

KIC 003663141

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})
003663141-01	OBS	7663.01	2.319020	132.960001	35.0	7.252	8.5	7.8	1.00	5780	0.70	850.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003663141-01	OBS	FP	0.02	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

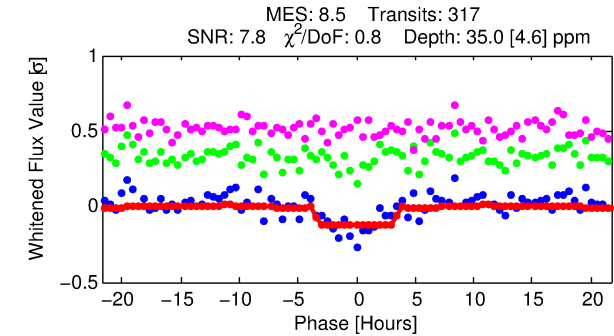
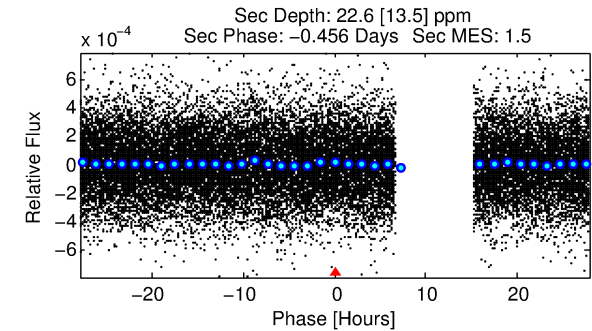
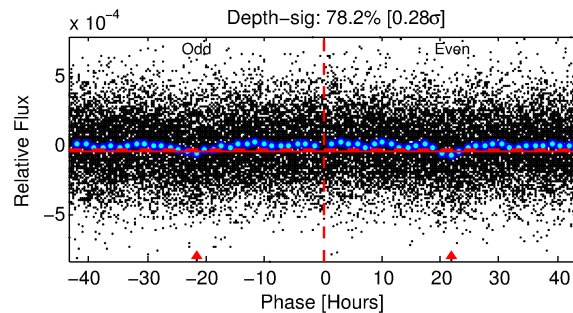
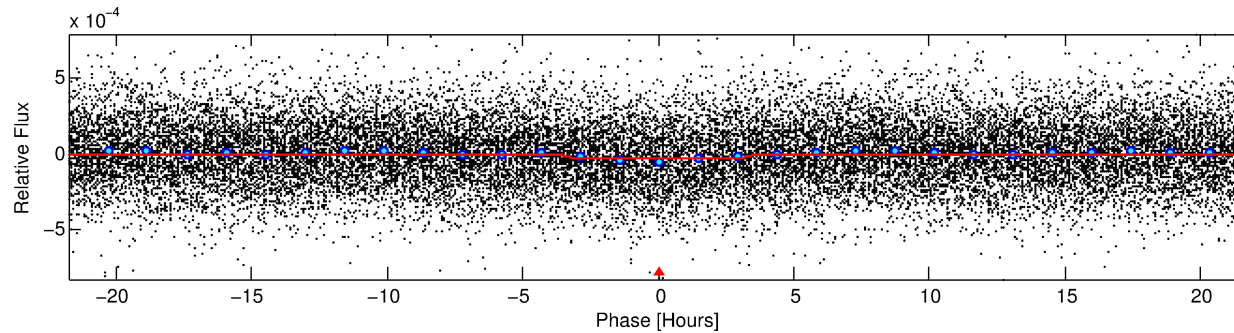
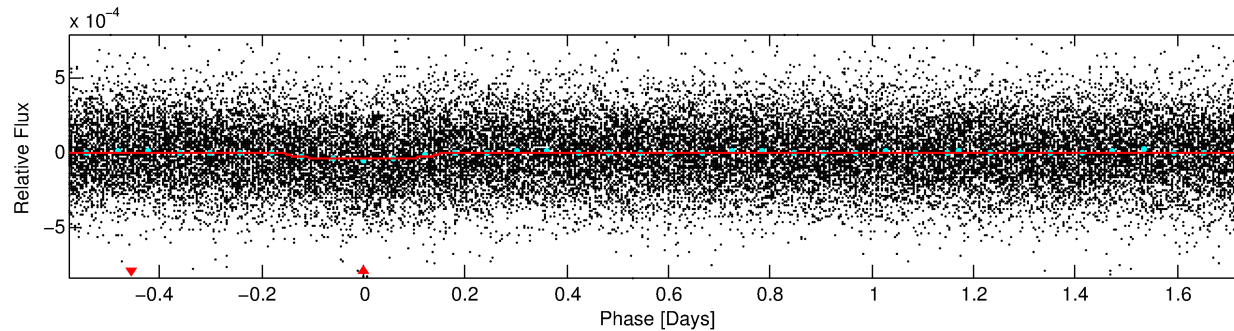
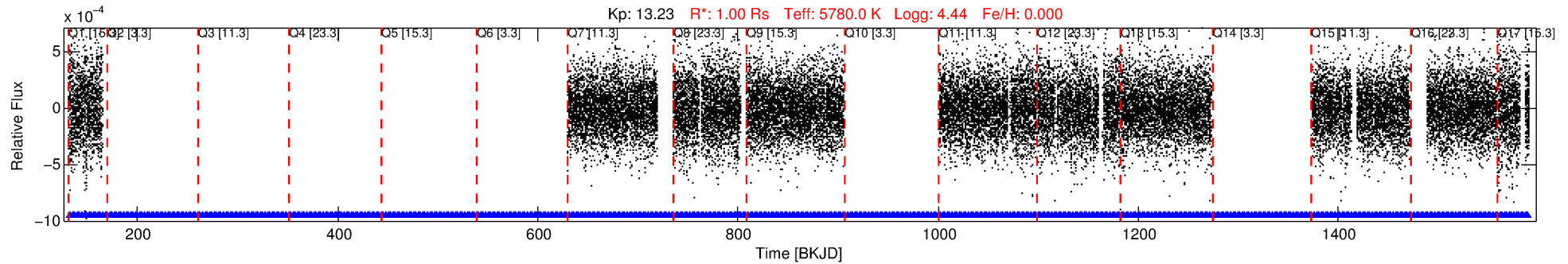
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003663141-01

No Significant Match Found

DV One-Page Summary

KIC: 3663141 Candidate: 1 of 1 Period: 2.319 d



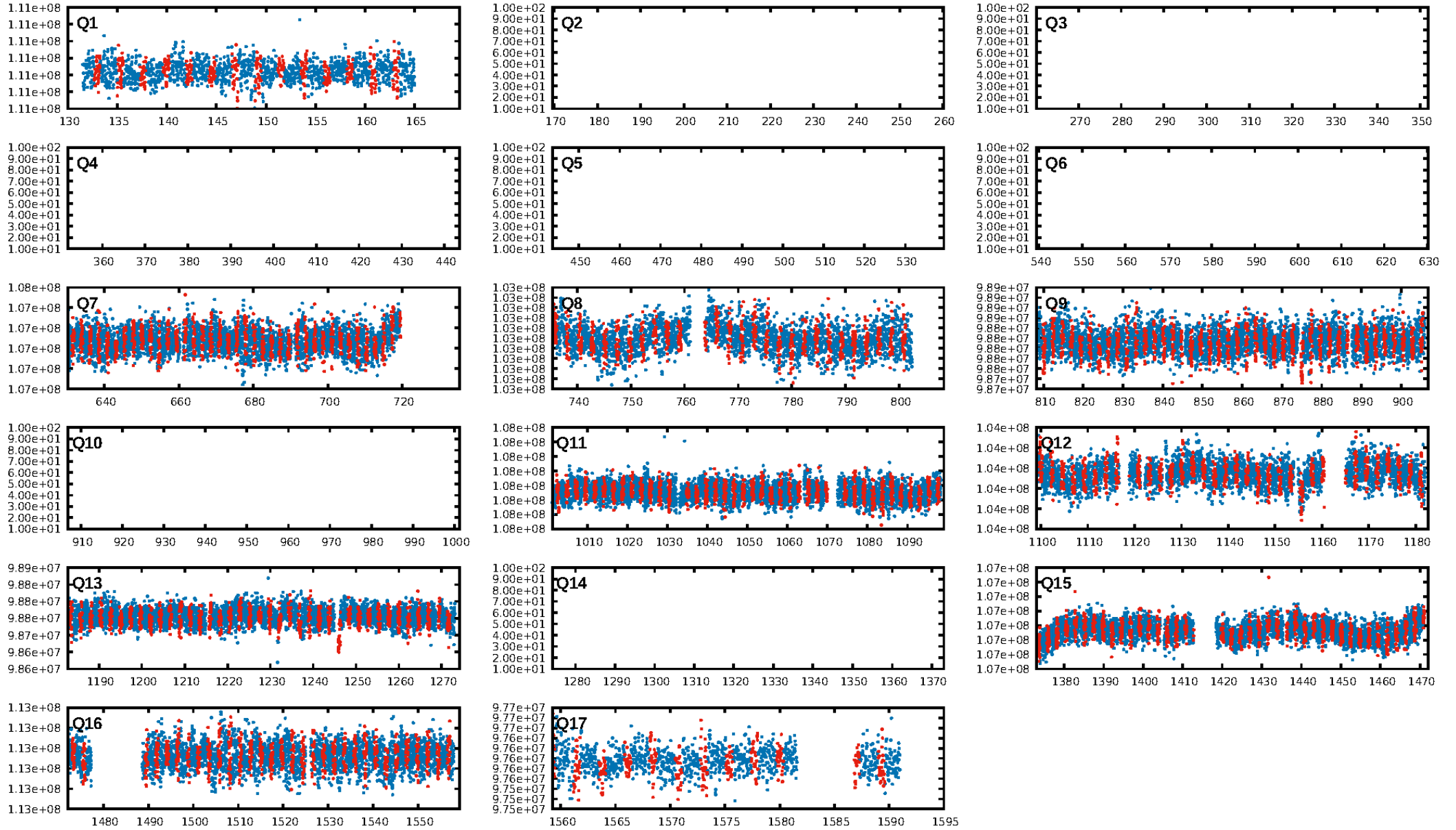
DV Fit Results:

Period = 2.31902 [0.00003] d
Epoch = 132.9600 [0.0072] BKJD
 R_p/R^* = 0.0064 [0.0024]
 a/R^* = 1.45 [1.37]
 b = 0.90 [0.39]
 Seff = 850.22 [0.01]
 T_{eq} = 1377 [0] K
 R_p = 0.70 [0.26] R_e
 a = 0.0343 [0.0000] AU
 A_g = 29.59 [28.12] [1.02 σ]
 T_{effp} = 4965 [1180] K [3.04 σ]

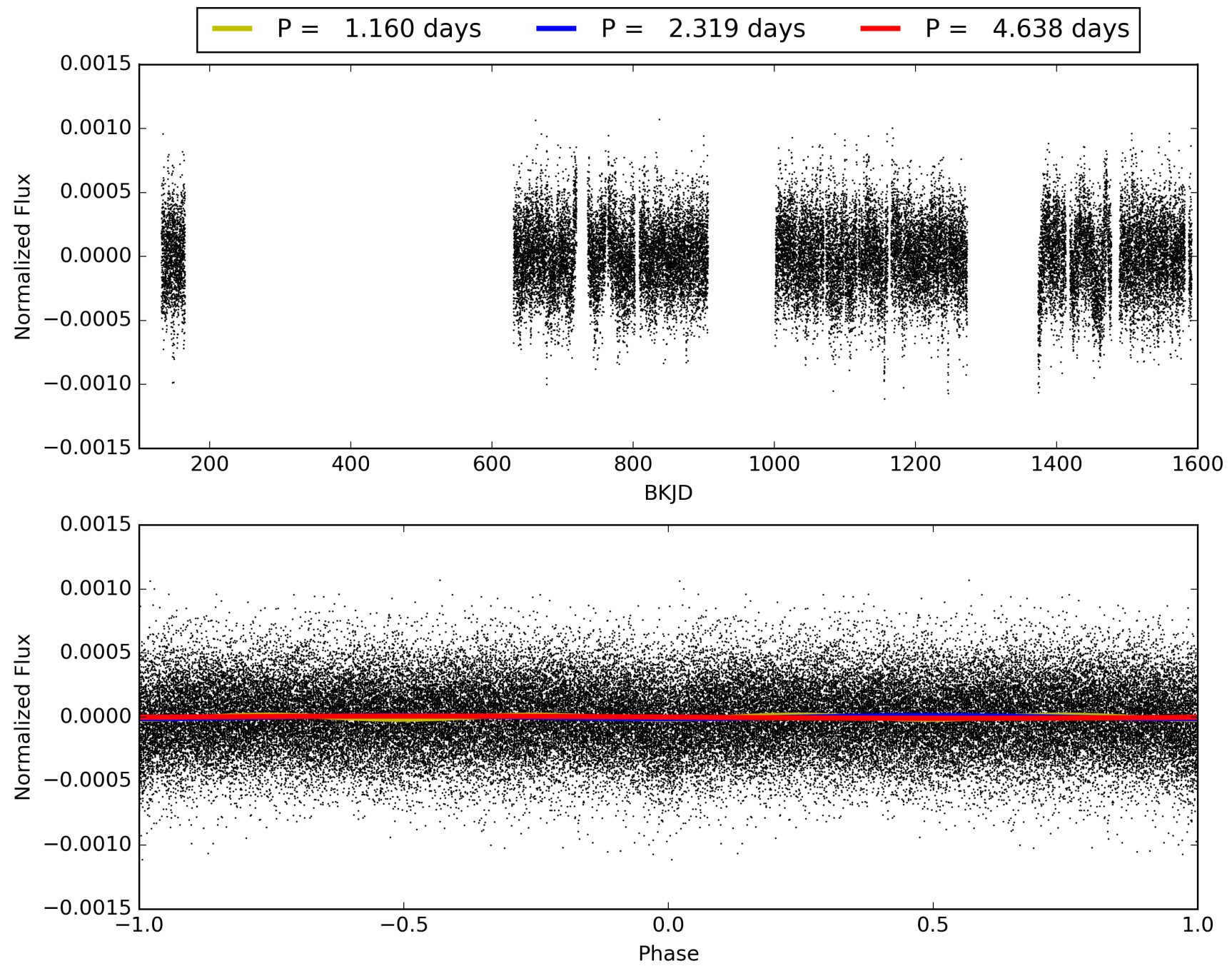
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.83e-16
RollingBand-fgt: 1.00 [291/291]
GhostDiagnostic-chr: -0.3822
Centroid-sig: N/A
Centroid-so: 14.947 arcsec [11.18 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [10/10]

TCE 003663141-01, PDC Light Curves

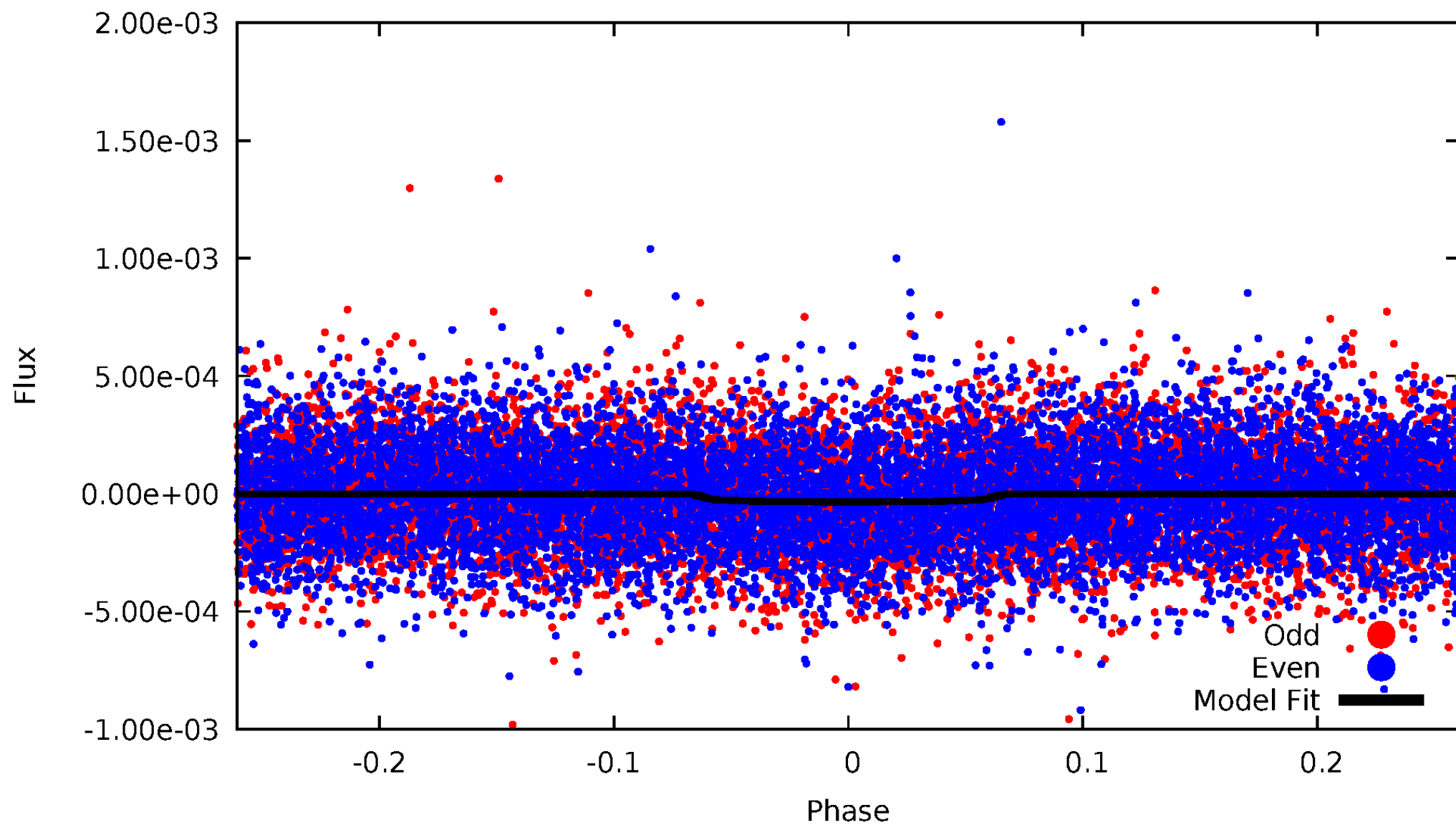


TCE 003663141-01



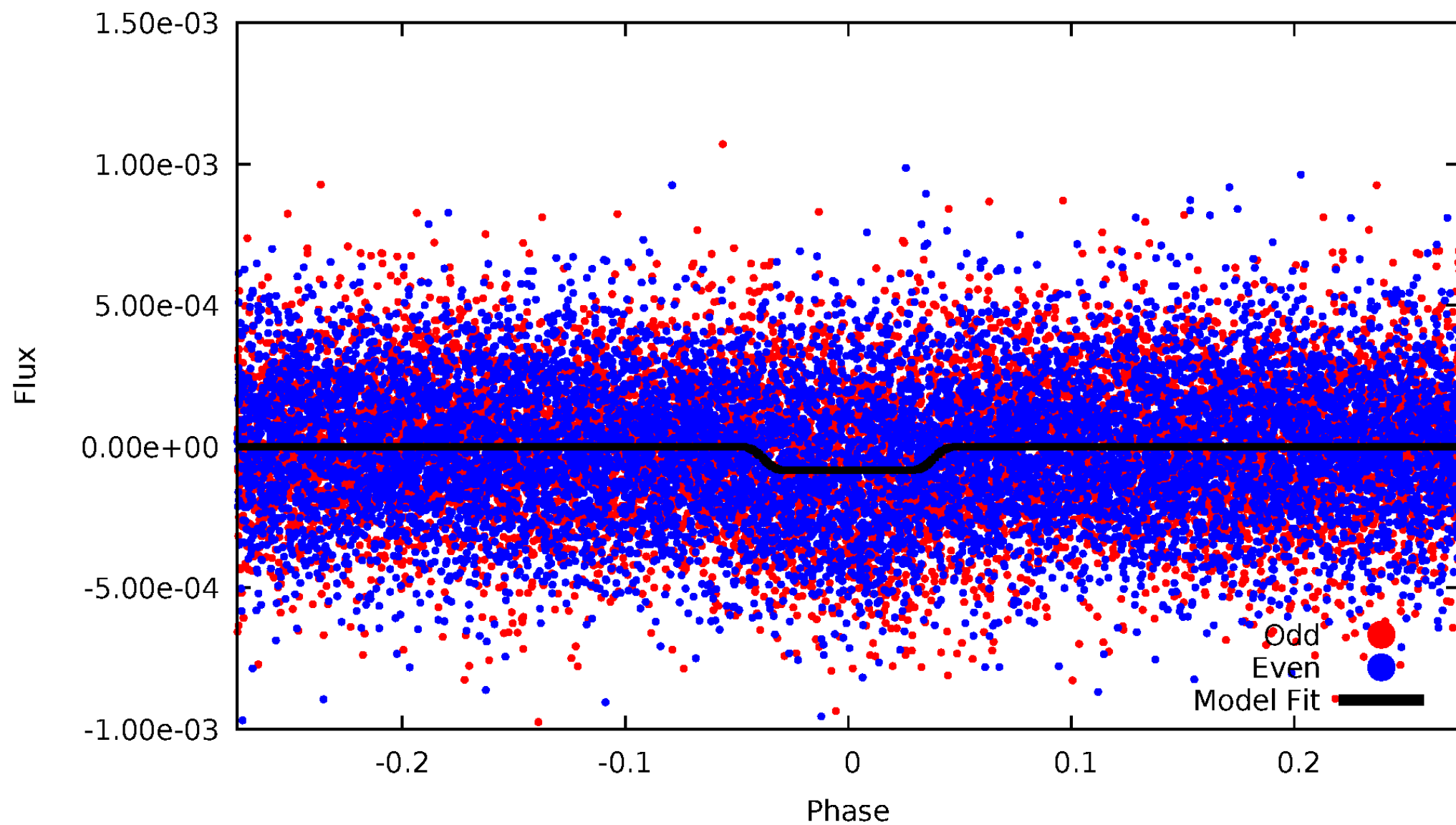
DV Odd/Even

TCE 003663141-01

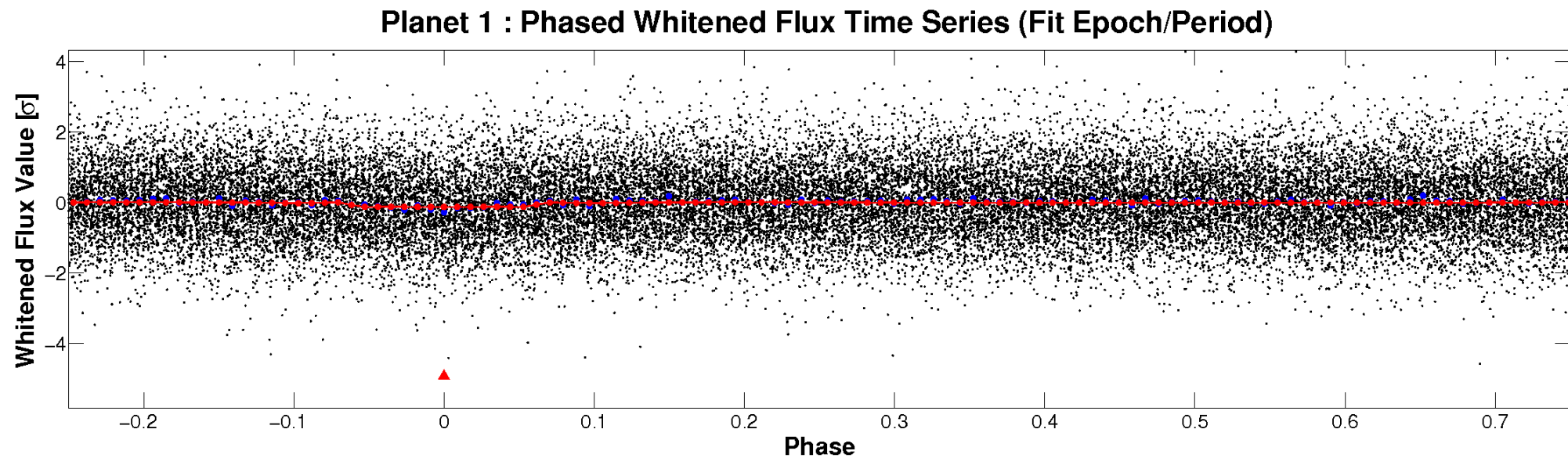
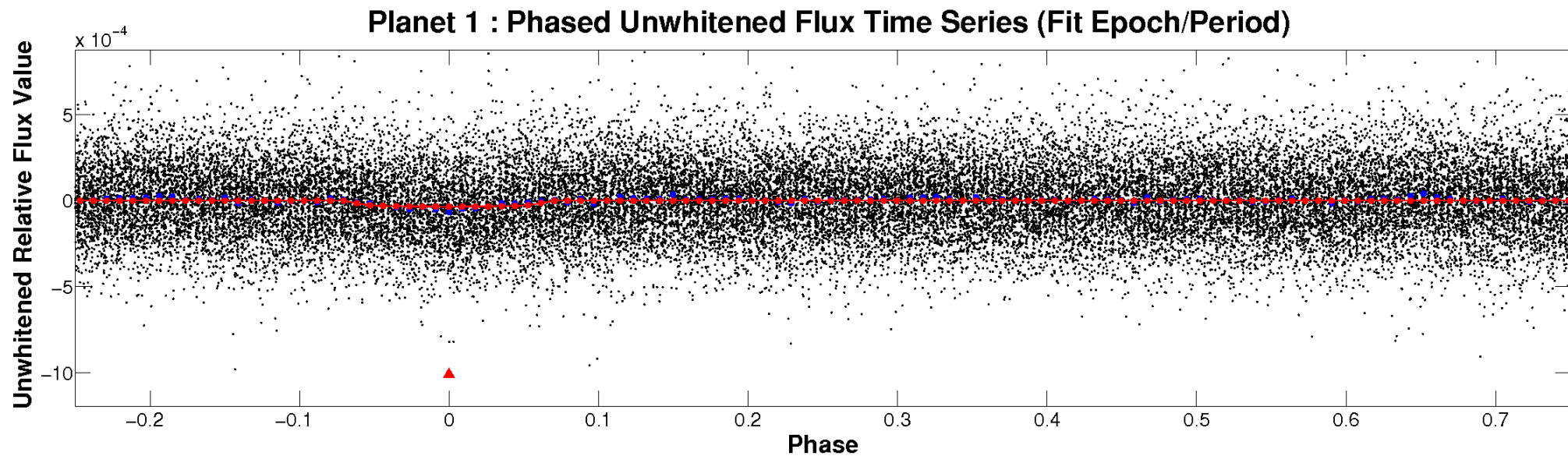


ALT Odd/Even

TCE 003663141-01

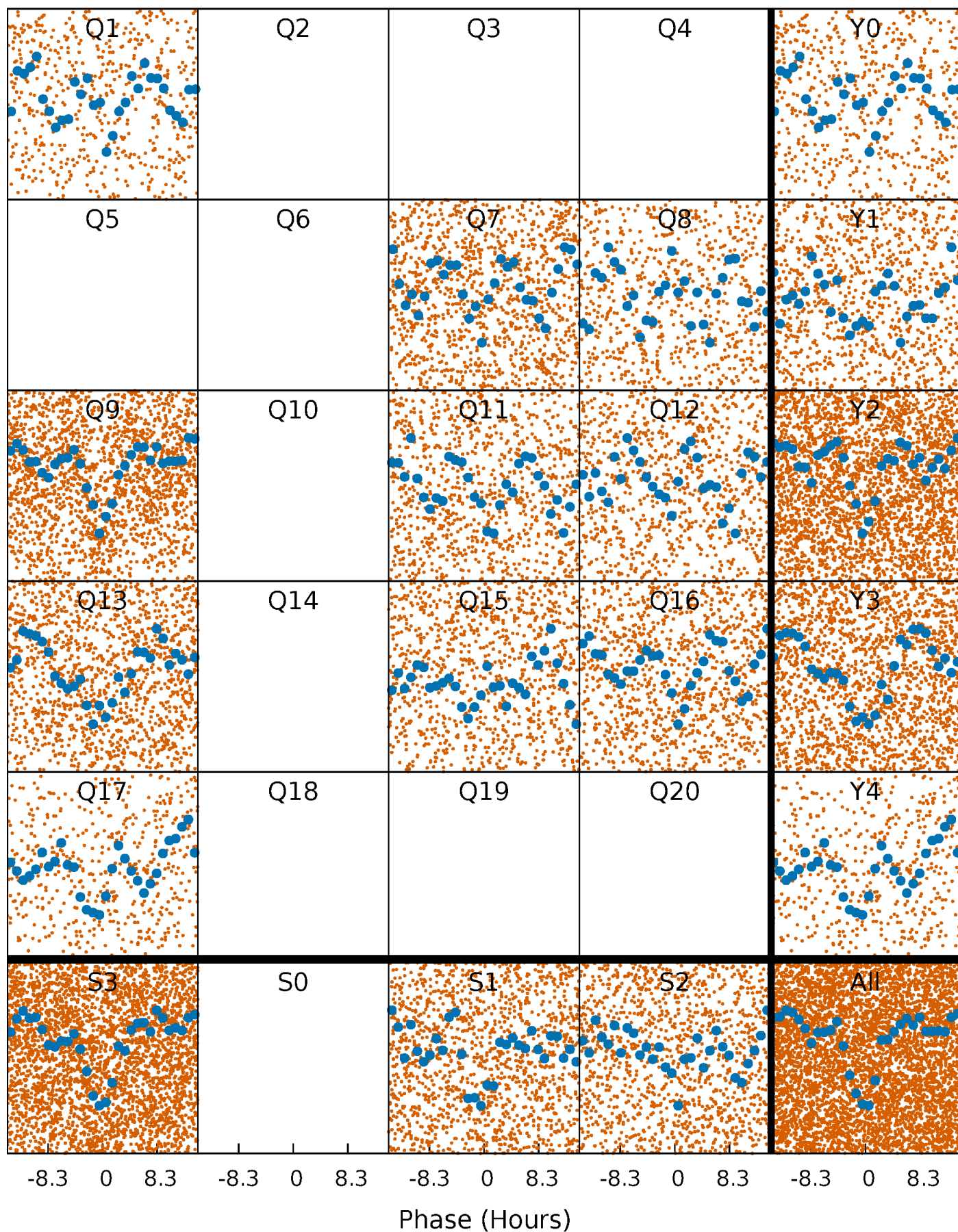


Non-Whitened Vs. Whitened Light Curve



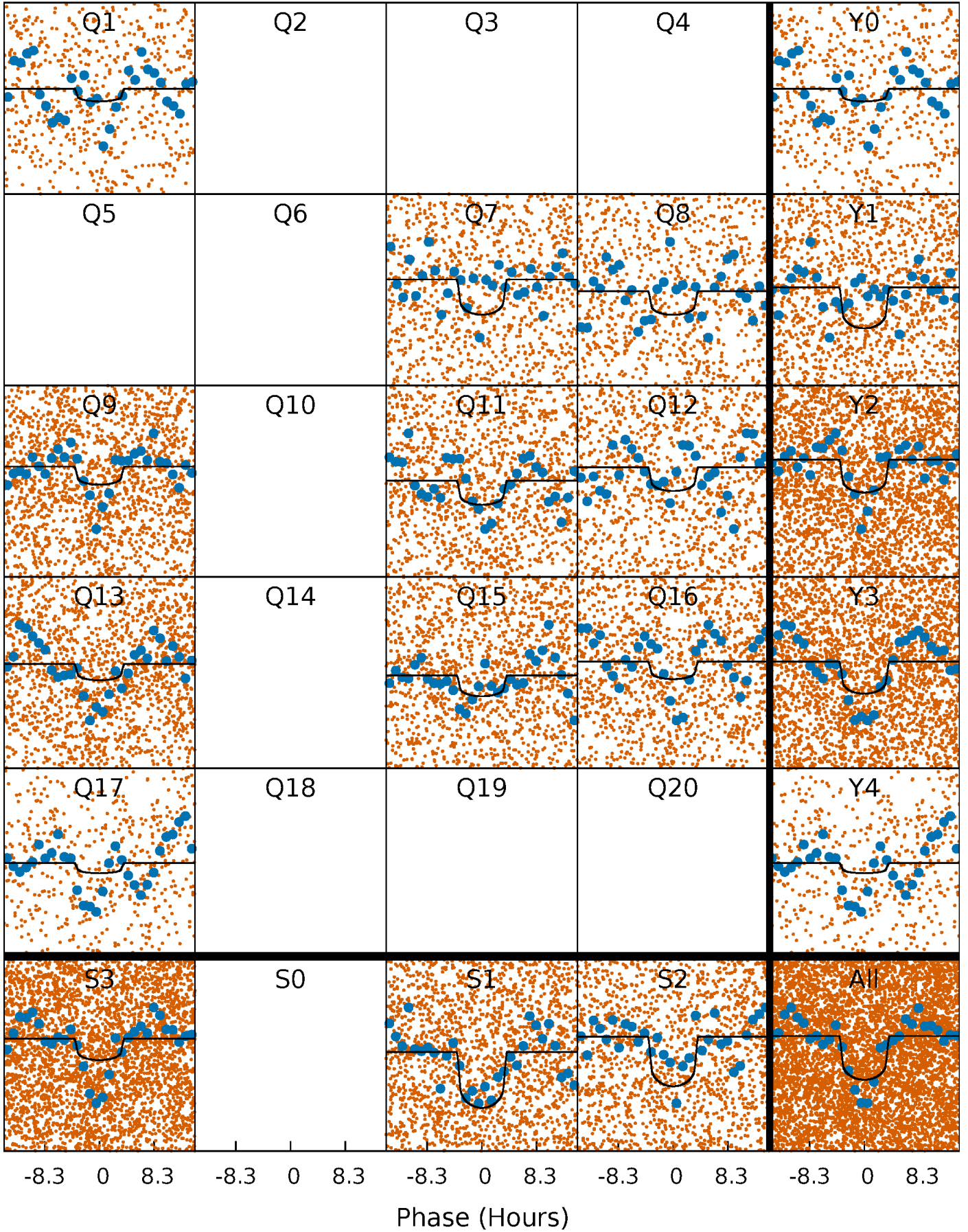
PDC Quarter-Phased Transit Curves

TCE 003663141-01 P= 2.319020 Days $T_0=132.960001$ (BKJD)



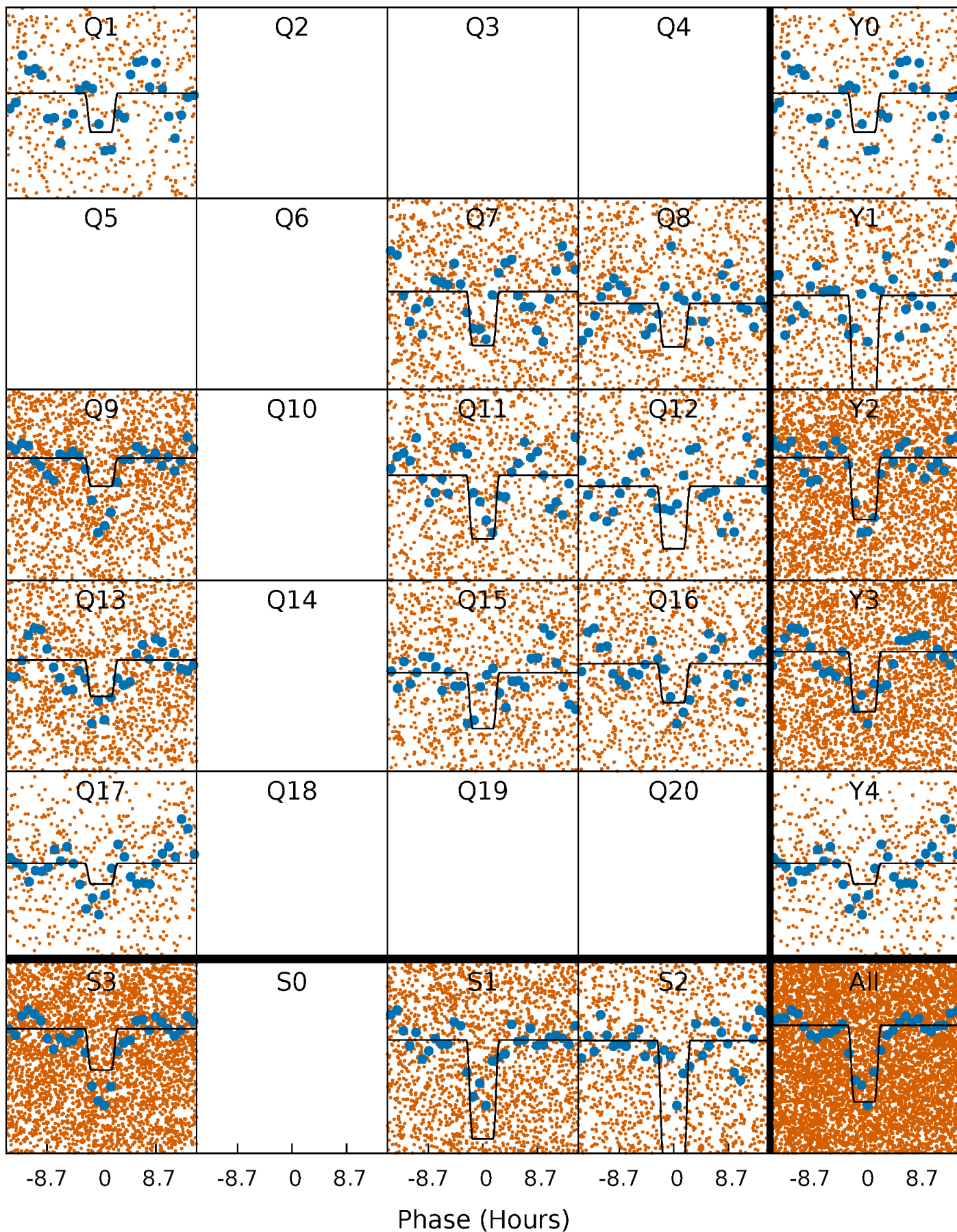
DV Quarter-Phased Transit Curves

TCE 003663141-01 P= 2.319020 Days $T_0=132.960001$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

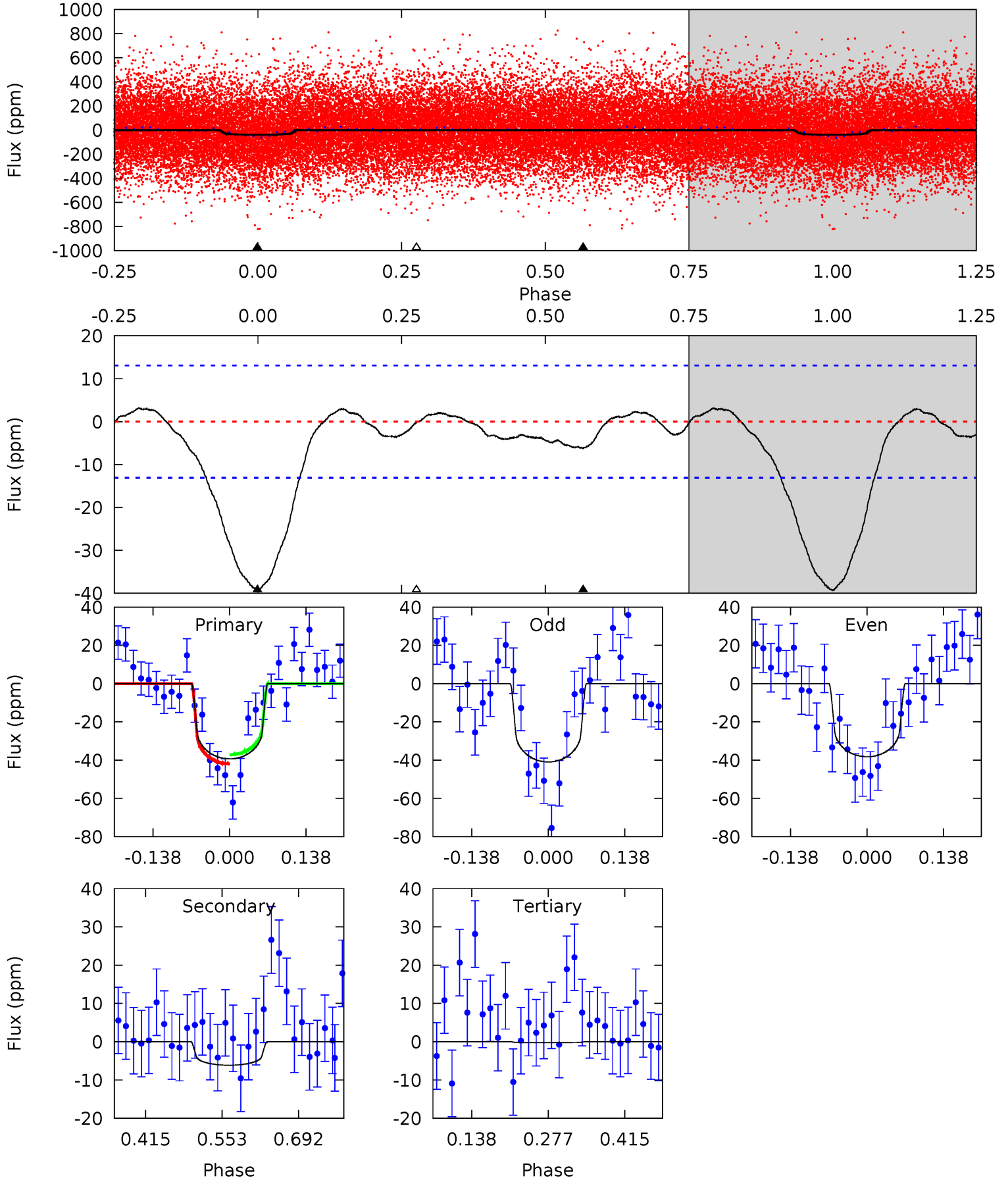
TCE 003663141-01 P= 2.319008 Days $T_0=132.950443$ (BKJD)



DV Model-Shift Uniqueness Test

003663141-01, P = 2.319020 Days, E = 130.640981 Days

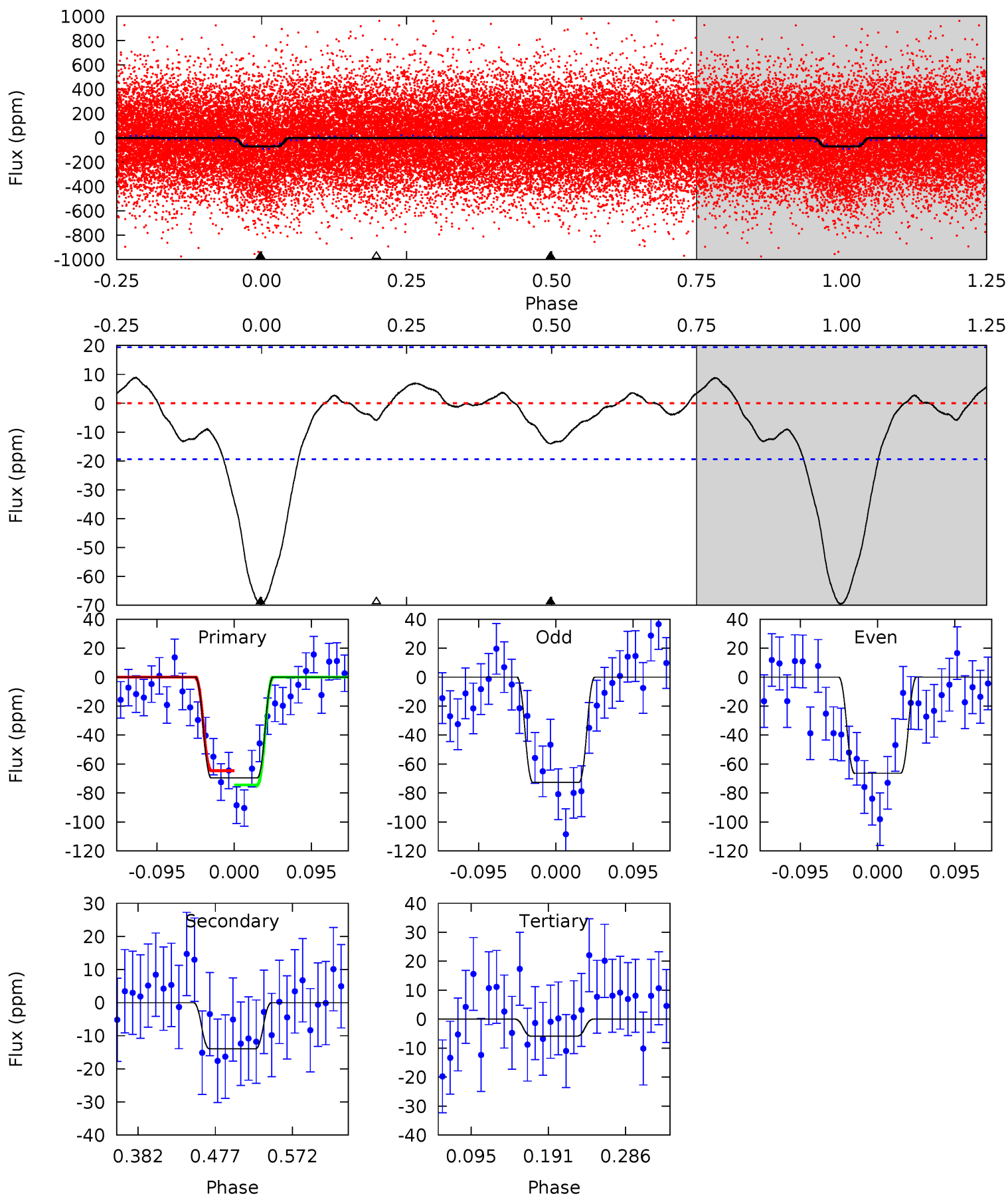
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	2.11	0.08	0	4.50	1.48	0.74	13.4	13.5	2.03	2.11	0.47	1.16	0.07	0.82



Alt Model-Shift Uniqueness Test

003663141-01, P = 2.319008 Days, E = 130.631435 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	3.30	1.39	0	4.57	1.67	1.16	15.0	16.4	1.91	3.30	0.75	1.02	0.11	1.17



Stellar Parameters For KIC 003663141

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003663141-01 / KOI 7663.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 3	$0.71^{+0.27}_{-0.26}$	1930^{+95}_{-94}	3870^{+801}_{-583}	$7.588^{+12.380}_{-4.575}$
Alt.	-14 ± 4	$0.99^{+0.26}_{-0.26}$	1920^{+97}_{-92}	3955^{+575}_{-378}	$8.881^{+8.532}_{-3.818}$

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 003663141-01. Kepler magnitude: 13.23. Transit SNR 7.80

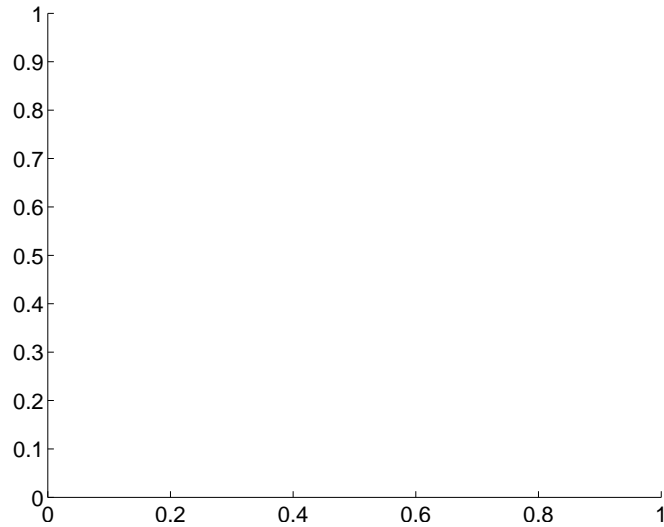
There are 0 quarters with good PRF difference image offsets

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

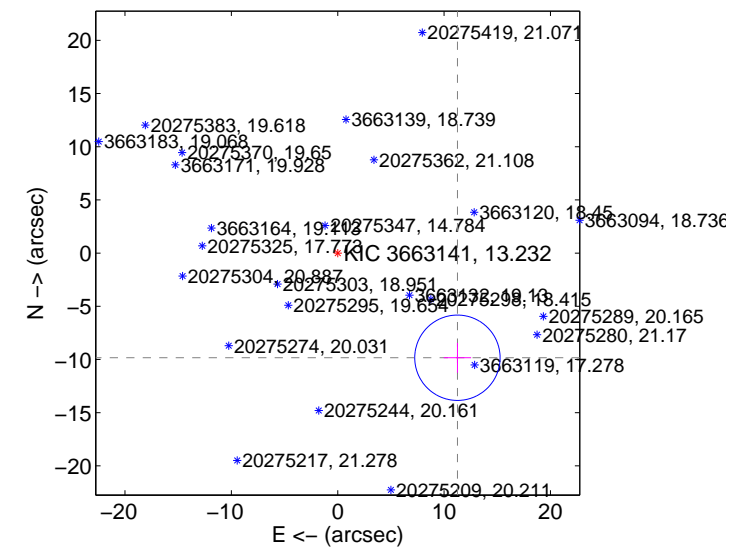
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	14.95 ± 1.34	11.18	-11.25 ± 1.29	-9.84 ± 1.40

There is no PRF-fit offset from OOT-fit

There is no PRF-fit offset from KIC

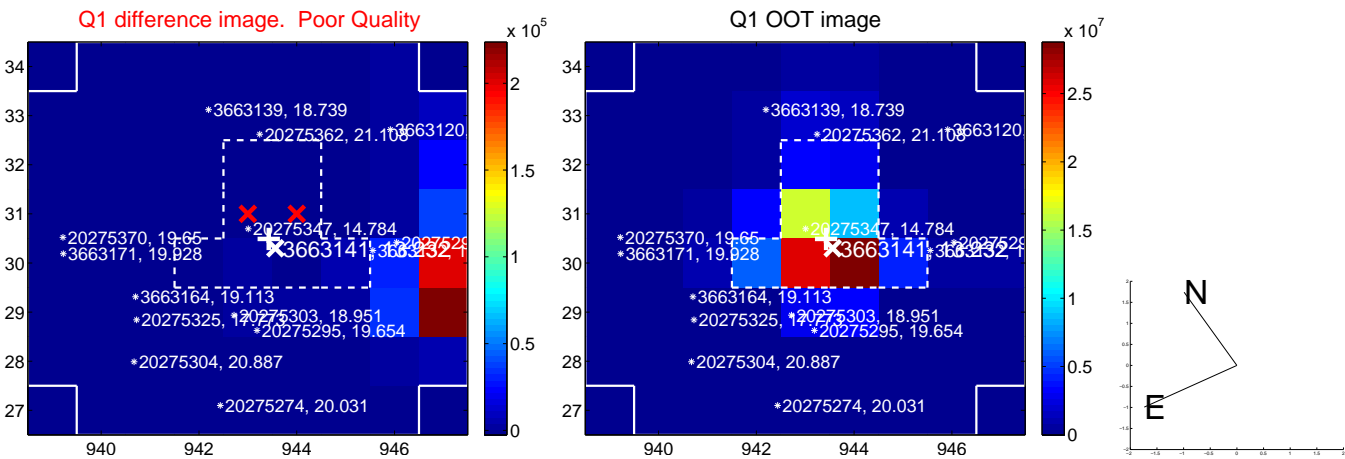


offset from photometric centroids



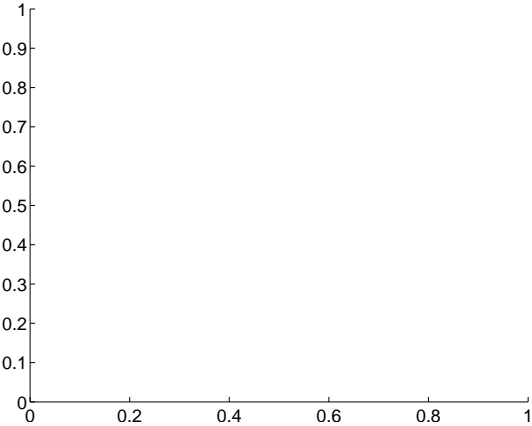
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

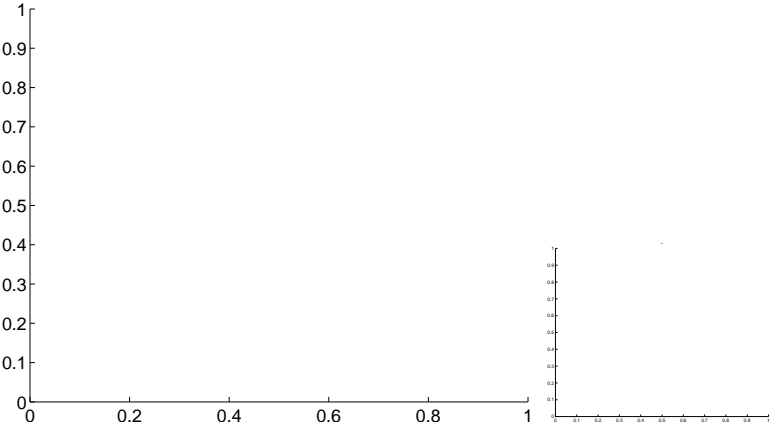


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

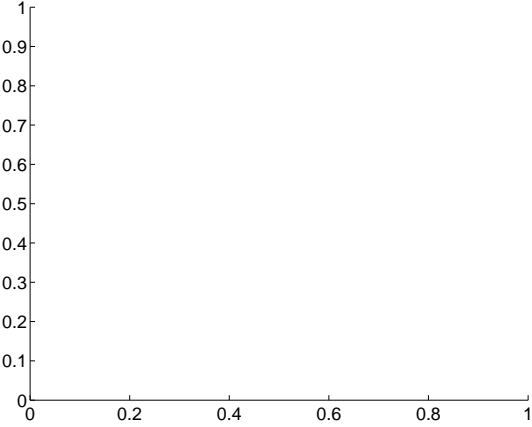
Q5 no difference image



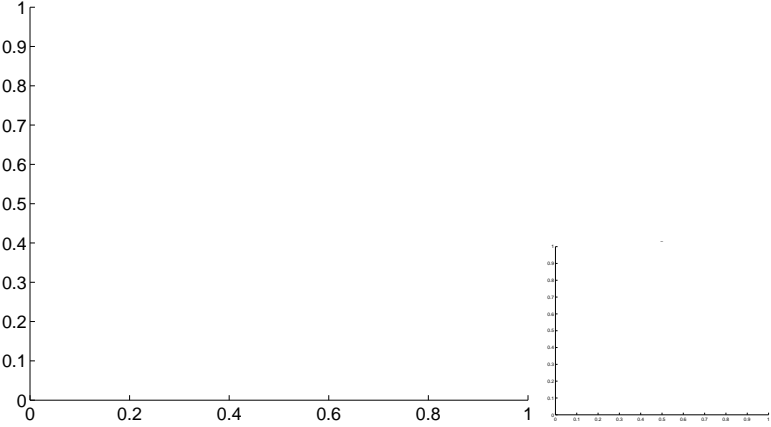
Q5 no OOT image



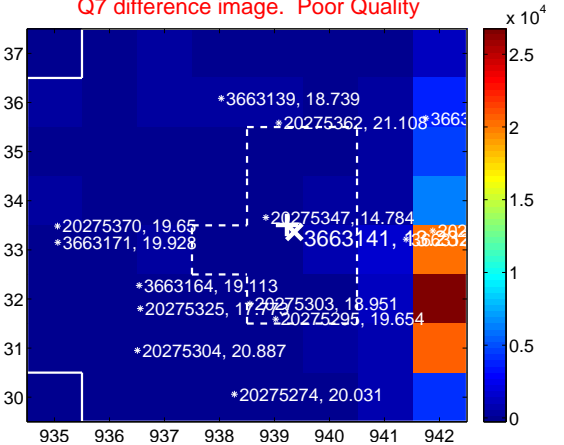
Q6 no difference image



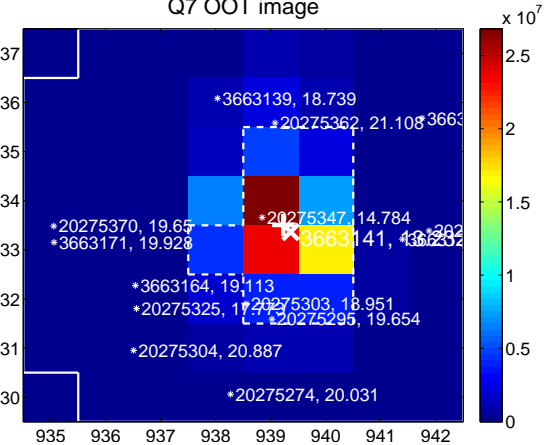
Q6 no OOT image



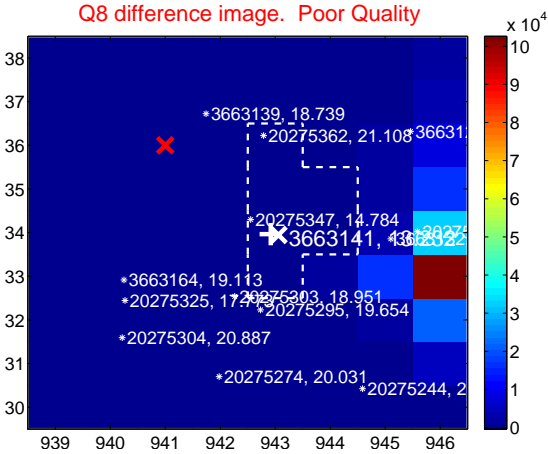
Q7 difference image. Poor Quality



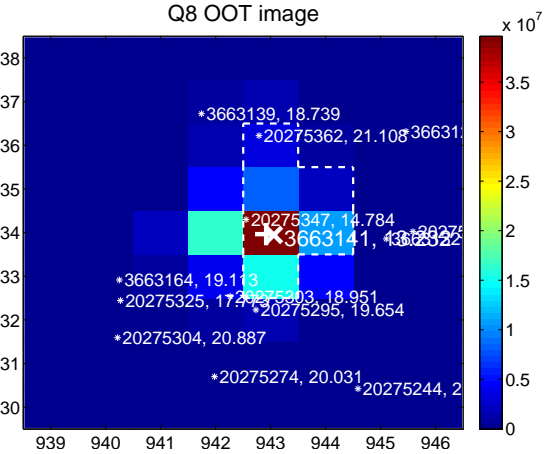
Q7 OOT image



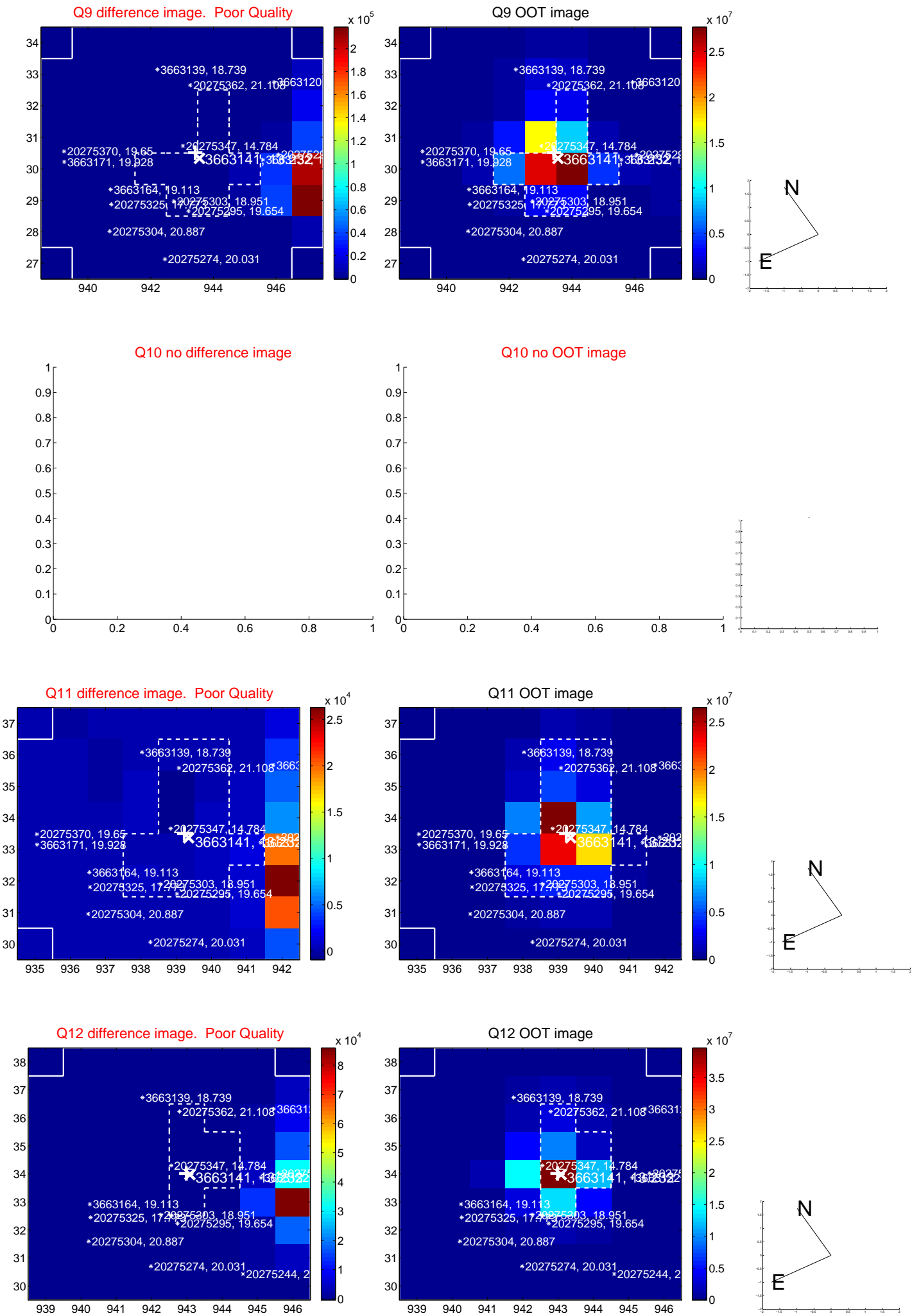
Q8 difference image. Poor Quality



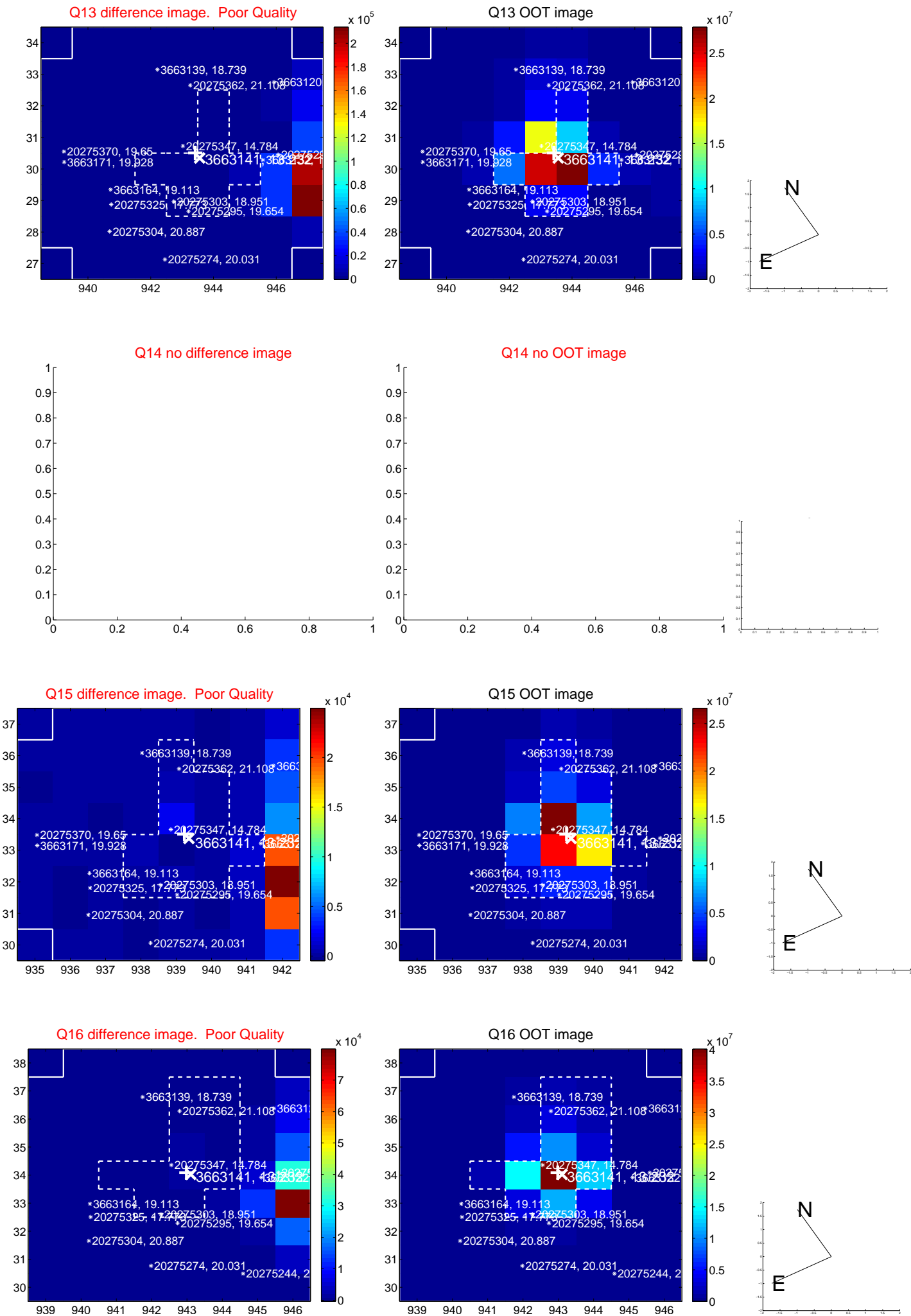
Q8 OOT image



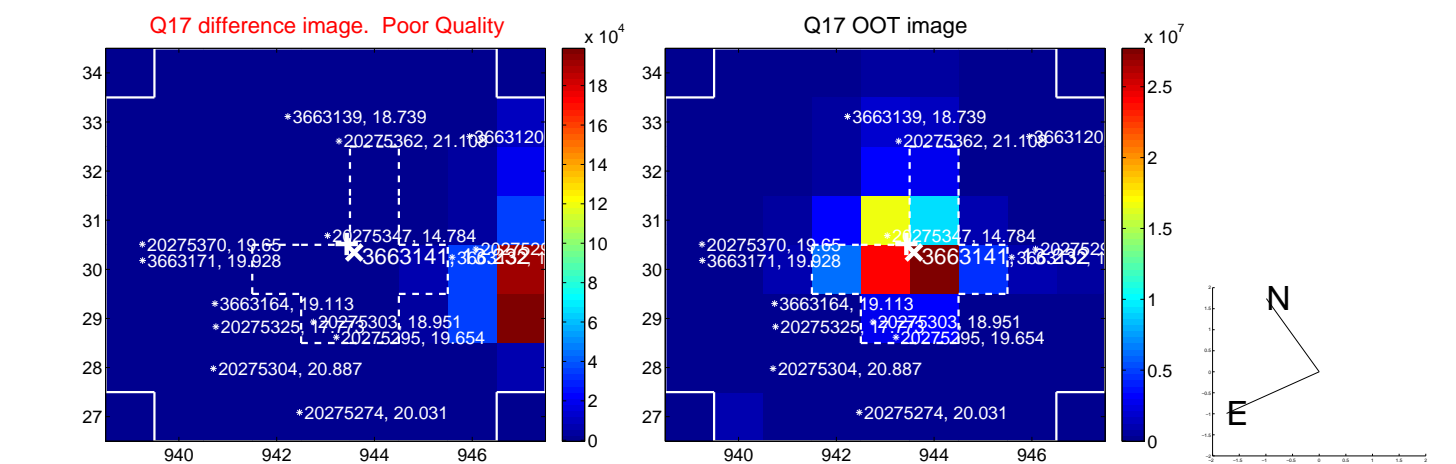
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



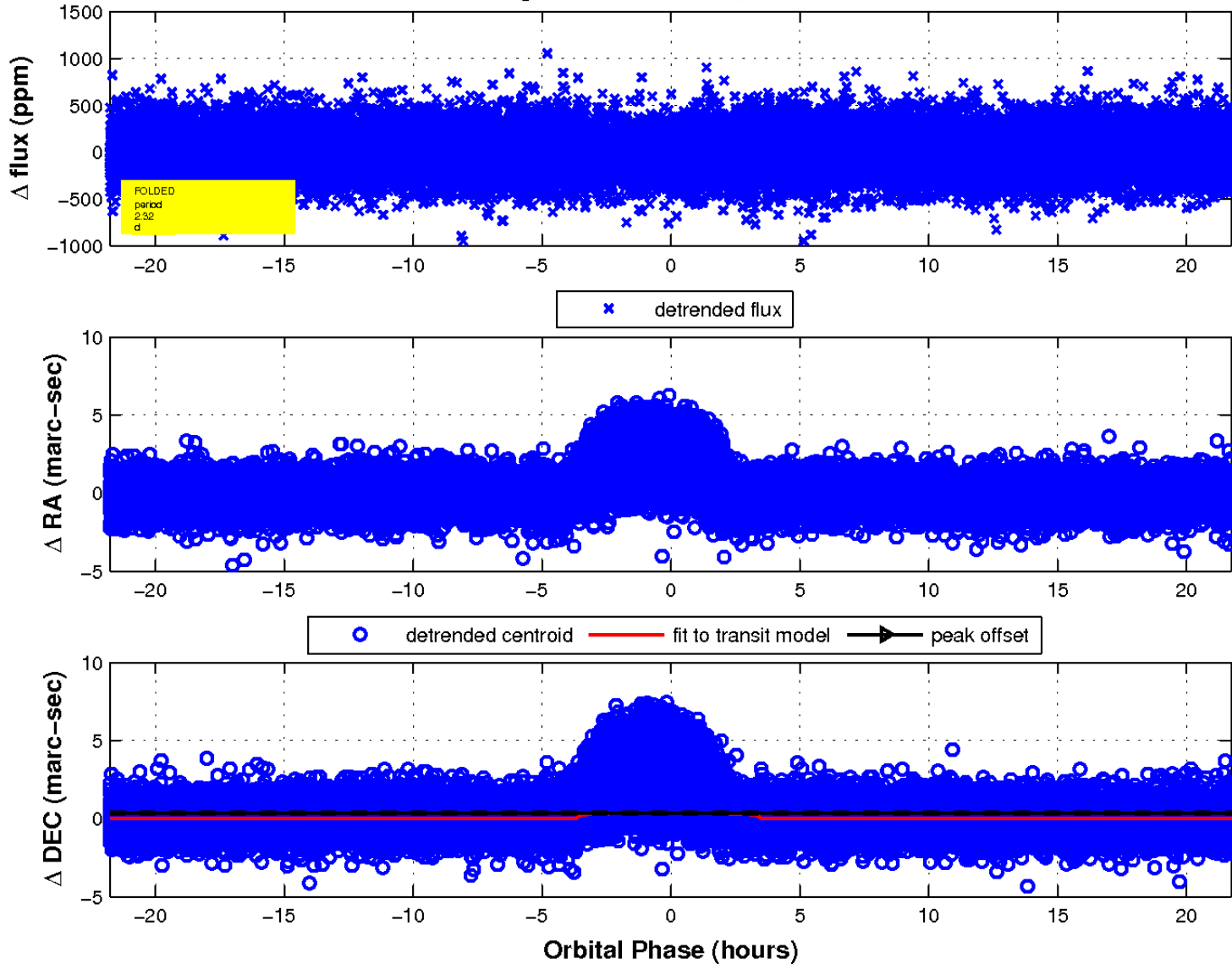
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

