

KIC 011074835

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})
011074835-01	OBS	2533.01	6.033528	137.124989	77.1	10.230	15.6	15.9	3.59	4924	3.77	1543.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011074835-01	OBS	PC	0.95	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.

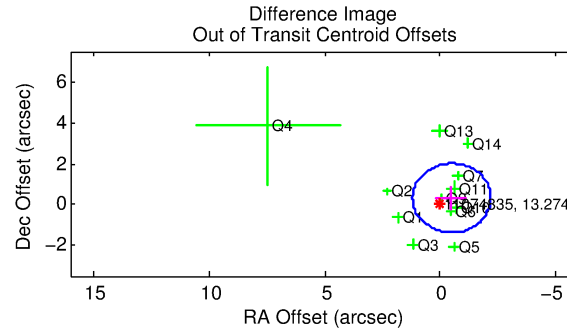
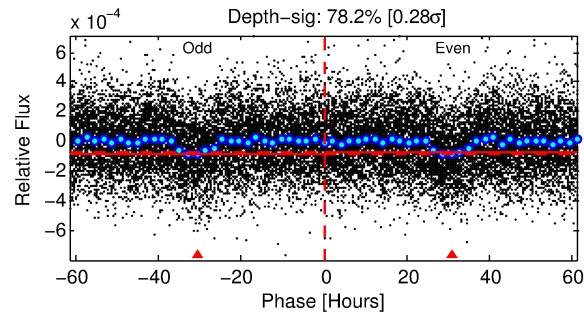
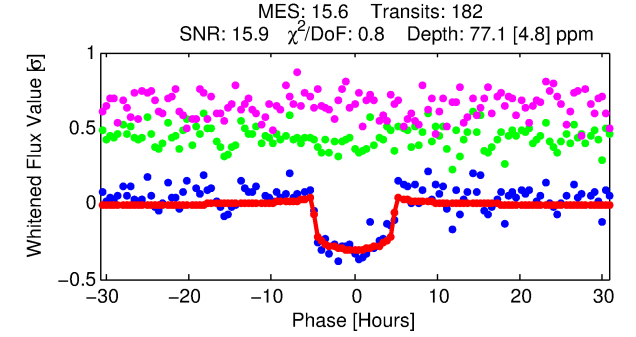
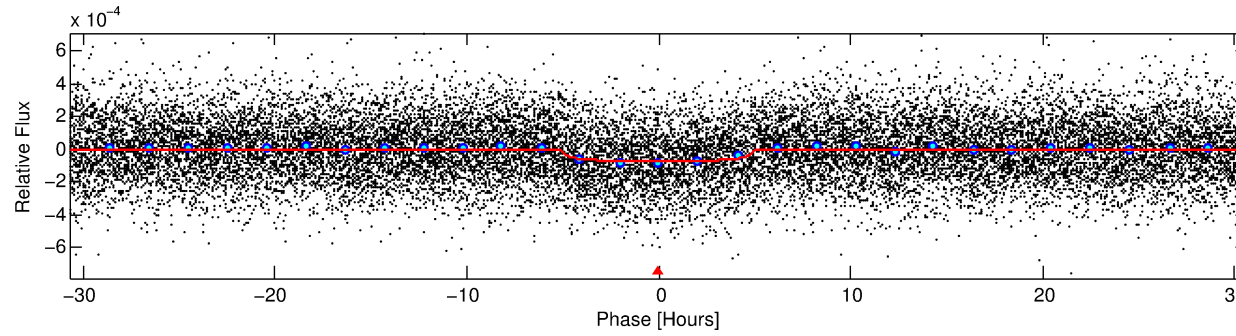
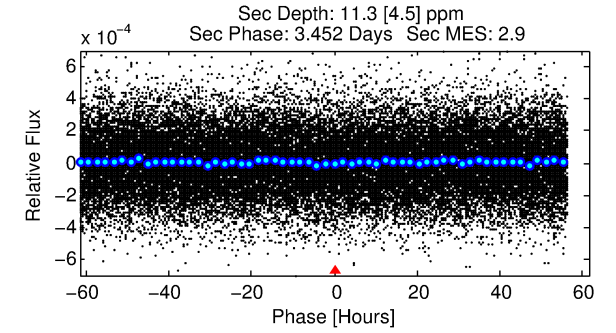
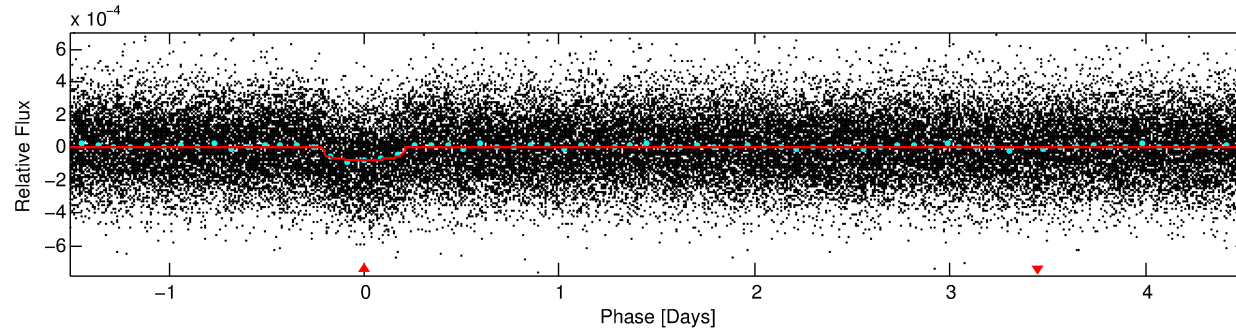
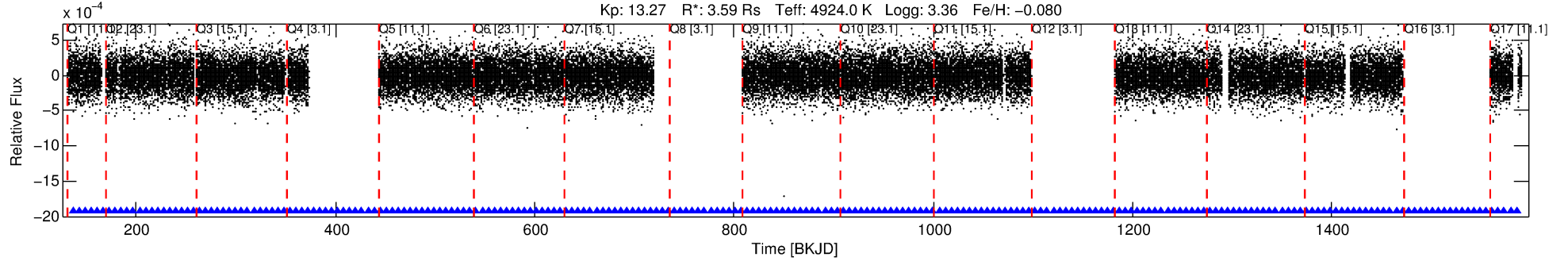
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011074835-01

No Significant Match Found

DV One-Page Summary

KIC: 11074835 Candidate: 1 of 1 Period: 6.034 d
KOI: K02533.01 Corr: 0.994



DV Fit Results:

Period = 6.03353 [0.00006] d
Epoch = 137.1250 [0.0072] BKJD
Rp/R* = 0.0096 [0.0017]
a/R* = 2.39 [1.35]
b = 0.88 [0.17]
Seff = 1543.97 [406.67]
Teq = 1598 [105] K
Rp = 3.76 [1.02] Re
a = 0.0663 [0.0117] AU
Ag = 1.93 [1.13] [0.82σ]
Teffp = 2911 [385] K [3.29σ]

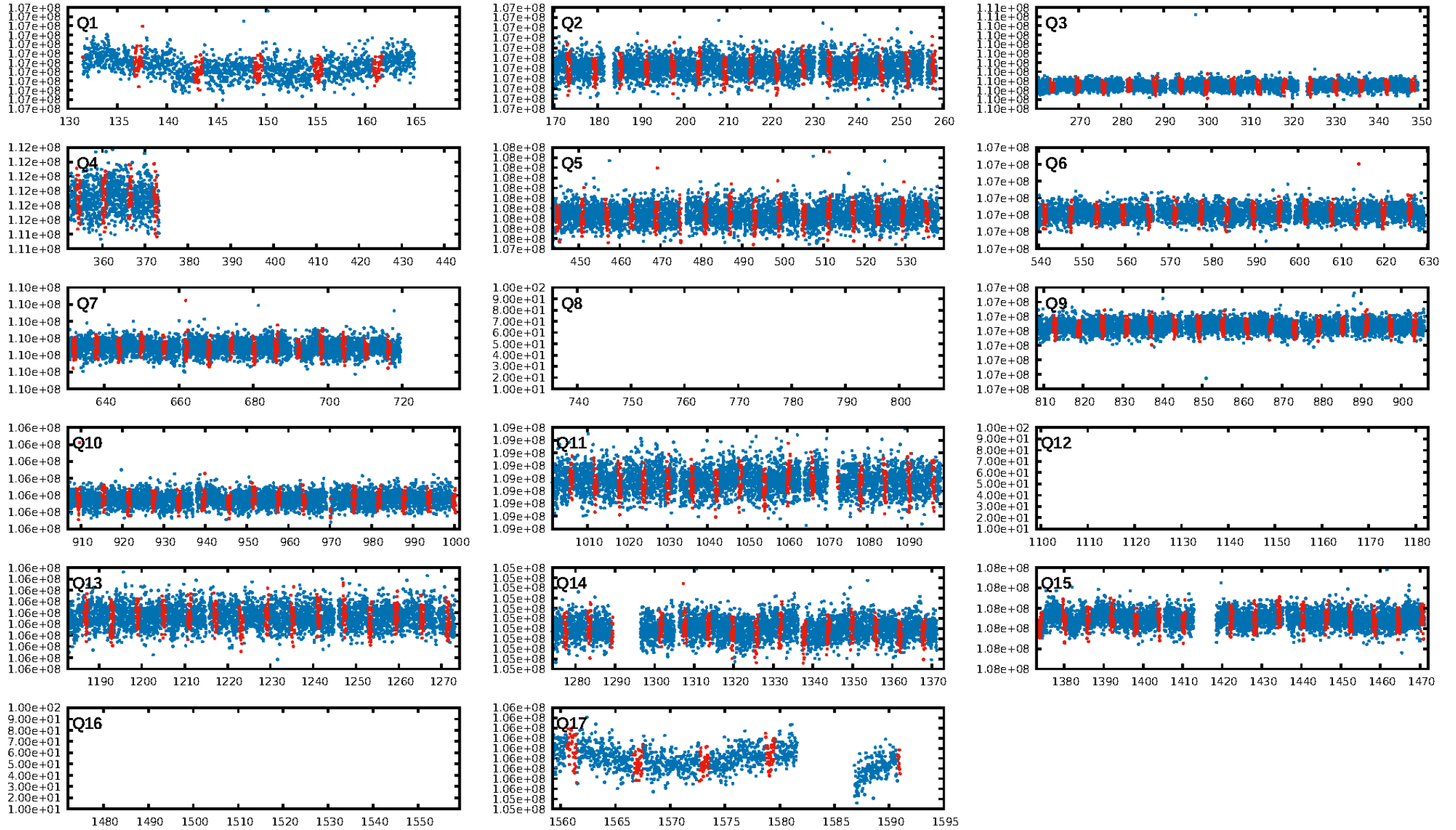
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.73e-50
RollingBand-fgt: 1.00 [168/168]
GhostDiagnostic-chr: 3.256
Centroid-sig: 6.1%
Centroid-so: 0.634 arcsec [1.25σ]
OotOffset-rm: 0.584 arcsec [1.04σ]
OotOffset-st: 4/3/1/4 [12]
KicOffset-rm: 0.576 arcsec [1.02σ]
KicOffset-st: 4/3/1/4 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [14/14]

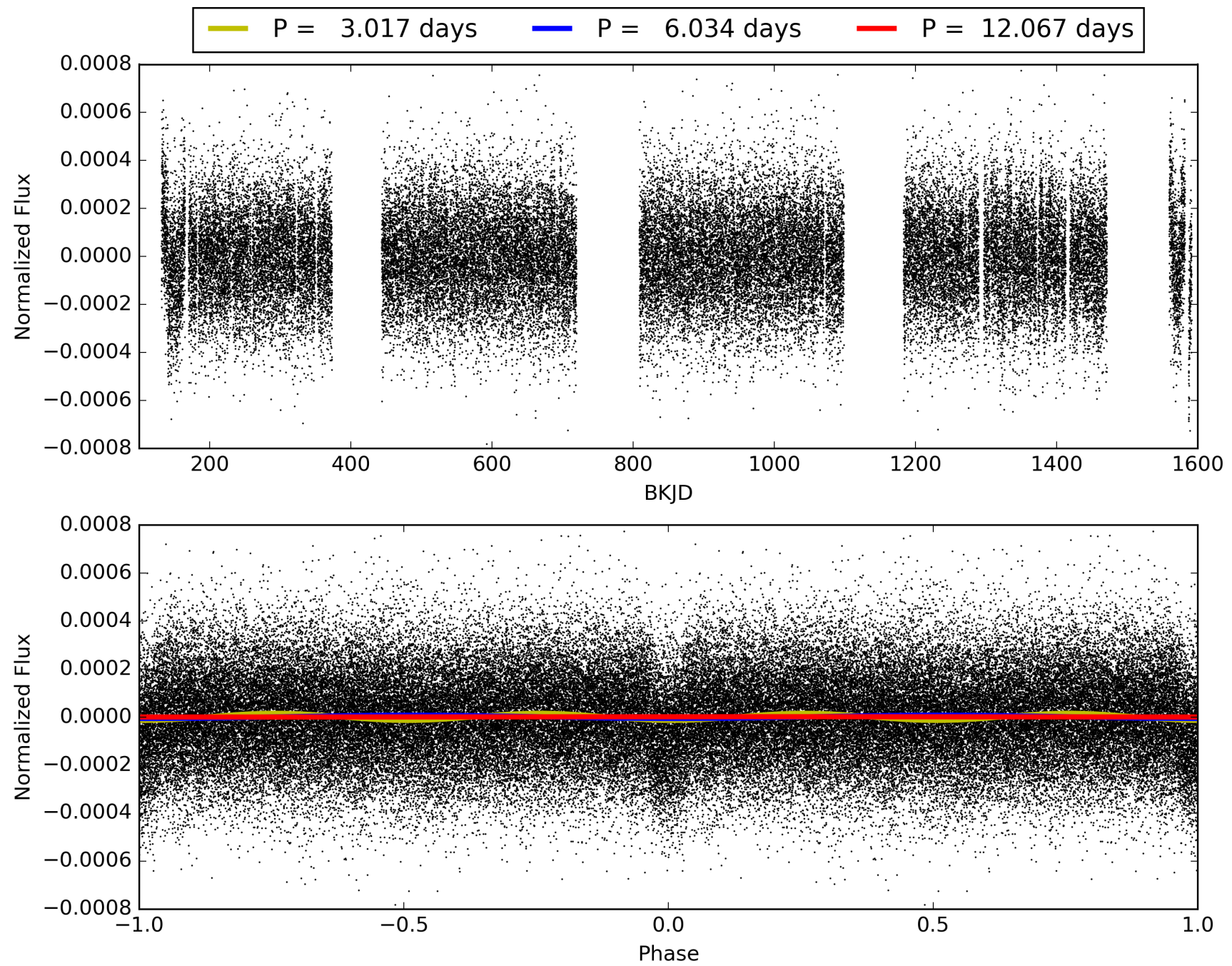
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:30:26 Z

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

TCE 011074835-01, PDC Light Curves

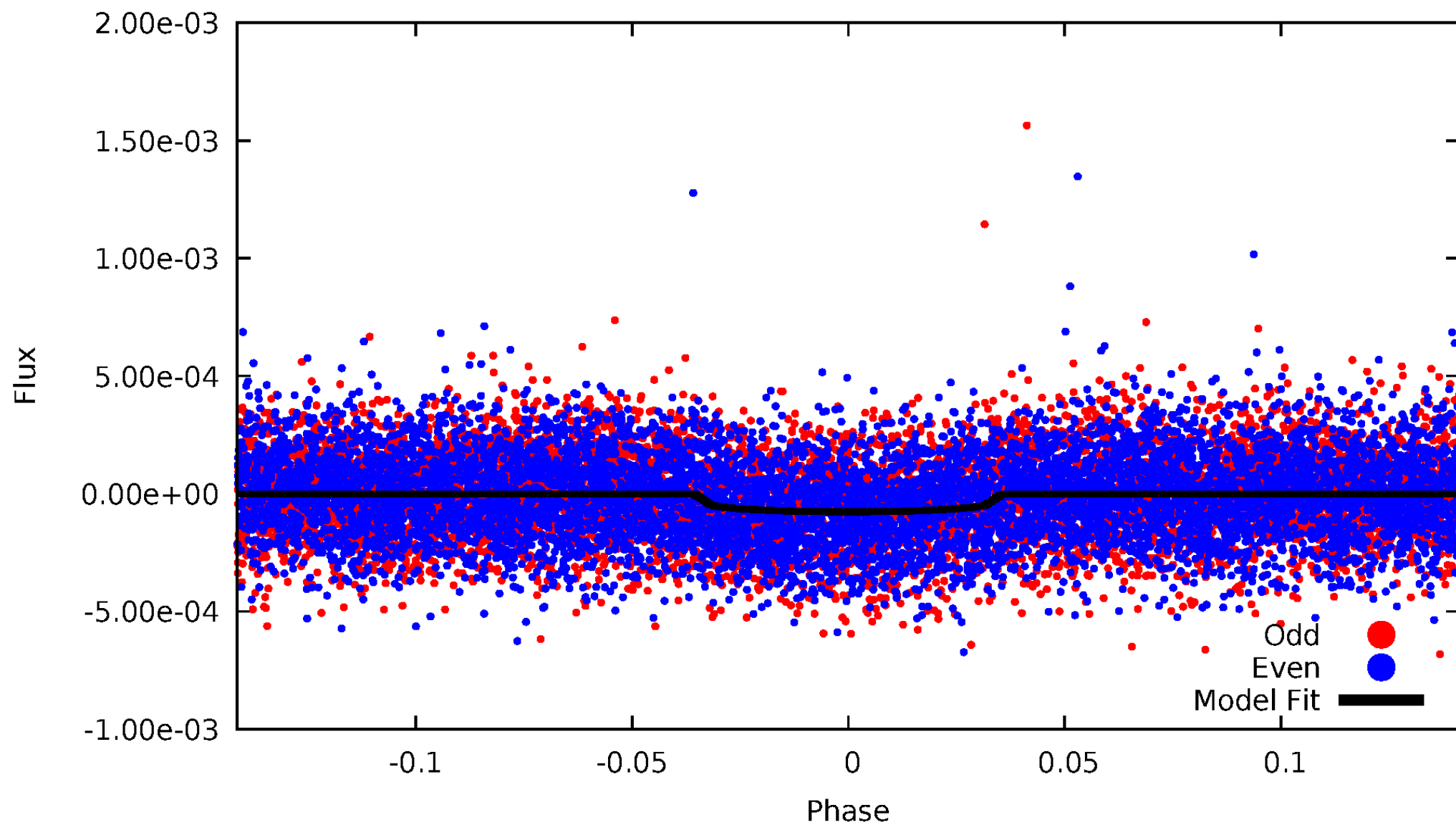


TCE 011074835-01



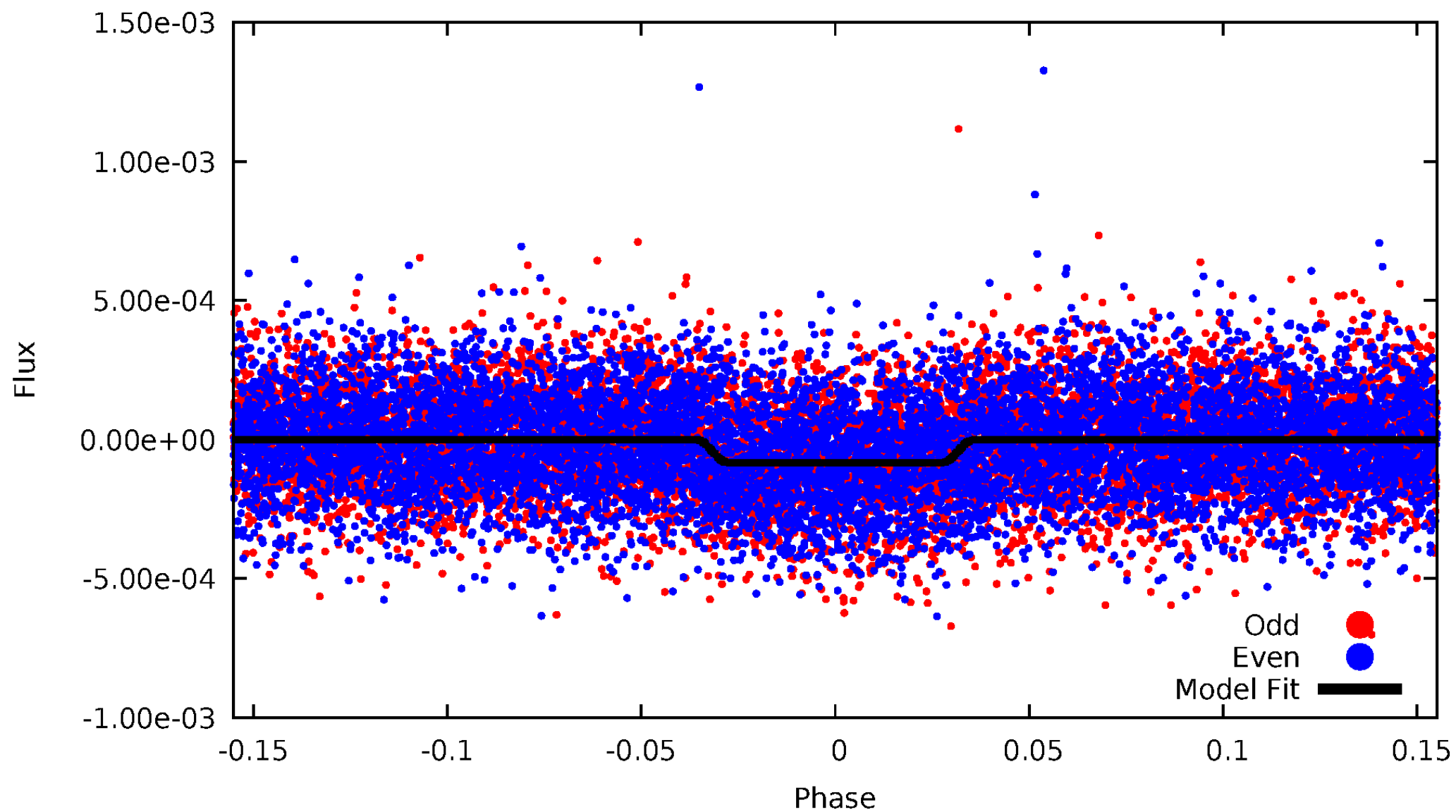
DV Odd/Even

TCE 011074835-01

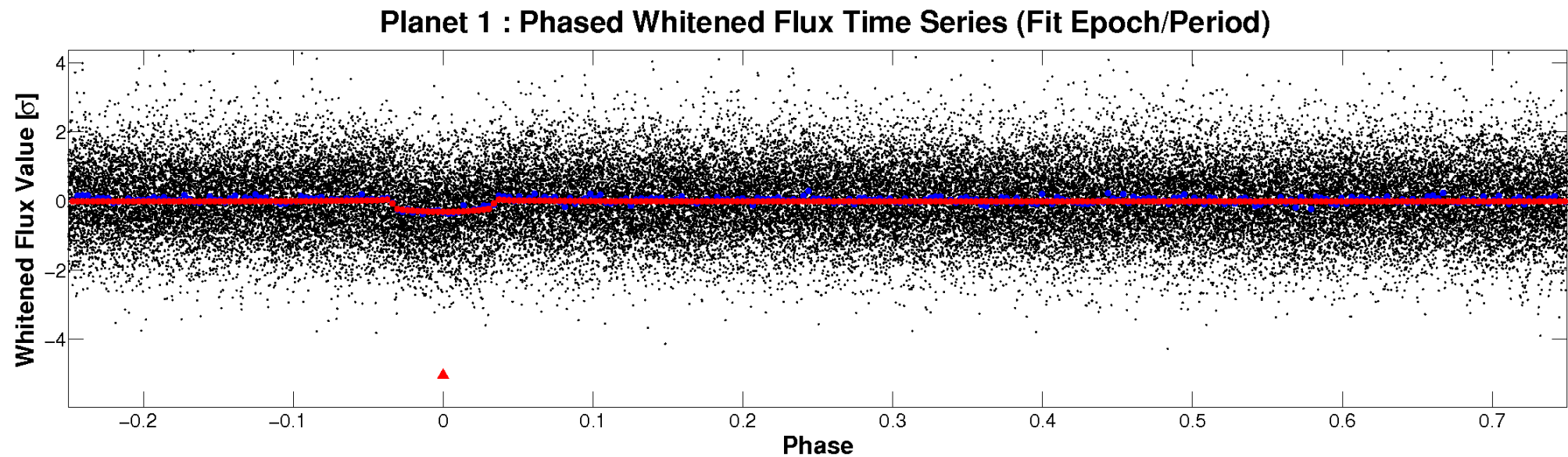
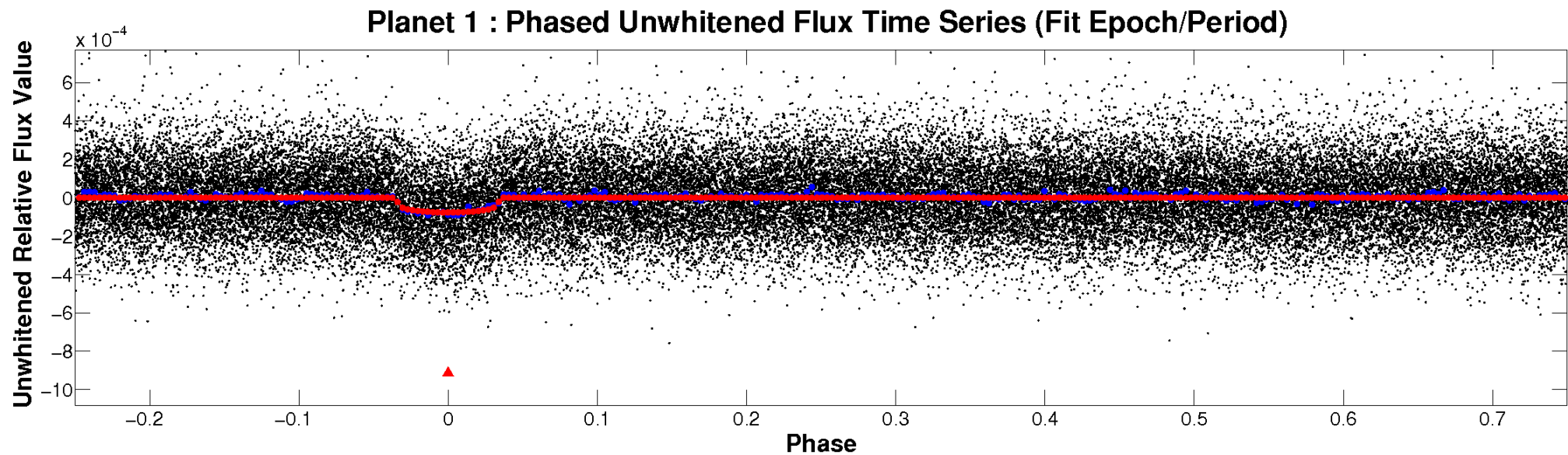


ALT Odd/Even

TCE 011074835-01

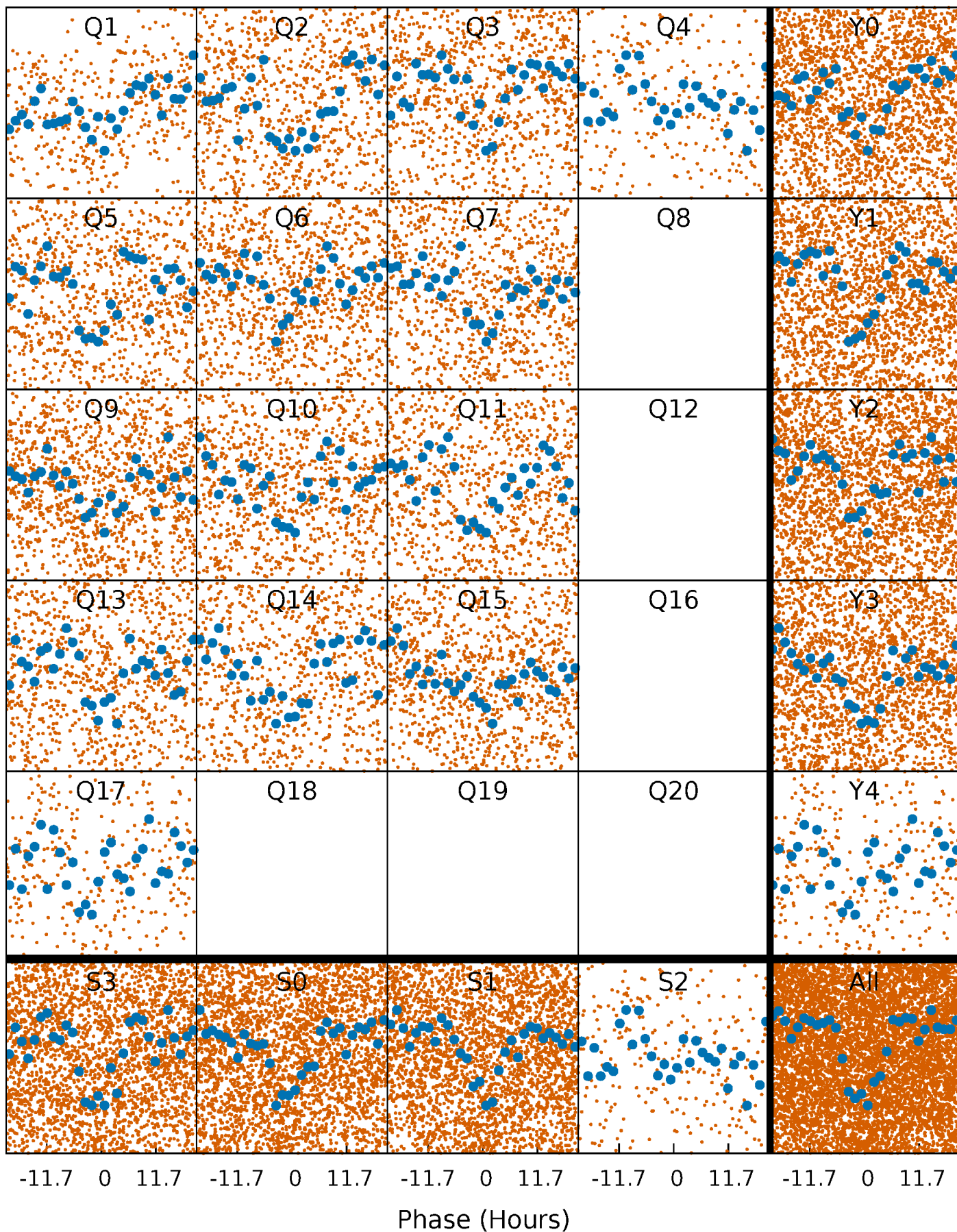


Non-Whitened Vs. Whitened Light Curve



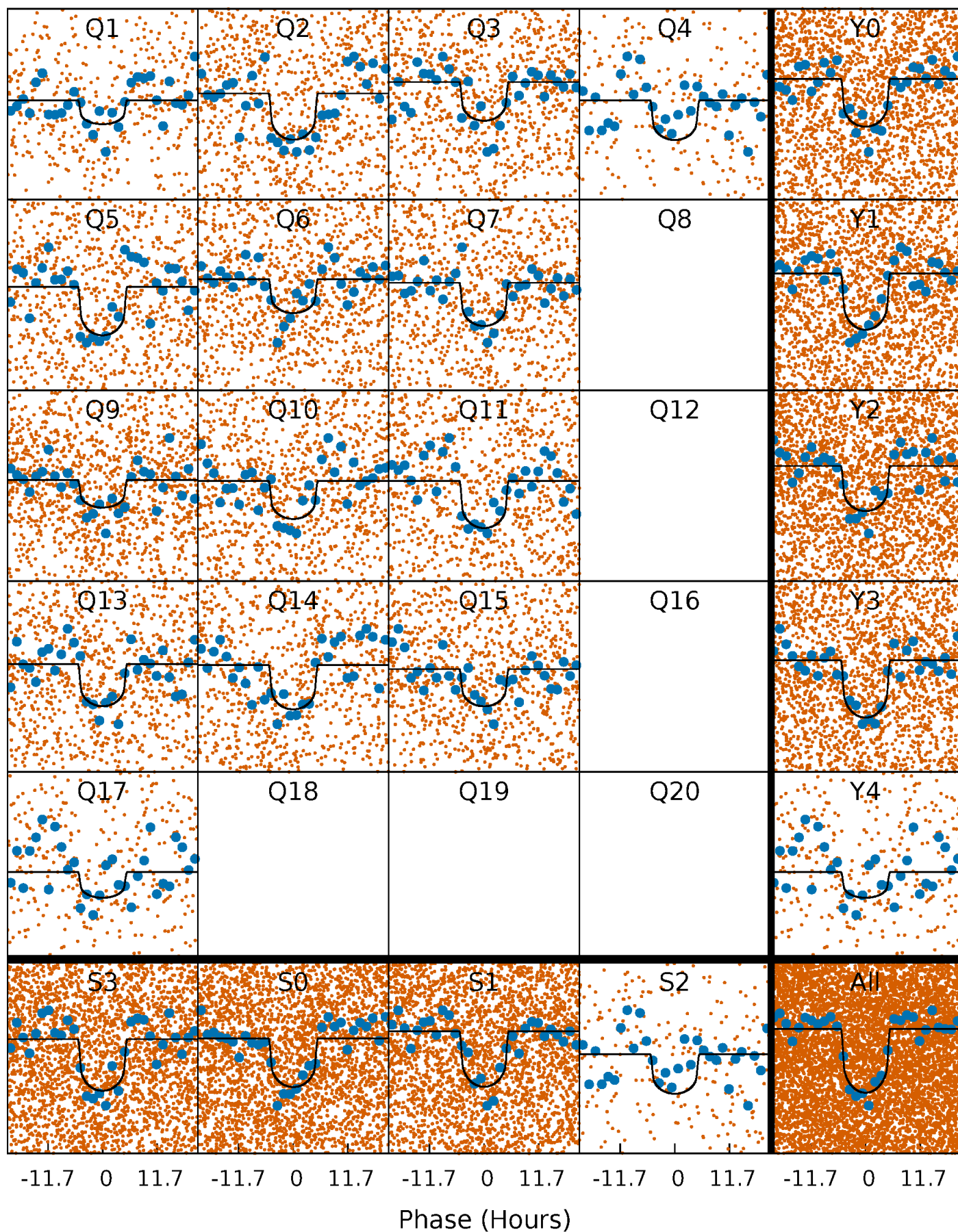
PDC Quarter-Phased Transit Curves

TCE 011074835-01 P= 6.033528 Days $T_0=137.124989$ (BKJD)



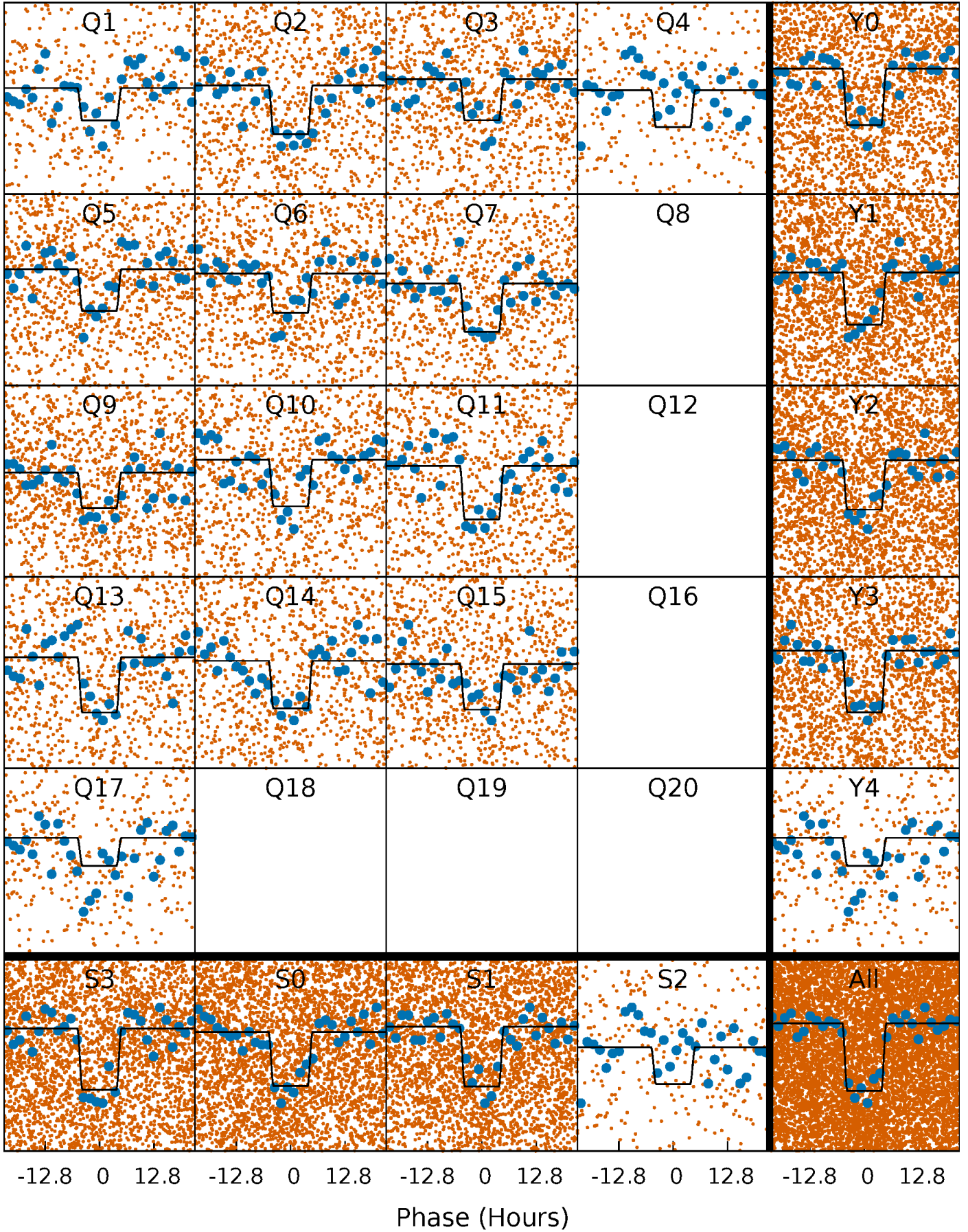
DV Quarter-Phased Transit Curves

TCE 011074835-01 P= 6.033528 Days $T_0=137.124989$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

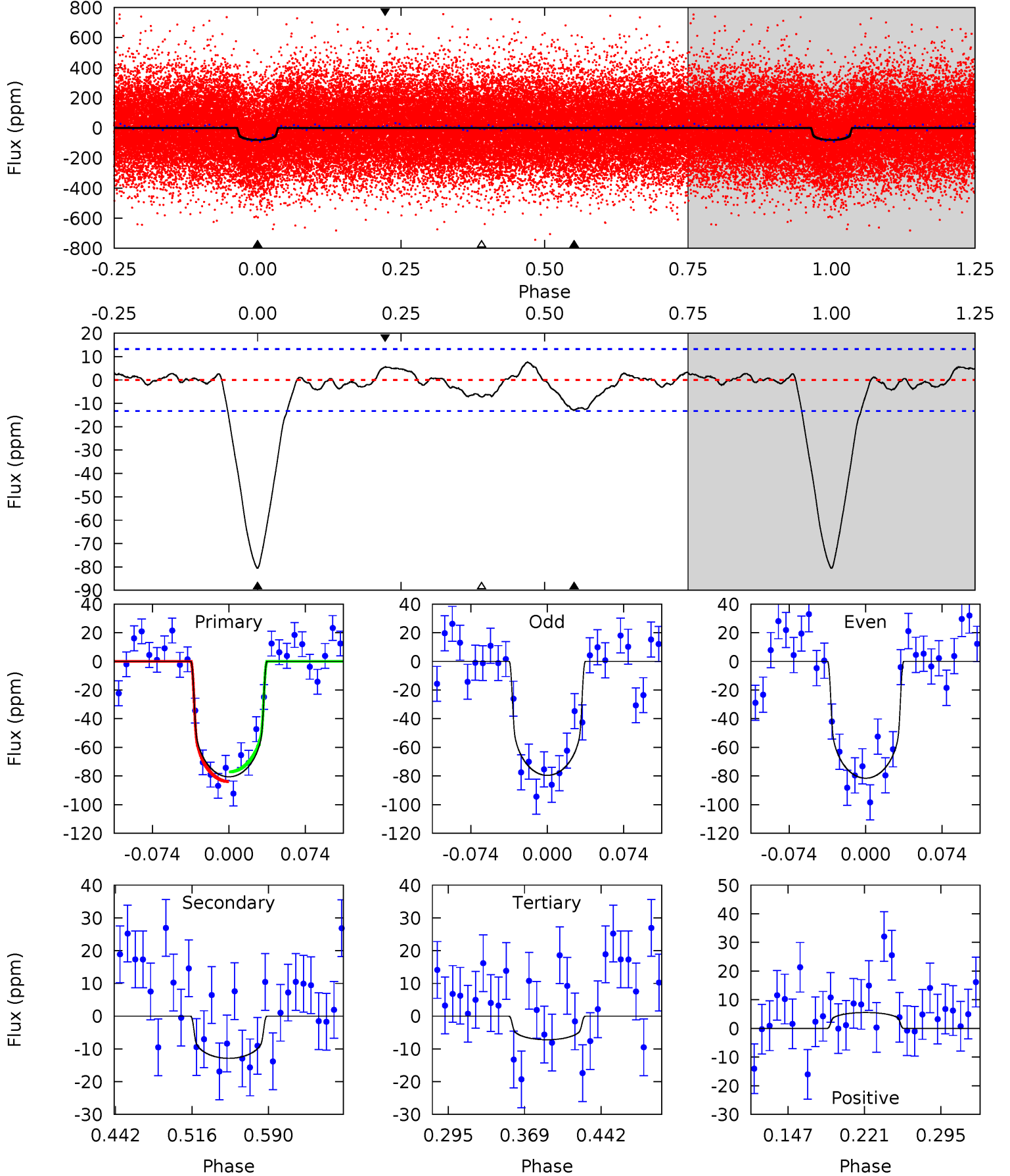
TCE 011074835-01 P= 6.033399 Days $T_0=137.131120$ (BKJD)



DV Model-Shift Uniqueness Test

011074835-01, P = 6.033528 Days, E = 131.091461 Days

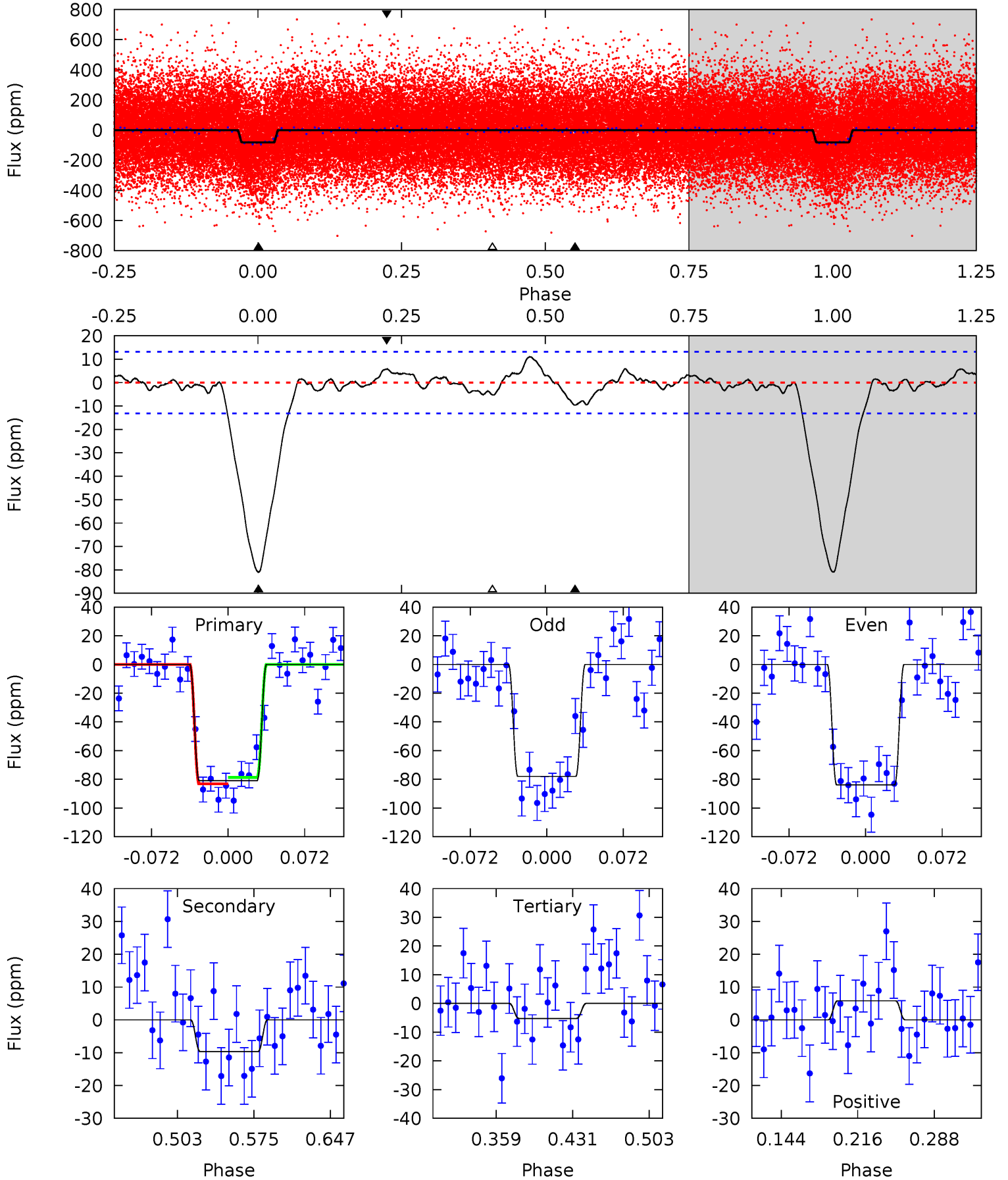
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.1	4.50	2.52	1.94	4.63	1.79	1.06	25.6	26.2	1.98	2.56	0.35	0.94	0.09	1.18



Alt Model-Shift Uniqueness Test

011074835-01, P = 6.033399 Days, E = 131.097721 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.5	3.40	1.83	2.05	4.63	1.80	1.05	26.7	26.5	1.57	1.35	1.04	0.93	0.12	0.79



Stellar Parameters For KIC 011074835

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4924^{+74}_{-66}	$3.356^{+0.140}_{-0.126}$	$-0.080^{+0.150}_{-0.100}$	$3.588^{+0.753}_{-0.616}$	$1.066^{+0.220}_{-0.118}$	$0.033^{+0.021}_{-0.013}$
	+2%/-1%	+4%/-4%	+188%/-125%	+21%/-17%	+21%/-11%	+64%/-39%
Source	SPE58	SPE58	SPE58	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011074835-01 / KOI 2533.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-13 ± 3	$3.81^{+0.80}_{-0.78}$	2227^{+119}_{-108}	3358^{+276}_{-234}	$2.165^{+1.441}_{-0.770}$
Alt.	-10 ± 3	$3.53^{+0.87}_{-0.69}$	2232^{+115}_{-108}	3268^{+295}_{-268}	$1.912^{+1.159}_{-0.807}$

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

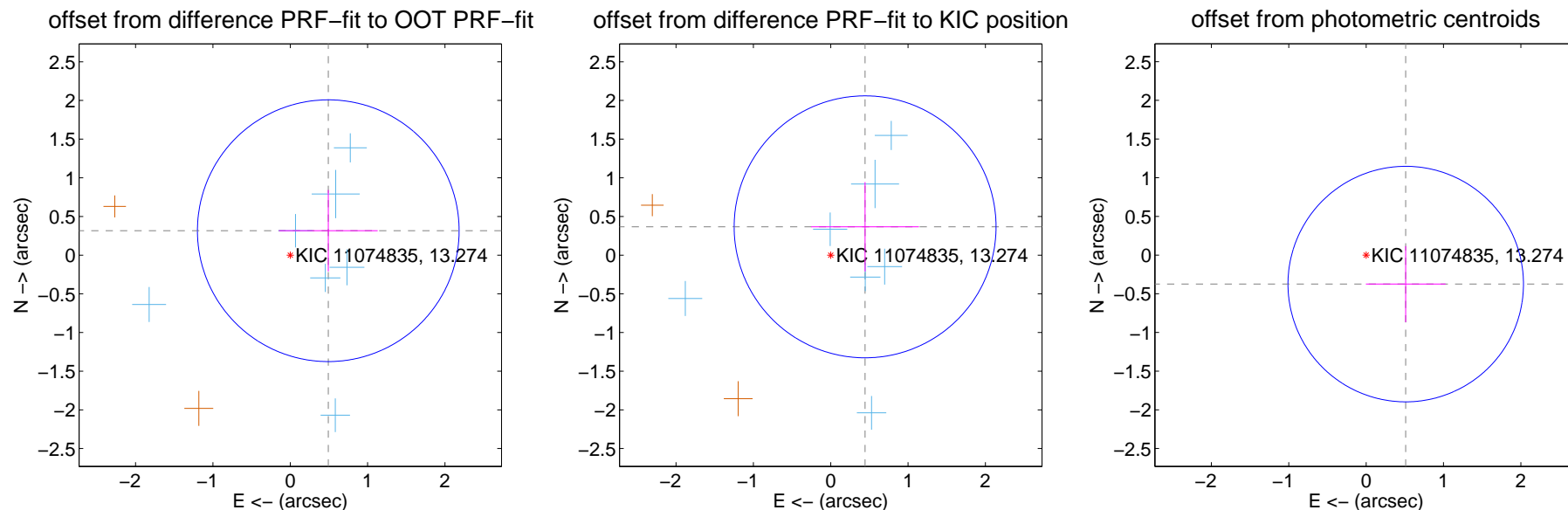
DV Centroid Data

Supplemental centroid analysis for 011074835-01. Kepler magnitude: 13.27. Transit SNR 15.88

There are 9 quarters with good PRF difference image offsets

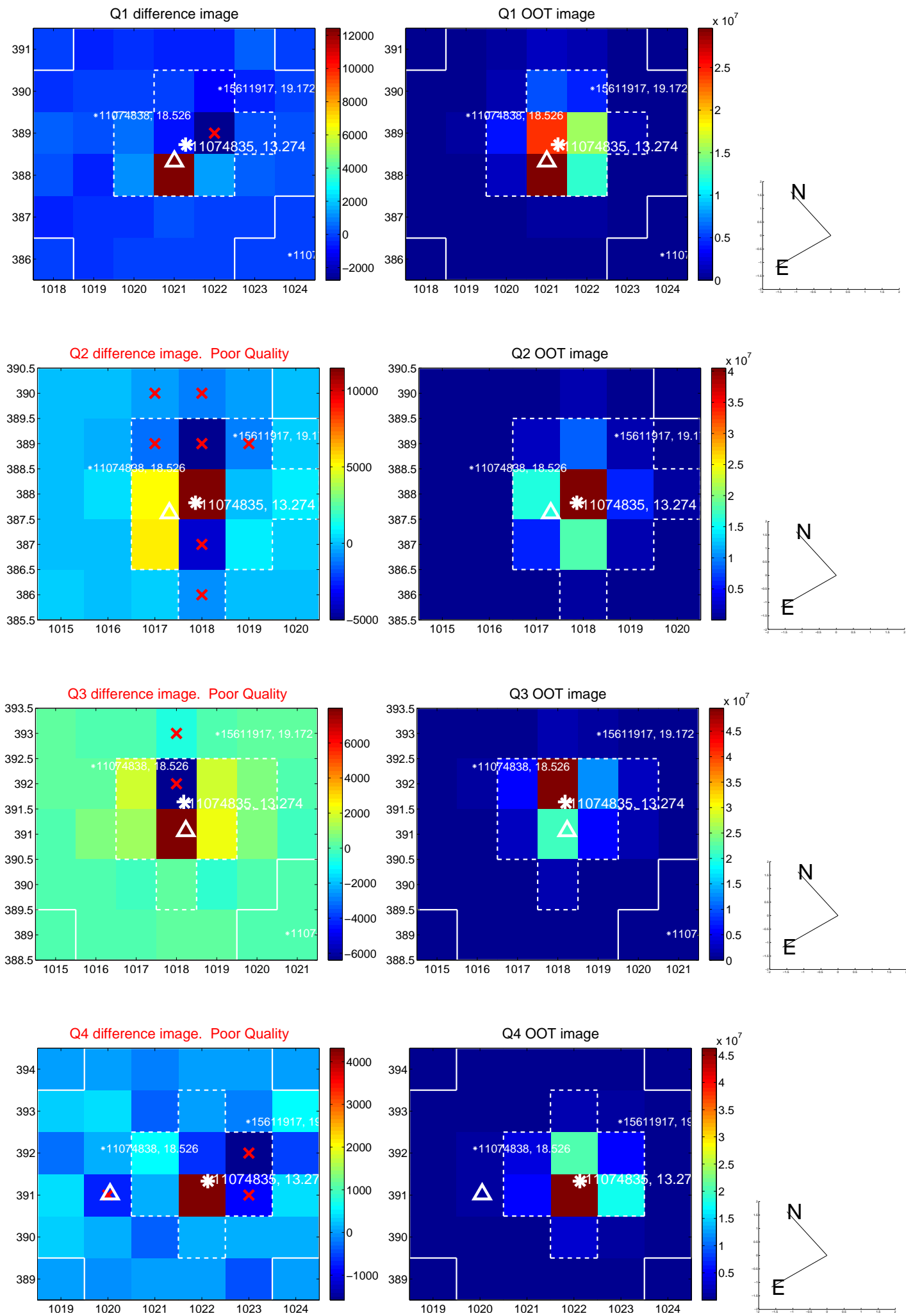
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.584 ± 0.564	1.04	-0.492 ± 0.639	0.316 ± 0.526
PRF-fit source offset from KIC position	0.576 ± 0.564	1.02	-0.445 ± 0.697	0.366 ± 0.578
photometric centroid source offset	0.63 ± 0.51	1.25	-0.51 ± 0.52	-0.37 ± 0.49

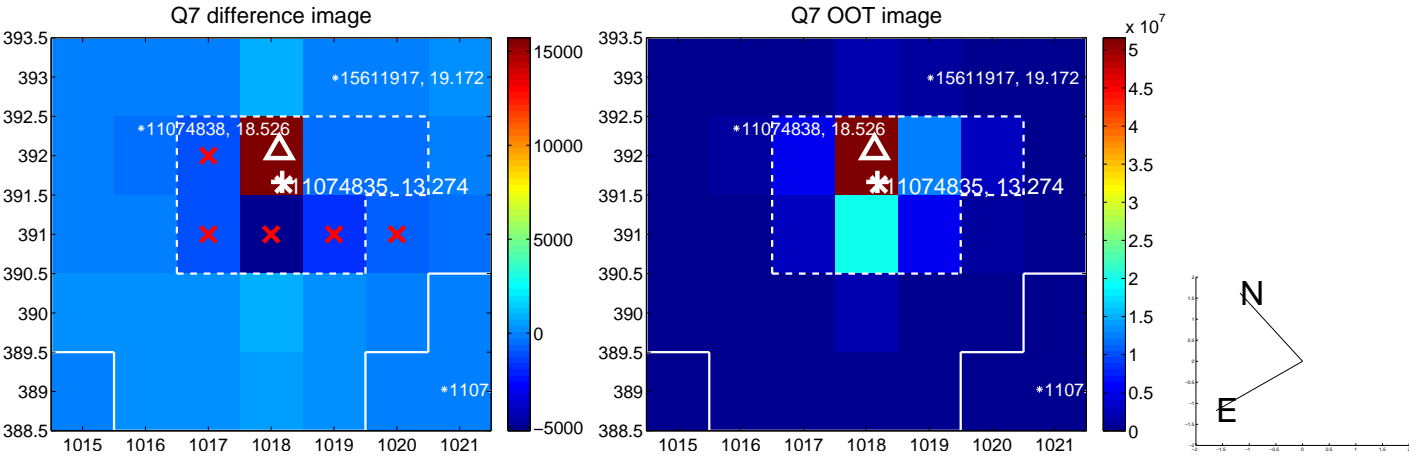
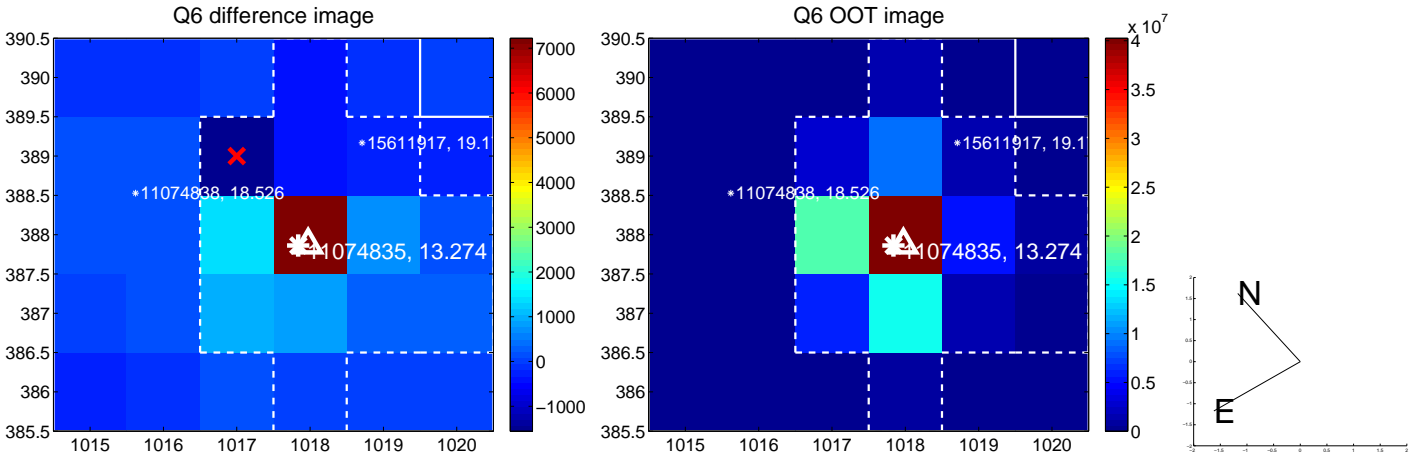
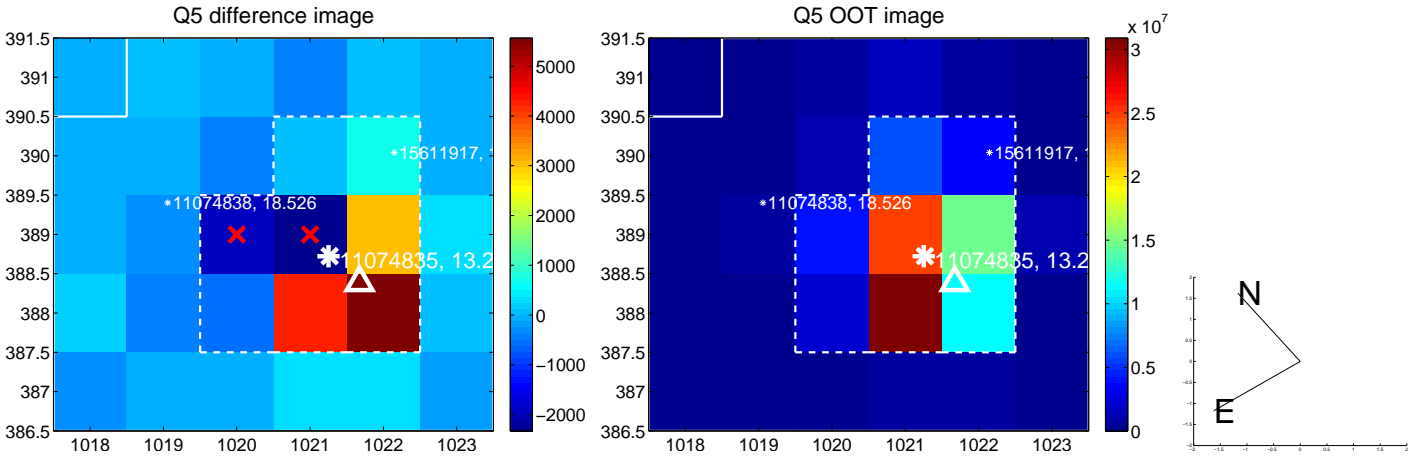


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

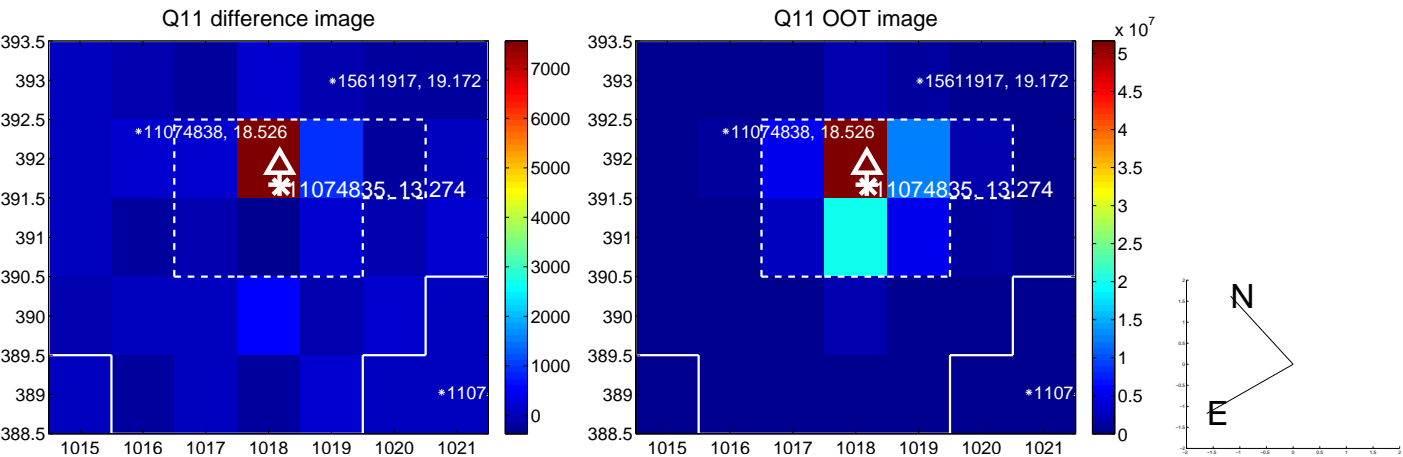
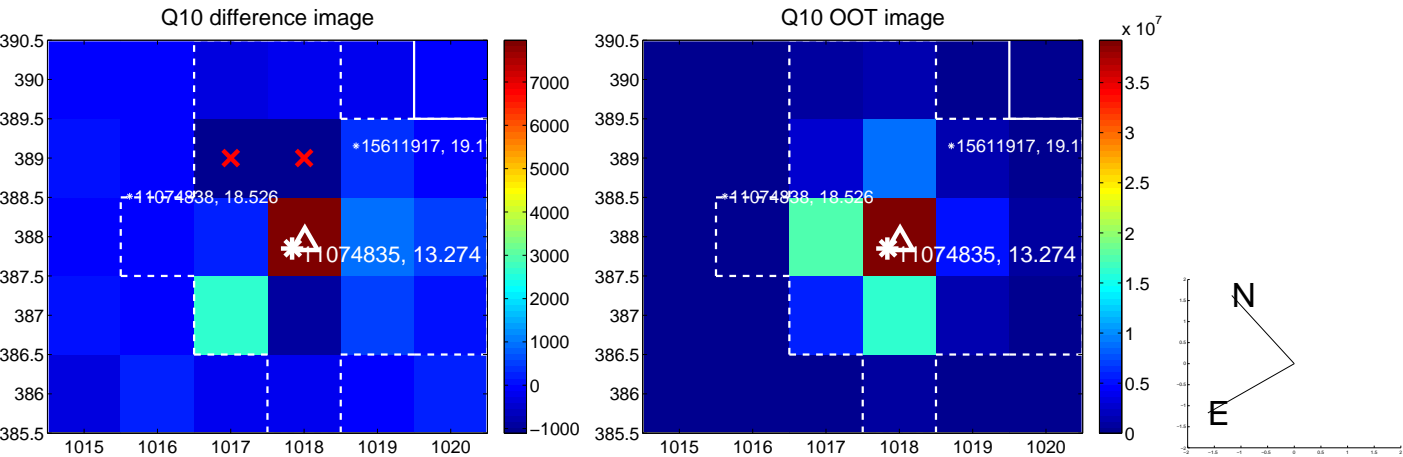
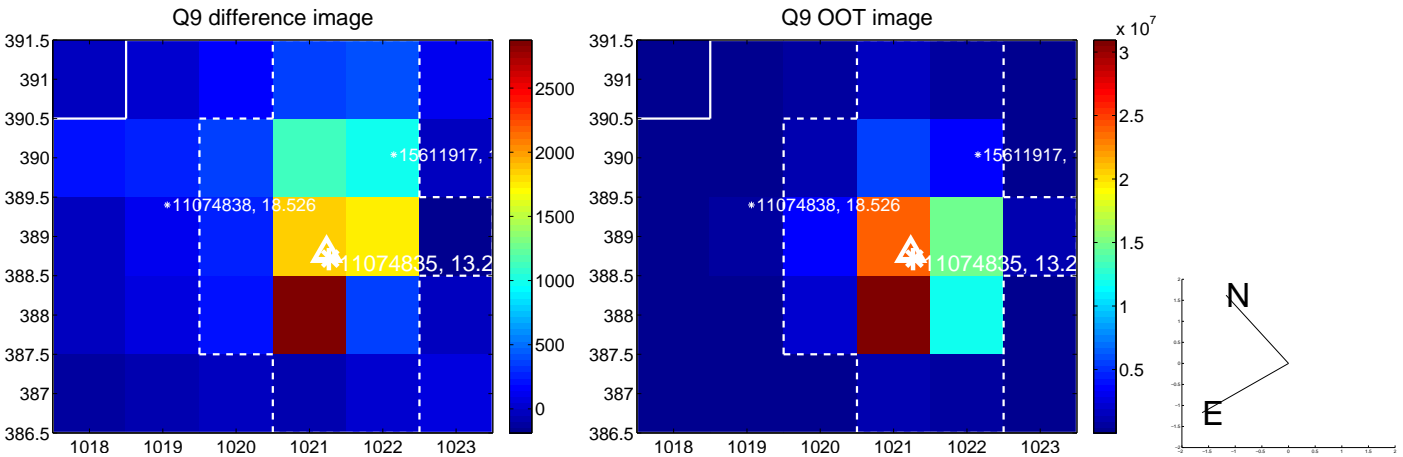
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



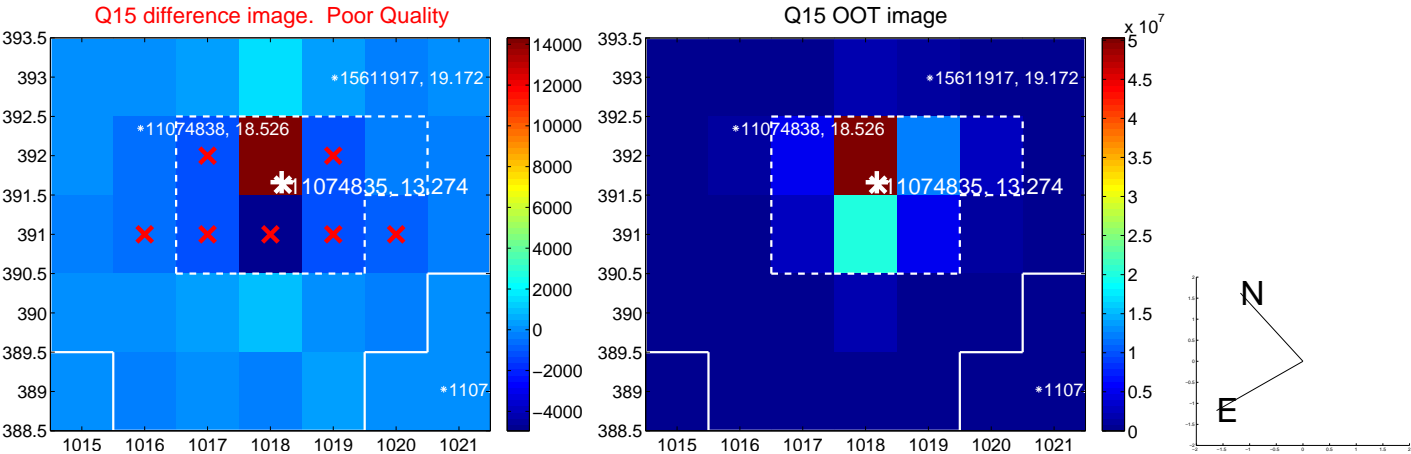
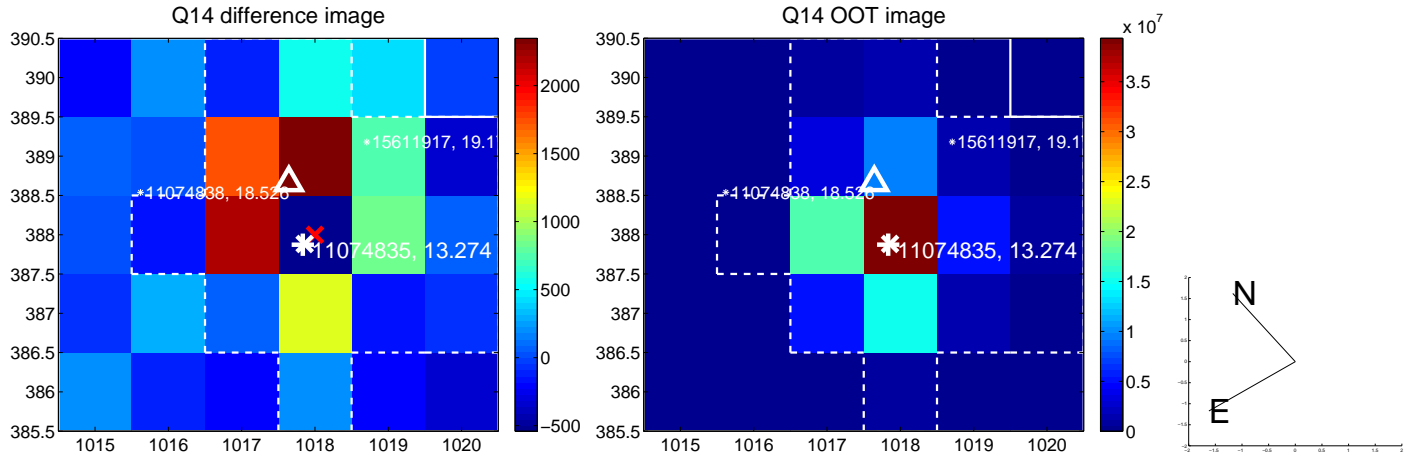
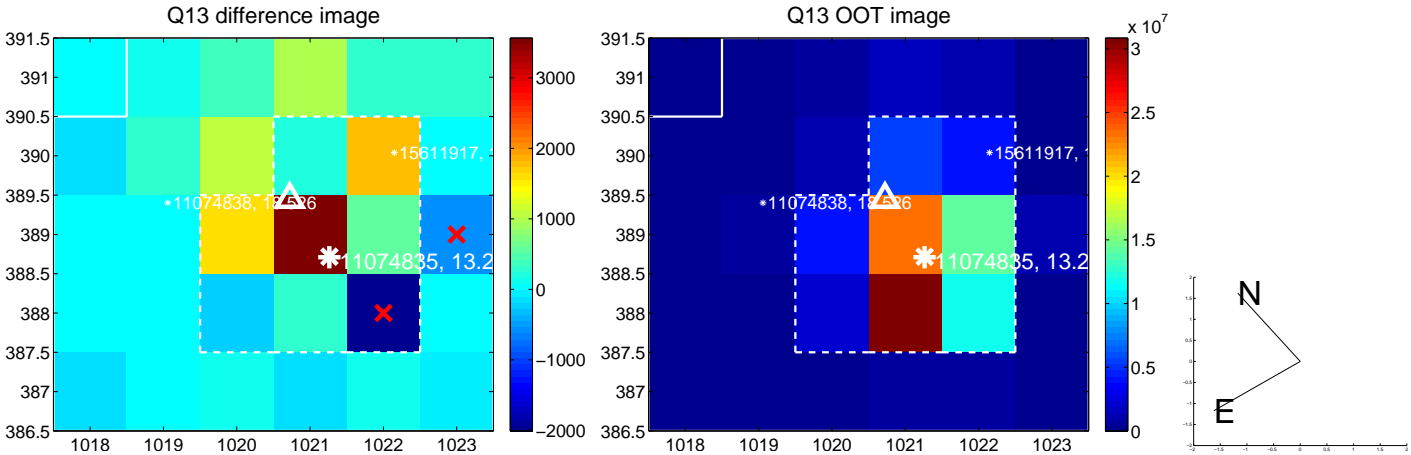
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



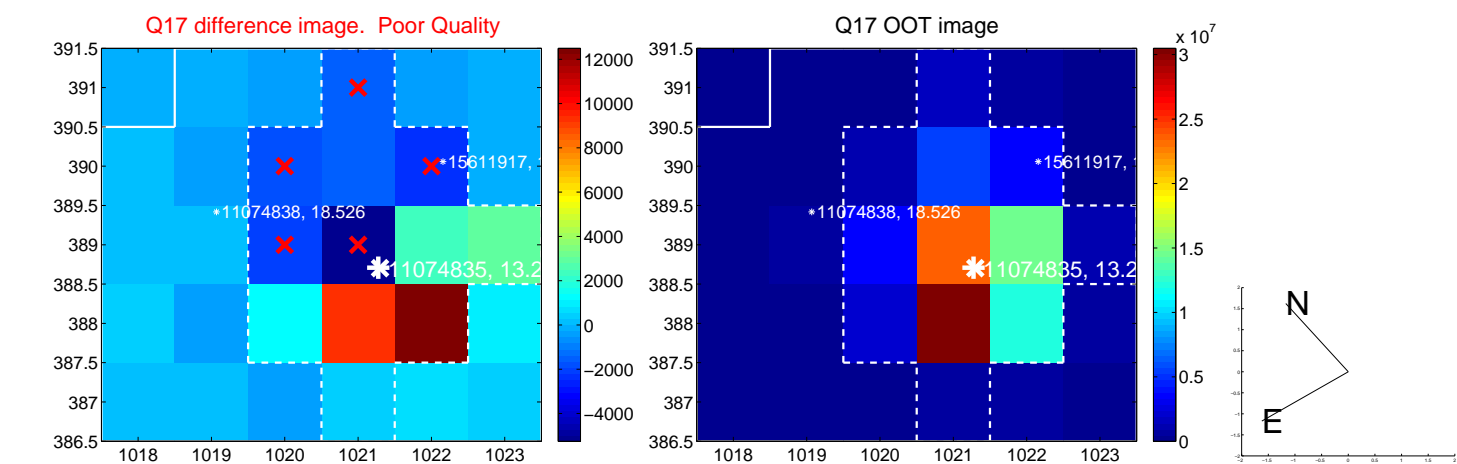
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



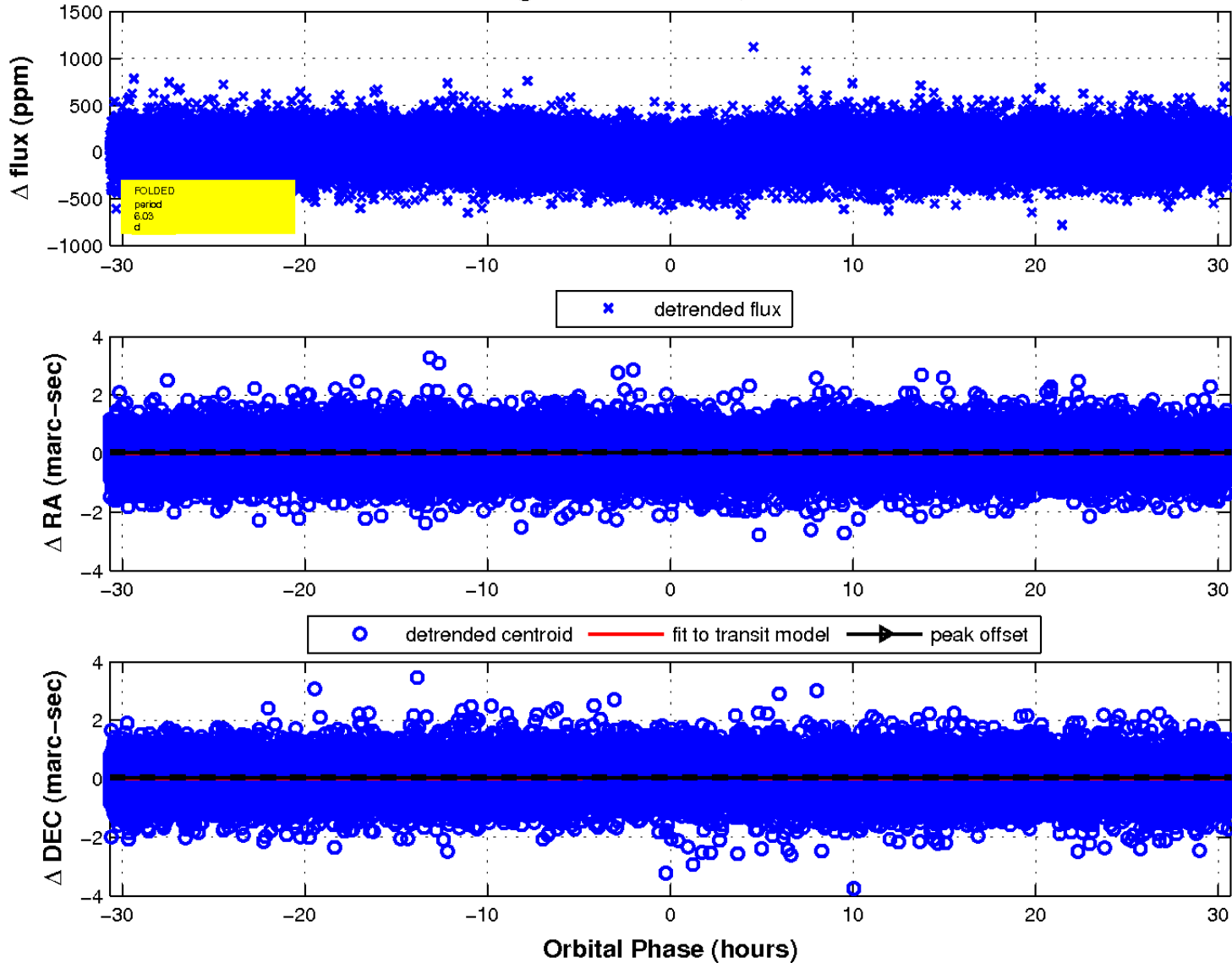
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

