

KIC 006281040

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})
006281040-01	OBS	No	365.097540	155.982724	1104.2	23.185	7.2	7.8	0.64	4315	2.76	0.17

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006281040-01	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.

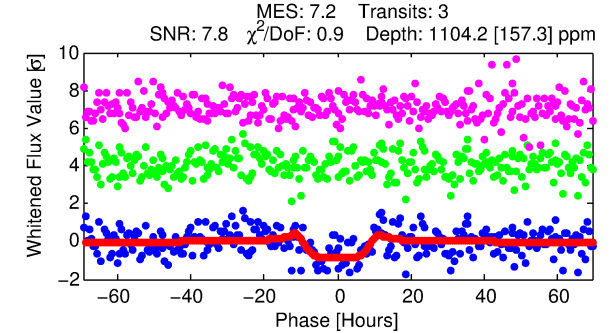
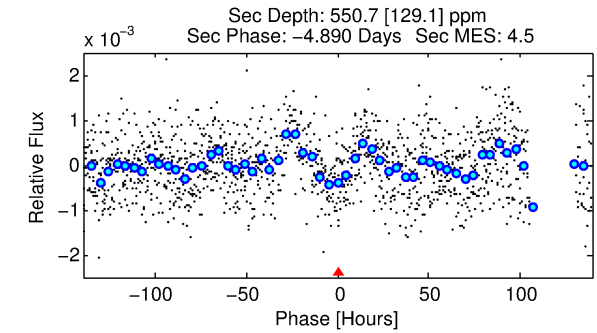
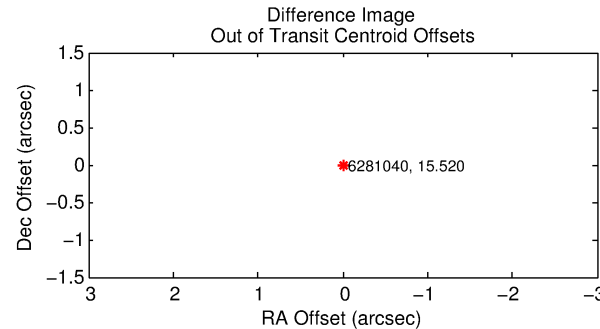
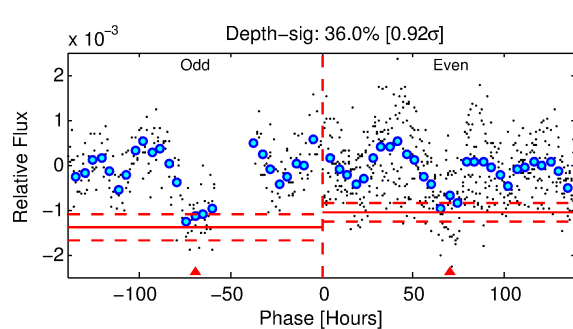
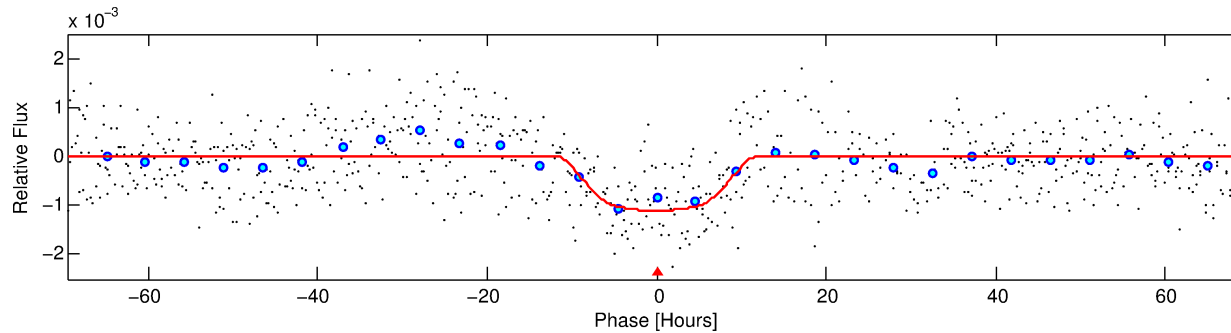
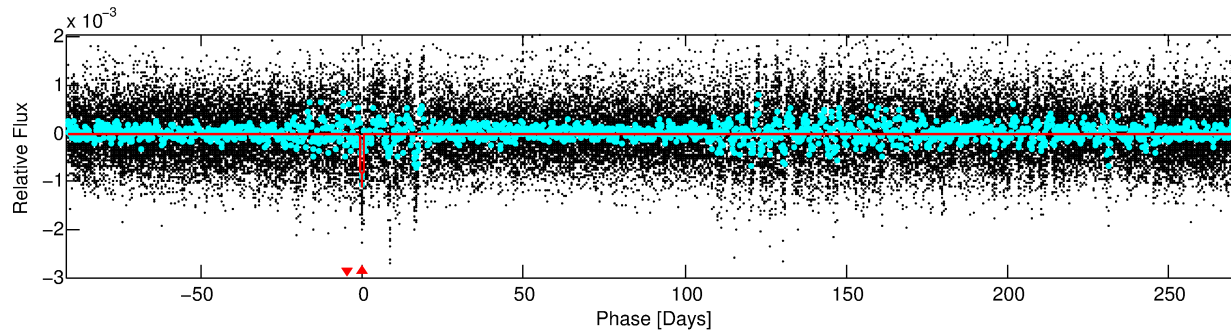
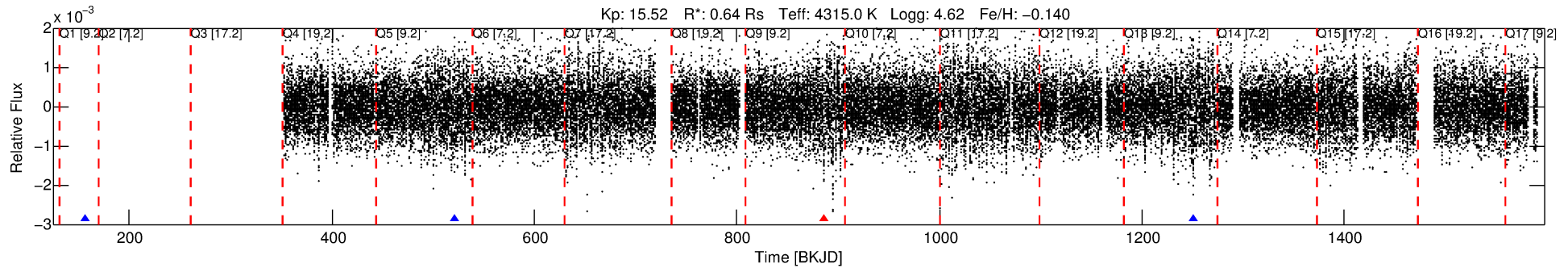
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006281040-01

No Significant Match Found

DV One-Page Summary

KIC: 6281040 Candidate: 1 of 1 Period: 365.098 d



DV Fit Results:

Period = 365.09754 [0.03014] d
Epoch = 155.9827 [0.0651] BKJD
Rp/R* = 0.0396 [0.0038]
a/R* = 54.42 [9.73]
b = 0.94 [0.03]
Seff = 0.17 [0.03]
Teq = 165 [7] K
Rp = 2.76 [0.37] Re
a = 0.8557 [0.0657] AU
Ag = 29053.59 [9294.96] [3.13σ]
Teffp = 3321 [277] K [11.39σ]

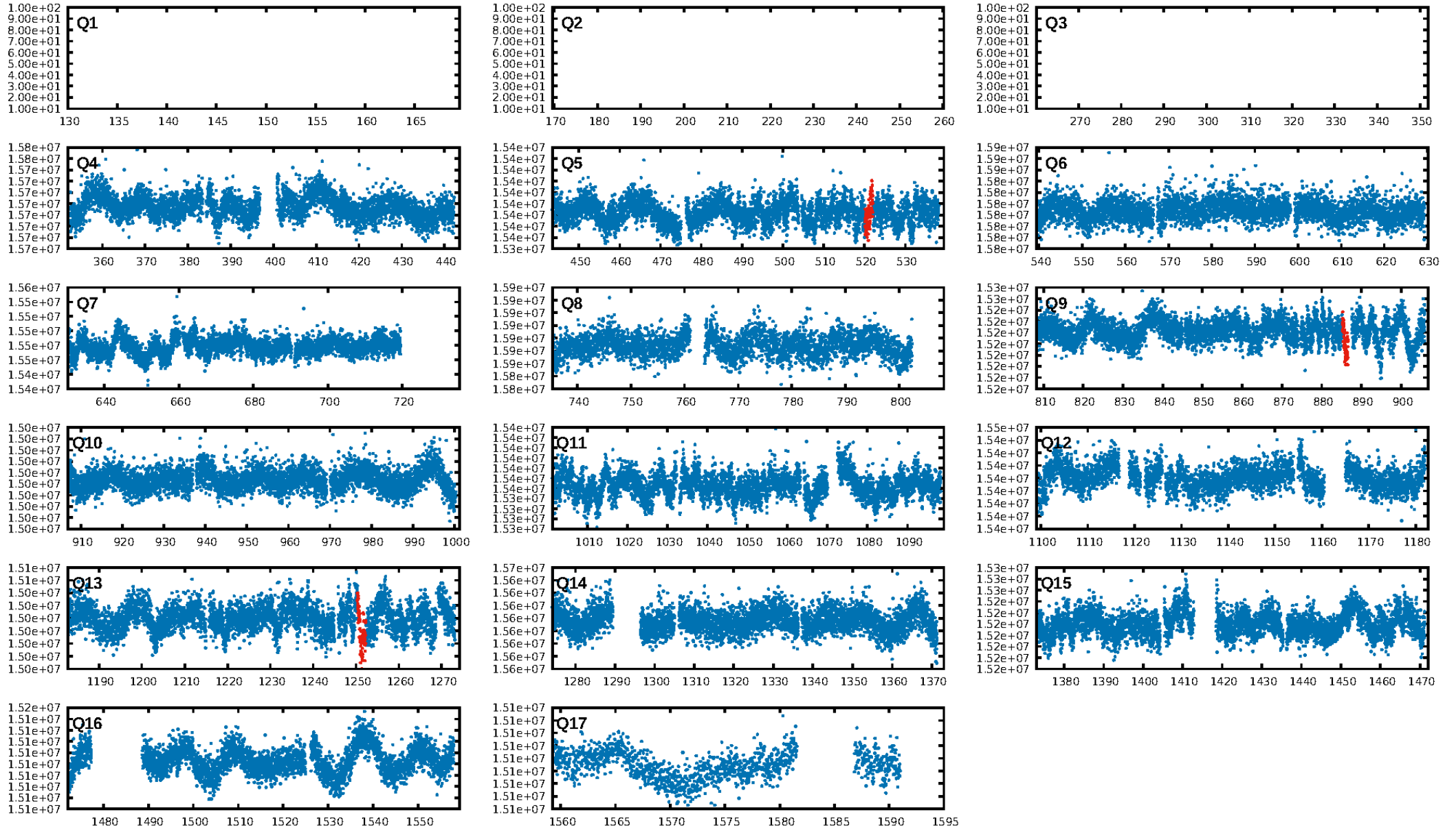
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 14.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.46e-08
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 385.7
Centroid-sig: 80.3%
Centroid-so: 2.055 arcsec [1.26σ]
OotOffset-rm: N/A
KicOffset-rm: 3.539 arcsec [13.96σ]
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

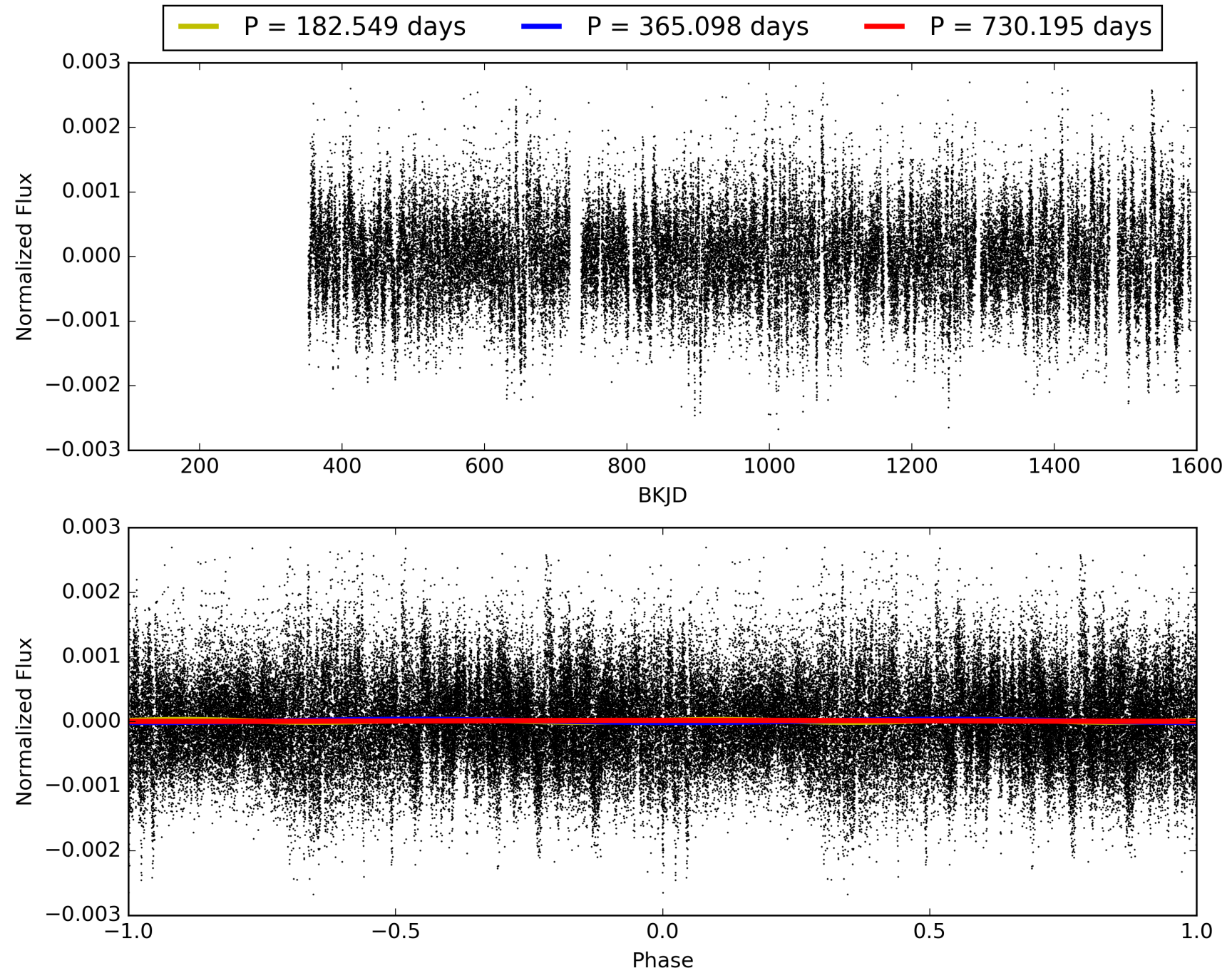
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 14:42:55 Z

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

TCE 006281040-01, PDC Light Curves

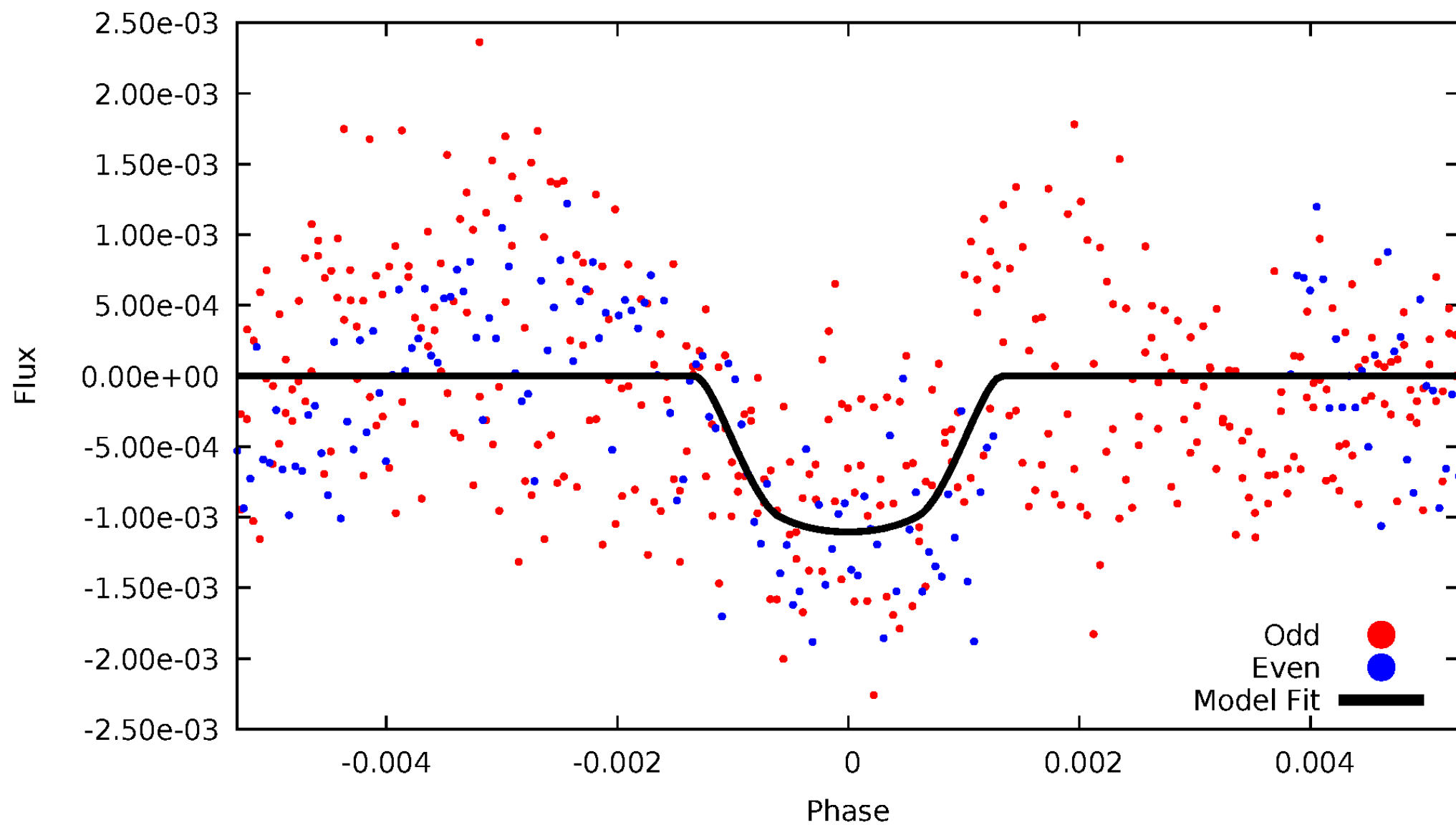


TCE 006281040-01



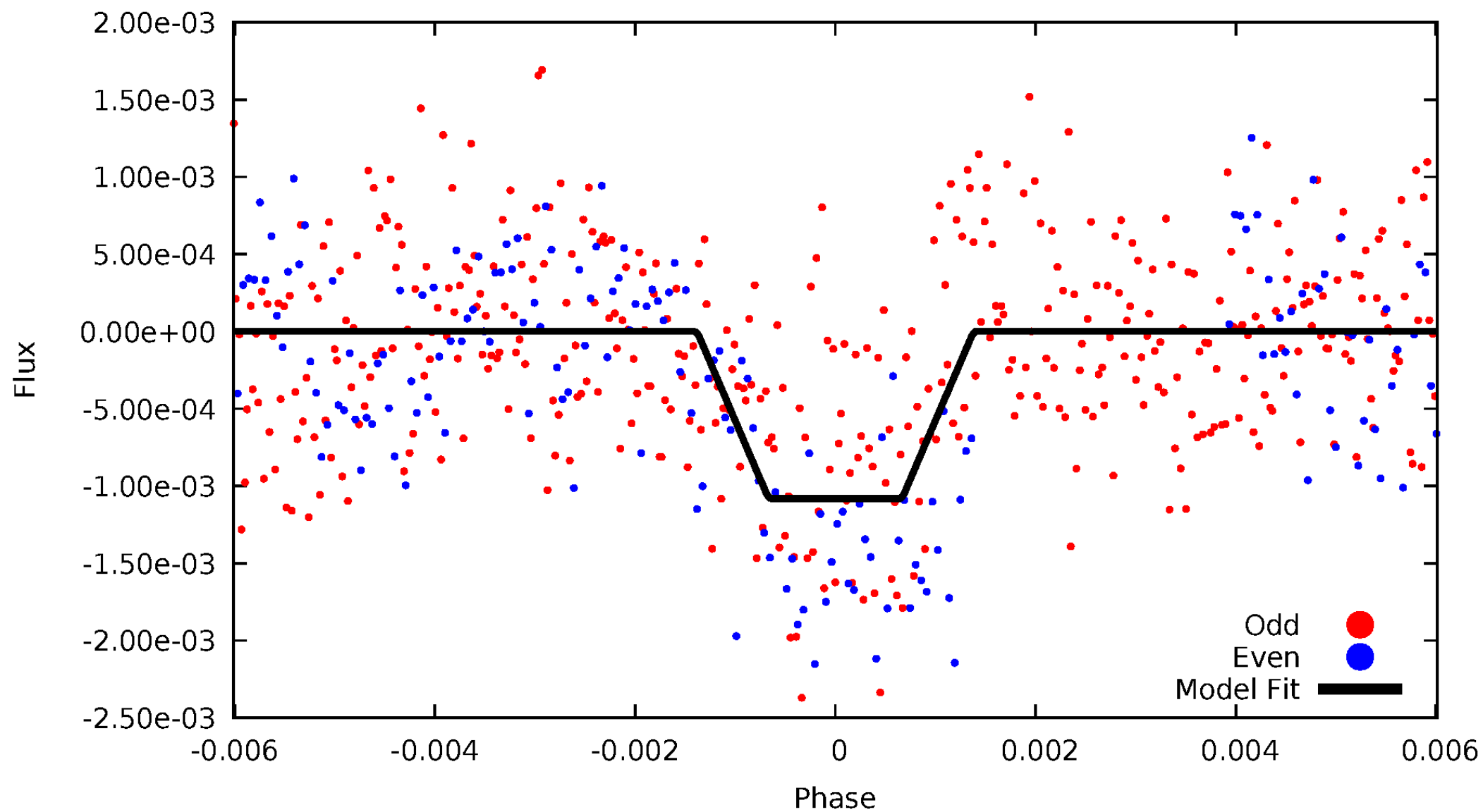
DV Odd/Even

TCE 006281040-01



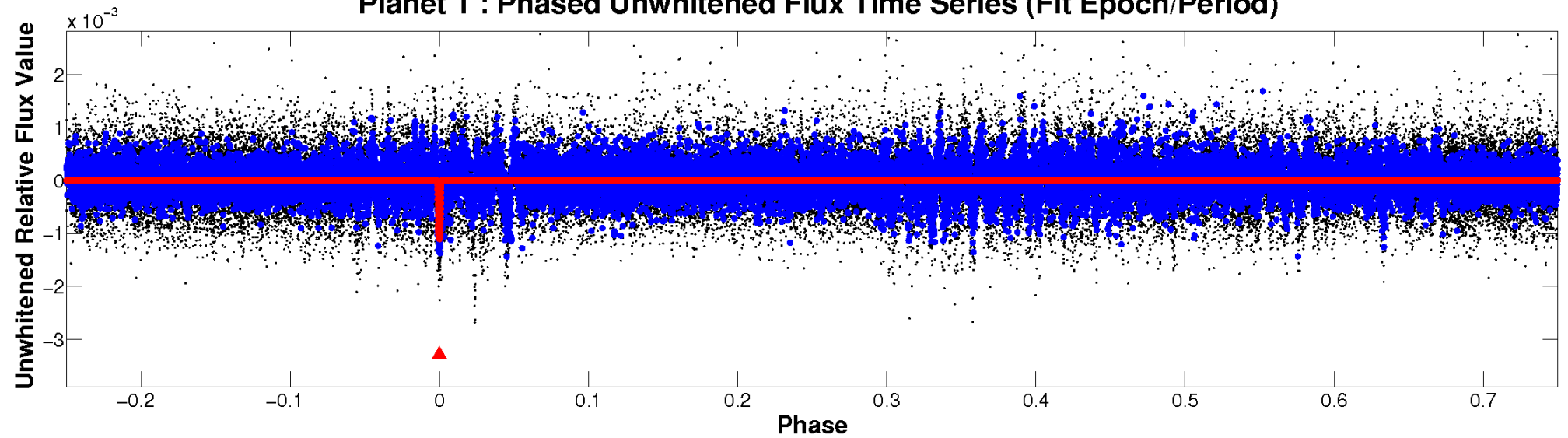
ALT Odd/Even

TCE 006281040-01

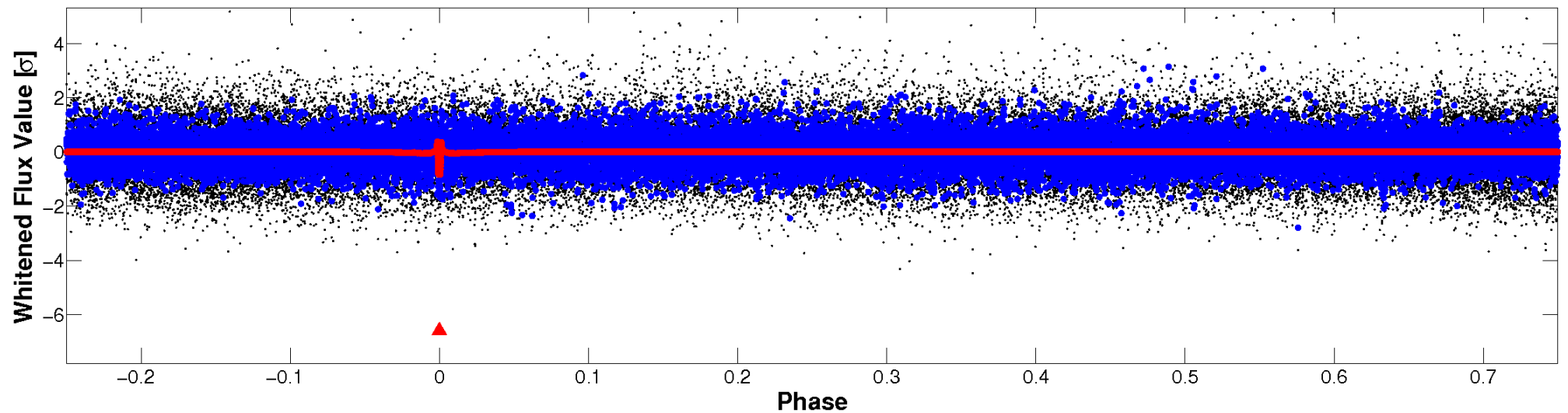


Non-Whitened Vs. Whitened Light Curve

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

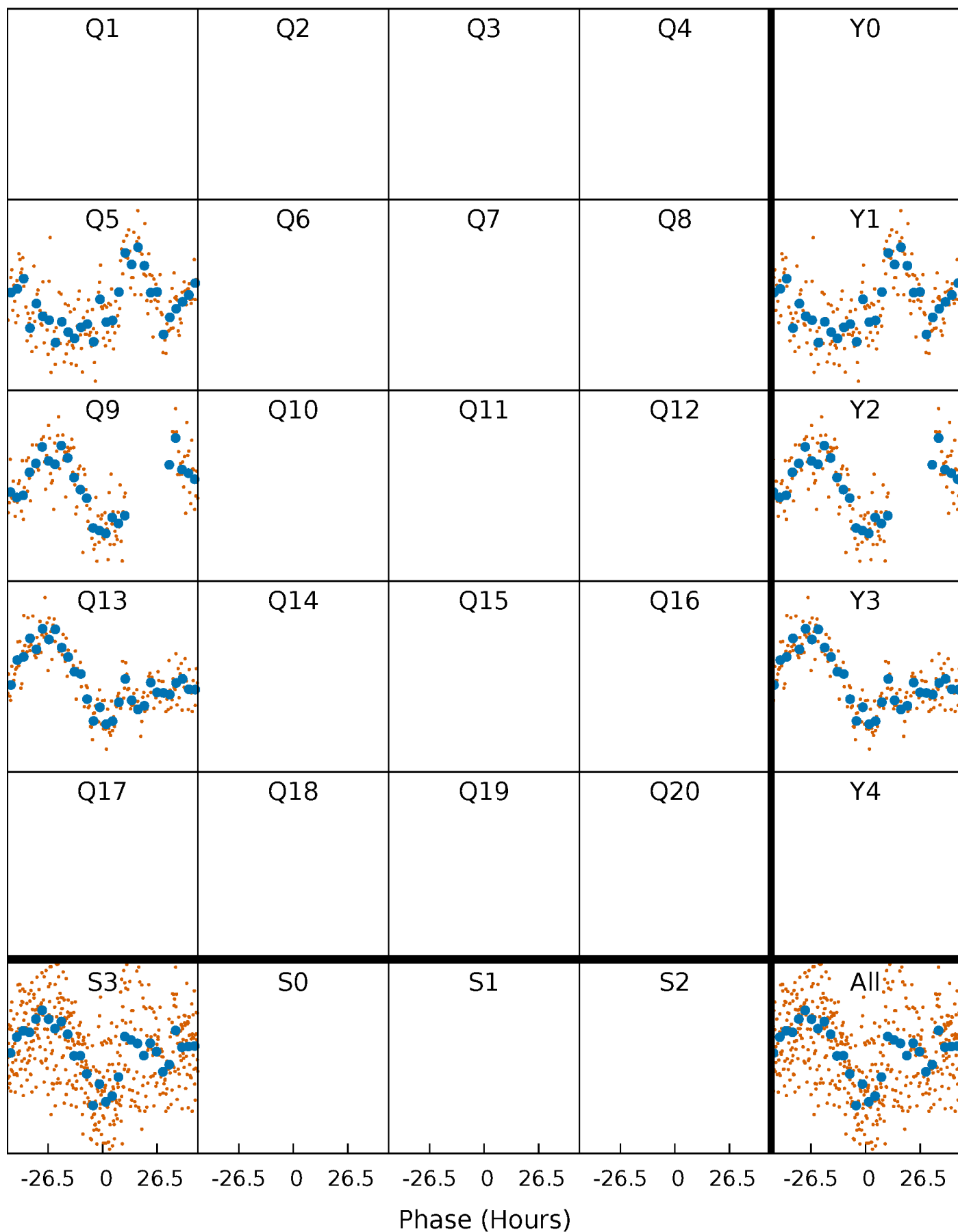


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



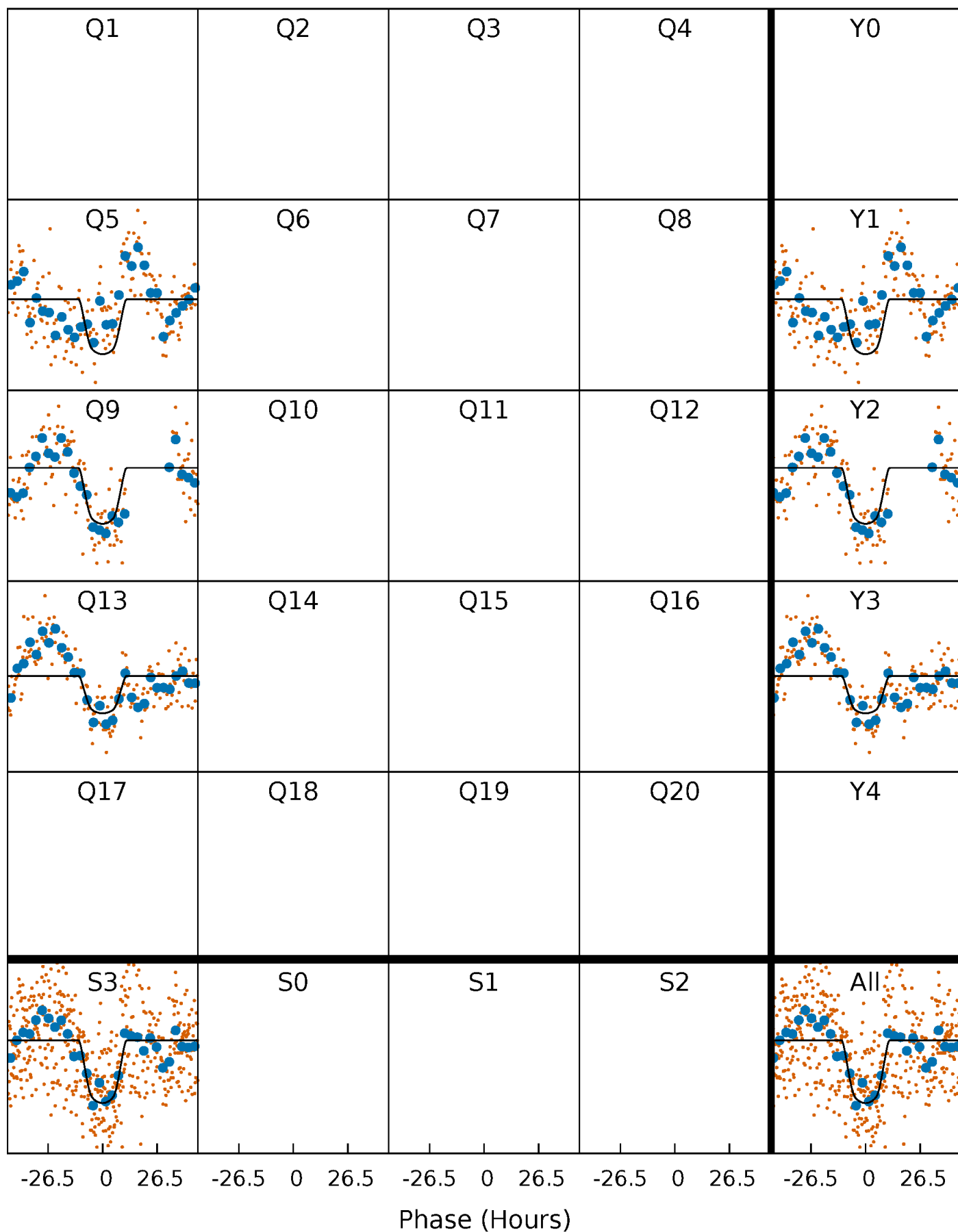
PDC Quarter-Phased Transit Curves

TCE 006281040-01 P=365.097540 Days $T_0=155.982724$ (BKJD)



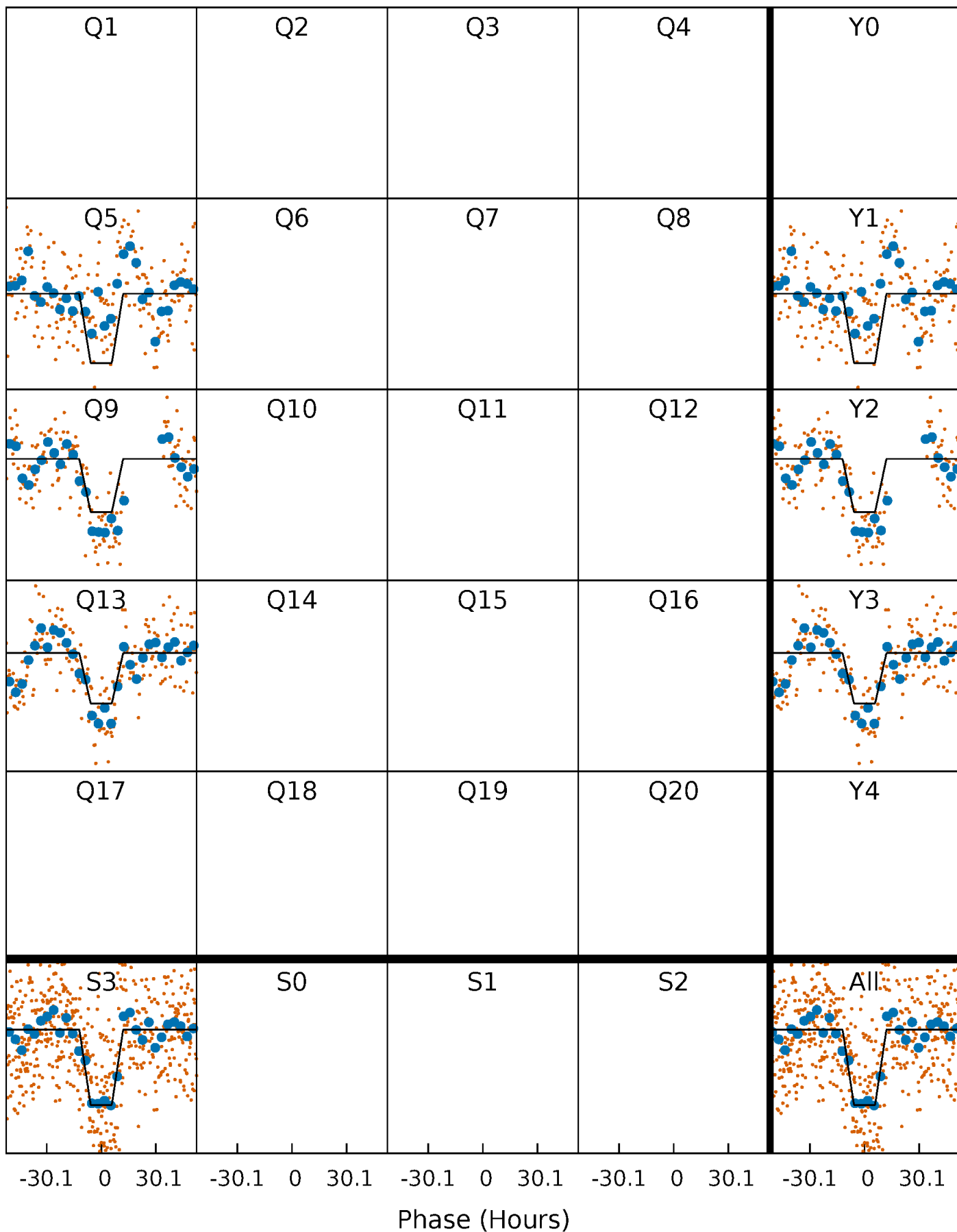
DV Quarter-Phased Transit Curves

TCE 006281040-01 P=365.097540 Days $T_0=155.982724$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

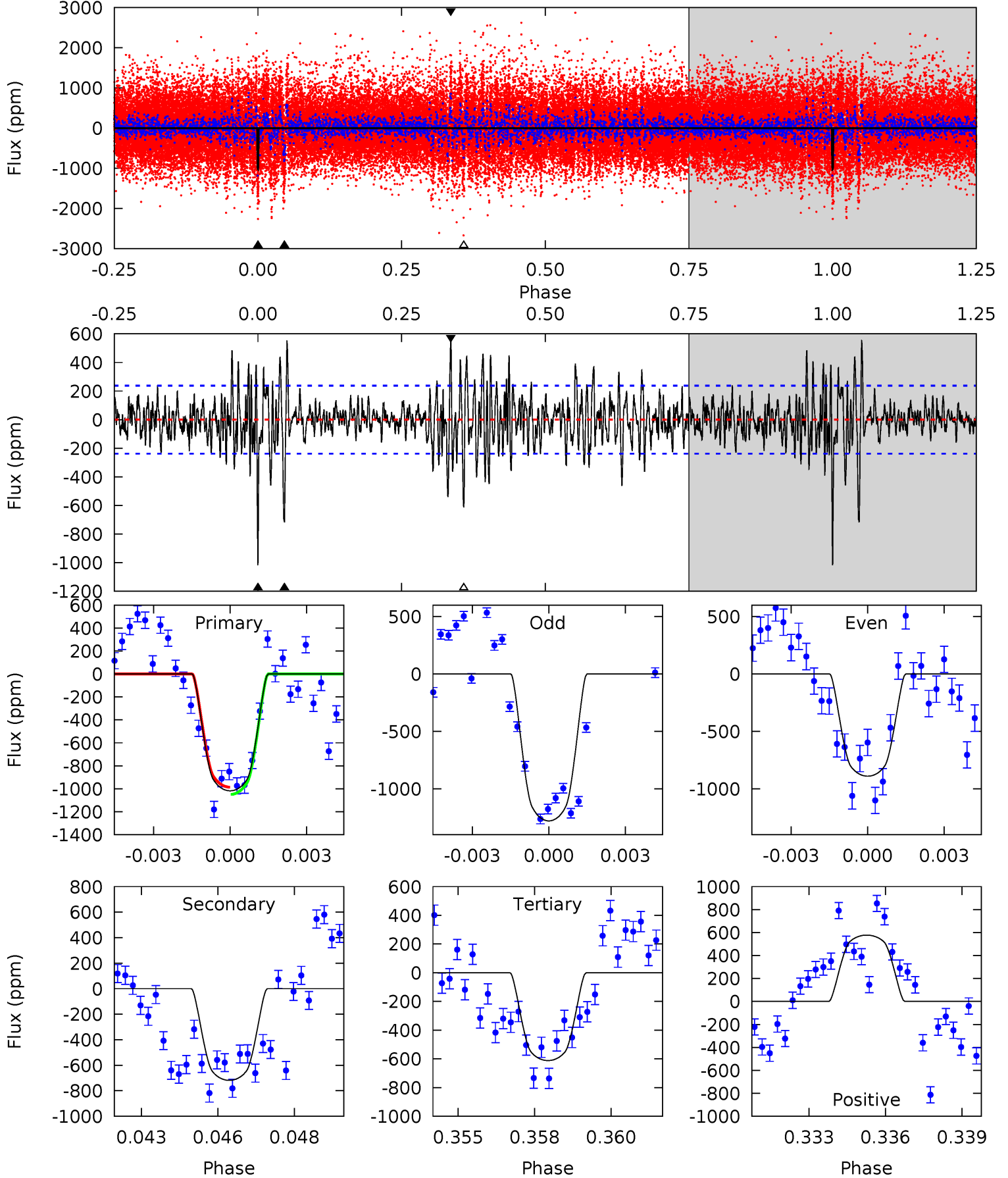
TCE 006281040-01 P=365.052361 Days $T_0=156.034893$ (BKJD)



DV Model-Shift Uniqueness Test

006281040-01, P = 365.097540 Days, E = 155.982724 Days

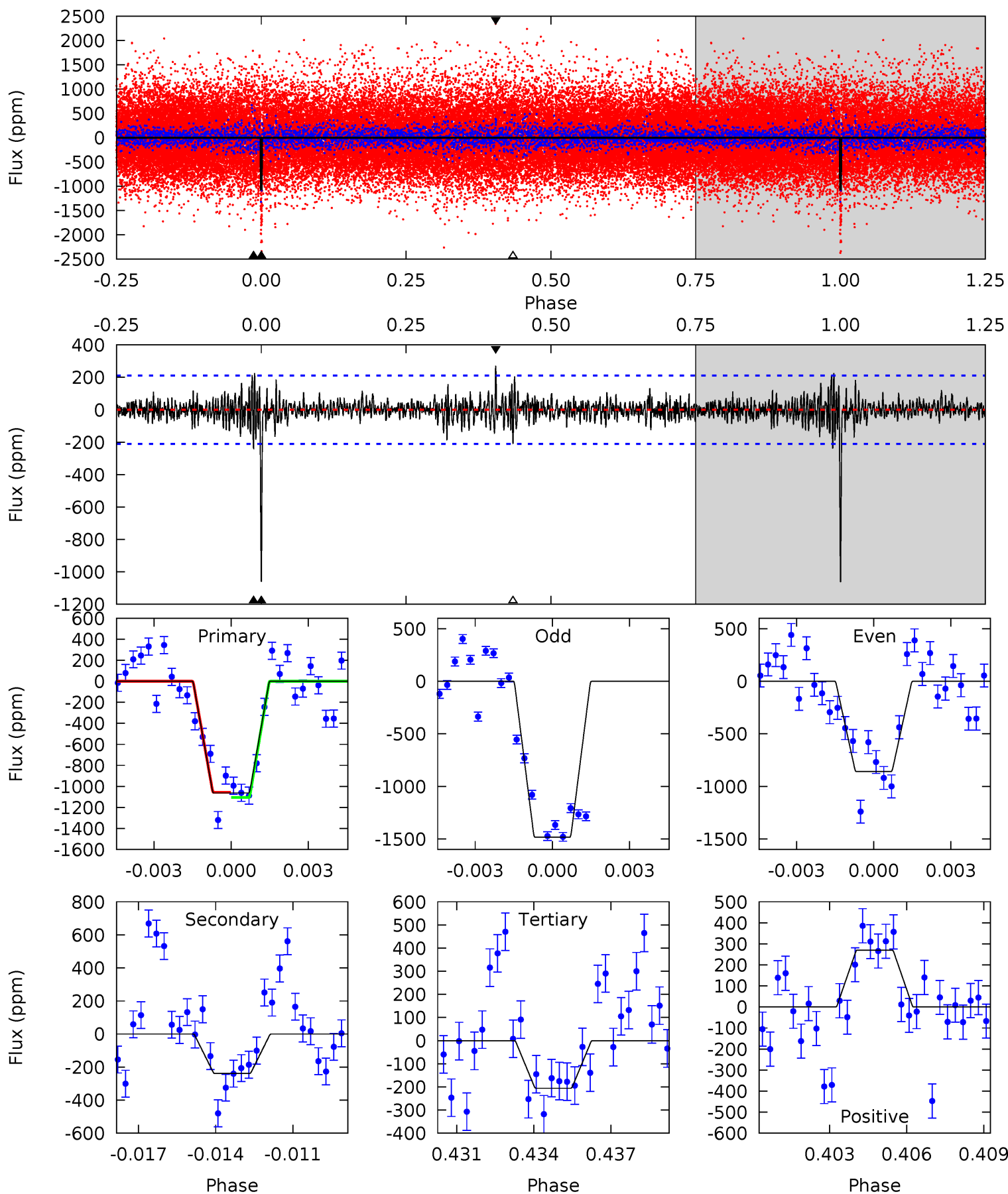
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	15.9	13.6	12.8	5.27	3.00	3.13	9.00	9.76	2.36	3.11	4.03	0.80	0.36	0.69



Alt Model-Shift Uniqueness Test

006281040-01, P = 365.052361 Days, E = 156.034893 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.5	5.96	5.14	6.75	5.27	2.99	1.19	21.4	19.8	0.82	-0.79	7.32	0.77	0.20	0.61



Stellar Parameters For KIC 006281040

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4315^{+154}_{-154}	$4.624^{+0.056}_{-0.021}$	$-0.140^{+0.300}_{-0.300}$	$0.639^{+0.041}_{-0.061}$	$0.626^{+0.069}_{-0.057}$	$3.384^{+0.859}_{-0.362}$
	+4%/-4%	+1%/-0%	+214%/-214%	+6%/-10%	+11%/-9%	+25%/-11%
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 006281040-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-718 ± 45	$2.72^{+0.29}_{-0.30}$	227^{+9}_{-9}	3757^{+181}_{-177}	39573^{+9467}_{-7518}
Alt.	-239 ± 40	$2.28^{+0.27}_{-0.26}$	228^{+9}_{-9}	3337^{+180}_{-173}	18780^{+6303}_{-4530}

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

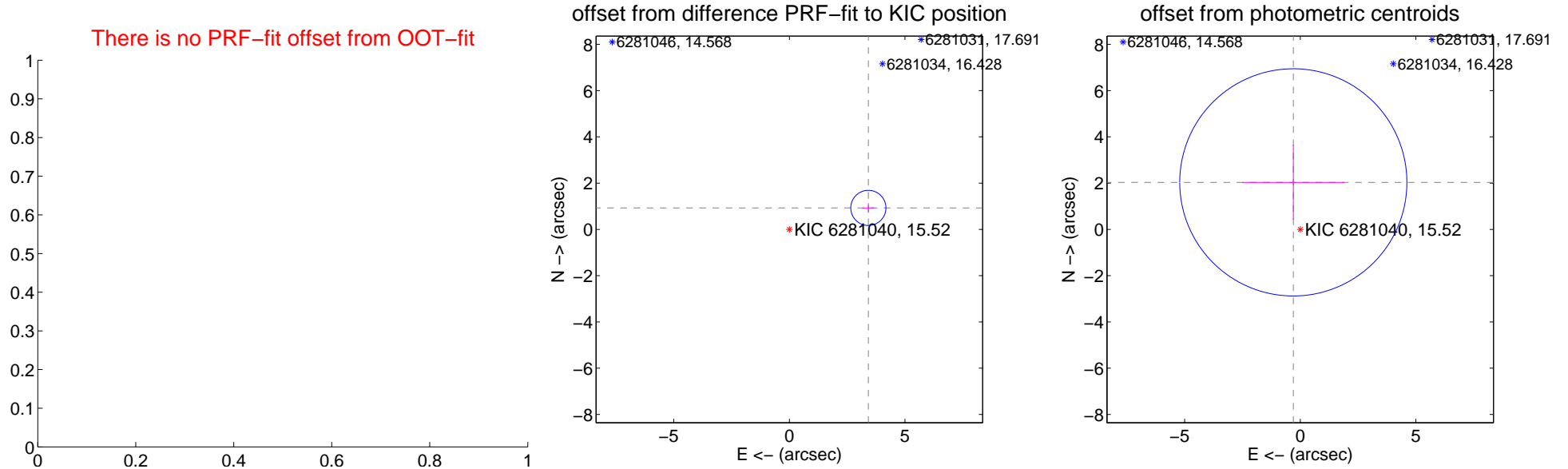
DV Centroid Data

Supplemental centroid analysis for 006281040-01. Kepler magnitude: 15.52. Transit SNR 7.80

There are 0 quarters with good PRF difference image offsets

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

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	3.539 ± 0.253	13.96	-3.415 ± 0.257	0.929 ± 0.205
photometric centroid source offset	2.05 ± 1.64	1.26	0.30 ± 2.21	2.03 ± 1.62

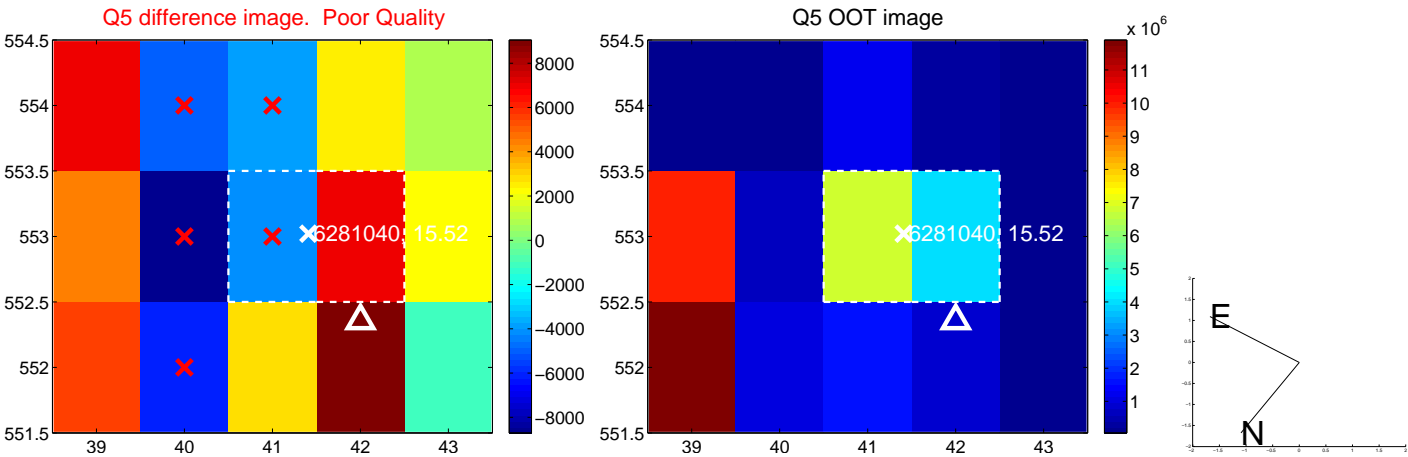


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



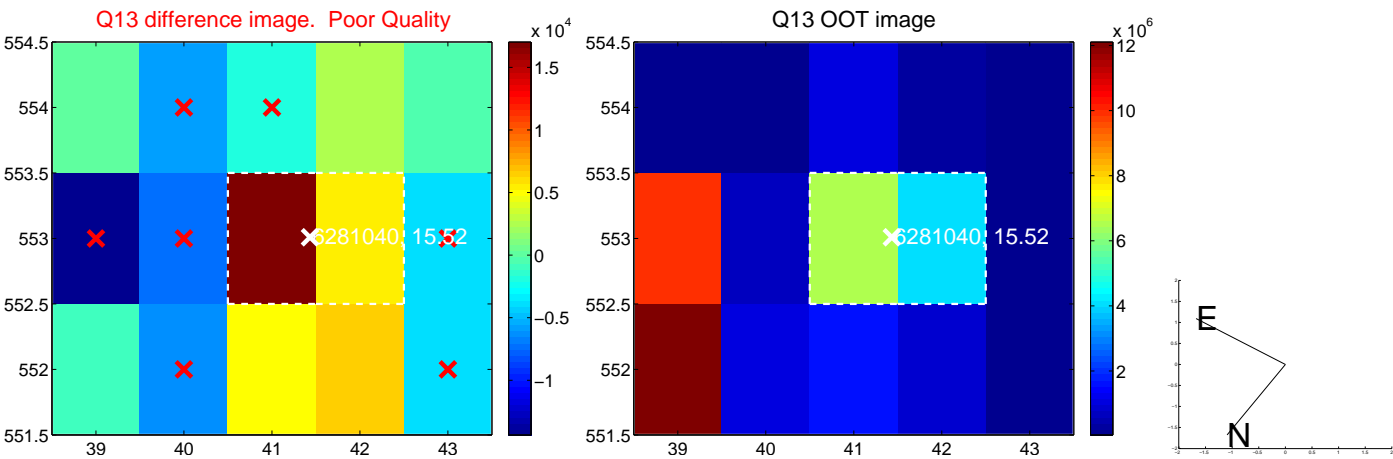
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



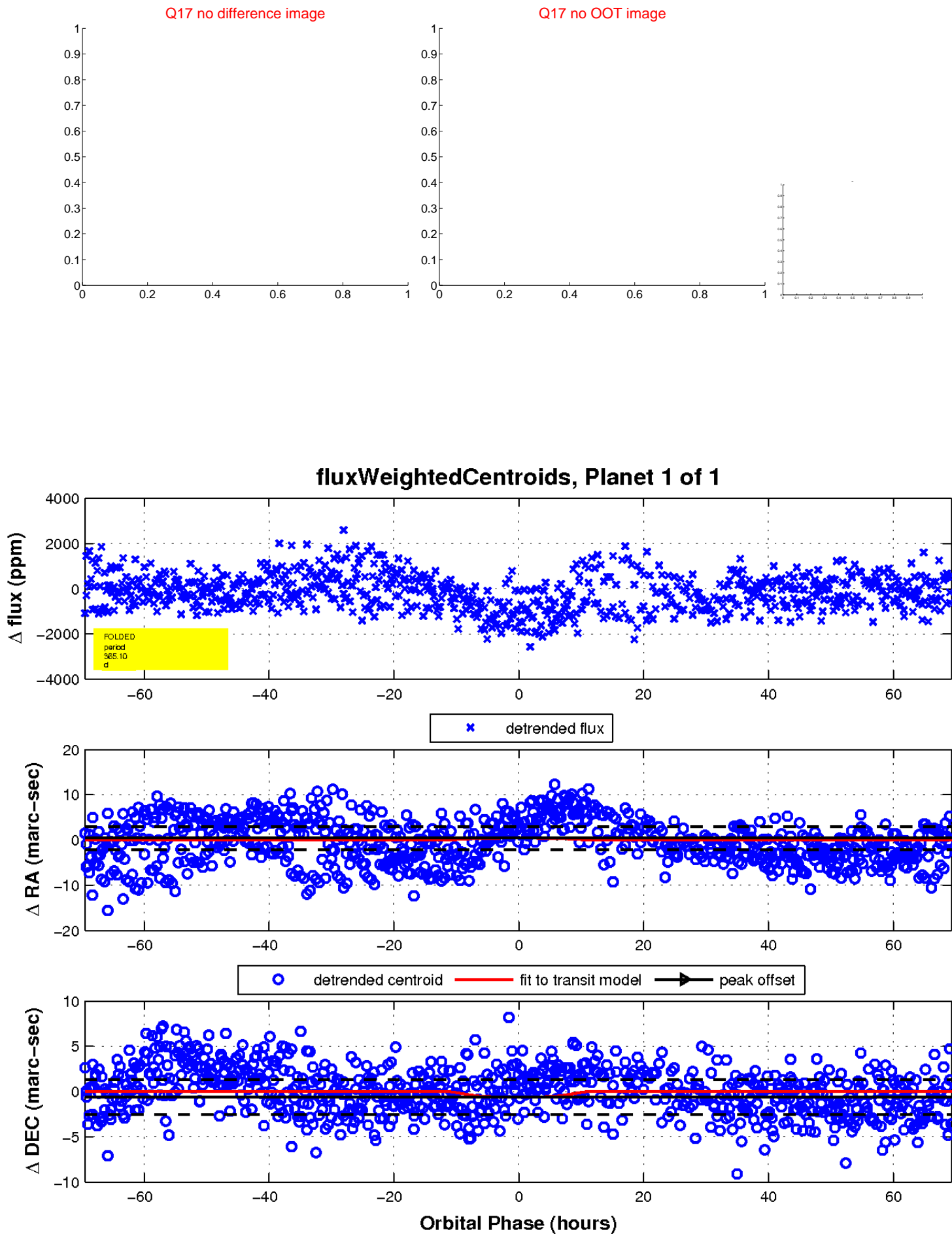
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

