

KIC 006122798

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})
006122798-01	OBS	No	367.307146	371.895389	139.5	21.187	7.5	6.7	1.04	6173	1.35	1.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006122798-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

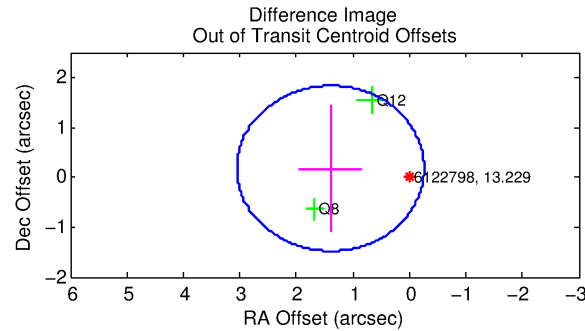
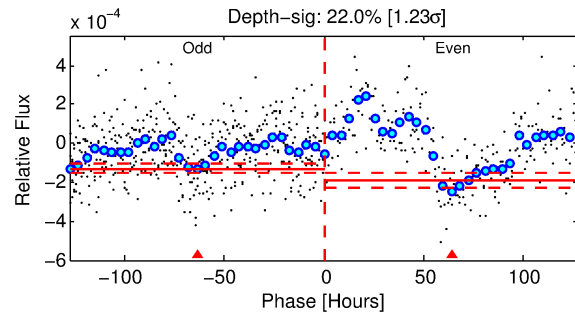
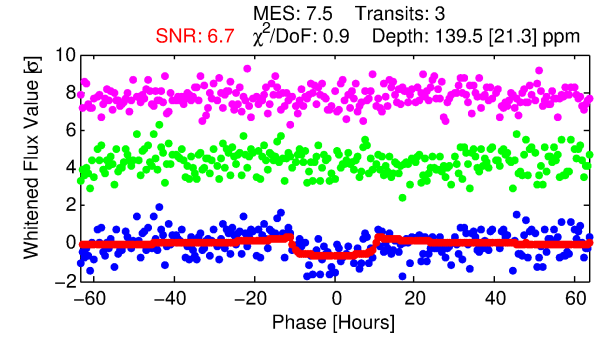
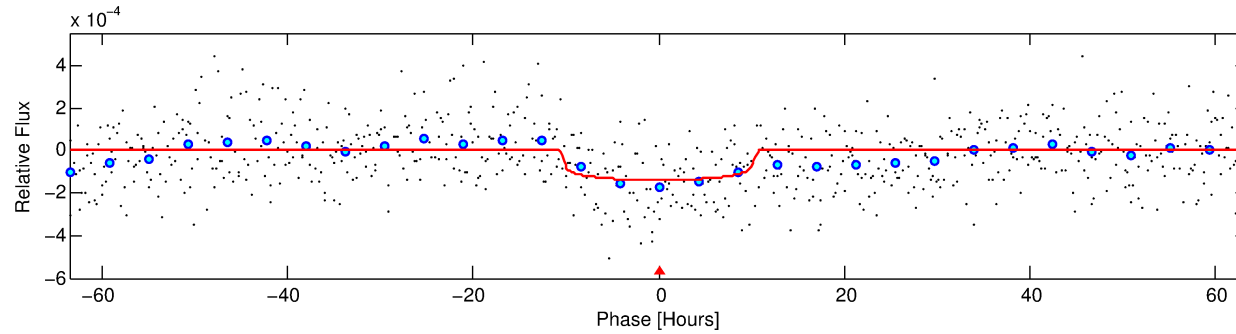
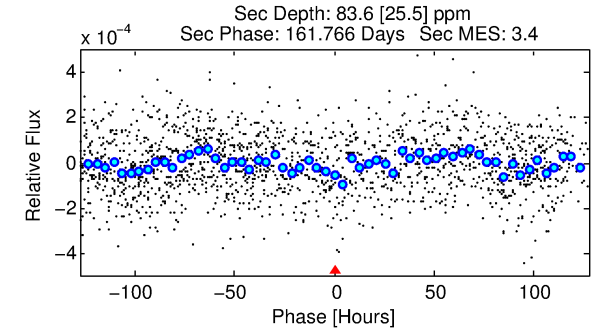
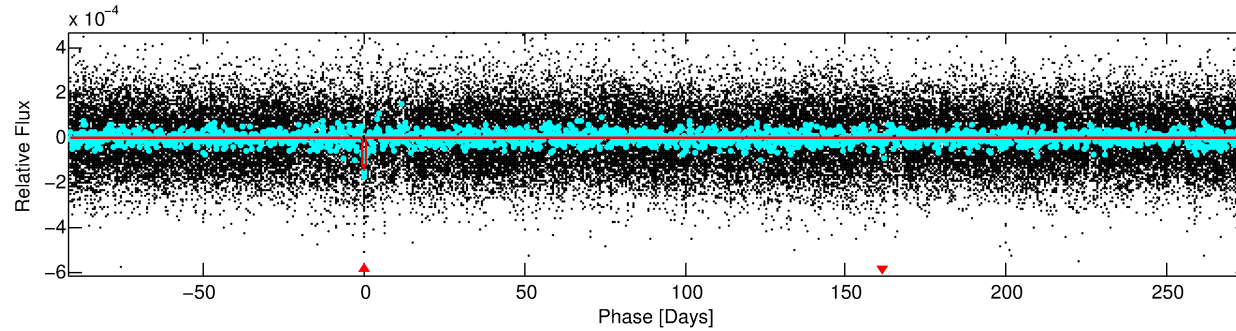
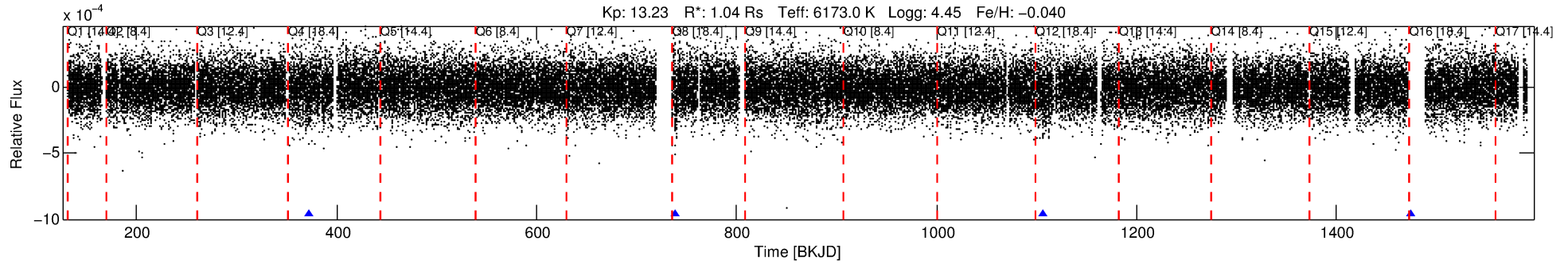
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006122798-01

No Significant Match Found

DV One-Page Summary

KIC: 6122798 Candidate: 1 of 1 Period: 367.307 d



DV Fit Results:

Period = 367.30715 [0.02055] d
Epoch = 371.8954 [0.0262] BKJD
Rp/R* = 0.0119 [0.0030]
a/R* = 86.10 [104.19]
b = 0.78 [0.63]
Seff = 1.31 [0.25]
Teq = 273 [13] K
Rp = 1.35 [0.39] Re
a = 1.0384 [0.1242] AU
Ag = 27337.05 [16945.01] [1.61σ]
Teffp = 5421 [806] K [6.38σ]

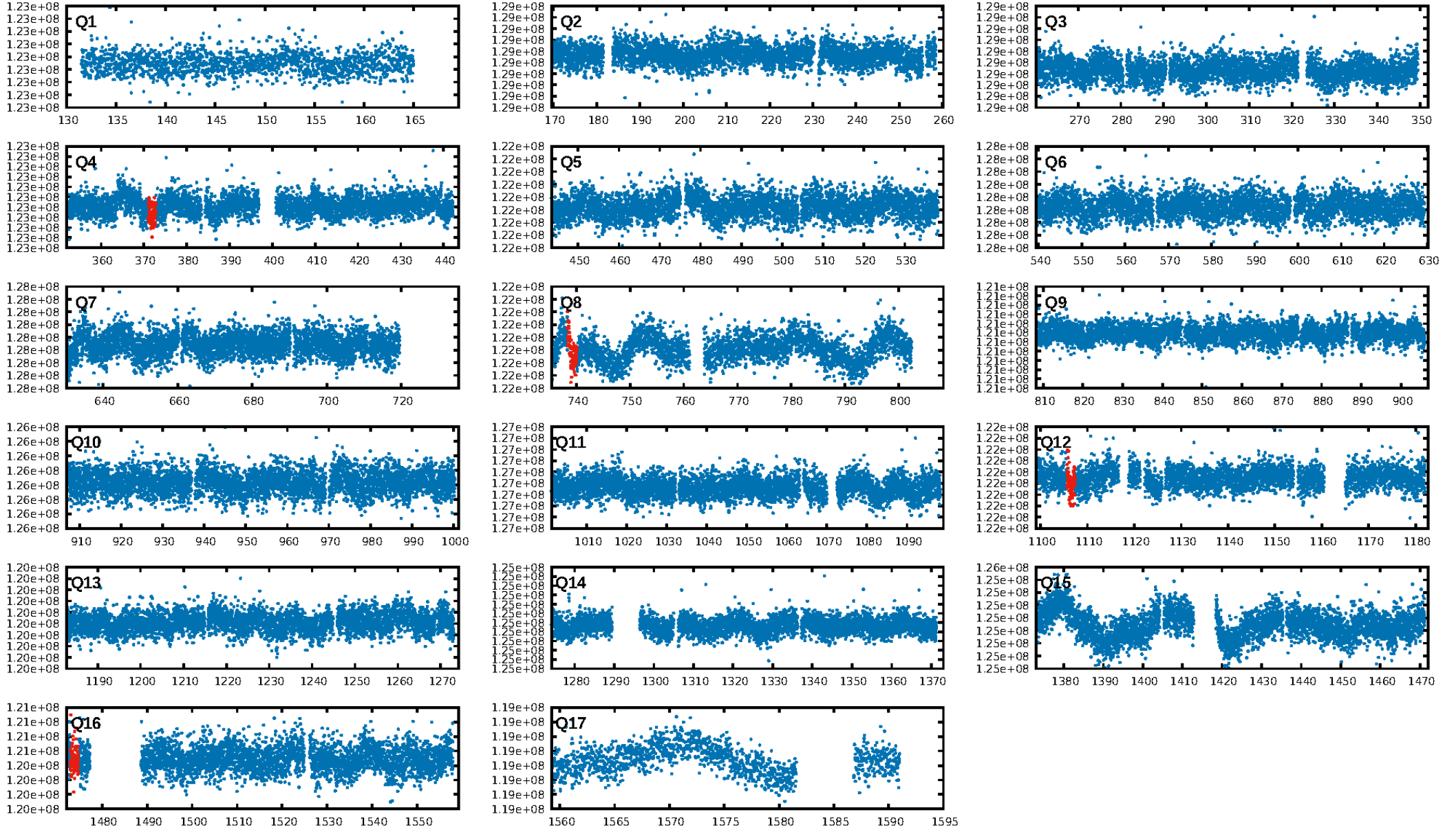
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 70.7%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 2.70e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.014
Centroid-sig: 7.6%
Centroid-so: 1.720 arcsec [1.24σ]
OotOffset-rm: 1.407 arcsec [2.55σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 1.537 arcsec [2.82σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

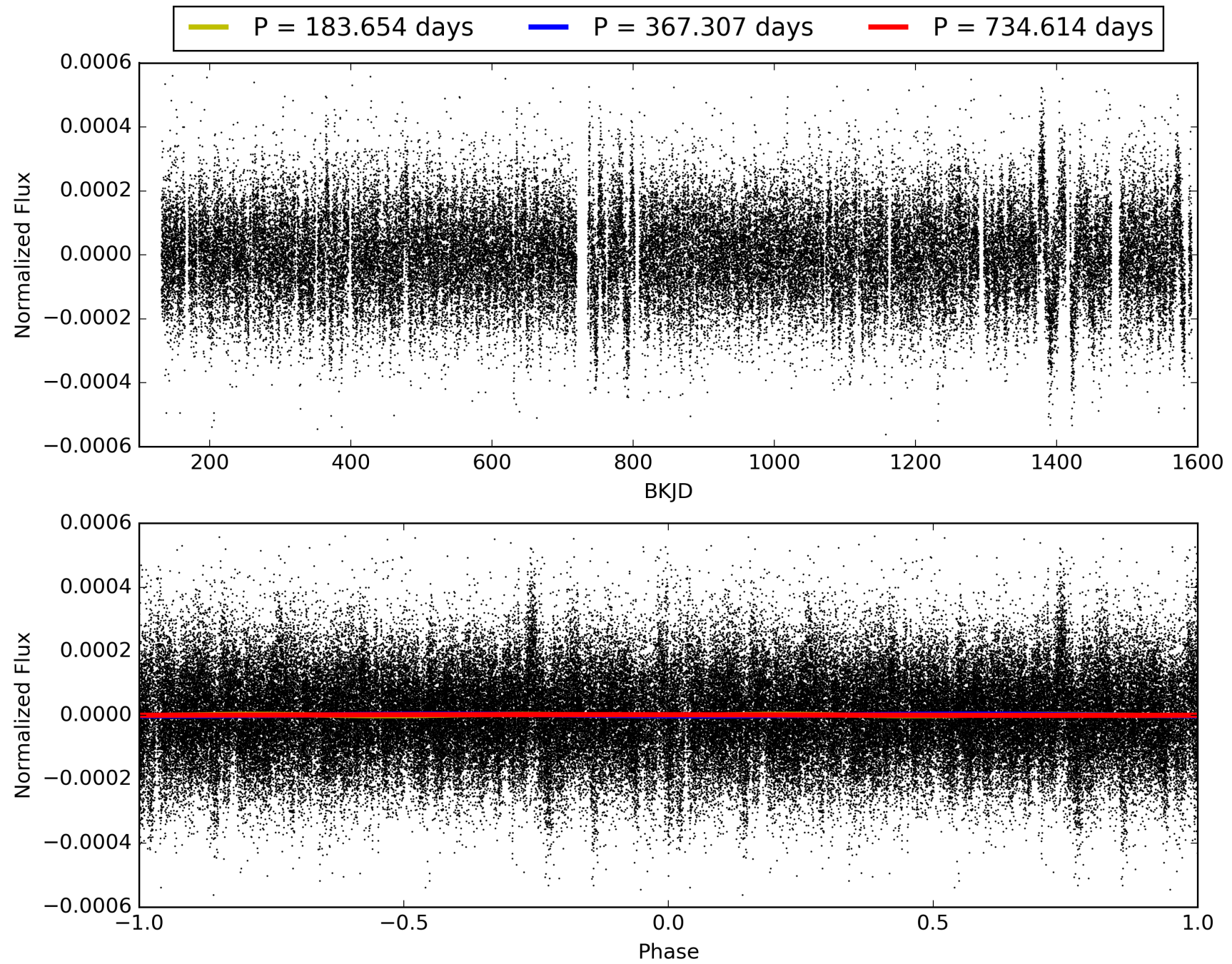
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:09:20 Z

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

TCE 006122798-01, PDC Light Curves

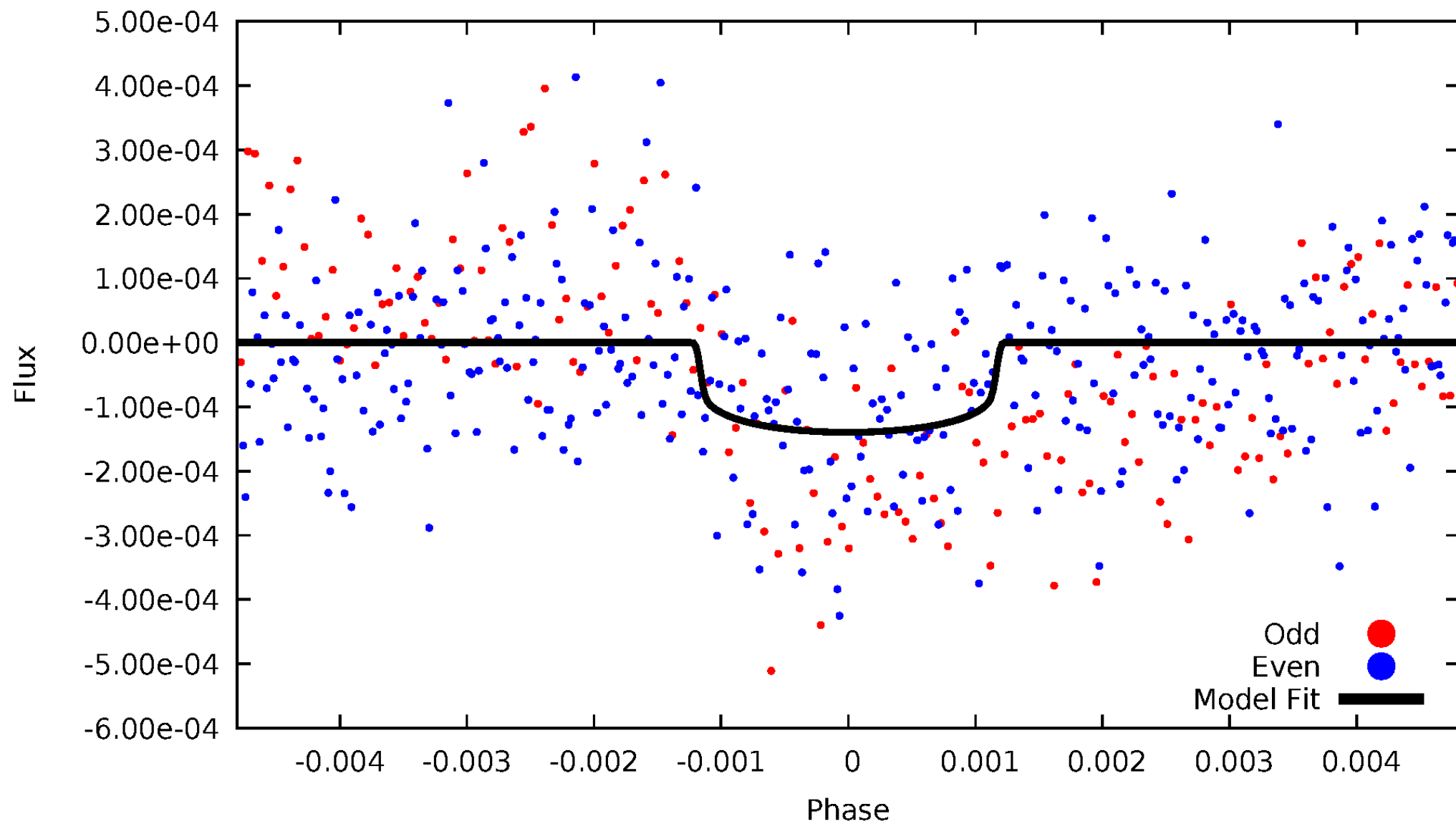


TCE 006122798-01



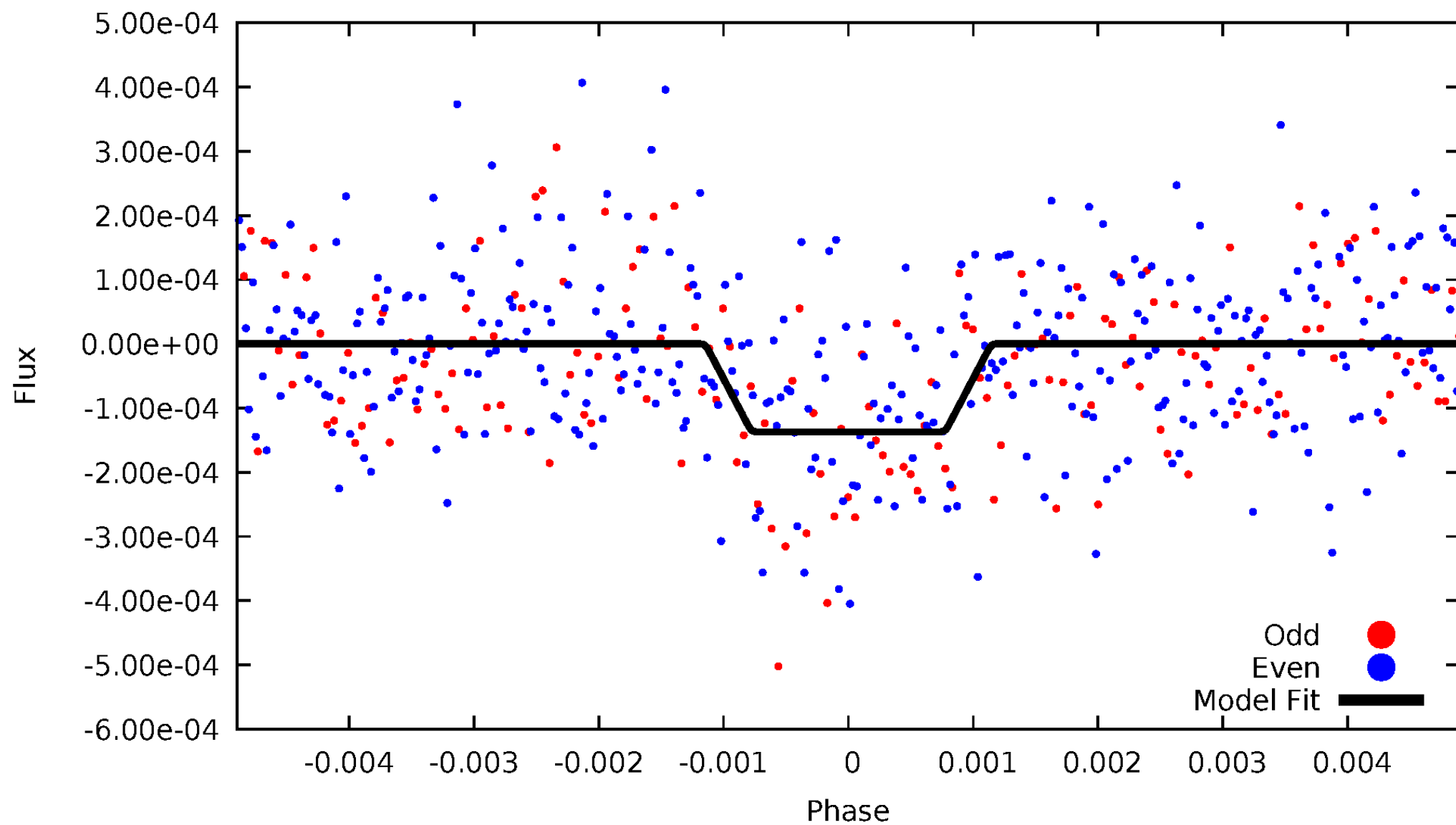
DV Odd/Even

TCE 006122798-01



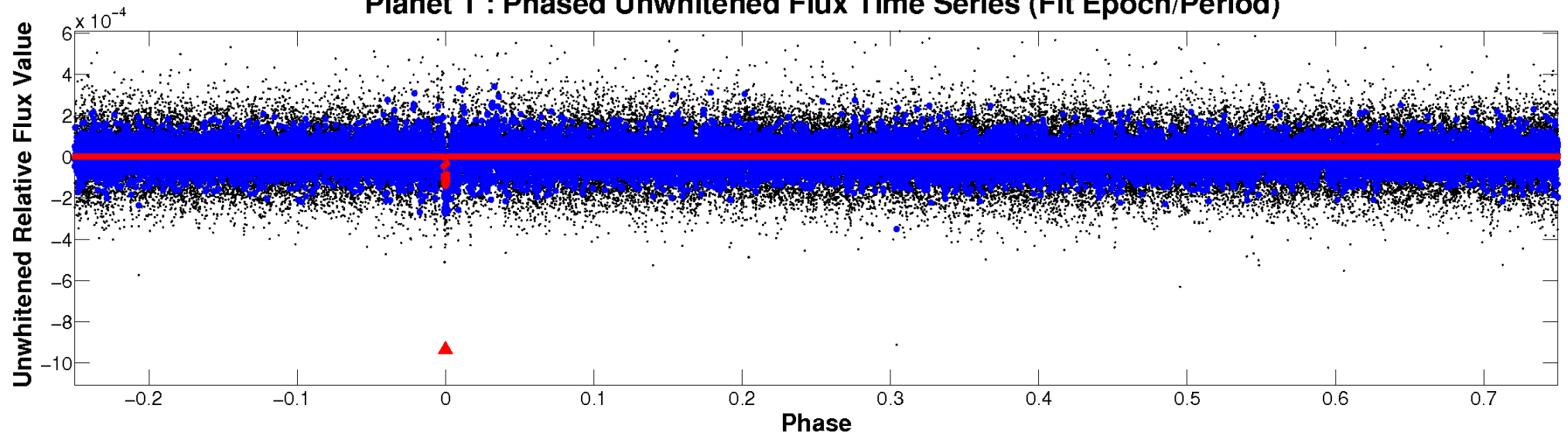
ALT Odd/Even

TCE 006122798-01

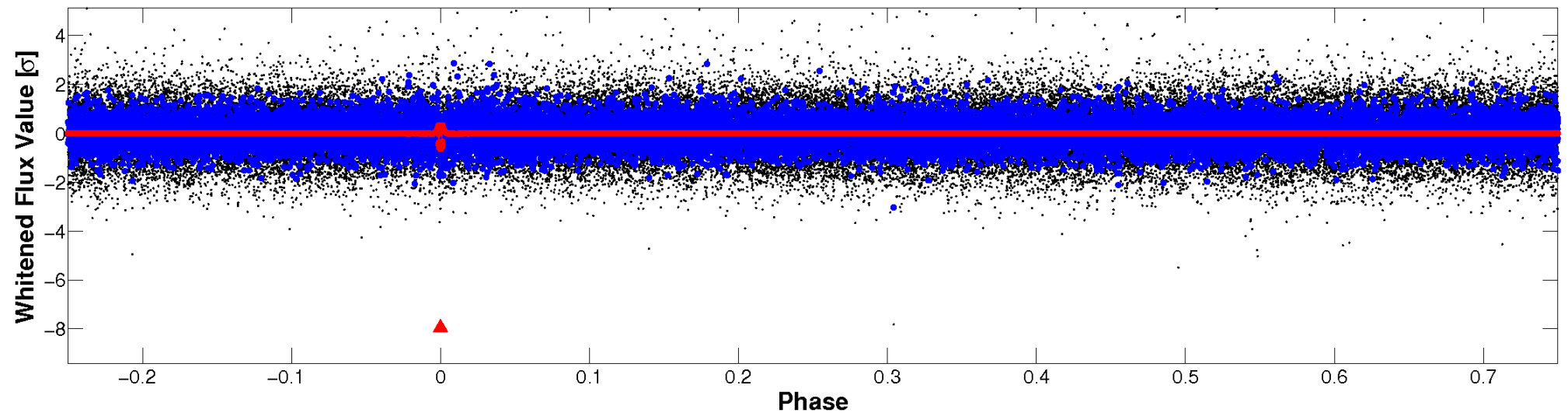


Non-Whitened Vs. Whitened Light Curve

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



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



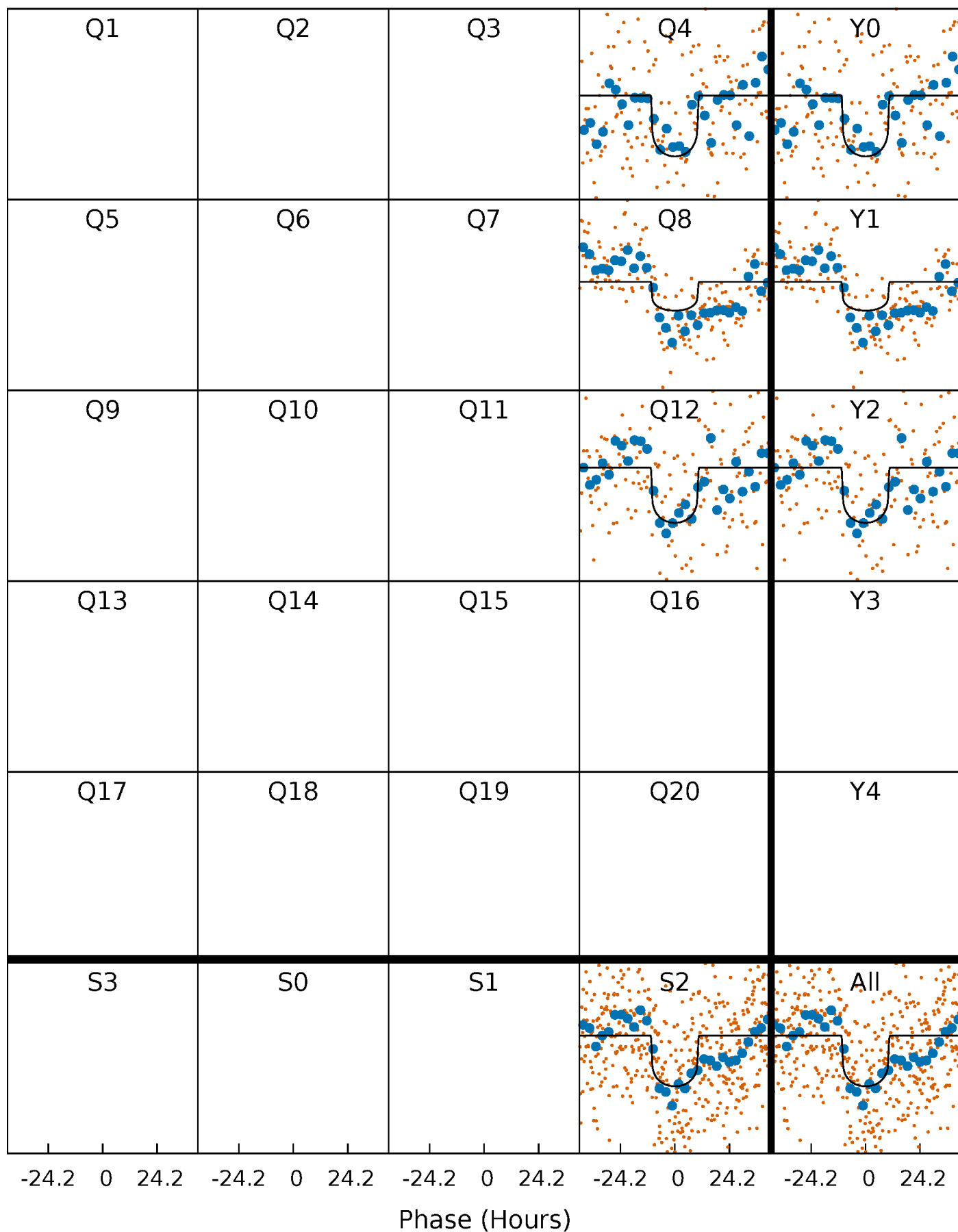
PDC Quarter-Phased Transit Curves

TCE 006122798-01 P=367.307146 Days $T_0=371.895389$ (BKJD)



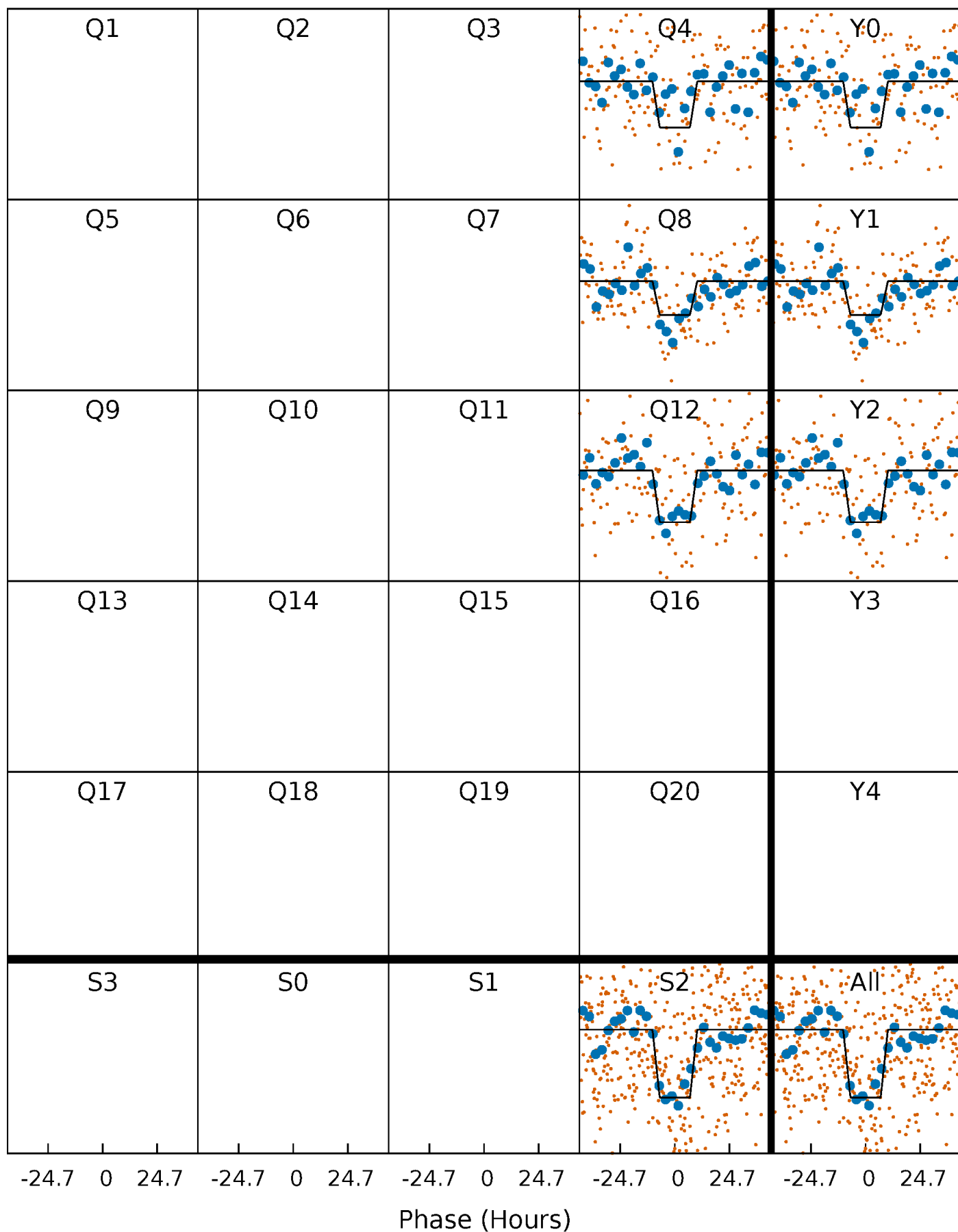
DV Quarter-Phased Transit Curves

TCE 006122798-01 P=367.307146 Days $T_0=371.895389$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

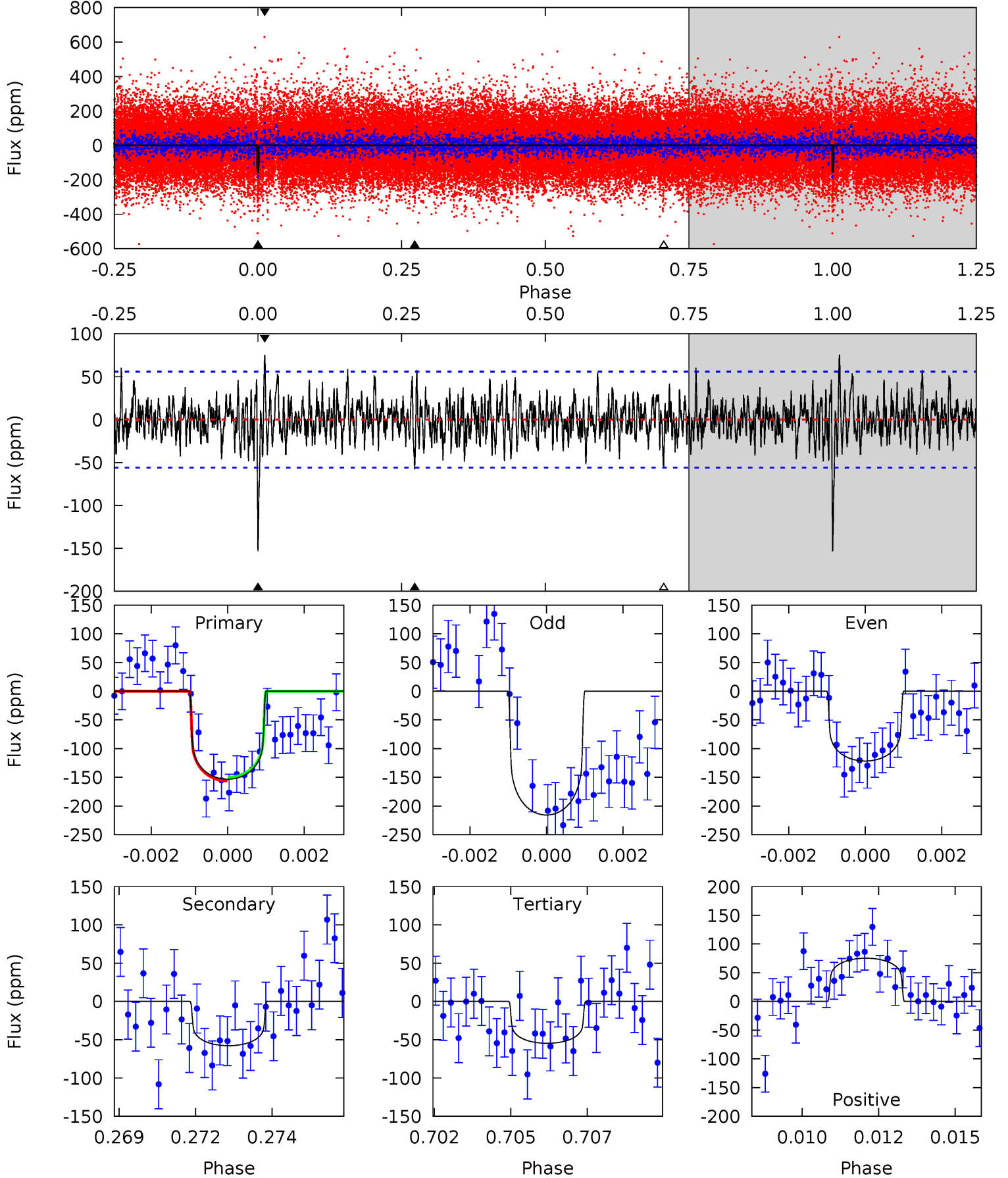
TCE 006122798-01 P=367.320486 Days $T_0=371.864483$ (BKJD)



DV Model-Shift Uniqueness Test

006122798-01, P = 367.307146 Days, E = 4.588243 Days

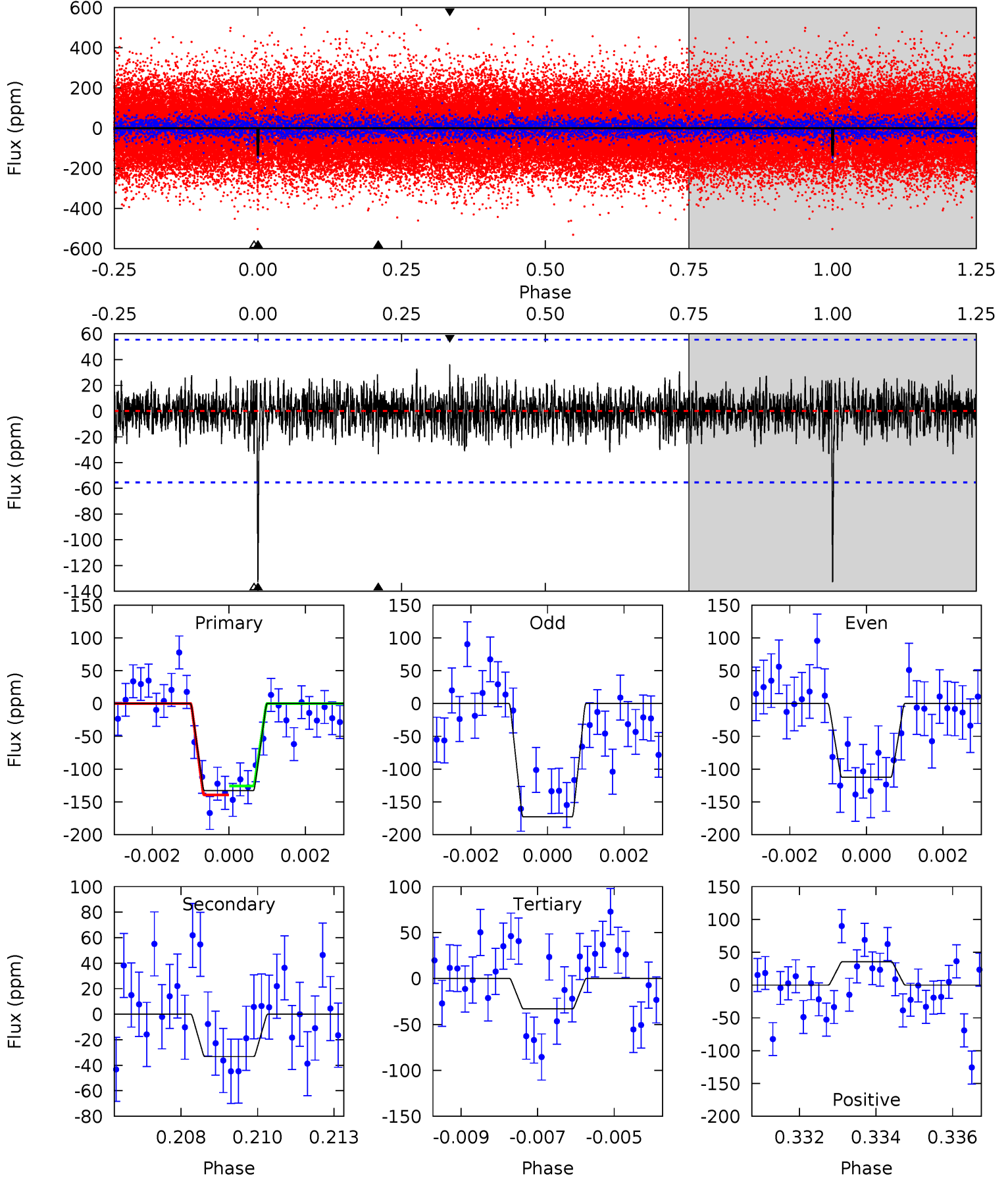
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	5.46	5.17	7.12	5.29	3.03	1.72	9.33	7.37	0.30	-1.66	4.19	1.07	0.33	0.30



Alt Model-Shift Uniqueness Test

006122798-01, P = 367.320486 Days, E = 4.543997 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	3.17	3.17	3.41	5.30	3.04	0.98	9.53	9.29	0.00	-0.24	2.72	0.94	0.21	0.66



Stellar Parameters For KIC 006122798

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6173^{+80}_{-86}	$4.447^{+0.026}_{-0.104}$	$-0.040^{+0.150}_{-0.150}$	$1.041^{+0.139}_{-0.053}$	$1.104^{+0.066}_{-0.073}$	$1.379^{+0.178}_{-0.421}$
	+1%/-1%	+1%/-2%	+375%/-375%	+13%/-5%	+6%/-7%	+13%/-31%
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 006122798-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-58 ± 11	$1.37^{+0.38}_{-0.32}$	385^{+13}_{-9}	5002^{+713}_{-467}	17243^{+15512}_{-6593}
Alt.	-33 ± 10	$1.36^{+0.33}_{-0.38}$	385^{+12}_{-9}	4513^{+699}_{-466}	10472^{+10316}_{-4556}

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

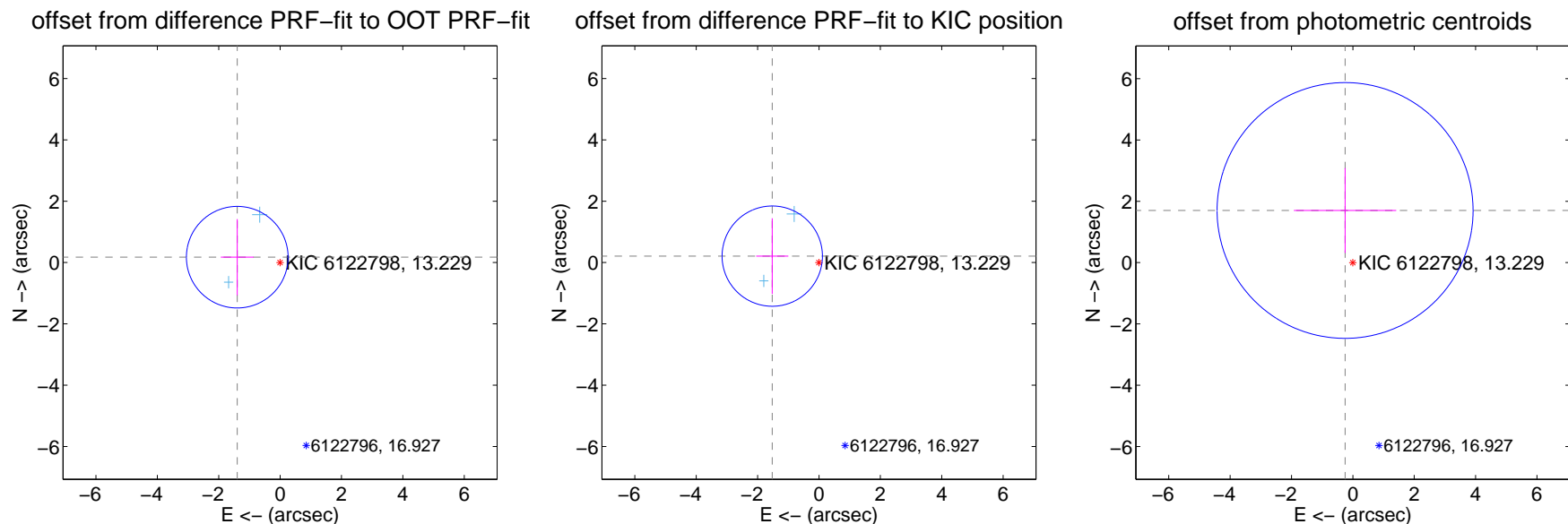
DV Centroid Data

Supplemental centroid analysis for 006122798-01. Kepler magnitude: 13.23. Transit SNR 6.72

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.407 ± 0.552	2.55	1.397 ± 0.534	0.174 ± 1.243
PRF-fit source offset from KIC position	1.537 ± 0.545	2.82	1.523 ± 0.523	0.209 ± 1.234
photometric centroid source offset	1.72 ± 1.39	1.24	0.25 ± 1.67	1.70 ± 1.38

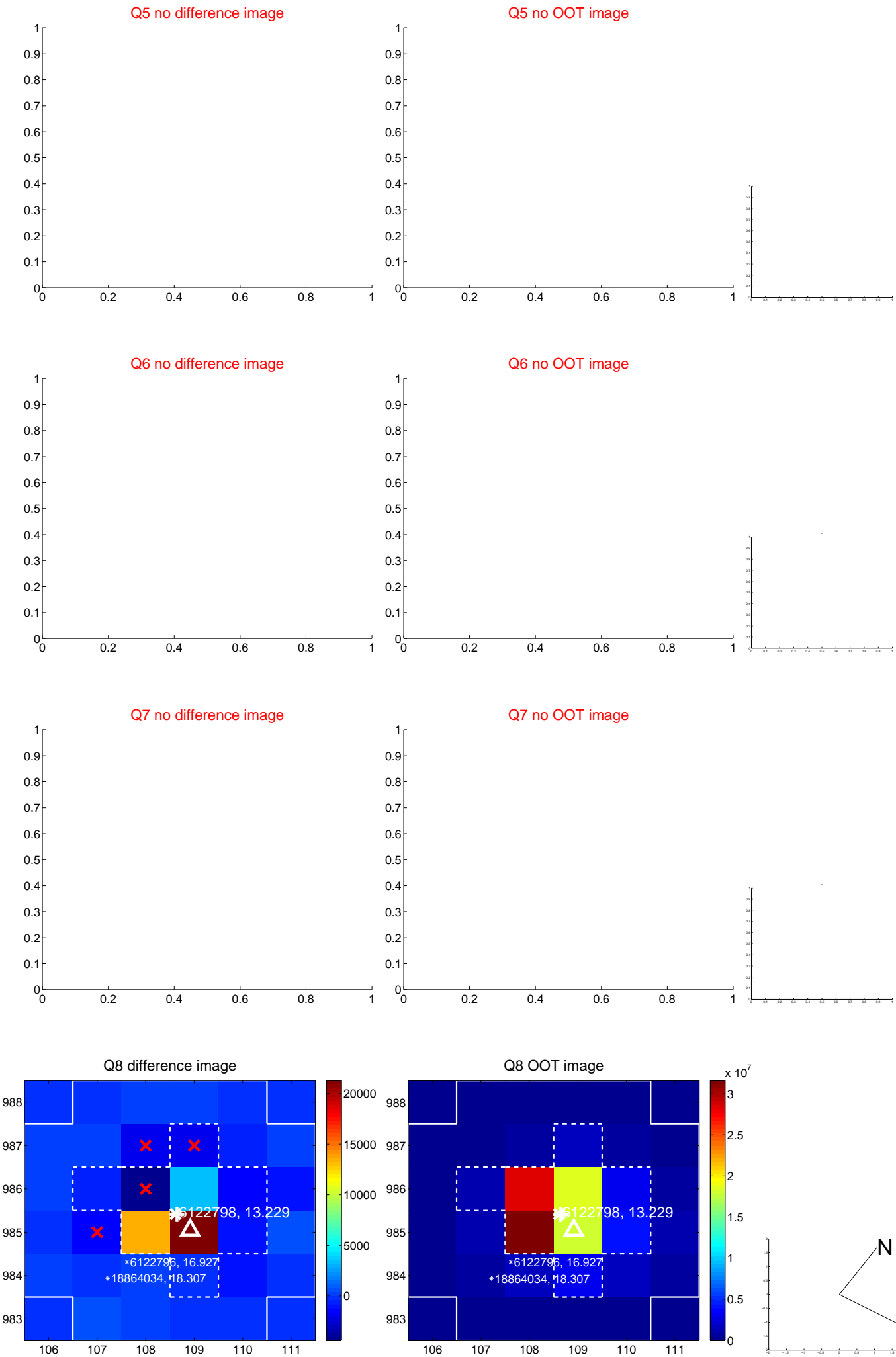


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

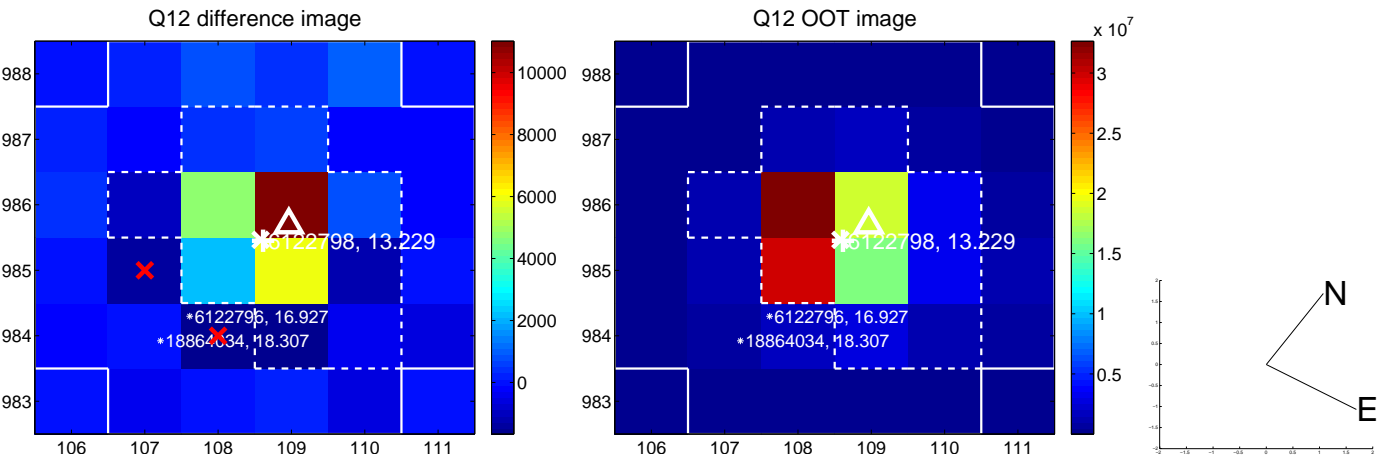
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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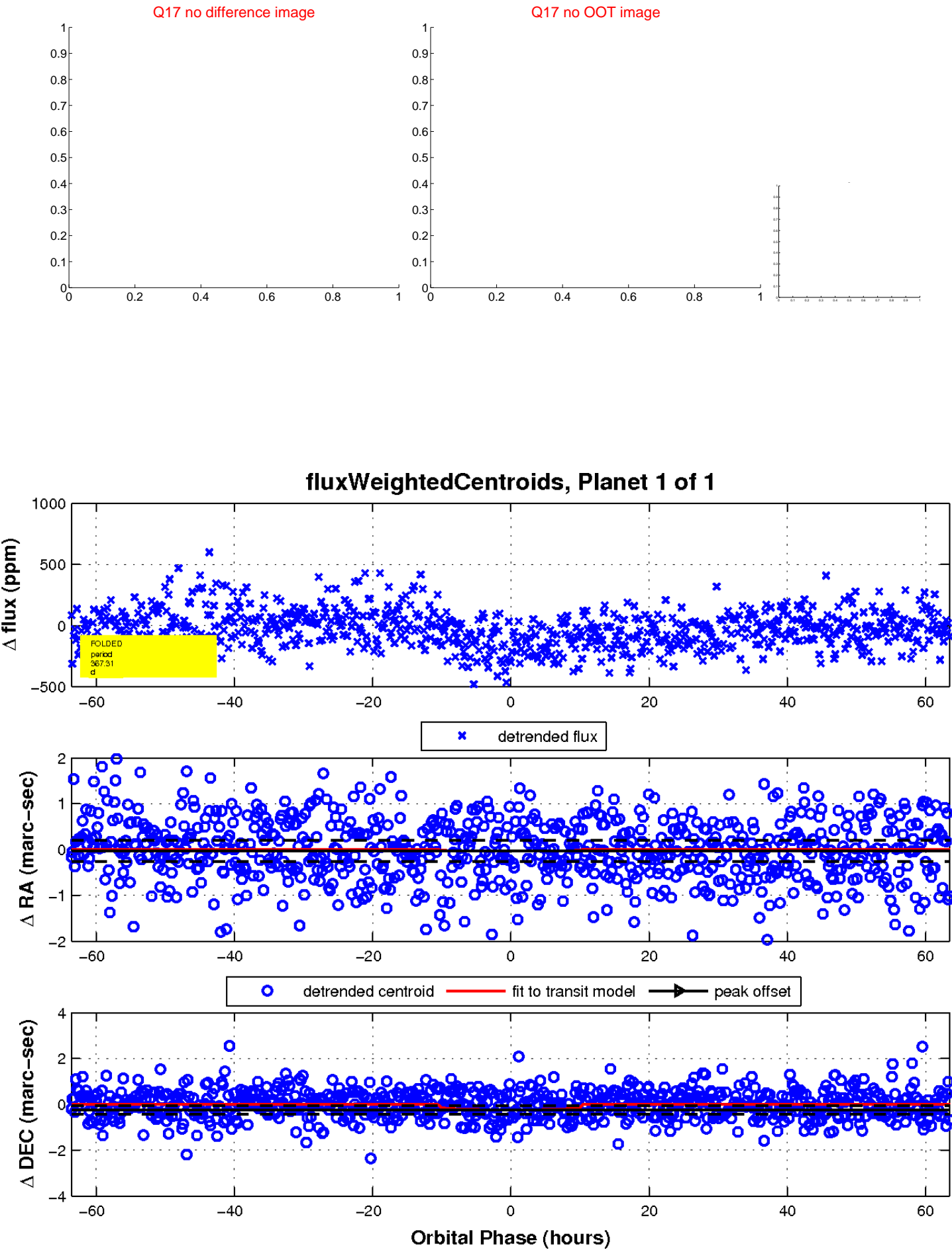
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

