

KIC 007136729

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})
007136729-01	OBS	2872.01	3.173187	133.384848	154.5	3.015	20.5	22.6	0.78	5369	1.37	318.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007136729-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

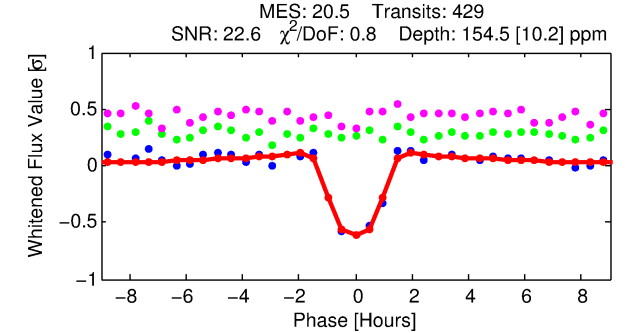
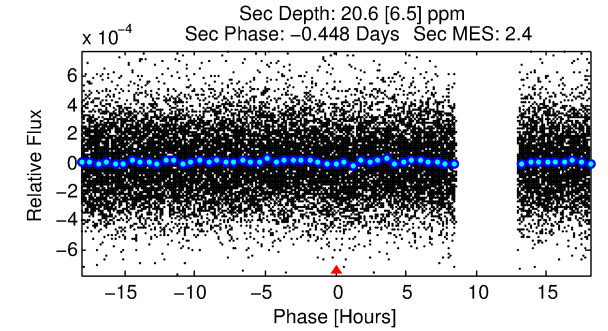
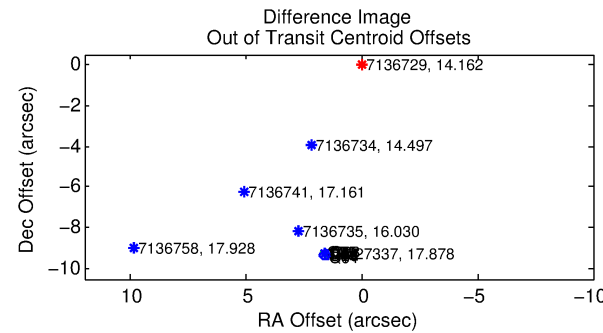
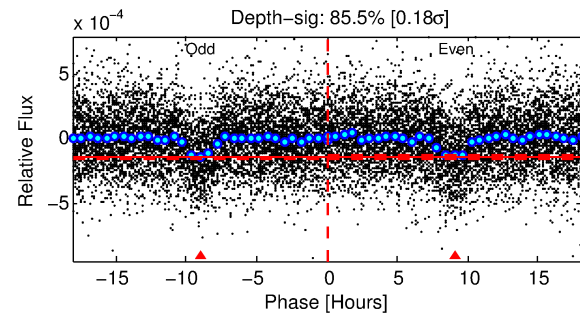
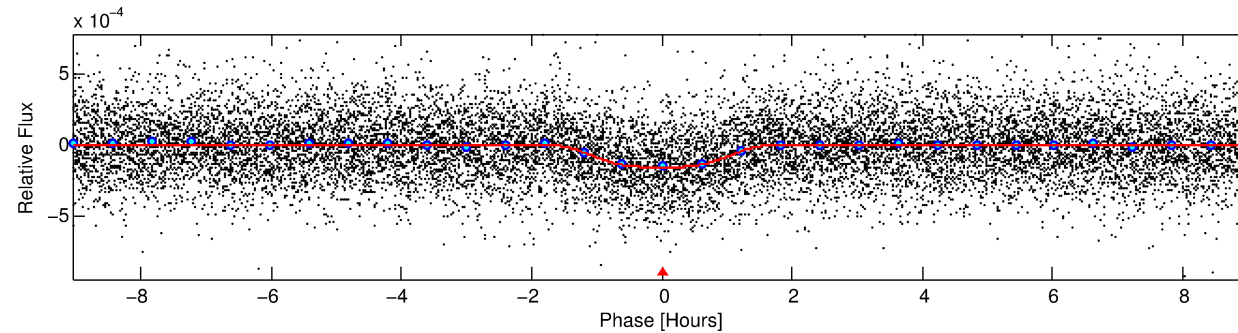
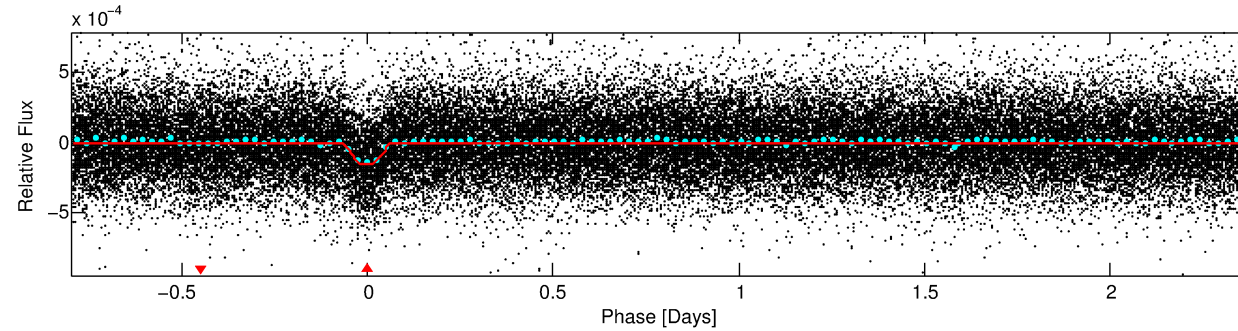
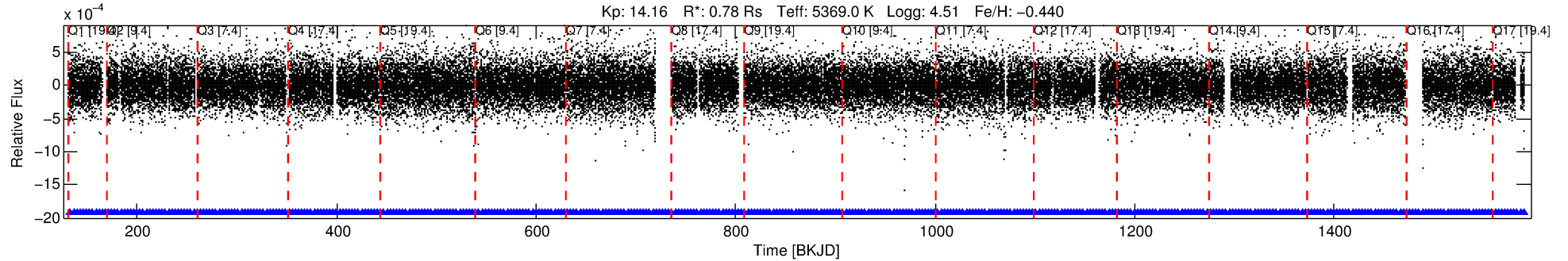
Ephemeris Match Information For 007136729-01

No Significant Match Found

DV One-Page Summary

KIC: 7136729 Candidate: 1 of 1 Period: 3.173 d
KOI: K02872.01 Corr: 0.907

Kp: 14.16 R*: 0.78 Rs Teff: 5369.0 K Logg: 4.51 Fe/H: -0.440



DV Fit Results:

Period = 3.17319 [0.00001] d
Epoch = 133.3848 [0.0022] BKJD
Rp/R* = 0.0161 [0.0008]
a/R* = 2.32 [0.20]
b = 0.98 [0.00]
Seff = 318.19 [70.28]
Teq = 1077 [59] K
Rp = 1.37 [0.20] Re
a = 0.0379 [0.0047] AU
Ag = 8.66 [3.28] [2.33σ]
Teff = 2856 [251] K [6.91σ]

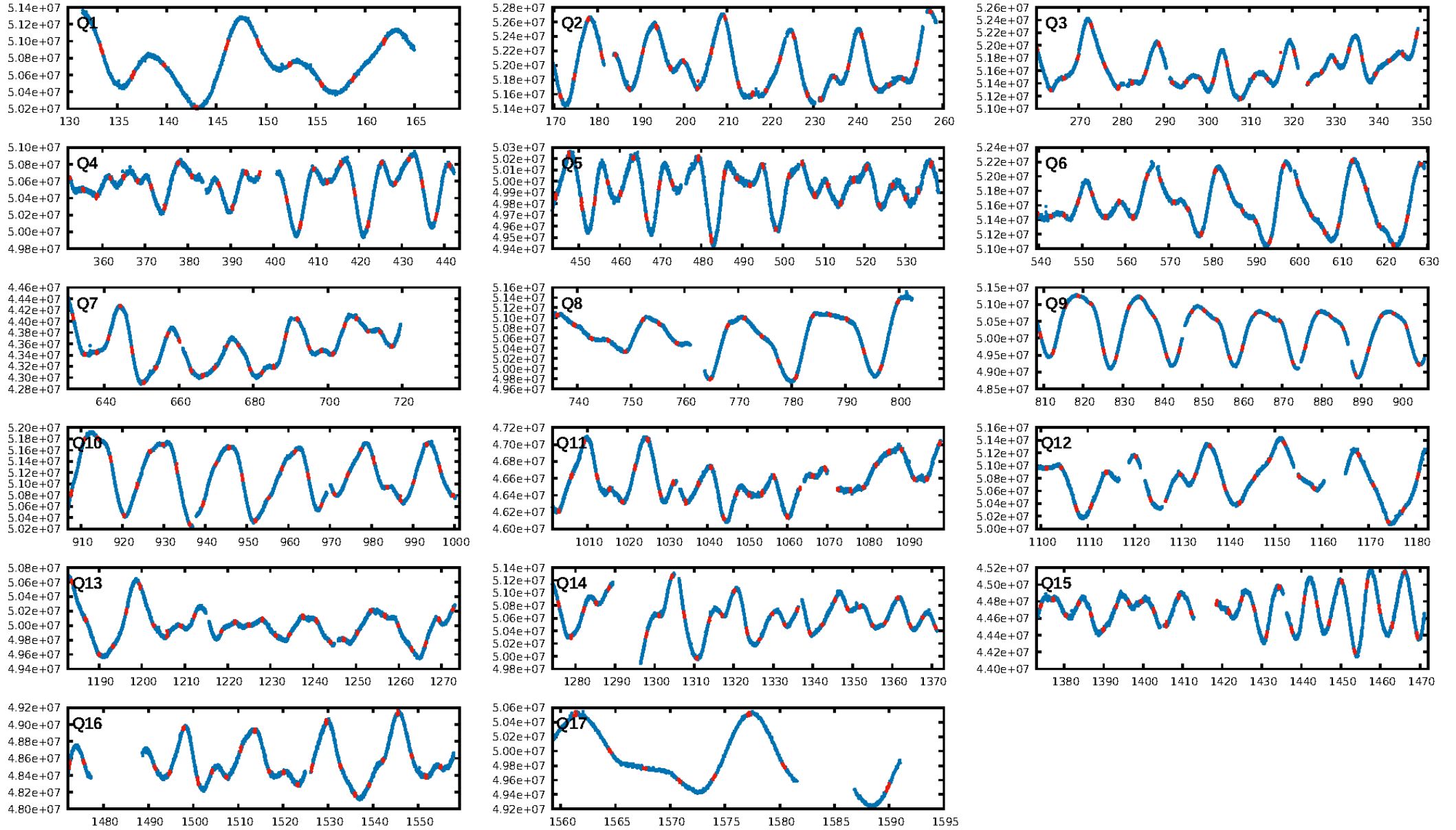
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.44e-86
RollingBand-fgt: 1.00 [411/411]
GhostDiagnostic-chr: -0.2015
Centroid-sig: 0.0%
Centroid-so: 77.409 arcsec [120.86σ]
OotOffset-rm: 9.464 arcsec [131.81σ]
KicOffset-rm: 9.386 arcsec [137.44σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

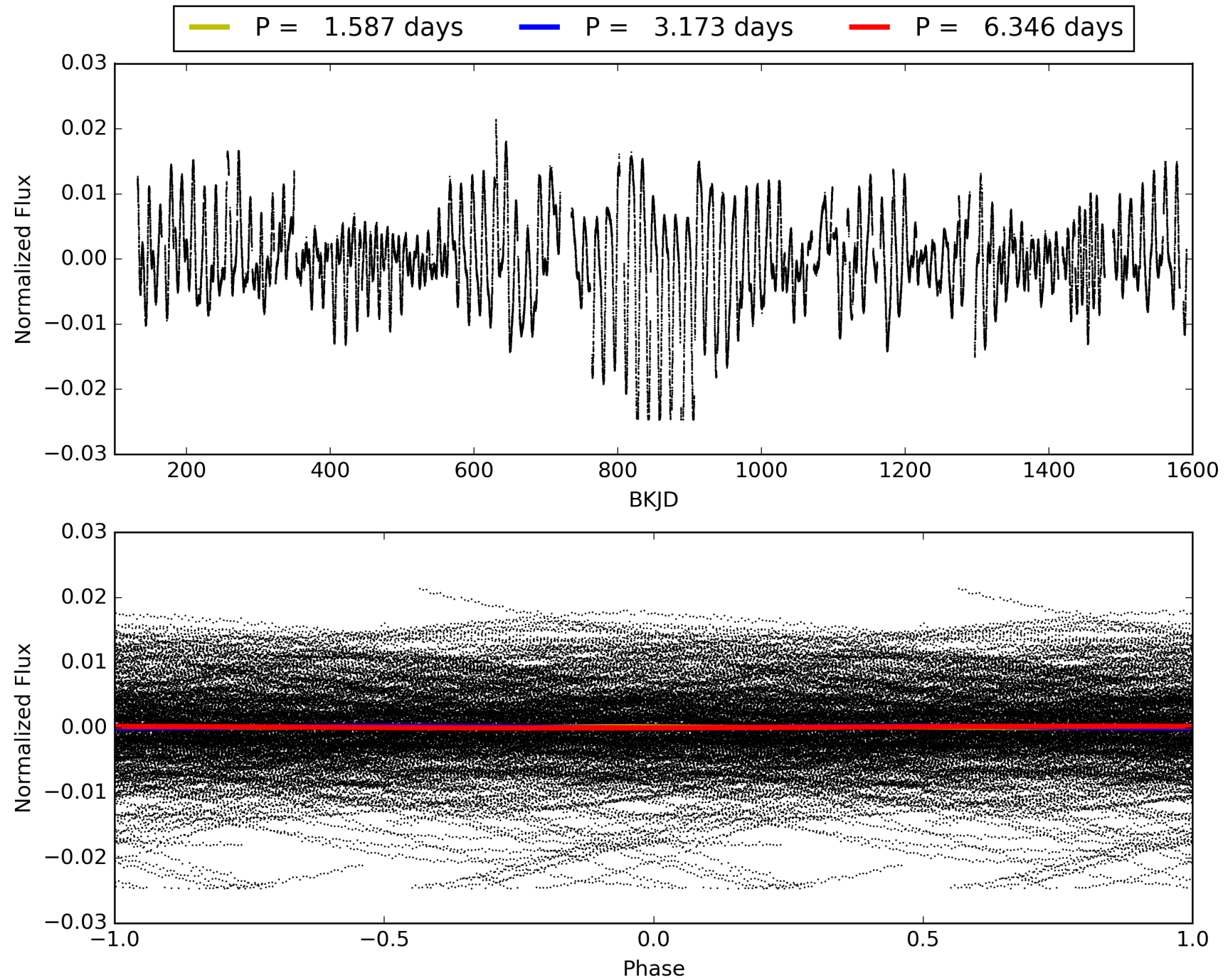
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:58:37 Z

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

TCE 007136729-01, PDC Light Curves

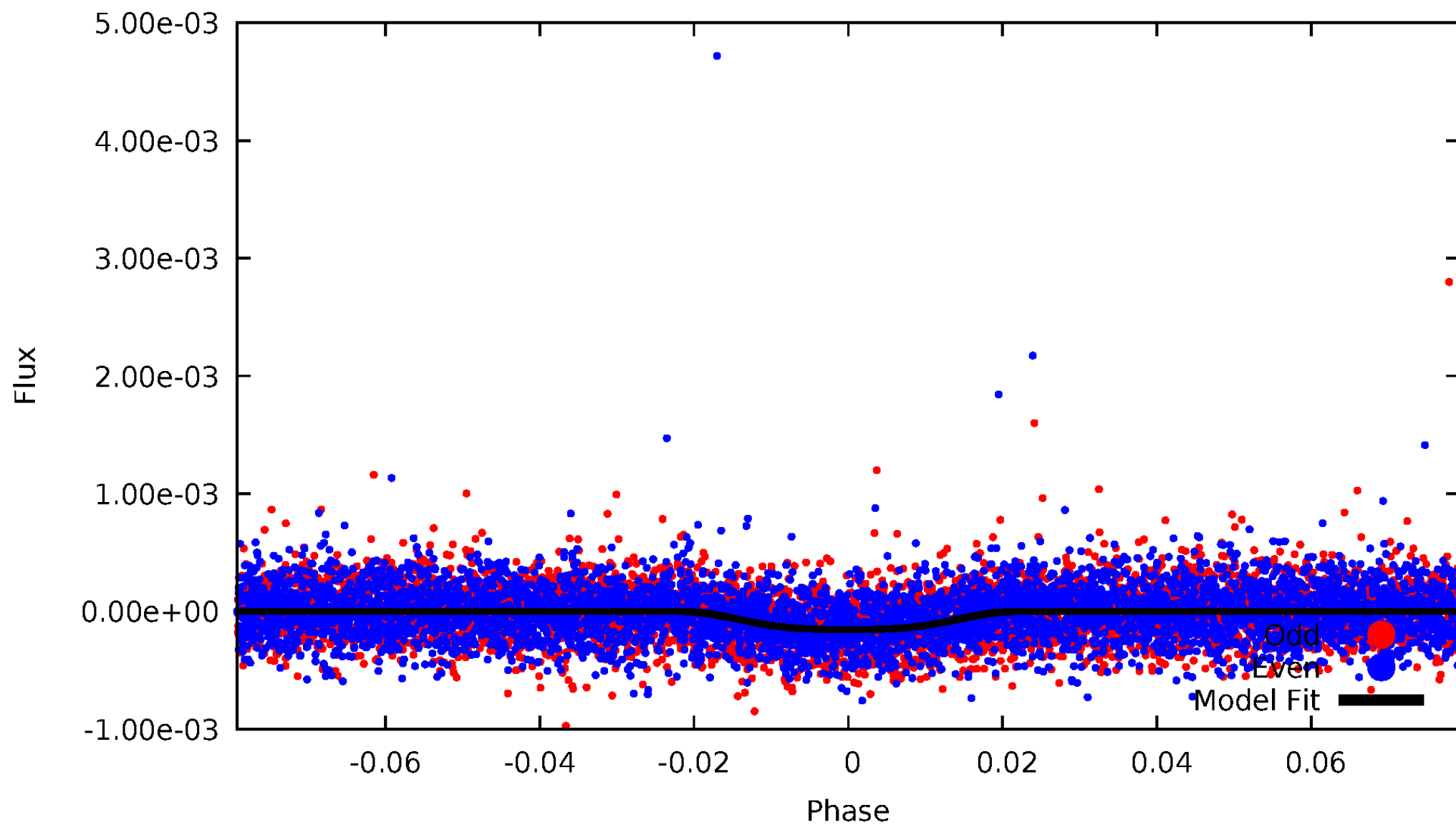


TCE 007136729-01



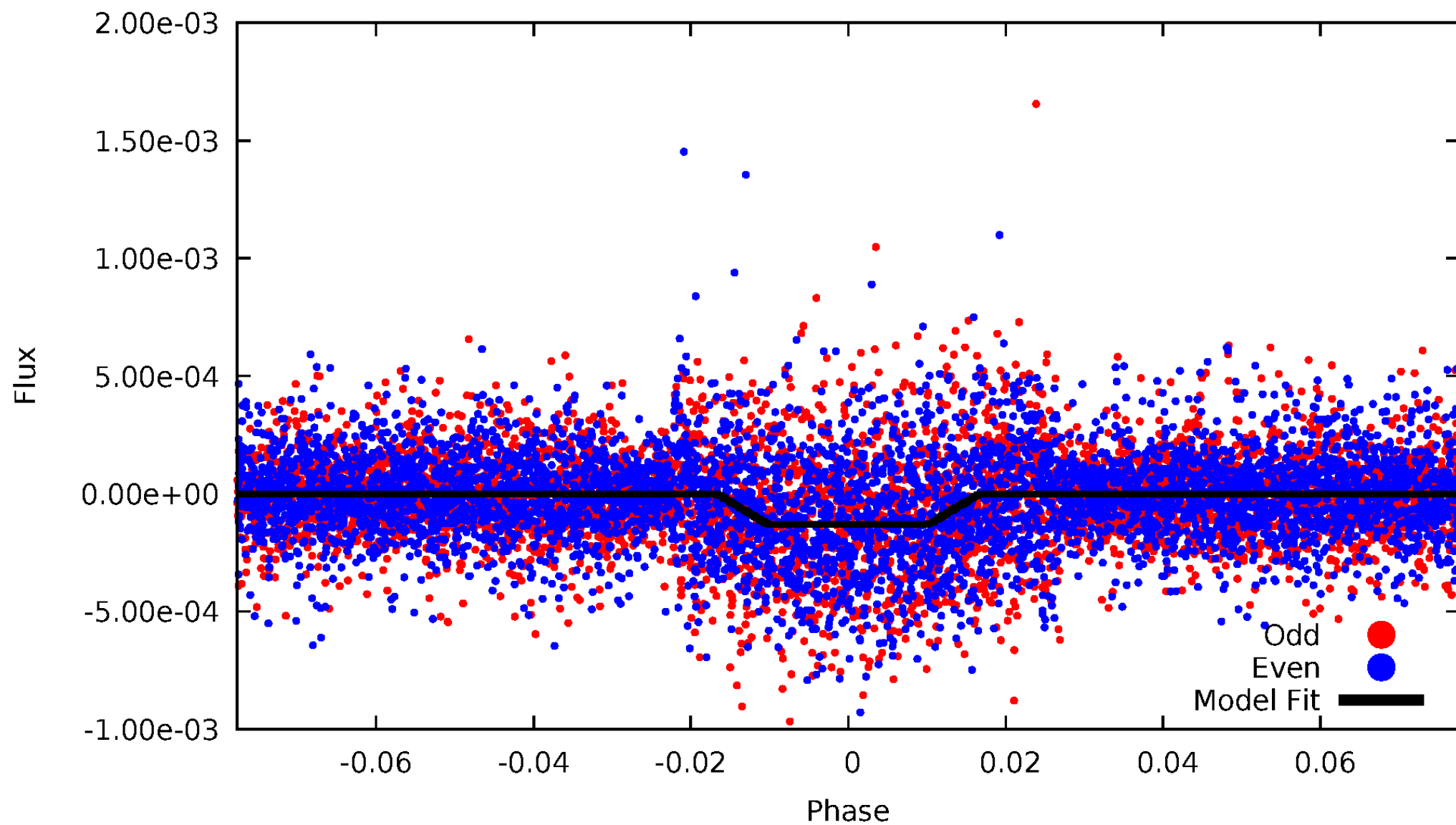
DV Odd/Even

TCE 007136729-01

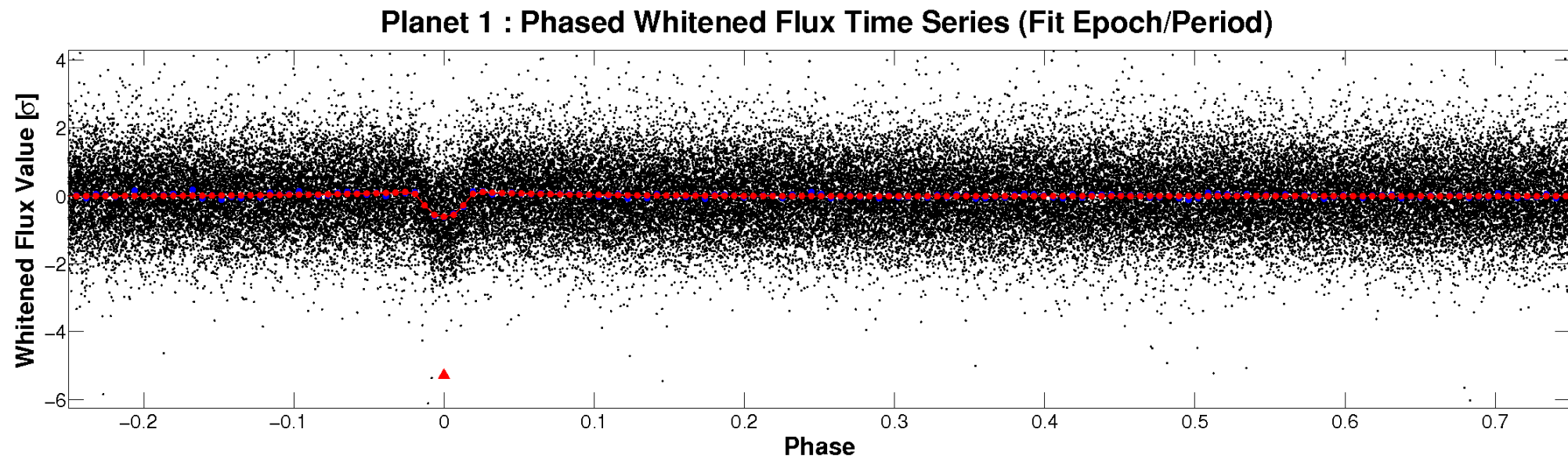
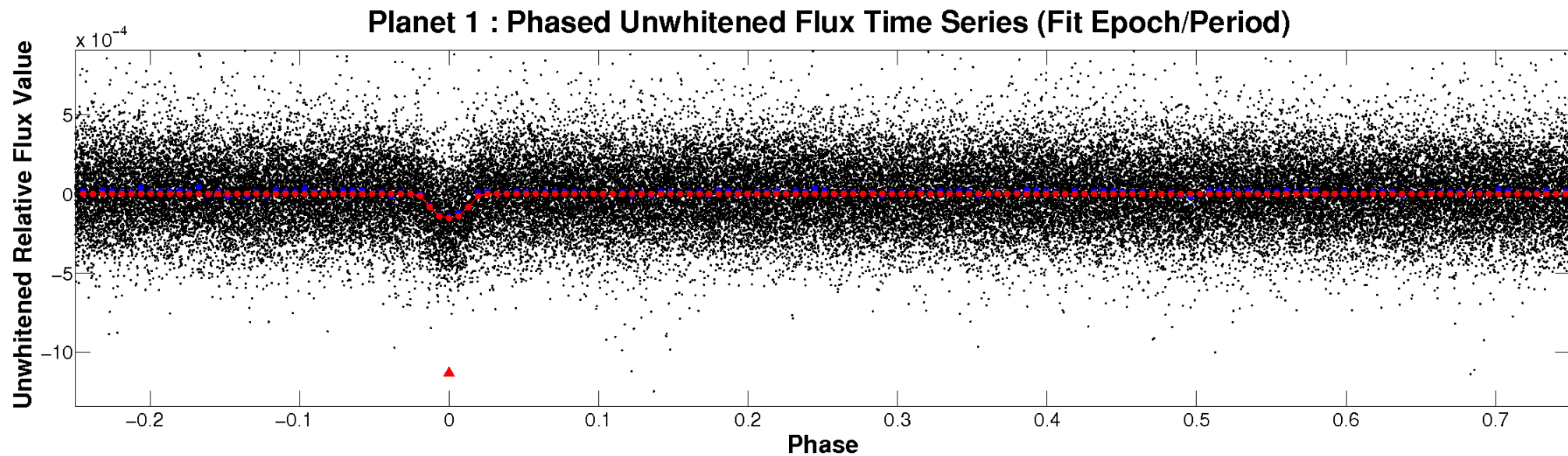


ALT Odd/Even

TCE 007136729-01

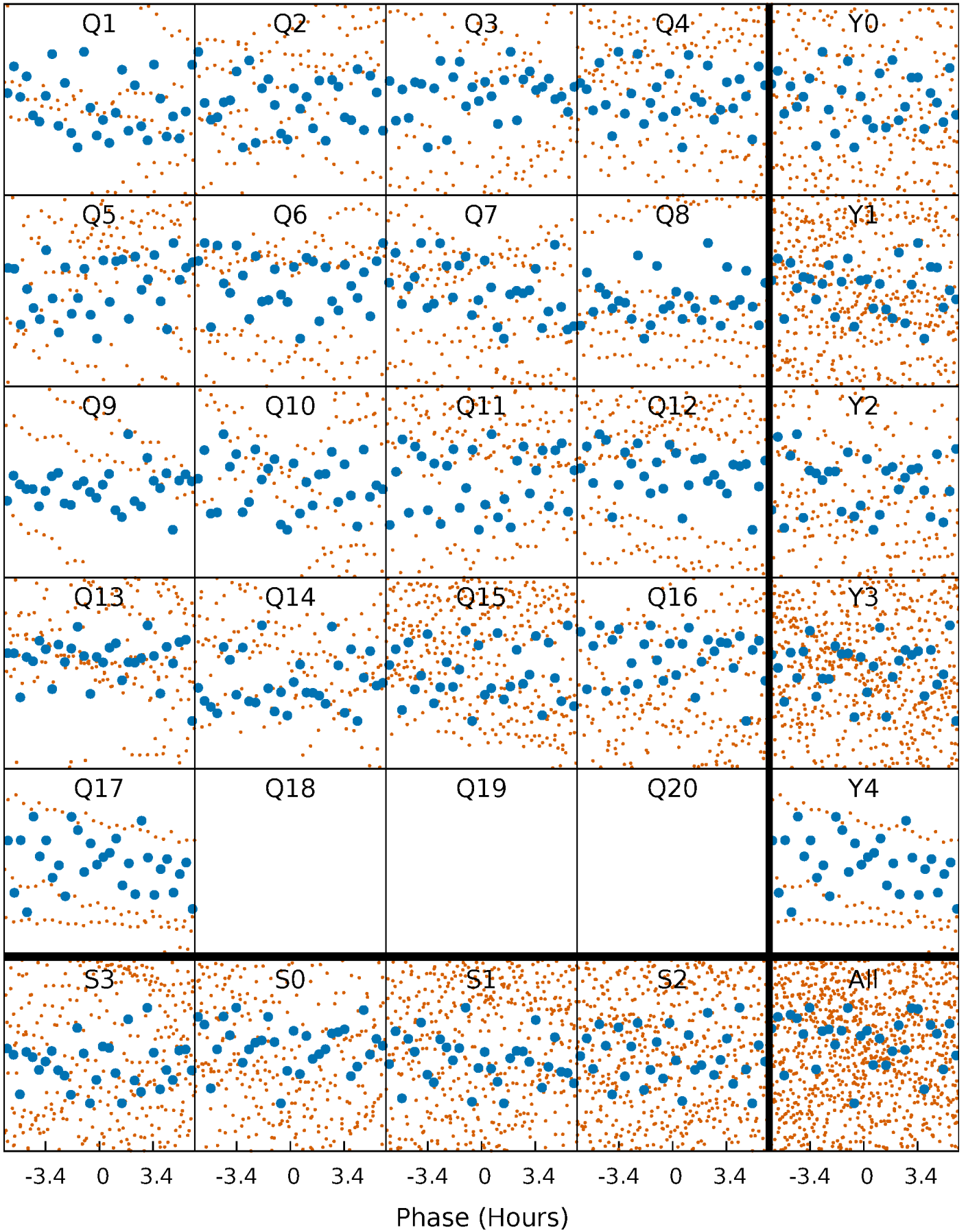


Non-Whitened Vs. Whitened Light Curve



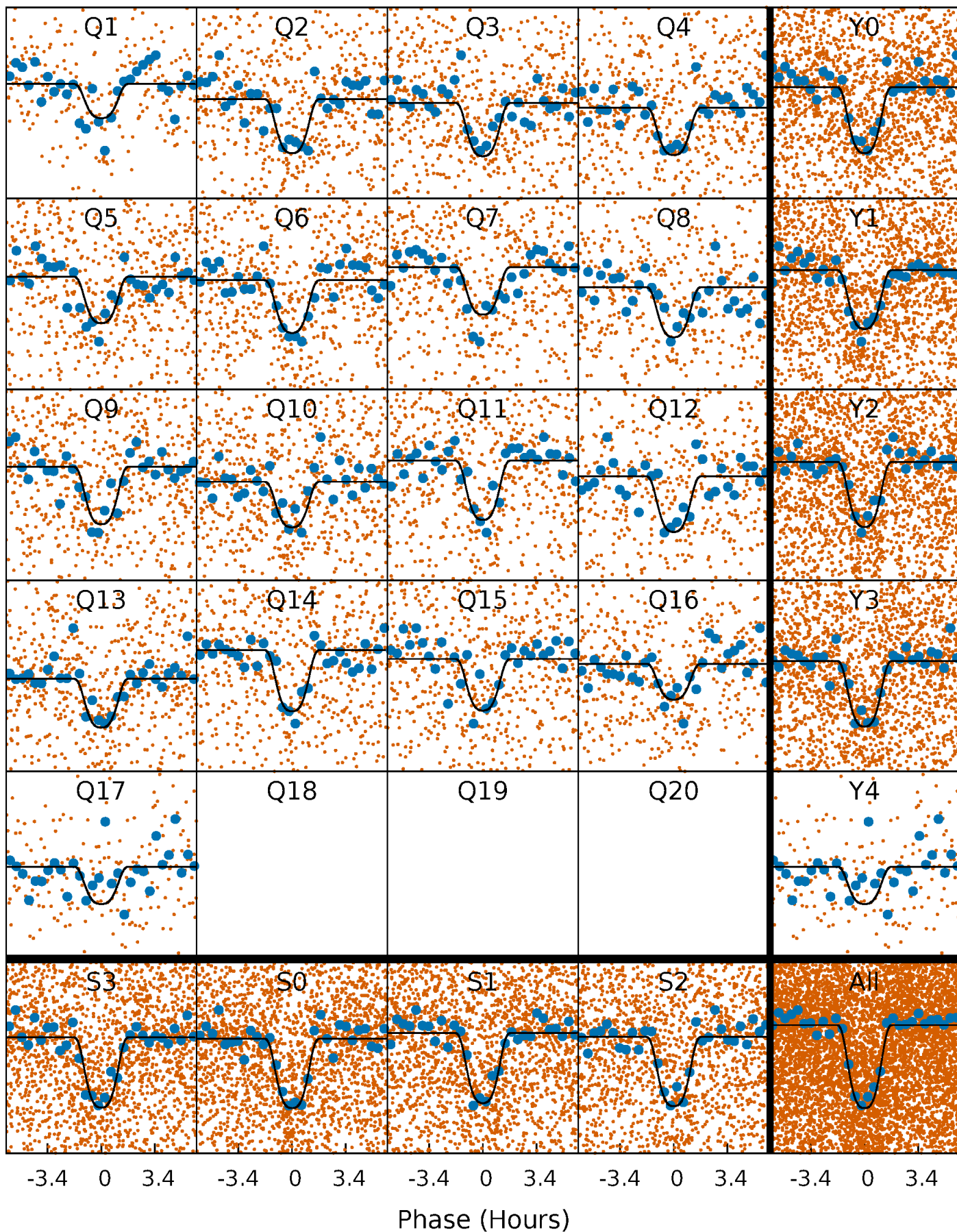
PDC Quarter-Phased Transit Curves

TCE 007136729-01 P= 3.173187 Days $T_0=133.384848$ (BKJD)



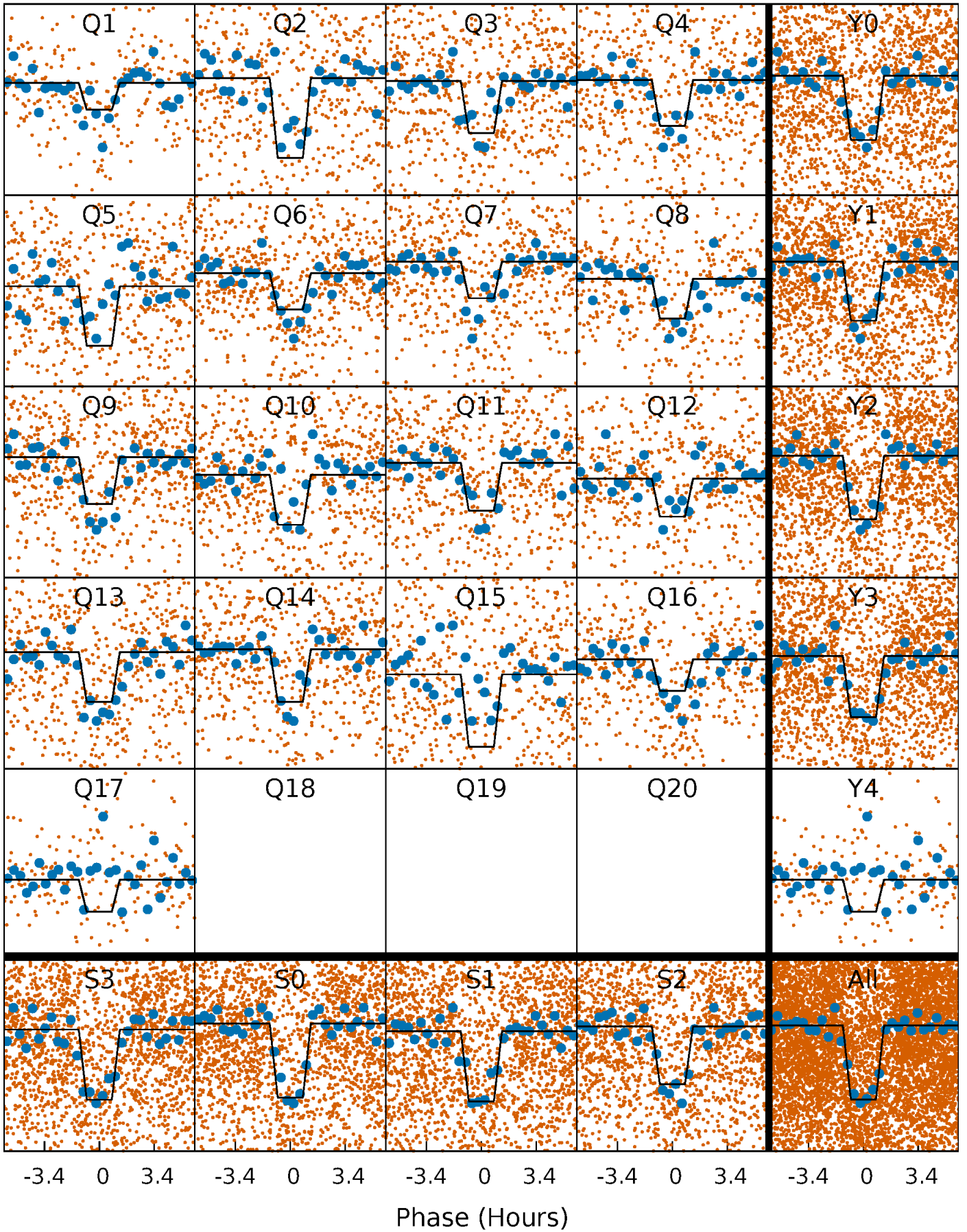
DV Quarter-Phased Transit Curves

TCE 007136729-01 P= 3.173187 Days $T_0=133.384848$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

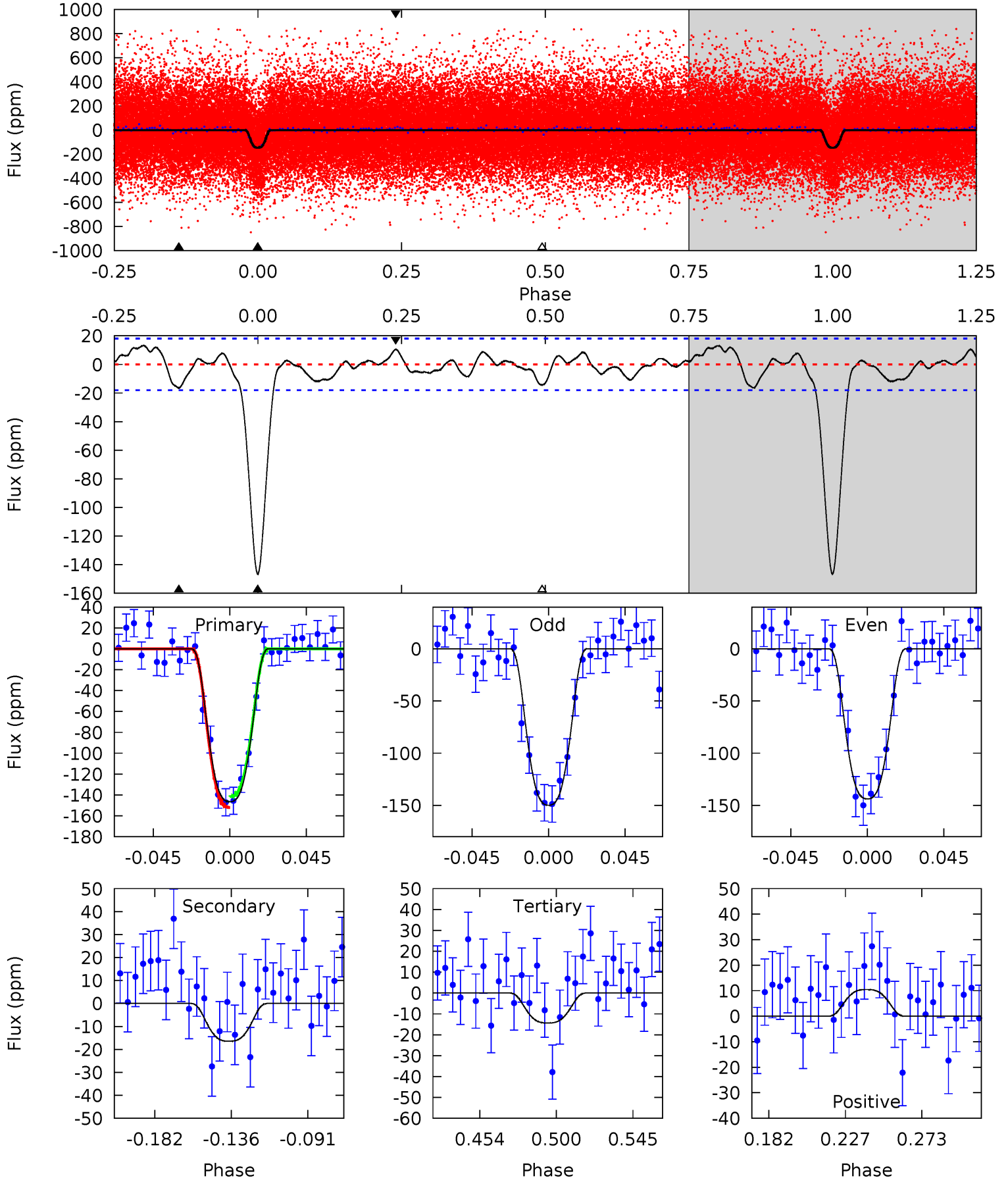
TCE 007136729-01 P= 3.173192 Days $T_0=133.384235$ (BKJD)



DV Model-Shift Uniqueness Test

007136729-01, P = 3.173187 Days, E = 130.211661 Days

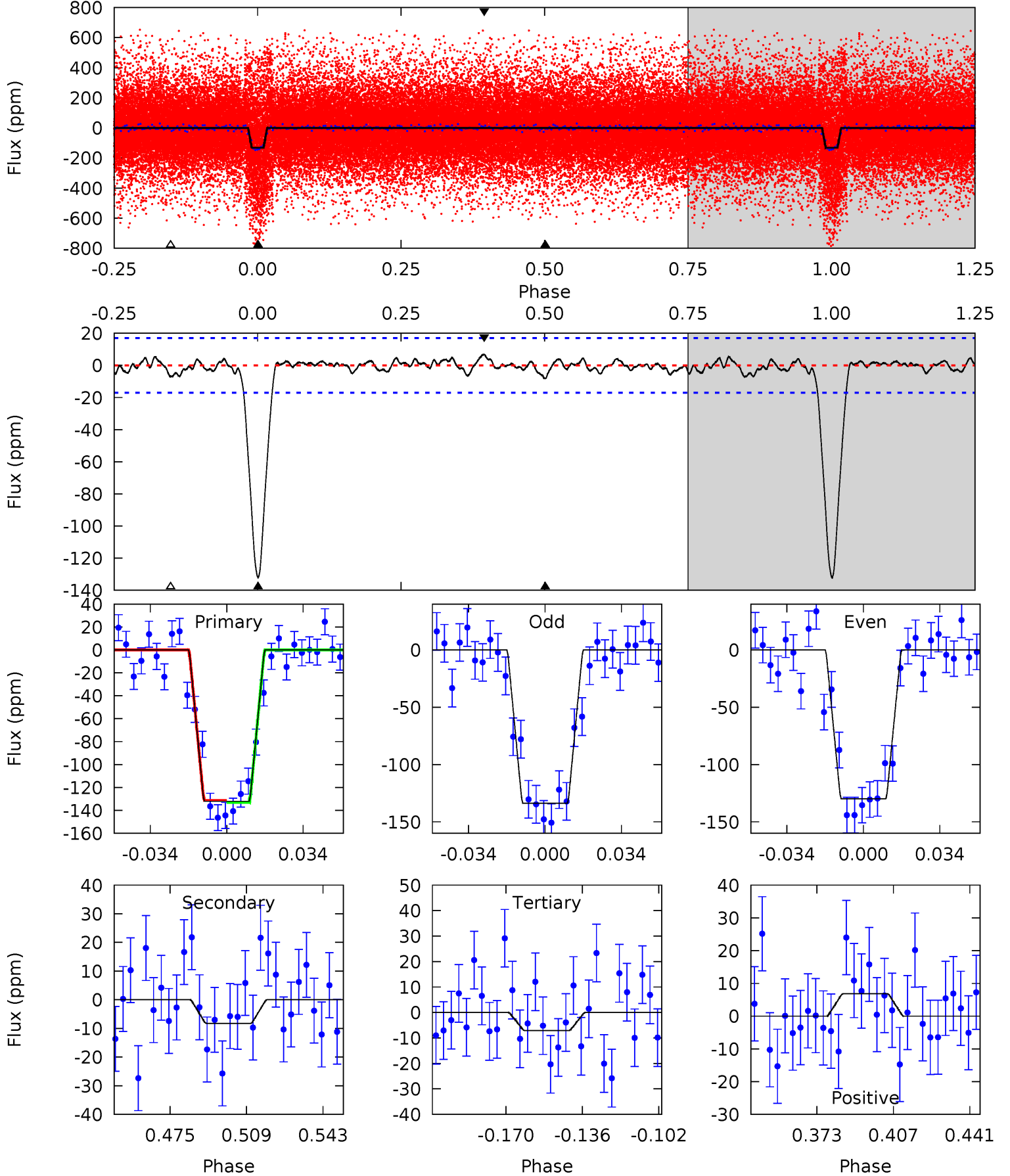
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.5	4.32	3.78	2.75	4.73	2.00	1.52	34.7	35.7	0.54	1.57	0.80	1.00	0.08	1.38



Alt Model-Shift Uniqueness Test

007136729-01, P = 3.173192 Days, E = 130.211043 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.1	2.32	2.00	1.92	4.79	2.12	0.73	35.1	35.2	0.32	0.39	0.55	0.94	0.05	0.24



Stellar Parameters For KIC 007136729

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5369^{+160}_{-160}	$4.508^{+0.105}_{-0.095}$	$-0.440^{+0.350}_{-0.300}$	$0.784^{+0.109}_{-0.098}$	$0.722^{+0.107}_{-0.046}$	$2.110^{+1.011}_{-0.631}$
	+3%/-3%	+2%/-2%	+80%/-68%	+14%/-12%	+15%/-6%	+48%/-30%
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 007136729-01 / KOI 2872.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-16 ± 4	$1.38^{+0.12}_{-0.12}$	1503^{+67}_{-67}	3233^{+137}_{-140}	$6.951^{+2.151}_{-1.761}$
Alt.	-8 ± 4	$0.99^{+0.10}_{-0.10}$	1501^{+72}_{-69}	3209^{+231}_{-242}	$6.674^{+3.445}_{-2.741}$

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 $A_{obs} \gg 1.0$

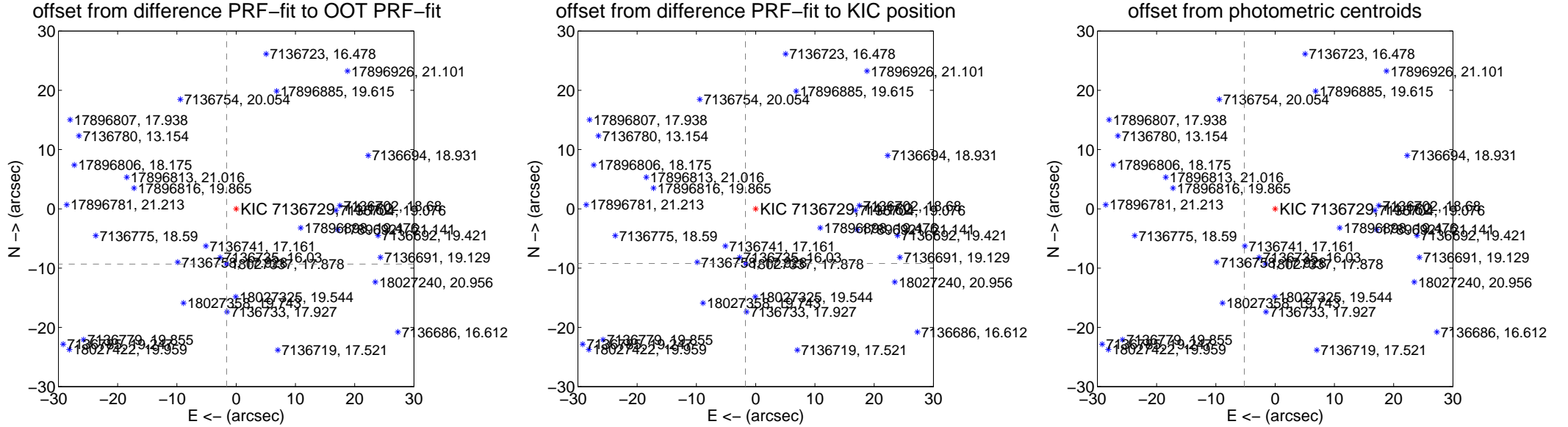
DV Centroid Data

Supplemental centroid analysis for 007136729-01. Kepler magnitude: 14.16. Transit SNR 22.62

There are 17 quarters with good PRF difference image offsets

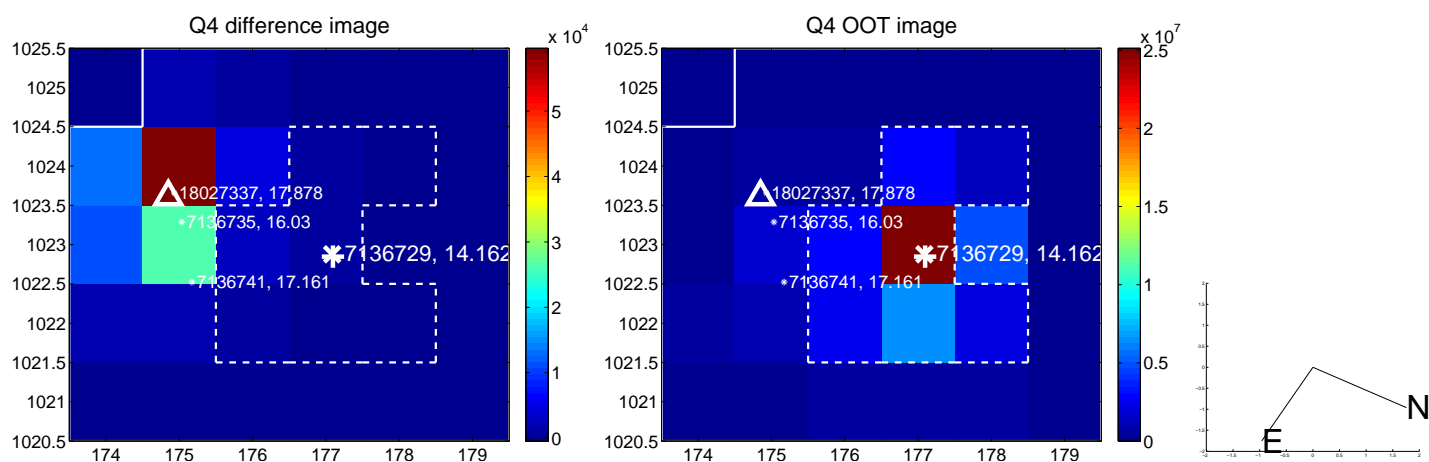
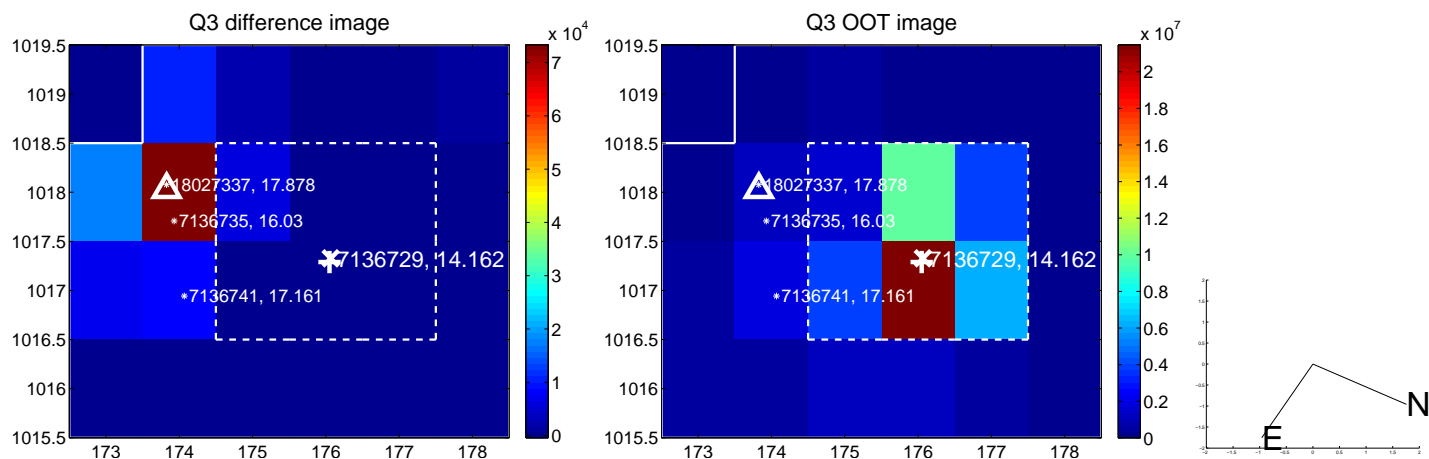
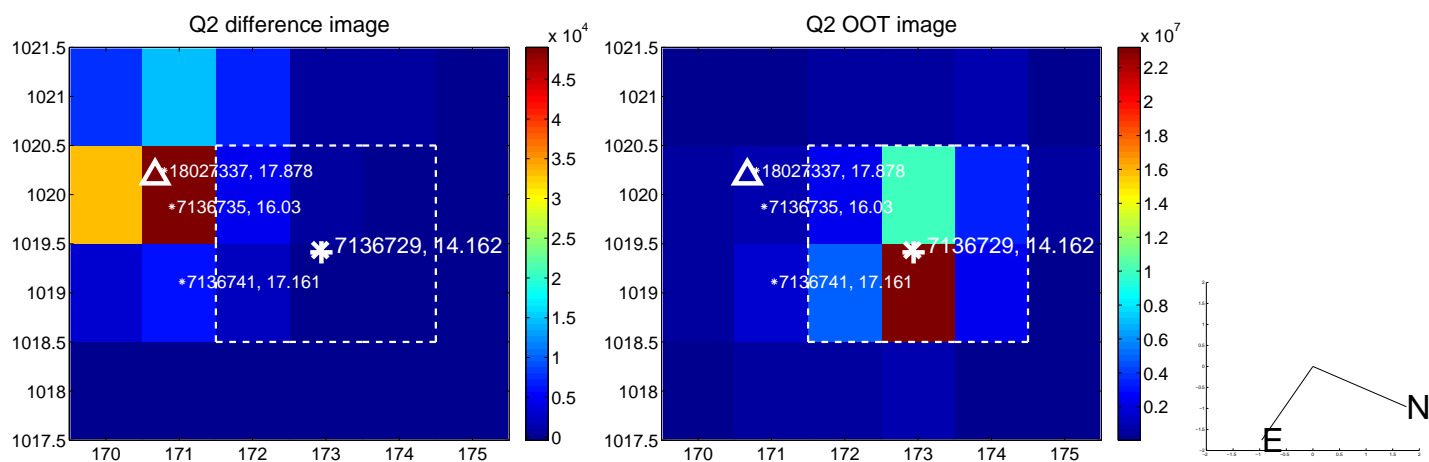
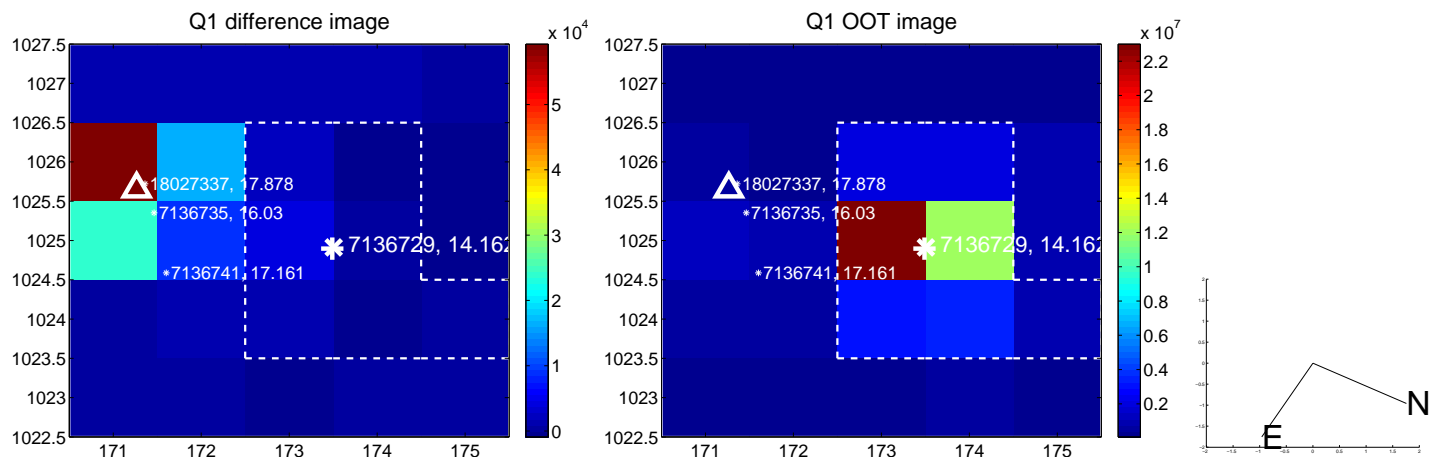
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.464 \pm 0.072	131.81	1.616 \pm 0.068	-9.325 \pm 0.072
PRF-fit source offset from KIC position	9.386 \pm 0.068	137.44	1.723 \pm 0.069	-9.227 \pm 0.068
photometric centroid source offset	77.41 \pm 0.64	120.86	5.20 \pm 0.50	-77.23 \pm 0.64

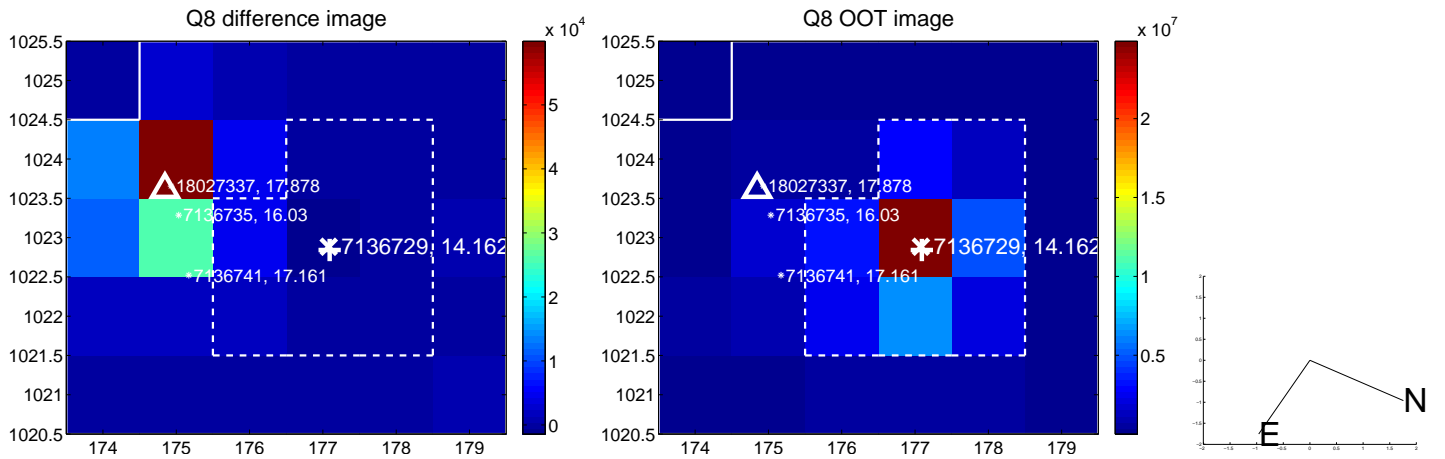
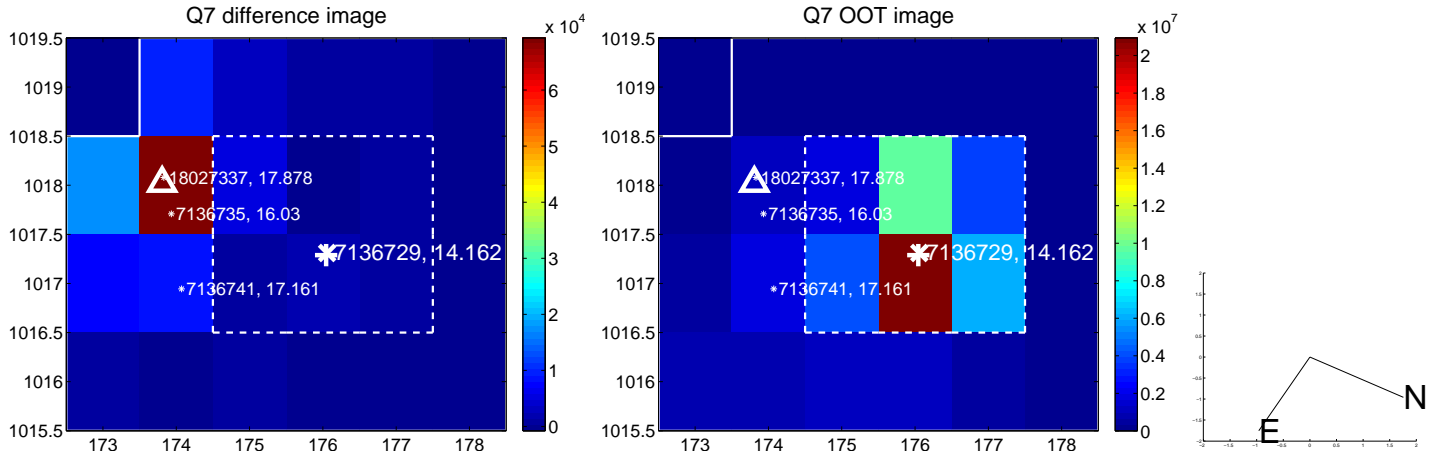
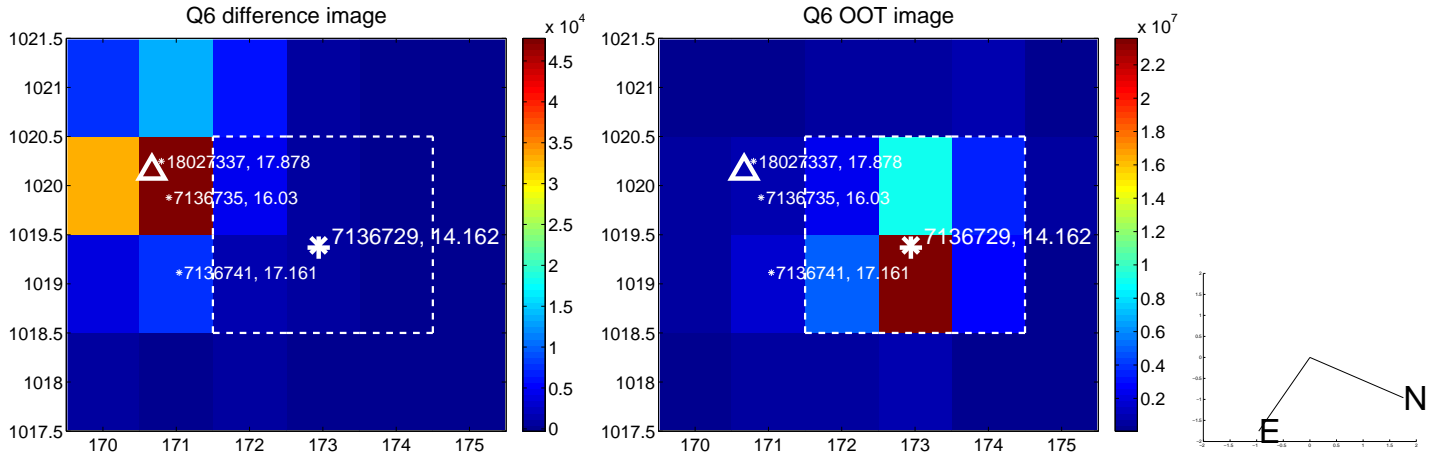
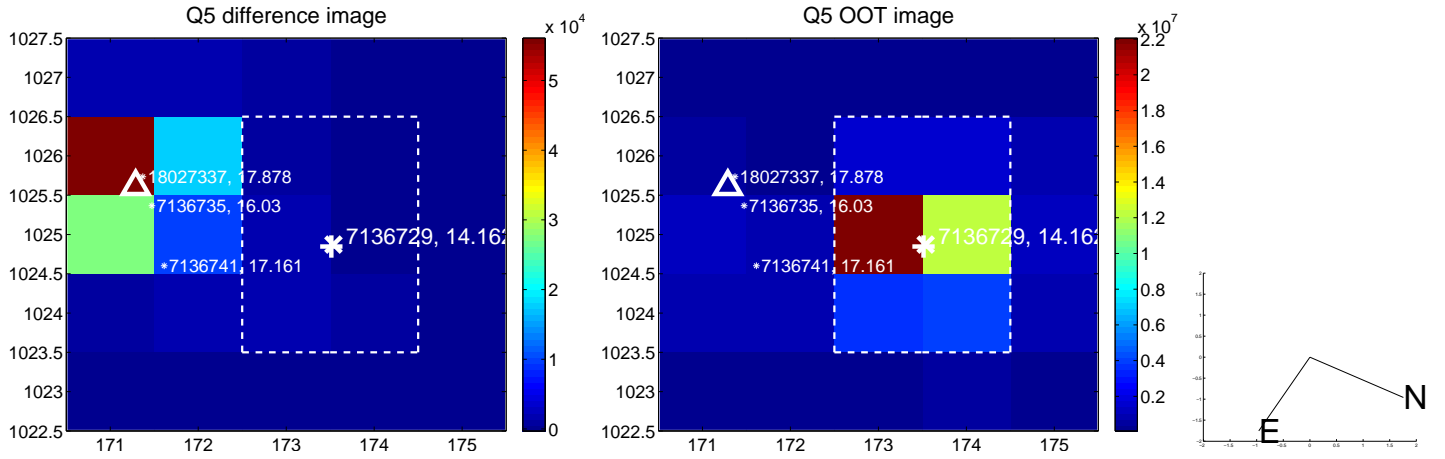


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

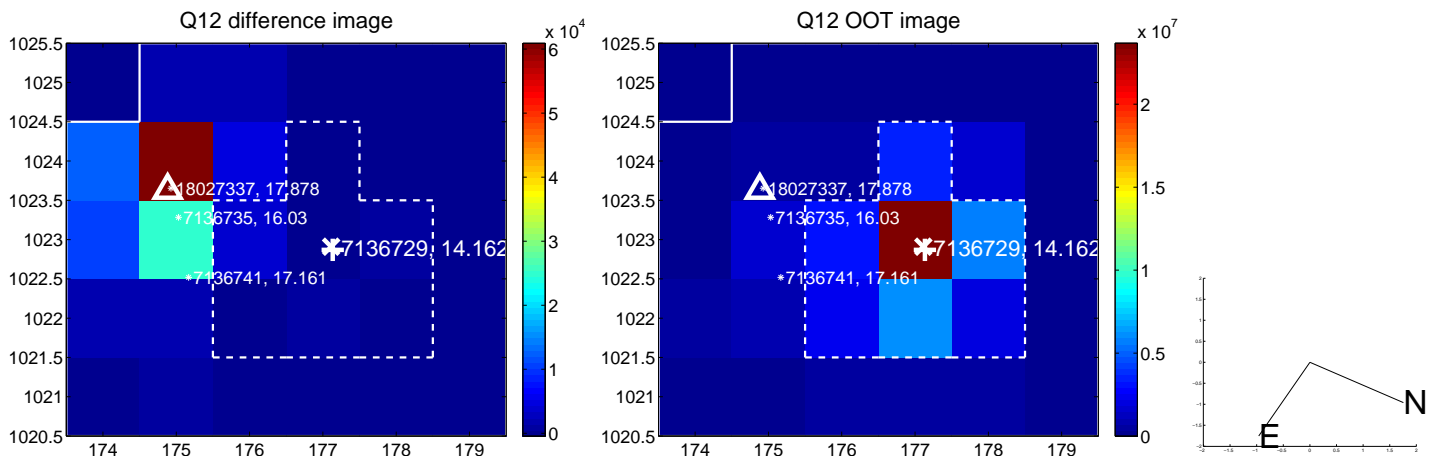
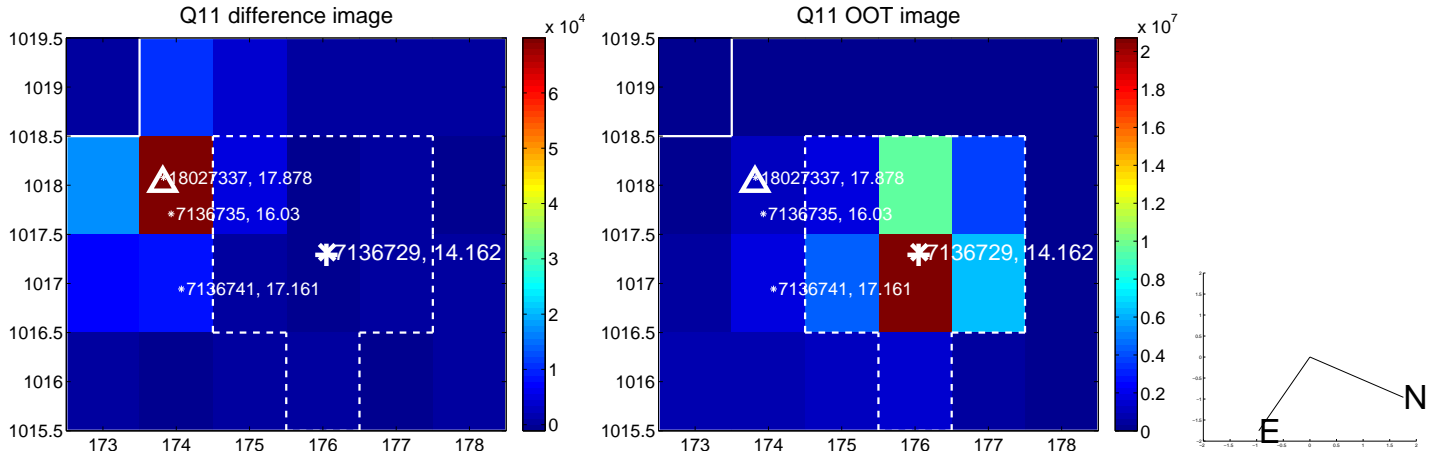
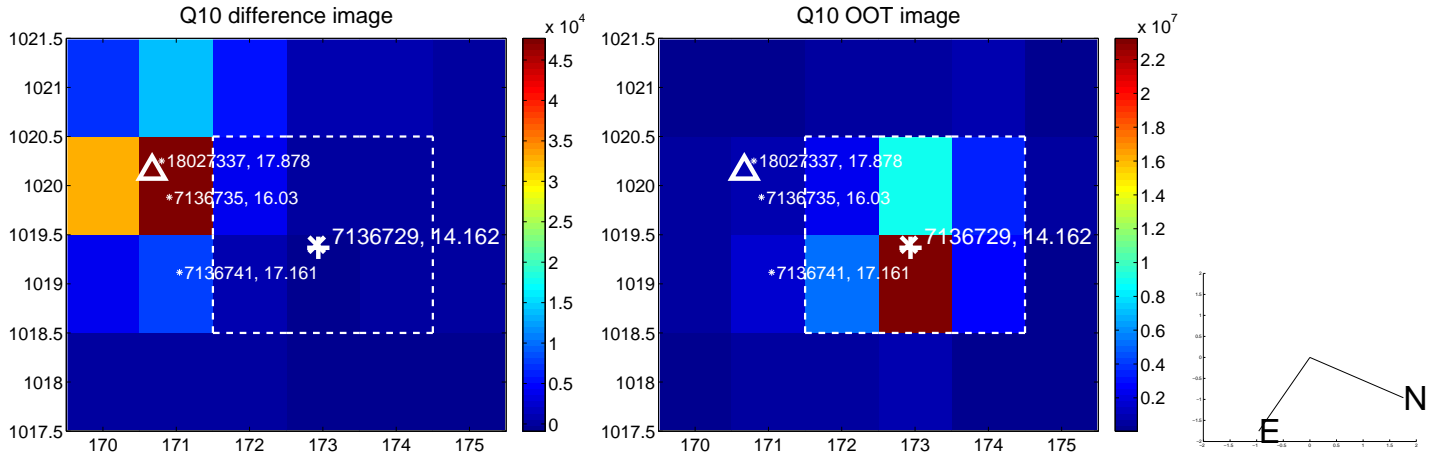
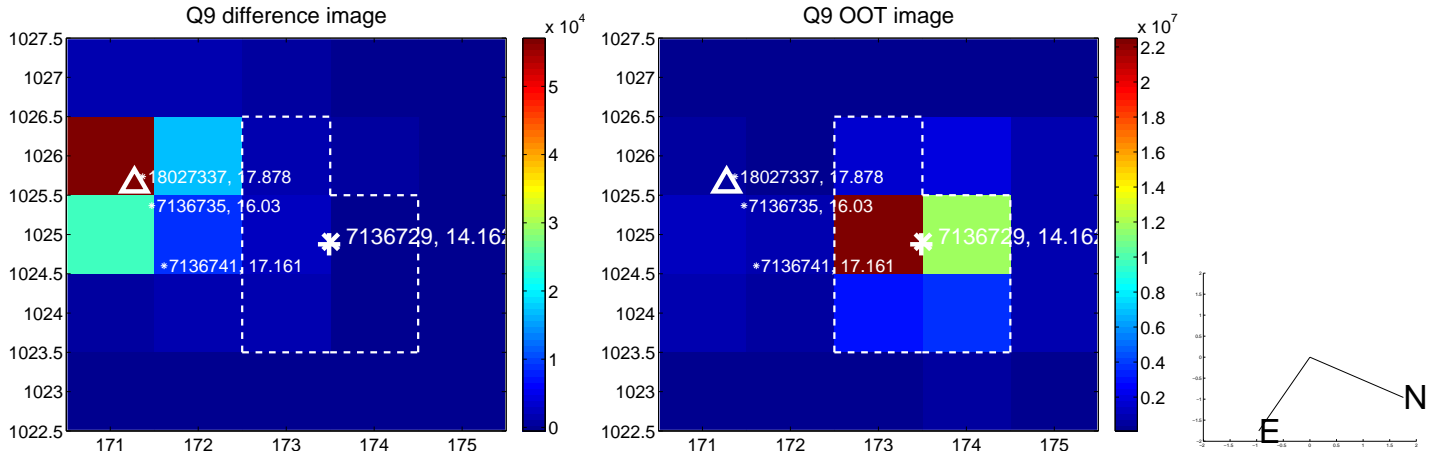
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



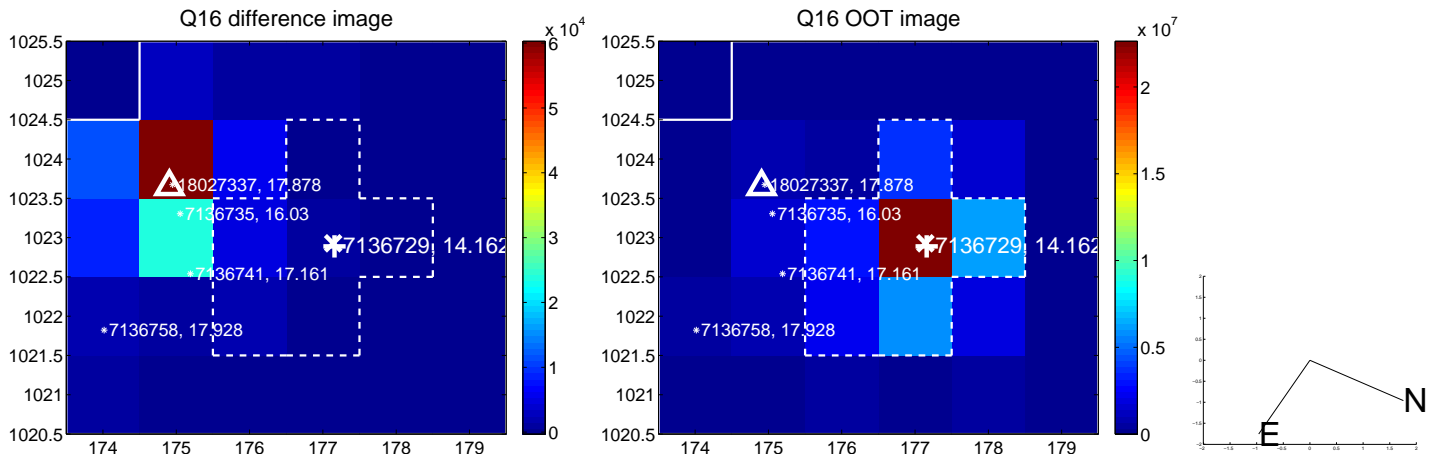
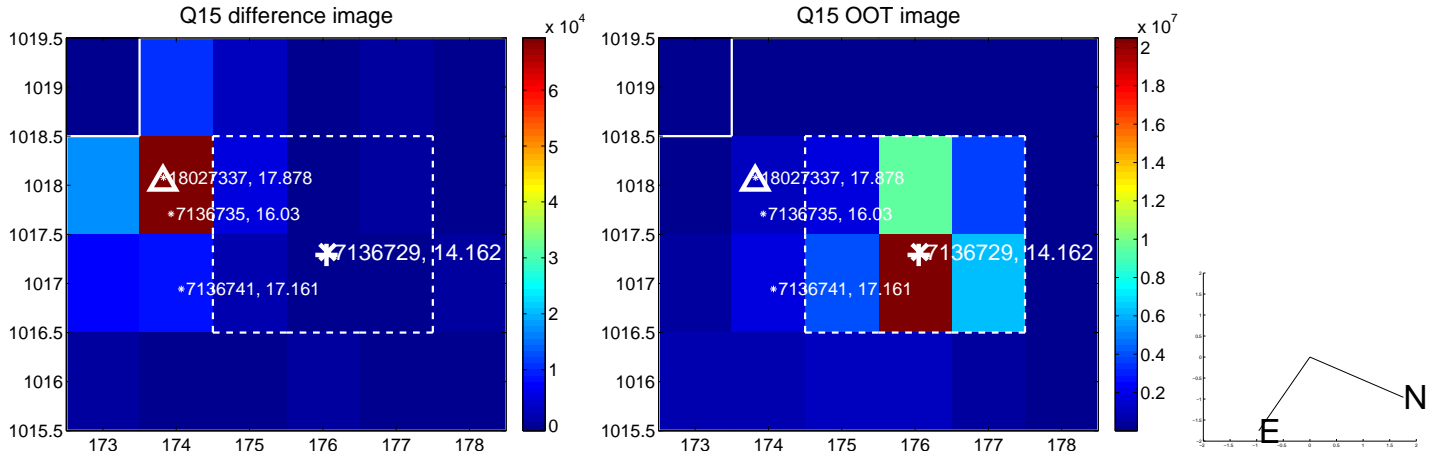
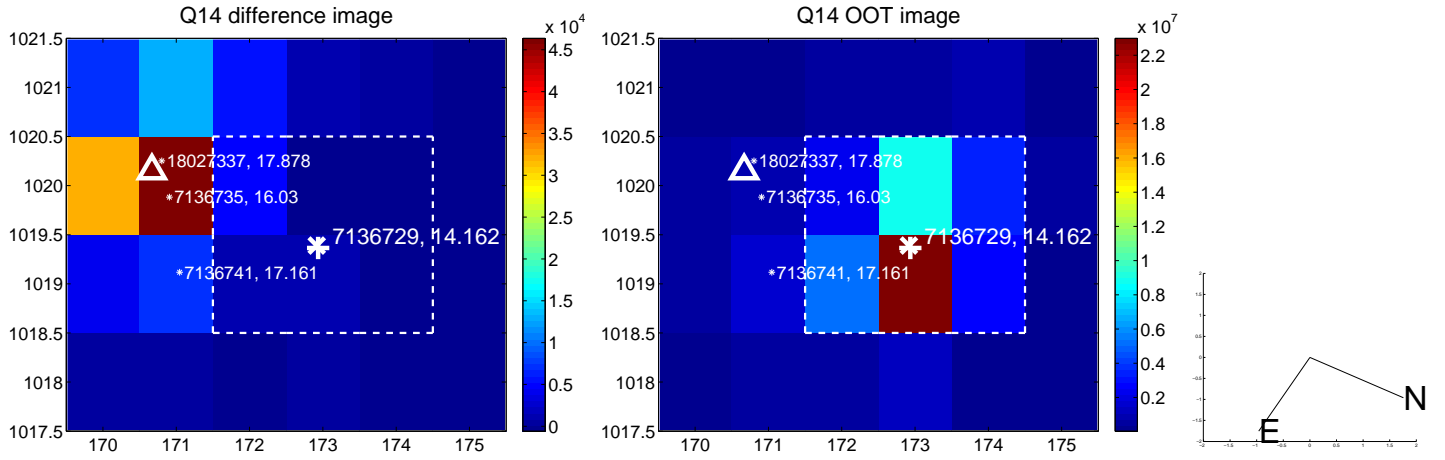
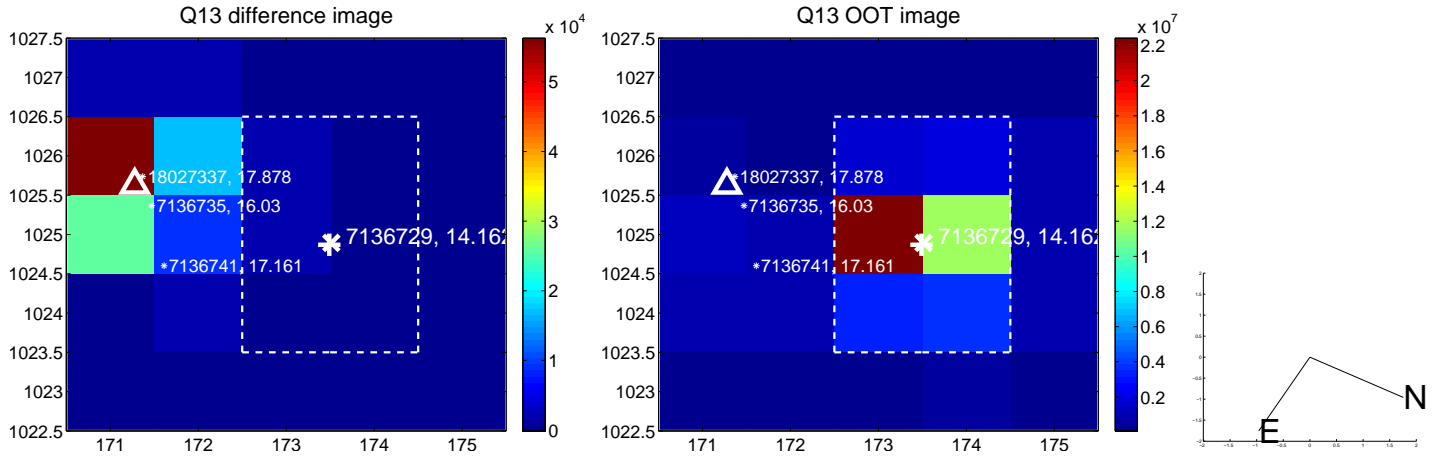
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



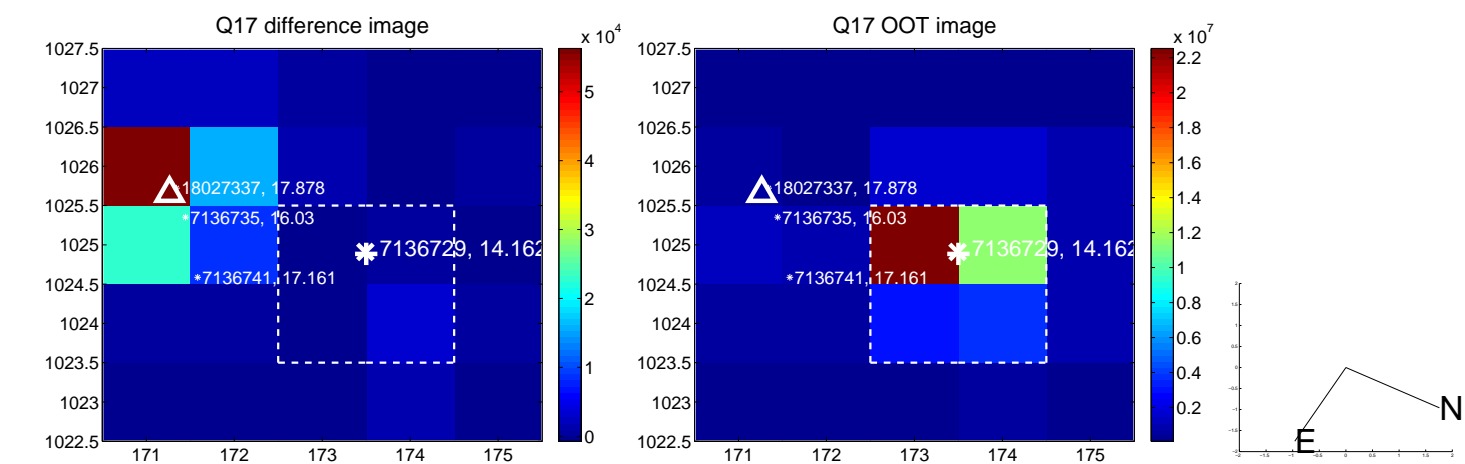
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



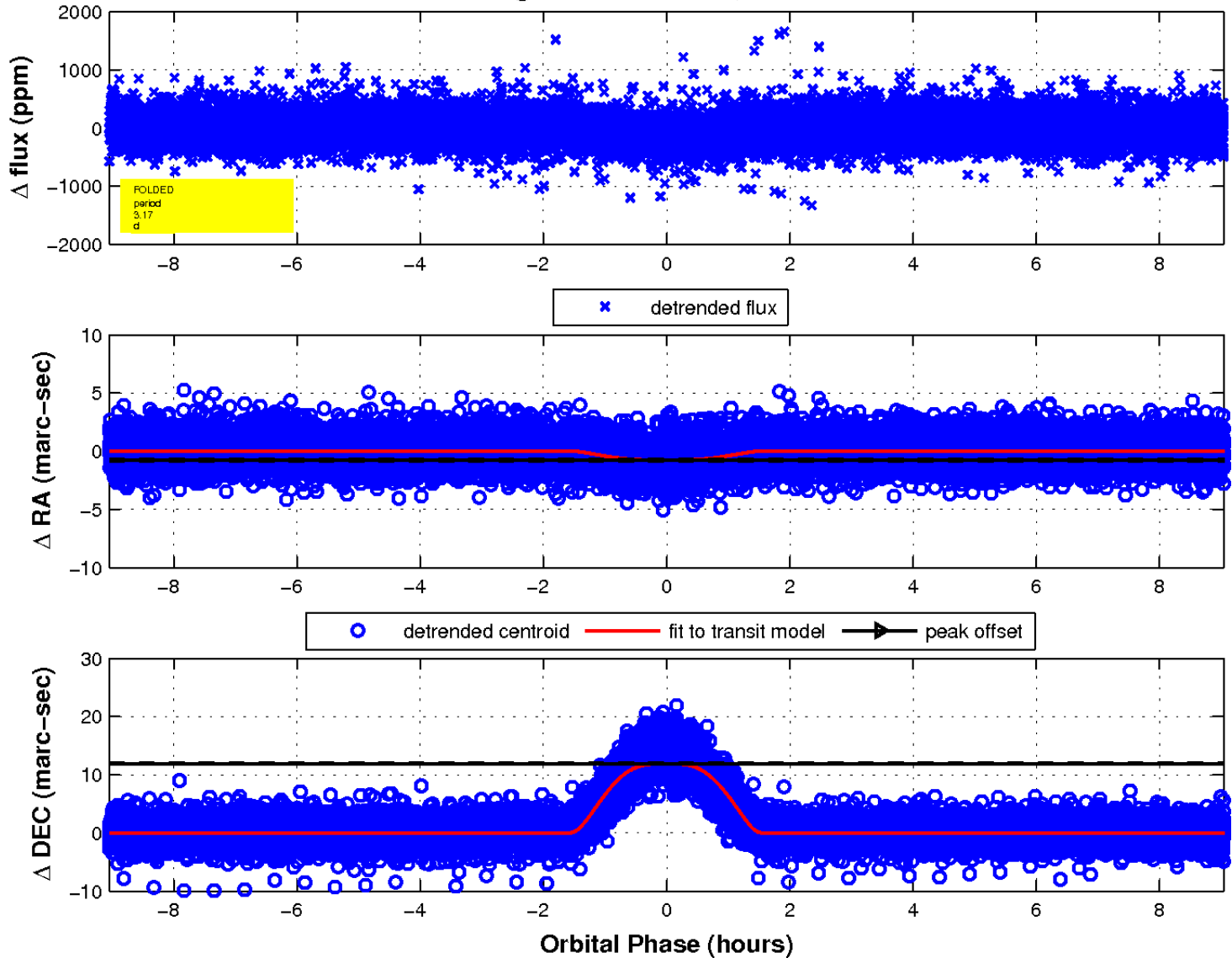
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

