

KIC 008879564

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})
008879564-01	OBS	No	386.975258	166.176154	1490.5	13.838	8.5	8.3	0.91	5955	3.59	0.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008879564-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

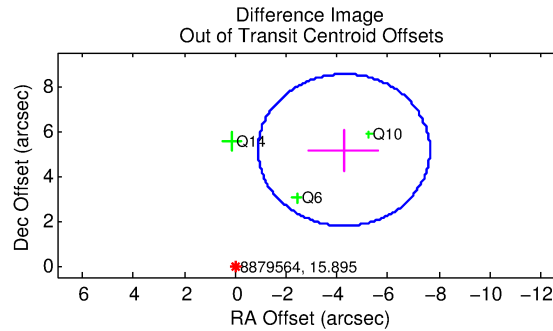
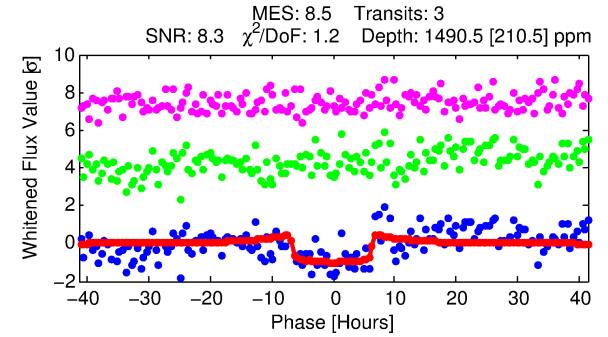
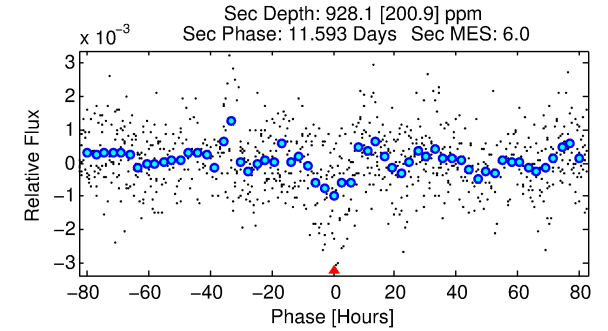
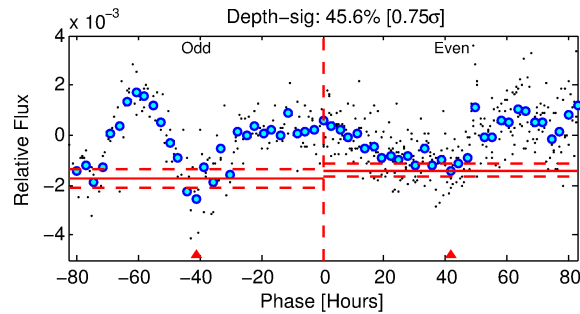
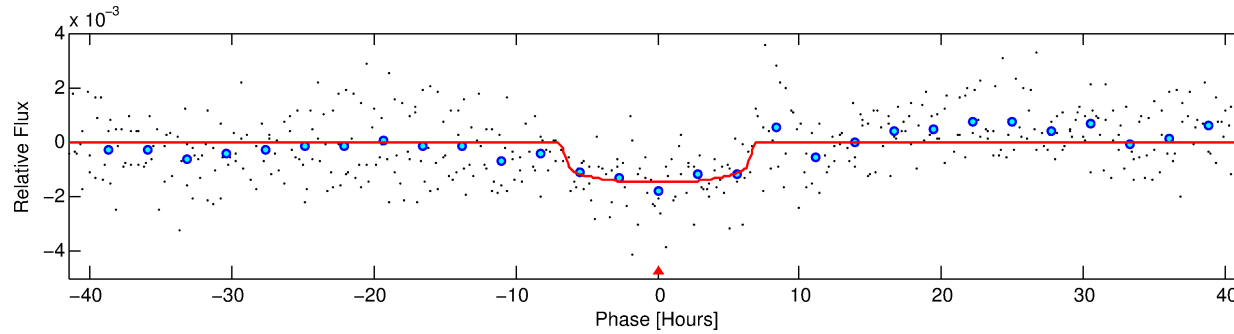
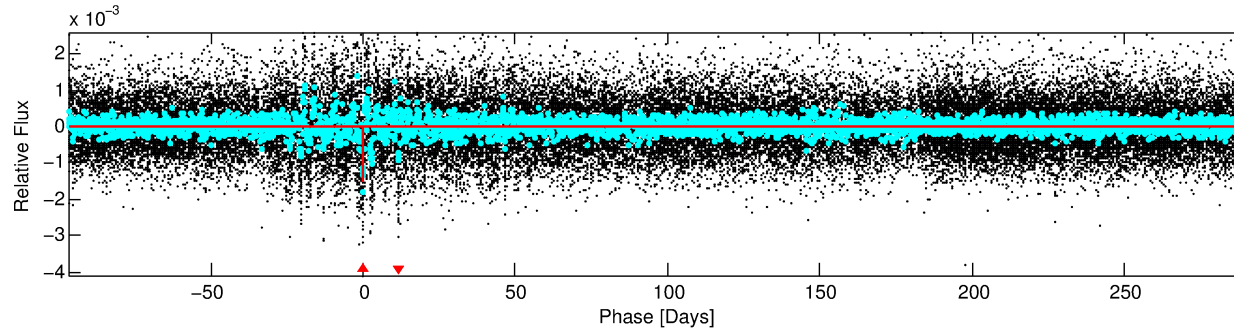
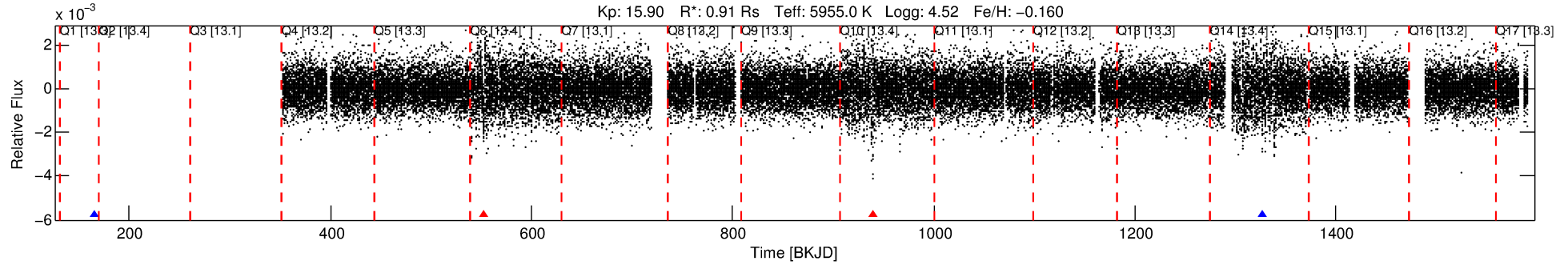
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008879564-01

No Significant Match Found

DV One-Page Summary

KIC: 8879564 Candidate: 1 of 1 Period: 386.975 d



DV Fit Results:

Period = 386.97526 [0.01347] d
Epoch = 166.1762 [0.0271] BKJD
Rp/R* = 0.0361 [0.0154]
a/R* = 197.93 [385.08]
b = 0.46 [3.32]
Seff = 0.86 [0.35]
Teq = 246 [25] K
Rp = 3.59 [1.89] Re
a = 1.0396 [0.2727] AU
Ag = 42892.48 [41222.65] [1.04 σ]
Teffp = 5469 [1218] K [4.29 σ]

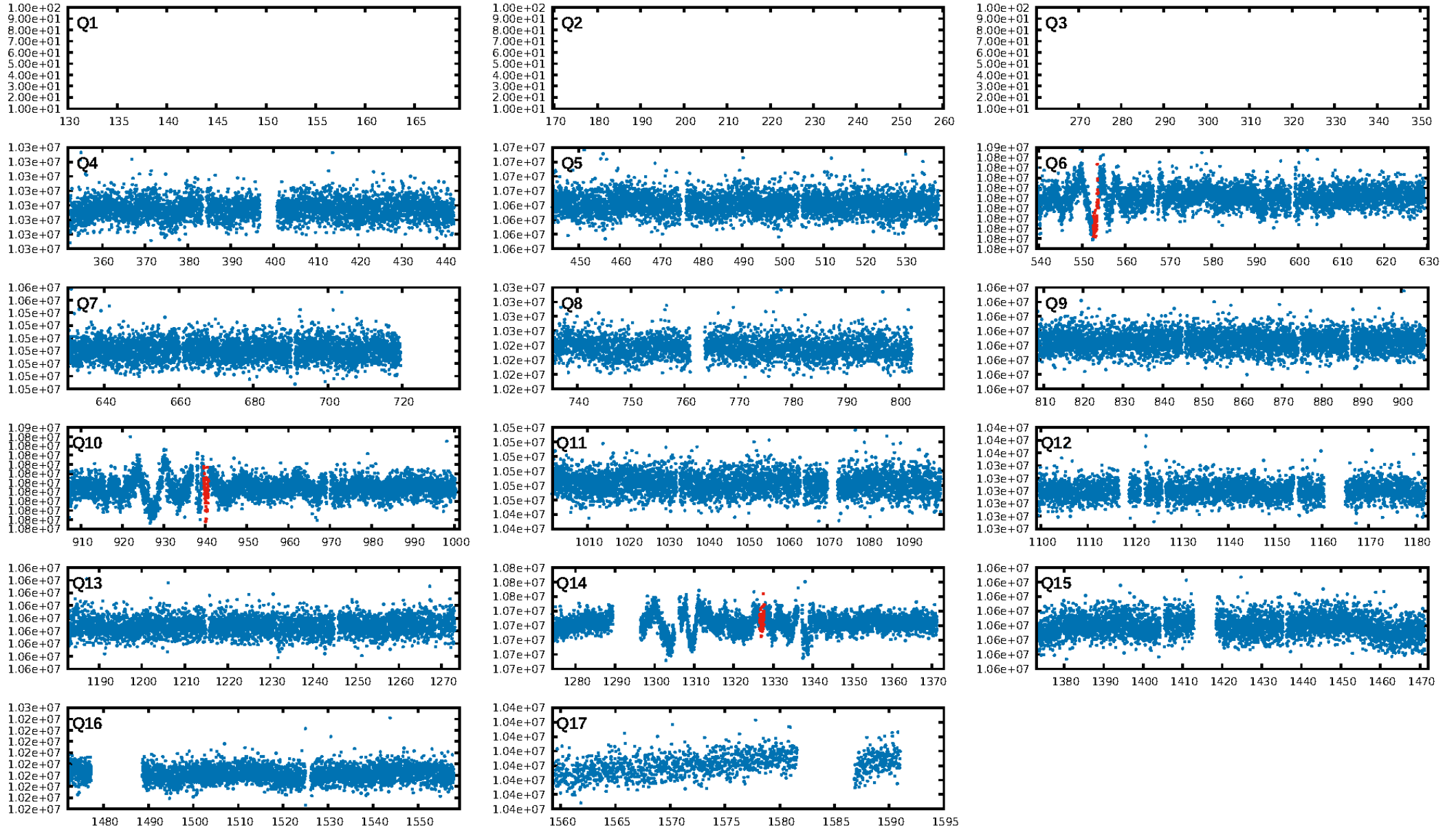
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.9%
ModelChiSquareGof-sig: 95.2%
Bootstrap-pfa: 9.74e-11
RollingBand-fgt: 0.33 [1/3]
GhostDiagnostic-chr: 1.057
Centroid-sig: 18.3%
Centroid-so: 2.899 arcsec [1.42 σ]
OotOffset-rm: 6.693 arcsec [5.94 σ]
KicOffset-rm: 6.688 arcsec [5.97 σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [3/3]

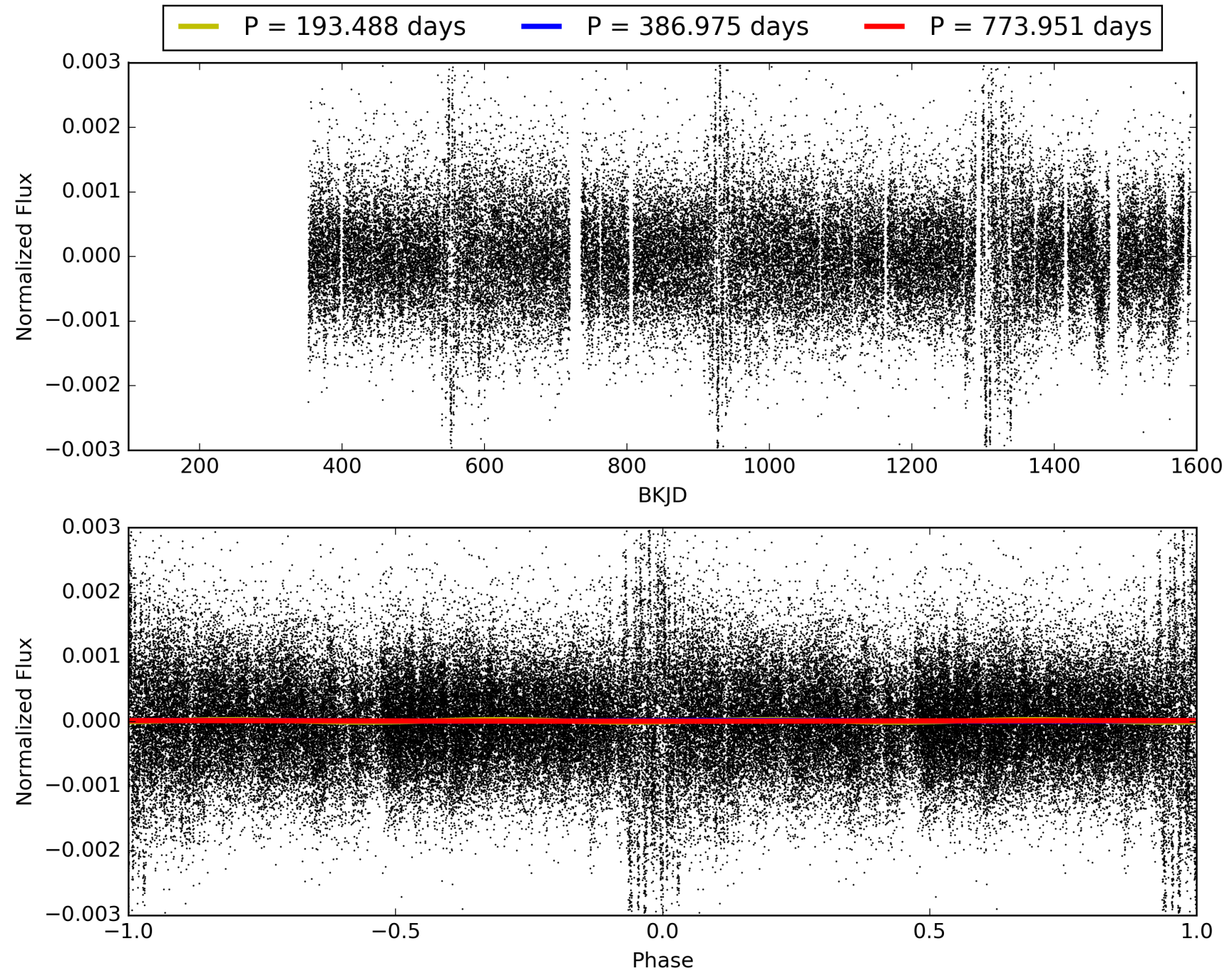
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:30:19 Z

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

TCE 008879564-01, PDC Light Curves

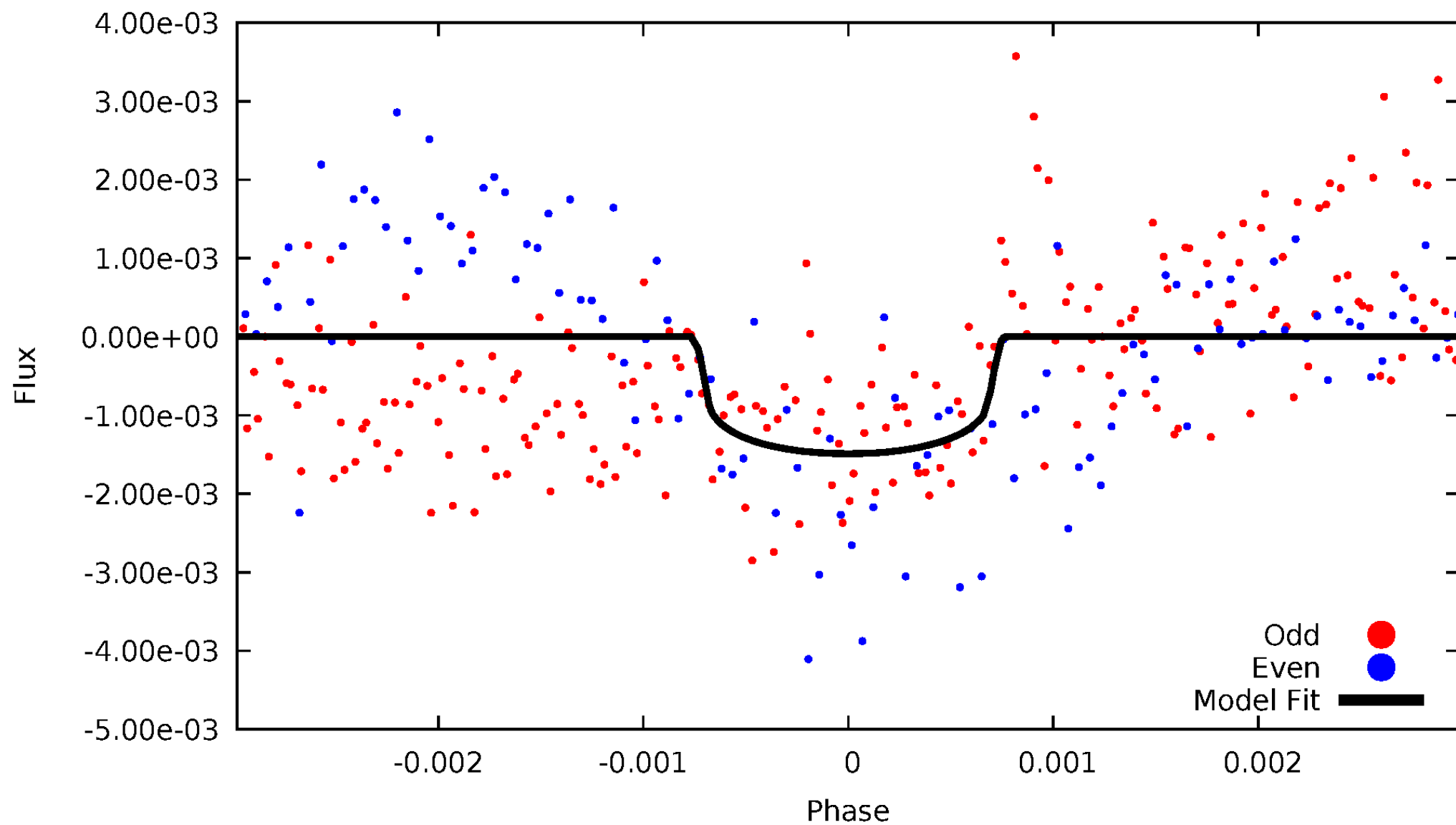


TCE 008879564-01



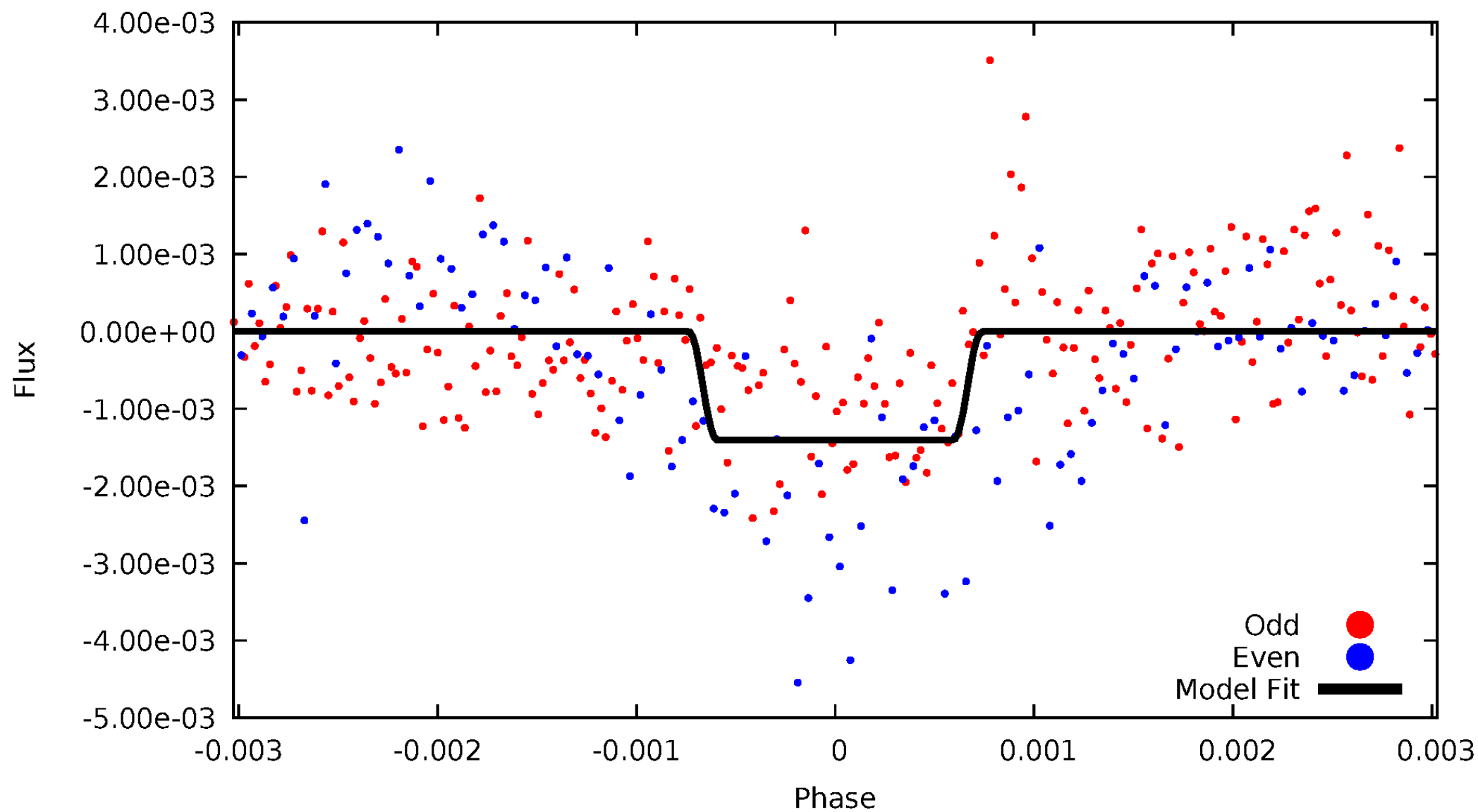
DV Odd/Even

TCE 008879564-01



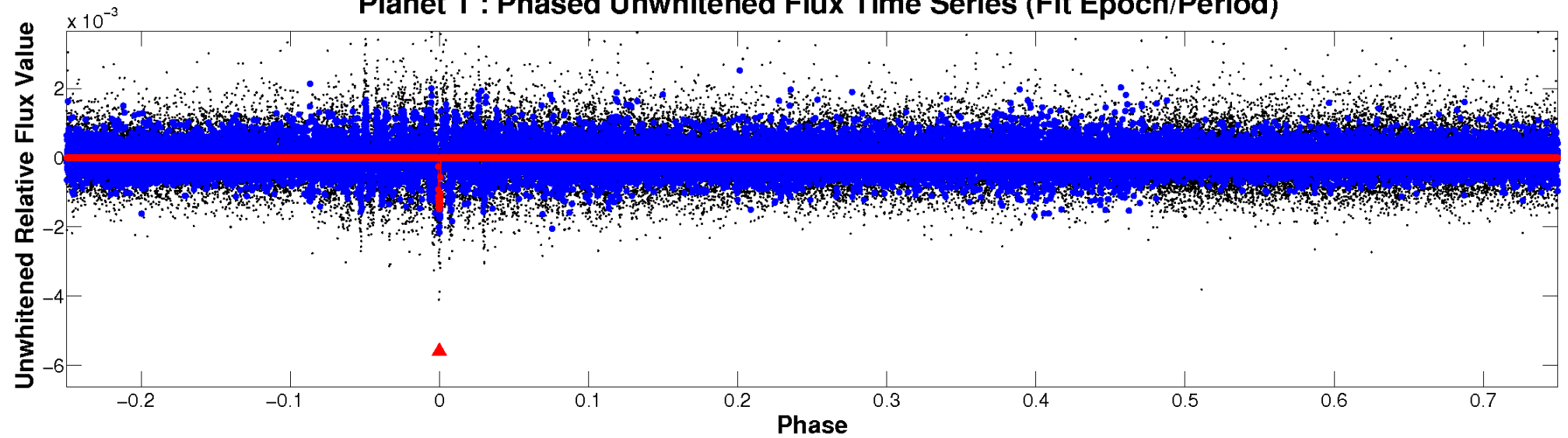
ALT Odd/Even

TCE 008879564-01

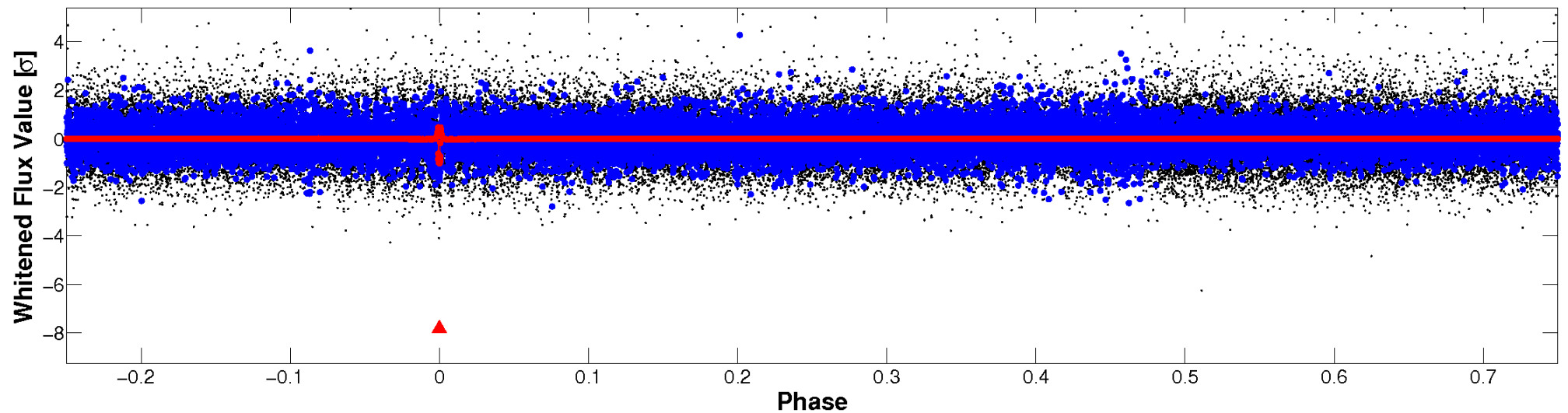


Non-Whitened Vs. Whitened Light Curve

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

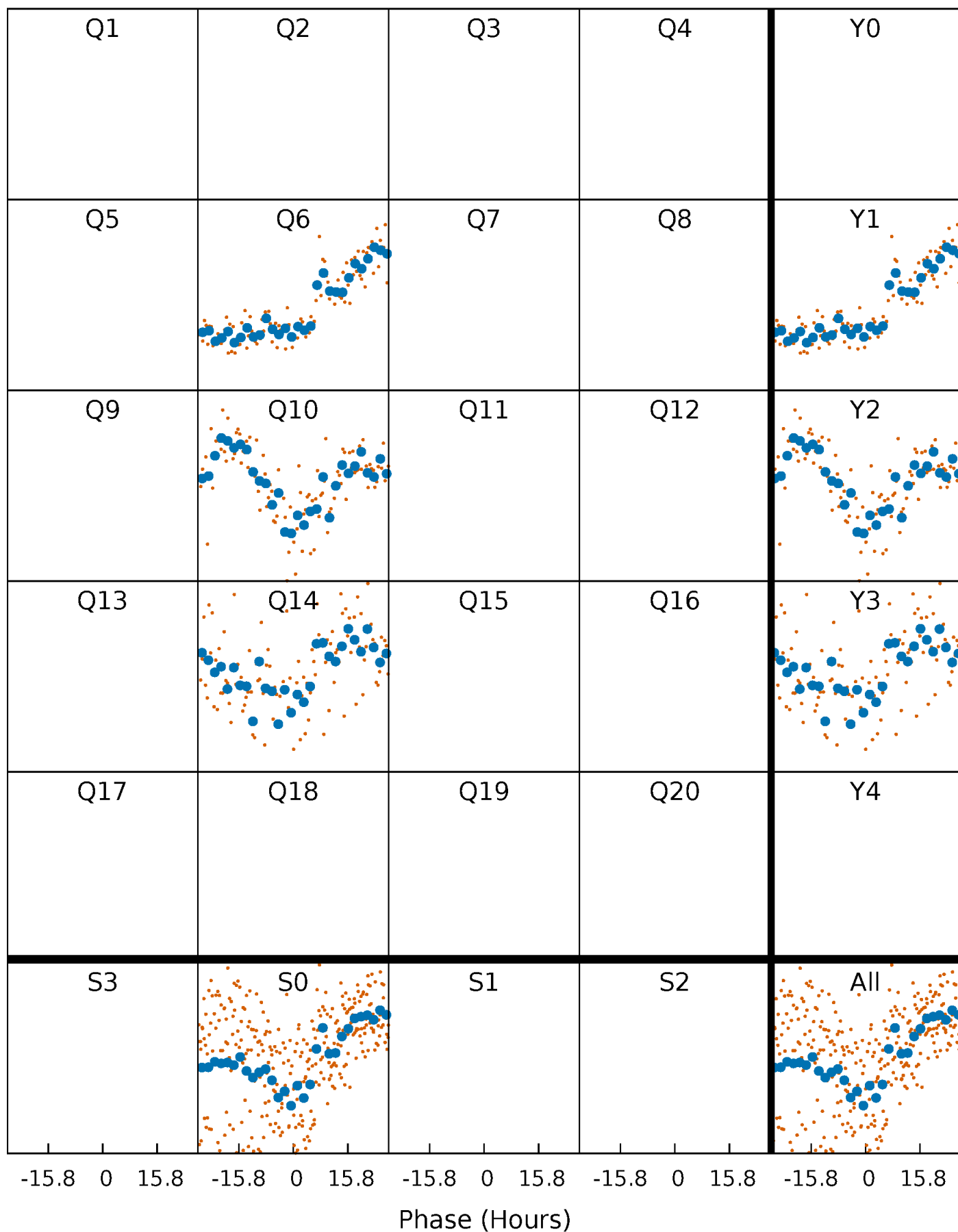


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



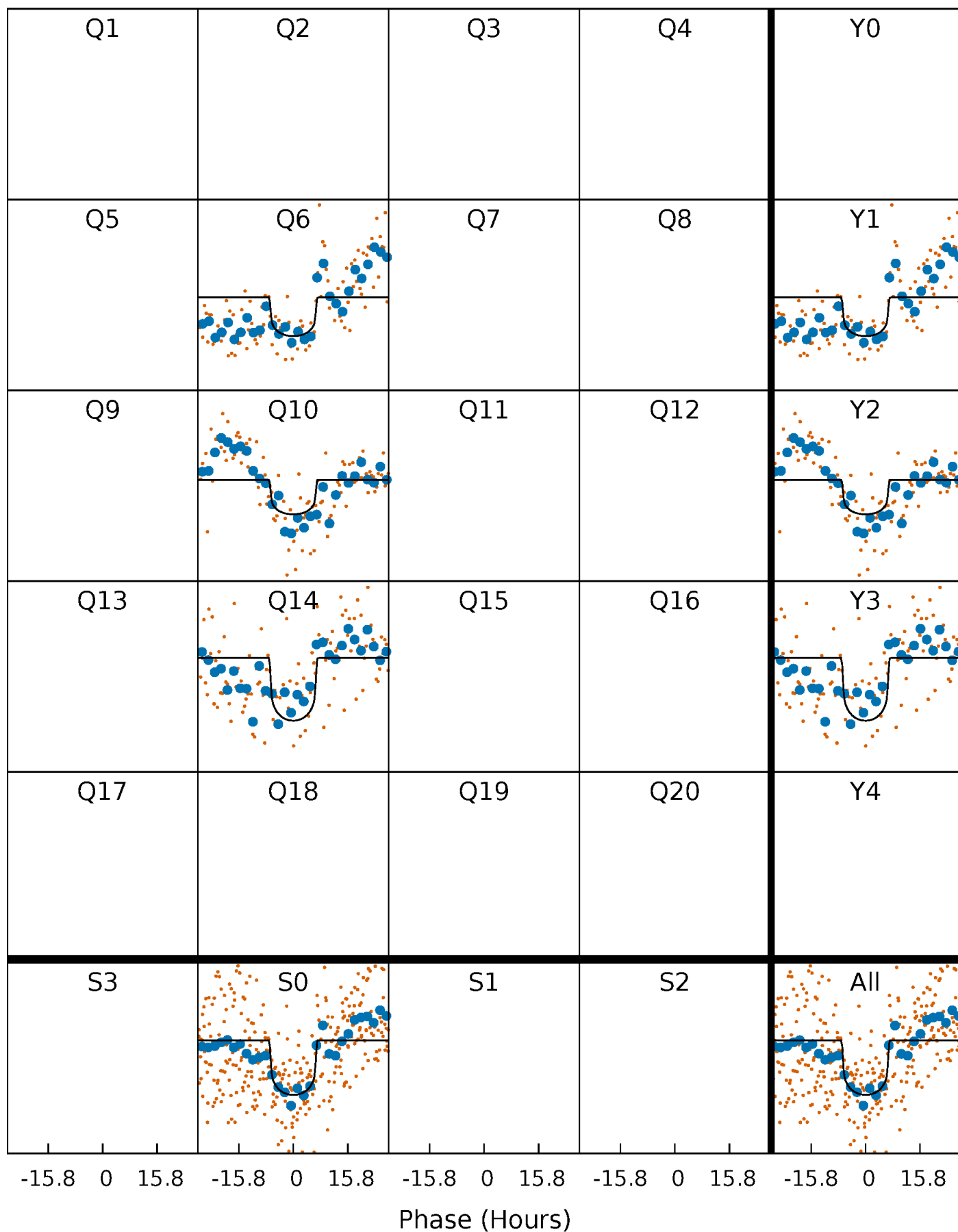
PDC Quarter-Phased Transit Curves

TCE 008879564-01 $P=386.975258$ Days $T_0=166.176154$ (BKJD)



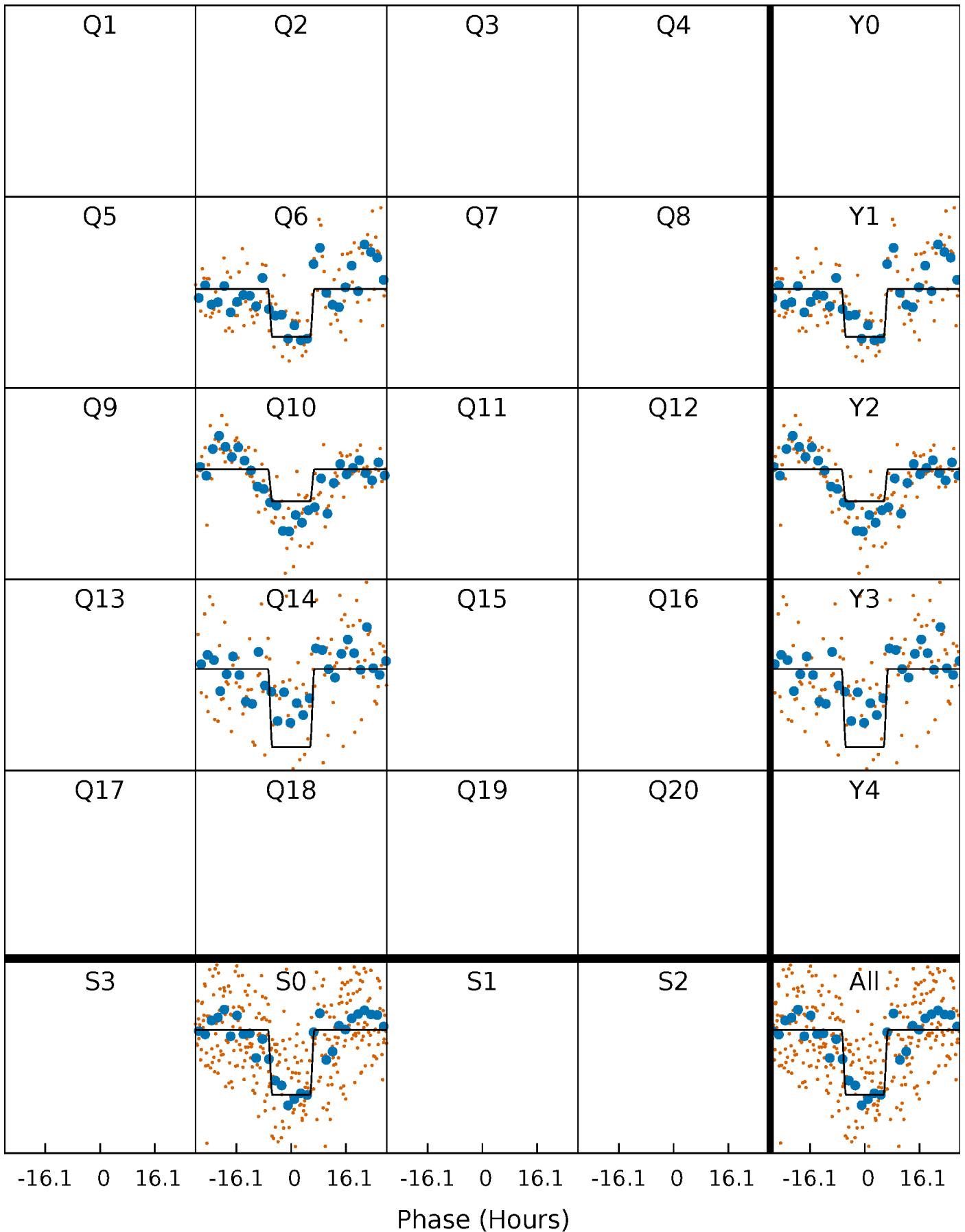
DV Quarter-Phased Transit Curves

TCE 008879564-01 P=386.975258 Days $T_0=166.176154$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

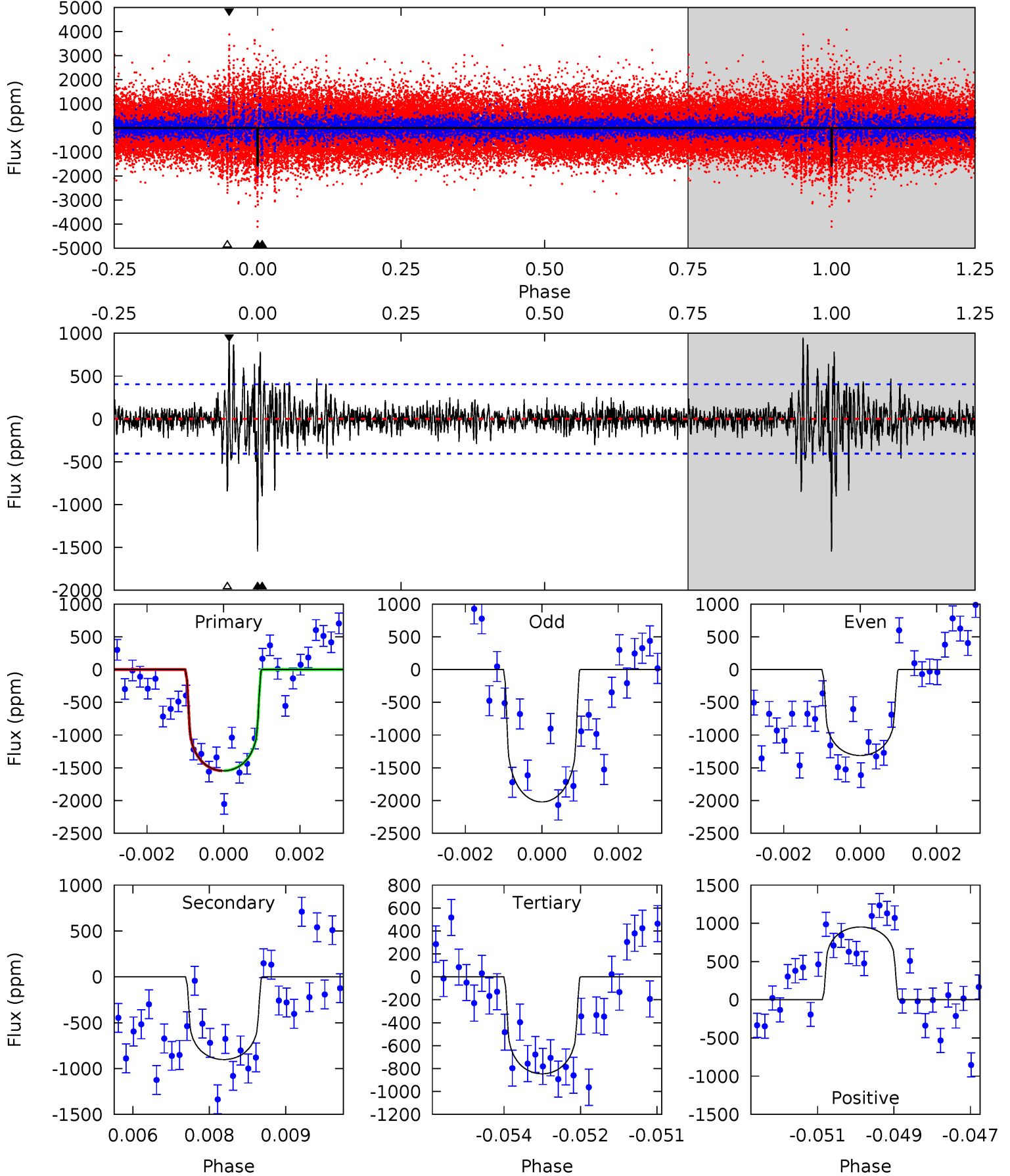
TCE 008879564-01 P=386.957137 Days $T_0=166.209729$ (BKJD)



DV Model-Shift Uniqueness Test

008879564-01, P = 386.975258 Days, E = 166.176154 Days

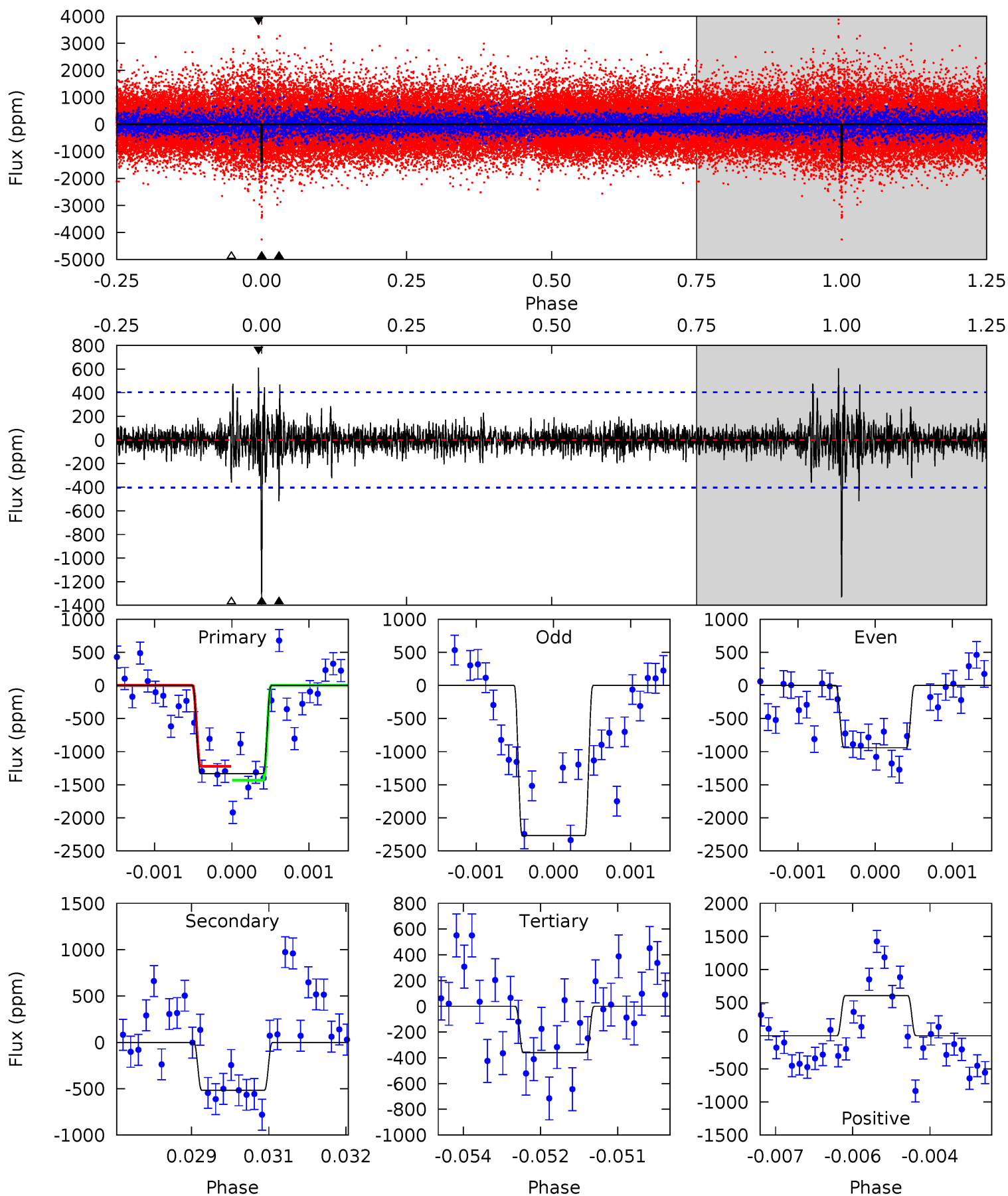
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	12.0	11.2	12.7	5.38	3.17	1.80	9.30	7.89	0.75	-0.66	4.51	1.00	0.38	0.01



Alt Model-Shift Uniqueness Test

008879564-01, P = 386.957137 Days, E = 166.209729 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.8	6.90	4.82	8.09	5.38	3.18	1.02	13.0	9.70	2.08	-1.19	8.49	1.18	0.31	1.39



Stellar Parameters For KIC 008879564

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5955^{+188}_{-208}	$4.520^{+0.050}_{-0.213}$	$-0.160^{+0.300}_{-0.300}$	$0.910^{+0.280}_{-0.093}$	$0.999^{+0.122}_{-0.134}$	$1.869^{+0.392}_{-0.947}$
	+3%/-3%	+1%/-5%	+188%/-188%	+31%/-10%	+12%/-13%	+21%/-51%
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 008879564-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-902 ± 75	$3.79^{+1.66}_{-1.52}$	352^{+25}_{-17}	5448^{+1596}_{-757}	35940^{+64722}_{-18114}
Alt.	-517 ± 75	$3.93^{+1.74}_{-1.76}$	352^{+26}_{-18}	4780^{+1346}_{-626}	19411^{+42163}_{-10159}

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

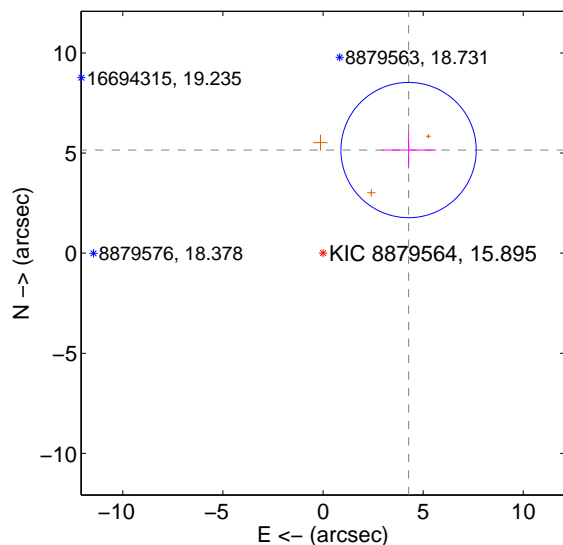
Supplemental centroid analysis for 008879564-01. Kepler magnitude: 15.89. Transit SNR 8.29

There are 0 quarters with good PRF difference image offsets

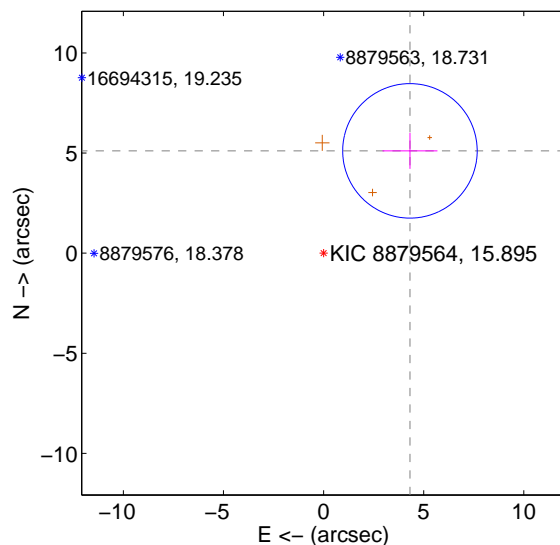
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.693 ± 1.126	5.94	-4.273 ± 1.373	5.151 ± 0.919
PRF-fit source offset from KIC position	6.688 ± 1.120	5.97	-4.314 ± 1.373	5.111 ± 0.897
photometric centroid source offset	2.90 ± 2.04	1.42	2.85 ± 2.05	0.54 ± 1.76

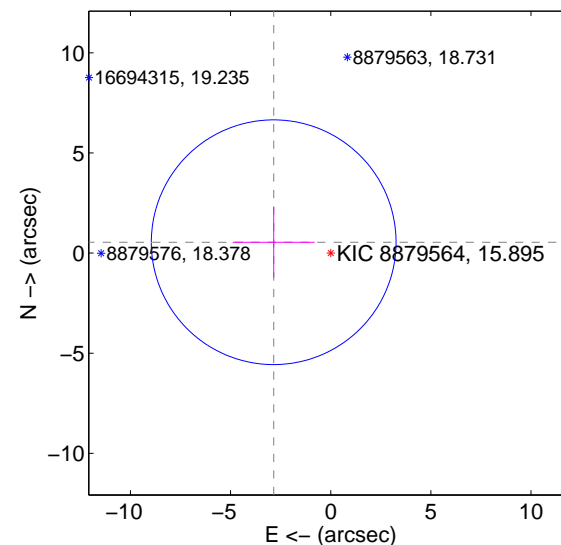
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

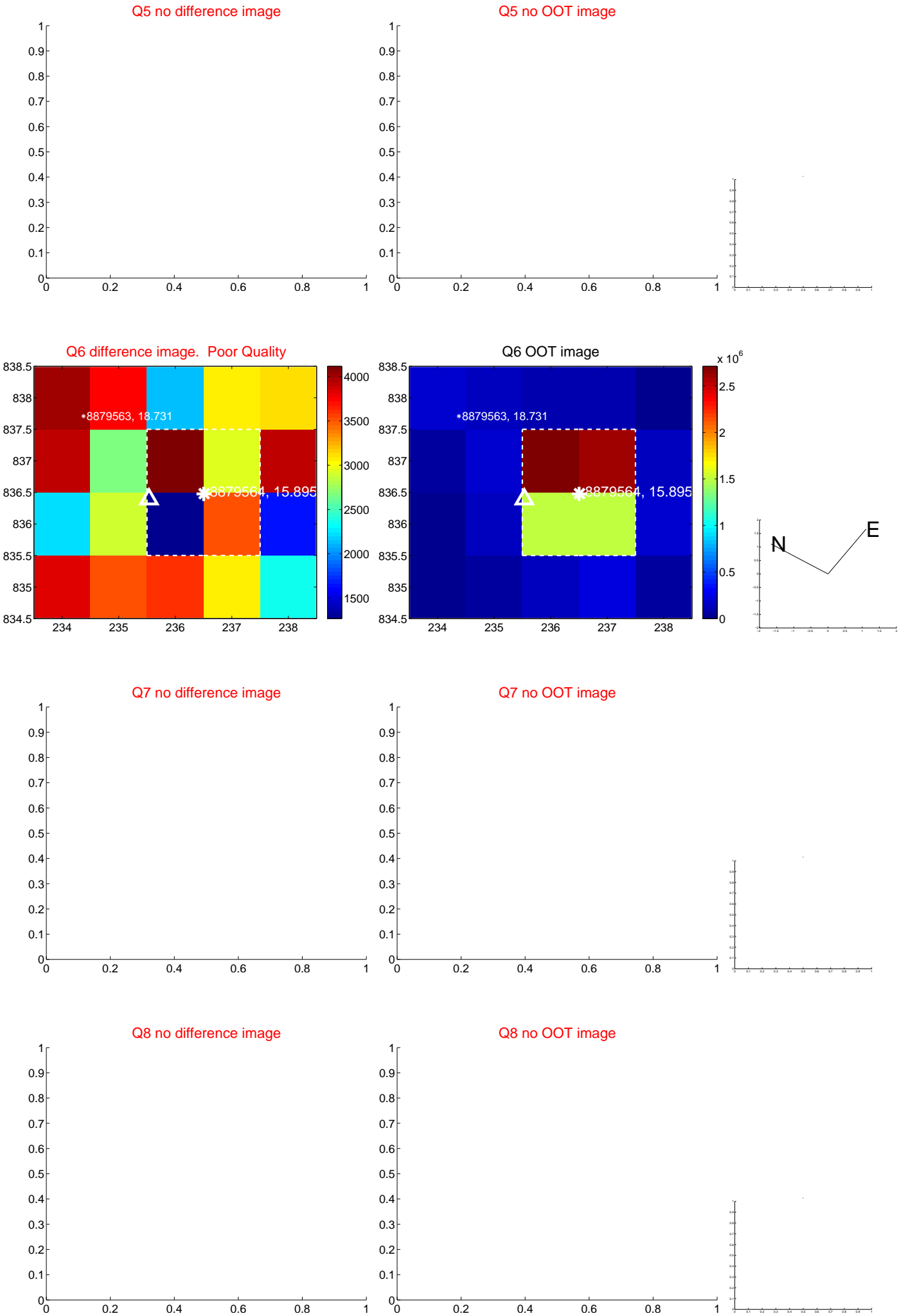


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

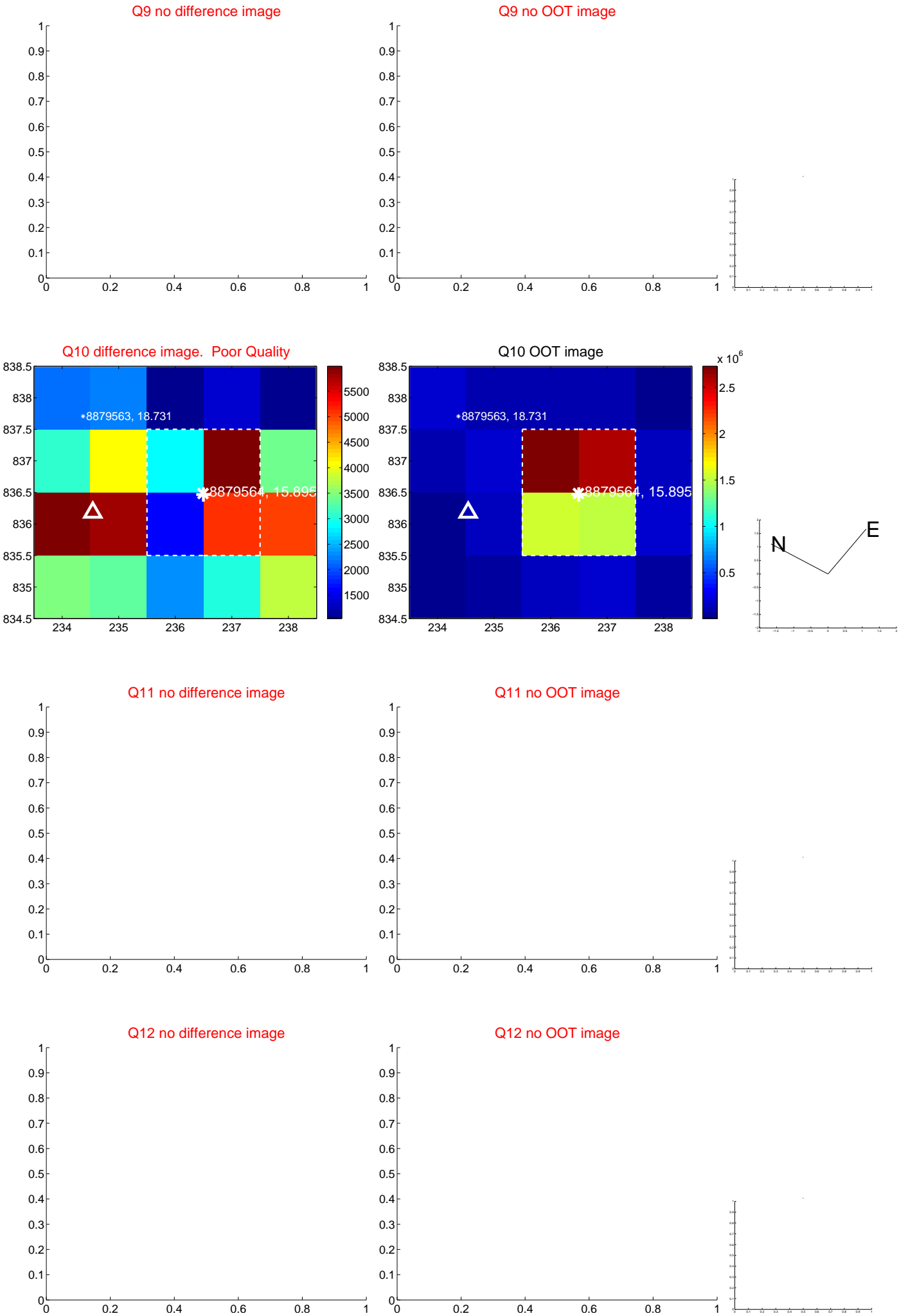
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



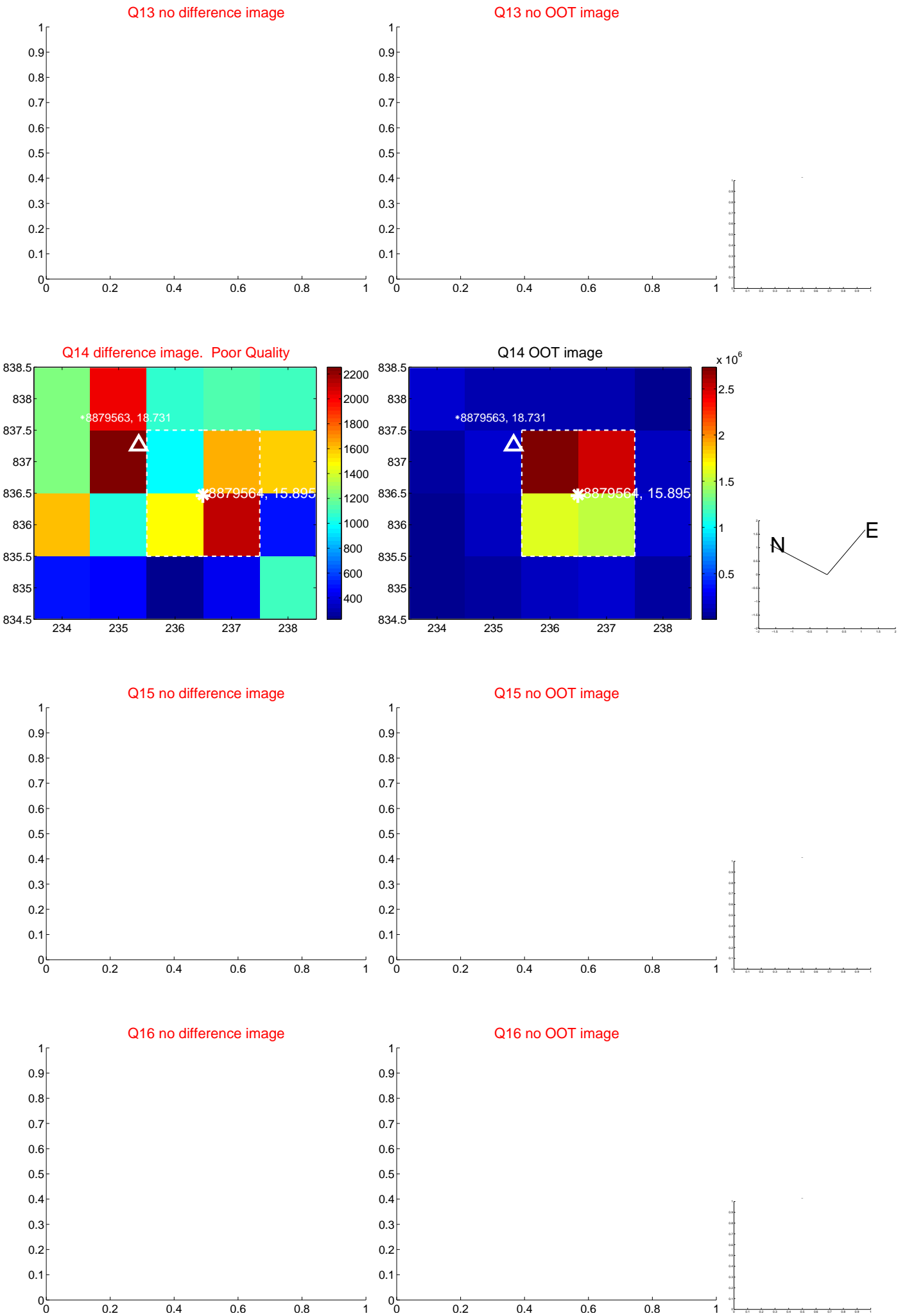
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



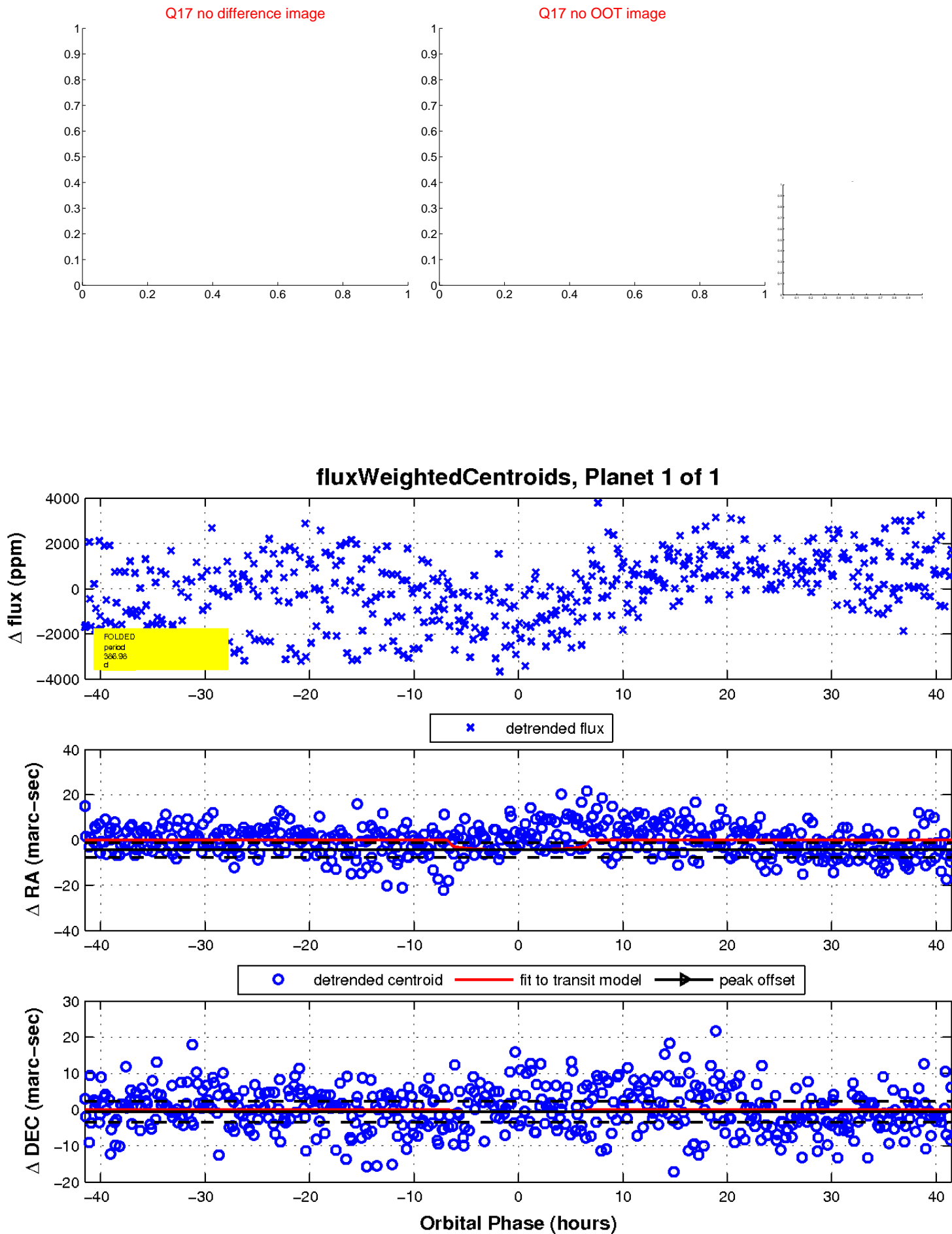
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

