

KIC 005735248

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})
005735248-01	OBS	No	3.661098	131.501857	21.8	21.912	9.1	9.9	1.49	7245	0.70	2169.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005735248-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—CENT_UNRESOLVED_OFFSET

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

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

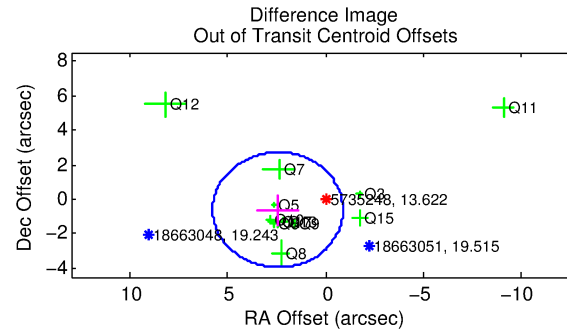
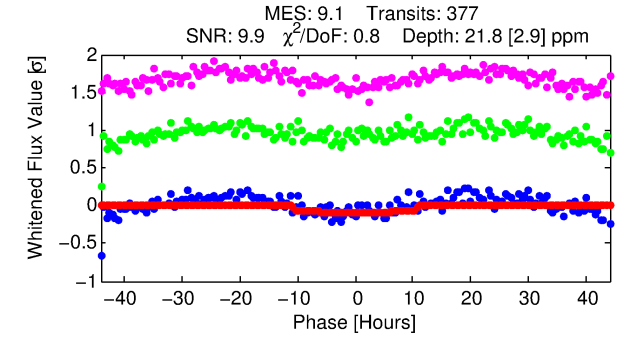
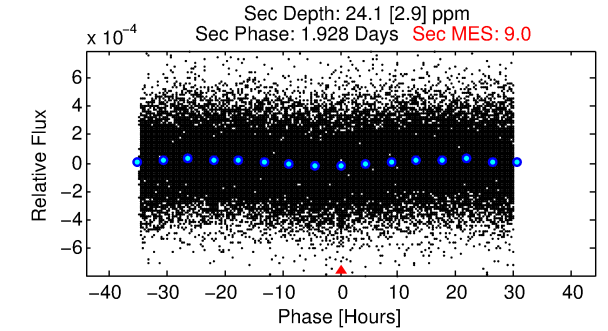
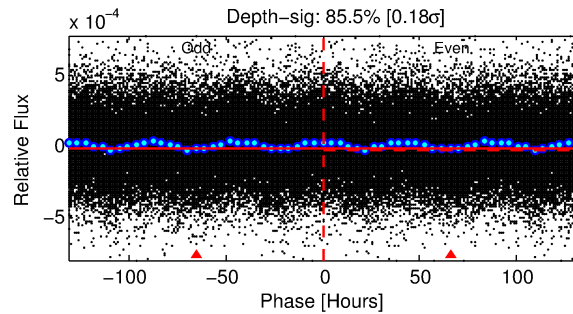
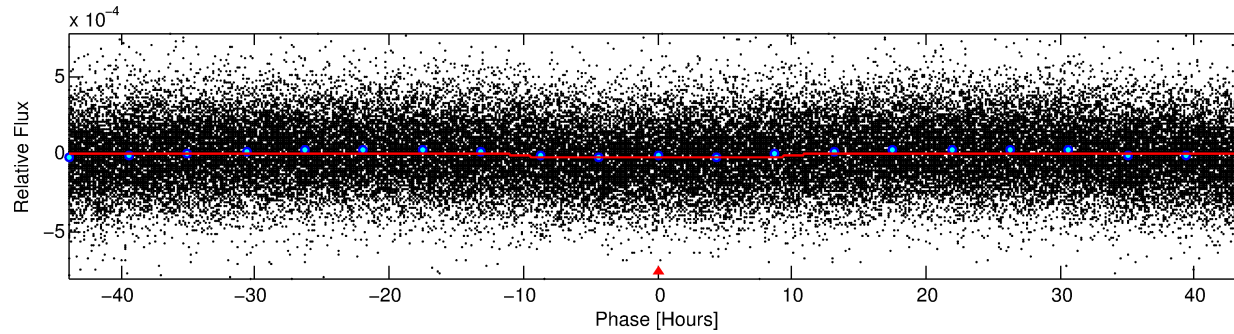
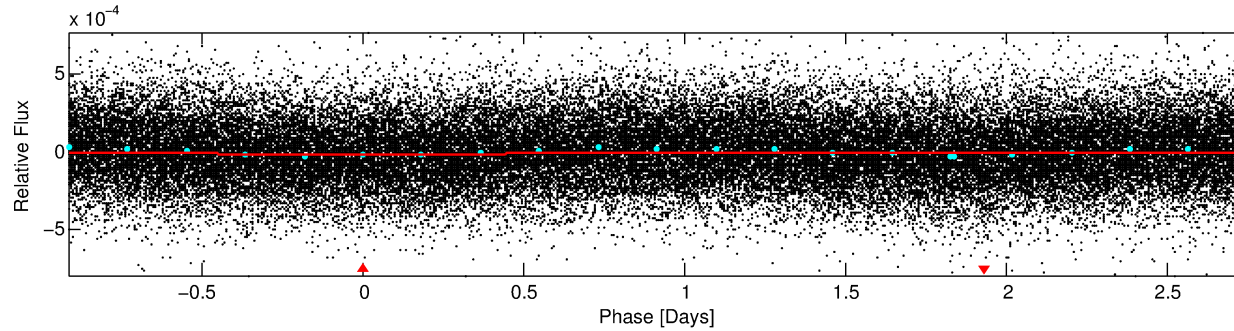
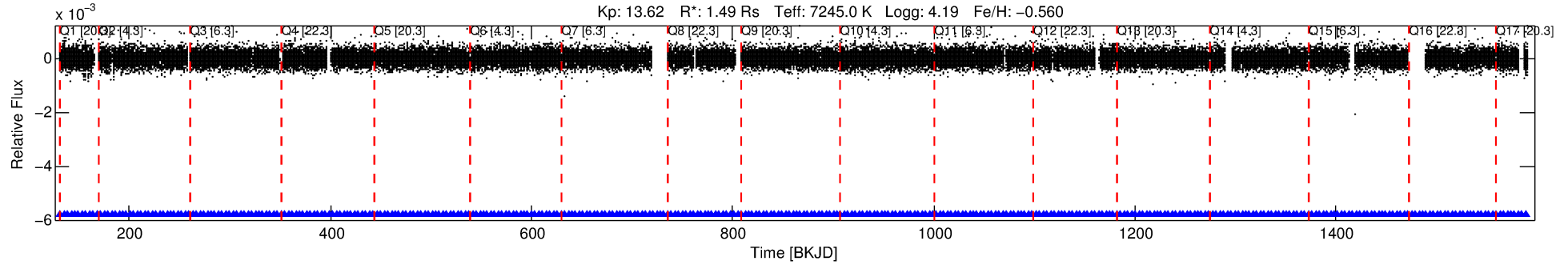
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005735248-01

No Significant Match Found

DV One-Page Summary

KIC: 5735248 Candidate: 1 of 1 Period: 3.661 d



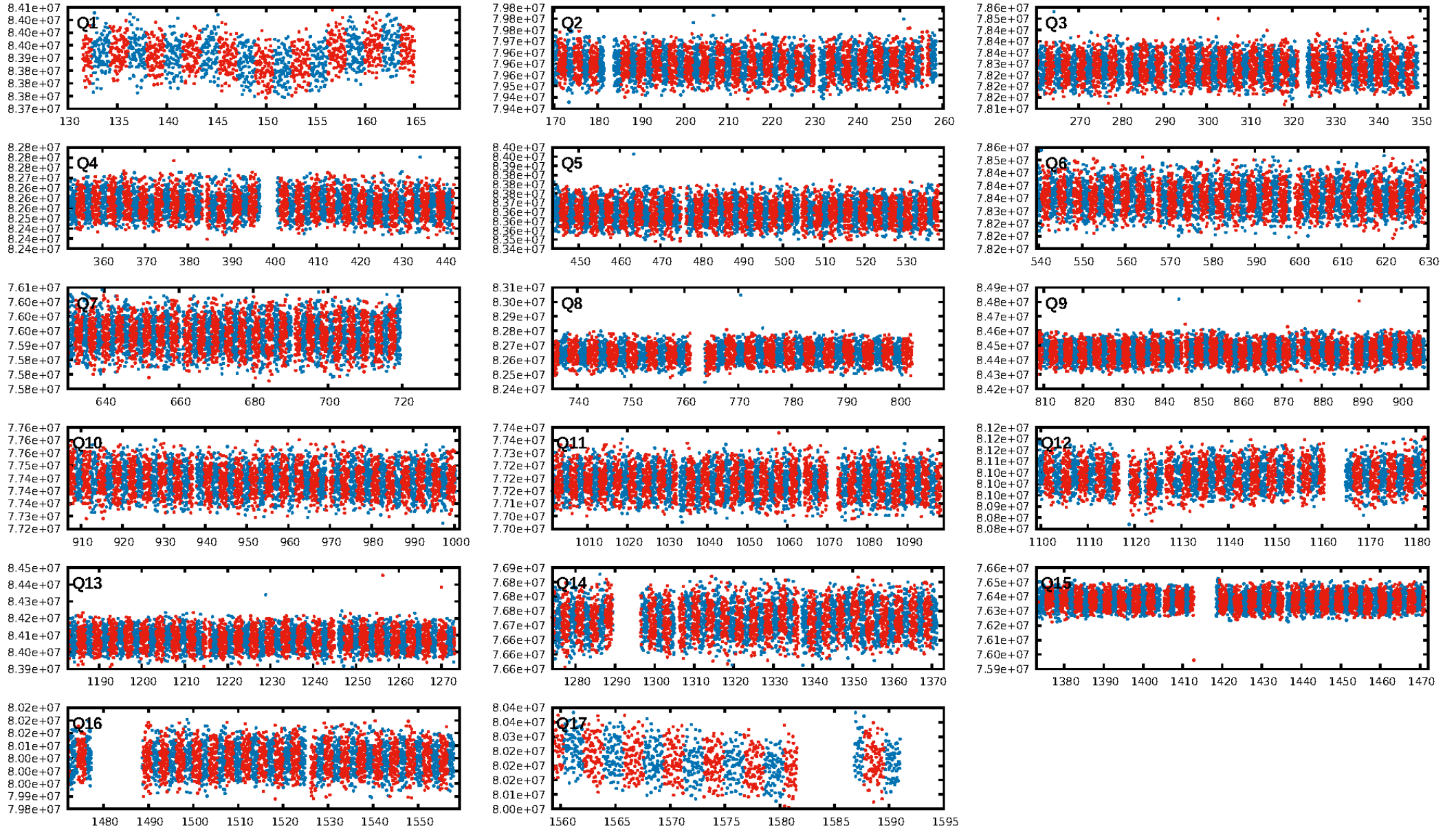
DV Fit Results:

Period = 3.66110 [0.00009] d
Epoch = 131.5019 [0.0161] BKJD
Rp/R* = 0.0043 [0.0045]
a/R* = 1.42 [4.47]
b = 0.01 [424.89]
Seff = 2169.90 [786.98]
Teq = 1740 [158] K
Rp = 0.70 [0.76] Re
a = 0.0502 [0.0113] AU
Ag = 67.37 [142.85] [0.46 σ]
Teffp = 7709 [4053] K [1.47 σ]

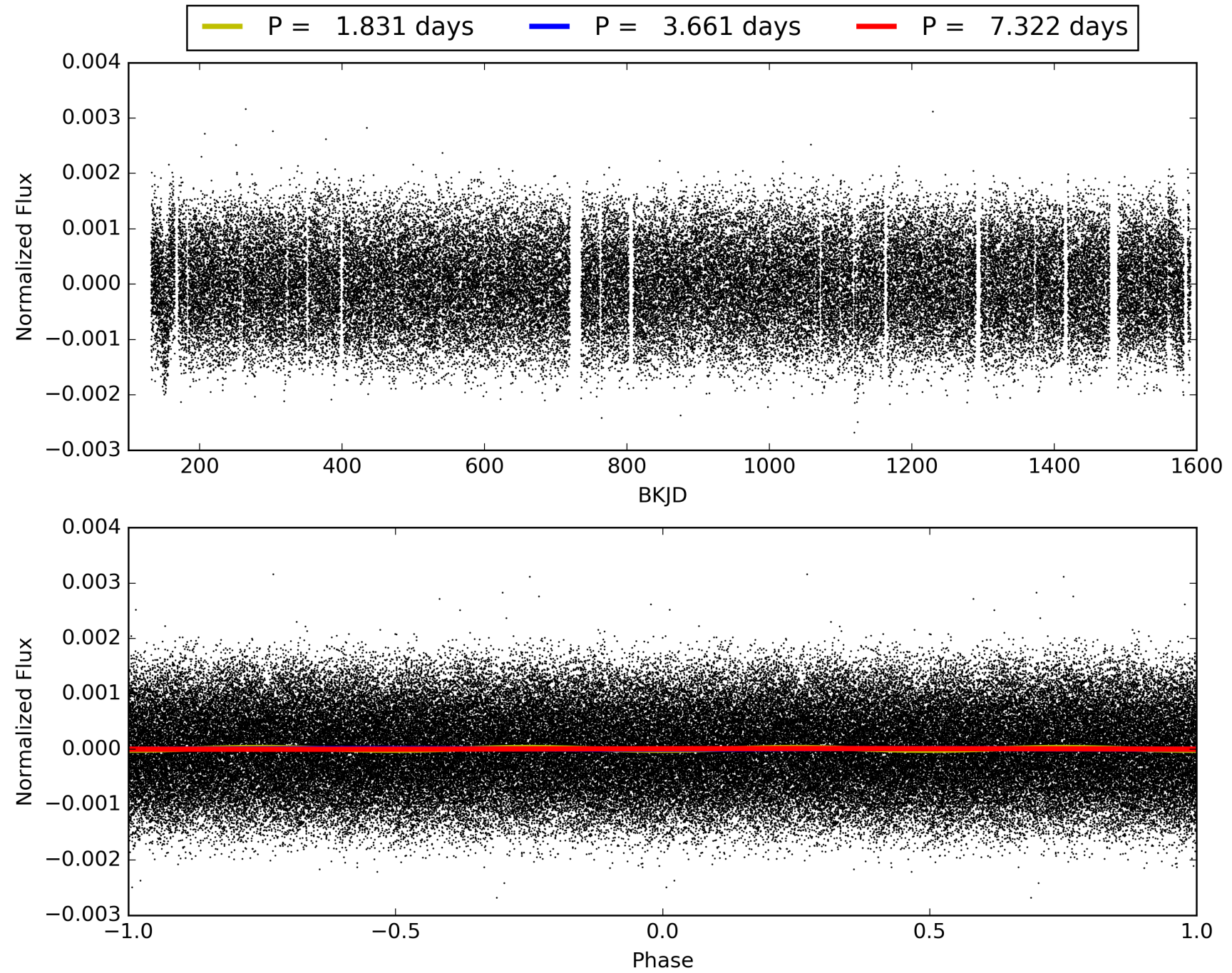
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.95e-19
RollingBand-fgt: 1.00 [359/359]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.515 arcsec [2.27 σ]
KicOffset-rm: 2.382 arcsec [2.12 σ]
OotOffset-st: 2/4/2/4 [12]
KicOffset-st: 2/4/2/4 [12]
DiffImageQuality-fgm: 0.50 [6/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005735248-01, PDC Light Curves

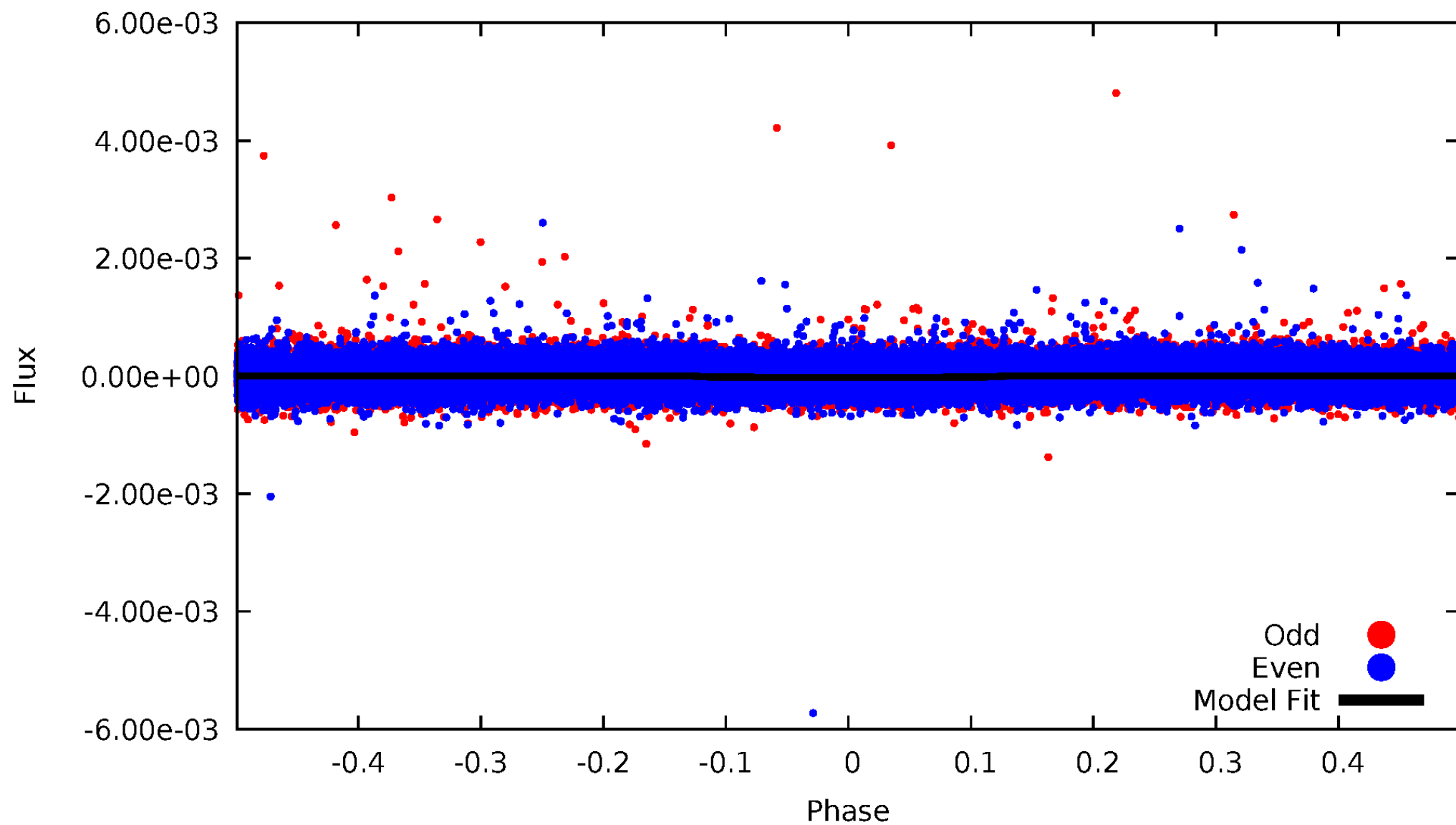


TCE 005735248-01



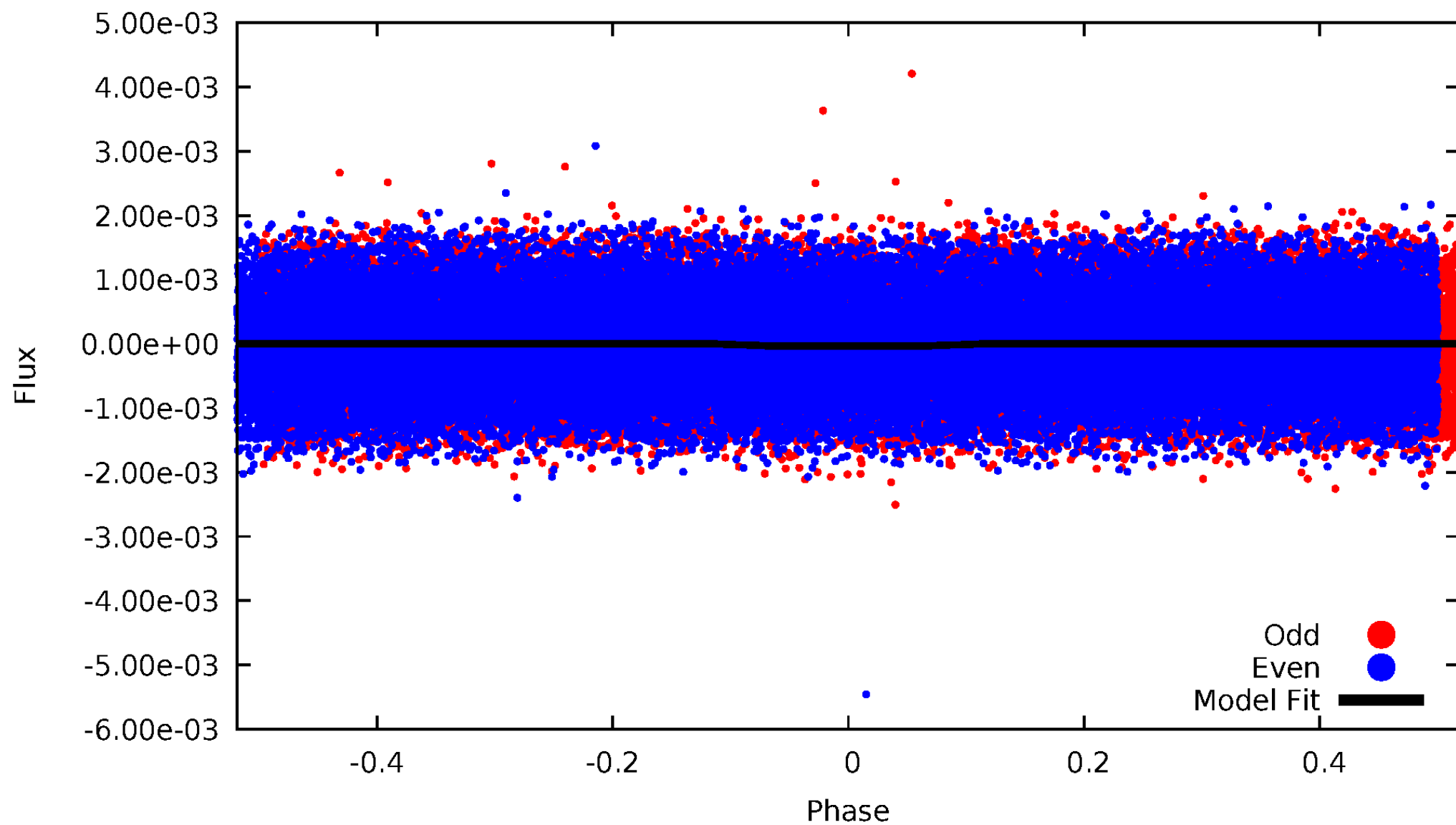
DV Odd/Even

TCE 005735248-01



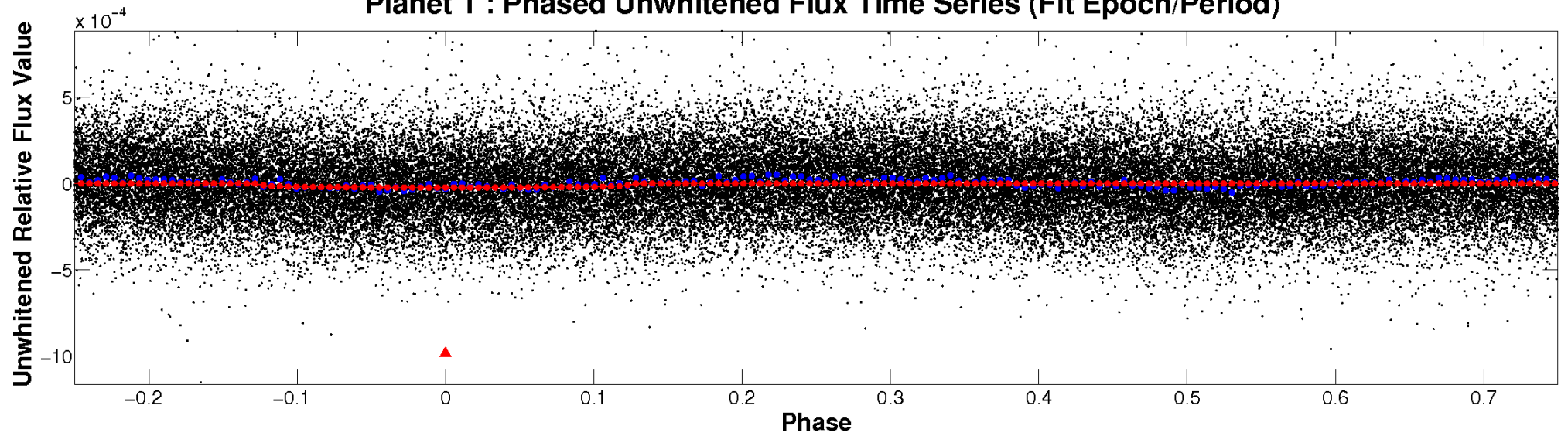
ALT Odd/Even

TCE 005735248-01

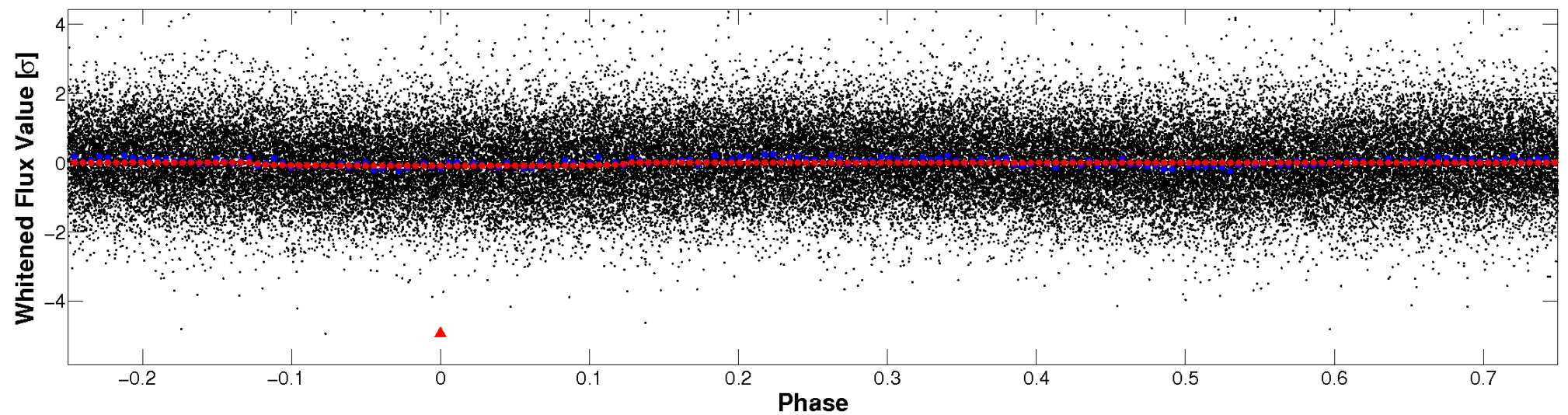


Non-Whitened Vs. Whitened Light Curve

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

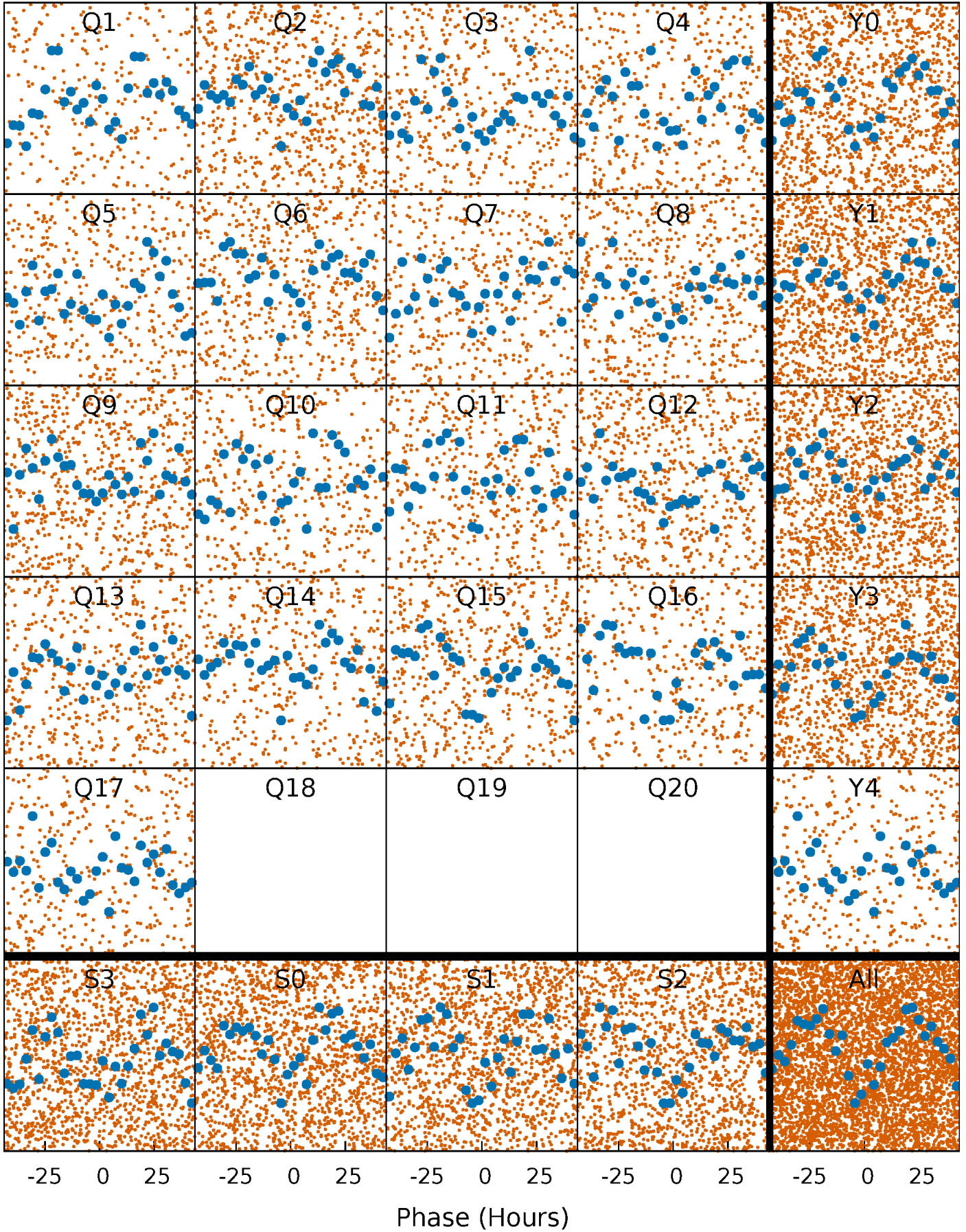


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



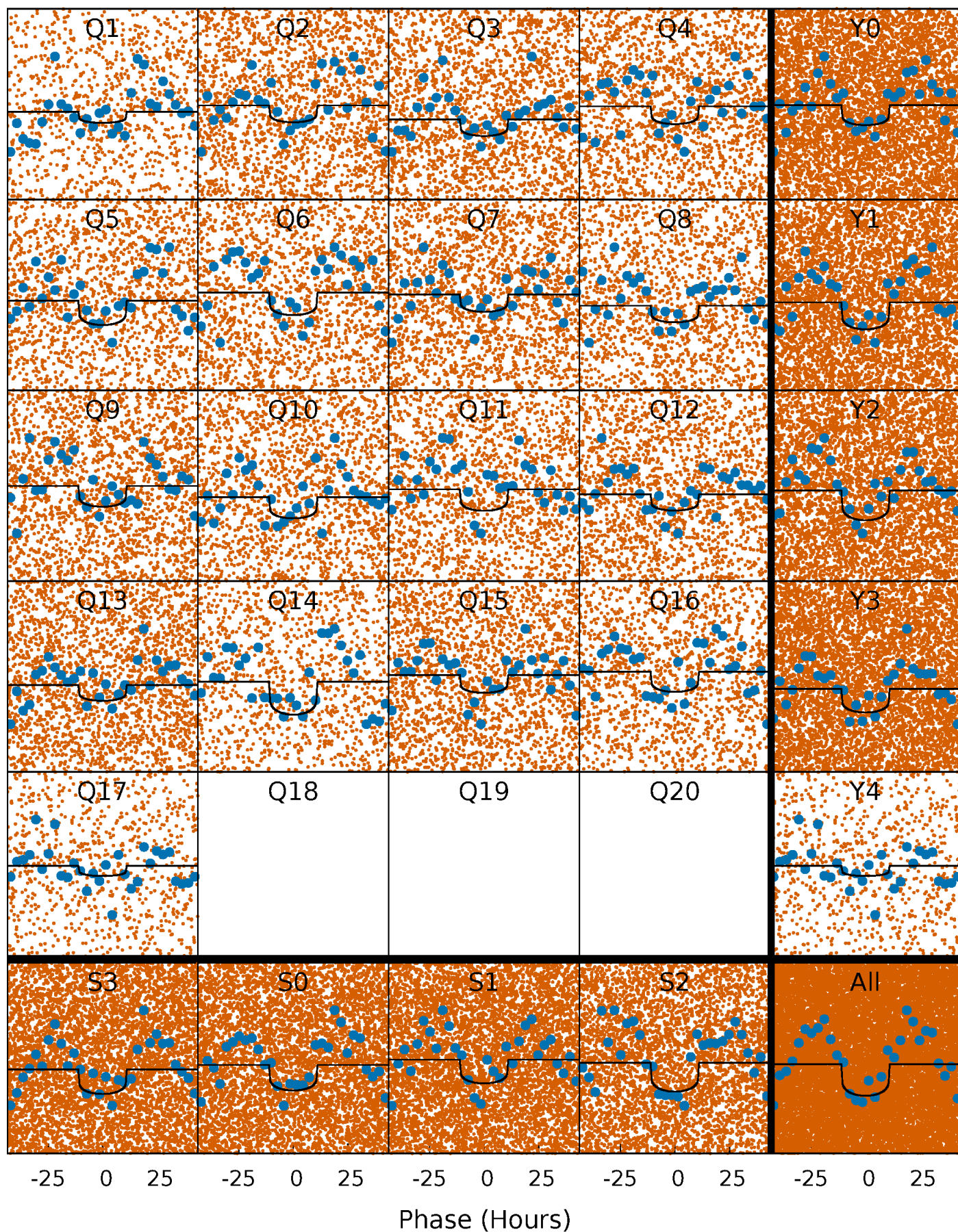
PDC Quarter-Phased Transit Curves

TCE 005735248-01 P= 3.661098 Days $T_0=131.501857$ (BKJD)



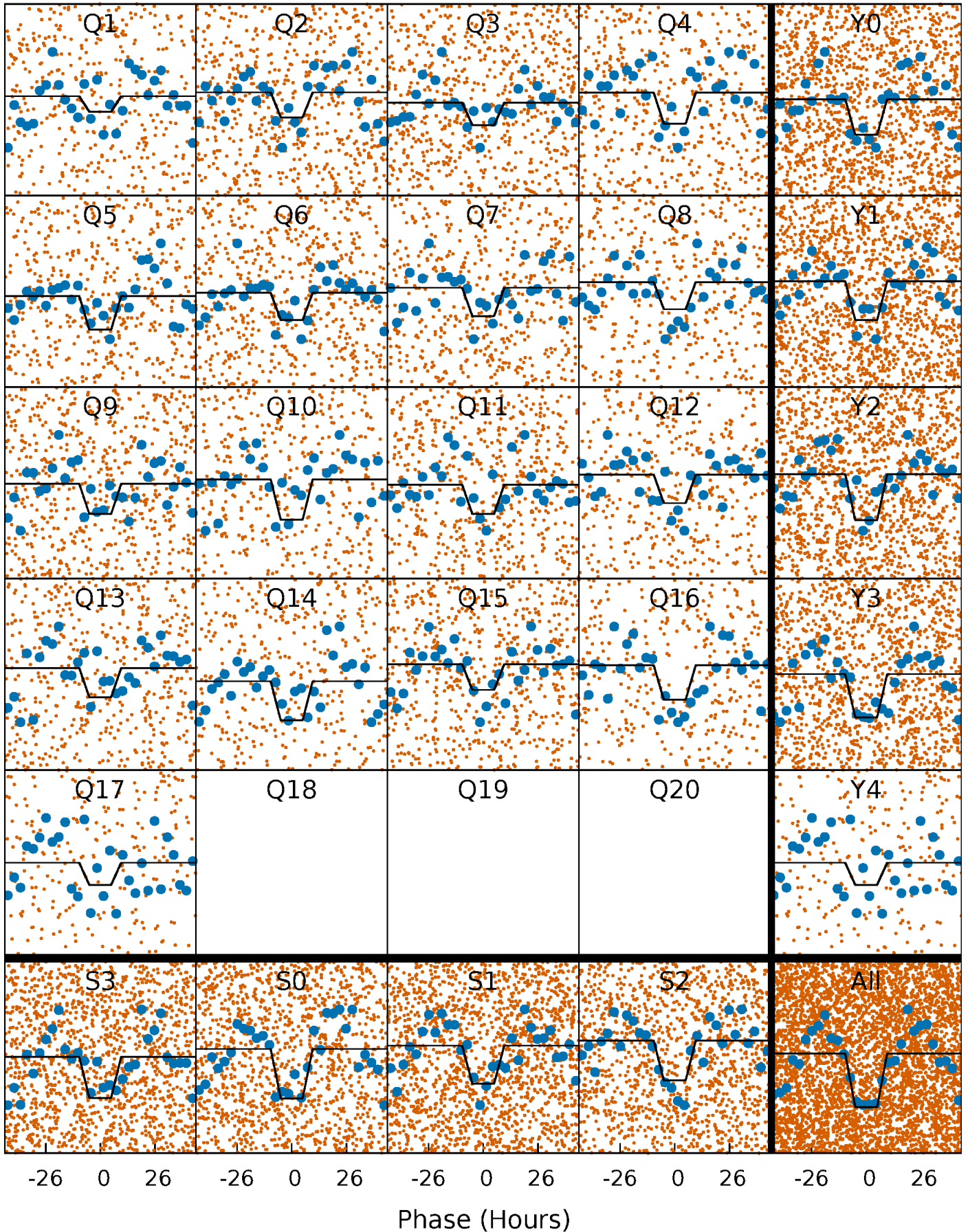
DV Quarter-Phased Transit Curves

TCE 005735248-01 P= 3.661098 Days $T_0=131.501857$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

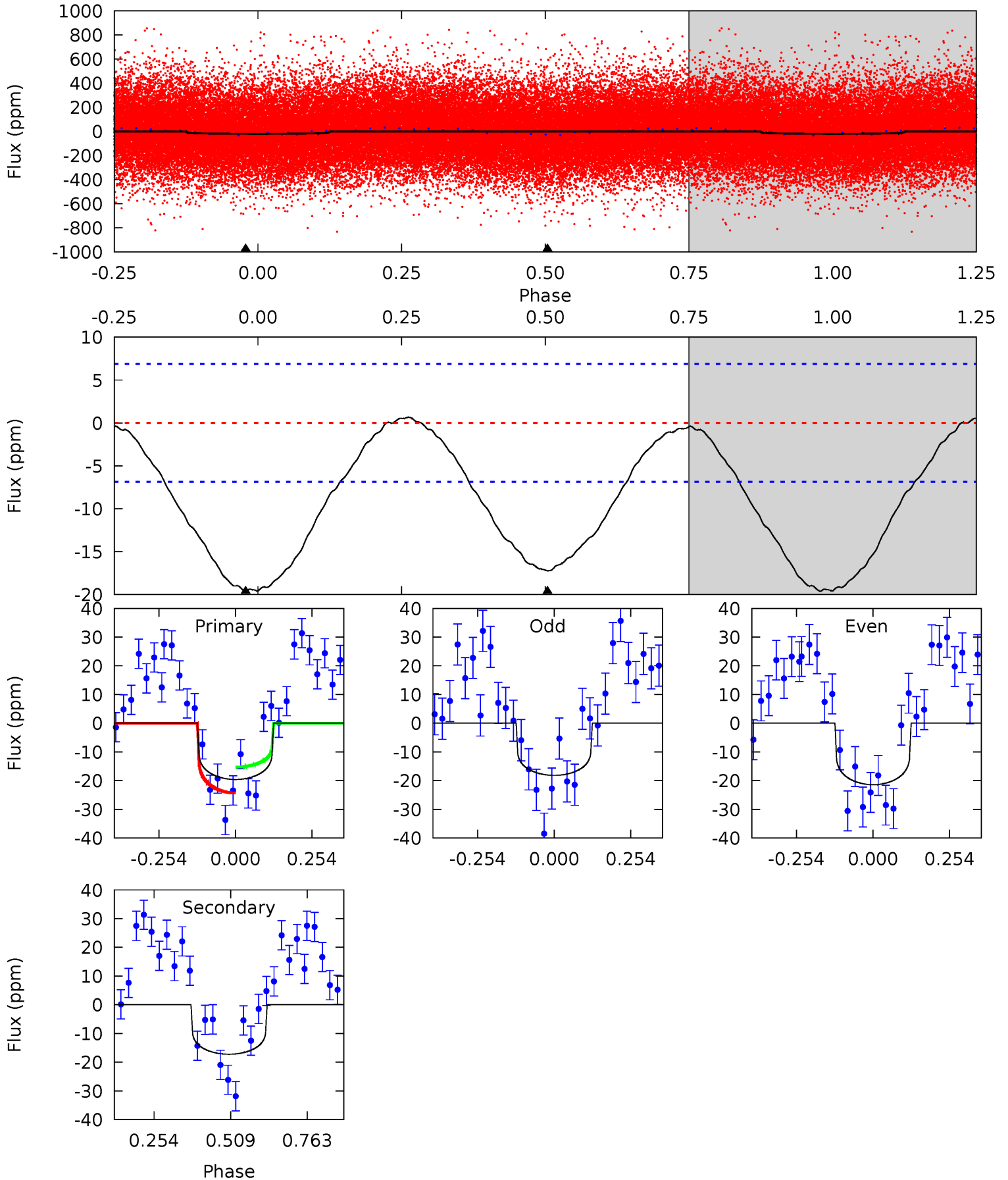
TCE 005735248-01 P= 3.660464 Days $T_0=131.563610$ (BKJD)



DV Model-Shift Uniqueness Test

005735248-01, P = 3.661098 Days, E = 131.501857 Days

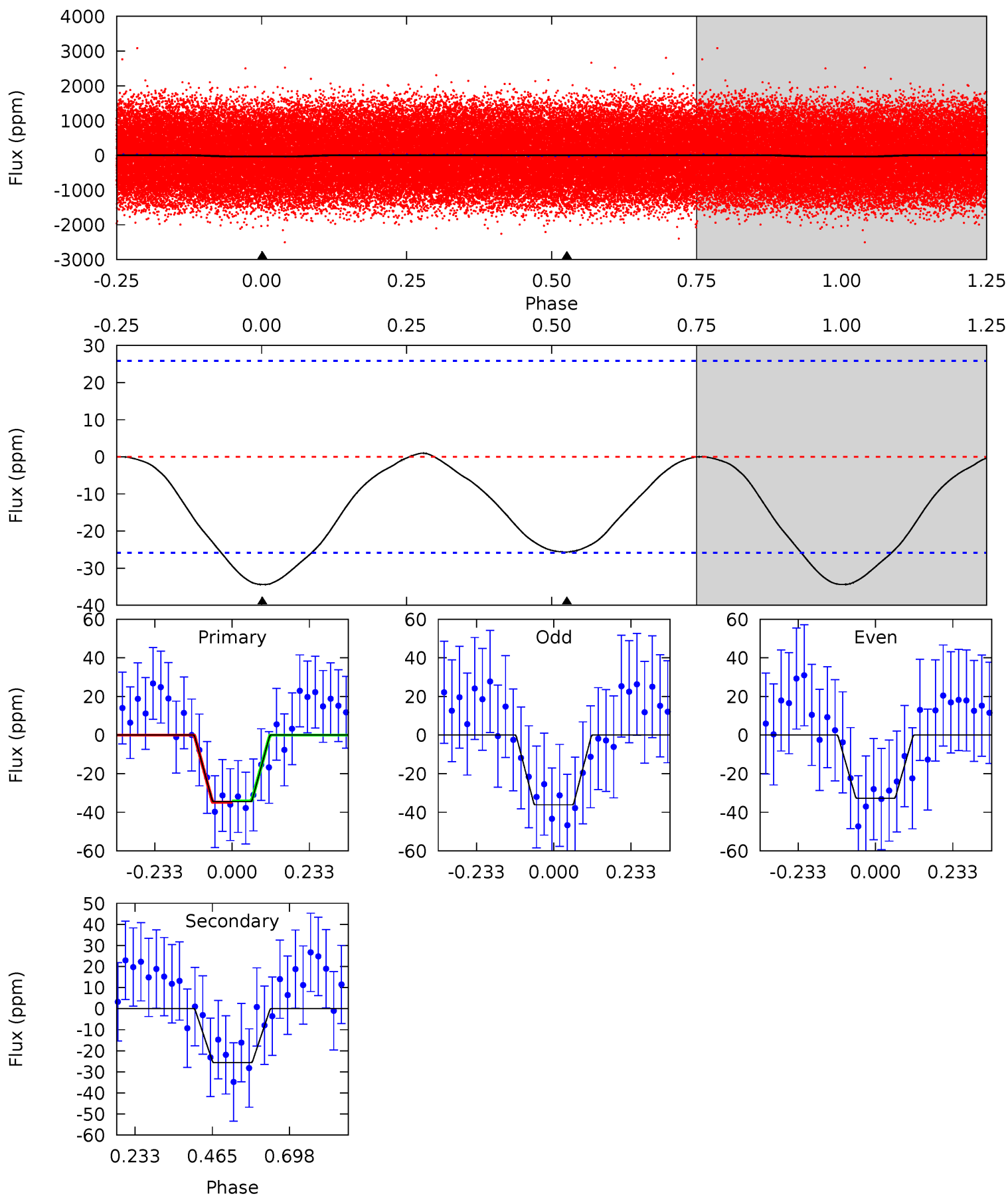
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	10.9	0	0	4.36	1.14	0.37	12.5	12.5	10.9	10.9	1.04	0.97	0.03	2.88



Alt Model-Shift Uniqueness Test

005735248-01, P = 3.660464 Days, E = 127.903146 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.84	4.35	0	0	4.38	1.19	0.14	5.84	5.84	4.35	4.35	0.29	1.17	0.03	0.07



Stellar Parameters For KIC 005735248

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7245^{+207}_{-311}	$4.192^{+0.170}_{-0.170}$	$-0.560^{+0.250}_{-0.300}$	$1.487^{+0.411}_{-0.336}$	$1.254^{+0.181}_{-0.181}$	$0.537^{+0.473}_{-0.251}$
	+3%/-4%	+4%/-4%	+45%/-54%	+28%/-23%	+14%/-14%	+88%/-47%
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 005735248-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-17 ± 2	$0.85^{+0.71}_{-0.51}$	2424^{+180}_{-175}	6287^{+5390}_{-1535}	33^{+185}_{-23}
Alt.	-26 ± 6	$1.07^{+0.71}_{-0.63}$	2434^{+178}_{-176}	6283^{+4383}_{-1394}	32^{+144}_{-21}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

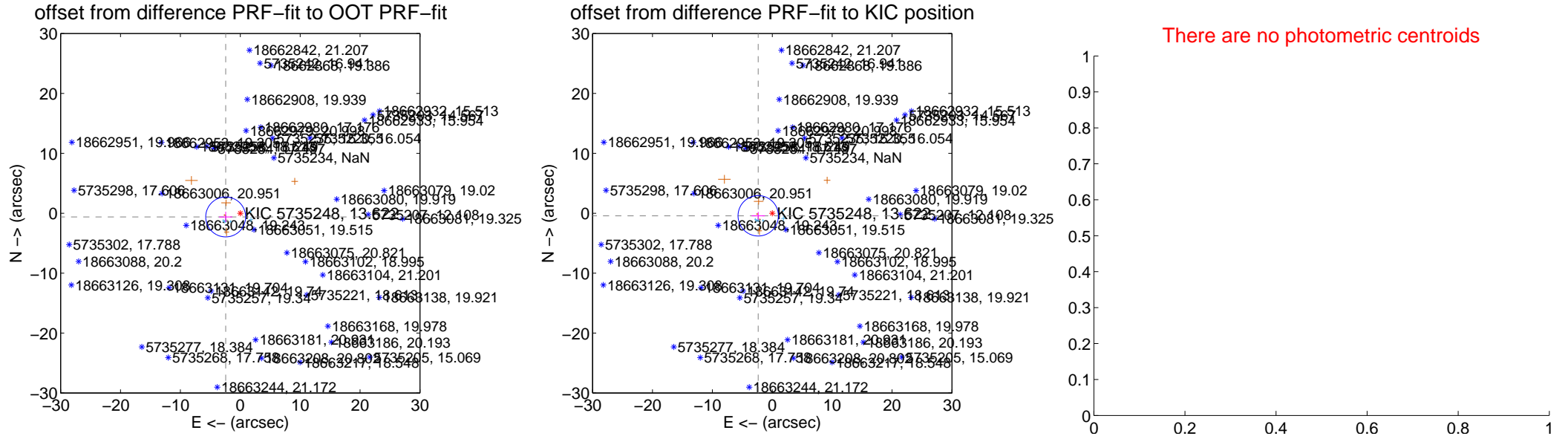
DV Centroid Data

Supplemental centroid analysis for 005735248-01. Kepler magnitude: 13.62. Transit SNR 9.93

There are 6 quarters with good PRF difference image offsets

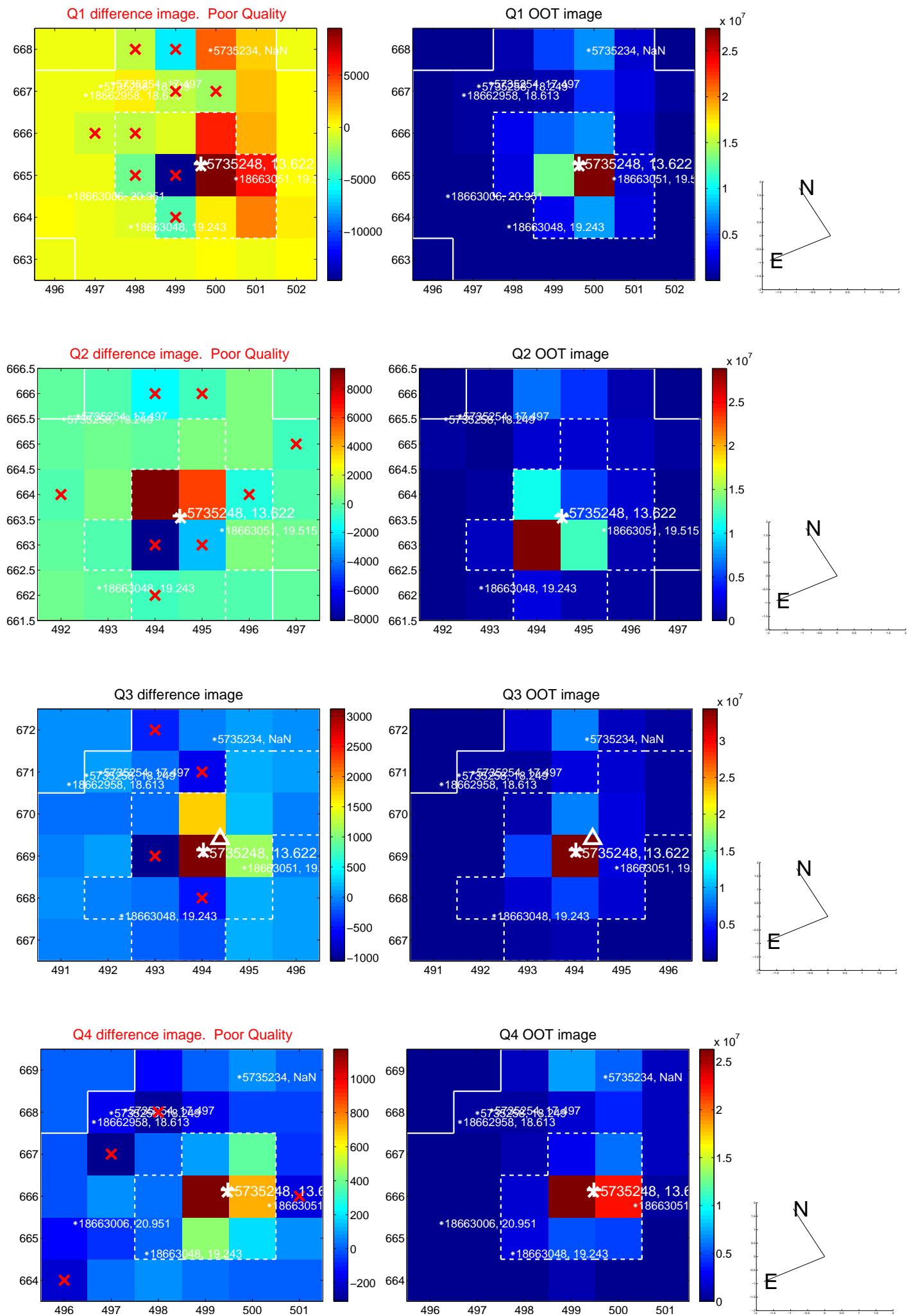
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.515 ± 1.110	2.27	2.438 ± 1.092	-0.617 ± 0.869
PRF-fit source offset from KIC position	2.382 ± 1.124	2.12	2.343 ± 1.113	-0.426 ± 0.650
photometric centroid source offset	—	—	—	—

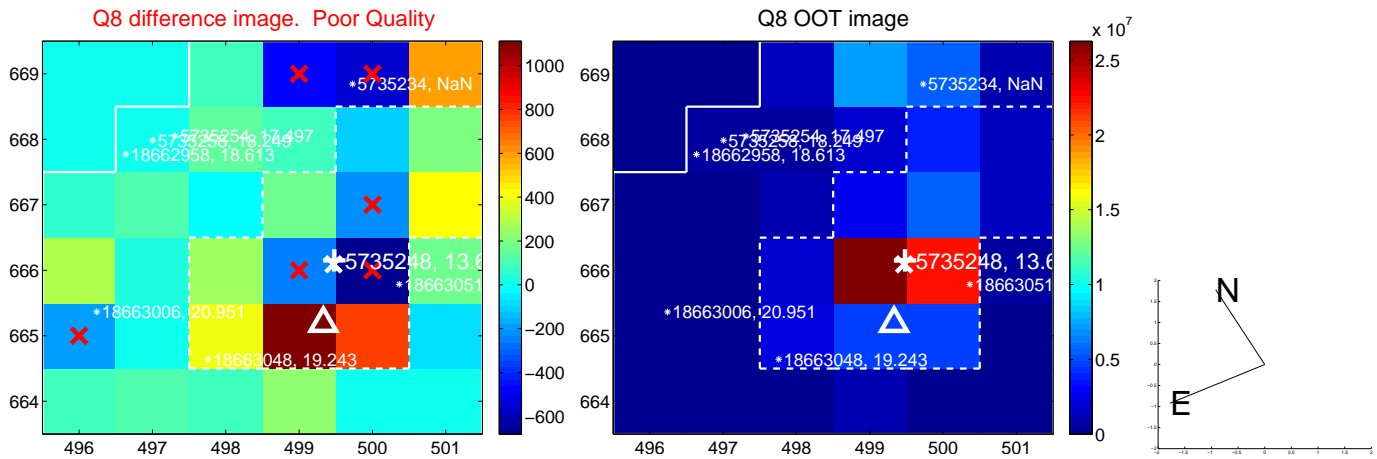
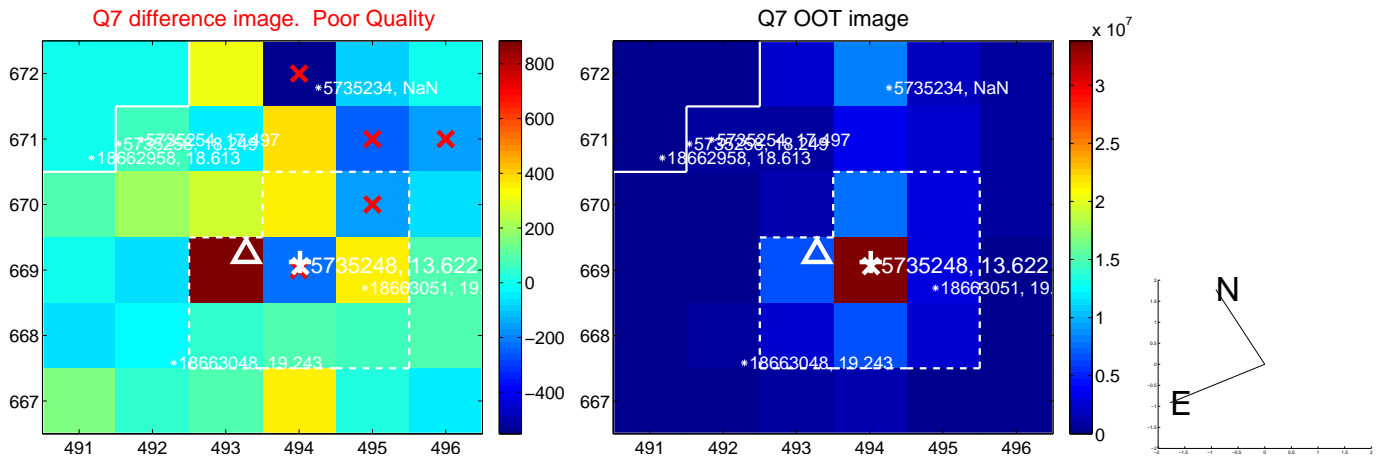
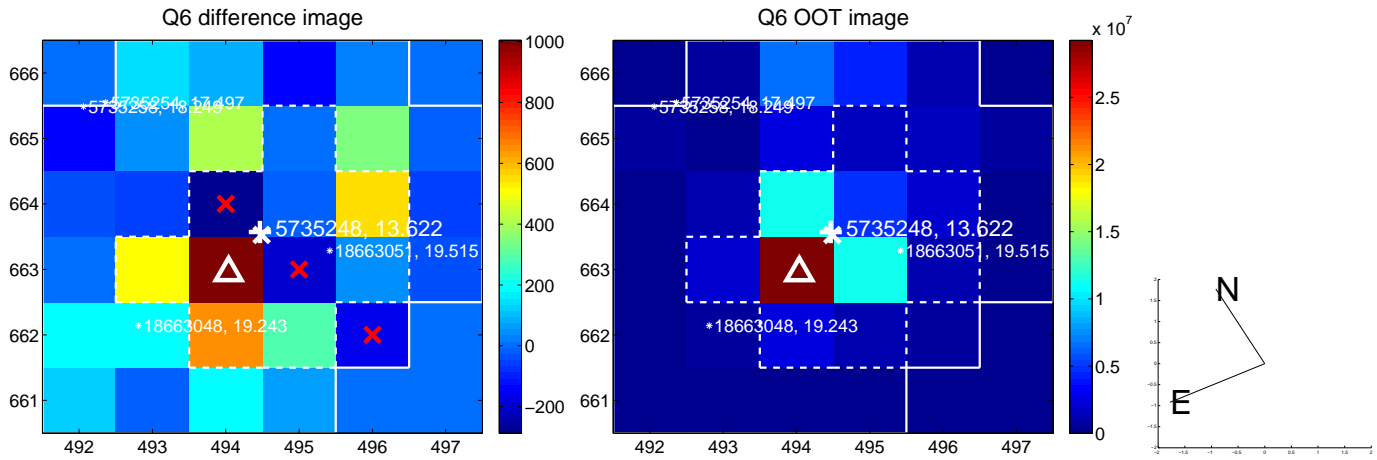
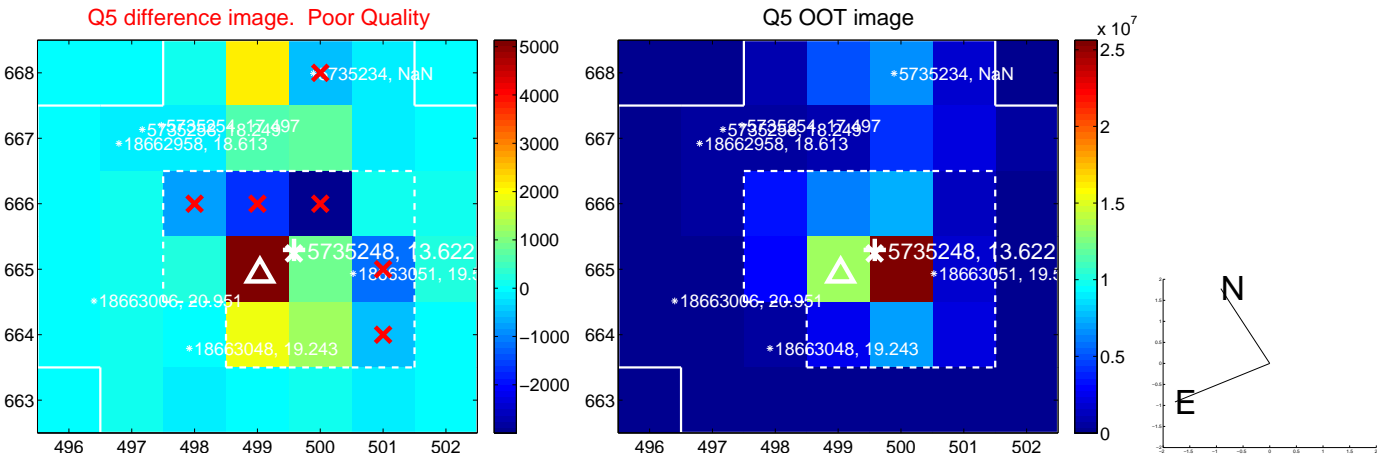


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

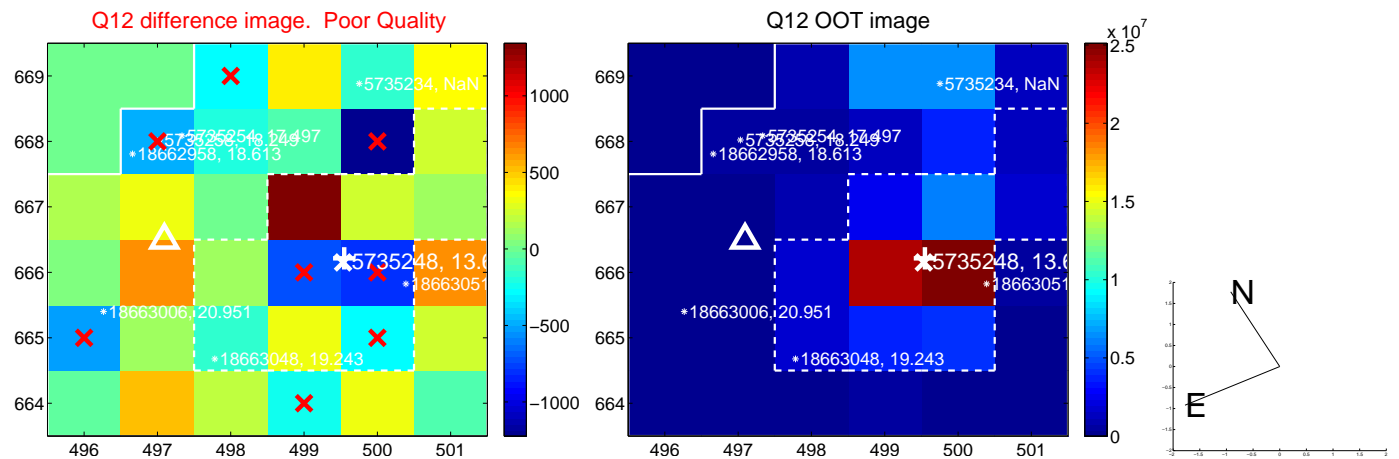
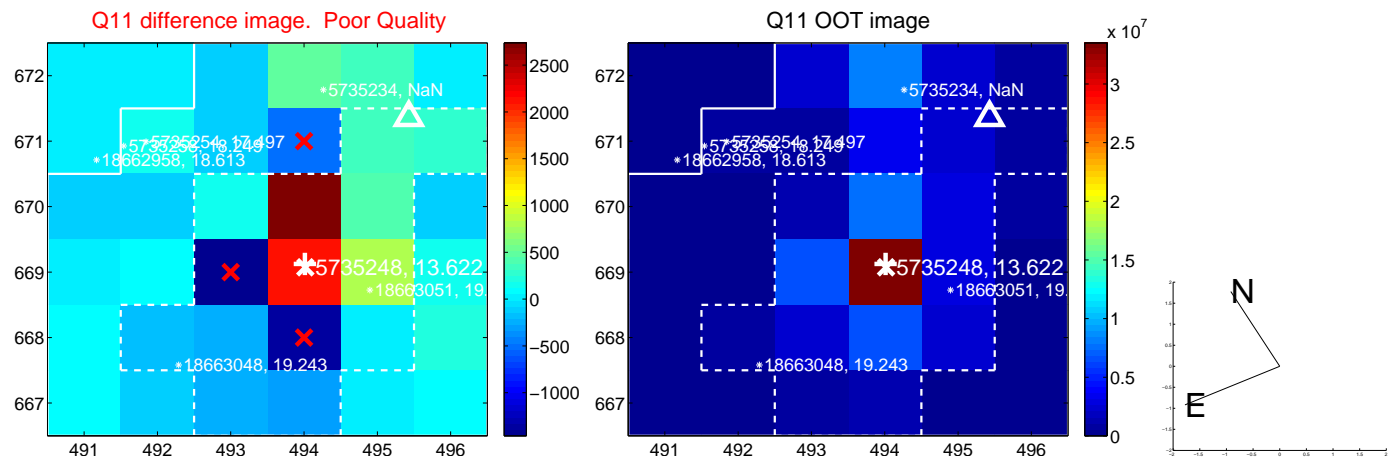
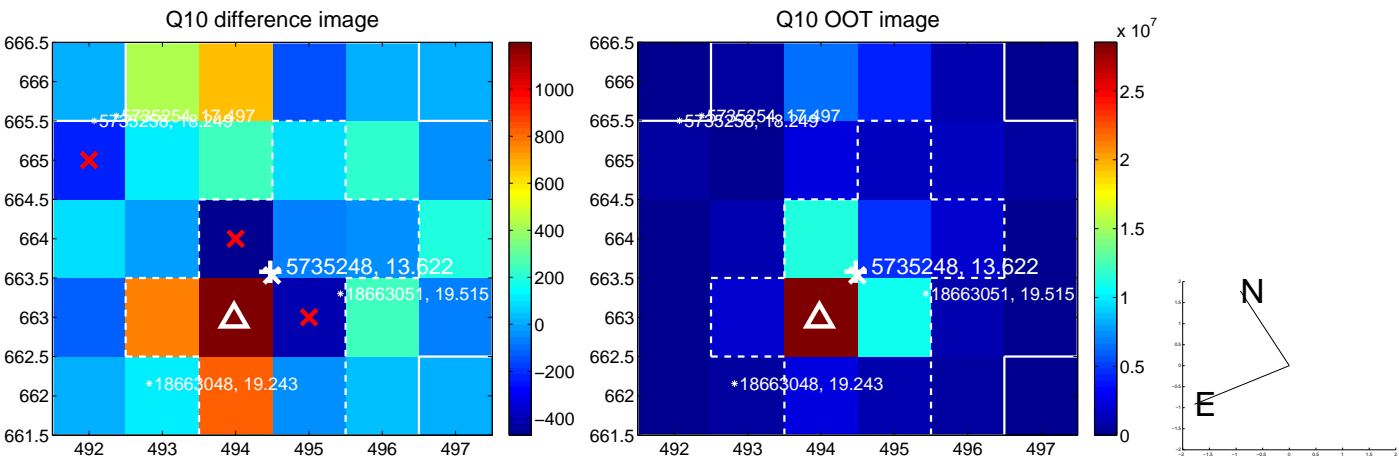
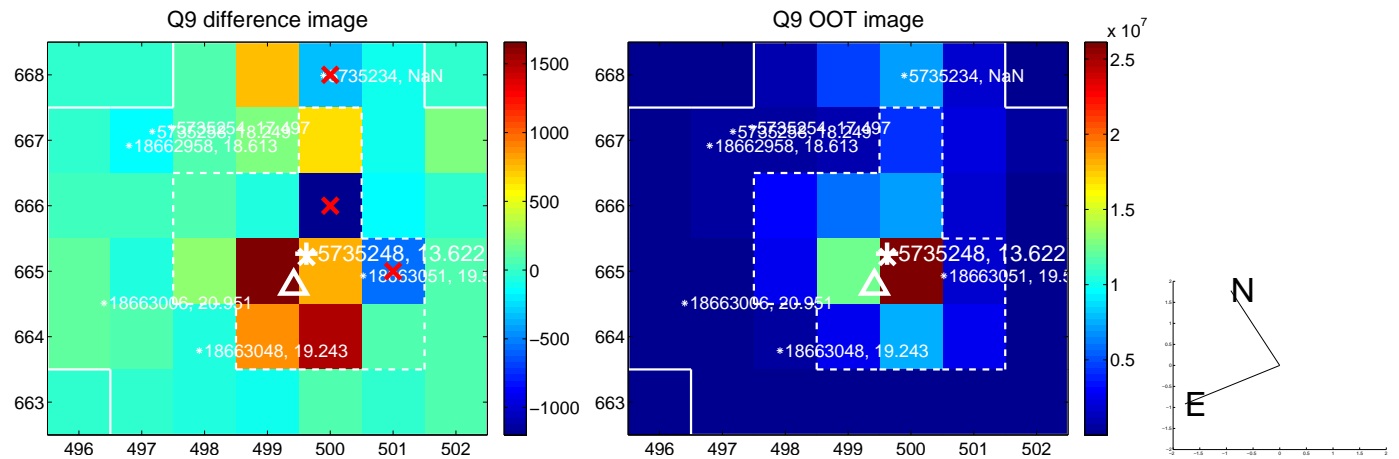
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



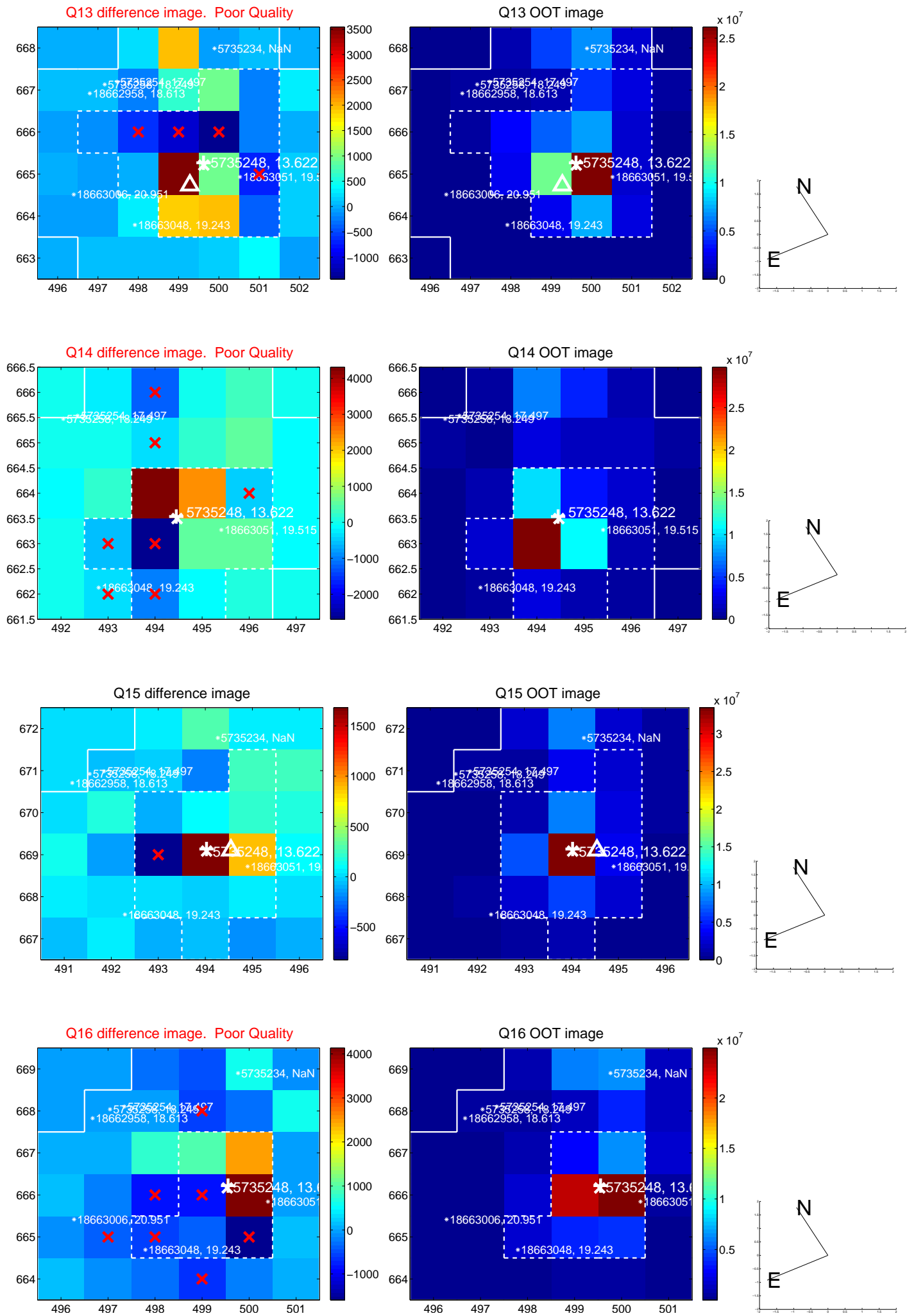
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



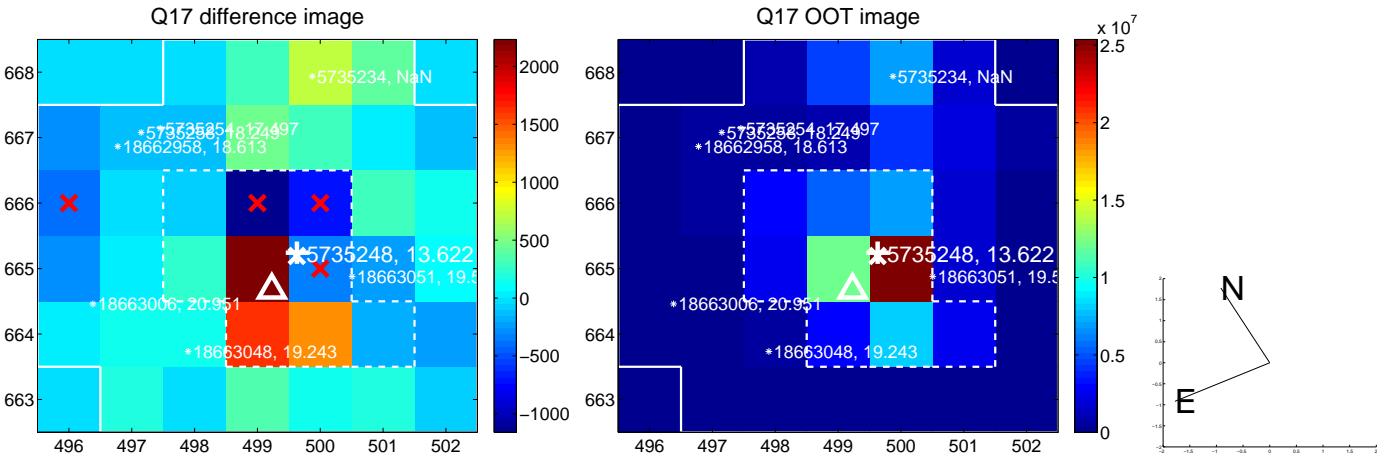
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

