

KIC 007899816

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})
007899816-01	OBS	No	369.791736	232.701422	1454.1	12.756	9.2	8.7	0.99	5993	3.77	1.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007899816-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

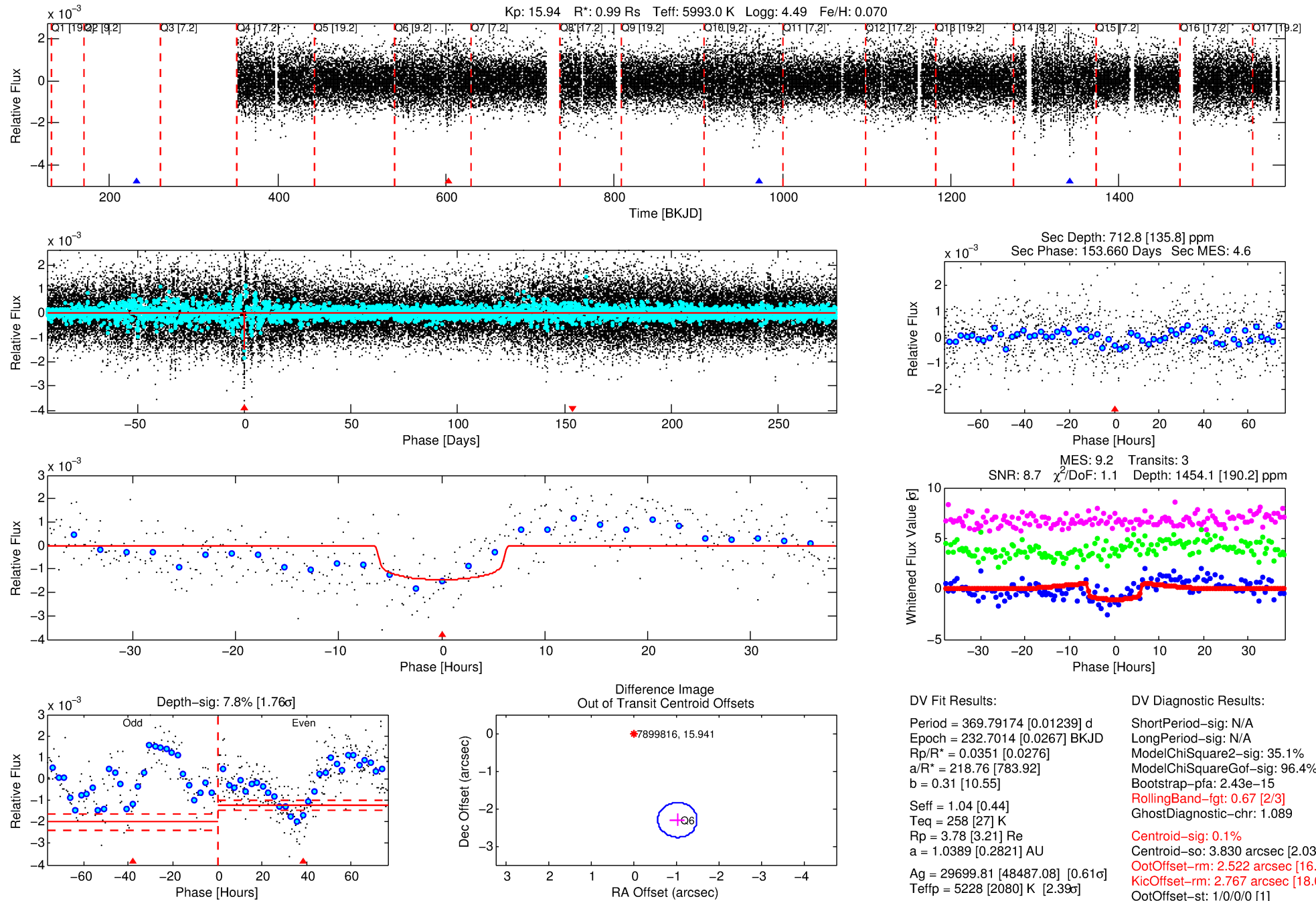
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007899816-01

No Significant Match Found

DV One-Page Summary

KIC: 7899816 Candidate: 1 of 1 Period: 369.792 d



DV Fit Results:

Period = 369.79174 [0.01239] d
Epoch = 232.7014 [0.0267] BKJD
Rp/R* = 0.0351 [0.0276]
a/R* = 218.76 [783.92]
b = 0.31 [10.55]
Seff = 1.04 [0.44]
Teq = 258 [27] K
Rp = 3.78 [3.21] Re
a = 1.0389 [0.2821] AU
Ag = 29699.81 [48487.08] [0.61σ]
Teff = 5228 [2080] K [2.39σ]

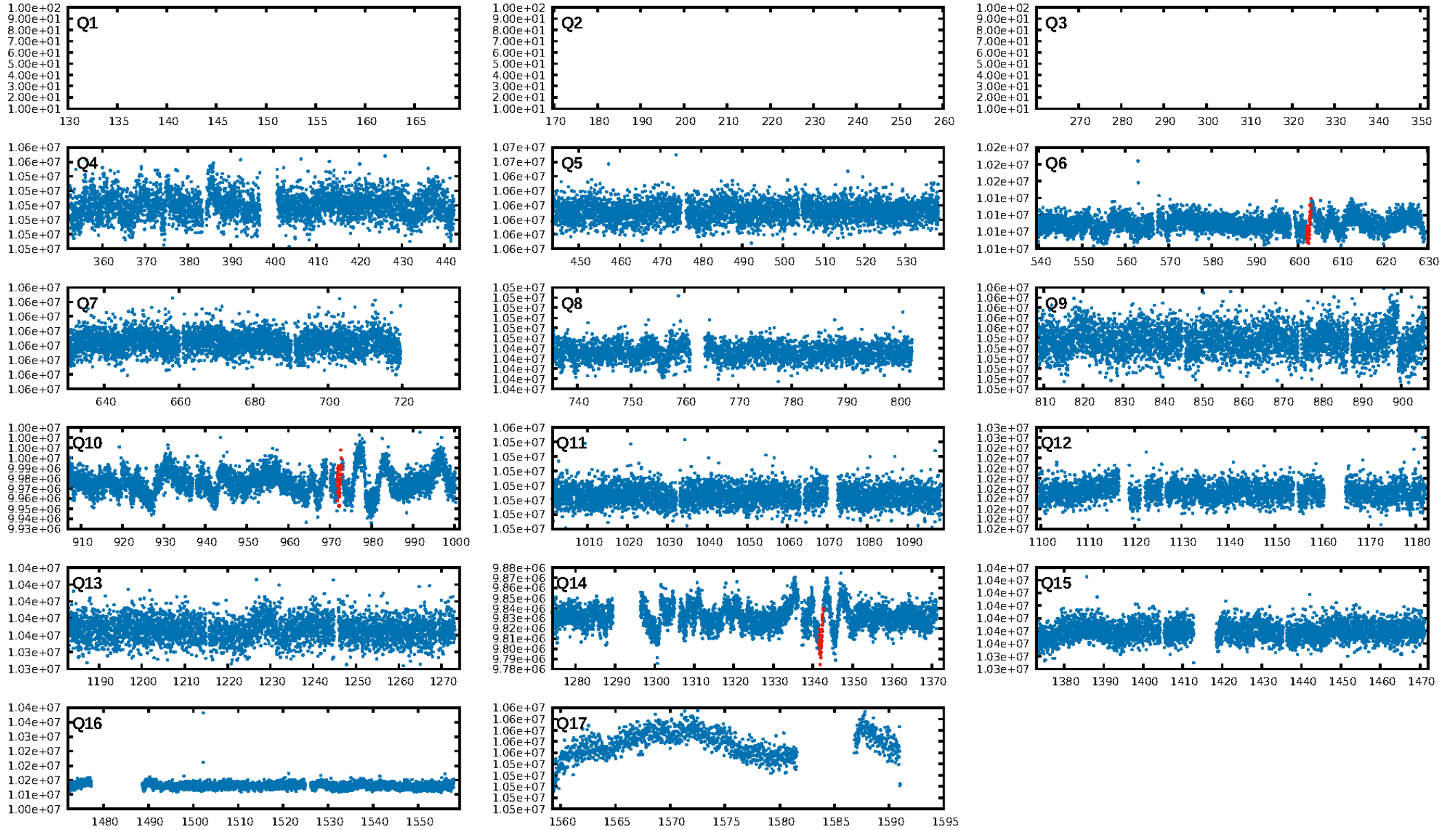
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 35.1%
ModelChiSquareGoF-sig: 96.4%
Bootstrap-pfa: 2.43e-15
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 1.089
Centroid-sig: 0.1%
Centroid-so: 3.830 arcsec [2.03σ]
OotOffset-rm: 2.522 arcsec [16.41σ]
KicOffset-rm: 2.767 arcsec [18.08σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [3/3]

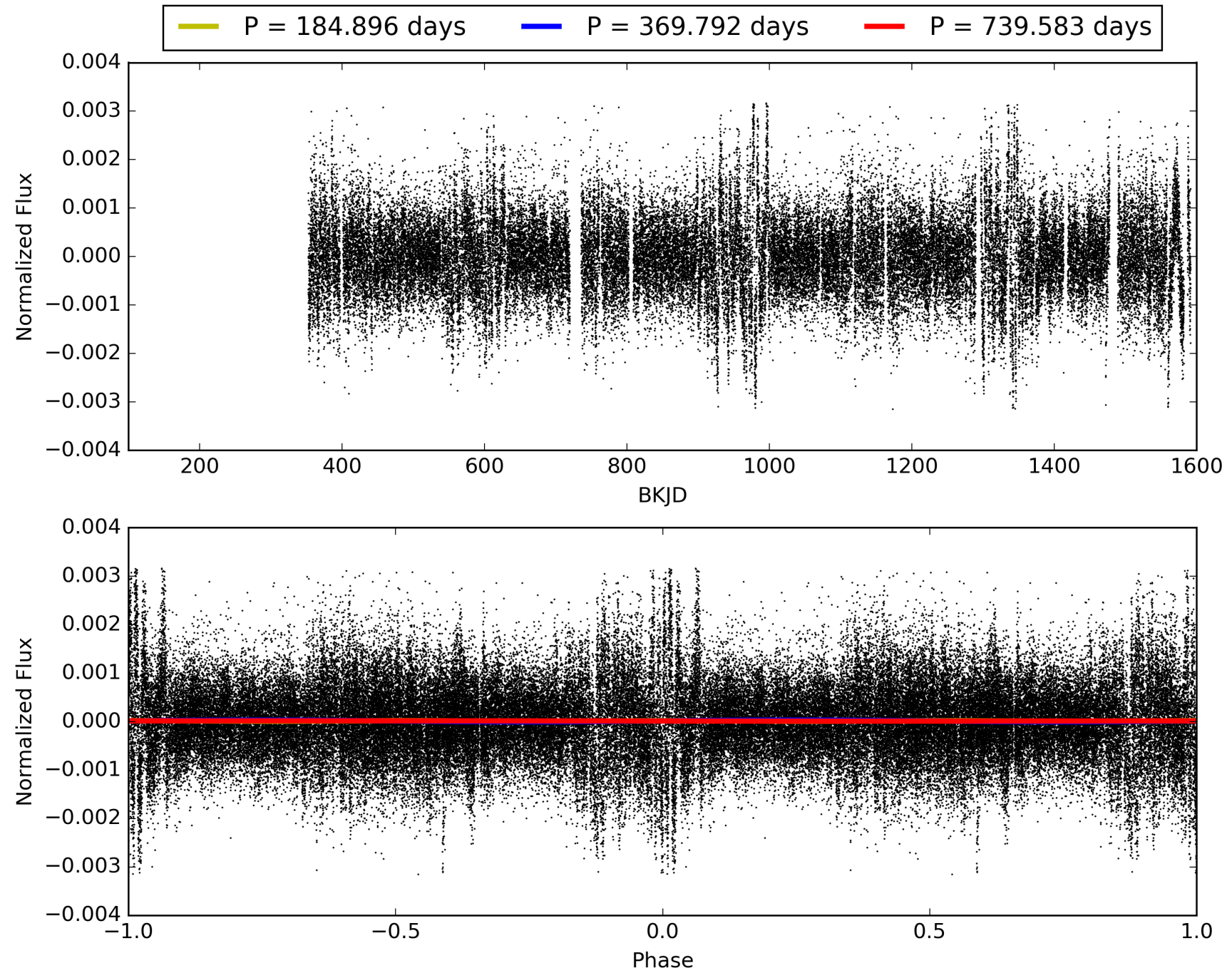
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:05:04 Z

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

TCE 007899816-01, PDC Light Curves

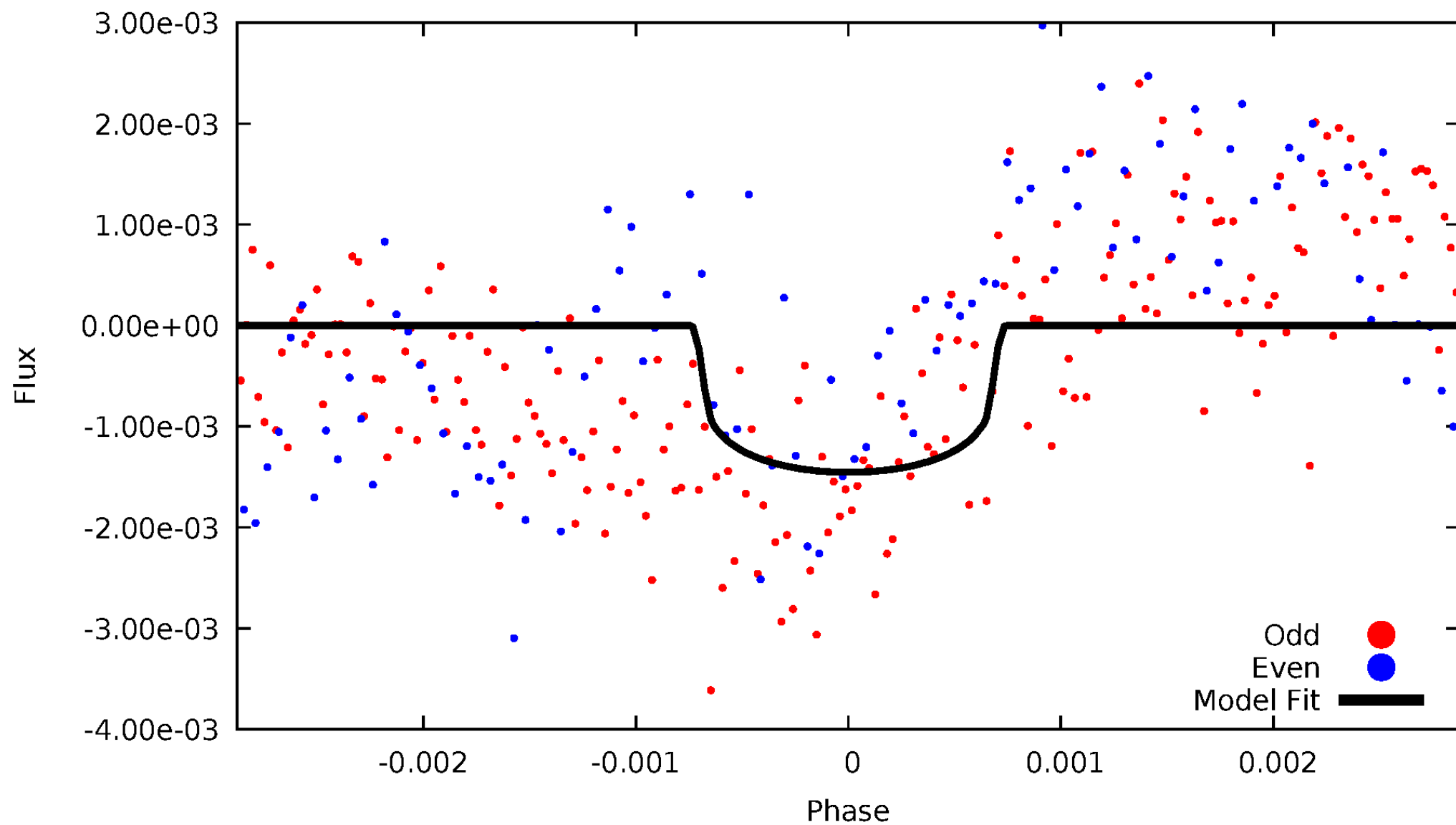


TCE 007899816-01



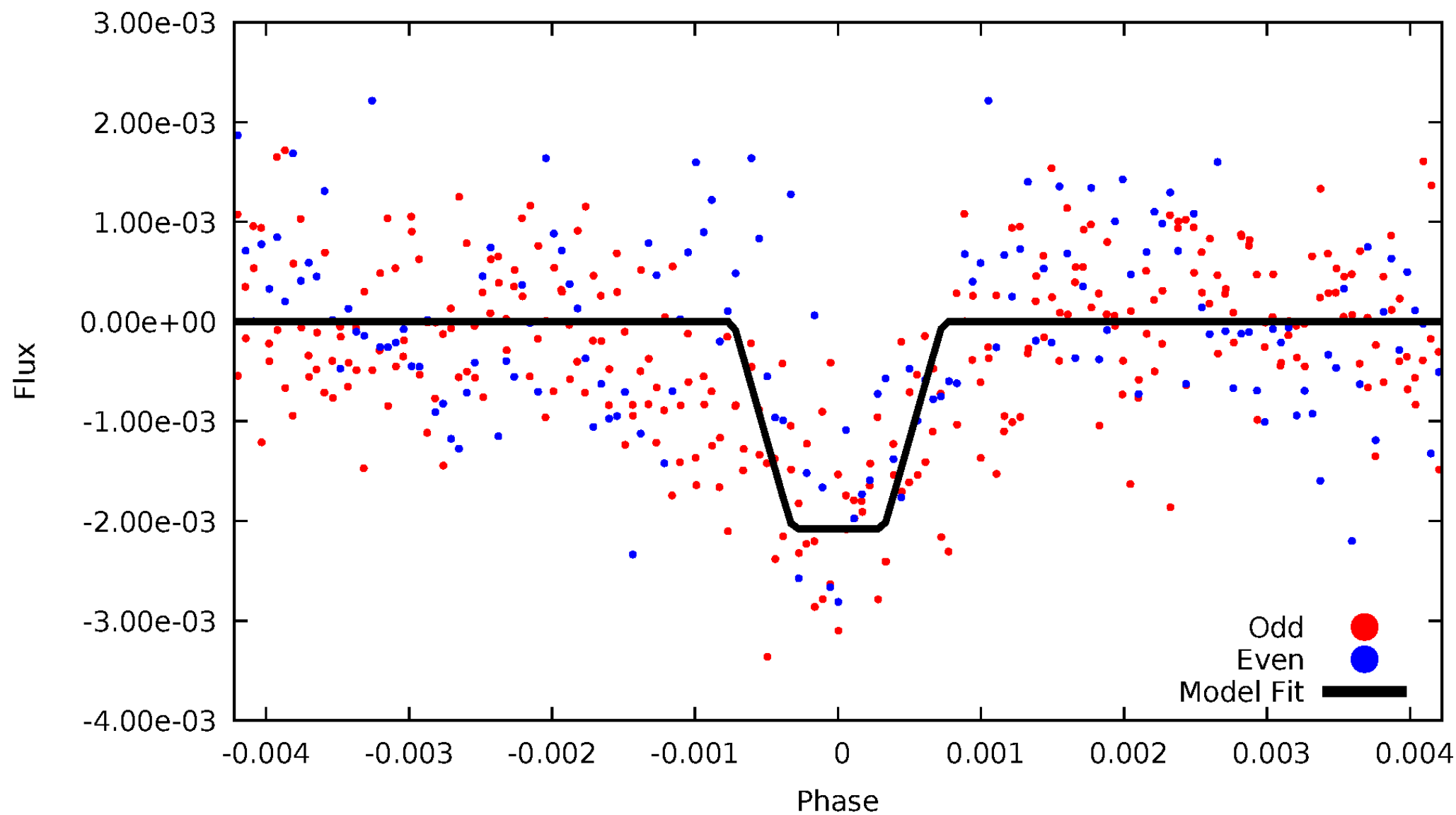
DV Odd/Even

TCE 007899816-01

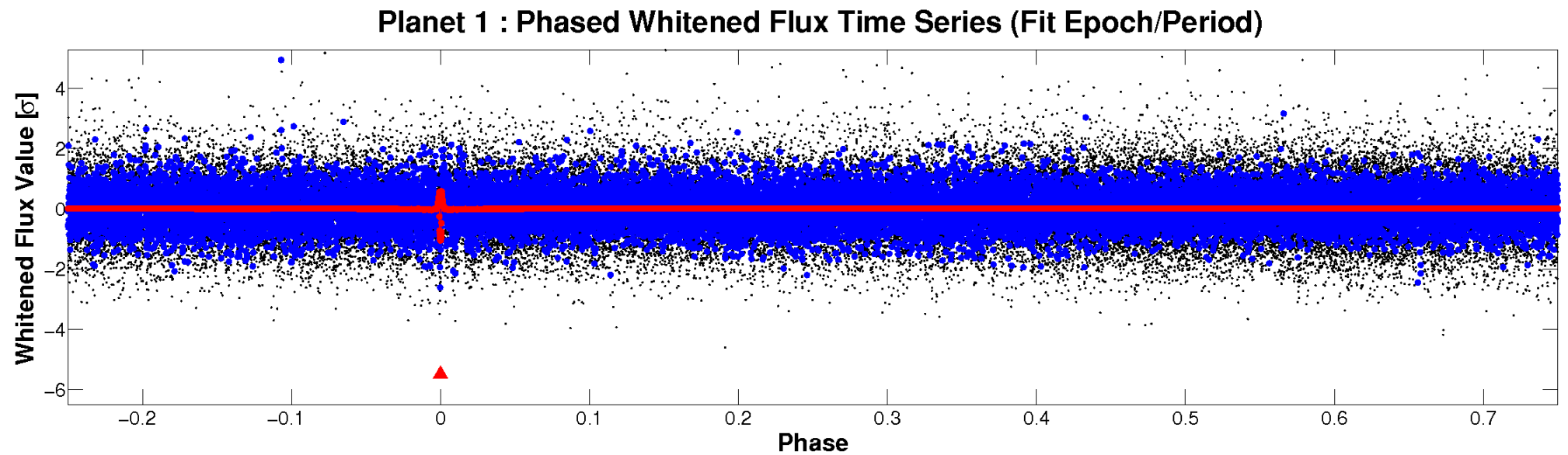
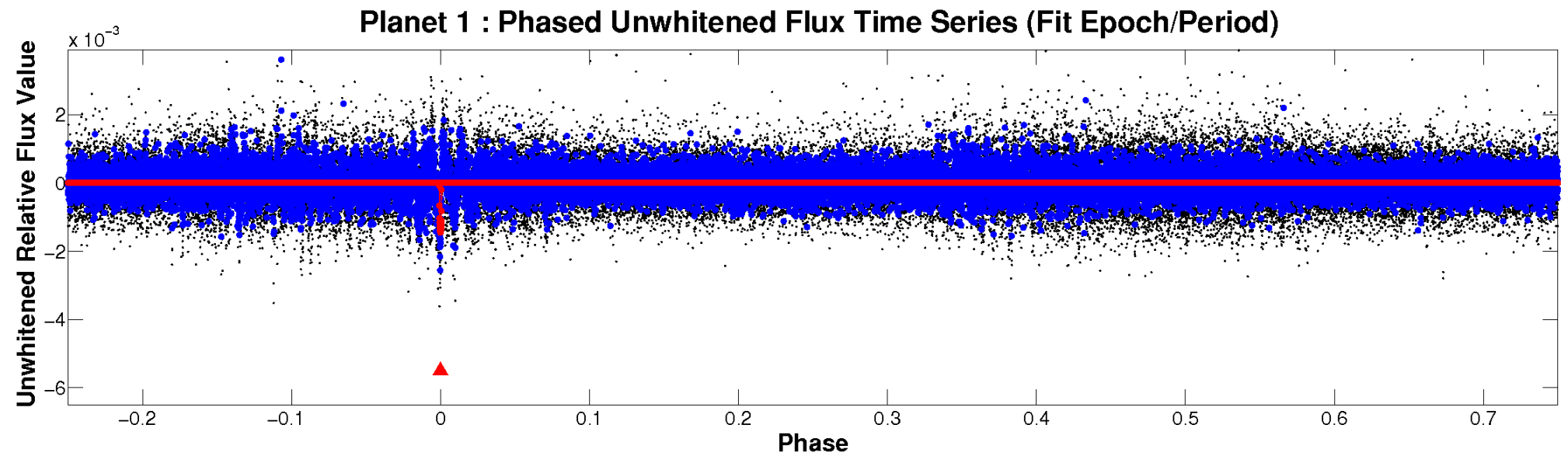


ALT Odd/Even

TCE 007899816-01

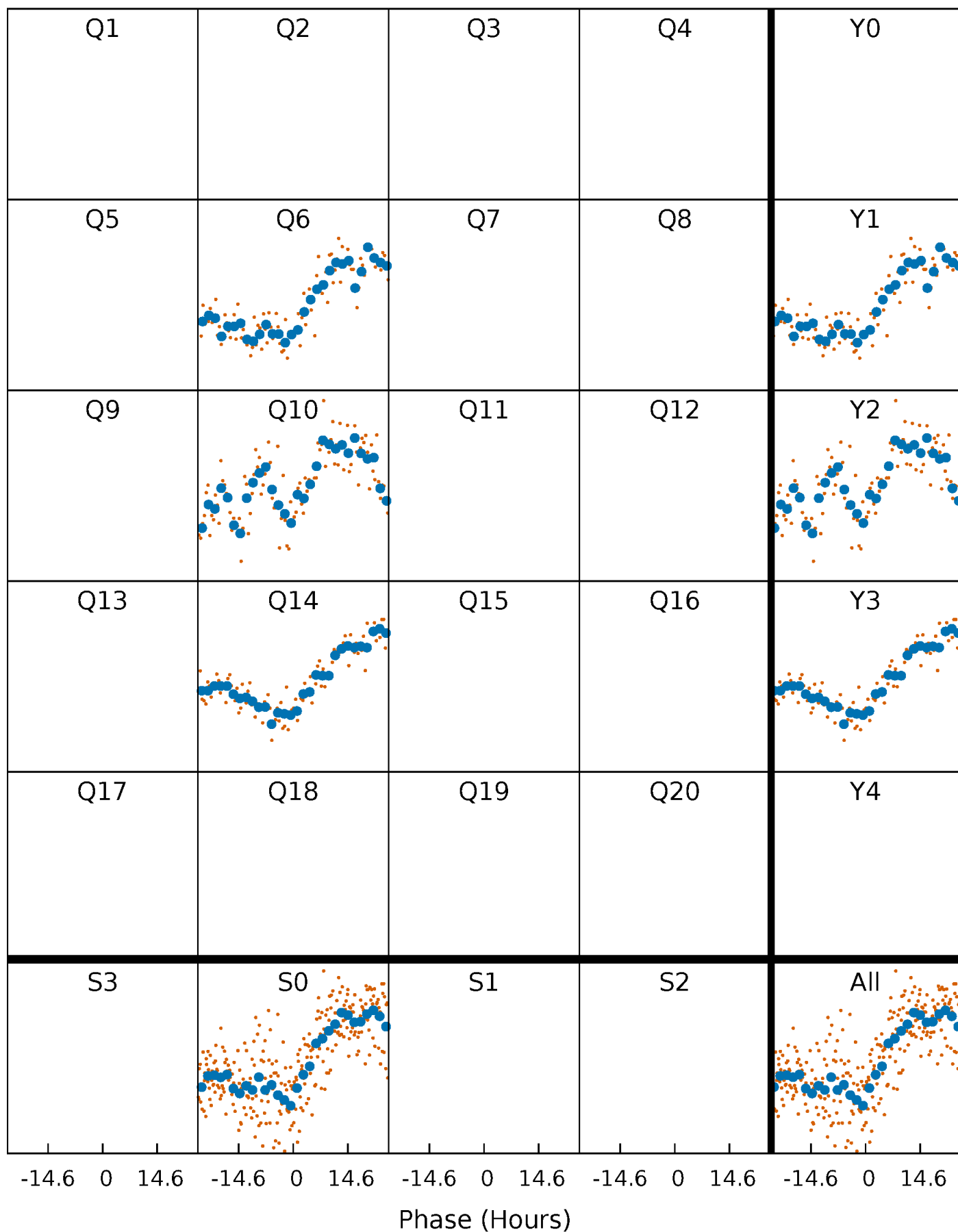


Non-Whitened Vs. Whitened Light Curve



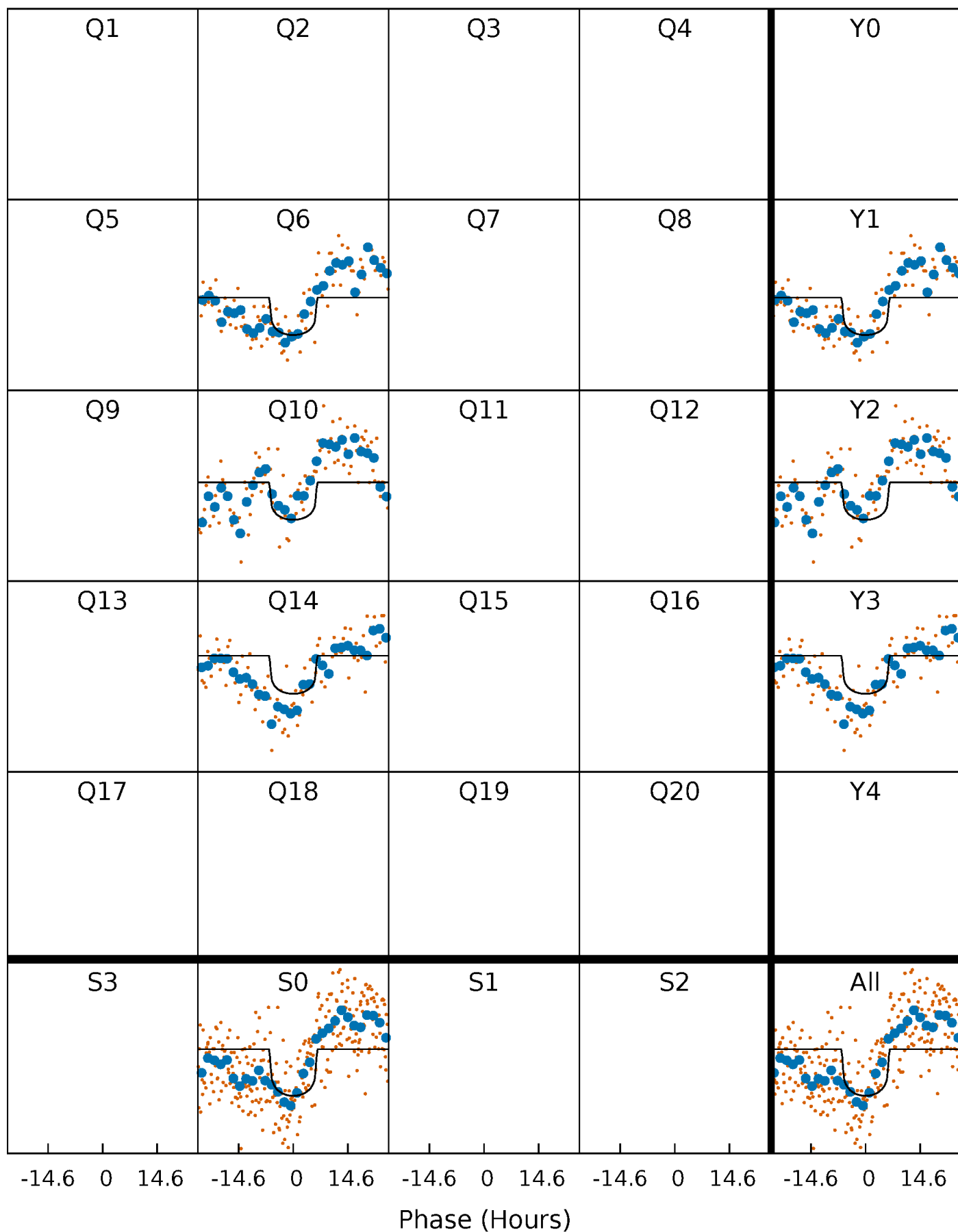
PDC Quarter-Phased Transit Curves

TCE 007899816-01 P=369.791736 Days $T_0=232.701422$ (BKJD)



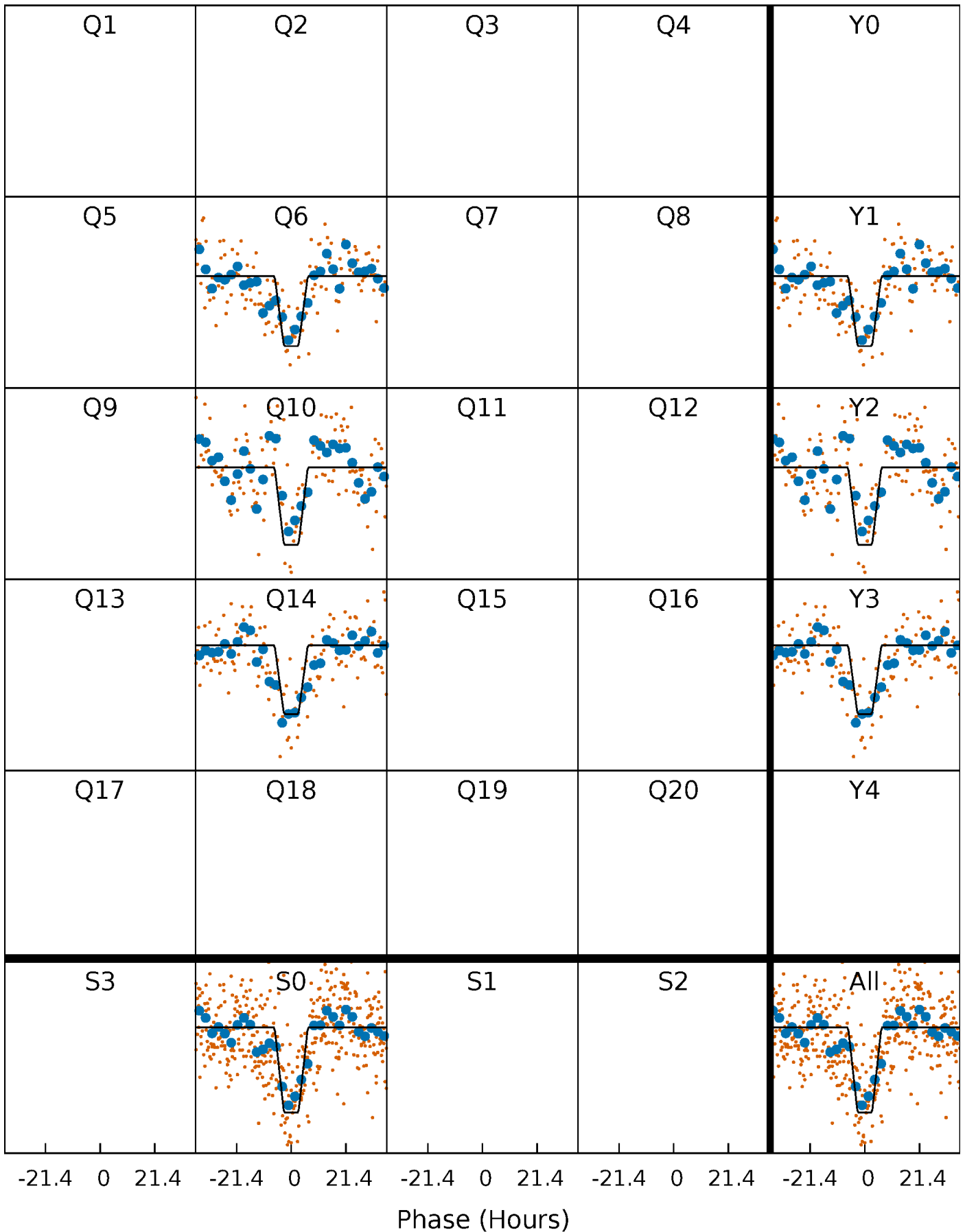
DV Quarter-Phased Transit Curves

TCE 007899816-01 P=369.791736 Days $T_0=232.701422$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

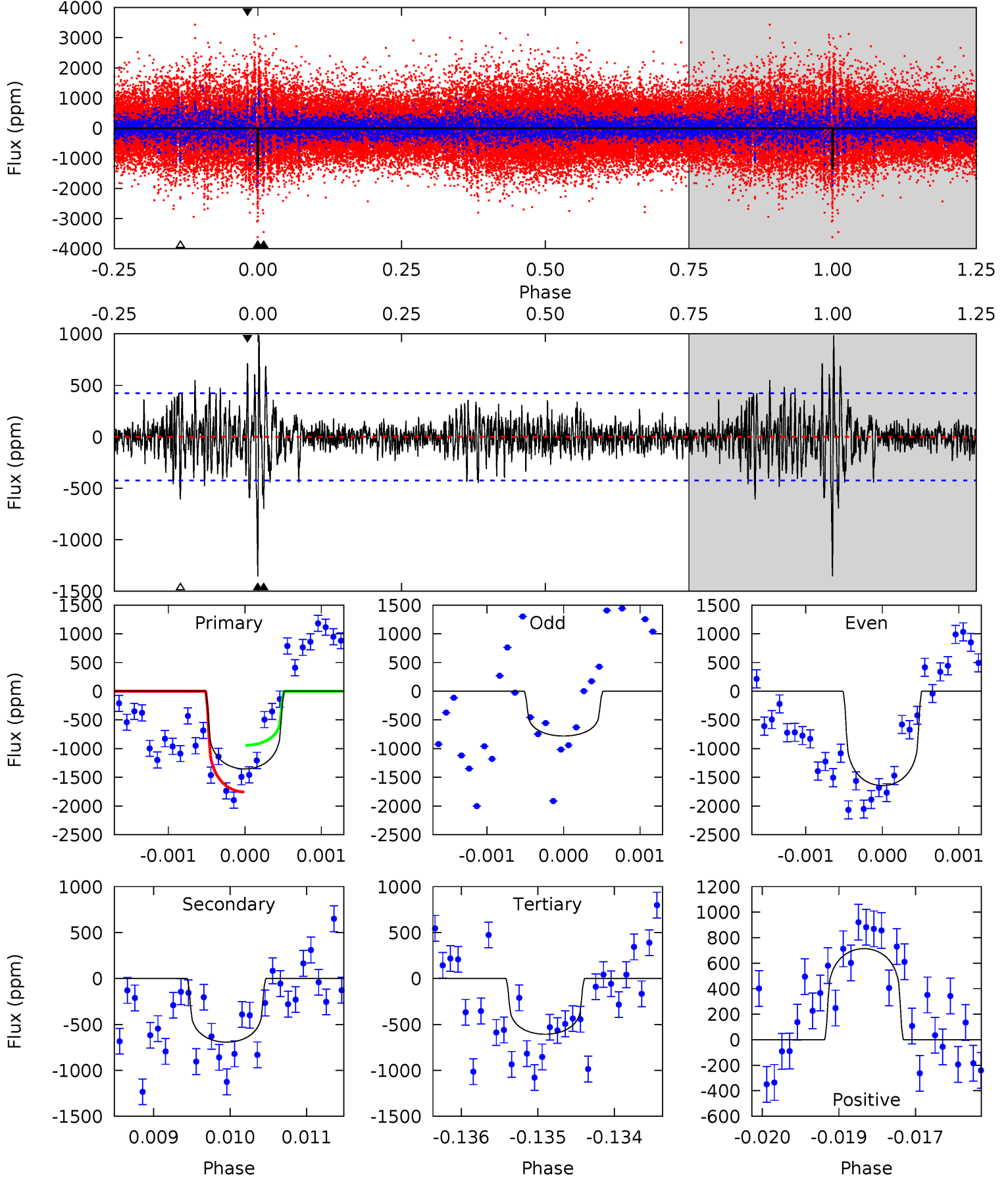
TCE 007899816-01 P=369.786135 Days $T_0=232.661489$ (BKJD)



DV Model-Shift Uniqueness Test

007899816-01, P = 369.791736 Days, E = 232.701422 Days

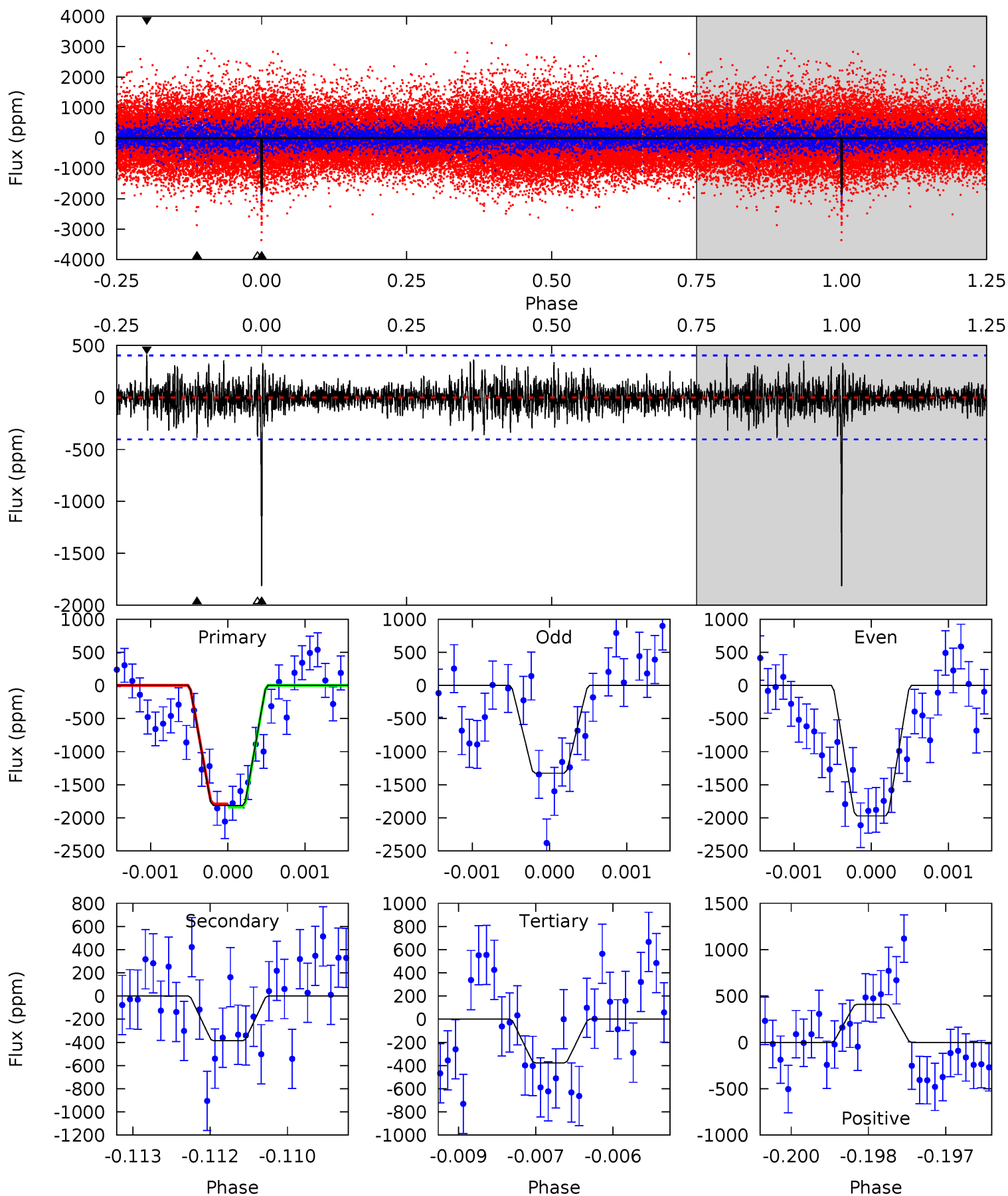
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	8.81	7.71	9.07	5.39	3.19	1.78	9.51	8.14	1.10	-0.26	5.20	1.05	0.42	5.17



Alt Model-Shift Uniqueness Test

007899816-01, P = 369.786135 Days, E = 232.661489 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.2	5.16	5.03	5.48	5.38	3.18	1.28	19.2	18.7	0.13	-0.32	4.03	1.04	0.18	0.31



Stellar Parameters For KIC 007899816

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5993^{+190}_{-232}	$4.489^{+0.054}_{-0.216}$	$0.070^{+0.250}_{-0.350}$	$0.986^{+0.318}_{-0.106}$	$1.093^{+0.130}_{-0.159}$	$1.607^{+0.355}_{-0.887}$
	+3%/-4%	+1%/-5%	+357%/-500%	+32%/-11%	+12%/-15%	+22%/-55%
Source	KIC0	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 007899816-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-693 ± 79	$4.37^{+2.96}_{-2.60}$	368^{+28}_{-20}	5077^{+2827}_{-968}	$21223^{+108474}_{-13437}$
Alt.	-387 ± 75	$5.45^{+3.15}_{-2.87}$	367^{+29}_{-19}	4084^{+1508}_{-559}	7524^{+26084}_{-4462}

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 $A_{obs} \gg 1.0$

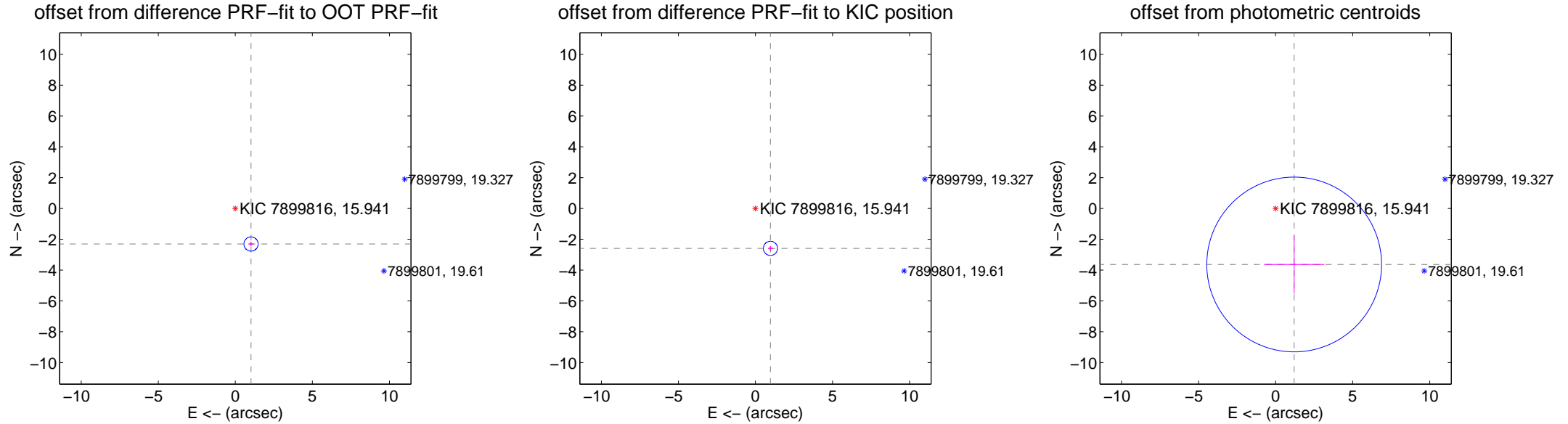
DV Centroid Data

Supplemental centroid analysis for 007899816-01. Kepler magnitude: 15.94. Transit SNR 8.66

There are 0 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.522 ± 0.154	16.41	-1.018 ± 0.167	-2.308 ± 0.151
PRF-fit source offset from KIC position	2.767 ± 0.153	18.08	-0.971 ± 0.167	-2.591 ± 0.151
photometric centroid source offset	3.83 ± 1.89	2.03	-1.20 ± 1.96	-3.64 ± 1.88

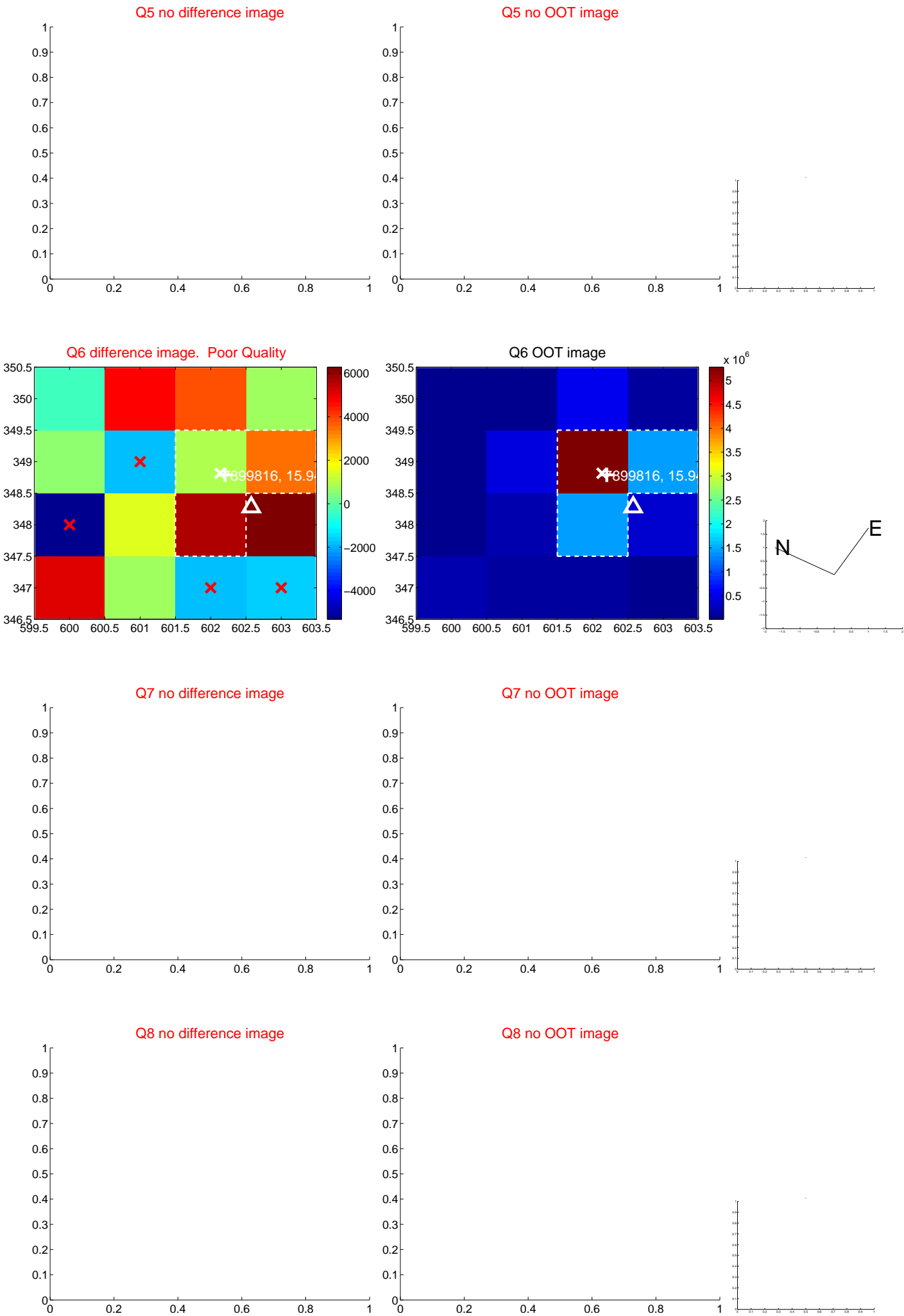


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

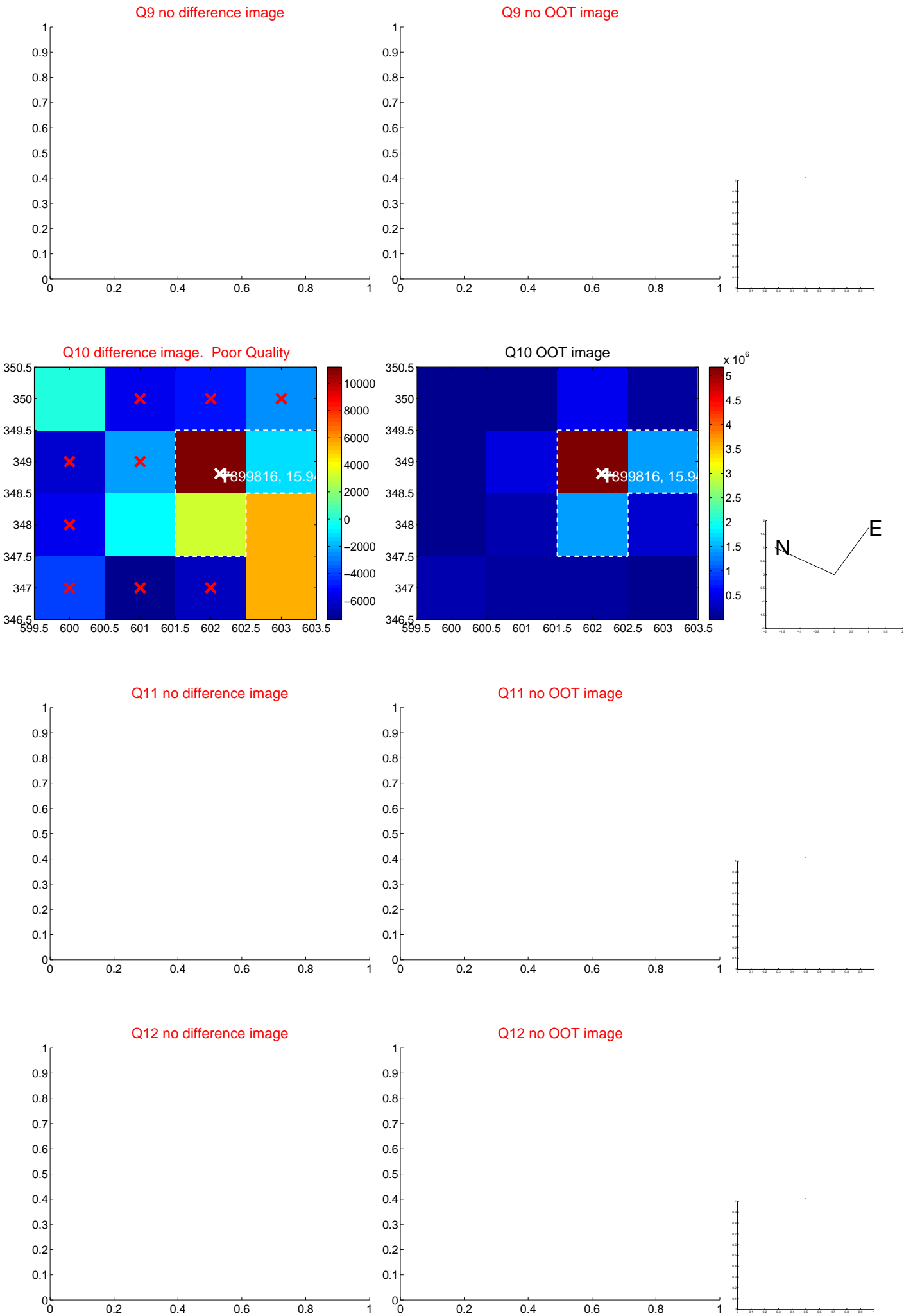
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



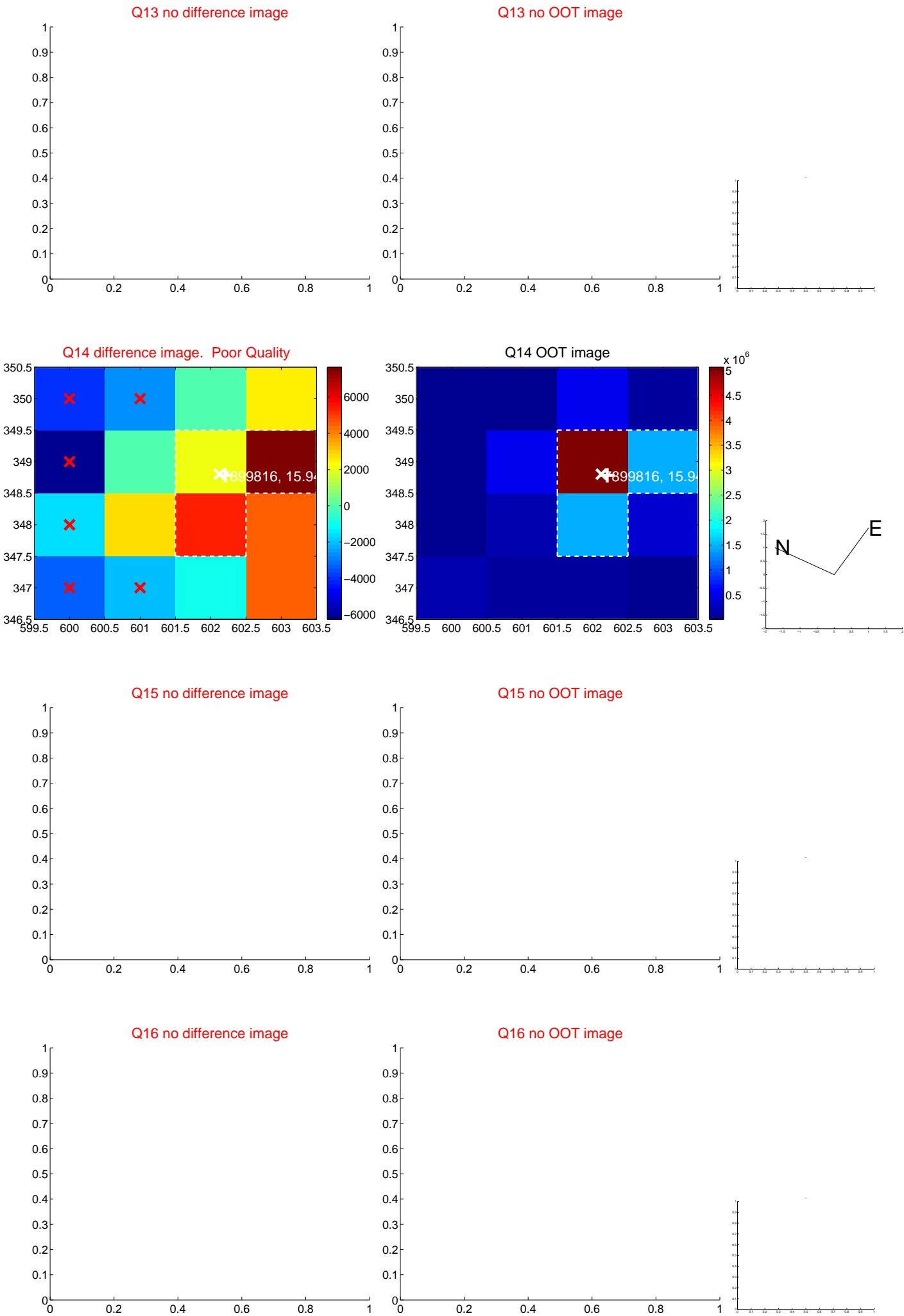
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



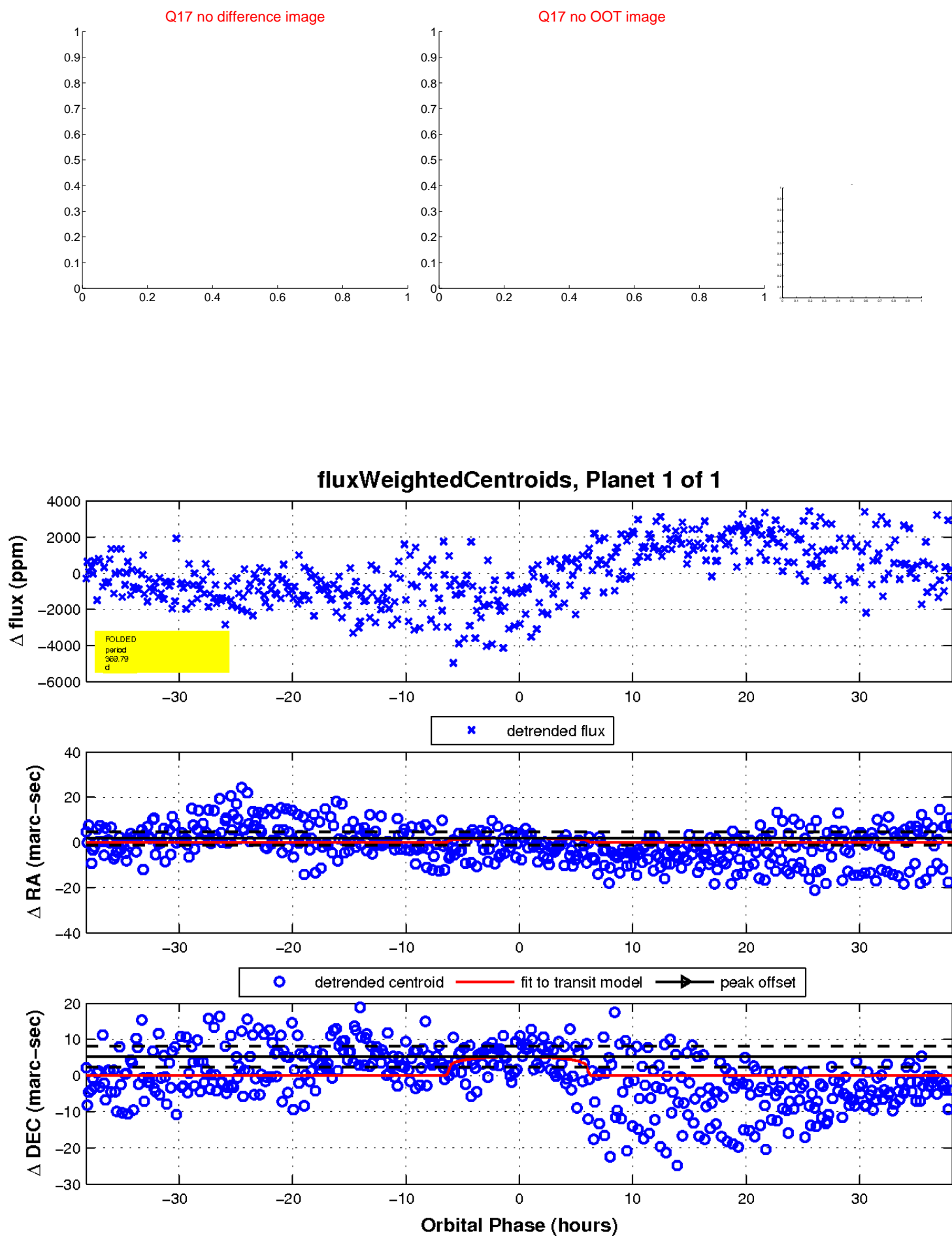
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

