

KIC 010341876

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})
010341876-01	OBS	8204.01	351.214675	184.909676	871.9	20.529	8.7	8.9	0.92	5845	2.71	1.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010341876-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

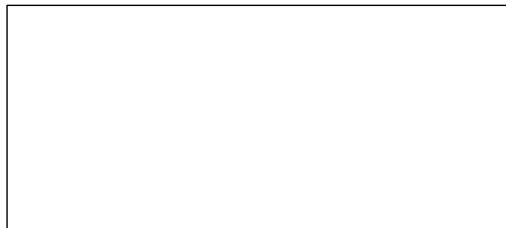
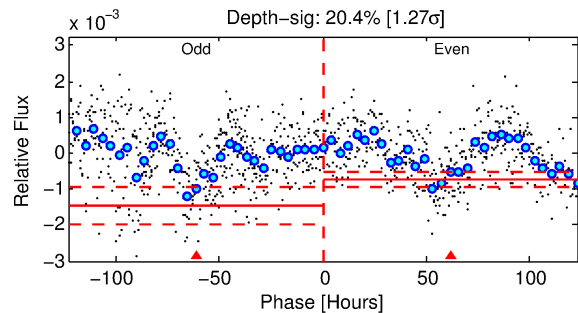
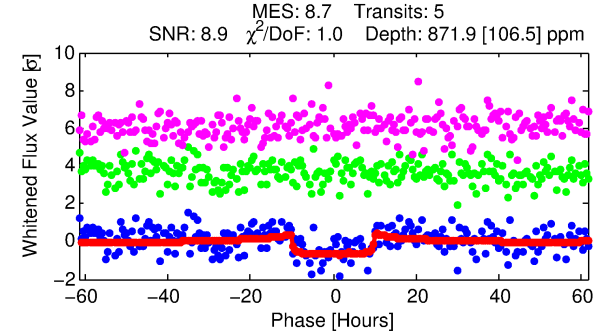
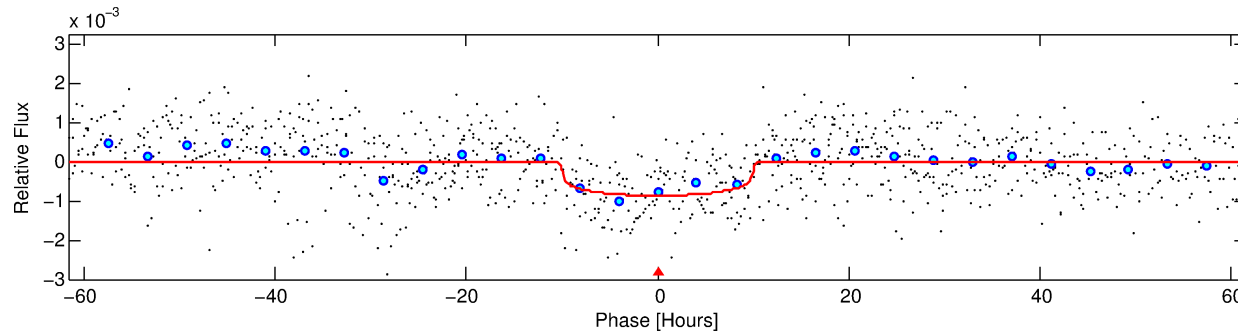
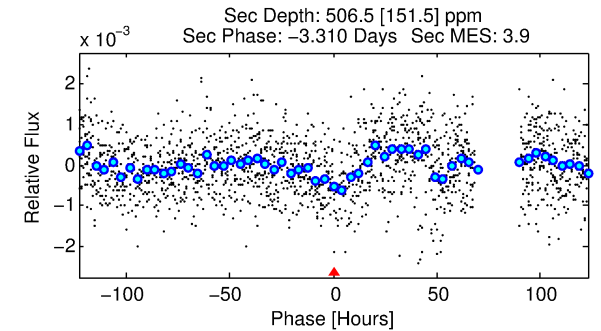
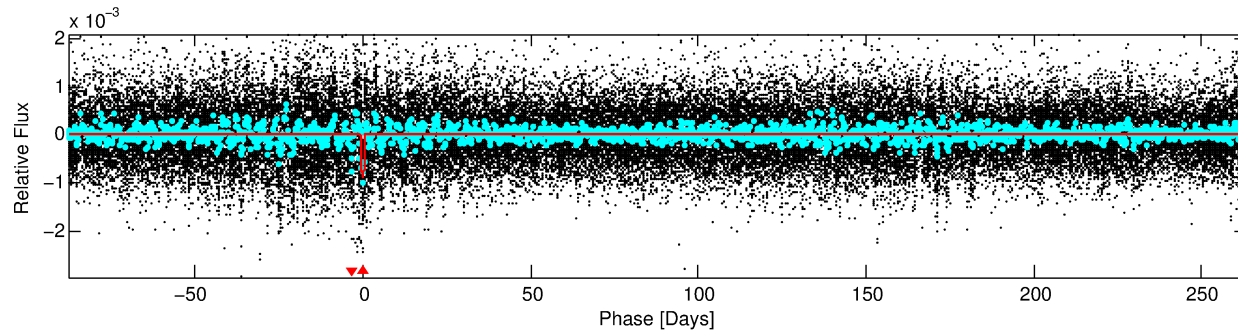
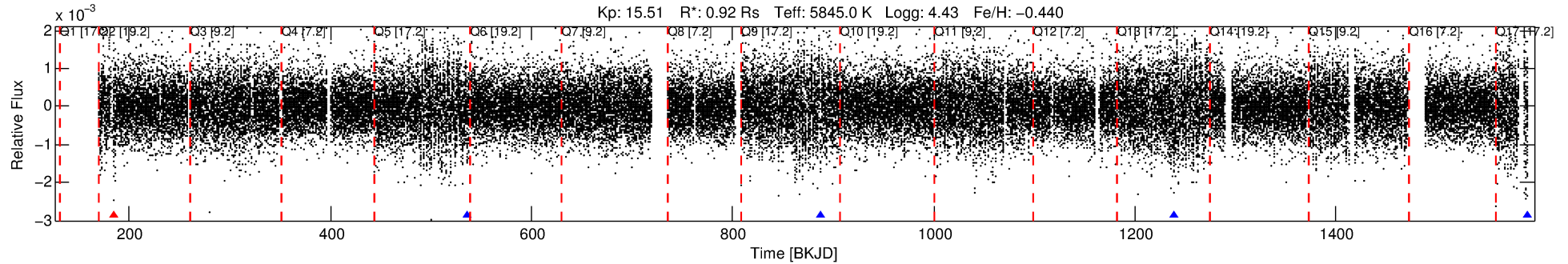
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010341876-01

No Significant Match Found

DV One-Page Summary

KIC: 10341876 Candidate: 1 of 1 Period: 351.215 d



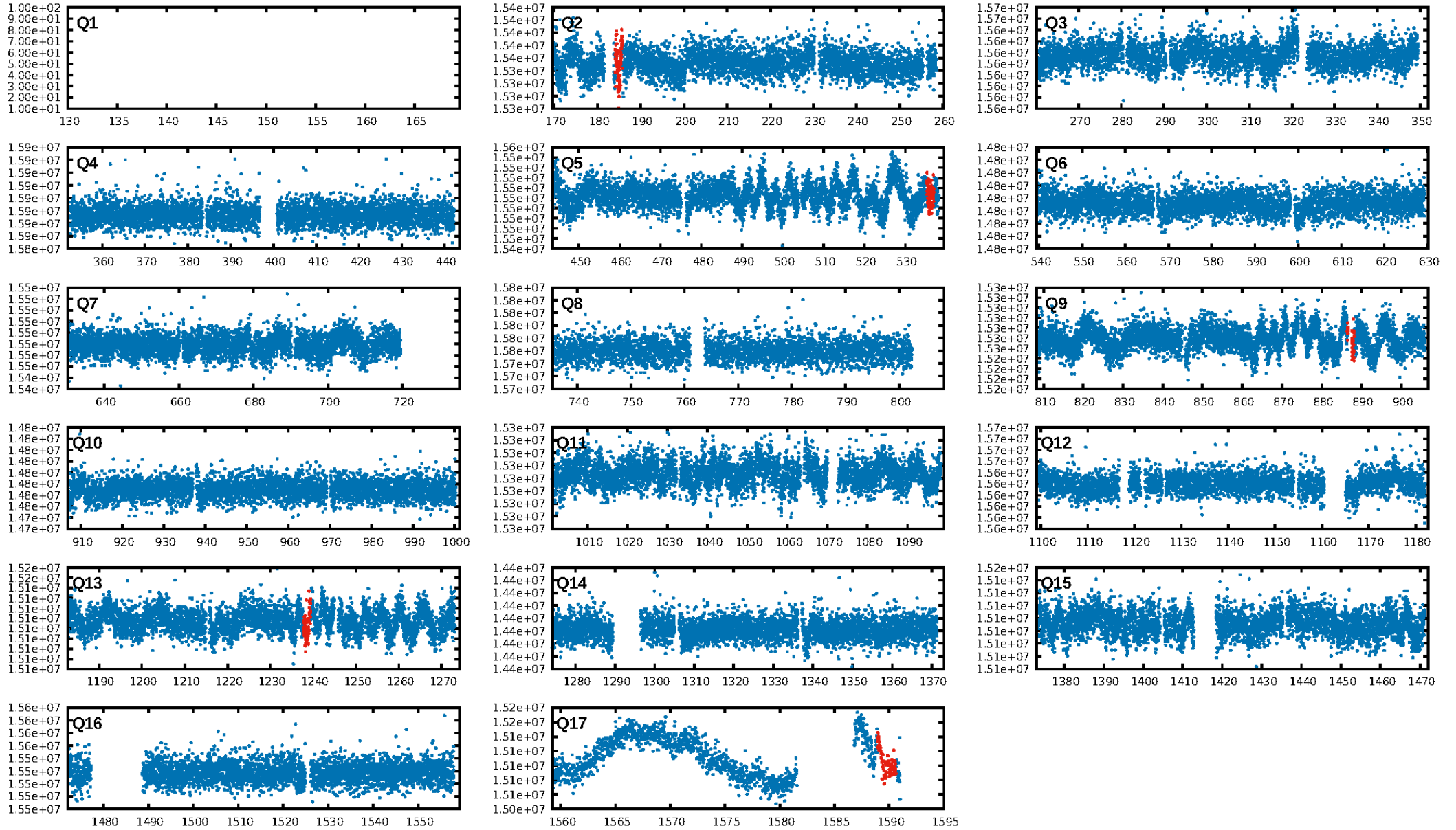
DV Fit Results:

Period = 351.21467 [0.00703] d
Epoch = 184.9097 [0.0170] BKJD
Rp/R* = 0.0270 [0.0116]
a/R* = 132.38 [265.32]
b = 0.17 [11.52]
Seff = 1.05 [0.36]
Teq = 258 [22] K
Rp = 2.71 [1.35] Re
a = 0.9183 [0.2021] AU
Ag = 32022.42 [30840.03] [1.04σ]
Teffp = 5332 [1219] K [4.16σ]

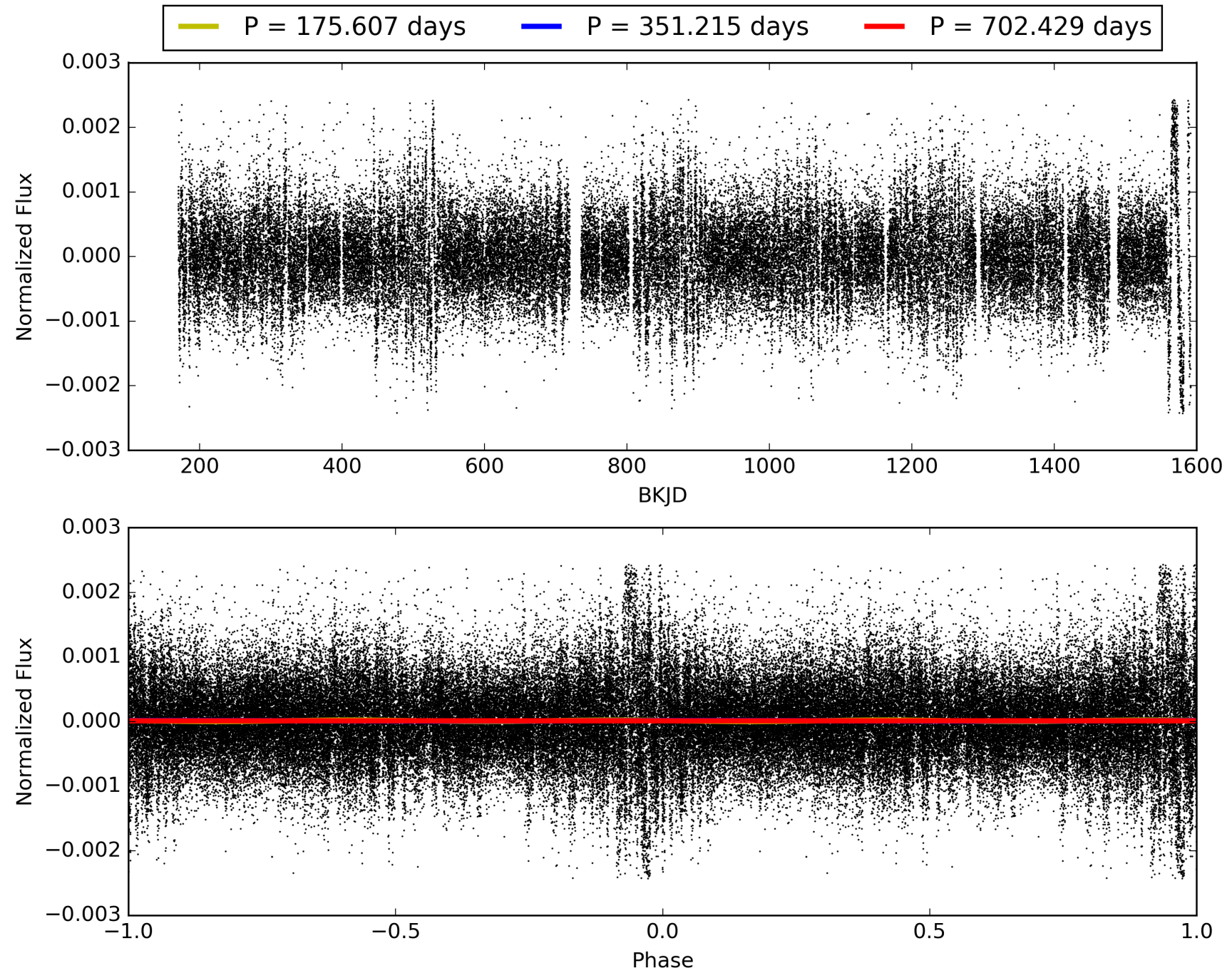
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 71.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.53e-16
RollingBand-fgt: 0.75 [3/4]
GhostDiagnostic-chr: -28.71
Centroid-sig: 0.2%
Centroid-so: 3.566 arcsec [2.28σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [2/2]

TCE 010341876-01, PDC Light Curves

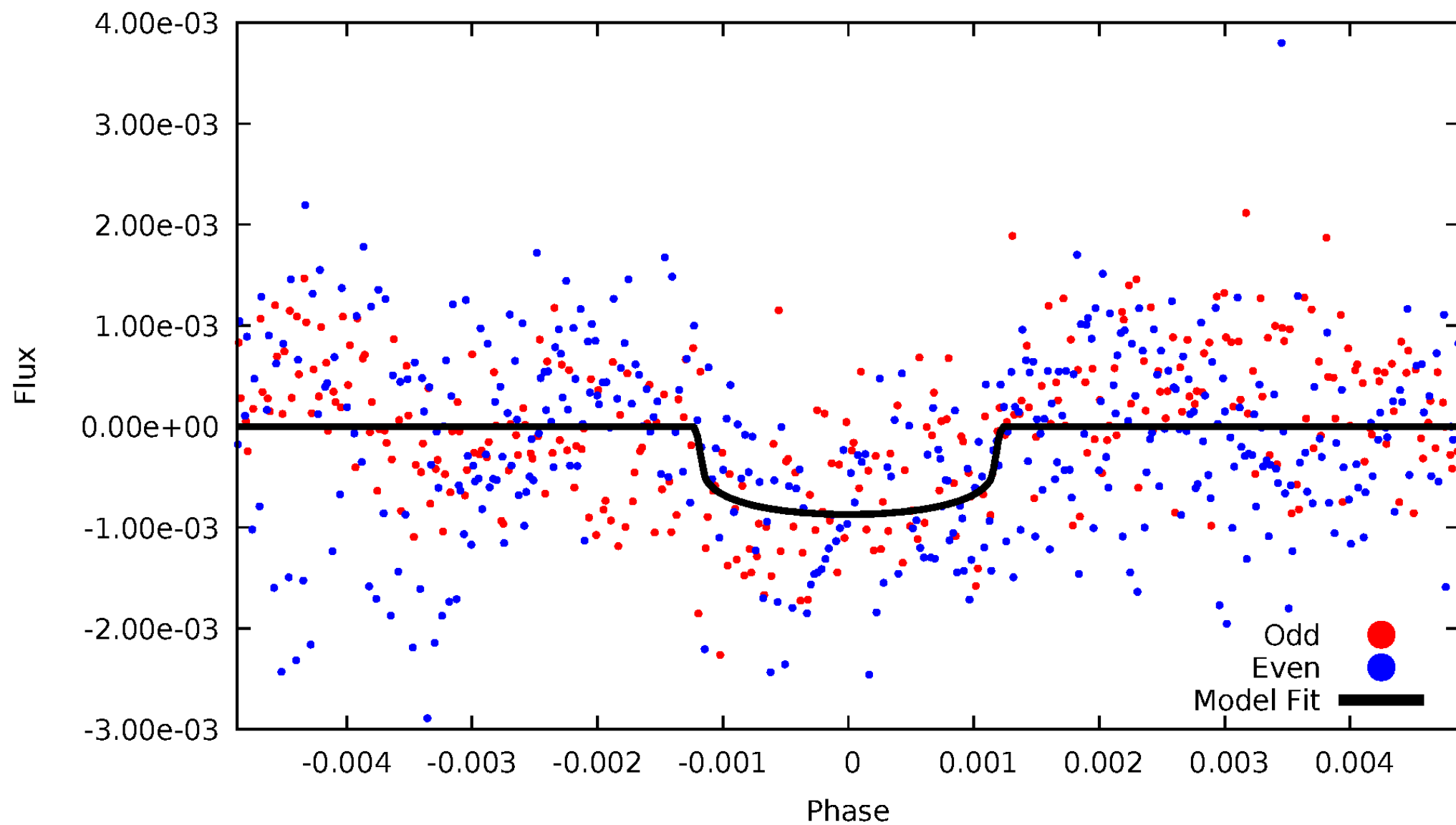


TCE 010341876-01



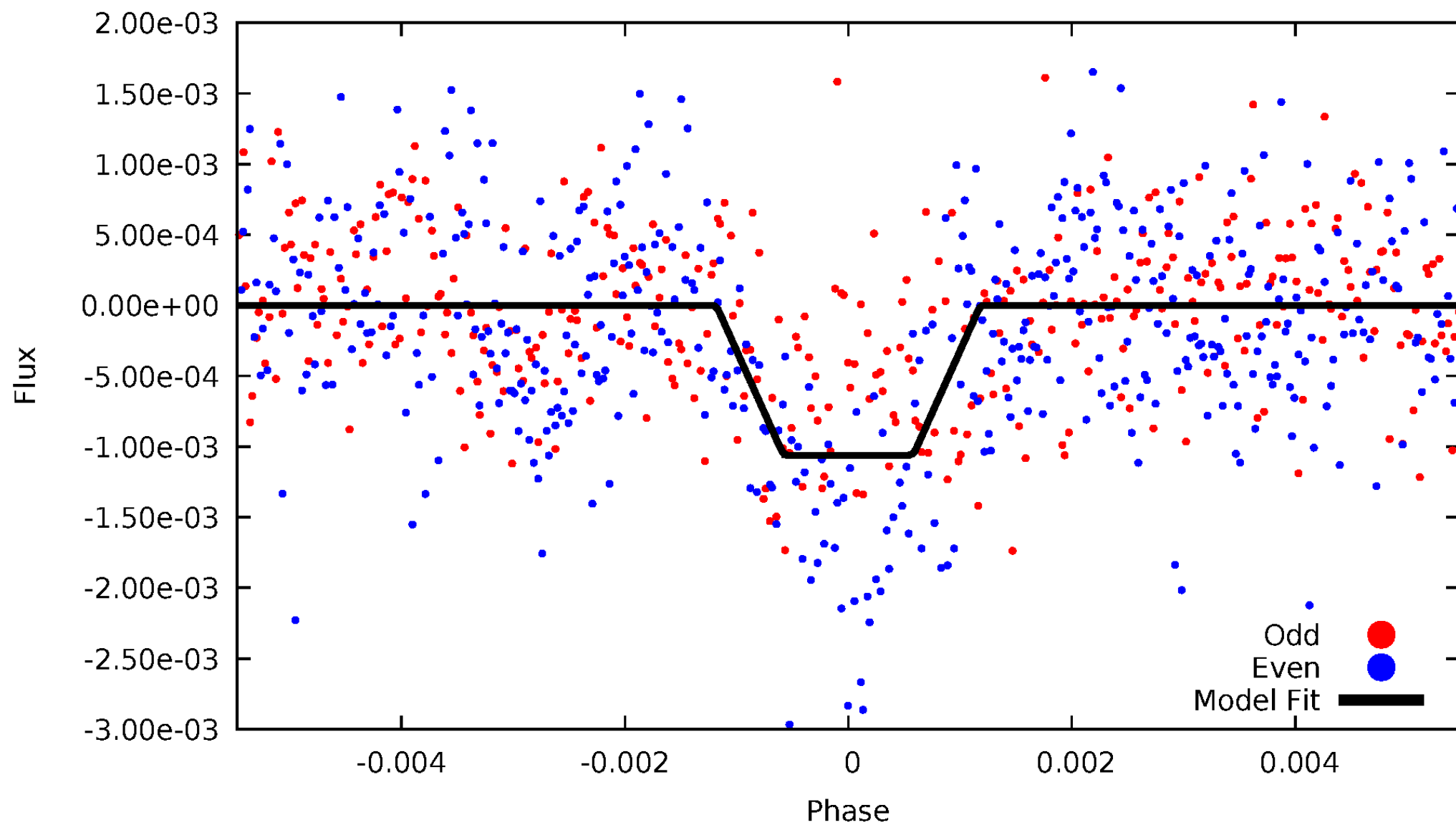
DV Odd/Even

TCE 010341876-01

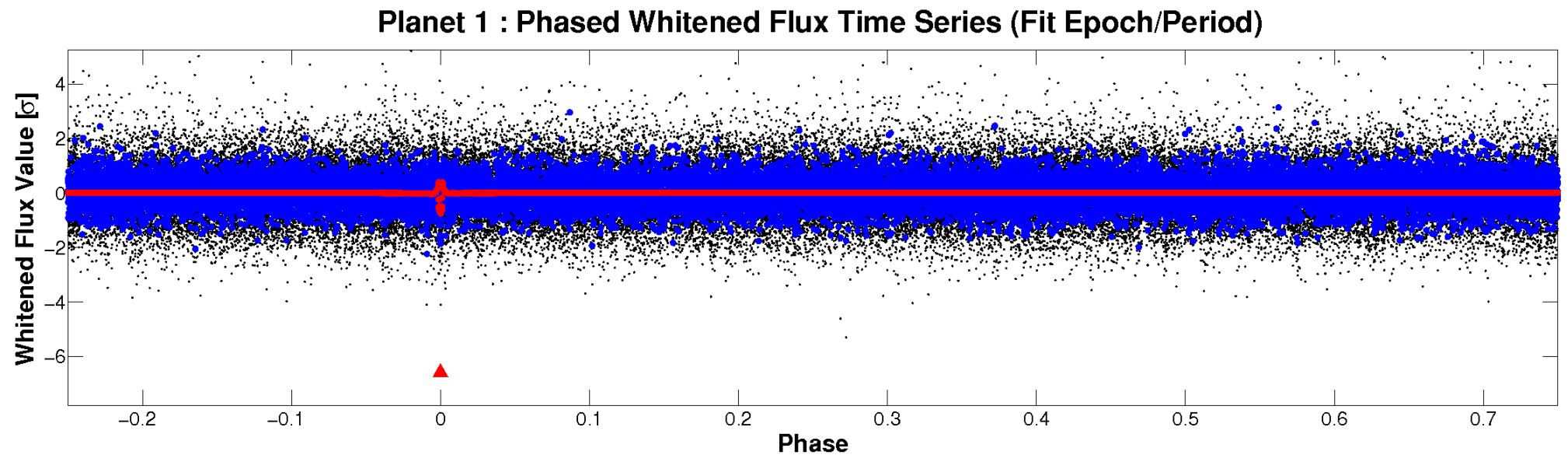
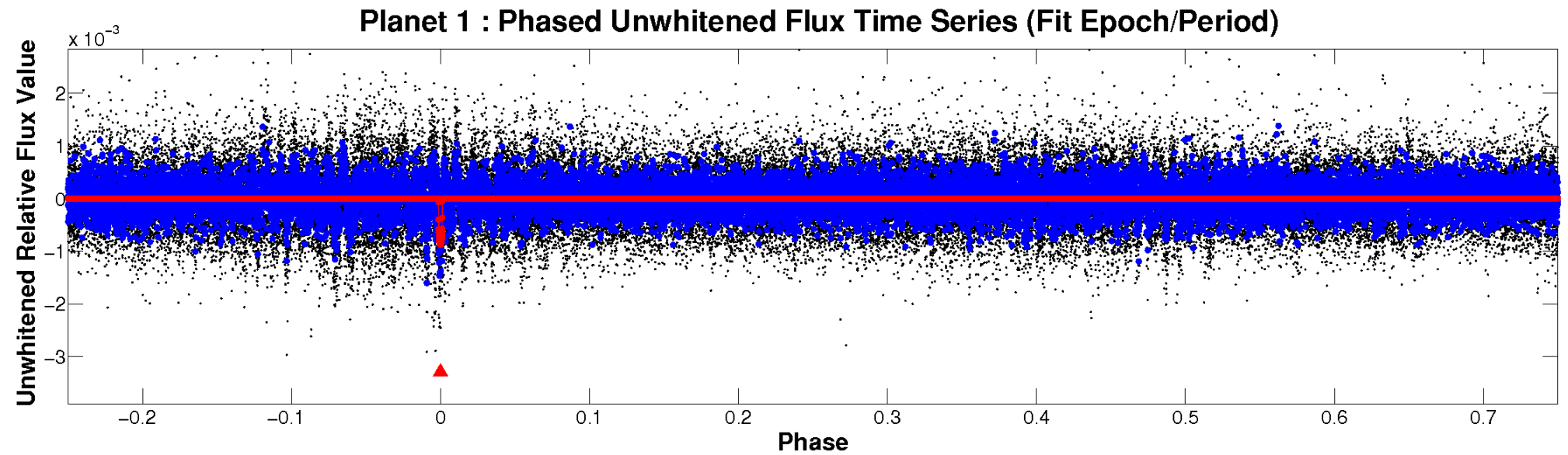


ALT Odd/Even

TCE 010341876-01

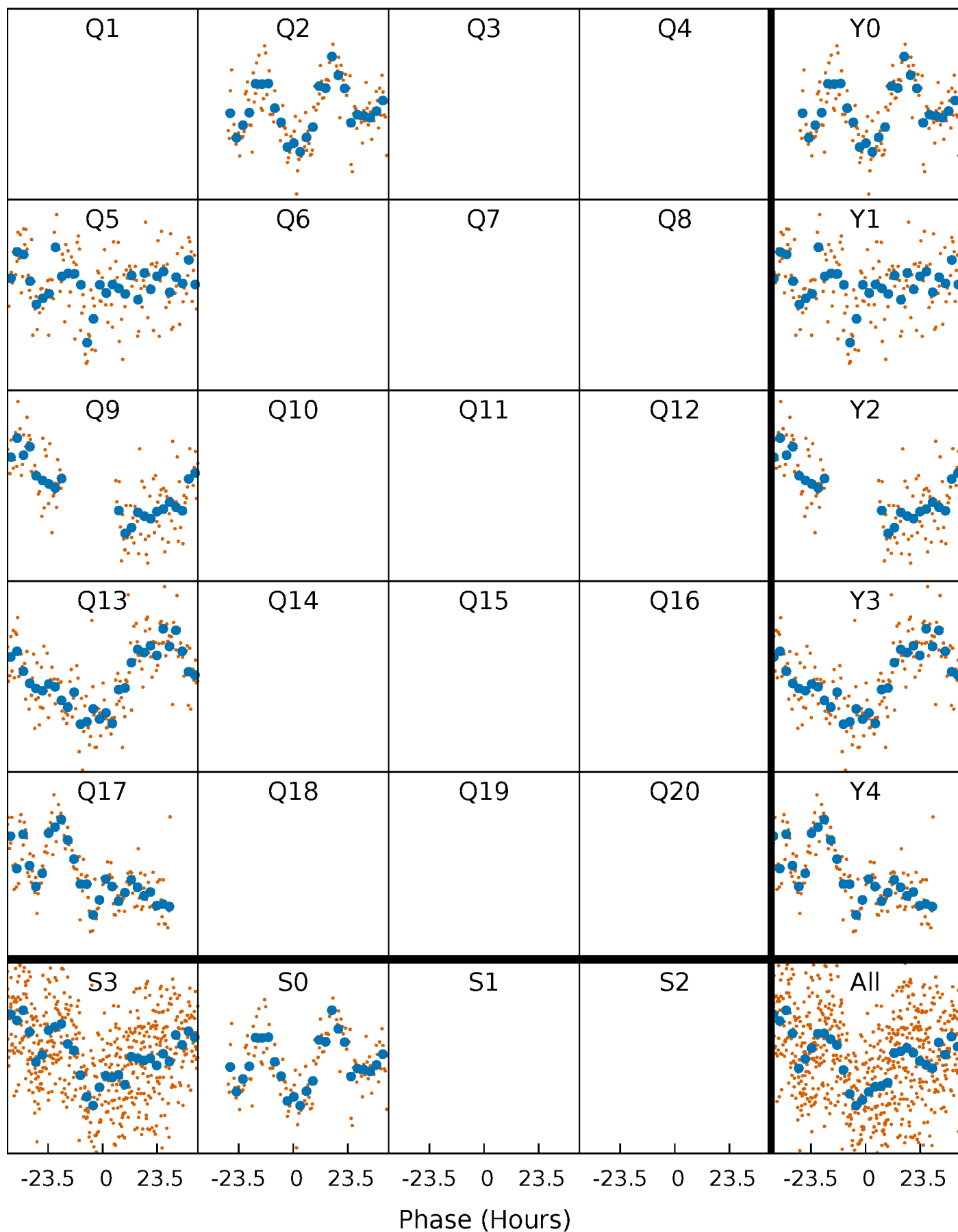


Non-Whitened Vs. Whitened Light Curve



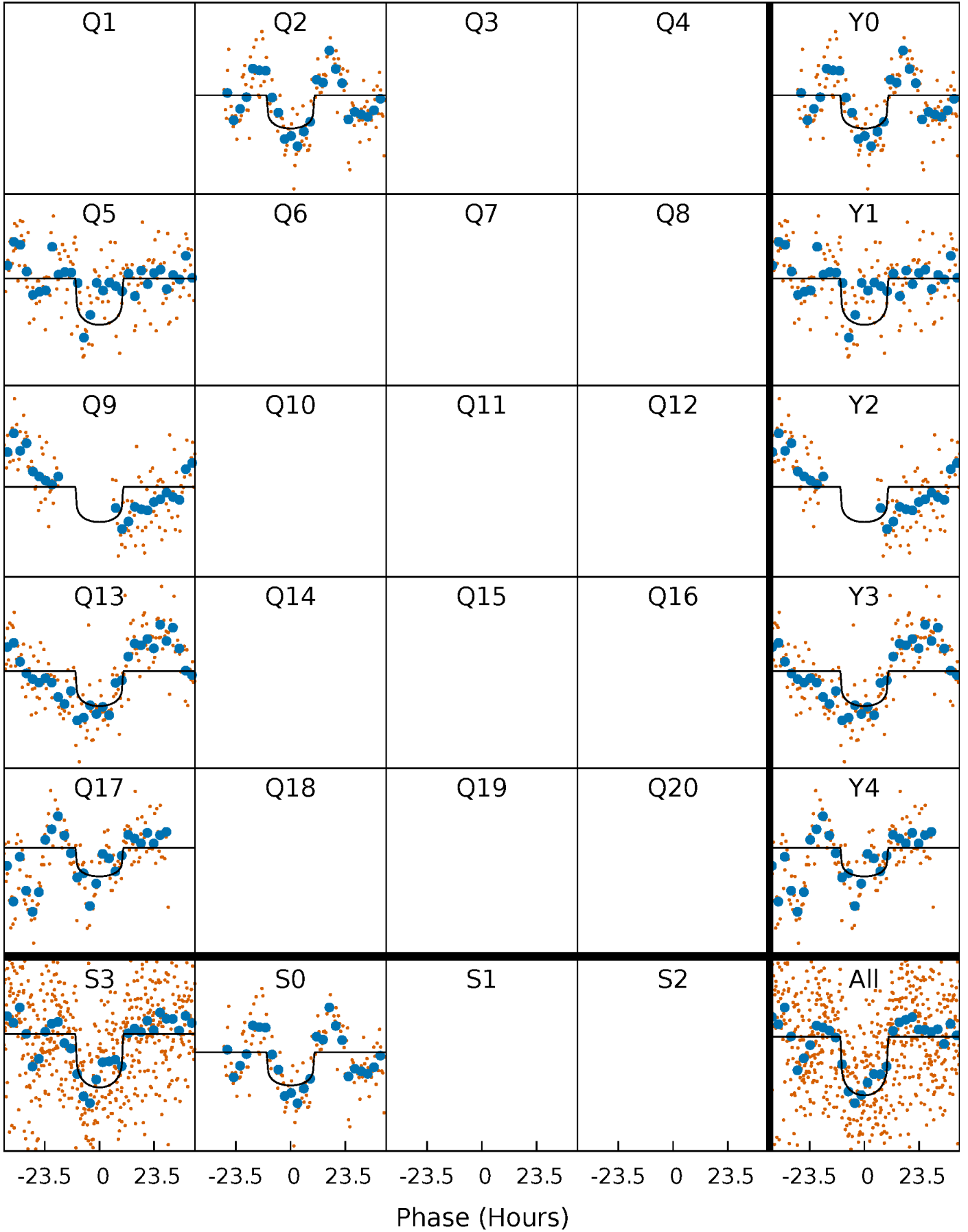
PDC Quarter-Phased Transit Curves

TCE 010341876-01 P=351.214675 Days $T_0=184.909676$ (BKJD)



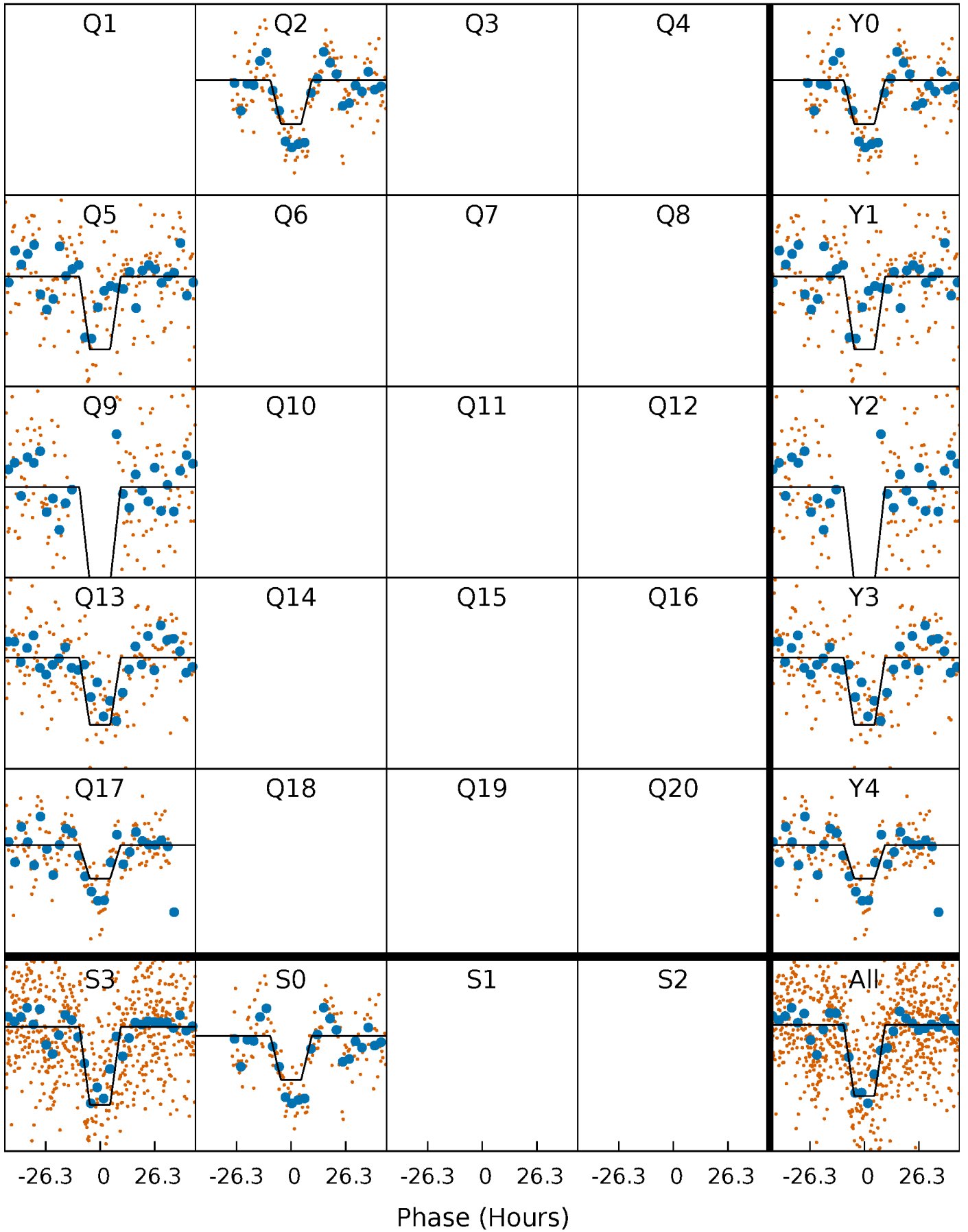
DV Quarter-Phased Transit Curves

TCE 010341876-01 $P=351.214675$ Days $T_0=184.909676$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

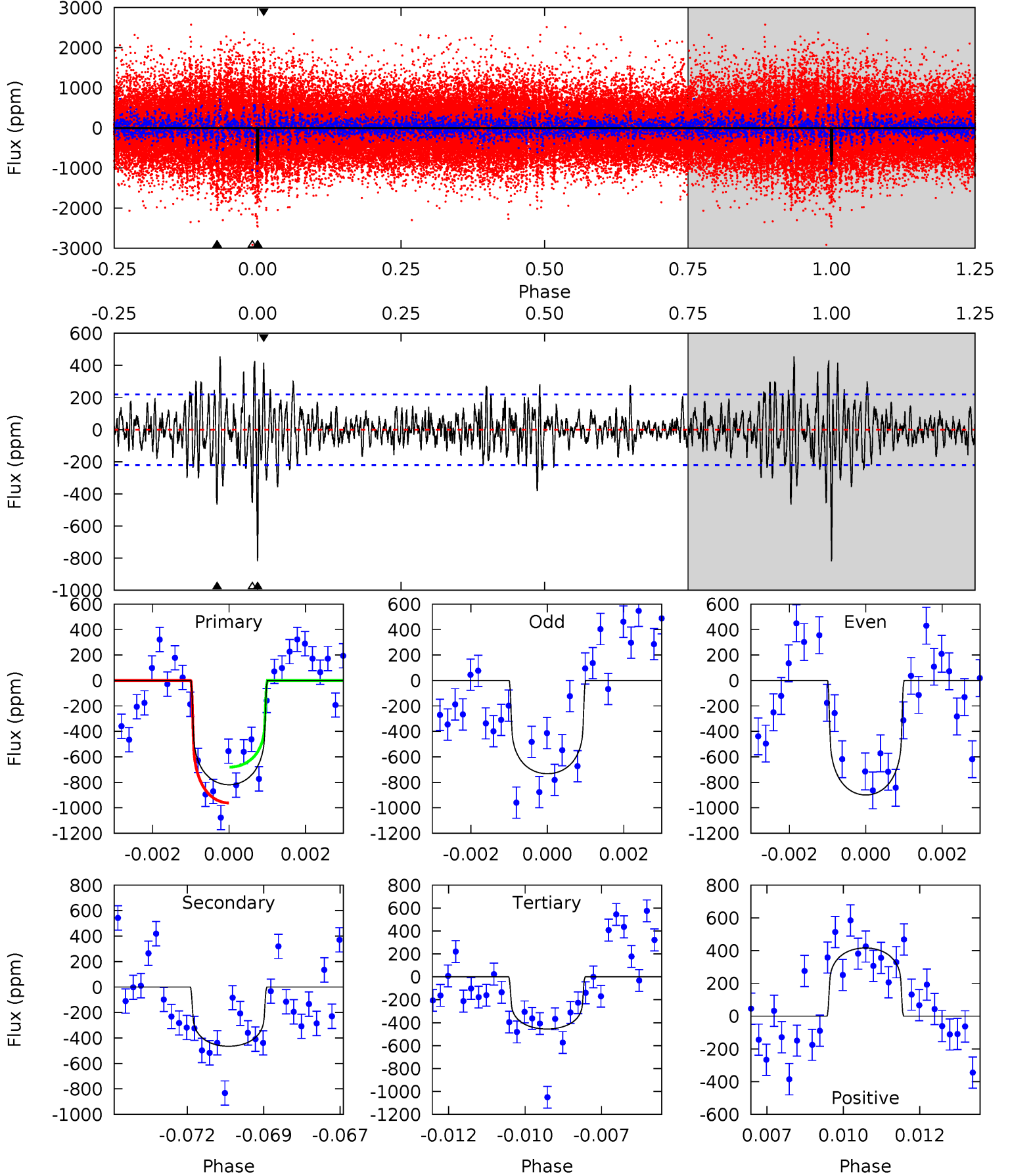
TCE 010341876-01 P=351.157540 Days $T_0=184.921549$ (BKJD)



DV Model-Shift Uniqueness Test

010341876-01, P = 351.214675 Days, E = 184.909676 Days

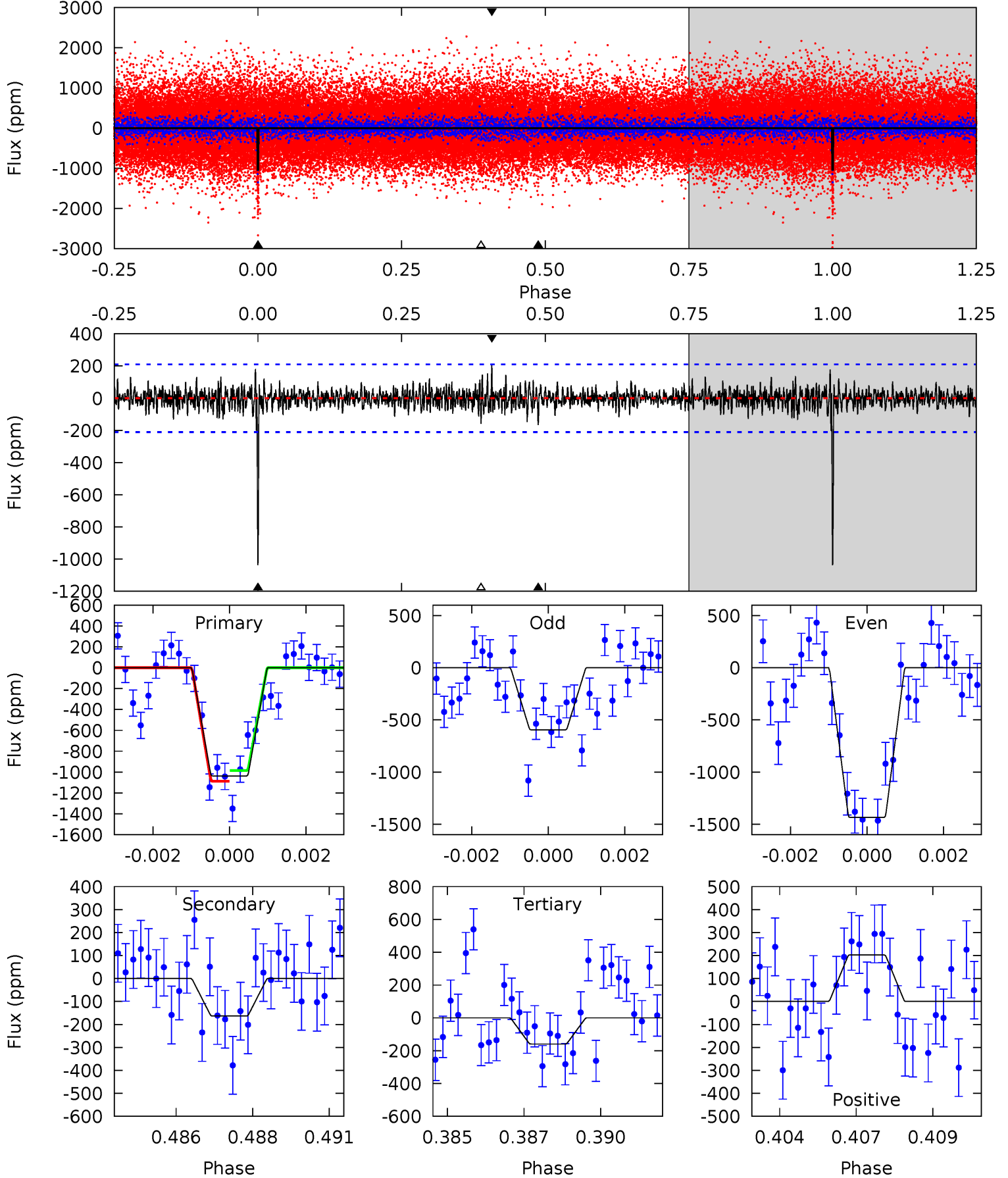
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.7	11.2	11.0	10.0	5.29	3.03	2.49	8.76	9.70	0.24	1.17	2.01	0.93	0.36	3.38



Alt Model-Shift Uniqueness Test

010341876-01, P = 351.157540 Days, E = 184.921549 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.1	4.11	4.01	5.10	5.29	3.03	1.10	22.1	21.0	0.10	-0.99	10.6	0.44	0.16	1.29



Stellar Parameters For KIC 010341876

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5845^{+158}_{-175}	$4.435^{+0.120}_{-0.180}$	$-0.440^{+0.300}_{-0.300}$	$0.918^{+0.236}_{-0.127}$	$0.838^{+0.117}_{-0.063}$	$1.526^{+0.824}_{-0.735}$
	+3%/-3%	+3%/-4%	+68%/-68%	+26%/-14%	+14%/-8%	+54%/-48%
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 010341876-01 / KOI 8204.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-465 ± 42	$2.85^{+1.25}_{-1.17}$	361^{+26}_{-19}	5190^{+1554}_{-674}	27159^{+52630}_{-14147}
Alt.	-163 ± 40	$3.39^{+1.18}_{-1.25}$	363^{+26}_{-20}	3954^{+773}_{-385}	6711^{+11259}_{-3371}

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

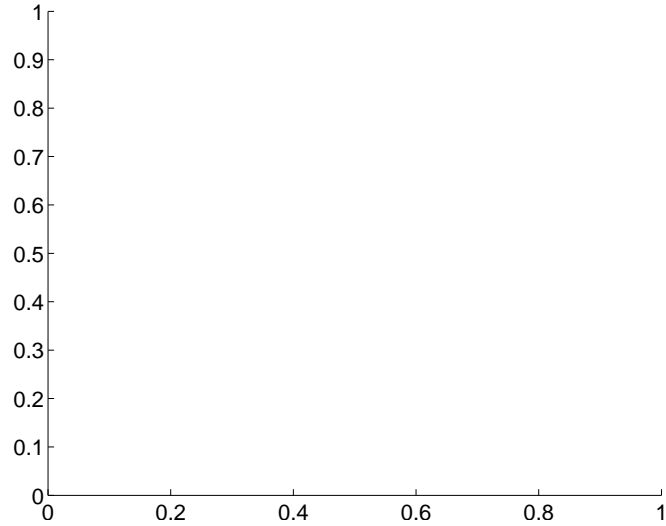
Supplemental centroid analysis for 010341876-01. Kepler magnitude: 15.51. Transit SNR 8.90

There are 0 quarters with good PRF difference image offsets

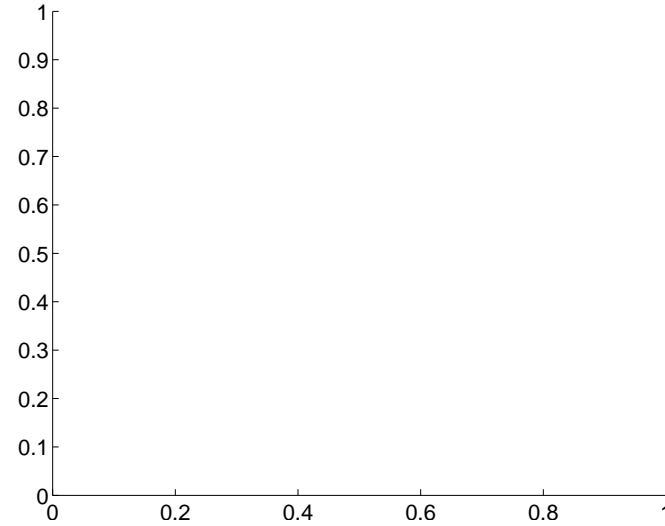
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	3.57 ± 1.56	2.28	-3.15 ± 1.61	-1.67 ± 1.40

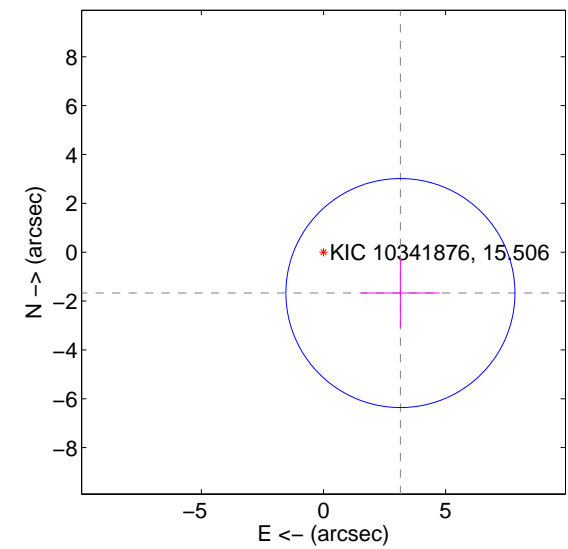
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

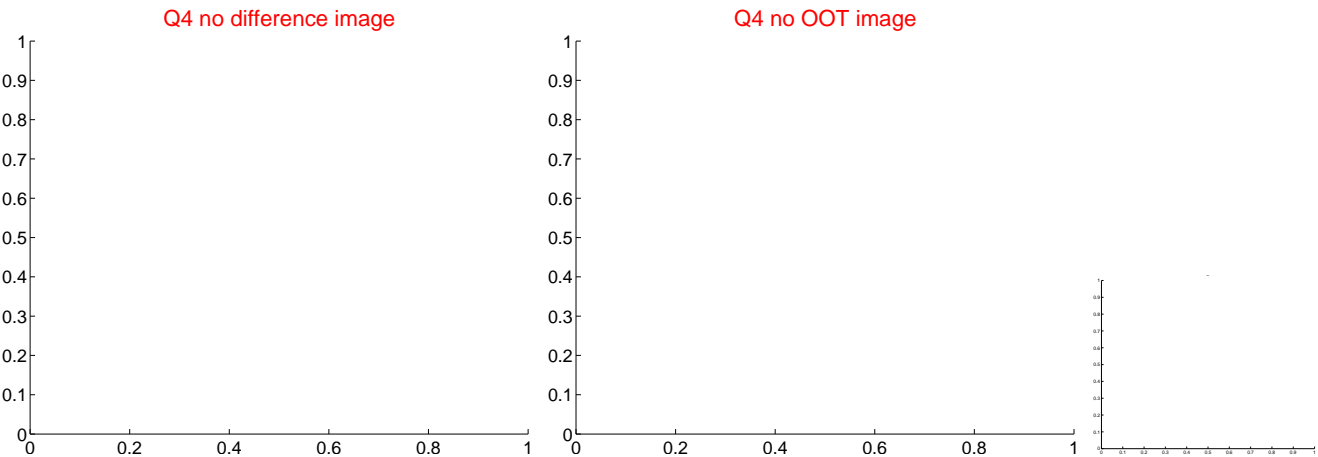
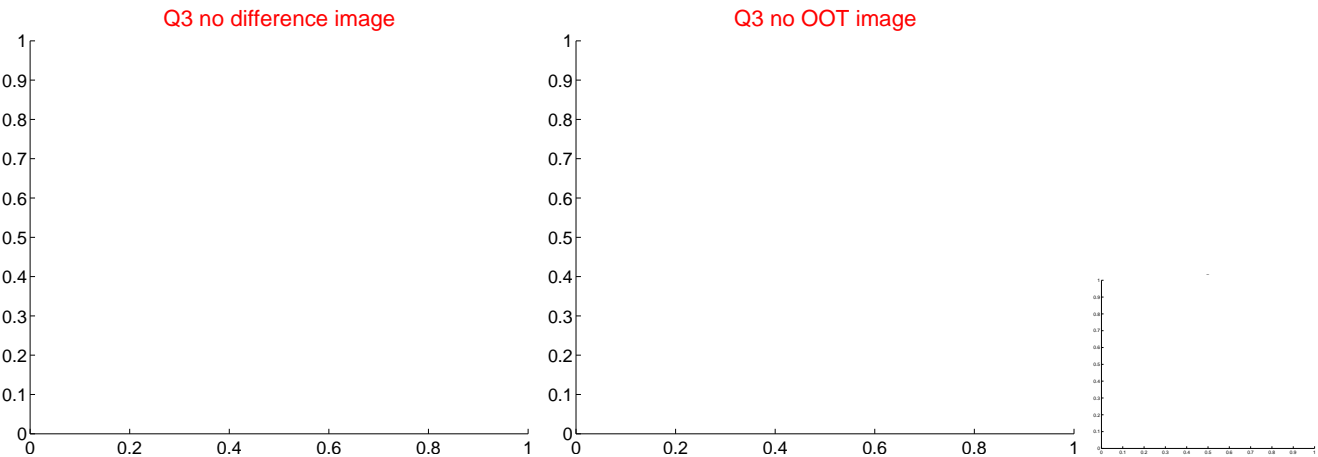
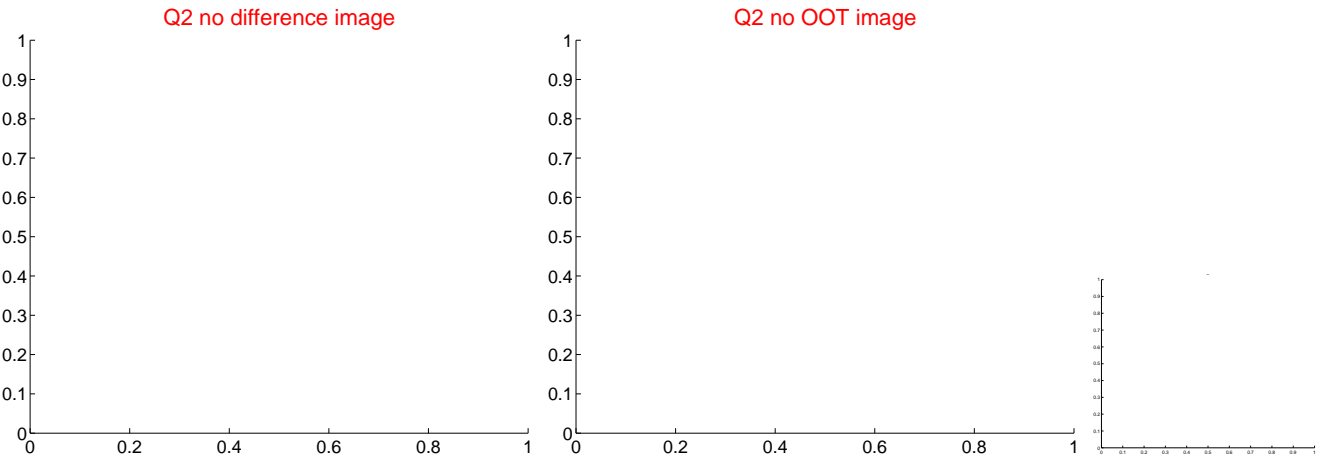
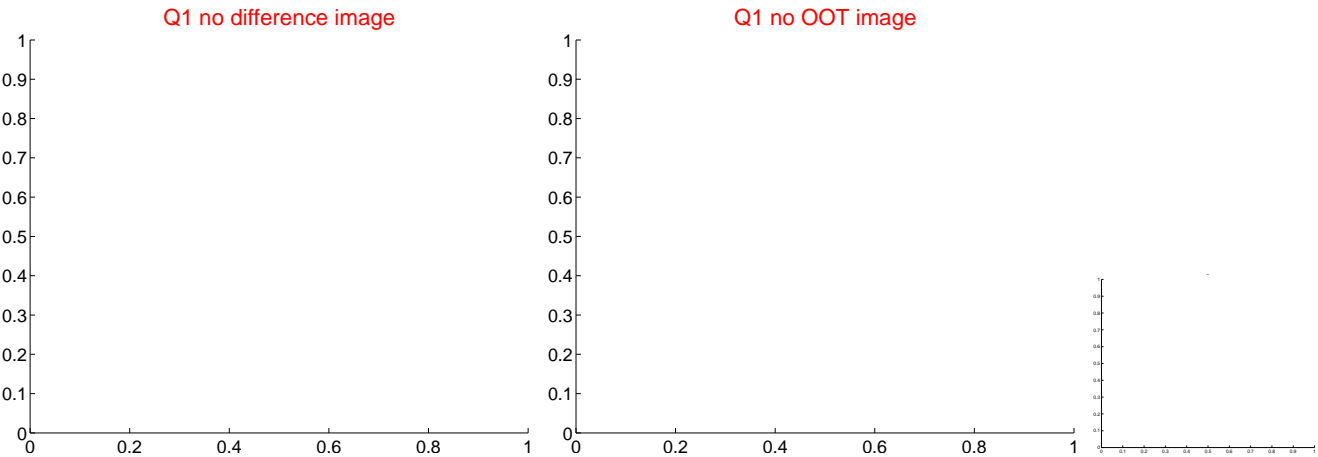


offset from photometric centroids

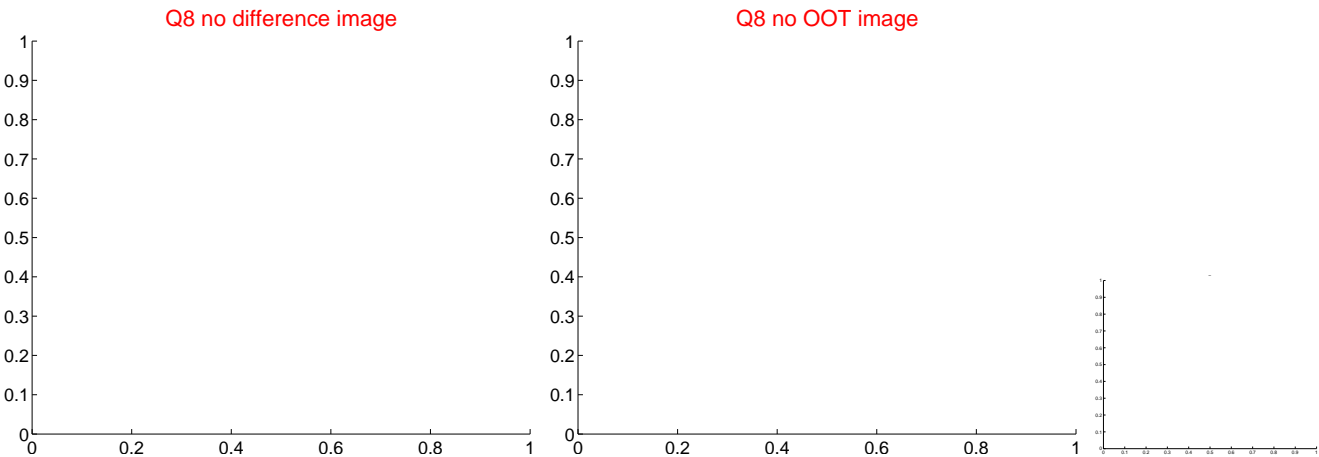
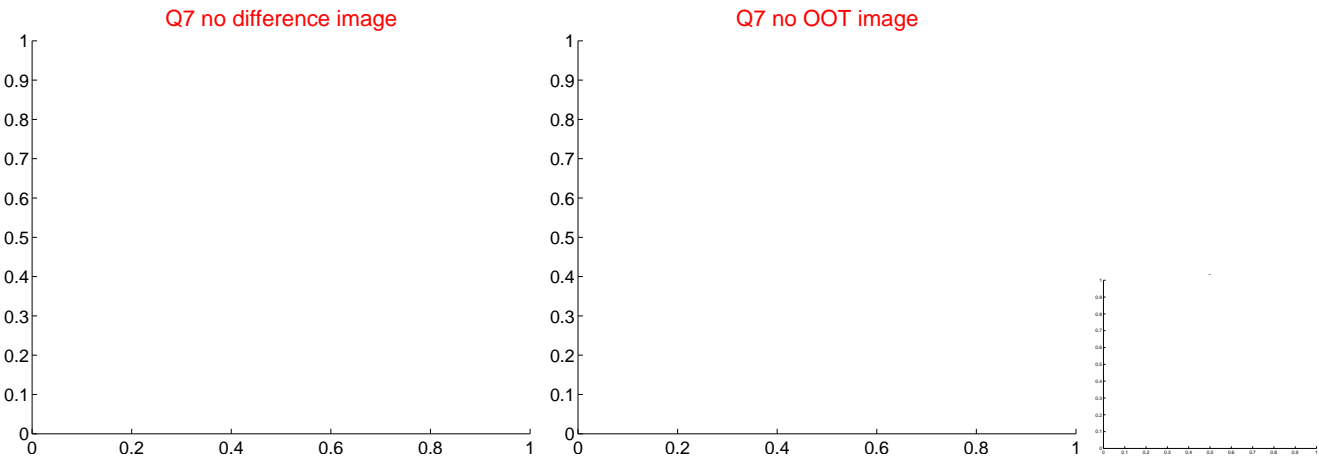
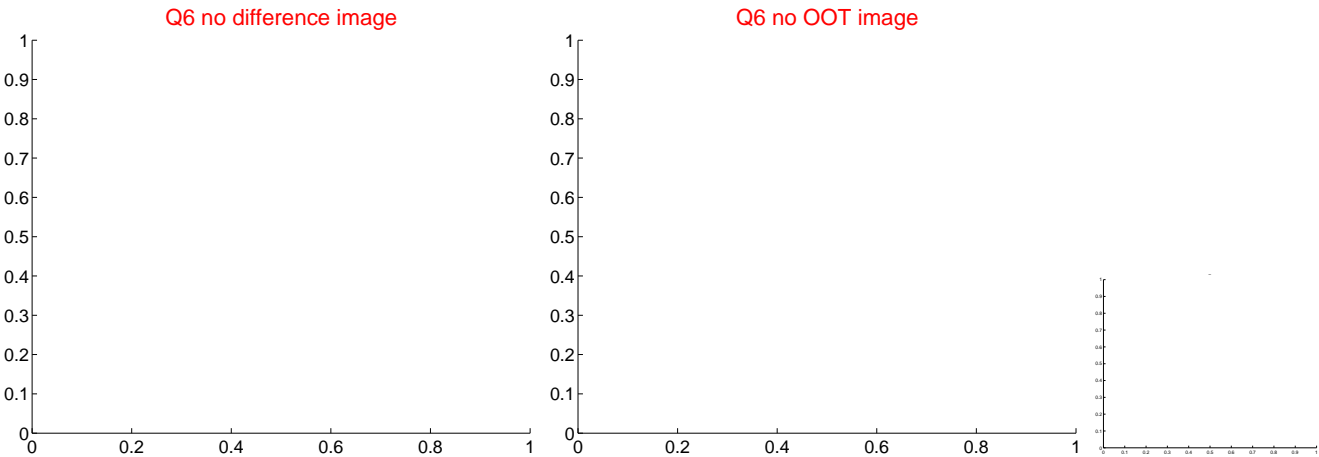
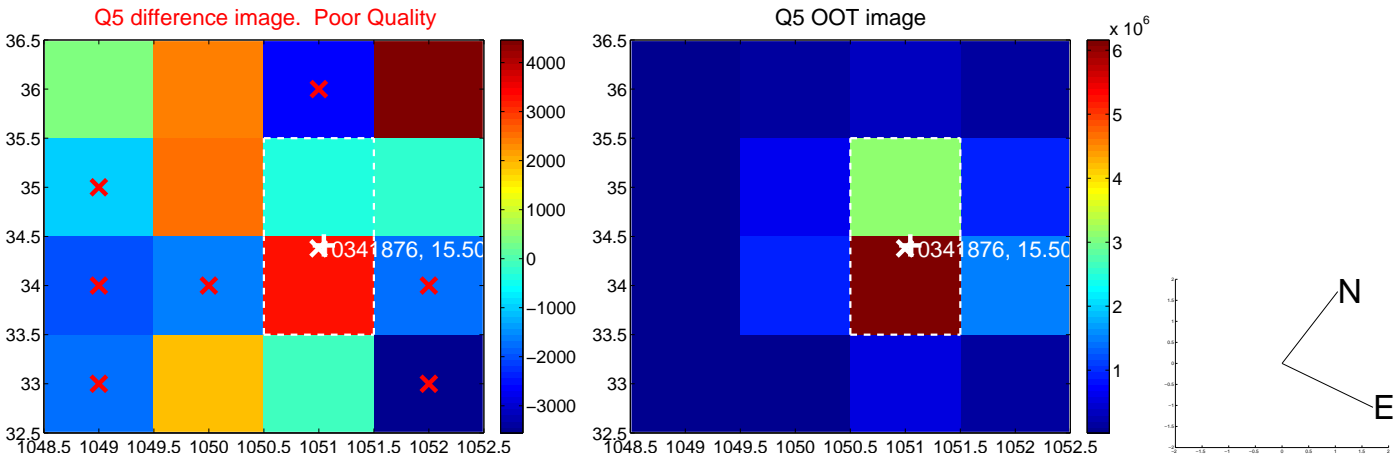


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

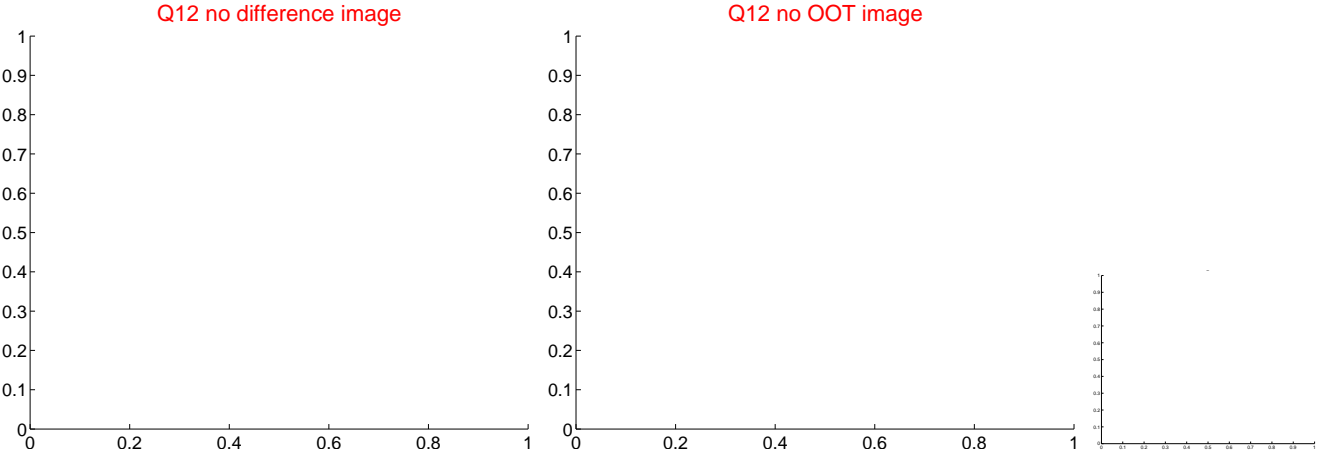
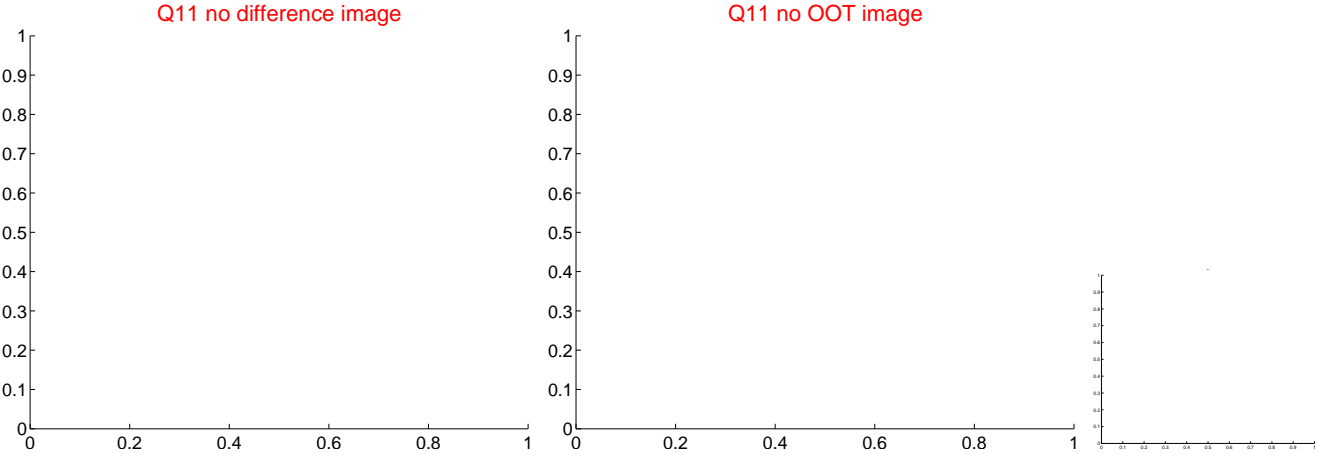
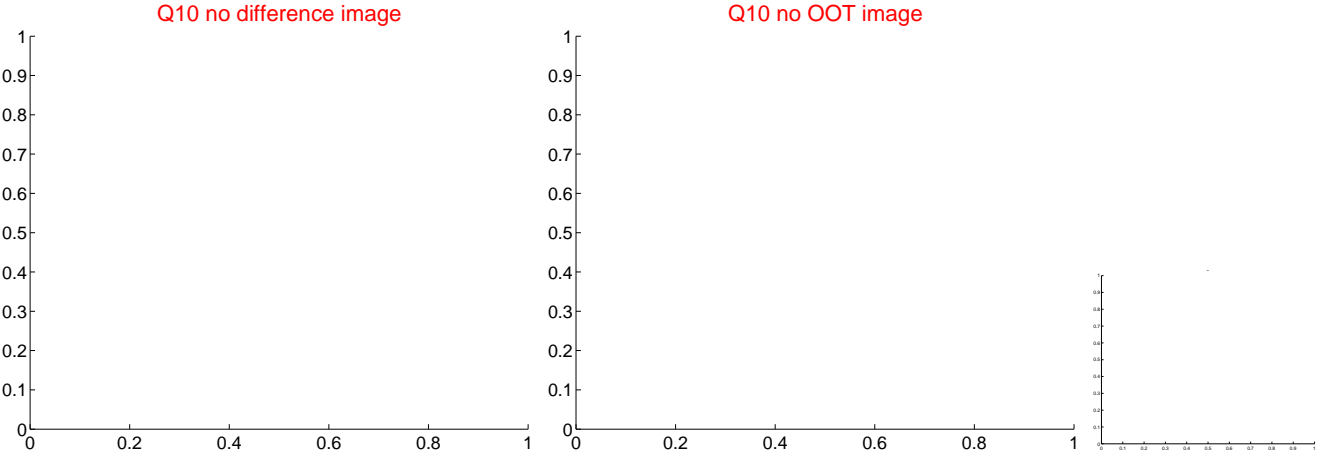
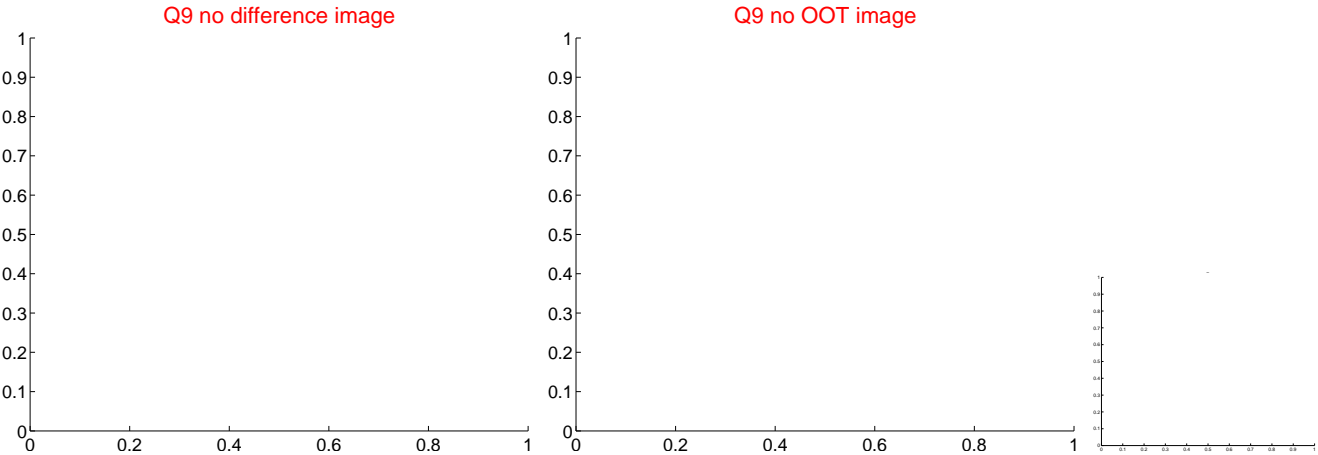
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



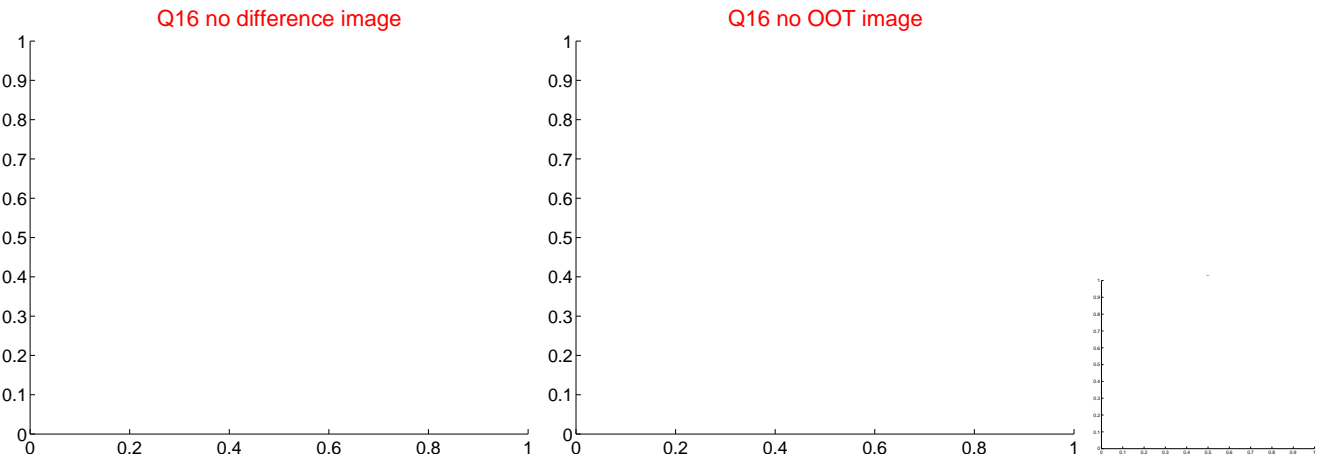
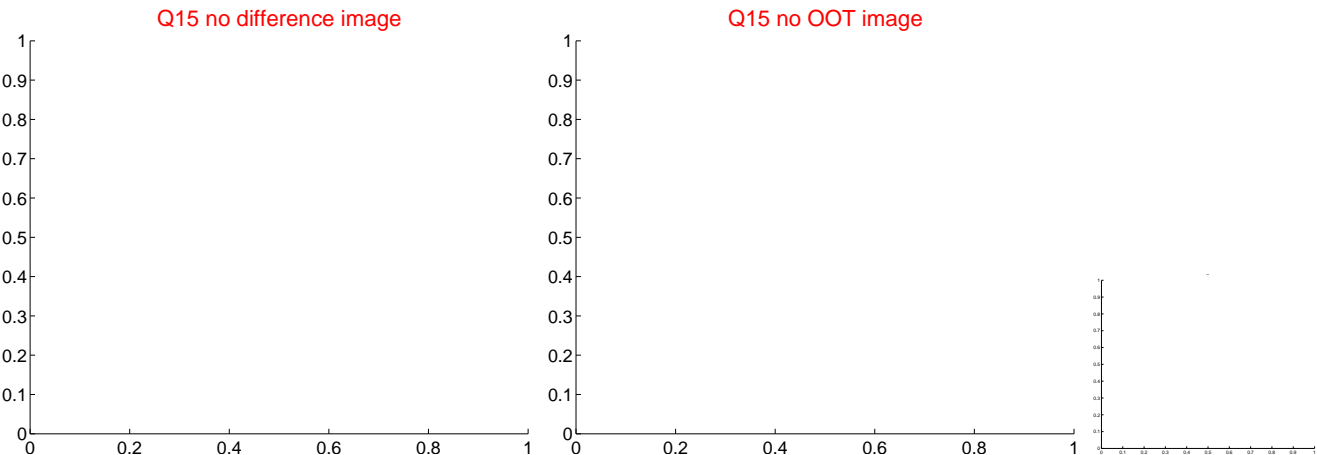
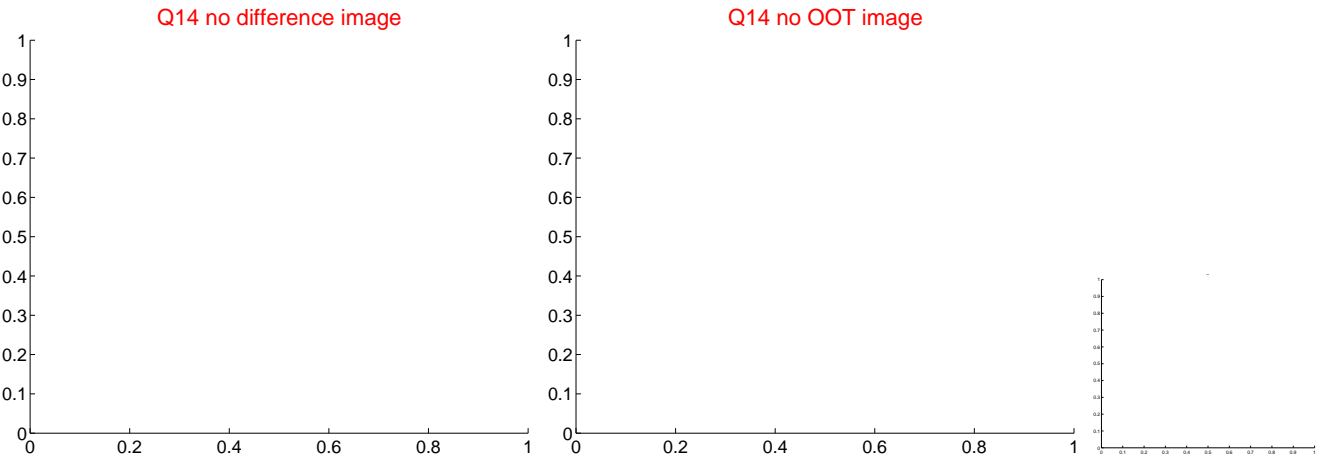
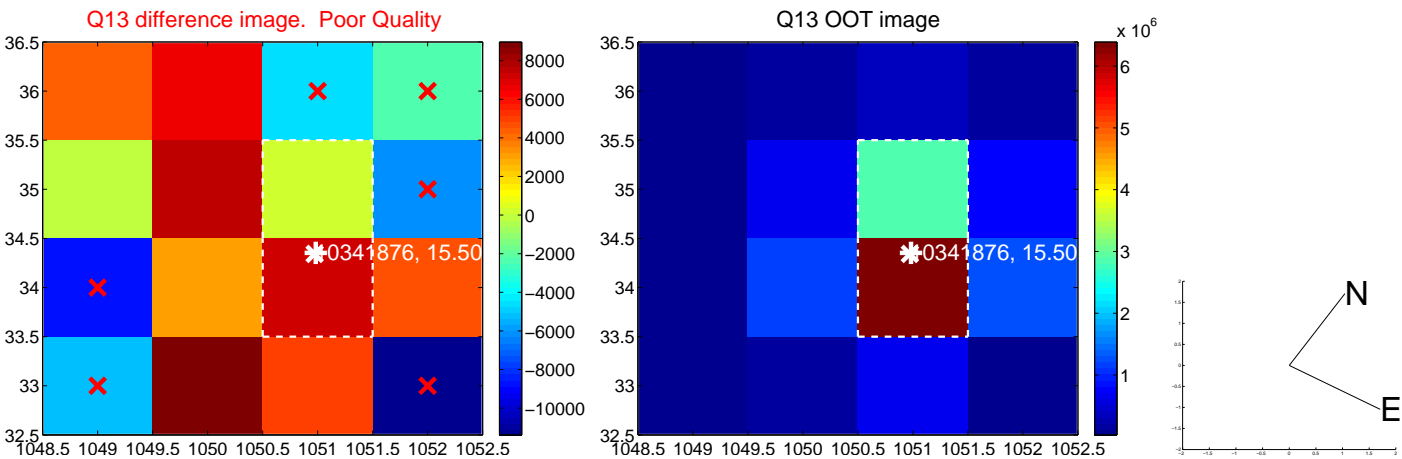
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



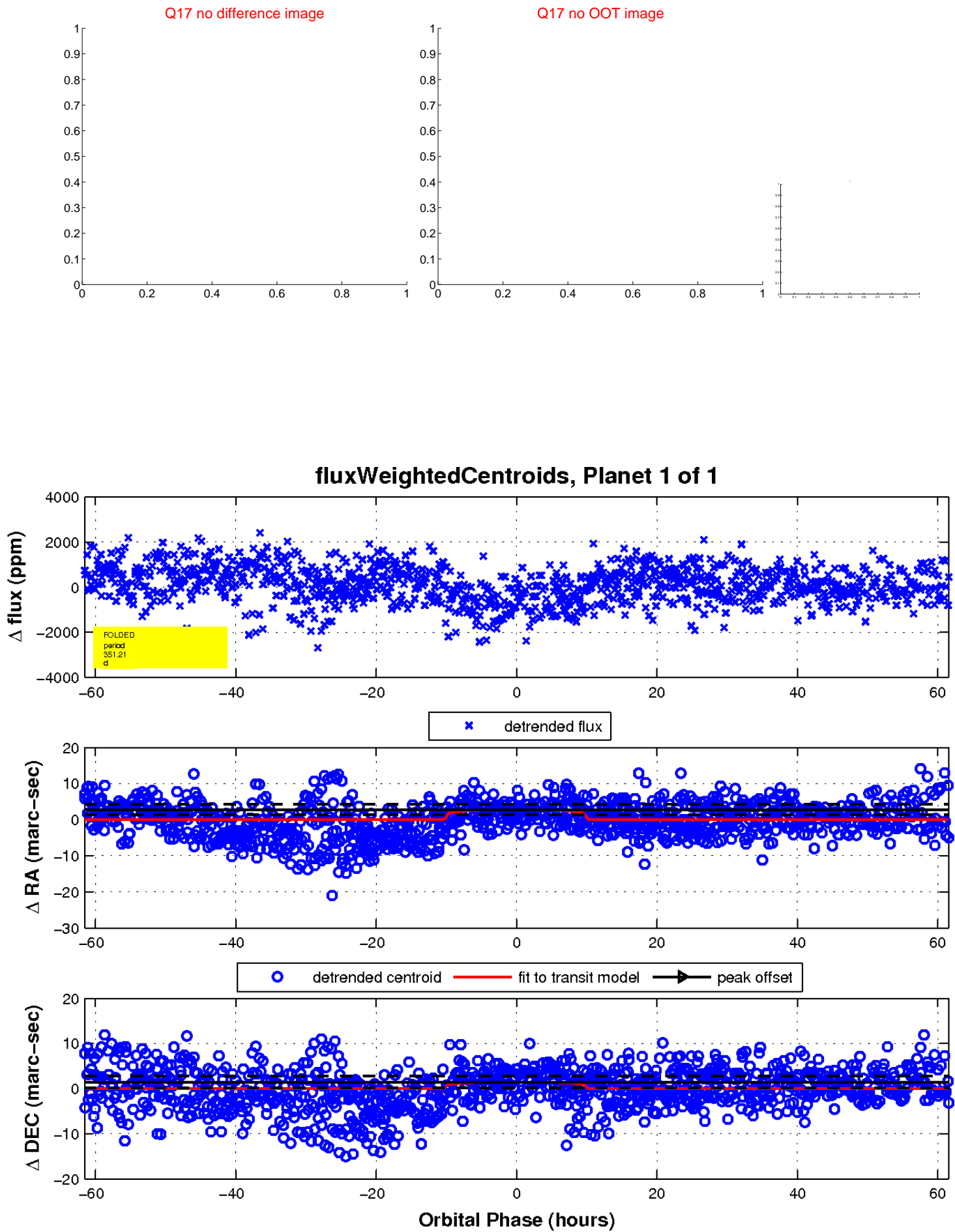
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

