

KIC 003458489

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})
003458489-01	OBS	No	311.391200	184.785854	876.9	3.689	7.4	3.6	0.73	5362	2.51	0.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003458489-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—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.

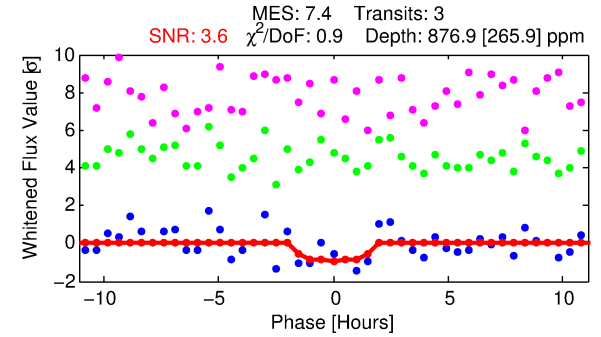
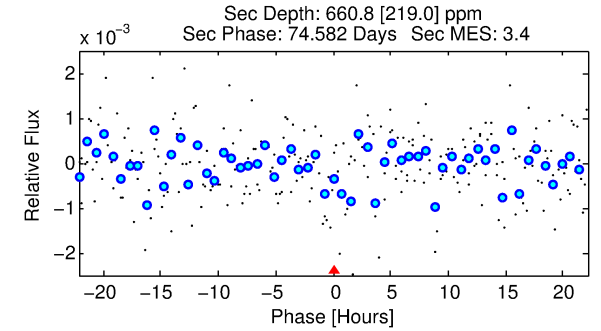
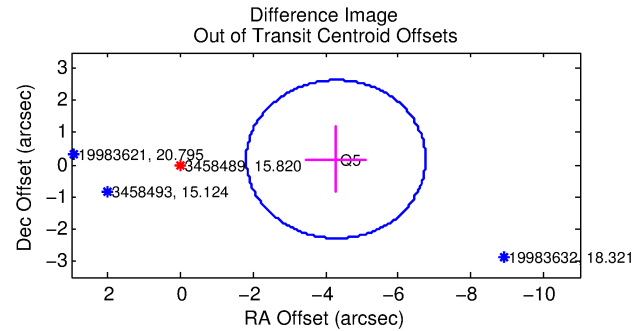
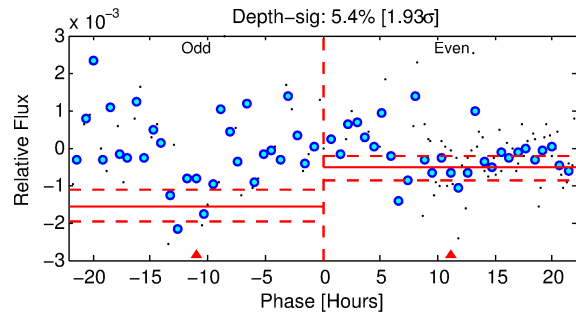
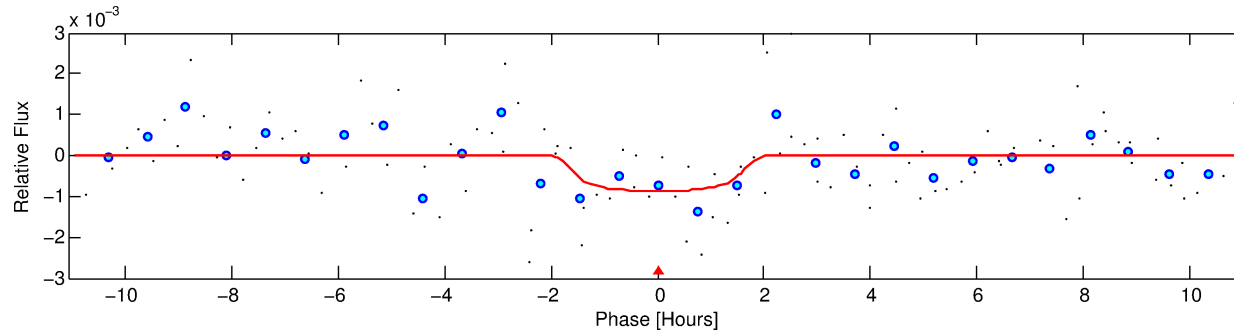
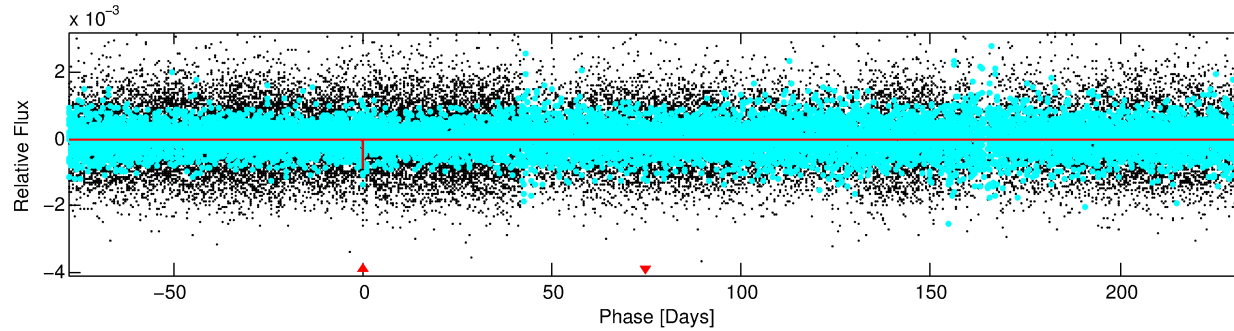
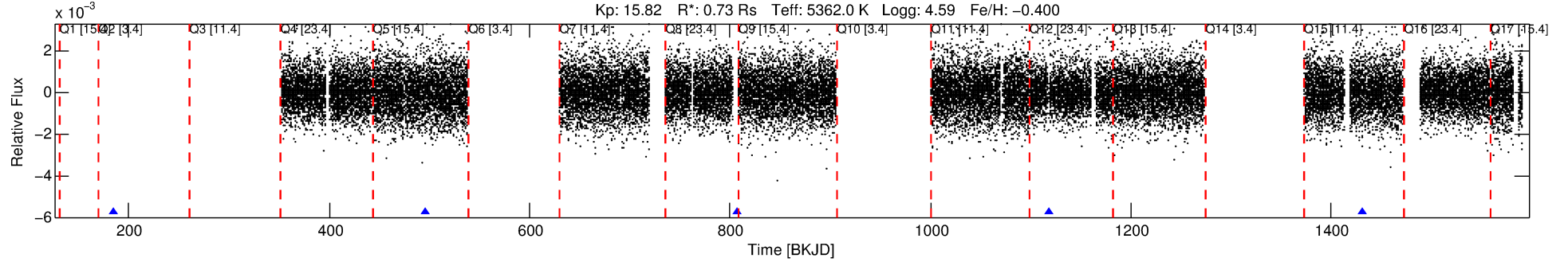
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003458489-01

No Significant Match Found

DV One-Page Summary

KIC: 3458489 Candidate: 1 of 1 Period: 311.391 d



DV Fit Results:

Period = 311.39120 [0.00975] d
Epoch = 184.7859 [0.0272] BKJD
Rp/R* = 0.0314 [0.0272]
a/R* = 366.29 [1292.23]
b = 0.86 [1.09]
Seff = 0.59 [0.13]
Teq = 223 [12] K
Rp = 2.51 [2.21] Re
a = 0.8229 [0.1028] AU
Ag = 38950.76 [69090.20] [0.56 σ]
Teffp = 4852 [2148] K [2.15 σ]

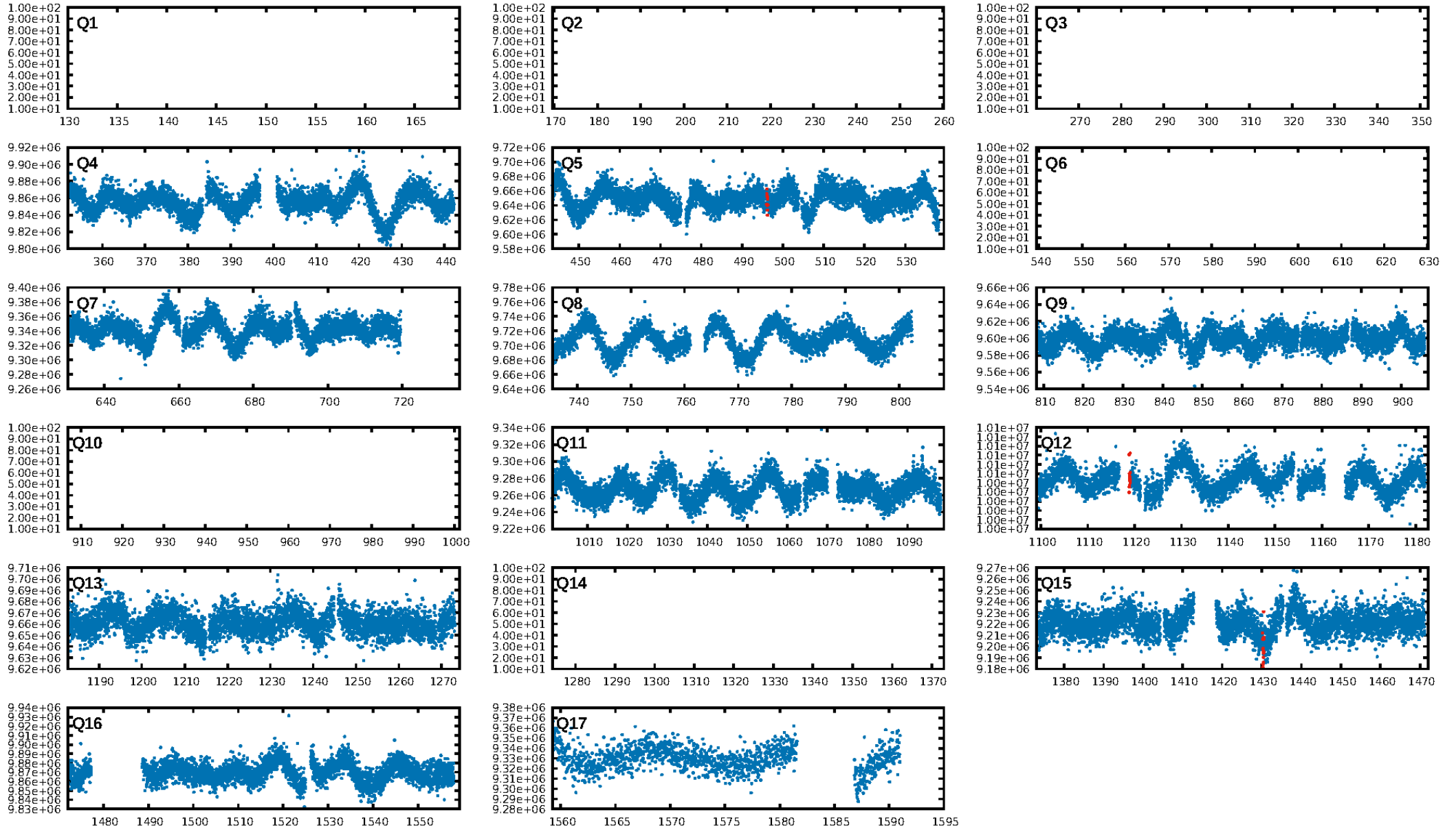
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.0%
ModelChiSquareGof-sig: 93.9%
Bootstrap-pfa: 2.88e-15
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.034
Centroid-sig: 92.1%
Centroid-so: 2.243 arcsec [0.87 σ]
OotOffset-rm: 4.293 arcsec [5.22 σ]
KicOffset-rm: 3.621 arcsec [4.40 σ]
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]

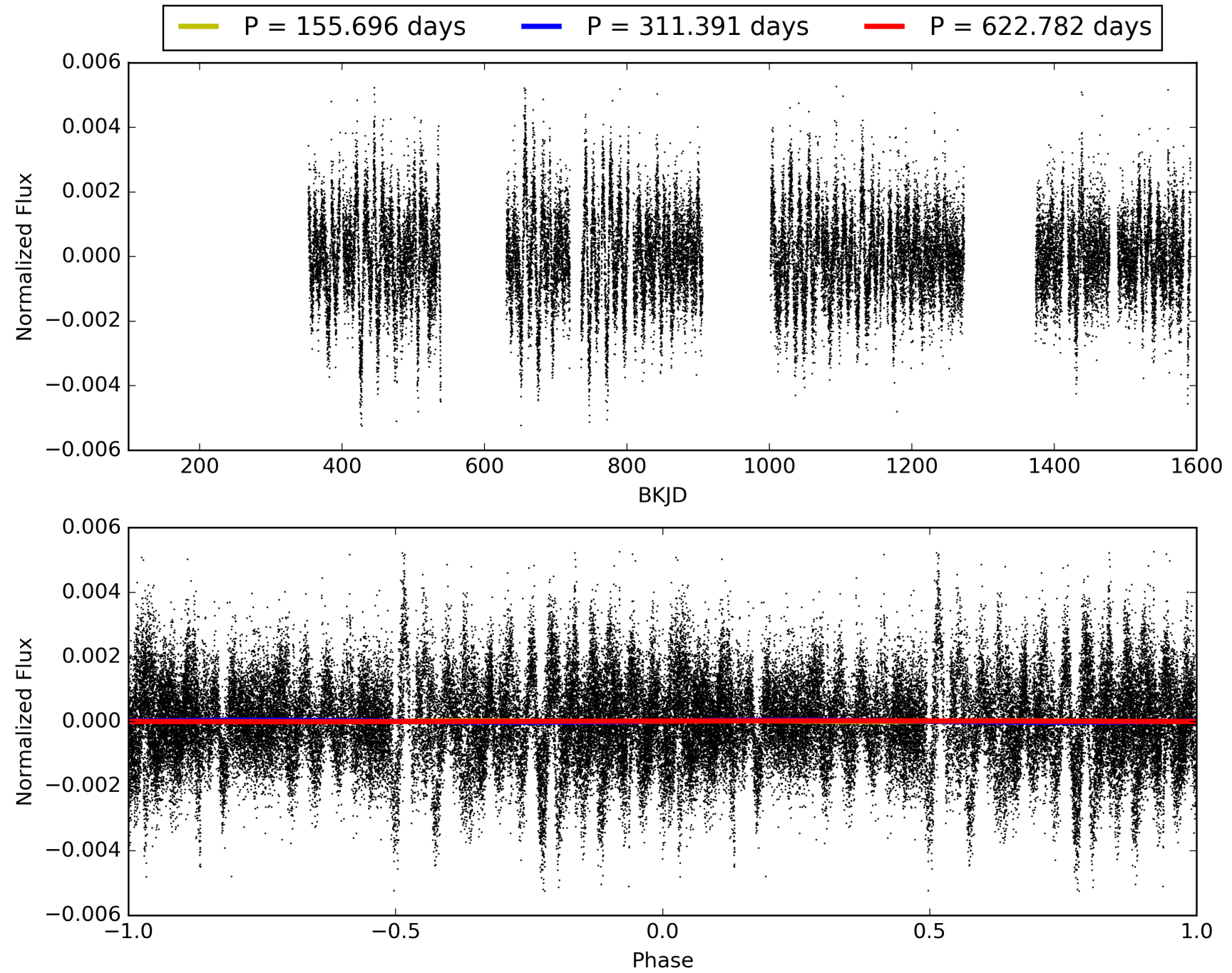
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:19:29 Z

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

TCE 003458489-01, PDC Light Curves

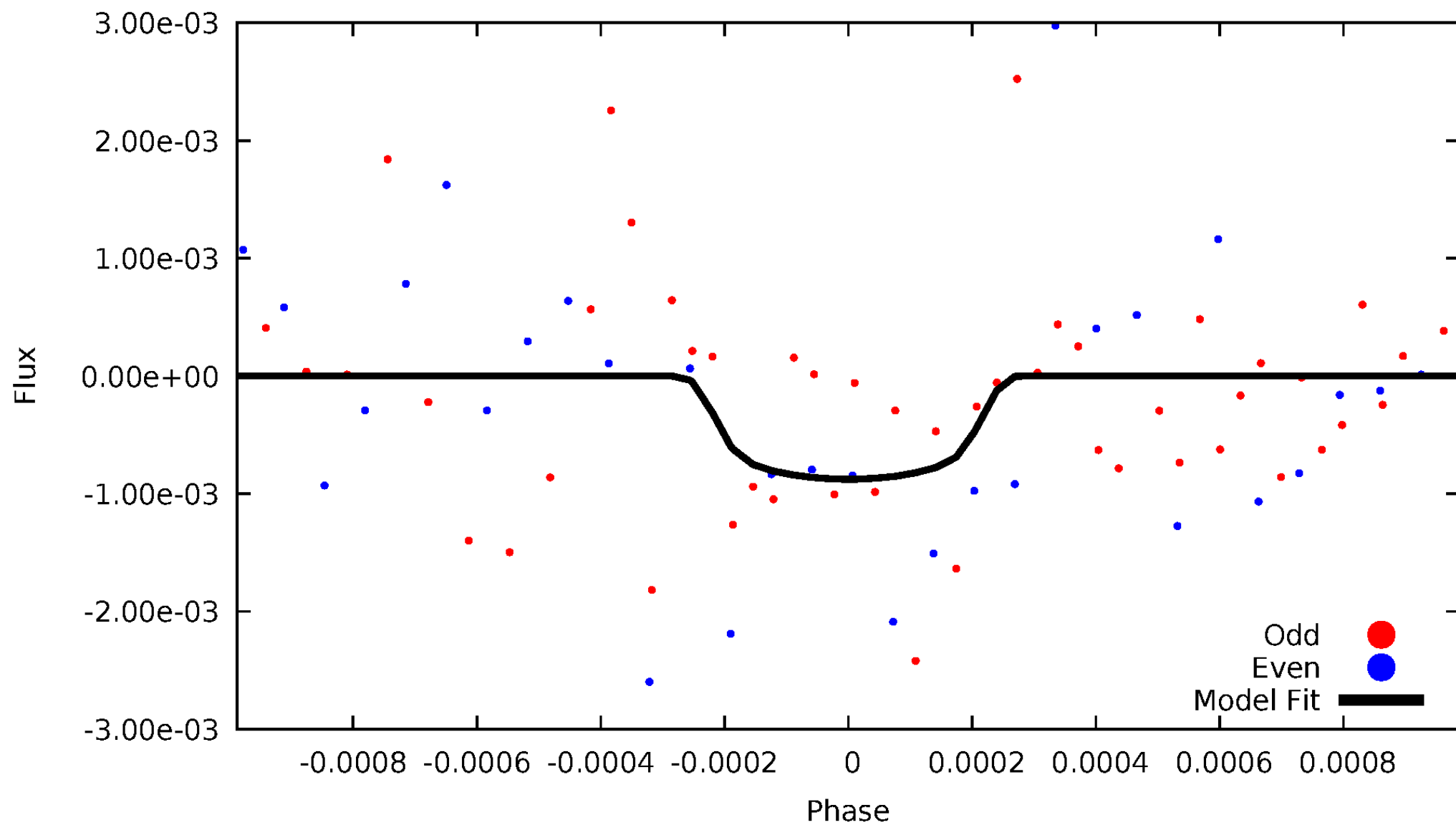


TCE 003458489-01



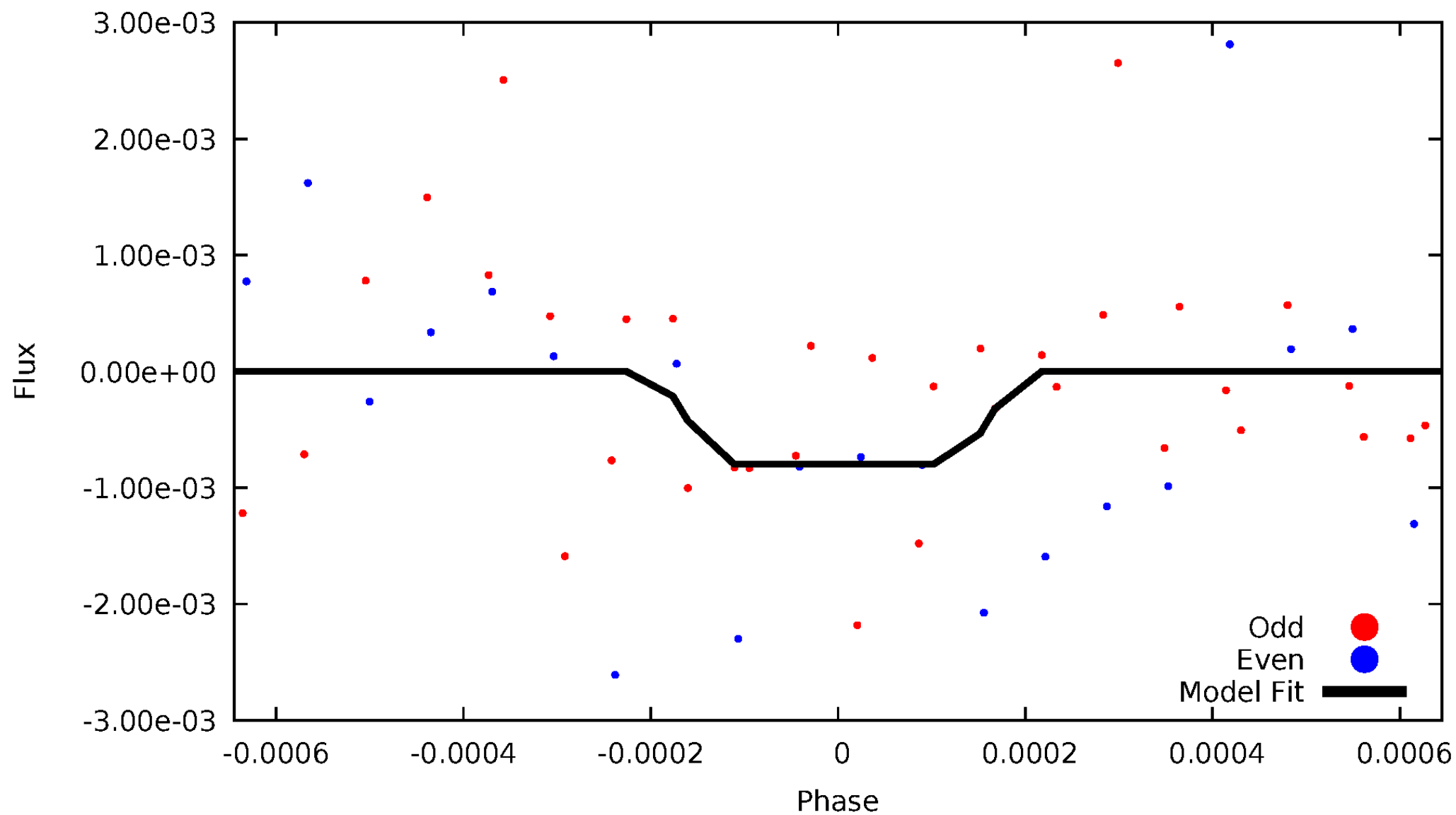
DV Odd/Even

TCE 003458489-01



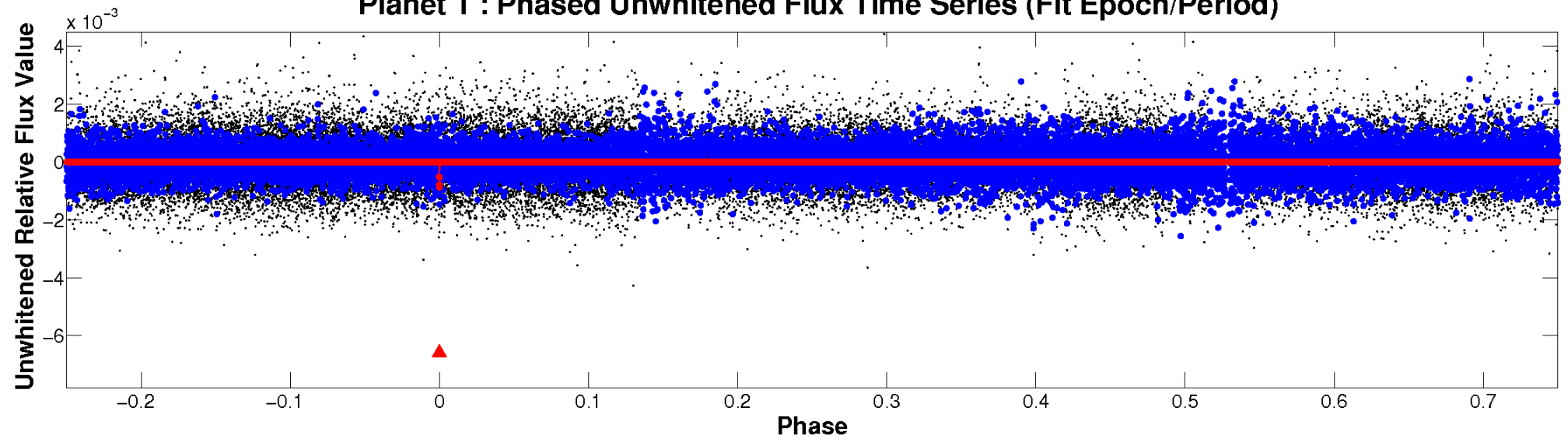
ALT Odd/Even

TCE 003458489-01

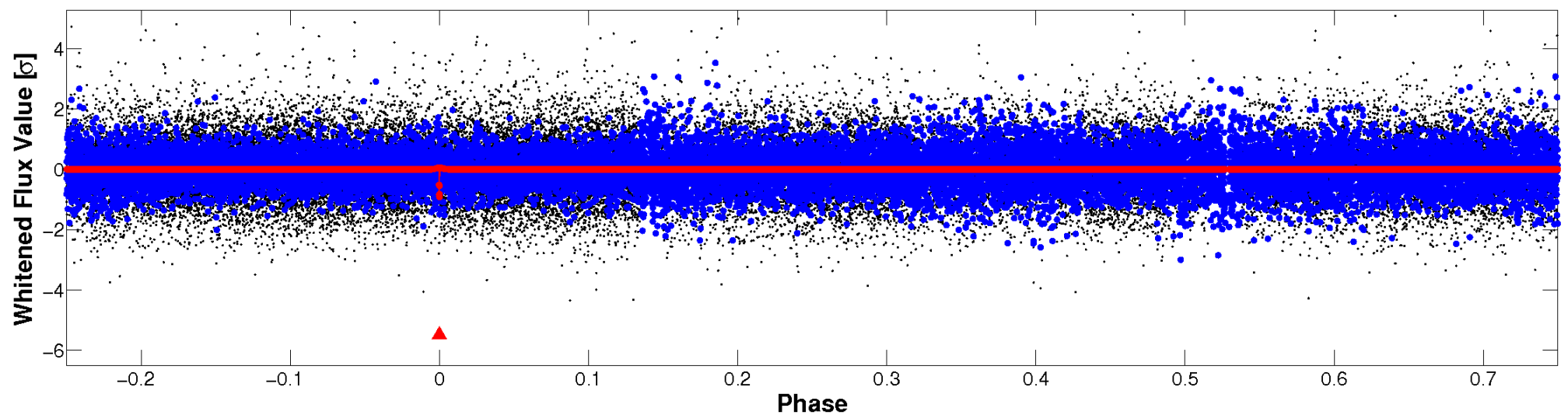


Non-Whitened Vs. Whitened Light Curve

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

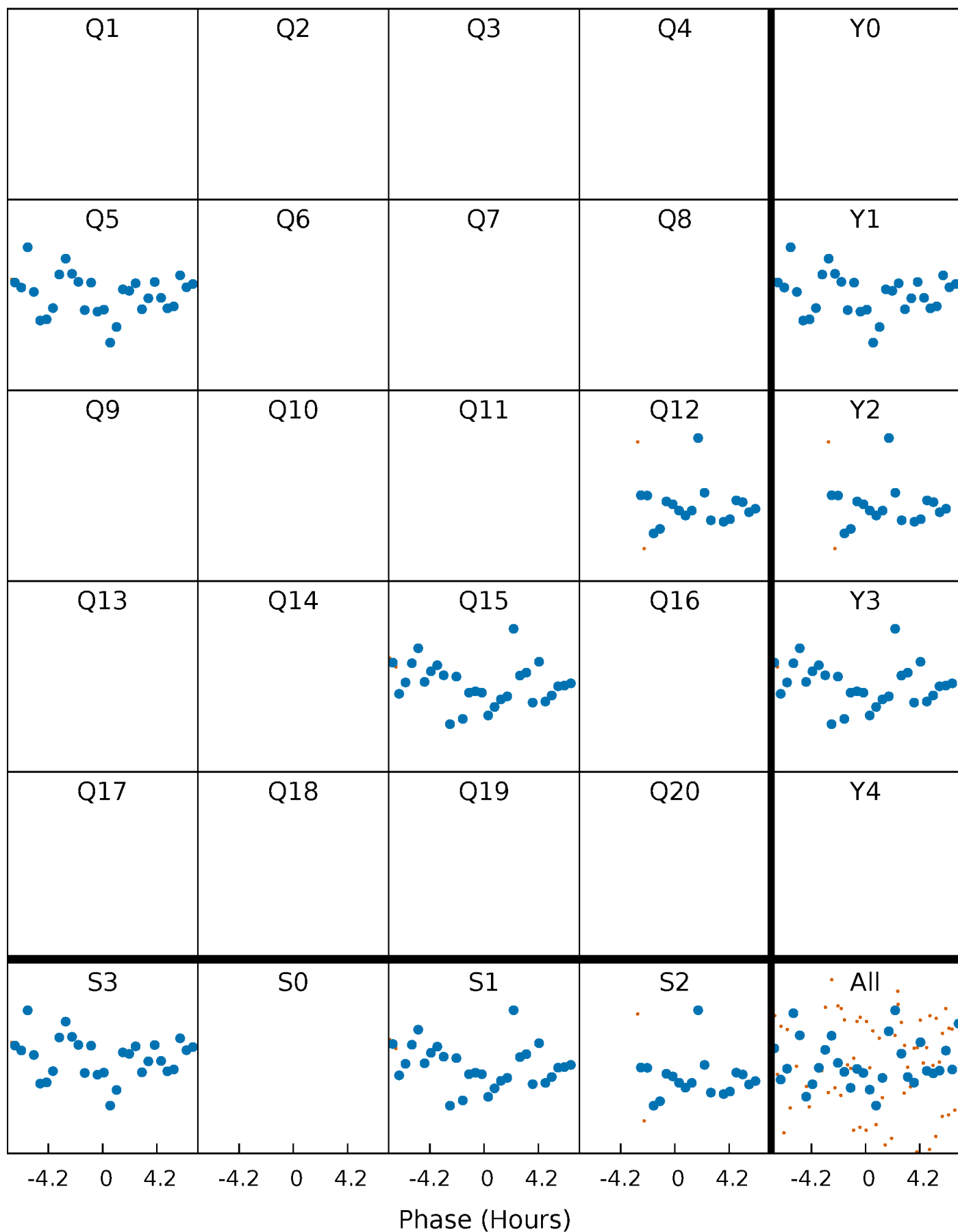


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



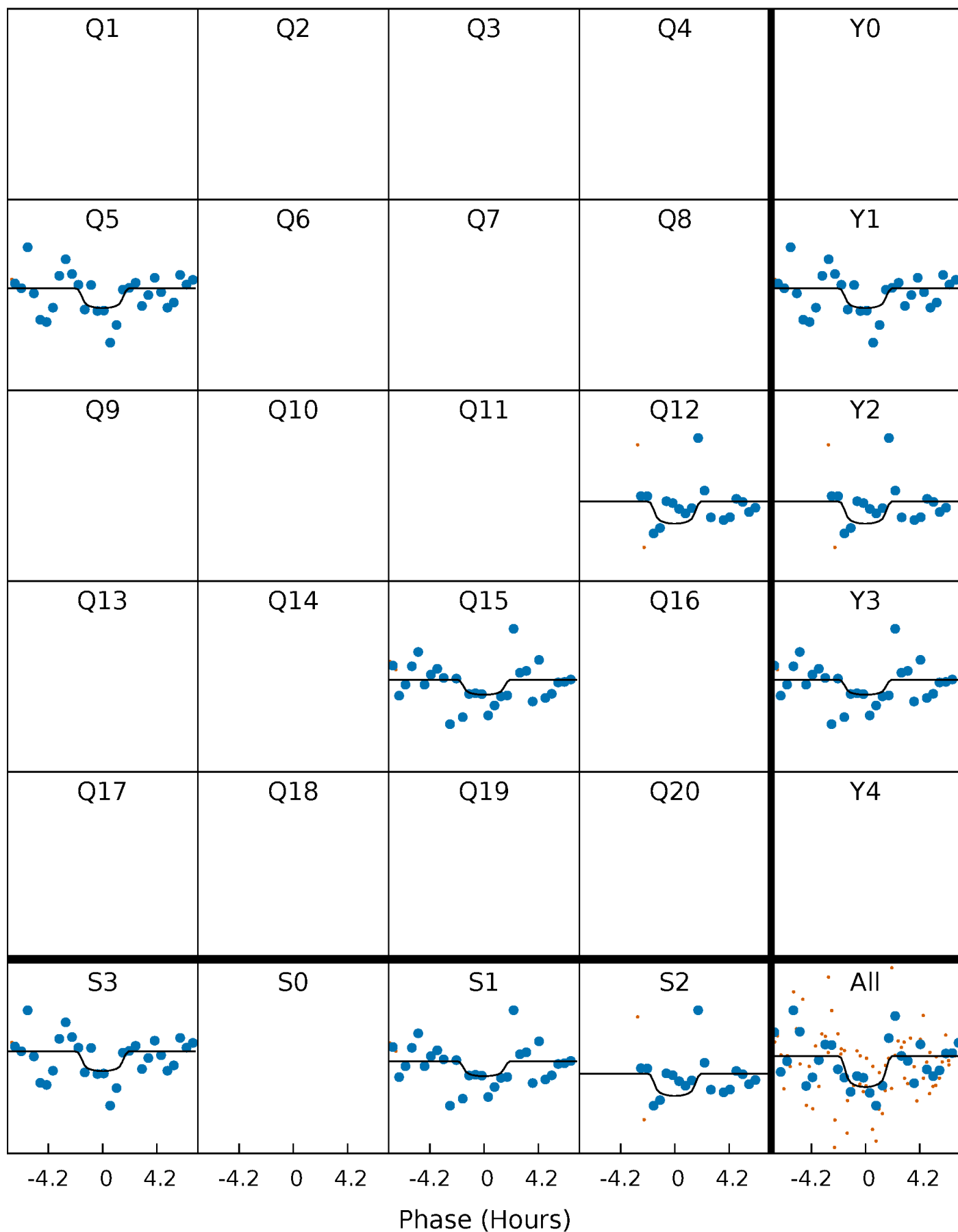
PDC Quarter-Phased Transit Curves

TCE 003458489-01 P=311.391200 Days $T_0=184.785854$ (BKJD)



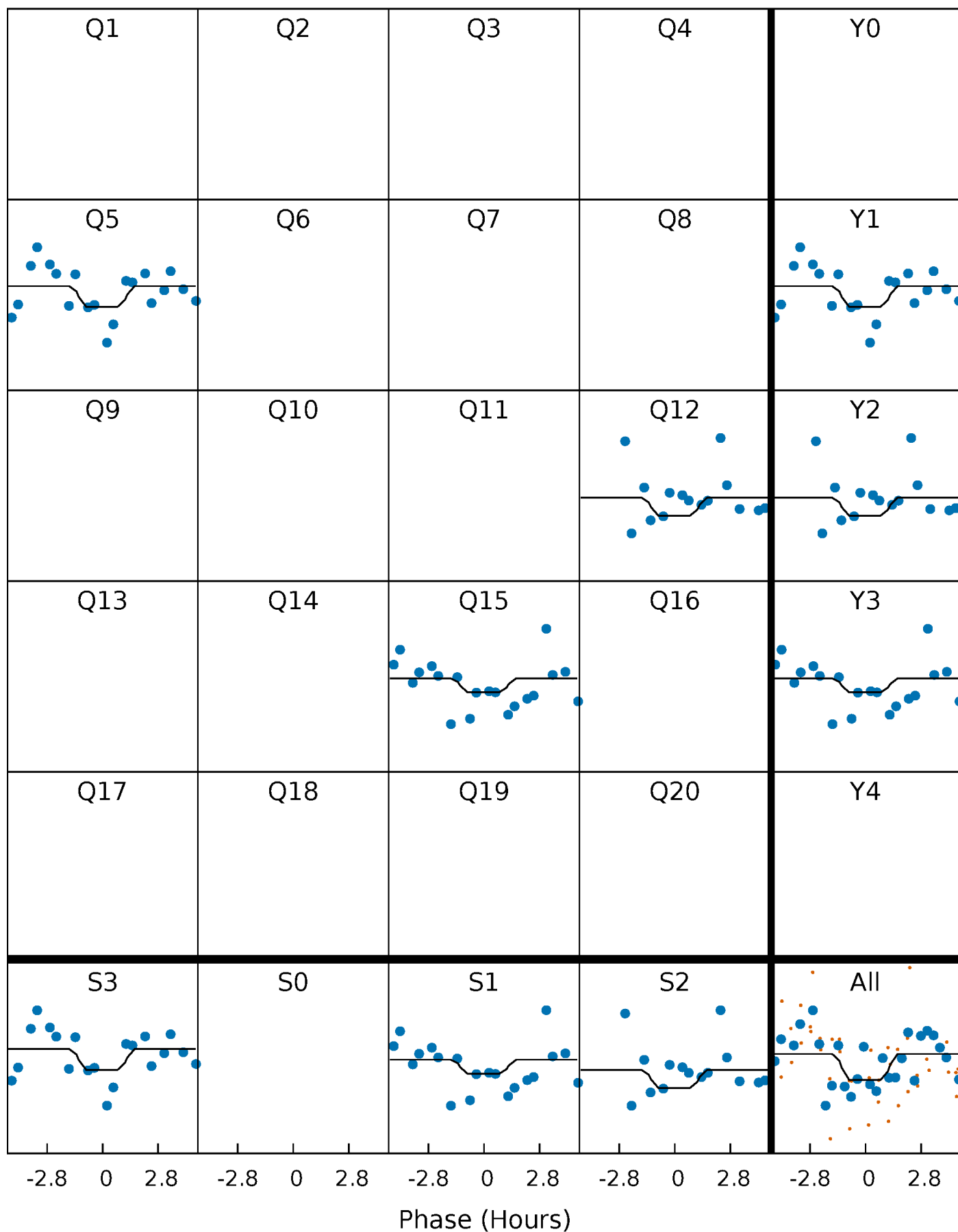
DV Quarter-Phased Transit Curves

TCE 003458489-01 P=311.391200 Days $T_0=184.785854$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

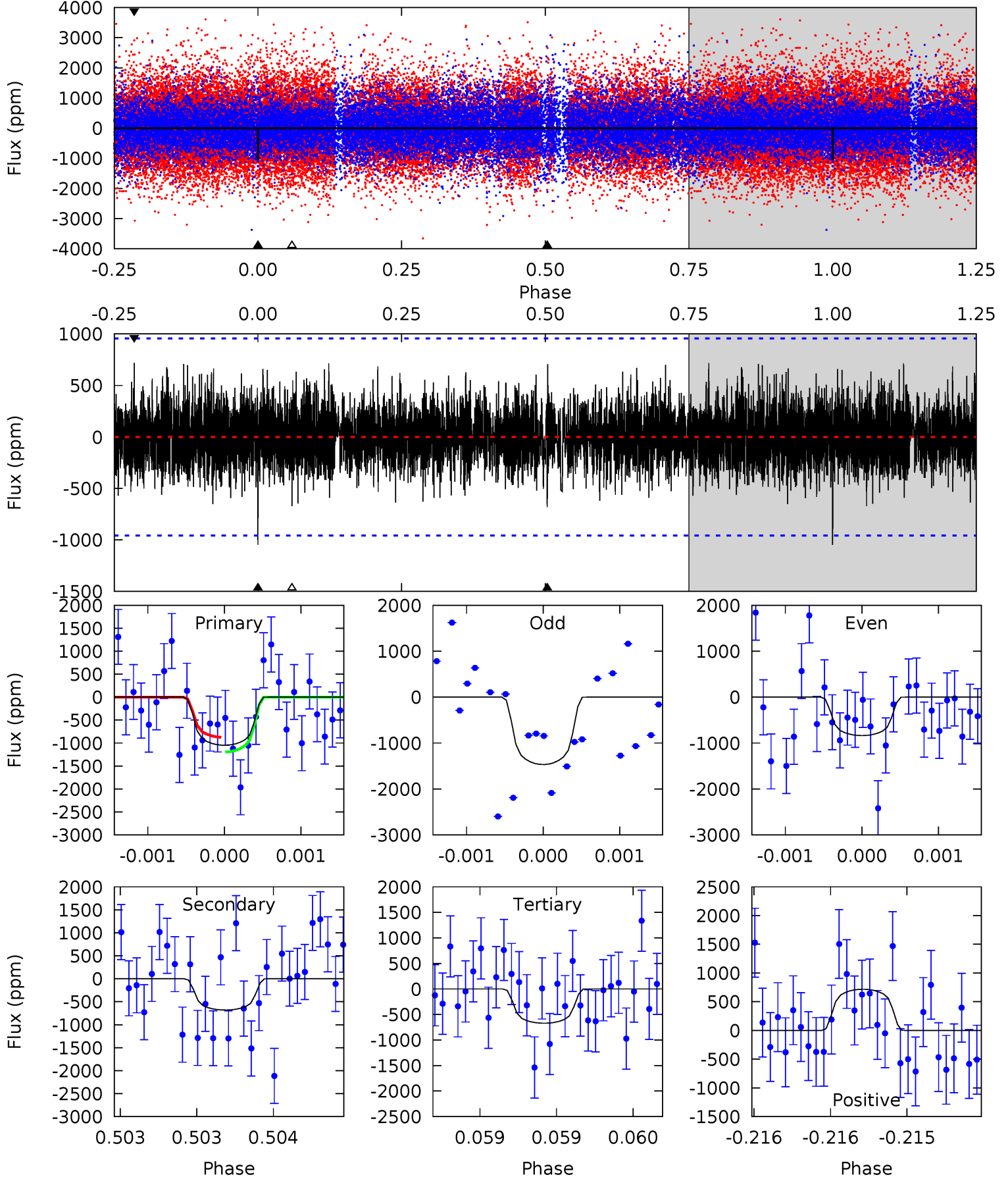
TCE 003458489-01 P=311.373399 Days $T_0=184.831094$ (BKJD)



DV Model-Shift Uniqueness Test

003458489-01, P = 311.391200 Days, E = 184.785854 Days

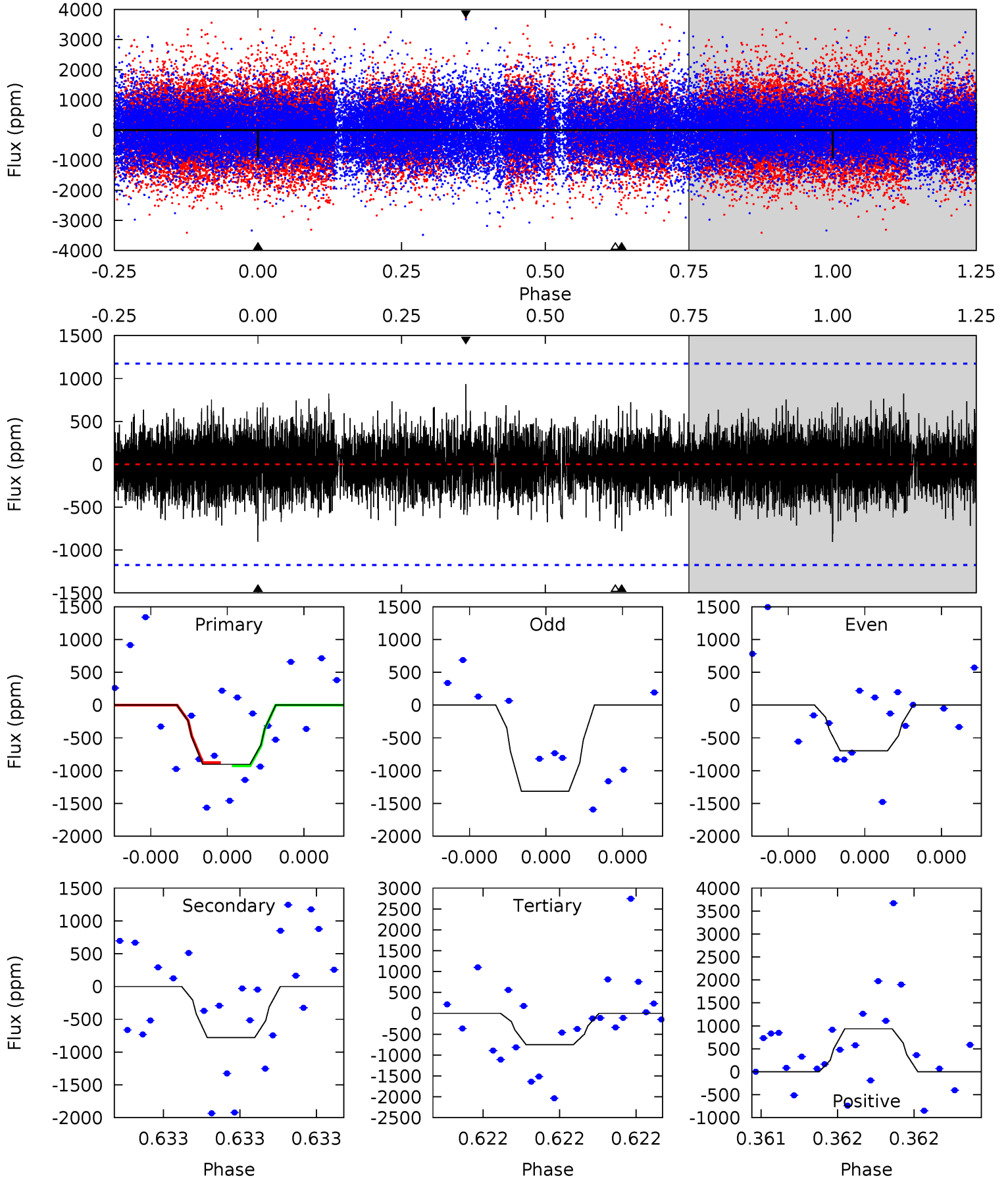
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.09	3.96	3.91	4.18	5.56	3.47	1.20	2.19	1.92	0.06	-0.21	1.75	0.90	0.41	0.93



Alt Model-Shift Uniqueness Test

003458489-01, P = 311.373399 Days, E = 184.831094 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.34	3.75	3.60	4.49	5.64	3.58	1.04	0.74	-0.16	0.15	-0.75	1.44	0.82	0.51	0.12



Stellar Parameters For KIC 003458489

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5362^{+187}_{-187}	$4.591^{+0.049}_{-0.091}$	$-0.400^{+0.350}_{-0.300}$	$0.734^{+0.114}_{-0.070}$	$0.767^{+0.093}_{-0.067}$	$2.728^{+0.584}_{-0.825}$
	+3%/-3%	+1%/-2%	+87%/-75%	+16%/-10%	+12%/-9%	+21%/-30%
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 003458489-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-681 ± 172	$2.95^{+1.92}_{-1.81}$	316^{+15}_{-14}	4691^{+2465}_{-904}	$29048^{+153000}_{-19216}$
Alt.	-780 ± 208	$2.71^{+2.10}_{-1.63}$	315^{+14}_{-14}	4930^{+2911}_{-945}	$38975^{+199416}_{-27038}$

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 $A_{obs} \gg 1.0$

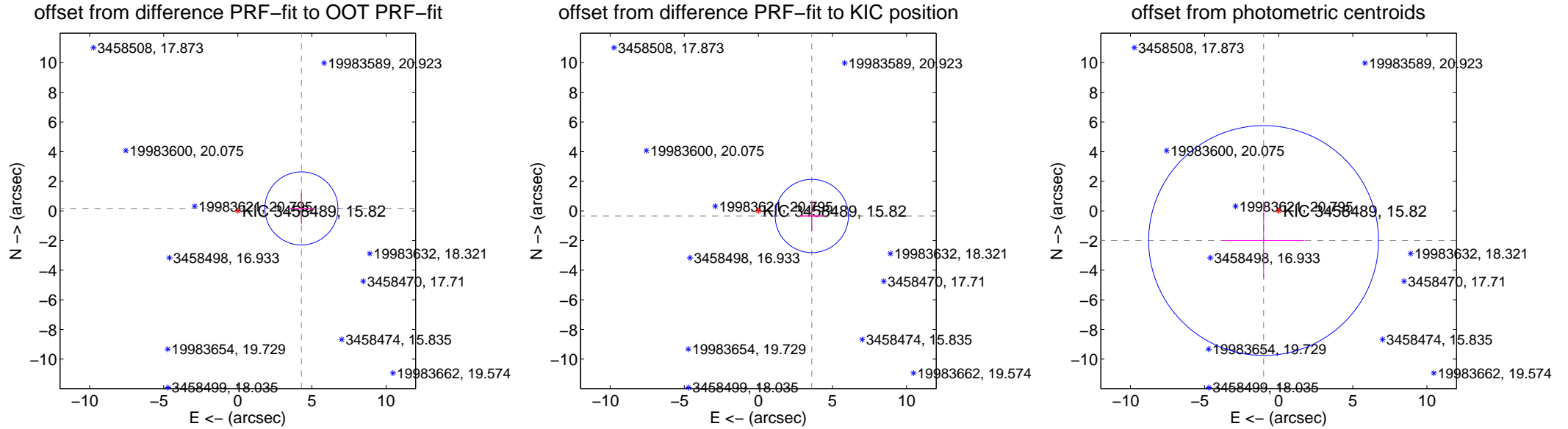
DV Centroid Data

Supplemental centroid analysis for 003458489-01. Kepler magnitude: 15.82. Transit SNR 3.59

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.86 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.293 ± 0.822	5.22	-4.289 ± 0.821	0.169 ± 1.033
PRF-fit source offset from KIC position	3.621 ± 0.824	4.40	-3.605 ± 0.821	-0.344 ± 1.033
photometric centroid source offset	2.24 ± 2.58	0.87	1.02 ± 2.76	-2.00 ± 2.54

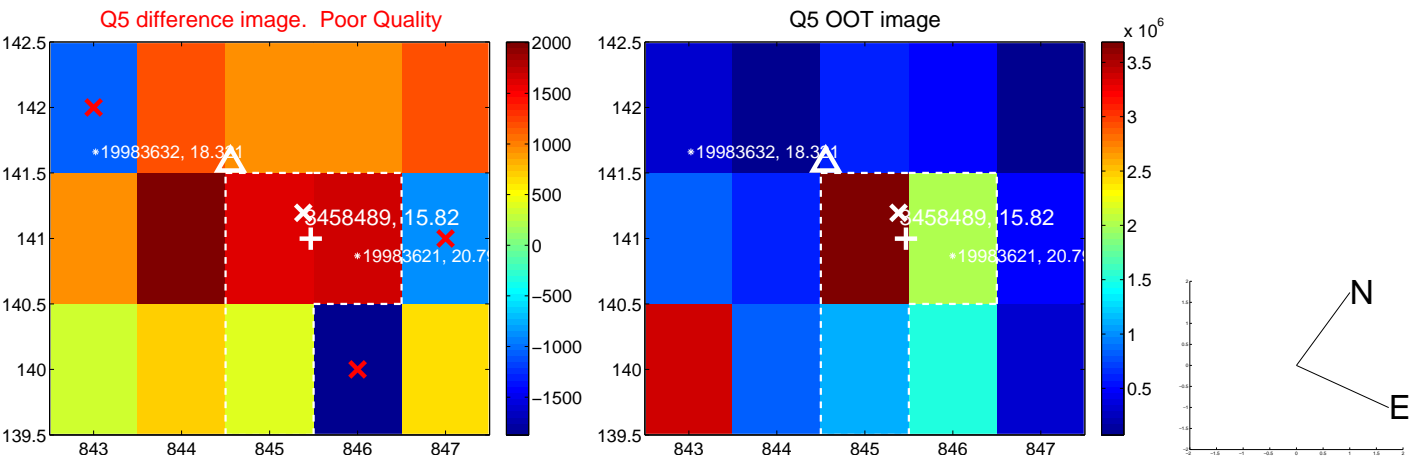


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



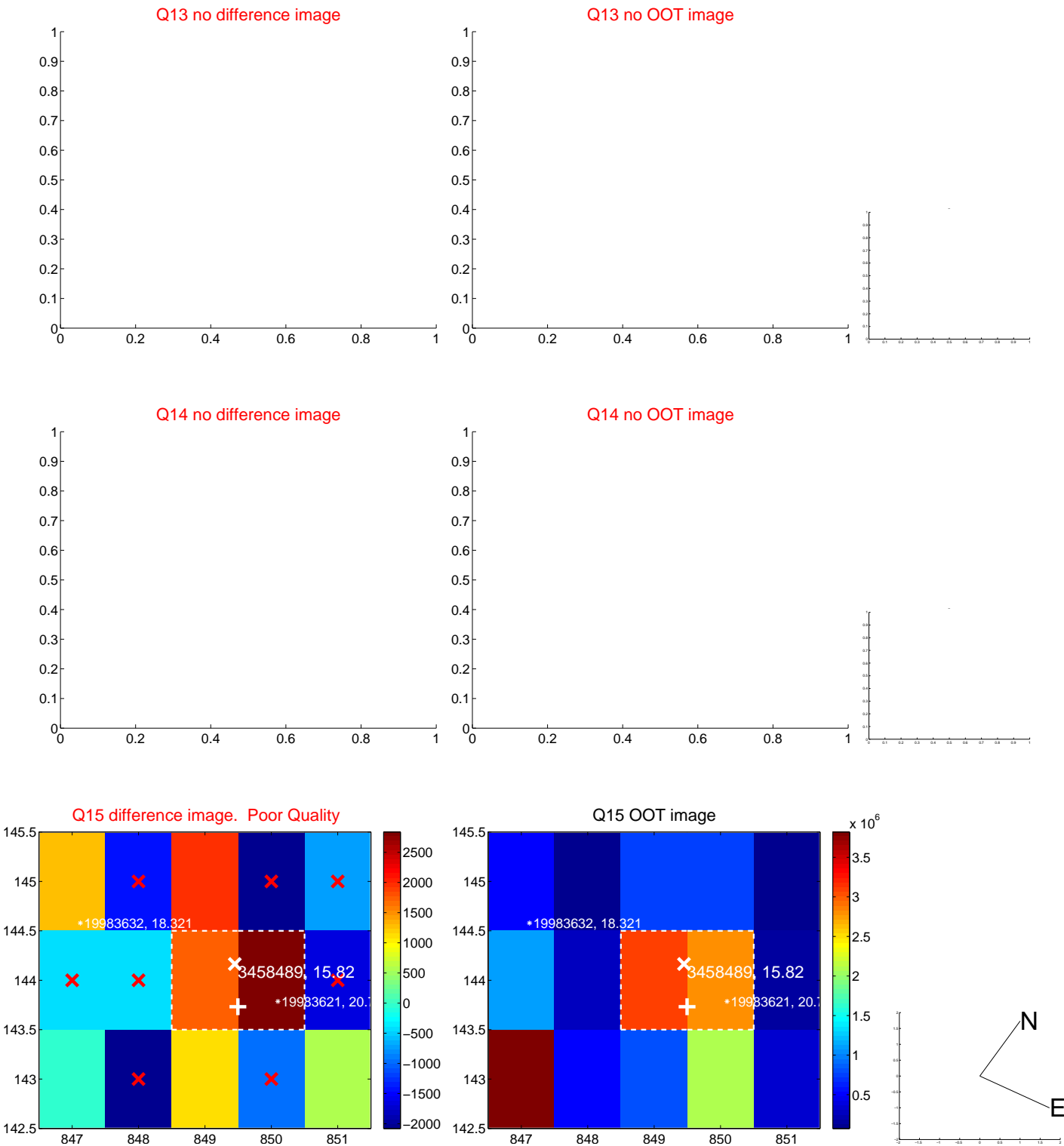
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



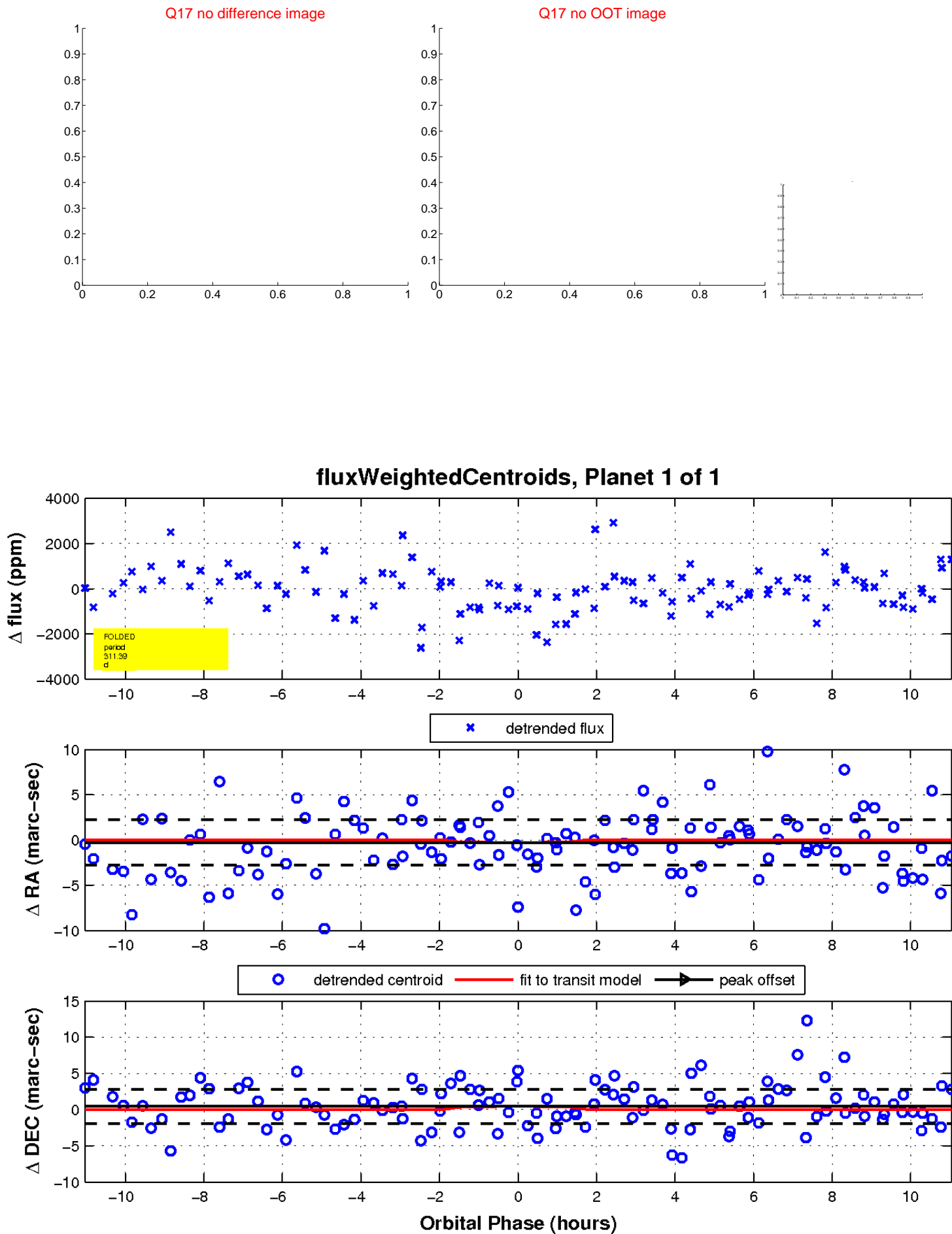
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

