

KIC 004379932

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})
004379932-01	OBS	No	595.760156	300.335888	273.0	17.554	8.3	8.8	1.08	6006	1.90	0.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004379932-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—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.

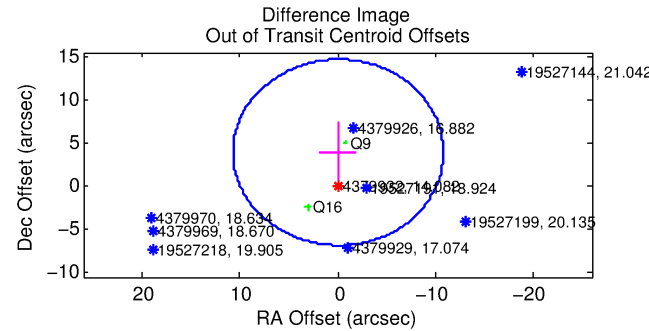
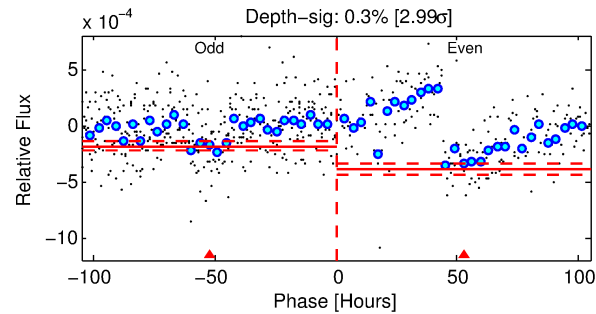
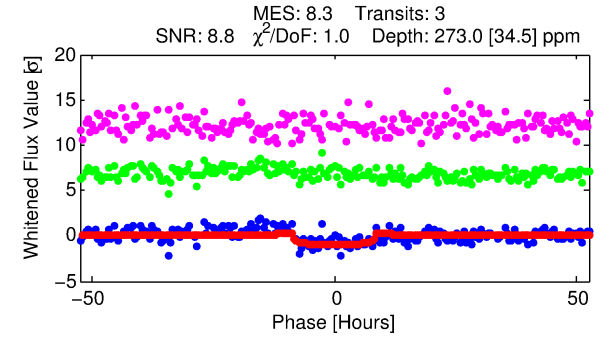
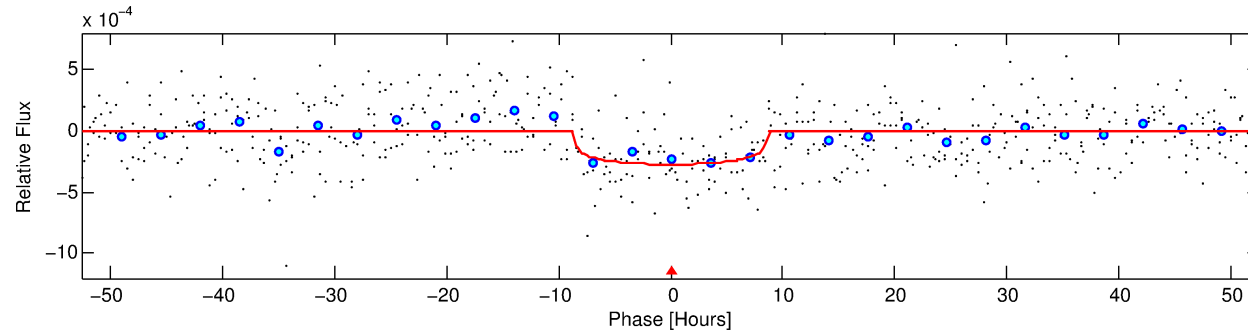
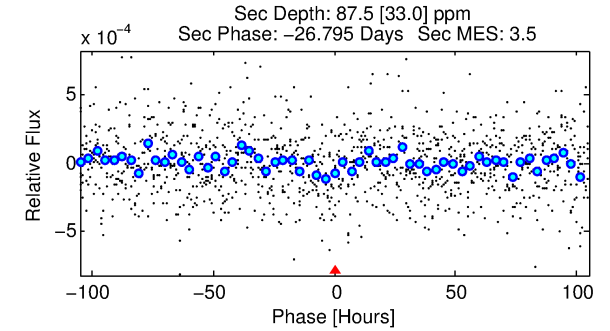
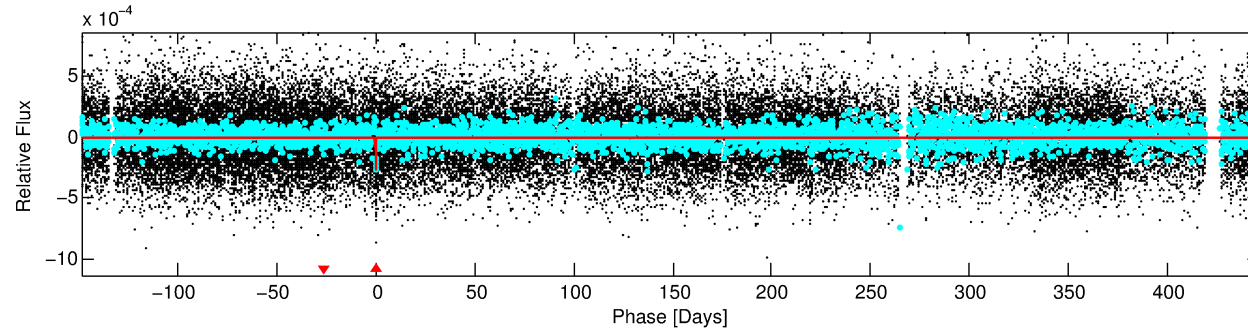
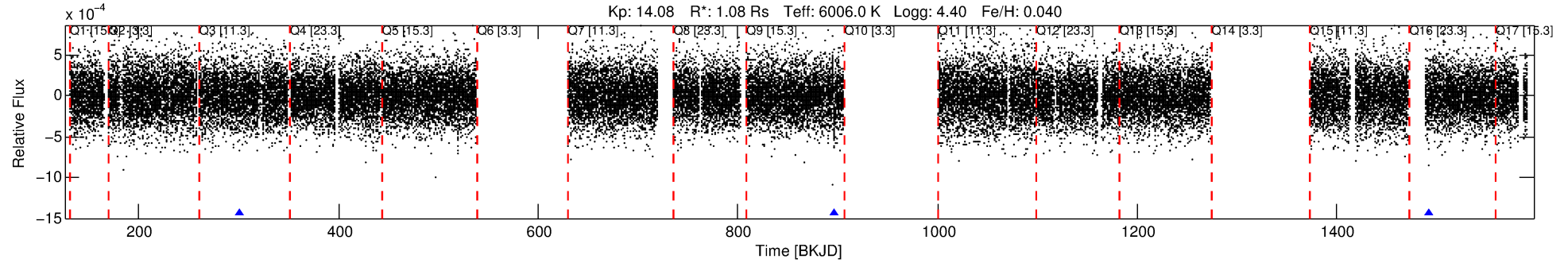
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004379932-01

No Significant Match Found

DV One-Page Summary

KIC: 4379932 Candidate: 1 of 1 Period: 595.760 d



DV Fit Results:

Period = 595.76016 [0.01846] d
Epoch = 300.3359 [0.0232] BKJD
Rp/R* = 0.0161 [0.0062]
a/R* = 192.90 [347.72]
b = 0.69 [1.36]
Seff = 0.68 [0.27]
Teq = 231 [23] K
Rp = 1.90 [0.94] Re
a = 1.4143 [0.3711] AU
Ag = 26780.82 [25012.56] [1.07σ]
Teffp = 4573 [989] K [4.39σ]

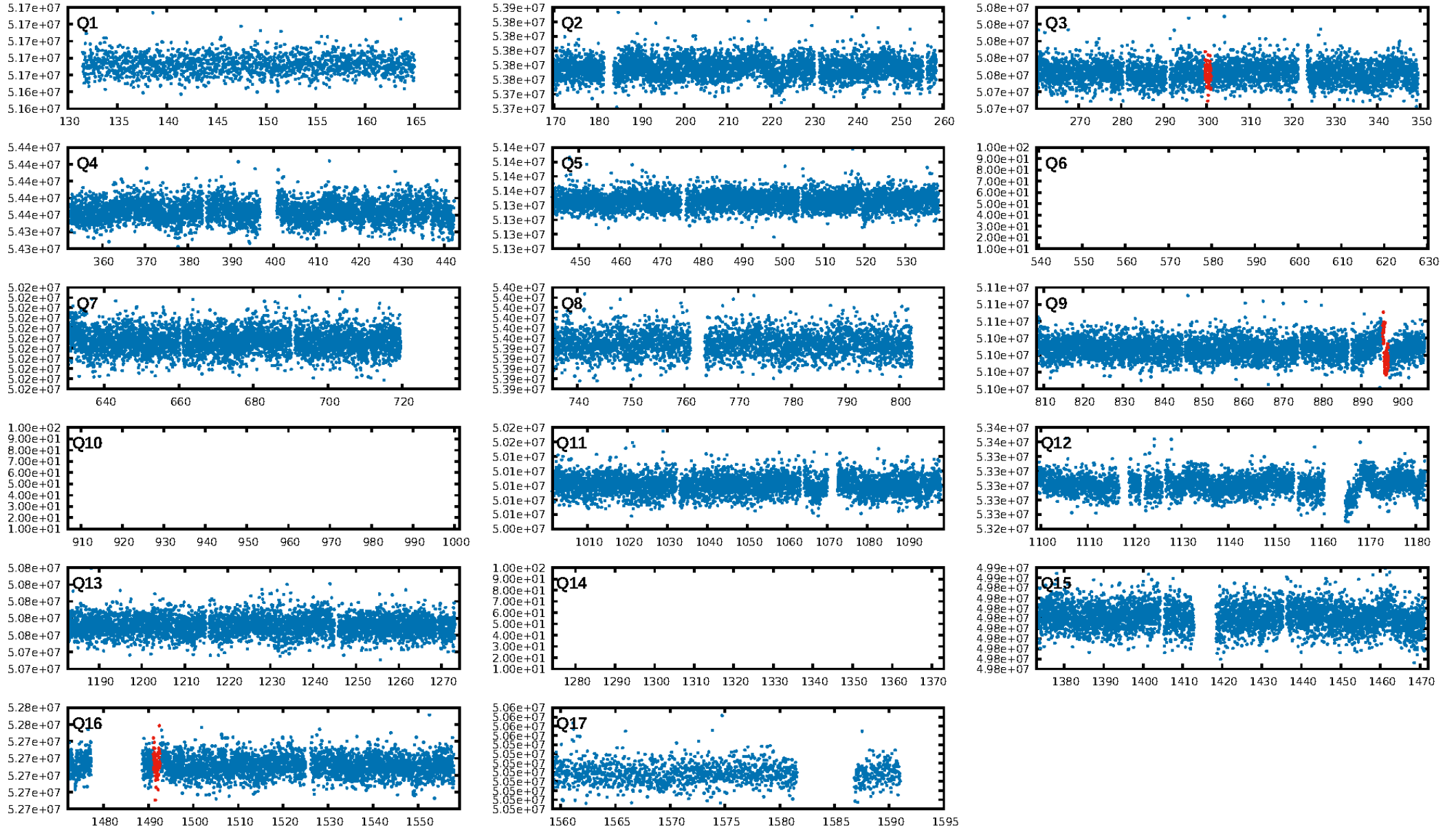
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.91e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 4.707
Centroid-sig: 1.3%
Centroid-so: 2.990 arcsec [1.59σ]
OotOffset-rm: 3.921 arcsec [1.09σ]
KicOffset-rm: 3.978 arcsec [1.11σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

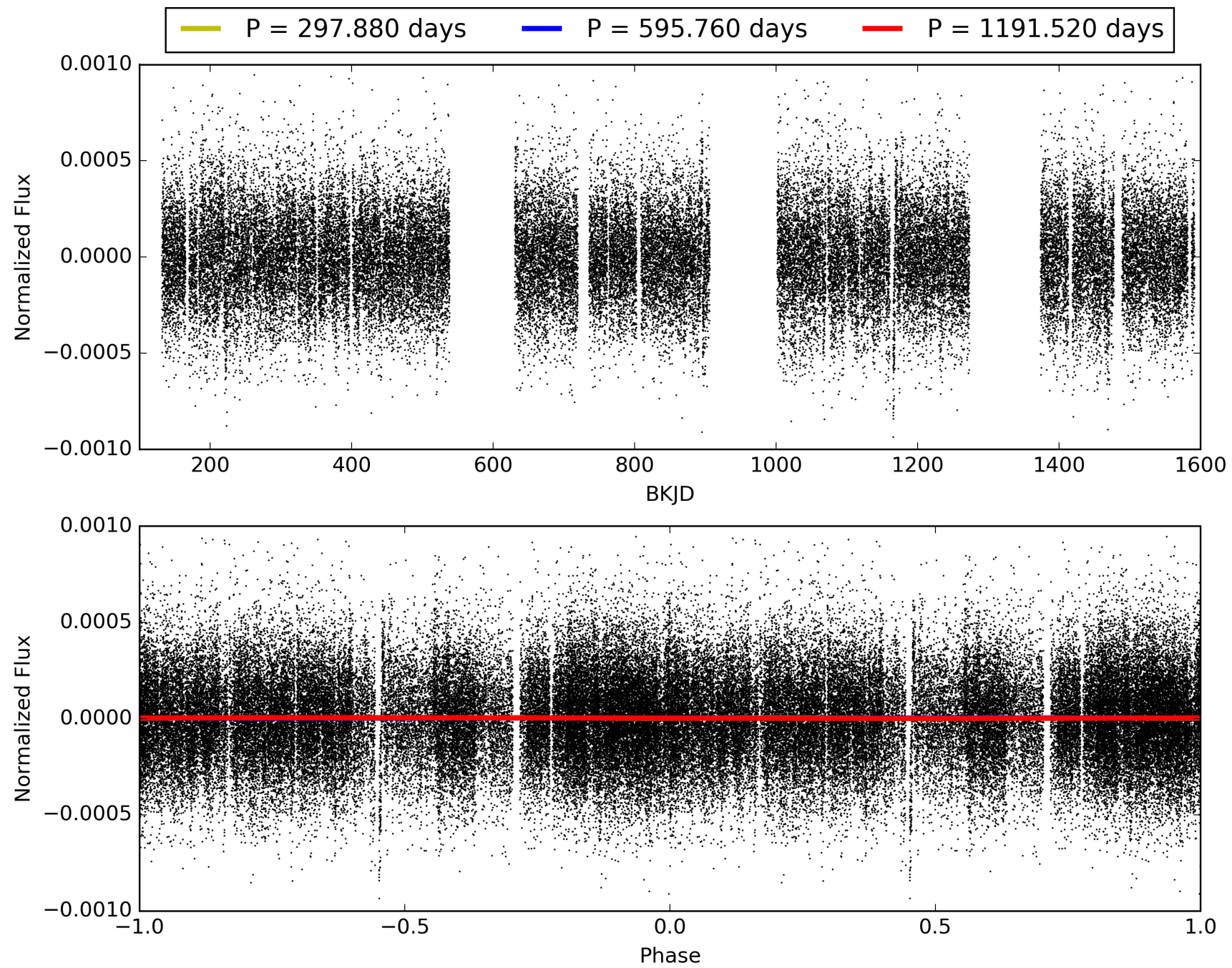
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:21:41 Z

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

TCE 004379932-01, PDC Light Curves

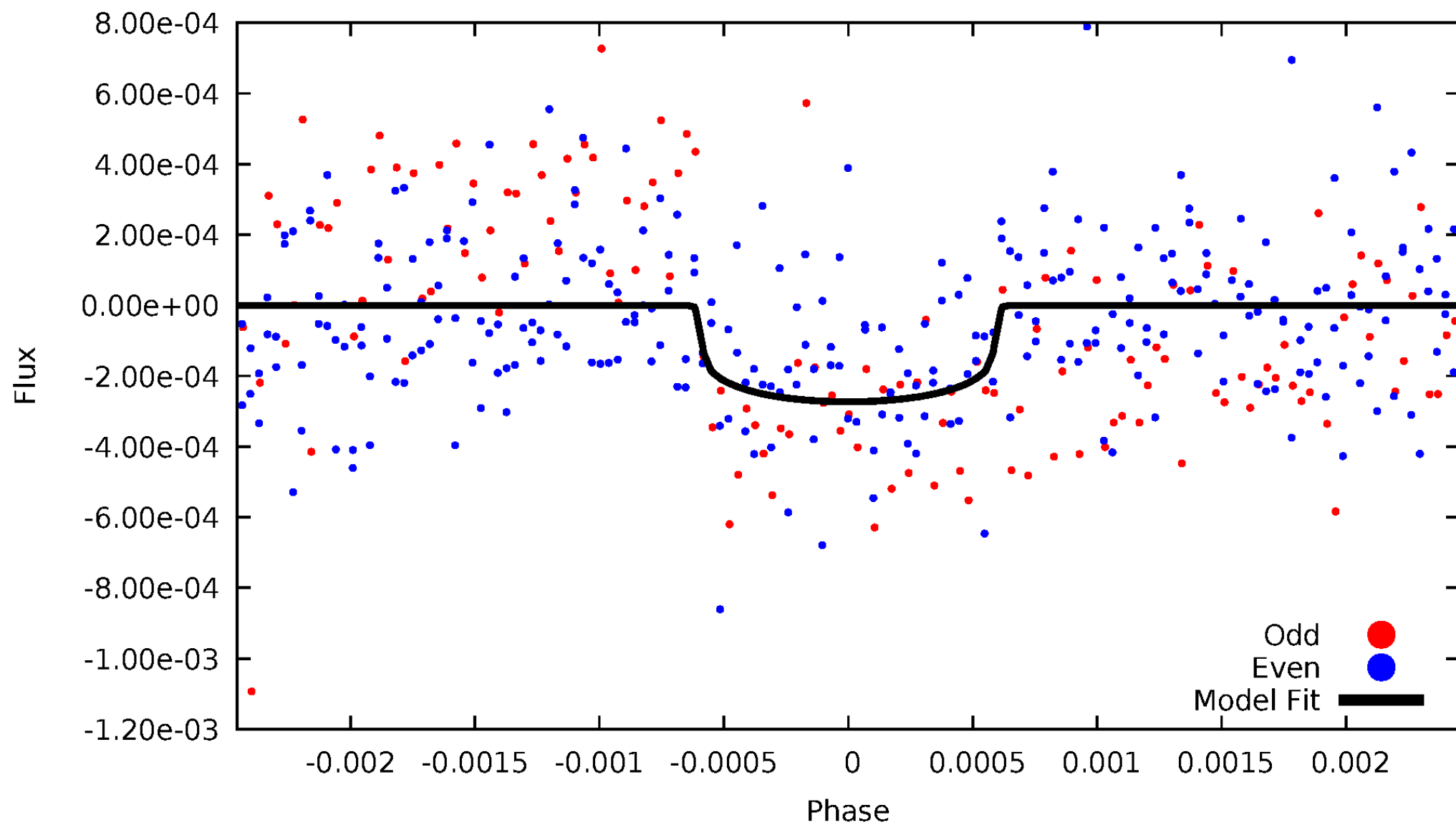


TCE 004379932-01



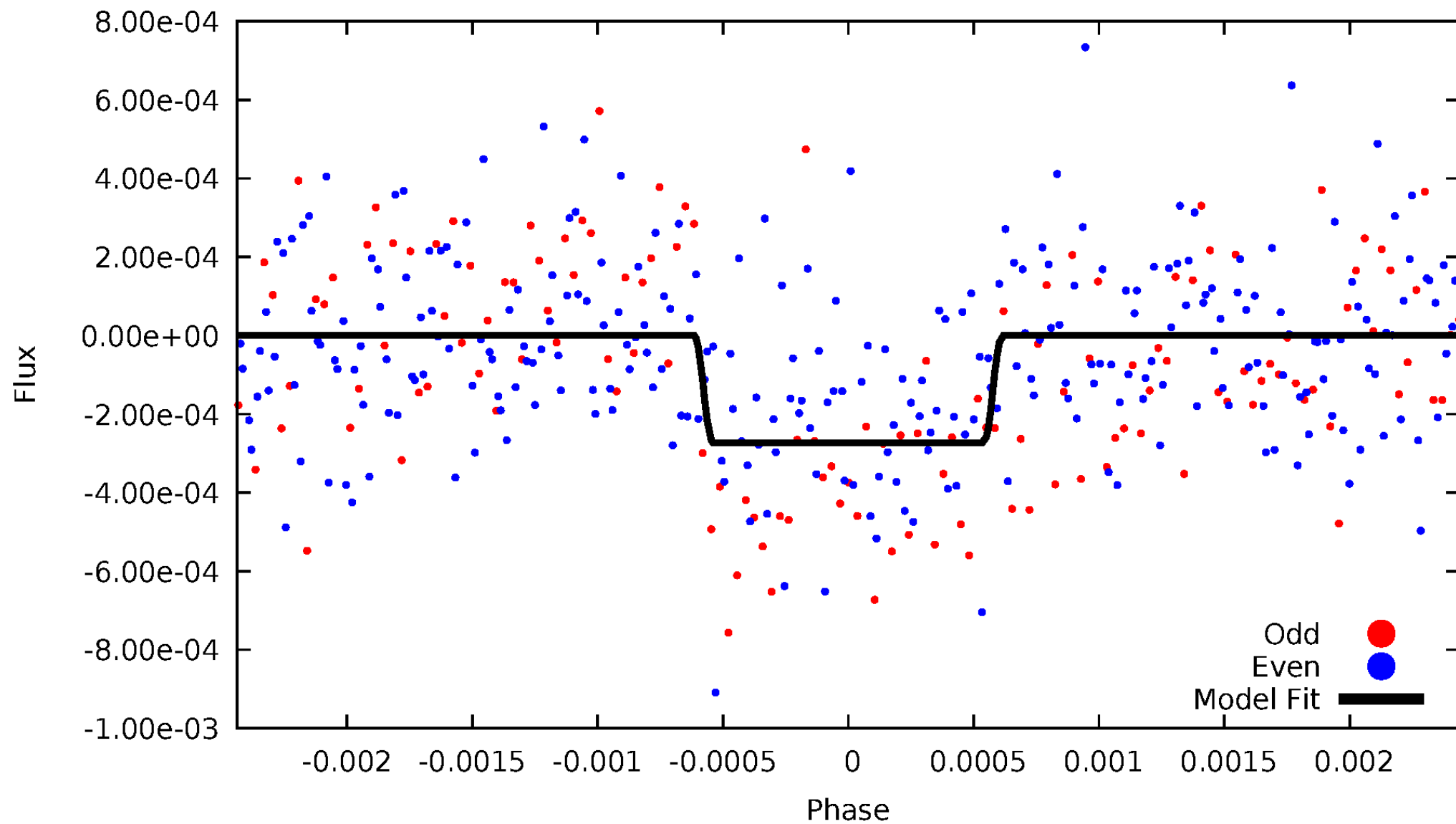
DV Odd/Even

TCE 004379932-01



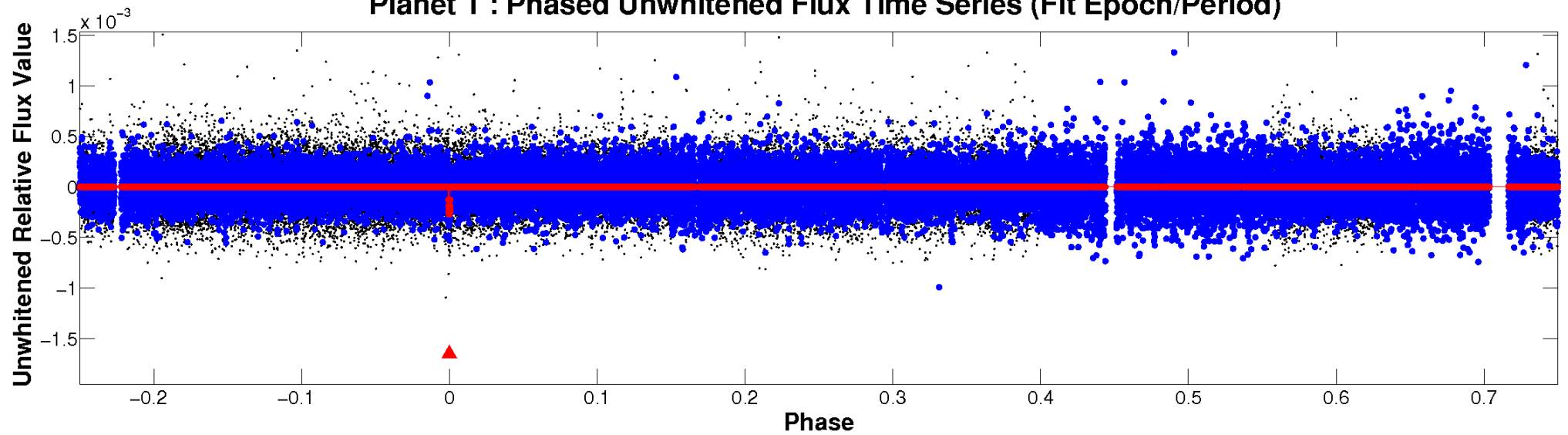
ALT Odd/Even

TCE 004379932-01

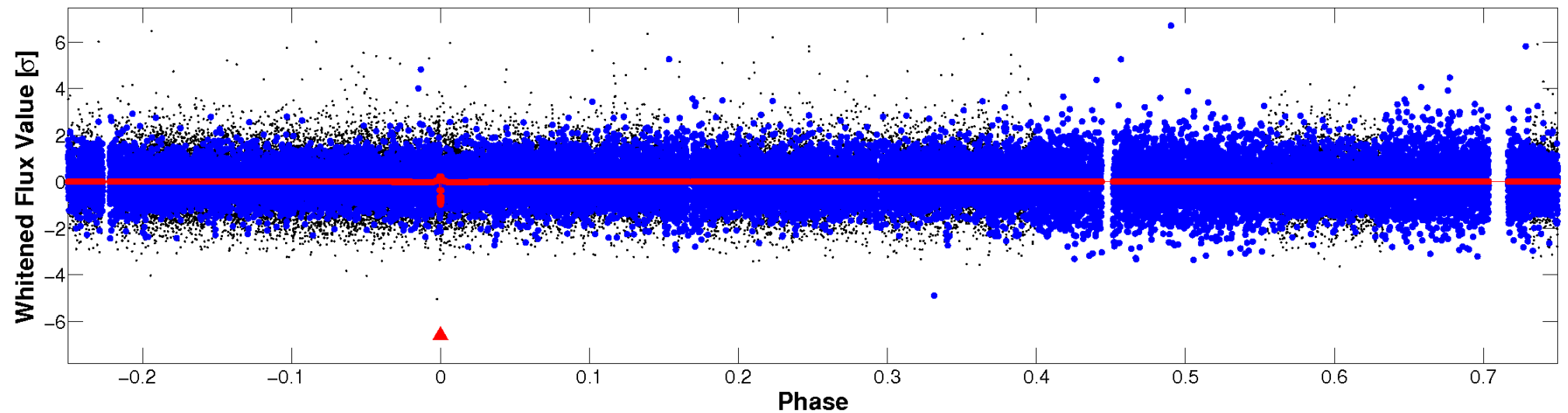


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

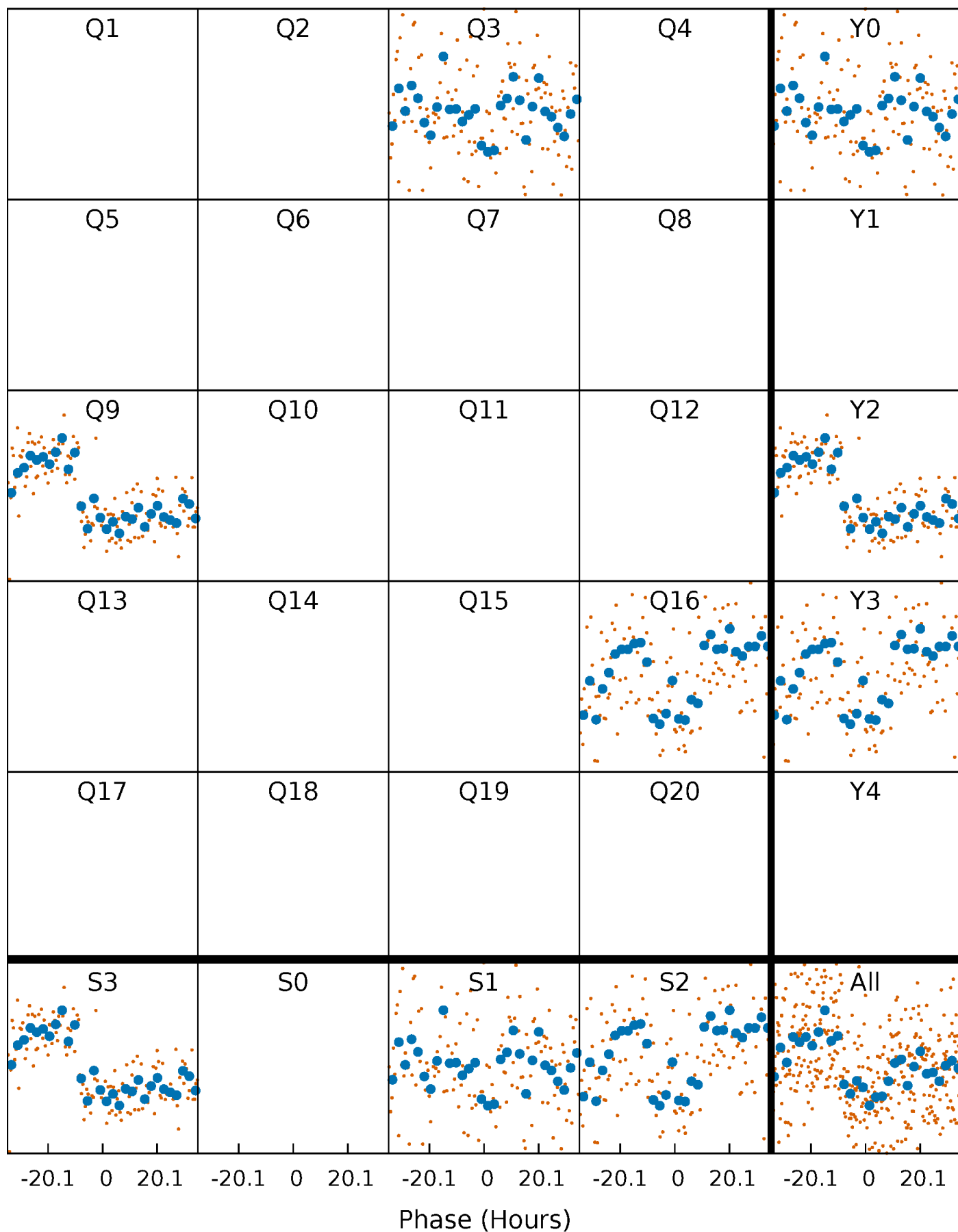


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 004379932-01 P=595.760156 Days $T_0=300.335888$ (BKJD)



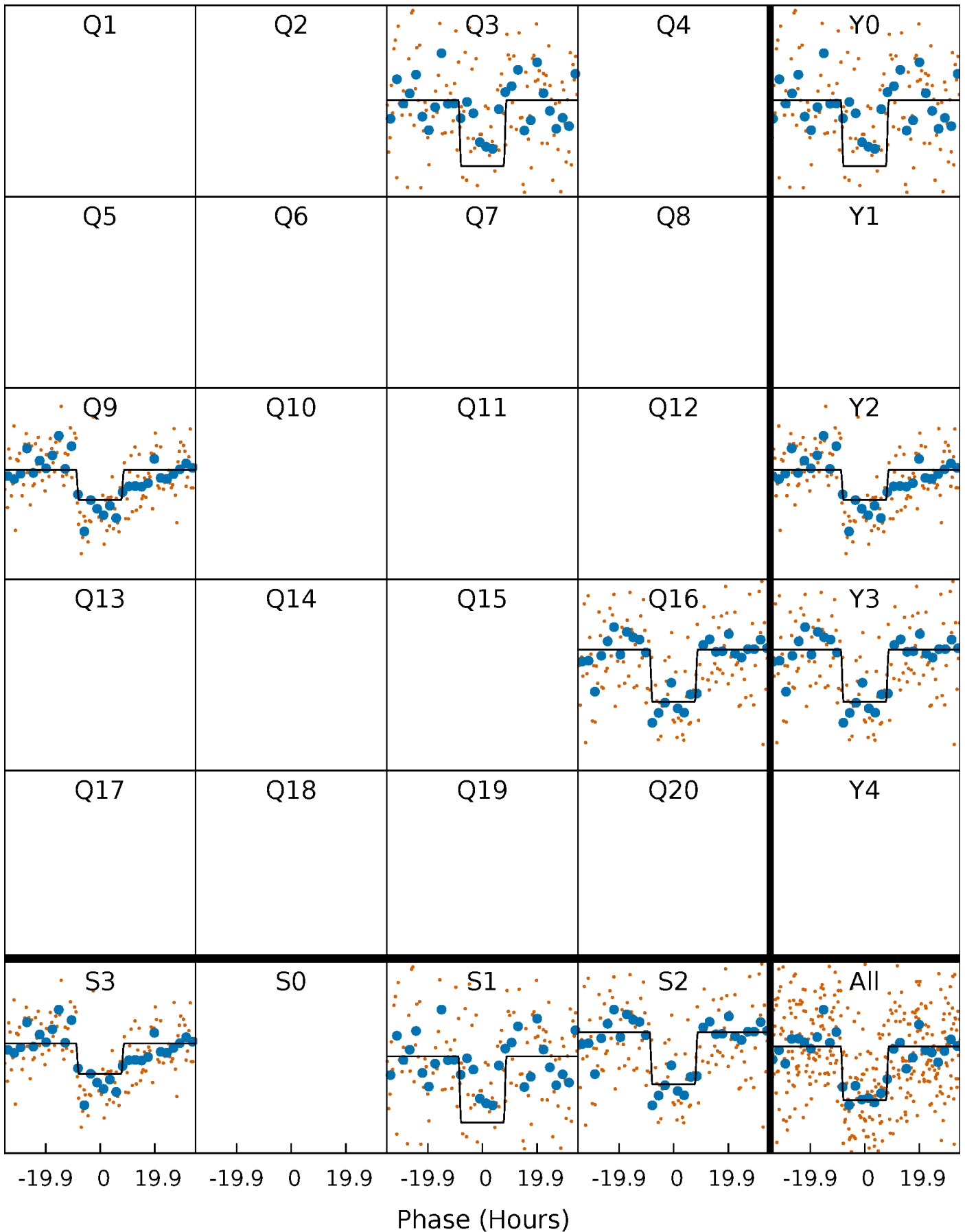
DV Quarter-Phased Transit Curves

TCE 004379932-01 P=595.760156 Days $T_0=300.335888$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

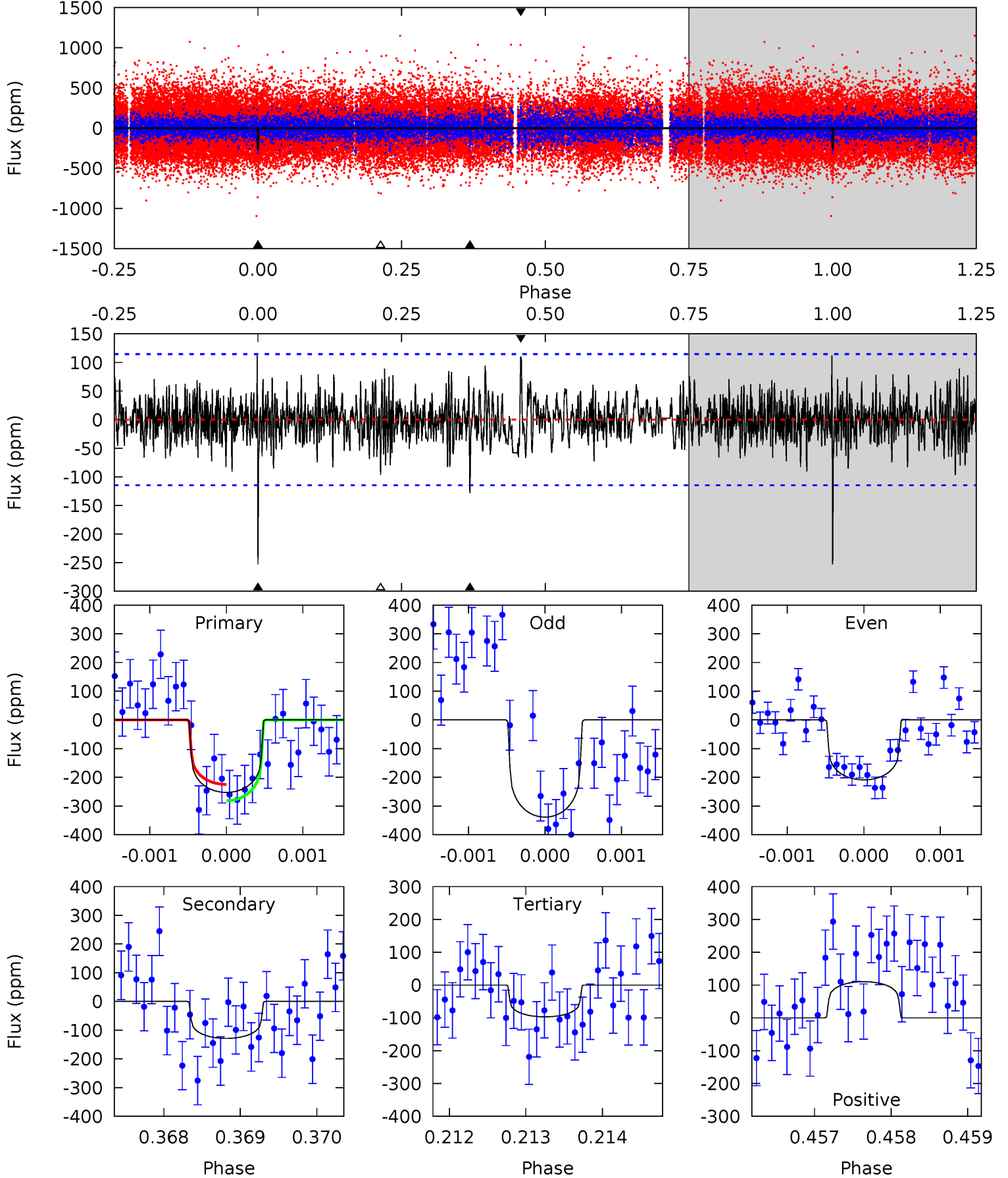
TCE 004379932-01 P=595.767686 Days $T_0=300.328923$ (BKJD)



DV Model-Shift Uniqueness Test

004379932-01, P = 595.760156 Days, E = 300.335888 Days

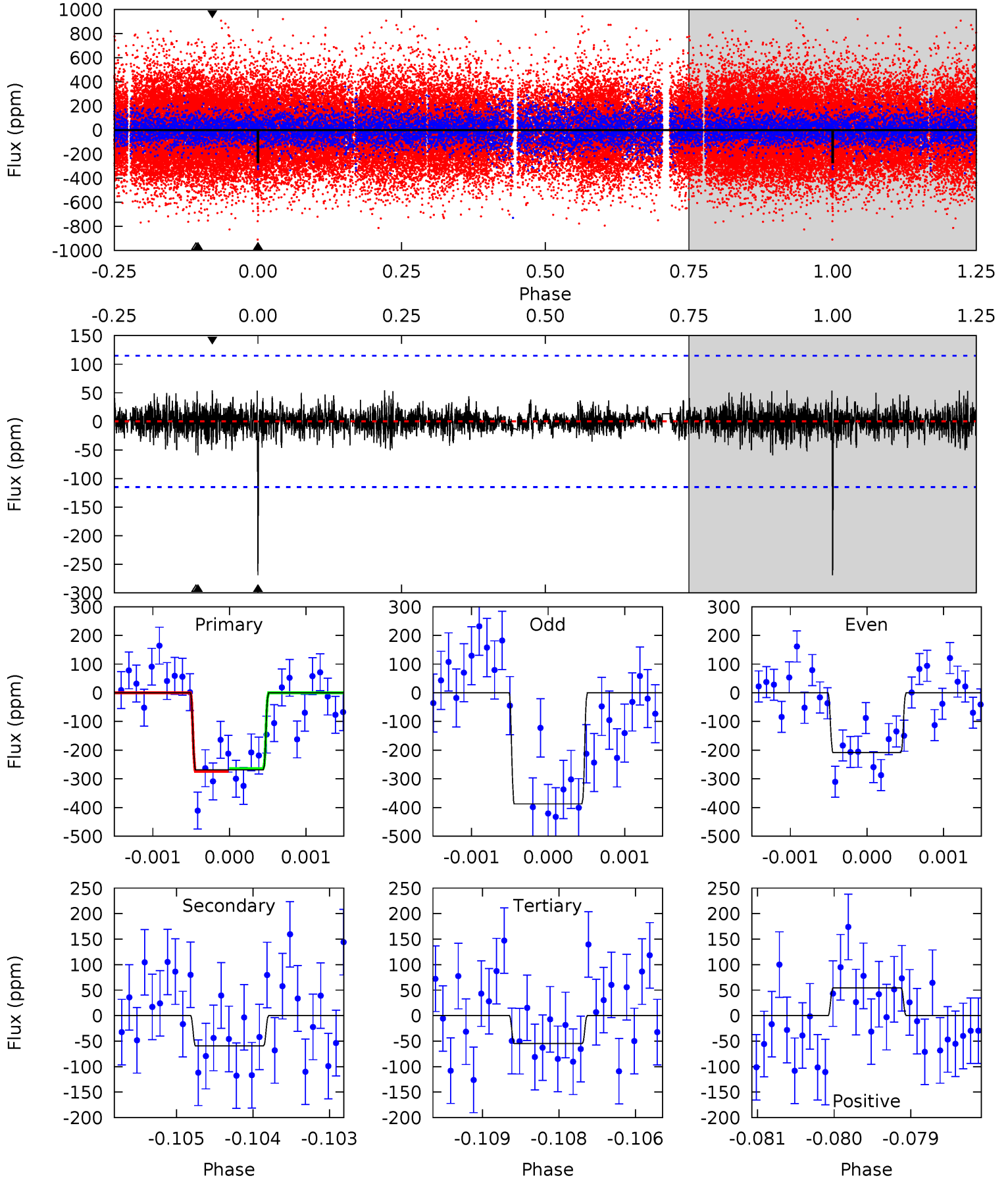
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	6.07	4.57	5.21	5.41	3.22	1.30	7.35	6.72	1.50	0.87	2.91	0.95	0.31	1.34



Alt Model-Shift Uniqueness Test

004379932-01, $P = 595.767686$ Days, $E = 300.328923$ 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	2.80	2.58	2.56	5.42	3.24	0.69	10.1	10.1	0.22	0.24	4.00	0.87	0.17	0.23



Stellar Parameters For KIC 004379932

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6006^{+181}_{-199}	$4.400^{+0.087}_{-0.203}$	$0.040^{+0.250}_{-0.300}$	$1.077^{+0.341}_{-0.146}$	$1.061^{+0.145}_{-0.130}$	$1.195^{+0.443}_{-0.620}$
	+3%/-3%	+2%/-5%	+625%/-750%	+32%/-14%	+14%/-12%	+37%/-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 004379932-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-129 ± 21	$2.00^{+0.83}_{-0.77}$	329^{+26}_{-19}	5087^{+1179}_{-660}	34666^{+57777}_{-17891}
Alt.	-59 ± 21	$2.08^{+0.81}_{-0.83}$	326^{+27}_{-17}	4246^{+915}_{-524}	14761^{+24387}_{-8116}

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

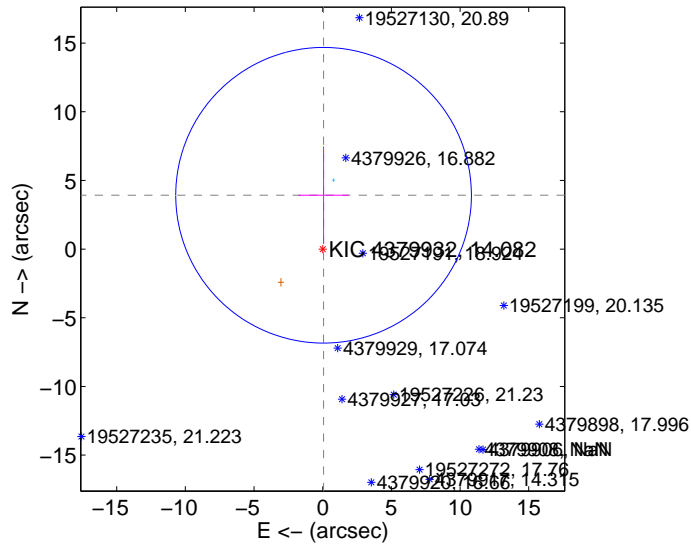
Supplemental centroid analysis for 004379932-01. Kepler magnitude: 14.08. Transit SNR 8.76

There are 1 quarters with good PRF difference image offsets

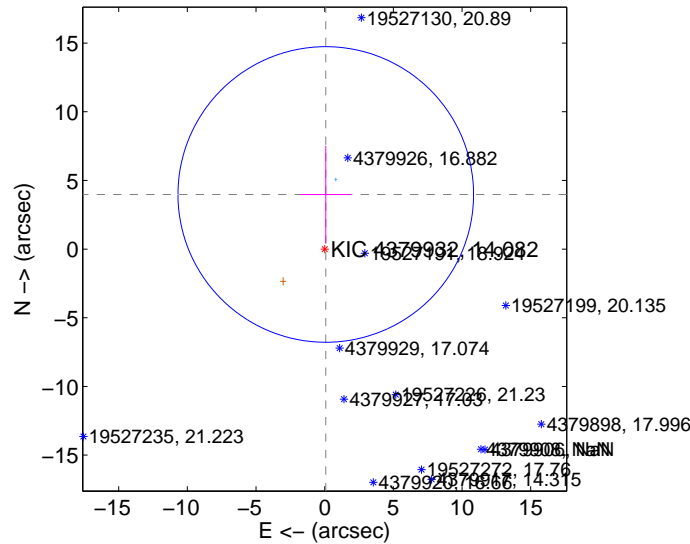
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.921 ± 3.587	1.09	-0.062 ± 1.837	3.920 ± 3.559
PRF-fit source offset from KIC position	3.978 ± 3.587	1.11	-0.079 ± 1.836	3.977 ± 3.551
photometric centroid source offset	2.99 ± 1.88	1.59	1.90 ± 1.75	2.31 ± 1.97

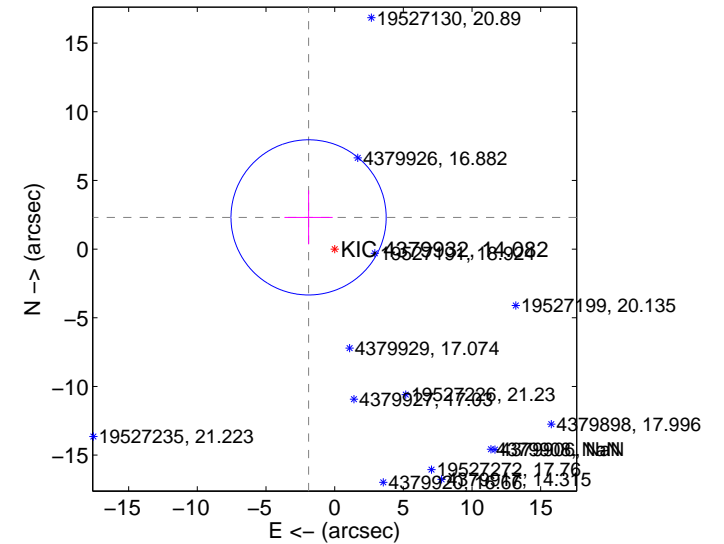
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

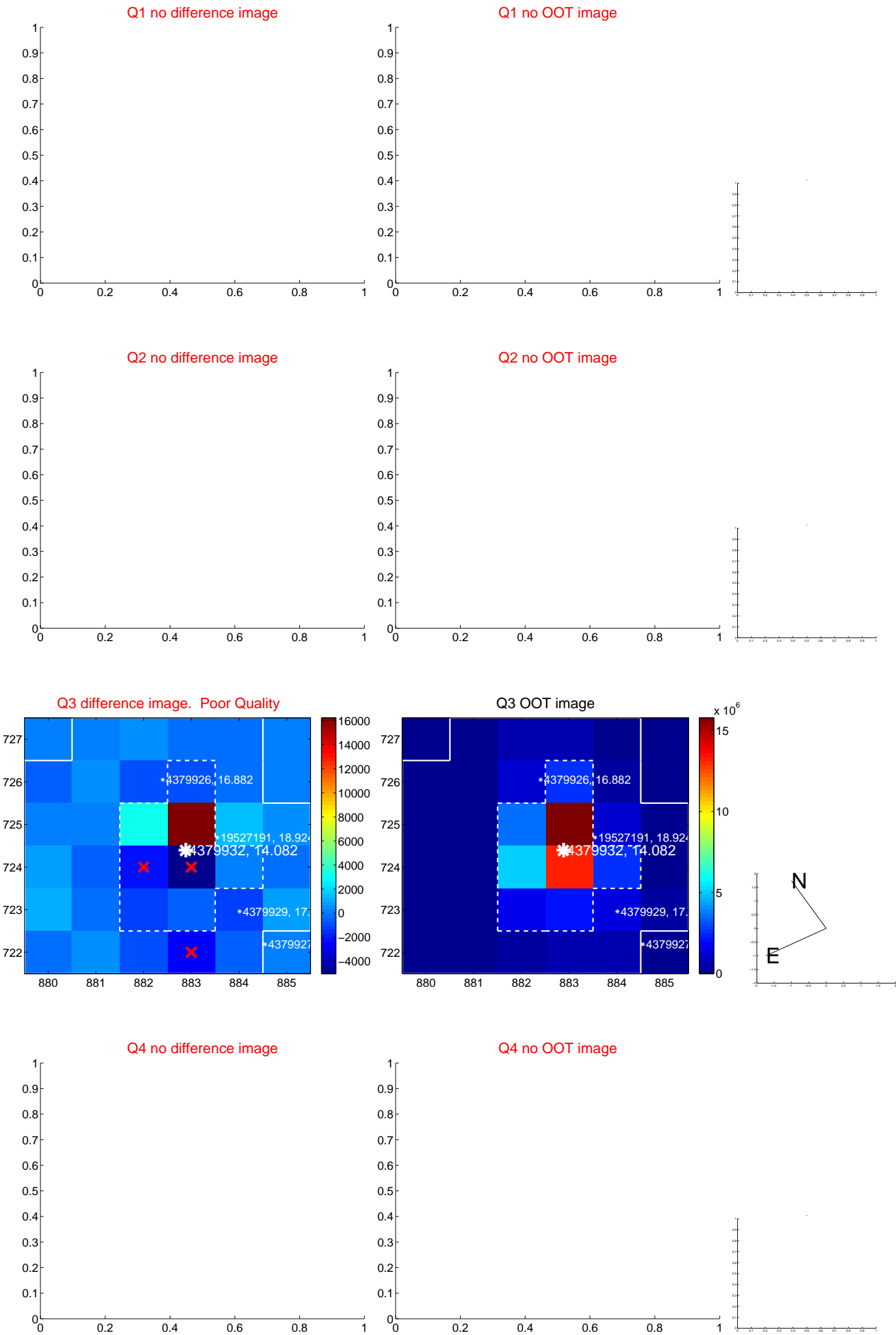


offset from photometric centroids



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.

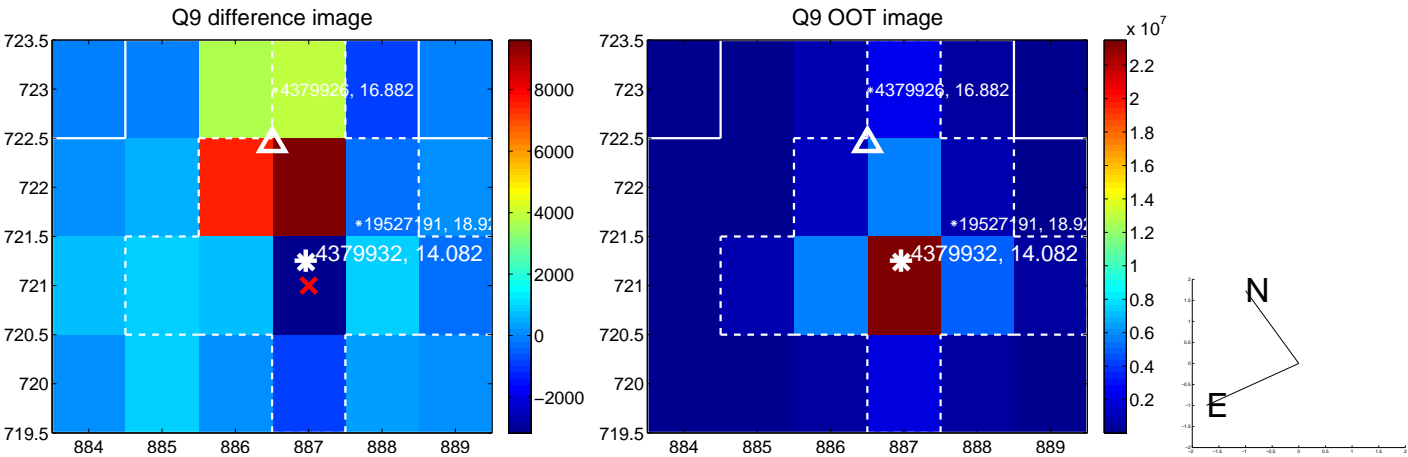
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



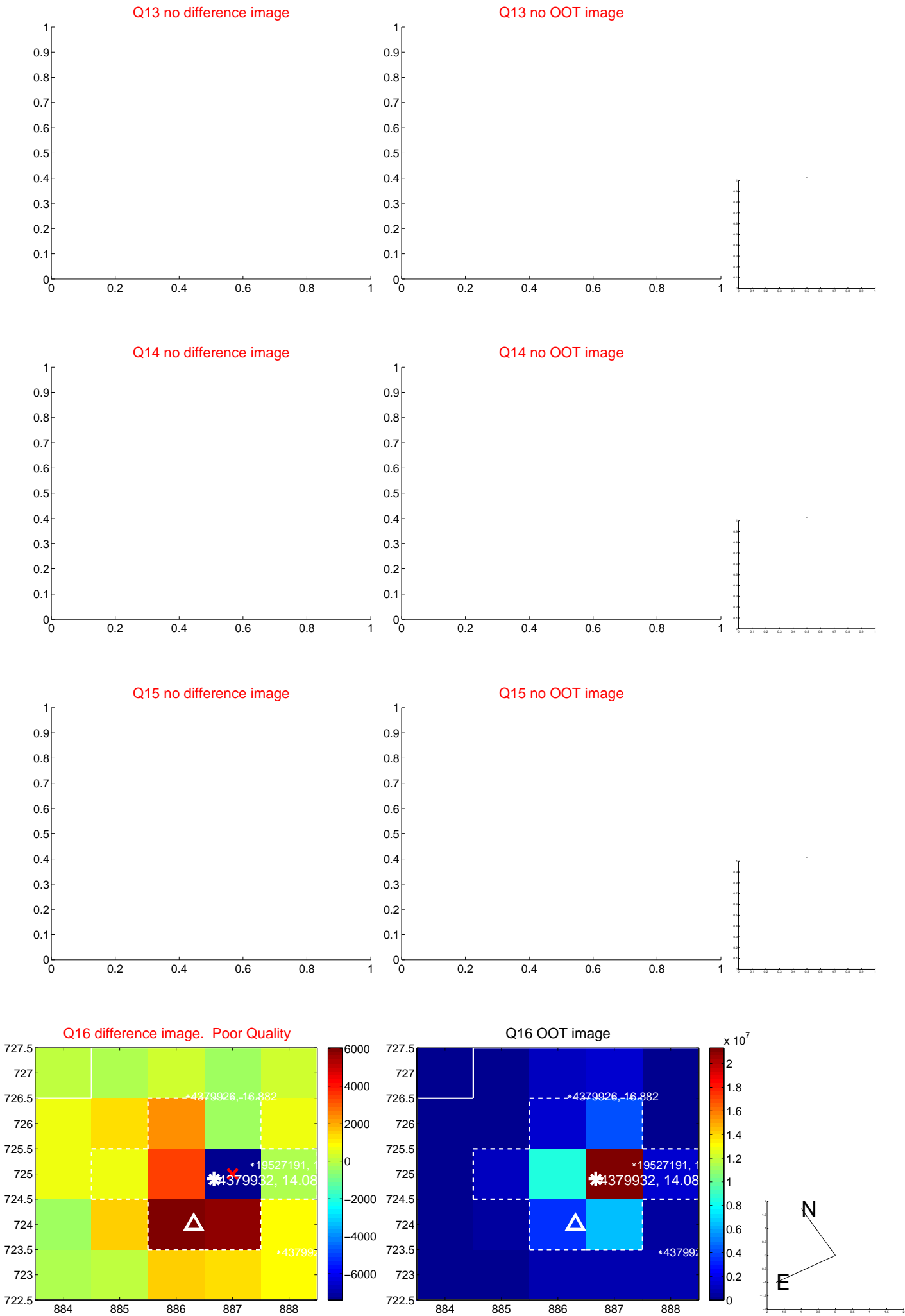
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



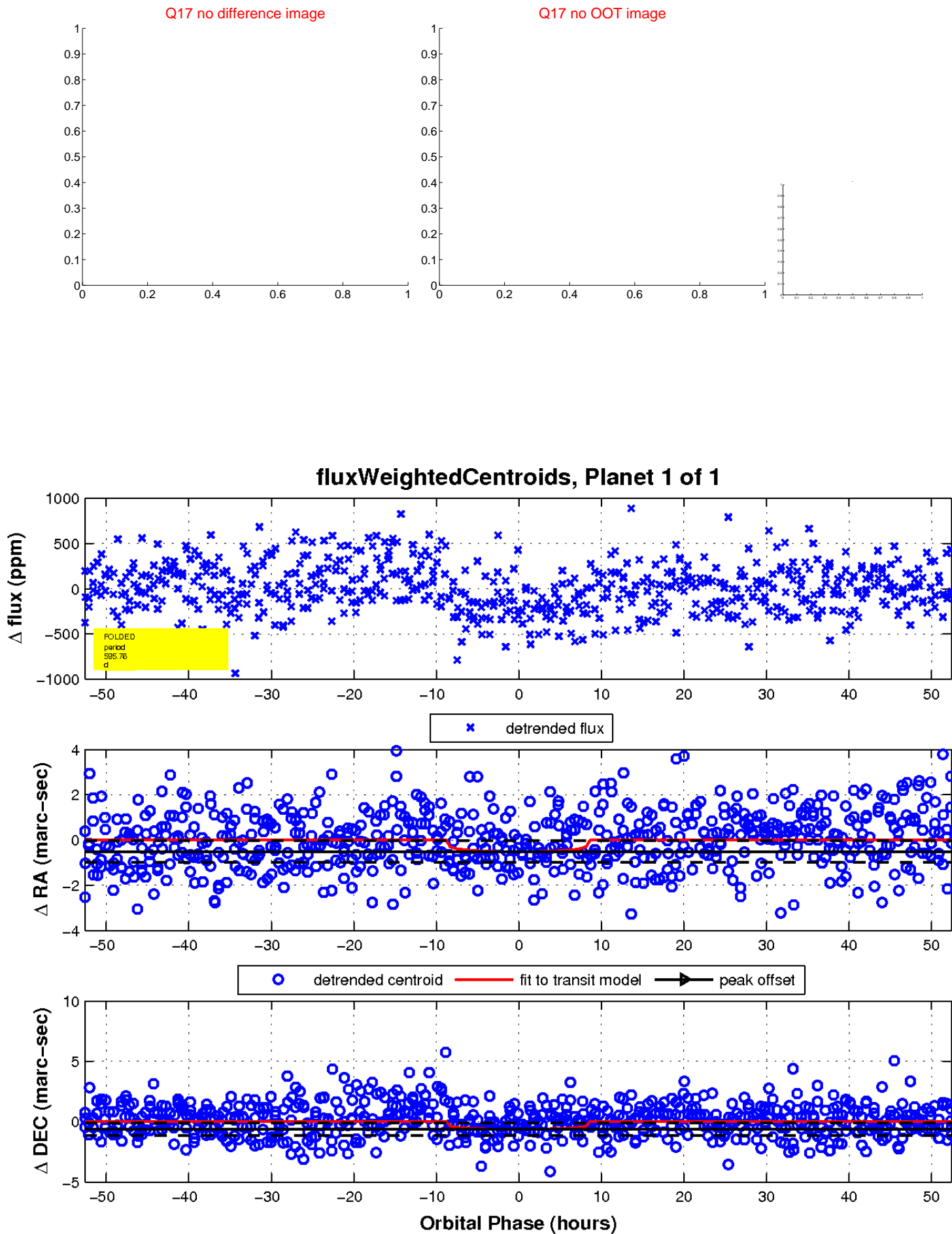
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

