

KIC 008943106

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})
008943106-01	OBS	No	369.469229	177.556376	399.3	18.856	7.4	7.0	0.94	6174	2.13	1.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008943106-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—LPP_DV—ALL_TRANS_CHASES—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.

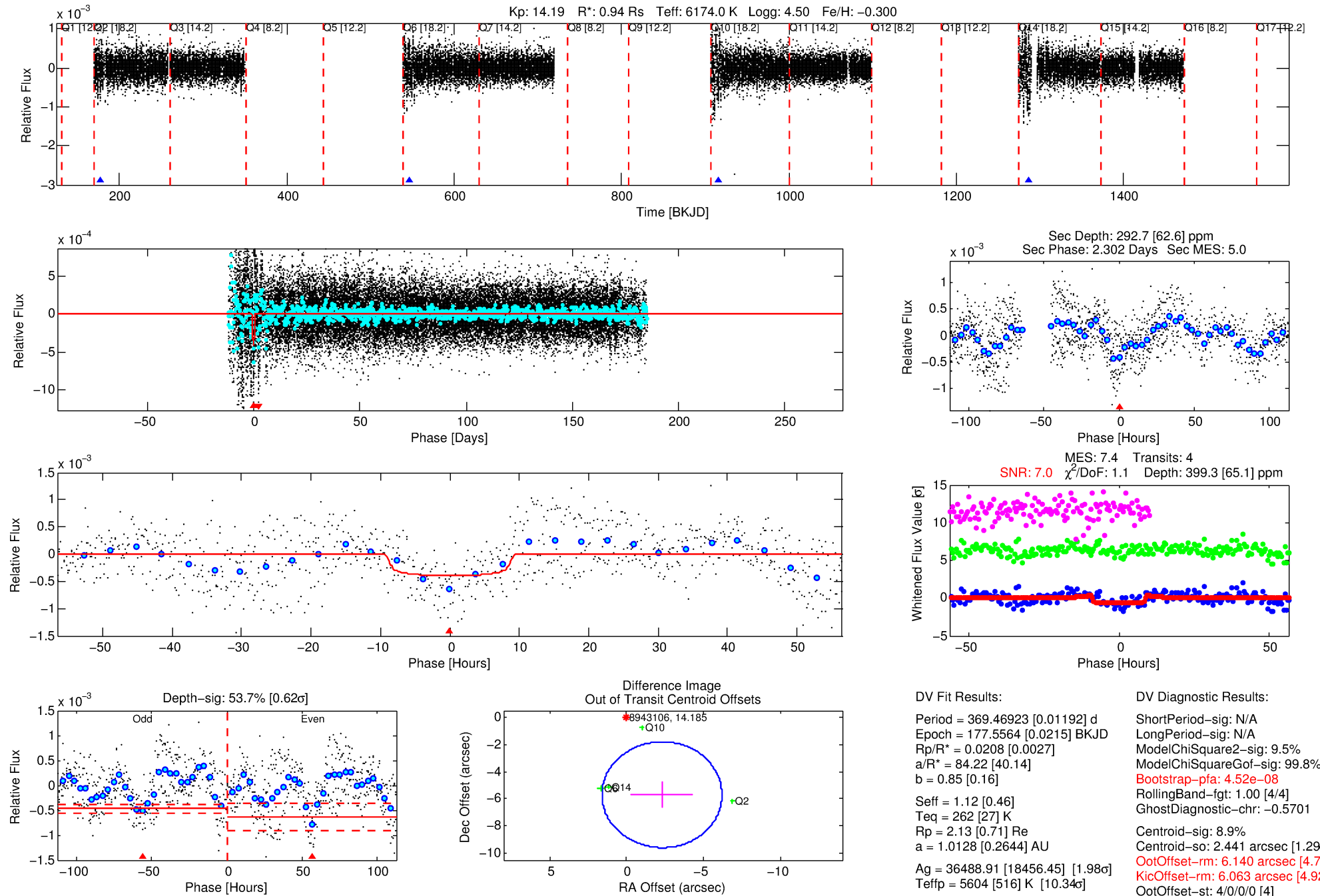
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008943106-01

No Significant Match Found

DV One-Page Summary

KIC: 8943106 Candidate: 1 of 1 Period: 369.469 d



DV Fit Results:

Period = 369.46923 [0.01192] d
Epoch = 177.5564 [0.0215] BKJD
Rp/R* = 0.0208 [0.0027]
a/R* = 84.22 [40.14]
b = 0.85 [0.16]
Seff = 1.12 [0.46]
Teff = 262 [27] K
Rp = 2.13 [0.71] Re
a = 1.0128 [0.2644] AU
Ag = 36488.91 [18456.45] [1.98σ]
Teffp = 5604 [516] K [10.34σ]

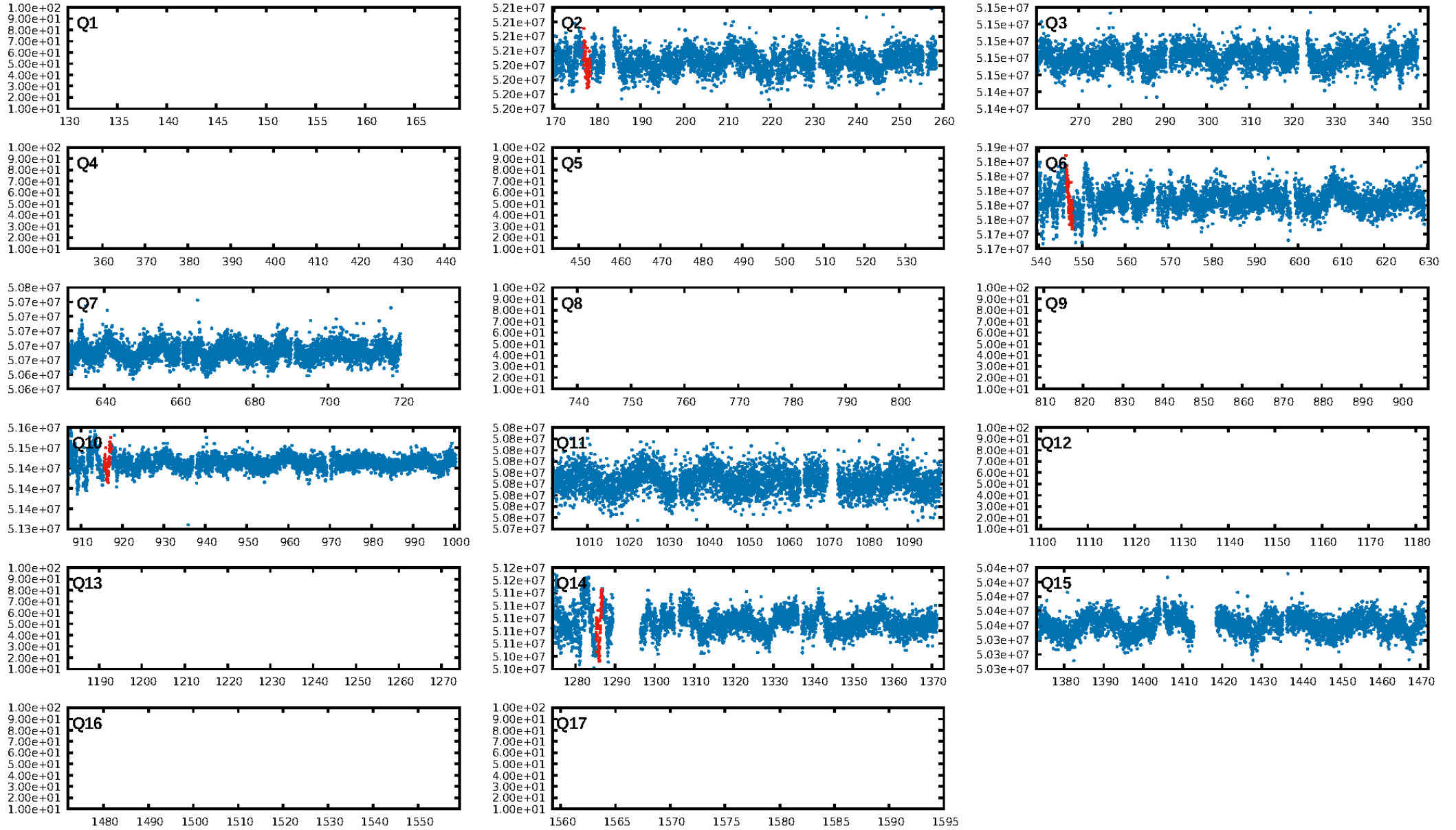
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 9.5%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 4.52e-08
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.5701
Centroid-sig: 8.9%
Centroid-so: 2.441 arcsec [1.29σ]
OotOffset-rm: 6.140 arcsec [4.73σ]
KicOffset-rm: 6.063 arcsec [4.92σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [4/4]

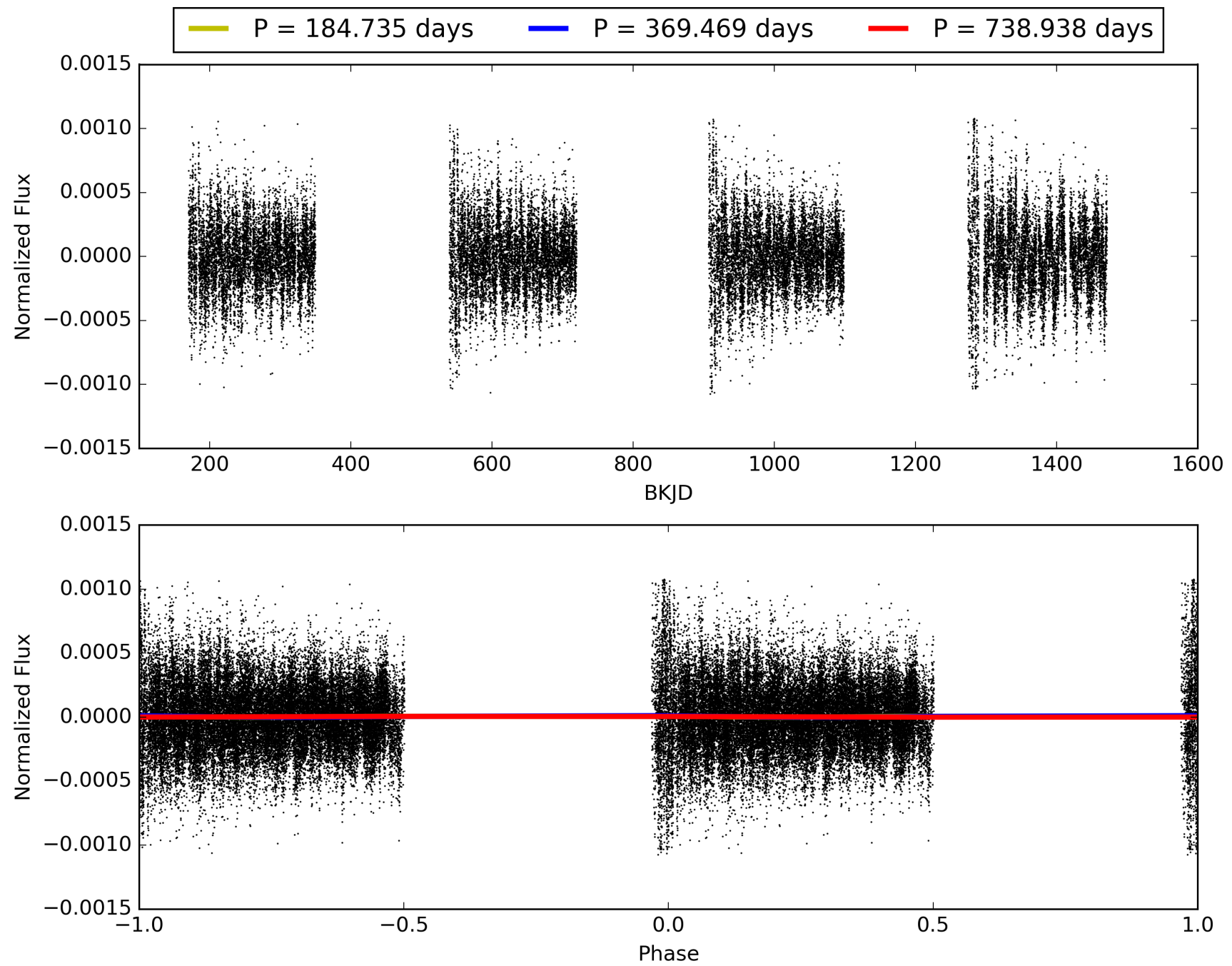
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:42:15 Z

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

TCE 008943106-01, PDC Light Curves

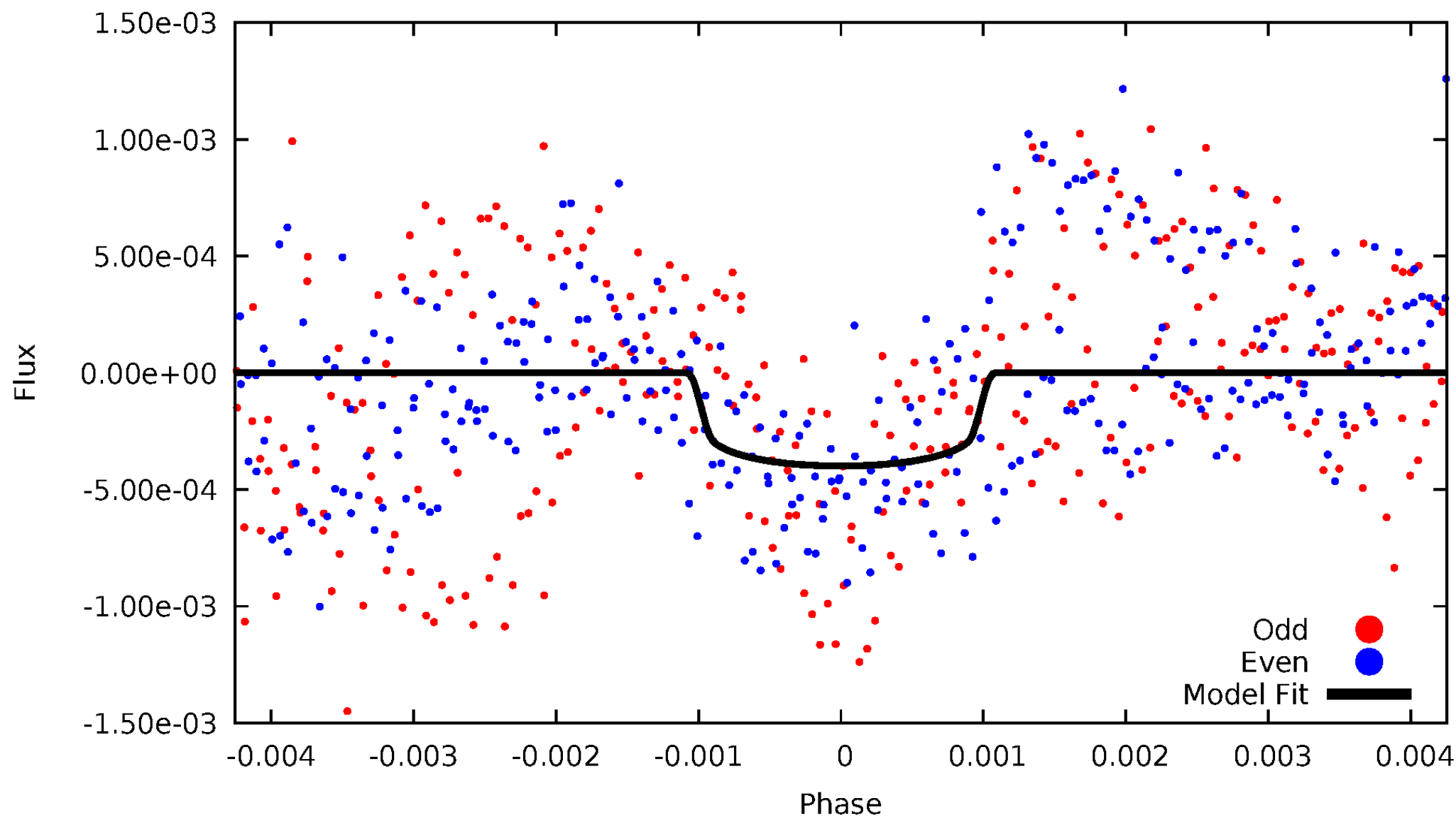


TCE 008943106-01



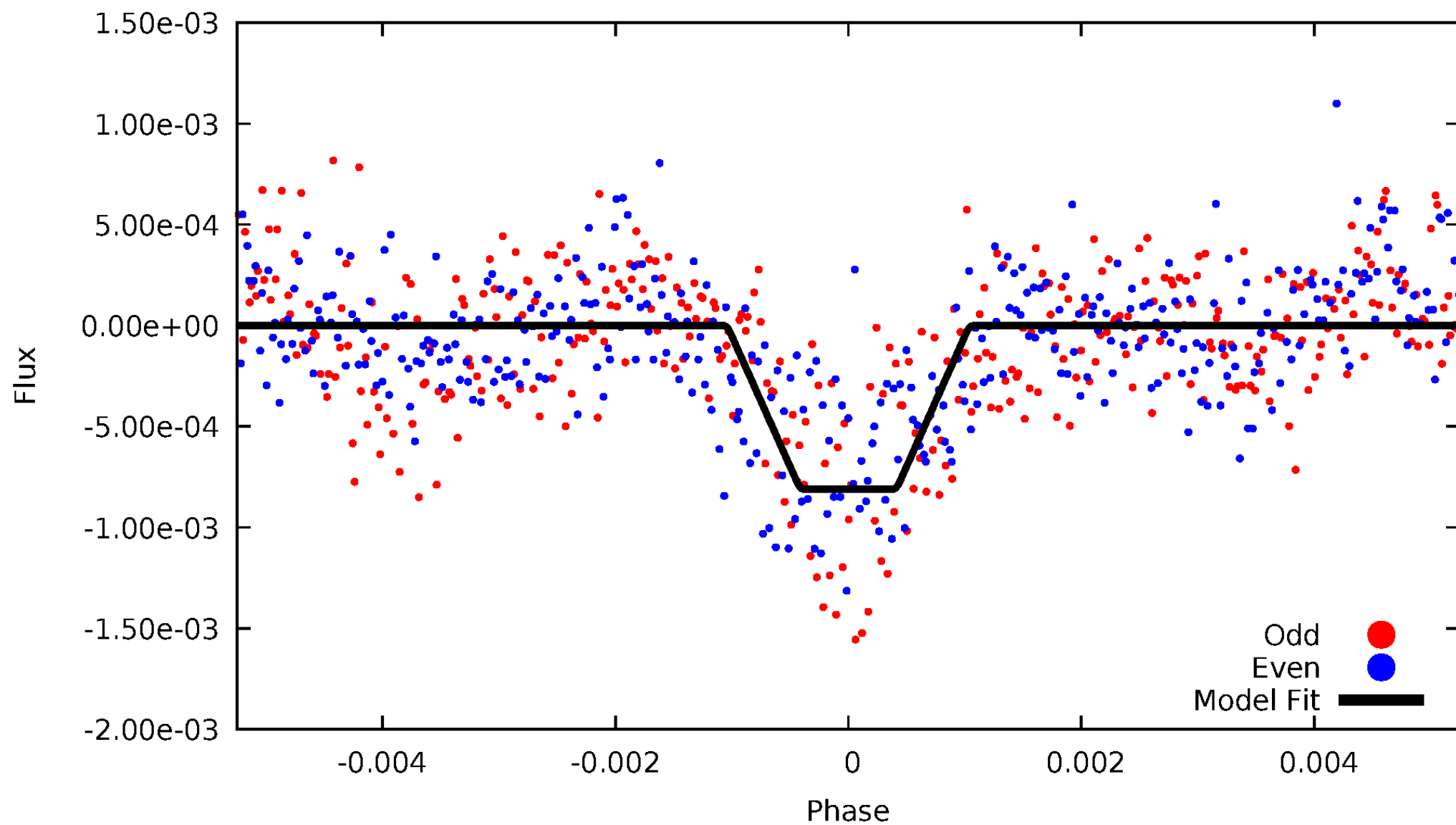
DV Odd/Even

TCE 008943106-01



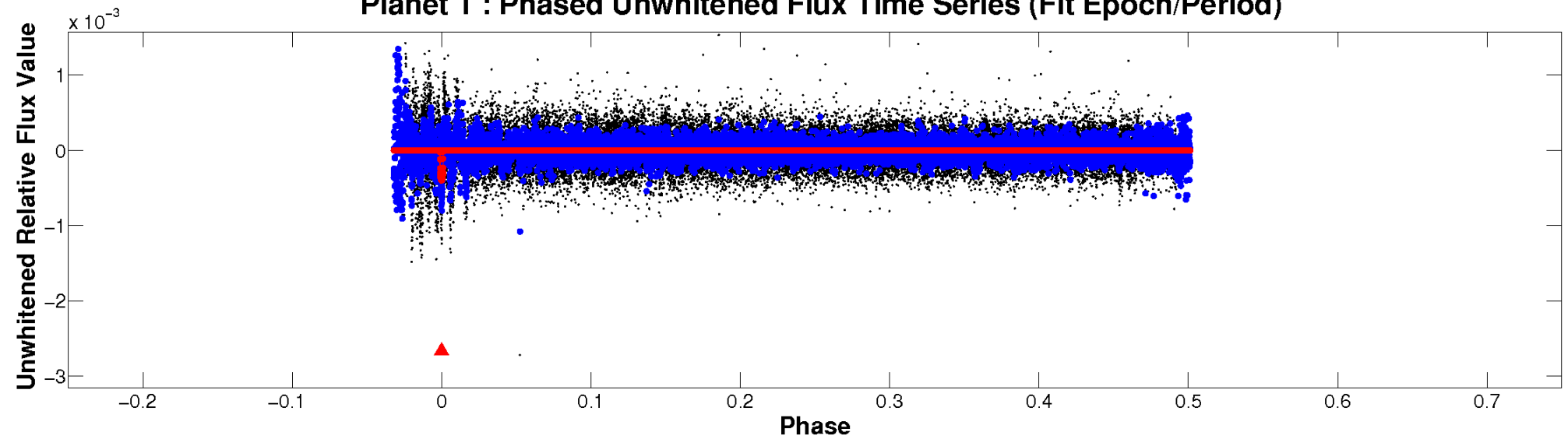
ALT Odd/Even

TCE 008943106-01

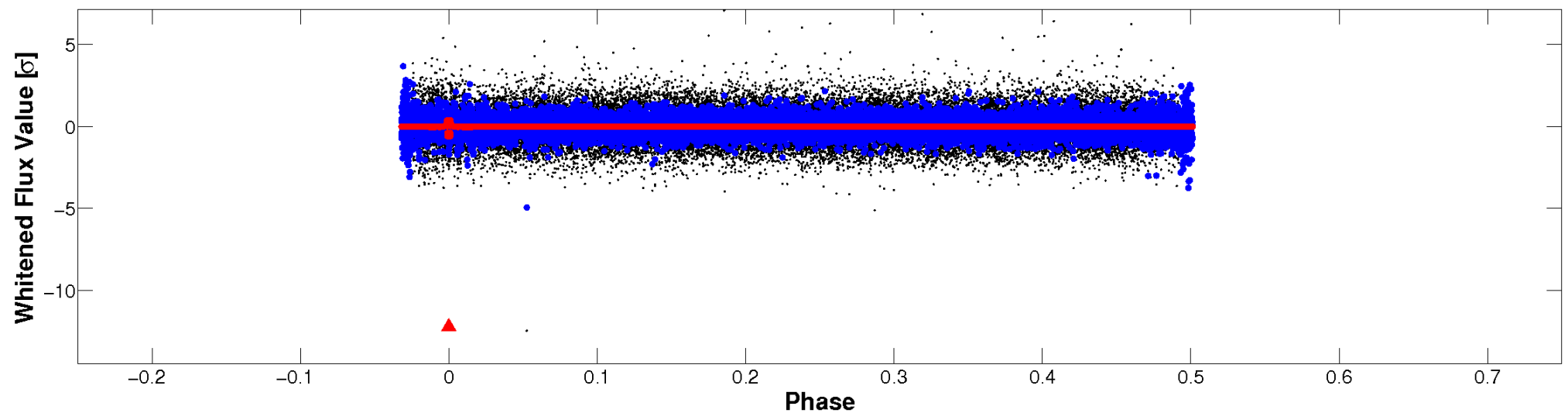


Non-Whitened Vs. Whitened Light Curve

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

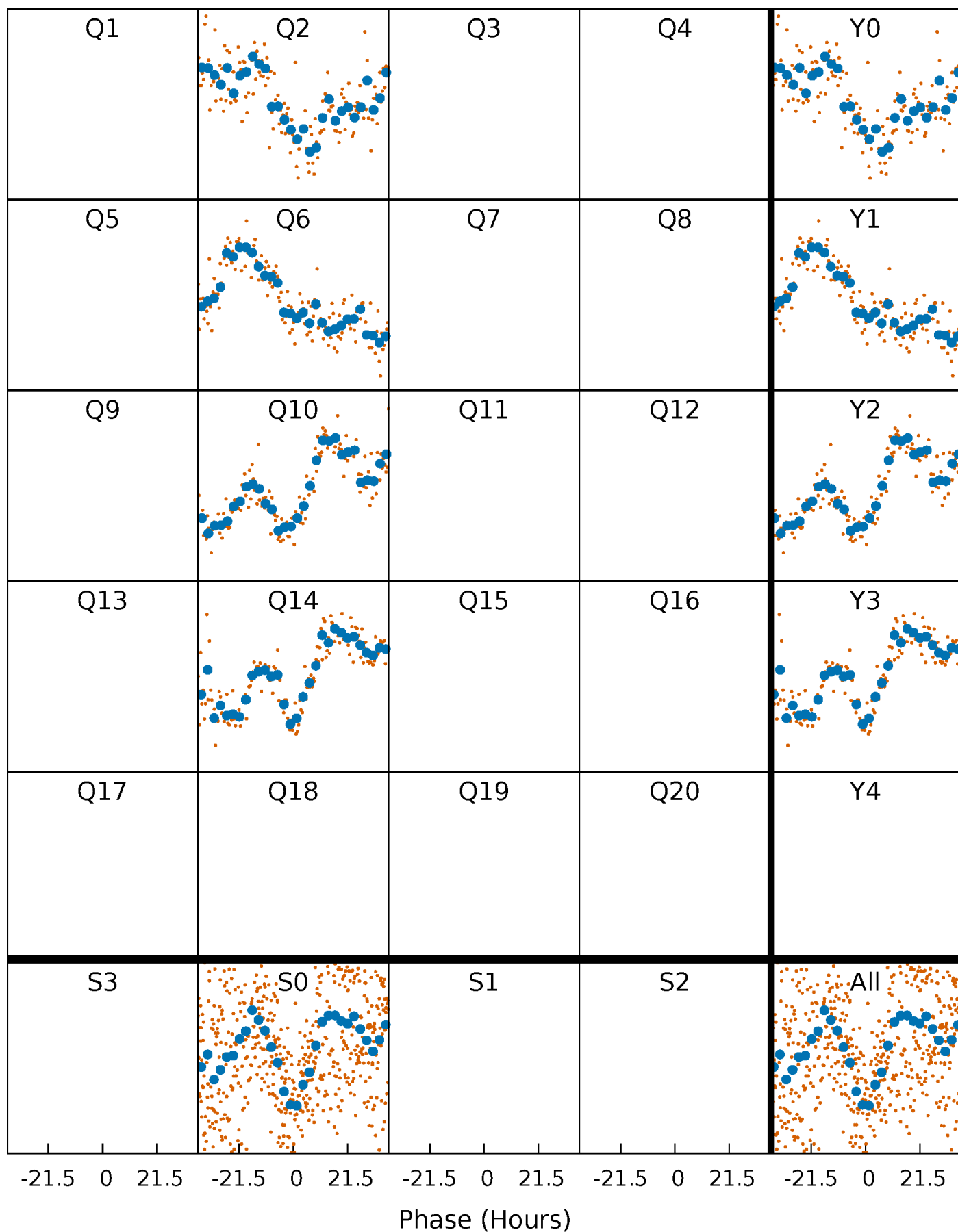


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 008943106-01 P=369.469229 Days $T_0=177.556376$ (BKJD)



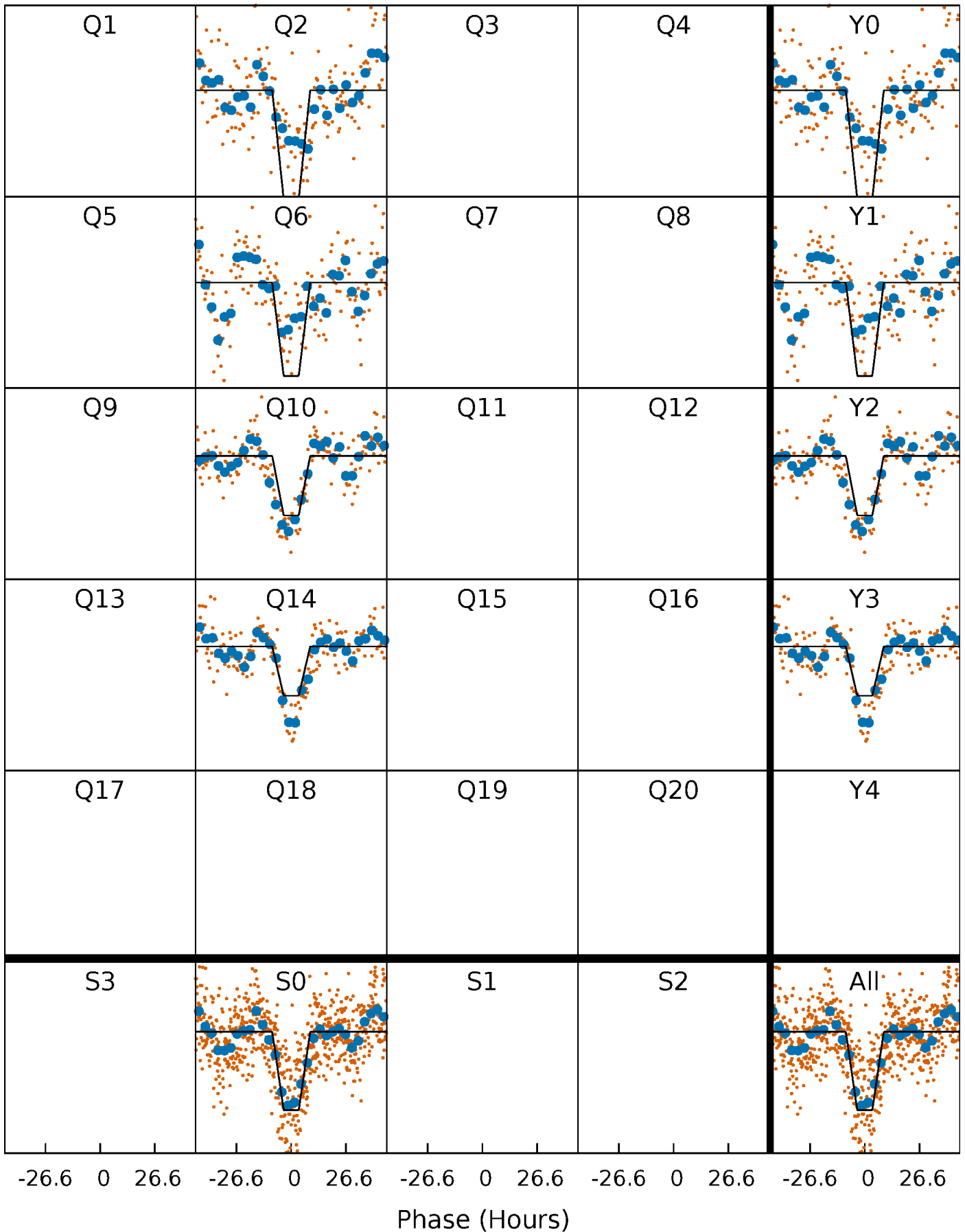
DV Quarter-Phased Transit Curves

TCE 008943106-01 P=369.469229 Days $T_0=177.556376$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

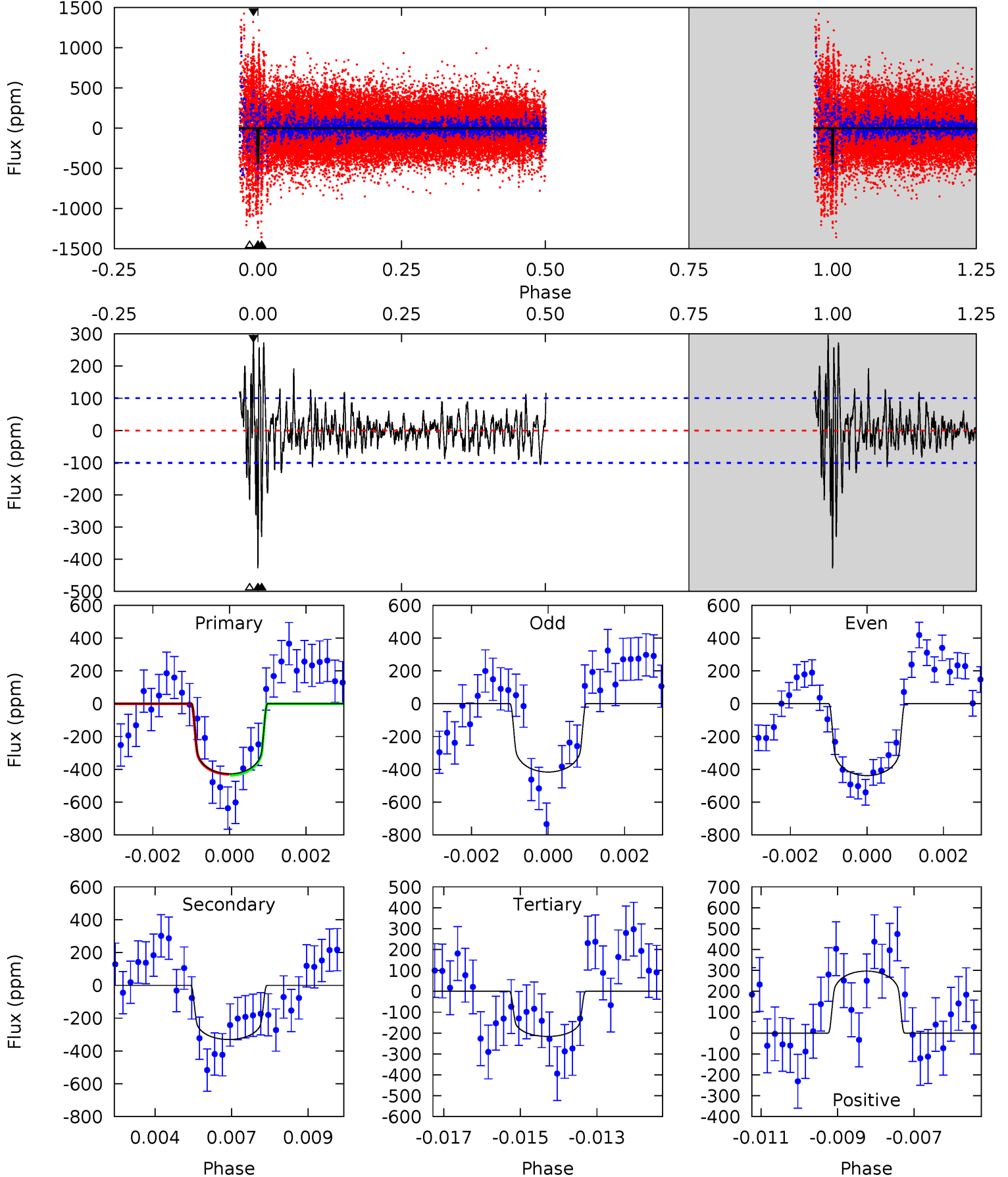
TCE 008943106-01 P=369.472821 Days $T_0=177.570827$ (BKJD)



DV Model-Shift Uniqueness Test

008943106-01, P = 369.469229 Days, E = 177.556376 Days

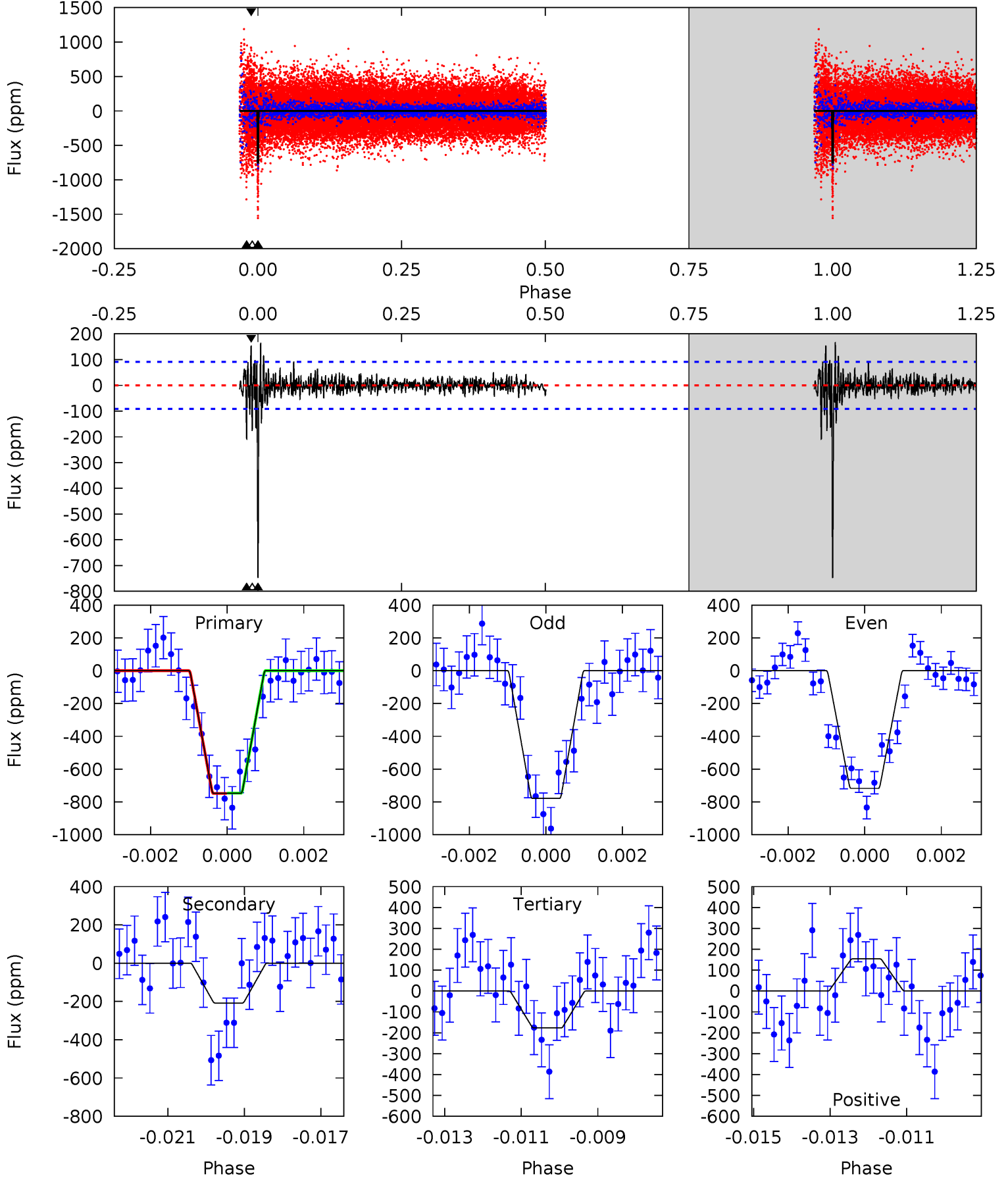
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	17.4	11.4	15.7	5.31	3.06	2.79	11.2	6.91	6.02	1.77	0.57	0.97	0.41	0.10



Alt Model-Shift Uniqueness Test

008943106-01, P = 369.472821 Days, E = 177.570827 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.5	12.1	10.3	8.96	5.31	3.07	1.54	33.2	34.6	1.84	3.16	1.76	1.05	0.18	0.04



Stellar Parameters For KIC 008943106

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6174^{+197}_{-241}	$4.499^{+0.052}_{-0.208}$	$-0.300^{+0.250}_{-0.350}$	$0.939^{+0.291}_{-0.097}$	$1.014^{+0.134}_{-0.147}$	$1.727^{+0.472}_{-0.891}$
	+3%/-4%	+1%/-5%	+83%/-117%	+31%/-10%	+13%/-14%	+27%/-52%
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 008943106-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-330 ± 19	$2.23^{+0.43}_{-0.36}$	374^{+28}_{-20}	5770^{+474}_{-387}	36792^{+14795}_{-10624}
Alt.	-208 ± 17	$3.03^{+0.51}_{-0.40}$	374^{+27}_{-20}	4551^{+256}_{-213}	12591^{+3761}_{-3361}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

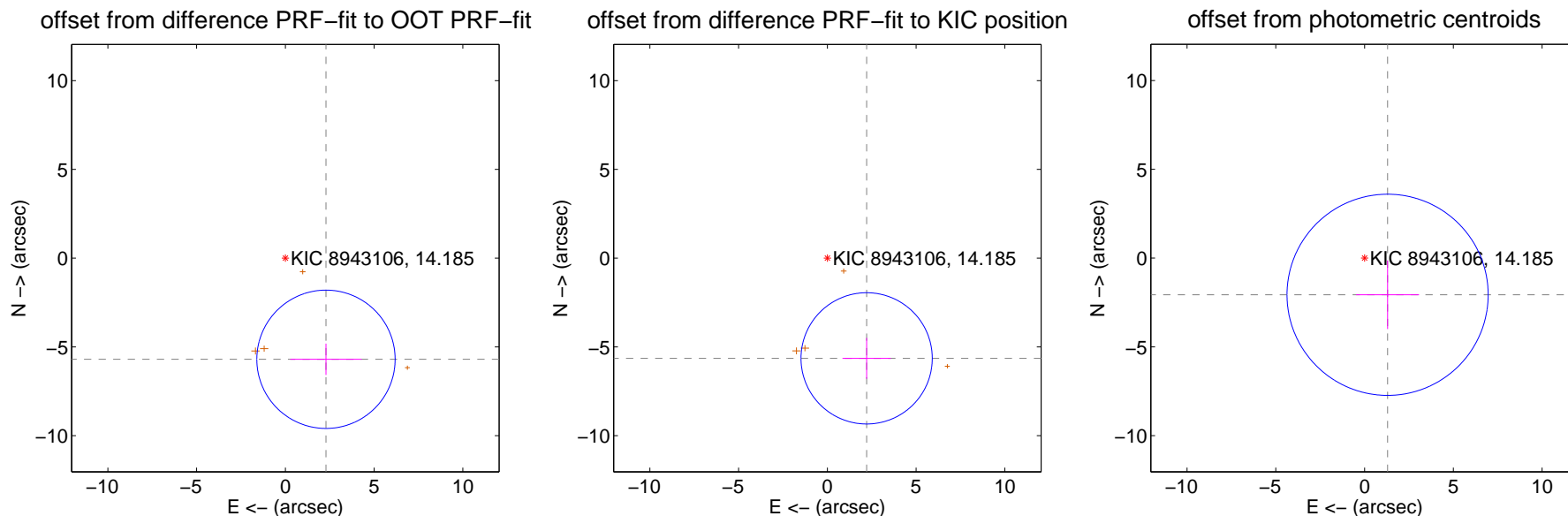
DV Centroid Data

Supplemental centroid analysis for 008943106-01. Kepler magnitude: 14.19. Transit SNR 6.99

There are 0 quarters with good PRF difference image offsets

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

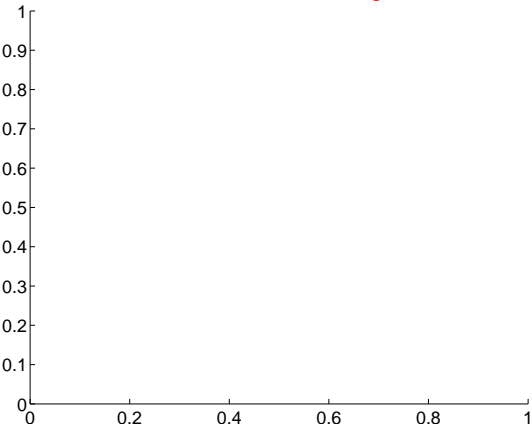
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.140 ± 1.299	4.73	-2.288 ± 2.005	-5.697 ± 0.886
PRF-fit source offset from KIC position	6.063 ± 1.233	4.92	-2.213 ± 1.362	-5.645 ± 1.151
photometric centroid source offset	2.44 ± 1.89	1.29	-1.30 ± 1.77	-2.07 ± 1.93



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.

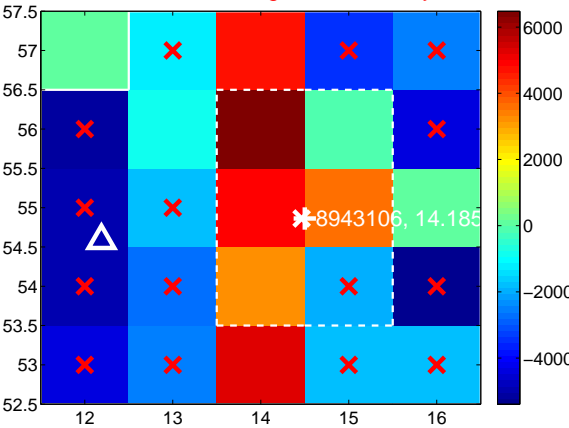
Q1 no difference image



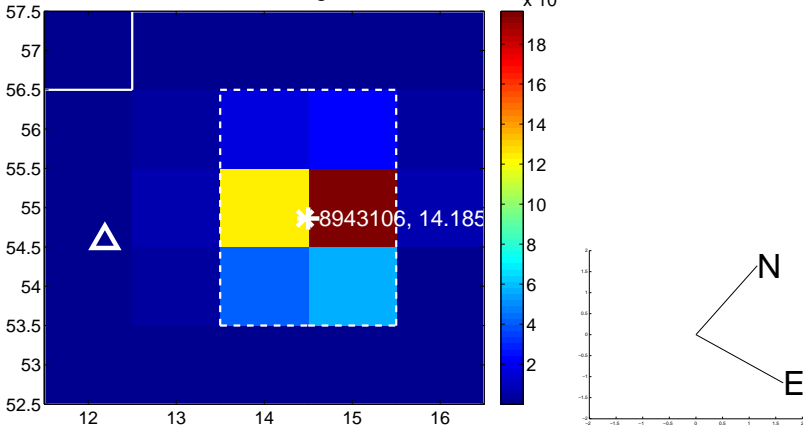
Q1 no OOT image



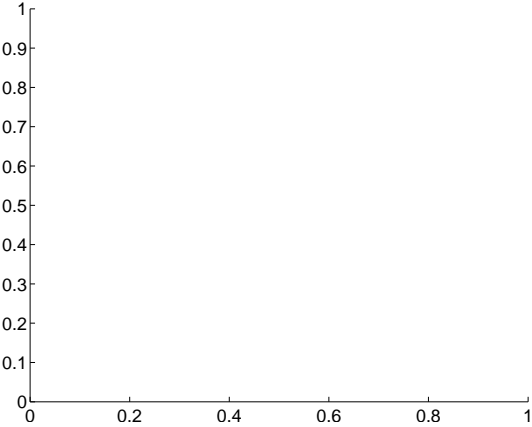
Q2 difference image. Poor Quality



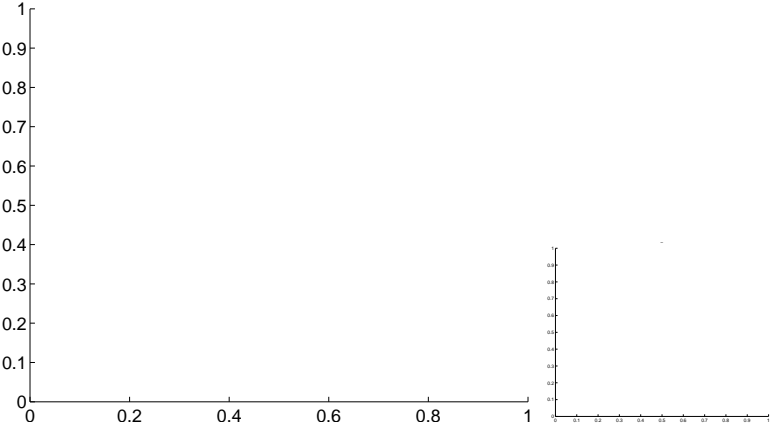
Q2 OOT image



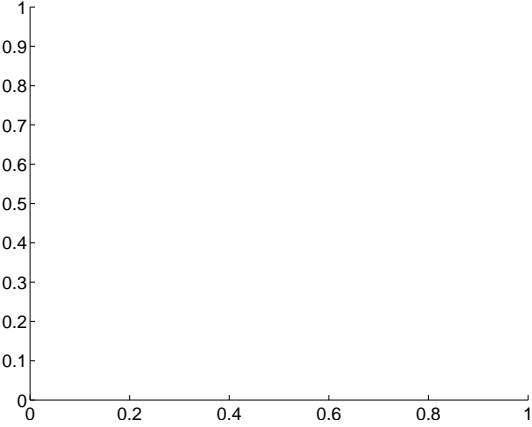
Q3 no difference image



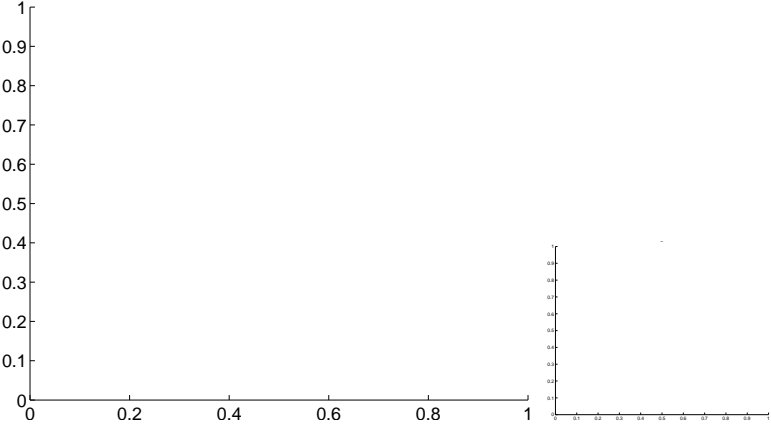
Q3 no OOT image



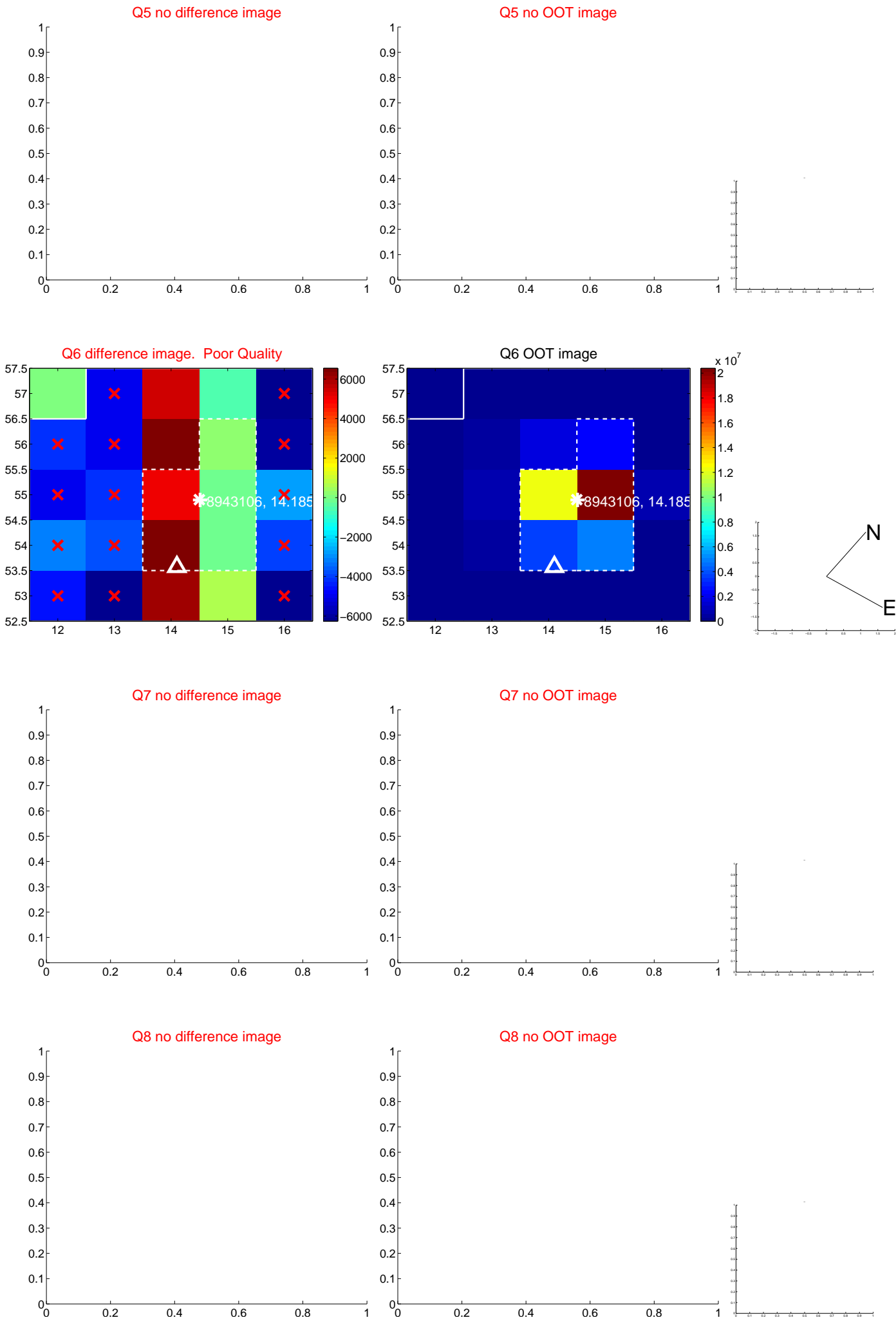
Q4 no difference image



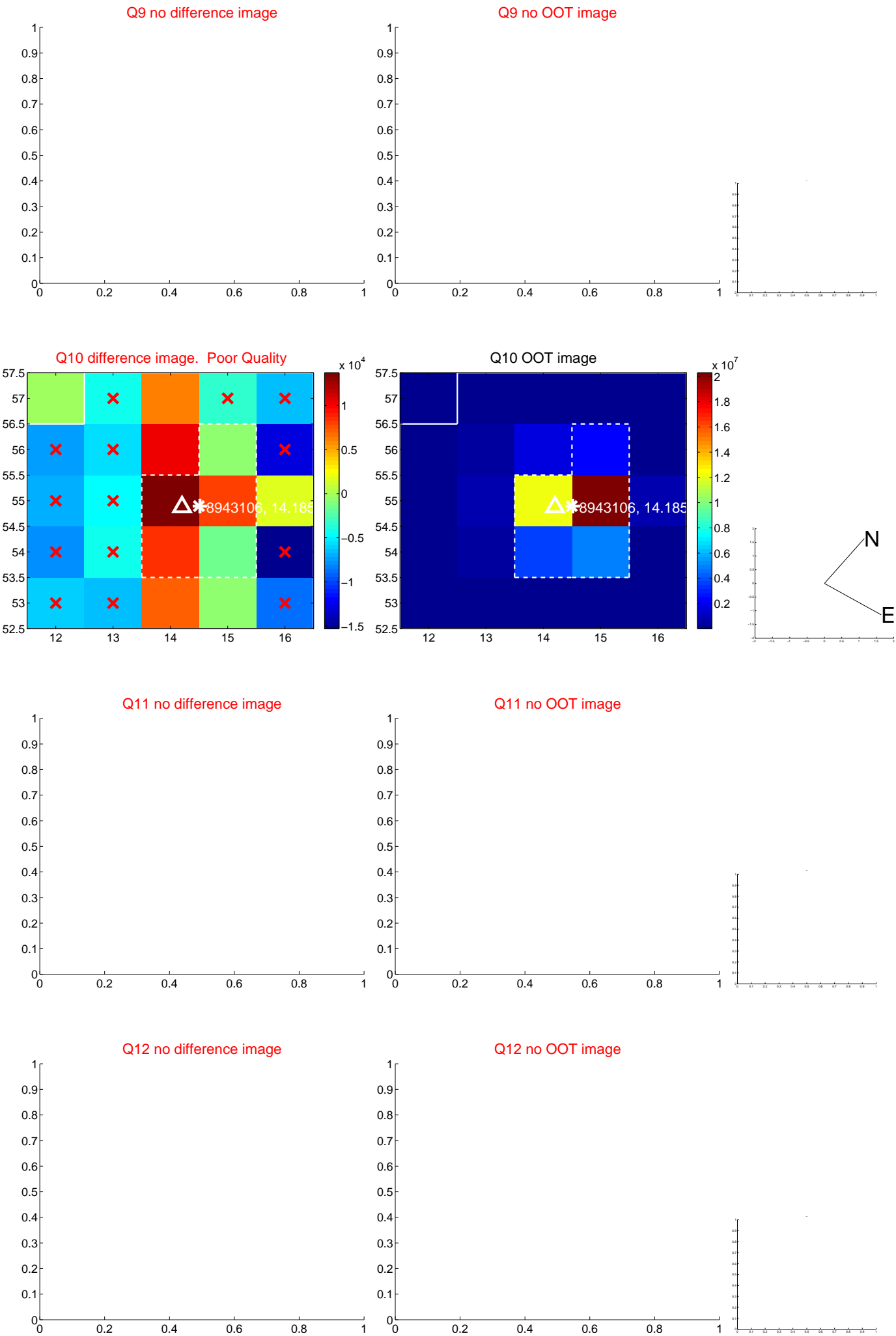
Q4 no OOT image



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

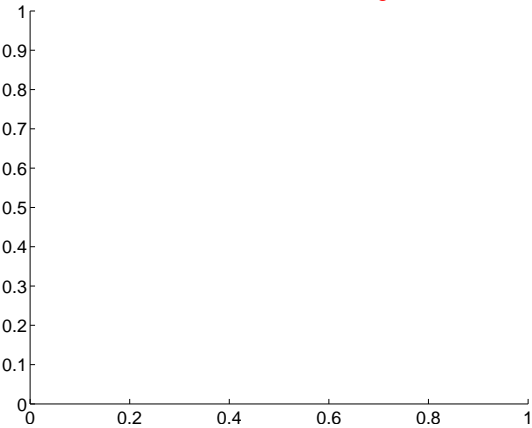


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

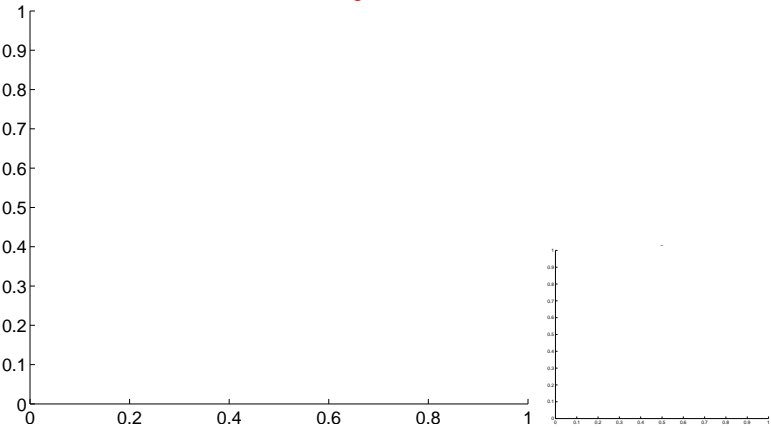


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

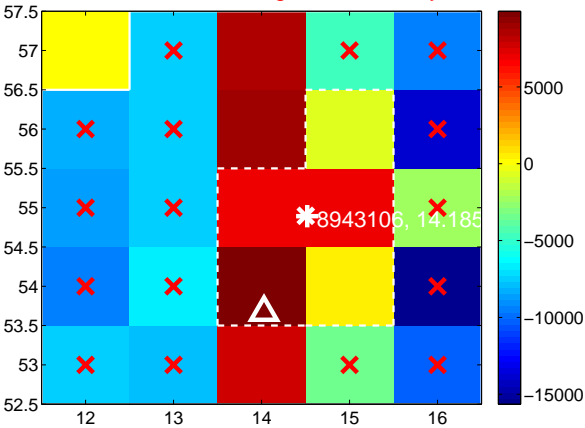
Q13 no difference image



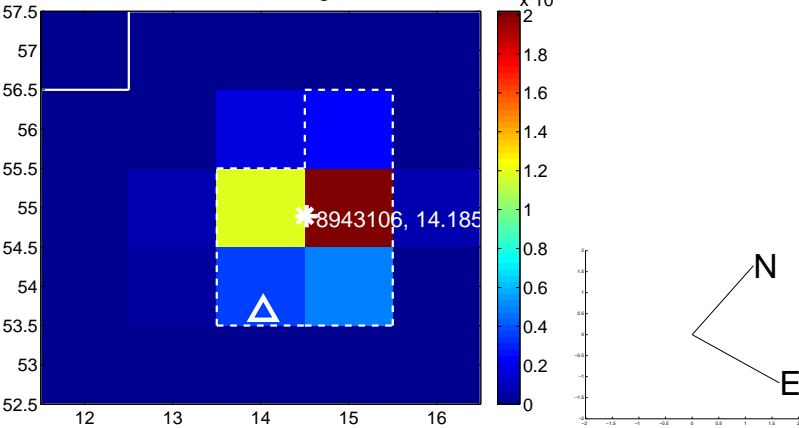
Q13 no OOT image



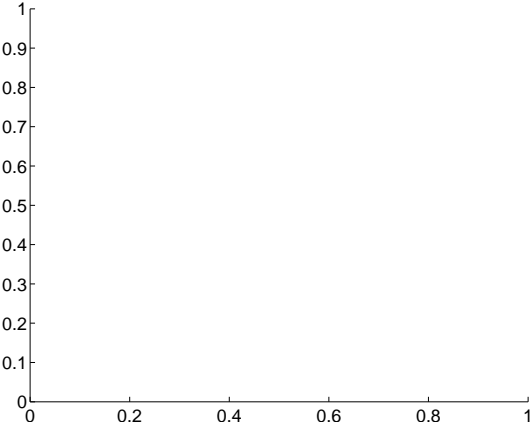
Q14 difference image. Poor Quality



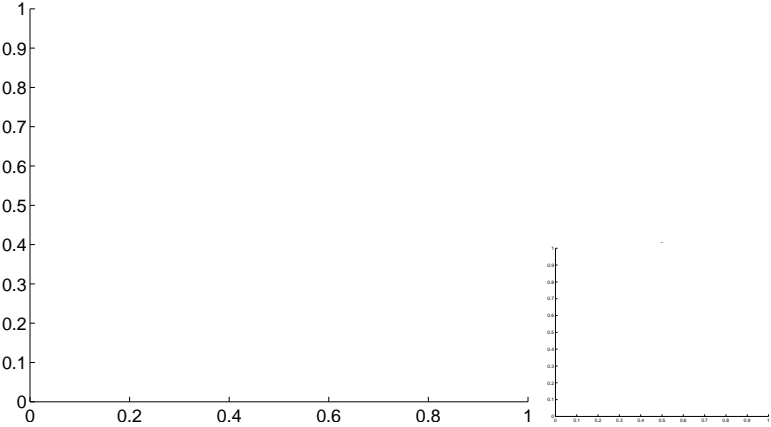
Q14 OOT image



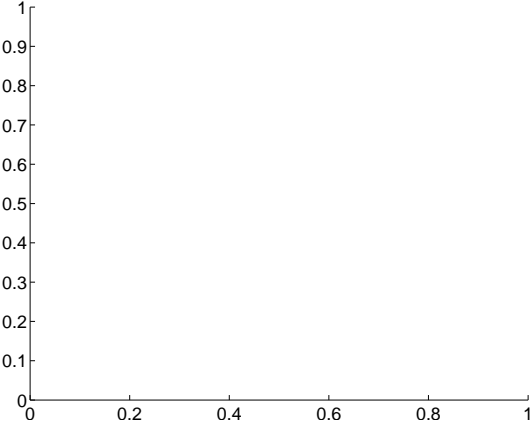
Q15 no difference image



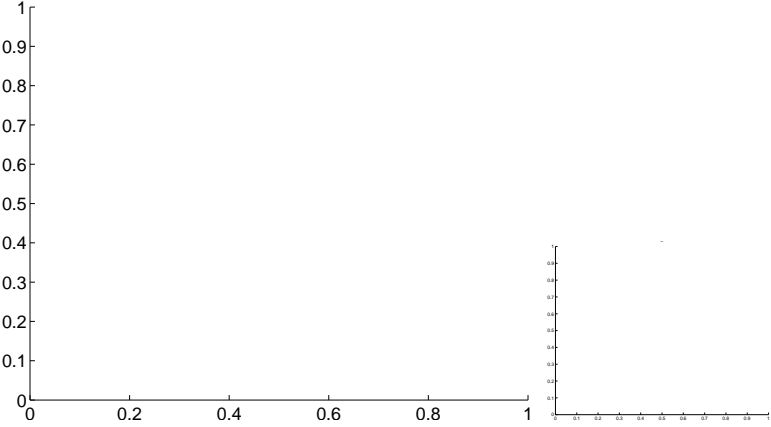
Q15 no OOT image



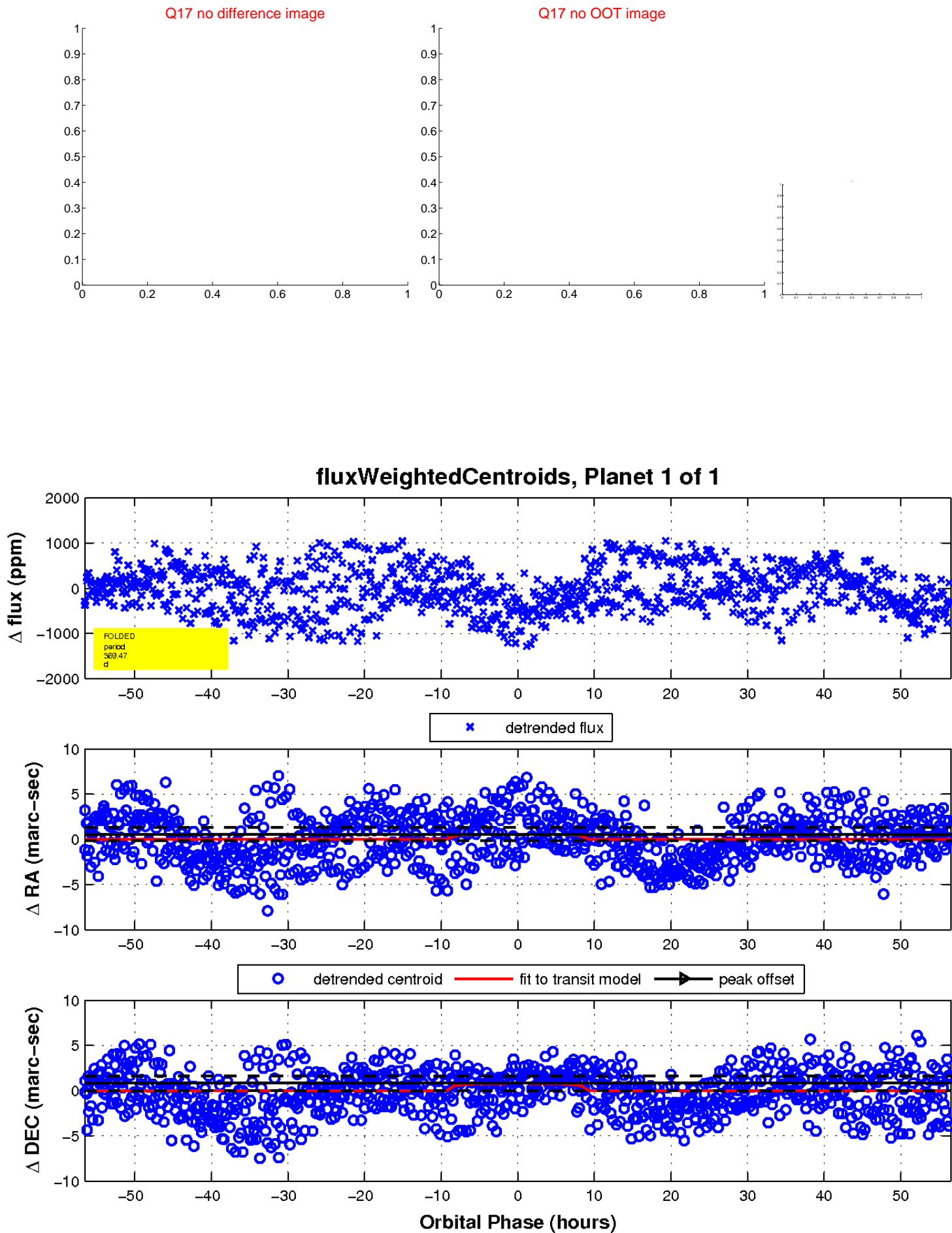
Q16 no difference image



Q16 no OOT image



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



UKIRT Image

Declination

