

KIC 007601918

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})
007601918-01	OBS	4133.01	0.621356	131.673774	29.9	1.210	12.6	17.5	1.66	6234	1.07	17044.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007601918-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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 007601918-01

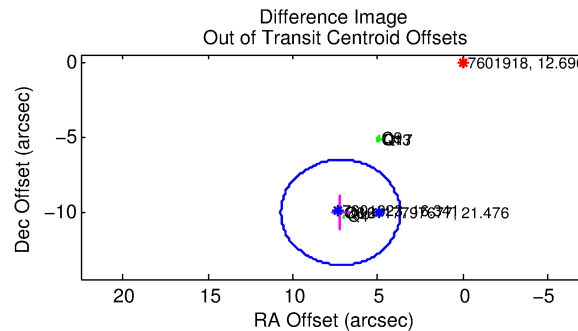
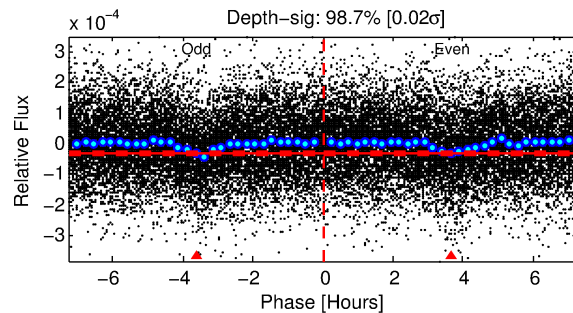
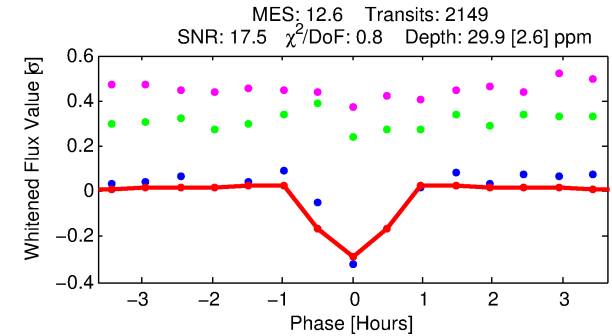
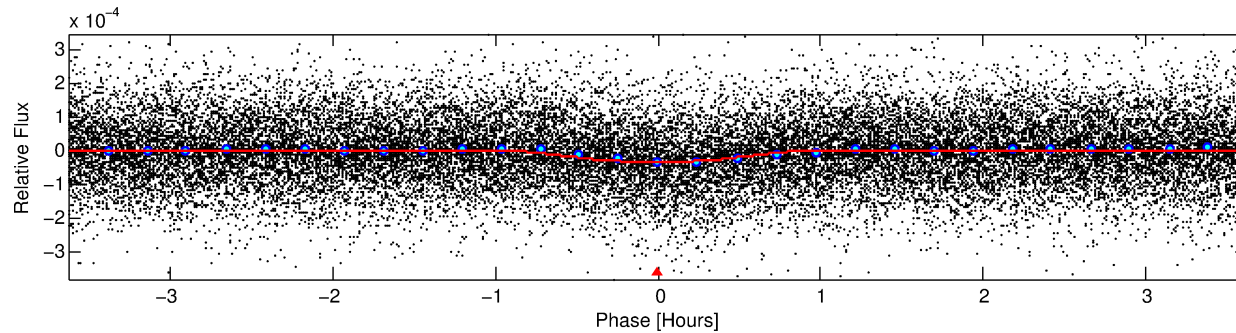
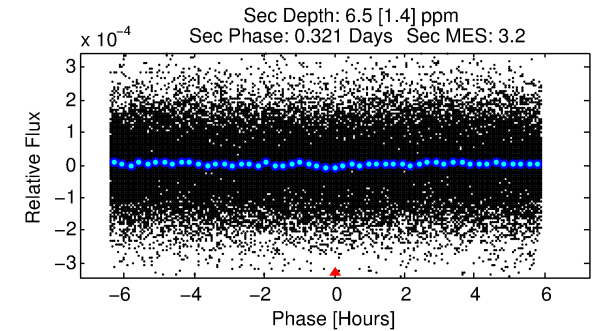
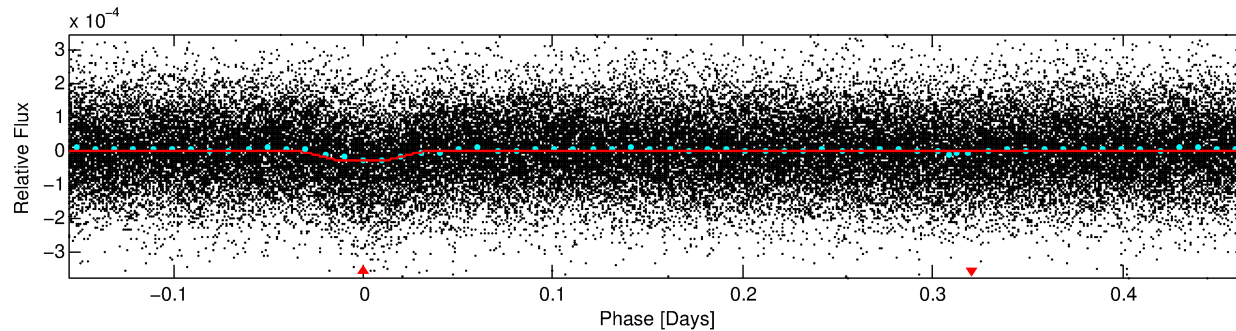
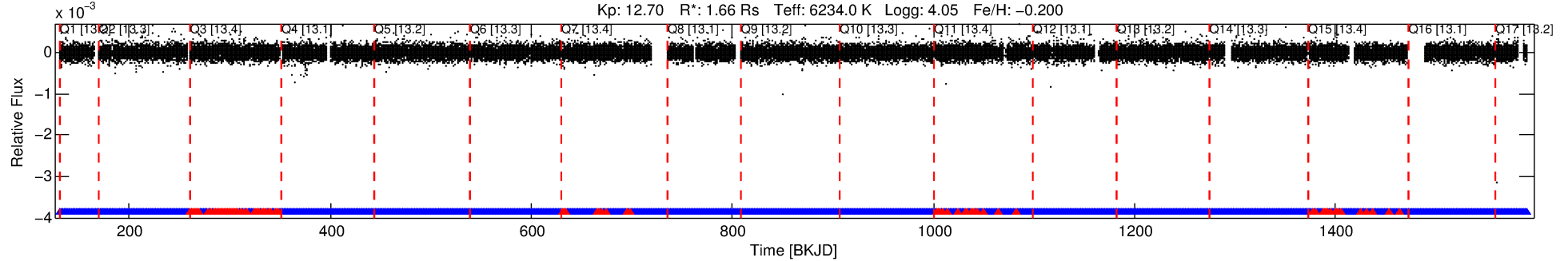
No Significant Match Found

DV One-Page Summary

KIC: 7601918 Candidate: 1 of 1 Period: 0.621 d

KOI: K04133.01 Corr: 0.902

Kp: 12.70 R*: 1.66 Rs Teff: 6234.0 K Logg: 4.05 Fe/H: -0.200



DV Fit Results:

Period = 0.62136 [0.00001] d
Epoch = 131.6738 [0.0011] BKJD
Rp/R* = 0.0059 [0.0009]
a/R* = 1.97 [1.13]
b = 0.90 [0.16]
Seff = 17044.30 [7179.09]
Teff = 2914 [307] K
Rp = 1.07 [0.34] Re
a = 0.0148 [0.0038] AU
Ag = 0.68 [0.37] [-0.87σ]
Teffp = 4089 [394] K [2.35σ]

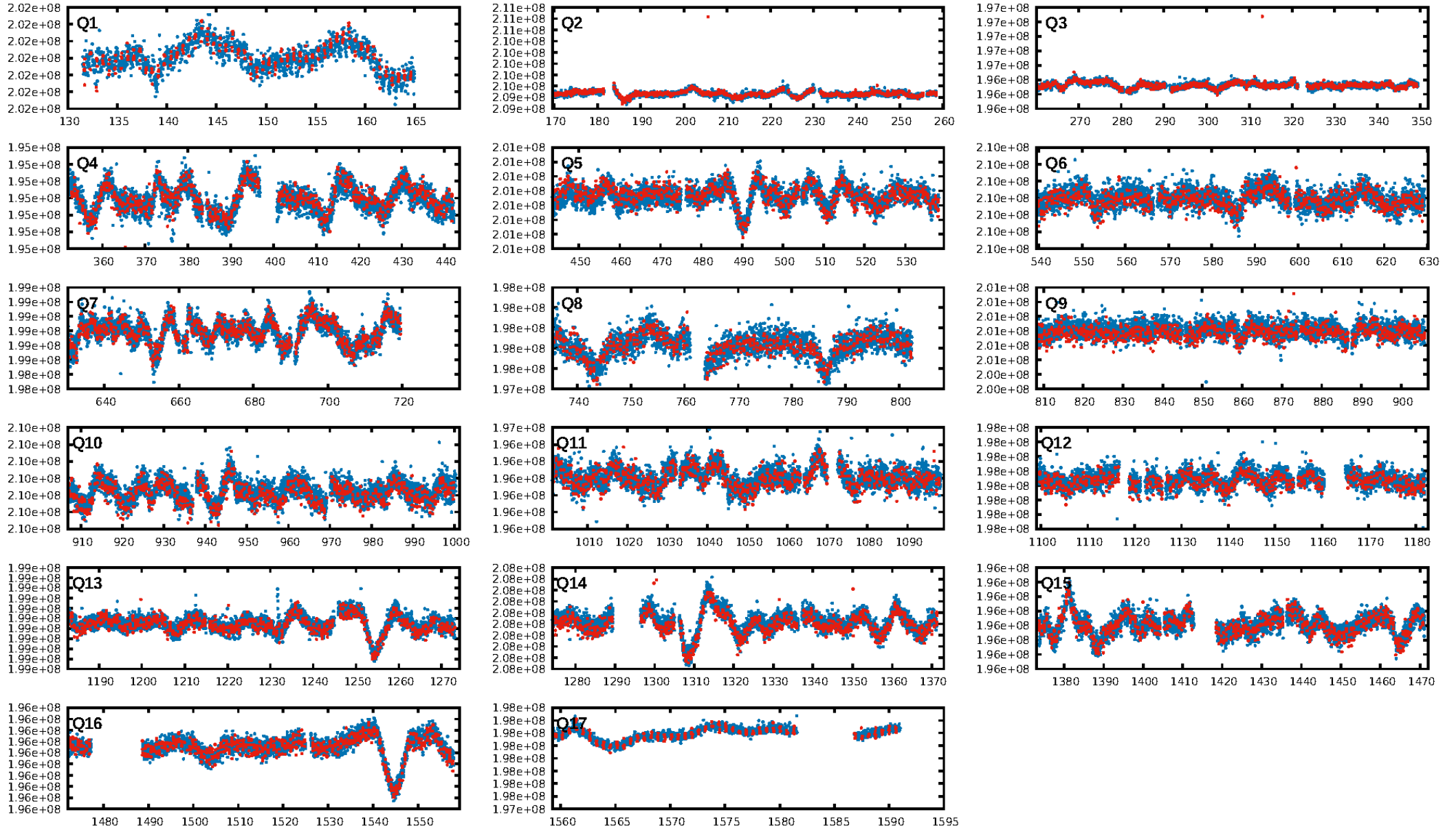
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.24e-32
RollingBand-fgt: 0.94 [1934/2052]
GhostDiagnostic-chr: -0.9479
Centroid-sig: 0.0%
Centroid-so: 10.087 arcsec [14.27σ]
OotOffset-rm: 12.362 arcsec [10.55σ]
KicOffset-rm: 12.403 arcsec [12.80σ]
OotOffset-st: 0/0/4/3 [7]
KicOffset-st: 0/0/4/3 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [17/17]

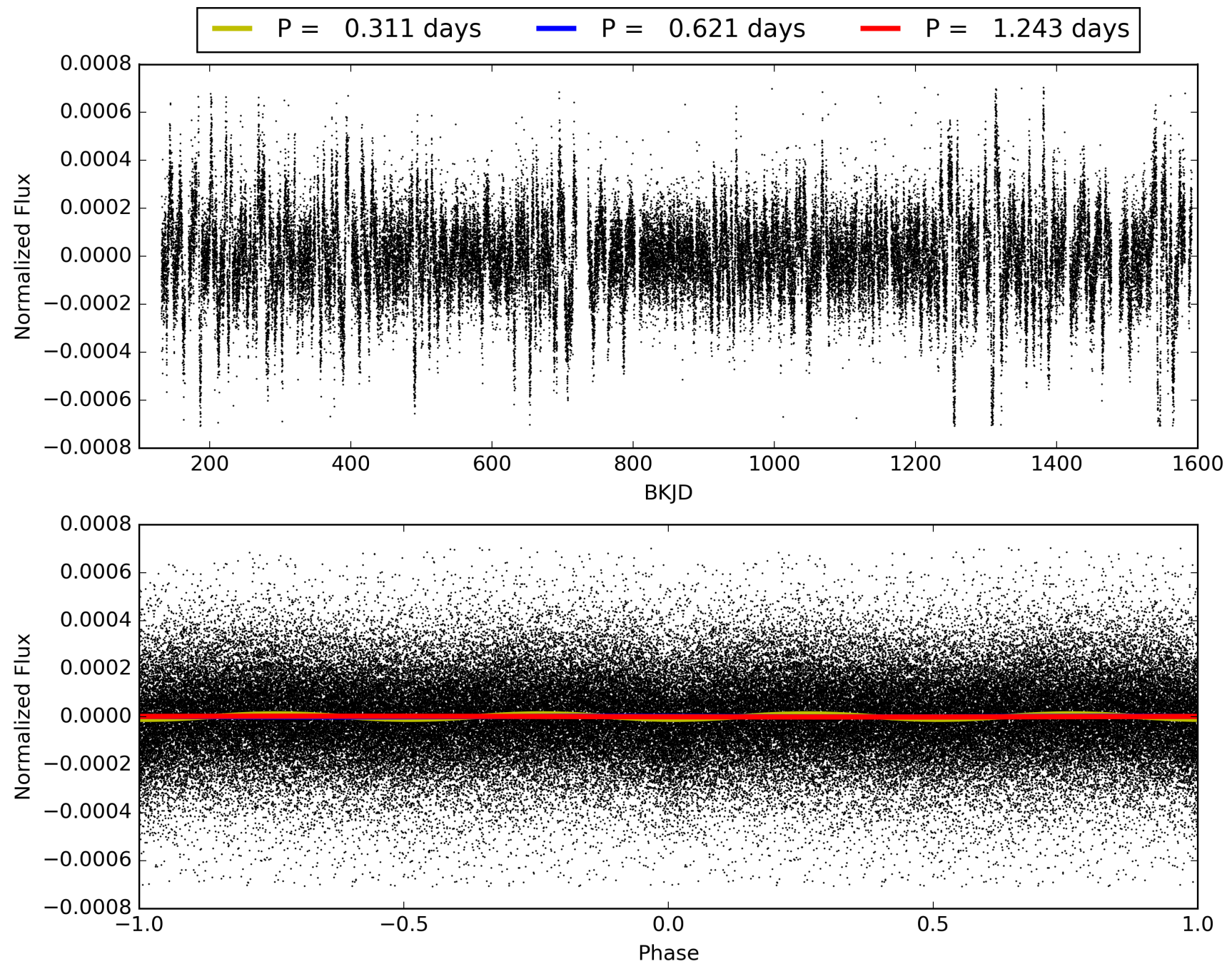
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:41:22 Z

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

TCE 007601918-01, PDC Light Curves

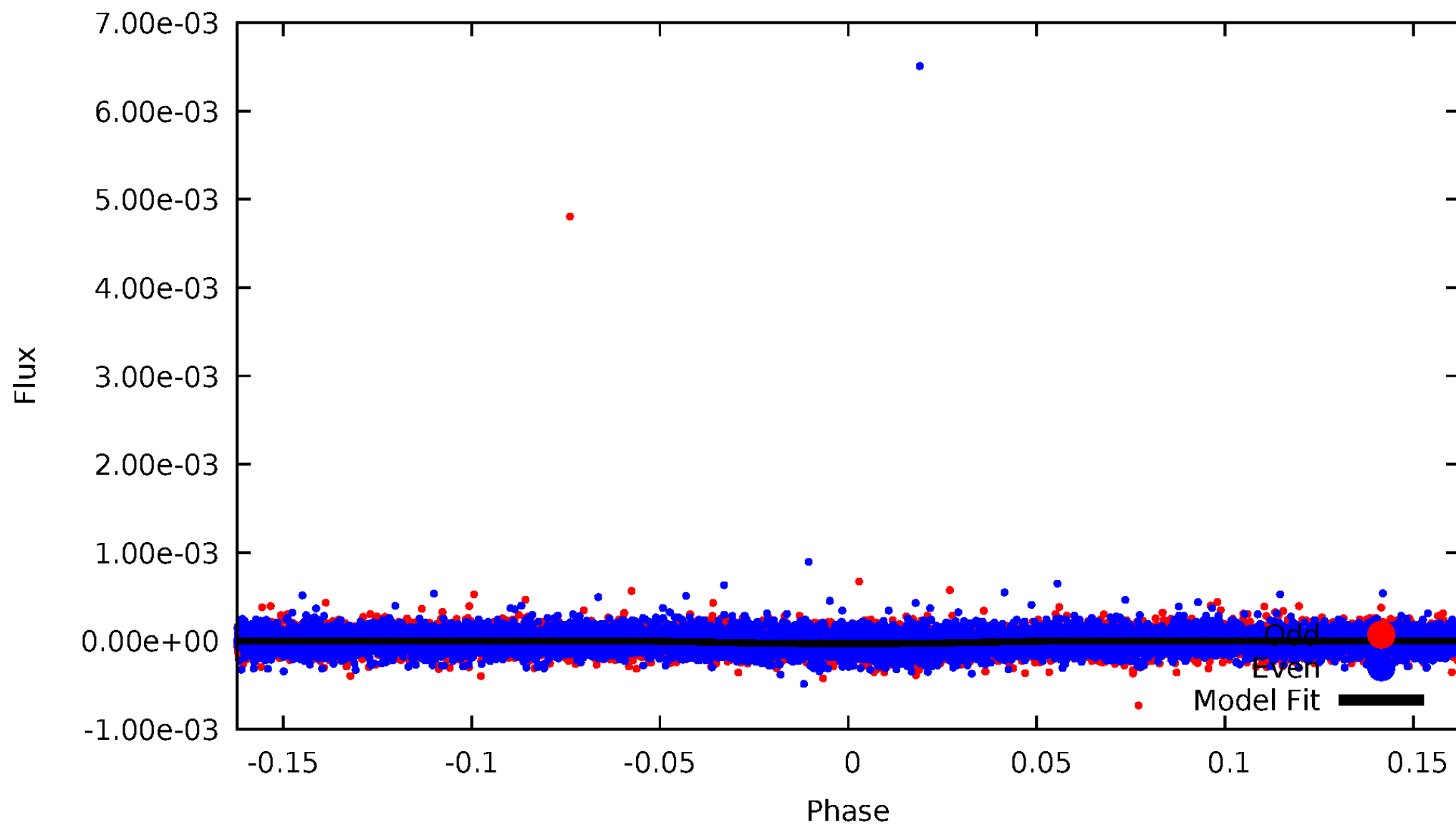


TCE 007601918-01



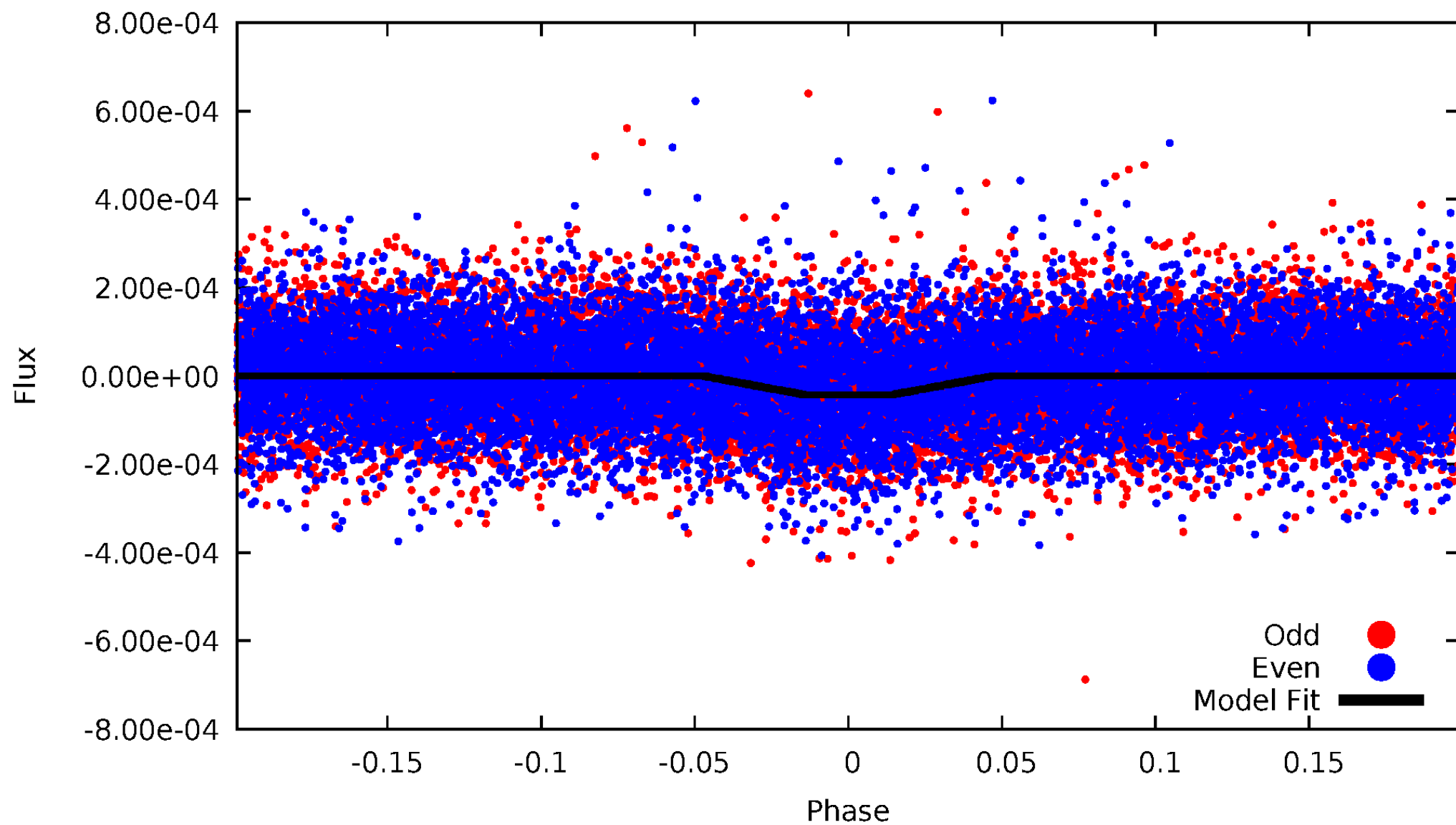
DV Odd/Even

TCE 007601918-01



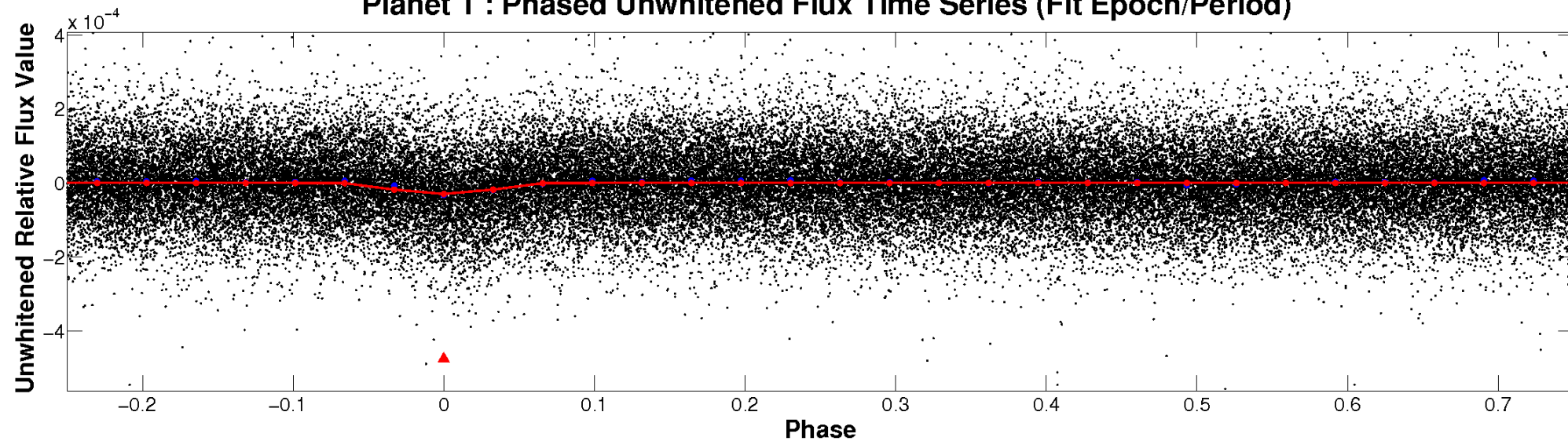
ALT Odd/Even

TCE 007601918-01

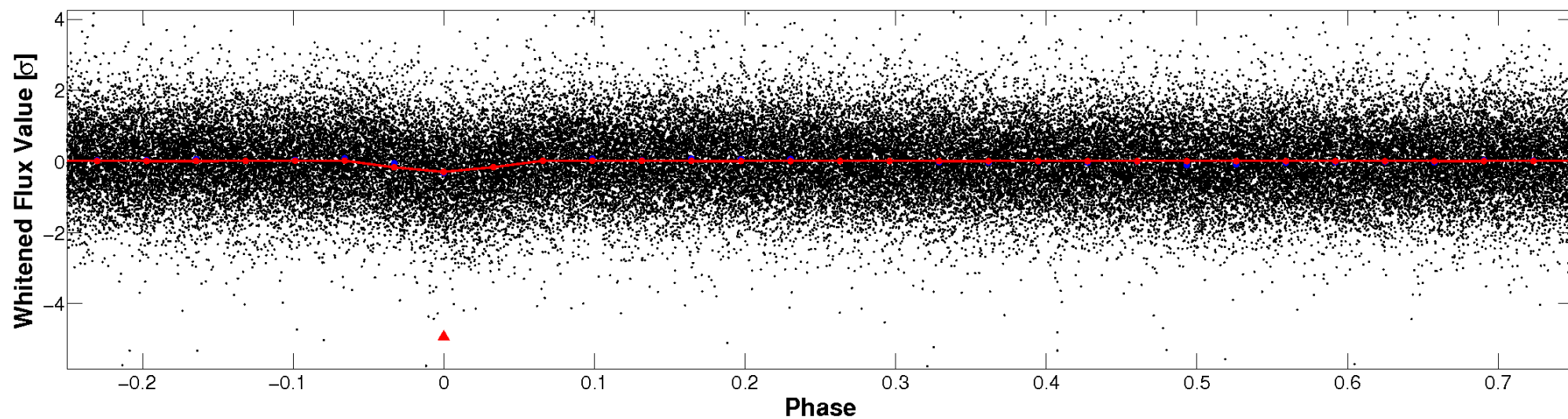


Non-Whitened Vs. Whitened Light Curve

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

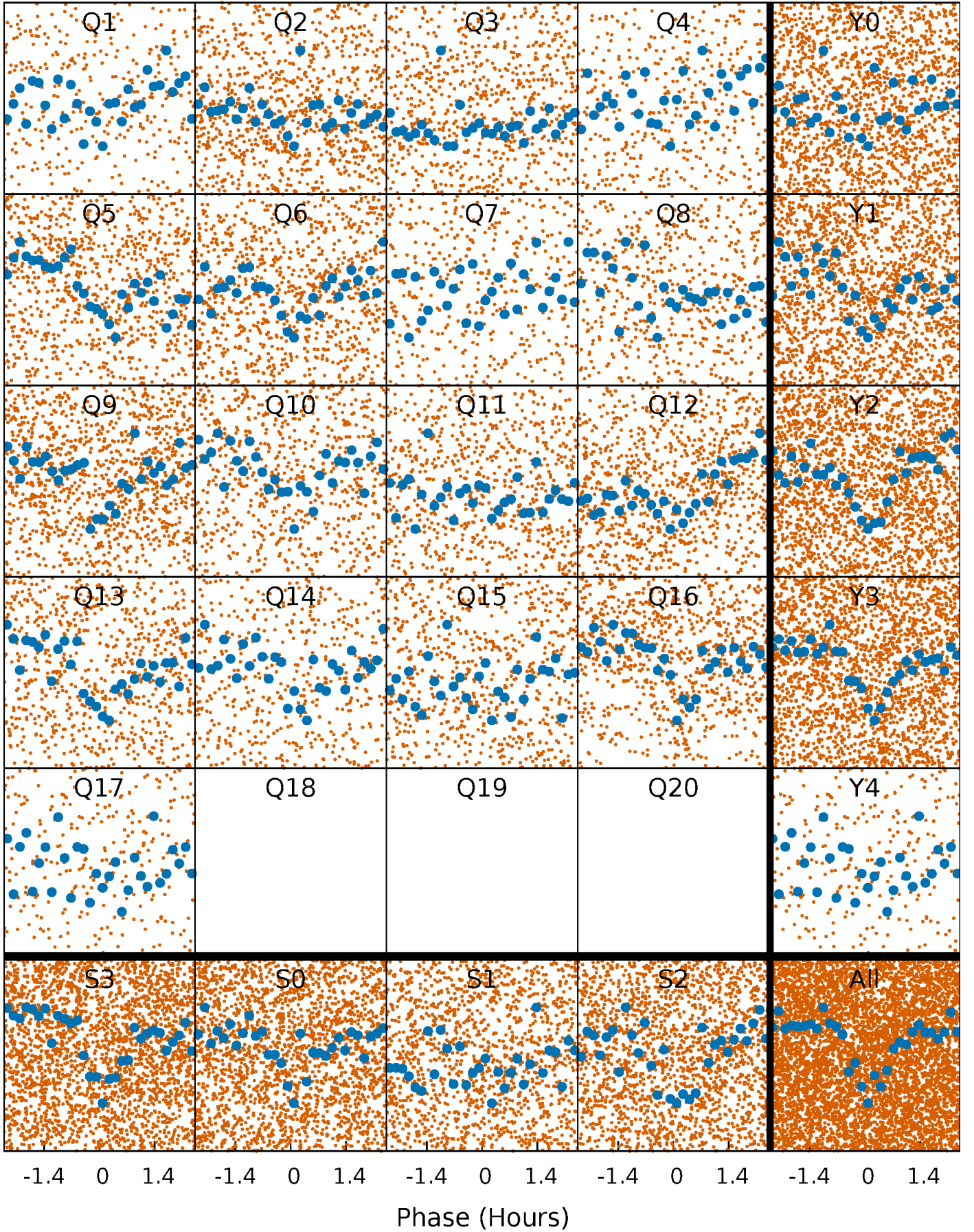


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



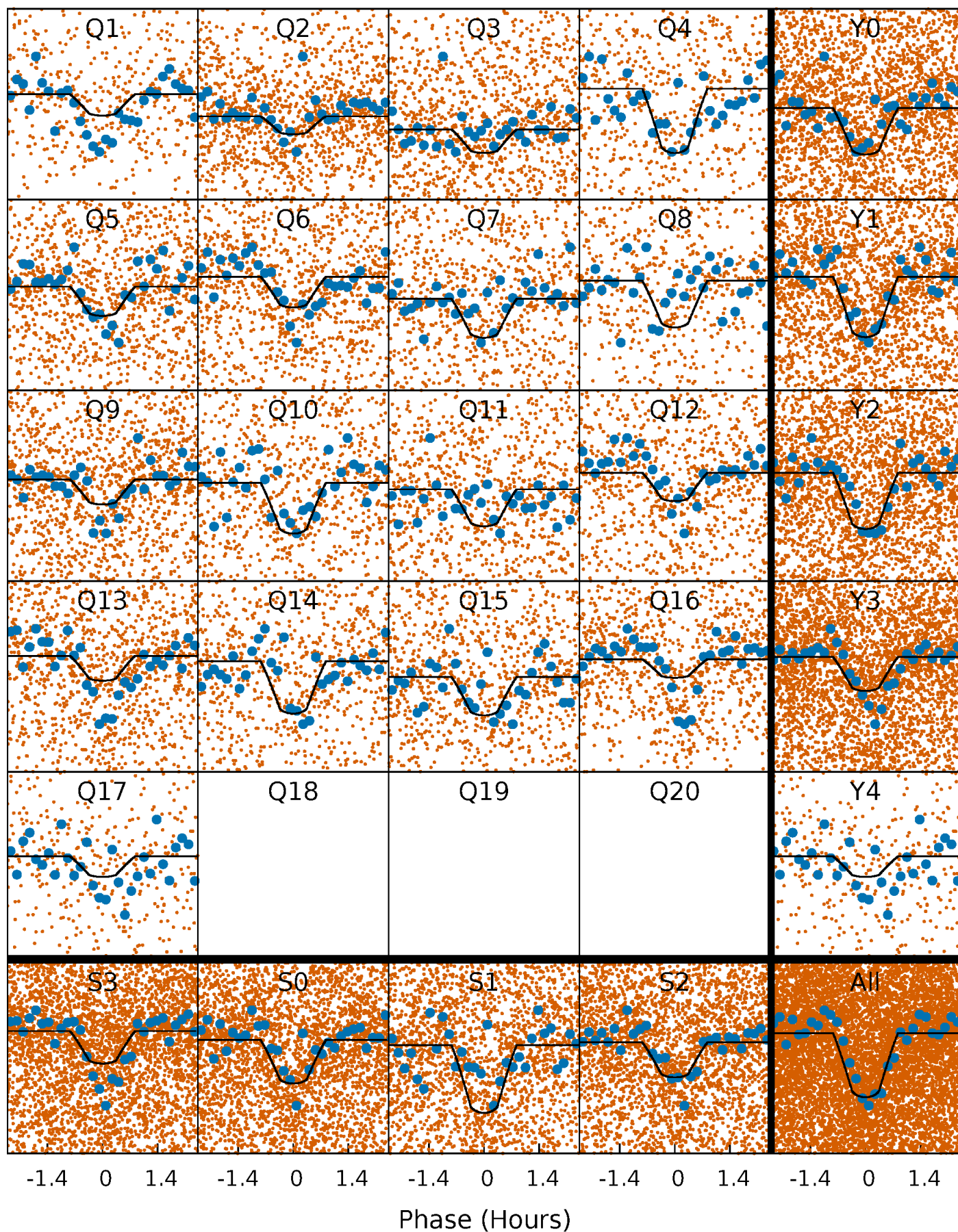
PDC Quarter-Phased Transit Curves

TCE 007601918-01 P= 0.621356 Days $T_0=131.673774$ (BKJD)



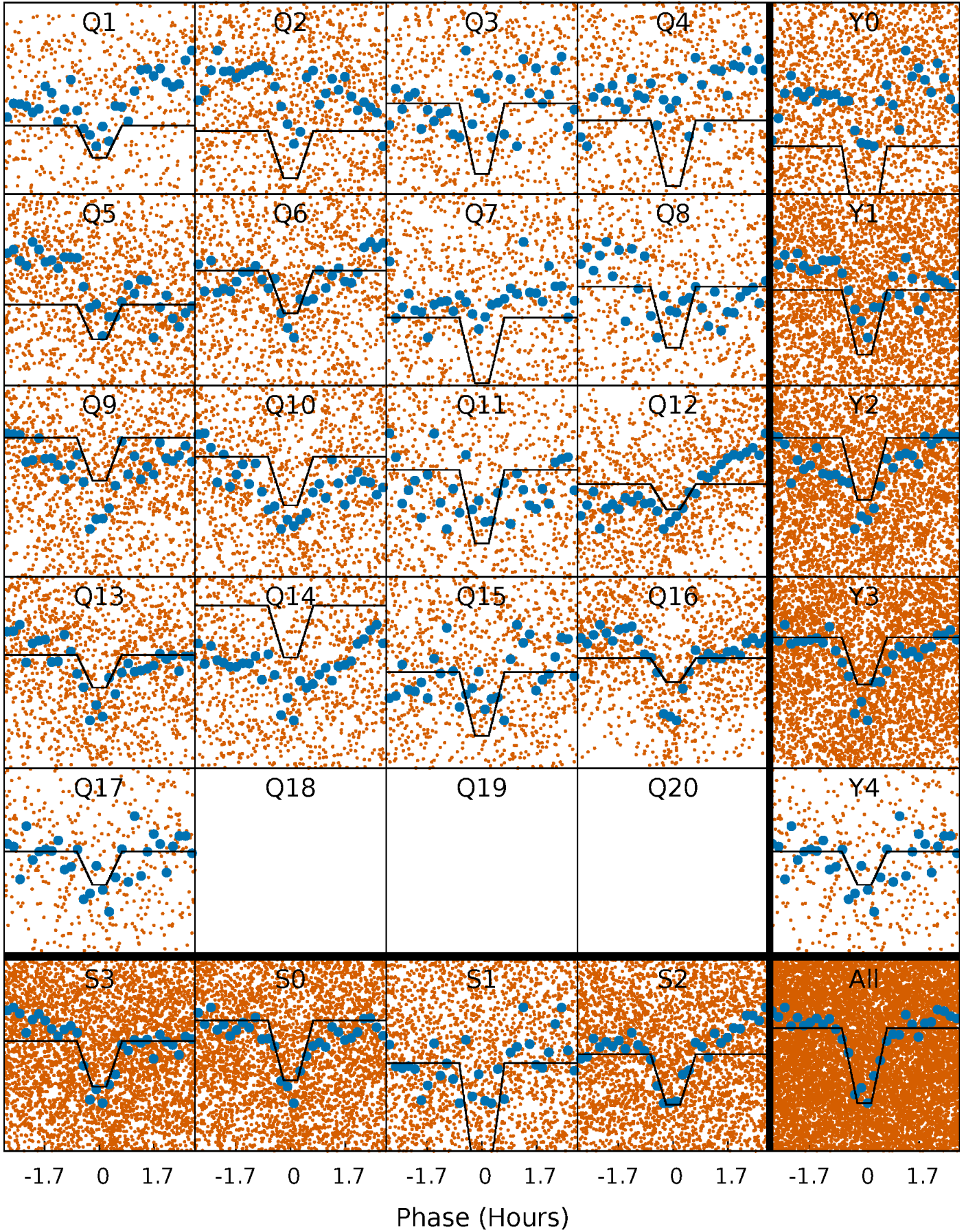
DV Quarter-Phased Transit Curves

TCE 007601918-01 P= 0.621356 Days $T_0=131.673774$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

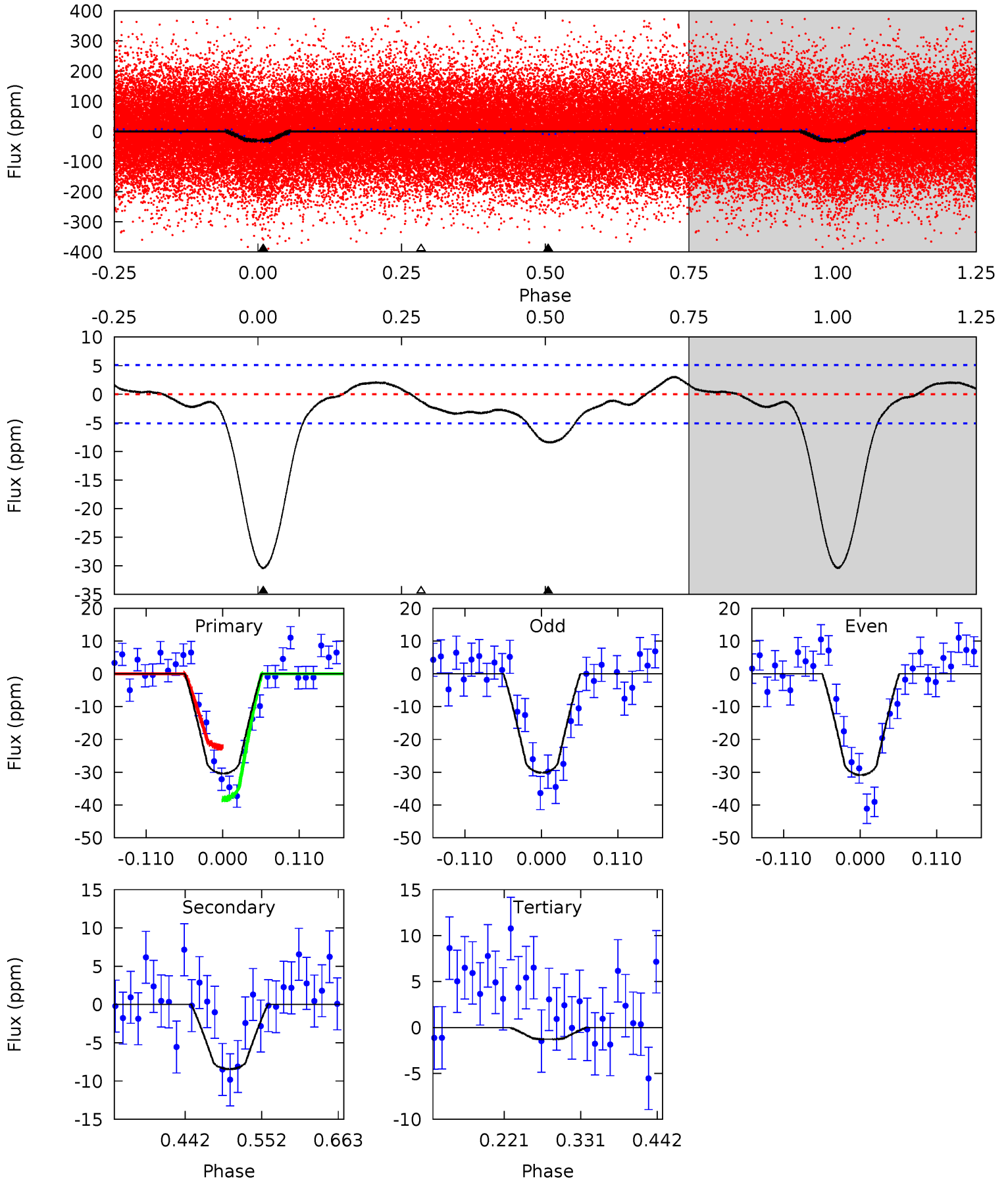
TCE 007601918-01 P= 0.621363 Days $T_0=131.671258$ (BKJD)



DV Model-Shift Uniqueness Test

007601918-01, P = 0.621356 Days, E = 131.052418 Days

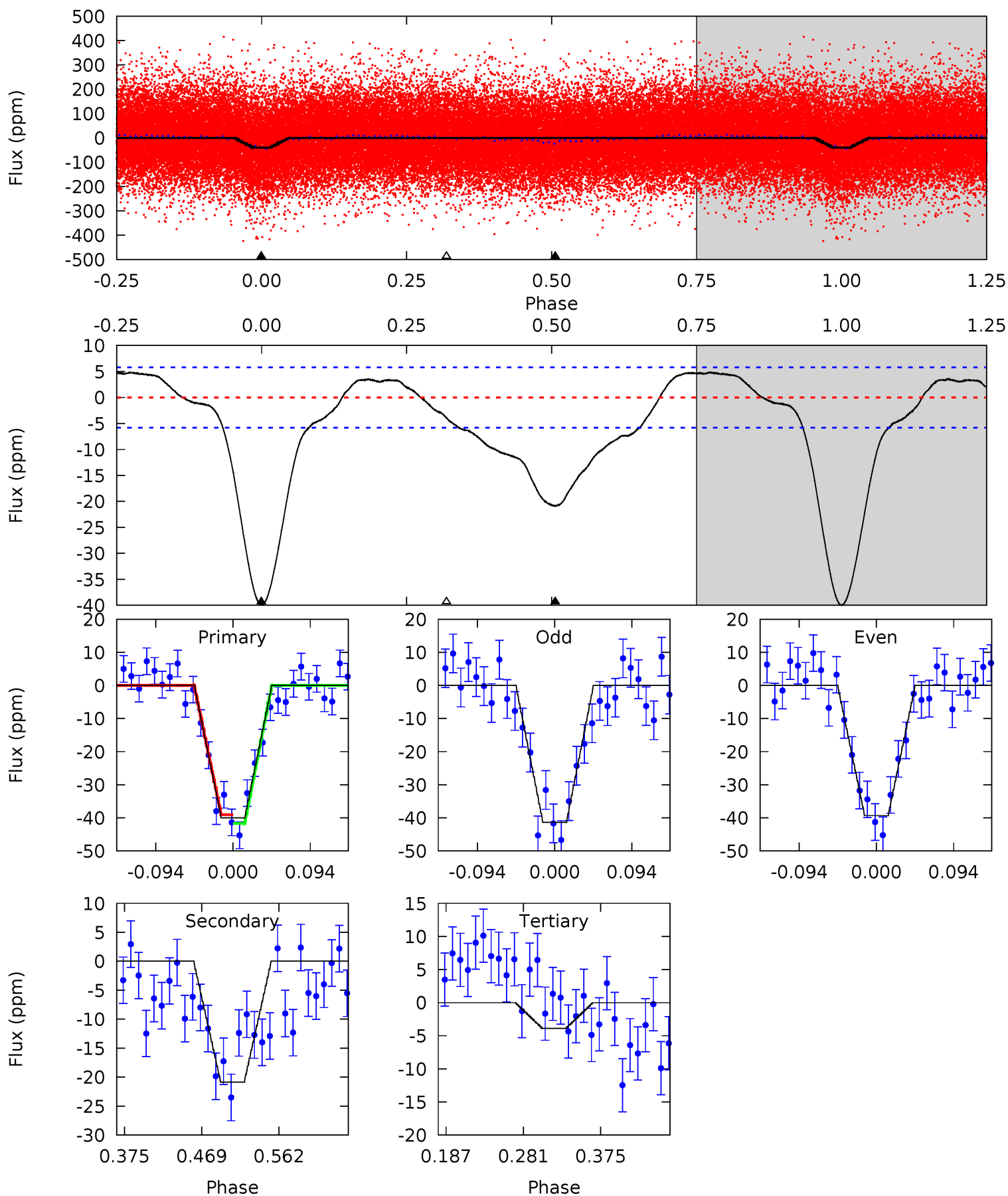
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.2	7.54	1.15	0	4.54	1.60	1.62	26.0	27.2	6.39	7.54	0.32	0.98	0.09	7.04



Alt Model-Shift Uniqueness Test

007601918-01, P = 0.621363 Days, E = 131.049895 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.5	16.4	3.08	0	4.58	1.68	3.56	28.4	31.5	13.4	16.4	0.80	0.99	0.11	1.02



Stellar Parameters For KIC 007601918

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6234^{+169}_{-188}	$4.046^{+0.234}_{-0.126}$	$-0.200^{+0.250}_{-0.300}$	$1.660^{+0.375}_{-0.458}$	$1.116^{+0.190}_{-0.155}$	$0.344^{+0.490}_{-0.133}$
	+3%/-3%	+6%/-3%	+125%/-150%	+23%/-28%	+17%/-14%	+143%/-39%
Source	PHO1	FLK73	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 007601918-01 / KOI 4133.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 1	$1.05^{+0.22}_{-0.21}$	4013^{+251}_{-291}	4212^{+422}_{-409}	$0.951^{+0.503}_{-0.322}$
Alt.	-21 ± 1	$1.13^{+0.25}_{-0.20}$	4013^{+256}_{-289}	5087^{+434}_{-371}	$1.970^{+0.962}_{-0.624}$

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

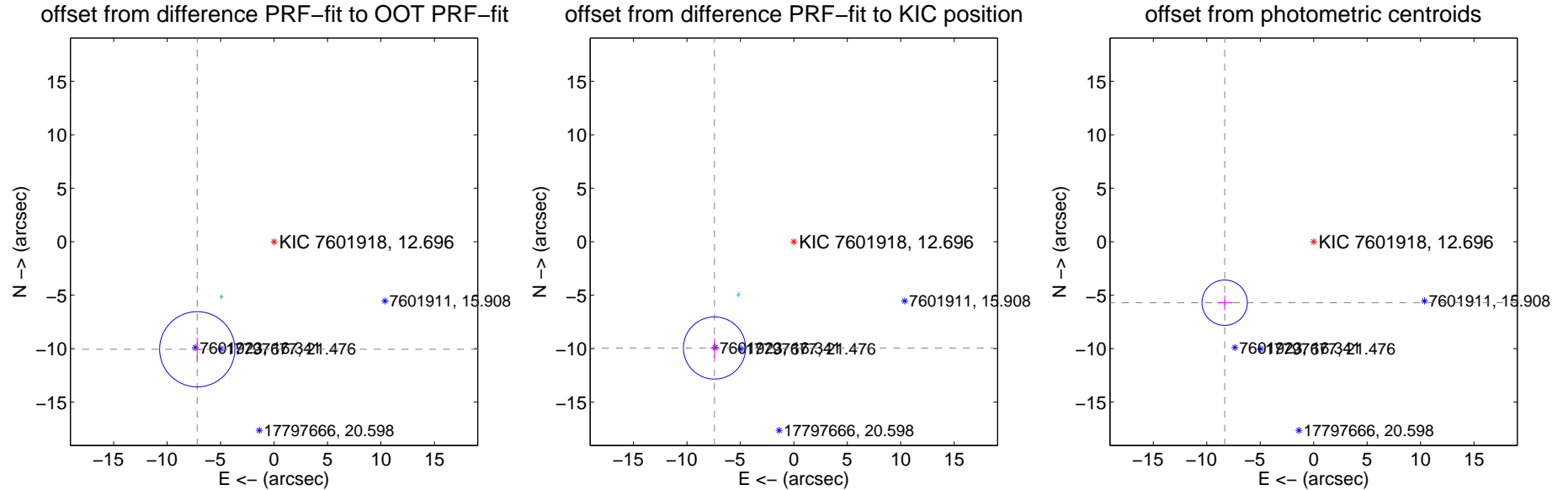
DV Centroid Data

Supplemental centroid analysis for 007601918-01. Kepler magnitude: 12.70. Transit SNR 17.48

There are 7 quarters with good PRF difference image offsets

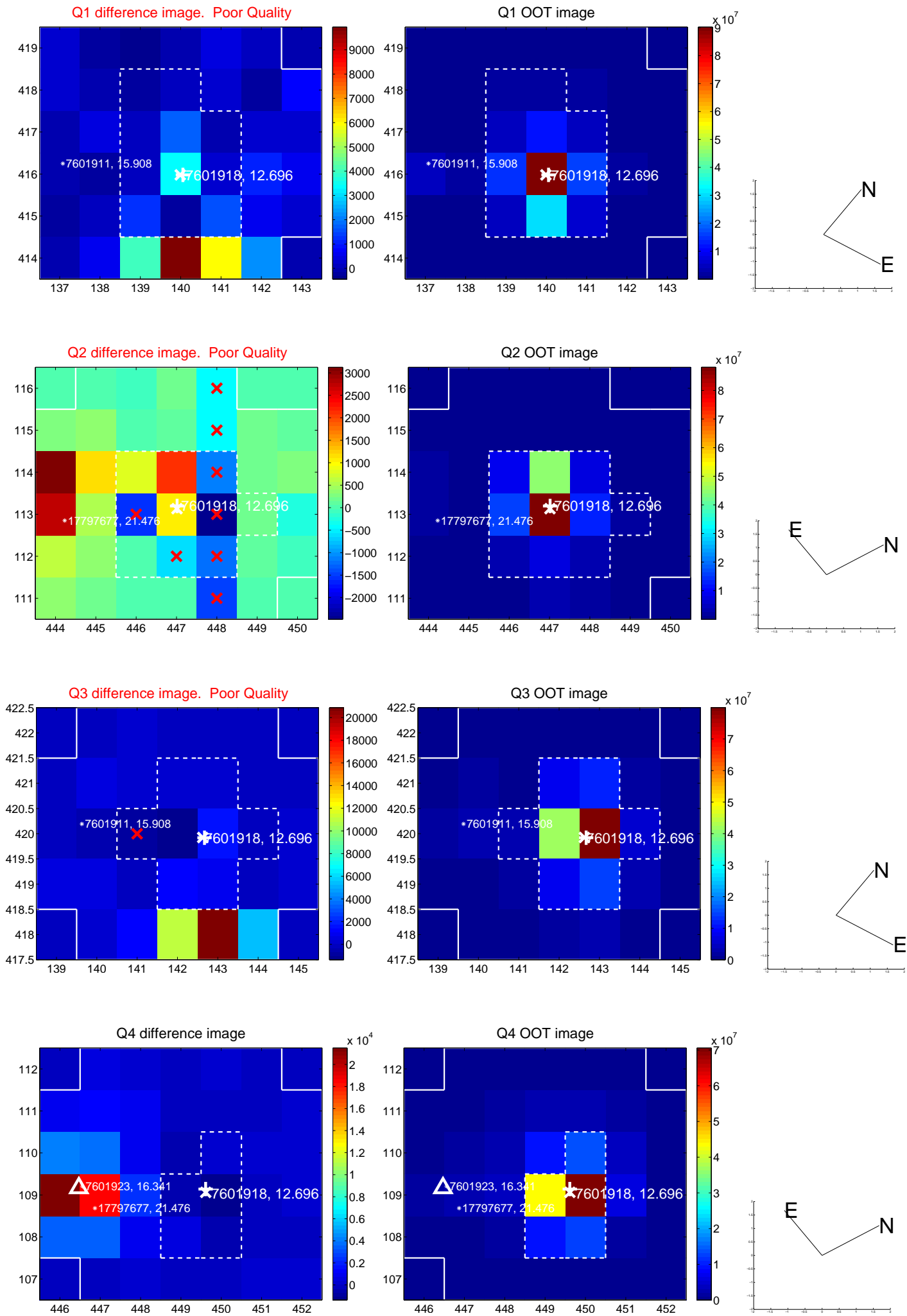
The direct PRF centroid is offset from the target star catalog position by about 0.34 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	12.362 ± 1.172	10.55	7.188 ± 0.479	-10.057 ± 1.103
PRF-fit source offset from KIC position	12.403 ± 0.969	12.80	7.422 ± 0.399	-9.938 ± 0.916
photometric centroid source offset	10.09 ± 0.71	14.27	8.32 ± 0.72	-5.70 ± 0.67

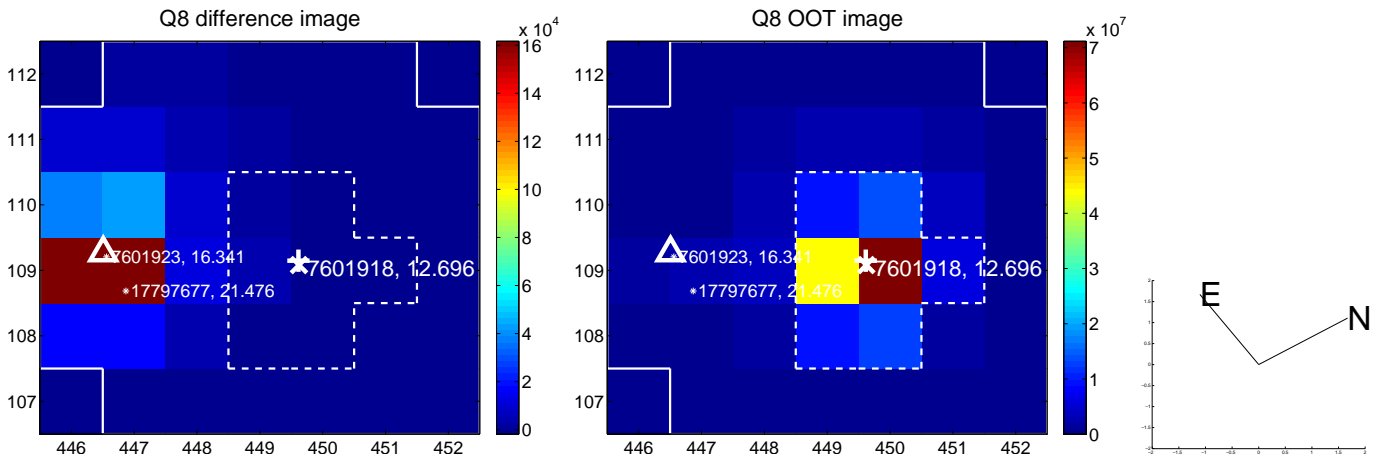
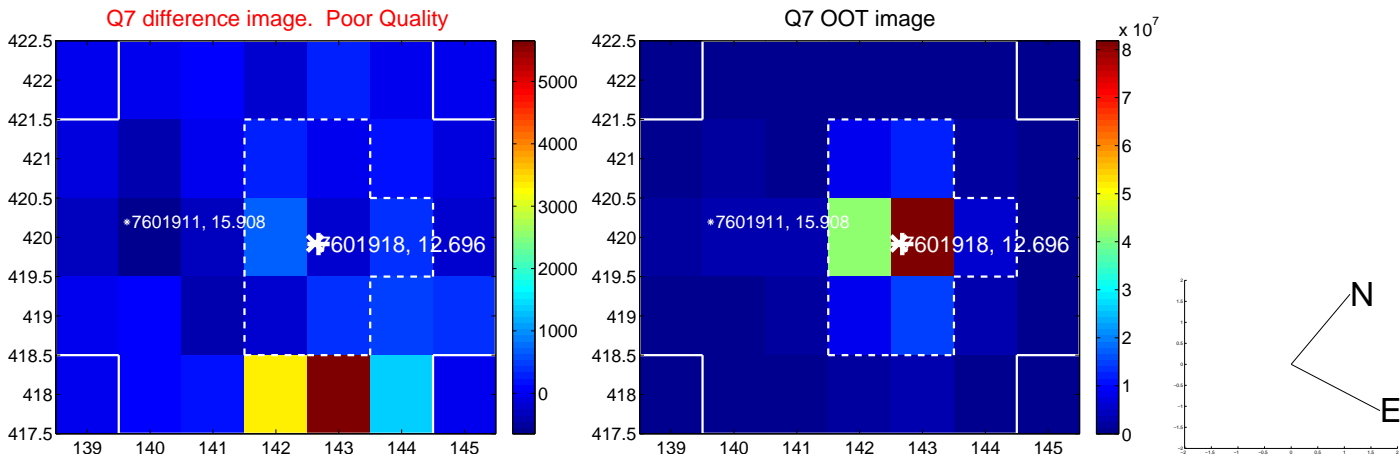
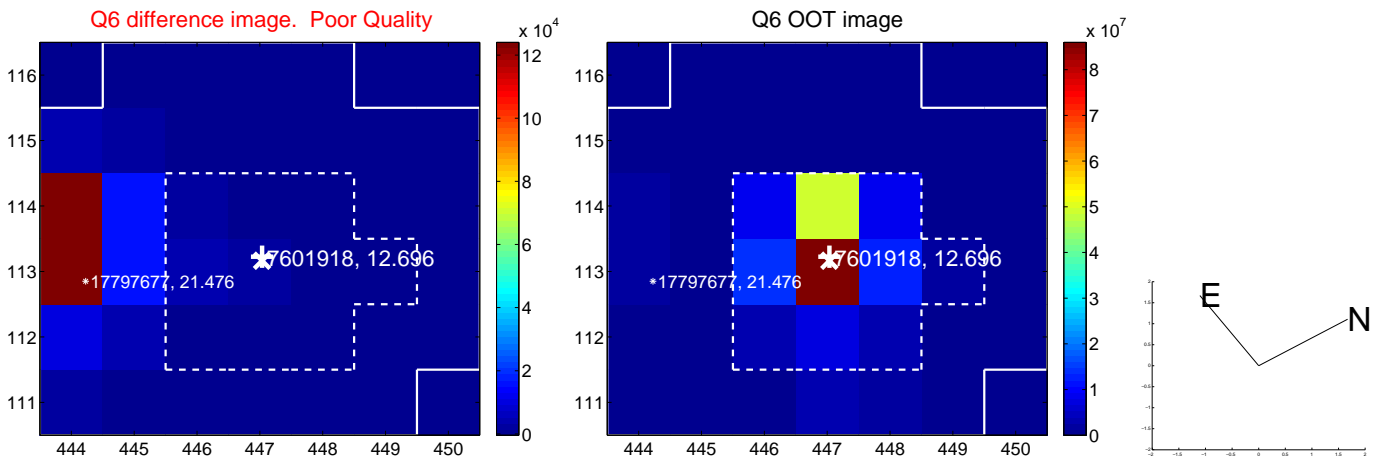
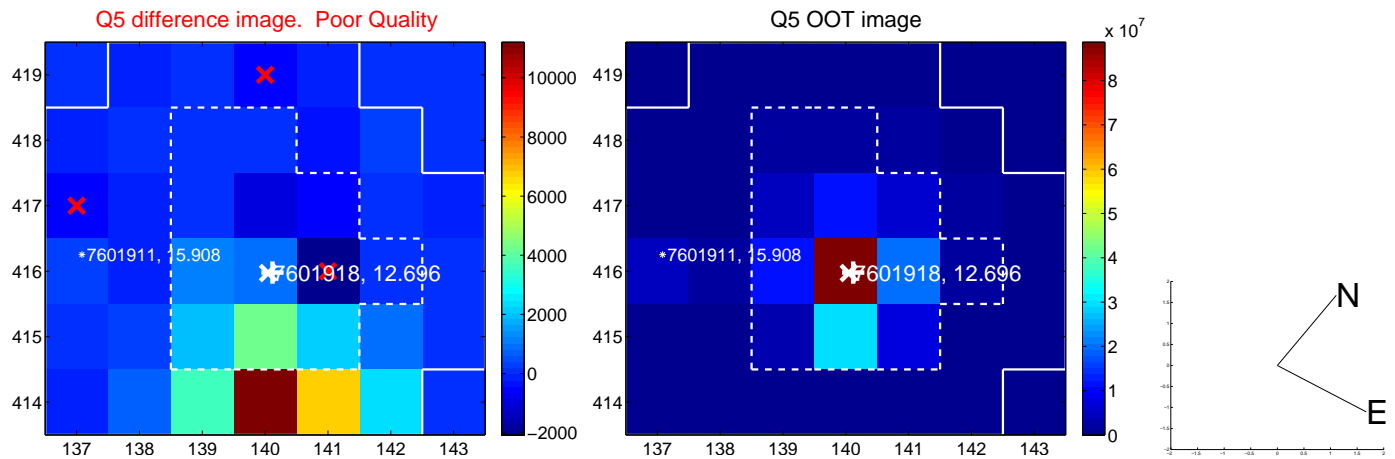


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

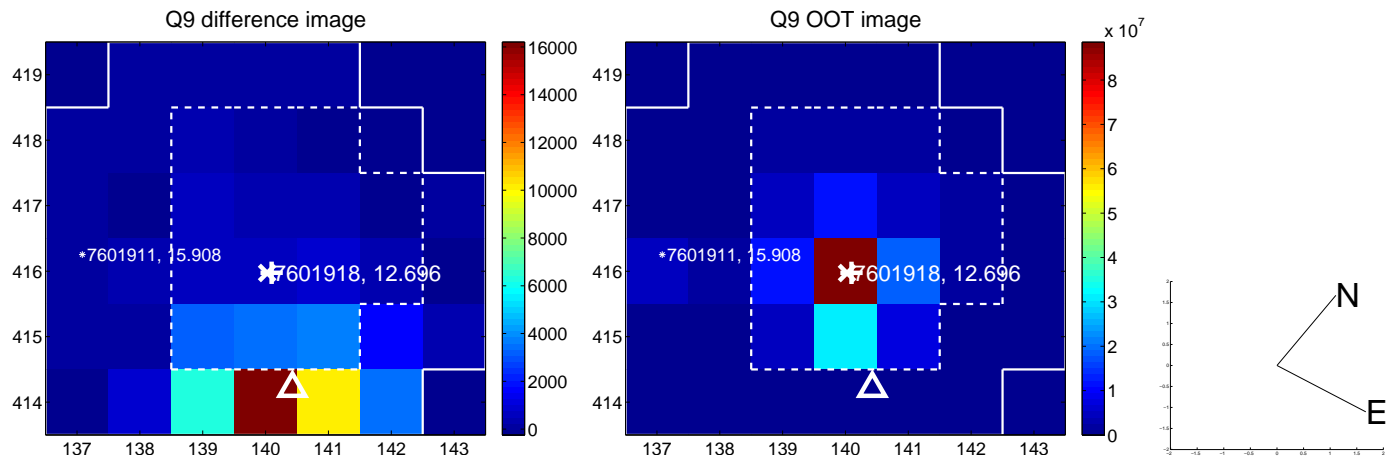
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



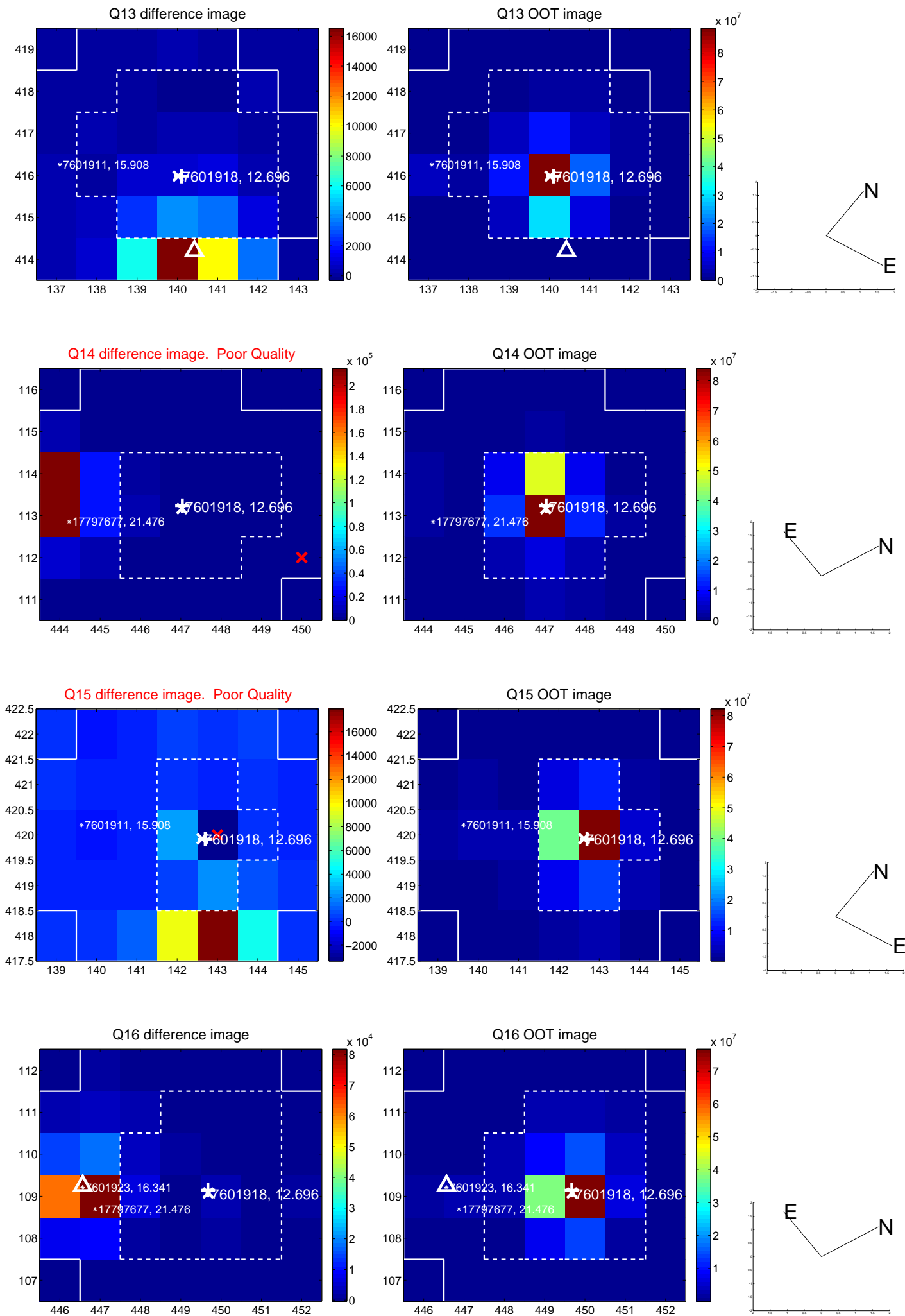
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



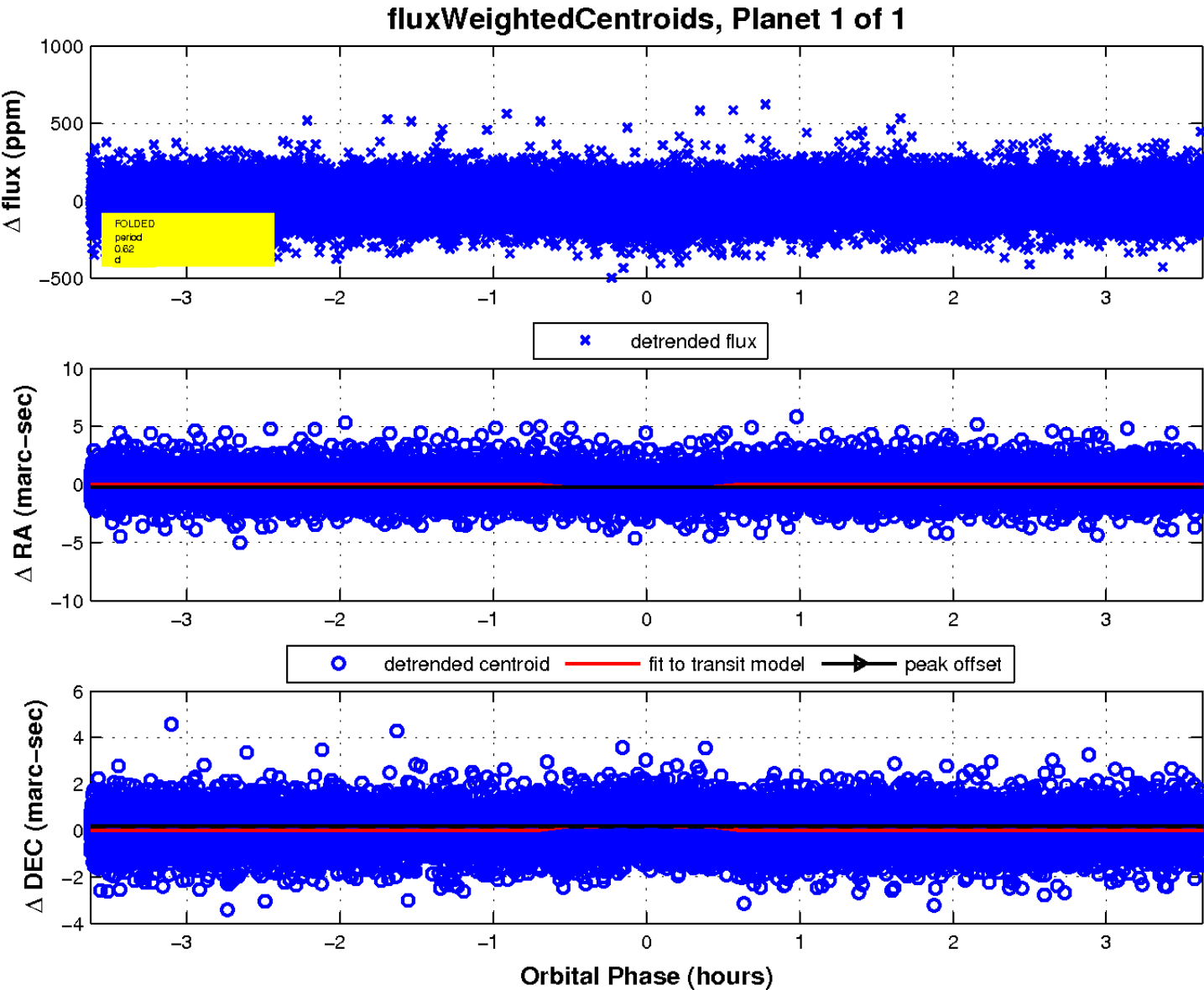
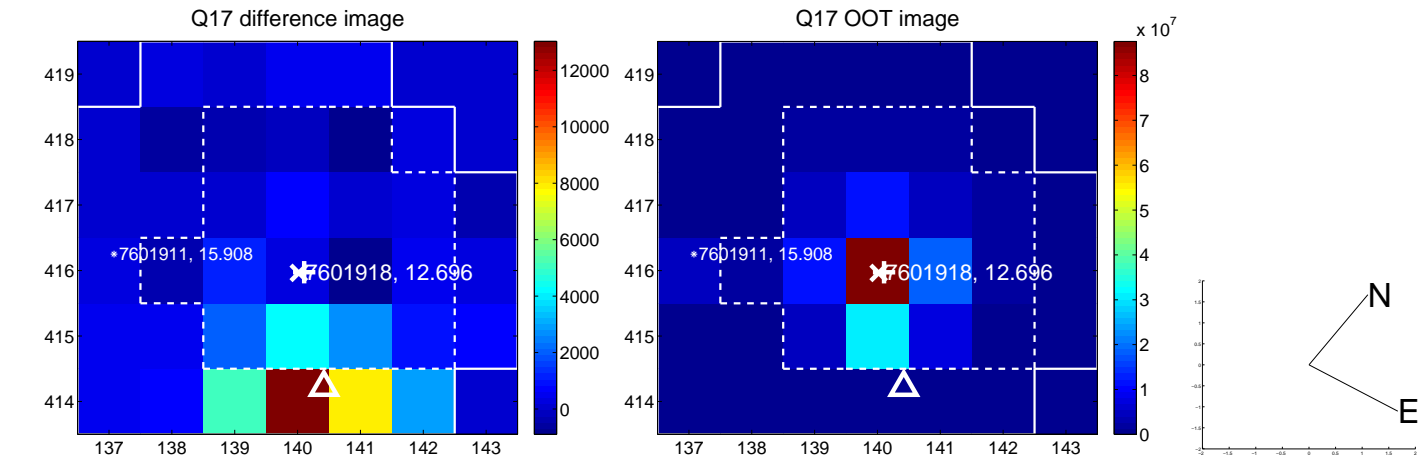
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UKIRT Image

