

KIC 011411639

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})
011411639-01	OBS	7445.01	6.933553	134.554907	306.3	3.243	7.7	9.0	0.79	5510	2.83	111.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011411639-01	OBS	PC	0.95	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.

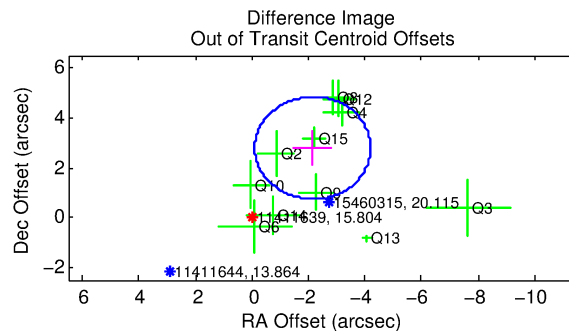
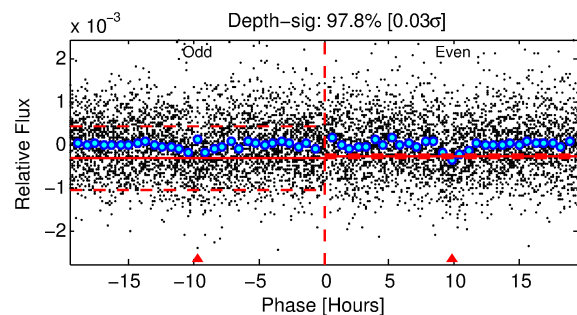
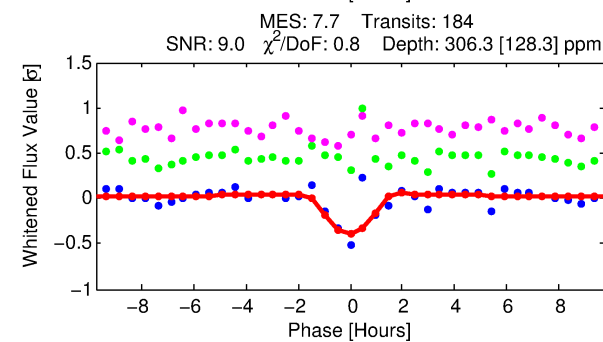
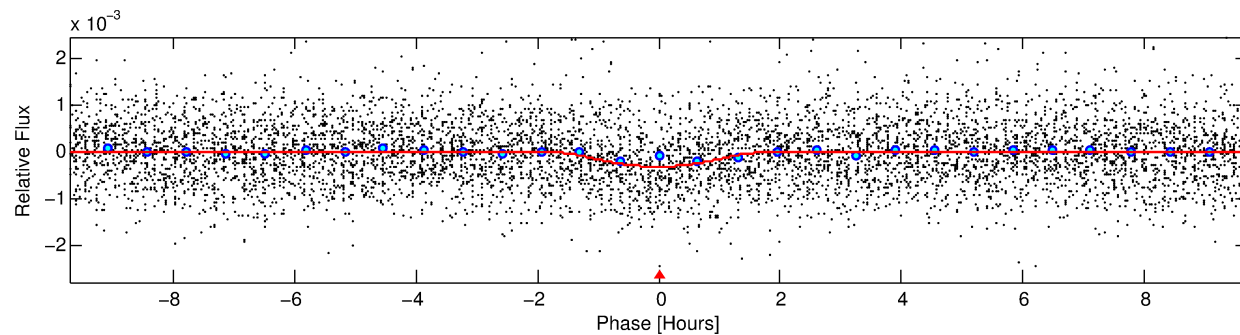
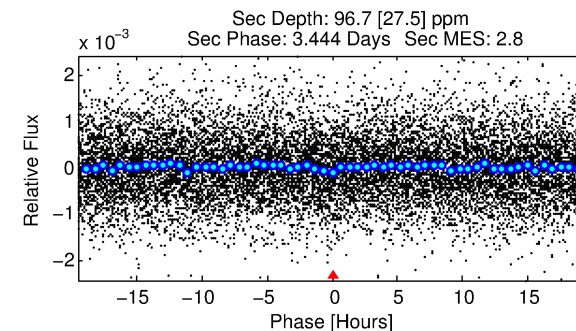
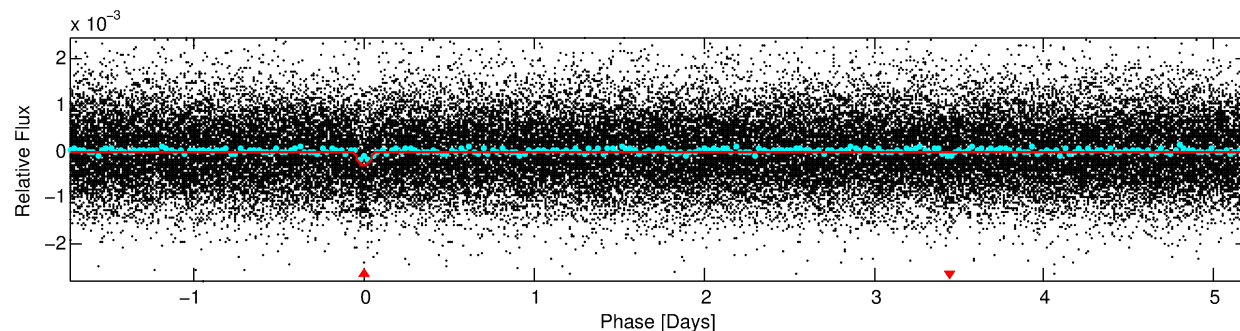
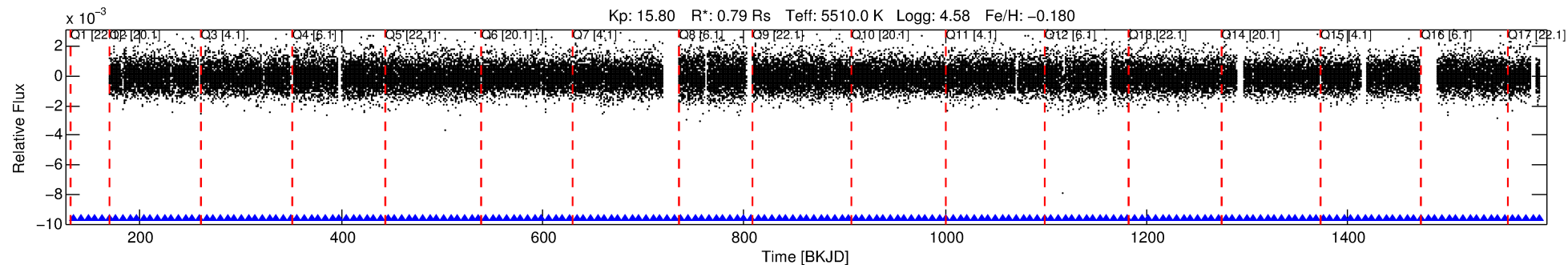
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011411639-01

No Significant Match Found

DV One-Page Summary

KIC: 11411639 Candidate: 1 of 1 Period: 6.934 d
KOI: K07445 Corr: No Ephemeris Match



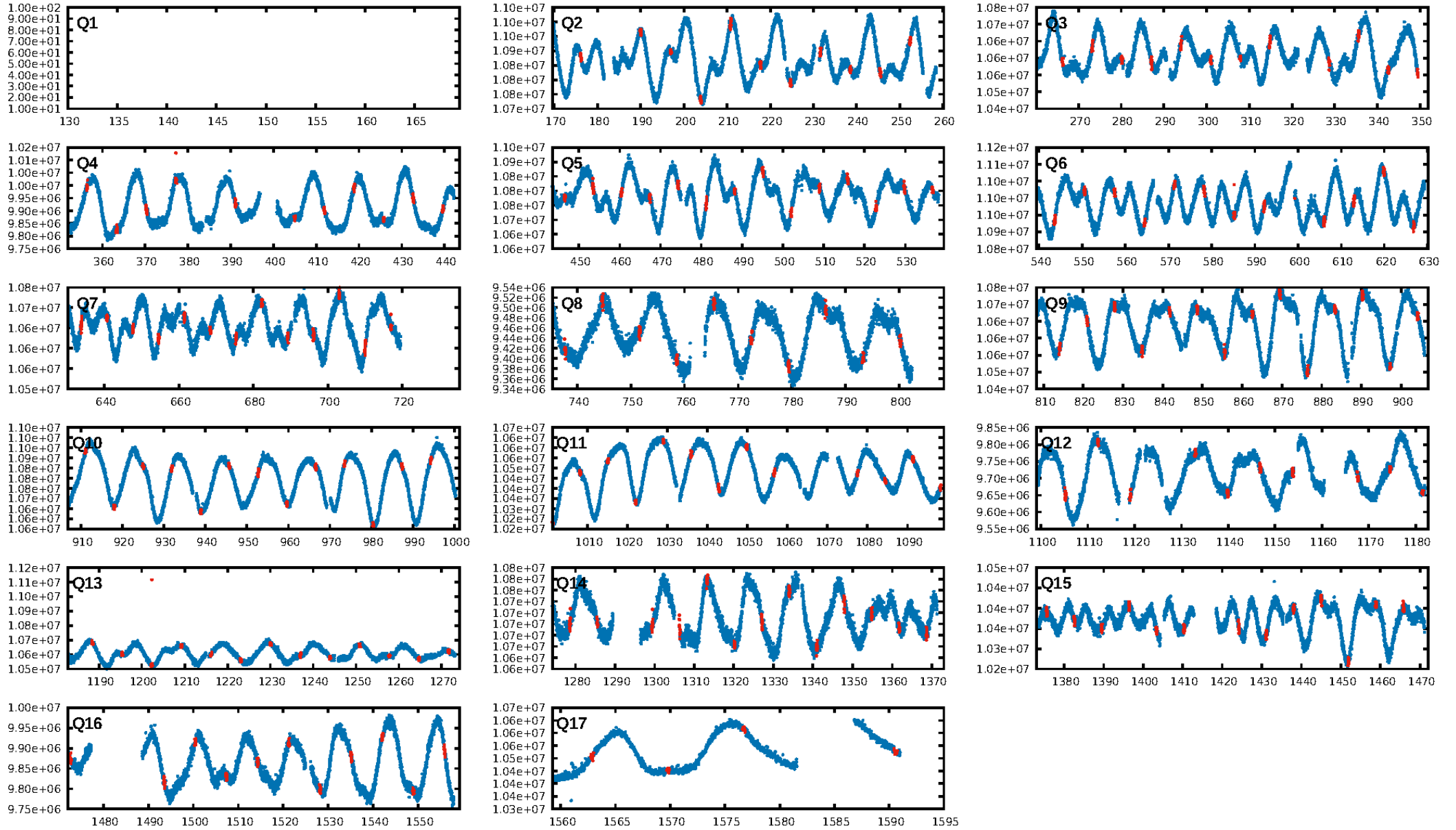
DV Fit Results:

Period = 6.93355 [0.00007] d
Epoch = 134.5549 [0.0081] BKJD
Rp/R* = 0.0327 [0.1376]
a/R* = 4.36 [4.54]
b = 1.00 [0.21]
Seff = 111.62 [29.29]
Teq = 829 [54] K
Rp = 2.83 [11.92] Re
a = 0.0682 [0.0110] AU
Ag = 30.91 [260.37] [0.11σ]
Teffp = 3022 [6361] K [0.34σ]

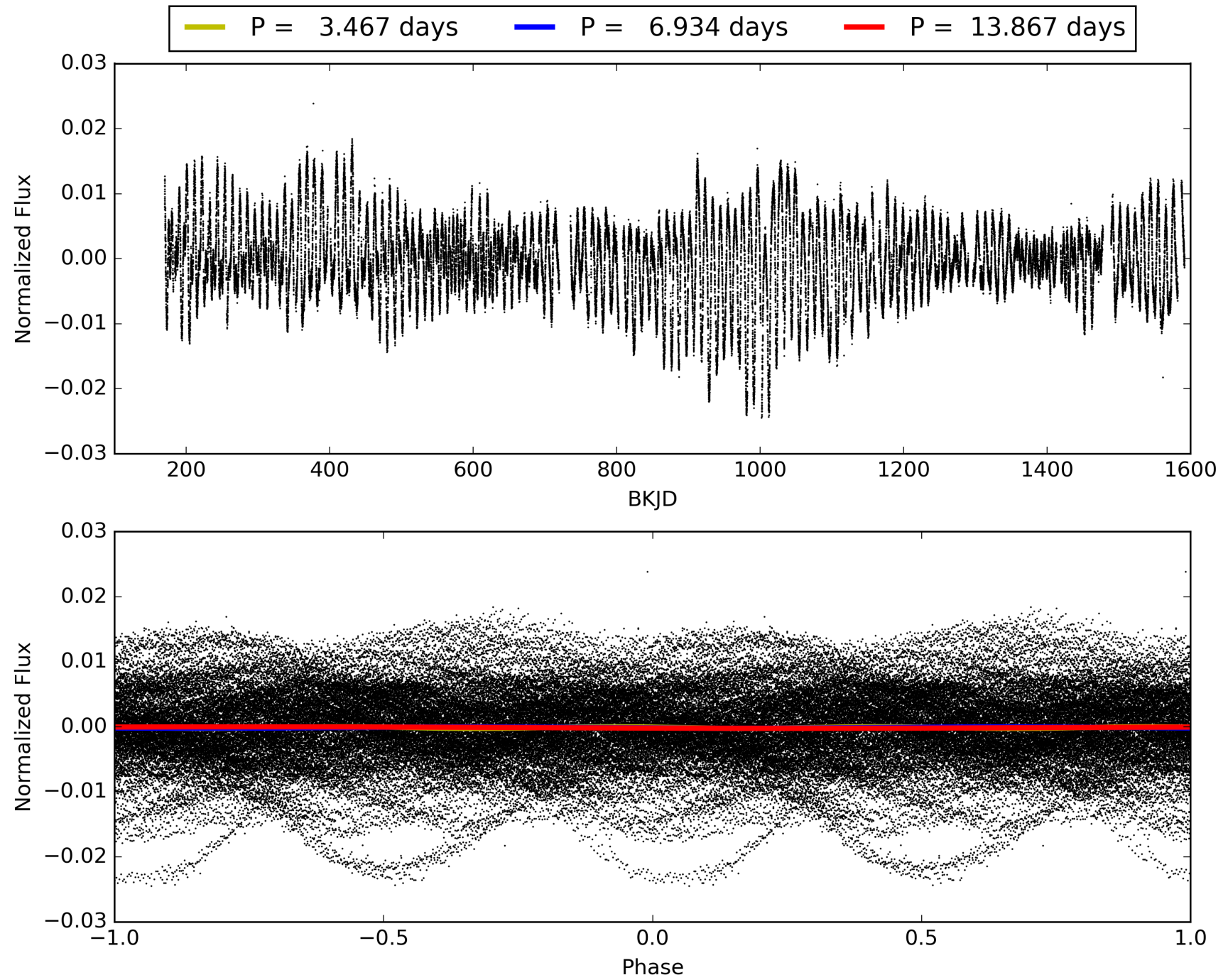
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.54e-14
RollingBand-fgt: 1.00 [180/180]
GhostDiagnostic-chr: 3.611
Centroid-sig: 17.0%
Centroid-so: 2.822 arcsec [2.99σ]
OotOffset-rm: 3.517 arcsec [5.15σ]
KicOffset-rm: 0.742 arcsec [1.44σ]
OotOffset-st: 4/2/3/2 [11]
KicOffset-st: 4/2/3/2 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 011411639-01, PDC Light Curves

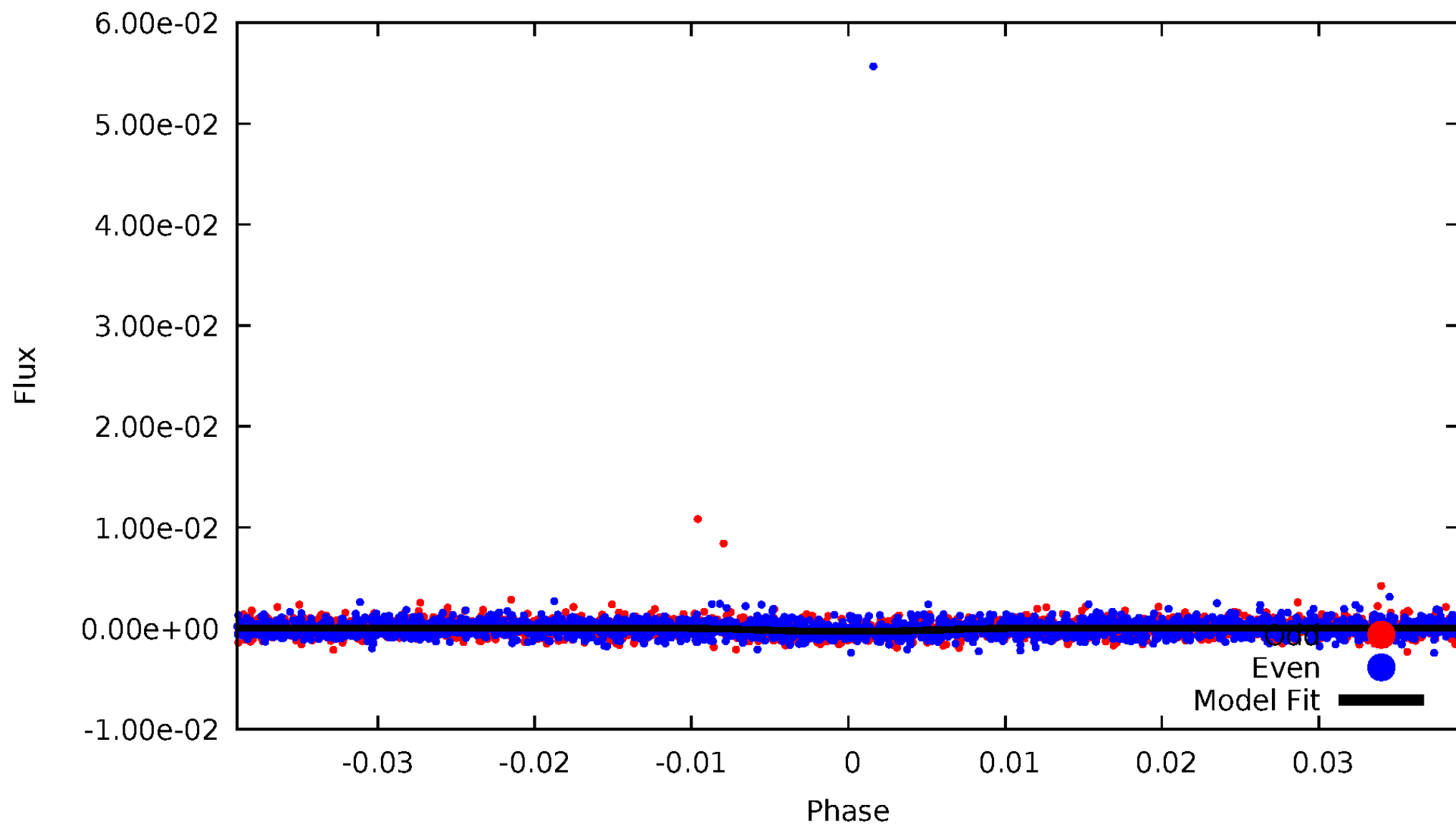


TCE 011411639-01



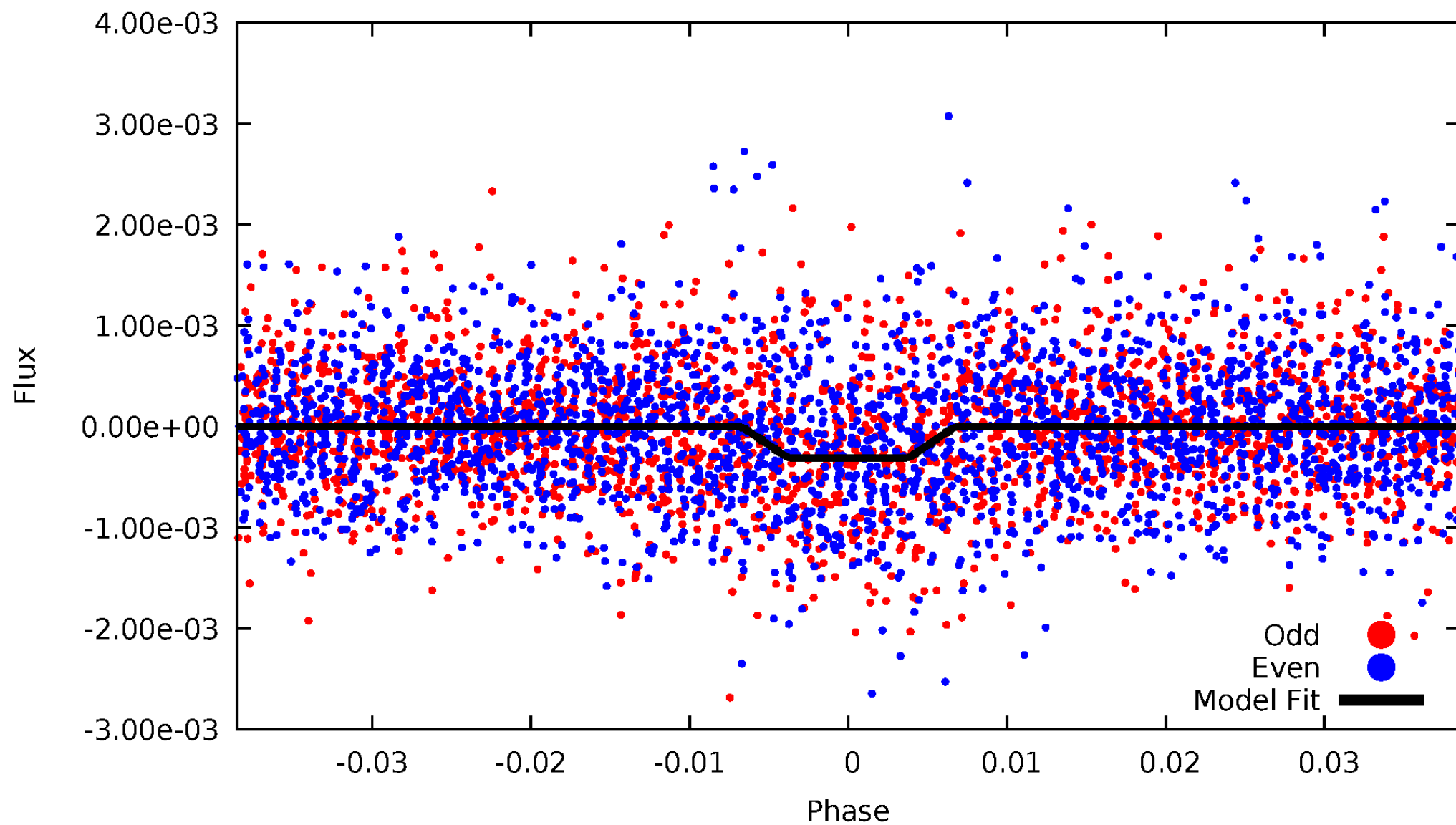
DV Odd/Even

TCE 011411639-01



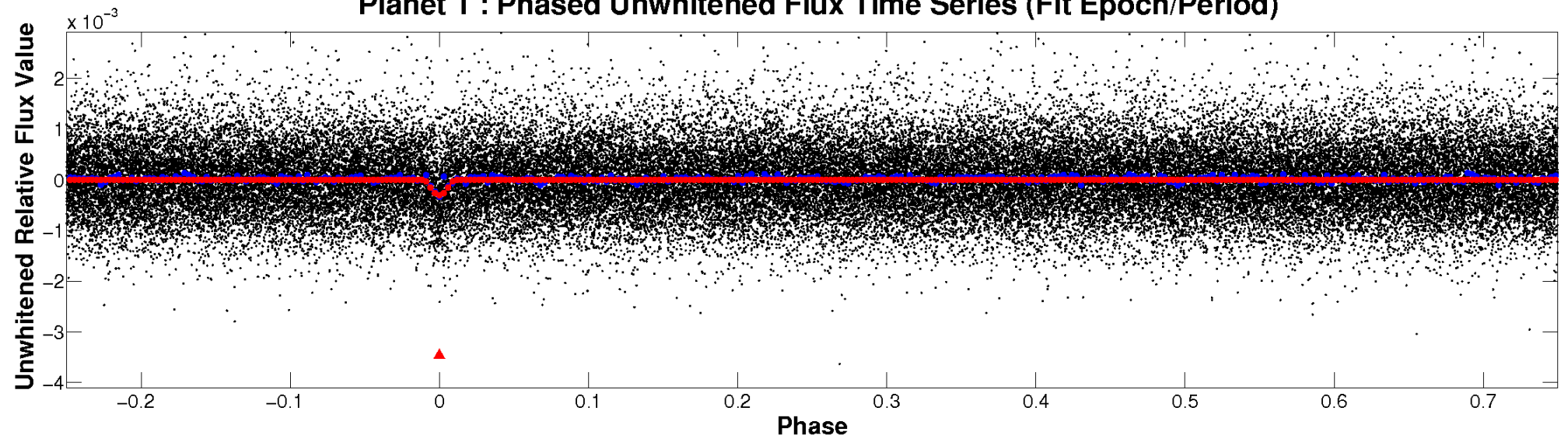
ALT Odd/Even

TCE 011411639-01

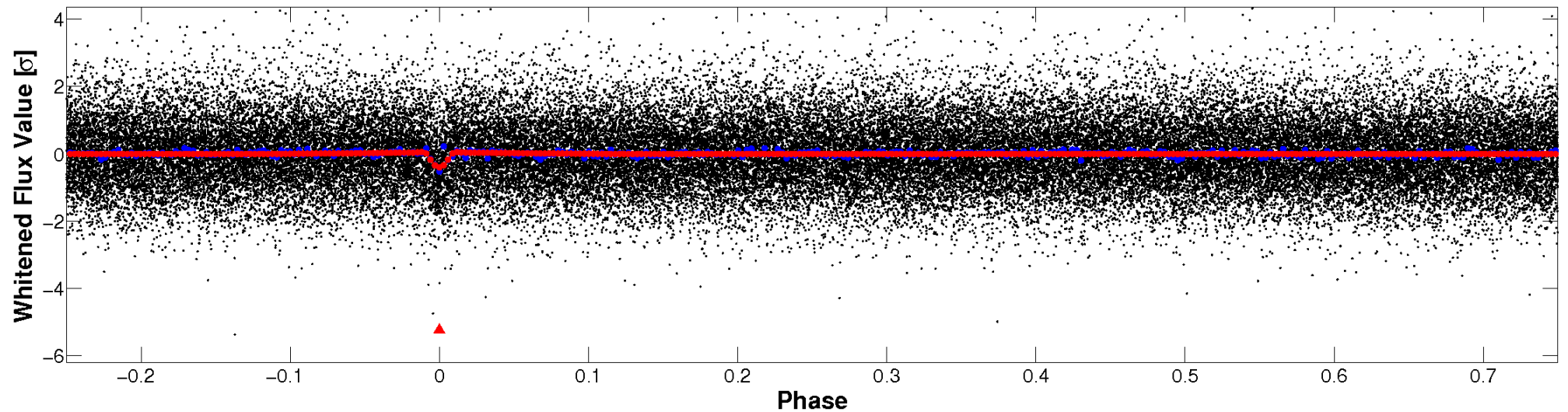


Non-Whitened Vs. Whitened Light Curve

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

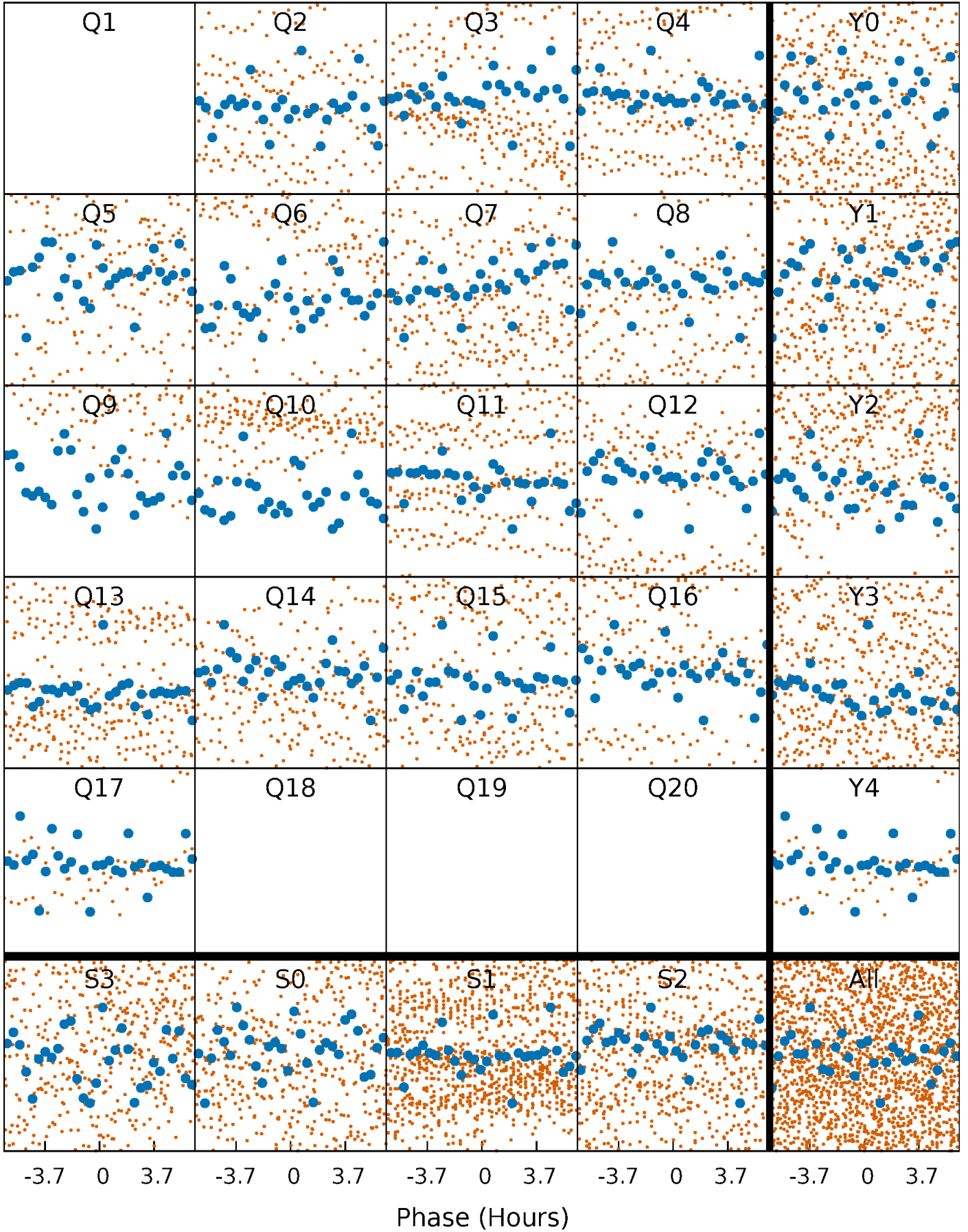


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



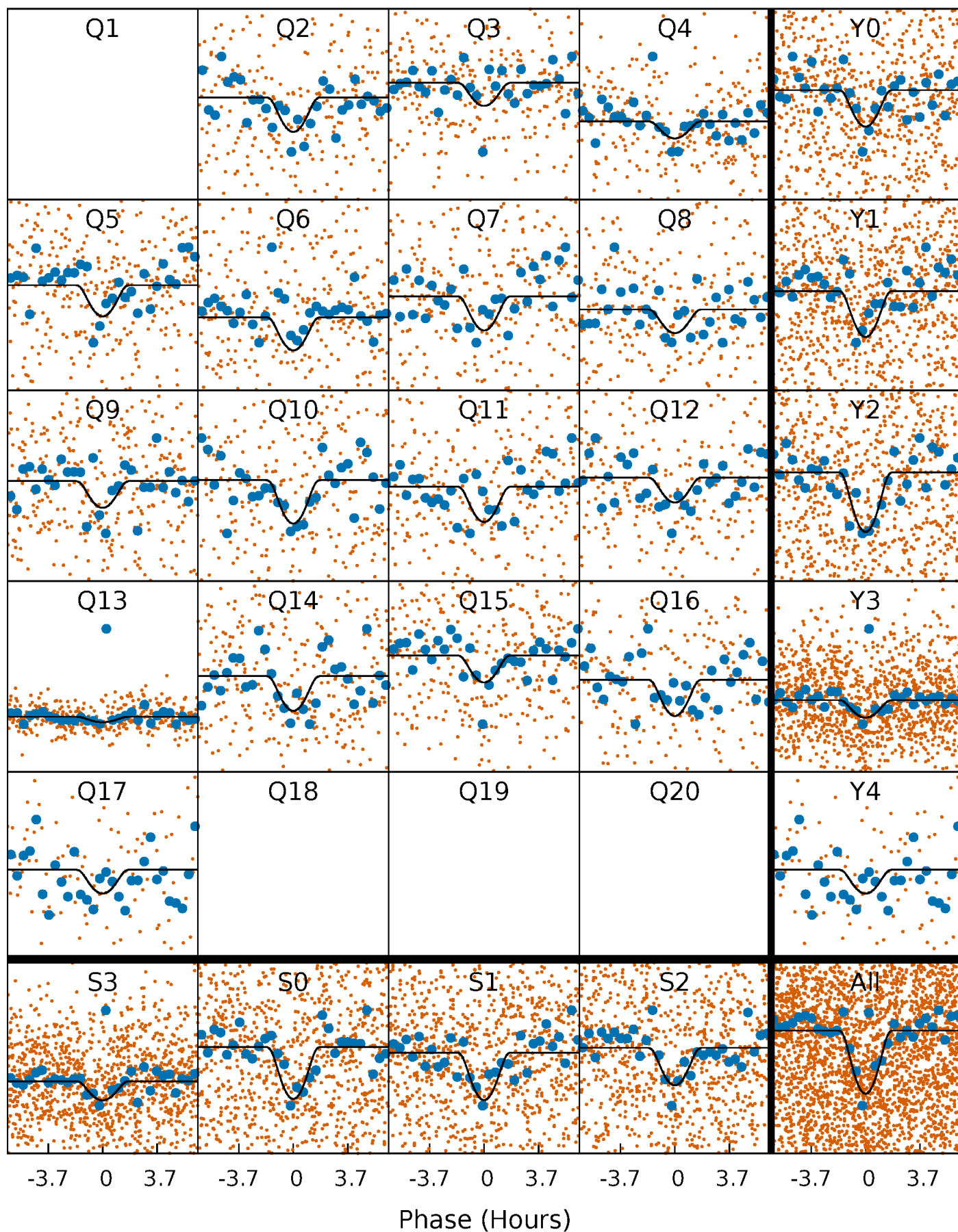
PDC Quarter-Phased Transit Curves

TCE 011411639-01 P= 6.933553 Days $T_0=134.554907$ (BKJD)



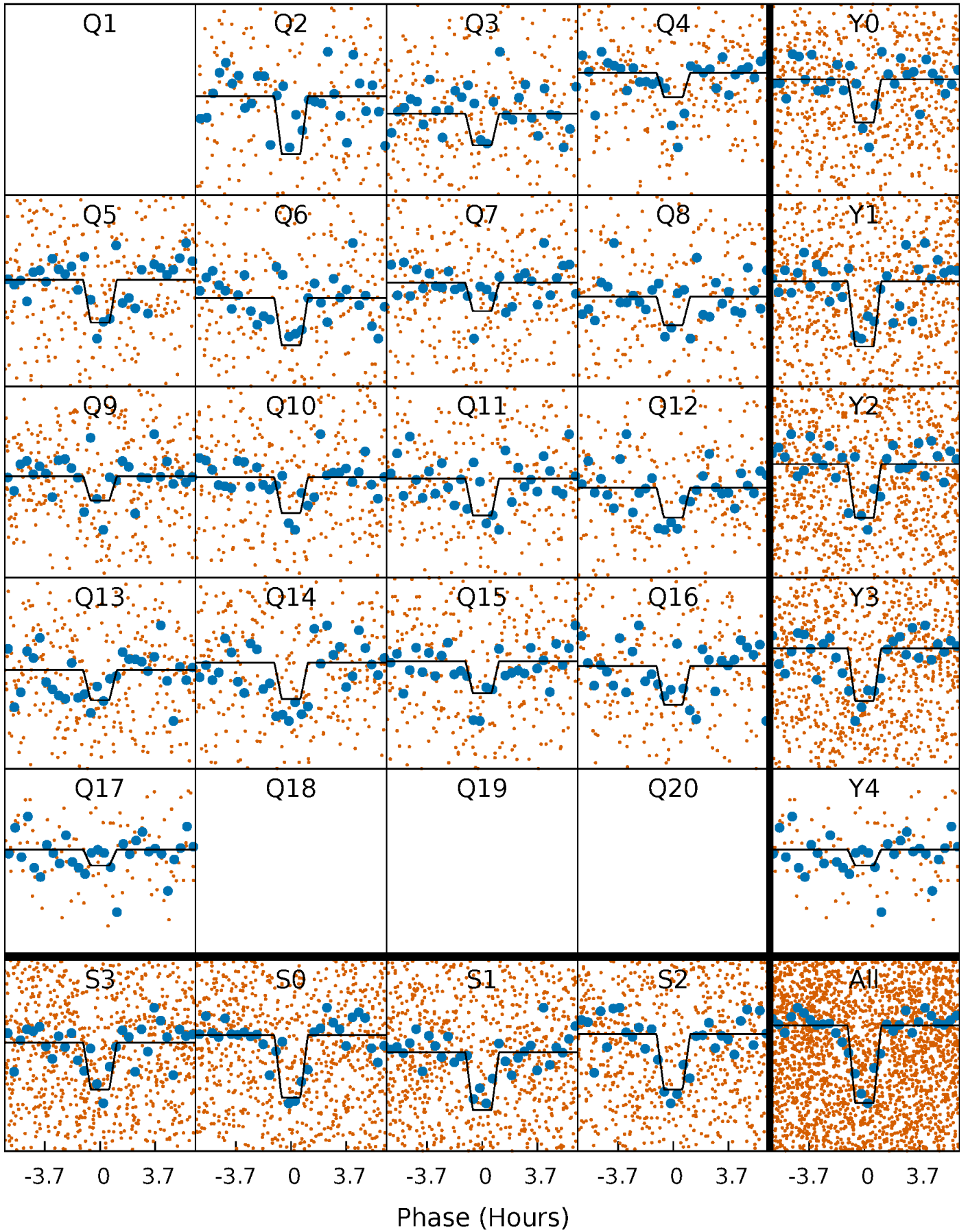
DV Quarter-Phased Transit Curves

TCE 011411639-01 P= 6.933553 Days $T_0=134.554907$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

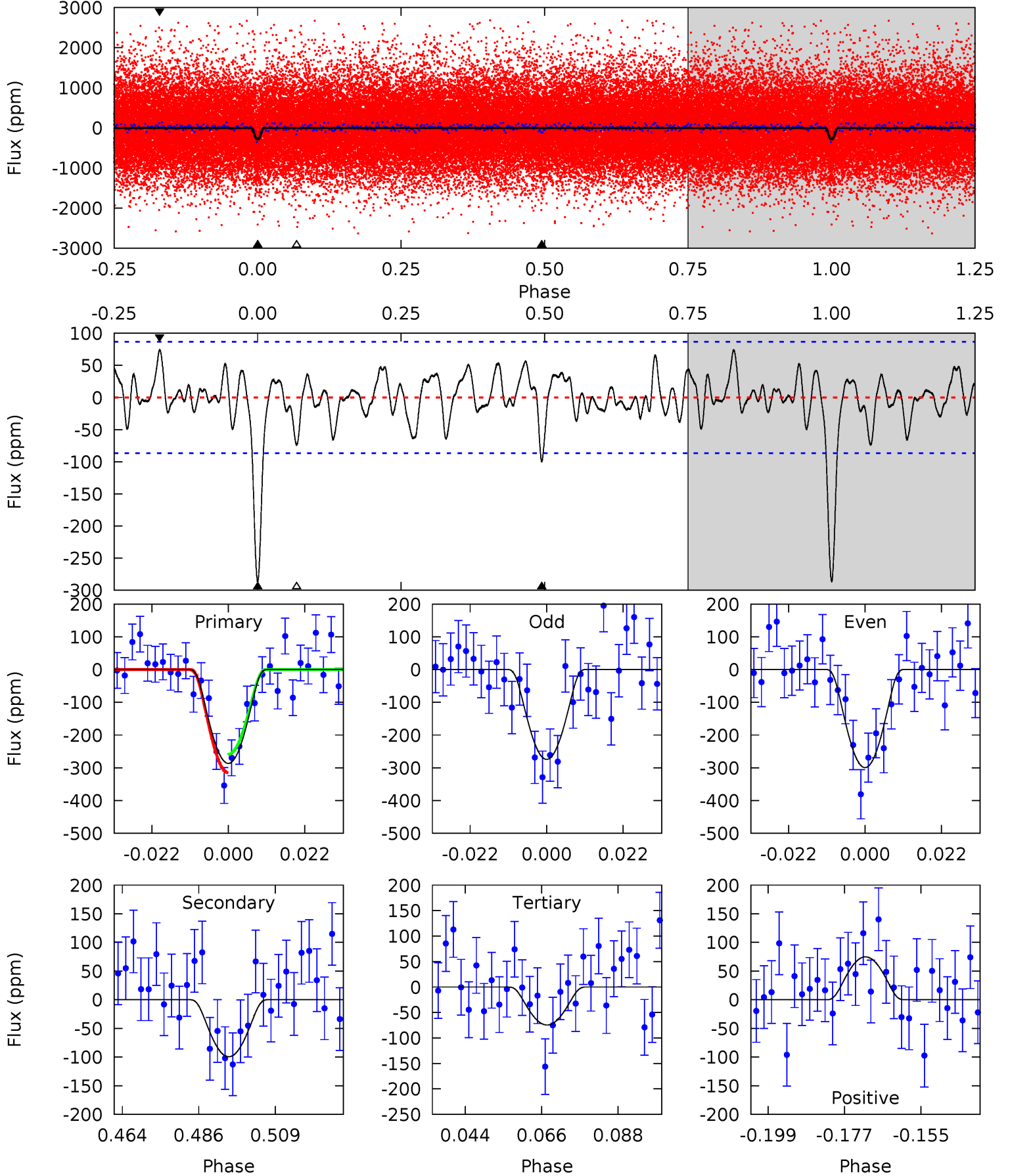
TCE 011411639-01 P= 6.933690 Days $T_0=134.542006$ (BKJD)



DV Model-Shift Uniqueness Test

011411639-01, P = 6.933553 Days, E = 134.554907 Days

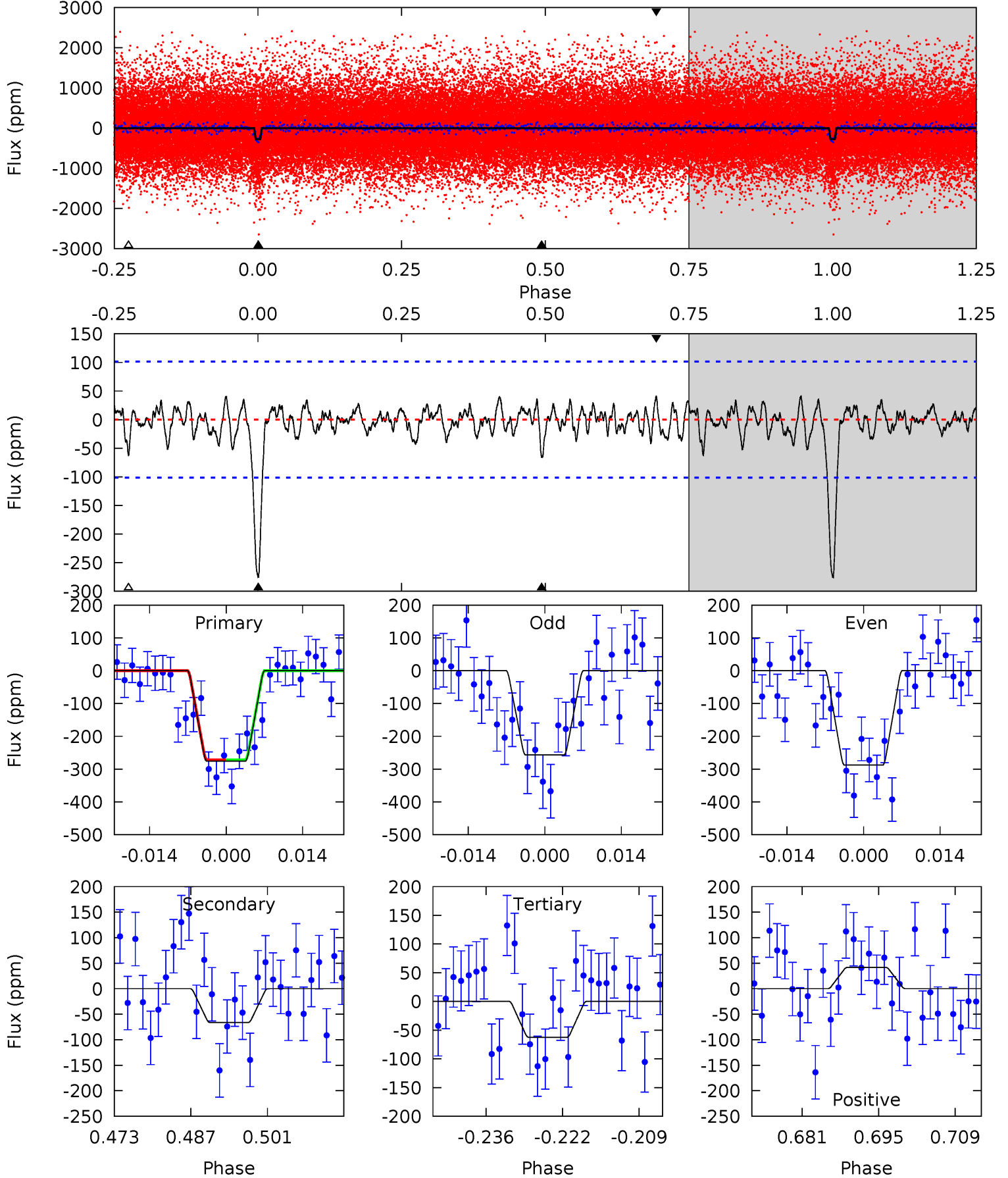
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	5.58	4.18	4.20	4.87	2.29	1.51	11.9	11.9	1.40	1.38	0.70	0.69	0.21	1.59



Alt Model-Shift Uniqueness Test

011411639-01, P = 6.933690 Days, E = 134.542006 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	3.23	3.05	2.04	4.96	2.46	0.89	10.4	11.4	0.19	1.19	0.75	0.93	0.13	0.01



Stellar Parameters For KIC 011411639

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5510^{+149}_{-166}	$4.584^{+0.034}_{-0.127}$	$-0.180^{+0.300}_{-0.300}$	$0.793^{+0.152}_{-0.065}$	$0.888^{+0.074}_{-0.111}$	$2.511^{+0.423}_{-0.938}$
	+3%/-3%	+1%/-3%	+167%/-167%	+19%/-8%	+8%/-12%	+17%/-37%
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 011411639-01 / KOI 7445.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-99 ± 18	$9.78^{+9.01}_{-7.21}$	1172^{+58}_{-45}	2457^{+1194}_{-442}	$2.589^{+34.688}_{-1.920}$
Alt.	-66 ± 20	$9.29^{+9.94}_{-5.94}$	1172^{+61}_{-43}	2350^{+810}_{-570}	$1.792^{+14.068}_{-1.388}$

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

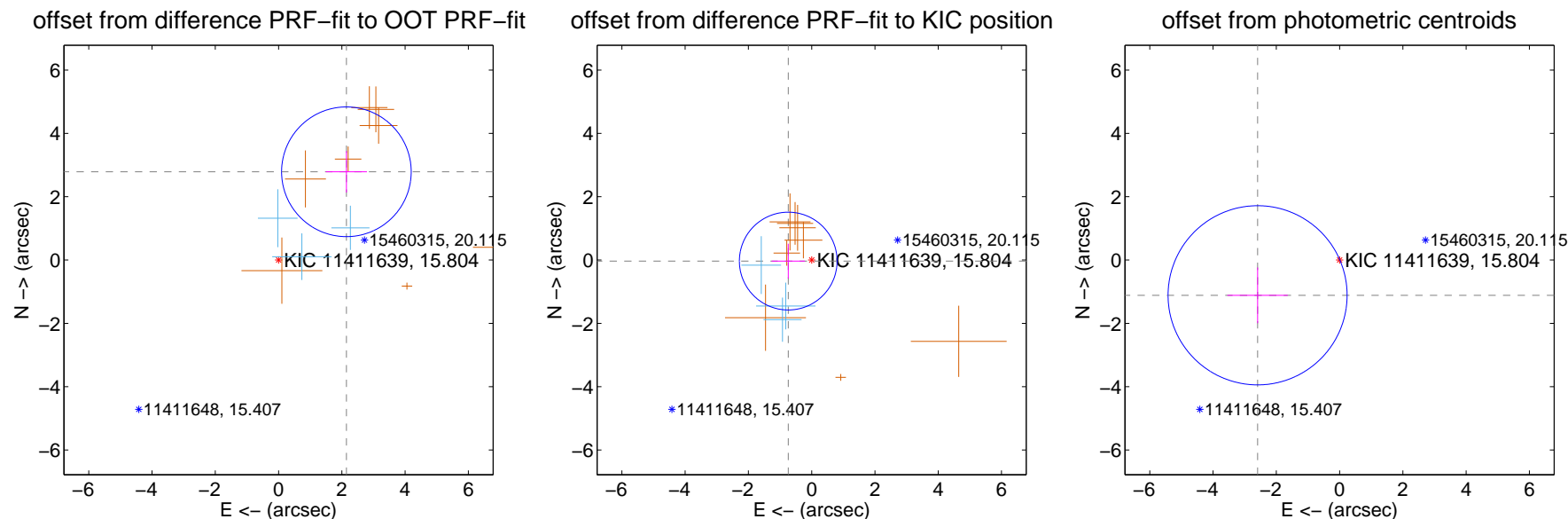
DV Centroid Data

Supplemental centroid analysis for 011411639-01. Kepler magnitude: 15.80. Transit SNR 9.03

There are 3 quarters with good PRF difference image offsets

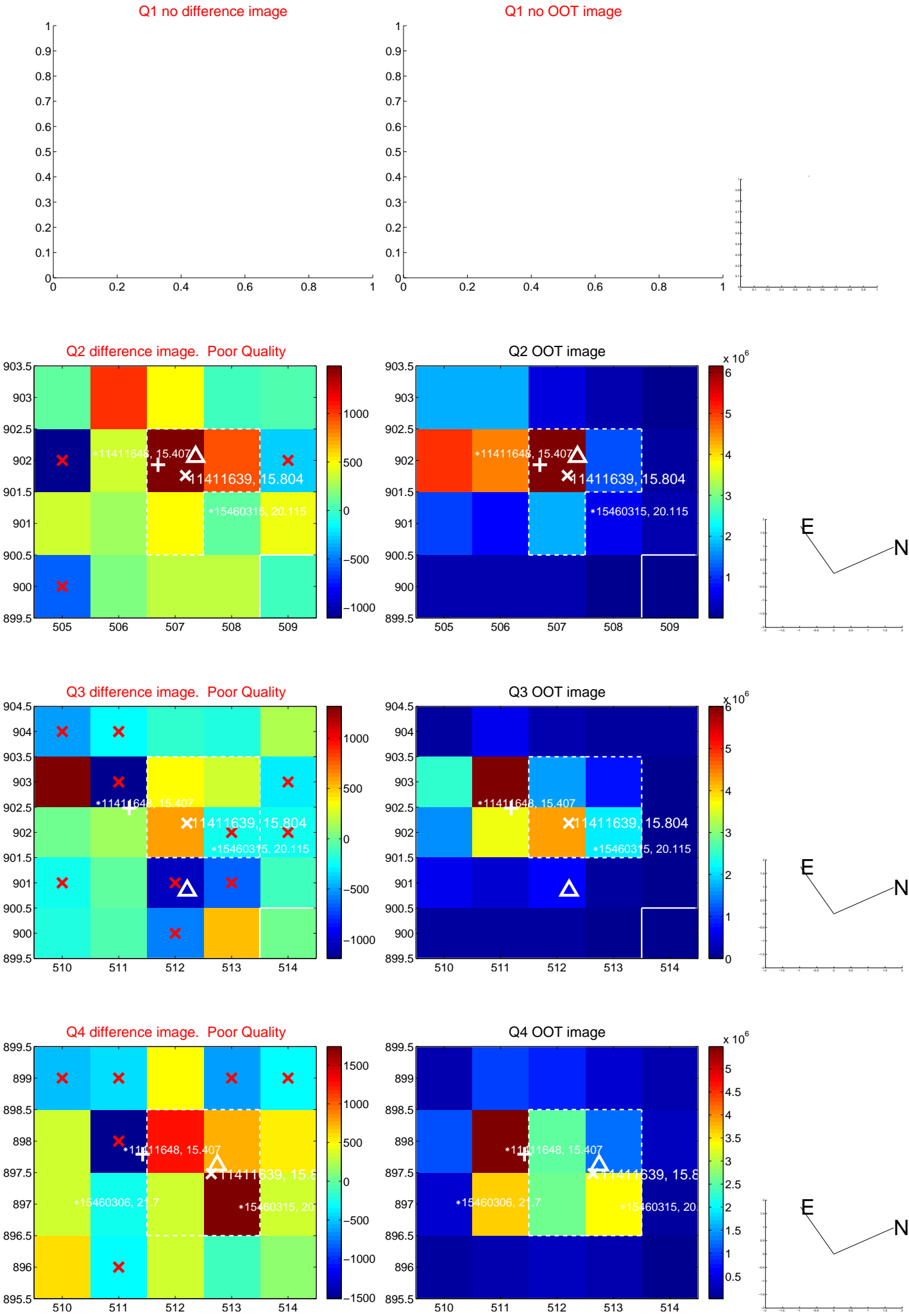
The OOT PRF centroid is offset from the target star catalog position by about 4.21 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.517 ± 0.683	5.15	-2.144 ± 0.649	2.788 ± 0.654
PRF-fit source offset from KIC position	0.742 ± 0.515	1.44	0.741 ± 0.526	-0.033 ± 0.548
photometric centroid source offset	2.82 ± 0.94	2.99	2.59 ± 0.95	-1.11 ± 0.88

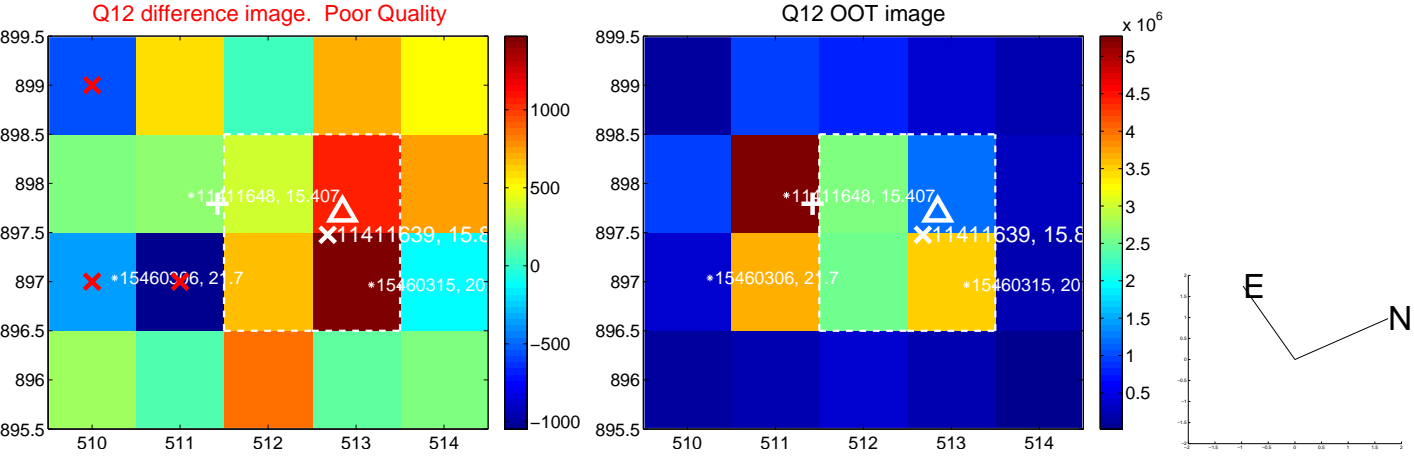
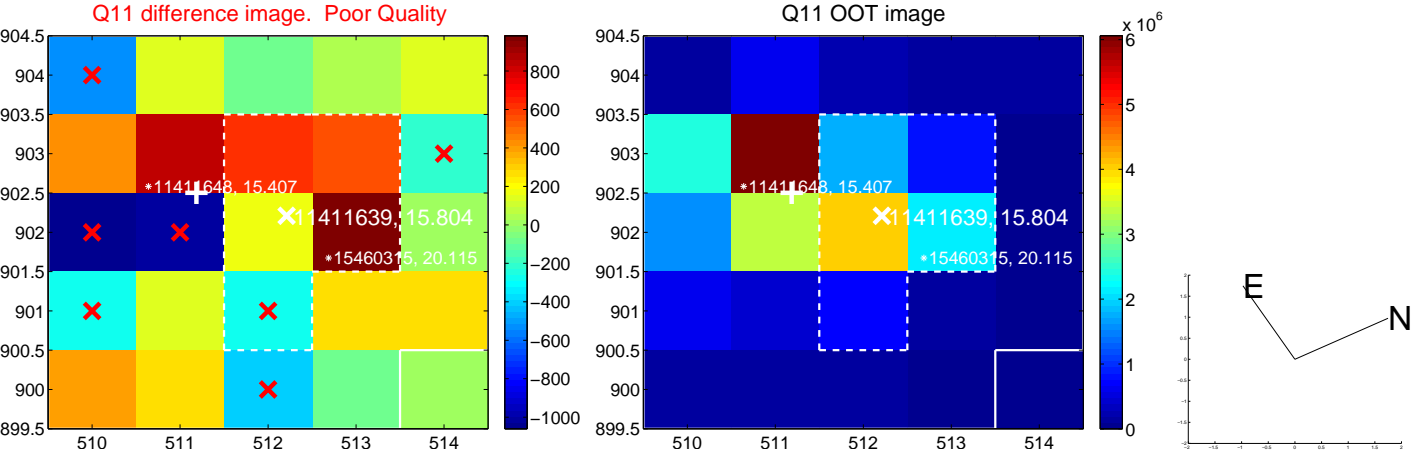
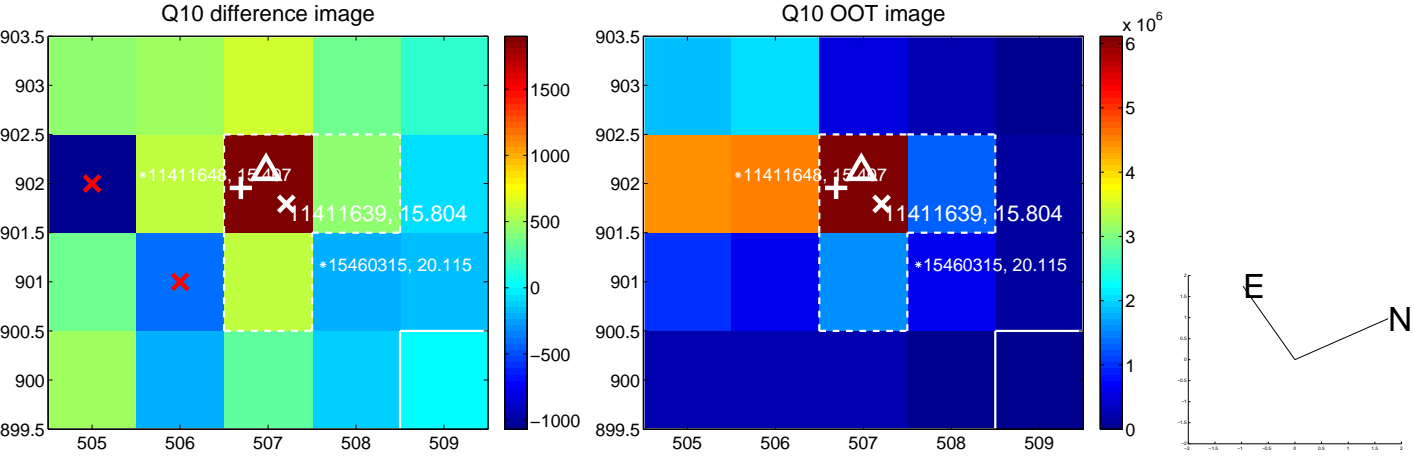
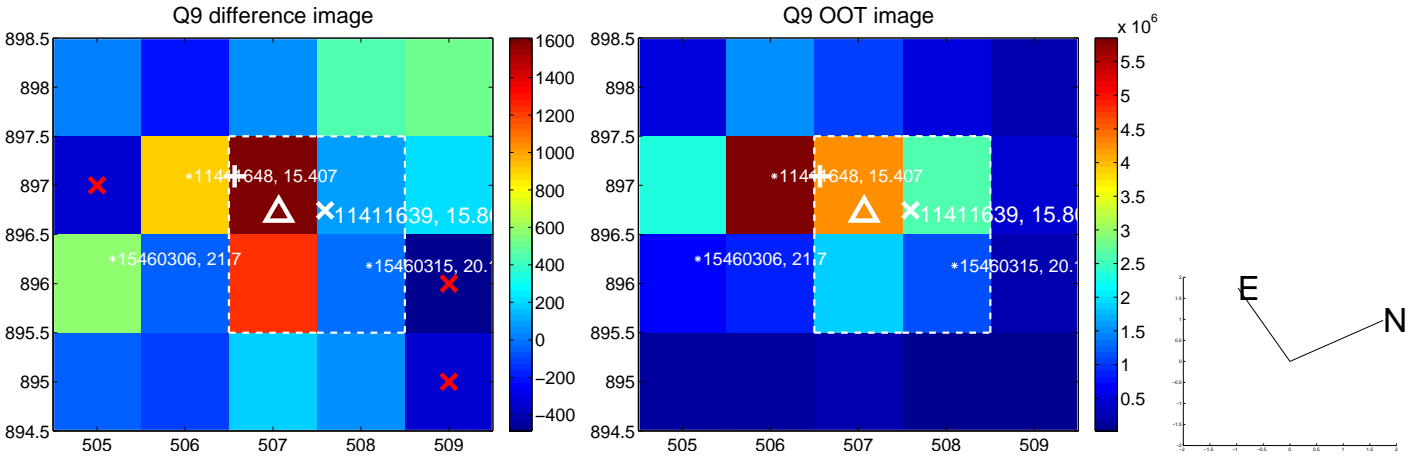


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

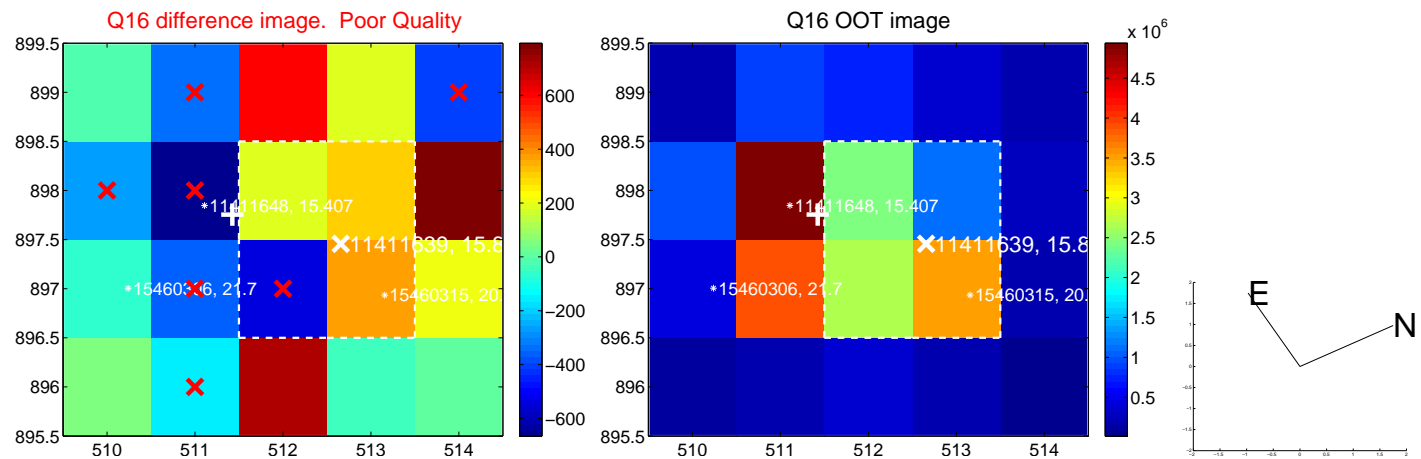
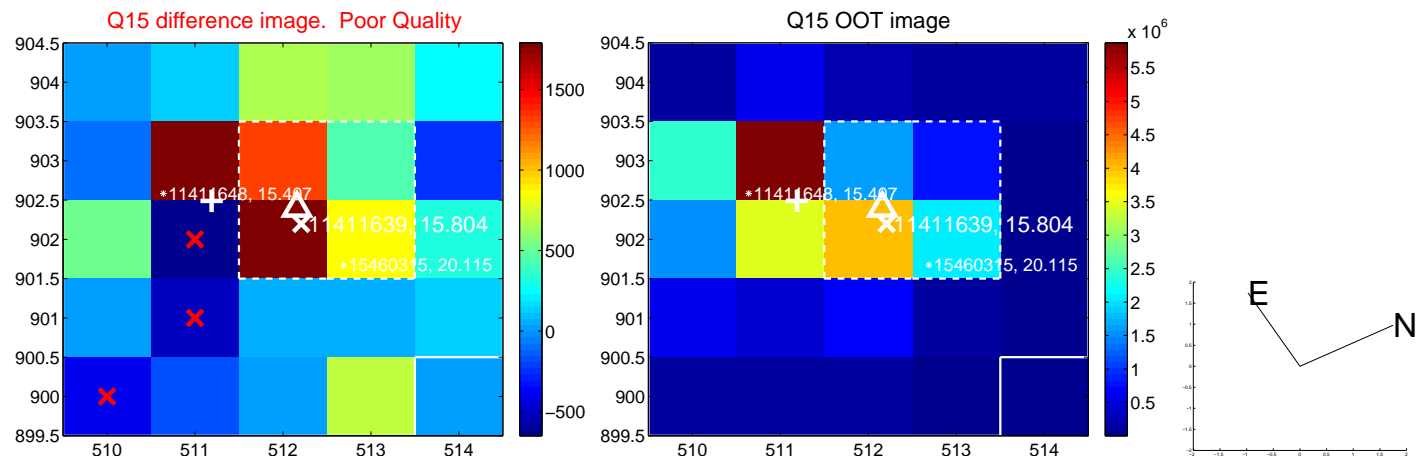
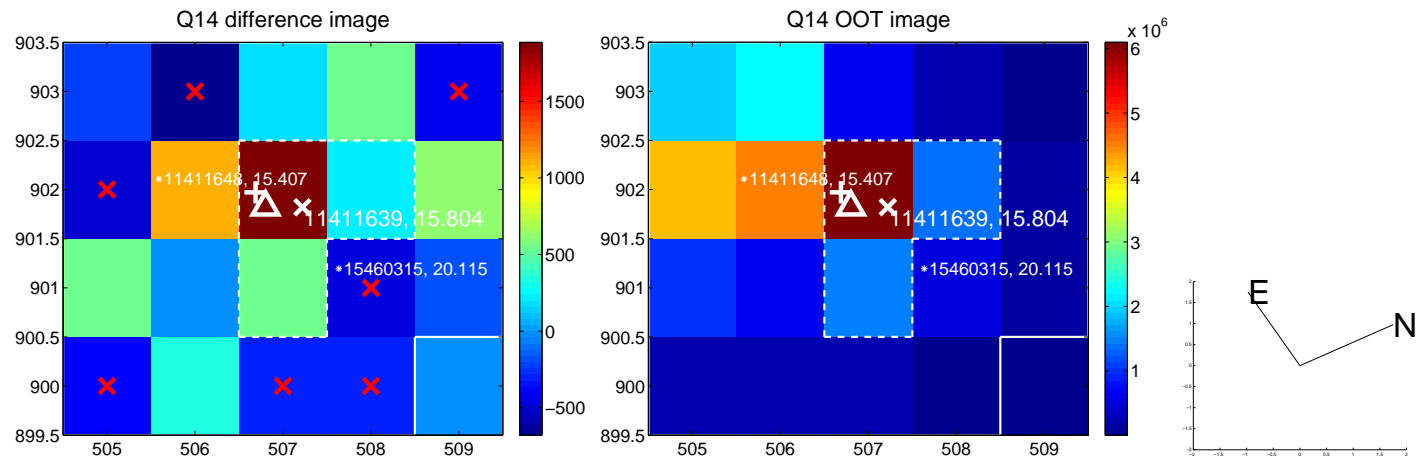
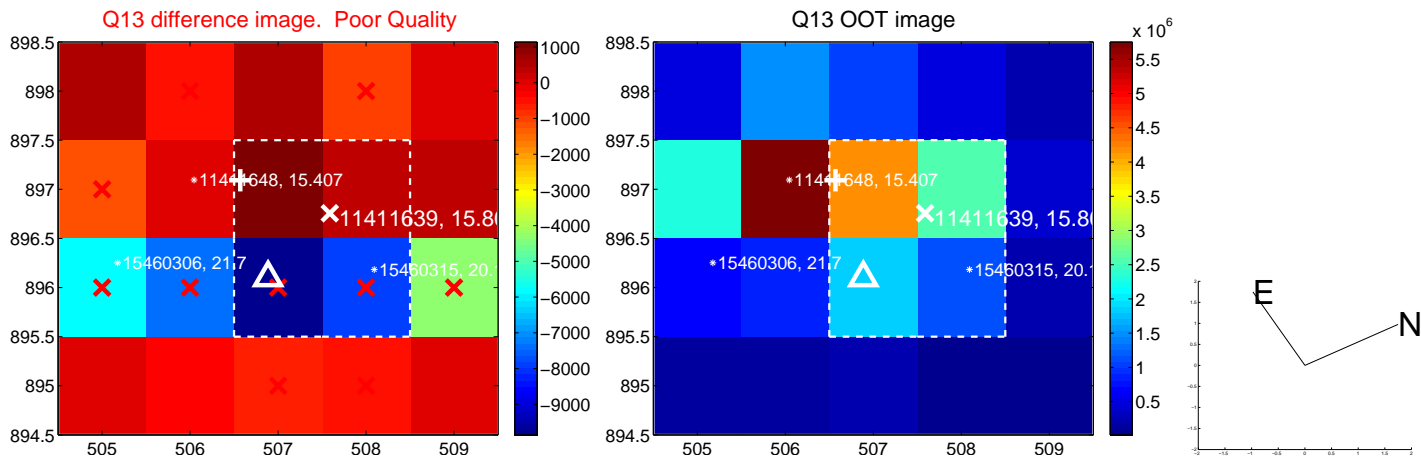
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



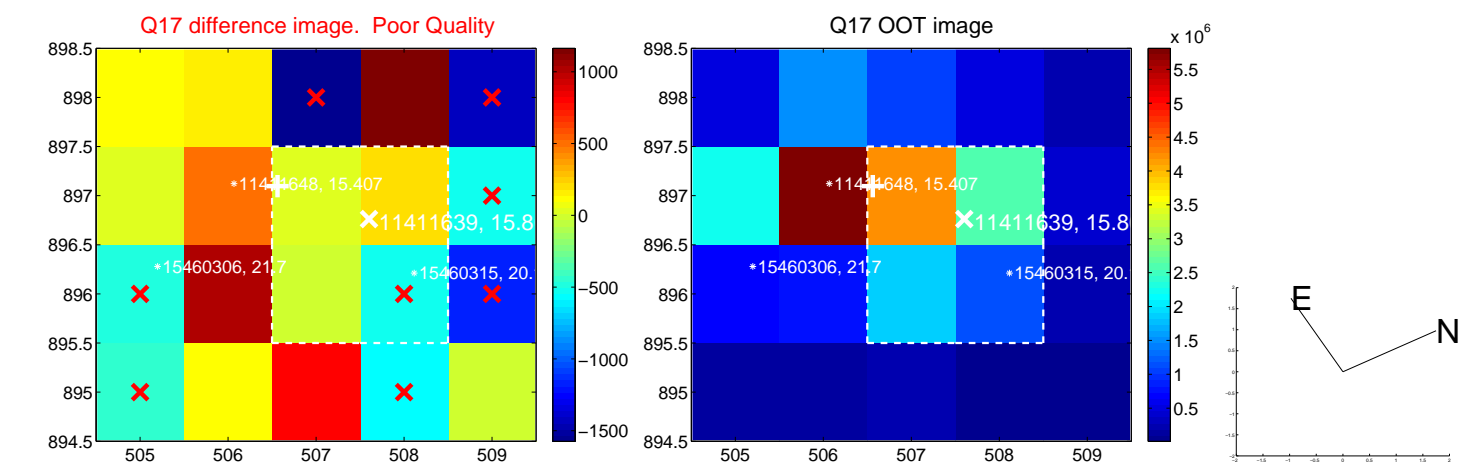
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



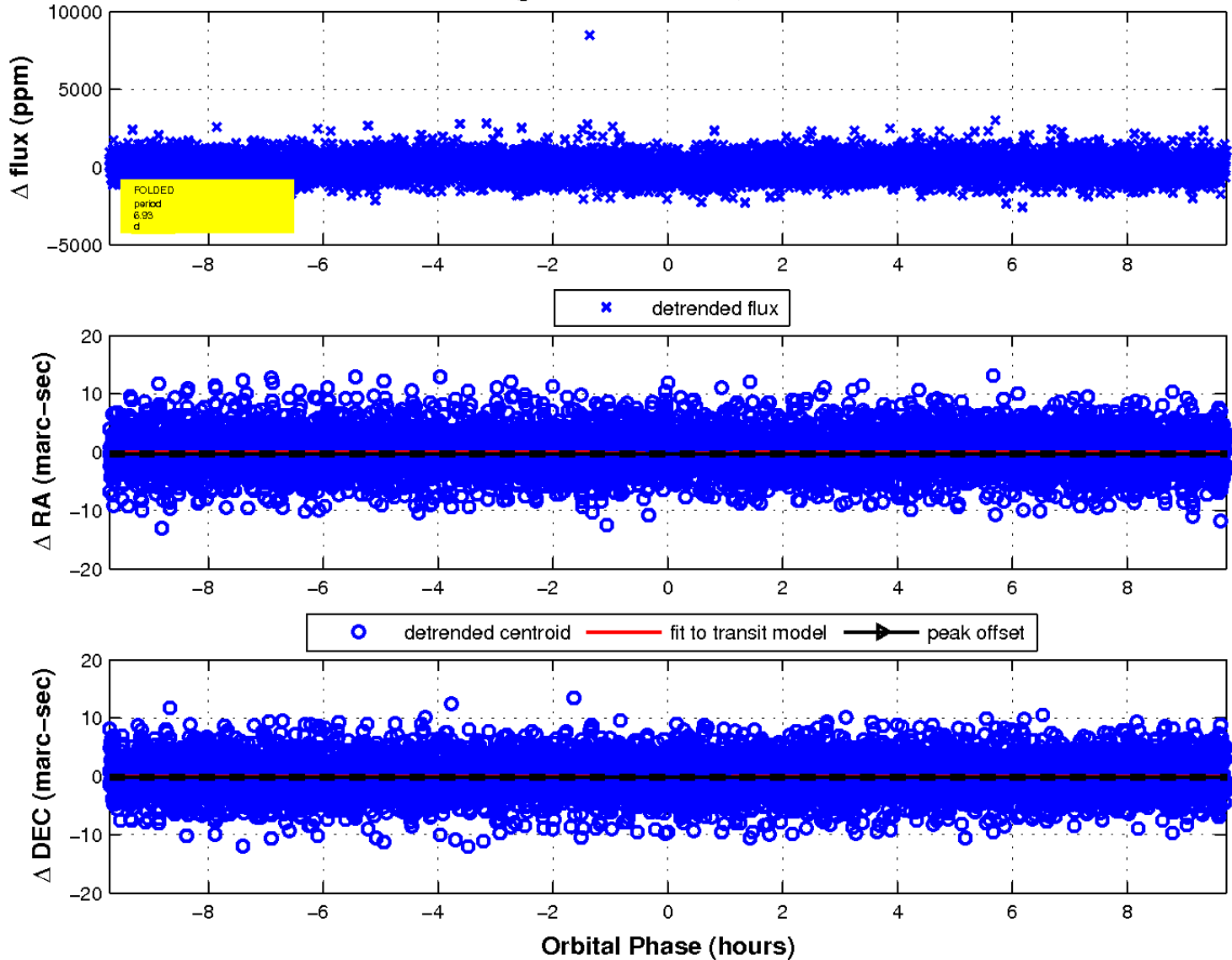
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

