

KIC 011144439

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})
011144439-01	OBS	7412.01	0.609122	132.085894	88.9	0.792	8.5	7.9	0.80	5595	0.75	3060.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011144439-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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.

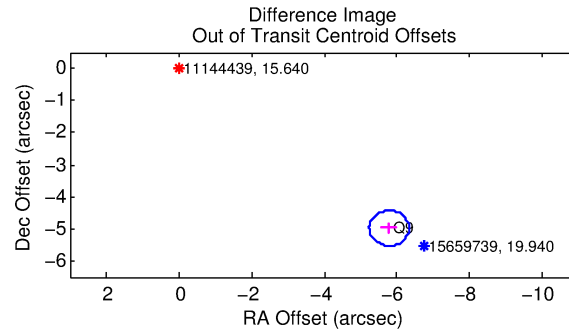
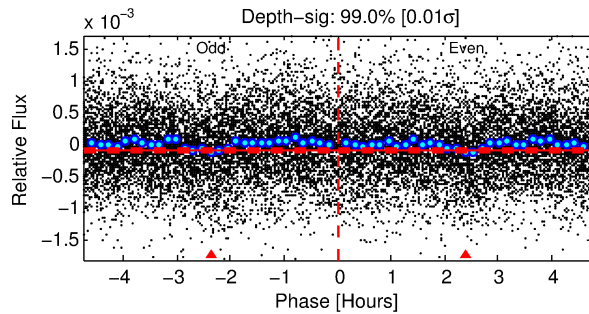
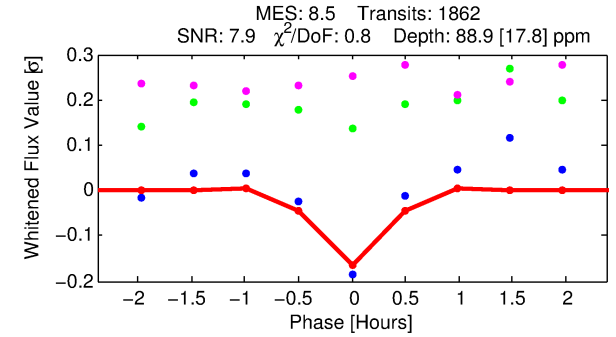
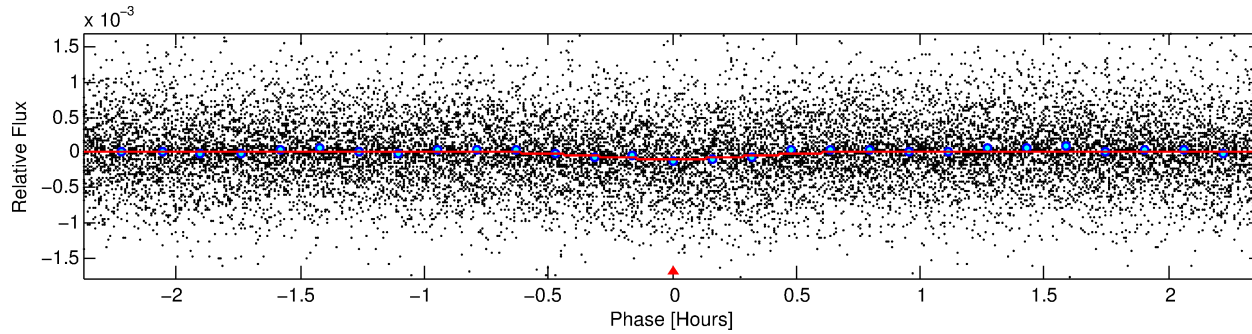
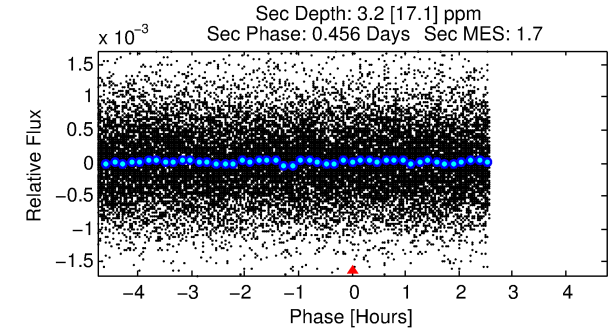
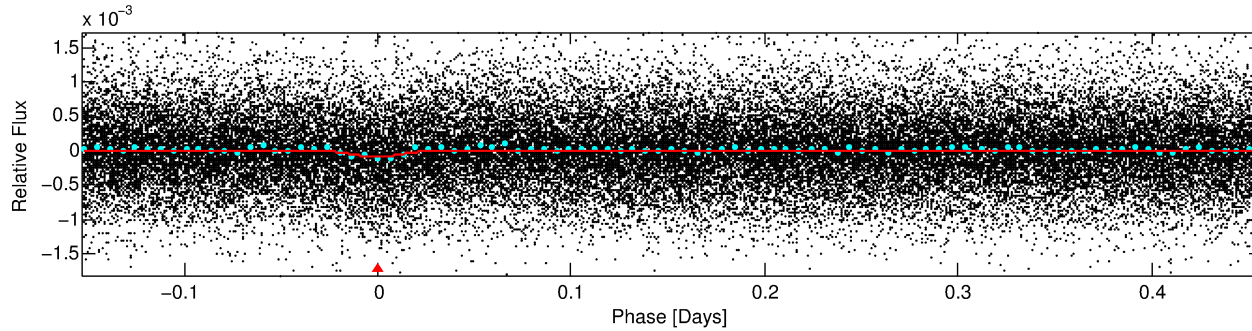
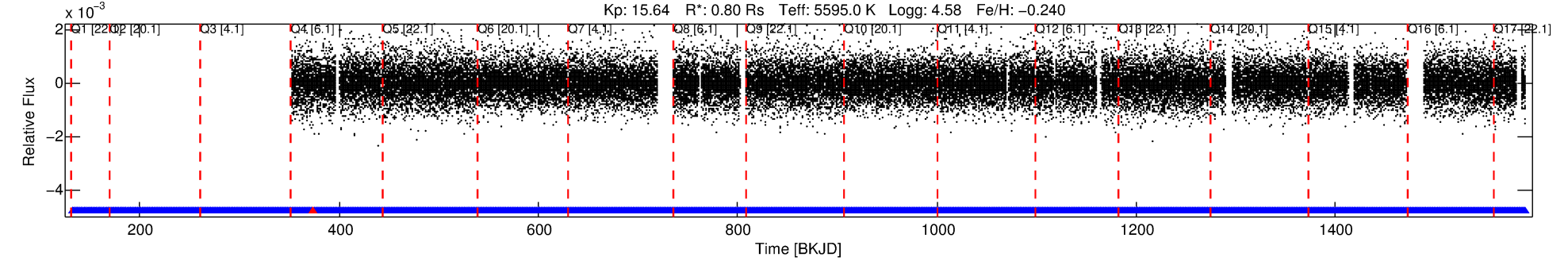
Ephemeris Match Information For 011144439-01

No Significant Match Found

DV One-Page Summary

KIC: 11144439 Candidate: 1 of 1 Period: 0.609 d
KOI: K07412 Corr: No Ephemeris Match

Kp: 15.64 R*: 0.80 Rs Teff: 5595.0 K Logg: 4.58 Fe/H: -0.240



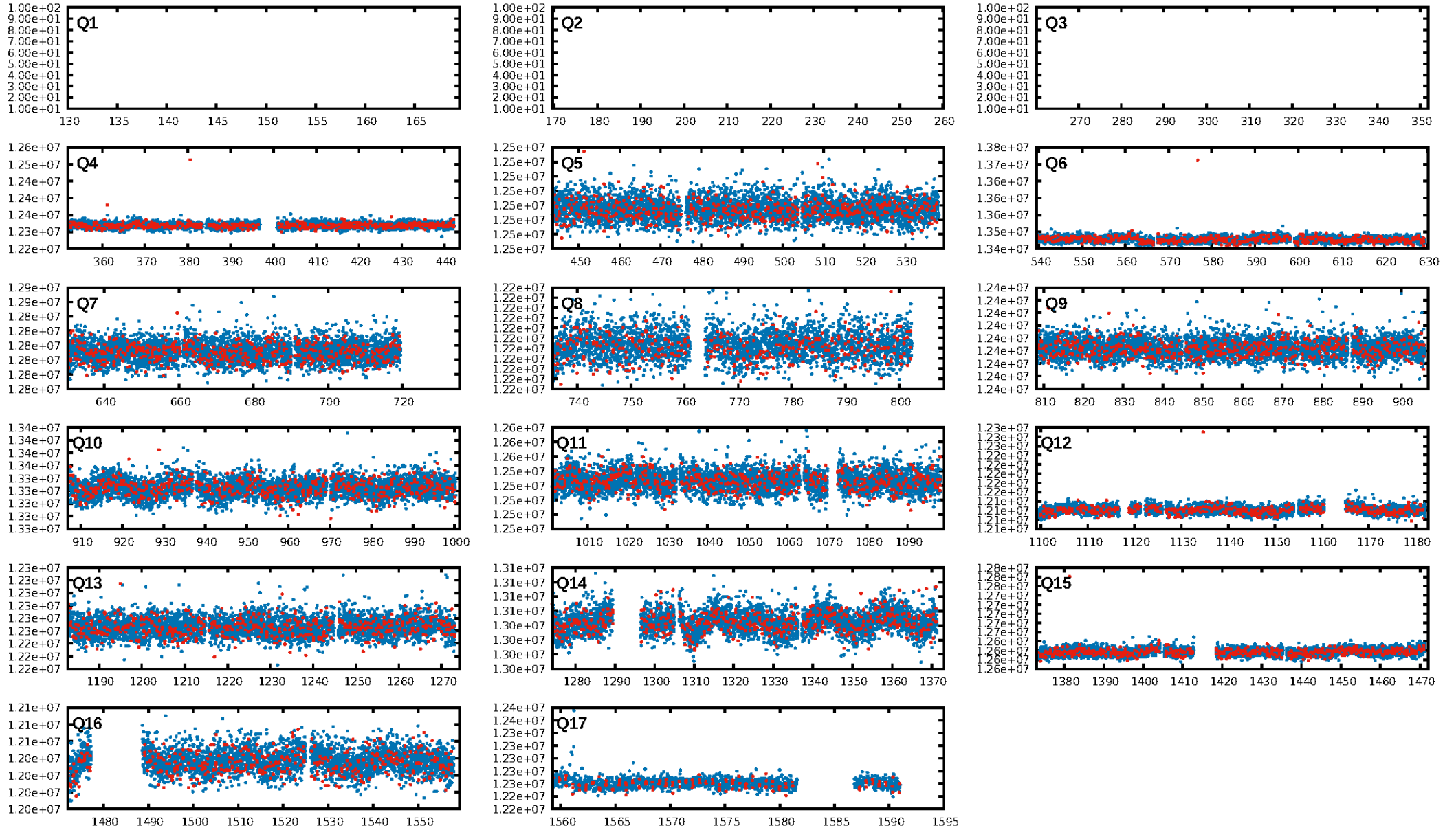
DV Fit Results:

Period = 0.60912 [0.00001] d
Epoch = 132.0859 [0.0019] BKJD
Rp/R* = 0.0087 [0.0248]
a/R* = 5.95 [72.23]
b = 0.06 [220.62]
Seff = 3060.30 [988.84]
Teq = 1897 [153] K
Rp = 0.75 [2.17] Re
a = 0.0135 [0.0027] AU
Ag = 0.57 [4.45] [-0.10σ]
Teffp = 2550 [4960] K [0.13σ]

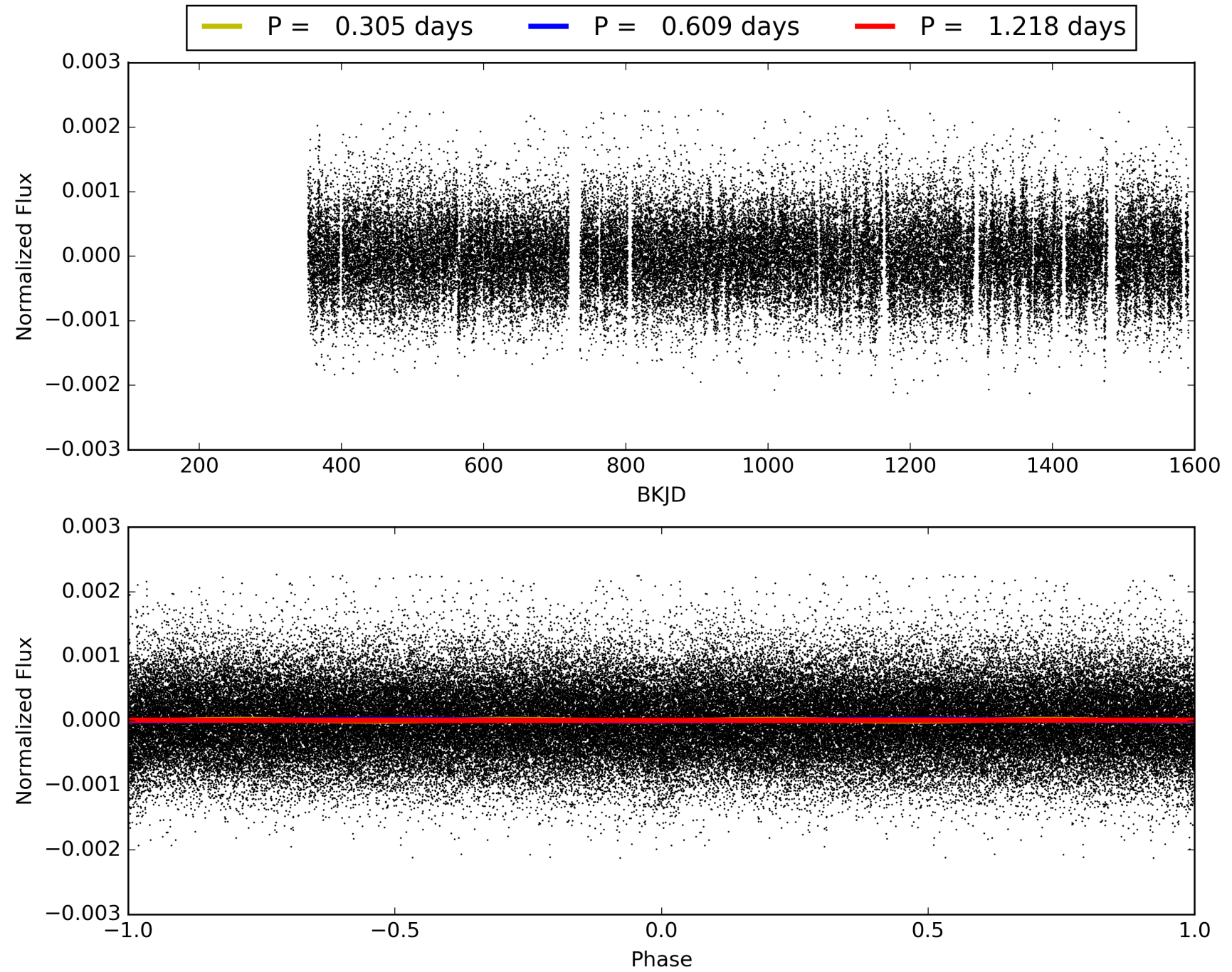
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.38e-17
RollingBand-fgt: 1.00 [1817/1818]
GhostDiagnostic-chr: -0.1792
Centroid-sig: 0.0%
Centroid-so: 28.051 arcsec [16.55σ]
OotOffset-rm: 7.630 arcsec [41.70σ]
KicOffset-rm: 7.529 arcsec [41.40σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011144439-01, PDC Light Curves

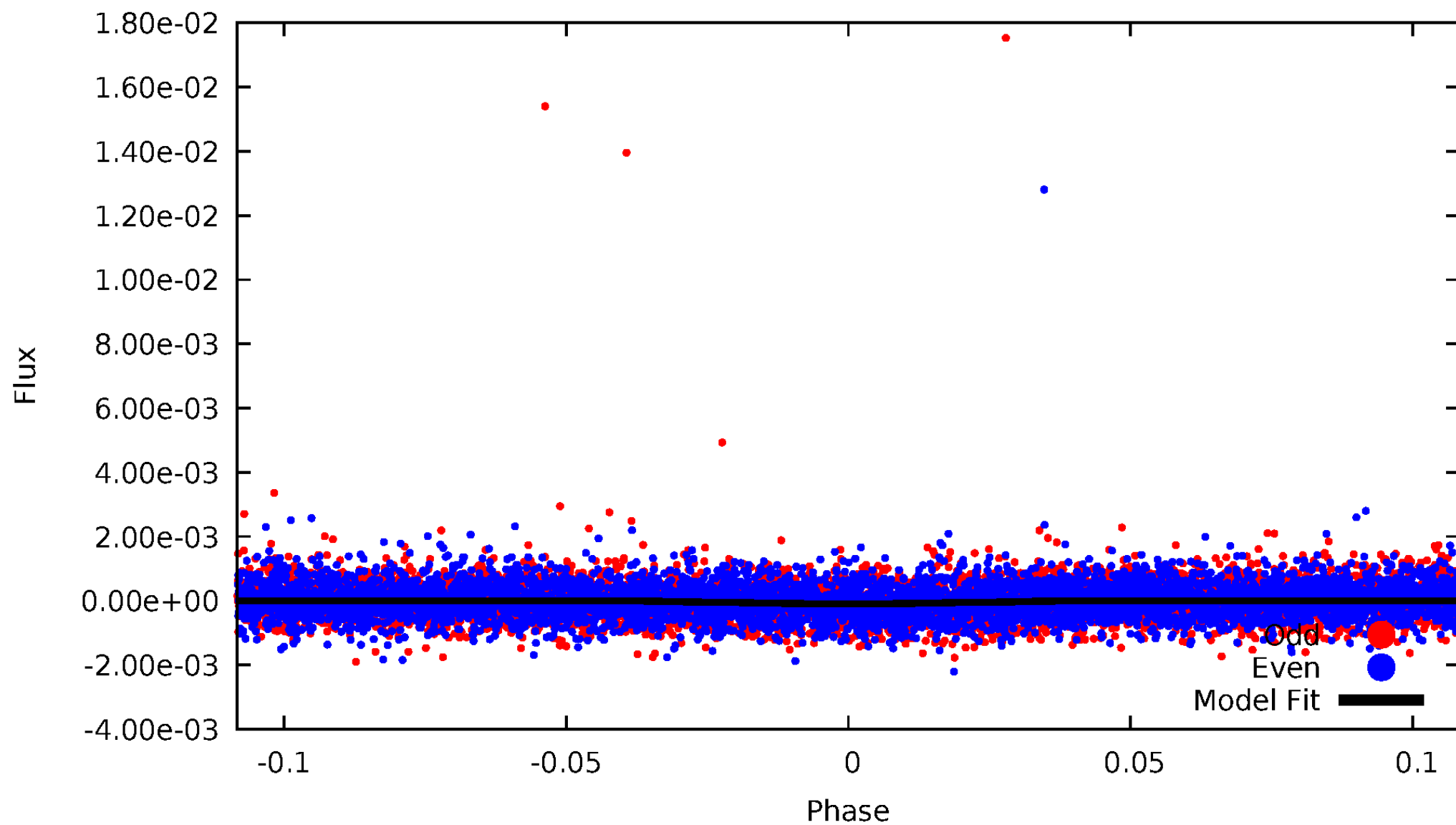


TCE 011144439-01



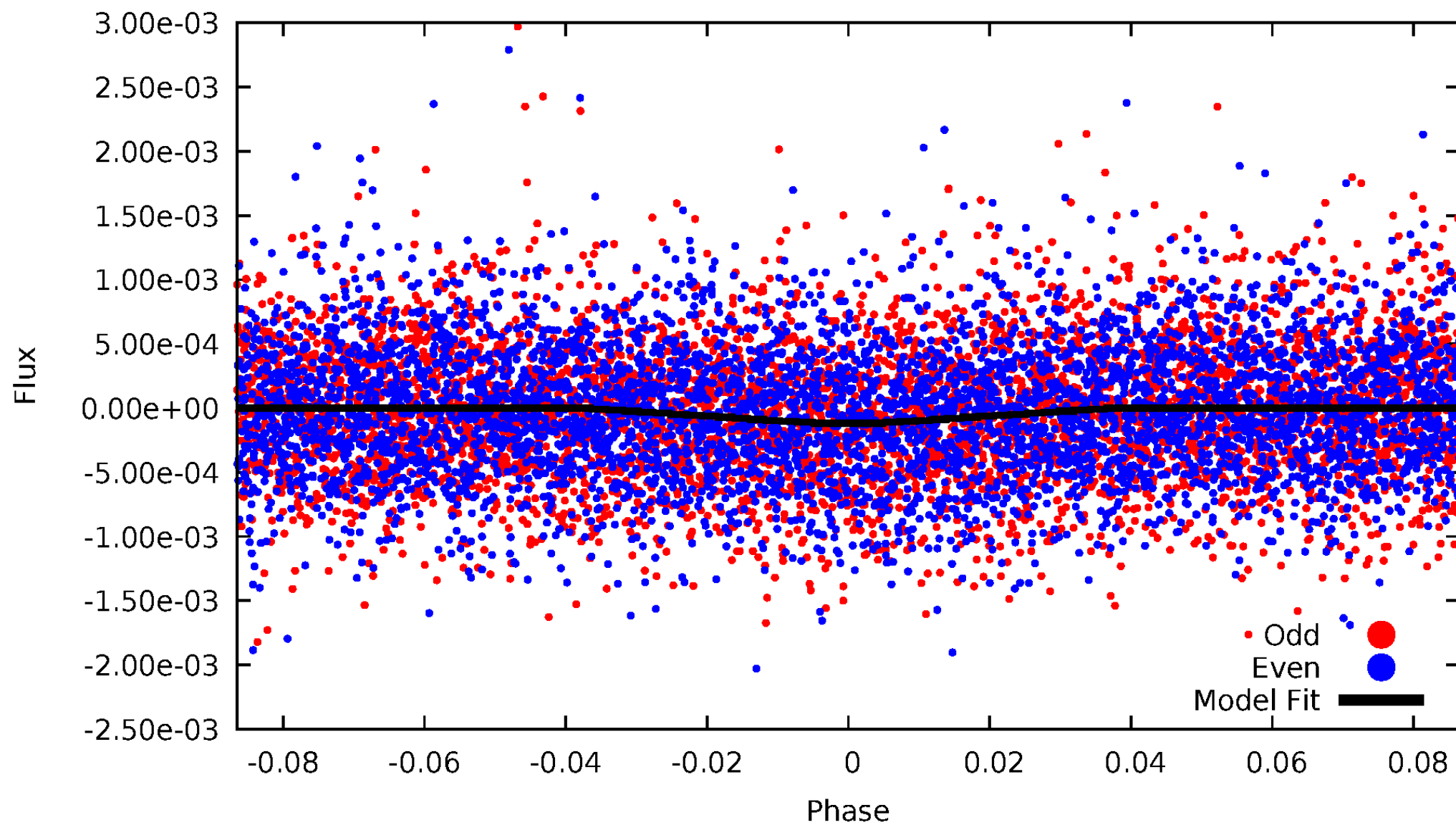
DV Odd/Even

TCE 011144439-01



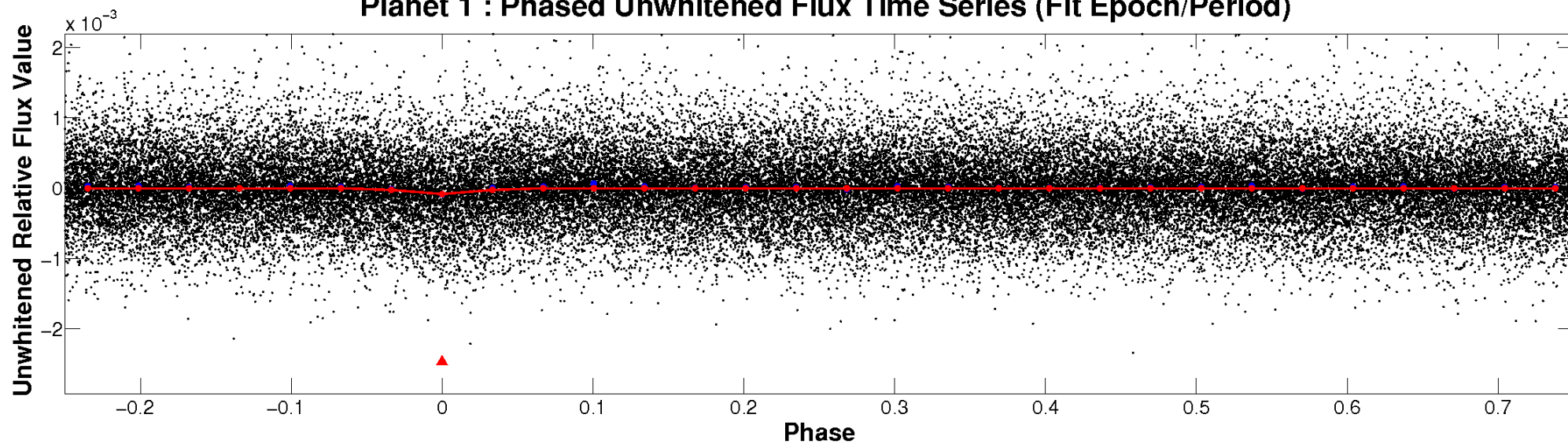
ALT Odd/Even

TCE 011144439-01

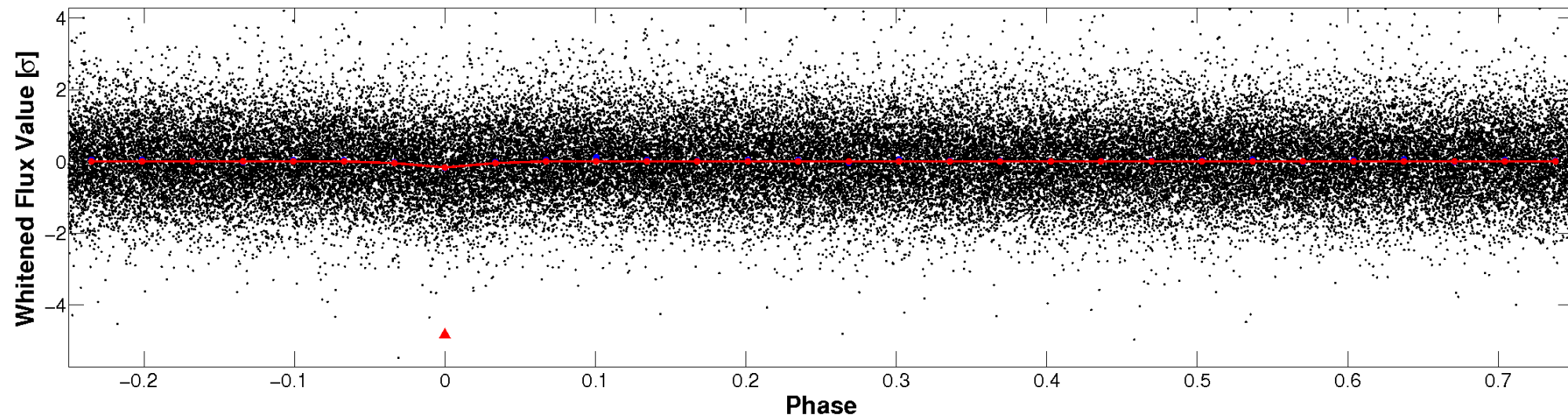


Non-Whitened Vs. Whitened Light Curve

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

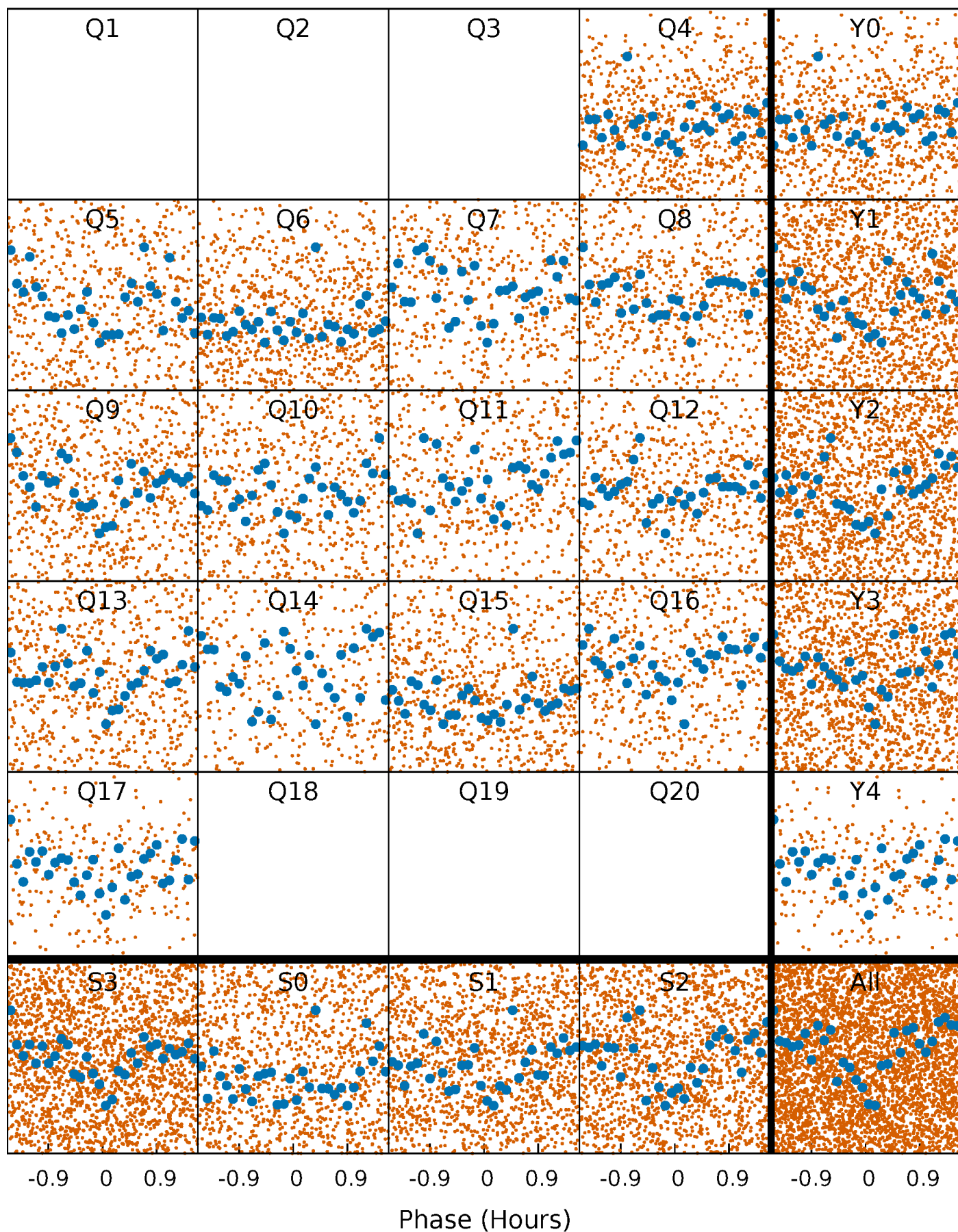


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



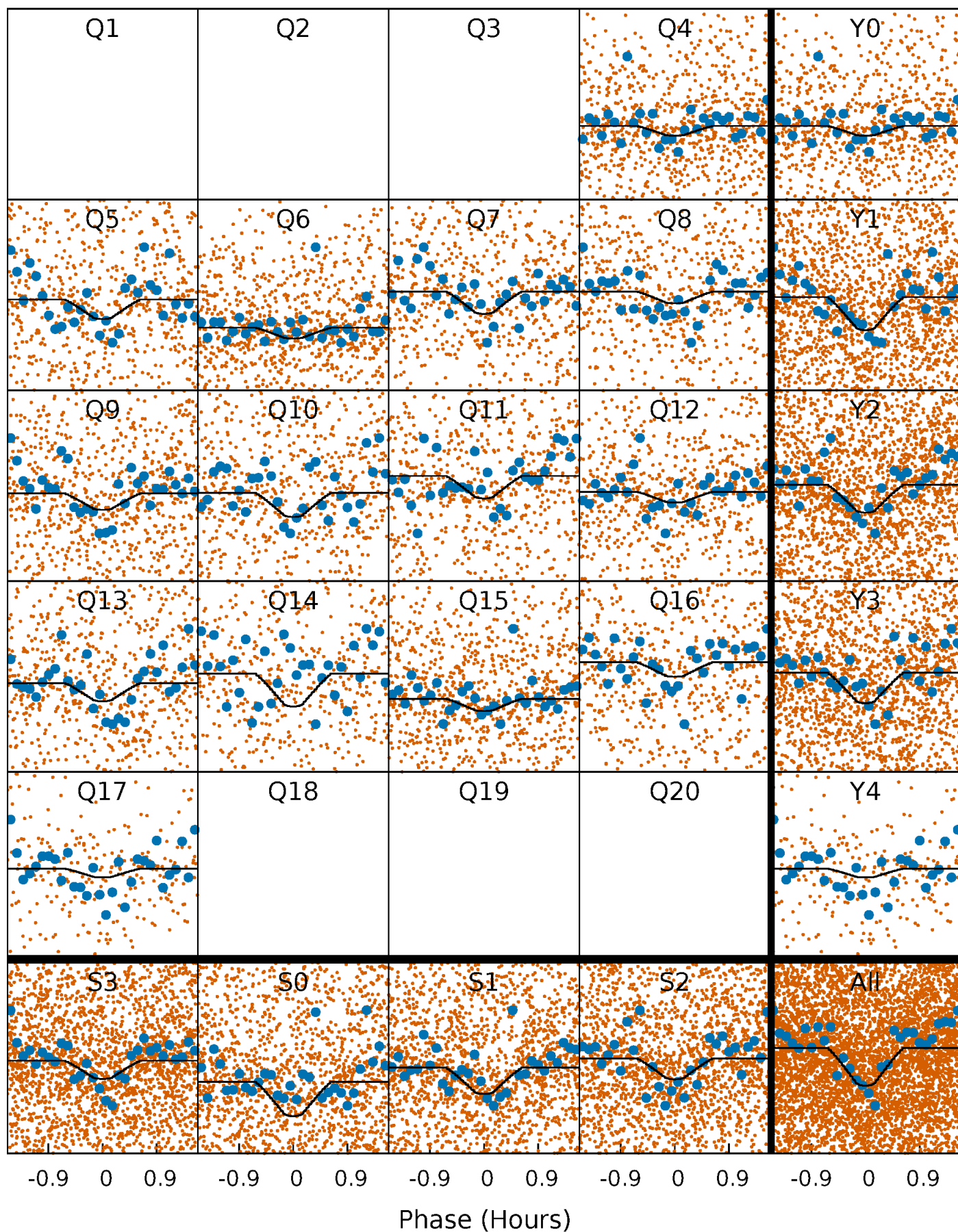
PDC Quarter-Phased Transit Curves

TCE 011144439-01 P= 0.609122 Days $T_0=132.085894$ (BKJD)



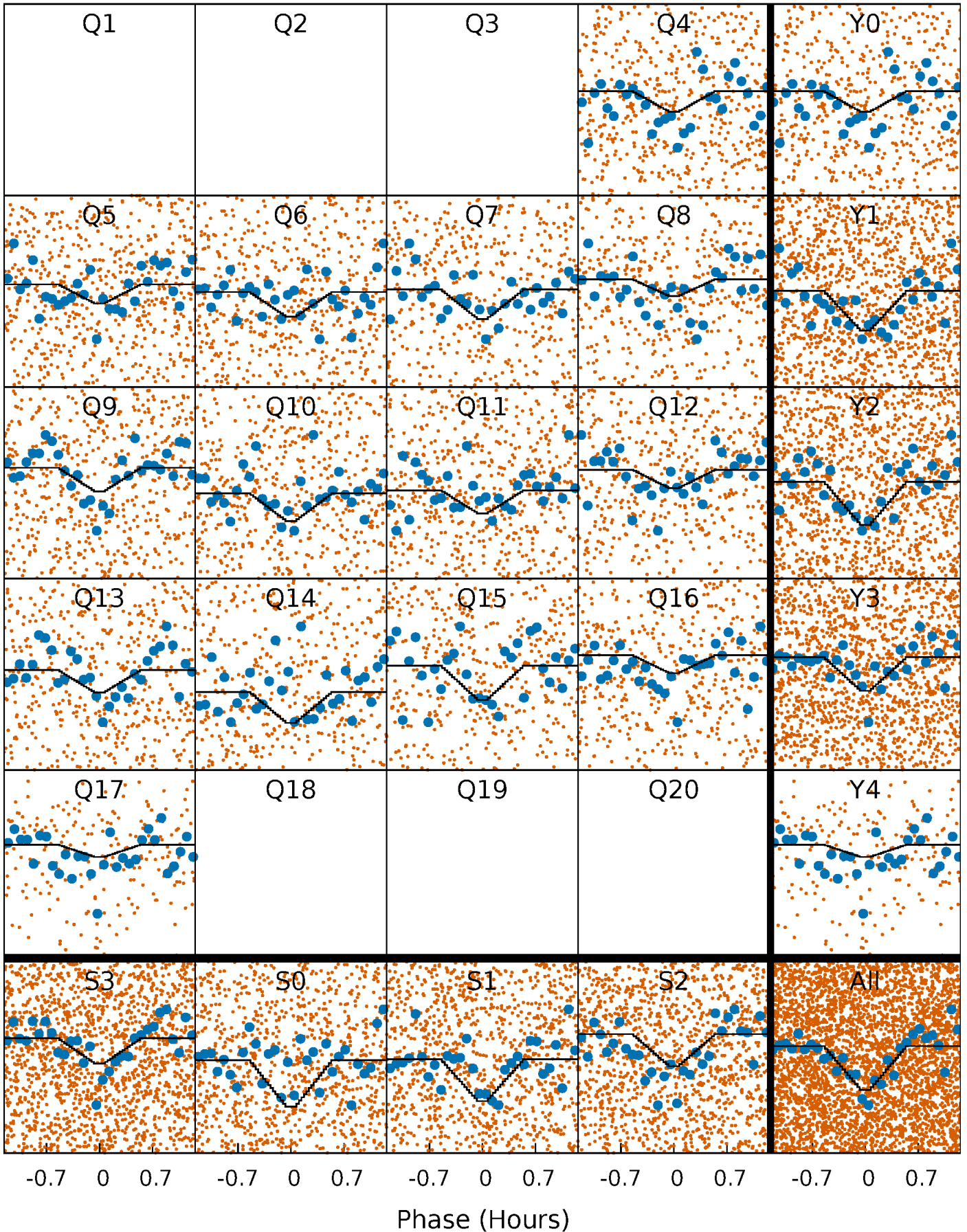
DV Quarter-Phased Transit Curves

TCE 011144439-01 P= 0.609122 Days $T_0=132.085894$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

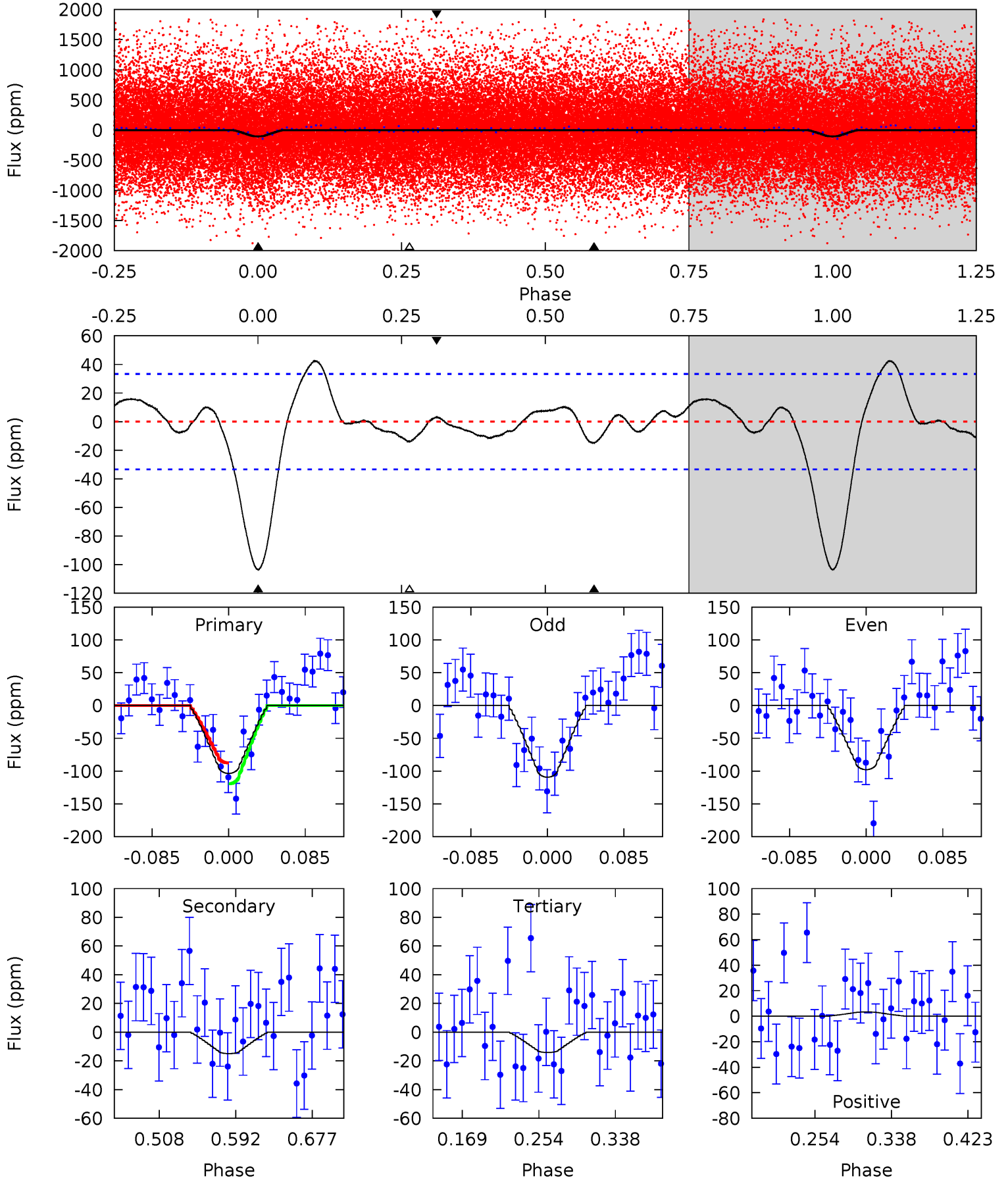
TCE 011144439-01 P= 0.609126 Days $T_0=132.081144$ (BKJD)



DV Model-Shift Uniqueness Test

011144439-01, P = 0.609122 Days, E = 132.085894 Days

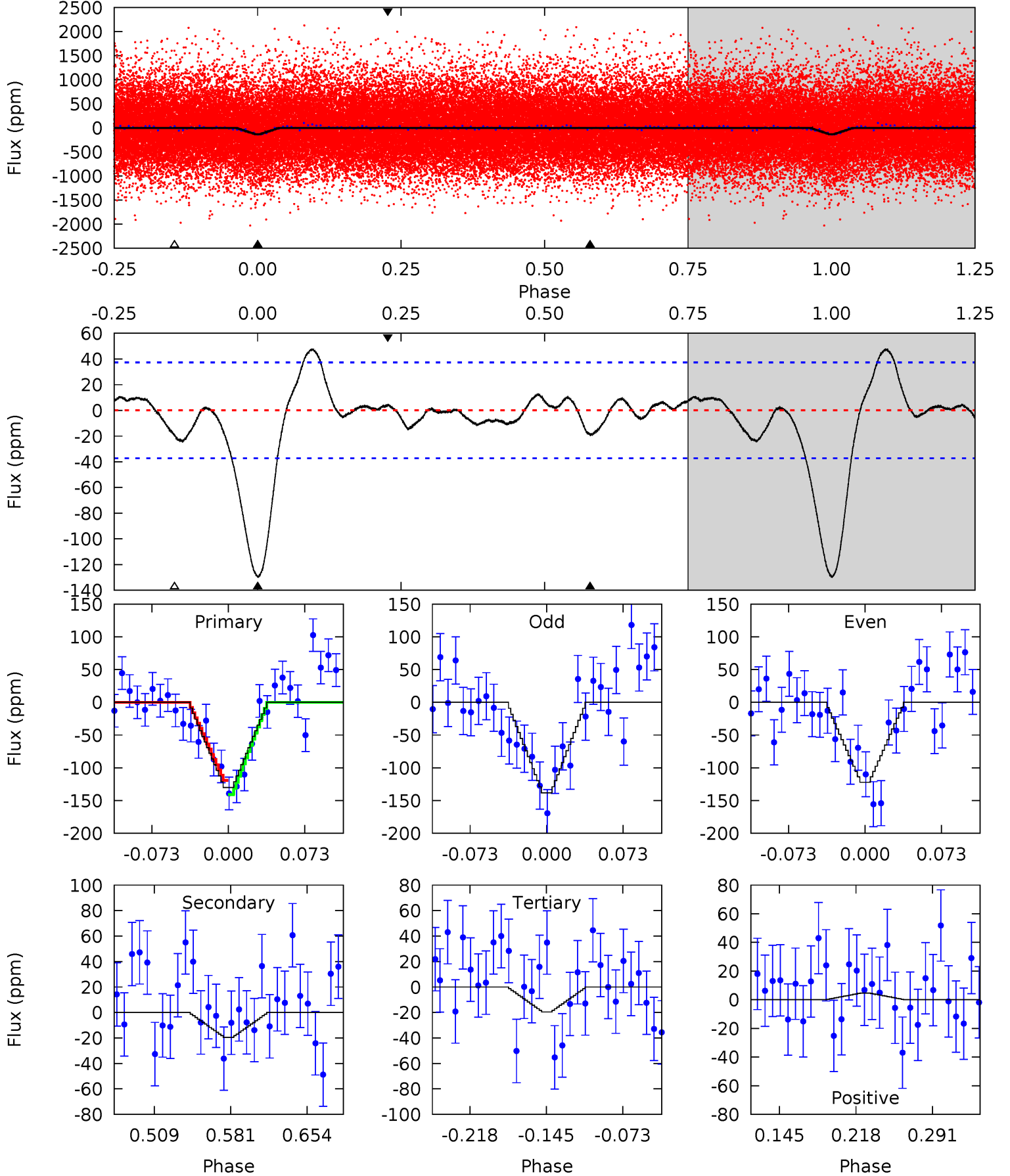
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.3	2.06	1.96	0.45	4.60	1.72	1.63	12.3	13.8	0.10	1.61	0.80	0.95	0.29	2.21



Alt Model-Shift Uniqueness Test

011144439-01, P = 0.609126 Days, E = 132.081144 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	2.43	2.44	0.58	4.63	1.79	1.60	13.7	15.6	-0.01	1.84	1.01	1.10	0.27	1.36



Stellar Parameters For KIC 011144439

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5595^{+186}_{-186}	$4.581^{+0.040}_{-0.160}$	$-0.240^{+0.300}_{-0.300}$	$0.796^{+0.194}_{-0.077}$	$0.890^{+0.088}_{-0.107}$	$2.487^{+0.510}_{-1.122}$
	+3%/-3%	+1%/-3%	+125%/-125%	+24%/-10%	+10%/-12%	+20%/-45%
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 011144439-01 / KOI 7412.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 7	$1.84^{+1.83}_{-1.29}$	2707^{+168}_{-120}	2567^{+1949}_{-5362}	$0.414^{+3.917}_{-0.327}$
Alt.	-20 ± 8	$1.84^{+1.88}_{-1.20}$	2703^{+155}_{-125}	2775^{+1658}_{-5485}	$0.499^{+4.097}_{-0.375}$

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 $A_{obs} \gg 1.0$

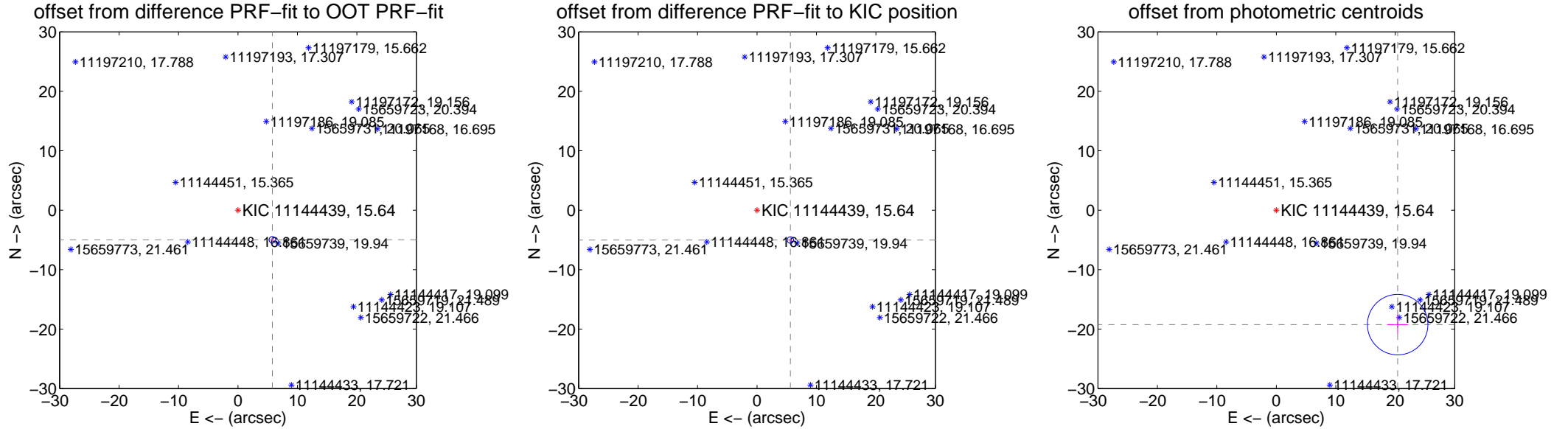
DV Centroid Data

Supplemental centroid analysis for 011144439-01. Kepler magnitude: 15.64. Transit SNR 7.92

There are 1 quarters with good PRF difference image offsets

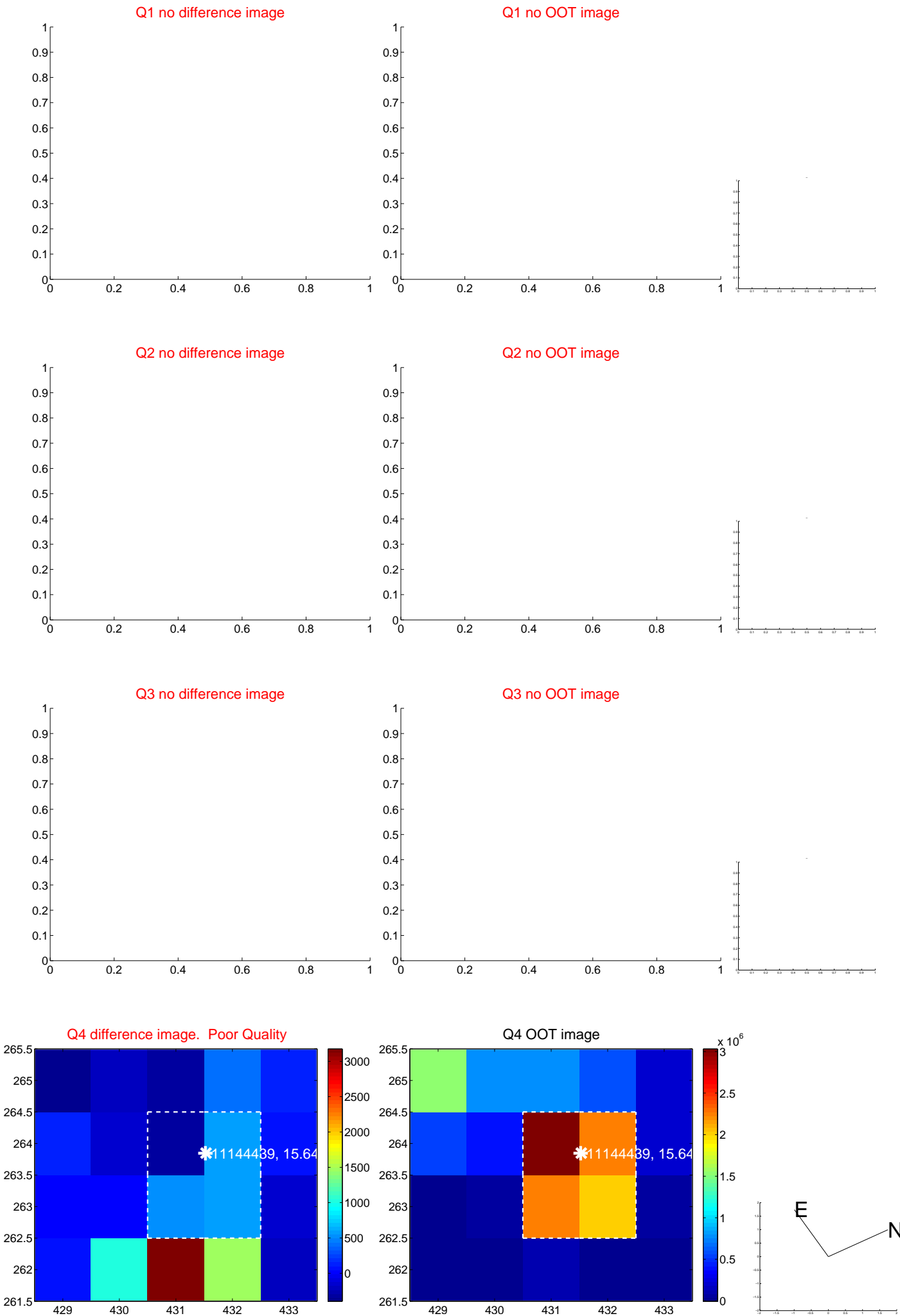
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.630 ± 0.183	41.70	-5.782 ± 0.208	-4.979 ± 0.143
PRF-fit source offset from KIC position	7.529 ± 0.182	41.40	-5.614 ± 0.208	-5.017 ± 0.143
photometric centroid source offset	28.05 ± 1.70	16.55	-20.41 ± 1.79	-19.25 ± 1.58

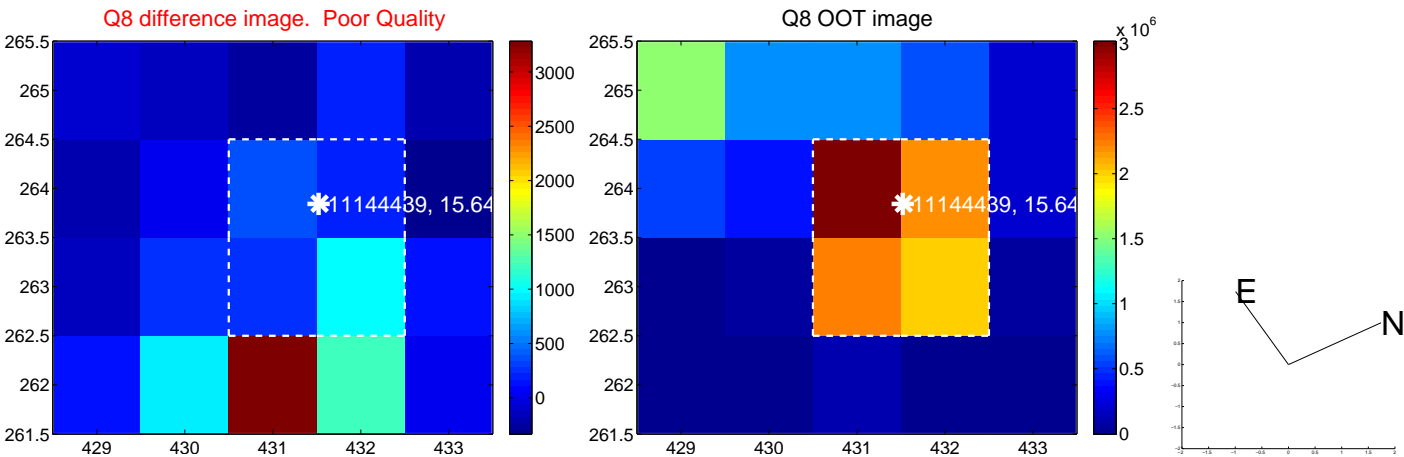
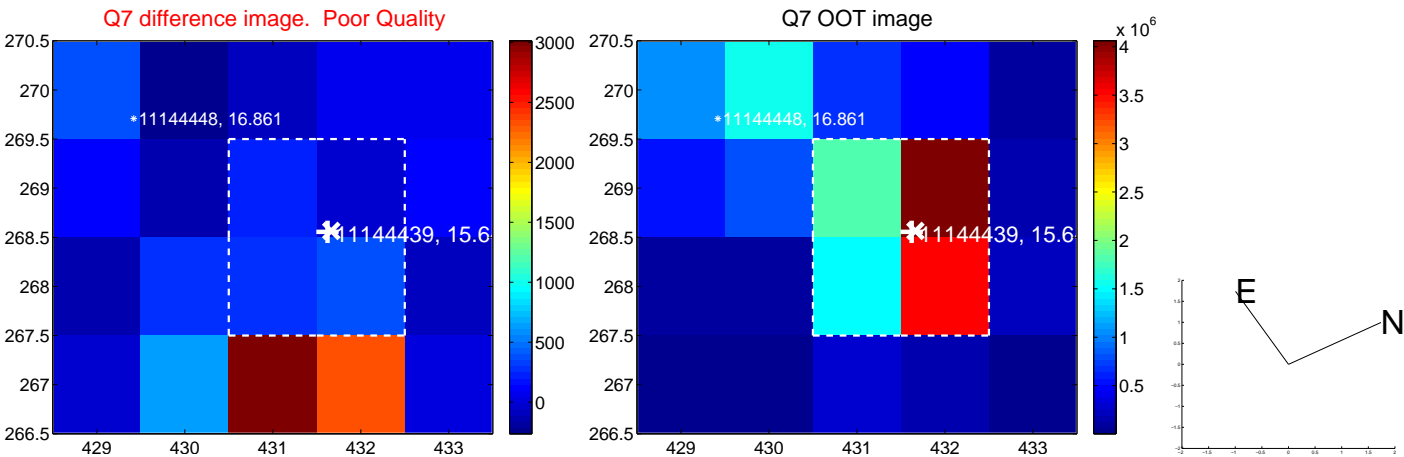
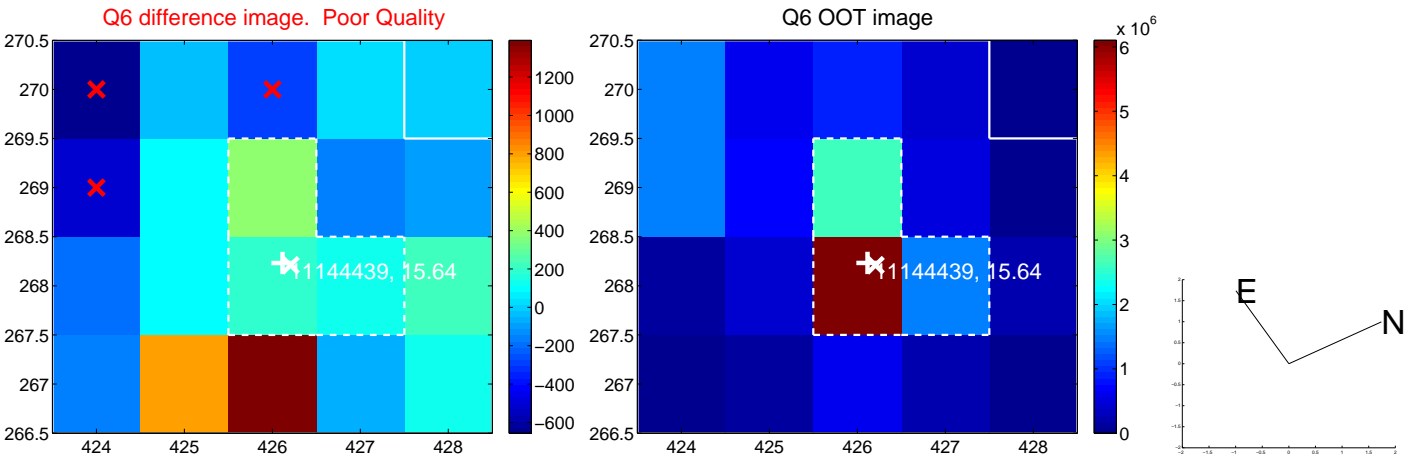
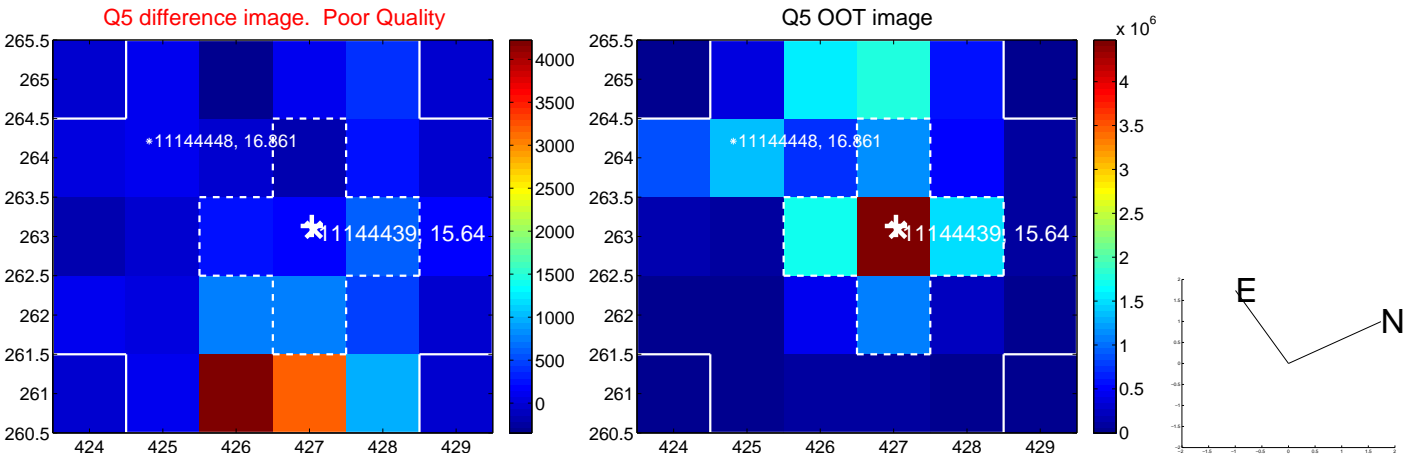


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

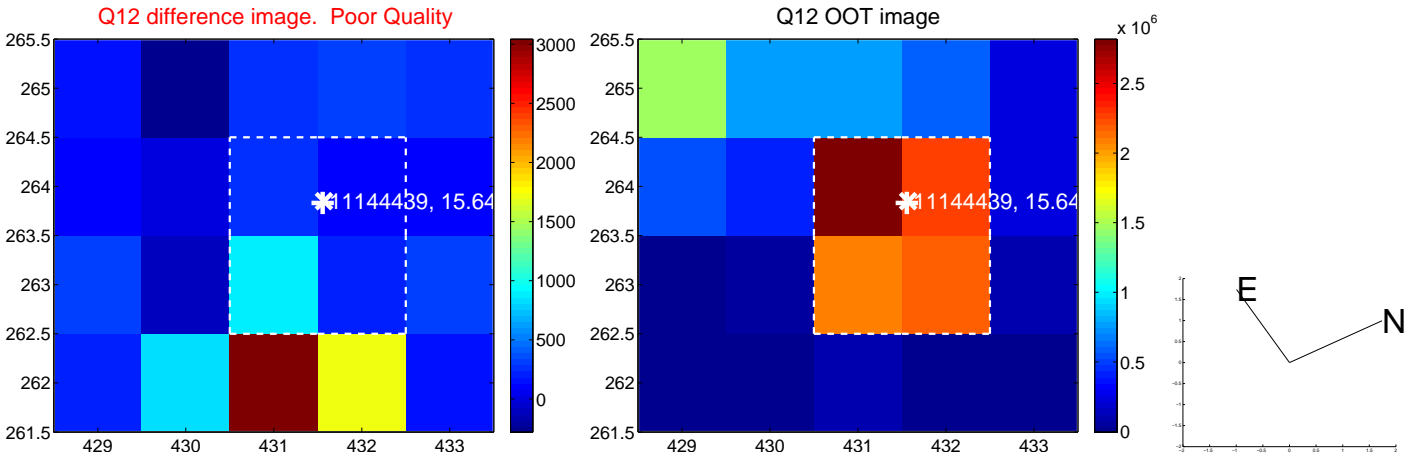
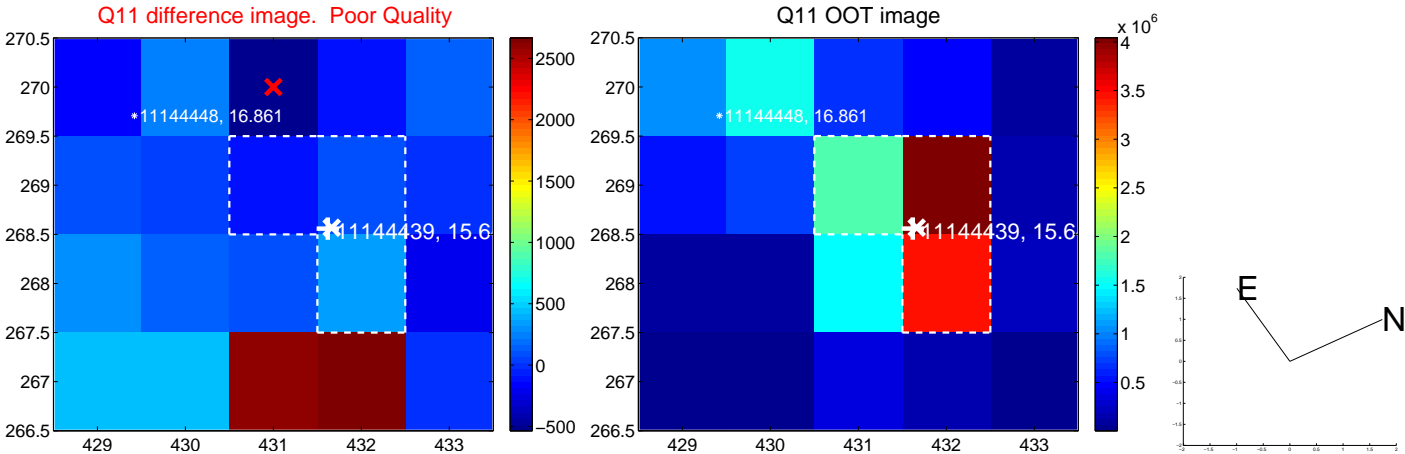
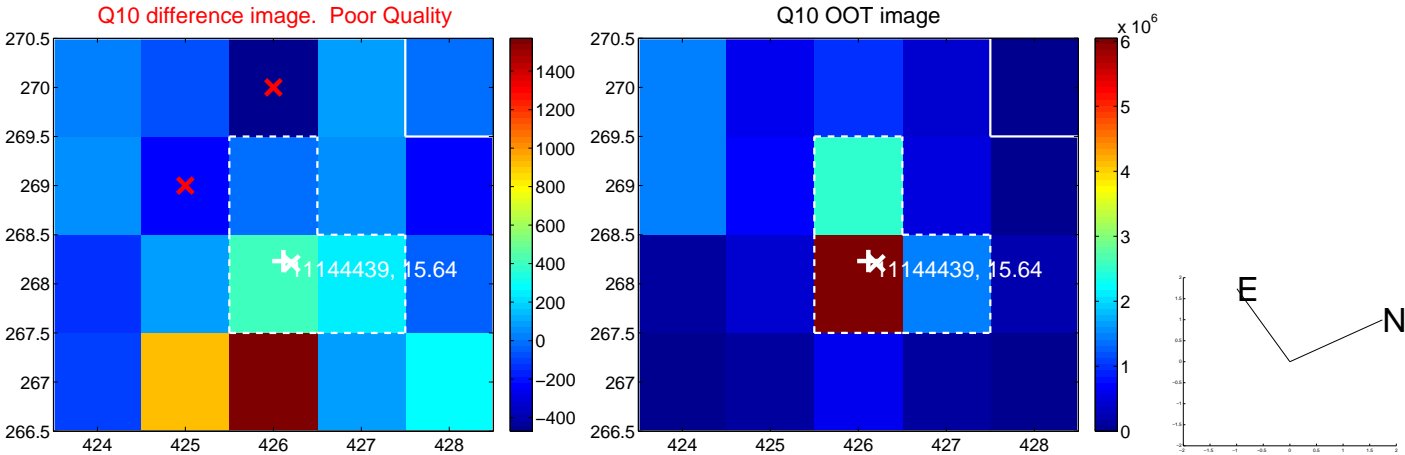
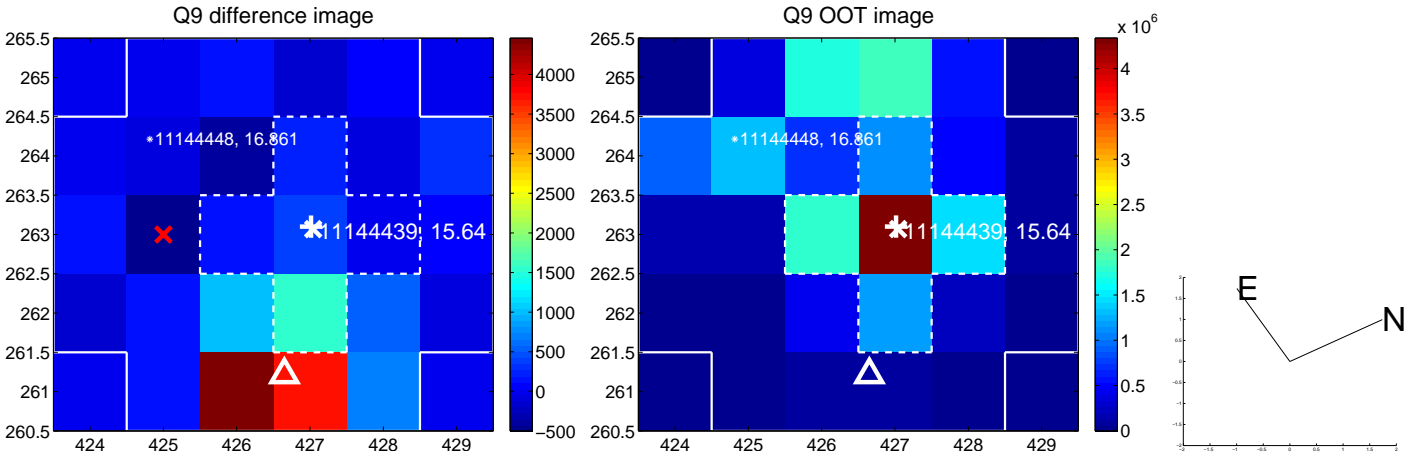
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



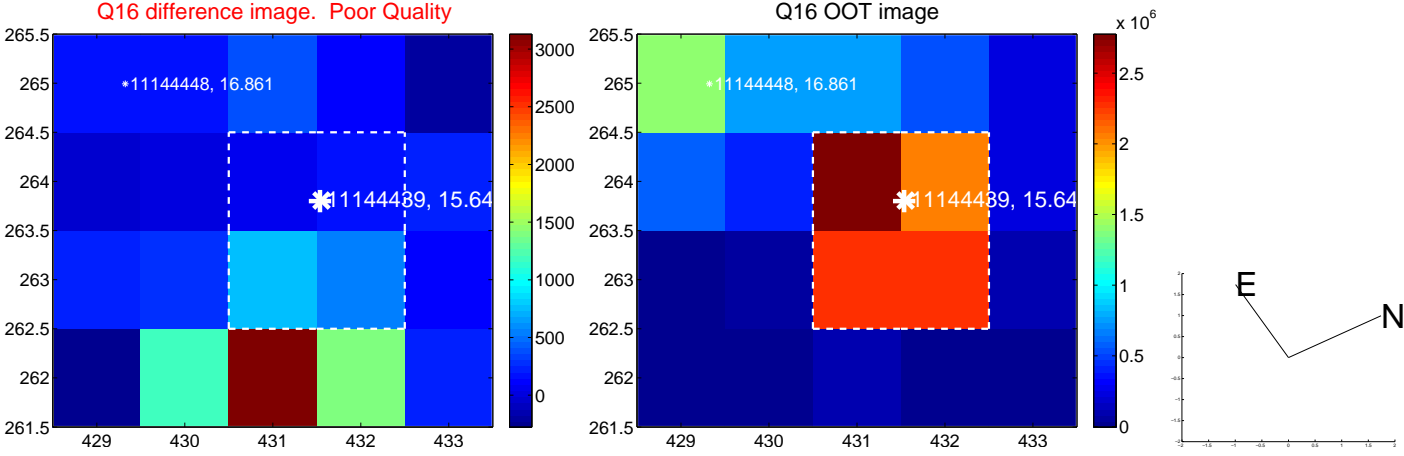
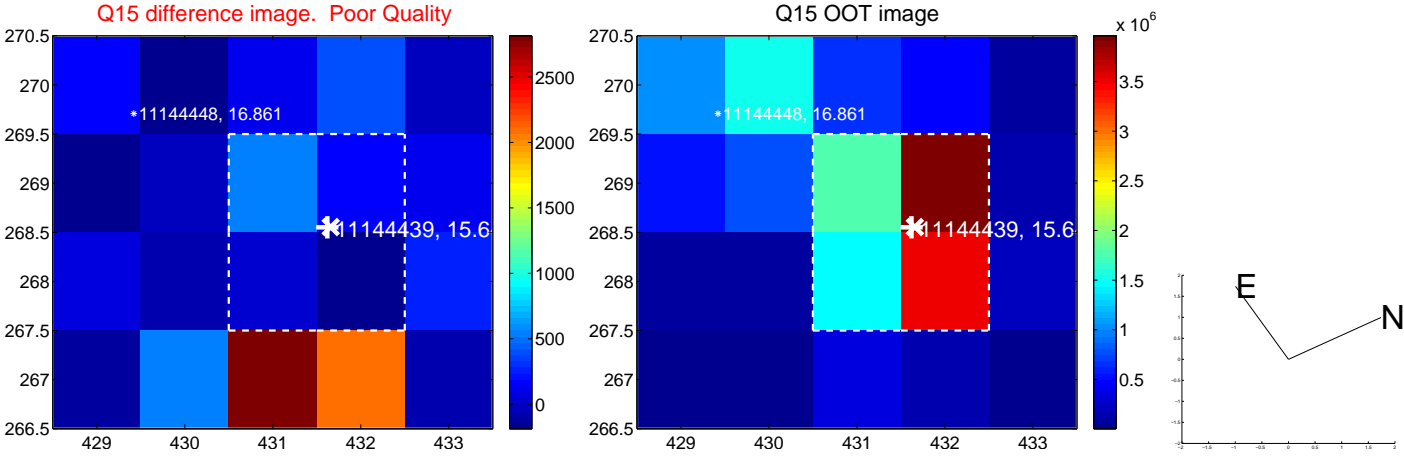
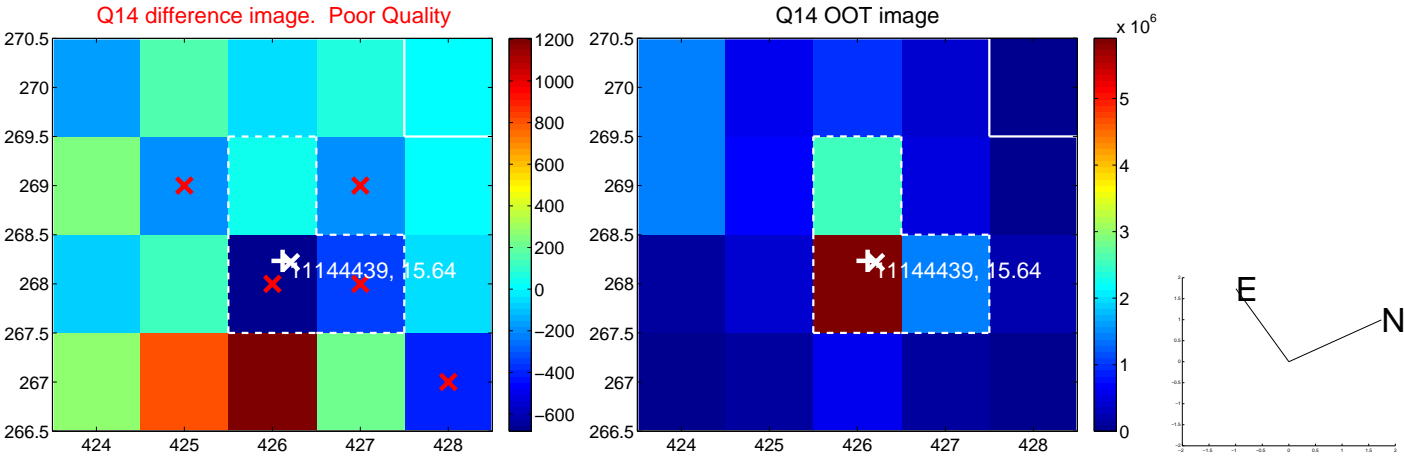
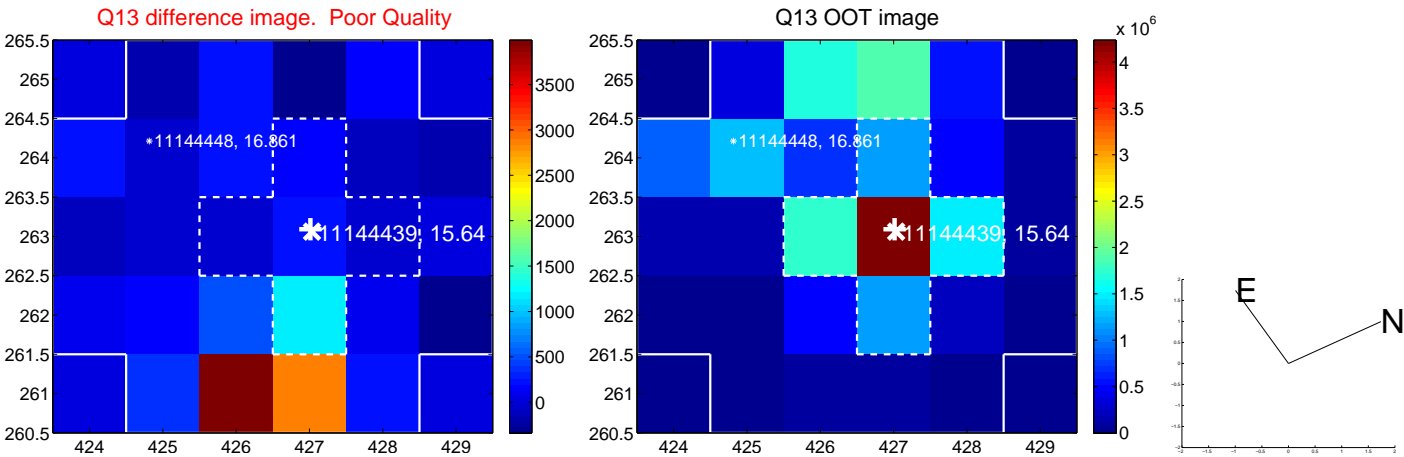
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



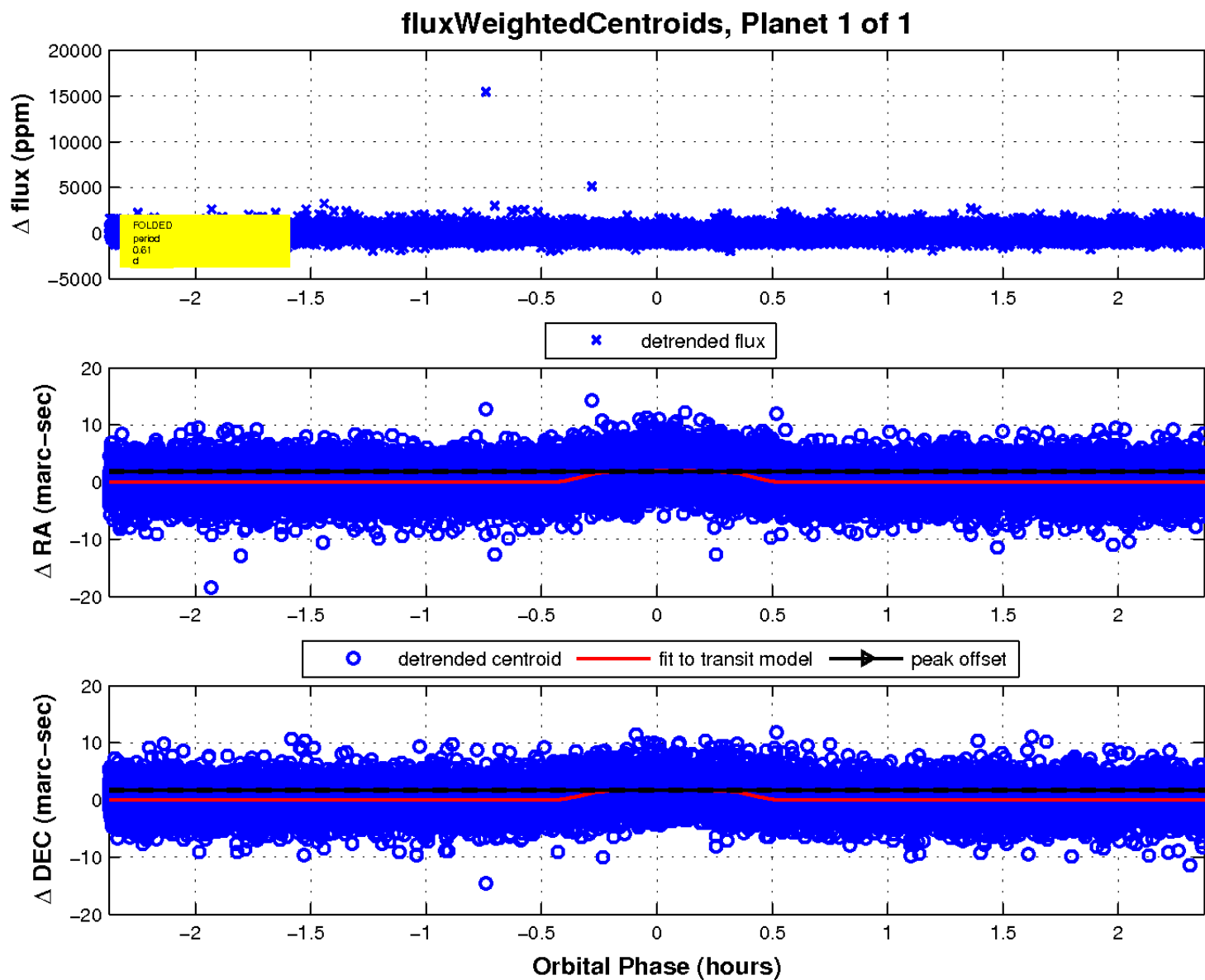
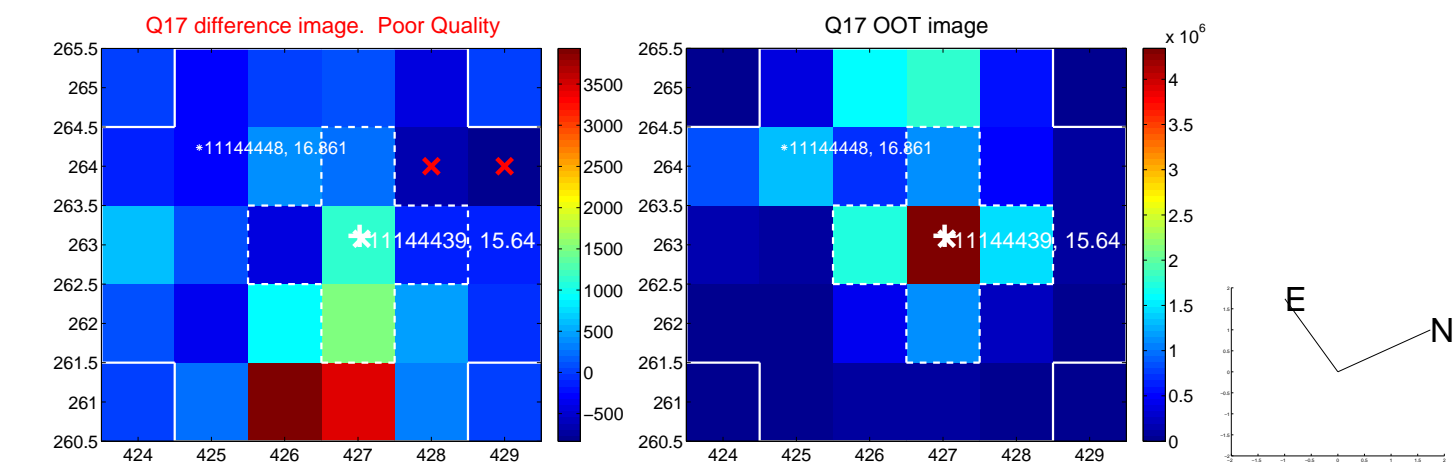
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

