

KIC 007891294

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})
007891294-01	OBS	4699.01	3.077197	133.475039	33.3	3.168	8.6	8.8	1.34	6108	0.91	1175.32

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007891294-01	OBS	PC	1.00	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.

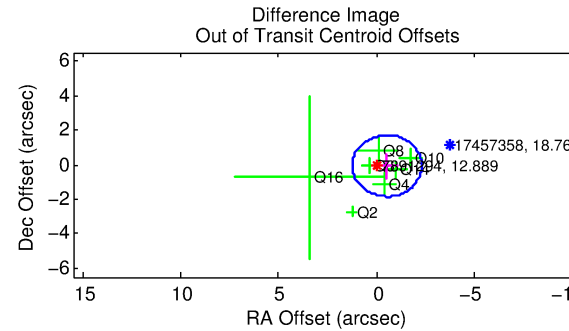
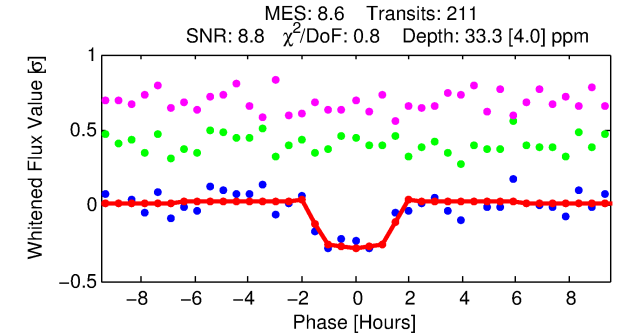
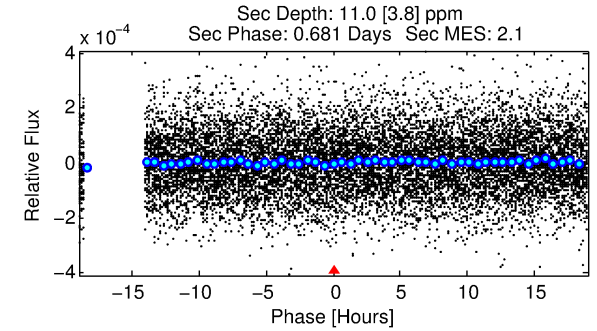
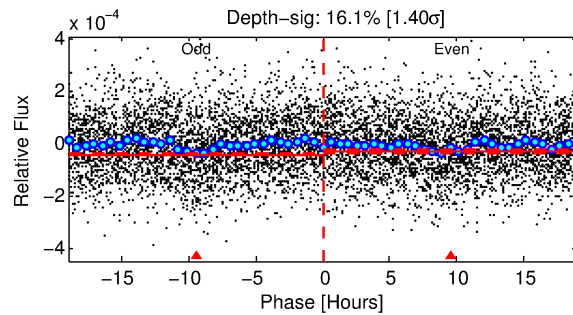
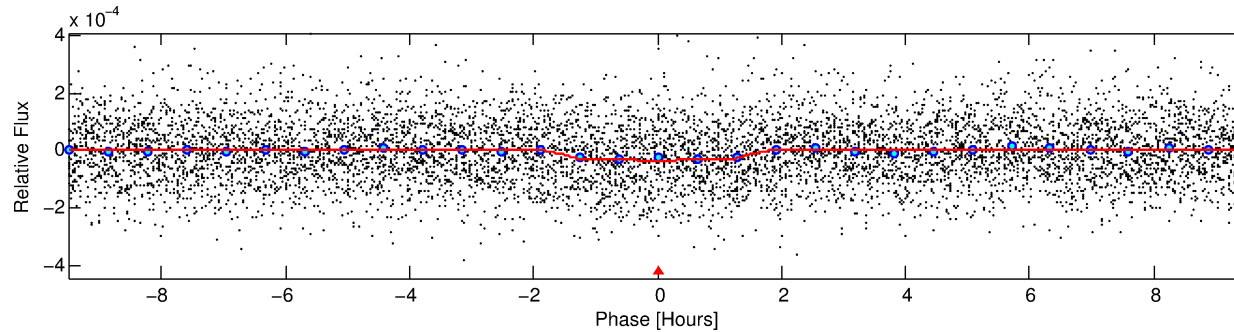
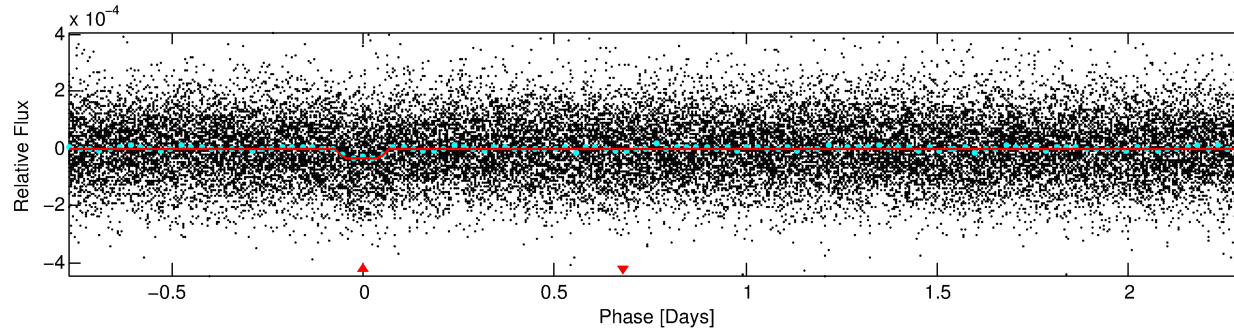
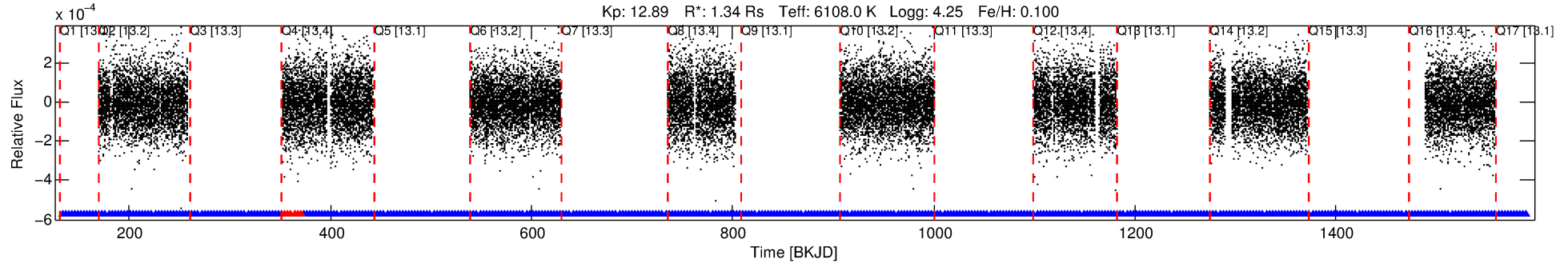
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007891294-01

No Significant Match Found

DV One-Page Summary

KIC: 7891294 Candidate: 1 of 1 Period: 3.077 d
KOI: K04699.01 Corr: 0.911



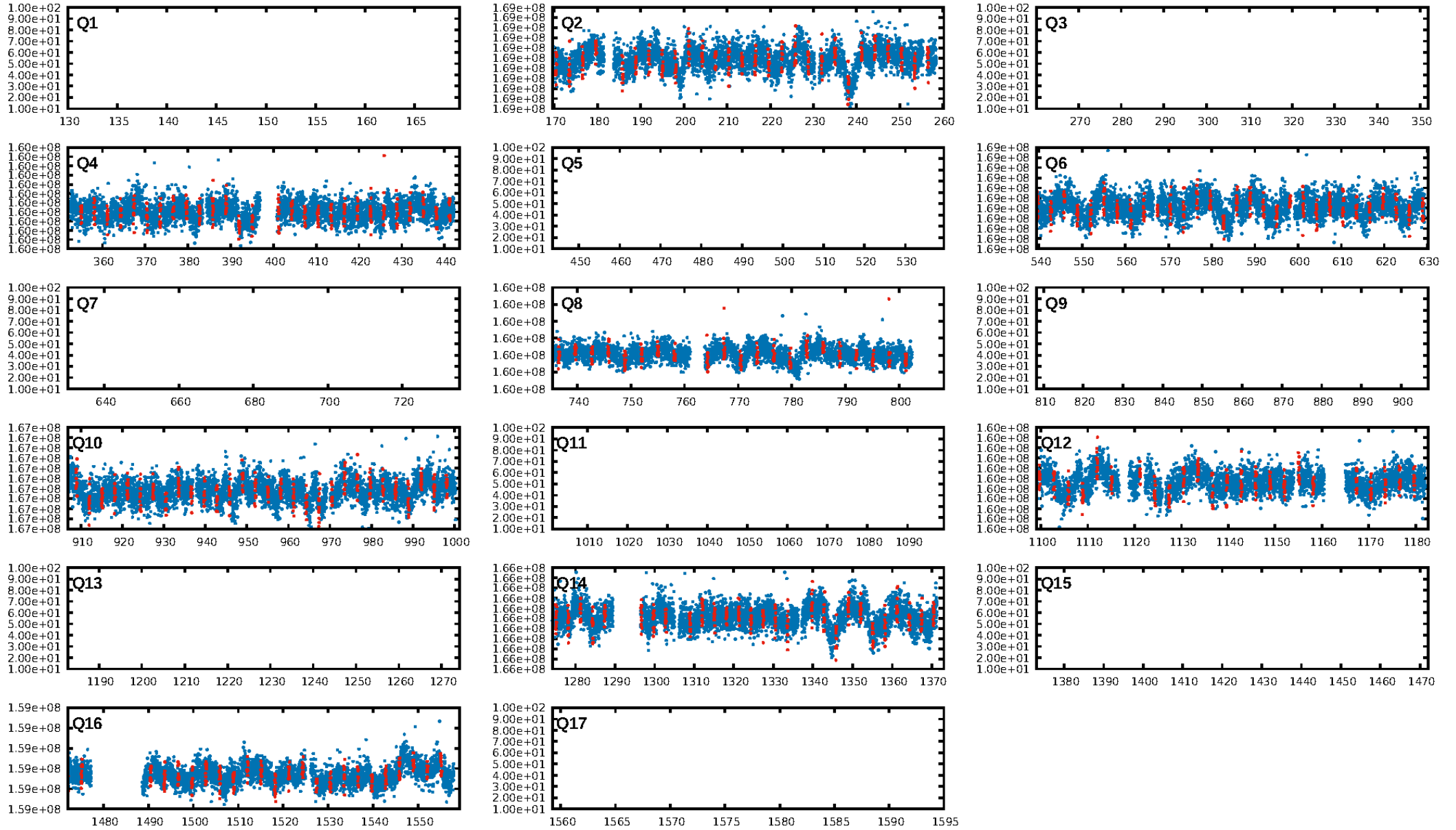
DV Fit Results:

Period = 3.07720 [0.00003] d
Epoch = 133.4750 [0.0050] BKJD
Rp/R* = 0.0062 [0.0035]
a/R* = 3.51 [9.30]
b = 0.90 [0.64]
Seff = 1175.32 [274.22]
Teq = 1493 [87] K
Rp = 0.91 [0.53] Re
a = 0.0435 [0.0066] AU
Ag = 13.96 [16.56] [0.78 σ]
Teffp = 4462 [1301] K [2.28 σ]

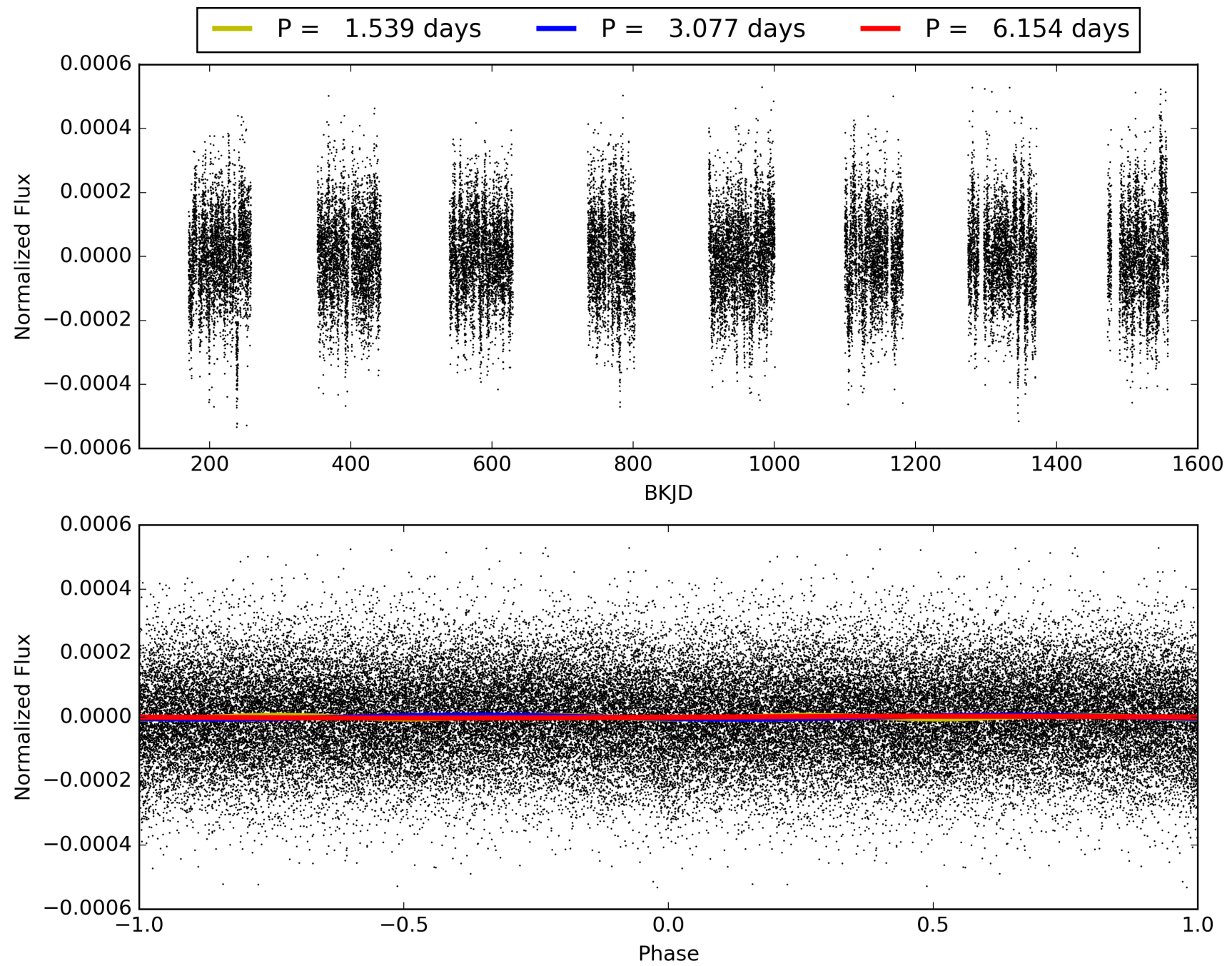
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.26e-18
RollingBand-fgt: 0.97 [205/211]
GhostDiagnostic-chr: 2.896
Centroid-sig: 51.7%
Centroid-so: 1.258 arcsec [0.96 σ]
OotOffset-rm: 0.539 arcsec [0.91 σ]
OotOffset-st: 4/0/3/0 [7]
KicOffset-rm: 0.510 arcsec [0.86 σ]
KicOffset-st: 4/0/3/0 [7]
DiffImageQuality-fgm: 0.86 [6/7]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 007891294-01, PDC Light Curves

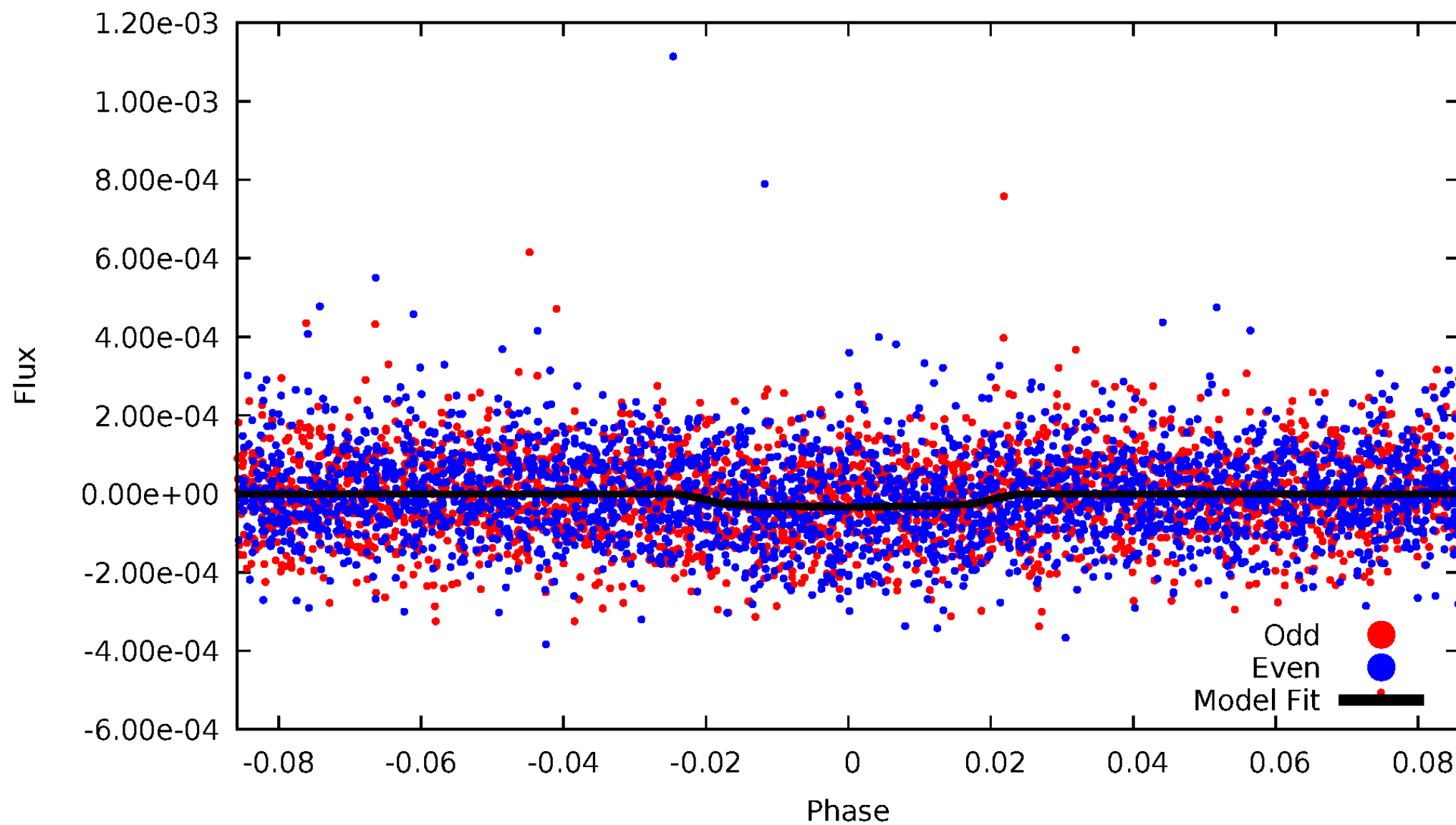


TCE 007891294-01



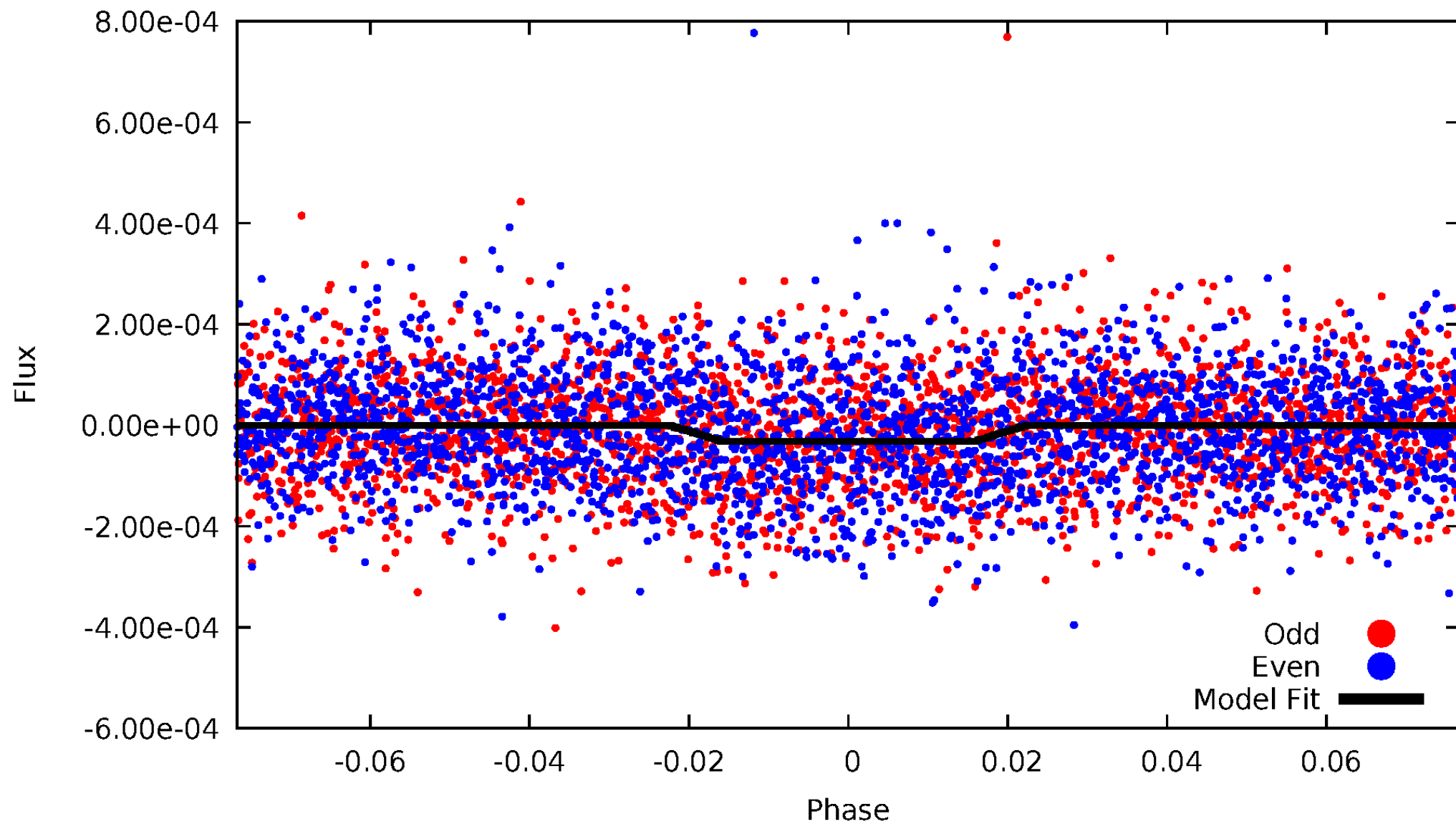
DV Odd/Even

TCE 007891294-01

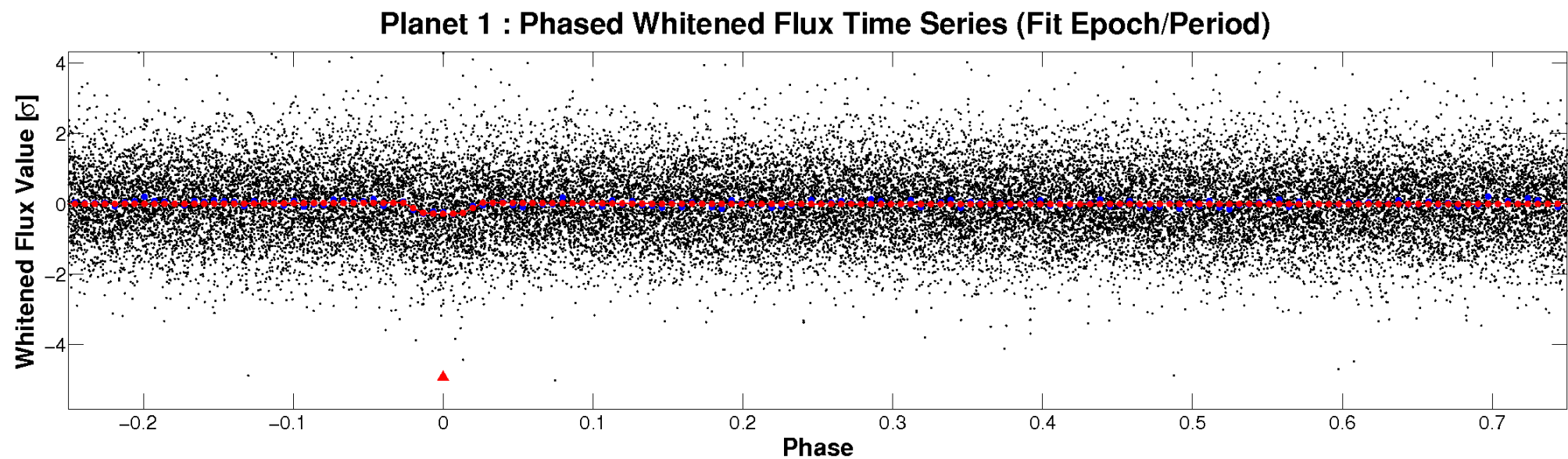
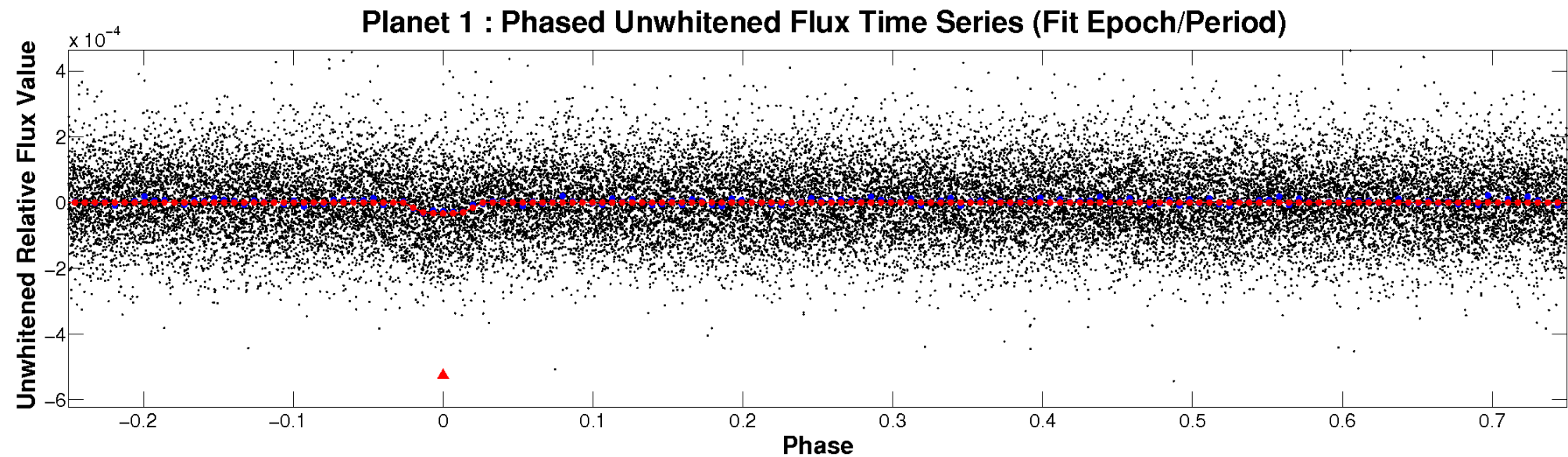


ALT Odd/Even

TCE 007891294-01

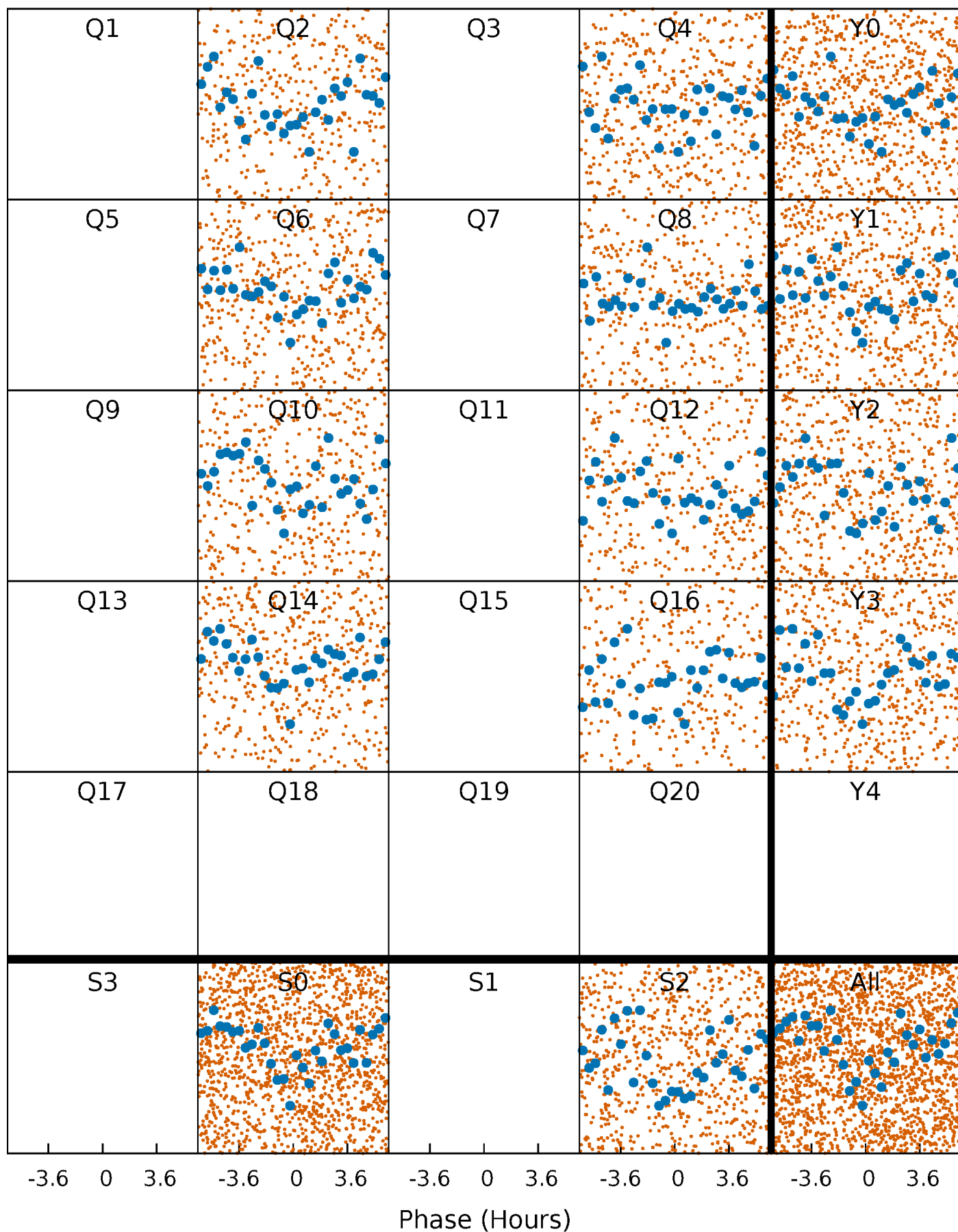


Non-Whitened Vs. Whitened Light Curve



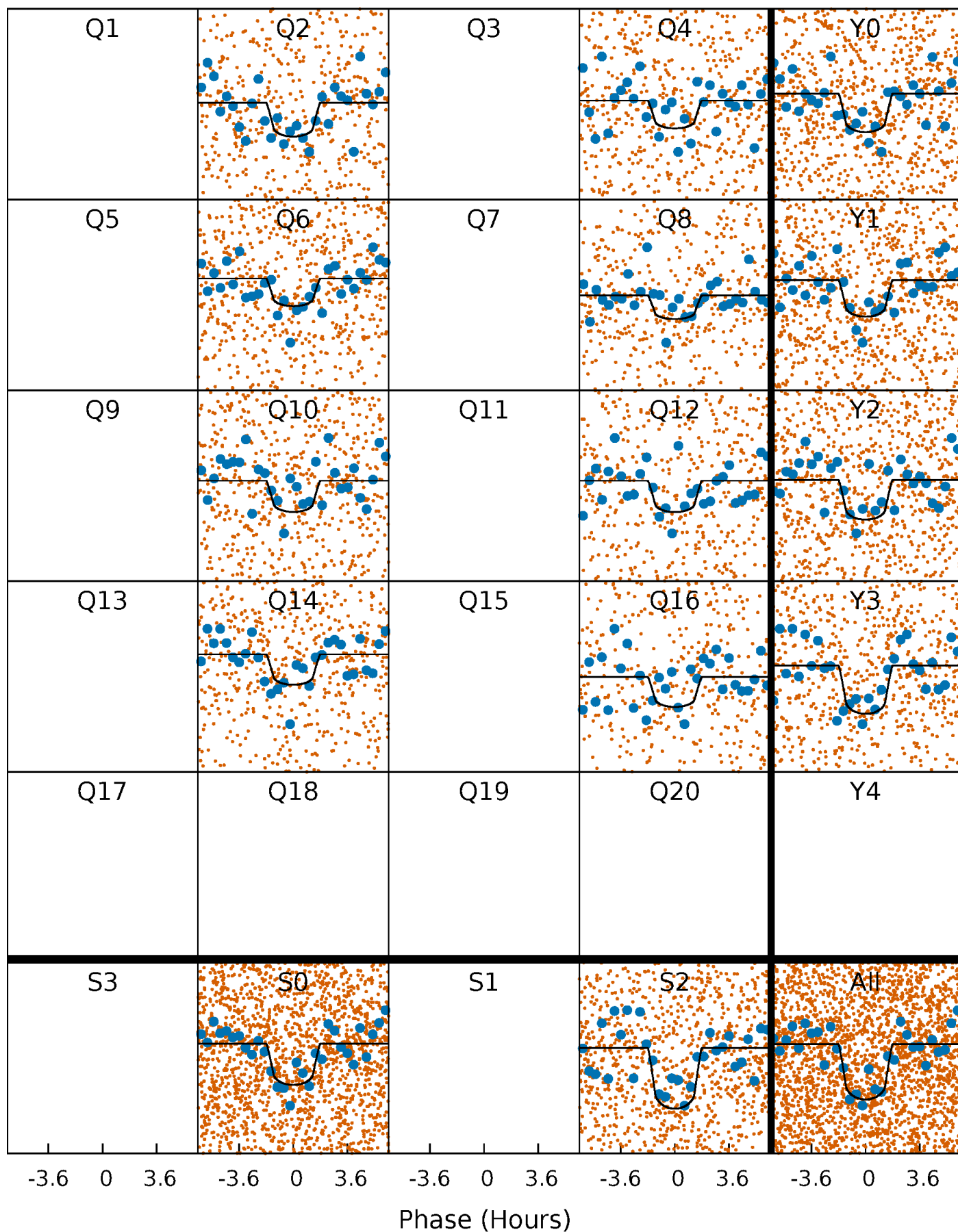
PDC Quarter-Phased Transit Curves

TCE 007891294-01 P= 3.077197 Days $T_0=133.475039$ (BKJD)



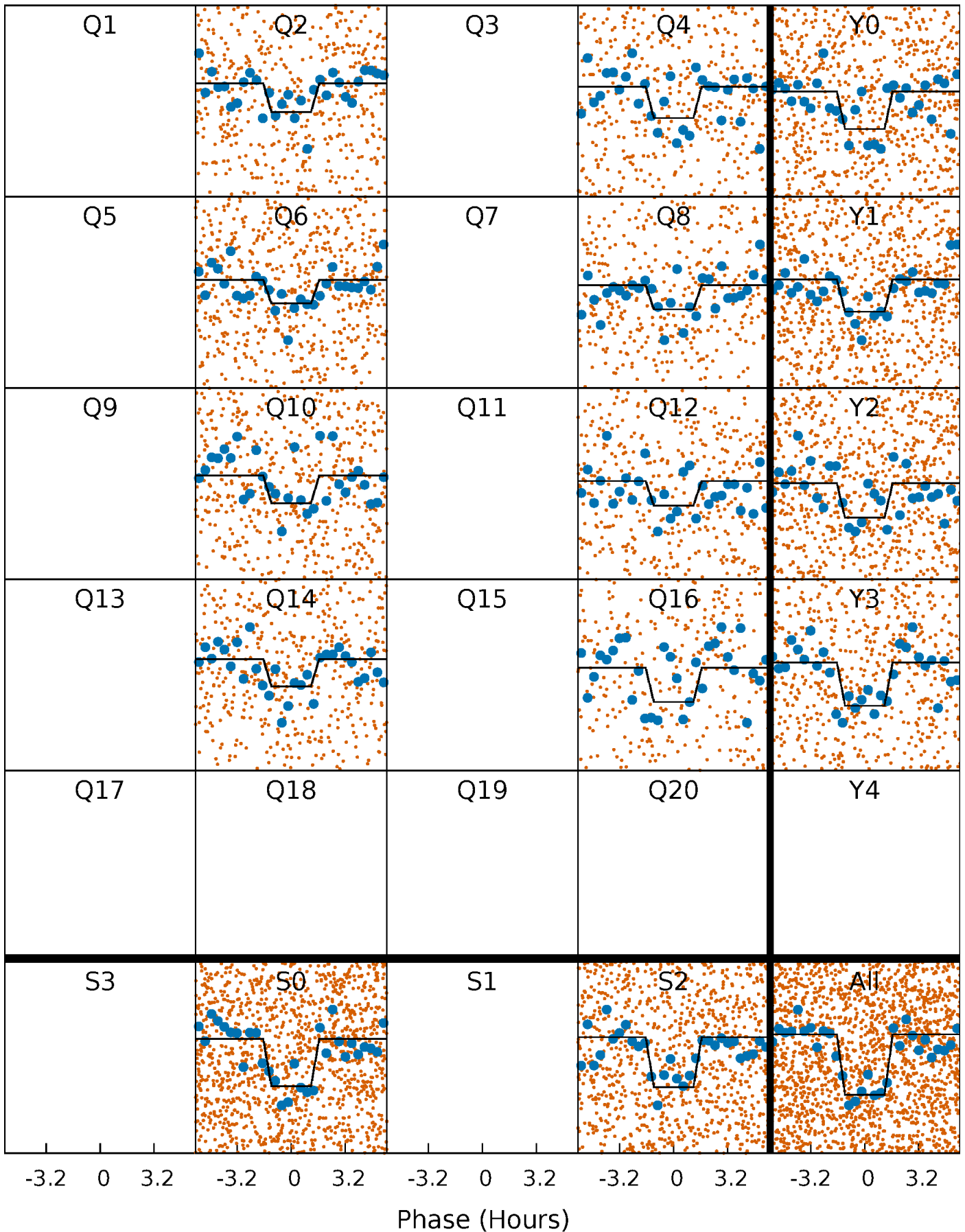
DV Quarter-Phased Transit Curves

TCE 007891294-01 P= 3.077197 Days $T_0=133.475039$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

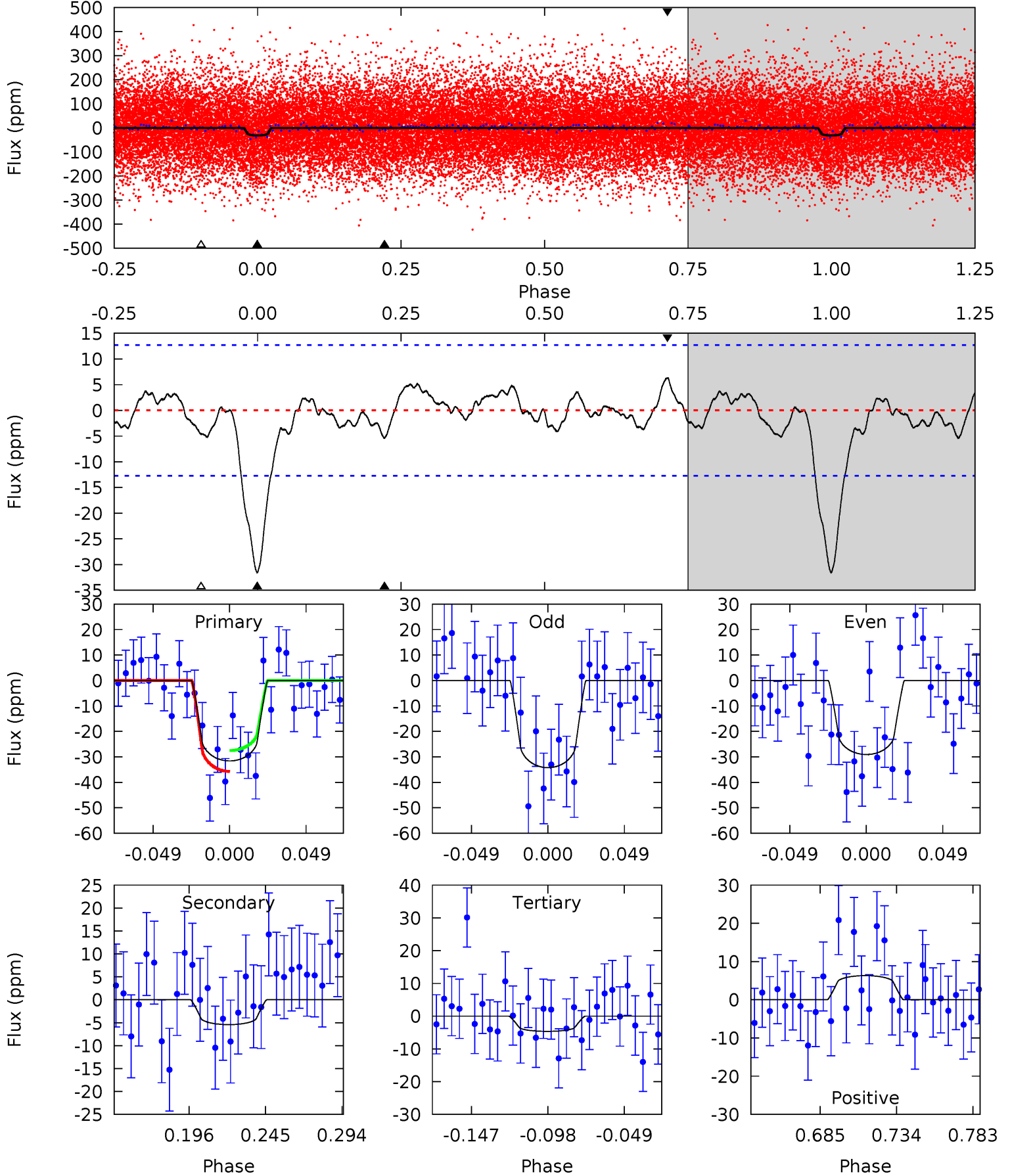
TCE 007891294-01 P= 3.077147 Days $T_0=133.485564$ (BKJD)



DV Model-Shift Uniqueness Test

007891294-01, P = 3.077197 Days, E = 133.475039 Days

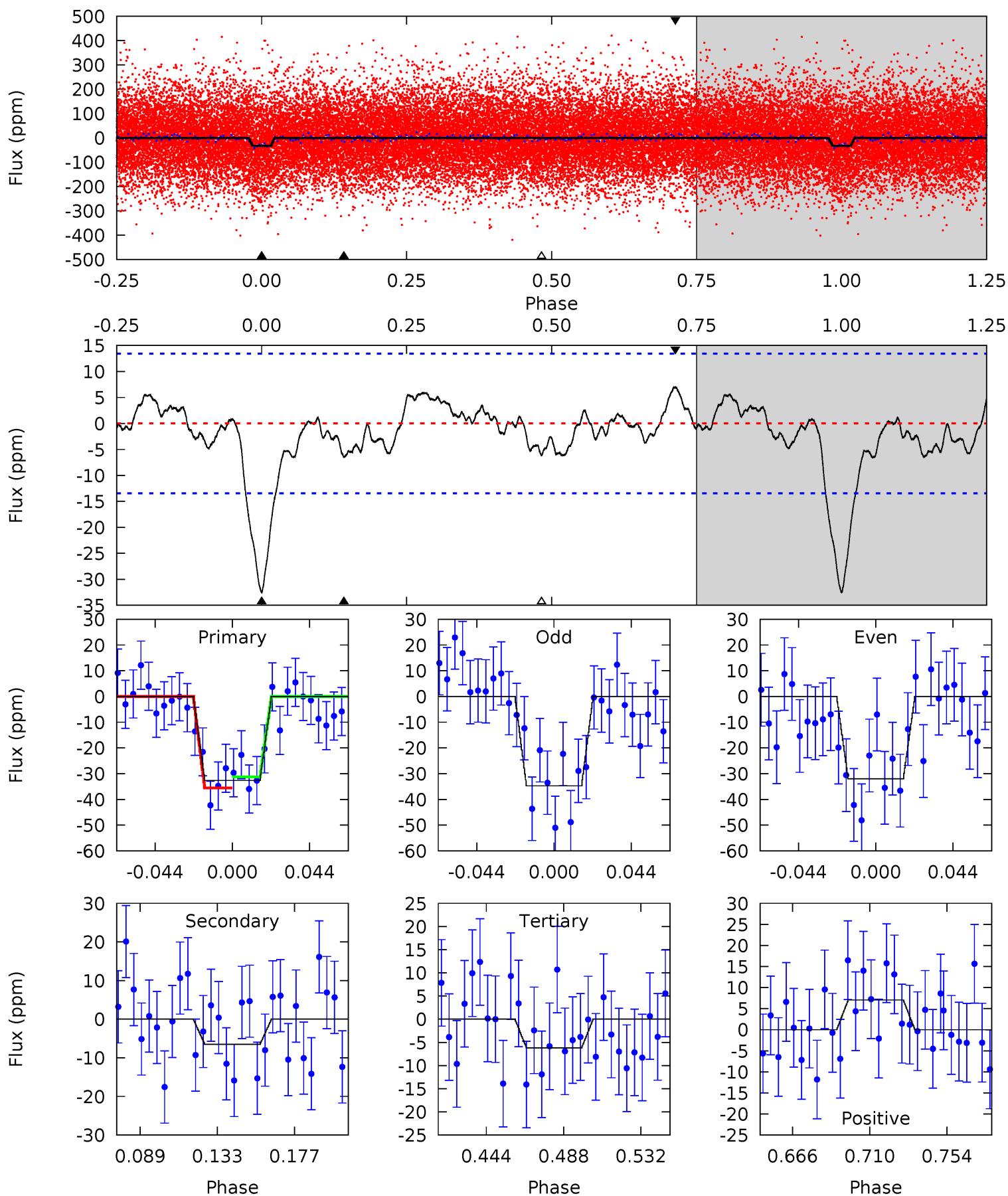
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	2.01	1.72	2.34	4.71	1.97	0.93	9.98	9.36	0.29	-0.33	0.96	0.94	0.17	1.53



Alt Model-Shift Uniqueness Test

007891294-01, P = 3.077147 Days, E = 133.485564 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	2.30	2.18	2.48	4.73	2.01	1.14	9.29	8.99	0.11	-0.18	0.48	0.97	0.18	0.76



Stellar Parameters For KIC 007891294

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6108^{+82}_{-92}	$4.251^{+0.125}_{-0.112}$	$0.100^{+0.150}_{-0.150}$	$1.336^{+0.237}_{-0.194}$	$1.162^{+0.083}_{-0.093}$	$0.686^{+0.390}_{-0.249}$
	+1%/-2%	+3%/-3%	+150%/-150%	+18%/-15%	+7%/-8%	+57%/-36%
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 007891294-01 / KOI 4699.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 3	$0.92^{+0.51}_{-0.47}$	2077^{+107}_{-85}	3950^{+1405}_{-678}	$6.421^{+21.851}_{-4.275}$
Alt.	-7 ± 3	$0.84^{+0.52}_{-0.47}$	2079^{+94}_{-92}	4191^{+1790}_{-772}	$8.677^{+36.436}_{-5.827}$

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 $A_{obs} \gg 1.0$

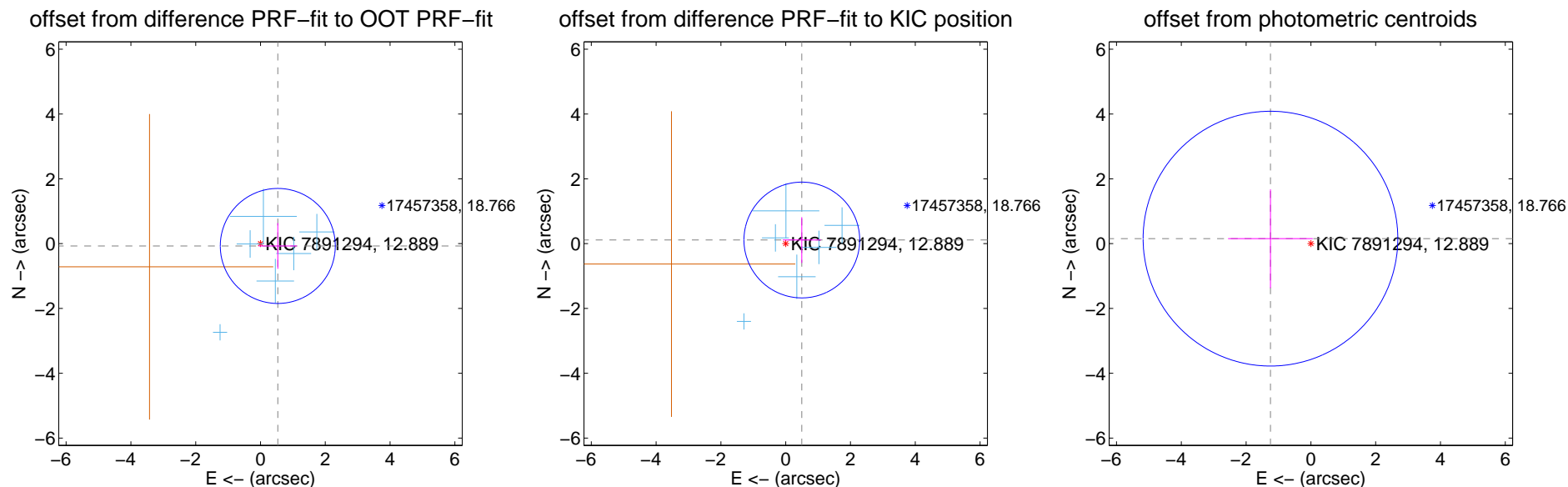
DV Centroid Data

Supplemental centroid analysis for 007891294-01. Kepler magnitude: 12.89. Transit SNR 8.83

There are 6 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.539 ± 0.592	0.91	-0.534 ± 0.589	-0.071 ± 0.707
PRF-fit source offset from KIC position	0.510 ± 0.596	0.86	-0.498 ± 0.589	0.112 ± 0.707
photometric centroid source offset	1.26 ± 1.31	0.96	1.25 ± 1.31	0.15 ± 1.52



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.

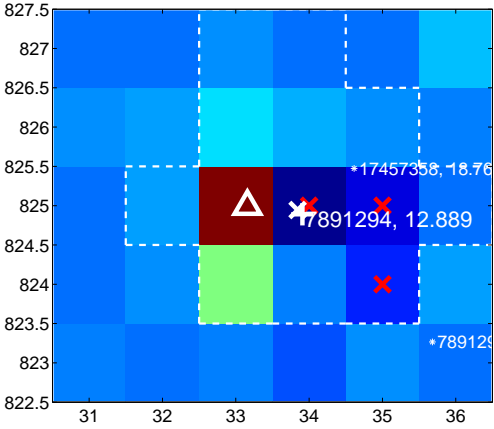
Q1 no difference image



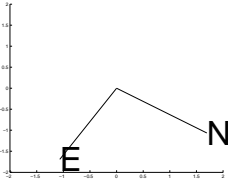
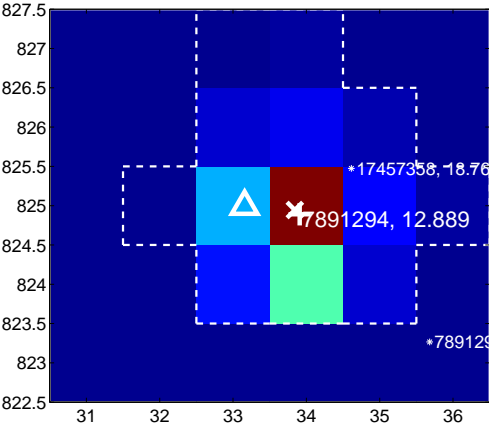
Q1 no OOT image



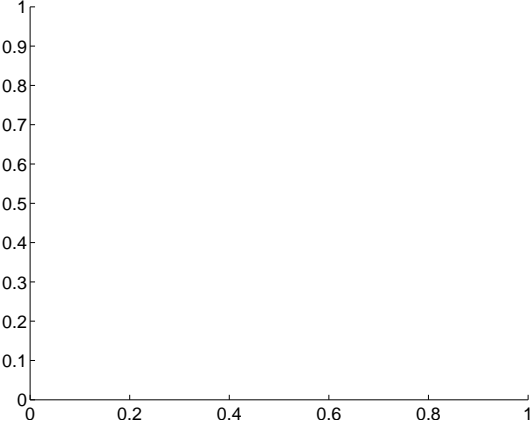
Q2 difference image



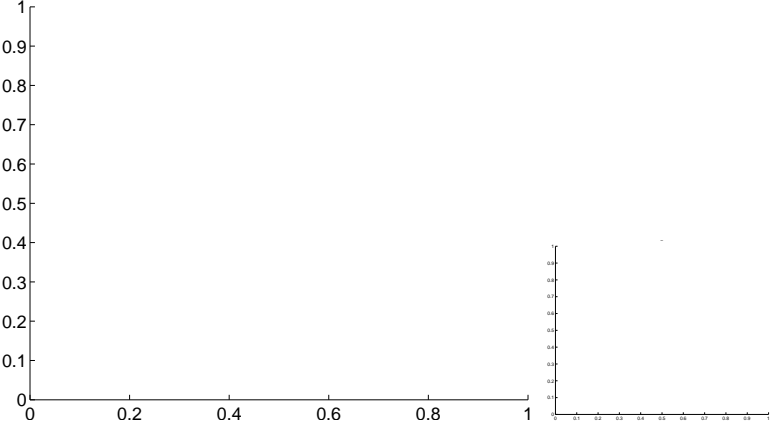
Q2 OOT image



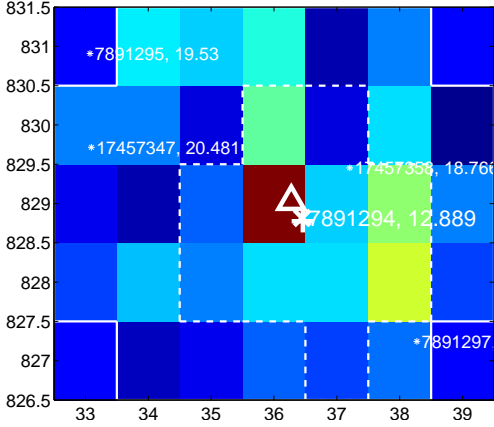
Q3 no difference image



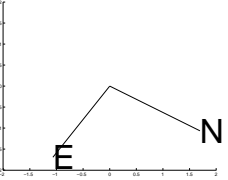
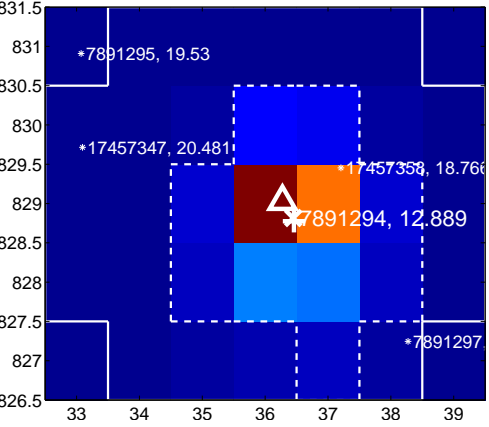
Q3 no OOT image



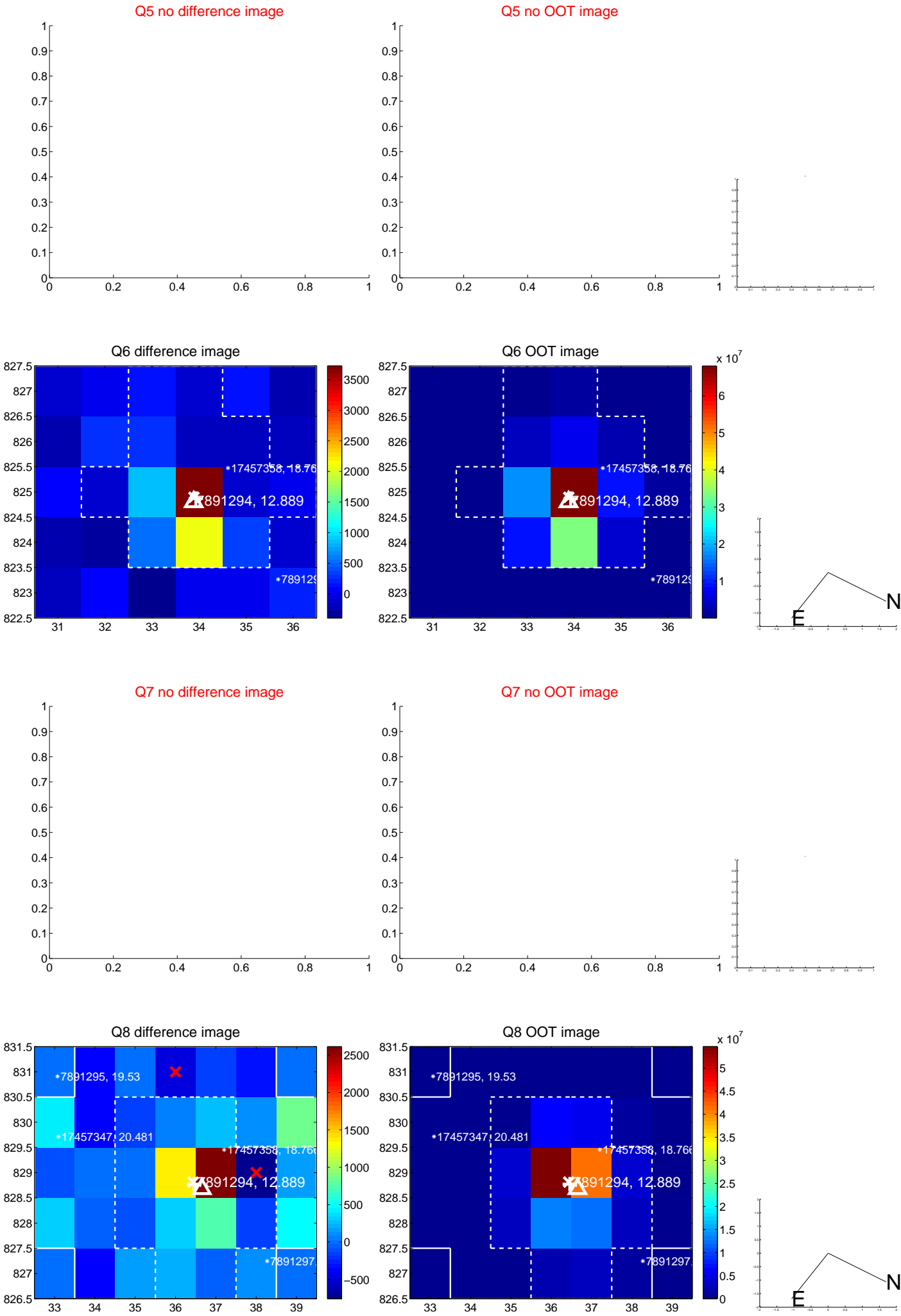
Q4 difference image



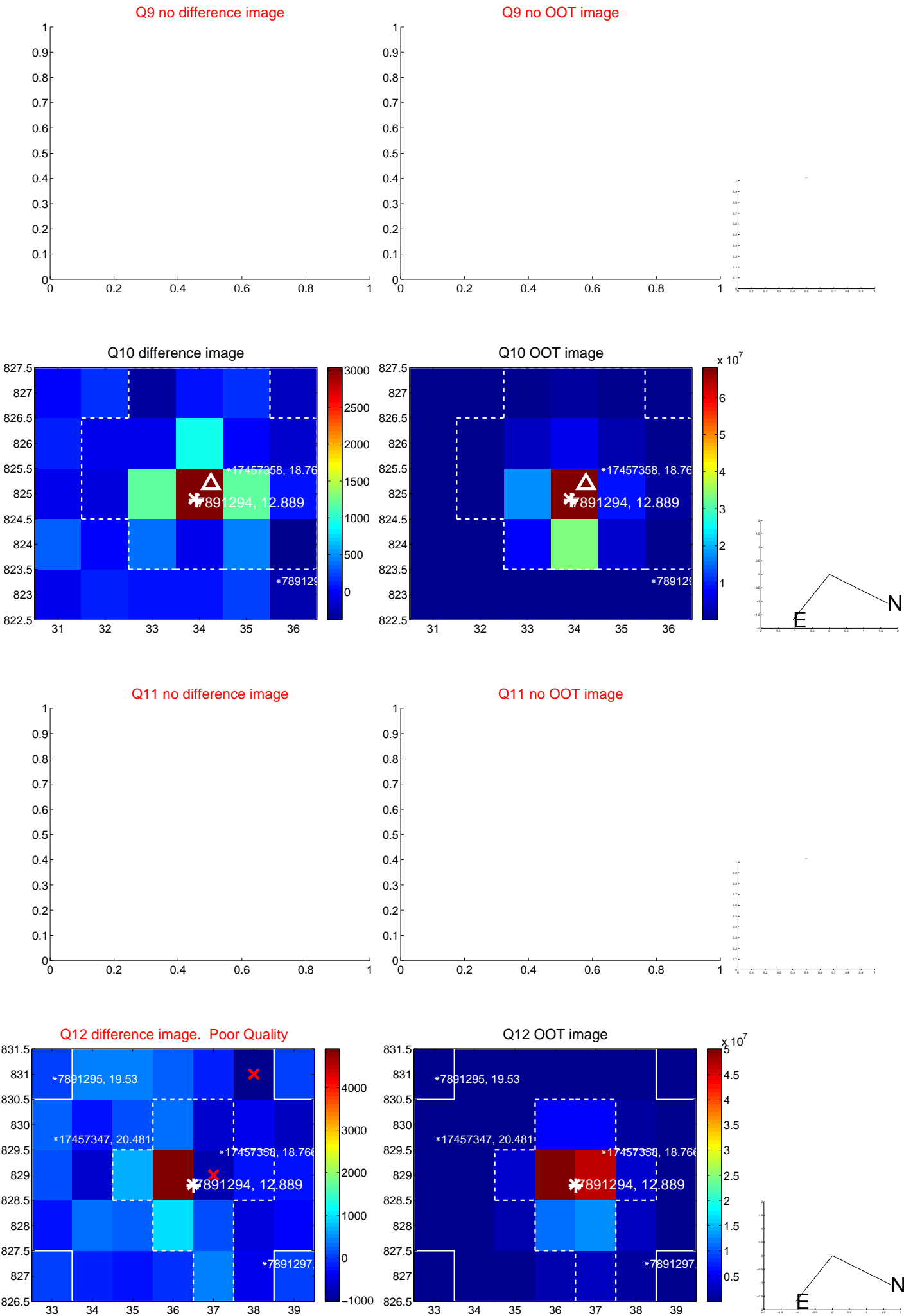
Q4 OOT image



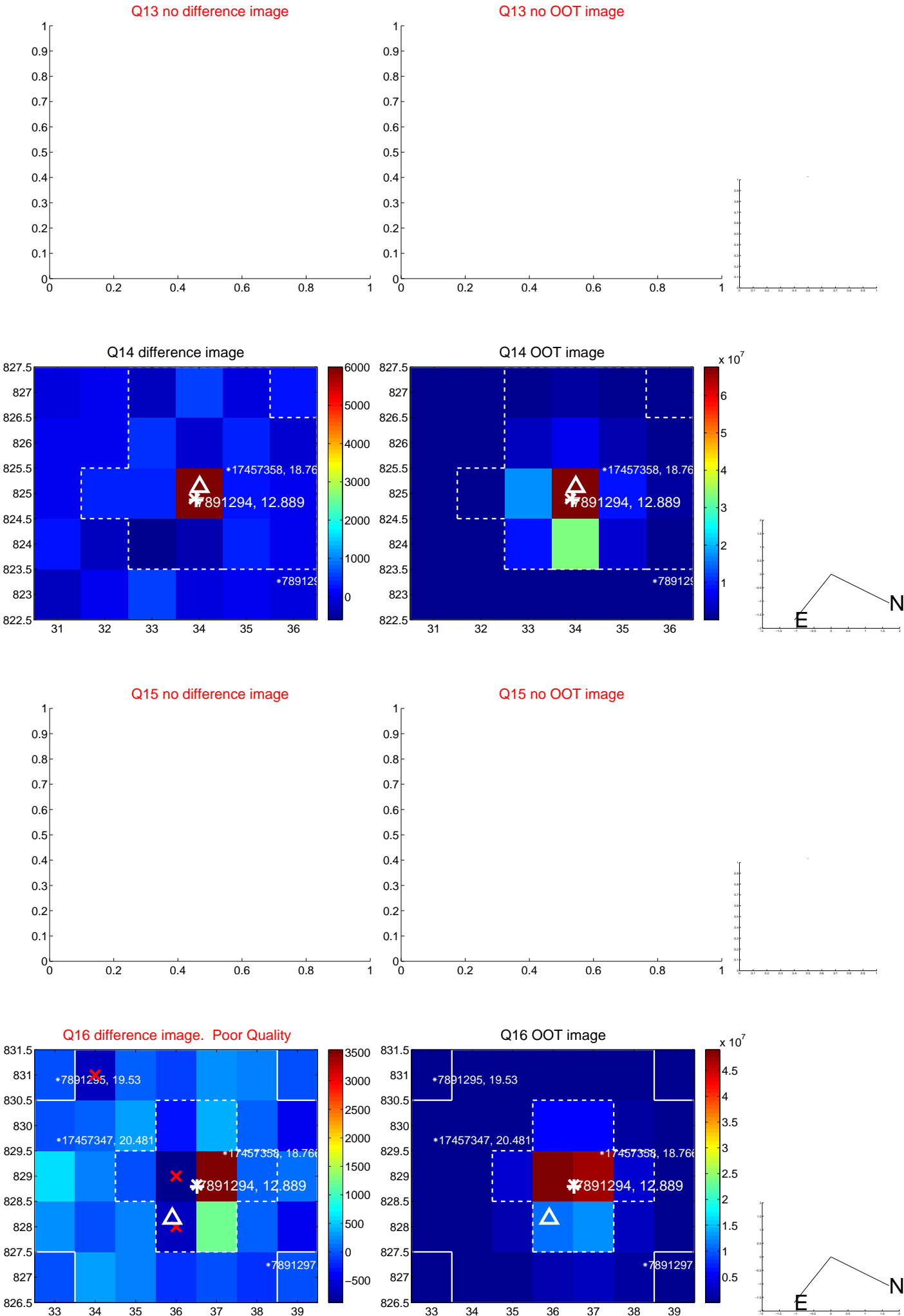
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



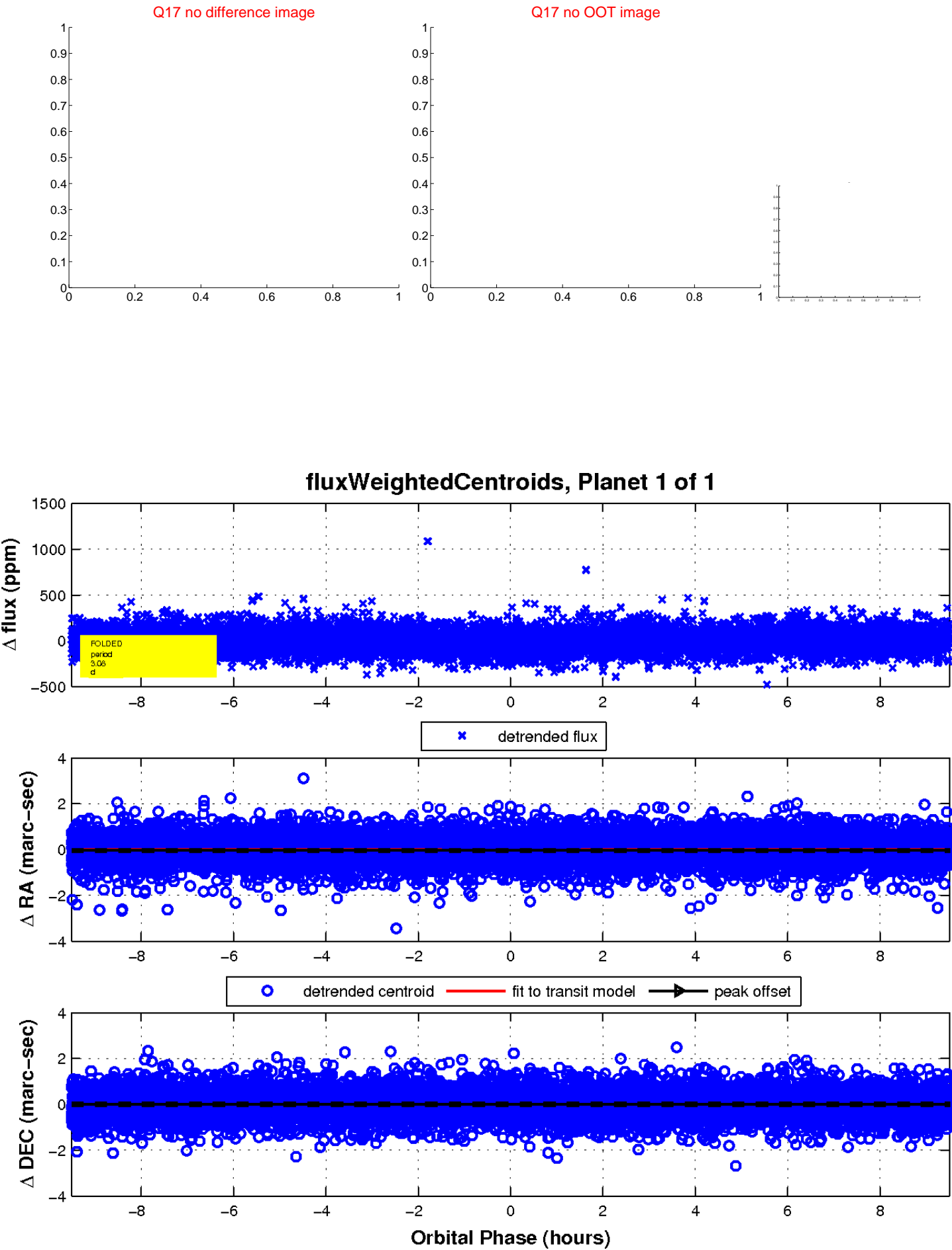
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

