

KIC 011338056

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})
011338056-01	OBS	4735.01	2.879985	134.370098	112.0	1.310	8.5	8.6	0.81	4951	0.90	260.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011338056-01	OBS	PC	0.97	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.

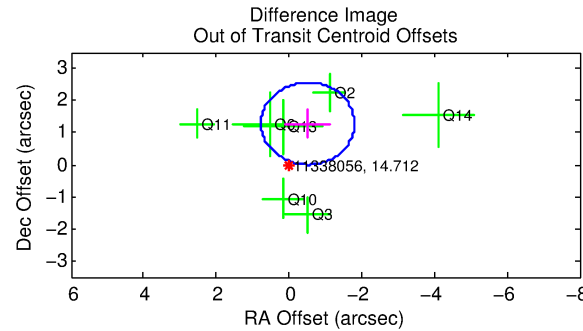
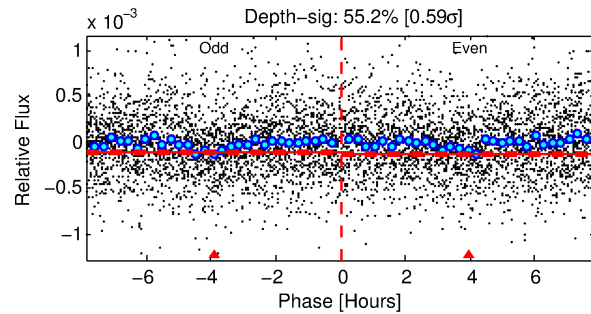
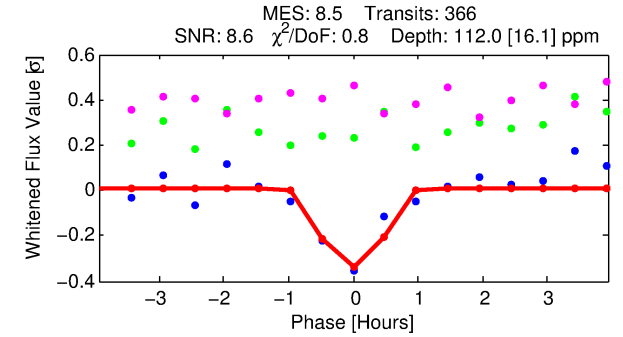
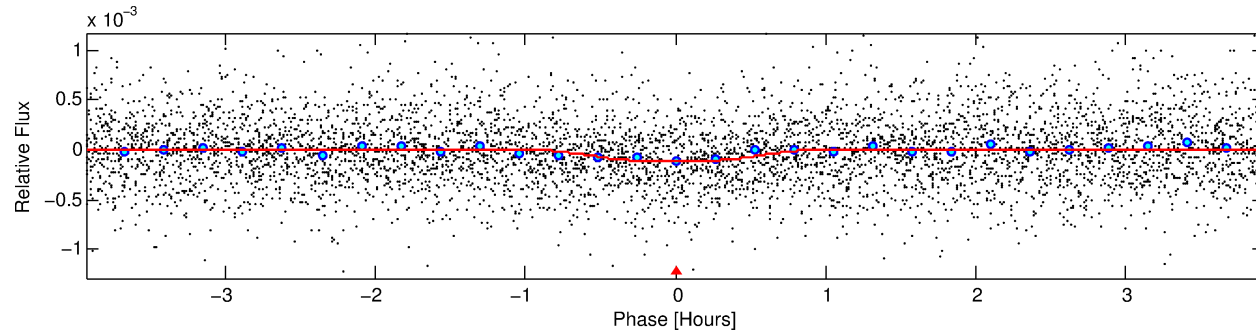
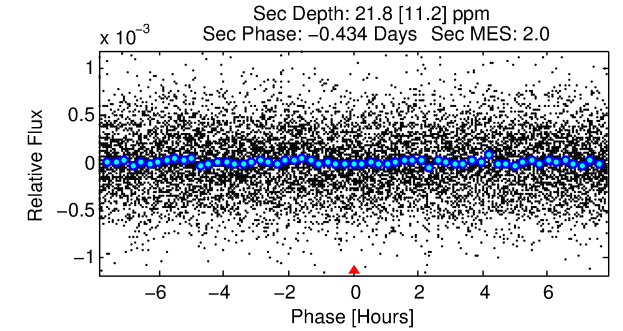
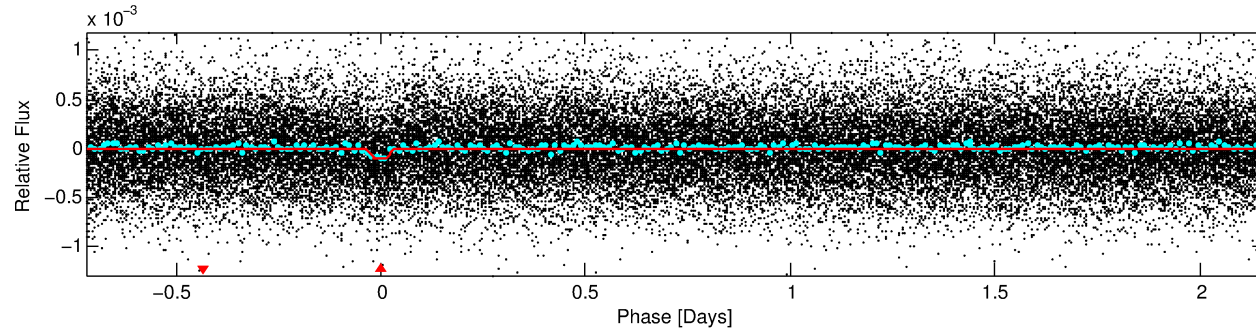
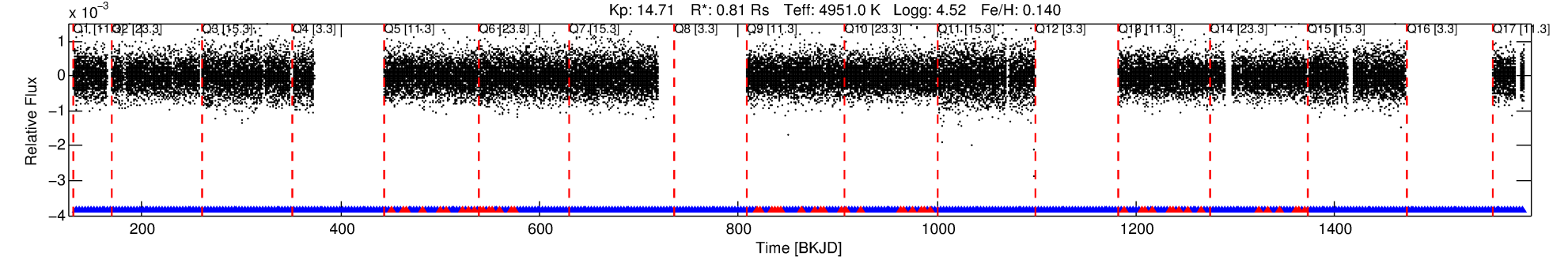
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011338056-01

No Significant Match Found

DV One-Page Summary

KIC: 11338056 Candidate: 1 of 1 Period: 2.880 d
KOI: K04735.01 Corr: 0.887



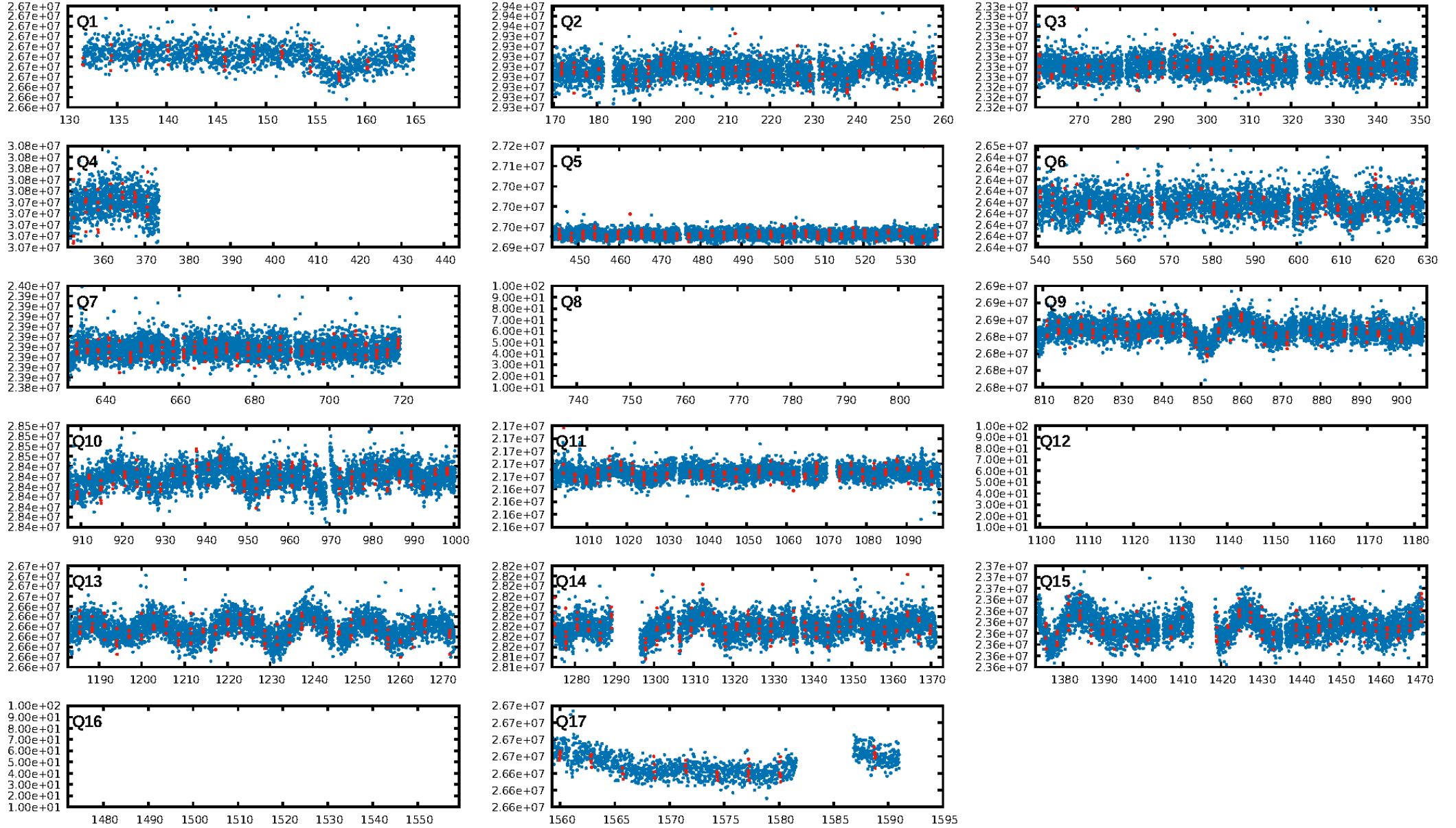
DV Fit Results:

Period = 2.87999 [0.00002] d
Epoch = 134.3701 [0.0028] BKJD
Rp/R* = 0.0103 [0.0076]
a/R* = 12.86 [31.95]
b = 0.66 [2.18]
Seff = 260.64 [32.36]
Teff = 1025 [32] K
Rp = 0.90 [0.67] Re
a = 0.0366 [0.0024] AU
Ag = 19.72 [31.00] [0.60σ]
Teffp = 3338 [1310] K [1.77σ]

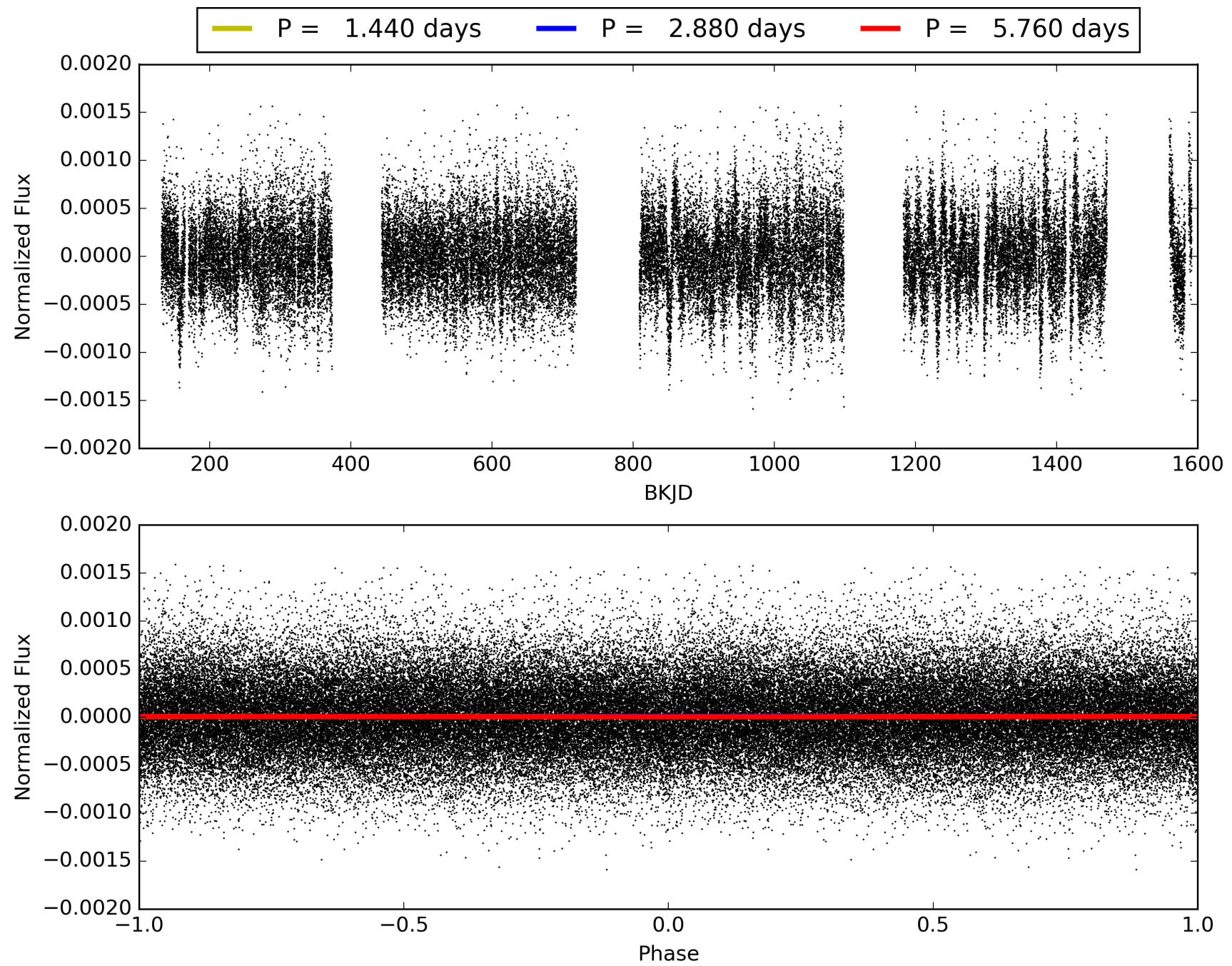
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.64e-17
RollingBand-fgt: 0.85 [288/338]
GhostDiagnostic-chr: 2.328
Centroid-sig: 24.2%
Centroid-so: 2.756 arcsec [1.57σ]
OotOffset-rm: 1.380 arcsec [3.23σ]
KicOffset-rm: 1.817 arcsec [3.16σ]
OotOffset-st: 4/2/0/1 [7]
KicOffset-st: 4/2/0/1 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011338056-01, PDC Light Curves

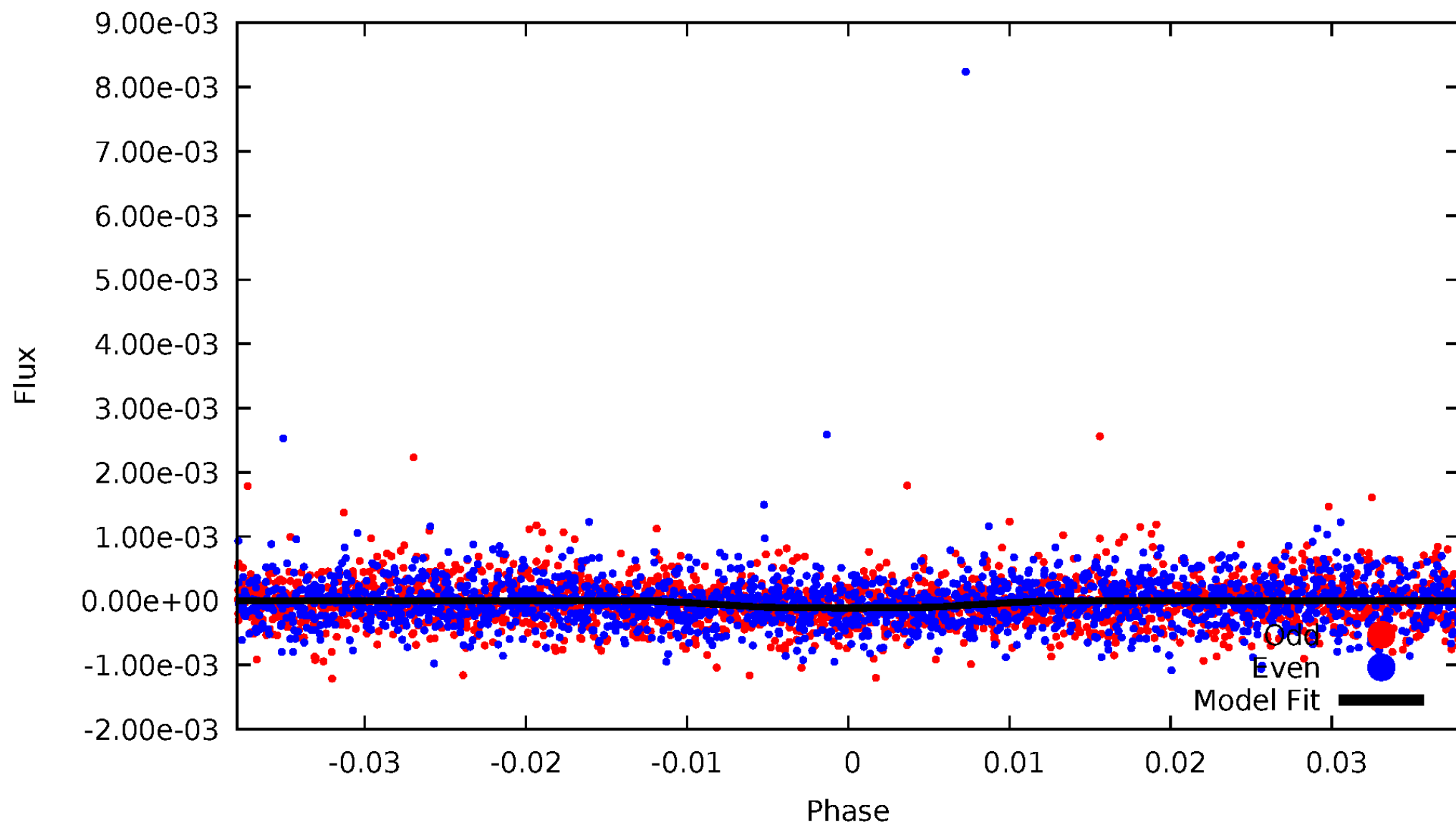


TCE 011338056-01



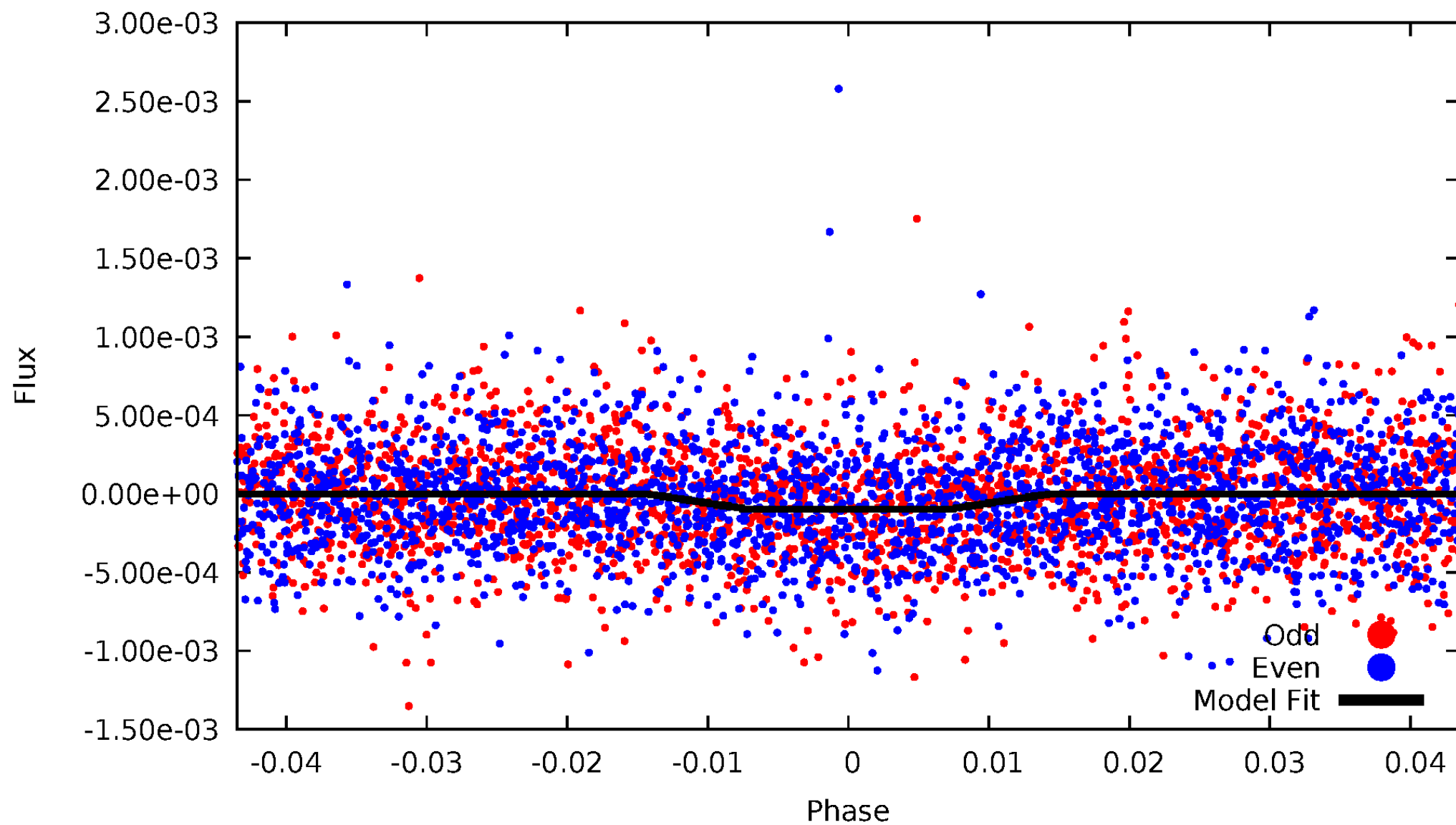
DV Odd/Even

TCE 011338056-01



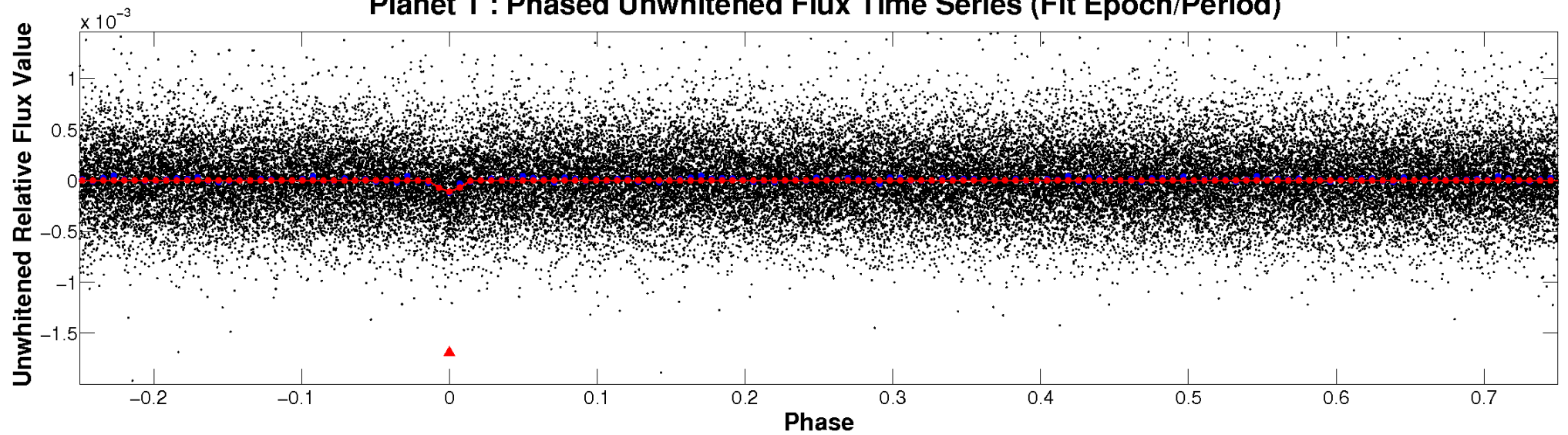
ALT Odd/Even

TCE 011338056-01

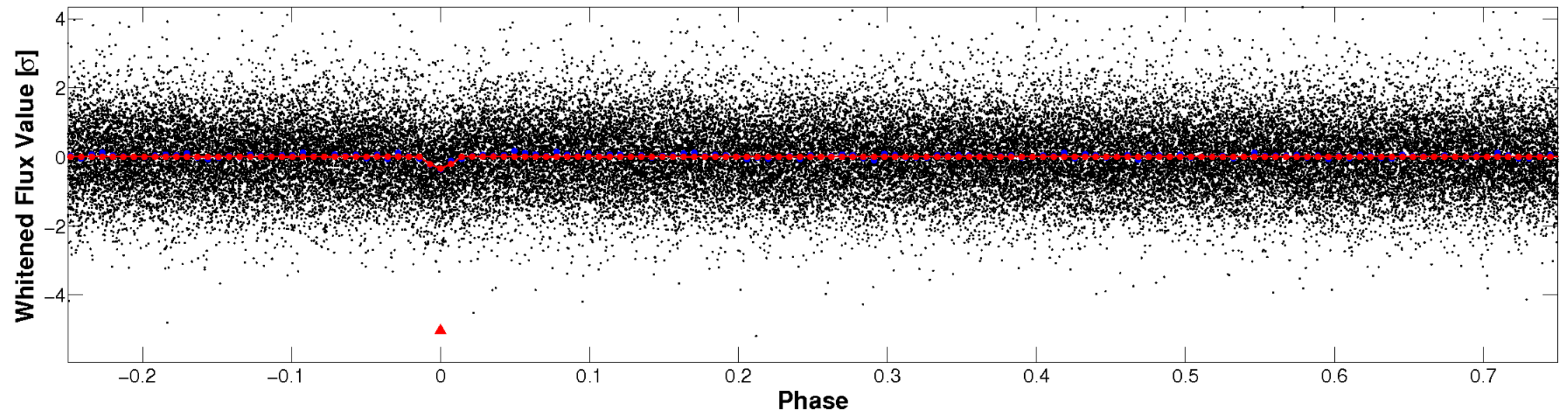


Non-Whitened Vs. Whitened Light Curve

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

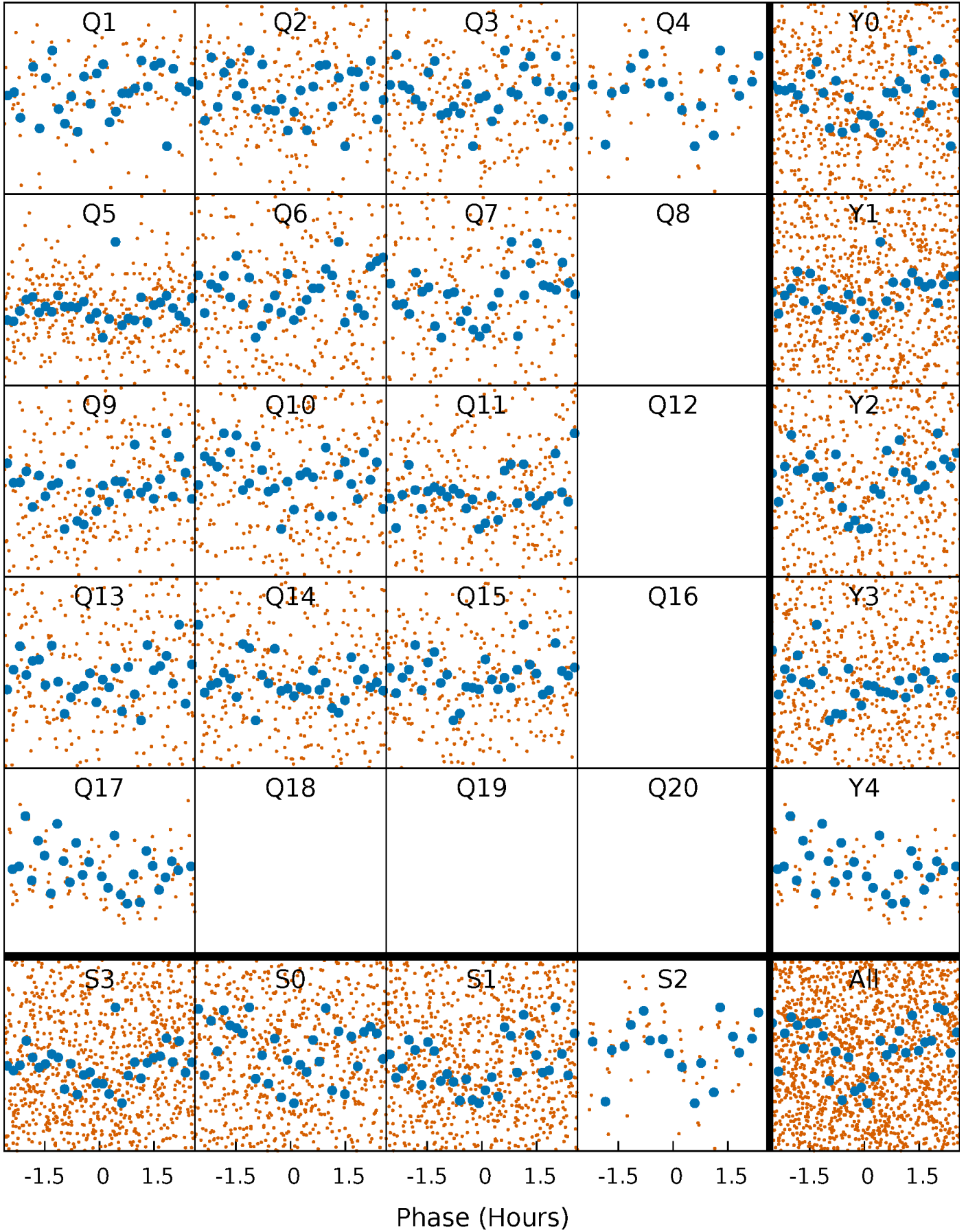


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



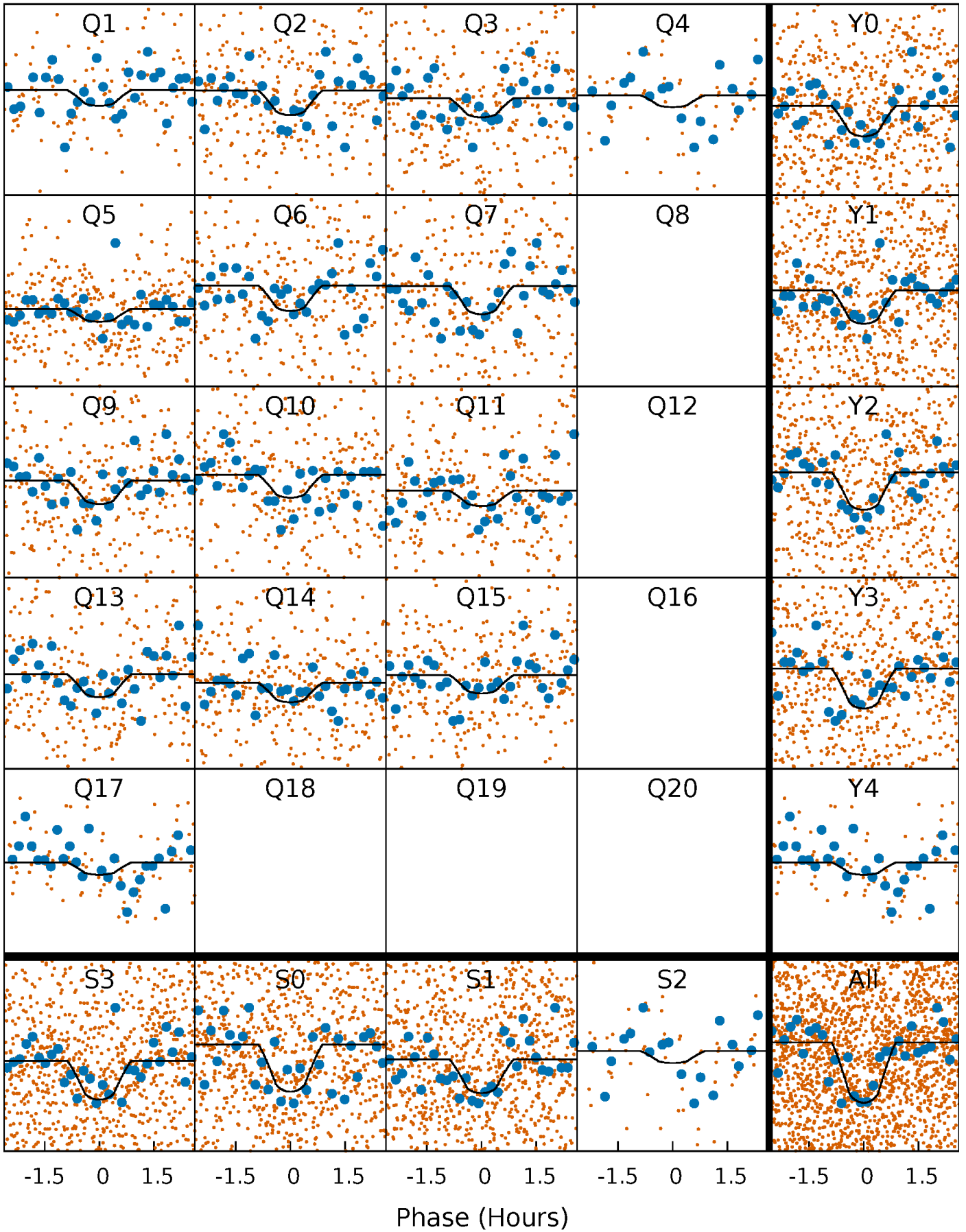
PDC Quarter-Phased Transit Curves

TCE 011338056-01 P= 2.879985 Days $T_0=134.370098$ (BKJD)



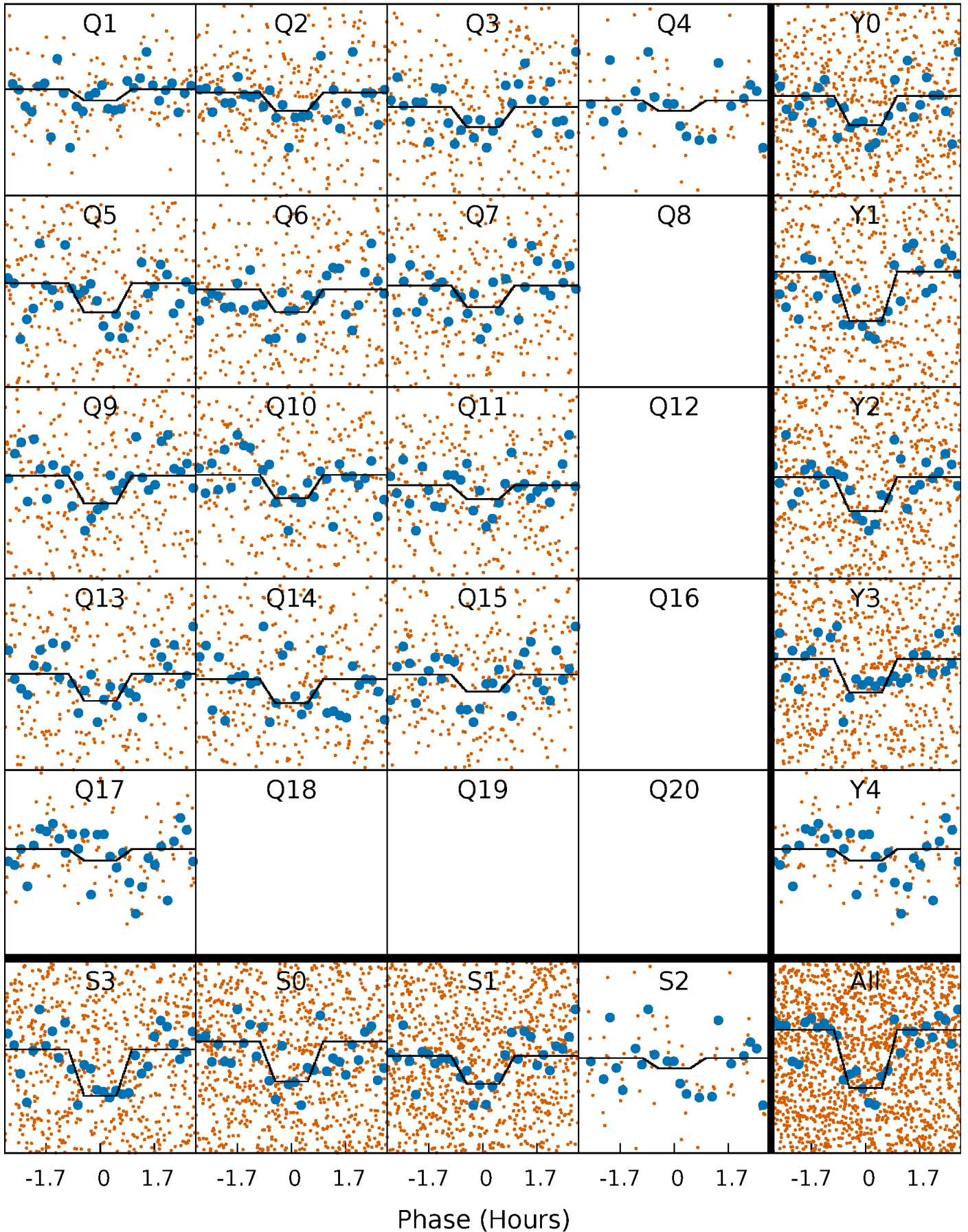
DV Quarter-Phased Transit Curves

TCE 011338056-01 P= 2.879985 Days $T_0=134.370098$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

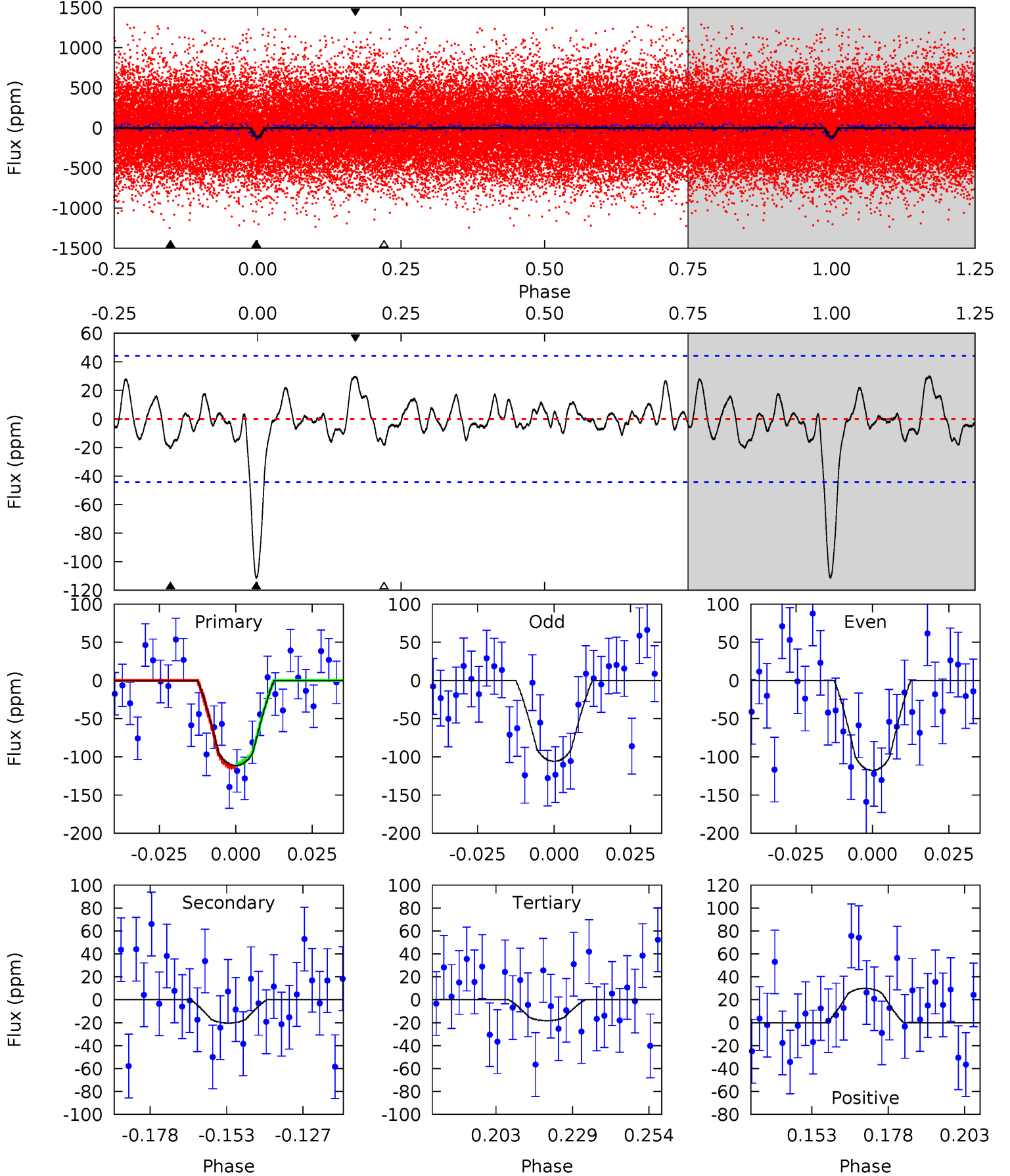
TCE 011338056-01 P= 2.879961 Days $T_0=134.369376$ (BKJD)



DV Model-Shift Uniqueness Test

011338056-01, P = 2.879985 Days, E = 131.490113 Days

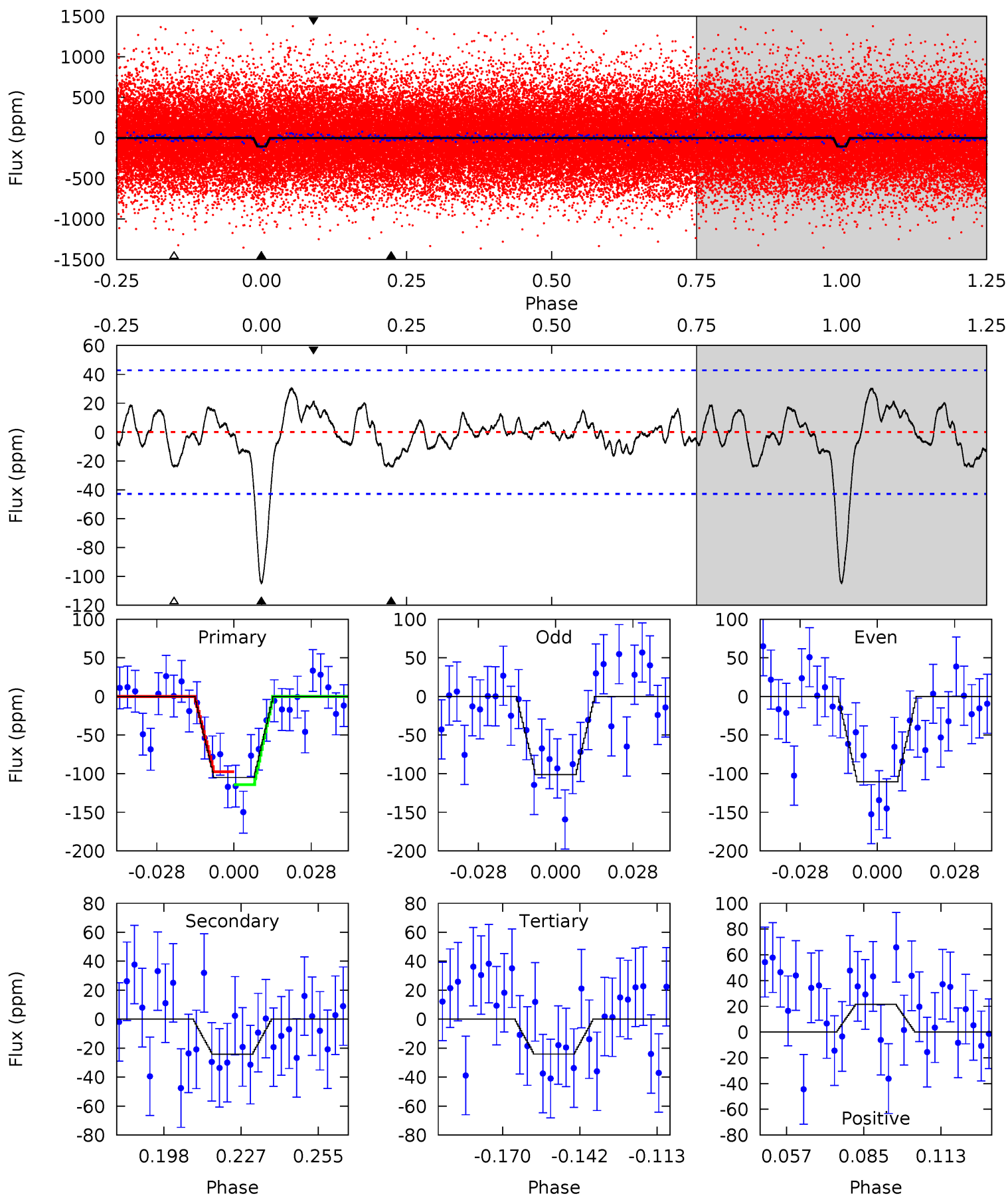
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	2.22	2.00	3.27	4.84	2.23	1.01	10.2	8.91	0.22	-1.06	0.66	0.87	0.21	0.26



Alt Model-Shift Uniqueness Test

011338056-01, P = 2.879961 Days, E = 131.489415 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	2.72	2.71	2.42	4.82	2.19	1.09	9.10	9.39	0.01	0.30	0.53	1.04	0.23	0.95



Stellar Parameters For KIC 011338056

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4951^{+81}_{-81}	$4.523^{+0.063}_{-0.027}$	$0.140^{+0.150}_{-0.150}$	$0.806^{+0.032}_{-0.051}$	$0.790^{+0.050}_{-0.029}$	$2.124^{+0.453}_{-0.196}$
	+2%/-2%	+1%/-1%	+107%/-107%	+4%/-6%	+6%/-4%	+21%/-9%
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 011338056-01 / KOI 4735.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-20 ± 9	$1.00^{+0.57}_{-0.54}$	1425^{+31}_{-32}	3489^{+1108}_{-575}	15^{+54}_{-10}
Alt.	-24 ± 9	$0.93^{+0.67}_{-0.53}$	1423^{+30}_{-30}	3696^{+1289}_{-629}	21^{+86}_{-14}

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 $A_{obs} \gg 1.0$

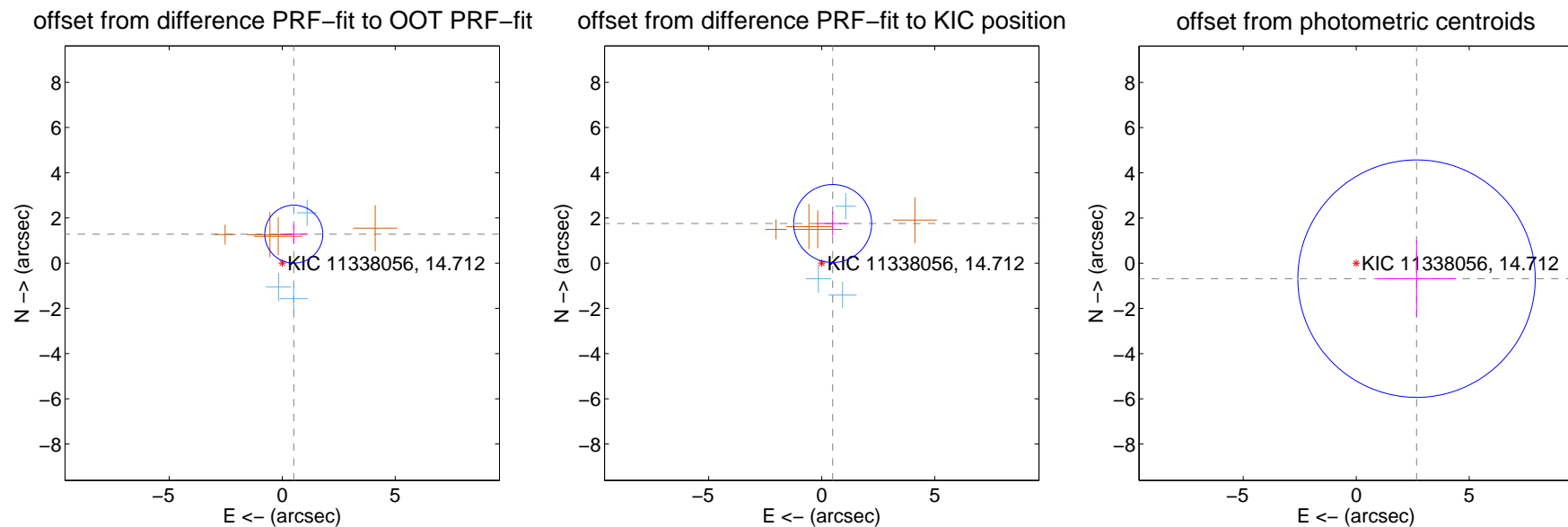
DV Centroid Data

Supplemental centroid analysis for 011338056-01. Kepler magnitude: 14.71. Transit SNR 8.61

There are 3 quarters with good PRF difference image offsets

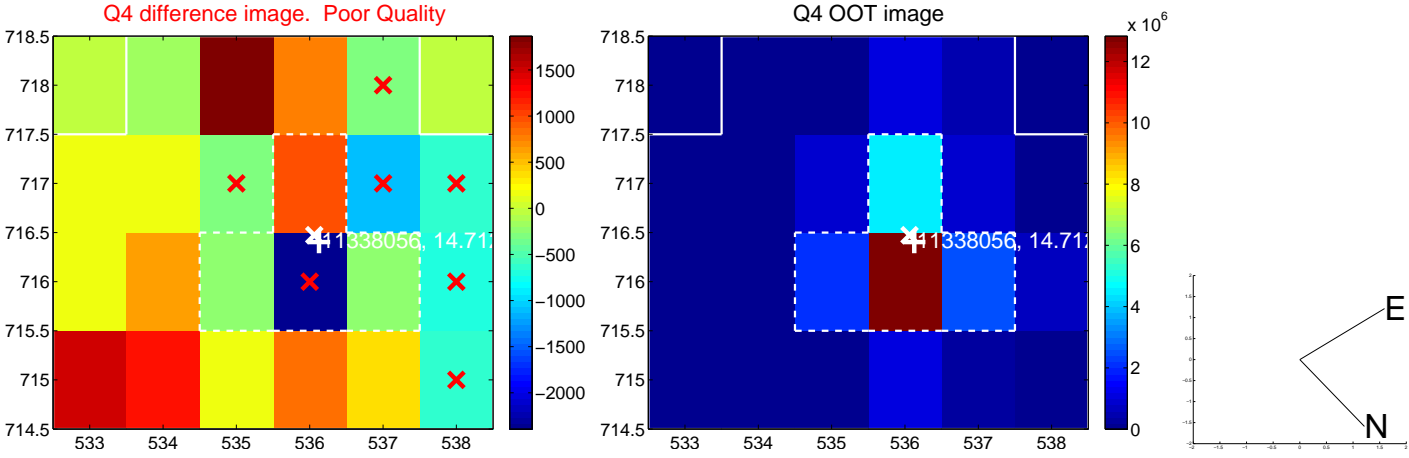
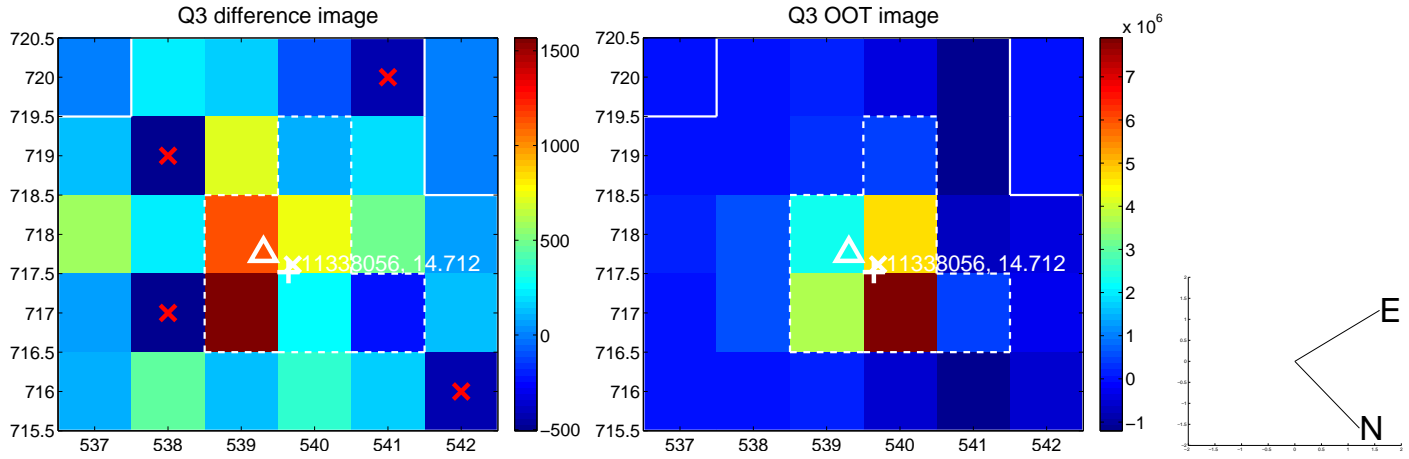
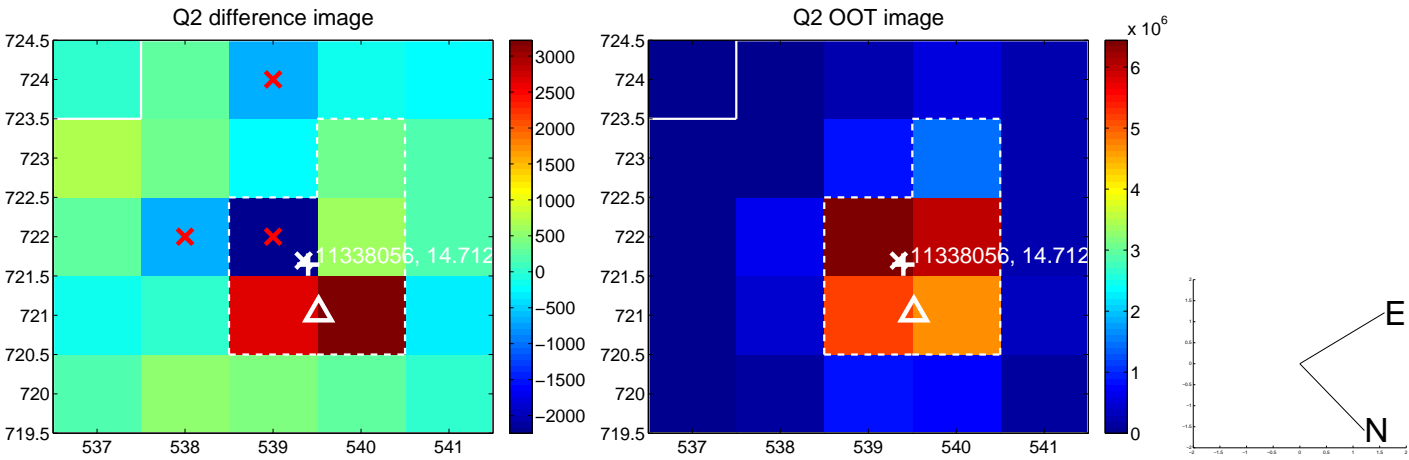
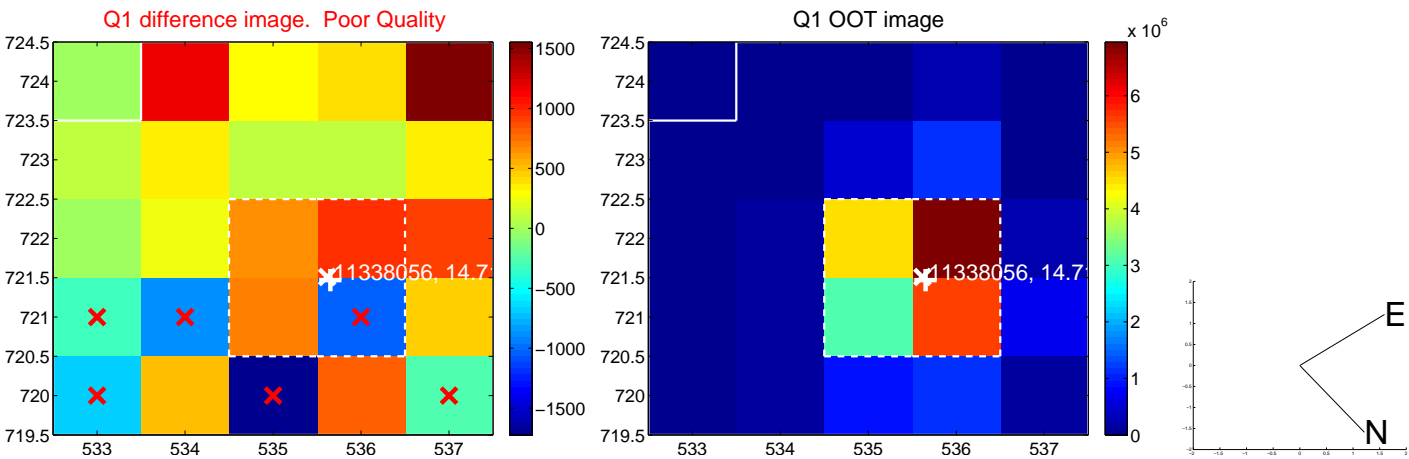
The direct PRF centroid is offset from the target star catalog position by about 0.36 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.380 ± 0.428	3.23	-0.512 ± 0.619	1.282 ± 0.424
PRF-fit source offset from KIC position	1.817 ± 0.575	3.16	-0.484 ± 0.719	1.752 ± 0.536
photometric centroid source offset	2.76 ± 1.75	1.57	-2.67 ± 1.75	-0.68 ± 1.69

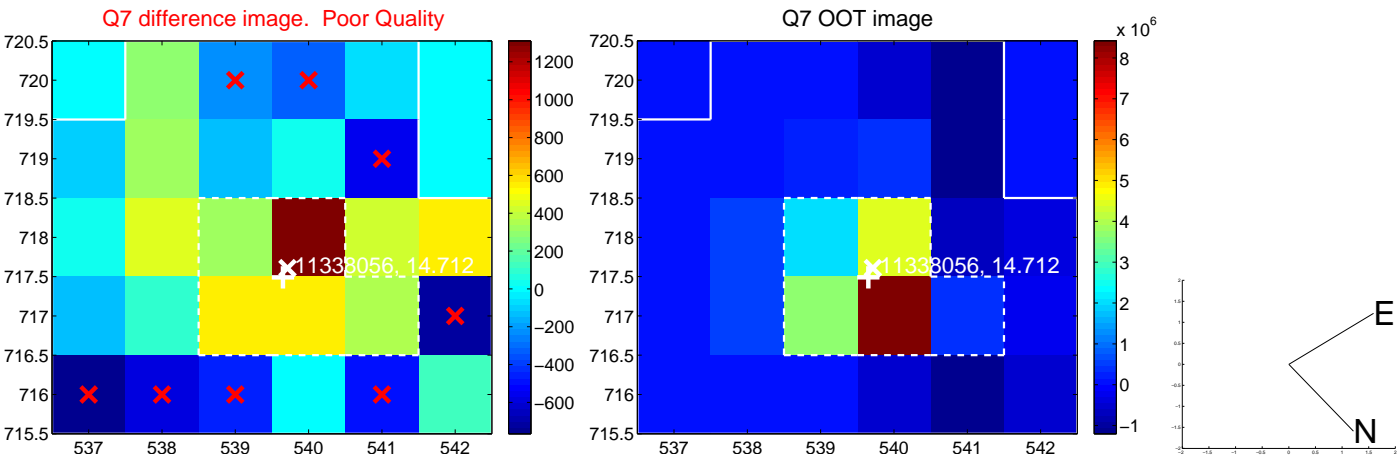
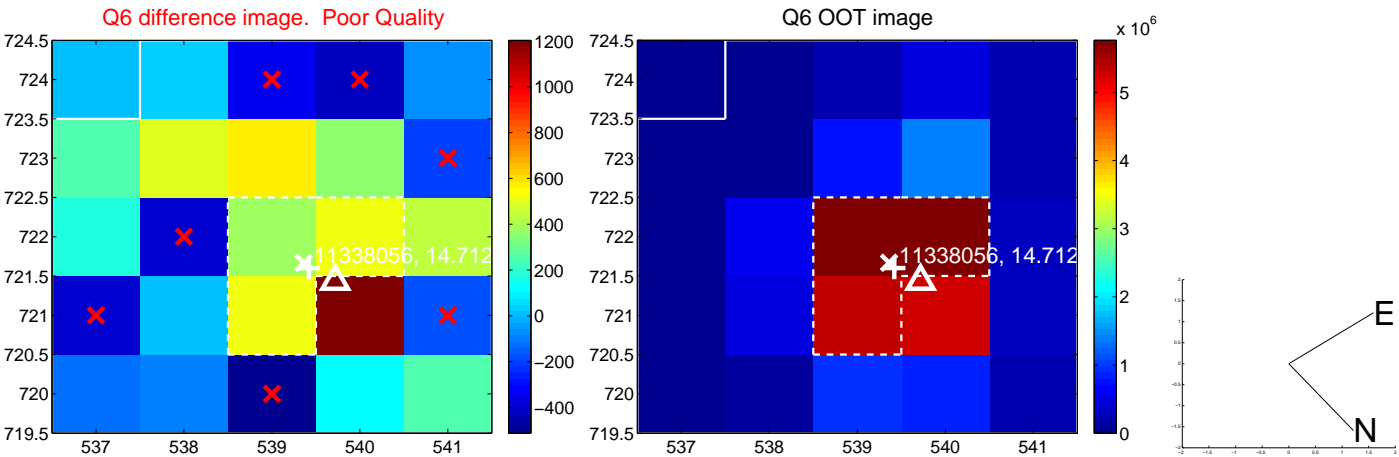
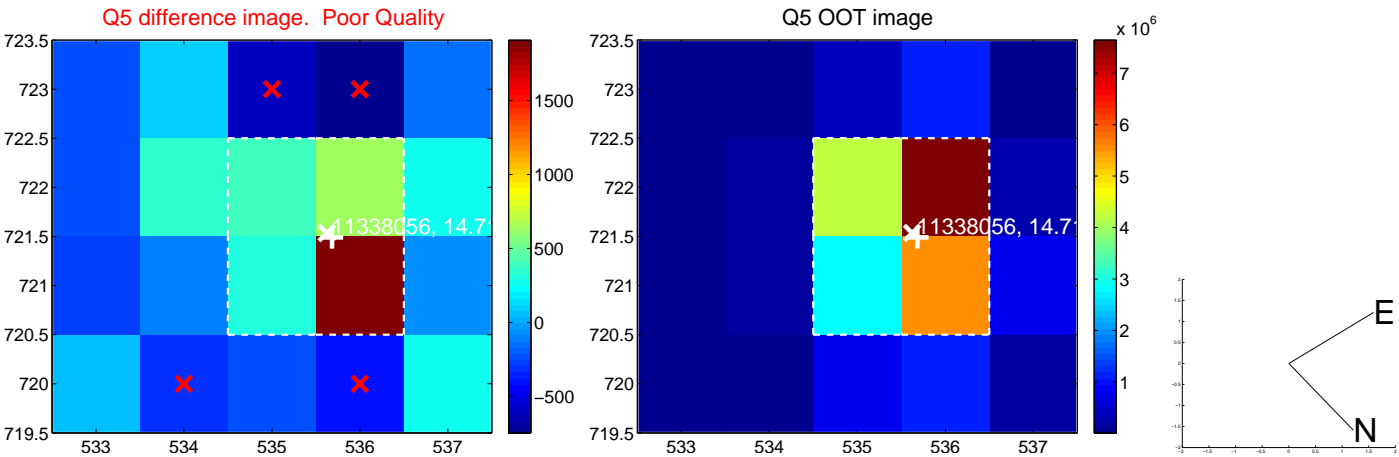


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

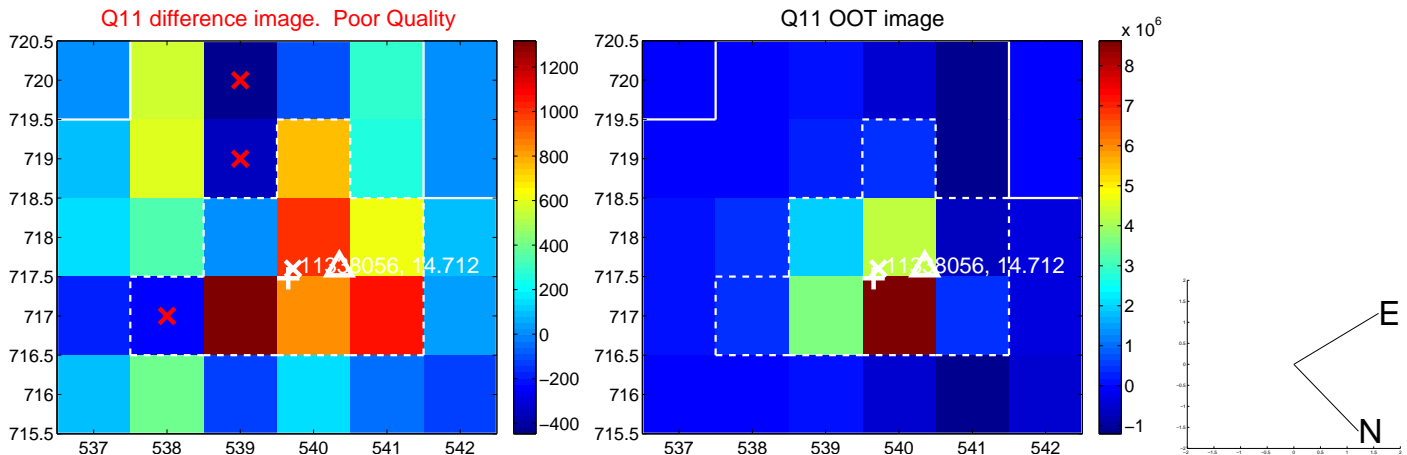
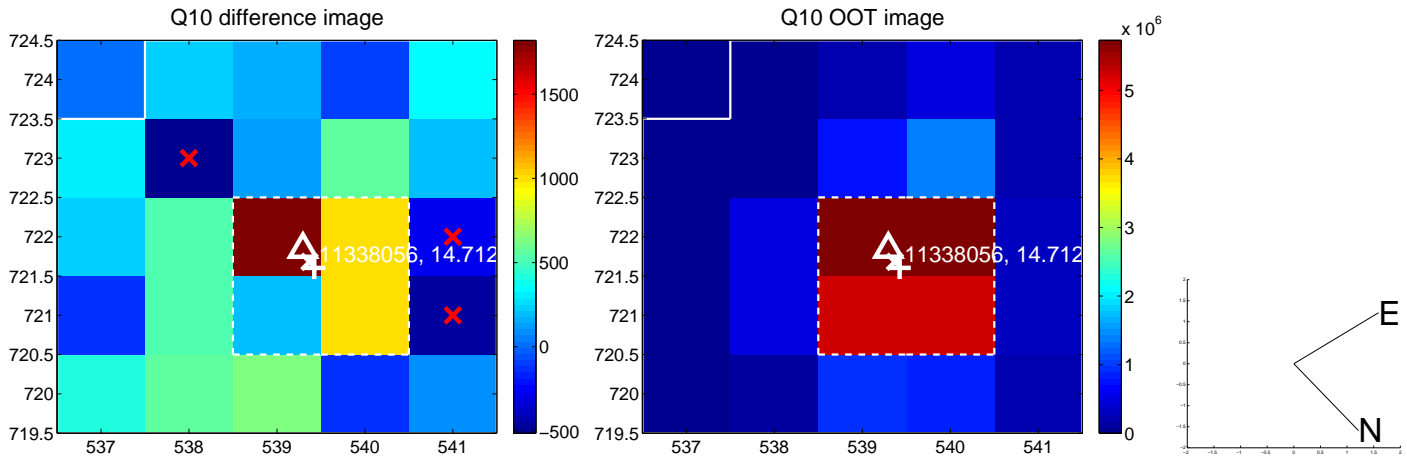
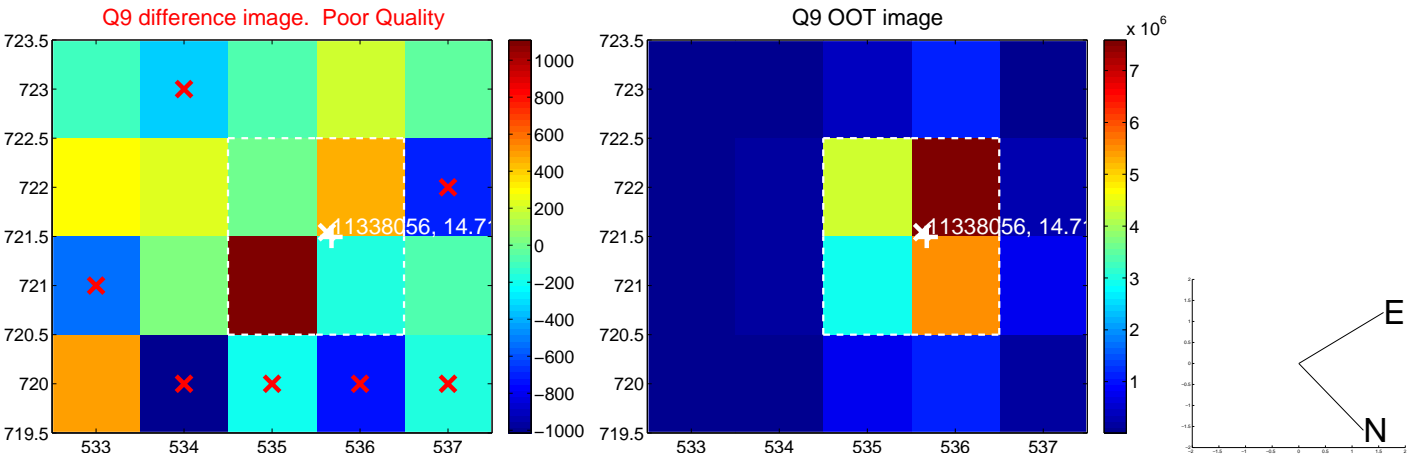
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



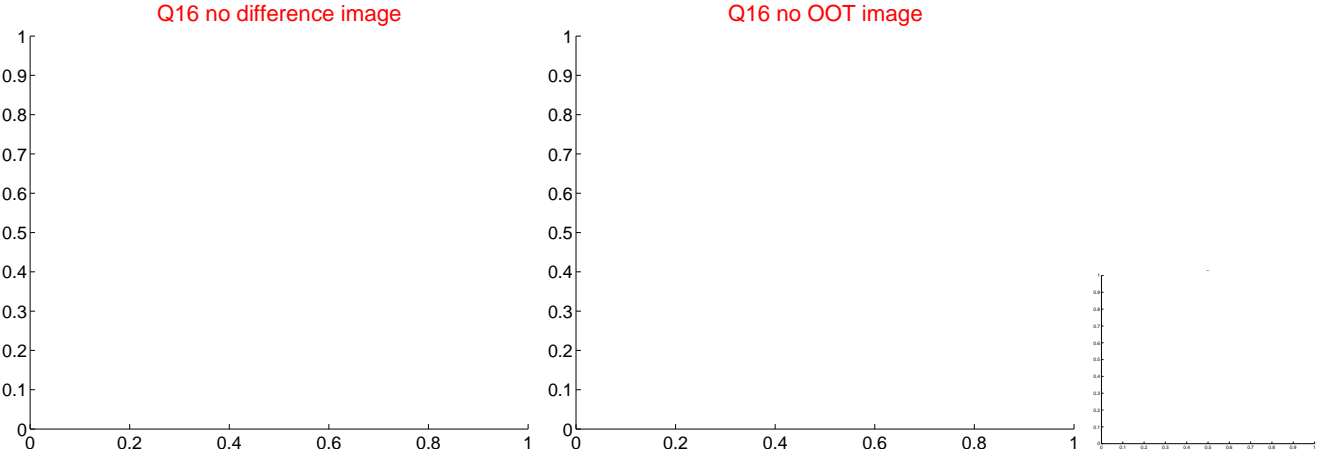
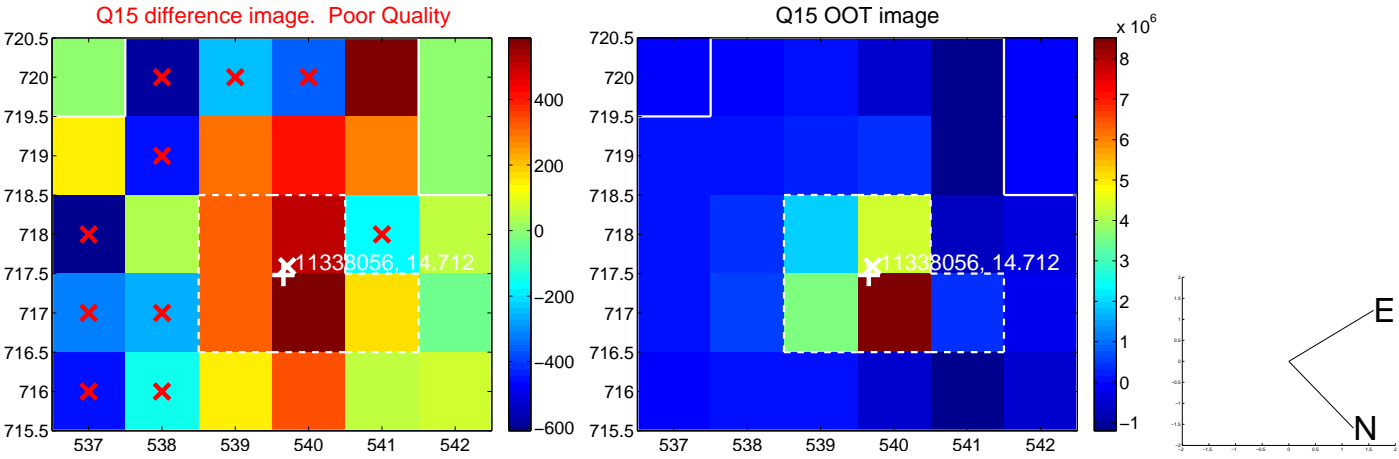
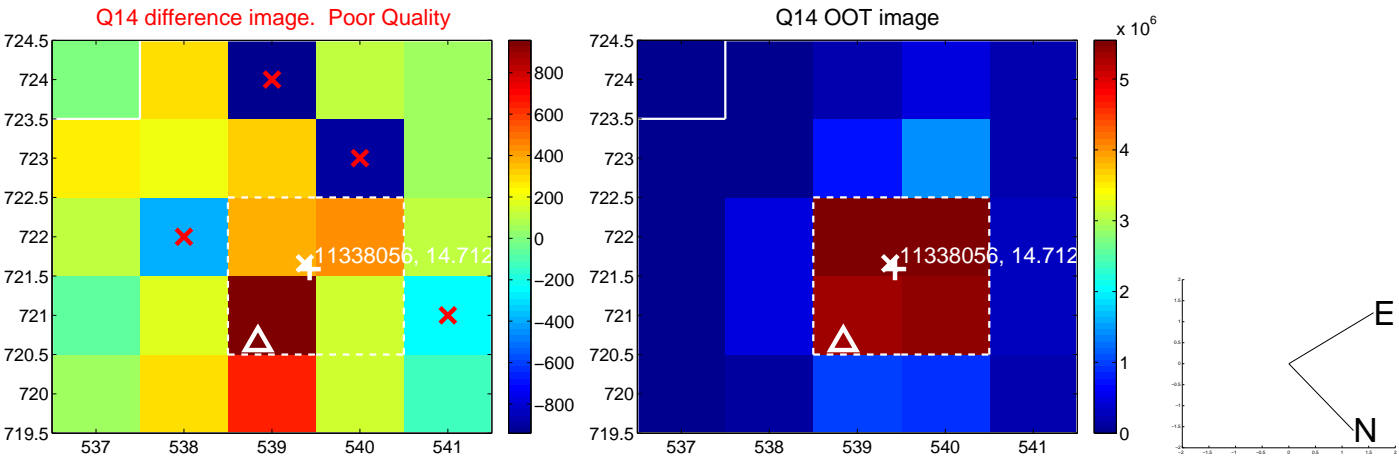
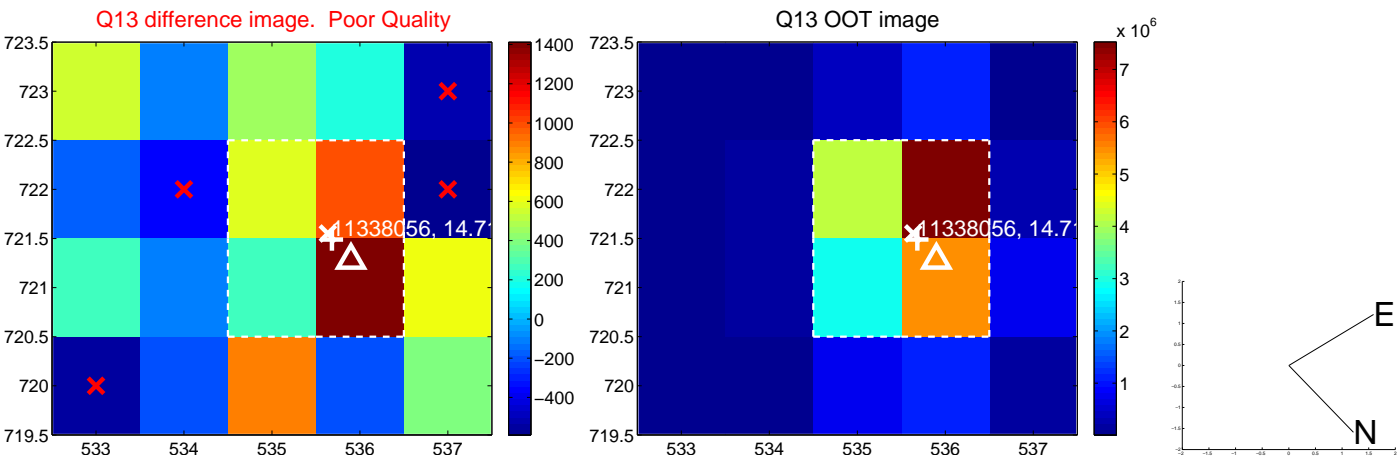
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

