

KIC 008210432

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})
008210432-01	OBS	No	518.435103	462.077953	160.7	5.253	8.3	5.6	3.20	5952	4.60	5.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008210432-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_TRACKER—ALL_TRANS_CHASES—MOD_TER_DV—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.

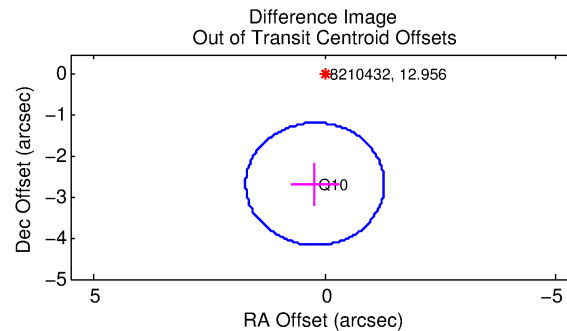
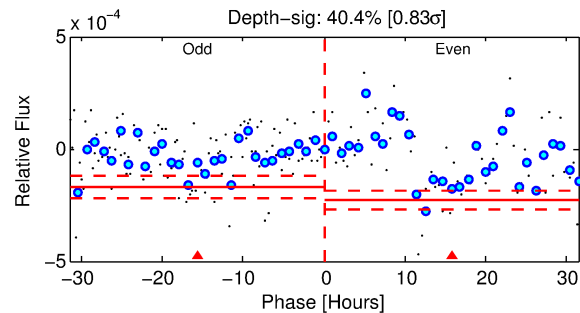
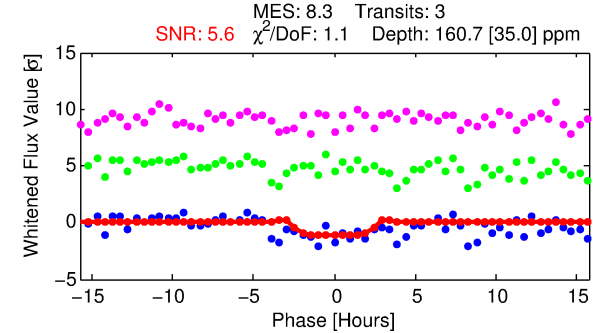
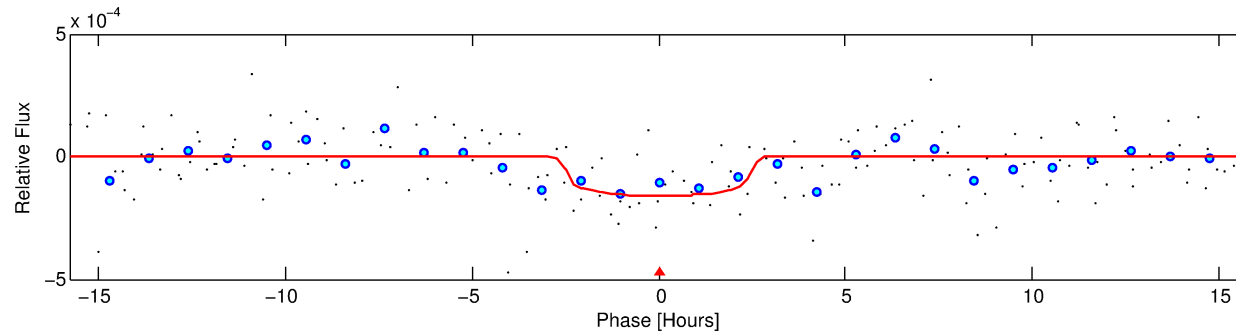
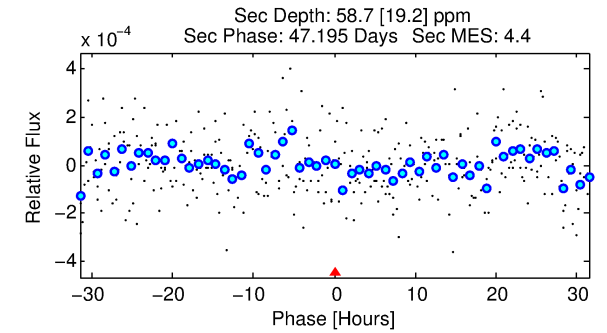
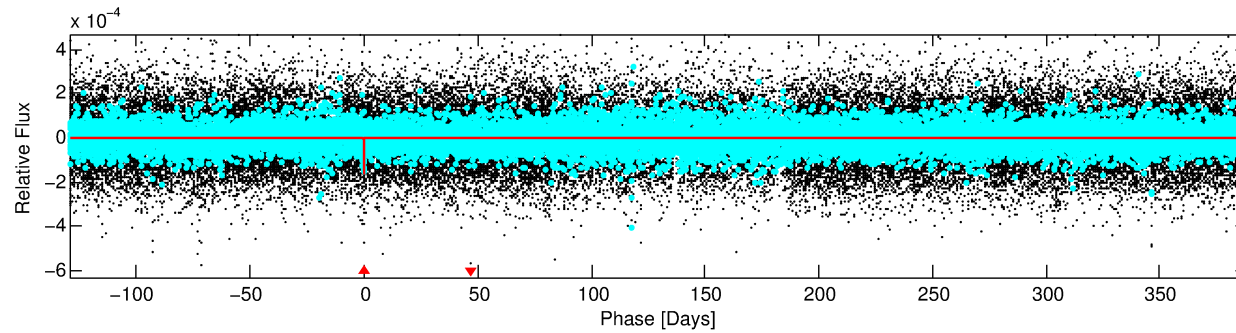
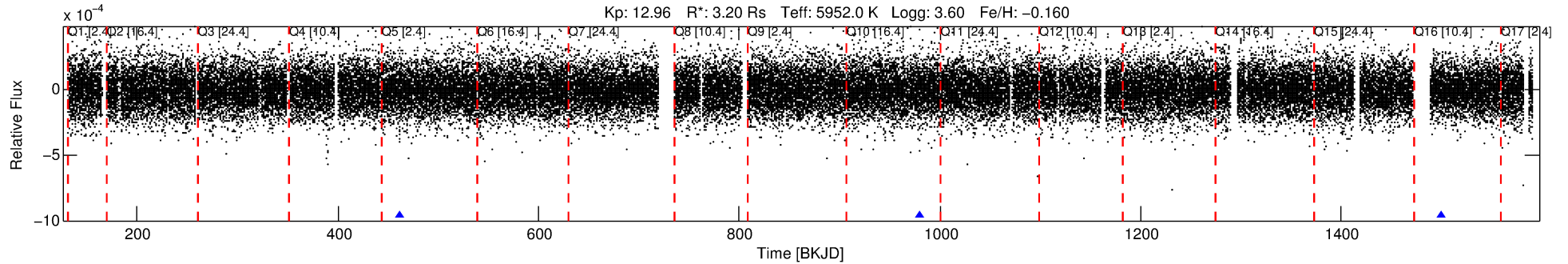
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008210432-01

No Significant Match Found

DV One-Page Summary

KIC: 8210432 Candidate: 1 of 1 Period: 518.435 d



DV Fit Results:

Period = 518.43510 [0.01253] d
Epoch = 462.0780 [0.0183] BKJD
Rp/R* = 0.0132 [0.0194]
a/R* = 418.22 [3131.90]
b = 0.85 [2.51]
Seff = 5.54 [3.63]
Teq = 391 [64] K
Rp = 4.60 [7.09] Re
a = 1.4419 [0.6031] AU
Ag = 3169.75 [9593.48] [0.33σ]
Teffp = 4538 [3358] K [1.23σ]

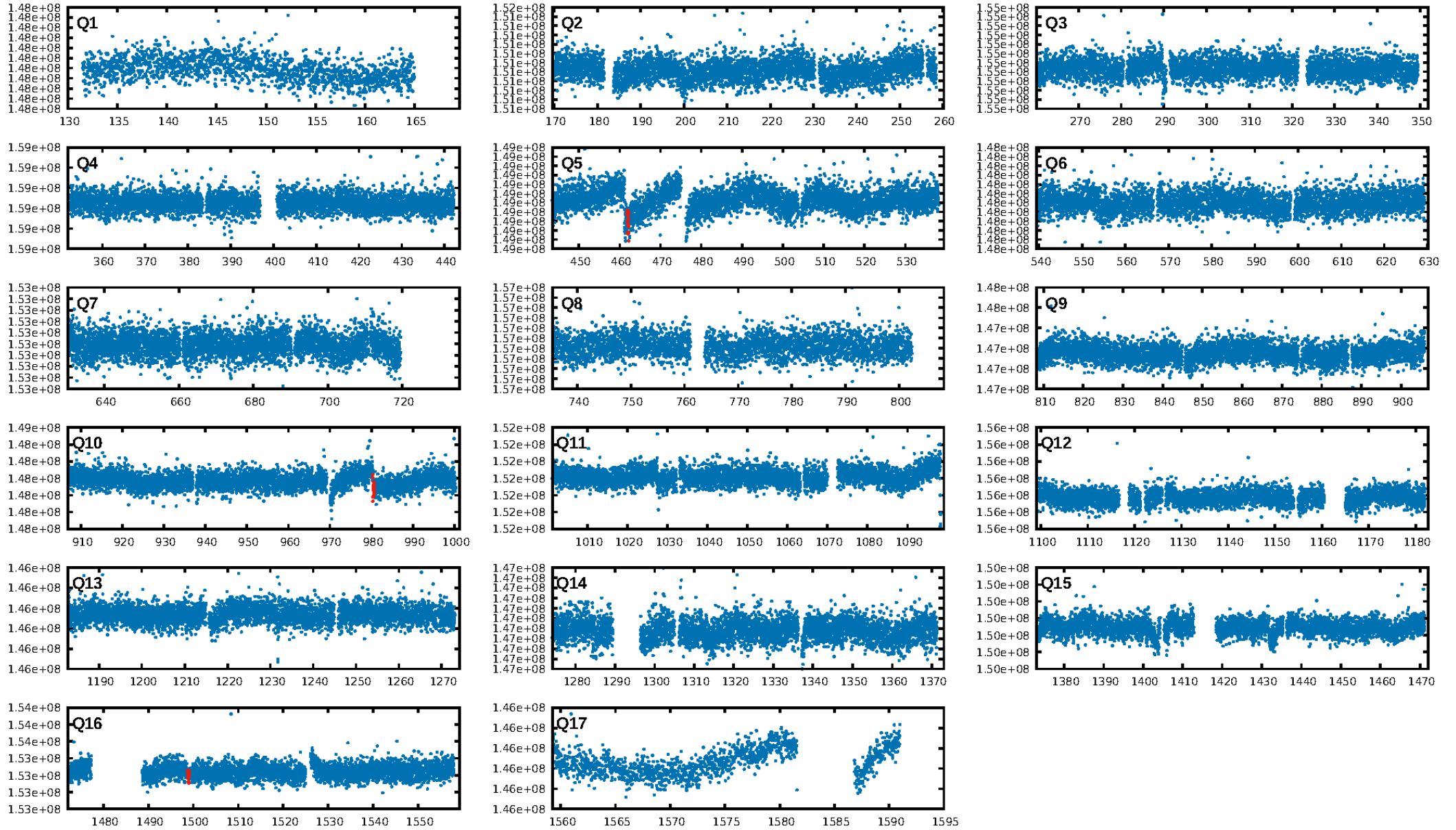
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 62.8%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 1.30e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 5.374
Centroid-sig: 12.8%
Centroid-so: 5.129 arcsec [1.39σ]
OotOffset-rm: 2.683 arcsec [5.37σ]
KicOffset-rm: 3.116 arcsec [6.24σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [2/2]

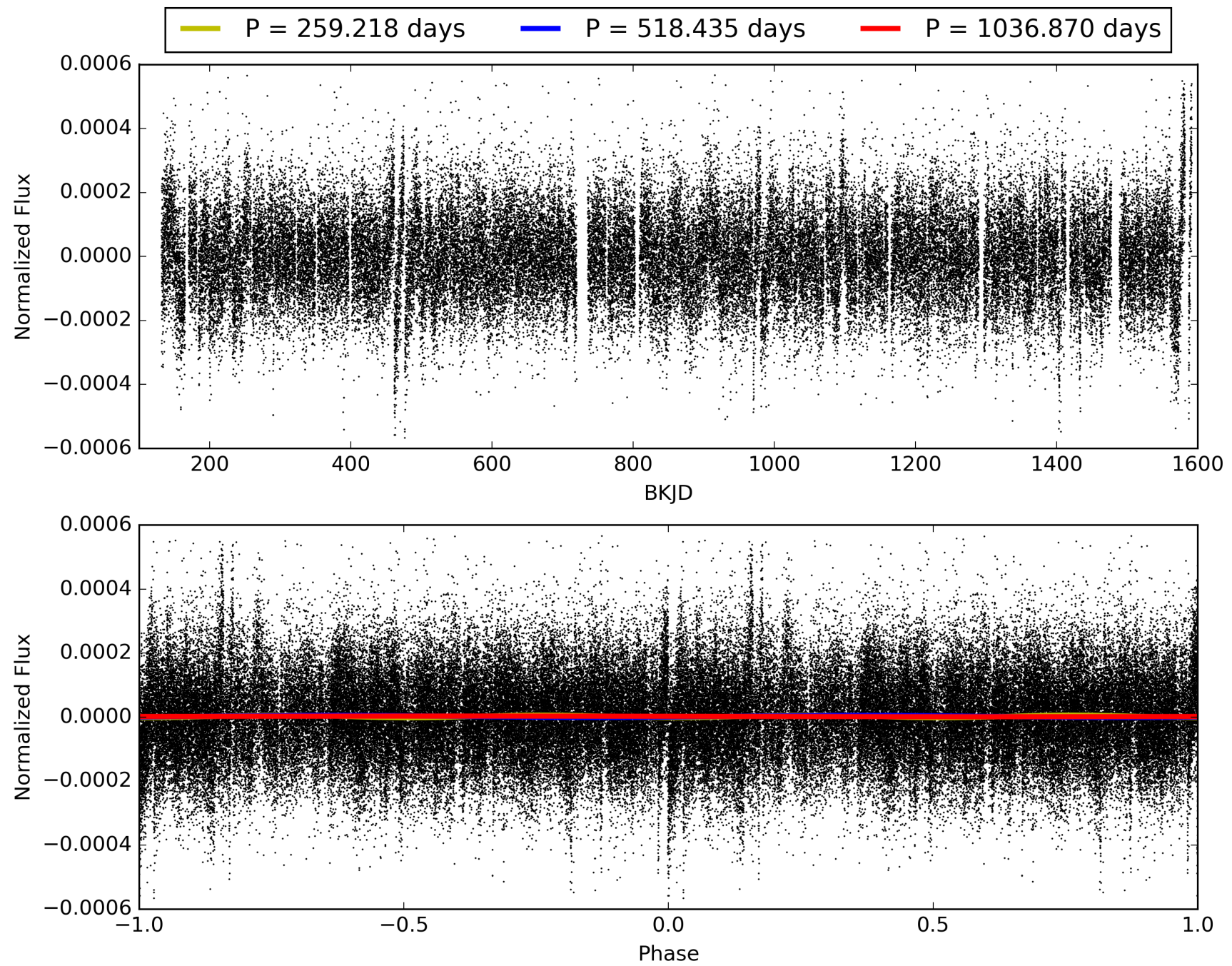
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 07:01:11 Z

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

TCE 008210432-01, PDC Light Curves

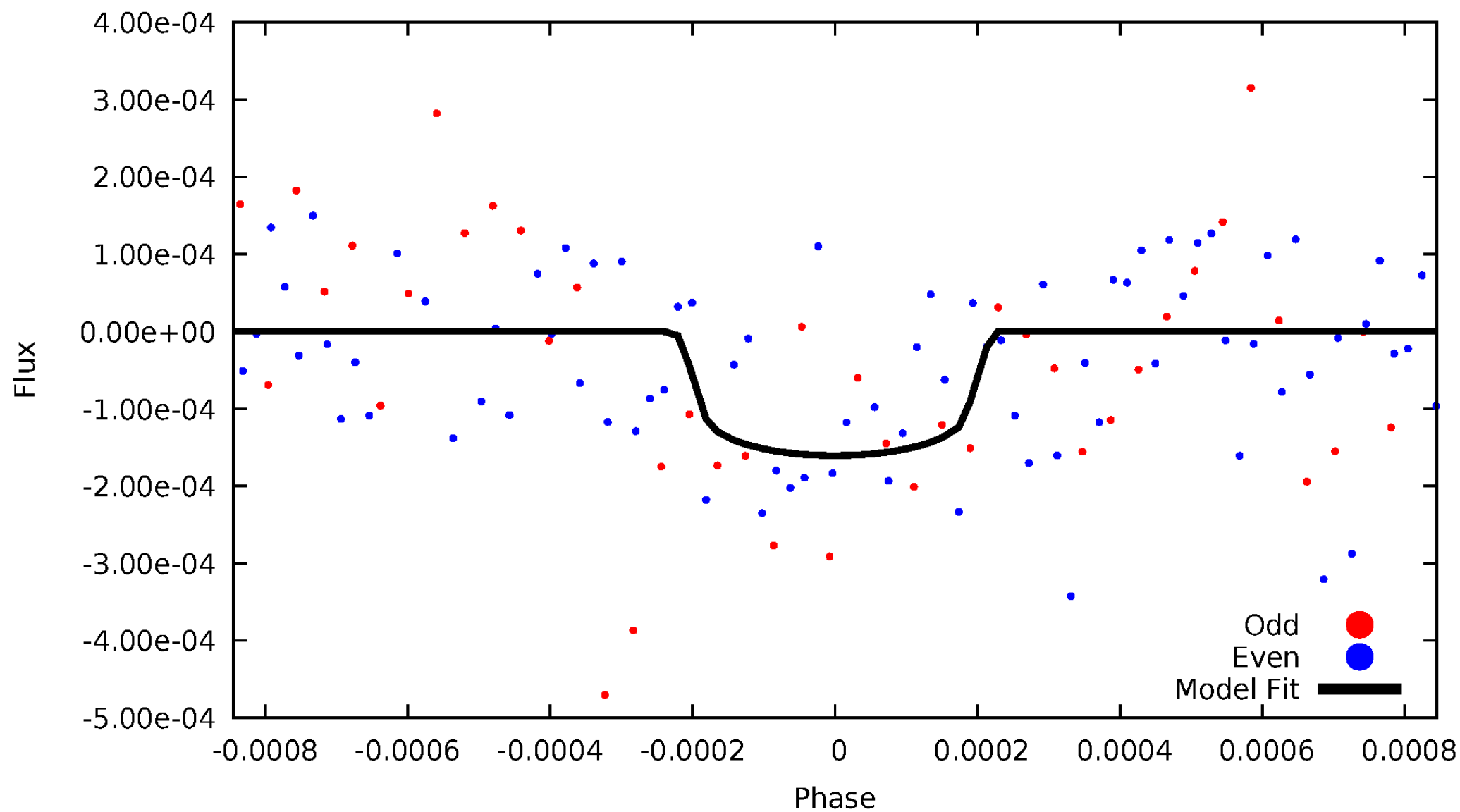


TCE 008210432-01



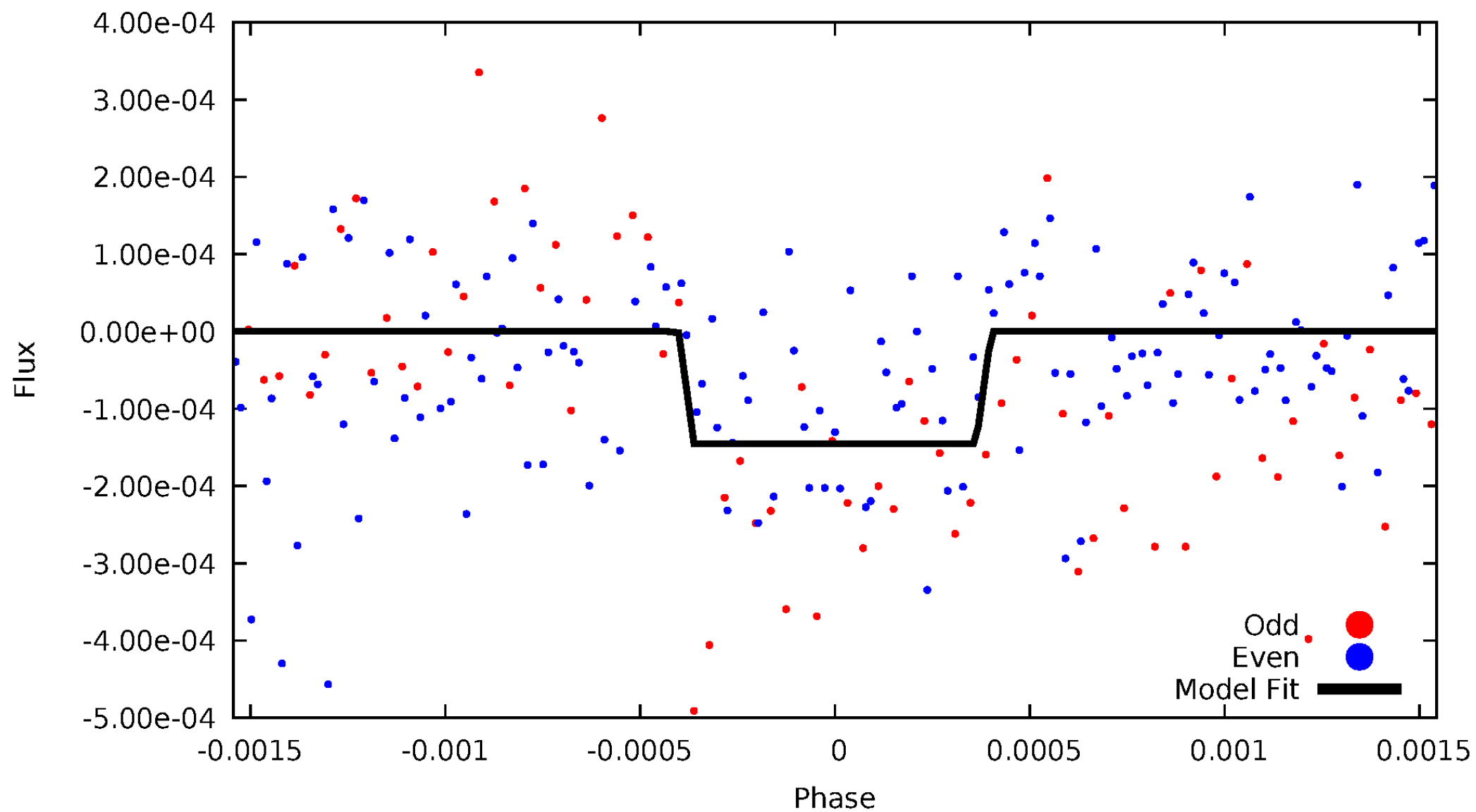
DV Odd/Even

TCE 008210432-01

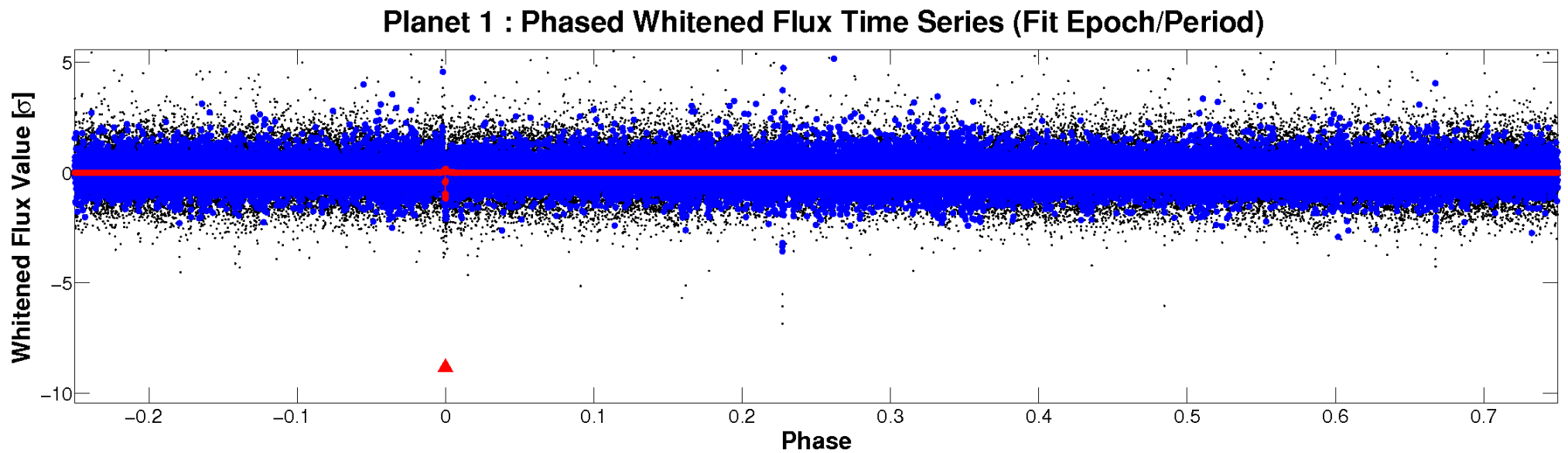
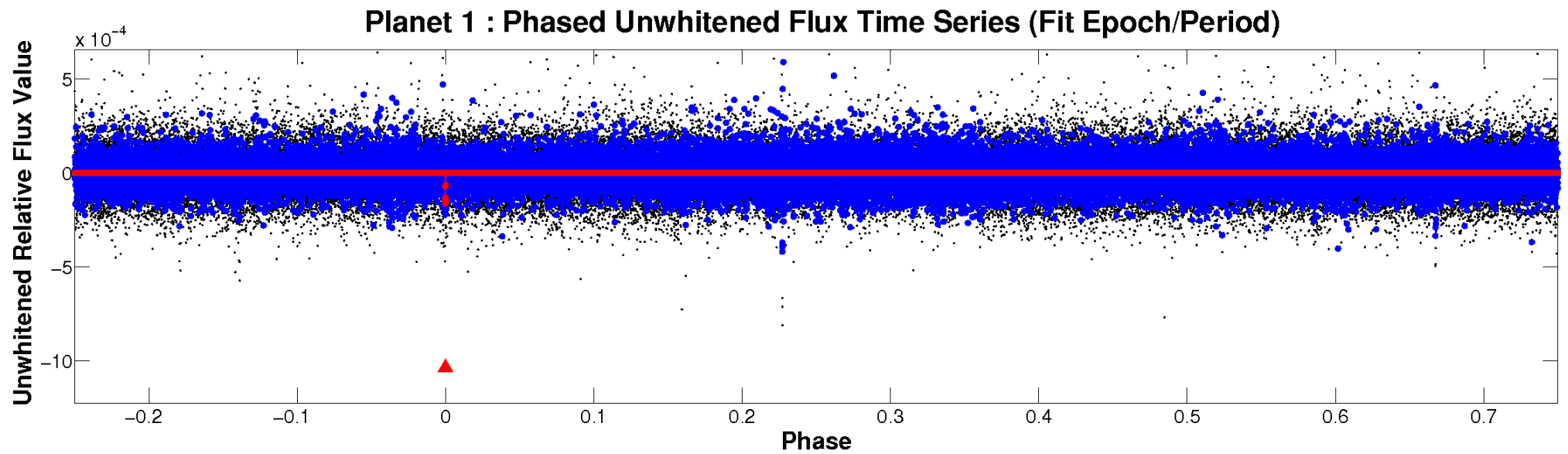


ALT Odd/Even

TCE 008210432-01

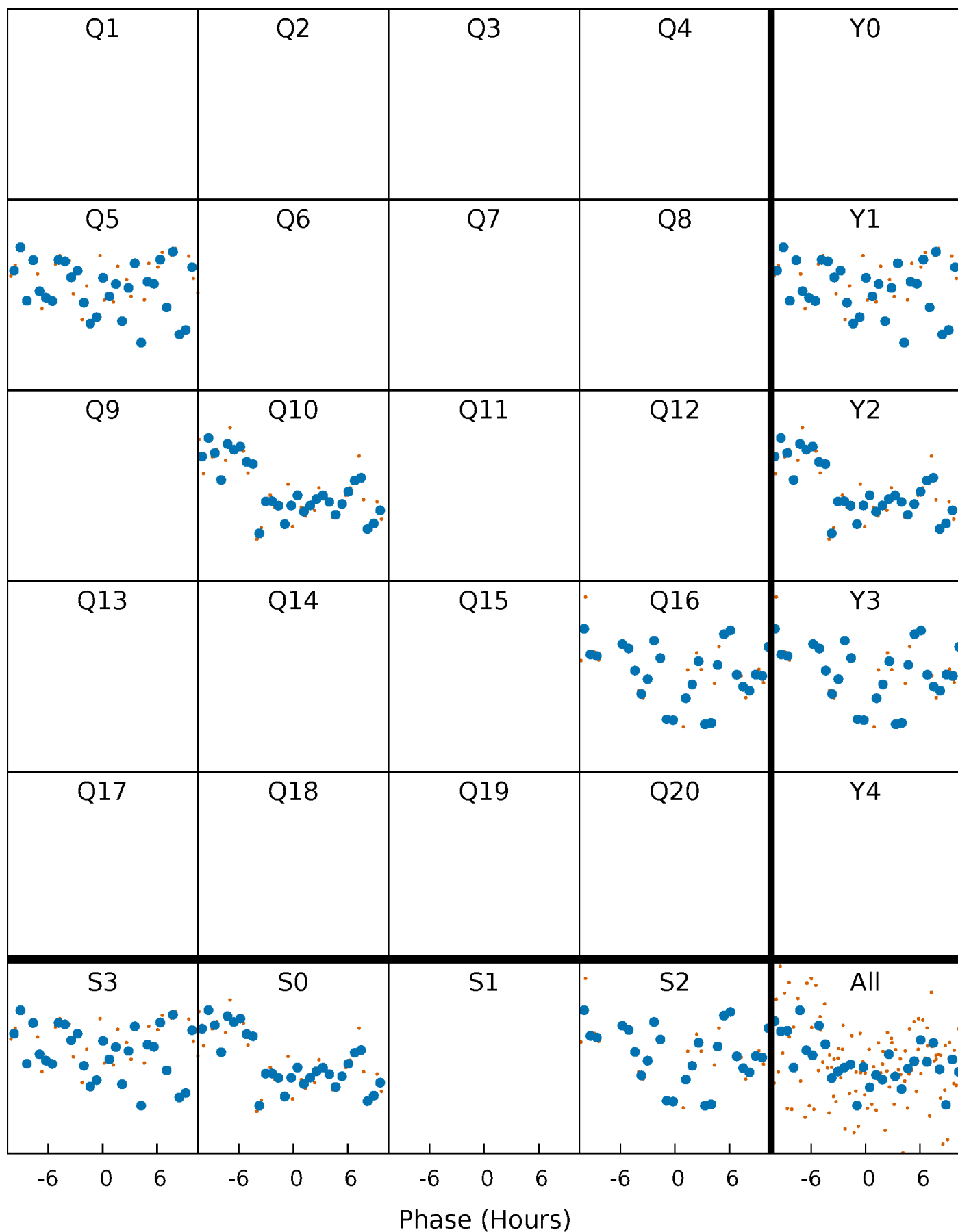


Non-Whitened Vs. Whitened Light Curve



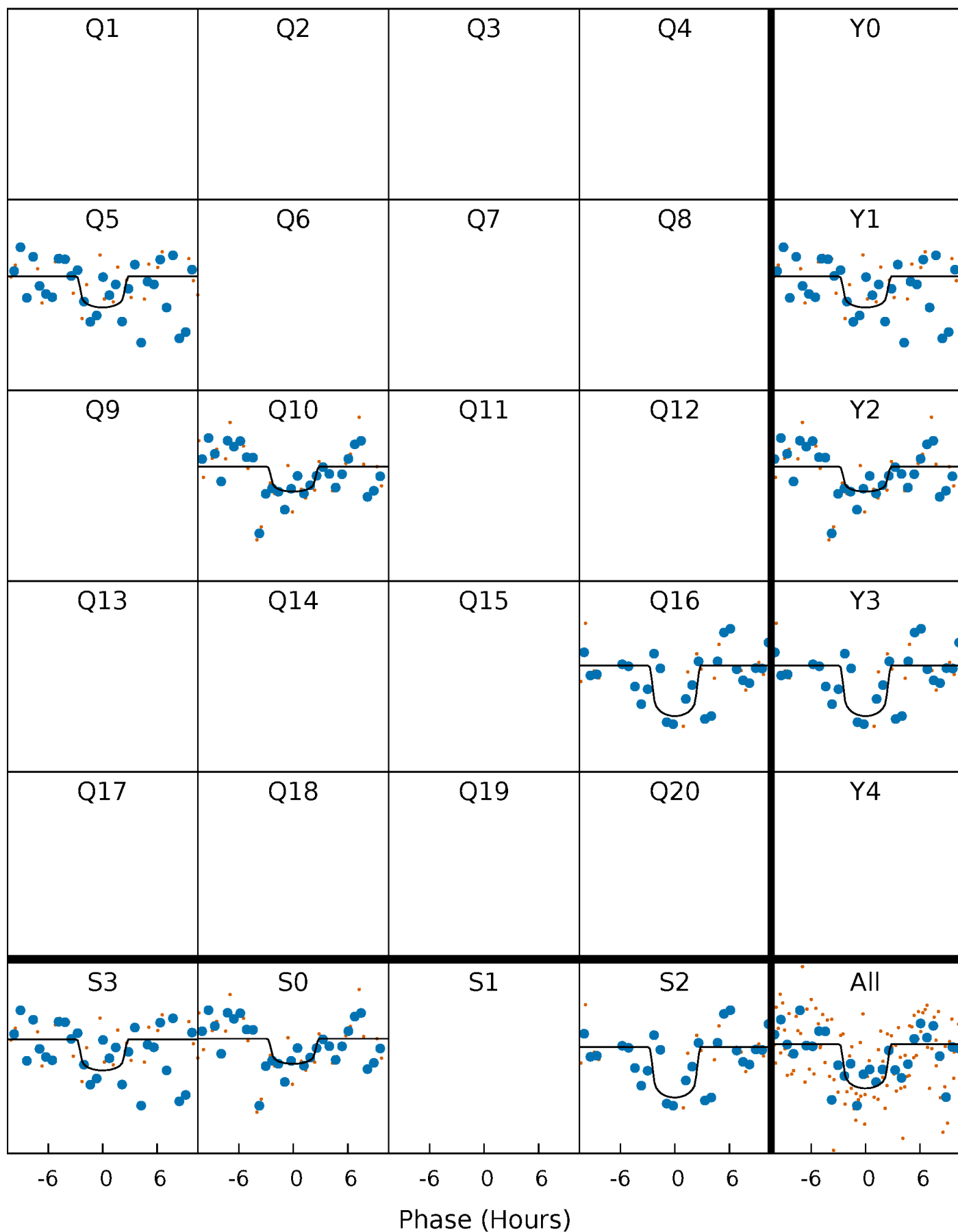
PDC Quarter-Phased Transit Curves

TCE 008210432-01 P=518.435103 Days $T_0=462.077953$ (BKJD)



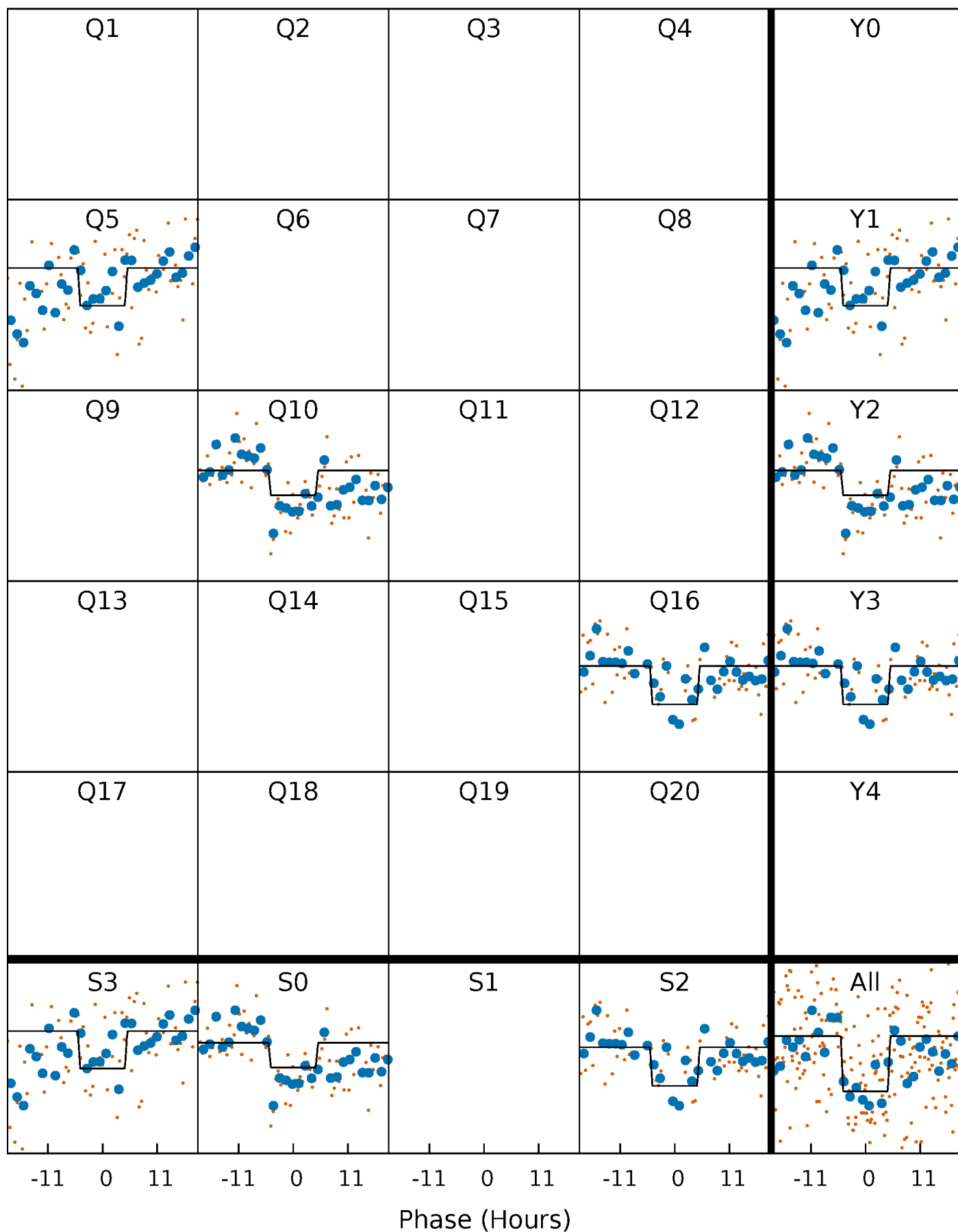
DV Quarter-Phased Transit Curves

TCE 008210432-01 P=518.435103 Days $T_0=462.077953$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

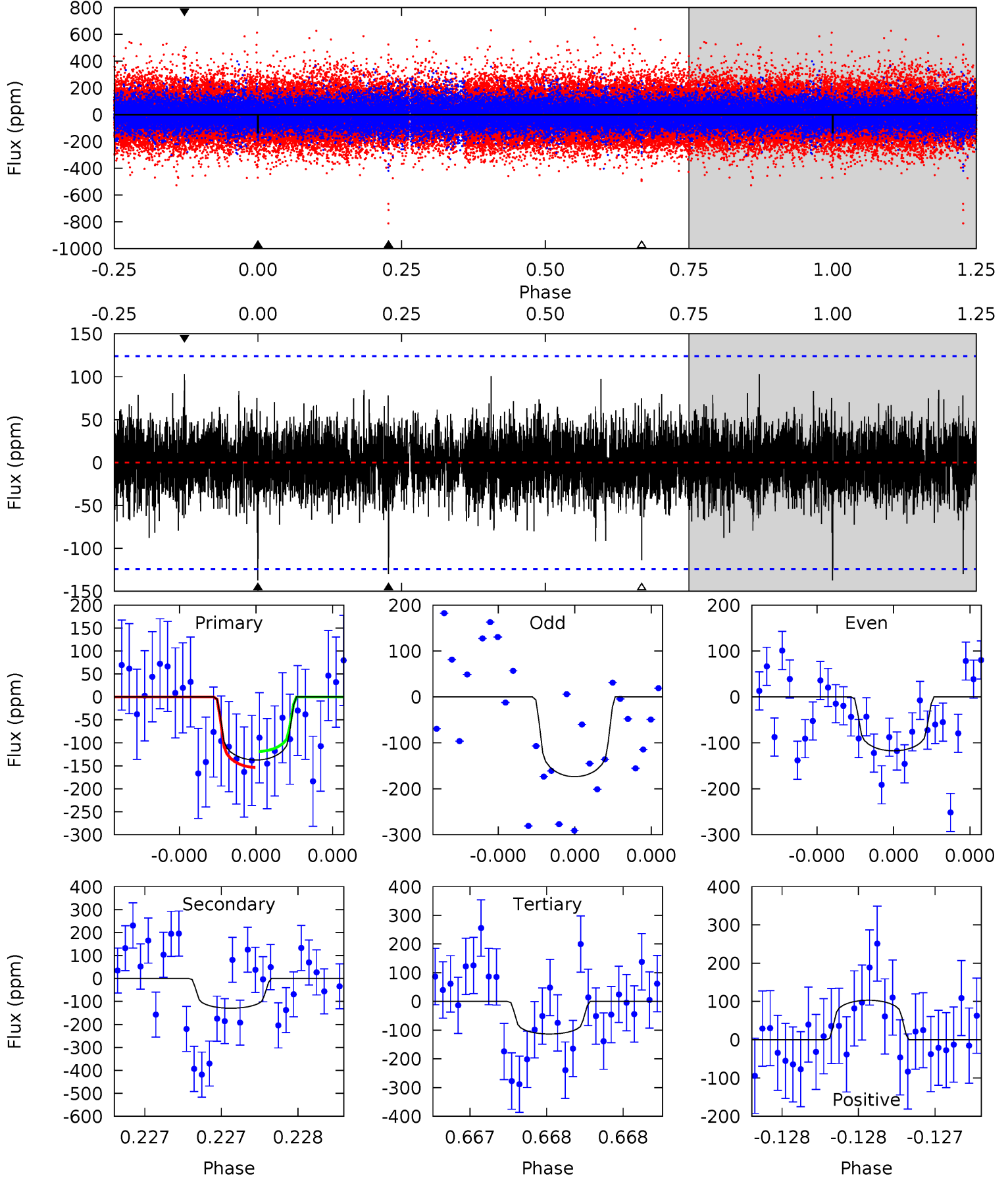
TCE 008210432-01 P=518.406228 Days $T_0=462.126967$ (BKJD)



DV Model-Shift Uniqueness Test

008210432-01, P = 518.435103 Days, E = 462.077953 Days

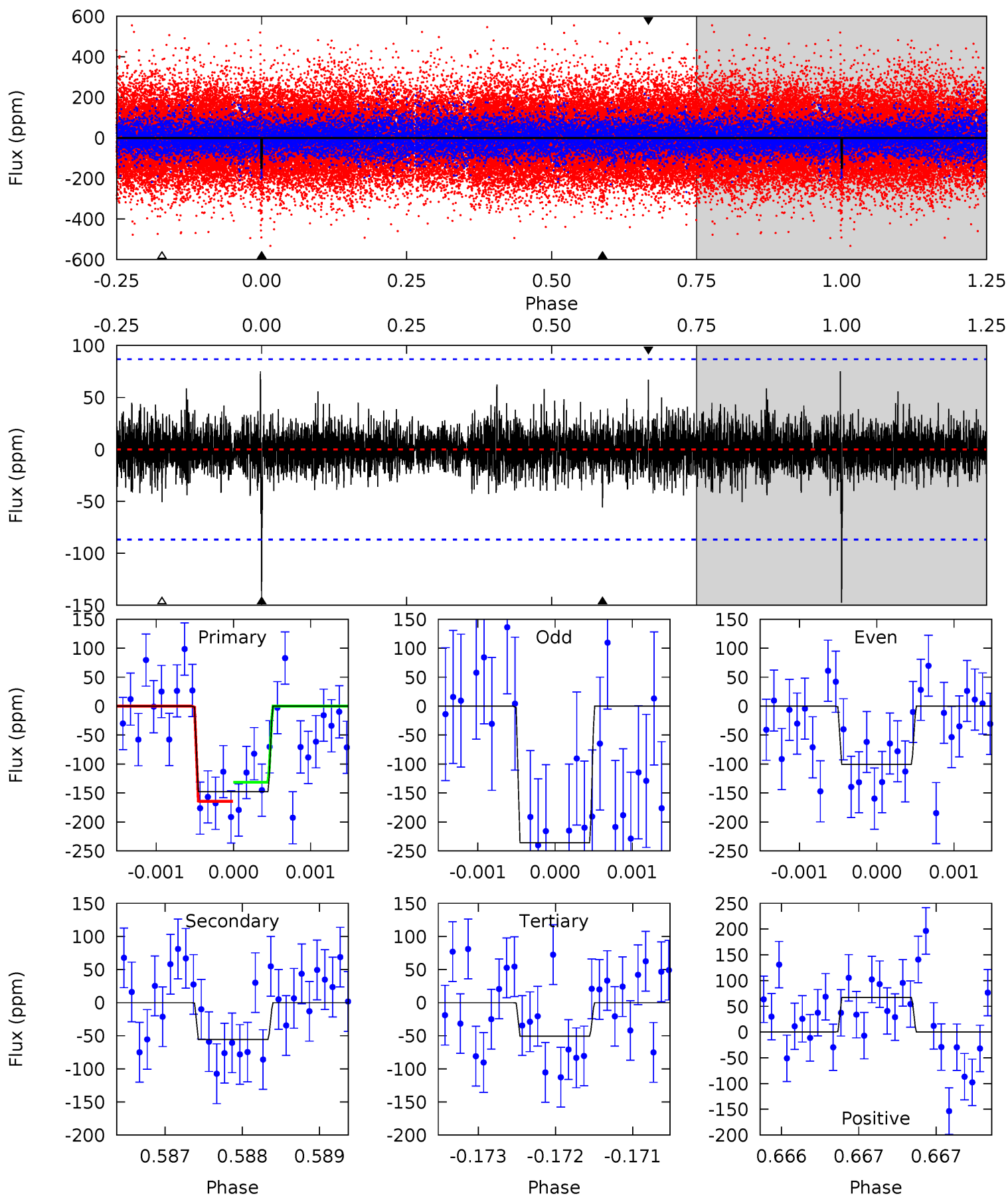
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.20	5.85	5.12	4.66	5.60	3.52	1.08	1.08	1.55	0.72	1.19	1.22	1.15	0.43	0.78



Alt Model-Shift Uniqueness Test

008210432-01, P = 518.406228 Days, E = 462.126967 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.34	3.52	3.20	4.24	5.49	3.35	0.91	6.13	5.09	0.32	-0.72	4.08	1.29	0.34	1.05



Stellar Parameters For KIC 008210432

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5952^{+177}_{-160}	$3.600^{+0.368}_{-0.123}$	$-0.160^{+0.350}_{-0.300}$	$3.200^{+0.592}_{-1.481}$	$1.486^{+0.181}_{-0.422}$	$0.064^{+0.217}_{-0.019}$
	+3%/-3%	+10%/-3%	+219%/-188%	+18%/-46%	+12%/-28%	+340%/-30%
Source	PHO1	FLK73	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 008210432-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-129 ± 22	$6.11^{+5.49}_{-3.90}$	538^{+37}_{-64}	4720^{+2816}_{-970}	3778^{+26308}_{-2708}
Alt.	-56 ± 16	$5.91^{+5.88}_{-3.91}$	540^{+37}_{-56}	4076^{+2328}_{-815}	1752^{+13248}_{-1326}

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

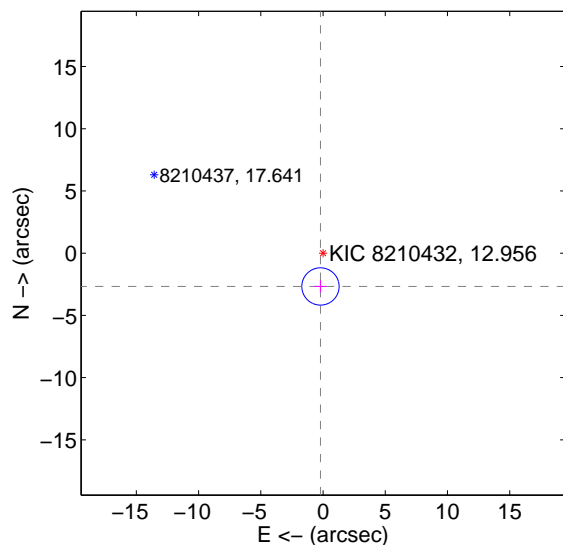
Supplemental centroid analysis for 008210432-01. Kepler magnitude: 12.96. Transit SNR 5.58

There are 1 quarters with good PRF difference image offsets

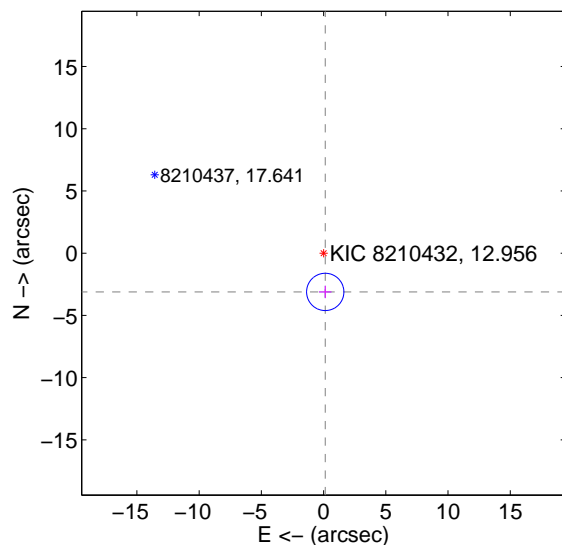
The direct PRF centroid is offset from the target star catalog position by about 0.55 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.683 ± 0.499	5.37	0.207 ± 0.500	-2.675 ± 0.499
PRF-fit source offset from KIC position	3.116 ± 0.499	6.24	-0.133 ± 0.500	-3.113 ± 0.499
photometric centroid source offset	5.13 ± 3.69	1.39	5.08 ± 3.71	0.72 ± 2.39

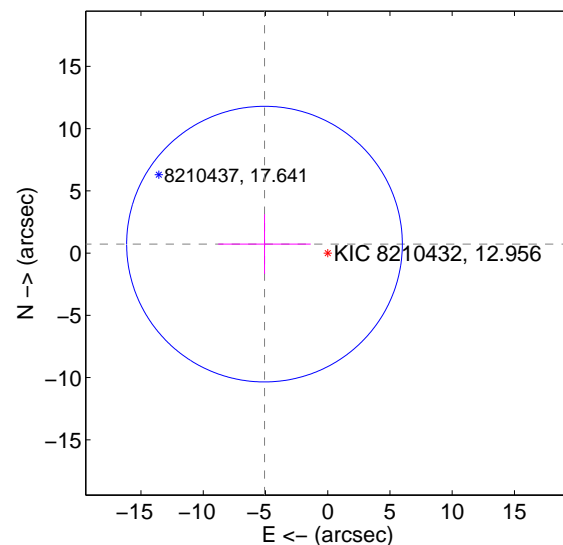
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

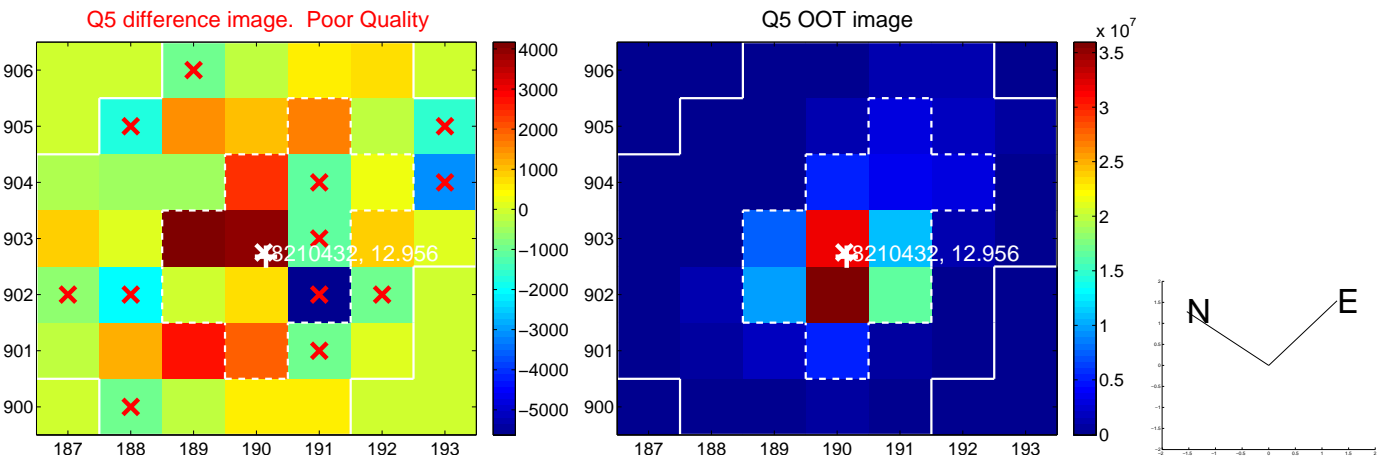


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

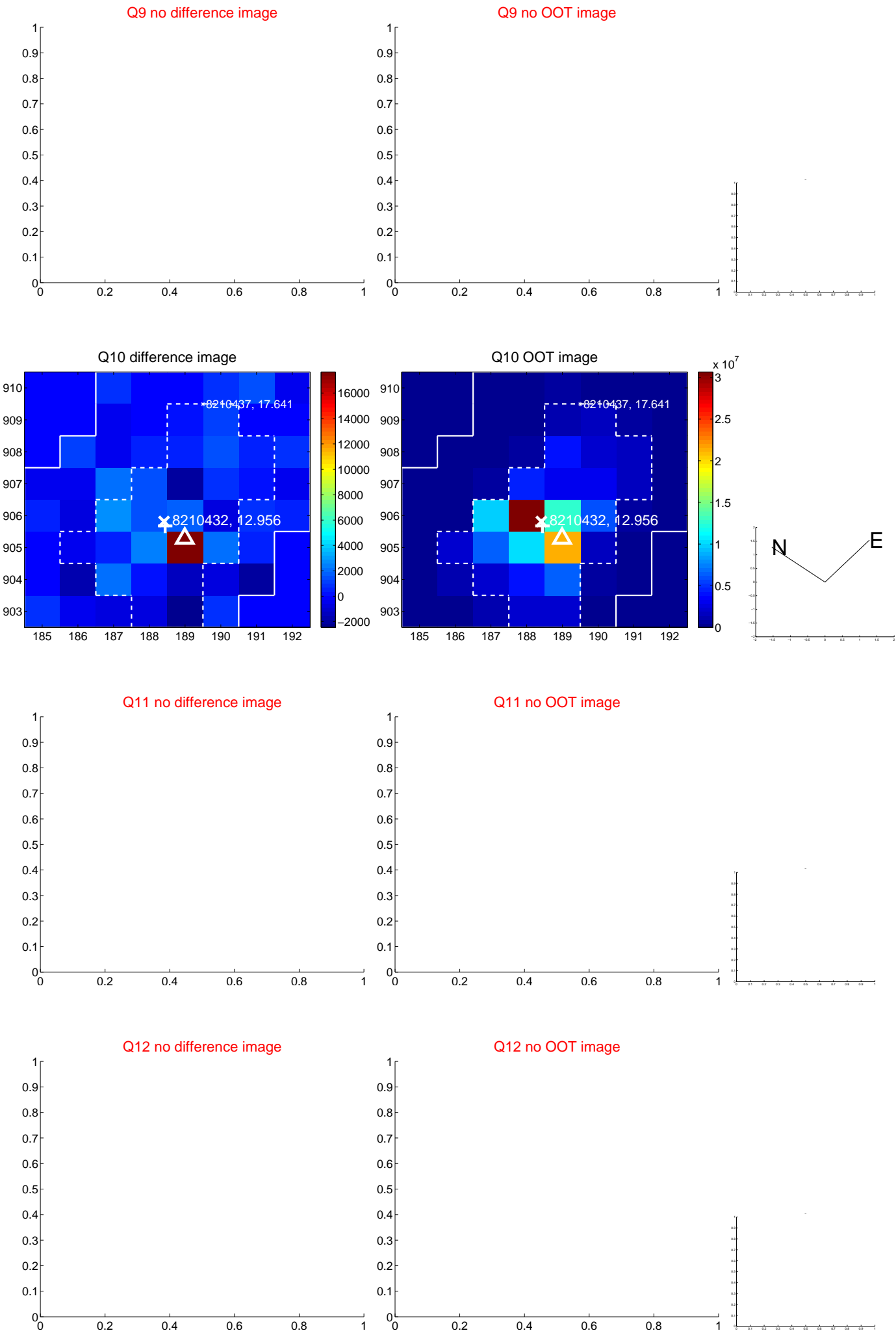
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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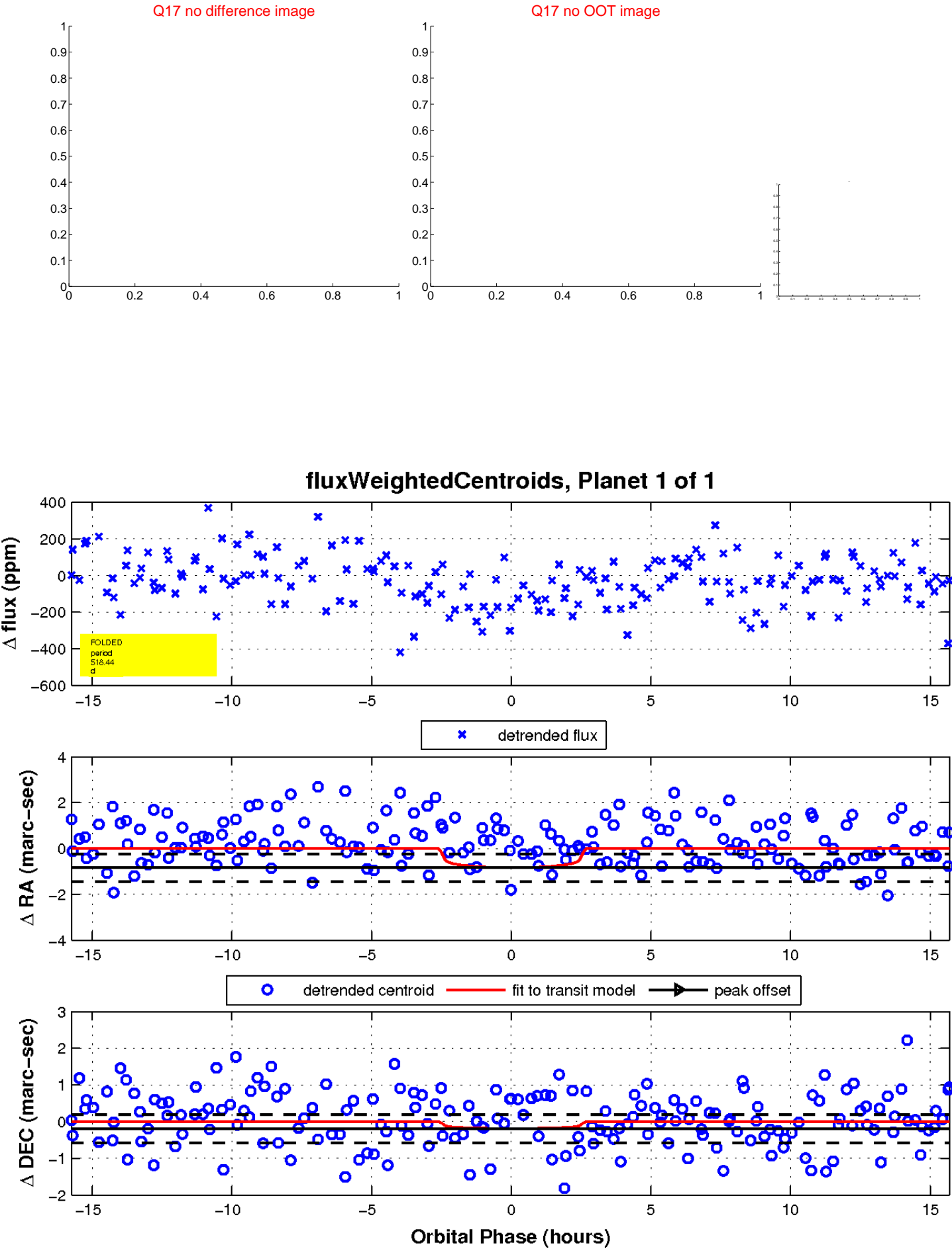
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

