

KIC 011139682

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})
011139682-01	OBS	8043.01	10.778040	134.805293	112.7	3.117	7.3	7.2	1.12	6386	1.41	186.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011139682-01	OBS	PC	0.98	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.

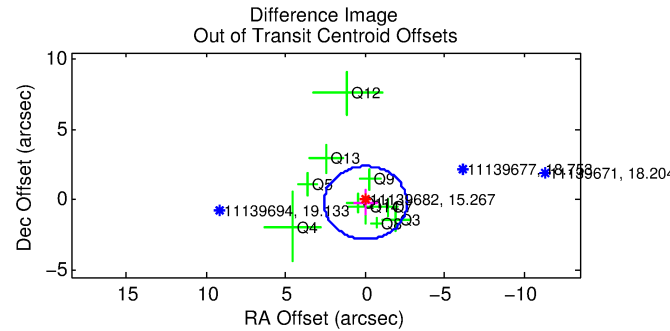
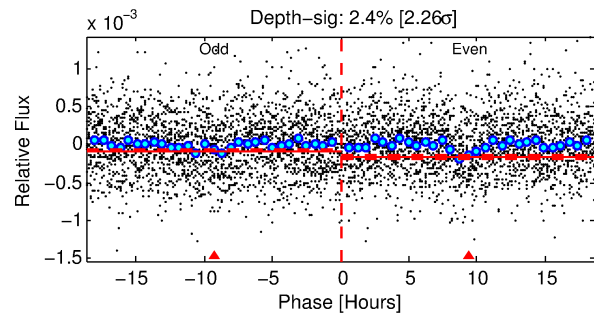
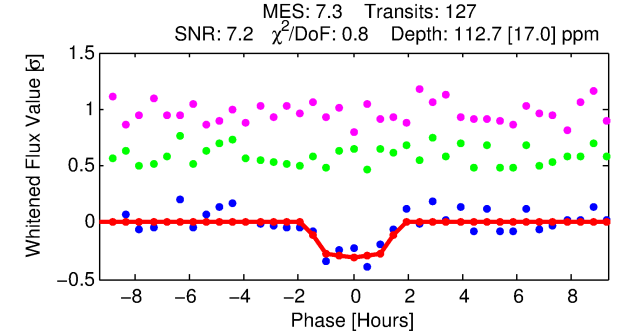
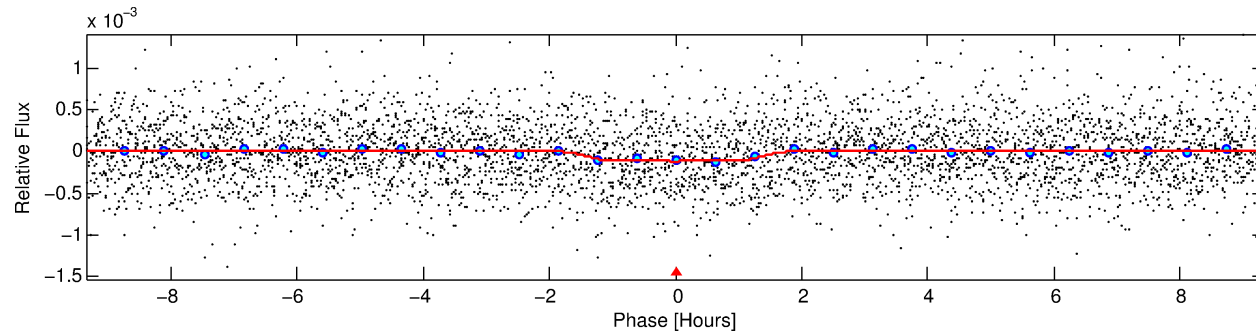
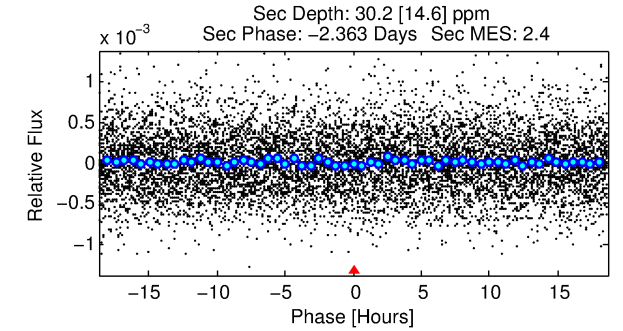
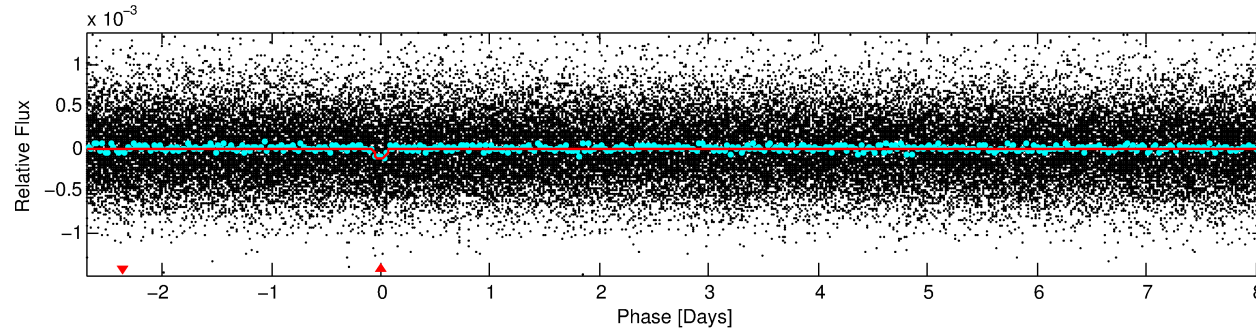
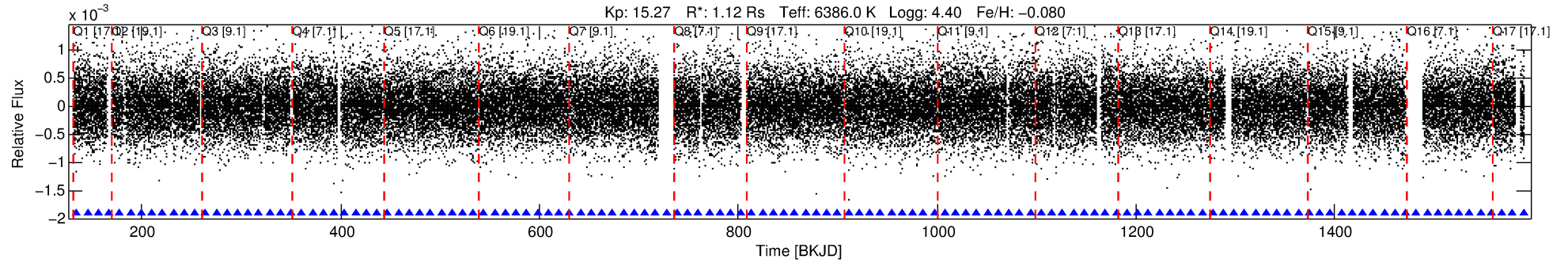
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011139682-01

No Significant Match Found

DV One-Page Summary

KIC: 11139682 Candidate: 1 of 1 Period: 10.778 d



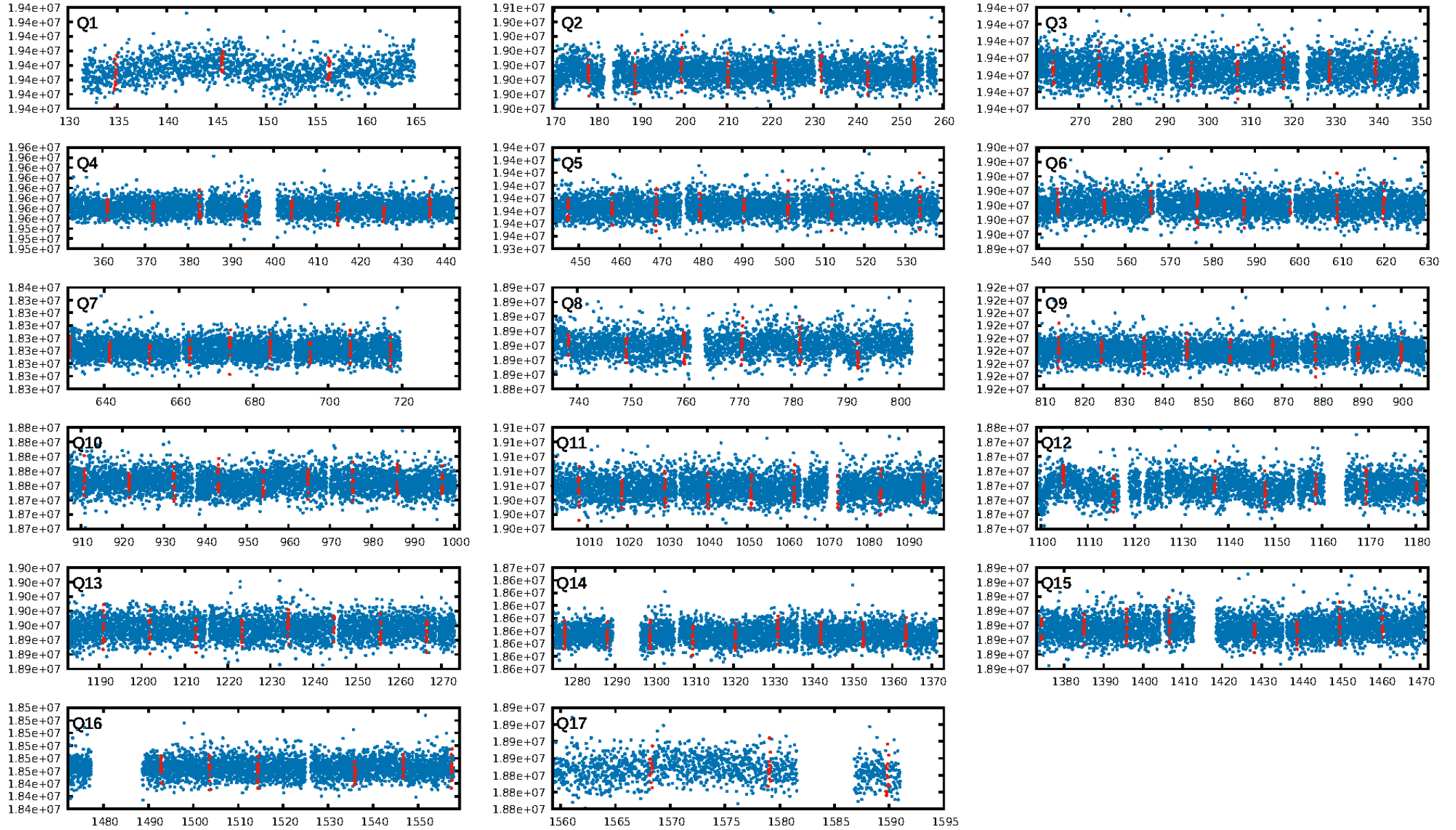
DV Fit Results:

Period = 10.77804 [0.00013] d
Epoch = 134.8053 [0.0096] BKJD
Rp/R* = 0.0115 [0.0087]
a/R* = 11.77 [50.08]
b = 0.91 [0.83]
Seff = 186.50 [79.29]
Teq = 942 [100] K
Rp = 1.41 [1.18] Re
a = 0.1004 [0.0285] AU
Ag = 84.63 [139.46] [0.60σ]
Teffp = 4419 [1771] K [1.96σ]

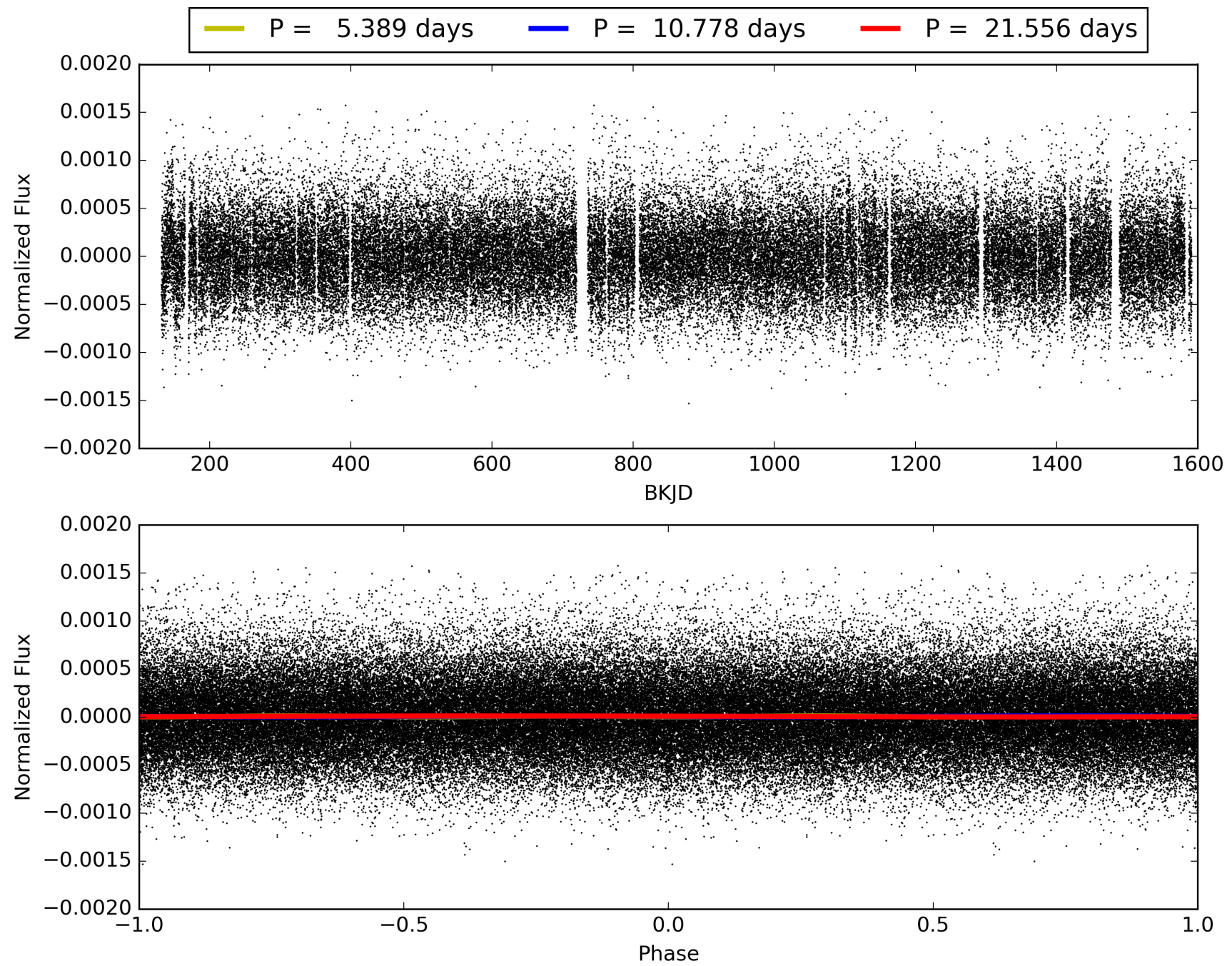
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.91e-13
RollingBand-fgt: 1.00 [121/121]
GhostDiagnostic-chr: 0.3946
Centroid-sig: 71.8%
Centroid-so: 1.270 arcsec [0.59σ]
OotOffset-rm: 0.217 arcsec [0.25σ]
KicOffset-rm: 0.449 arcsec [0.46σ]
OotOffset-st: 1/3/3/3 [10]
KicOffset-st: 1/3/3/3 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011139682-01, PDC Light Curves

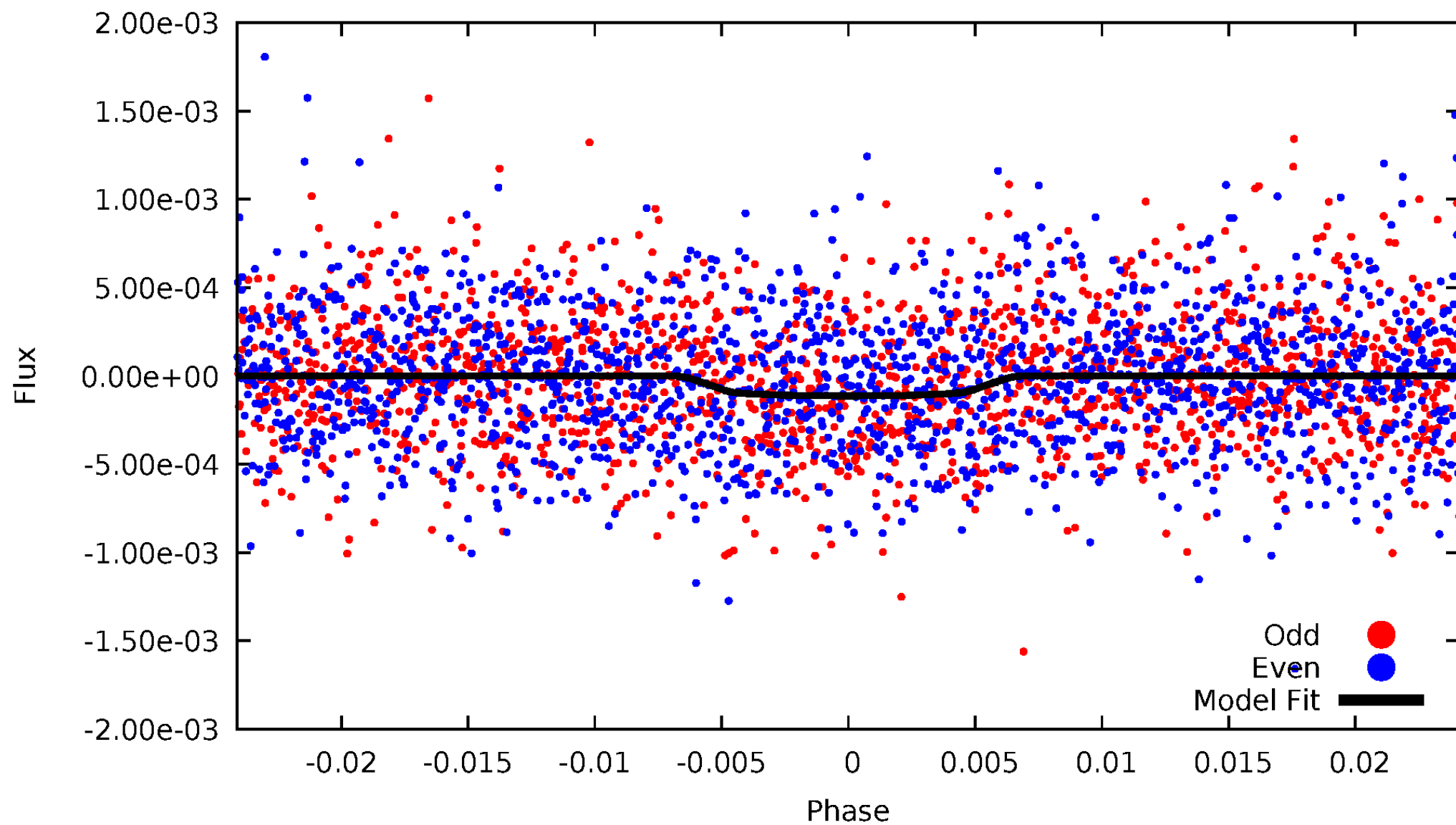


TCE 011139682-01



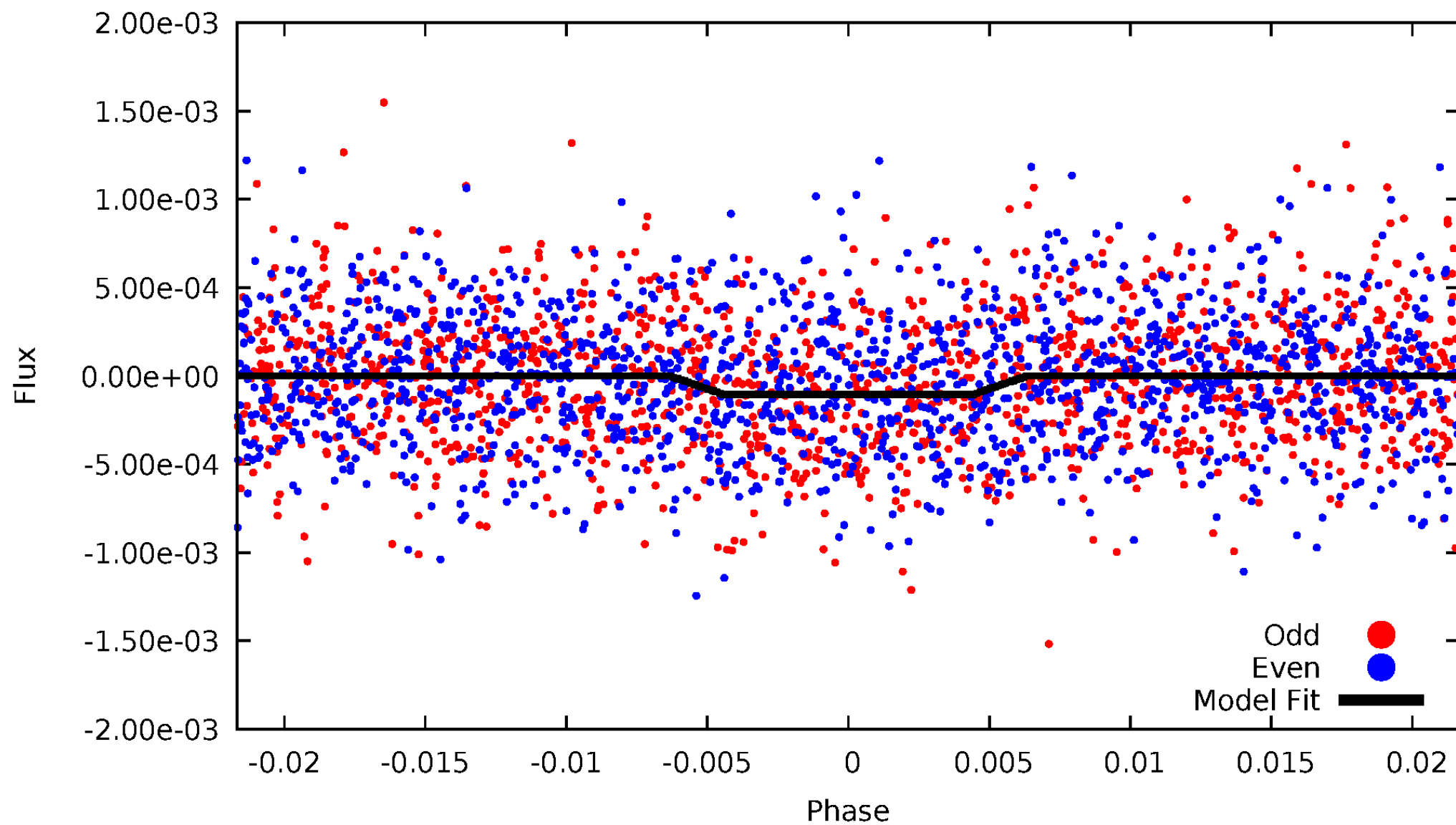
DV Odd/Even

TCE 011139682-01



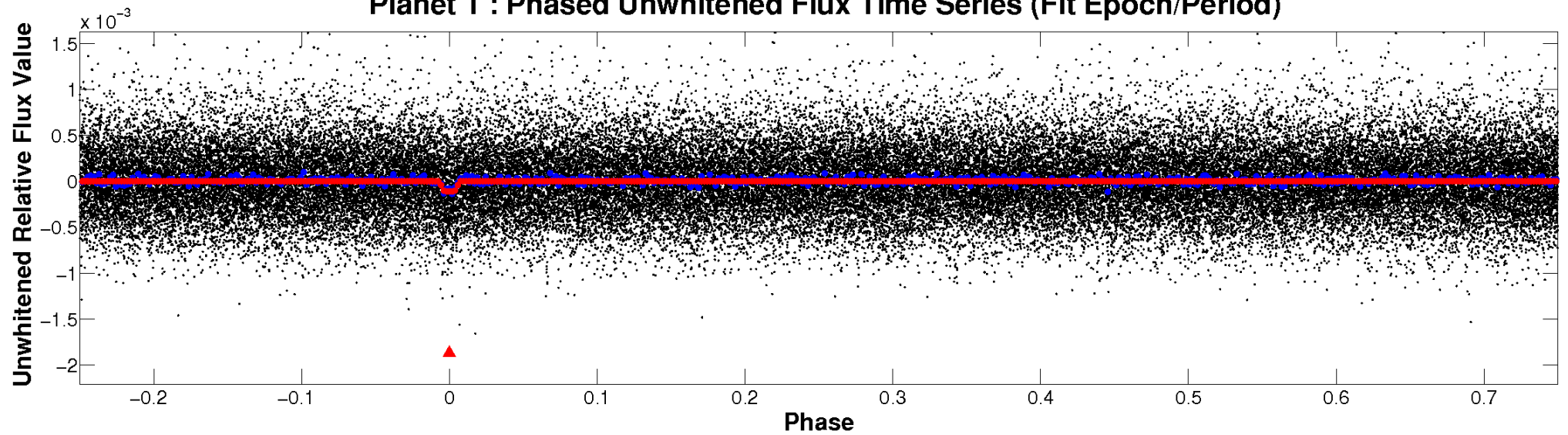
ALT Odd/Even

TCE 011139682-01

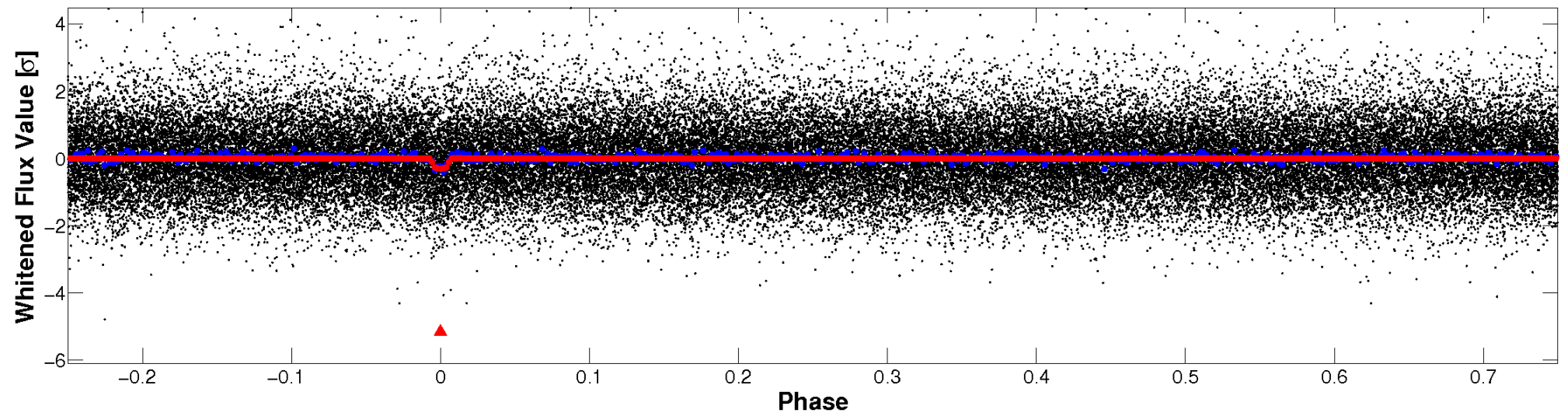


Non-Whitened Vs. Whitened Light Curve

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

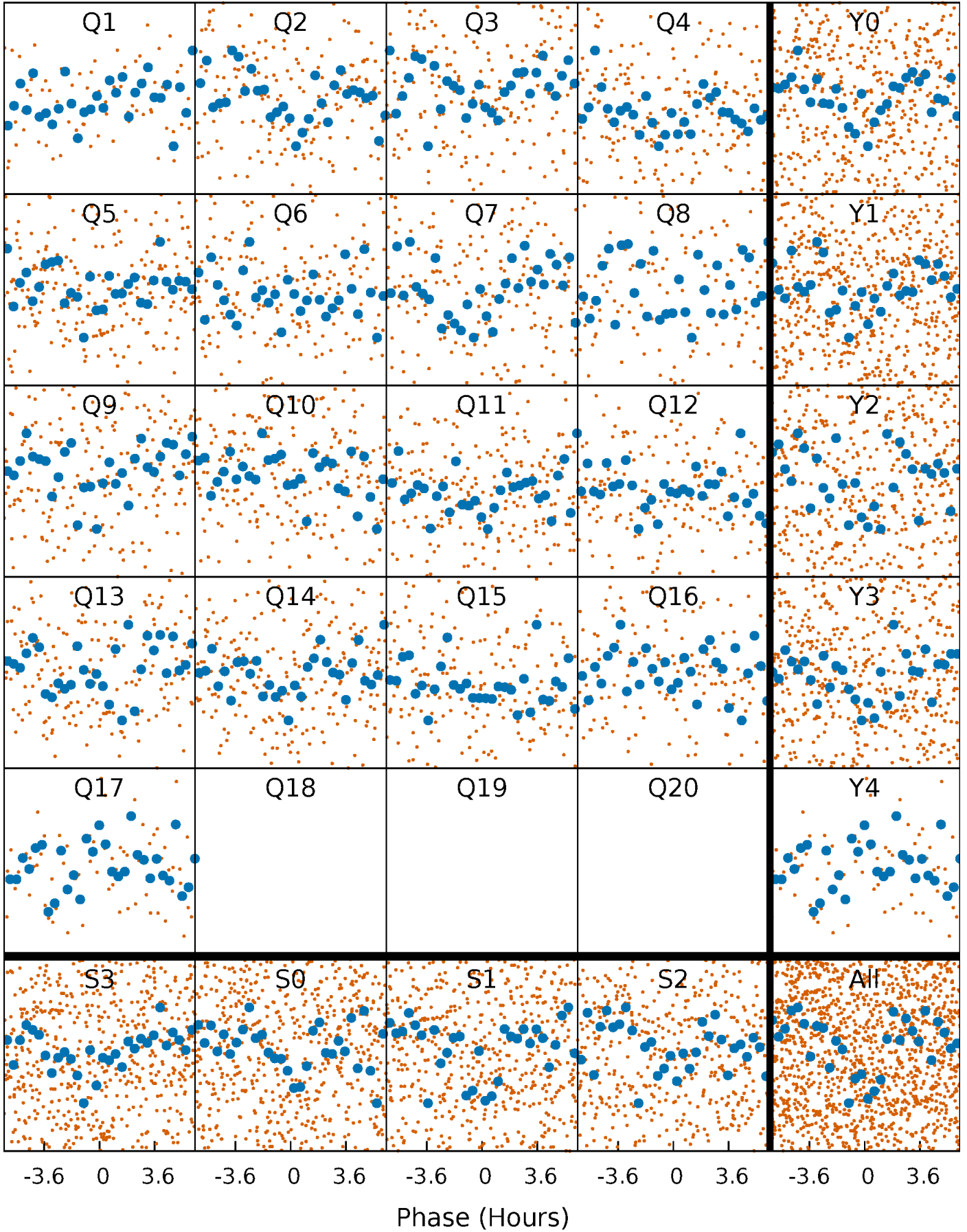


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



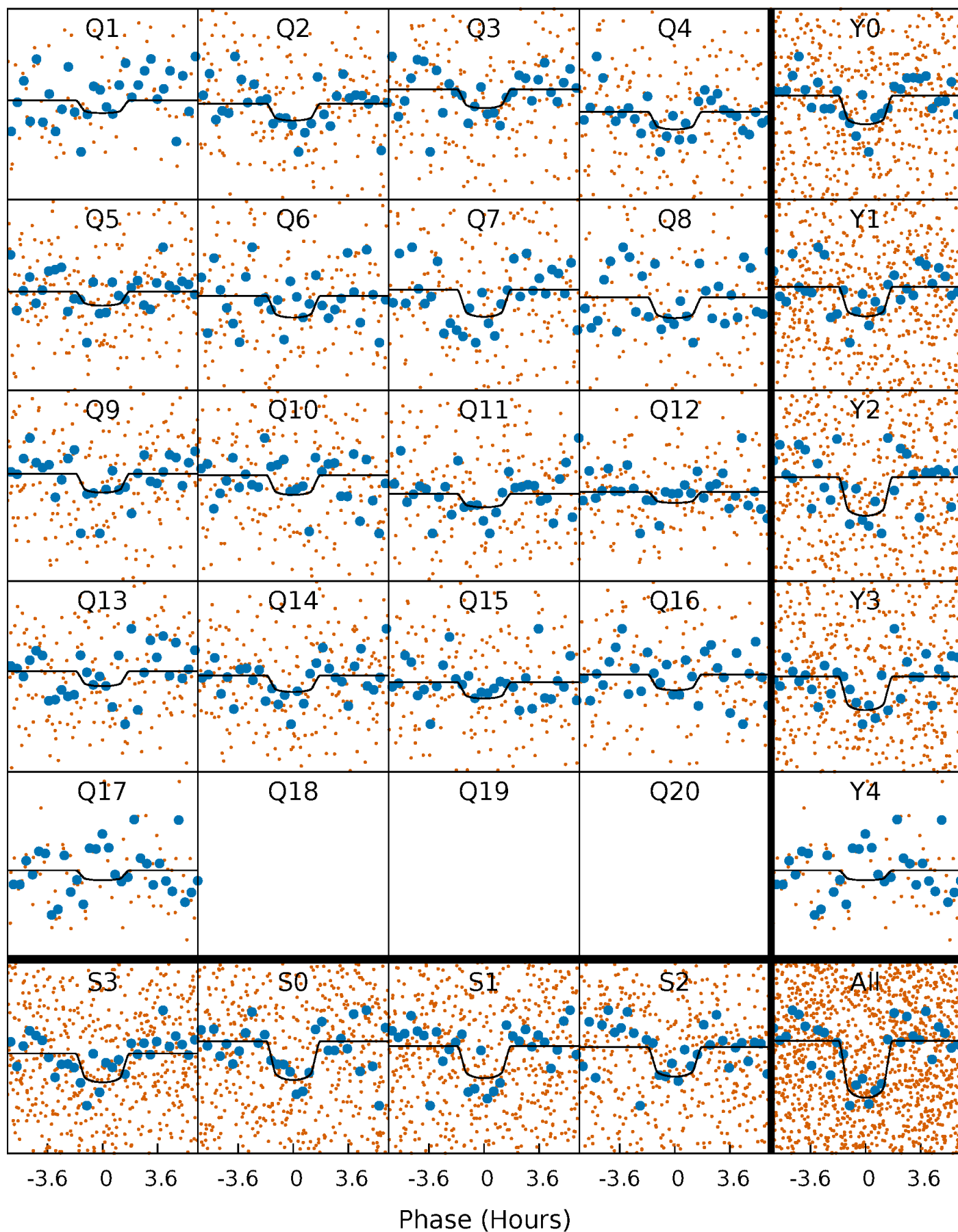
PDC Quarter-Phased Transit Curves

TCE 011139682-01 P= 10.778040 Days $T_0=134.805293$ (BKJD)



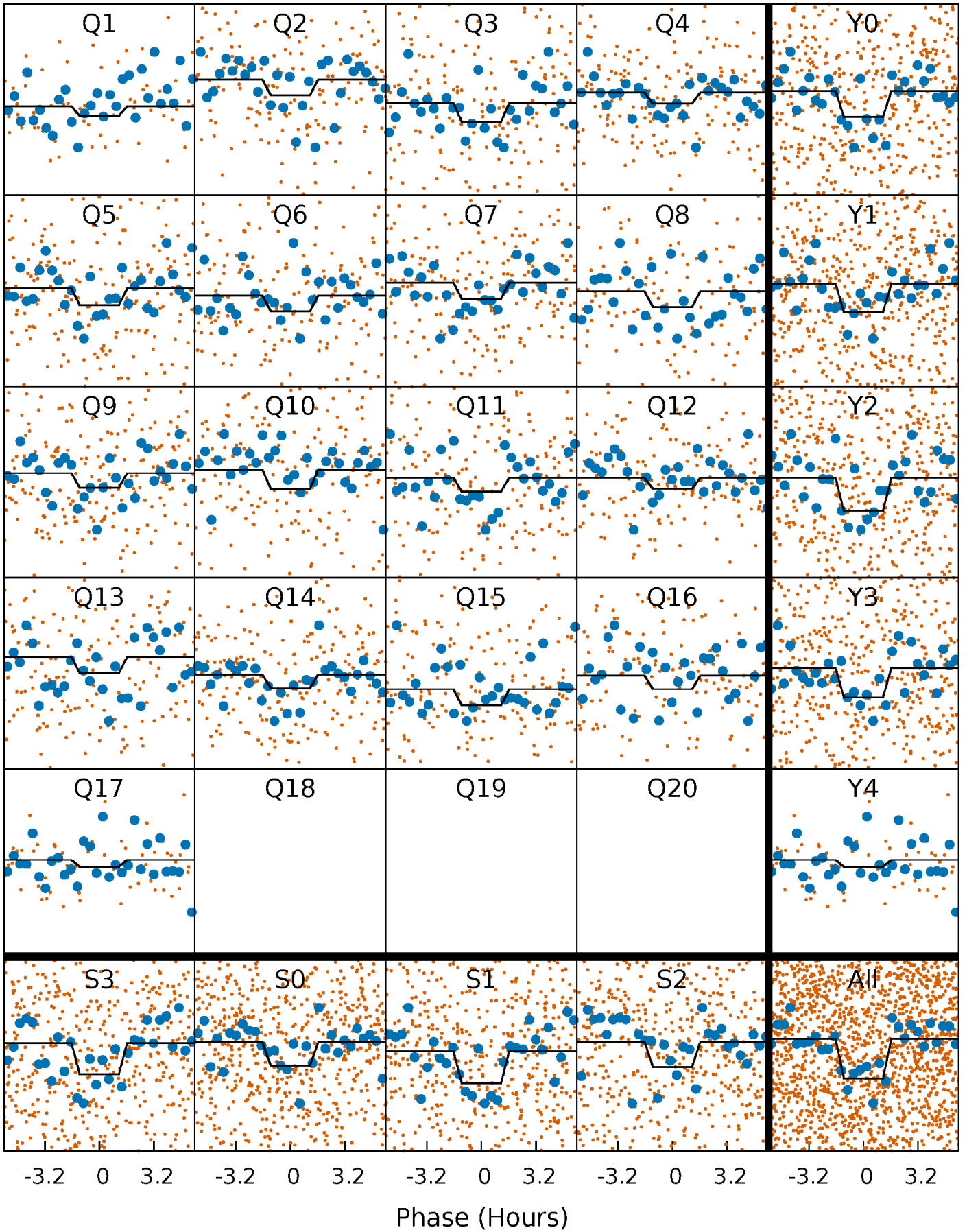
DV Quarter-Phased Transit Curves

TCE 011139682-01 P= 10.778040 Days $T_0=134.805293$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

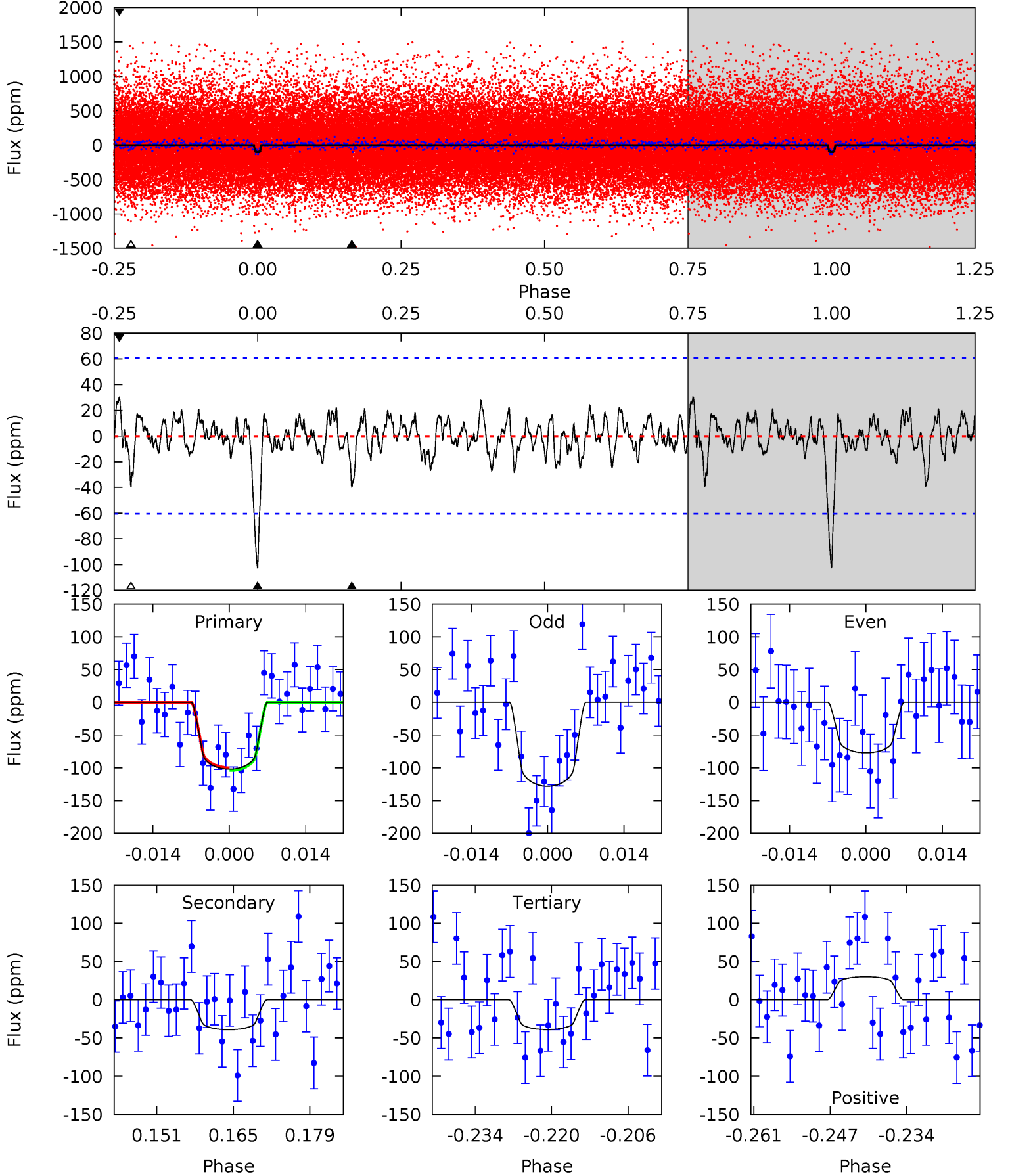
TCE 011139682-01 P= 10.778104 Days $T_0=134.798669$ (BKJD)



DV Model-Shift Uniqueness Test

011139682-01, $P = 10.778040$ Days, $E = 124.027253$ Days

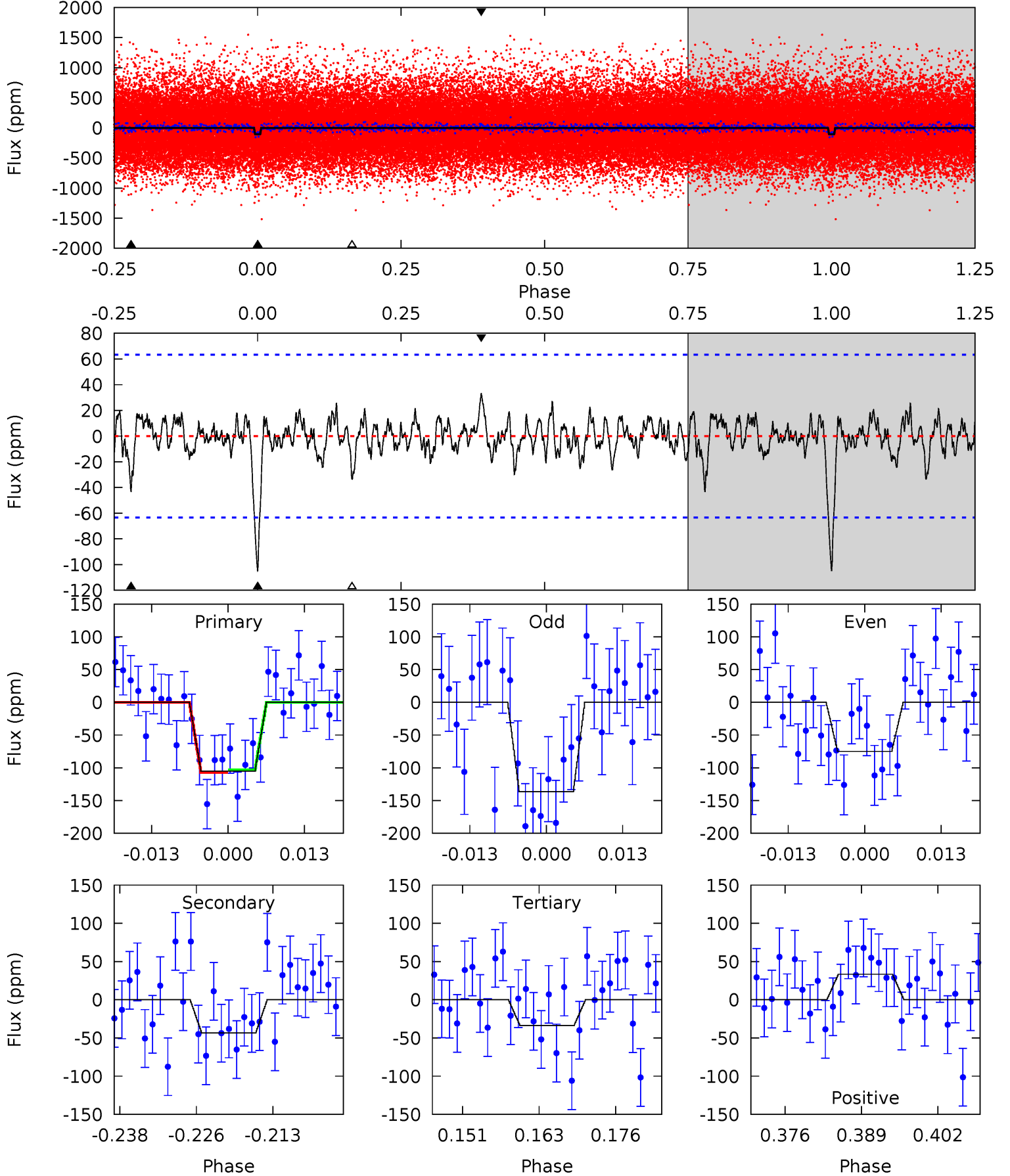
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.37	3.21	3.20	2.47	4.97	2.46	0.91	5.17	5.90	0.01	0.74	2.10	1.00	0.23	0.16



Alt Model-Shift Uniqueness Test

011139682-01, $P = 10.778104$ Days, $E = 124.020565$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.26	3.42	2.65	2.63	4.98	2.50	0.81	5.60	5.63	0.77	0.79	2.42	1.12	0.24	0.16



Stellar Parameters For KIC 011139682

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6386^{+173}_{-211}	$4.402^{+0.067}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.123^{+0.389}_{-0.130}$	$1.161^{+0.172}_{-0.157}$	$1.154^{+0.340}_{-0.621}$
	+3%/-3%	+2%/-5%	+312%/-375%	+35%/-12%	+15%/-14%	+29%/-54%
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 011139682-01 / KOI 8043.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-39 ± 12	$1.53^{+1.17}_{-0.91}$	1338^{+104}_{-66}	4709^{+2388}_{-883}	87^{+446}_{-59}
Alt.	-44 ± 13	$1.46^{+0.99}_{-0.91}$	1338^{+110}_{-67}	4917^{+3071}_{-914}	107^{+643}_{-71}

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 $A_{obs} \gg 1.0$

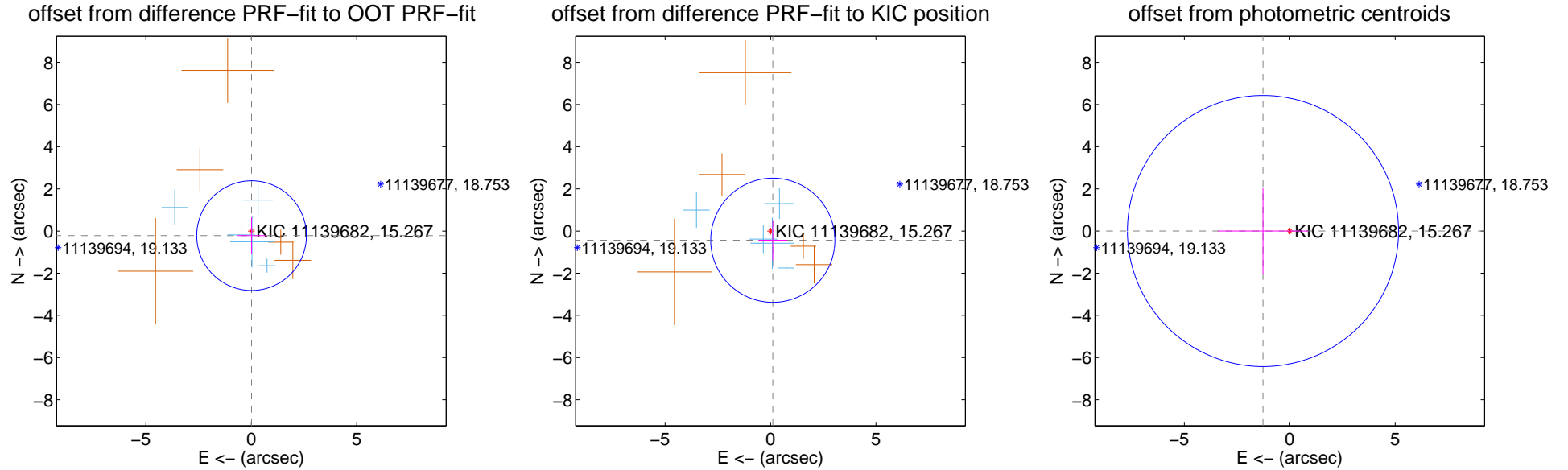
DV Centroid Data

Supplemental centroid analysis for 011139682-01. Kepler magnitude: 15.27. Transit SNR 7.20

There are 5 quarters with good PRF difference image offsets

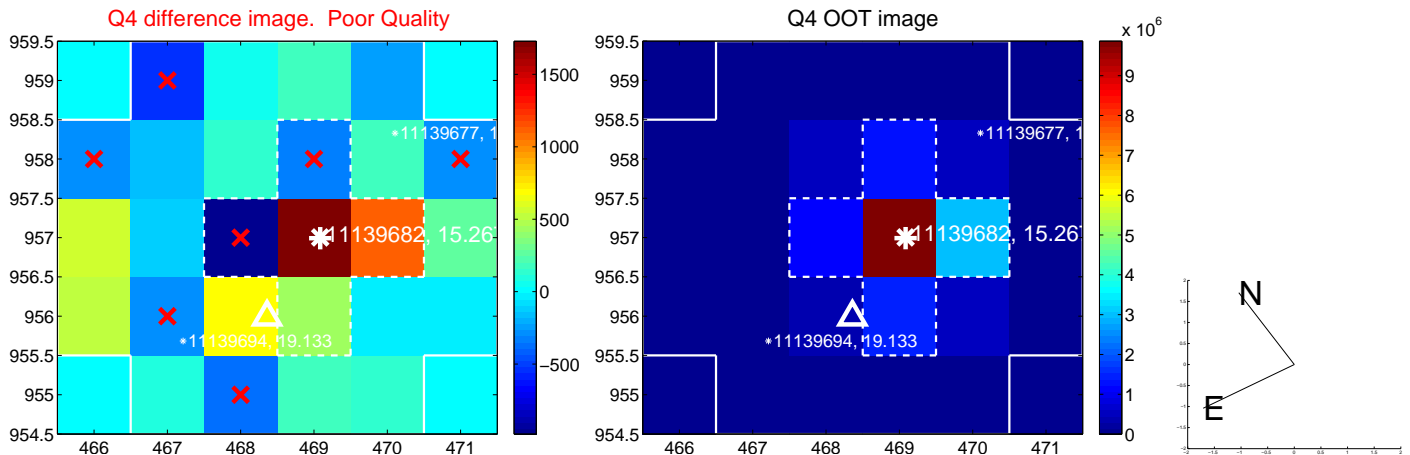
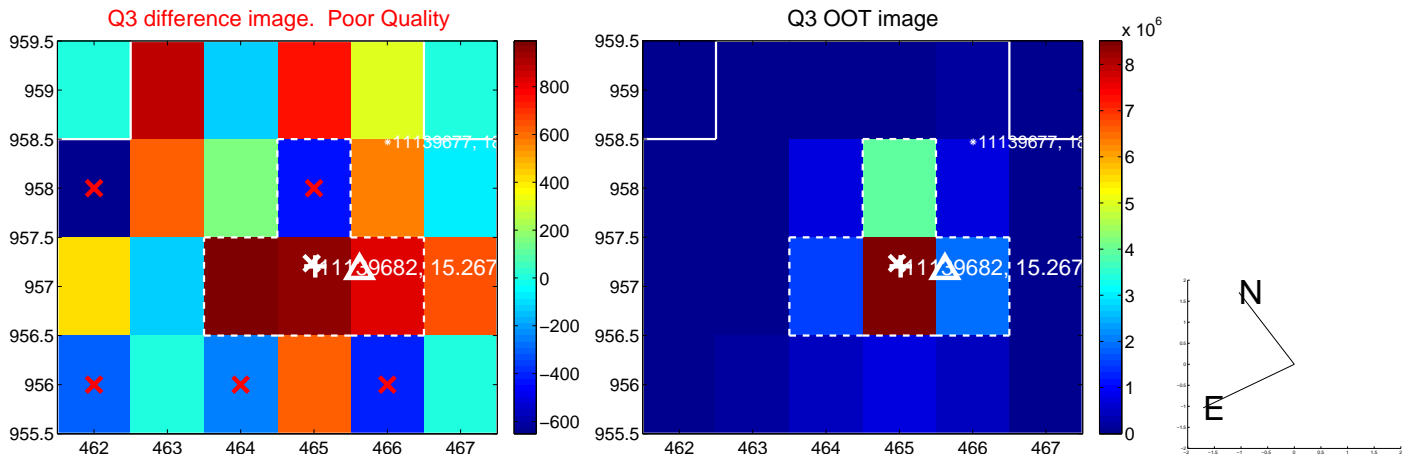
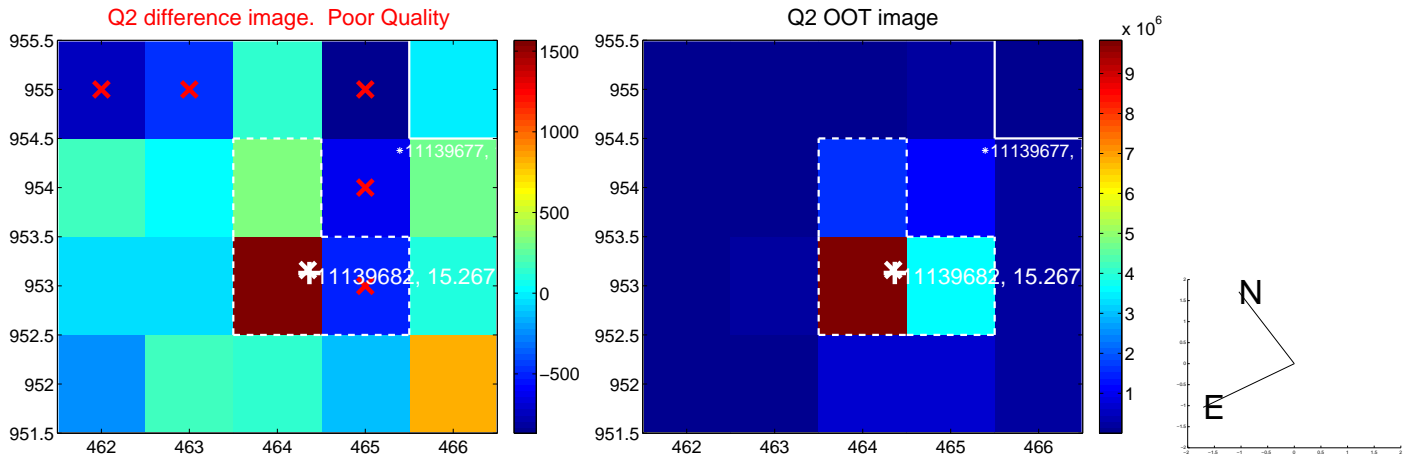
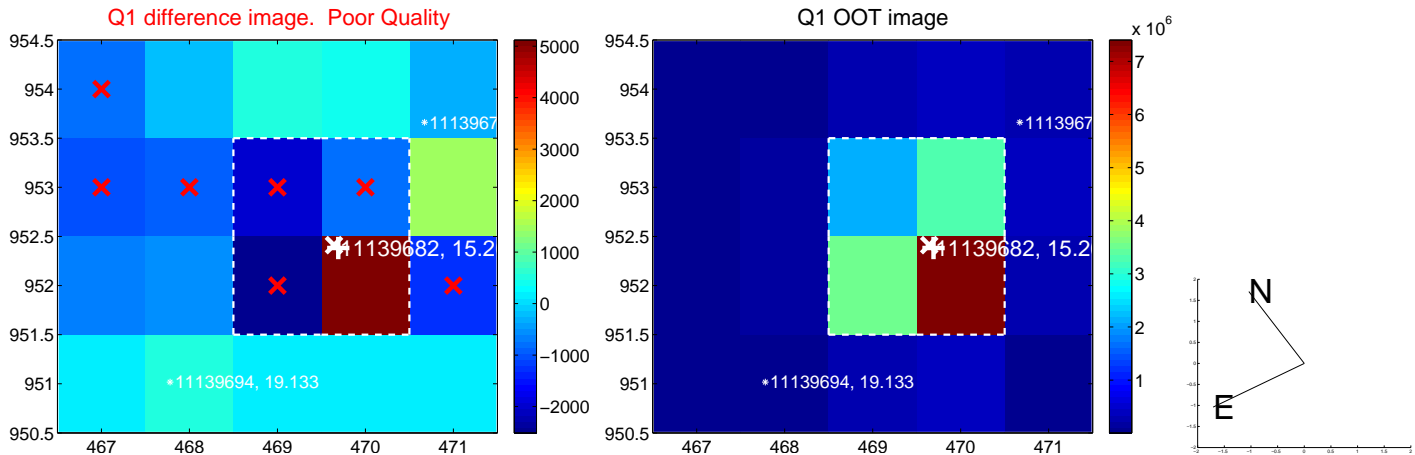
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.217 ± 0.867	0.25	-0.013 ± 0.675	-0.217 ± 0.867
PRF-fit source offset from KIC position	0.449 ± 0.981	0.46	-0.107 ± 0.681	-0.436 ± 0.951
photometric centroid source offset	1.27 ± 2.14	0.59	1.27 ± 2.14	0.00 ± 2.02

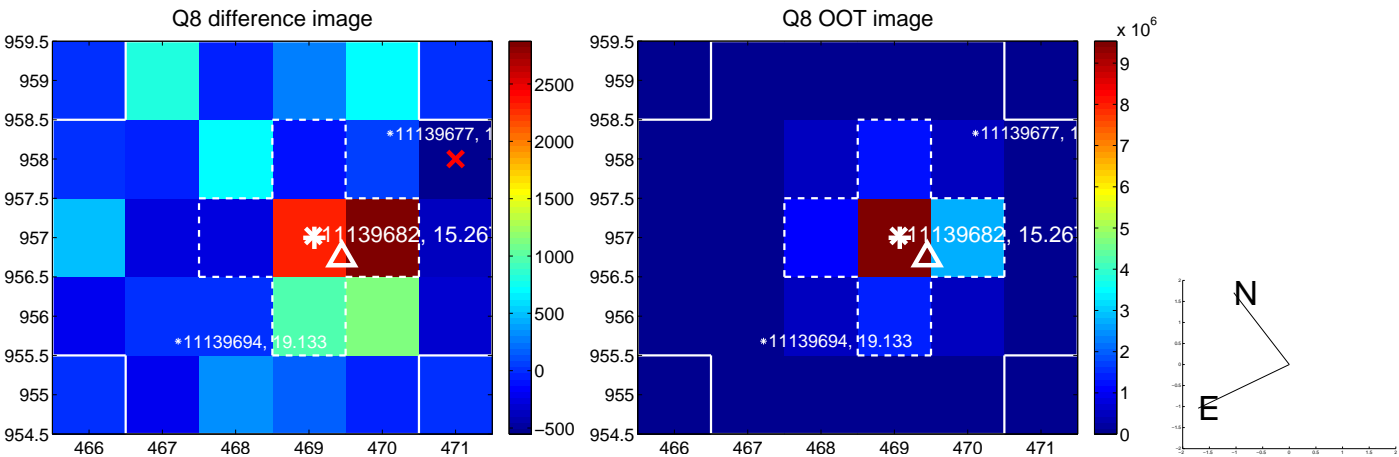
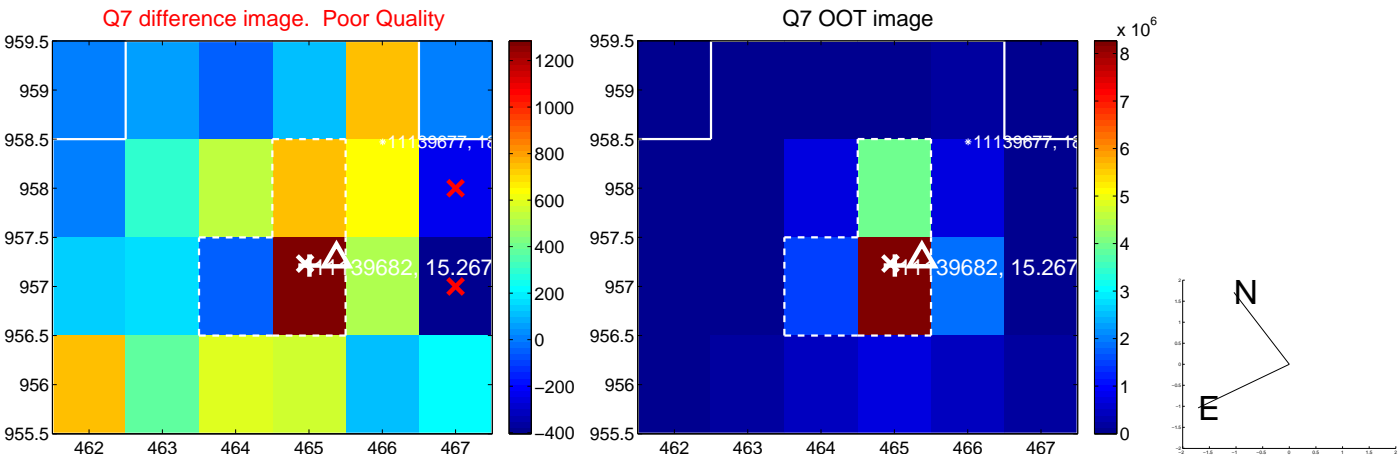
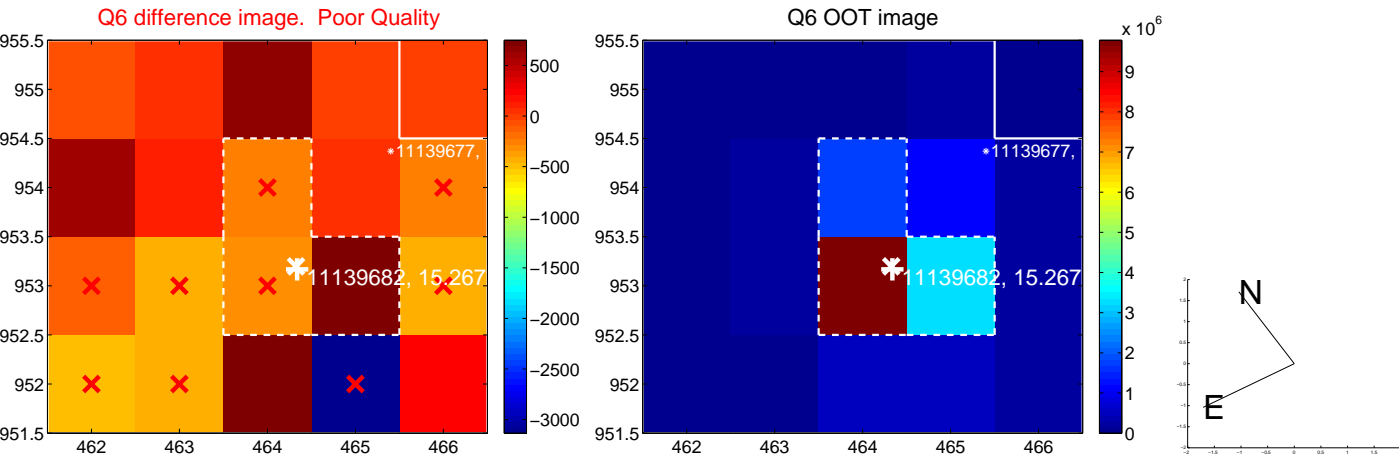
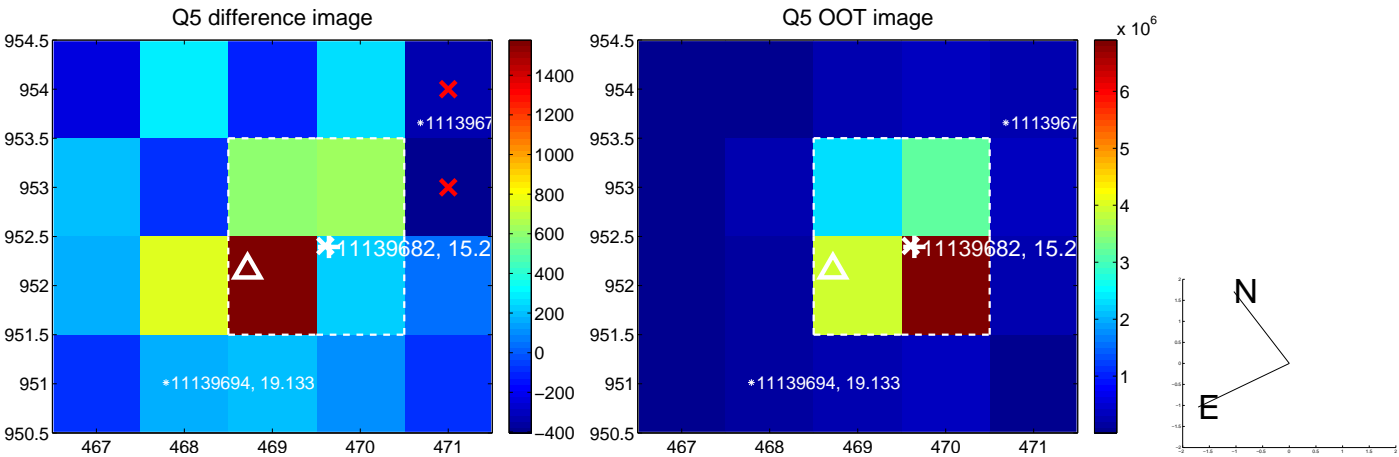


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

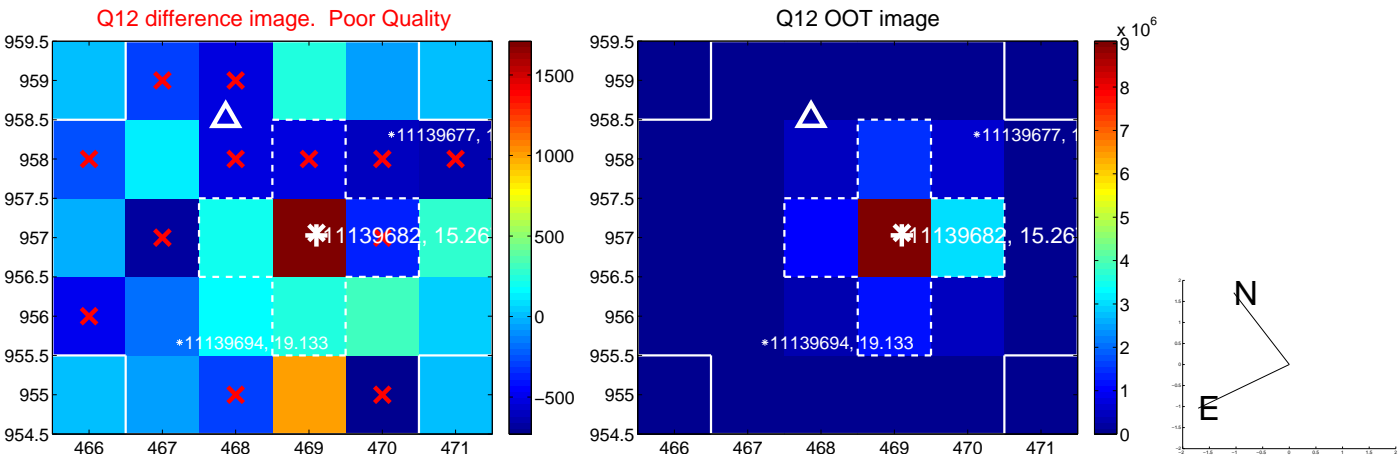
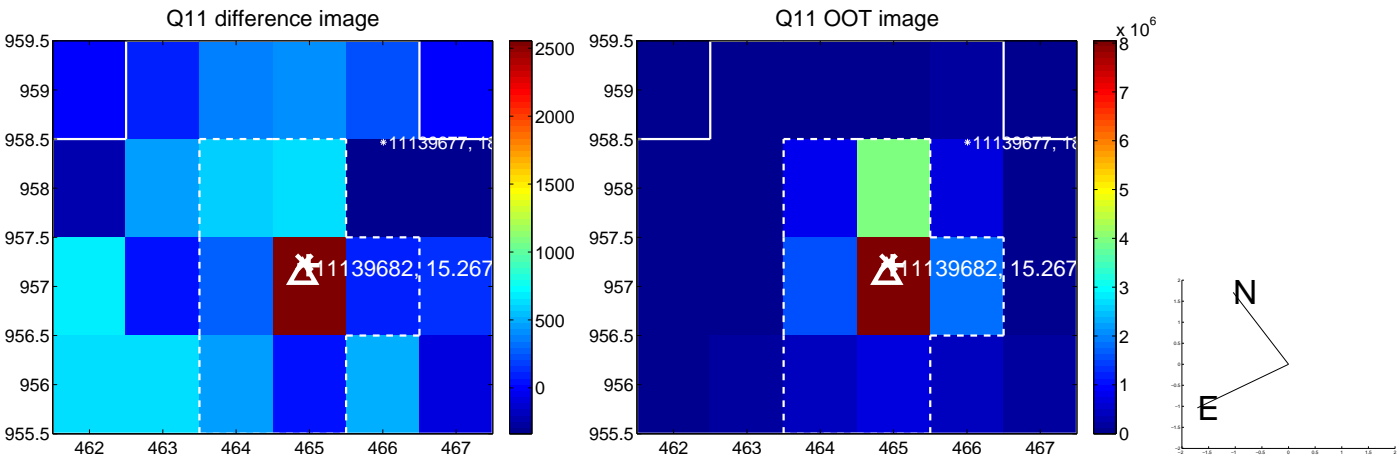
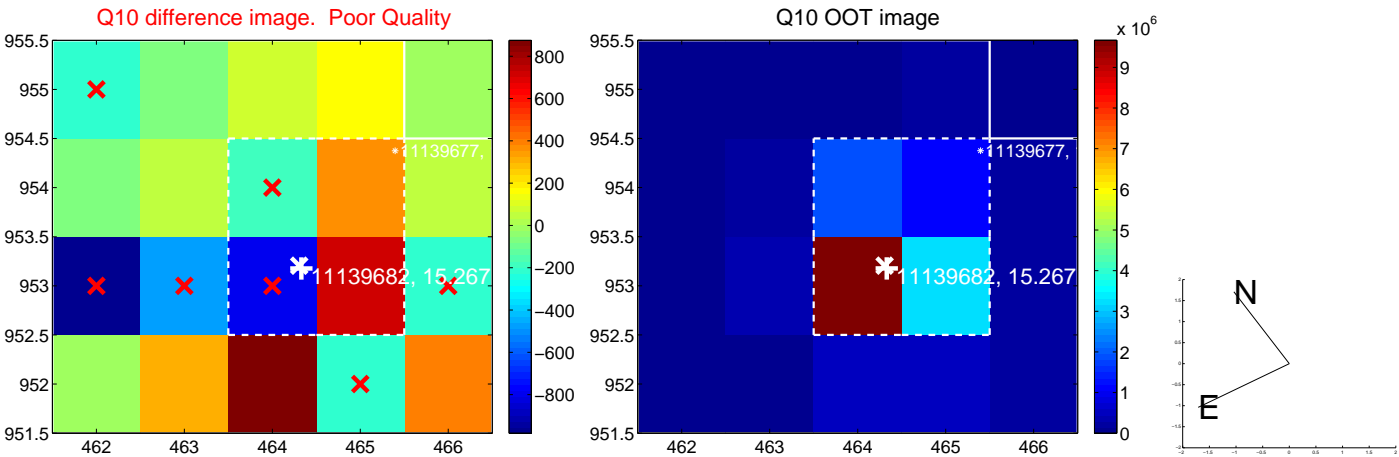
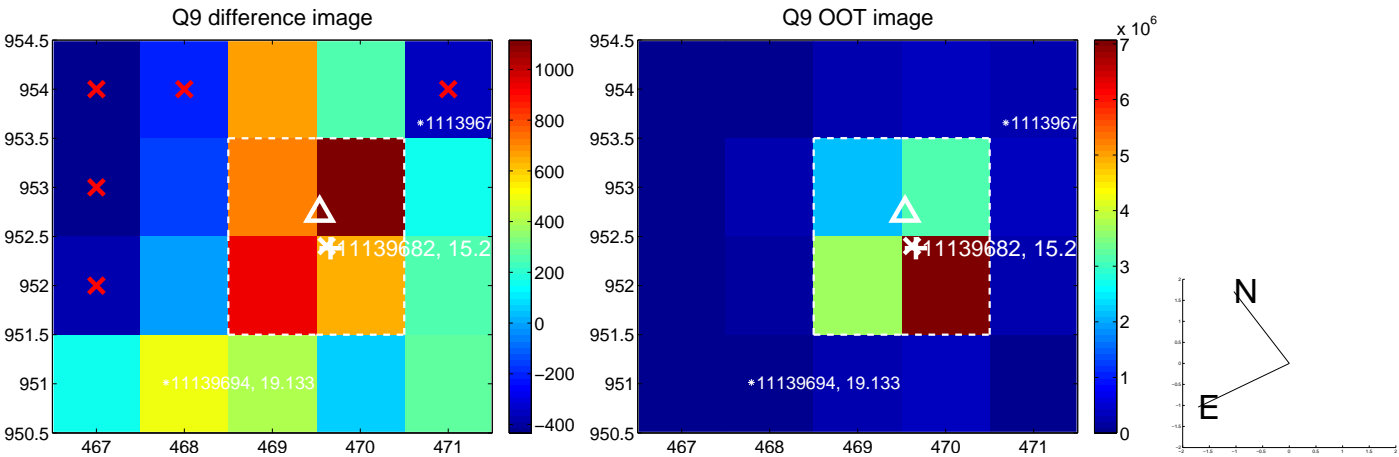
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



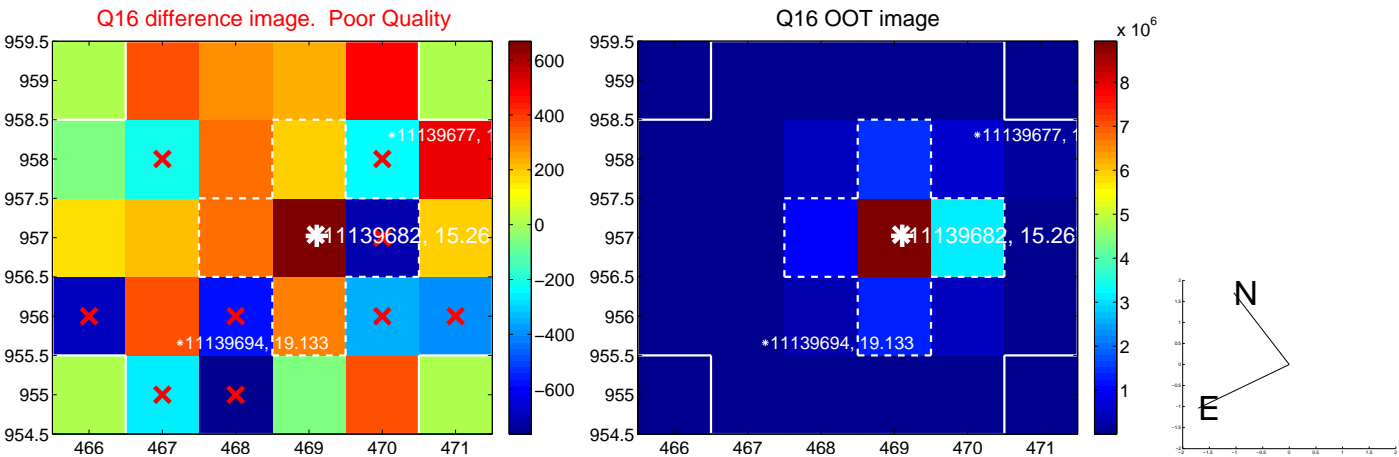
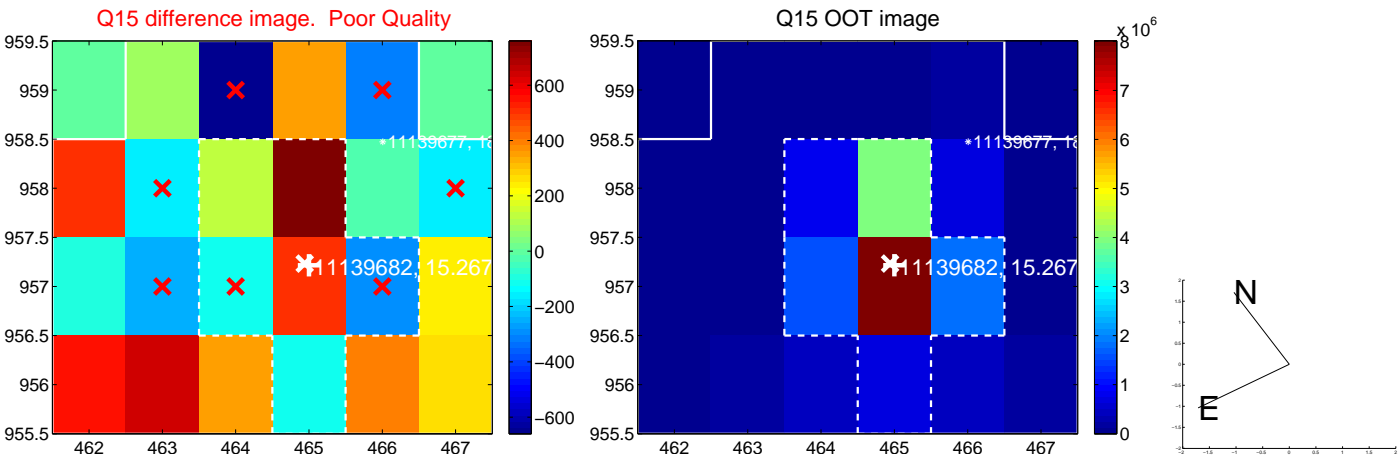
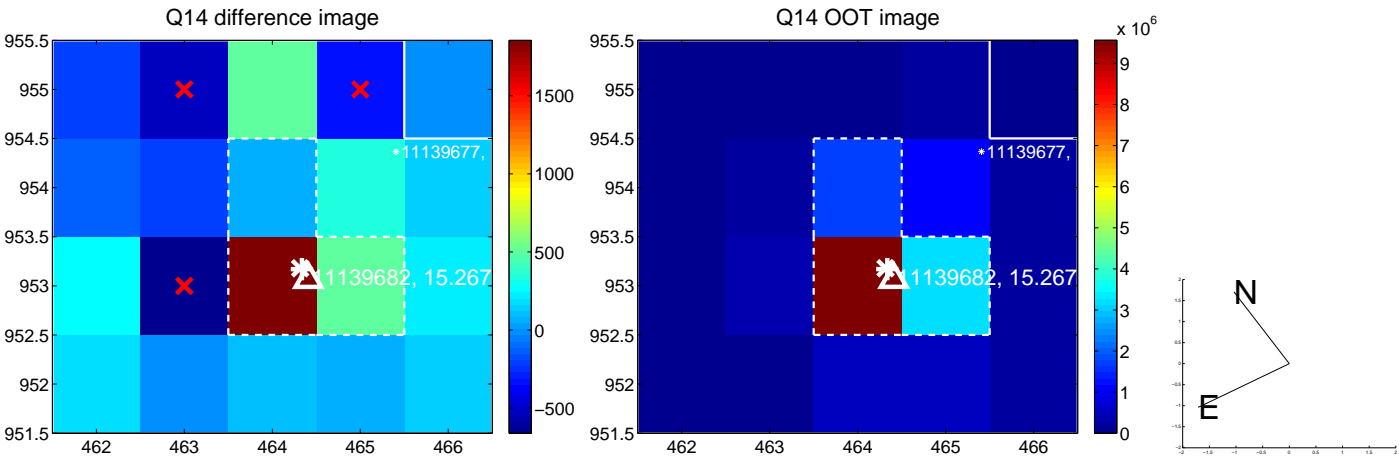
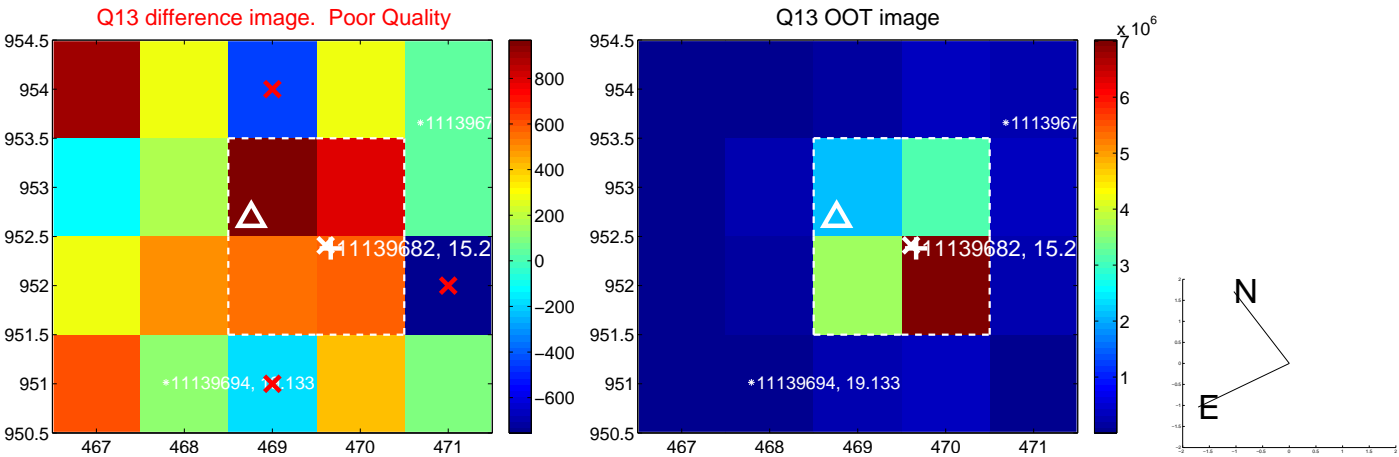
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



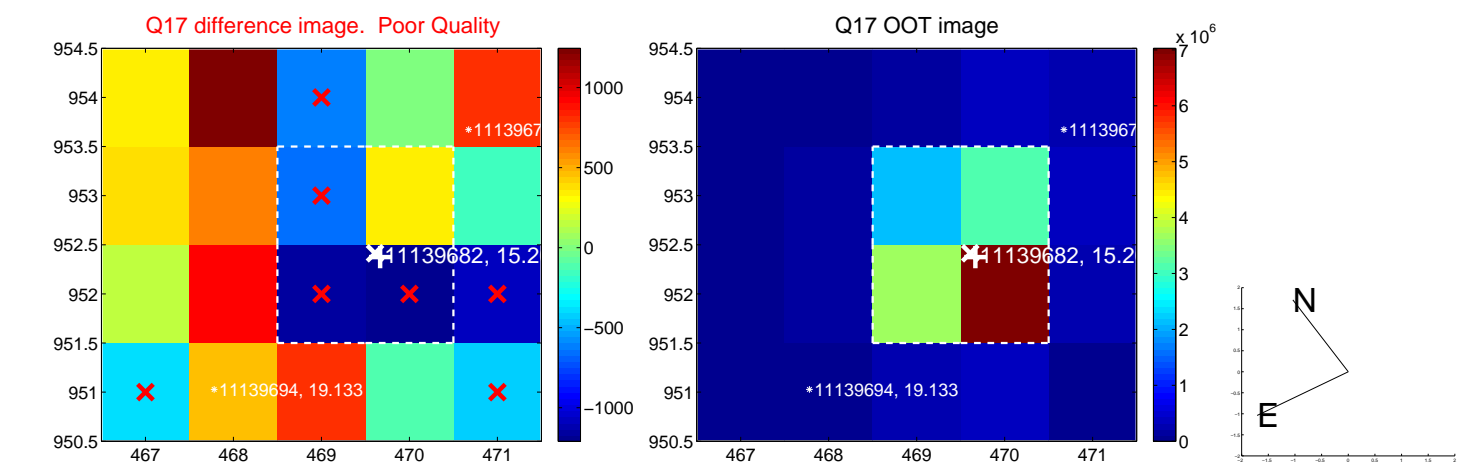
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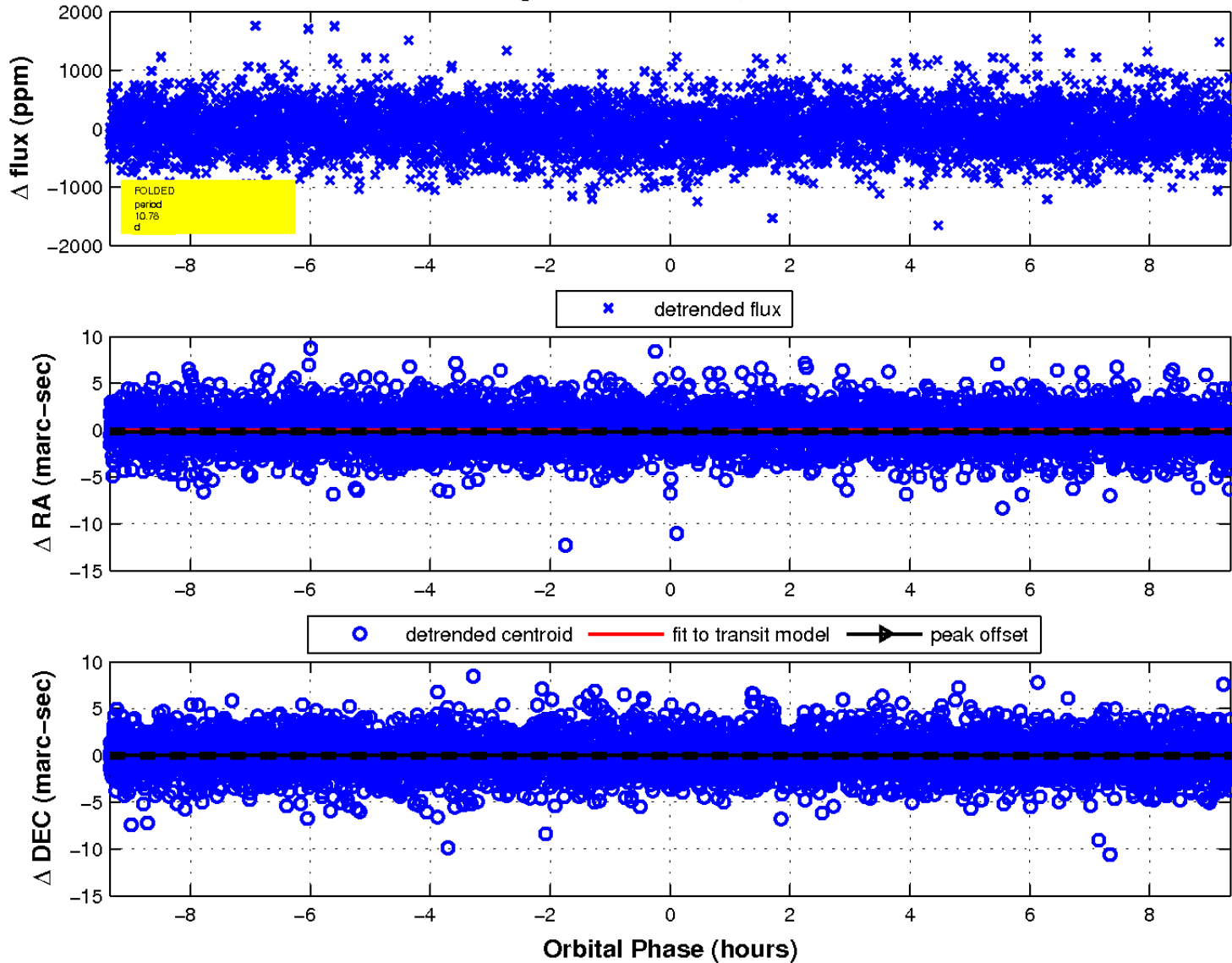
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

