

KIC 005895083

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})
005895083-01	OBS	7751.01	2.251623	131.545638	23.7	2.337	8.9	9.2	2.18	9464	1.22	17540.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005895083-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

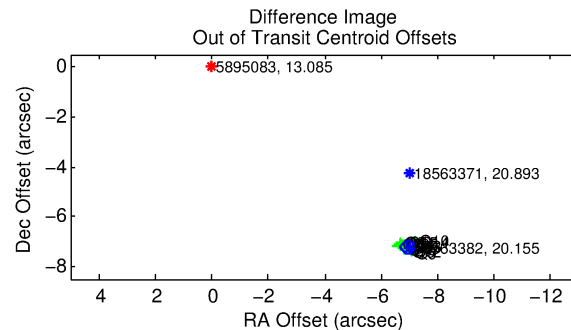
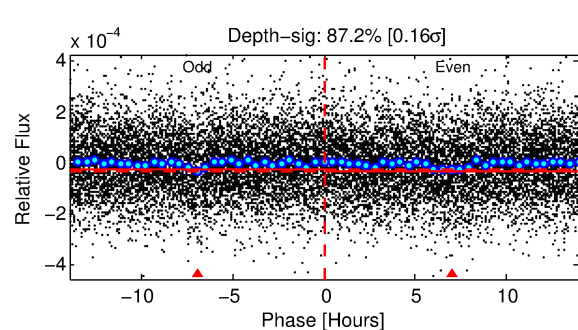
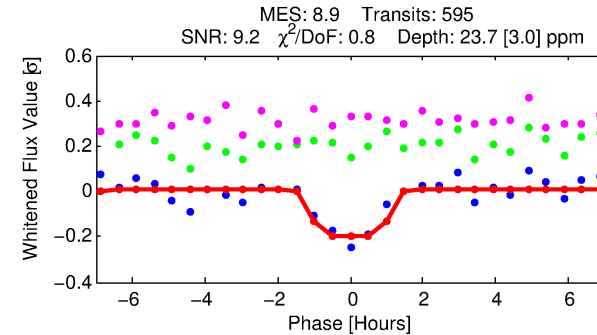
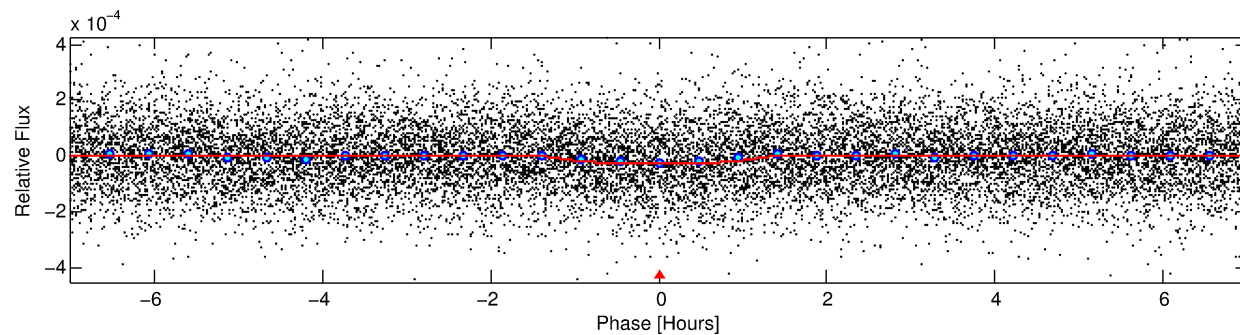
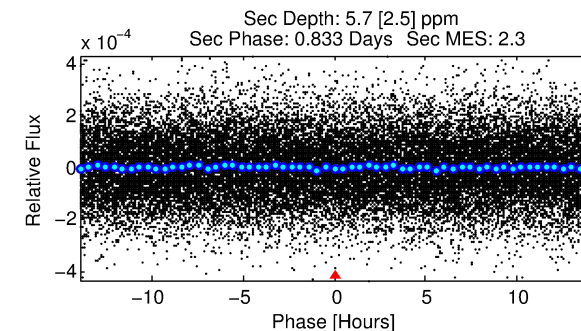
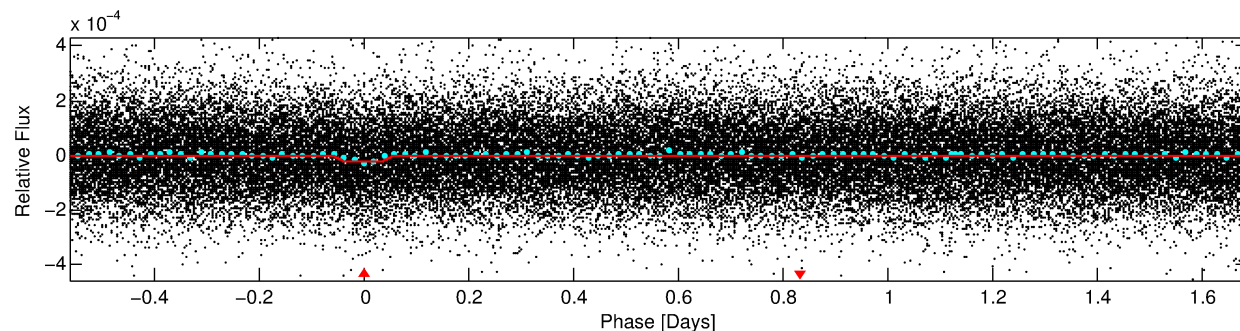
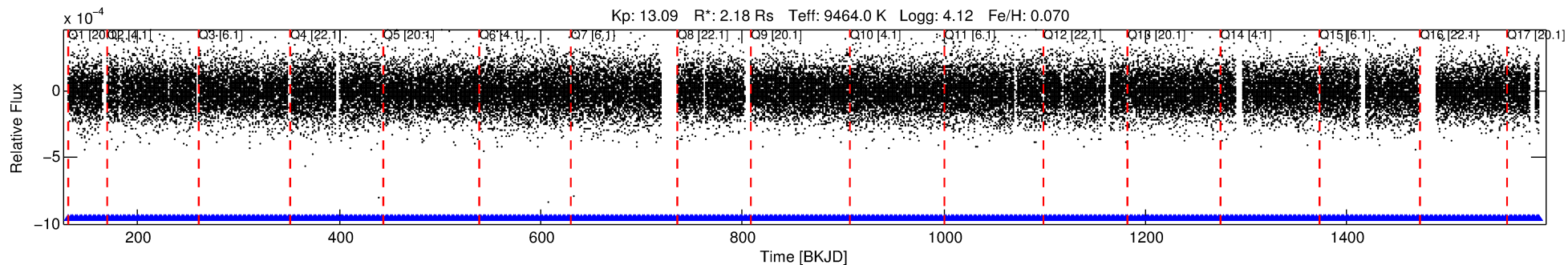
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005895083-01

No Significant Match Found

DV One-Page Summary

KIC: 5895083 Candidate: 1 of 1 Period: 2.252 d



DV Fit Results:

Period = 2.25162 [0.00002] d
Epoch = 131.5456 [0.0038] BKJD
Rp/R* = 0.0051 [0.0014]
a/R* = 3.43 [6.29]
b = 0.90 [0.43]
Seff = 17540.18 [7311.08]
Teq = 2935 [306] K
Rp = 1.22 [0.54] Re
a = 0.0442 [0.0123] AU
Ag = 4.13 [3.24] [0.96σ]
Teffp = 6466 [1150] K [2.97σ]

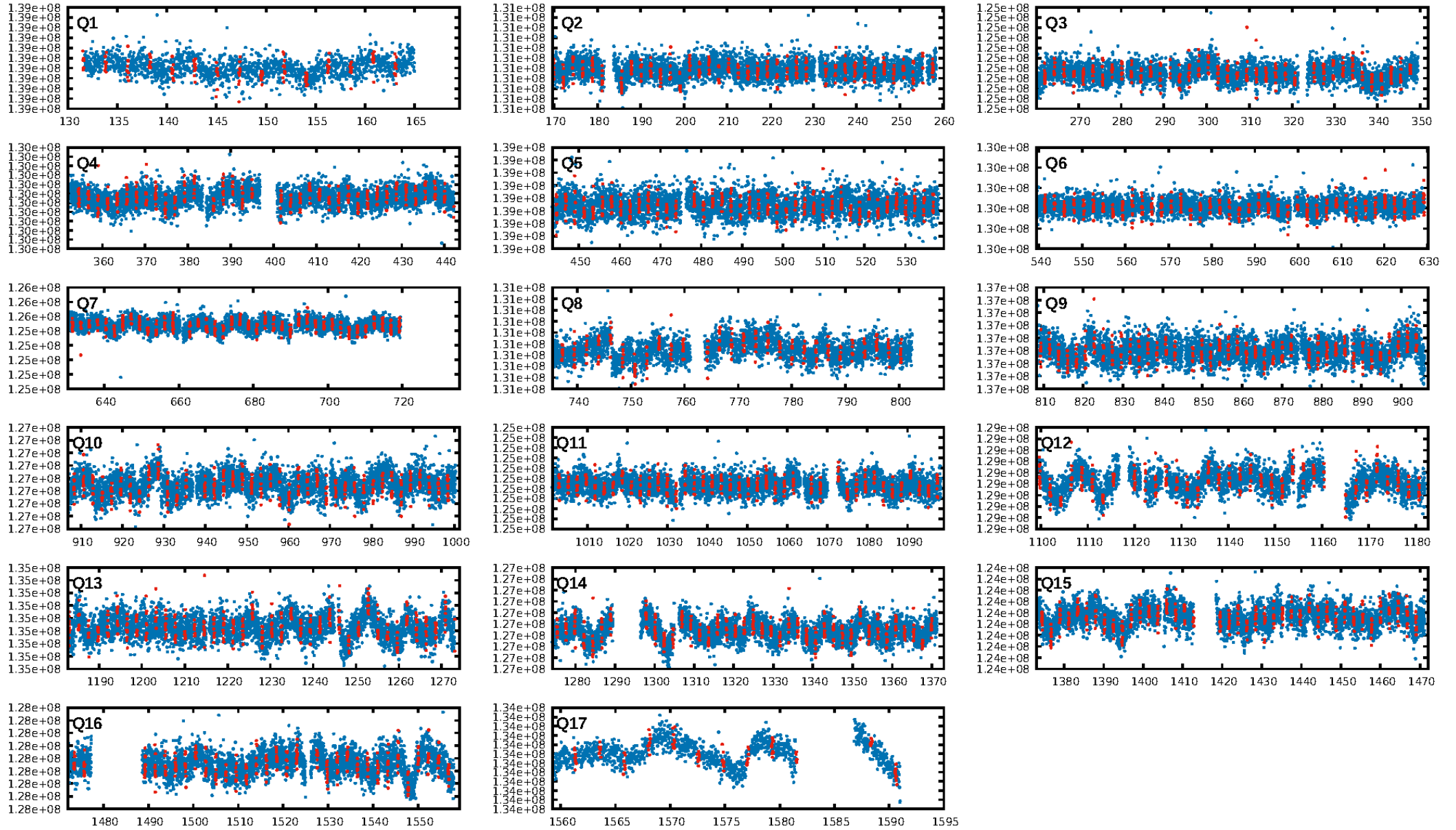
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 3.00e-18
RollingBand-fgt: 1.00 [568/568]
GhostDiagnostic-chr: -0.1677
Centroid-sig: 0.0%
Centroid-so: 27.285 arcsec [19.72σ]
OotOffset-rm: 10.021 arcsec [121.96σ]
KicOffset-rm: 10.029 arcsec [129.70σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

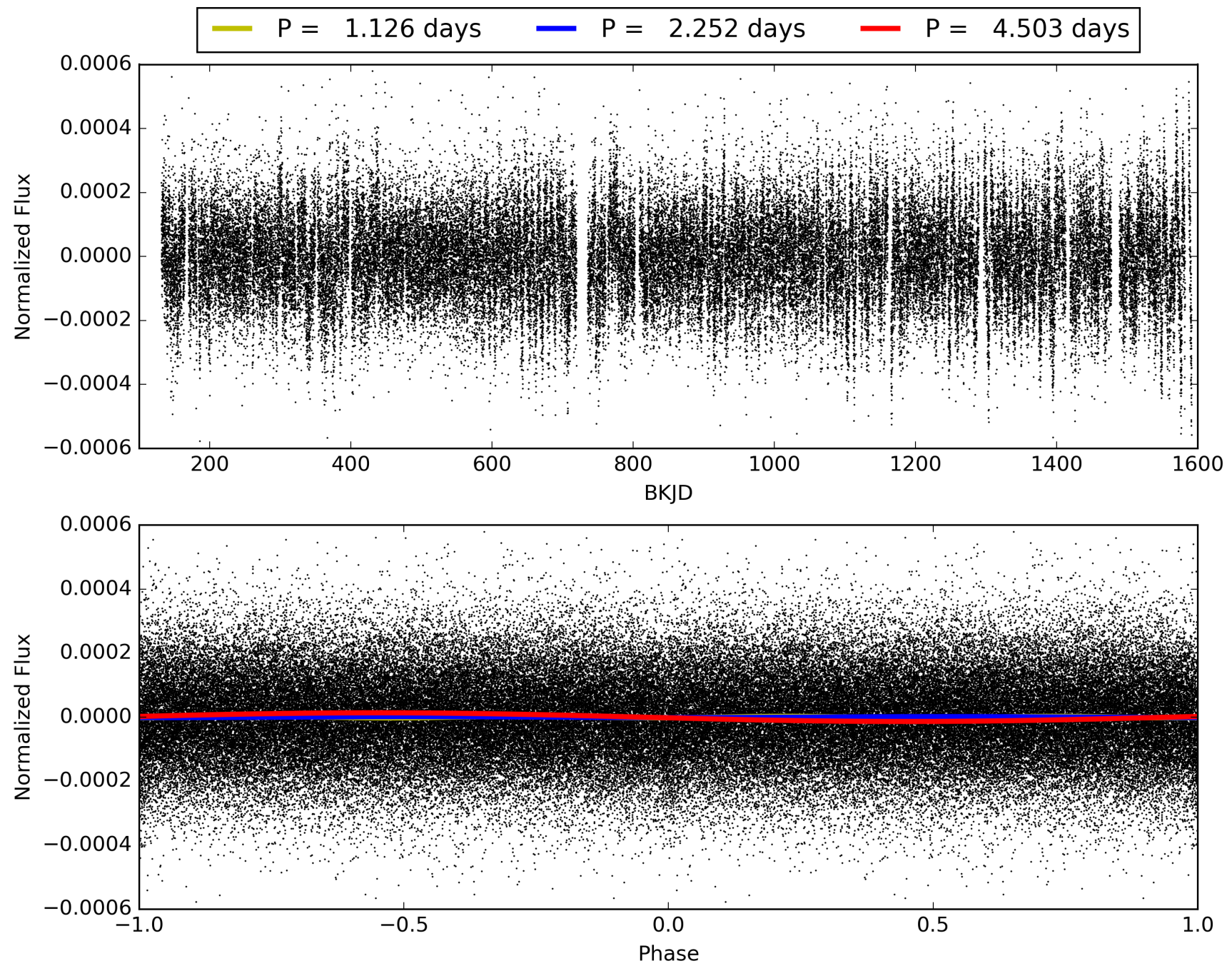
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 12:09:25 Z

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

TCE 005895083-01, PDC Light Curves

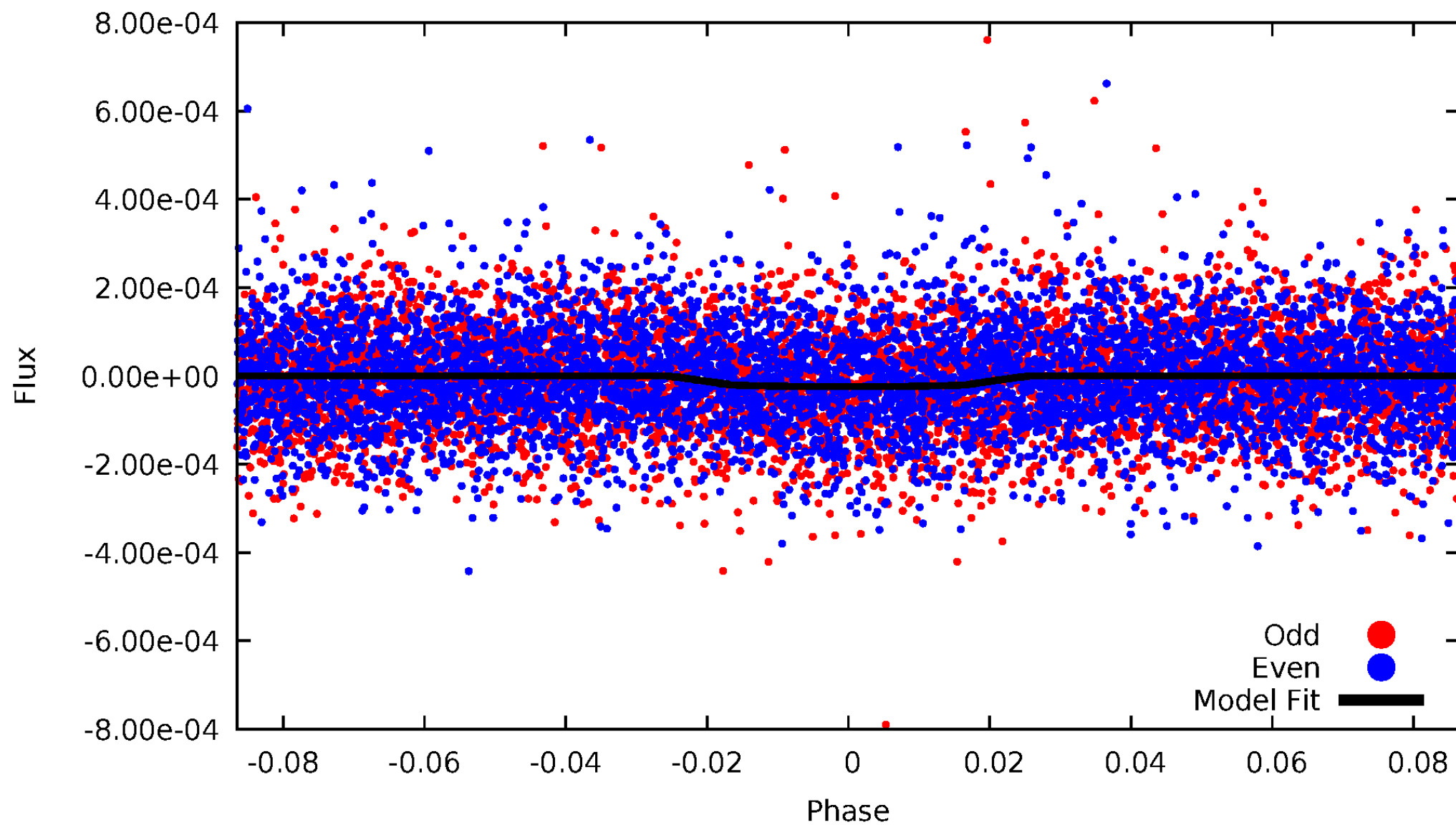


TCE 005895083-01



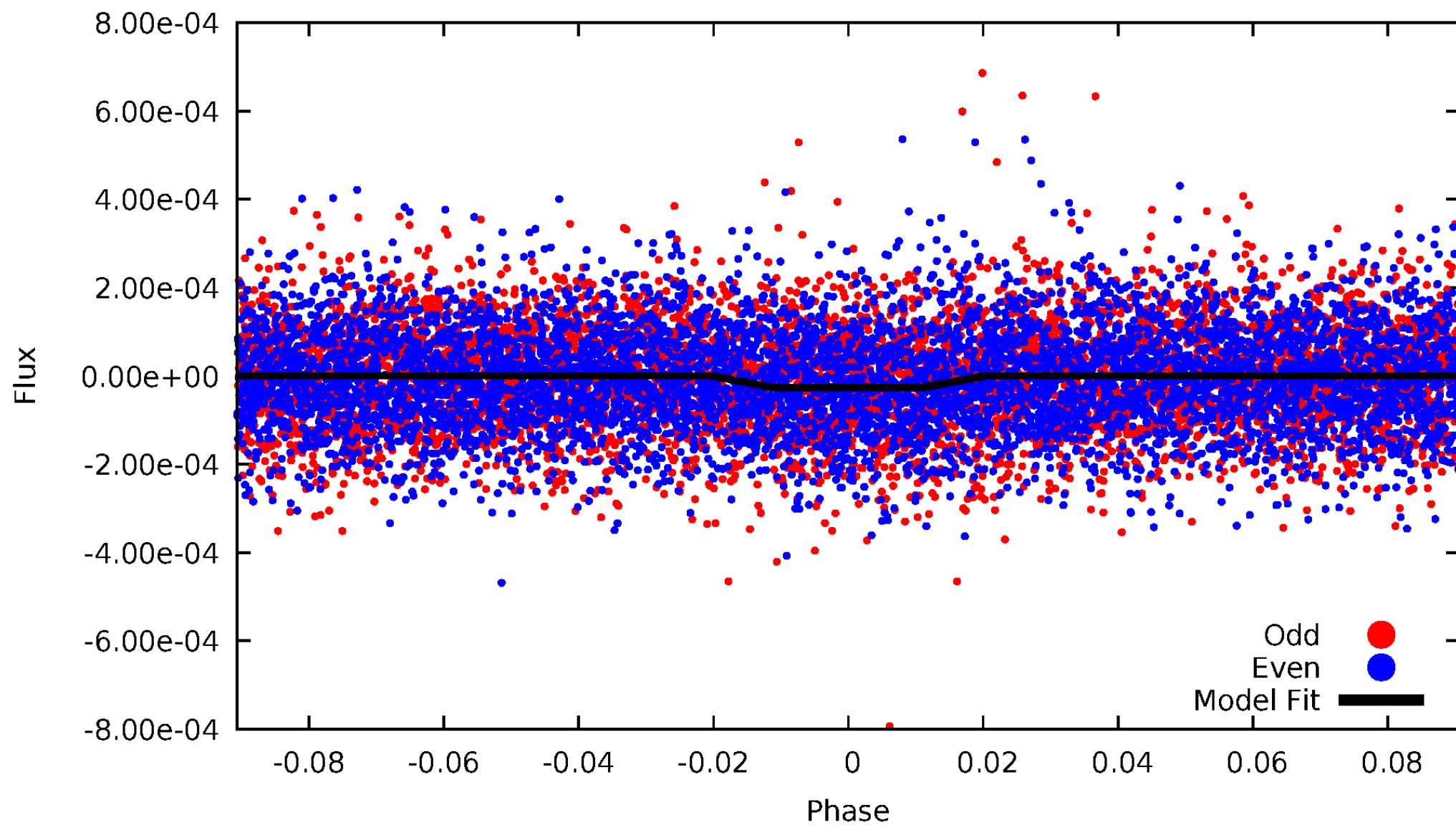
DV Odd/Even

TCE 005895083-01



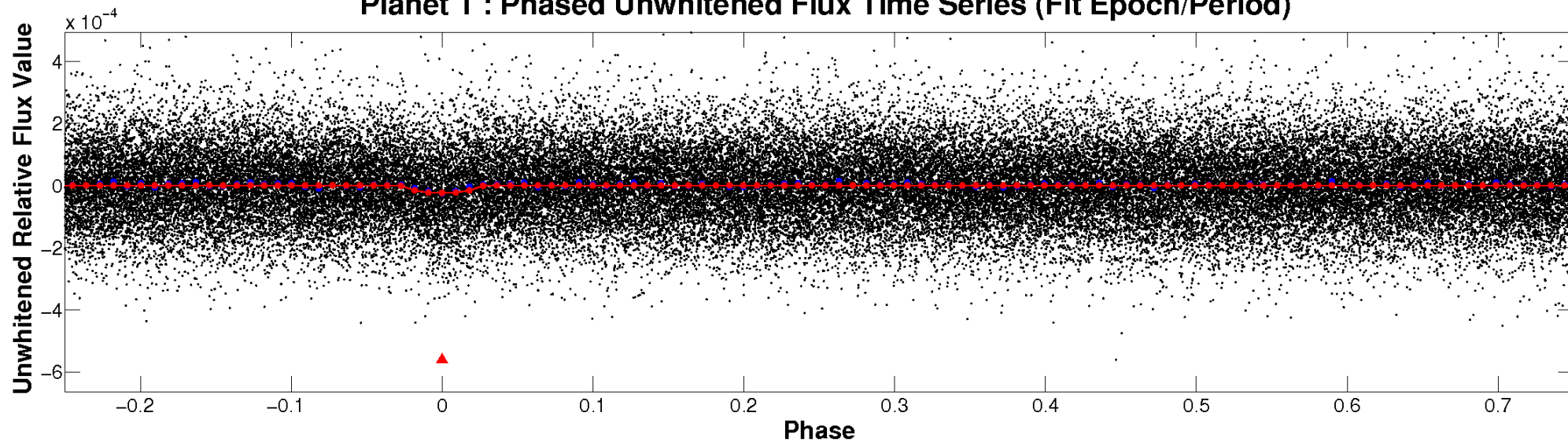
ALT Odd/Even

TCE 005895083-01

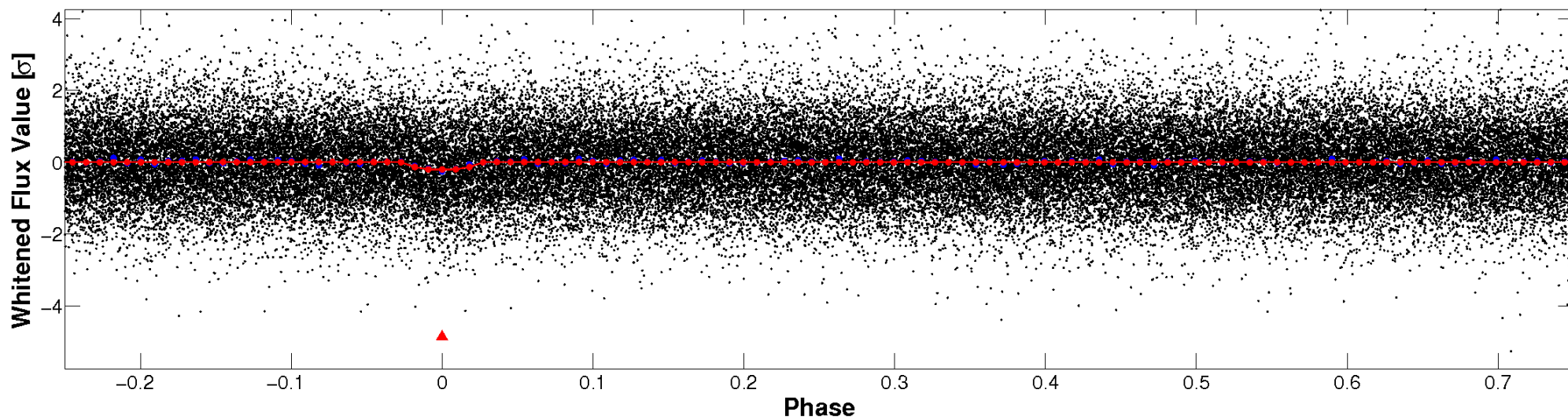


Non-Whitened Vs. Whitened Light Curve

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

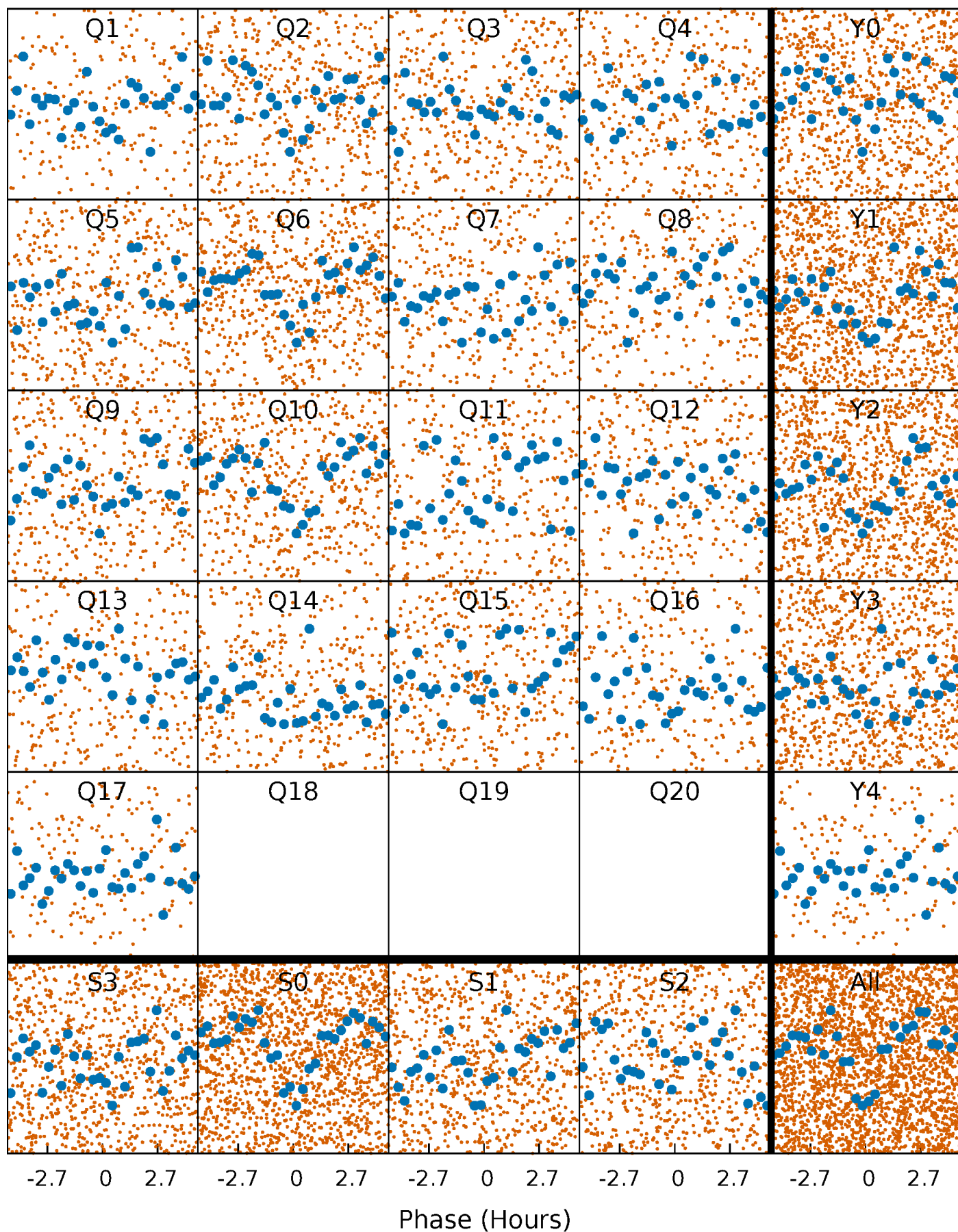


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



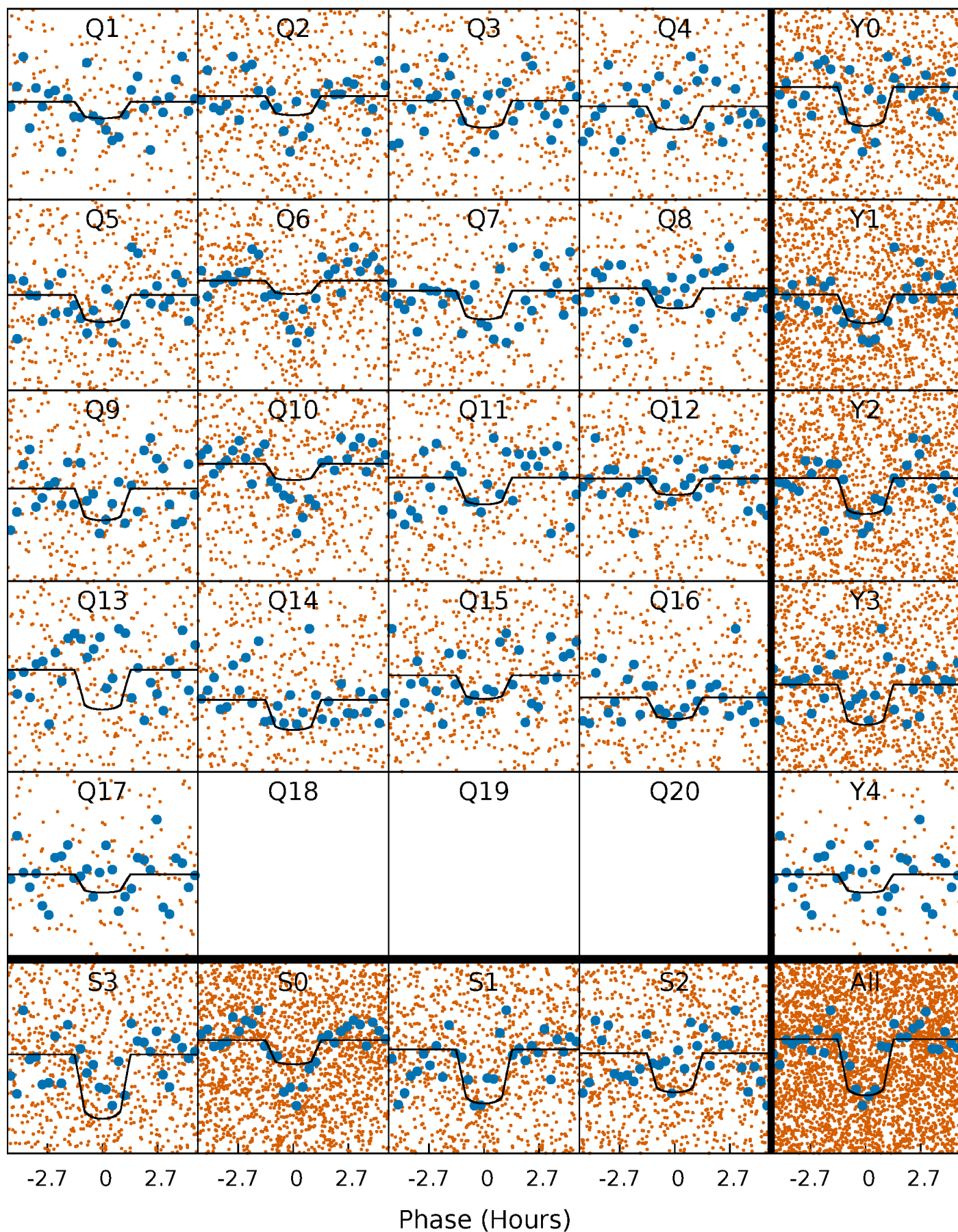
PDC Quarter-Phased Transit Curves

TCE 005895083-01 P= 2.251623 Days $T_0=131.545638$ (BKJD)



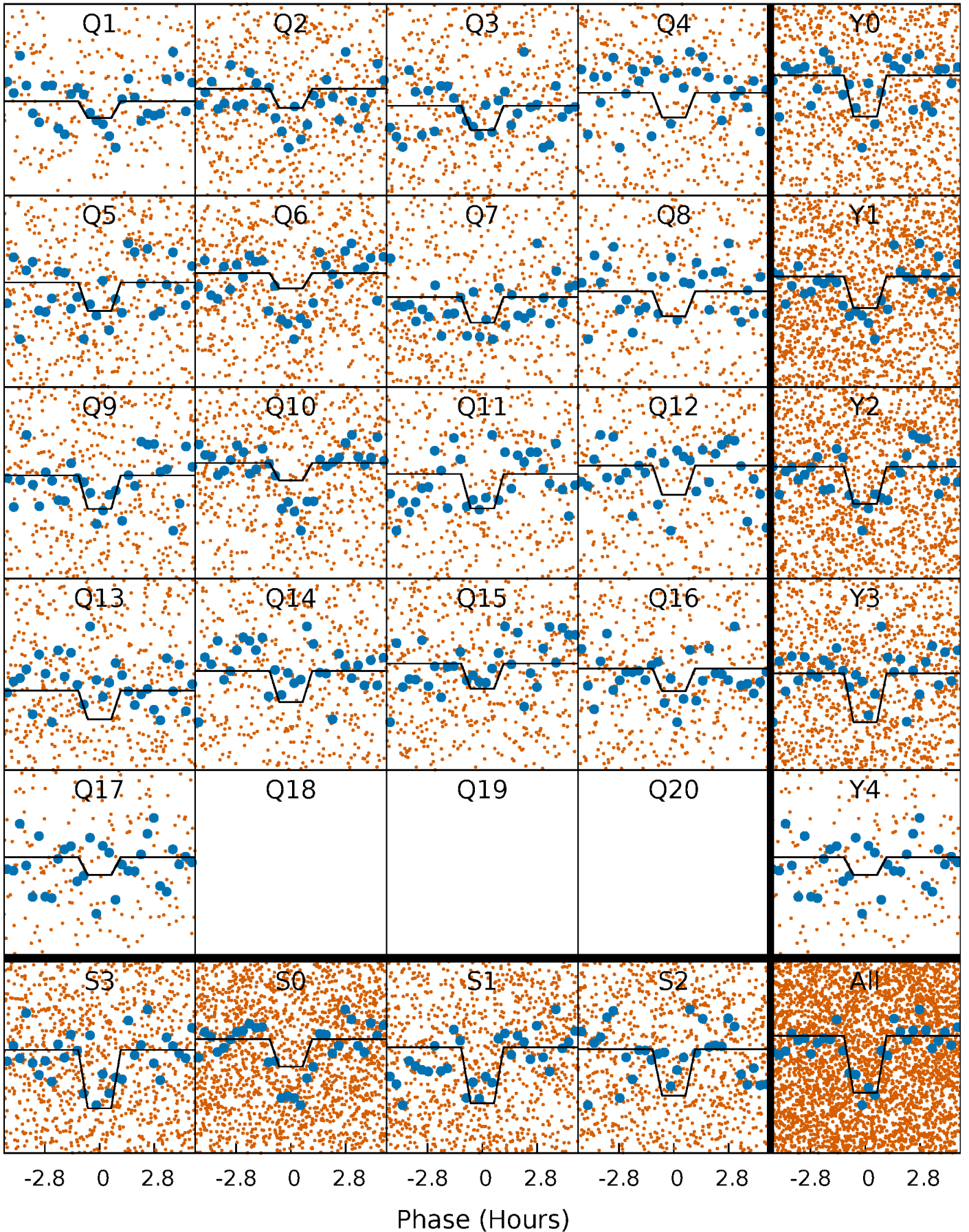
DV Quarter-Phased Transit Curves

TCE 005895083-01 P= 2.251623 Days $T_0=131.545638$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

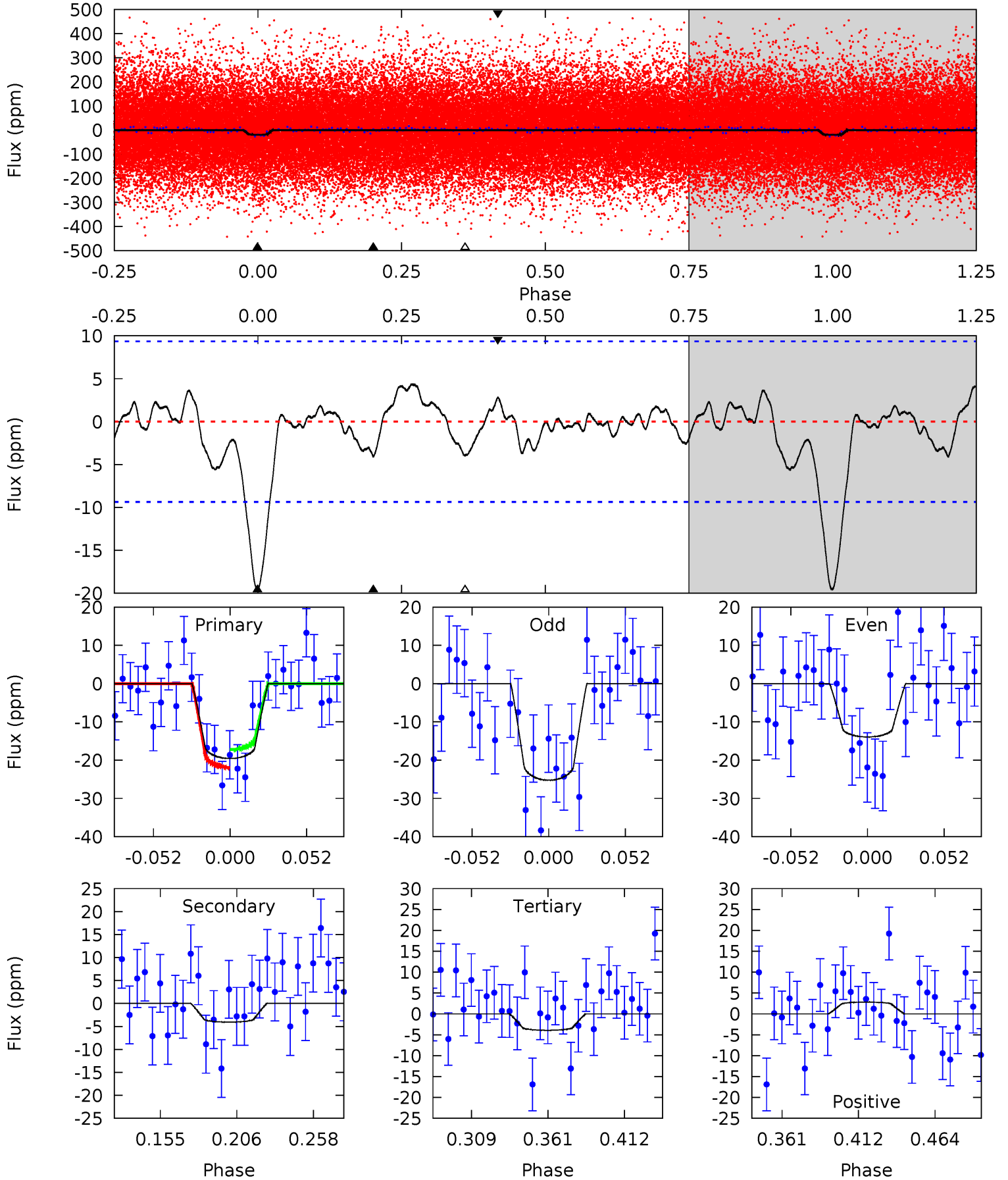
TCE 005895083-01 P= 2.251614 Days $T_0=131.545863$ (BKJD)



DV Model-Shift Uniqueness Test

005895083-01, P = 2.251623 Days, E = 129.294015 Days

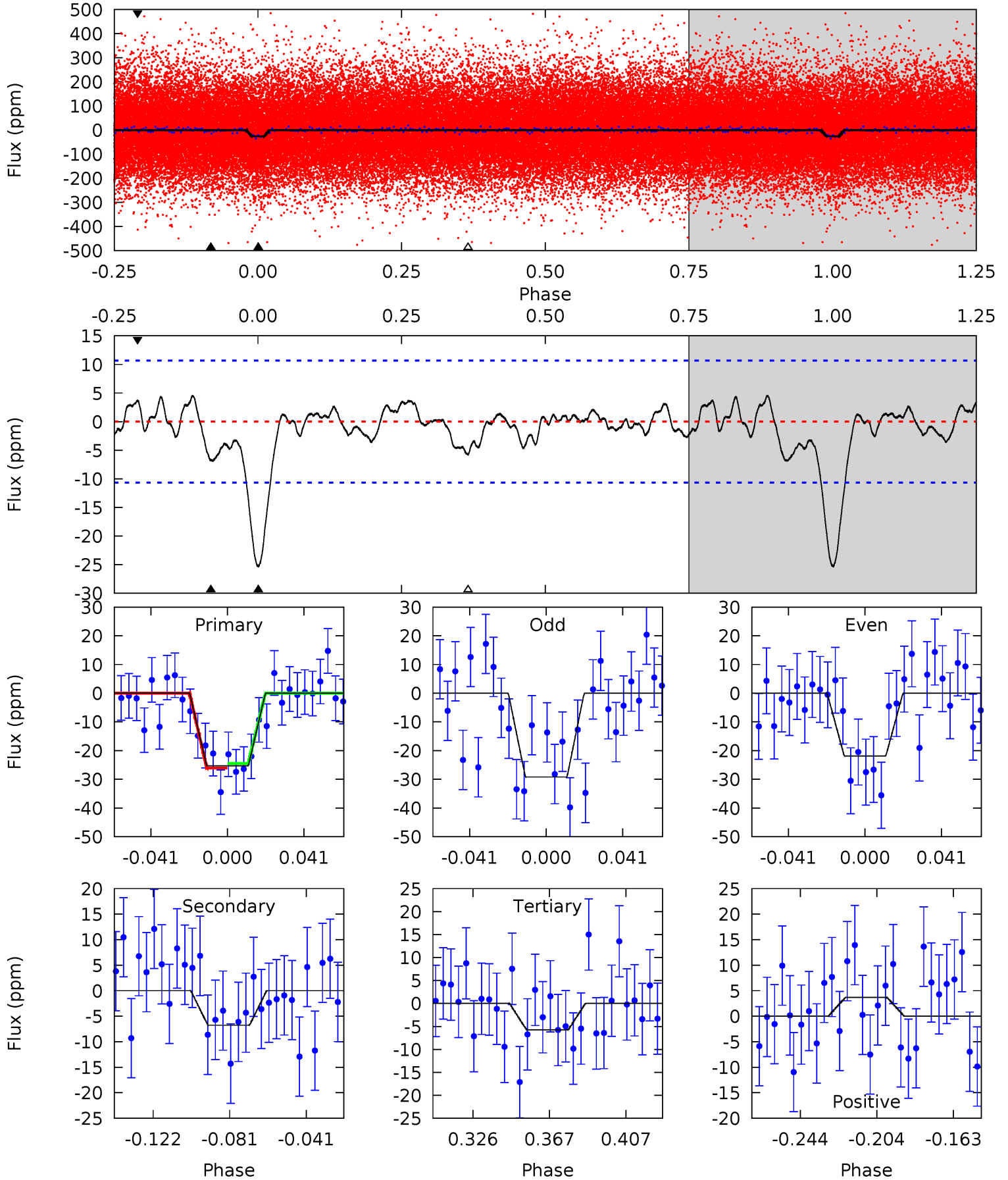
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.84	2.05	1.98	1.41	4.70	1.95	0.98	7.86	8.42	0.07	0.63	2.85	0.98	0.18	1.19



Alt Model-Shift Uniqueness Test

005895083-01, P = 2.251614 Days, E = 129.294249 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	3.01	2.56	1.64	4.75	2.05	0.91	8.70	9.62	0.45	1.37	1.64	1.08	0.15	0.36



Stellar Parameters For KIC 005895083

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9464^{+301}_{-414}	$4.116^{+0.157}_{-0.192}$	$0.070^{+0.150}_{-0.650}$	$2.184^{+0.777}_{-0.565}$	$2.272^{+0.395}_{-0.592}$	$0.307^{+0.289}_{-0.162}$
	+3%/-4%	+4%/-5%	+214%/-929%	+36%/-26%	+17%/-26%	+94%/-53%
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 005895083-01 / KOI 7751.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-4 ± 2	$1.20^{+0.40}_{-0.34}$	4118^{+348}_{-301}	5381^{+1318}_{-915}	$2.726^{+3.768}_{-1.554}$
Alt.	-7 ± 2	$1.22^{+0.43}_{-0.36}$	4108^{+343}_{-297}	6125^{+1426}_{-866}	$4.604^{+5.570}_{-2.136}$

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 $A_{obs} \gg 1.0$

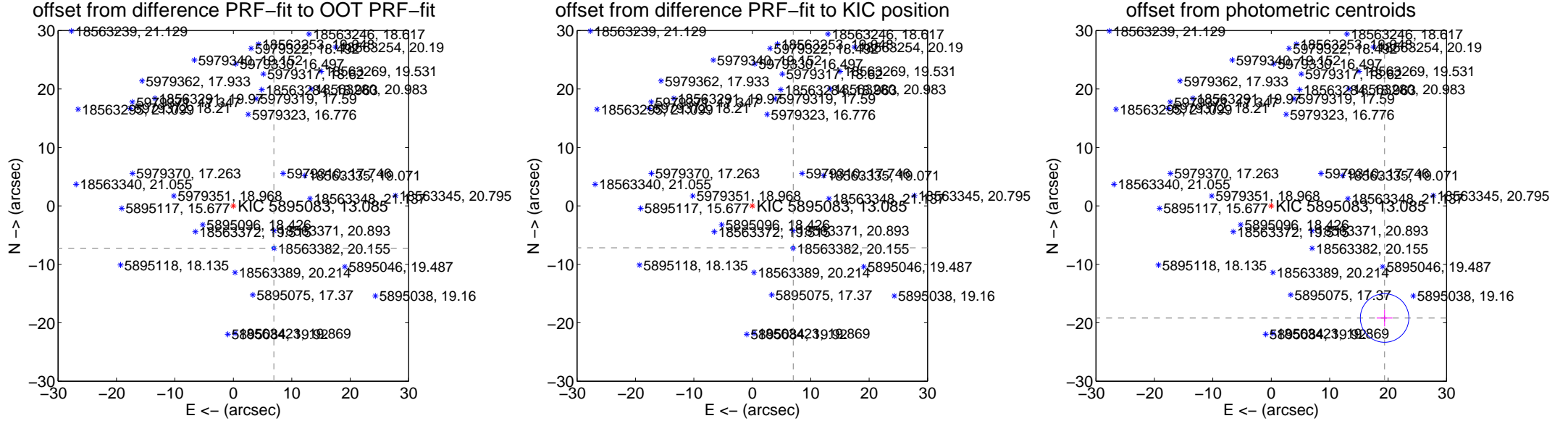
DV Centroid Data

Supplemental centroid analysis for 005895083-01. Kepler magnitude: 13.09. Transit SNR 9.22

There are 16 quarters with good PRF difference image offsets

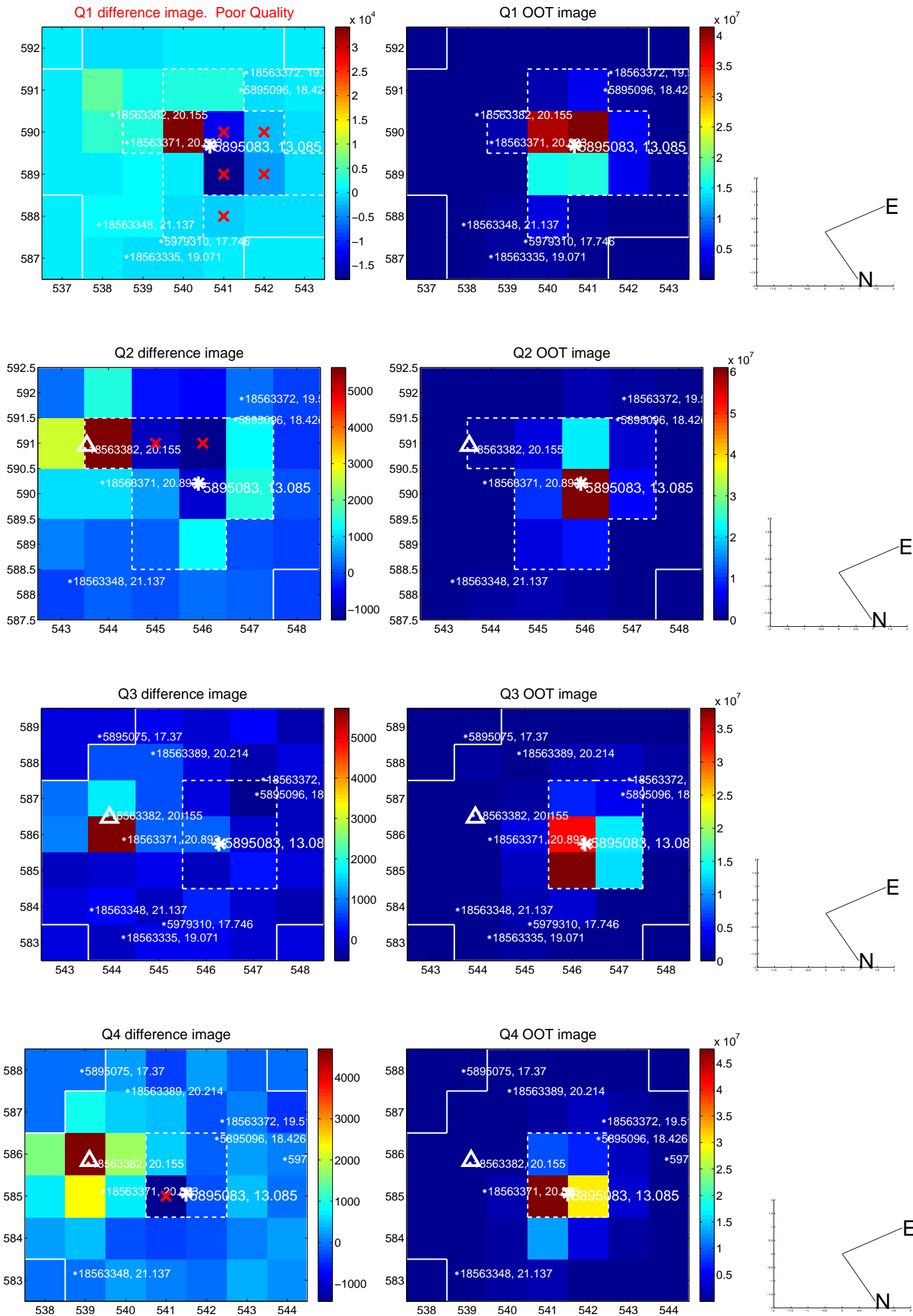
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.021 ± 0.082	121.96	-6.931 ± 0.085	-7.237 ± 0.079
PRF-fit source offset from KIC position	10.029 ± 0.077	129.70	-7.010 ± 0.080	-7.172 ± 0.074
photometric centroid source offset	27.29 ± 1.38	19.72	-19.40 ± 1.35	-19.19 ± 1.42

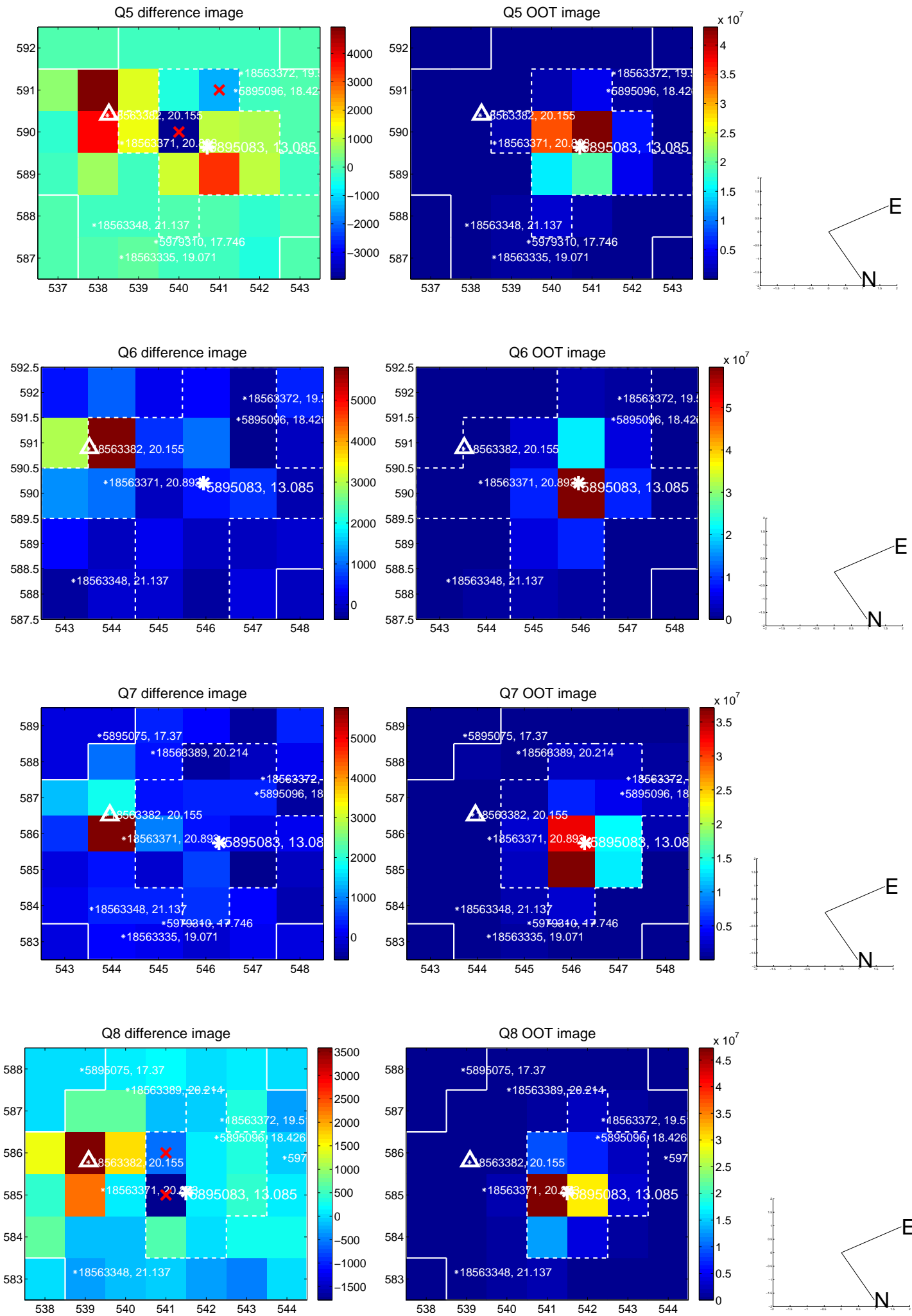


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

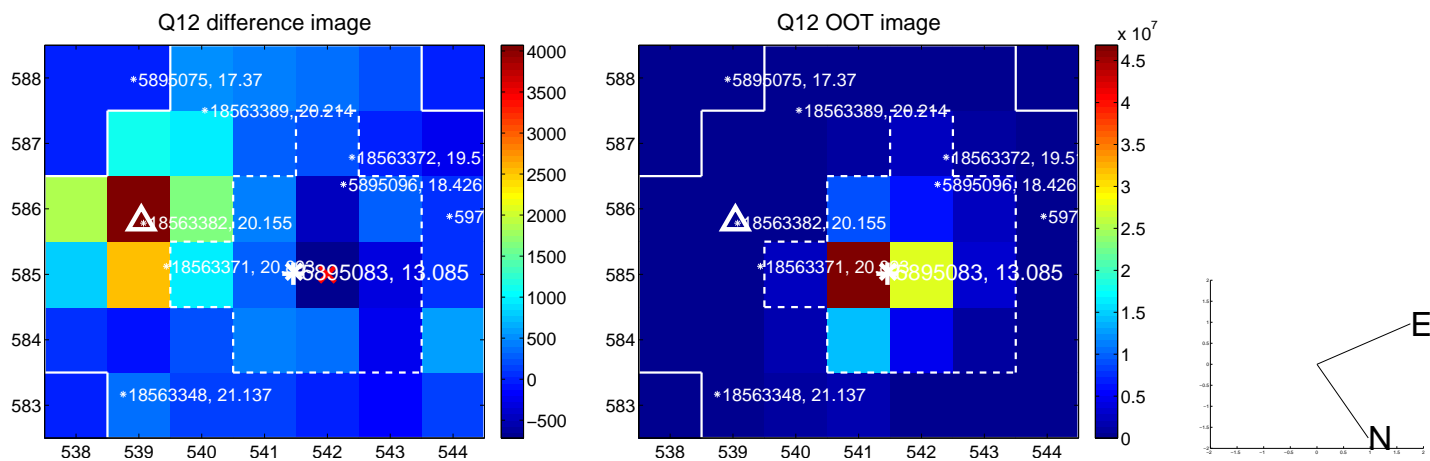
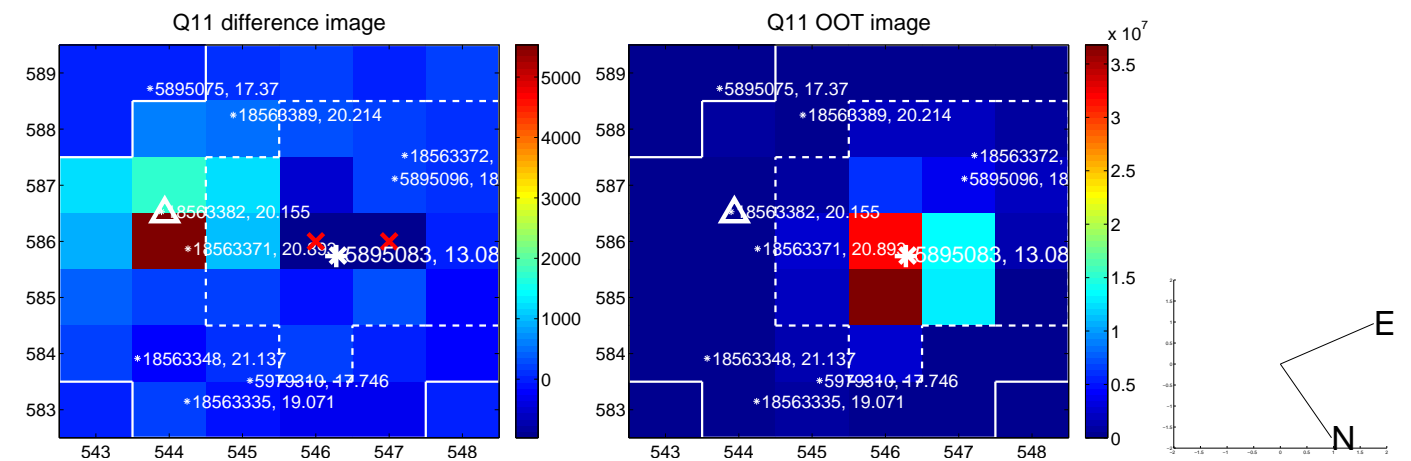
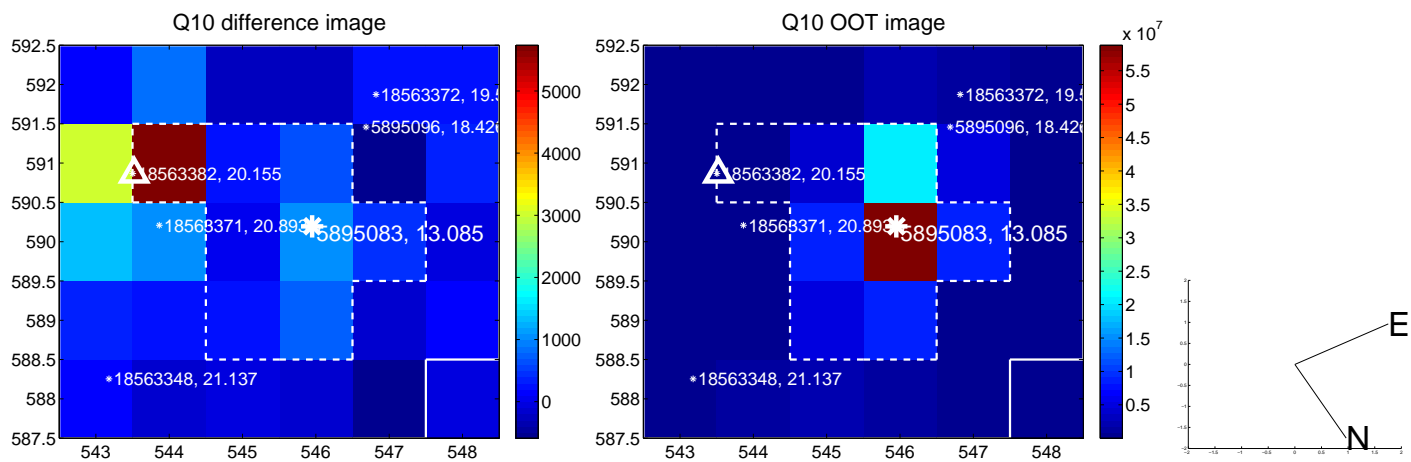
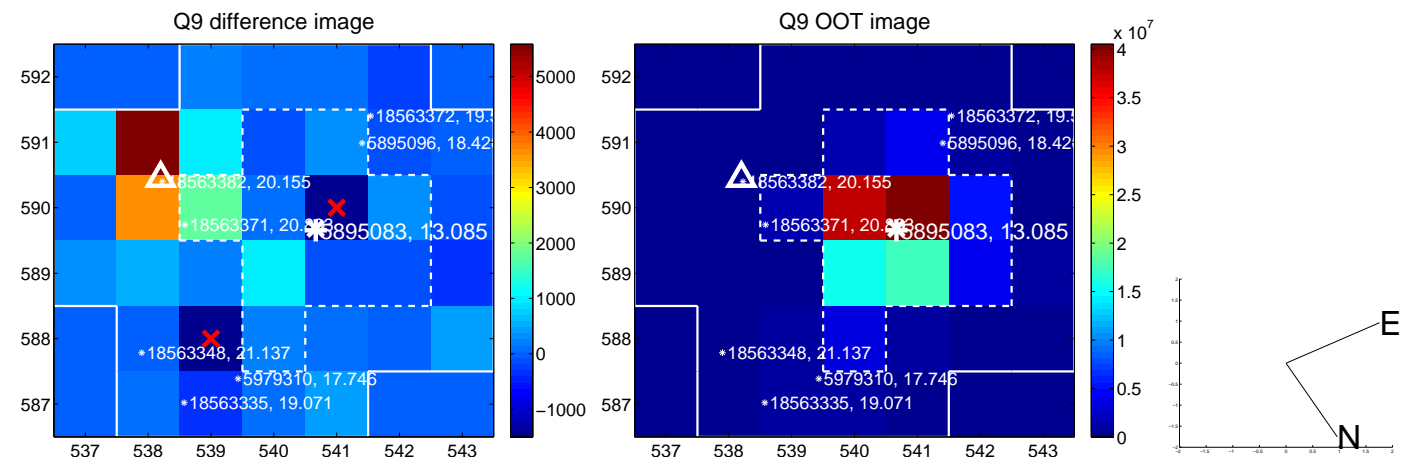
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



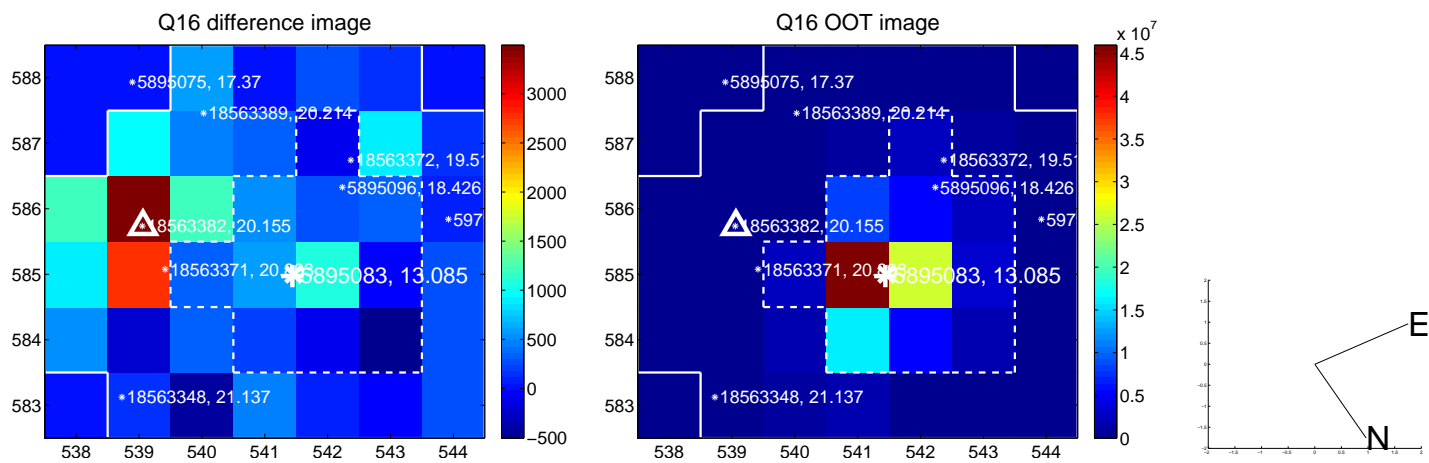
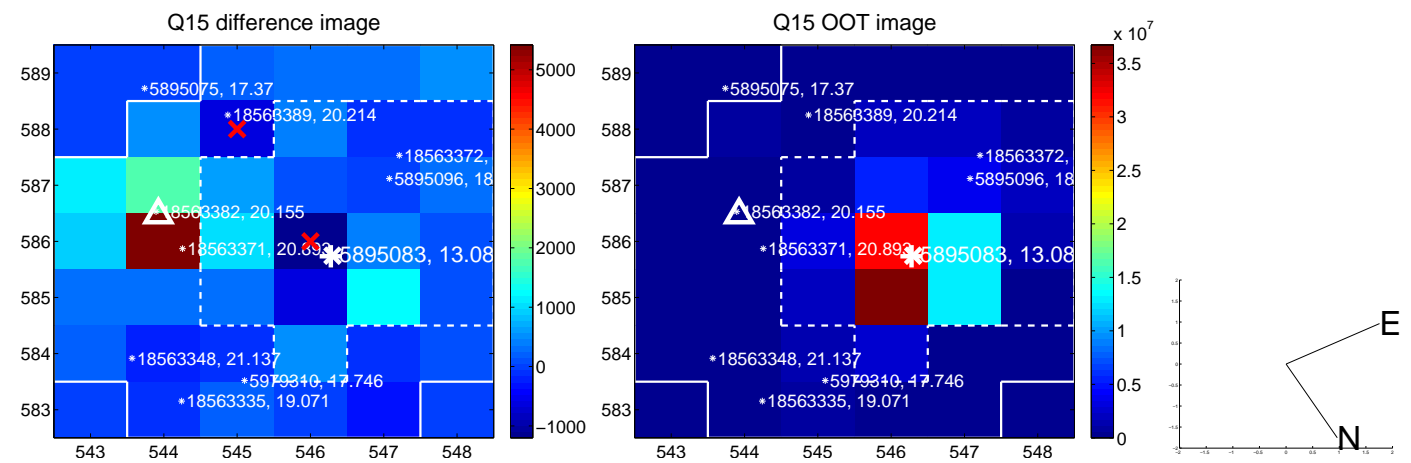
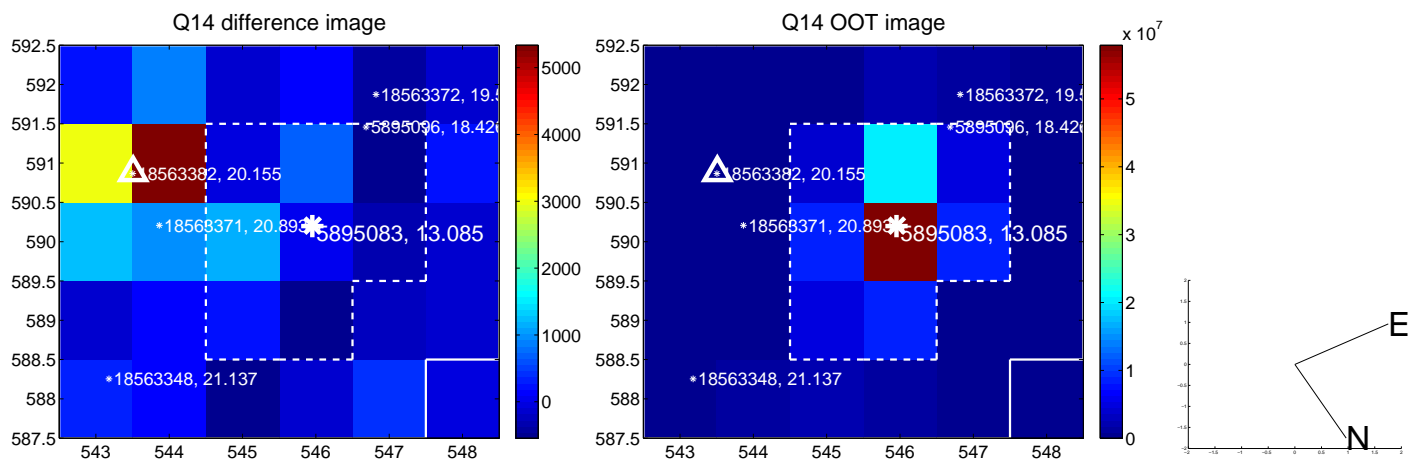
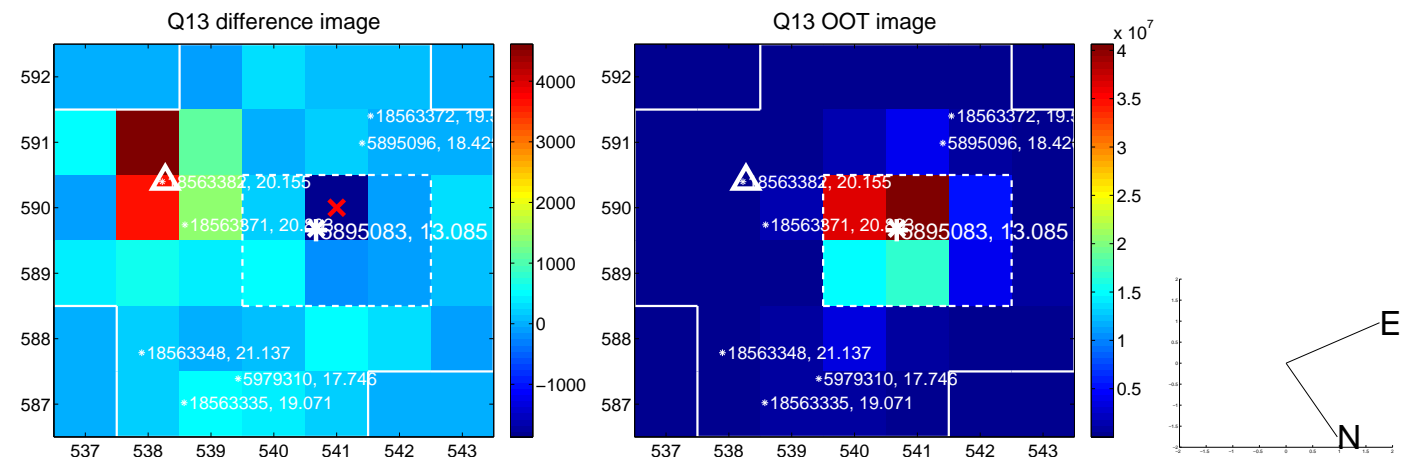
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



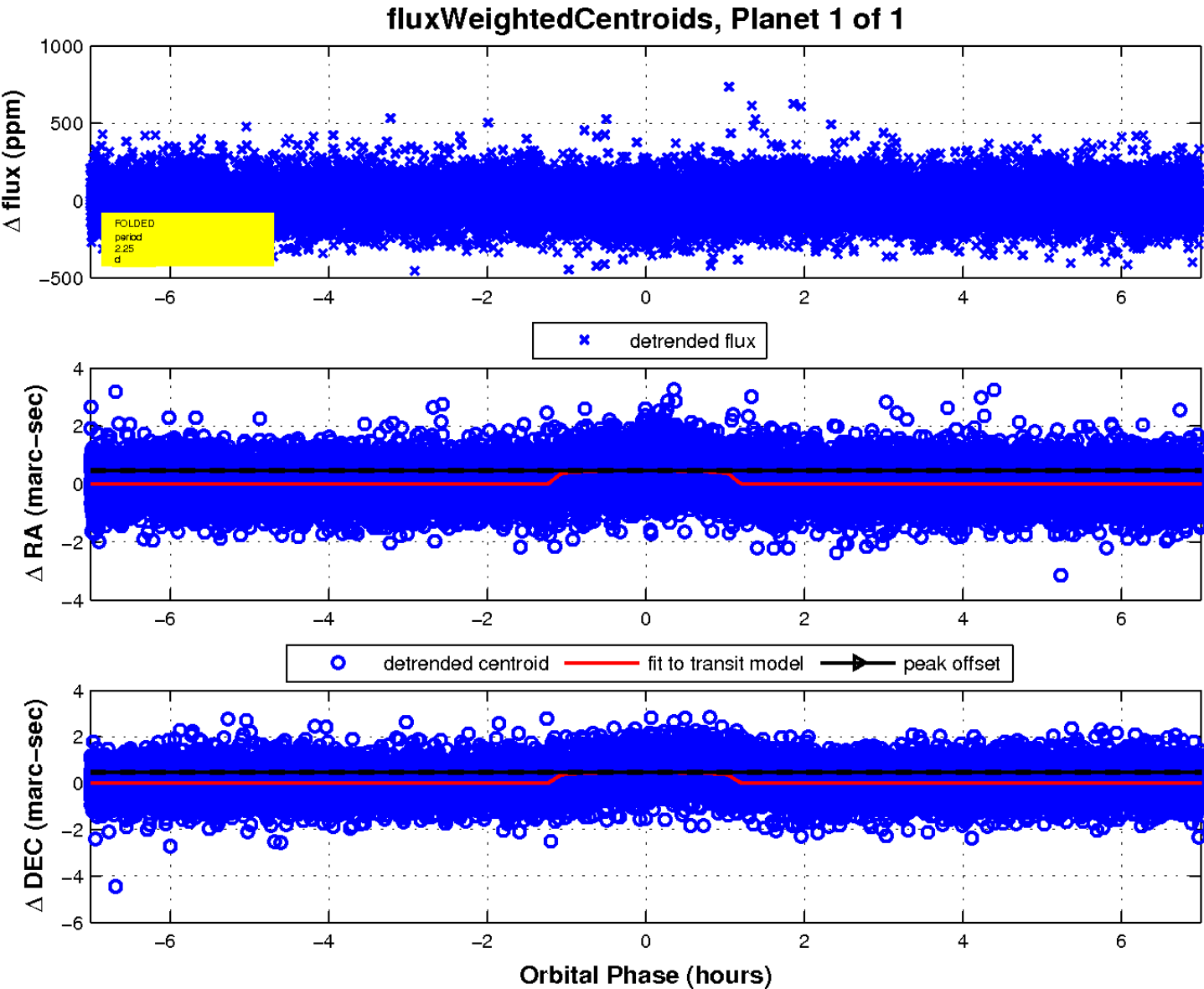
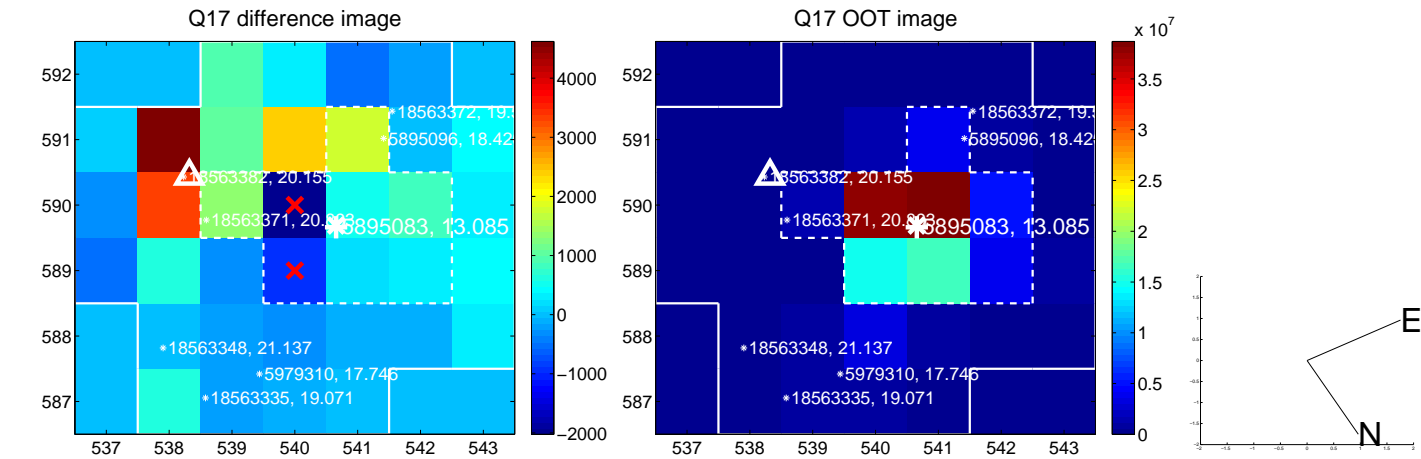
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UKIRT Image

Declination

