

KIC 008618278

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})
008618278-01	OBS	No	434.933547	552.930176	349.5	20.093	11.0	10.7	1.26	6726	2.44	1.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008618278-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—MOD_NONUNIQ_ALT—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.

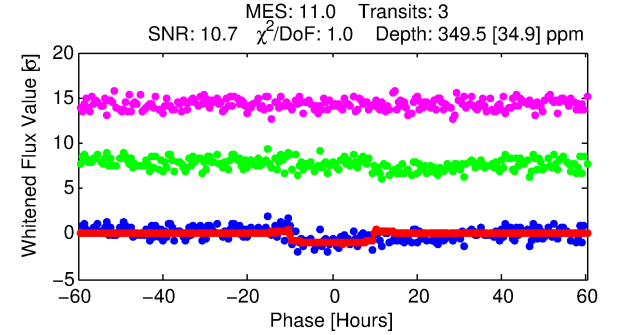
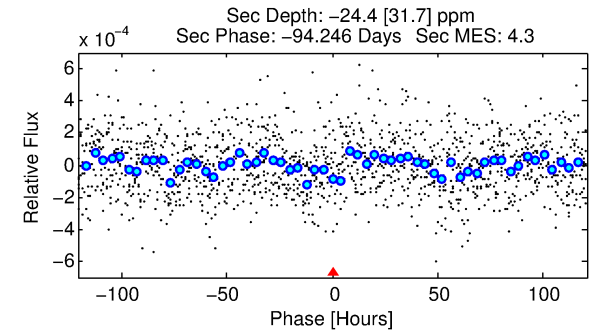
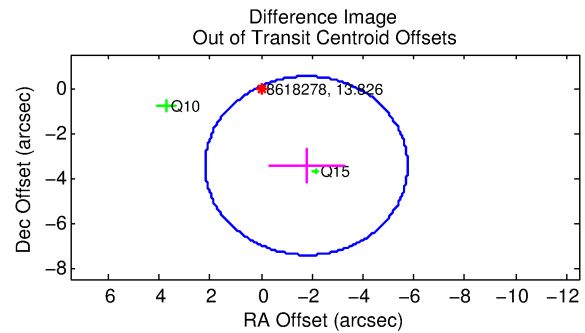
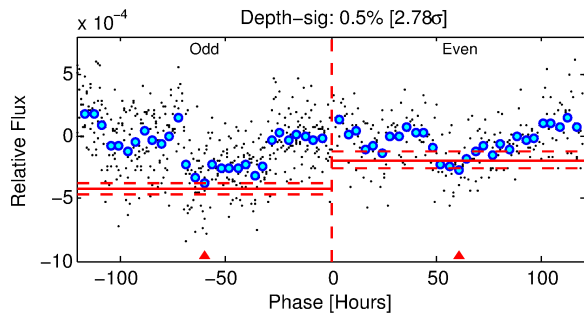
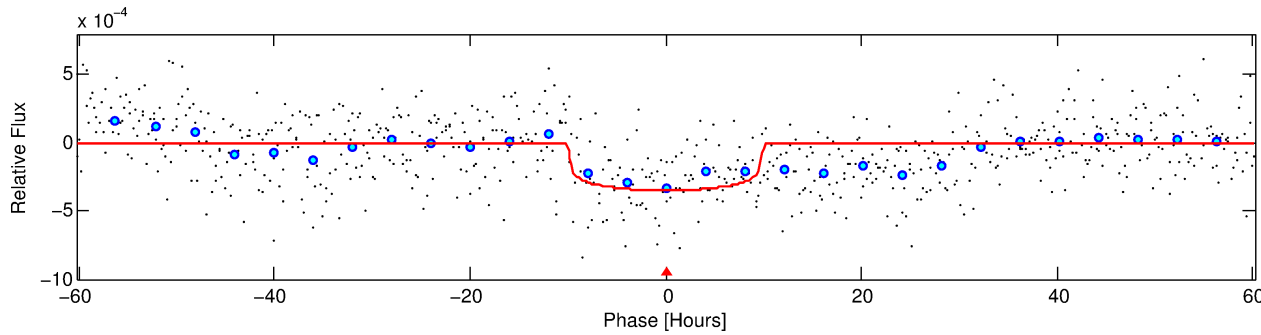
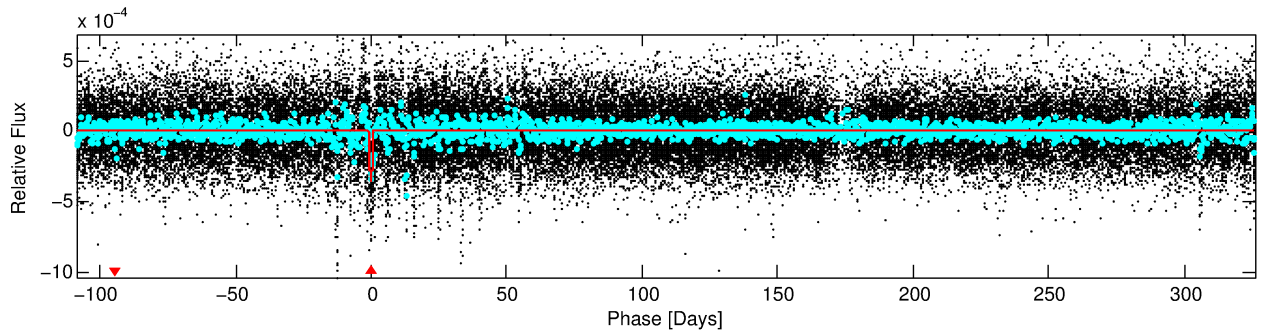
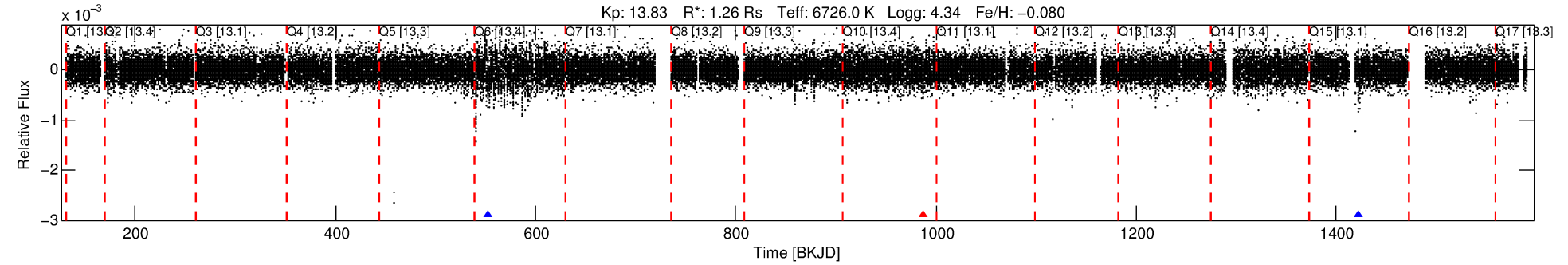
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008618278-01

No Significant Match Found

DV One-Page Summary

KIC: 8618278 Candidate: 1 of 1 Period: 434.934 d



DV Fit Results:

Period = 434.93355 [0.01322] d
Epoch = 552.9302 [0.0188] BKJD
Rp/R* = 0.0178 [0.0066]
a/R* = 144.37 [293.84]
b = 0.52 [2.84]
Seff = 1.97 [0.85]
Teq = 302 [32] K
Rp = 2.44 [1.24] Re
a = 1.2140 [0.3480] AU
Ag = N/A
Teffp = N/A

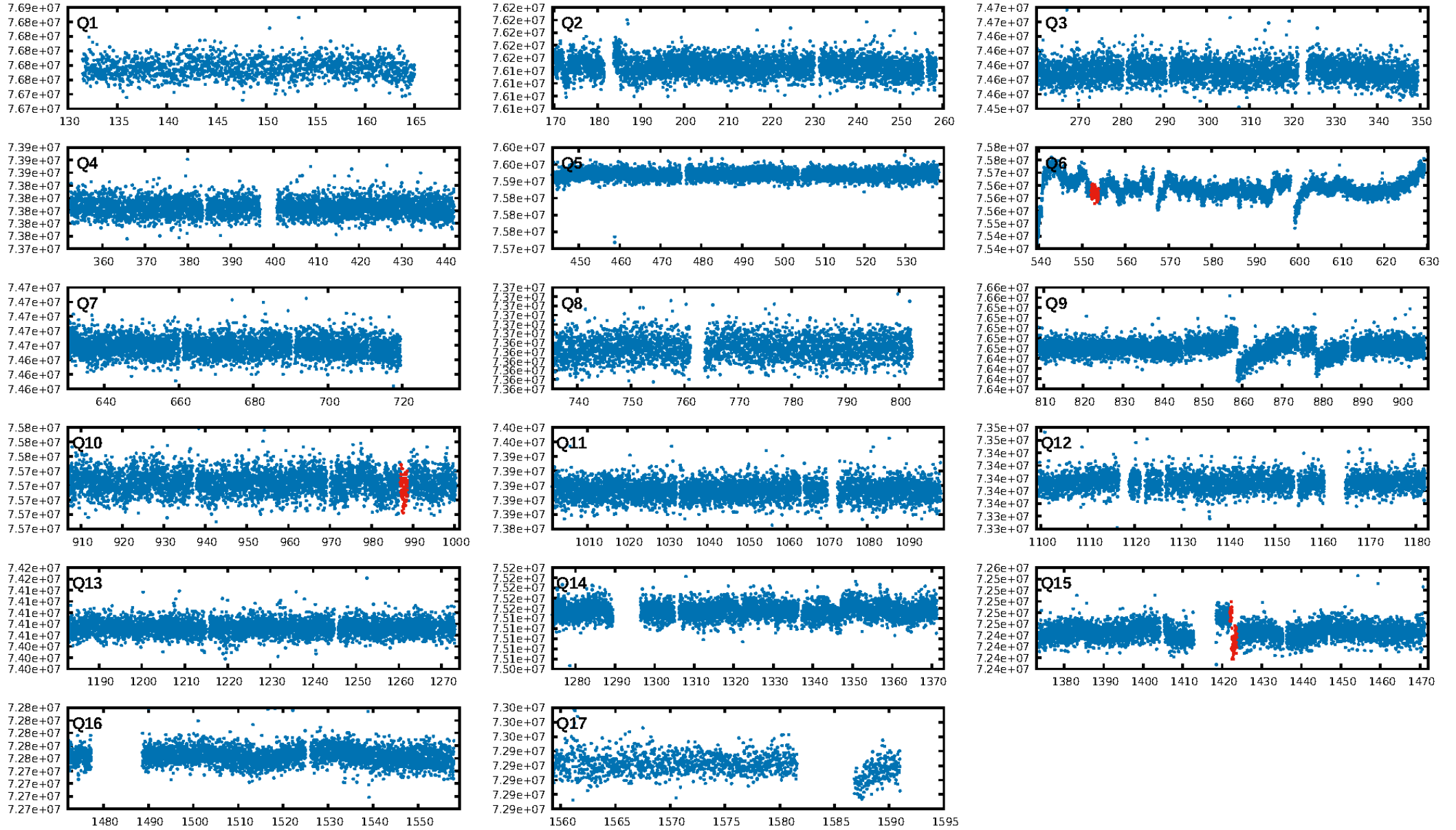
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.34e-11
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.4504
Centroid-sig: 78.6%
Centroid-so: 0.440 arcsec [0.44 σ]
OotOffset-rm: 3.889 arcsec [2.93 σ]
KicOffset-rm: 3.924 arcsec [2.91 σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

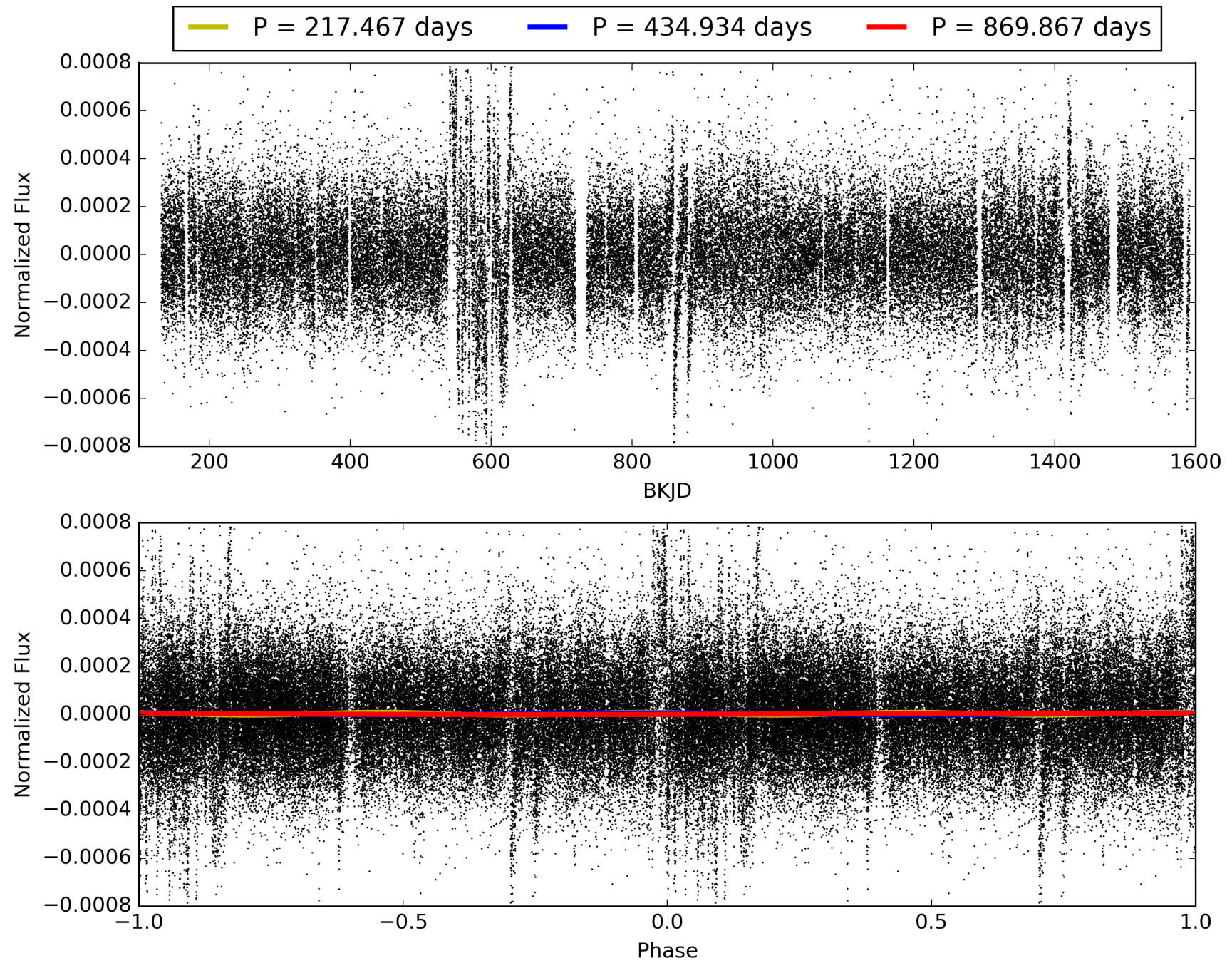
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:48:23 Z

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

TCE 008618278-01, PDC Light Curves

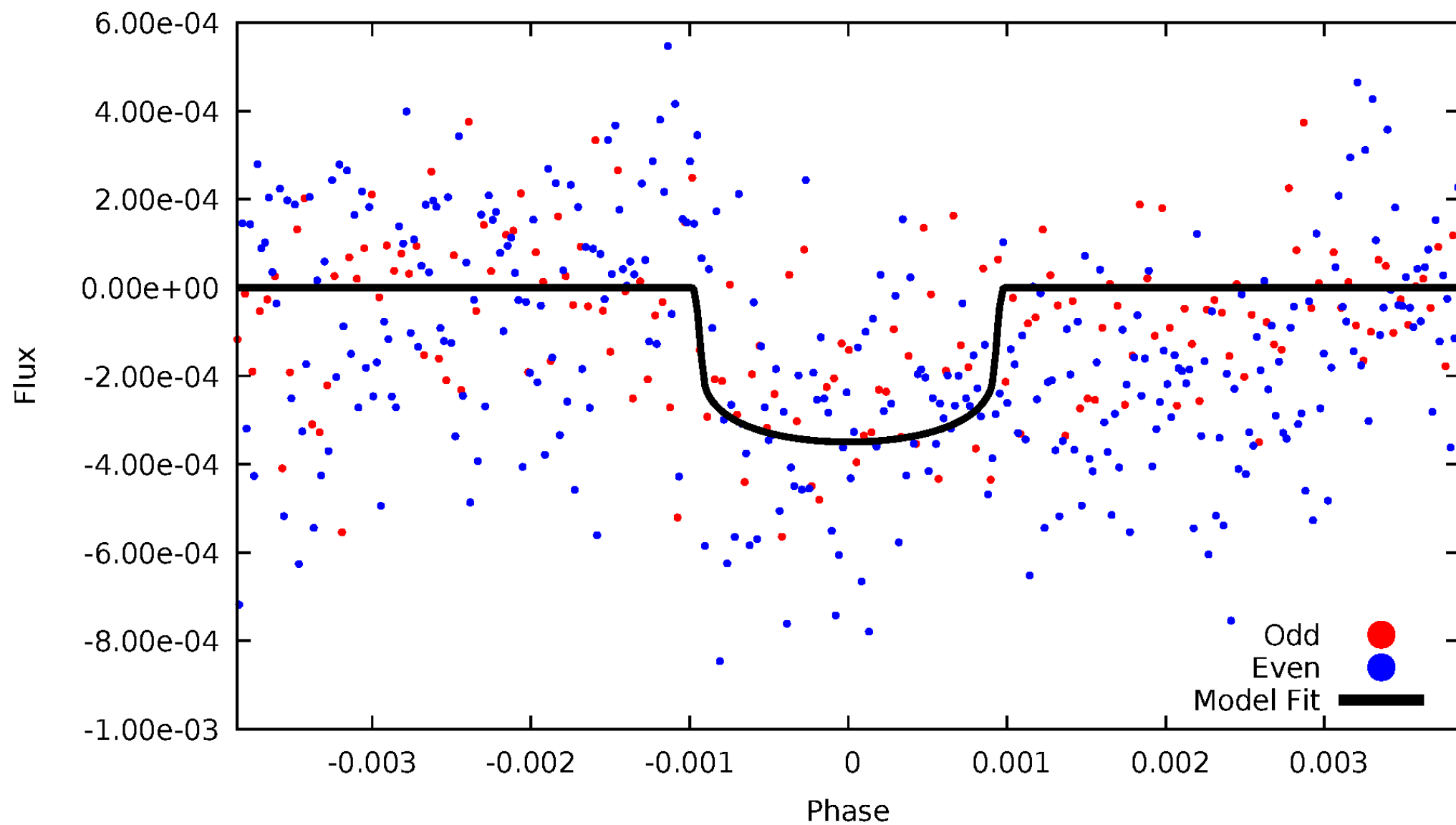


TCE 008618278-01



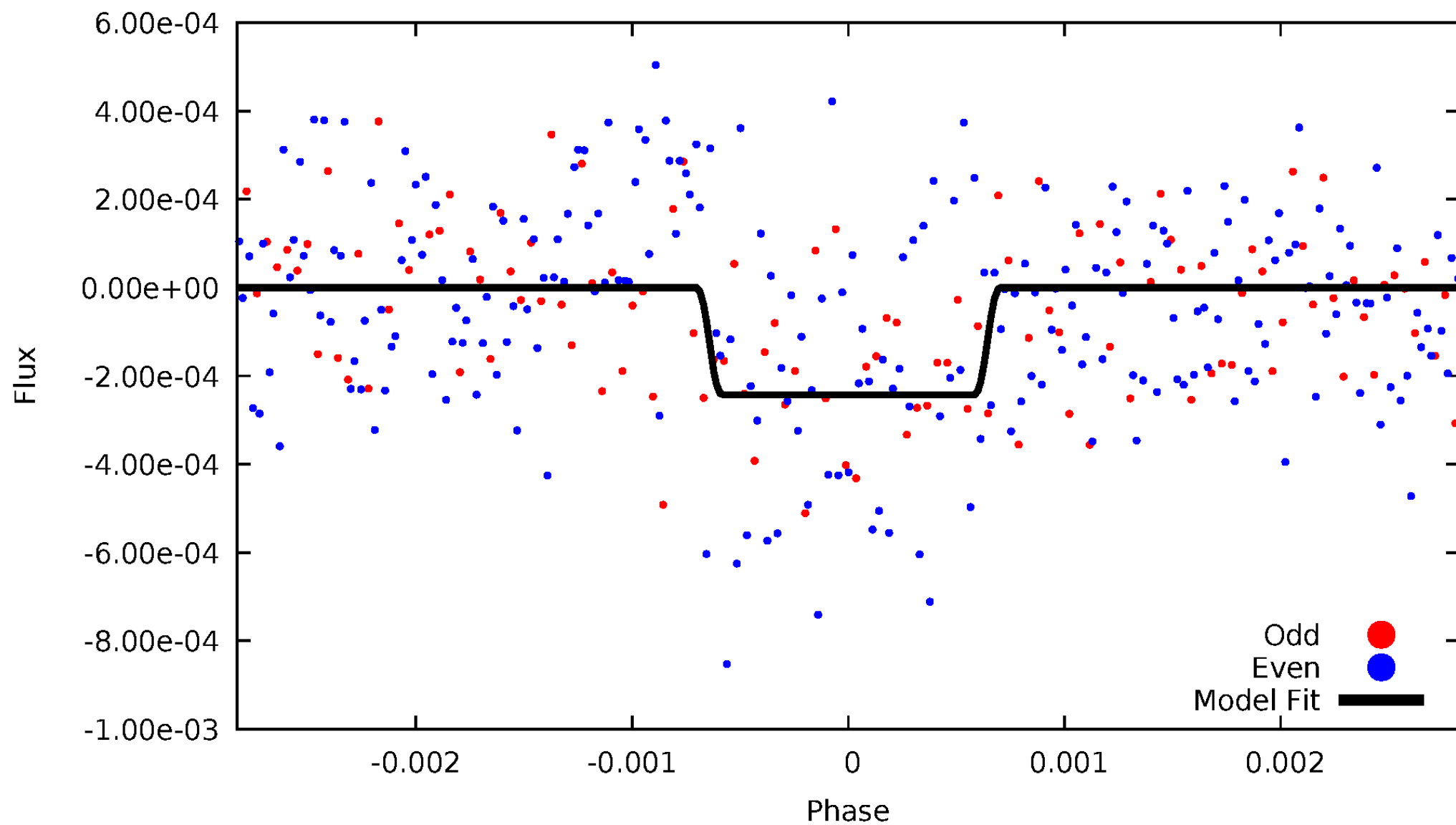
DV Odd/Even

TCE 008618278-01



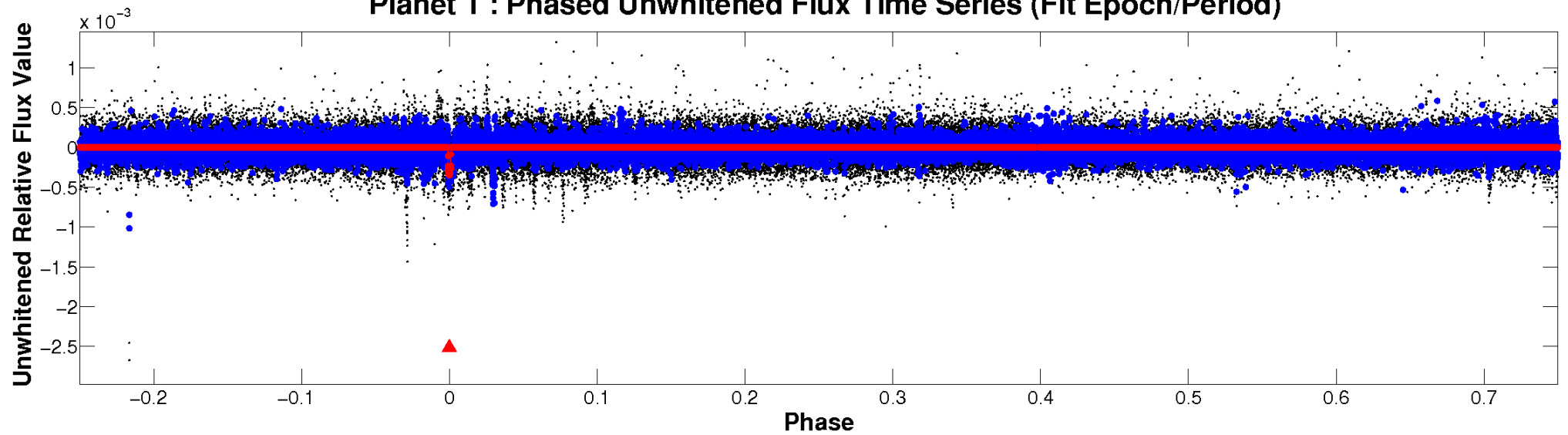
ALT Odd/Even

TCE 008618278-01

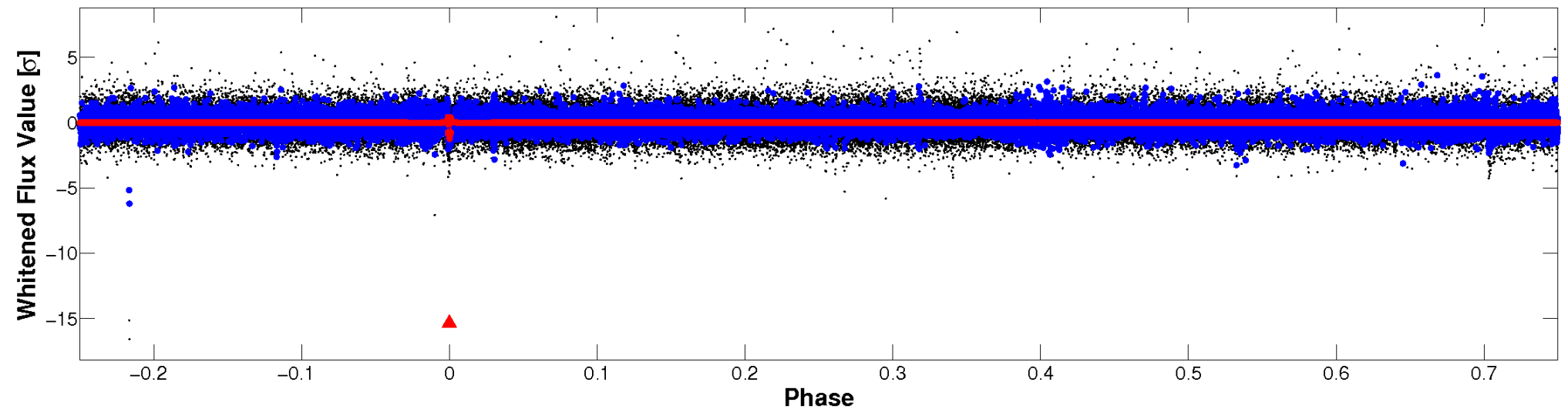


Non-Whitened Vs. Whitened Light Curve

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

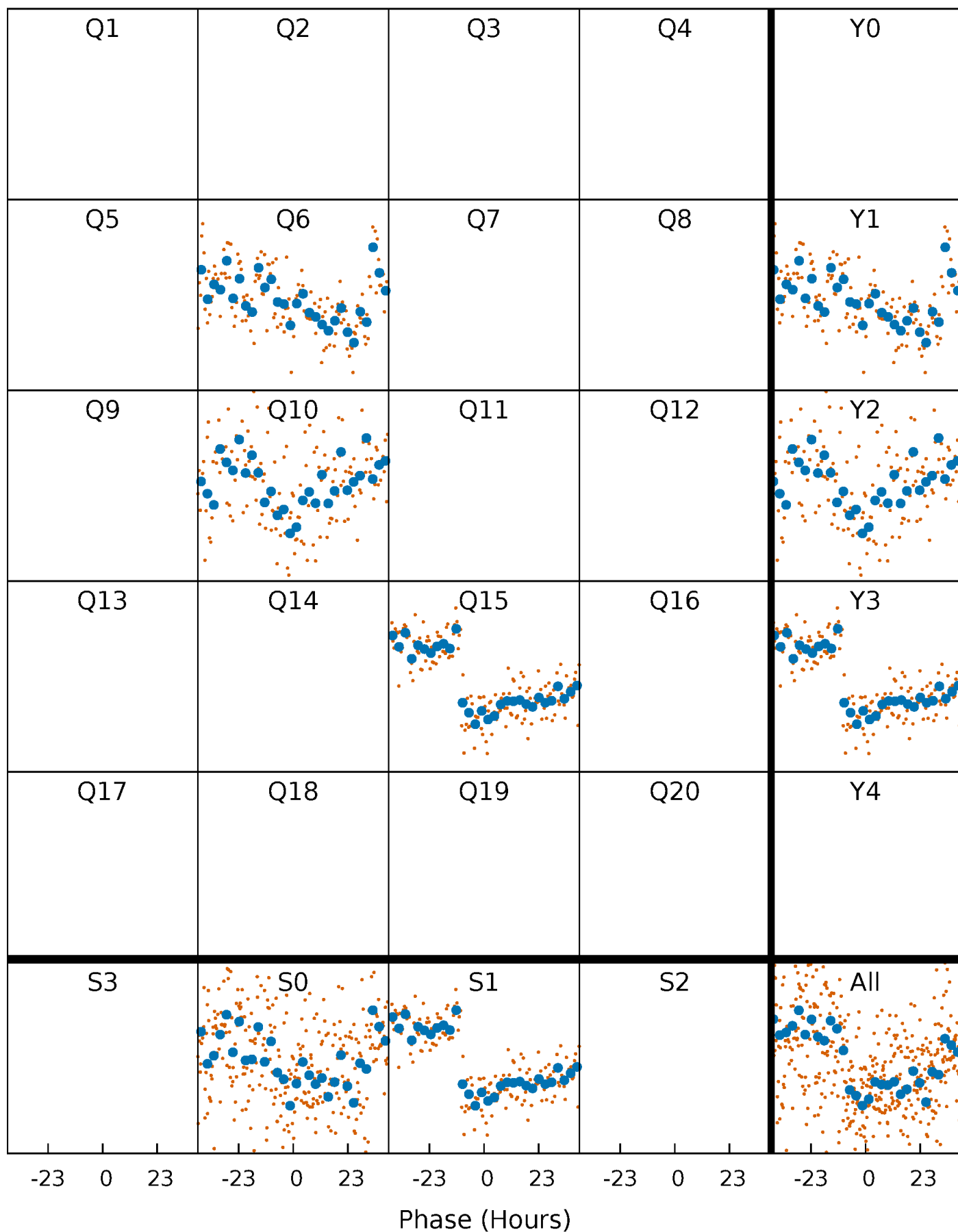


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008618278-01 P=434.933547 Days $T_0=552.930176$ (BKJD)



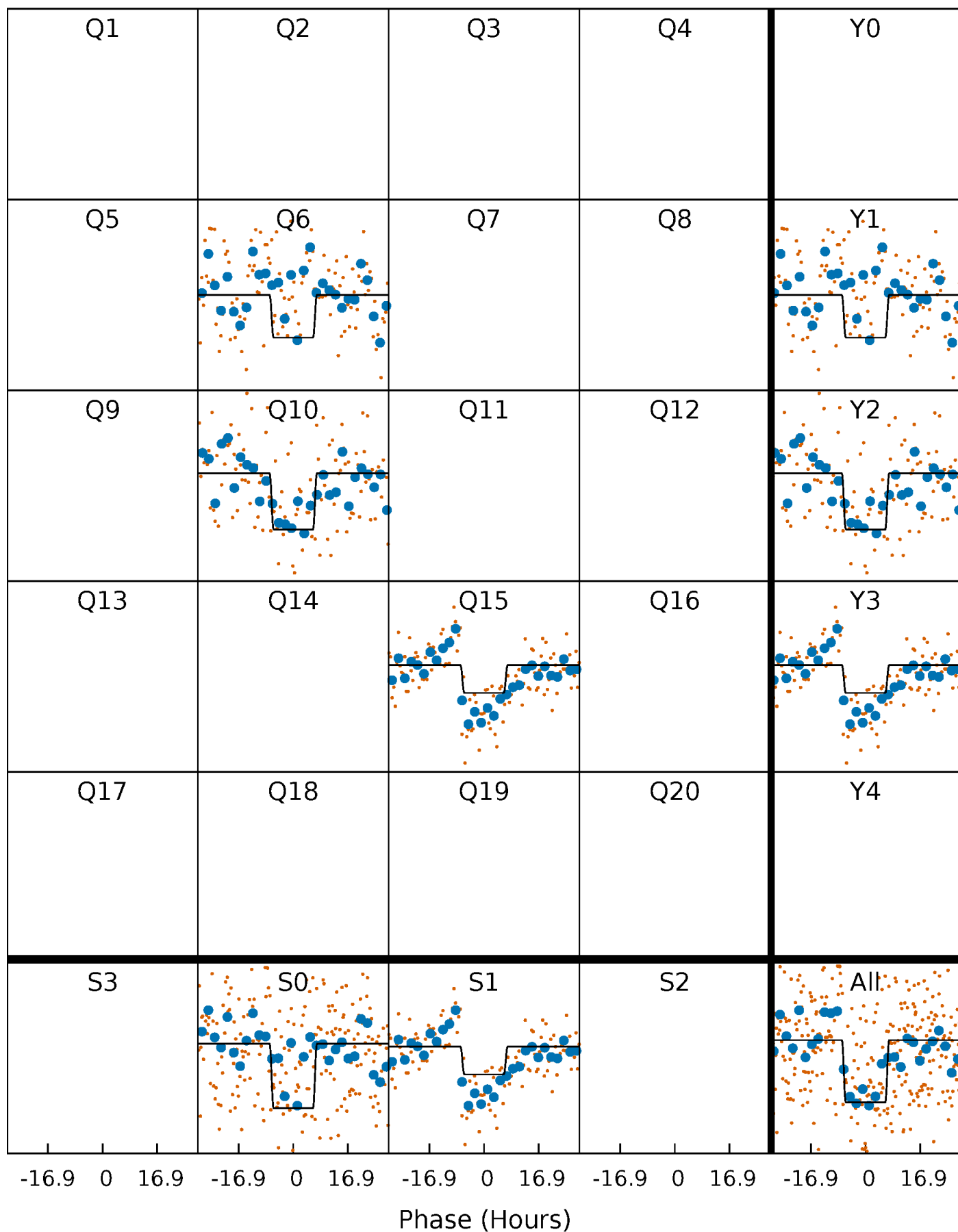
DV Quarter-Phased Transit Curves

TCE 008618278-01 P=434.933547 Days $T_0=552.930176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

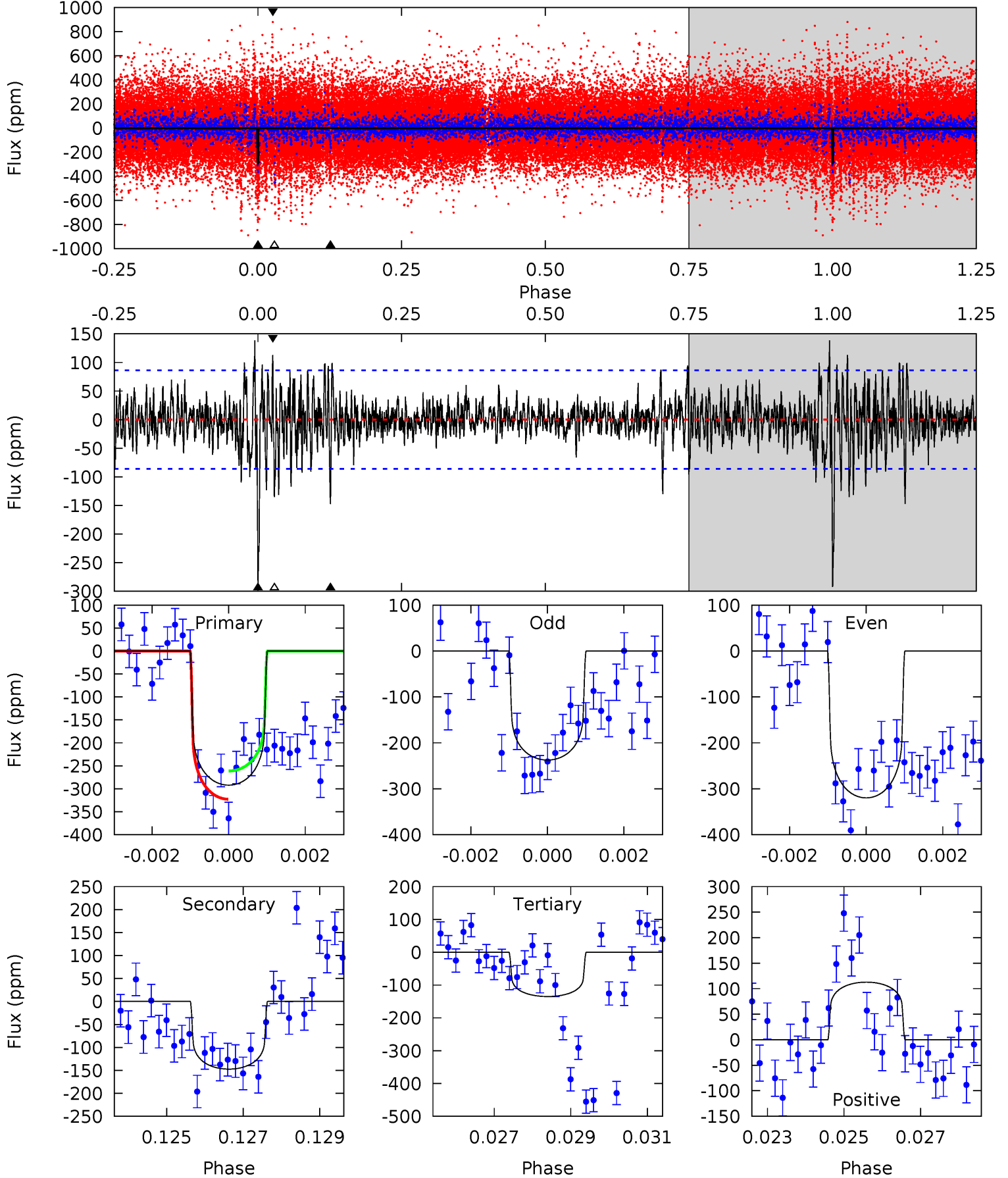
TCE 008618278-01 P=434.921513 Days $T_0=552.846750$ (BKJD)



DV Model-Shift Uniqueness Test

008618278-01, P = 434.933547 Days, E = 117.996629 Days

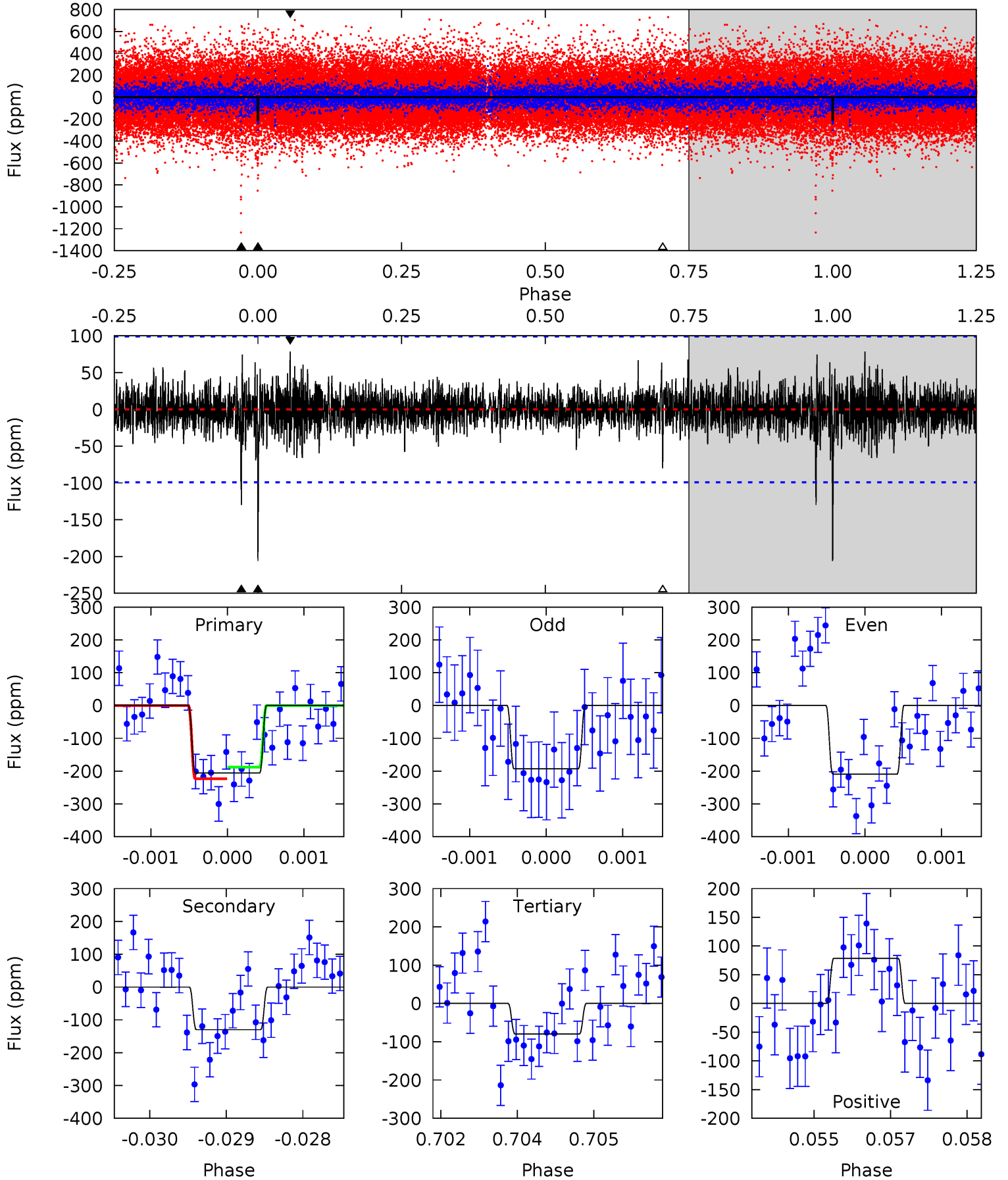
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.1	9.12	8.36	6.99	5.33	3.10	1.82	9.73	11.1	0.76	2.13	2.45	1.23	0.32	1.90



Alt Model-Shift Uniqueness Test

008618278-01, P = 434.921513 Days, E = 117.925237 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	7.08	4.35	4.28	5.39	3.20	0.96	6.86	6.93	2.72	2.79	0.41	1.05	0.28	0.97



Stellar Parameters For KIC 008618278

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6726^{+161}_{-241}	$4.340^{+0.054}_{-0.216}$	$-0.080^{+0.250}_{-0.300}$	$1.257^{+0.441}_{-0.147}$	$1.269^{+0.191}_{-0.174}$	$0.900^{+0.265}_{-0.484}$
	+2%/-4%	+1%/-5%	+312%/-375%	+35%/-12%	+15%/-14%	+29%/-54%
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 008618278-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-147 ± 16	$2.57^{+1.04}_{-0.92}$	430^{+33}_{-23}	5532^{+1279}_{-683}	18060^{+24112}_{-8646}
Alt.	-130 ± 18	$2.23^{+0.94}_{-0.93}$	430^{+31}_{-22}	5769^{+1787}_{-865}	20921^{+40723}_{-10890}

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 $A_{obs} \gg 1.0$

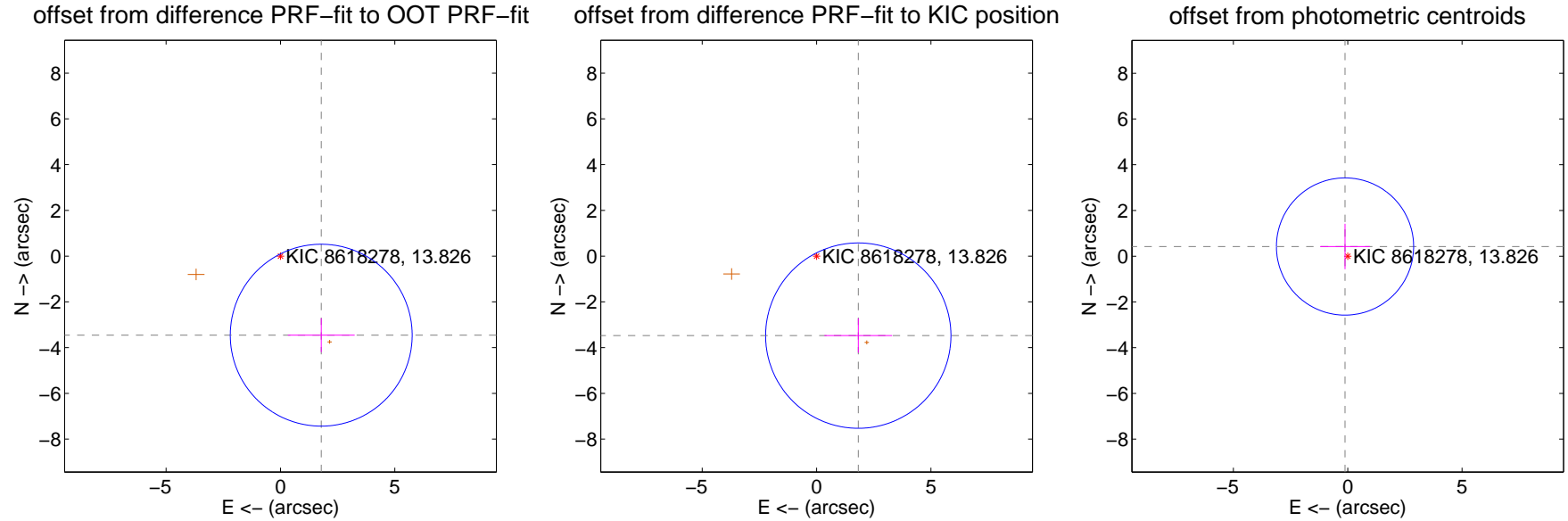
DV Centroid Data

Supplemental centroid analysis for 008618278-01. Kepler magnitude: 13.83. Transit SNR 10.67

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.889 ± 1.326	2.93	-1.783 ± 1.461	-3.457 ± 0.740
PRF-fit source offset from KIC position	3.924 ± 1.351	2.91	-1.823 ± 1.480	-3.475 ± 0.751
photometric centroid source offset	0.44 ± 1.00	0.44	0.12 ± 1.09	0.42 ± 0.99

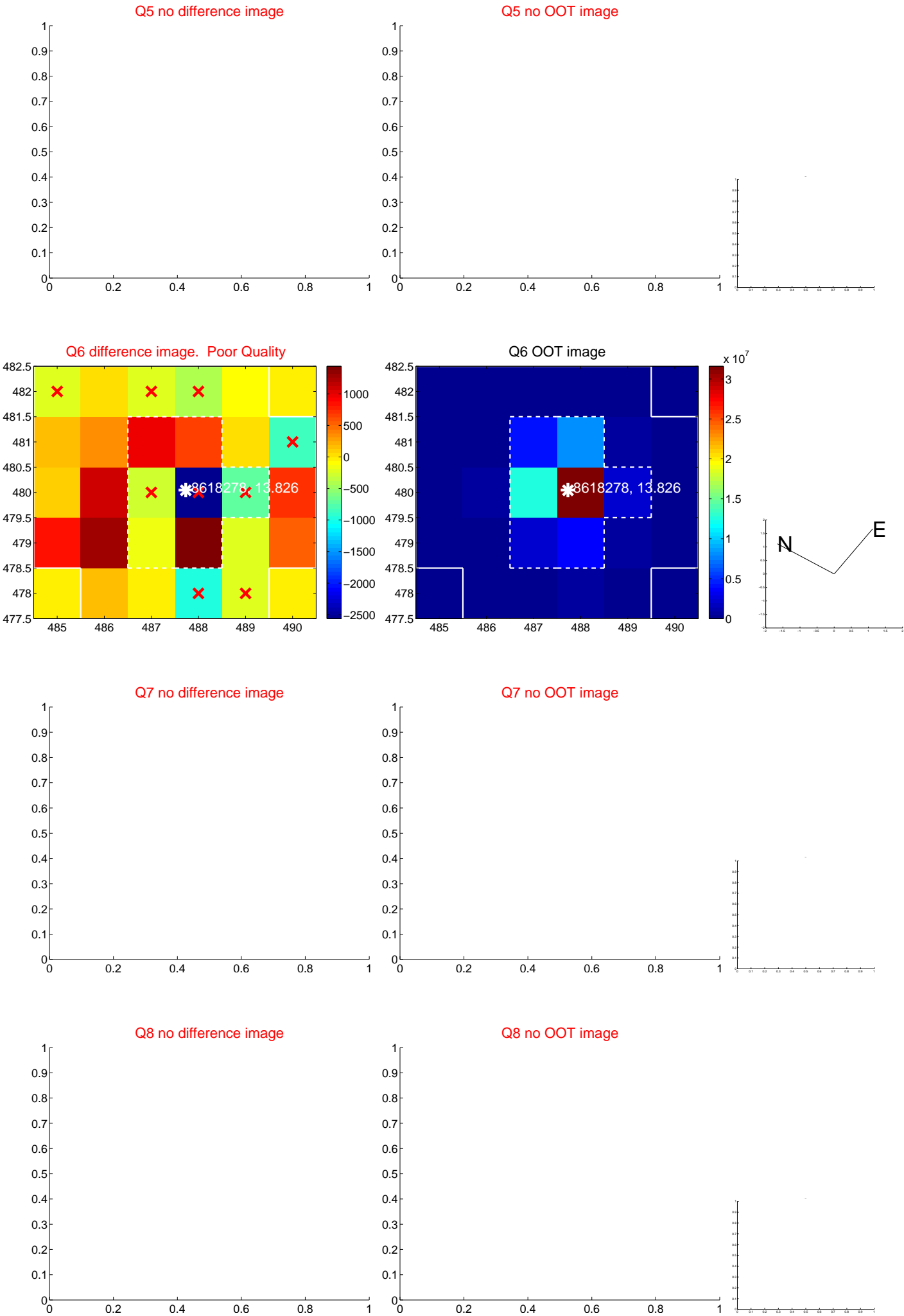


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

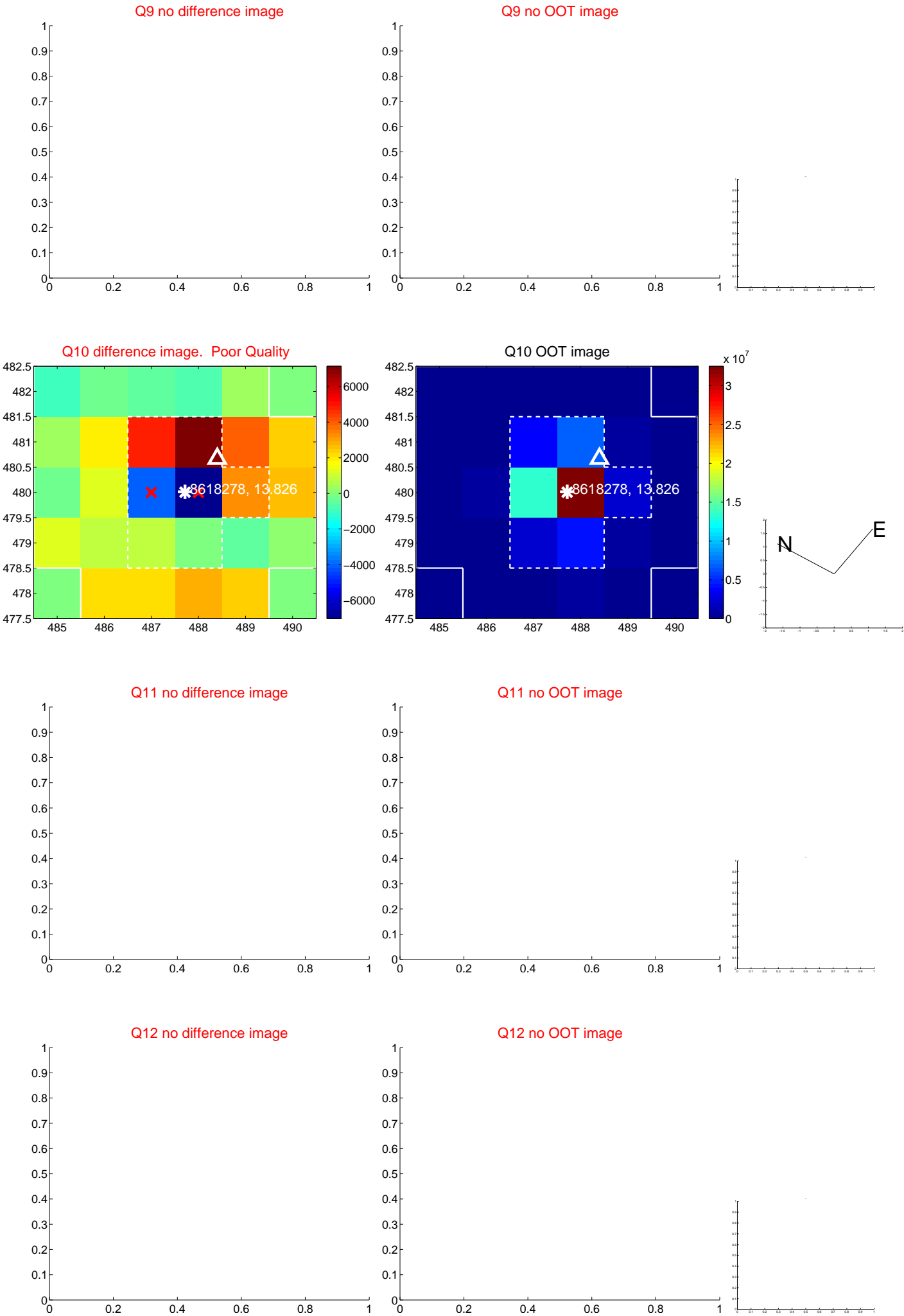
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



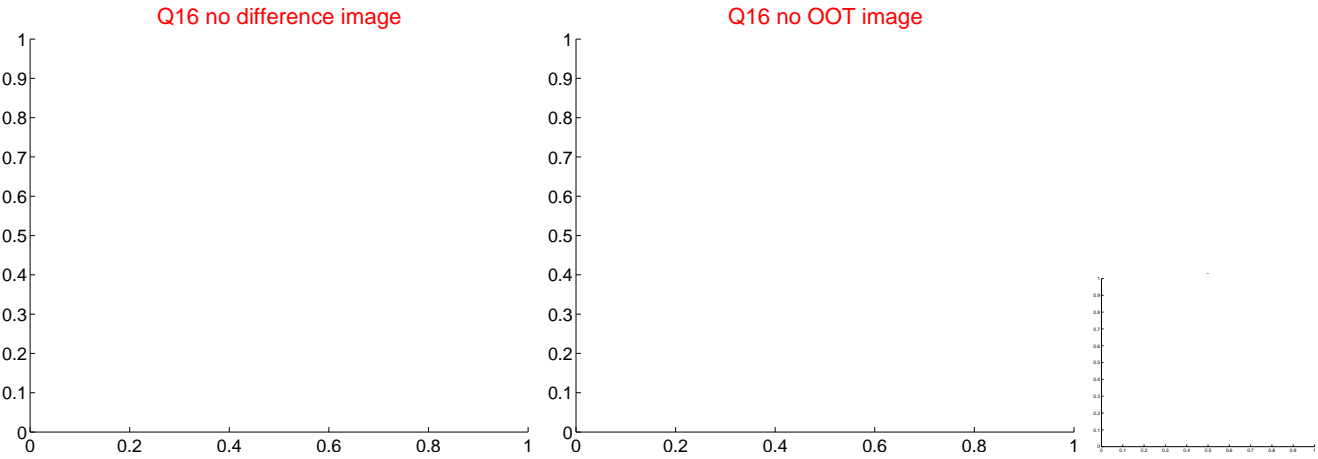
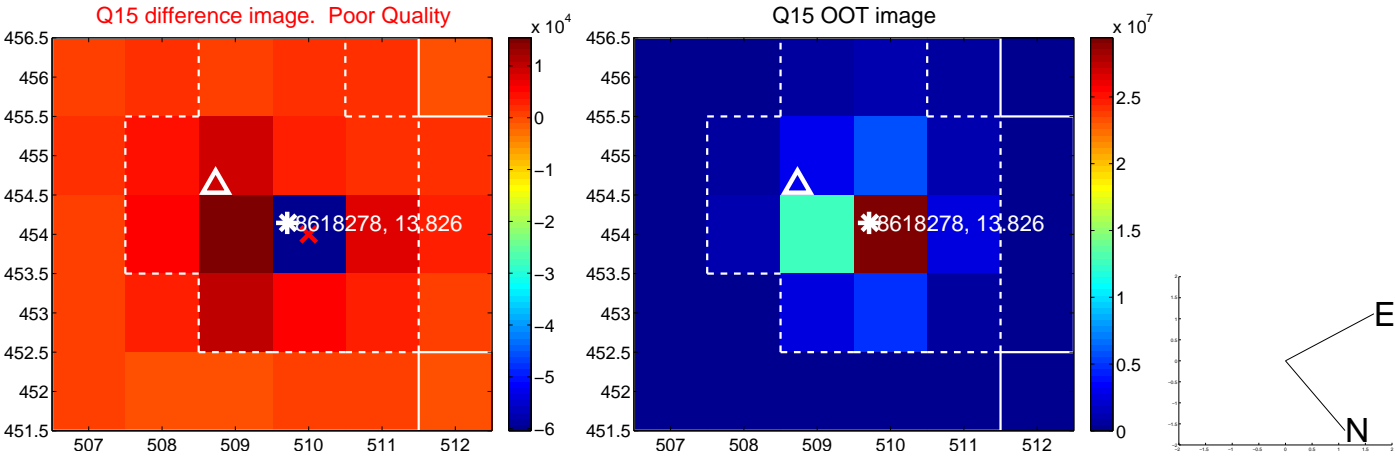
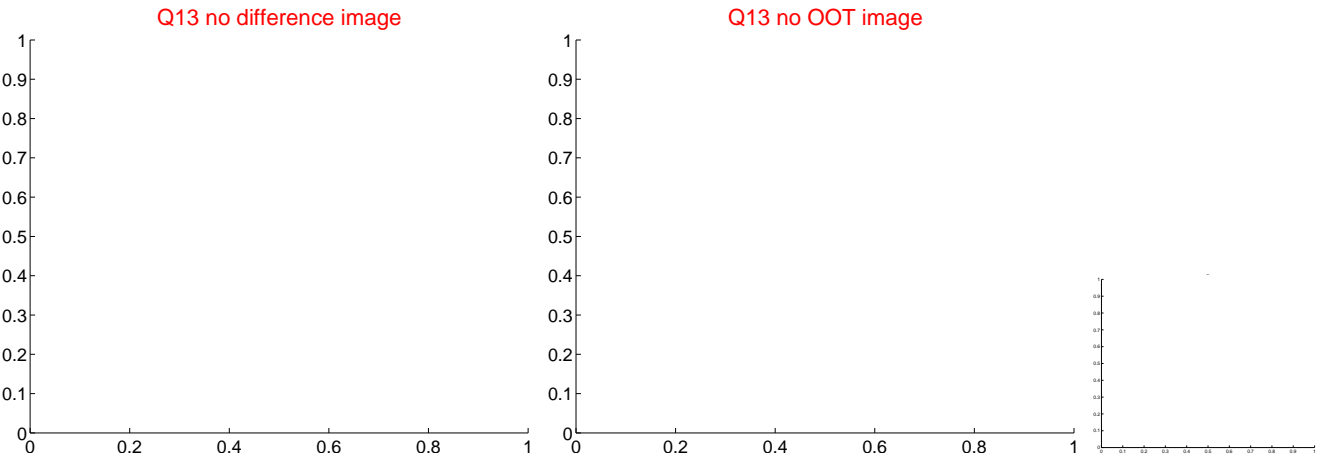
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



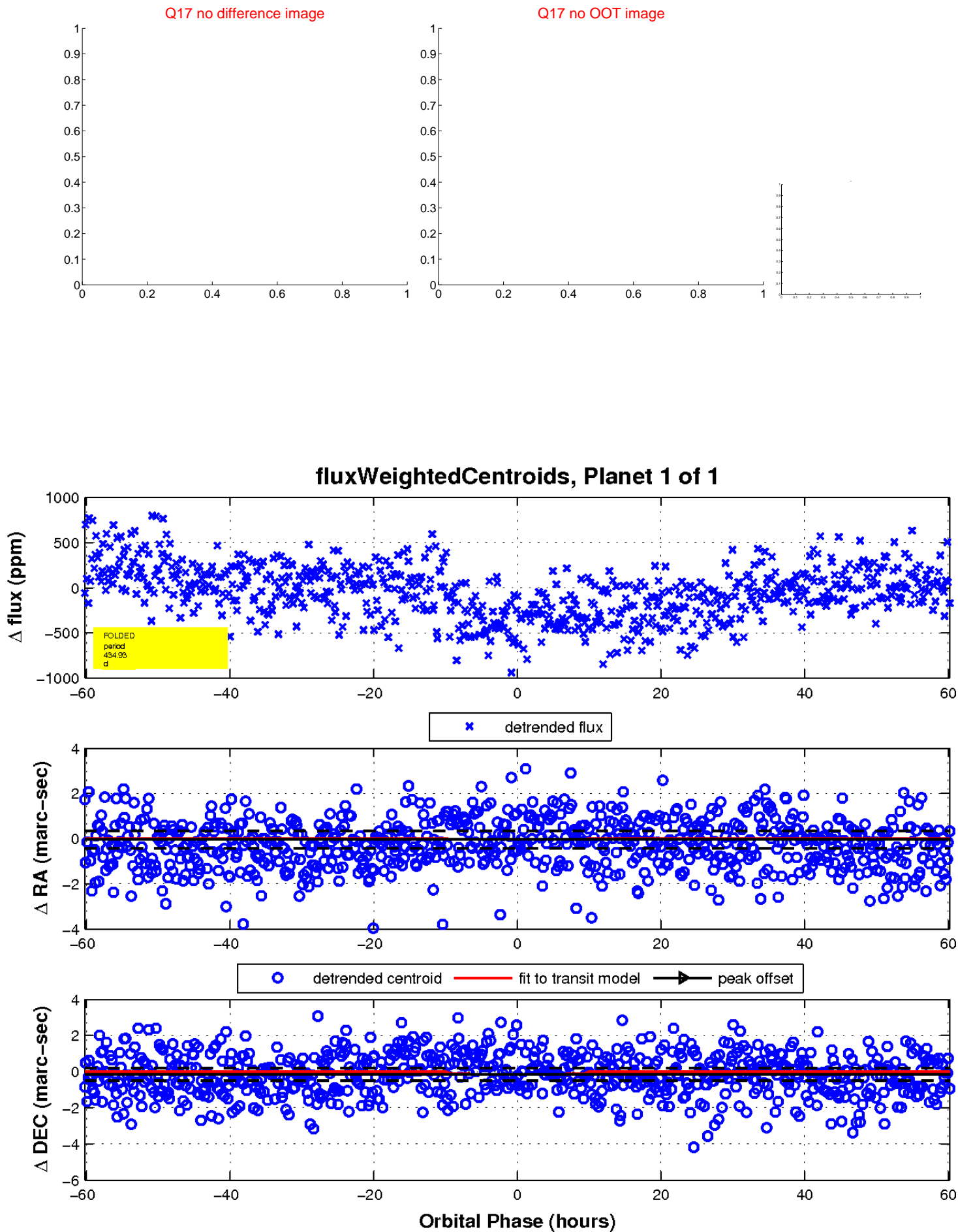
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

