

KIC 008038175

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})
008038175-01	OBS	No	456.657537	187.207178	1049.2	15.928	12.0	11.1	0.86	5749	2.80	0.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008038175-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—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.

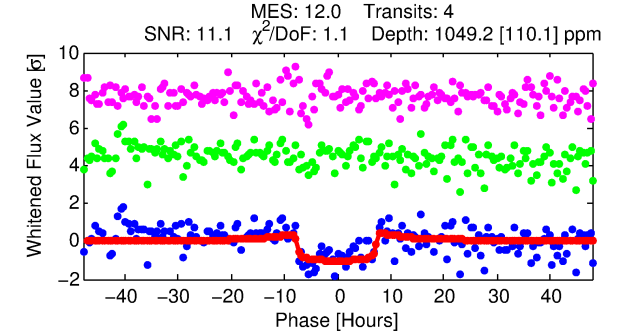
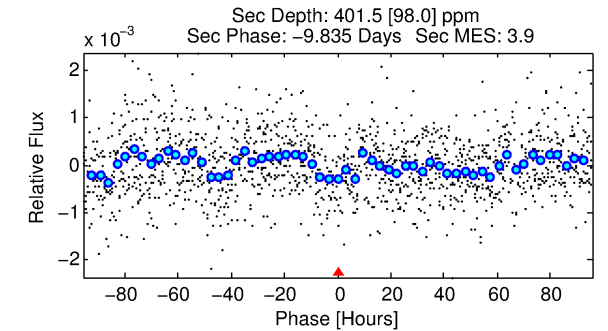
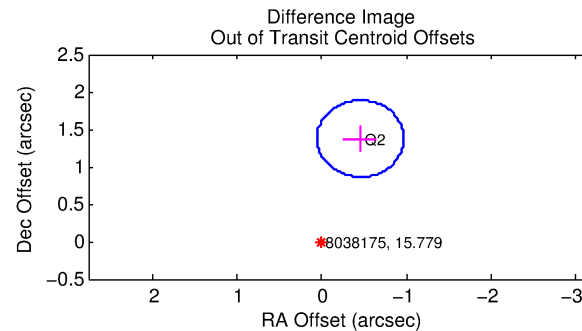
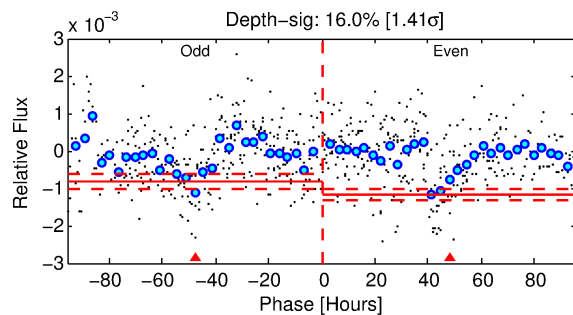
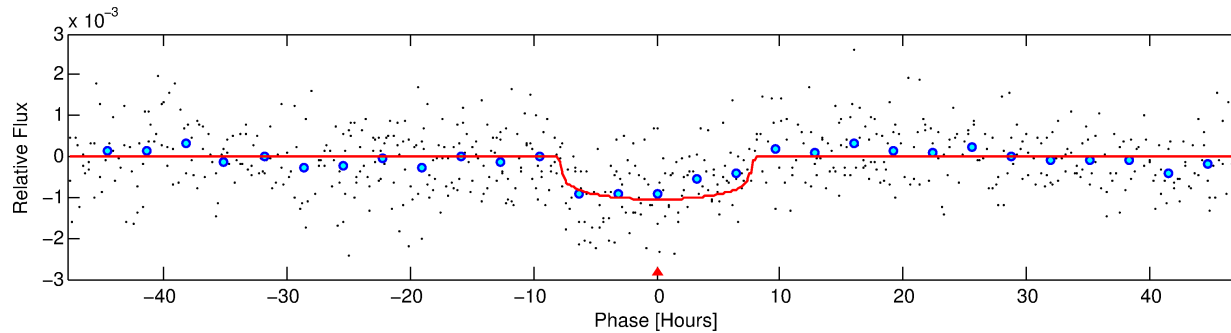
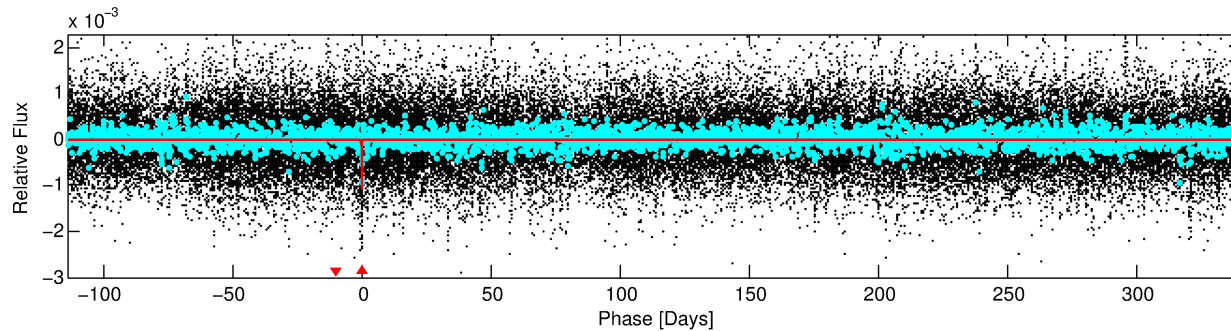
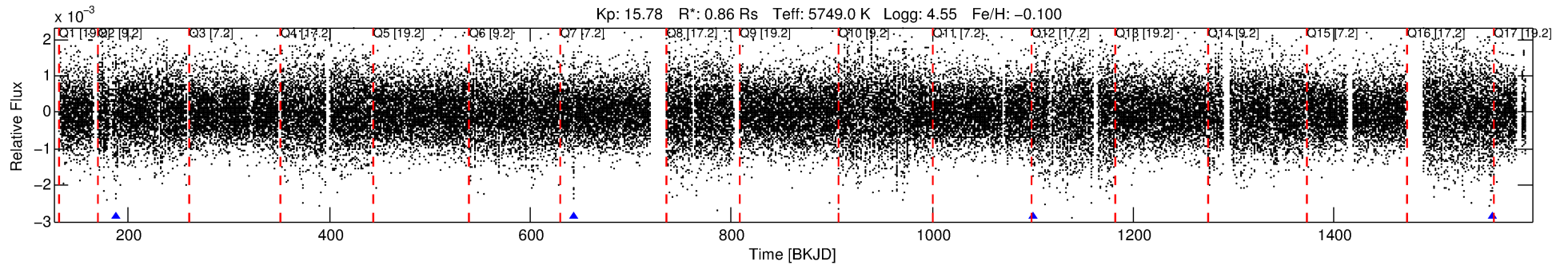
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008038175-01

No Significant Match Found

DV One-Page Summary

KIC: 8038175 Candidate: 1 of 1 Period: 456.658 d



DV Fit Results:

Period = 456.65754 [0.00983] d
Epoch = 187.2072 [0.0178] BKJD
Rp/R* = 0.0297 [0.0181]
a/R* = 214.61 [573.95]
b = 0.32 [7.63]
Seff = 0.56 [0.19]
Teq = 220 [19] K
Rp = 2.80 [1.85] Re
a = 1.1449 [0.2507] AU
Ag = 36870.79 [47368.26] [0.78 σ]
Teff = 4720 [1474] K [3.05 σ]

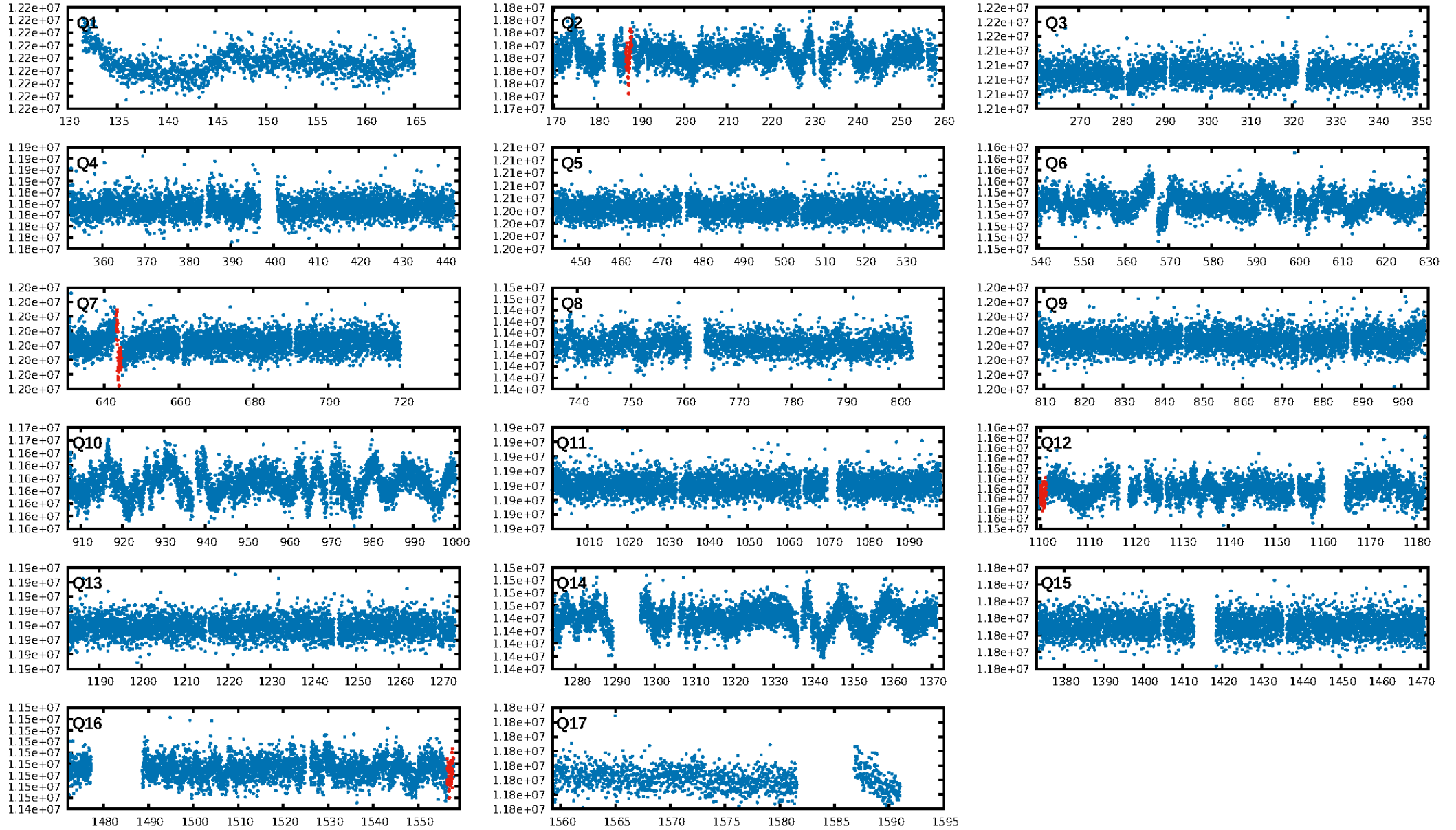
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.8%
ModelChiSquareGof-sig: 99.7%
Bootstrap-pfa: 1.73e-18
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -5.774
Centroid-sig: 45.1%
Centroid-so: 1.422 arcsec [1.01 σ]
OotOffset-rm: 1.447 arcsec [8.49 σ]
KicOffset-rm: 1.840 arcsec [10.83 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [1/1]

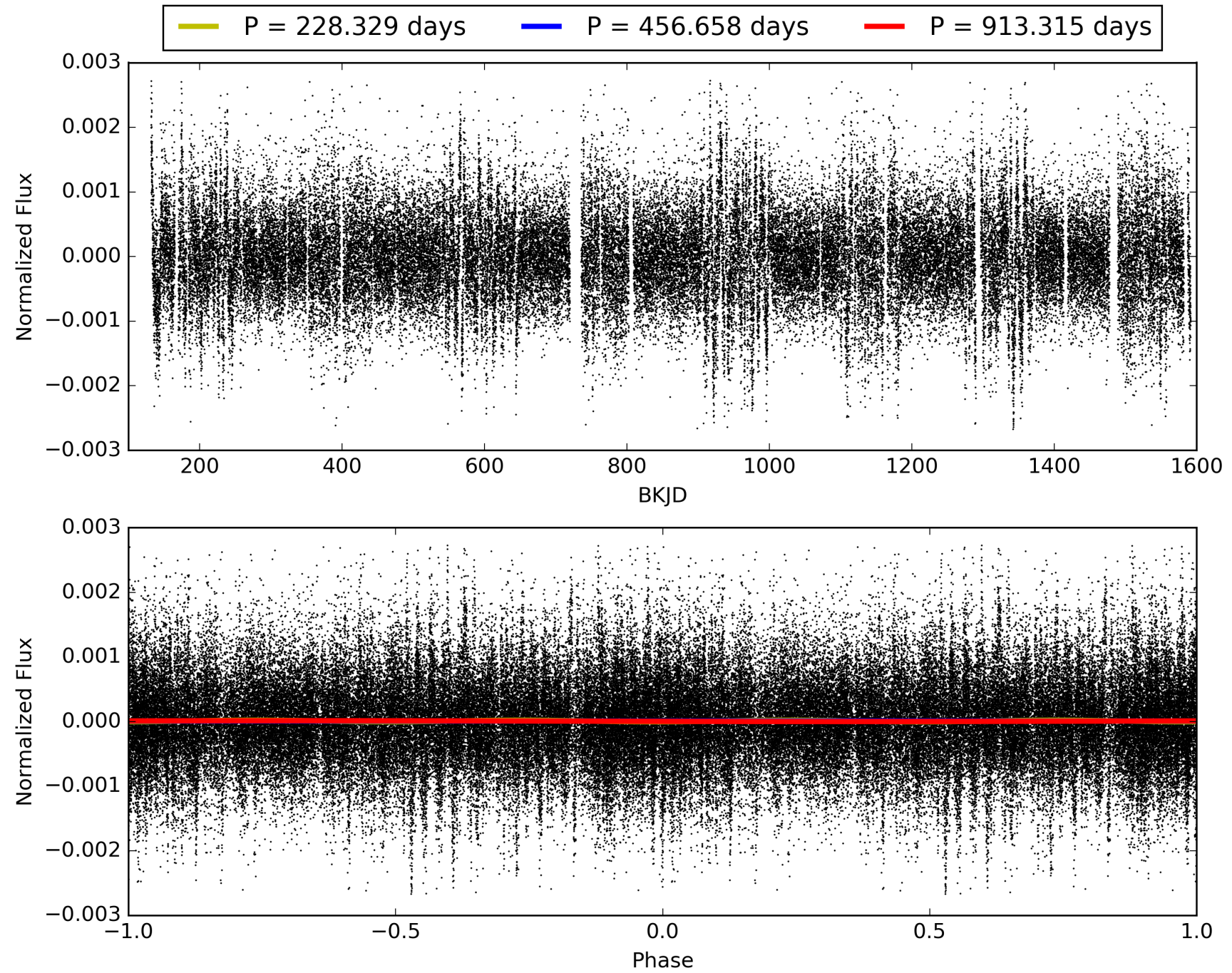
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:33:54 Z

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

TCE 008038175-01, PDC Light Curves

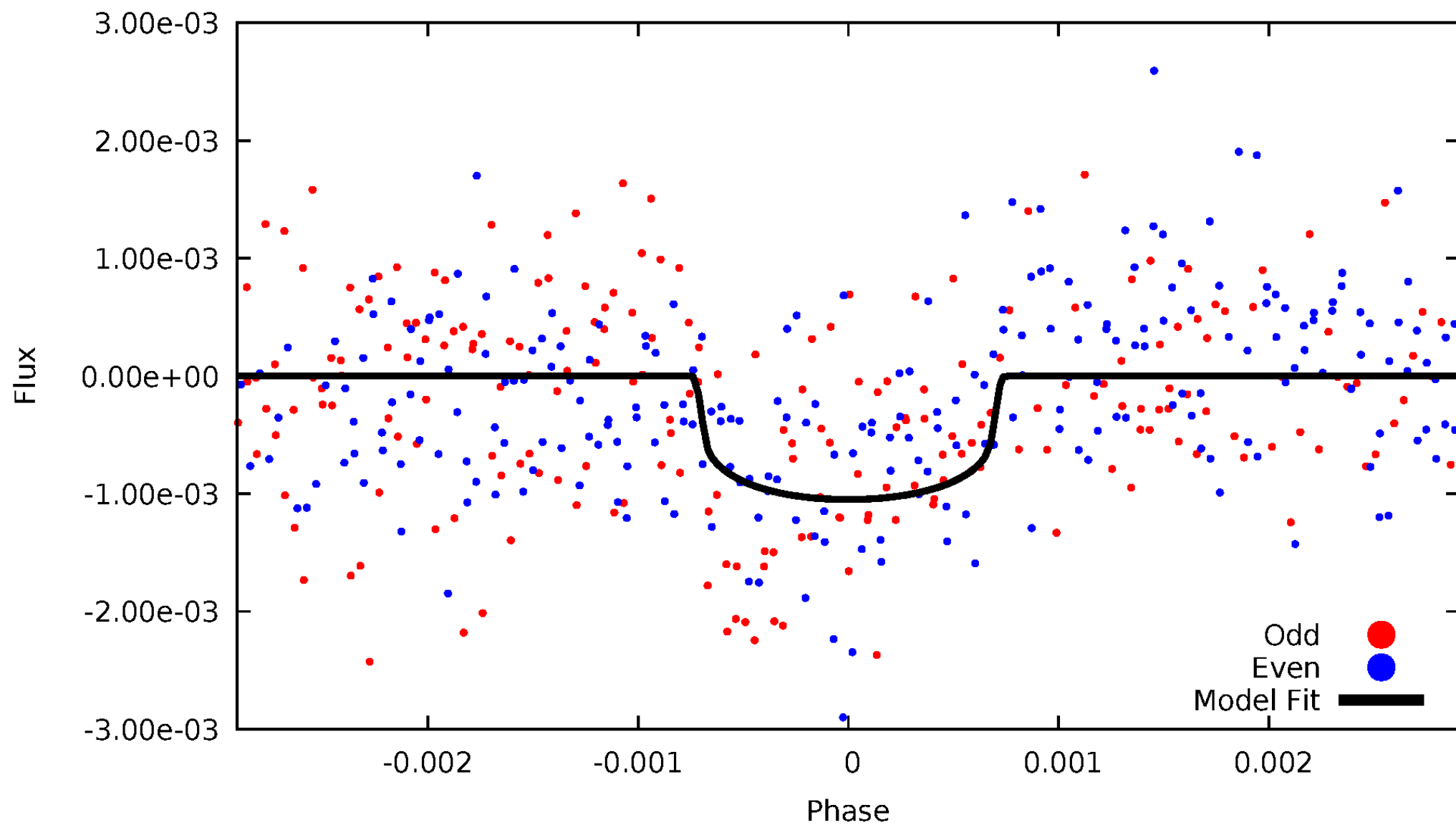


TCE 008038175-01



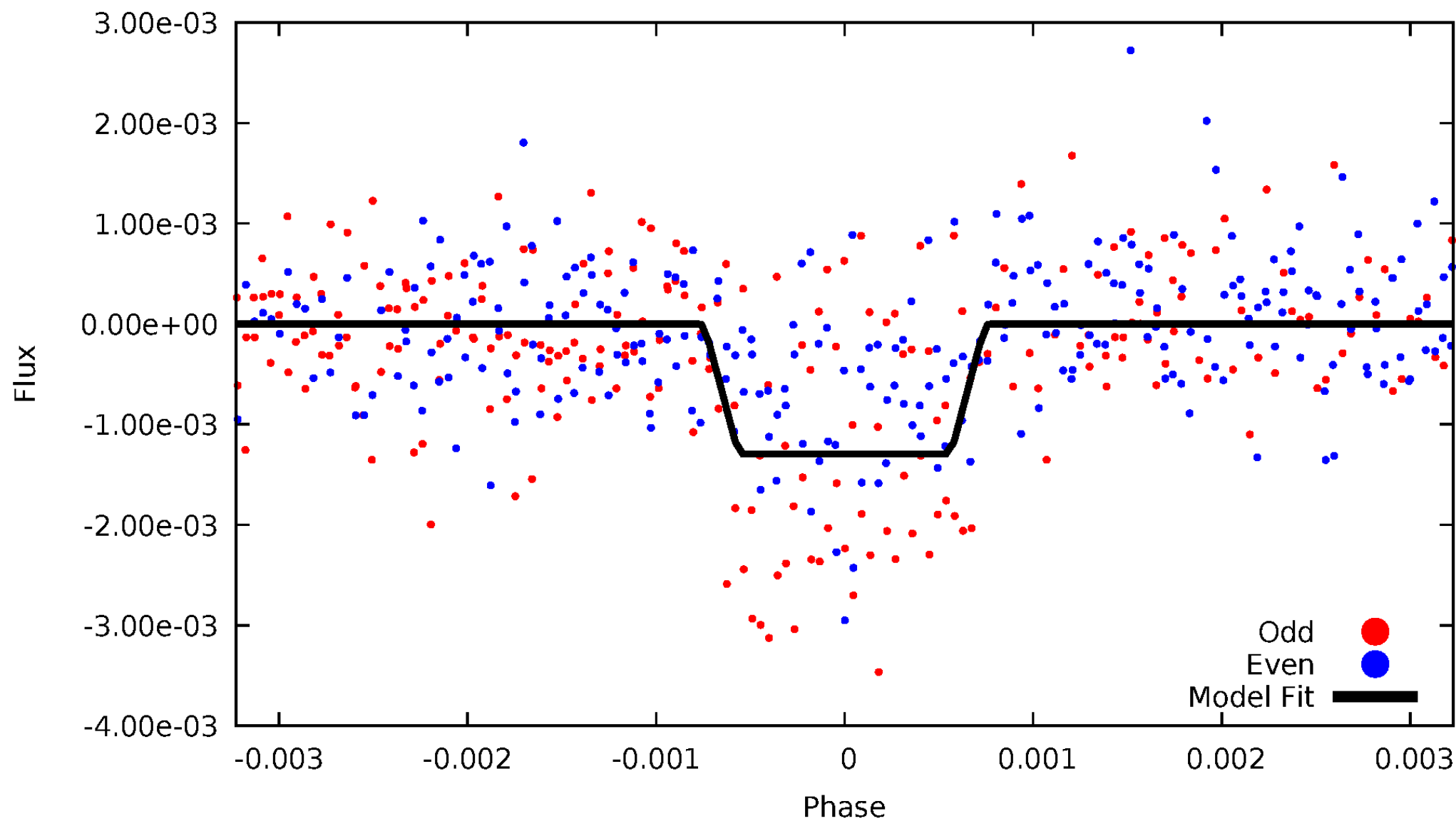
DV Odd/Even

TCE 008038175-01



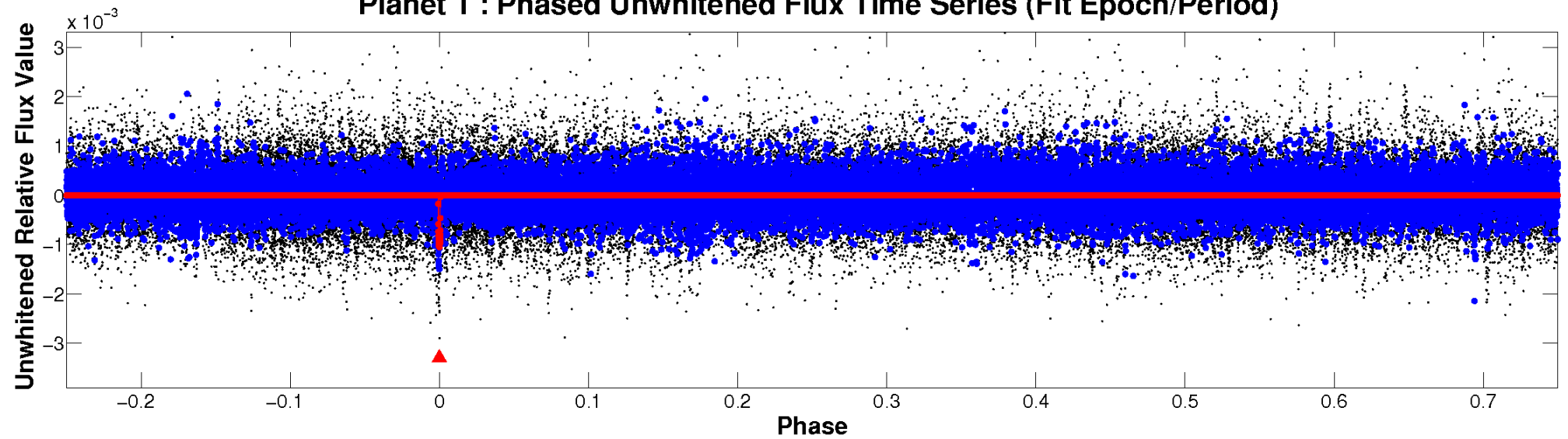
ALT Odd/Even

TCE 008038175-01

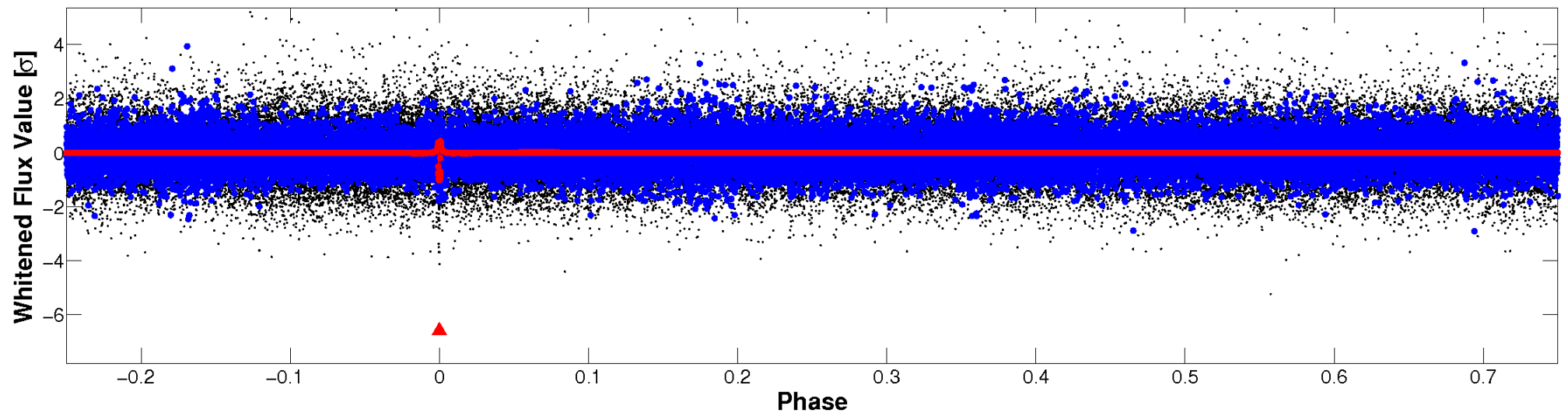


Non-Whitened Vs. Whitened Light Curve

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

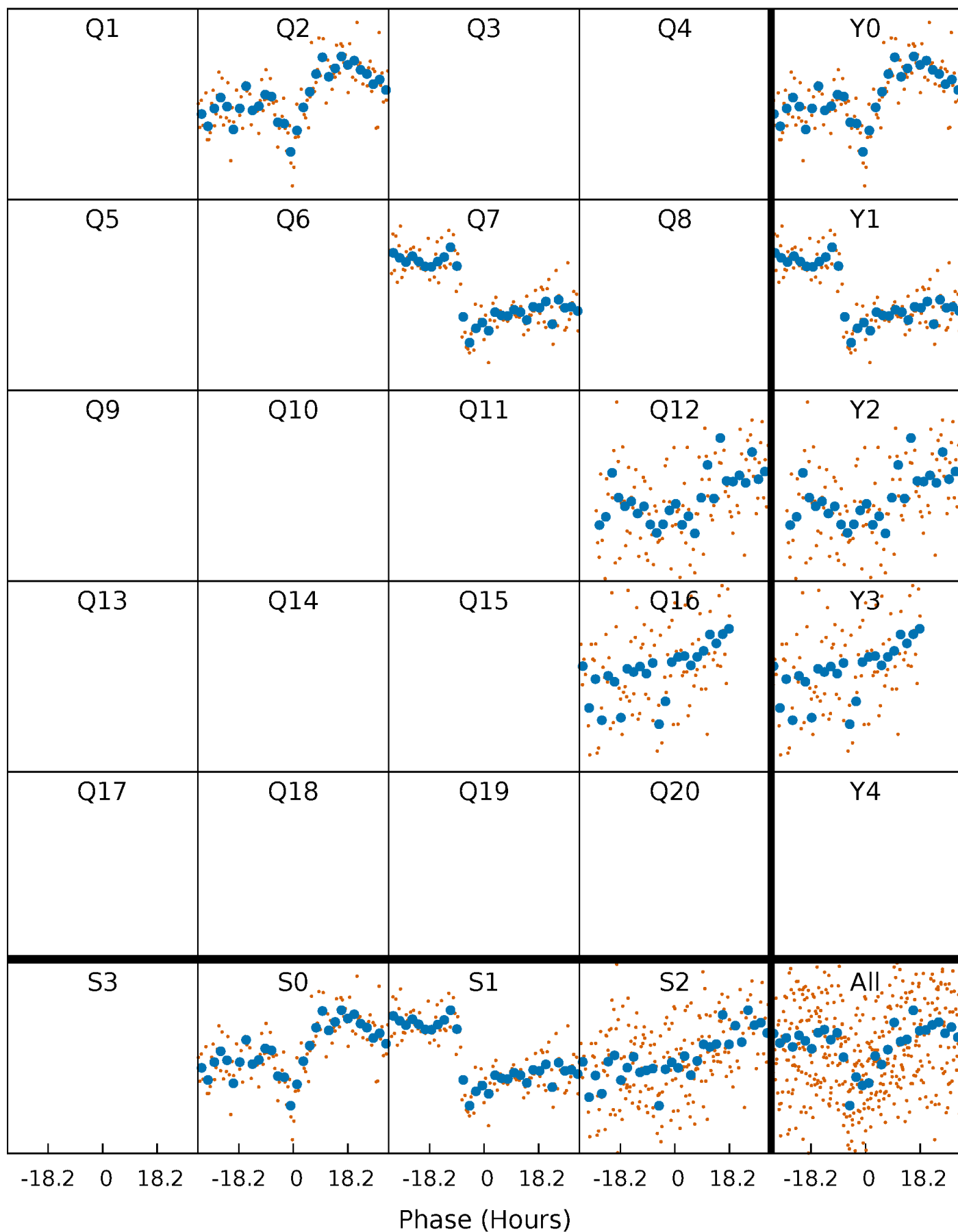


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



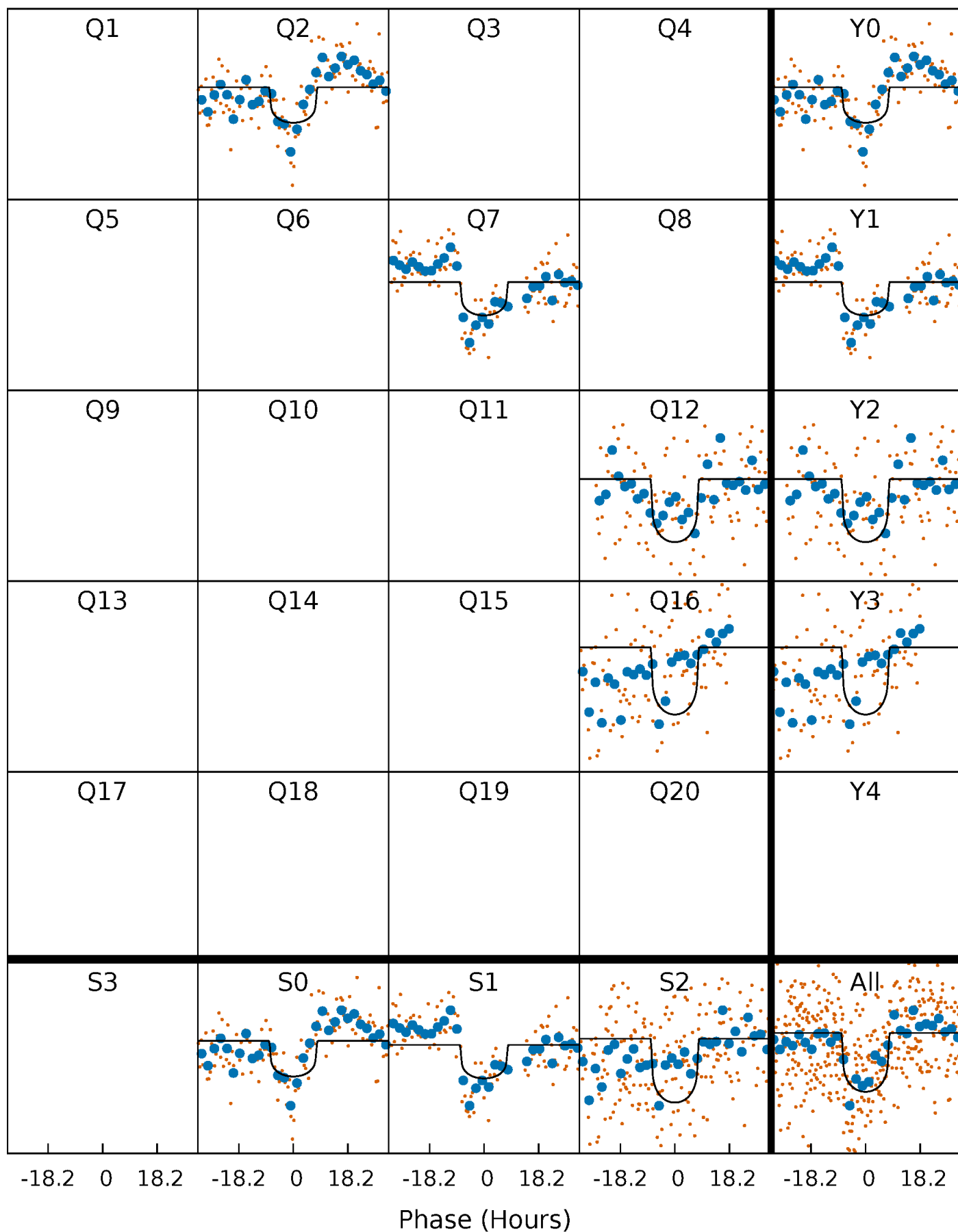
PDC Quarter-Phased Transit Curves

TCE 008038175-01 P=456.657537 Days $T_0=187.207178$ (BKJD)



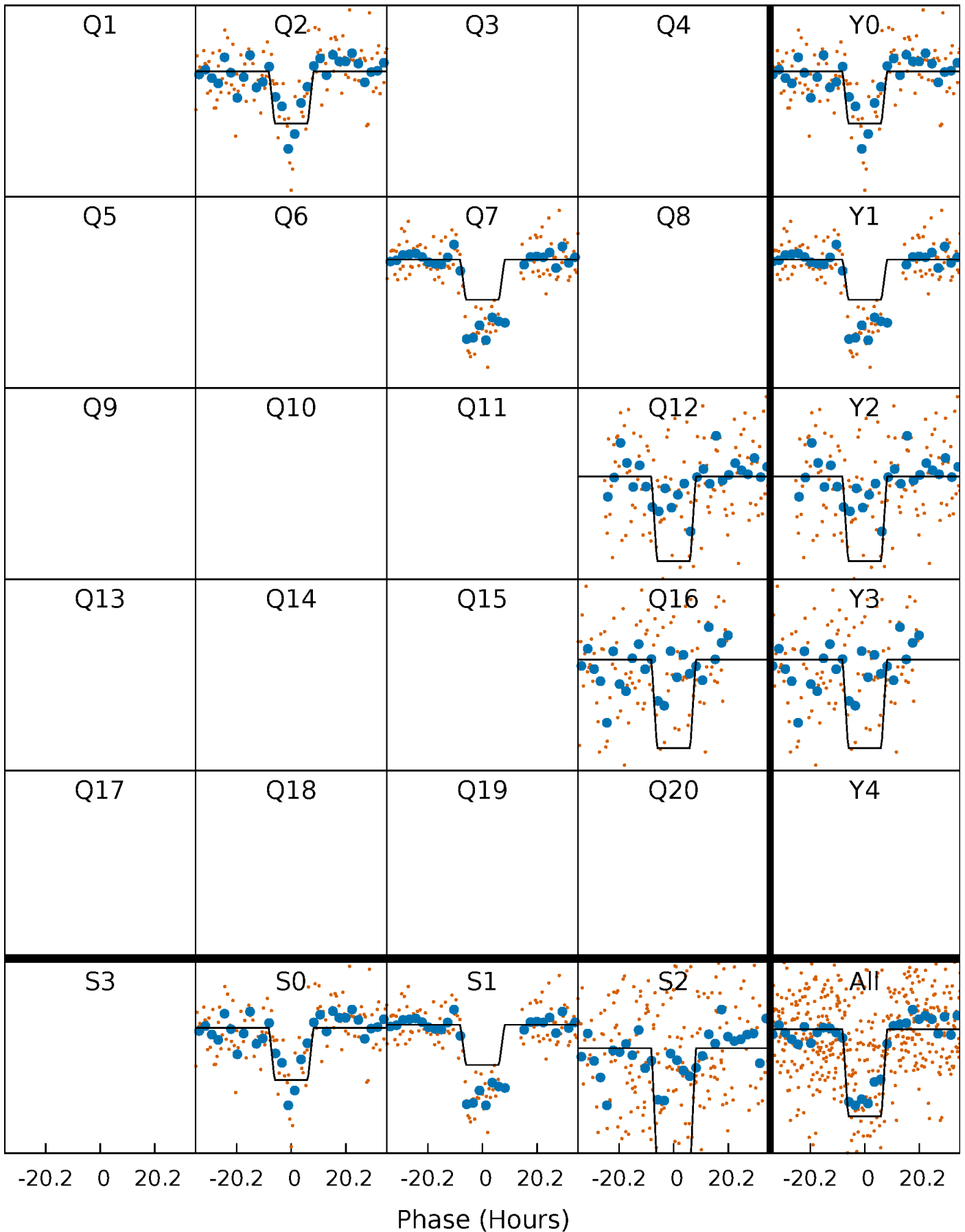
DV Quarter-Phased Transit Curves

TCE 008038175-01 P=456.657537 Days $T_0=187.207178$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

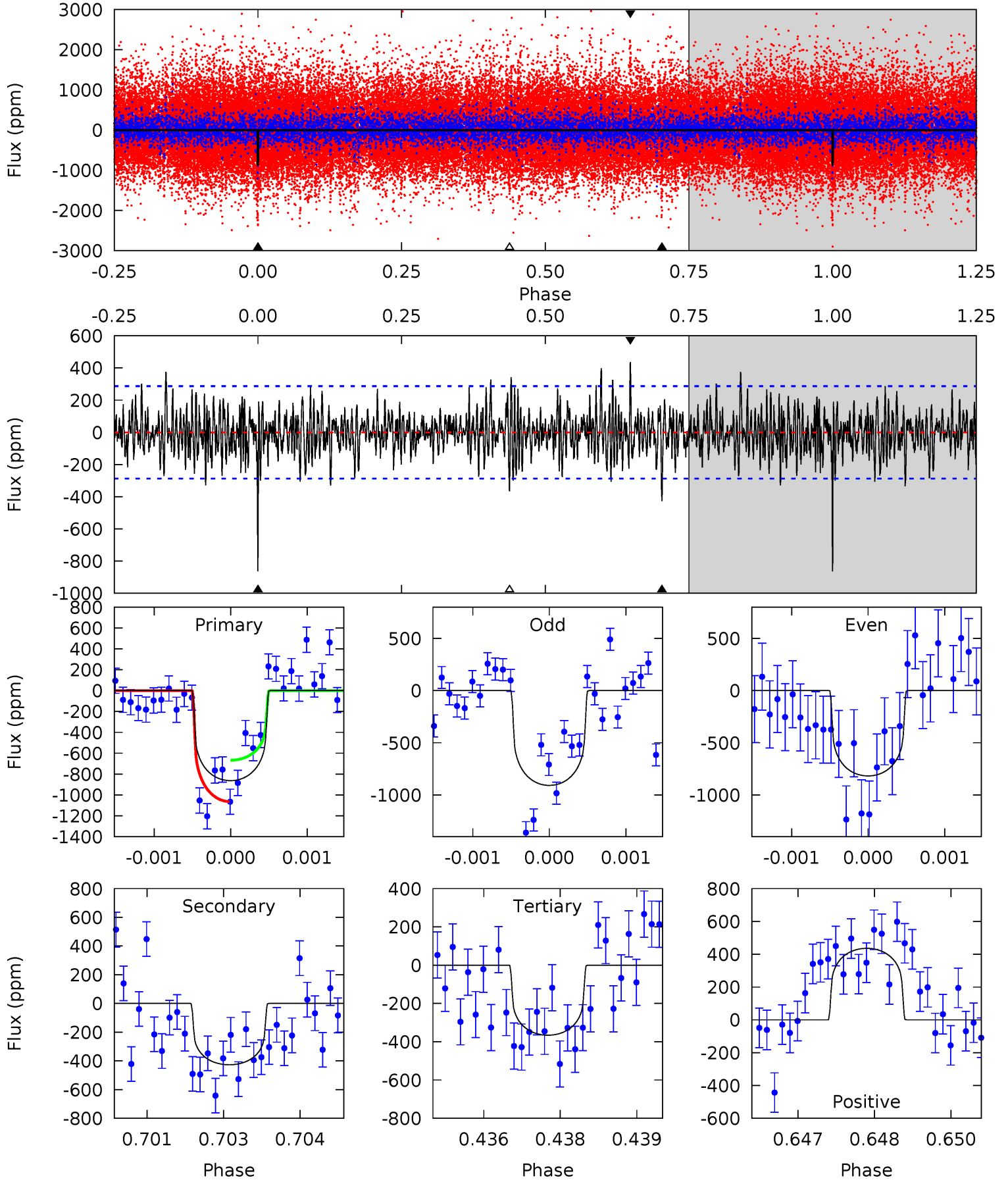
TCE 008038175-01 P=456.649199 Days $T_0=187.194898$ (BKJD)



DV Model-Shift Uniqueness Test

008038175-01, P = 456.657537 Days, E = 187.207178 Days

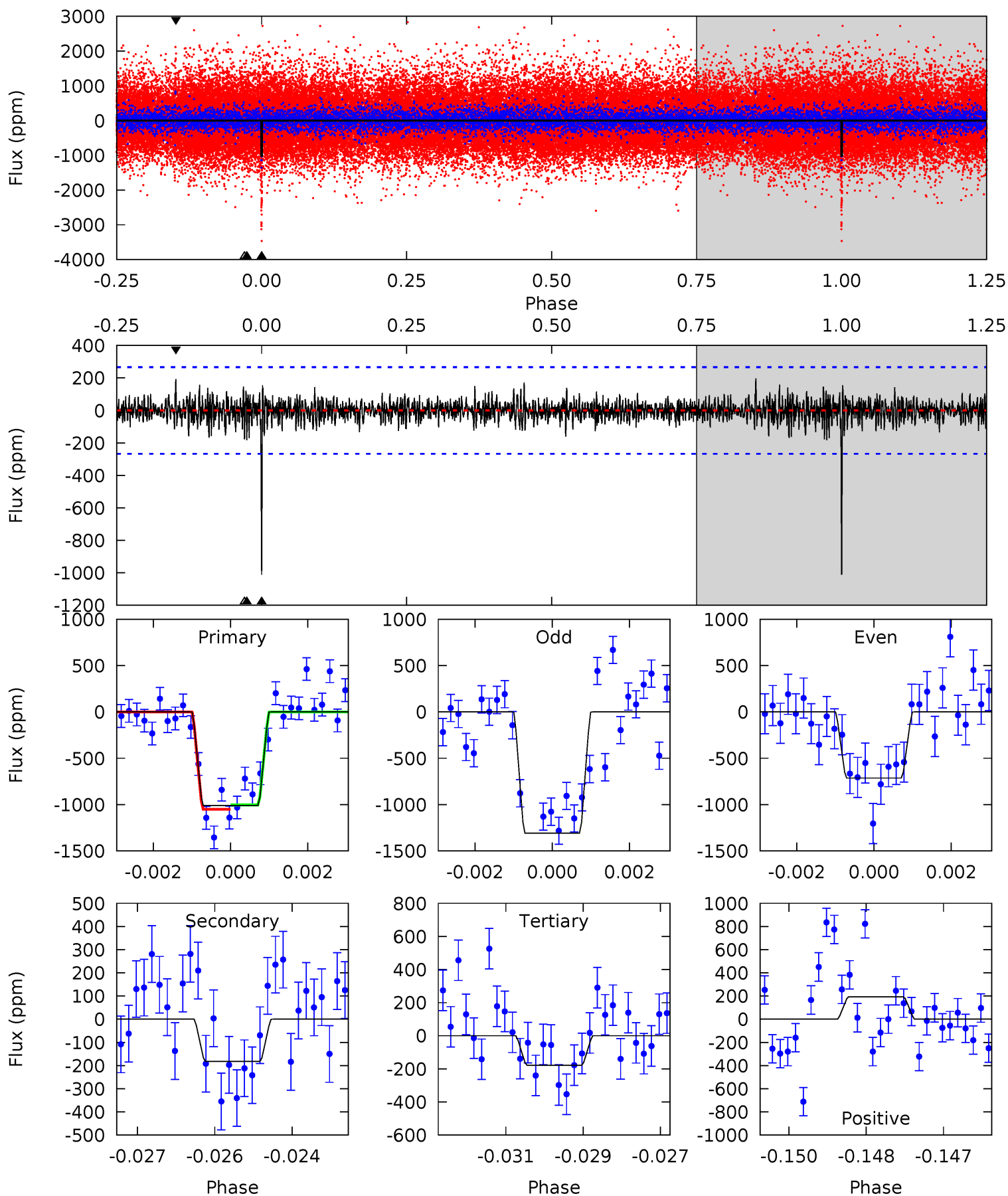
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	8.00	6.85	8.17	5.38	3.18	2.01	9.31	8.00	1.15	-0.17	0.85	1.06	0.34	3.73



Alt Model-Shift Uniqueness Test

008038175-01, P = 456.649199 Days, E = 187.194898 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	3.67	3.59	3.89	5.38	3.17	0.92	16.8	16.5	0.08	-0.22	5.99	1.42	0.16	0.48



Stellar Parameters For KIC 008038175

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5749^{+153}_{-170}	$4.547^{+0.042}_{-0.179}$	$-0.100^{+0.250}_{-0.300}$	$0.864^{+0.221}_{-0.074}$	$0.961^{+0.095}_{-0.116}$	$2.097^{+0.461}_{-0.937}$
	+3%/-3%	+1%/-4%	+250%/-300%	+26%/-9%	+10%/-12%	+22%/-45%
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 008038175-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-427 ± 53	$3.10^{+1.81}_{-1.74}$	314^{+20}_{-14}	4810^{+2081}_{-800}	$32103^{+131776}_{-19581}$
Alt.	-182 ± 50	$3.63^{+1.68}_{-1.68}$	314^{+18}_{-13}	3820^{+1019}_{-495}	9684^{+23700}_{-5598}

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 $A_{obs} \gg 1.0$

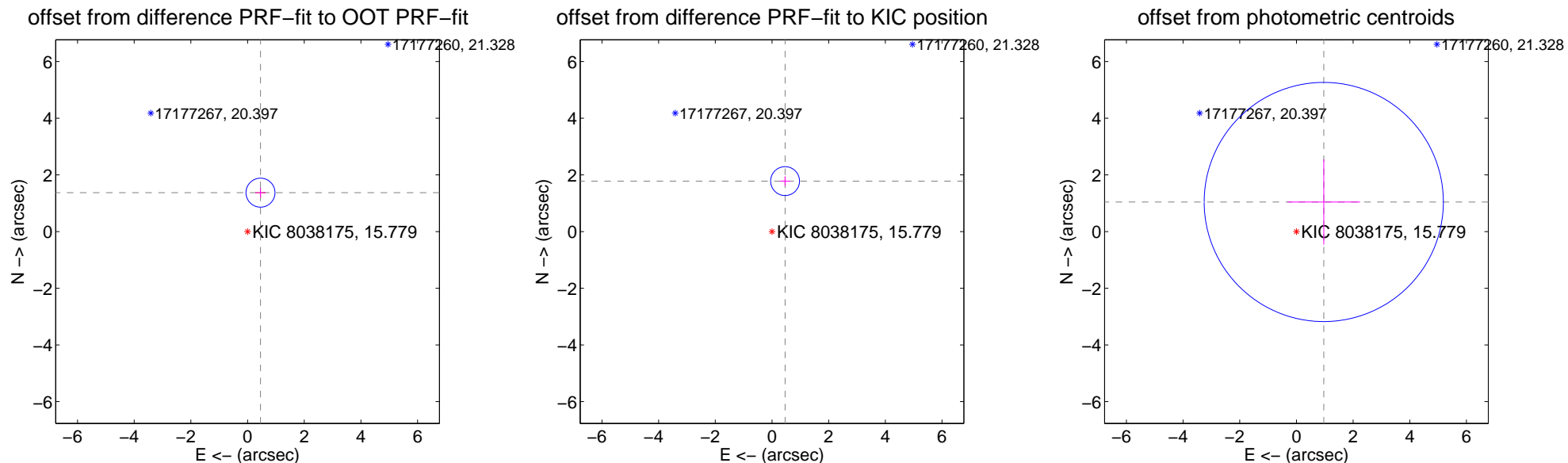
DV Centroid Data

Supplemental centroid analysis for 008038175-01. Kepler magnitude: 15.78. Transit SNR 11.13

There are 0 quarters with good PRF difference image offsets

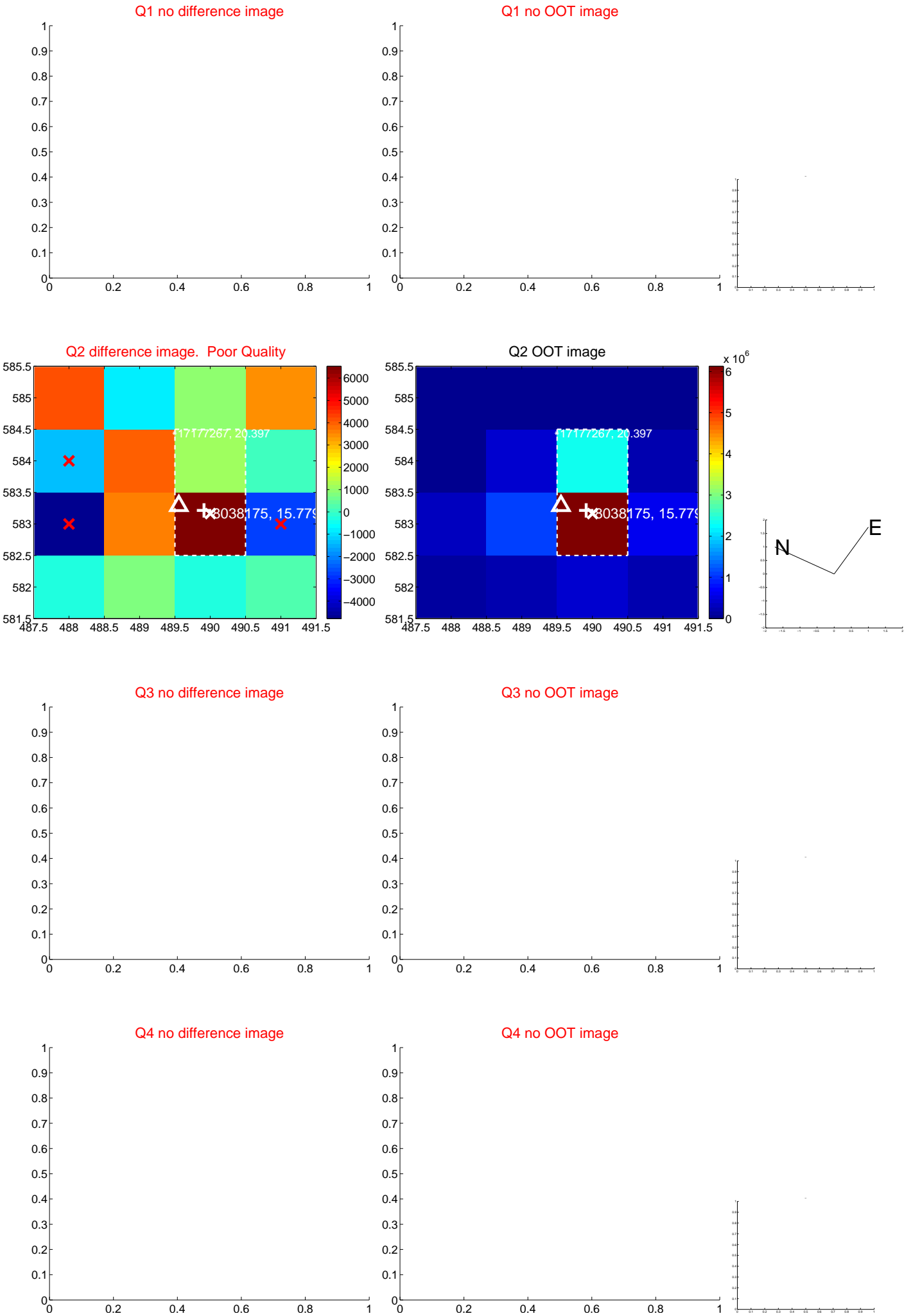
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.447 ± 0.170	8.49	-0.456 ± 0.185	1.373 ± 0.169
PRF-fit source offset from KIC position	1.840 ± 0.170	10.83	-0.462 ± 0.185	1.781 ± 0.169
photometric centroid source offset	1.42 ± 1.41	1.01	-0.96 ± 1.28	1.04 ± 1.51



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.



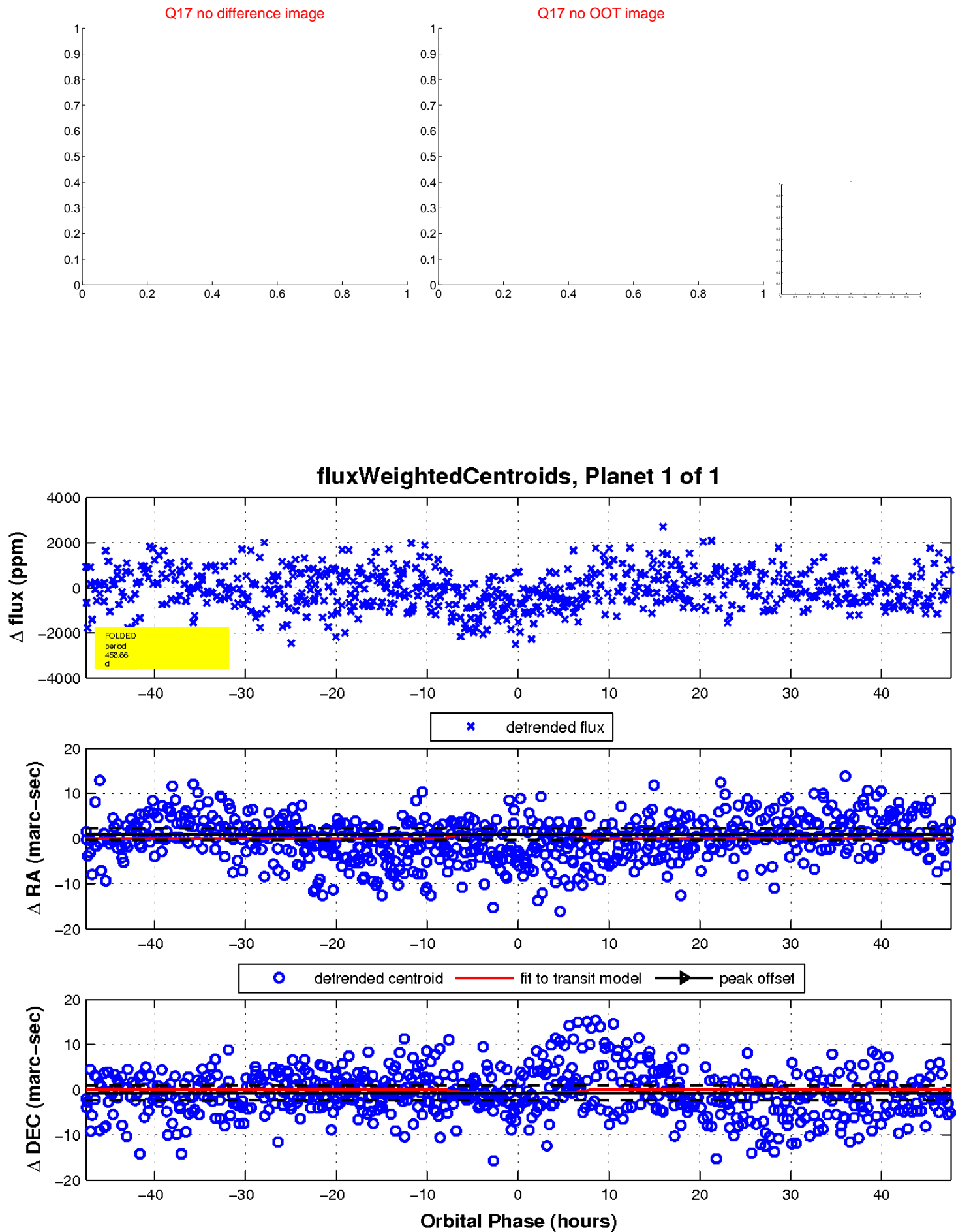
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

