

KIC 005376067

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})
005376067-01	OBS	0833.01	3.951411	133.761391	2412.6	2.186	110.7	118.9	0.87	6046	7.89	390.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005376067-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

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.

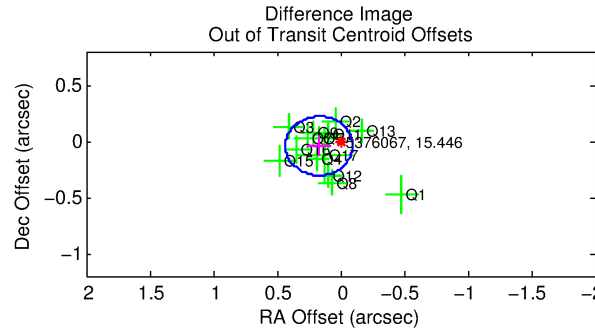
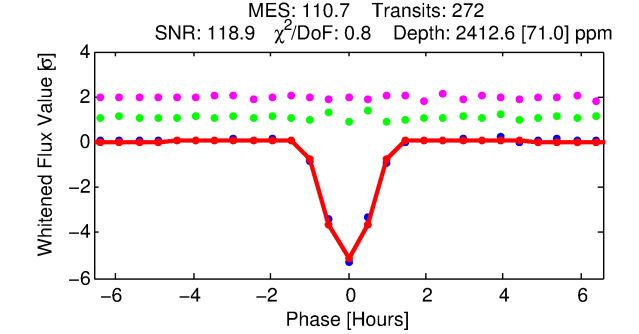
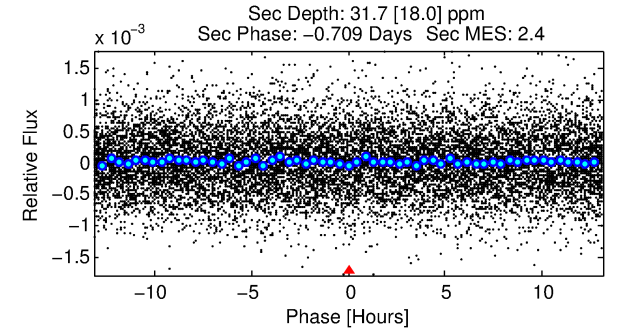
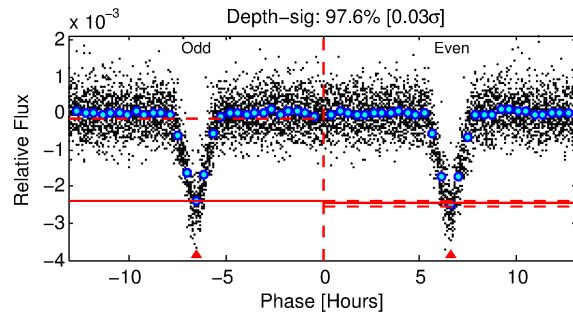
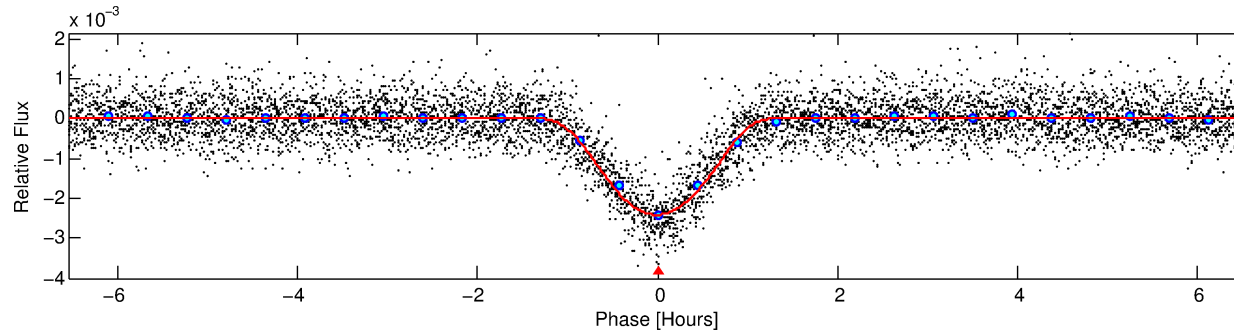
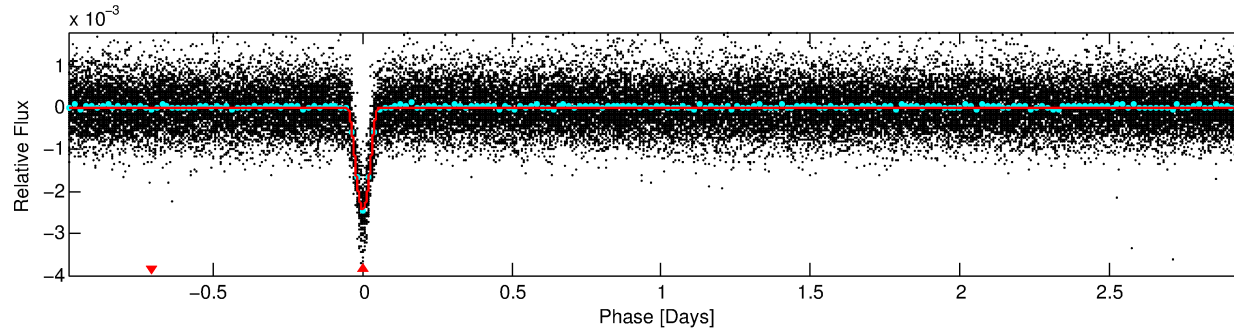
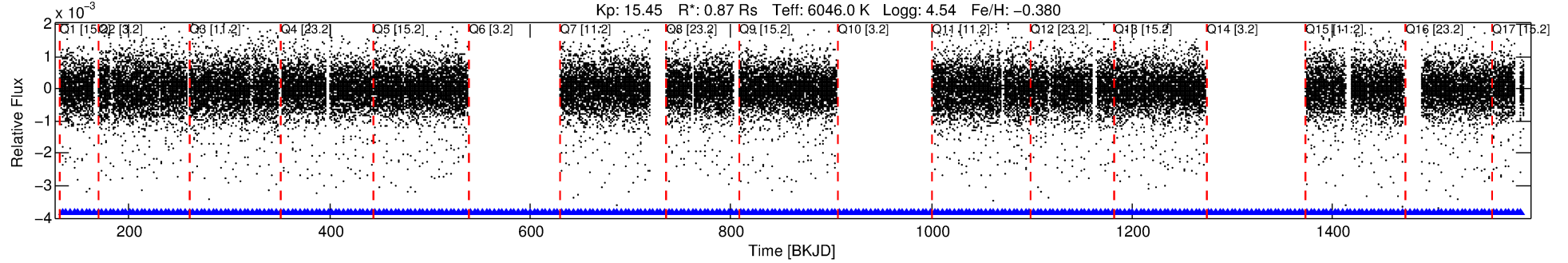
Ephemeris Match Information For 005376067-01

No Significant Match Found

DV One-Page Summary

KIC: 5376067 Candidate: 1 of 1 Period: 3.951 d
KOI: K00833.01 Corr: 0.993

Kp: 15.45 R*: 0.87 Rs Teff: 6046.0 K Logg: 4.54 Fe/H: -0.380



DV Fit Results:

Period = 3.95141 [0.00000] d
Epoch = 133.7614 [0.0003] BKJD
Rp/R* = 0.0832 [0.0413]
a/R* = 5.91 [0.62]
b = 1.00 [0.06]
Seff = 390.04 [150.29]
Teq = 1133 [109] K
Rp = 7.89 [4.51] Re
a = 0.0481 [0.0118] AU
Ag = 0.65 [0.78] [-0.45σ]
Teffp = 1573 [452] K [0.95σ]

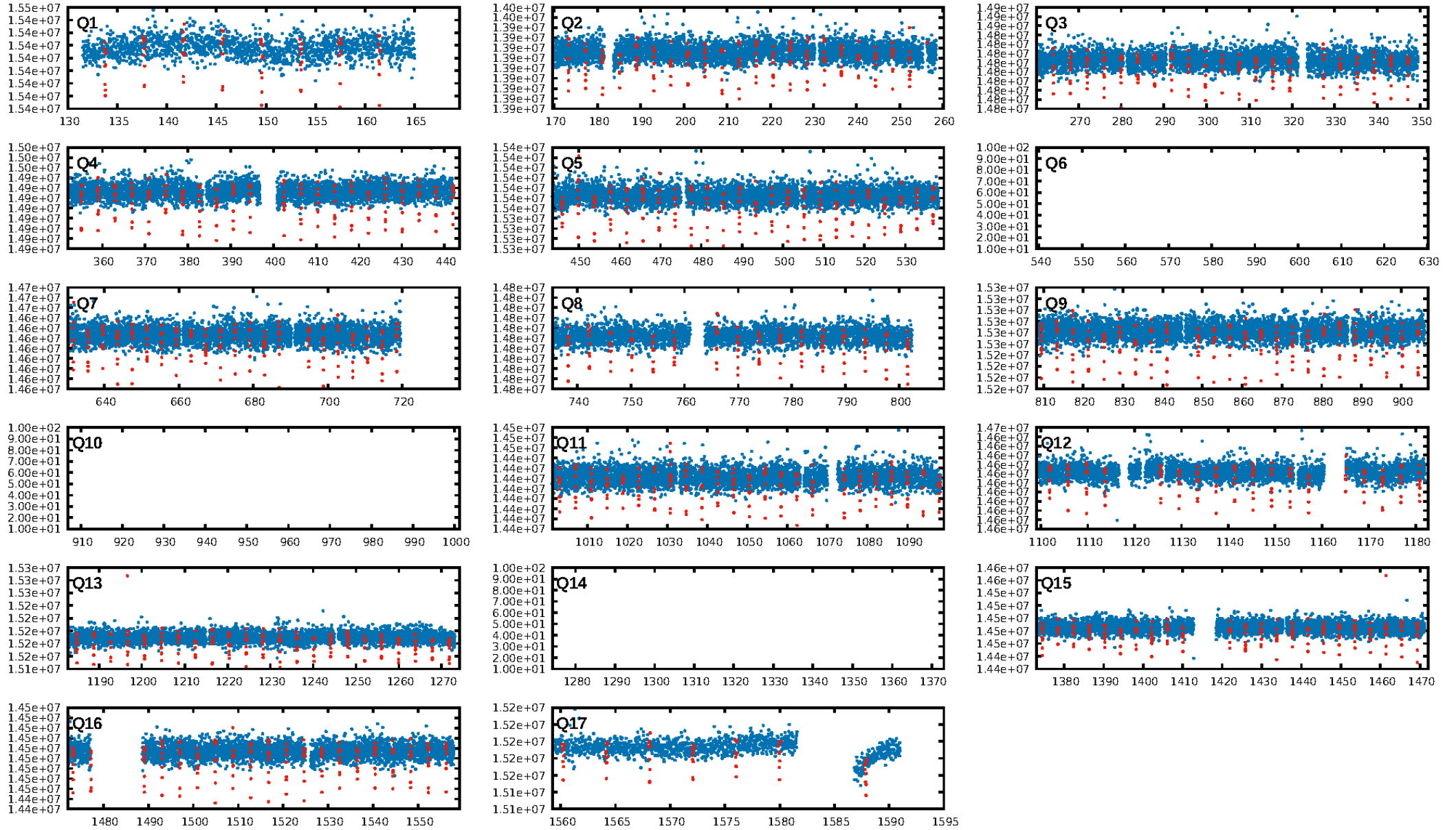
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [257/257]
GhostDiagnostic-chr: 3.877
Centroid-sig: 70.6%
Centroid-so: 0.201 arcsec [1.59σ]
OotOffset-rm: 0.176 arcsec [2.01σ]
KicOffset-rm: 0.166 arcsec [1.76σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

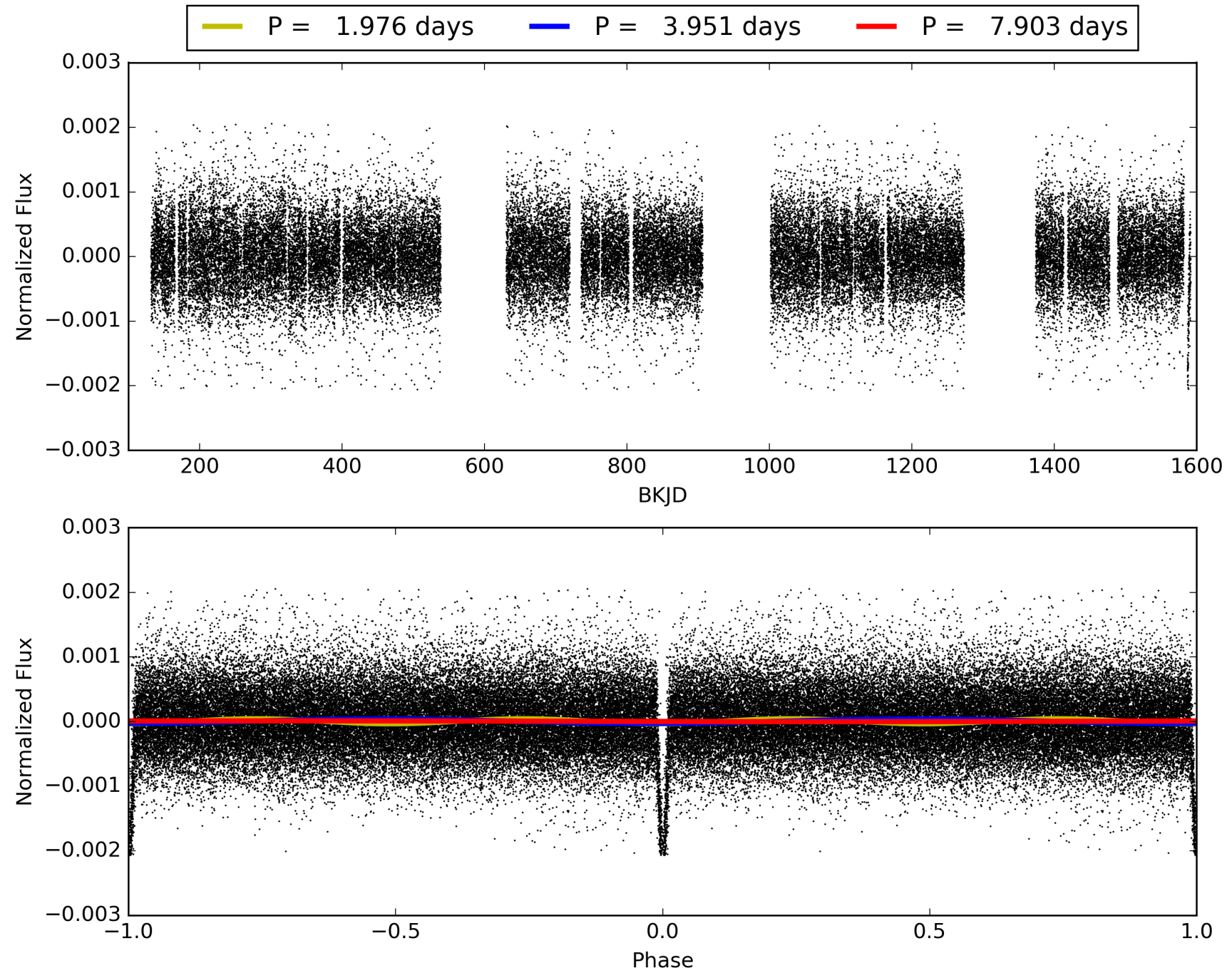
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:05:24 Z

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

TCE 005376067-01, PDC Light Curves

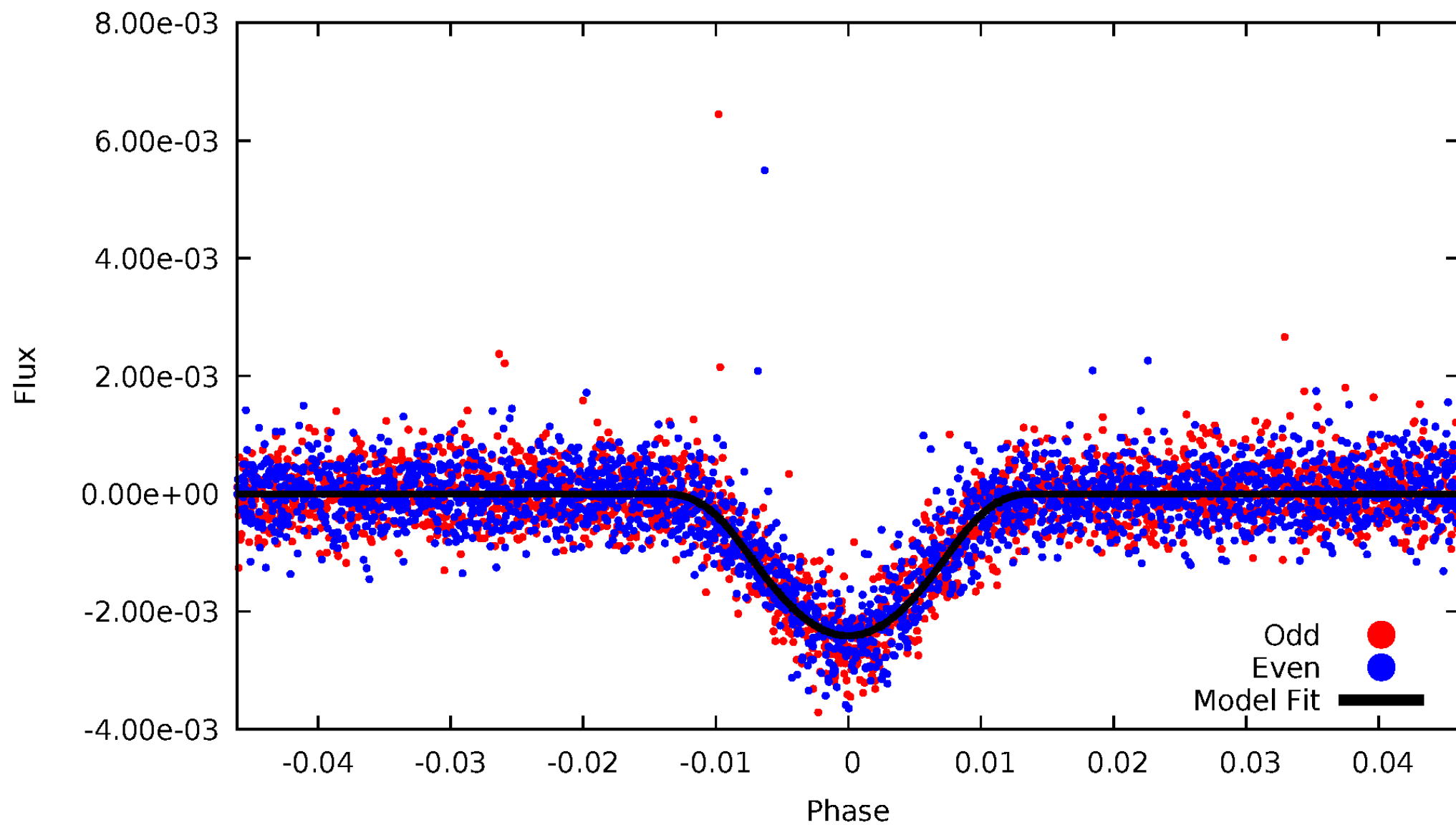


TCE 005376067-01



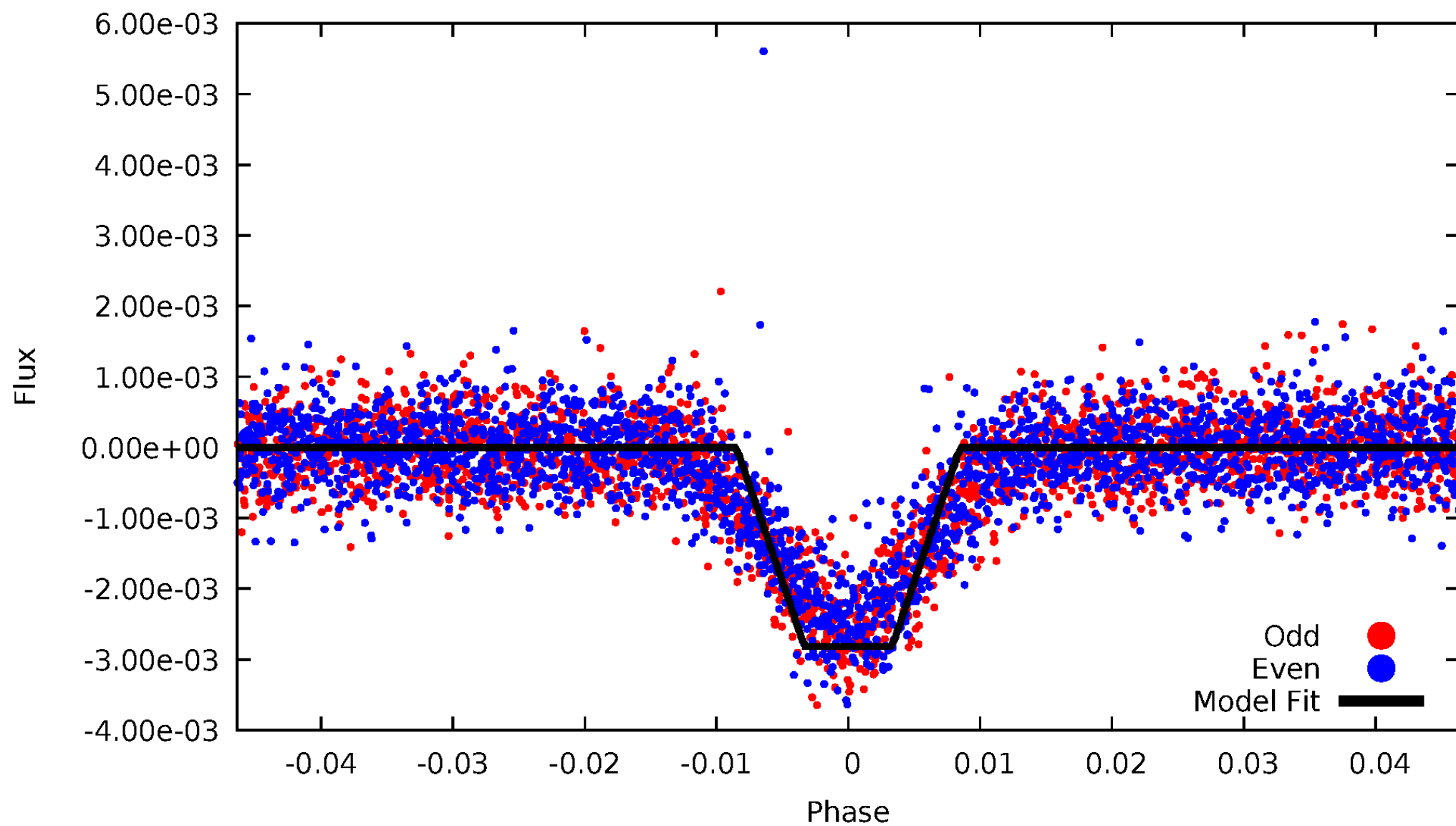
DV Odd/Even

TCE 005376067-01



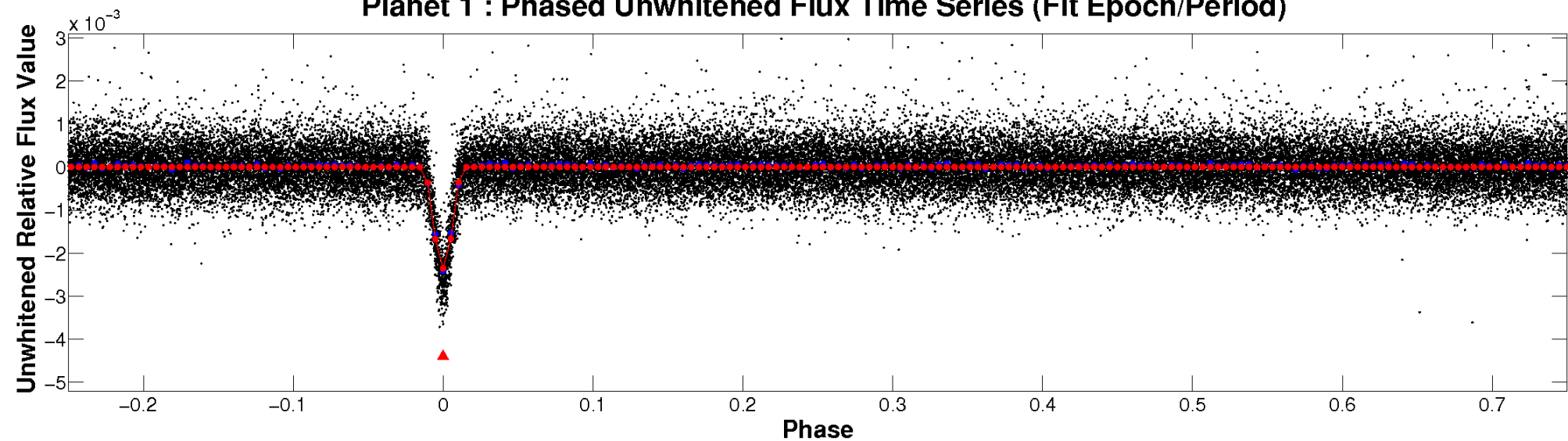
ALT Odd/Even

TCE 005376067-01

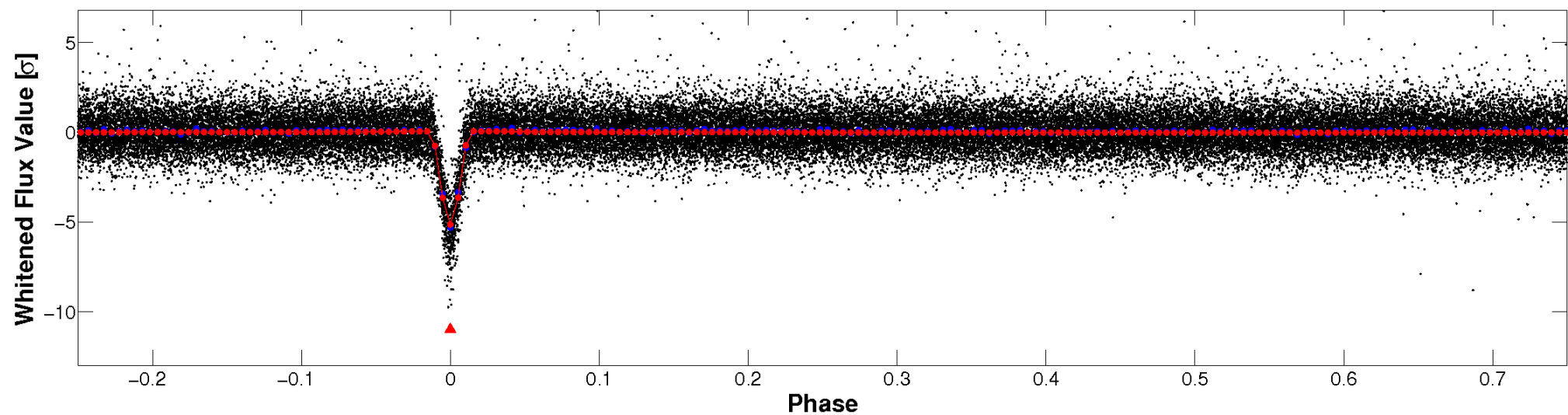


Non-Whitened Vs. Whitened Light Curve

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

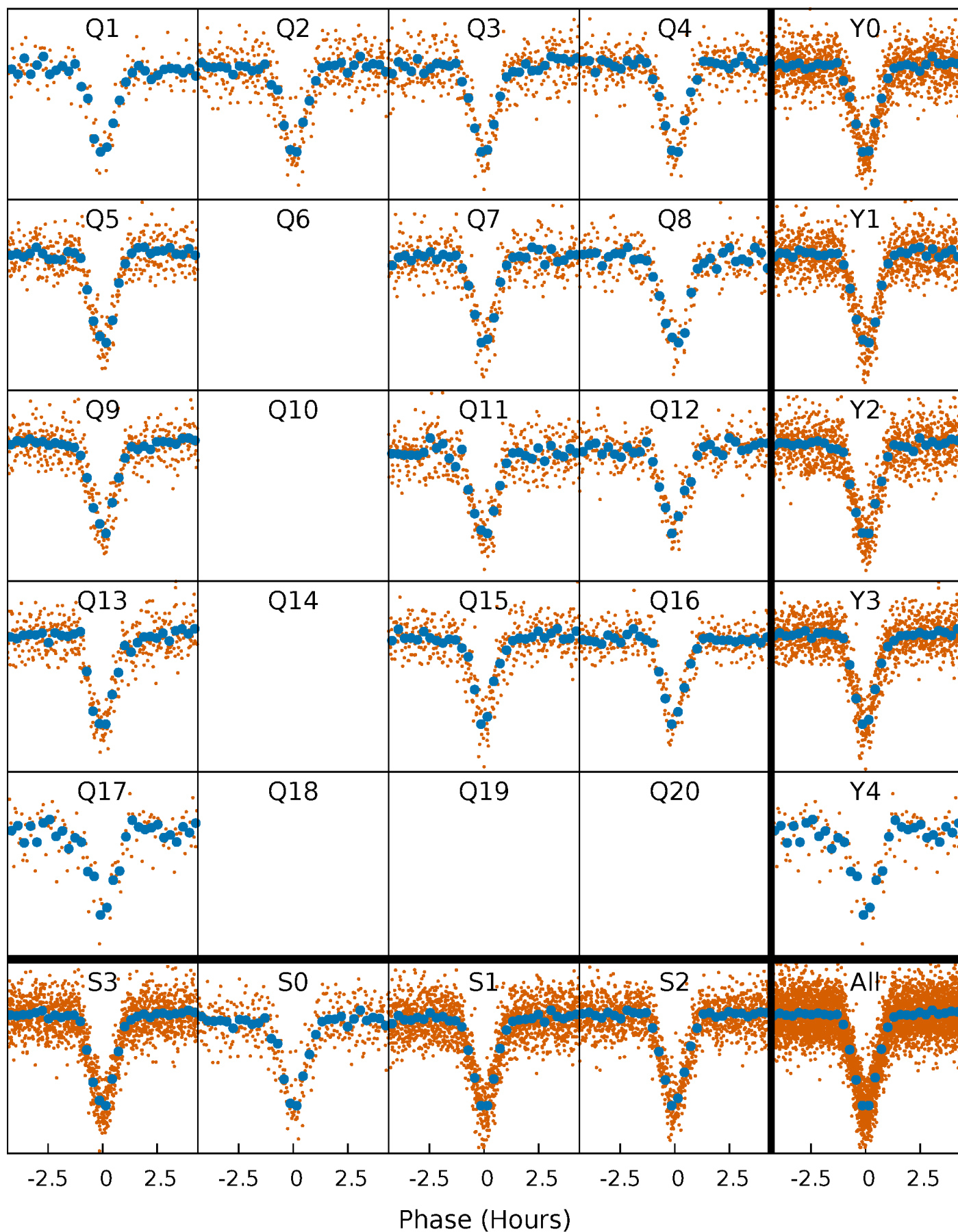


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



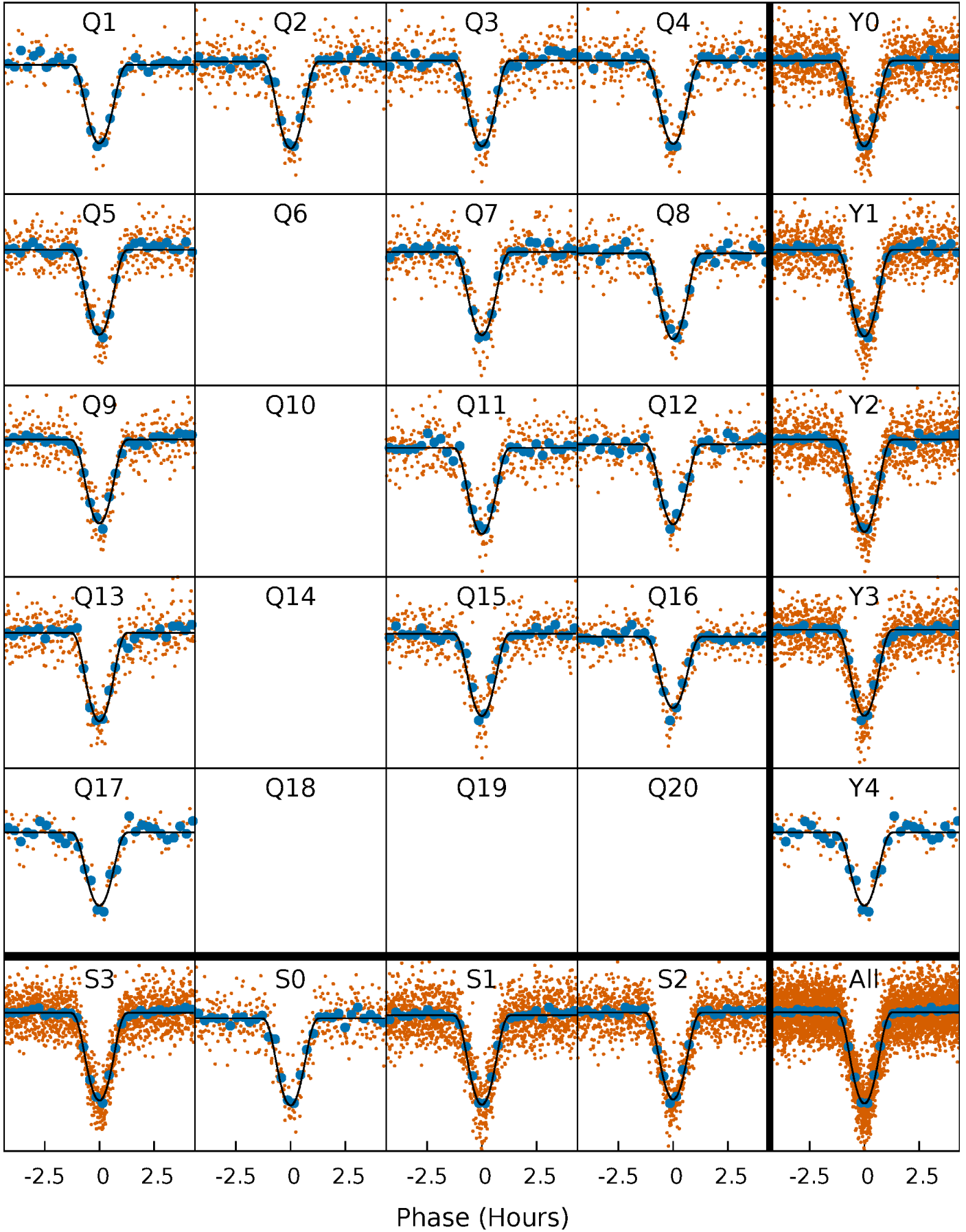
PDC Quarter-Phased Transit Curves

TCE 005376067-01 P= 3.951411 Days $T_0=133.761391$ (BKJD)



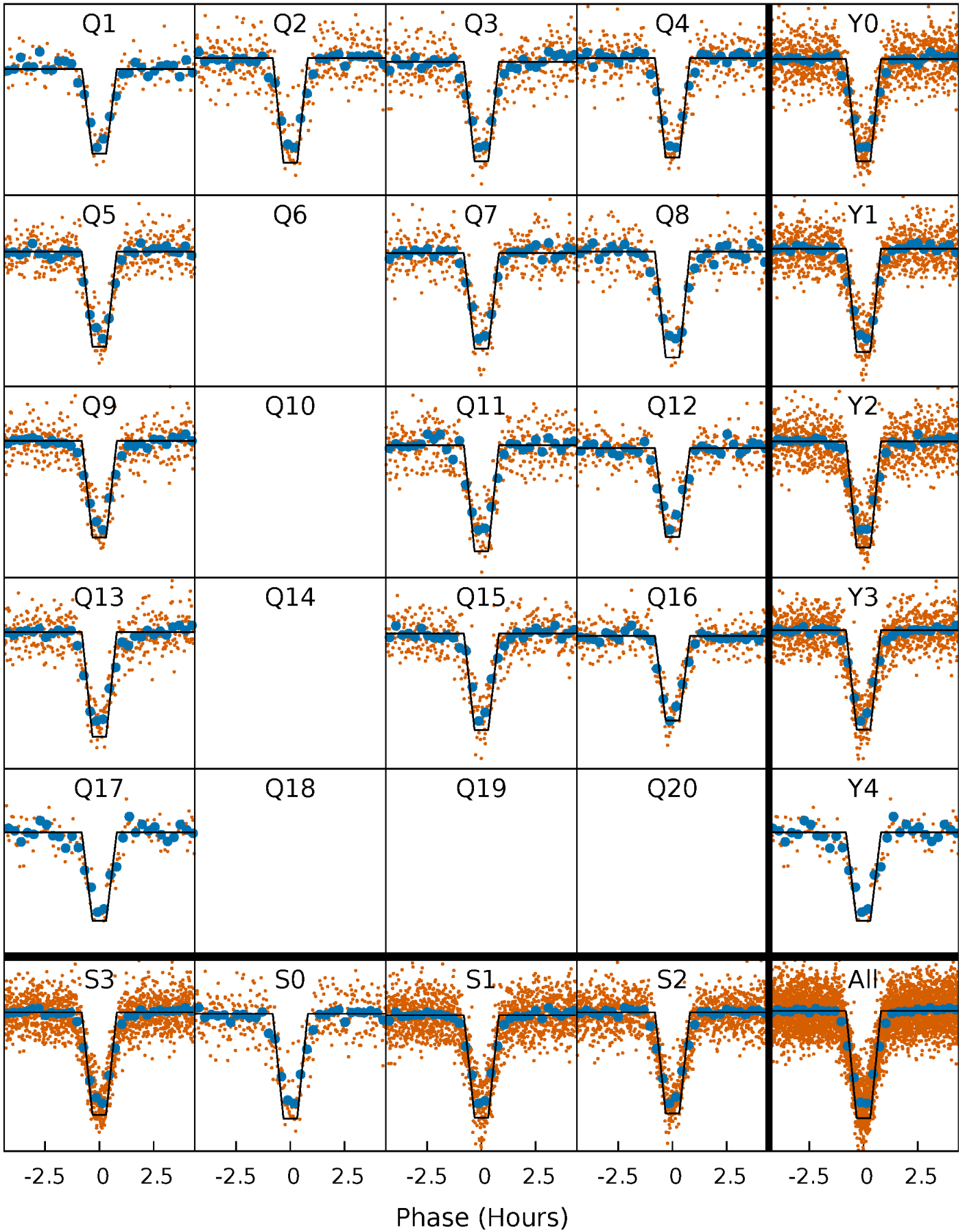
DV Quarter-Phased Transit Curves

TCE 005376067-01 P= 3.951411 Days $T_0=133.761391$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

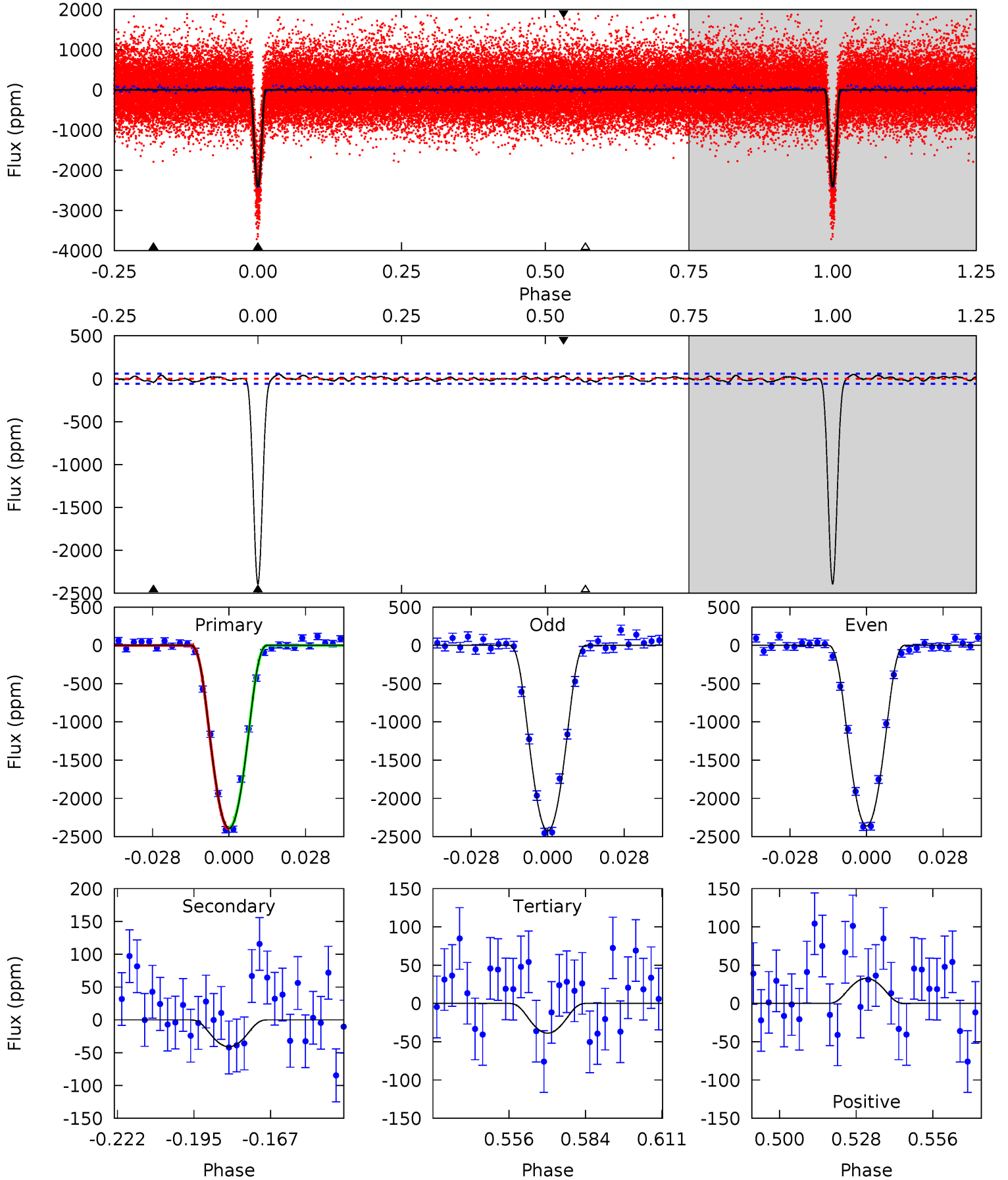
TCE 005376067-01 P= 3.951414 Days $T_0=133.760755$ (BKJD)



DV Model-Shift Uniqueness Test

005376067-01, P = 3.951411 Days, E = 129.809980 Days

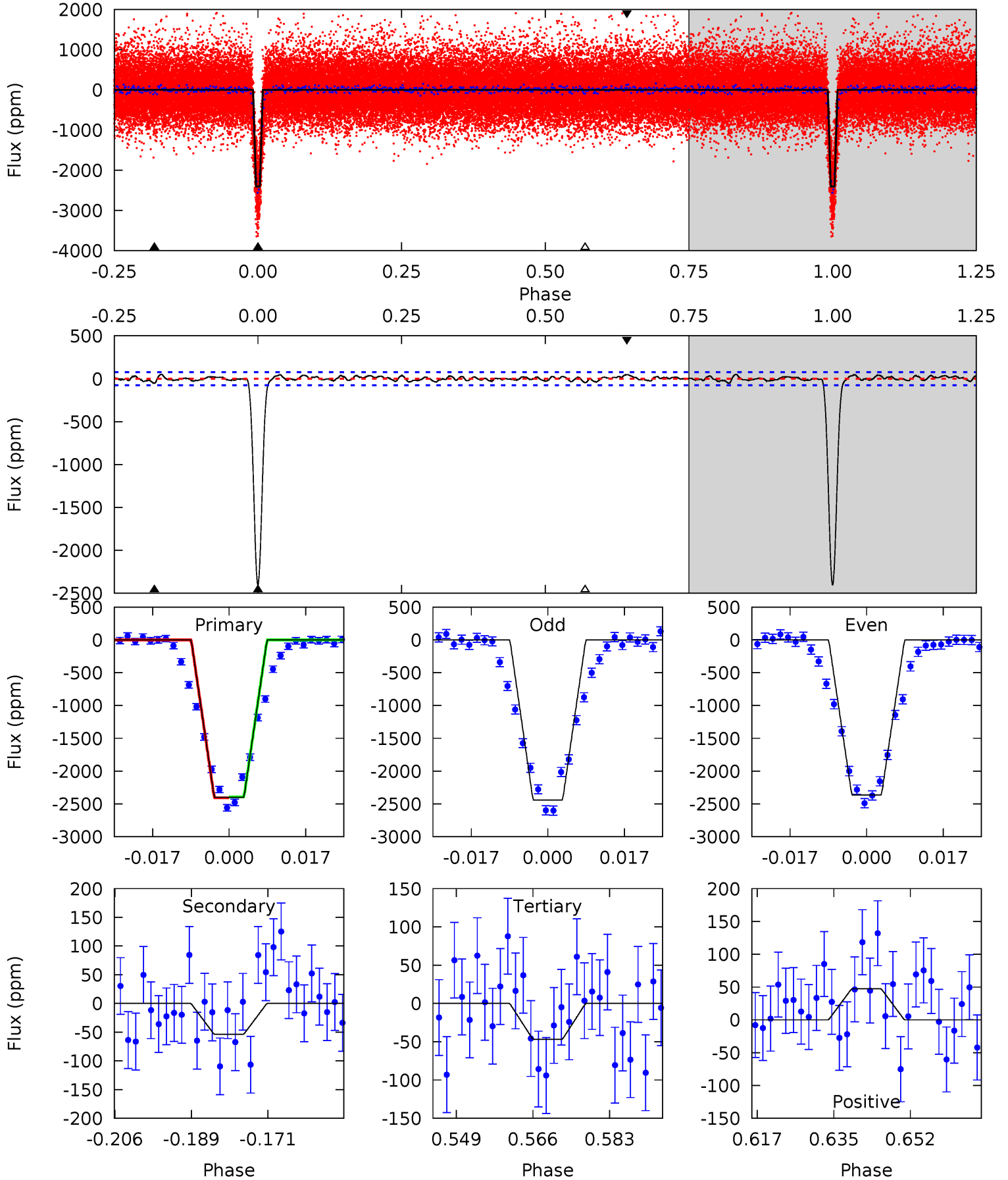
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
193.7	3.32	3.14	2.65	4.83	2.20	1.41	190.5	191.0	0.17	0.66	2.62	0.99	0.02	0.67



Alt Model-Shift Uniqueness Test

005376067-01, P = 3.951414 Days, E = 129.809341 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
152.4	3.41	2.97	3.00	4.92	2.38	1.20	149.5	149.4	0.44	0.41	2.41	1.00	0.02	0.38



Stellar Parameters For KIC 005376067

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6046^{+182}_{-182}	$4.539^{+0.048}_{-0.204}$	$-0.380^{+0.300}_{-0.300}$	$0.869^{+0.247}_{-0.082}$	$0.953^{+0.107}_{-0.119}$	$2.043^{+0.403}_{-1.050}$
	+3%/-3%	+1%/-4%	+79%/-79%	+28%/-9%	+11%/-12%	+20%/-51%
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 005376067-01 / KOI 0833.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-41 ± 12	$8.29^{+4.65}_{-3.76}$	1618^{+113}_{-71}	2322^{+590}_{-4051}	$0.685^{+1.763}_{-0.406}$
Alt.	-54 ± 16	$5.71^{+4.00}_{-3.21}$	1622^{+114}_{-79}	2803^{+879}_{-466}	$1.975^{+8.461}_{-1.284}$

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 $A_{obs} \gg 1.0$

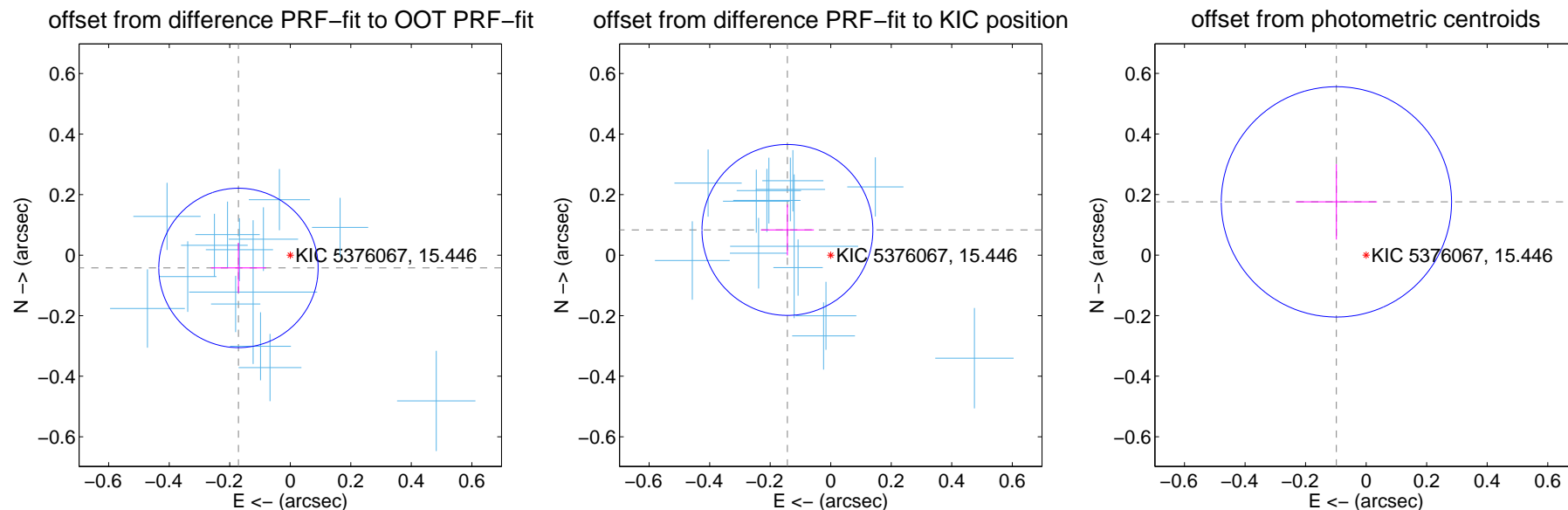
DV Centroid Data

Supplemental centroid analysis for 005376067-01. Kepler magnitude: 15.45. Transit SNR 118.93

There are 14 quarters with good PRF difference image offsets

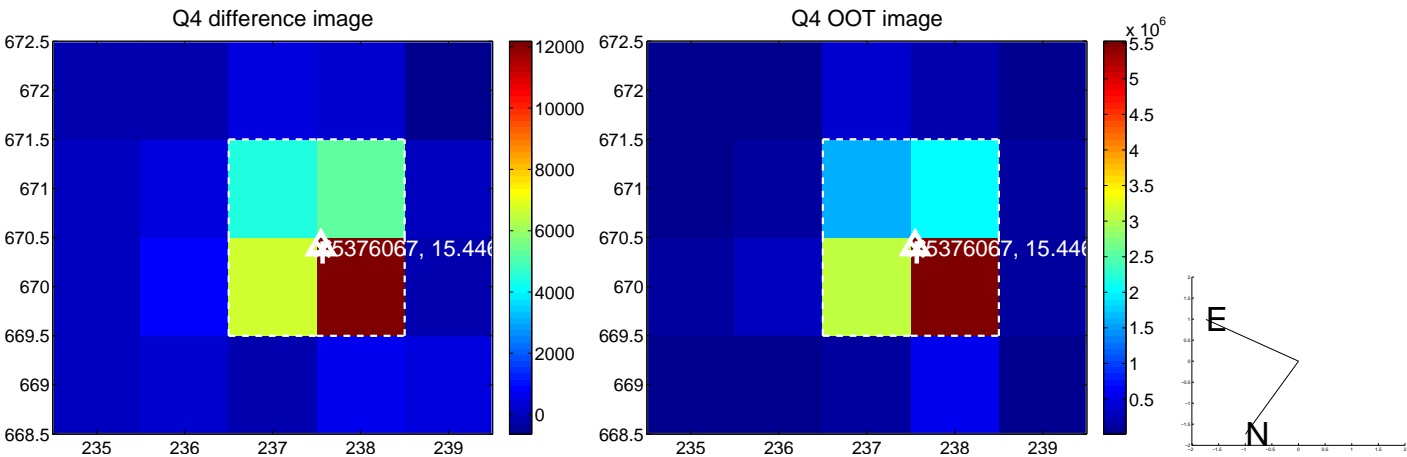
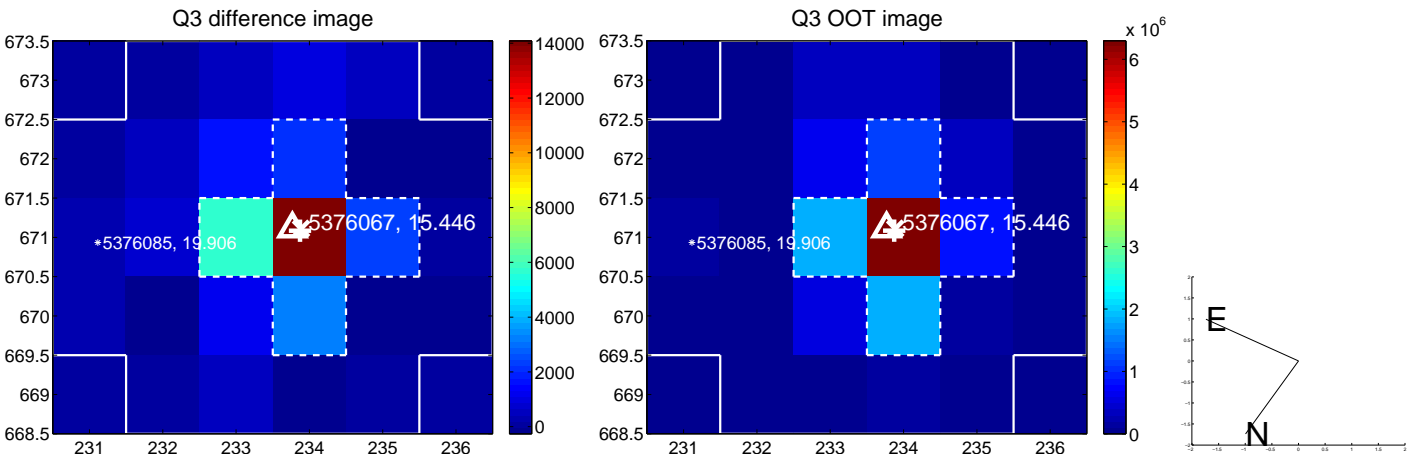
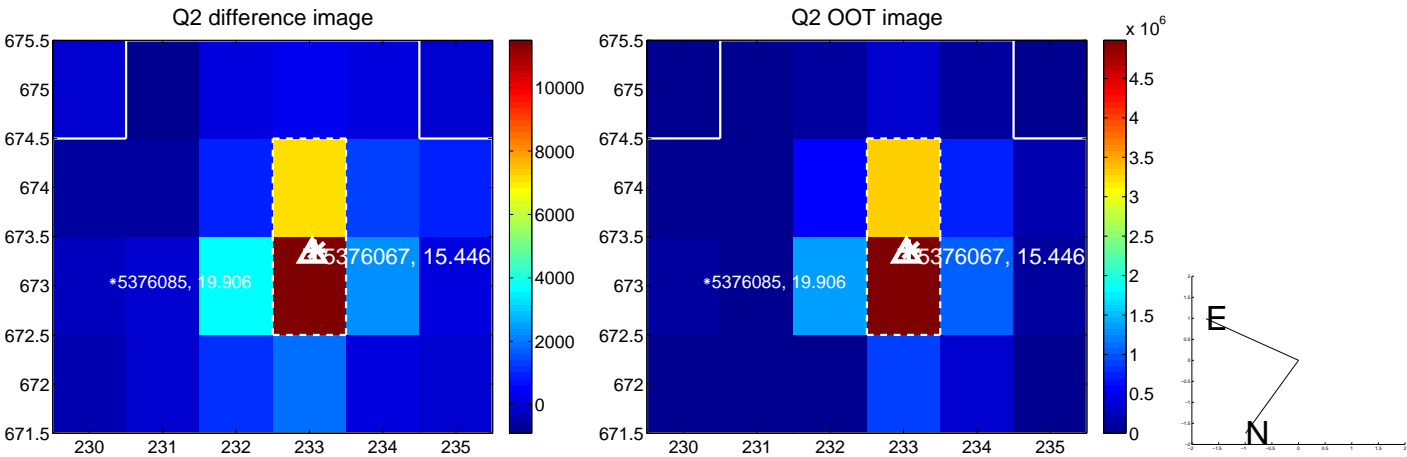
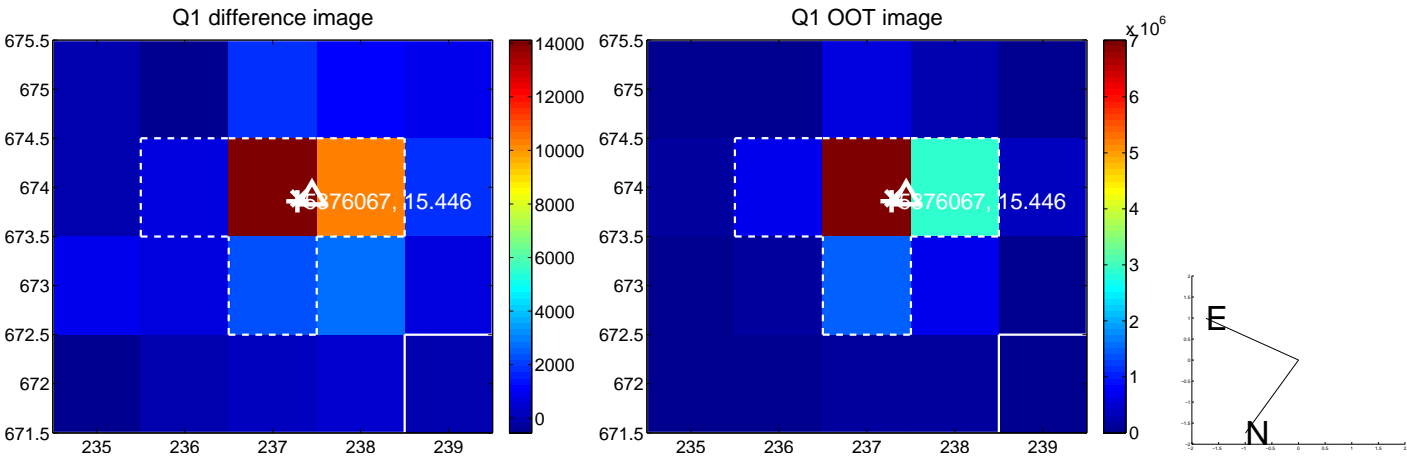
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.176 ± 0.088	2.01	0.171 ± 0.091	-0.042 ± 0.083
PRF-fit source offset from KIC position	0.166 ± 0.094	1.76	0.143 ± 0.088	0.083 ± 0.084
photometric centroid source offset	0.20 ± 0.13	1.59	0.10 ± 0.13	0.18 ± 0.12

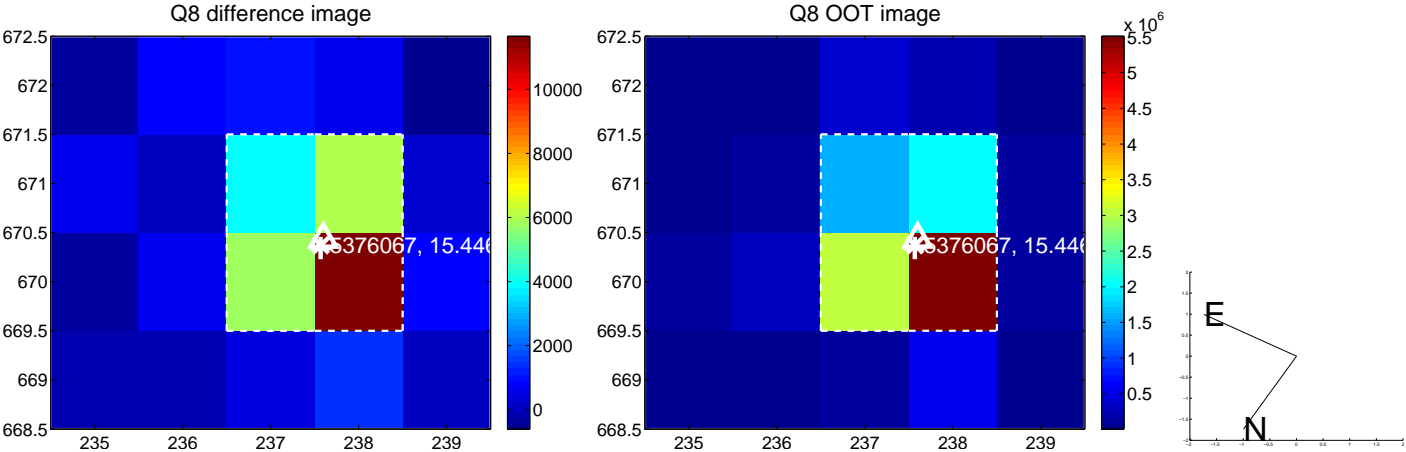
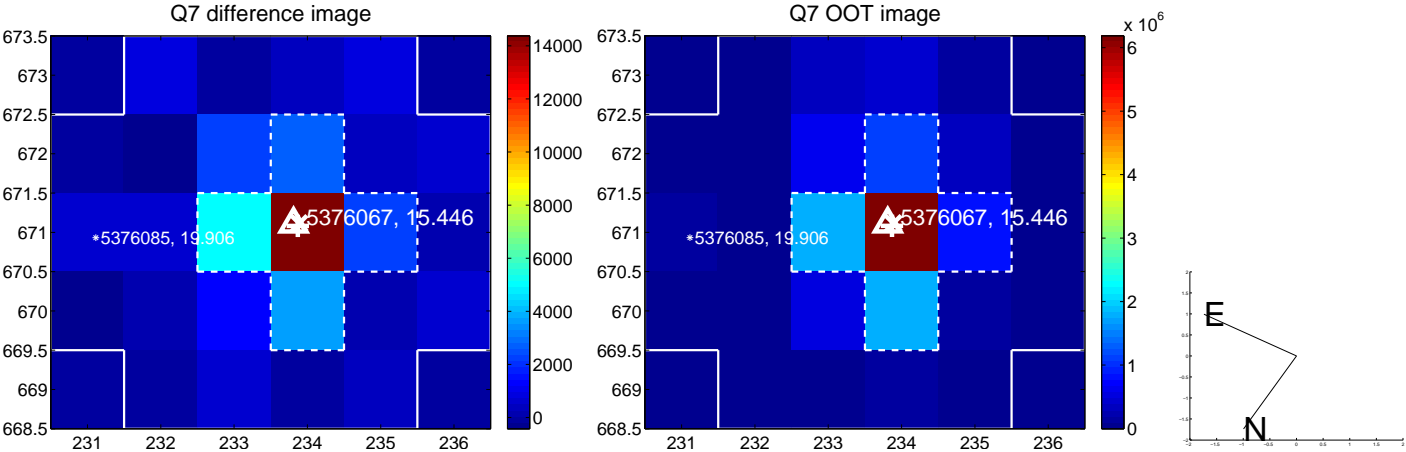
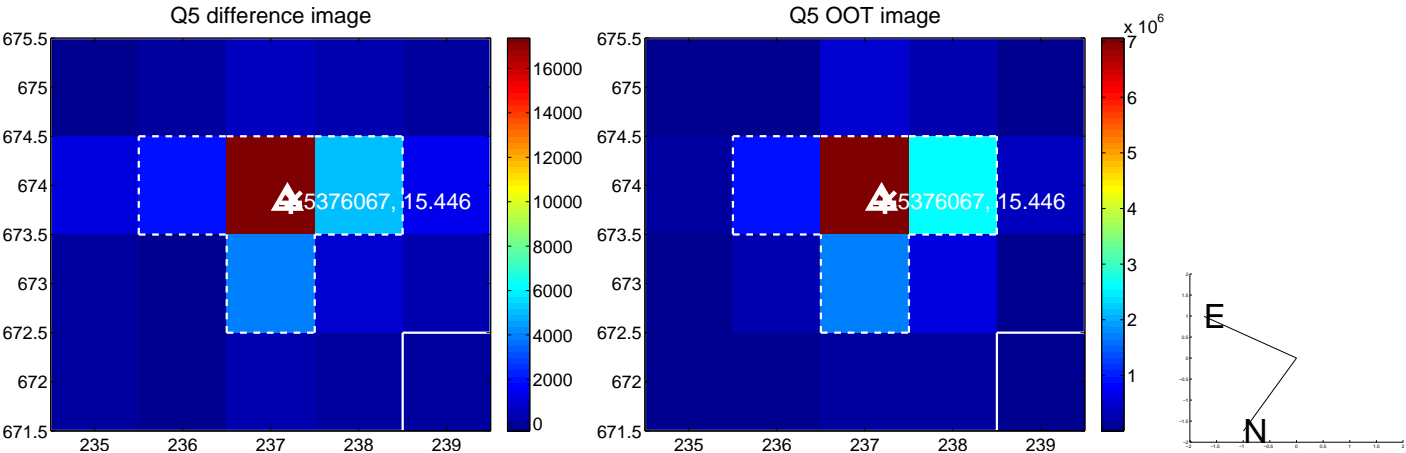


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

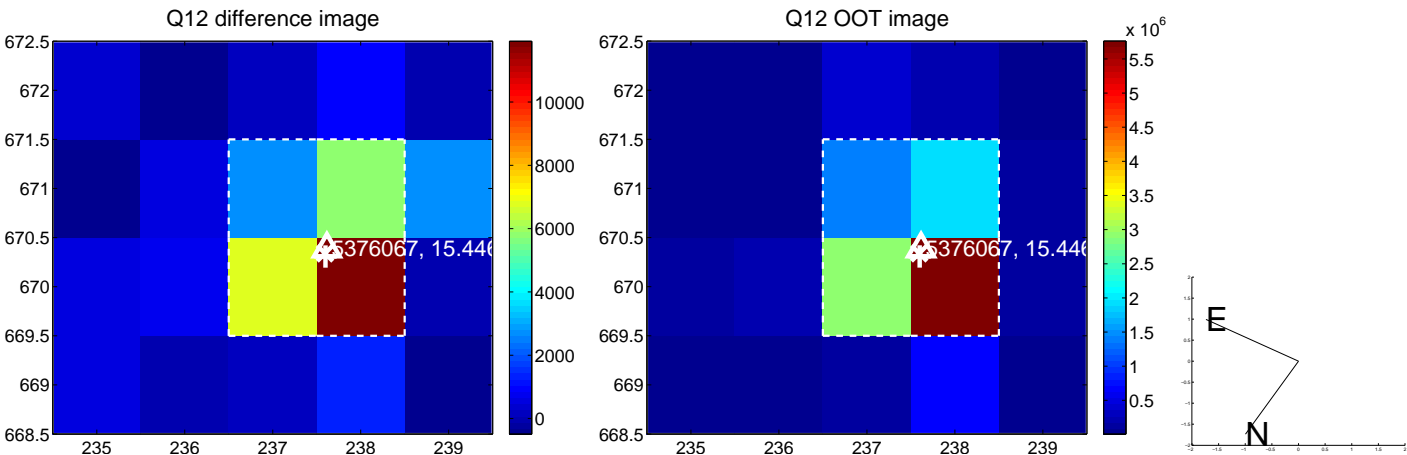
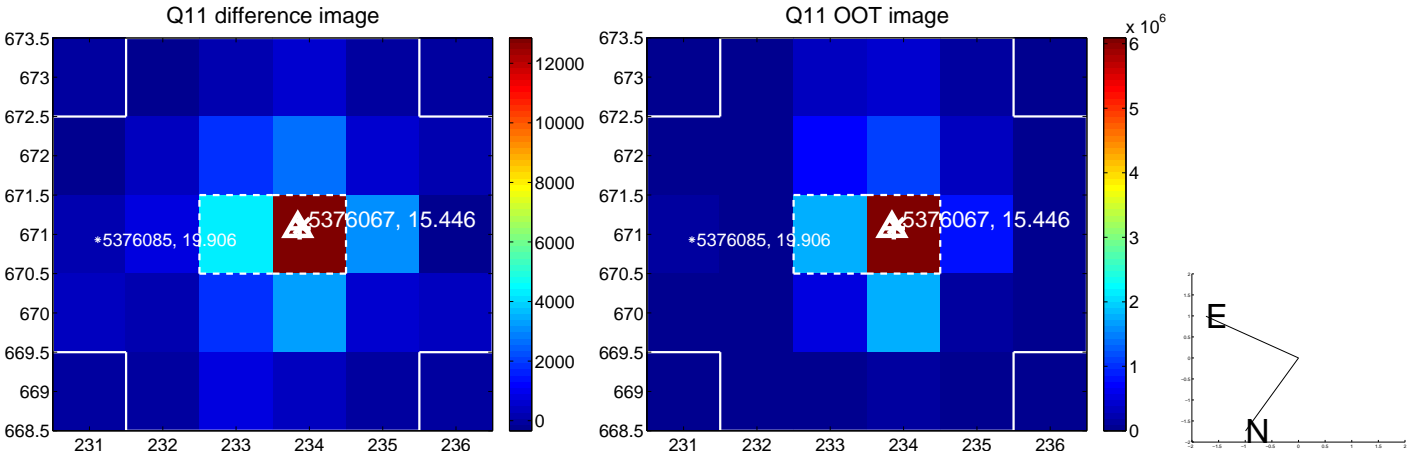
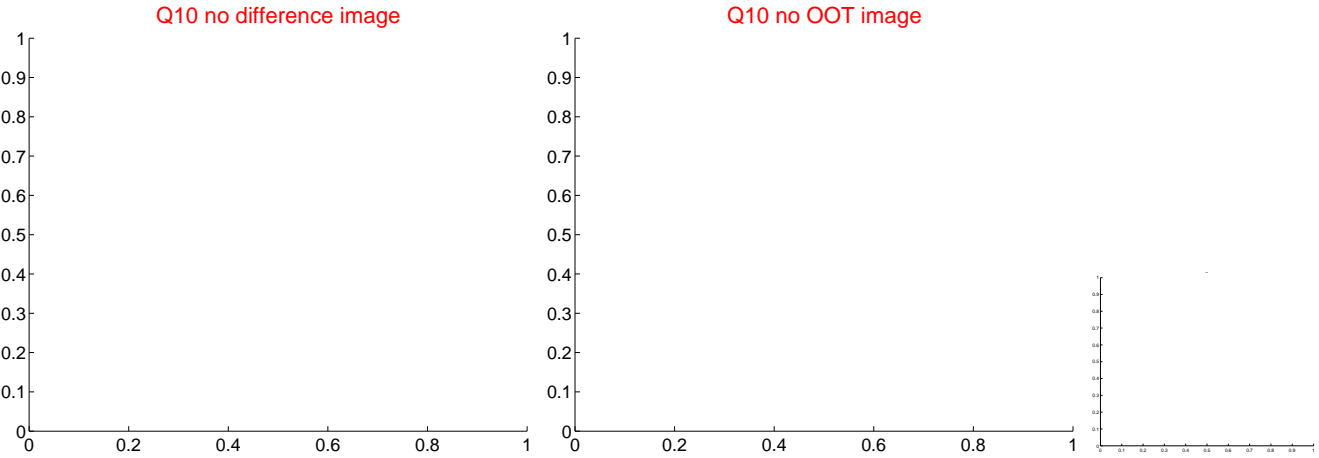
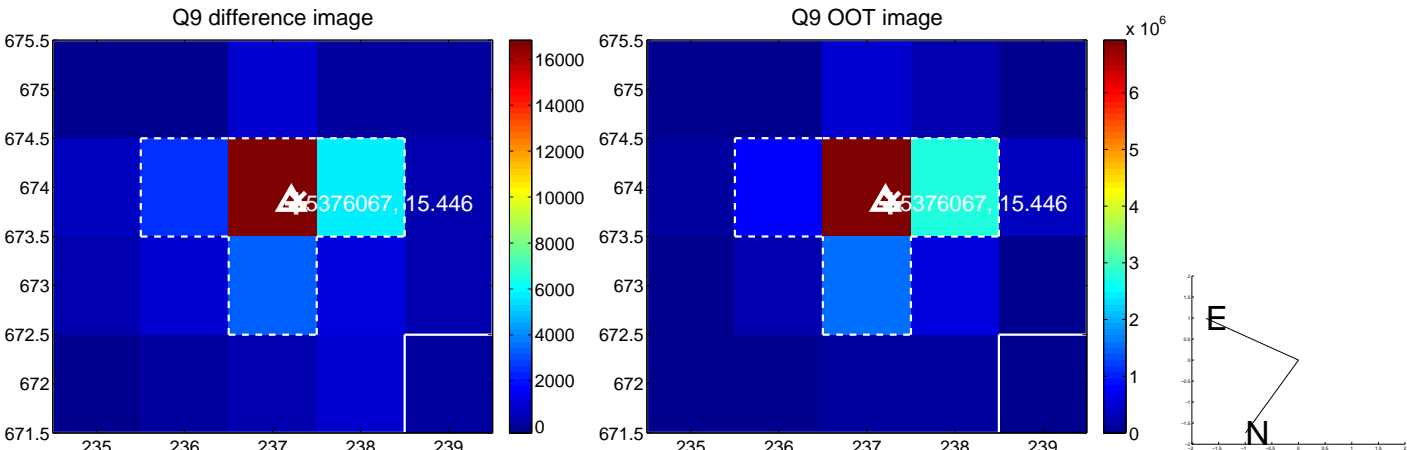
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



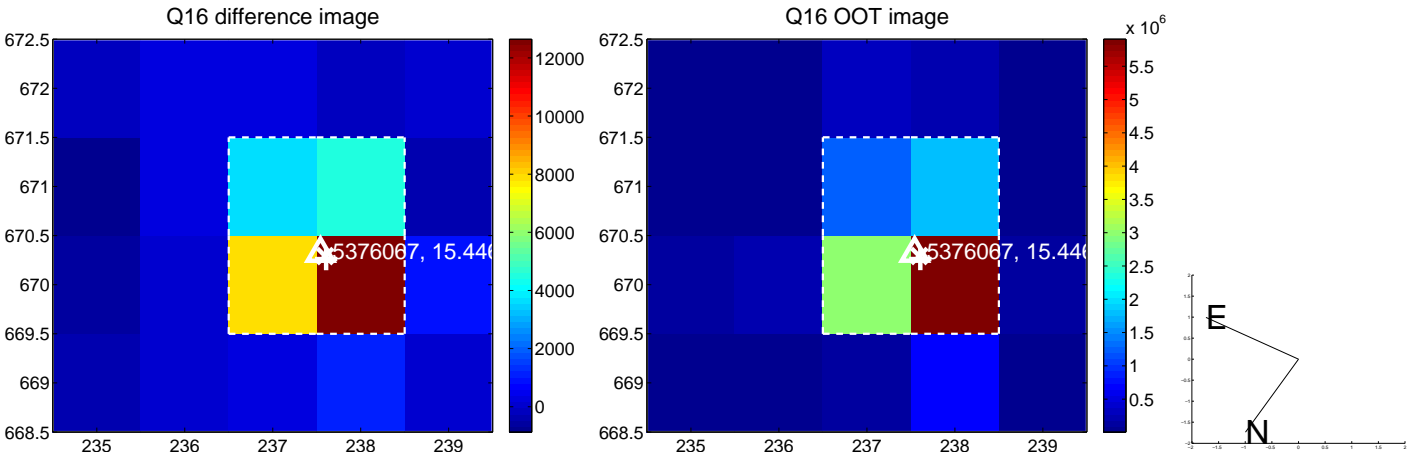
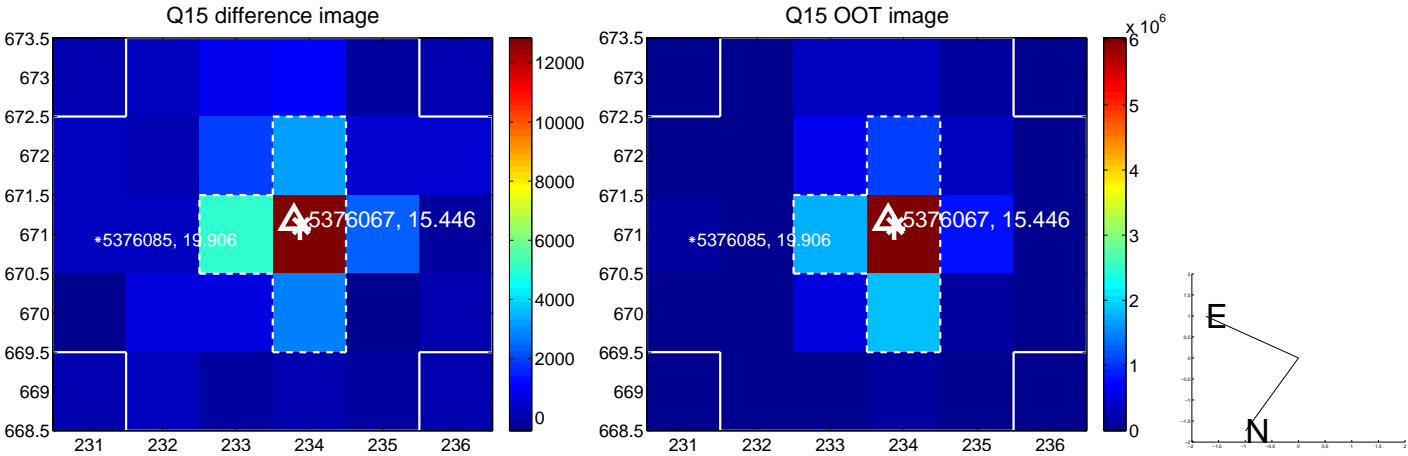
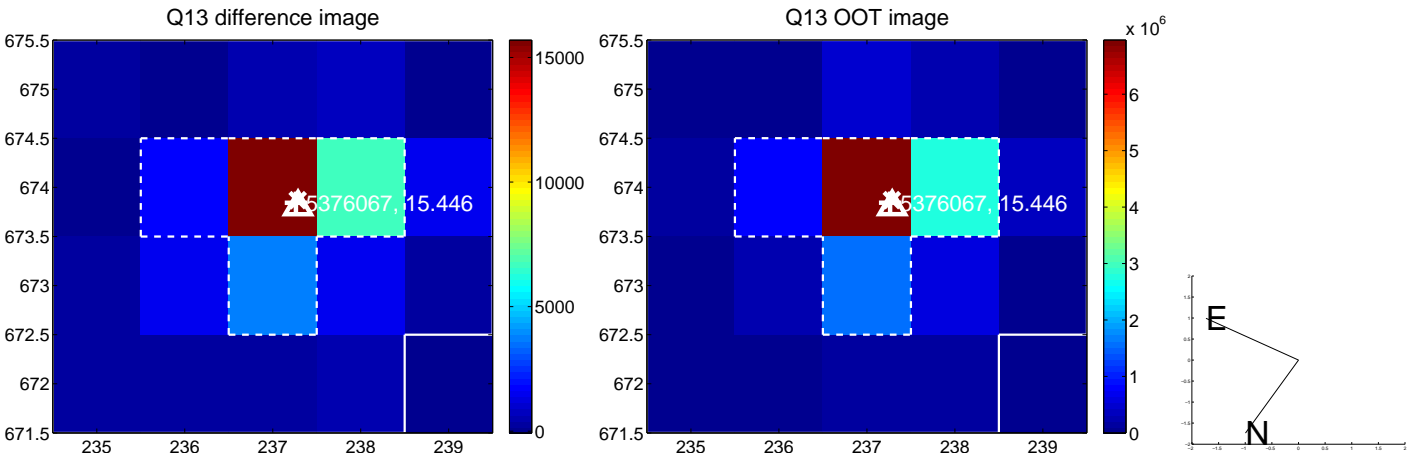
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



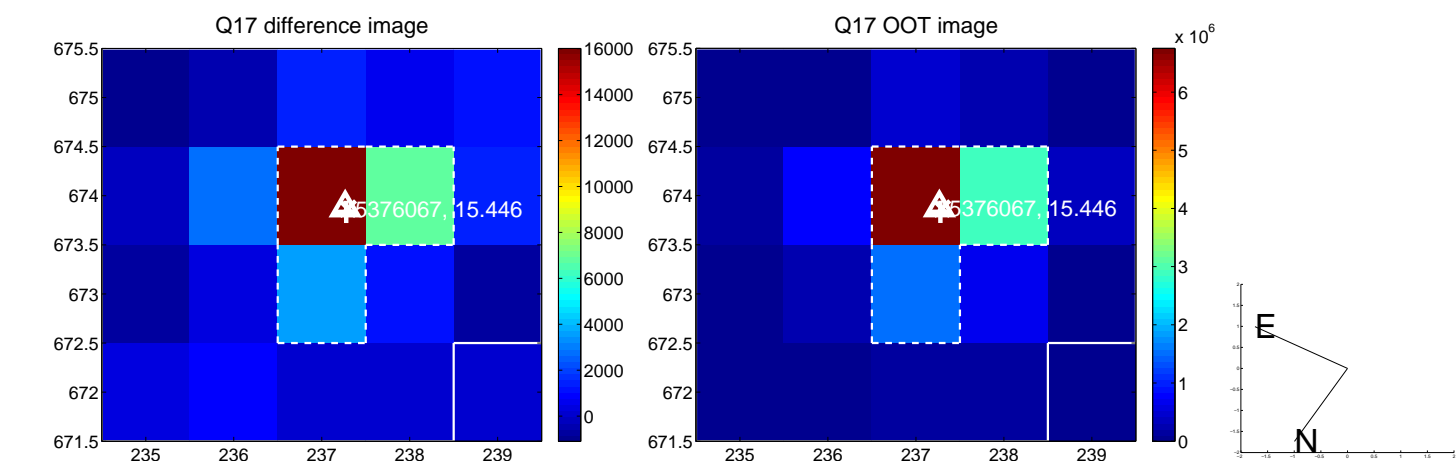
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



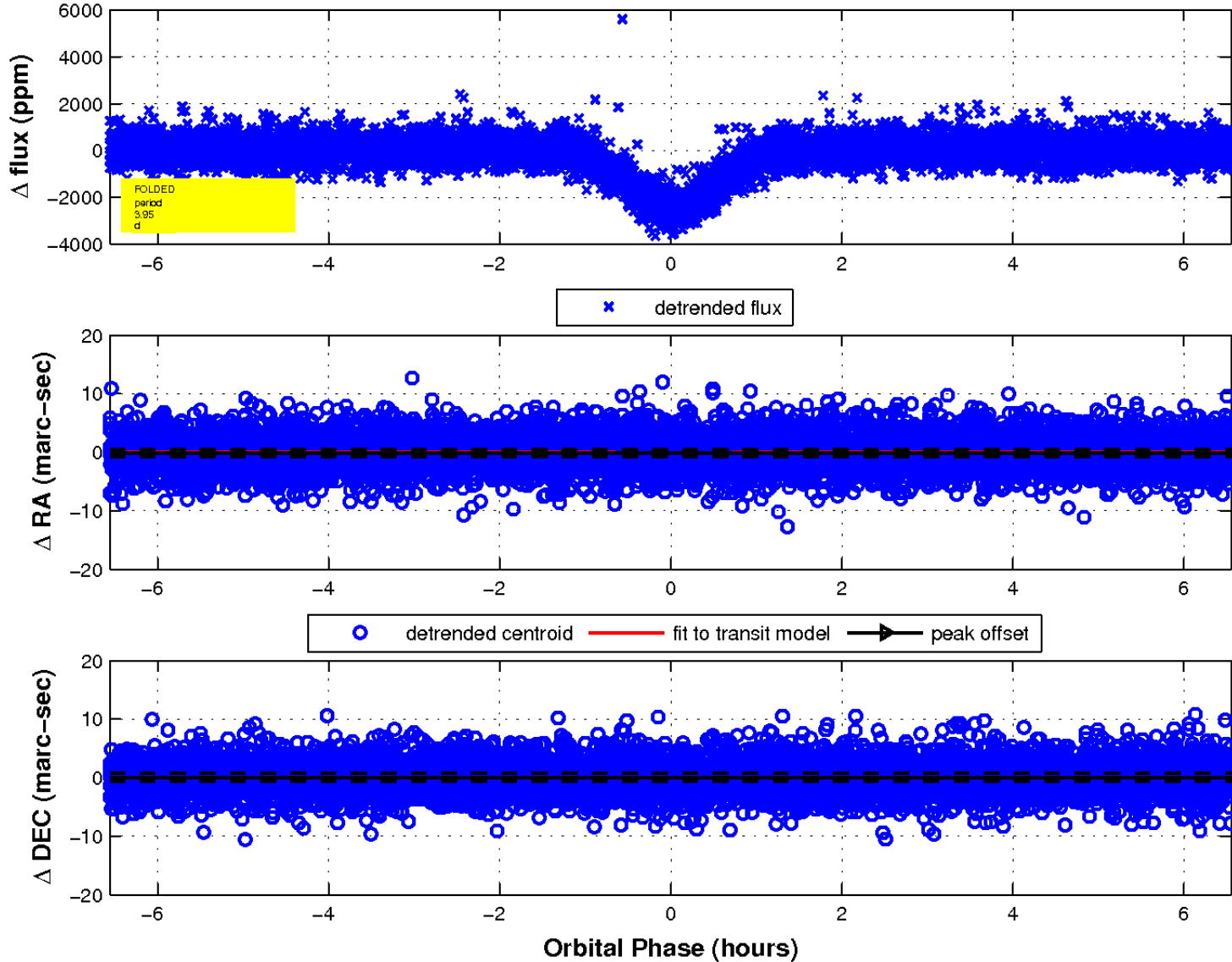
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

