

KIC 006359580

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})
006359580-01	OBS	No	353.151308	176.922701	770.1	20.416	7.5	8.2	0.93	5729	2.83	0.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006359580-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE--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.

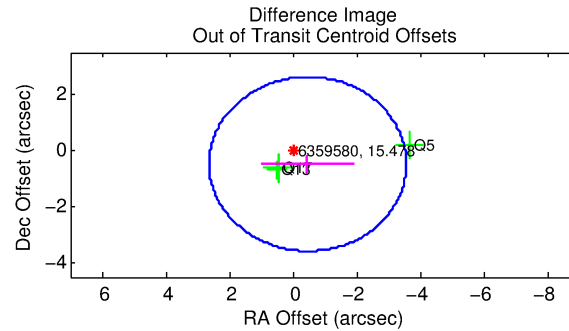
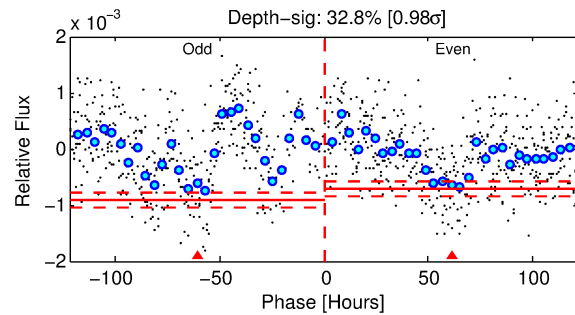
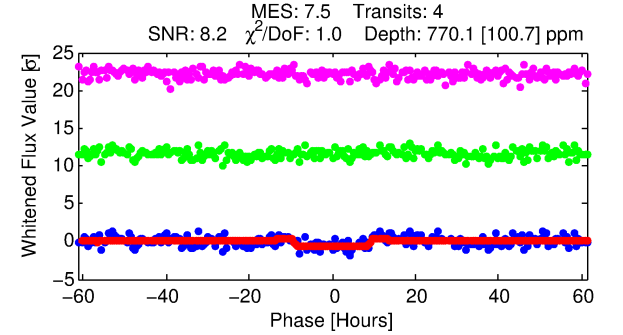
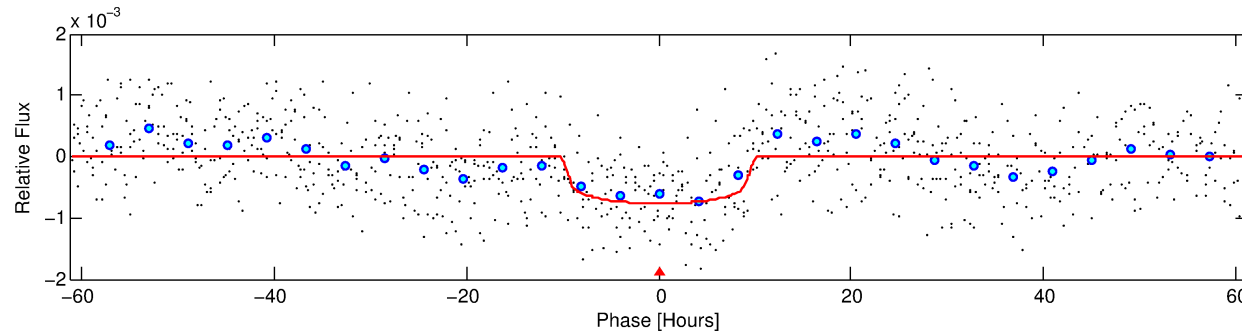
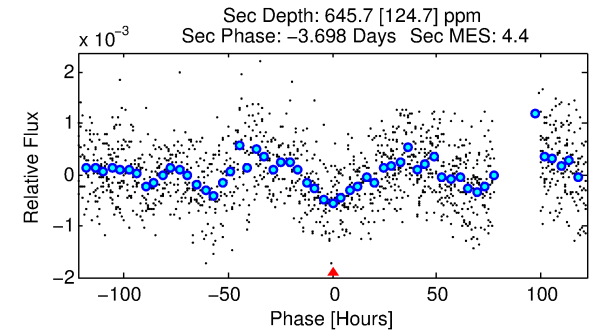
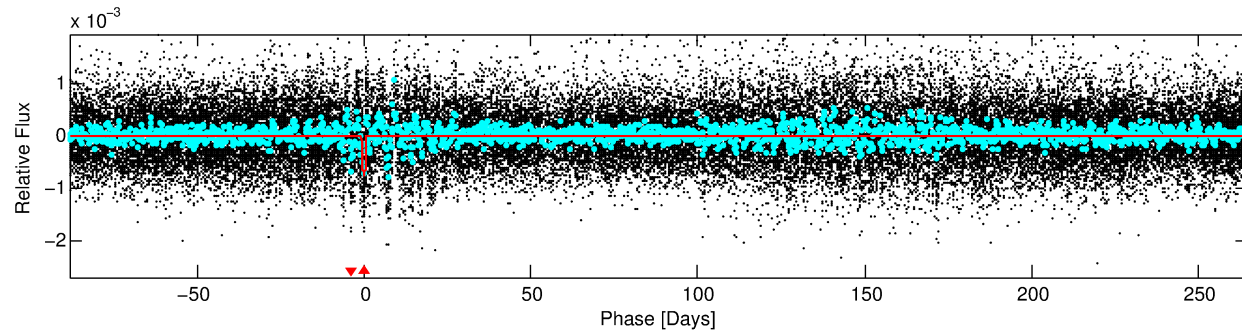
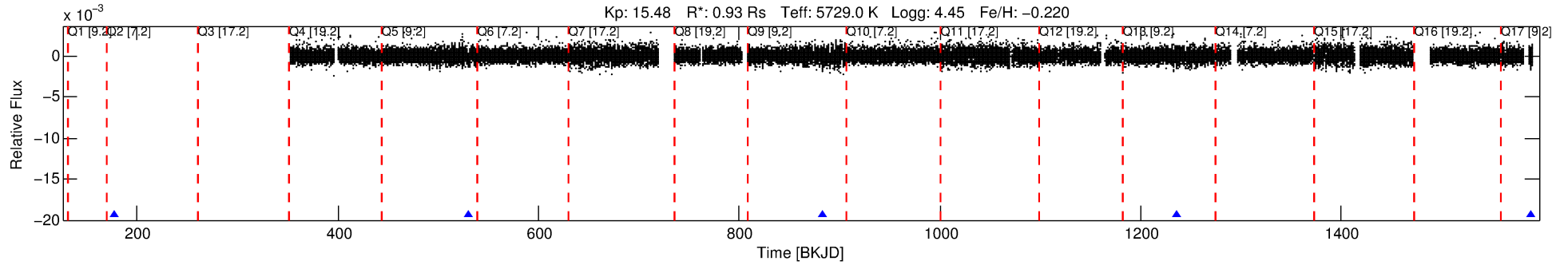
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006359580-01

No Significant Match Found

DV One-Page Summary

KIC: 6359580 Candidate: 1 of 1 Period: 353.151 d



DV Fit Results:

Period = 353.15131 [0.01157] d
Epoch = 176.9227 [0.0315] BKJD
Rp/R* = 0.0280 [0.0041]
a/R* = 88.02 [48.80]
b = 0.78 [0.28]
Seff = 0.94 [0.34]
Teq = 251 [22] K
Rp = 2.83 [0.86] Re
a = 0.9370 [0.2124] AU
Ag = 38997.11 [18755.19] [2.08σ]
Teffp = 5459 [508] K [10.23σ]

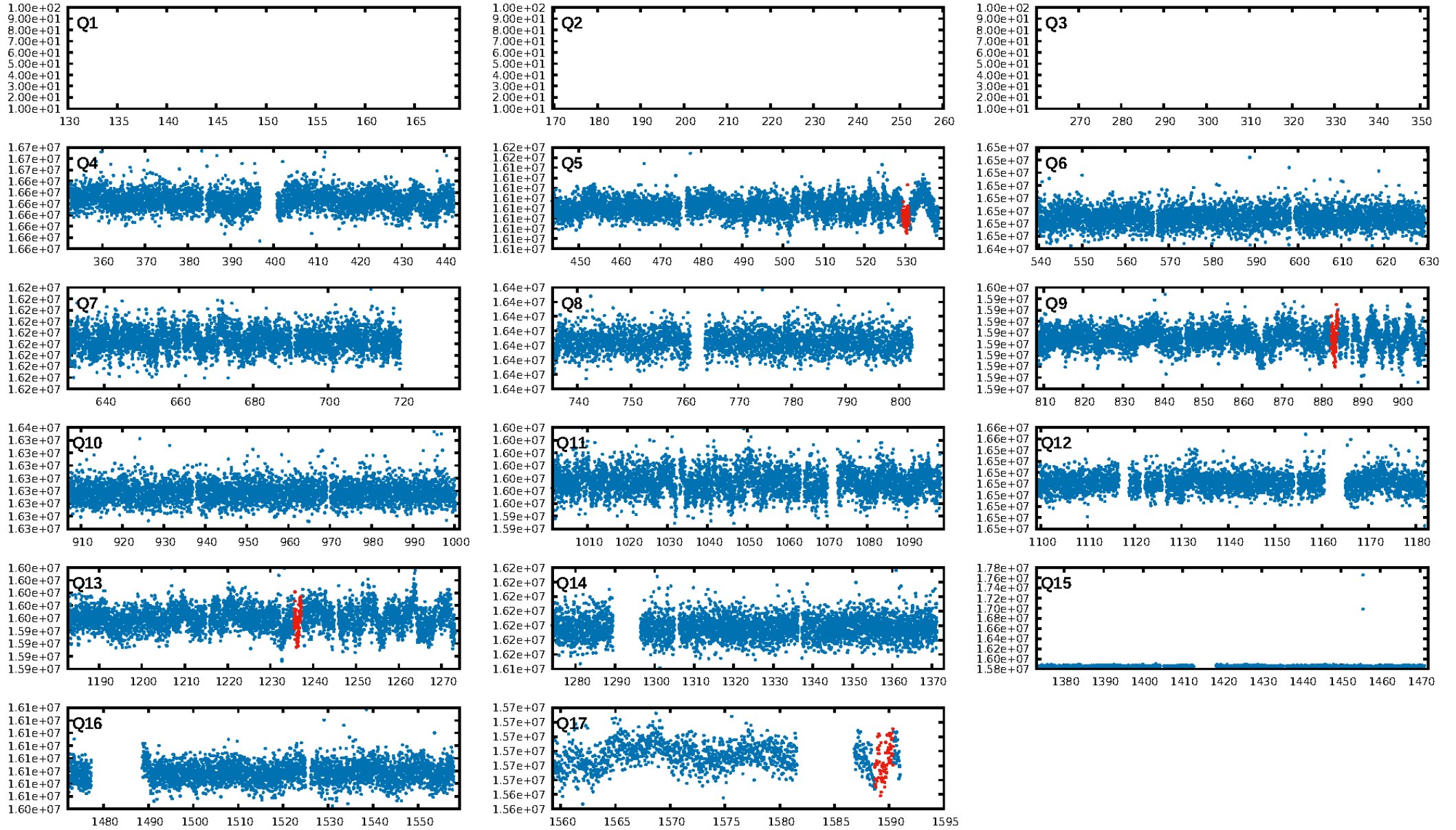
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 96.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.87e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.386
Centroid-sig: 47.0%
Centroid-so: 1.079 arcsec [0.73σ]
OotOffset-rm: 0.671 arcsec [0.65σ]
OotOffset-st: 0/0/0/3 [3]
KicOffset-rm: 0.843 arcsec [0.93σ]
KicOffset-st: 0/0/0/3 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

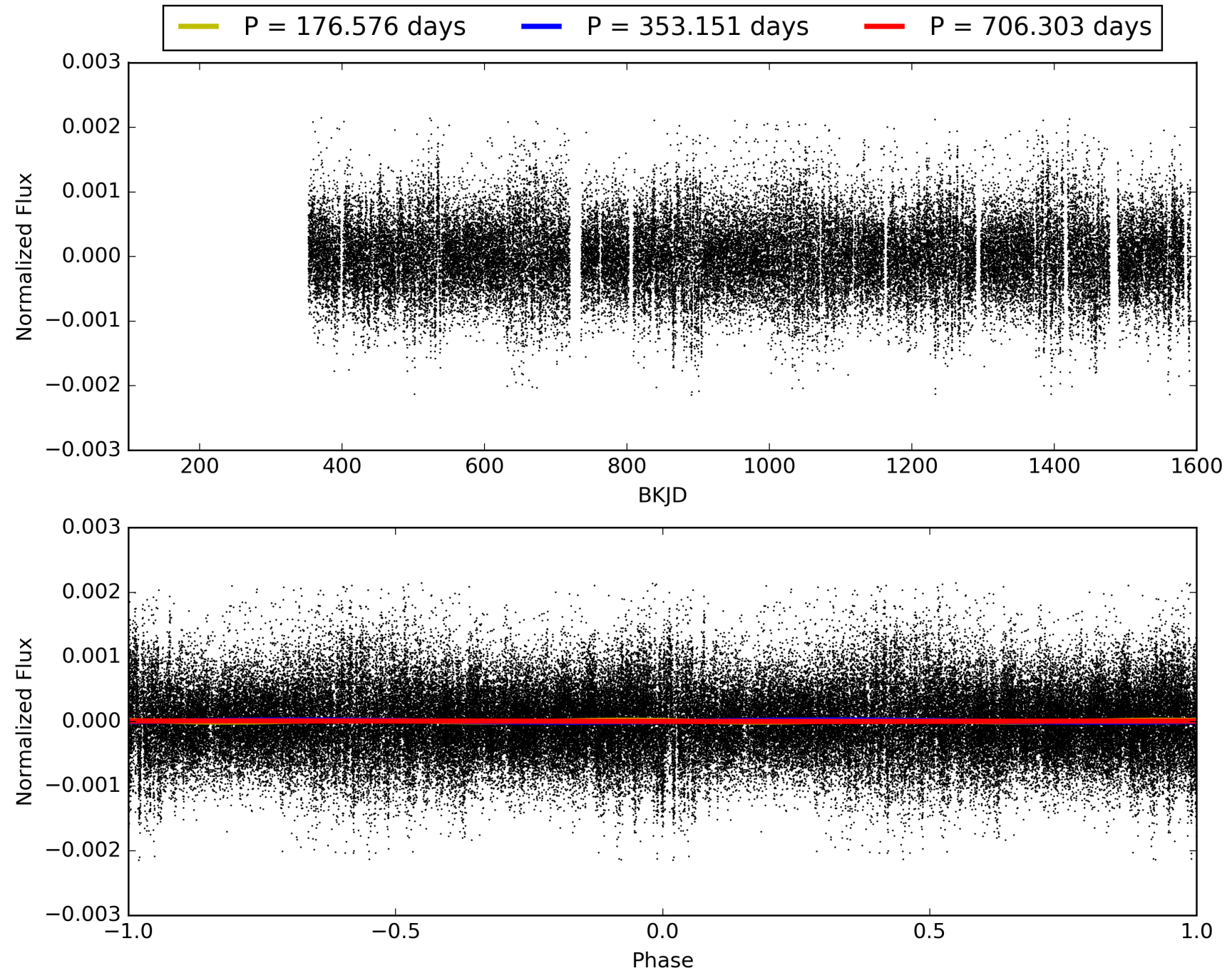
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 16:10:07 Z

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

TCE 006359580-01, PDC Light Curves

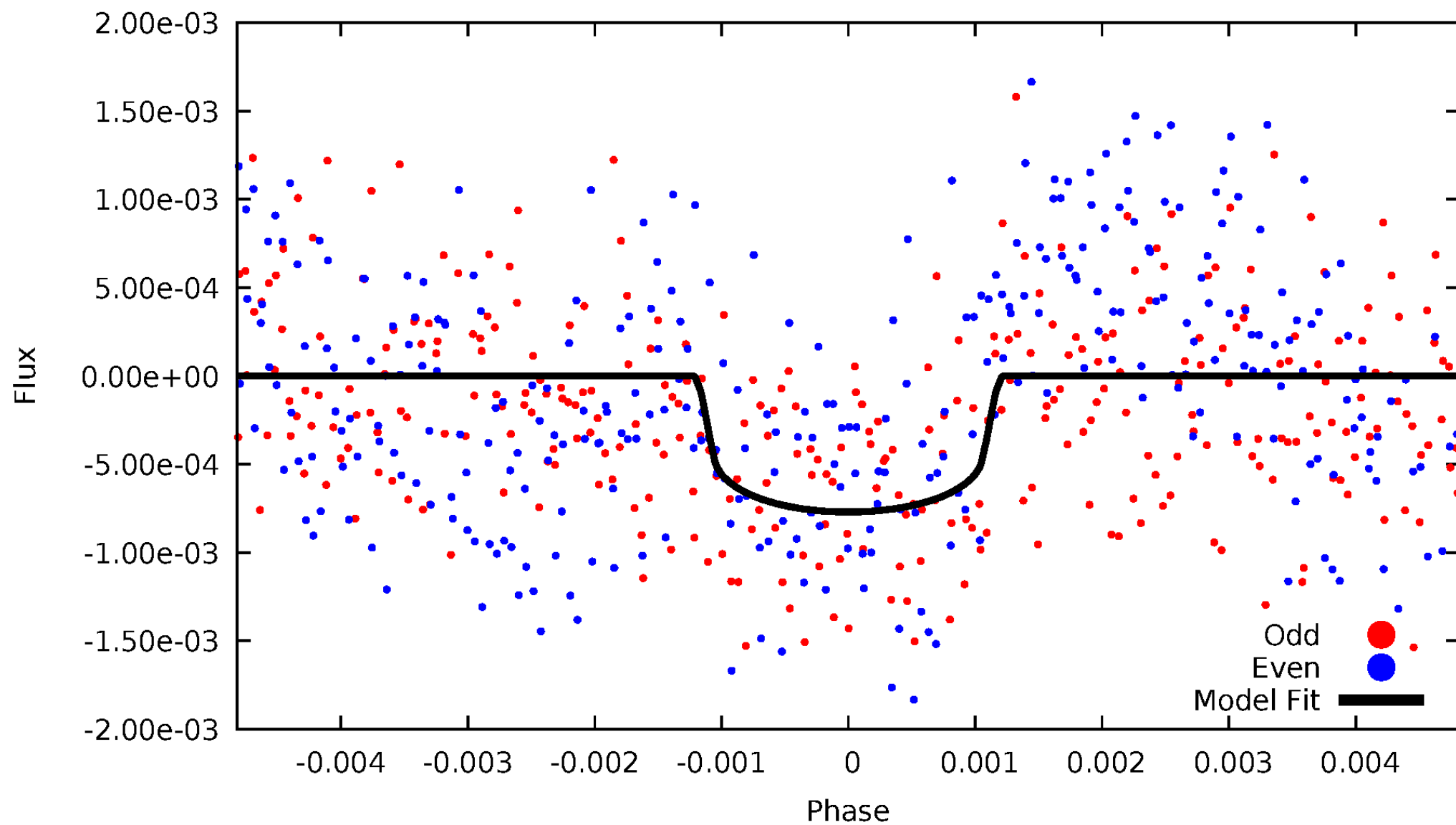


TCE 006359580-01



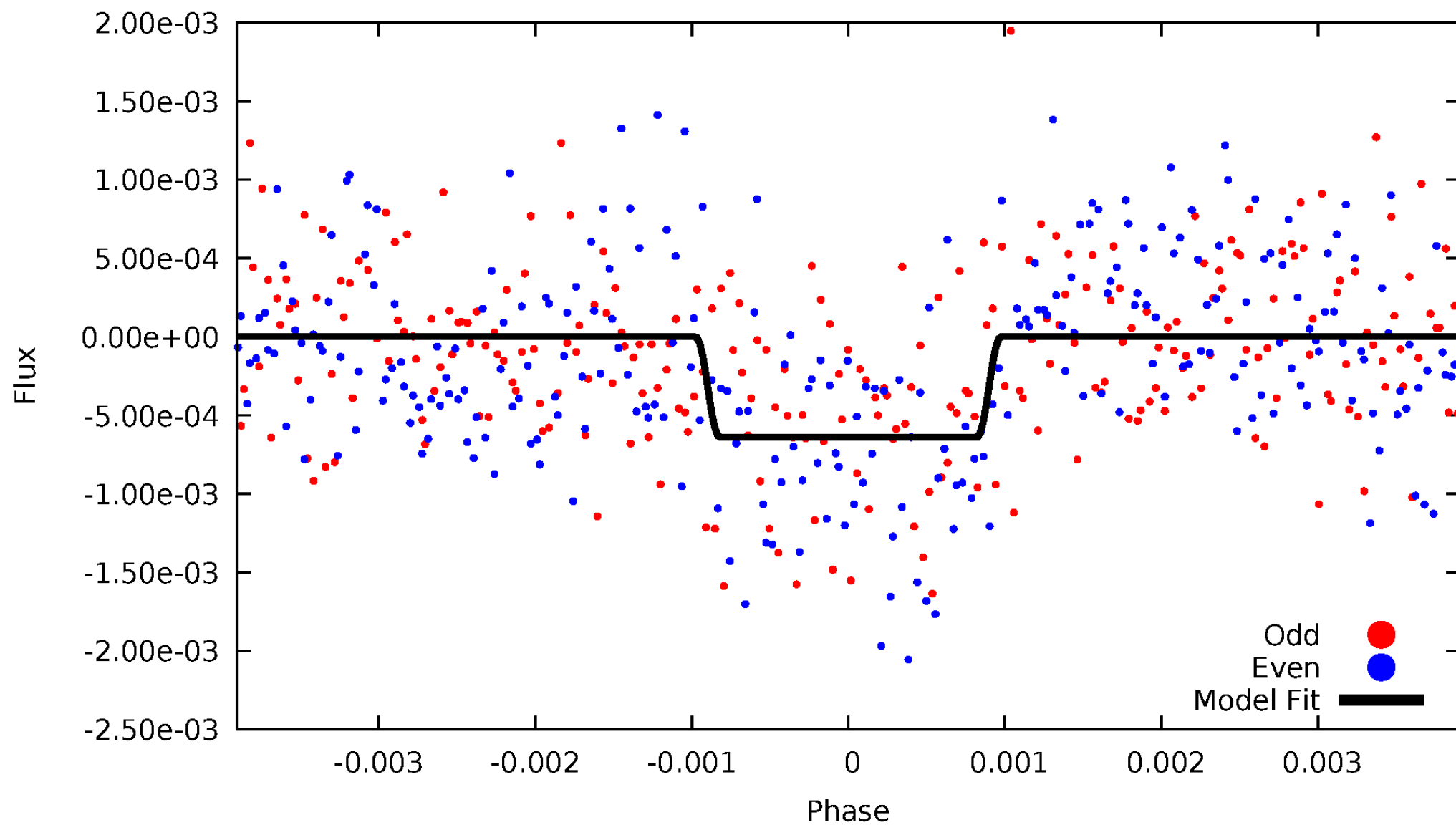
DV Odd/Even

TCE 006359580-01



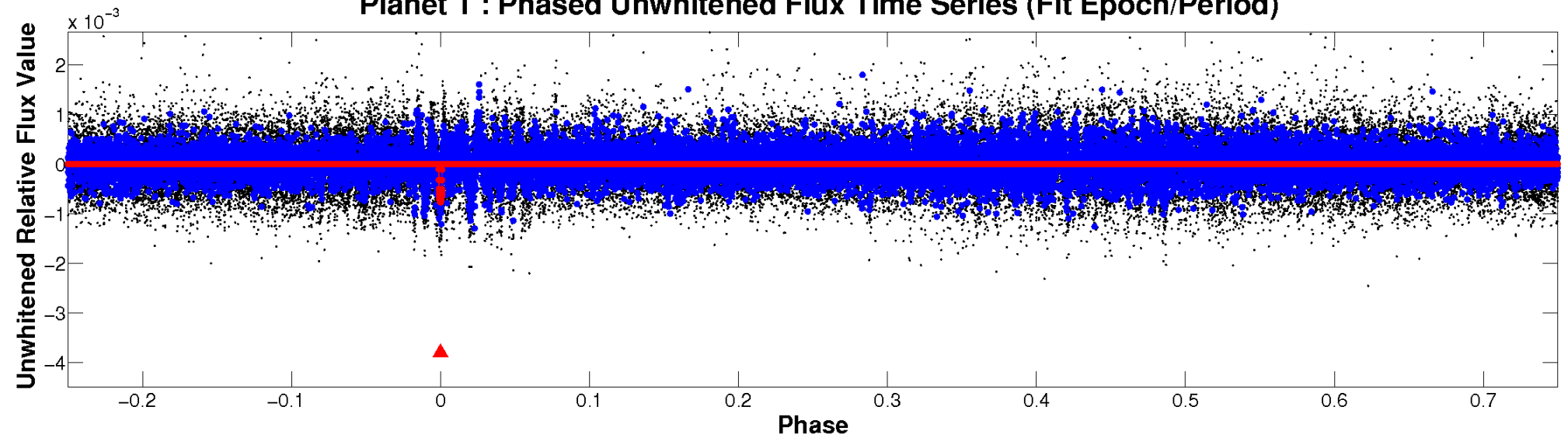
ALT Odd/Even

TCE 006359580-01

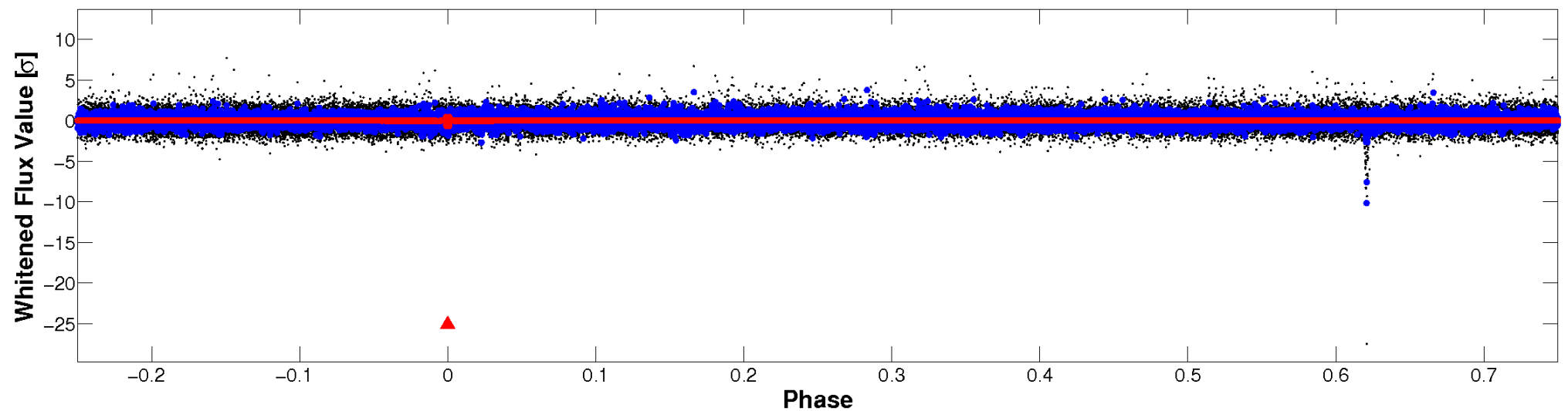


Non-Whitened Vs. Whitened Light Curve

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

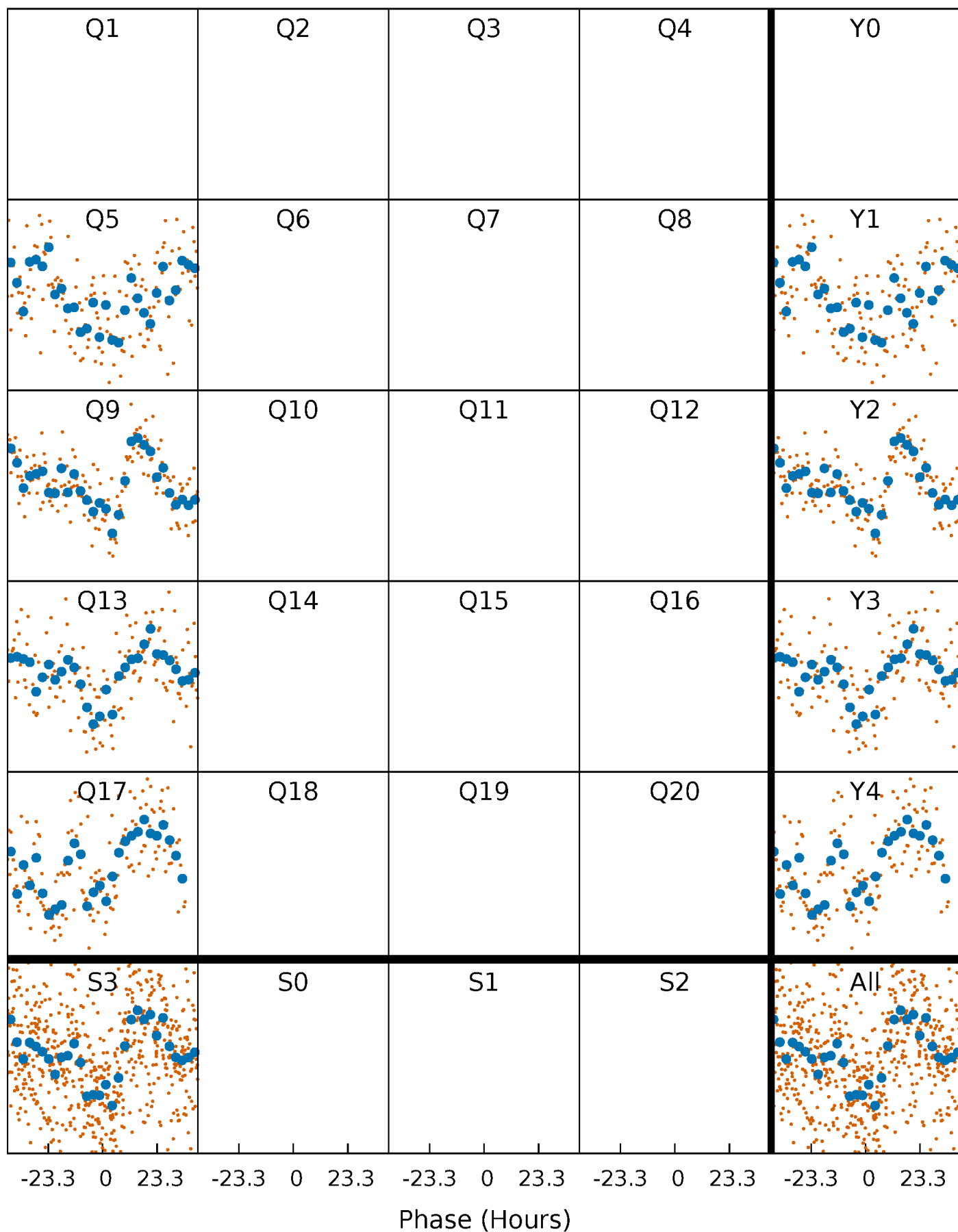


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 006359580-01 P=353.151307 Days $T_0=176.922701$ (BKJD)



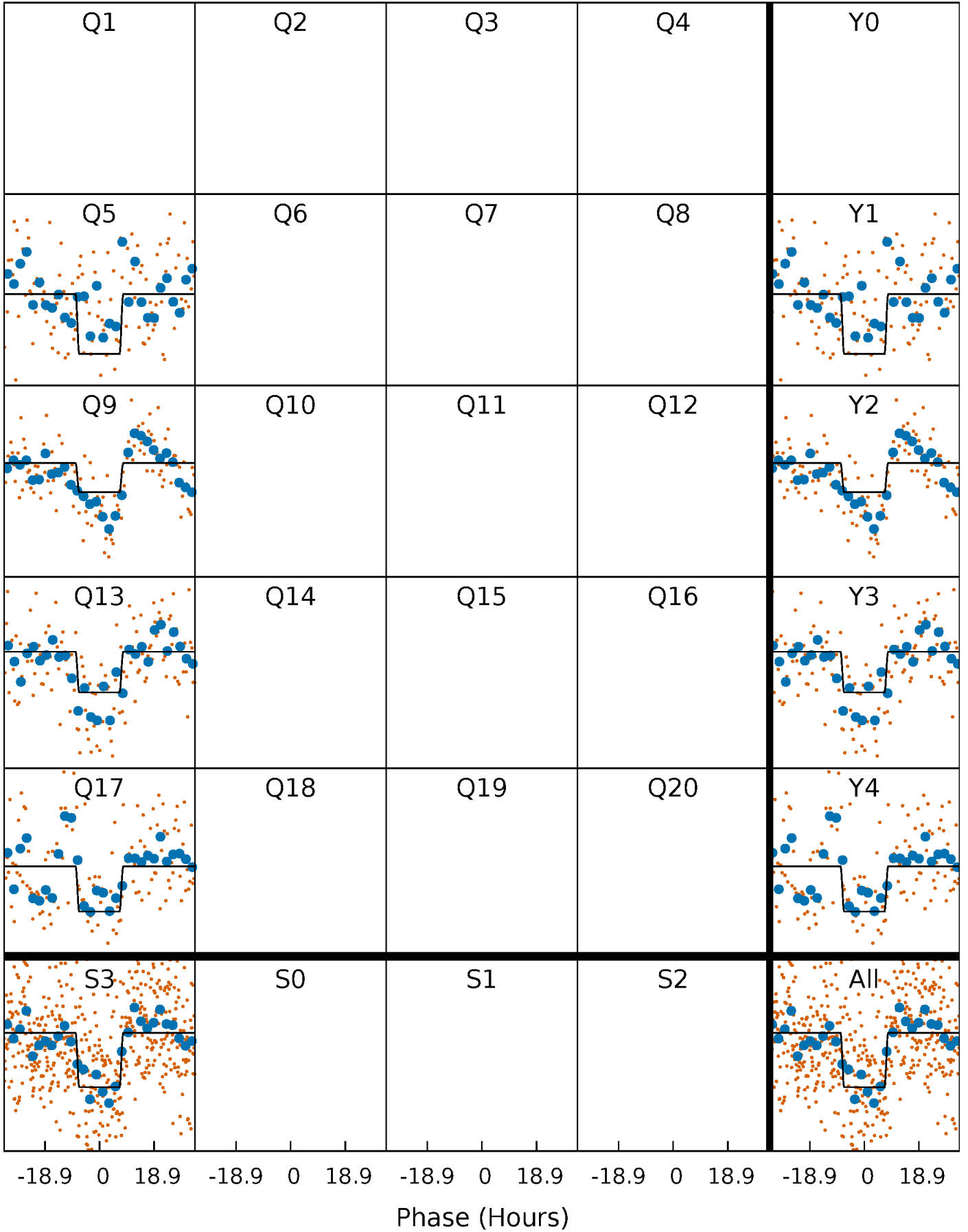
DV Quarter-Phased Transit Curves

TCE 006359580-01 $P=353.151307$ Days $T_0=176.922701$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

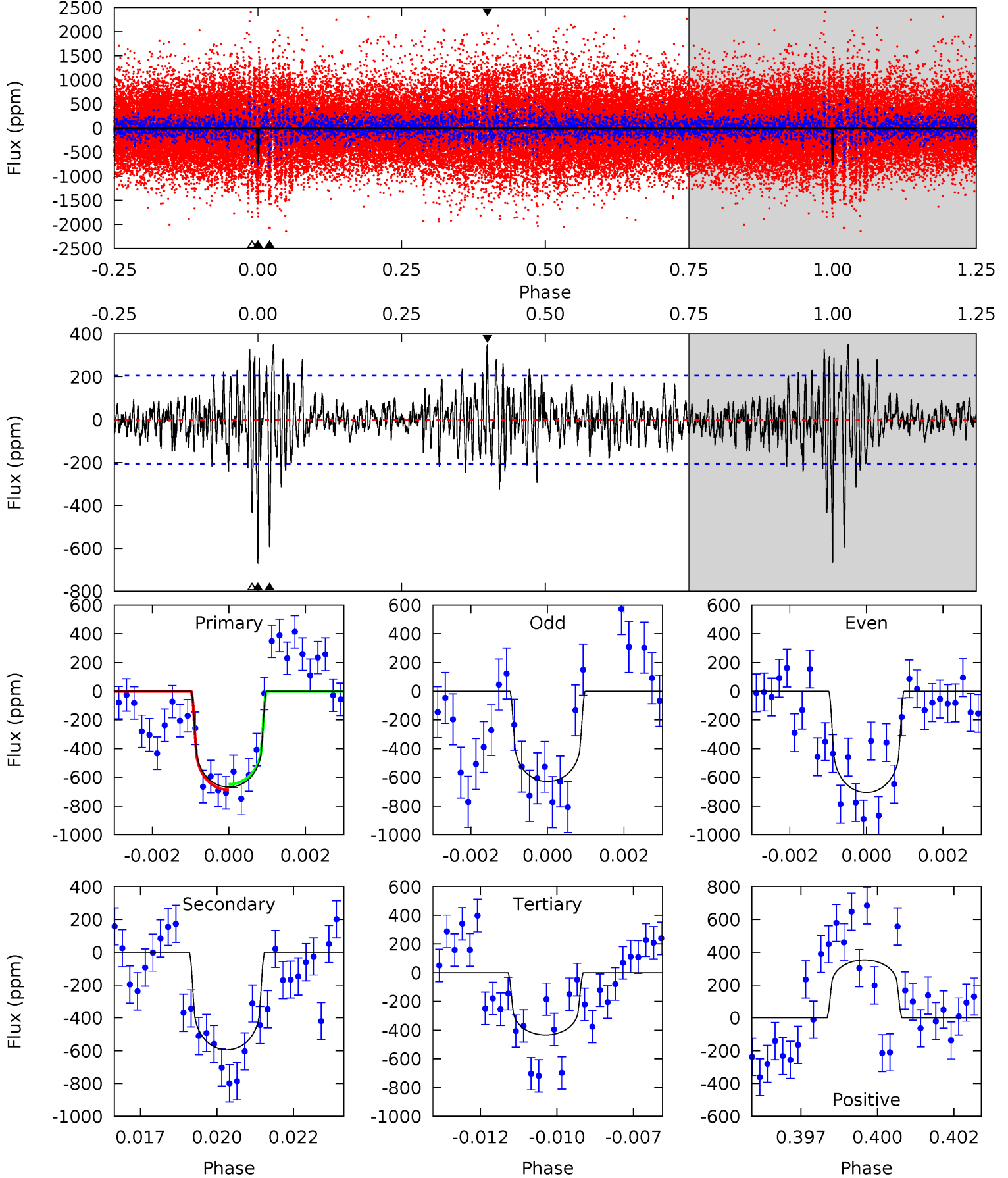
TCE 006359580-01 $P=353.098728$ Days $T_0=177.075405$ (BKJD)



DV Model-Shift Uniqueness Test

006359580-01, P = 353.151307 Days, E = 176.922701 Days

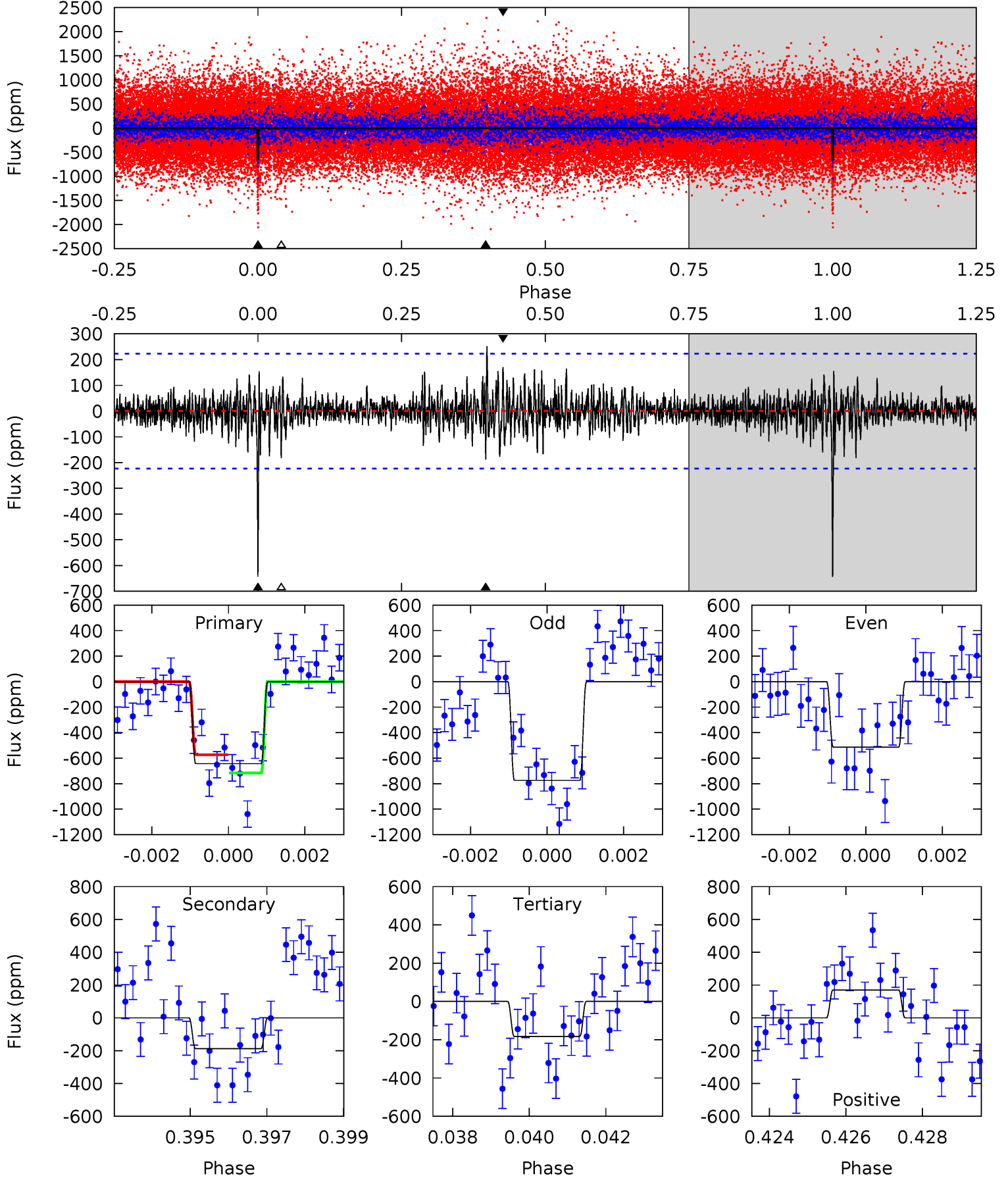
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.2	15.3	11.2	9.09	5.29	3.03	2.31	6.05	8.14	4.15	6.23	0.99	0.95	0.35	0.50



Alt Model-Shift Uniqueness Test

006359580-01, P = 353.098728 Days, E = 177.075405 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	4.49	4.37	4.07	5.34	3.10	1.09	11.0	11.3	0.12	0.42	3.12	0.96	0.28	1.69



Stellar Parameters For KIC 006359580

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5729^{+172}_{-189}	$4.449^{+0.098}_{-0.182}$	$-0.220^{+0.300}_{-0.300}$	$0.926^{+0.248}_{-0.134}$	$0.879^{+0.120}_{-0.080}$	$1.558^{+0.658}_{-0.746}$
	+3%/-3%	+2%/-4%	+136%/-136%	+27%/-14%	+14%/-9%	+42%/-48%
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 006359580-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-594 ± 39	$2.91^{+0.56}_{-0.53}$	354^{+25}_{-19}	5363^{+435}_{-338}	33861^{+15826}_{-9935}
Alt.	-188 ± 42	$2.65^{+0.51}_{-0.51}$	355^{+24}_{-20}	4424^{+369}_{-337}	13066^{+7284}_{-4783}

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 $A_{obs} \gg 1.0$

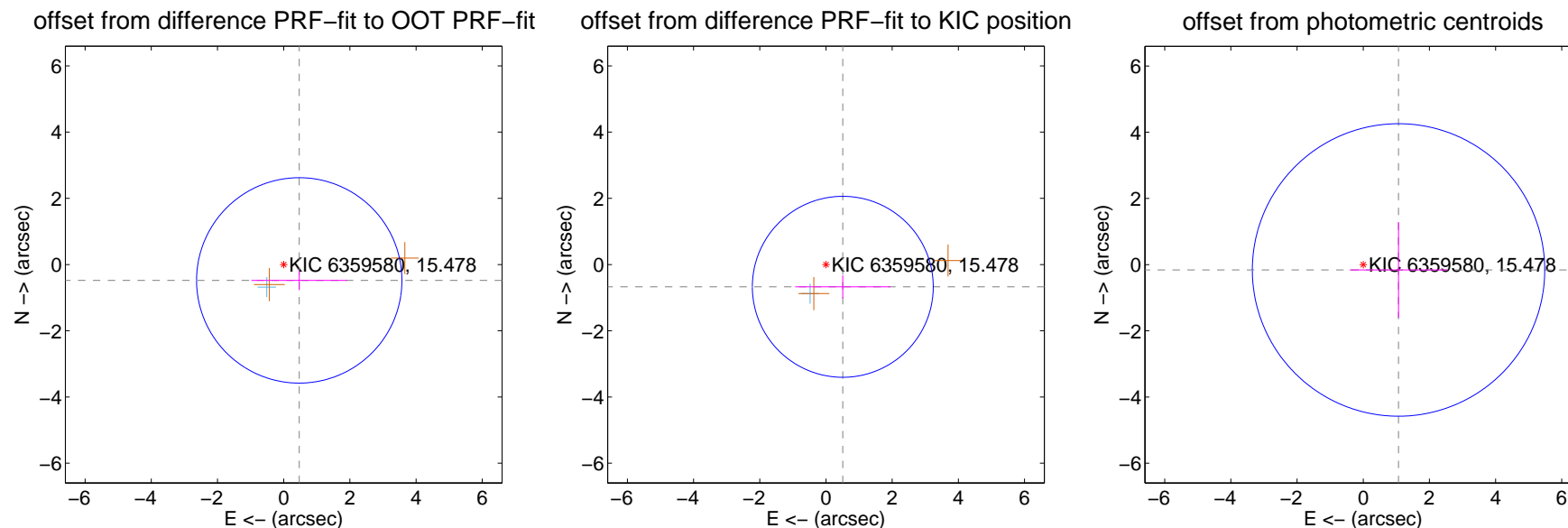
DV Centroid Data

Supplemental centroid analysis for 006359580-01. Kepler magnitude: 15.48. Transit SNR 8.20

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.671 ± 1.034	0.65	-0.470 ± 1.446	-0.479 ± 0.293
PRF-fit source offset from KIC position	0.843 ± 0.911	0.93	-0.508 ± 1.439	-0.672 ± 0.348
photometric centroid source offset	1.08 ± 1.47	0.73	-1.07 ± 1.47	-0.16 ± 1.45

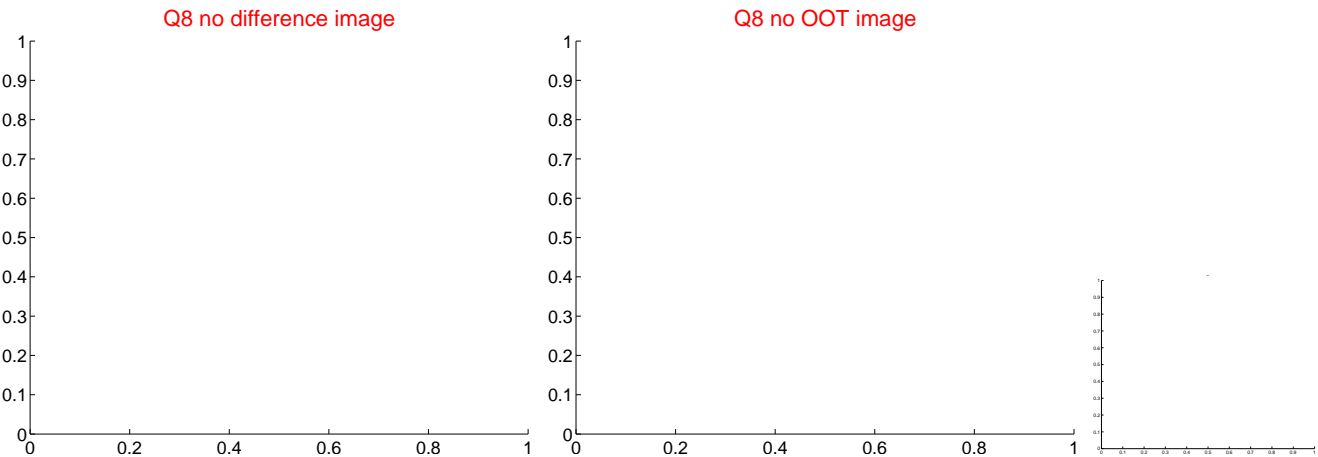
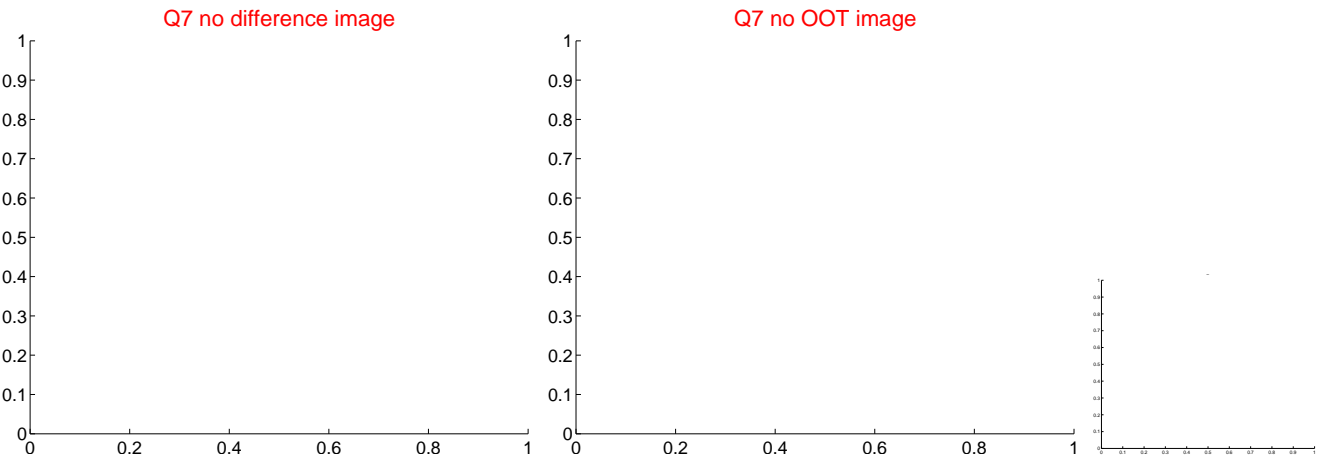
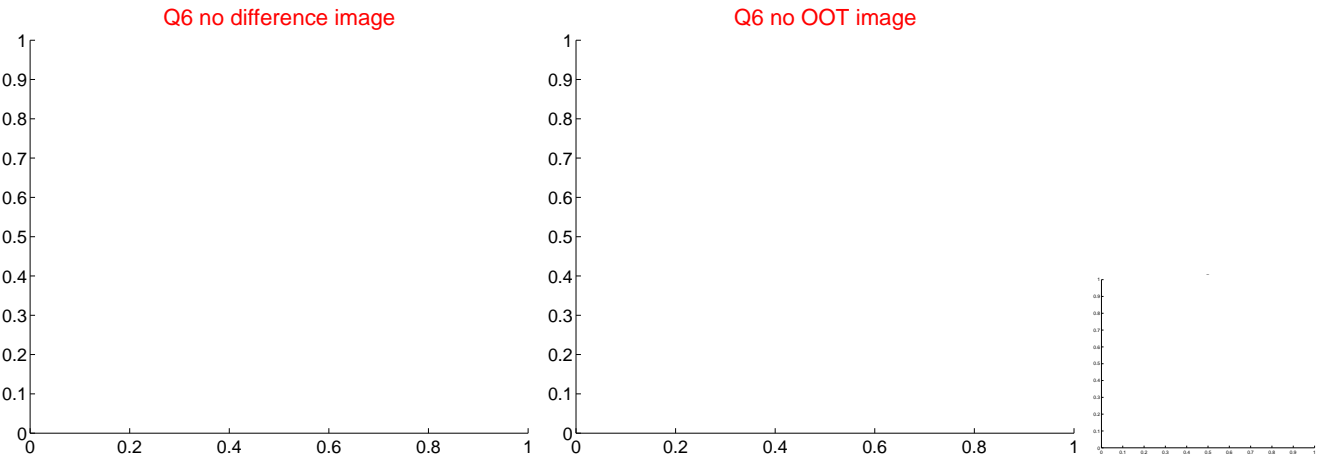
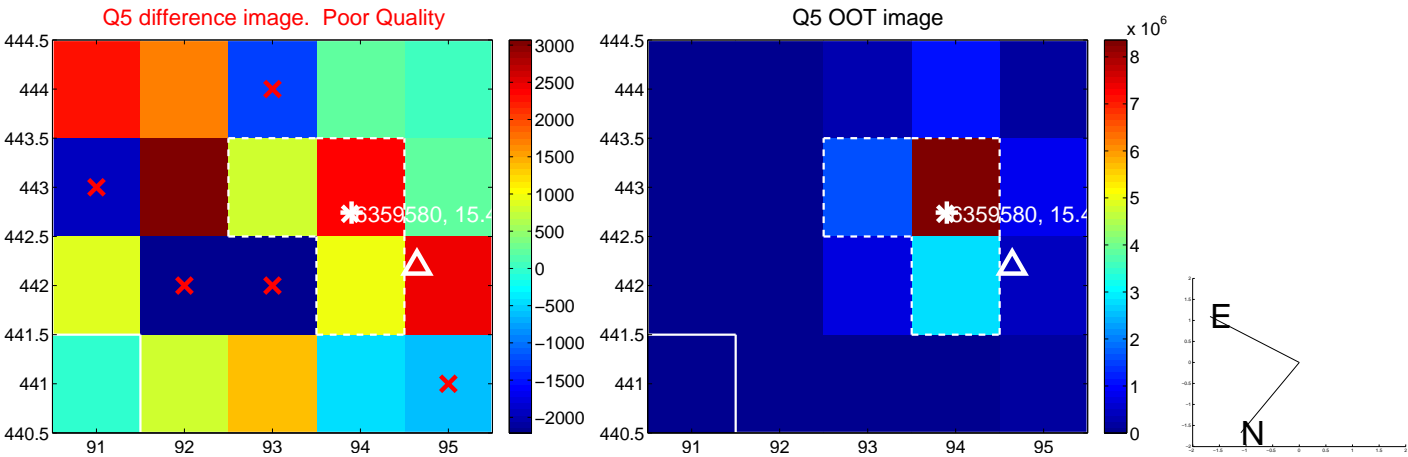


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

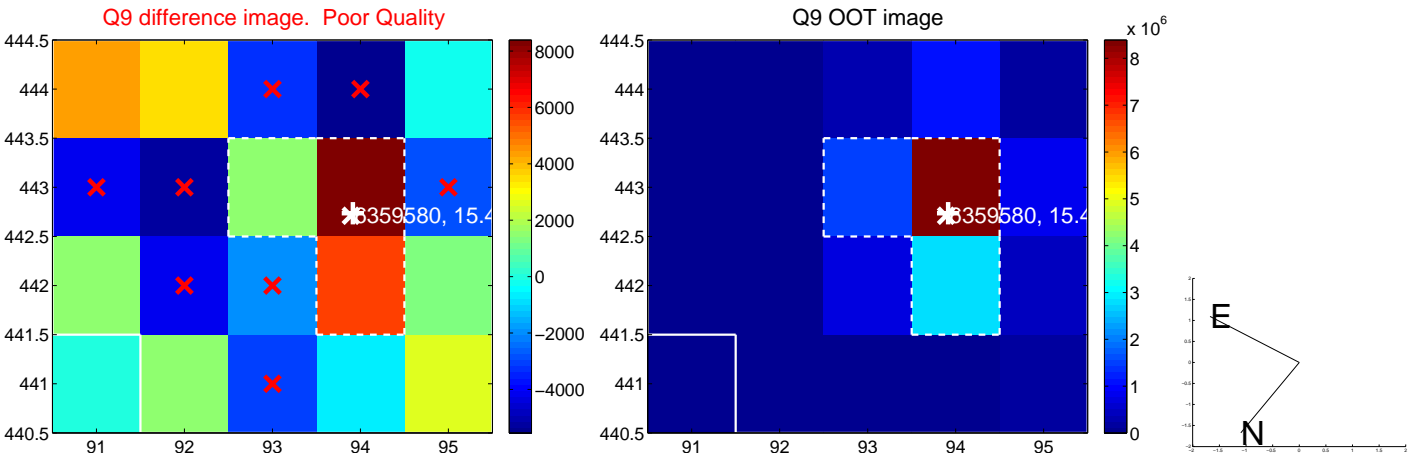
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



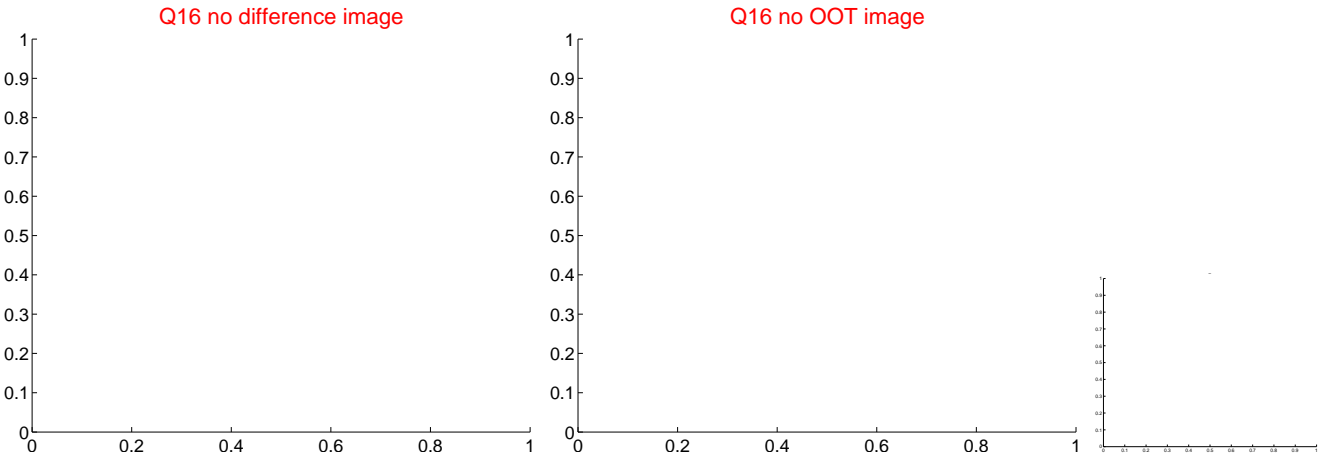
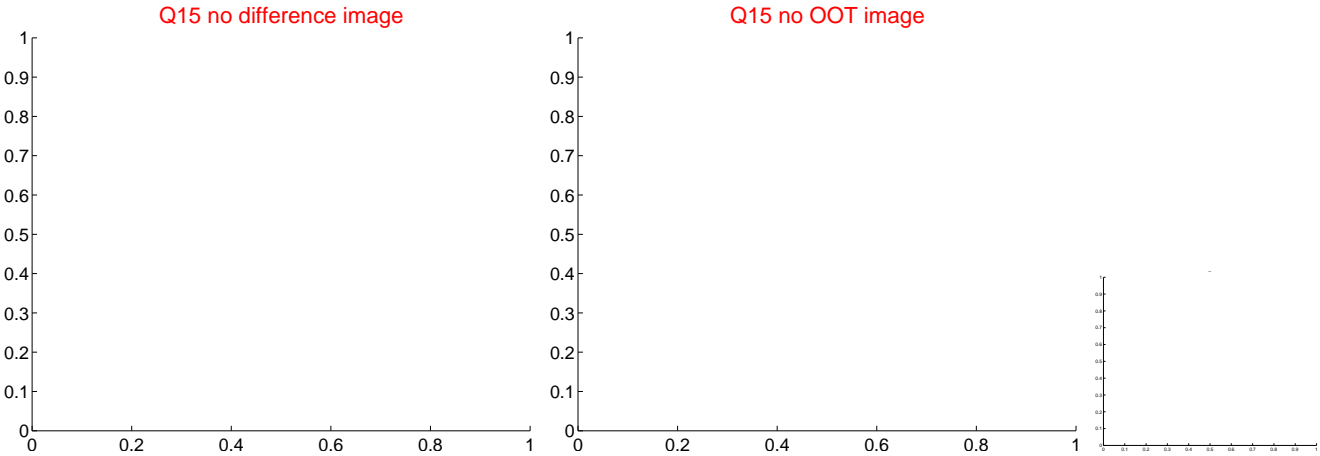
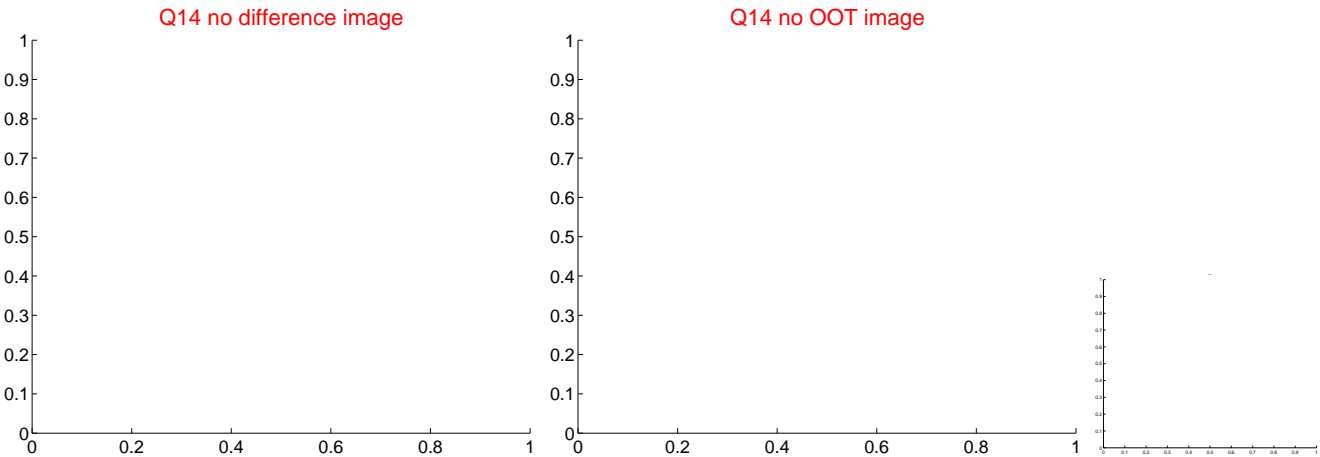
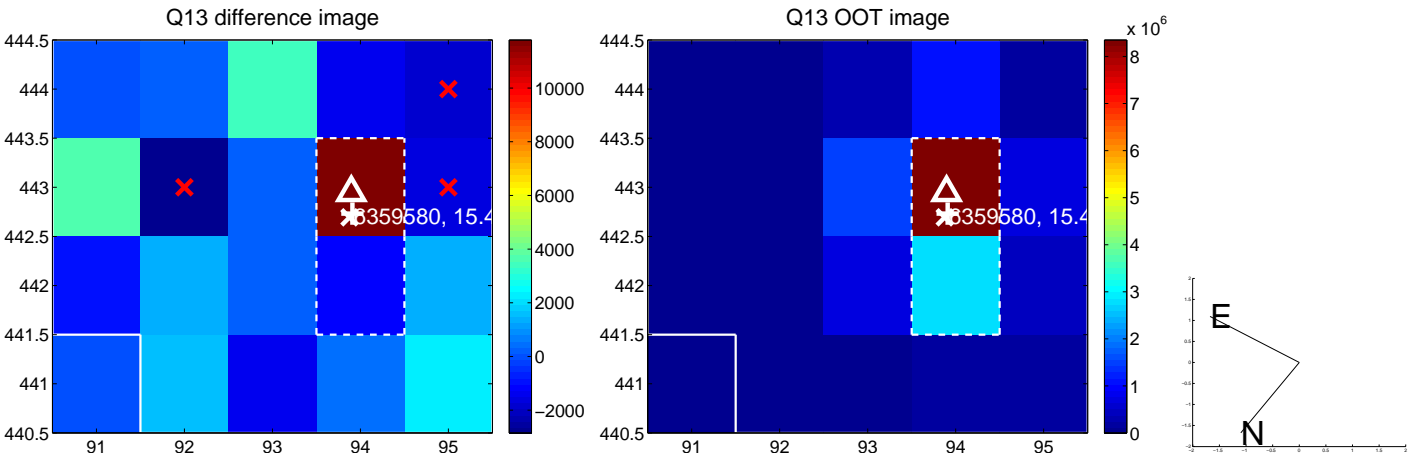
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



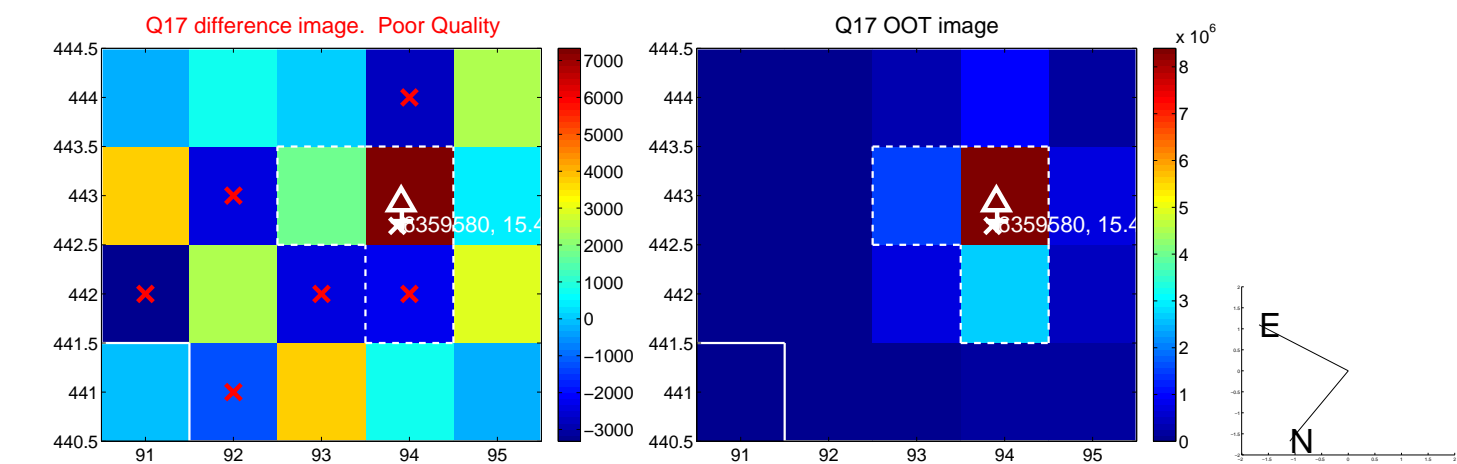
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



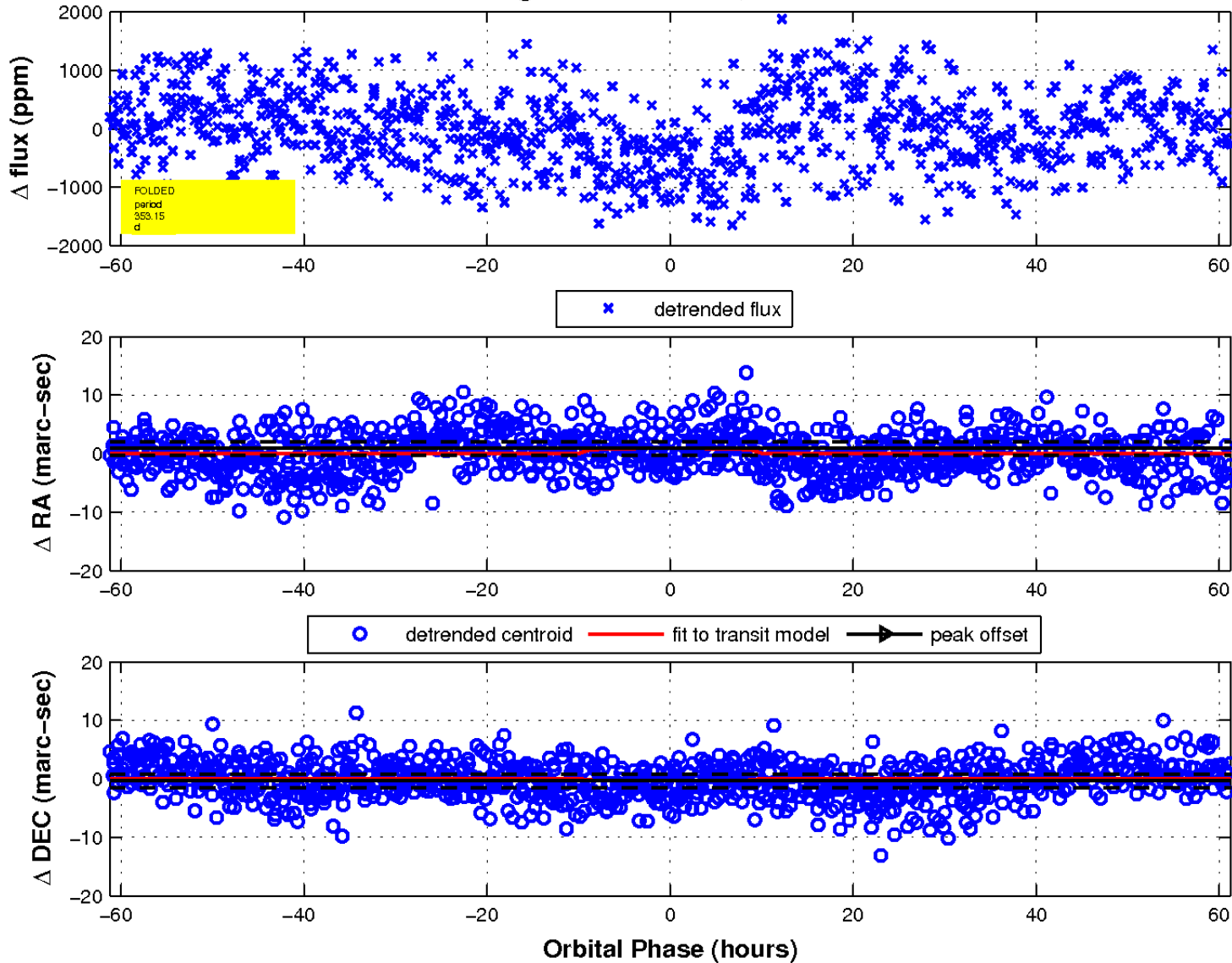
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

