

KIC 006104287

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})
006104287-01	OBS	No	362.360388	394.686481	363.3	5.981	8.4	3.5	0.63	4098	1.31	0.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006104287-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—INCONSISTENT_TRANS

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

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

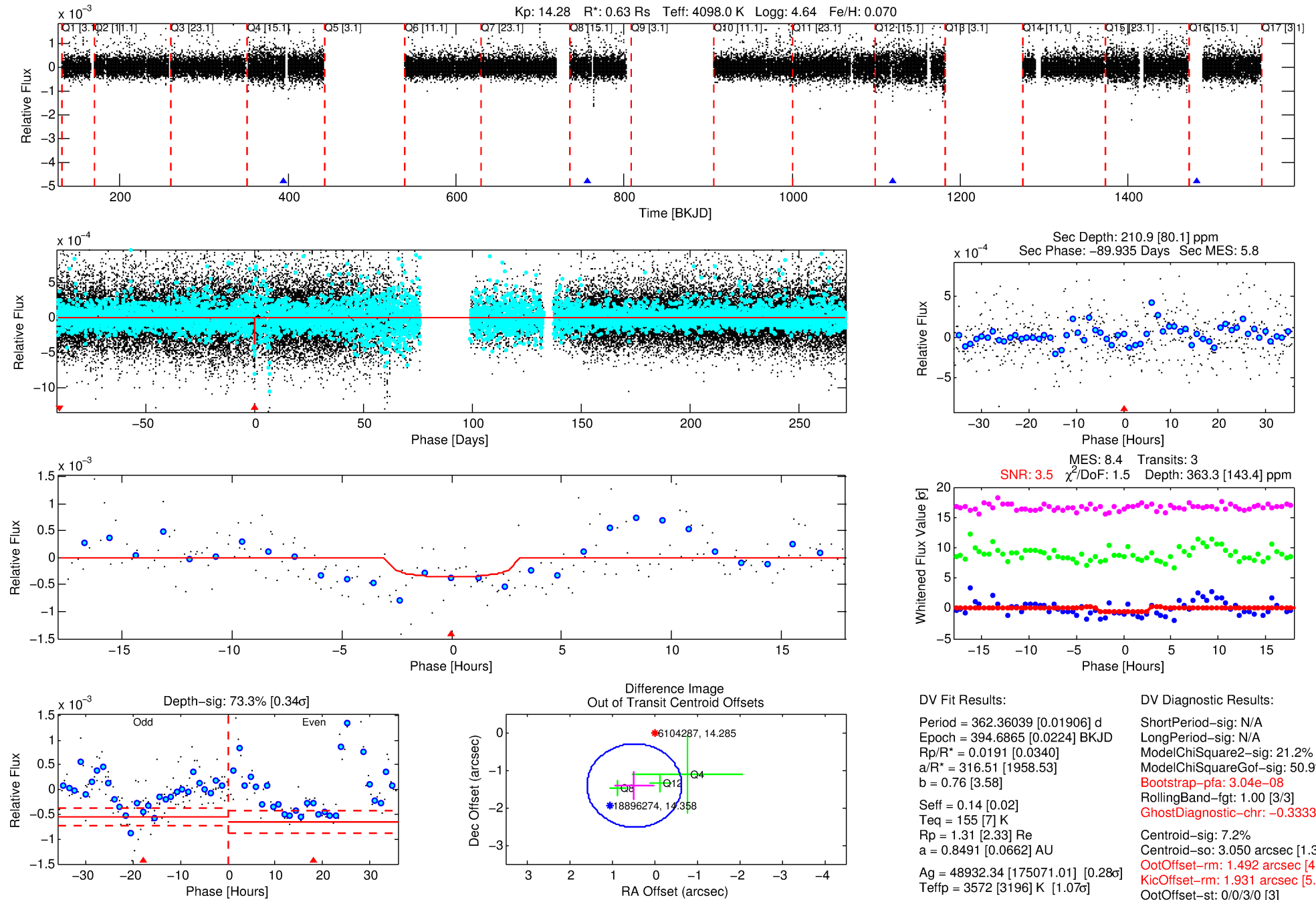
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006104287-01

No Significant Match Found

DV One-Page Summary

KIC: 6104287 Candidate: 1 of 1 Period: 362.360 d



DV Fit Results:

Period = 362.36039 [0.01906] d
Epoch = 394.6865 [0.0224] BKJD
Rp/R* = 0.0191 [0.0340]
a/R* = 316.51 [1958.53]
b = 0.76 [3.58]
Seff = 0.14 [0.02]
Teq = 155 [7] K
Rp = 1.31 [2.33] Re
a = 0.8491 [0.0662] AU
Ag = 48932.34 [175071.01] [0.28 σ]
Teffp = 3572 [3196] K [1.07 σ]

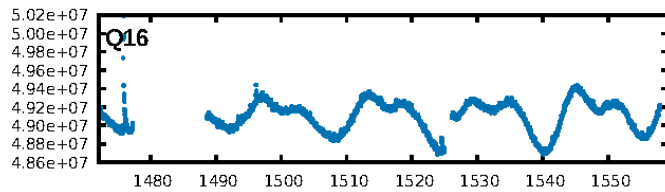
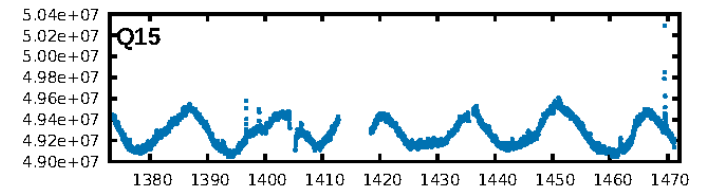
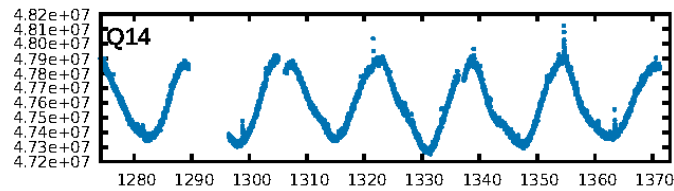
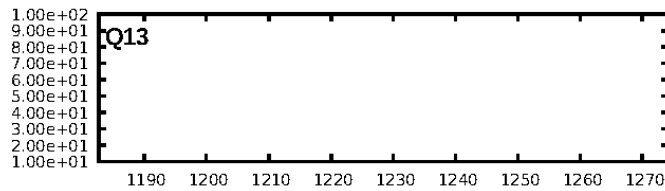
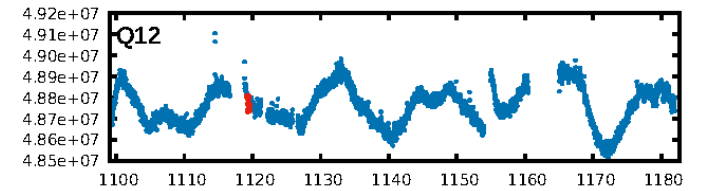
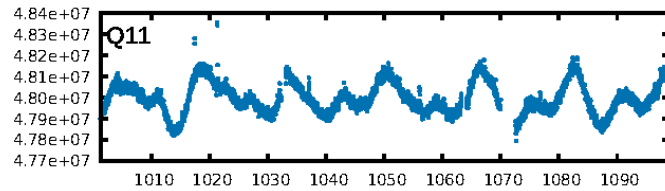
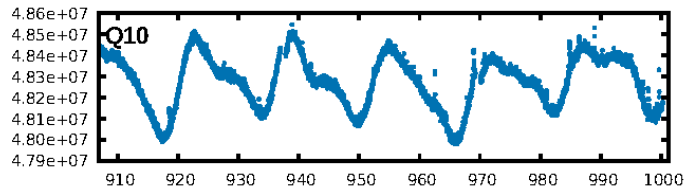
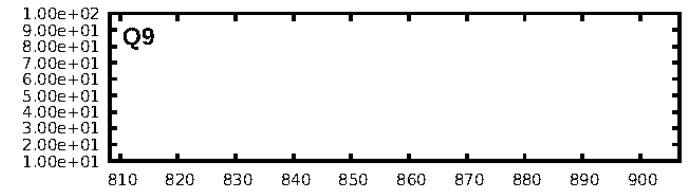
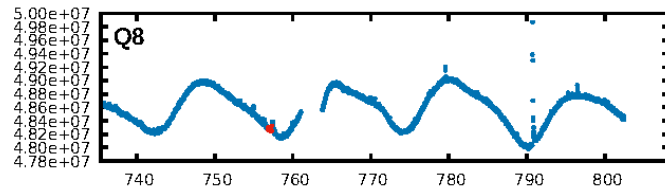
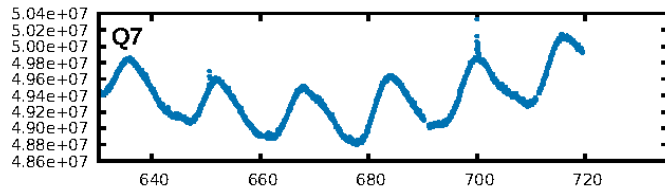
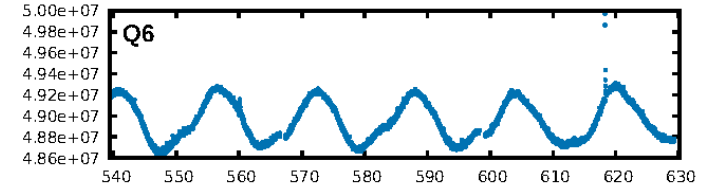
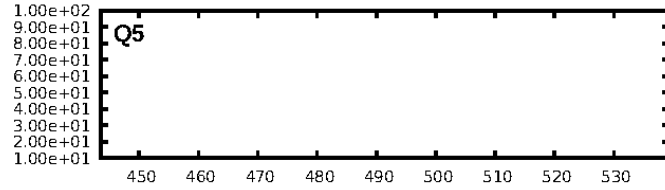
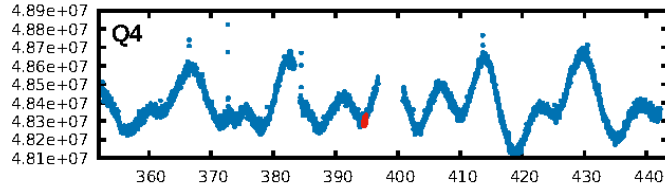
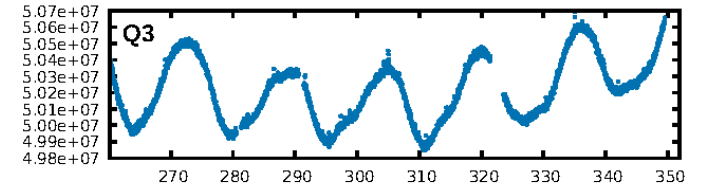
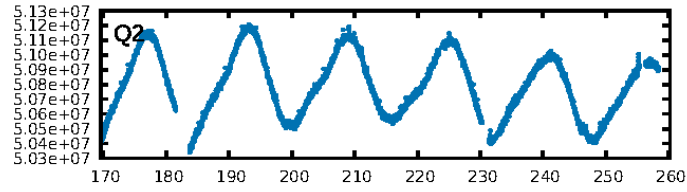
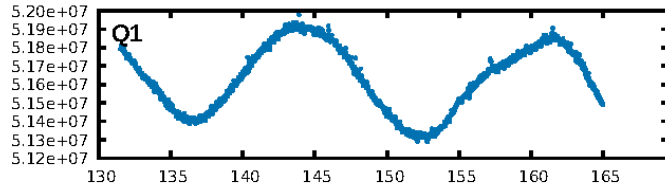
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.2%
ModelChiSquareGof-sig: 50.9%
Bootstrap-pfa: 3.04e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.3333
Centroid-sig: 7.2%
Centroid-so: 3.050 arcsec [1.39 σ]
OotOffset-rm: 1.492 arcsec [4.02 σ]
KicOffset-rm: 1.931 arcsec [5.26 σ]
OotOffset-st: 0/0/3/0 [3]
KicOffset-st: 0/0/3/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

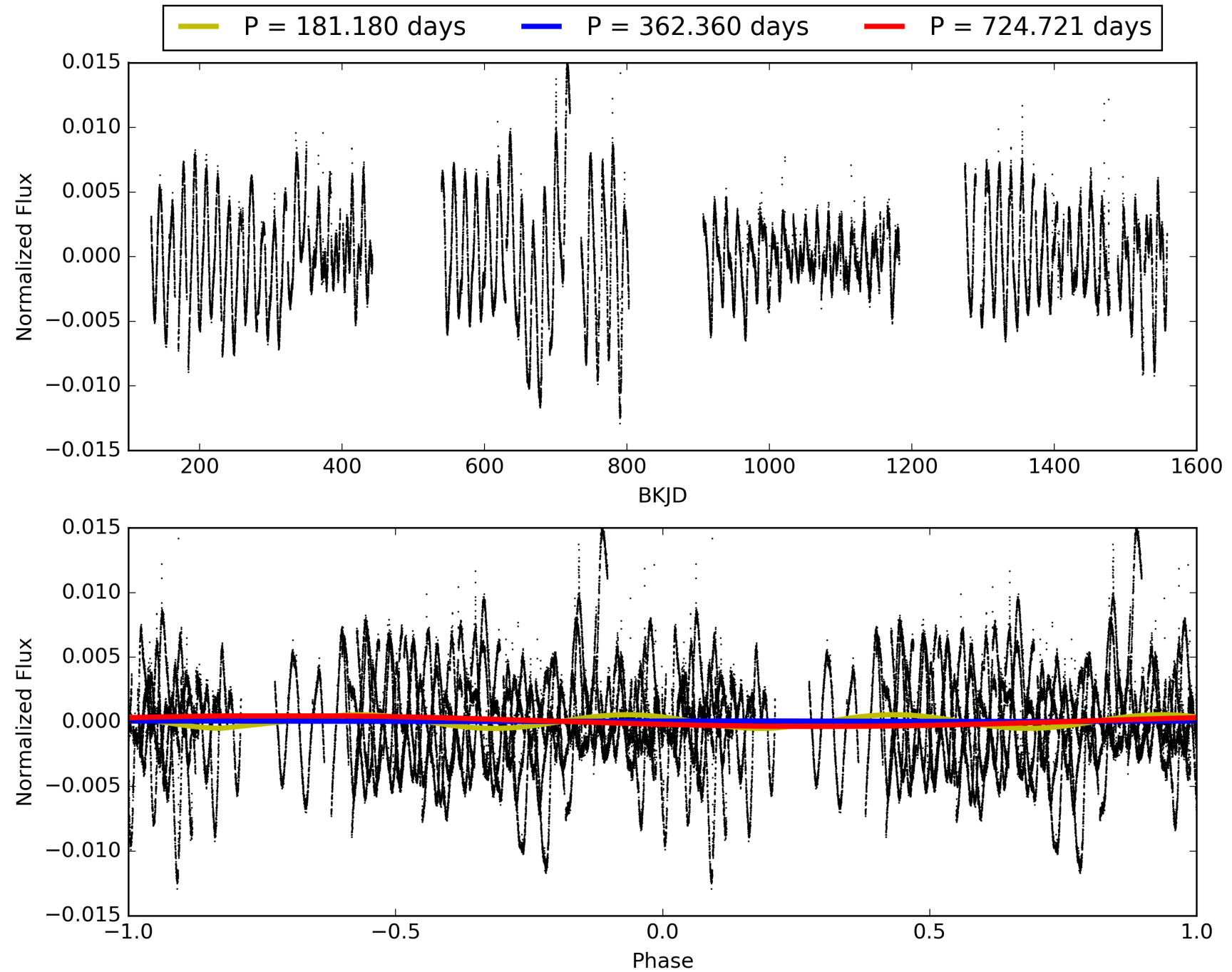
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:55:33 Z

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

TCE 006104287-01, PDC Light Curves

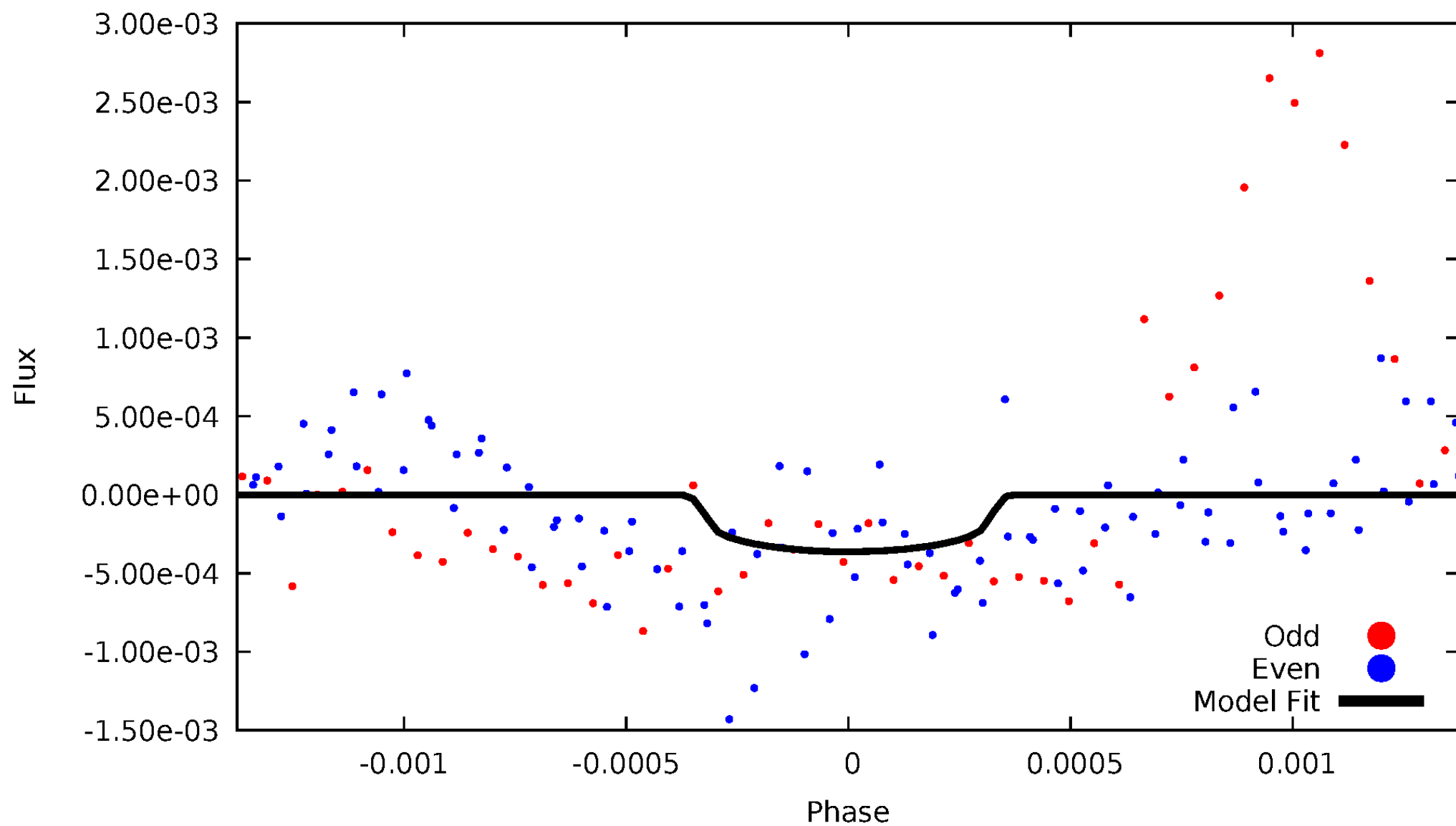


TCE 006104287-01



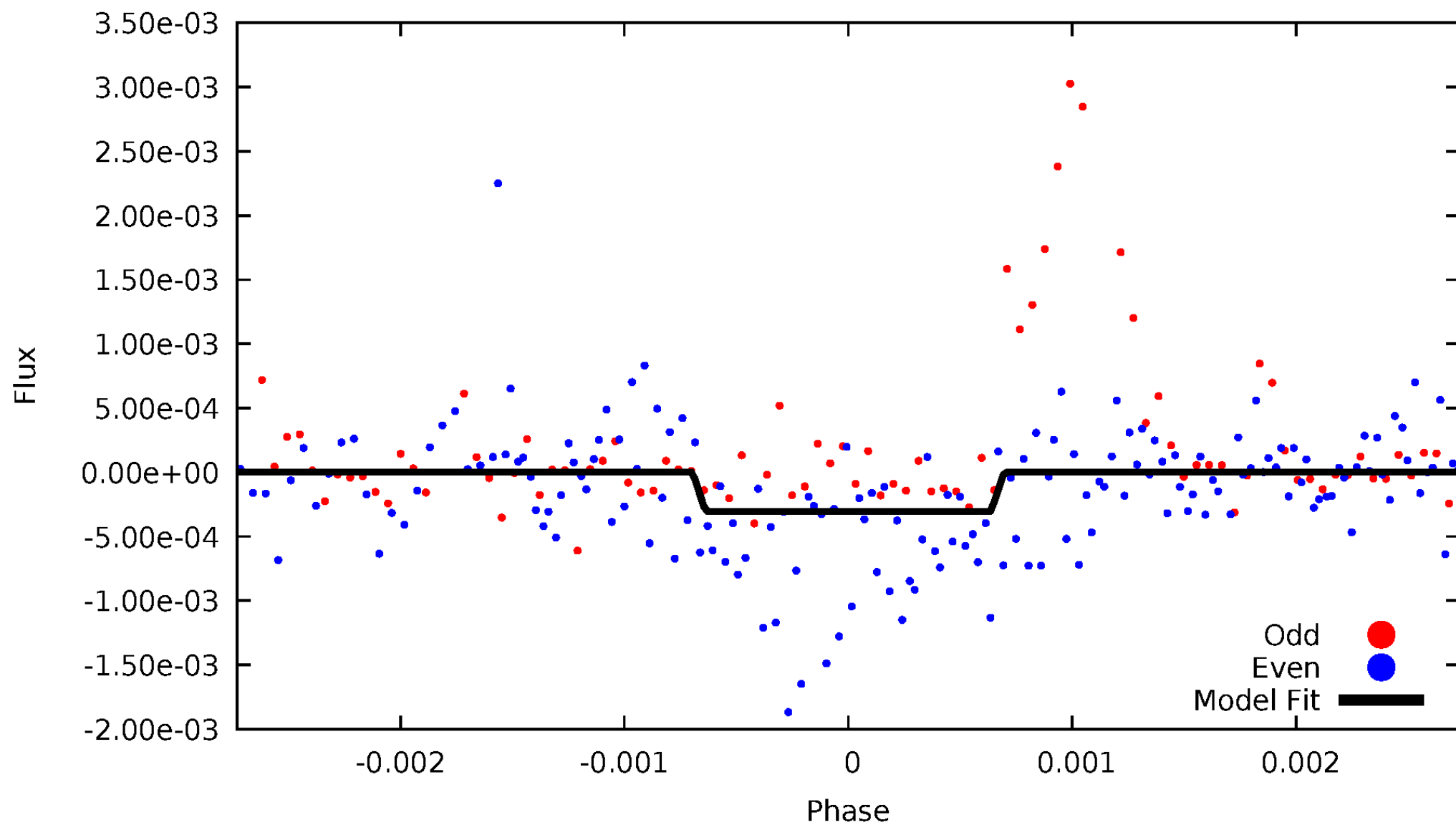
DV Odd/Even

TCE 006104287-01



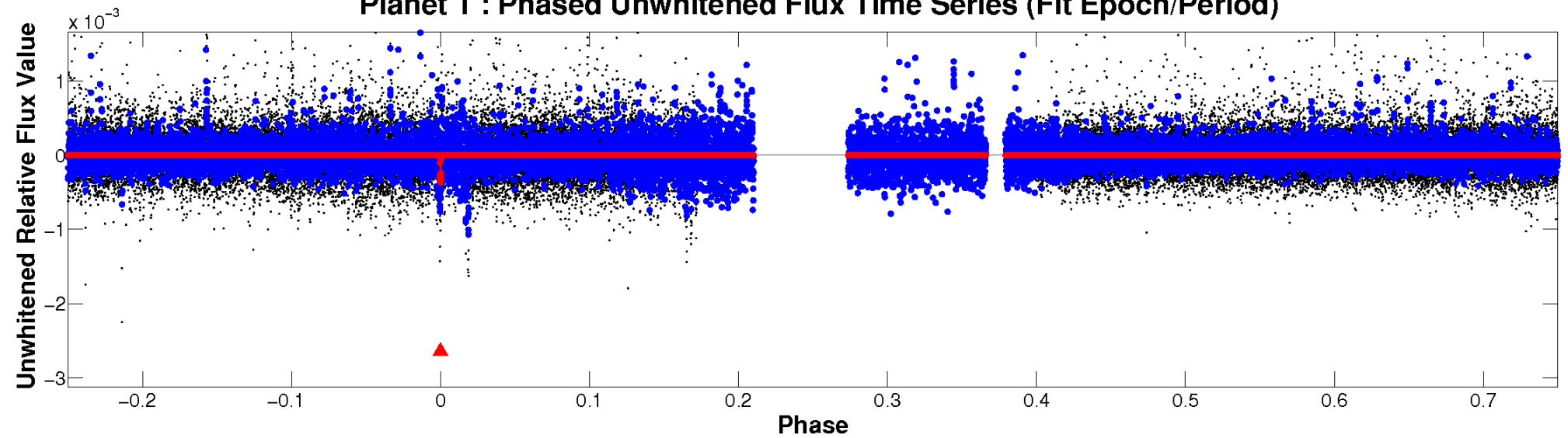
ALT Odd/Even

TCE 006104287-01

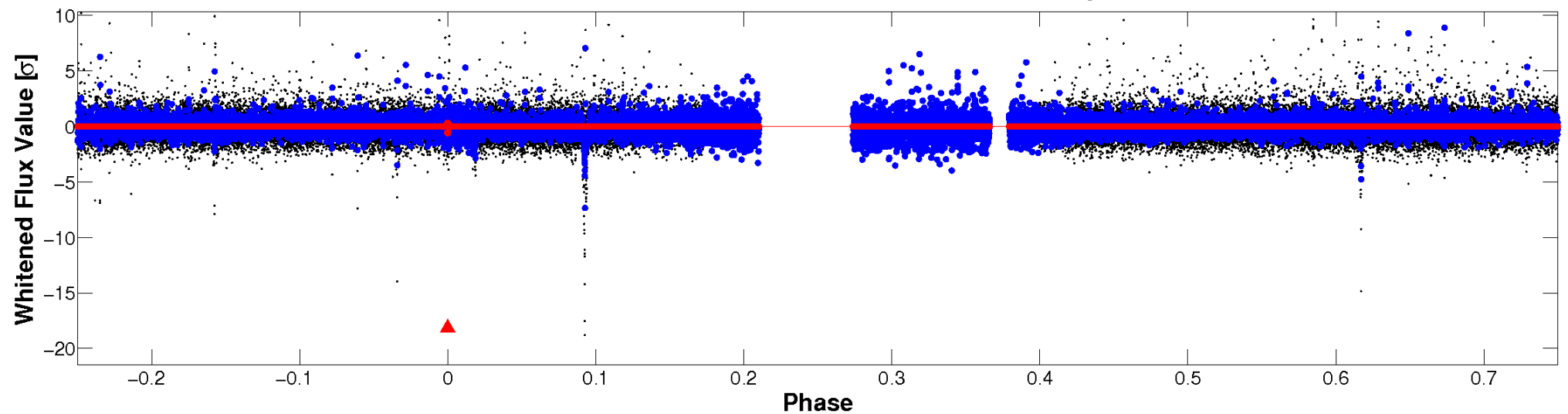


Non-Whitened Vs. Whitened Light Curve

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

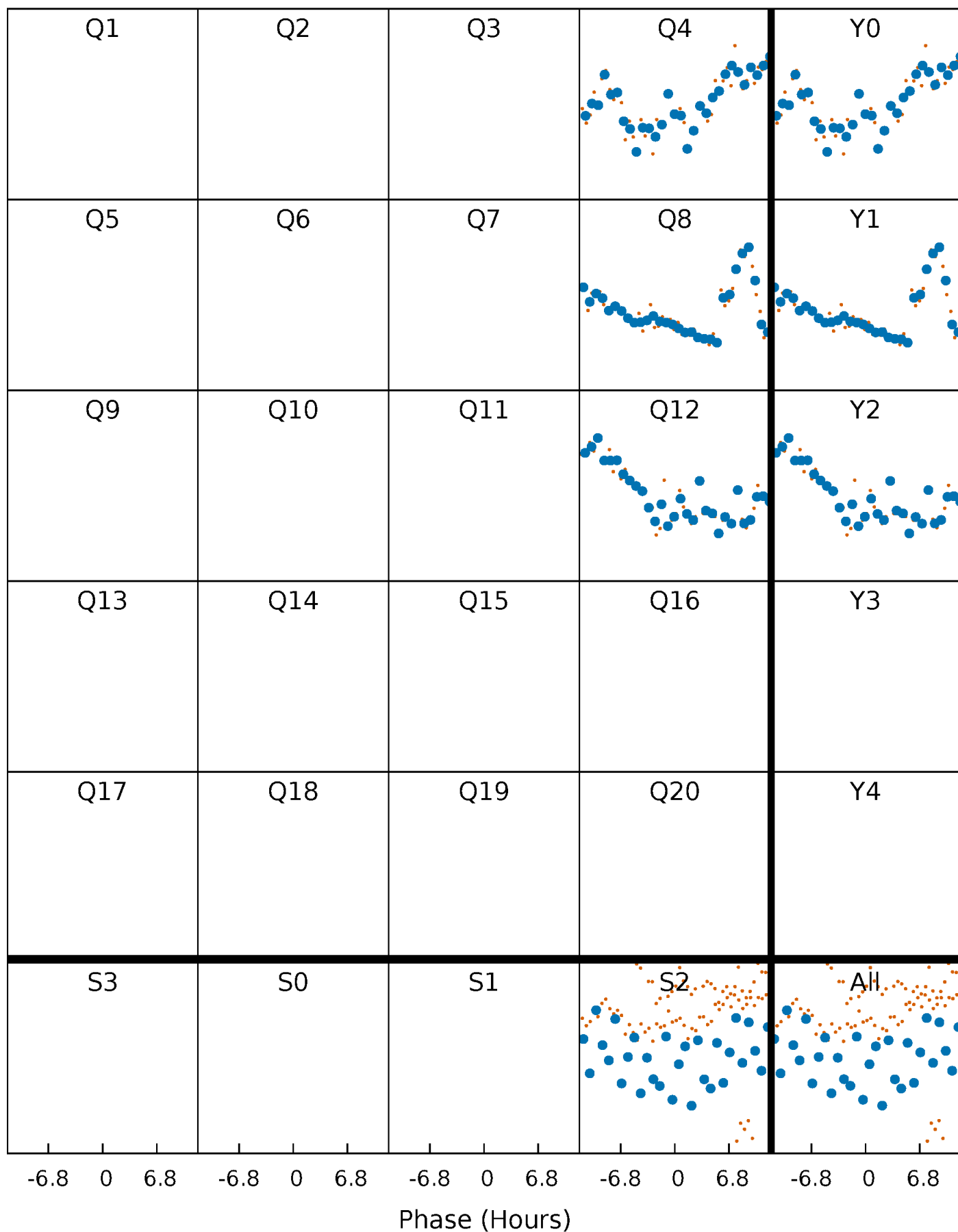


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



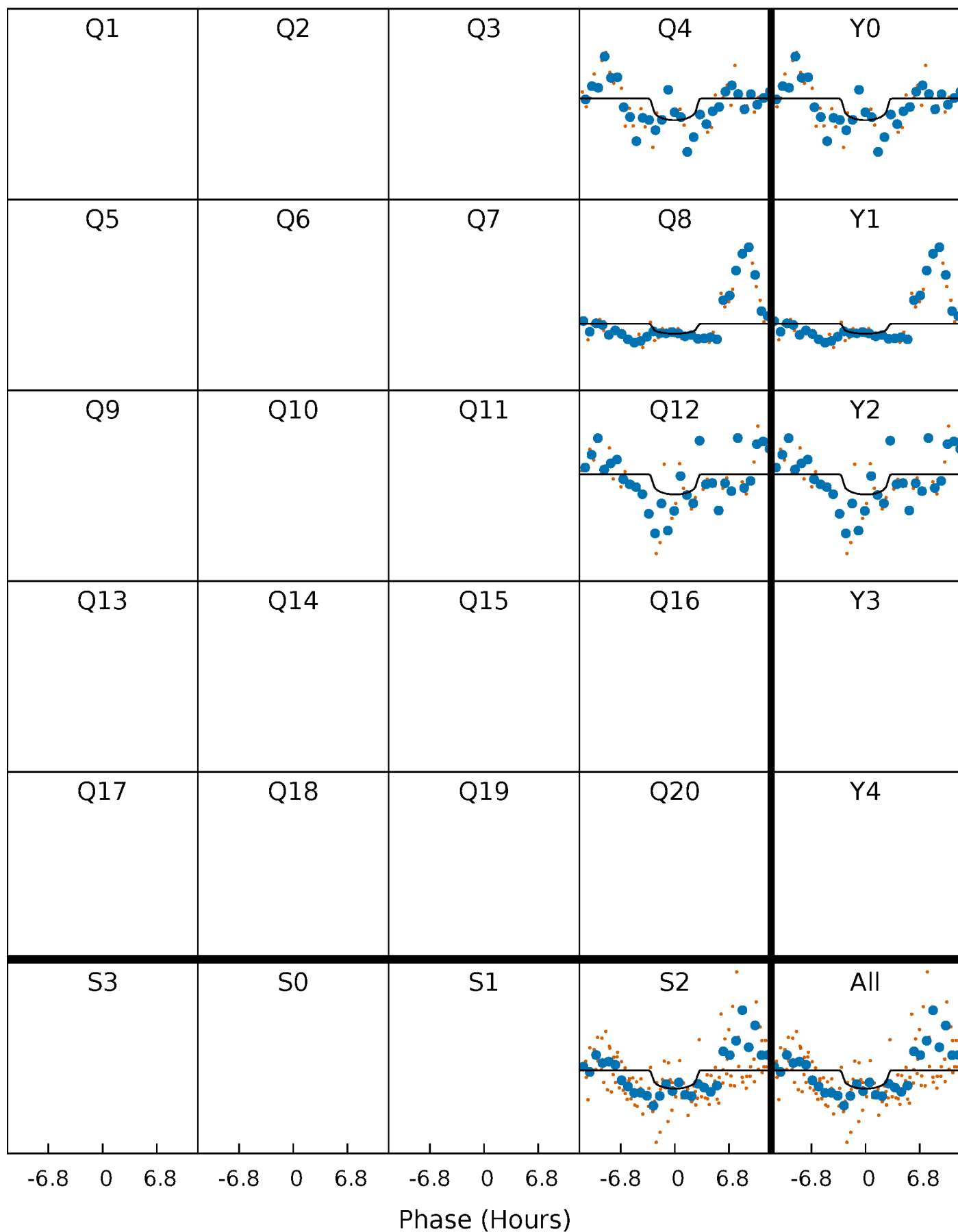
PDC Quarter-Phased Transit Curves

TCE 006104287-01 P=362.360388 Days $T_0=394.686481$ (BKJD)



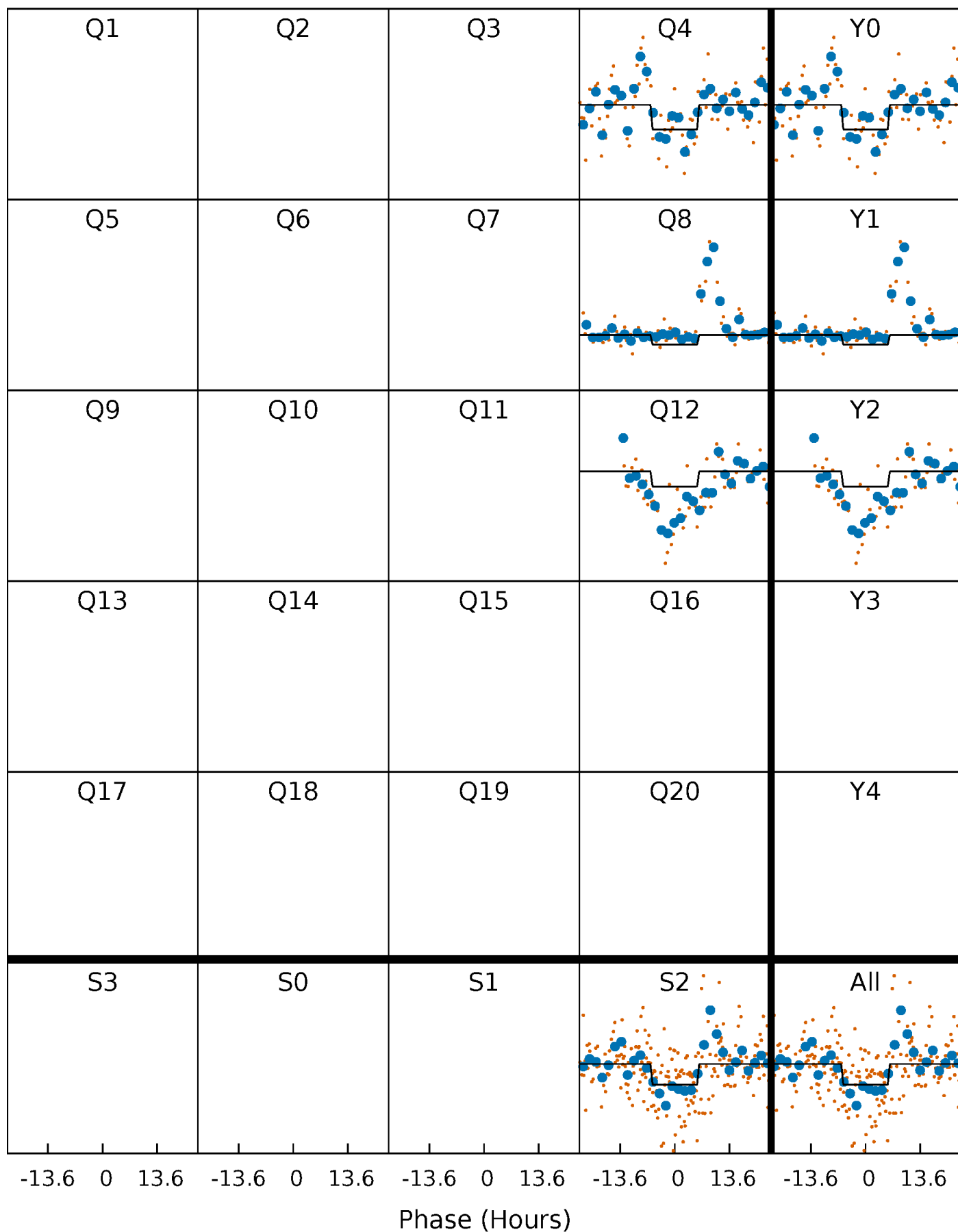
DV Quarter-Phased Transit Curves

TCE 006104287-01 P=362.360388 Days $T_0=394.686481$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

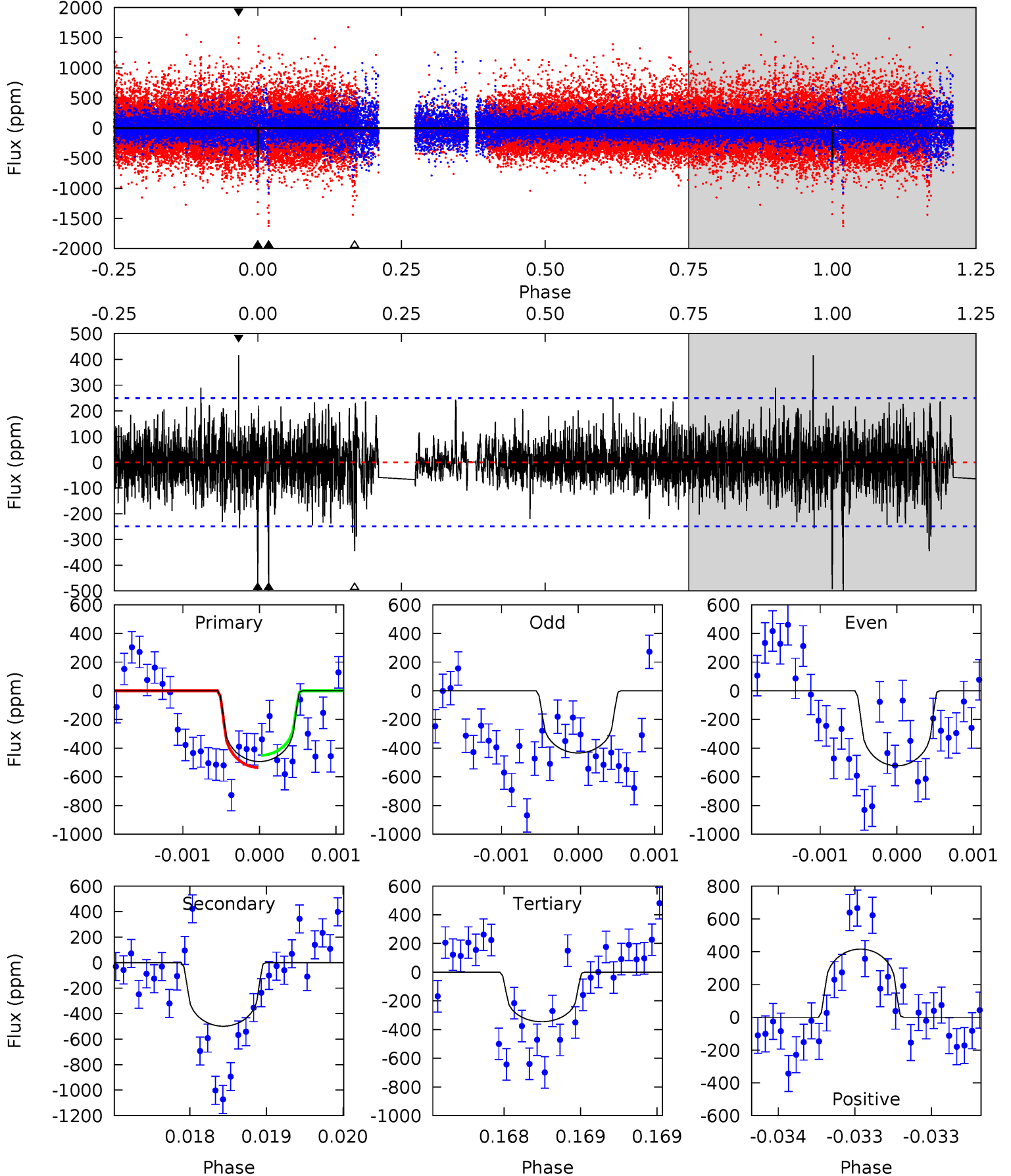
TCE 006104287-01 P=362.375564 Days $T_0=394.655903$ (BKJD)



DV Model-Shift Uniqueness Test

006104287-01, P = 362.360388 Days, E = 32.326093 Days

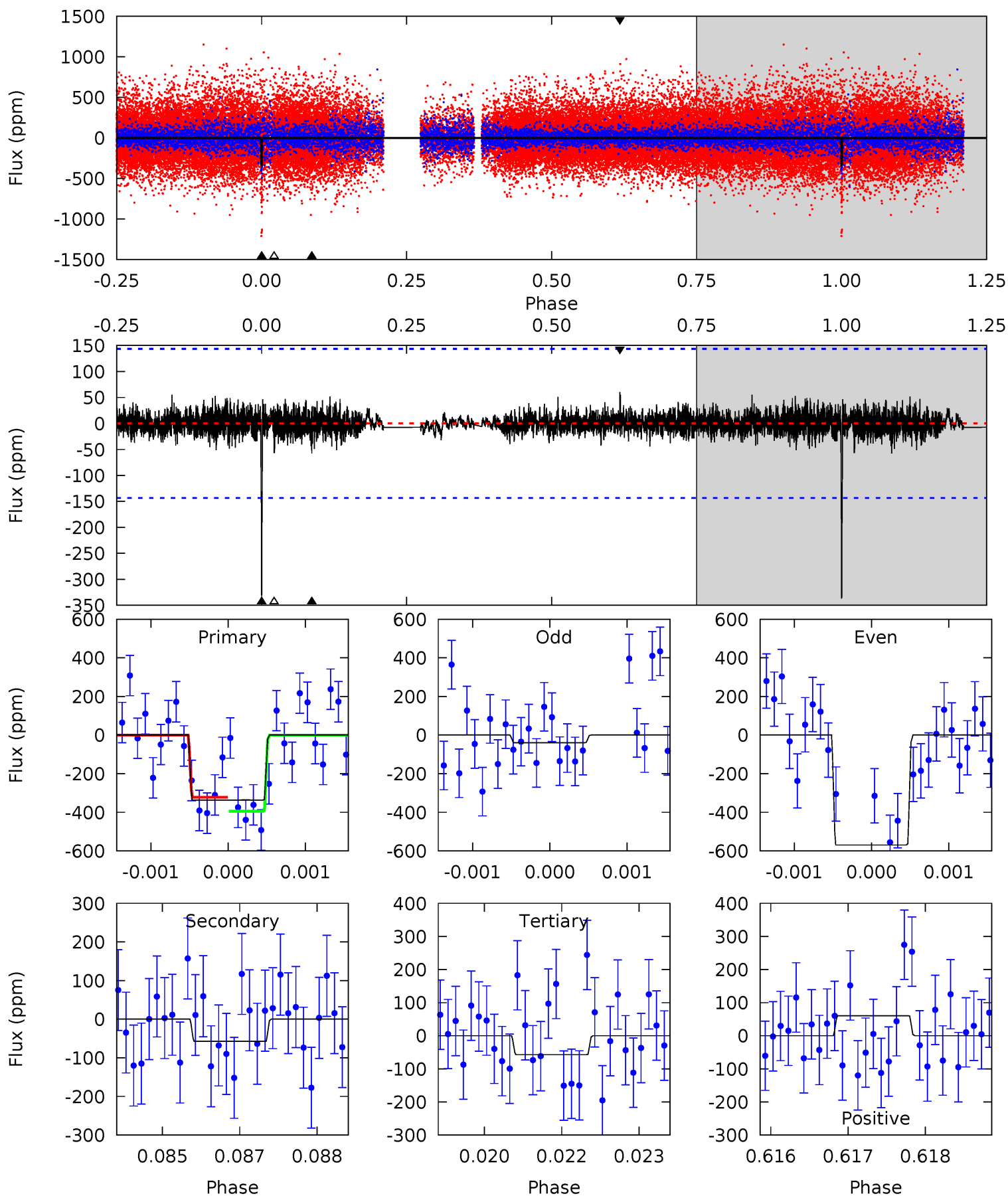
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	11.1	7.66	9.22	5.52	3.40	1.55	3.28	1.72	3.41	1.84	0.88	1.14	0.45	0.94



Alt Model-Shift Uniqueness Test

006104287-01, P = 362.375564 Days, E = 32.280339 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	2.17	2.15	2.27	5.40	3.20	0.50	10.5	10.4	0.02	-0.10	9.79	1.27	0.15	1.35



Stellar Parameters For KIC 006104287

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4098^{+145}_{-145}	$4.637^{+0.052}_{-0.020}$	$0.070^{+0.250}_{-0.300}$	$0.627^{+0.034}_{-0.063}$	$0.621^{+0.052}_{-0.057}$	$3.552^{+0.906}_{-0.330}$
	+4%/-4%	+1%/-0%	+357%/-429%	+5%/-10%	+8%/-9%	+26%/-9%
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 006104287-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-499 ± 45	$2.16^{+2.09}_{-1.48}$	216^{+9}_{-8}	3654^{+1993}_{-690}	$44087^{+377855}_{-32613}$
Alt.	-58 ± 27	$2.06^{+2.01}_{-1.43}$	216^{+8}_{-8}	2640^{+1057}_{-425}	4961^{+46201}_{-3897}

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

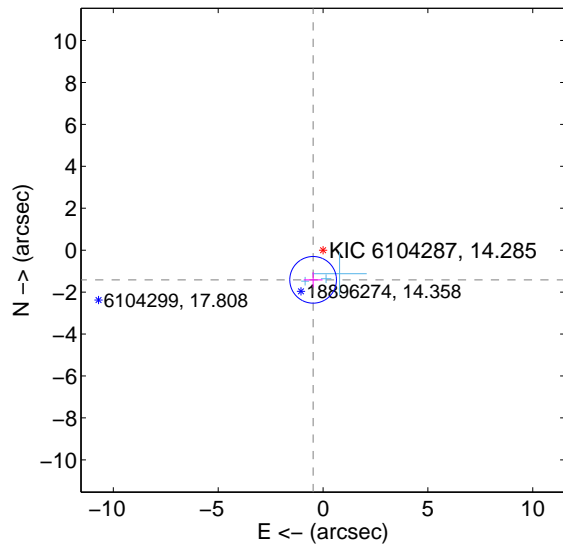
Supplemental centroid analysis for 006104287-01. Kepler magnitude: 14.29. Transit SNR 3.49

There are 3 quarters with good PRF difference image offsets

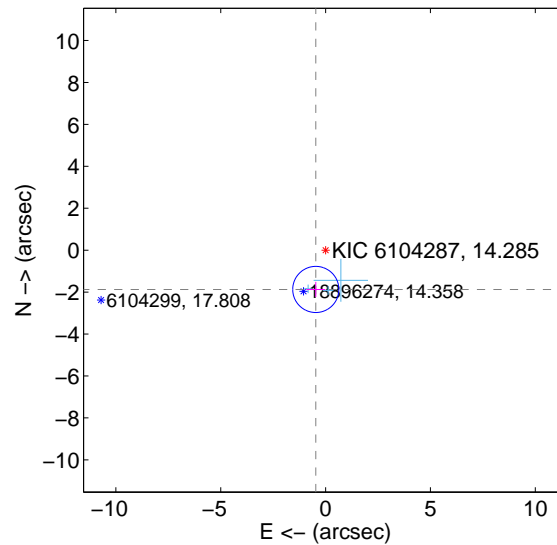
The direct PRF centroid is offset from the target star catalog position by about 0.56 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.492 ± 0.371	4.02	0.473 ± 0.449	-1.415 ± 0.361
PRF-fit source offset from KIC position	1.931 ± 0.367	5.26	0.467 ± 0.449	-1.873 ± 0.361
photometric centroid source offset	3.05 ± 2.19	1.39	2.59 ± 2.00	1.61 ± 2.62

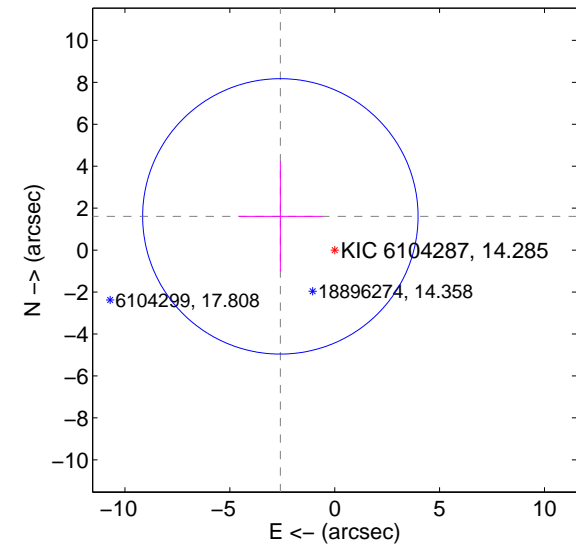
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

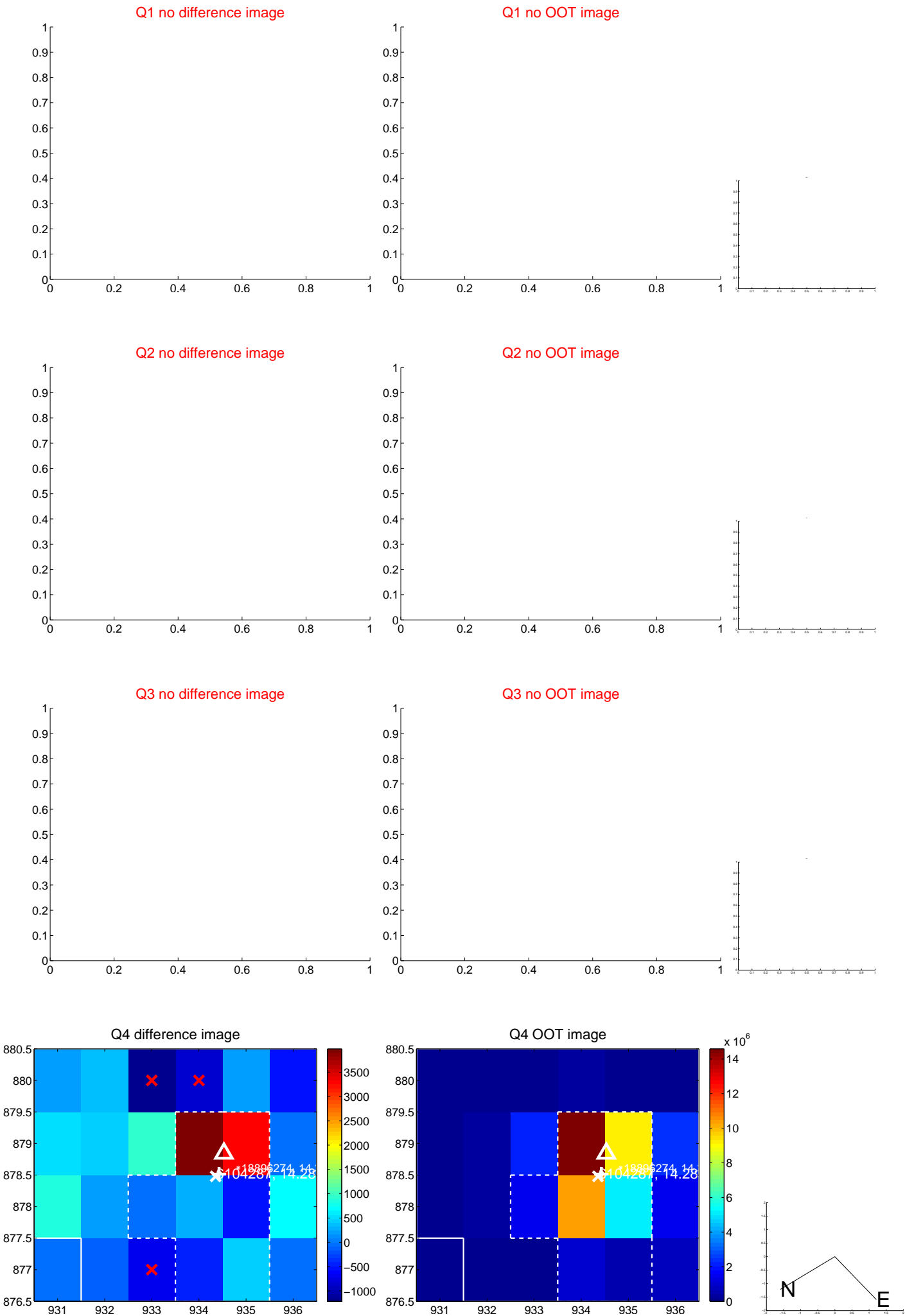


offset from photometric centroids

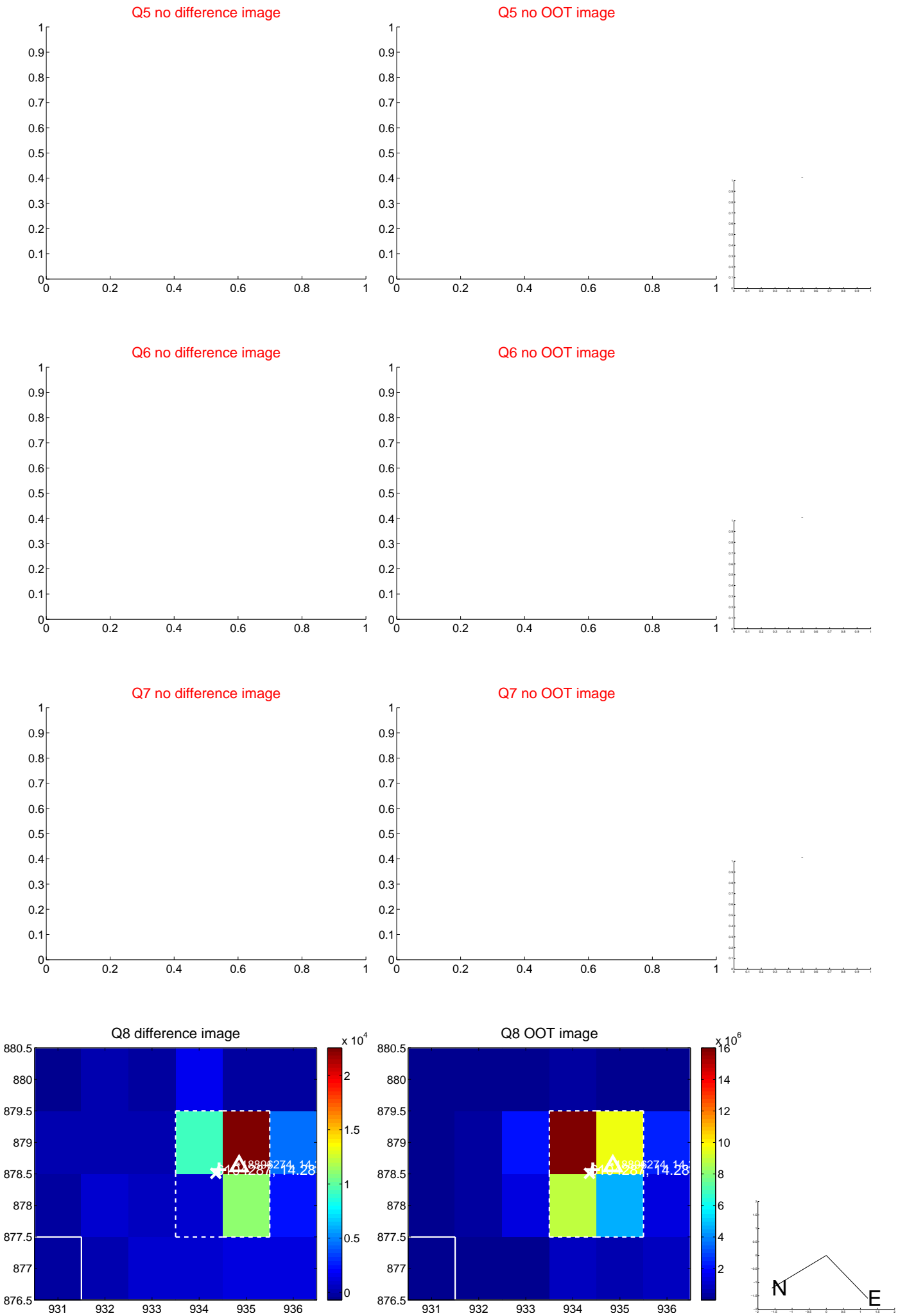


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

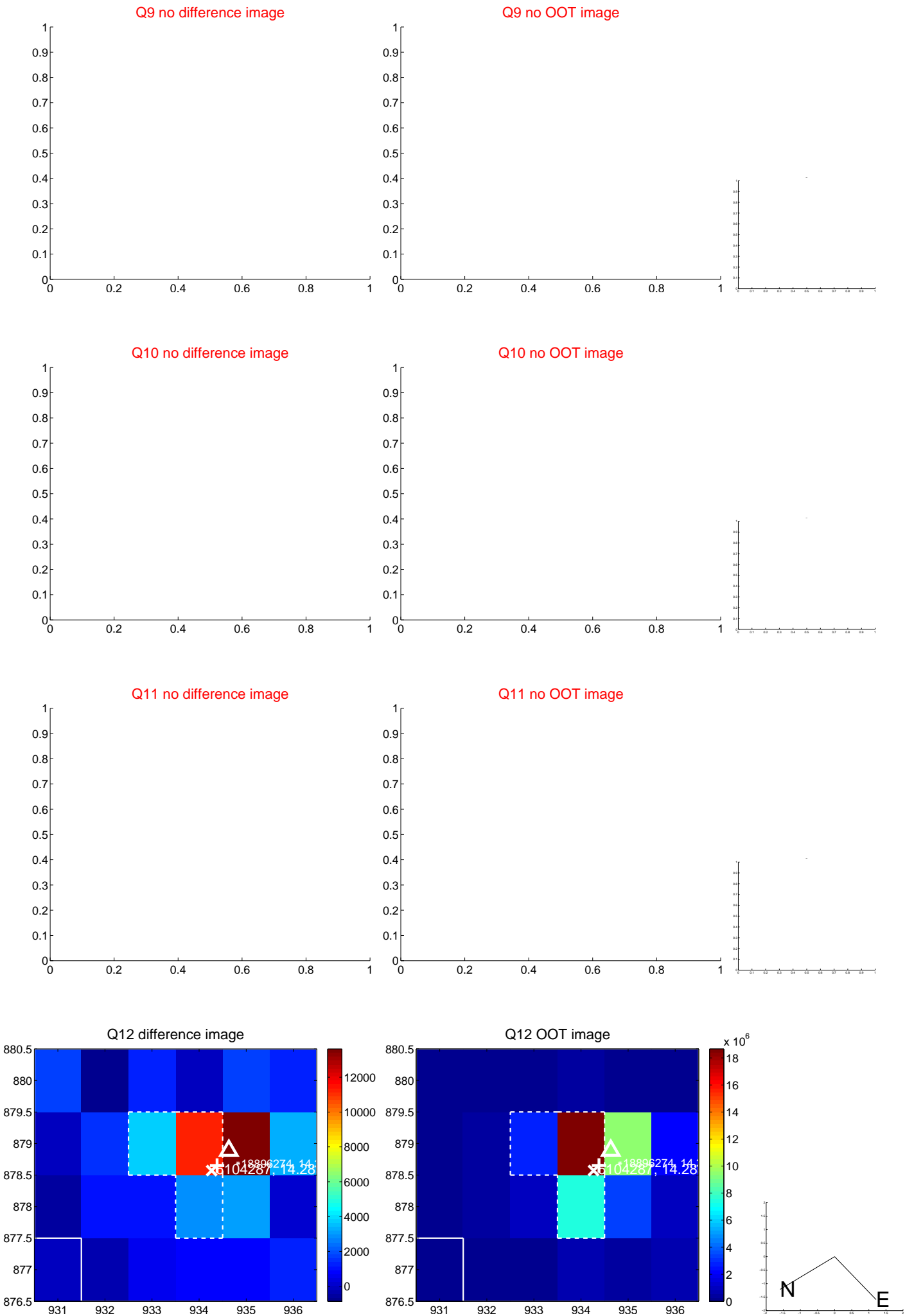
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



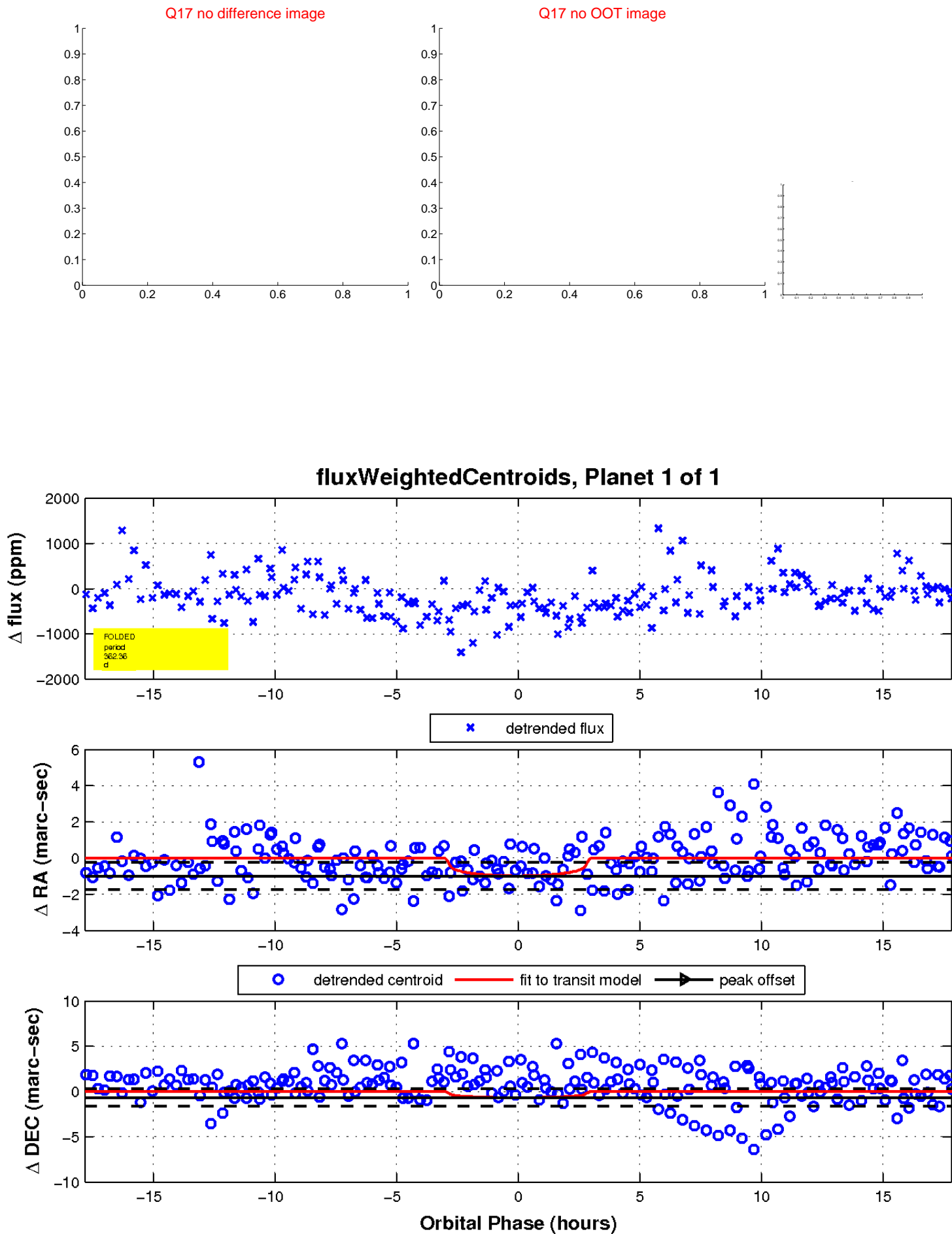
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

