

KIC 005953993

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})
005953993-01	OBS	No	368.801865	377.663926	229.4	3.519	9.6	8.4	1.06	6231	1.81	1.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005953993-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

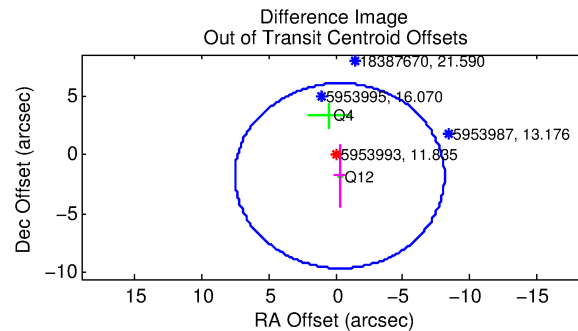
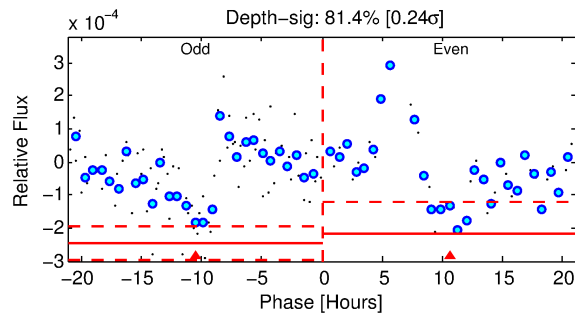
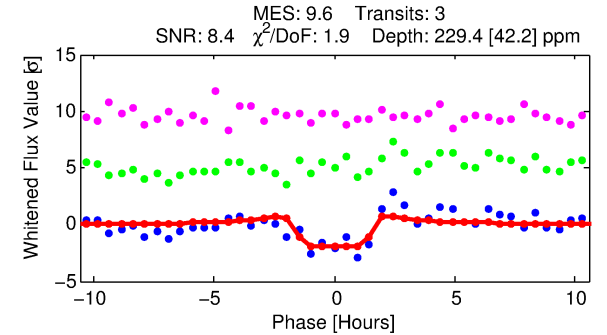
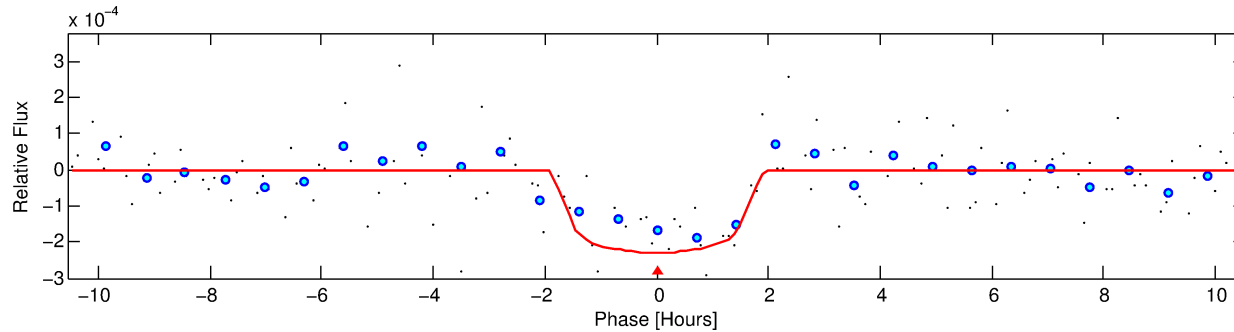
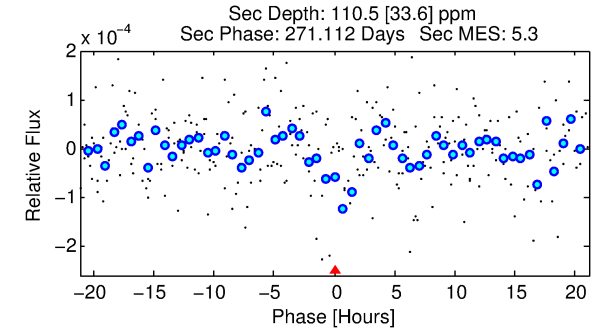
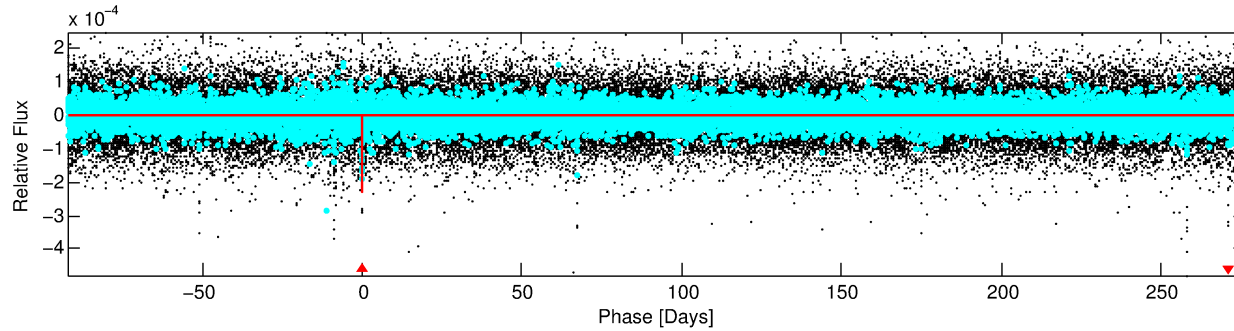
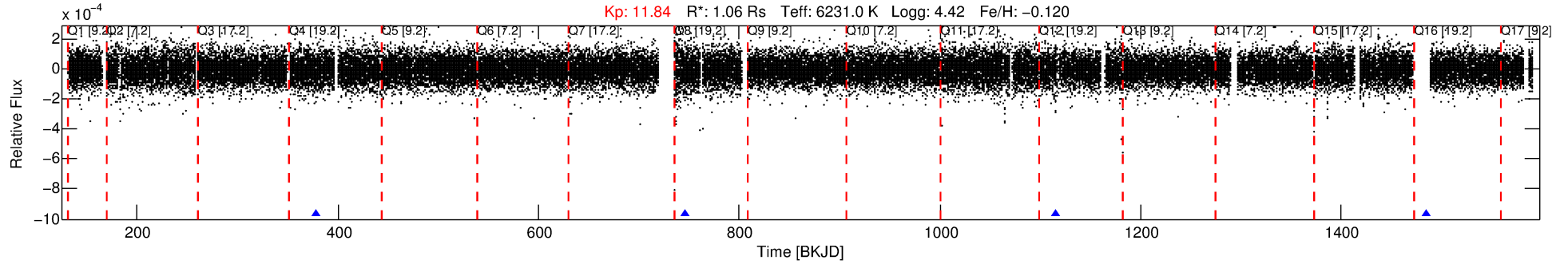
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005953993-01

No Significant Match Found

DV One-Page Summary

KIC: 5953993 Candidate: 1 of 1 Period: 368.802 d



DV Fit Results:

Period = 368.80187 [0.00672] d
Epoch = 377.6639 [0.0078] BKJD
Rp/R* = 0.0156 [0.0157]
a/R* = 458.55 [2397.90]
b = 0.84 [1.88]
Seff = 1.43 [0.31]
Teq = 279 [15] K
Rp = 1.81 [1.84] Re
a = 1.0303 [0.1457] AU
Ag = 19634.22 [39979.55] [0.49σ]
Teffp = 5108 [2587] K [1.87σ]

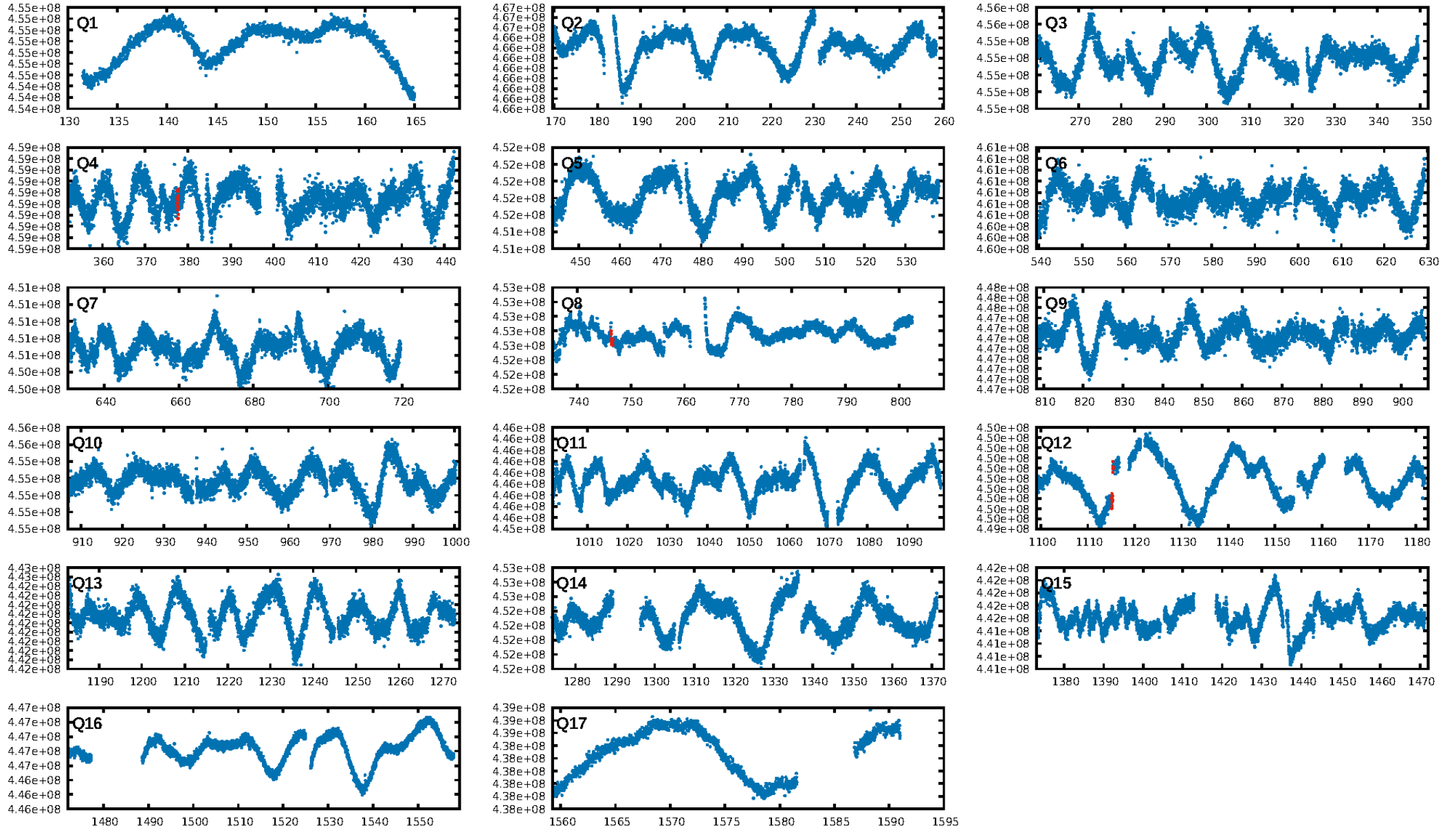
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 47.9%
Bootstrap-pfa: 1.80e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.996
Centroid-sig: 23.5%
Centroid-so: 3.318 arcsec [1.36σ]
OotOffset-rm: 1.801 arcsec [0.69σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-rm: 1.669 arcsec [1.29σ]
KicOffset-st: 0/0/2/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

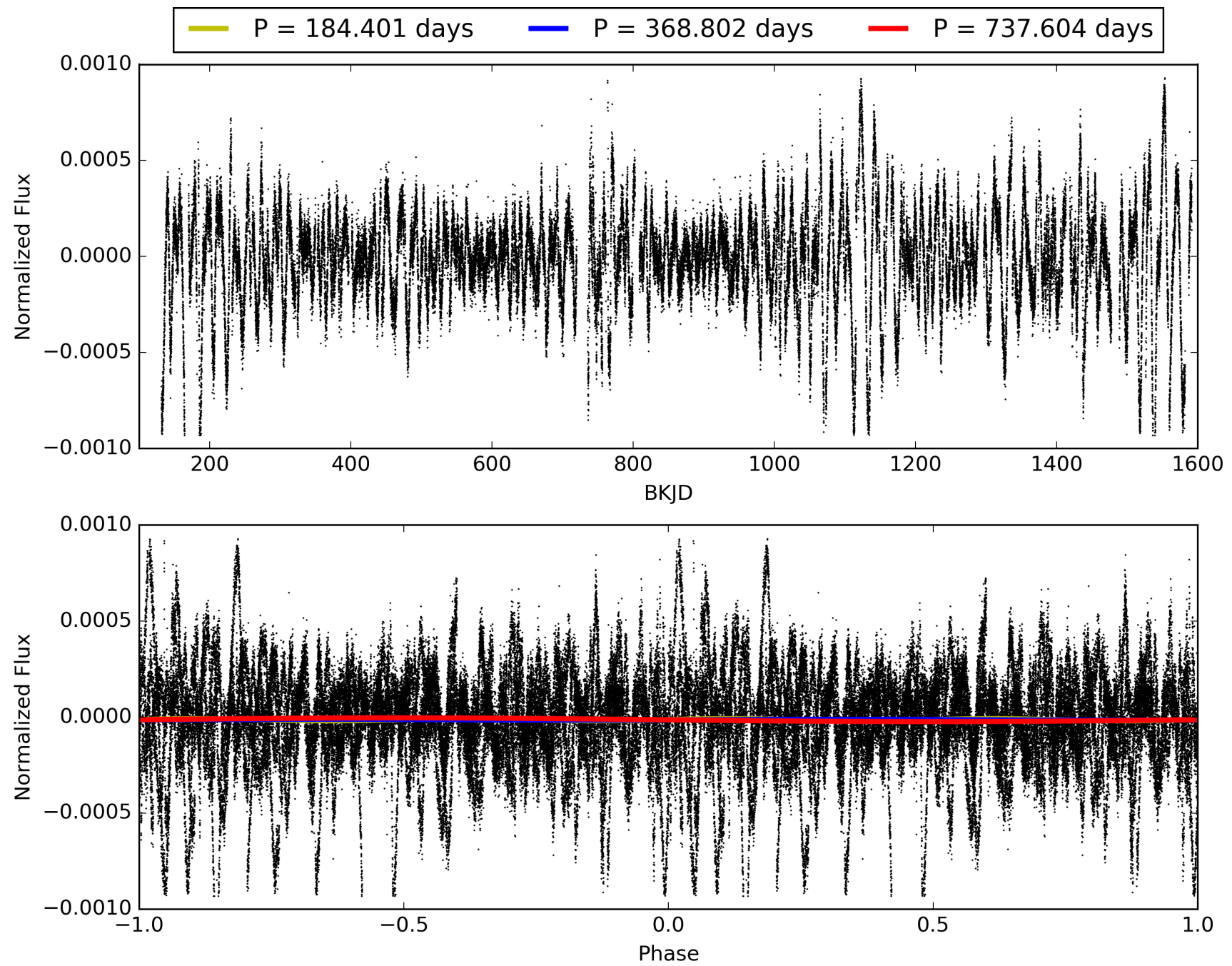
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:12:46 Z

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

TCE 005953993-01, PDC Light Curves

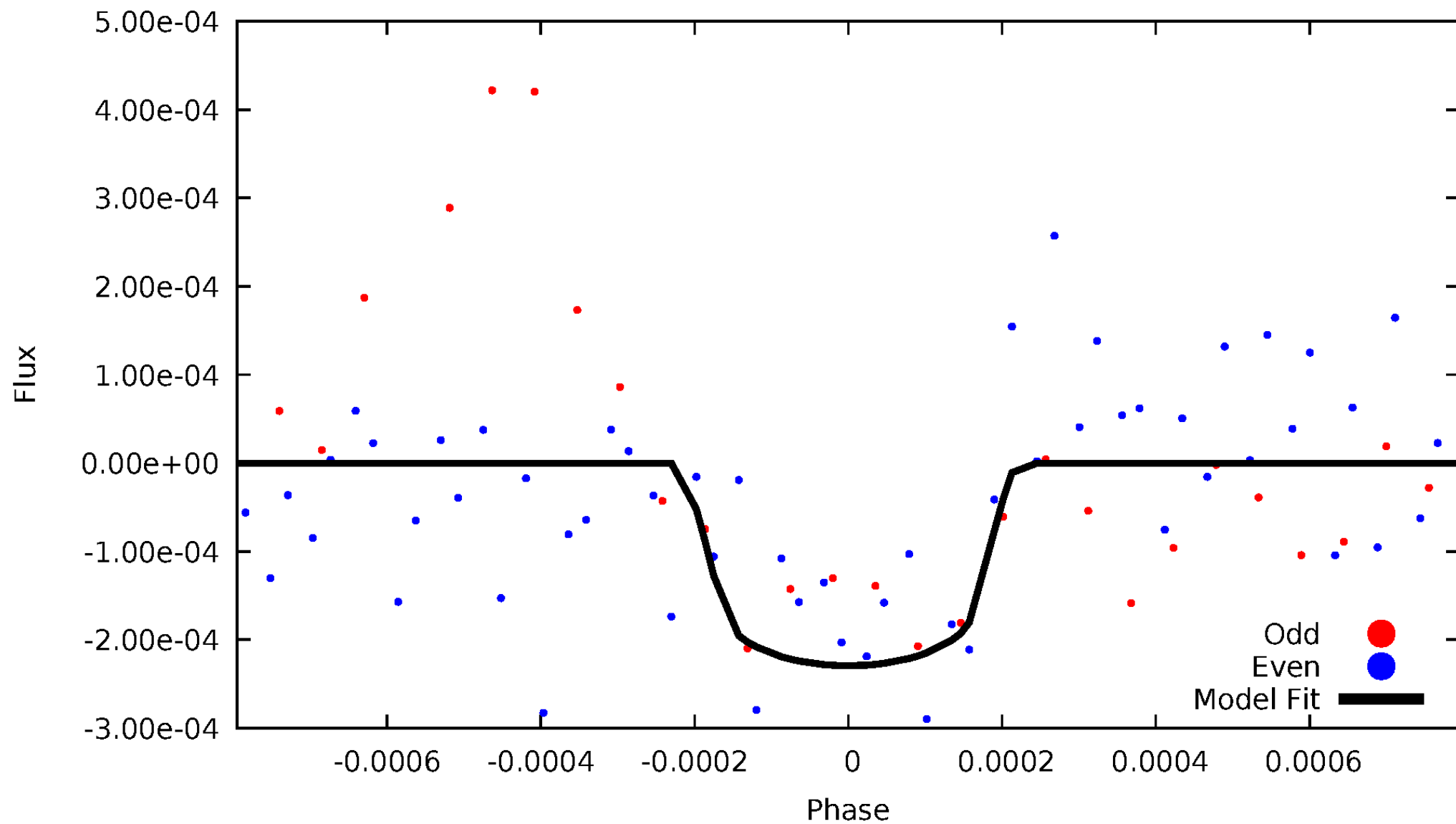


TCE 005953993-01



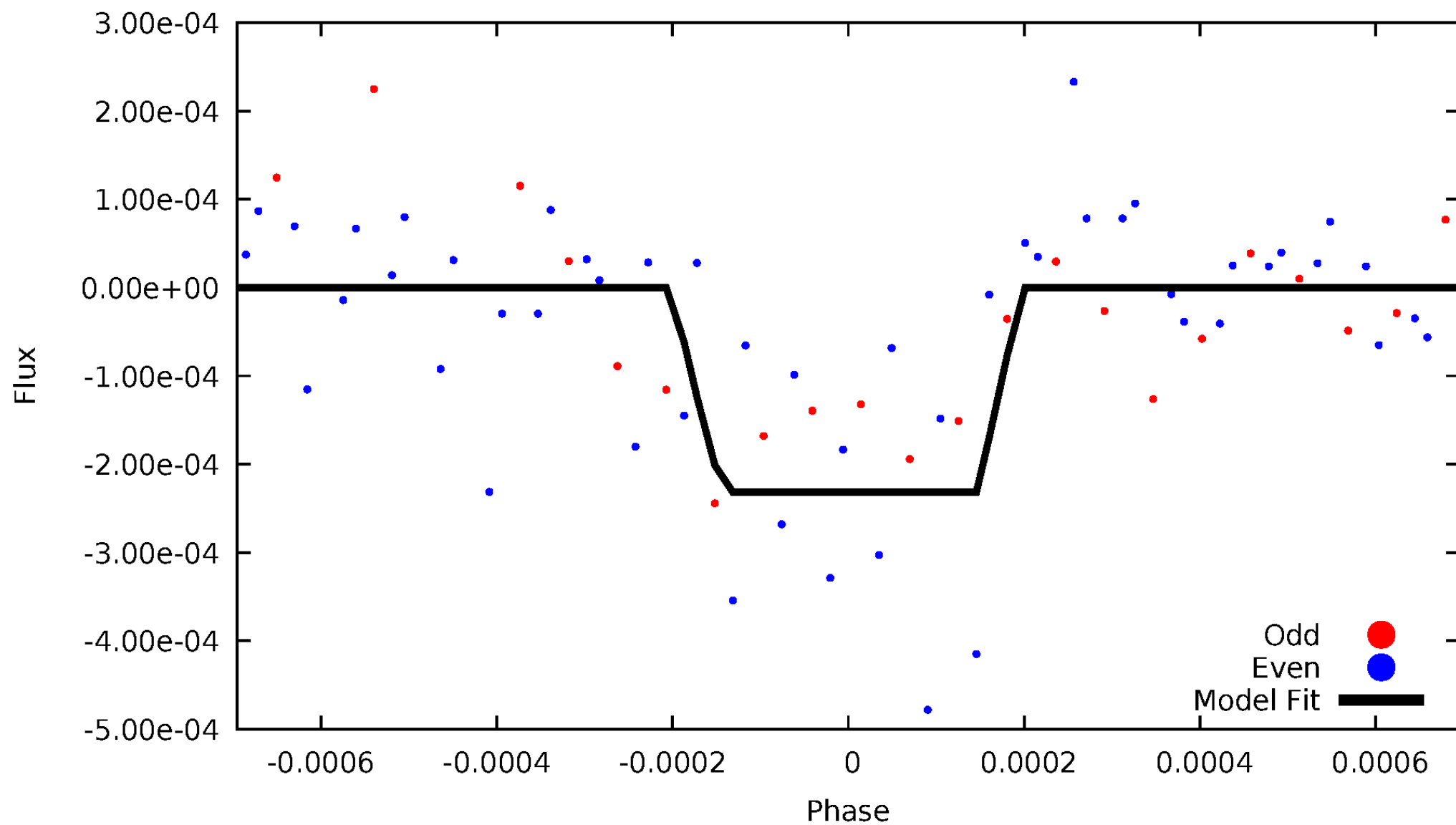
DV Odd/Even

TCE 005953993-01



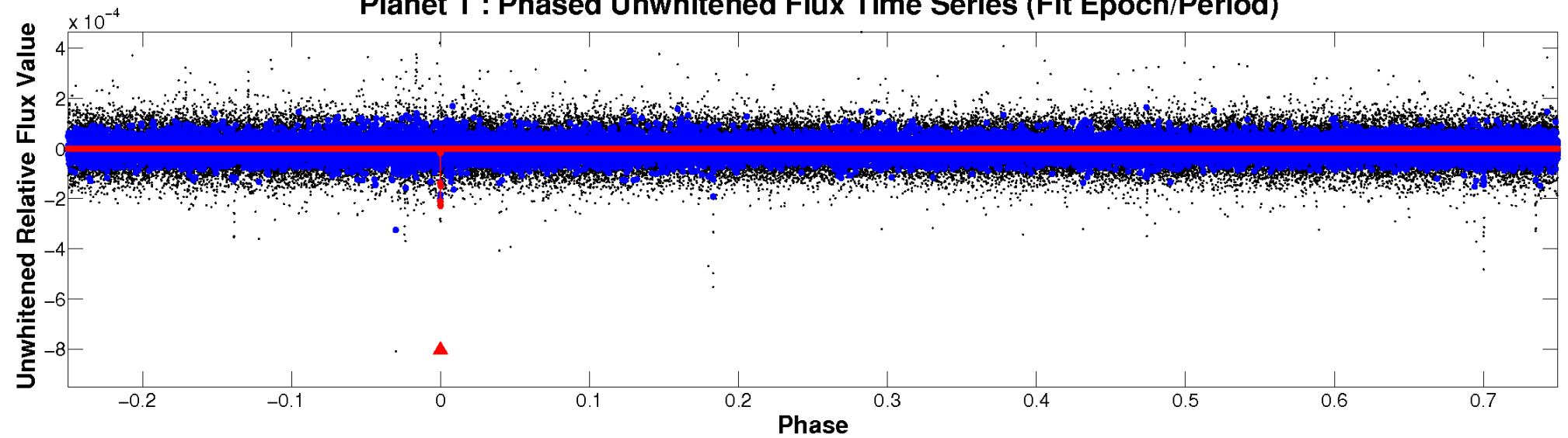
ALT Odd/Even

TCE 005953993-01

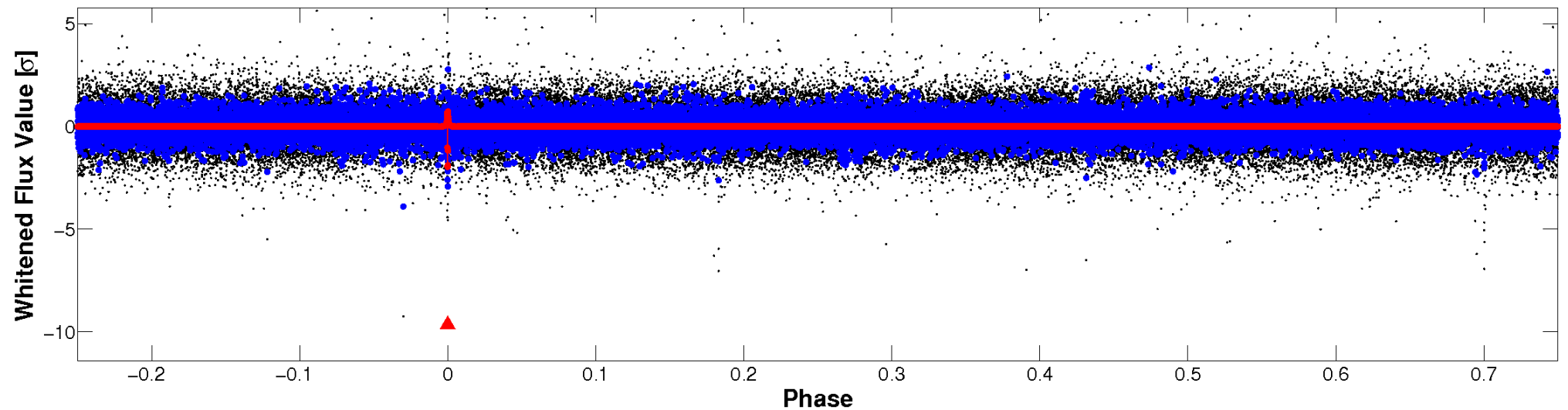


Non-Whitened Vs. Whitened Light Curve

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

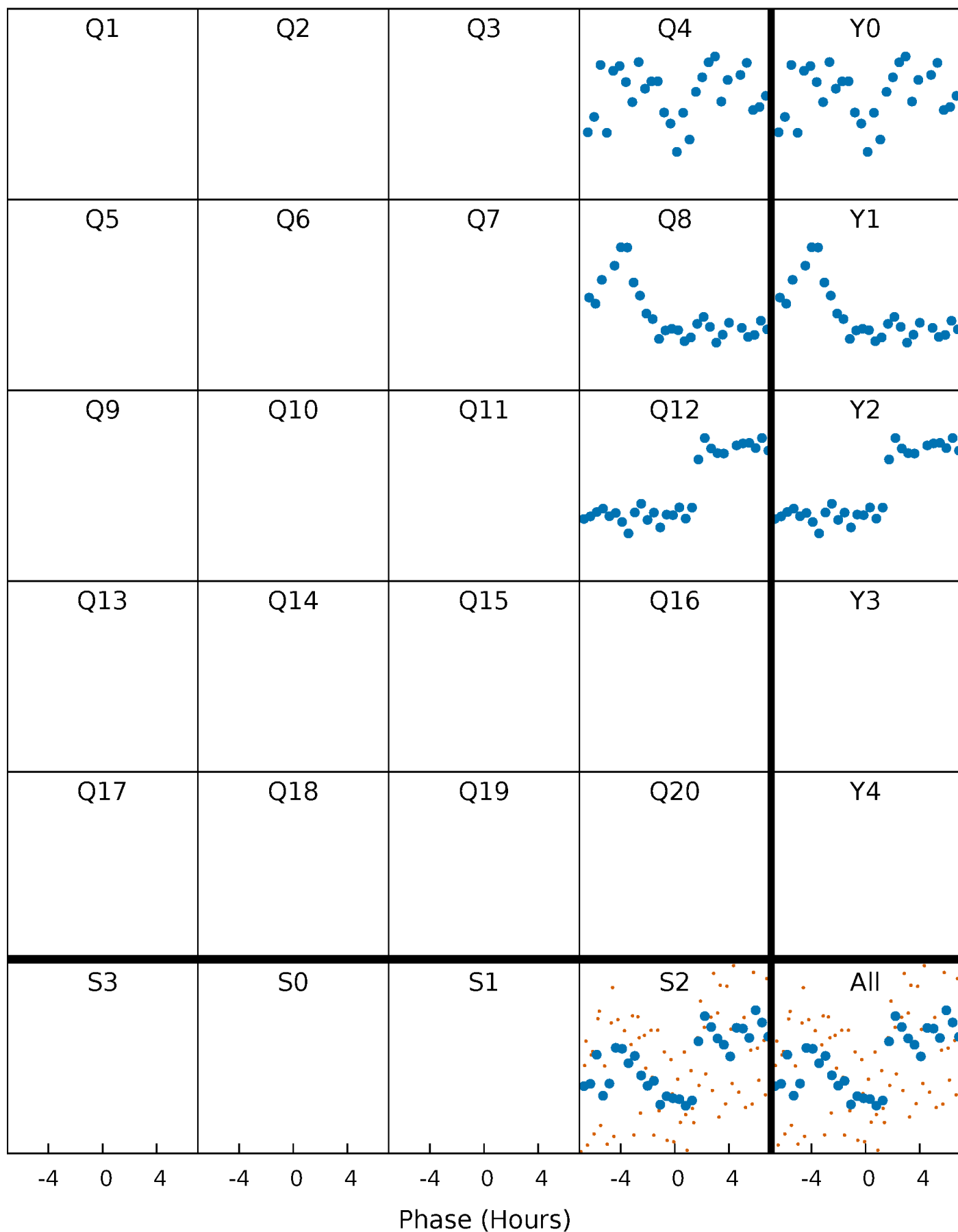


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



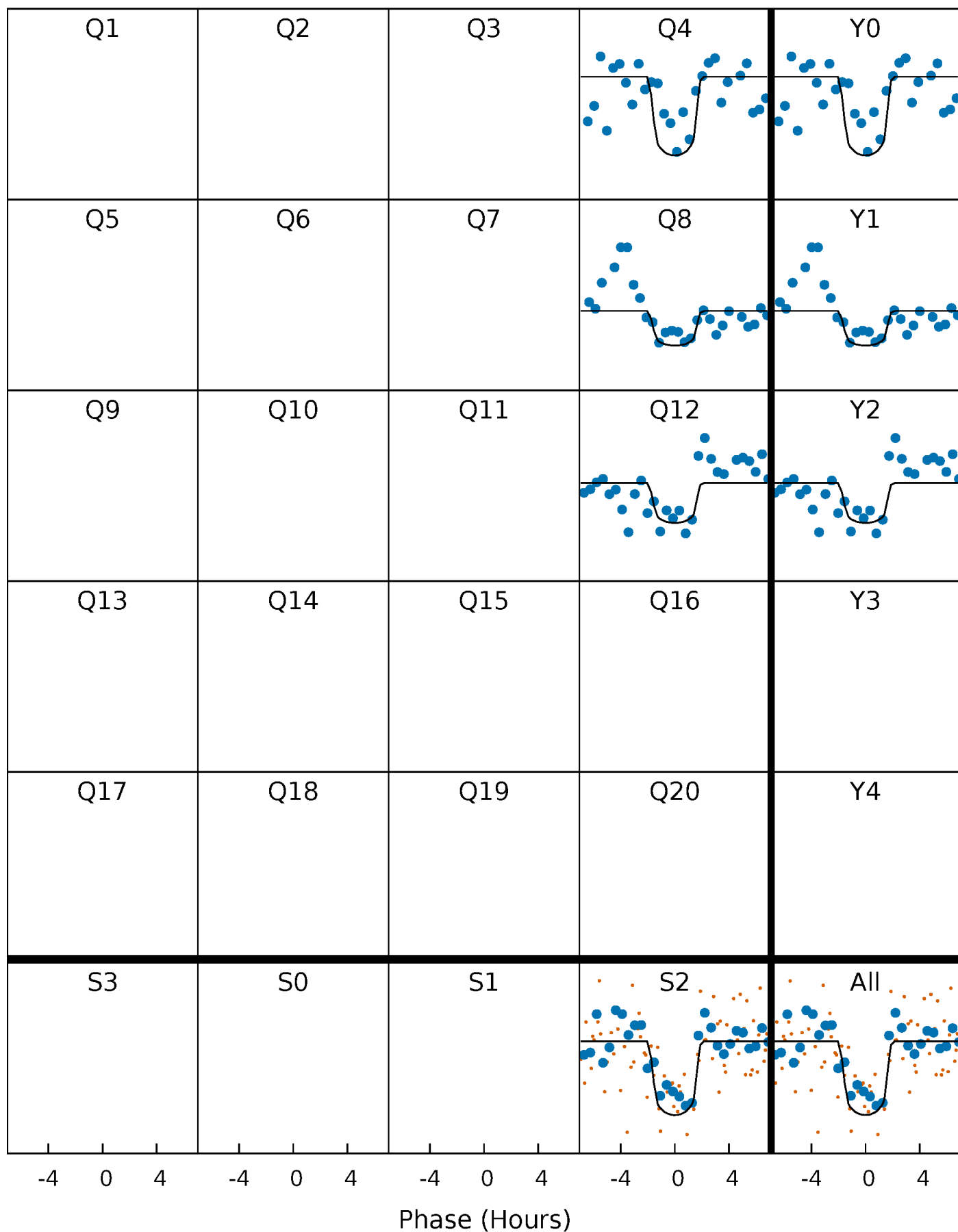
PDC Quarter-Phased Transit Curves

TCE 005953993-01 P=368.801865 Days $T_0=377.663926$ (BKJD)



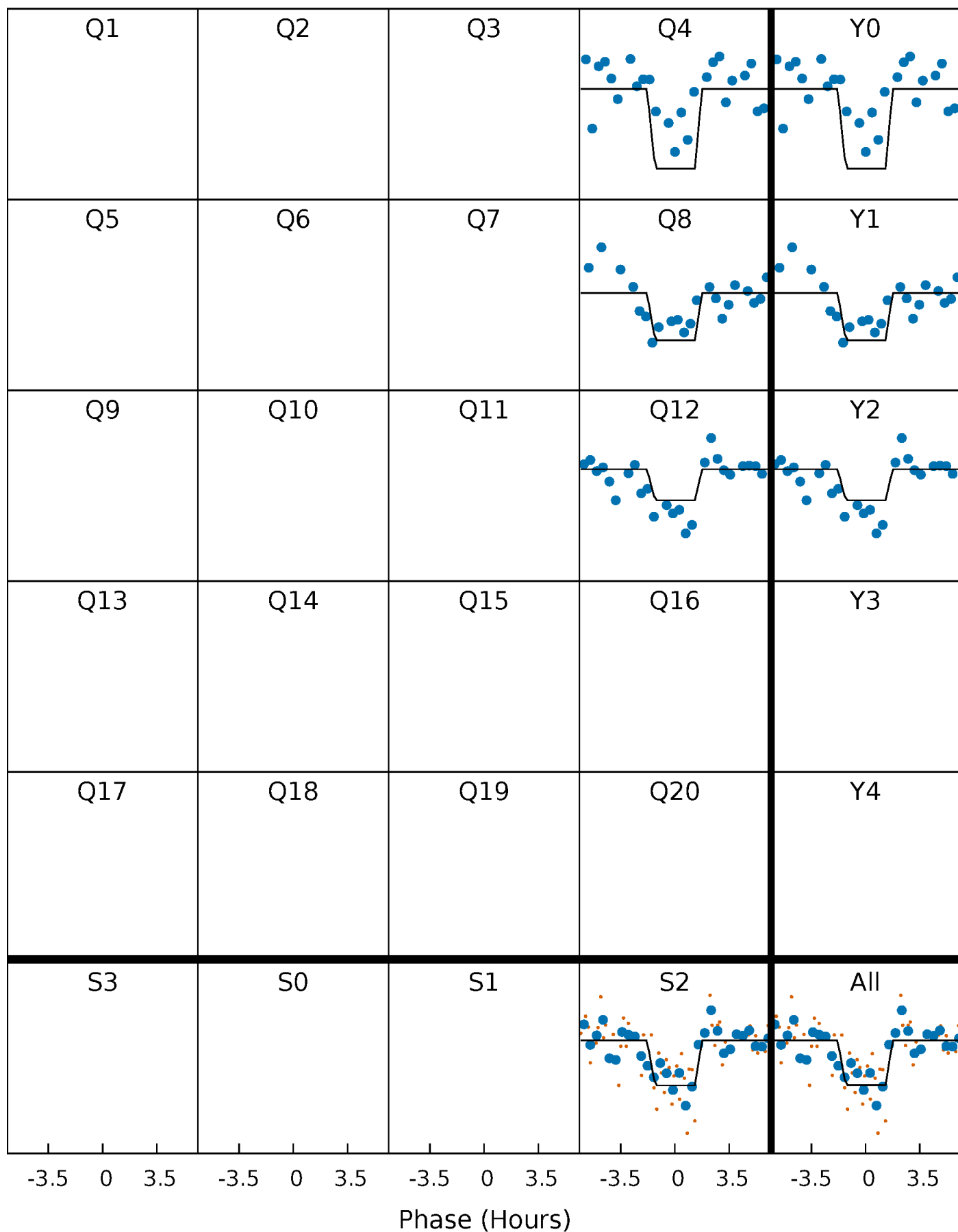
DV Quarter-Phased Transit Curves

TCE 005953993-01 P=368.801865 Days $T_0=377.663926$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

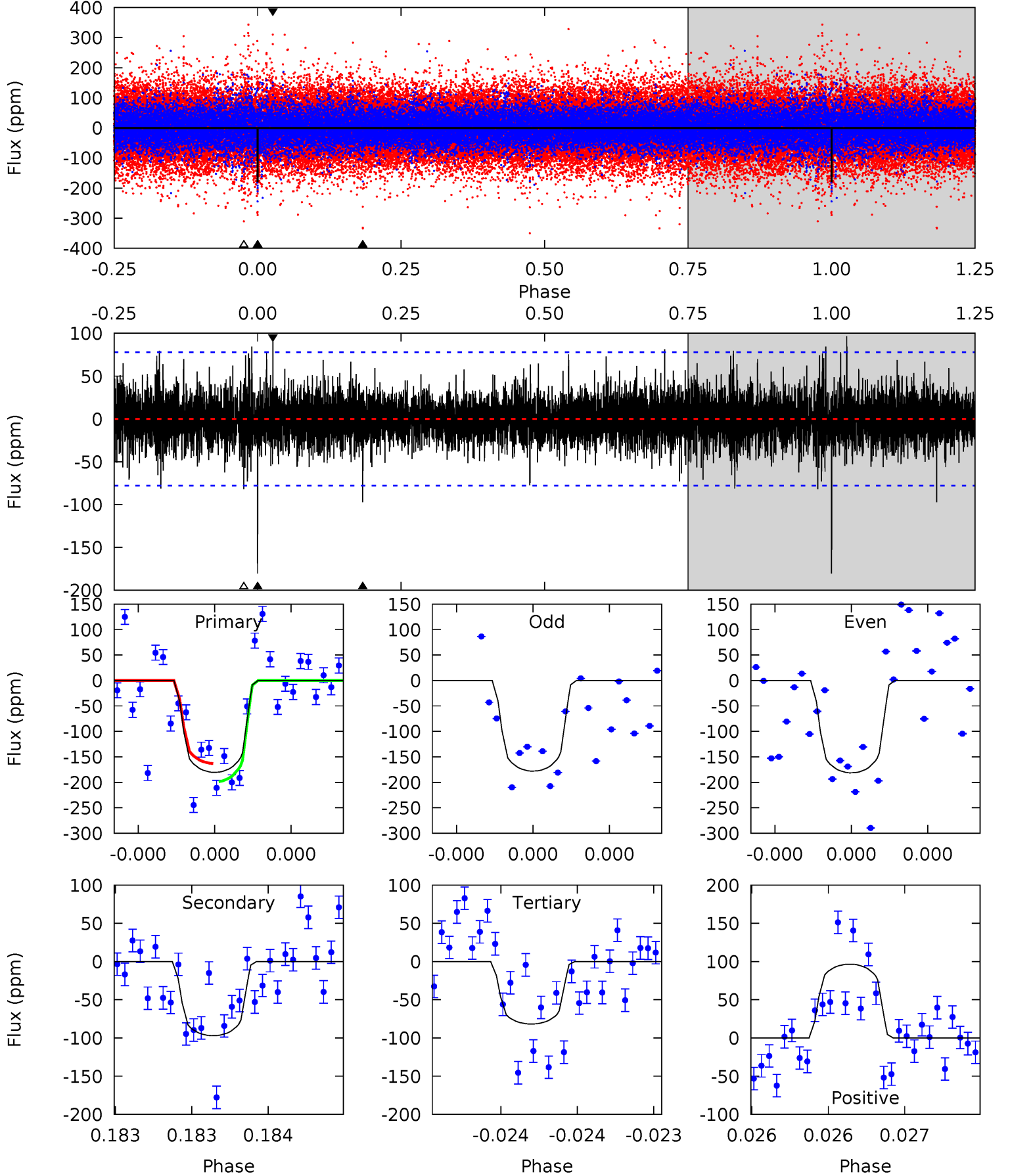
TCE 005953993-01 P=368.798513 Days $T_0=377.674938$ (BKJD)



DV Model-Shift Uniqueness Test

005953993-01, P = 368.801865 Days, E = 8.862061 Days

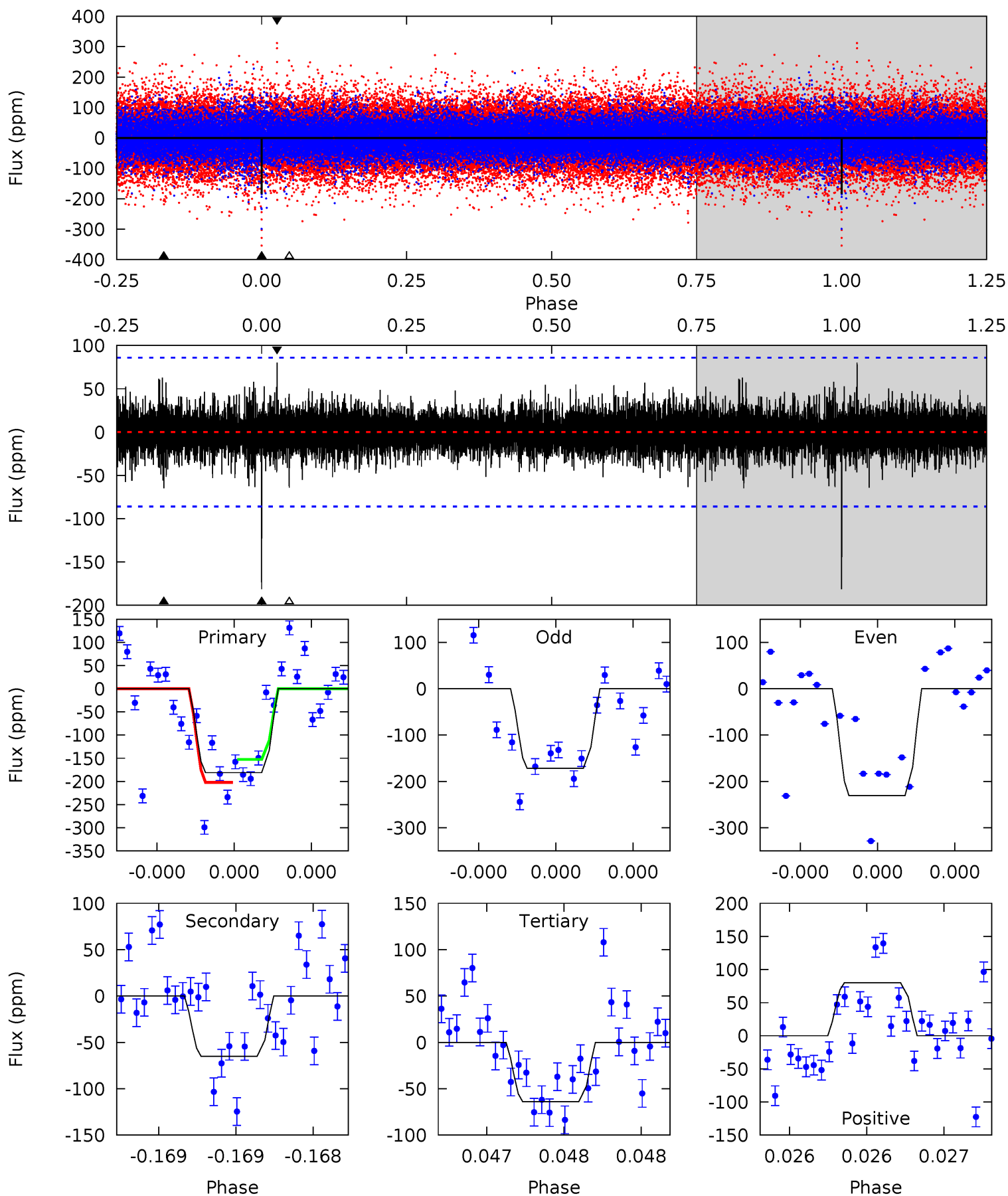
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	6.98	5.88	6.94	5.60	3.52	1.36	7.09	6.02	1.10	0.03	0.11	1.01	0.35	1.27



Alt Model-Shift Uniqueness Test

005953993-01, P = 368.798513 Days, E = 8.876425 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	4.26	4.20	5.25	5.63	3.57	0.99	7.68	6.63	0.06	-0.99	1.92	1.22	0.31	1.62



Stellar Parameters For KIC 005953993

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	6231^{+81}_{-74}	$4.416^{+0.040}_{-0.120}$	$-0.120^{+0.150}_{-0.150}$	$1.062^{+0.171}_{-0.068}$	$1.065^{+0.075}_{-0.060}$	$1.254^{+0.186}_{-0.425}$
	+1%/-1%	+1%/-3%	+125%/-125%	+16%/-6%	+7%/-6%	+15%/-34%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005953993-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-97 ± 14	$2.25^{+1.69}_{-1.37}$	394^{+16}_{-10}	4679^{+2657}_{-877}	11294^{+60476}_{-7708}
Alt.	-65 ± 15	$2.23^{+1.65}_{-1.39}$	393^{+15}_{-9}	4313^{+2299}_{-772}	7433^{+43695}_{-5009}

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 $A_{obs} \gg 1.0$

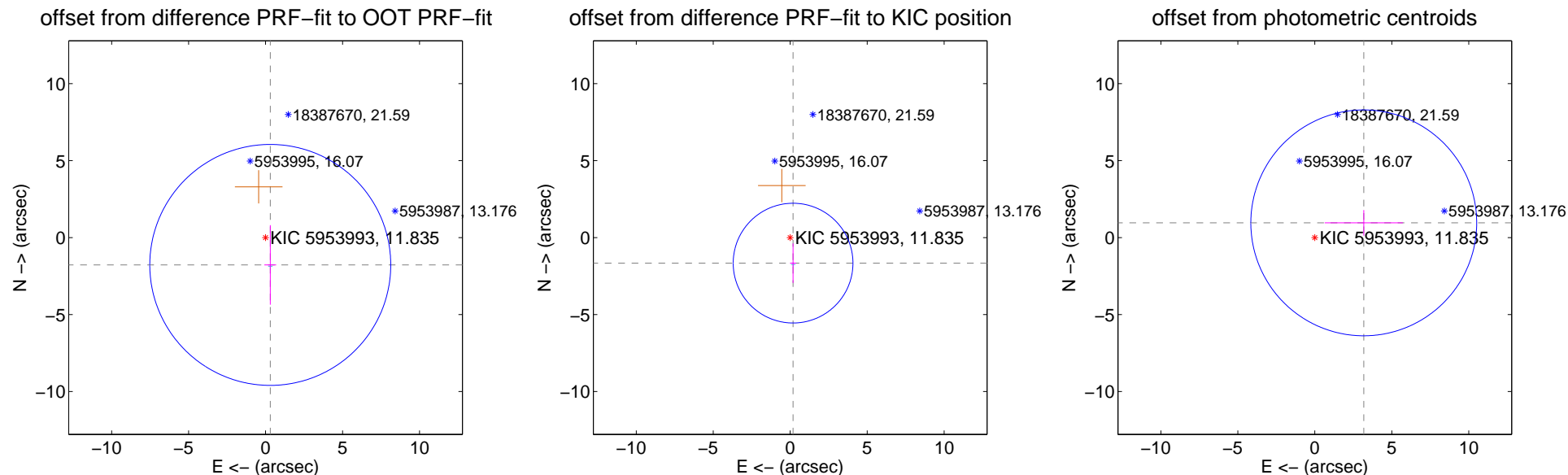
DV Centroid Data

Supplemental centroid analysis for 005953993-01. **Kepler magnitude: 11.84.** Transit SNR 8.38

There are 1 quarters with good PRF difference image offsets

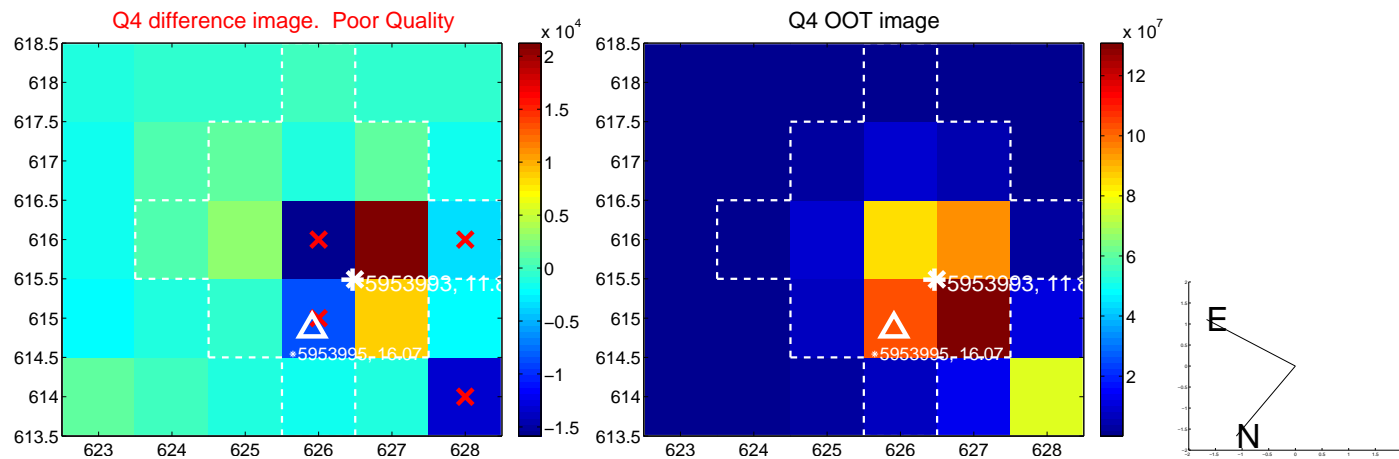
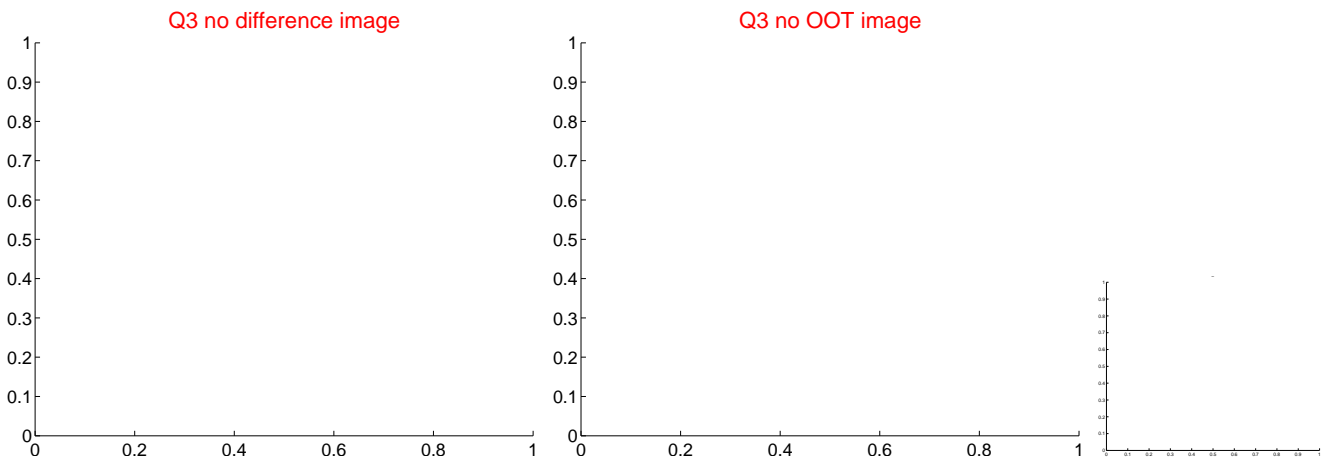
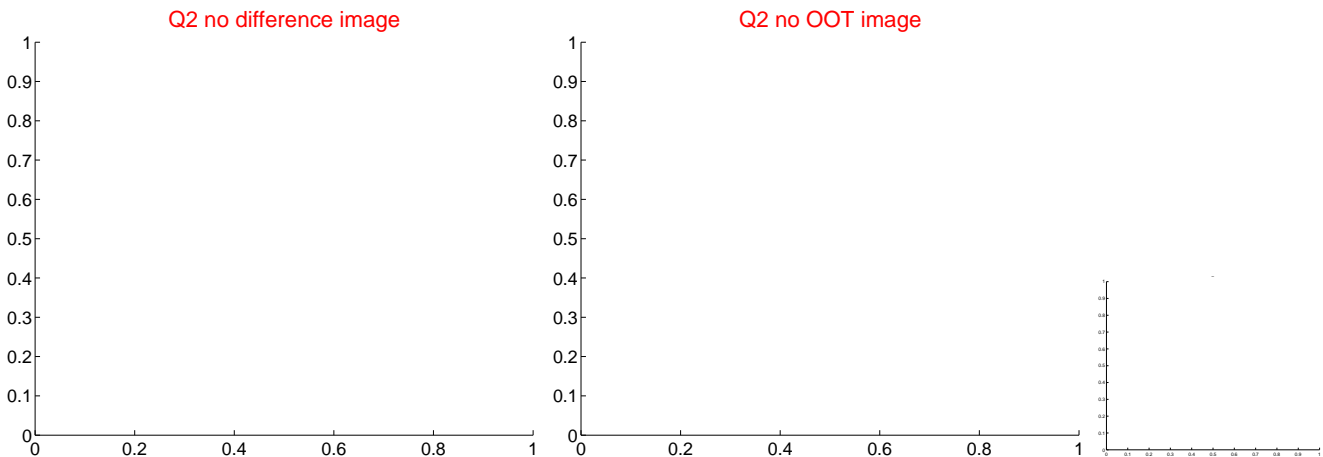
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.801 ± 2.608	0.69	-0.303 ± 0.384	-1.775 ± 2.581
PRF-fit source offset from KIC position	1.669 ± 1.296	1.29	-0.186 ± 0.196	-1.659 ± 1.284
photometric centroid source offset	3.32 ± 2.44	1.36	-3.18 ± 2.54	0.96 ± 0.83

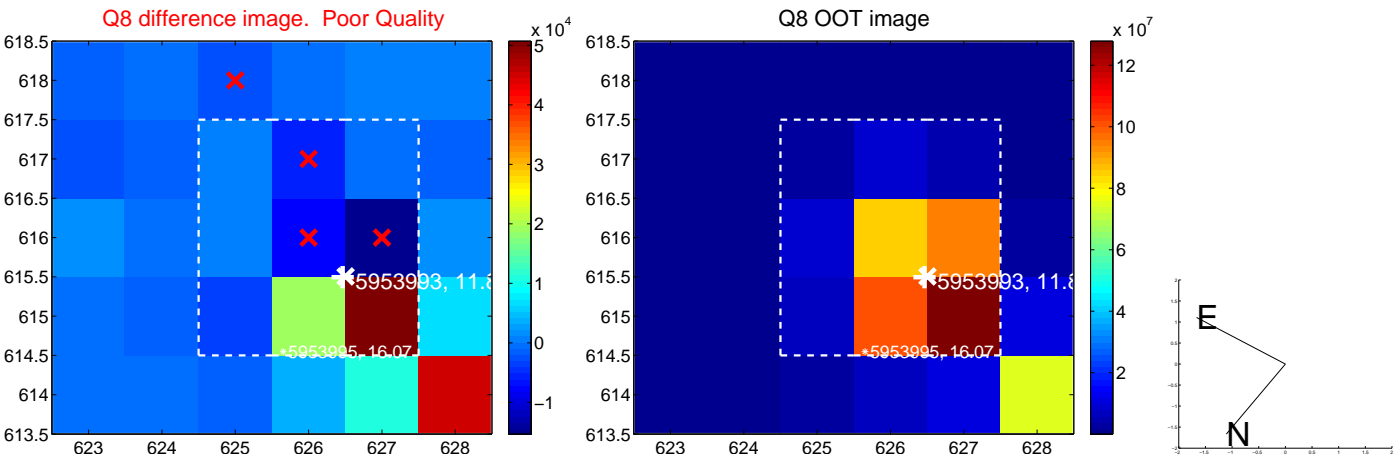


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

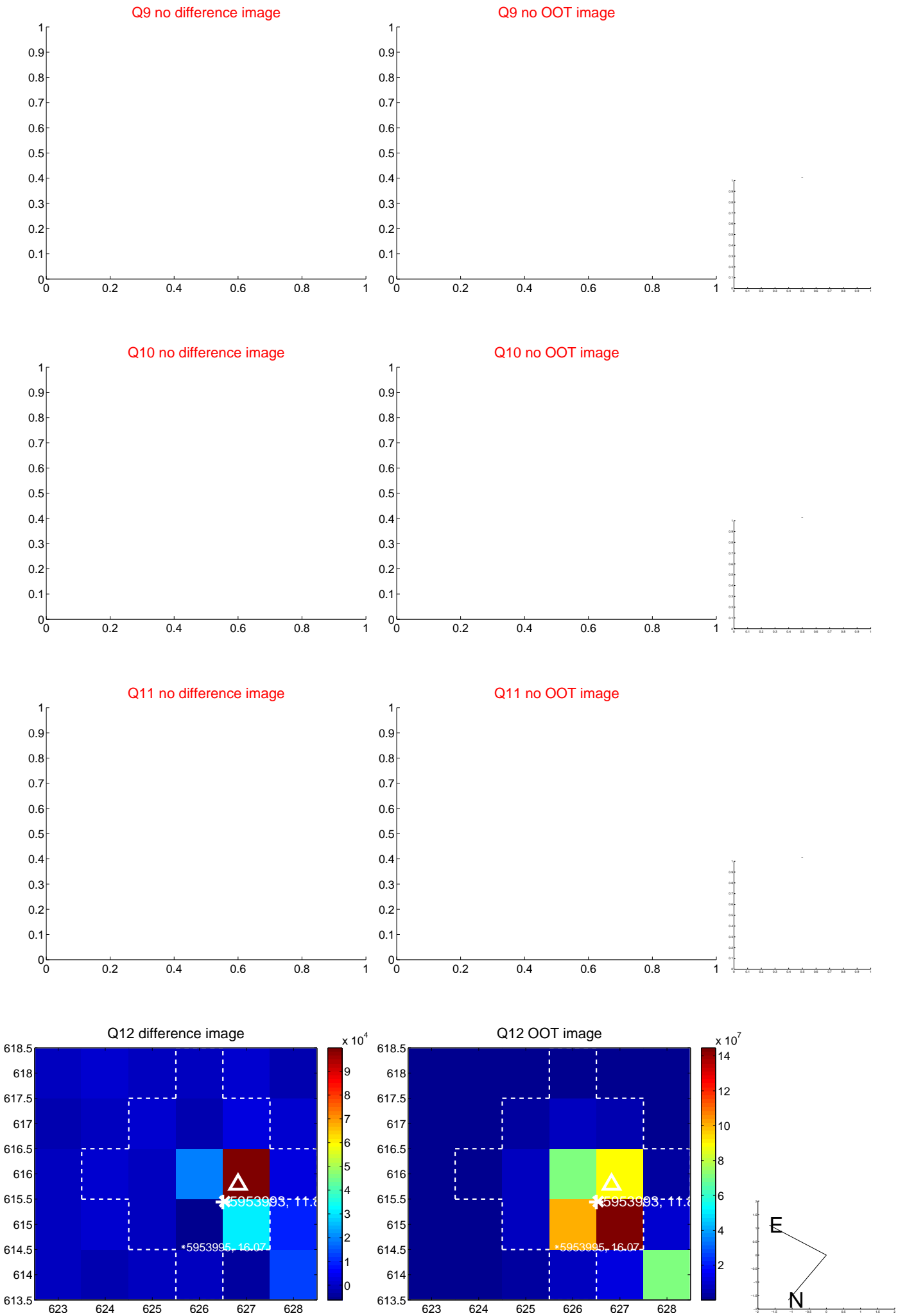
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



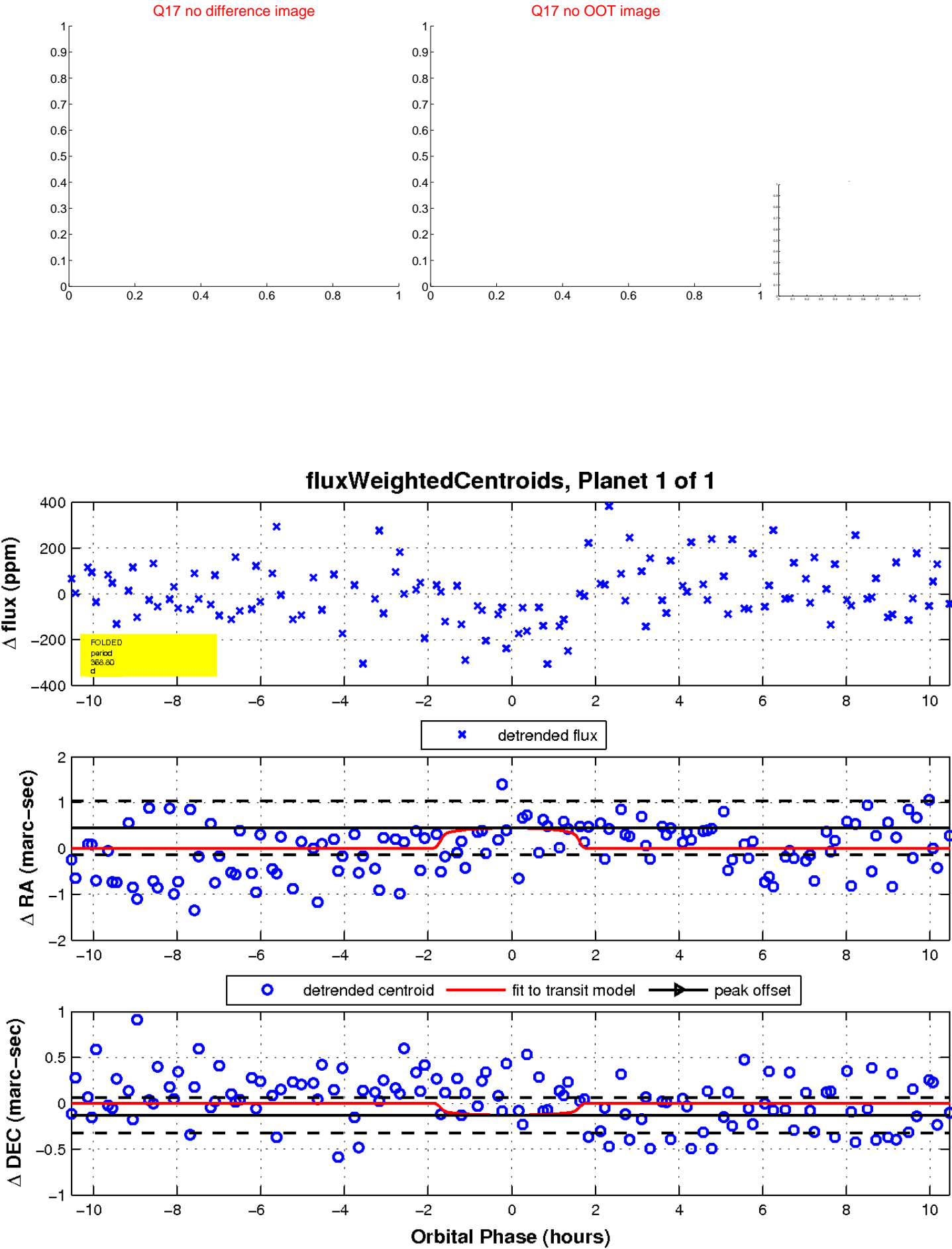
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

