

KIC 007741048

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})
007741048-01	OBS	6911.01	0.843390	131.576789	20.8	1.583	9.6	10.6	0.96	5982	0.53	3360.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007741048-01	OBS	FP	0.00	0	0	1	0	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.

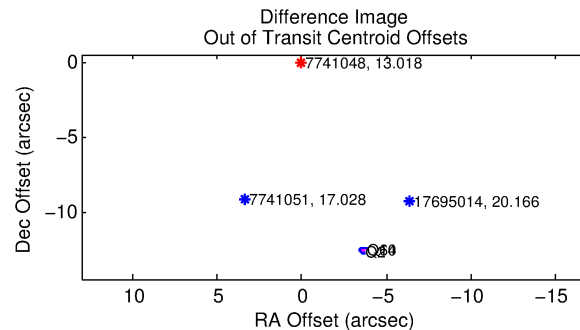
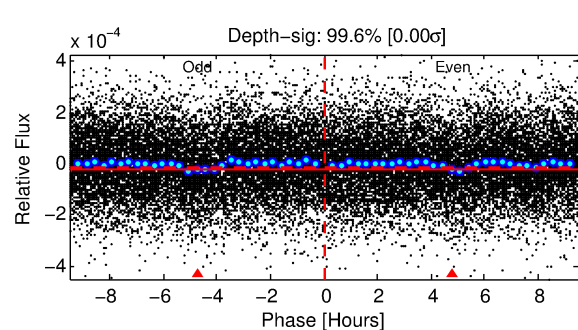
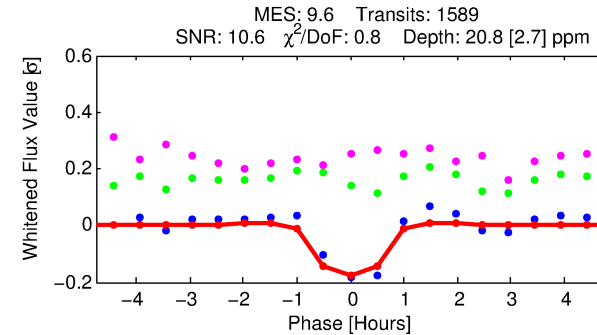
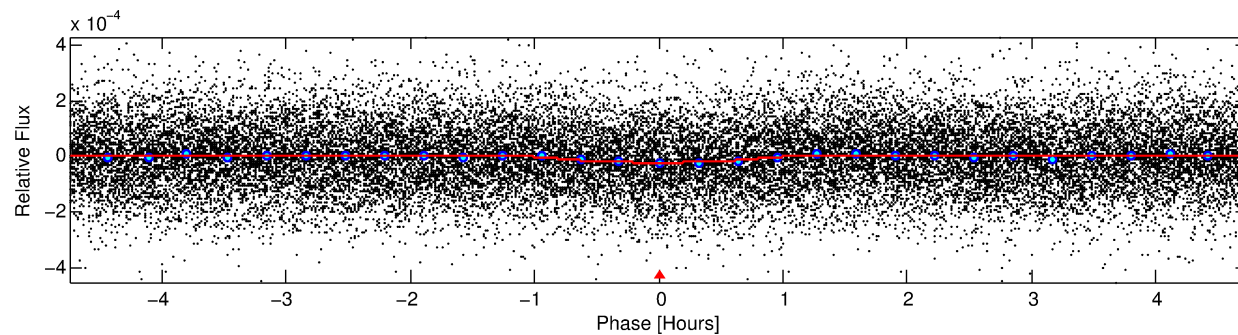
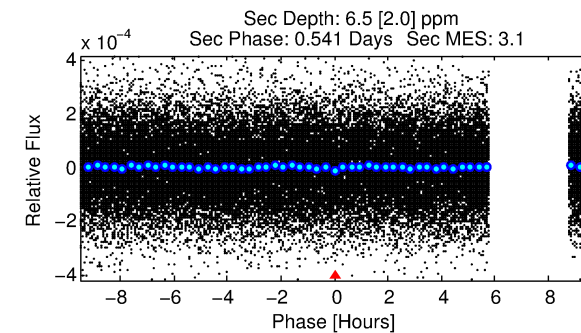
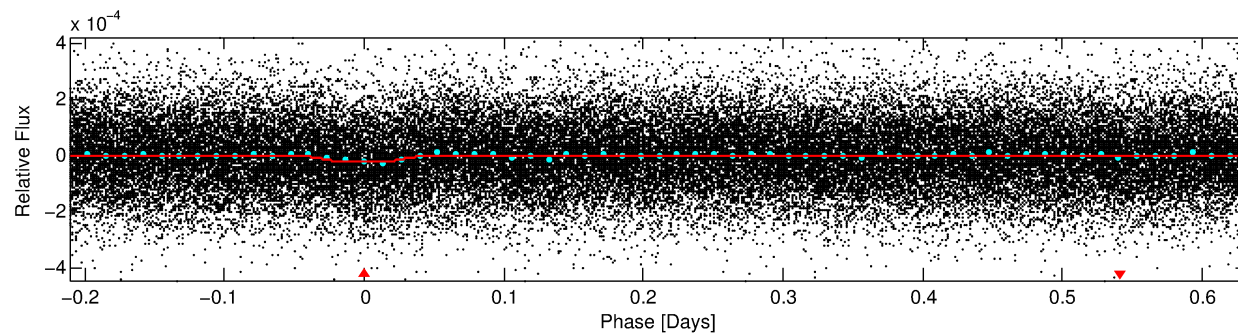
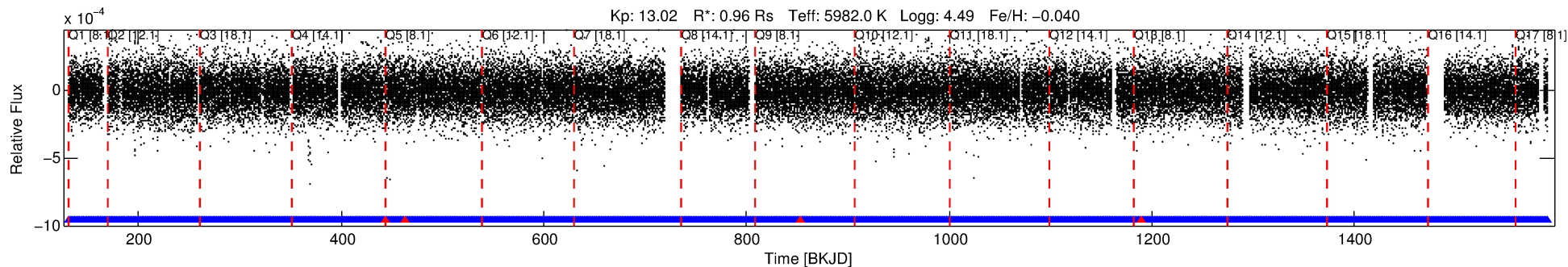
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007741048-01

No Significant Match Found

DV One-Page Summary

KIC: 7741048 Candidate: 1 of 1 Period: 0.843 d
KOI: K06911.01 Corr: 0.918



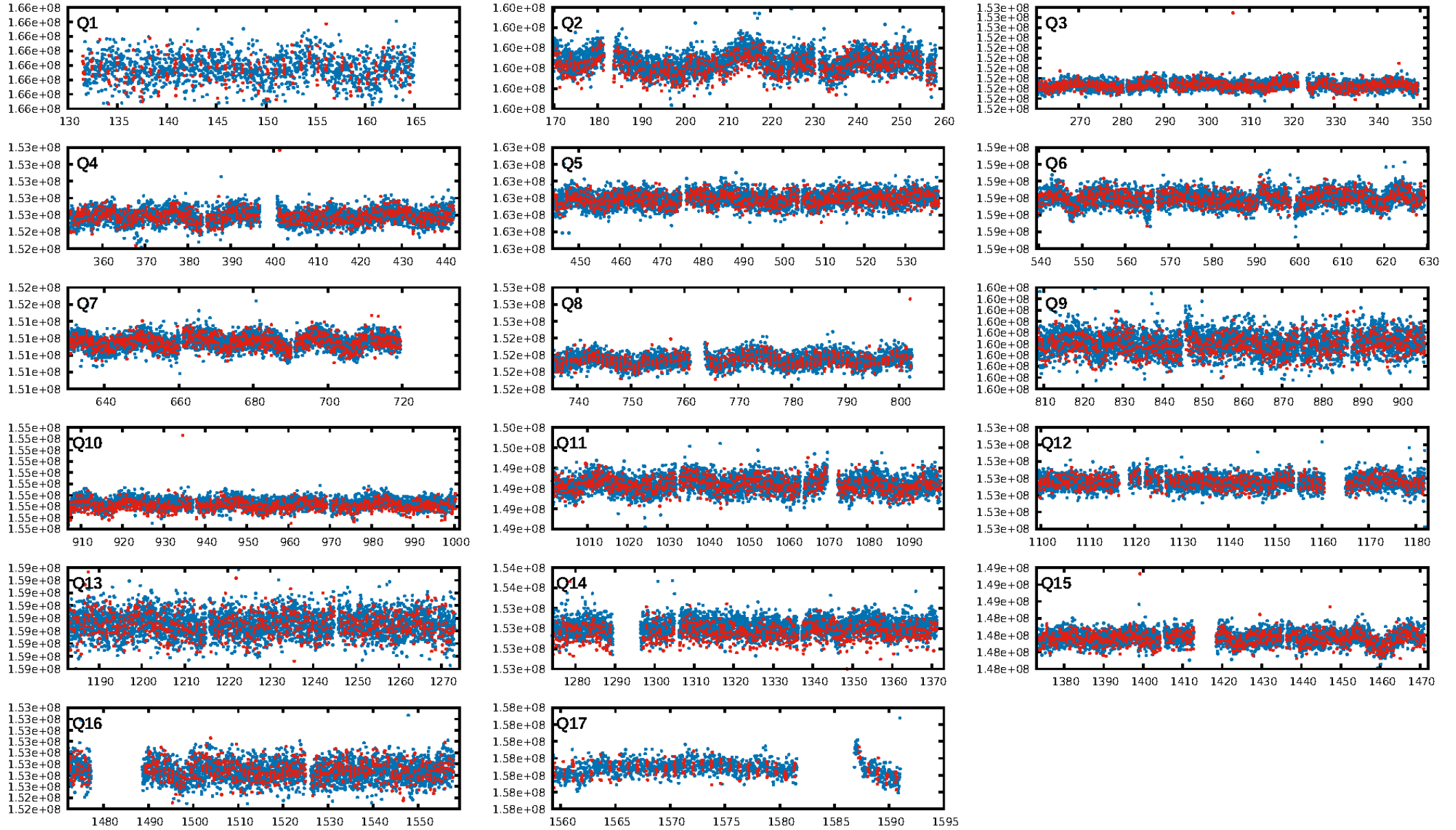
DV Fit Results:

Period = 0.84339 [0.00001] d
Epoch = 131.5768 [0.0022] BKJD
Rp/R* = 0.0050 [0.0017]
a/R* = 1.94 [2.55]
b = 0.92 [0.32]
Seff = 3360.65 [1449.02]
Teff = 1941 [209] K
Rp = 0.53 [0.25] Re
a = 0.0177 [0.0050] AU
Ag = 4.04 [3.49] [0.87σ]
Teffp = 4254 [818] K [2.74σ]

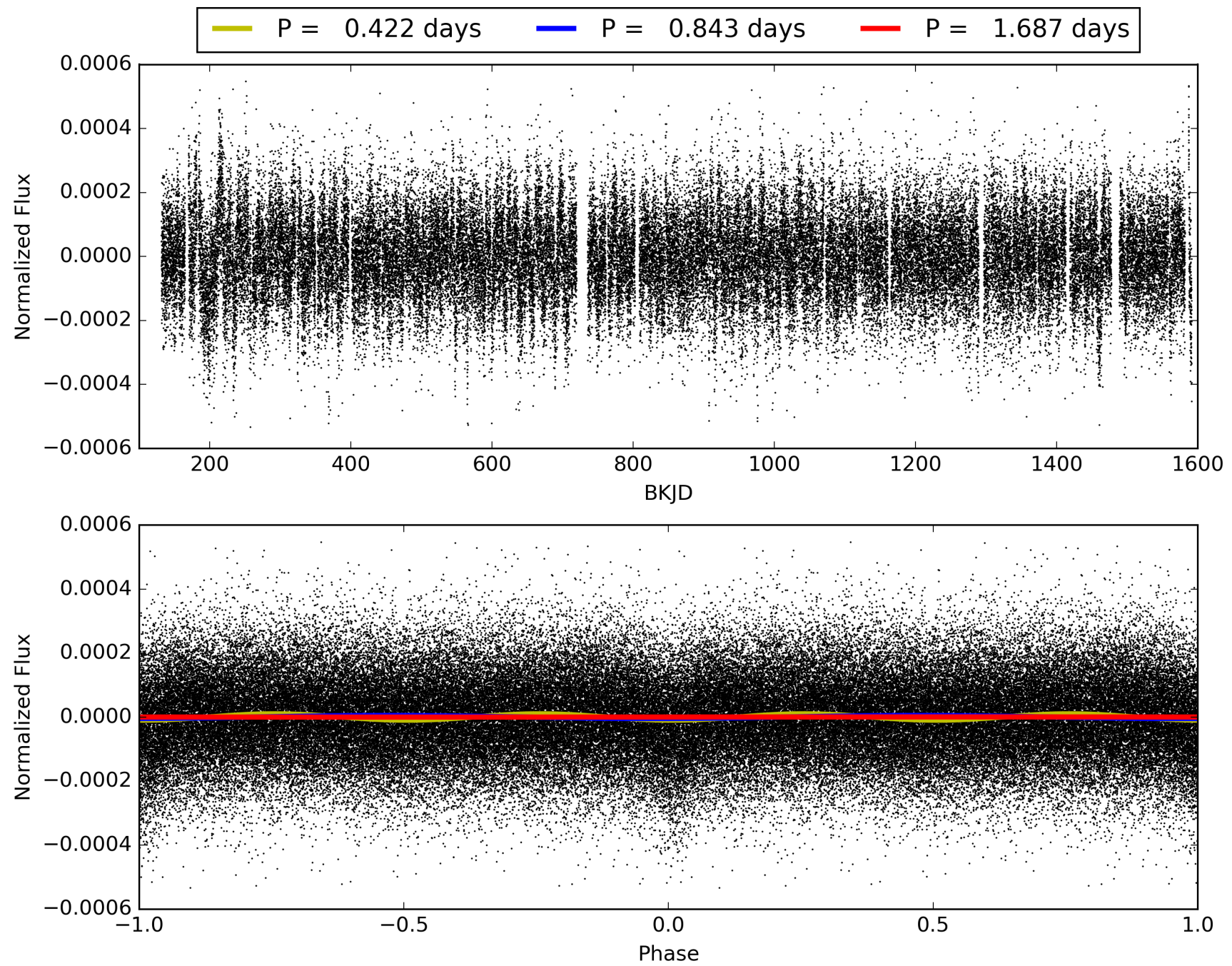
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 9.72e-21
RollingBand-fgt: 1.00 [1513/1517]
GhostDiagnostic-chr: -0.6635
Centroid-sig: 0.0%
Centroid-so: 19.995 arcsec [23.08σ]
OotOffset-rm: 13.096 arcsec [189.32σ]
KicOffset-rm: 11.327 arcsec [153.91σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007741048-01, PDC Light Curves

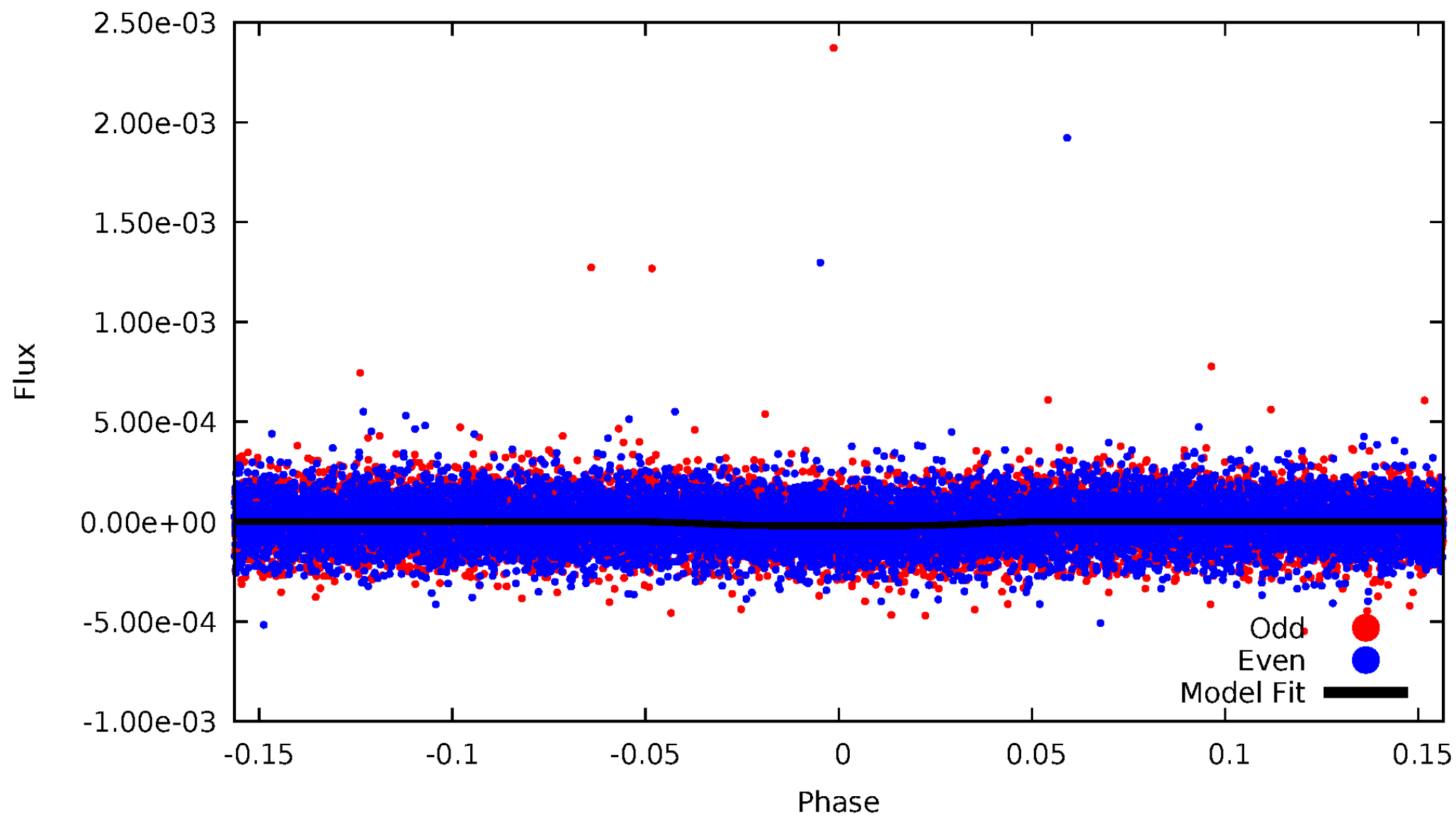


TCE 007741048-01



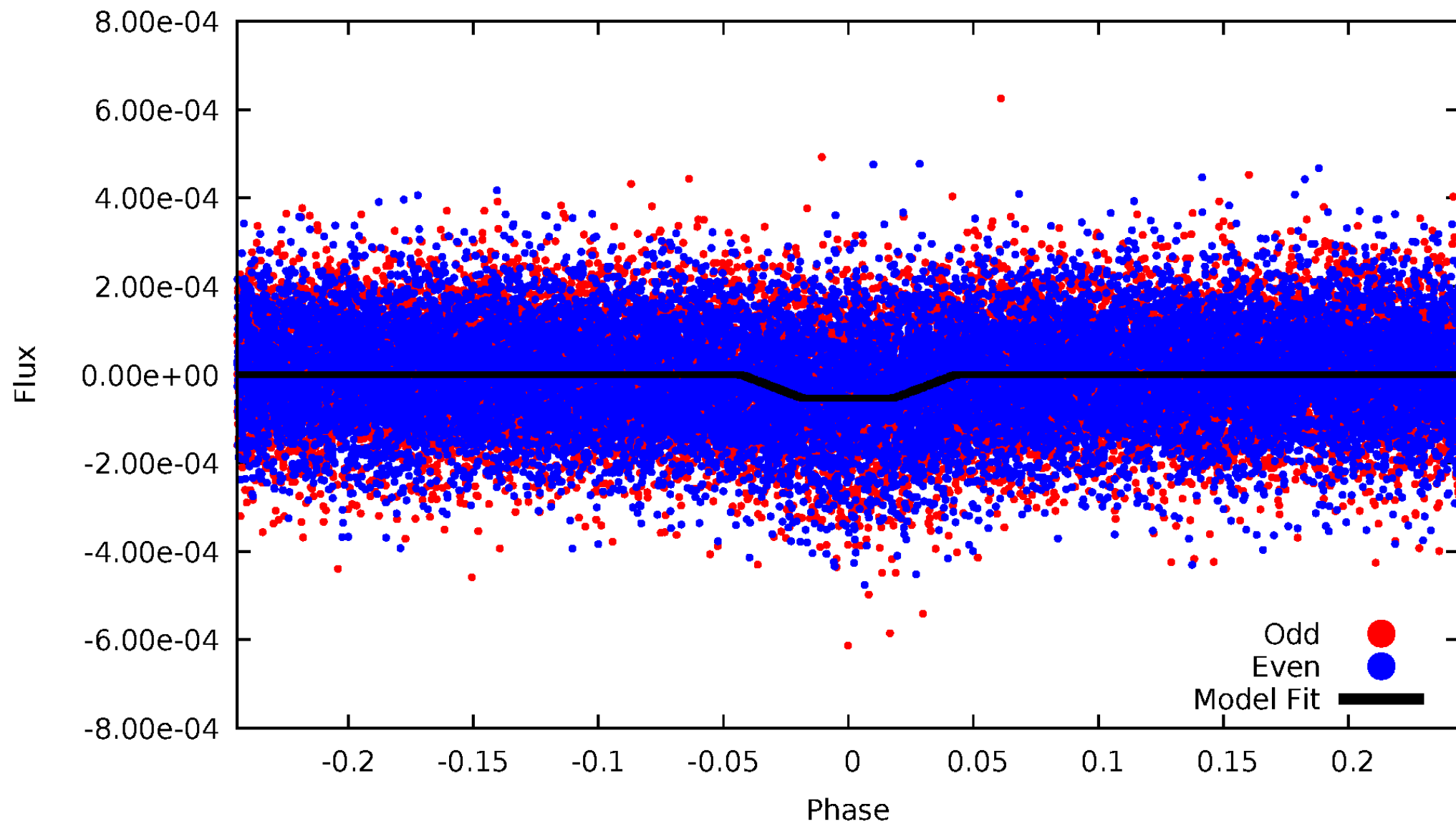
DV Odd/Even

TCE 007741048-01

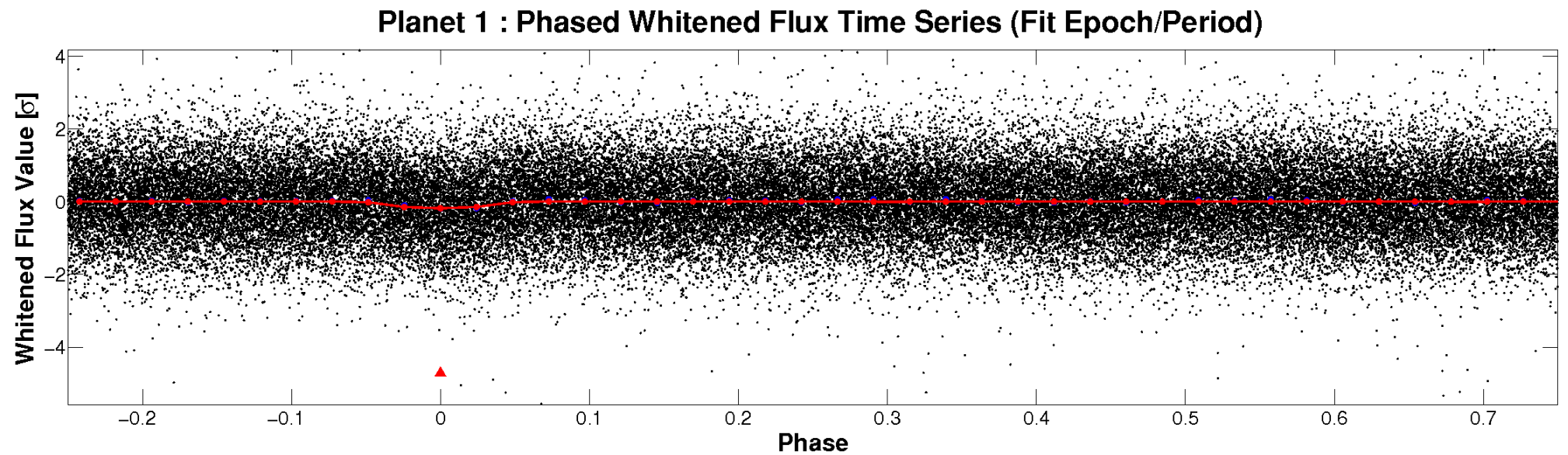
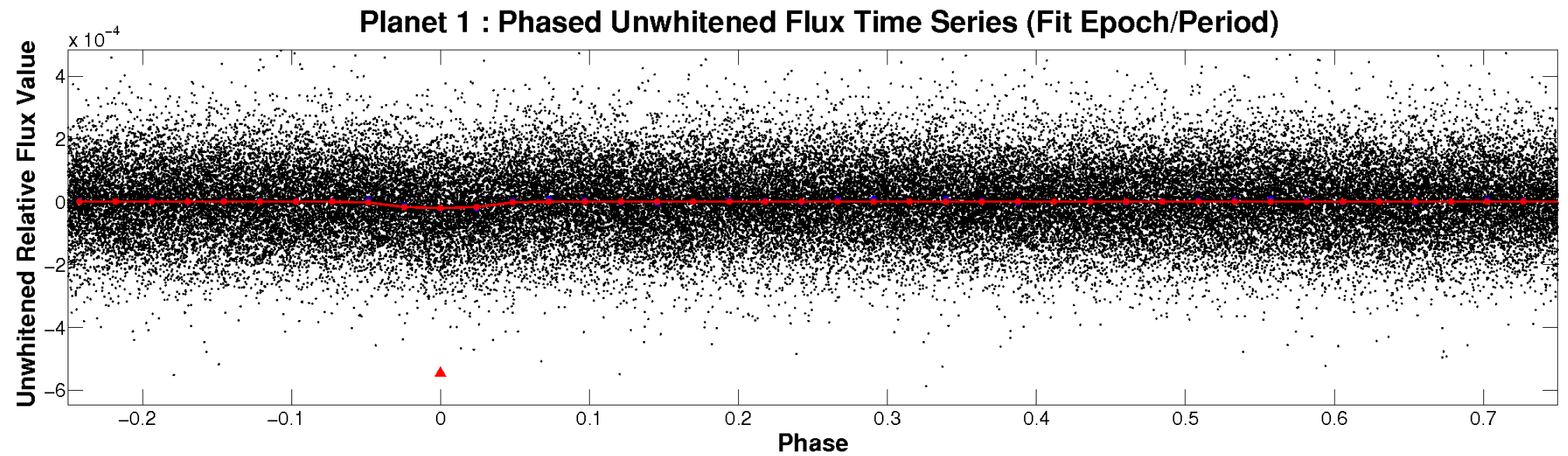


ALT Odd/Even

TCE 007741048-01

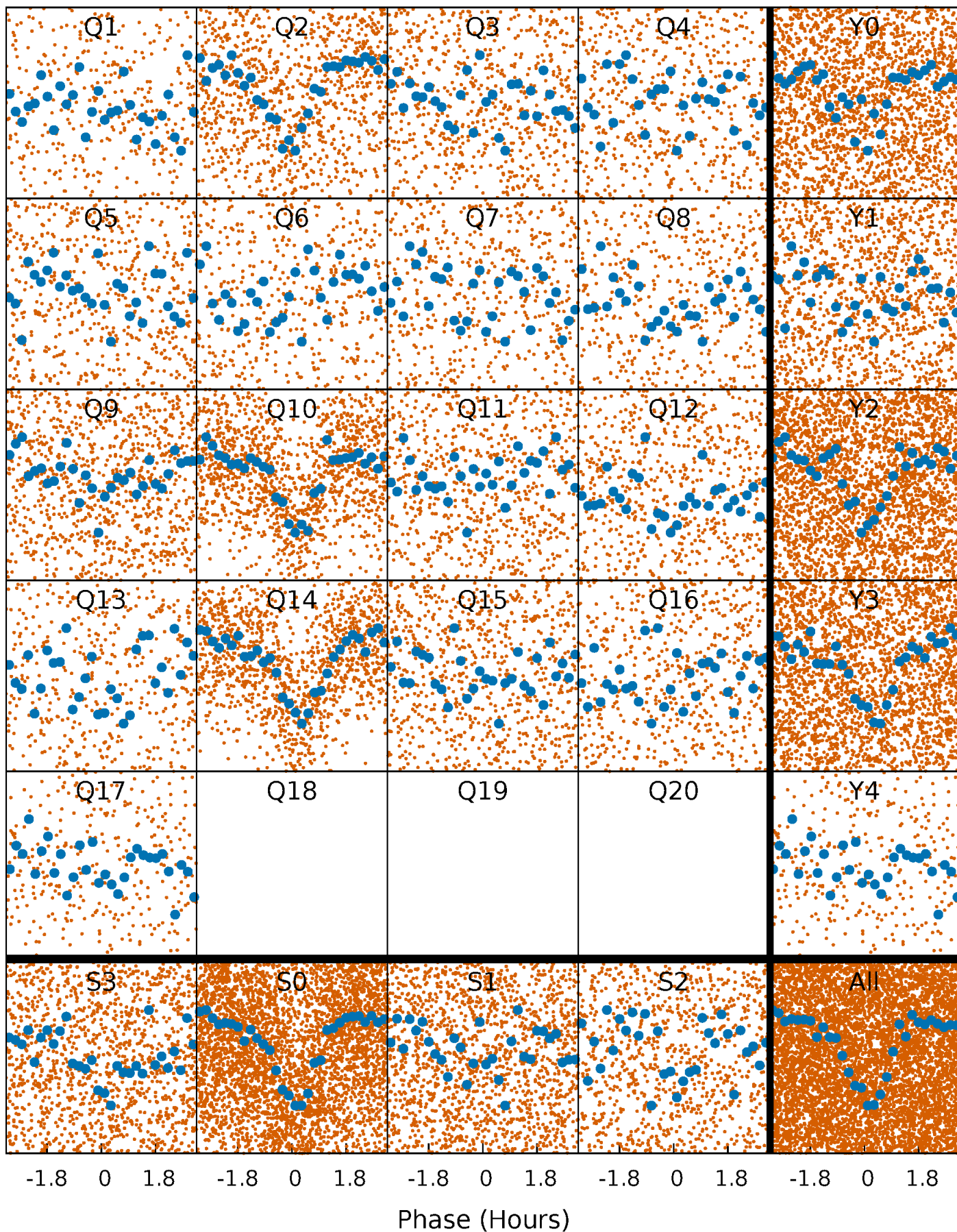


Non-Whitened Vs. Whitened Light Curve



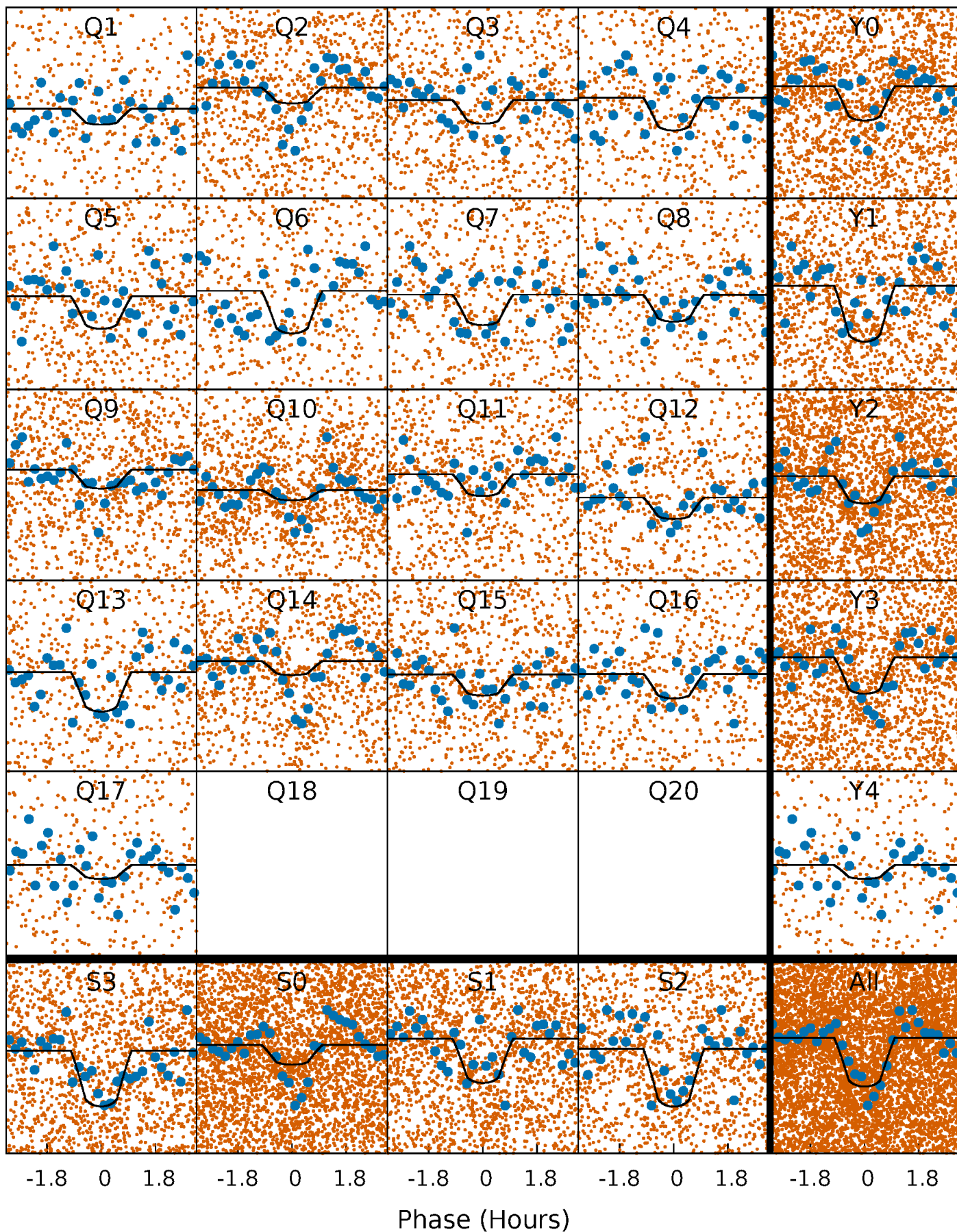
PDC Quarter-Phased Transit Curves

TCE 007741048-01 P= 0.843390 Days $T_0=131.576789$ (BKJD)



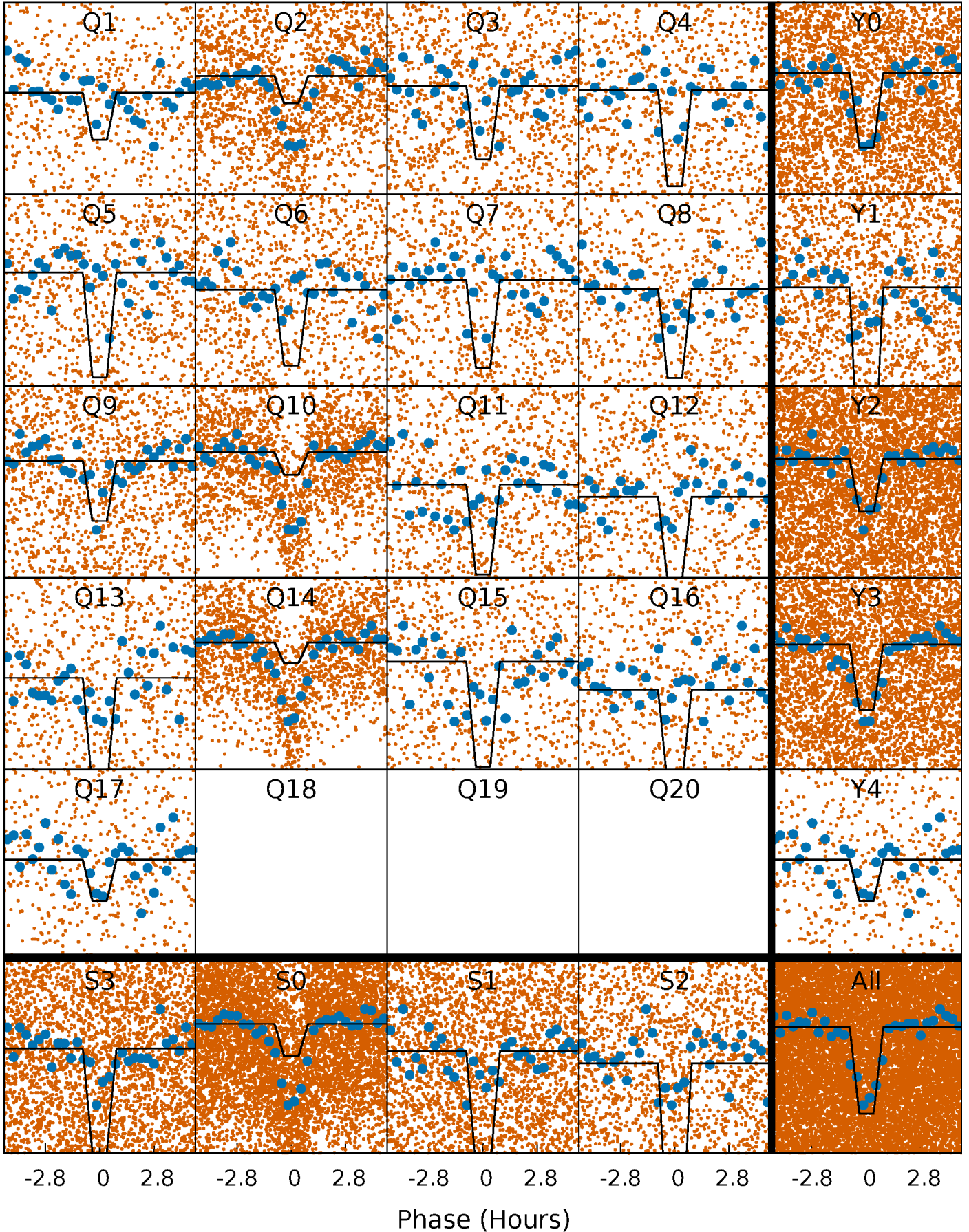
DV Quarter-Phased Transit Curves

TCE 007741048-01 P= 0.843390 Days $T_0=131.576789$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

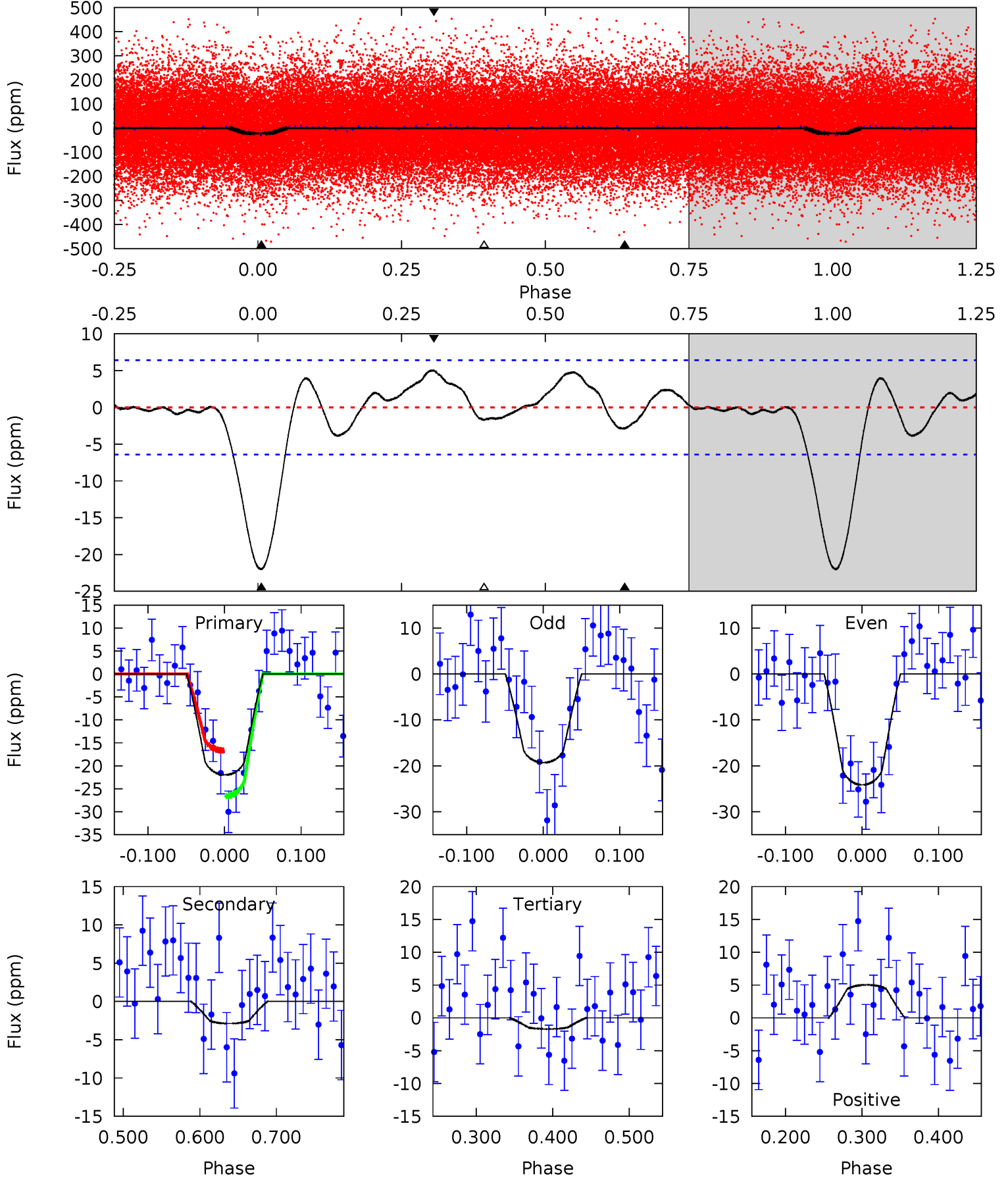
TCE 007741048-01 P= 0.843405 Days $T_0=131.567276$ (BKJD)



DV Model-Shift Uniqueness Test

007741048-01, $P = 0.843390$ Days, $E = 130.733399$ Days

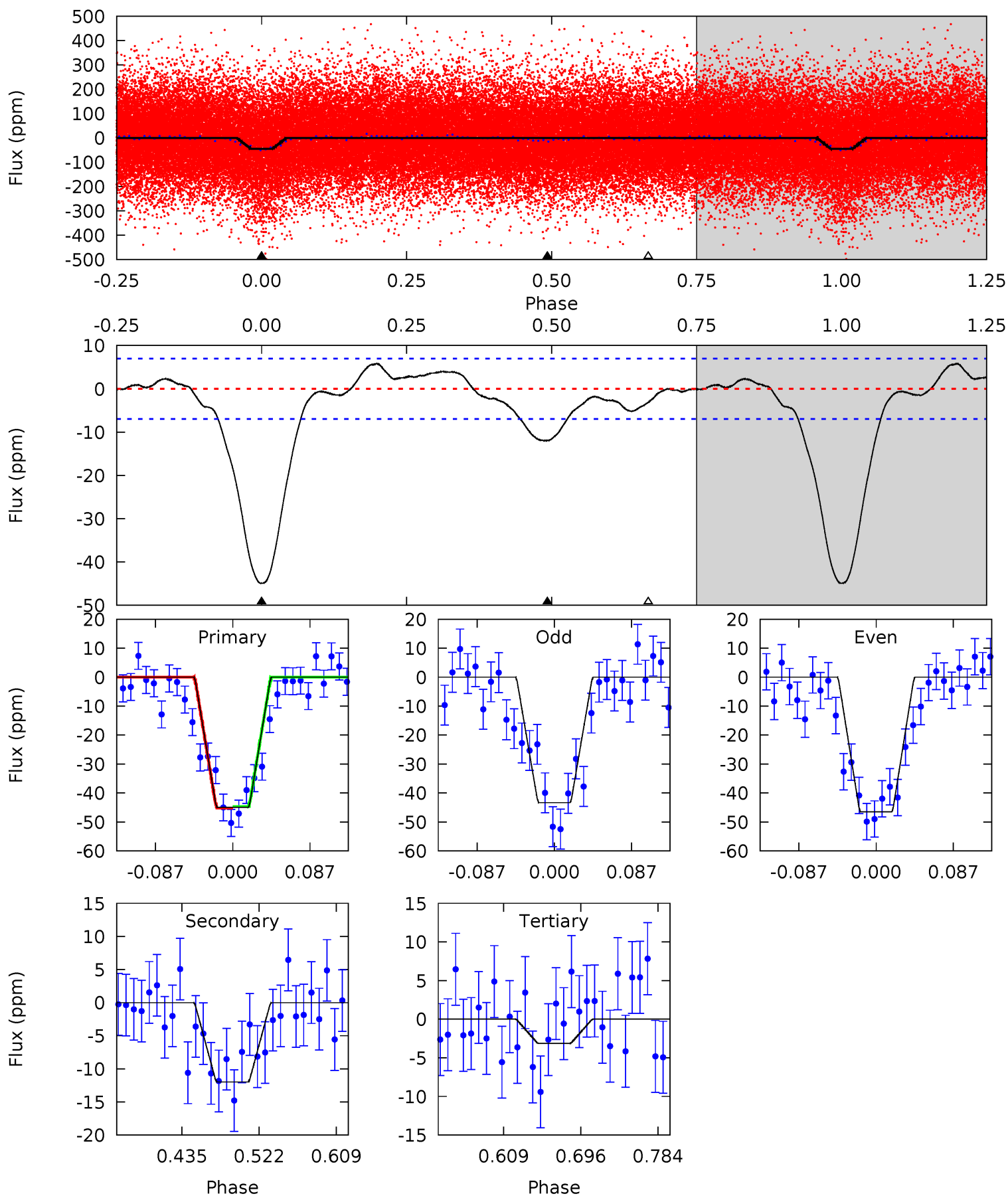
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	2.05	1.20	3.58	4.56	1.64	1.45	14.4	12.1	0.85	-1.52	1.73	1.04	0.19	3.56



Alt Model-Shift Uniqueness Test

007741048-01, P = 0.843405 Days, E = 130.723871 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.6	7.89	2.07	0	4.59	1.71	1.75	27.5	29.6	5.82	7.89	1.04	1.32	0.11	0.16



Stellar Parameters For KIC 007741048

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5982^{+162}_{-180}	$4.493^{+0.040}_{-0.229}$	$-0.040^{+0.250}_{-0.300}$	$0.960^{+0.315}_{-0.084}$	$1.047^{+0.129}_{-0.142}$	$1.667^{+0.372}_{-0.930}$
	+3%/-3%	+1%/-5%	+625%/-750%	+33%/-9%	+12%/-14%	+22%/-56%
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 007741048-01 / KOI 6911.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 1	$0.56^{+0.20}_{-0.20}$	2779^{+201}_{-121}	3666^{+790}_{-671}	$1.487^{+2.393}_{-0.880}$
Alt.	-12 ± 2	$0.80^{+0.23}_{-0.20}$	2793^{+197}_{-140}	4283^{+526}_{-410}	$3.113^{+2.525}_{-1.205}$

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 $A_{obs} \gg 1.0$

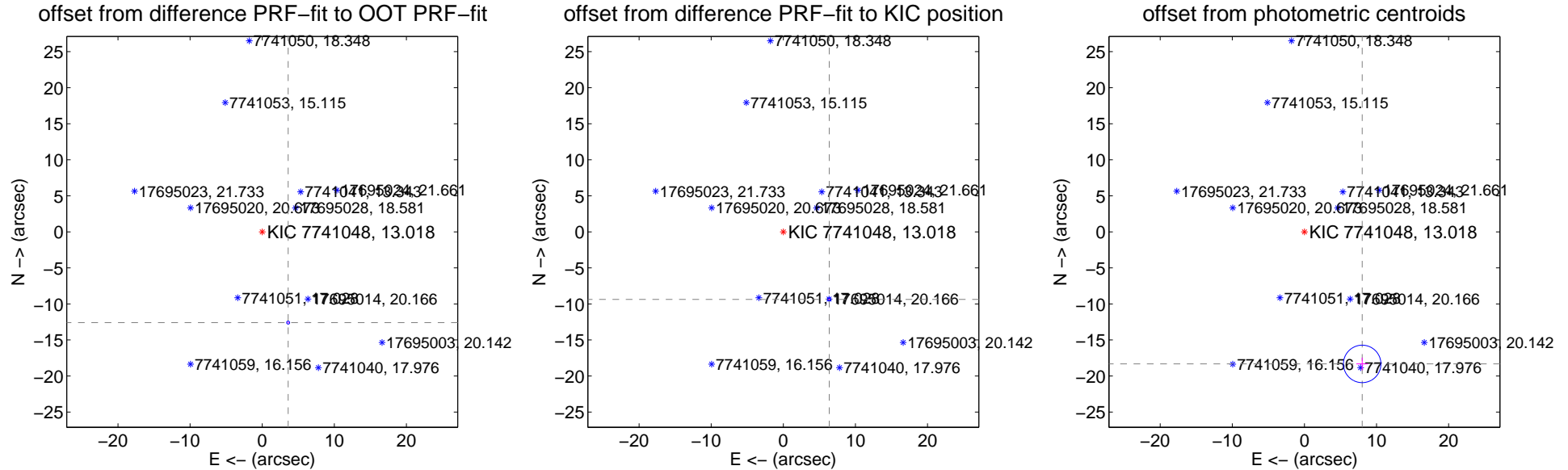
DV Centroid Data

Supplemental centroid analysis for 007741048-01. Kepler magnitude: 13.02. Transit SNR 10.64

There are 4 quarters with good PRF difference image offsets

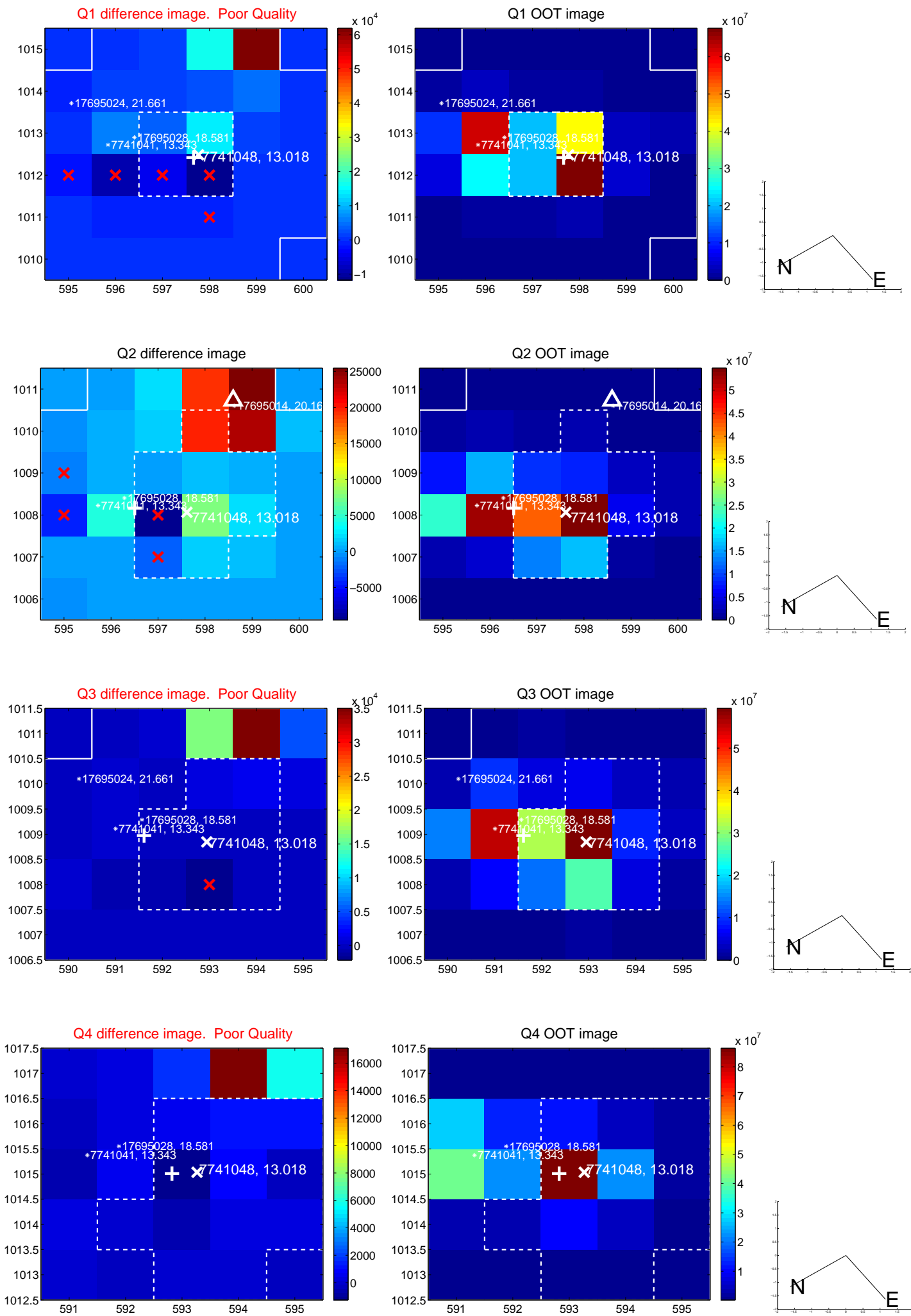
The OOT PRF centroid is offset from the target star catalog position by about 4.25 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	13.096 ± 0.069	189.32	-3.597 ± 0.072	-12.592 ± 0.072
PRF-fit source offset from KIC position	11.327 ± 0.074	153.91	-6.367 ± 0.070	-9.369 ± 0.072
photometric centroid source offset	20.00 ± 0.87	23.08	-8.01 ± 0.81	-18.32 ± 0.88

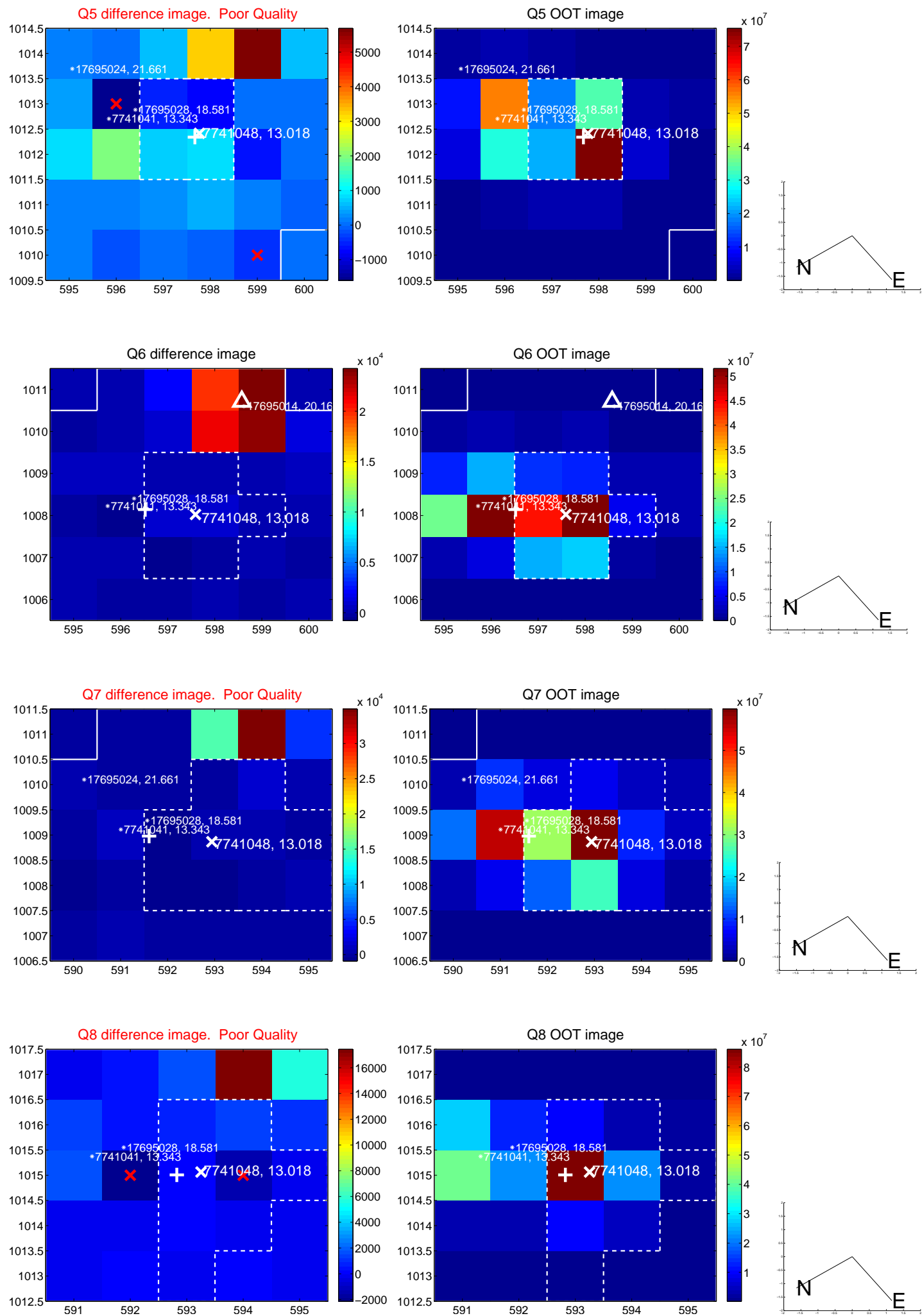


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

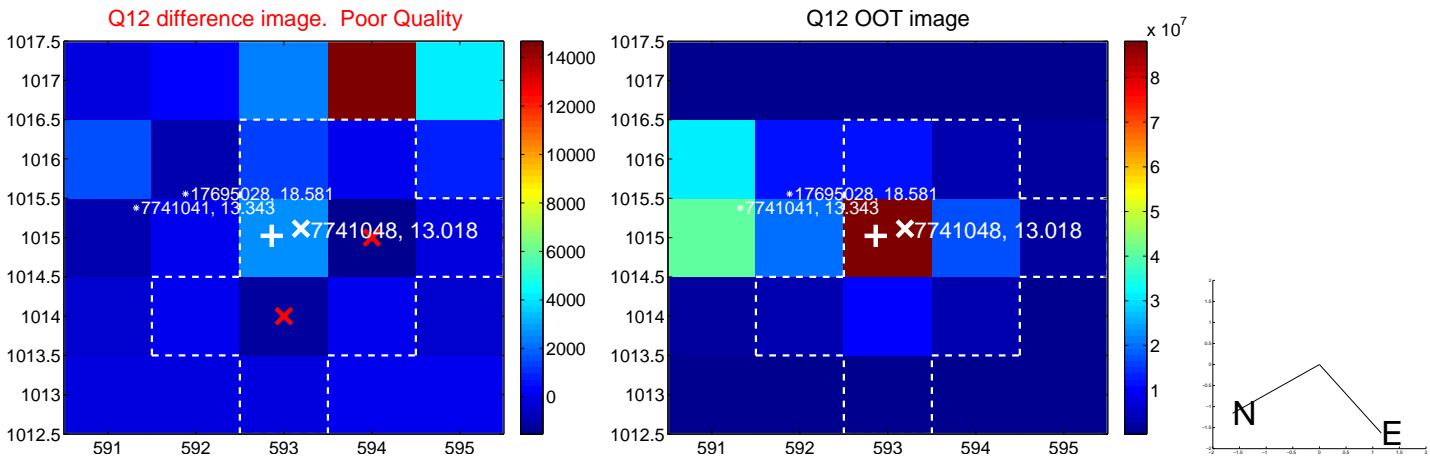
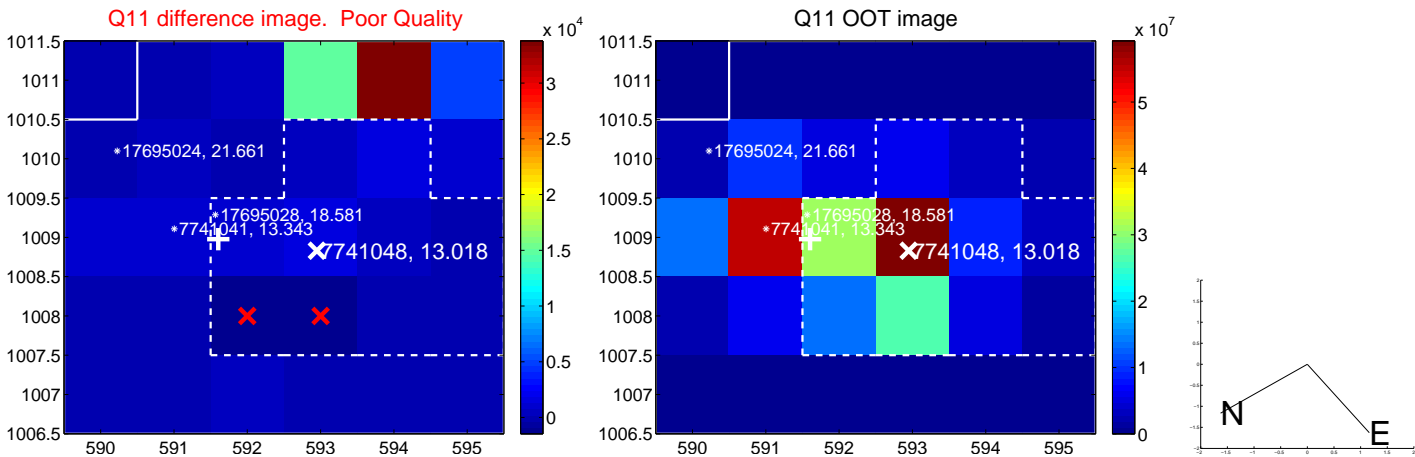
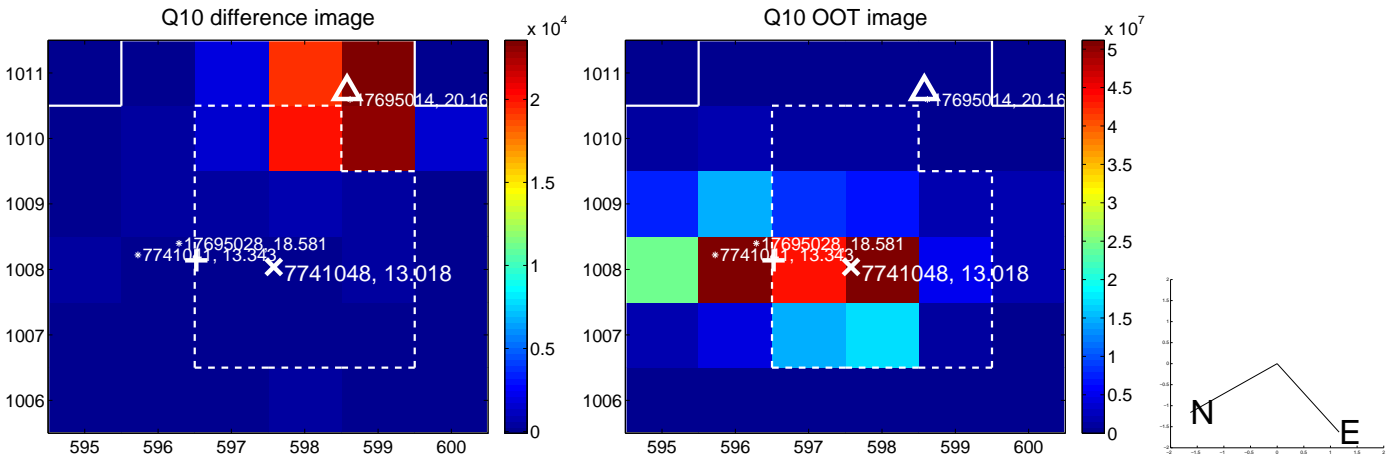
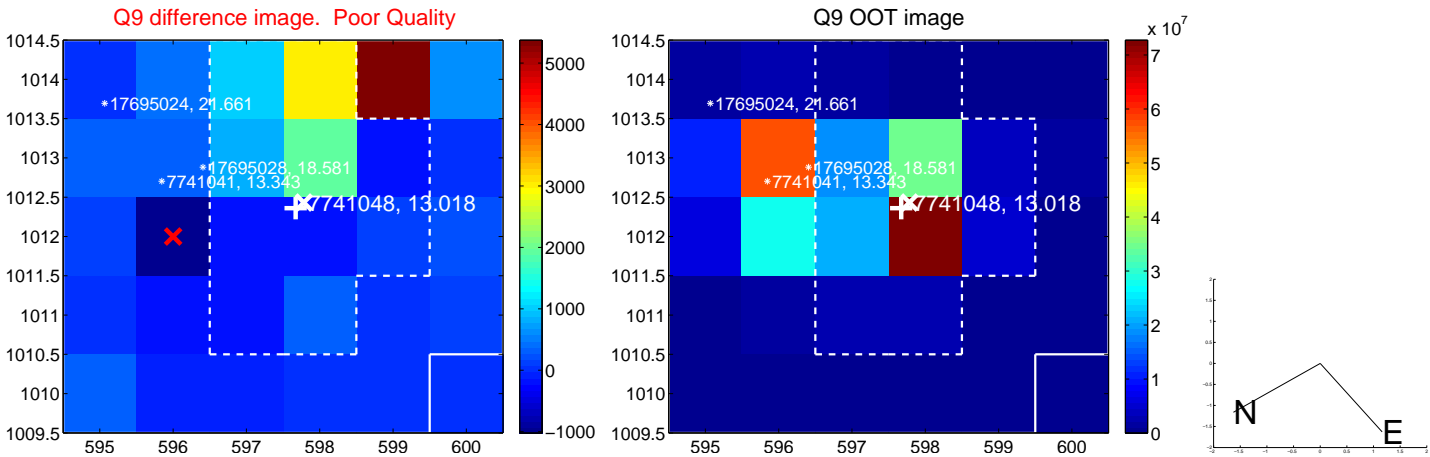
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



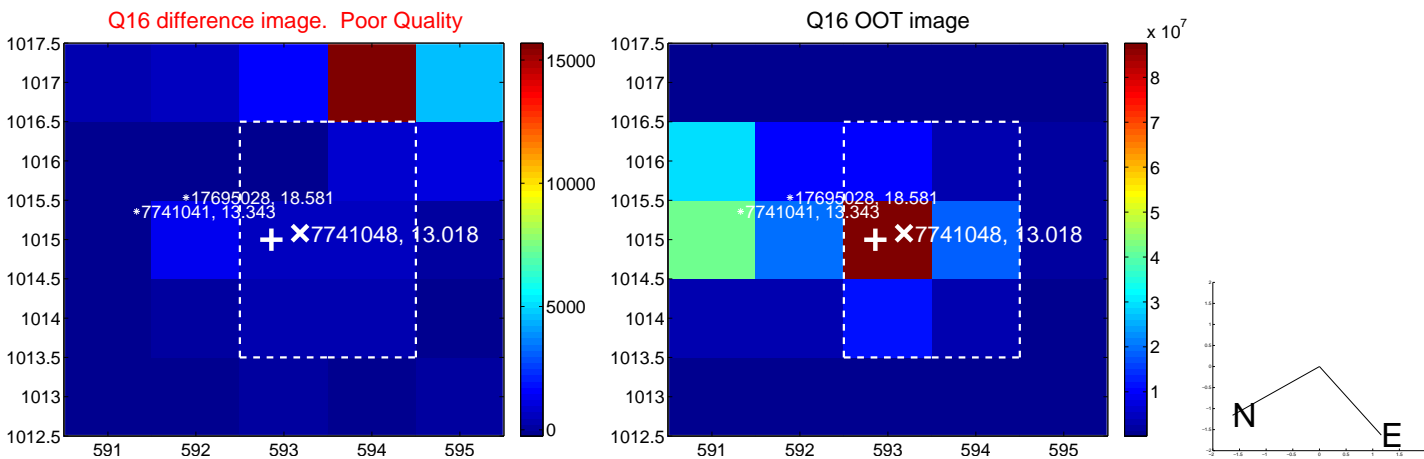
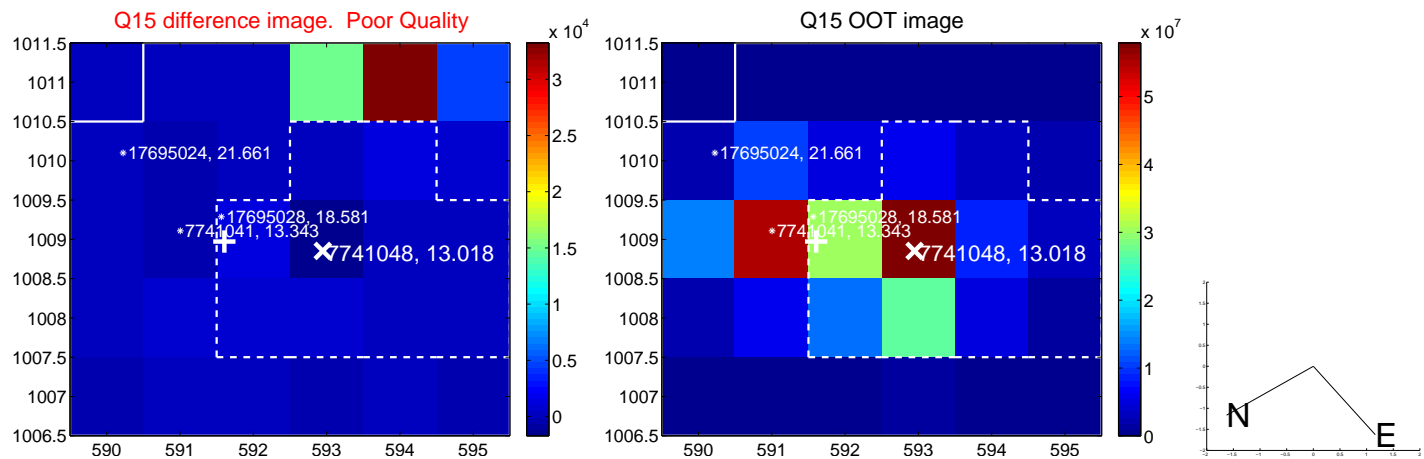
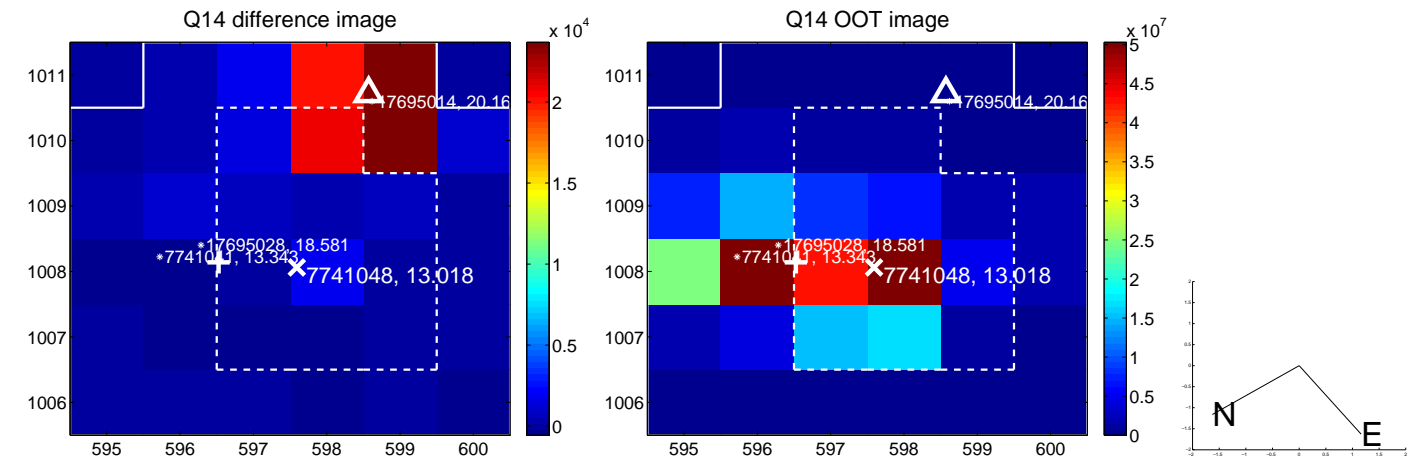
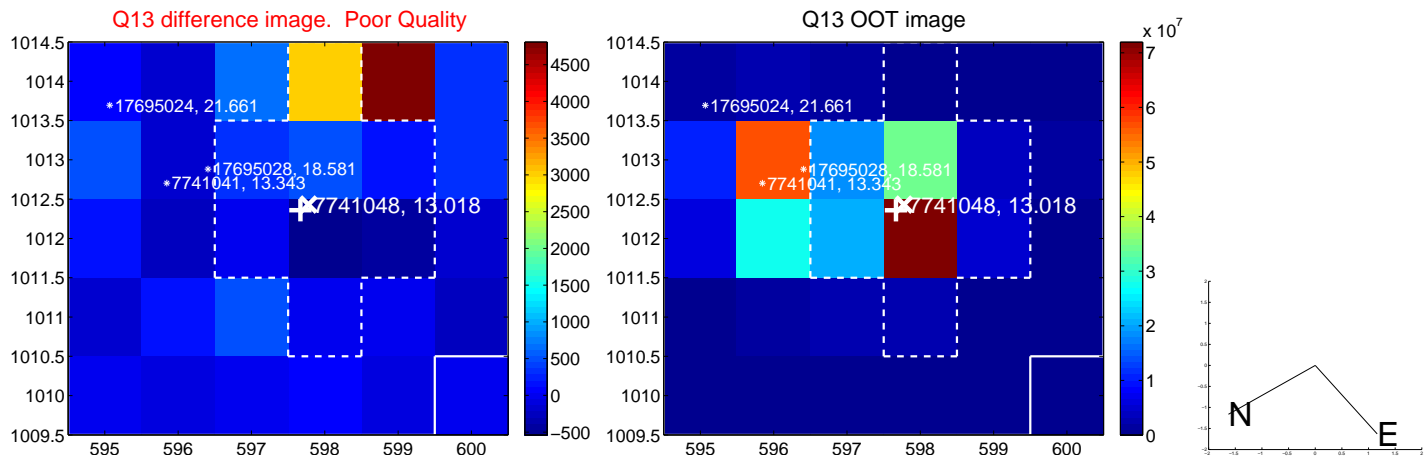
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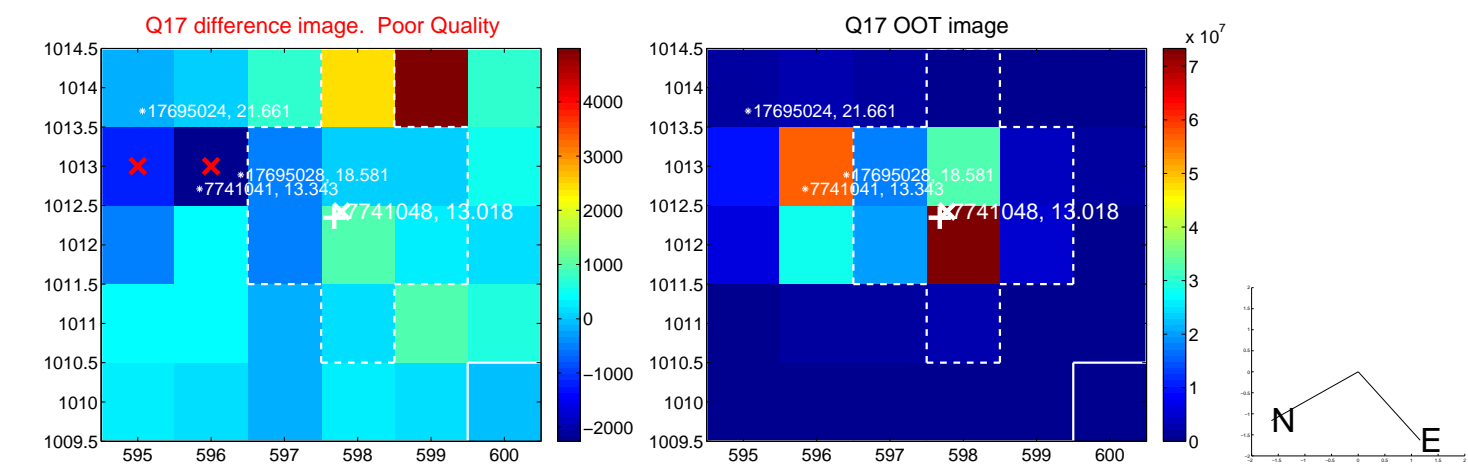
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



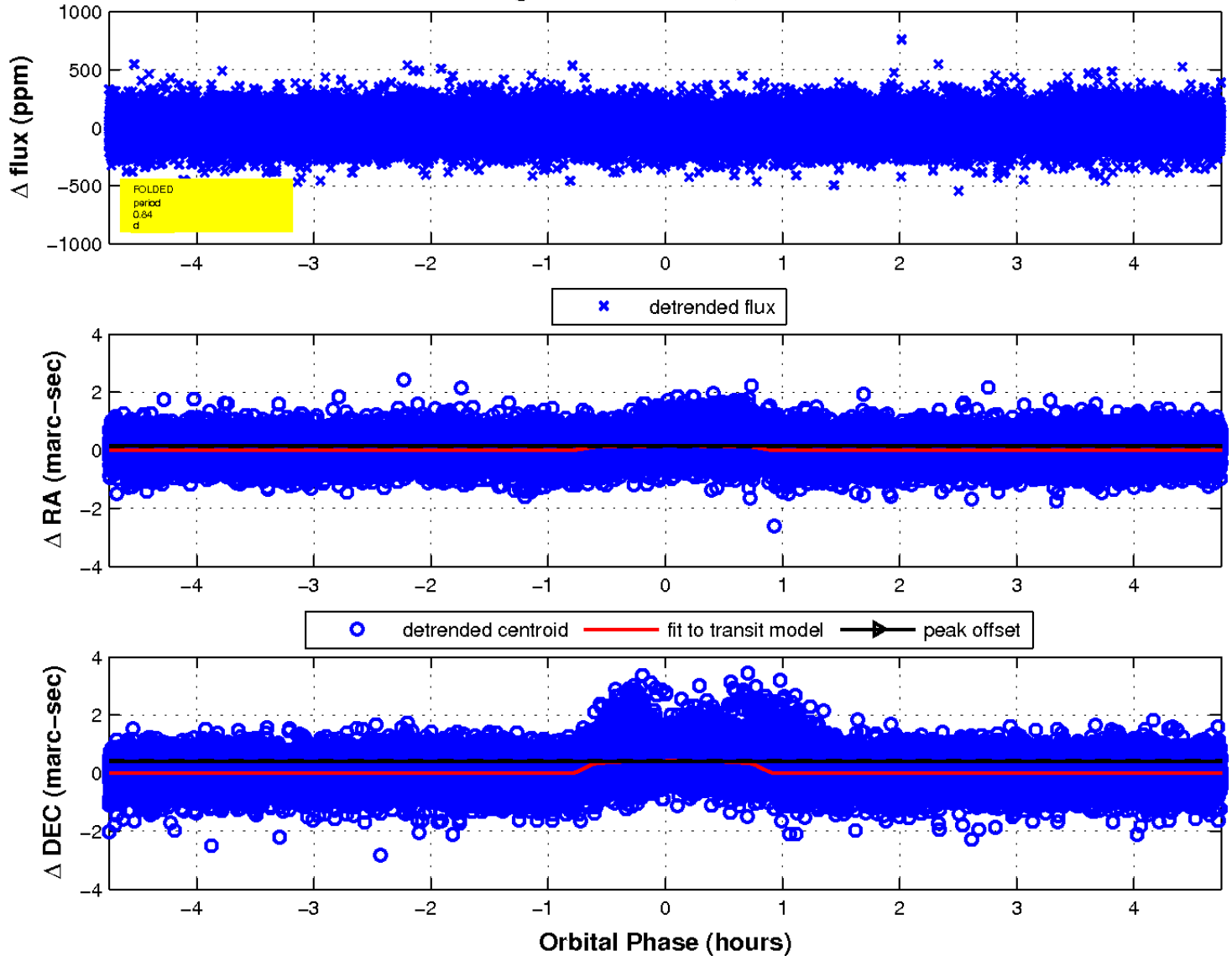
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

