

KIC 009752189

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})
009752189-01	OBS	No	0.855253	131.979420	42.7	3.886	10.5	4.9	0.60	5040	0.46	939.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009752189-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

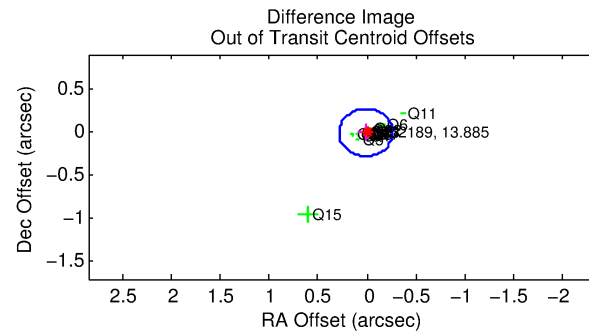
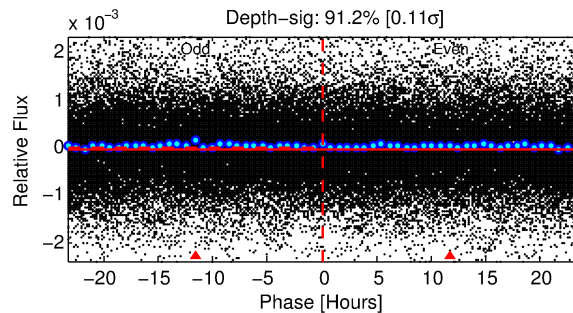
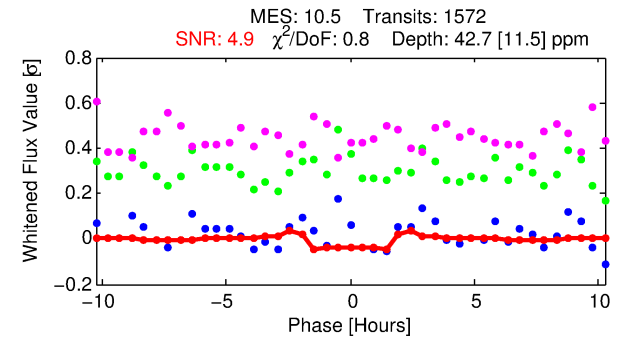
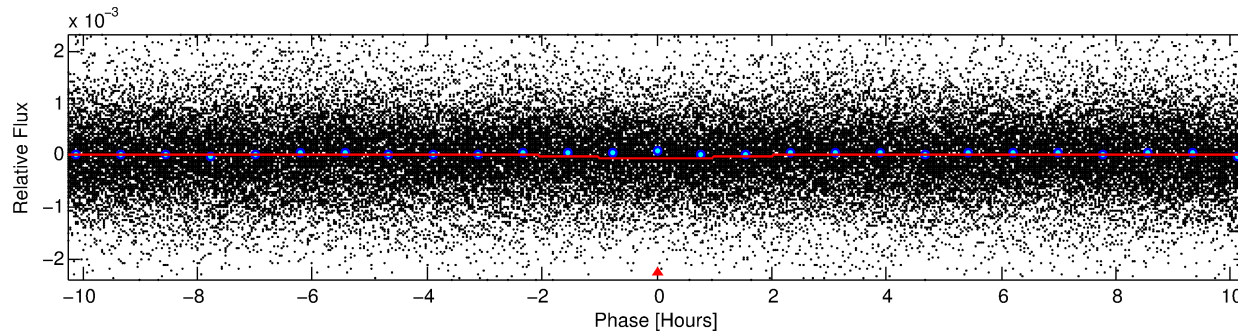
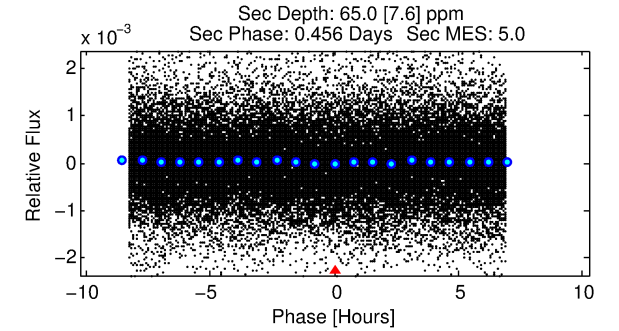
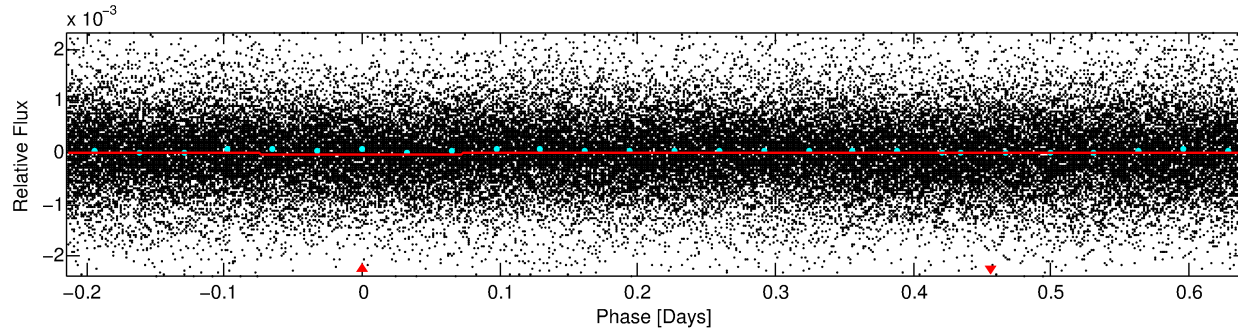
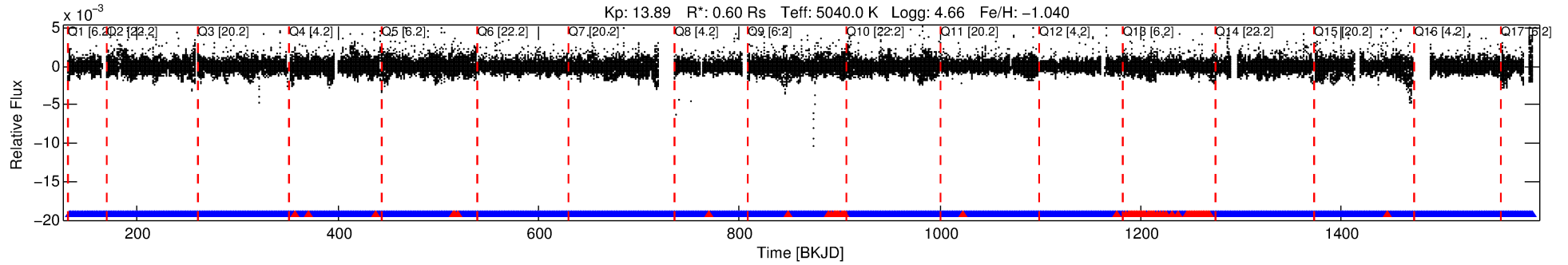
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009752189-01

No Significant Match Found

DV One-Page Summary

KIC: 9752189 Candidate: 1 of 1 Period: 0.855 d



DV Fit Results:

Period = 0.85525 [0.00002] d
Epoch = 131.9794 [0.0037] BKJD
Rp/R* = 0.0071 [0.0041]
a/R* = 1.23 [1.05]
b = 0.89 [0.62]
Seff = 939.63 [146.28]
Teff = 1412 [55] K
Rp = 0.46 [0.27] Re
a = 0.0148 [0.0010] AU
Ag = 36.91 [42.88] [0.84σ]
Teffp = 5380 [1565] K [2.53σ]

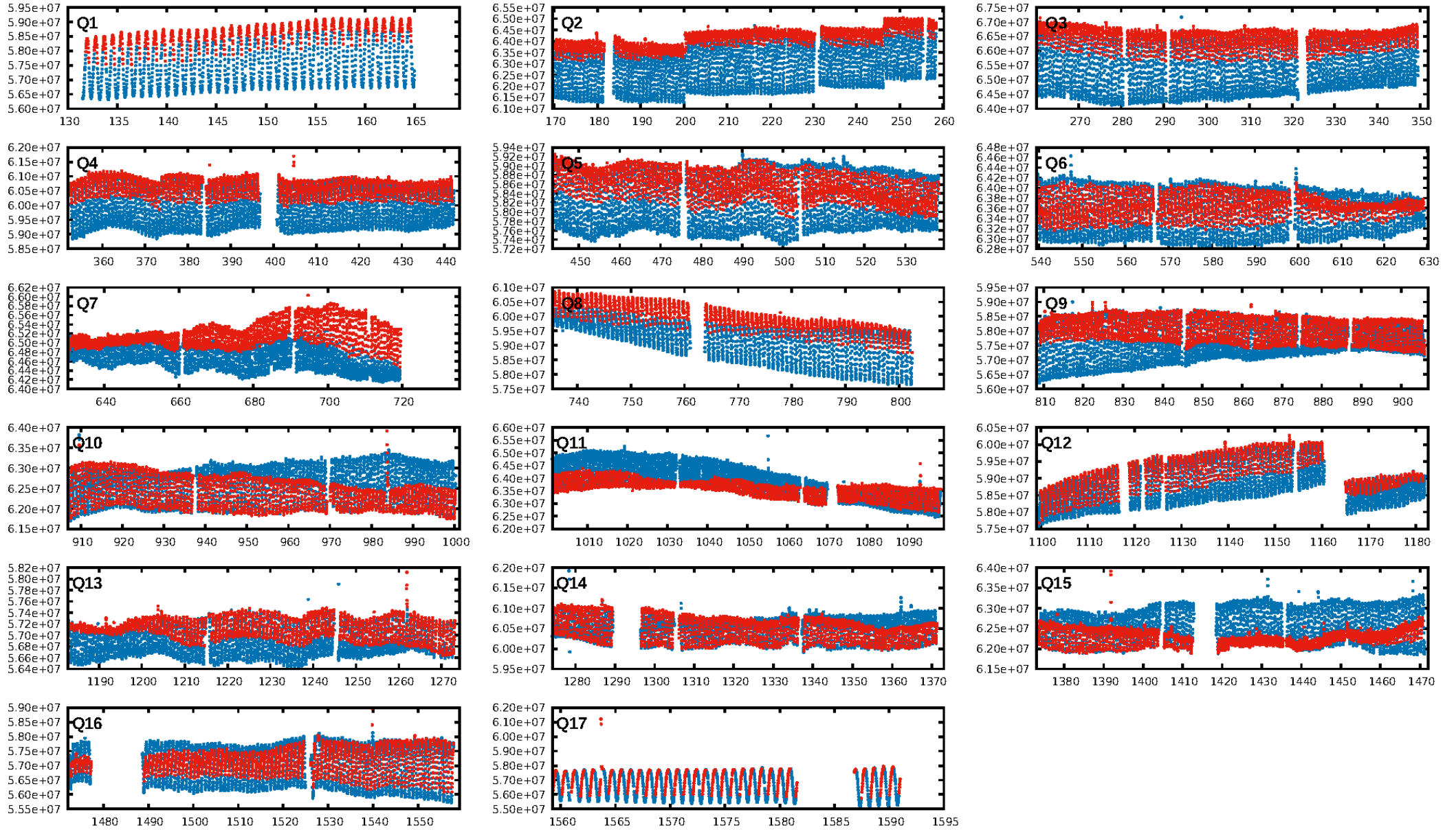
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.53e-24
RollingBand-fgt: 0.95 [1418/1500]
GhostDiagnostic-chr: -6.437
Centroid-sig: 0.0%
Centroid-so: 2.154 arcsec [2.71σ]
OotOffset-rm: 0.014 arcsec [0.15σ]
KicOffset-rm: 0.221 arcsec [2.32σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.12 [2/16]
DiffImageOverlap-fno: 1.00 [17/17]

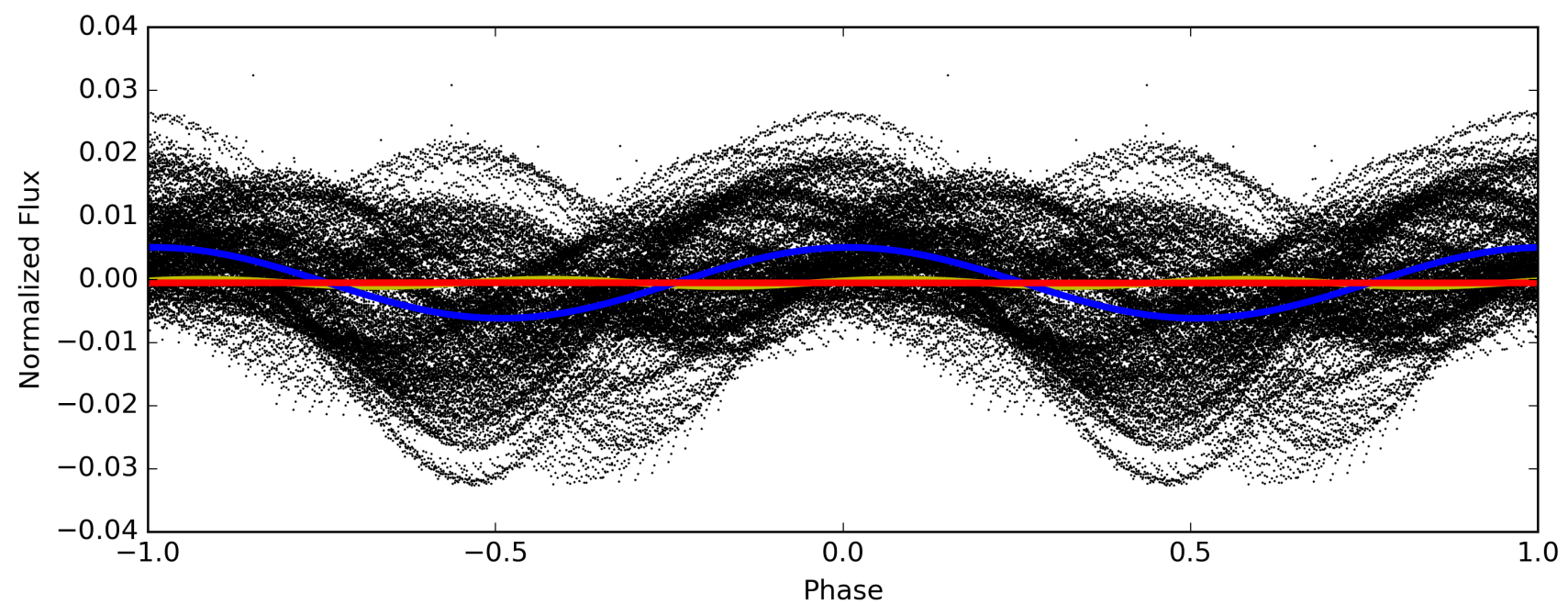
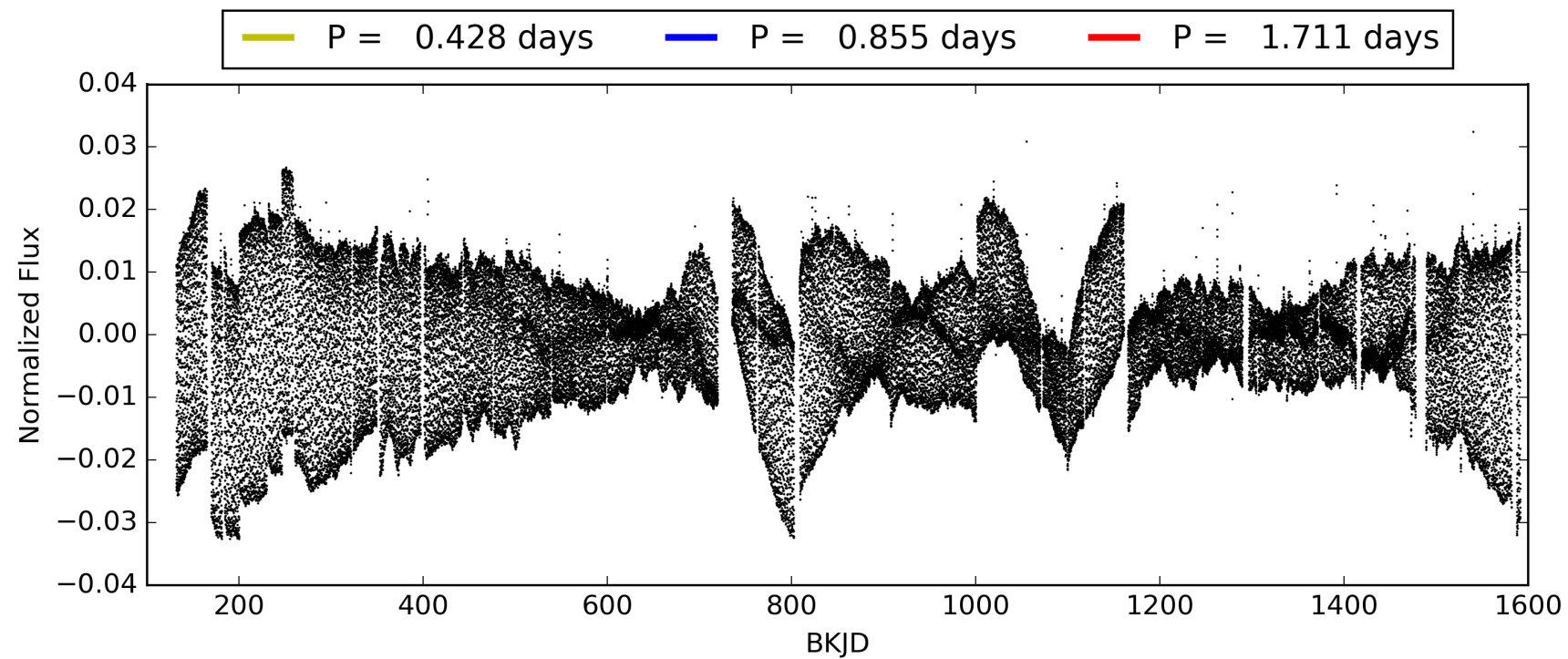
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 04:27:58 Z

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

TCE 009752189-01, PDC Light Curves

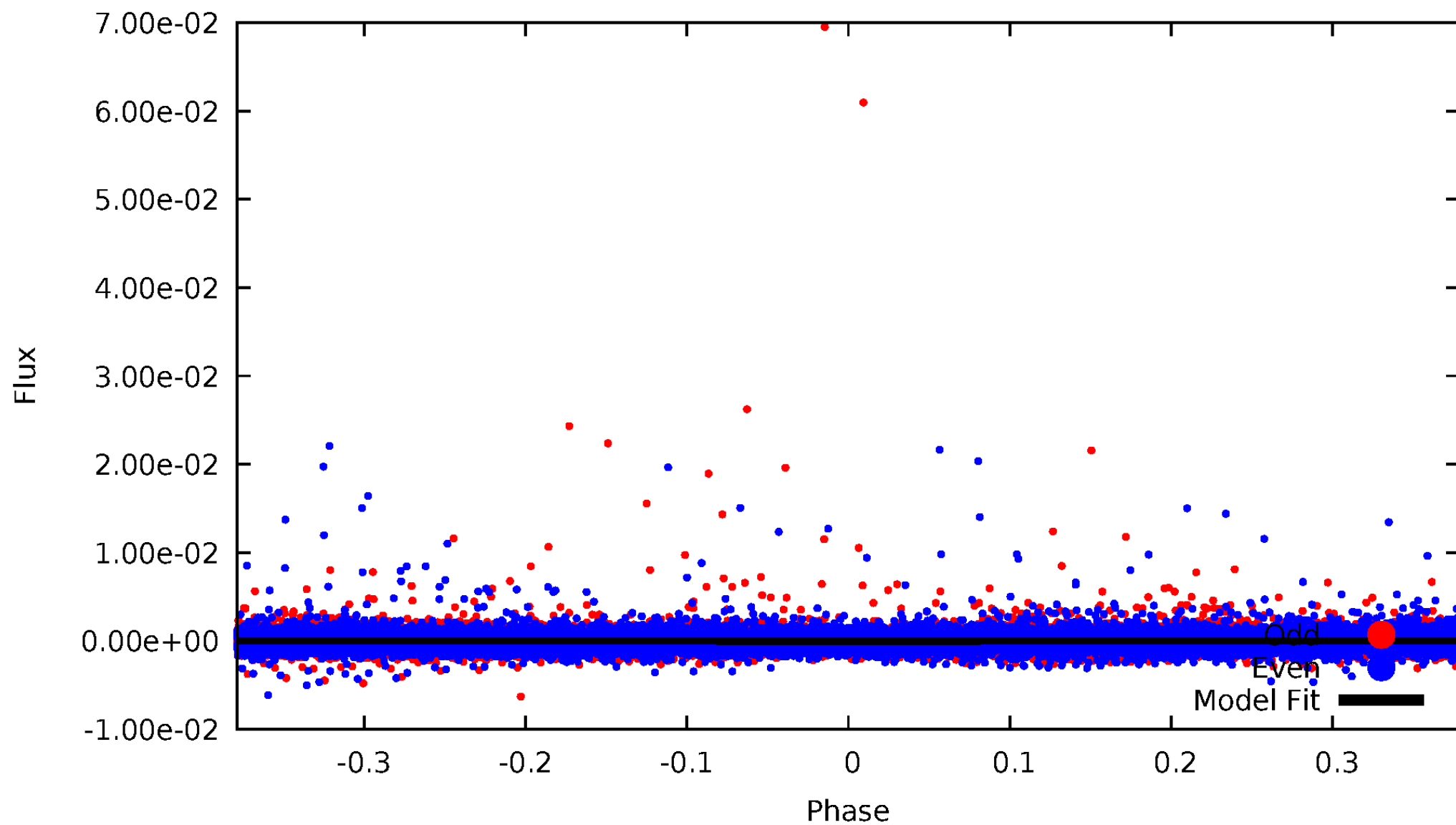


TCE 009752189-01



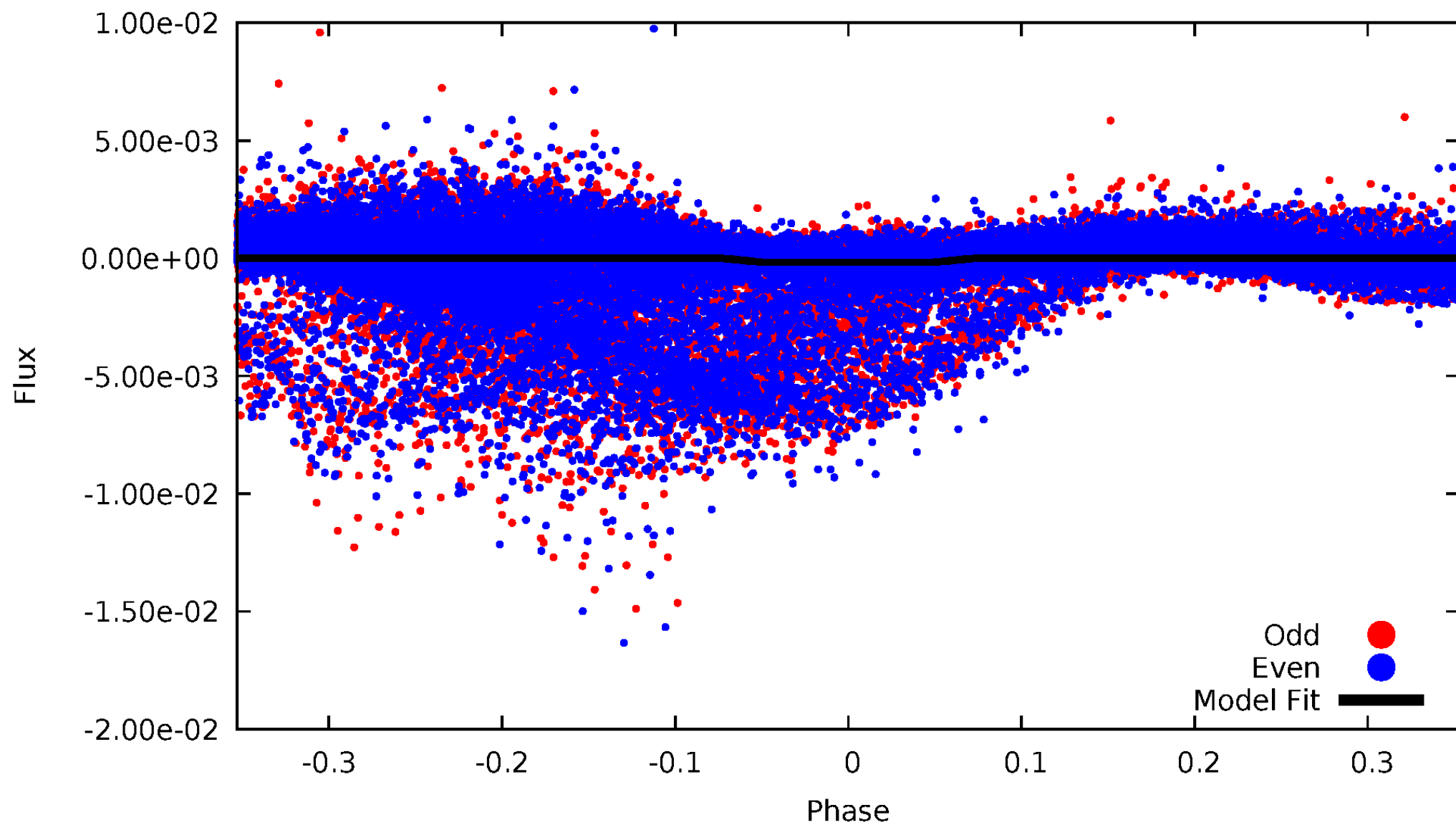
DV Odd/Even

TCE 009752189-01



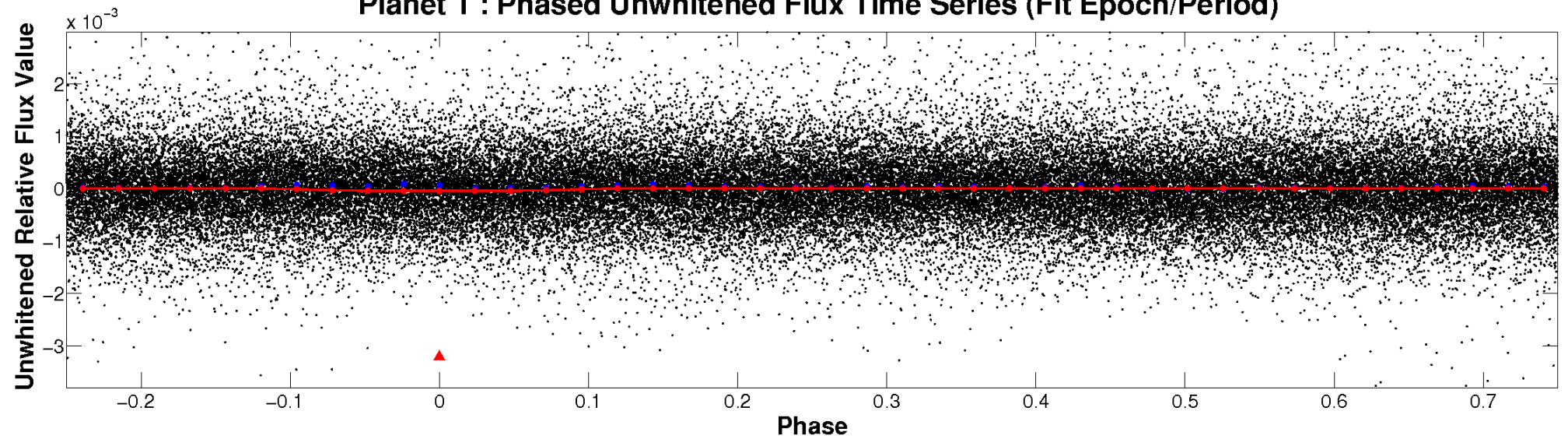
ALT Odd/Even

TCE 009752189-01

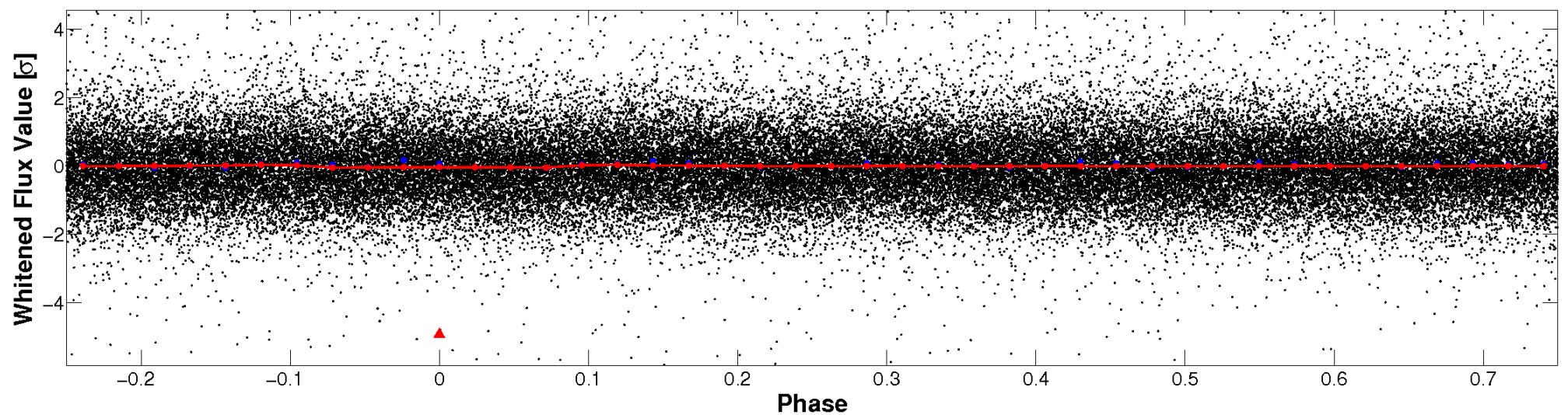


Non-Whitened Vs. Whitened Light Curve

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

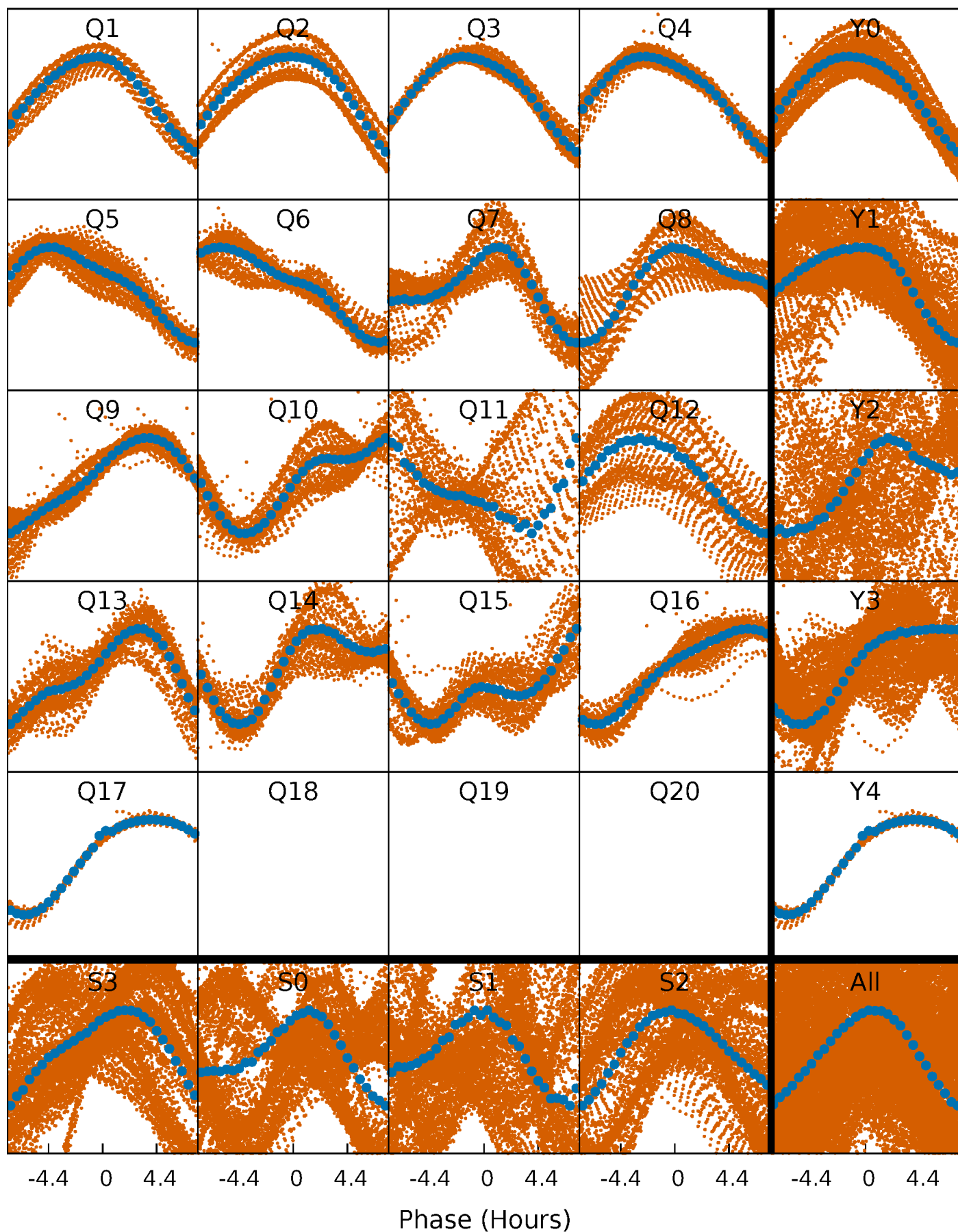


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



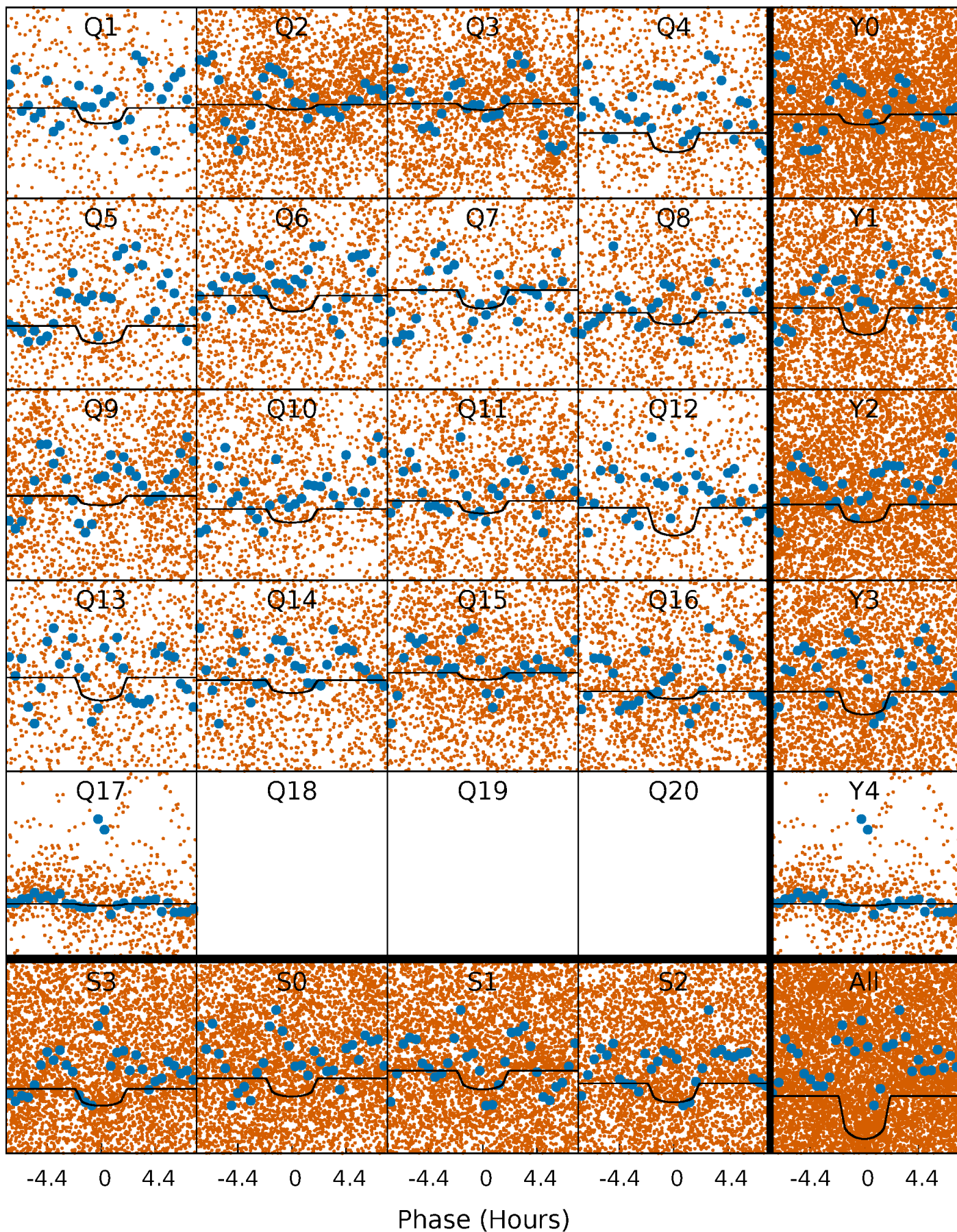
PDC Quarter-Phased Transit Curves

TCE 009752189-01 P= 0.855253 Days $T_0=131.979420$ (BKJD)



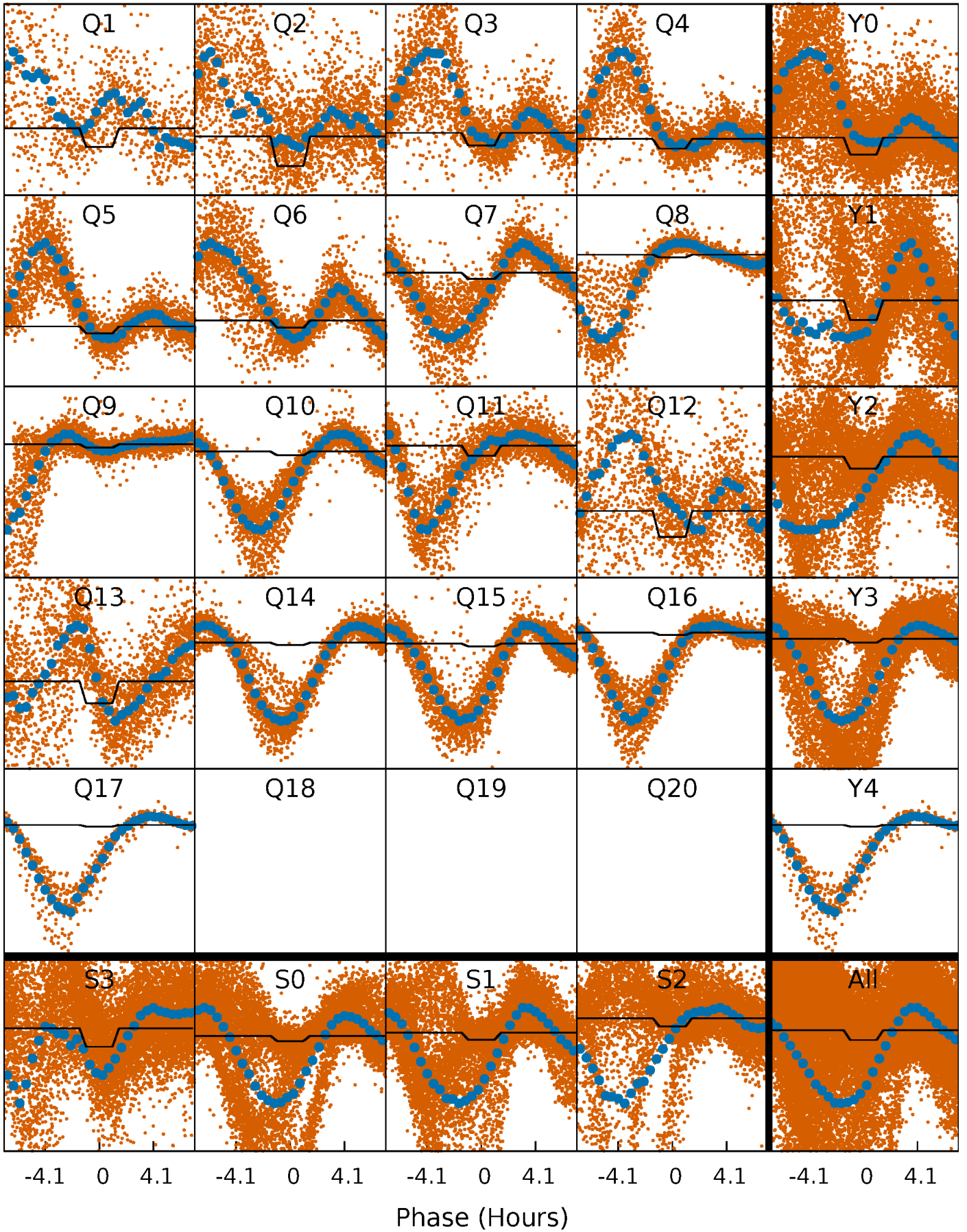
DV Quarter-Phased Transit Curves

TCE 009752189-01 P= 0.855253 Days $T_0=131.979420$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

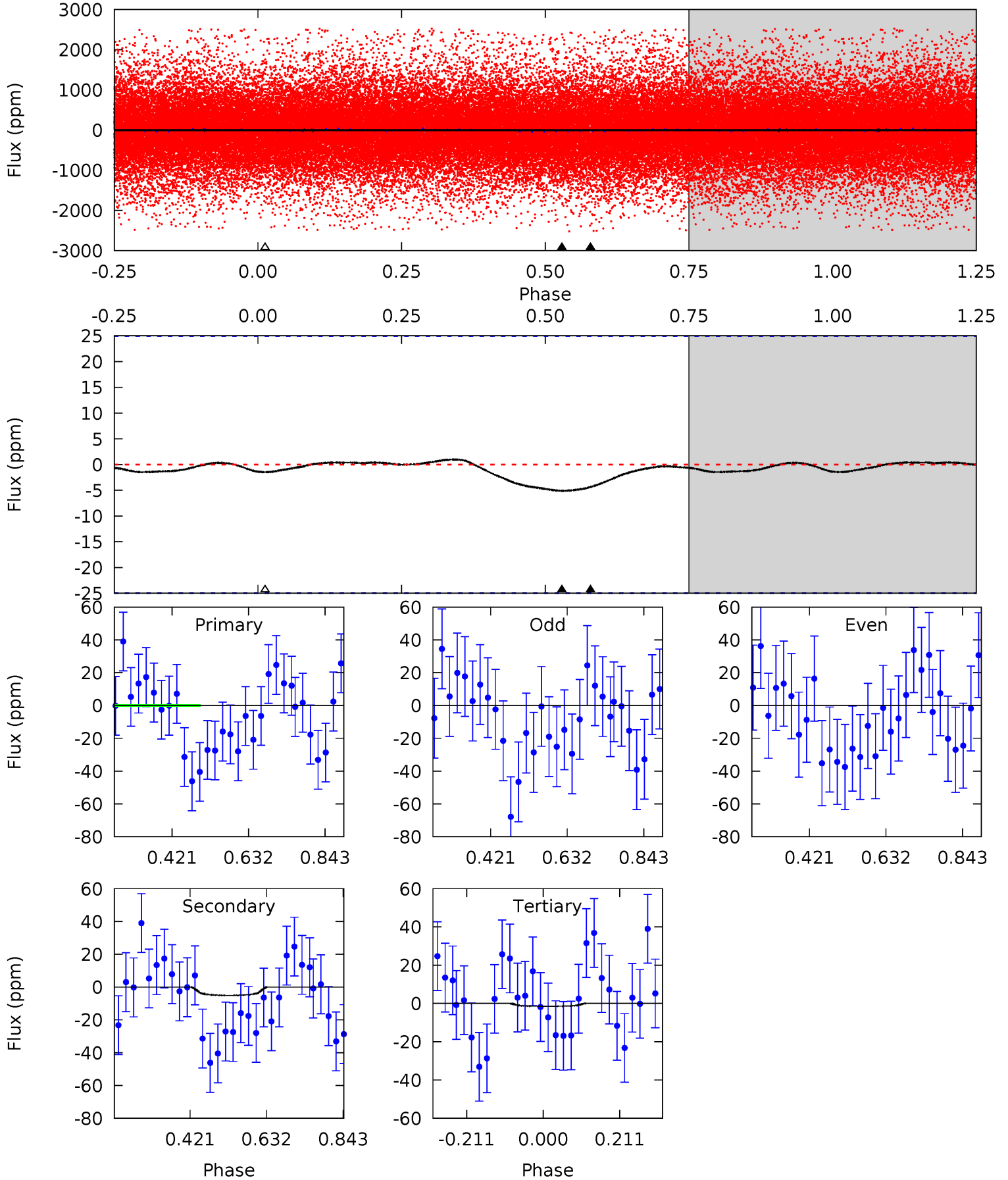
TCE 009752189-01 P= 0.855150 Days $T_0=131.976454$ (BKJD)



DV Model-Shift Uniqueness Test

009752189-01, P = 0.855253 Days, E = 131.124167 Days

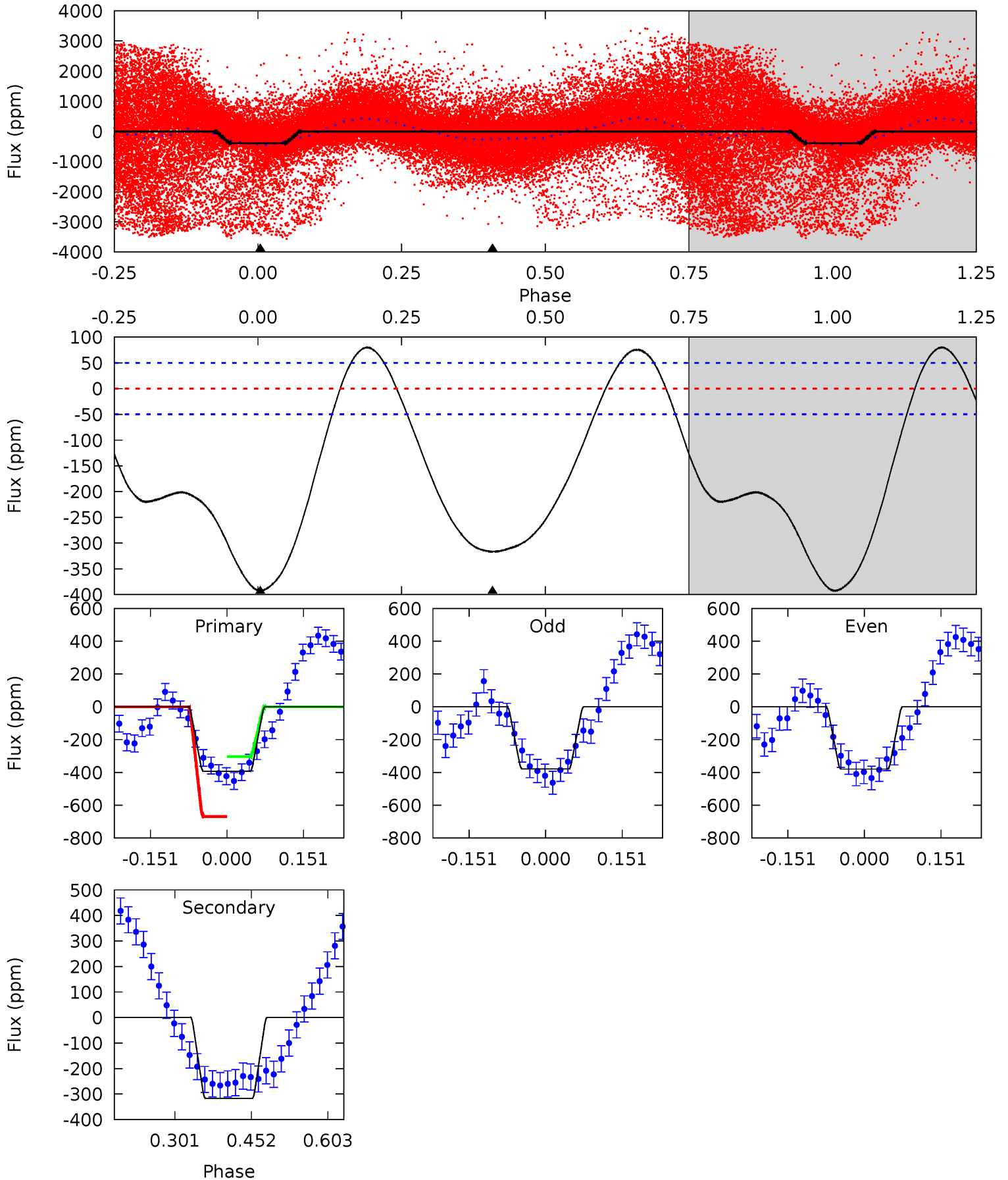
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.77	0.90	0.26	0	4.41	1.25	0.12	0.51	0.77	0.64	0.90	0.44	1.90	0.16	1.02



Alt Model-Shift Uniqueness Test

009752189-01, P = 0.855150 Days, E = 131.121304 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
35.3	28.5	0	0	4.48	1.44	9.47	35.3	35.3	28.5	28.5	0.00	6.29	0.17	14.4



Stellar Parameters For KIC 009752189

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5040^{+151}_{-136}	$4.659^{+0.055}_{-0.035}$	$-1.040^{+0.300}_{-0.300}$	$0.598^{+0.047}_{-0.042}$	$0.596^{+0.052}_{-0.022}$	$3.918^{+0.823}_{-0.566}$
	+3%/-3%	+1%/-1%	+29%/-29%	+8%/-7%	+9%/-4%	+21%/-14%
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 009752189-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 6	$0.49^{+0.26}_{-0.27}$	1967^{+75}_{-66}	3155^{+1011}_{-5716}	$2.225^{+9.082}_{-2.313}$
Alt.	-317 ± 11	$0.88^{+0.28}_{-0.27}$	1967^{+71}_{-64}	5731^{+1307}_{-661}	51^{+57}_{-21}

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 $A_{\text{obs}} \gg 1.0$

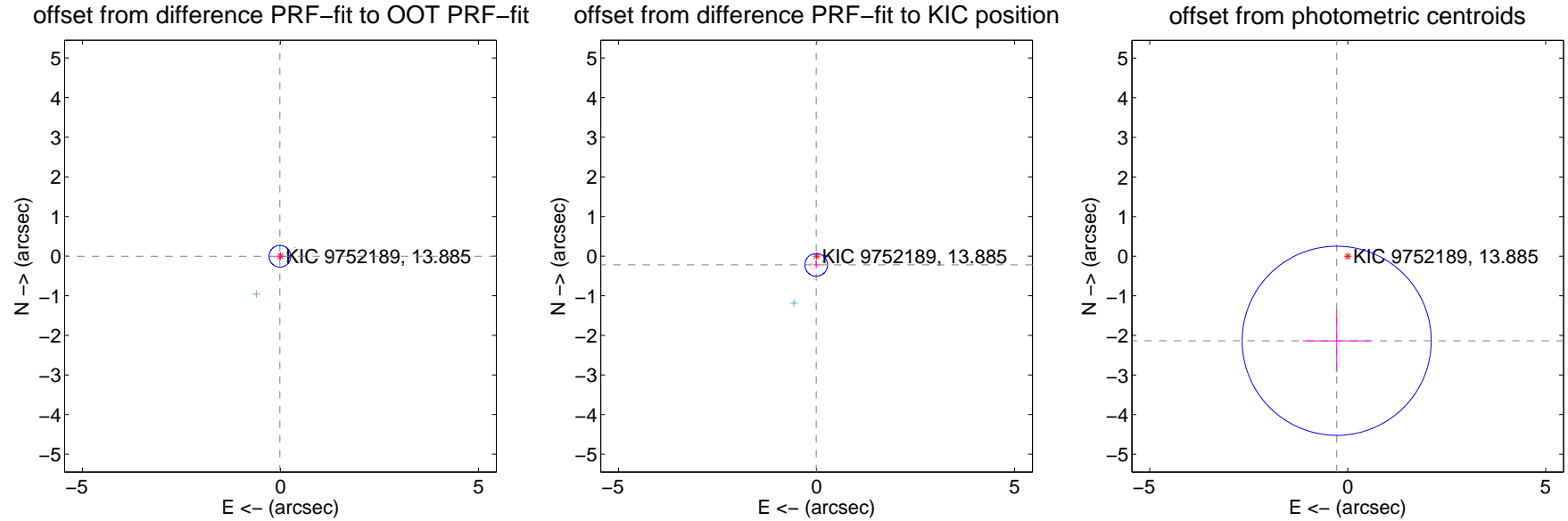
DV Centroid Data

Supplemental centroid analysis for 009752189-01. Kepler magnitude: 13.88. Transit SNR 4.93

There are 2 quarters with good PRF difference image offsets

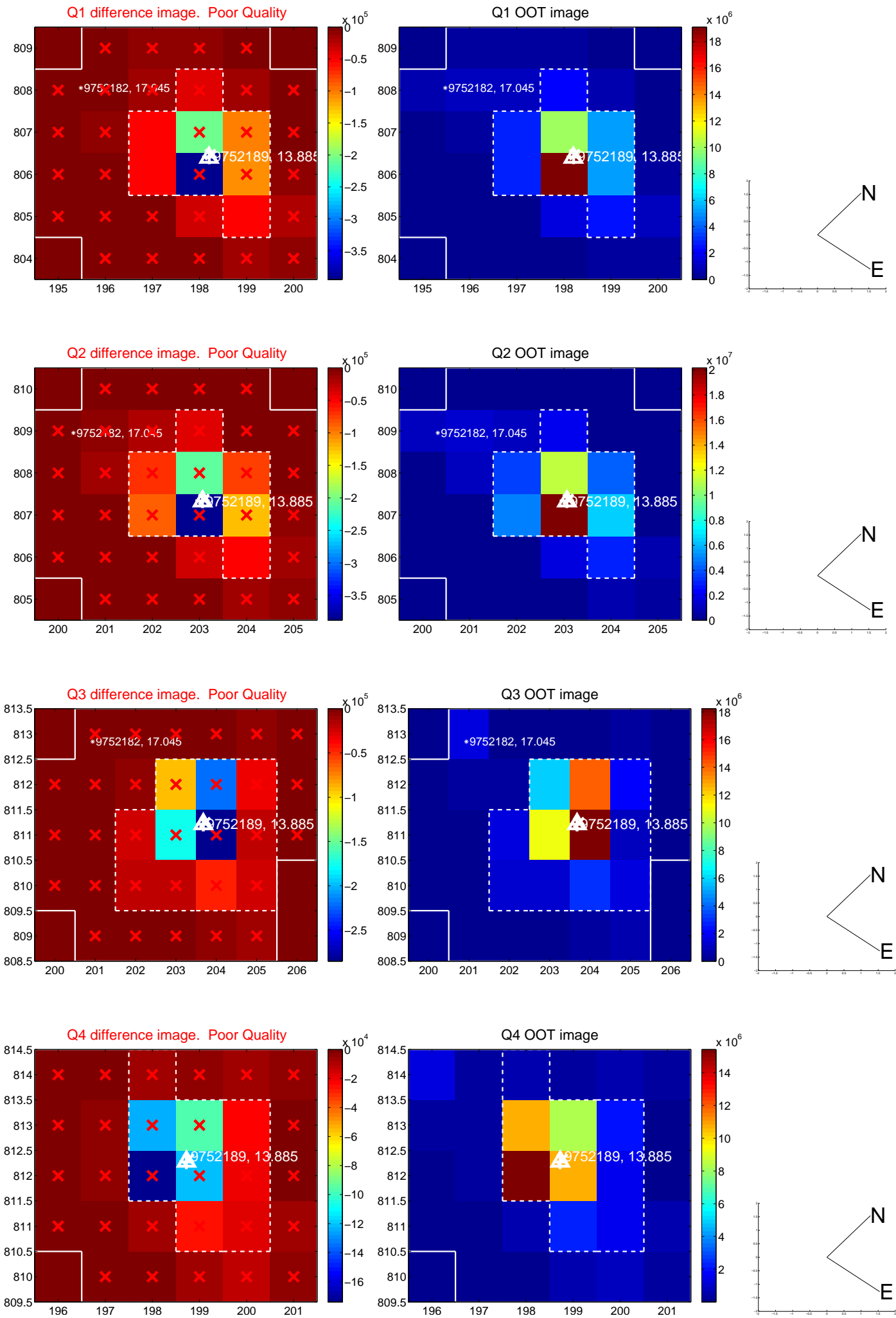
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.014 ± 0.091	0.15	0.013 ± 0.082	-0.004 ± 0.091
PRF-fit source offset from KIC position	0.221 ± 0.096	2.32	0.009 ± 0.082	-0.221 ± 0.094
photometric centroid source offset	2.15 ± 0.80	2.71	0.28 ± 0.86	-2.14 ± 0.79

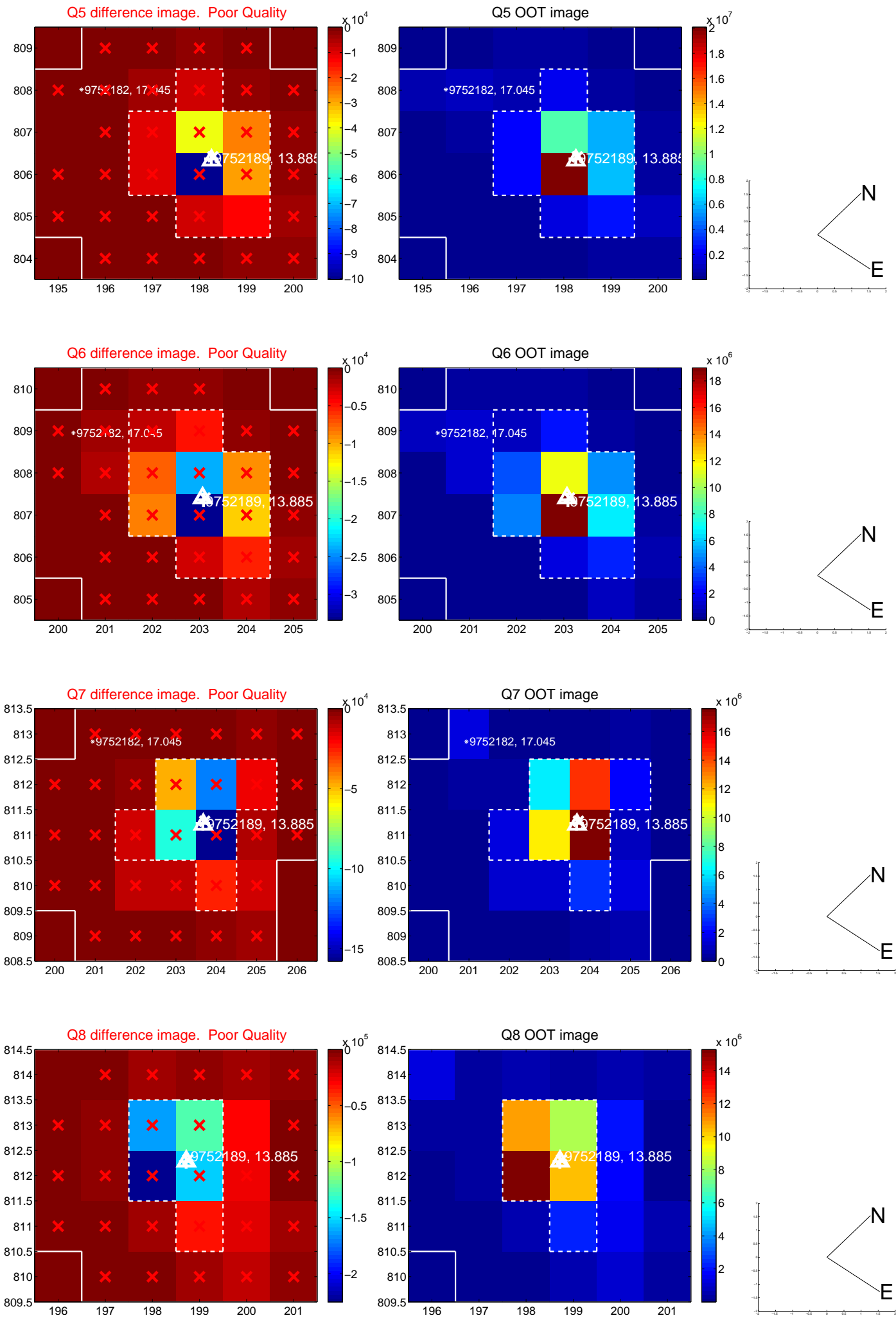


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

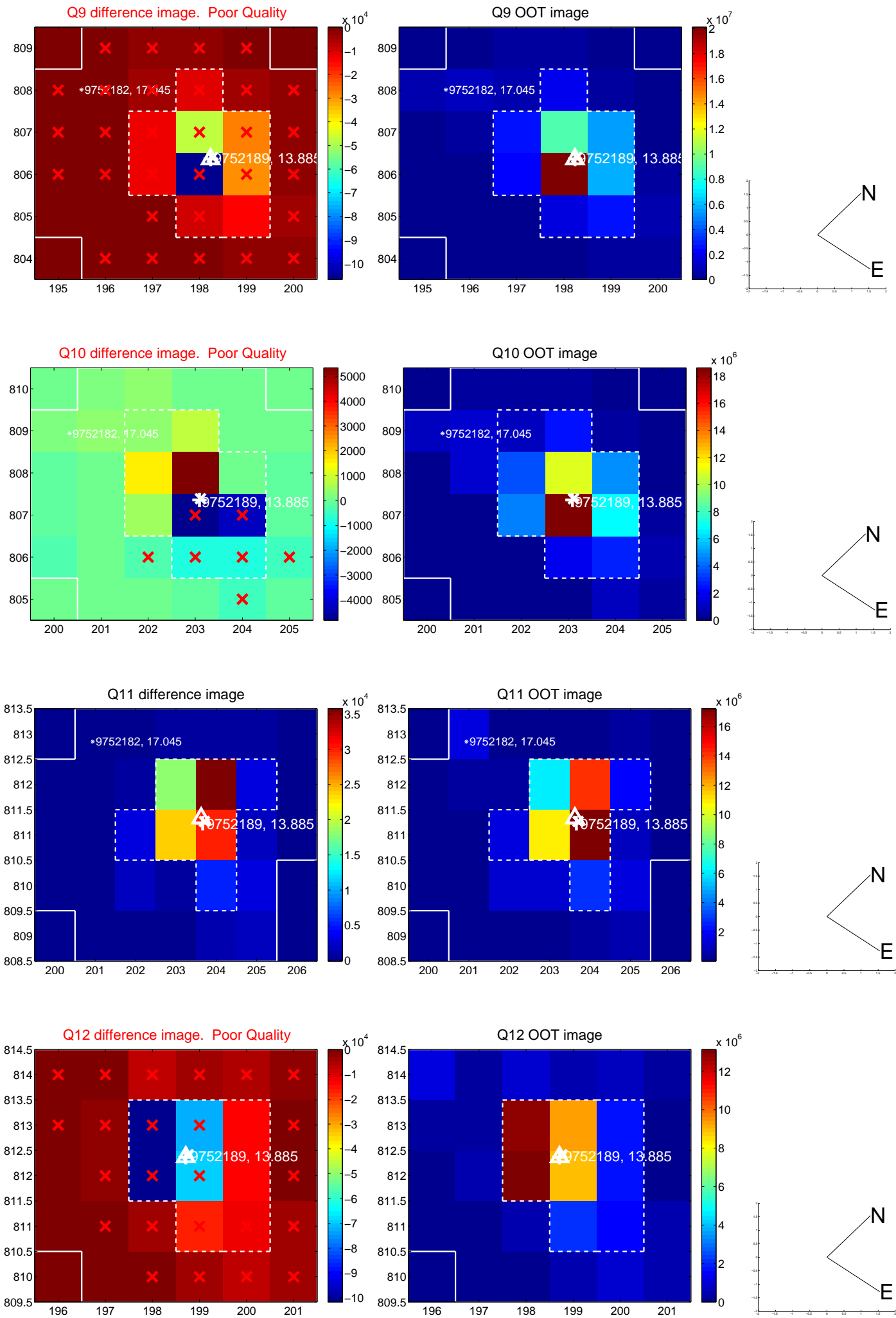
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



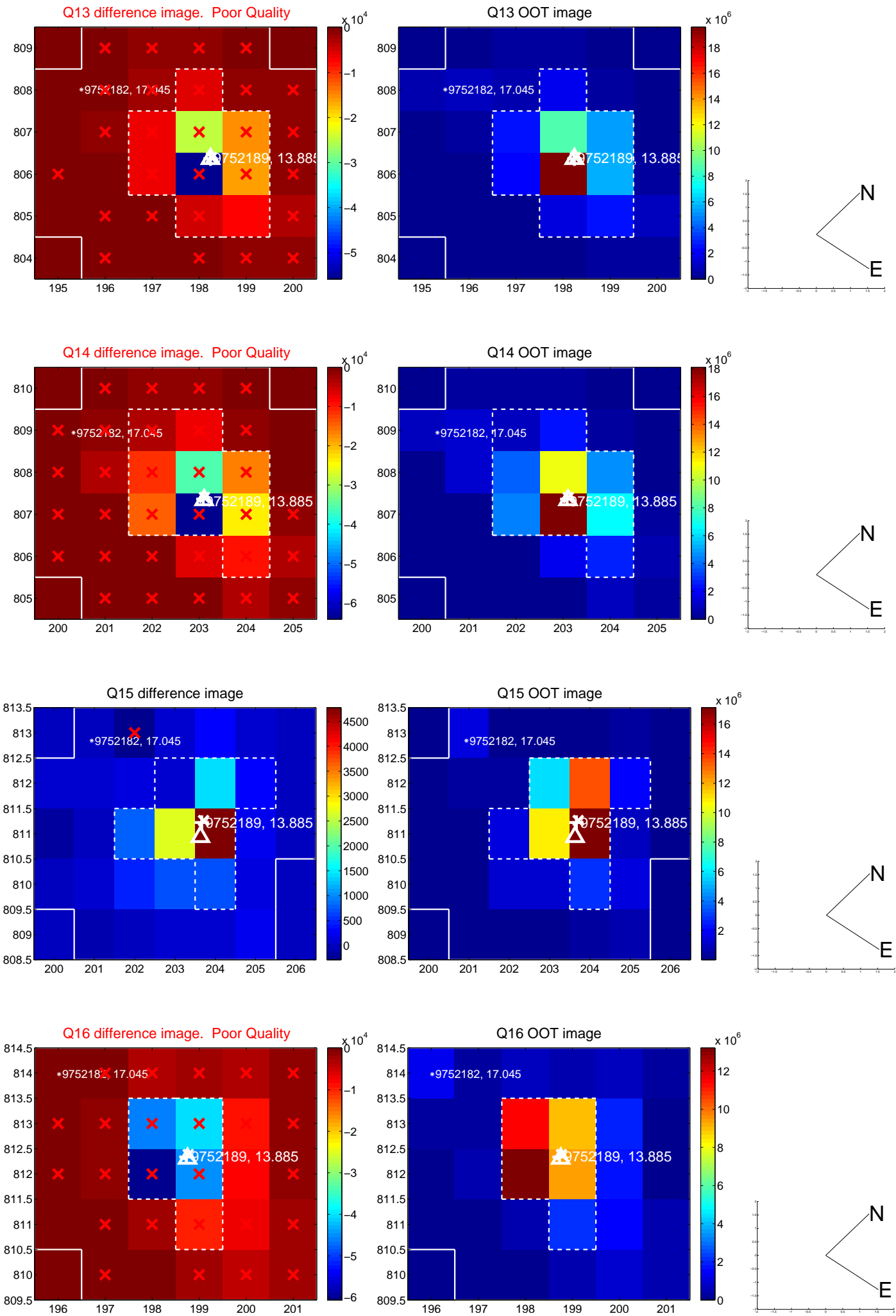
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



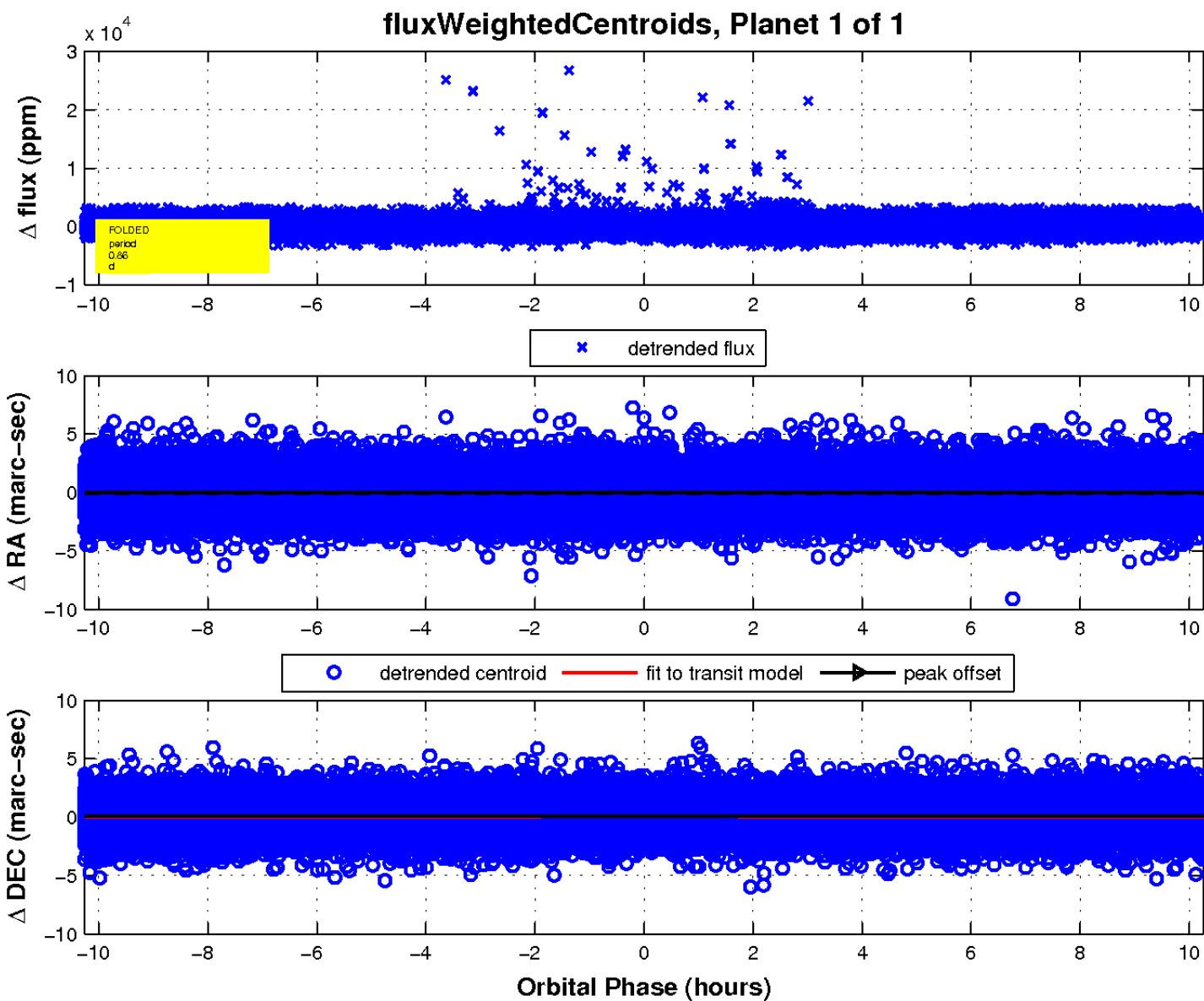
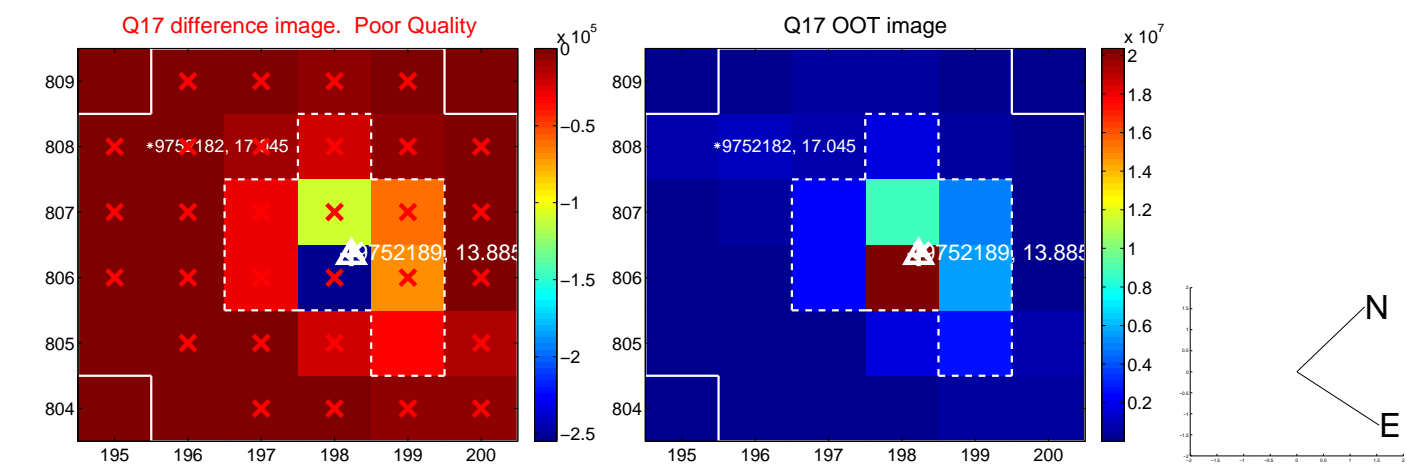
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

