

KIC 008935942

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})
008935942-01	OBS	No	1.657501	133.034964	0.1	1.957	8.6	0.0	0.16	3204	0.00	11.62

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935942-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

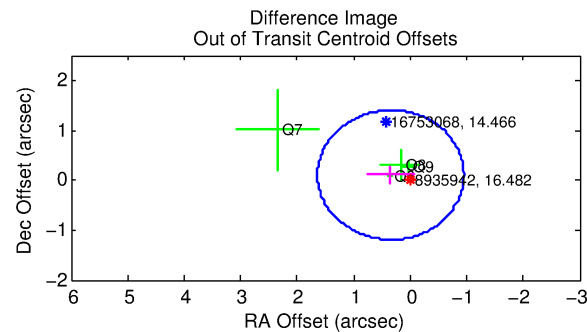
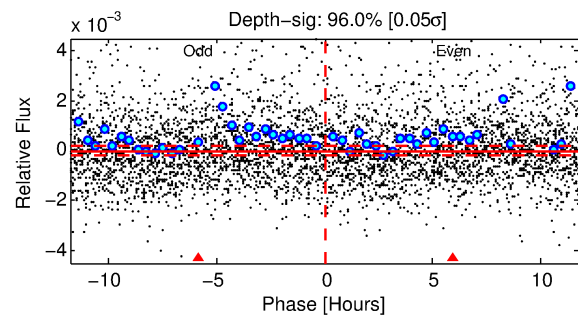
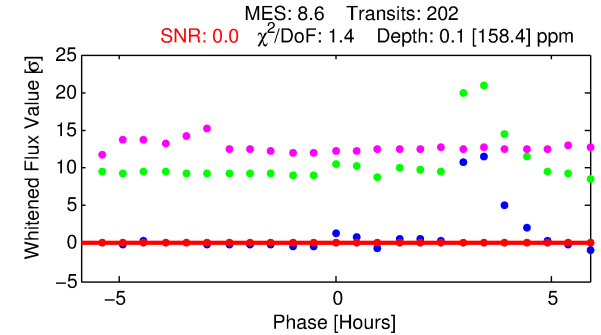
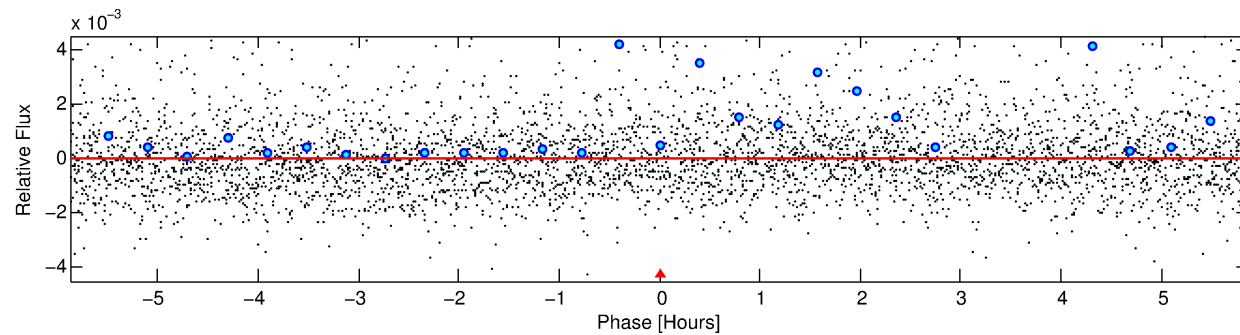
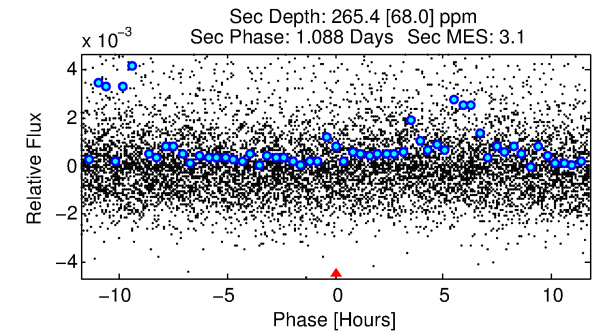
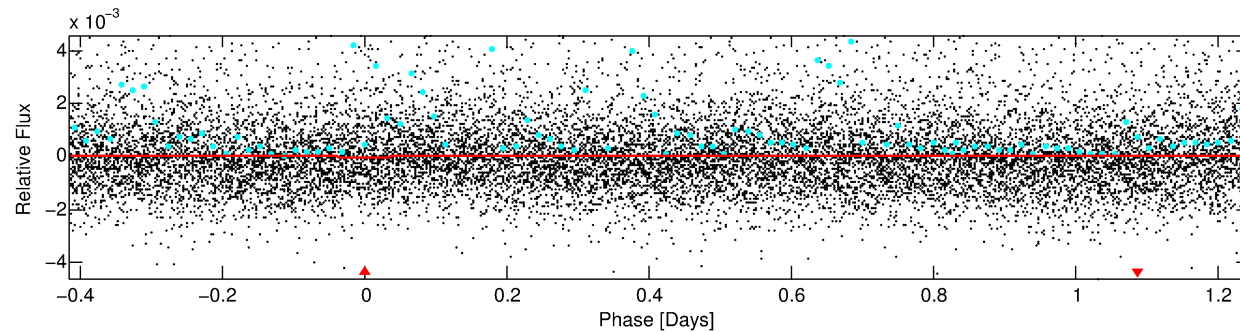
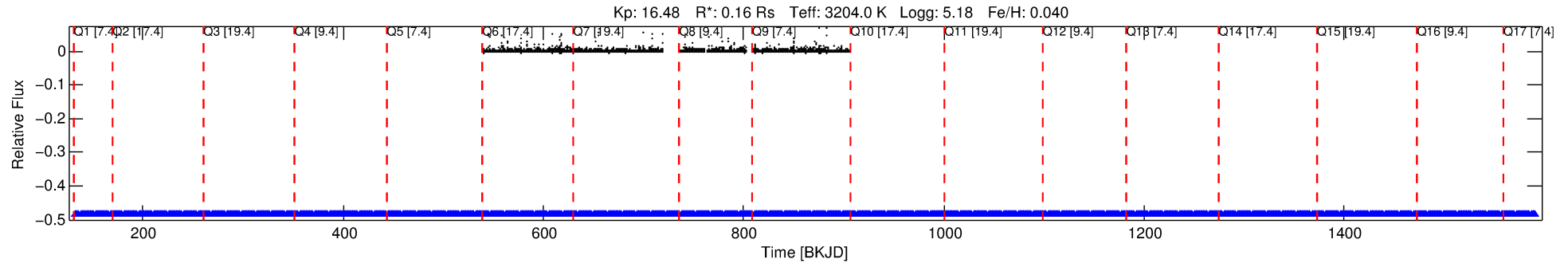
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935942-01

No Significant Match Found

DV One-Page Summary

KIC: 8935942 Candidate: 1 of 1 Period: 1.658 d



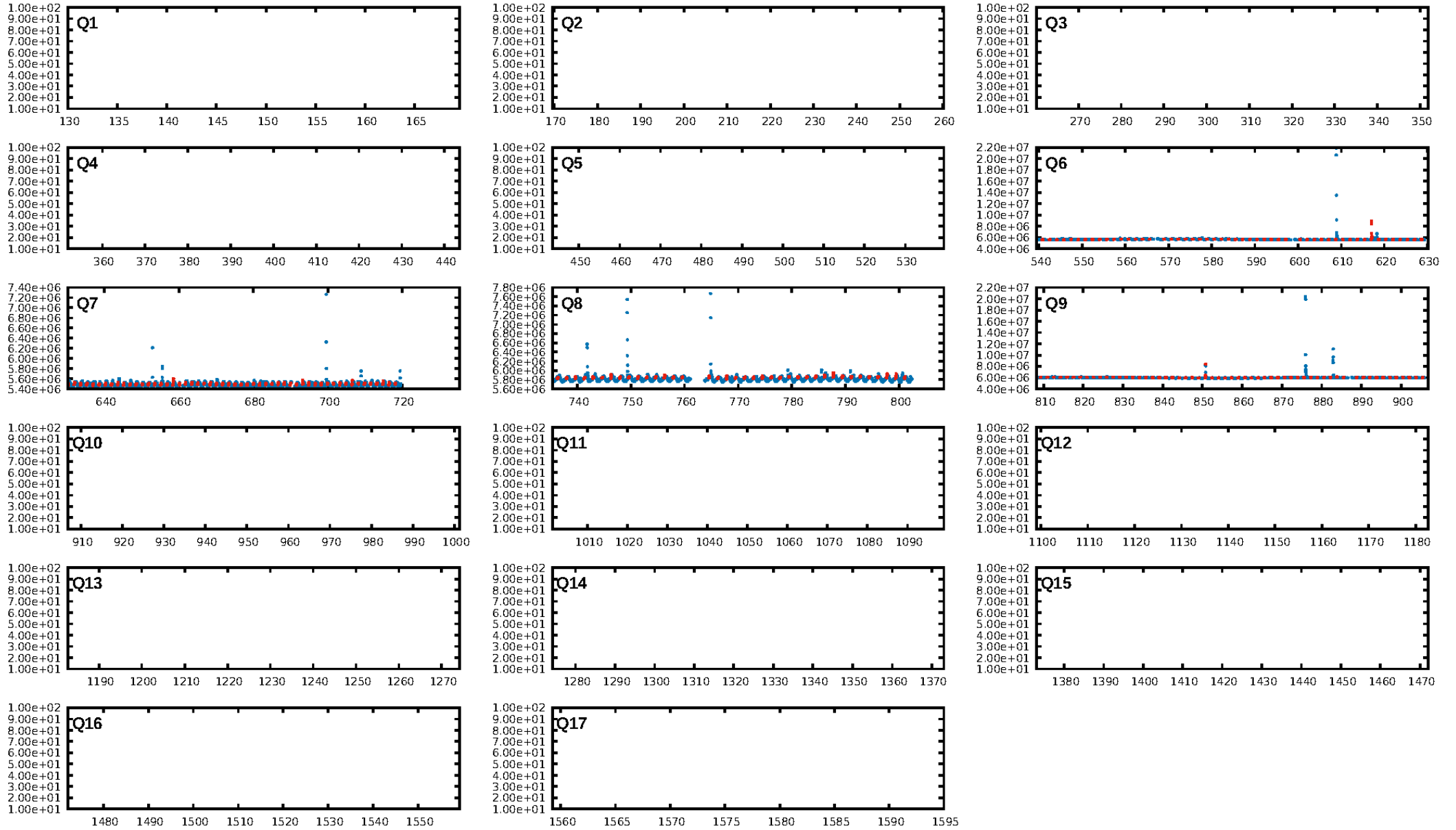
DV Fit Results:

Period = 1.65750 [0.29752] d
Epoch = 133.0350 [62.1290] BKJD
Rp/R* = 0.0002 [0.3640]
a/R* = 2.99 [1840.99]
b = 0.90 [237.31]
Seff = 11.62 [4.74]
Teq = 471 [48] K
Rp = 0.00 [6.20] Re
a = 0.0141 [0.0042] AU
Ag = 1659044.82 [4927854631.47] [0.00σ]
Teff = 26123 [19398904] K [0.00σ]

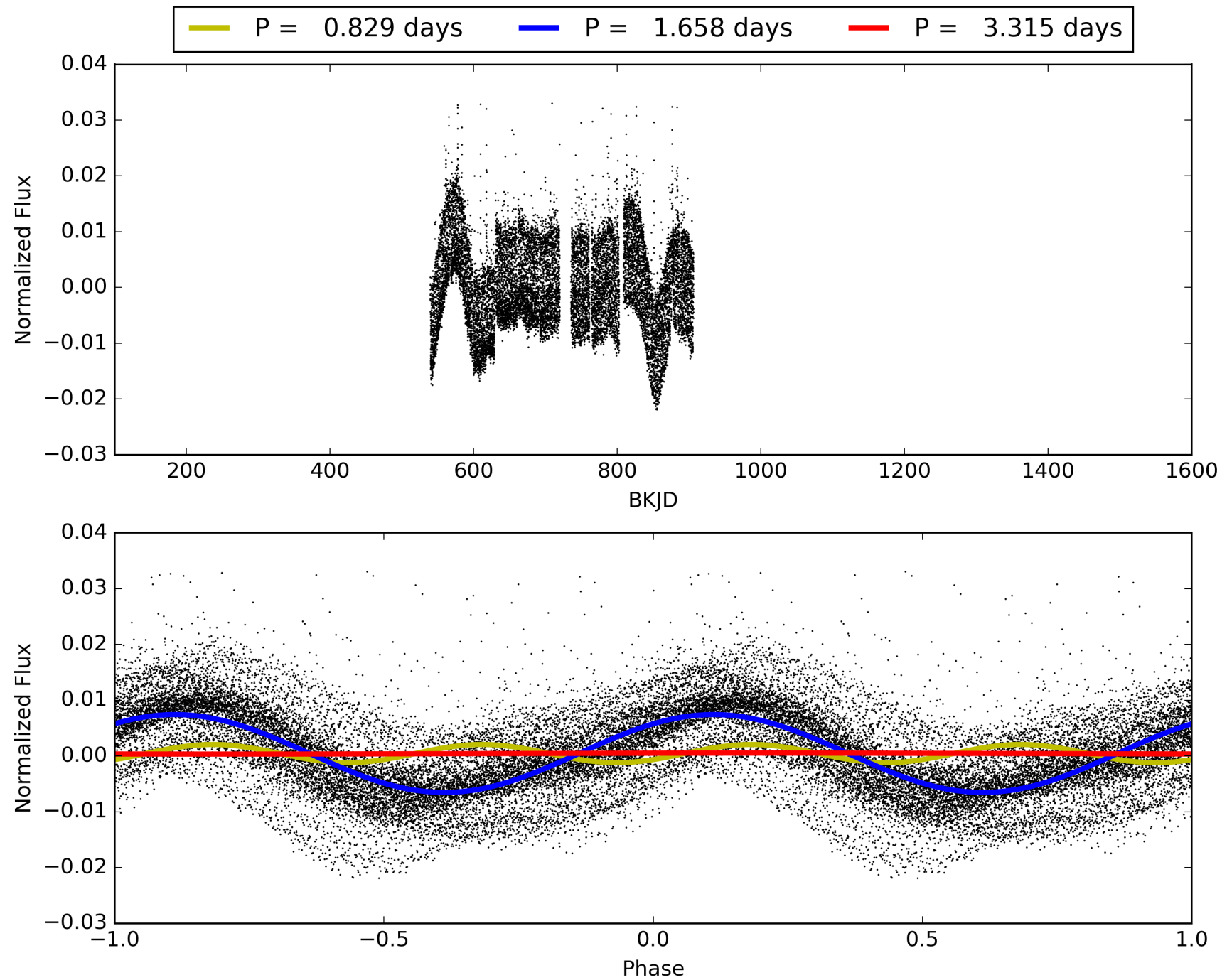
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 97.1%
Bootstrap-pfa: 6.62e-11
RollingBand-fgt: 1.00 [202/202]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.362 arcsec [0.84σ]
KicOffset-rm: 1.387 arcsec [2.52σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.50 [2/4]
DiffImageOverlap-fno: 1.00 [4/4]

TCE 008935942-01, PDC Light Curves

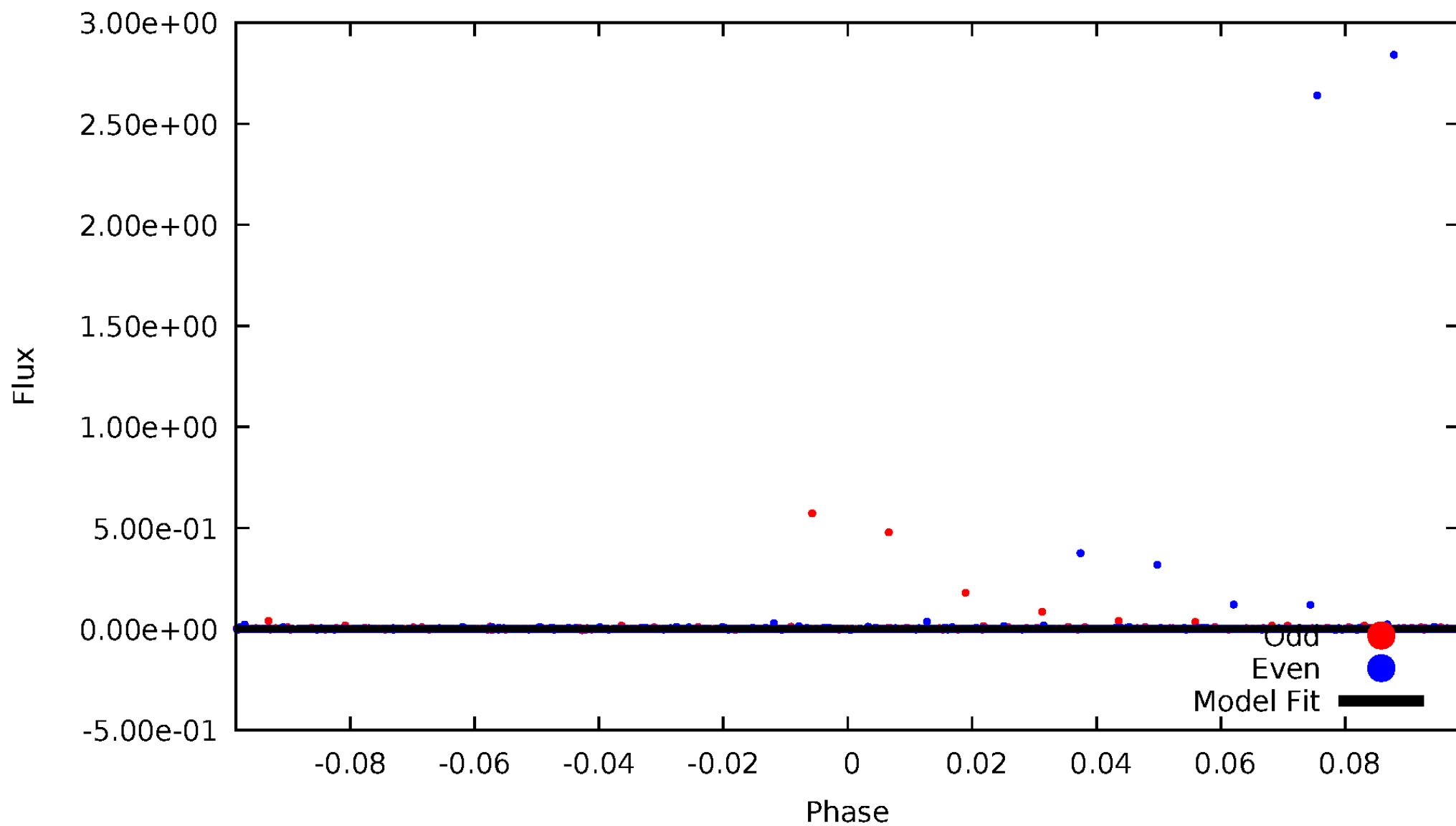


TCE 008935942-01



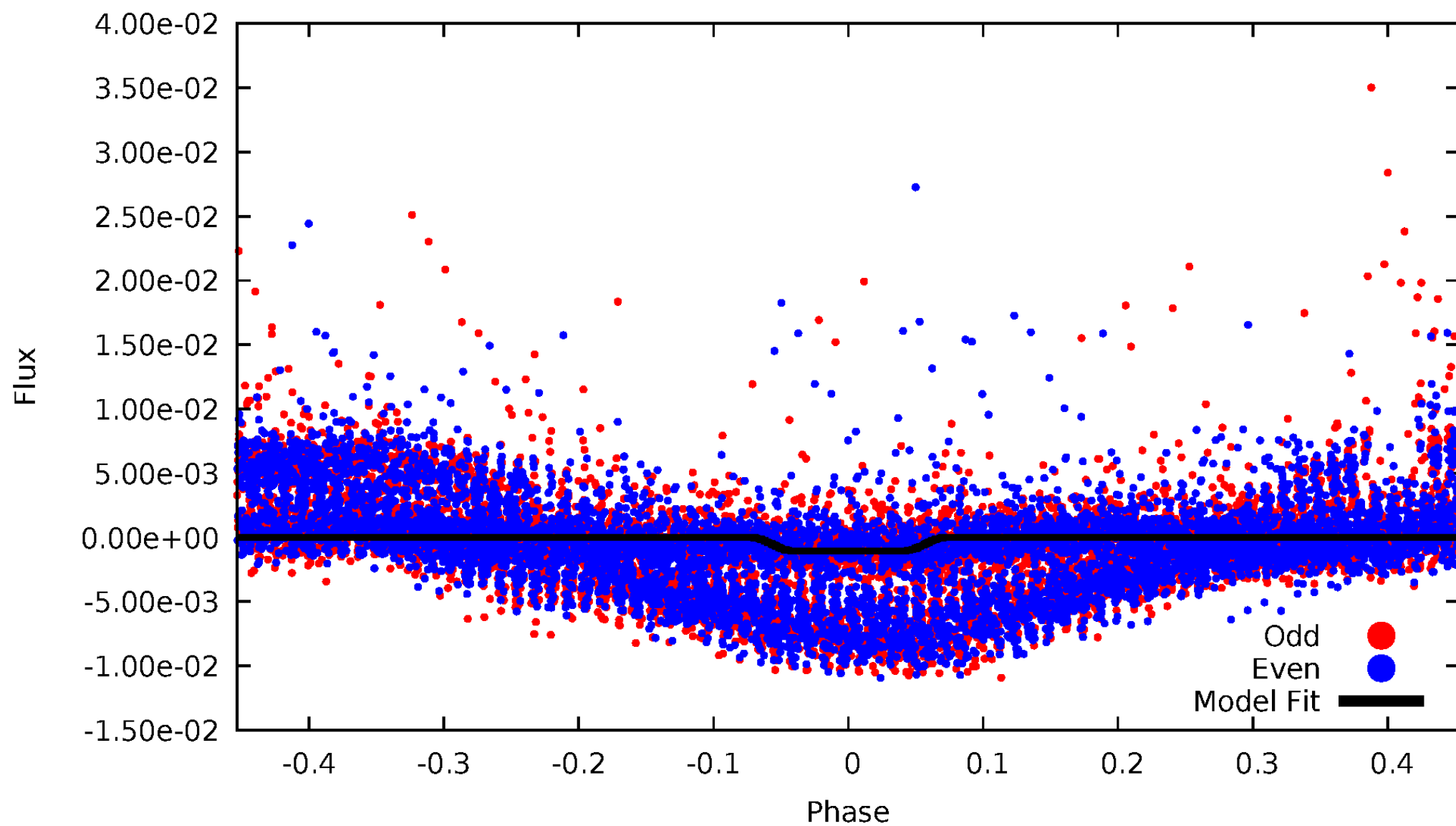
DV Odd/Even

TCE 008935942-01



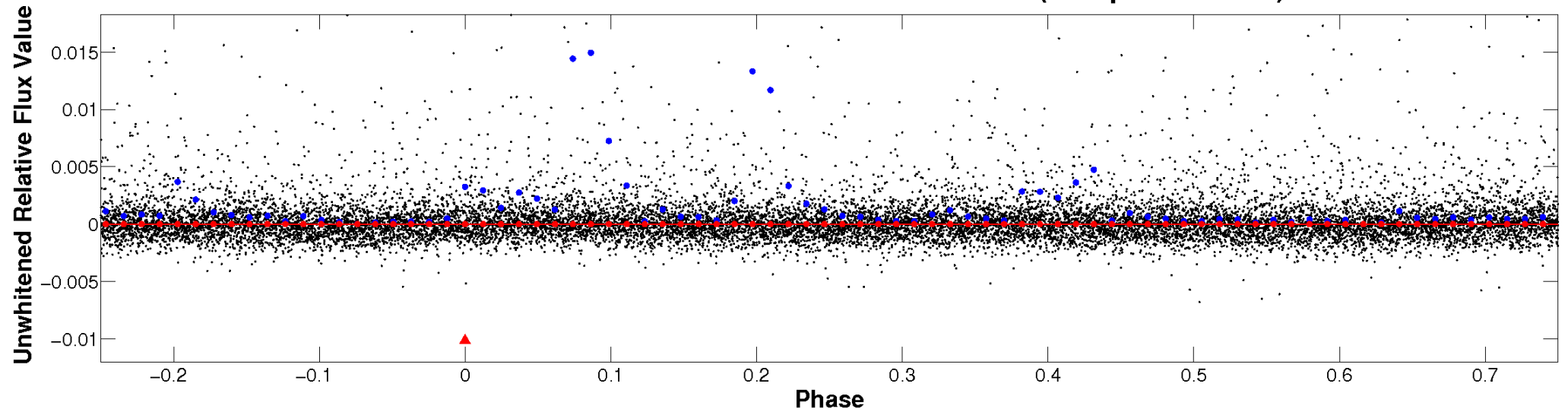
ALT Odd/Even

TCE 008935942-01

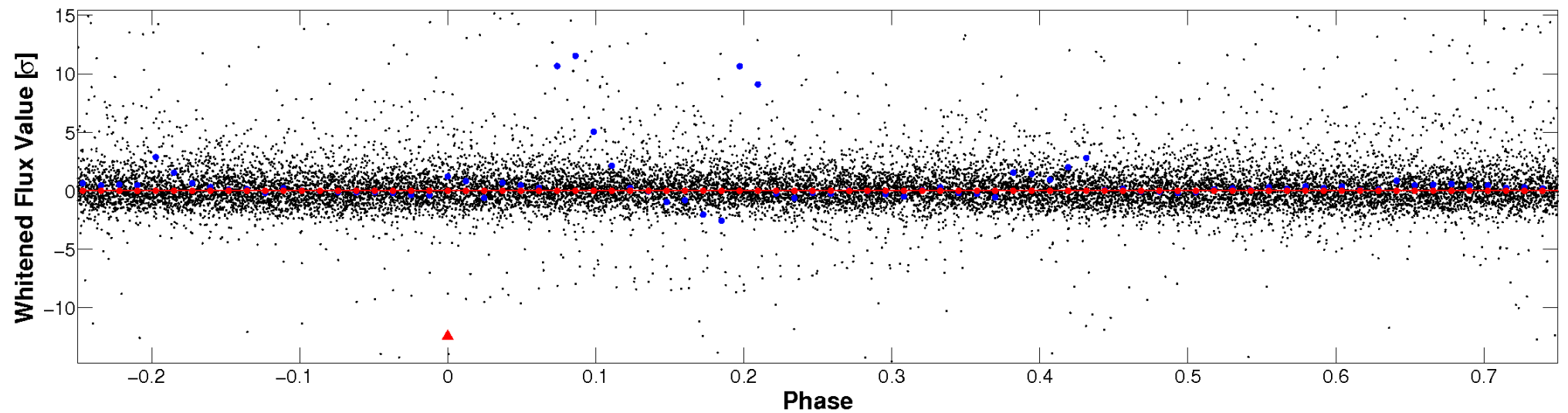


Non-Whitened Vs. Whitened Light Curve

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

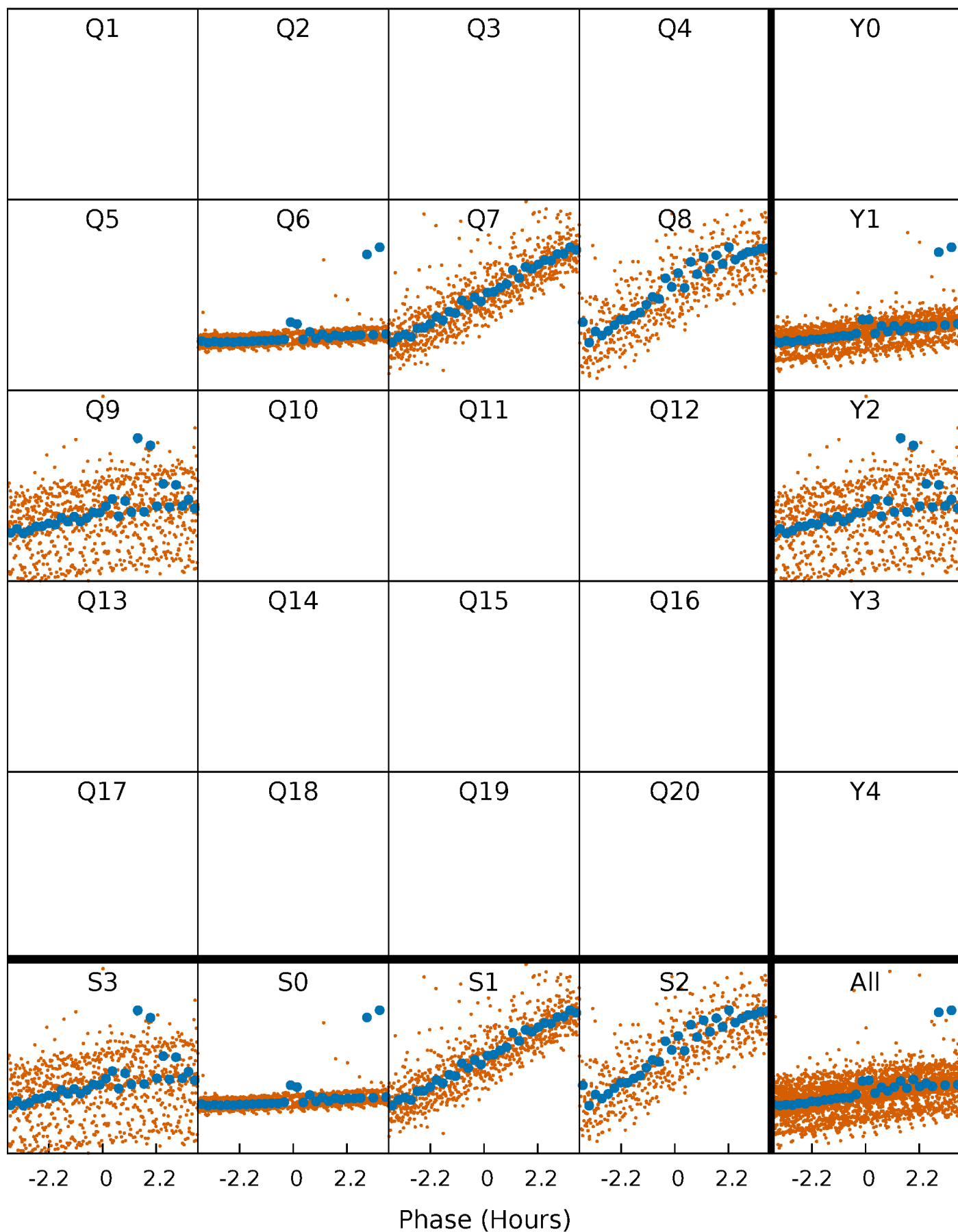


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008935942-01 P= 1.657501 Days $T_0=133.034964$ (BKJD)



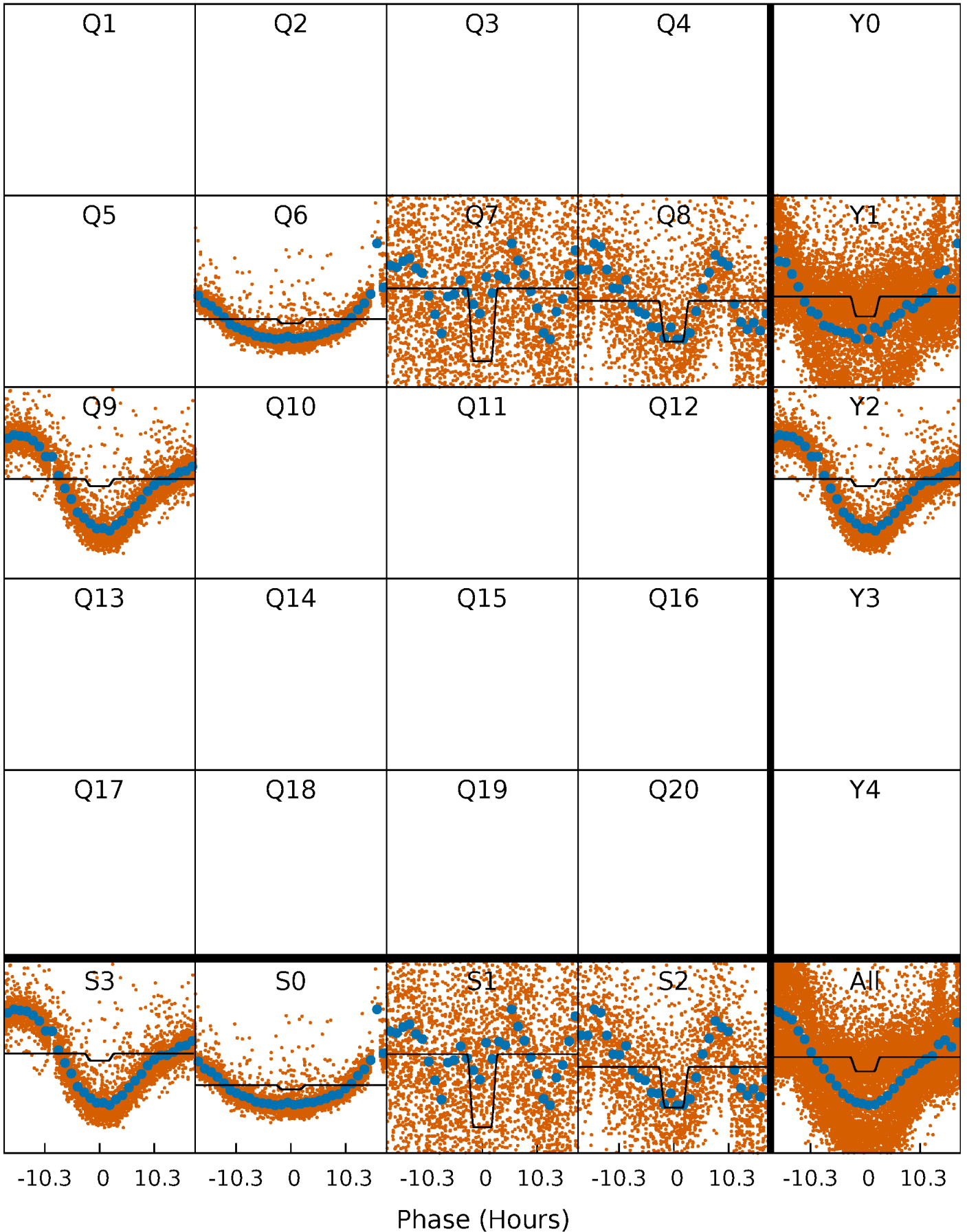
DV Quarter-Phased Transit Curves

TCE 008935942-01 P= 1.657501 Days $T_0=133.034964$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

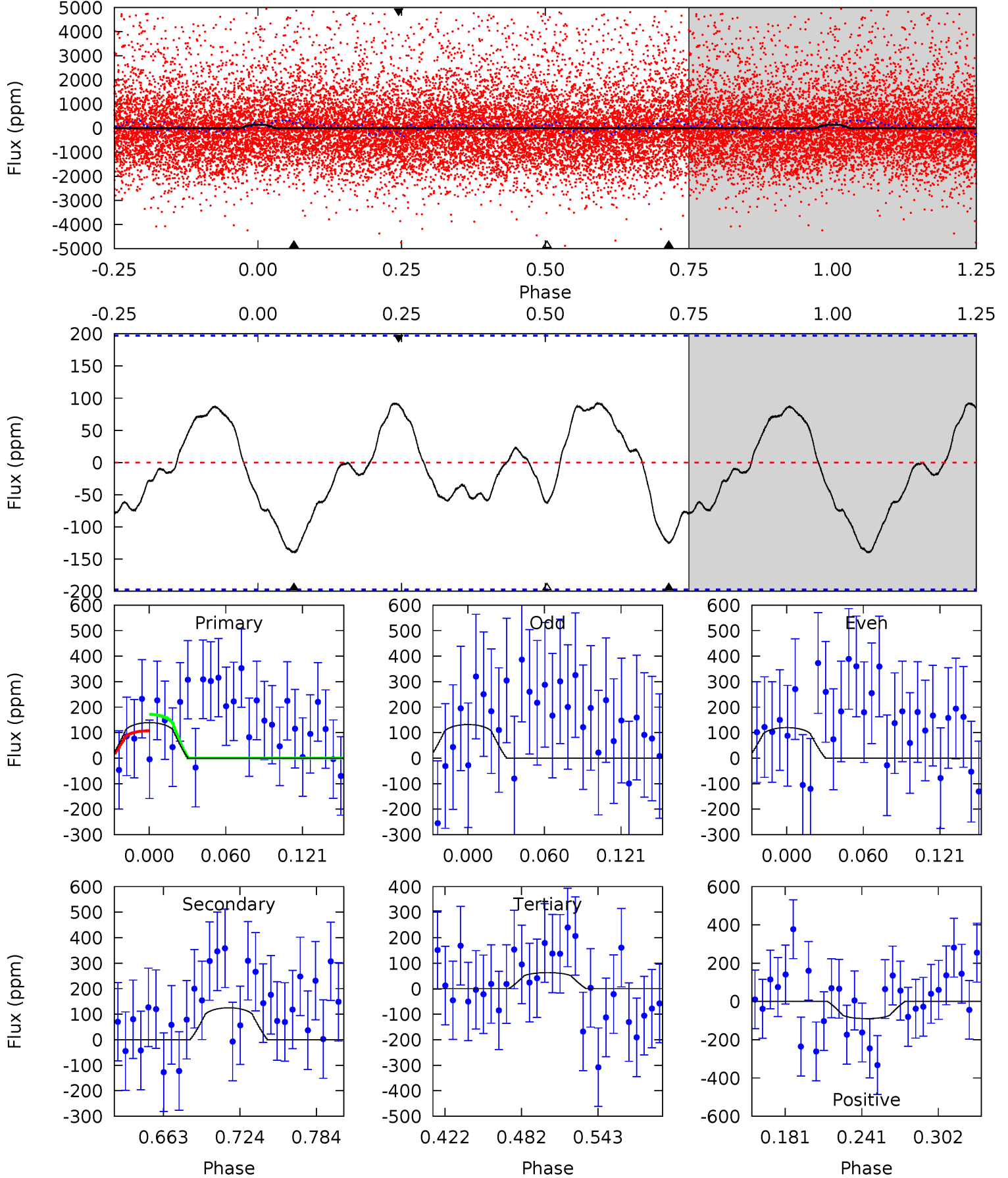
TCE 008935942-01 P= 1.654912 Days $T_0=131.607214$ (BKJD)



DV Model-Shift Uniqueness Test

008935942-01, P = 1.657501 Days, E = 133.034964 Days

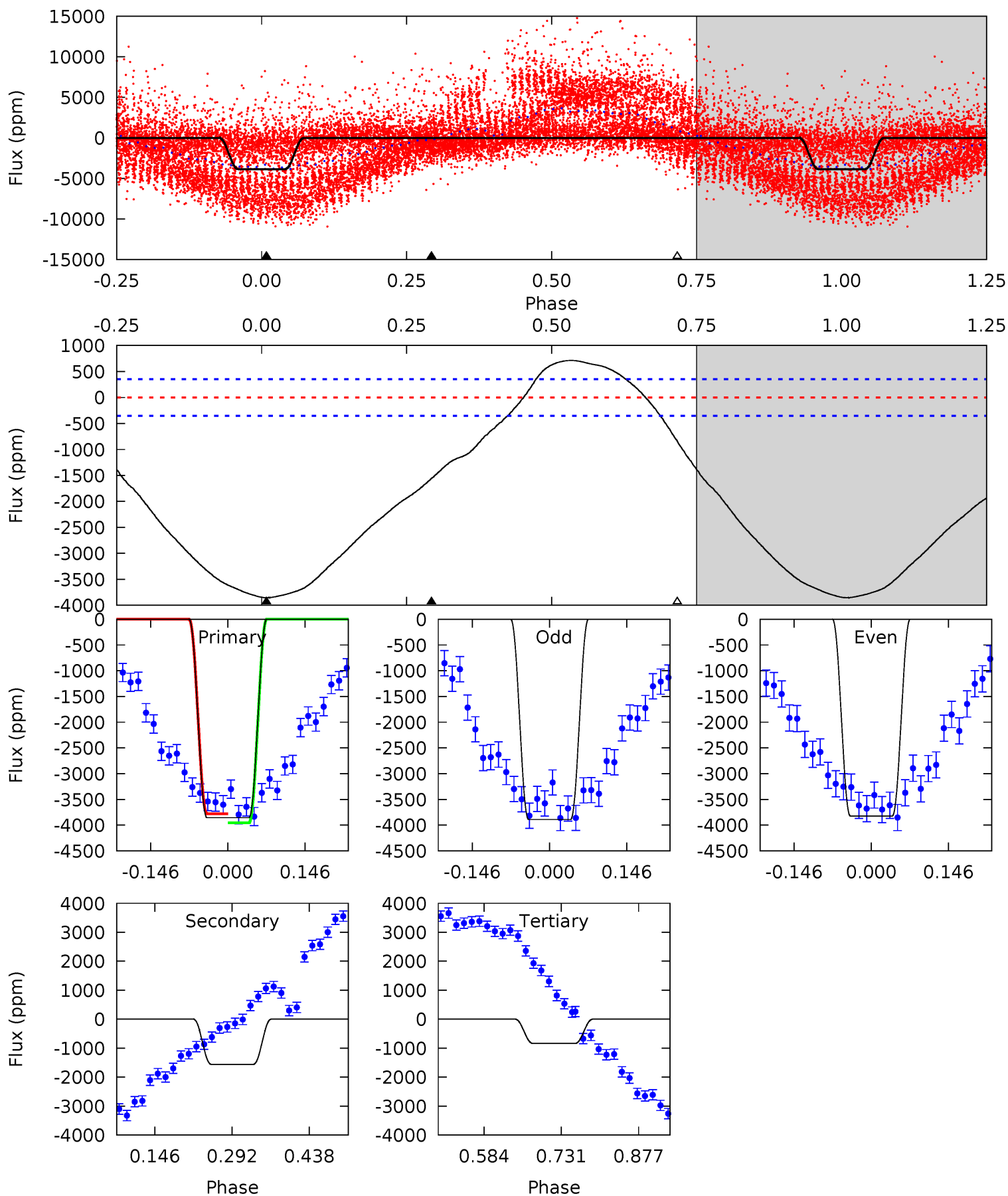
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.30	2.96	1.49	2.12	4.67	1.88	1.18	1.81	1.17	1.47	0.84	0.14	25.0	0.40	0.77



Alt Model-Shift Uniqueness Test

008935942-01, P = 1.654912 Days, E = 131.607214 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.0	19.8	10.7	0	4.48	1.45	14.5	38.3	49.0	9.16	19.8	0.44	1.20	0.16	1.50



Stellar Parameters For KIC 008935942

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3204^{+70}_{-44}	$5.182^{+0.051}_{-0.119}$	$0.040^{+0.250}_{-0.200}$	$0.156^{+0.061}_{-0.015}$	$0.135^{+0.058}_{-0.015}$	$50.050^{+11.500}_{-21.980}$
	+2%/-1%	+1%/-2%	+625%/-500%	+39%/-10%	+43%/-11%	+23%/-44%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 008935942-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-125 ± 42	$4.13^{+4.78}_{-2.96}$	670^{+59}_{-48}	1547^{+526}_{-2963}	$0.760^{+8.915}_{-0.609}$
Alt.	-1559 ± 79	$4.56^{+5.17}_{-3.26}$	667^{+58}_{-43}	2017^{+676}_{-299}	$8.686^{+93.707}_{-6.895}$

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 $A_{obs} \gg 1.0$

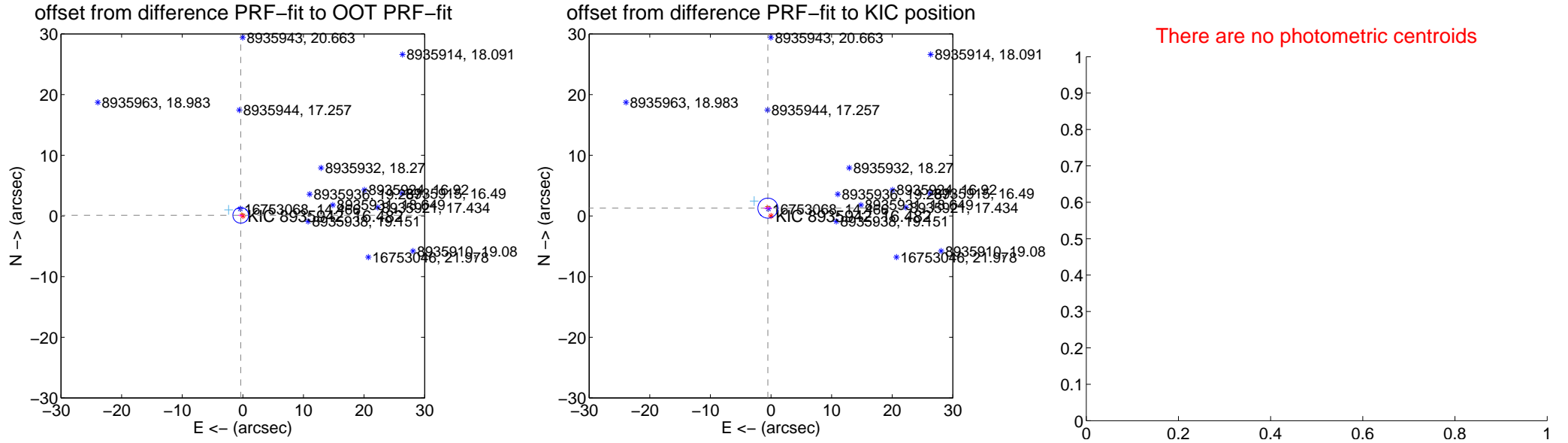
DV Centroid Data

Supplemental centroid analysis for 008935942-01. Kepler magnitude: 16.48. Transit SNR 0.00

There are 2 quarters with good PRF difference image offsets

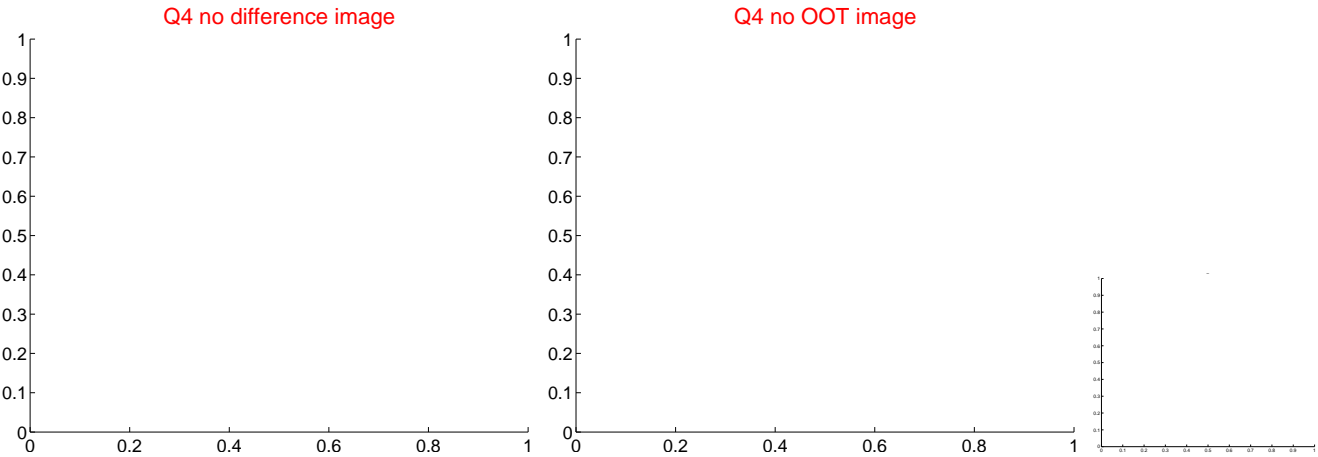
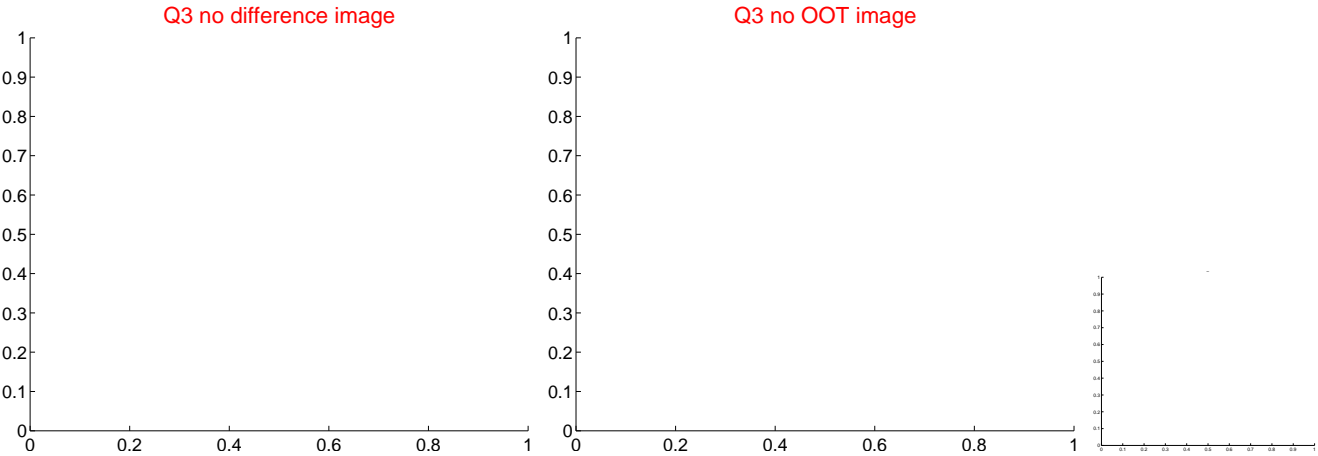
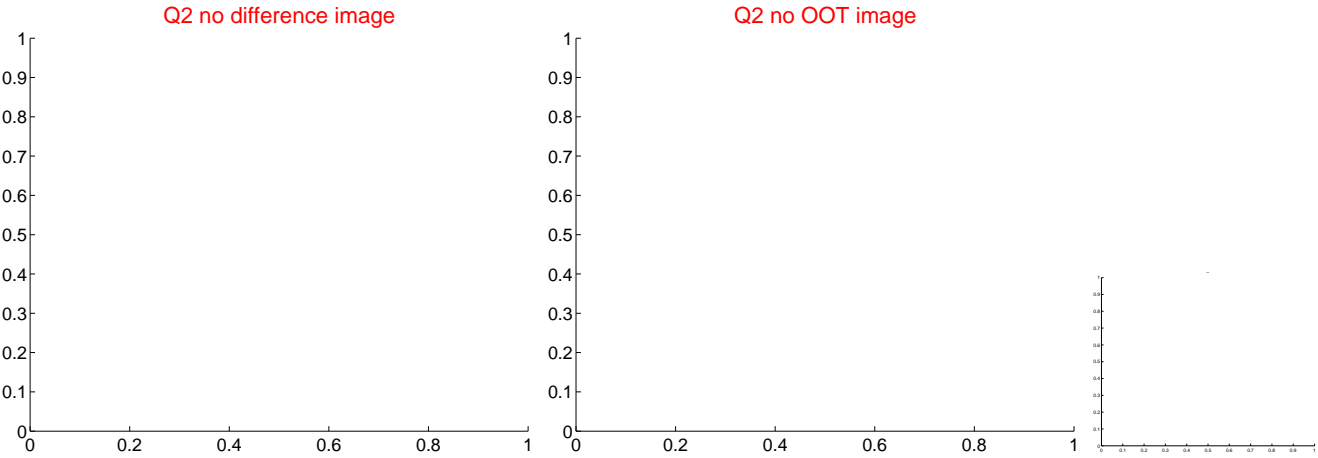
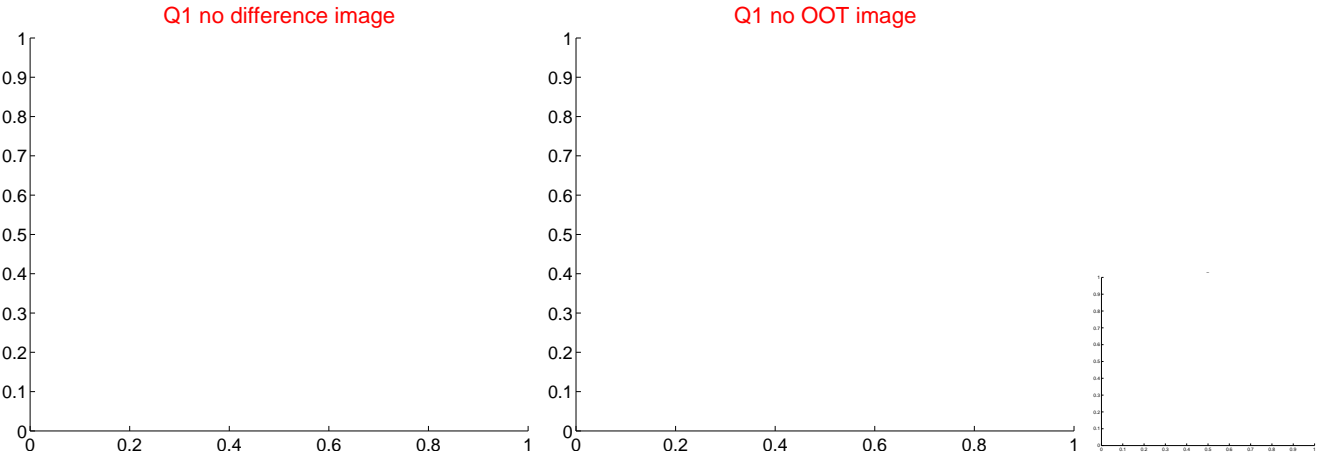
The direct PRF centroid is offset from the target star catalog position by about 1.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.362 ± 0.432	0.84	0.347 ± 0.410	0.103 ± 0.161
PRF-fit source offset from KIC position	1.387 ± 0.550	2.52	0.514 ± 0.702	1.288 ± 0.317
photometric centroid source offset	—	—	—	—

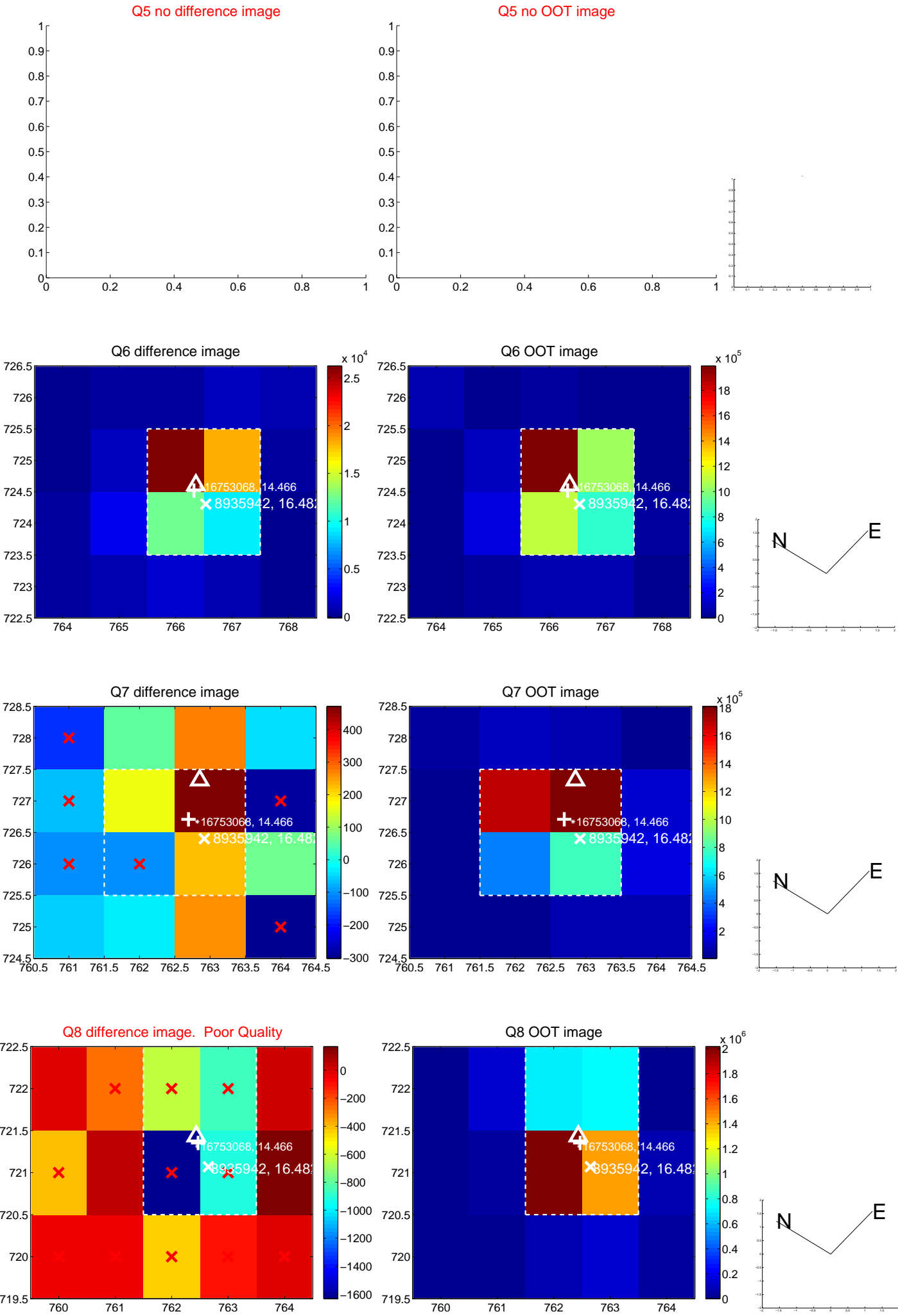


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

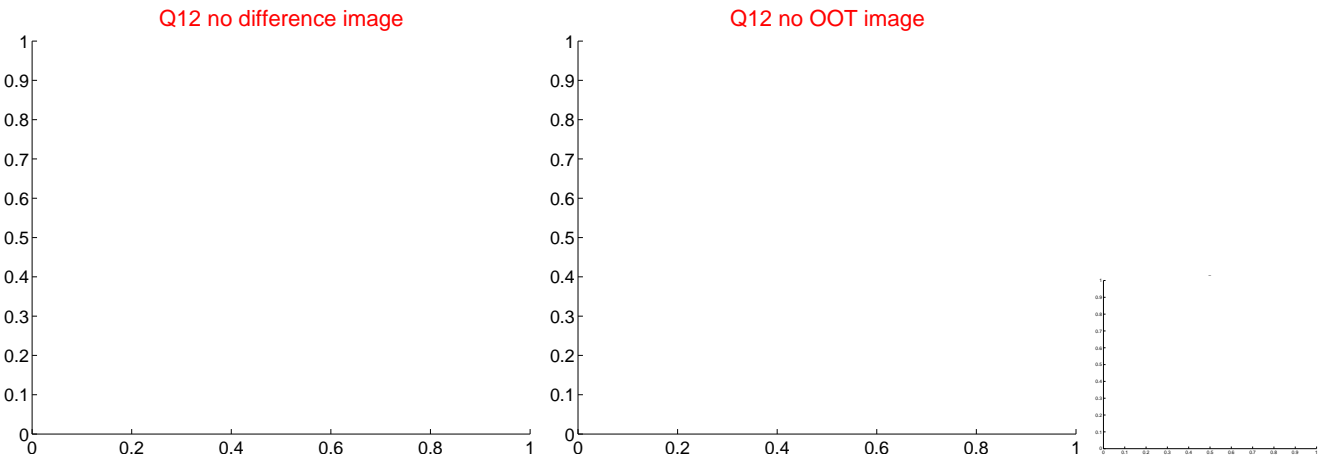
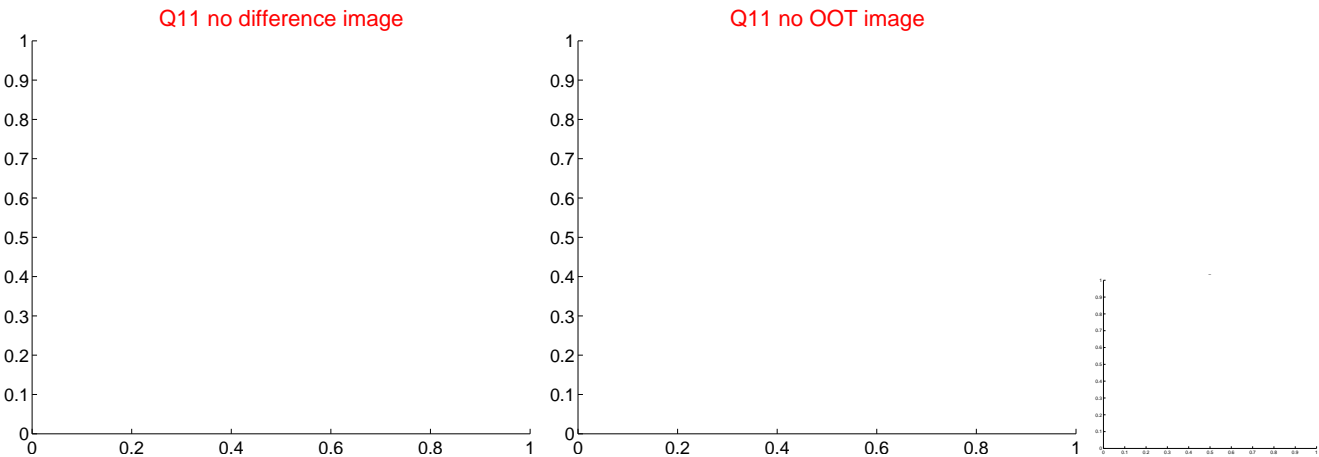
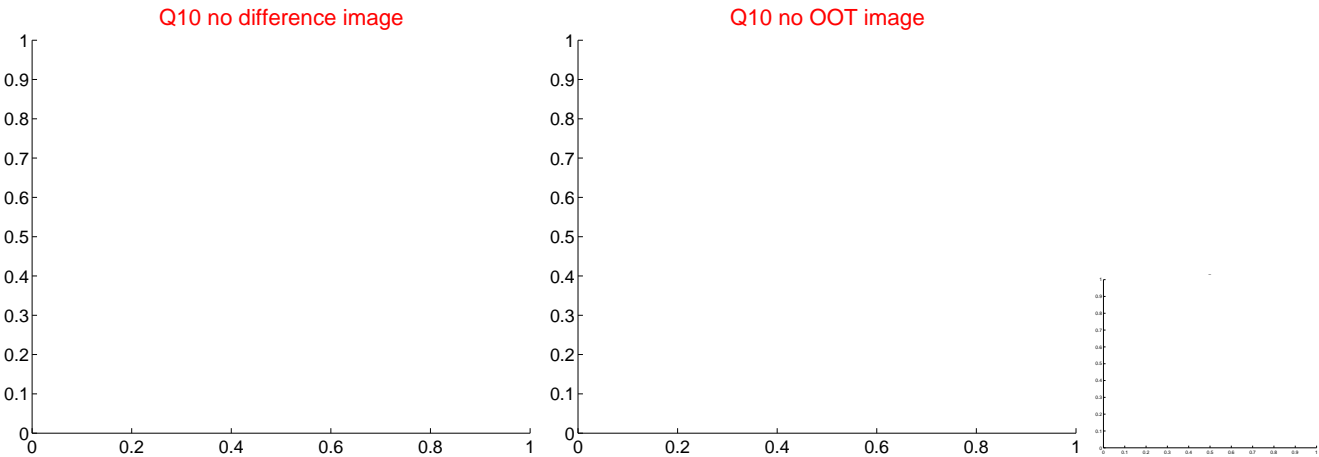
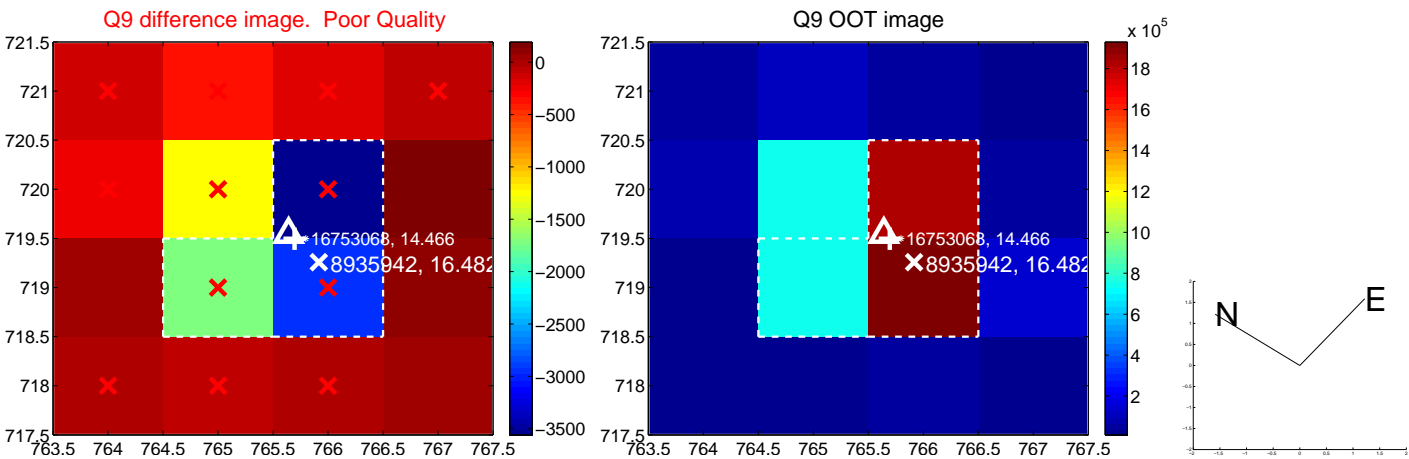
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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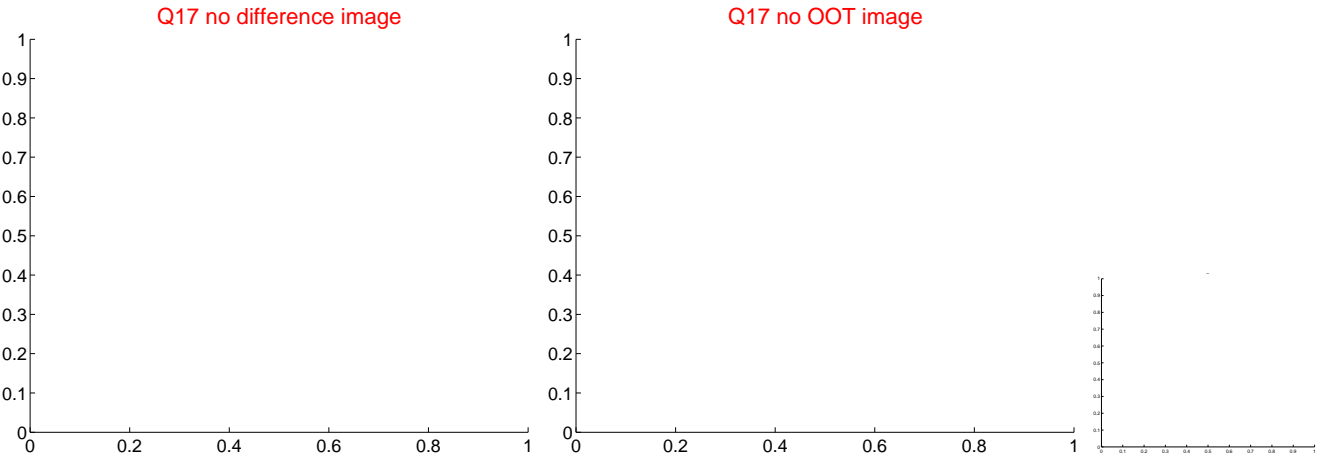
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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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

