

KIC 008935497

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})
008935497-01	OBS	No	401.507048	182.969506	1005.4	6.093	7.1	7.5	0.53	4363	1.78	0.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008935497-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

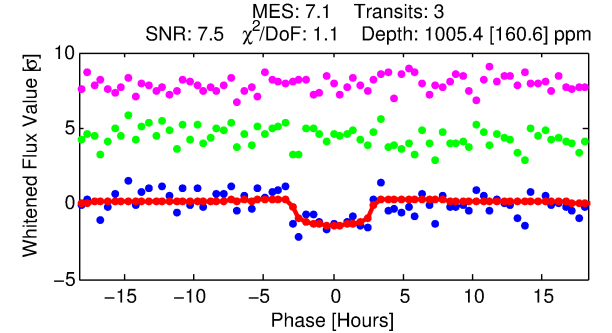
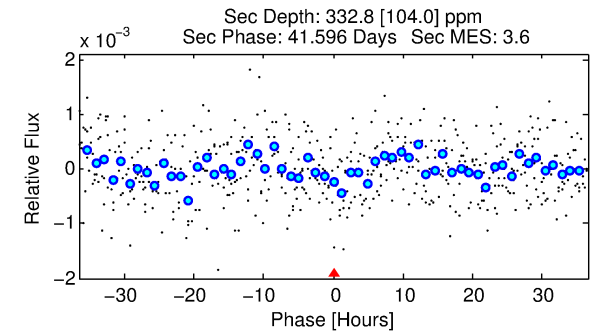
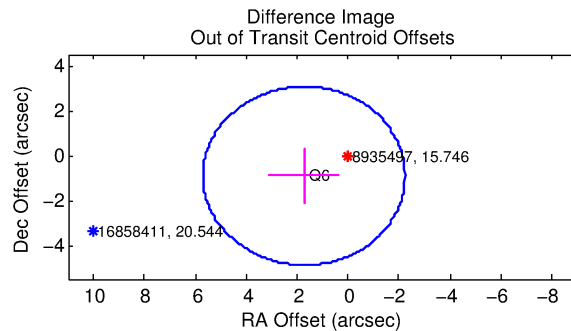
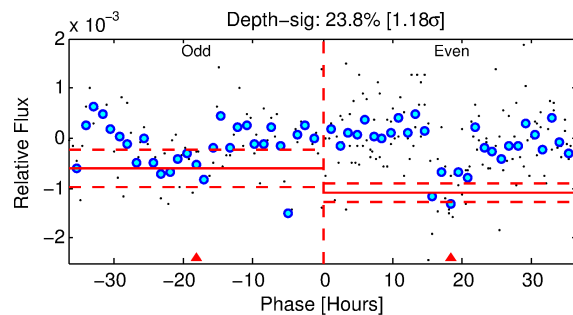
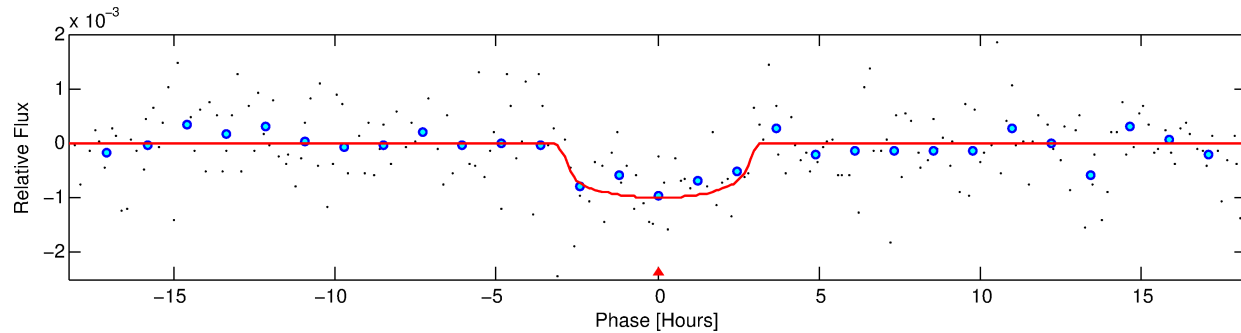
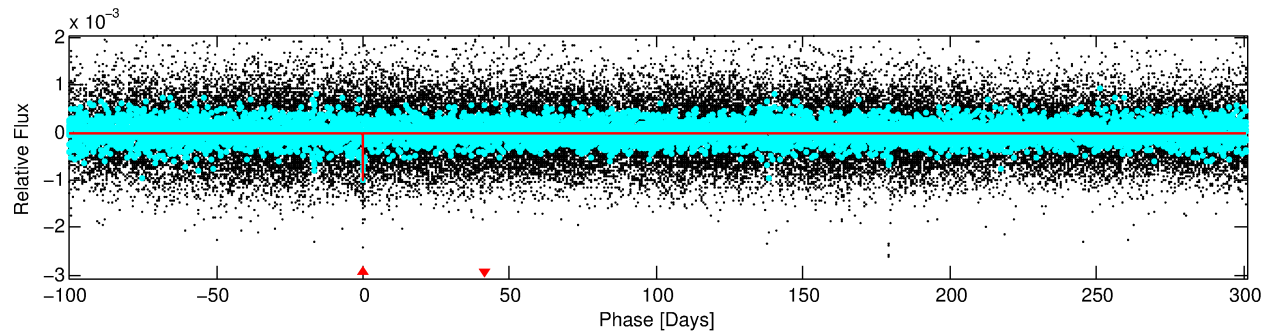
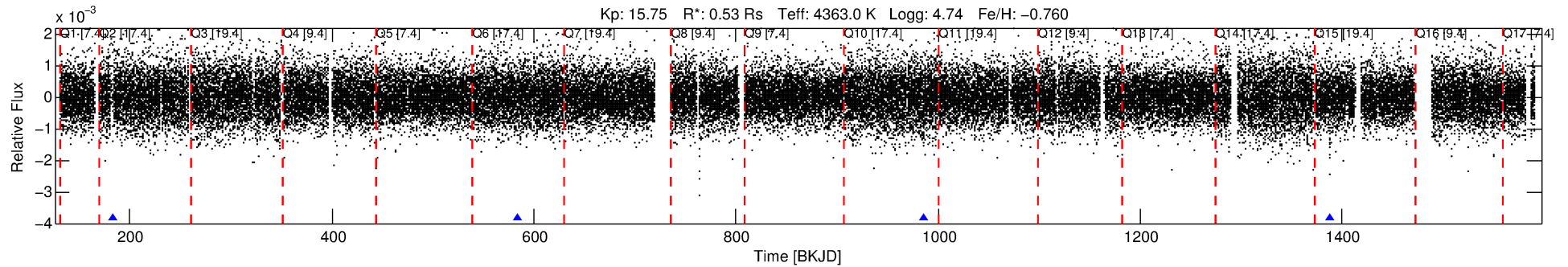
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008935497-01

No Significant Match Found

DV One-Page Summary

KIC: 8935497 Candidate: 1 of 1 Period: 401.507 d



DV Fit Results:

Period = 401.50705 [0.01027] d
Epoch = 182.9695 [0.0236] BKJD
Rp/R* = 0.0310 [0.0302]
a/R* = 384.05 [1431.26]
b = 0.69 [2.83]
Seff = 0.12 [0.02]
Teq = 149 [6] K
Rp = 1.78 [1.74] Re
a = 0.8760 [0.0667] AU
Ag = 44492.19 [87902.28] [0.51 σ]
Teffp = 3349 [1656] K [1.93 σ]

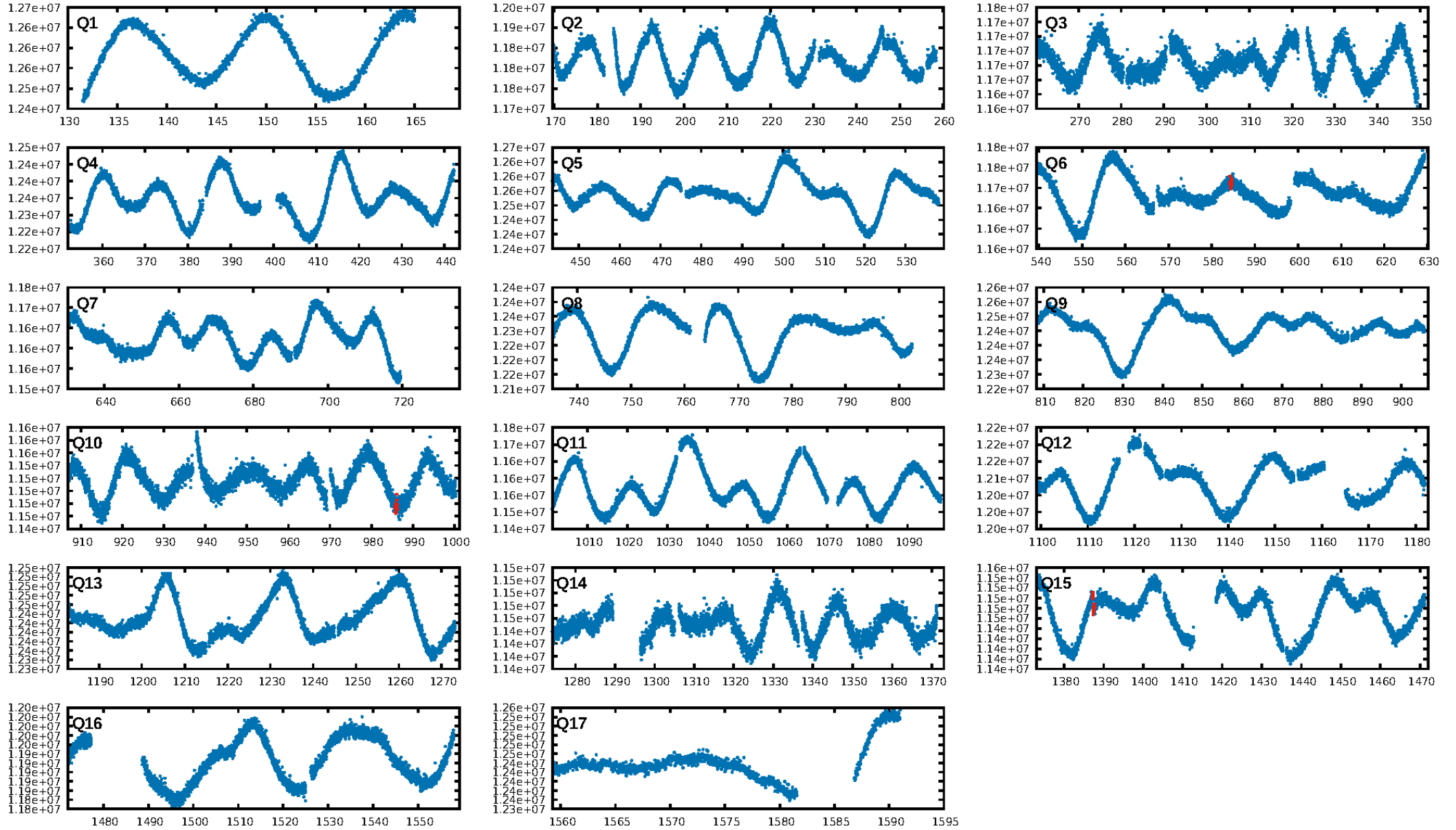
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.9%
ModelChiSquareGof-sig: 98.9%
Bootstrap-pfa: 7.56e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.0003524
Centroid-sig: 14.3%
Centroid-so: 2.133 arcsec [1.16 σ]
OotOffset-rm: 1.956 arcsec [1.48 σ]
KicOffset-rm: 2.226 arcsec [1.68 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [2/2]

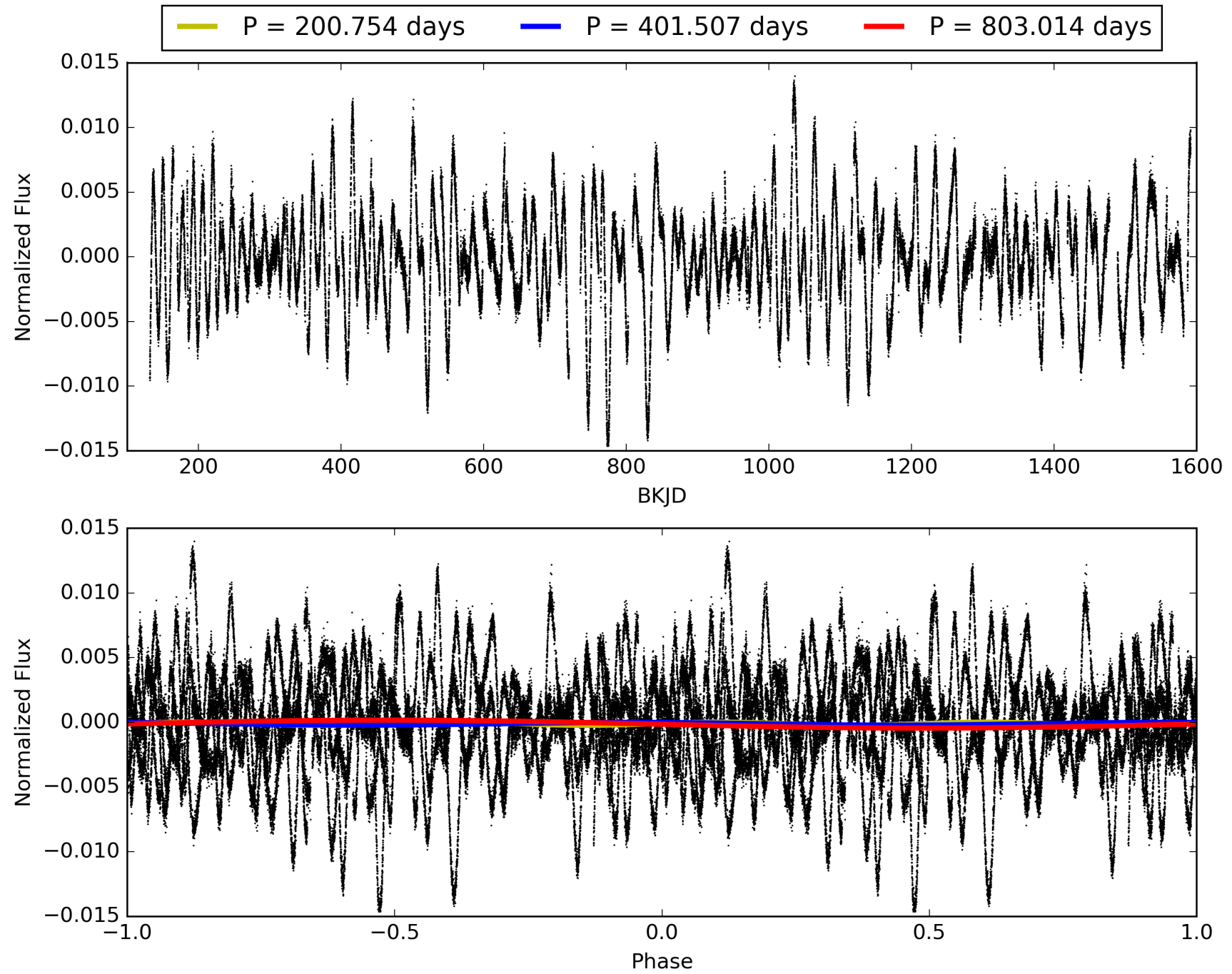
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:47:16 Z

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

TCE 008935497-01, PDC Light Curves

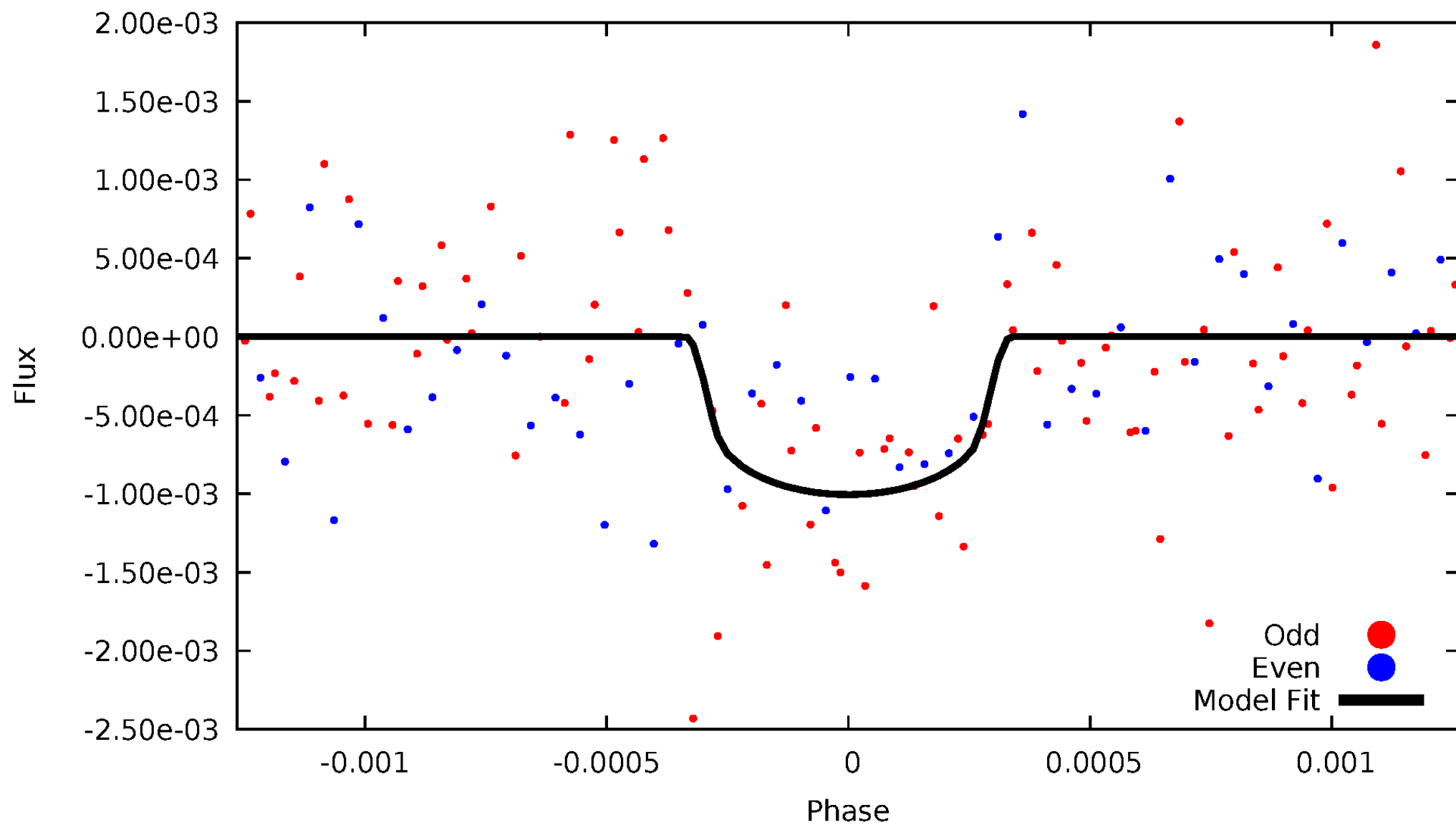


TCE 008935497-01



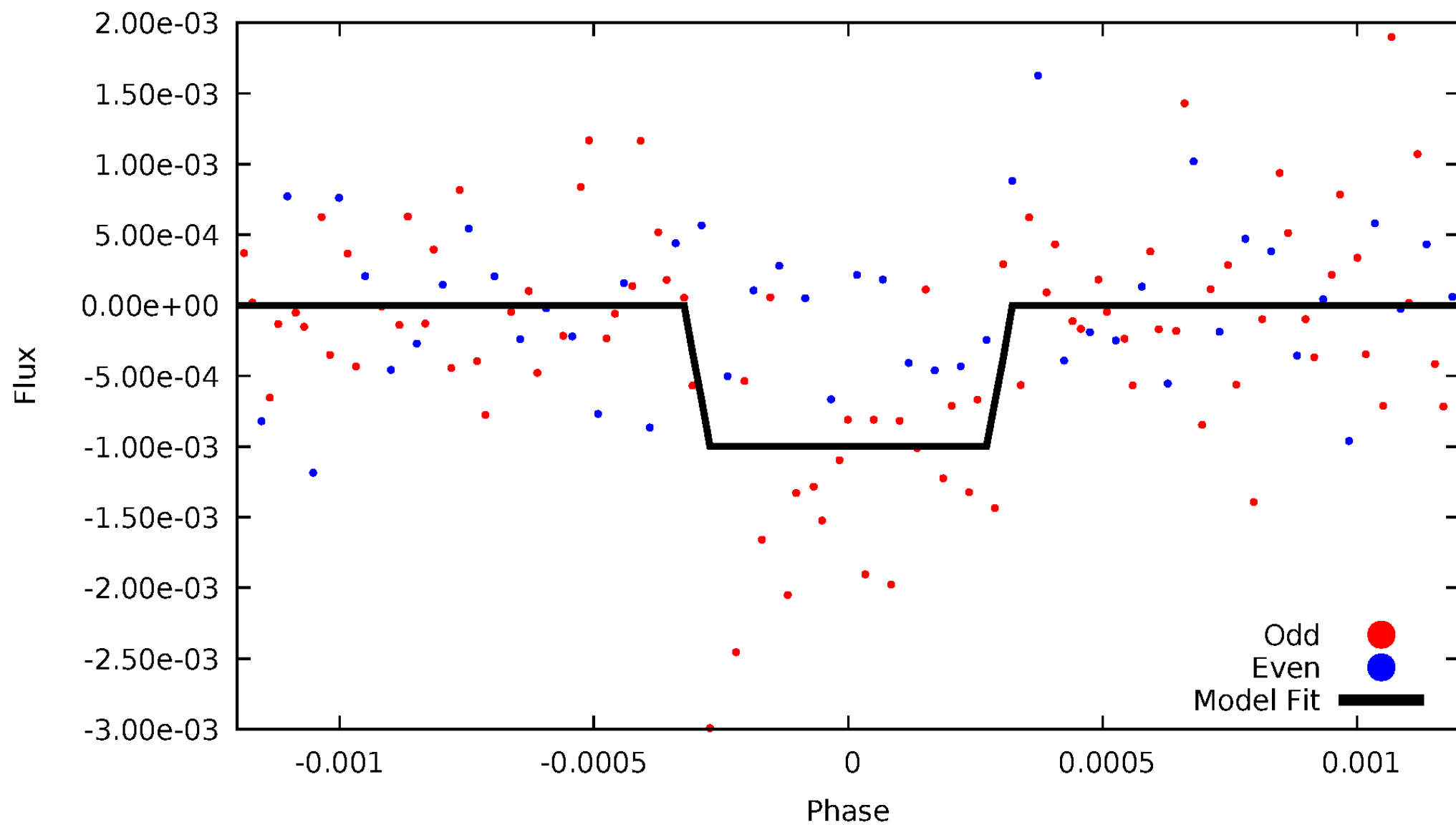
DV Odd/Even

TCE 008935497-01



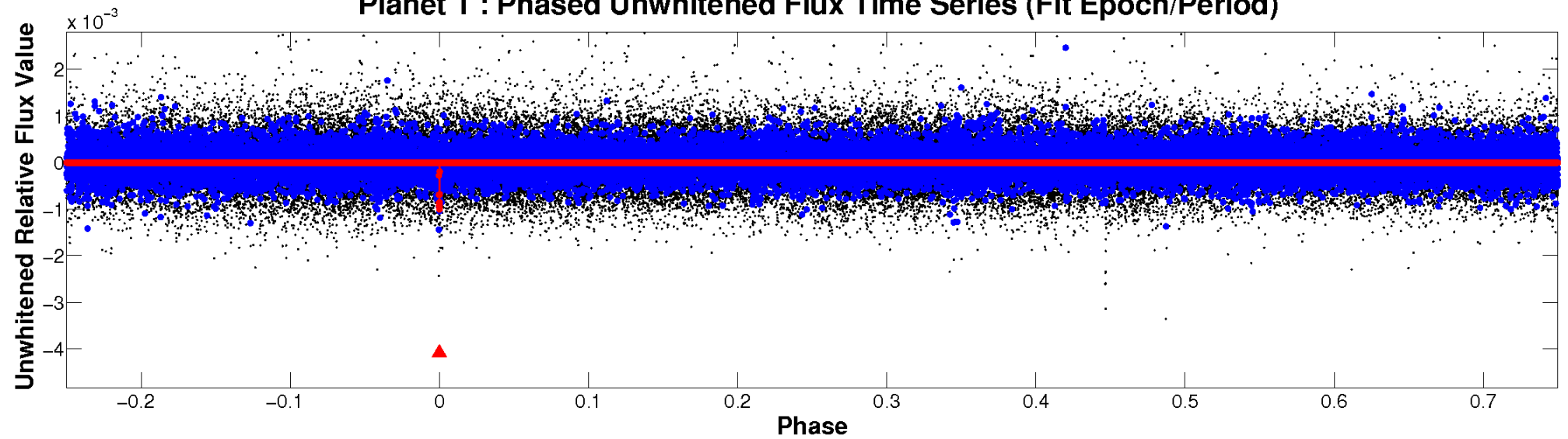
ALT Odd/Even

TCE 008935497-01

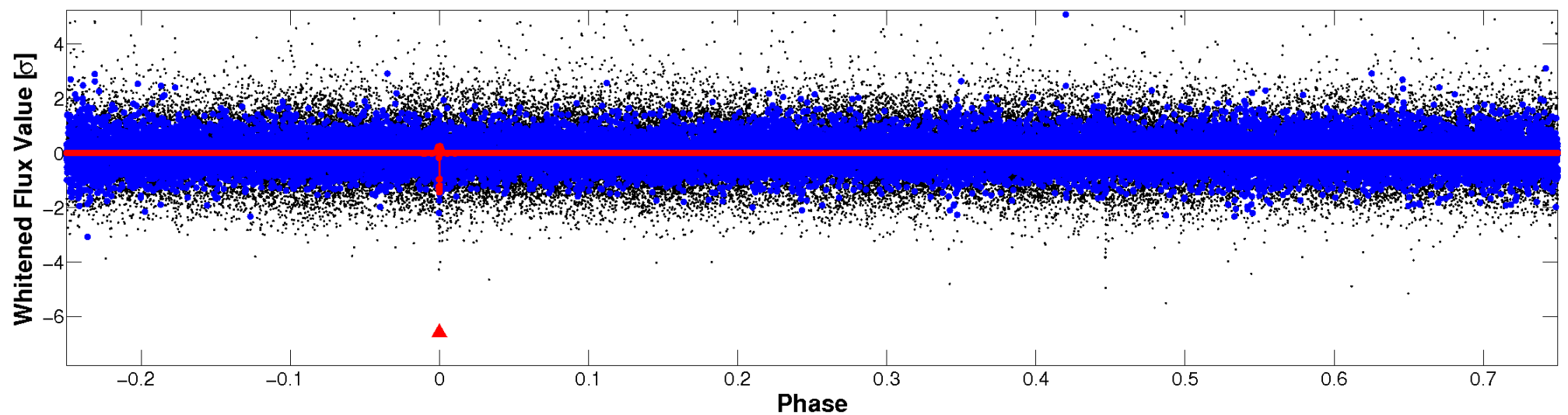


Non-Whitened Vs. Whitened Light Curve

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

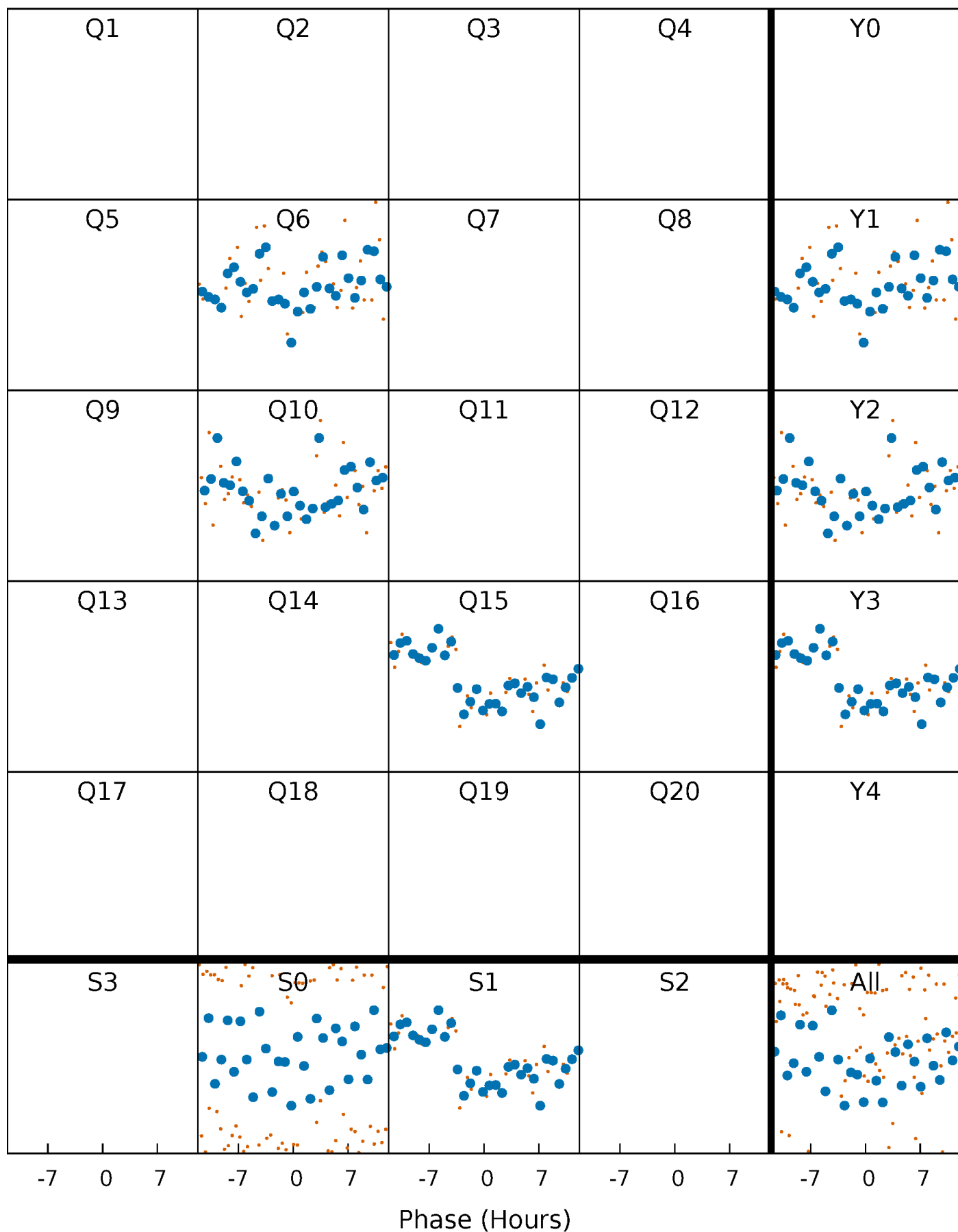


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008935497-01 P=401.507048 Days $T_0=182.969506$ (BKJD)



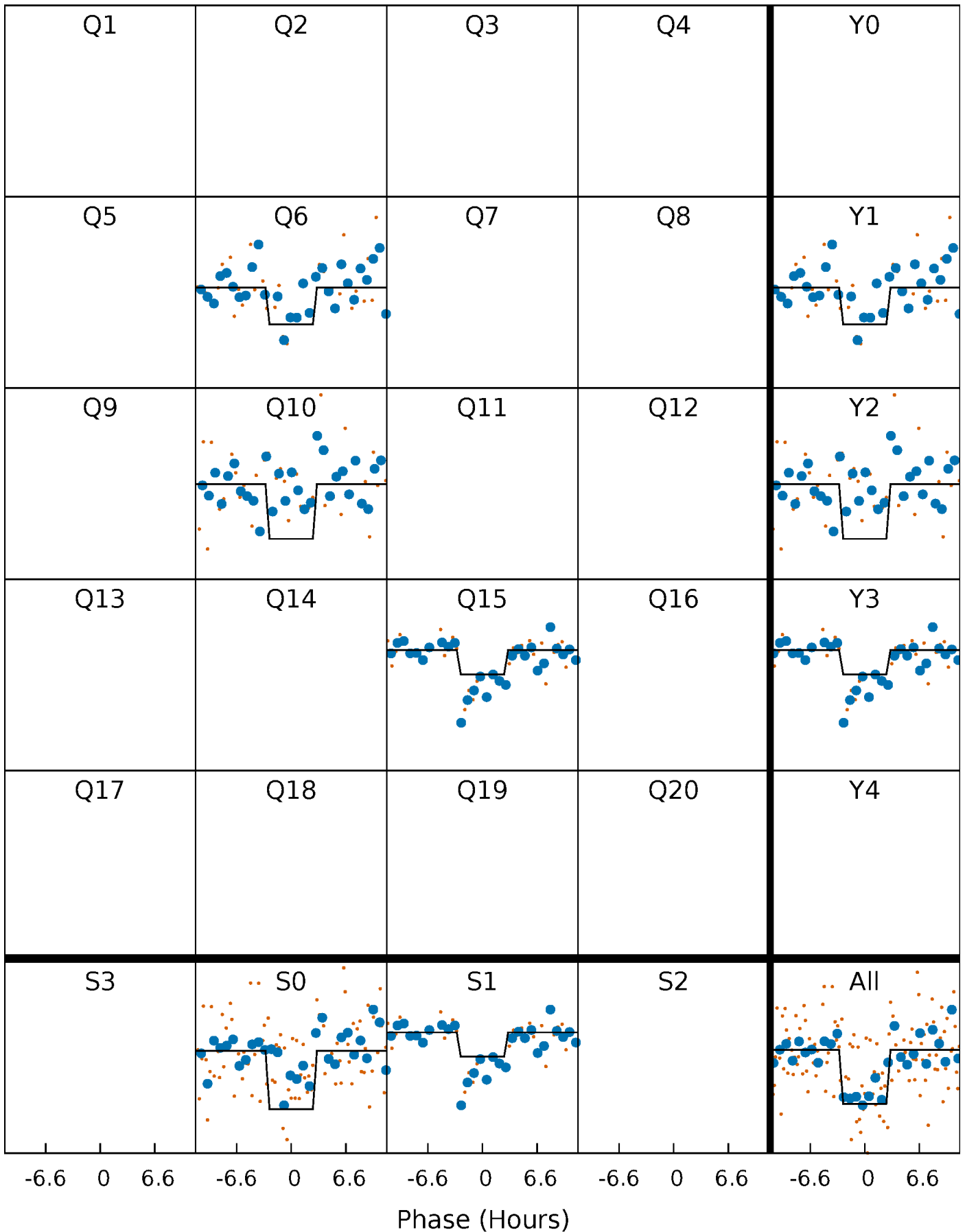
DV Quarter-Phased Transit Curves

TCE 008935497-01 P=401.507048 Days $T_0=182.969506$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

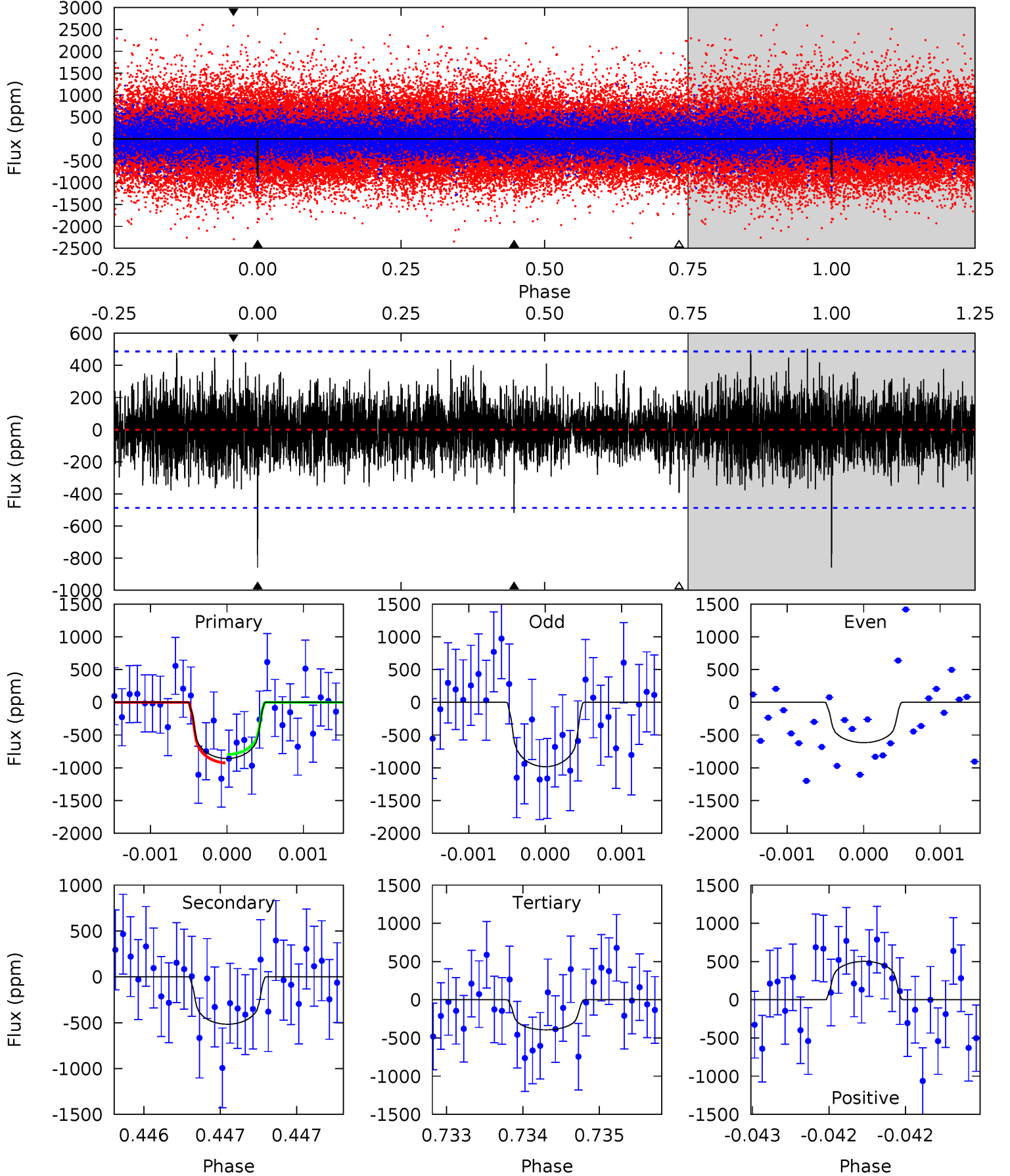
TCE 008935497-01 P=401.492209 Days $T_0=182.994121$ (BKJD)



DV Model-Shift Uniqueness Test

008935497-01, P = 401.507048 Days, E = 182.969506 Days

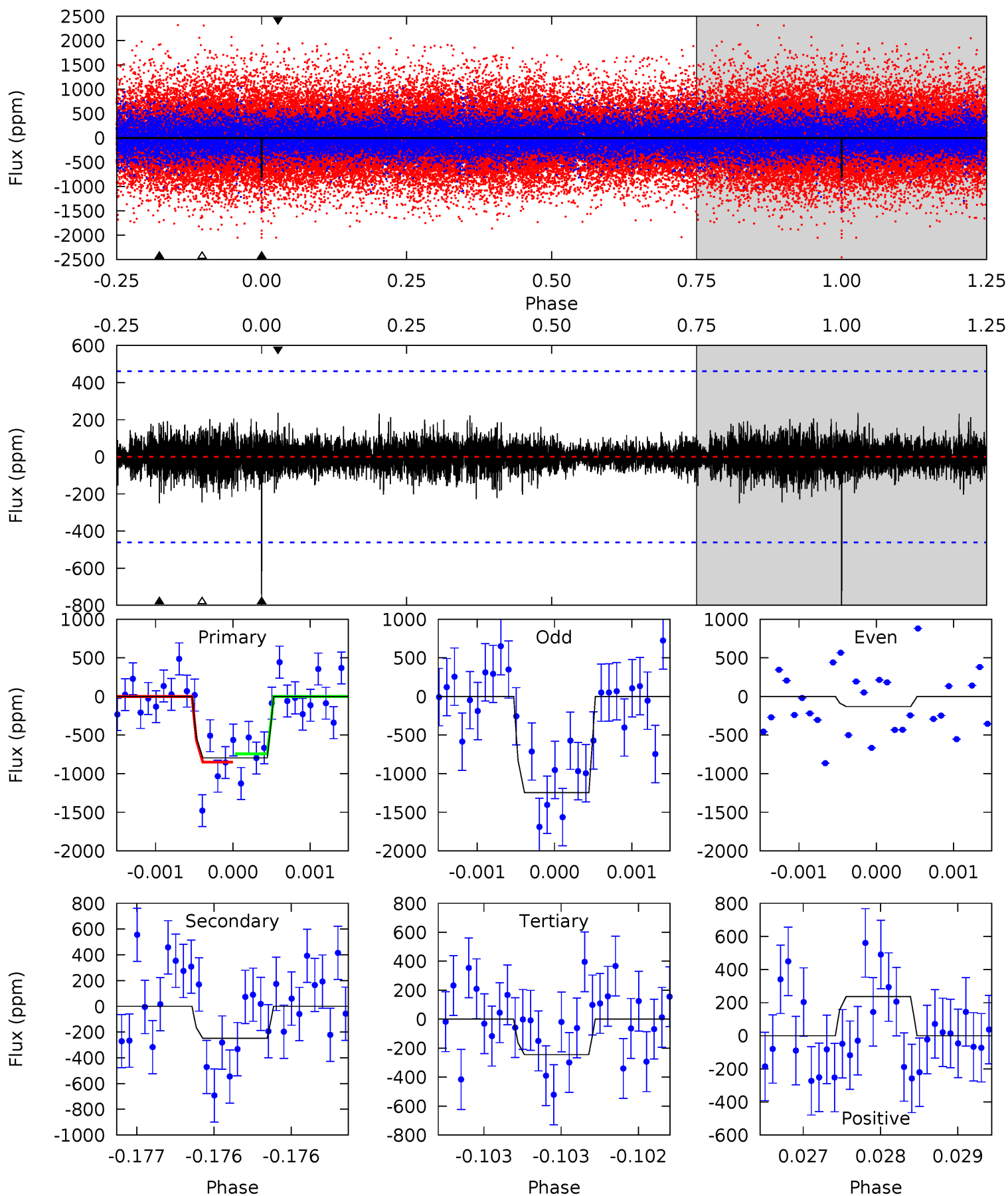
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.74	5.86	4.47	5.70	5.52	3.40	1.32	5.27	4.04	1.40	0.17	1.98	1.25	0.37	0.72



Alt Model-Shift Uniqueness Test

008935497-01, P = 401.492209 Days, E = 182.994121 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.55	2.99	2.94	2.84	5.54	3.43	0.63	6.61	6.71	0.05	0.15	6.51	1.23	0.23	0.64



Stellar Parameters For KIC 008935497

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4363^{+118}_{-144}	$4.741^{+0.040}_{-0.055}$	$-0.760^{+0.300}_{-0.300}$	$0.526^{+0.050}_{-0.040}$	$0.555^{+0.047}_{-0.042}$	$5.370^{+1.025}_{-1.031}$
	+3%/-3%	+1%/-1%	+39%/-39%	+10%/-8%	+8%/-8%	+19%/-19%
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 008935497-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-517 ± 88	$2.09^{+1.61}_{-1.29}$	209^{+7}_{-8}	3690^{+1723}_{-608}	$47436^{+307763}_{-31608}$
Alt.	-249 ± 83	$2.11^{+1.48}_{-1.22}$	209^{+8}_{-8}	3265^{+1170}_{-499}	$22452^{+113641}_{-15262}$

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

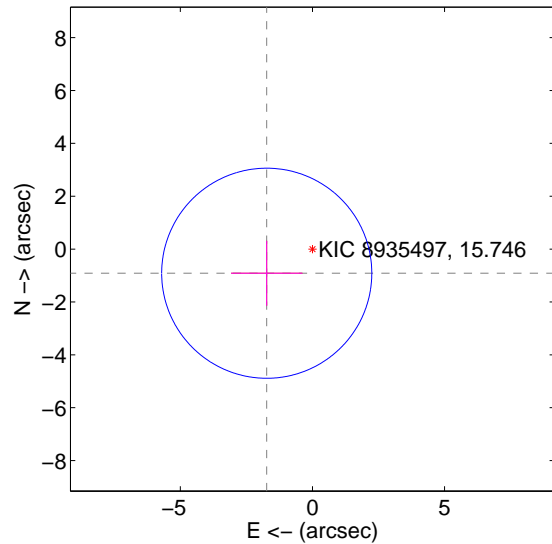
Supplemental centroid analysis for 008935497-01. Kepler magnitude: 15.75. Transit SNR 7.50

There are 0 quarters with good PRF difference image offsets

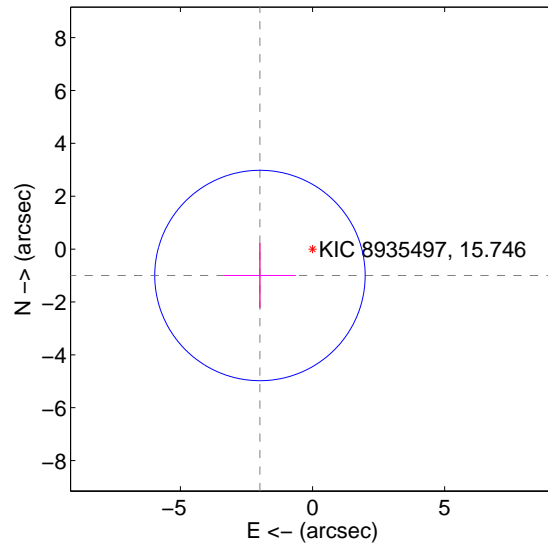
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.956 ± 1.325	1.48	1.729 ± 1.350	-0.913 ± 1.228
PRF-fit source offset from KIC position	2.226 ± 1.327	1.68	1.989 ± 1.350	-0.999 ± 1.228
photometric centroid source offset	2.13 ± 1.83	1.16	0.80 ± 1.83	1.98 ± 1.83

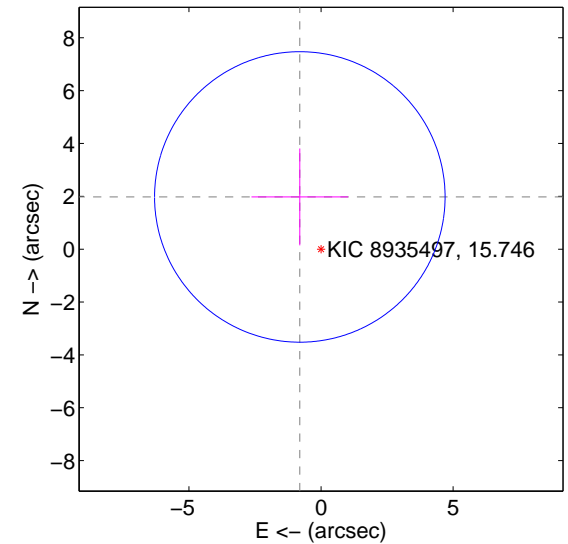
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

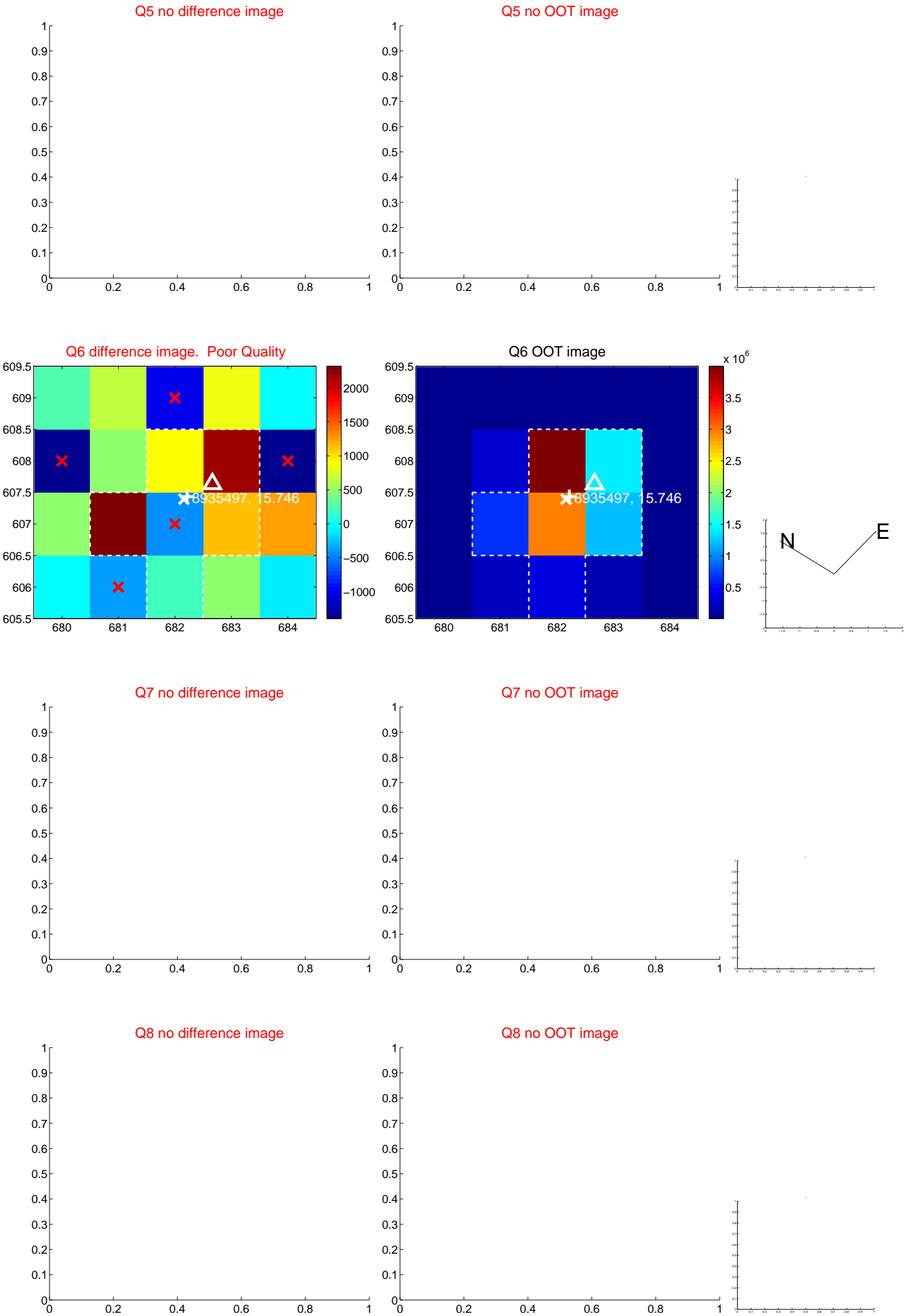


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

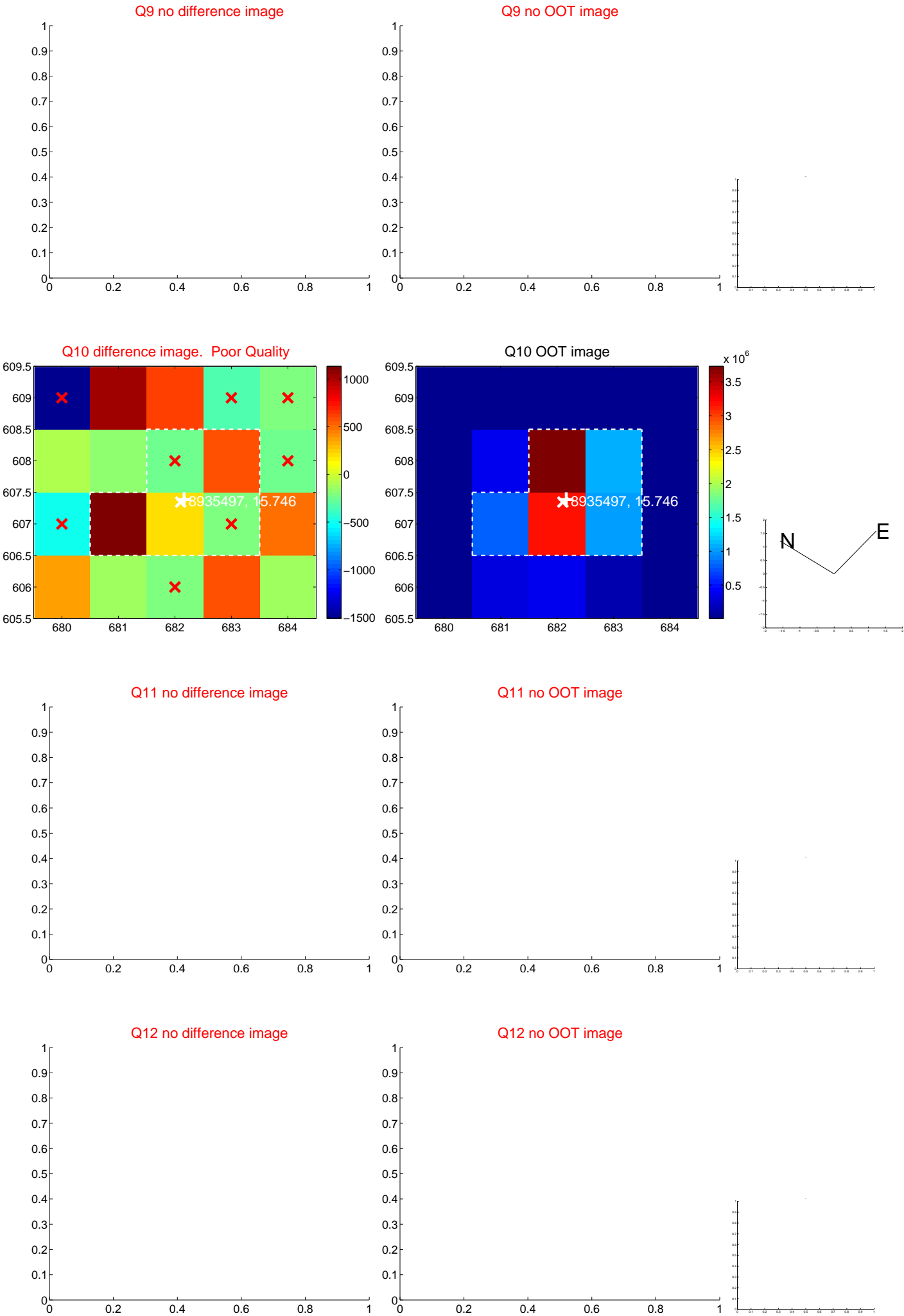
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



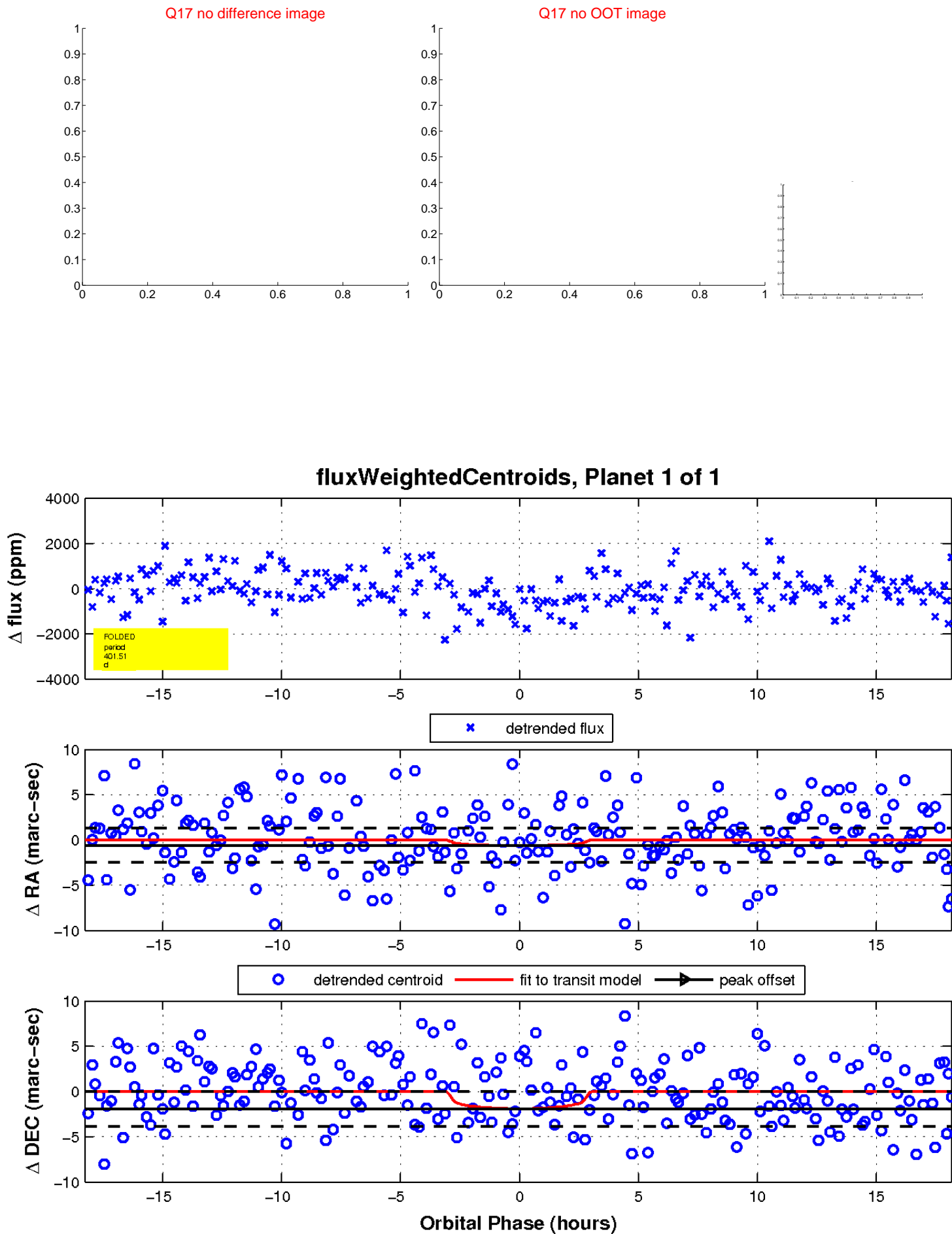
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

