

KIC 011403389

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})
011403389-01	OBS	2482.01	45.091038	133.552203	410.1	4.169	12.8	13.4	0.90	5790	2.06	13.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011403389-01	OBS	PC	1.00	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.

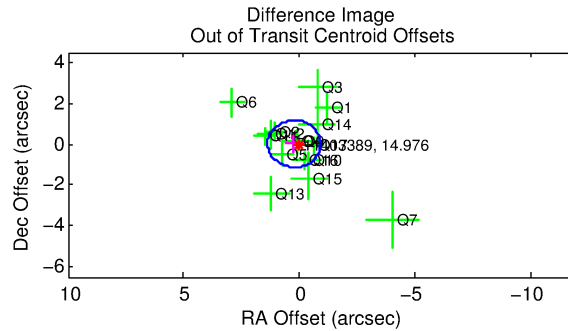
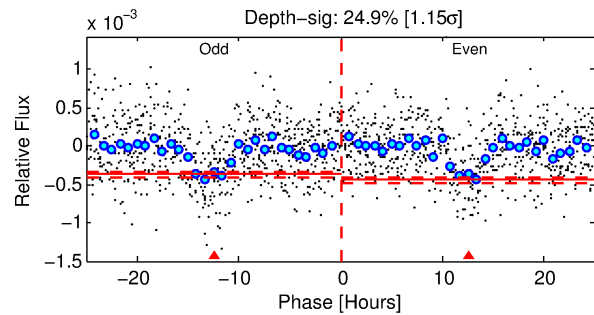
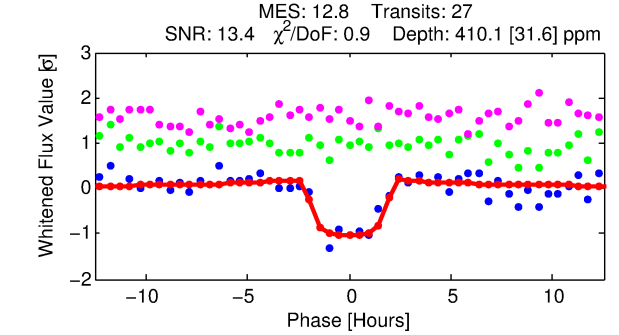
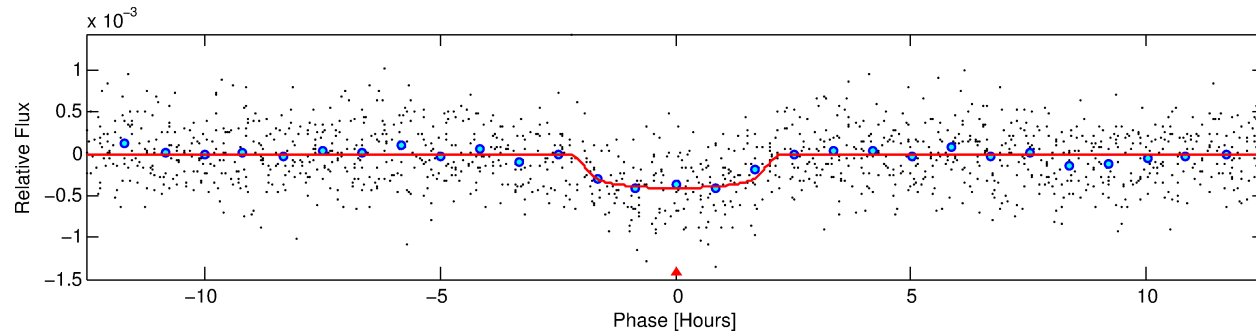
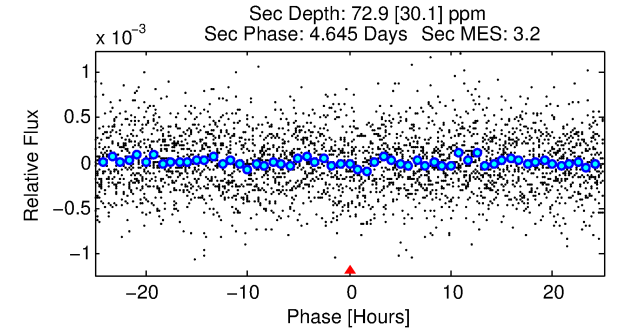
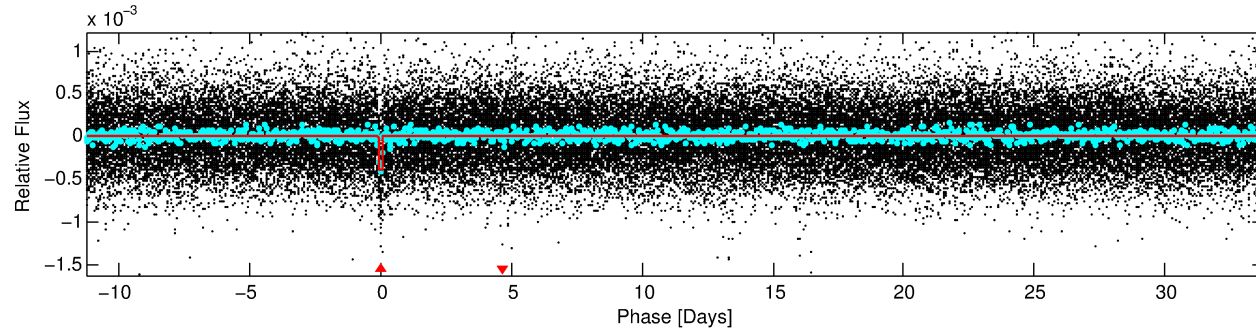
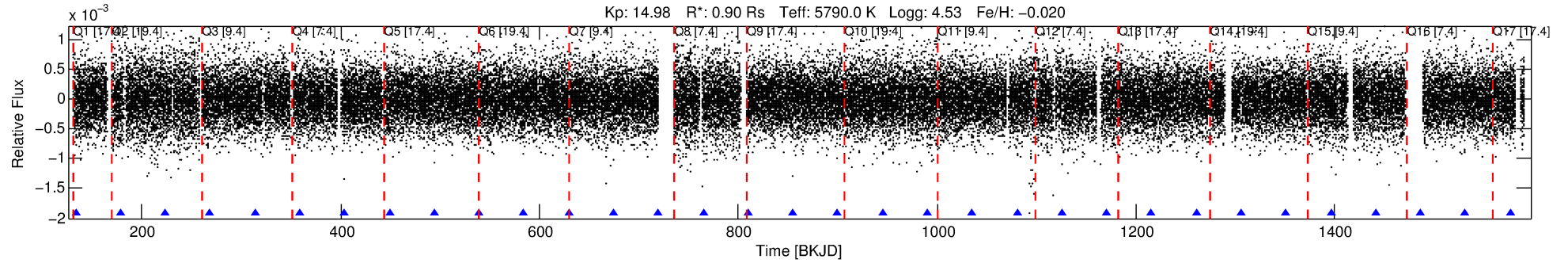
Ephemeris Match Information For 011403389-01

No Significant Match Found

DV One-Page Summary

KIC: 11403389 Candidate: 1 of 1 Period: 45.091 d

KOI: K02482.01 Corr: 0.962



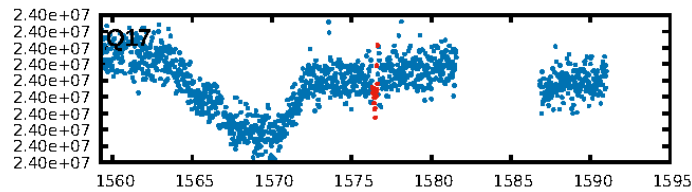
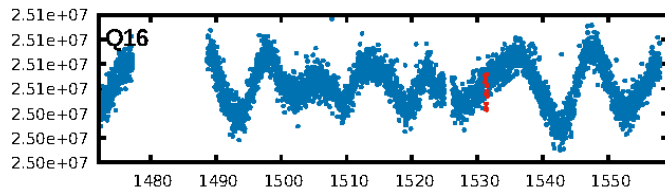
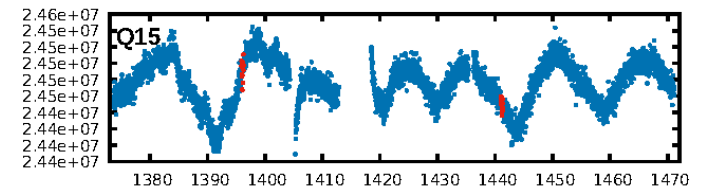
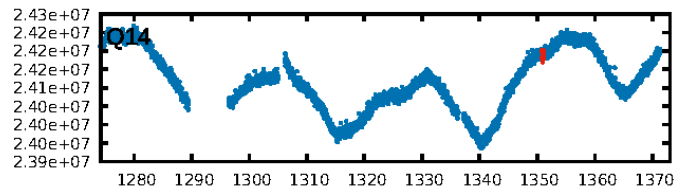
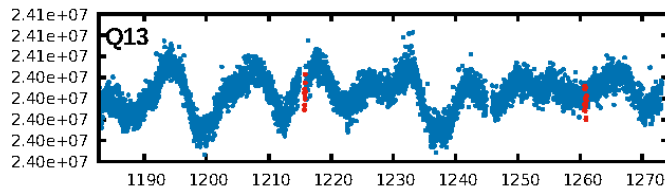
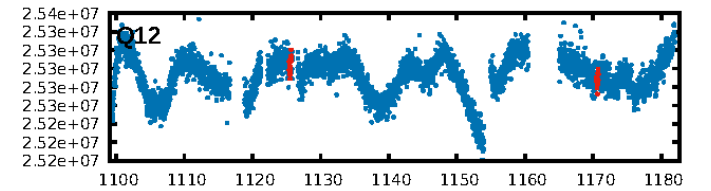
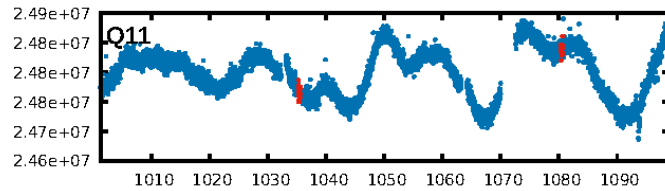
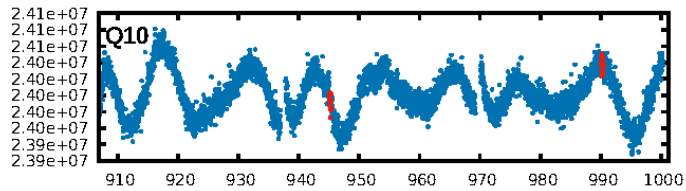
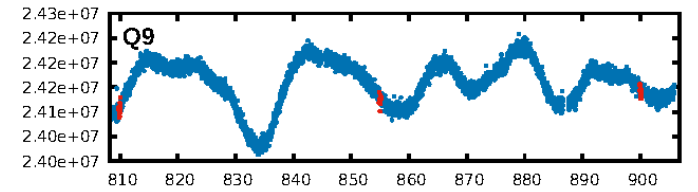
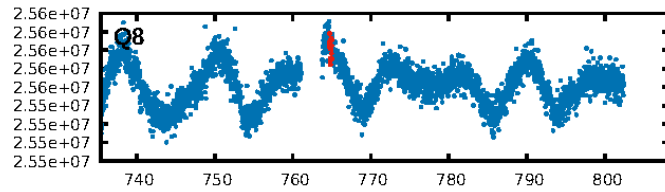
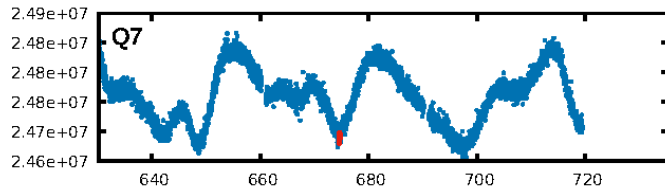
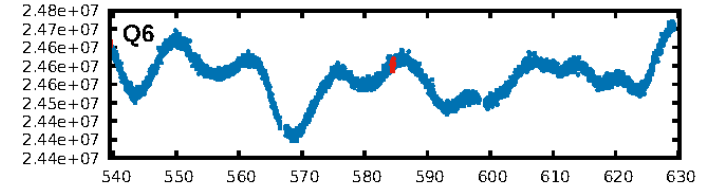
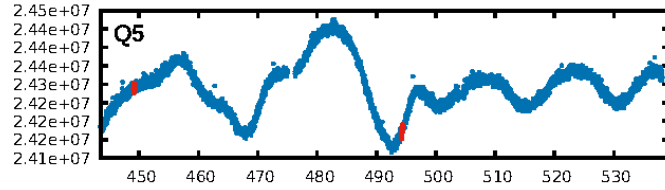
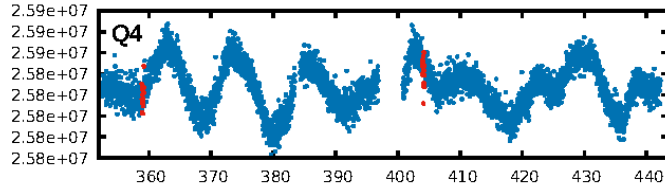
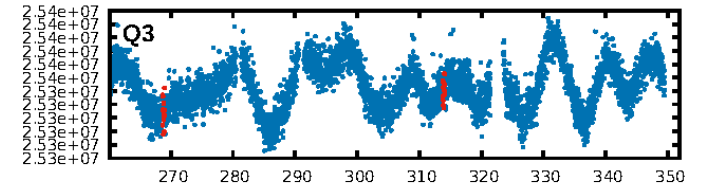
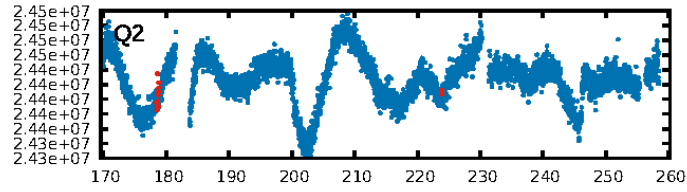
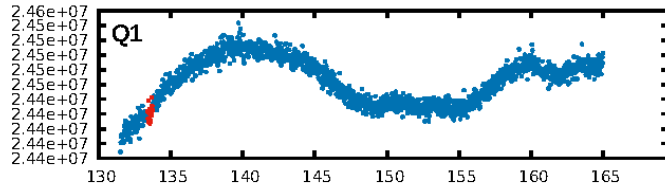
DV Fit Results:

Period = 45.09104 [0.00034] d
Epoch = 133.5522 [0.0066] BKJD
Rp/R* = 0.0210 [0.0083]
a/R* = 48.66 [87.67]
b = 0.83 [0.67]
Seff = 13.29 [5.18]
Teq = 487 [47] K
Rp = 2.06 [1.01] Re
a = 0.2477 [0.0612] AU
Ag = 579.63 [561.38] [1.03σ]
Teffp = 3694 [837] K [3.83σ]

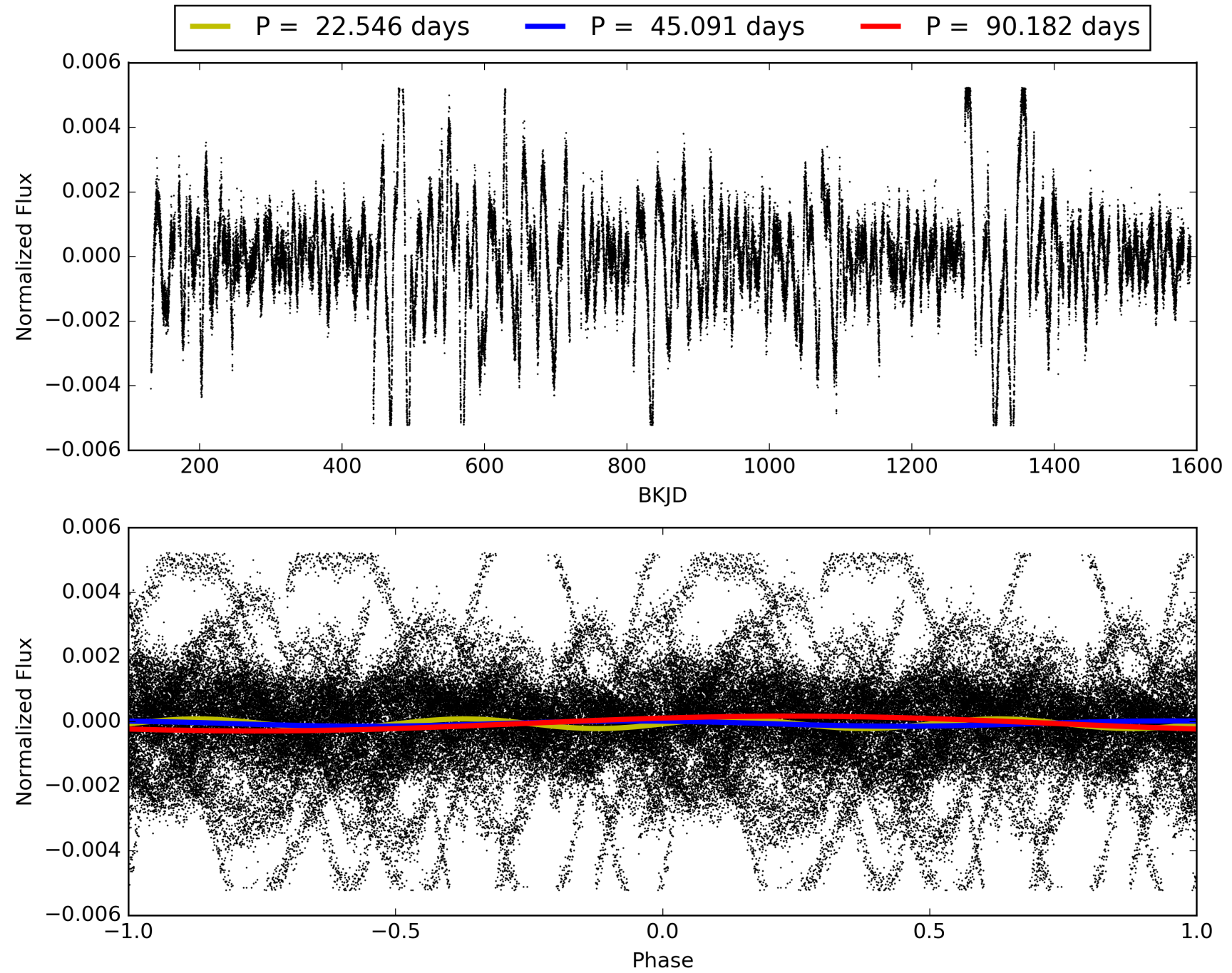
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 37.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.41e-35
RollingBand-fgt: 1.00 [25/25]
GhostDiagnostic-chr: 3.003
Centroid-sig: 19.4%
Centroid-so: 0.709 arcsec [0.90σ]
OotOffset-rm: 0.228 arcsec [0.60σ]
KicOffset-rm: 0.142 arcsec [0.45σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 011403389-01, PDC Light Curves

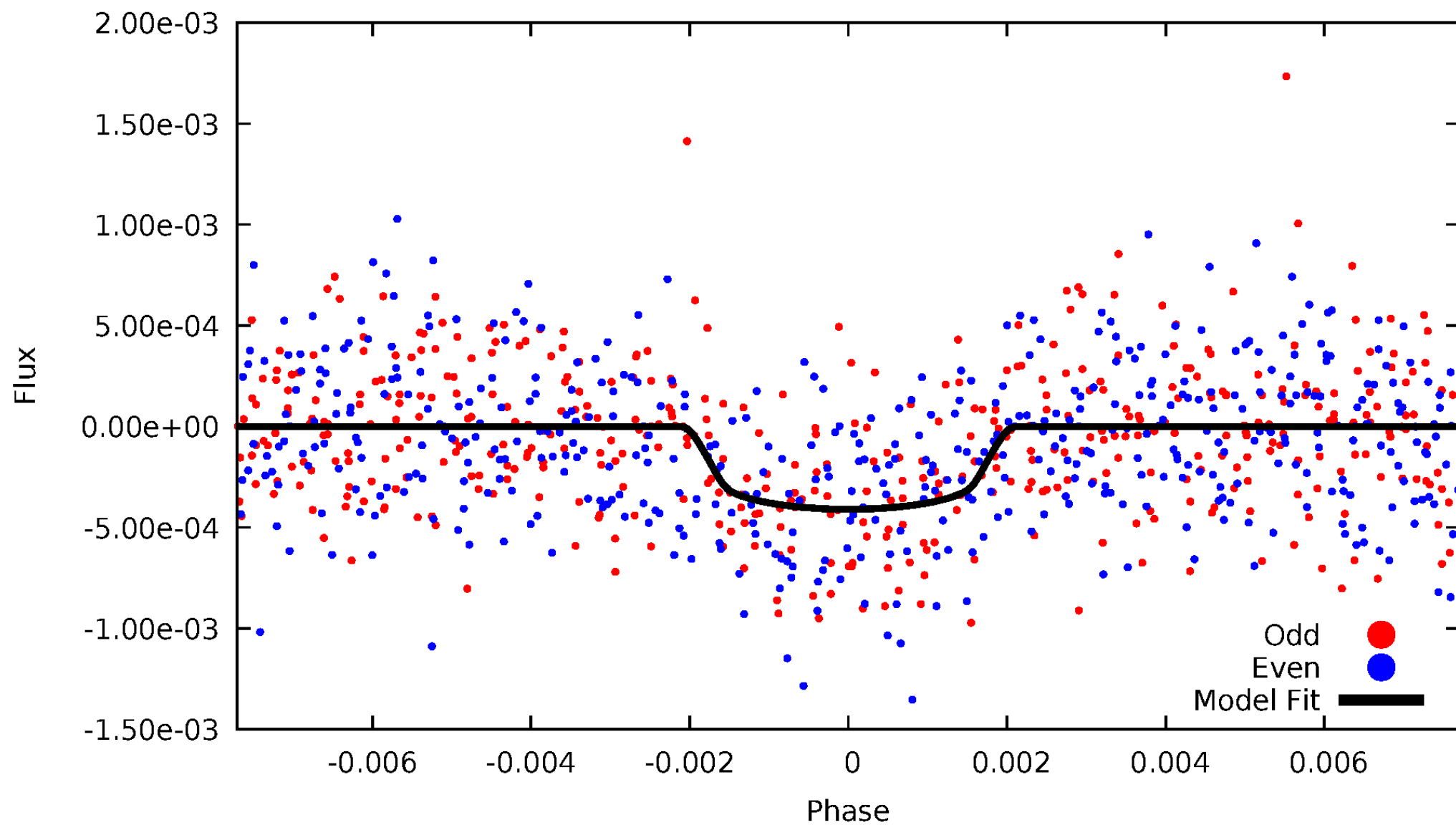


TCE 011403389-01



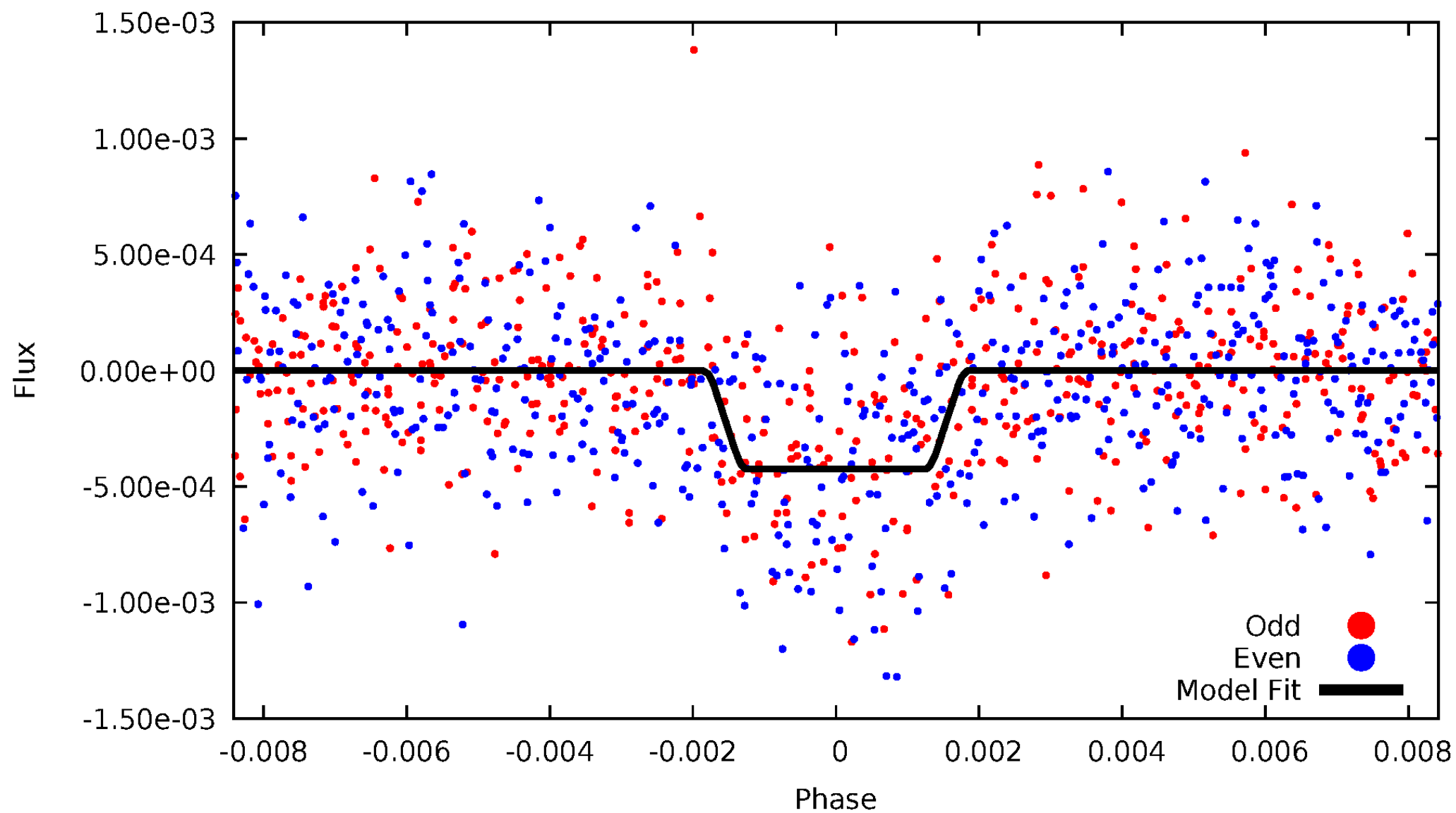
DV Odd/Even

TCE 011403389-01

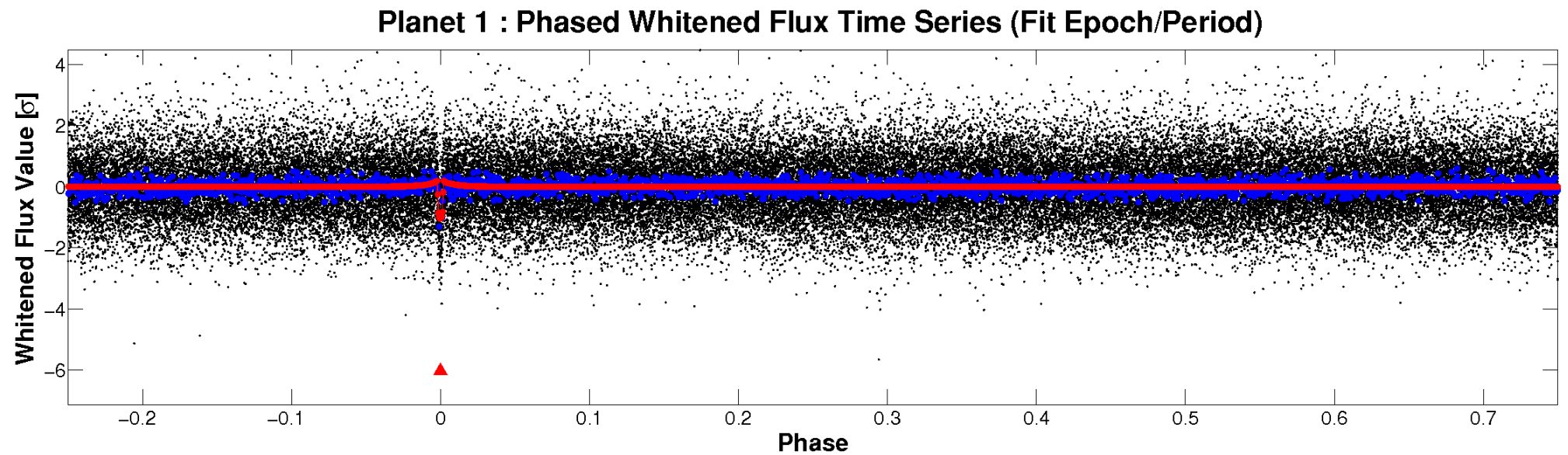
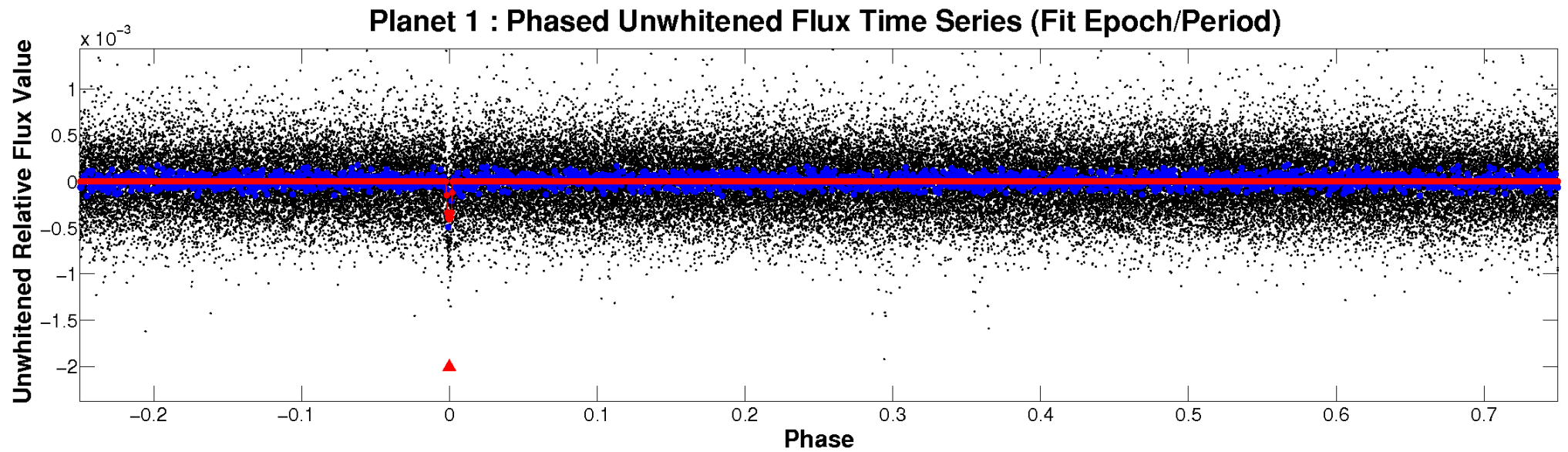


ALT Odd/Even

TCE 011403389-01

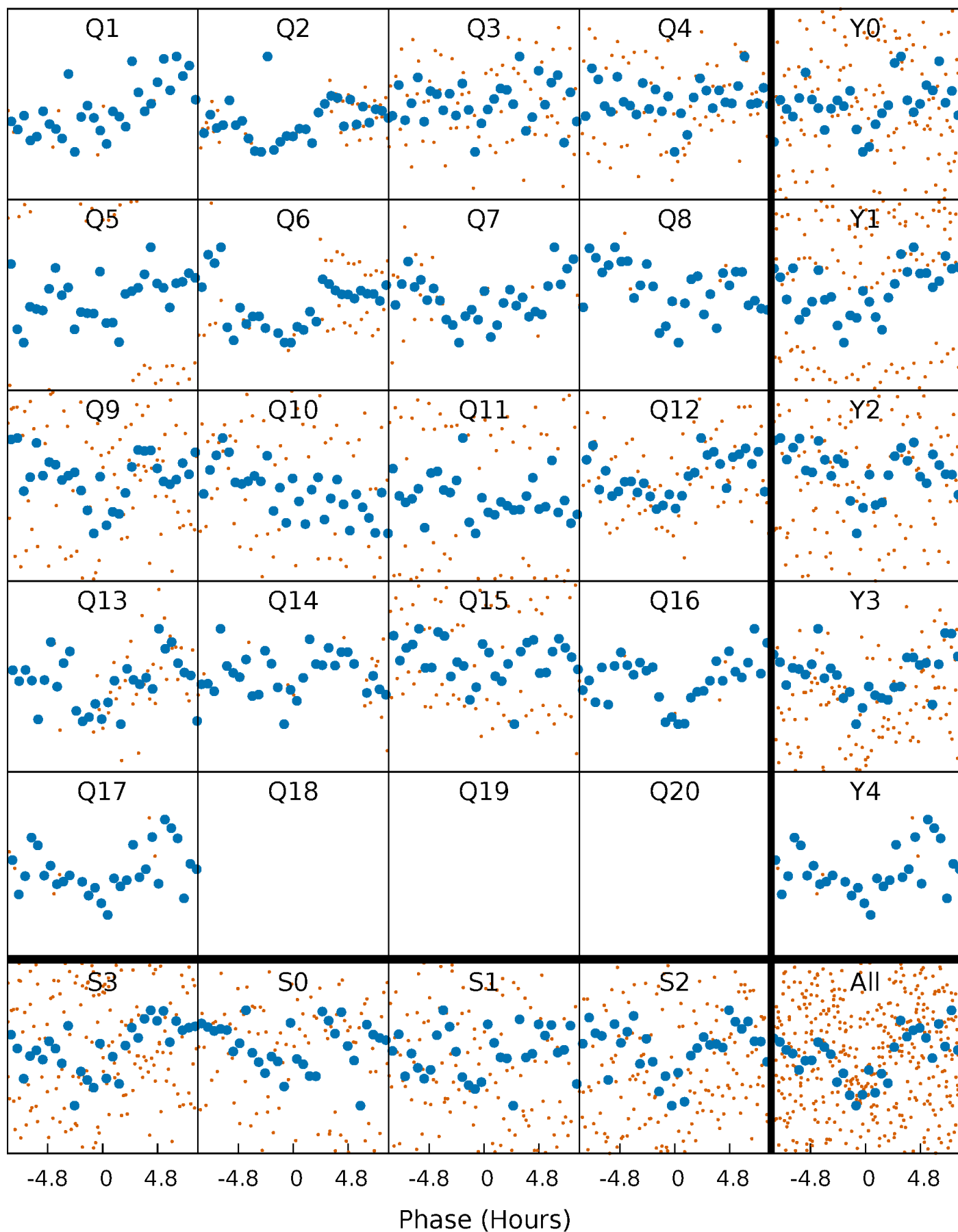


Non-Whitened Vs. Whitened Light Curve



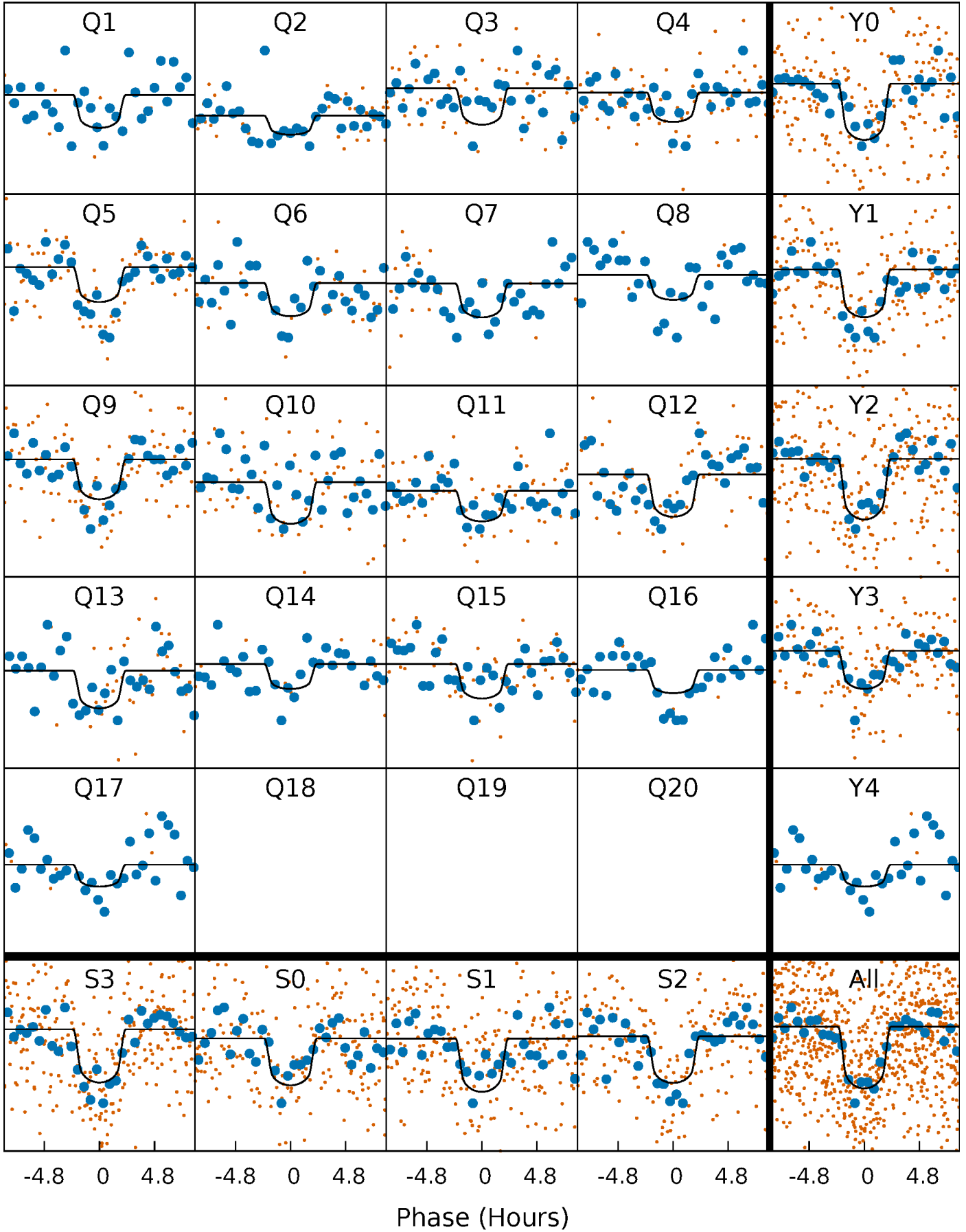
PDC Quarter-Phased Transit Curves

TCE 011403389-01 P= 45.091038 Days $T_0=133.552202$ (BKJD)



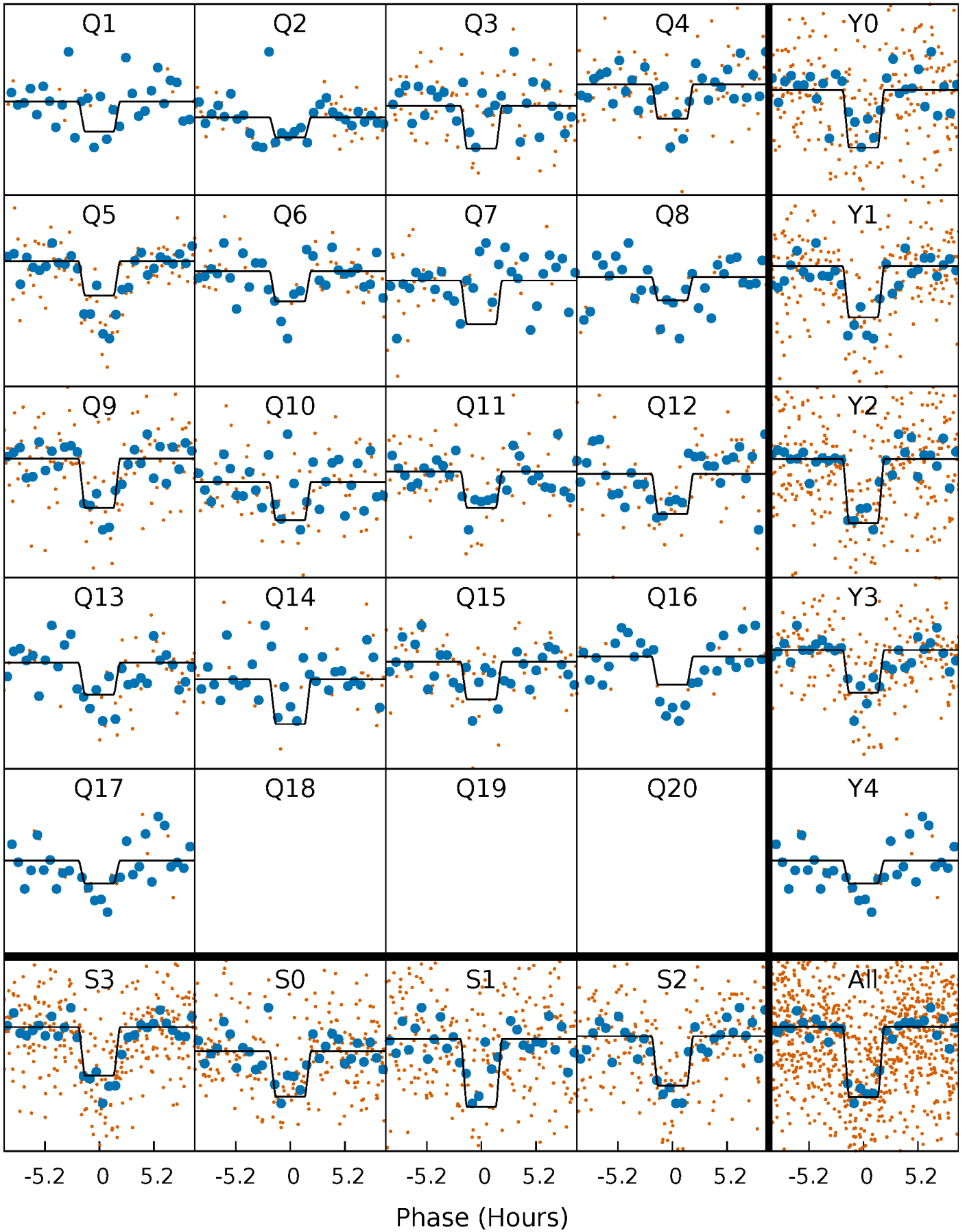
DV Quarter-Phased Transit Curves

TCE 011403389-01 P= 45.091038 Days $T_0=133.552202$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

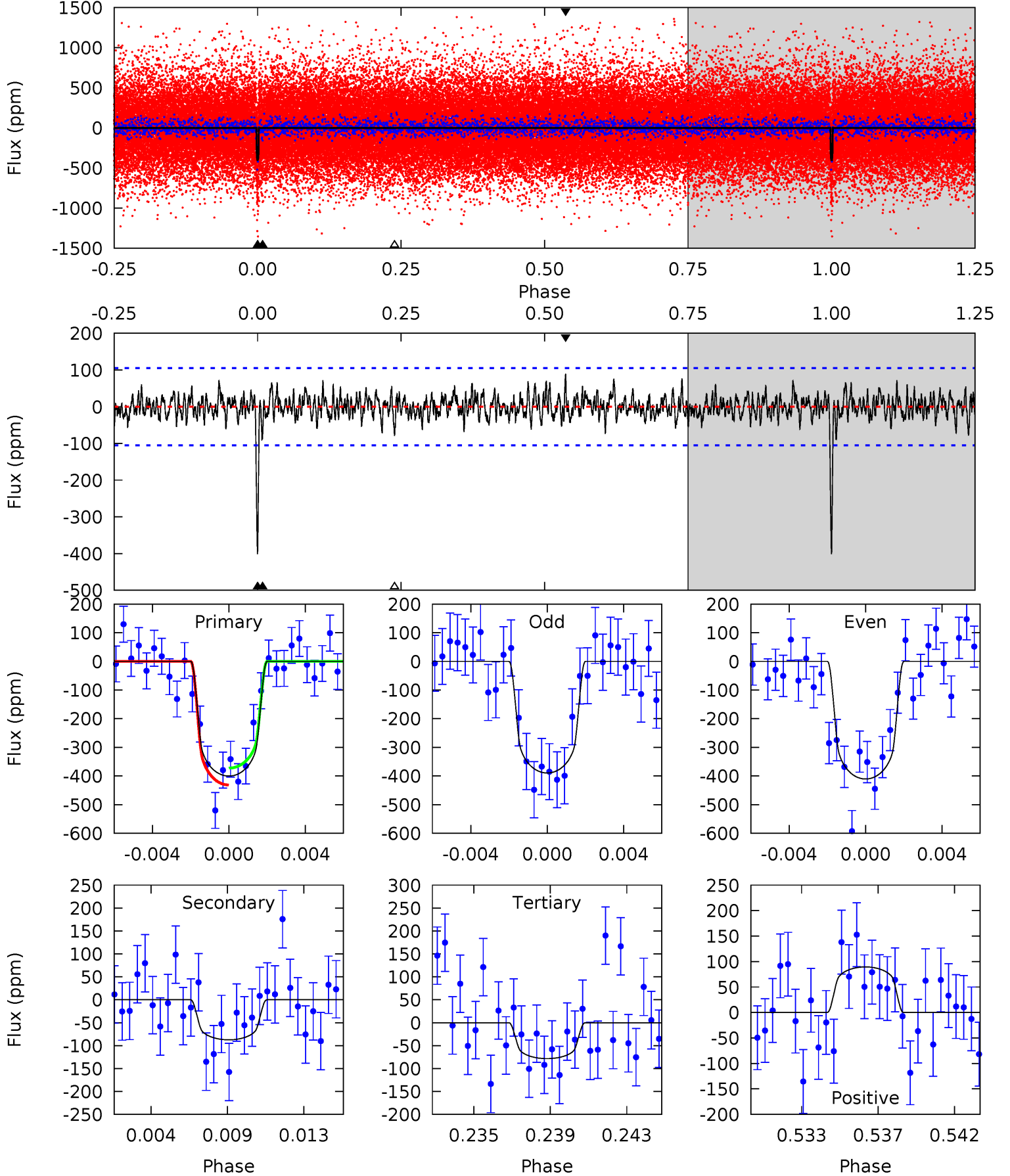
TCE 011403389-01 P= 45.091086 Days $T_0=133.549811$ (BKJD)



DV Model-Shift Uniqueness Test

011403389-01, $P = 45.091038$ Days, $E = 88.461164$ Days

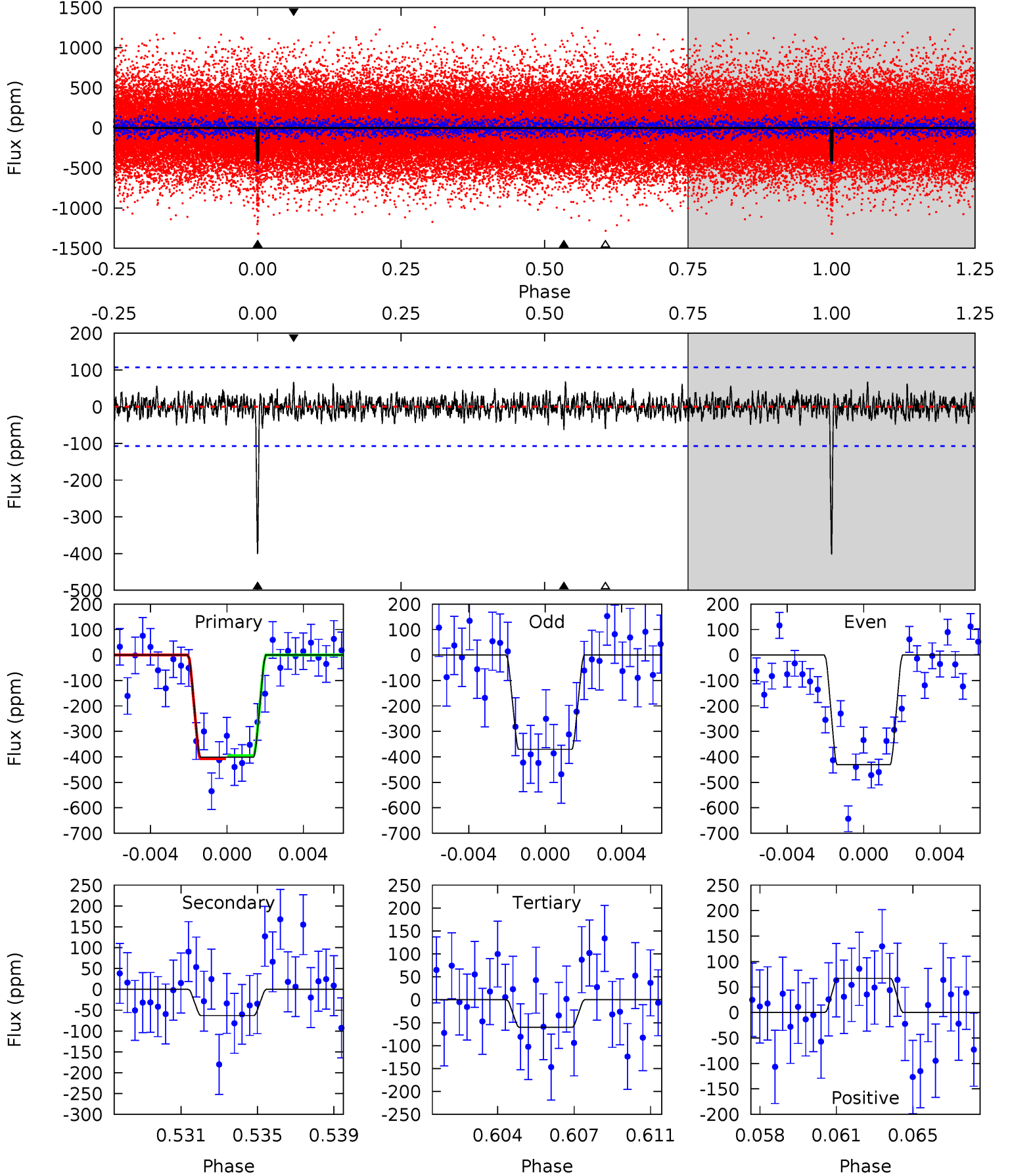
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	4.30	3.86	4.40	5.19	2.86	1.22	15.8	15.3	0.44	-0.10	0.52	0.98	0.18	1.45



Alt Model-Shift Uniqueness Test

011403389-01, P = 45.091086 Days, E = 88.458725 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.5	3.06	2.92	3.26	5.22	2.91	0.89	16.6	16.3	0.14	-0.20	1.46	1.06	0.15	0.31



Stellar Parameters For KIC 011403389

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5790^{+156}_{-190}	$4.528^{+0.036}_{-0.204}$	$-0.020^{+0.300}_{-0.300}$	$0.900^{+0.258}_{-0.086}$	$0.998^{+0.114}_{-0.125}$	$1.926^{+0.374}_{-0.985}$
	+3%/-3%	+1%/-5%	+1500%/-1500%	+29%/-10%	+11%/-13%	+19%/-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 011403389-01 / KOI 2482.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-87 ± 20	$2.20^{+0.93}_{-0.87}$	698^{+47}_{-34}	4096^{+950}_{-478}	576^{+1125}_{-303}
Alt.	-63 ± 21	$2.19^{+1.02}_{-0.94}$	699^{+47}_{-32}	3876^{+896}_{-481}	412^{+879}_{-225}

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 $A_{obs} \gg 1.0$

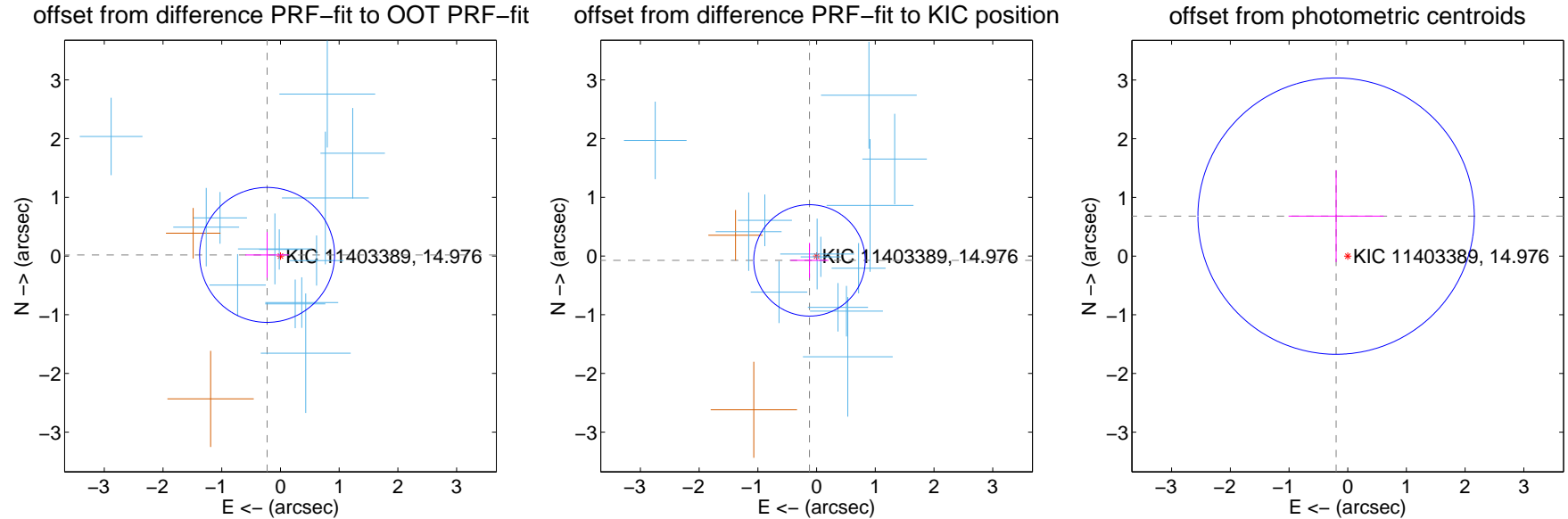
DV Centroid Data

Supplemental centroid analysis for 011403389-01. Kepler magnitude: 14.98. Transit SNR 13.37

There are 13 quarters with good PRF difference image offsets

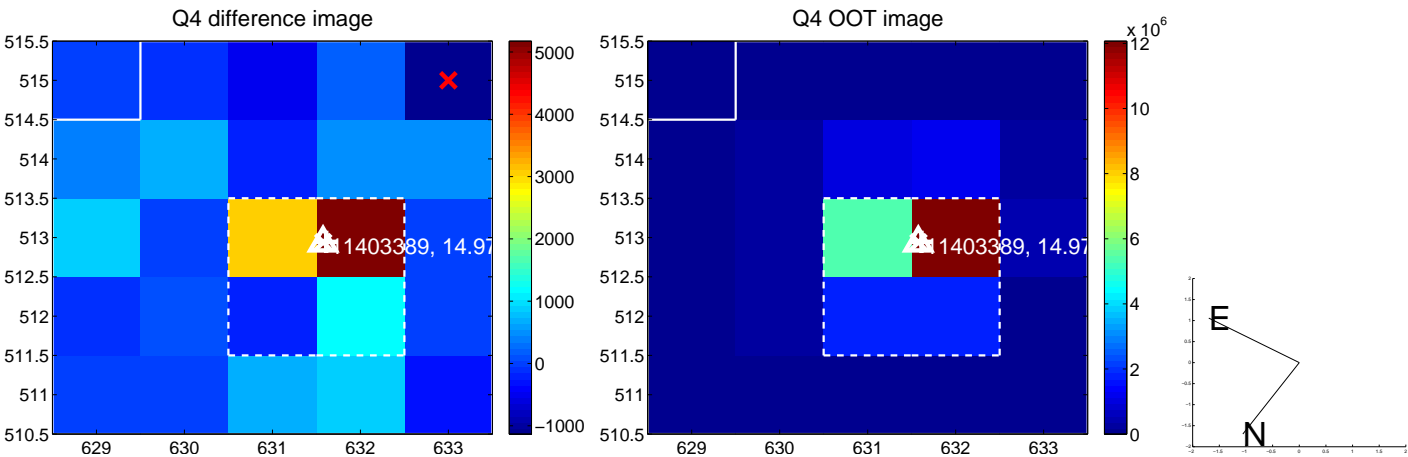
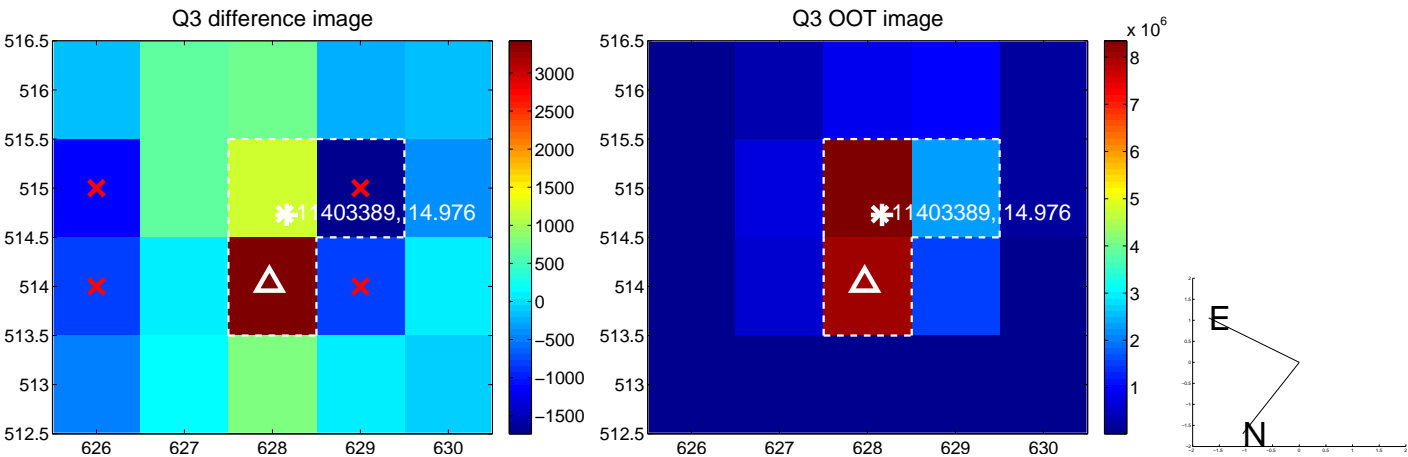
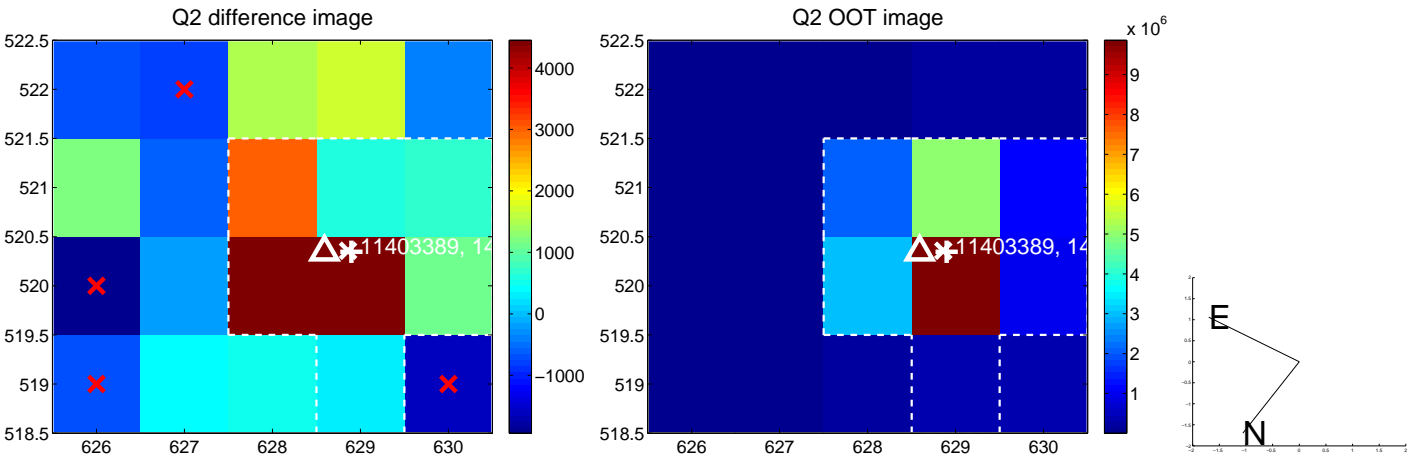
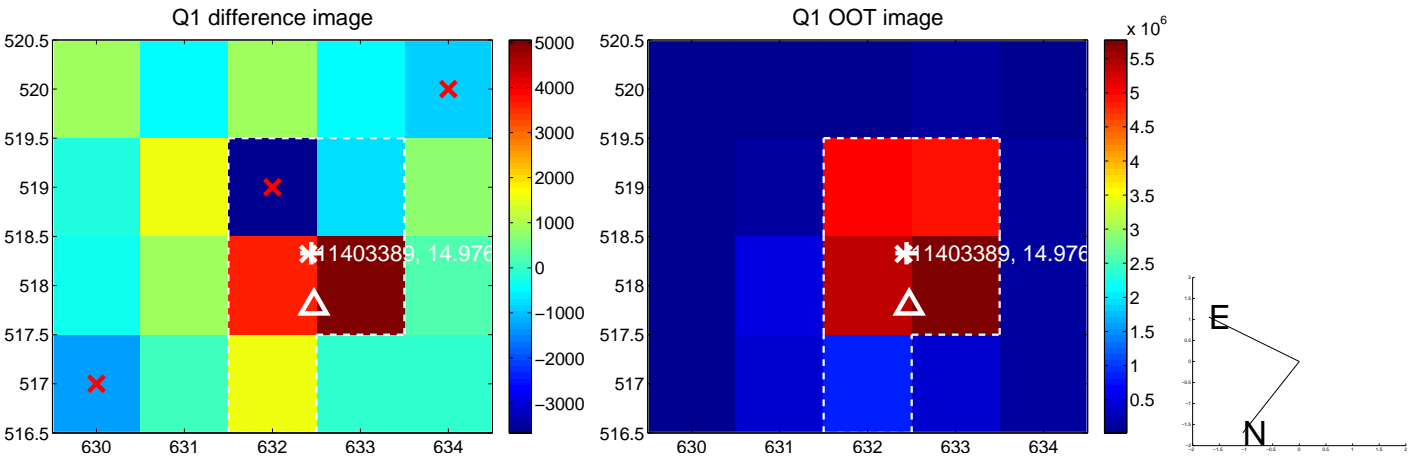
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.228 ± 0.383	0.60	0.228 ± 0.371	0.019 ± 0.389
PRF-fit source offset from KIC position	0.142 ± 0.316	0.45	0.121 ± 0.323	-0.075 ± 0.297
photometric centroid source offset	0.71 ± 0.78	0.90	0.20 ± 0.81	0.68 ± 0.78

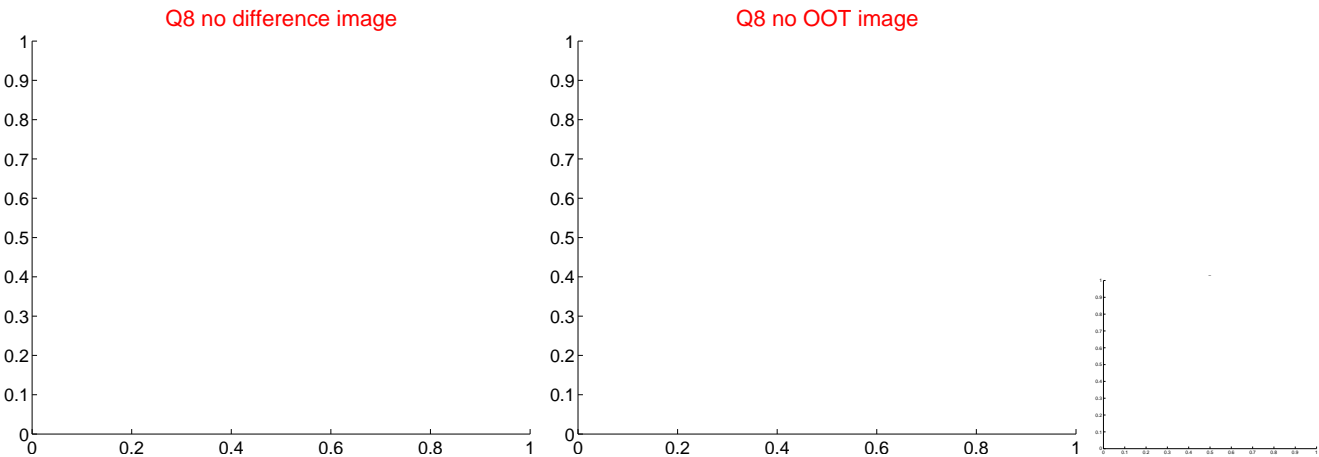
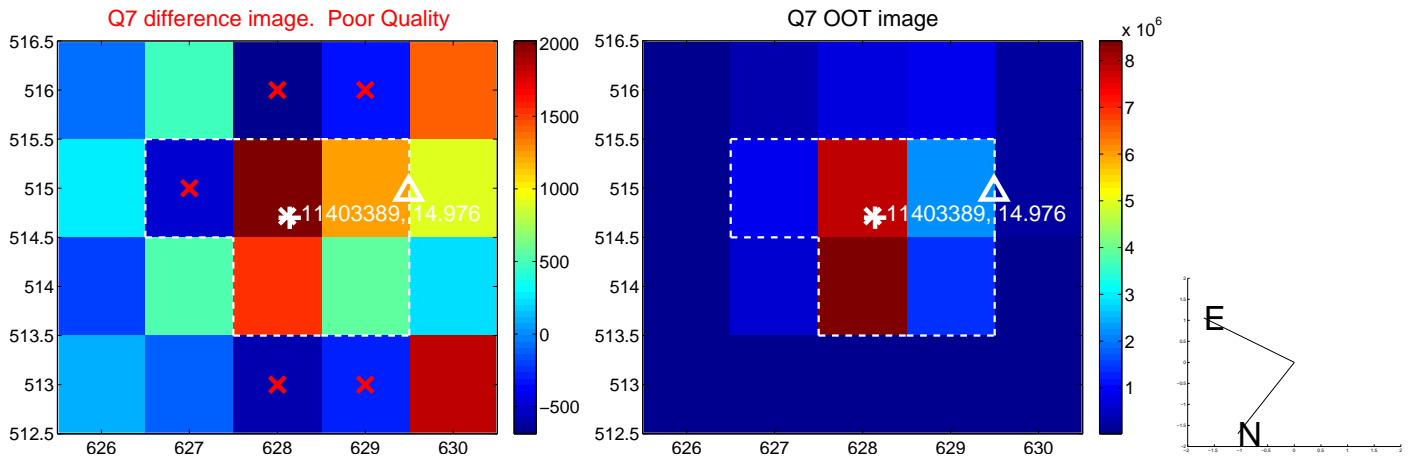
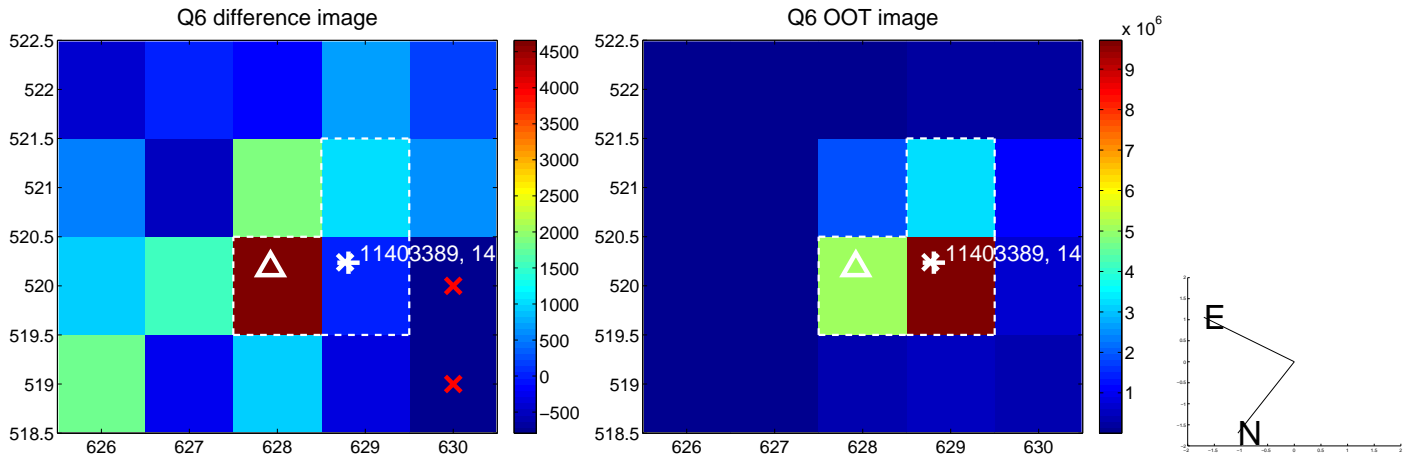
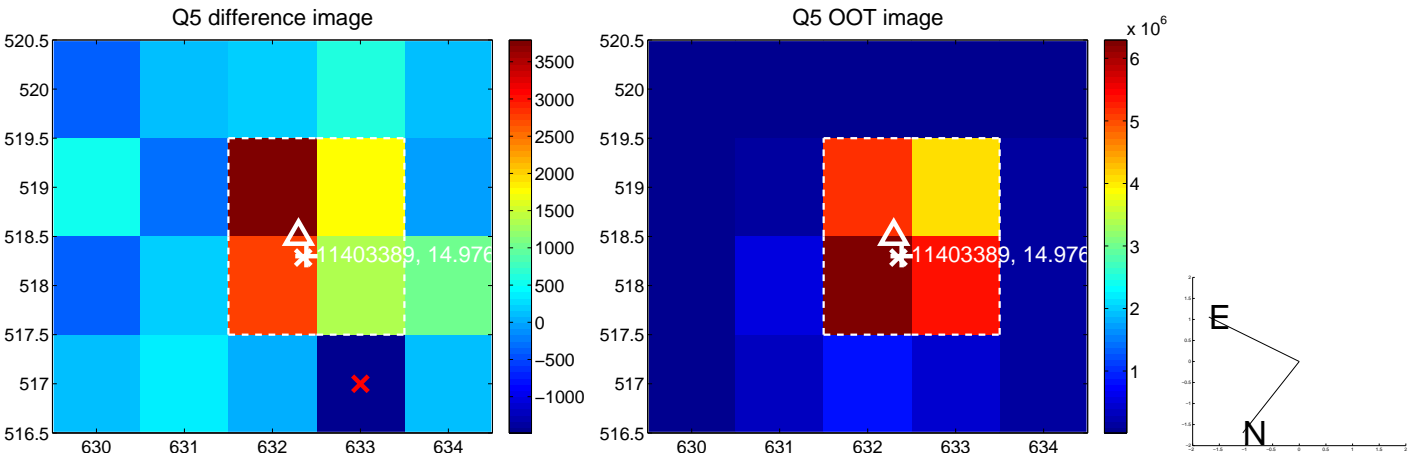


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

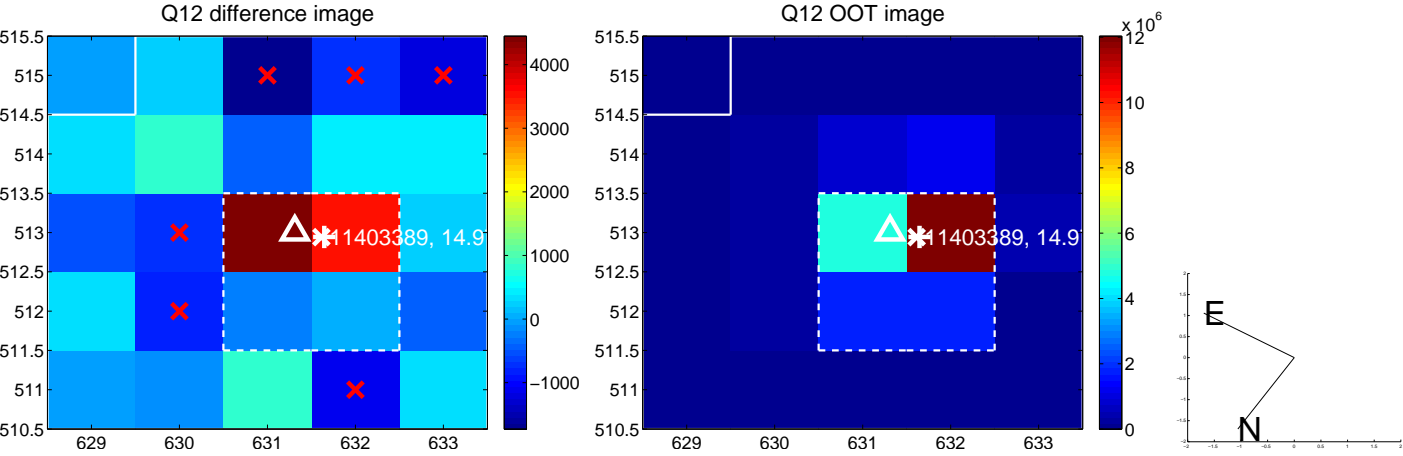
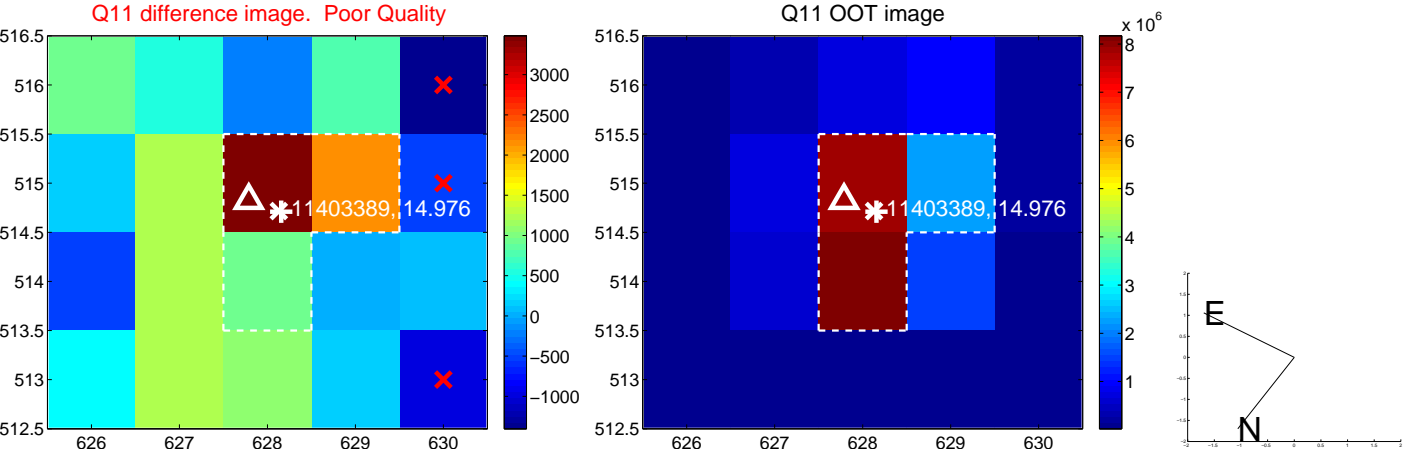
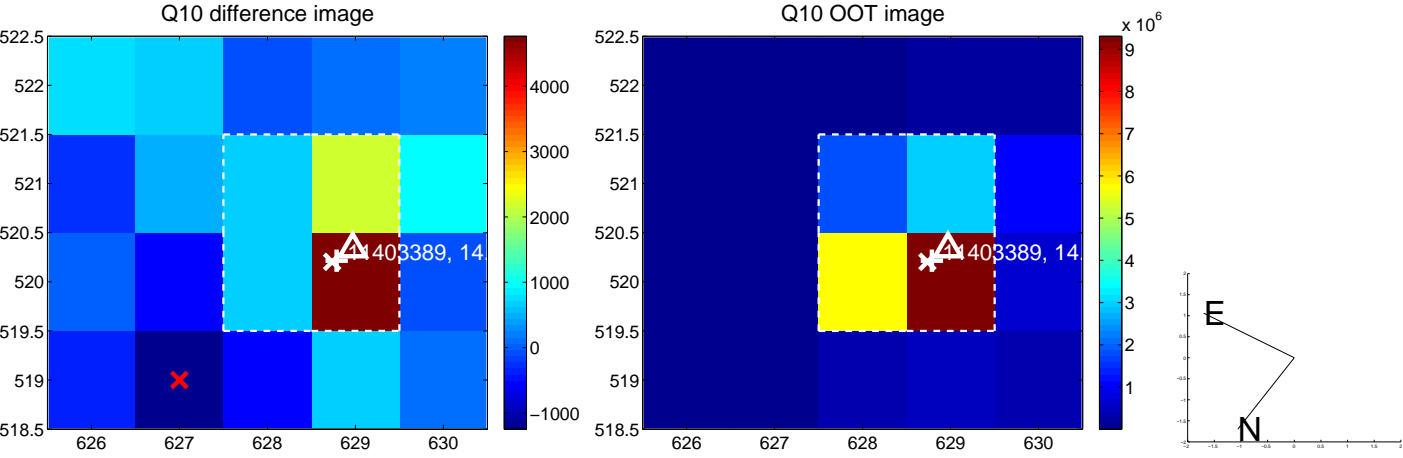
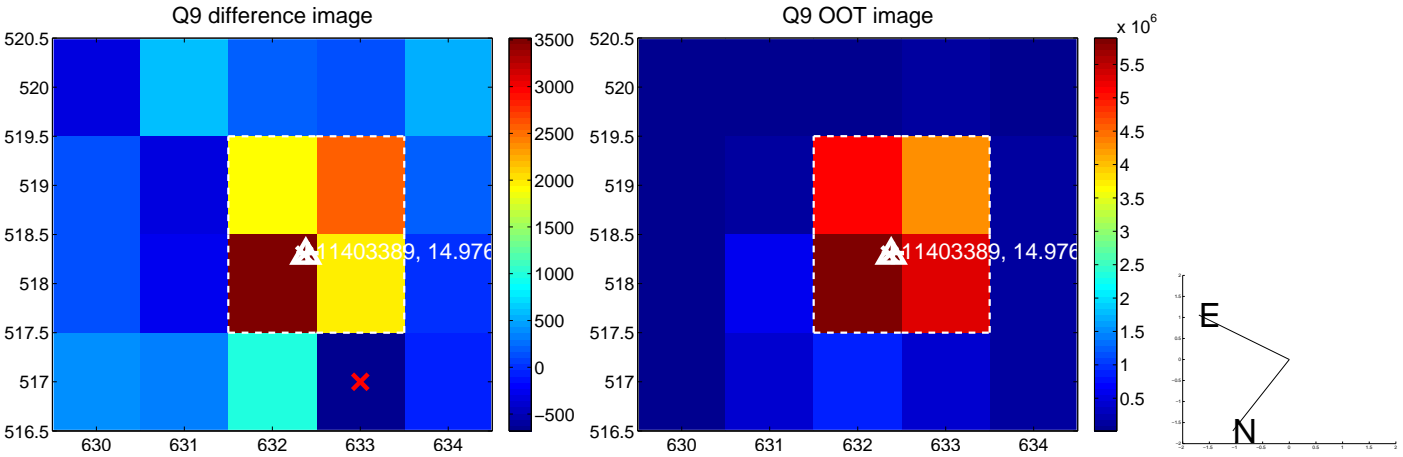
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



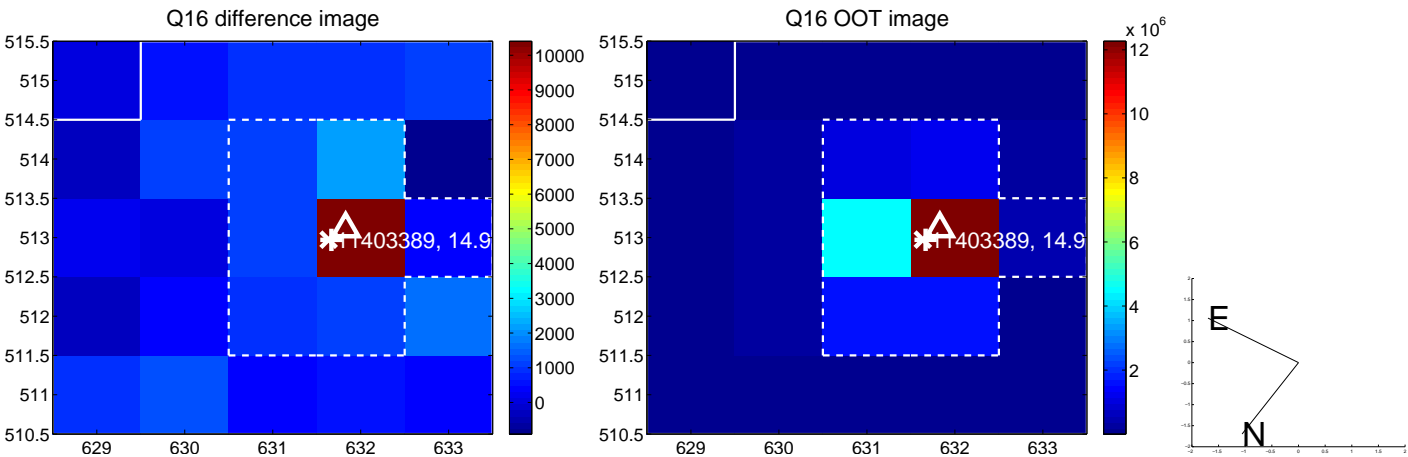
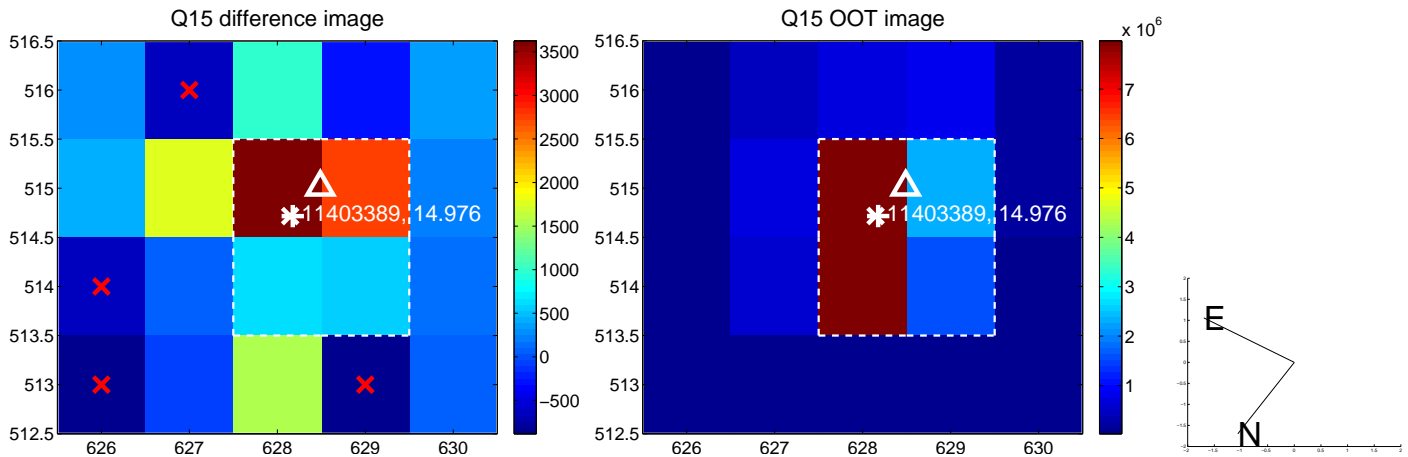
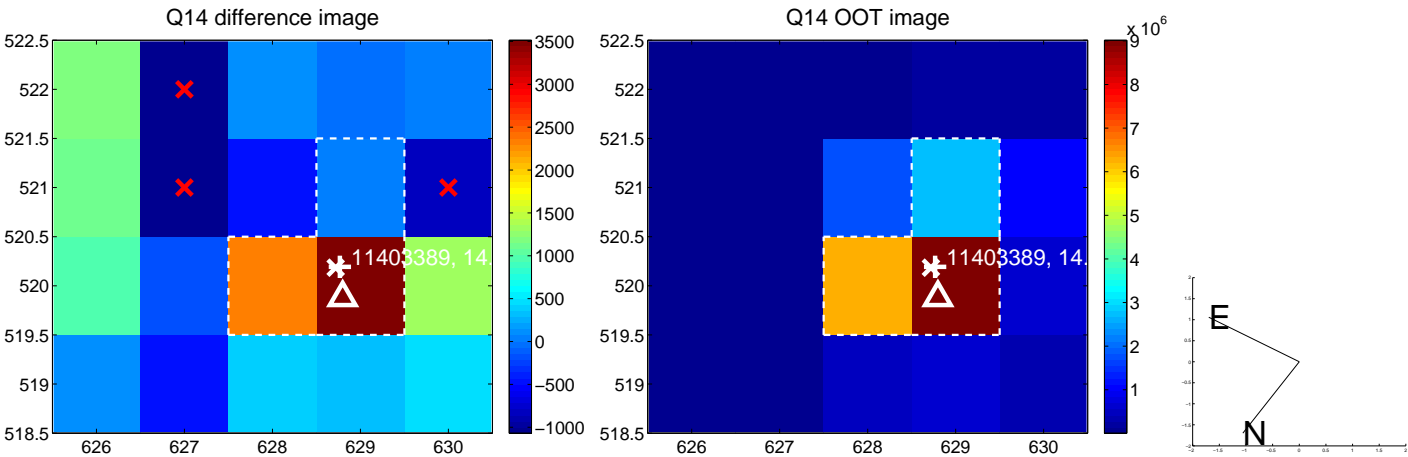
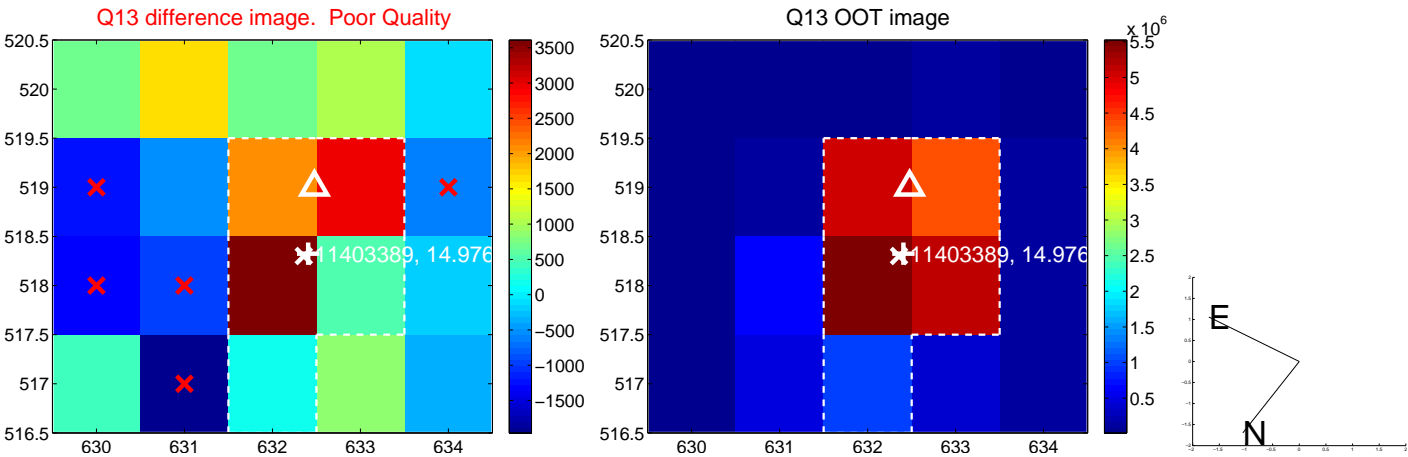
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



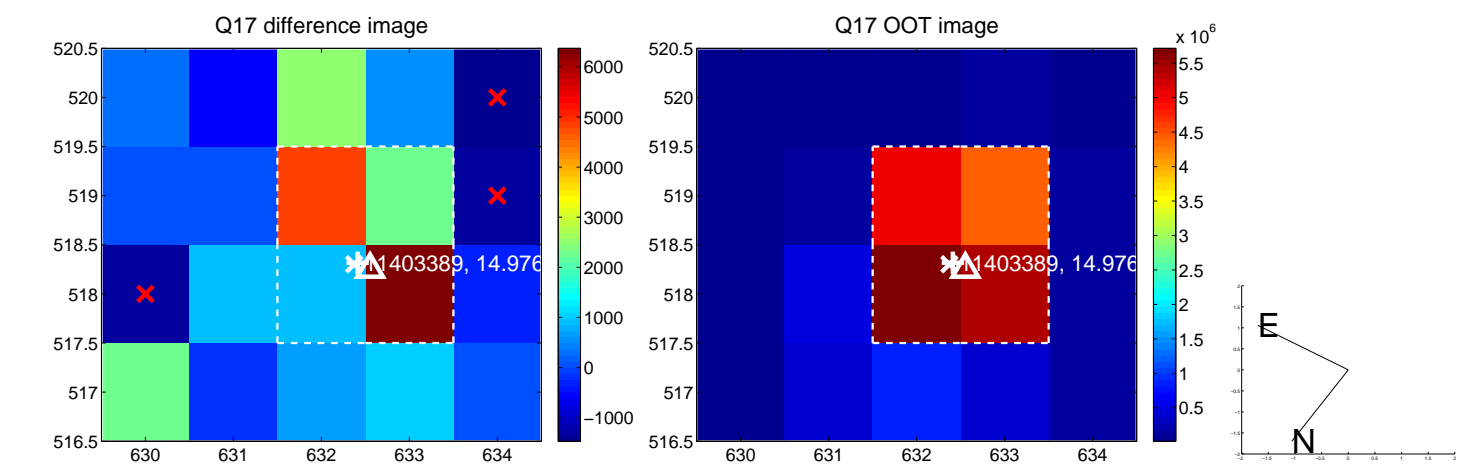
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



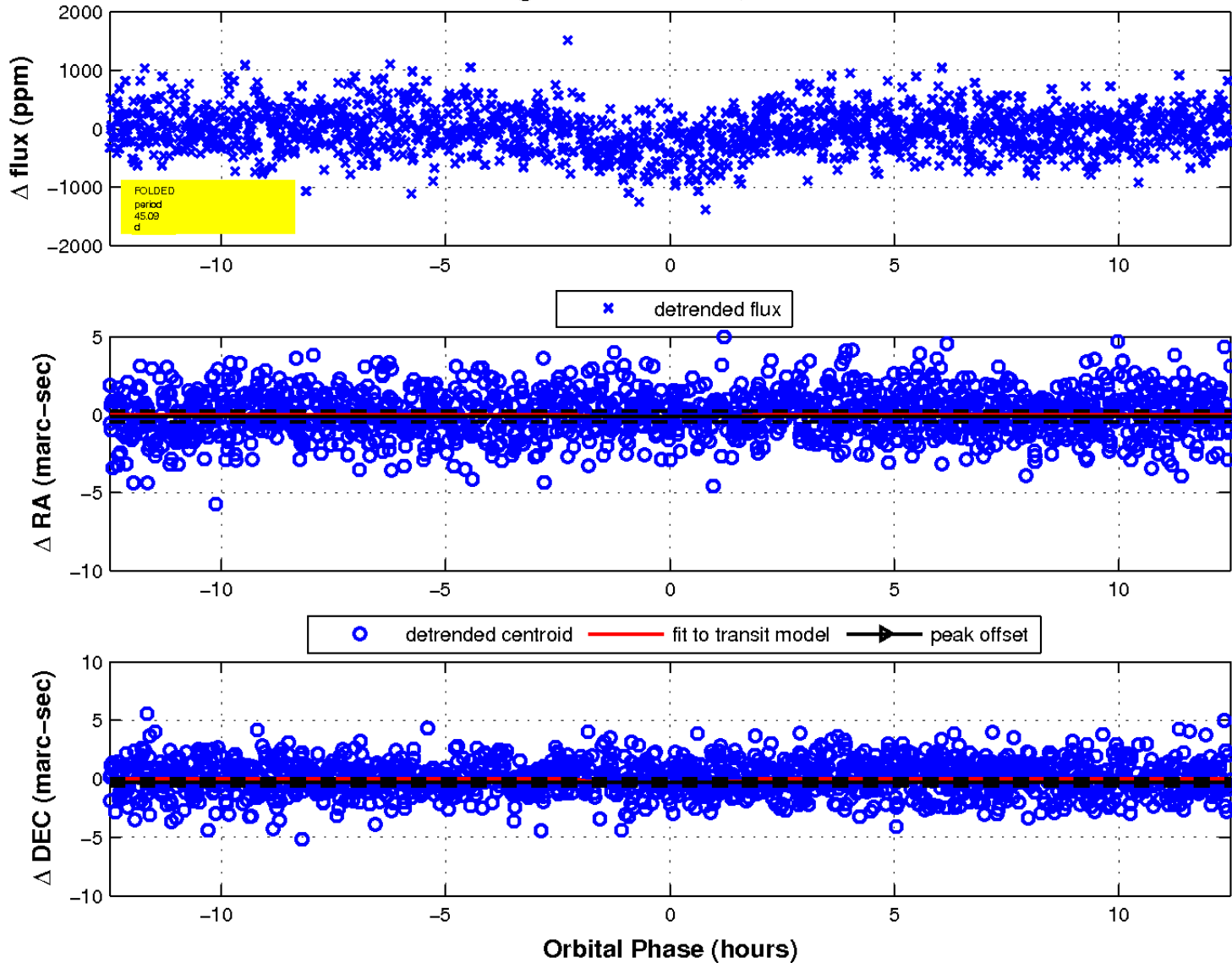
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

