

KIC 008760788

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})
008760788-01	OBS	No	422.268721	296.153516	133.7	19.207	7.3	7.1	2.25	5171	2.97	3.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008760788-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_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.

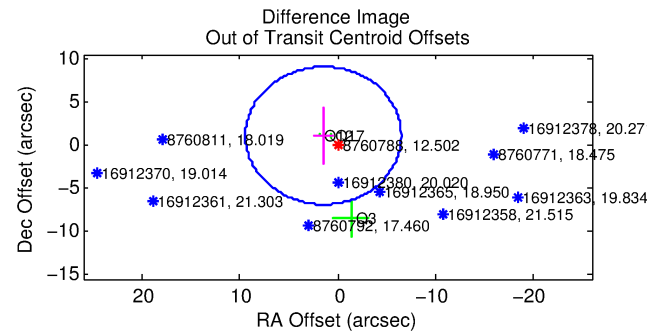
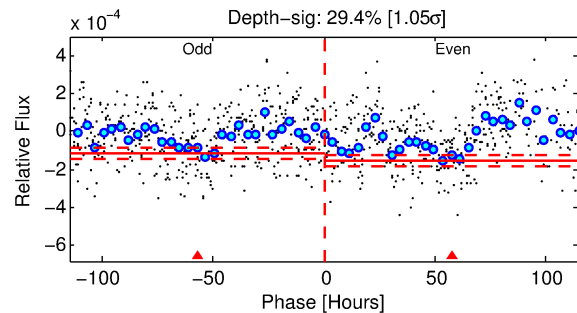
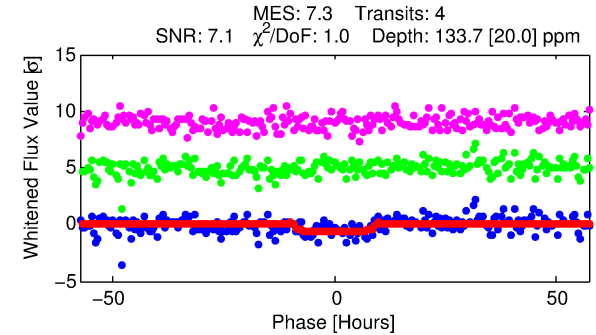
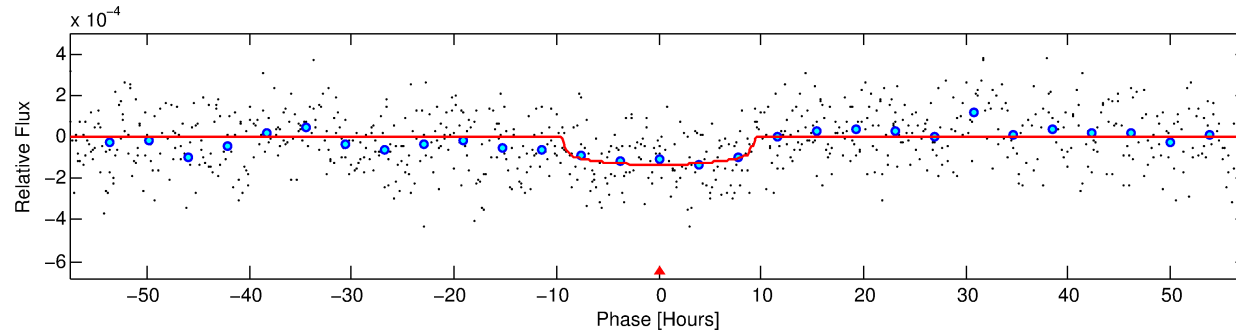
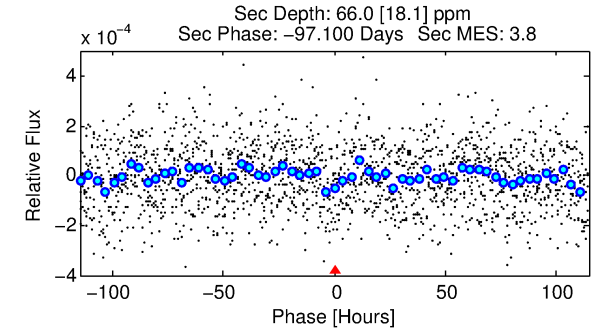
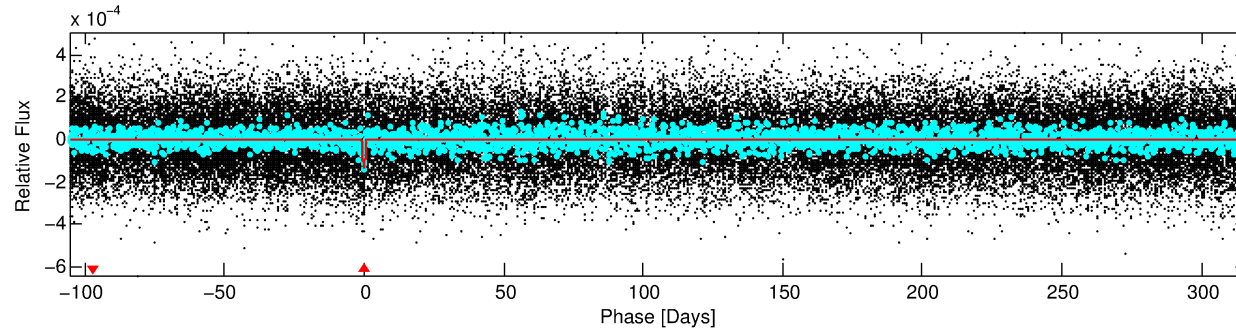
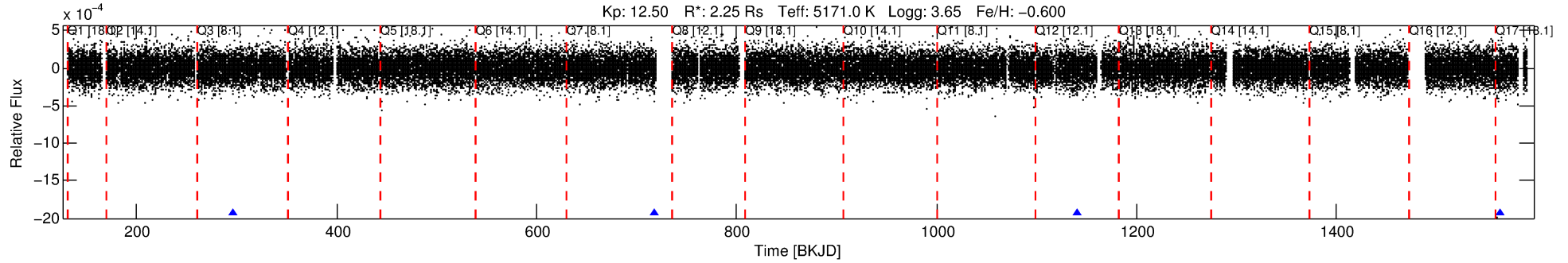
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008760788-01

No Significant Match Found

DV One-Page Summary

KIC: 8760788 Candidate: 1 of 1 Period: 422.269 d



DV Fit Results:

Period = 422.26872 [0.01514] d
Epoch = 296.1535 [0.0282] BKJD
Rp/R* = 0.0121 [0.0026]
a/R* = 94.38 [82.44]
b = 0.84 [0.31]
Seff = 3.05 [1.36]
Teq = 337 [37] K
Rp = 2.97 [1.41] Re
a = 1.0312 [0.3357] AU
Ag = 4380.27 [2950.56] [1.48σ]
Teffp = 4239 [558] K [6.98σ]

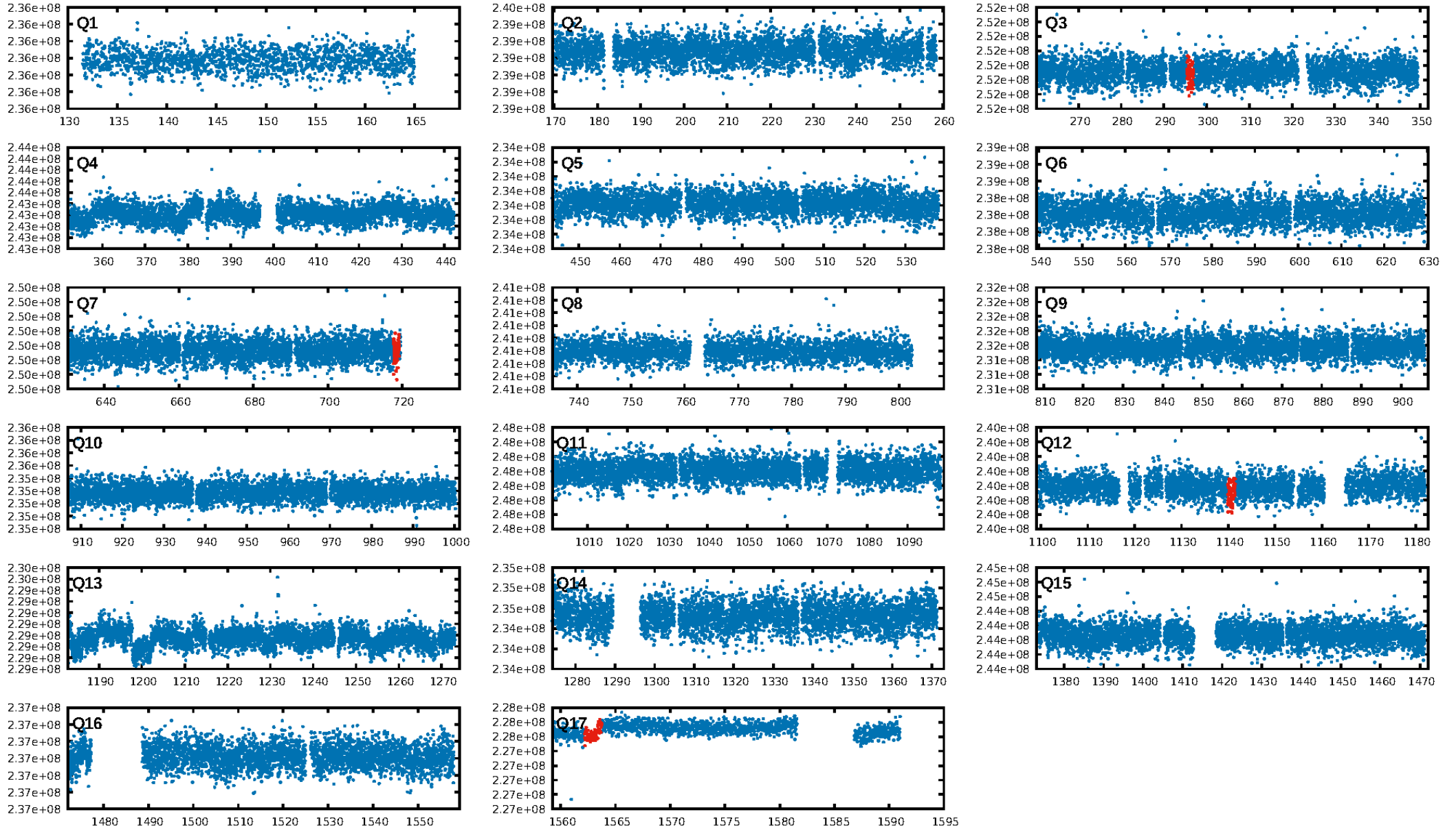
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 5.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.06e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 3.954
Centroid-sig: 49.4%
Centroid-so: 1.106 arcsec [1.08σ]
OotOffset-rm: 1.819 arcsec [0.69σ]
KicOffset-rm: 1.621 arcsec [1.13σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

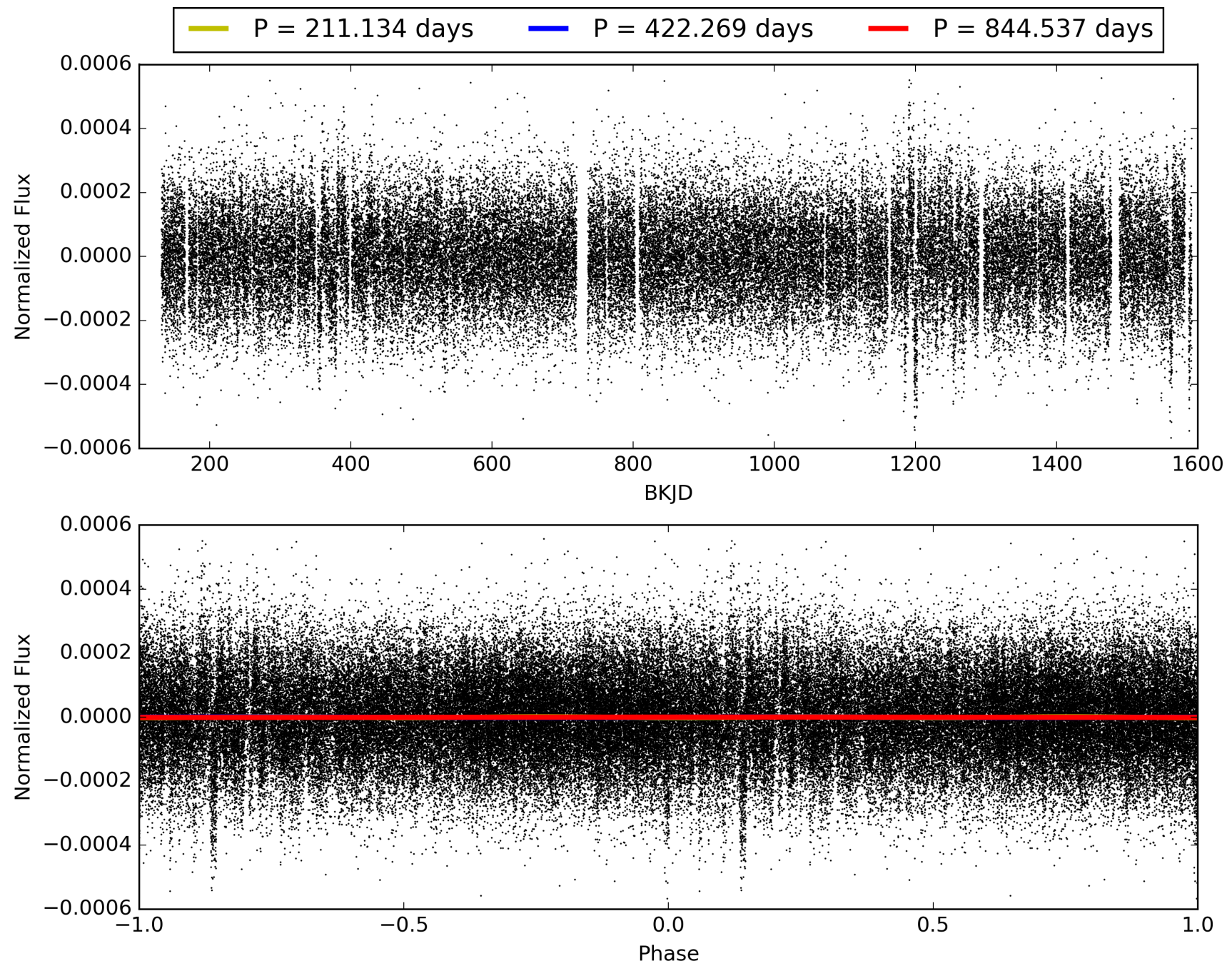
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:23:03 Z

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

TCE 008760788-01, PDC Light Curves

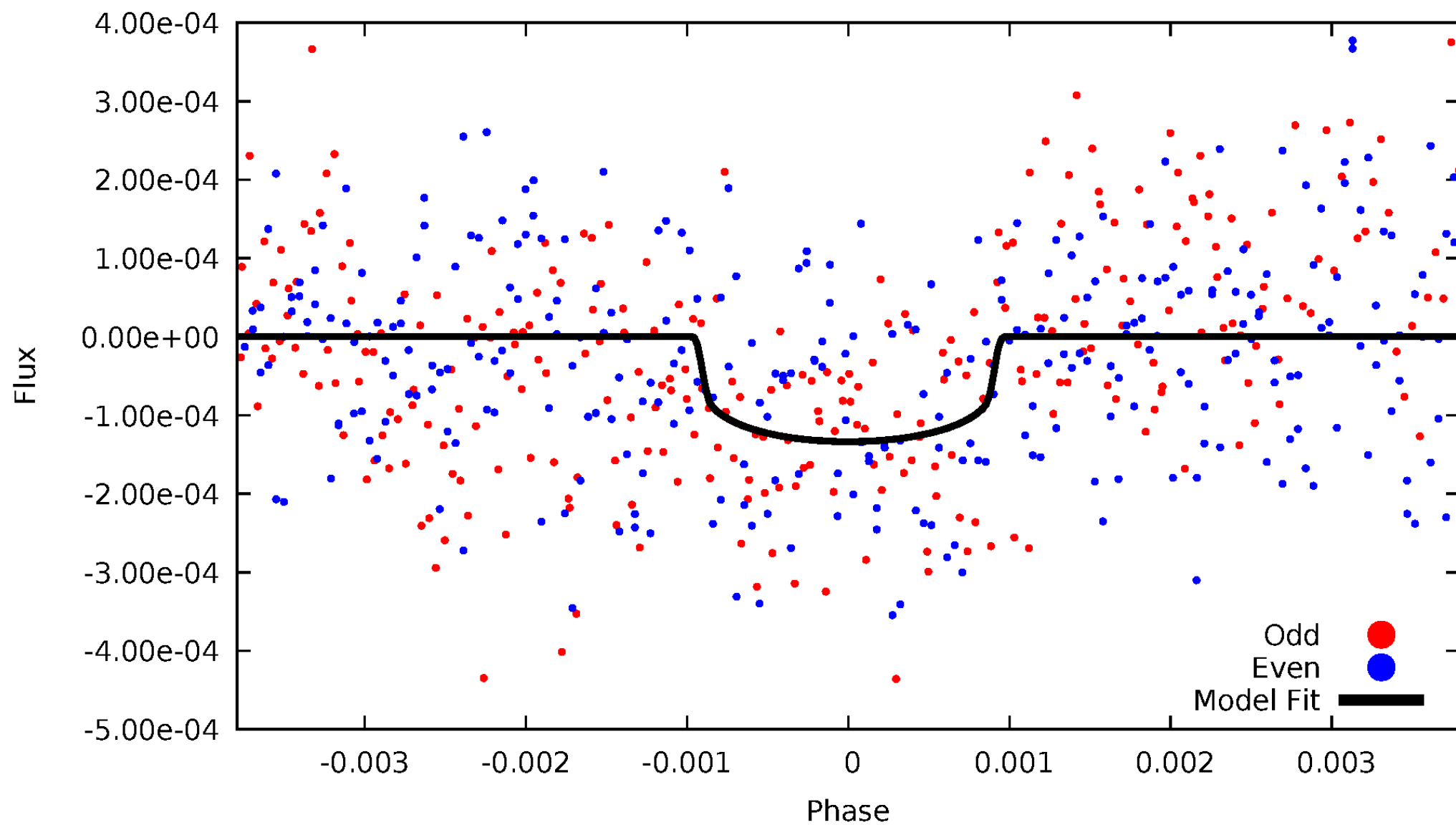


TCE 008760788-01



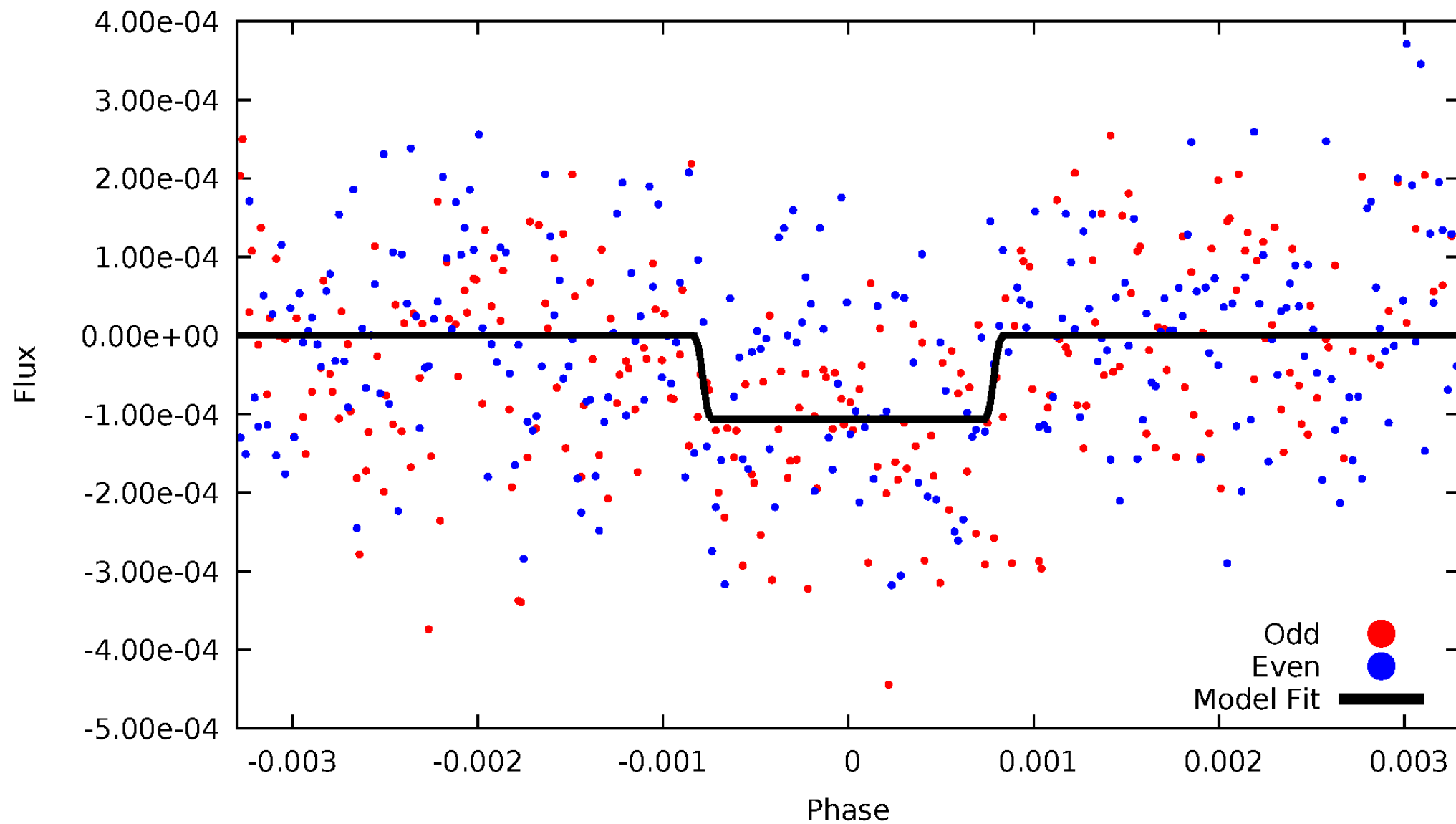
DV Odd/Even

TCE 008760788-01

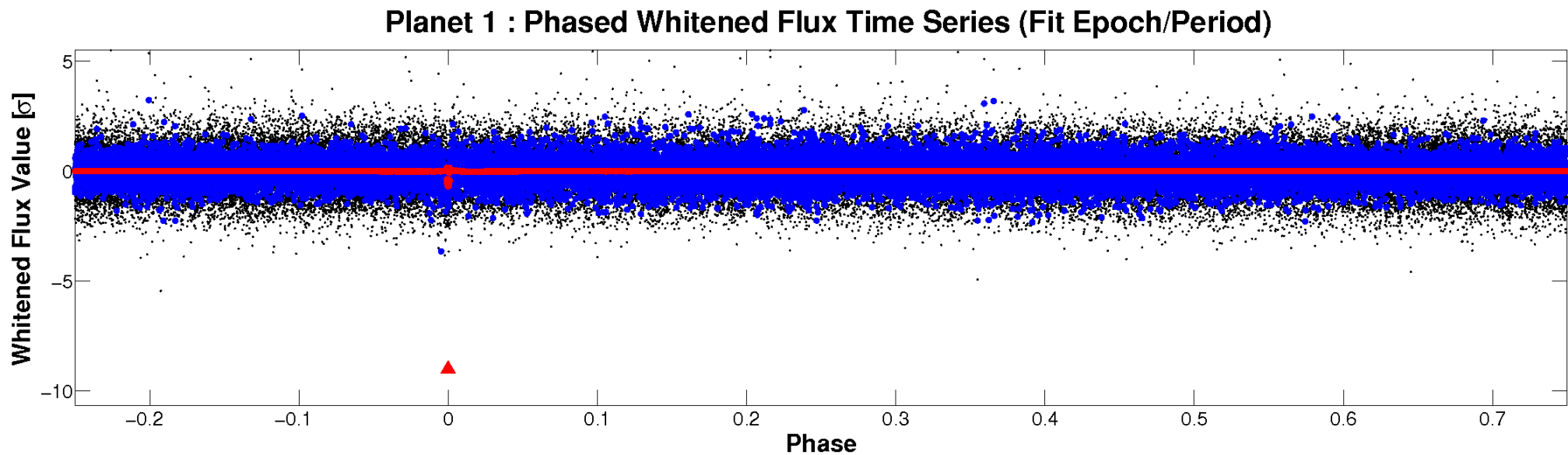
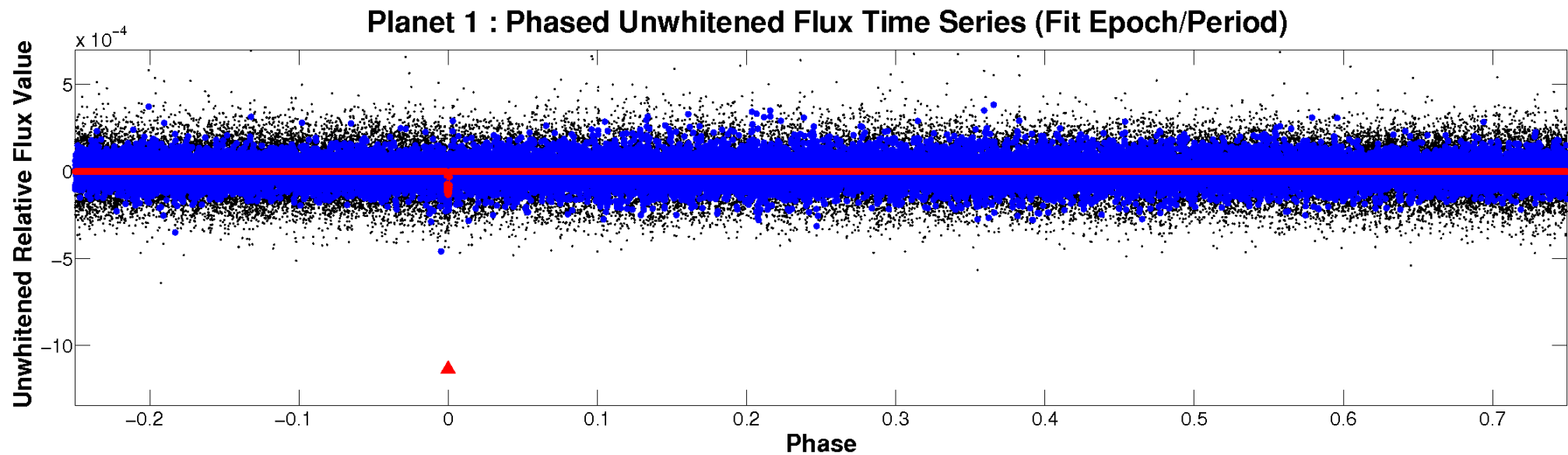


ALT Odd/Even

TCE 008760788-01

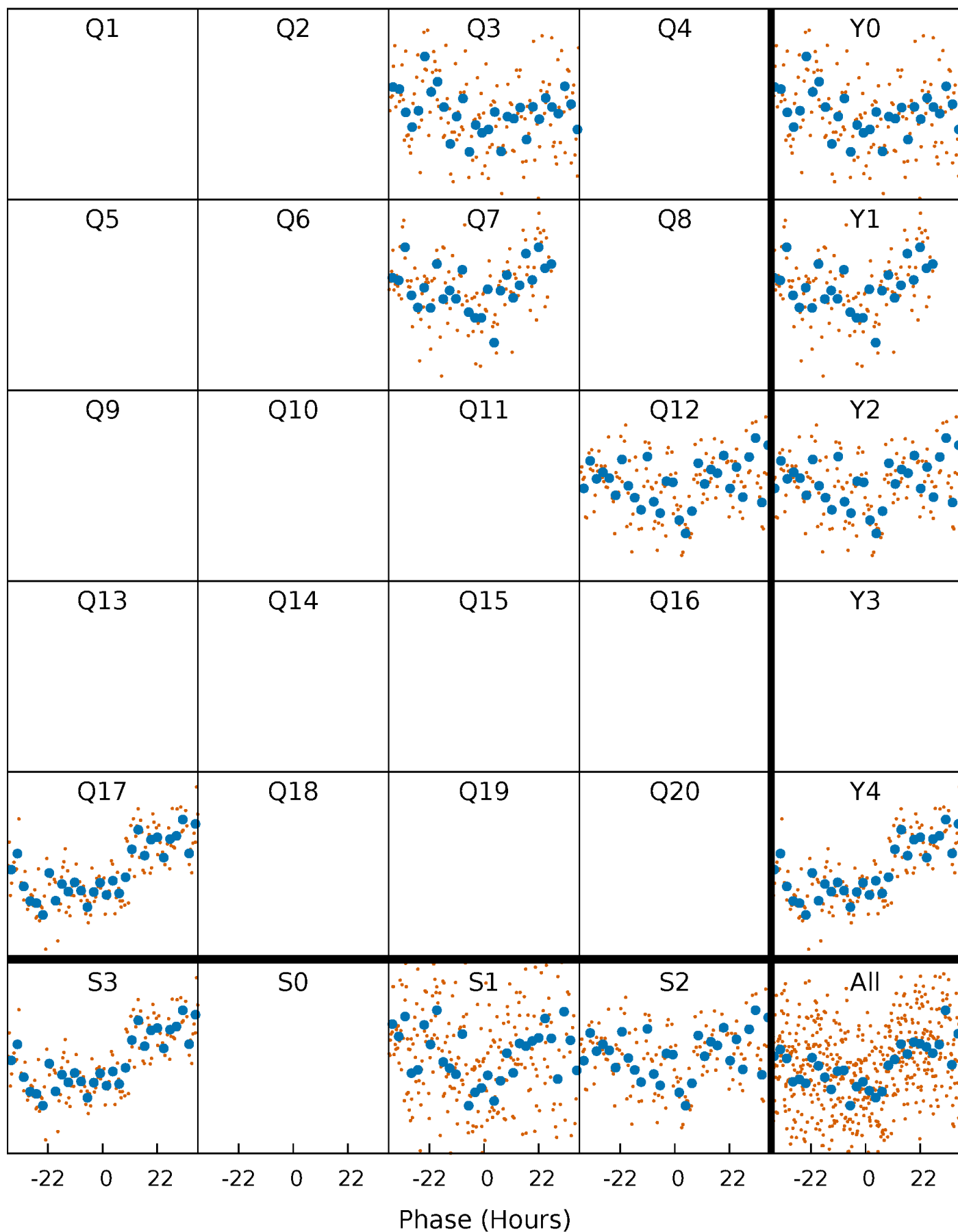


Non-Whitened Vs. Whitened Light Curve



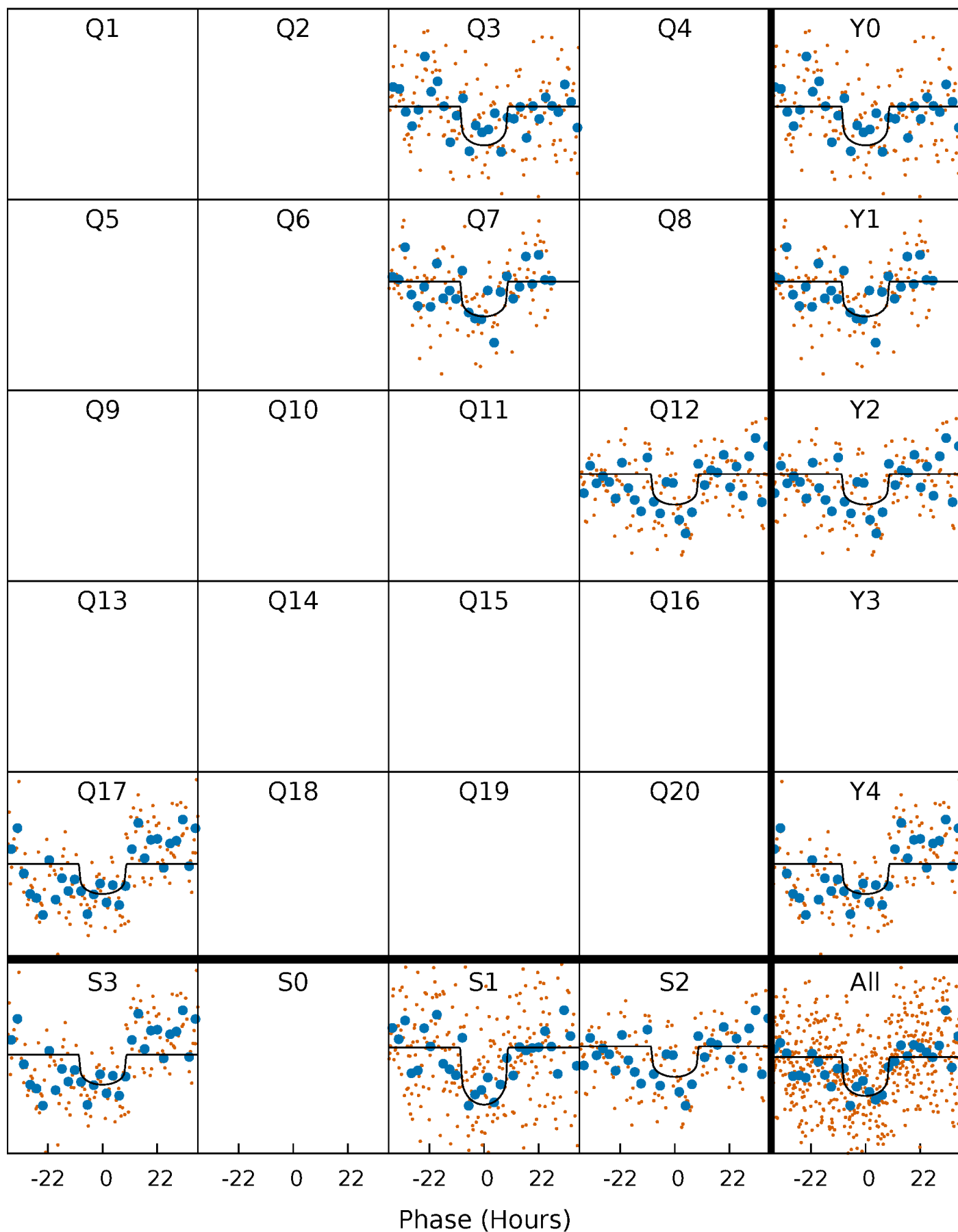
PDC Quarter-Phased Transit Curves

TCE 008760788-01 P=422.268721 Days $T_0=296.153516$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008760788-01 P=422.268721 Days $T_0=296.153516$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

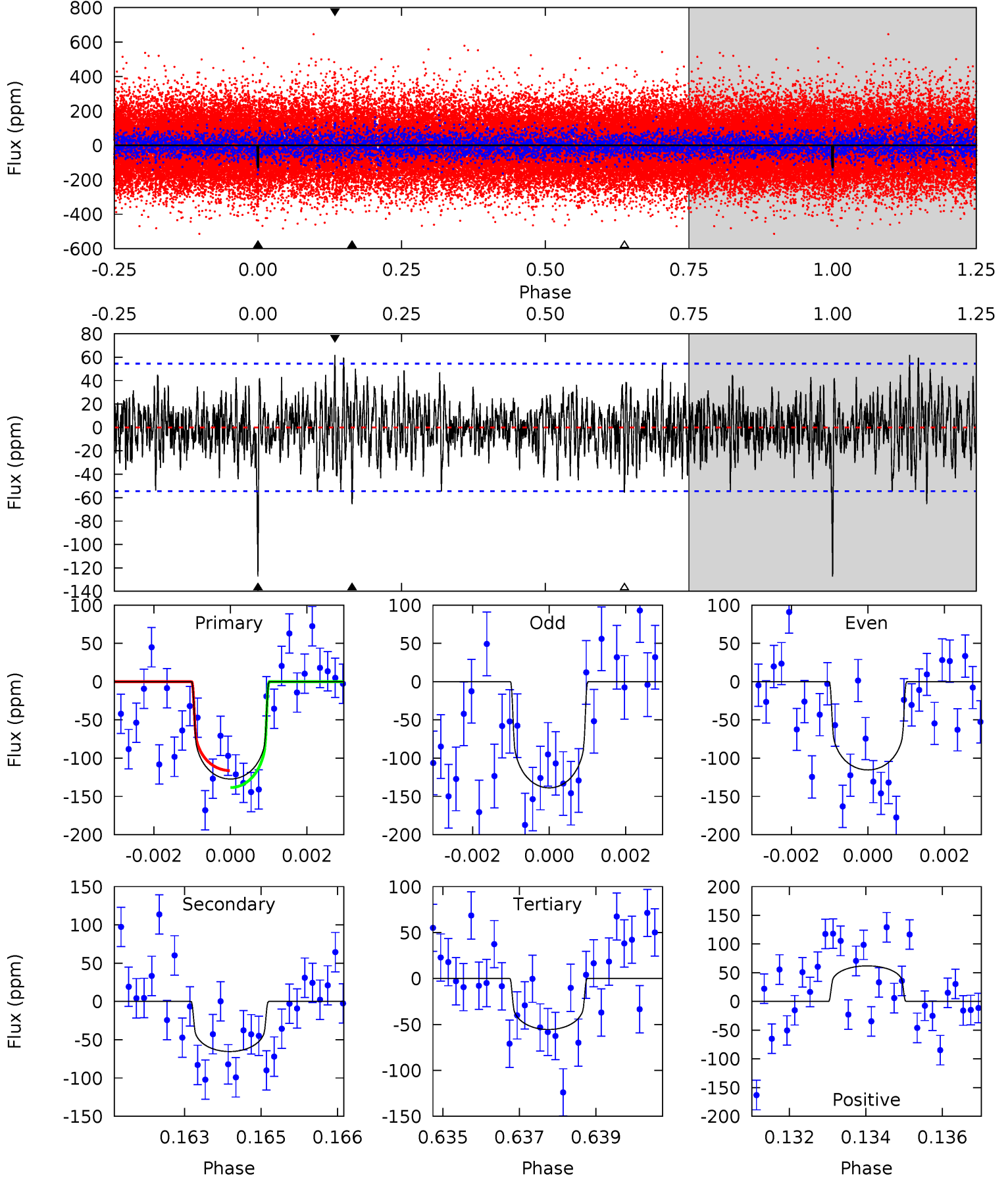
TCE 008760788-01 P=422.252706 Days $T_0=296.202435$ (BKJD)



DV Model-Shift Uniqueness Test

008760788-01, P = 422.268721 Days, E = 296.153516 Days

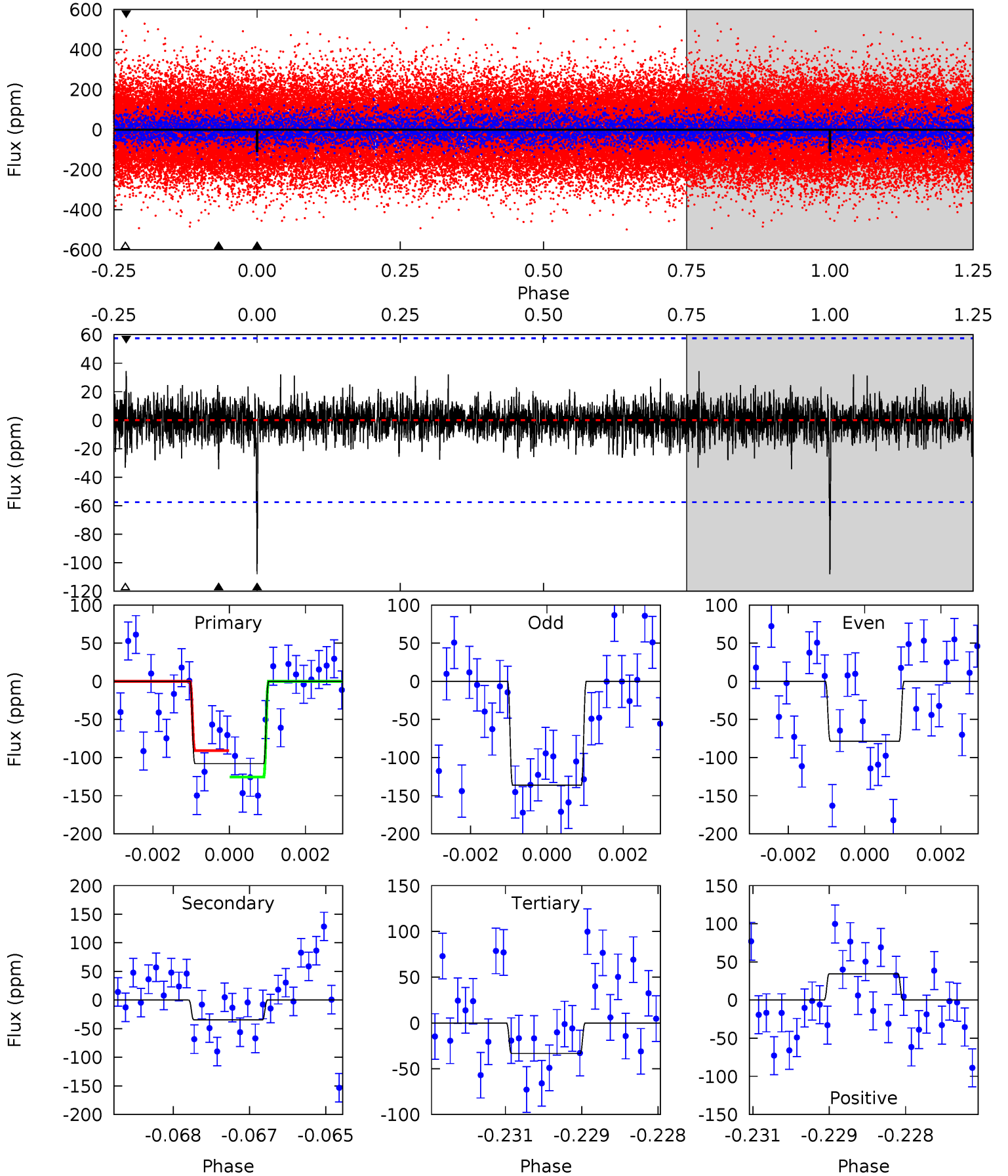
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	6.41	5.44	6.07	5.33	3.10	1.69	7.02	6.39	0.97	0.34	1.15	0.99	0.33	1.08



Alt Model-Shift Uniqueness Test

008760788-01, $P = 422.252706$ Days, $E = 296.202435$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	3.21	3.11	3.21	5.36	3.15	0.76	6.96	6.86	0.10	-0.00	2.69	1.02	0.24	1.60



Stellar Parameters For KIC 008760788

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5171^{+131}_{-105}	$3.647^{+0.115}_{-0.214}$	$-0.600^{+0.300}_{-0.150}$	$2.251^{+0.949}_{-0.237}$	$0.820^{+0.259}_{-0.014}$	$0.101^{+0.044}_{-0.054}$
	+3%/-2%	+3%/-6%	+50%/-25%	+42%/-11%	+32%/-2%	+43%/-54%
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 008760788-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-65 ± 10	$3.15^{+0.88}_{-0.80}$	473^{+39}_{-24}	4373^{+490}_{-338}	4016^{+3203}_{-1629}
Alt.	-34 ± 11	$2.65^{+0.86}_{-0.74}$	473^{+42}_{-24}	4133^{+576}_{-398}	2910^{+3194}_{-1406}

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 $A_{obs} \gg 1.0$

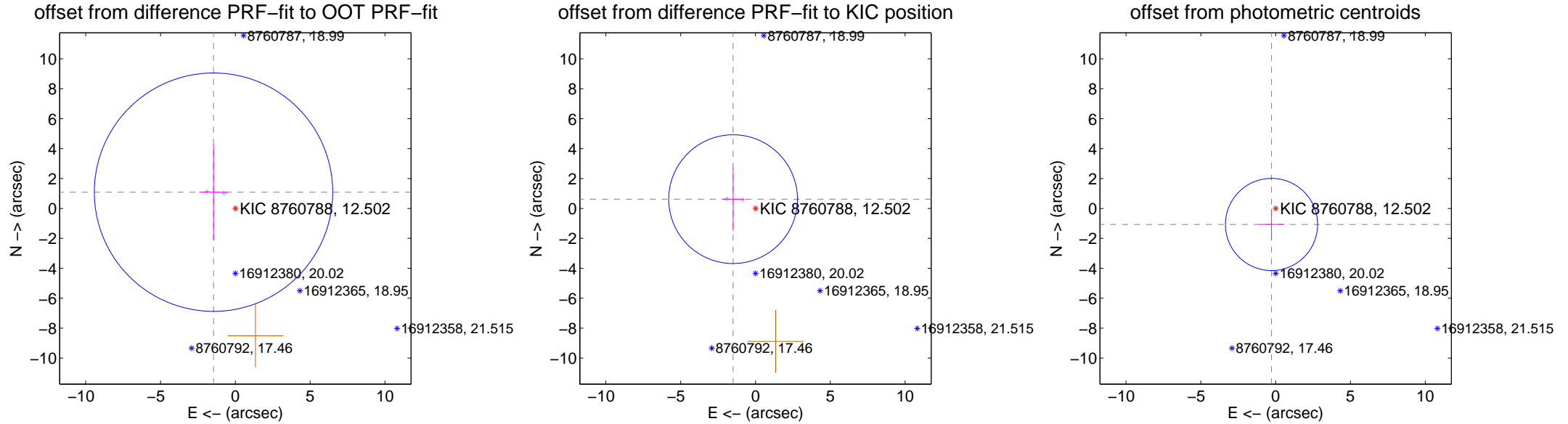
DV Centroid Data

Supplemental centroid analysis for 008760788-01. Kepler magnitude: 12.50. Transit SNR 7.13

There are 2 quarters with good PRF difference image offsets

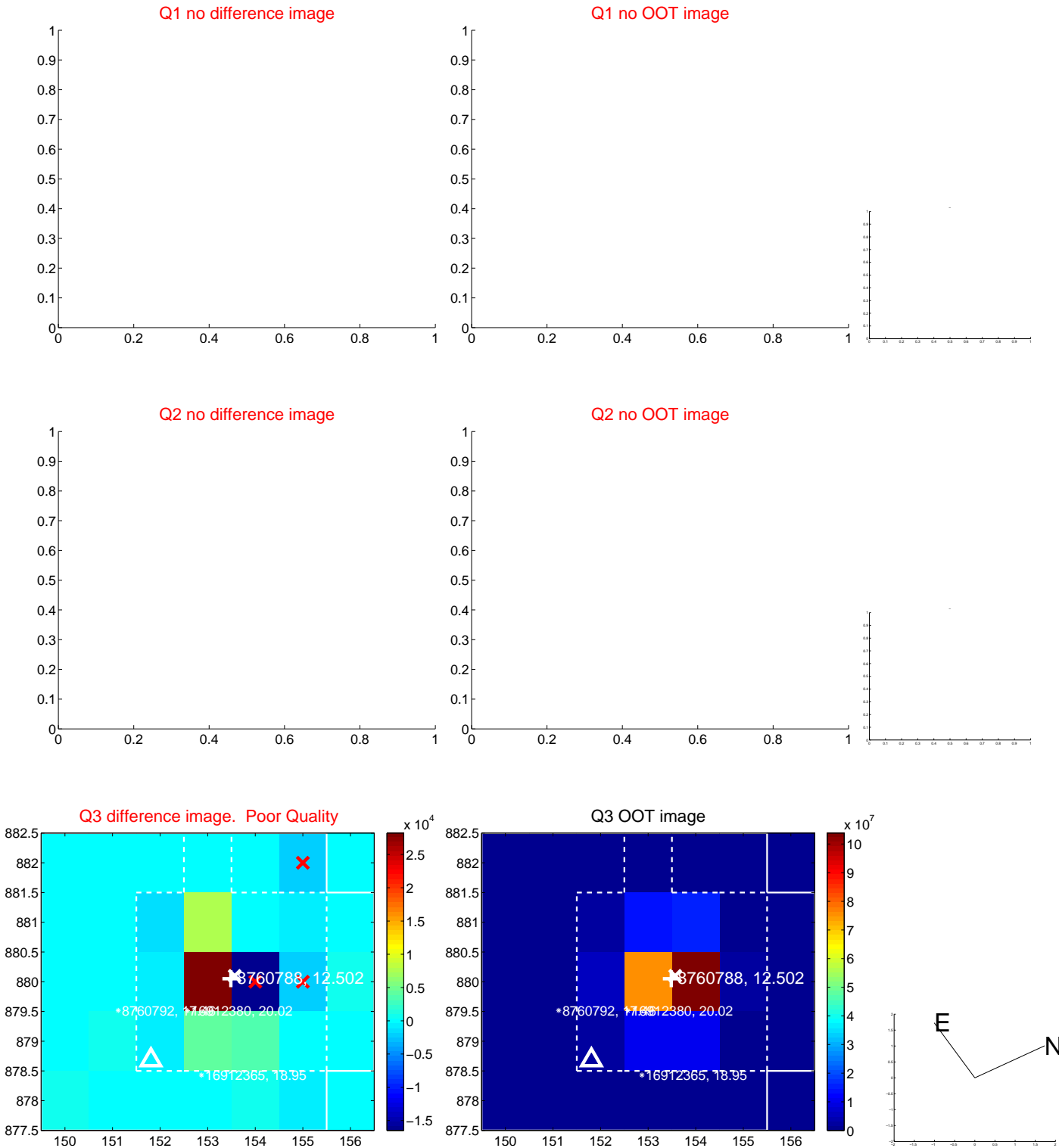
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.819 ± 2.655	0.69	1.459 ± 0.943	1.087 ± 3.198
PRF-fit source offset from KIC position	1.621 ± 1.434	1.13	1.497 ± 0.723	0.621 ± 2.113
photometric centroid source offset	1.11 ± 1.03	1.08	0.28 ± 0.84	-1.07 ± 1.04



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.

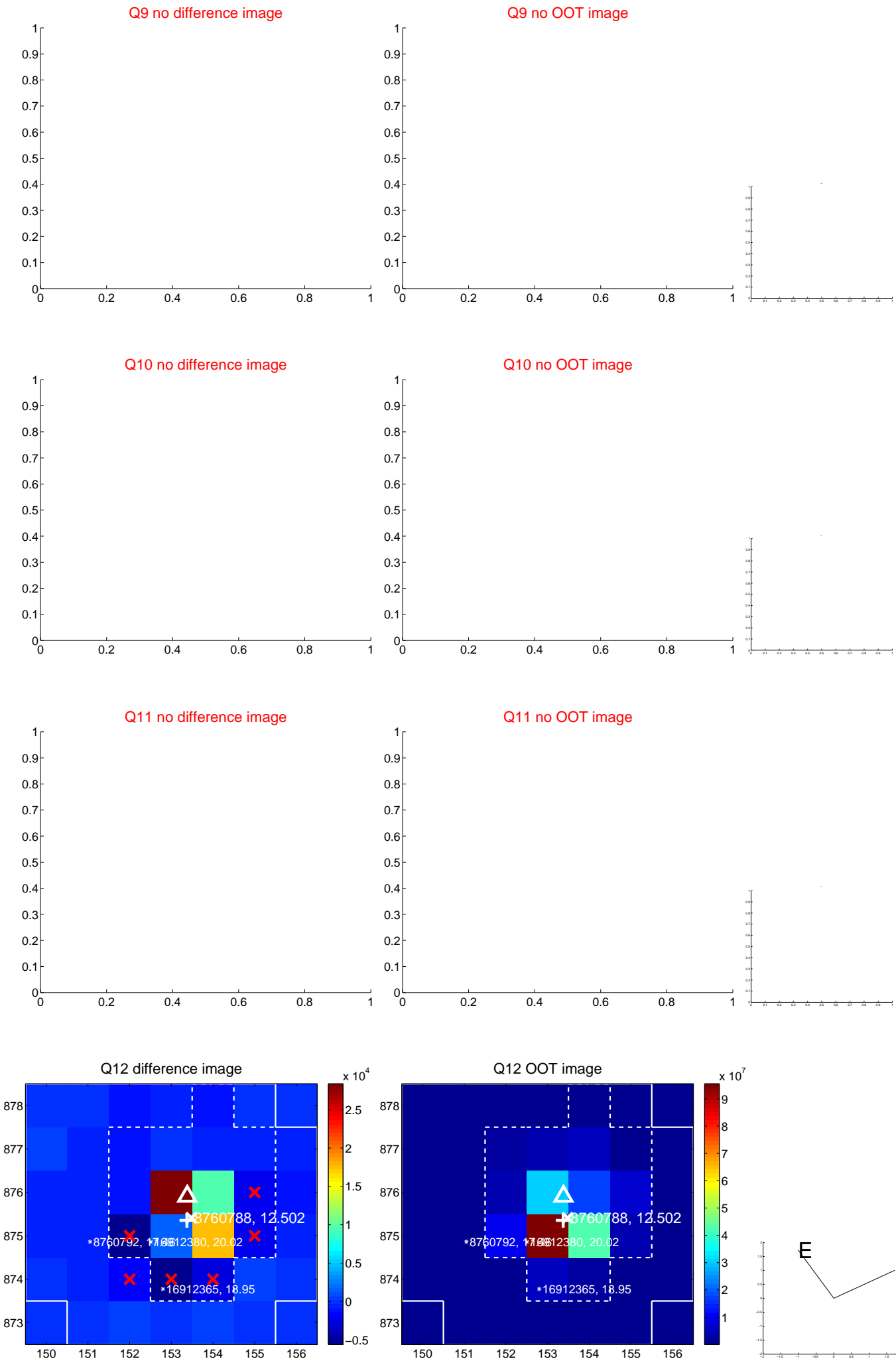
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



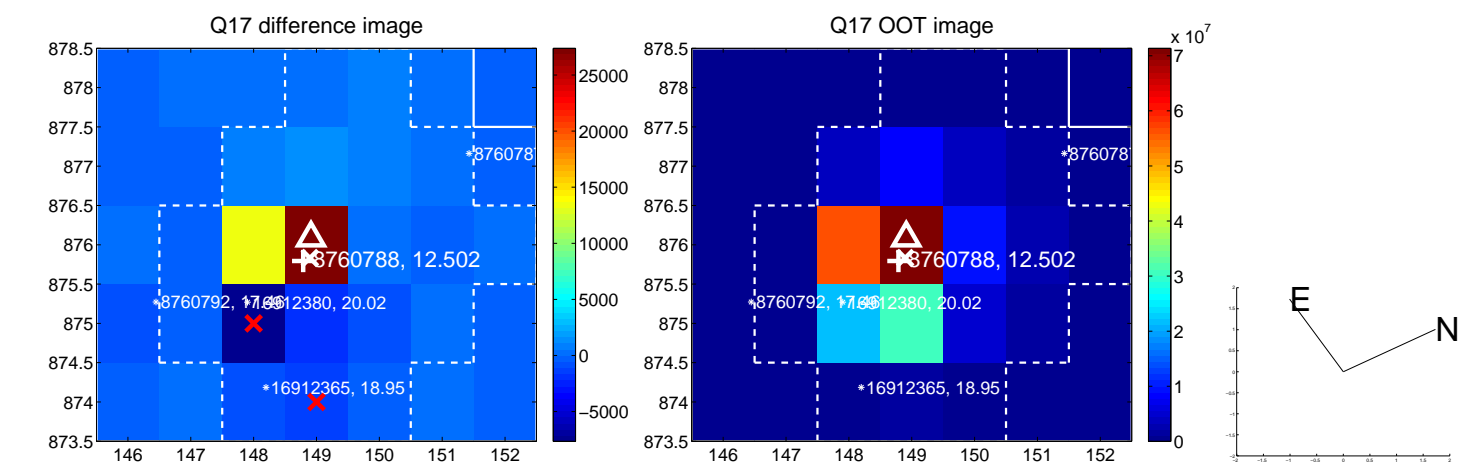
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



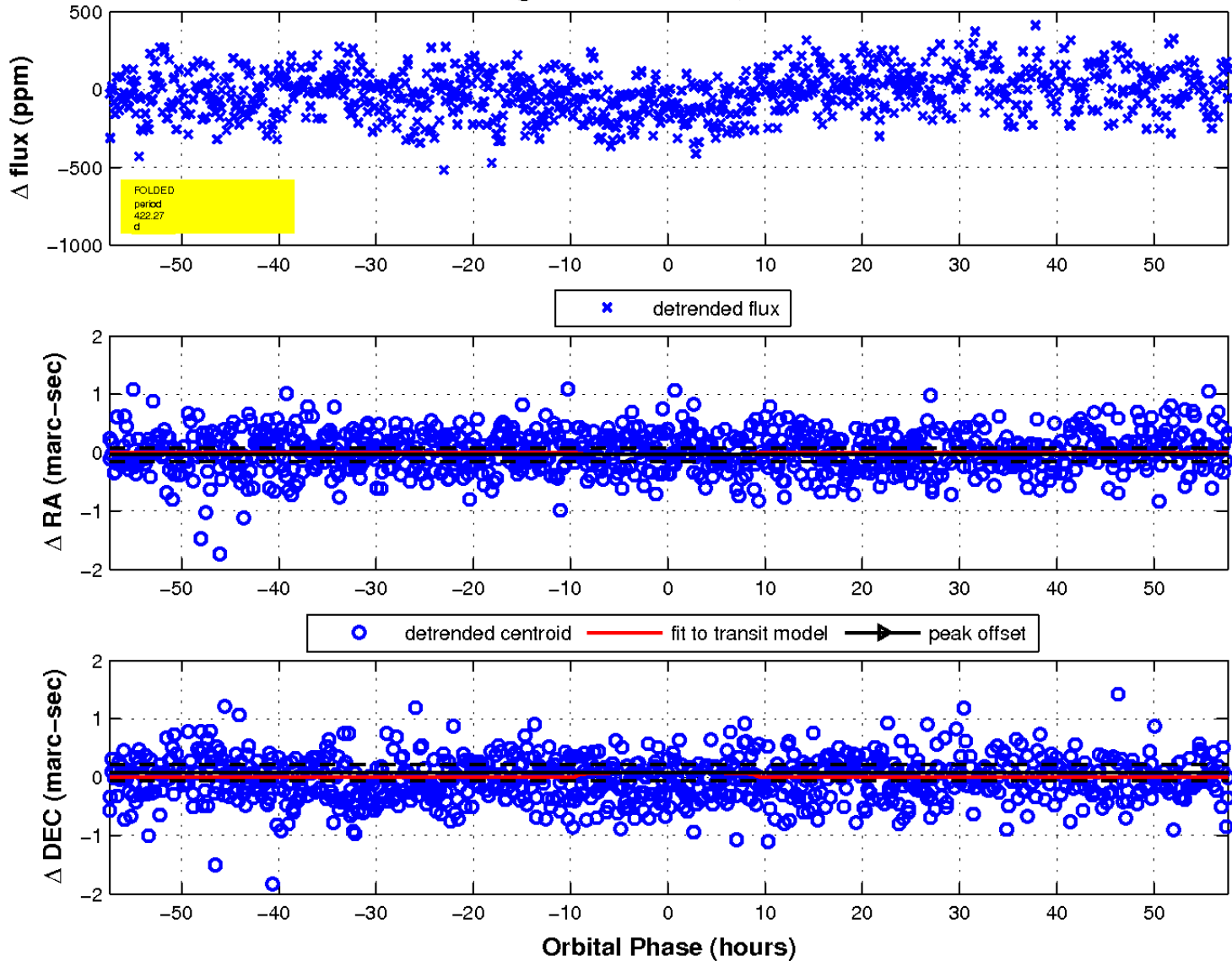
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

