

KIC 009992623

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})
009992623-01	OBS	No	444.191199	533.067645	133.6	8.259	7.1	5.2	2.71	6136	3.65	5.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009992623-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—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.

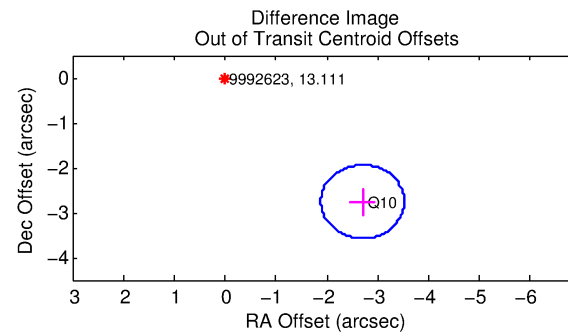
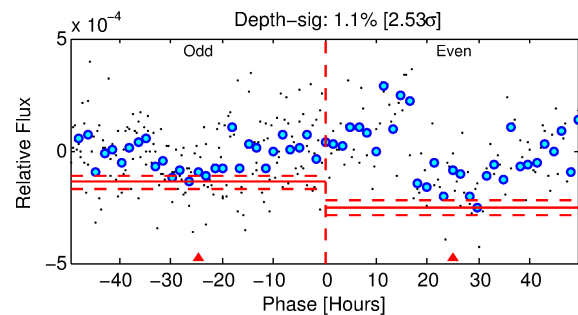
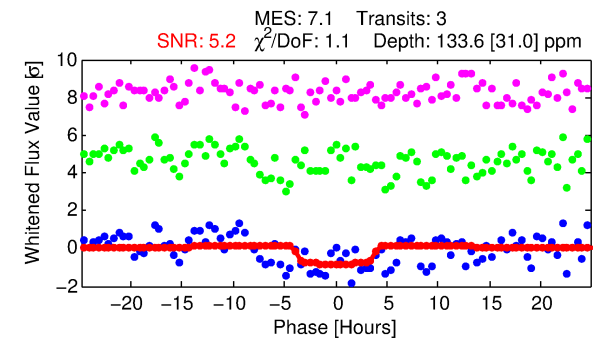
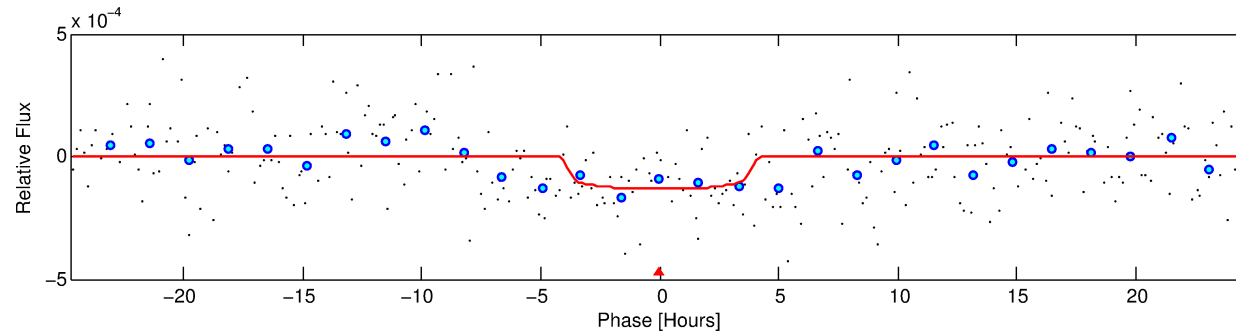
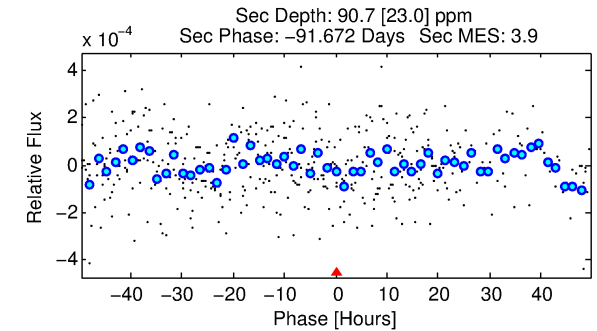
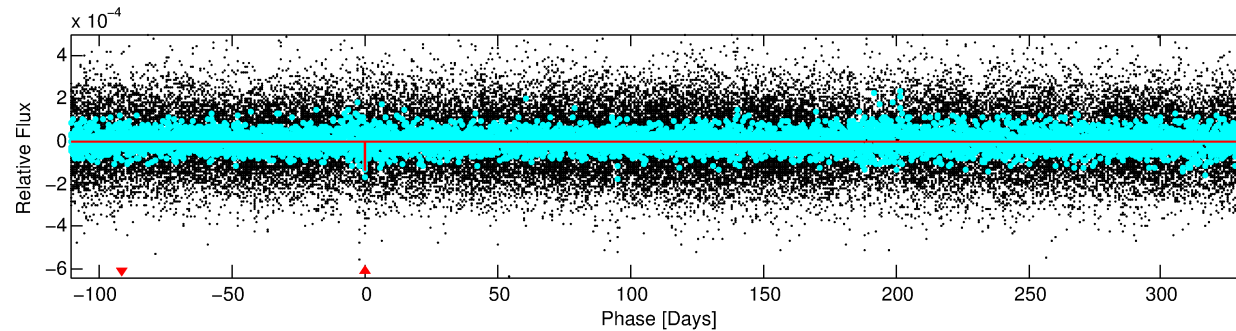
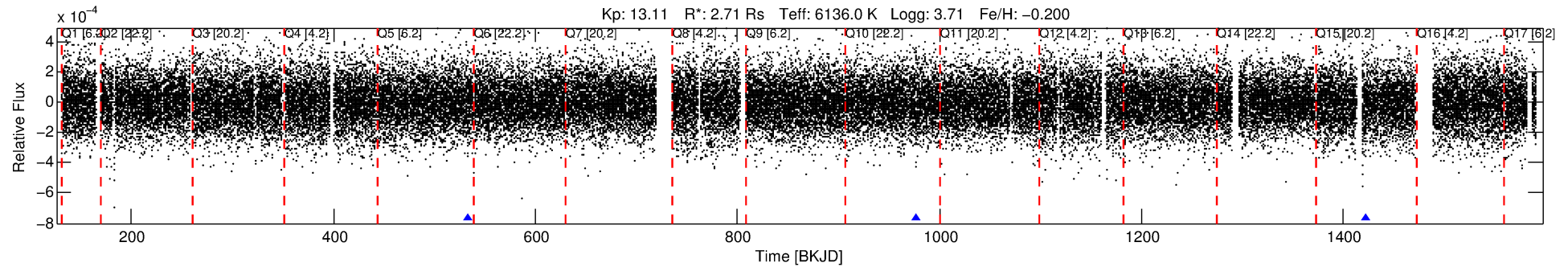
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009992623-01

No Significant Match Found

DV One-Page Summary

KIC: 9992623 Candidate: 1 of 1 Period: 444.191 d



DV Fit Results:

Period = 444.19120 [0.02040] d
Epoch = 533.0676 [0.0252] BKJD
Rp/R* = 0.0123 [0.0067]
a/R* = 197.65 [563.47]
b = 0.89 [0.67]
Seff = 5.80 [3.27]
Teq = 396 [56] K
Rp = 3.65 [2.48] Re
a = 1.2691 [0.4616] AU
Ag = 6031.40 [7527.78] [0.80 σ]
Teff = 5391 [1514] K [3.30 σ]

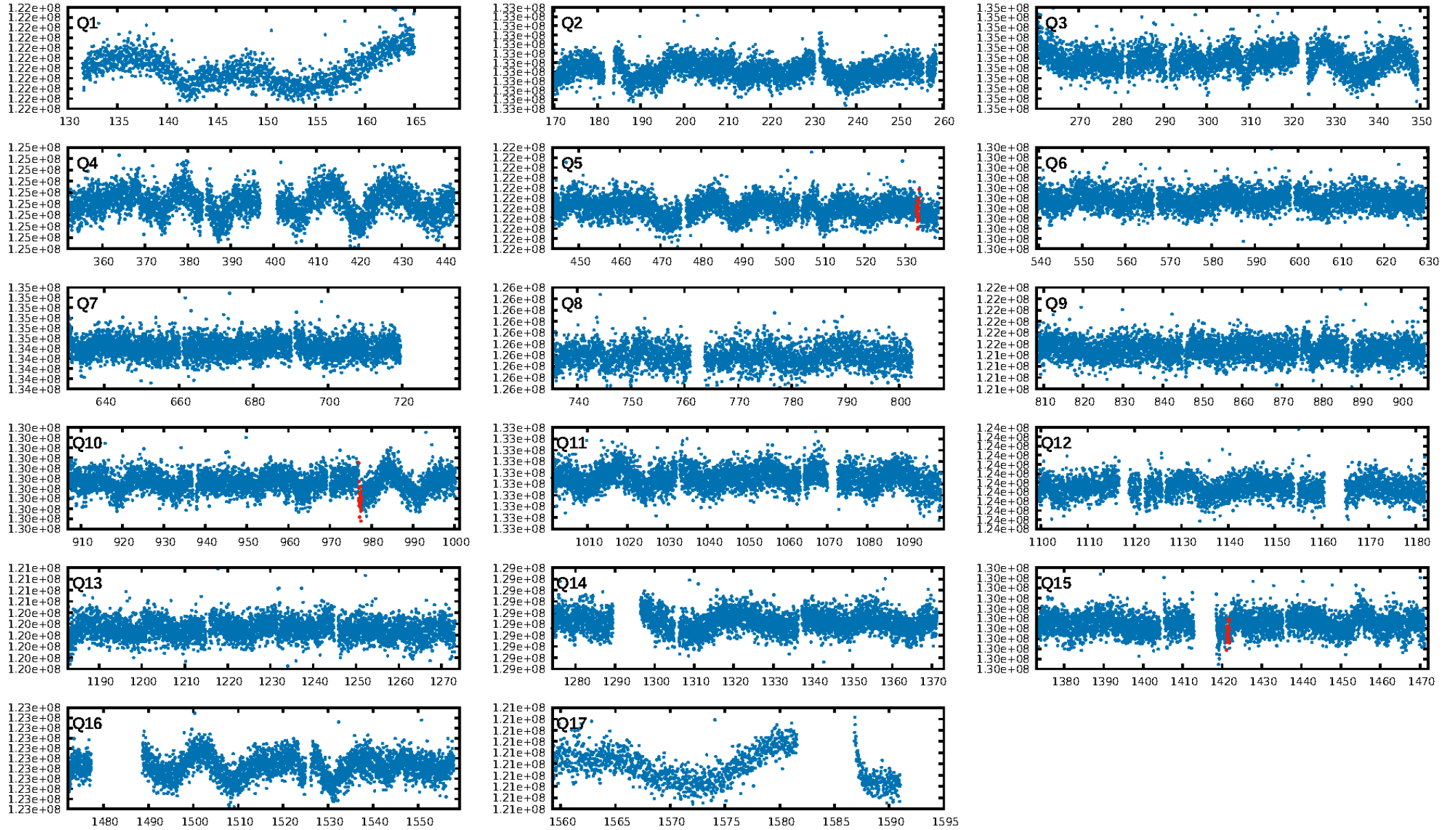
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 37.7%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 9.58e-08
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 29.1
Centroid-sig: 56.7%
Centroid-so: 2.242 arcsec [0.72 σ]
OotOffset-rm: 3.861 arcsec [14.14 σ]
KicOffset-rm: 4.338 arcsec [15.74 σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

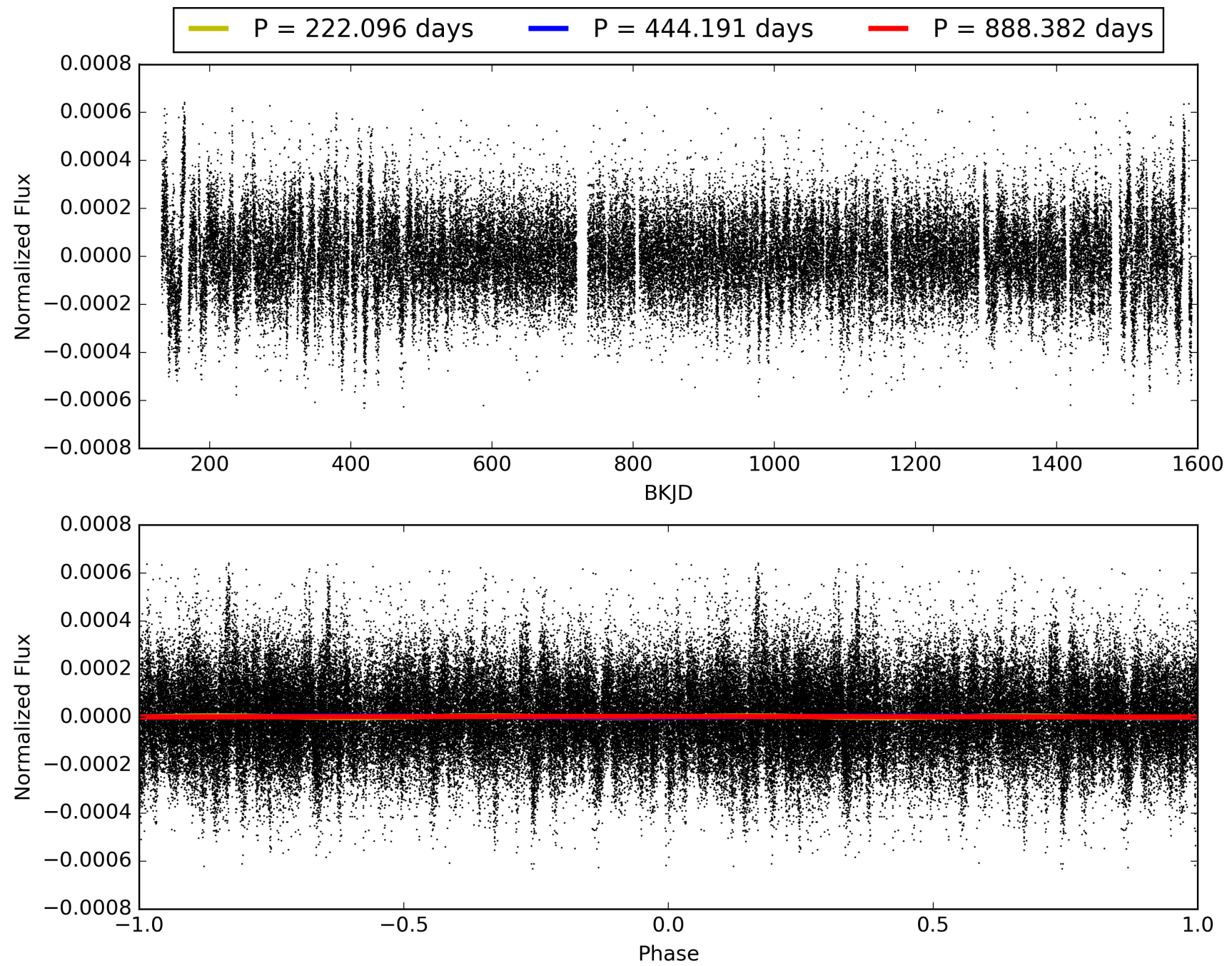
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:45:22 Z

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

TCE 009992623-01, PDC Light Curves

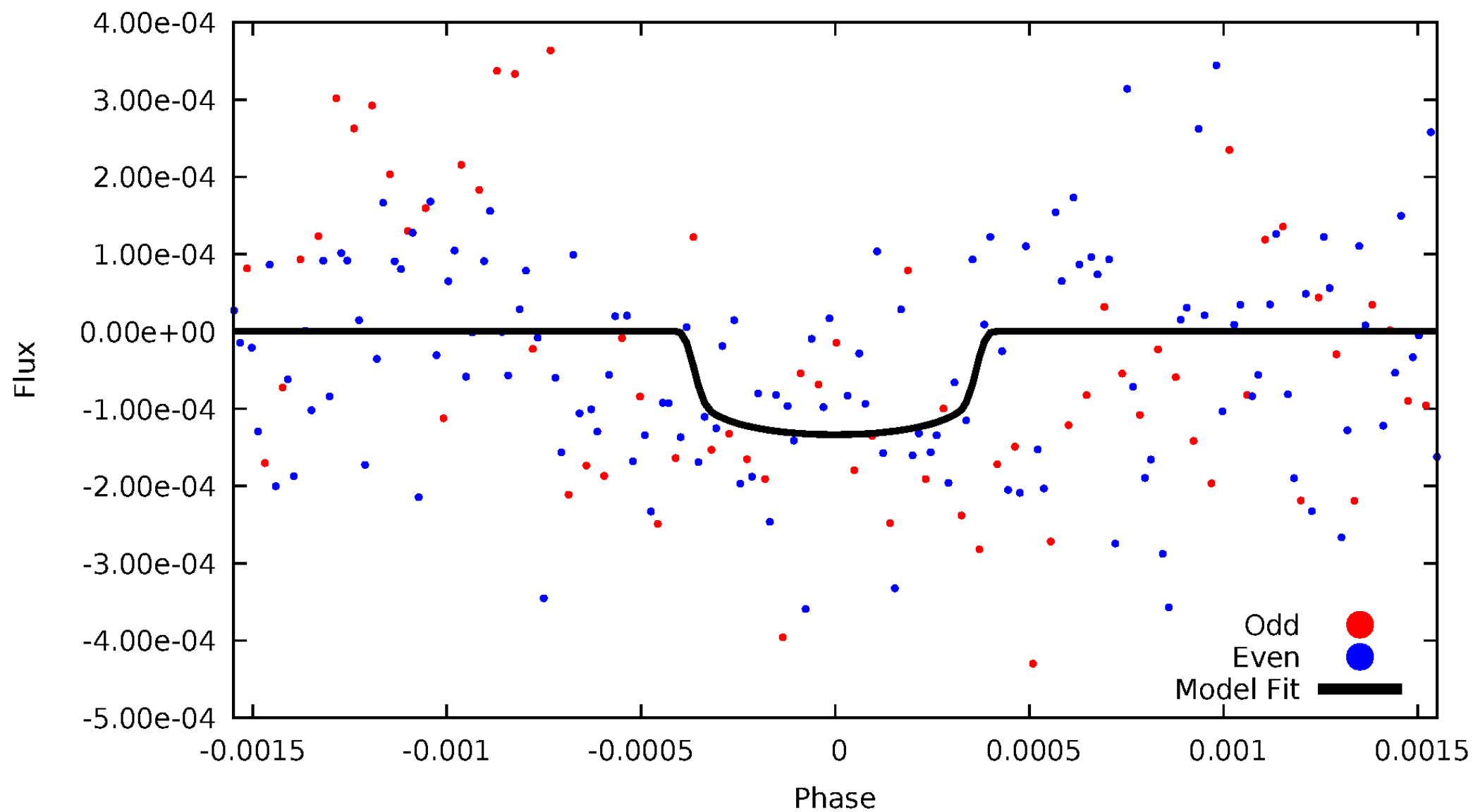


TCE 009992623-01



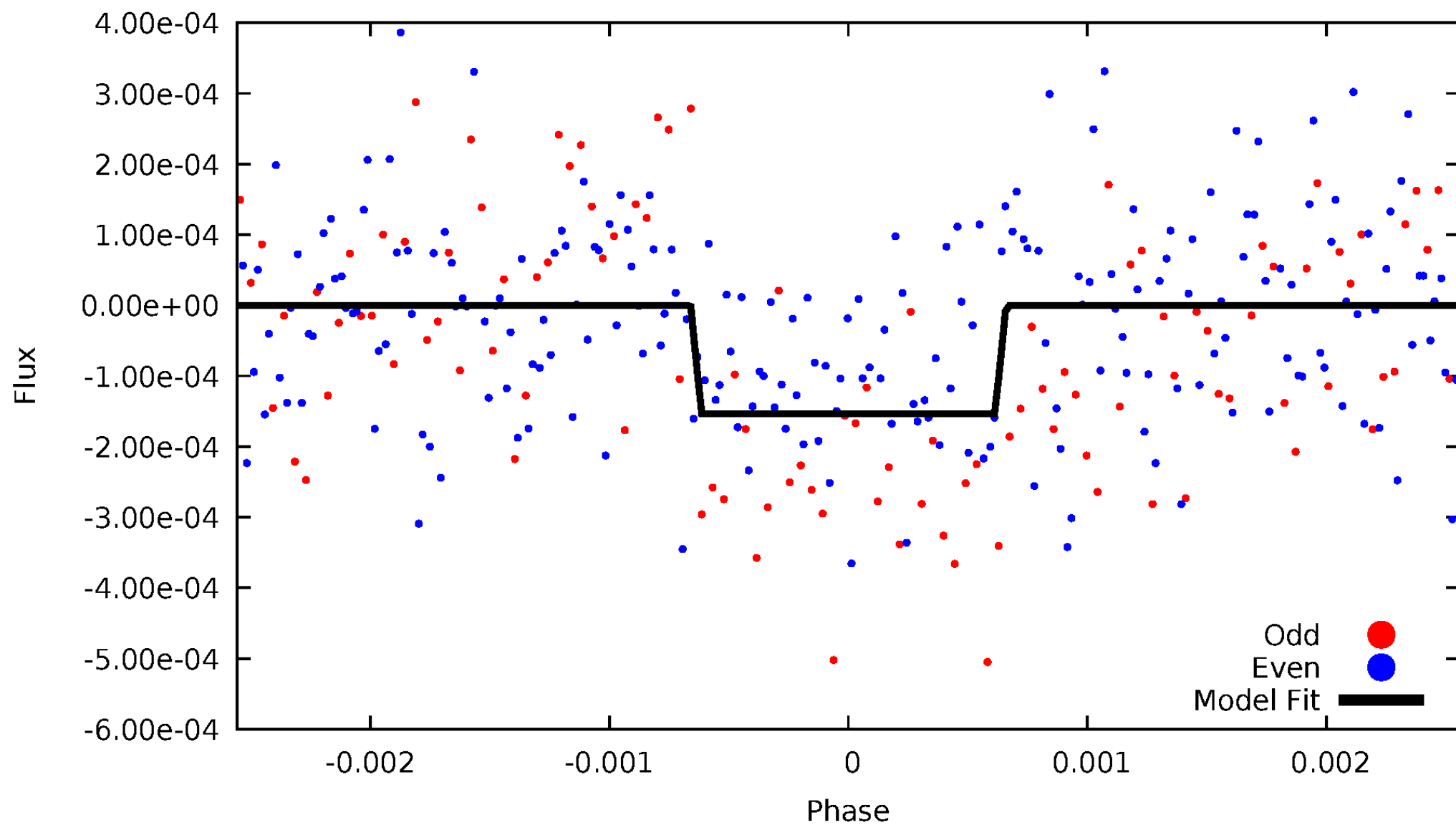
DV Odd/Even

TCE 009992623-01

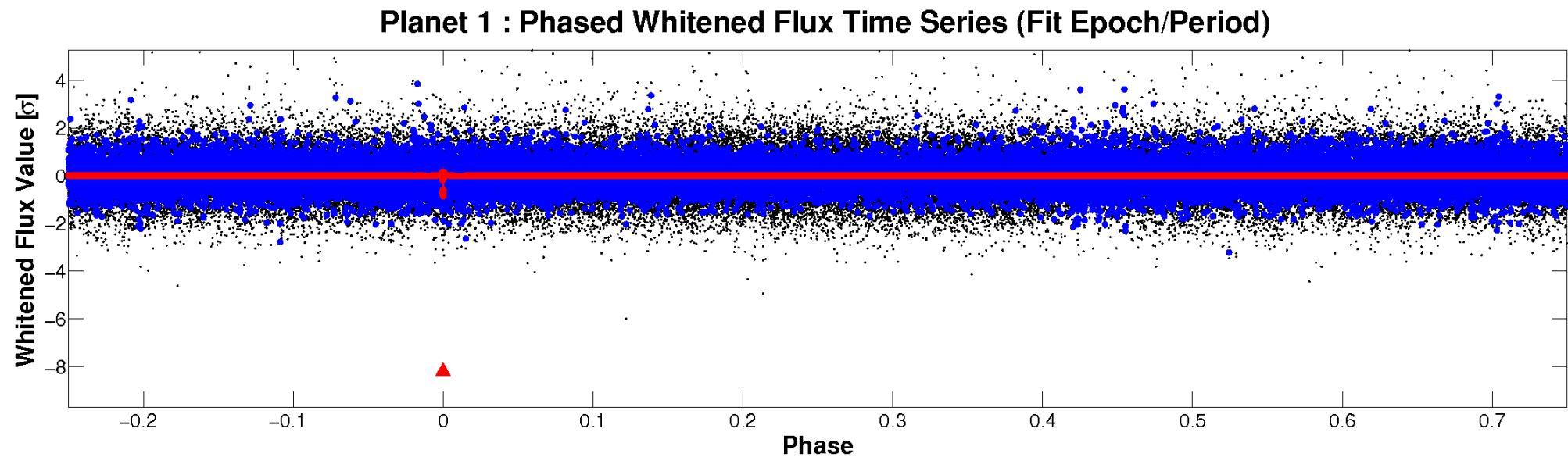
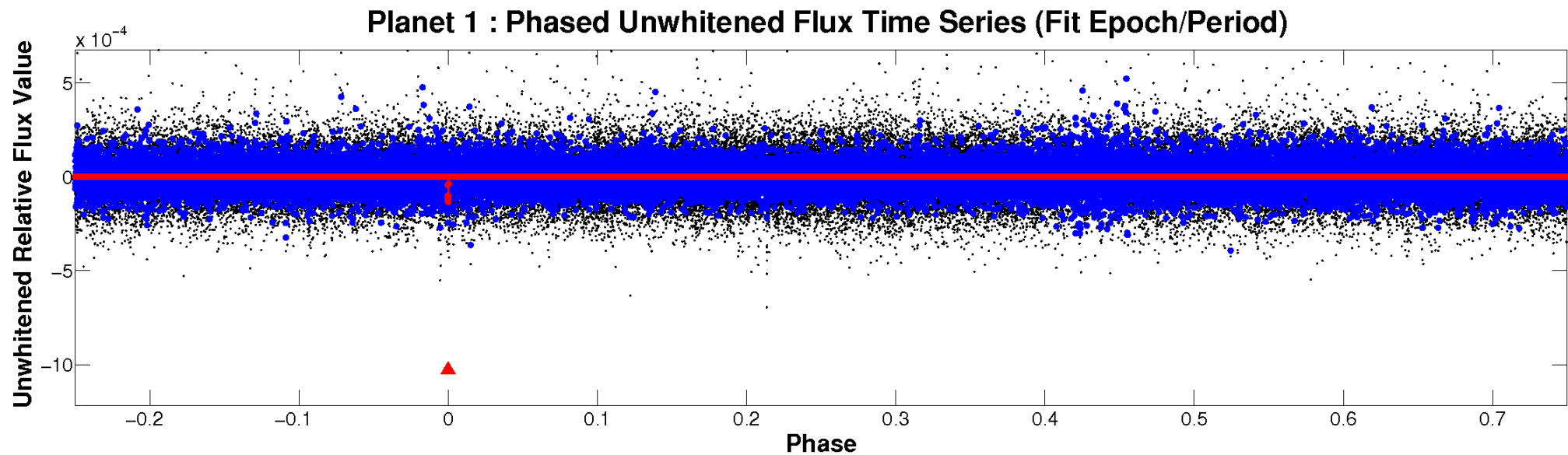


ALT Odd/Even

TCE 009992623-01

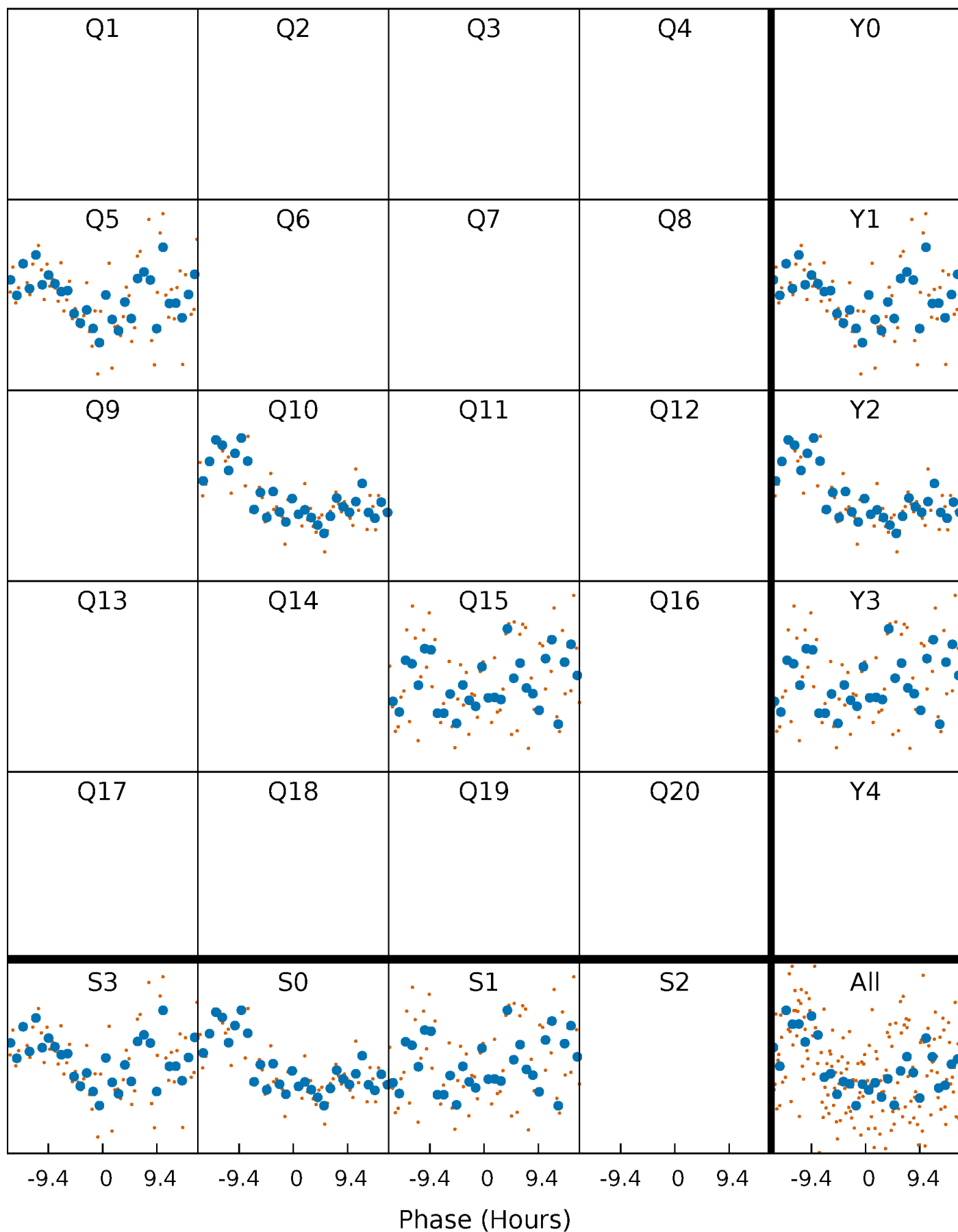


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 009992623-01 P=444.191199 Days $T_0=533.067645$ (BKJD)



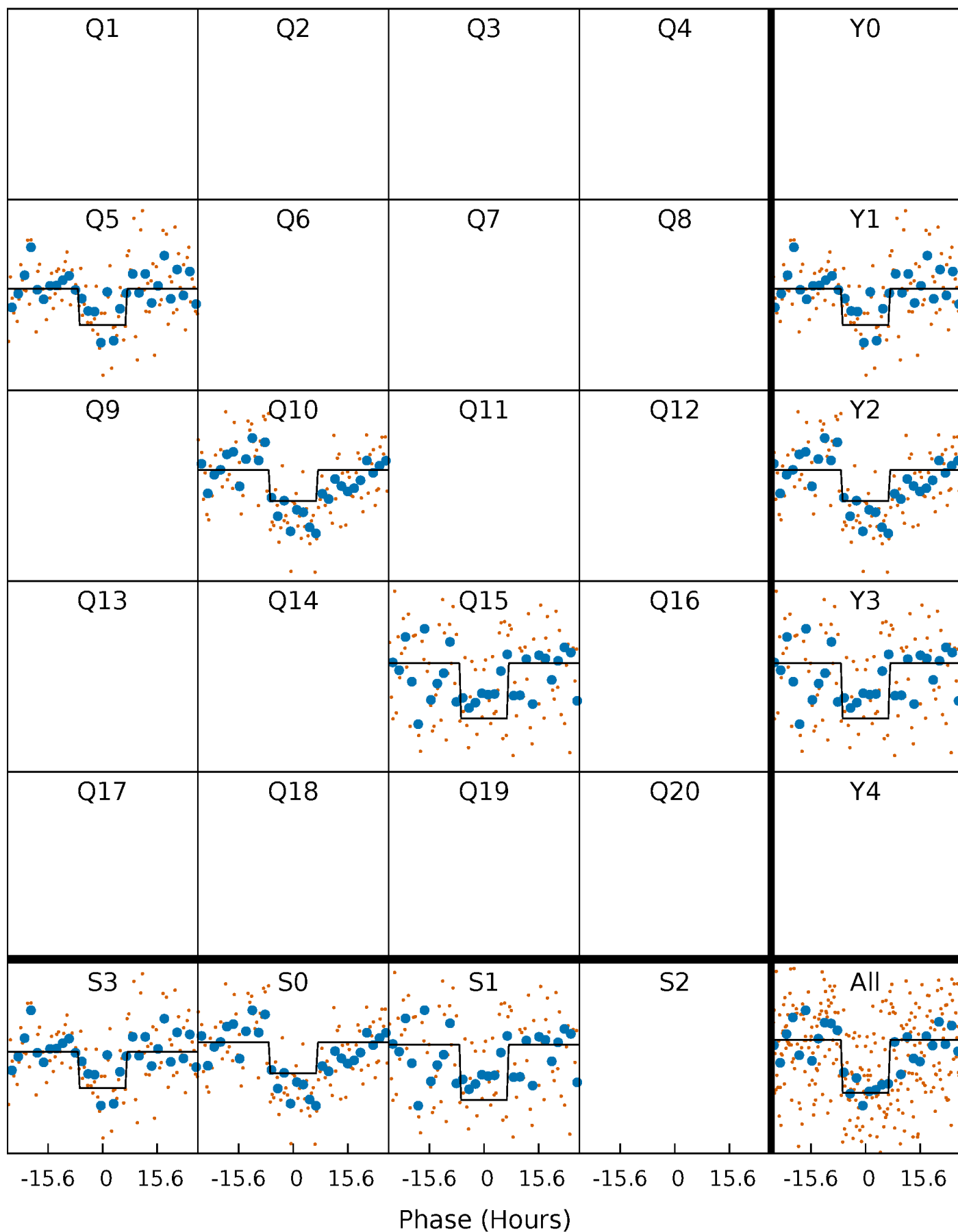
DV Quarter-Phased Transit Curves

TCE 009992623-01 P=444.191199 Days $T_0=533.067645$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

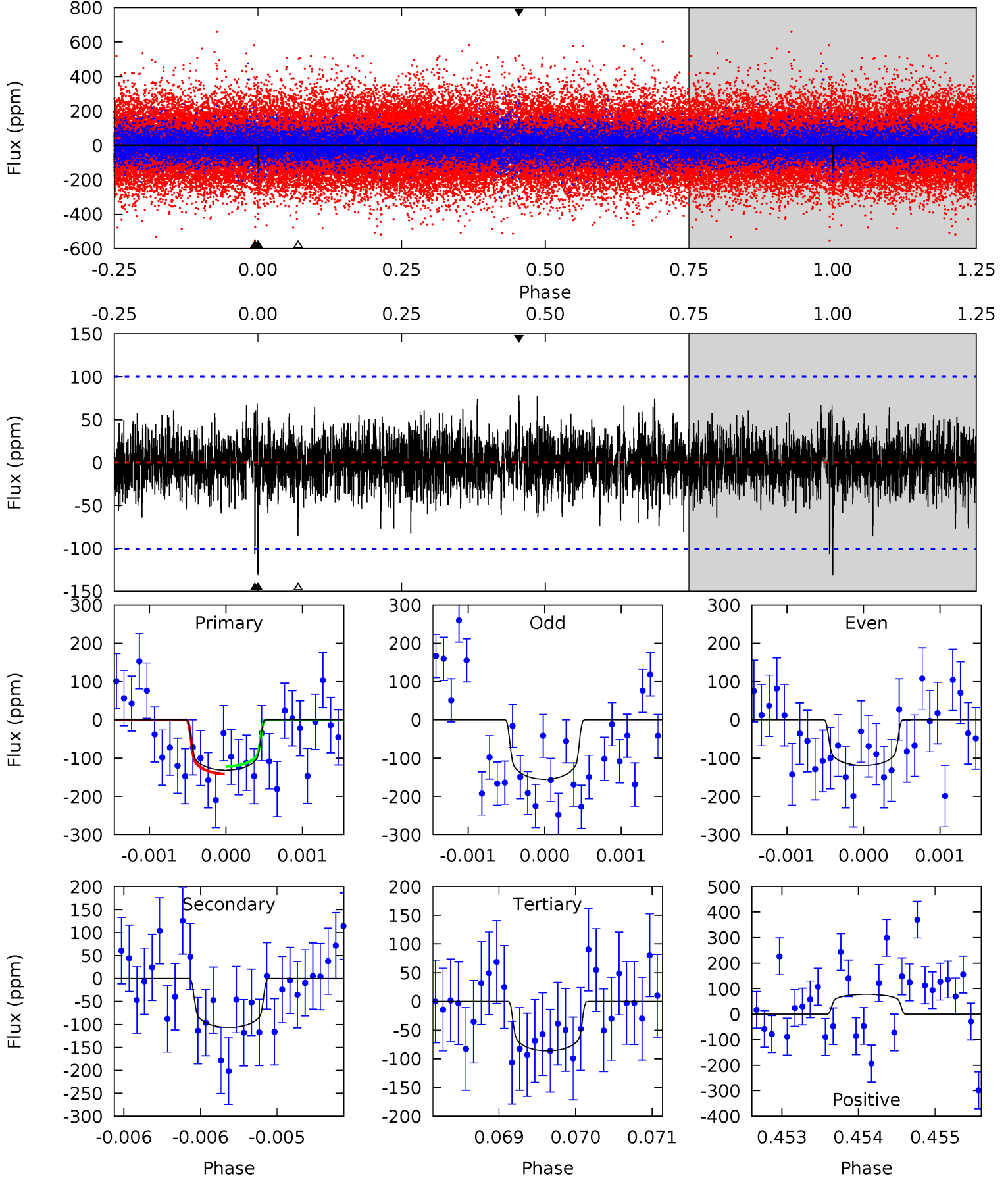
TCE 009992623-01 P=444.198350 Days $T_0=533.027731$ (BKJD)



DV Model-Shift Uniqueness Test

009992623-01, P = 444.191199 Days, E = 88.876446 Days

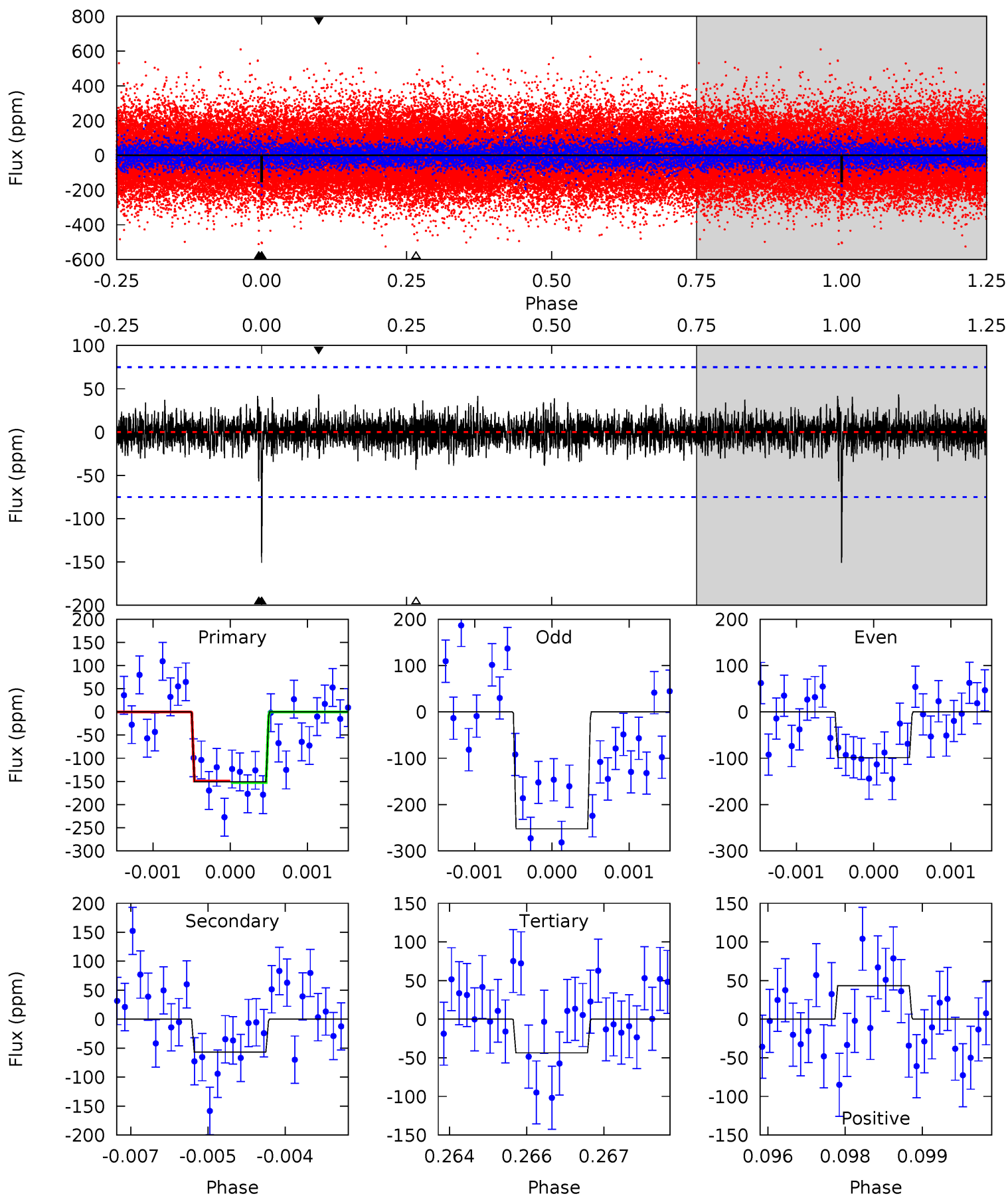
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.19	5.83	4.71	4.27	5.49	3.35	1.16	2.48	2.93	1.12	1.56	0.94	0.85	0.37	0.53



Alt Model-Shift Uniqueness Test

009992623-01, $P = 444.198350$ Days, $E = 88.829381$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	4.09	3.14	3.13	5.40	3.21	0.79	7.71	7.72	0.96	0.97	5.21	1.27	0.22	0.11



Stellar Parameters For KIC 009992623

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6136^{+164}_{-164}	$3.712^{+0.315}_{-0.084}$	$-0.200^{+0.350}_{-0.300}$	$2.711^{+0.442}_{-1.105}$	$1.382^{+0.215}_{-0.323}$	$0.098^{+0.245}_{-0.026}$
	+3%/-3%	+8%/-2%	+175%/-150%	+16%/-41%	+16%/-23%	+251%/-27%
Source	PHO1	FLK73	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 009992623-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-107 ± 18	$3.46^{+2.09}_{-1.83}$	543^{+30}_{-51}	5477^{+2574}_{-840}	7497^{+26723}_{-4440}
Alt.	-57 ± 14	$3.34^{+2.11}_{-1.68}$	542^{+33}_{-53}	4854^{+1956}_{-777}	4316^{+13936}_{-2685}

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

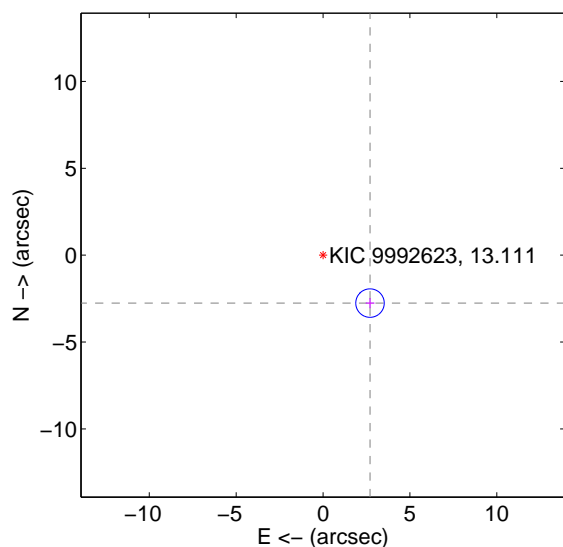
Supplemental centroid analysis for 009992623-01. Kepler magnitude: 13.11. Transit SNR 5.18

There are 1 quarters with good PRF difference image offsets

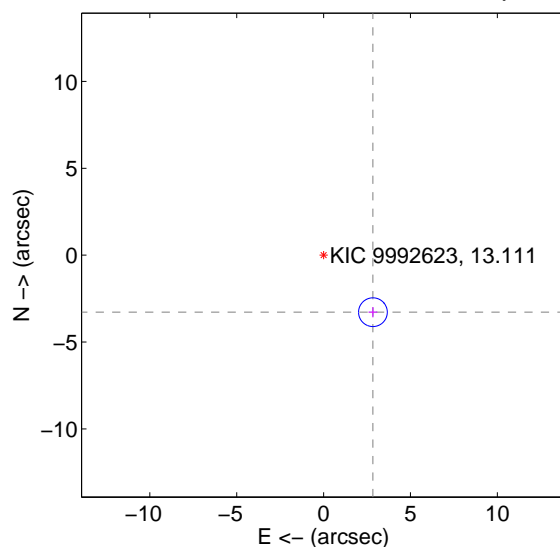
The direct PRF centroid is offset from the target star catalog position by about 0.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.861 ± 0.273	14.14	-2.702 ± 0.251	-2.757 ± 0.293
PRF-fit source offset from KIC position	4.338 ± 0.276	15.74	-2.839 ± 0.251	-3.280 ± 0.293
photometric centroid source offset	2.24 ± 3.12	0.72	1.41 ± 3.54	-1.75 ± 2.82

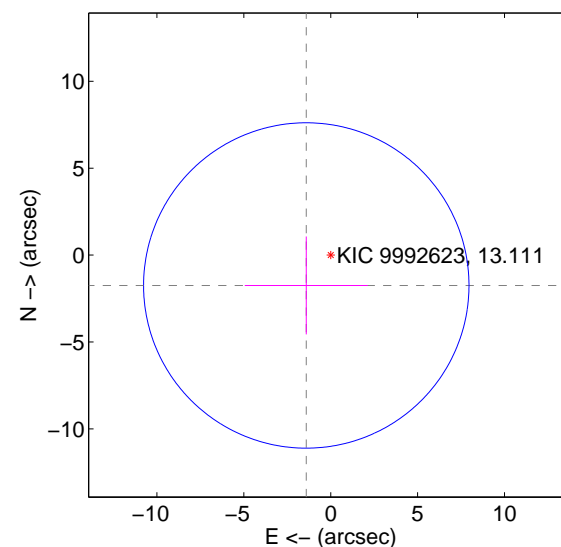
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

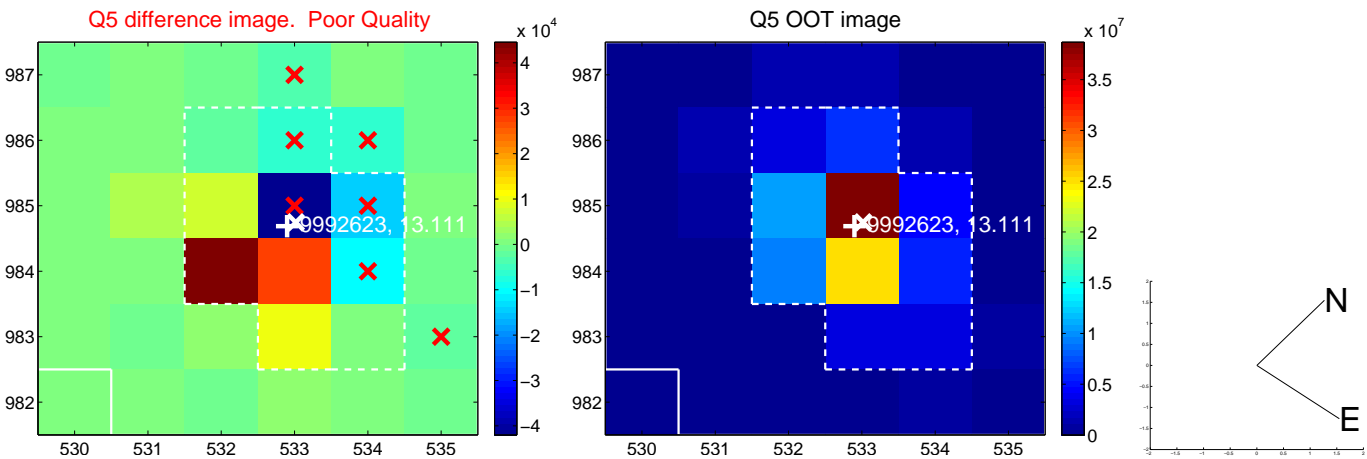


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

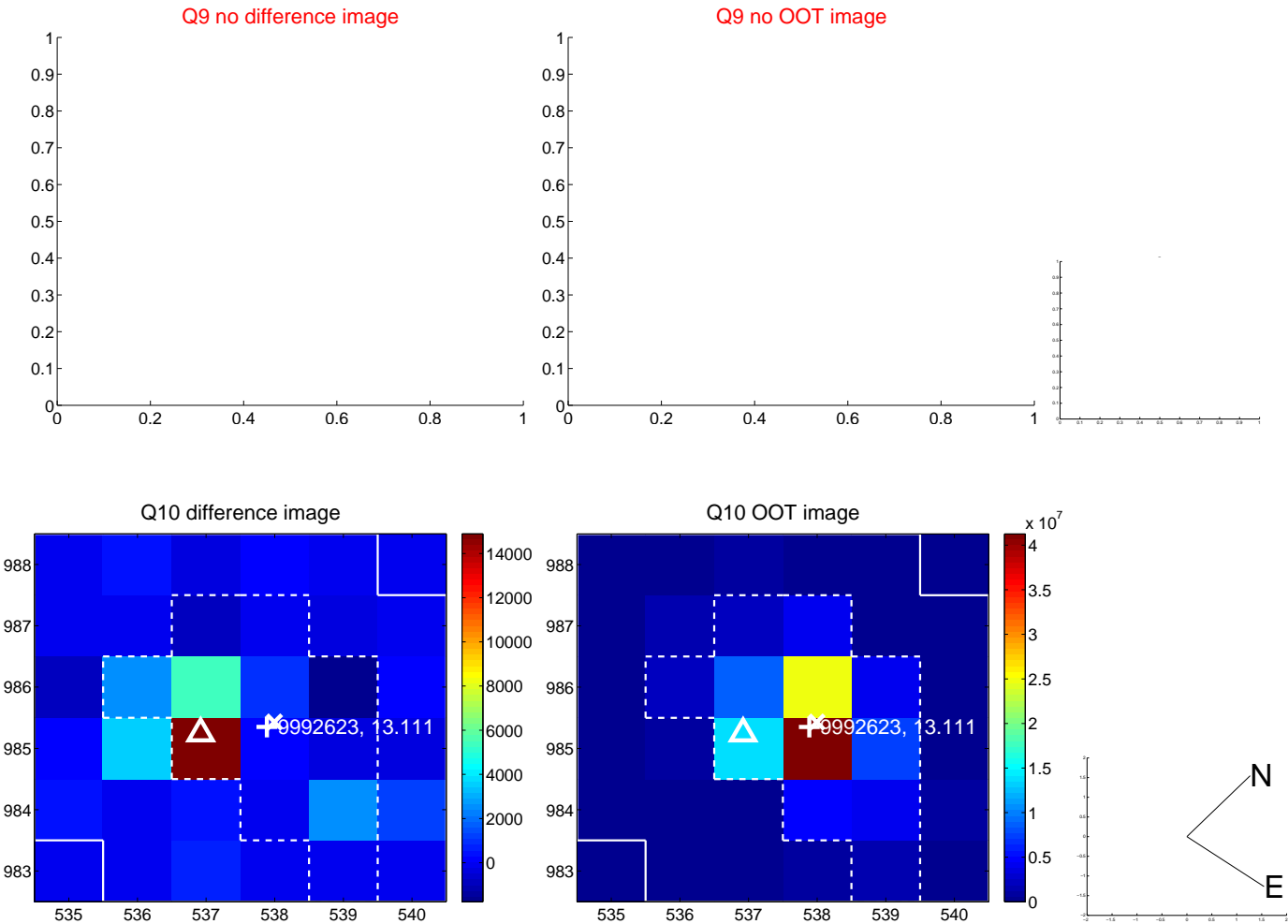
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



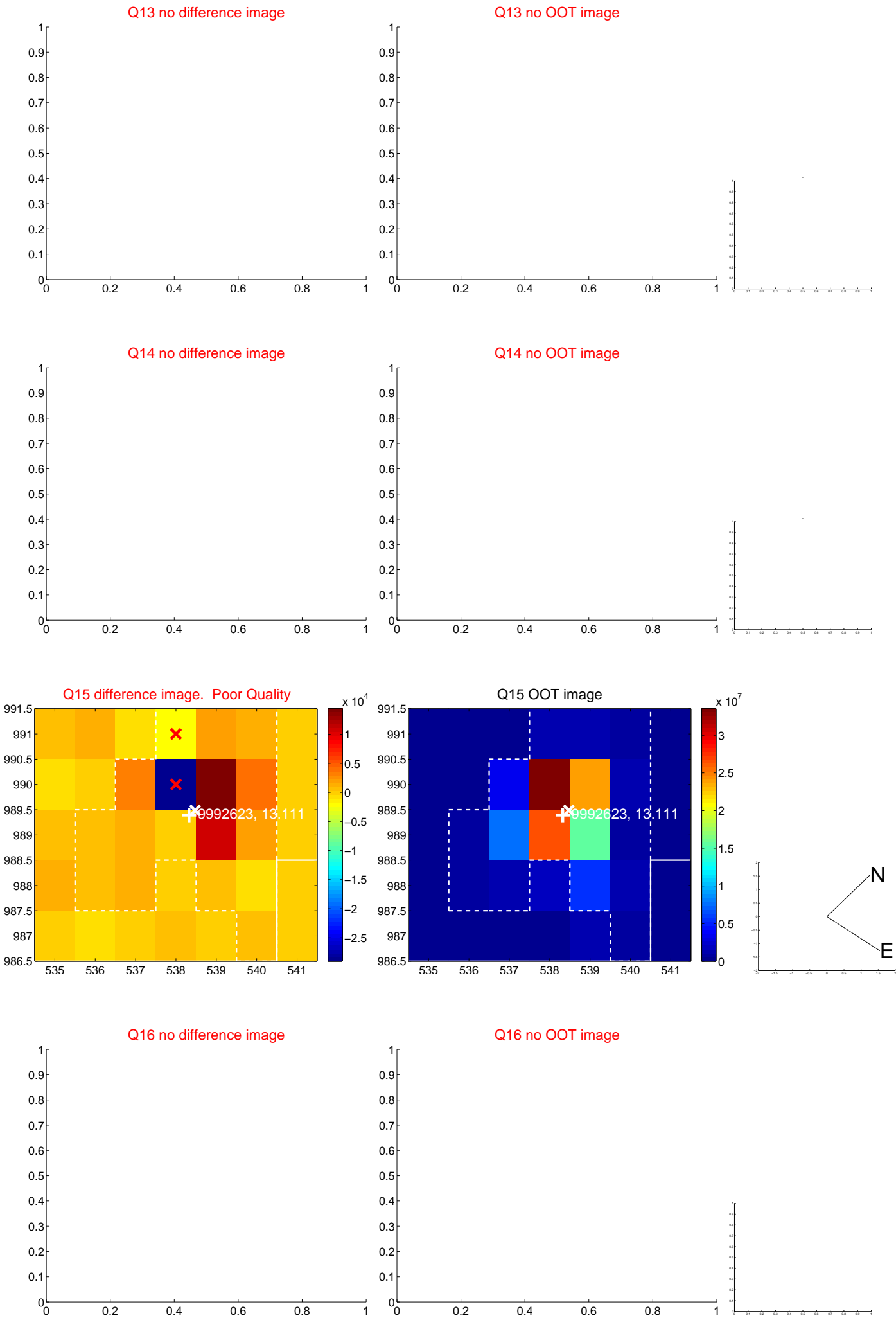
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



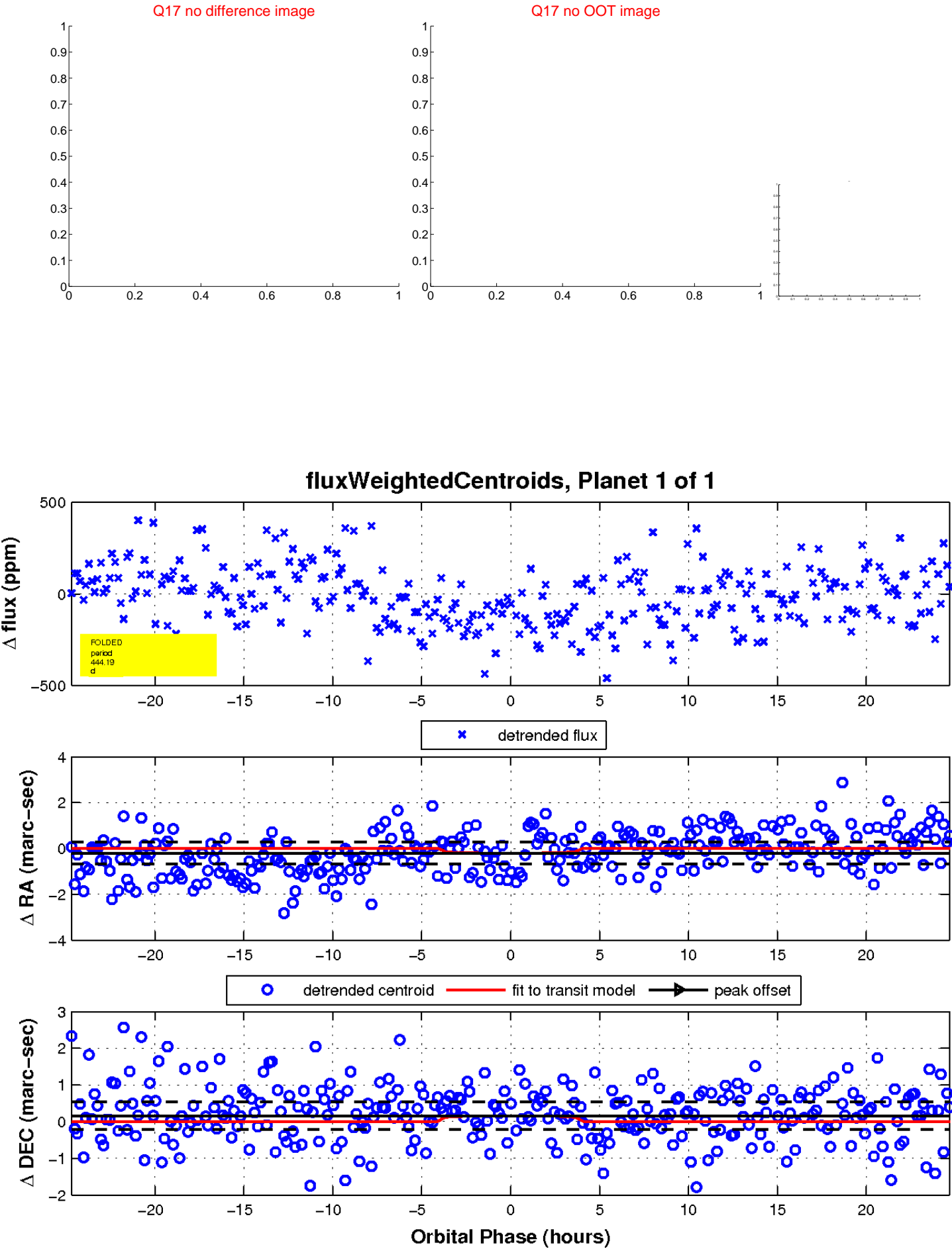
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

