

KIC 011350350

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})
011350350-01	OBS	No	290.469809	226.951281	3012.3	2.021	12.8	8.9	0.69	4216	3.86	0.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011350350-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

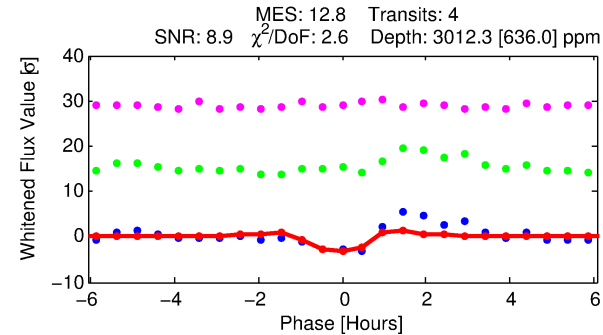
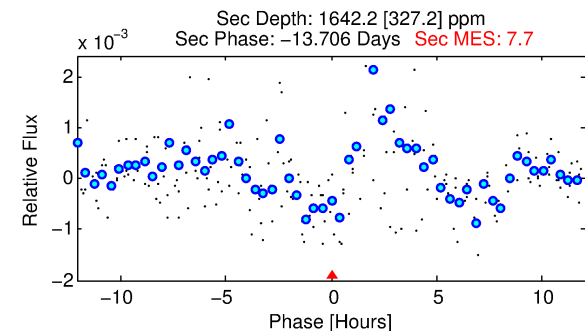
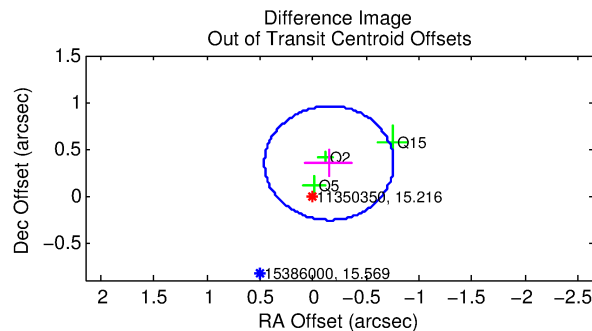
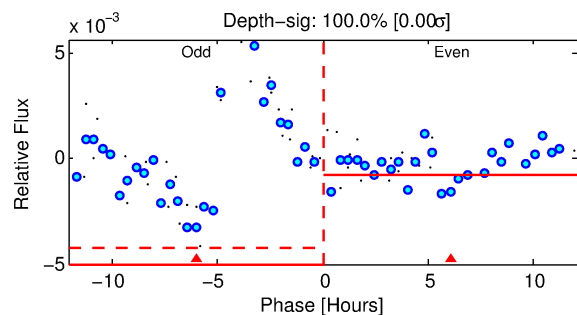
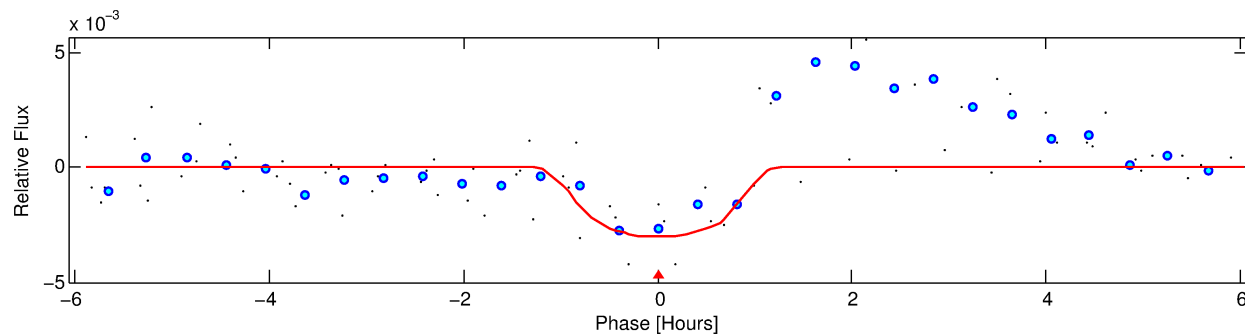
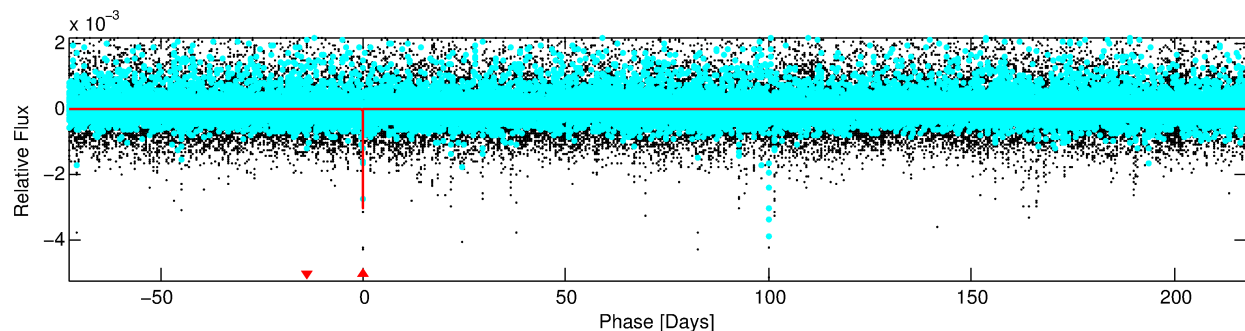
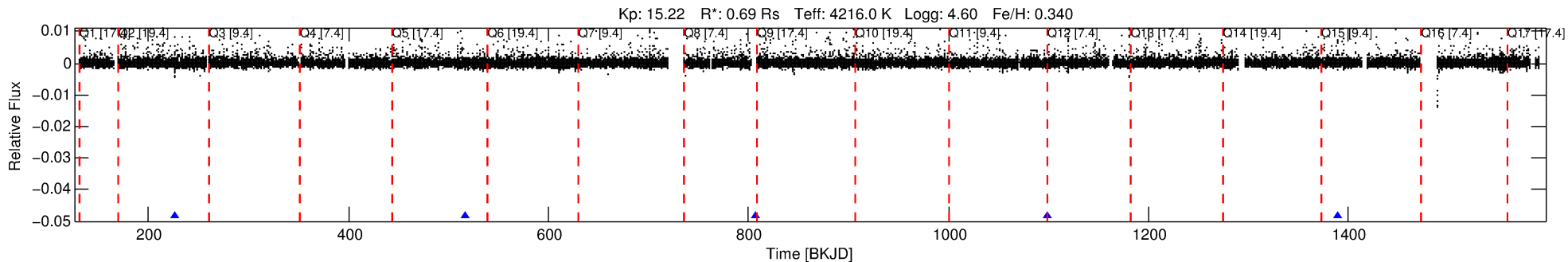
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011350350-01

No Significant Match Found

DV One-Page Summary

KIC: 11350350 Candidate: 1 of 1 Period: 290.470 d



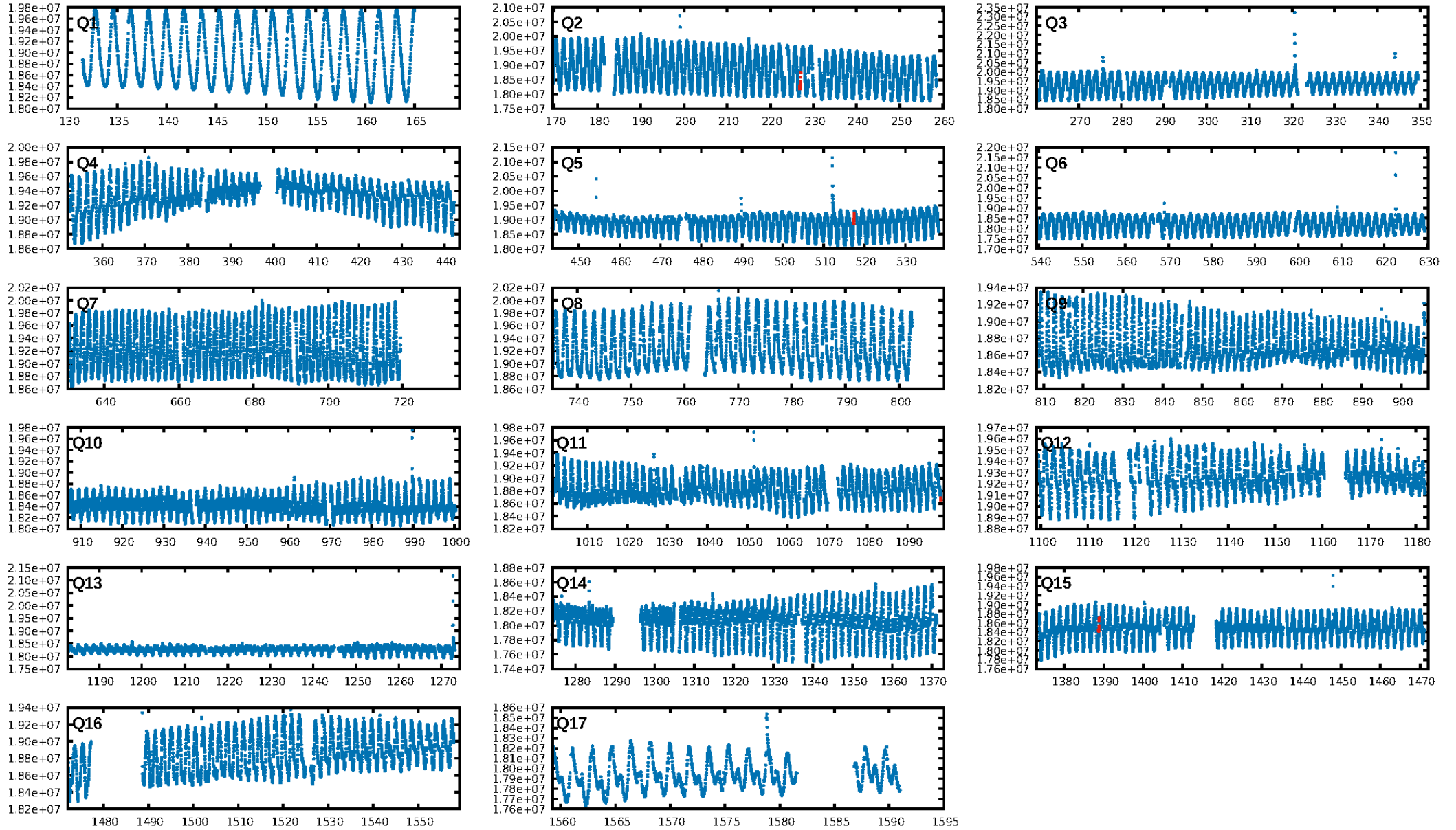
DV Fit Results:

Period = 290.46981 [0.00232] d
Epoch = 226.9513 [0.0065] BKJD
Rp/R* = 0.0515 [0.1347]
a/R* = 963.20 [7040.97]
b = 0.58 [8.69]
Seff = 0.23 [0.04]
Teff = 177 [8] K
Rp = 3.86 [10.10] Re
a = 0.7570 [0.0584] AU
Ag = 34728.62 [181803.02] [0.19σ]
Teffp = 3740 [4896] K [0.73σ]

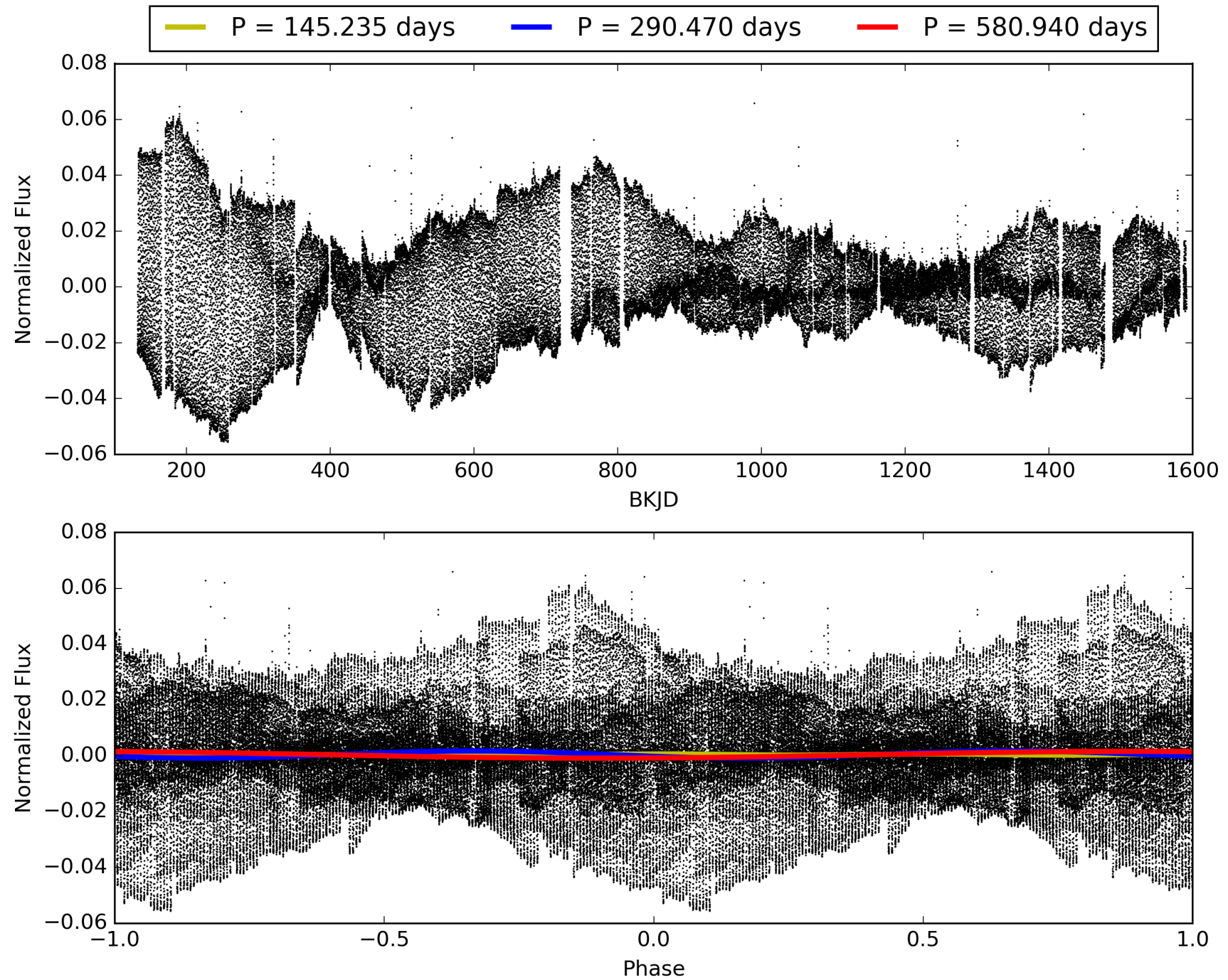
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.4%
Bootstrap-pfa: 1.32e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 0.4651
Centroid-sig: 43.4%
Centroid-so: 0.906 arcsec [0.99σ]
OotOffset-rm: 0.379 arcsec [1.87σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-rm: 0.537 arcsec [5.10σ]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011350350-01, PDC Light Curves

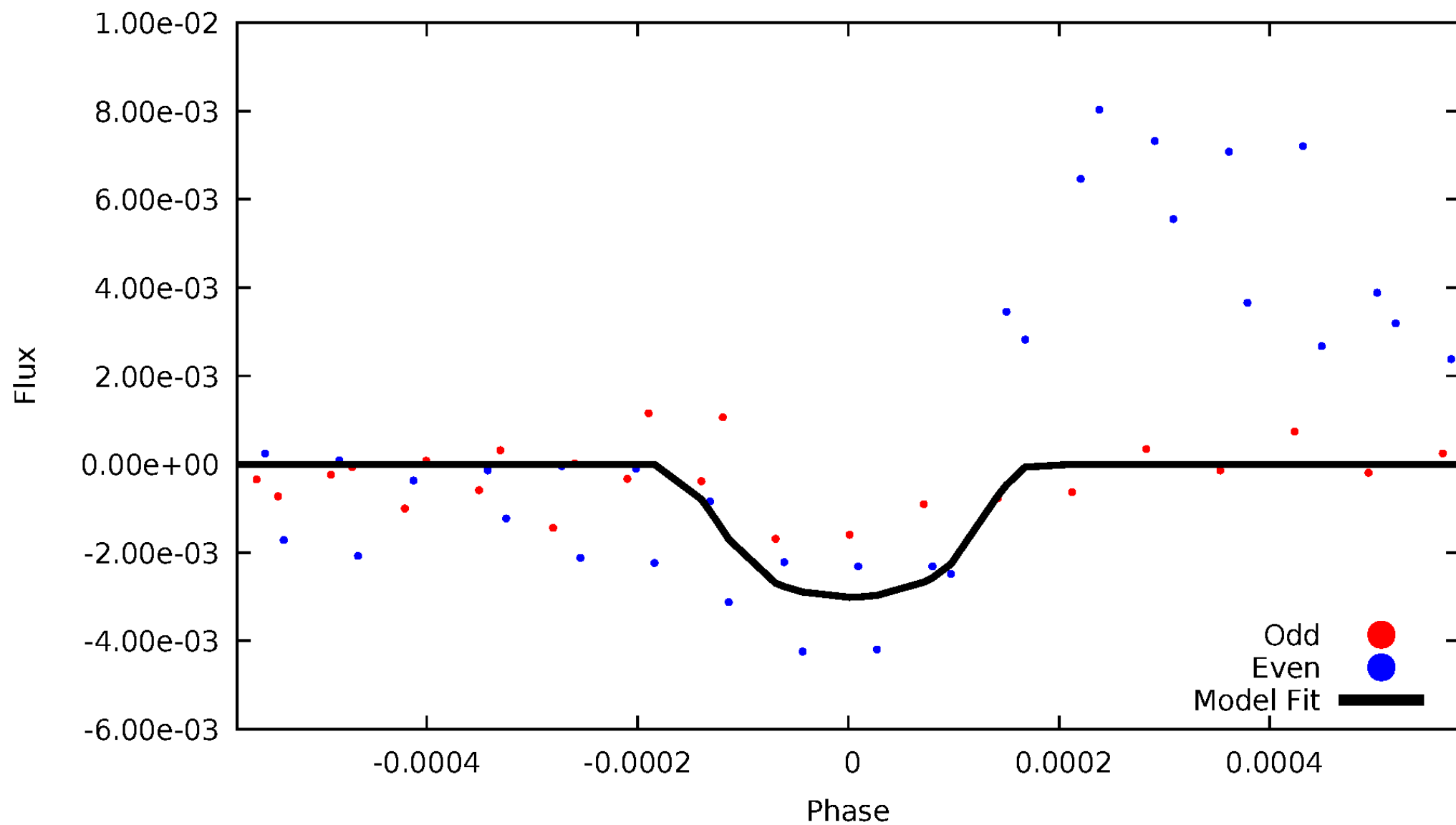


TCE 011350350-01



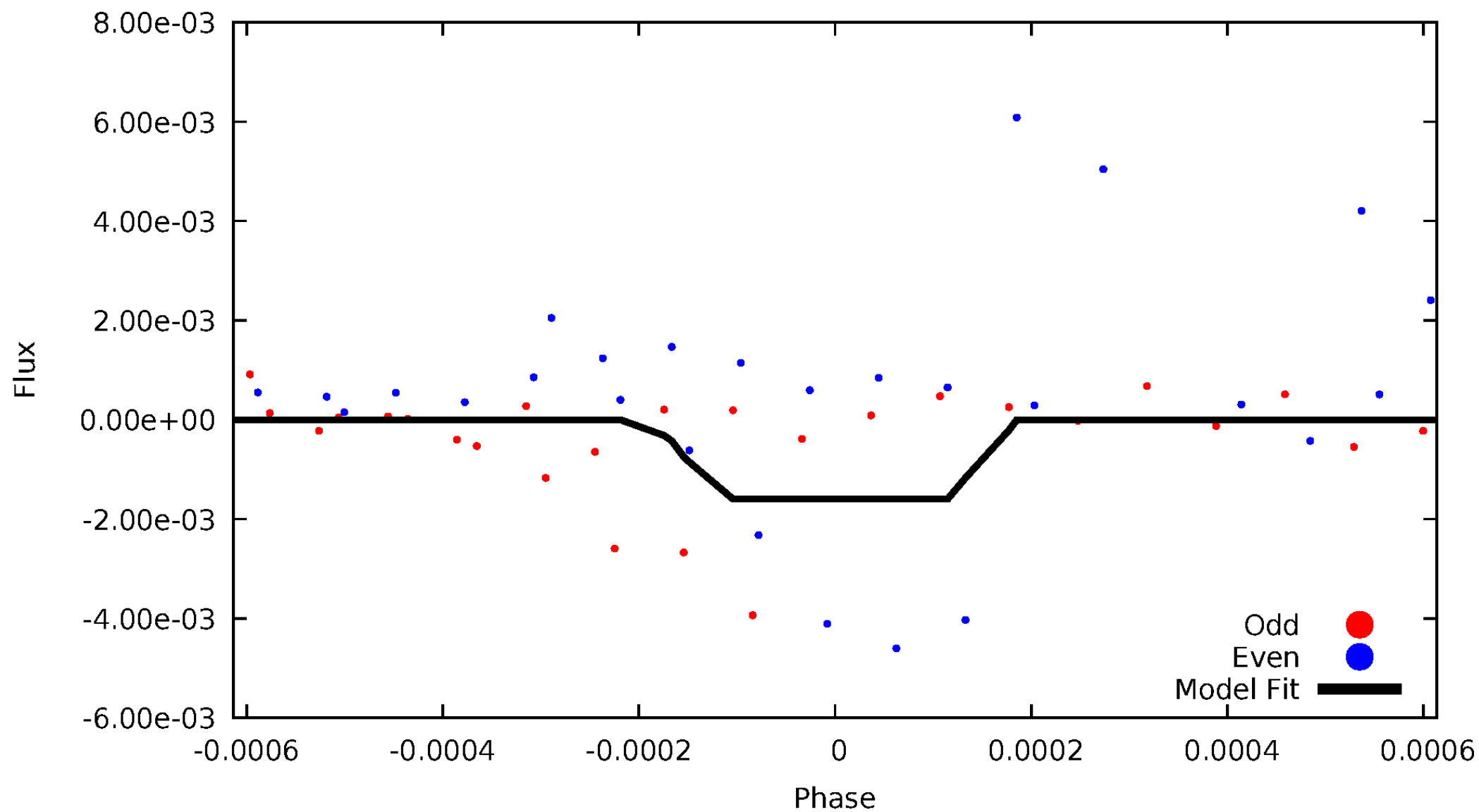
DV Odd/Even

TCE 011350350-01



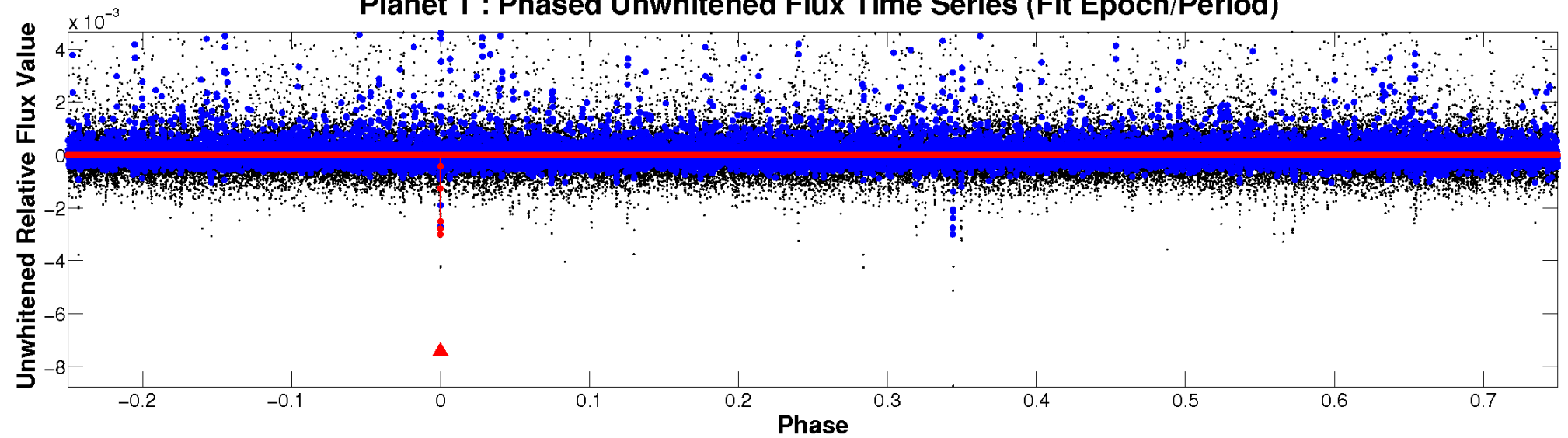
ALT Odd/Even

TCE 011350350-01

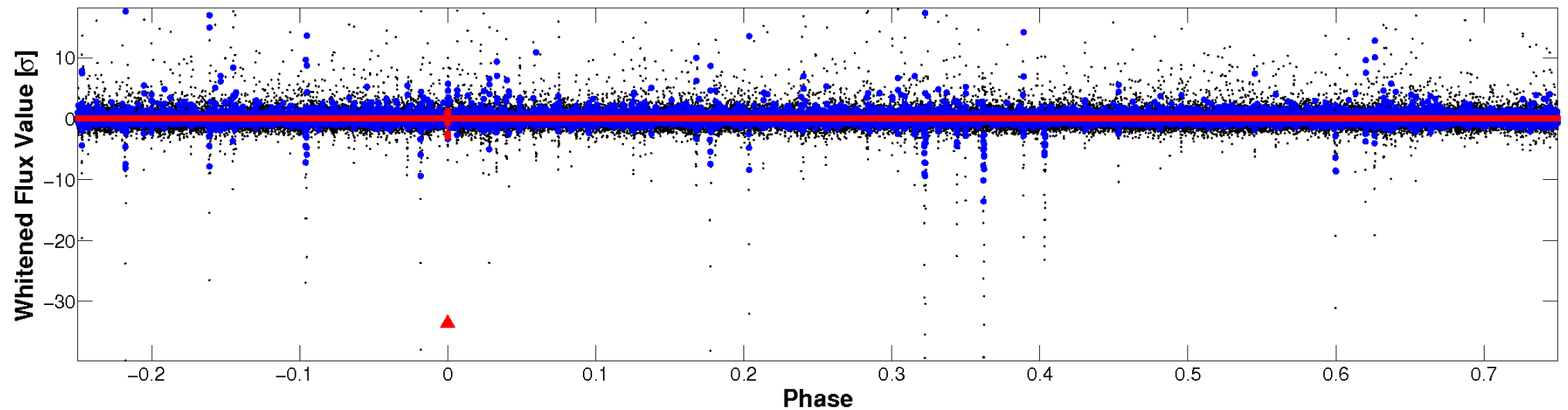


Non-Whitened Vs. Whitened Light Curve

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

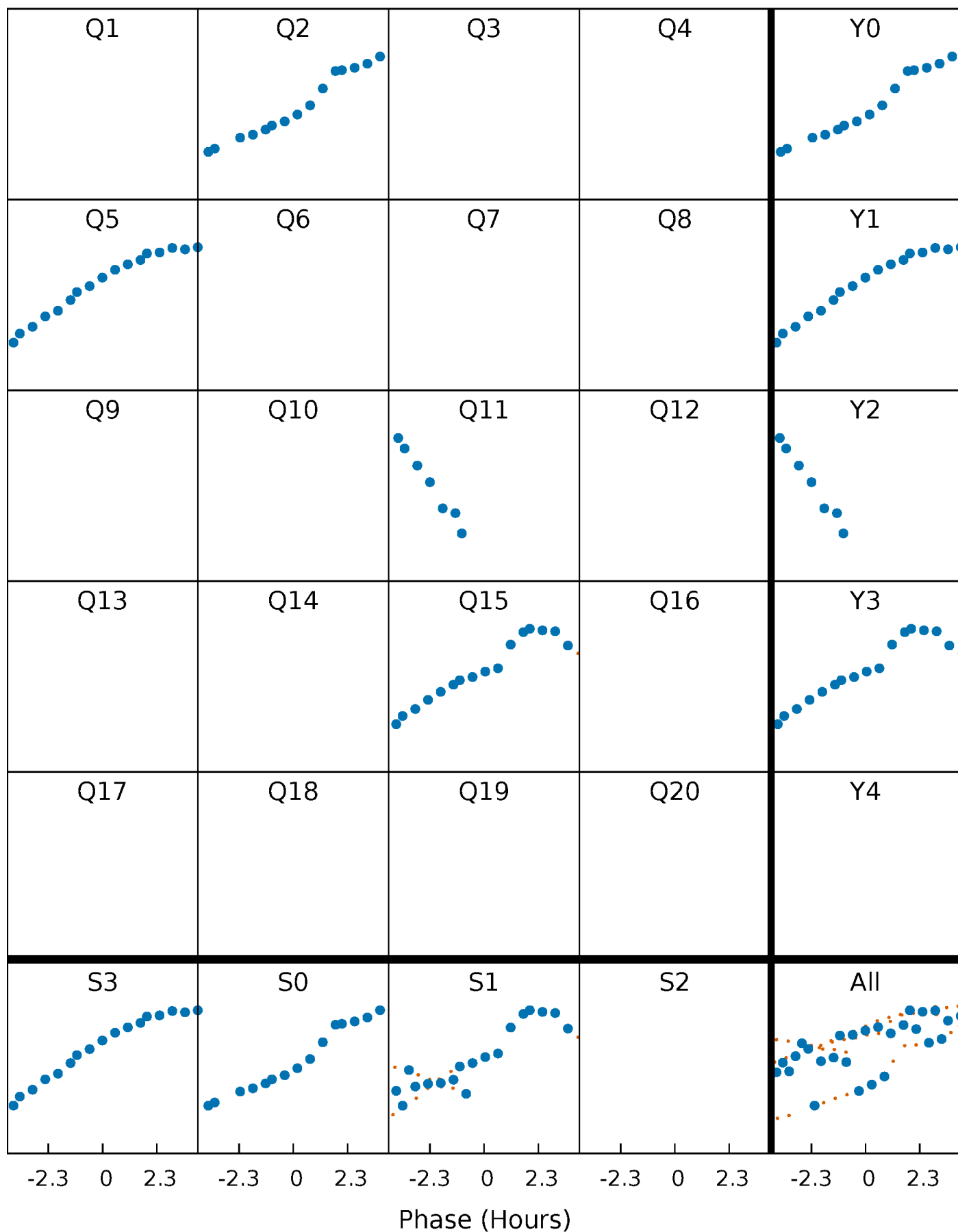


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



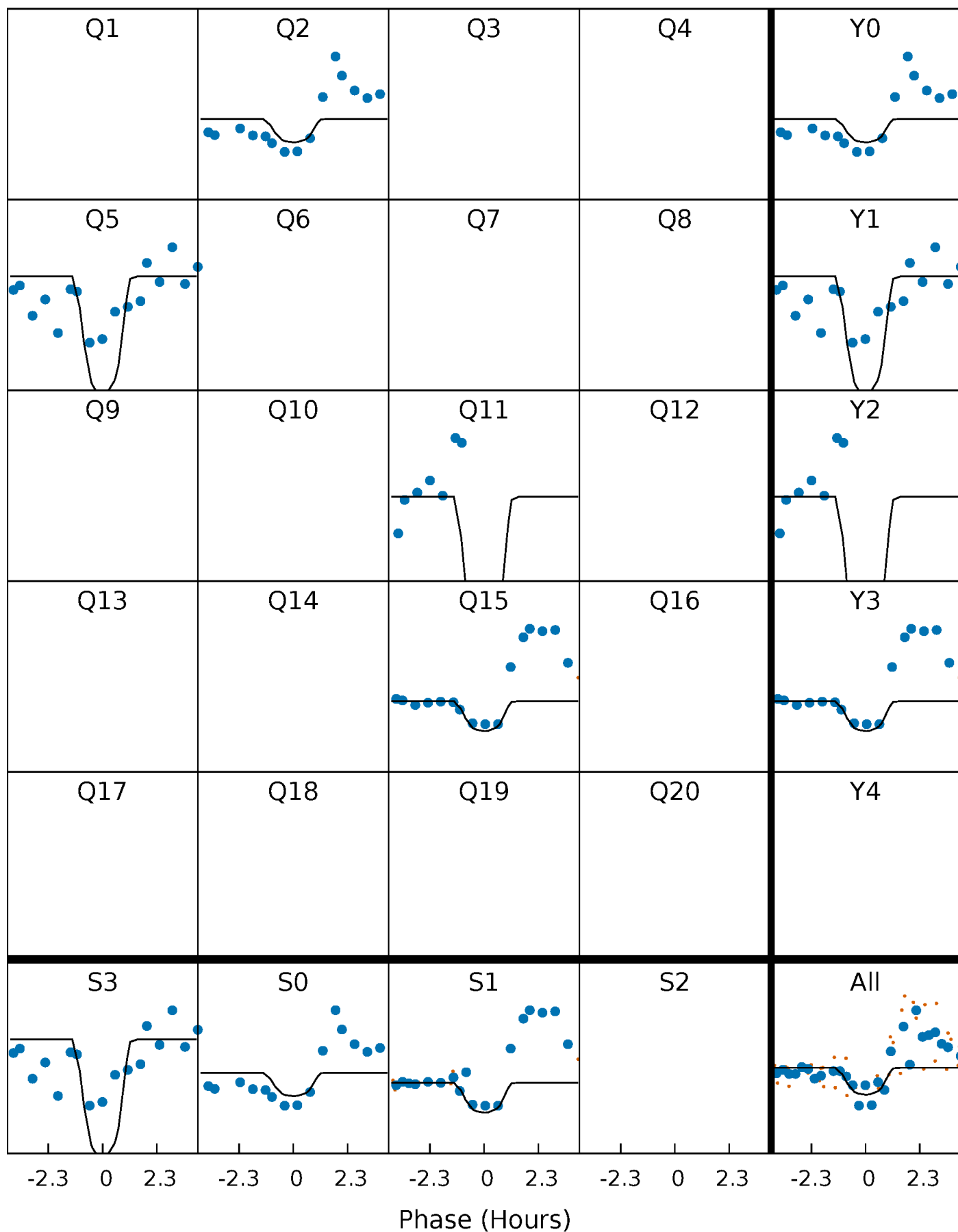
PDC Quarter-Phased Transit Curves

TCE 011350350-01 P=290.469809 Days $T_0=226.951281$ (BKJD)



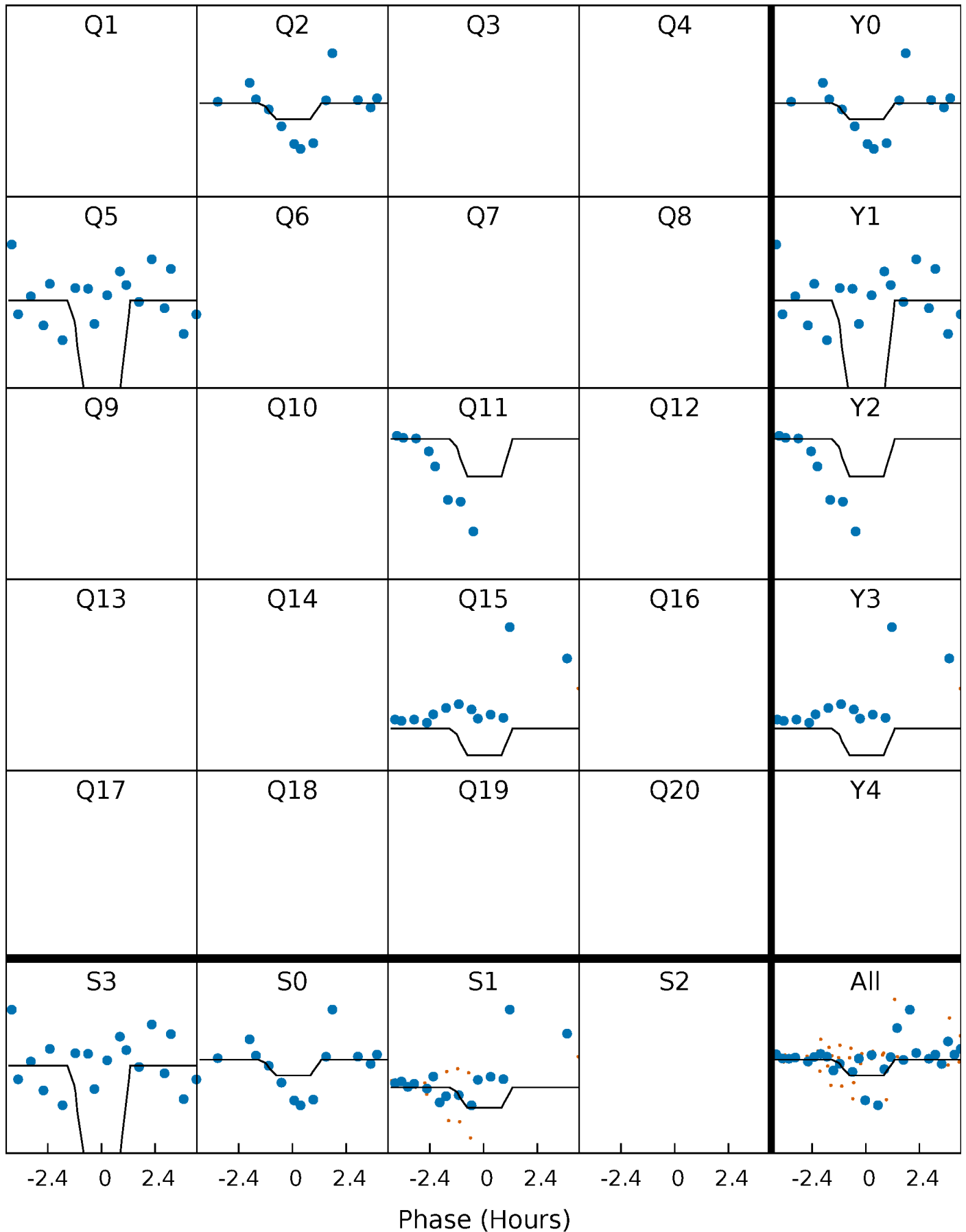
DV Quarter-Phased Transit Curves

TCE 011350350-01 P=290.469809 Days $T_0=226.951281$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

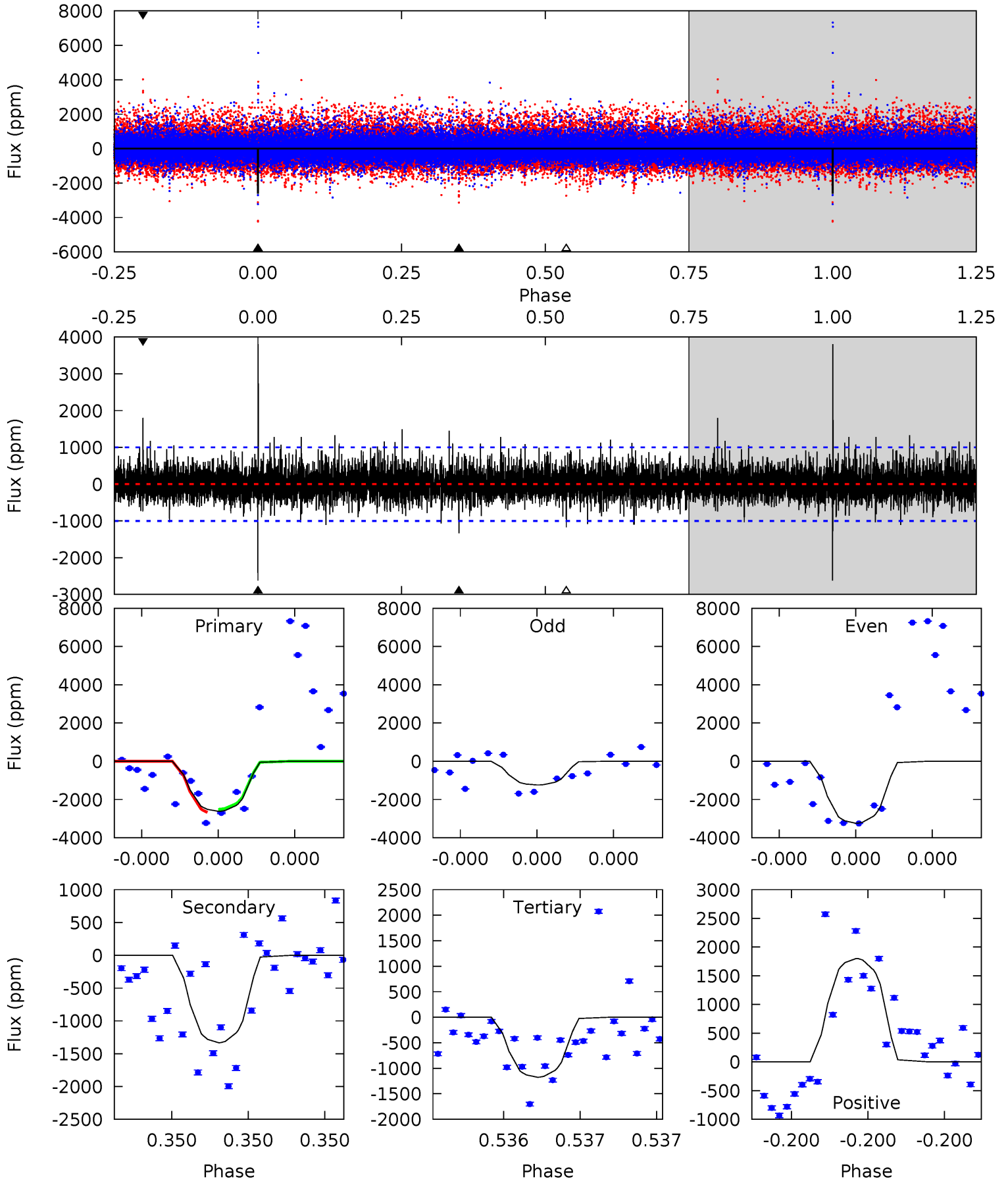
TCE 011350350-01 P=290.469836 Days $T_0=226.940980$ (BKJD)



DV Model-Shift Uniqueness Test

011350350-01, P = 290.469809 Days, E = 226.951281 Days

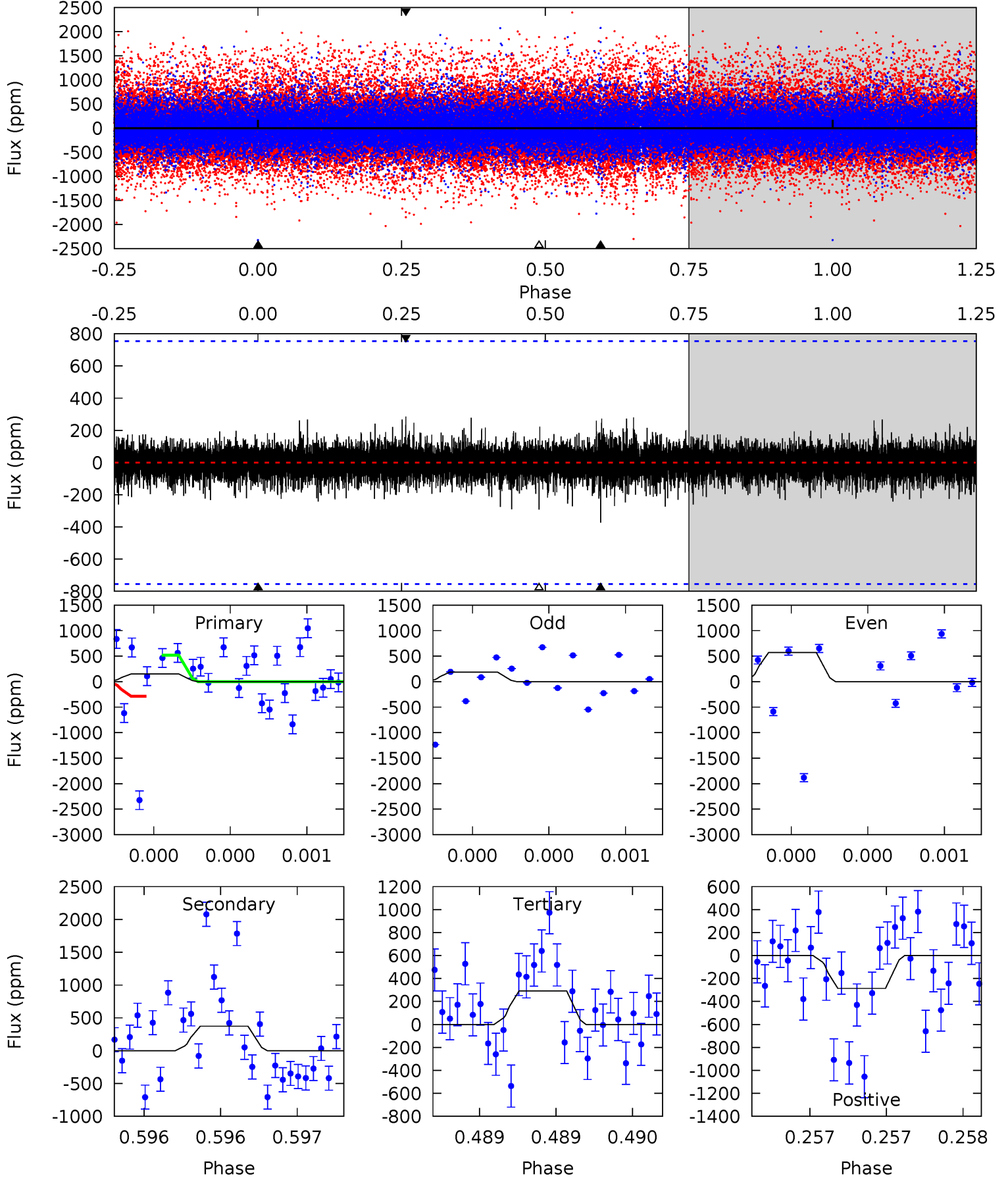
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	7.54	6.65	10.2	5.66	3.61	1.64	8.15	4.61	0.89	-2.65	5.12	1.20	0.59	0.47



Alt Model-Shift Uniqueness Test

011350350-01, P = 290.469836 Days, E = 226.940980 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.12	2.79	2.18	2.14	5.63	3.57	0.46	-1.05	-1.01	0.61	0.65	1.52	0.96	0.43	0



Stellar Parameters For KIC 011350350

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4216^{+135}_{-165}	$4.600^{+0.056}_{-0.016}$	$0.340^{+0.100}_{-0.300}$	$0.687^{+0.024}_{-0.066}$	$0.684^{+0.036}_{-0.057}$	$2.975^{+0.750}_{-0.215}$
	+3%/-4%	+1%/-0%	+29%/-88%	+3%/-10%	+5%/-8%	+25%/-7%
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 011350350-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1333 ± 177	$8.82^{+8.72}_{-5.87}$	245^{+9}_{-10}	2894^{+1174}_{-473}	5472^{+44407}_{-4066}
Alt.	-374 ± 134	$7.94^{+8.25}_{-5.53}$	246^{+9}_{-10}	2504^{+1037}_{-407}	1750^{+18098}_{-1367}

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

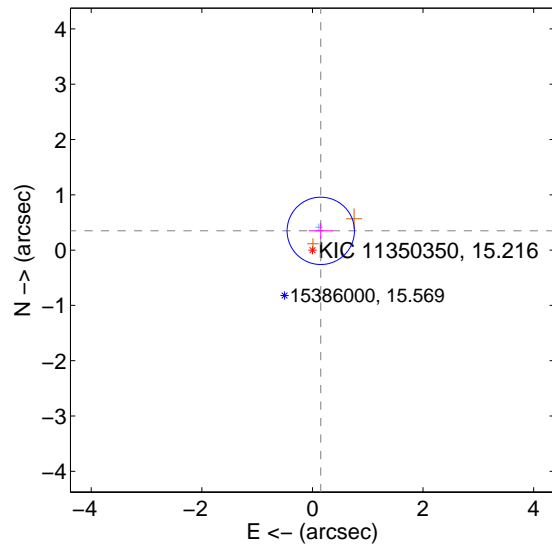
Supplemental centroid analysis for 011350350-01. Kepler magnitude: 15.22. Transit SNR 8.93

There are 1 quarters with good PRF difference image offsets

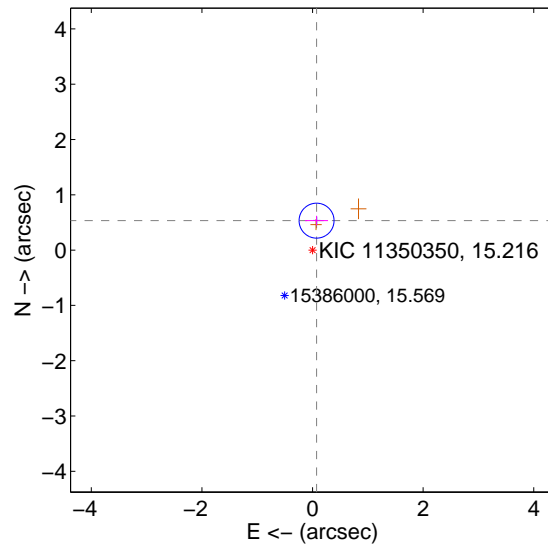
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.379 ± 0.203	1.87	-0.151 ± 0.219	0.348 ± 0.139
PRF-fit source offset from KIC position	0.537 ± 0.105	5.10	-0.073 ± 0.208	0.532 ± 0.087
photometric centroid source offset	0.91 ± 0.91	0.99	-0.79 ± 0.88	0.45 ± 1.01

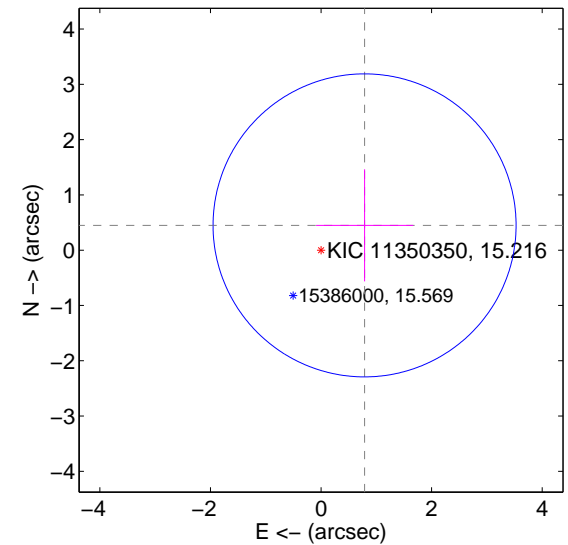
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

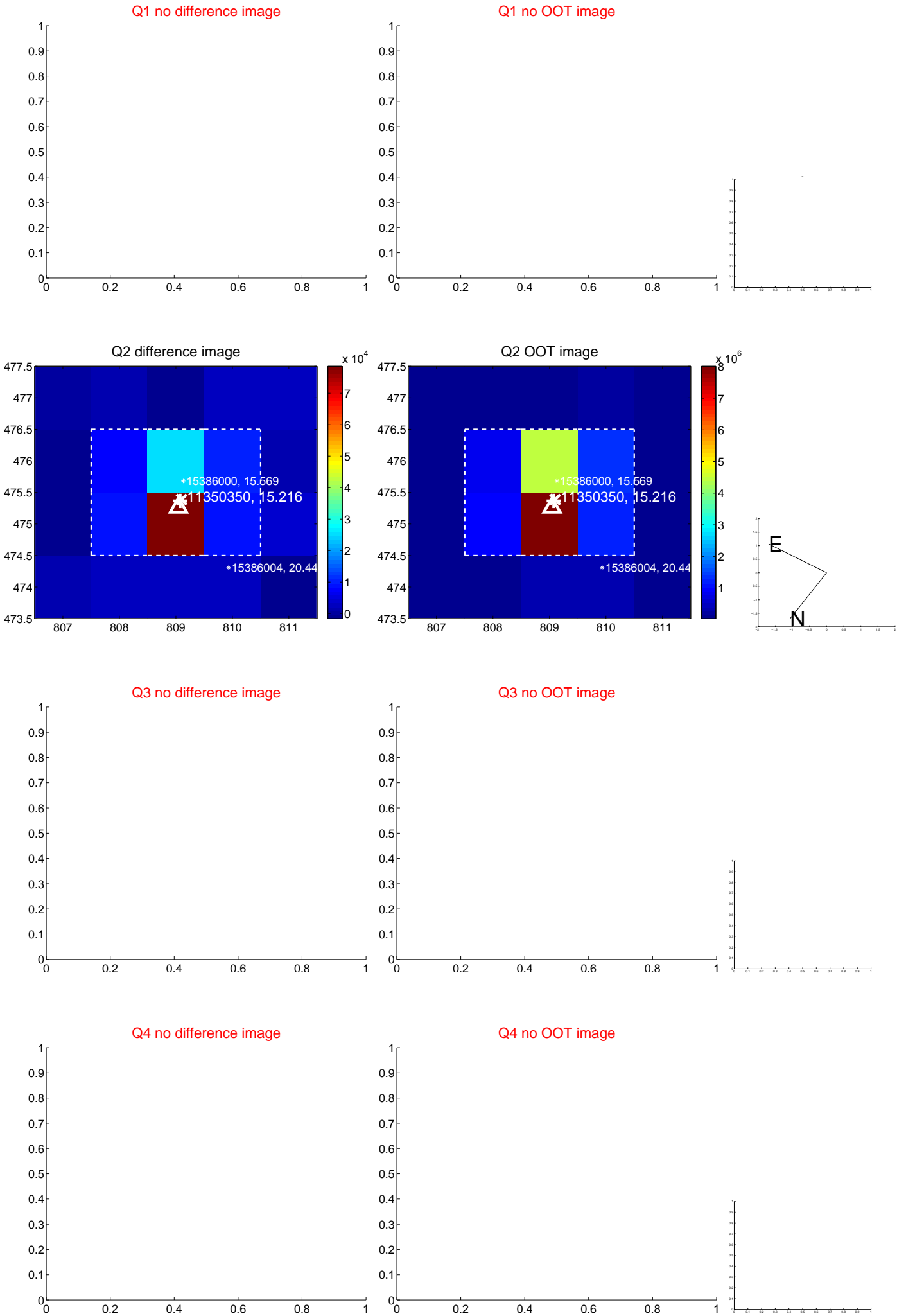


offset from photometric centroids

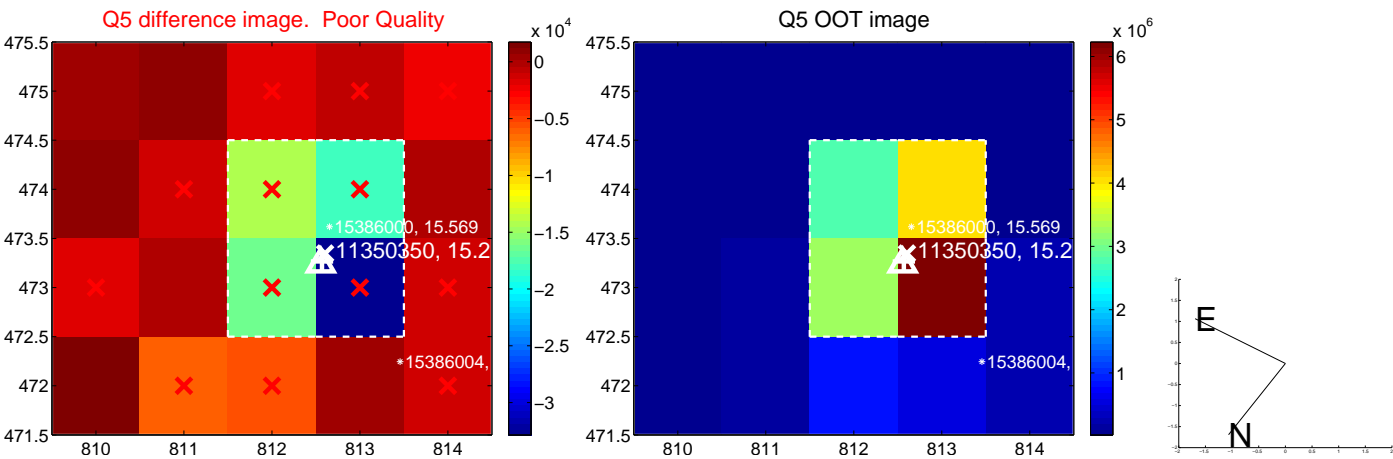


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



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

Q13 no difference image



Q13 no OOT image



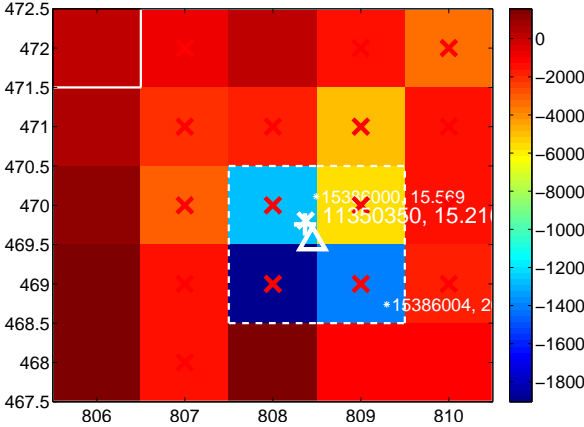
Q14 no difference image



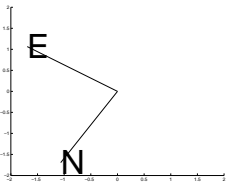
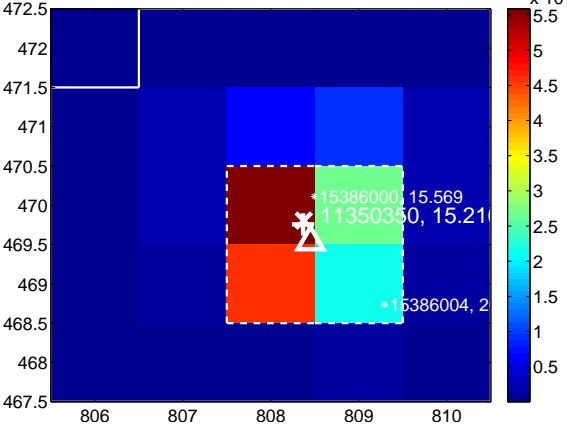
Q14 no OOT image



Q15 difference image. Poor Quality



Q15 OOT image



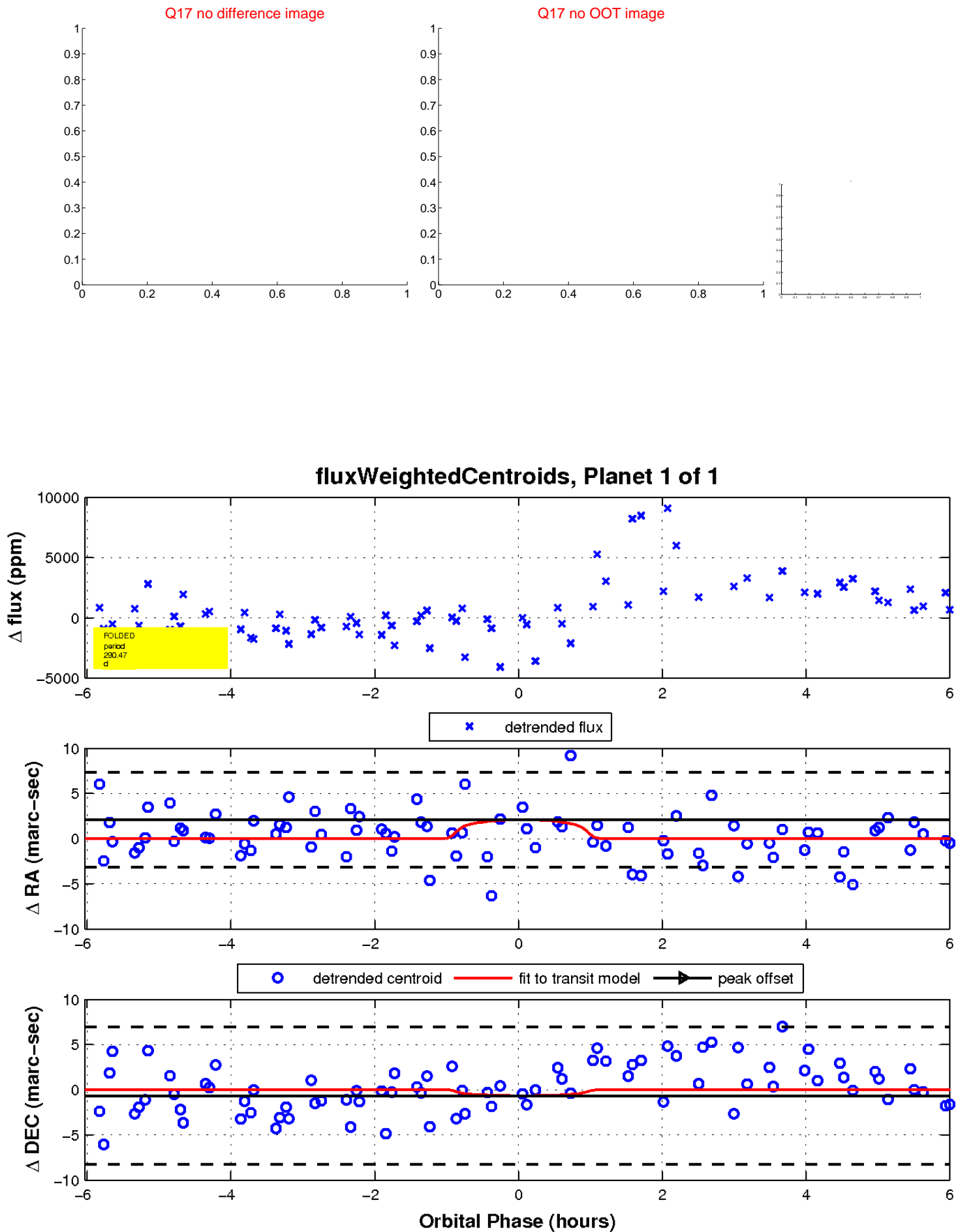
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

