

KIC 010146103

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})
010146103-01	OBS	5769.01	7.580565	132.904164	77.2	3.350	9.2	9.3	1.04	5753	1.07	182.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010146103-01	OBS	PC	0.90	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.

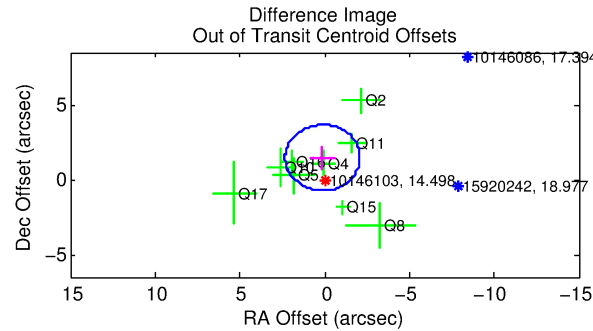
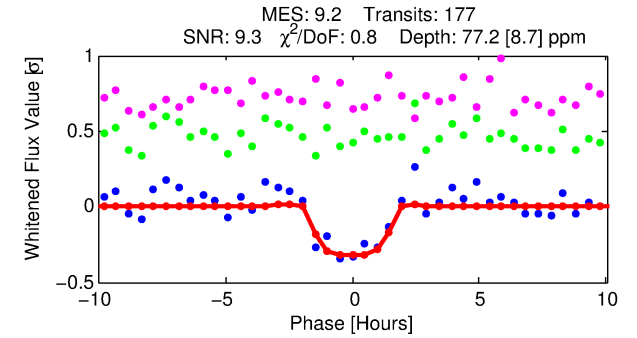
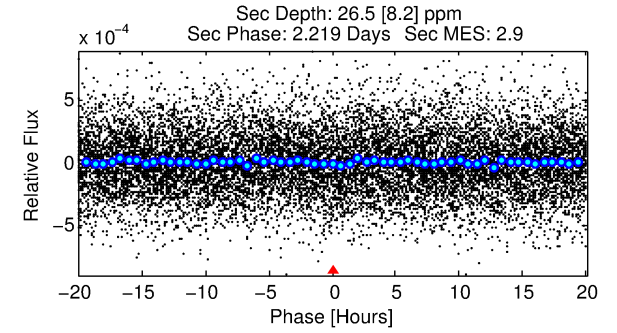
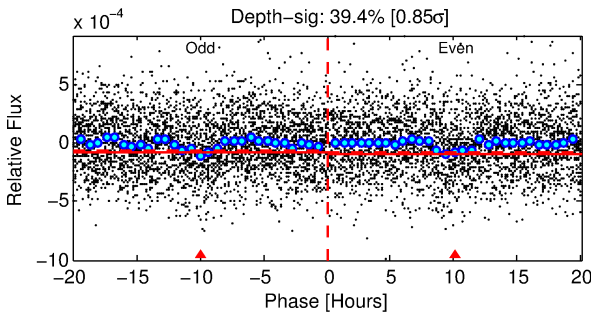
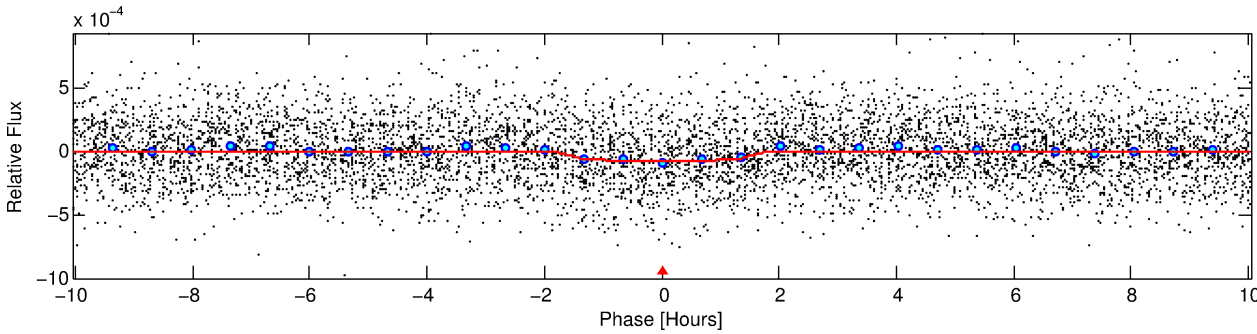
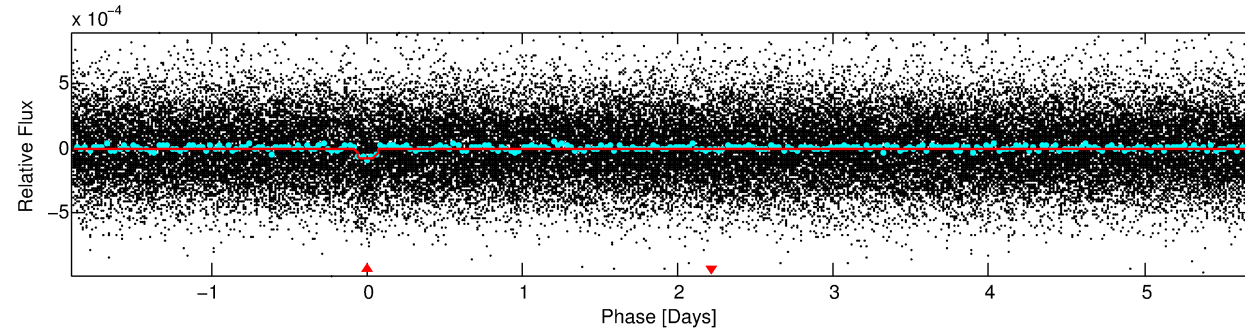
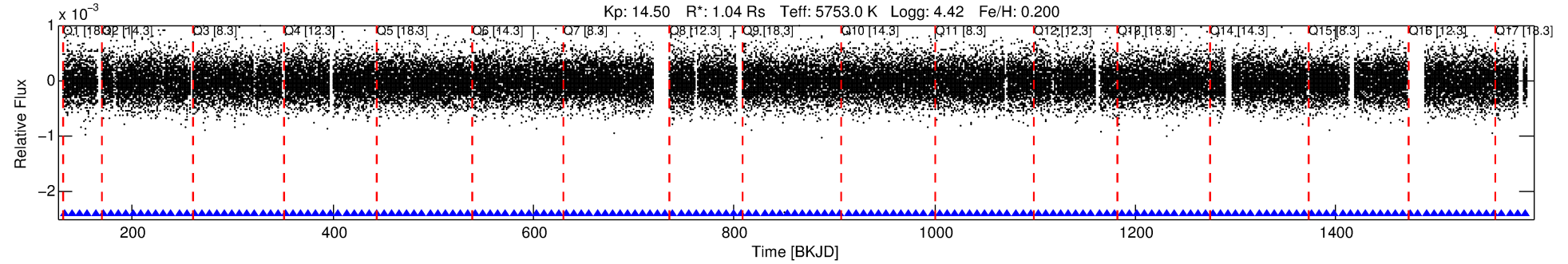
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010146103-01

No Significant Match Found

DV One-Page Summary

KIC: 10146103 Candidate: 1 of 1 Period: 7.581 d
KOI: K05769.01 Corr: 0.946



DV Fit Results:

Period = 7.58057 [0.00007] d
Epoch = 132.9042 [0.0072] BKJD
Rp/R* = 0.0094 [0.0069]
a/R* = 8.62 [28.76]
b = 0.88 [0.89]
Seff = 182.46 [39.46]
Teq = 937 [51] K
Rp = 1.07 [0.80] Re
a = 0.0763 [0.0106] AU
Ag = 74.25 [112.20] [0.65 σ]
Teffp = 4253 [1593] K [2.08 σ]

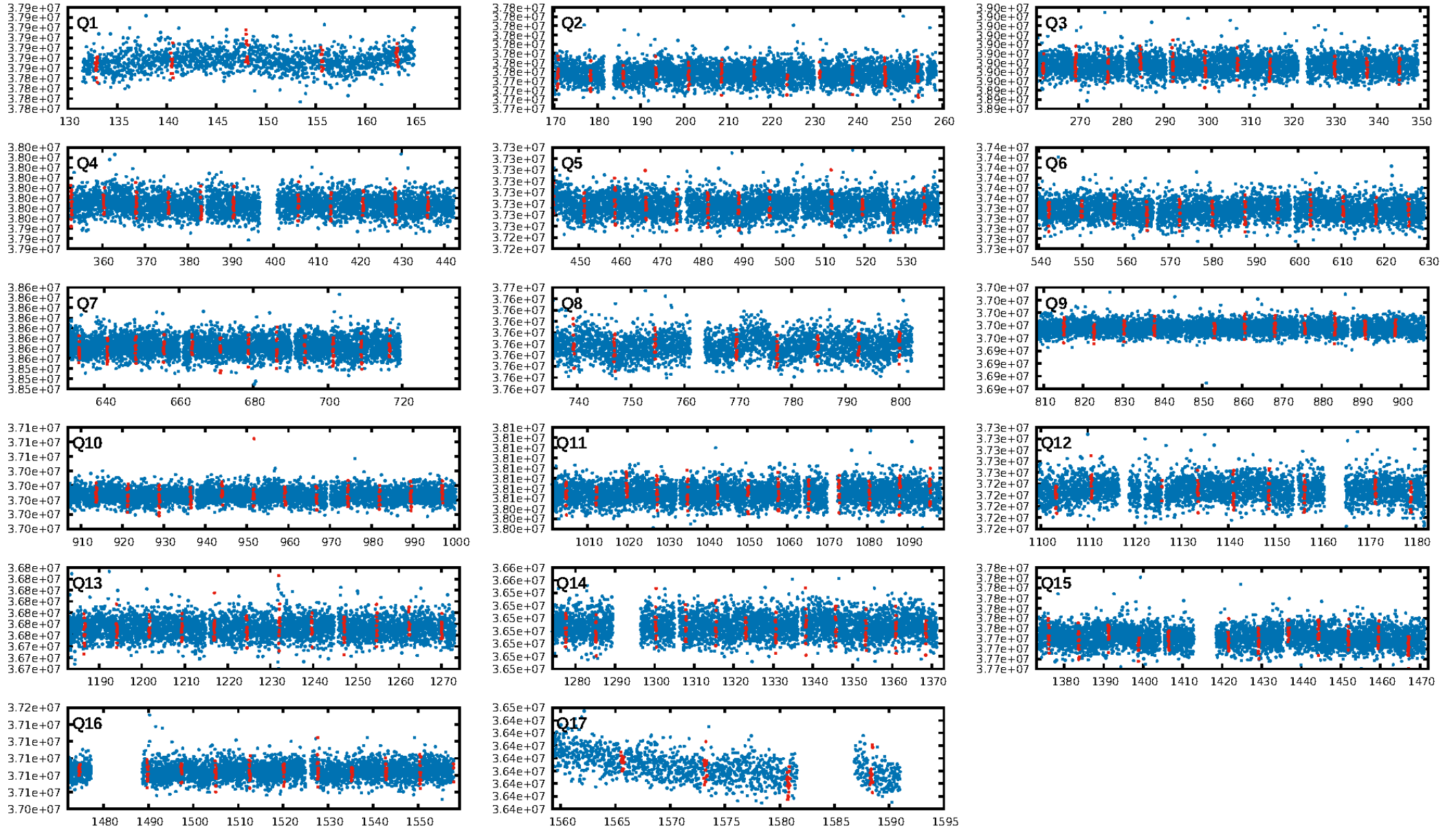
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.23e-19
RollingBand-fgt: 1.00 [168/168]
GhostDiagnostic-chr: 23.47
Centroid-sig: 9.7%
Centroid-so: 1.790 arcsec [1.21 σ]
OotOffset-rm: 1.466 arcsec [2.00 σ]
KicOffset-rm: 1.527 arcsec [2.03 σ]
OotOffset-st: 2/2/3/2 [9]
KicOffset-st: 2/2/3/2 [9]
DiffImageQuality-fgm: 0.56 [5/9]
DiffImageOverlap-fno: 1.00 [17/17]

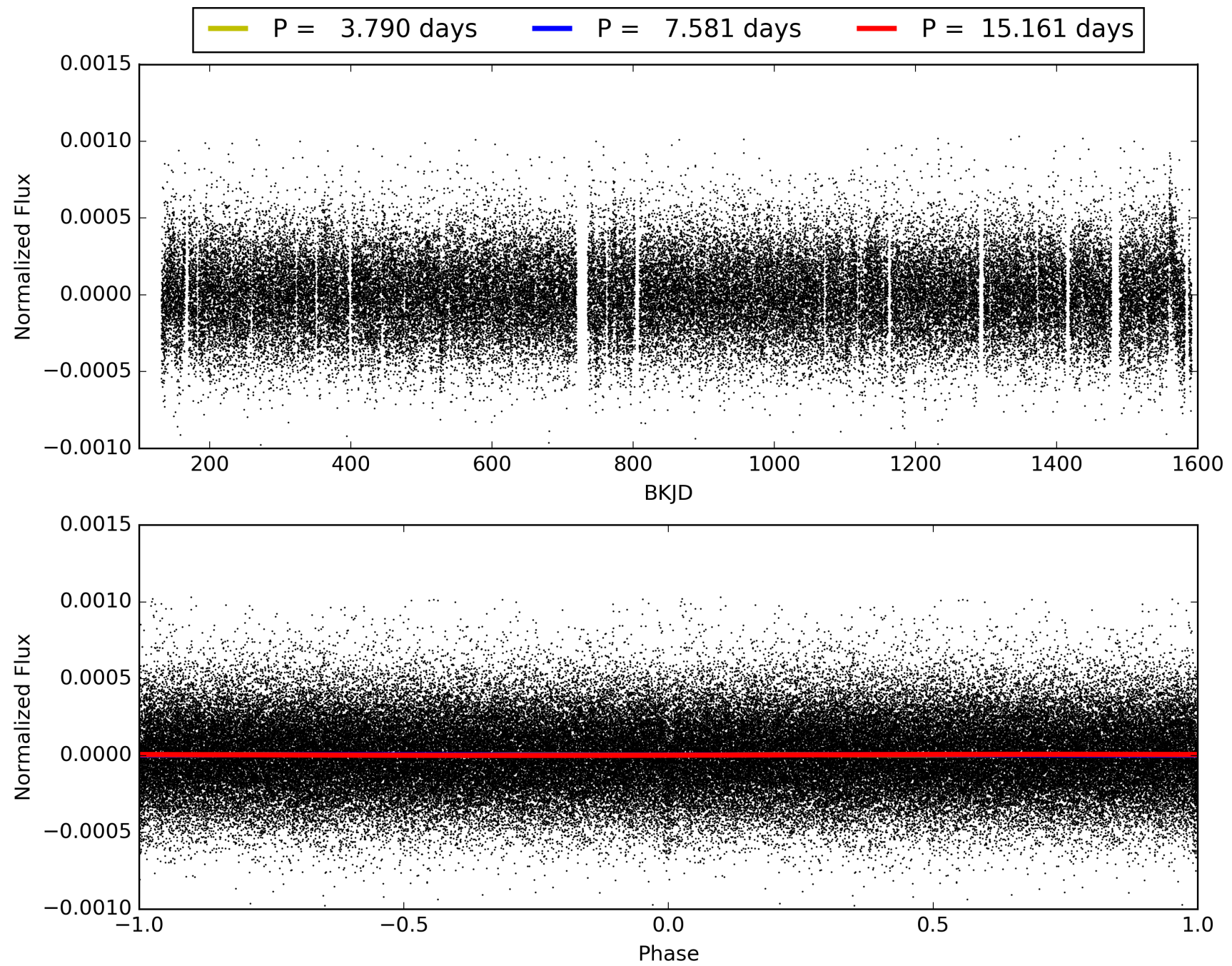
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:17:07 Z

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

TCE 010146103-01, PDC Light Curves

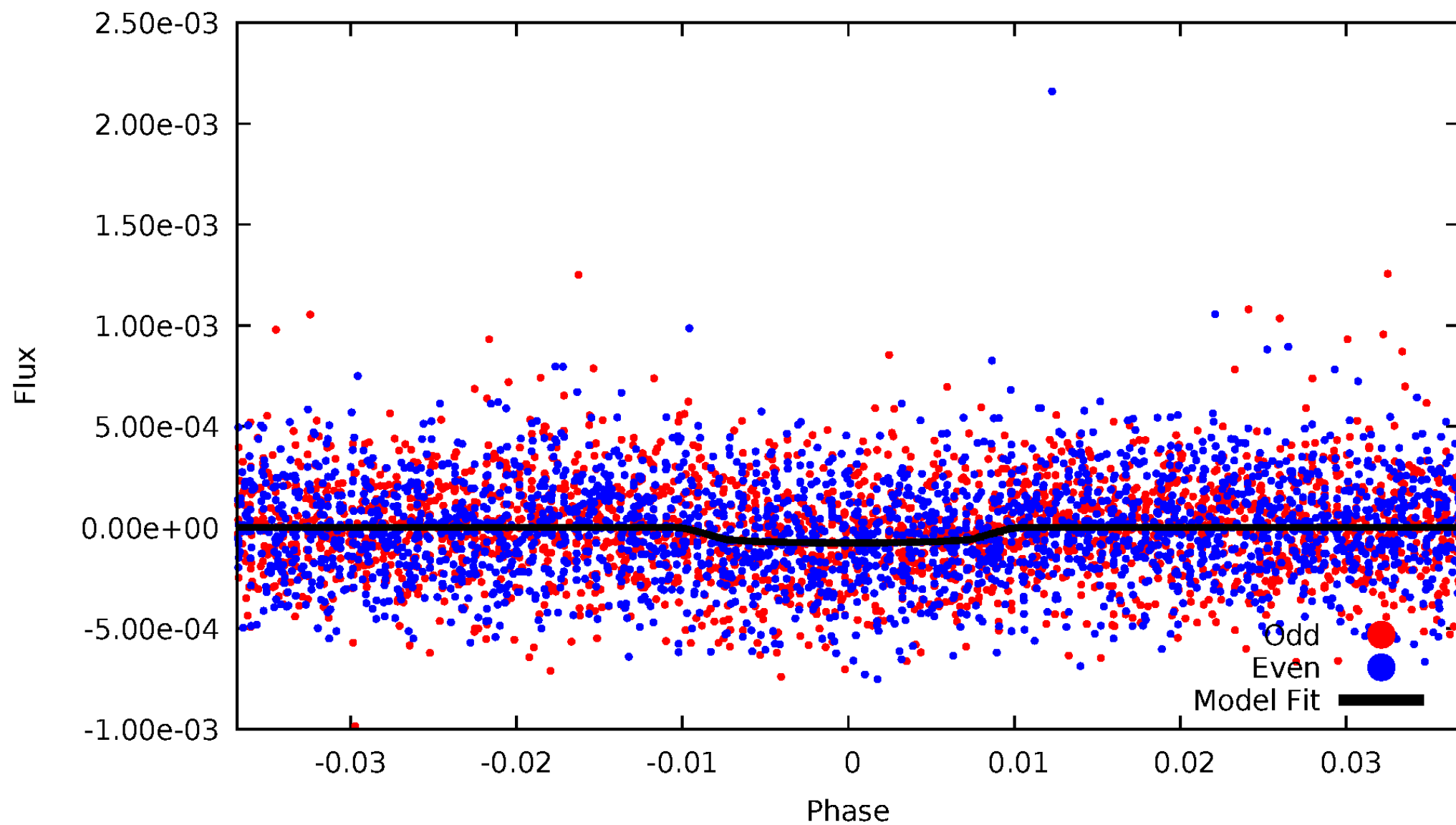


TCE 010146103-01



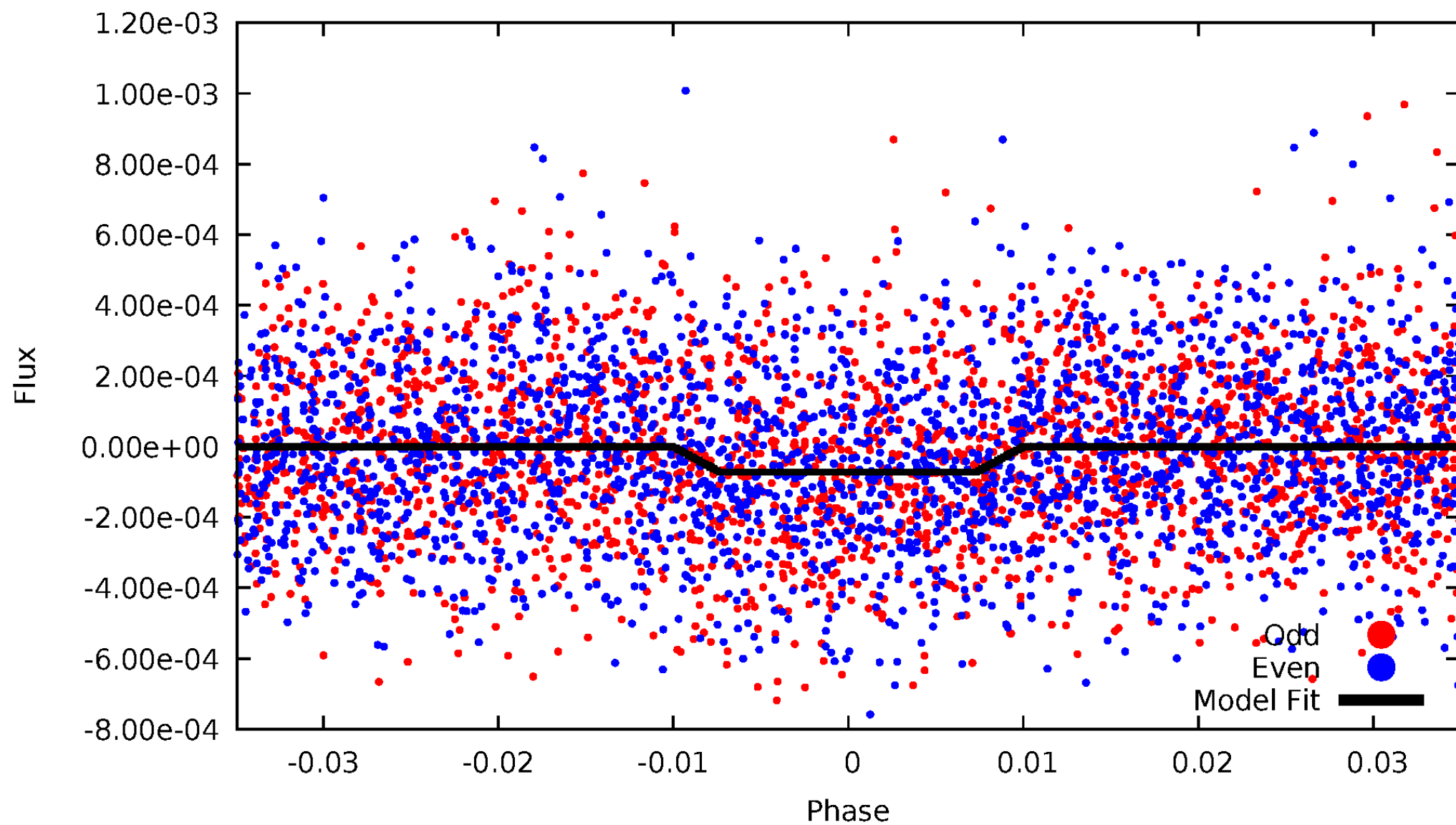
DV Odd/Even

TCE 010146103-01



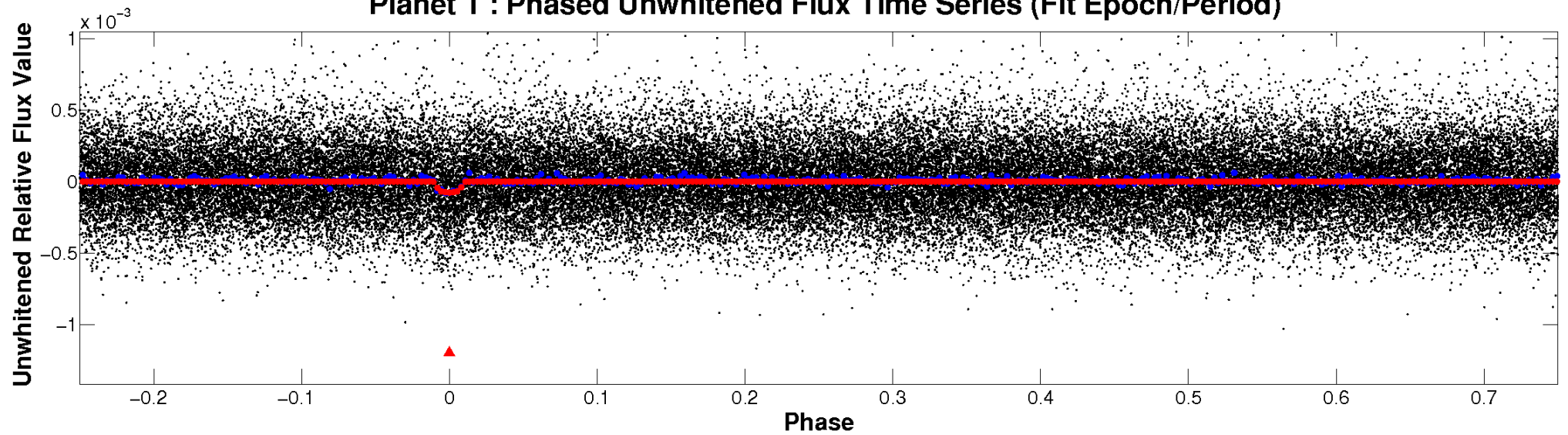
ALT Odd/Even

TCE 010146103-01

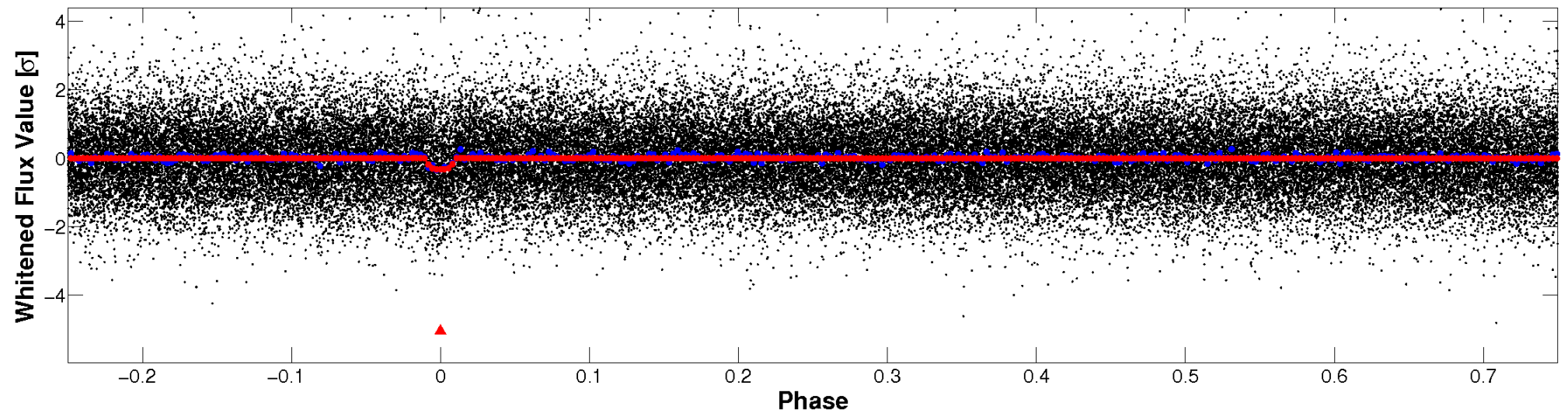


Non-Whitened Vs. Whitened Light Curve

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

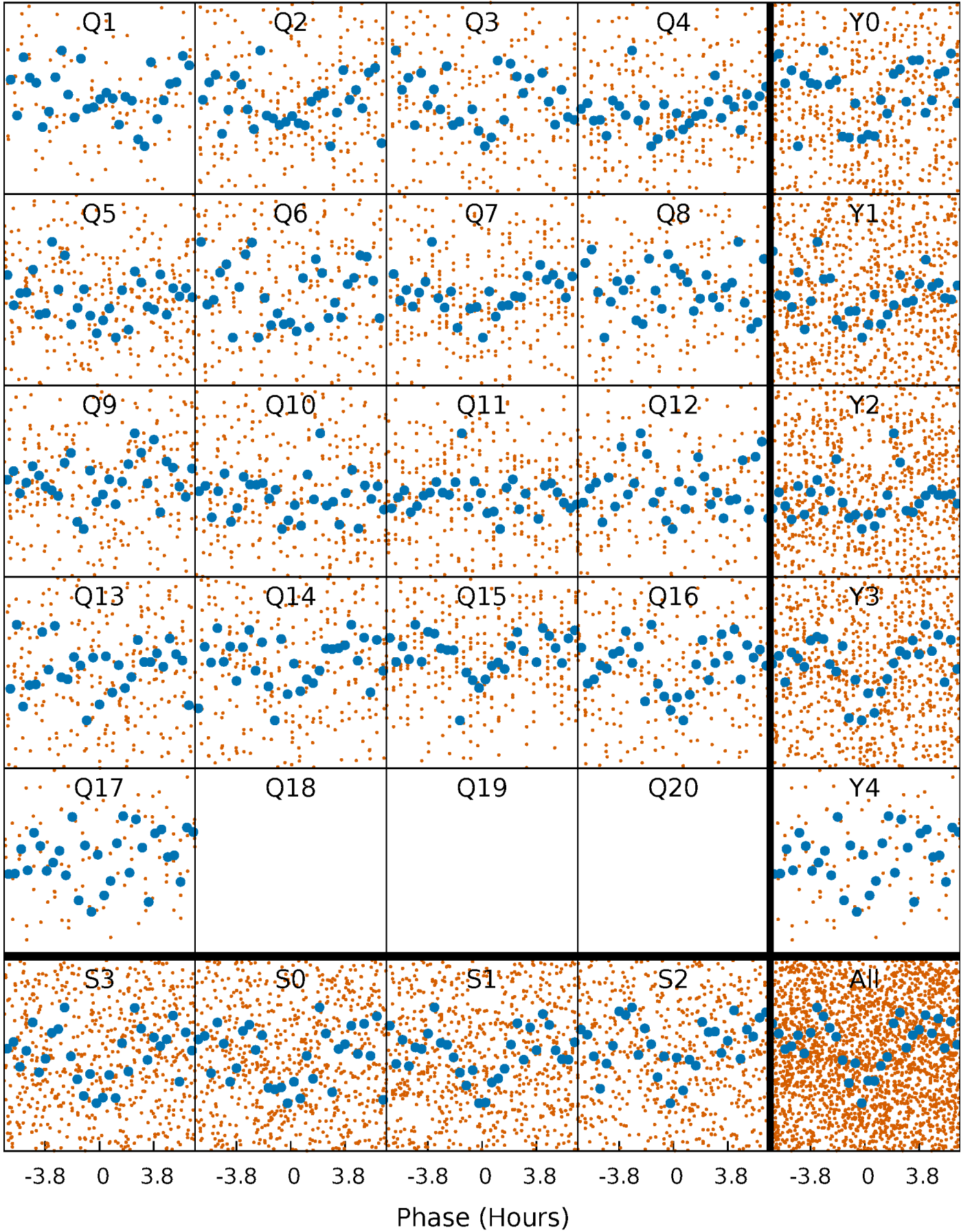


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



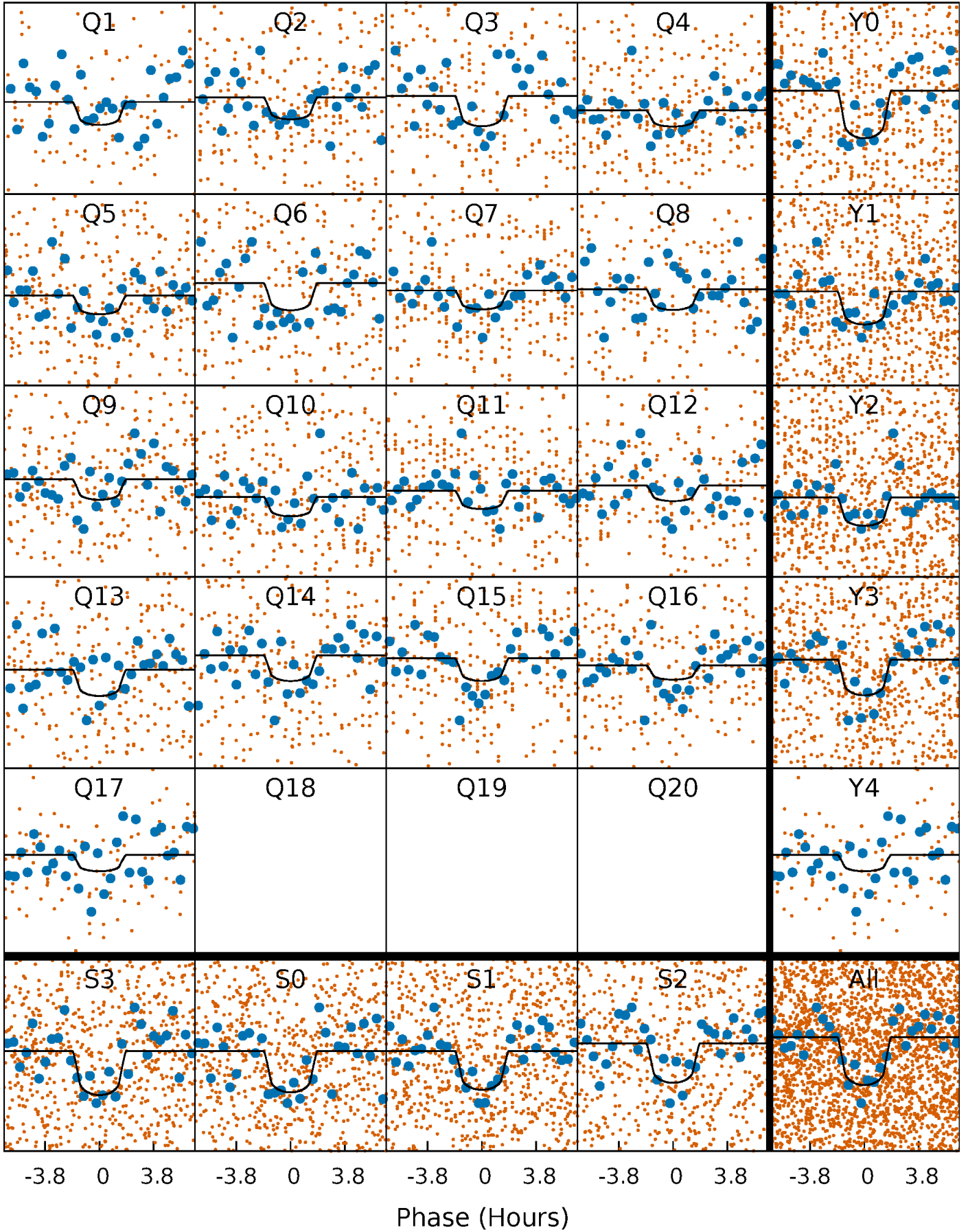
PDC Quarter-Phased Transit Curves

TCE 010146103-01 P= 7.580565 Days $T_0=132.904164$ (BKJD)



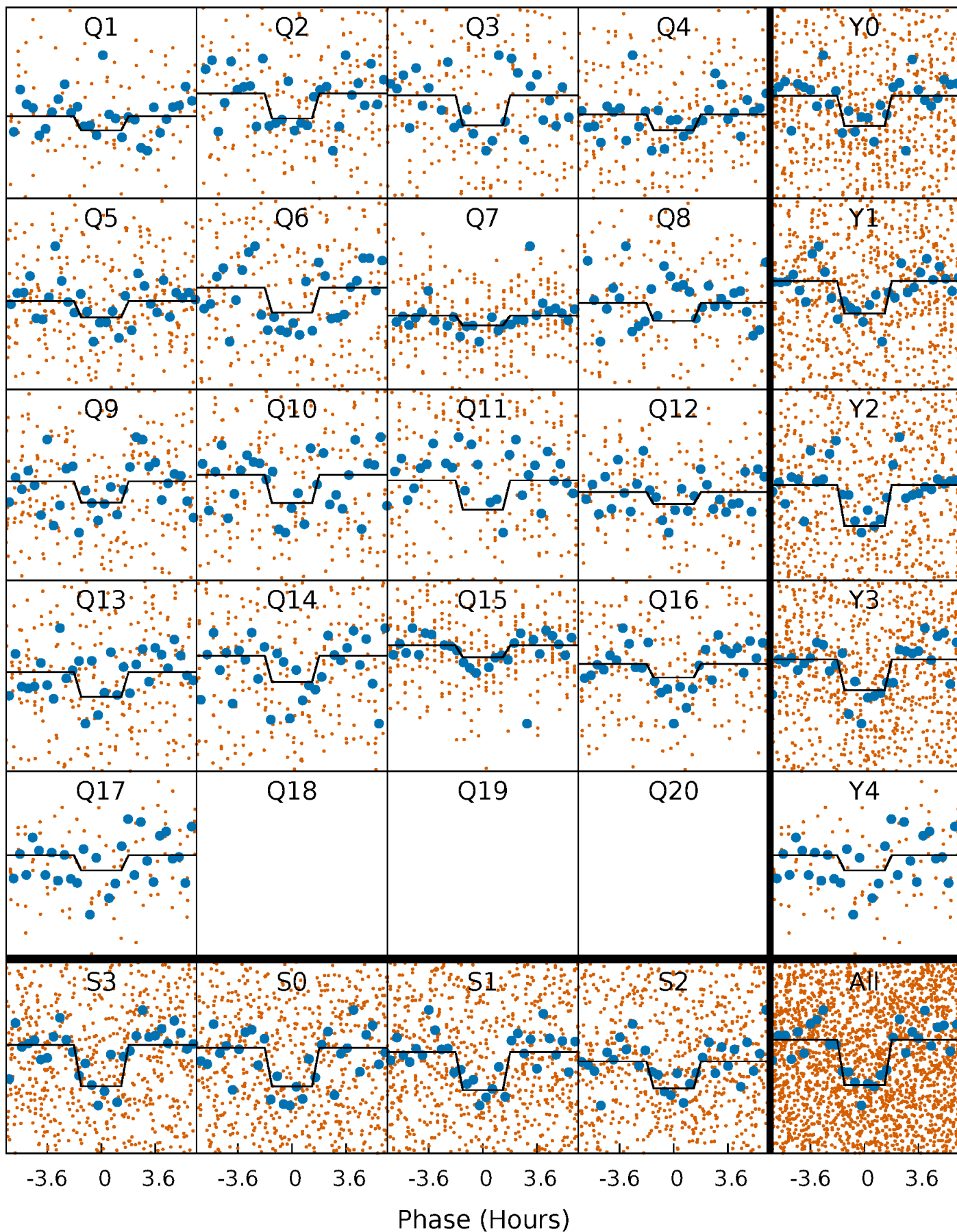
DV Quarter-Phased Transit Curves

TCE 010146103-01 P= 7.580565 Days $T_0=132.904164$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

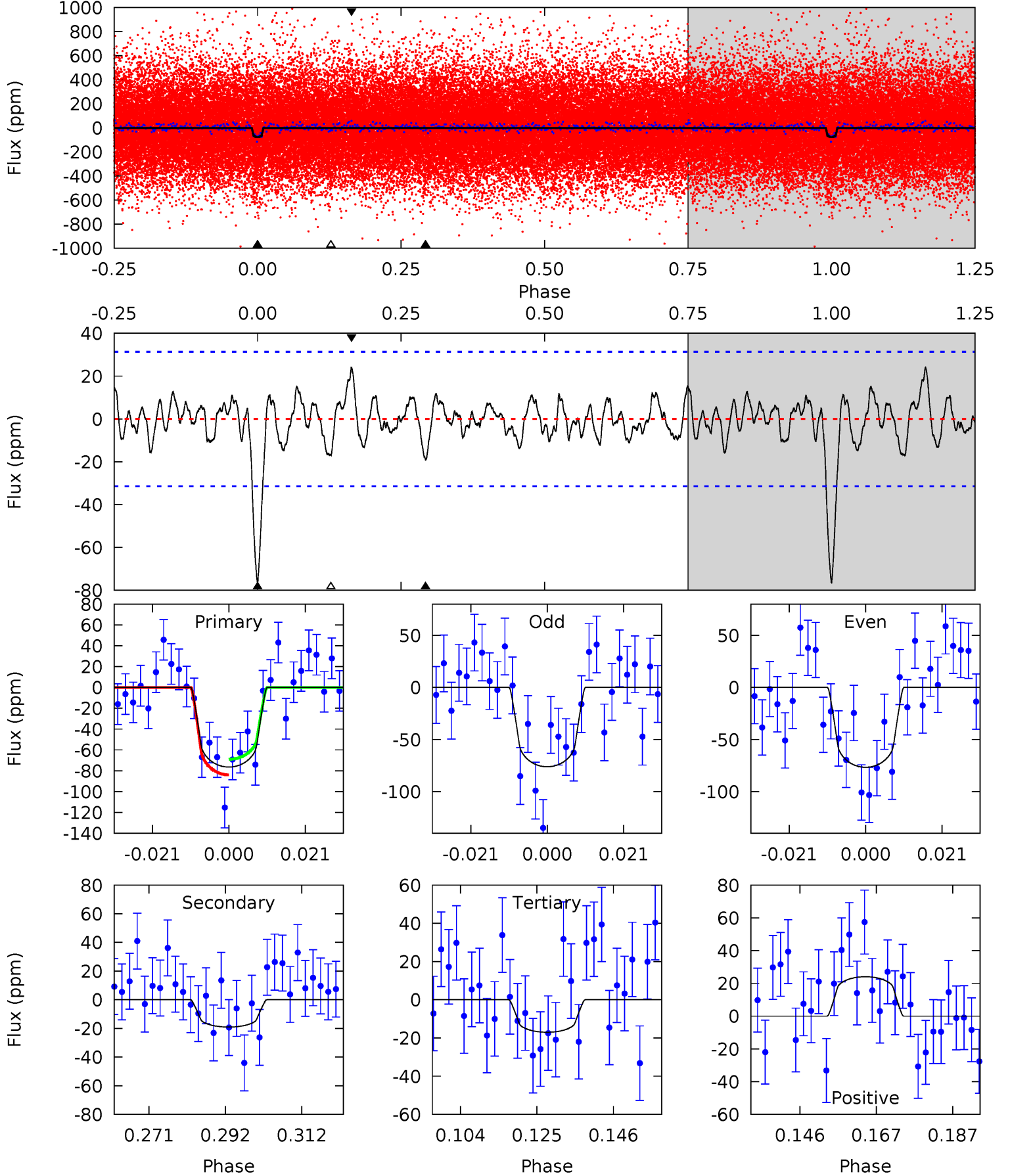
TCE 010146103-01 P= 7.580535 Days $T_0=132.907689$ (BKJD)



DV Model-Shift Uniqueness Test

010146103-01, P = 7.580565 Days, E = 125.323599 Days

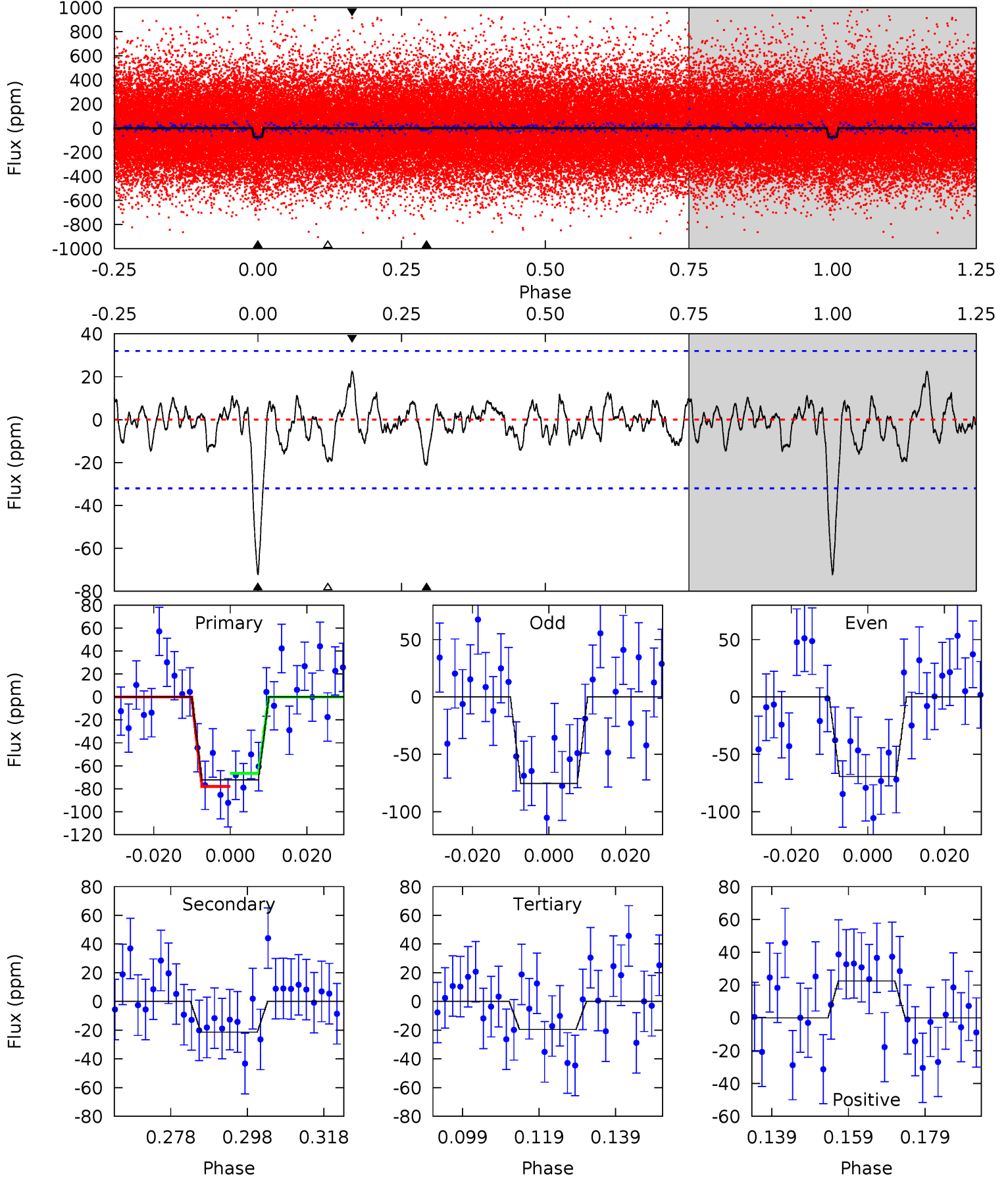
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	2.97	2.65	3.75	4.88	2.31	1.11	9.25	8.15	0.32	-0.78	0.04	0.94	0.24	1.17



Alt Model-Shift Uniqueness Test

010146103-01, P = 7.580535 Days, E = 125.327154 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	3.27	2.99	3.44	4.89	2.33	1.03	8.07	7.62	0.28	-0.17	0.46	1.04	0.24	0.88



Stellar Parameters For KIC 010146103

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5753^{+68}_{-85}	$4.417^{+0.063}_{-0.117}$	$0.200^{+0.150}_{-0.150}$	$1.041^{+0.164}_{-0.082}$	$1.034^{+0.057}_{-0.063}$	$1.289^{+0.327}_{-0.442}$
	+1%/-1%	+1%/-3%	+75%/-75%	+16%/-8%	+6%/-6%	+25%/-34%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 010146103-01 / KOI 5769.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-19 ± 6	$1.14^{+0.80}_{-0.64}$	1314^{+52}_{-38}	4054^{+1668}_{-690}	44^{+185}_{-30}
Alt.	-21 ± 7	$1.12^{+0.80}_{-0.62}$	1312^{+57}_{-37}	4233^{+1672}_{-767}	54^{+208}_{-36}

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

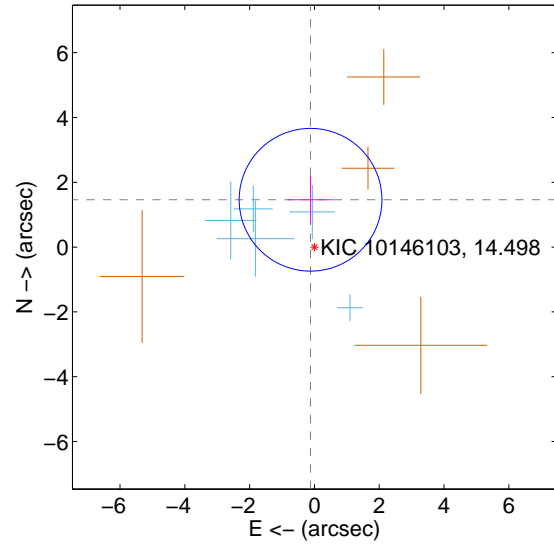
Supplemental centroid analysis for 010146103-01. Kepler magnitude: 14.50. Transit SNR 9.30

There are 5 quarters with good PRF difference image offsets

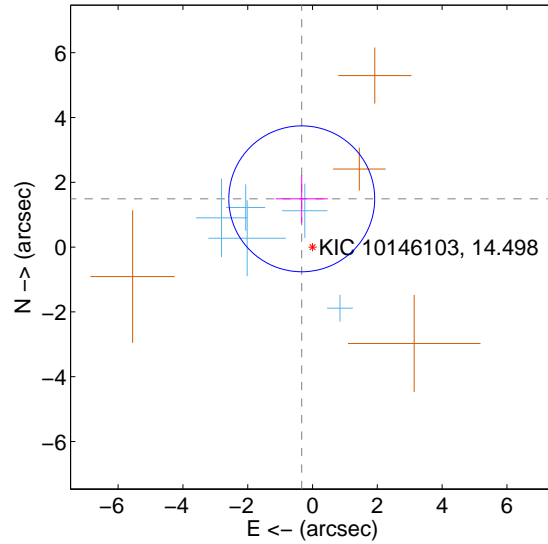
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.466 ± 0.734	2.00	0.120 ± 0.713	1.461 ± 0.743
PRF-fit source offset from KIC position	1.527 ± 0.751	2.03	0.333 ± 0.803	1.490 ± 0.735
photometric centroid source offset	1.79 ± 1.48	1.21	0.75 ± 1.33	-1.62 ± 1.51

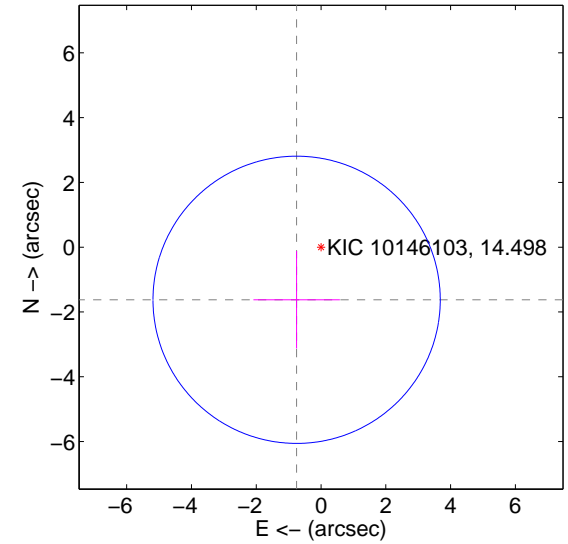
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

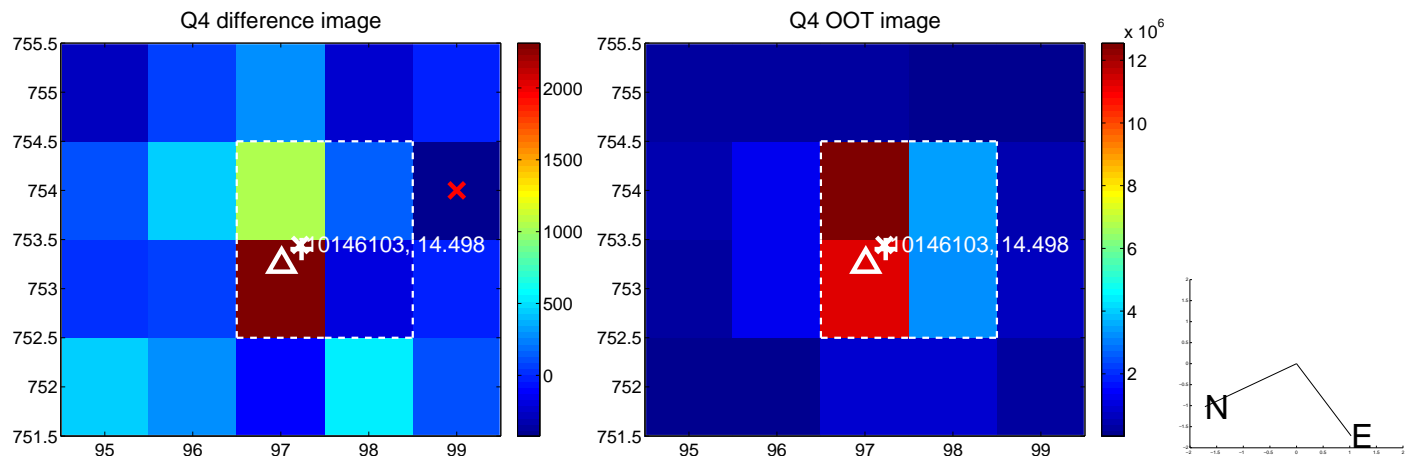
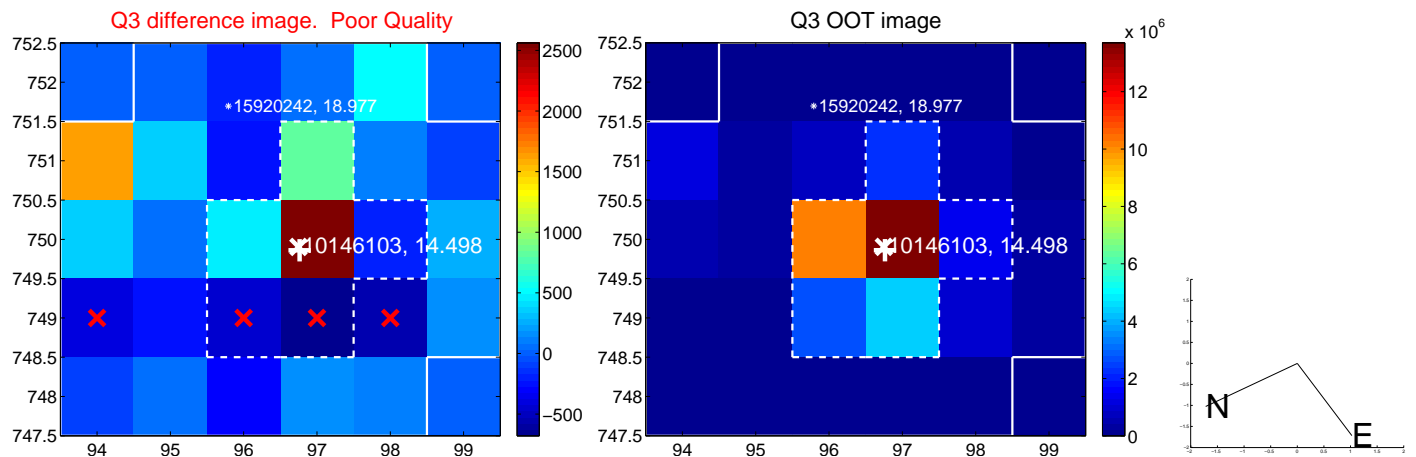
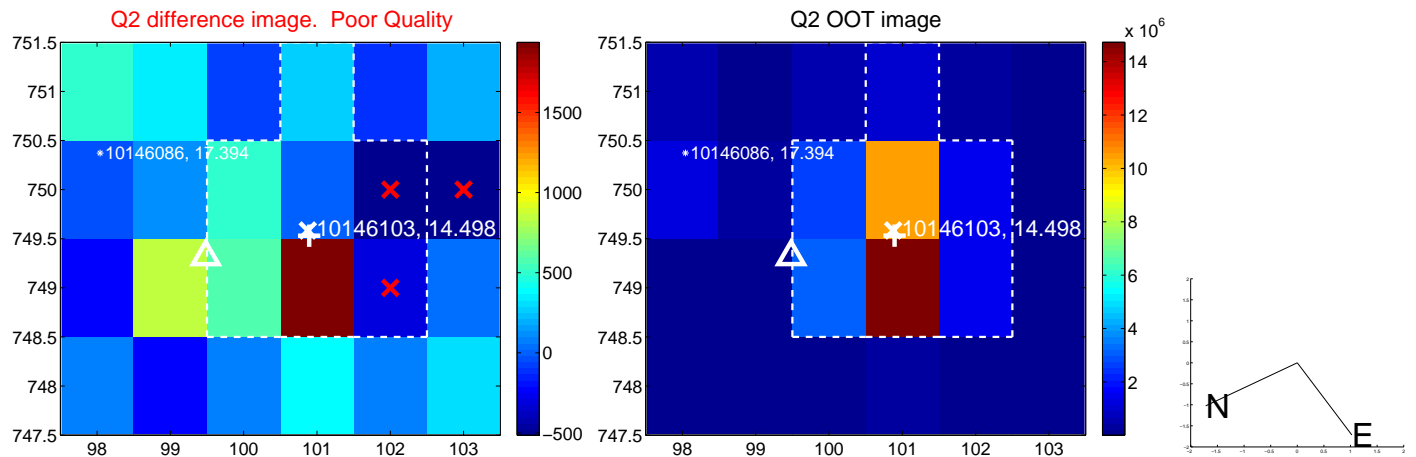
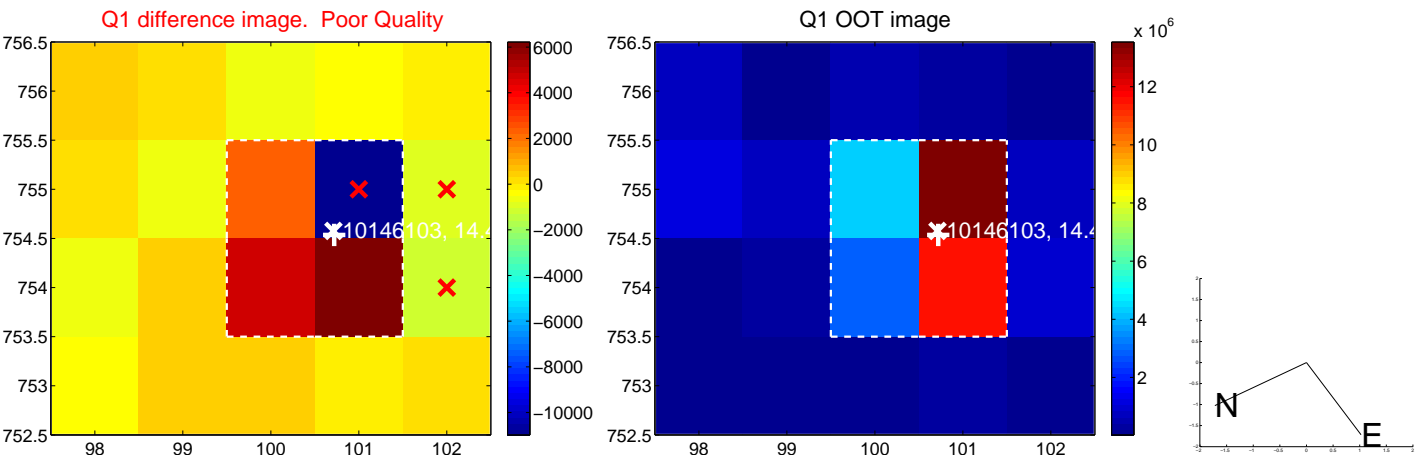


offset from photometric centroids

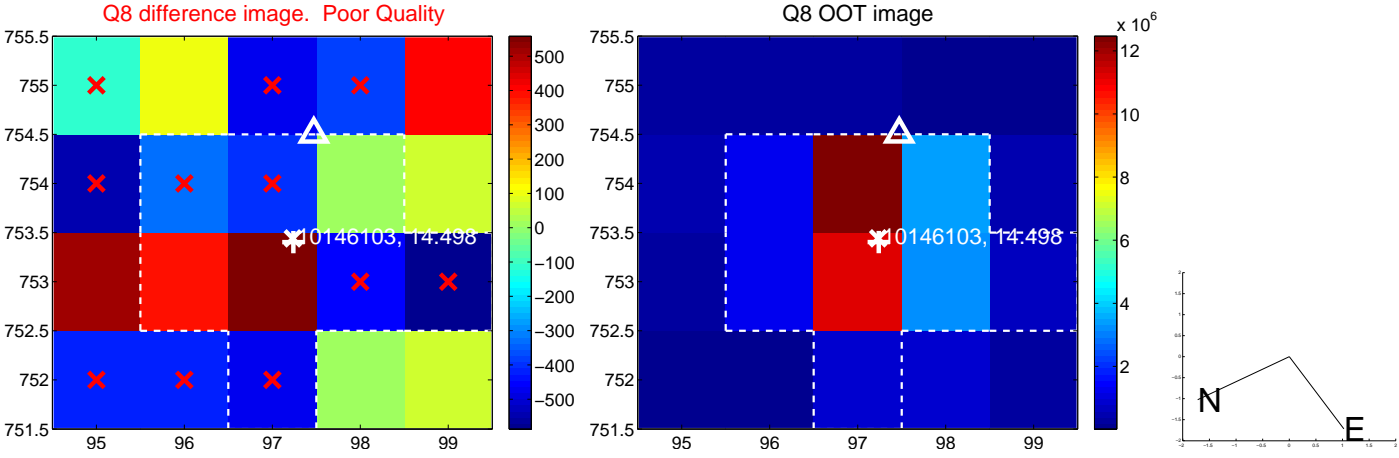
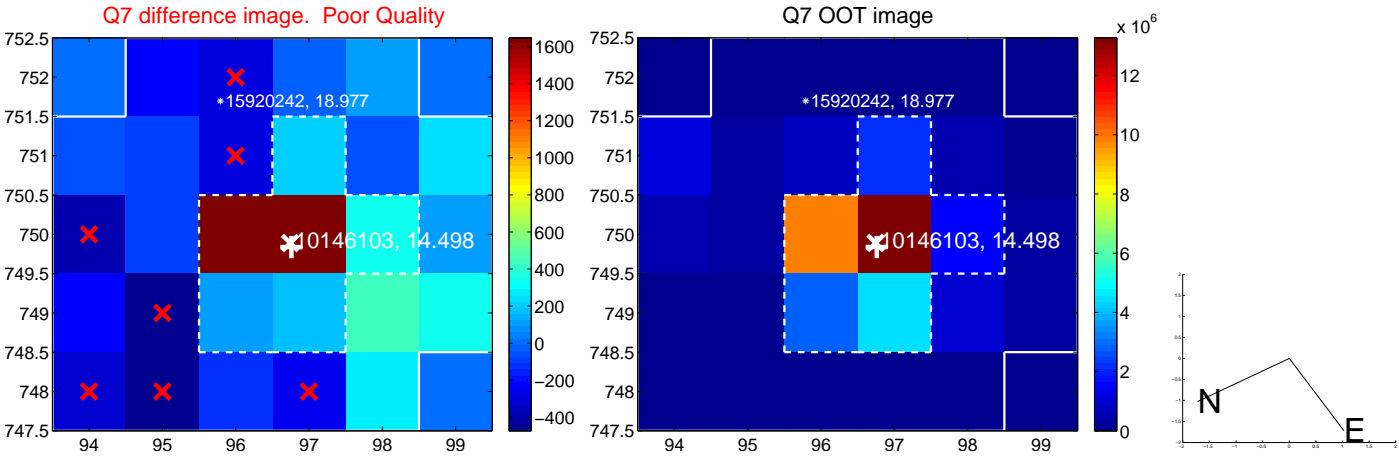
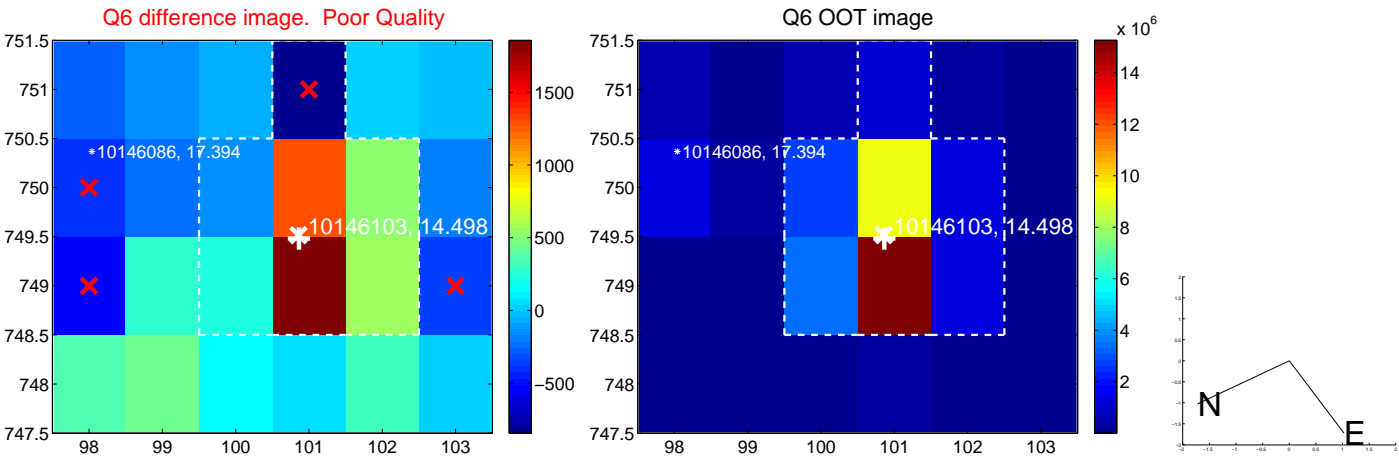
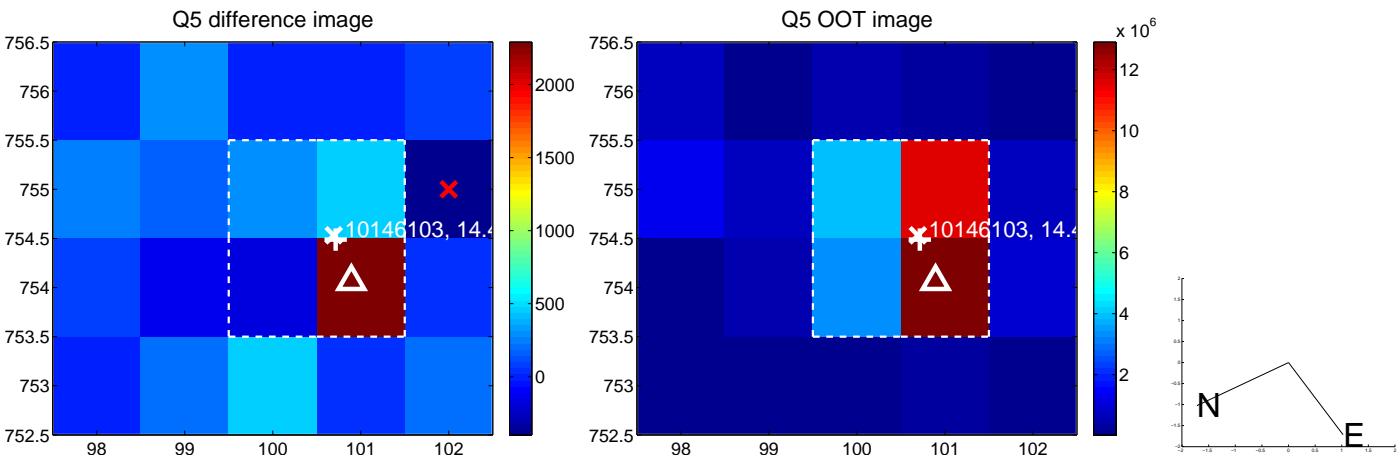


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

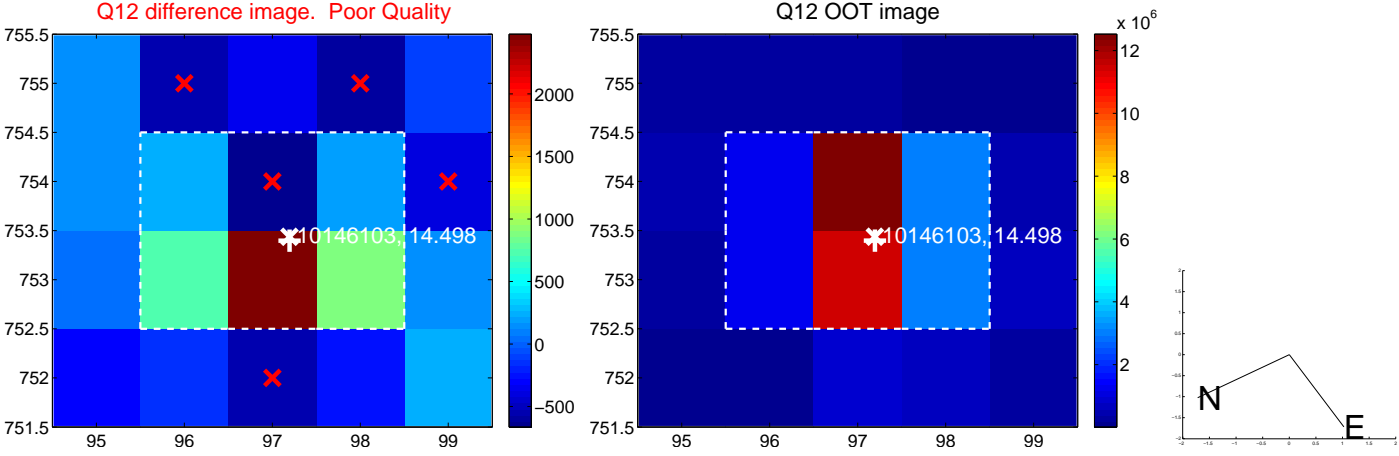
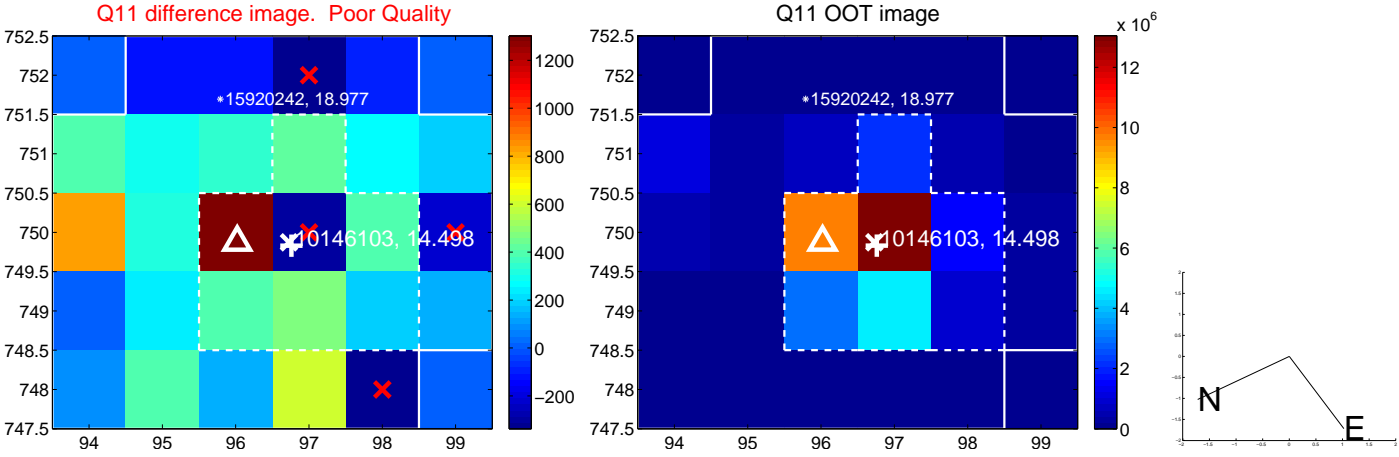
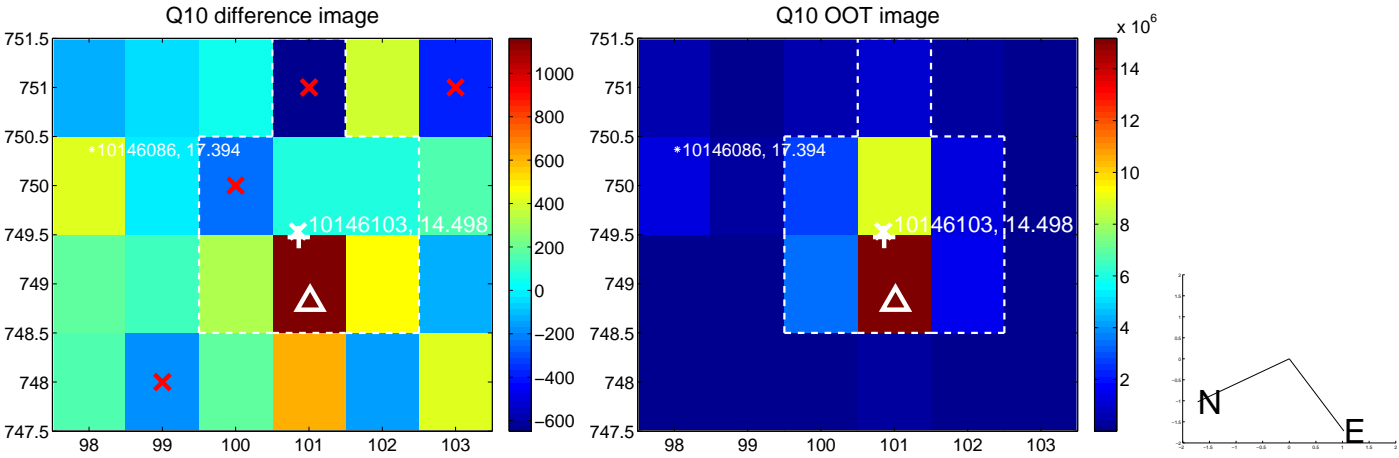
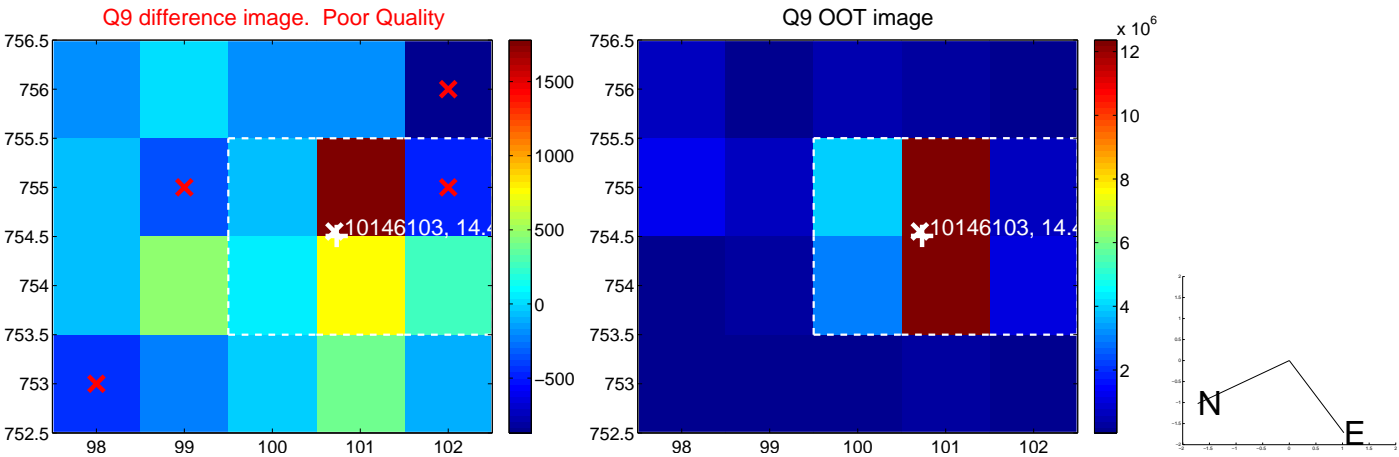
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



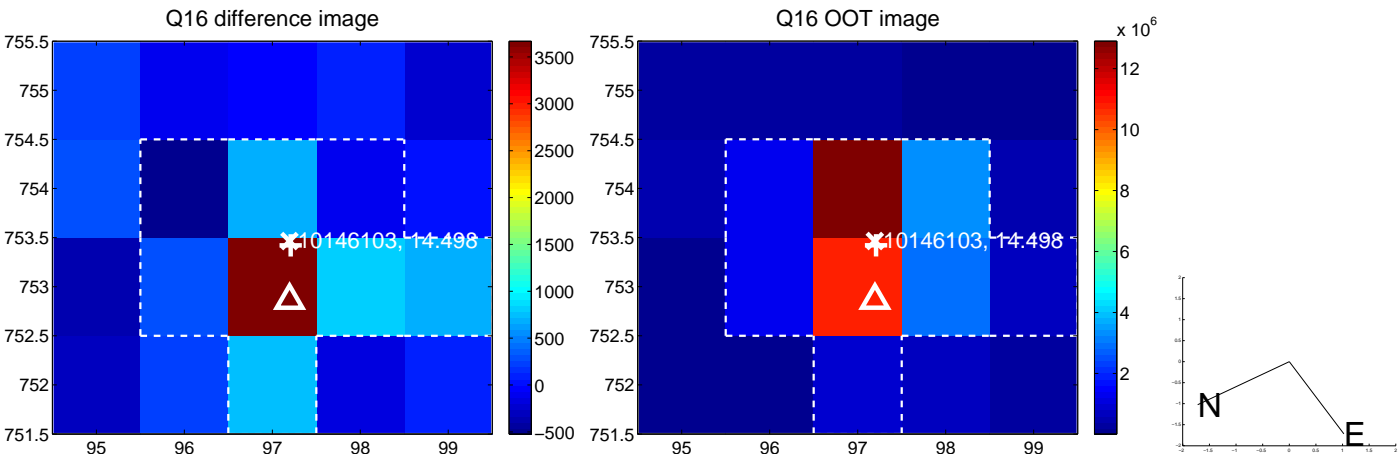
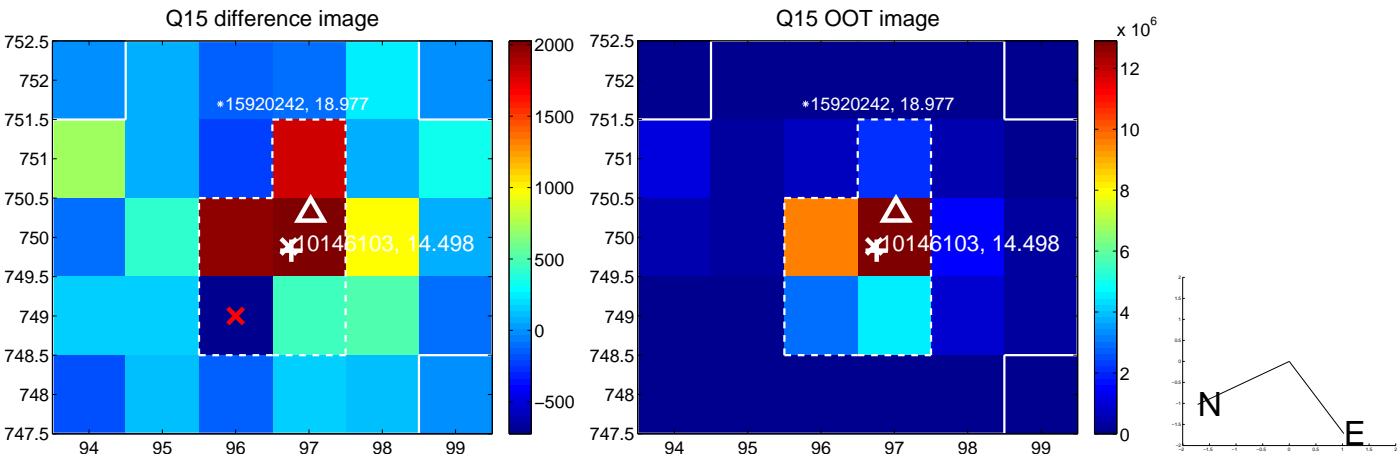
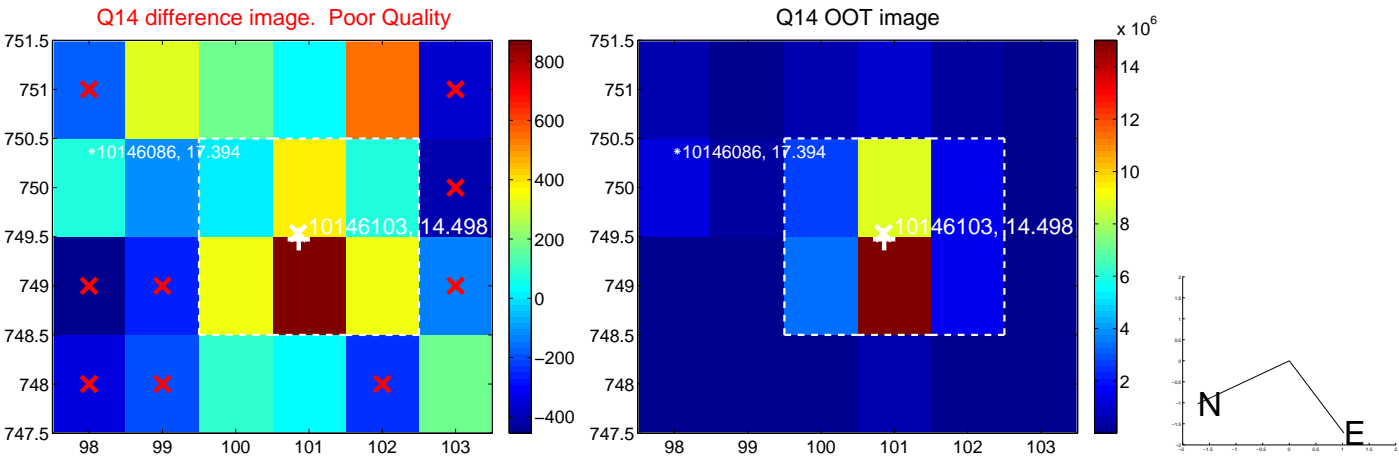
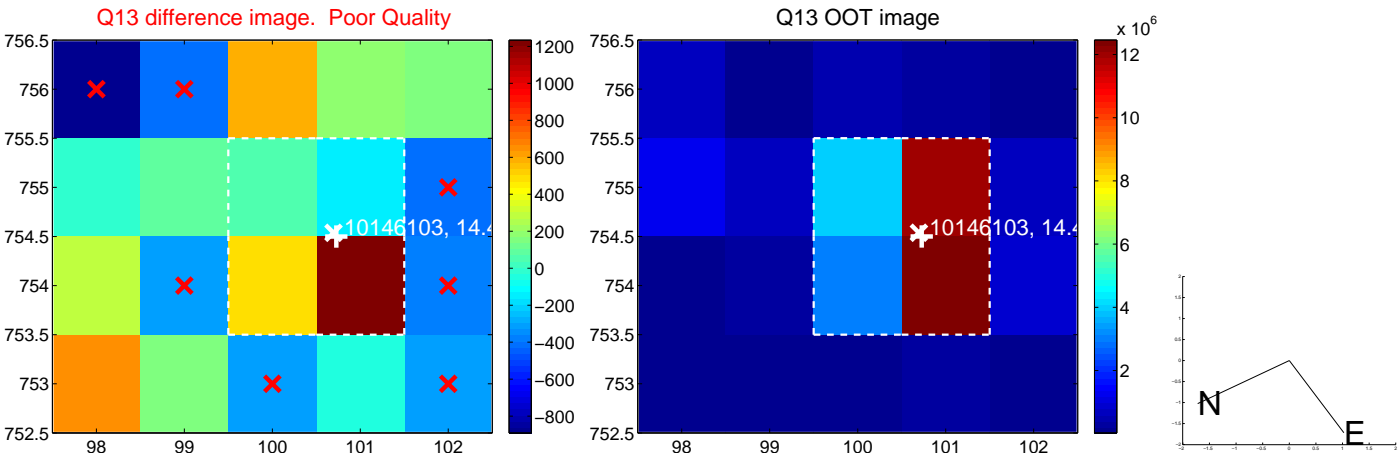
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



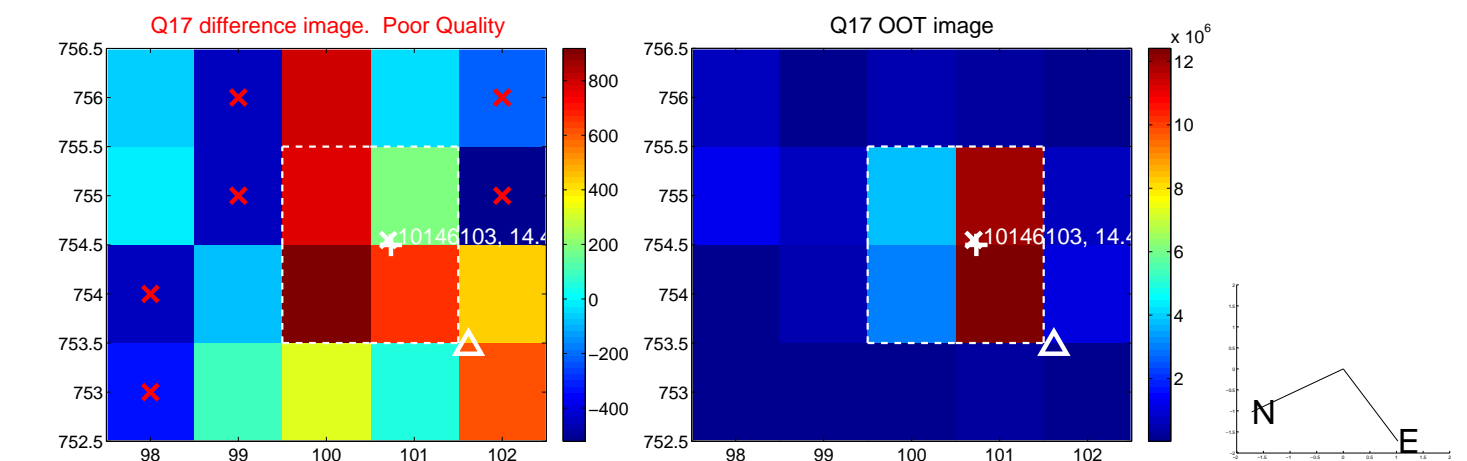
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



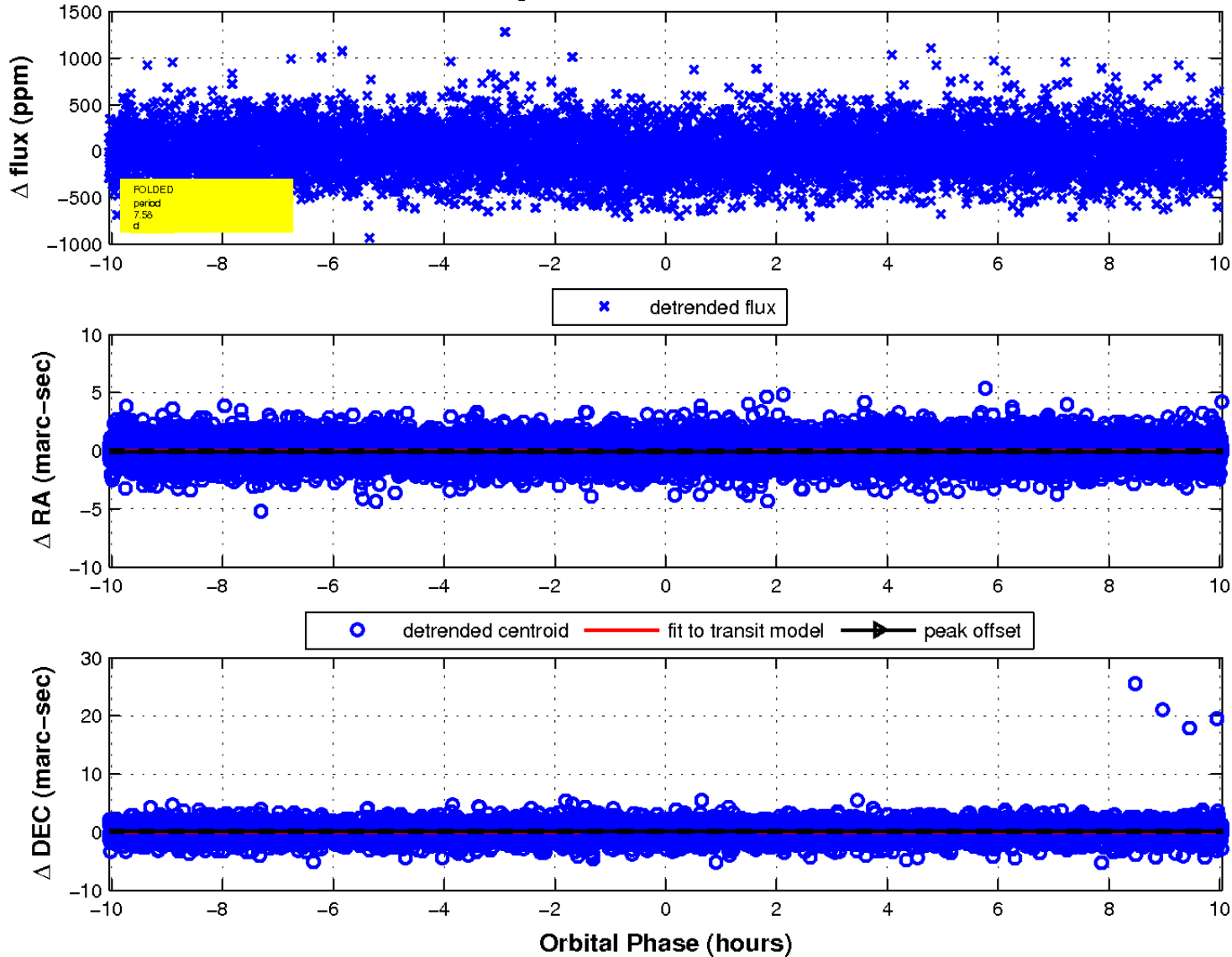
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

