

KIC 006803067

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})
006803067-01	OBS	No	590.545891	178.818816	207.0	9.032	8.7	8.4	2.11	6060	3.39	2.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006803067-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—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.

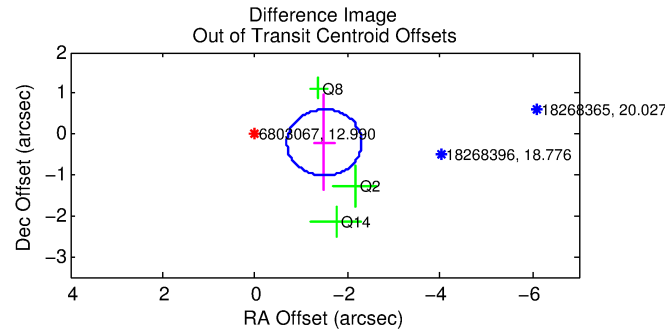
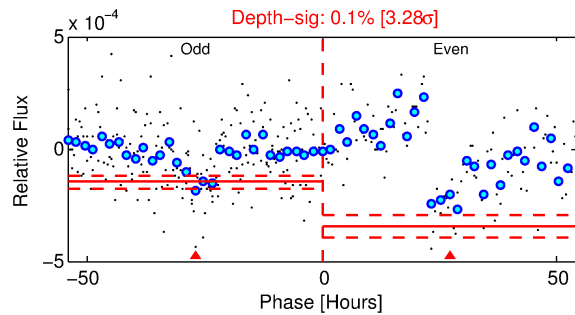
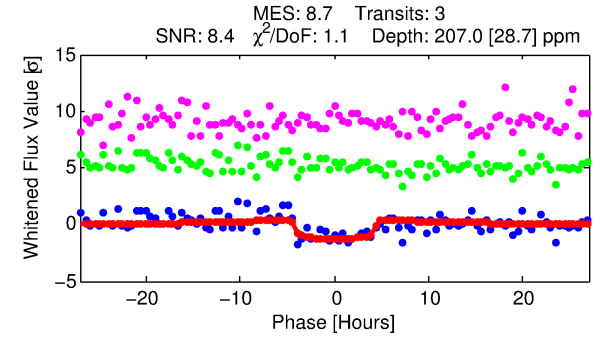
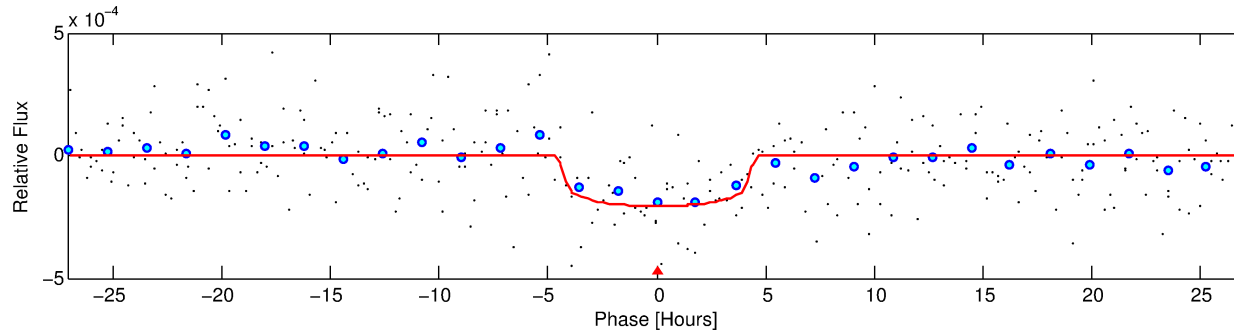
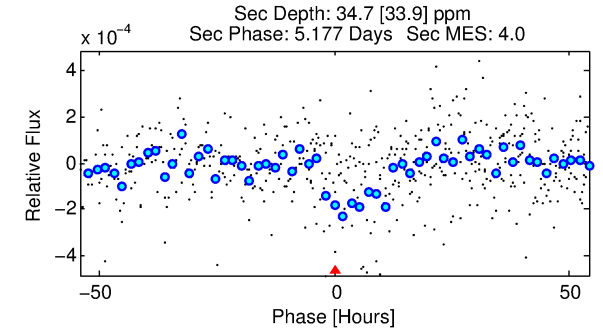
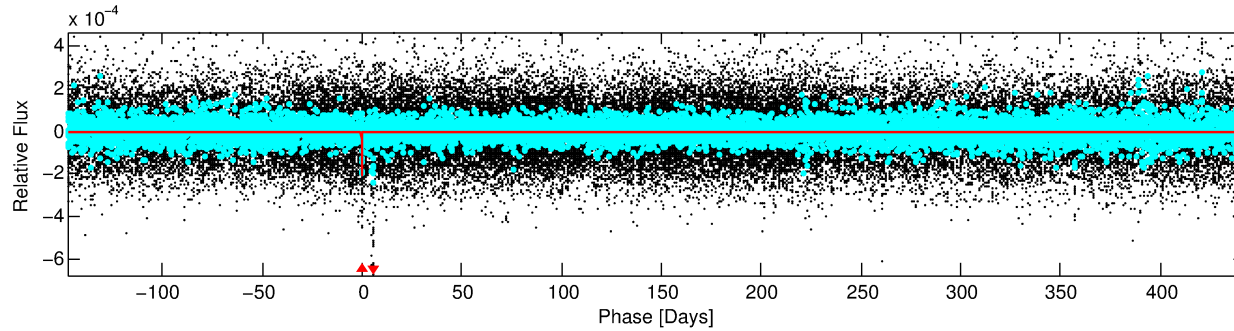
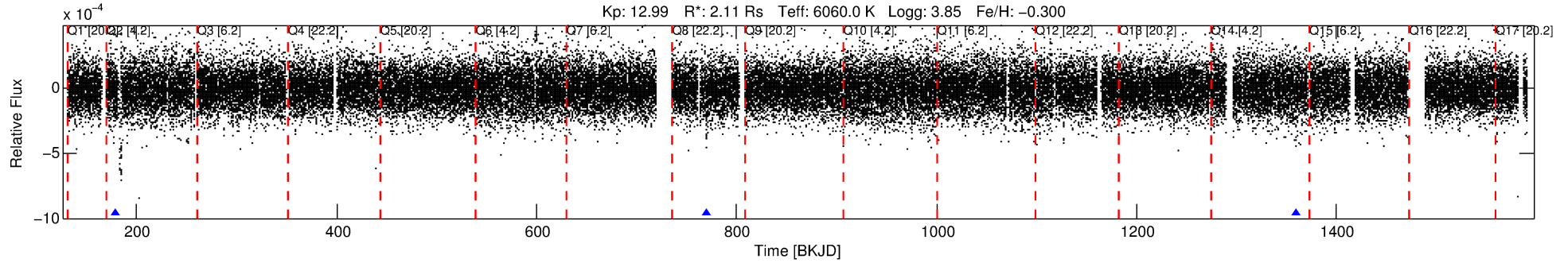
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006803067-01

No Significant Match Found

DV One-Page Summary

KIC: 6803067 Candidate: 1 of 1 Period: 590.546 d



DV Fit Results:

Period = 590.54589 [0.01176] d
Epoch = 178.8188 [0.0154] BKJD
Rp/R* = 0.0147 [0.0071]
a/R* = 295.67 [725.25]
b = 0.82 [0.97]
Seff = 2.57 [1.39]
Teff = 323 [44] K
Rp = 3.39 [2.02] Re
a = 1.4438 [0.4795] AU
Ag = 3462.75 [5105.30] [0.68σ]
Teffp = 3830 [1323] K [2.65σ]

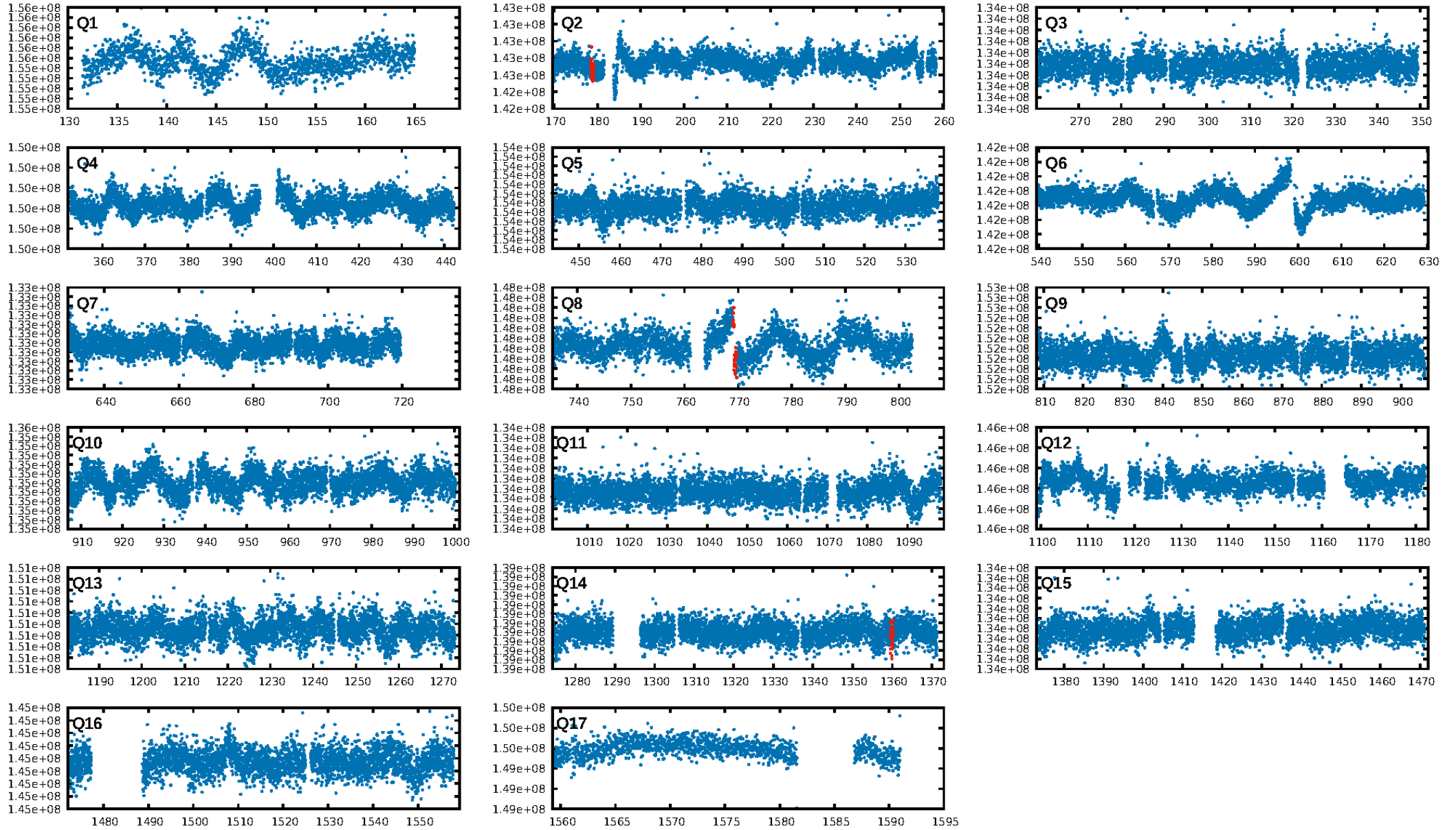
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.9%
ModelChiSquareGof-sig: 98.6%
Bootstrap-pfa: 1.41e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 87.61
Centroid-sig: 4.6%
Centroid-so: 3.070 arcsec [1.66σ]
OotOffset-rm: 1.506 arcsec [5.59σ]
KicOffset-rm: 1.480 arcsec [4.52σ]
OotOffset-st: 2/0/1/0 [3]
KicOffset-st: 2/0/1/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

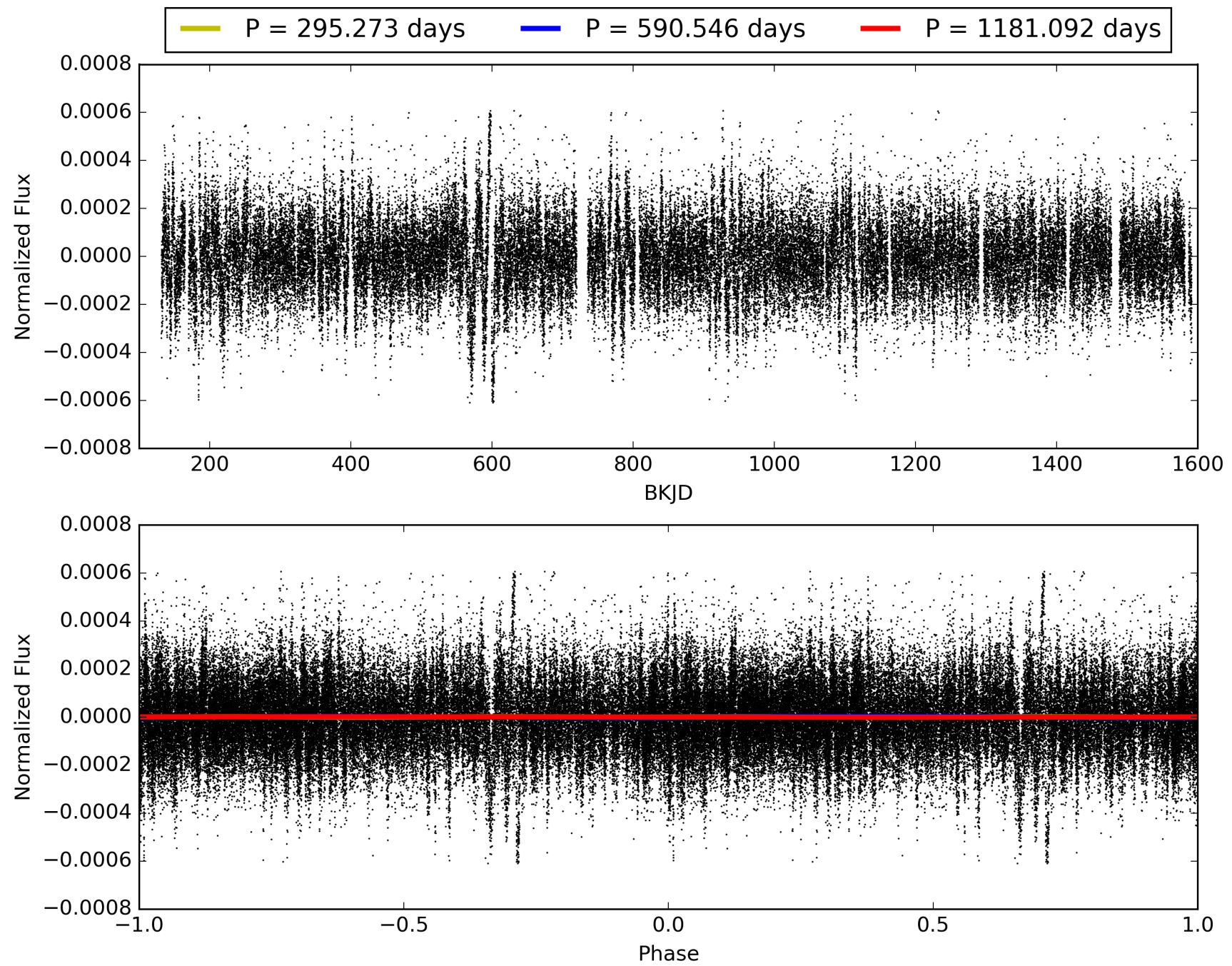
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:12:09 Z

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

TCE 006803067-01, PDC Light Curves

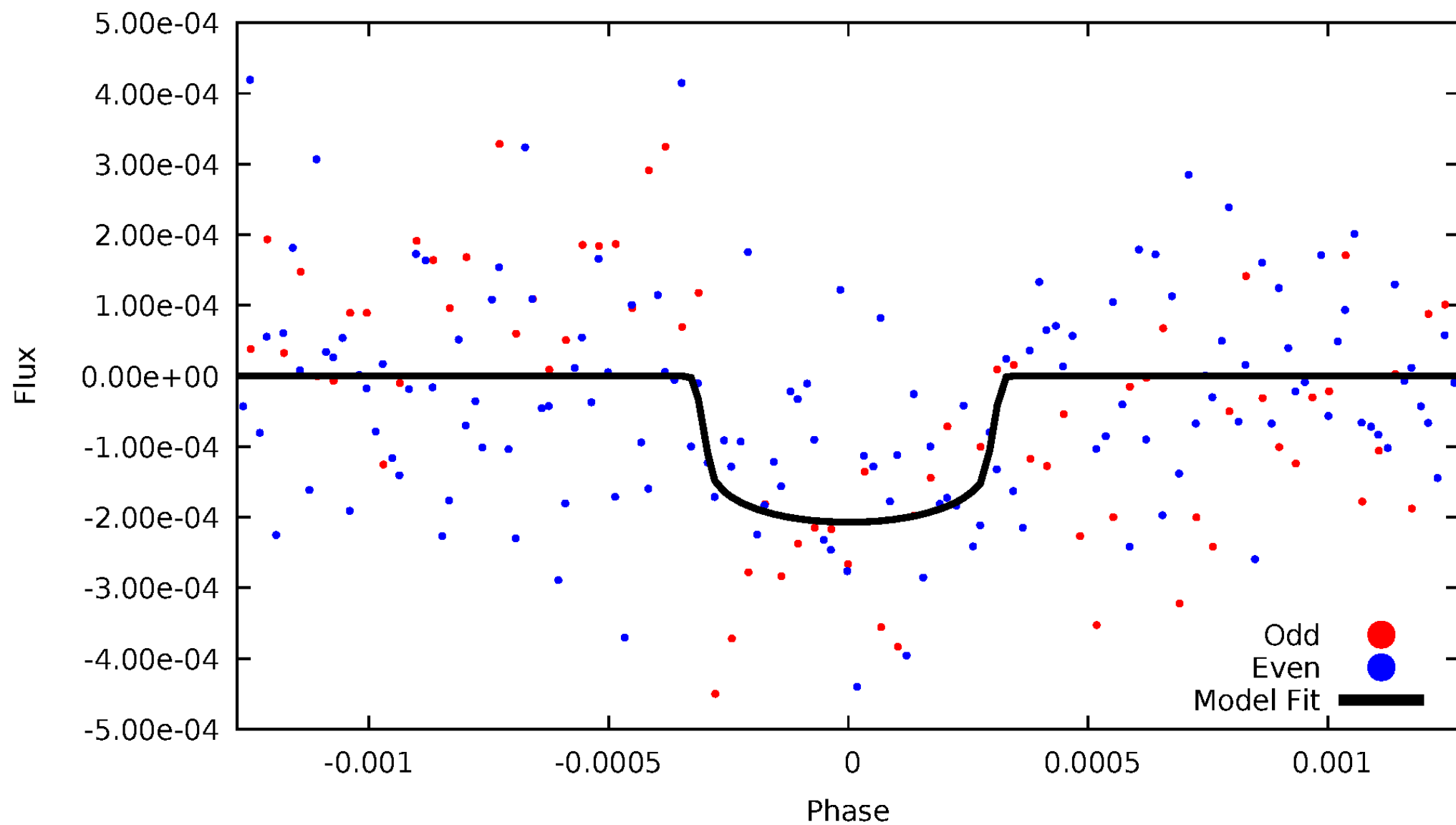


TCE 006803067-01



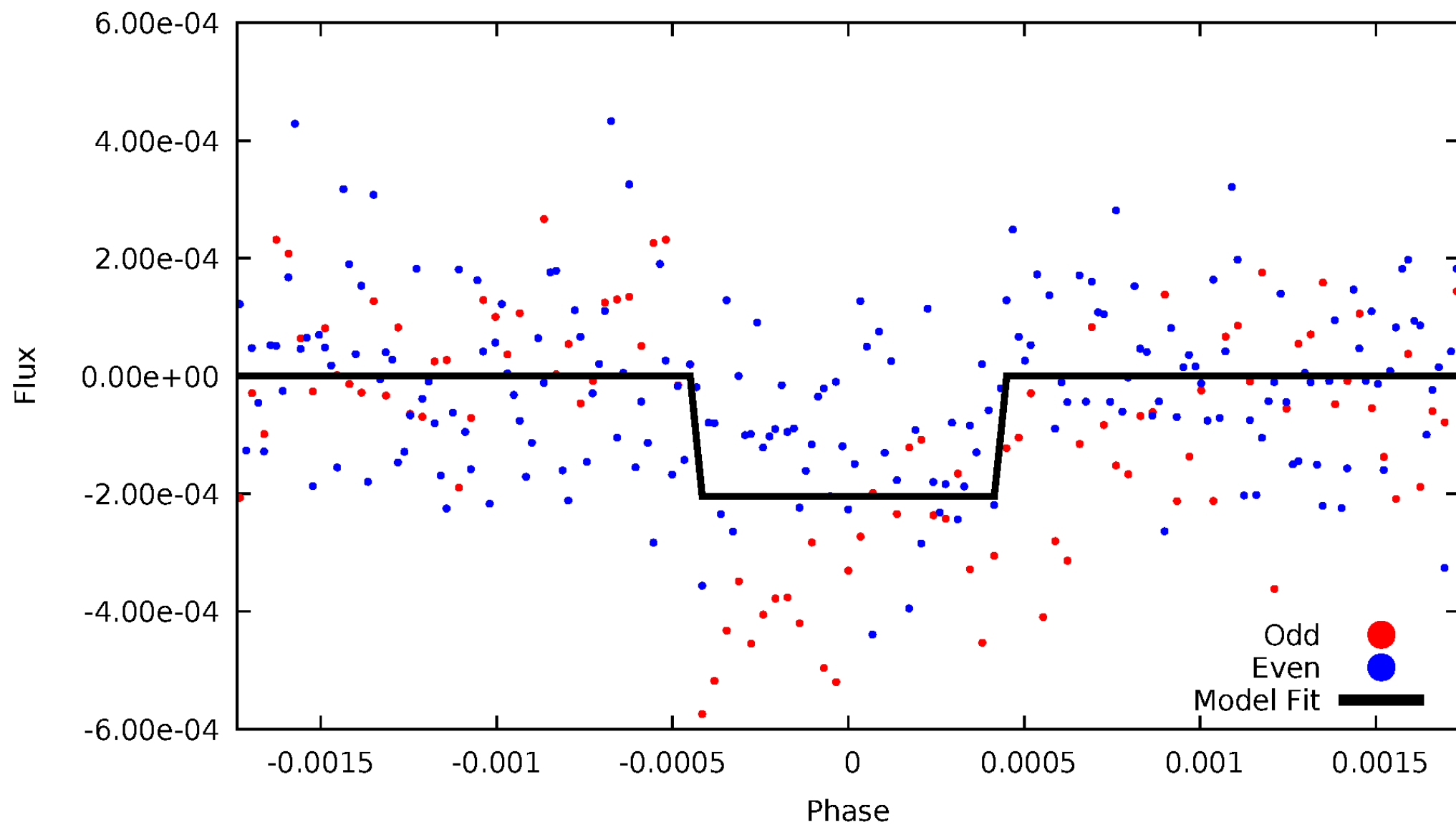
DV Odd/Even

TCE 006803067-01

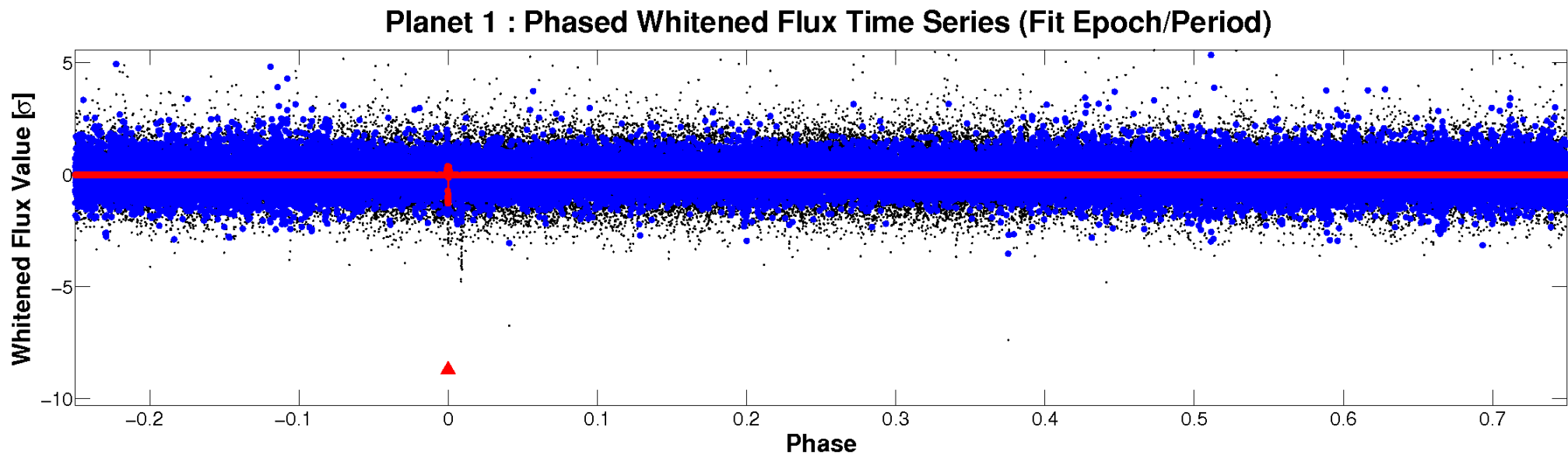
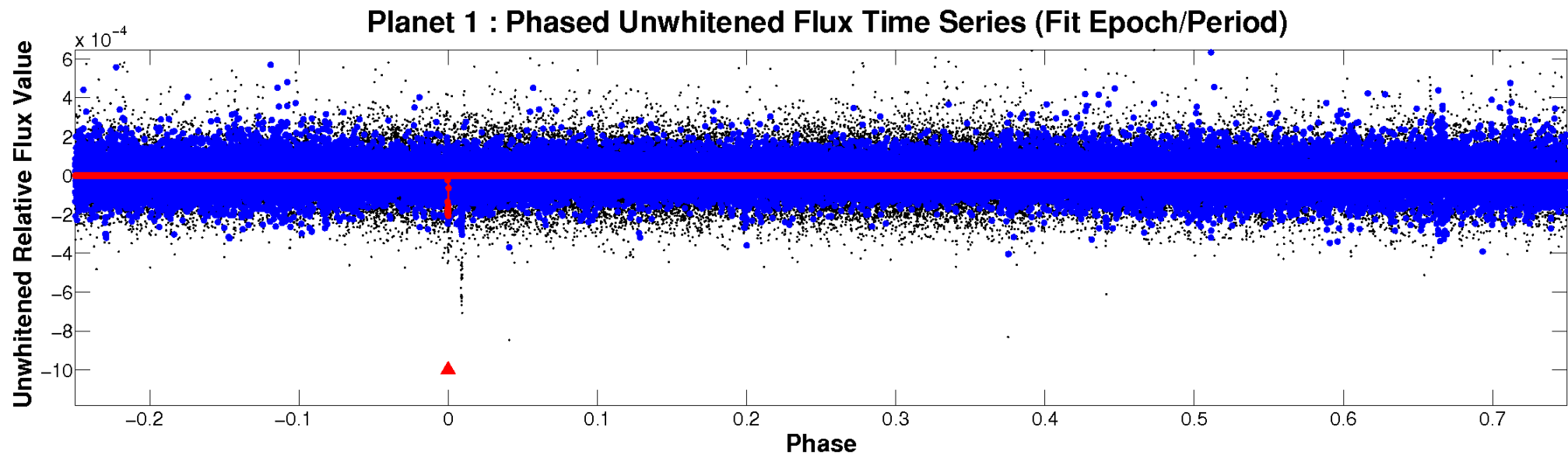


ALT Odd/Even

TCE 006803067-01

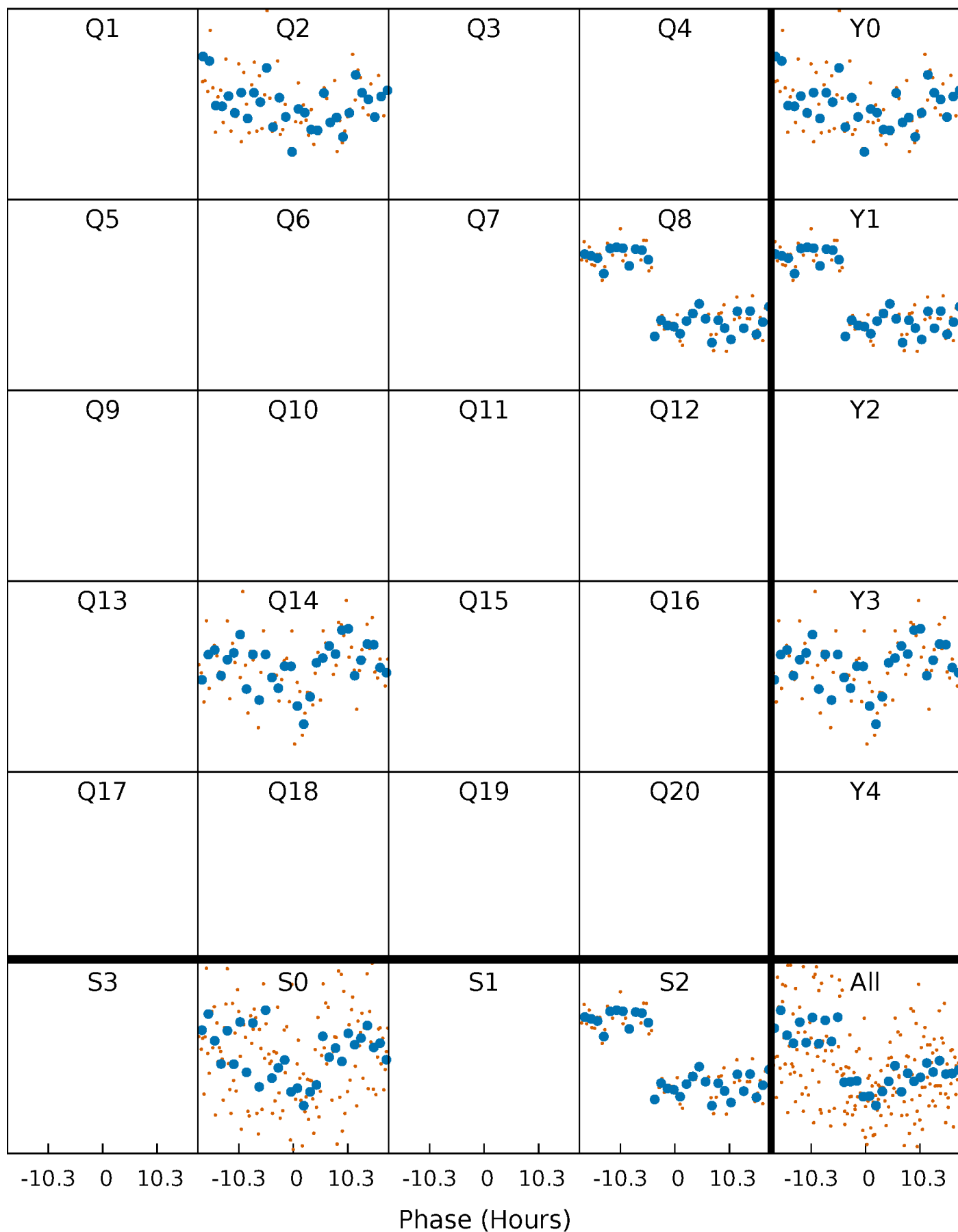


Non-Whitened Vs. Whitened Light Curve



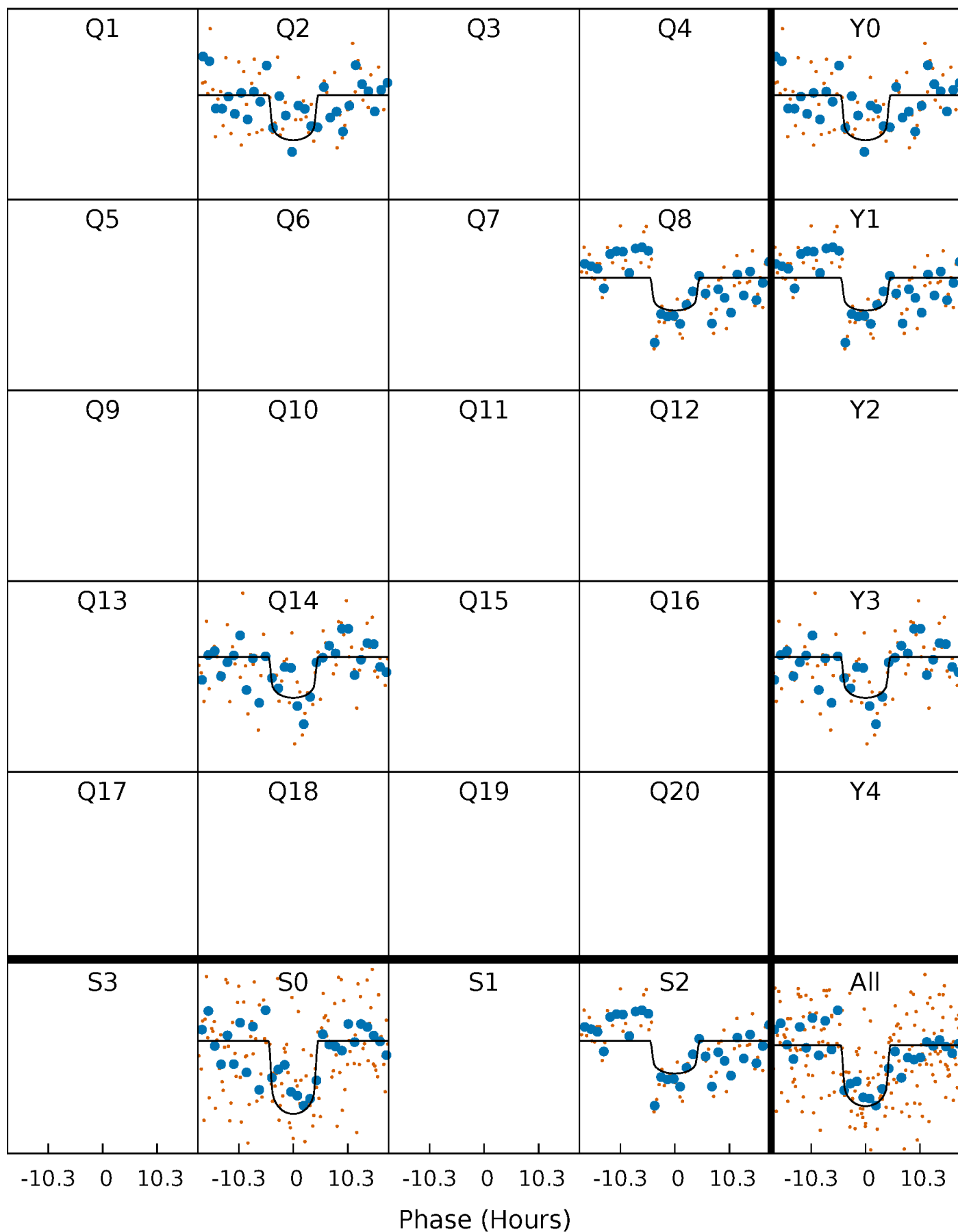
PDC Quarter-Phased Transit Curves

TCE 006803067-01 P=590.545891 Days $T_0=178.818816$ (BKJD)



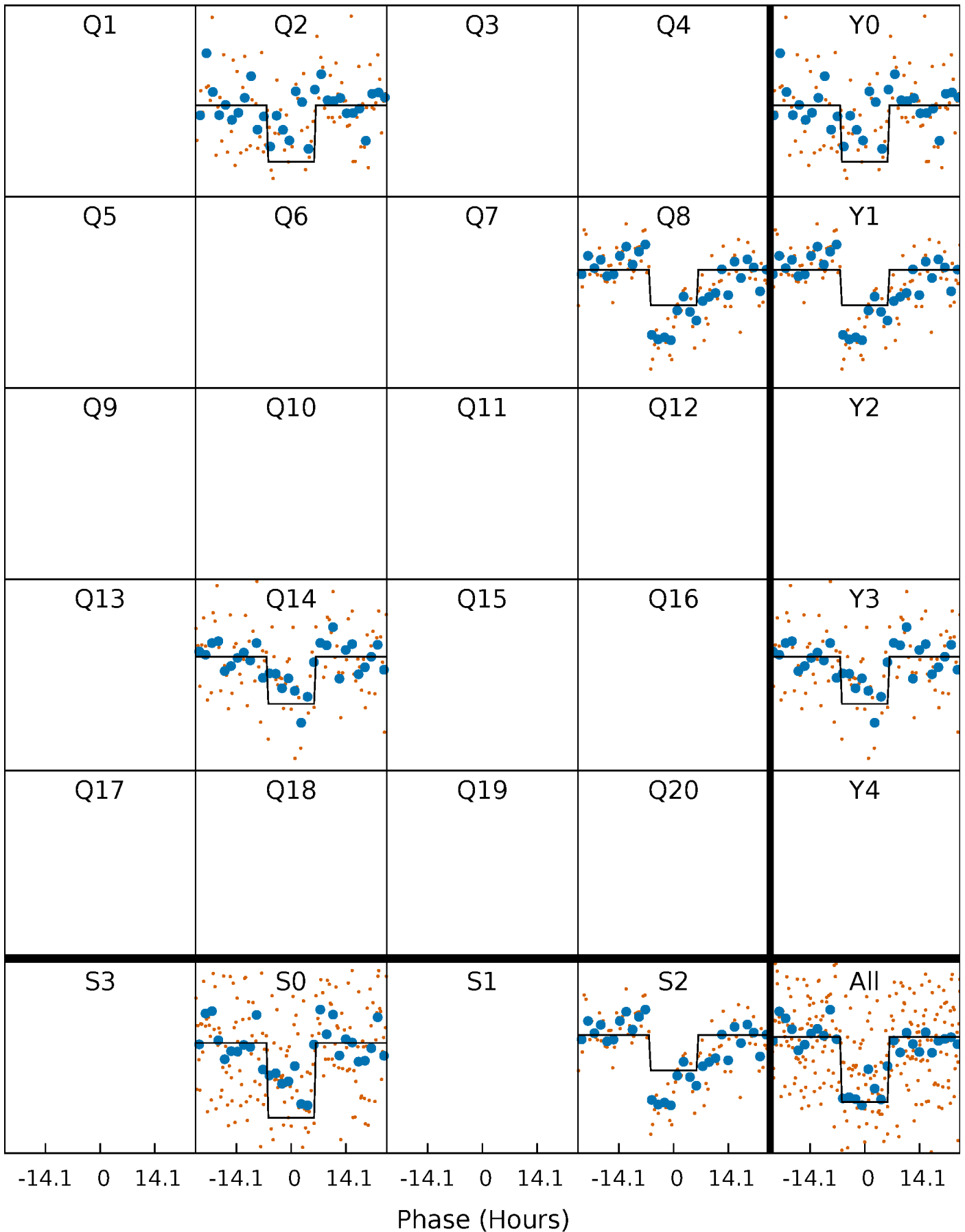
DV Quarter-Phased Transit Curves

TCE 006803067-01 P=590.545891 Days $T_0=178.818816$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

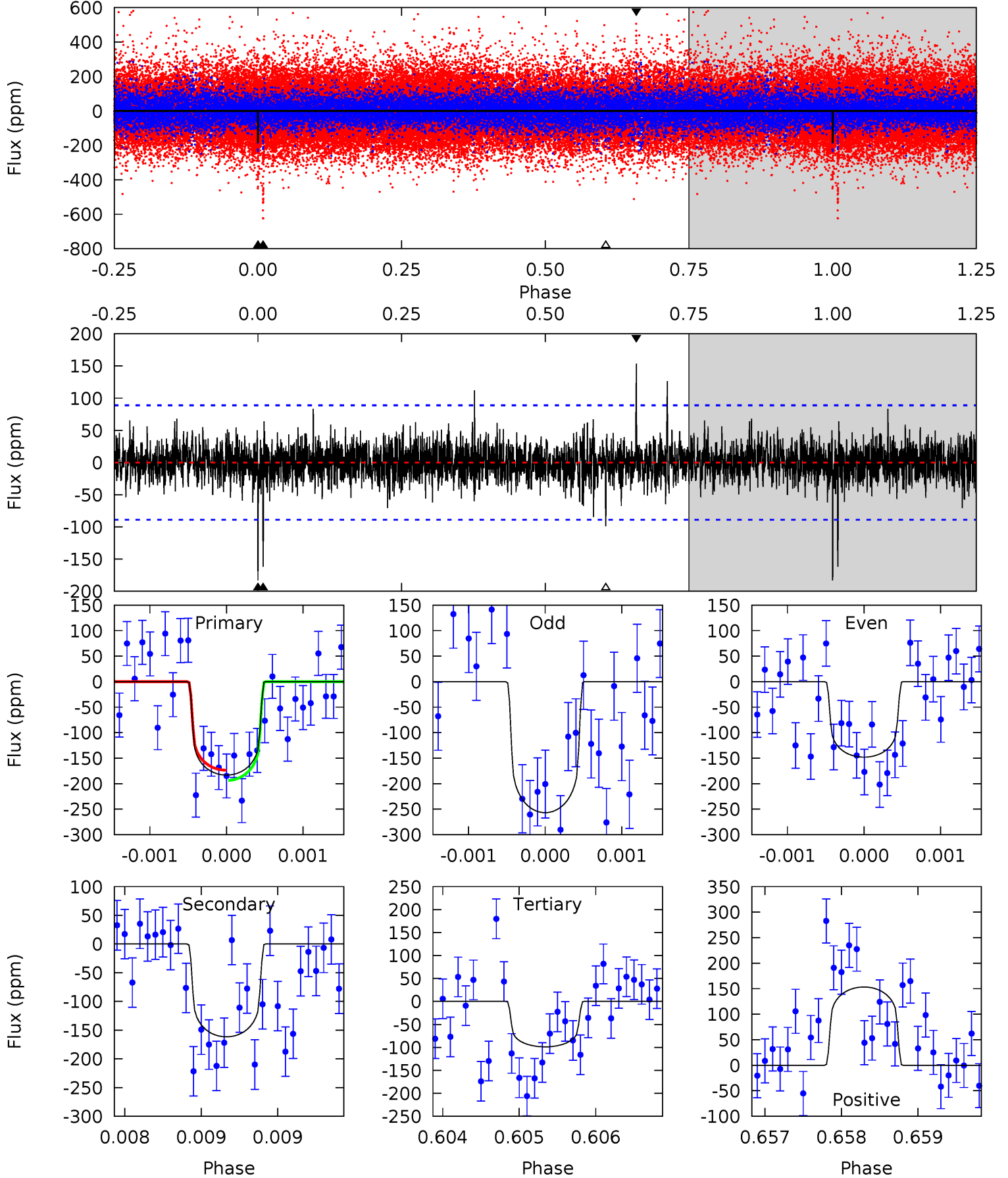
TCE 006803067-01 P=590.434527 Days $T_0=179.011405$ (BKJD)



DV Model-Shift Uniqueness Test

006803067-01, P = 590.545891 Days, E = 178.818816 Days

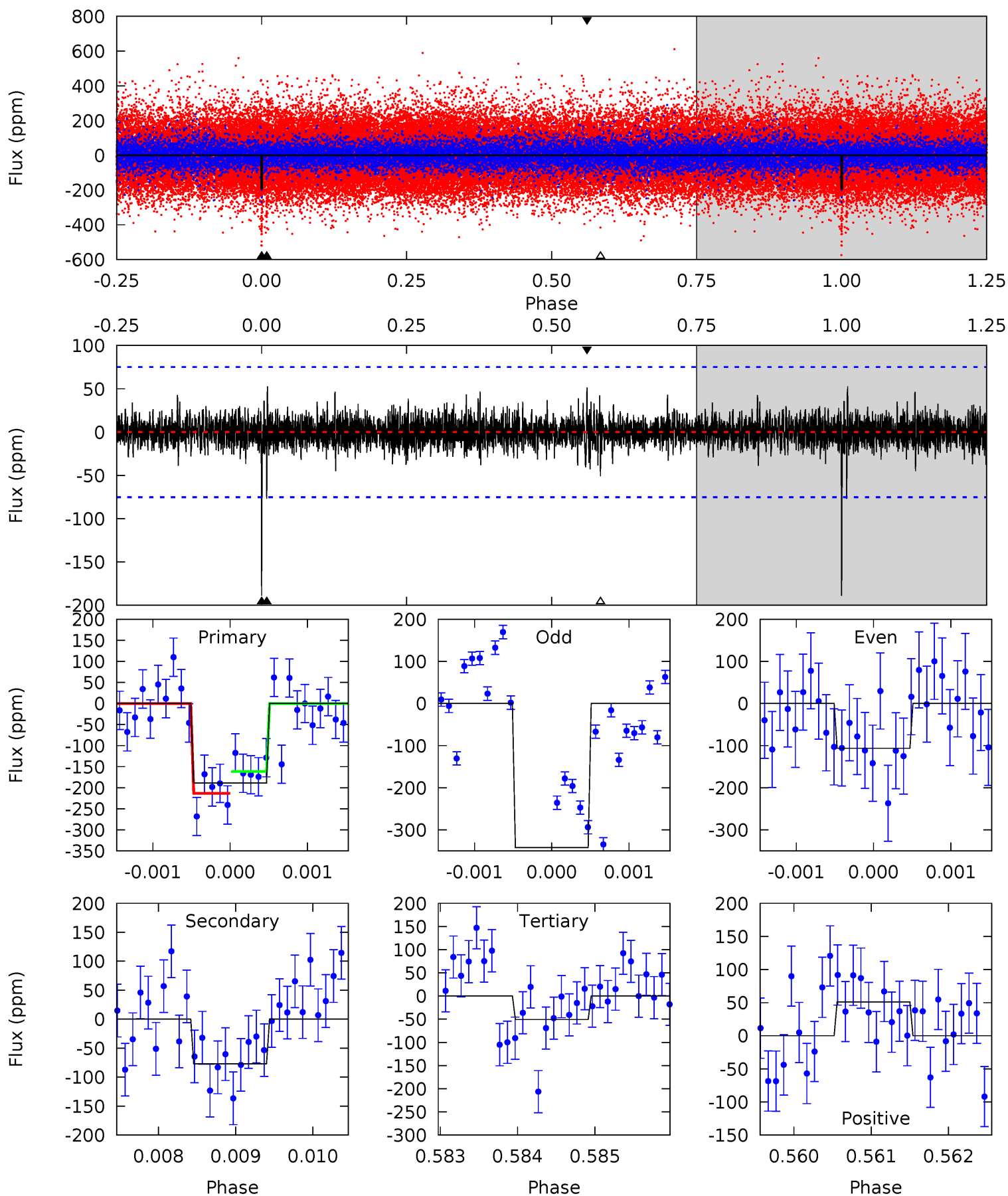
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	10.0	6.14	9.53	5.52	3.40	1.29	5.24	1.85	3.90	0.51	3.16	1.02	0.46	0.63



Alt Model-Shift Uniqueness Test

006803067-01, P = 590.434527 Days, E = 179.011405 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	5.61	3.70	3.73	5.47	3.33	0.83	10.1	10.0	1.90	1.87	7.99	1.35	0.22	1.89



Stellar Parameters For KIC 006803067

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6060^{+181}_{-163}	$3.852^{+0.308}_{-0.103}$	$-0.300^{+0.350}_{-0.250}$	$2.106^{+0.397}_{-0.737}$	$1.151^{+0.199}_{-0.199}$	$0.173^{+0.369}_{-0.054}$
	+3%/-3%	+8%/-3%	+117%/-83%	+19%/-35%	+17%/-17%	+212%/-31%
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 006803067-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-162 ± 16	$3.19^{+1.74}_{-1.62}$	443^{+26}_{-40}	5646^{+2478}_{-942}	18479^{+56673}_{-10928}
Alt.	-77 ± 14	$3.04^{+1.81}_{-1.49}$	443^{+30}_{-37}	4868^{+1751}_{-725}	9252^{+29424}_{-5566}

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 $A_{obs} \gg 1.0$

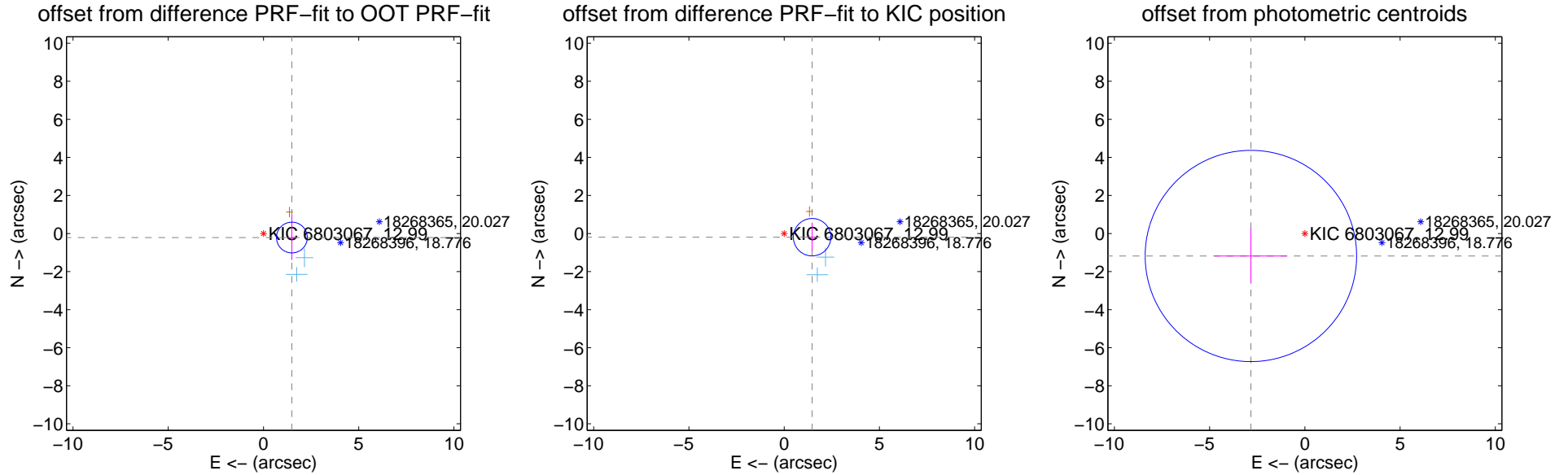
DV Centroid Data

Supplemental centroid analysis for 006803067-01. Kepler magnitude: 12.99. Transit SNR 8.41

There are 2 quarters with good PRF difference image offsets

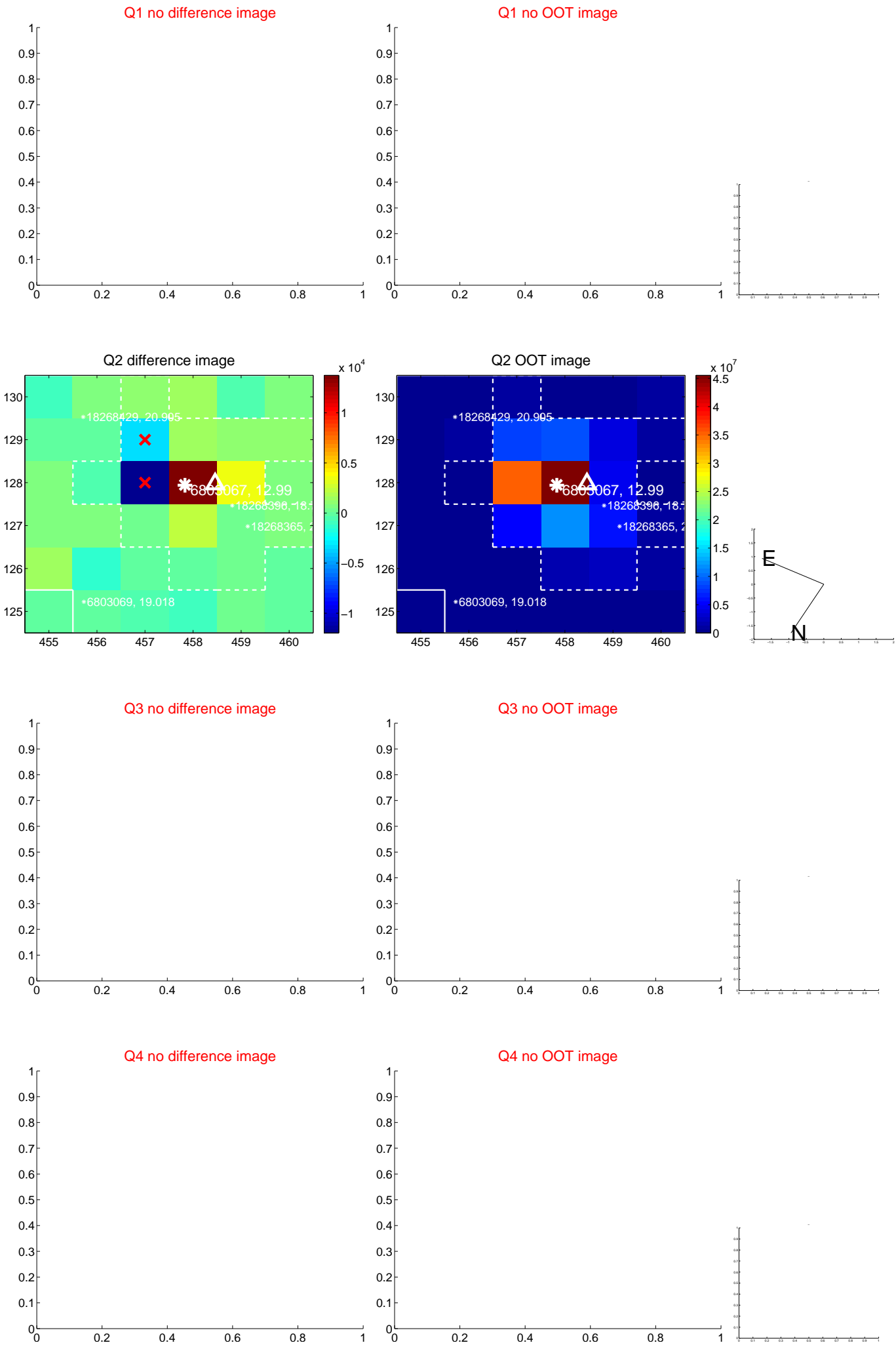
The direct PRF centroid is offset from the target star catalog position by about 0.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.506 ± 0.269	5.59	-1.491 ± 0.215	-0.211 ± 1.175
PRF-fit source offset from KIC position	1.480 ± 0.328	4.52	-1.467 ± 0.259	-0.193 ± 0.741
photometric centroid source offset	3.07 ± 1.85	1.66	2.83 ± 1.91	-1.18 ± 1.45

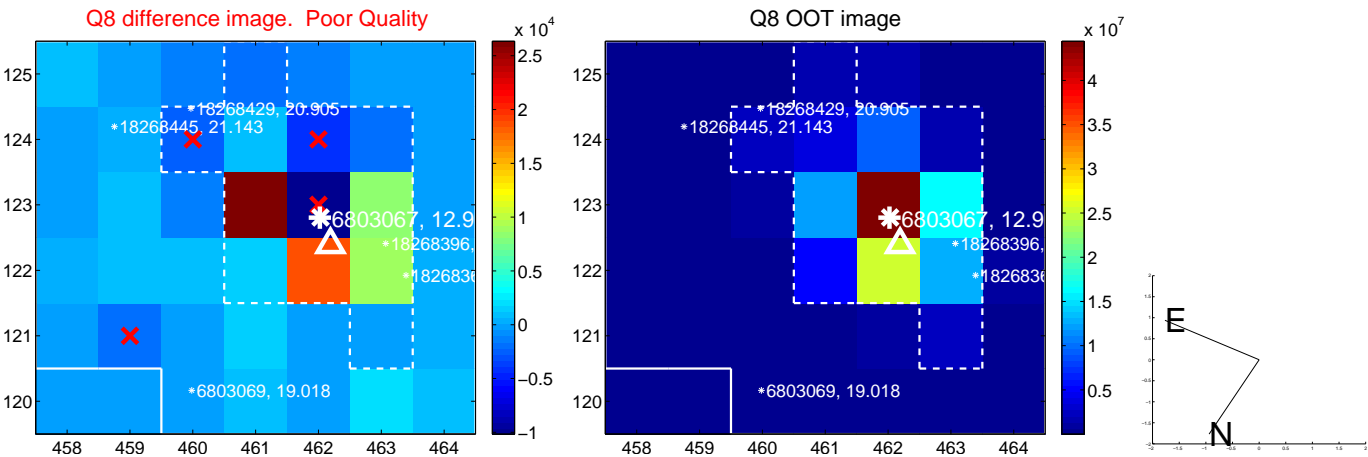


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



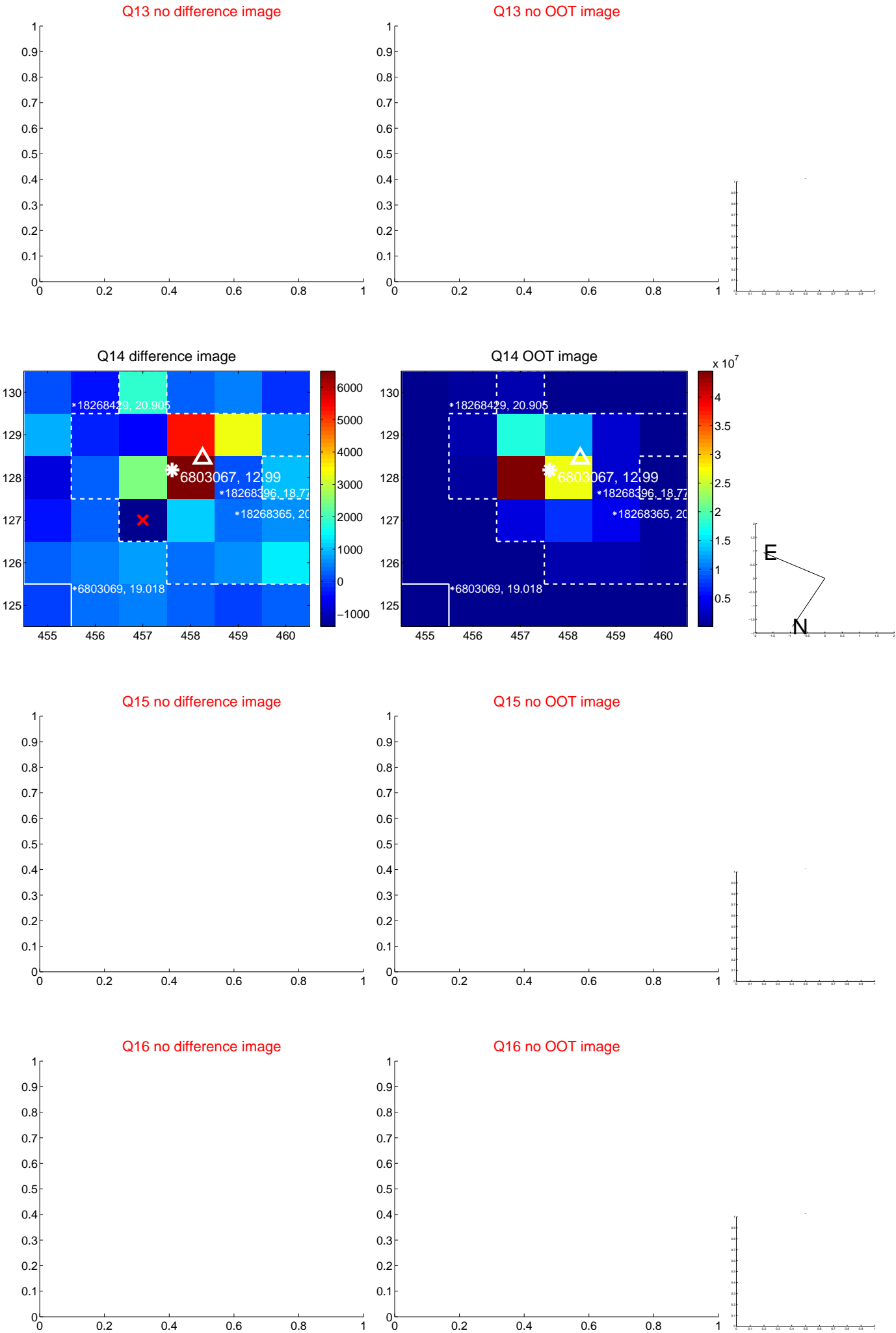
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



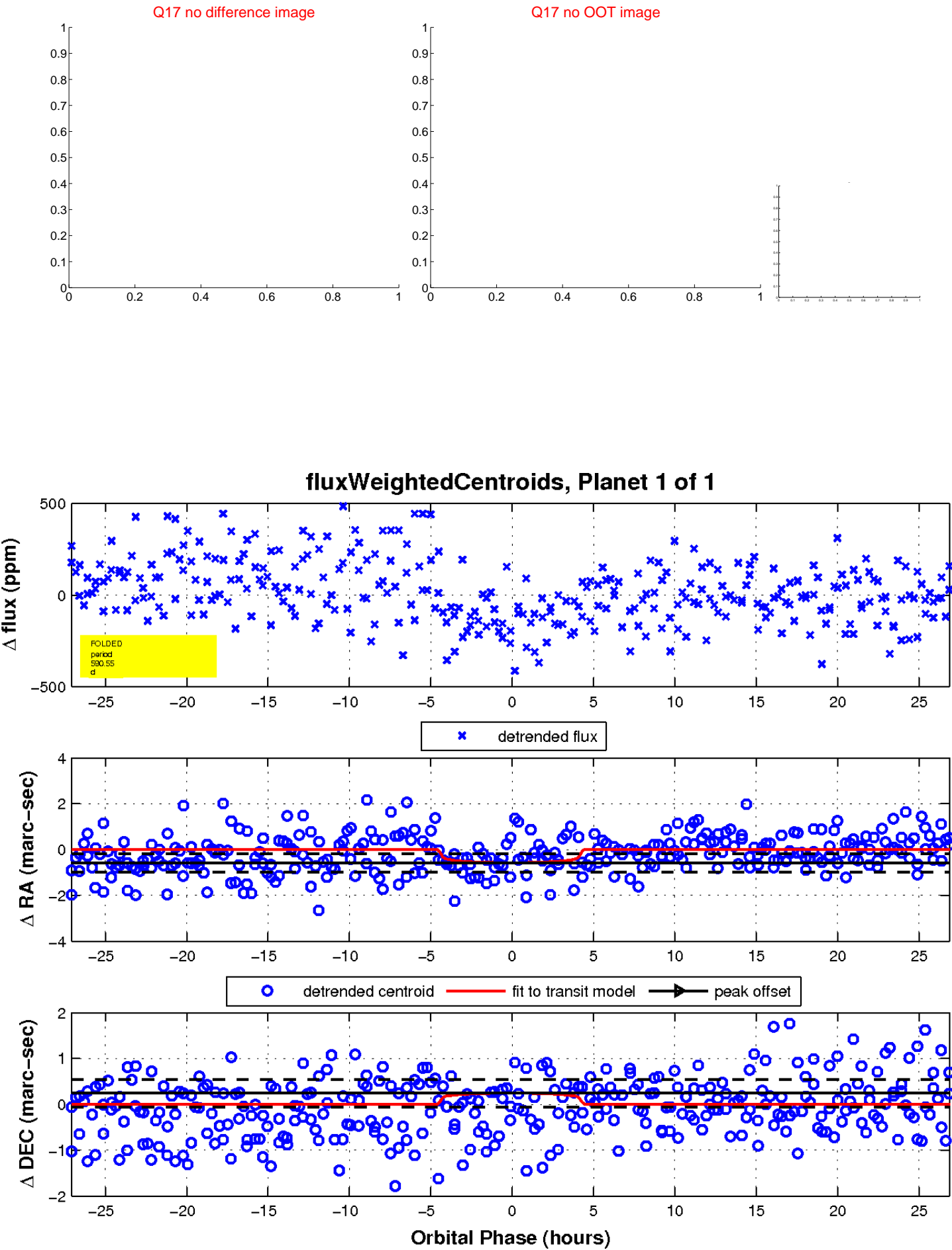
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

