

KIC 008263187

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})
008263187-01	OBS	7878.01	36.566210	141.450285	3051.6	5.110	7.5	8.3	2.88	5294	17.01	111.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008263187-01	OBS	PC	0.17	0	0	0	0	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.

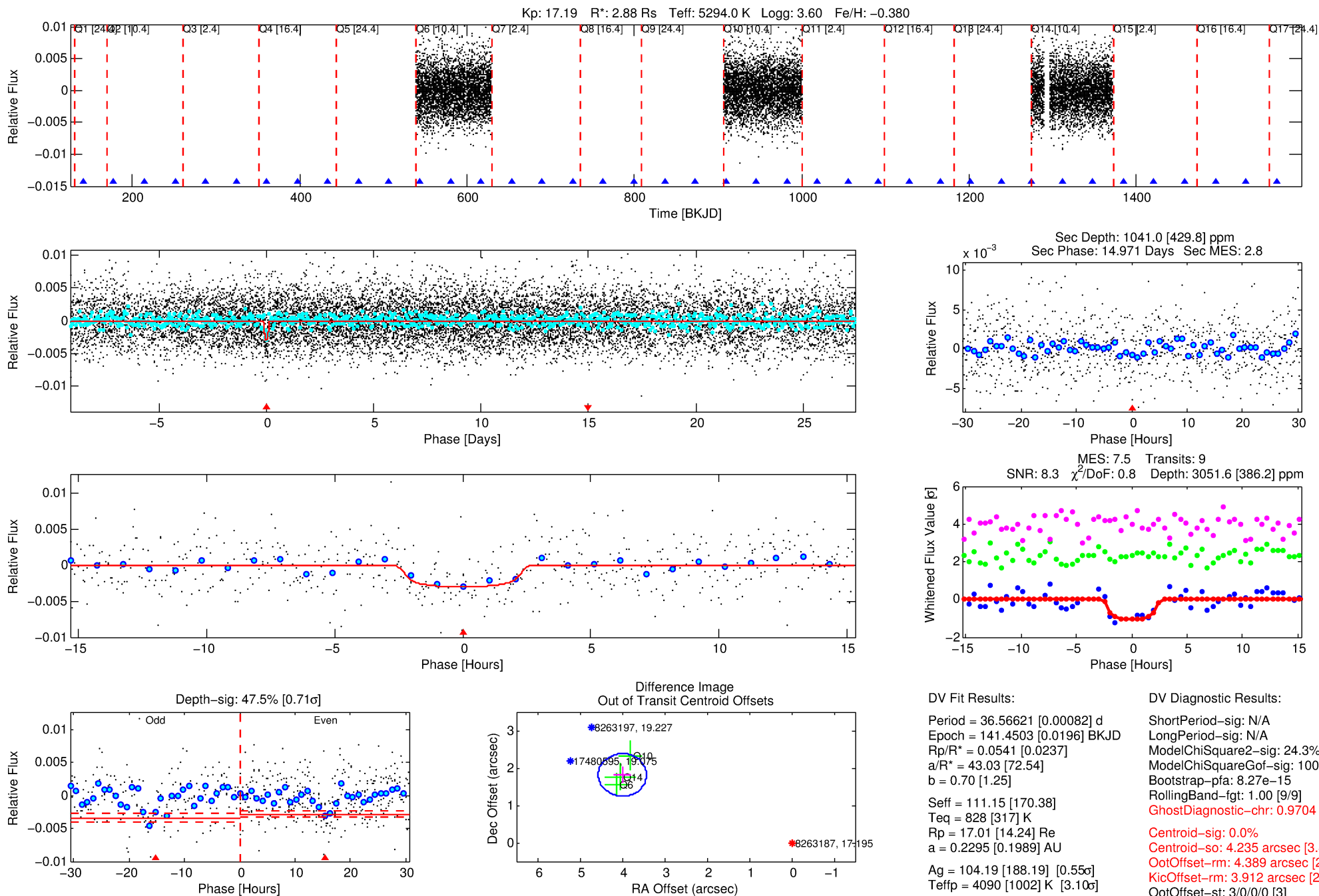
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008263187-01

No Significant Match Found

DV One-Page Summary

KIC: 8263187 Candidate: 1 of 1 Period: 36.566 d



DV Fit Results:

Period = 36.56621 [0.00082] d
Epoch = 141.4503 [0.0196] BKJD
Rp/R* = 0.0541 [0.0237]
a/R* = 43.03 [72.54]
b = 0.70 [1.25]
Seff = 111.15 [170.38]
Teff = 828 [317] K
Rp = 17.01 [14.24] Re
a = 0.2295 [0.1989] AU
Ag = 104.19 [188.19] [0.55σ]
Teffp = 4090 [1002] K [3.10σ]

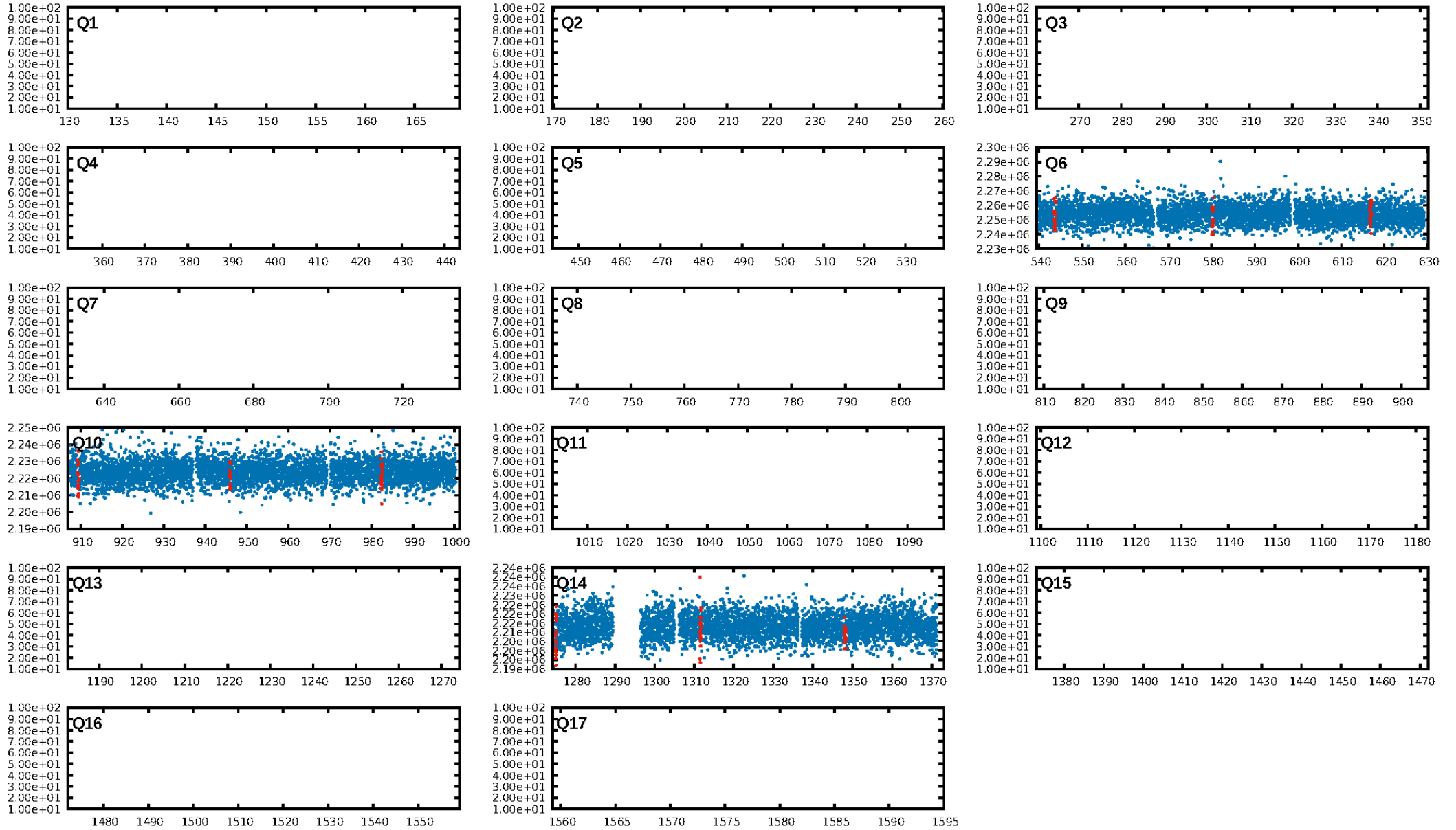
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 24.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.27e-15
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 0.9704
Centroid-sig: 0.0%
Centroid-so: 4.235 arcsec [3.83σ]
OotOffset-rm: 4.389 arcsec [23.16σ]
KicOffset-rm: 3.912 arcsec [20.99σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

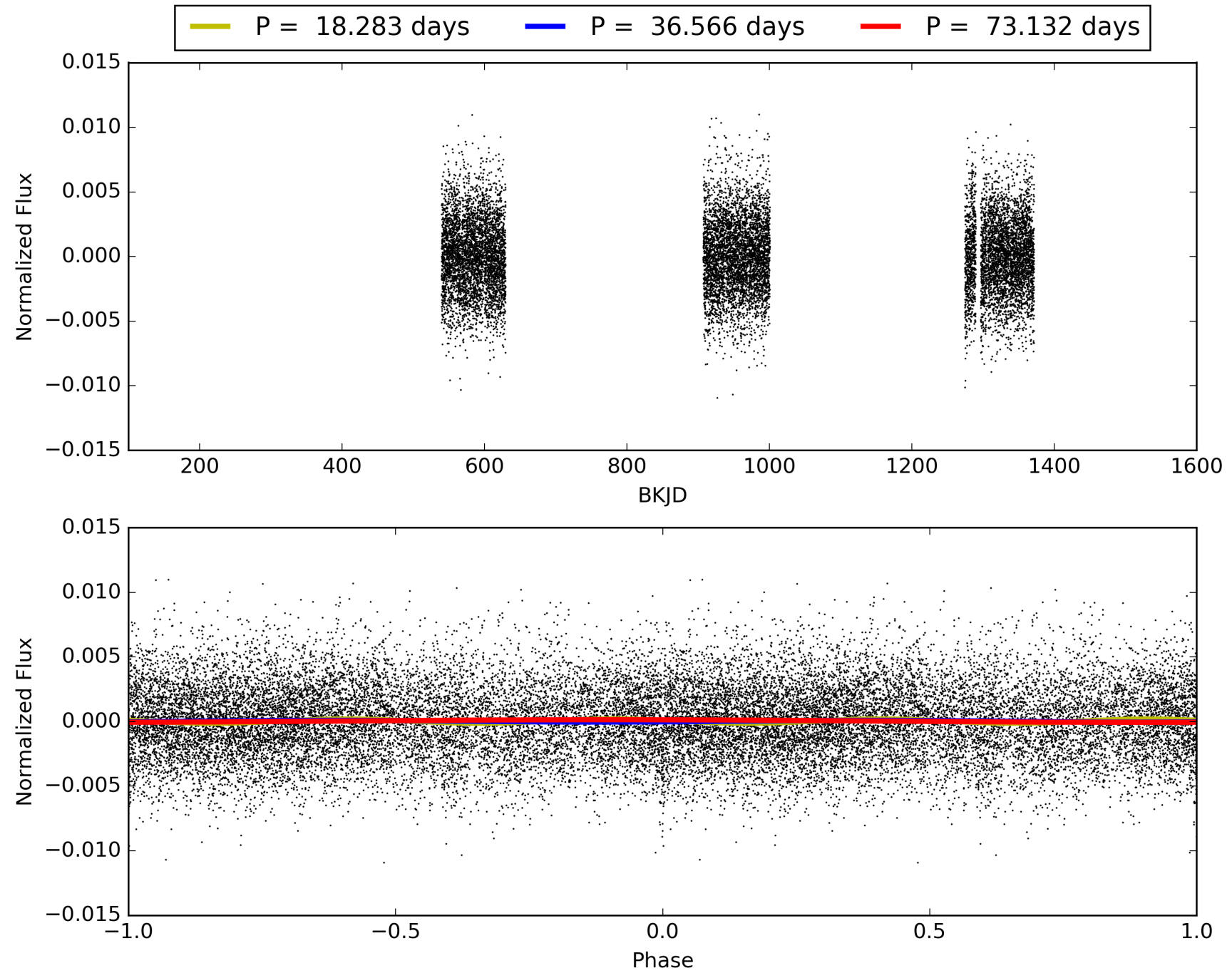
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 18:57:14 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 008263187-01, PDC Light Curves

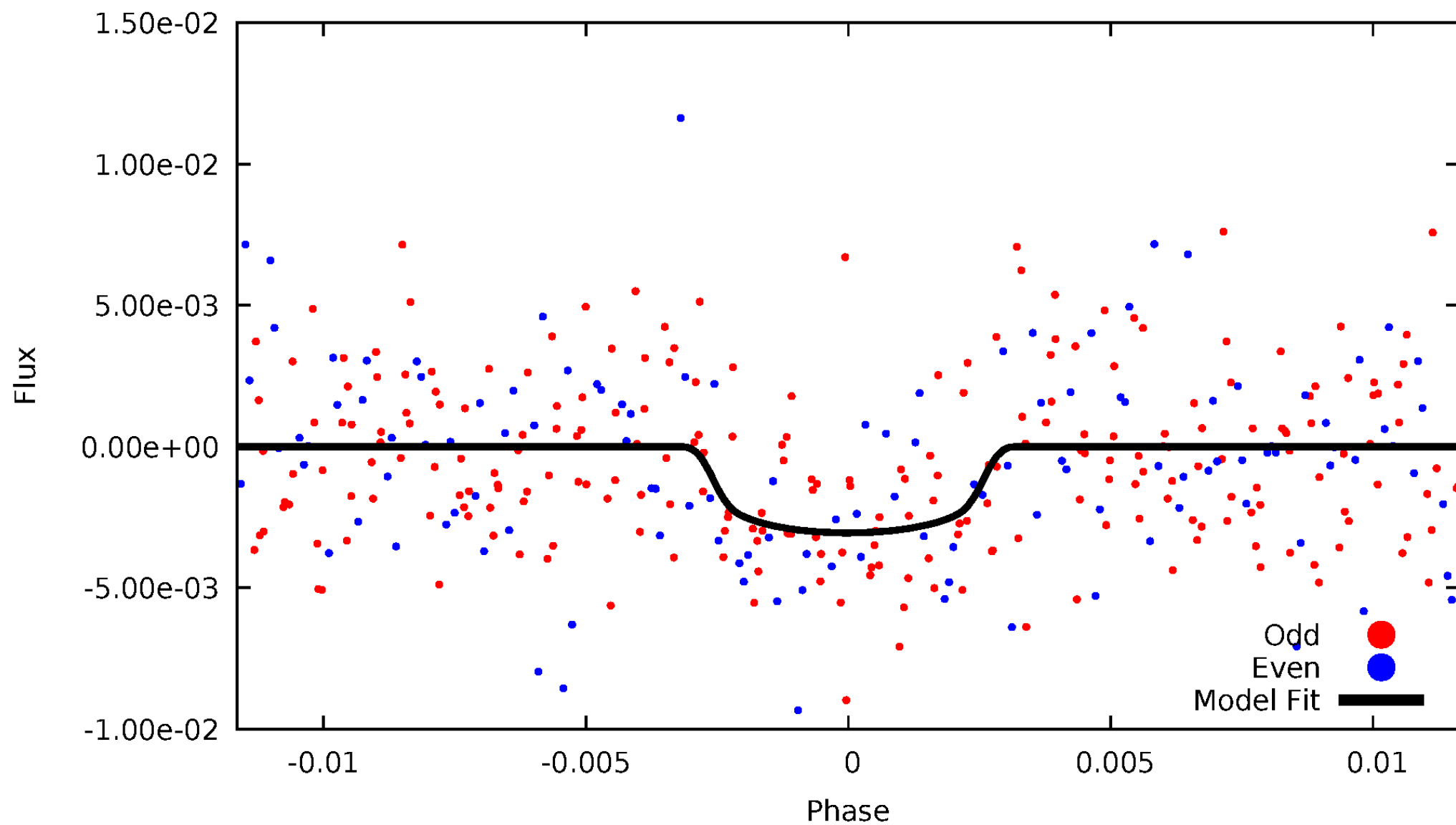


TCE 008263187-01



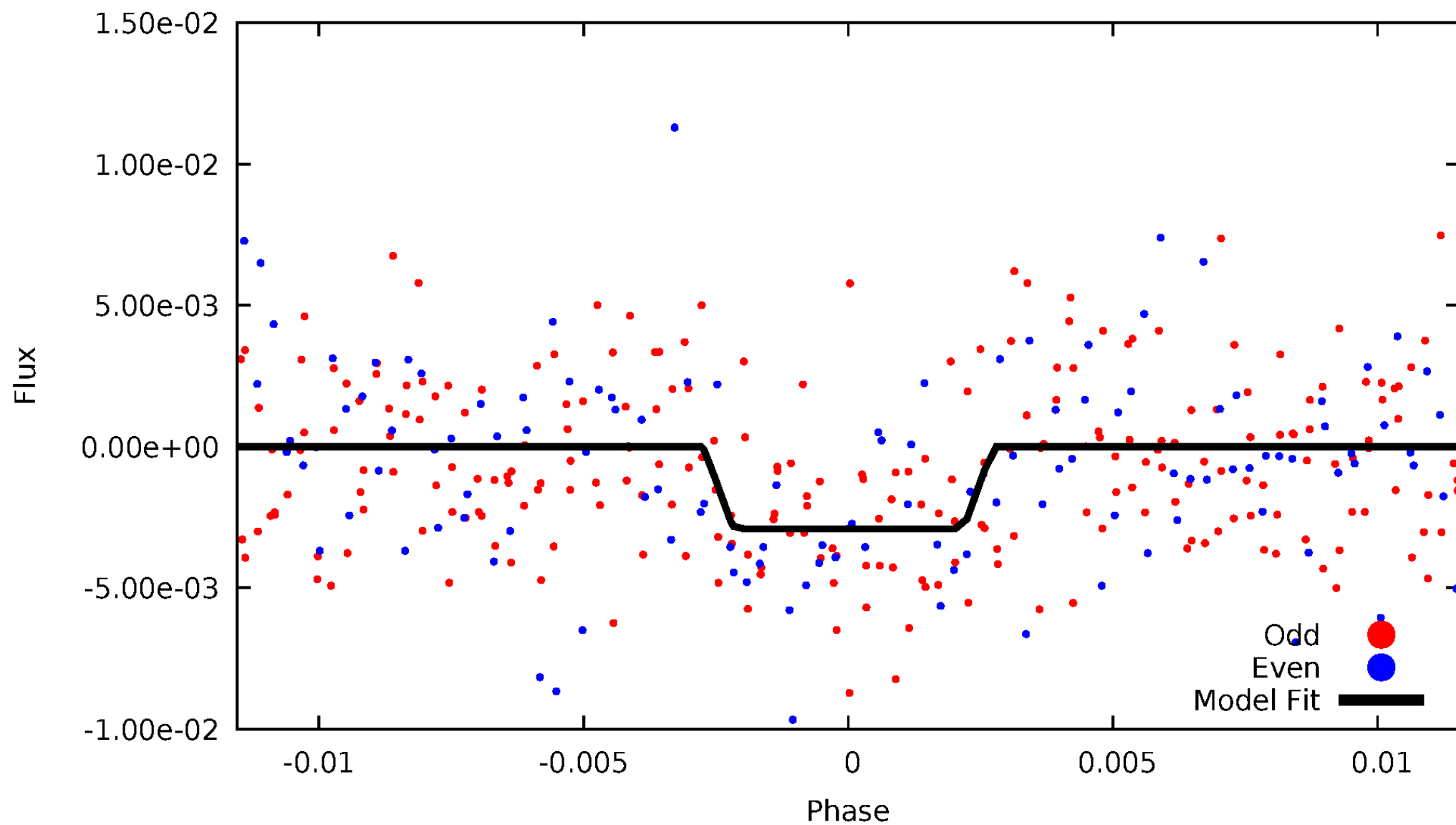
DV Odd/Even

TCE 008263187-01



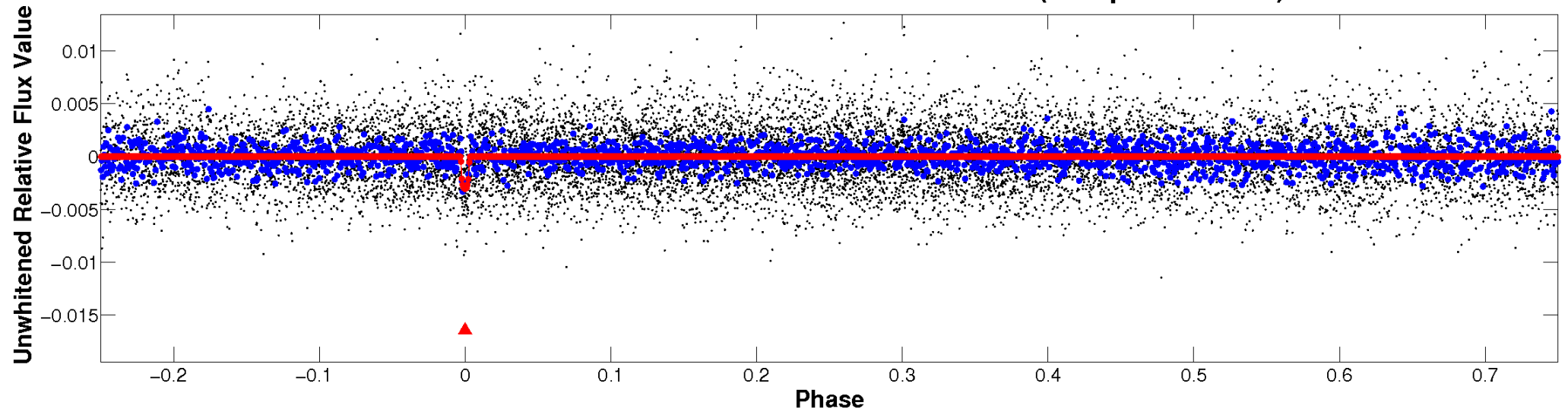
ALT Odd/Even

TCE 008263187-01

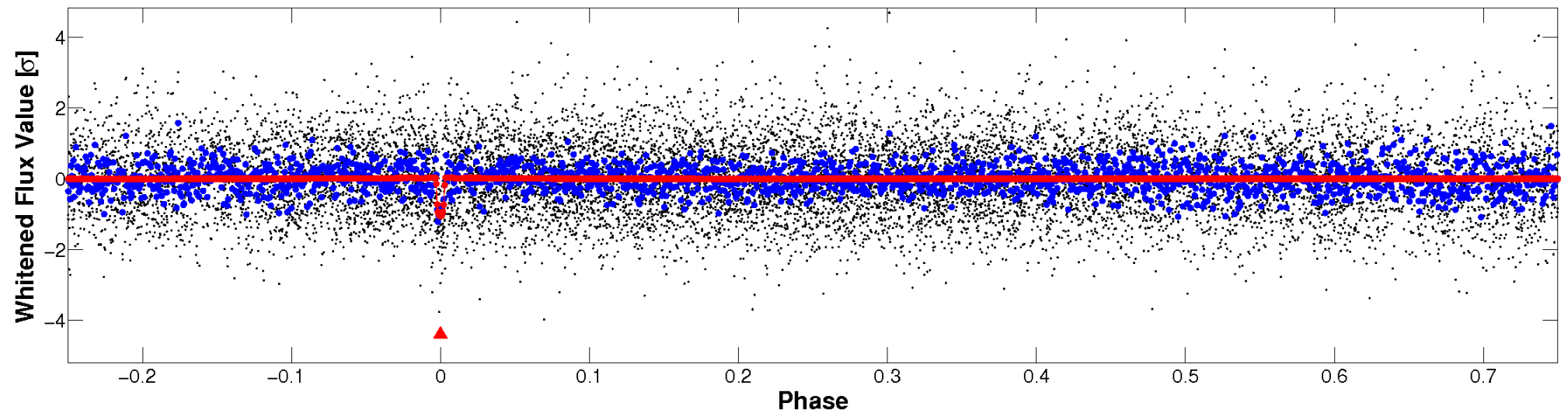


Non-Whitened Vs. Whitened Light Curve

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

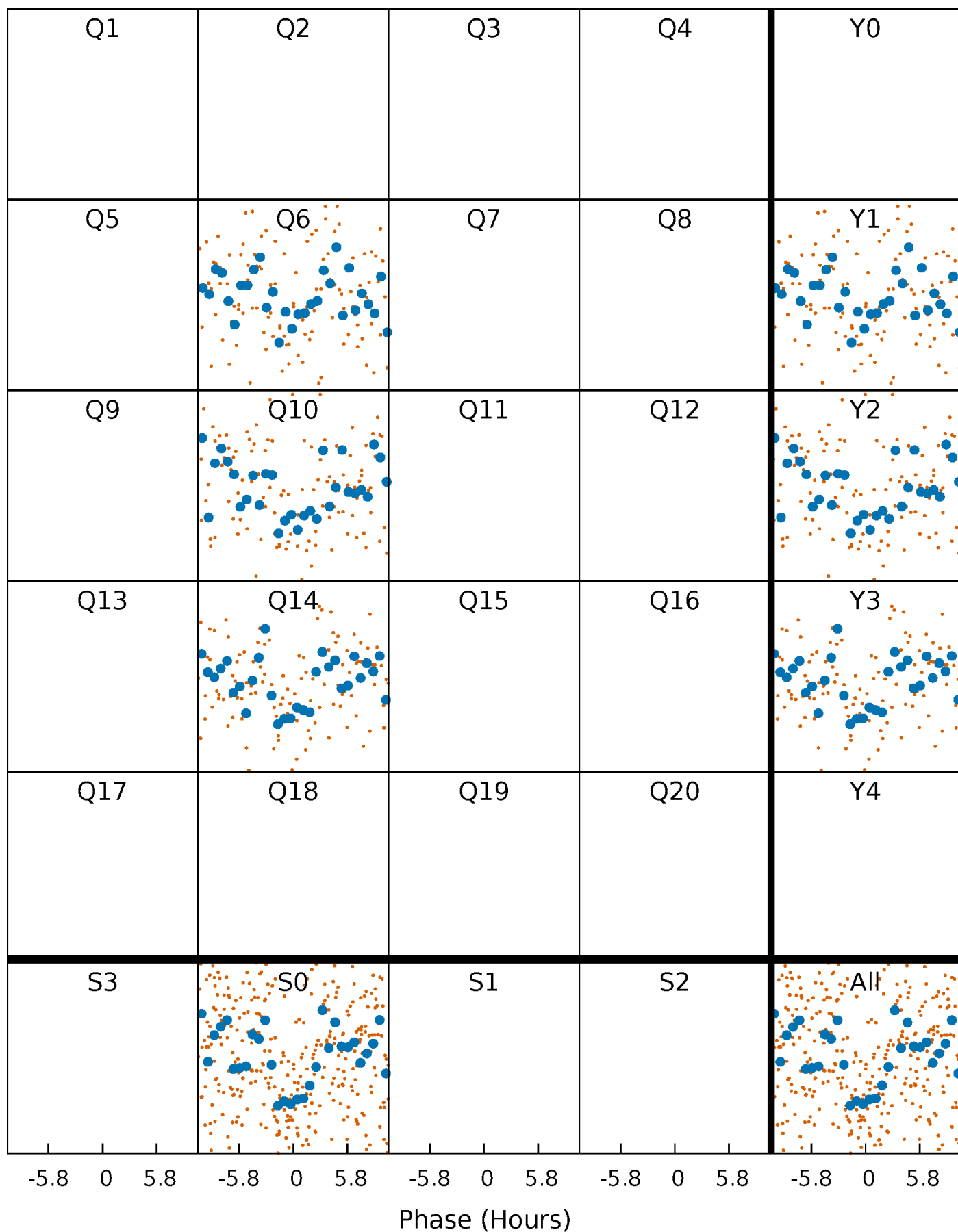


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



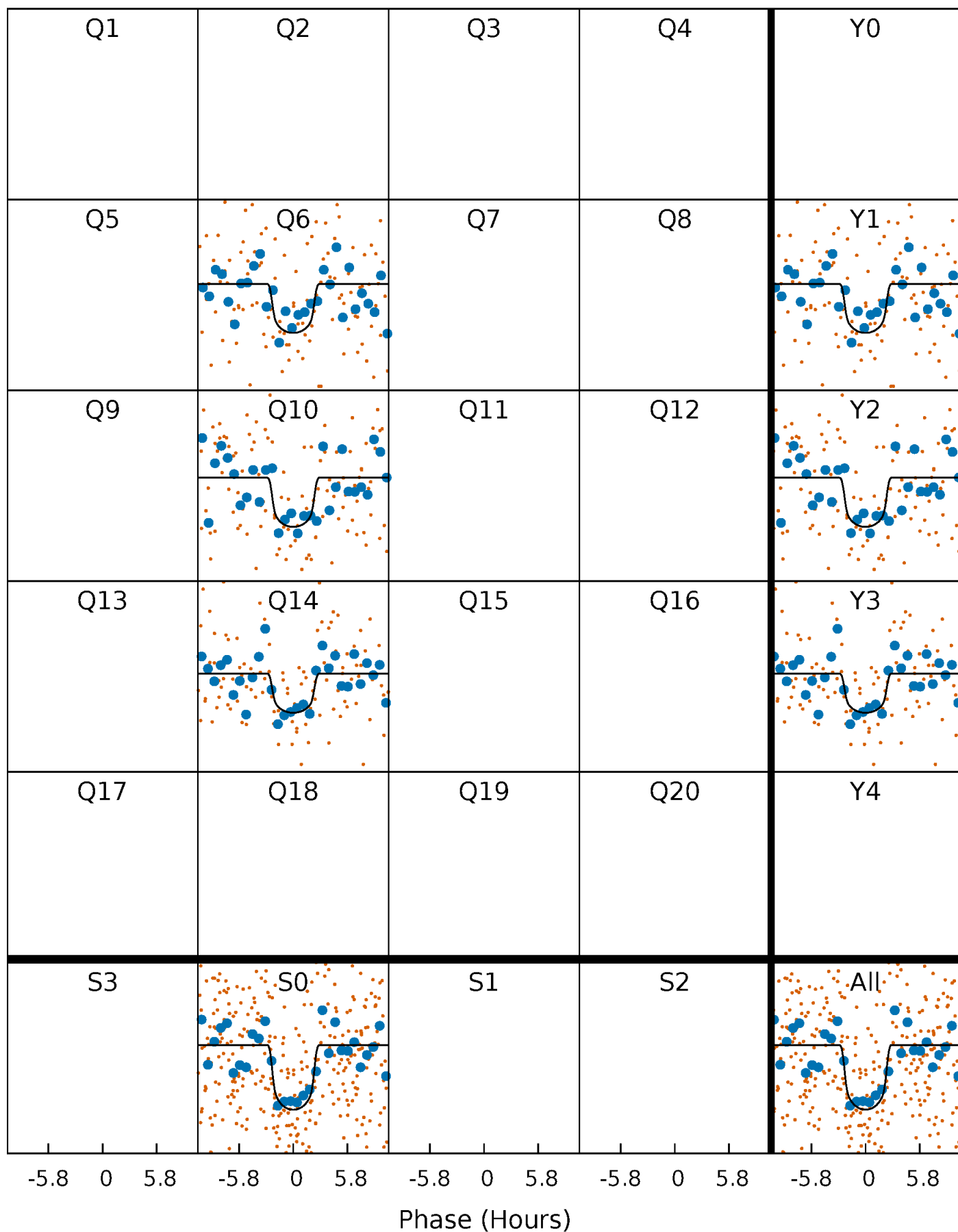
PDC Quarter-Phased Transit Curves

TCE 008263187-01 P= 36.566210 Days $T_0=141.450286$ (BKJD)



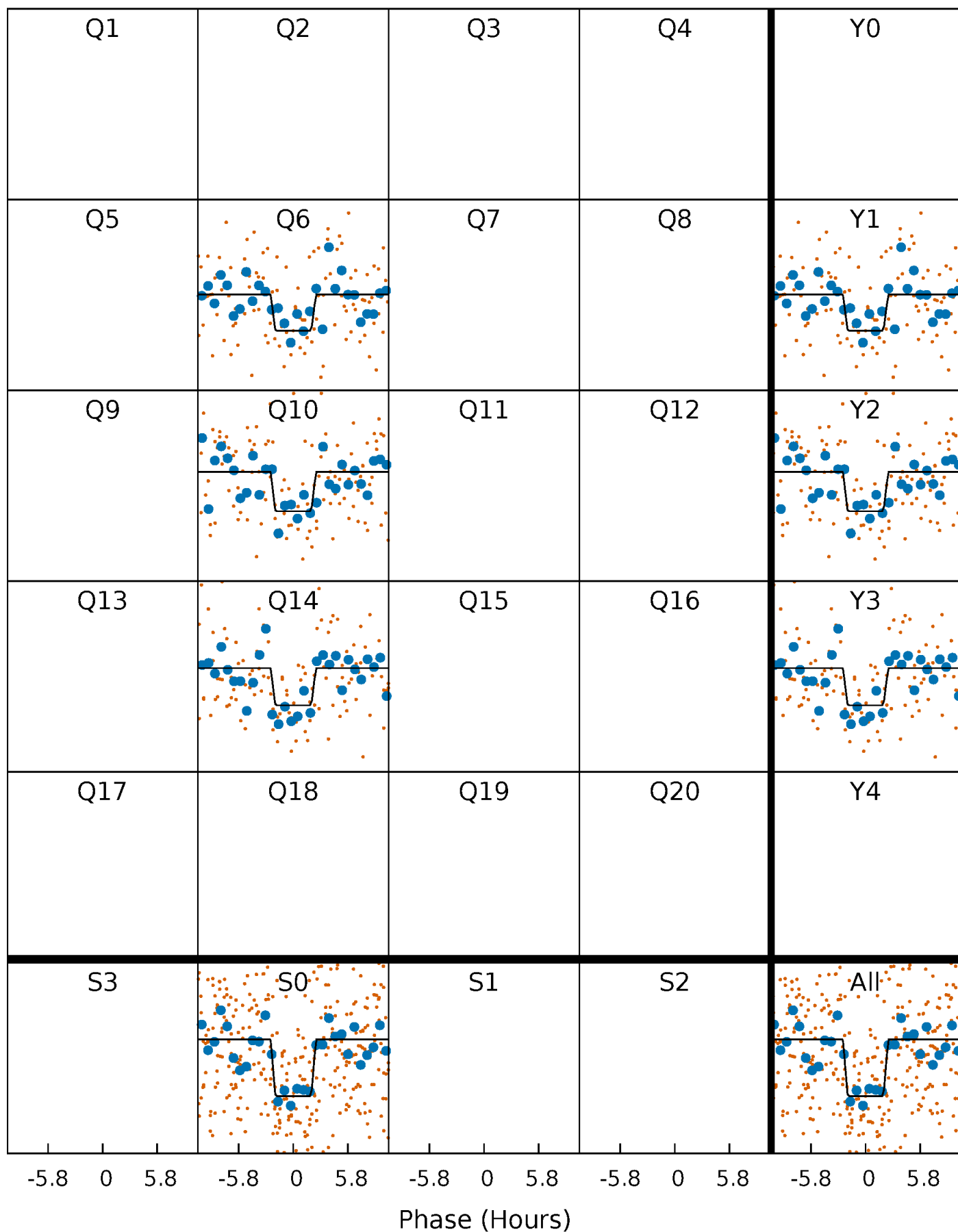
DV Quarter-Phased Transit Curves

TCE 008263187-01 P= 36.566210 Days $T_0=141.450286$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

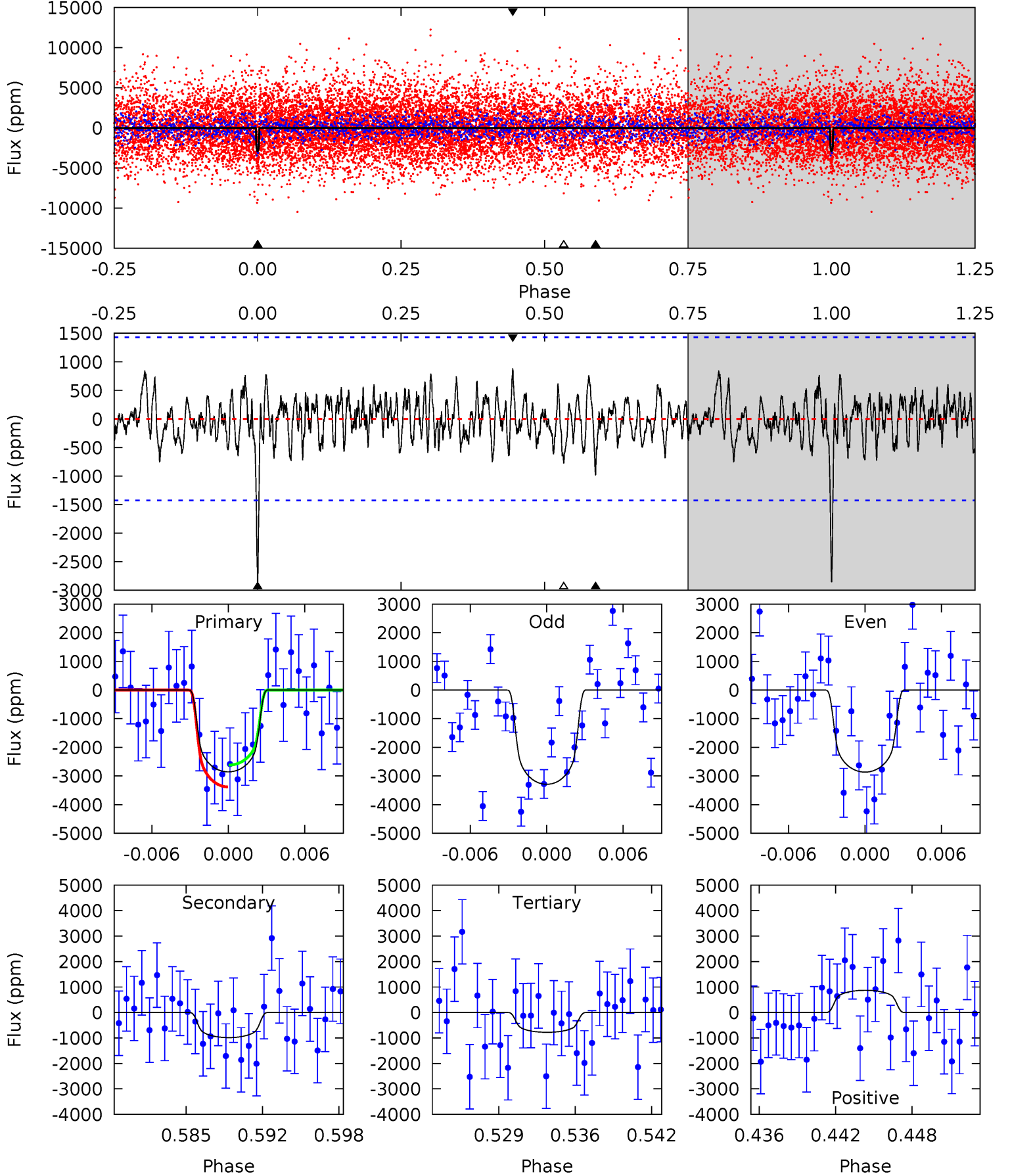
TCE 008263187-01 P= 36.566817 Days $T_0=141.434191$ (BKJD)



DV Model-Shift Uniqueness Test

008263187-01, P = 36.566210 Days, E = 141.450286 Days

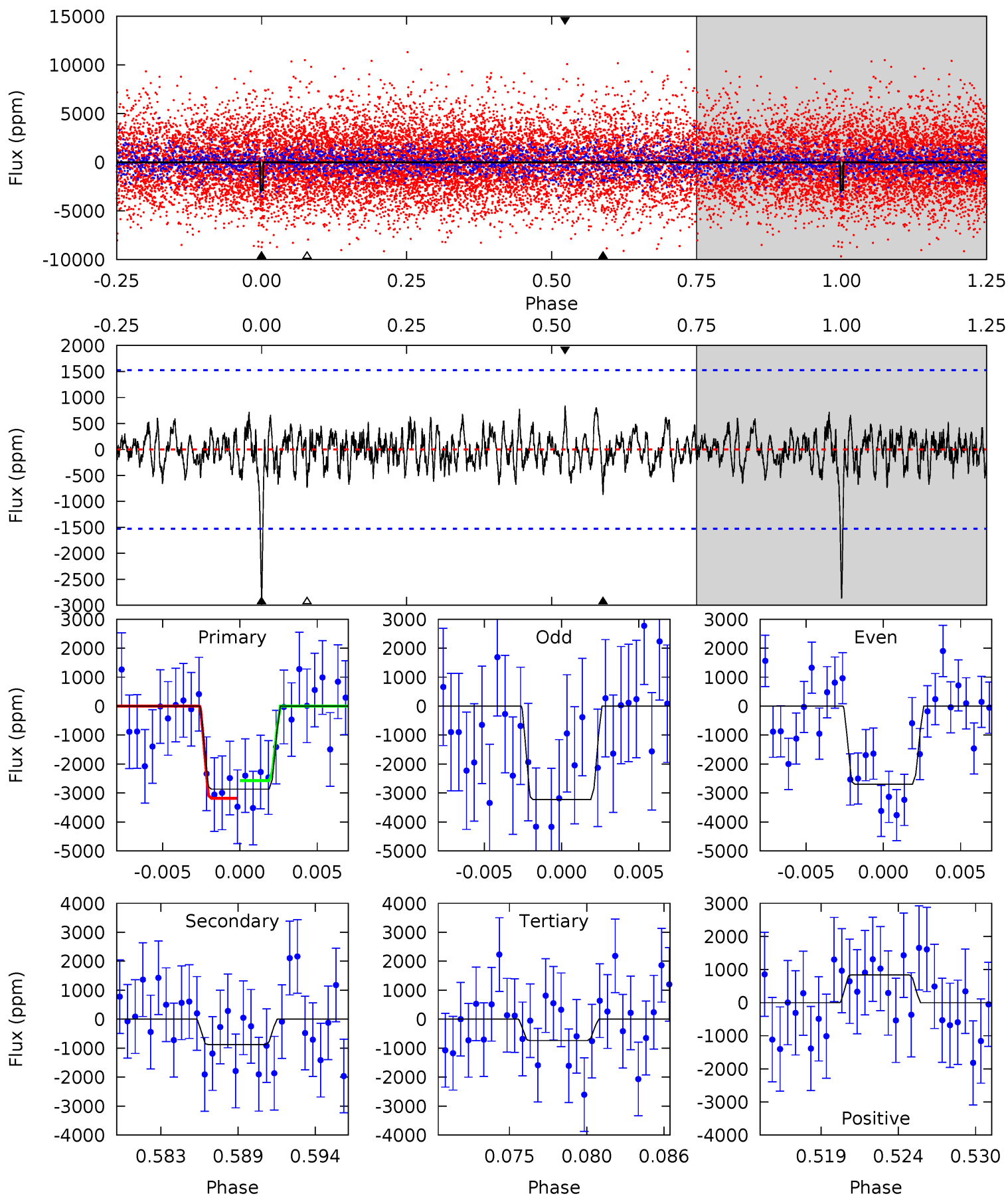
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	3.53	2.79	3.12	5.12	2.74	1.10	7.45	7.11	0.74	0.41	0.71	0.91	0.23	1.36



Alt Model-Shift Uniqueness Test

008263187-01, P = 36.566817 Days, E = 141.434191 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.67	2.95	2.48	2.83	5.14	2.79	0.92	7.19	6.83	0.47	0.12	0.84	1.03	0.23	1.03



Stellar Parameters For KIC 008263187

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5294^{+204}_{-186}	$3.599^{+0.944}_{-0.295}$	$-0.380^{+0.350}_{-0.250}$	$2.884^{+1.108}_{-2.057}$	$1.206^{+0.156}_{-0.364}$	$0.071^{+1.904}_{-0.037}$
	+4%/-4%	+26%/-8%	+92%/-66%	+38%/-71%	+13%/-30%	+2687%/-53%
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 008263187-01 / KOI 7878.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-985 ± 279	$13.98^{+9.86}_{-6.74}$	1135^{+156}_{-231}	4291^{+1037}_{-589}	132^{+371}_{-86}
Alt.	-875 ± 297	$14.90^{+10.22}_{-7.42}$	1142^{+159}_{-235}	4137^{+1022}_{-506}	102^{+345}_{-64}

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 $A_{\text{obs}} \gg 1.0$

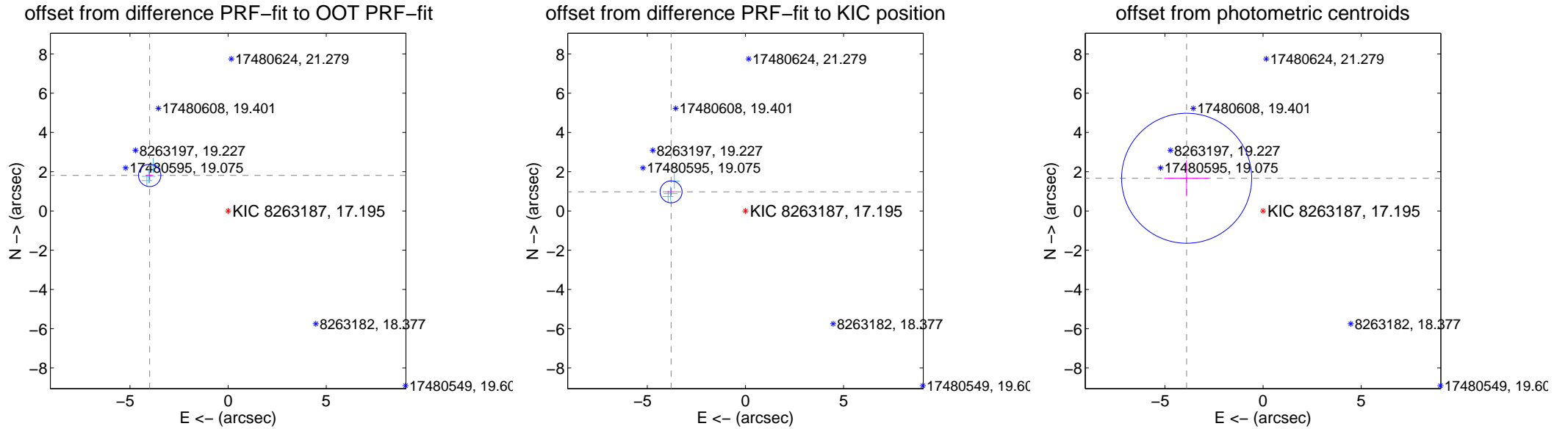
DV Centroid Data

Supplemental centroid analysis for 008263187-01. Kepler magnitude: 17.20. Transit SNR 8.33

There are 3 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.91 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.389 ± 0.189	23.16	3.997 ± 0.185	1.812 ± 0.211
PRF-fit source offset from KIC position	3.912 ± 0.186	20.99	3.789 ± 0.185	0.974 ± 0.211
photometric centroid source offset	4.24 ± 1.10	3.83	3.89 ± 1.14	1.67 ± 0.91

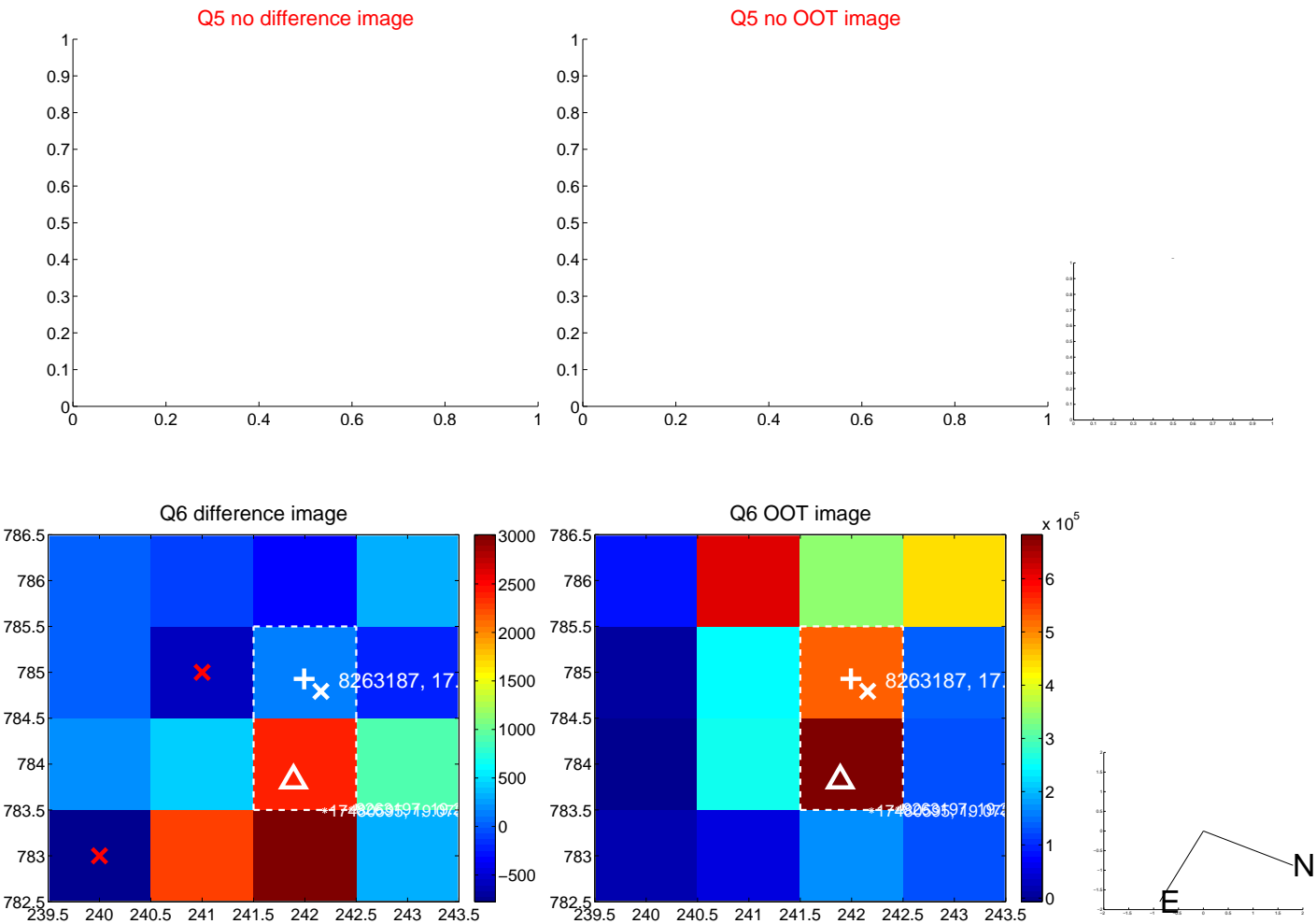


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

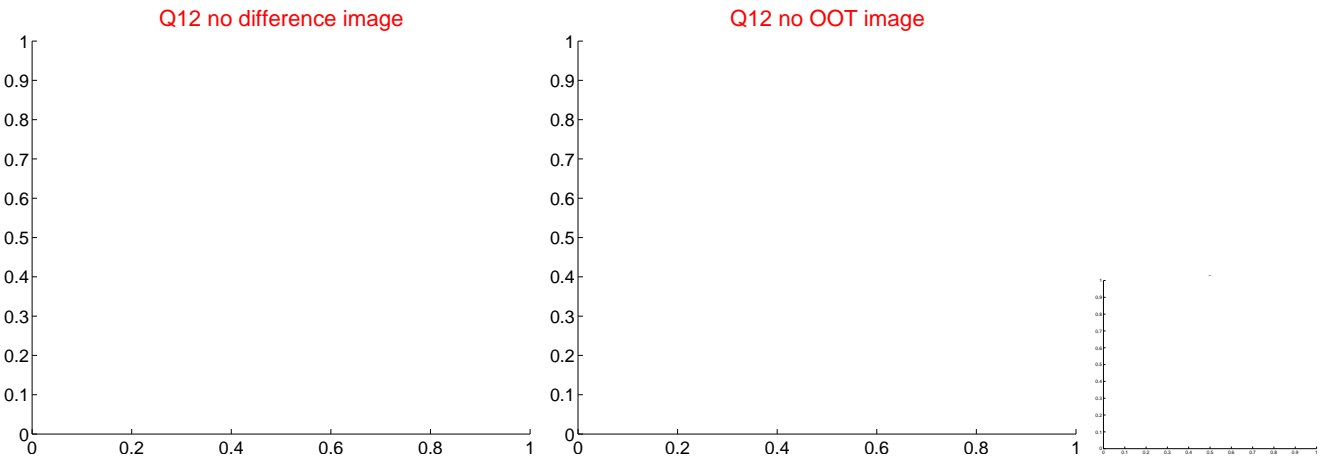
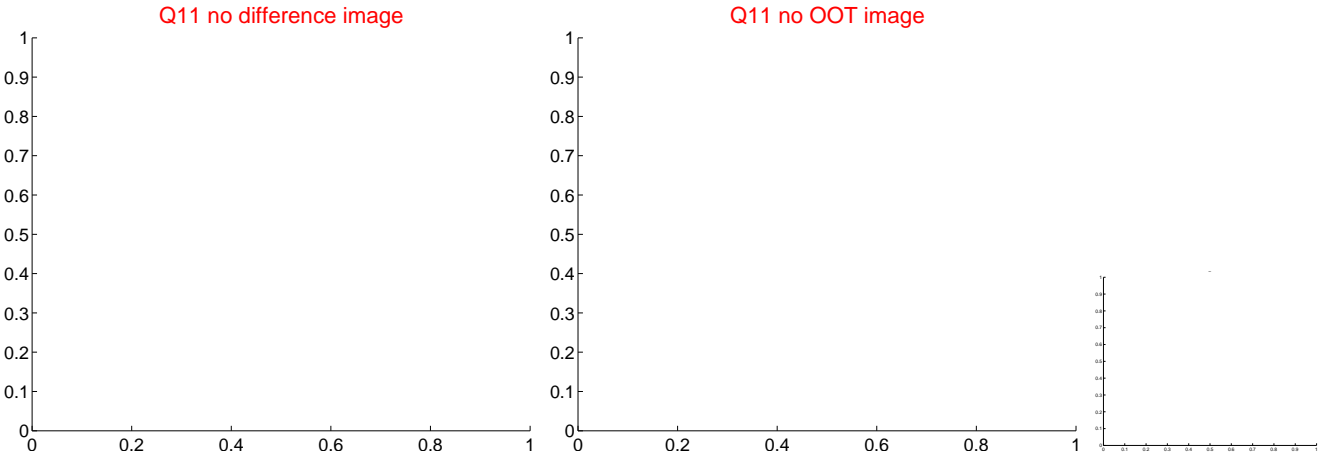
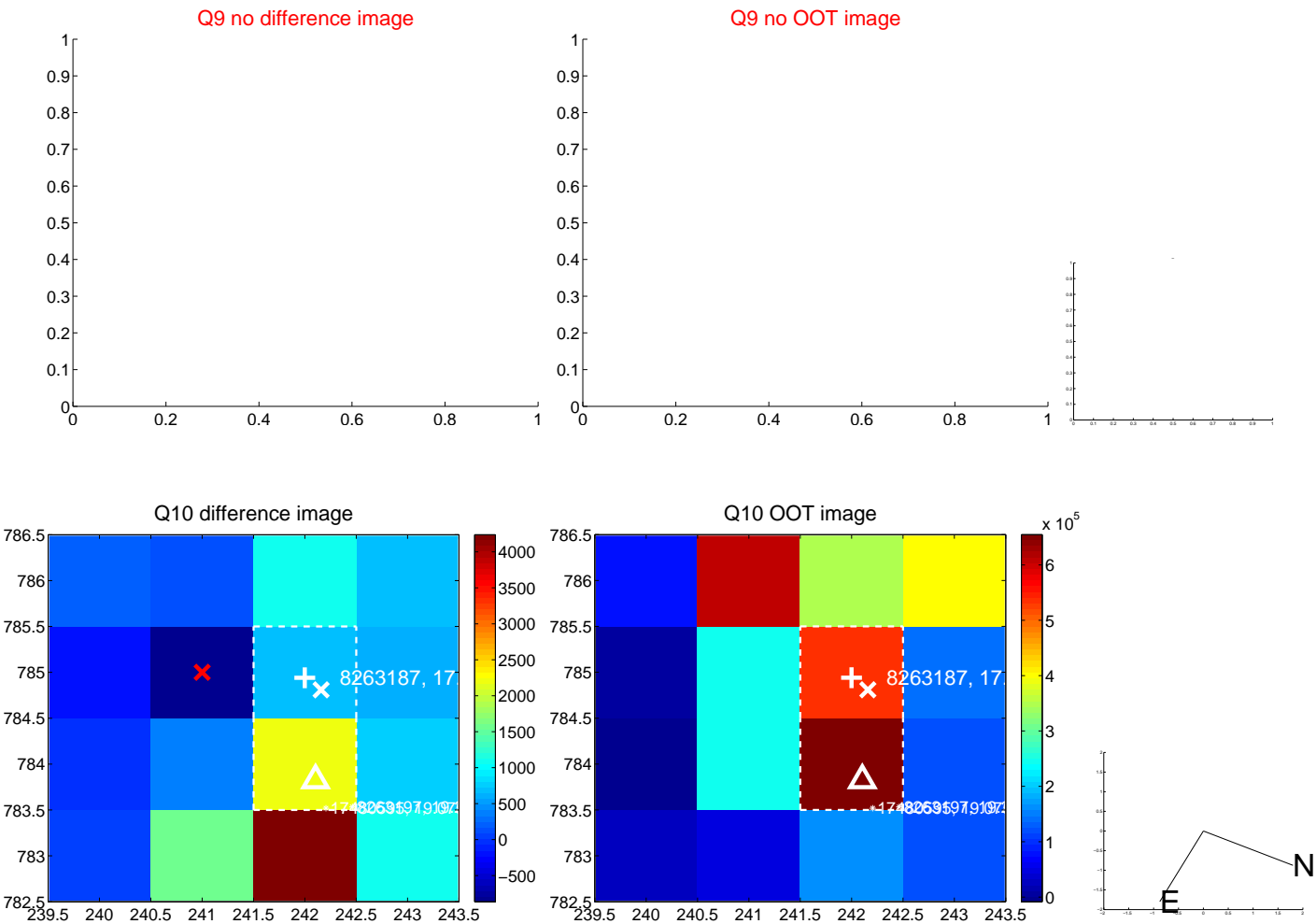
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



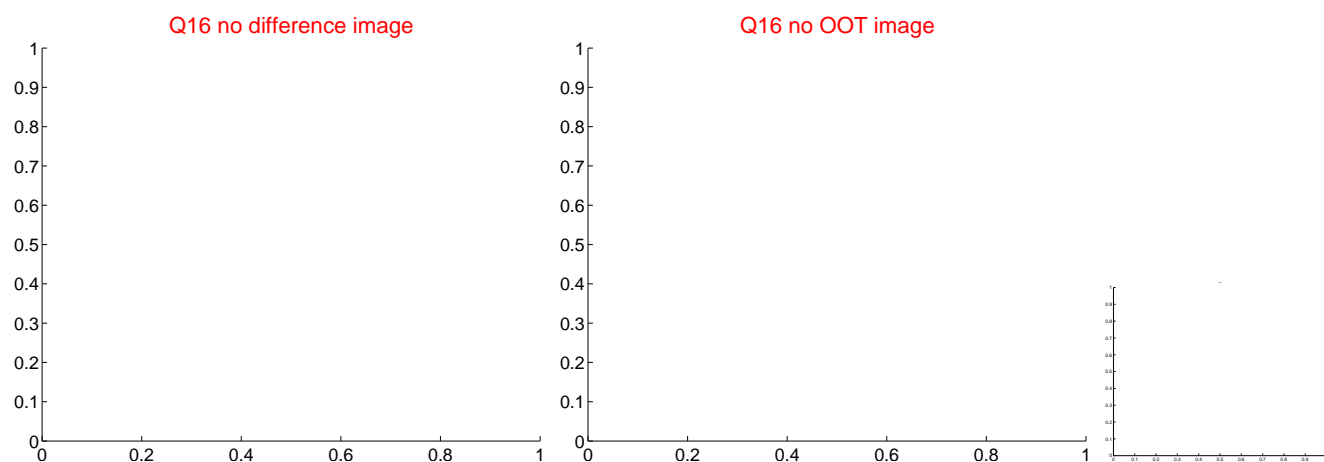
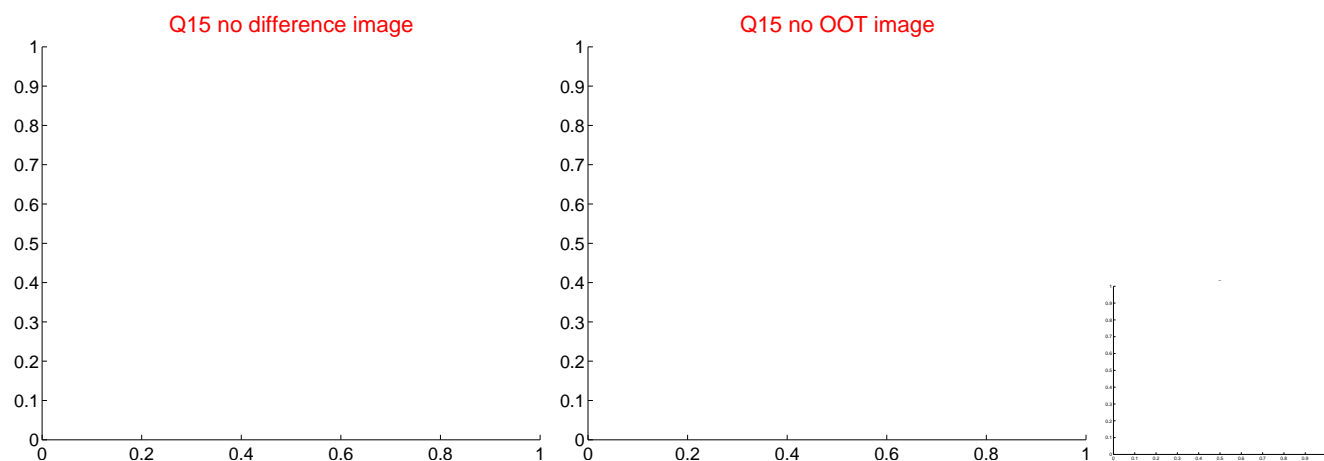
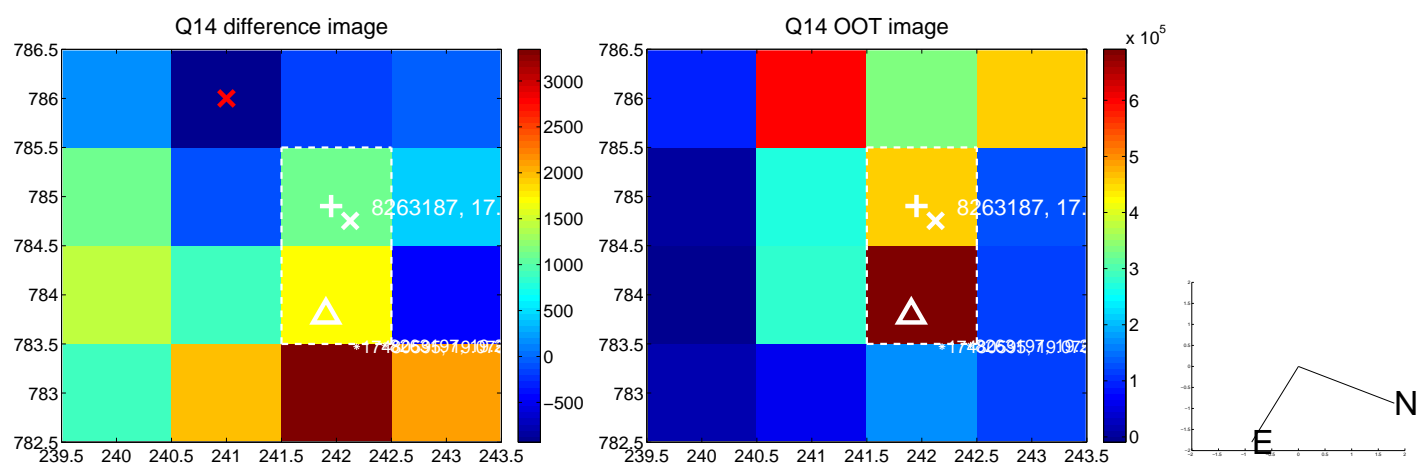
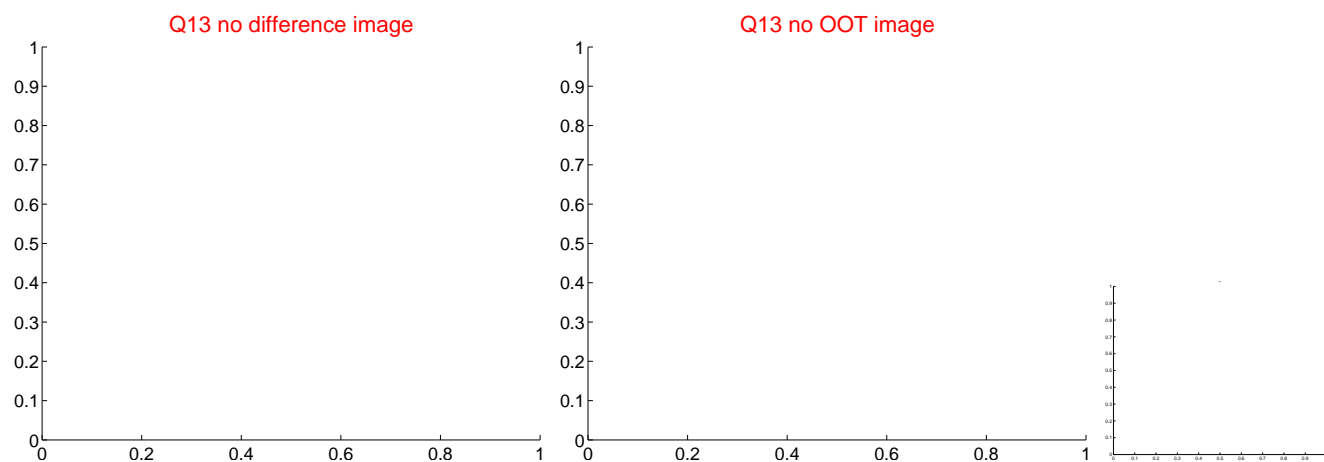
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



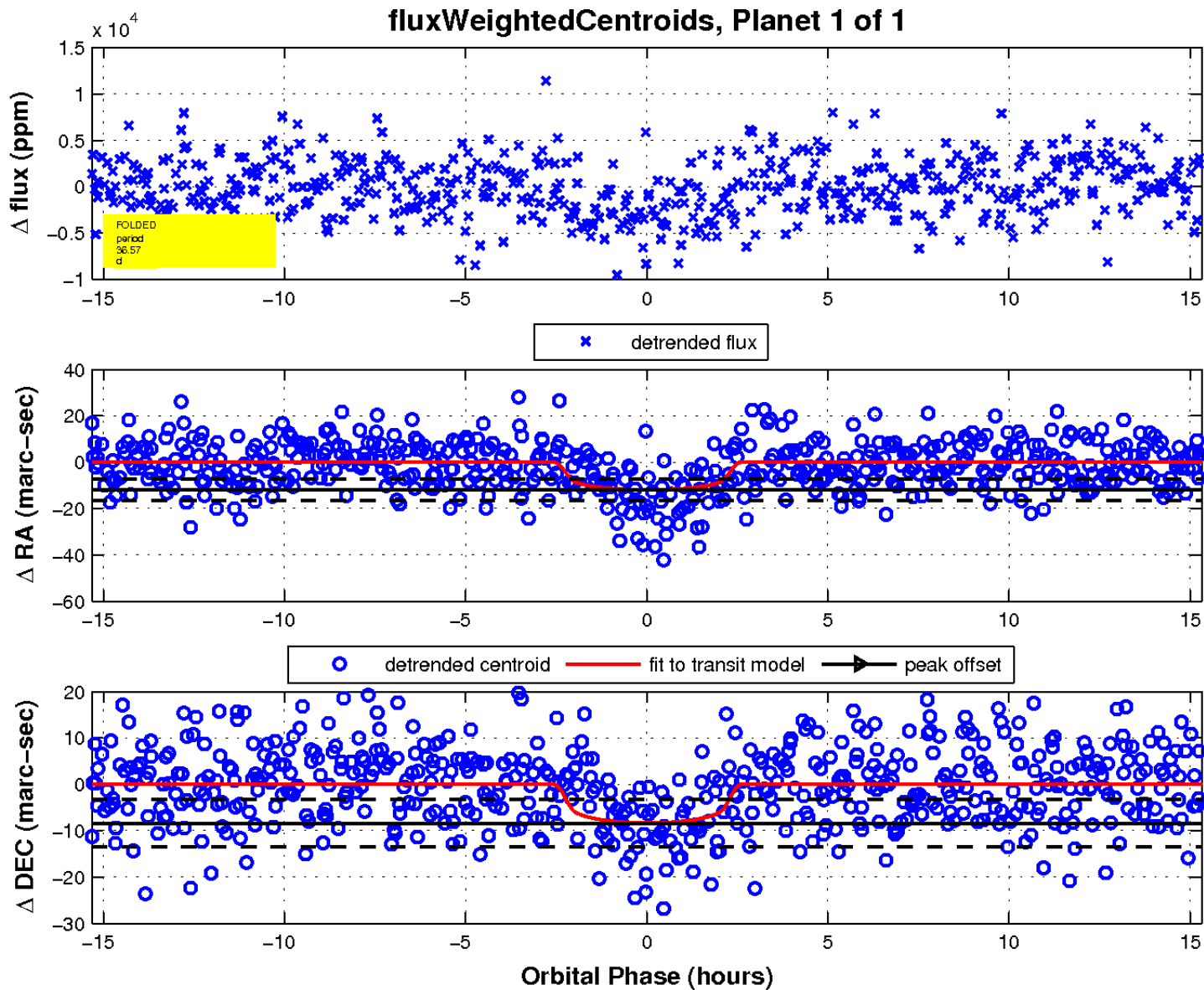
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

Q17 no difference image

Q17 no OOT image



UKIRT Image

Declination

