

KIC 011098385

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})
011098385-01	OBS	No	397.512908	488.981303	201.2	17.928	7.8	8.0	1.90	6122	2.92	3.86

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011098385-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL_SKYE—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

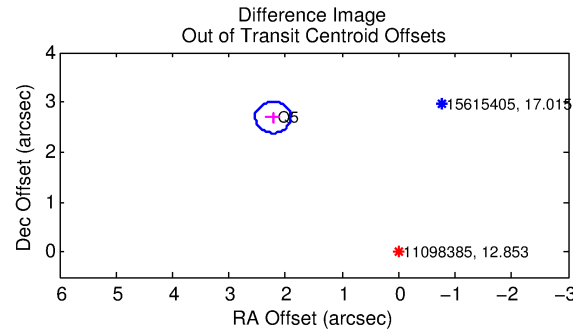
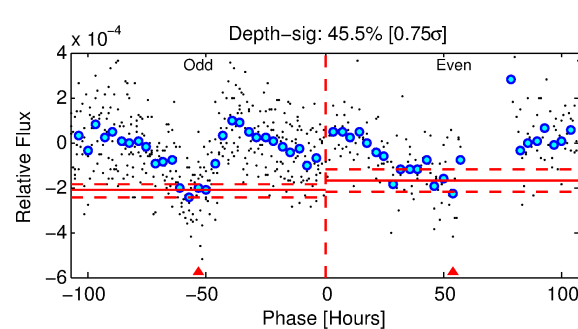
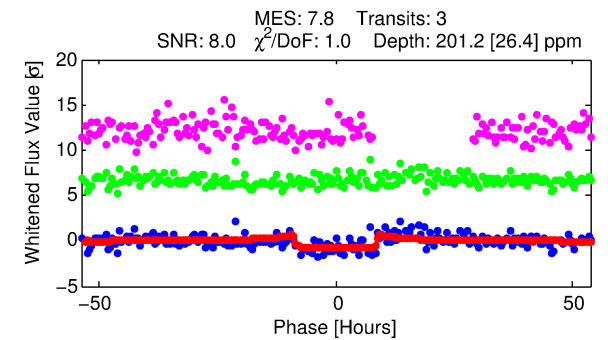
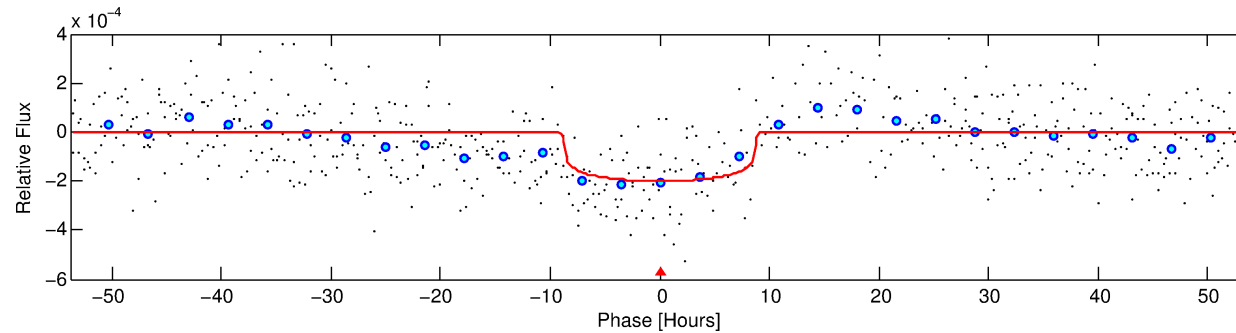
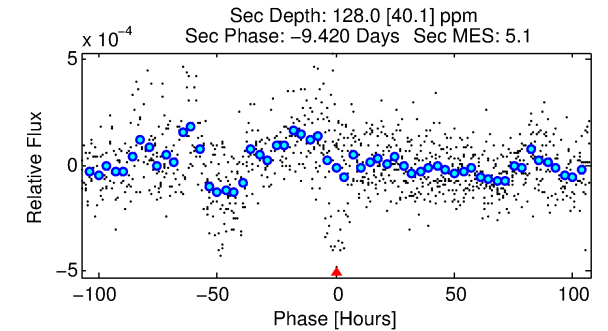
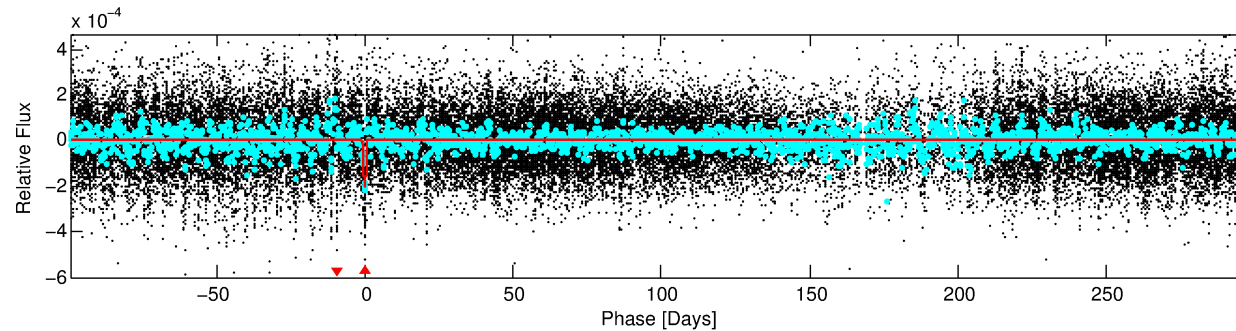
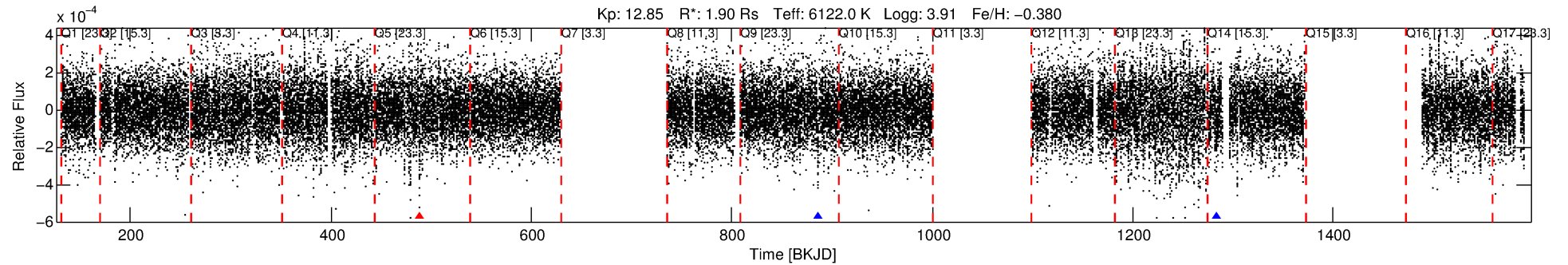
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011098385-01

No Significant Match Found

DV One-Page Summary

KIC: 11098385 Candidate: 1 of 1 Period: 397.513 d



DV Fit Results:

Period = 397.51291 [0.01153] d
Epoch = 488.9813 [0.0155] BKJD
Rp/R* = 0.0141 [0.0031]
a/R* = 117.30 [123.37]
b = 0.74 [0.65]
Seff = 3.86 [2.09]
Teq = 357 [48] K
Rp = 2.91 [1.20] Re
a = 1.0846 [0.3604] AU
Ag = 9750.18 [7342.03] [1.33σ]
Teff = 5490 [756] K [6.78σ]

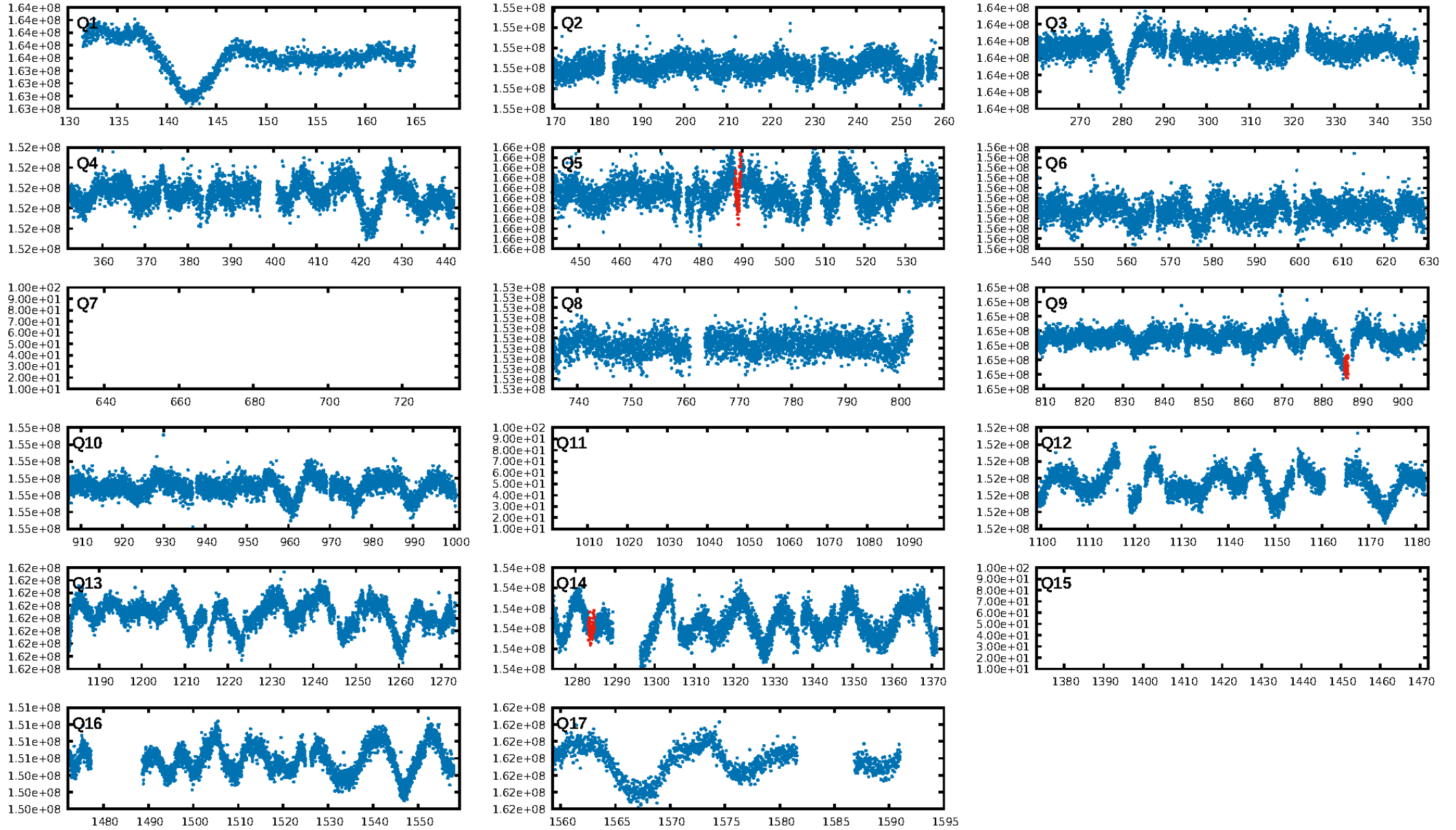
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 31.6%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 1.09e-08
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.04167
Centroid-sig: 9.3%
Centroid-so: 2.868 arcsec [1.72σ]
OotOffset-rm: 3.495 arcsec [33.62σ]
KicOffset-rm: 3.439 arcsec [33.05σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

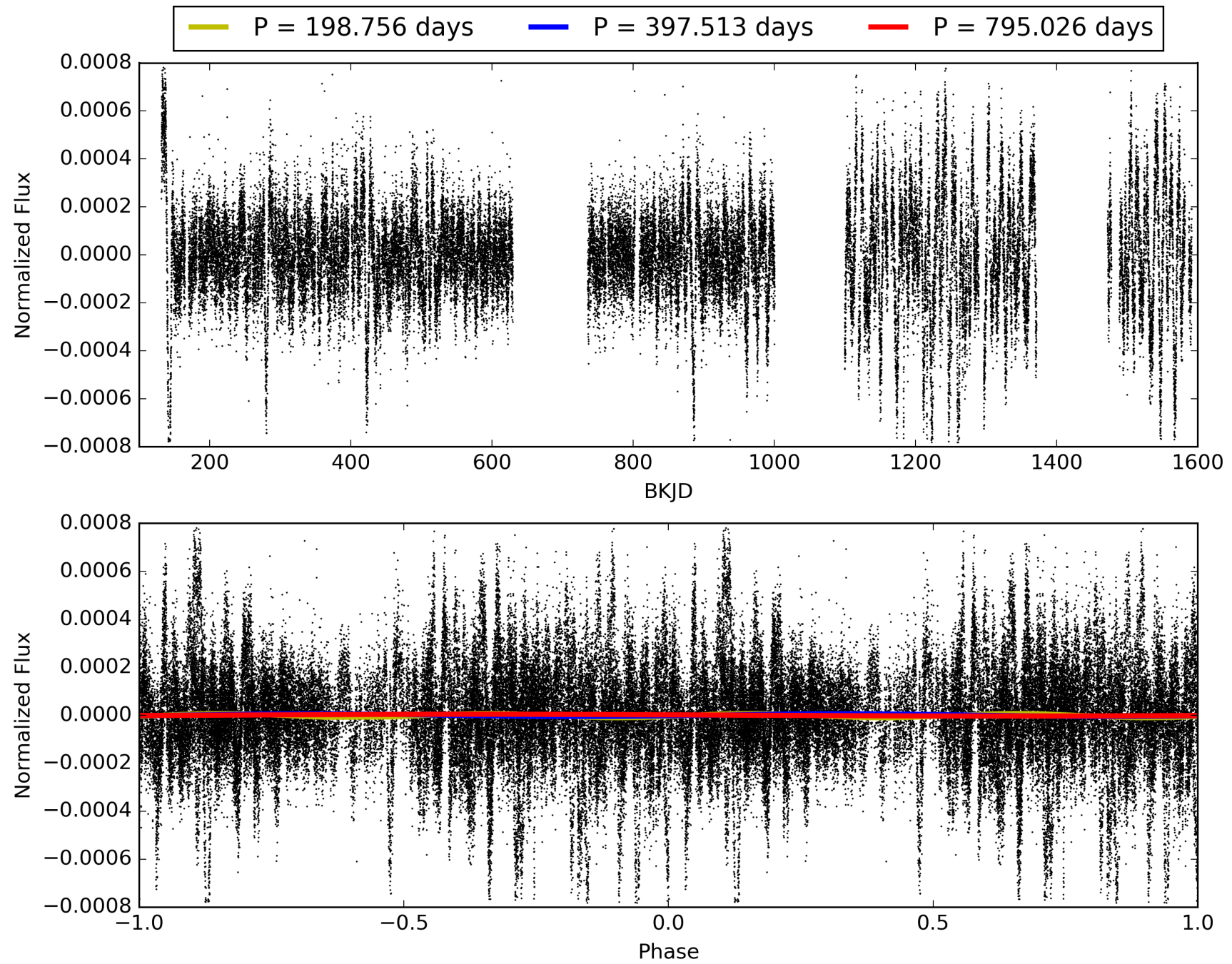
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:04:43 Z

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

TCE 011098385-01, PDC Light Curves

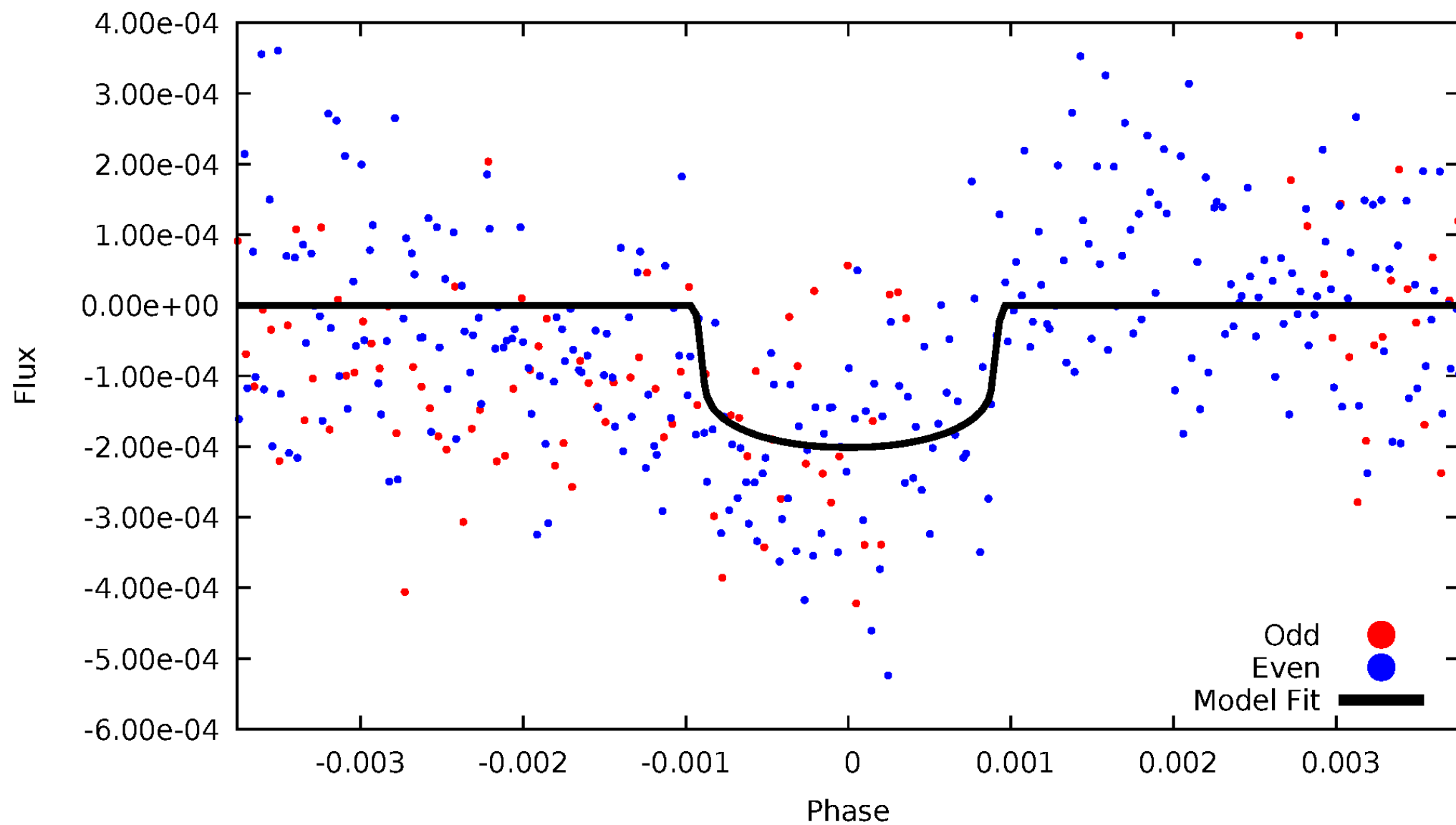


TCE 011098385-01



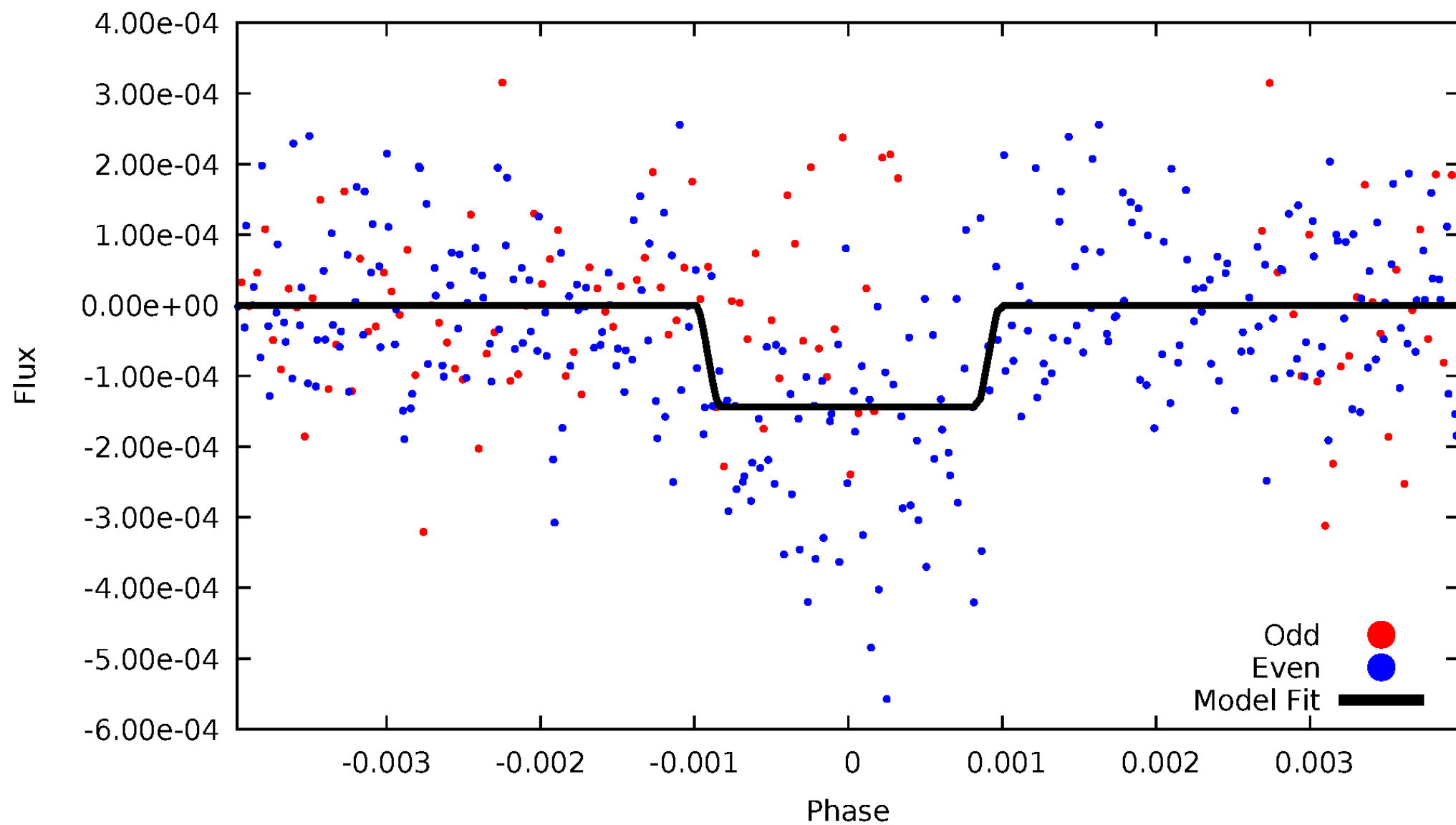
DV Odd/Even

TCE 011098385-01



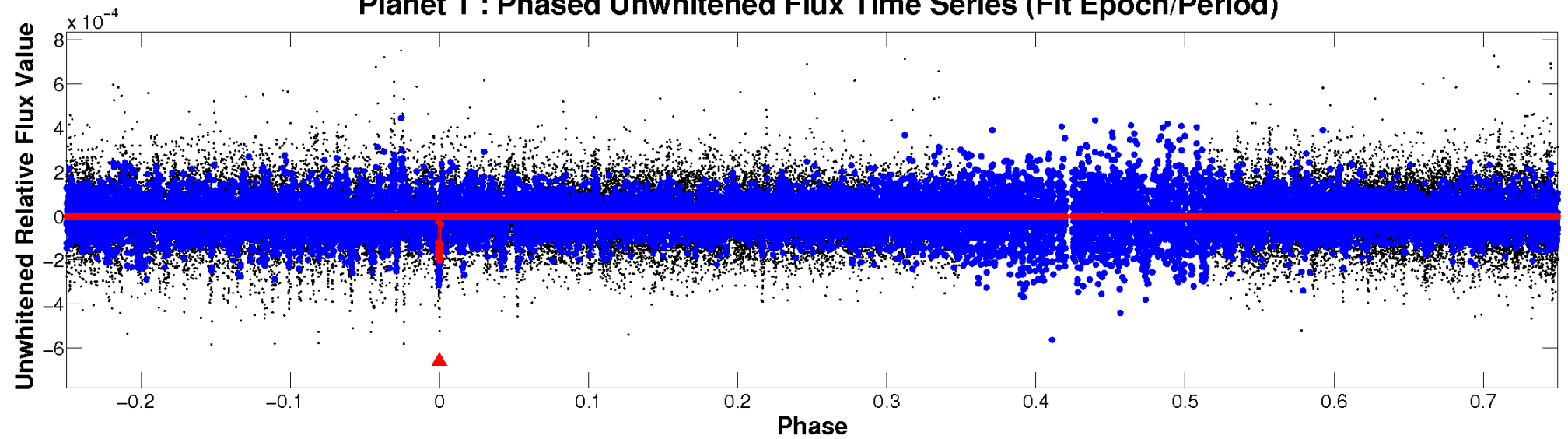
ALT Odd/Even

TCE 011098385-01

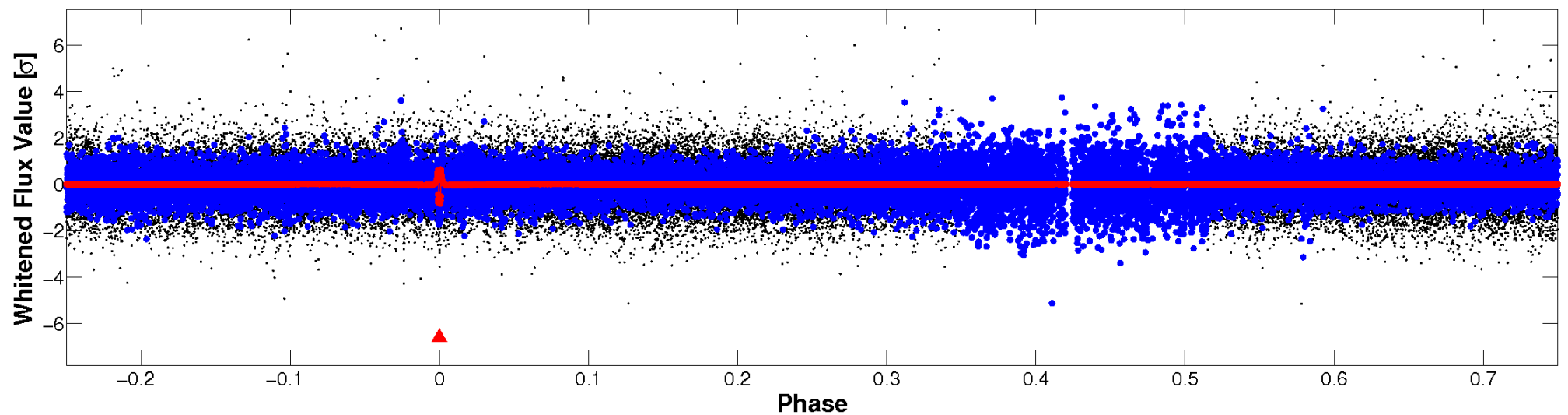


Non-Whitened Vs. Whitened Light Curve

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

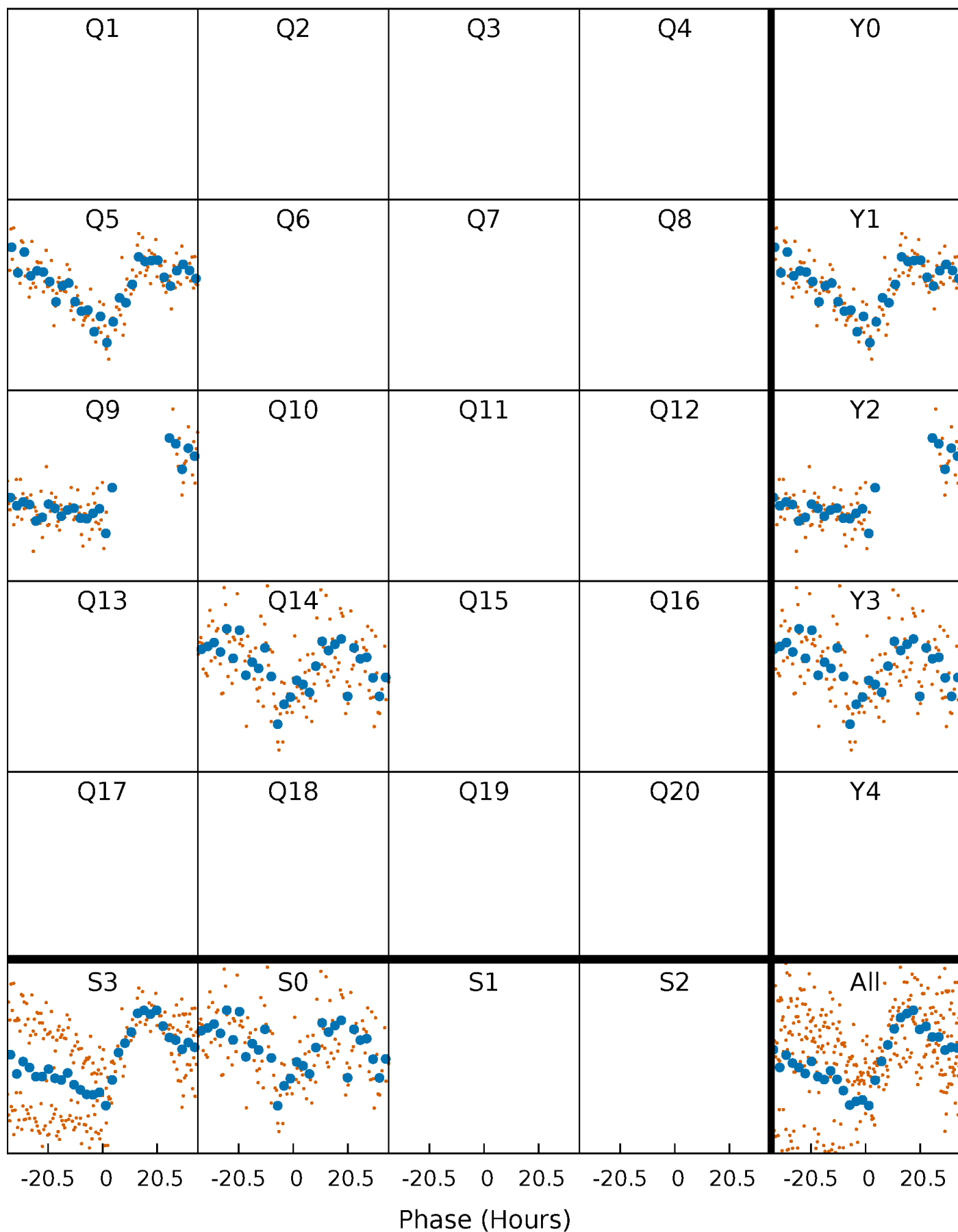


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



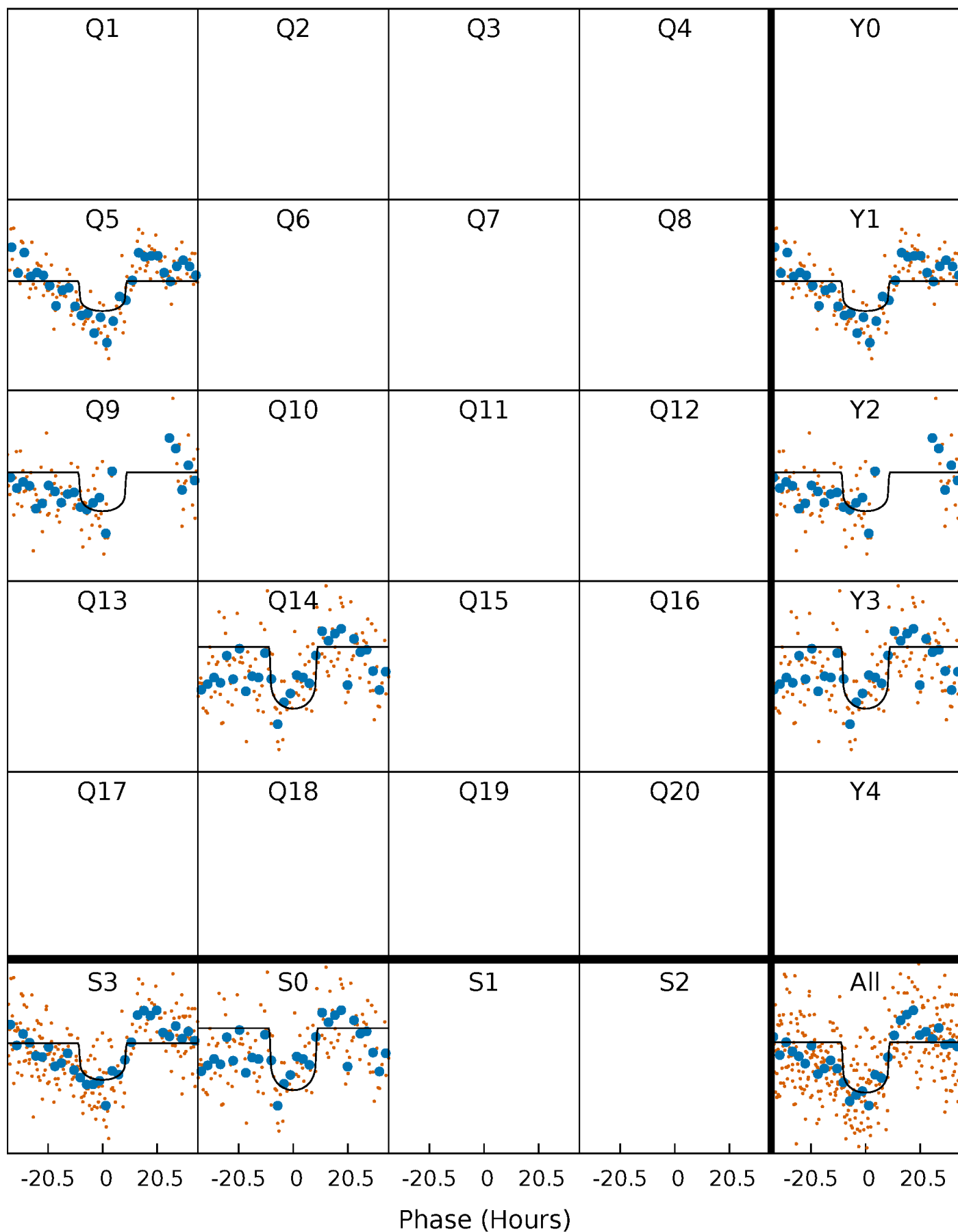
PDC Quarter-Phased Transit Curves

TCE 011098385-01 P=397.512908 Days $T_0=488.981303$ (BKJD)



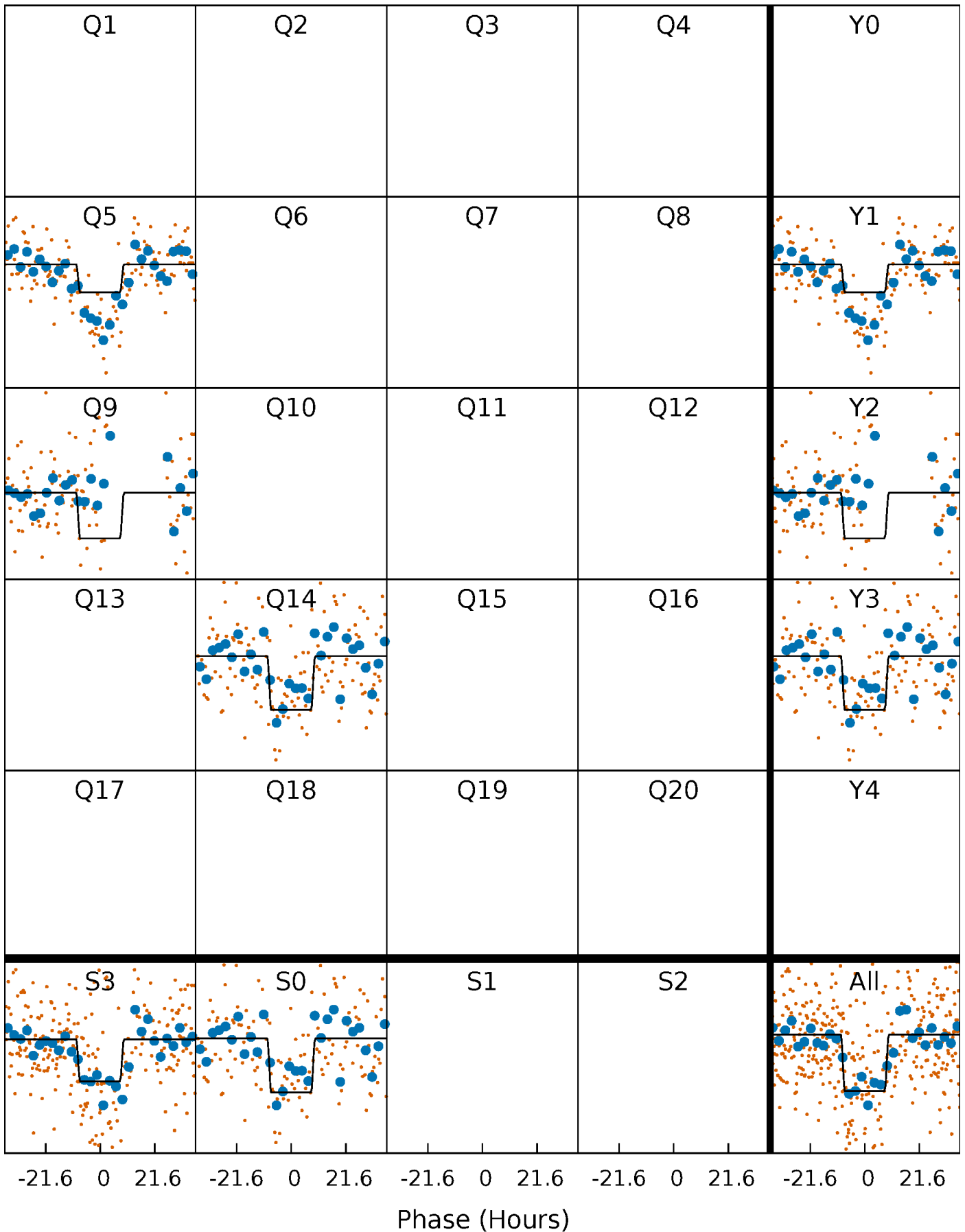
DV Quarter-Phased Transit Curves

TCE 011098385-01 P=397.512908 Days $T_0=488.981303$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

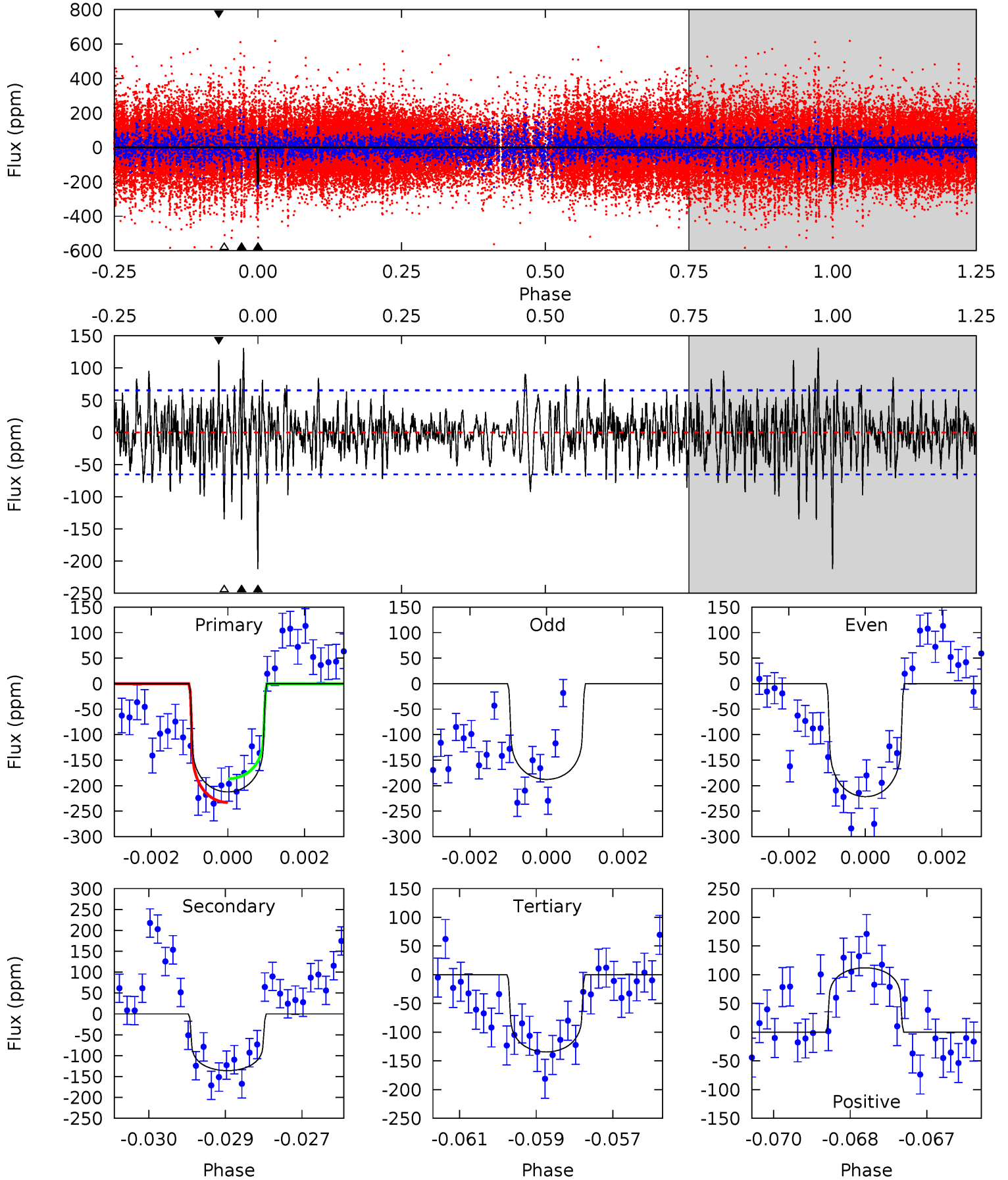
TCE 011098385-01 P=397.528099 Days $T_0=488.979427$ (BKJD)



DV Model-Shift Uniqueness Test

011098385-01, $P = 397.512908$ Days, $E = 91.468395$ Days

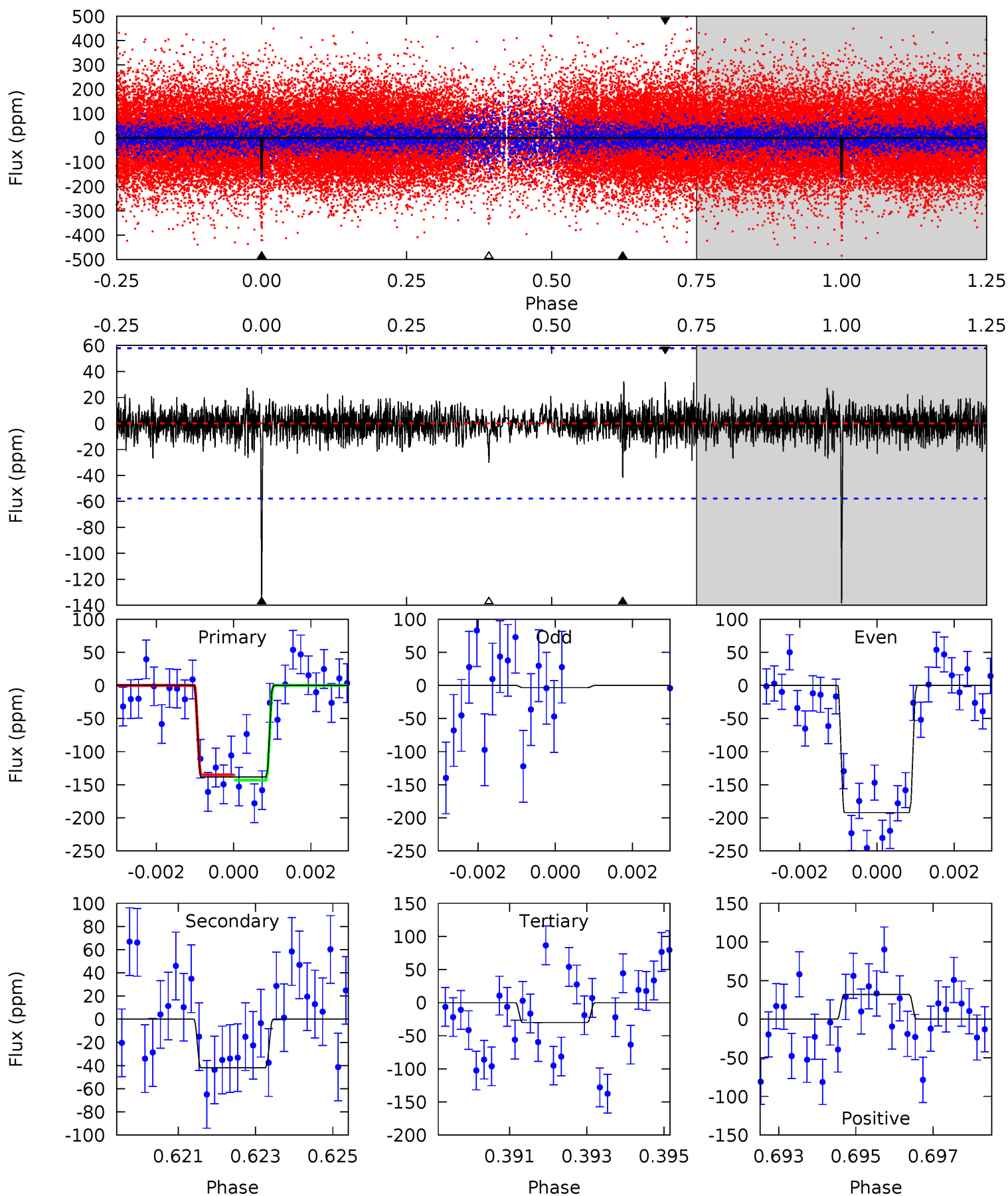
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.3	11.1	11.0	9.16	5.34	3.11	2.46	6.36	8.19	0.11	1.95	1.24	1.12	0.38	1.90



Alt Model-Shift Uniqueness Test

011098385-01, P = 397.528099 Days, E = 91.451328 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.8	3.85	2.77	2.96	5.33	3.10	0.69	9.98	9.80	1.08	0.90	7.73	1.22	0.19	0.37



Stellar Parameters For KIC 011098385

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6122^{+182}_{-164}	$3.913^{+0.308}_{-0.103}$	$-0.380^{+0.350}_{-0.250}$	$1.899^{+0.358}_{-0.665}$	$1.078^{+0.185}_{-0.167}$	$0.222^{+0.408}_{-0.080}$
	+3%/-3%	+8%/-3%	+92%/-66%	+19%/-35%	+17%/-15%	+184%/-36%
Source	PHO1	FLK73	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 011098385-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-136 ± 12	$2.75^{+0.89}_{-0.77}$	489^{+34}_{-43}	5622^{+772}_{-534}	11944^{+9936}_{-5132}
Alt.	-42 ± 11	$2.40^{+0.74}_{-0.69}$	492^{+31}_{-38}	4665^{+662}_{-504}	4861^{+4778}_{-2289}

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 $A_{obs} \gg 1.0$

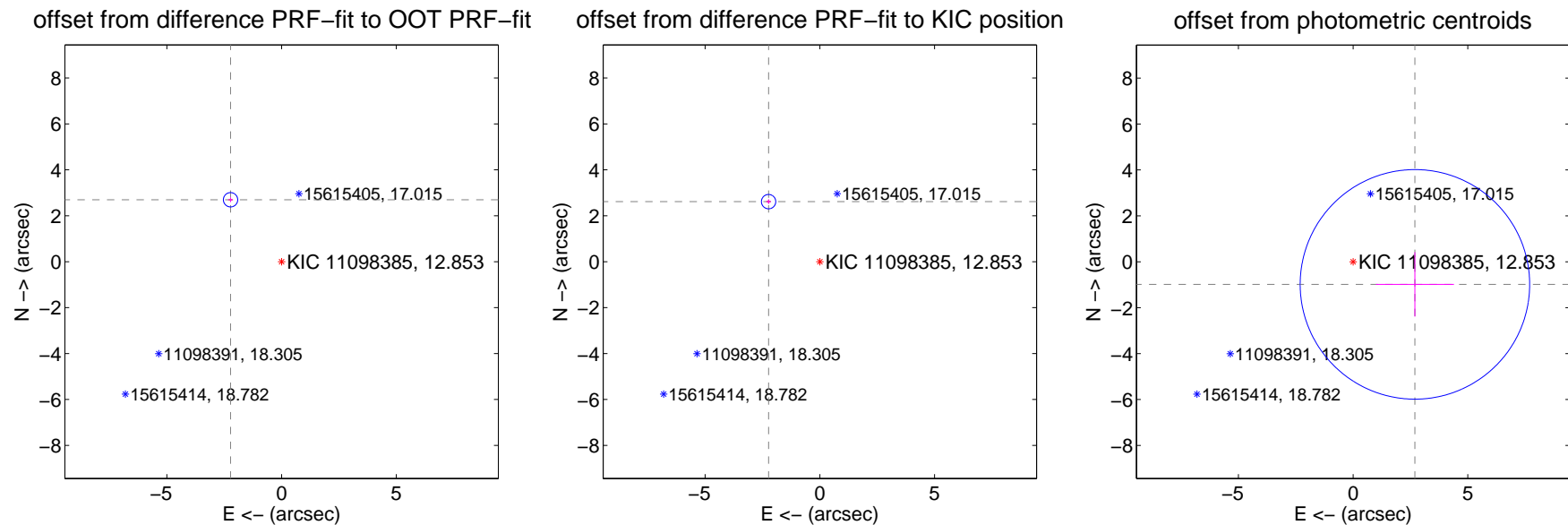
DV Centroid Data

Supplemental centroid analysis for 011098385-01. Kepler magnitude: 12.85. Transit SNR 8.01

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.495 ± 0.104	33.62	2.223 ± 0.108	2.697 ± 0.101
PRF-fit source offset from KIC position	3.439 ± 0.104	33.05	2.233 ± 0.108	2.616 ± 0.101
photometric centroid source offset	2.87 ± 1.67	1.72	-2.69 ± 1.70	-0.98 ± 1.40

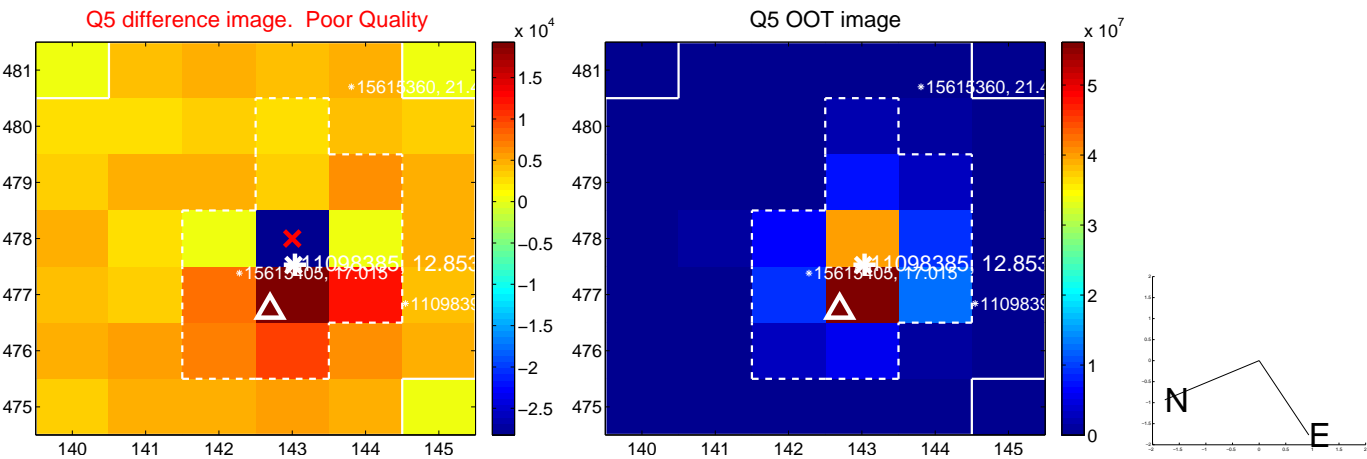


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



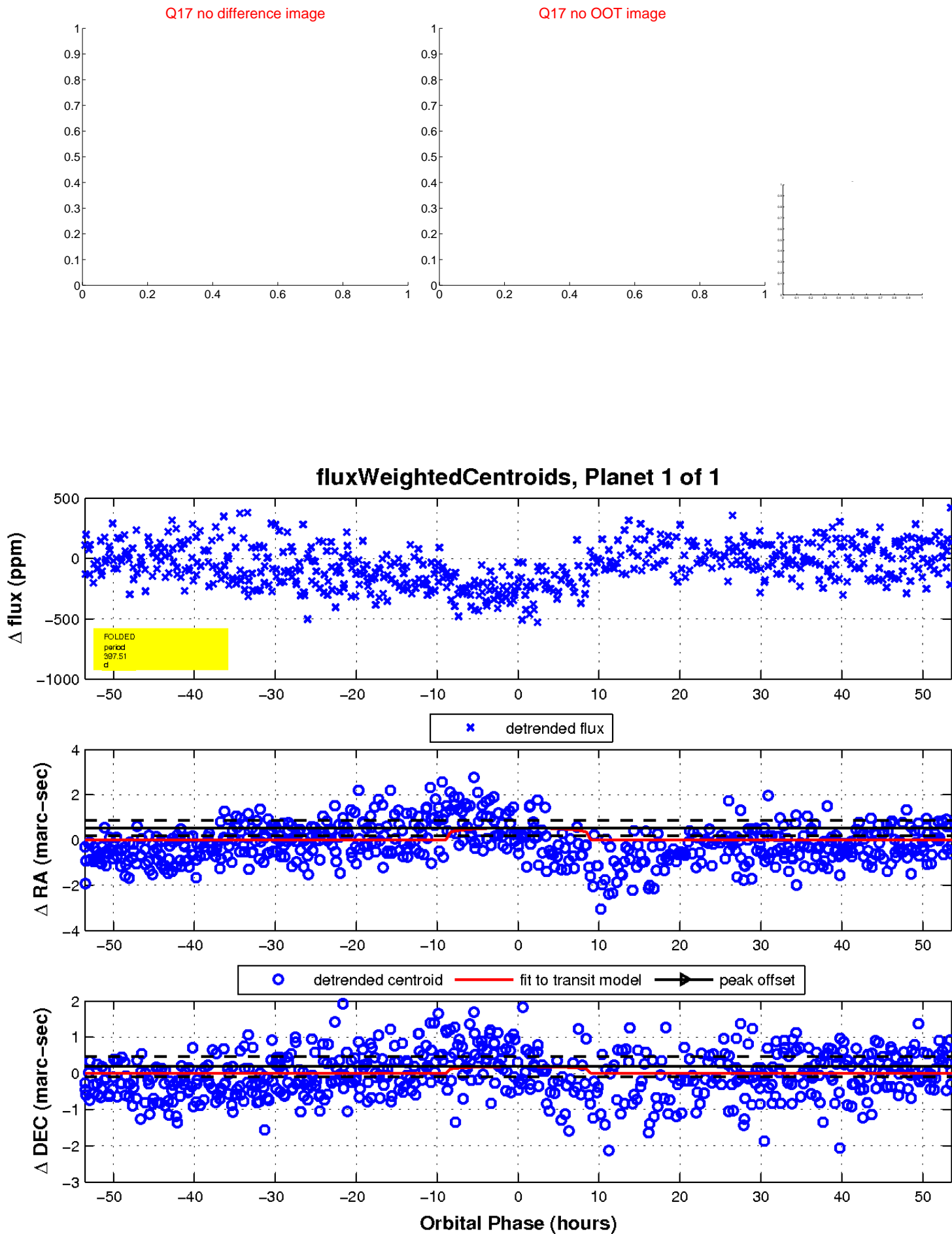
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

