

KIC 008175253

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})
008175253-01	OBS	No	330.160556	347.508717	466.2	12.805	7.7	8.1	0.80	5595	1.77	0.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008175253-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

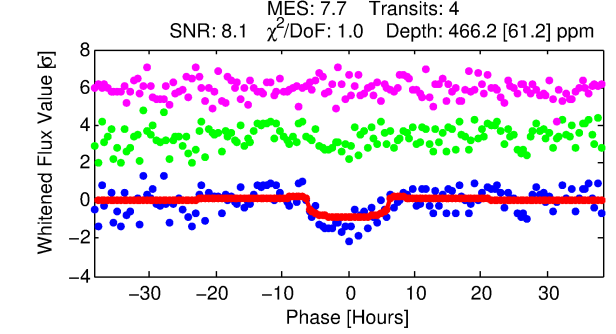
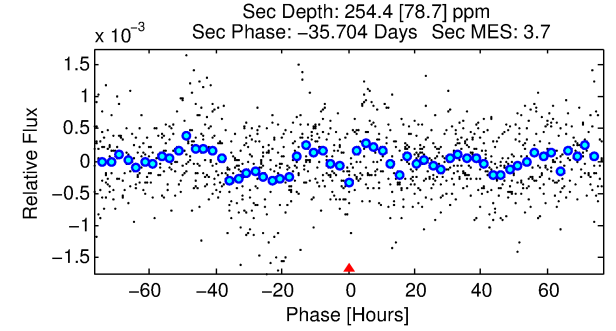
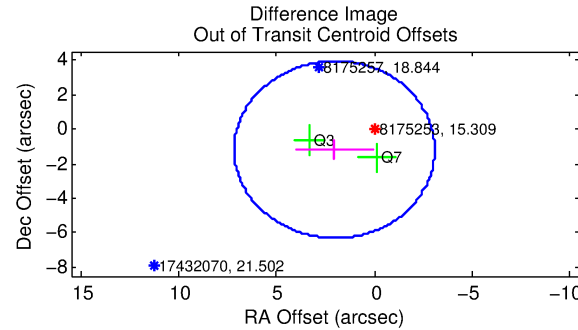
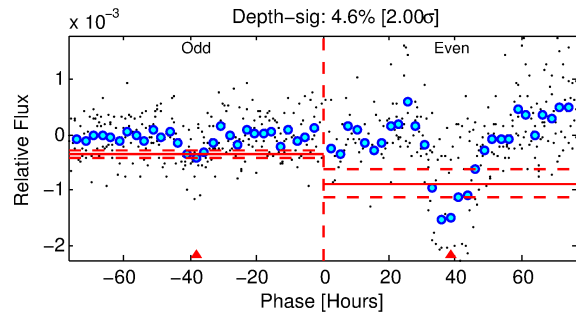
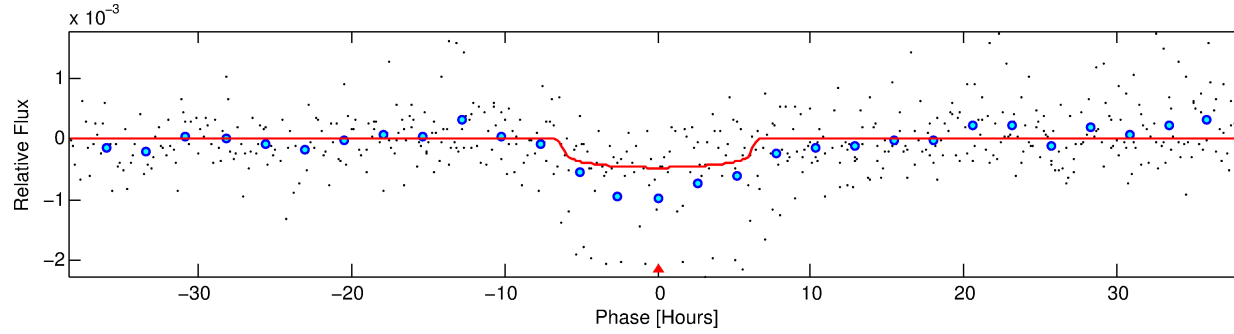
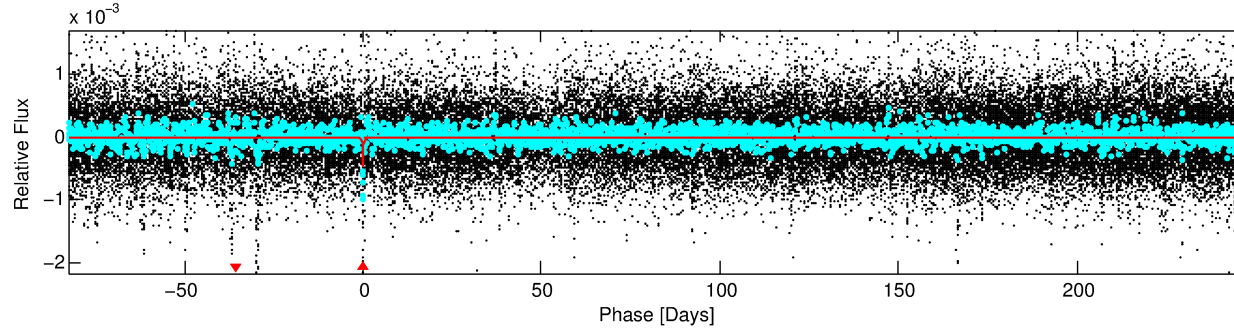
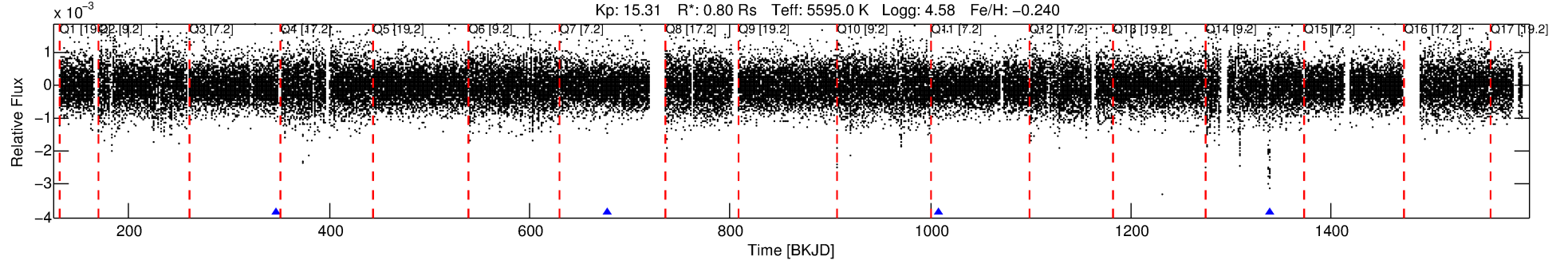
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008175253-01

No Significant Match Found

DV One-Page Summary

KIC: 8175253 Candidate: 1 of 1 Period: 330.161 d



DV Fit Results:

Period = 330.16056 [0.01164] d
Epoch = 347.5087 [0.0205] BKJD
Rp/R* = 0.0204 [0.0163]
a/R* = 167.47 [573.35]
b = 0.56 [4.17]
Seff = 0.69 [0.22]
Teq = 233 [18] K
Rp = 1.77 [1.48] Re
a = 0.8963 [0.1772] AU
Ag = 35758.09 [59200.03] [0.60 σ]
Teffp = 4946 [2021] K [2.33 σ]

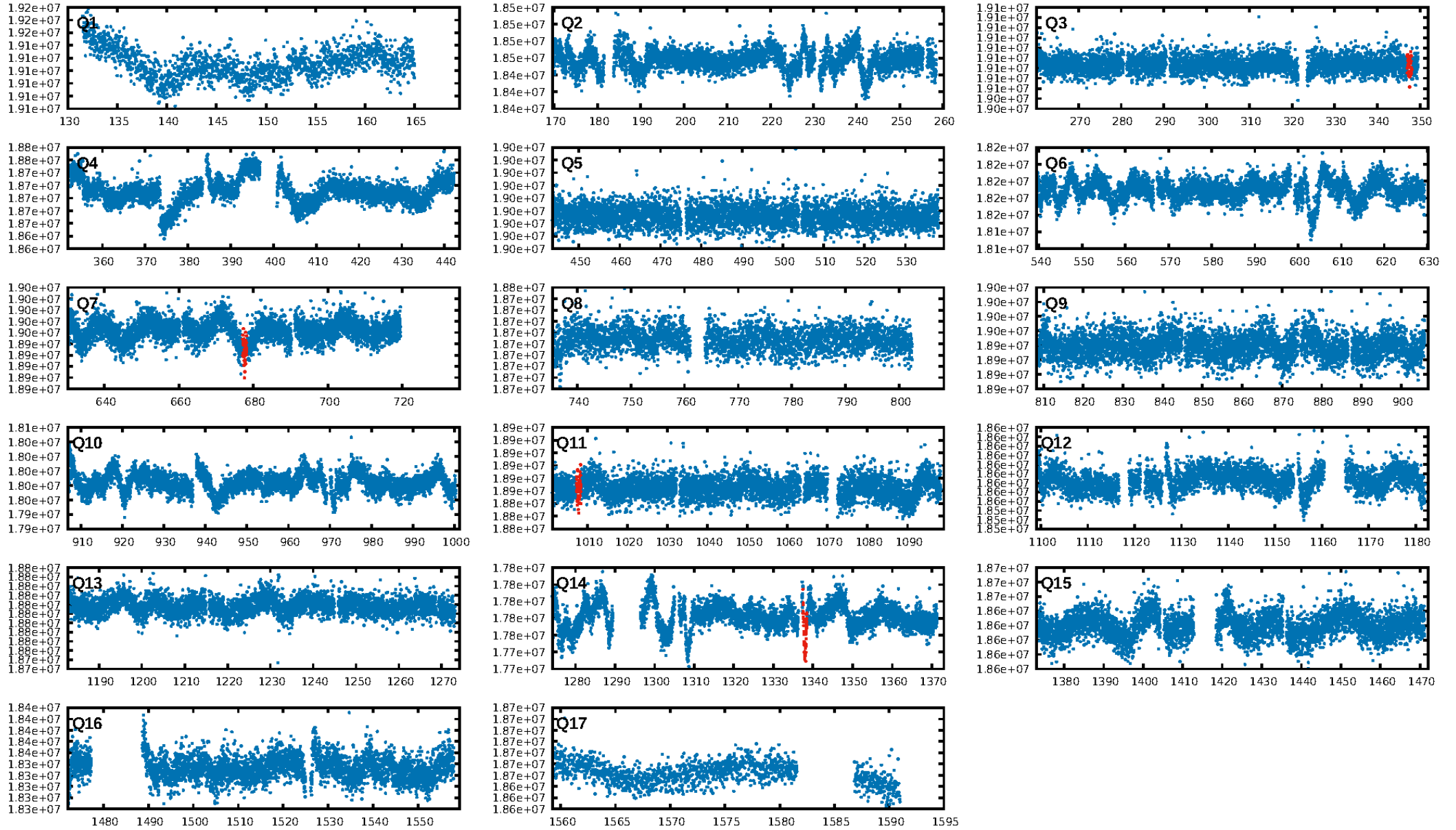
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 94.9%
Bootstrap-pfa: 4.72e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 5.278
Centroid-sig: 51.1%
Centroid-so: 1.228 arcsec [0.76 σ]
OotOffset-rm: 2.363 arcsec [1.38 σ]
KicOffset-rm: 2.328 arcsec [1.37 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

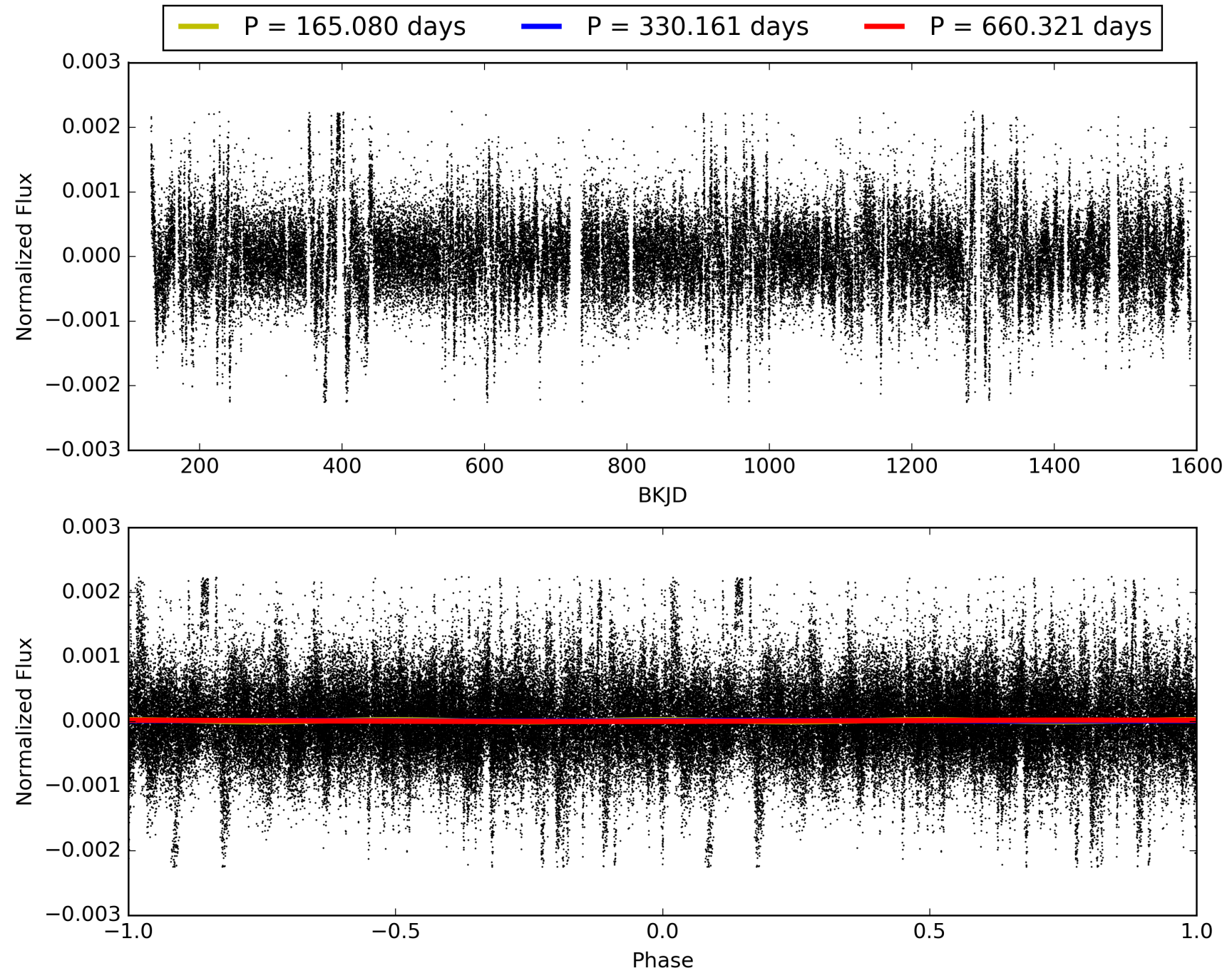
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:34:15 Z

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

TCE 008175253-01, PDC Light Curves

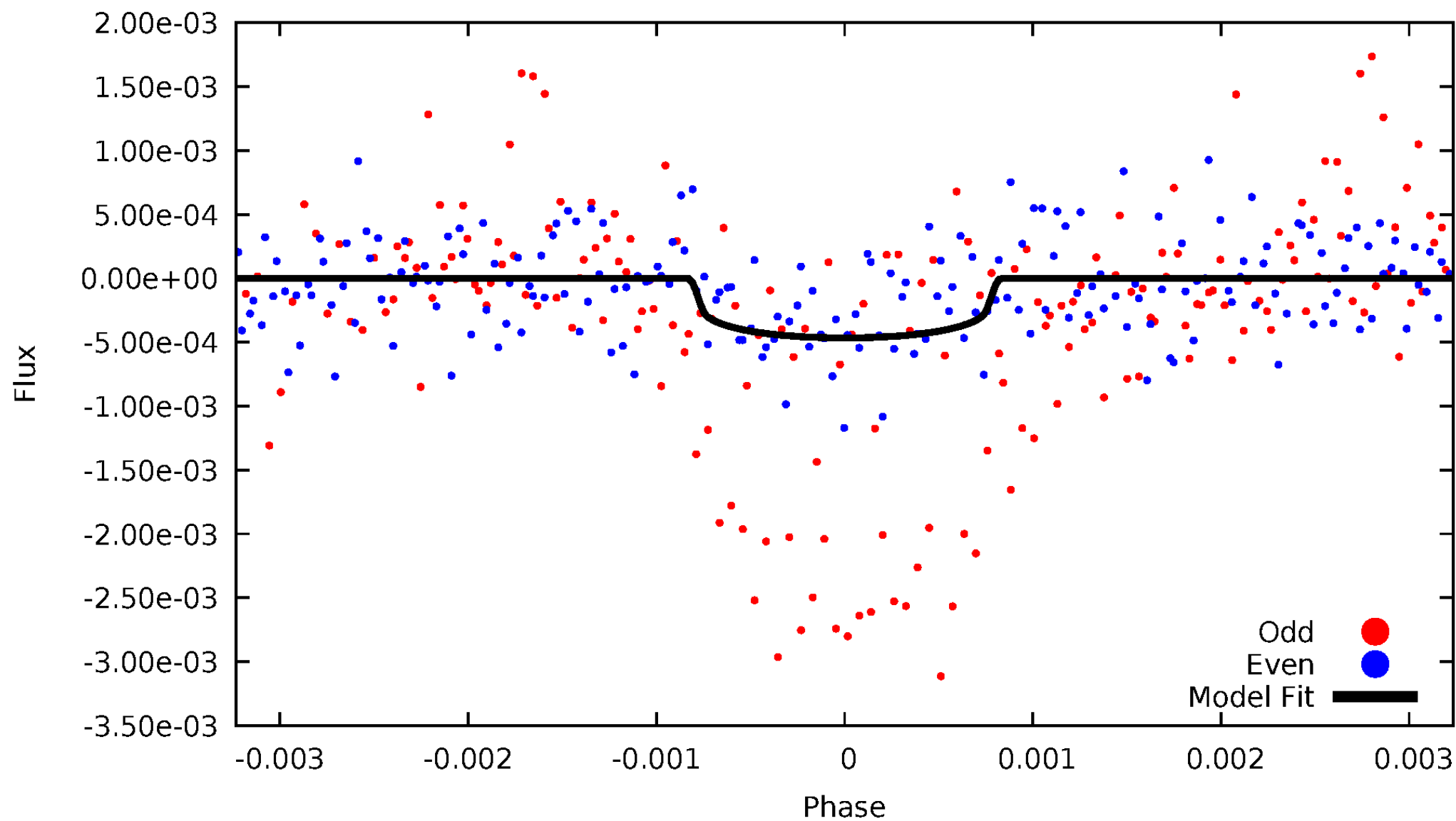


TCE 008175253-01



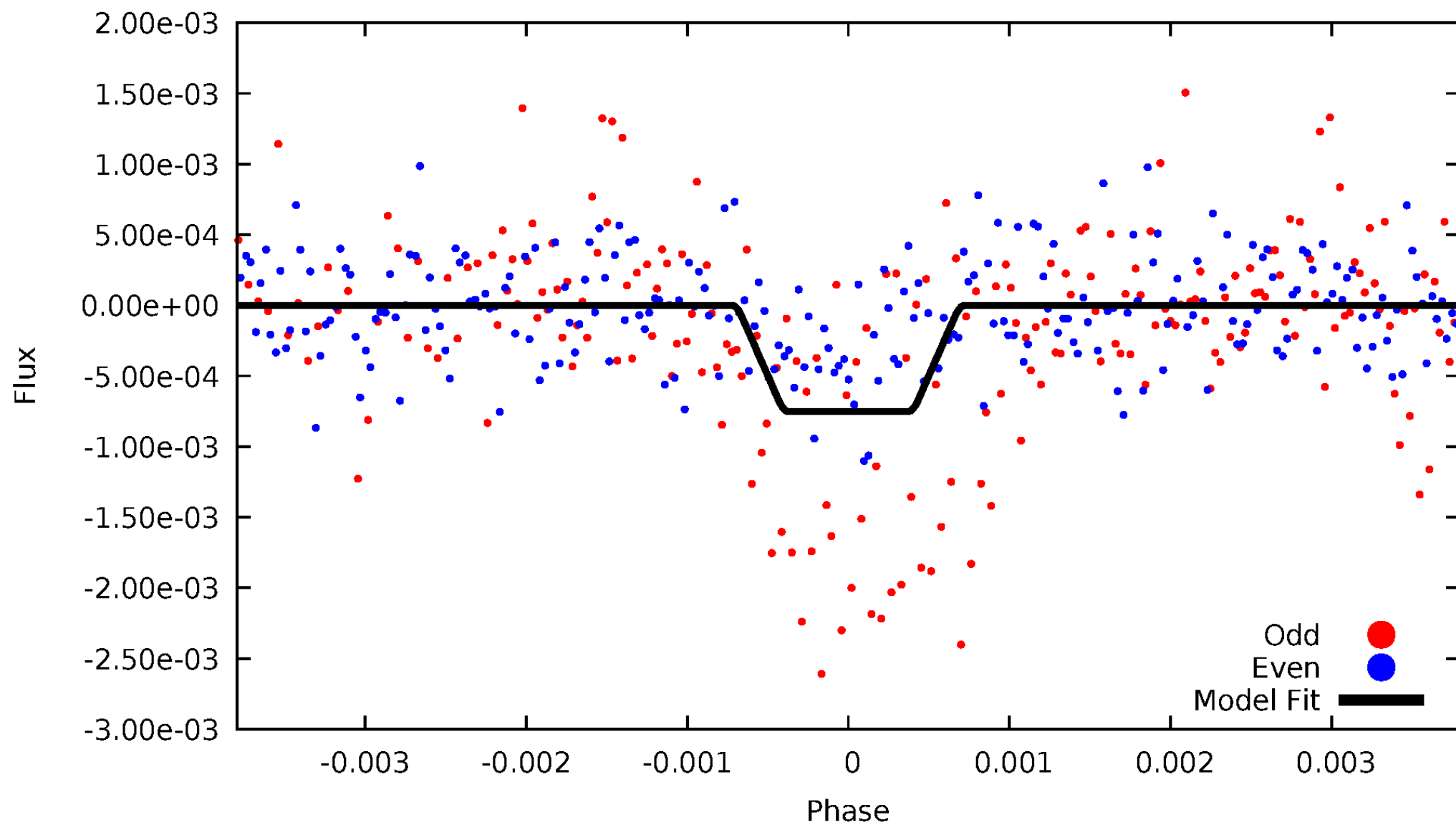
DV Odd/Even

TCE 008175253-01



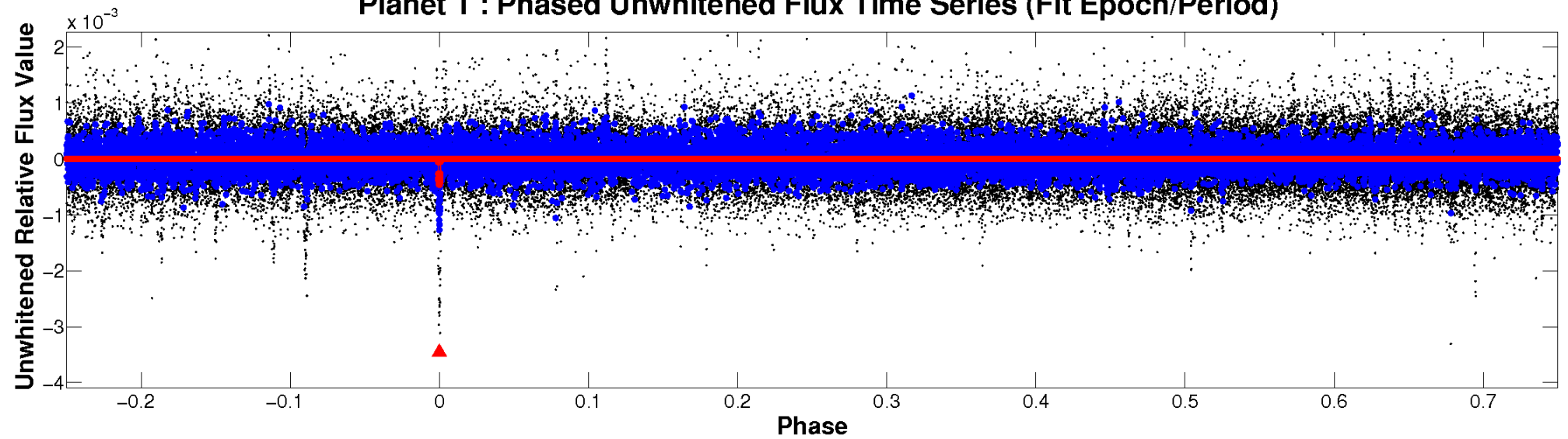
ALT Odd/Even

TCE 008175253-01

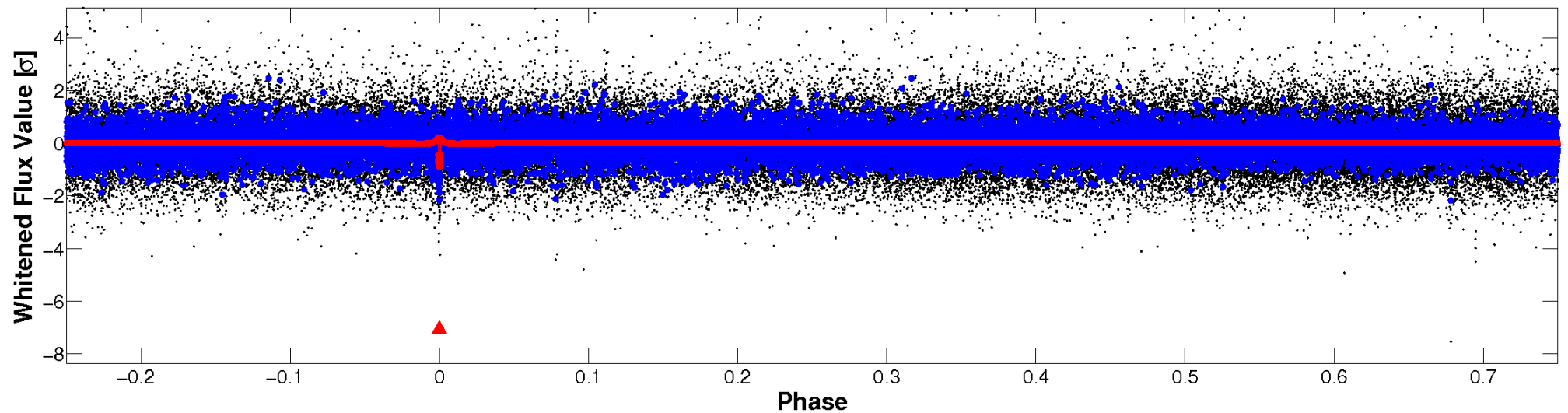


Non-Whitened Vs. Whitened Light Curve

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



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



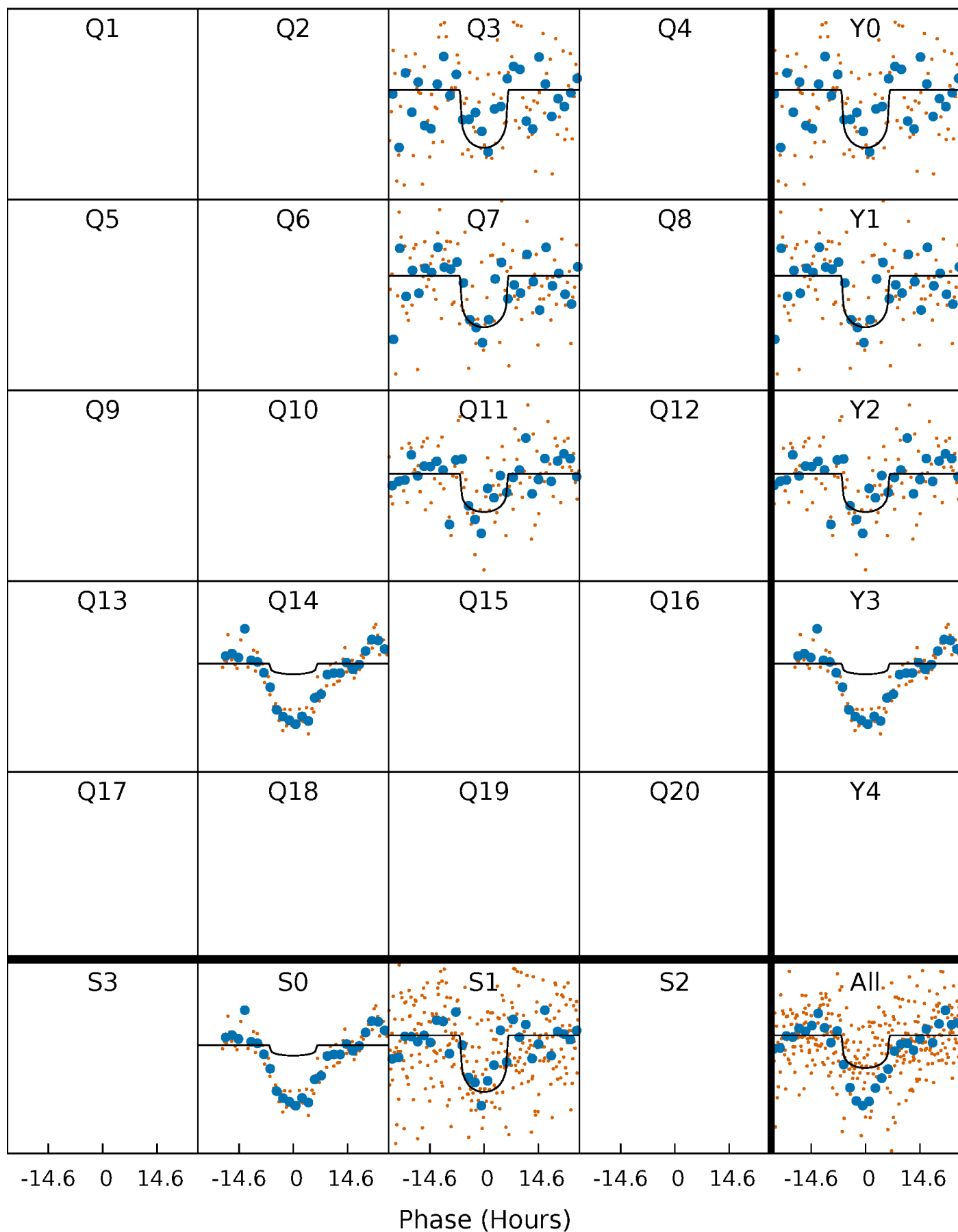
PDC Quarter-Phased Transit Curves

TCE 008175253-01 P=330.160556 Days $T_0=347.508717$ (BKJD)



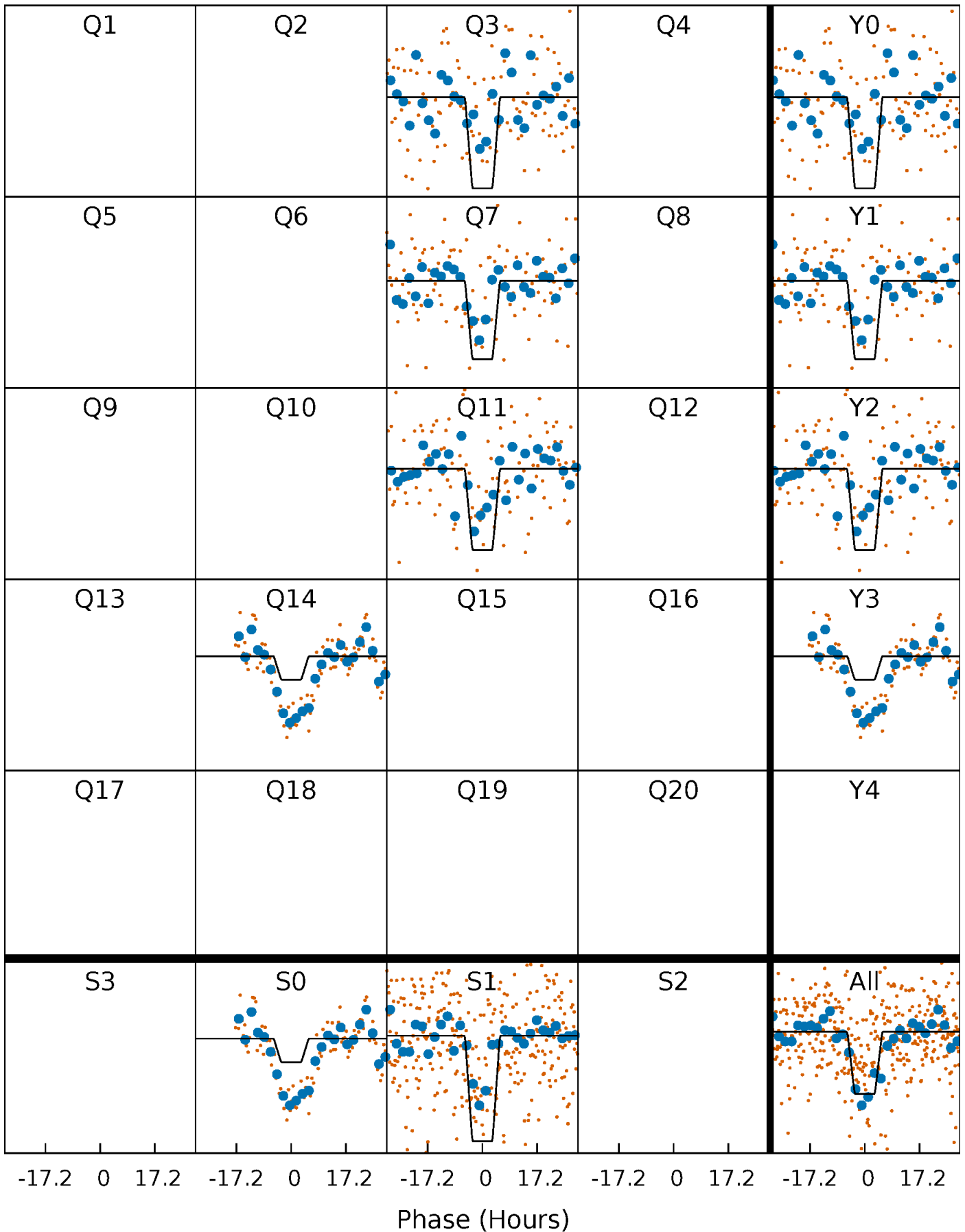
DV Quarter-Phased Transit Curves

TCE 008175253-01 P=330.160556 Days $T_0=347.508717$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

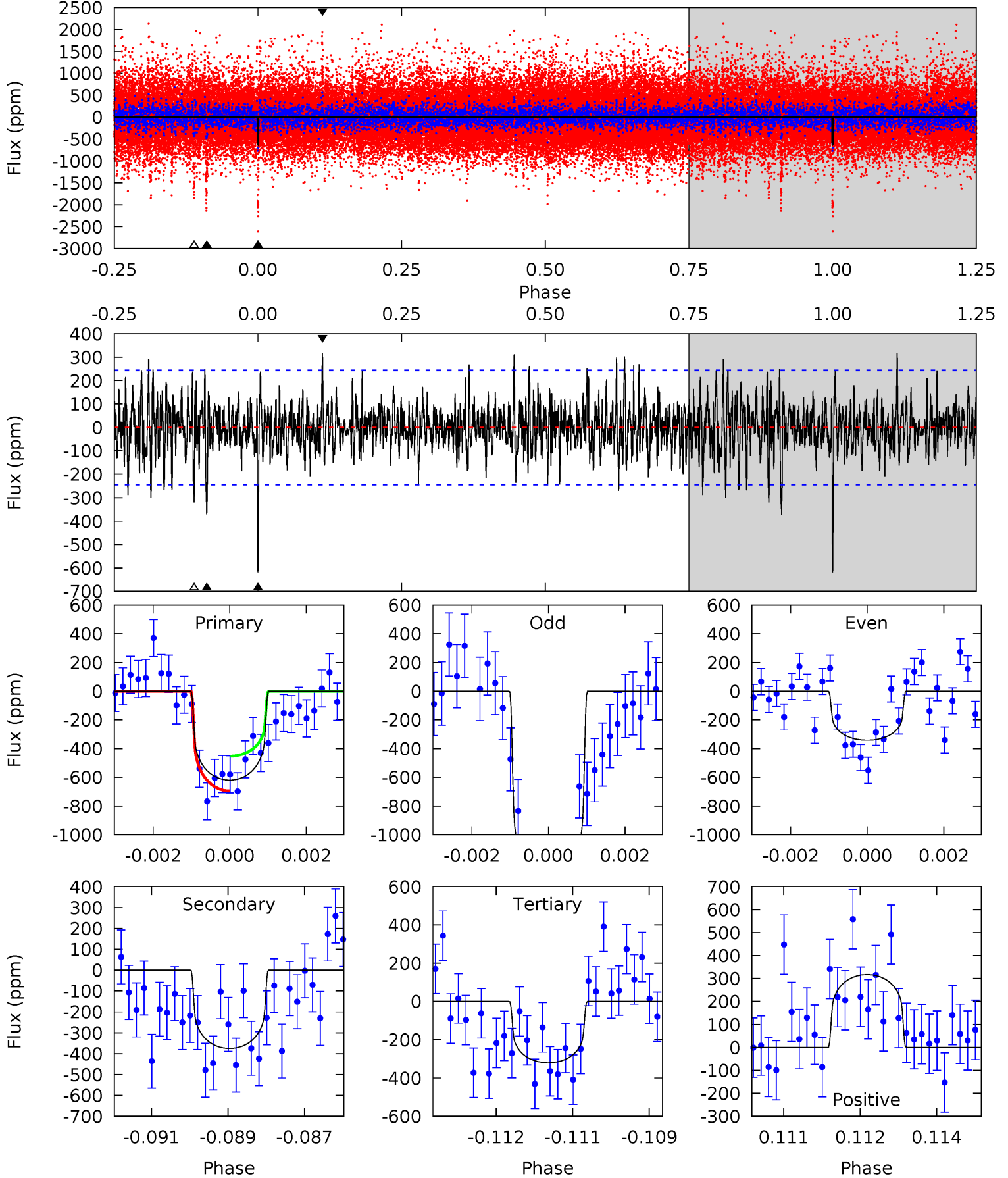
TCE 008175253-01 P=330.131407 Days $T_0=347.533834$ (BKJD)



DV Model-Shift Uniqueness Test

008175253-01, P = 330.160556 Days, E = 17.348161 Days

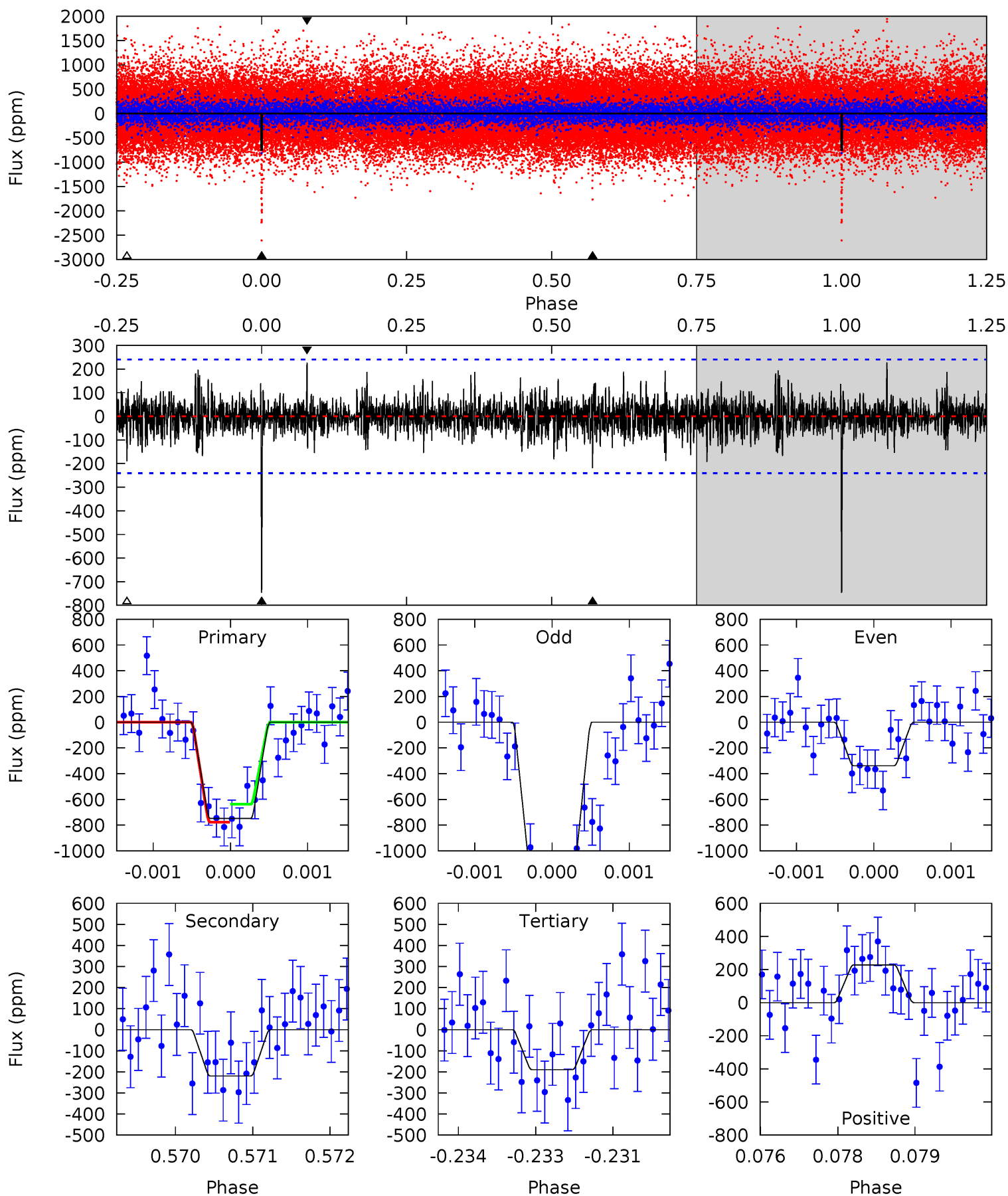
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.6	8.24	7.04	6.96	5.36	3.15	1.86	6.57	6.64	1.20	1.28	12.8	2.52	0.34	2.64



Alt Model-Shift Uniqueness Test

008175253-01, P = 330.131407 Days, E = 17.402427 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	4.92	4.25	5.10	5.39	3.19	1.14	12.5	11.6	0.67	-0.18	9.84	2.00	0.23	1.55



Stellar Parameters For KIC 008175253

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5595^{+150}_{-167}	$4.581^{+0.040}_{-0.160}$	$-0.240^{+0.300}_{-0.300}$	$0.796^{+0.185}_{-0.074}$	$0.890^{+0.090}_{-0.110}$	$2.487^{+0.504}_{-1.058}$
	+3%/-3%	+1%/-3%	+125%/-125%	+23%/-9%	+10%/-12%	+20%/-43%
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 008175253-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-375 ± 46	$1.99^{+1.48}_{-1.13}$	332^{+18}_{-14}	5276^{+2939}_{-1065}	$41061^{+169897}_{-27476}$
Alt.	-220 ± 45	$2.60^{+1.48}_{-1.32}$	331^{+19}_{-13}	4244^{+1487}_{-645}	13872^{+47726}_{-8231}

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

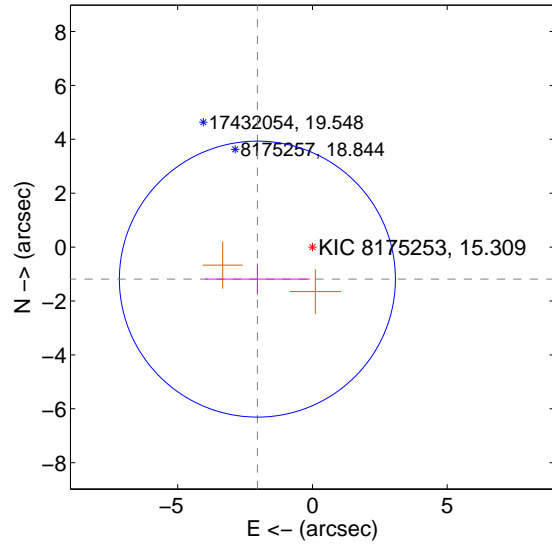
Supplemental centroid analysis for 008175253-01. Kepler magnitude: 15.31. Transit SNR 8.07

There are 0 quarters with good PRF difference image offsets

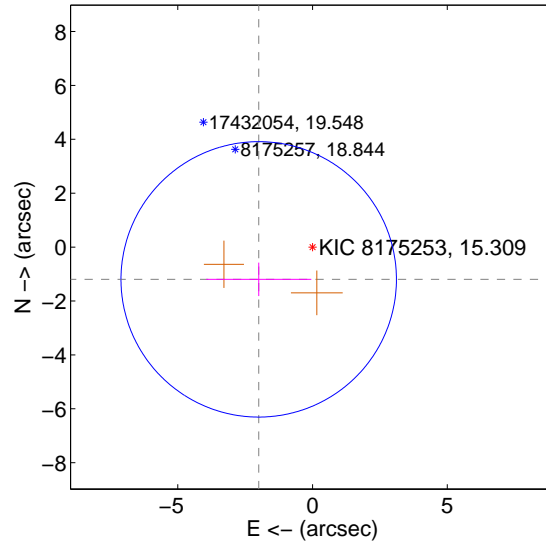
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.363 ± 1.707	1.38	2.043 ± 1.945	-1.188 ± 0.578
PRF-fit source offset from KIC position	2.328 ± 1.703	1.37	1.997 ± 1.951	-1.197 ± 0.621
photometric centroid source offset	1.23 ± 1.62	0.76	1.10 ± 1.63	-0.56 ± 1.60

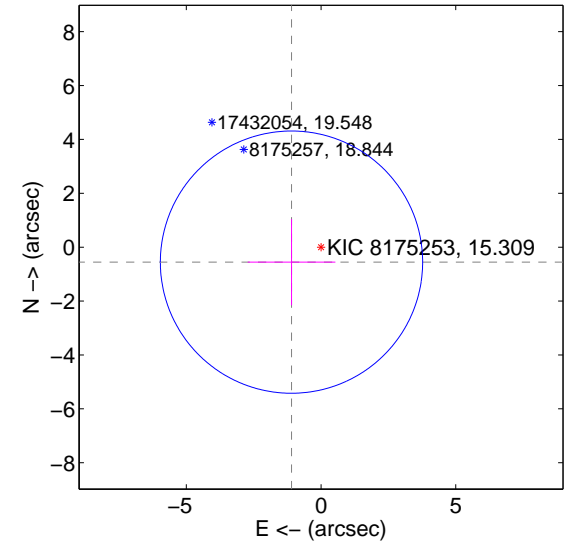
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

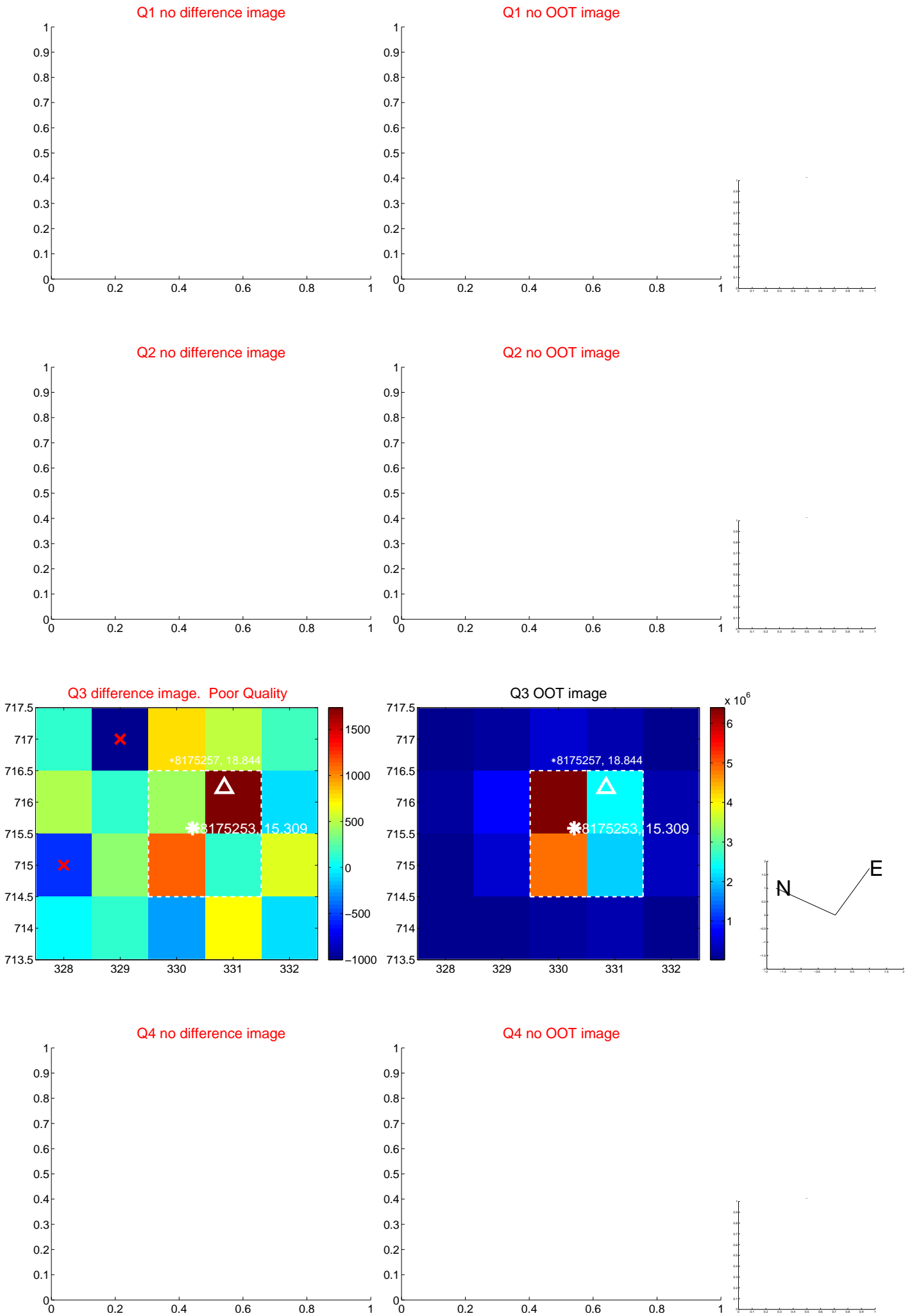


offset from photometric centroids

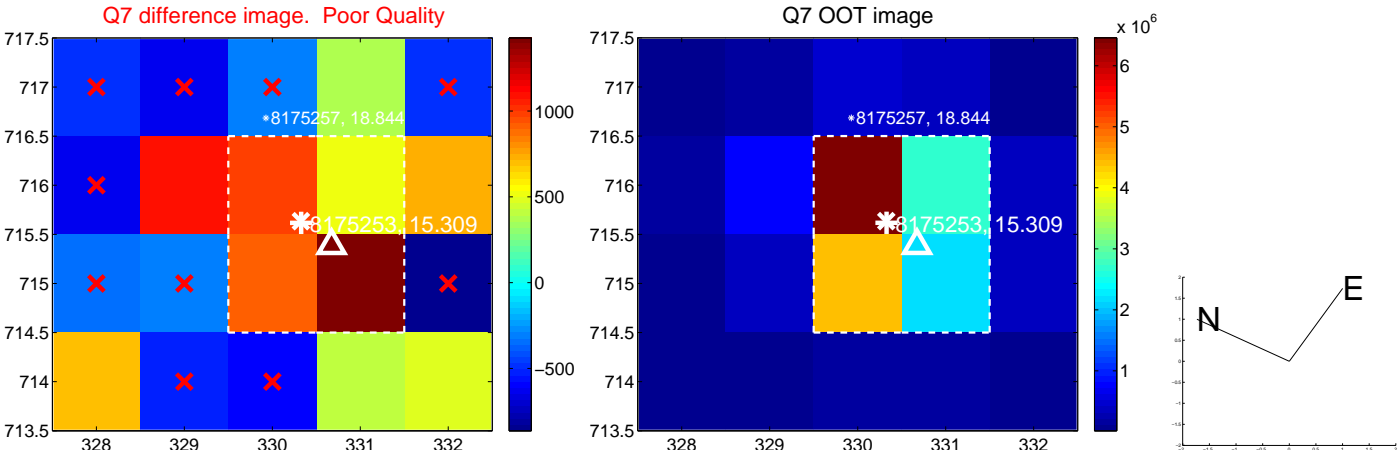


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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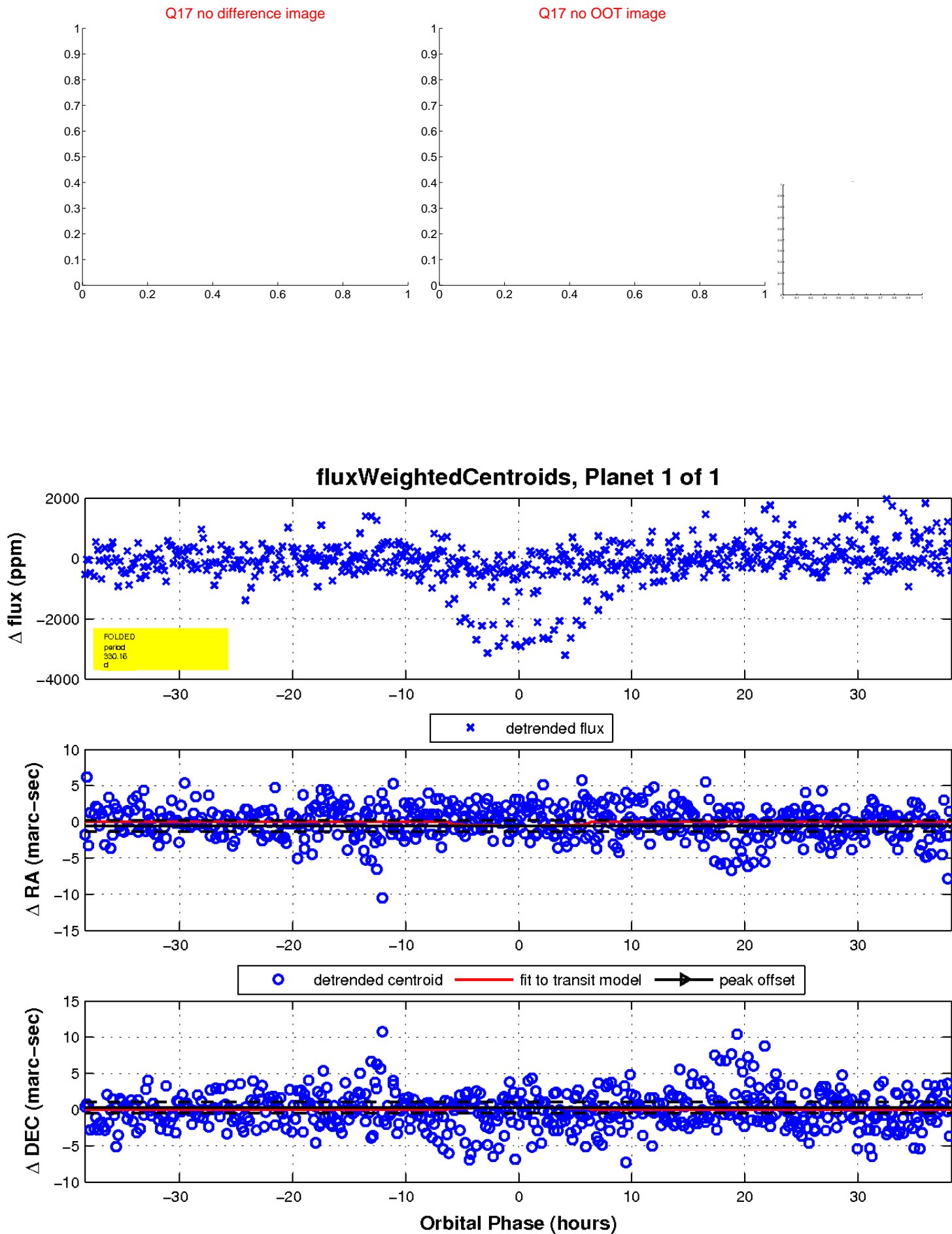
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

