

KIC 008006143

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})
008006143-01	OBS	No	477.358421	312.470123	2010.1	3.947	17.0	6.6	0.72	4405	3.19	0.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008006143-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE_ZUMA—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_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.

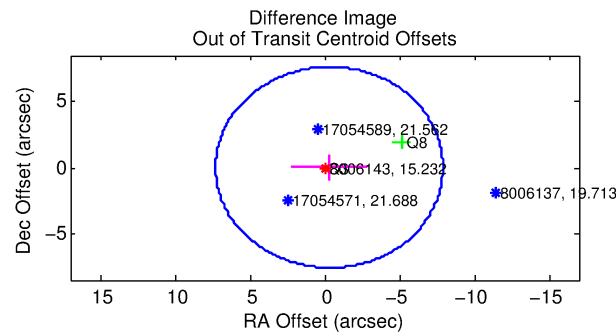
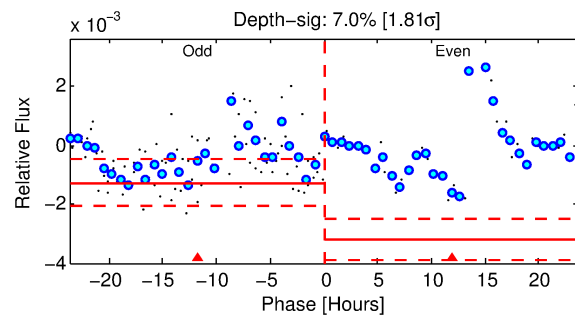
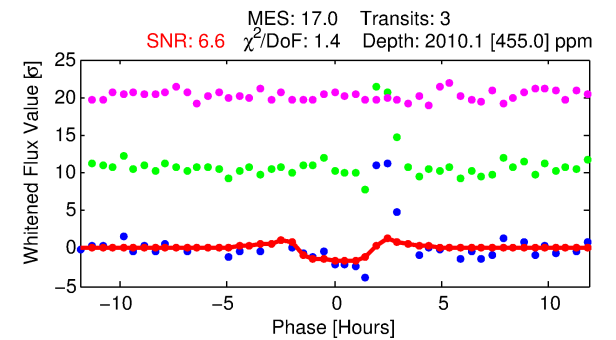
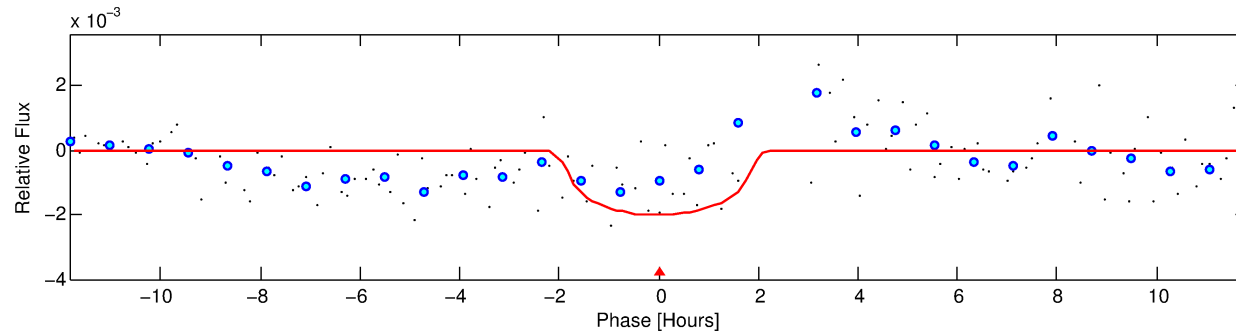
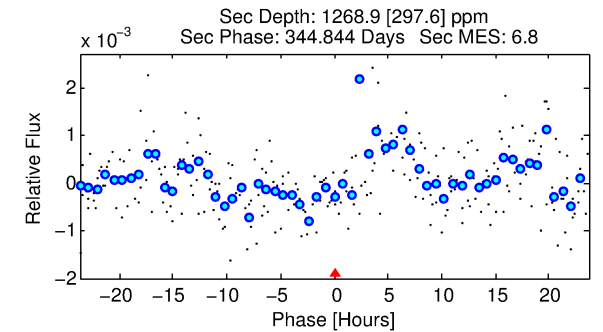
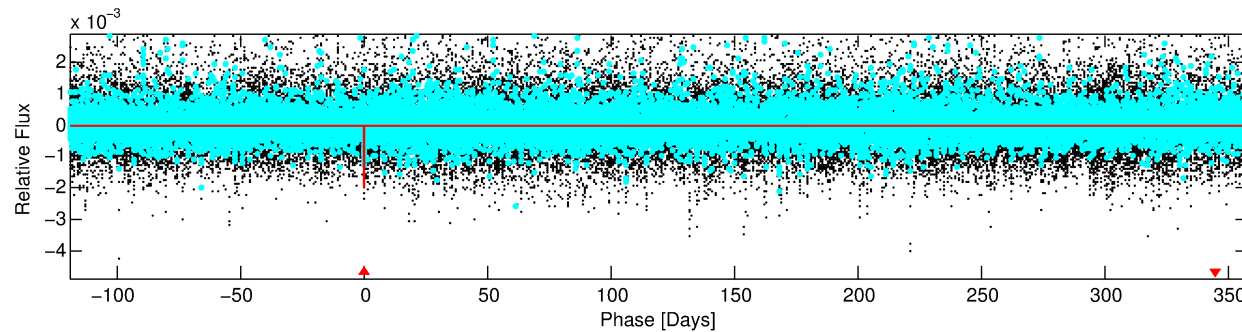
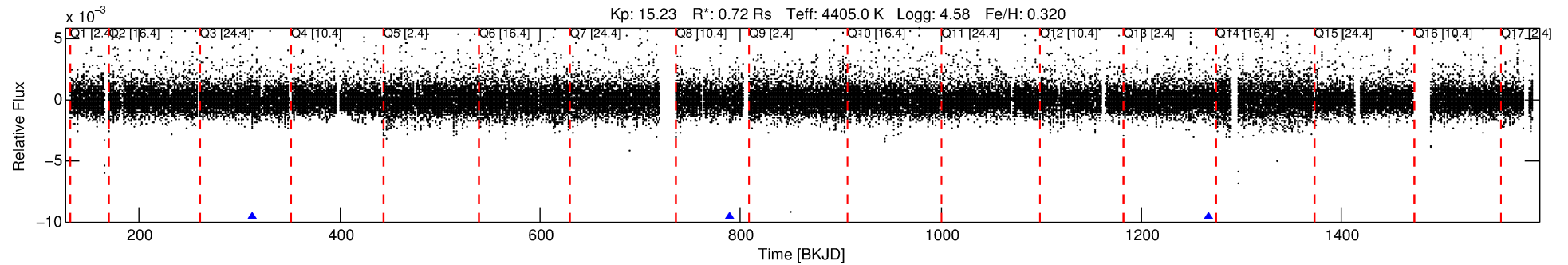
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008006143-01

No Significant Match Found

DV One-Page Summary

KIC: 8006143 Candidate: 1 of 1 Period: 477.358 d



DV Fit Results:

Period = 477.35842 [0.00869] d
Epoch = 312.4701 [0.0101] BKJD
Rp/R* = 0.0404 [0.0747]
a/R* = 879.98 [4483.31]
b = 0.42 [10.37]
Seff = 0.15 [0.03]
Teq = 160 [7] K
Rp = 3.19 [5.91] Re
a = 1.0709 [0.0793] AU
Ag = 78717.69 [292244.09] [0.27σ]
Teffp = 4138 [3842] K [1.04σ]

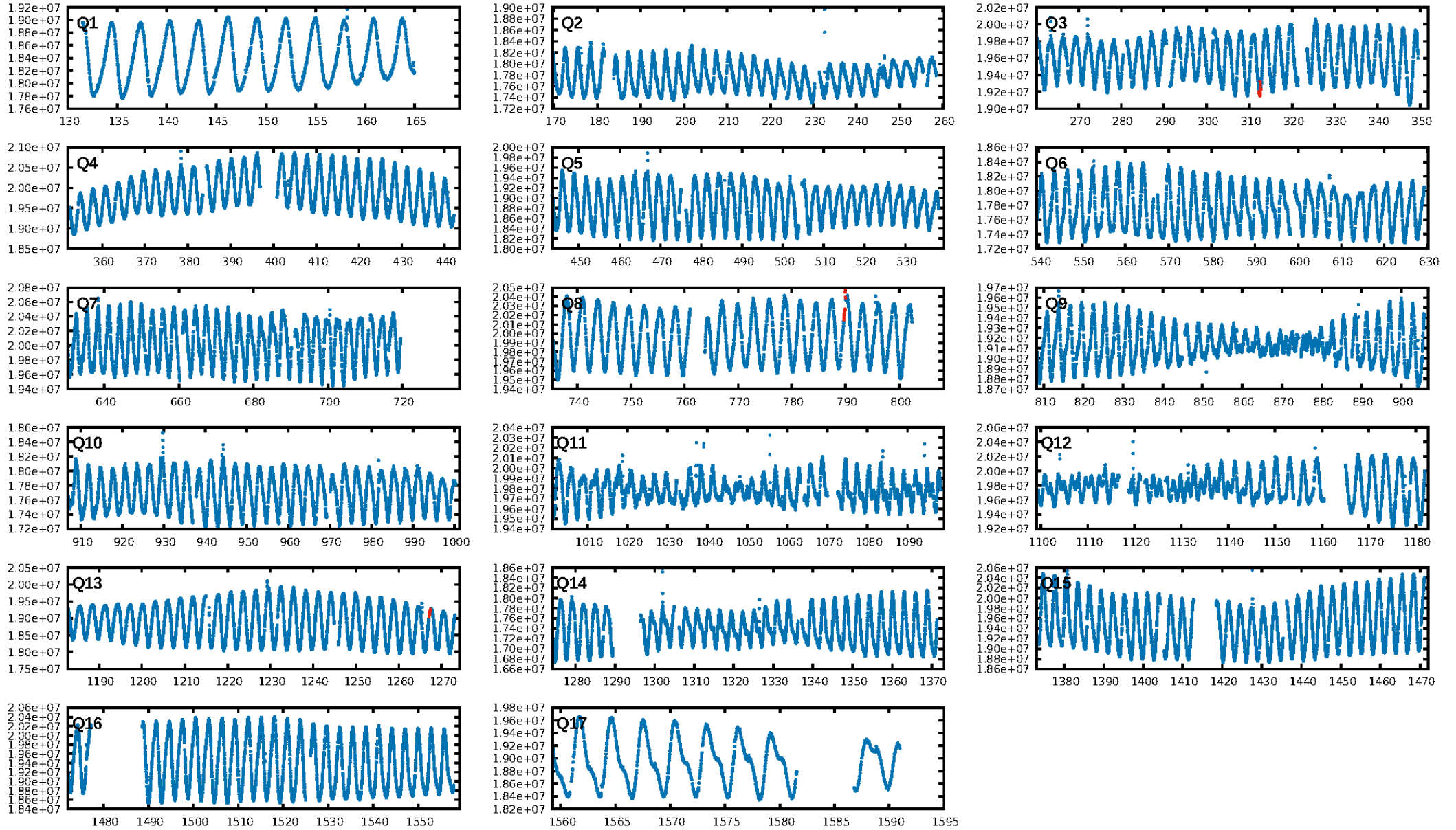
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 53.7%
Bootstrap-pfa: 7.89e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.258
Centroid-sig: 11.5%
Centroid-so: 1.198 arcsec [1.40σ]
OotOffset-rm: 0.316 arcsec [0.12σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-rm: 0.300 arcsec [0.19σ]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [2/2]

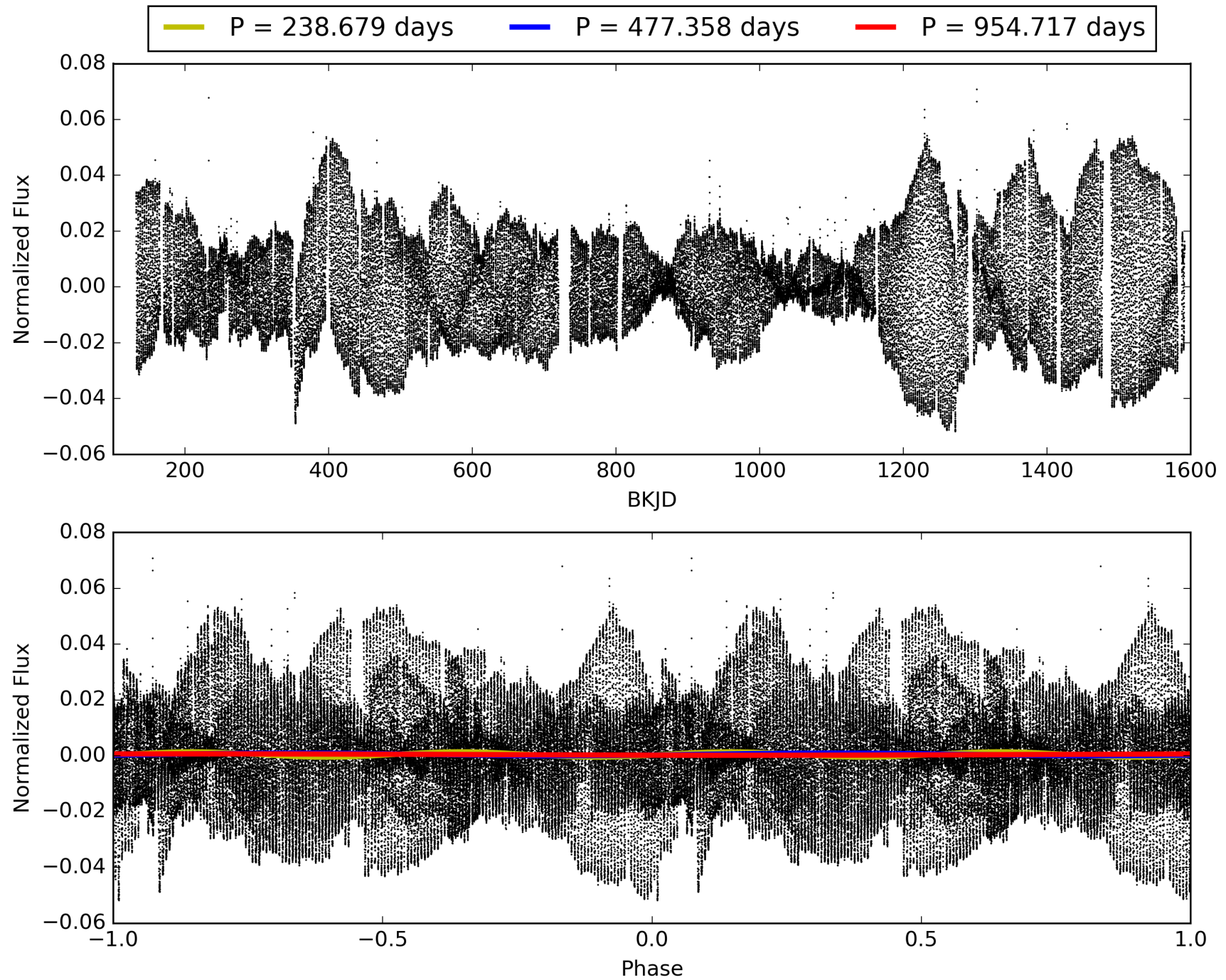
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 10:10:56 Z

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

TCE 008006143-01, PDC Light Curves

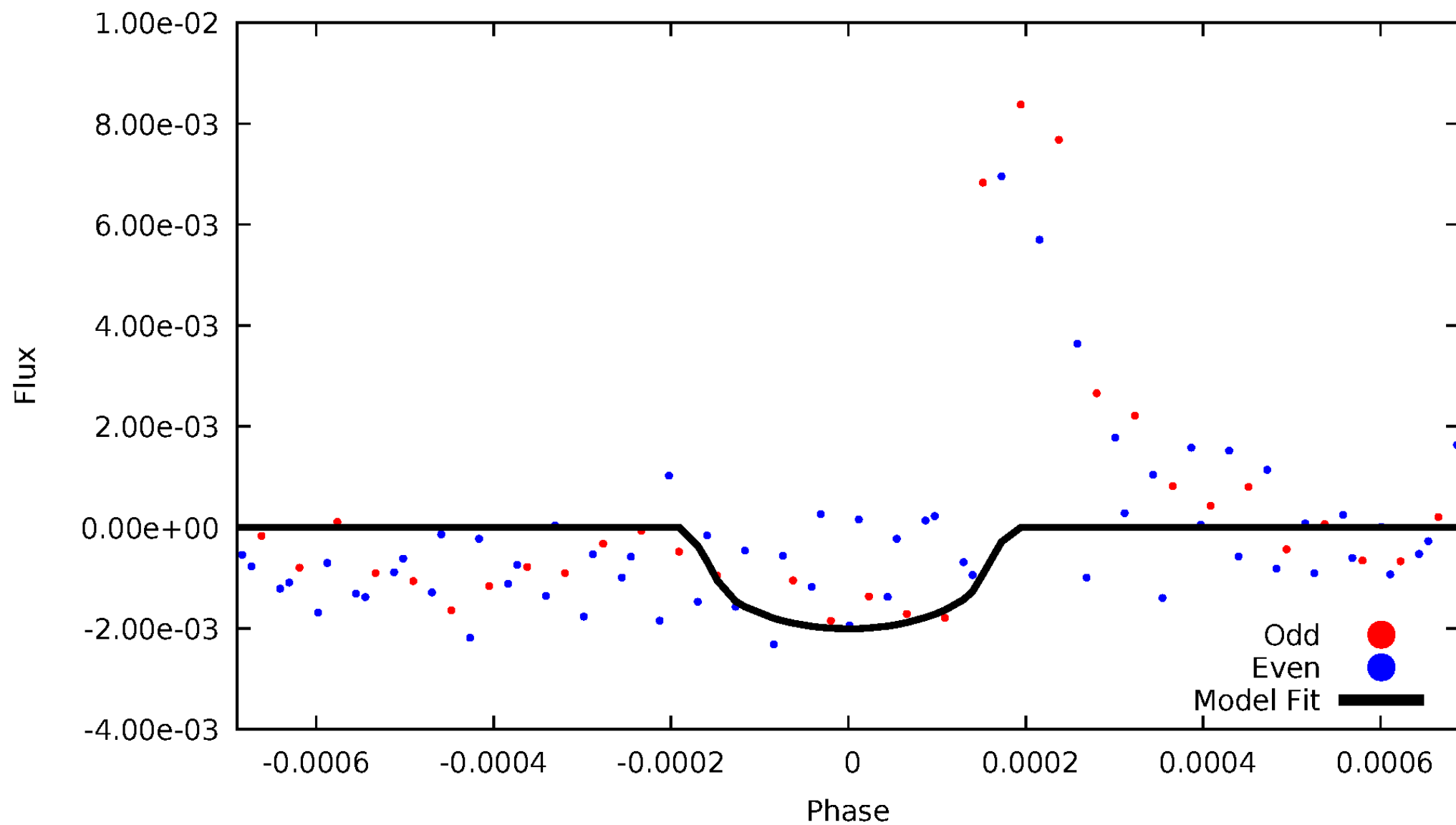


TCE 008006143-01



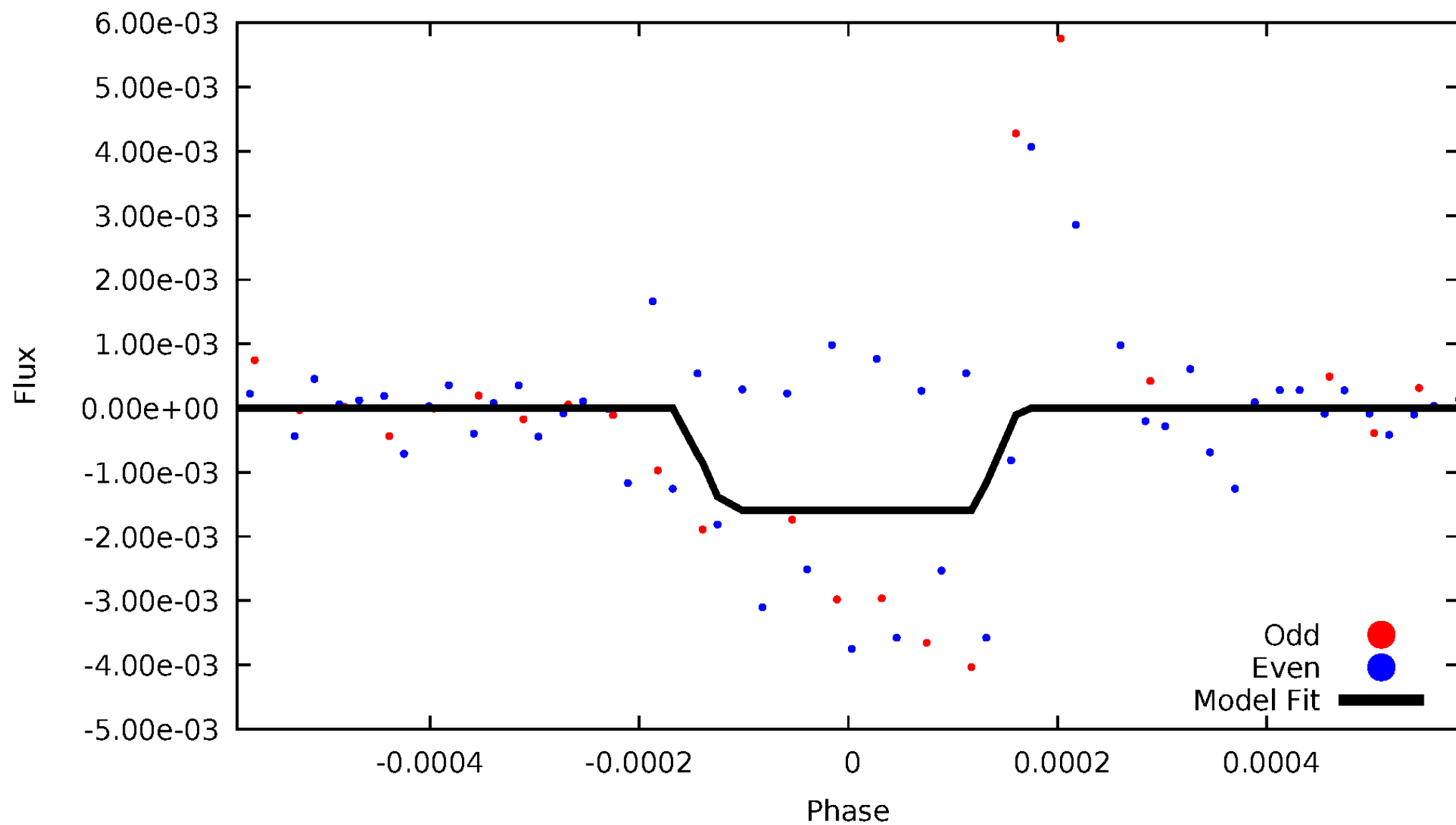
DV Odd/Even

TCE 008006143-01

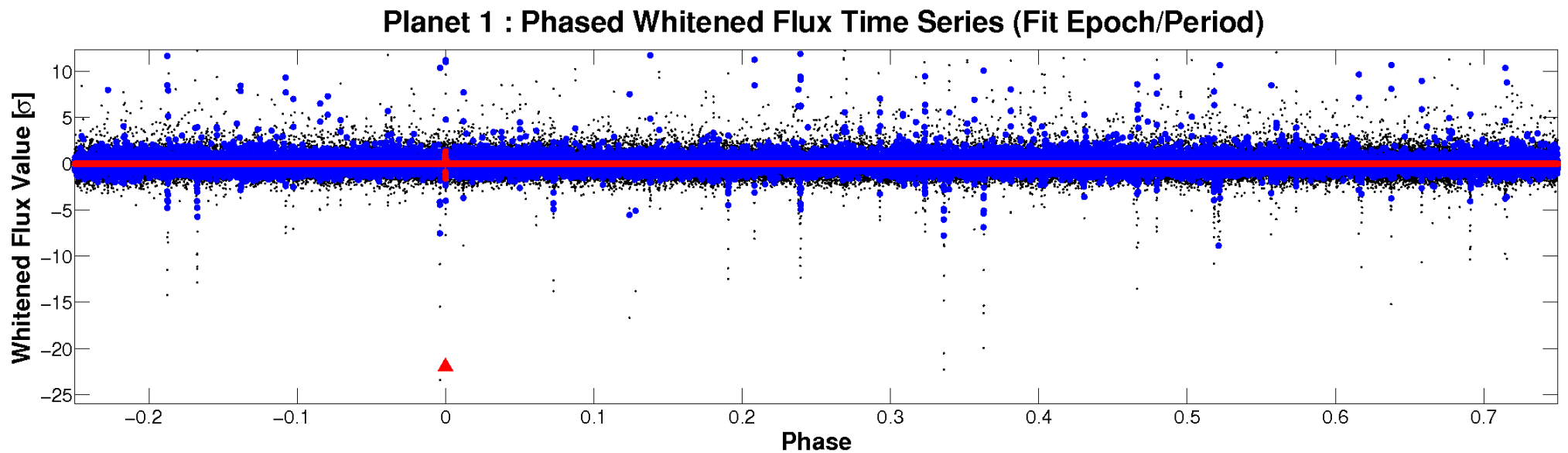
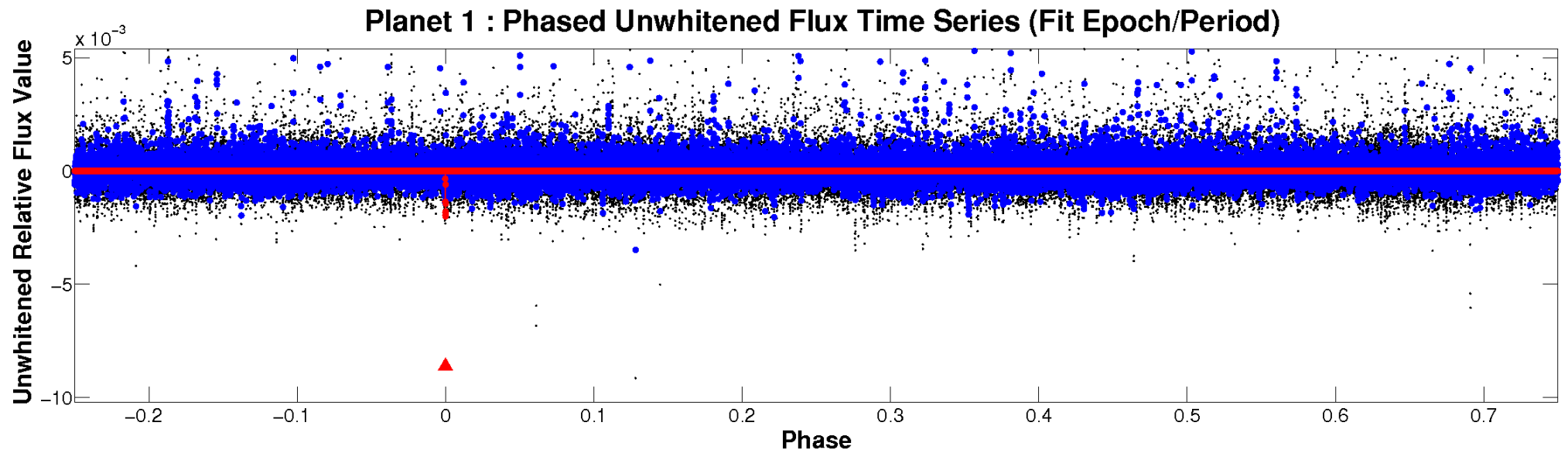


ALT Odd/Even

TCE 008006143-01

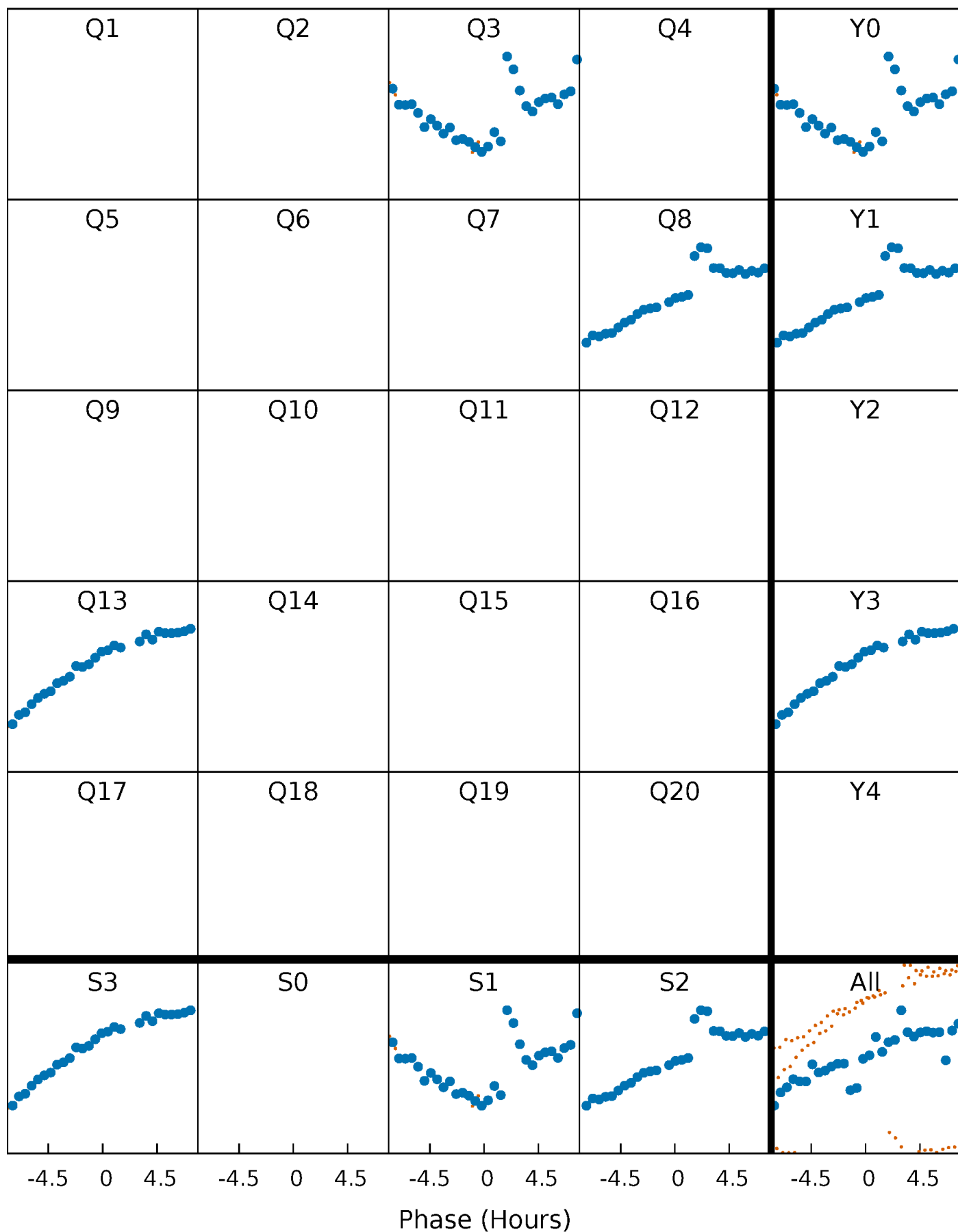


Non-Whitened Vs. Whitened Light Curve



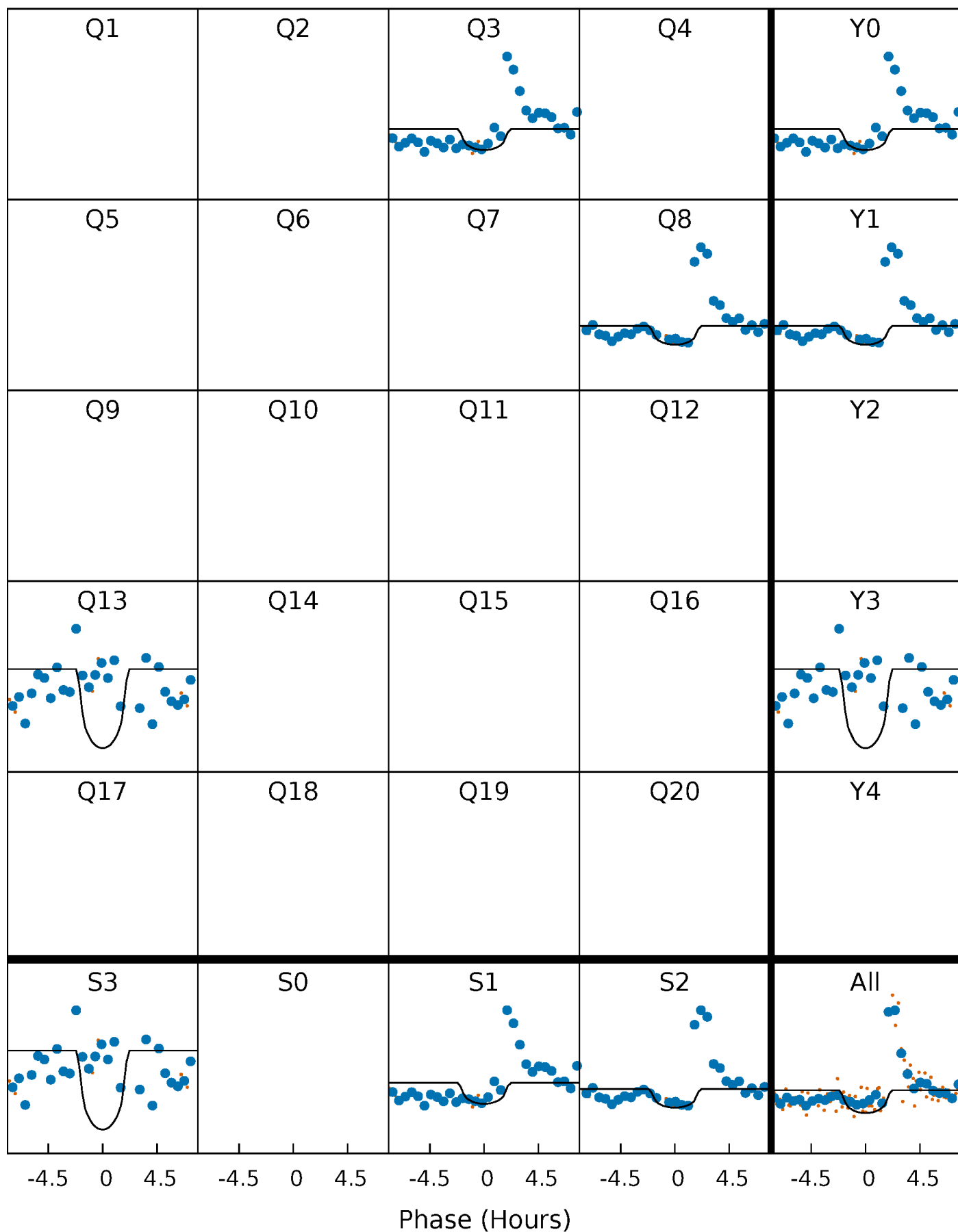
PDC Quarter-Phased Transit Curves

TCE 008006143-01 P=477.358421 Days $T_0=312.470123$ (BKJD)



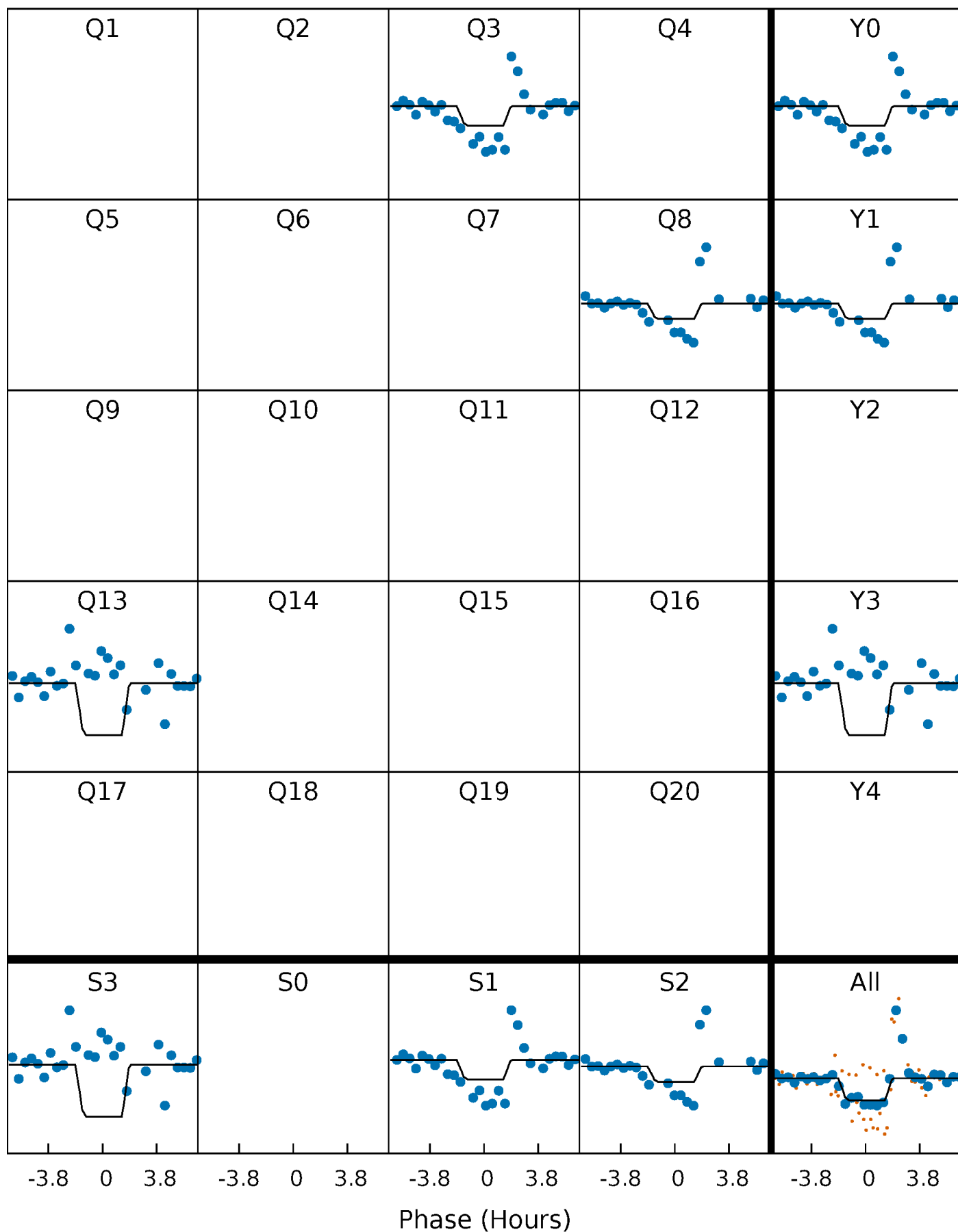
DV Quarter-Phased Transit Curves

TCE 008006143-01 P=477.358421 Days $T_0=312.470123$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

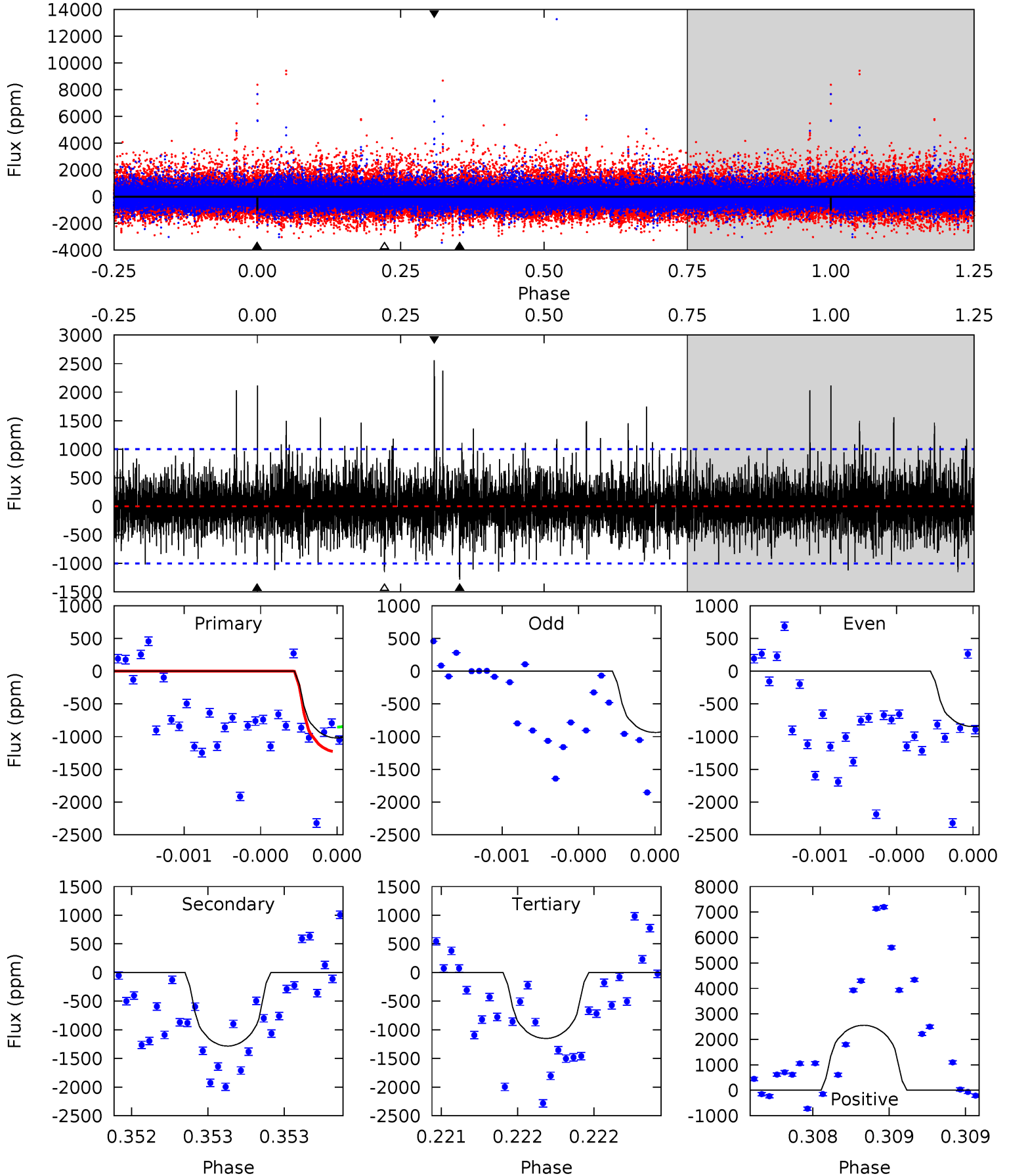
TCE 008006143-01 P=477.355206 Days $T_0=312.469198$ (BKJD)



DV Model-Shift Uniqueness Test

008006143-01, P = 477.358421 Days, E = 312.470123 Days

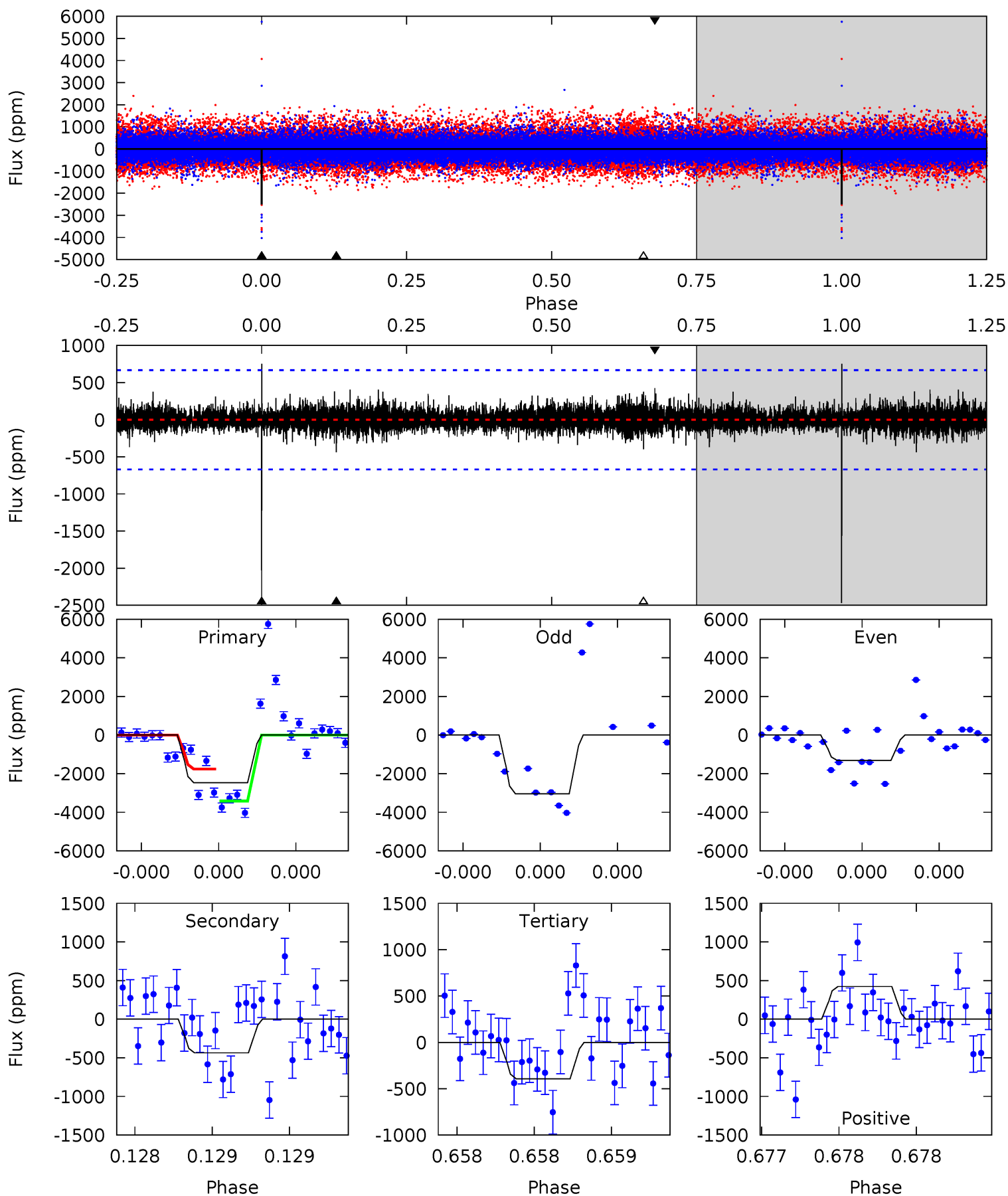
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.75	7.22	6.48	14.4	5.64	3.58	1.81	-0.73	-8.62	0.75	-7.15	0.21	0.87	0.67	1.05



Alt Model-Shift Uniqueness Test

008006143-01, P = 477.355206 Days, E = 312.469198 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	3.69	3.34	3.58	5.65	3.60	0.70	17.6	17.3	0.36	0.11	7.55	0.62	0.23	6.77



Stellar Parameters For KIC 008006143

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4405^{+154}_{-154}	$4.575^{+0.060}_{-0.016}$	$0.320^{+0.150}_{-0.300}$	$0.724^{+0.025}_{-0.063}$	$0.719^{+0.041}_{-0.055}$	$2.665^{+0.671}_{-0.192}$
	+3%/-3%	+1%/-0%	+47%/-94%	+3%/-9%	+6%/-8%	+25%/-7%
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 008006143-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1285 ± 178	$5.45^{+4.67}_{-3.54}$	222^{+8}_{-9}	3465^{+1699}_{-572}	$26035^{+192679}_{-18327}$
Alt.	-437 ± 118	$5.39^{+4.89}_{-3.50}$	221^{+9}_{-8}	2957^{+1254}_{-452}	8854^{+70113}_{-6392}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

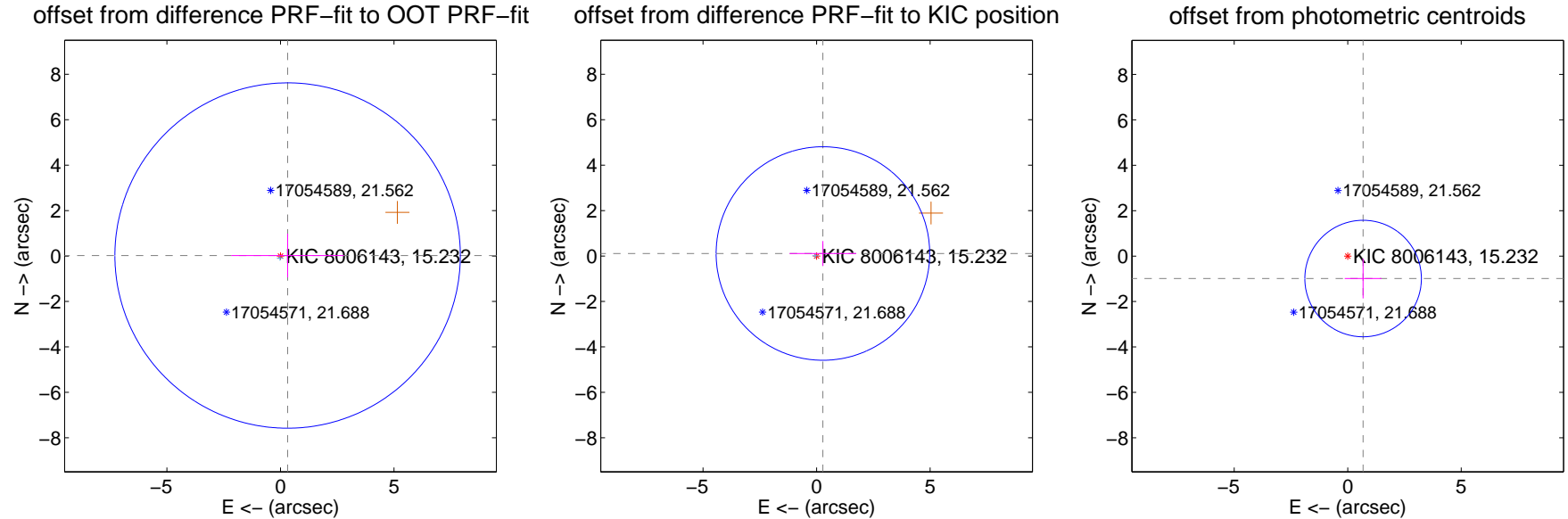
DV Centroid Data

Supplemental centroid analysis for 008006143-01. Kepler magnitude: 15.23. Transit SNR 6.57

There are 1 quarters with good PRF difference image offsets

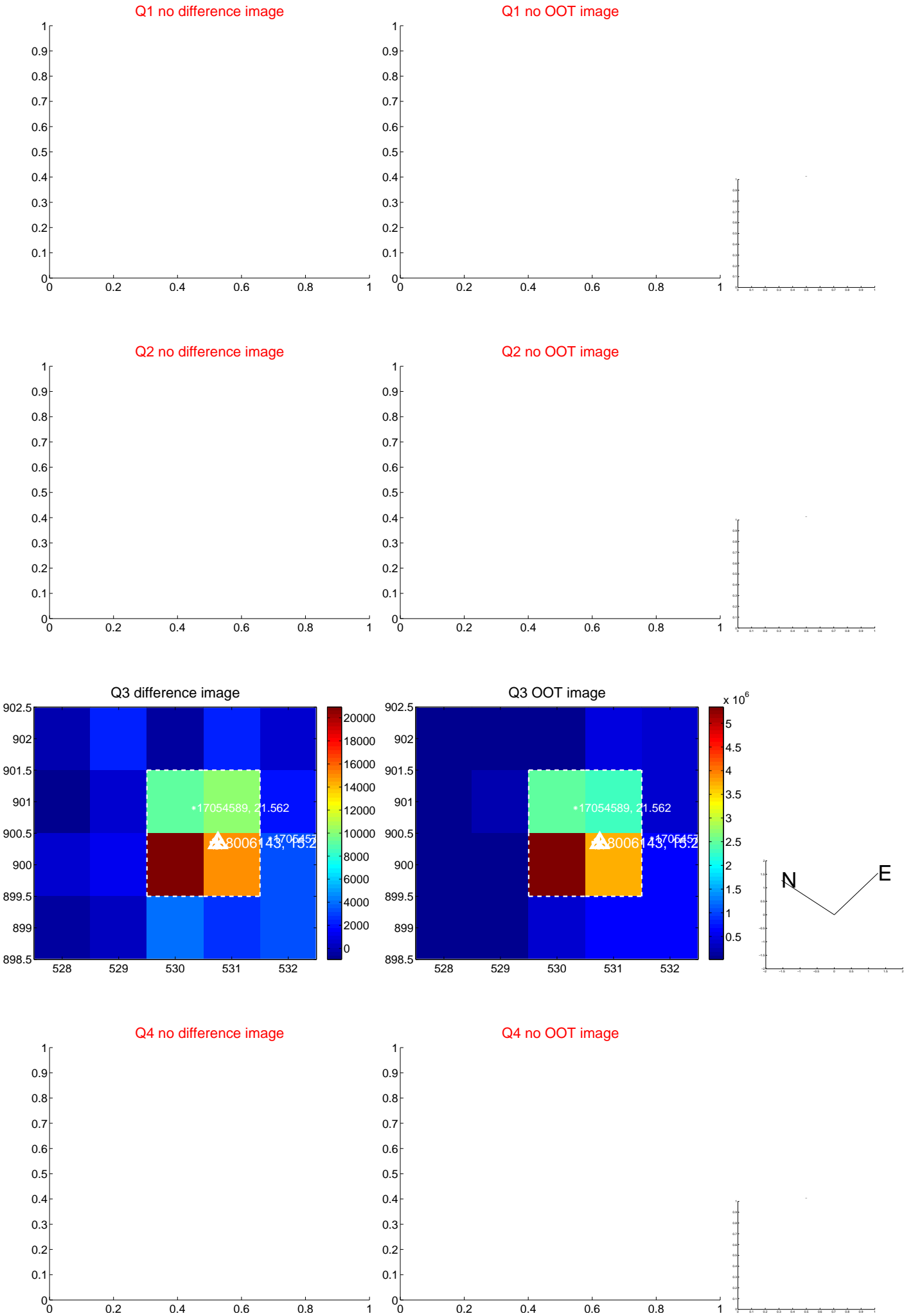
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.316 ± 2.534	0.12	-0.315 ± 2.475	0.021 ± 0.963
PRF-fit source offset from KIC position	0.300 ± 1.567	0.19	-0.279 ± 1.470	0.111 ± 0.547
photometric centroid source offset	1.20 ± 0.86	1.40	-0.68 ± 0.81	-0.99 ± 0.88

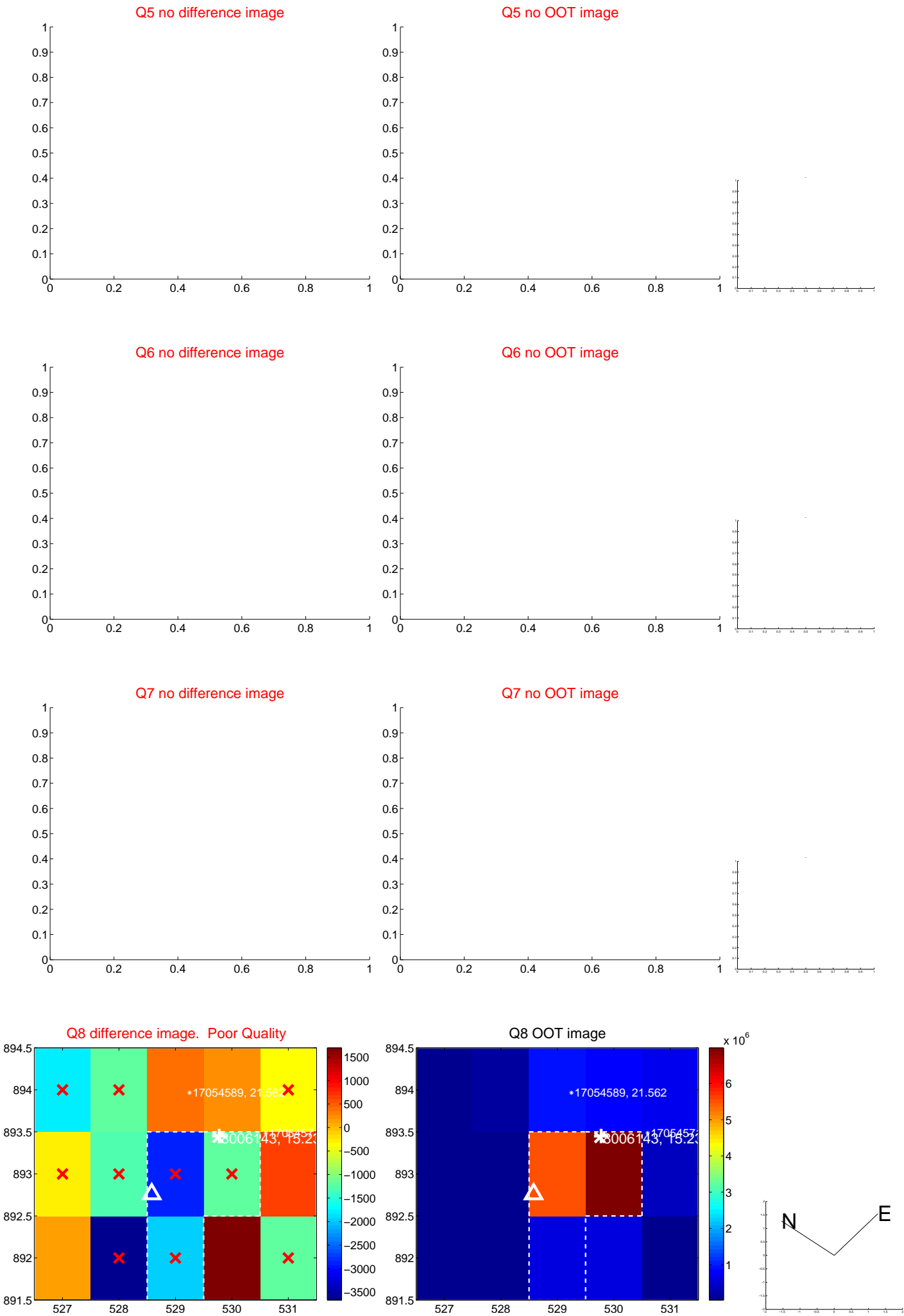


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



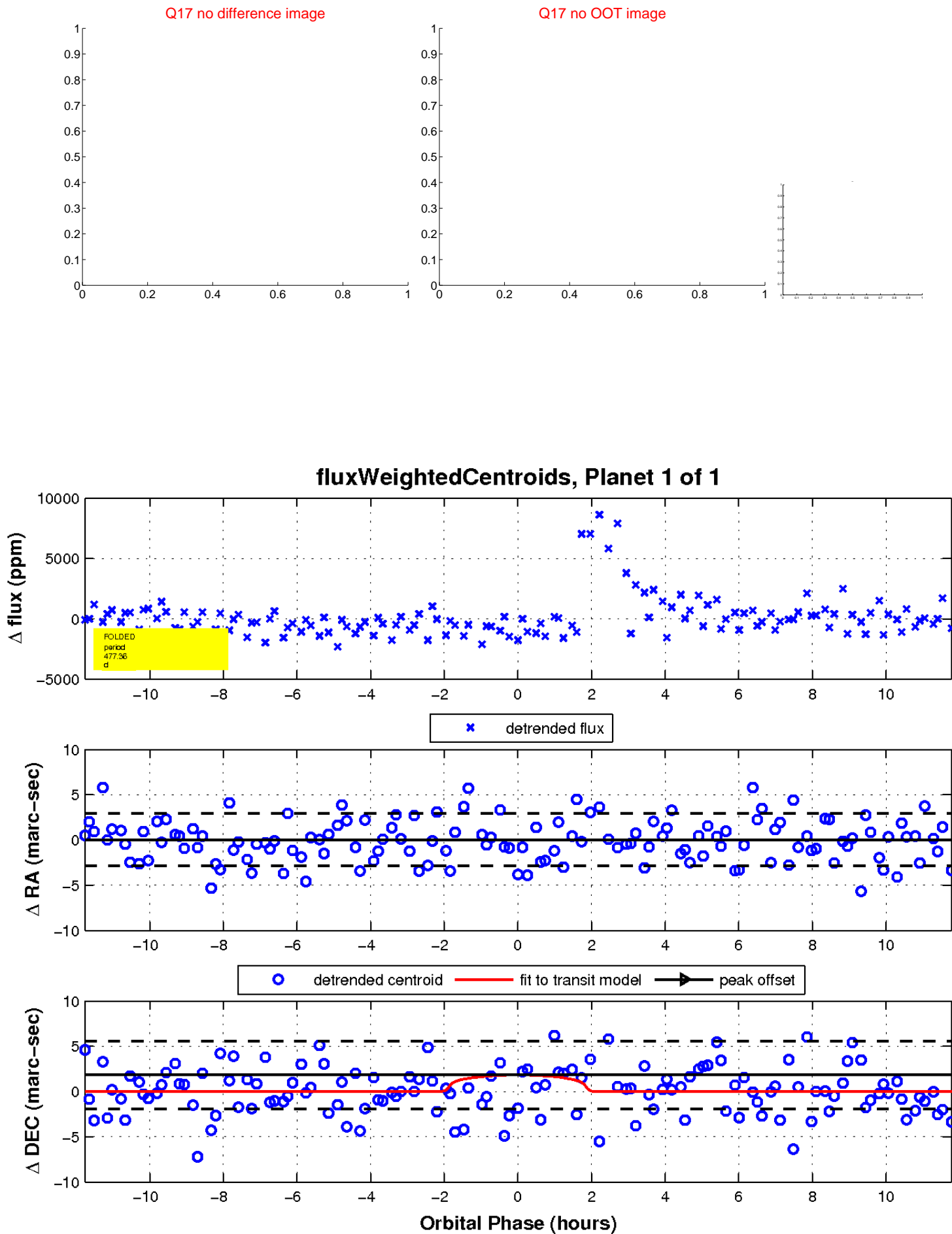
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

