

KIC 008376489

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})
008376489-01	OBS	No	344.136673	405.540167	298.4	8.462	7.2	8.1	0.92	5299	1.65	0.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008376489-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_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.

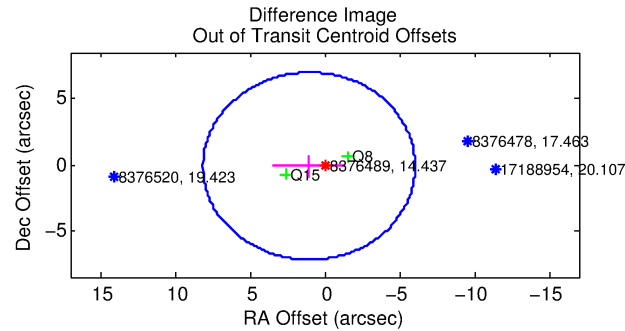
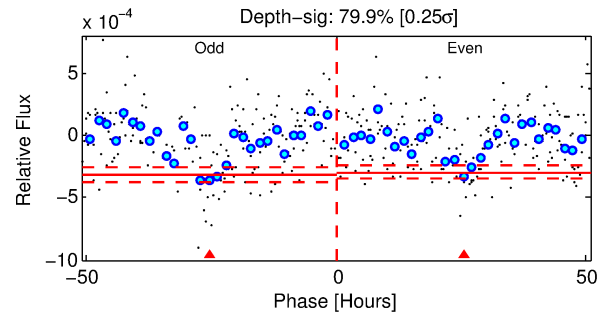
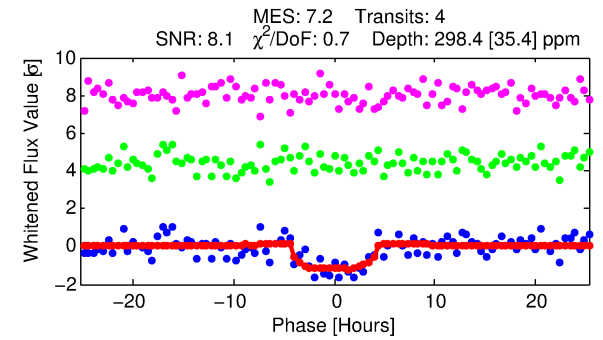
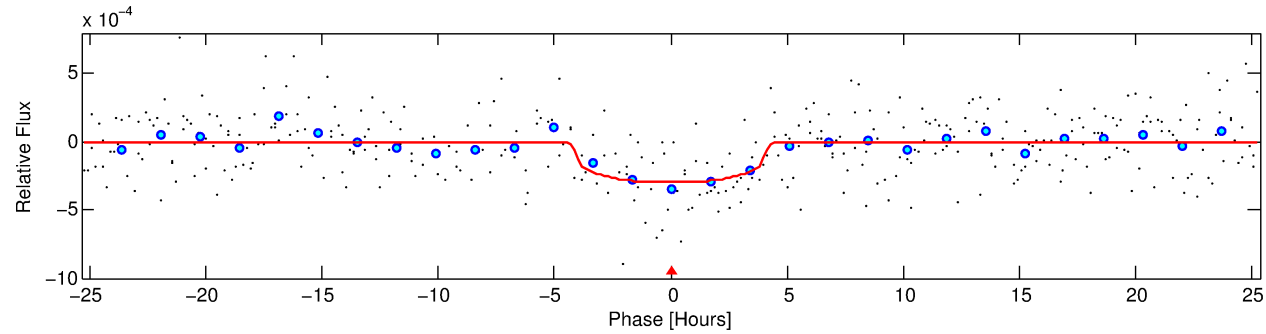
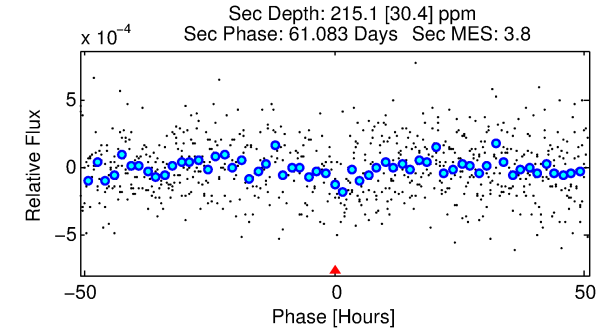
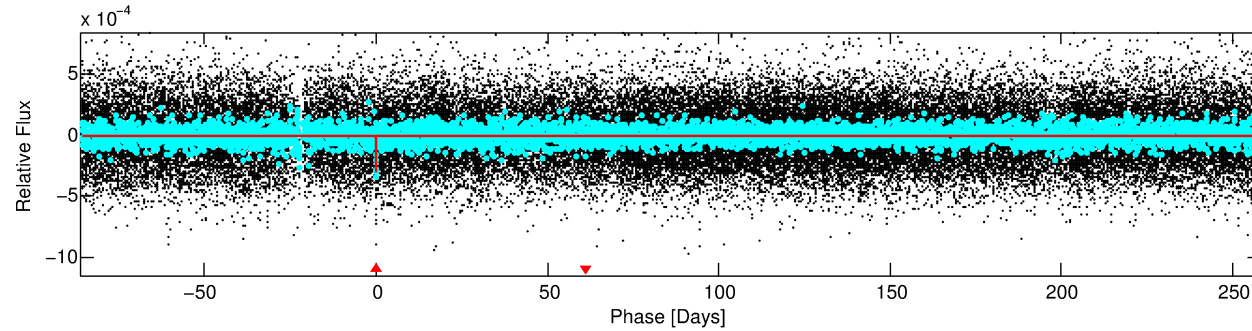
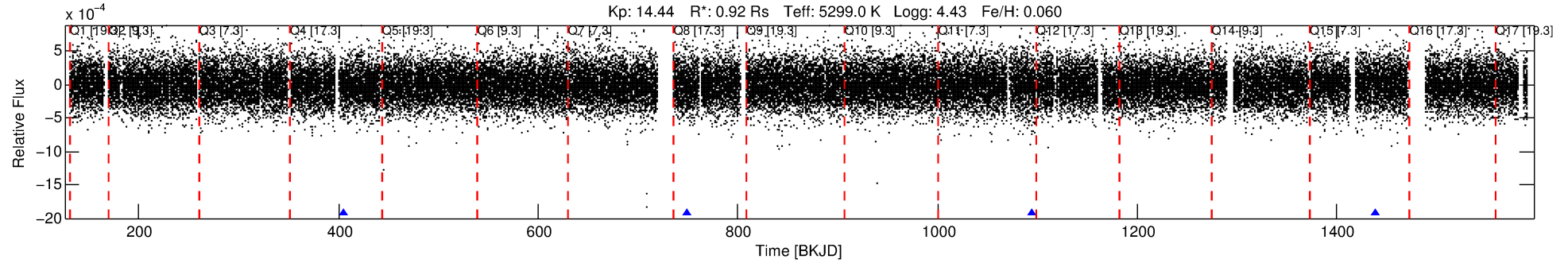
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008376489-01

No Significant Match Found

DV One-Page Summary

KIC: 8376489 Candidate: 1 of 1 Period: 344.137 d



DV Fit Results:

Period = 344.13667 [0.00762] d
Epoch = 405.5402 [0.0138] BKJD
Rp/R* = 0.0165 [0.0165]
a/R* = 247.81 [931.37]
b = 0.63 [3.64]
Seff = 0.72 [0.21]
Teq = 235 [17] K
Rp = 1.65 [1.68] Re
a = 0.9046 [0.1524] AU
Ag = 35550.70 [71961.31] [0.49σ]
Teffp = 4994 [2511] K [1.90σ]

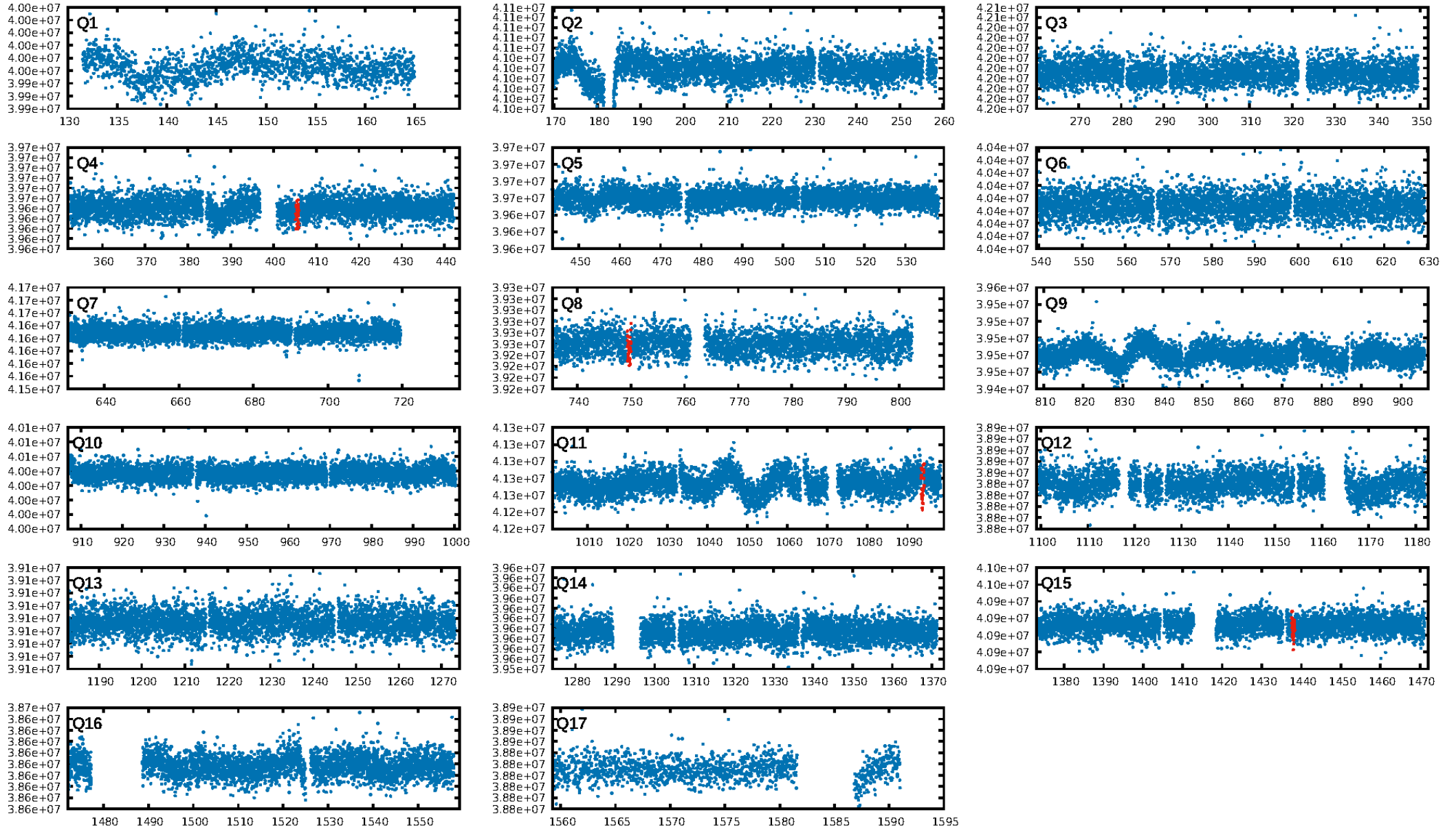
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 1.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.43e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -1.588
Centroid-sig: 11.5%
Centroid-so: 1.759 arcsec [1.09σ]
OotOffset-rm: 1.041 arcsec [0.44σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-rm: 0.916 arcsec [0.39σ]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

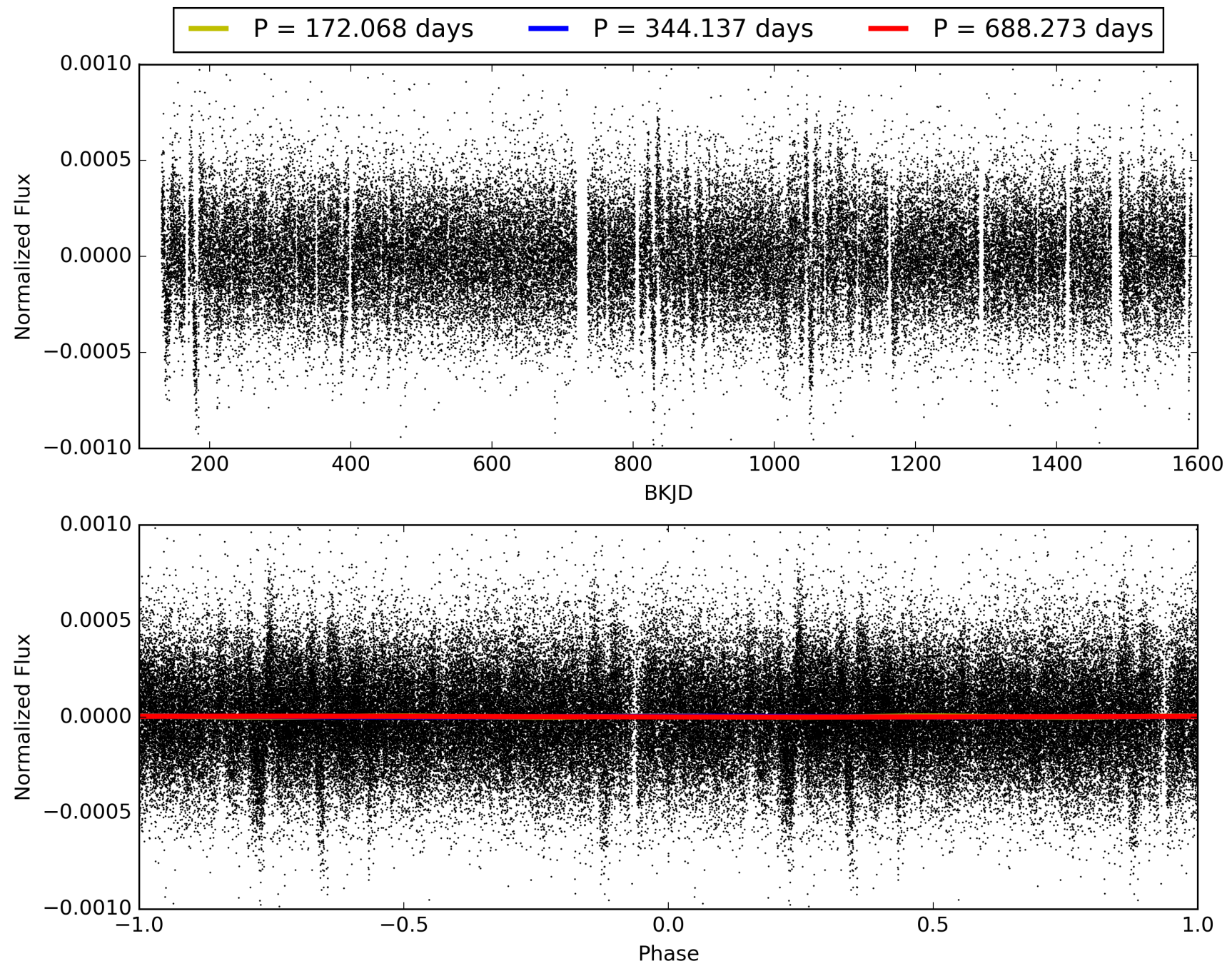
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:27:56 Z

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

TCE 008376489-01, PDC Light Curves

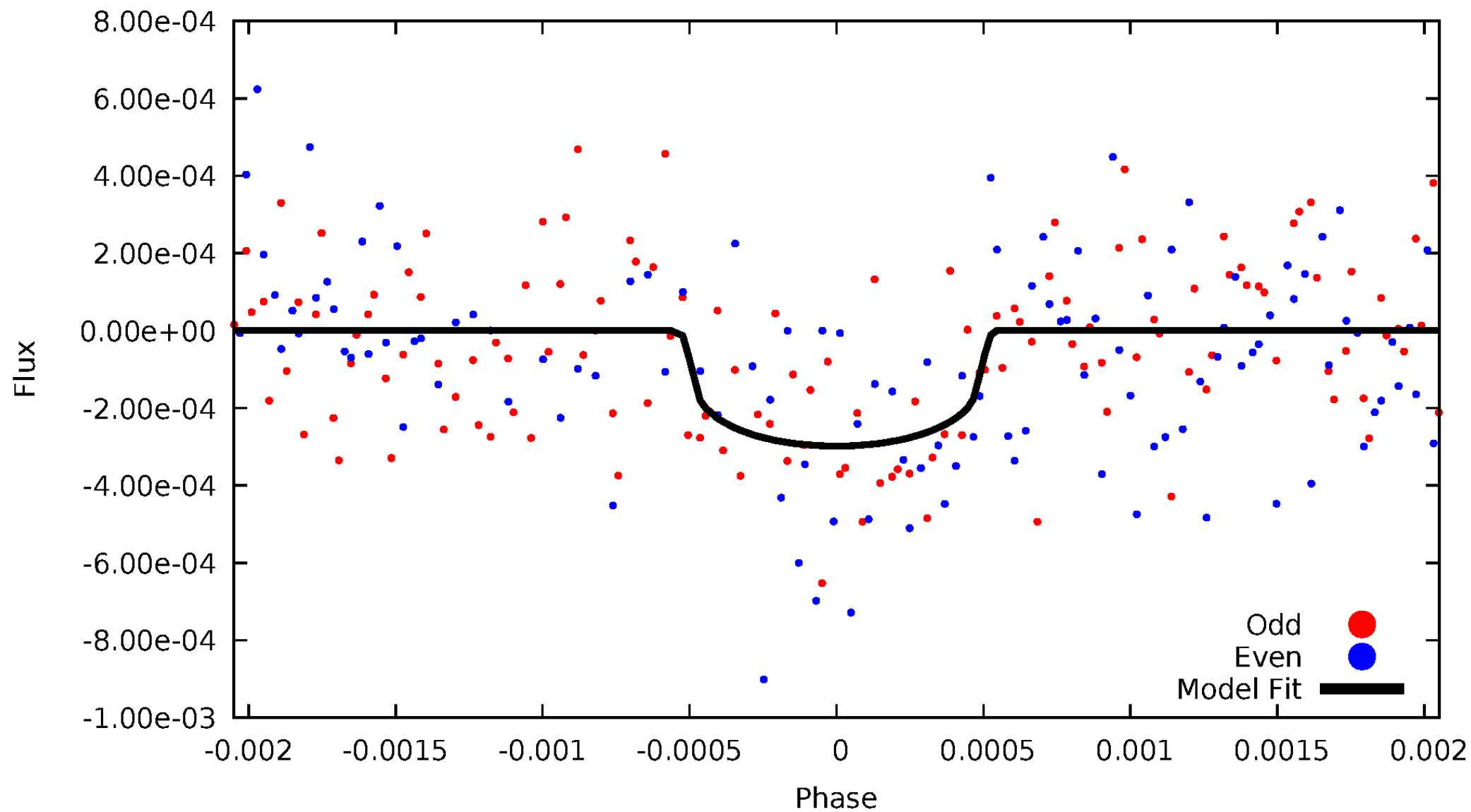


TCE 008376489-01



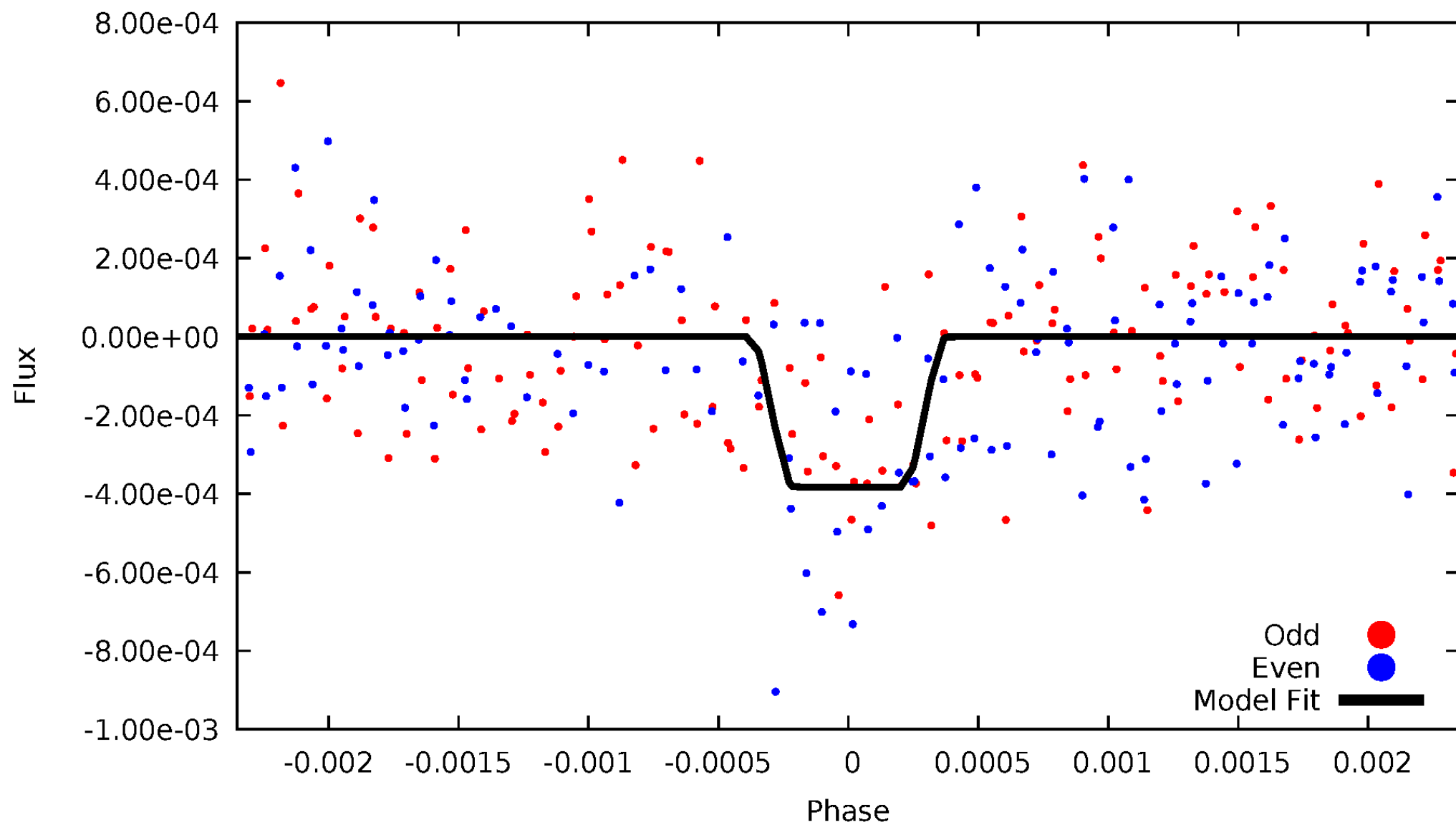
DV Odd/Even

TCE 008376489-01

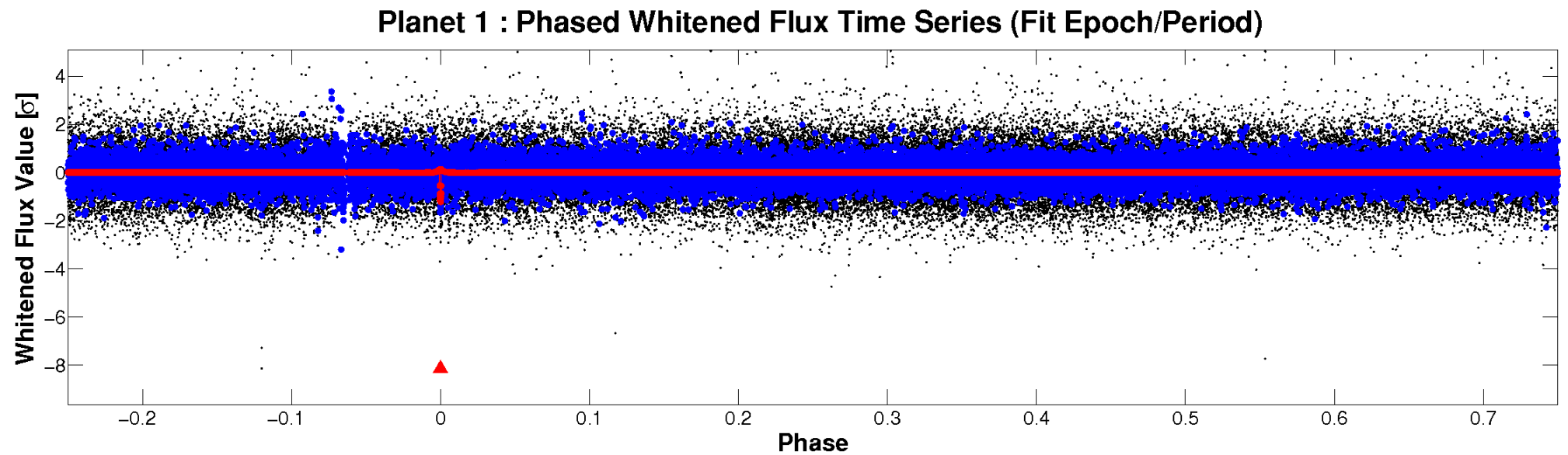
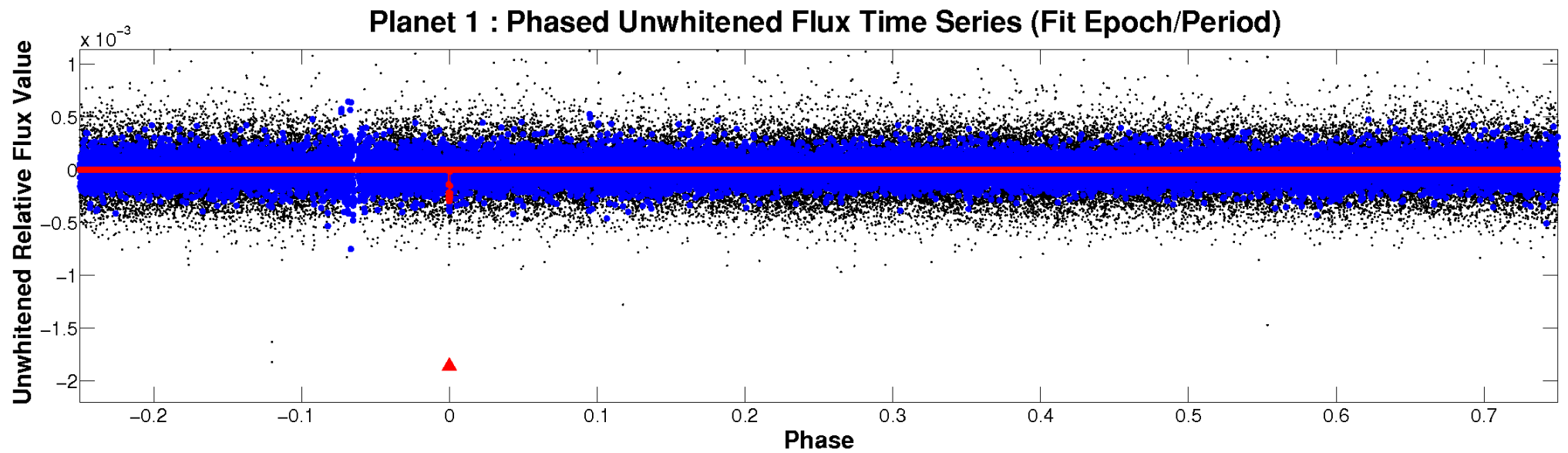


ALT Odd/Even

TCE 008376489-01

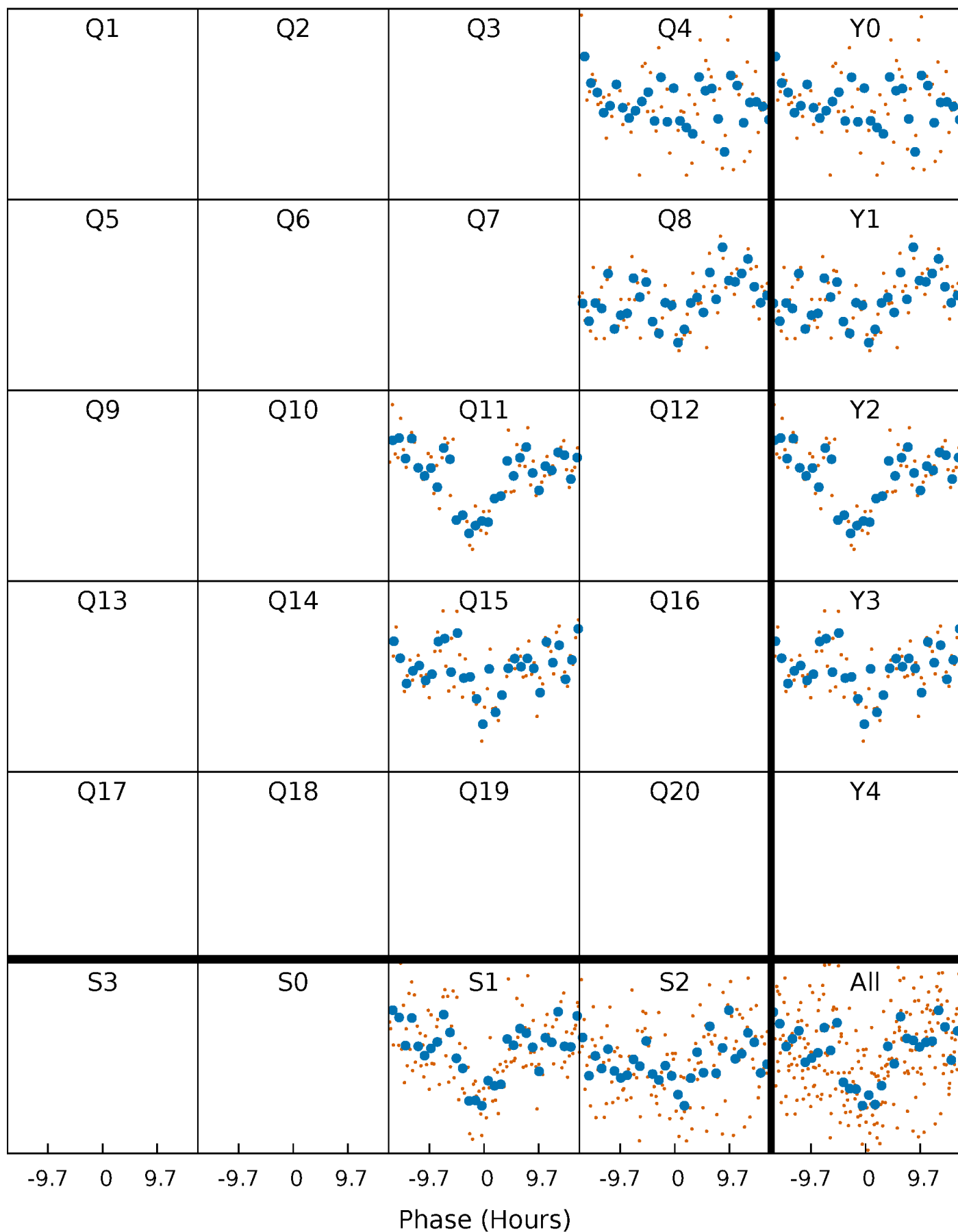


Non-Whitened Vs. Whitened Light Curve



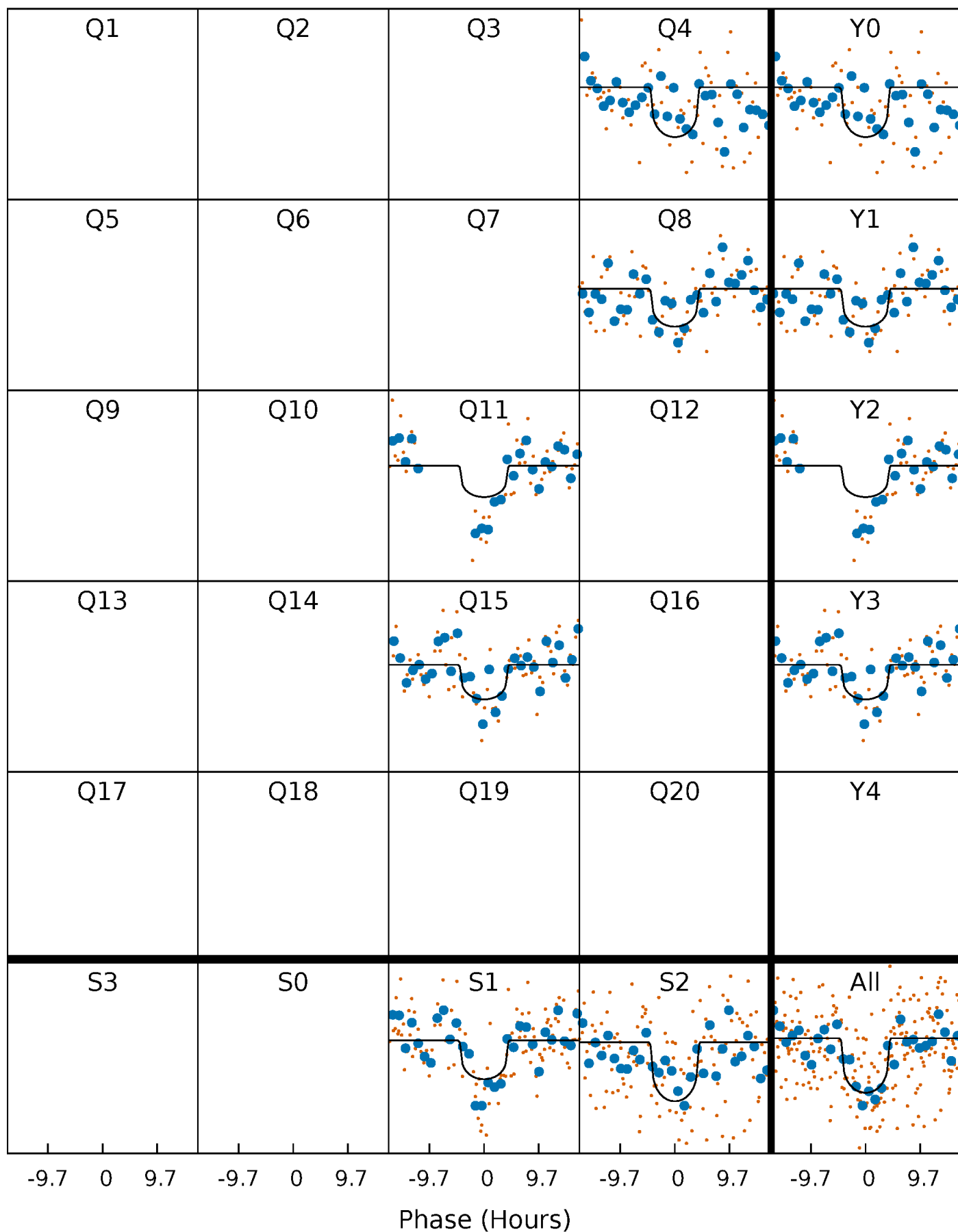
PDC Quarter-Phased Transit Curves

TCE 008376489-01 P=344.136673 Days $T_0=405.540167$ (BKJD)



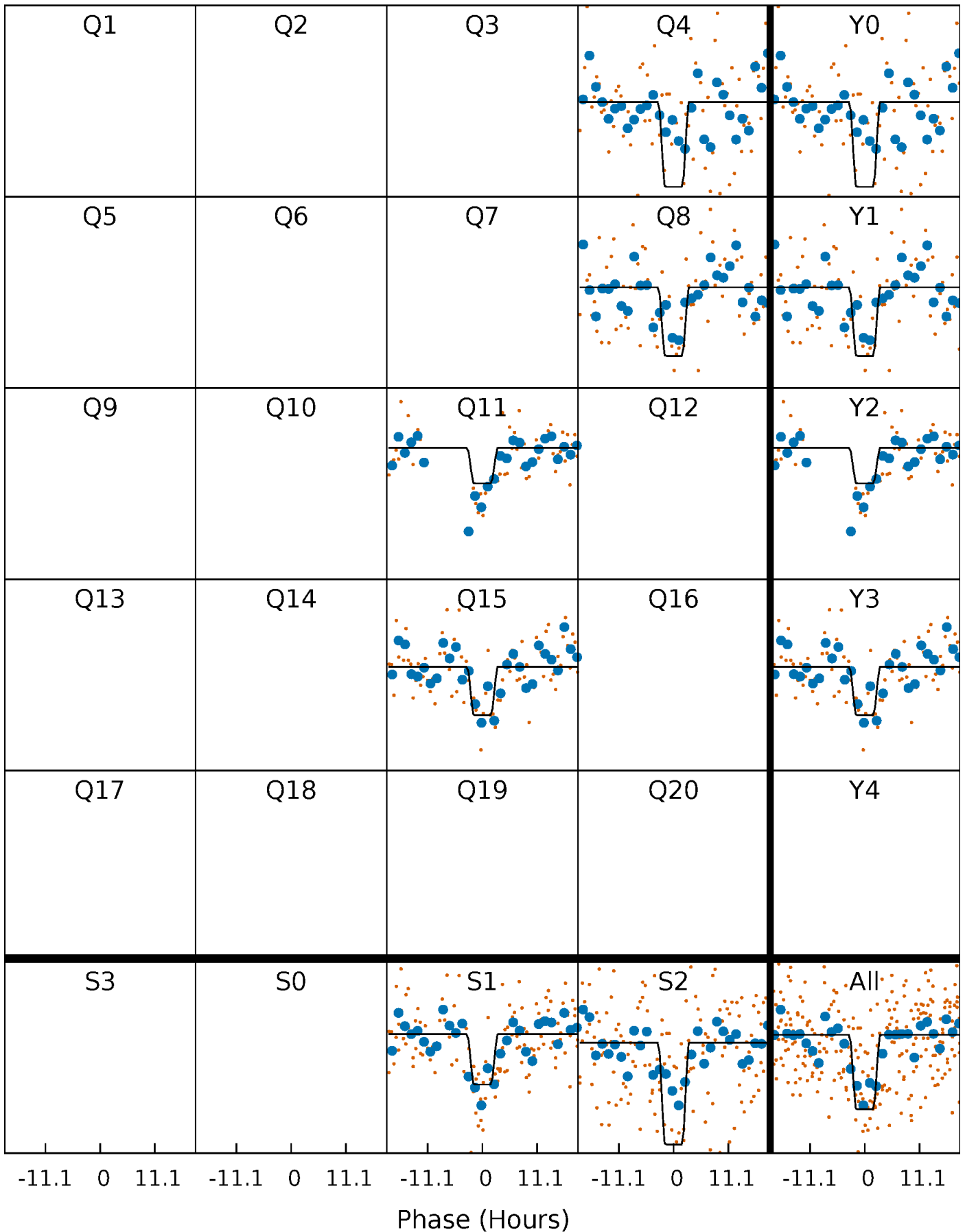
DV Quarter-Phased Transit Curves

TCE 008376489-01 $P=344.136673$ Days $T_0=405.540167$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

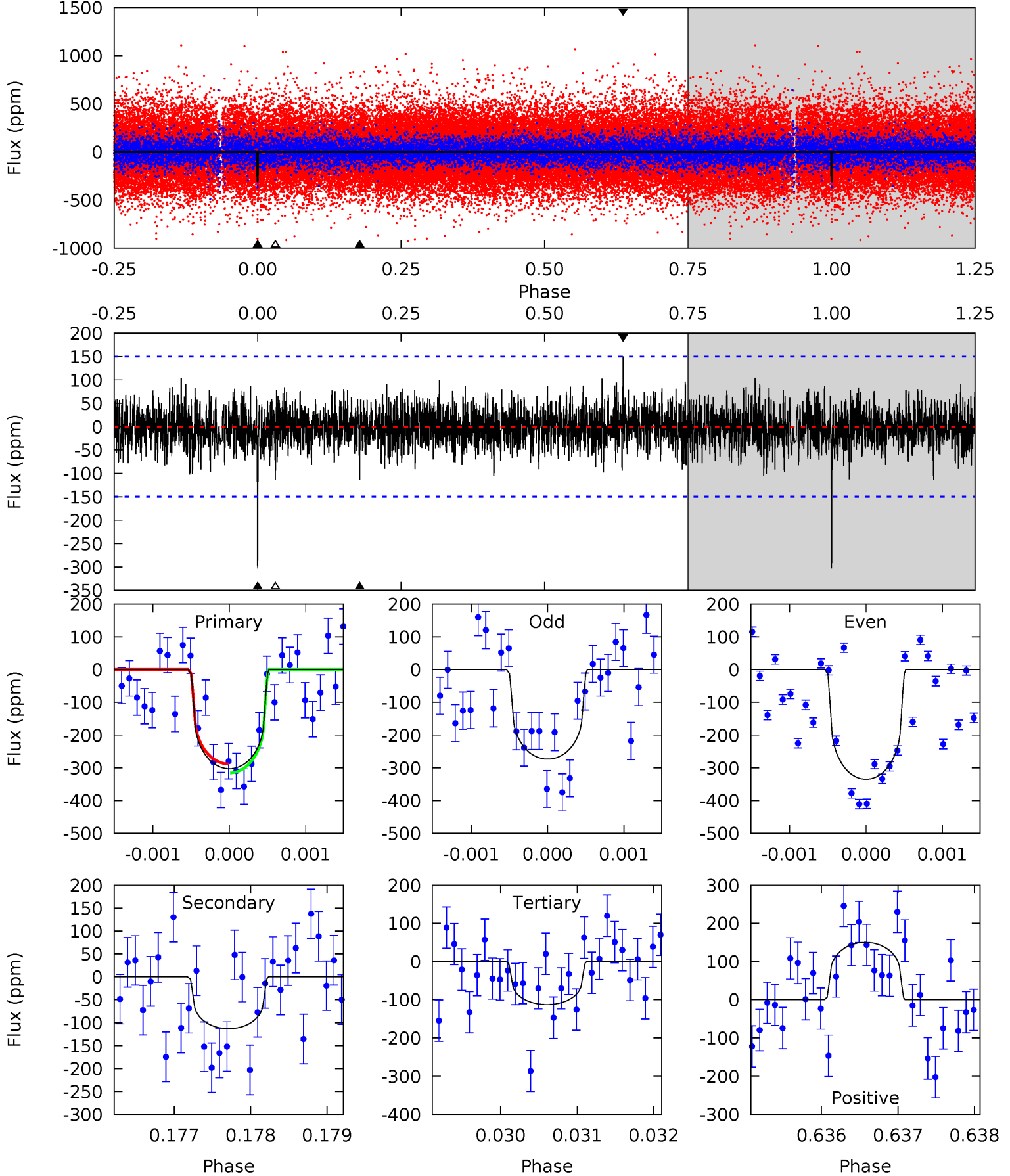
TCE 008376489-01 P=344.121584 Days $T_0=405.581686$ (BKJD)



DV Model-Shift Uniqueness Test

008376489-01, P = 344.136673 Days, E = 61.403494 Days

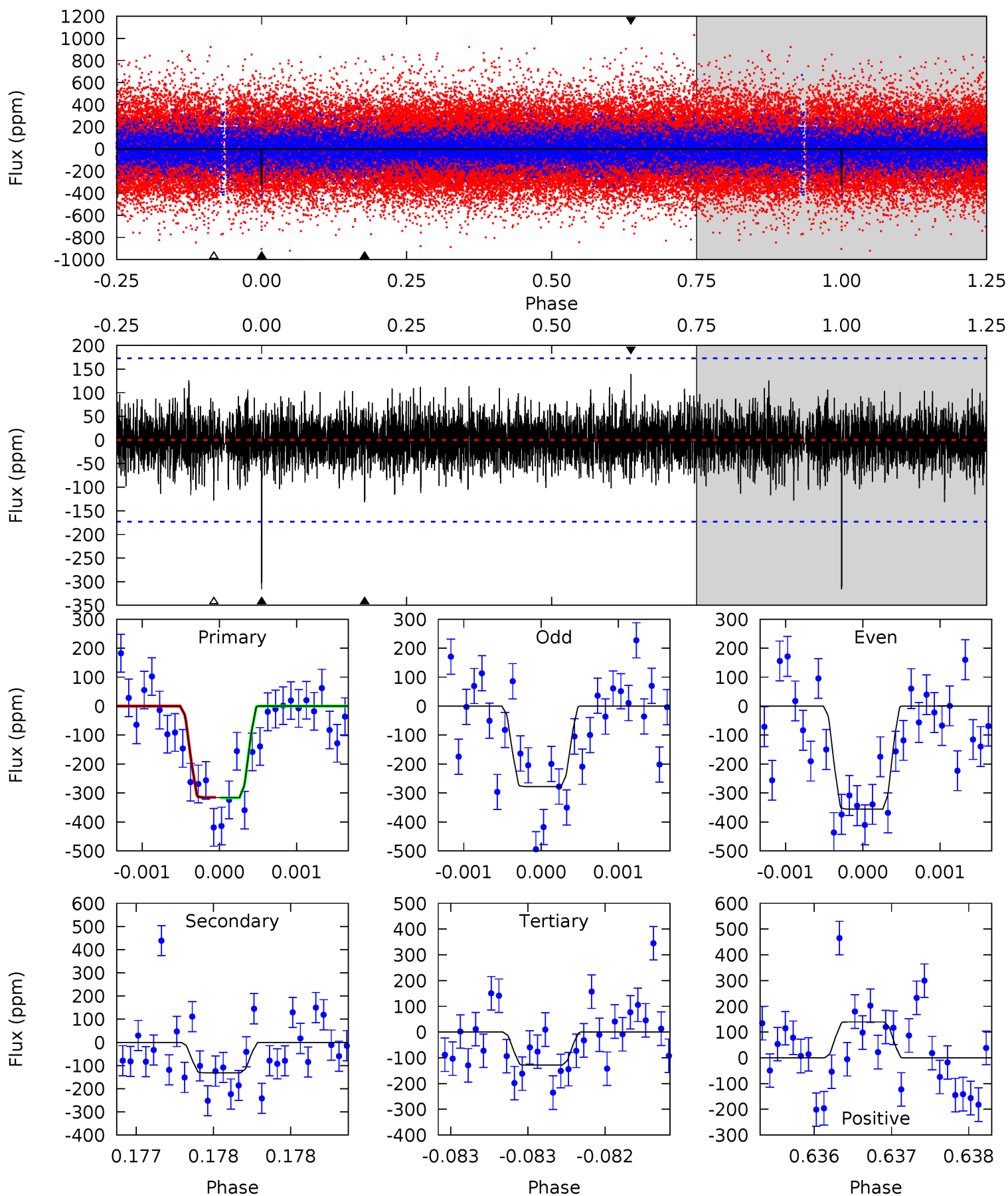
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	4.10	4.09	5.45	5.44	3.28	1.14	6.90	5.54	0.02	-1.34	1.13	1.16	0.33	0.49



Alt Model-Shift Uniqueness Test

008376489-01, P = 344.121584 Days, E = 61.460102 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	4.17	4.07	4.43	5.50	3.36	1.09	5.97	5.61	0.10	-0.26	1.23	1.16	0.31	0.02



Stellar Parameters For KIC 008376489

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5299^{+159}_{-143}	$4.435^{+0.121}_{-0.148}$	$0.060^{+0.250}_{-0.300}$	$0.916^{+0.171}_{-0.125}$	$0.834^{+0.099}_{-0.066}$	$1.528^{+0.822}_{-0.629}$
	+3%/-3%	+3%/-3%	+417%/-500%	+19%/-14%	+12%/-8%	+54%/-41%
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 008376489-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-113 ± 28	$1.95^{+1.56}_{-1.26}$	331^{+18}_{-18}	4155^{+2399}_{-752}	13593^{+87451}_{-9696}
Alt.	-131 ± 31	$2.13^{+1.65}_{-1.33}$	330^{+18}_{-17}	4097^{+2257}_{-731}	12294^{+81181}_{-8685}

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 $A_{obs} \gg 1.0$

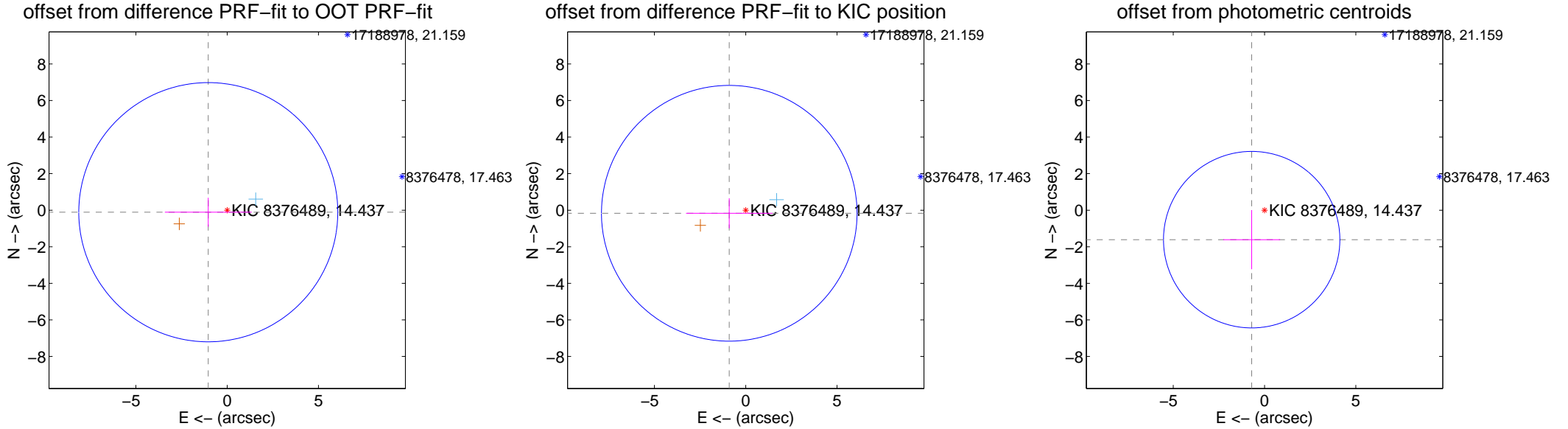
DV Centroid Data

Supplemental centroid analysis for 008376489-01. Kepler magnitude: 14.44. Transit SNR 8.07

There are 1 quarters with good PRF difference image offsets

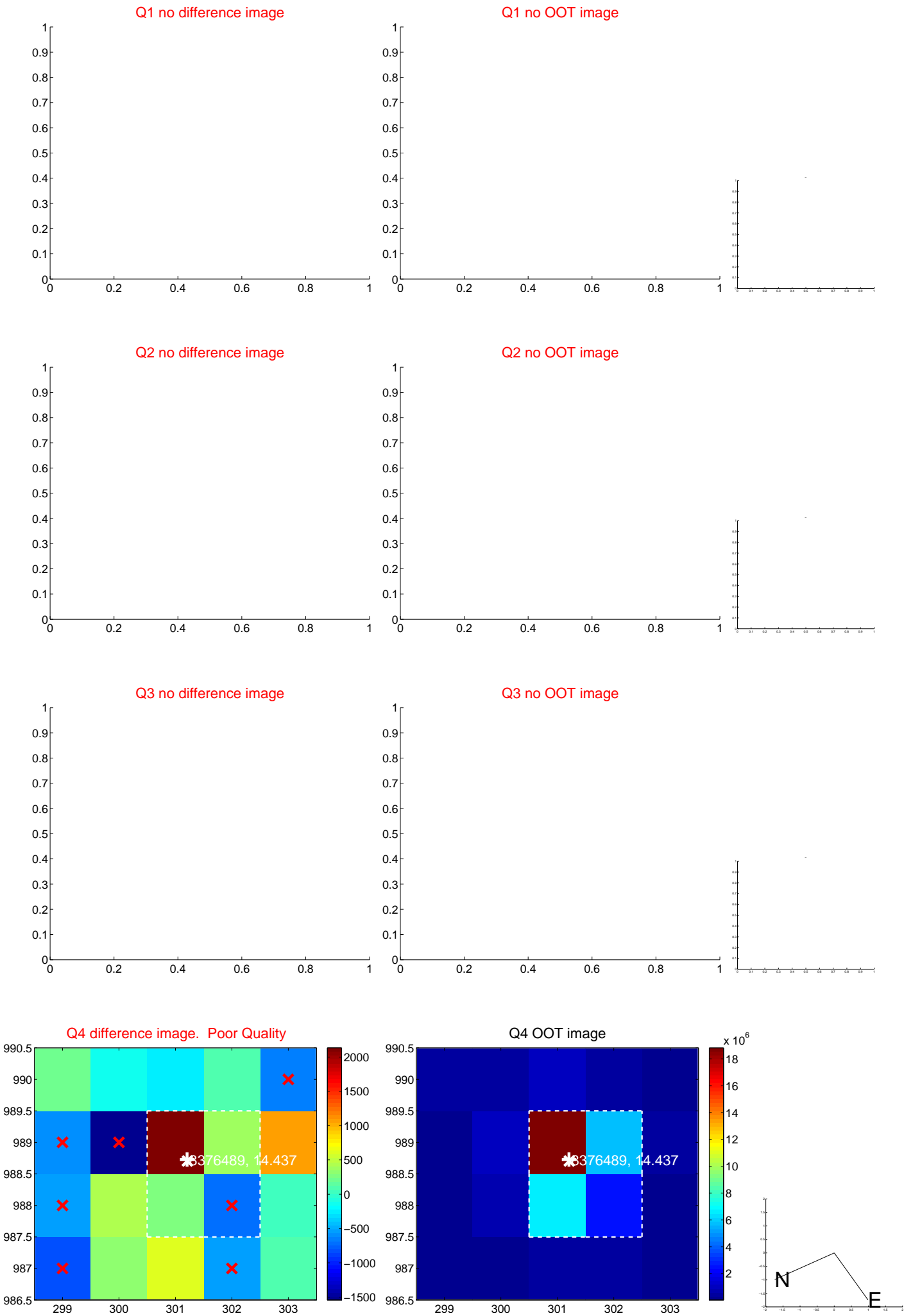
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.041 ± 2.364	0.44	1.035 ± 2.376	-0.110 ± 0.793
PRF-fit source offset from KIC position	0.916 ± 2.333	0.39	0.901 ± 2.368	-0.169 ± 0.823
photometric centroid source offset	1.76 ± 1.61	1.09	0.70 ± 1.56	-1.61 ± 1.62

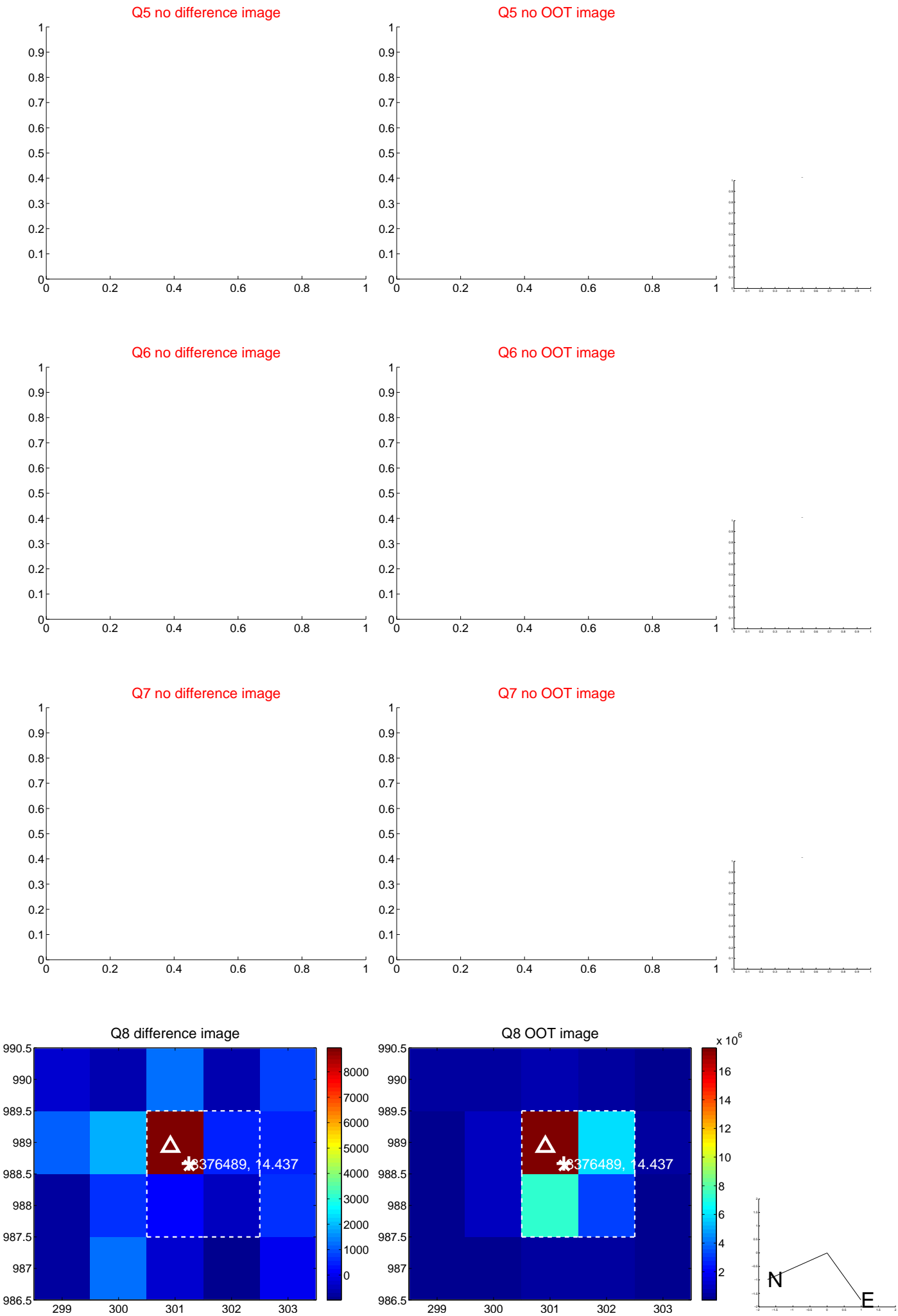


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



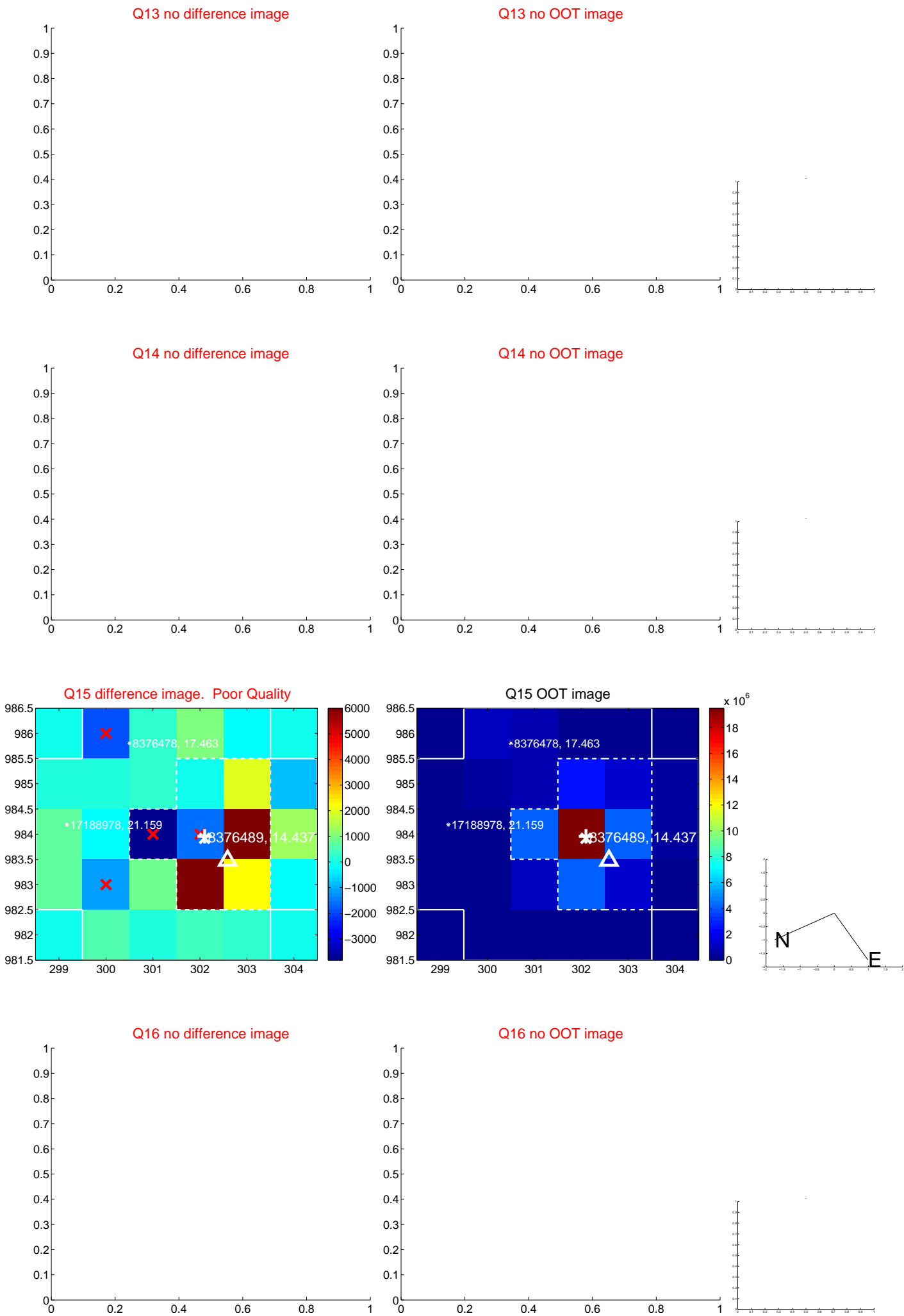
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



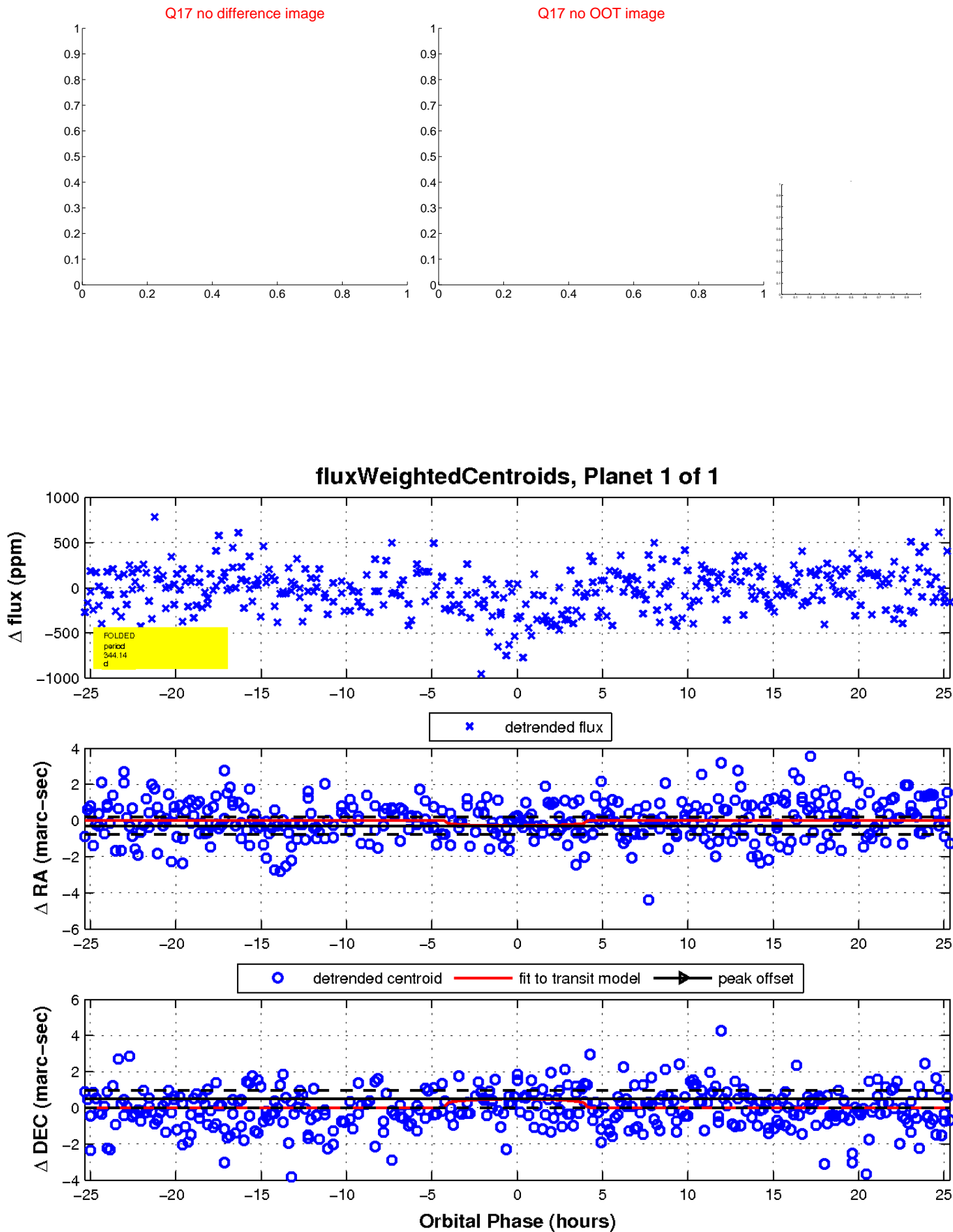
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

