

KIC 008145204

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})
008145204-01	OBS	No	419.737576	255.556305	381.3	26.692	11.5	11.0	1.04	6130	2.07	1.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008145204-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_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.

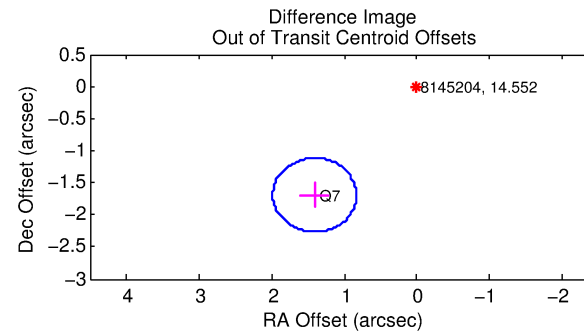
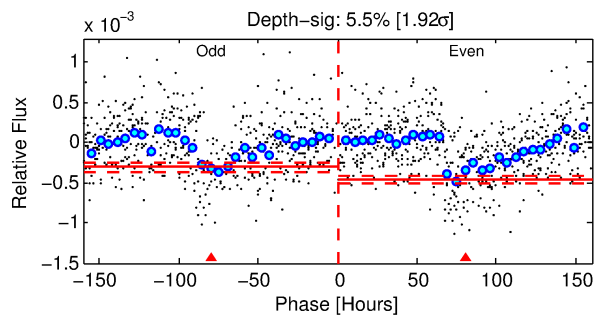
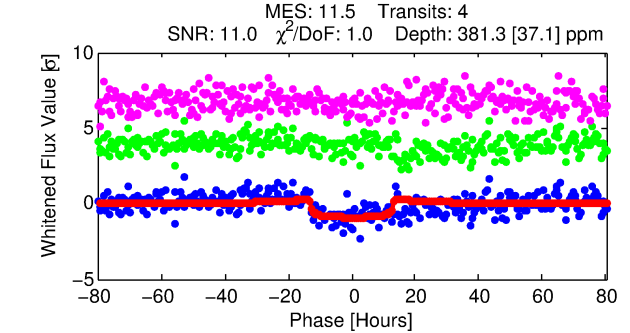
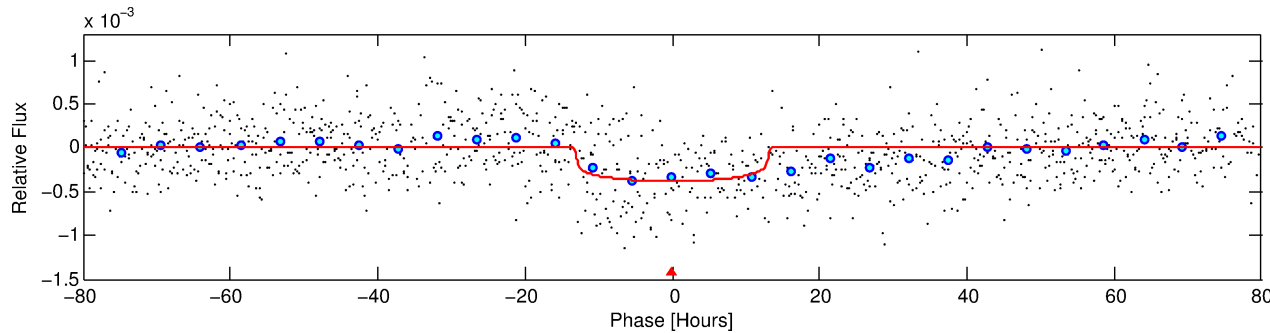
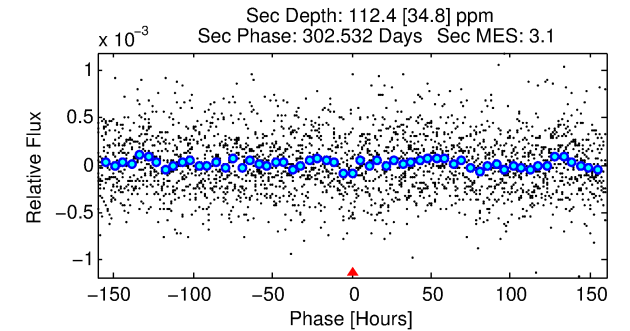
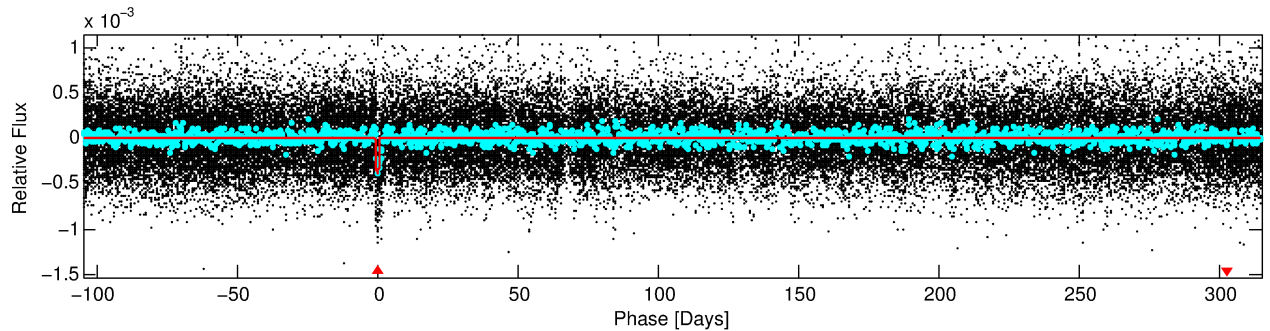
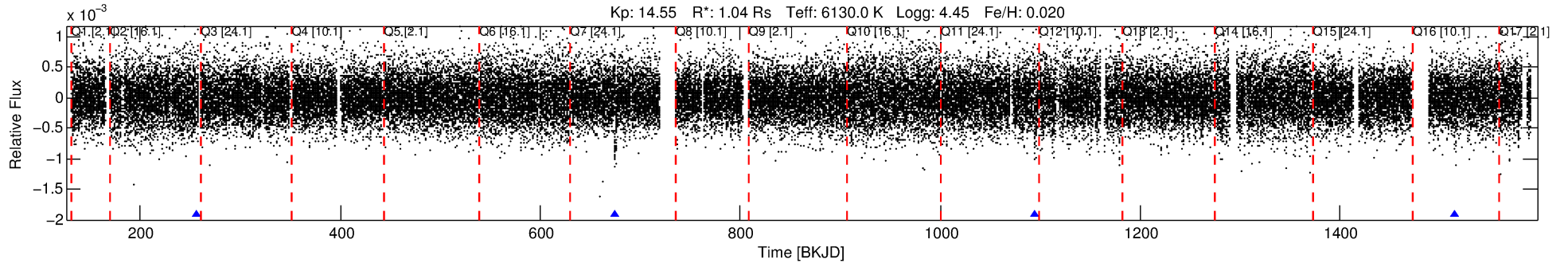
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008145204-01

No Significant Match Found

DV One-Page Summary

KIC: 8145204 Candidate: 1 of 1 Period: 419.738 d



DV Fit Results:

Period = 419.73758 [0.01327] d
Epoch = 255.5563 [0.0273] BKJD
Rp/R* = 0.0182 [0.0073]
a/R* = 110.88 [214.06]
b = 0.43 [3.68]
Seff = 1.06 [0.44]
Teq = 259 [27] K
Rp = 2.07 [1.05] Re
a = 1.1373 [0.3017] AU
Ag = 18602.07 [17623.19] [1.06σ]
Teffp = 4676 [1022] K [4.32σ]

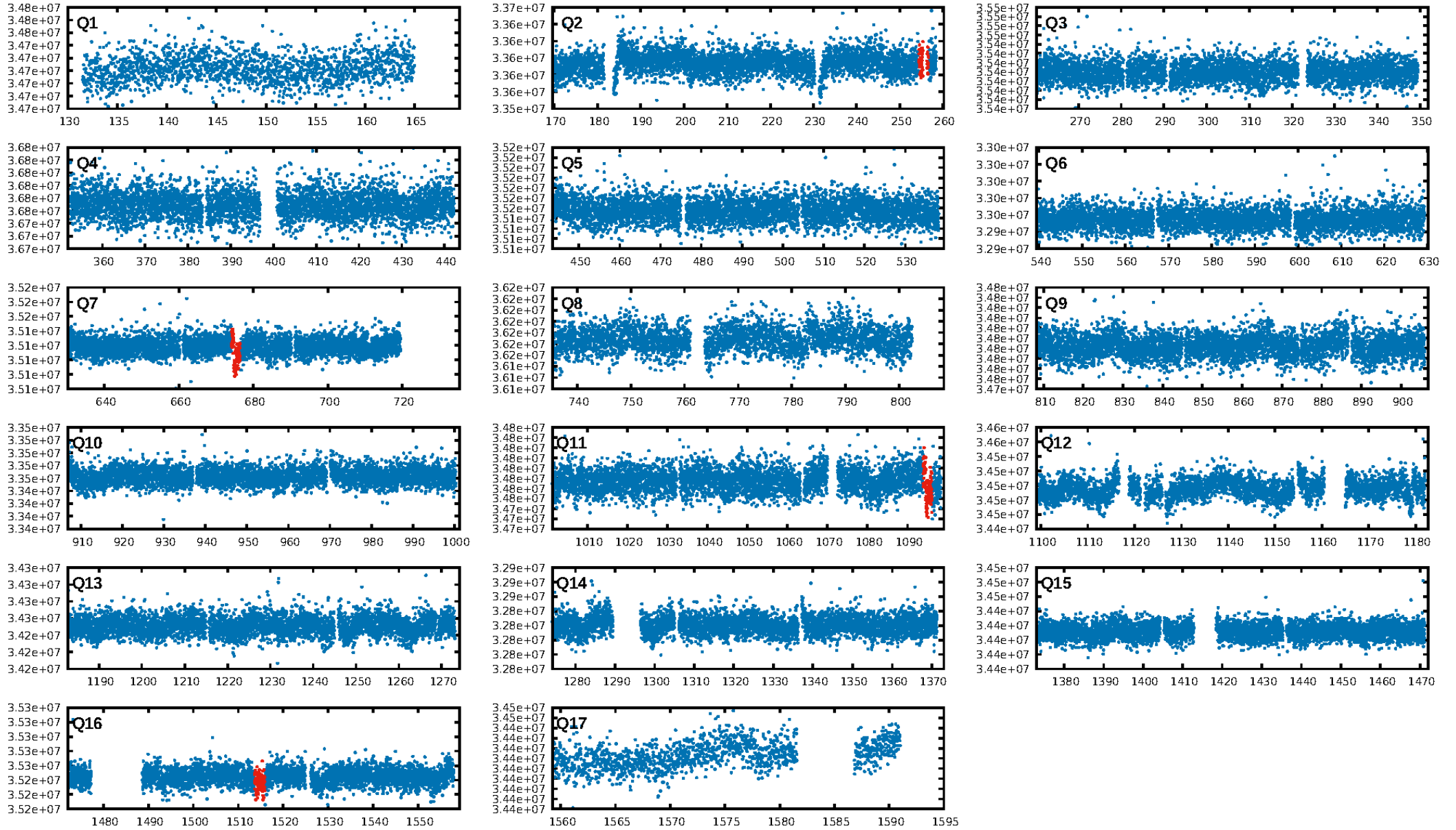
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.57e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 6.251
Centroid-sig: 6.2%
Centroid-so: 1.590 arcsec [1.40σ]
OotOffset-rm: 2.201 arcsec [11.48σ]
KicOffset-rm: 2.290 arcsec [11.94σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [1/1]

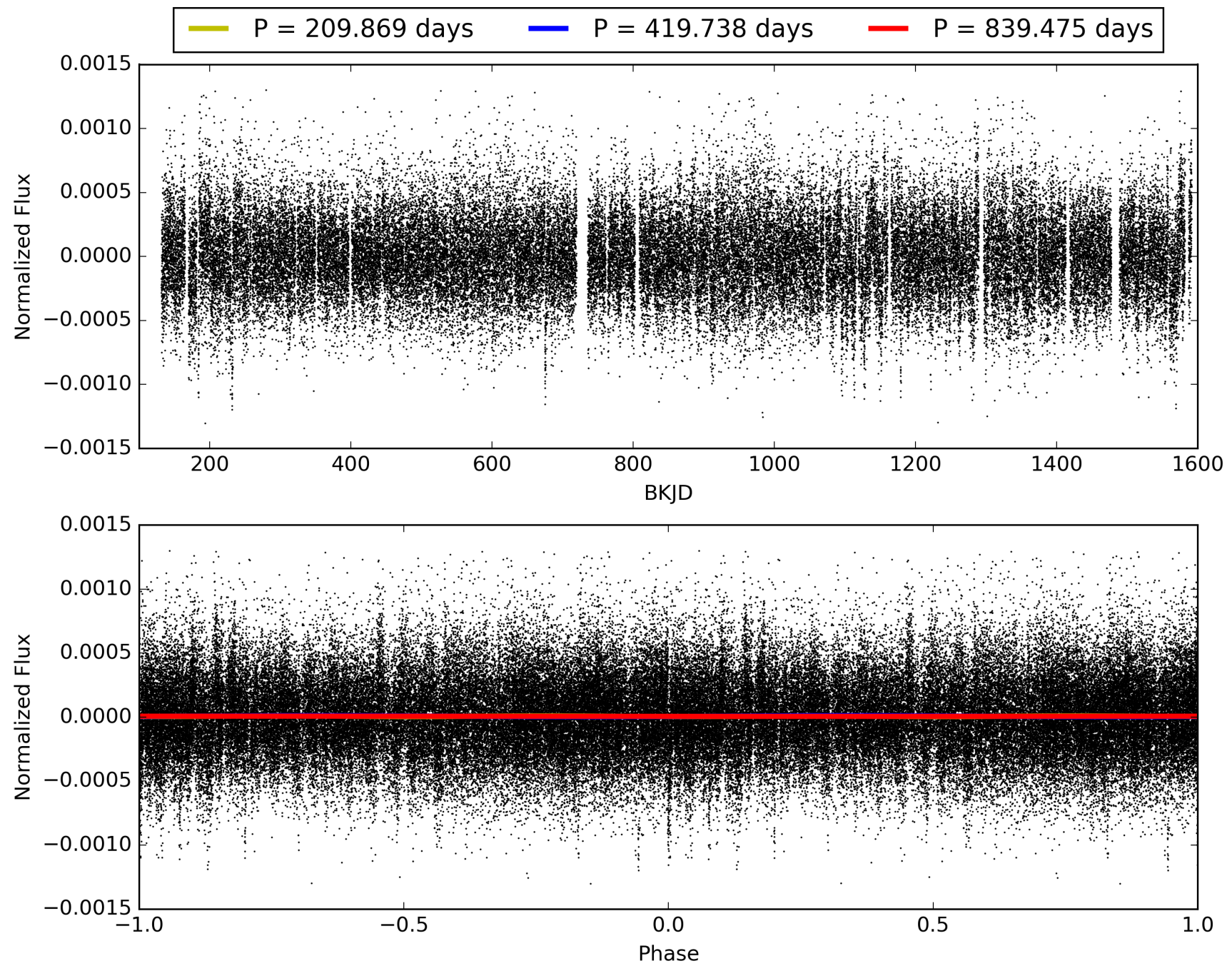
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:29:48 Z

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

TCE 008145204-01, PDC Light Curves

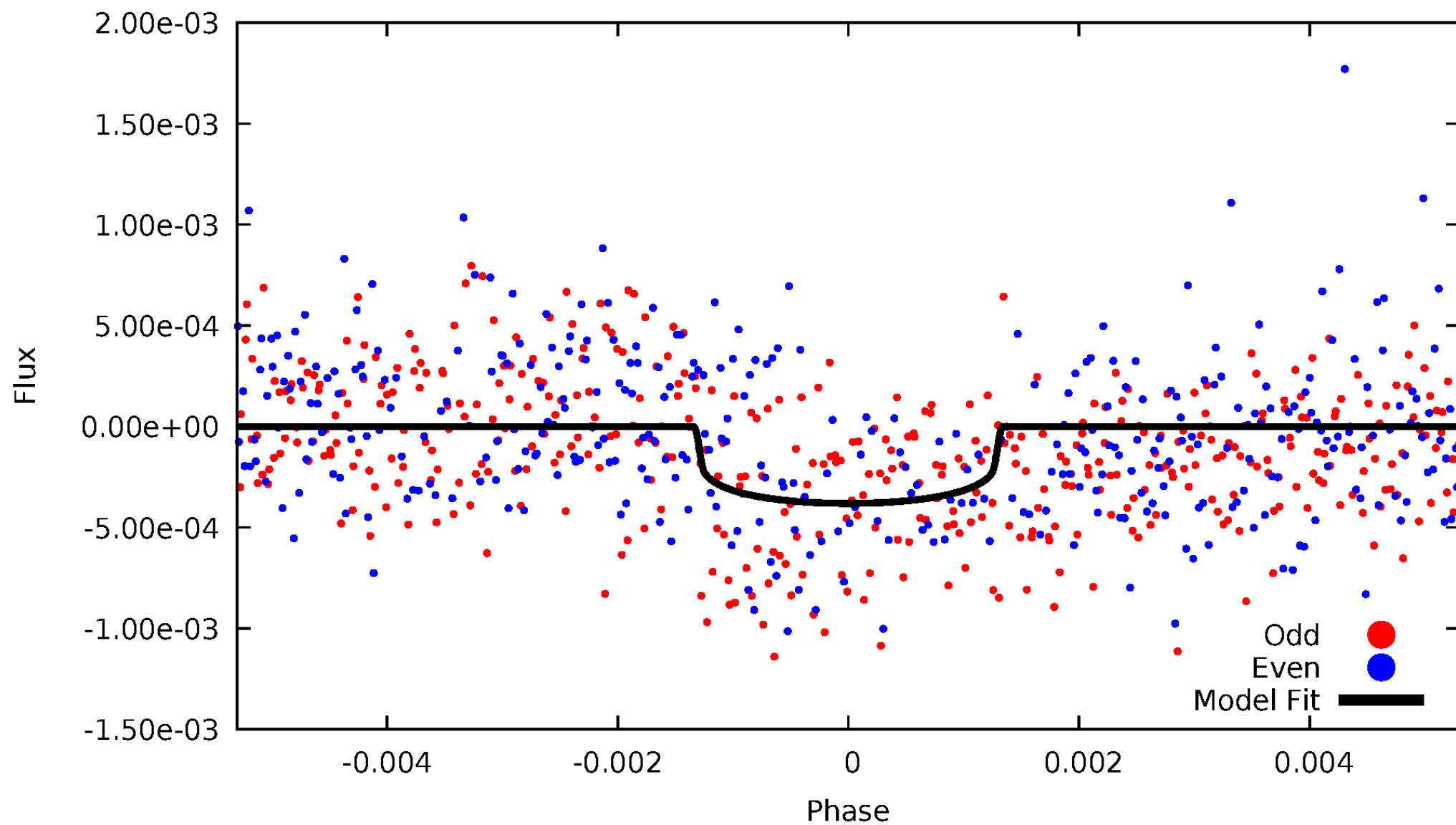


TCE 008145204-01



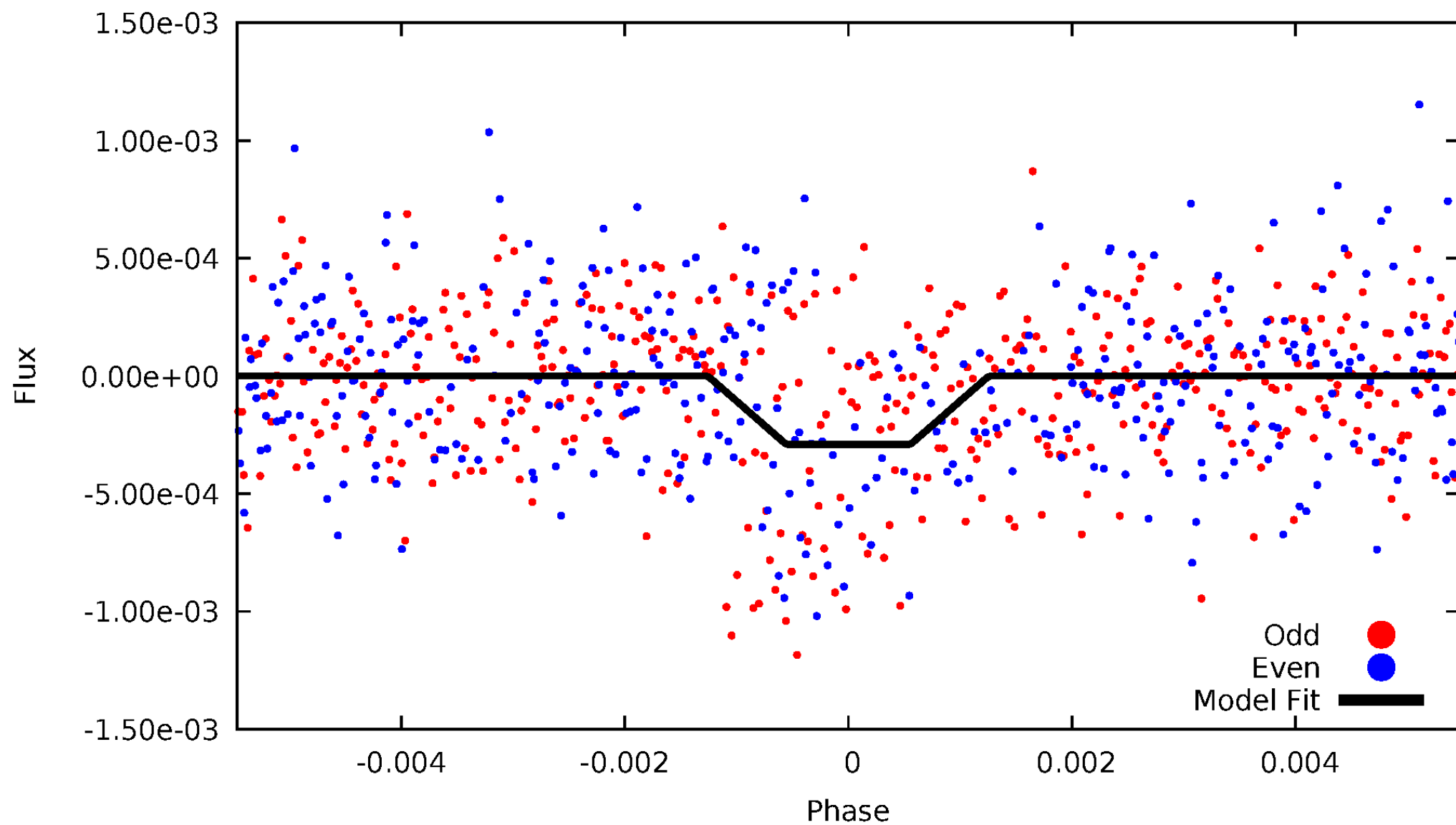
DV Odd/Even

TCE 008145204-01

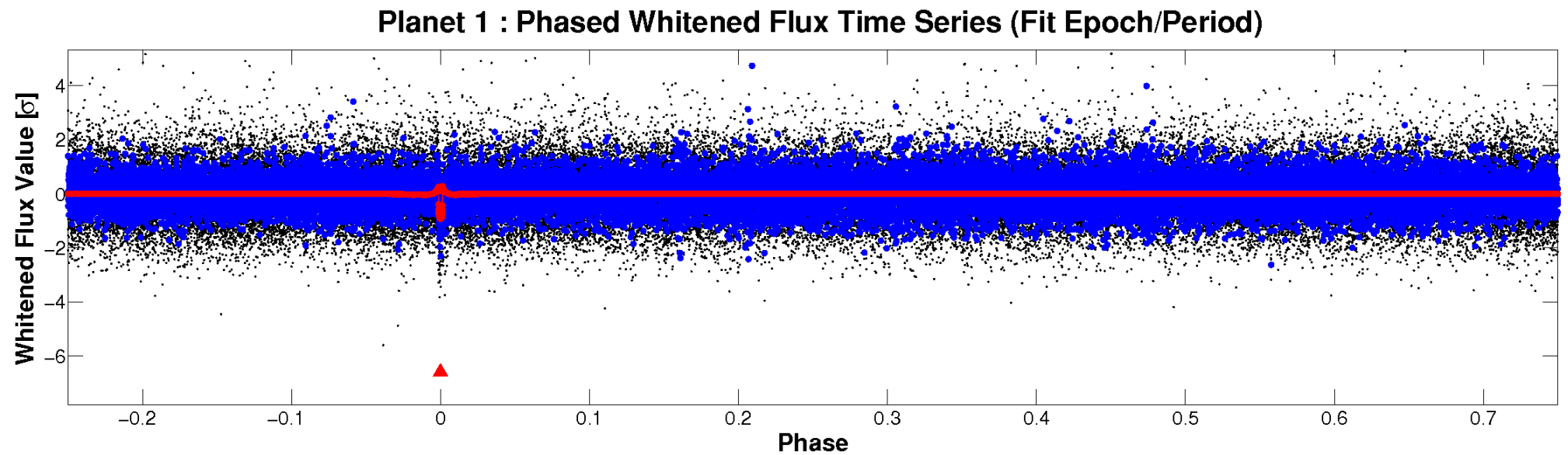
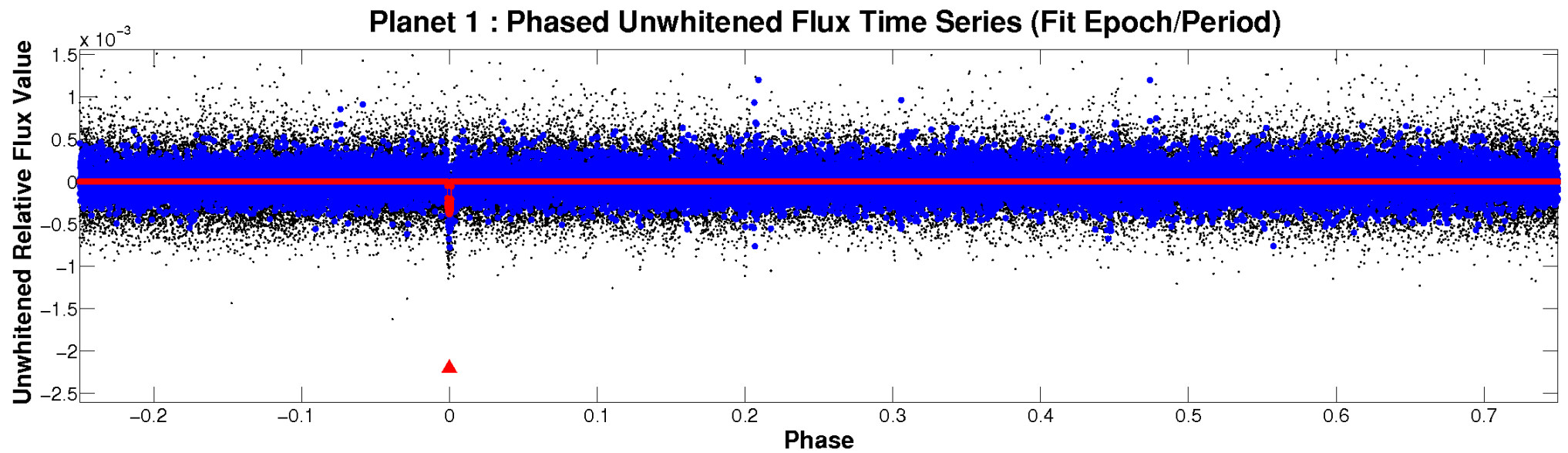


ALT Odd/Even

TCE 008145204-01



Non-Whitened Vs. Whitened Light Curve



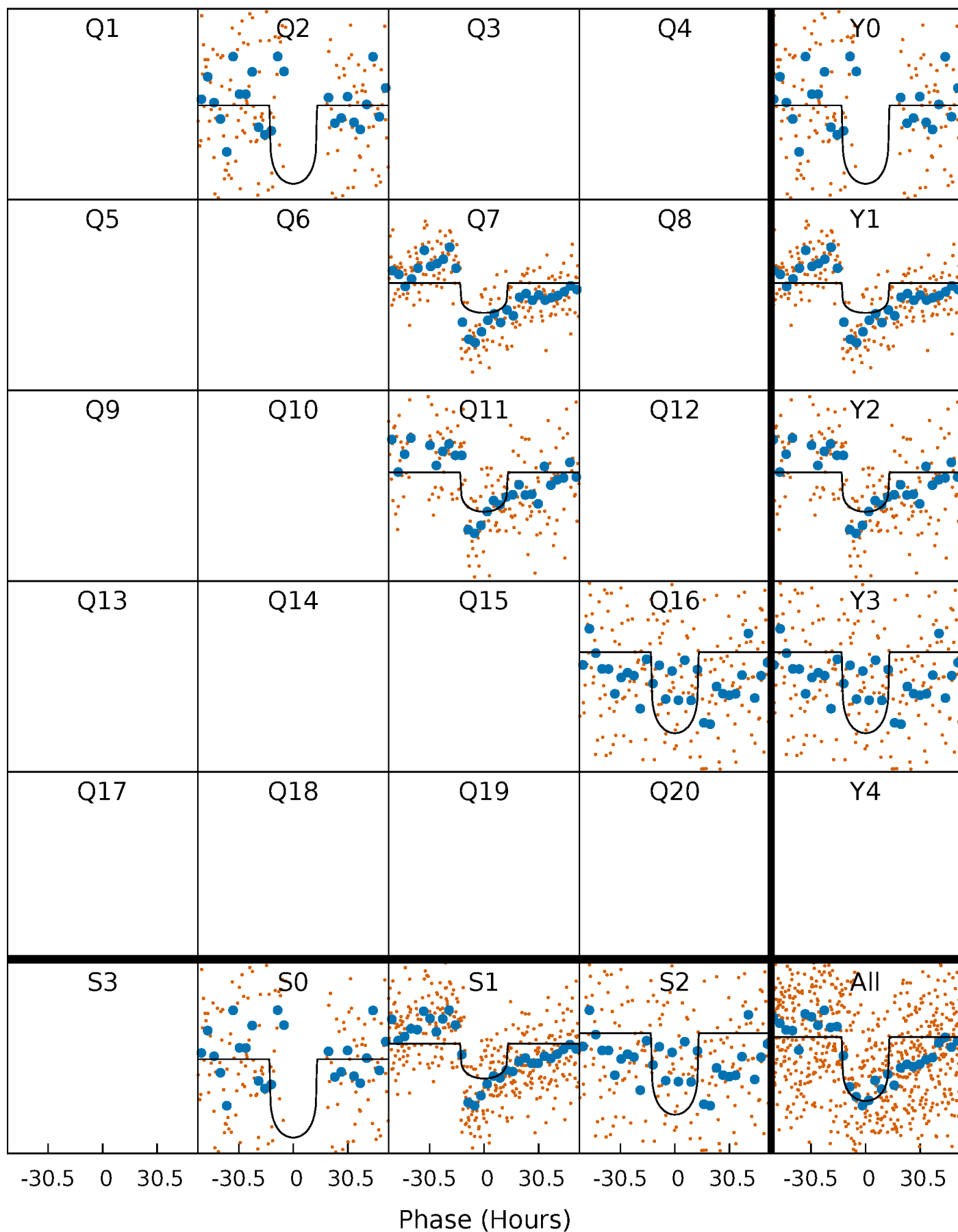
PDC Quarter-Phased Transit Curves

TCE 008145204-01 P=419.737576 Days $T_0=255.556305$ (BKJD)



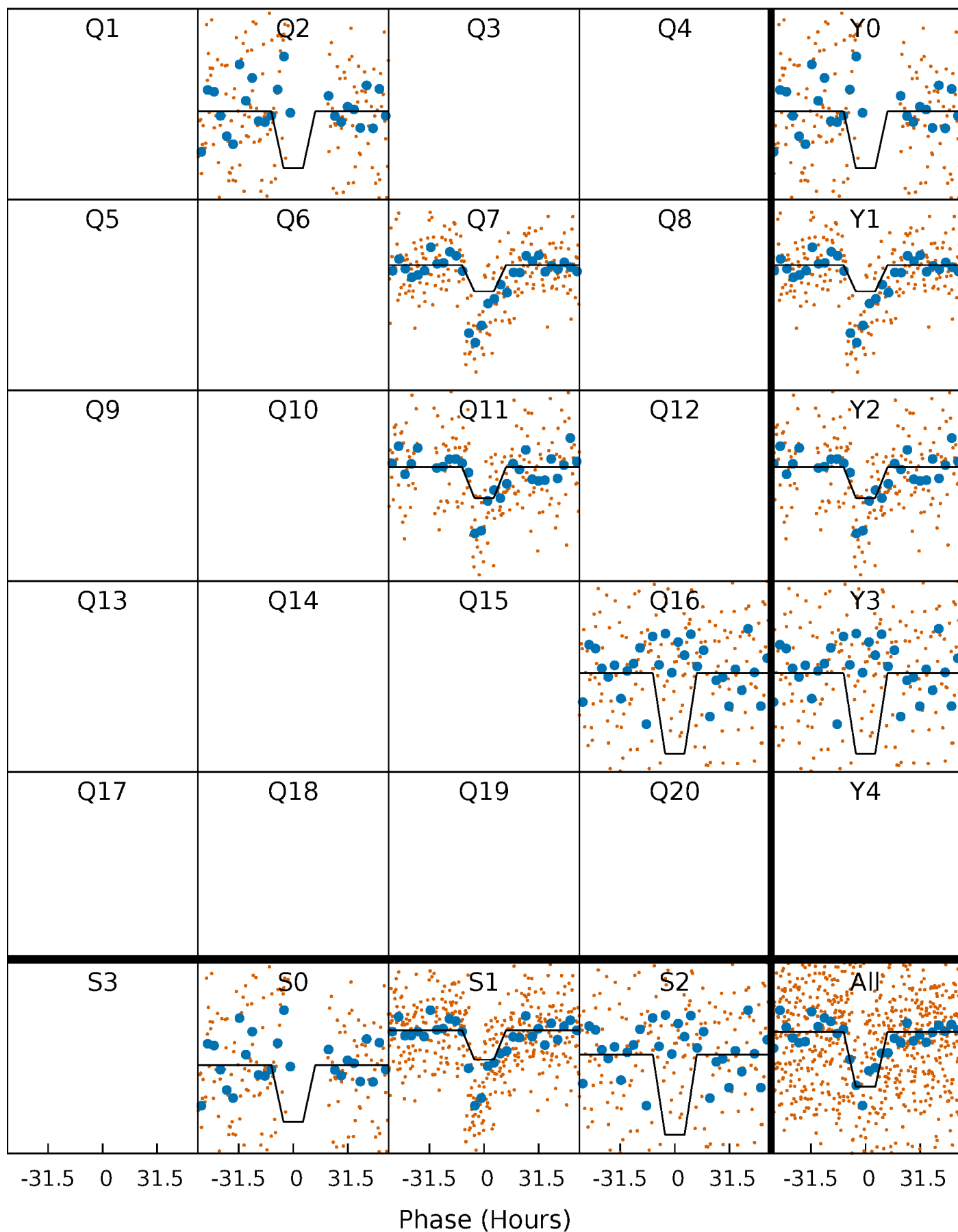
DV Quarter-Phased Transit Curves

TCE 008145204-01 P=419.737576 Days $T_0=255.556305$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

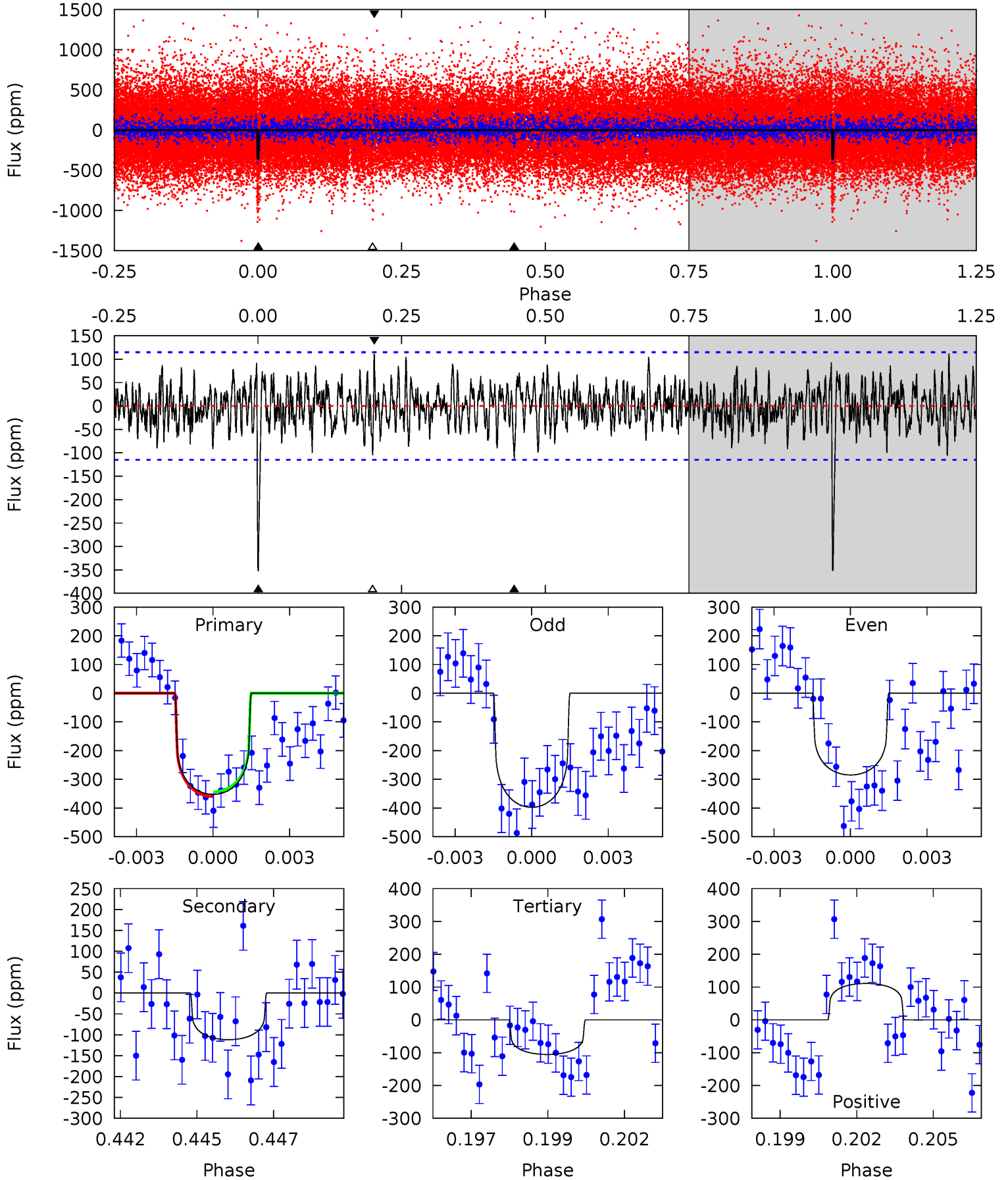
TCE 008145204-01 P=419.712134 Days $T_0=255.505276$ (BKJD)



DV Model-Shift Uniqueness Test

008145204-01, P = 419.737576 Days, E = 255.556305 Days

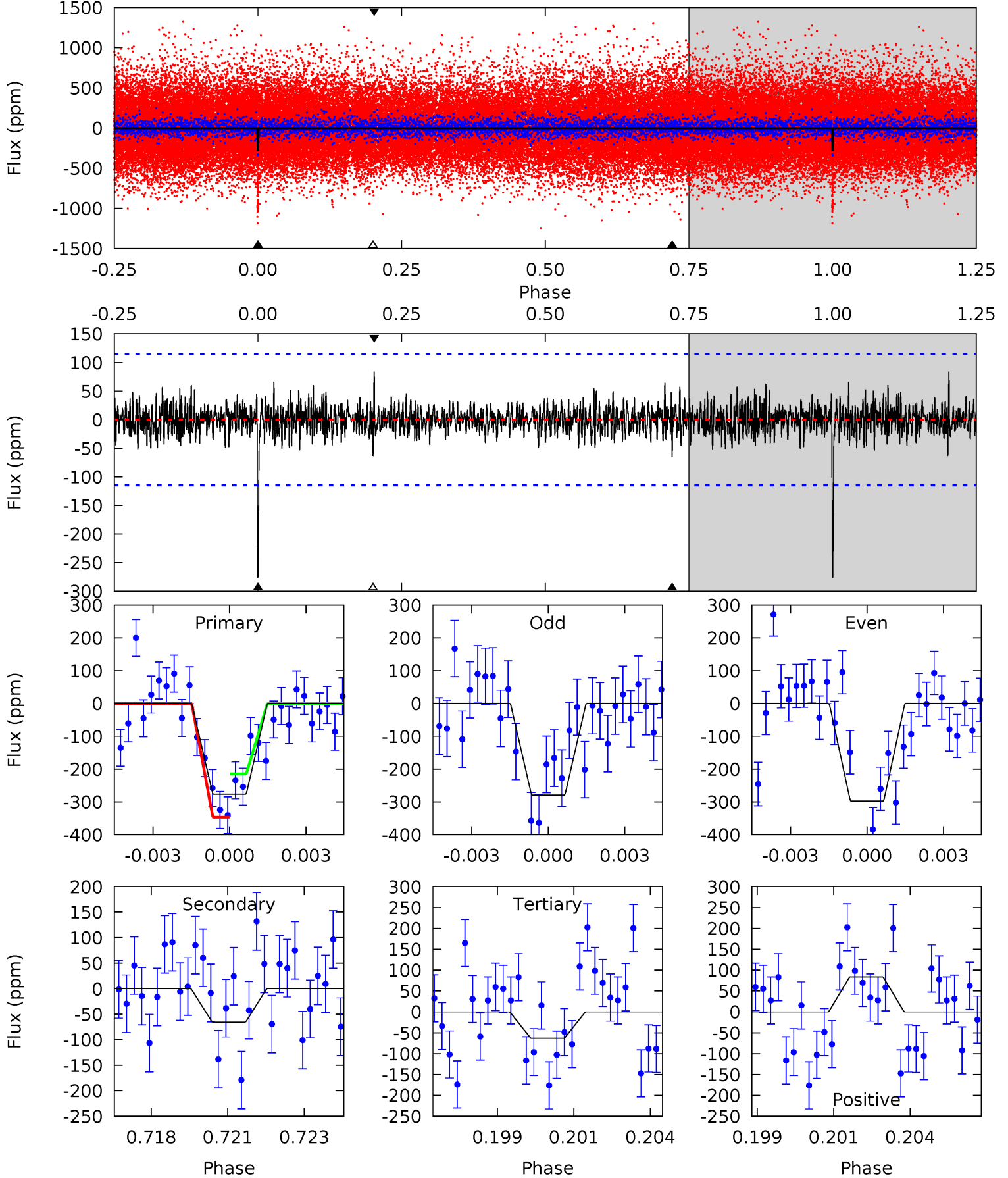
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	5.13	4.84	5.09	5.27	3.00	1.58	11.3	11.1	0.29	0.04	2.53	0.92	0.24	0.37



Alt Model-Shift Uniqueness Test

008145204-01, P = 419.712134 Days, E = 255.505276 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	3.01	2.92	3.86	5.28	3.02	0.87	9.80	8.86	0.10	-0.85	0.41	1.05	0.23	3.02



Stellar Parameters For KIC 008145204

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6130^{+171}_{-214}	$4.448^{+0.054}_{-0.216}$	$0.020^{+0.250}_{-0.350}$	$1.043^{+0.324}_{-0.130}$	$1.109^{+0.135}_{-0.151}$	$1.378^{+0.387}_{-0.722}$
	+3%/-3%	+1%/-5%	+1250%/-1750%	+31%/-12%	+12%/-14%	+28%/-52%
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 008145204-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-112 ± 22	$2.16^{+0.93}_{-0.91}$	372^{+27}_{-19}	4774^{+1317}_{-581}	16167^{+33053}_{-8591}
Alt.	-65 ± 22	$2.05^{+0.95}_{-0.91}$	370^{+25}_{-19}	4413^{+1163}_{-653}	10967^{+24045}_{-6568}

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 $A_{obs} \gg 1.0$

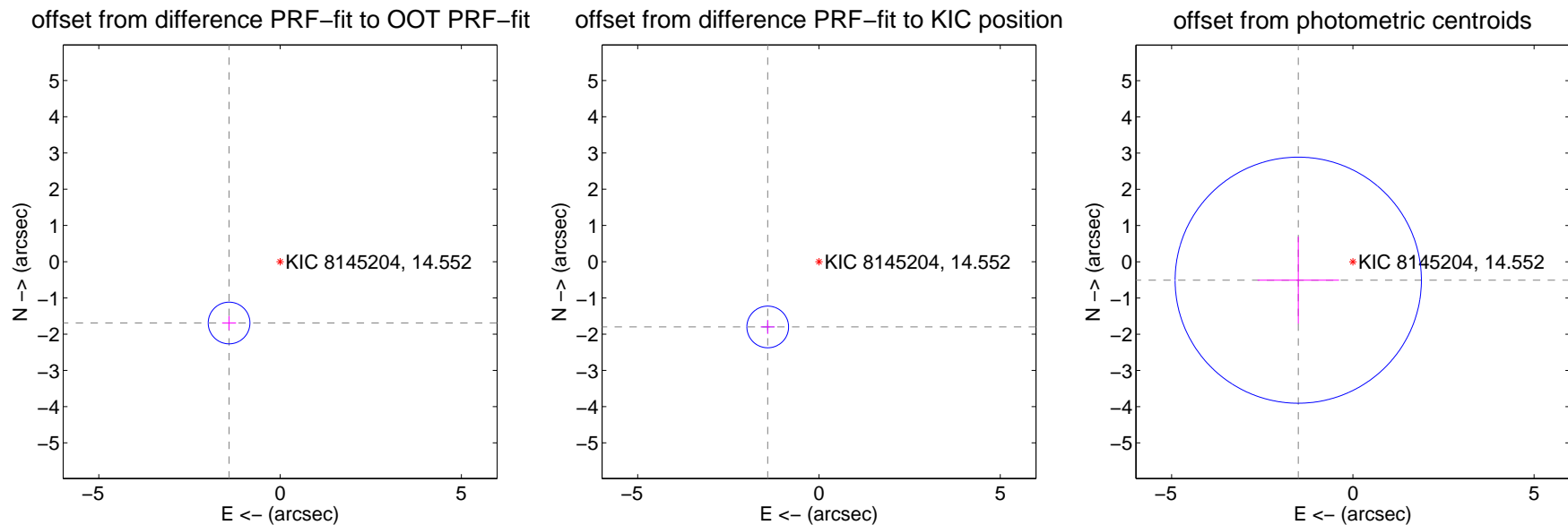
DV Centroid Data

Supplemental centroid analysis for 008145204-01. Kepler magnitude: 14.55. Transit SNR 11.02

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.201 ± 0.192	11.48	1.408 ± 0.193	-1.692 ± 0.191
PRF-fit source offset from KIC position	2.290 ± 0.192	11.94	1.414 ± 0.193	-1.801 ± 0.191
photometric centroid source offset	1.59 ± 1.13	1.40	1.51 ± 1.12	-0.51 ± 1.20

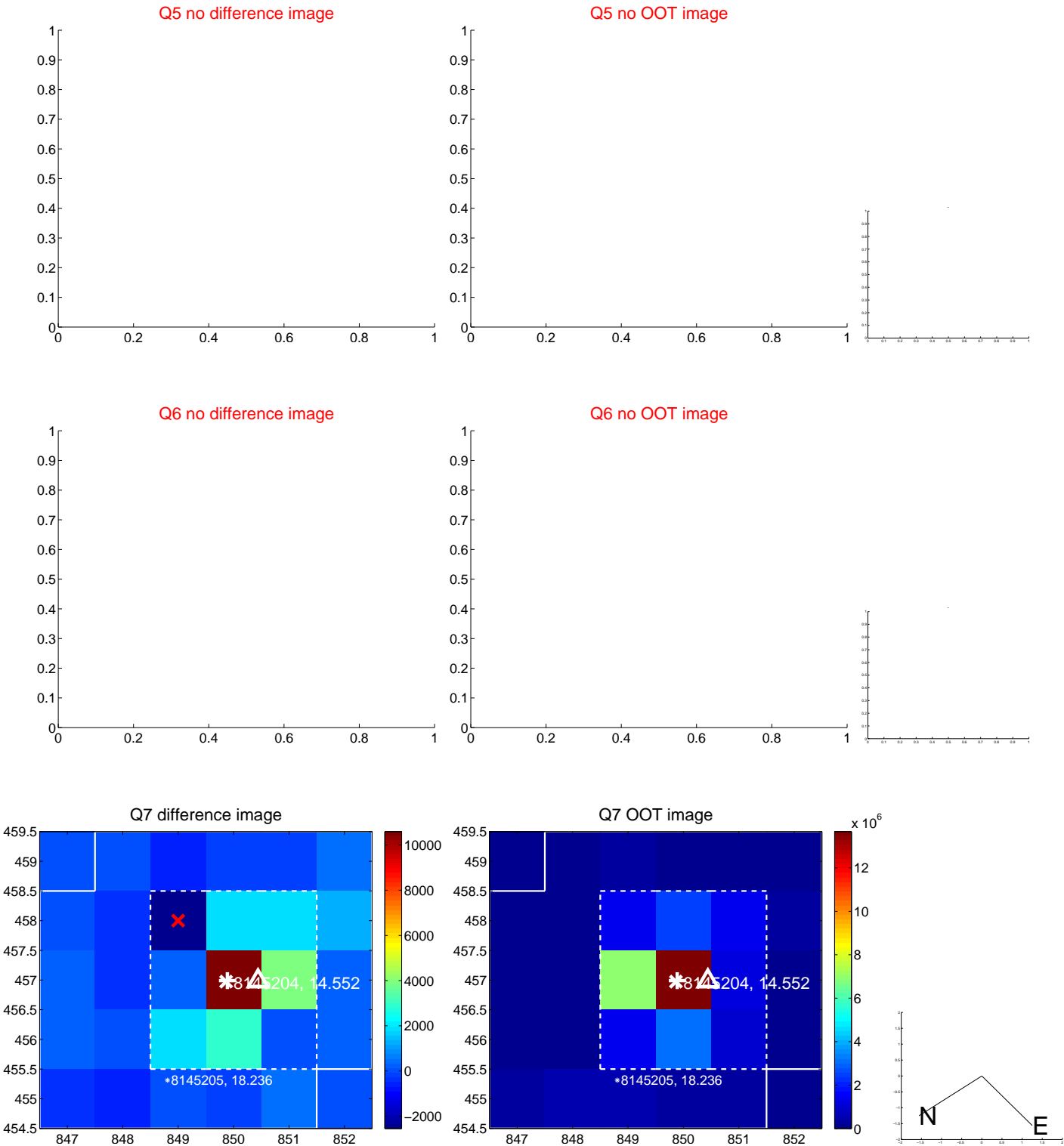


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



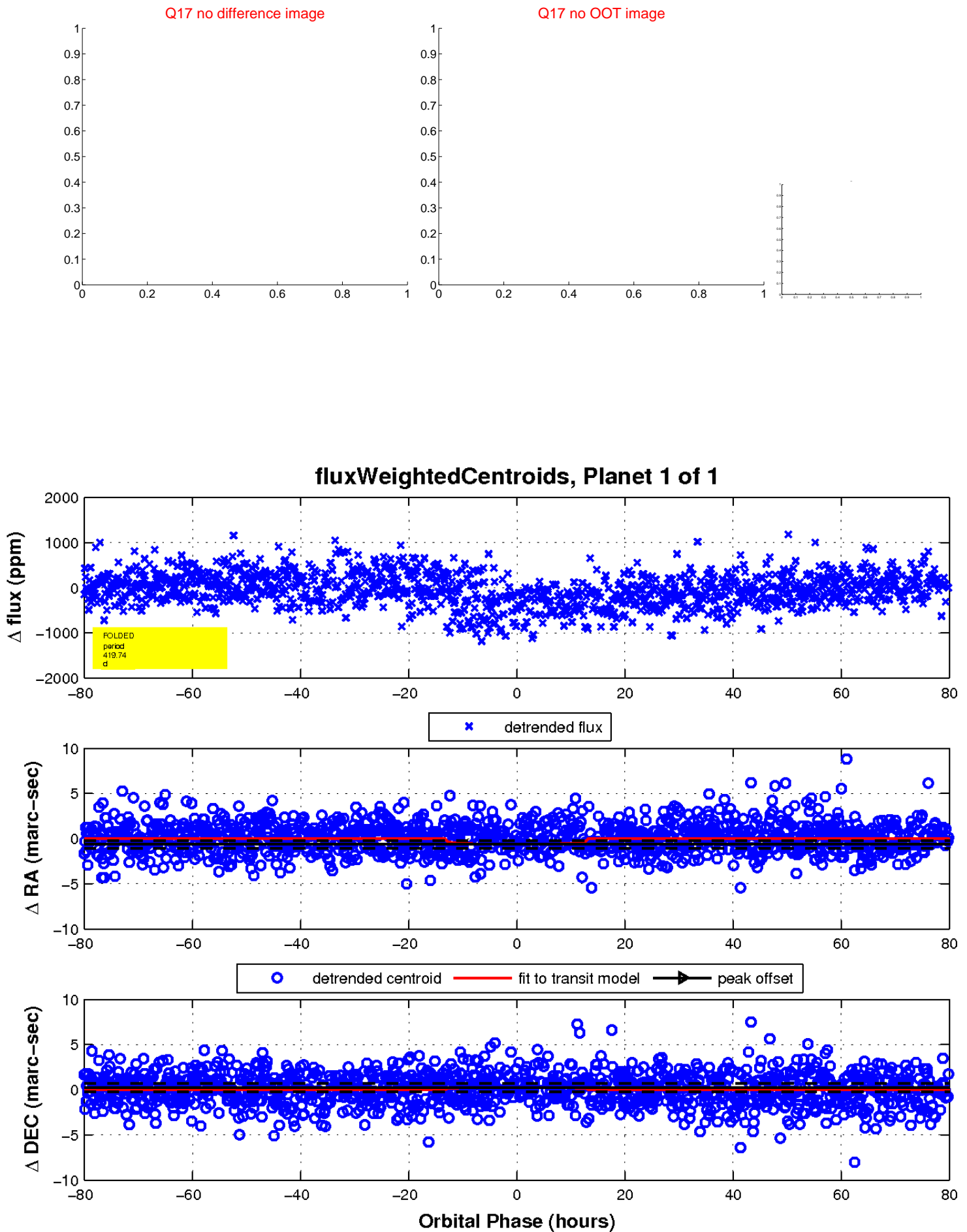
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

