

KIC 005193550

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})
005193550-01	OBS	No	335.569693	218.783889	769.4	5.262	9.1	6.3	0.78	5278	2.22	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005193550-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_TER_DV—MOD_POS_DV—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.

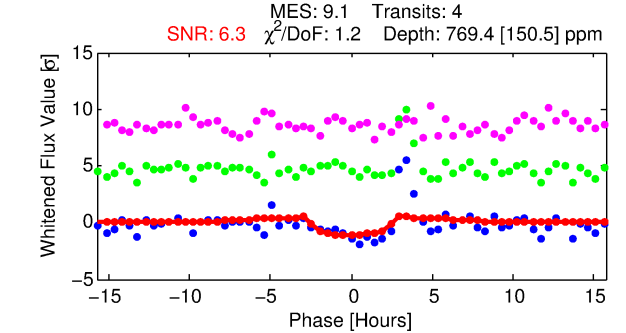
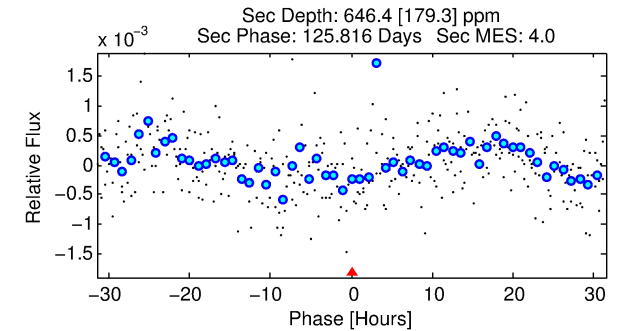
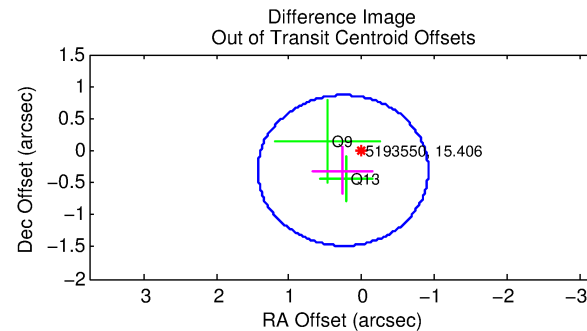
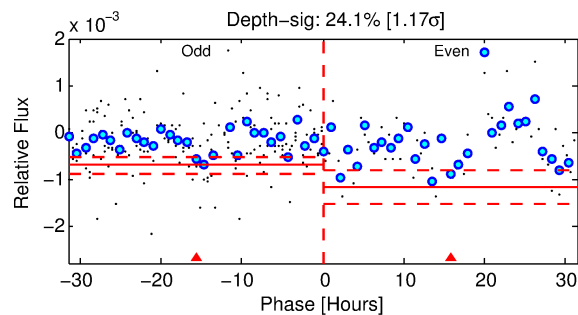
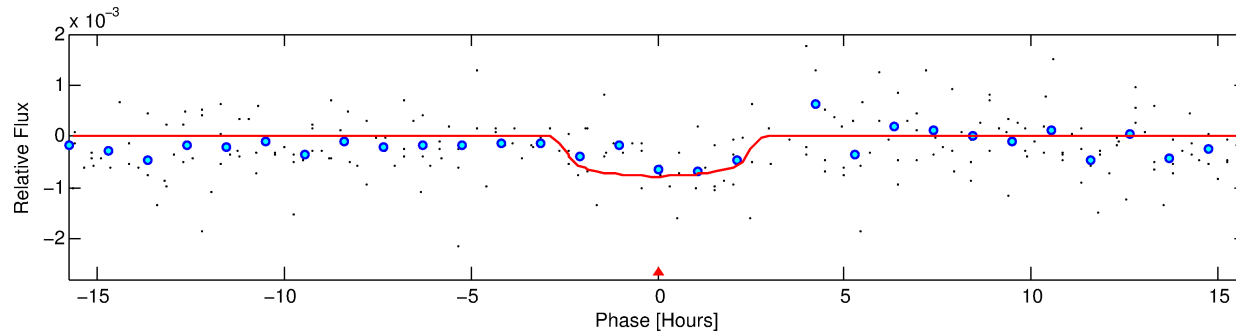
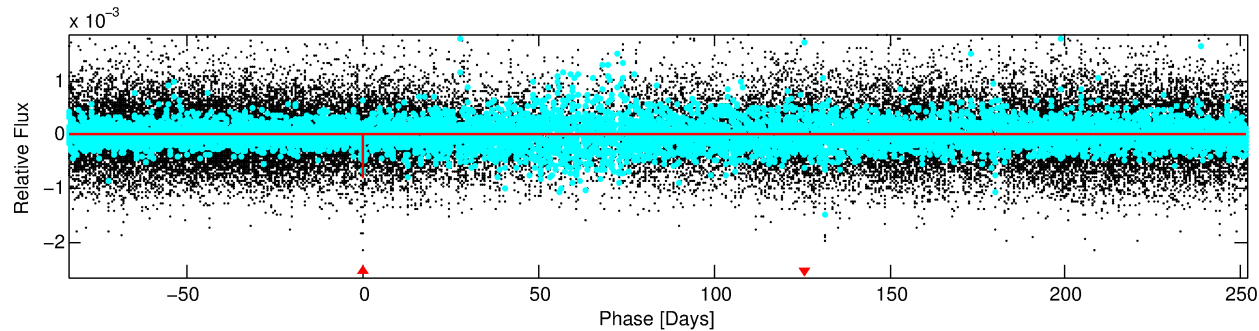
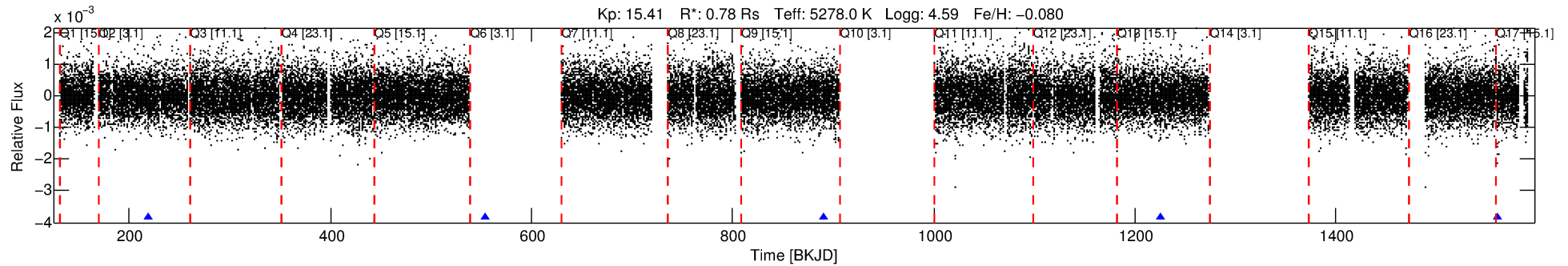
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005193550-01

No Significant Match Found

DV One-Page Summary

KIC: 5193550 Candidate: 1 of 1 Period: 335.570 d



DV Fit Results:

Period = 335.56969 [0.00524] d
Epoch = 218.7839 [0.0130] BKJD
Rp/R* = 0.0262 [0.0595]
a/R* = 410.33 [3499.85]
b = 0.59 [9.71]
Seff = 0.52 [0.12]
Teq = 216 [12] K
Rp = 2.22 [5.05] Re
a = 0.8983 [0.1184] AU
Ag = 58317.63 [265398.65] [0.22 σ]
Teffp = 5196 [5909] K [0.84 σ]

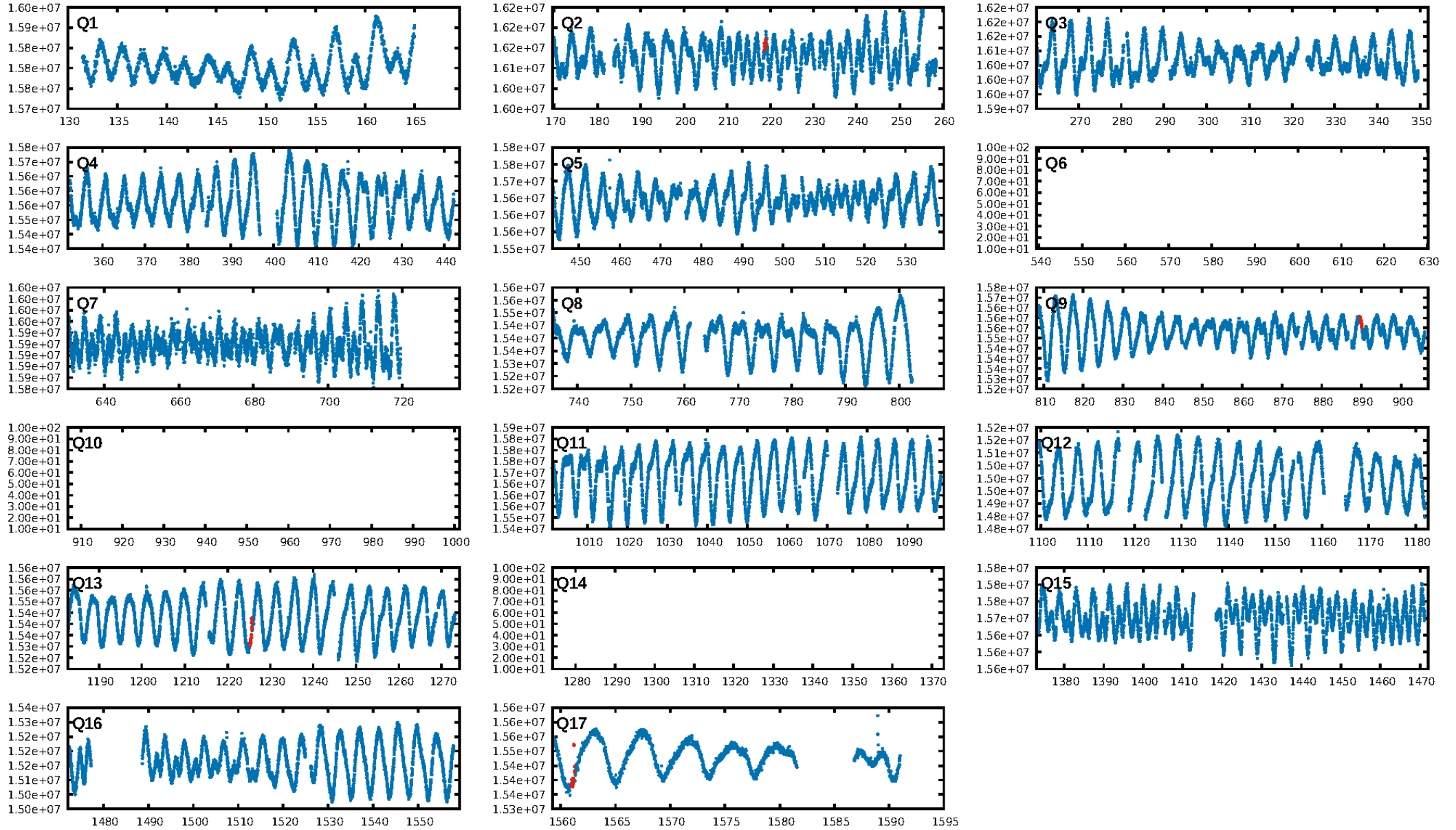
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.4%
ModelChiSquareGof-sig: 86.5%
Bootstrap-pfa: 1.39e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.053
Centroid-sig: 3.1%
Centroid-so: 3.360 arcsec [2.09 σ]
OotOffset-rm: 0.402 arcsec [1.03 σ]
KicOffset-rm: 0.267 arcsec [0.66 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

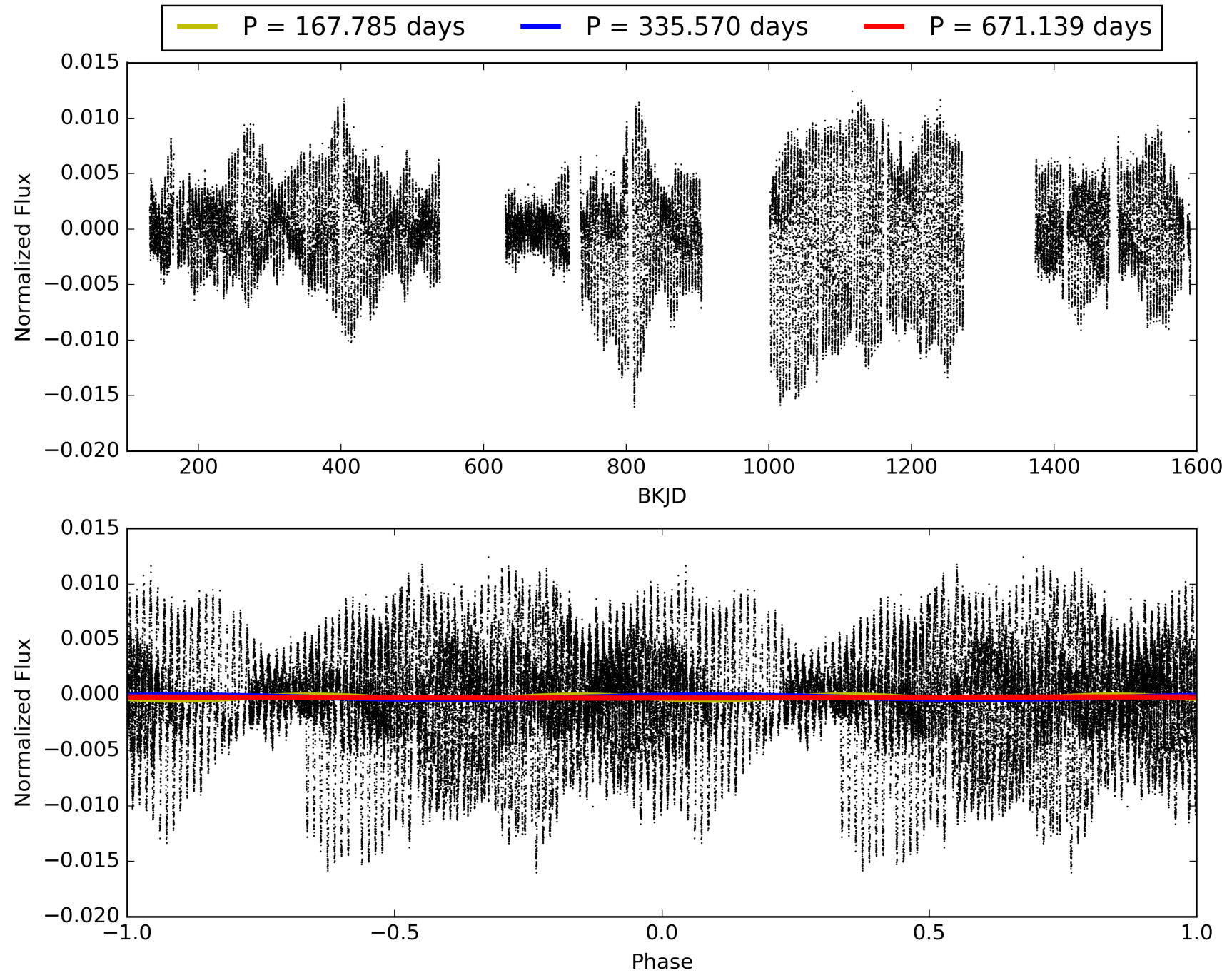
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:59:09 Z

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

TCE 005193550-01, PDC Light Curves

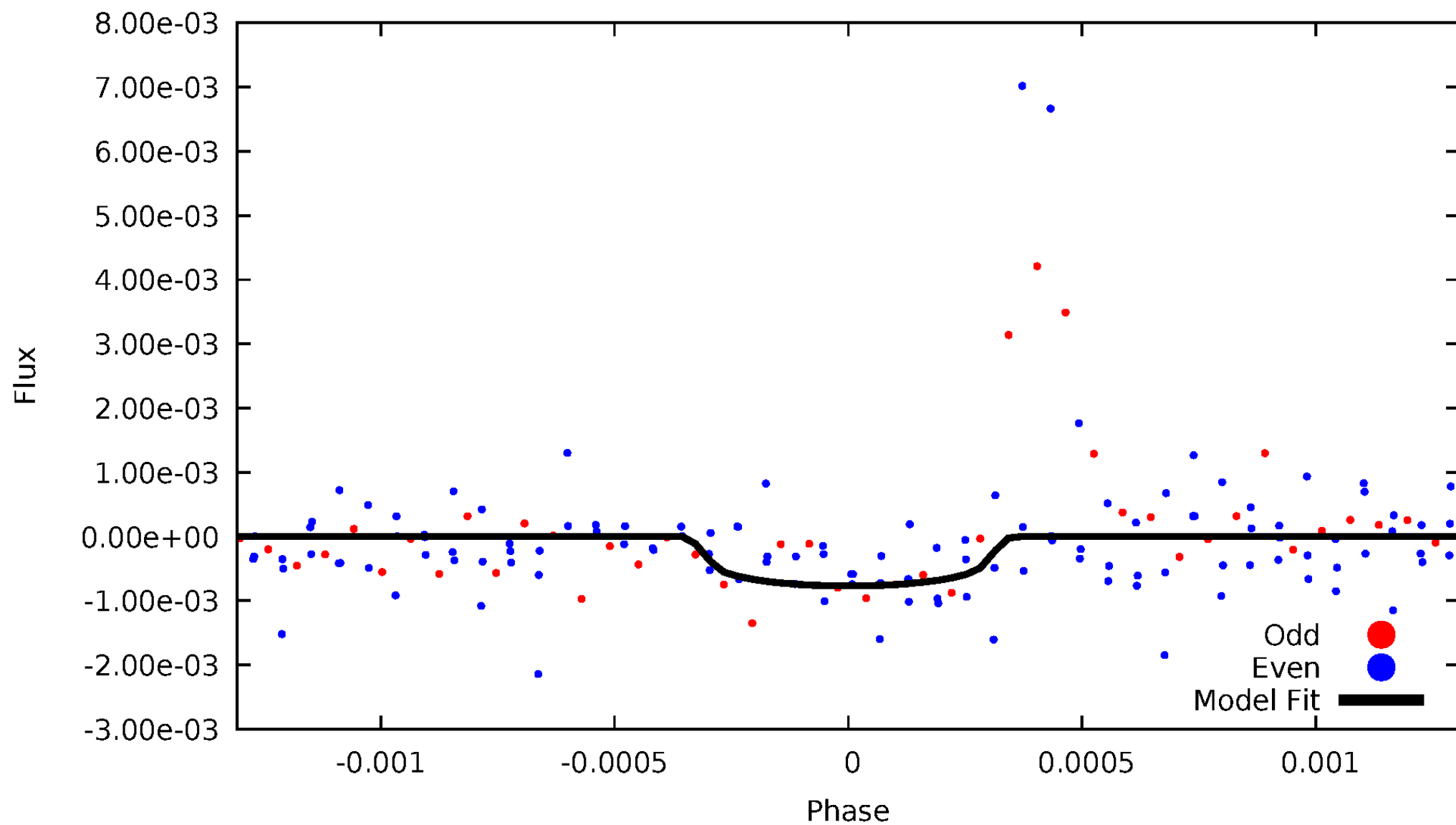


TCE 005193550-01



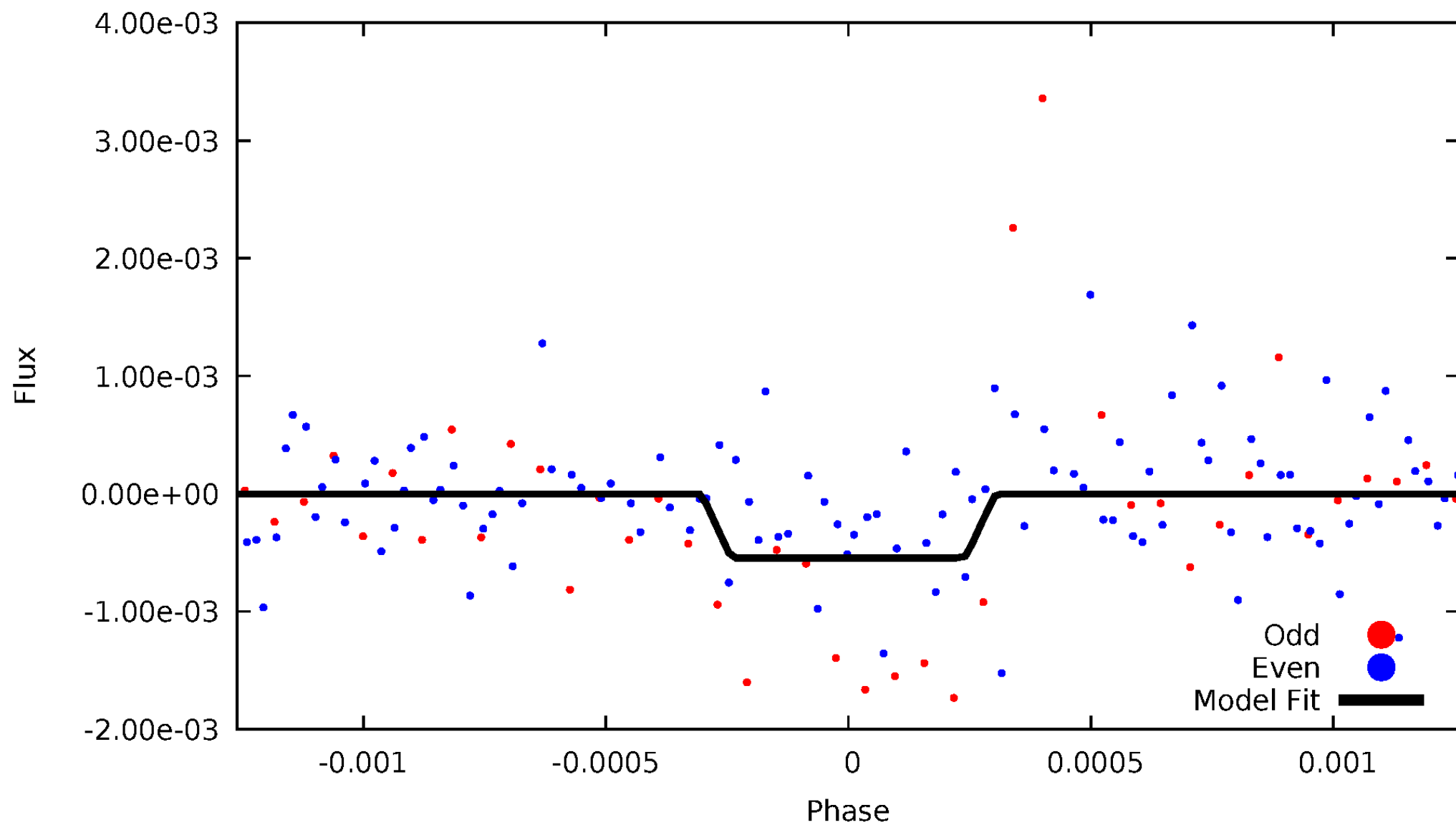
DV Odd/Even

TCE 005193550-01

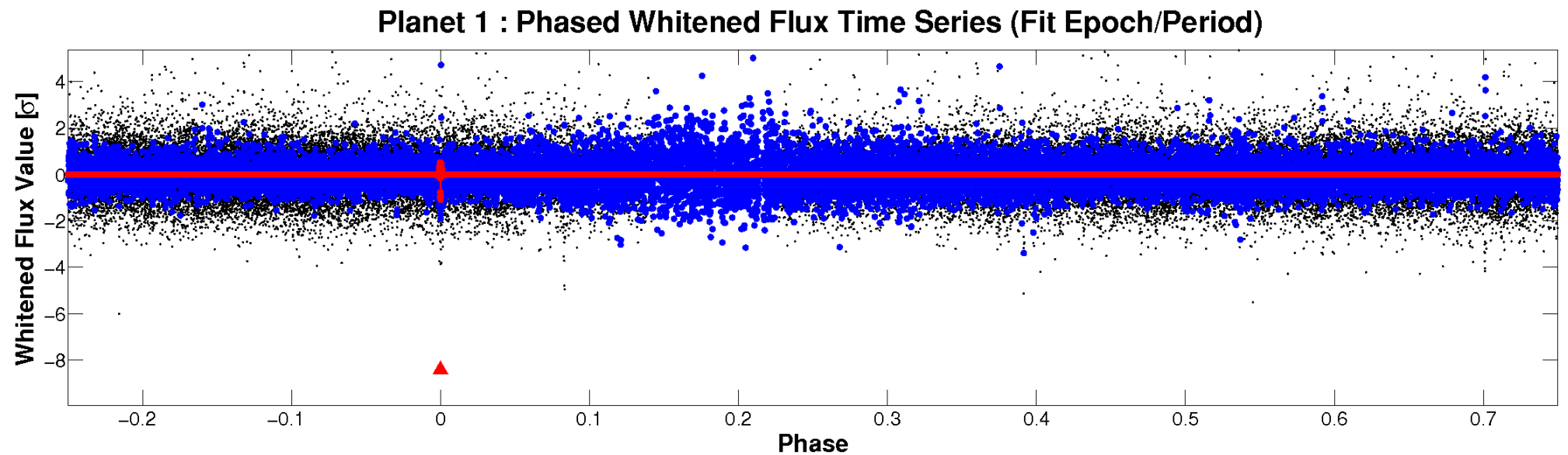
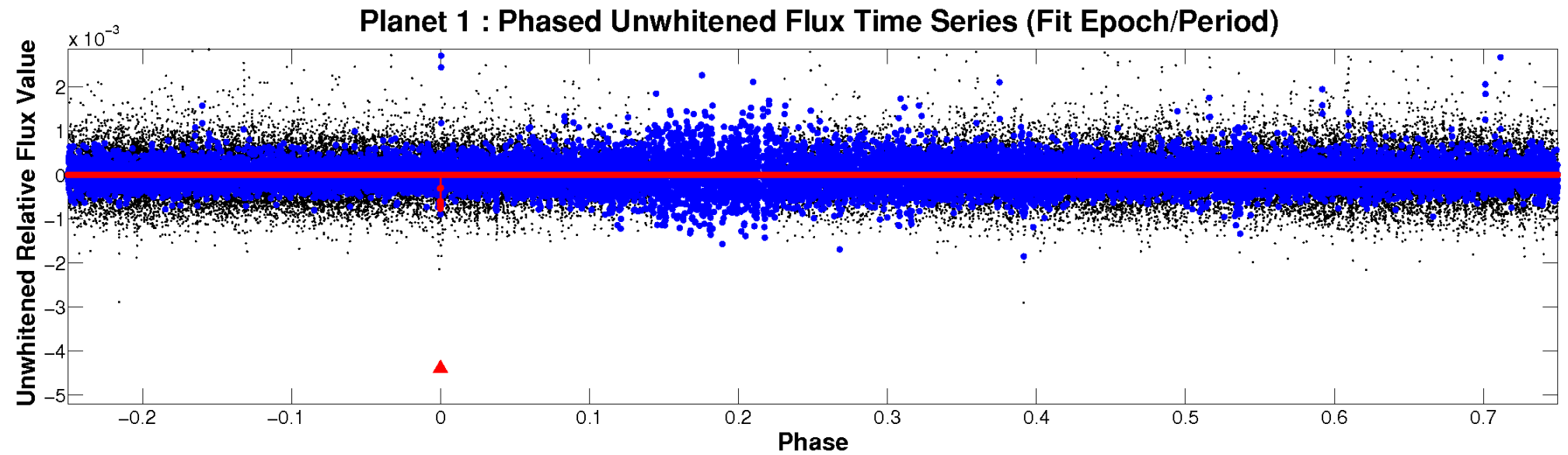


ALT Odd/Even

TCE 005193550-01

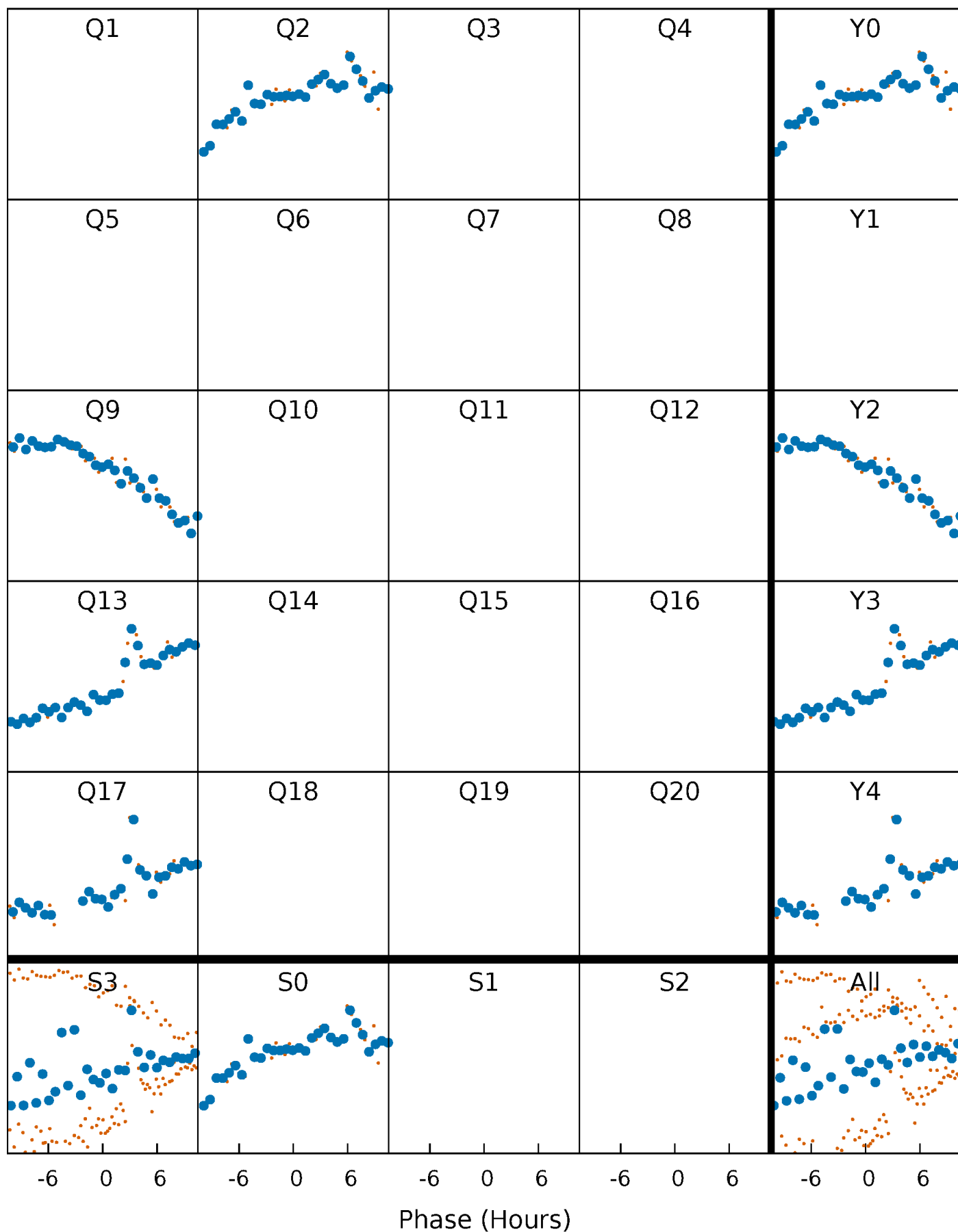


Non-Whitened Vs. Whitened Light Curve



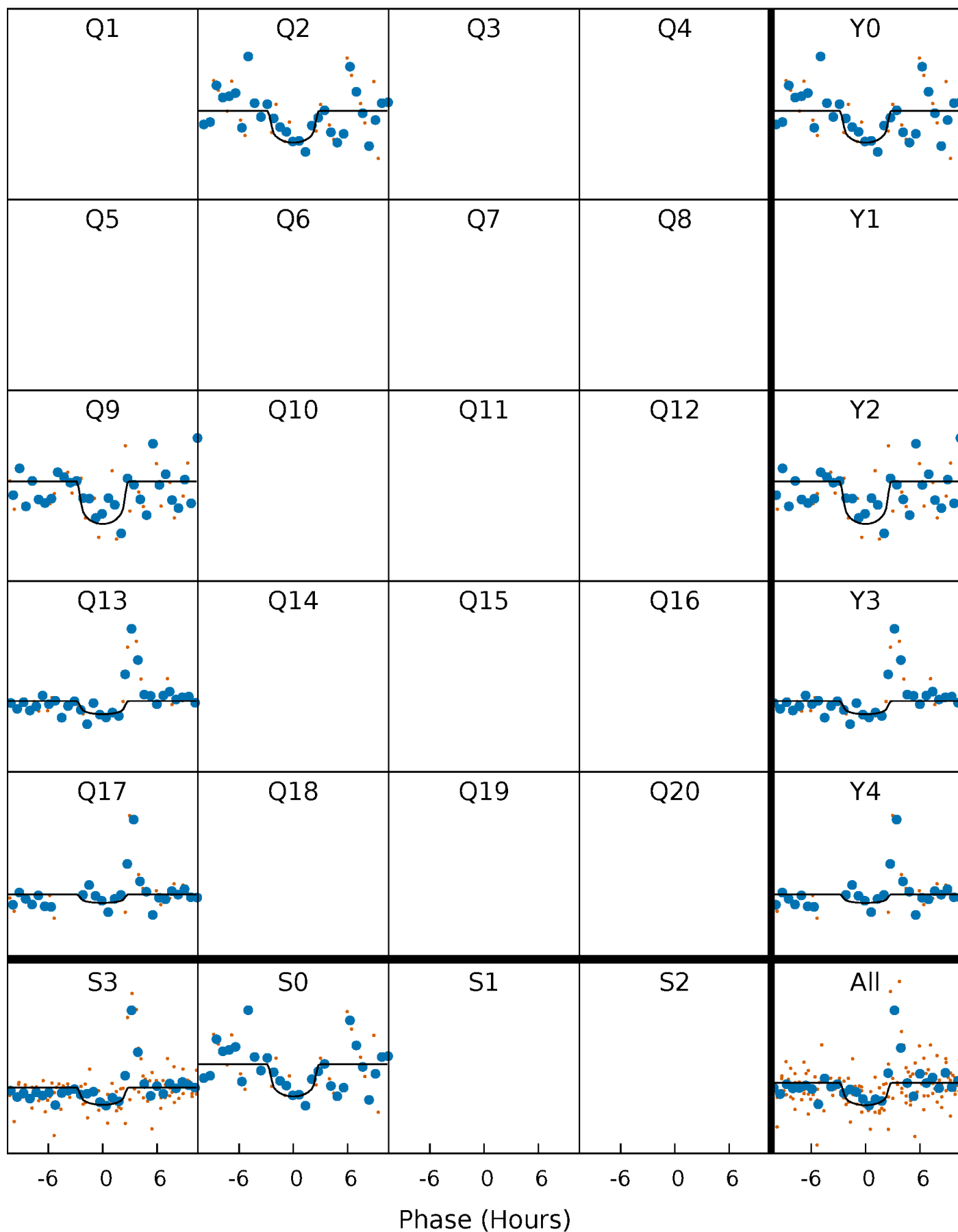
PDC Quarter-Phased Transit Curves

TCE 005193550-01 P=335.569693 Days $T_0=218.783889$ (BKJD)



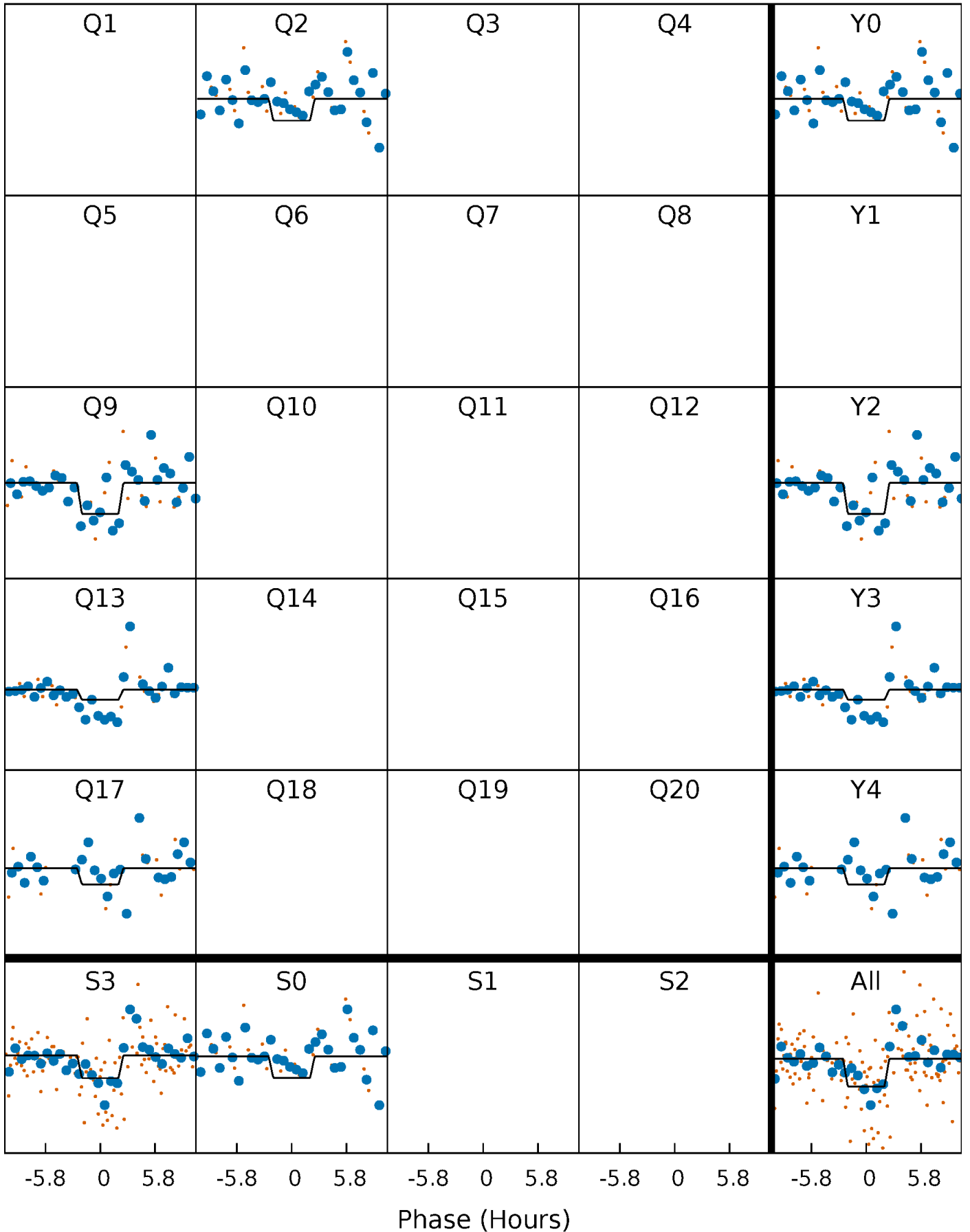
DV Quarter-Phased Transit Curves

TCE 005193550-01 P=335.569693 Days $T_0=218.783889$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

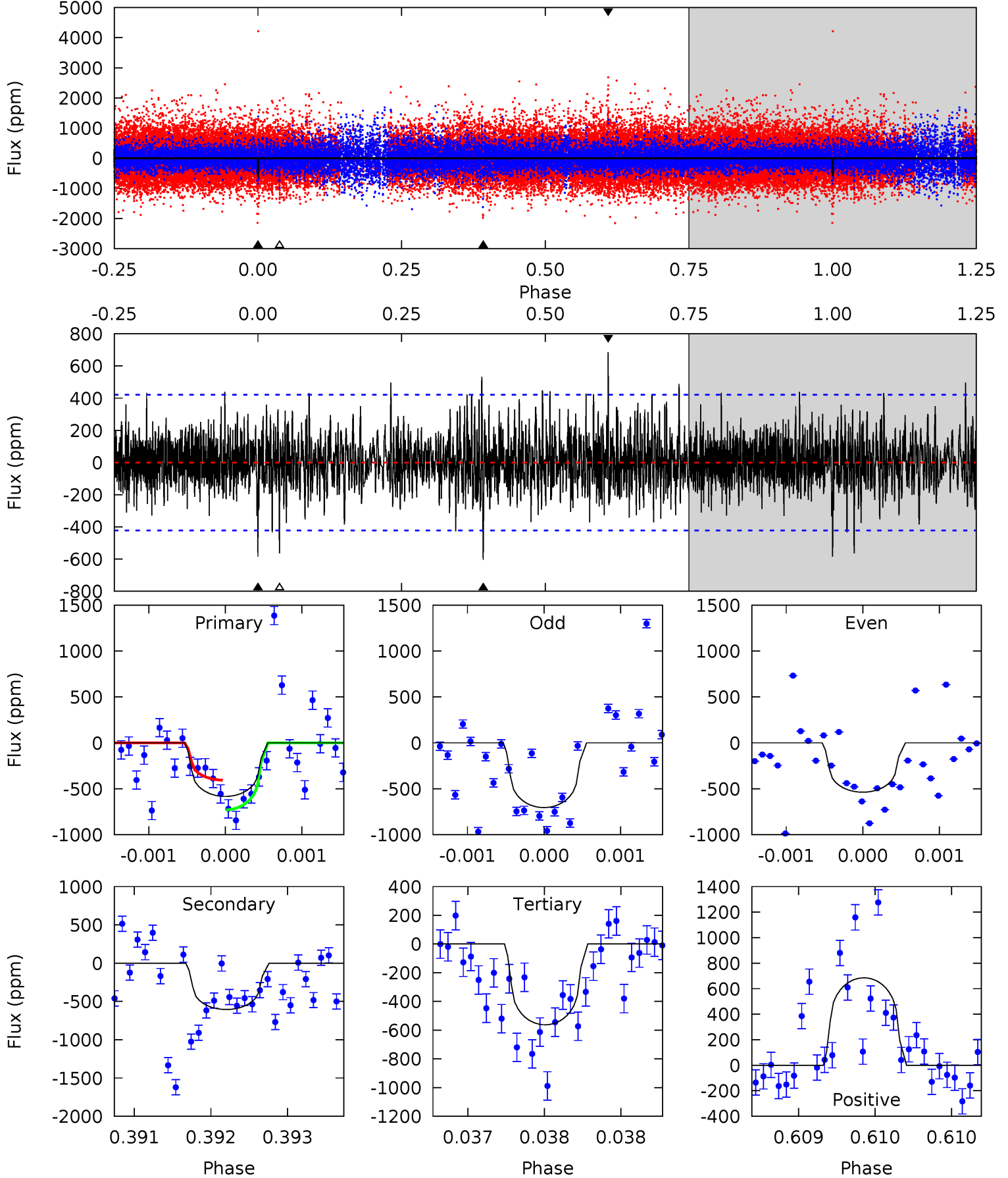
TCE 005193550-01 P=335.566733 Days $T_0=218.793931$ (BKJD)



DV Model-Shift Uniqueness Test

005193550-01, P = 335.569693 Days, E = 218.783889 Days

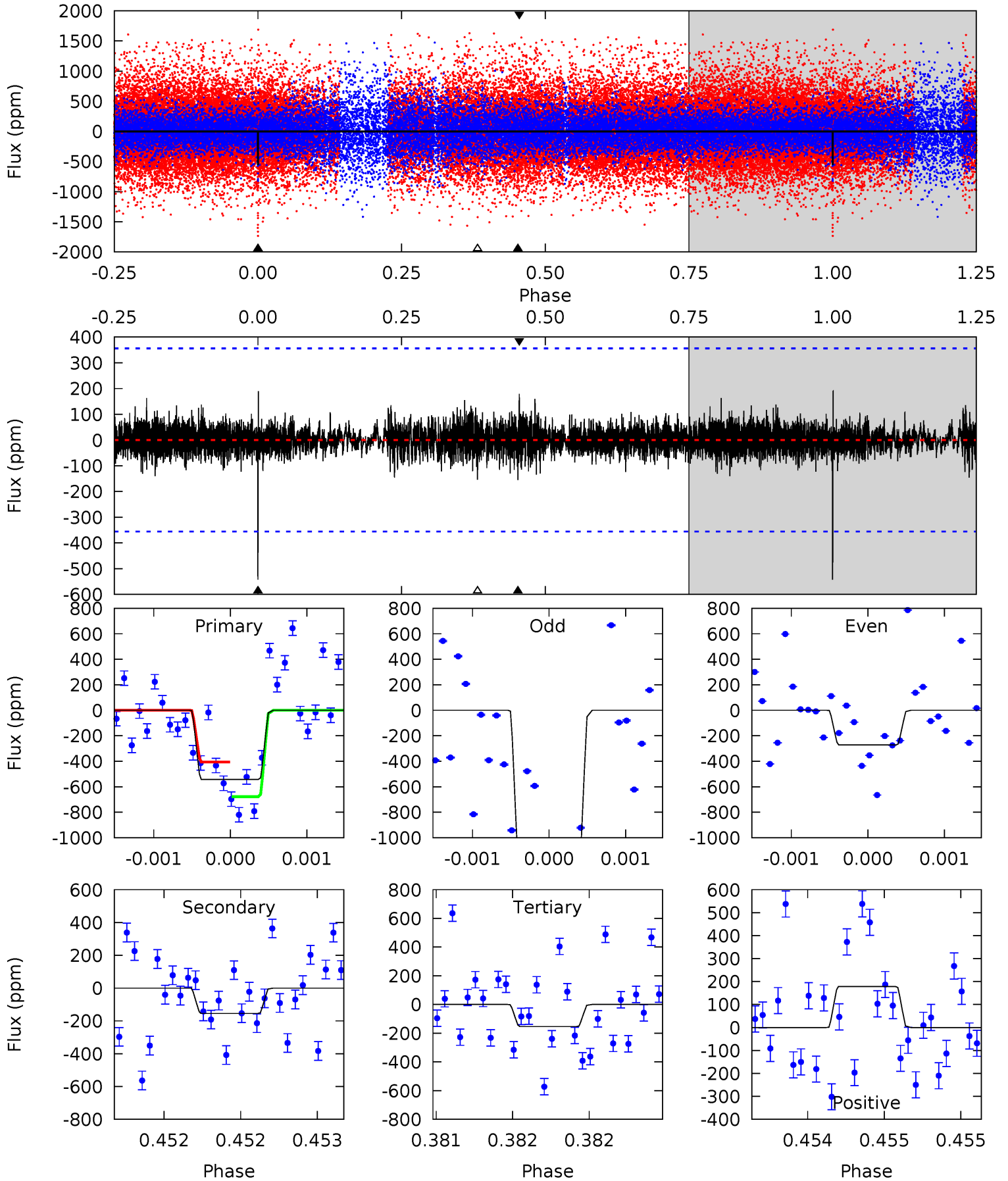
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.64	7.92	7.37	8.97	5.52	3.40	1.73	0.28	-1.33	0.56	-1.05	0.93	0.97	0.53	2.11



Alt Model-Shift Uniqueness Test

005193550-01, P = 335.566733 Days, E = 218.793931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.46	2.41	2.40	2.78	5.54	3.43	0.57	6.06	5.68	0.01	-0.37	7.27	1.62	0.26	2.11



Stellar Parameters For KIC 005193550

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5278^{+158}_{-158}	$4.593^{+0.032}_{-0.104}$	$-0.080^{+0.300}_{-0.300}$	$0.775^{+0.122}_{-0.066}$	$0.866^{+0.069}_{-0.095}$	$2.619^{+0.478}_{-0.850}$
	+3%/-3%	+1%/-2%	+375%/-375%	+16%/-9%	+8%/-11%	+18%/-32%
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 005193550-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-605 ± 76	$4.40^{+4.08}_{-3.01}$	307^{+13}_{-12}	3987^{+2563}_{-790}	$13568^{+126089}_{-10068}$
Alt.	-155 ± 64	$4.29^{+4.11}_{-2.80}$	307^{+14}_{-12}	3203^{+1359}_{-599}	3467^{+25493}_{-2648}

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

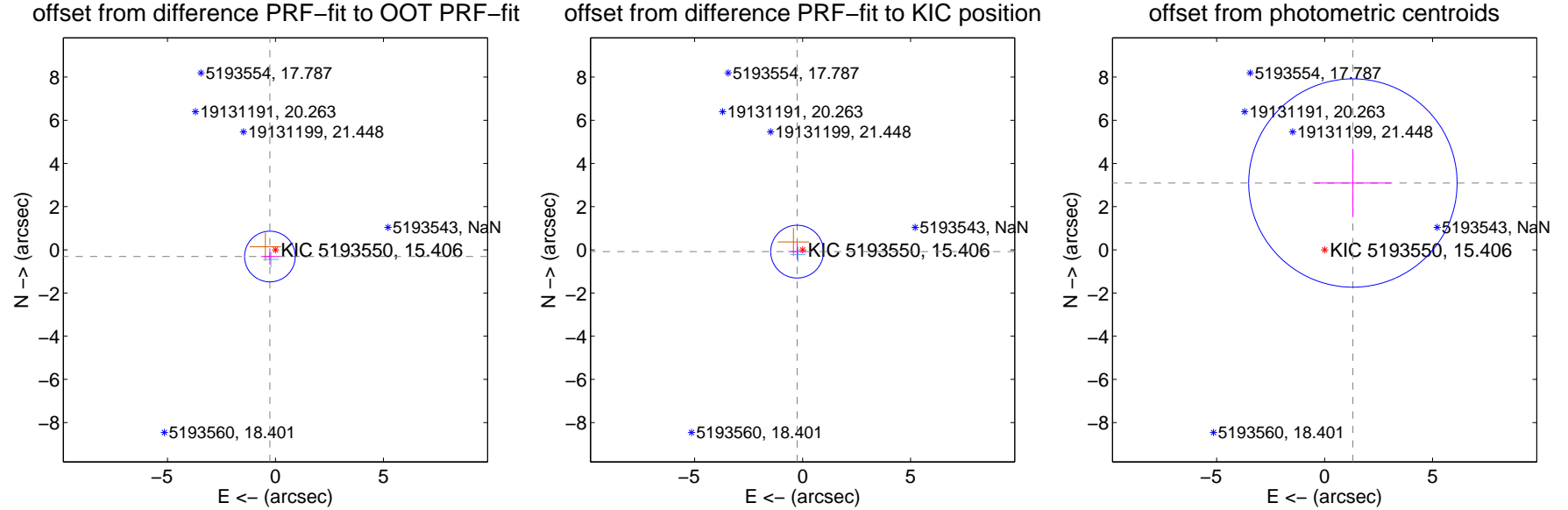
DV Centroid Data

Supplemental centroid analysis for 005193550-01. Kepler magnitude: 15.41. Transit SNR 6.26

There are 1 quarters with good PRF difference image offsets

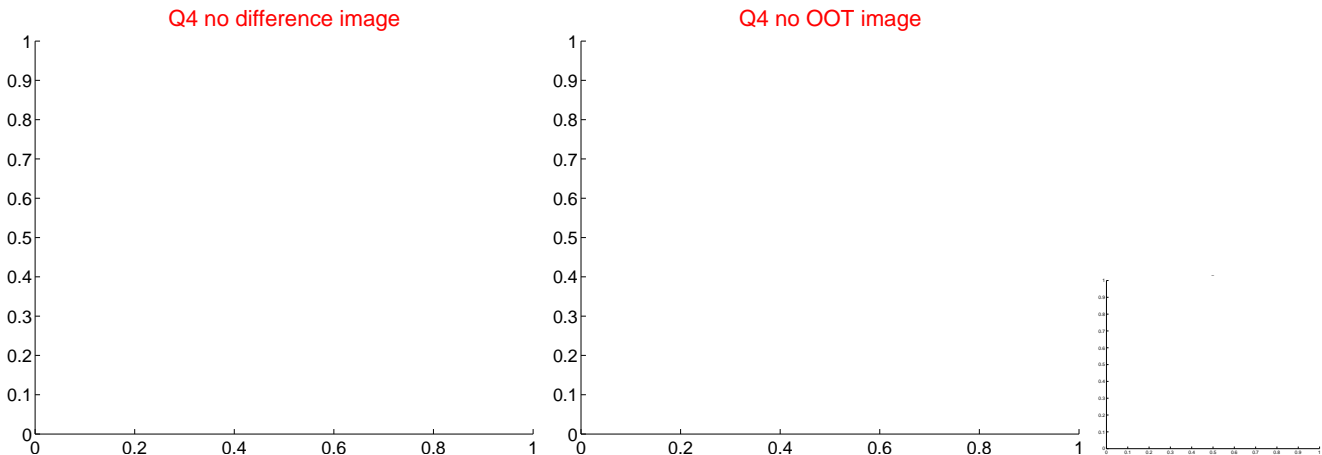
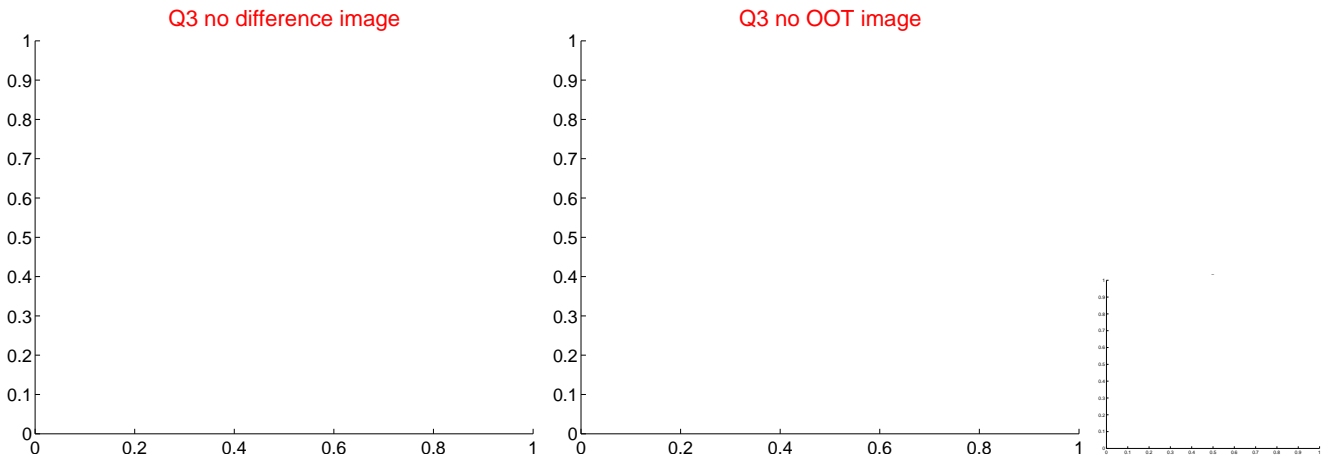
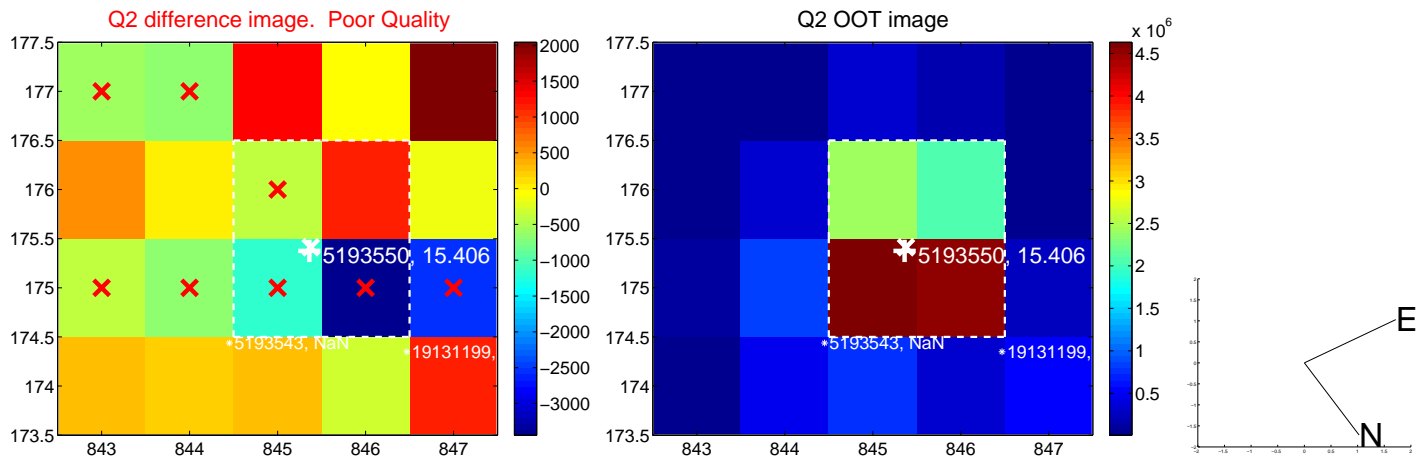
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.402 ± 0.391	1.03	0.256 ± 0.411	-0.310 ± 0.377
PRF-fit source offset from KIC position	0.267 ± 0.407	0.66	0.254 ± 0.411	-0.083 ± 0.377
photometric centroid source offset	3.36 ± 1.61	2.09	-1.31 ± 1.77	3.09 ± 1.58



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.

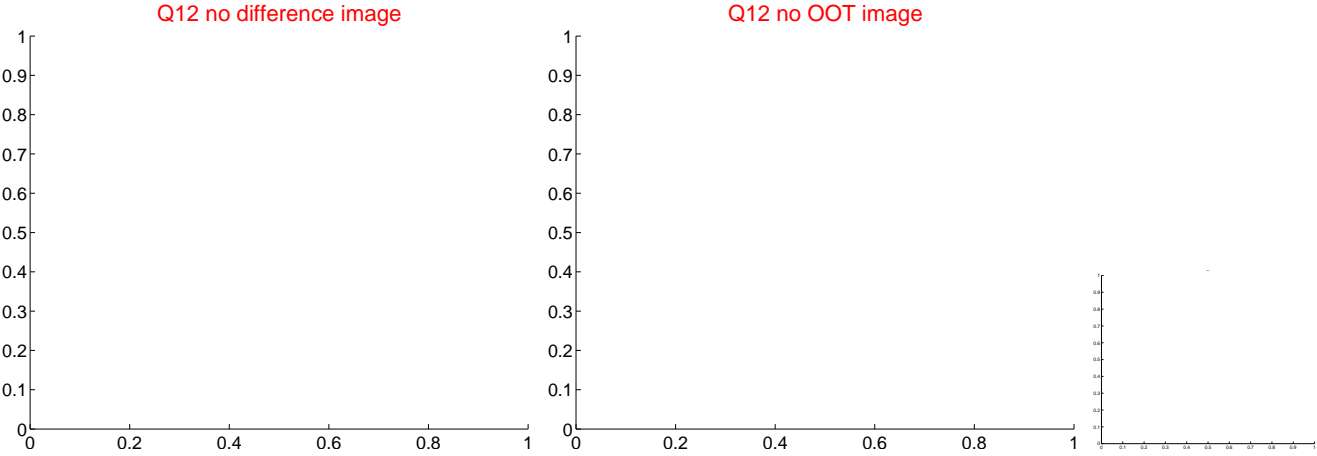
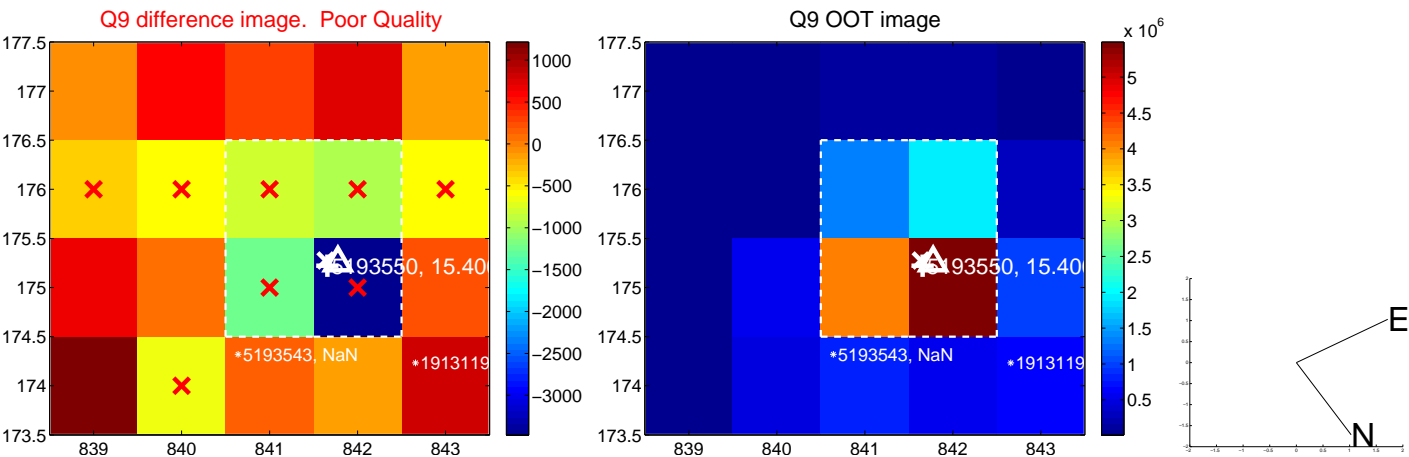
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



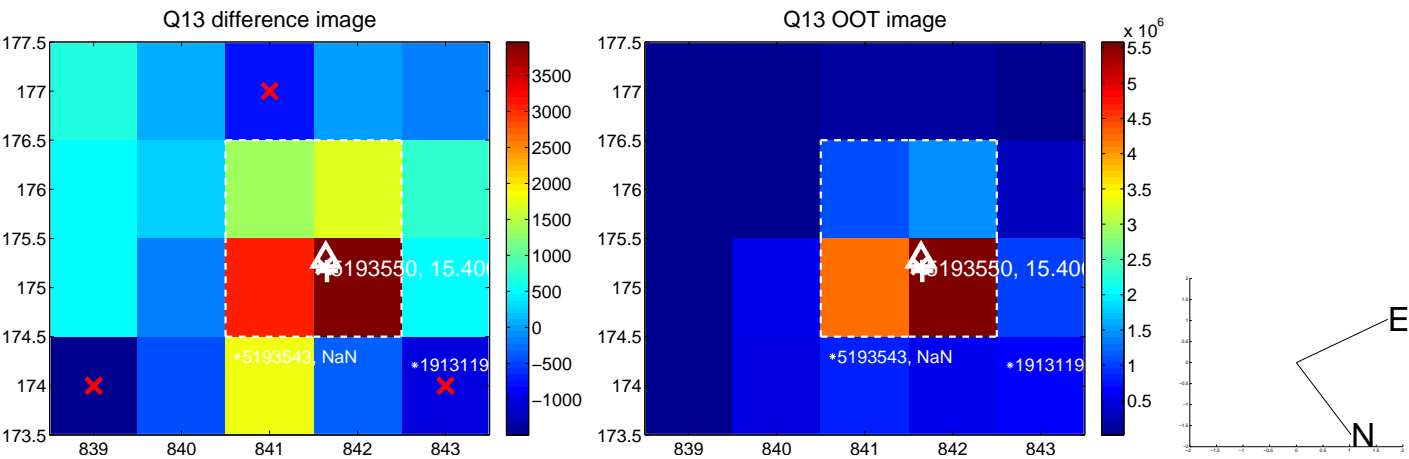
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



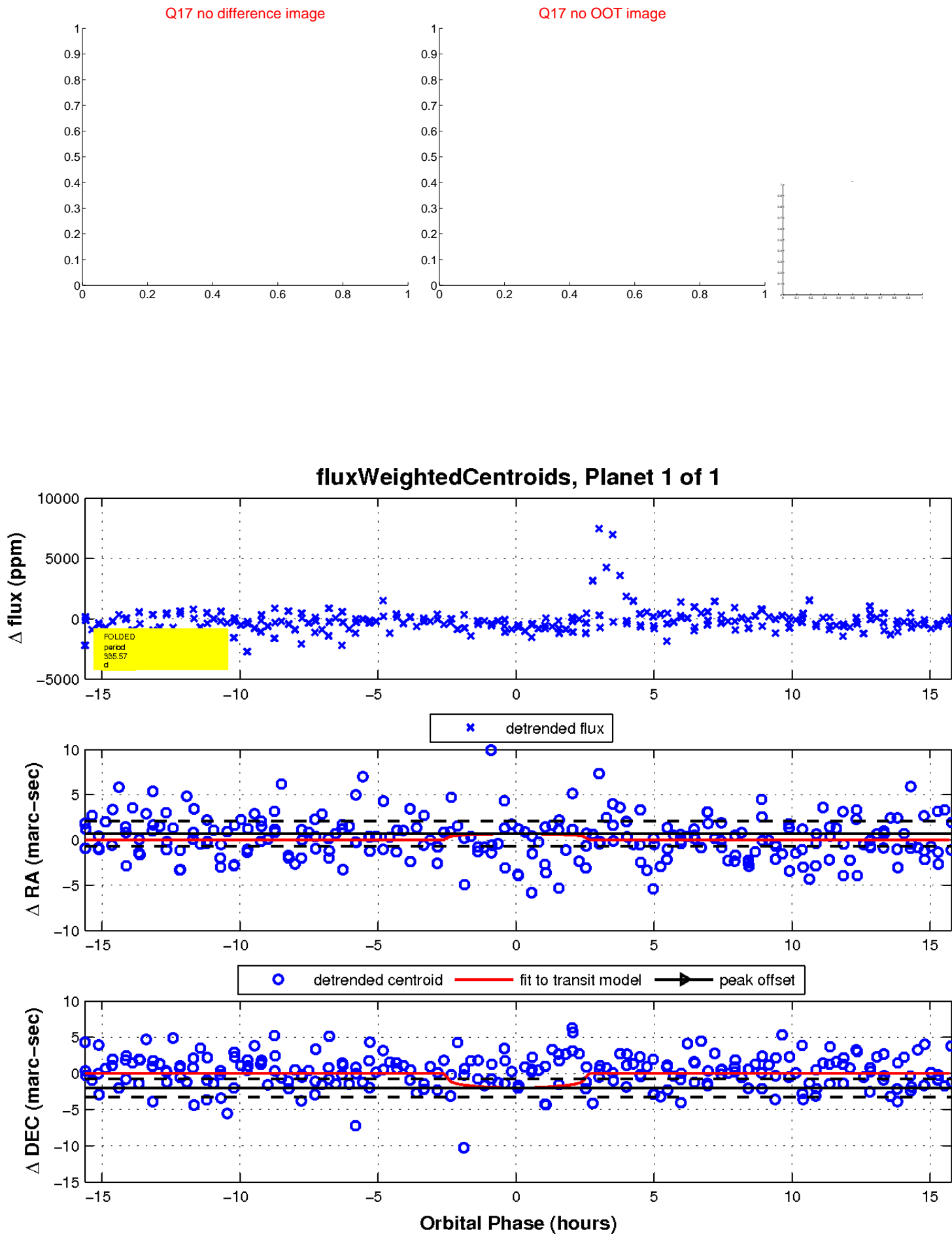
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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

