

KIC 011087662

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})
011087662-01	OBS	8218.01	264.731829	190.854589	264.0	15.172	7.3	5.9	1.46	6564	2.93	4.75

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011087662-01	OBS	FP	0.08	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES

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

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

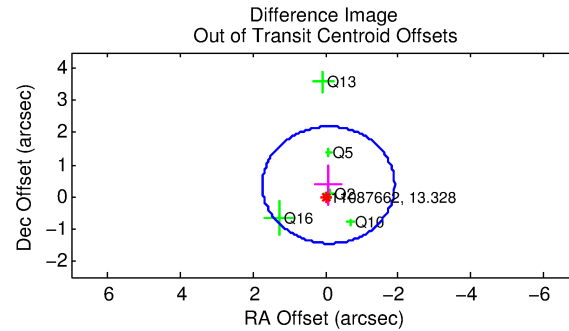
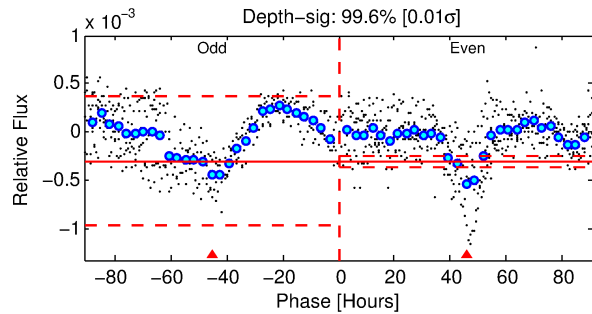
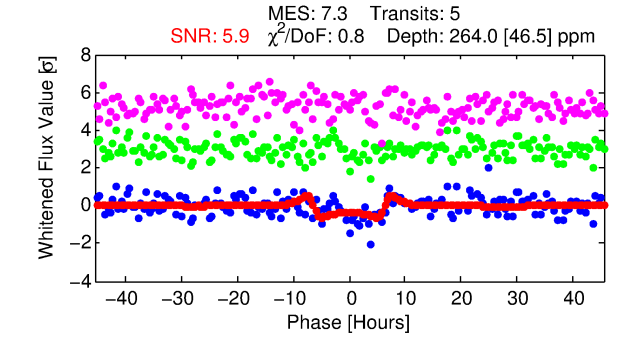
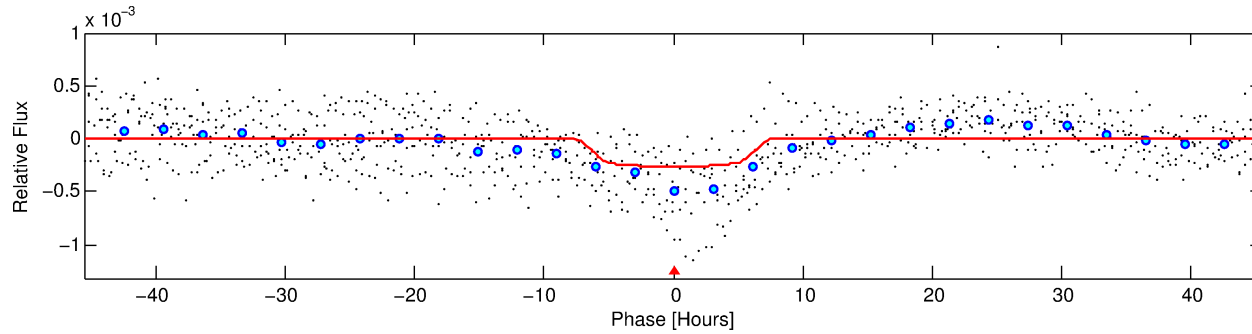
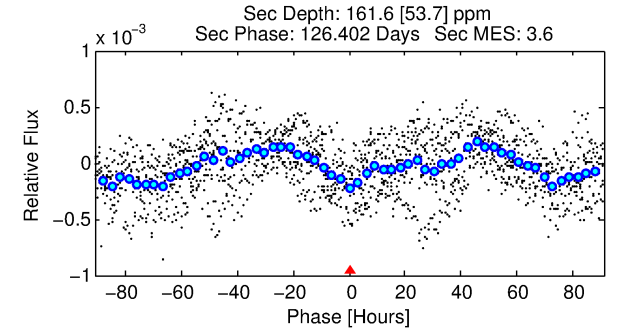
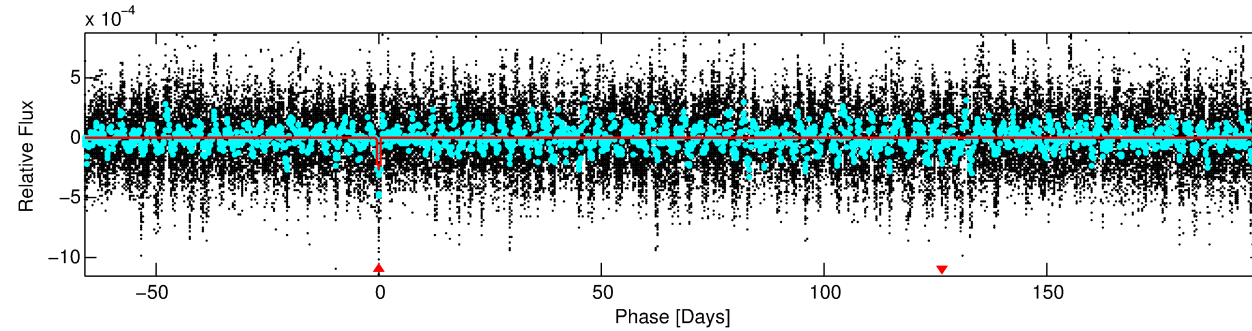
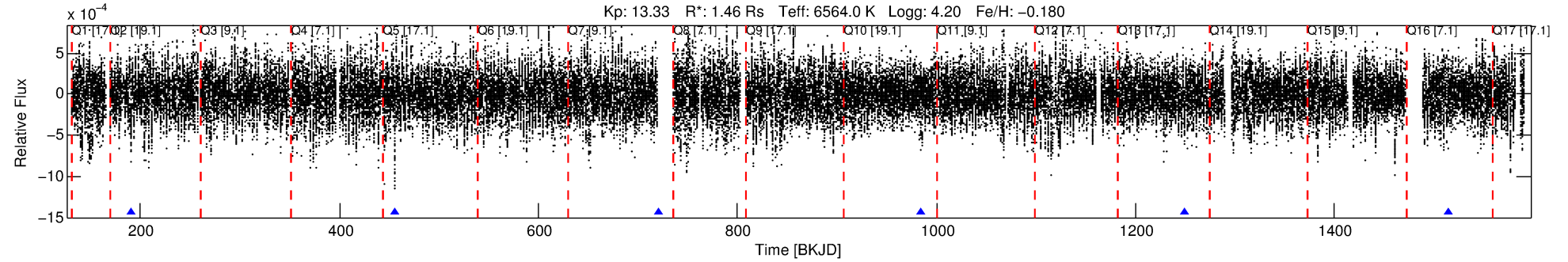
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011087662-01

No Significant Match Found

DV One-Page Summary

KIC: 11087662 Candidate: 1 of 1 Period: 264.732 d



DV Fit Results:

Period = 264.73183 [0.00570] d
Epoch = 190.8546 [0.0189] BKJD
Rp/R* = 0.0184 [0.0018]
a/R* = 48.54 [9.22]
b = 0.95 [0.02]
Seff = 4.75 [1.09]
Teff = 376 [22] K
Rp = 2.93 [0.57] Re
a = 0.8643 [0.1281] AU
Ag = 7715.18 [3454.34] [2.23σ]
Teffp = 5456 [534] K [9.51σ]

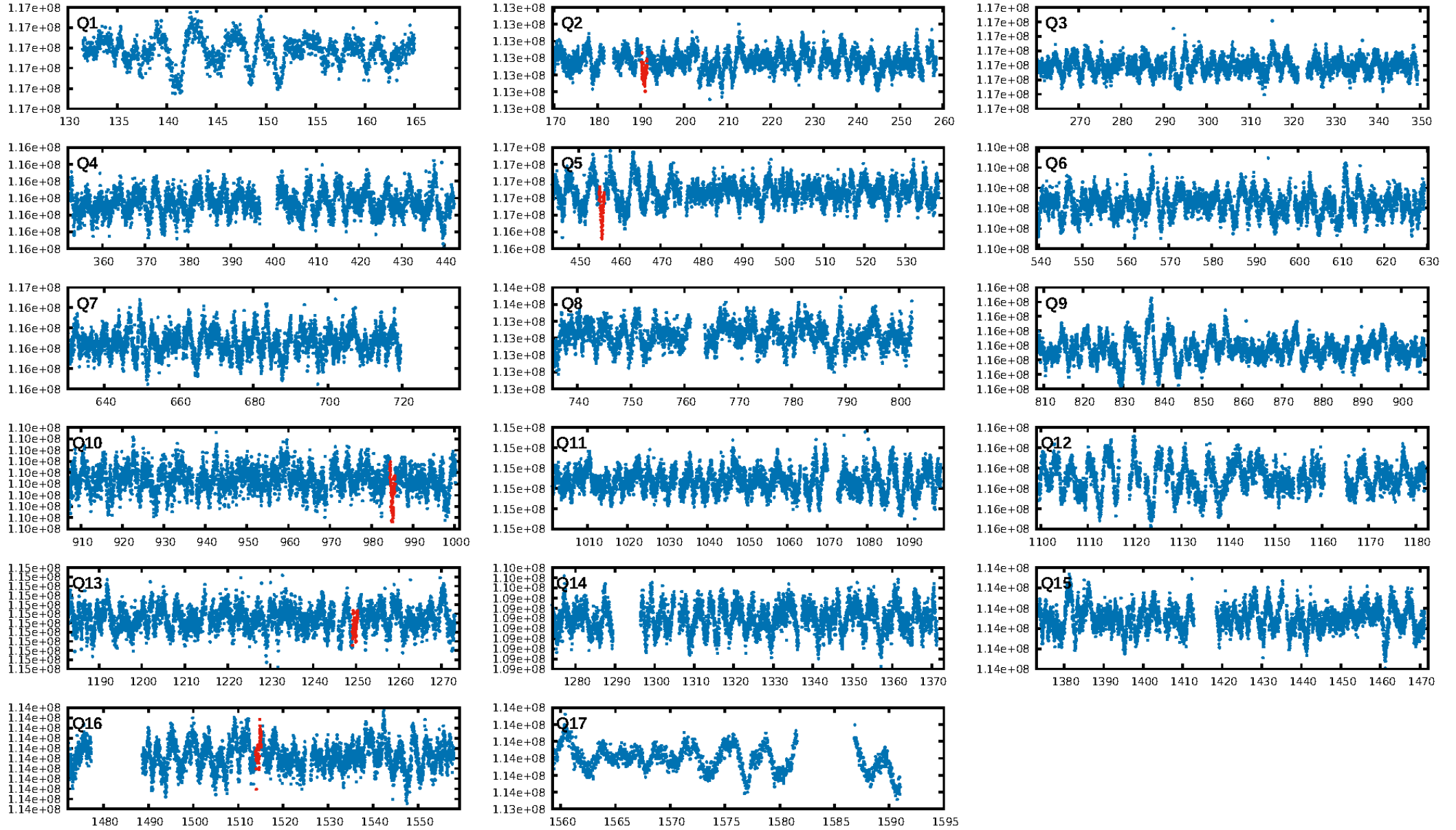
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 58.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.56e-11
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.272
Centroid-sig: 9.9%
Centroid-so: 0.702 arcsec [1.13σ]
OotOffset-rm: 0.373 arcsec [0.62σ]
OotOffset-st: 2/0/1/2 [5]
KicOffset-rm: 0.398 arcsec [0.62σ]
KicOffset-st: 2/0/1/2 [5]
DiffImageQuality-fgm: 0.80 [4/5]
DiffImageOverlap-fno: 1.00 [5/5]

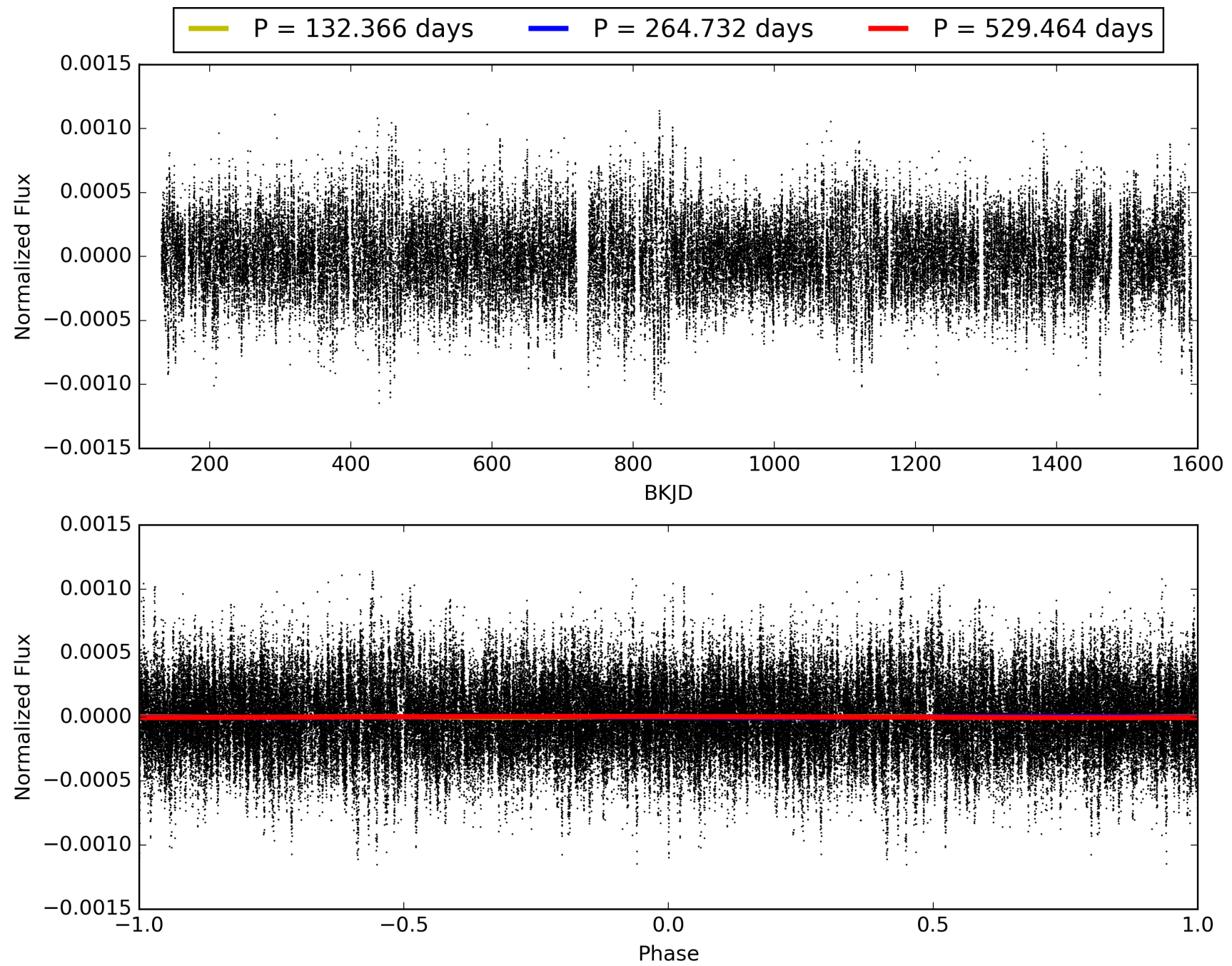
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:55:58 Z

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

TCE 011087662-01, PDC Light Curves

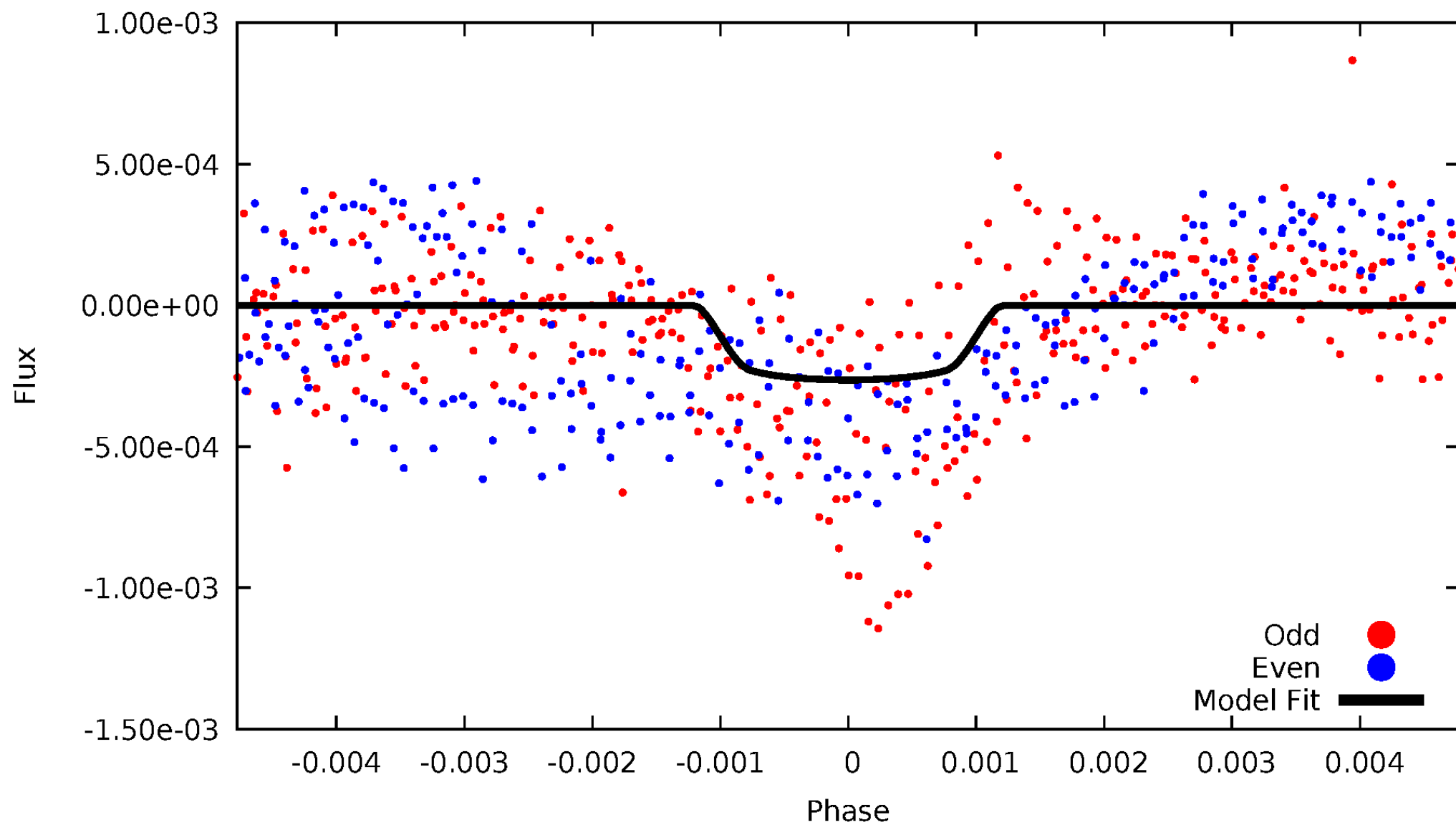


TCE 011087662-01



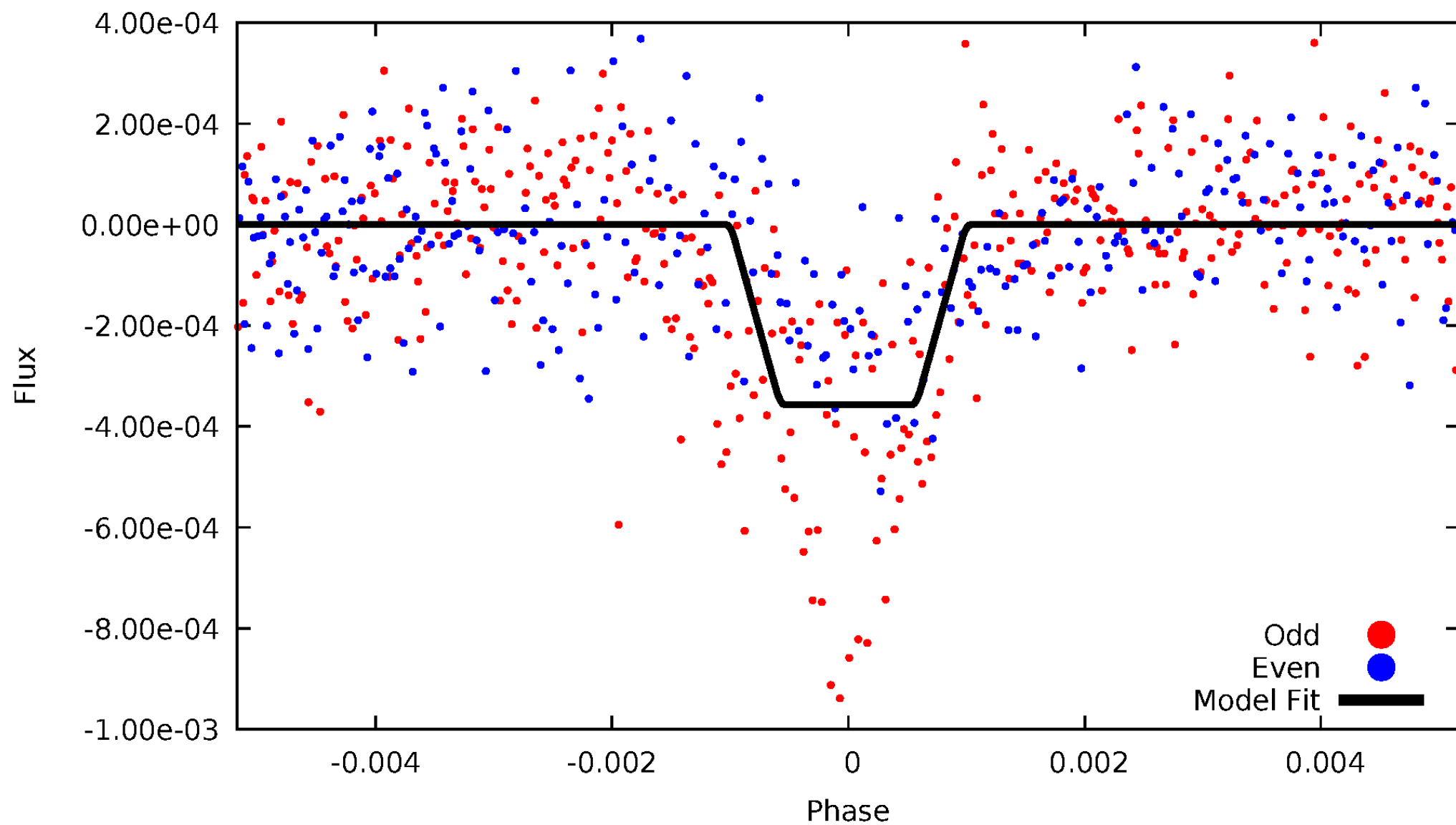
DV Odd/Even

TCE 011087662-01

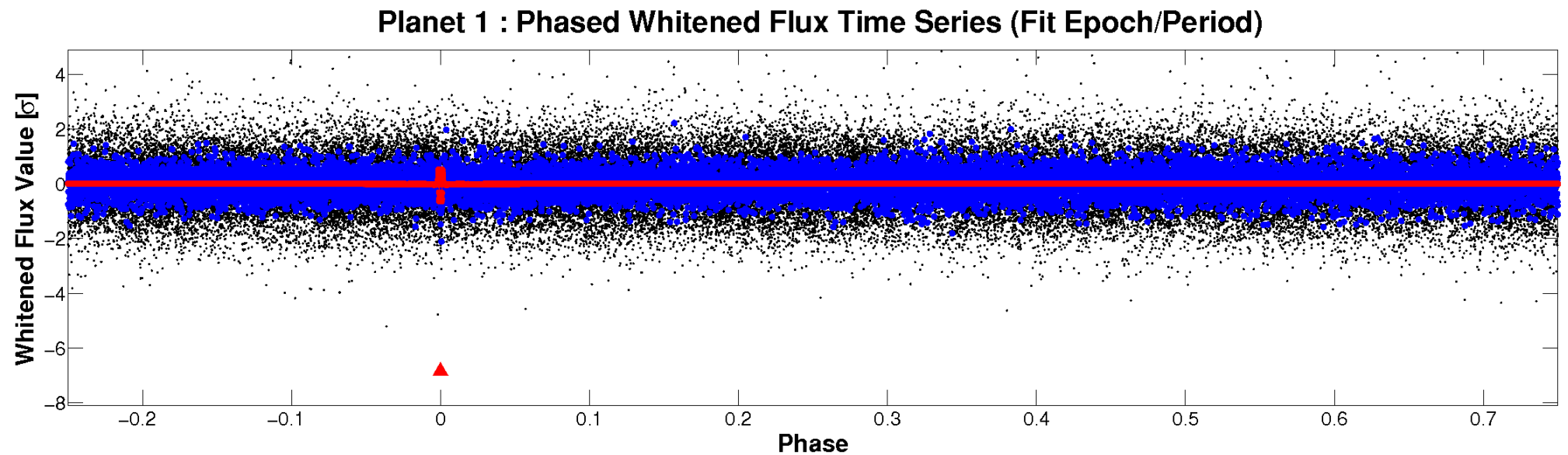
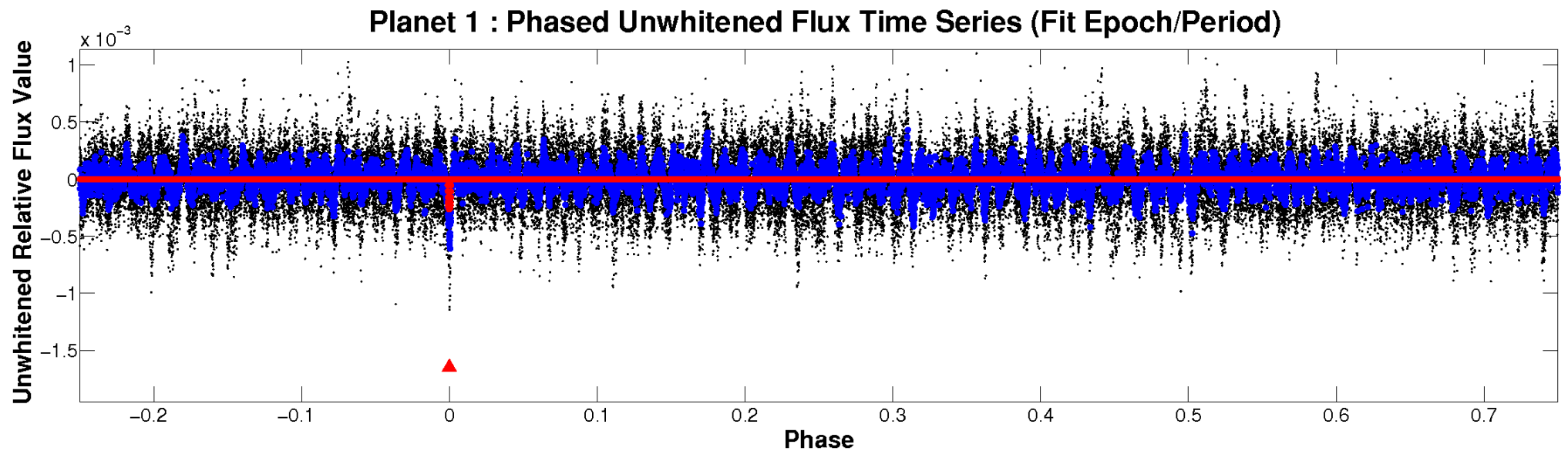


ALT Odd/Even

TCE 011087662-01

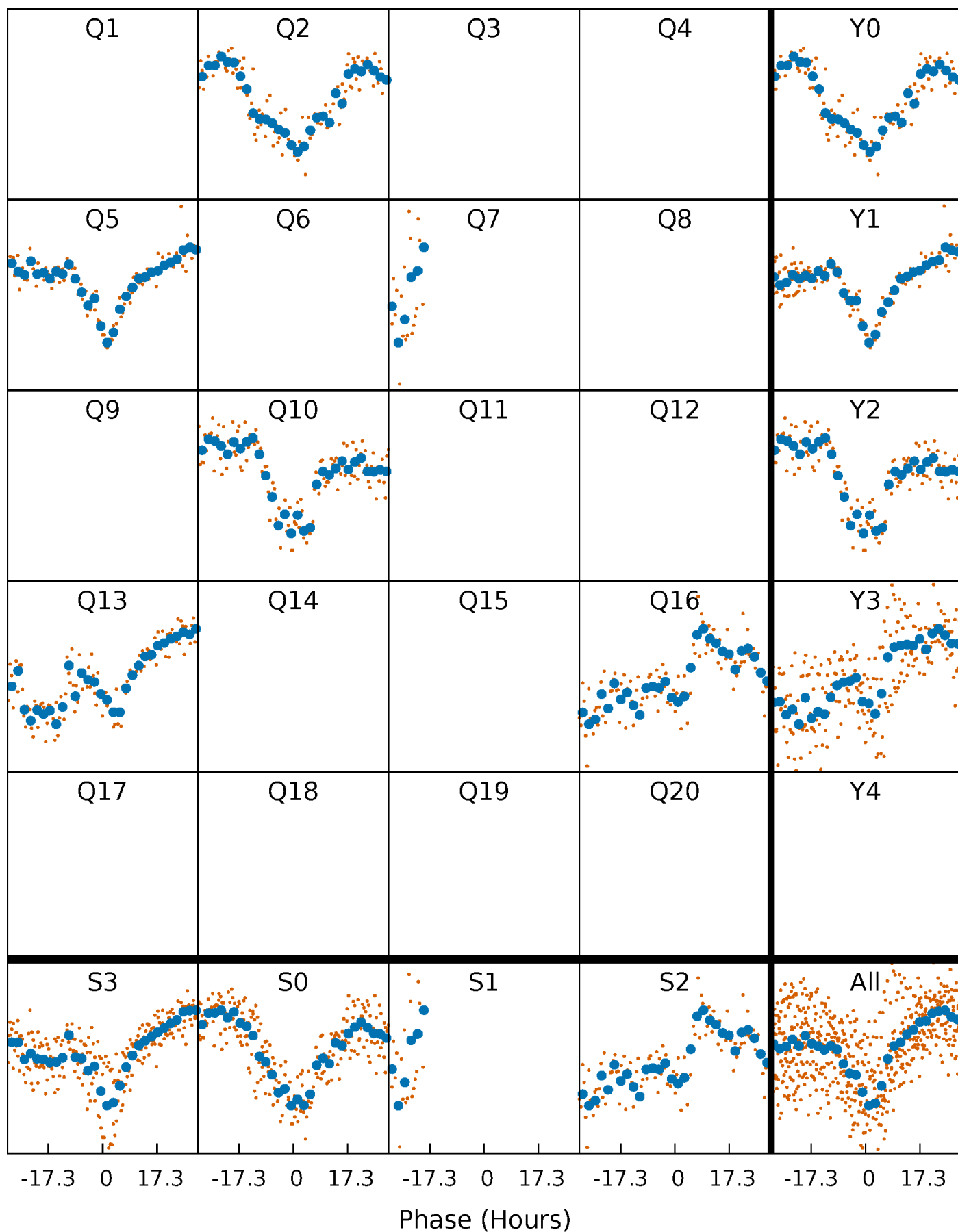


Non-Whitened Vs. Whitened Light Curve



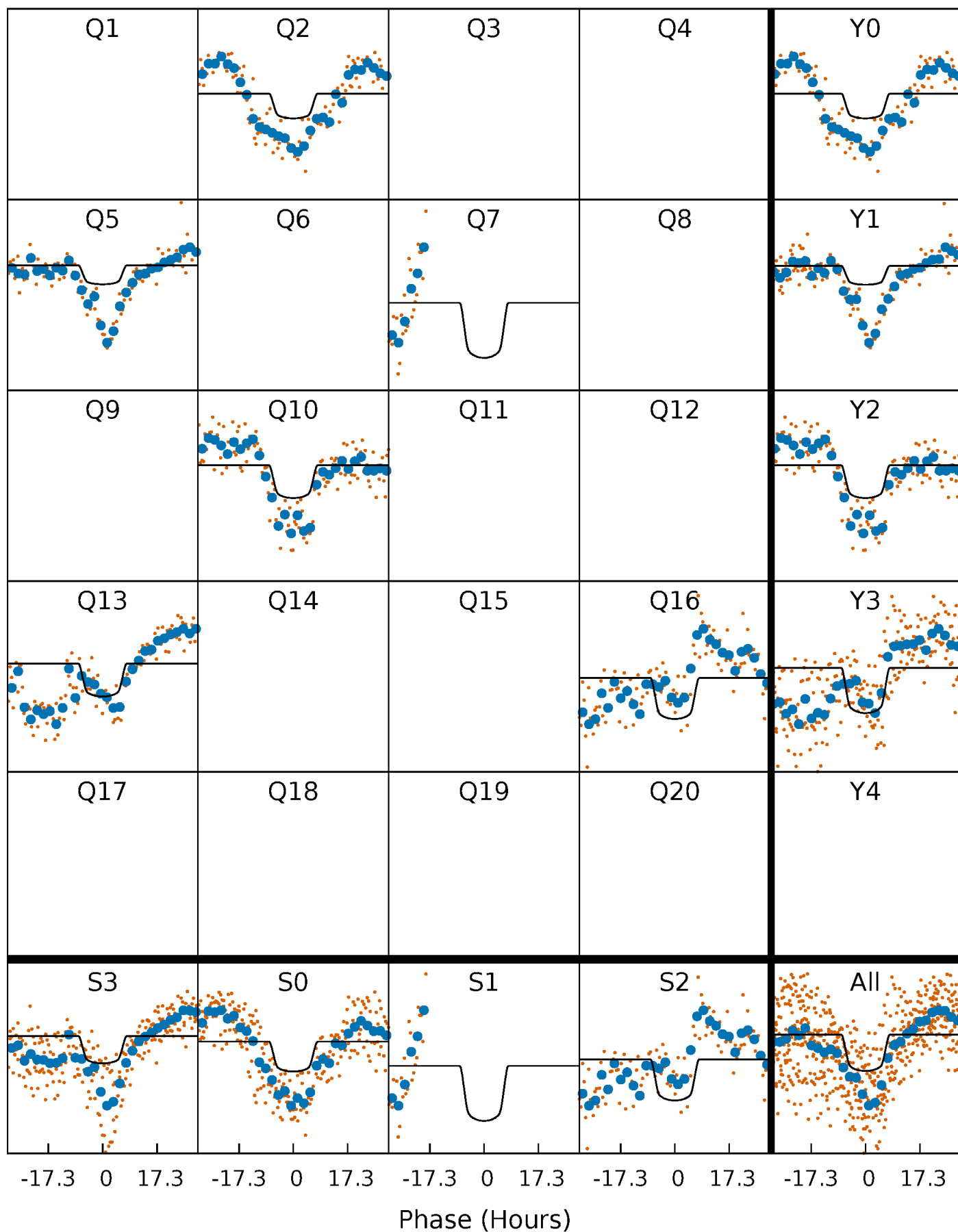
PDC Quarter-Phased Transit Curves

TCE 011087662-01 P=264.731829 Days $T_0=190.854589$ (BKJD)



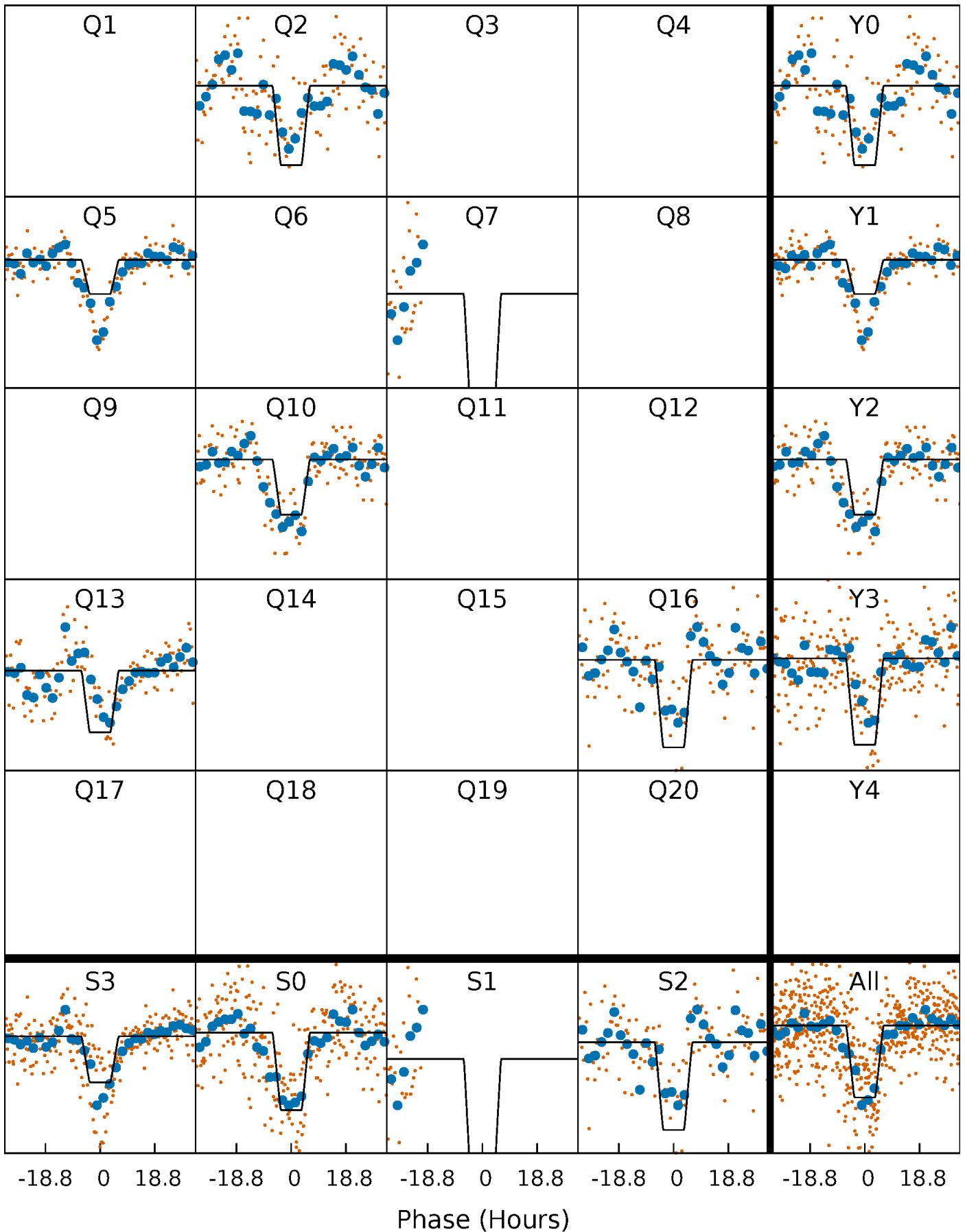
DV Quarter-Phased Transit Curves

TCE 011087662-01 P=264.731829 Days $T_0=190.854589$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

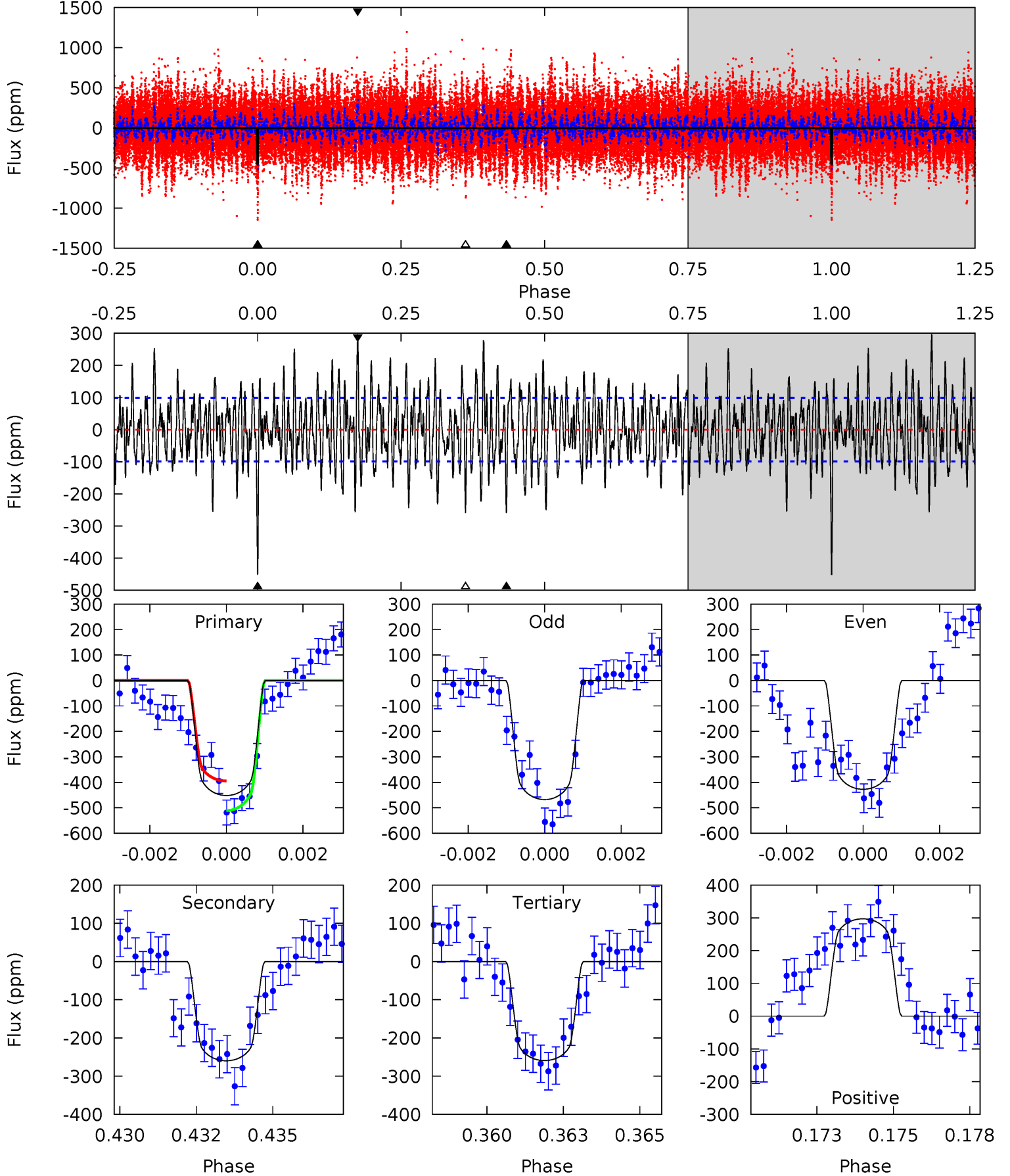
TCE 011087662-01 P=264.723581 Days $T_0=190.943687$ (BKJD)



DV Model-Shift Uniqueness Test

011087662-01, P = 264.731829 Days, E = 190.854589 Days

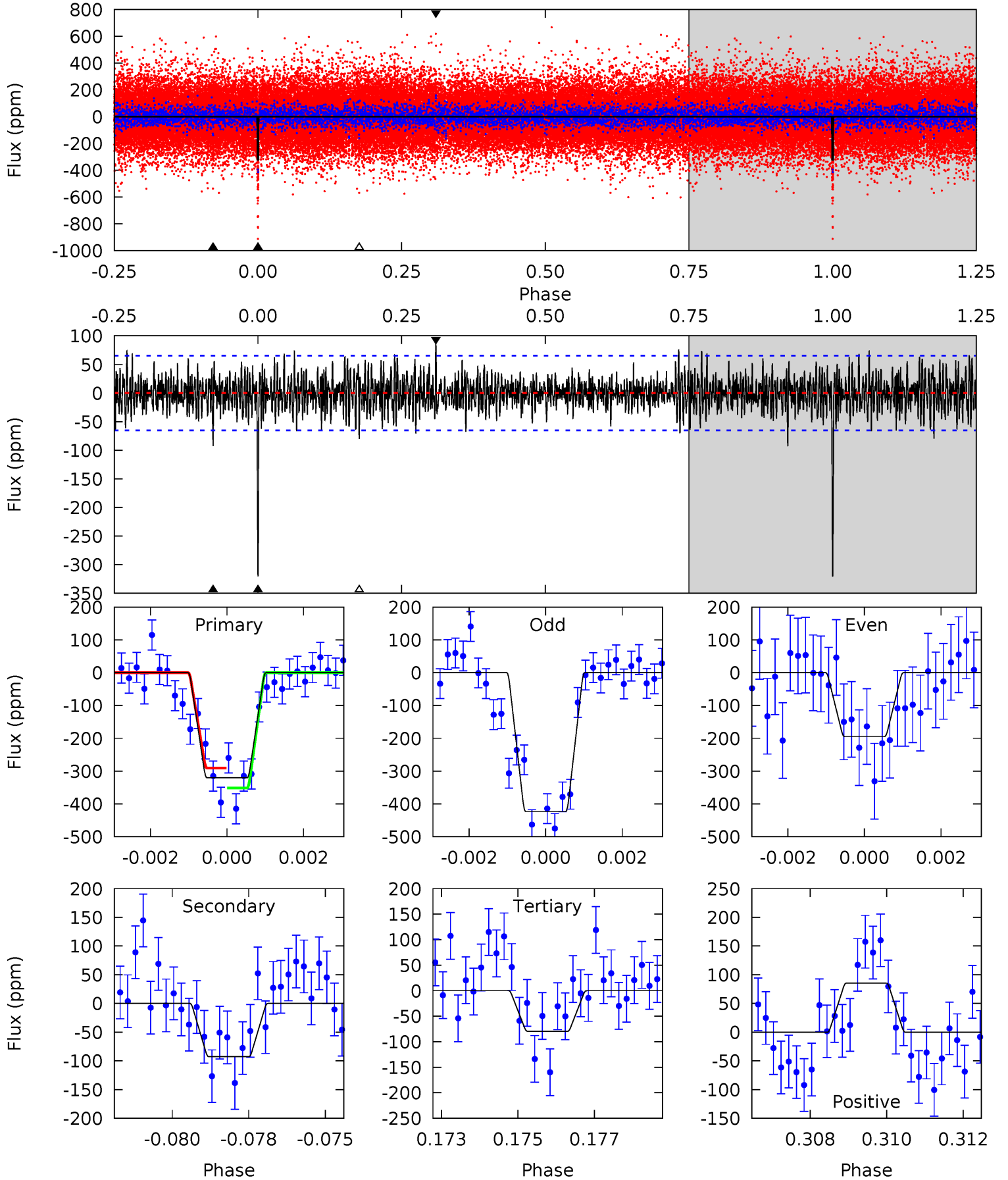
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	13.9	13.9	15.9	5.29	3.04	4.83	10.3	8.27	0.03	-2.00	1.06	0.88	0.40	3.10



Alt Model-Shift Uniqueness Test

011087662-01, P = 264.723581 Days, E = 190.943687 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	7.54	6.48	6.94	5.32	3.08	1.89	19.6	19.2	1.06	0.59	9.19	1.63	0.21	2.49



Stellar Parameters For KIC 011087662

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6564^{+72}_{-85}	$4.198^{+0.126}_{-0.115}$	$-0.180^{+0.150}_{-0.150}$	$1.461^{+0.246}_{-0.221}$	$1.235^{+0.092}_{-0.103}$	$0.557^{+0.331}_{-0.192}$
	+1%/-1%	+3%/-3%	+83%/-83%	+17%/-15%	+7%/-8%	+59%/-34%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 011087662-01 / KOI 8218.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-260 ± 19	$2.93^{+0.42}_{-0.39}$	526^{+24}_{-23}	6137^{+351}_{-322}	12499^{+4012}_{-3079}
Alt.	-93 ± 12	$3.00^{+0.41}_{-0.40}$	526^{+24}_{-24}	4805^{+239}_{-237}	4305^{+1412}_{-1195}

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

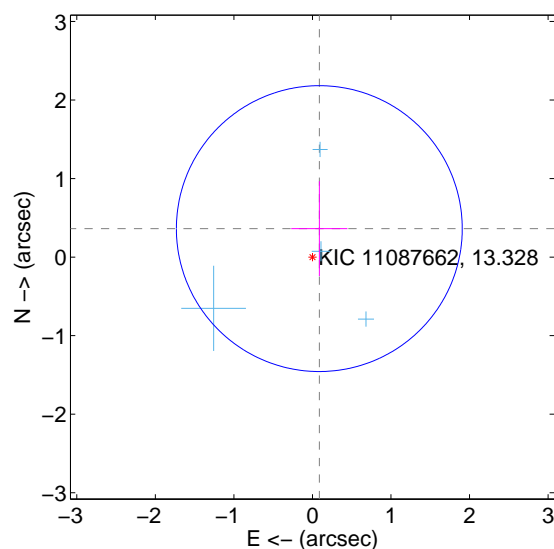
Supplemental centroid analysis for 011087662-01. Kepler magnitude: 13.33. Transit SNR 5.93

There are 4 quarters with good PRF difference image offsets

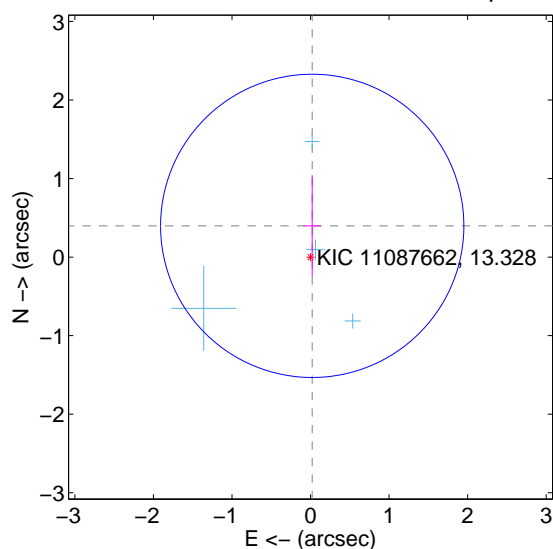
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.373 ± 0.607	0.62	-0.088 ± 0.359	0.363 ± 0.604
PRF-fit source offset from KIC position	0.398 ± 0.644	0.62	-0.021 ± 0.114	0.398 ± 0.644
photometric centroid source offset	0.70 ± 0.62	1.13	0.14 ± 0.71	0.69 ± 0.62

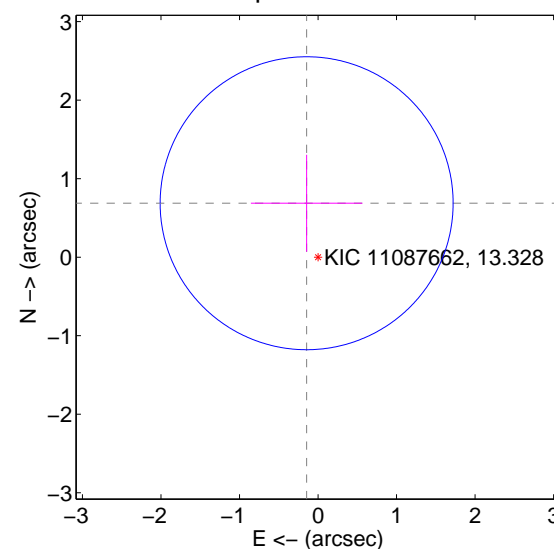
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

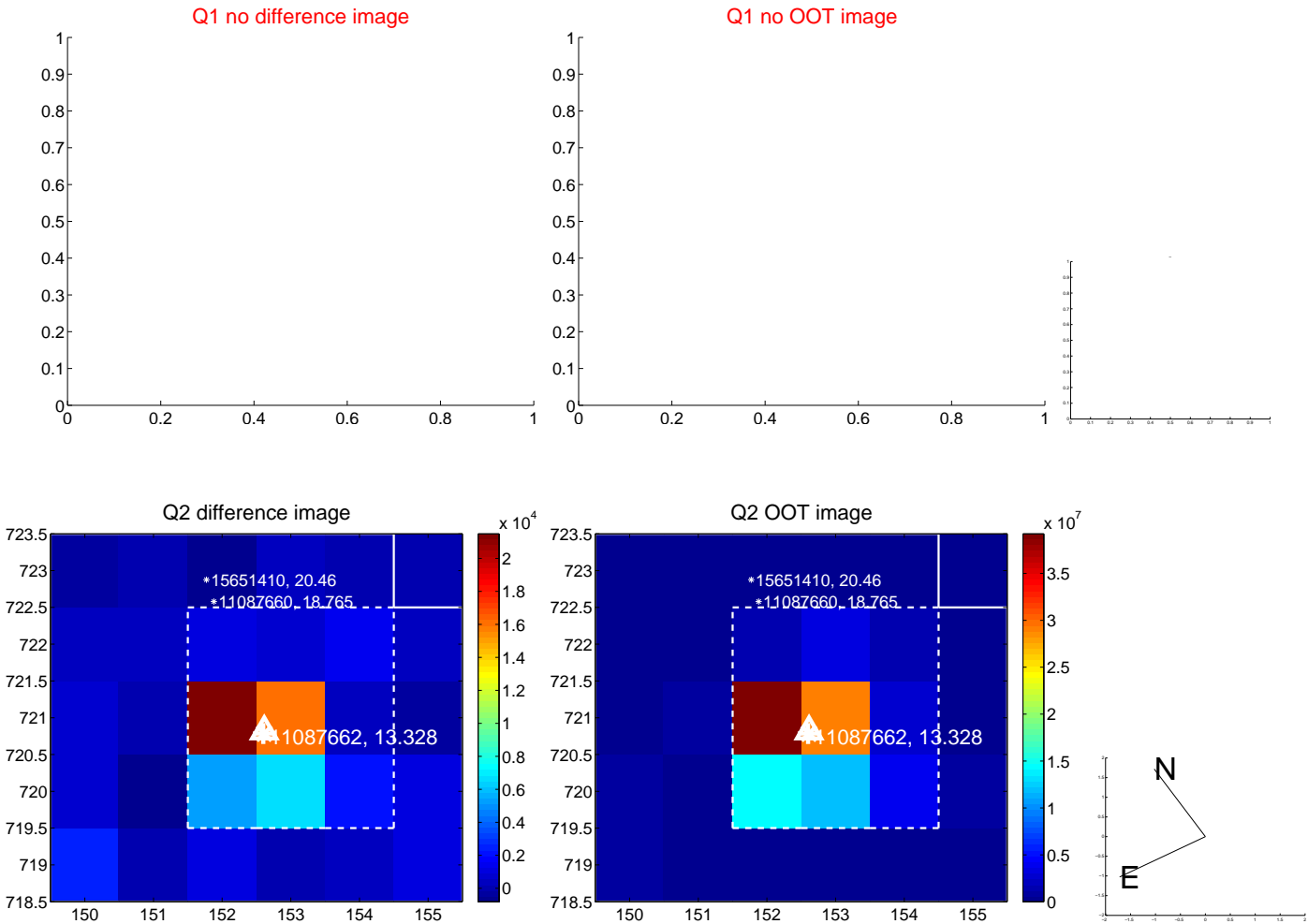


offset from photometric centroids

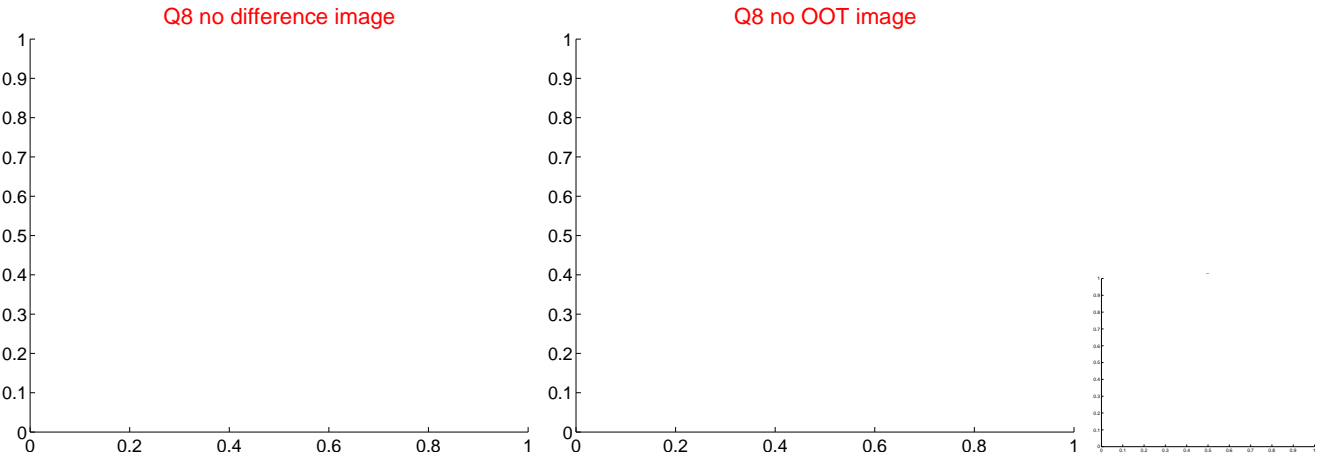
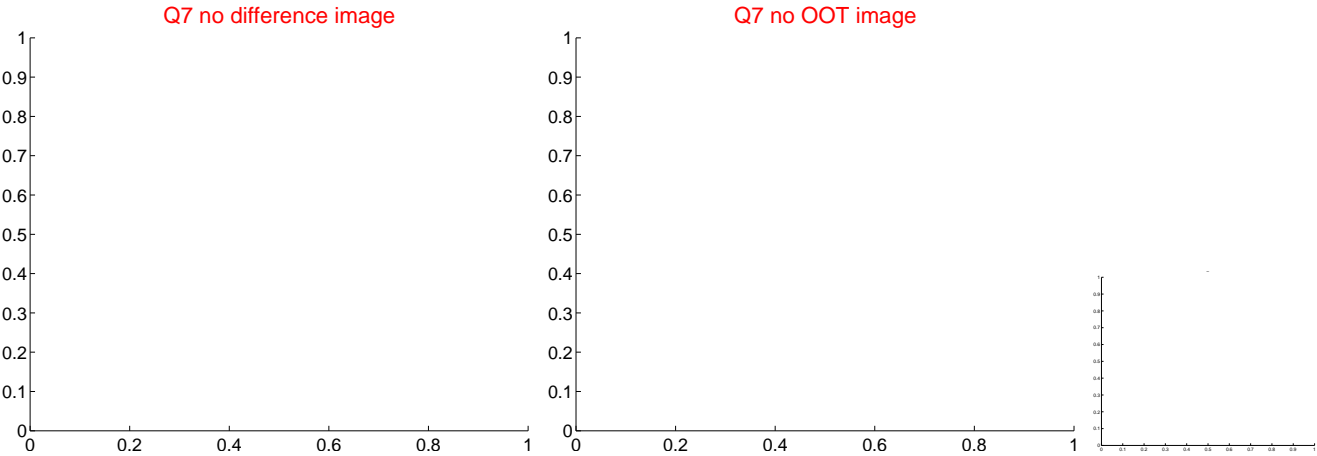
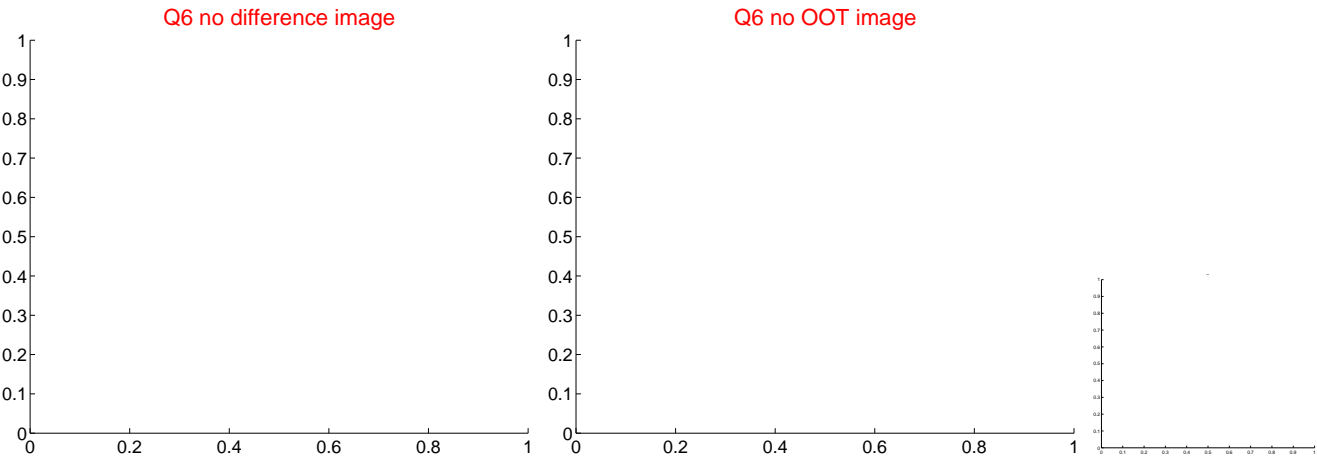
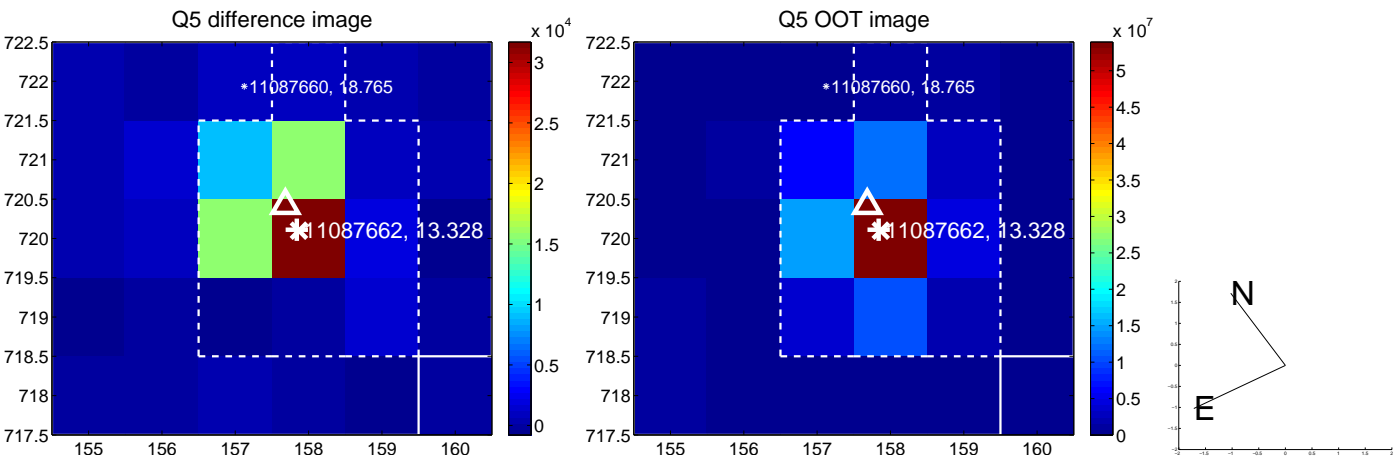


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

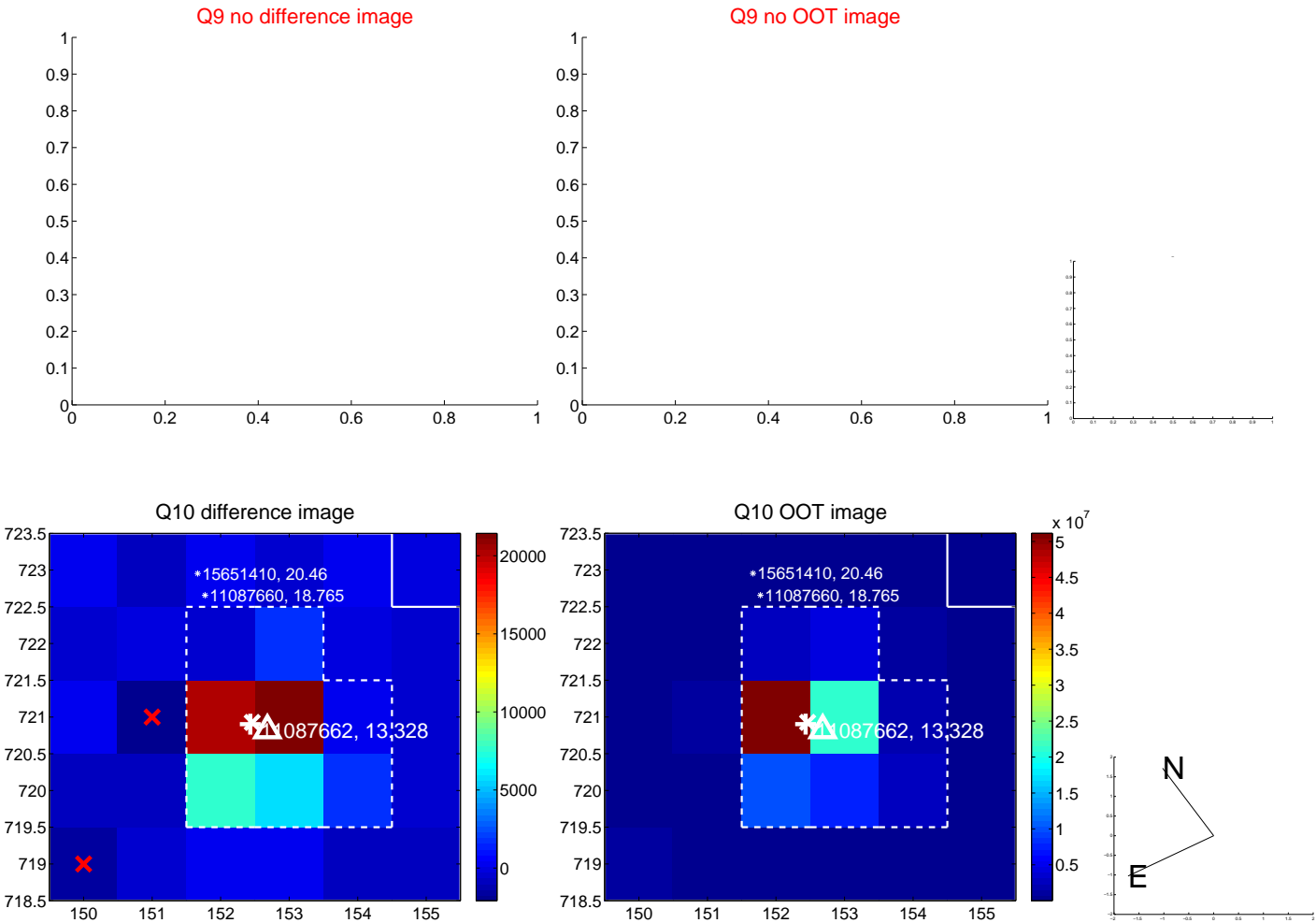
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



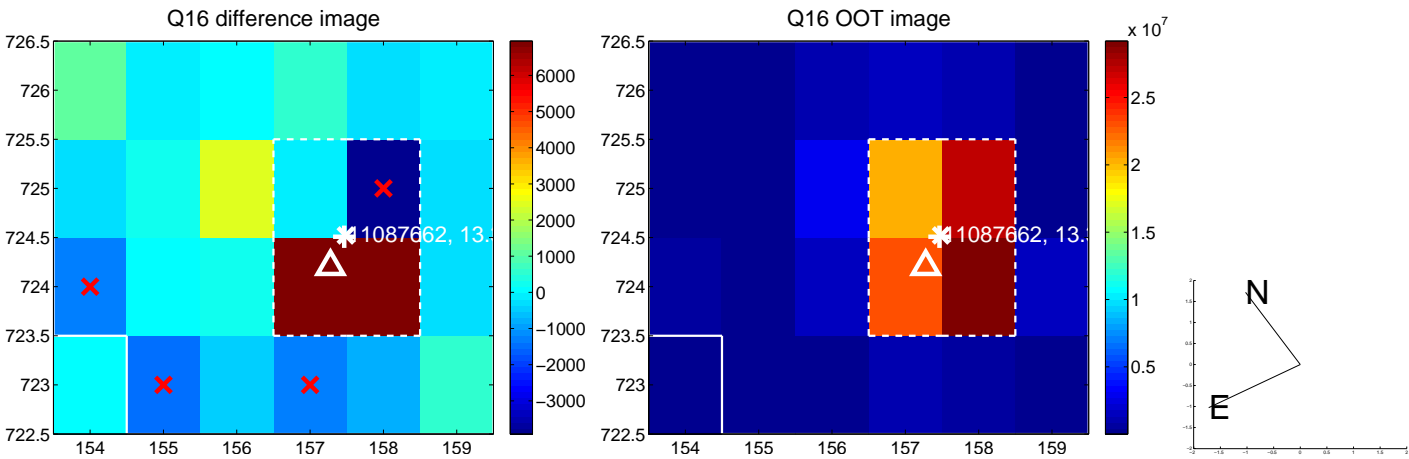
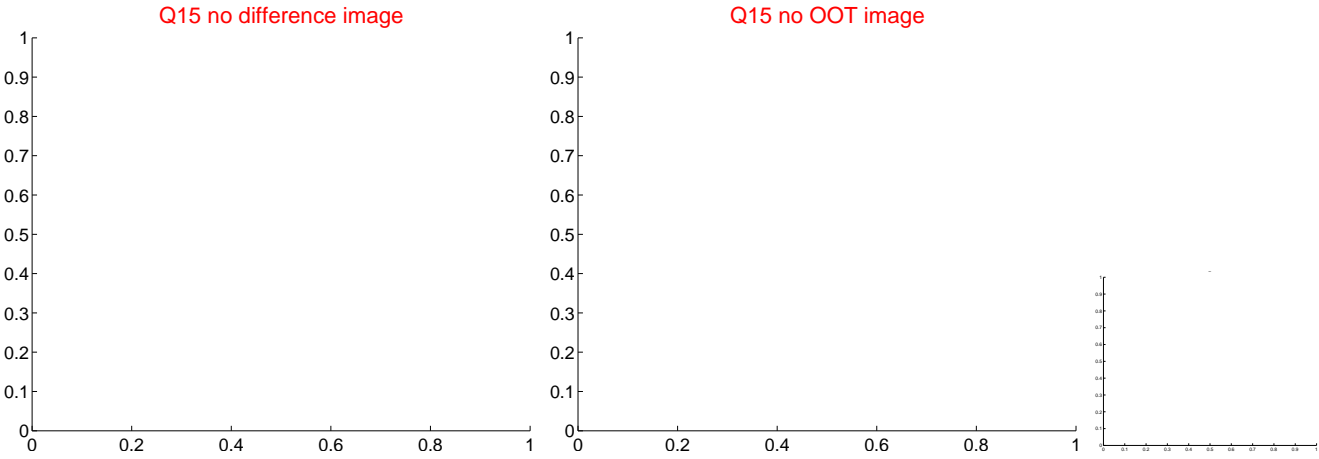
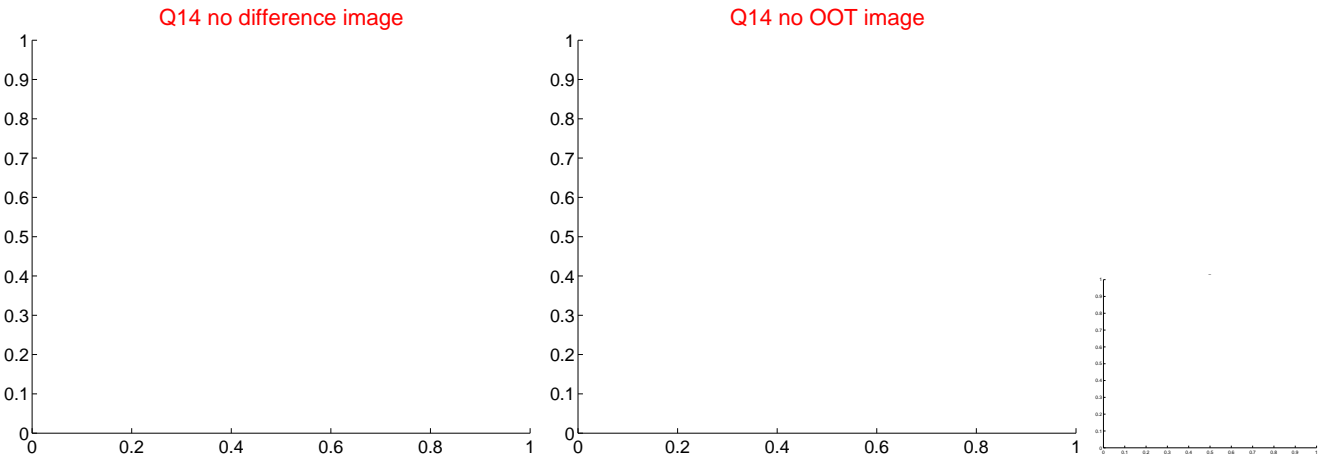
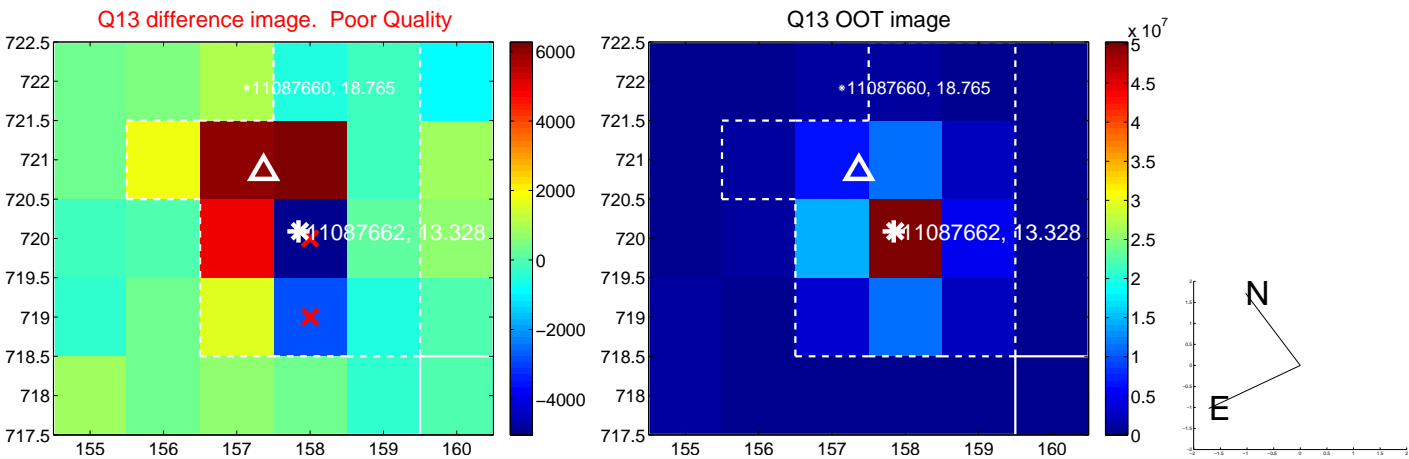
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



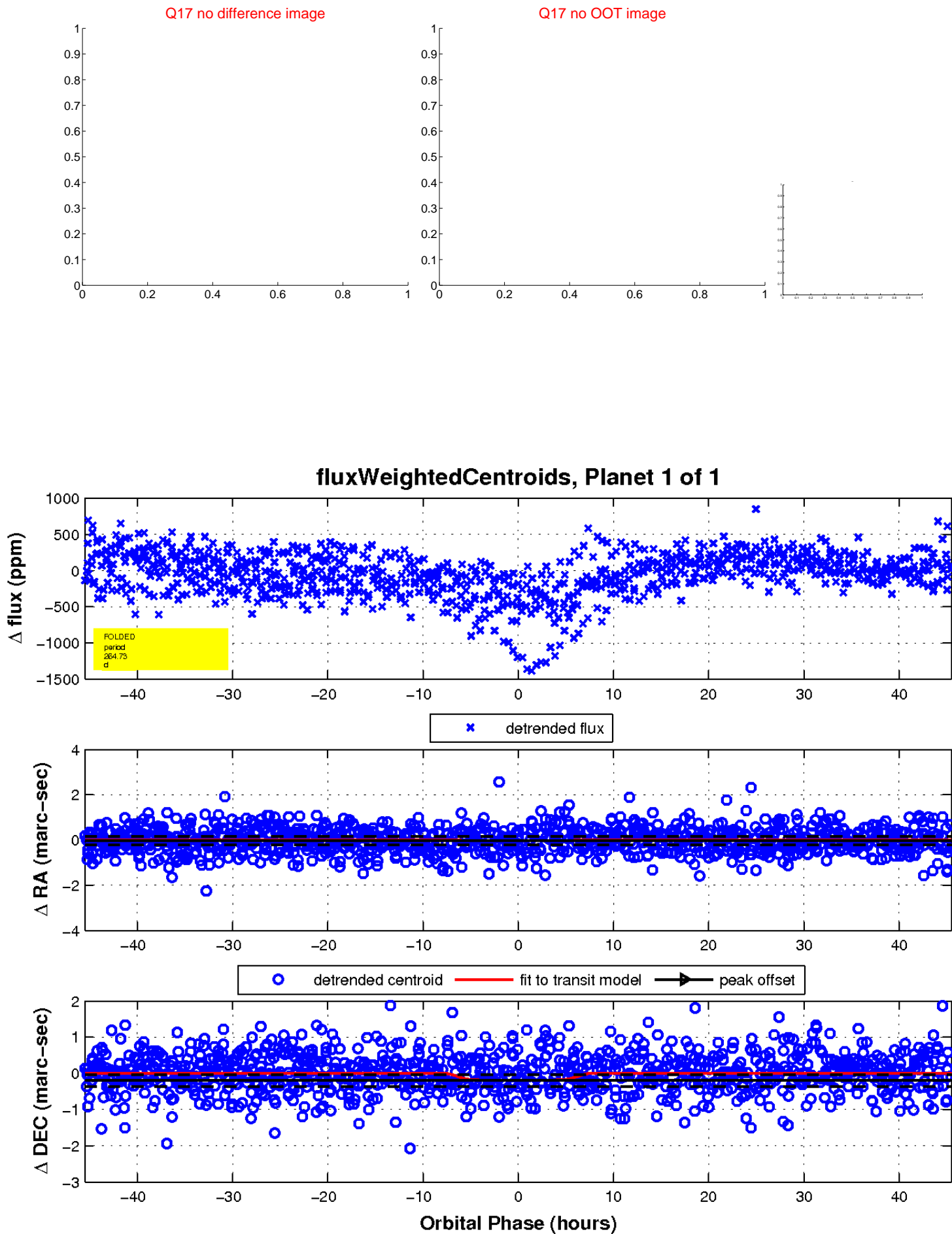
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

