

KIC 011026304

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})
011026304-01	OBS	1420.01	13.351510	136.110818	3320.5	3.720	94.2	92.9	0.75	4843	4.67	27.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011026304-01	OBS	PC	1.00	0	0	0	0	CENT_KIC_POS

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

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

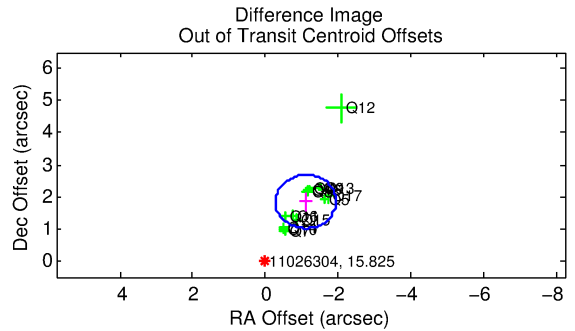
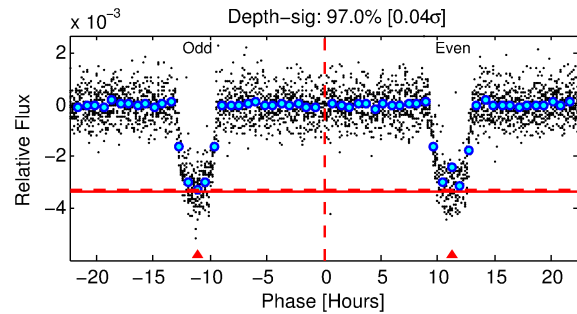
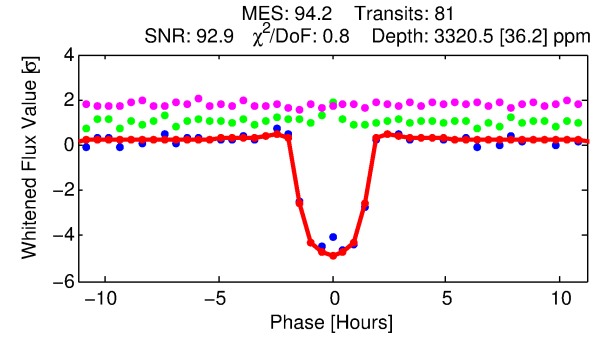
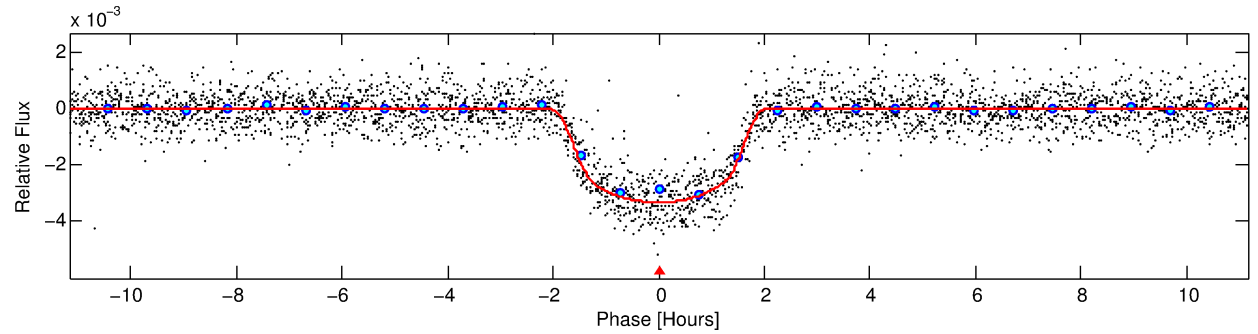
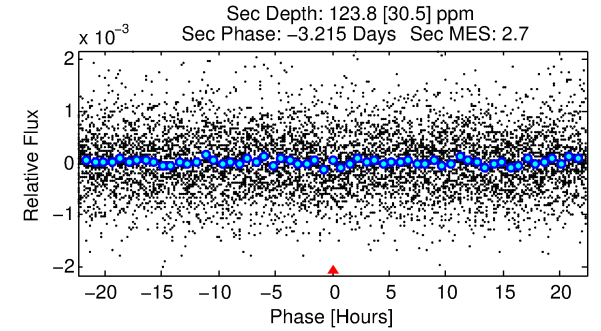
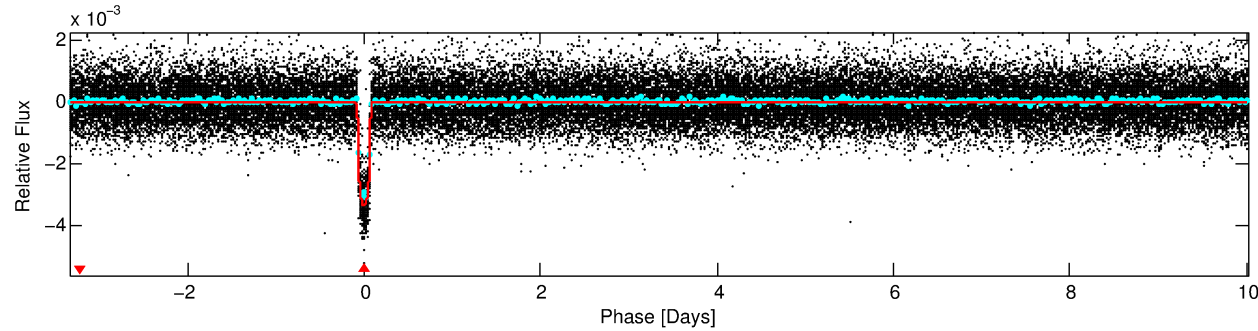
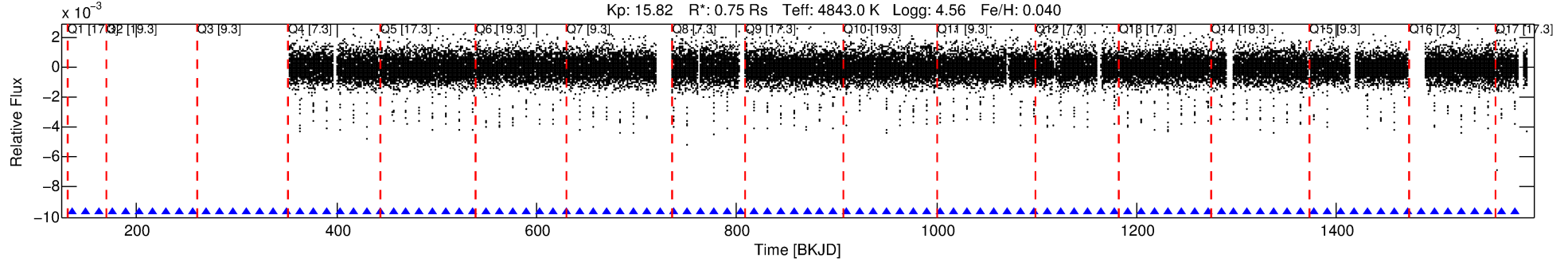
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011026304-01

No Significant Match Found

DV One-Page Summary

KIC: 11026304 Candidate: 1 of 1 Period: 13.352 d
KOI: K01420.01 Corr: 0.981



DV Fit Results:

Period = 13.35151 [0.00002] d
Epoch = 136.1108 [0.0010] BKJD
Rp/R* = 0.0567 [0.0031]
a/R* = 21.36 [3.68]
b = 0.71 [0.12]
Seff = 27.81 [4.89]
Teq = 586 [26] K
Rp = 4.67 [0.49] Re
a = 0.1004 [0.0073] AU
Ag = 31.49 [9.07] [3.36σ]
Teffp = 2145 [163] K [9.43σ]

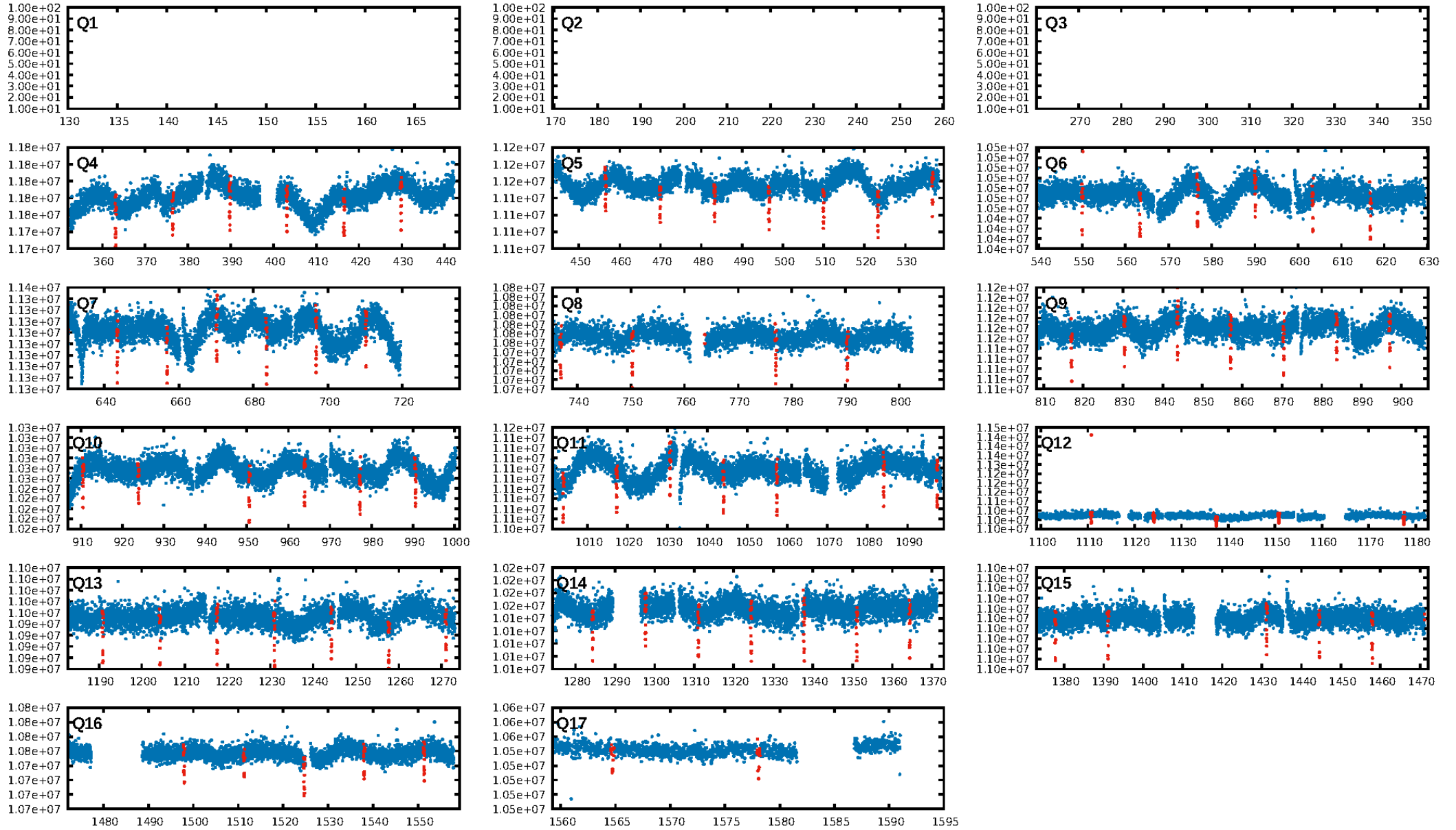
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [79/79]
GhostDiagnostic-chr: 3.295
Centroid-sig: 0.0%
Centroid-so: 0.767 arcsec [9.45σ]
OotOffset-rm: 2.157 arcsec [7.76σ]
KicOffset-rm: 0.187 arcsec [1.22σ]
OotOffset-st: 3/3/4/4 [14]
KicOffset-st: 3/3/4/4 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 1.00 [14/14]

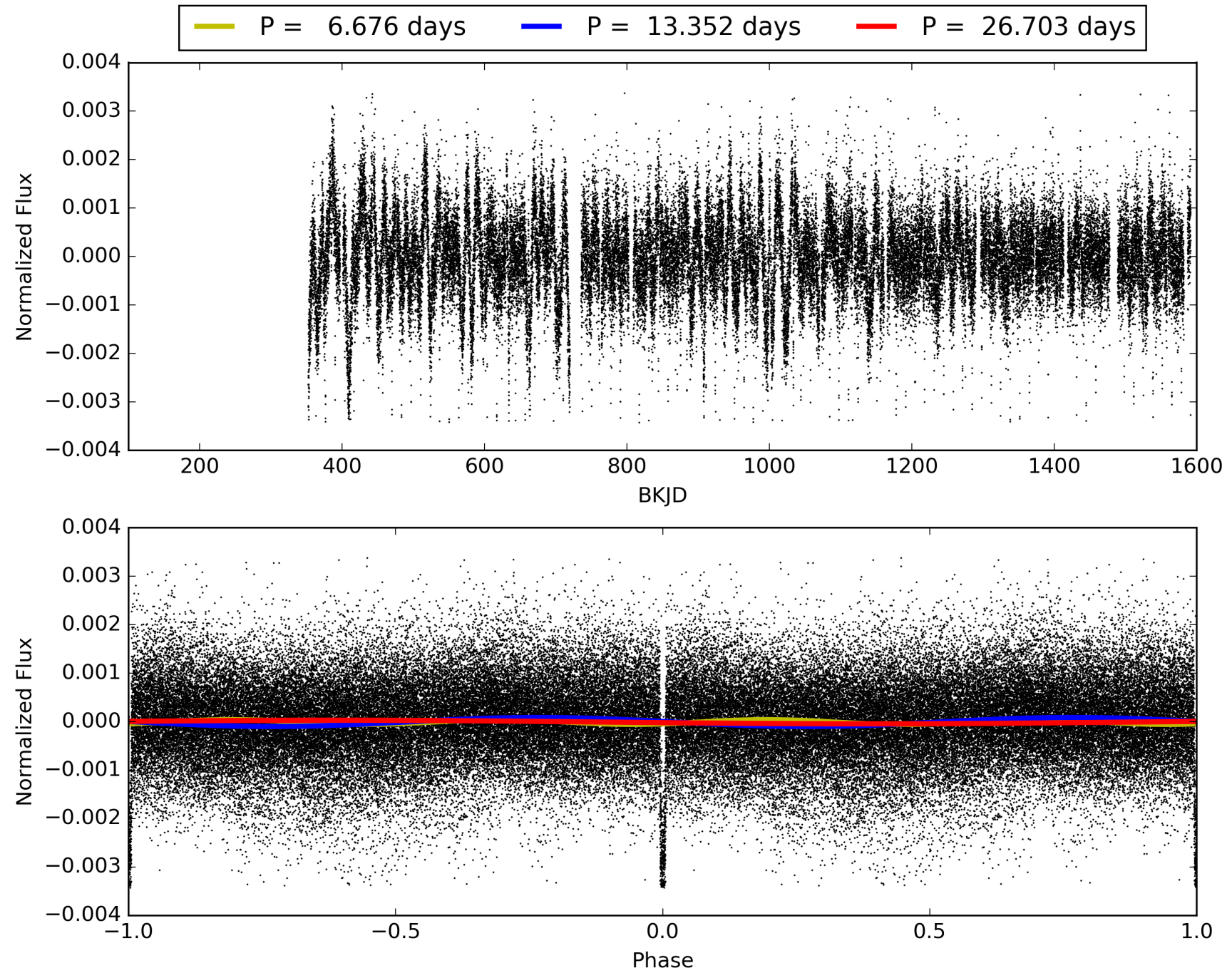
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 21:42:23 Z

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

TCE 011026304-01, PDC Light Curves

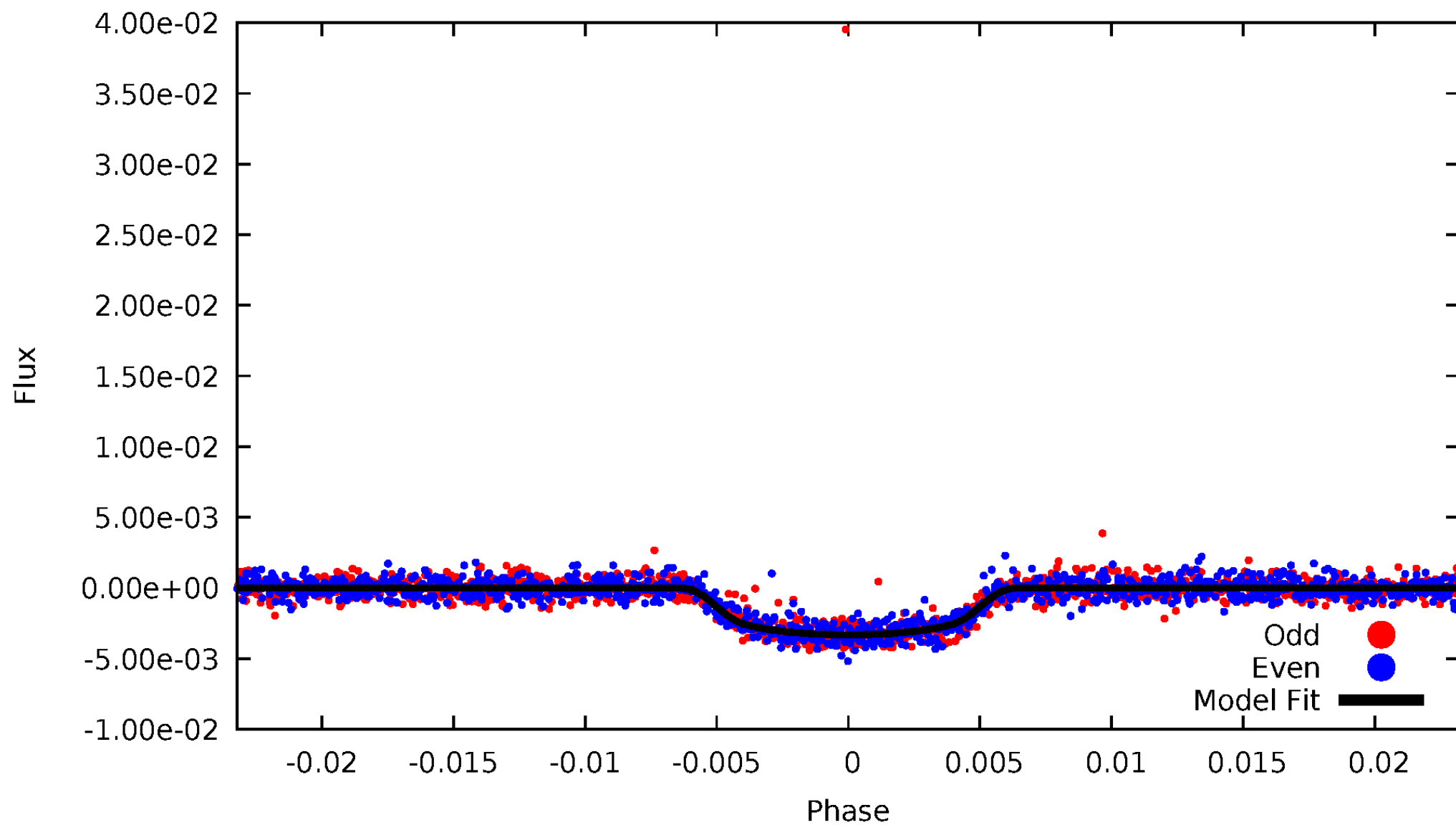


TCE 011026304-01



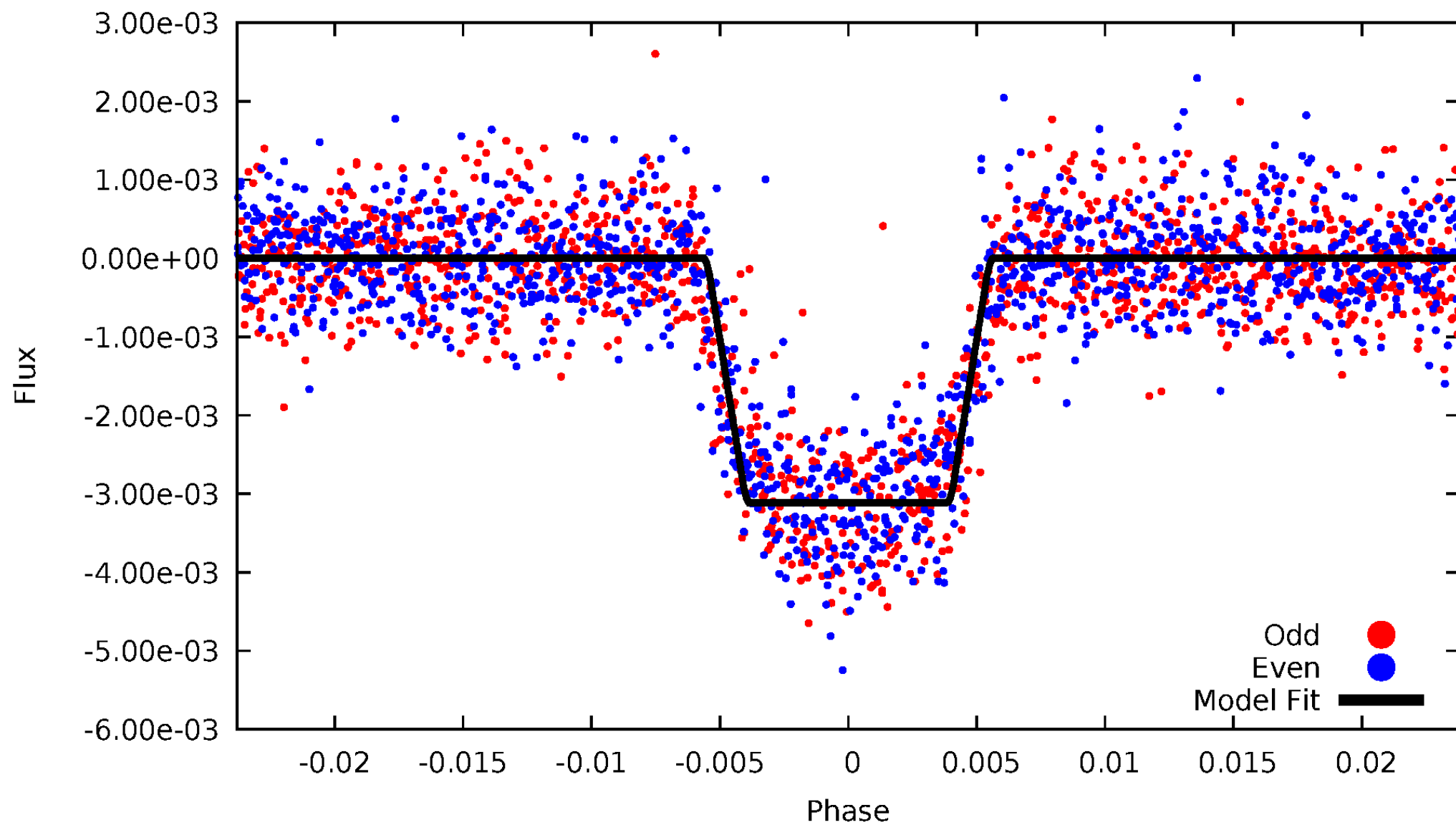
DV Odd/Even

TCE 011026304-01



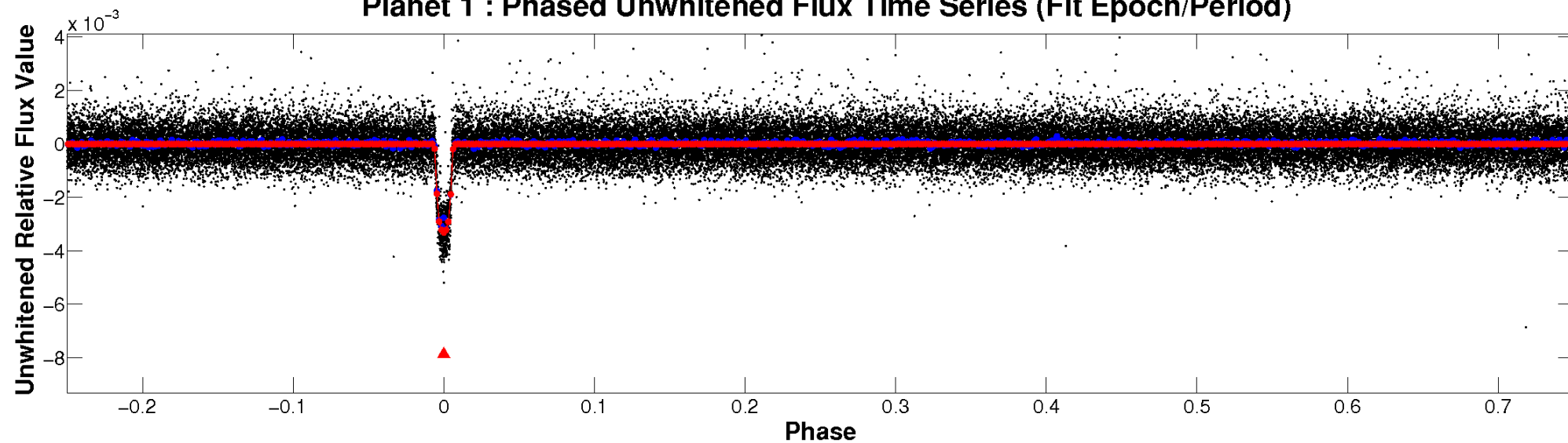
ALT Odd/Even

TCE 011026304-01

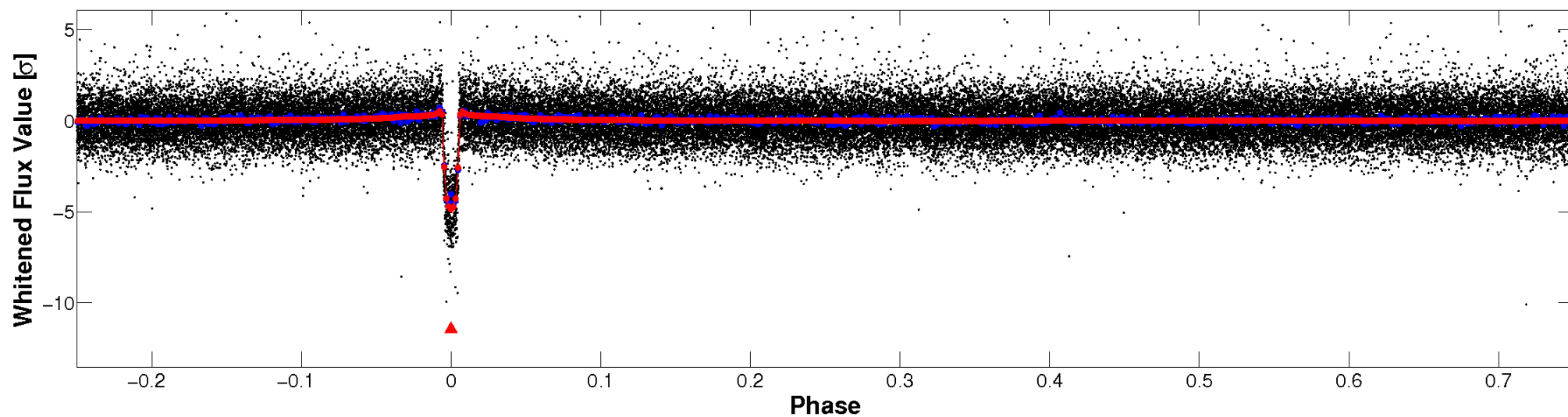


Non-Whitened Vs. Whitened Light Curve

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

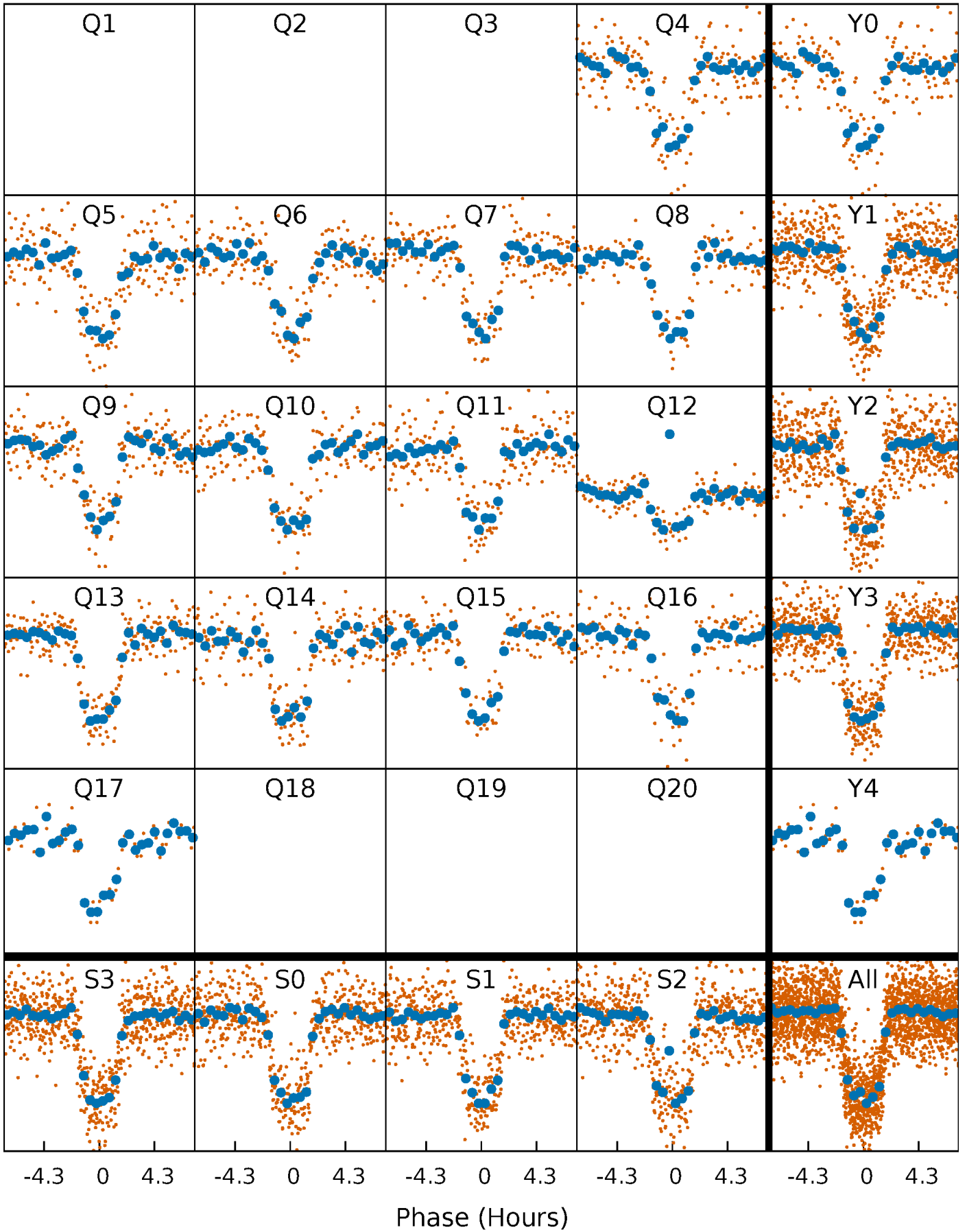


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



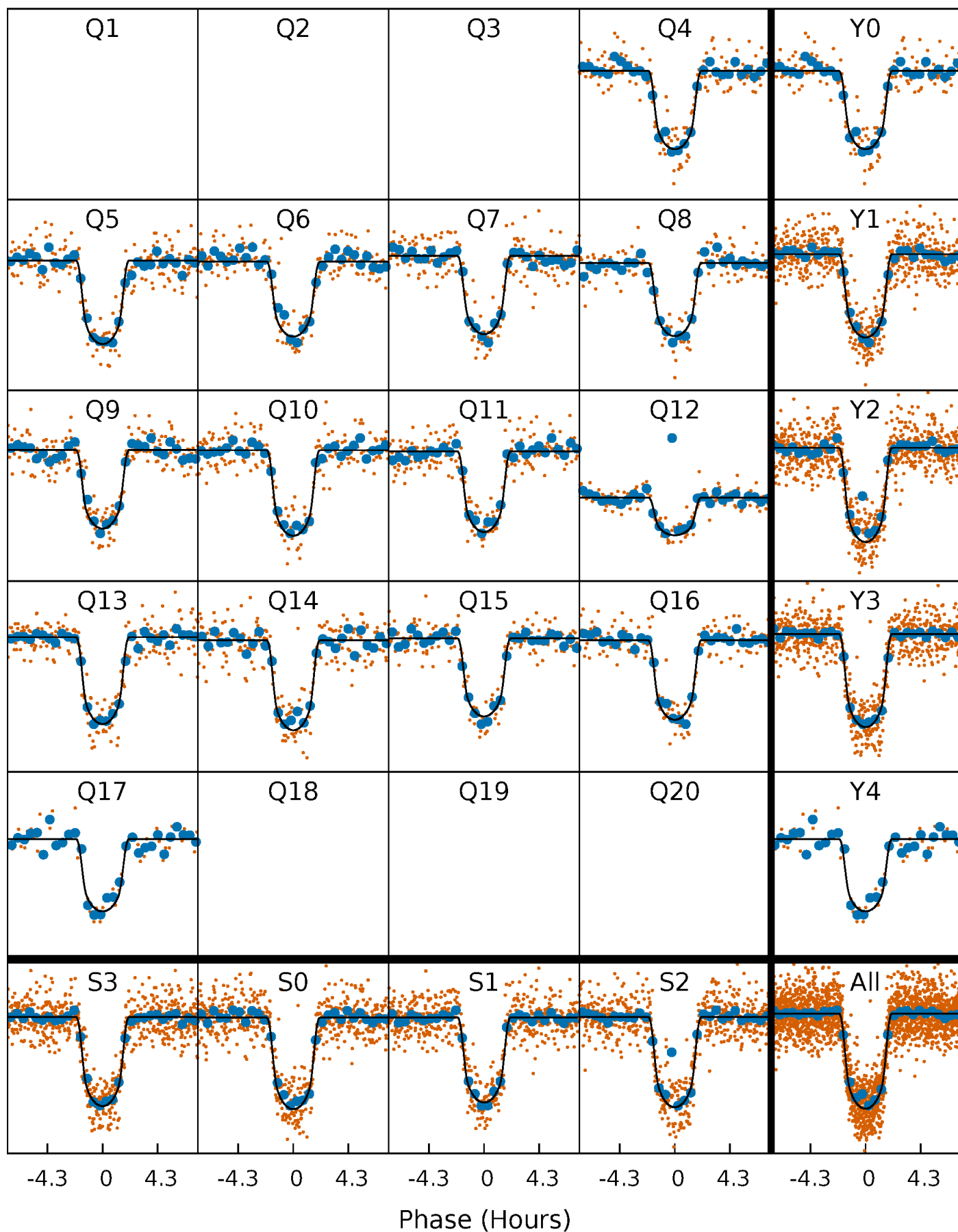
PDC Quarter-Phased Transit Curves

TCE 011026304-01 P= 13.351510 Days $T_0=136.110818$ (BKJD)



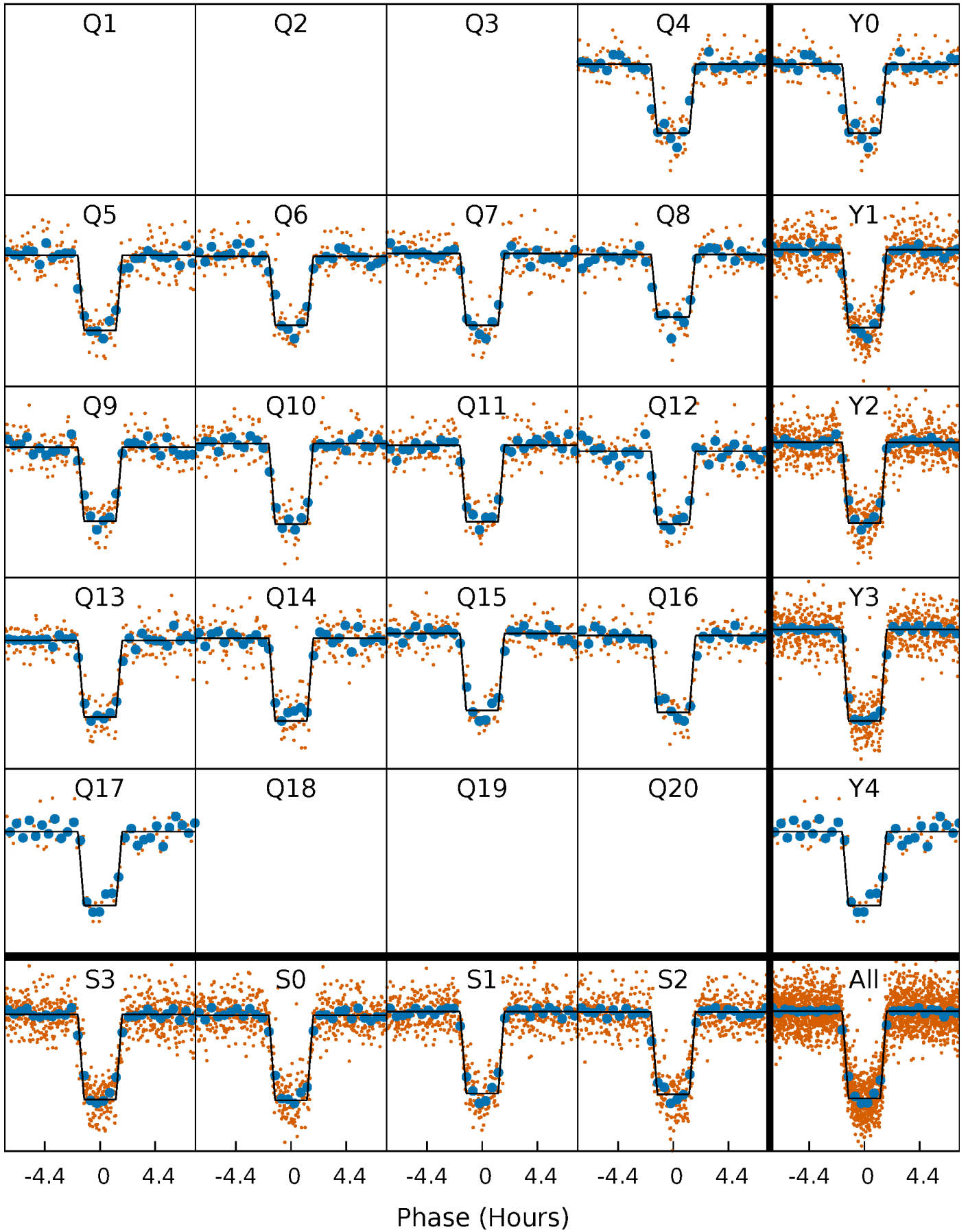
DV Quarter-Phased Transit Curves

TCE 011026304-01 P= 13.351510 Days $T_0=136.110818$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

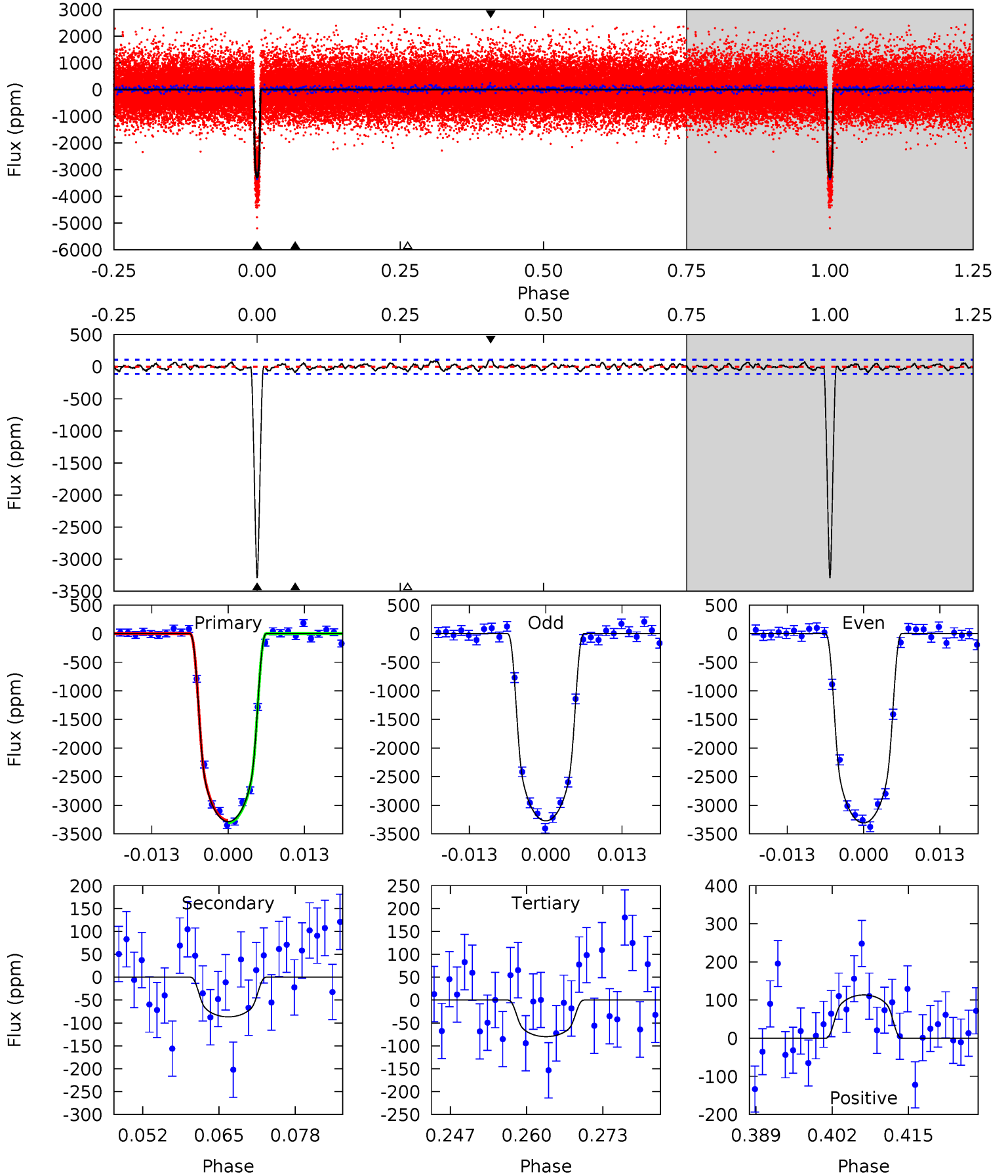
TCE 011026304-01 P= 13.351387 Days $T_0=136.119231$ (BKJD)



DV Model-Shift Uniqueness Test

011026304-01, $P = 13.351510$ Days, $E = 136.110818$ Days

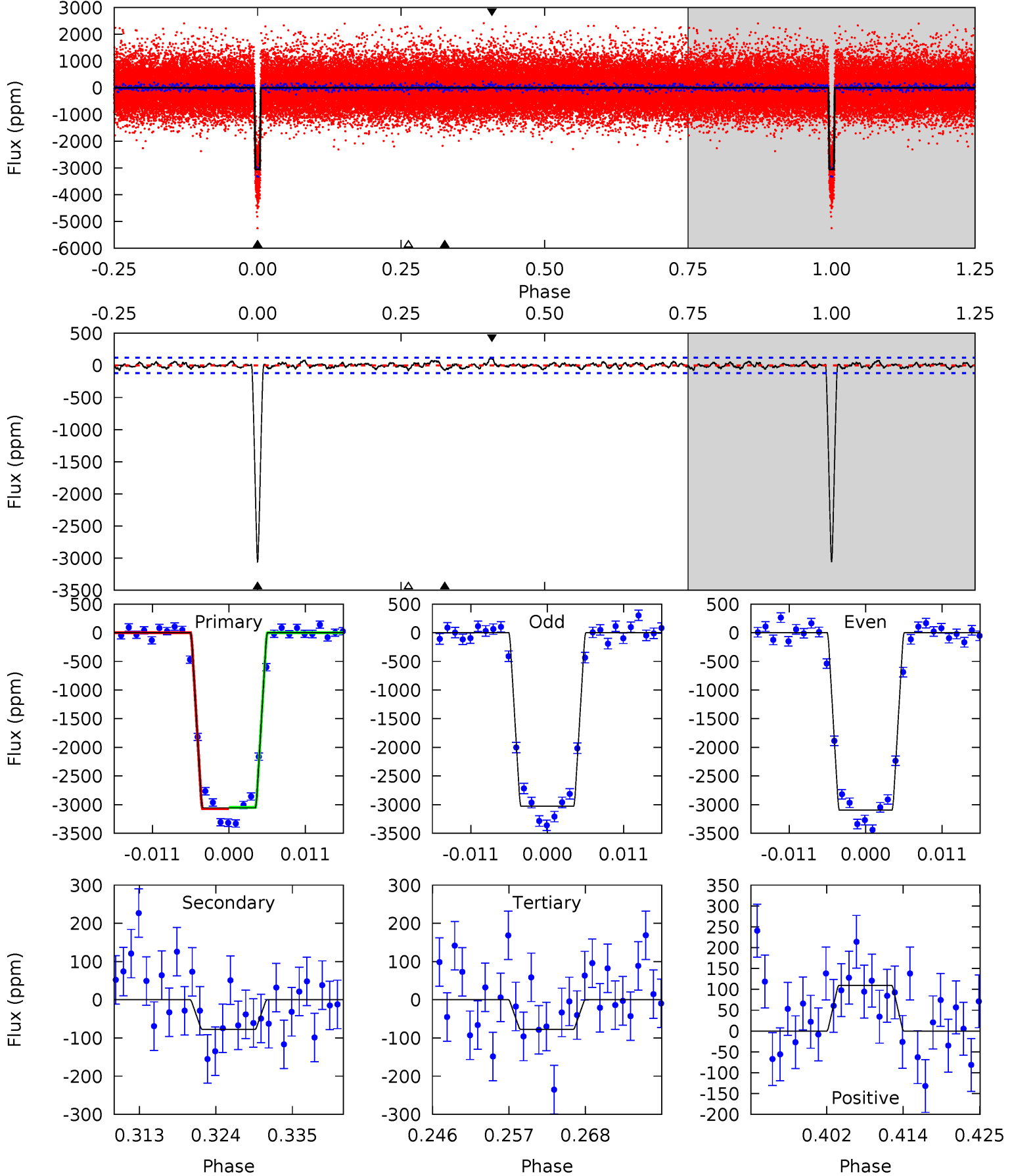
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
145.4	3.84	3.54	5.02	4.98	2.48	1.44	141.9	140.4	0.30	-1.18	0.82	0.96	0.03	0.85



Alt Model-Shift Uniqueness Test

011026304-01, $P = 13.351387$ Days, $E = 136.119231$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
126.2	3.21	3.20	4.52	5.00	2.54	1.20	123.0	121.7	0.01	-1.30	1.38	1.02	0.03	0.47



Stellar Parameters For KIC 011026304

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4843^{+173}_{-173}	$4.562^{+0.054}_{-0.041}$	$0.040^{+0.250}_{-0.300}$	$0.754^{+0.062}_{-0.068}$	$0.755^{+0.075}_{-0.062}$	$2.485^{+0.601}_{-0.362}$
	+4%/-4%	+1%/-1%	+625%/-750%	+8%/-9%	+10%/-8%	+24%/-15%
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 011026304-01 / KOI 1420.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-87 ± 23	$4.66^{+0.34}_{-0.33}$	820^{+32}_{-36}	2691^{+117}_{-127}	22^{+6}_{-6}
Alt.	-78 ± 24	$4.56^{+0.36}_{-0.33}$	816^{+33}_{-33}	2663^{+118}_{-145}	21^{+7}_{-7}

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

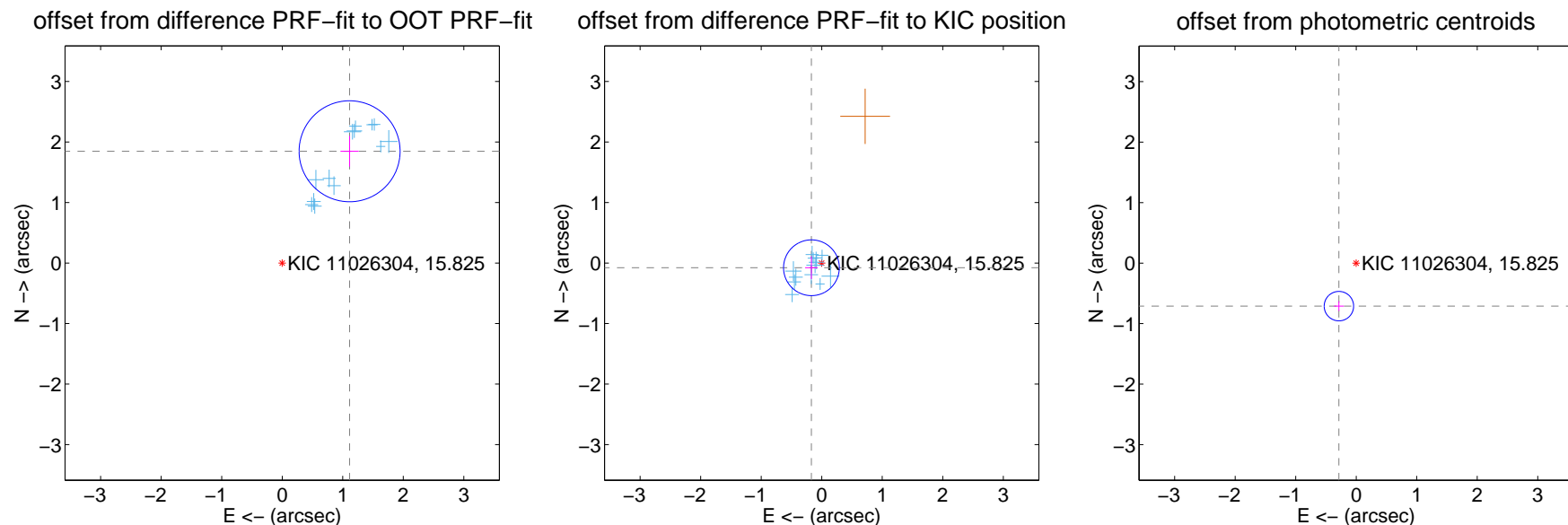
DV Centroid Data

Supplemental centroid analysis for 011026304-01. Kepler magnitude: 15.82. Transit SNR 92.90

There are 13 quarters with good PRF difference image offsets

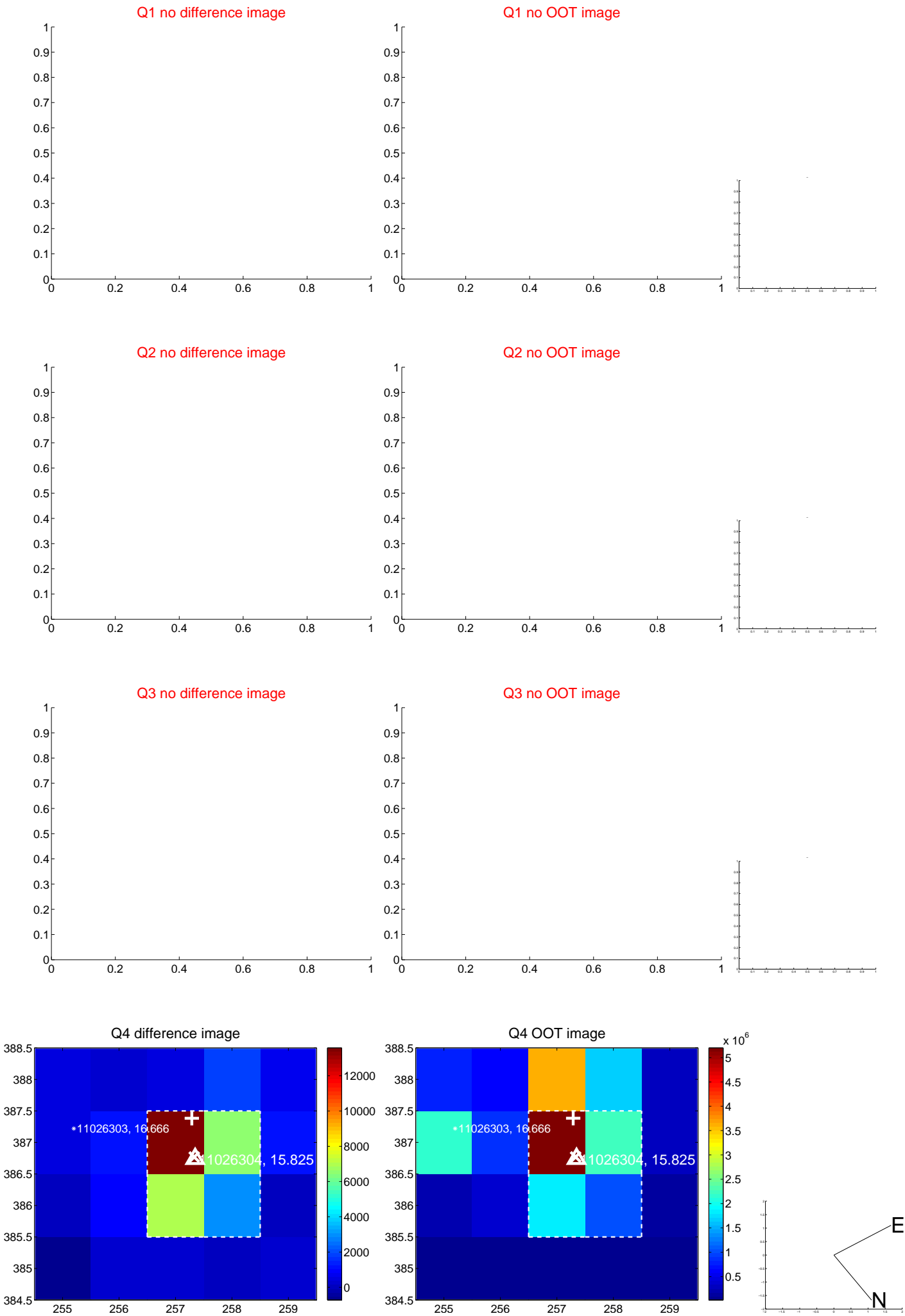
The OOT PRF centroid is offset from the target star catalog position by about 2.75 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.157 ± 0.278	7.76	-1.113 ± 0.150	1.847 ± 0.253
PRF-fit source offset from KIC position	0.187 ± 0.154	1.22	0.170 ± 0.104	-0.078 ± 0.187
photometric centroid source offset	0.77 ± 0.08	9.45	0.29 ± 0.08	-0.71 ± 0.08

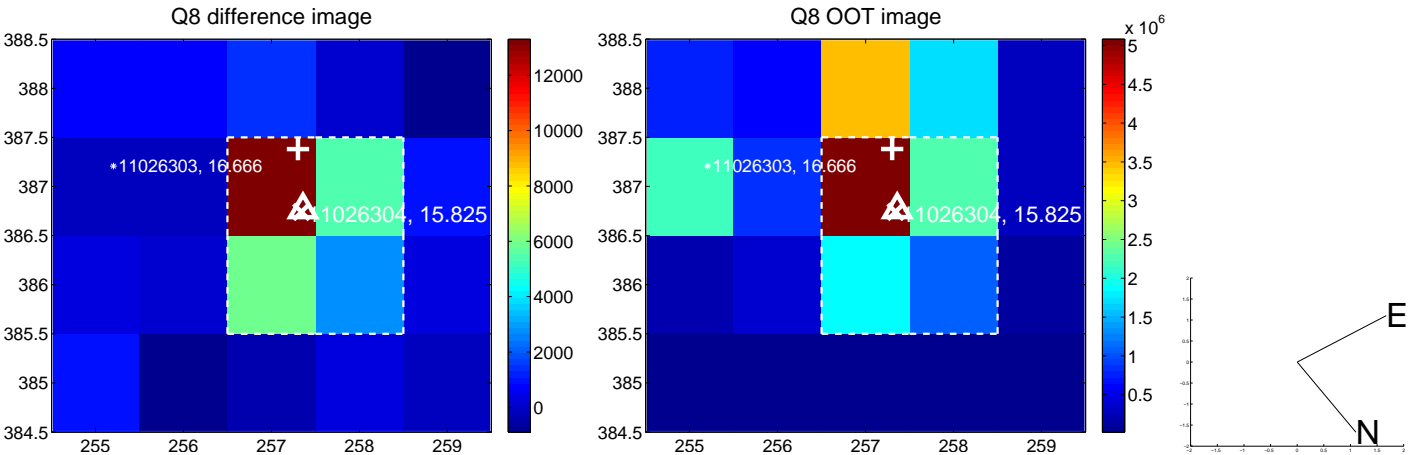
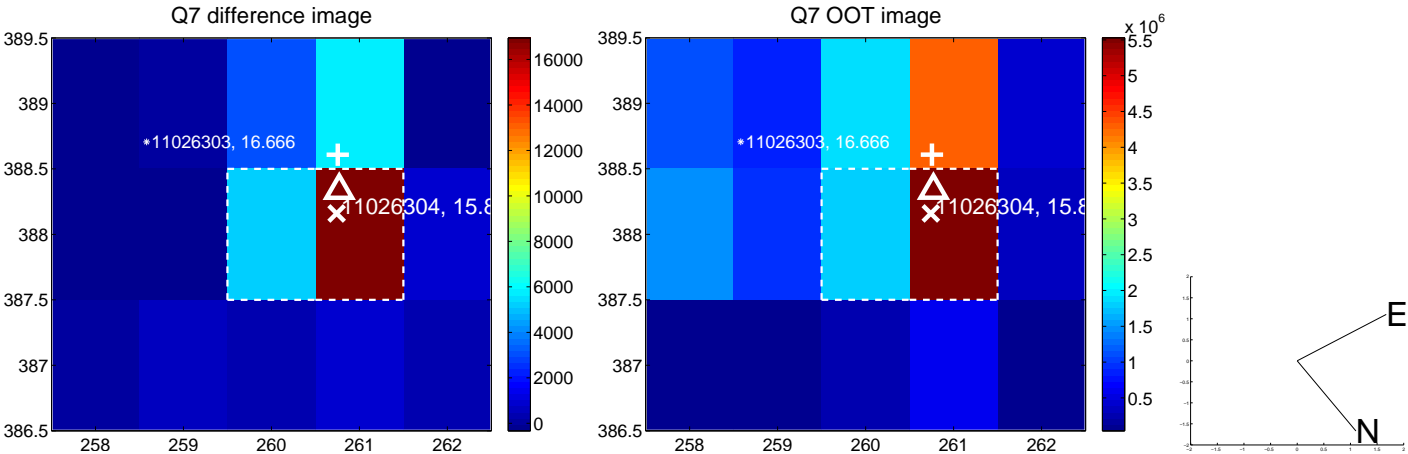
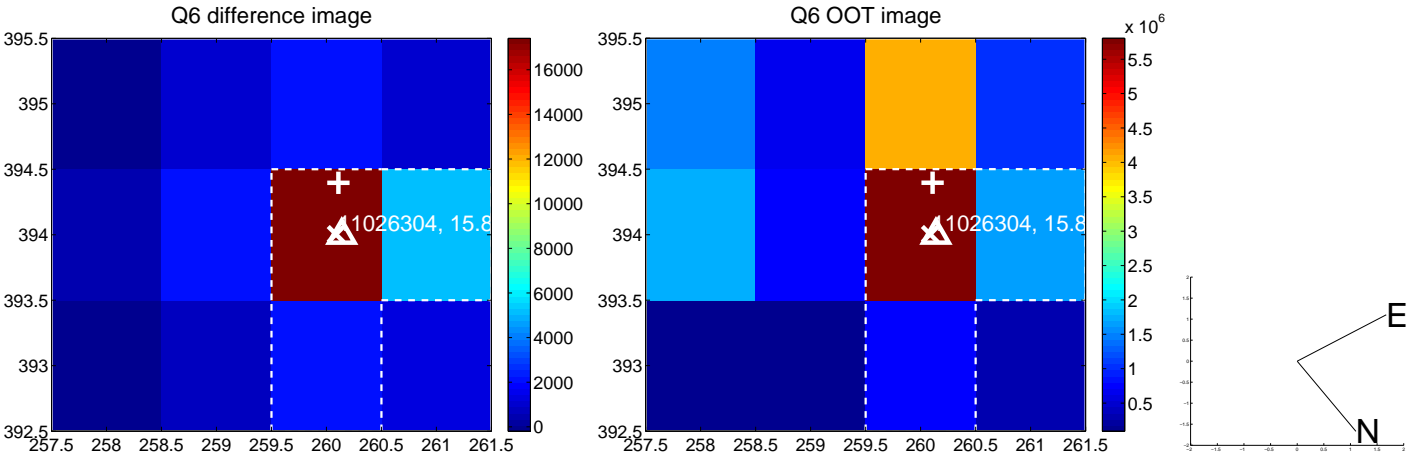
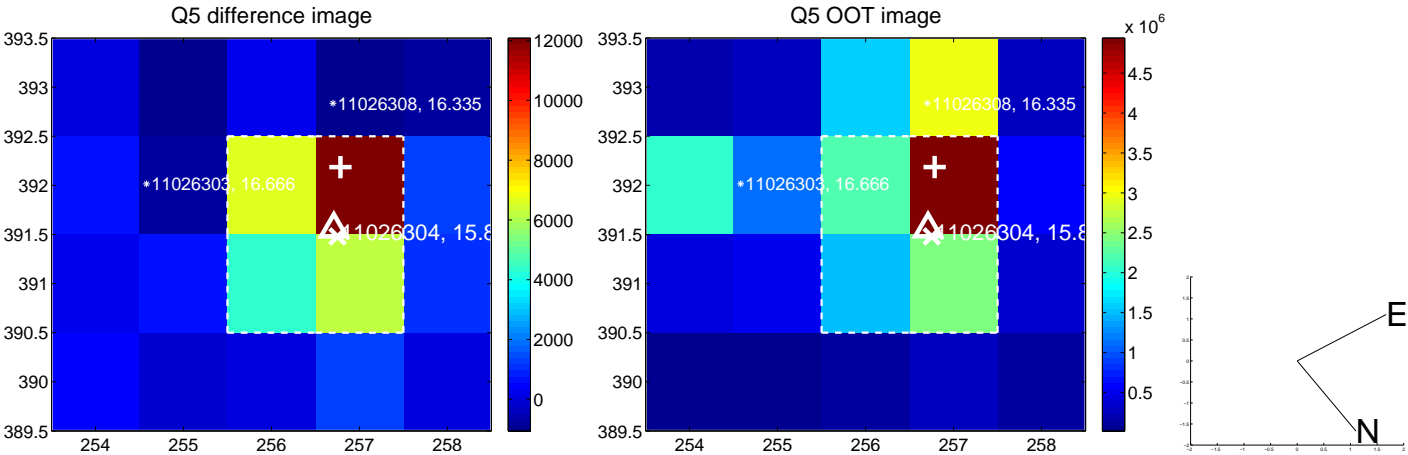


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

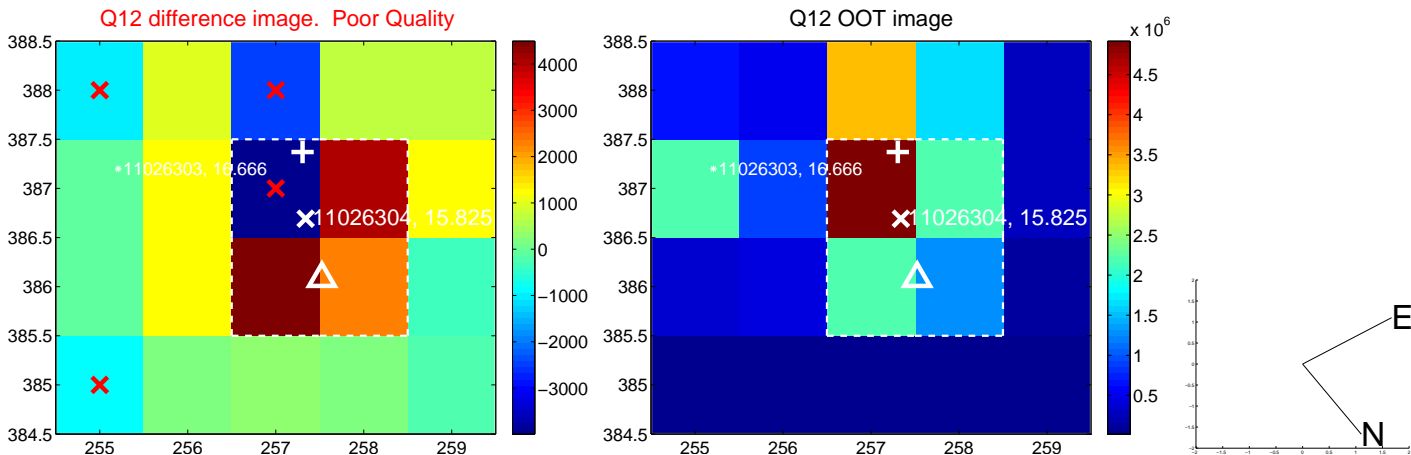
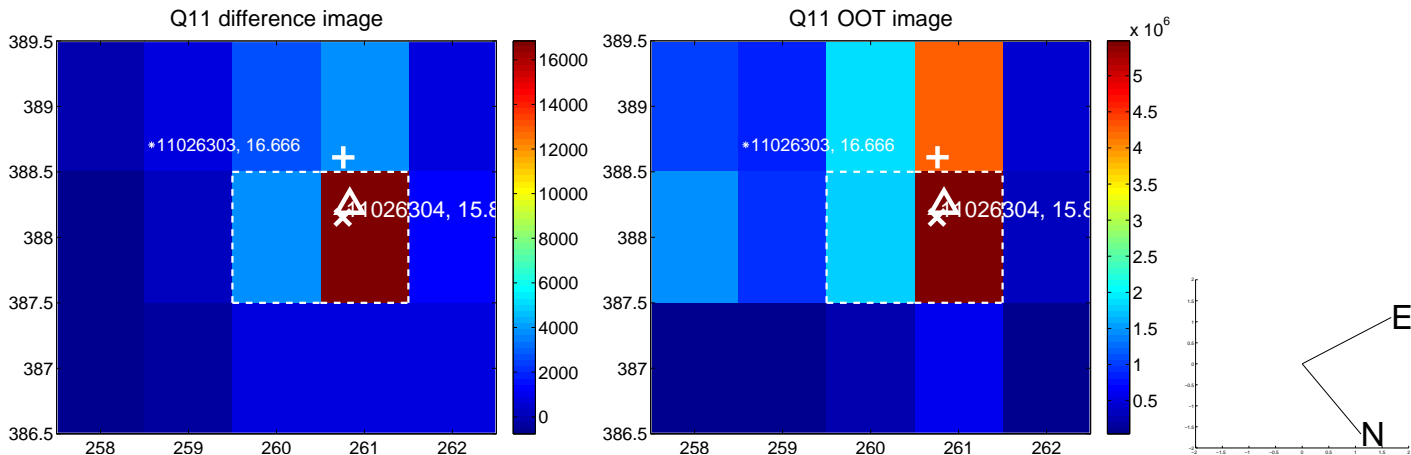
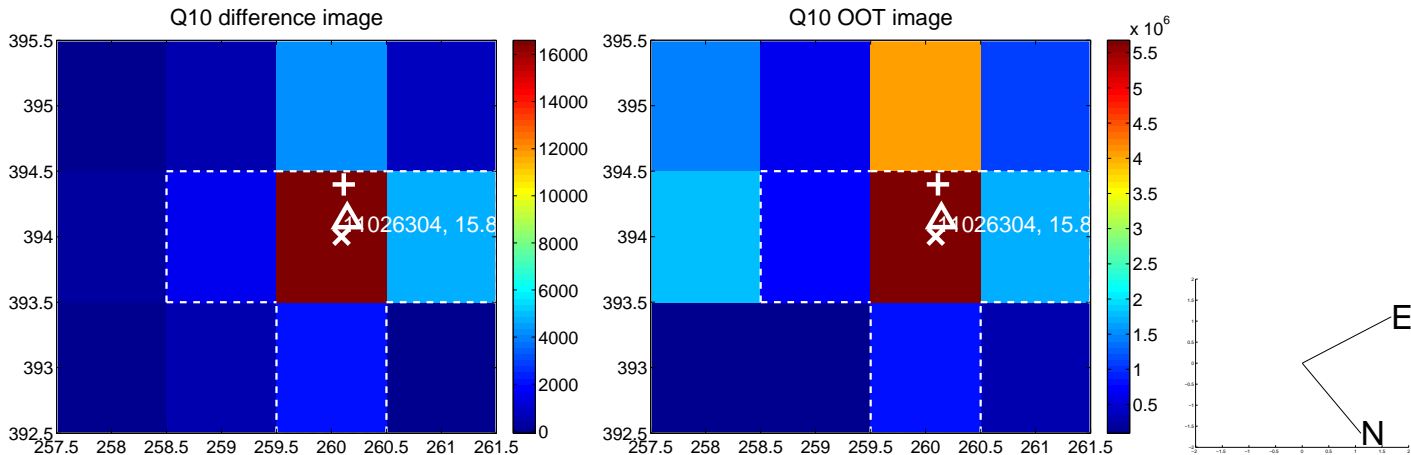
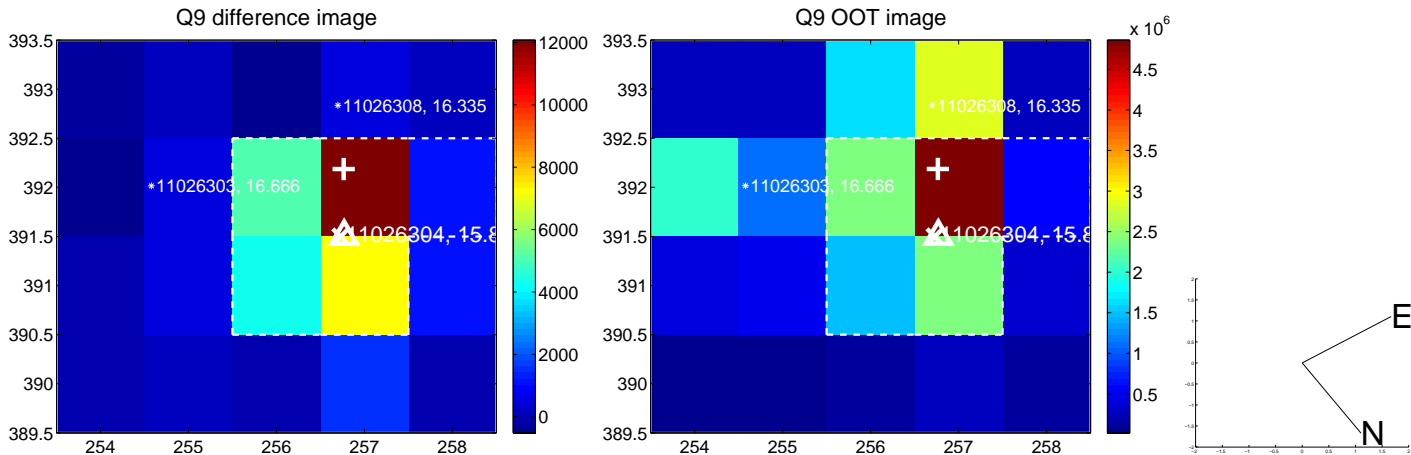
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



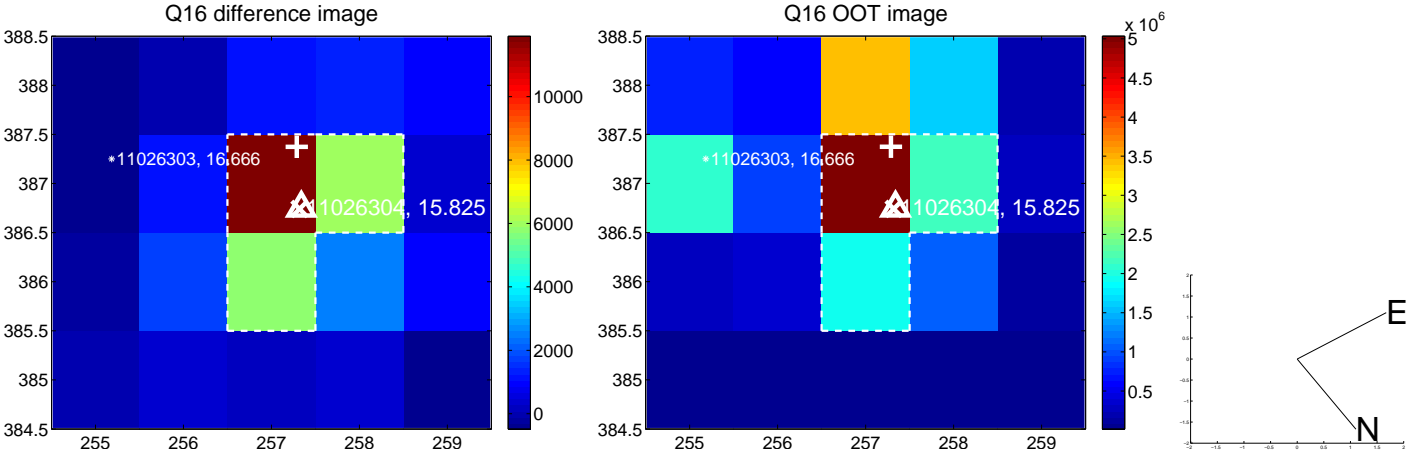
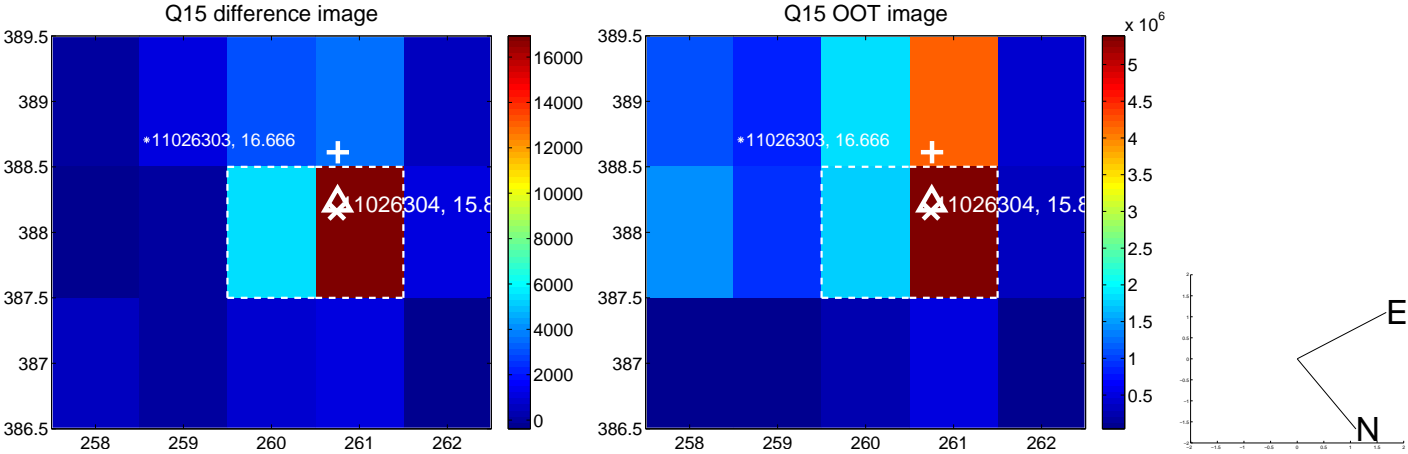
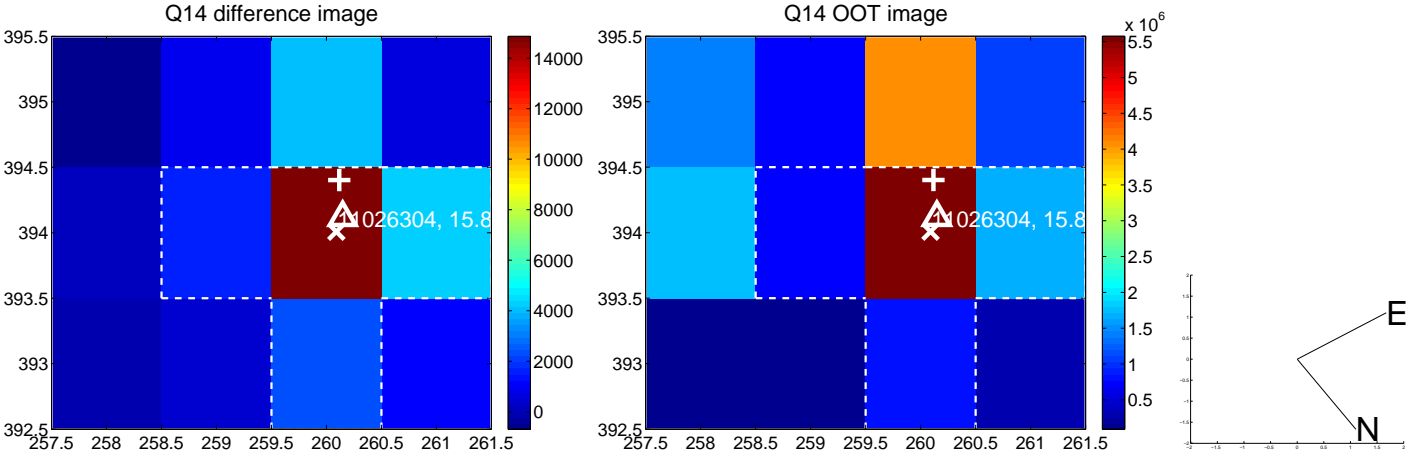
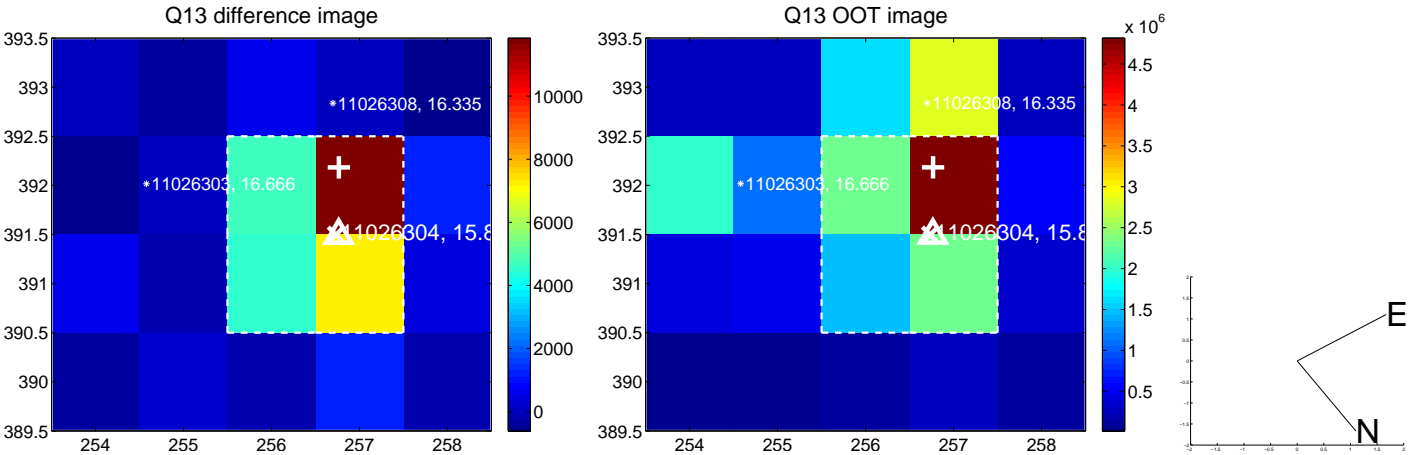
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



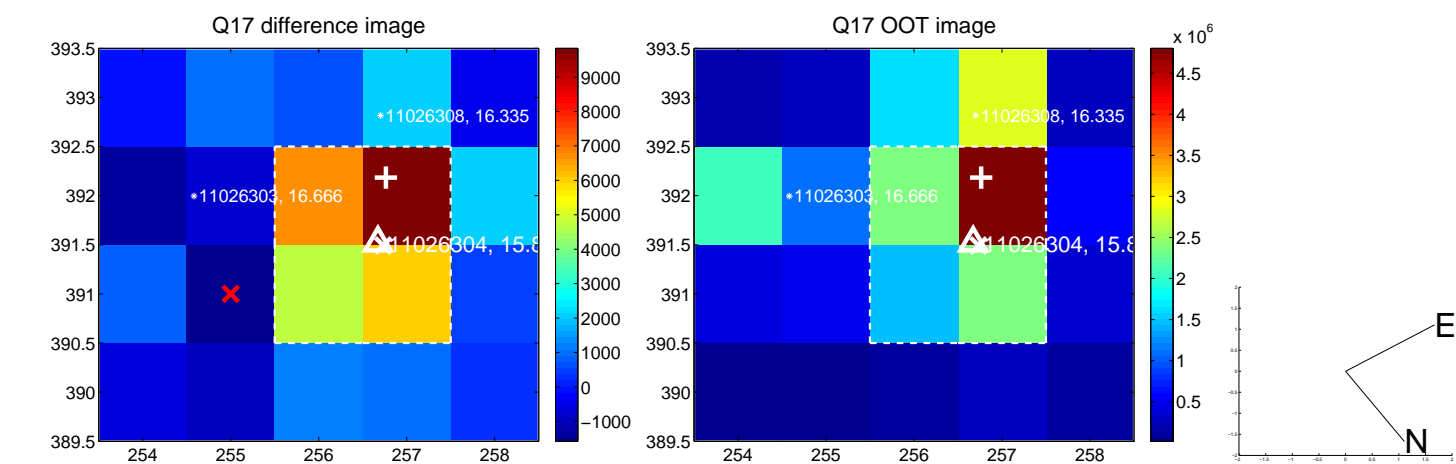
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



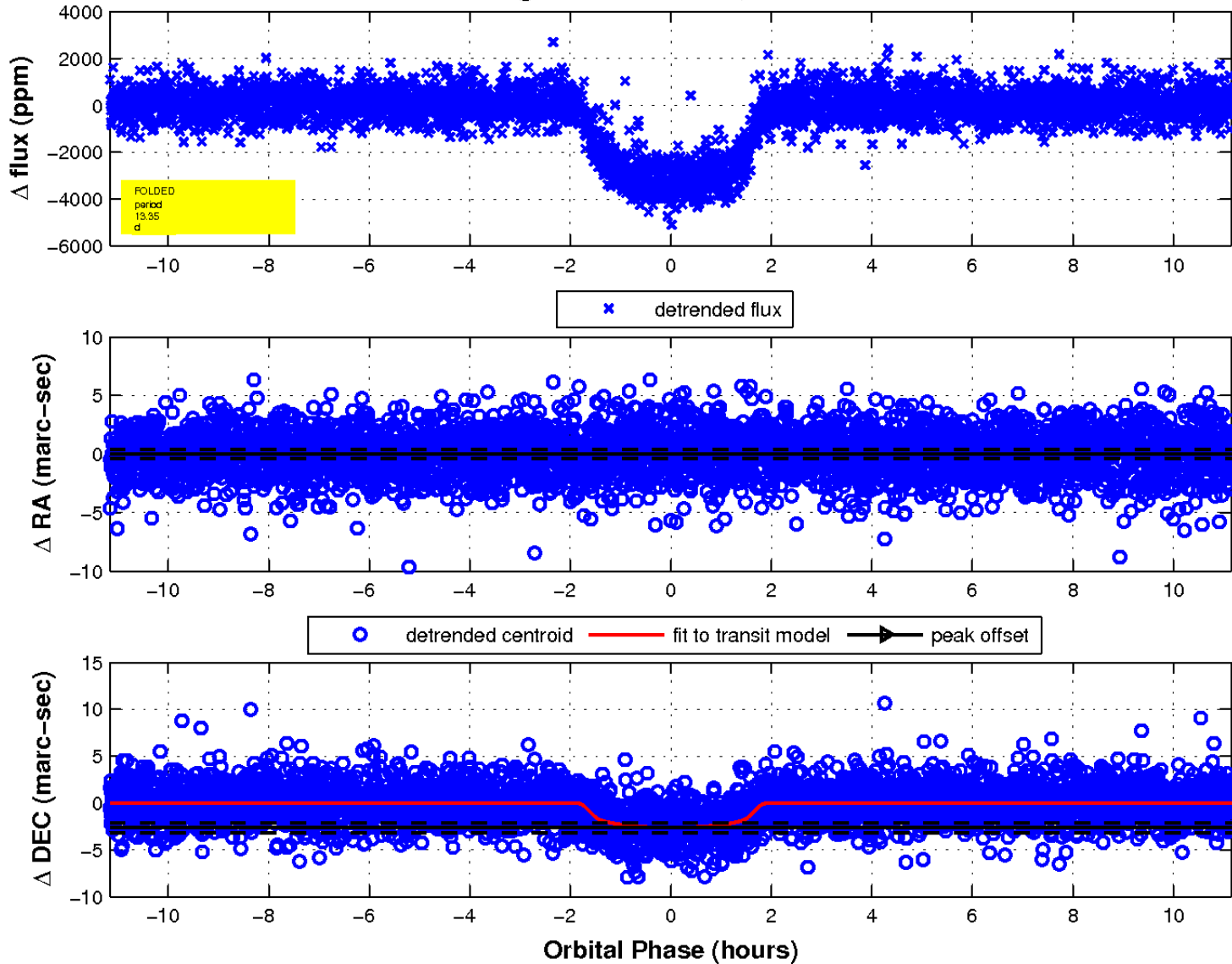
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

