

KIC 005956819

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})
005956819-01	OBS	No	365.270169	155.349018	1660.5	16.264	10.6	9.6	1.03	6158	4.48	1.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005956819-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

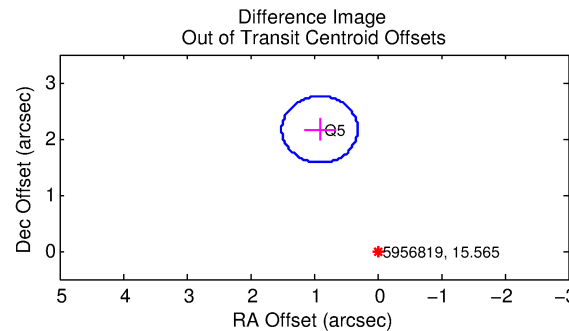
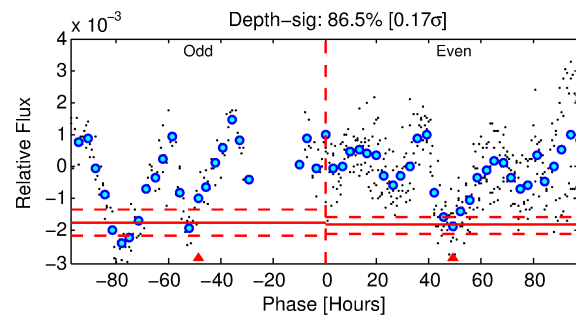
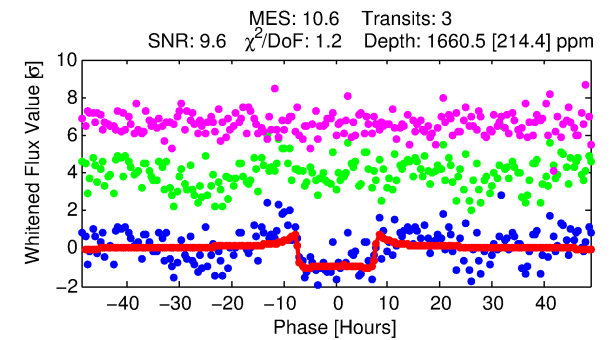
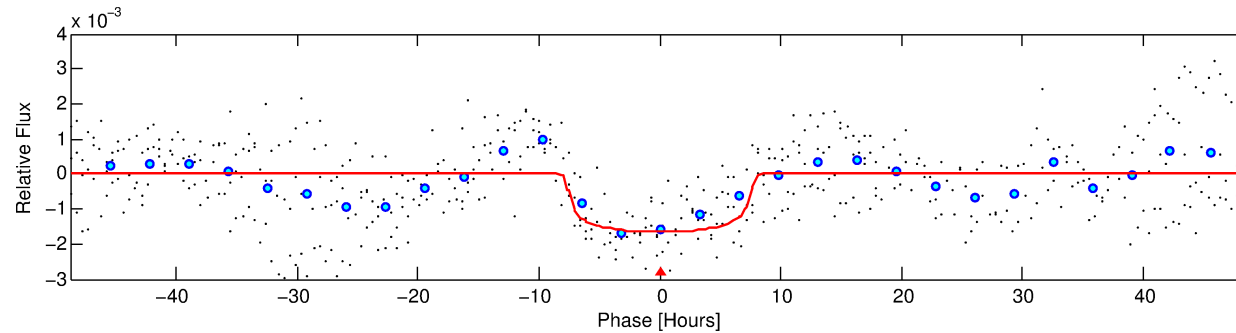
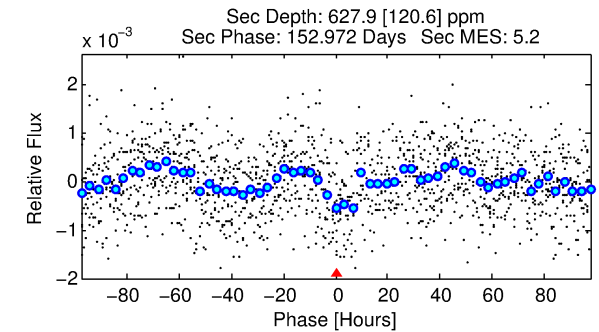
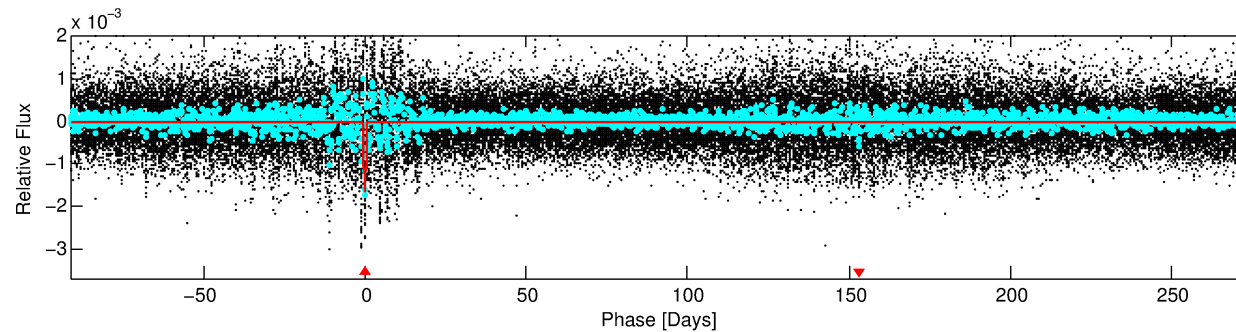
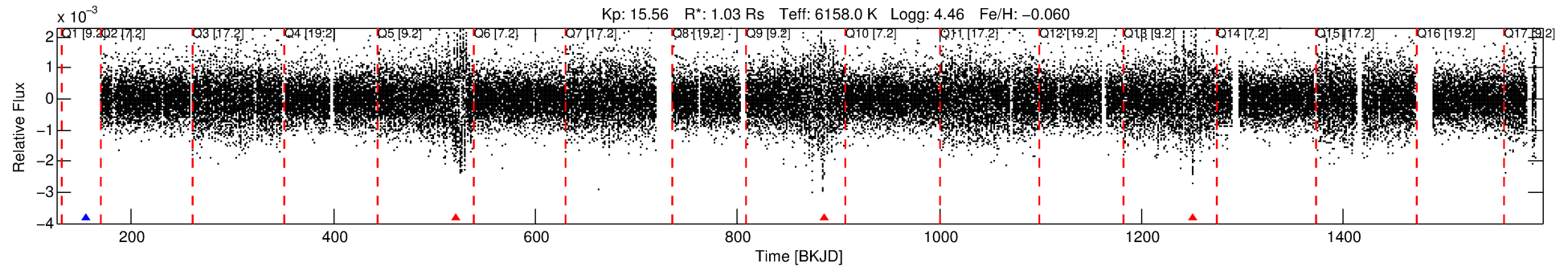
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005956819-01

No Significant Match Found

DV One-Page Summary

KIC: 5956819 Candidate: 1 of 1 Period: 365.270 d



DV Fit Results:

Period = 365.27017 [0.01137] d
Epoch = 155.3490 [0.0246] BKJD
Rp/R* = 0.0400 [0.0046]
a/R* = 130.64 [55.52]
b = 0.71 [0.30]
Seff = 1.28 [0.55]
Teq = 271 [29] K
Rp = 4.48 [1.57] Re
a = 1.0309 [0.2891] AU
Ag = 18291.20 [9254.67] [1.98σ]
Teff = 4873 [400] K [11.46σ]

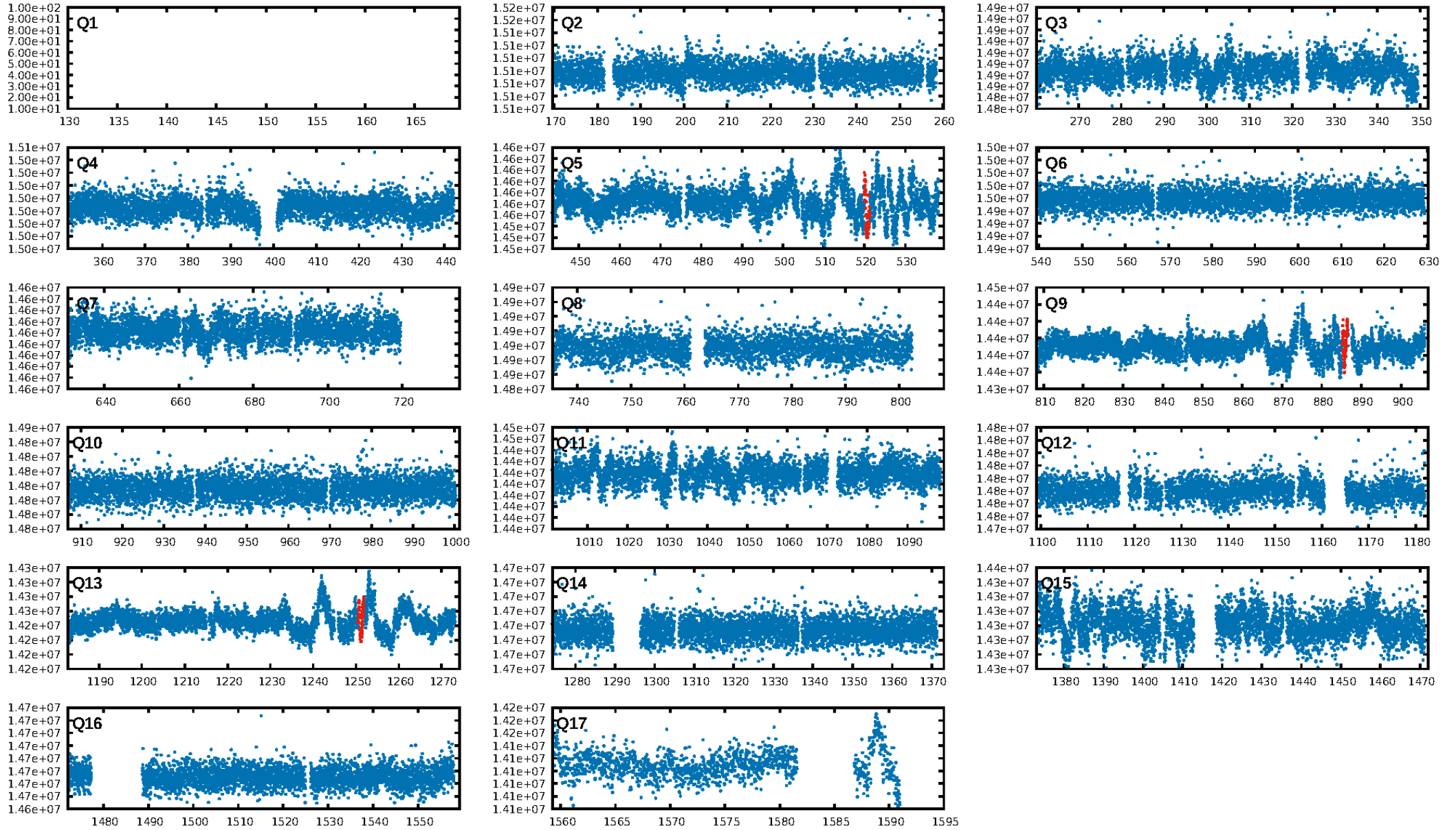
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.3%
ModelChiSquareGoF-sig: 97.0%
Bootstrap-pfa: 7.35e-14
RollingBand-fgt: 0.00 [0/3]
GhostDiagnostic-chr: -10.93
Centroid-sig: 1.5%
Centroid-so: 3.531 arcsec [1.75σ]
OotOffset-rm: 2.346 arcsec [11.82σ]
KicOffset-rm: 2.331 arcsec [11.77σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

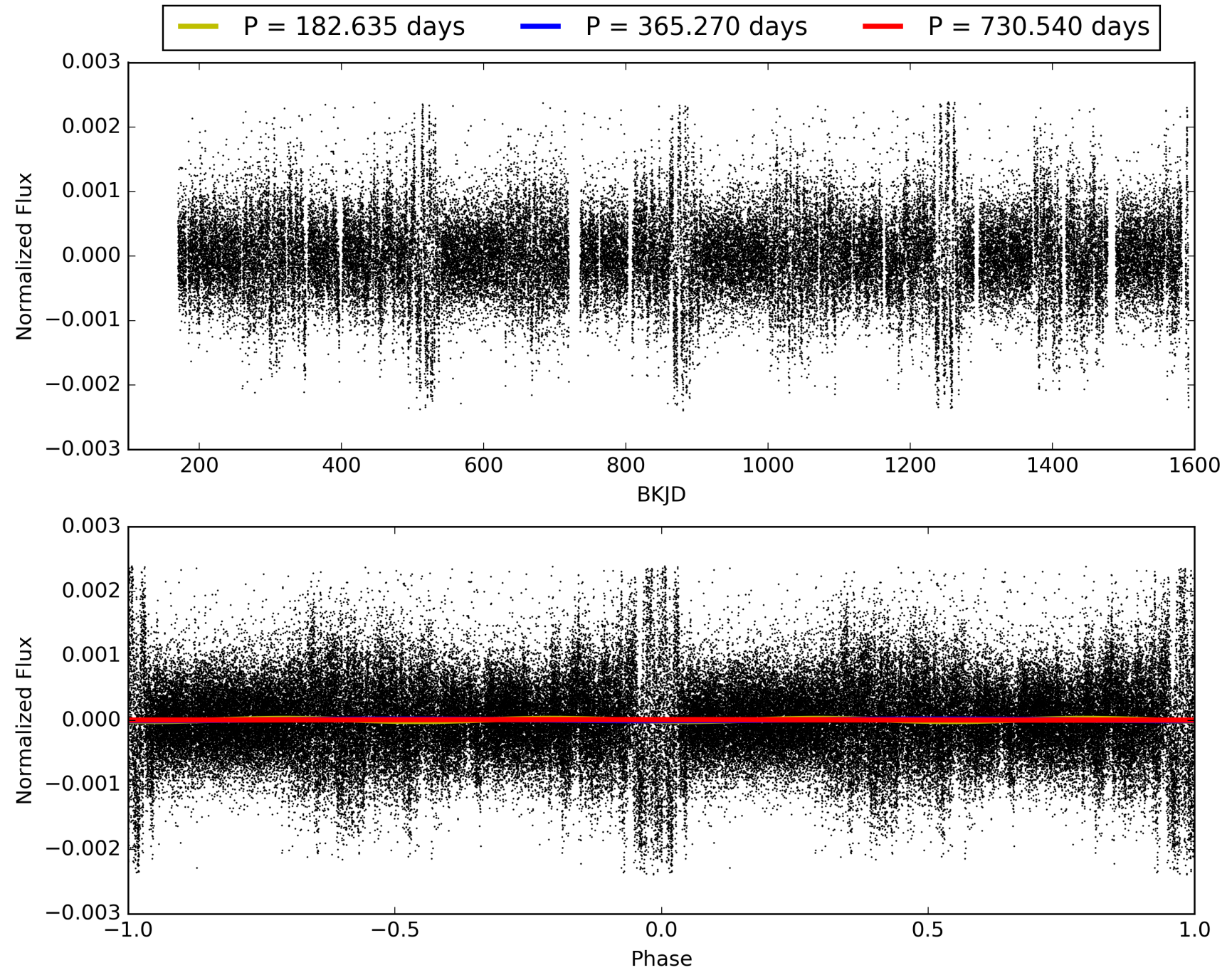
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 17:29:50 Z

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

TCE 005956819-01, PDC Light Curves

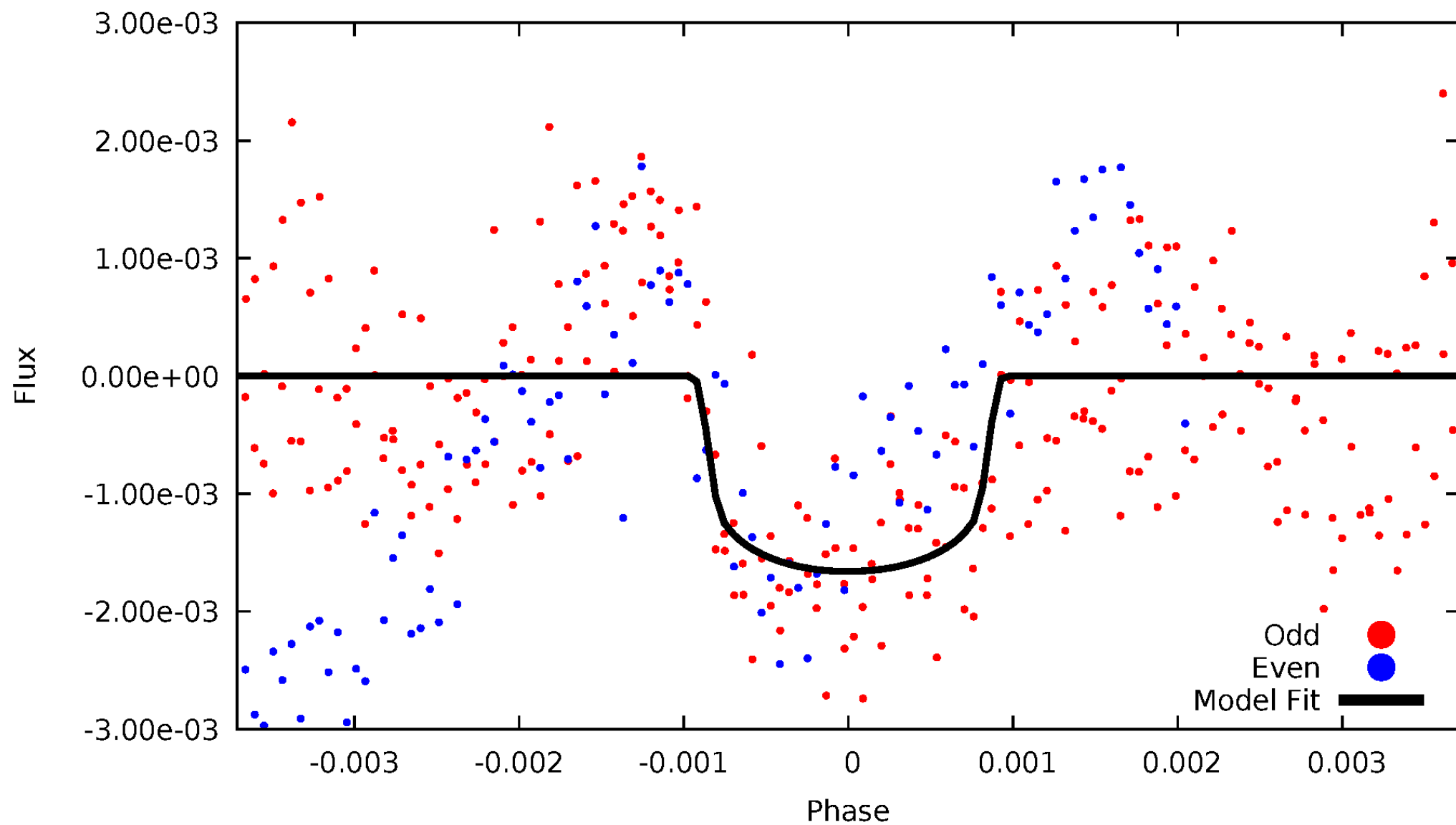


TCE 005956819-01



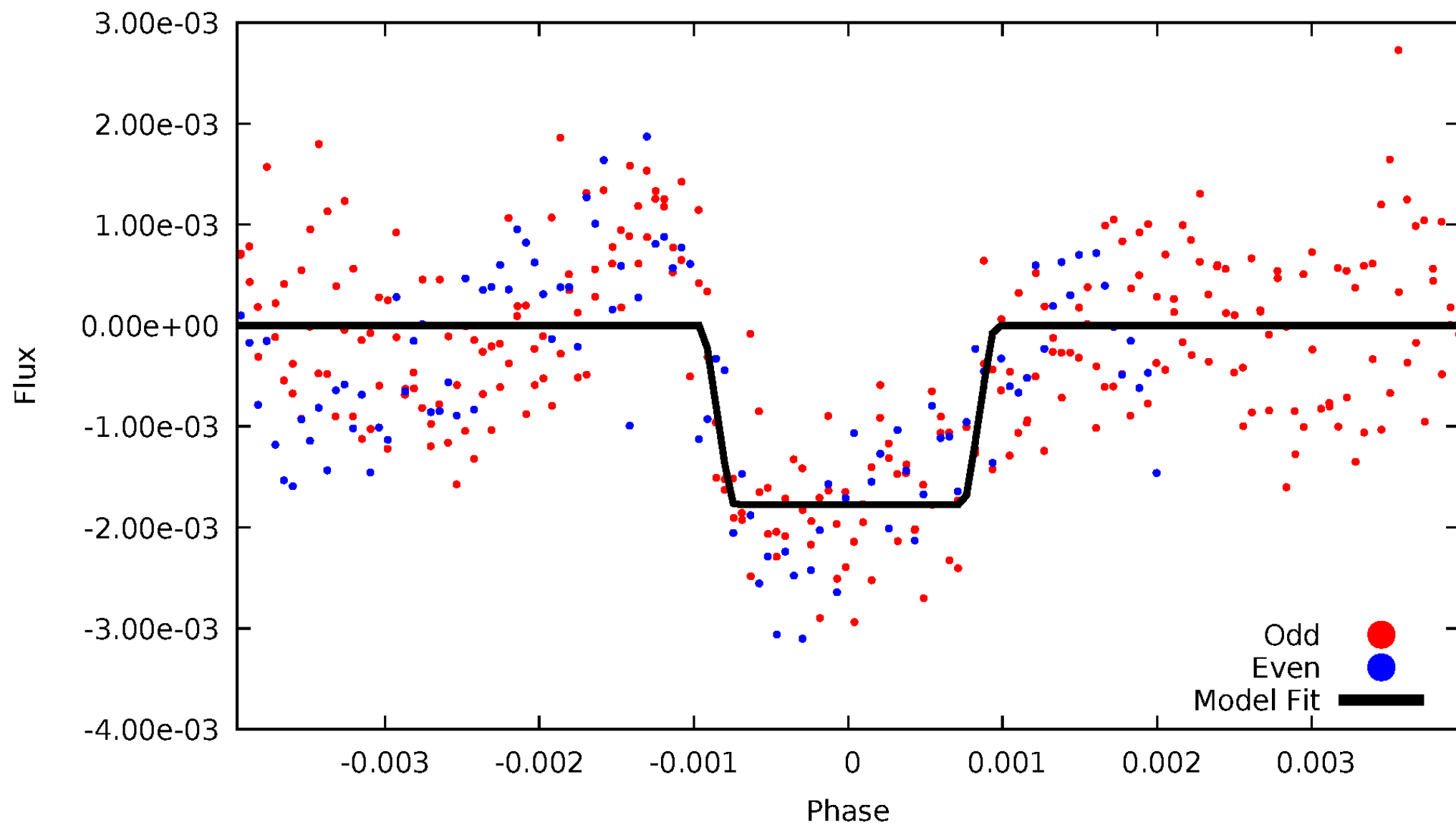
DV Odd/Even

TCE 005956819-01



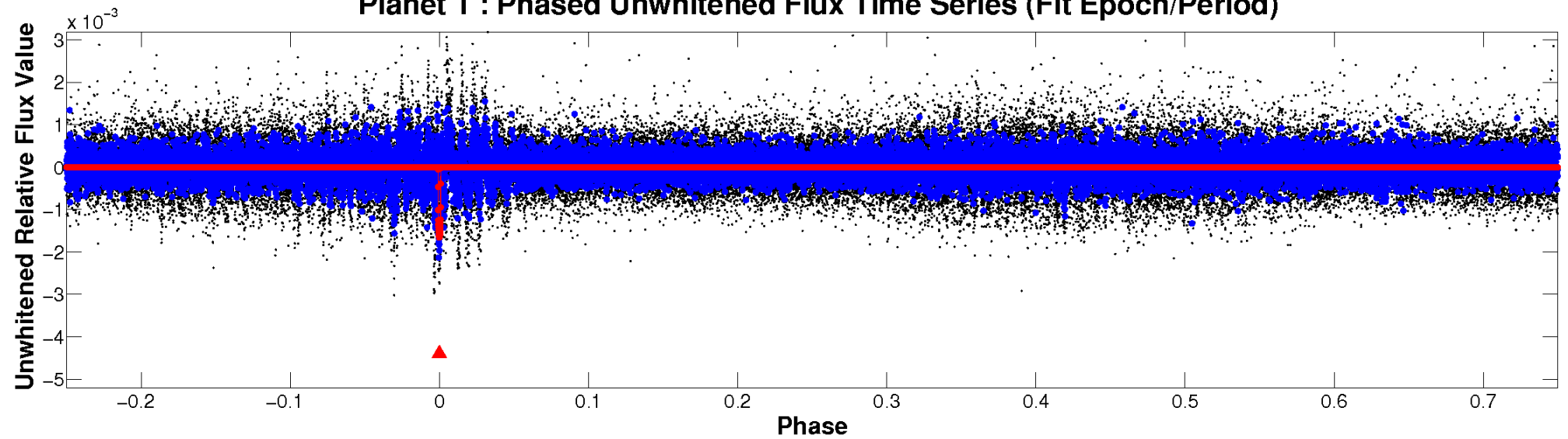
ALT Odd/Even

TCE 005956819-01

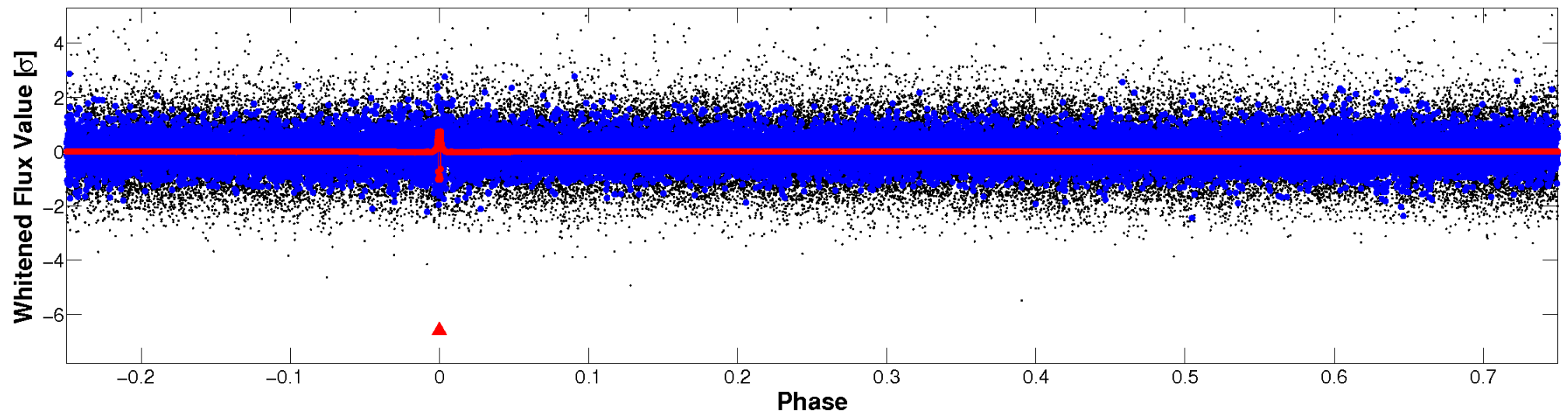


Non-Whitened Vs. Whitened Light Curve

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

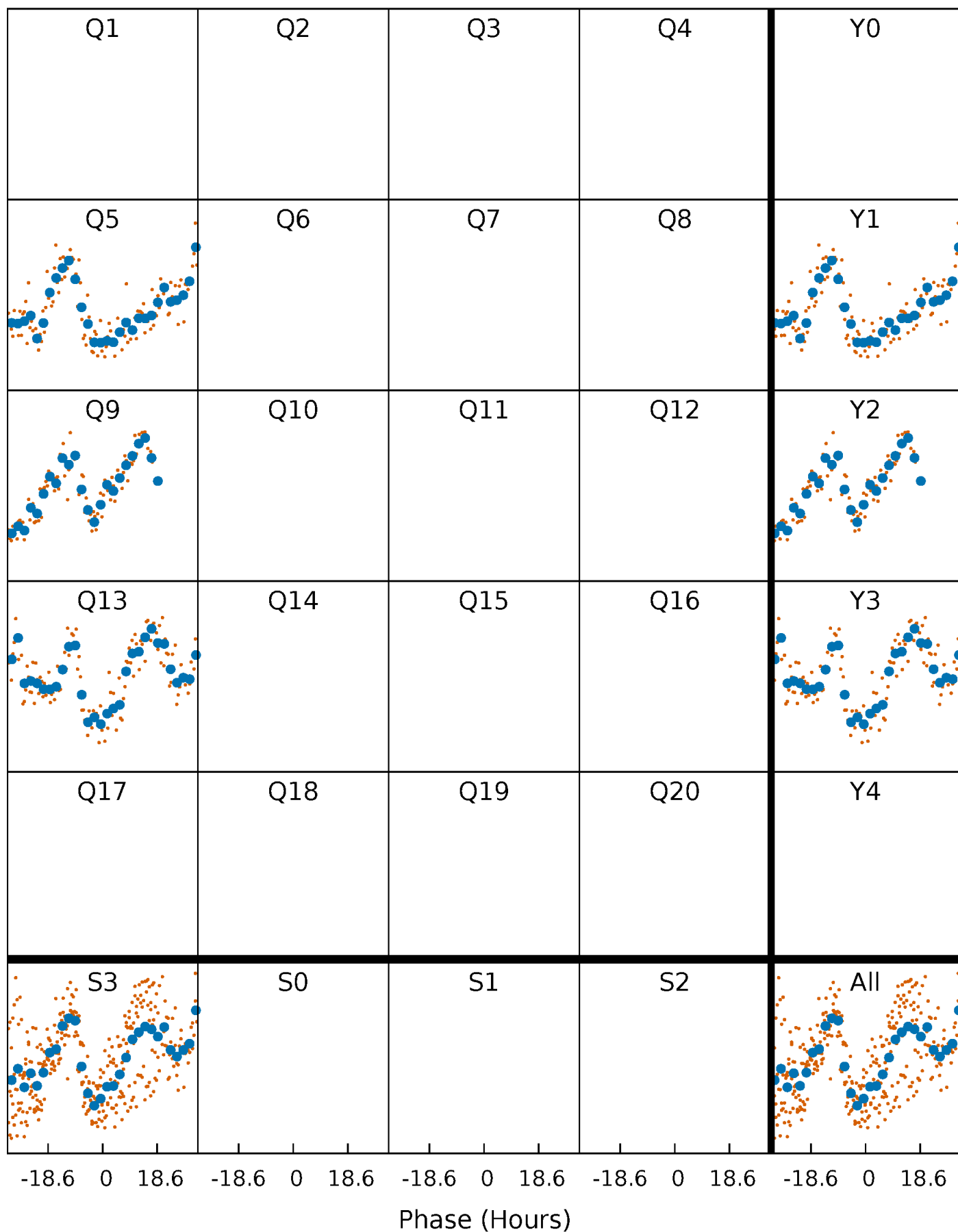


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



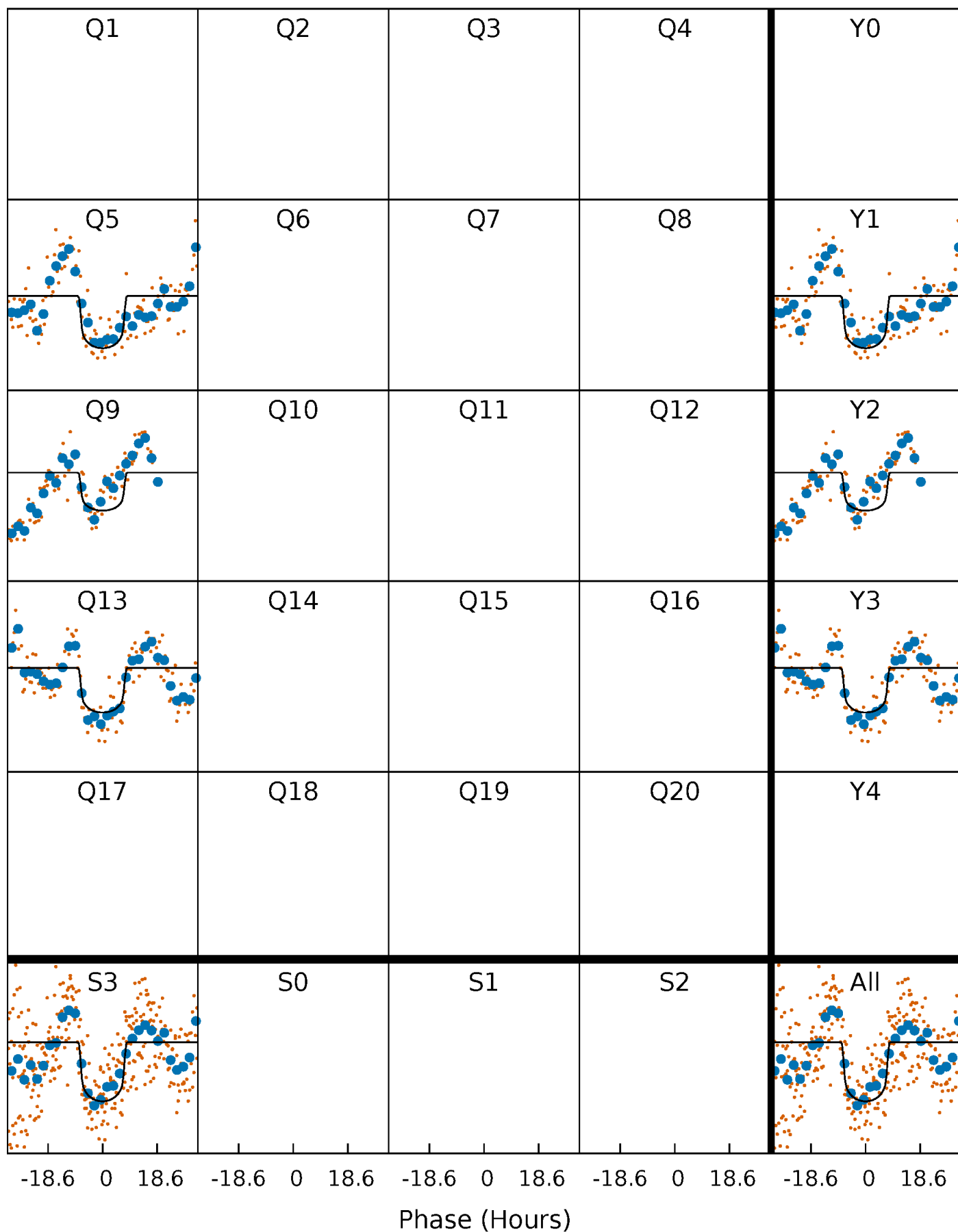
PDC Quarter-Phased Transit Curves

TCE 005956819-01 P=365.270169 Days $T_0=155.349018$ (BKJD)



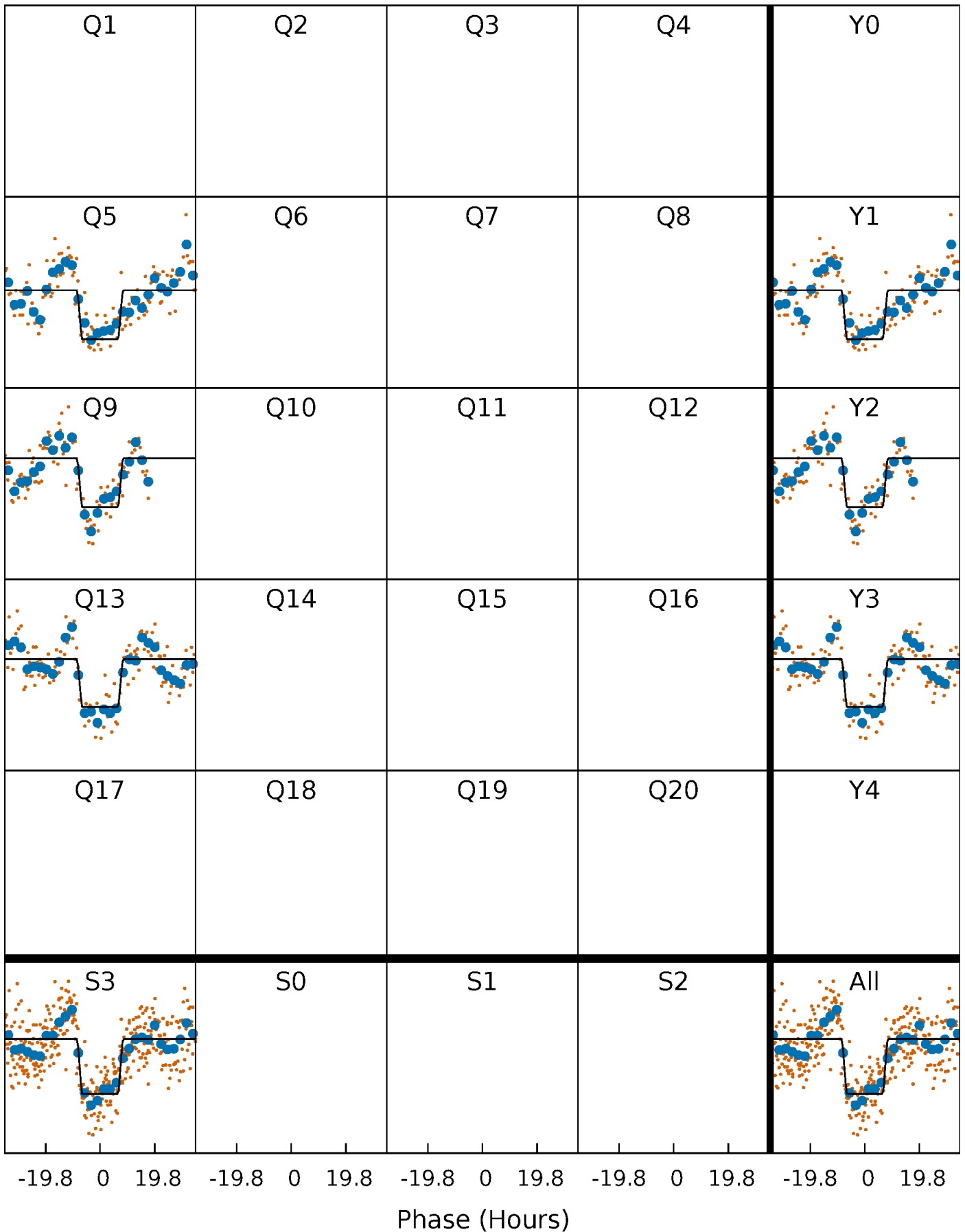
DV Quarter-Phased Transit Curves

TCE 005956819-01 P=365.270169 Days $T_0=155.349018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

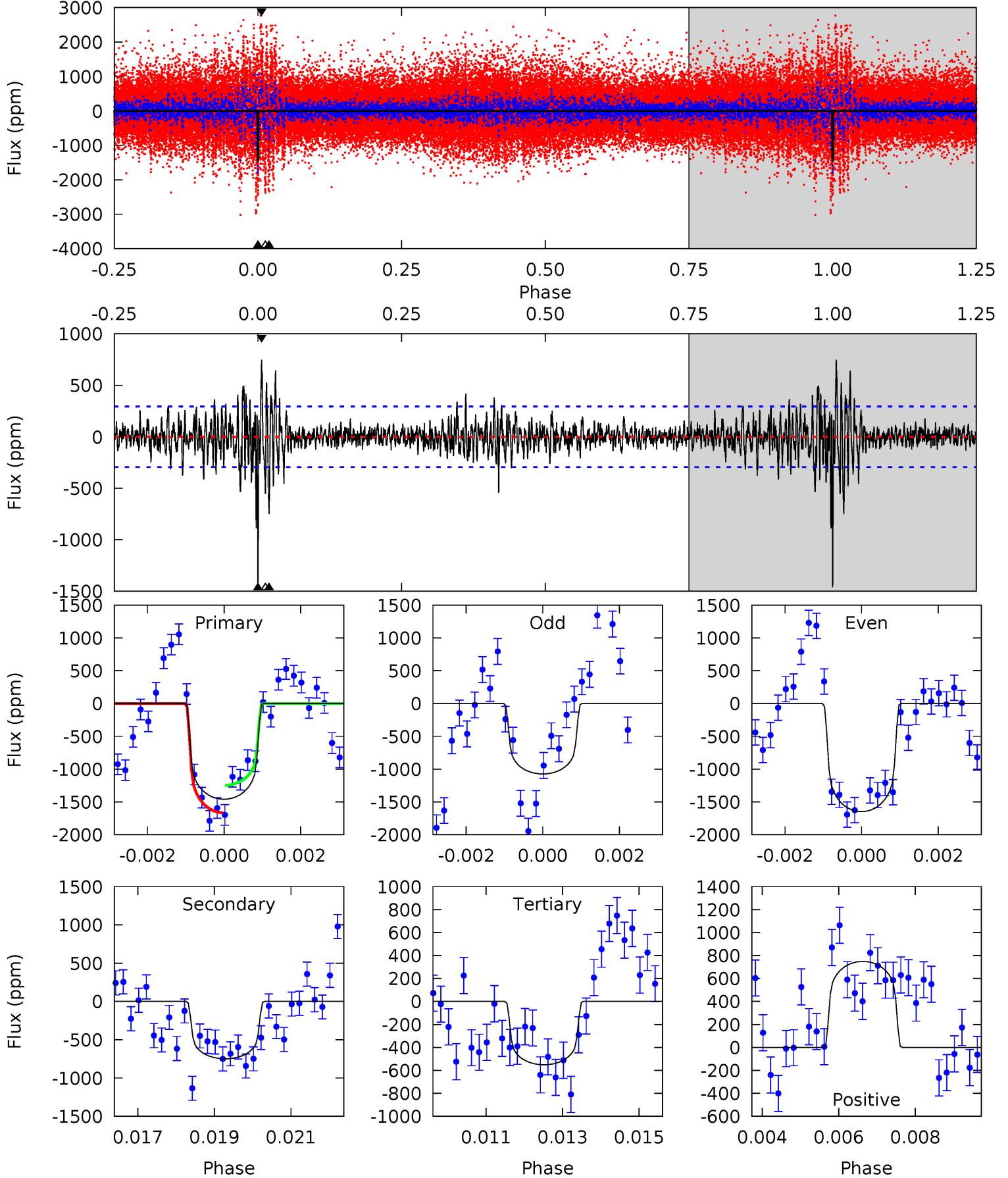
TCE 005956819-01 P=365.270318 Days $T_0=155.366804$ (BKJD)



DV Model-Shift Uniqueness Test

005956819-01, P = 365.270169 Days, E = 155.349018 Days

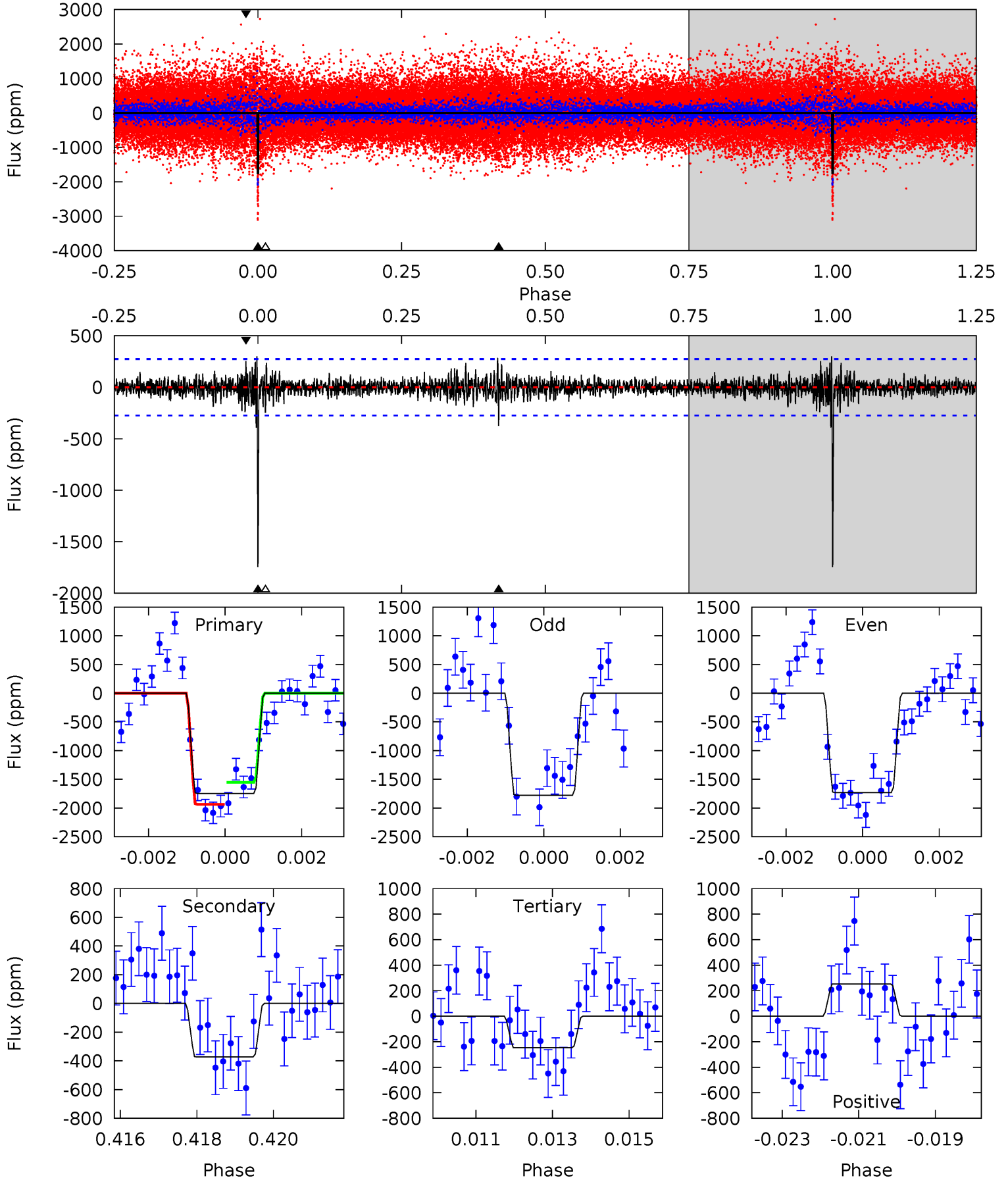
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.5	13.6	10.0	13.6	5.34	3.11	2.17	16.5	12.9	3.58	0.00	4.91	1.07	0.34	3.79



Alt Model-Shift Uniqueness Test

005956819-01, P = 365.270318 Days, E = 155.366804 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.1	7.27	4.82	4.93	5.34	3.11	1.09	29.2	29.1	2.45	2.34	0.43	0.98	0.15	3.75



Stellar Parameters For KIC 005956819

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6158^{+193}_{-214}	$4.455^{+0.056}_{-0.224}$	$-0.060^{+0.250}_{-0.300}$	$1.026^{+0.341}_{-0.114}$	$1.092^{+0.151}_{-0.151}$	$1.423^{+0.425}_{-0.776}$
	+3%/-3%	+1%/-5%	+417%/-500%	+33%/-11%	+14%/-14%	+30%/-55%
Source	PHO1	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 005956819-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-749 ± 55	$4.68^{+0.91}_{-0.64}$	387^{+30}_{-21}	5145^{+306}_{-286}	19381^{+6175}_{-5546}
Alt.	-373 ± 51	$4.92^{+0.96}_{-0.71}$	388^{+28}_{-20}	4381^{+254}_{-228}	8710^{+3207}_{-2499}

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

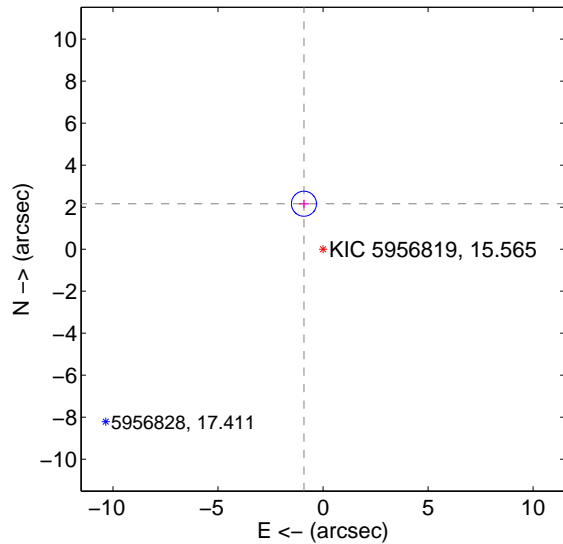
Supplemental centroid analysis for 005956819-01. Kepler magnitude: 15.56. Transit SNR 9.56

There are 0 quarters with good PRF difference image offsets

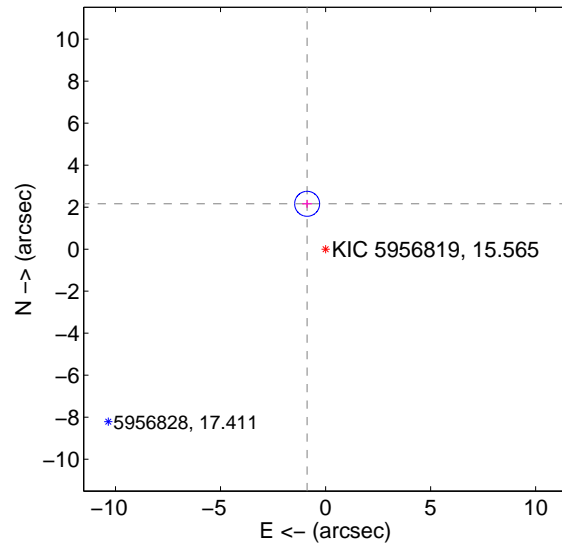
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.346 ± 0.198	11.82	0.909 ± 0.233	2.163 ± 0.192
PRF-fit source offset from KIC position	2.331 ± 0.198	11.77	0.878 ± 0.233	2.159 ± 0.192
photometric centroid source offset	3.53 ± 2.02	1.75	-1.42 ± 1.97	-3.23 ± 2.03

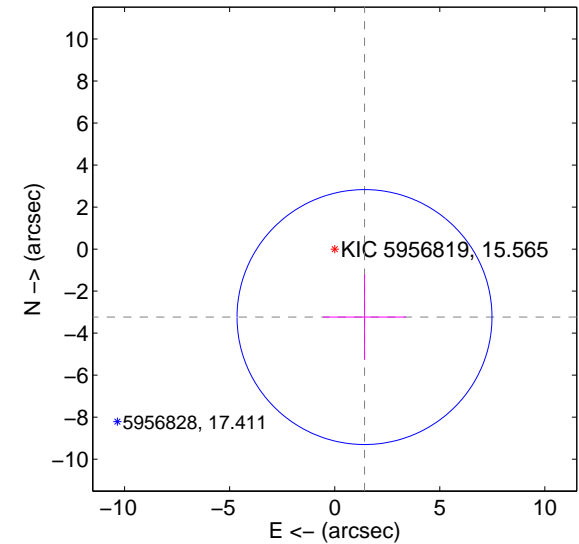
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

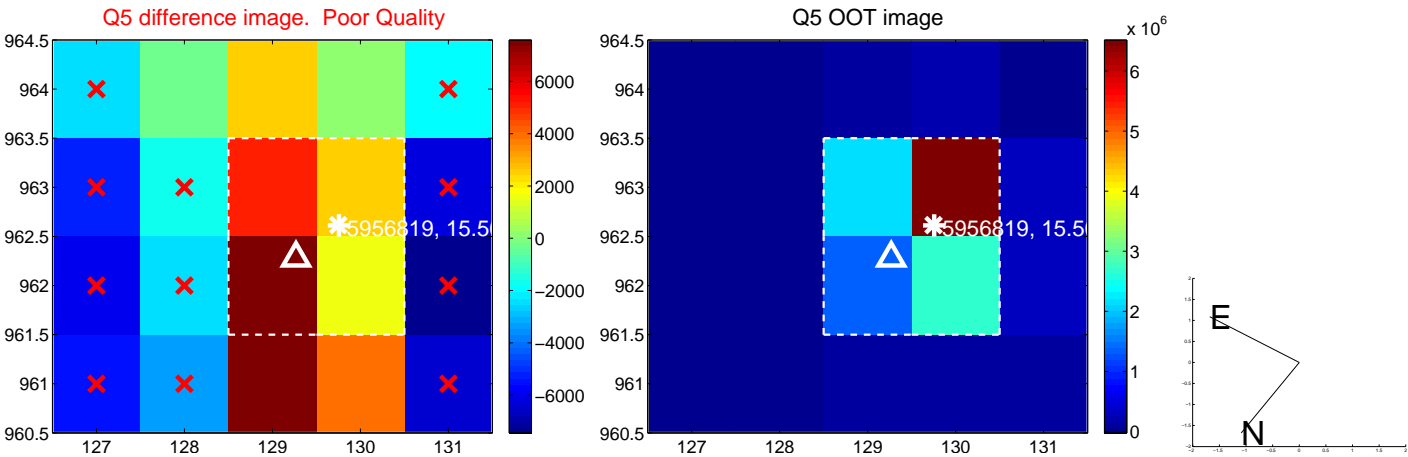


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



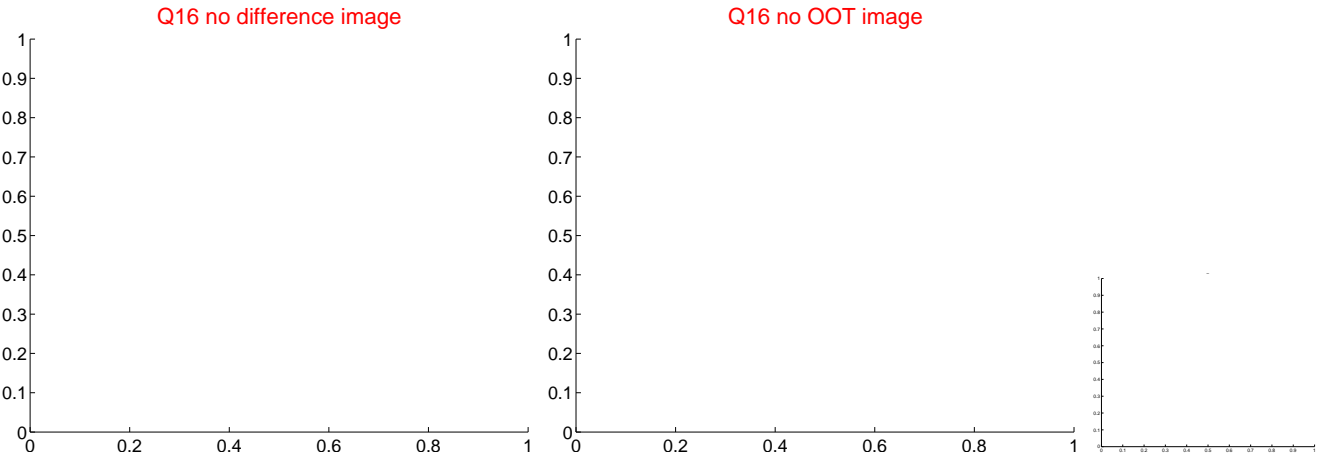
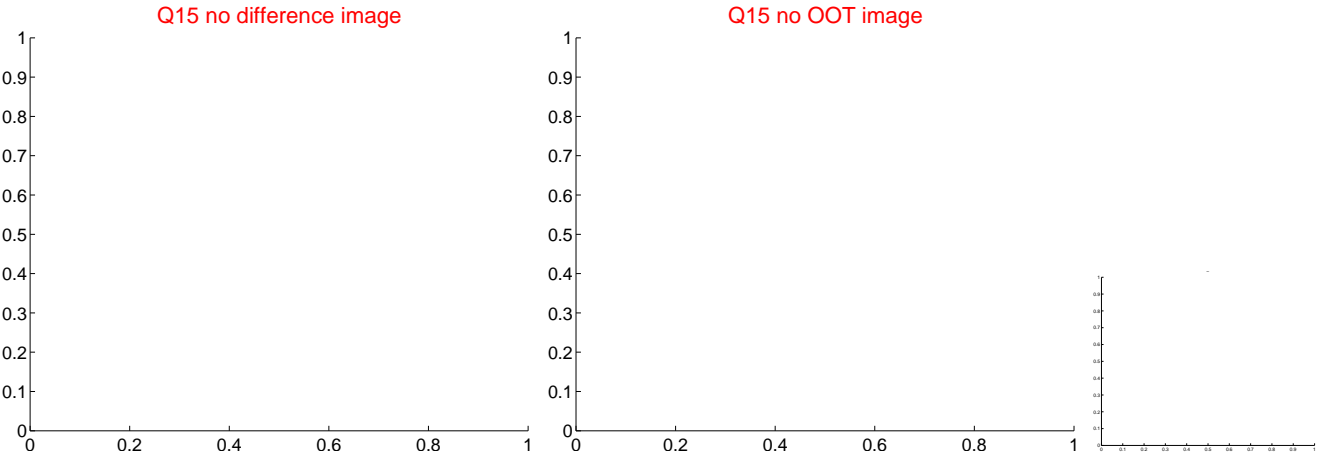
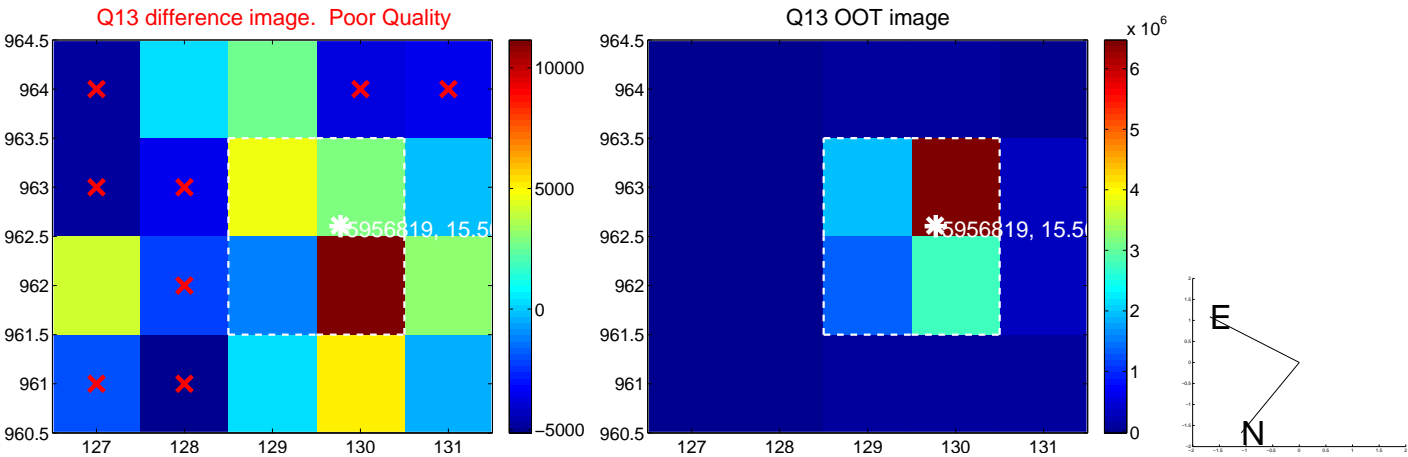
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



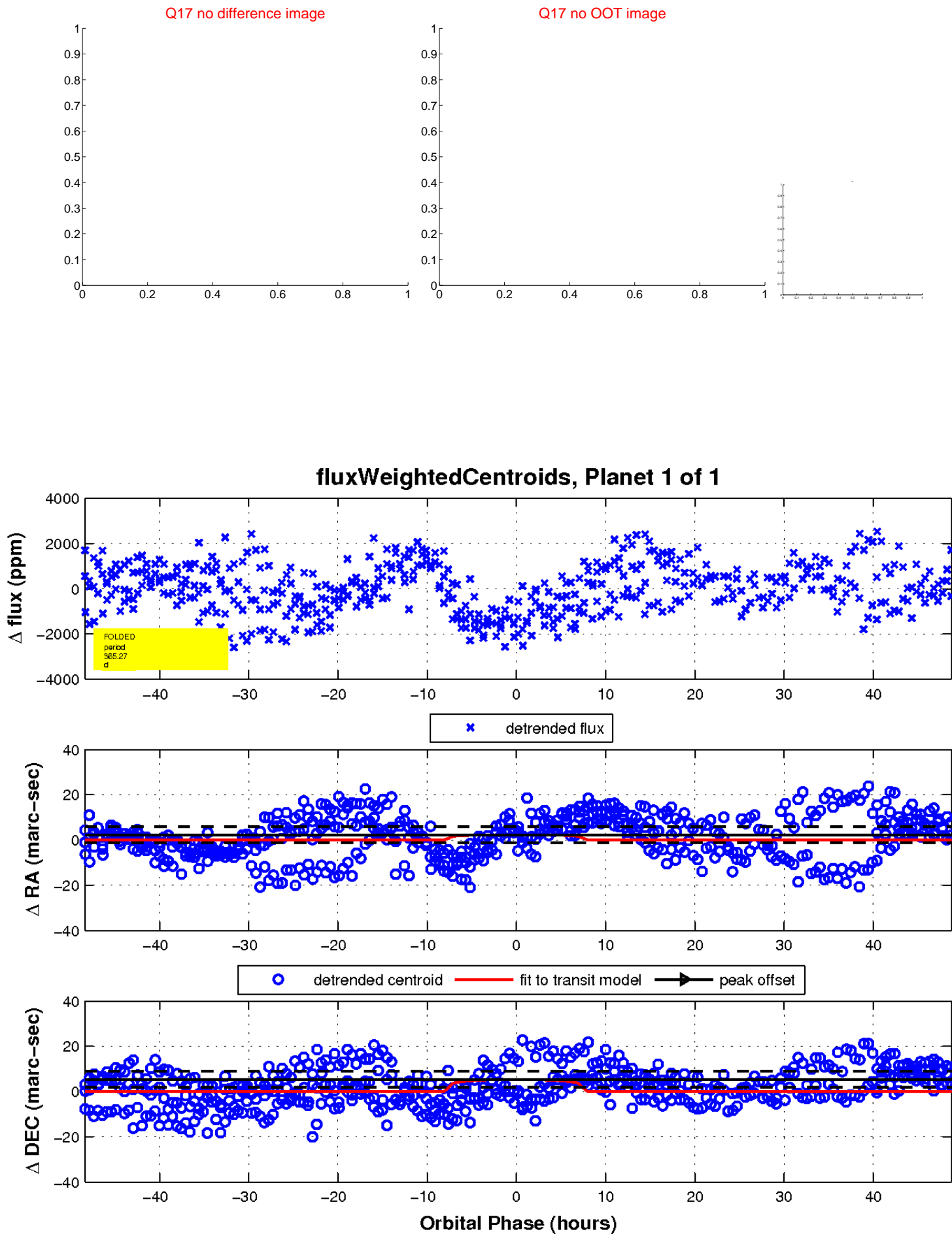
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white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

