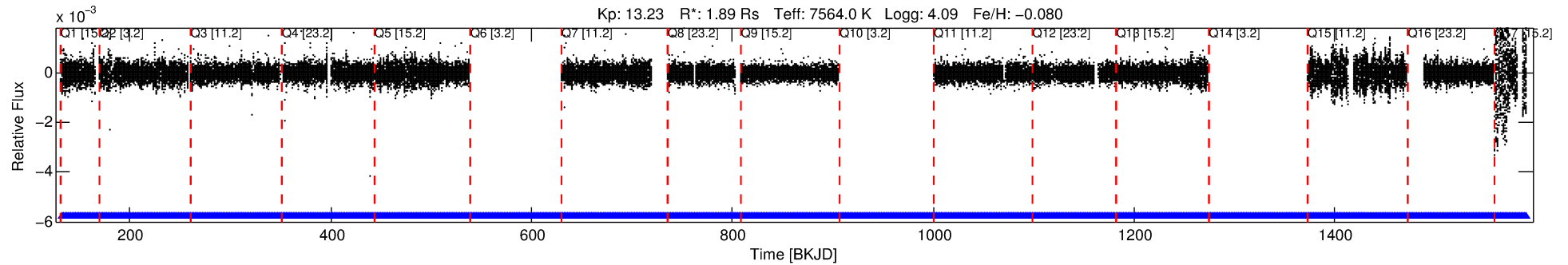
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005025464-01

No Significant Match Found

DV One-Page Summary

KIC: 5025464 Candidate: 1 of 2 Period: 0.714 d



DV Fit Results:

Period = 0.71439 [0.00001] d
Epoch = 132.1970 [0.0030] BKJD
Rp/R* = 0.0052 [0.0016]
a/R* = 1.31 [1.05]
b = 0.90 [0.41]
Seff = 31147.40 [11671.85]
Teff = 3388 [317] K
Rp = 1.07 [0.44] Re
a = 0.0184 [0.0042] AU
Ag = 1.02 [0.93] [0.02σ]
Teffp = 5266 [1140] K [1.59σ]

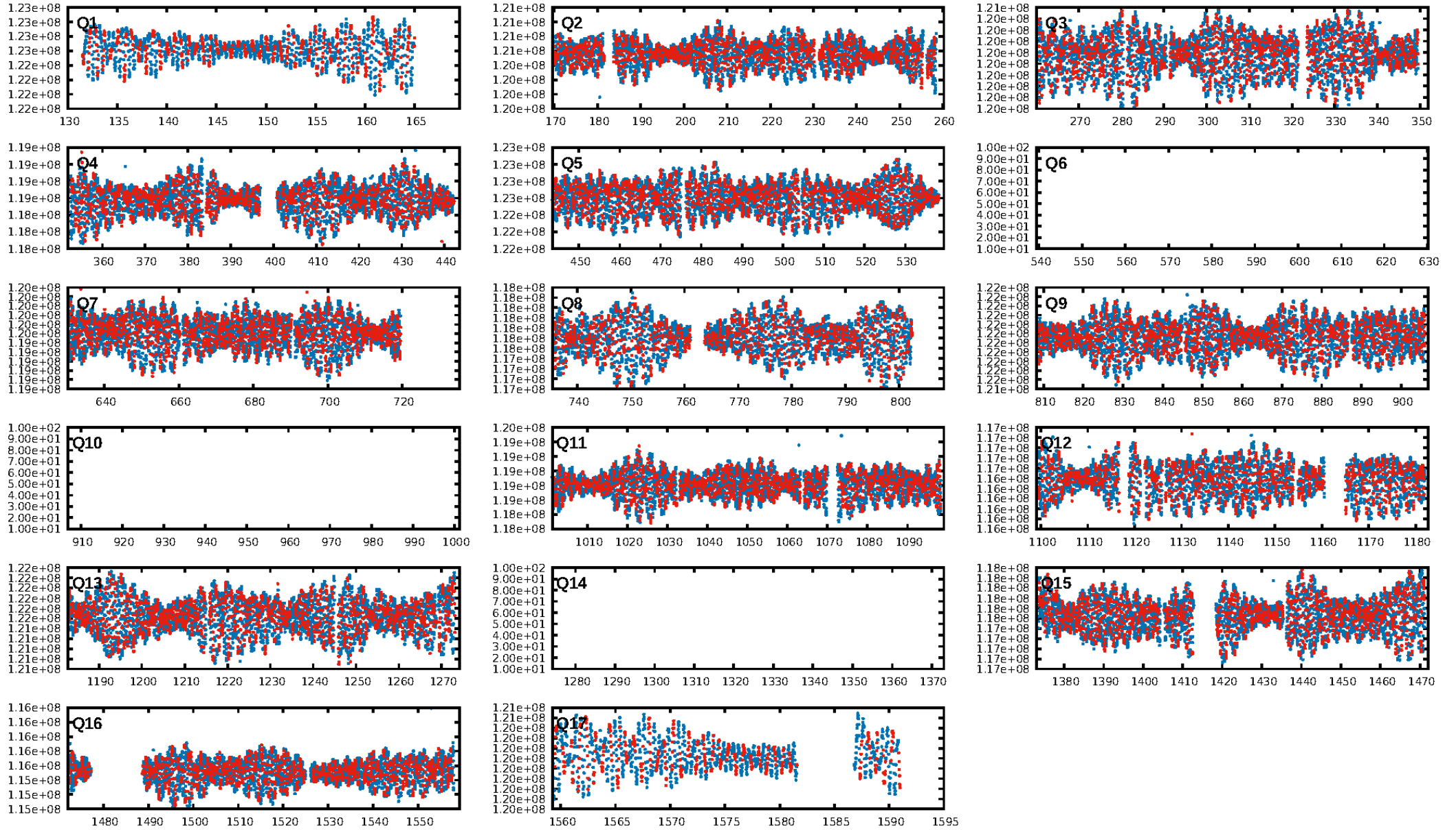
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [1420.61σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.81e-14
RollingBand-fgt: 1.00 [1419/1419]
GhostDiagnostic-chr: 1.764
Centroid-sig: N/A
Centroid-so: 0.345 arcsec [0.35σ]
OotOffset-rm: 0.085 arcsec [0.33σ]
KicOffset-rm: 0.123 arcsec [0.50σ]
OotOffset-st: 1/4/4/4 [13]
KicOffset-st: 1/4/4/4 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 1.00 [14/14]

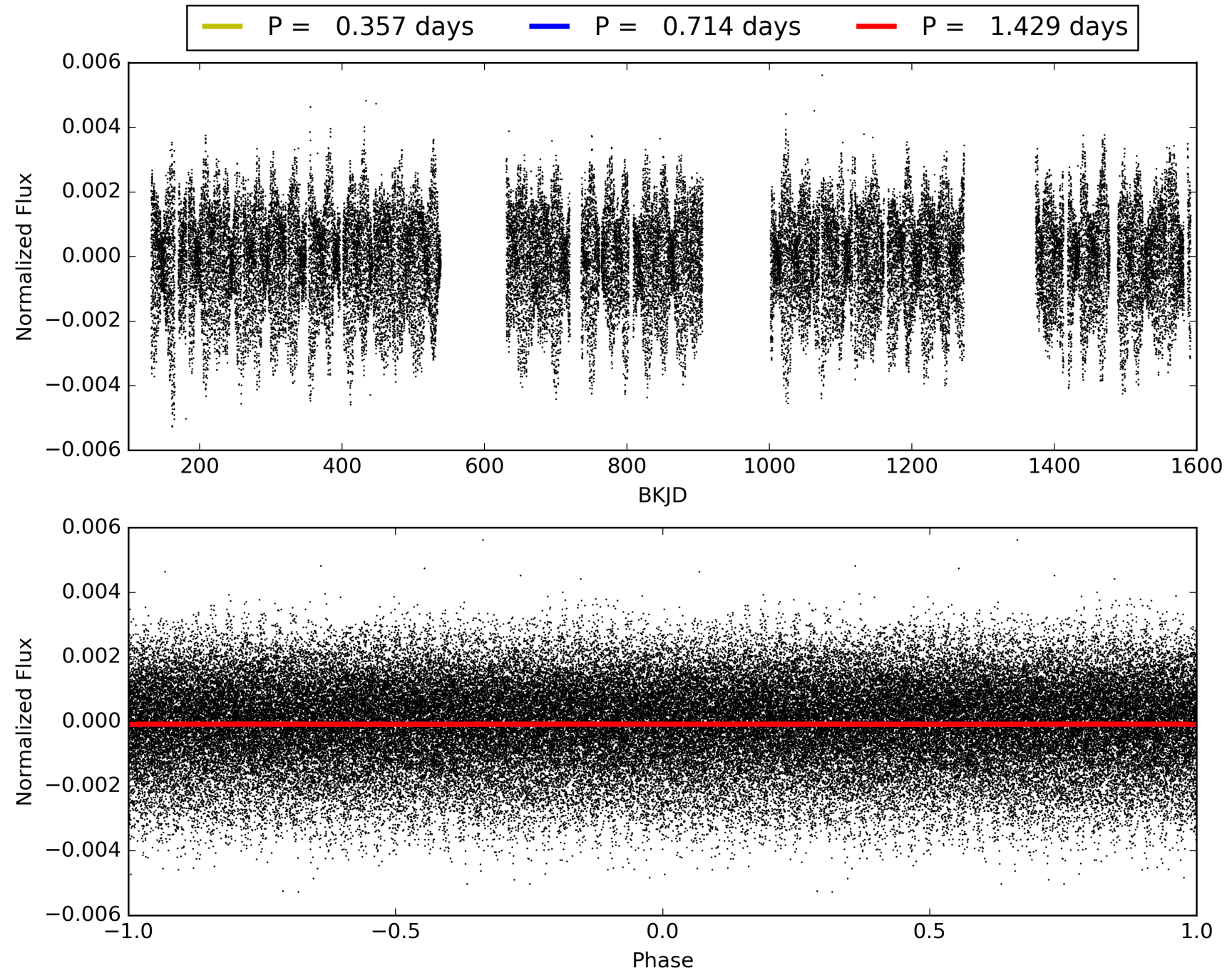
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 03:14:55 Z

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

TCE 005025464-01, PDC Light Curves

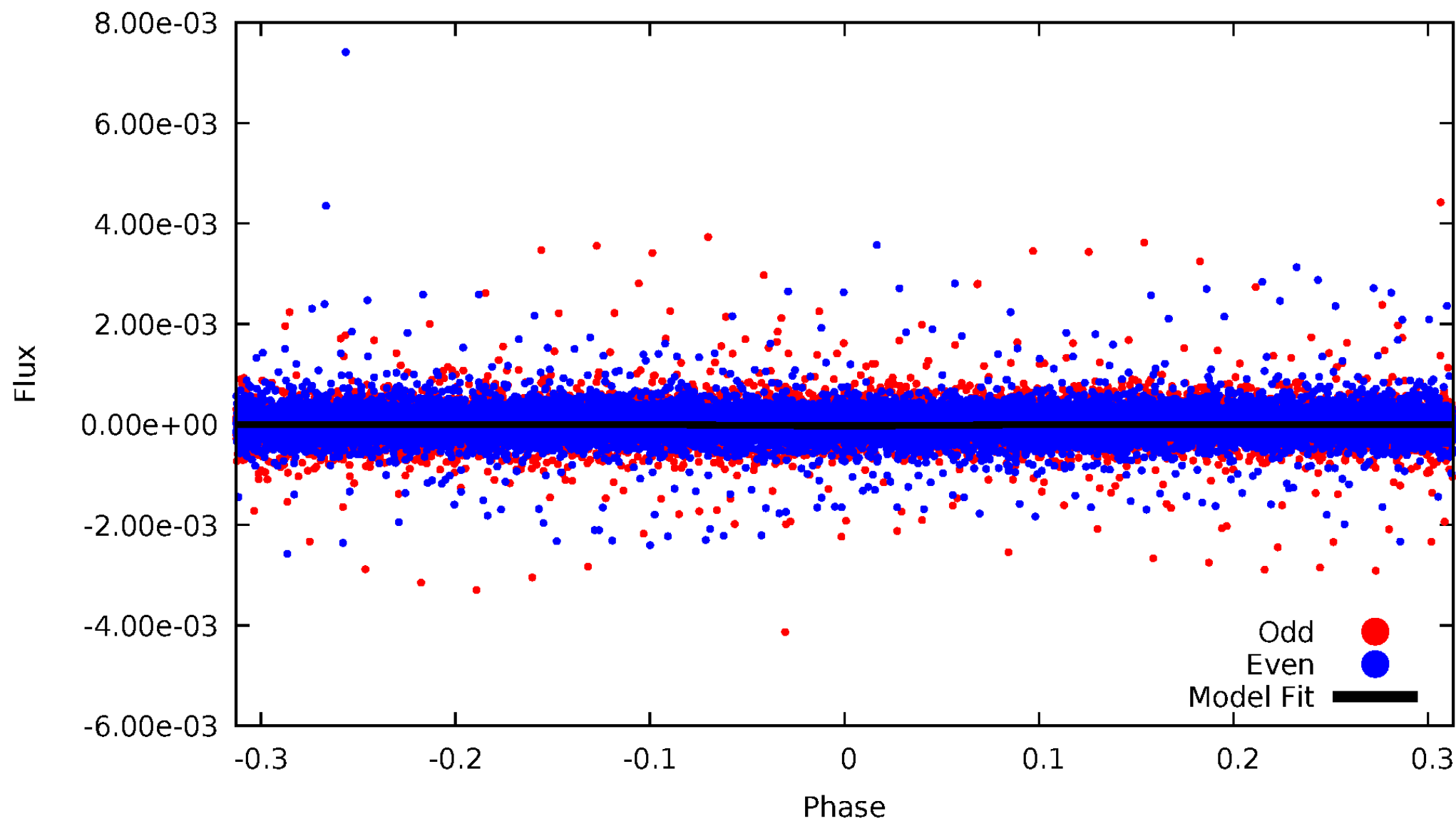


TCE 005025464-01



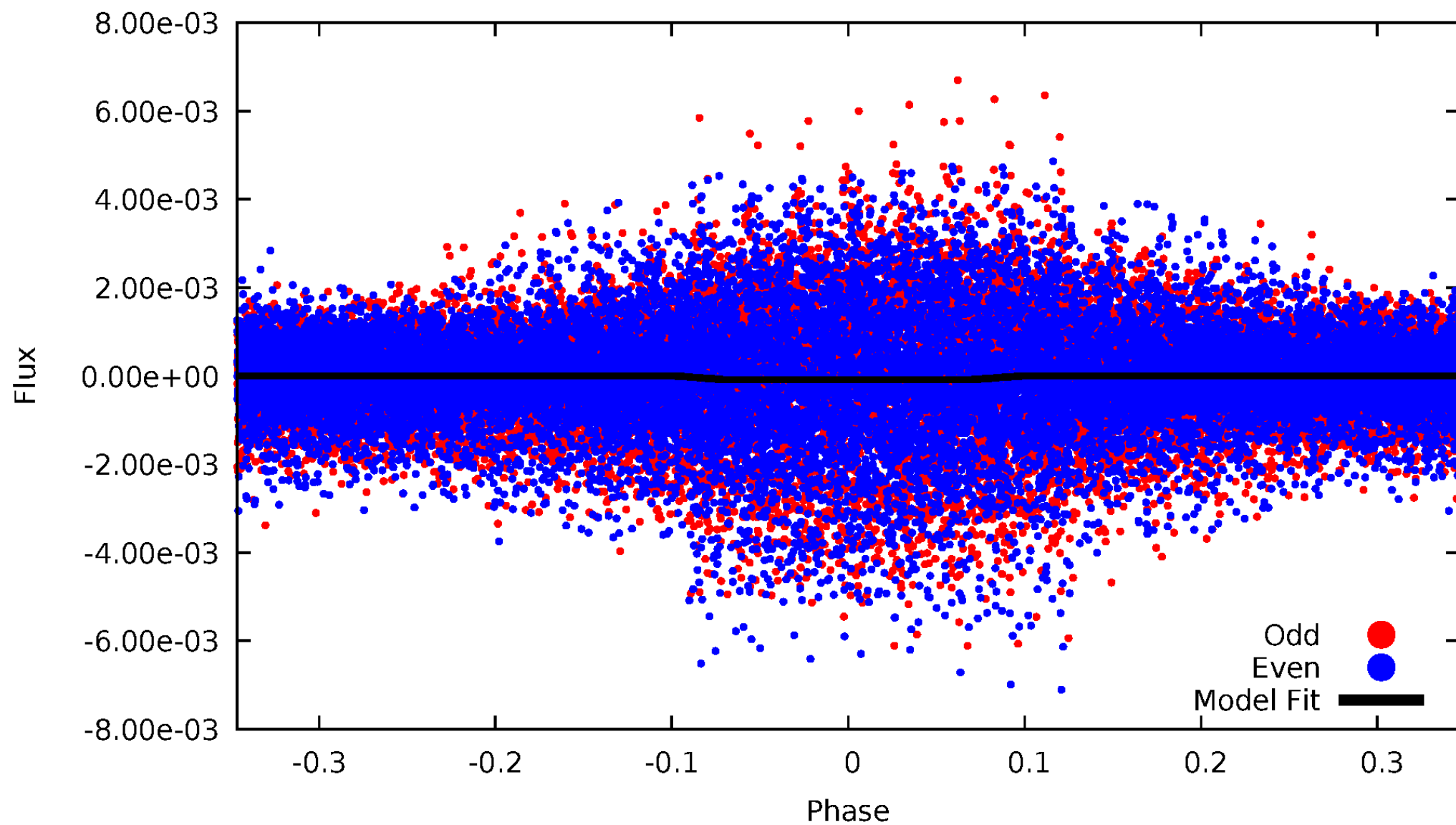
DV Odd/Even

TCE 005025464-01



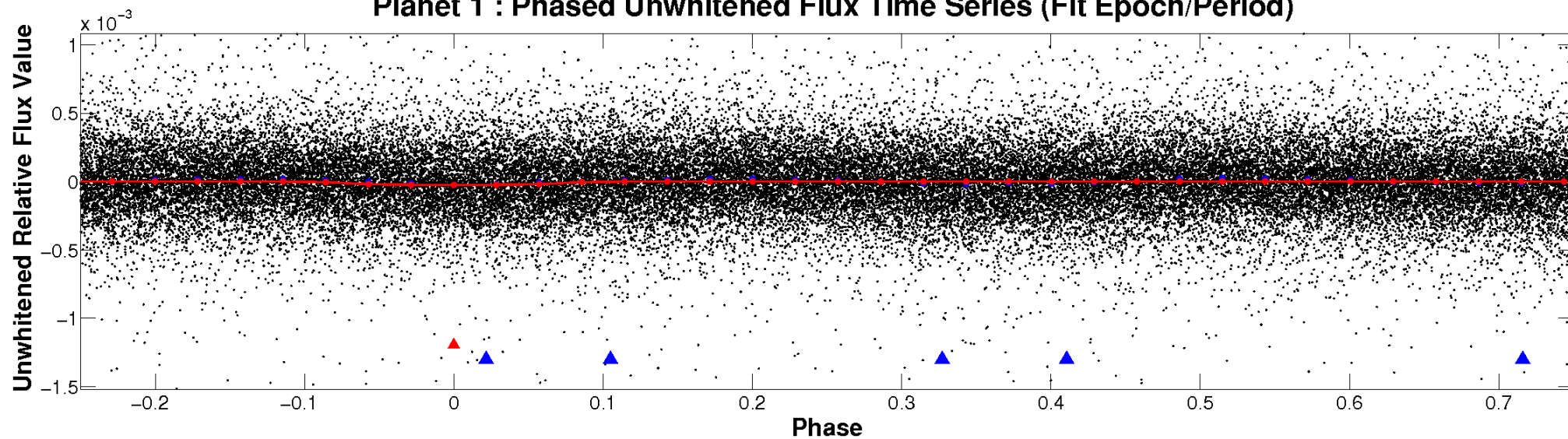
ALT Odd/Even

TCE 005025464-01

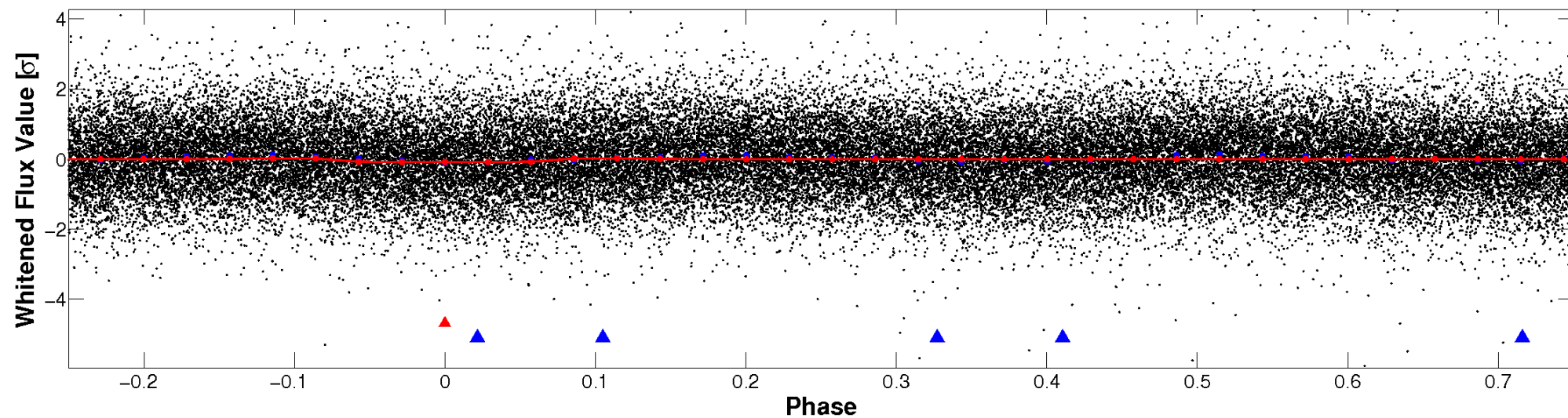


Non-Whitened Vs. Whitened Light Curve

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

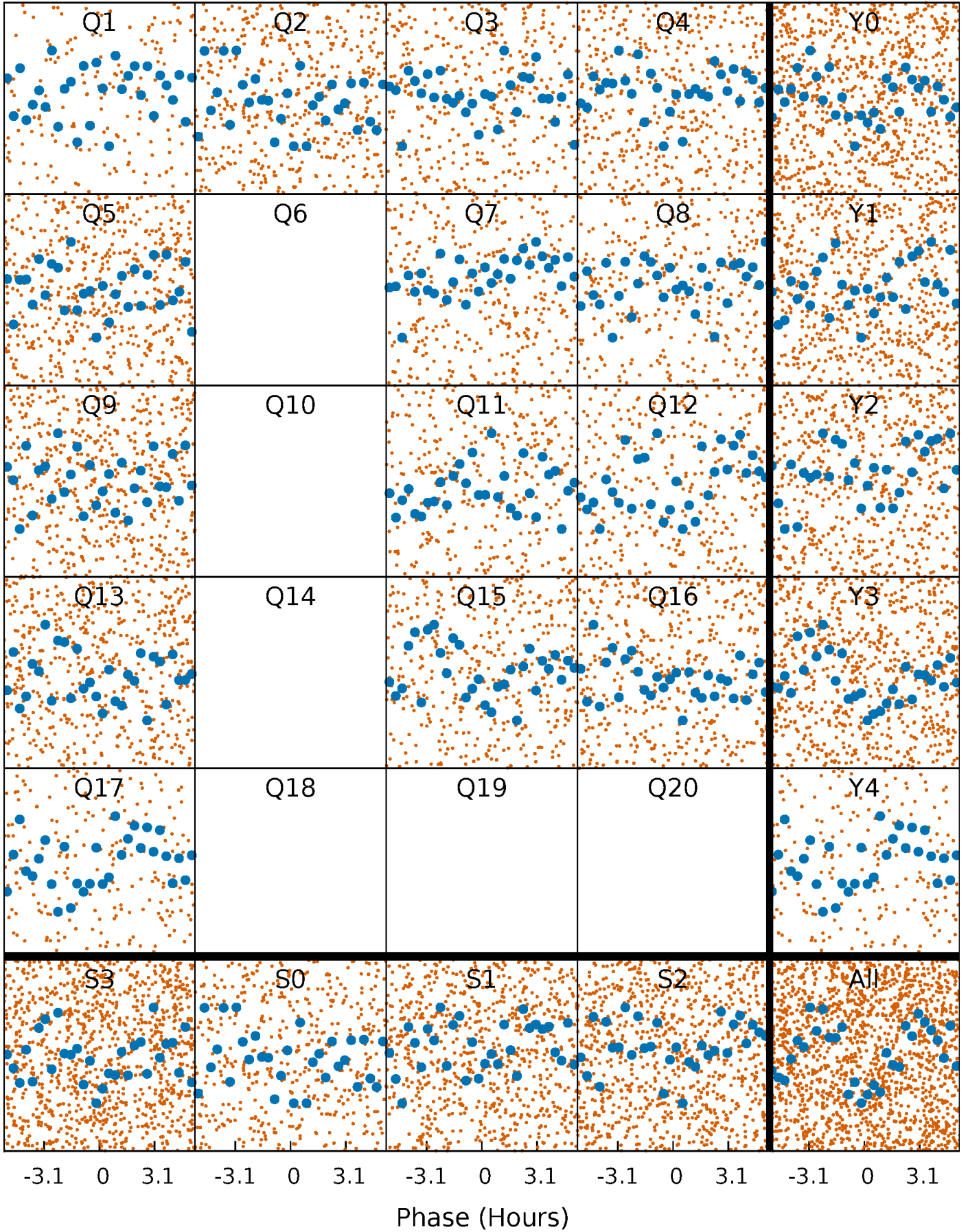


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



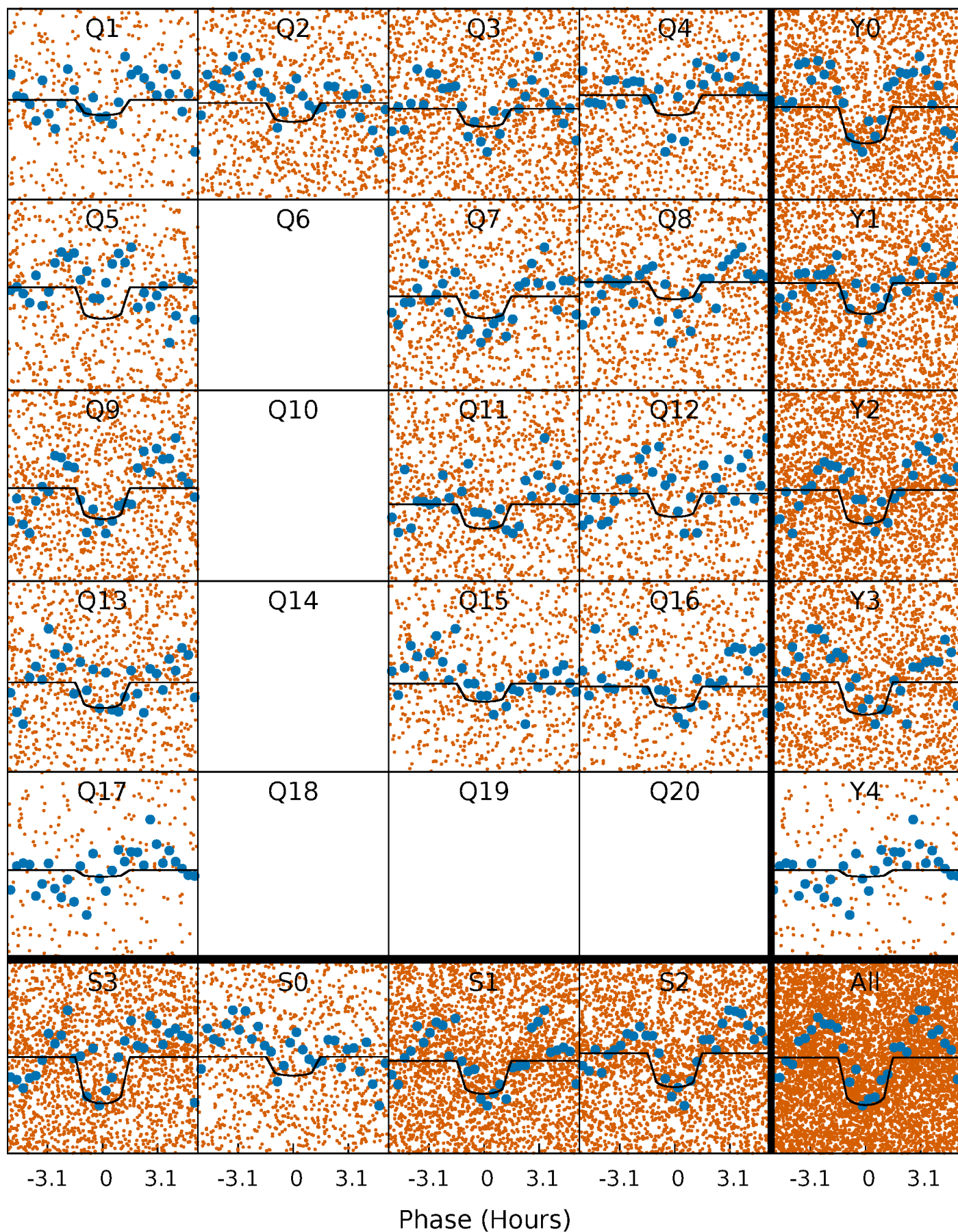
PDC Quarter-Phased Transit Curves

TCE 005025464-01 P= 0.714388 Days $T_0=132.196997$ (BKJD)



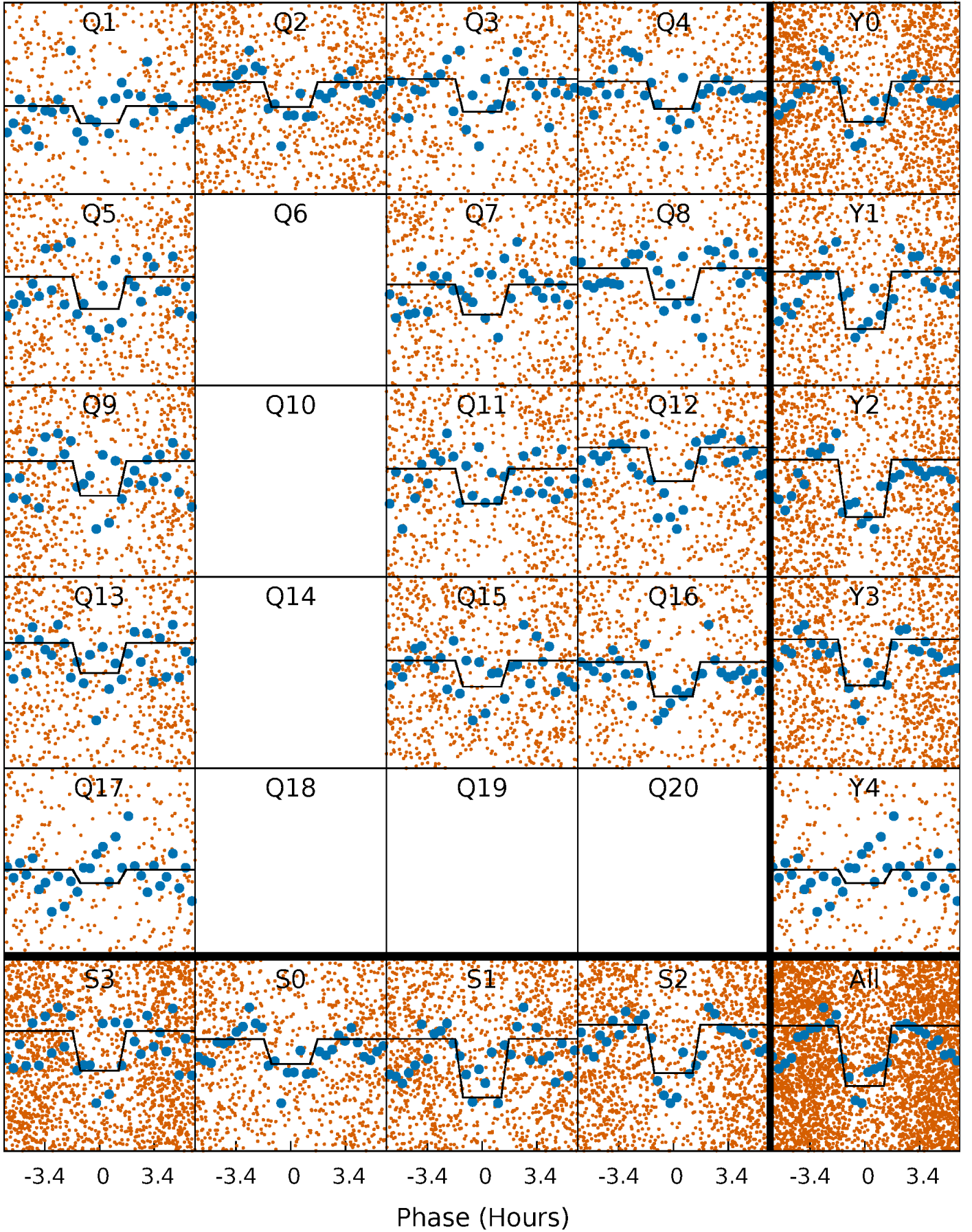
DV Quarter-Phased Transit Curves

TCE 005025464-01 P= 0.714388 Days $T_0=132.196997$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

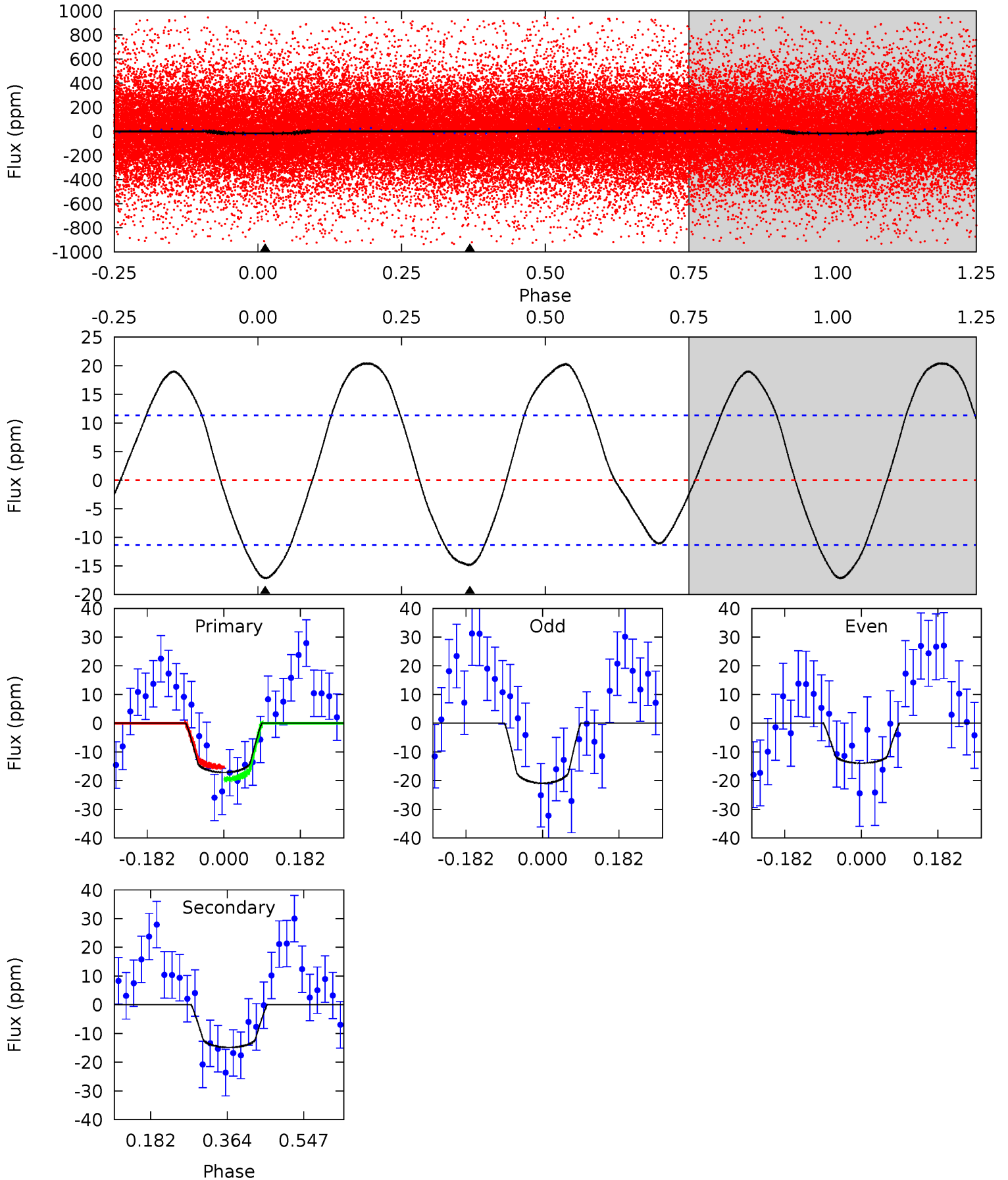
TCE 005025464-01 P= 0.714414 Days $T_0=132.193603$ (BKJD)



DV Model-Shift Uniqueness Test

005025464-01, P = 0.714388 Days, E = 131.482609 Days

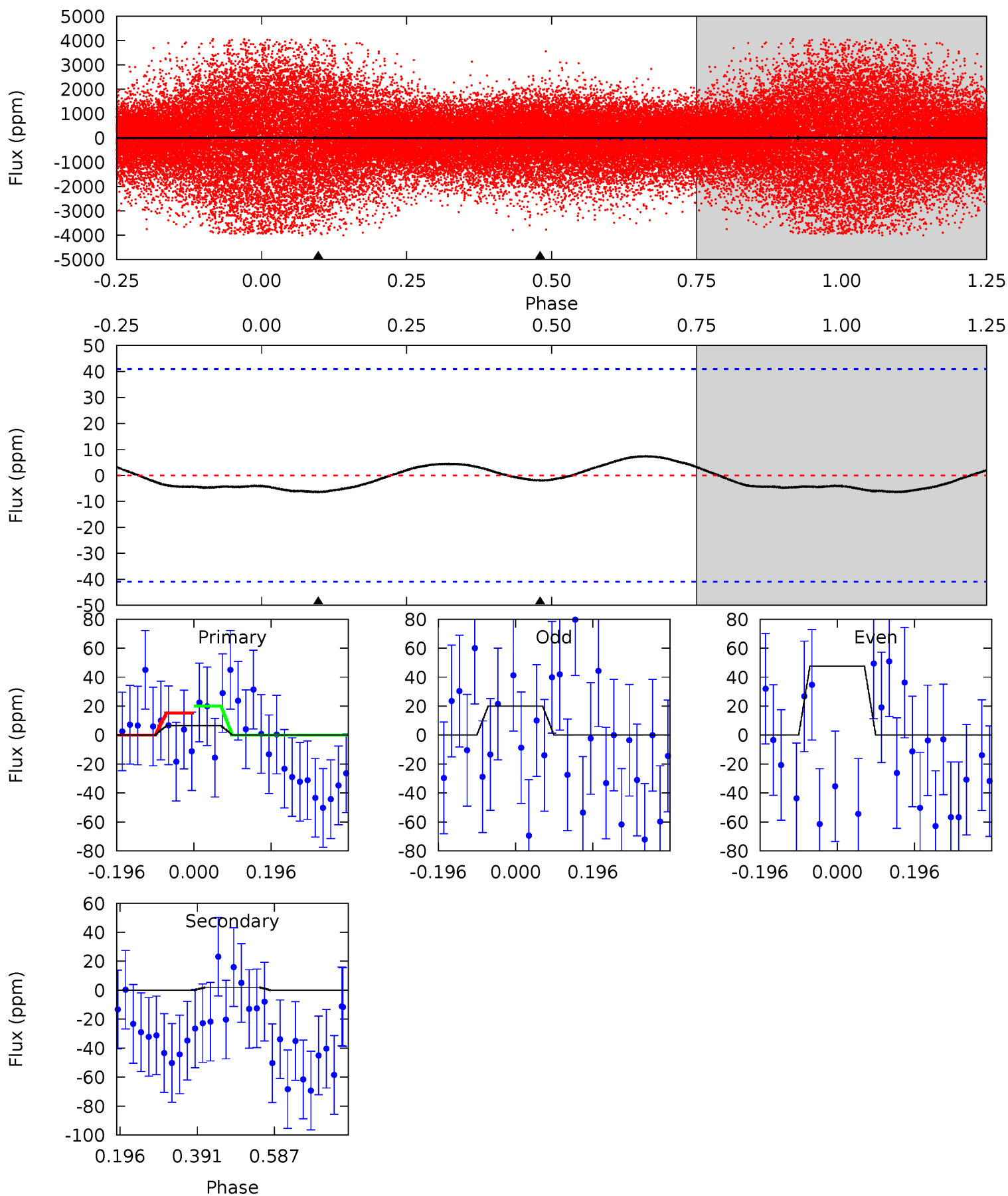
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.71	5.81	0	0	4.44	1.33	3.49	6.71	6.71	5.81	5.81	1.37	1.03	0.54	0.86



Alt Model-Shift Uniqueness Test

005025464-01, P = 0.714414 Days, E = 131.479189 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.70	0.21	0	0	4.42	1.29	0.45	0.70	0.70	0.21	0.21	1.29	-2.29	0.53	0.30



Stellar Parameters For KIC 005025464

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7564^{+209}_{-340}	$4.093^{+0.144}_{-0.176}$	$-0.080^{+0.200}_{-0.350}$	$1.893^{+0.532}_{-0.435}$	$1.621^{+0.188}_{-0.282}$	$0.336^{+0.287}_{-0.154}$
	+3%/-4%	+4%/-4%	+250%/-438%	+28%/-23%	+12%/-17%	+85%/-46%
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 005025464-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 3	$1.08^{+0.39}_{-0.31}$	4748^{+338}_{-326}	6168^{+1329}_{-942}	$2.281^{+2.273}_{-1.066}$
Alt.	-2 ± 9	$1.94^{+0.48}_{-0.38}$	4761^{+337}_{-340}	-3912^{+7845}_{-865}	$0.060^{+0.488}_{-0.381}$

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 $A_{obs} \gg 1.0$

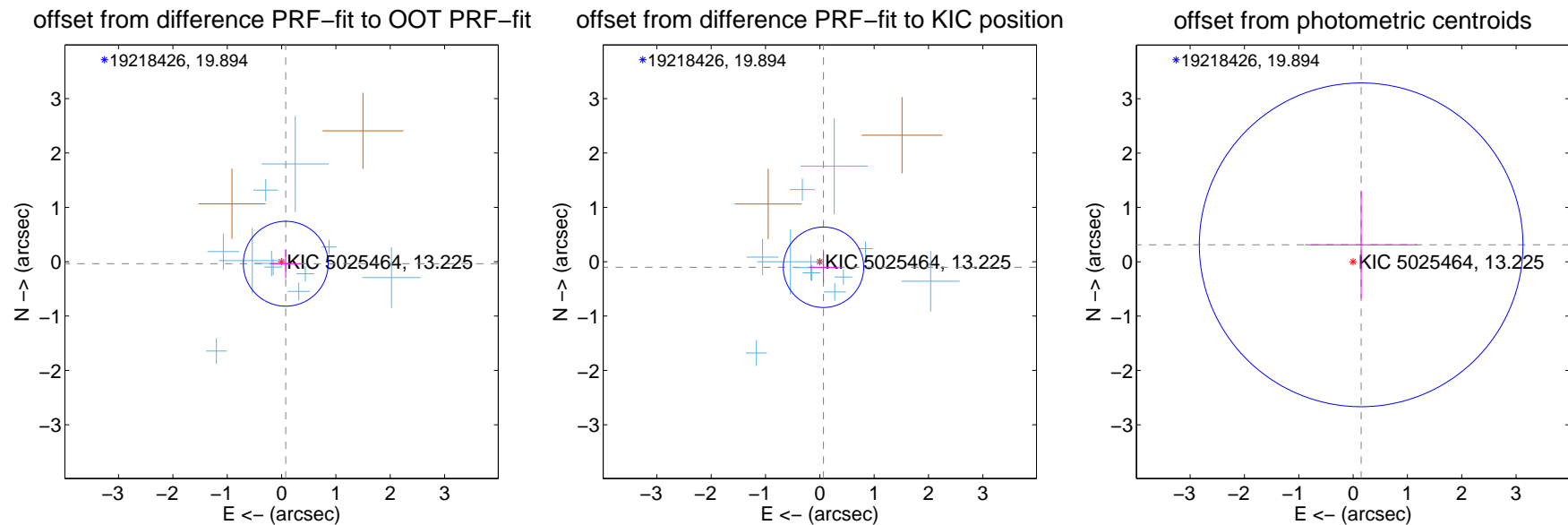
DV Centroid Data

Supplemental centroid analysis for 005025464-01. Kepler magnitude: 13.22. Transit SNR 7.08

There are 11 quarters with good PRF difference image offsets

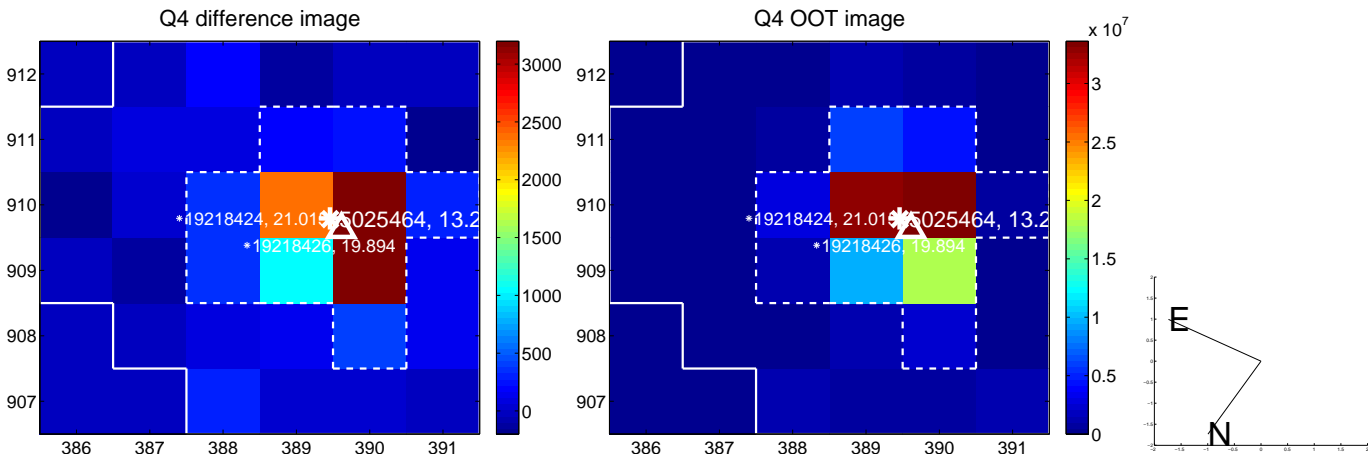
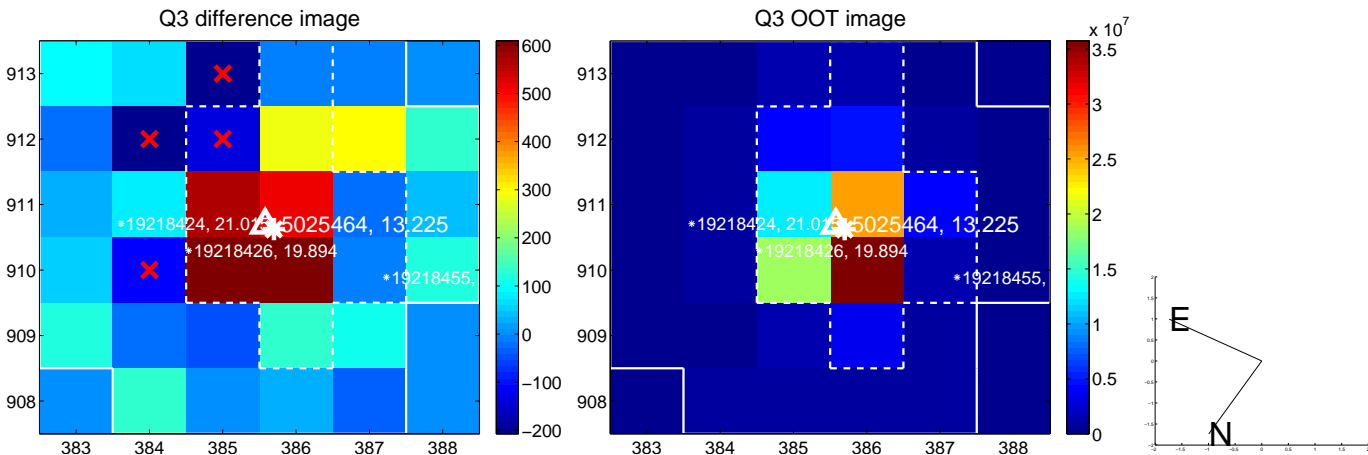
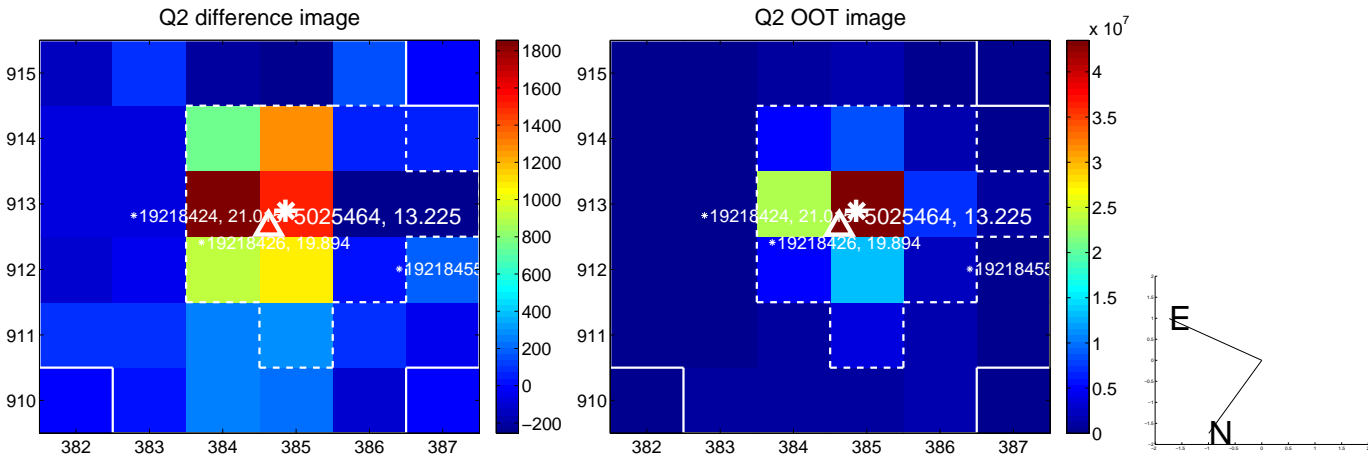
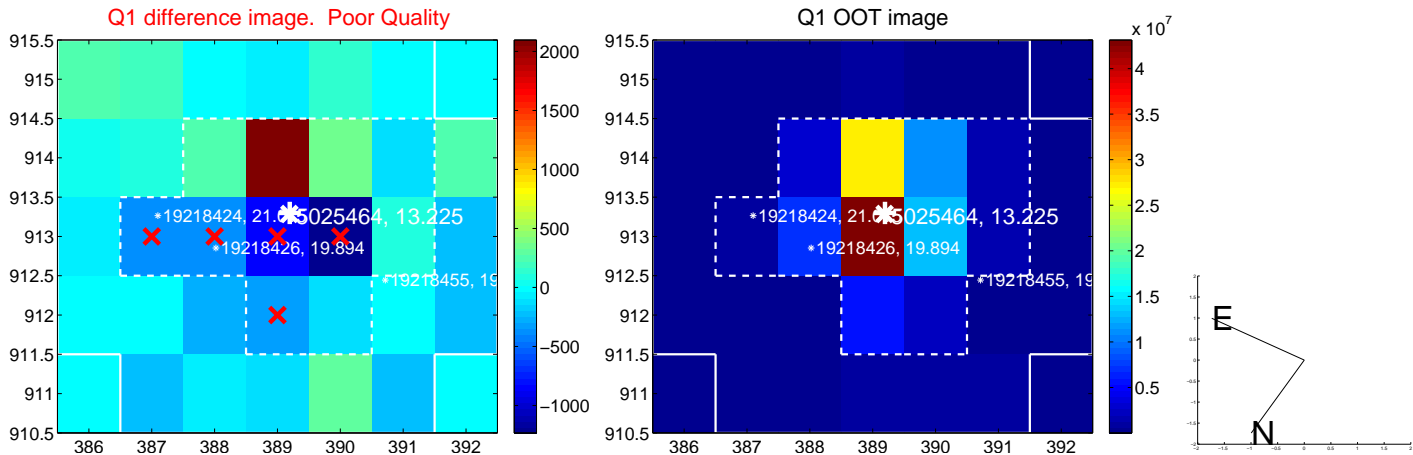
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.085 ± 0.260	0.33	-0.077 ± 0.275	-0.038 ± 0.267
PRF-fit source offset from KIC position	0.123 ± 0.247	0.50	-0.067 ± 0.258	-0.103 ± 0.286
photometric centroid source offset	0.34 ± 0.99	0.35	-0.15 ± 1.03	0.31 ± 0.98

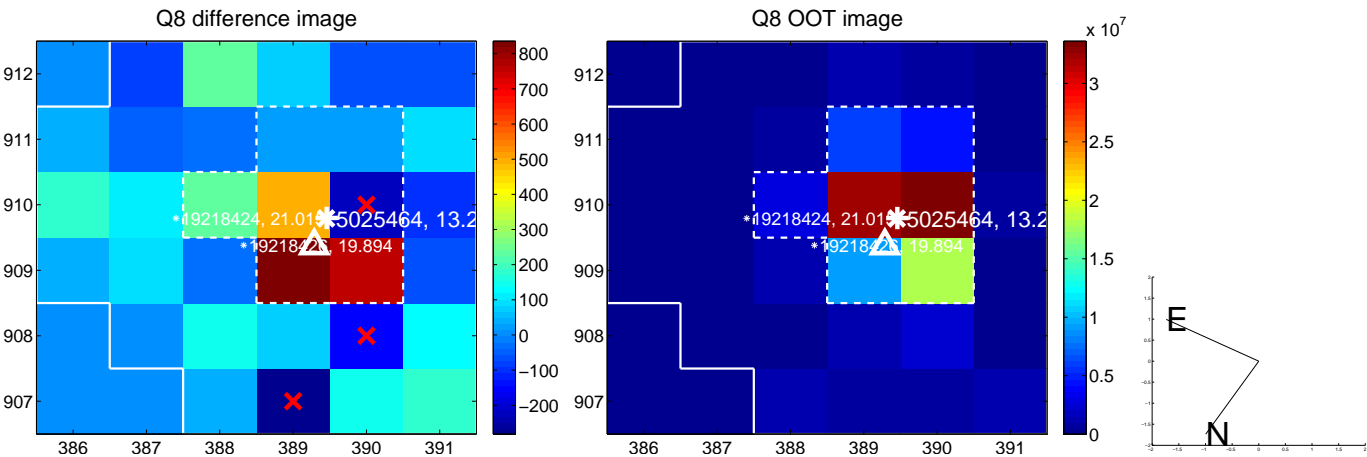
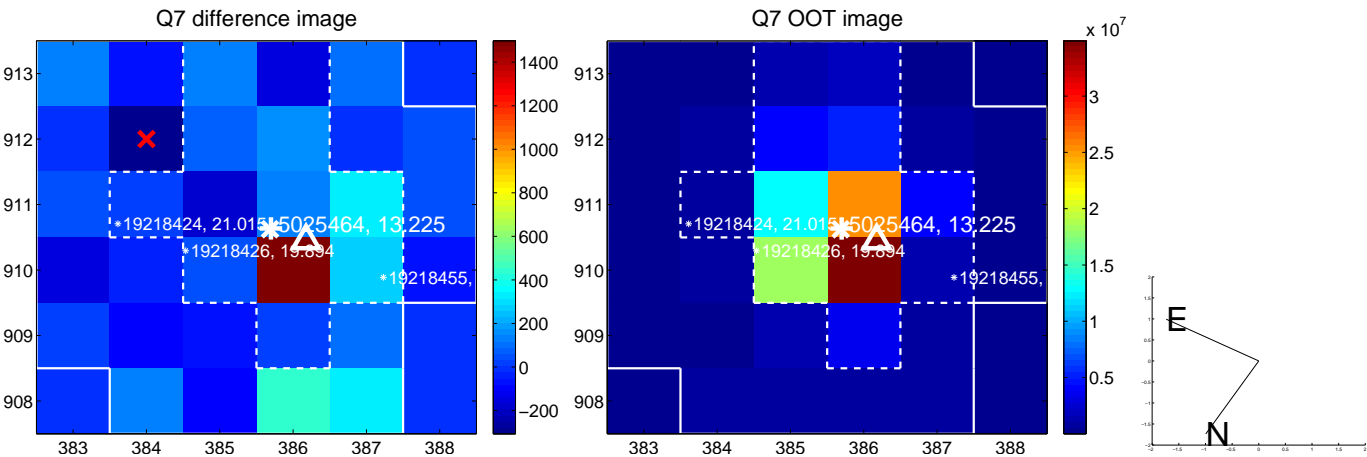
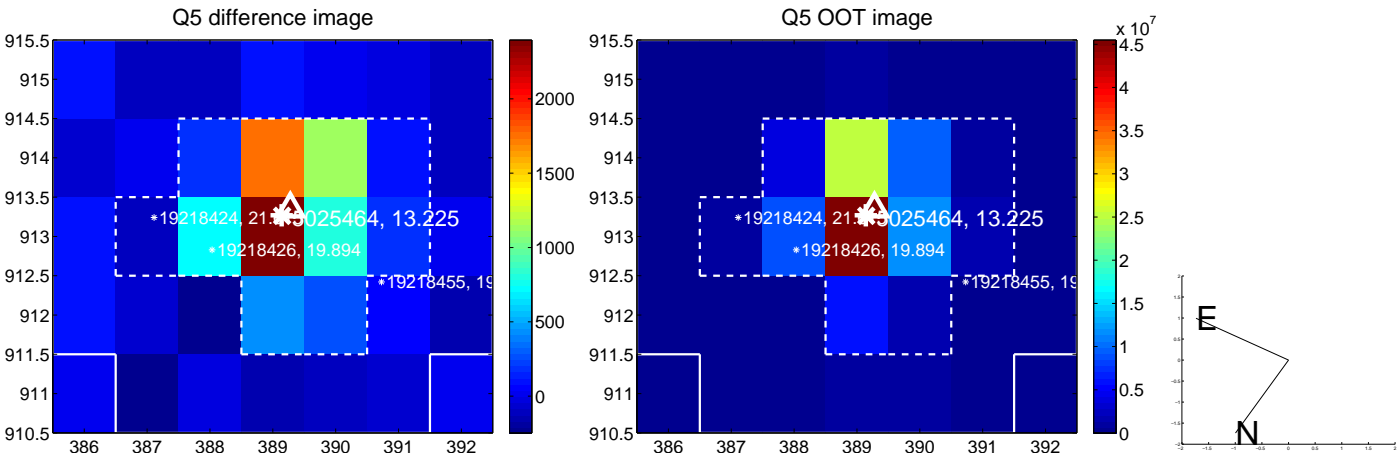


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

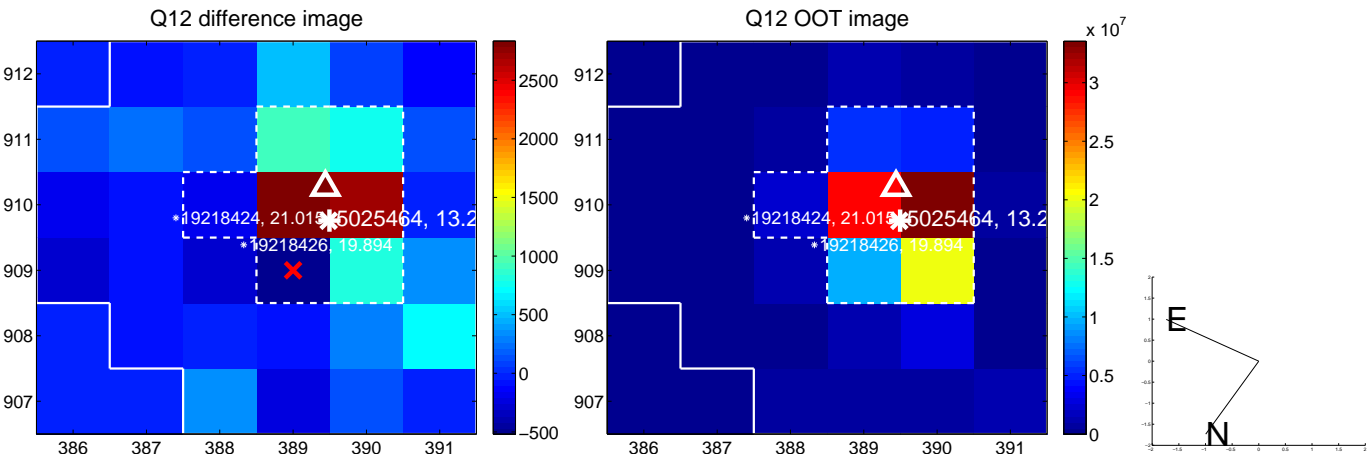
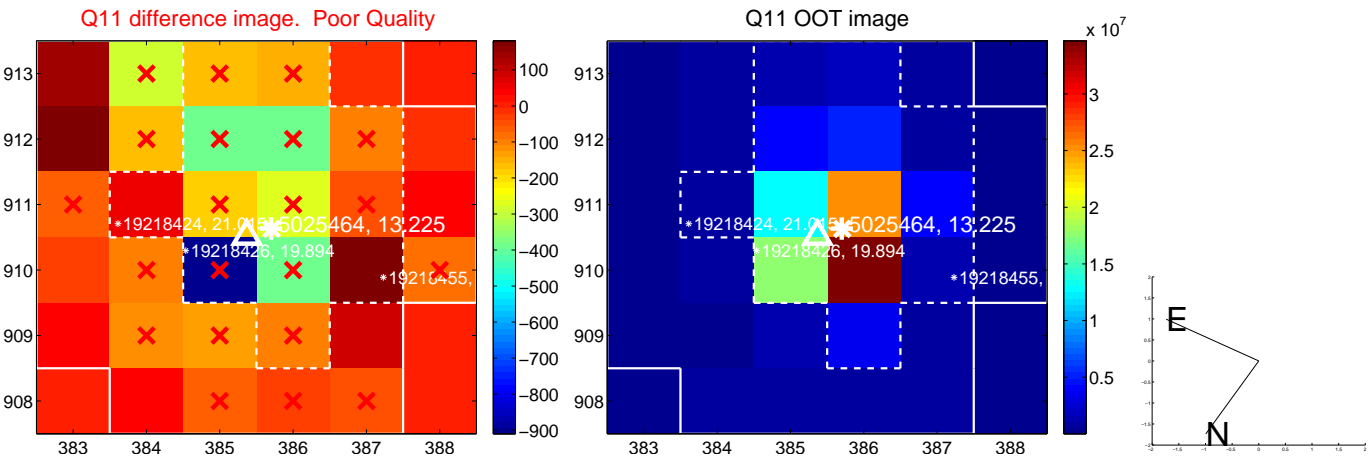
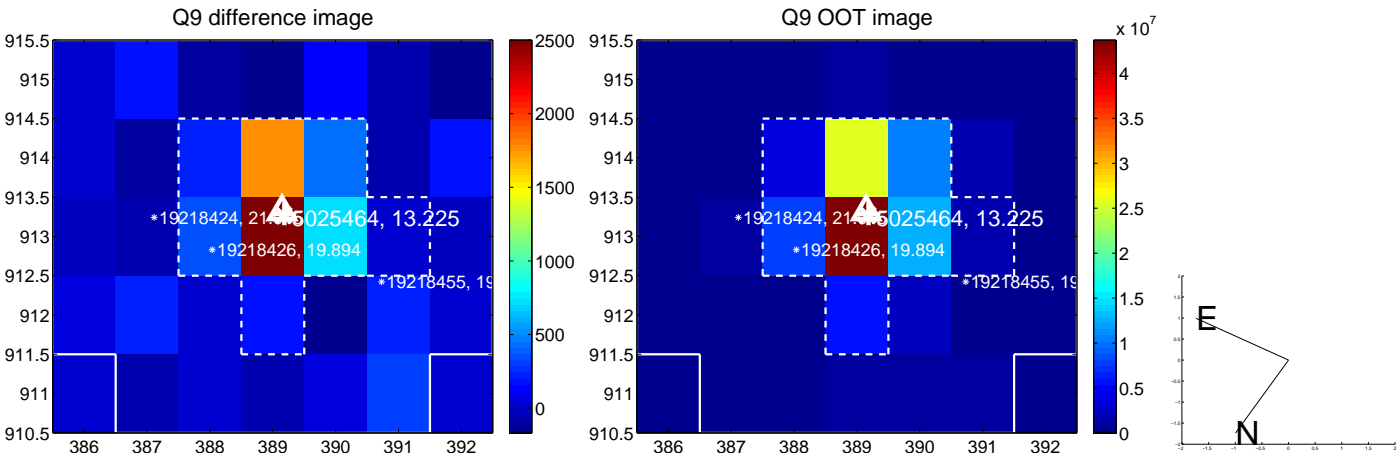
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



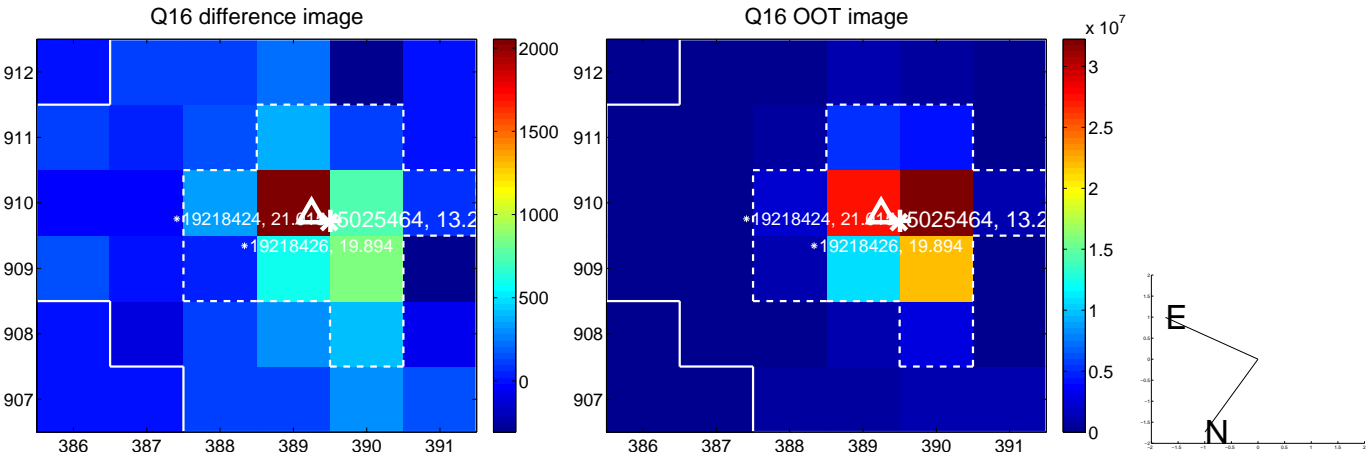
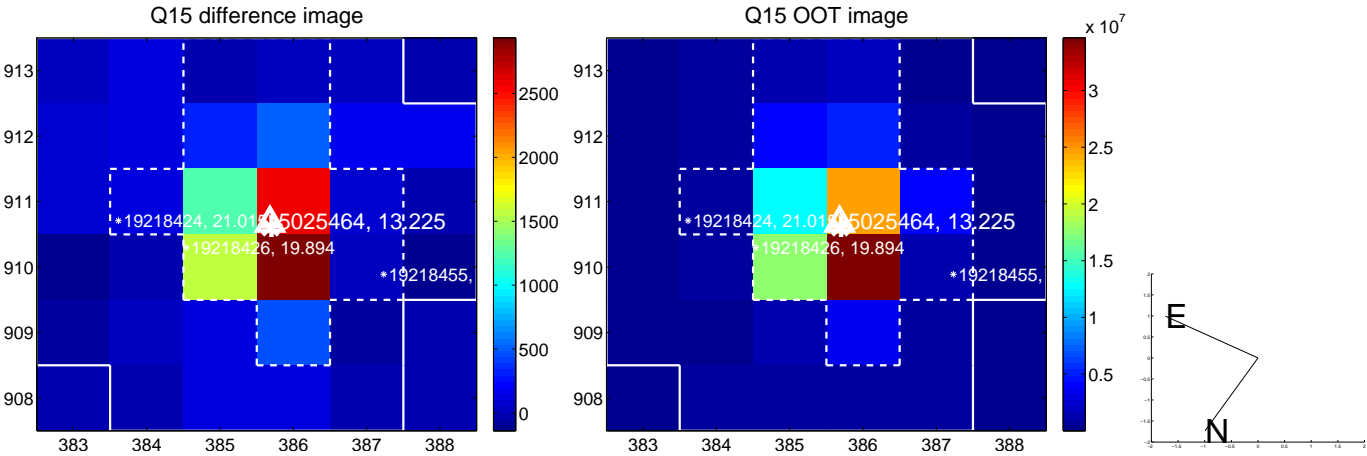
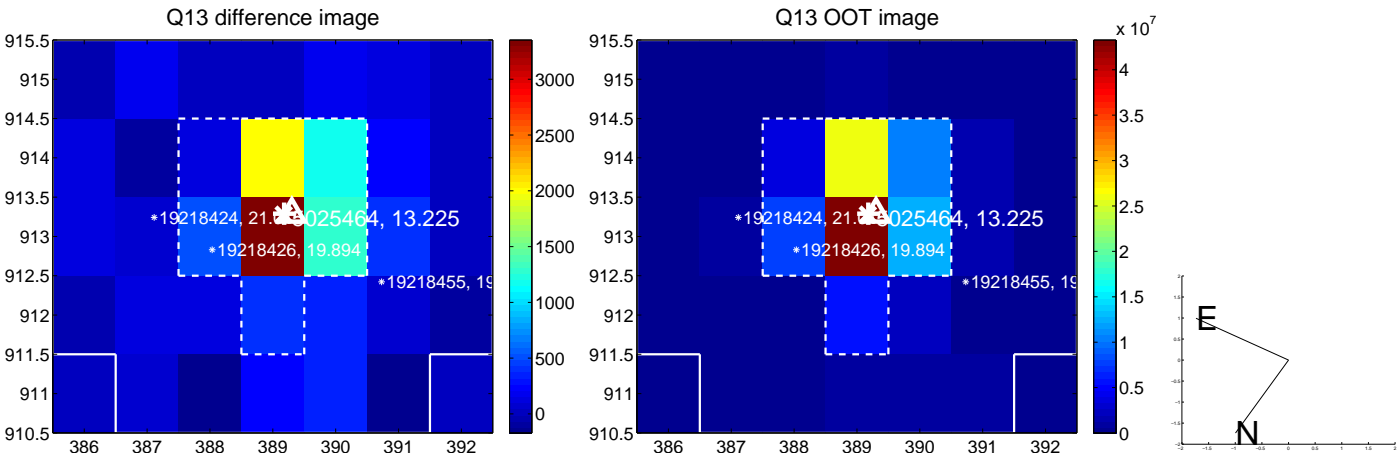
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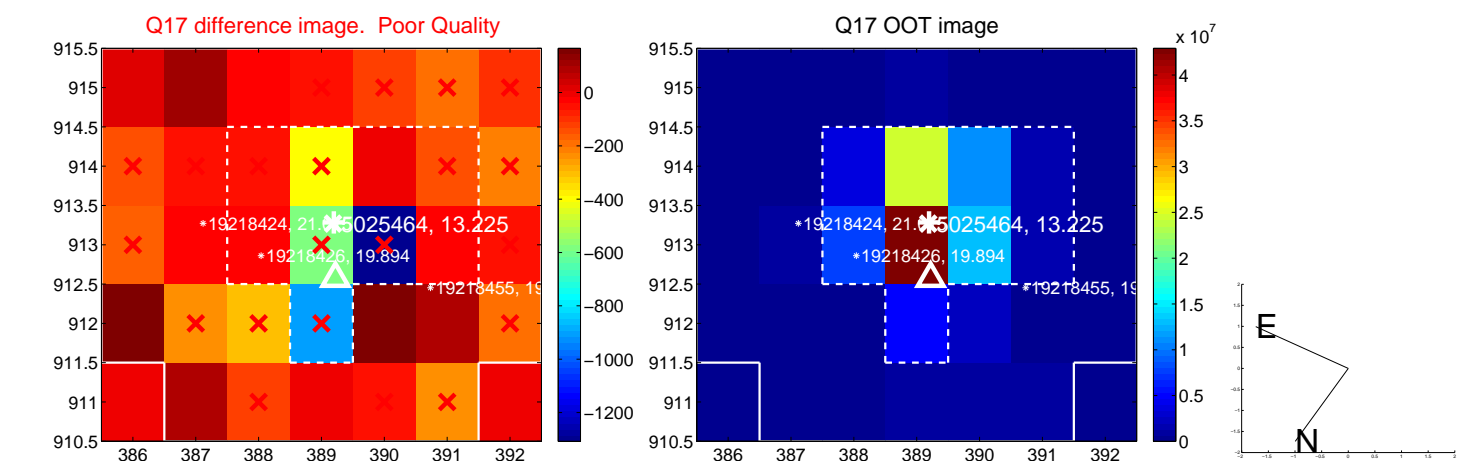
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



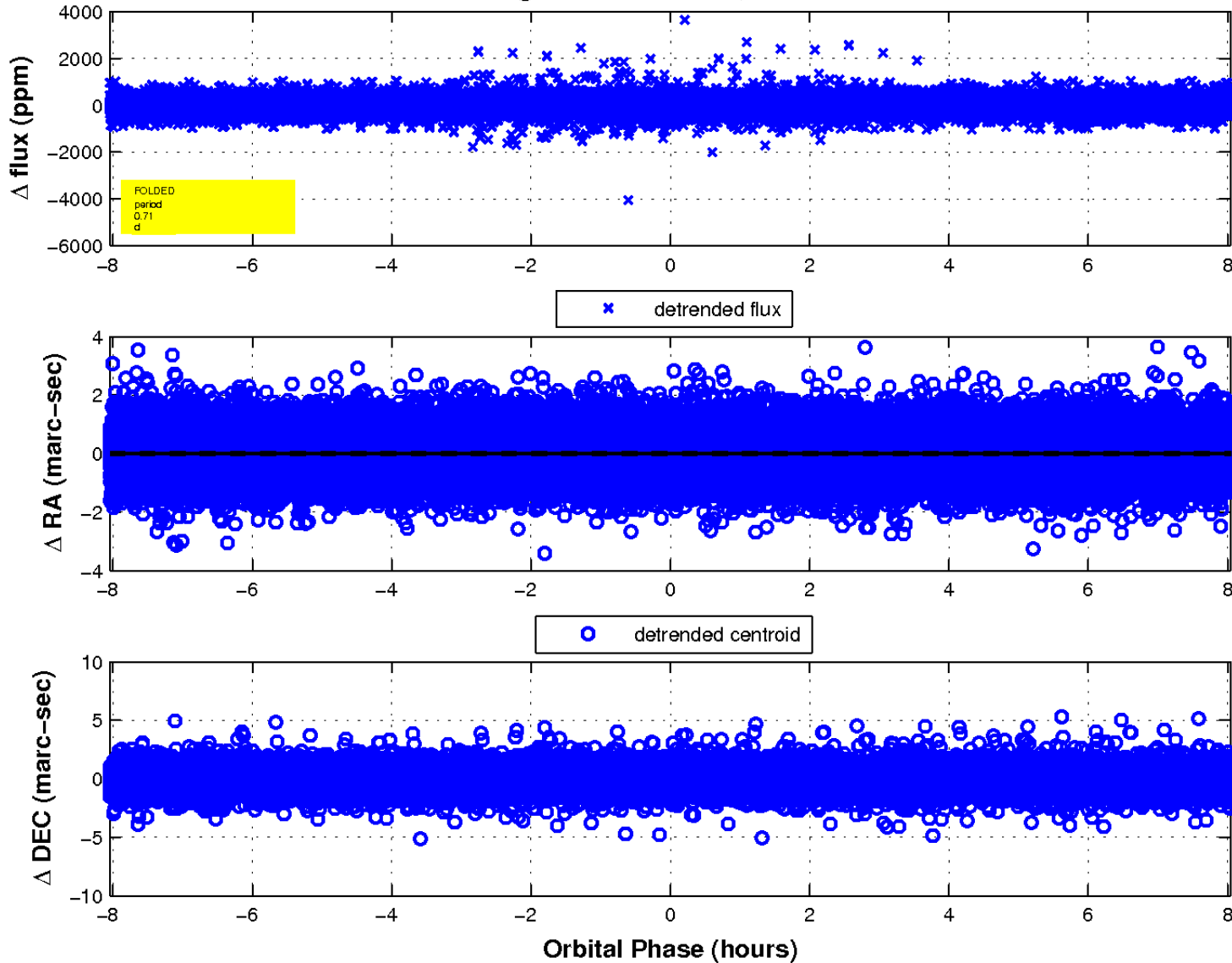
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 2



UKIRT Image

Declination

