

KIC 011465813

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})
011465813-01	OBS	0771.01	670.646611	209.041313	18288.5	53.853	97.0	268.4	0.98	5520	14.26	0.35

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011465813-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_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.

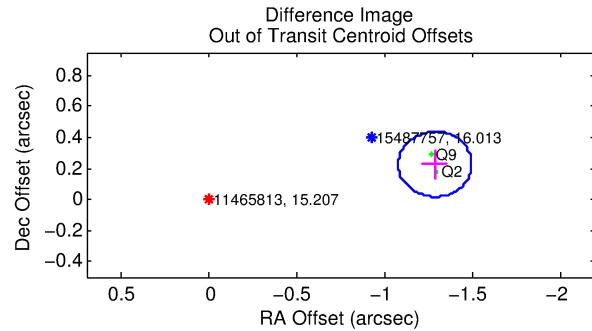
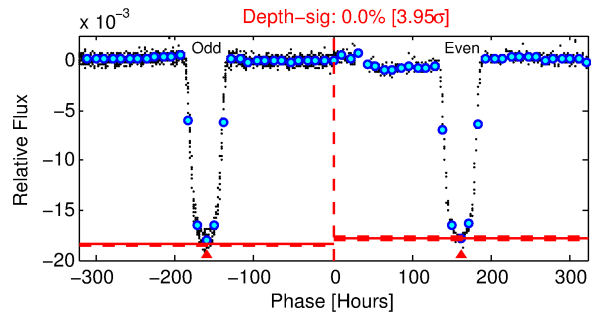
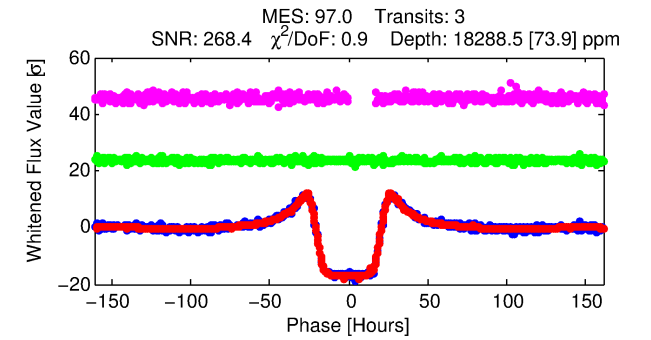
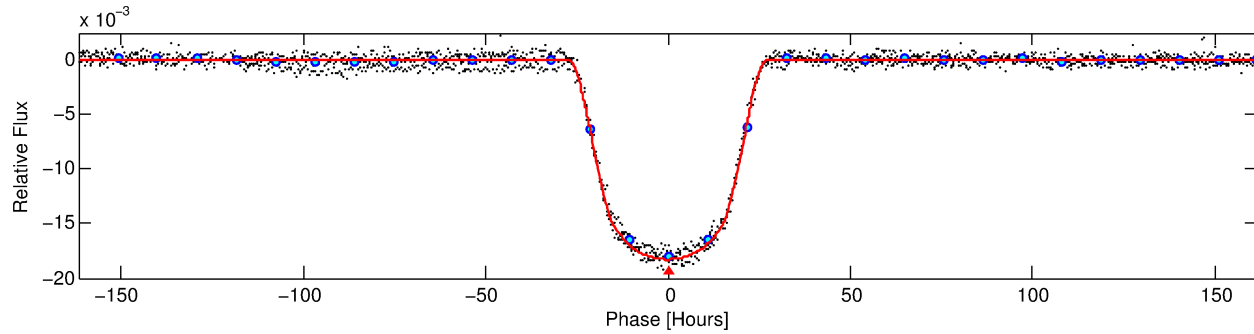
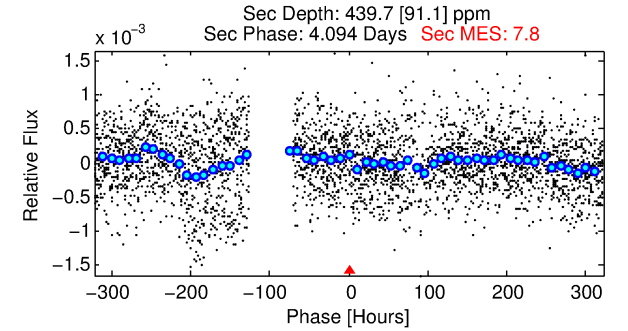
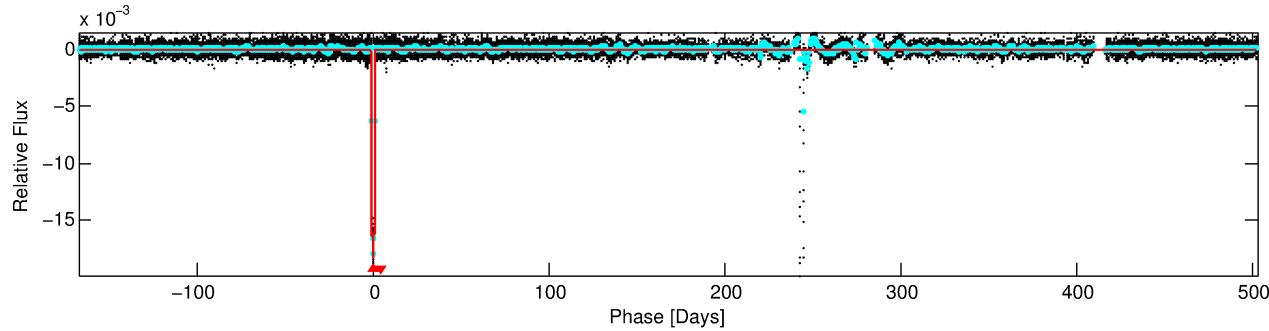
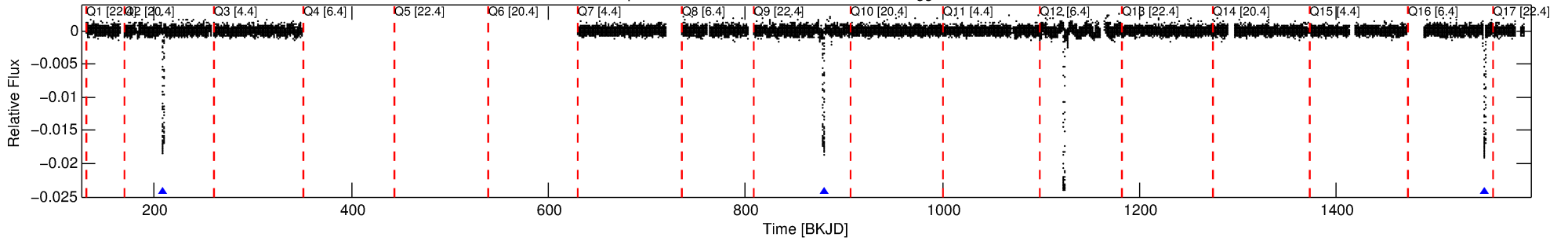
Ephemeris Match Information For 011465813-01

No Significant Match Found

DV One-Page Summary

KIC: 11465813 Candidate: 1 of 1 Period: 670.647 d
KOI: K00771.01 Corr: 0.999

Kp: 15.21 R*: 0.98 Rs Teff: 5520.0 K Logg: 4.47 Fe/H: 0.480



DV Fit Results:

Period = 670.64661 [0.00168] d
Epoch = 209.0413 [0.0023] BKJD
Rp/R* = 0.1329 [0.0004]
a/R* = 84.33 [0.53]
b = 0.71 [0.00]
Seff = 0.35 [0.08]
Teq = 196 [11] K
Rp = 14.26 [2.15] Re
a = 1.5149 [0.2064] AU
Ag = 2731.16 [805.26] [3.39σ]
Teffp = 2193 [122] K [16.32σ]

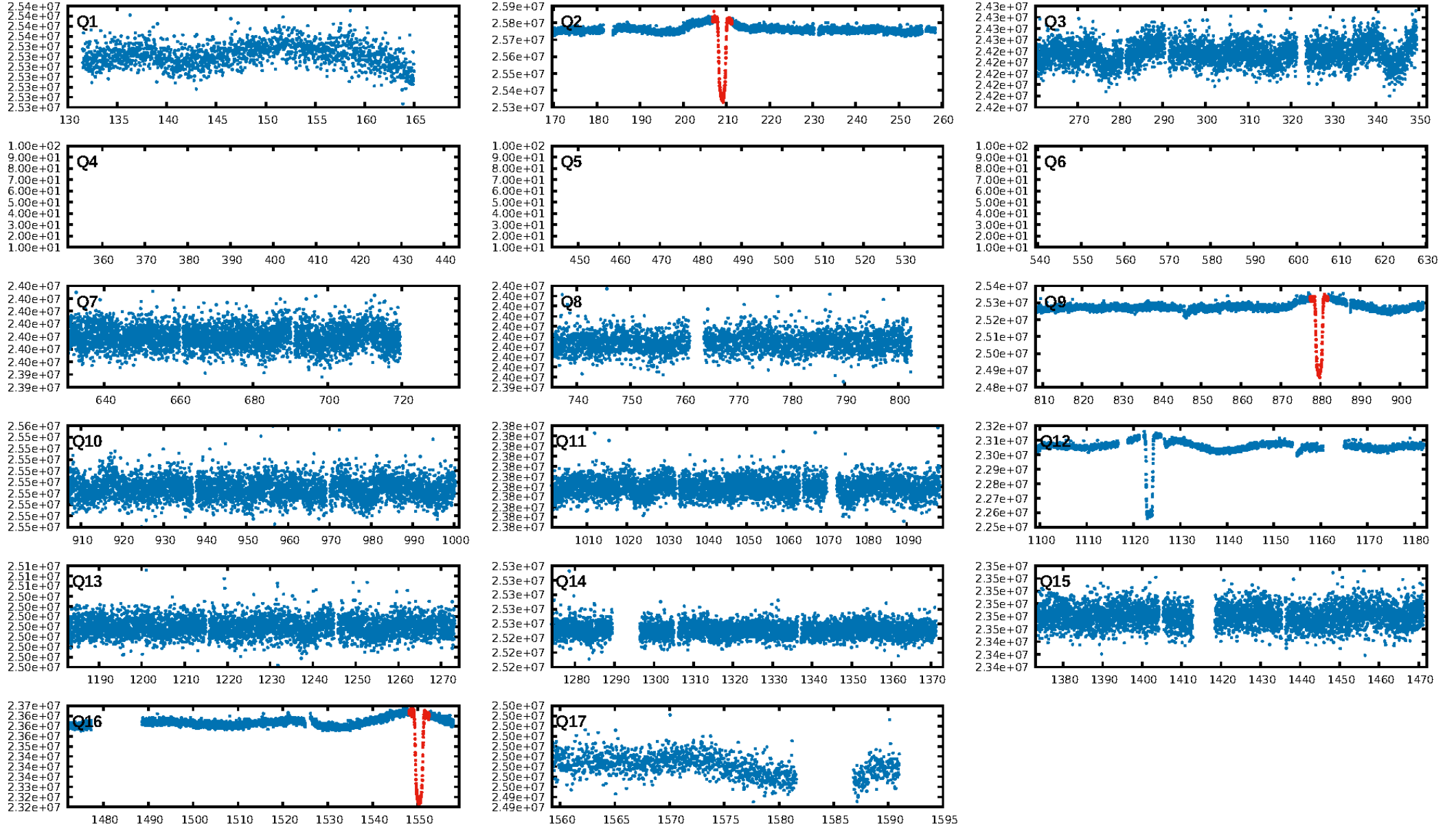
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.772
Centroid-sig: 0.0%
Centroid-so: 0.702 arcsec [12.92σ]
OotOffset-rm: 1.306 arcsec [18.71σ]
KicOffset-rm: 1.092 arcsec [11.92σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

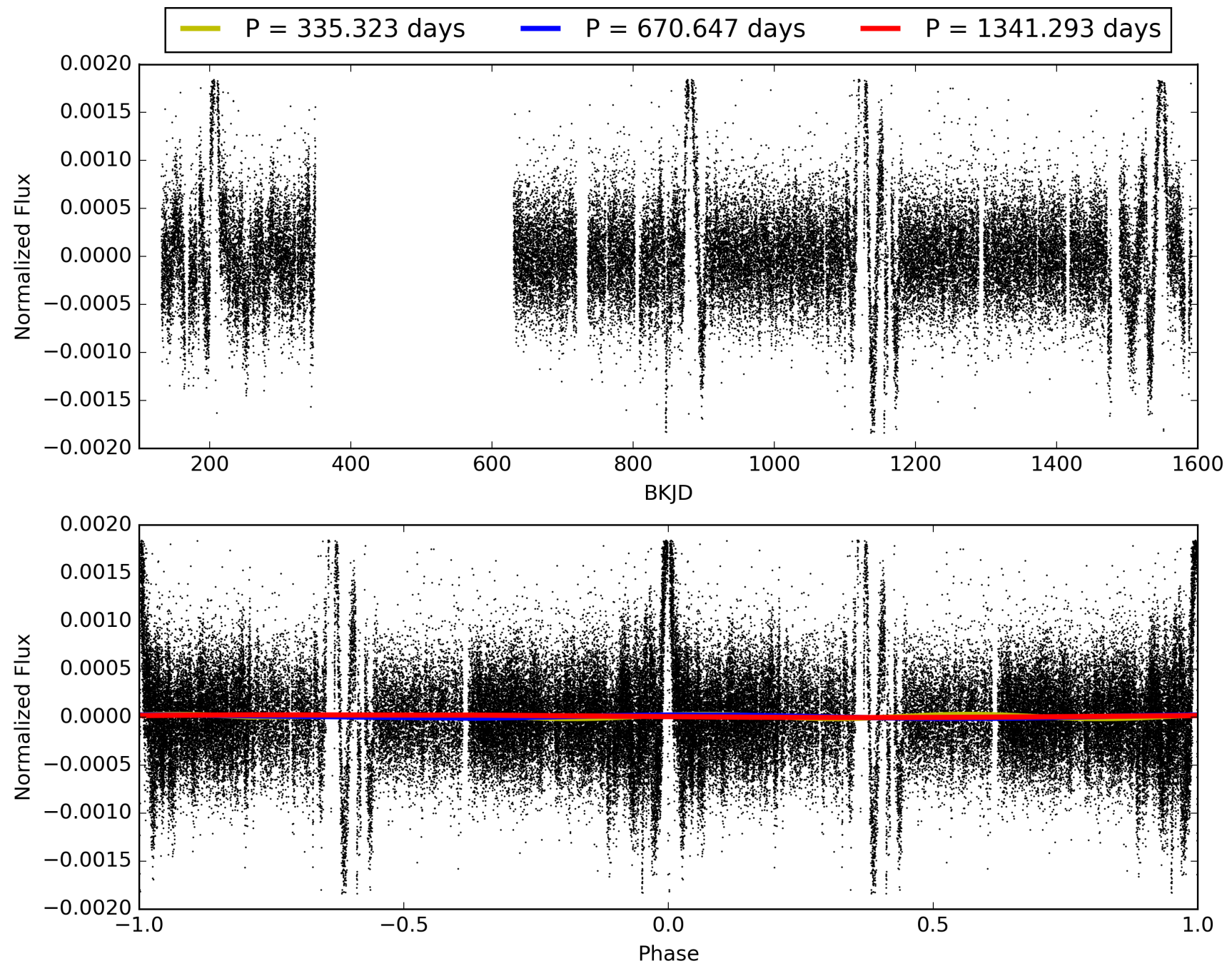
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:28:43 Z

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

TCE 011465813-01, PDC Light Curves

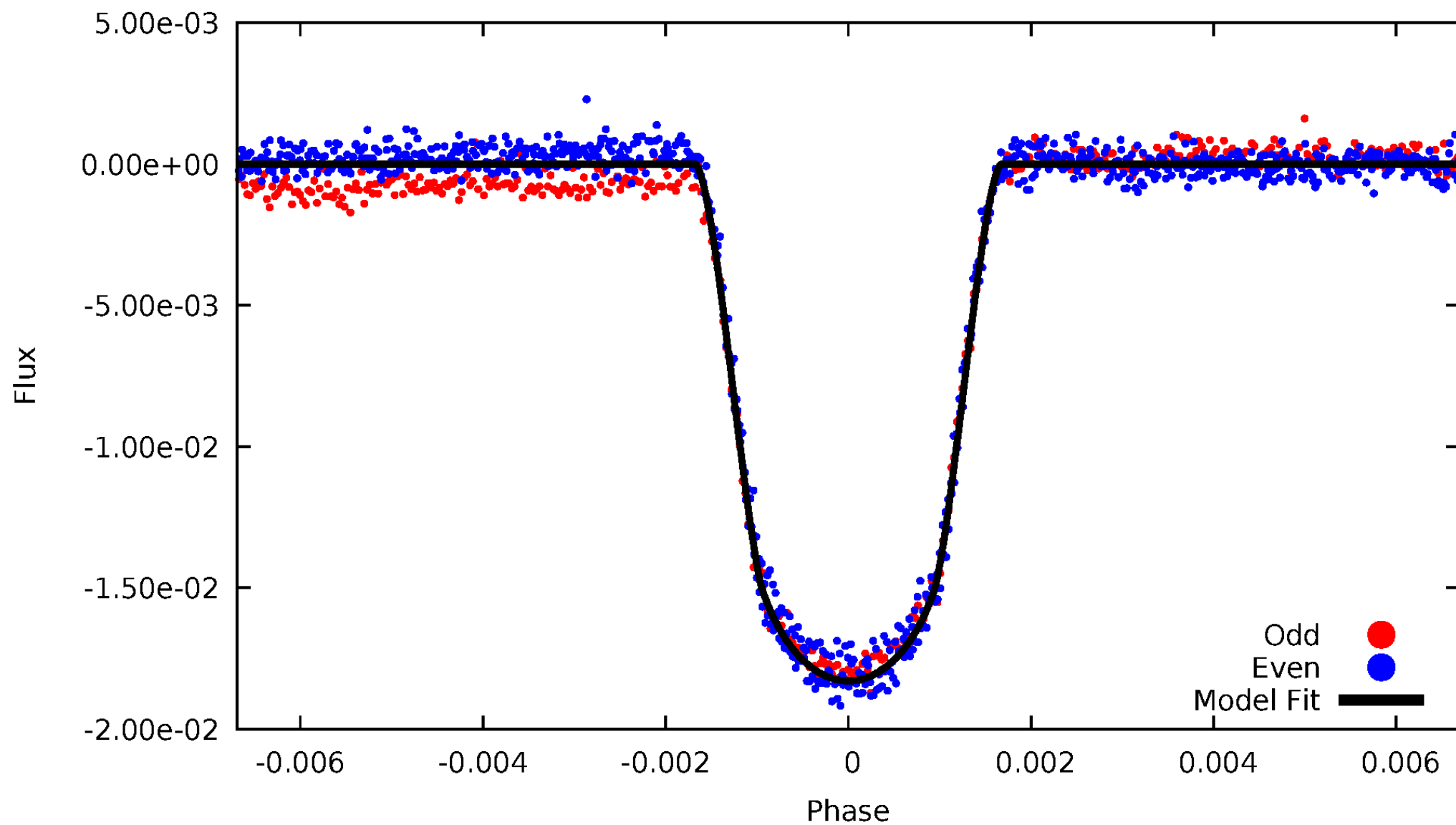


TCE 011465813-01



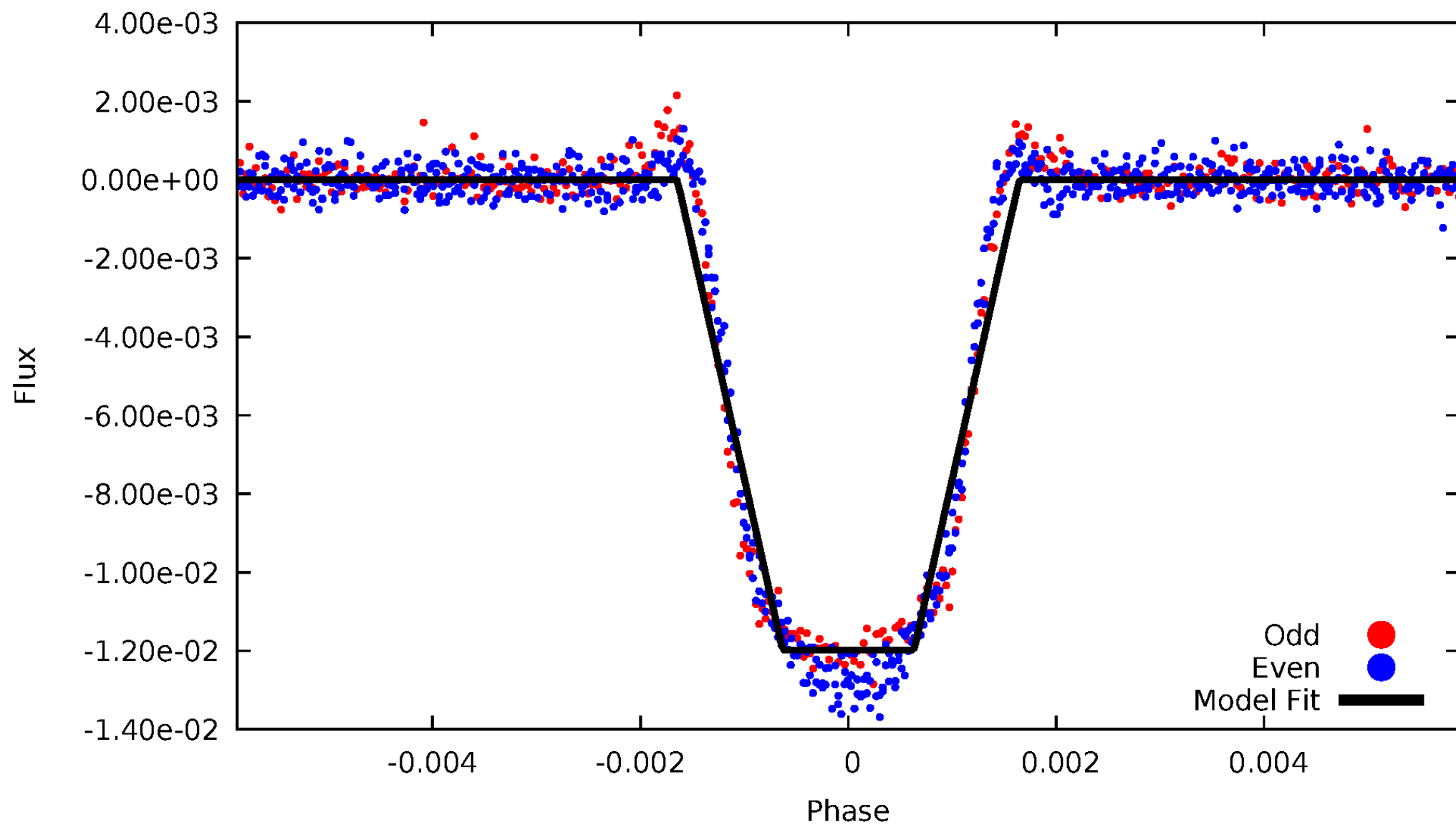
DV Odd/Even

TCE 011465813-01



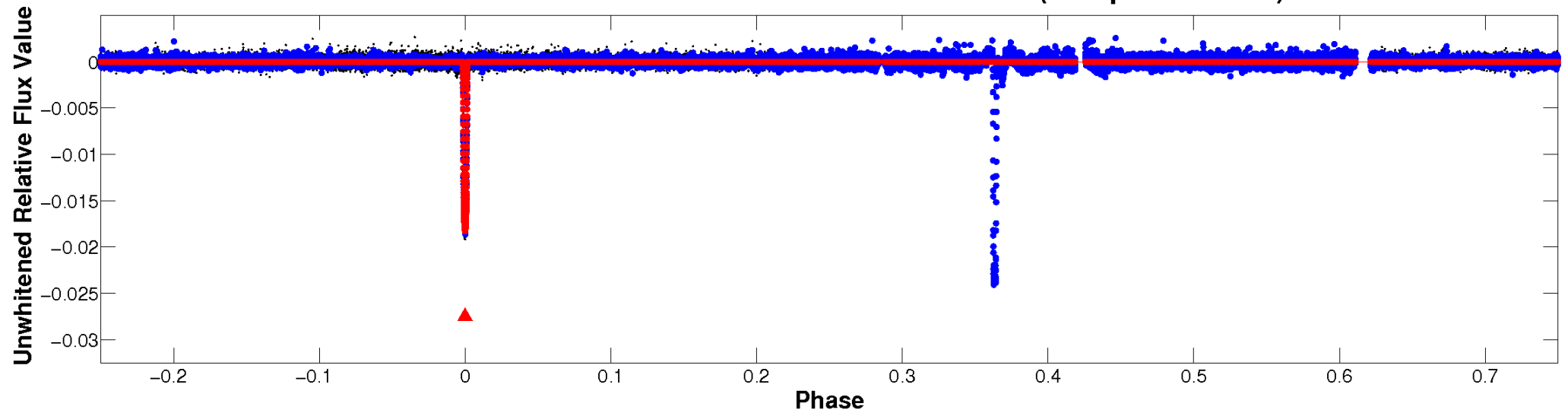
ALT Odd/Even

TCE 011465813-01

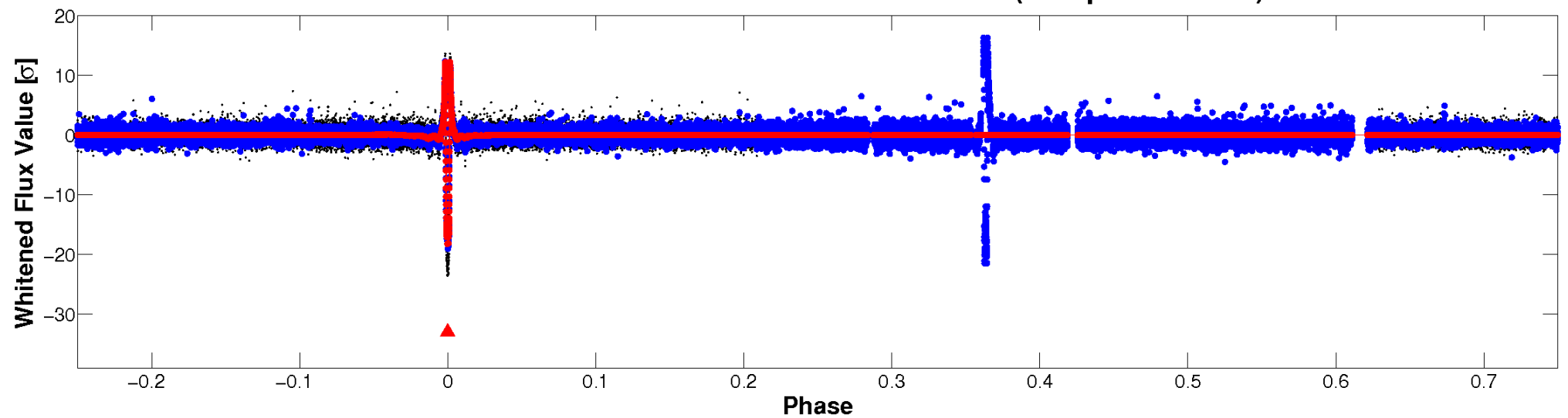


Non-Whitened Vs. Whitened Light Curve

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

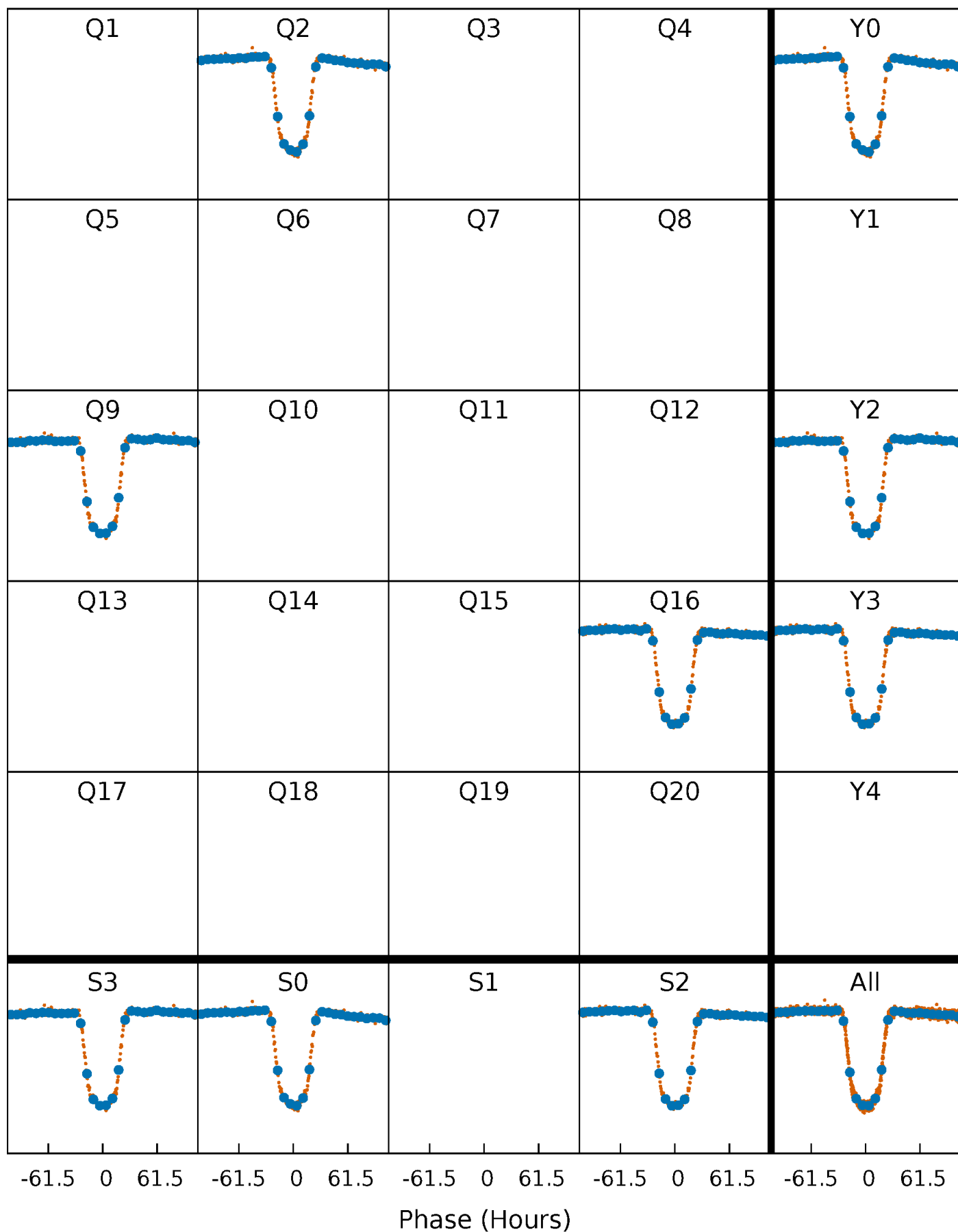


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



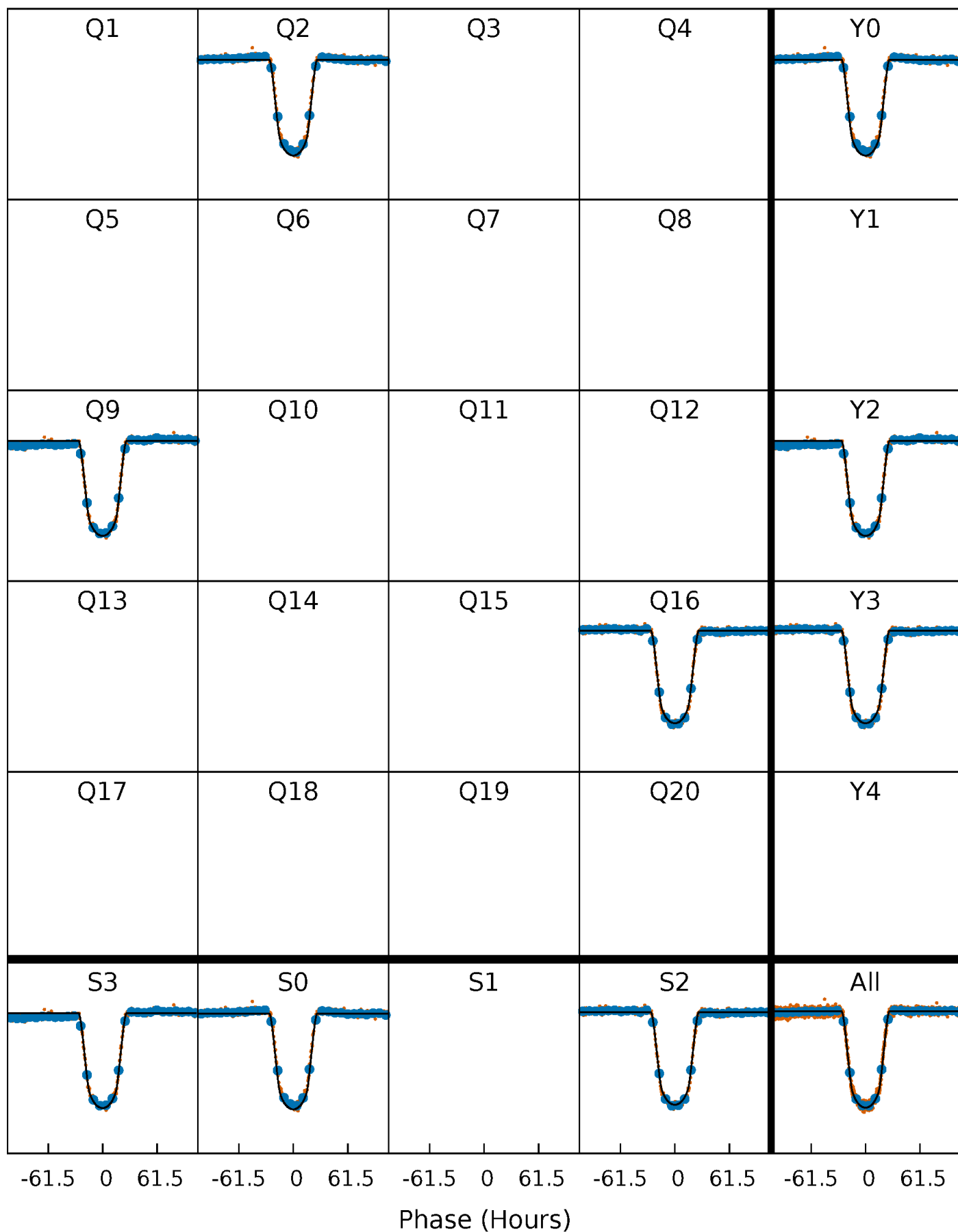
PDC Quarter-Phased Transit Curves

TCE 011465813-01 P=670.646611 Days $T_0=209.041313$ (BKJD)



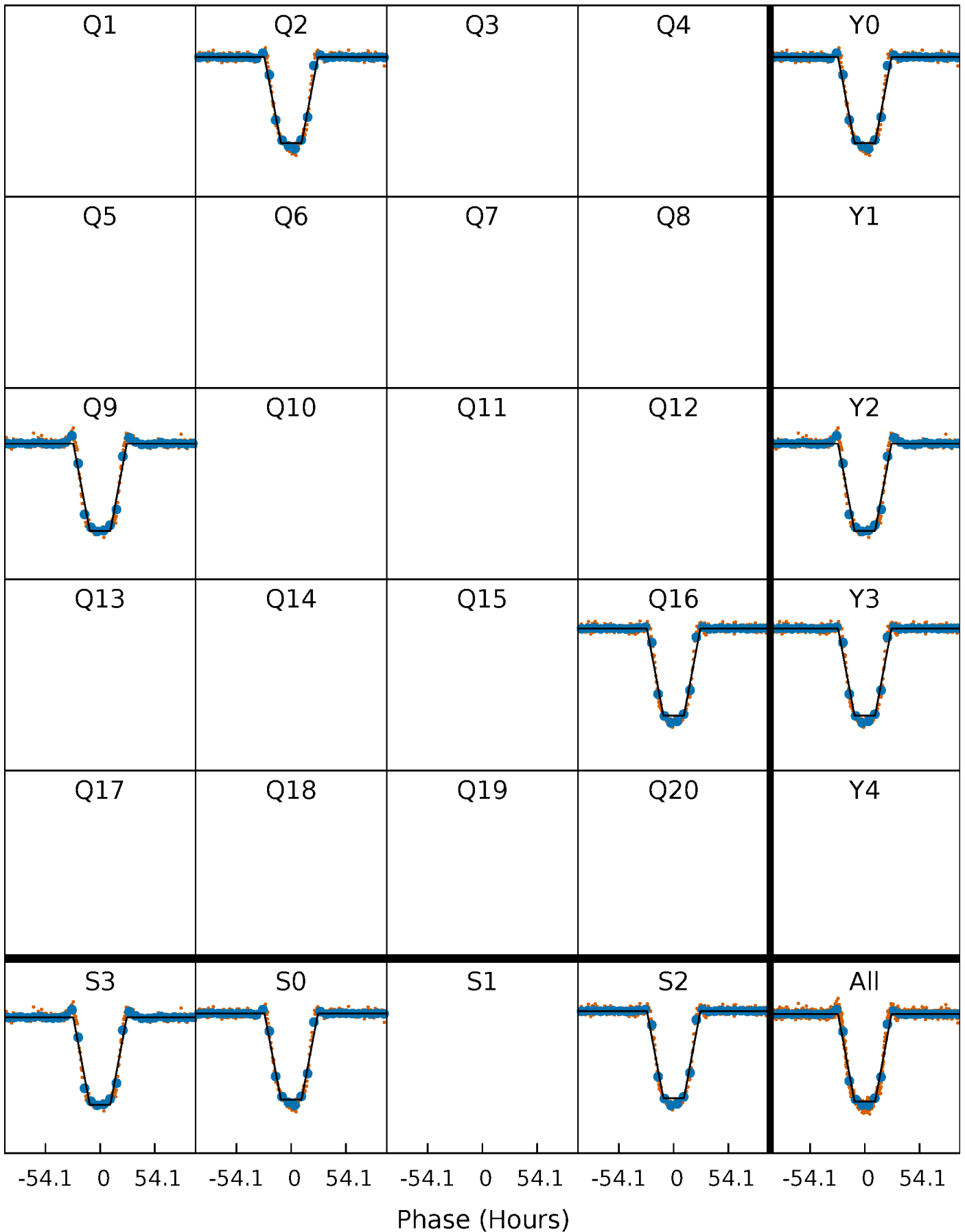
DV Quarter-Phased Transit Curves

TCE 011465813-01 P=670.646611 Days $T_0=209.041313$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

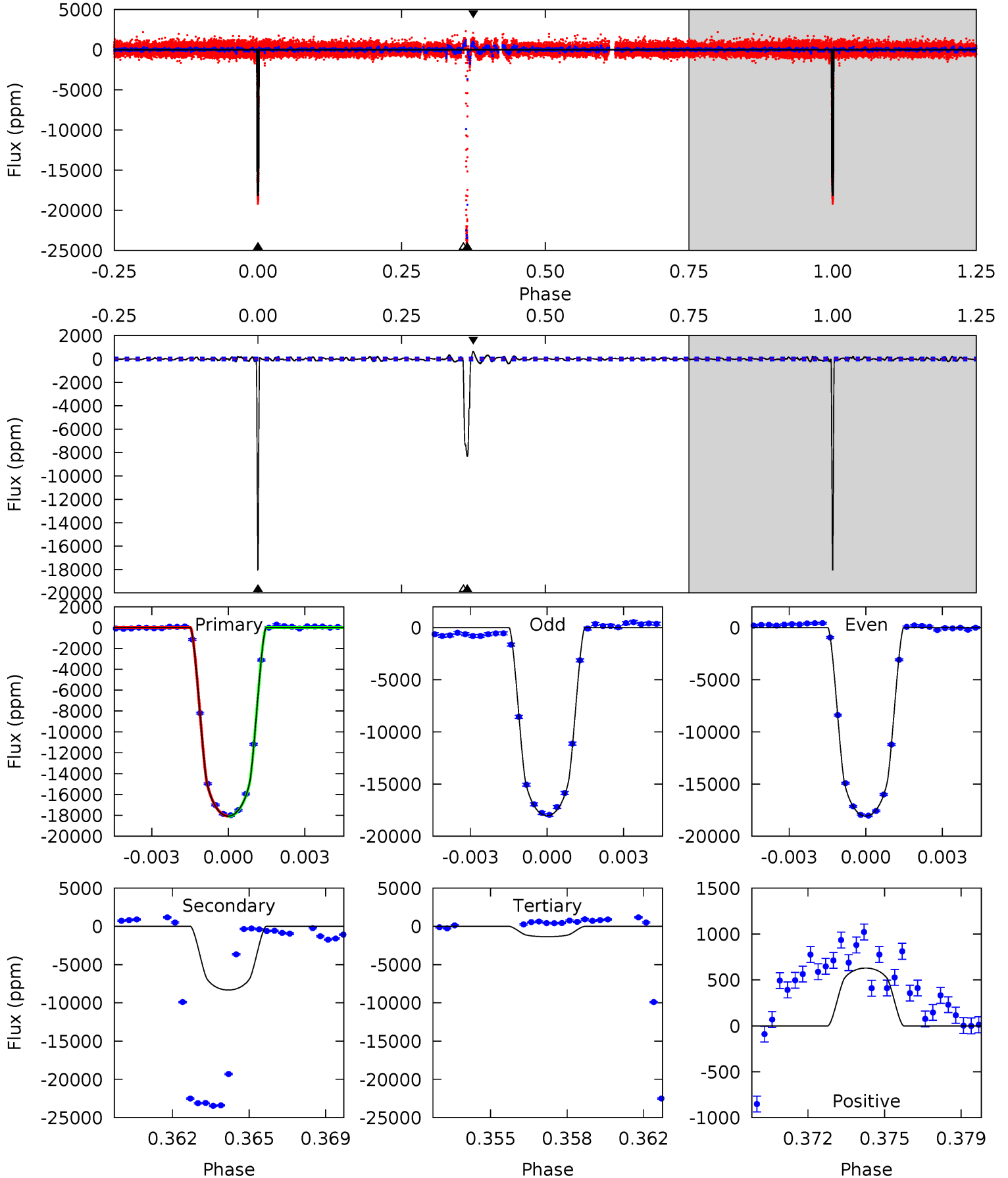
TCE 011465813-01 P=670.629439 Days $T_0=209.061256$ (BKJD)



DV Model-Shift Uniqueness Test

011465813-01, P = 670.646611 Days, E = 209.041313 Days

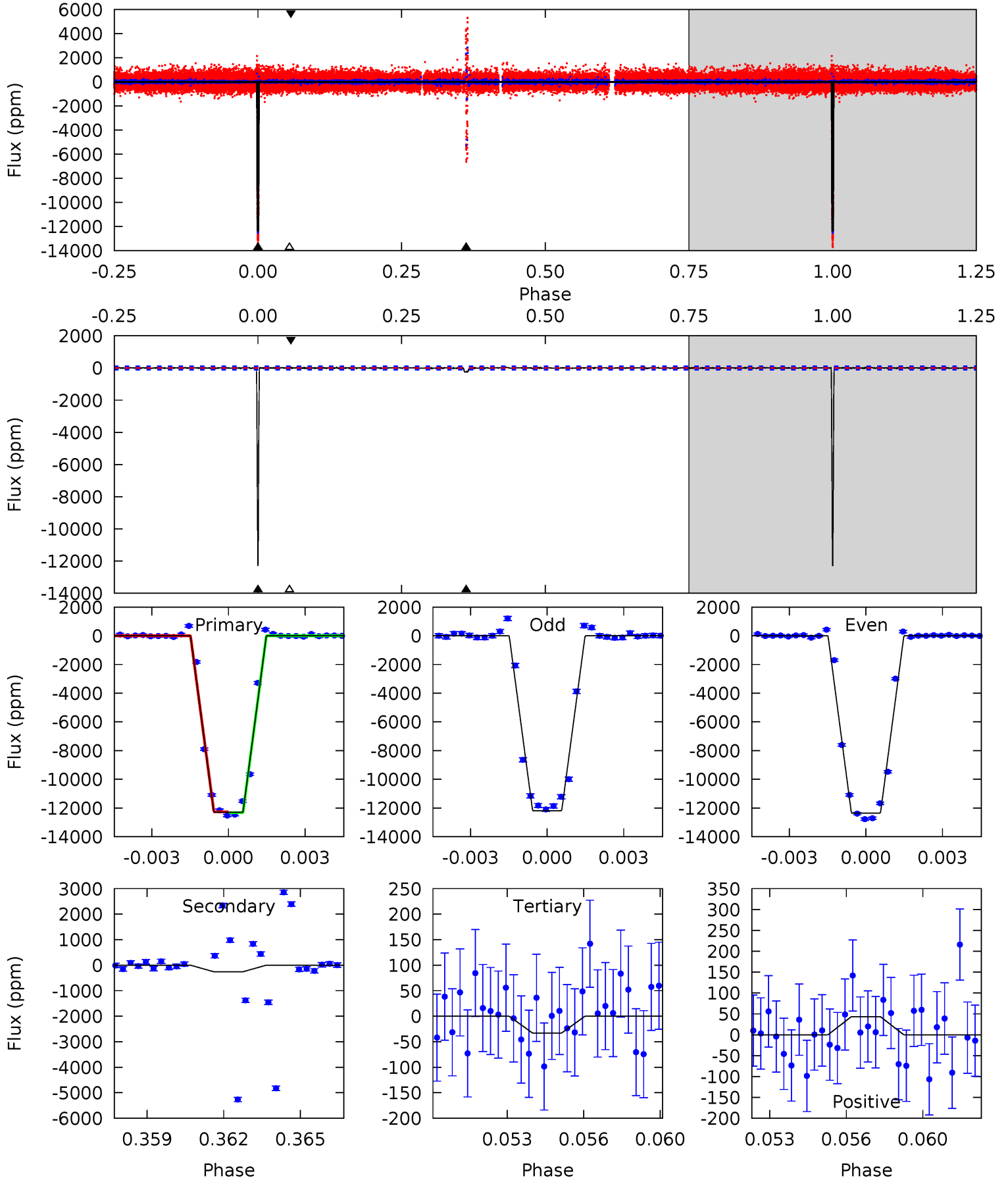
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
841.3	387.5	63.0	29.3	5.23	2.93	11.4	778.3	812.0	324.4	358.2	0.69	1.00	0.03	0.31



Alt Model-Shift Uniqueness Test

011465813-01, P = 670.629439 Days, E = 209.061256 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
627.6	13.2	1.68	2.21	5.23	2.94	0.51	625.9	625.4	11.5	11.0	4.07	1.01	0.00	1.70



Stellar Parameters For KIC 011465813

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5520^{+100}_{-111}	$4.466^{+0.032}_{-0.120}$	$0.480^{+0.050}_{-0.150}$	$0.983^{+0.148}_{-0.049}$	$1.030^{+0.042}_{-0.058}$	$1.528^{+0.228}_{-0.523}$
	+2%/-2%	+1%/-3%	+10%/-31%	+15%/-5%	+4%/-6%	+15%/-34%
Source	SPE3	SPE3	SPE3	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011465813-01 / KOI 0771.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-8327 ± 21	$14.32^{+1.25}_{-0.46}$	277^{+10}_{-8}	4713^{+70}_{-84}	50814^{+3543}_{-6982}
Alt.	-259 ± 20	$11.84^{+1.01}_{-0.41}$	277^{+11}_{-8}	2839^{+43}_{-44}	2262^{+280}_{-305}

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 $A_{obs} \gg 1.0$

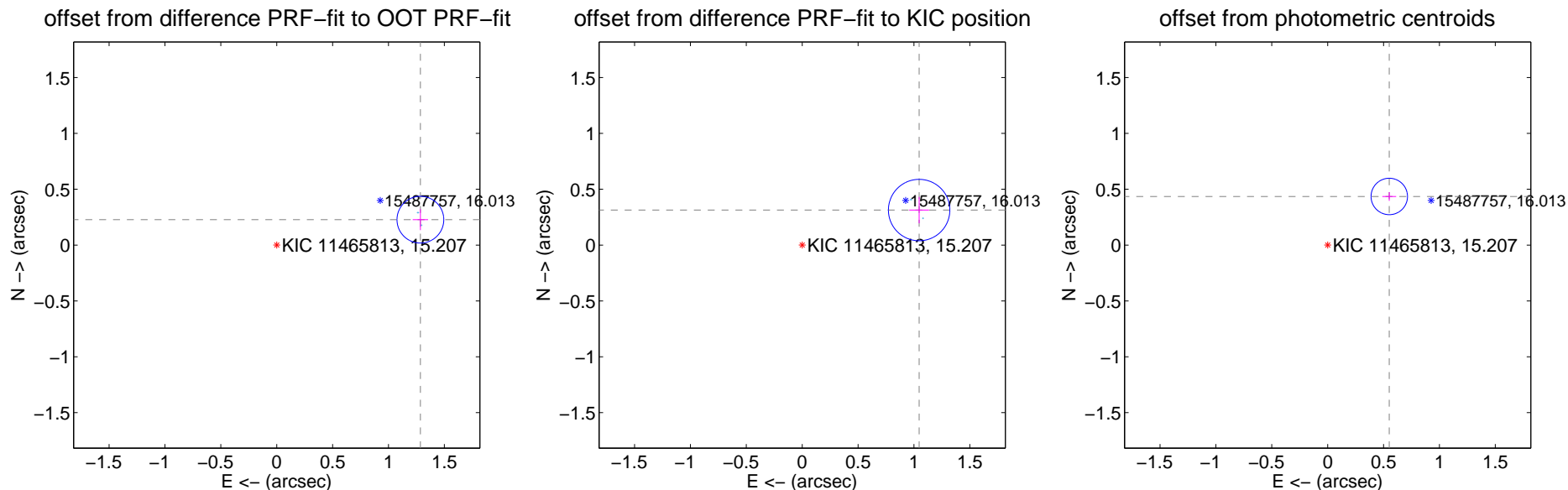
DV Centroid Data

Supplemental centroid analysis for 011465813-01. Kepler magnitude: 15.21. Transit SNR 268.42

There are 2 quarters with good PRF difference image offsets

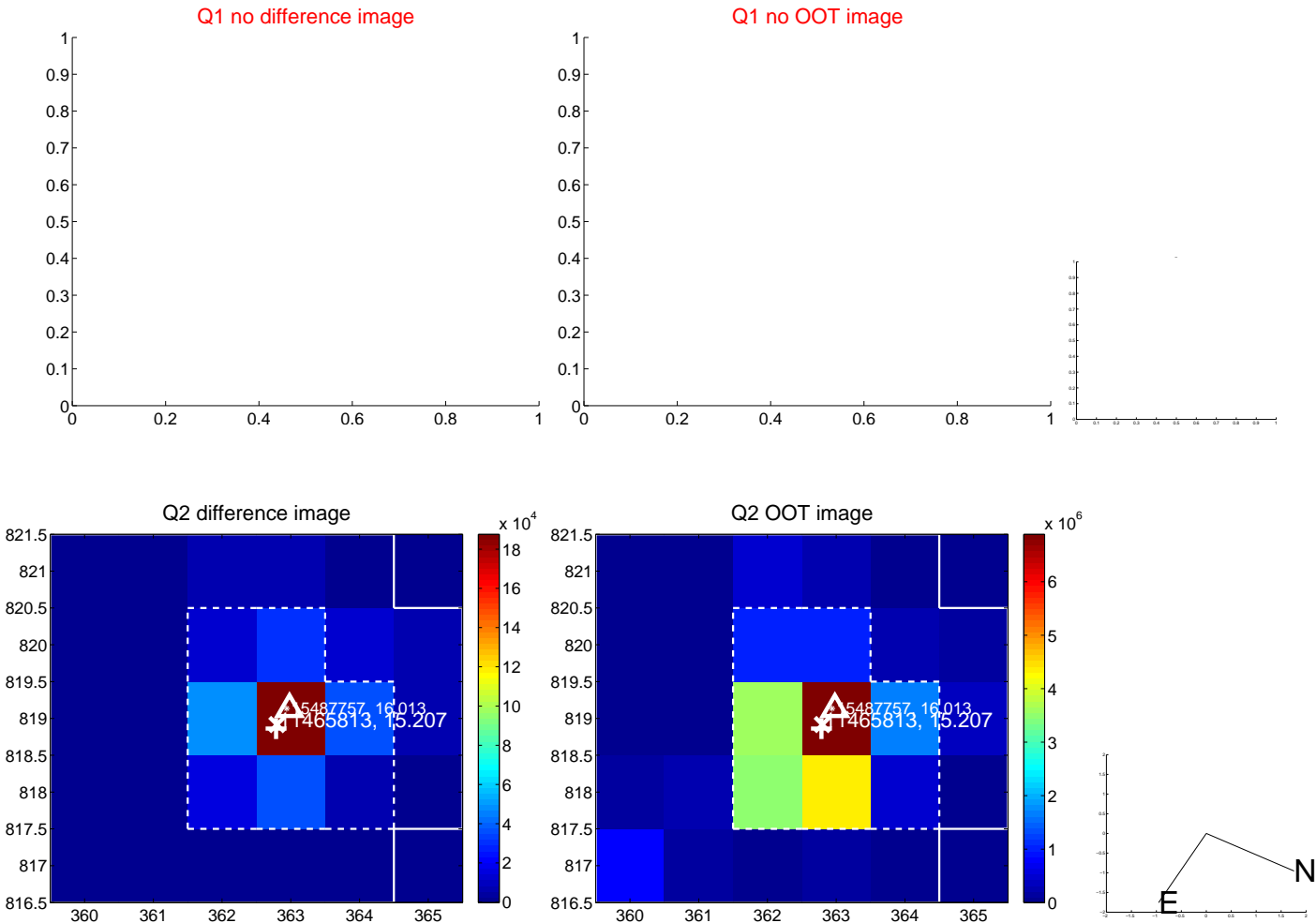
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.306 ± 0.070	18.71	-1.286 ± 0.069	0.227 ± 0.094
PRF-fit source offset from KIC position	1.092 ± 0.092	11.92	-1.047 ± 0.089	0.314 ± 0.118
photometric centroid source offset	0.70 ± 0.05	12.92	-0.55 ± 0.06	0.44 ± 0.04



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.

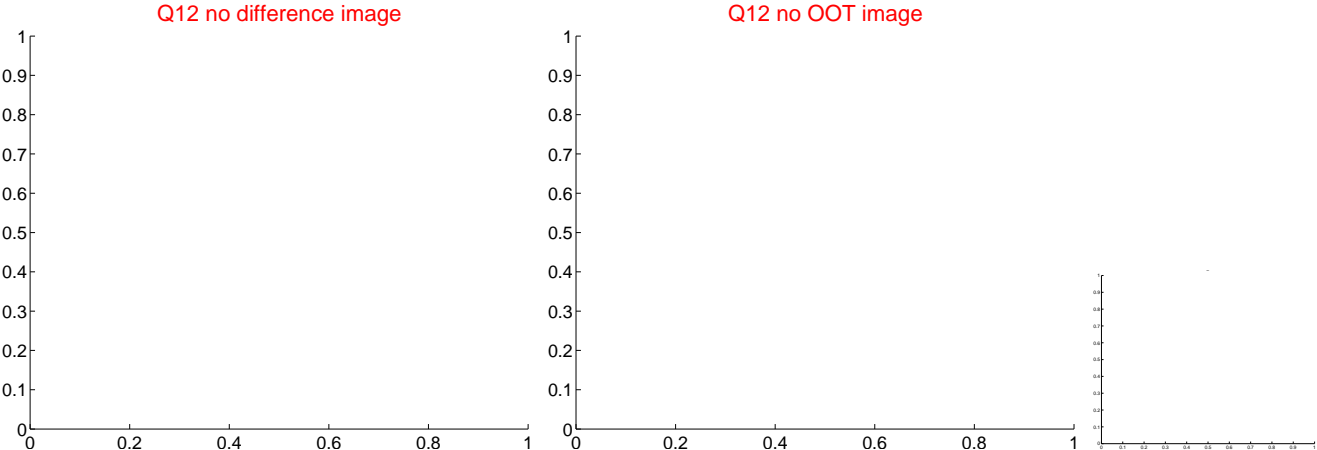
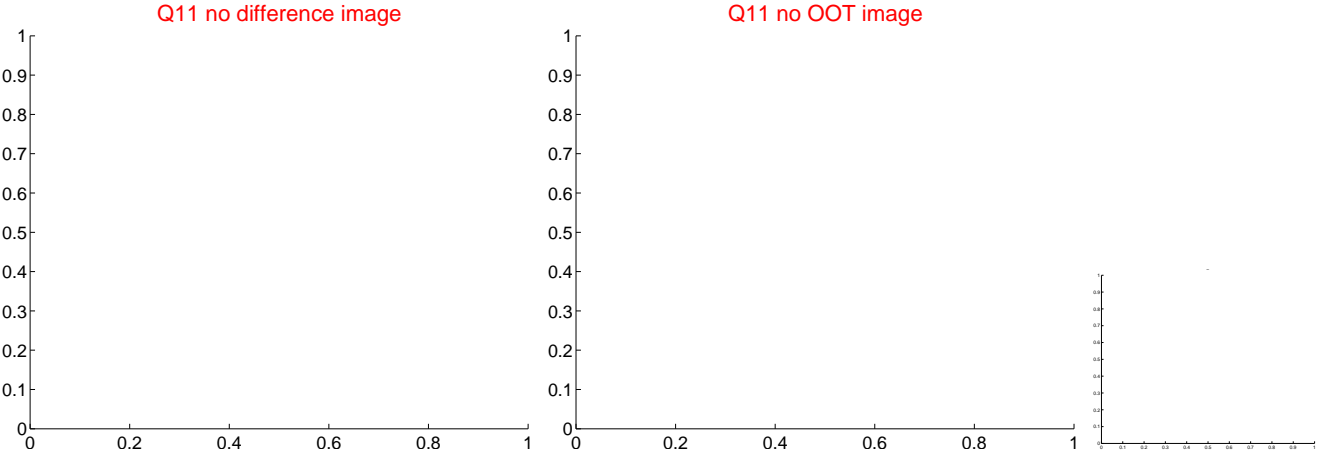
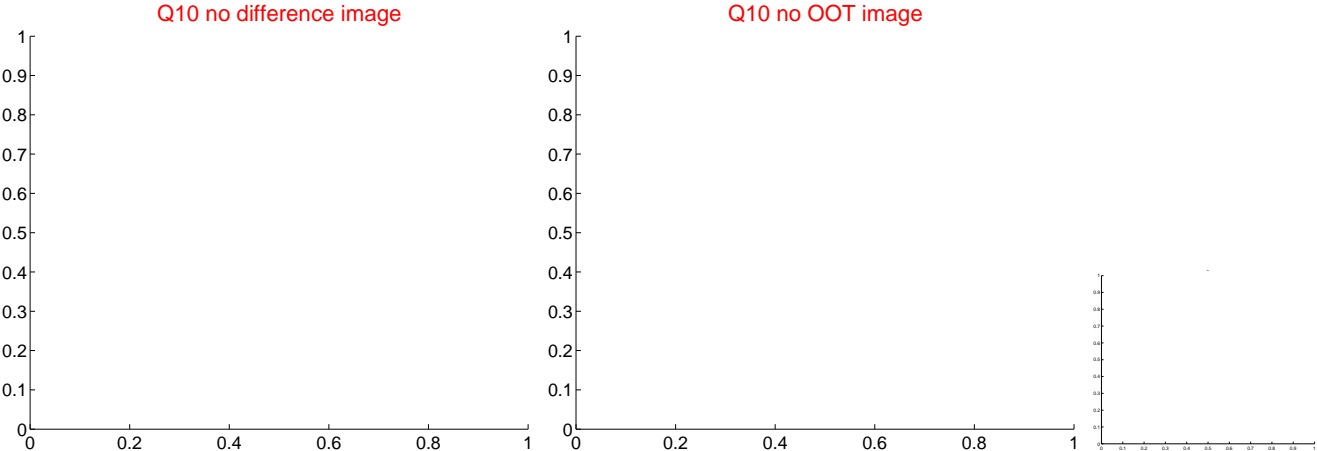
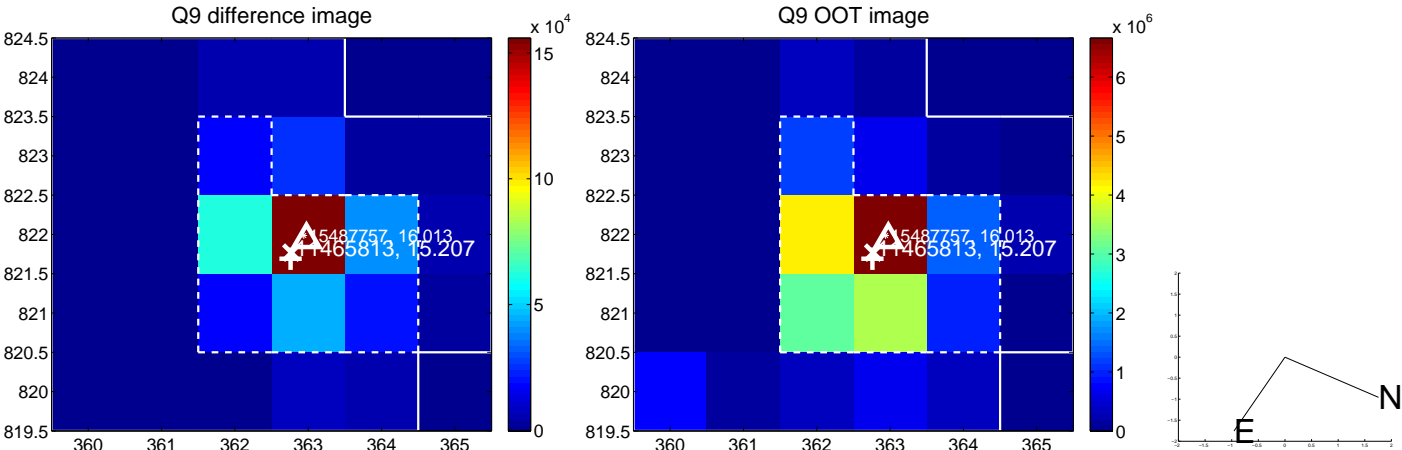
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



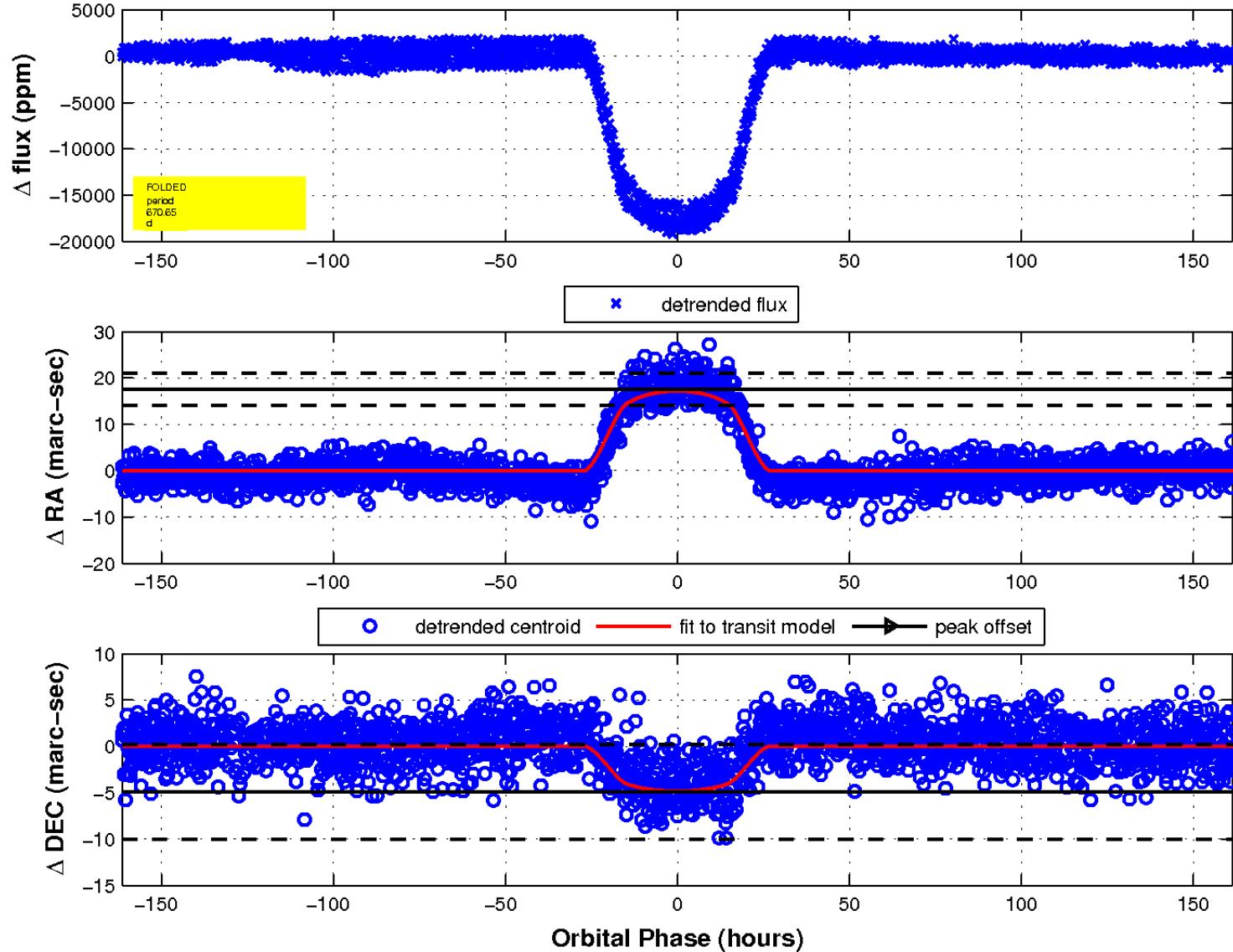
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

