

KIC 011565903

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})
011565903-01	OBS	8057.01	117.140974	245.084927	461.1	3.870	7.3	7.9	8.24	5282	21.56	130.78

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011565903-01	OBS	FP	0.24	1	0	0	0	MOD_NONUNIQ_ALT

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

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

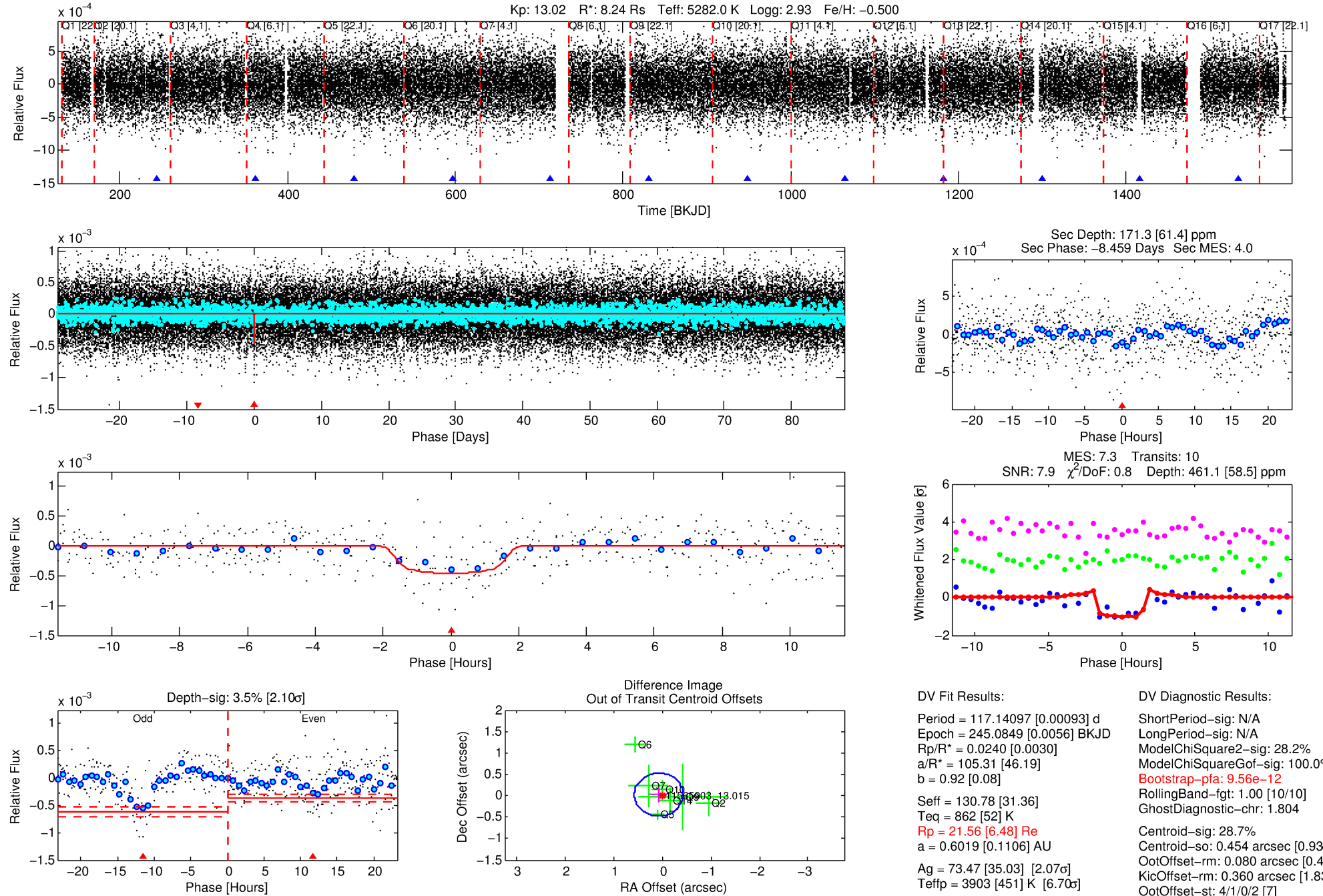
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011565903-01

No Significant Match Found

DV One-Page Summary

KIC: 11565903 Candidate: 1 of 1 Period: 117.141 d



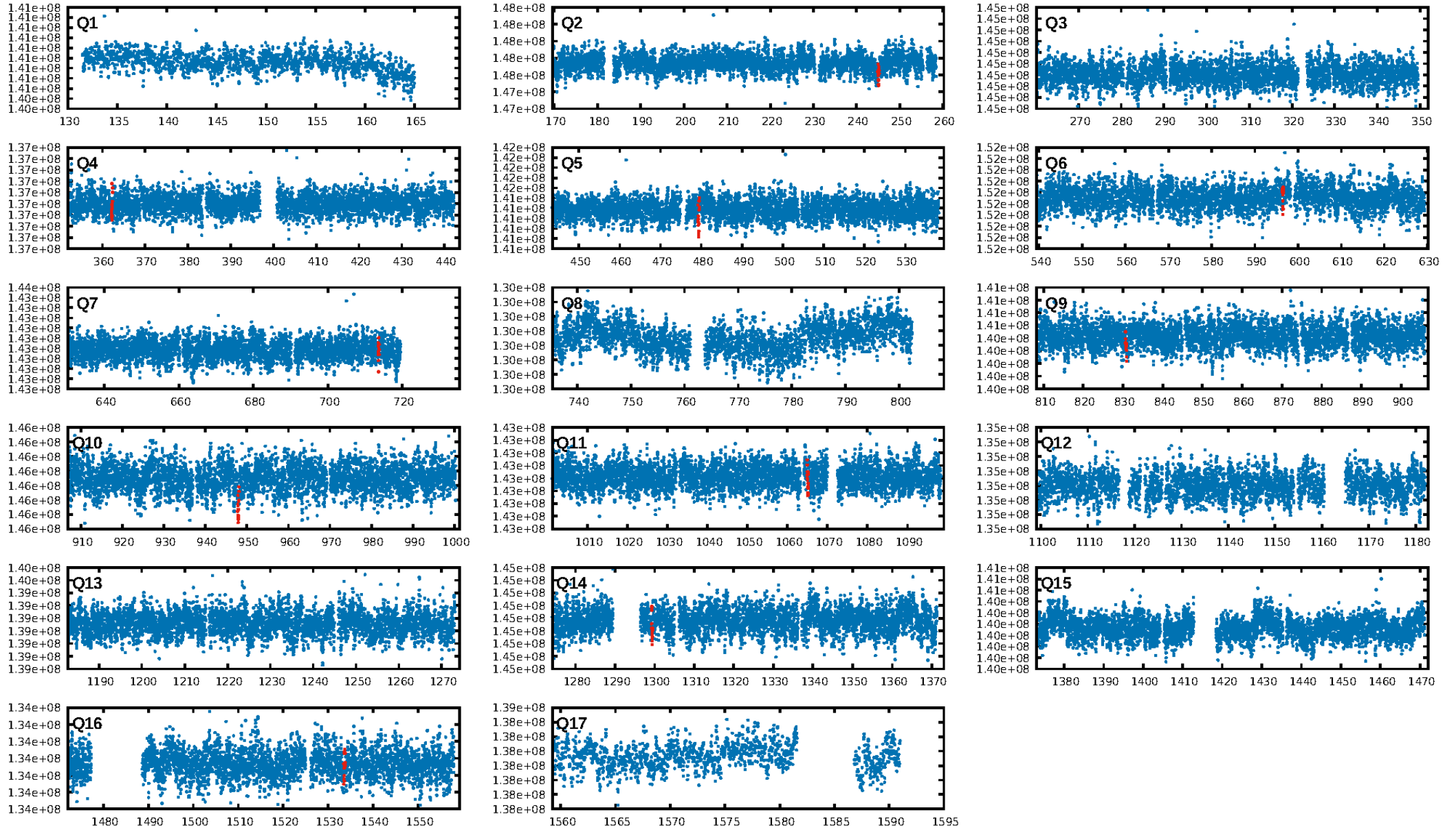
DV Fit Results:

Period = 117.14097 [0.00093] d
Epoch = 245.0849 [0.0056] BKJD
Rp/R* = 0.0240 [0.0030]
a/R* = 105.31 [46.19]
b = 0.92 [0.08]
Seff = 130.78 [31.36]
Teff = 862 [52] K
Rp = 21.56 [6.48] Re
a = 0.6019 [0.1106] AU
Ag = 73.47 [35.03] [2.07 σ]
Teffp = 3903 [451] K [6.70 σ]

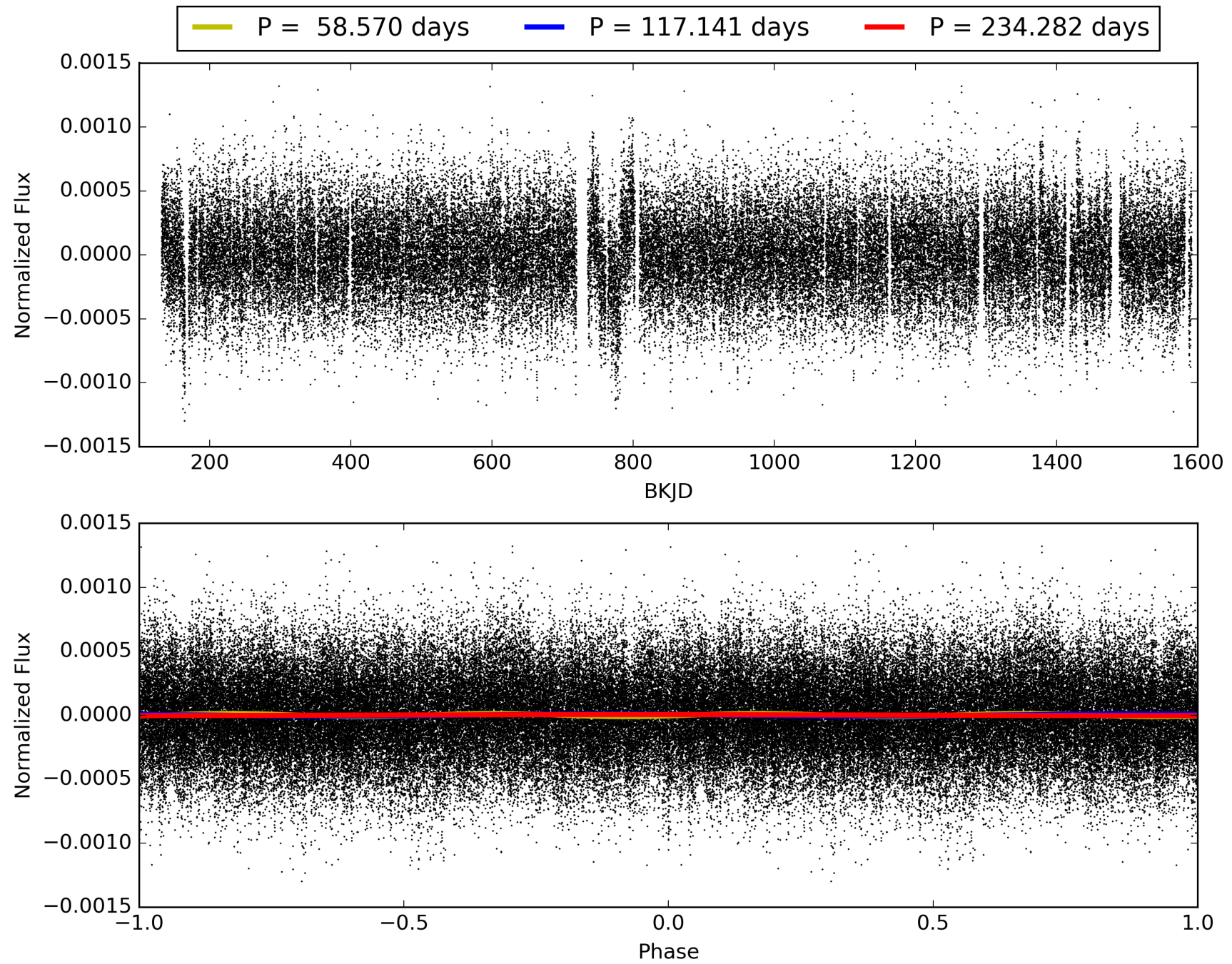
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.56e-12
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 1.804
Centroid-sig: 28.7%
Centroid-so: 0.454 arcsec [0.93 σ]
OotOffset-rm: 0.080 arcsec [0.48 σ]
KicOffset-rm: 0.360 arcsec [1.83 σ]
OotOffset-st: 4/1/0/2 [7]
KicOffset-st: 4/1/0/2 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 011565903-01, PDC Light Curves

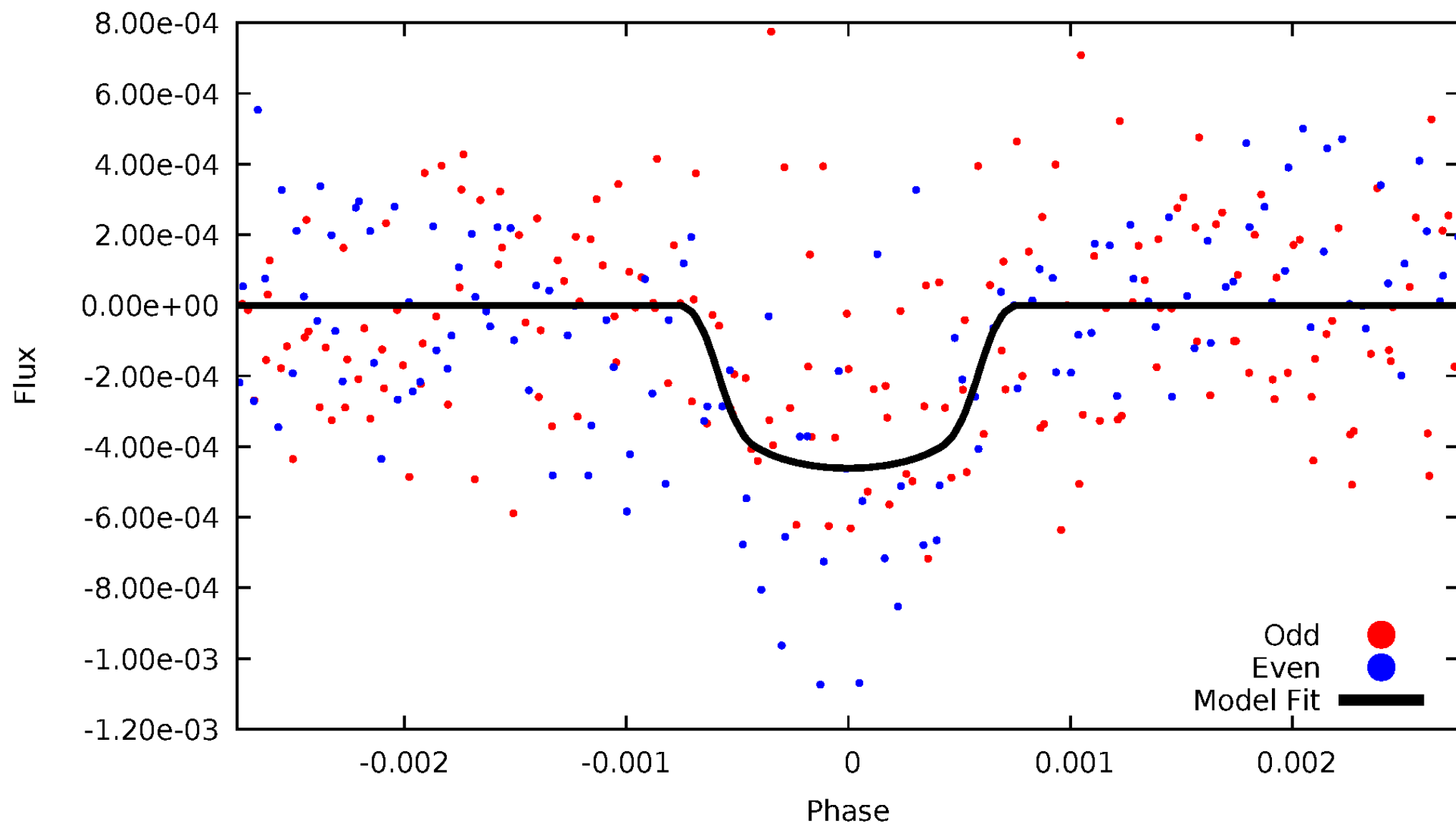


TCE 011565903-01



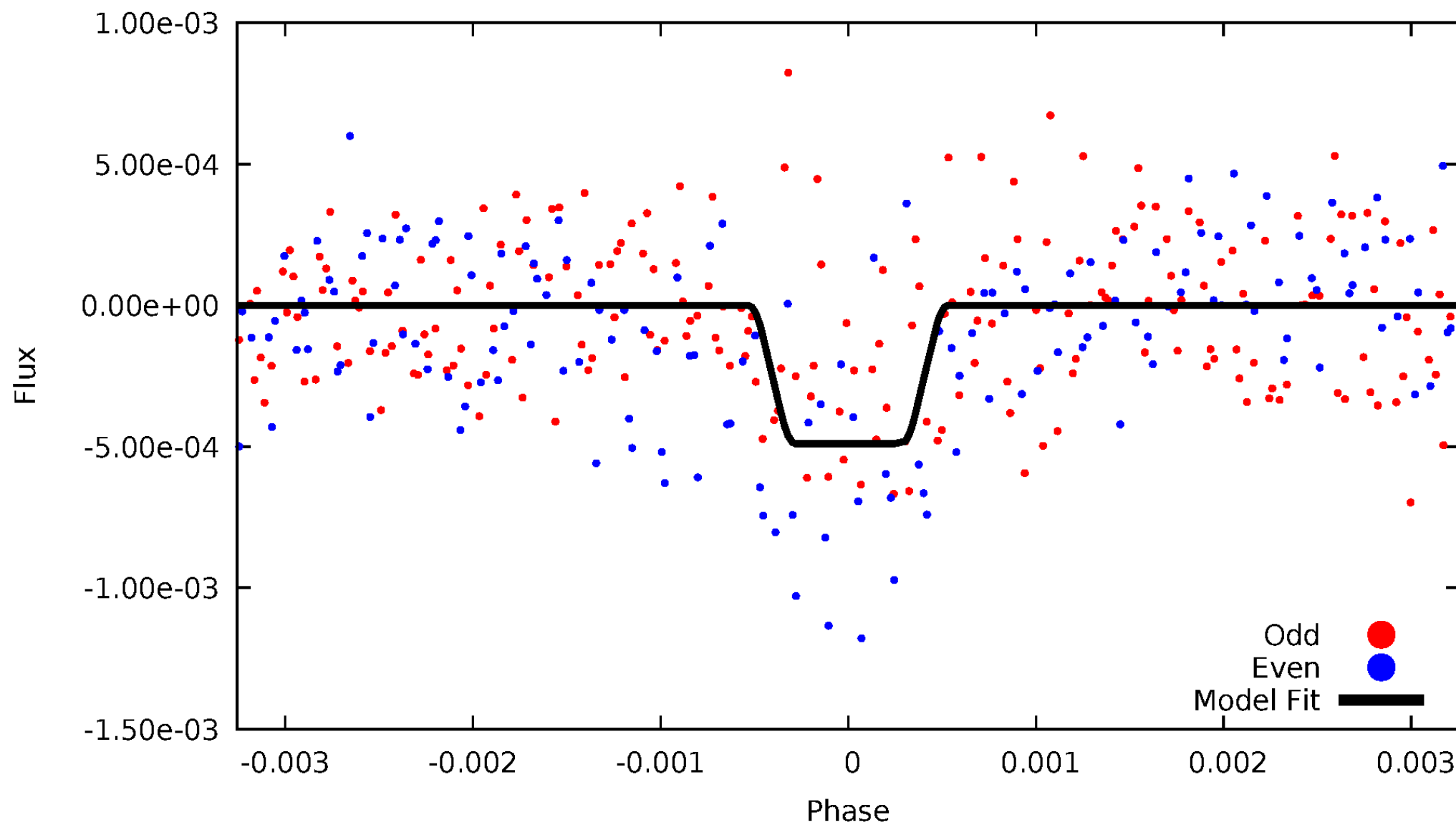
DV Odd/Even

TCE 011565903-01

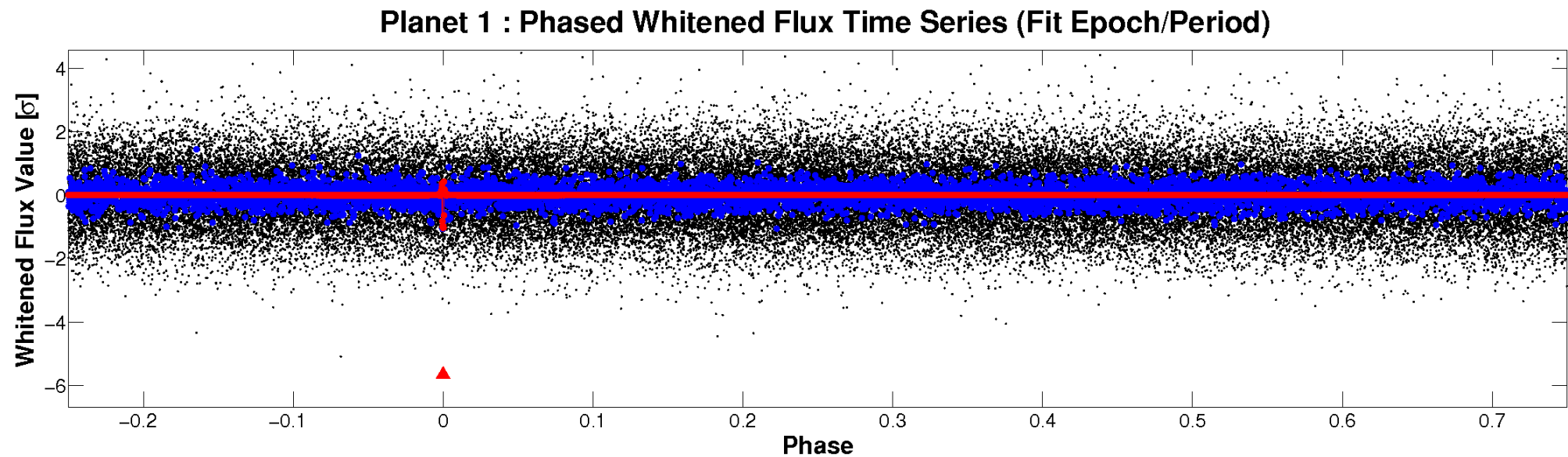
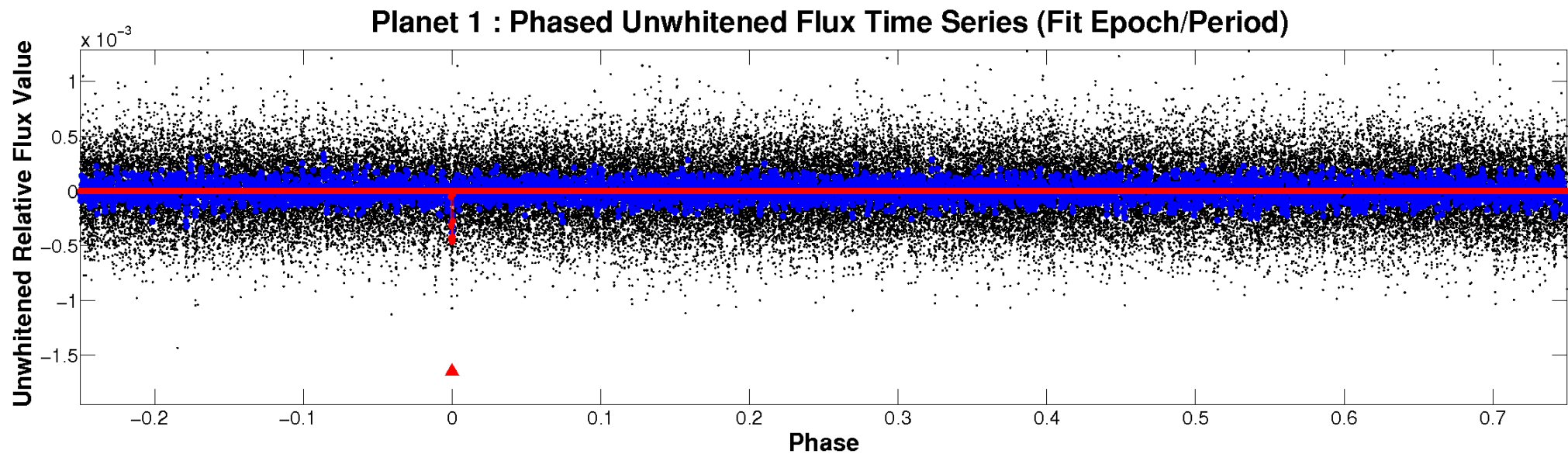


ALT Odd/Even

TCE 011565903-01

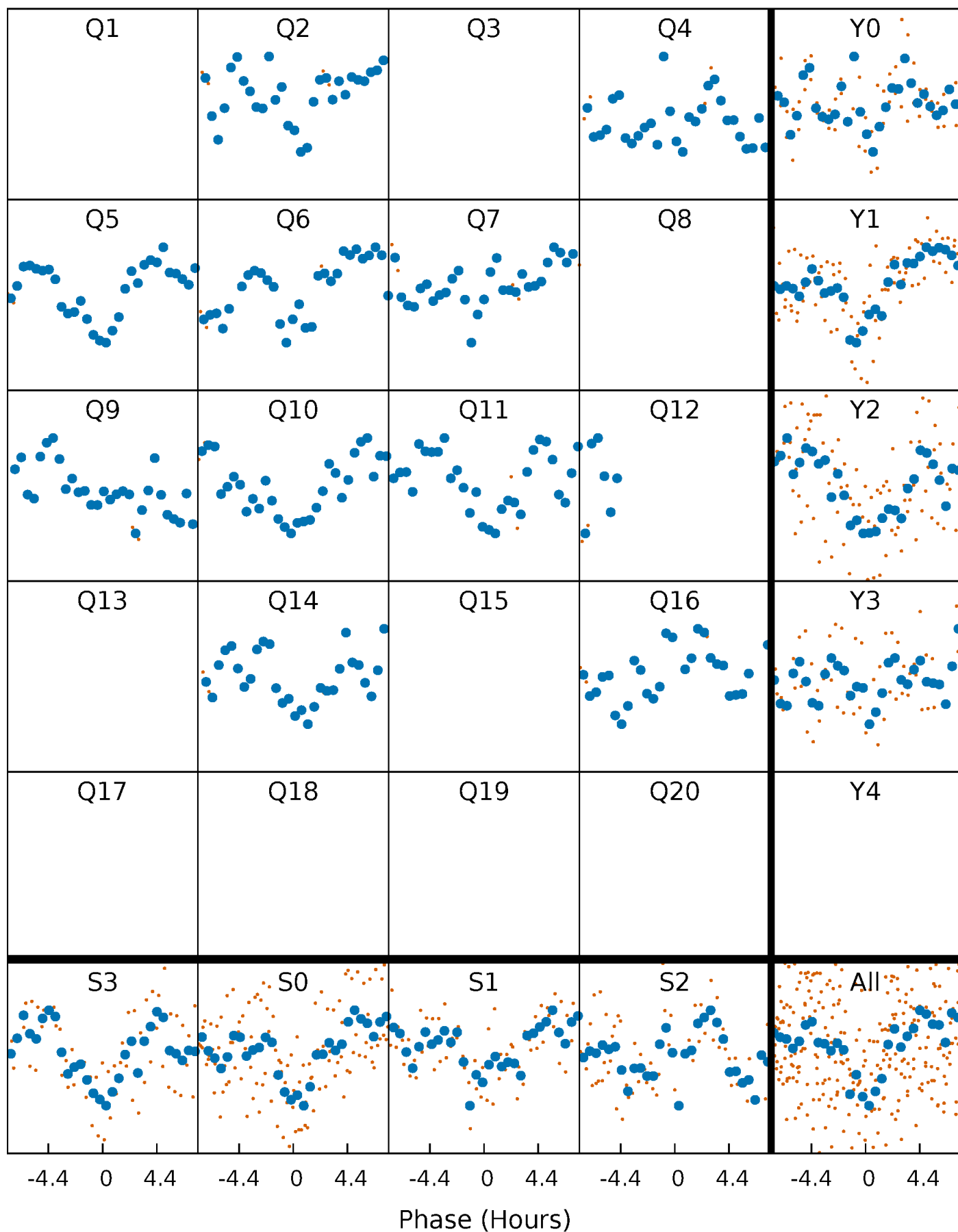


Non-Whitened Vs. Whitened Light Curve



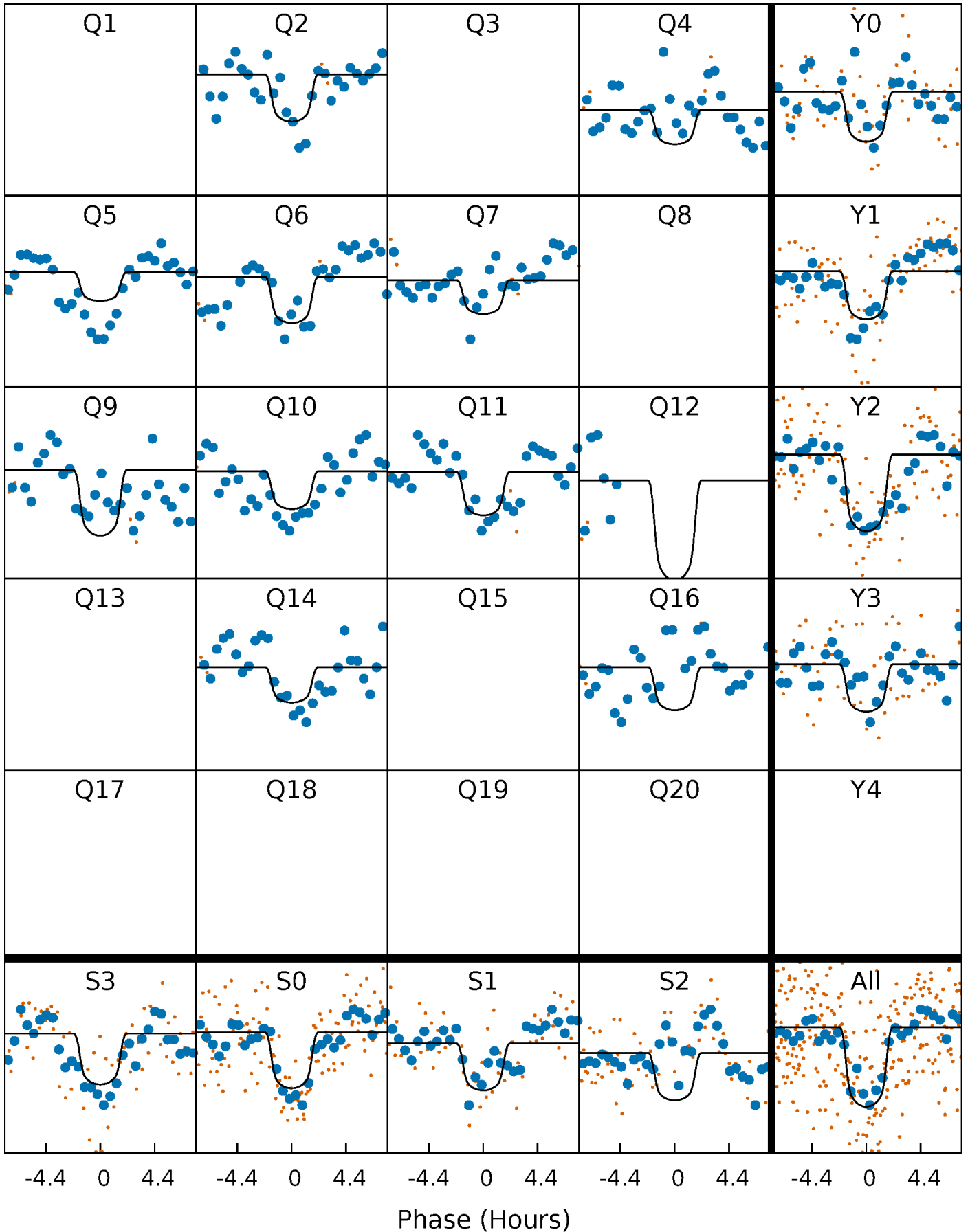
PDC Quarter-Phased Transit Curves

TCE 011565903-01 P=117.140974 Days $T_0=245.084927$ (BKJD)



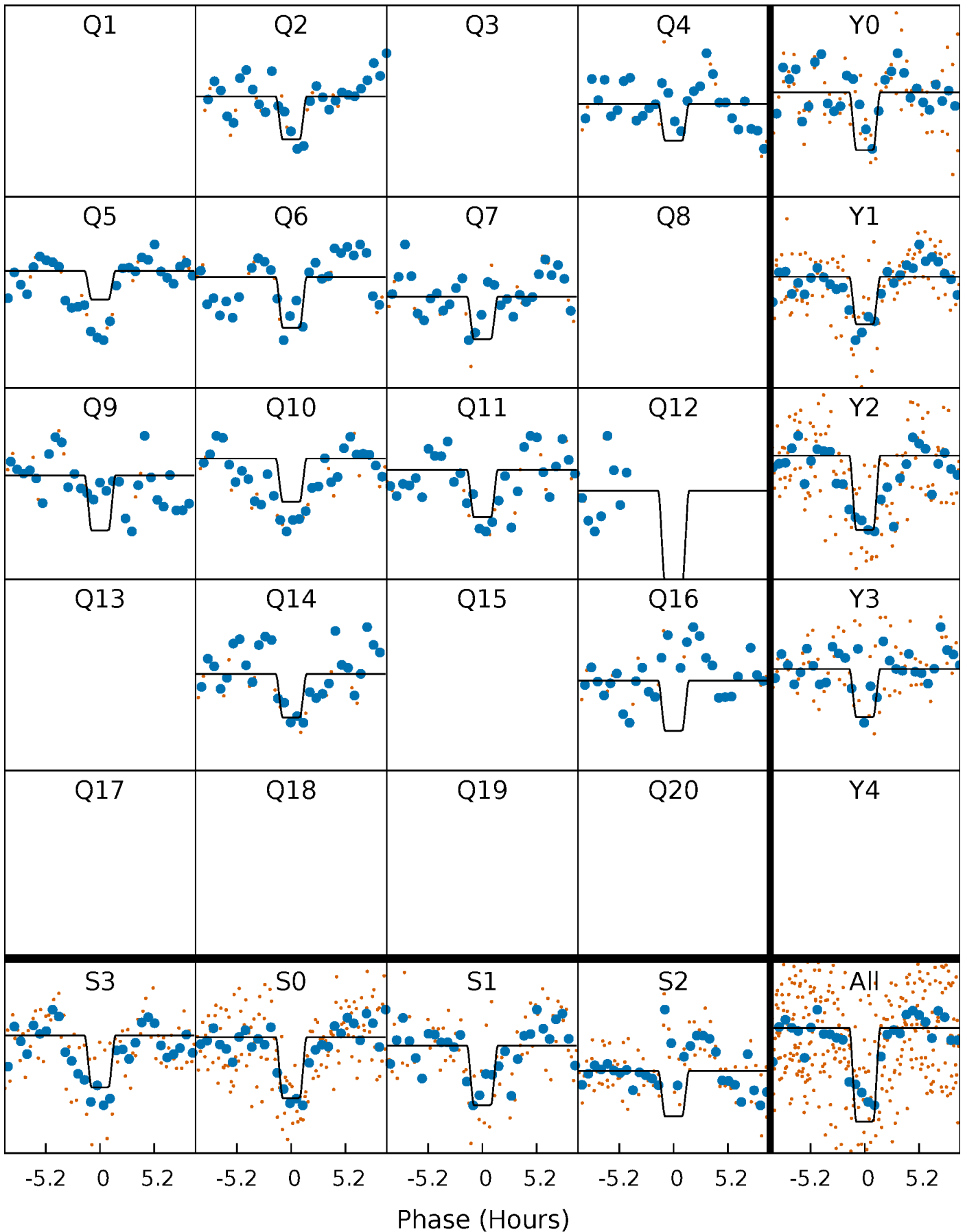
DV Quarter-Phased Transit Curves

TCE 011565903-01 P=117.140974 Days $T_0=245.084927$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

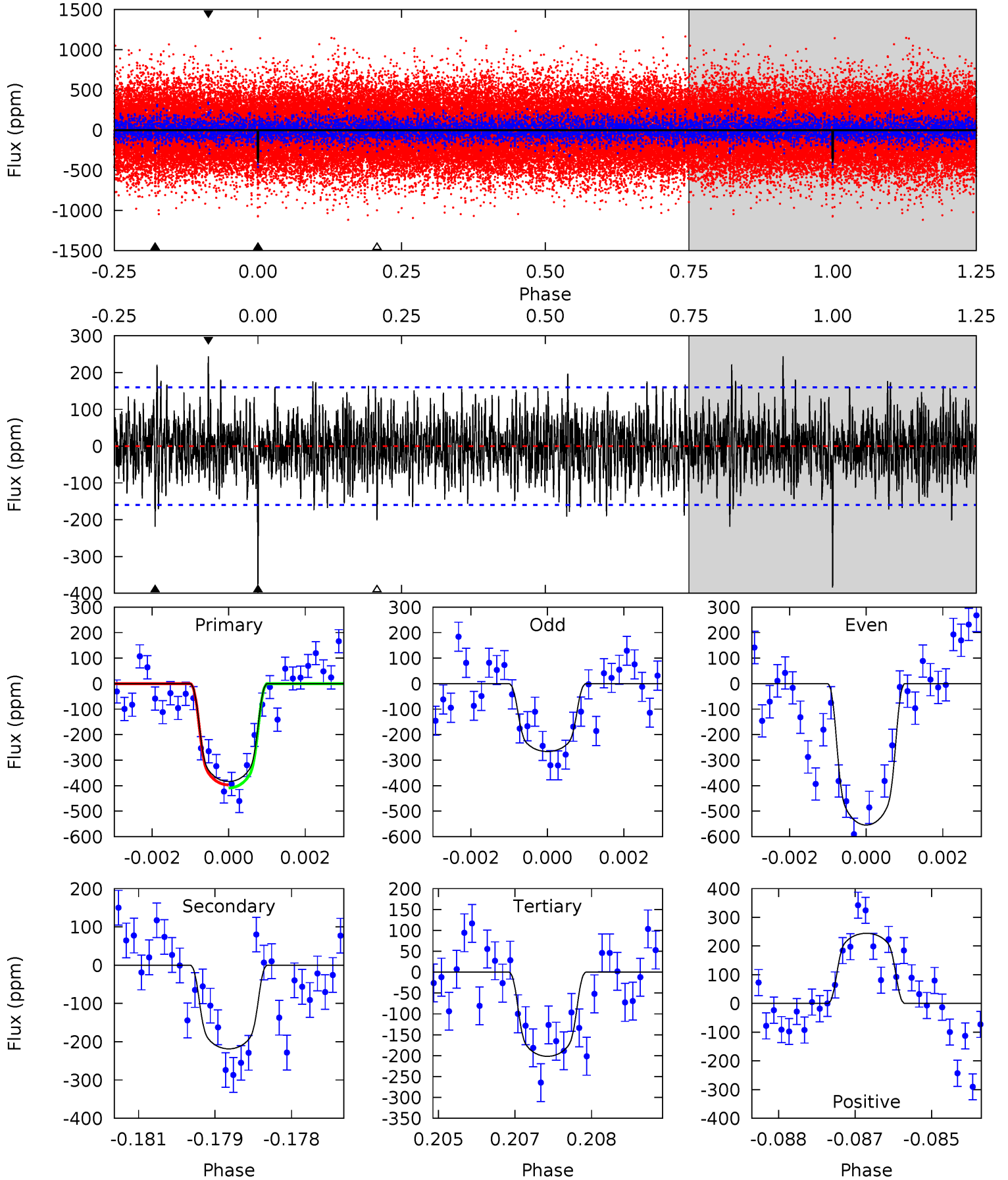
TCE 011565903-01 P=117.141910 Days $T_0=245.080613$ (BKJD)



DV Model-Shift Uniqueness Test

011565903-01, P = 117.140974 Days, E = 127.943953 Days

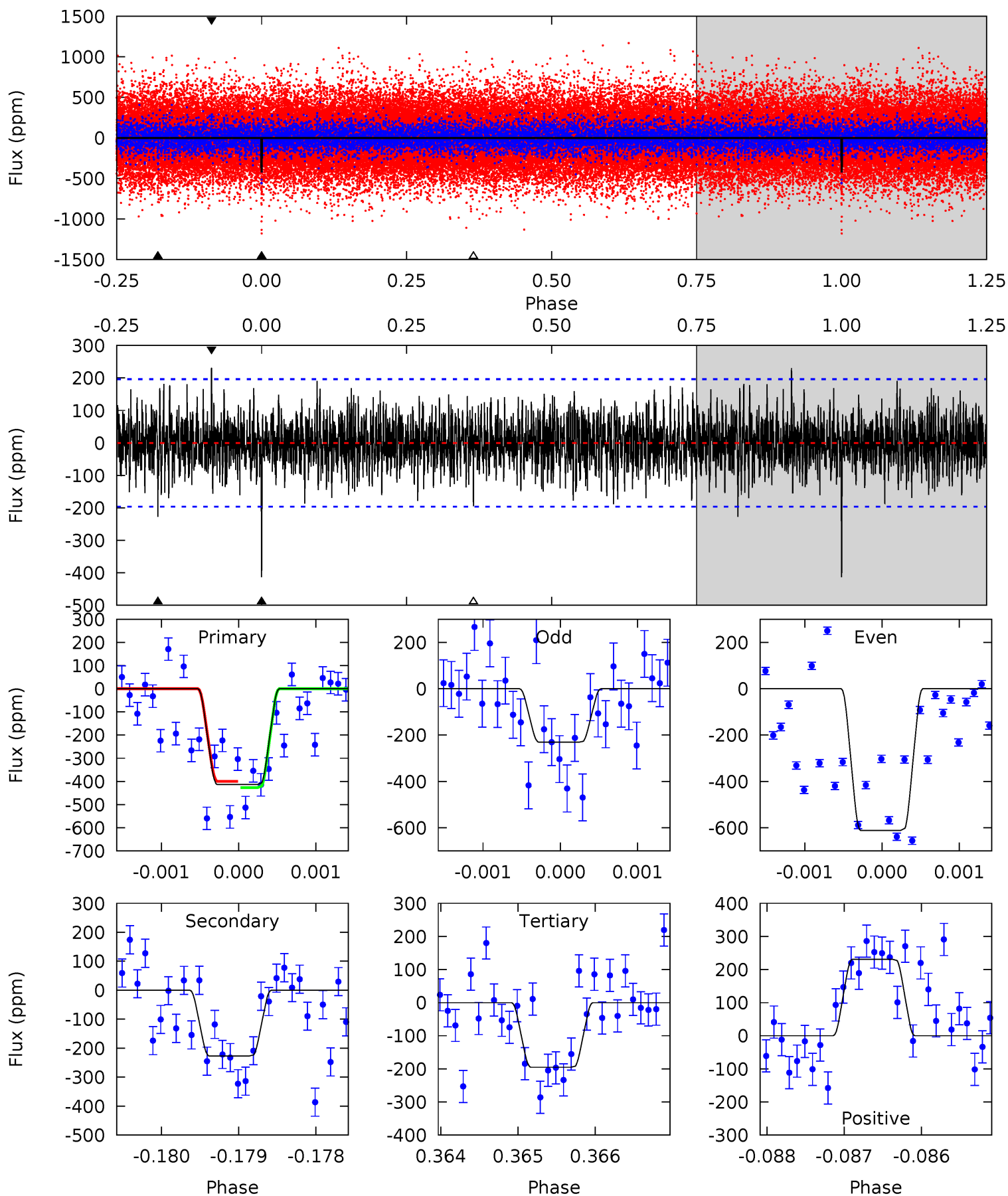
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	7.36	6.79	8.22	5.38	3.17	2.11	6.13	4.69	0.57	-0.86	4.82	0.83	0.39	0.20



Alt Model-Shift Uniqueness Test

011565903-01, P = 117.141910 Days, E = 127.938703 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	6.30	5.41	6.41	5.45	3.29	1.67	6.06	5.06	0.88	-0.11	5.26	0.87	0.36	0.38



Stellar Parameters For KIC 011565903

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5282^{+52}_{-195}	$2.932^{+0.033}_{-0.027}$	$-0.500^{+0.150}_{-0.400}$	$8.243^{+0.250}_{-2.251}$	$2.118^{+0.254}_{-1.016}$	$0.005^{+0.002}_{-0.000}$
	+1%/-4%	+1%/-1%	+30%/-80%	+3%/-27%	+12%/-48%	+45%/-6%
Source	PHO1	AST9	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 011565903-01 / KOI 8057.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-219 ± 30	$21.60^{+3.04}_{-3.06}$	1198^{+22}_{-44}	4297^{+293}_{-244}	94^{+38}_{-23}
Alt.	-227 ± 36	$19.85^{+3.03}_{-2.90}$	1200^{+23}_{-45}	4472^{+324}_{-275}	116^{+45}_{-32}

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 $A_{obs} \gg 1.0$

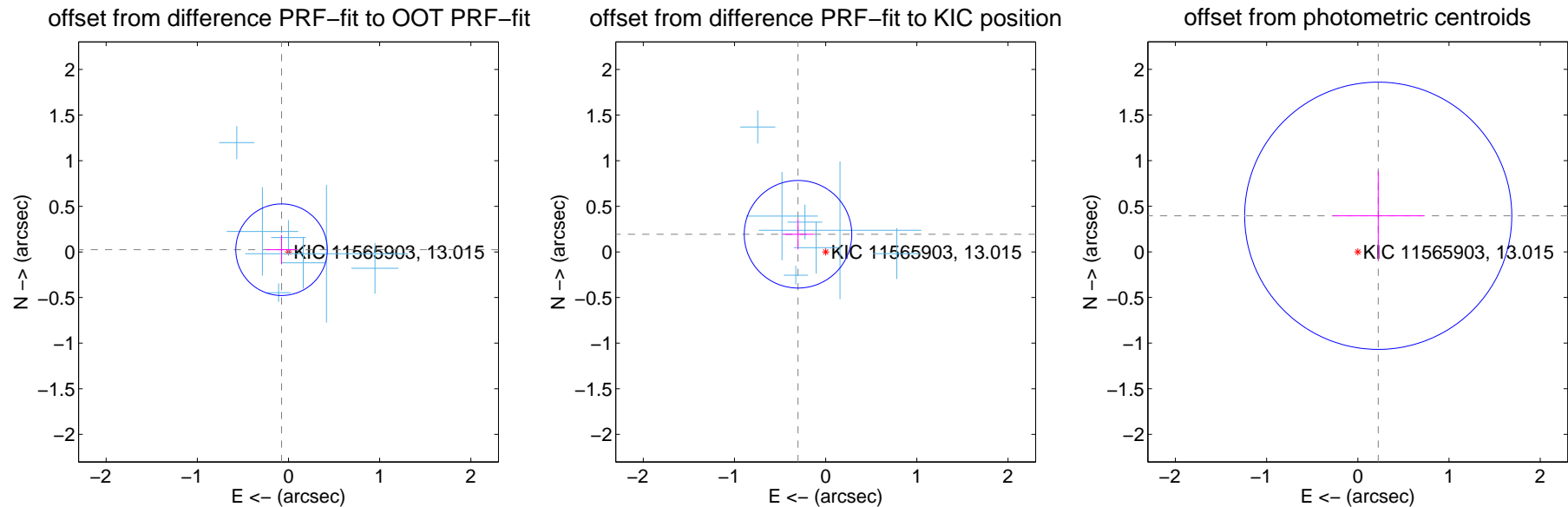
DV Centroid Data

Supplemental centroid analysis for 011565903-01. Kepler magnitude: 13.02. Transit SNR 7.88

There are 7 quarters with good PRF difference image offsets

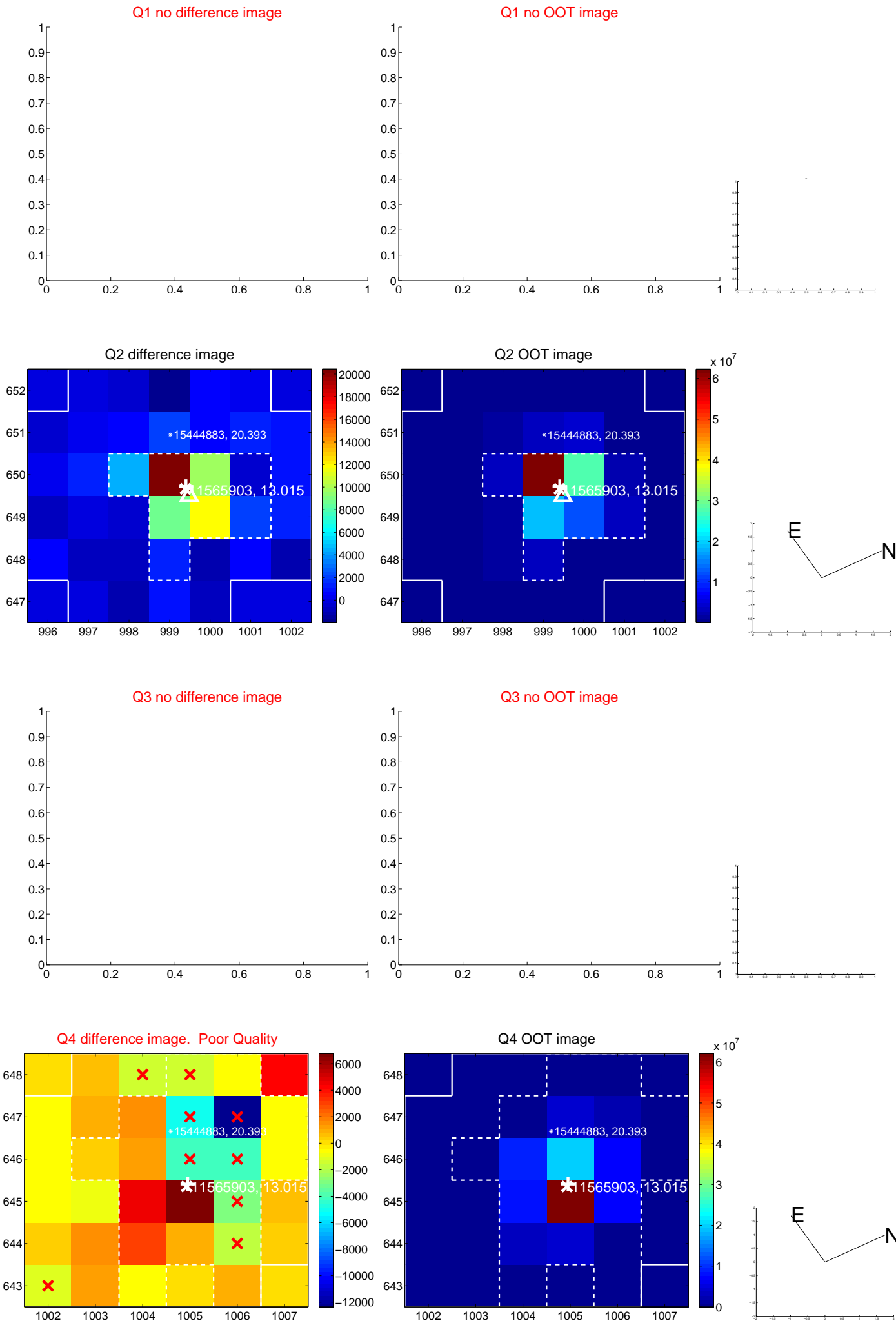
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.080 ± 0.167	0.48	0.076 ± 0.168	0.024 ± 0.160
PRF-fit source offset from KIC position	0.360 ± 0.197	1.83	0.303 ± 0.172	0.194 ± 0.167
photometric centroid source offset	0.45 ± 0.49	0.93	-0.22 ± 0.50	0.40 ± 0.48

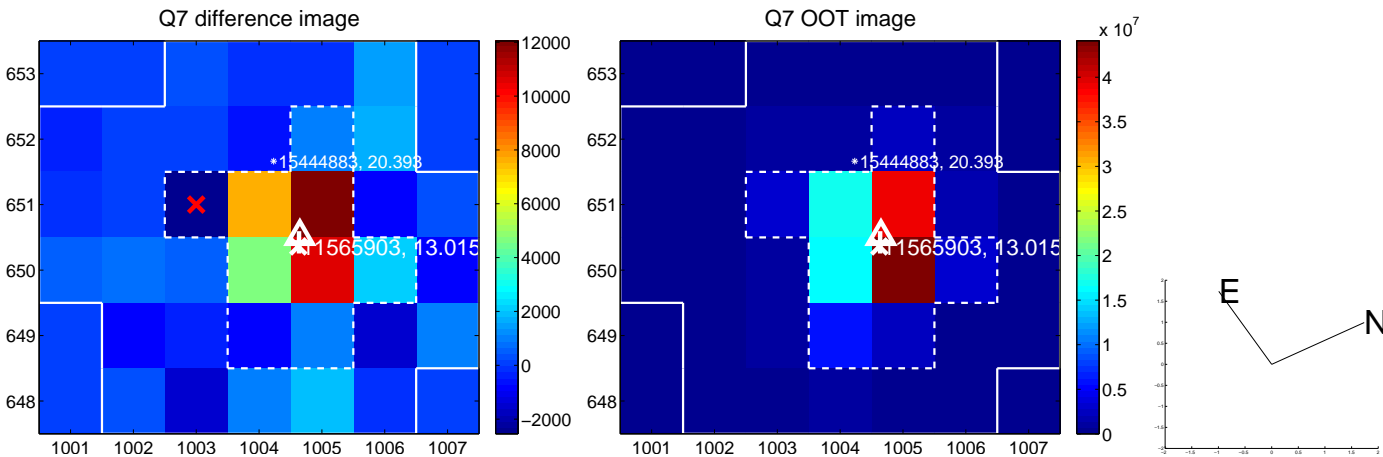
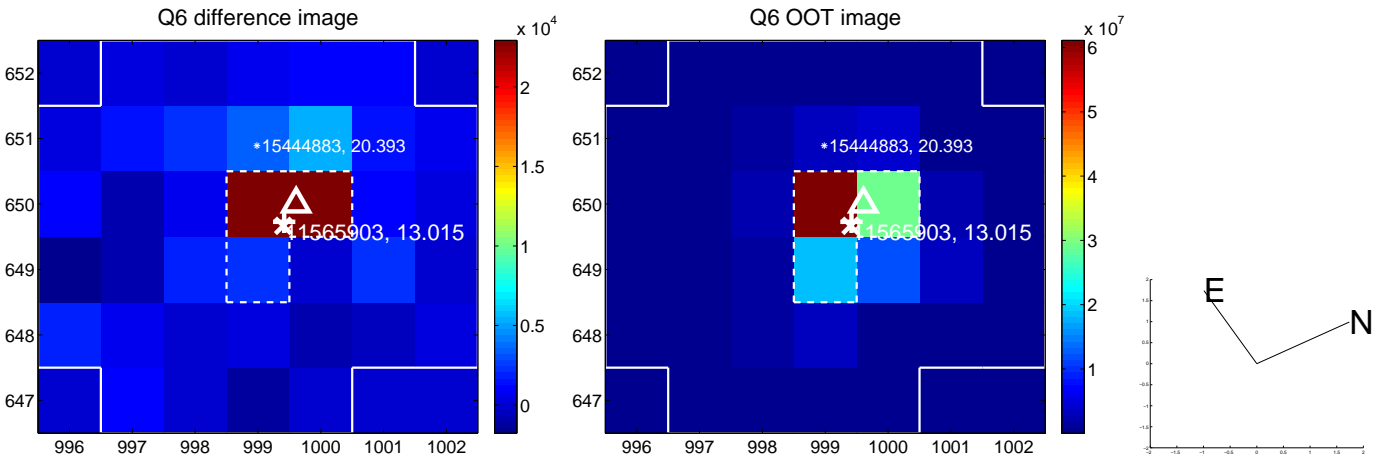
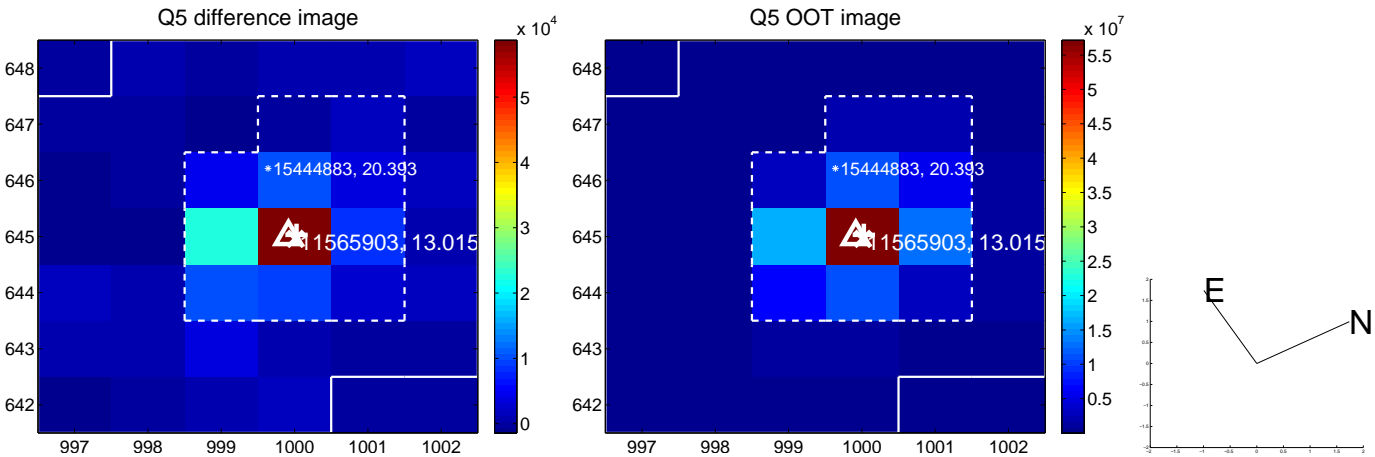


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

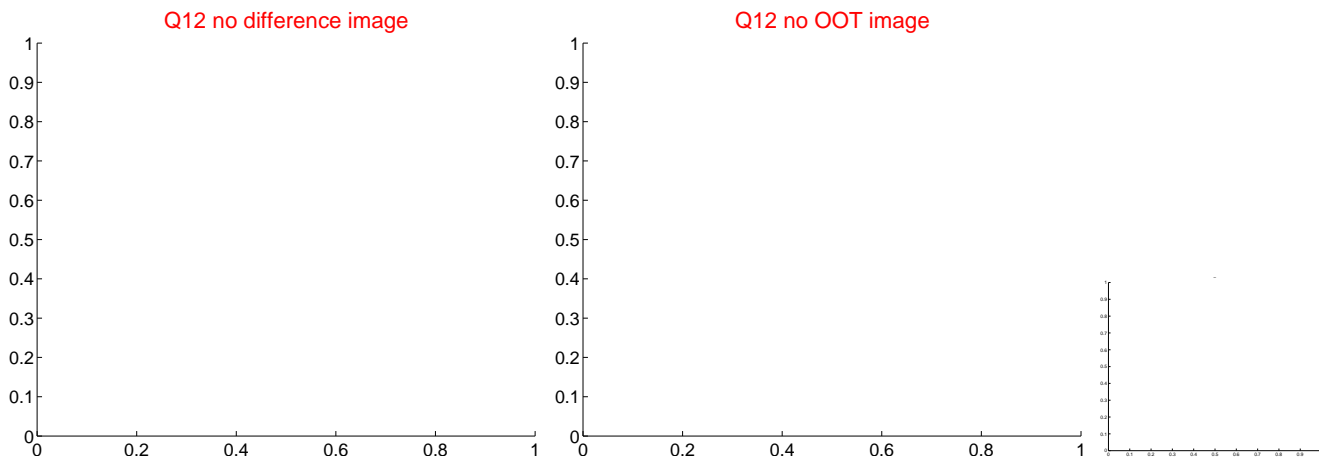
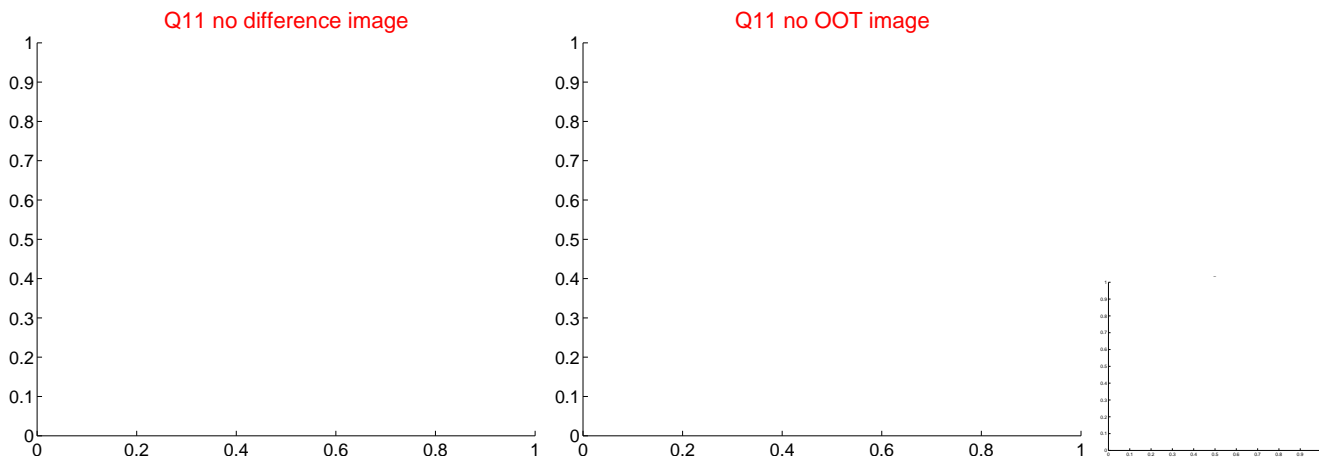
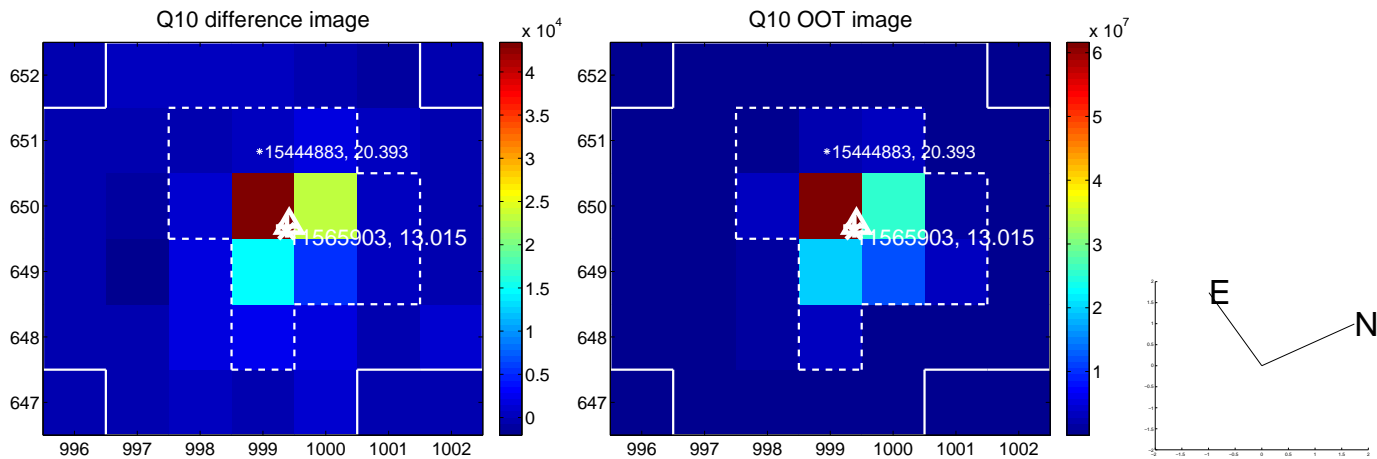
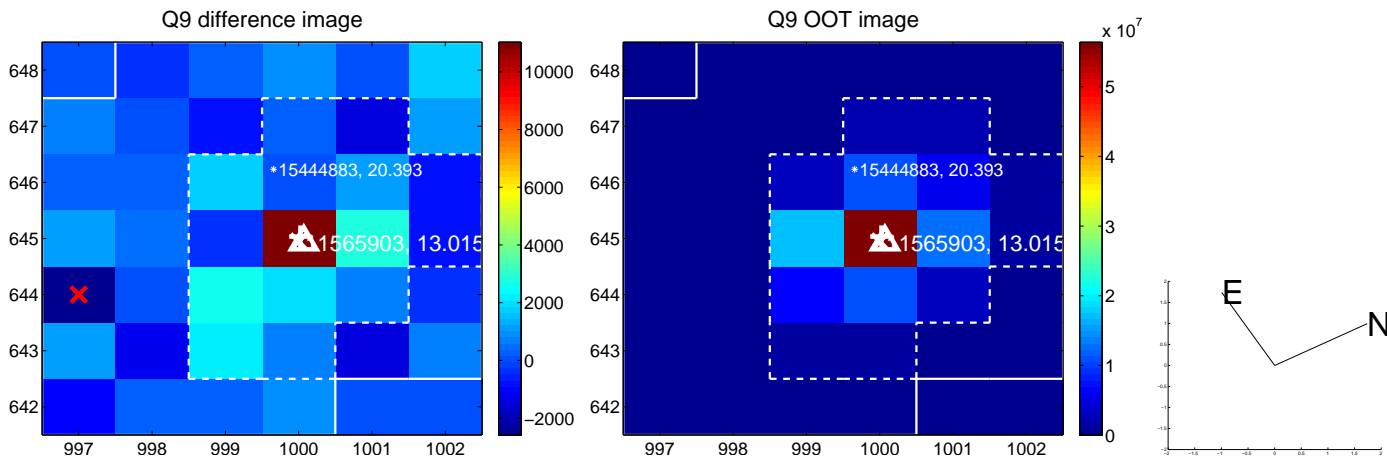
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



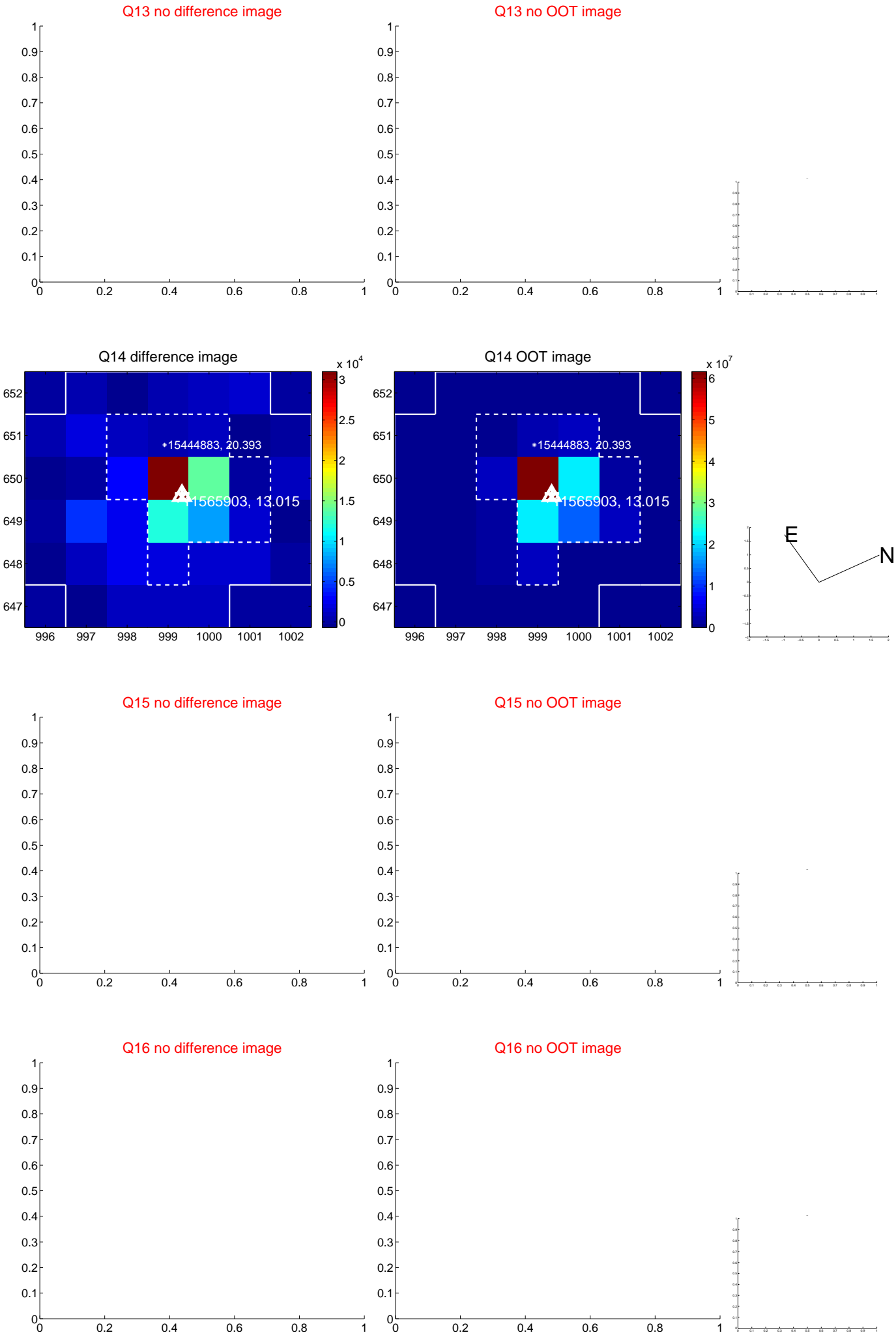
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



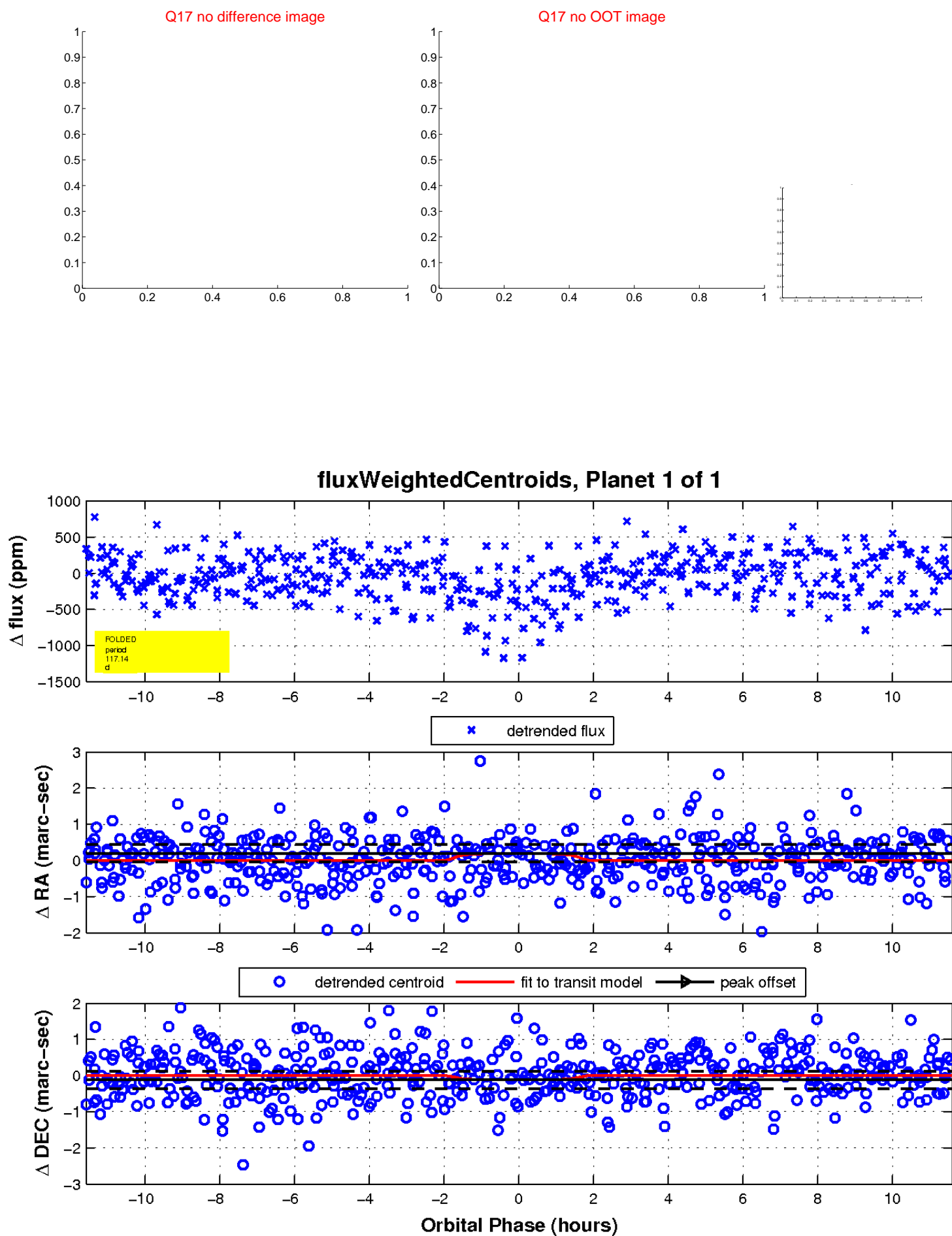
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UKIRT Image

Declination

