

KIC 007199883

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
007199883-01	OBS	7824.01	0.566768	131.837016	9.8	3.134	11.1	7.0	1.00	6063	0.37	6621.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007199883-01	OBS	FP	0.00	1	0	1	1	LPP_DV—HALO_GHOST—EPHEM_MATCH

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.

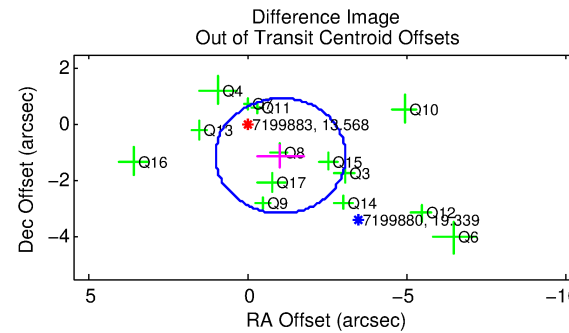
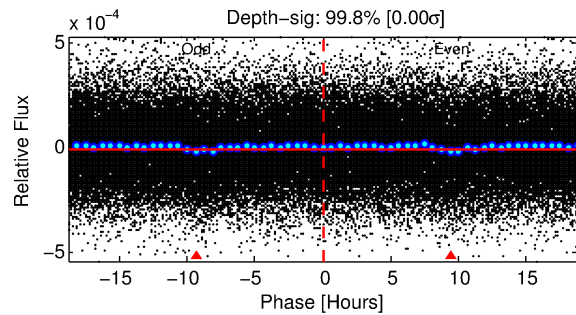
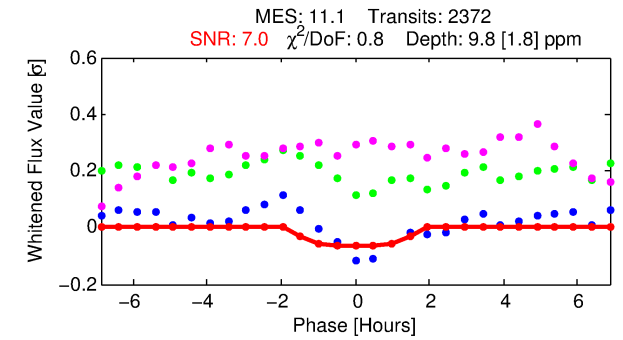
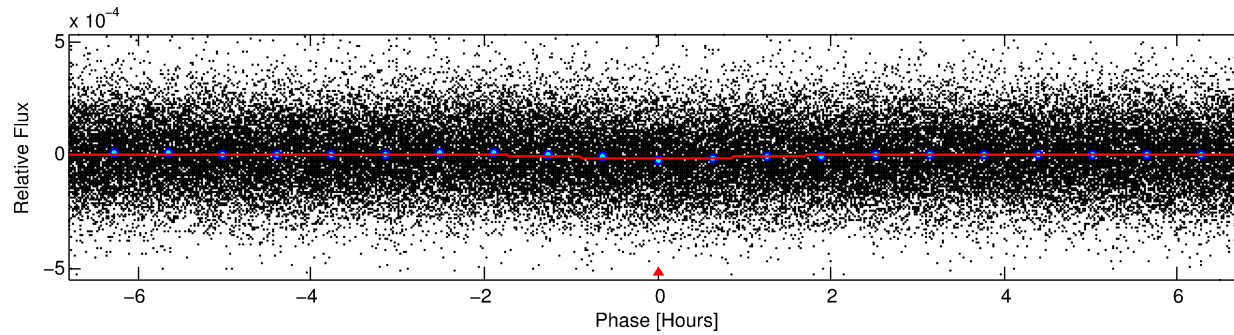
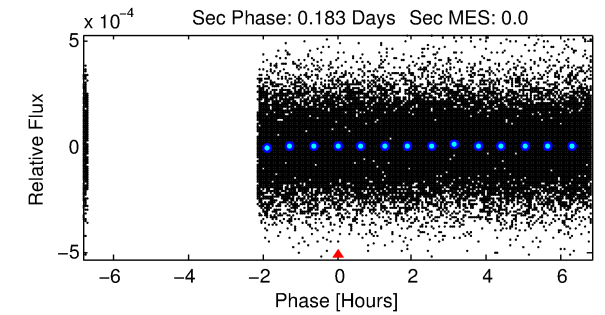
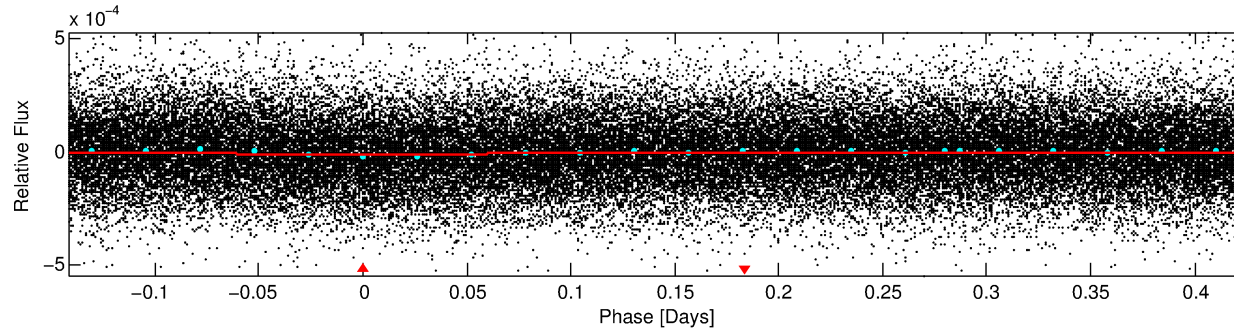
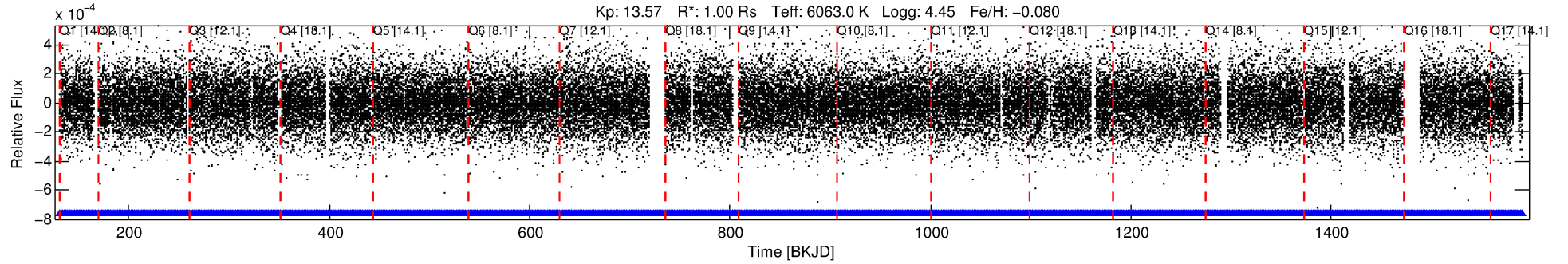
Ephemeris Match Information For 007199883-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
007199883-01	7199883	RR-Lyr-pri	7198959	1:1	768.8	146	126	7.86	13.57	62330.00	Direct-PRF	0	4.02	24.43

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 7199883 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56677 [0.00001] d
Epoch = 131.8370 [0.0054] BKJD
Rp/R* = 0.0034 [0.0024]
a/R* = 1.11 [0.82]
b = 0.91 [0.75]
Seff = 6621.05 [2721.86]
Teff = 2300 [236] K
Rp = 0.37 [0.29] Re
a = 0.0136 [0.0037] AU
Ag = N/A
Teffp = N/A

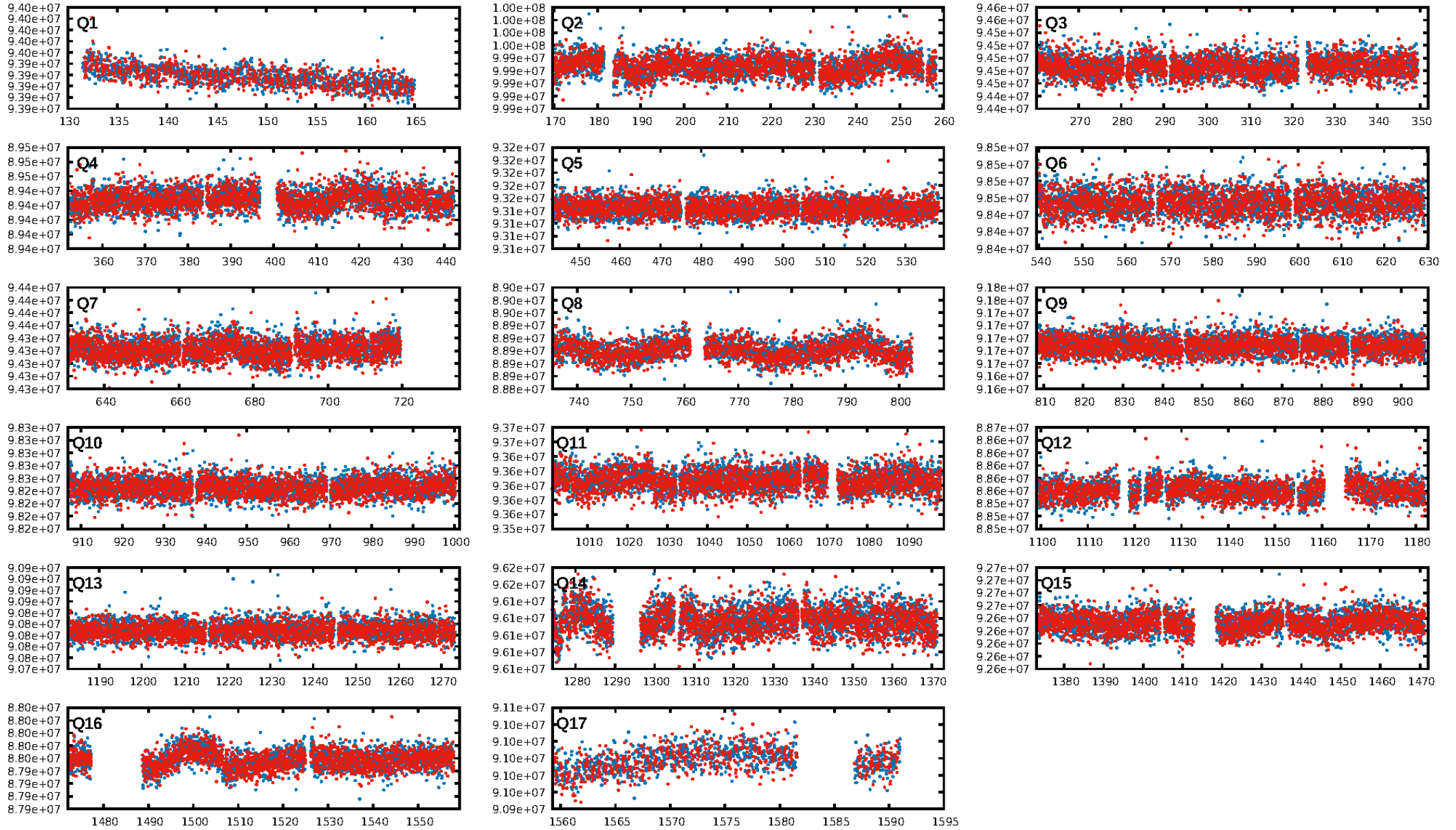
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.63e-24
RollingBand-fgt: 1.00 [2266/2266]
GhostDiagnostic-chr: 0.1076
Centroid-sig: 0.0%
Centroid-so: 7.522 arcsec [4.63σ]
OotOffset-rm: 1.514 arcsec [2.22σ]
KicOffset-rm: 1.490 arcsec [2.13σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.36 [5/14]
DiffImageOverlap-fno: 1.00 [17/17]

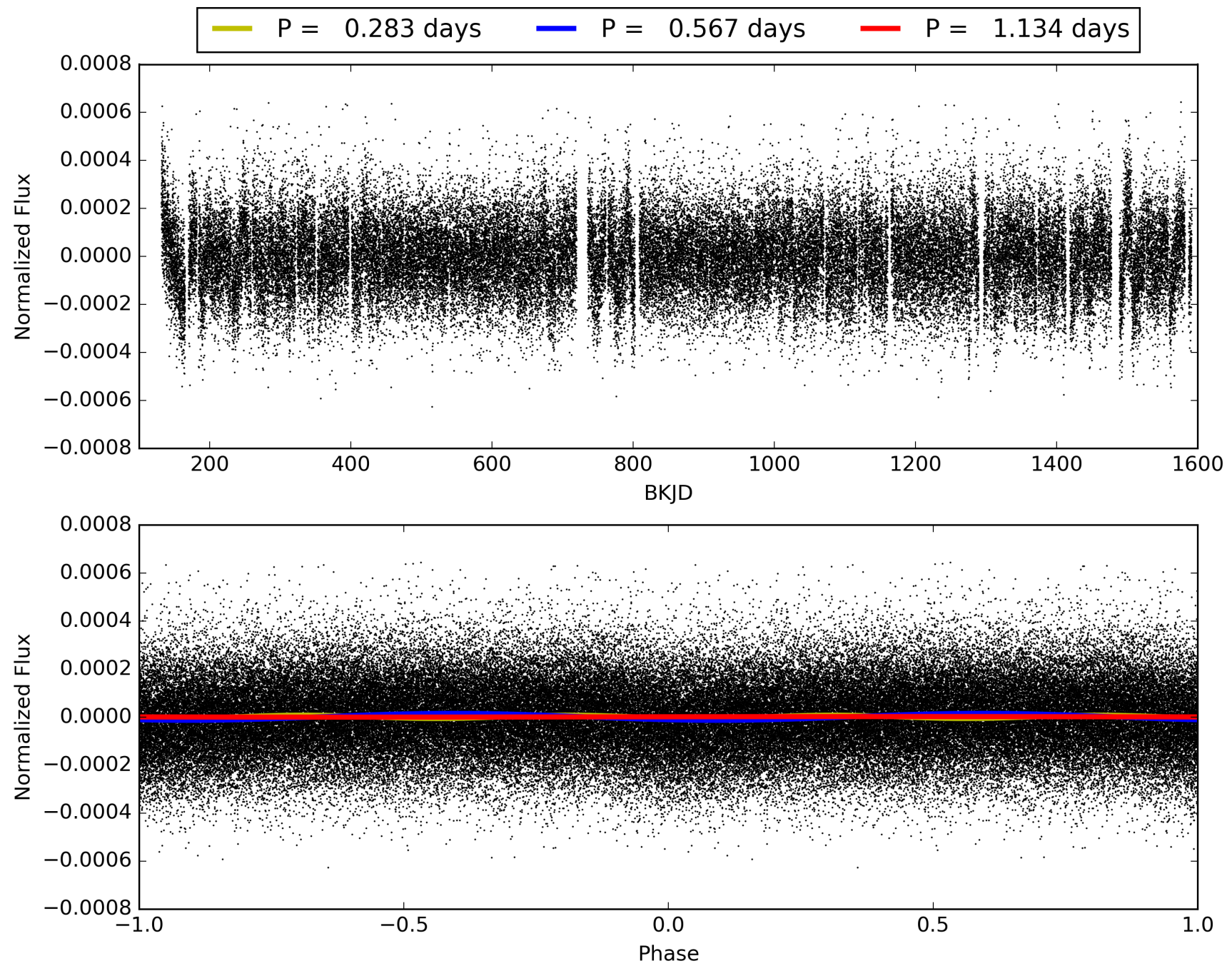
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:07:15 Z

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

TCE 007199883-01, PDC Light Curves

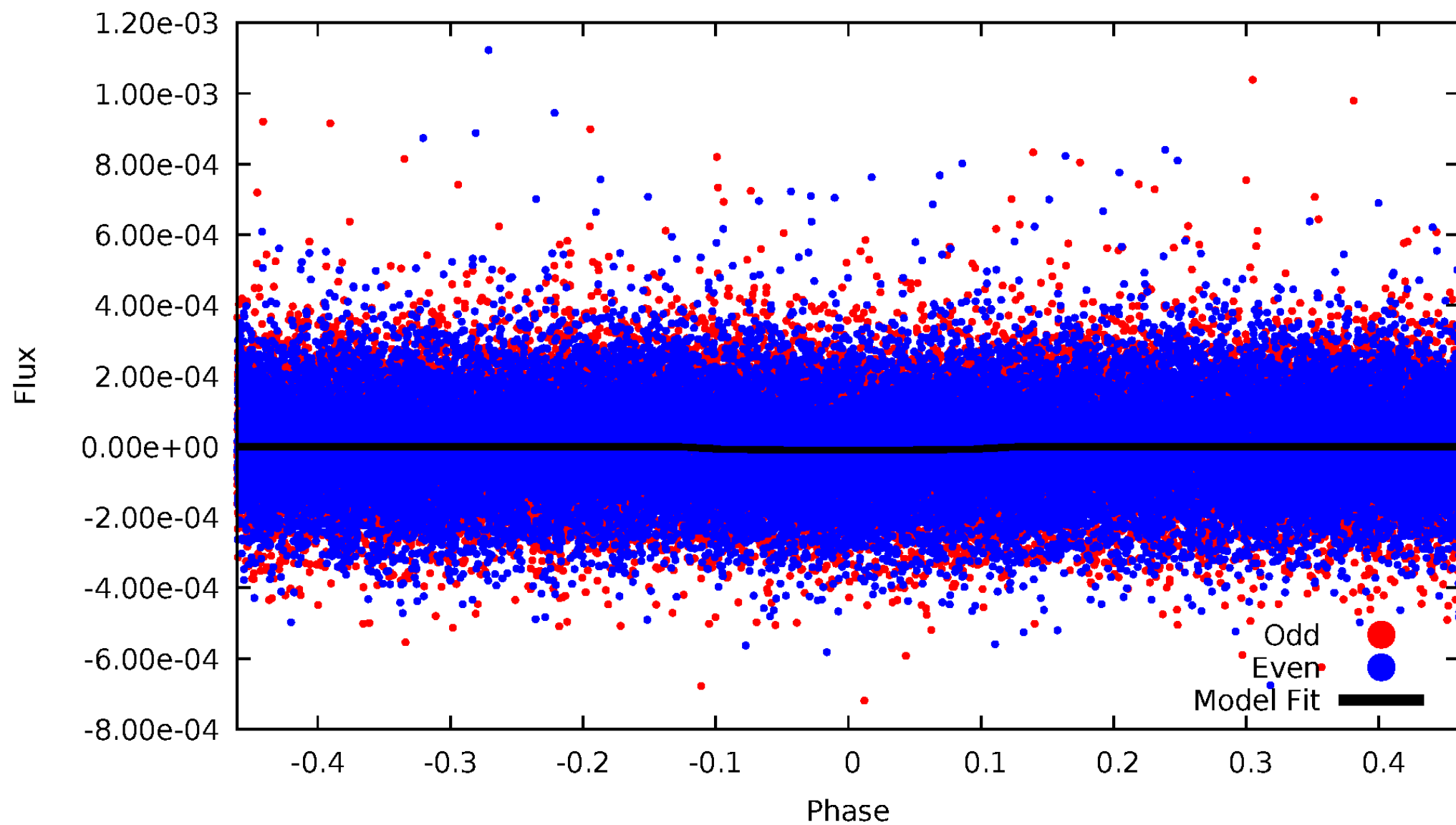


TCE 007199883-01



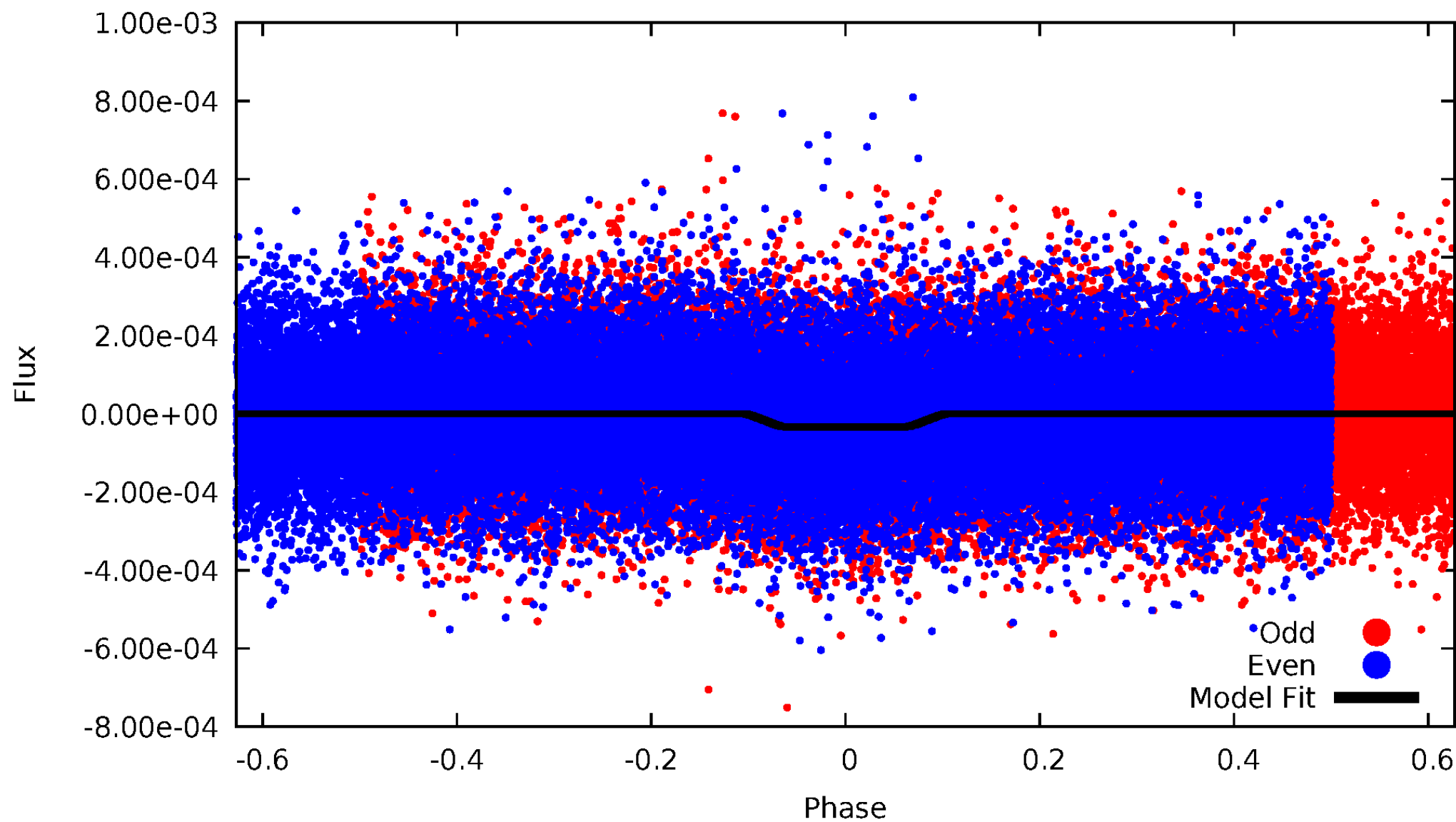
DV Odd/Even

TCE 007199883-01



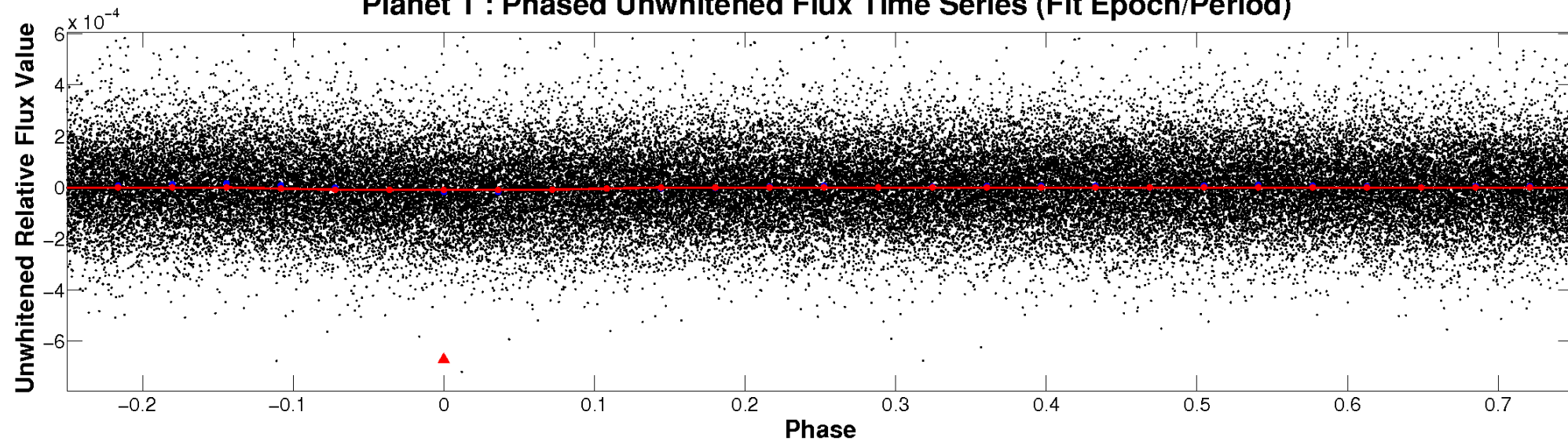
ALT Odd/Even

TCE 007199883-01

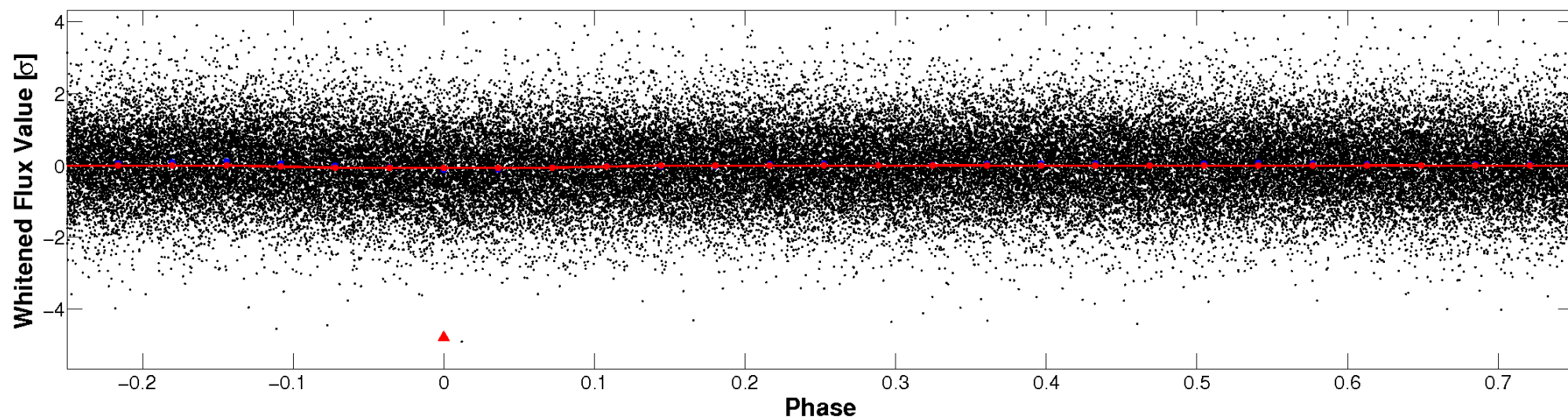


Non-Whitened Vs. Whitened Light Curve

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

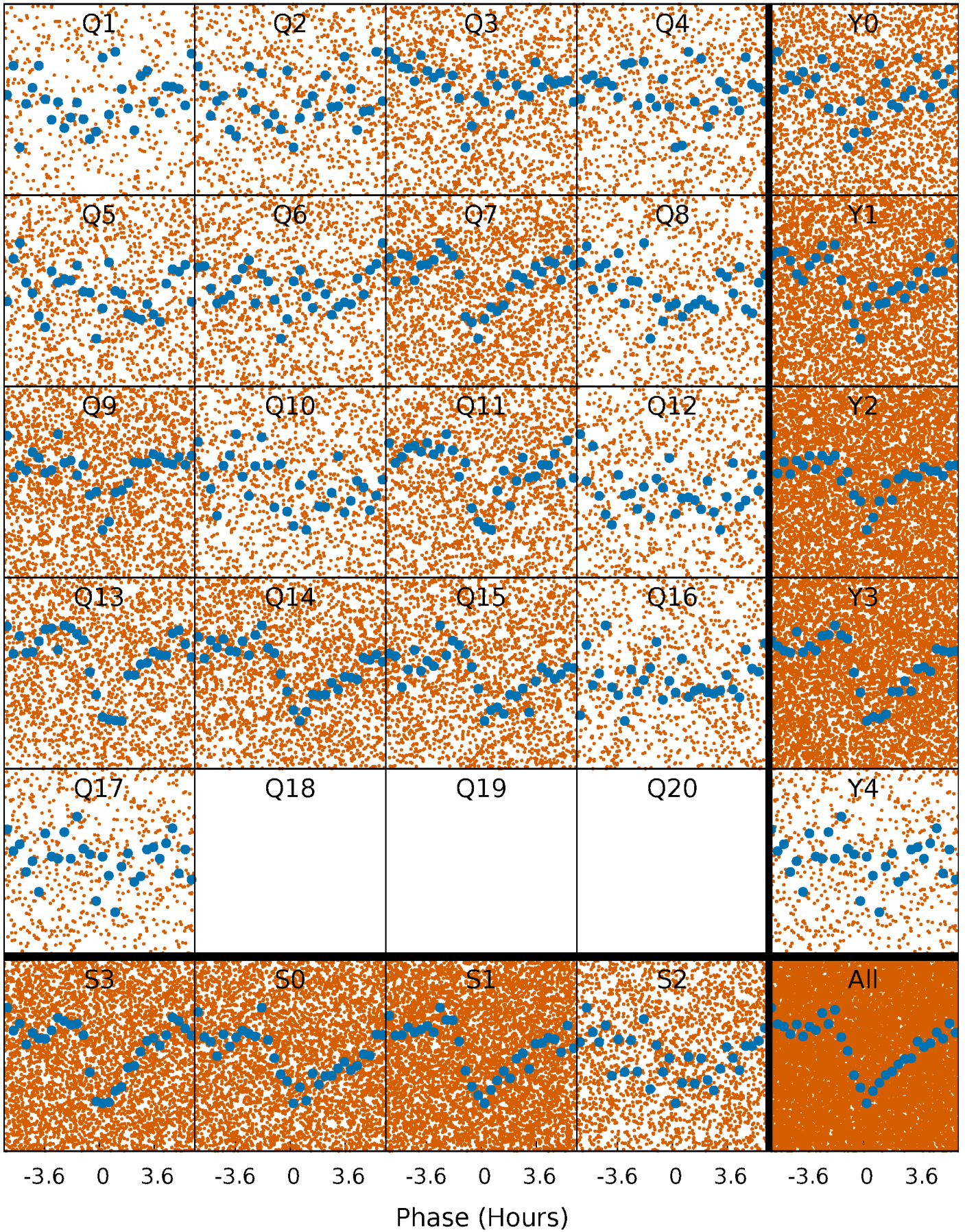


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



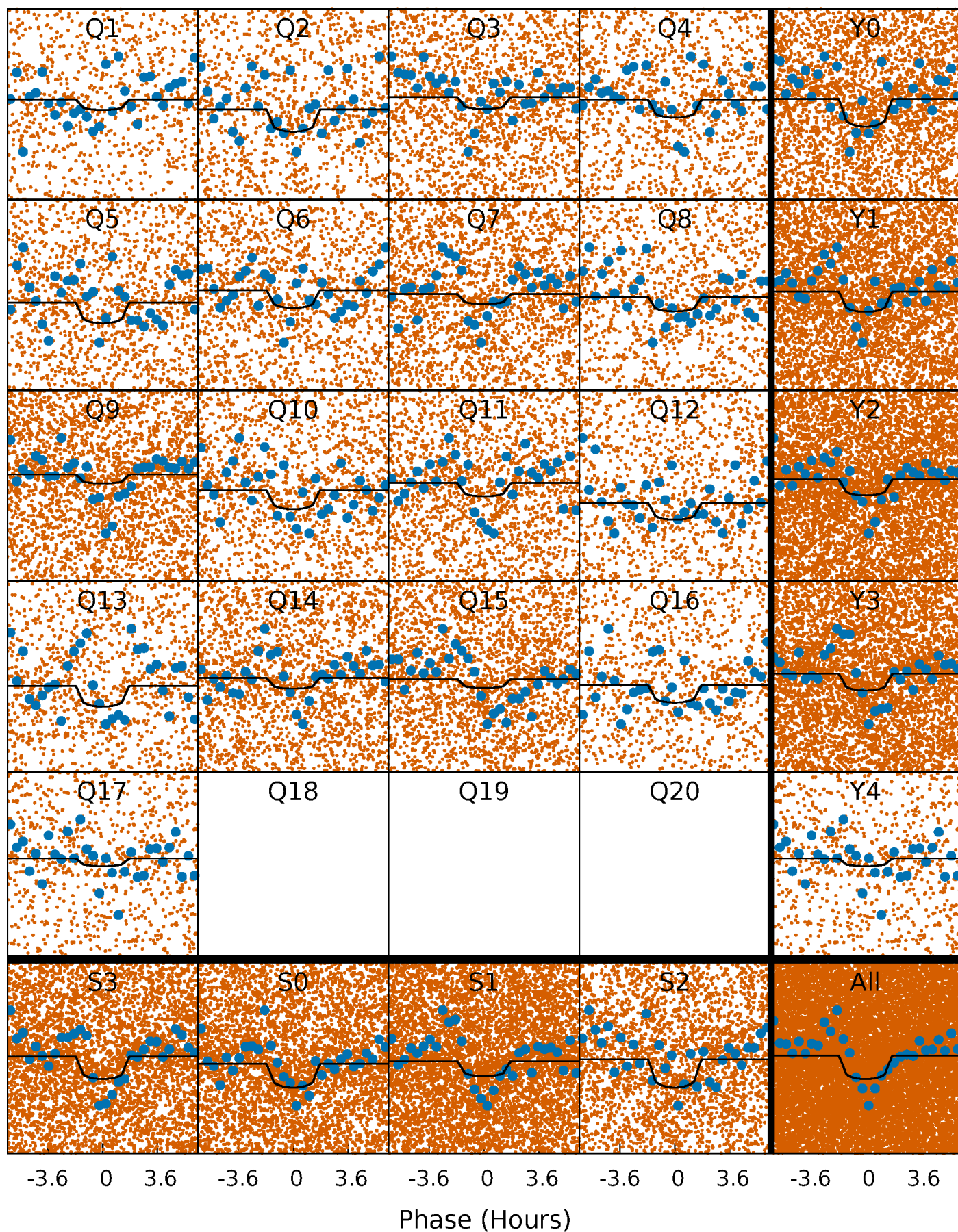
PDC Quarter-Phased Transit Curves

TCE 007199883-01 P= 0.566768 Days $T_0=131.837016$ (BKJD)



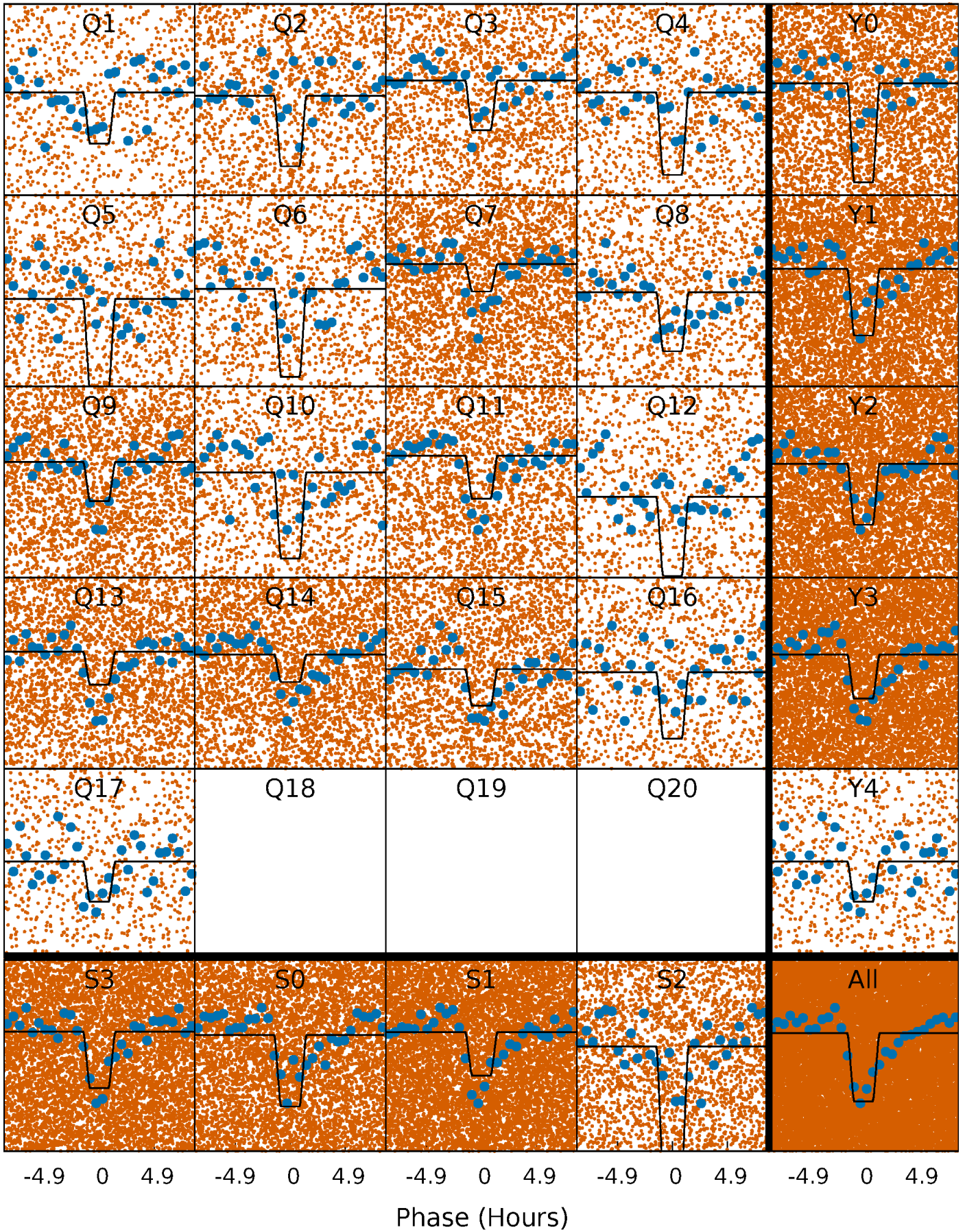
DV Quarter-Phased Transit Curves

TCE 007199883-01 P= 0.566768 Days $T_0=131.837016$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

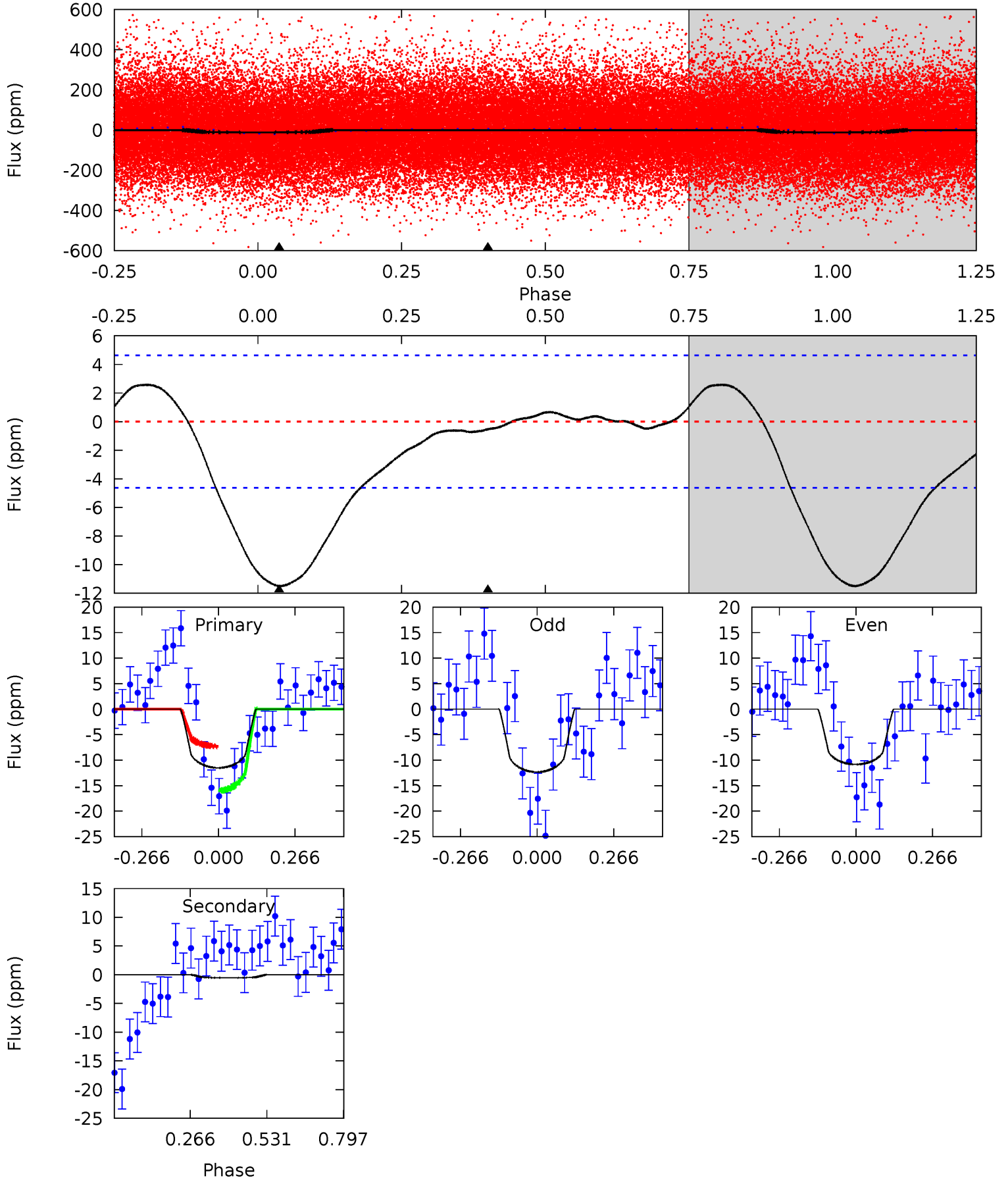
TCE 007199883-01 P= 0.566795 Days $T_0=131.817902$ (BKJD)



DV Model-Shift Uniqueness Test

007199883-01, P = 0.566768 Days, E = 131.270248 Days

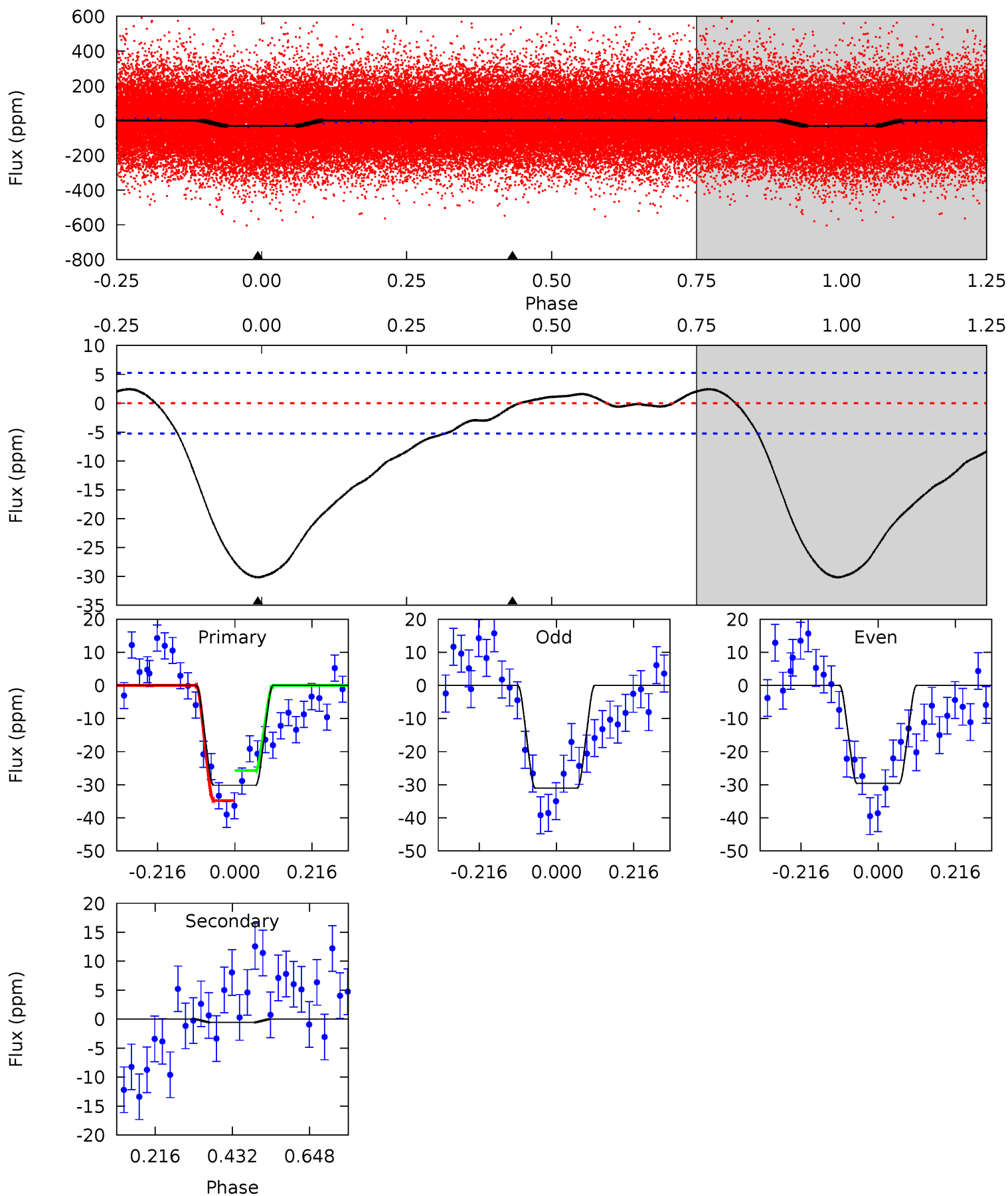
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	0.51	0	0	4.36	1.11	0.71	10.8	10.8	0.51	0.51	0.70	0.96	0.18	4.06



Alt Model-Shift Uniqueness Test

007199883-01, P = 0.566795 Days, E = 131.251107 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	0.47	0	0	4.40	1.24	2.23	25.3	25.3	0.47	0.47	0.59	0.95	0.08	3.85



Stellar Parameters For KIC 007199883

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6063^{+162}_{-198}	$4.451^{+0.070}_{-0.210}$	$-0.080^{+0.250}_{-0.300}$	$1.004^{+0.330}_{-0.110}$	$1.035^{+0.153}_{-0.126}$	$1.439^{+0.427}_{-0.780}$
	+3%/-3%	+2%/-5%	+312%/-375%	+33%/-11%	+15%/-12%	+30%/-54%
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 007199883-01 / KOI 7824.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 1	$0.42^{+0.26}_{-0.24}$	3256^{+231}_{-165}	-2620^{+6935}_{-990}	$0.245^{+1.767}_{-0.482}$
Alt.	-1 ± 1	$0.66^{+0.31}_{-0.29}$	3264^{+210}_{-169}	-3062^{+6205}_{-467}	$0.104^{+0.448}_{-0.265}$

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

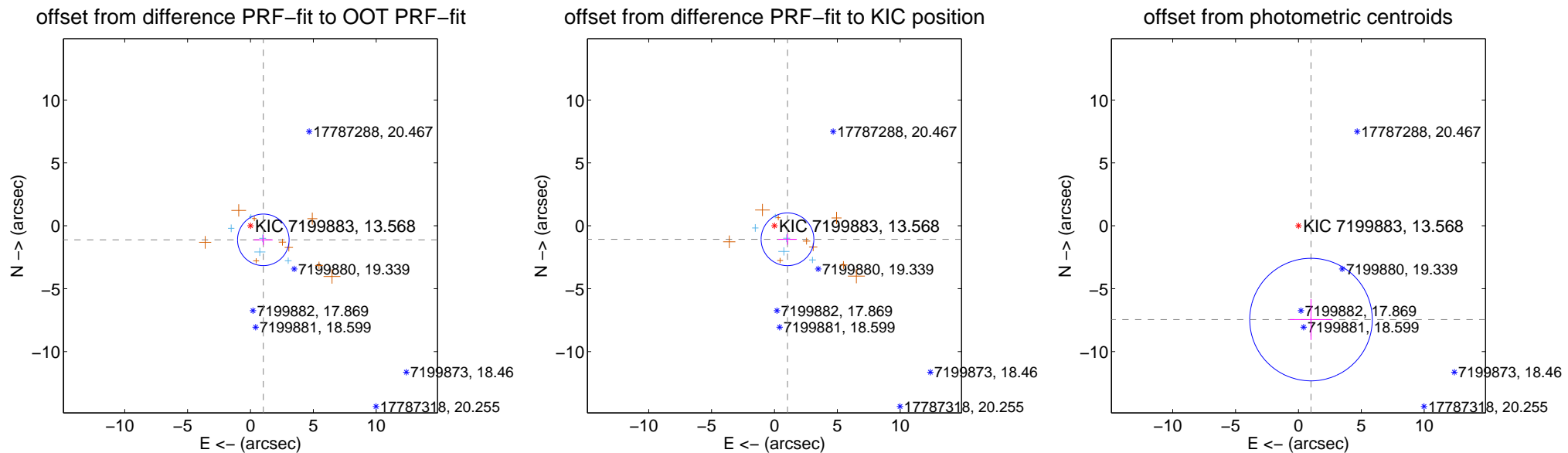
DV Centroid Data

Supplemental centroid analysis for 007199883-01. Kepler magnitude: 13.57. Transit SNR 7.05

There are 5 quarters with good PRF difference image offsets

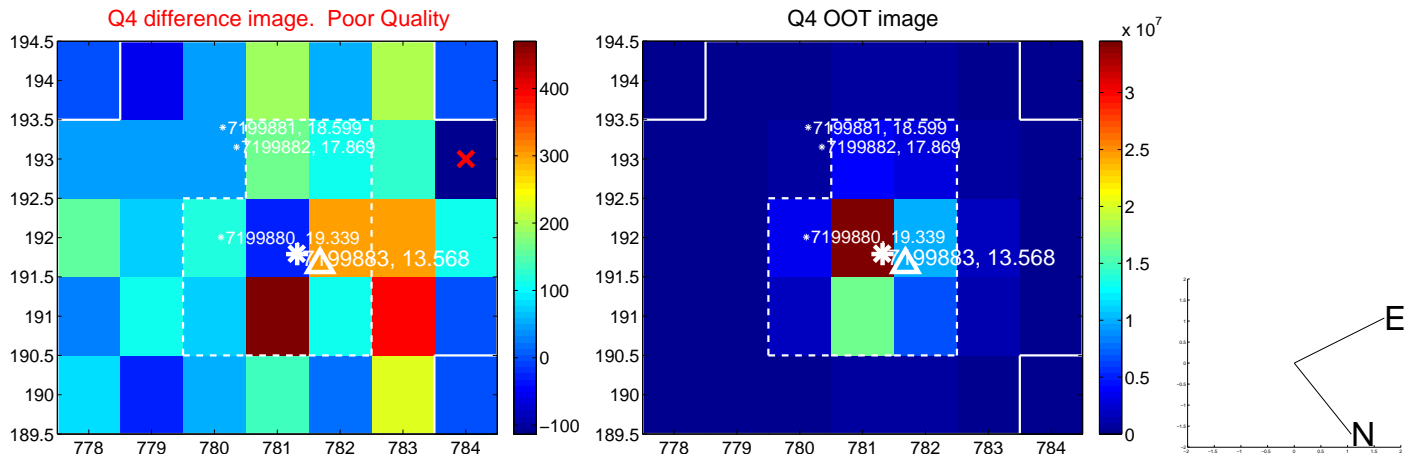
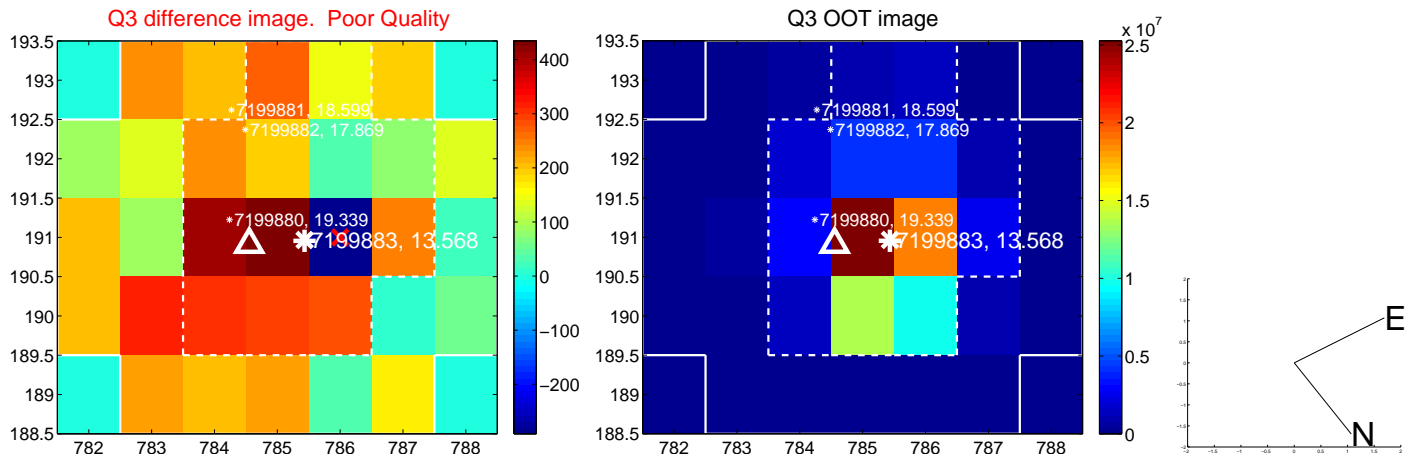
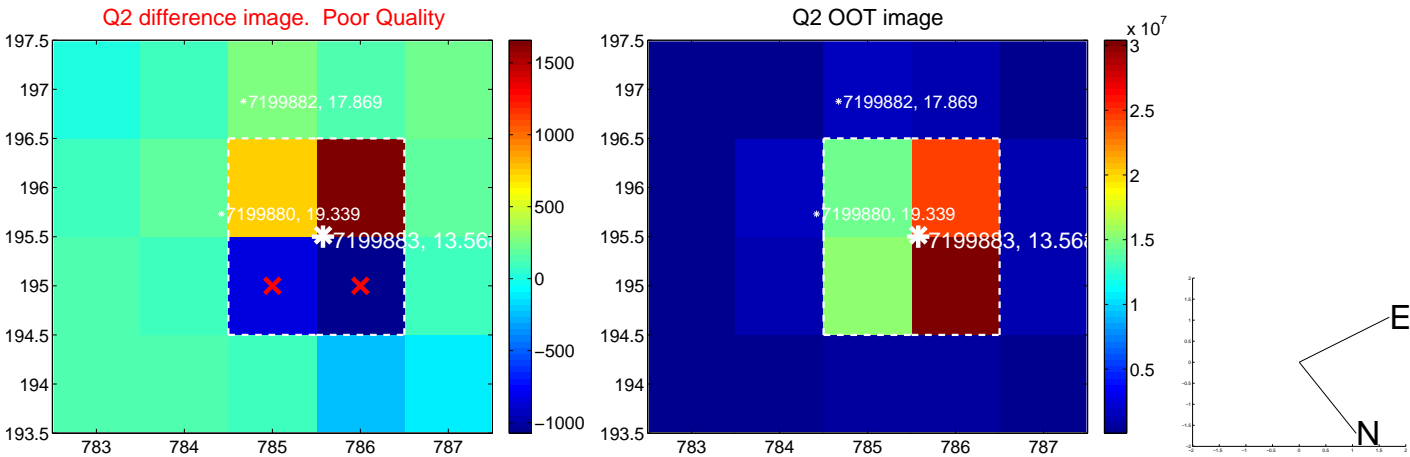
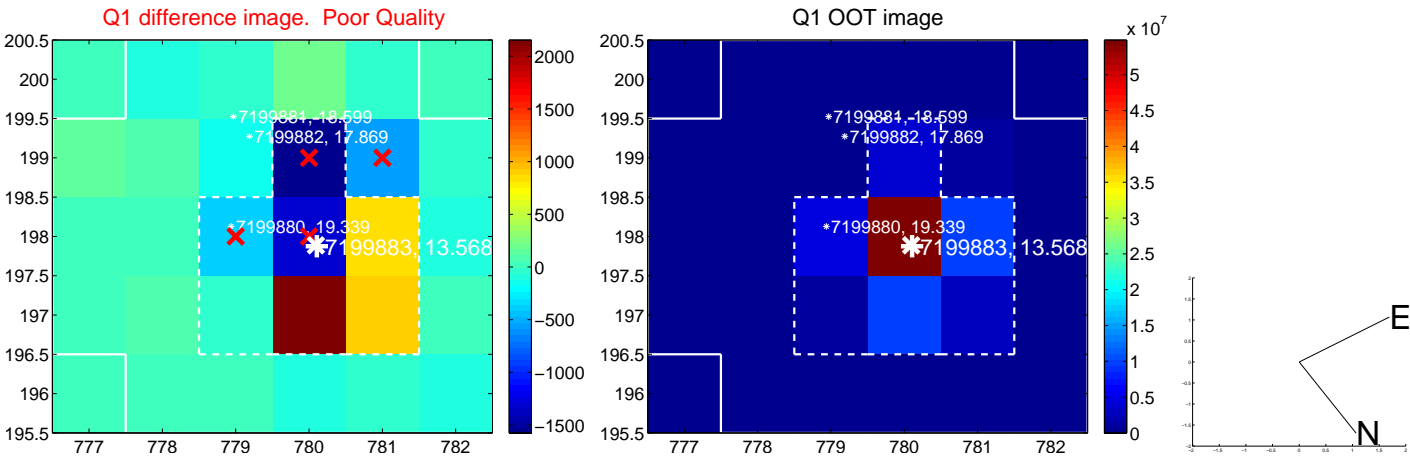
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.514 ± 0.683	2.22	-1.023 ± 0.749	-1.116 ± 0.399
PRF-fit source offset from KIC position	1.490 ± 0.699	2.13	-1.035 ± 0.738	-1.072 ± 0.428
photometric centroid source offset	7.52 ± 1.62	4.63	-1.00 ± 1.68	-7.46 ± 1.62

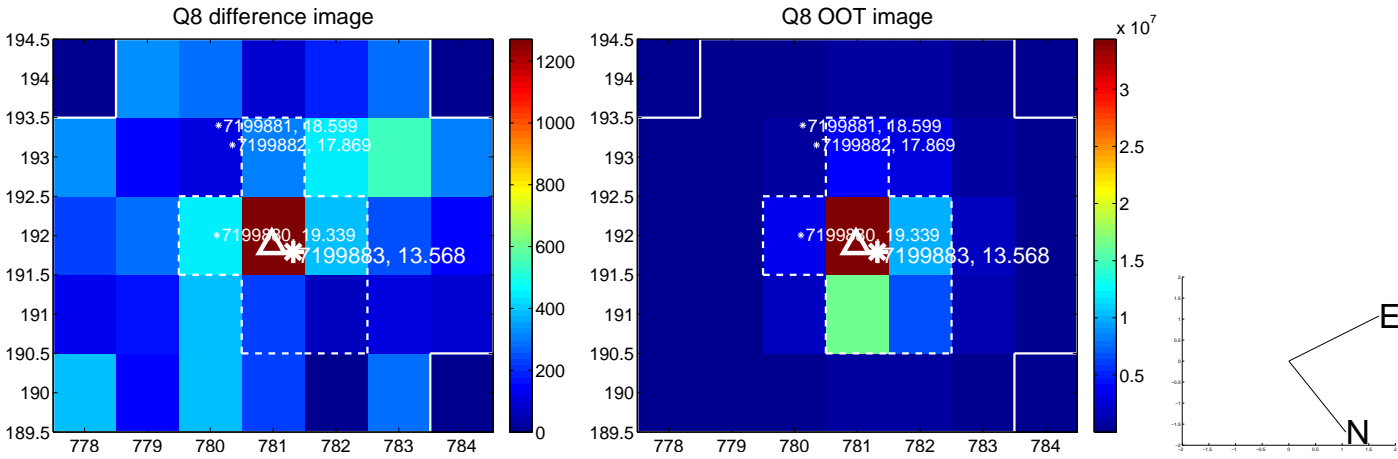
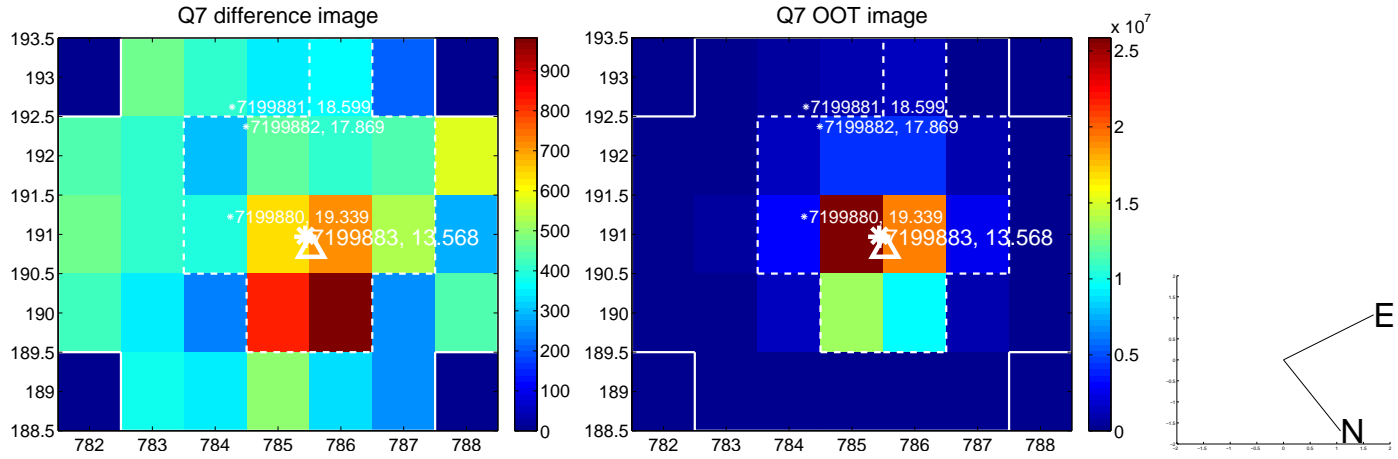
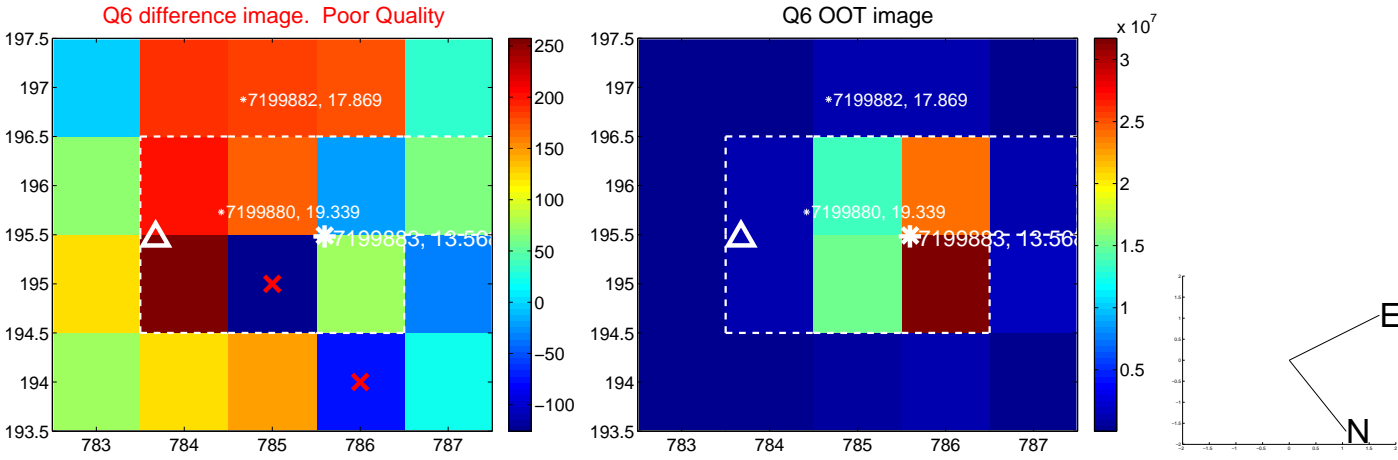
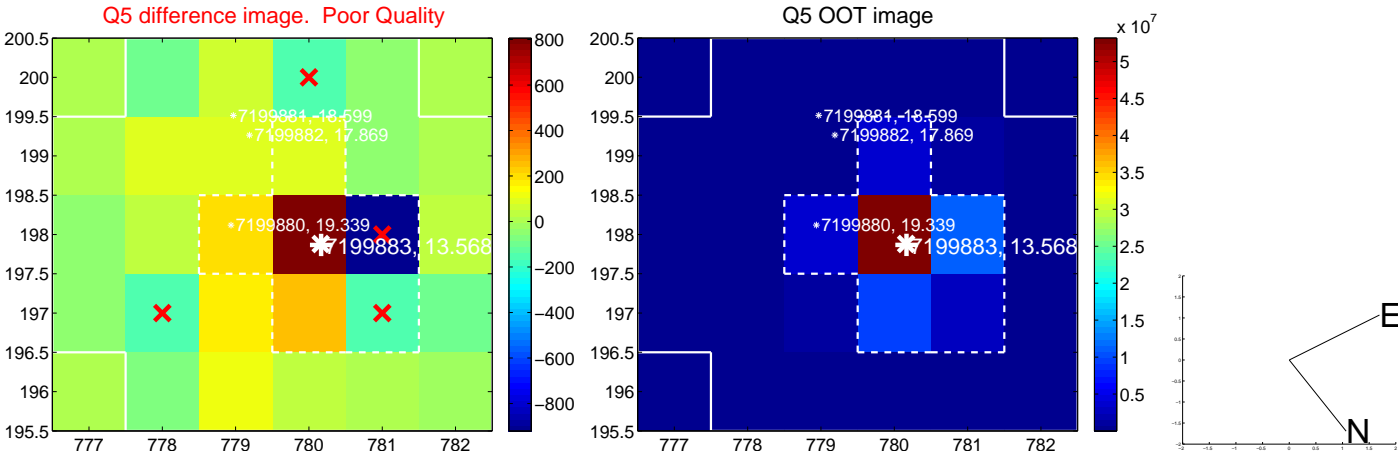


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

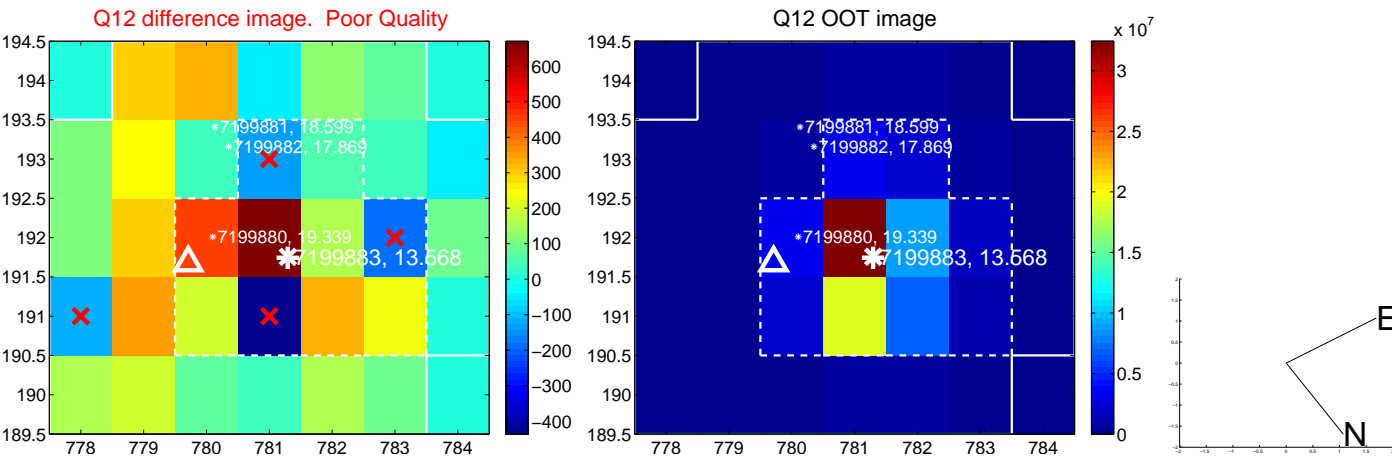
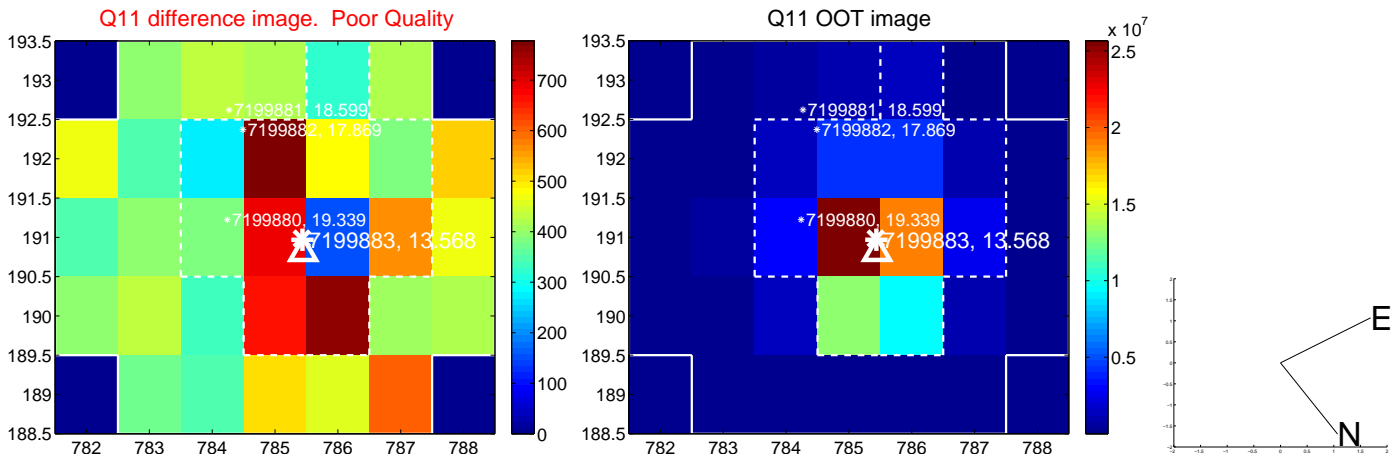
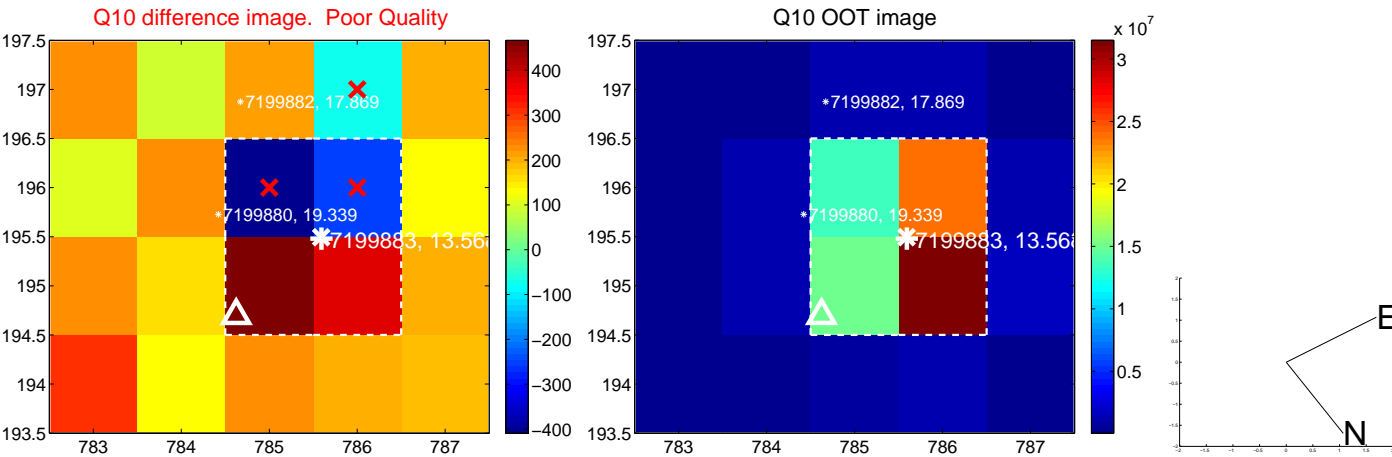
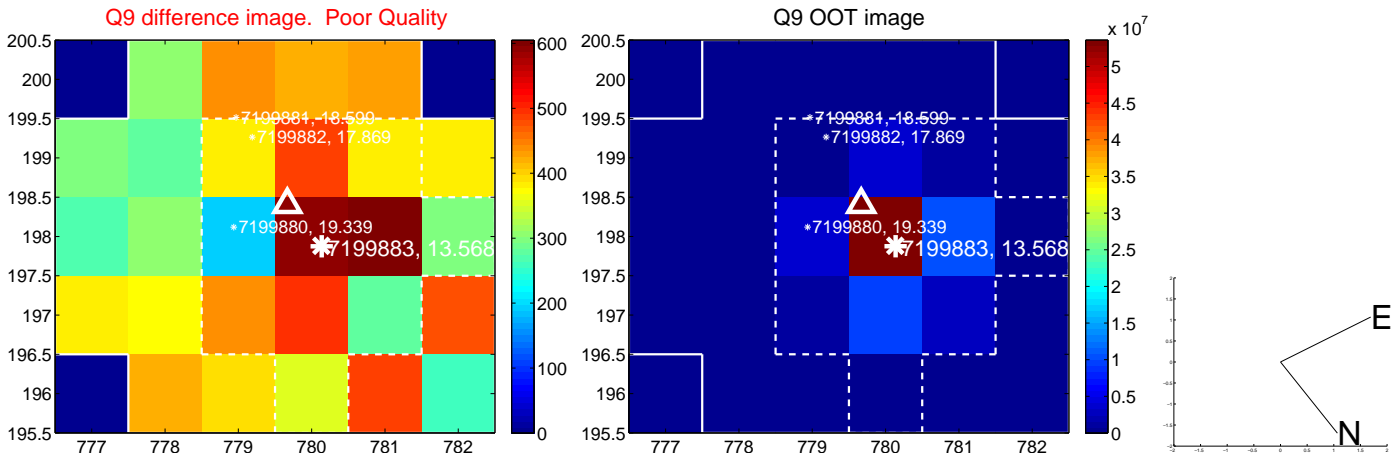
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



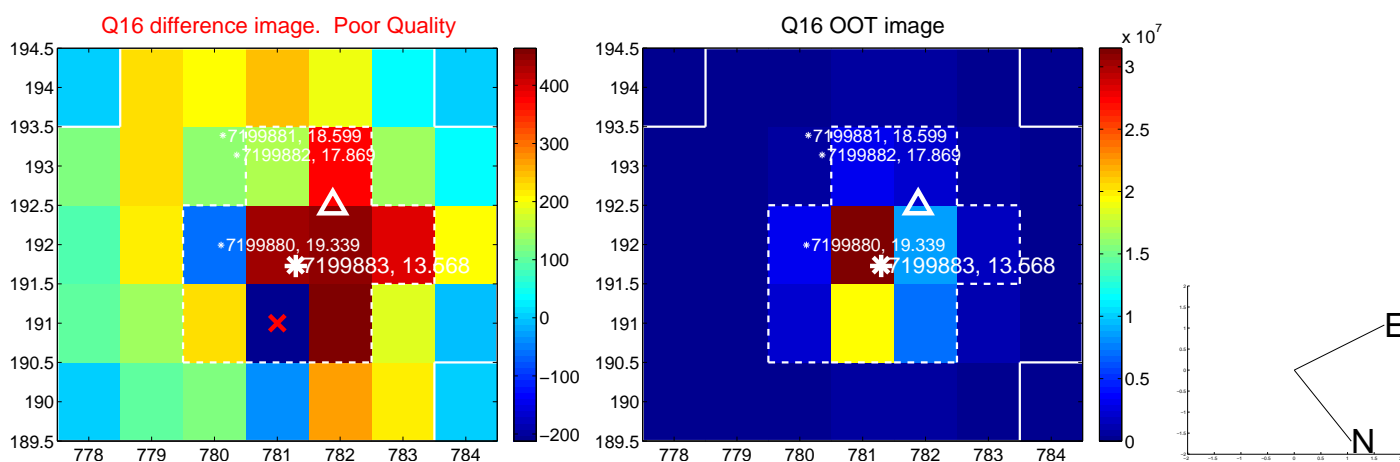
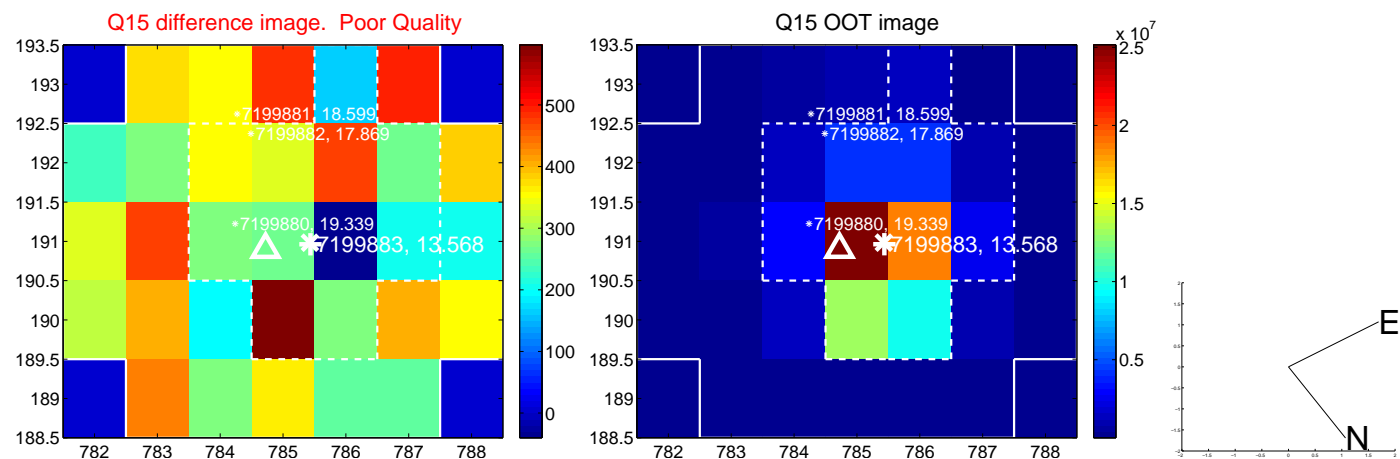
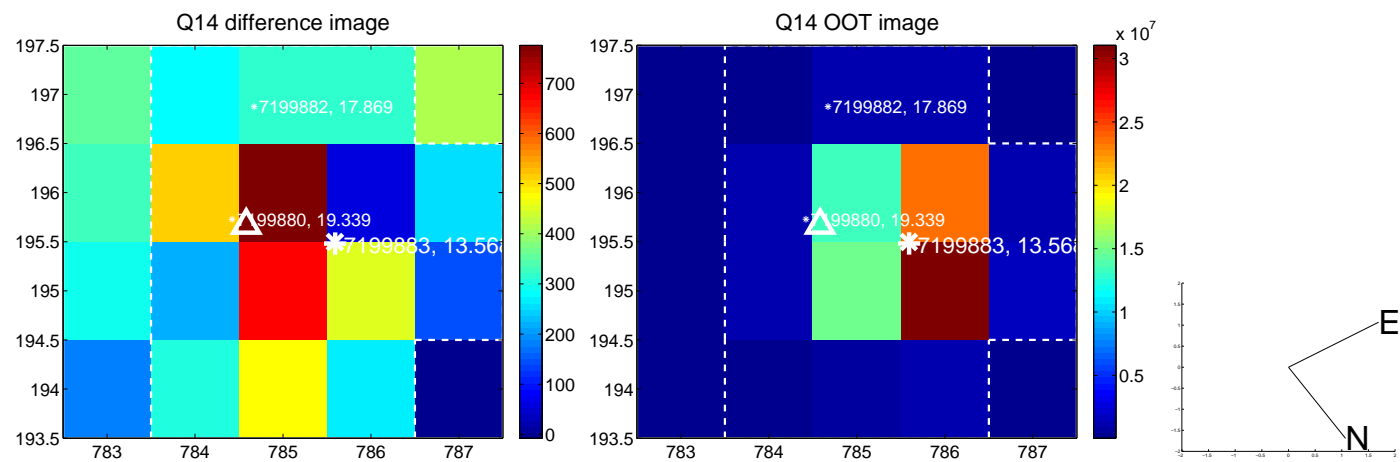
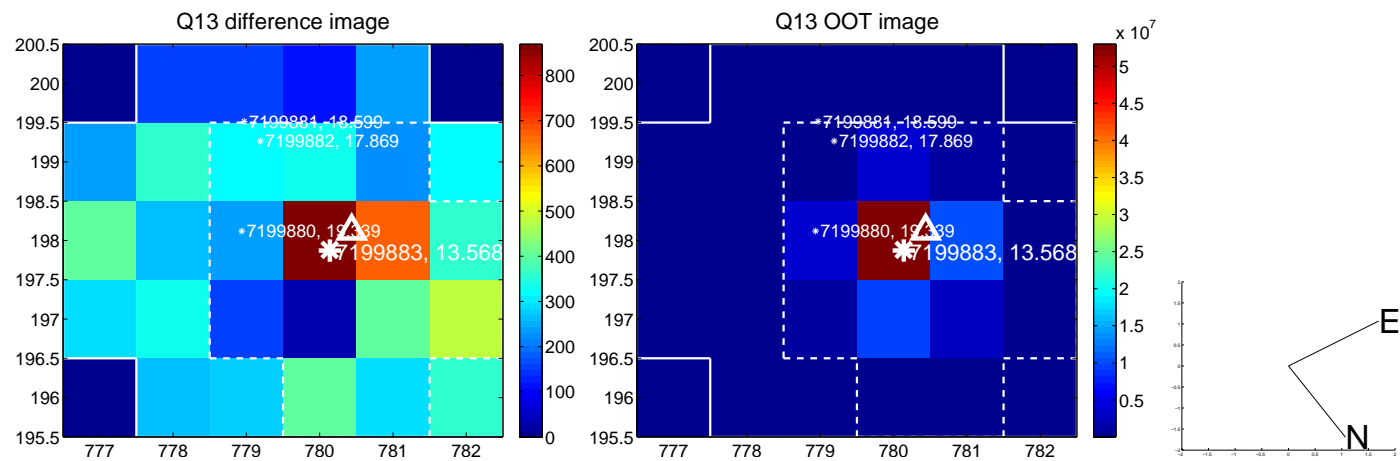
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



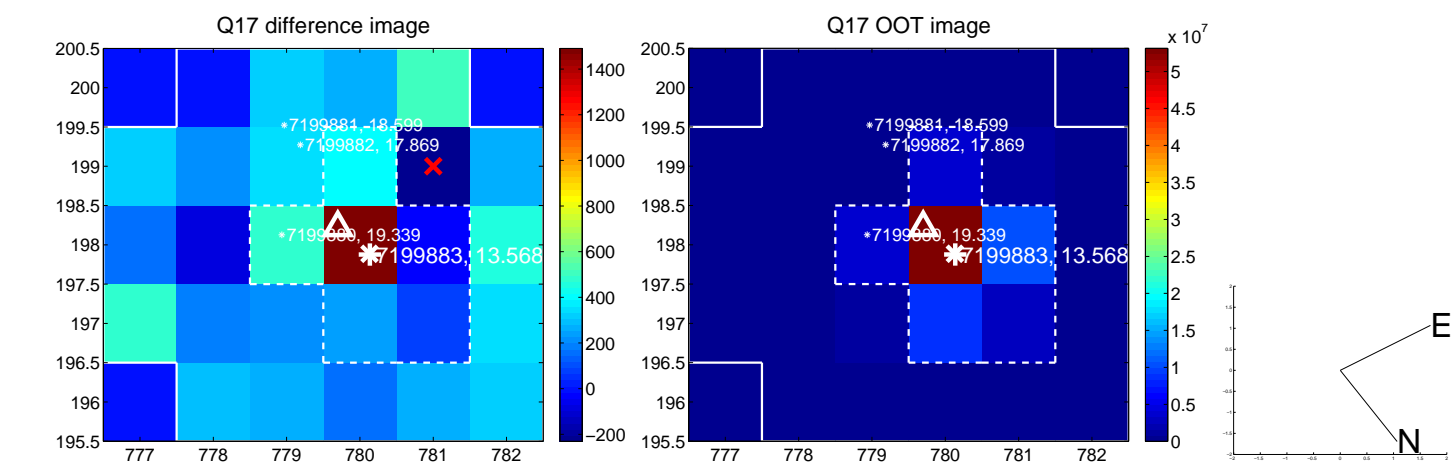
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



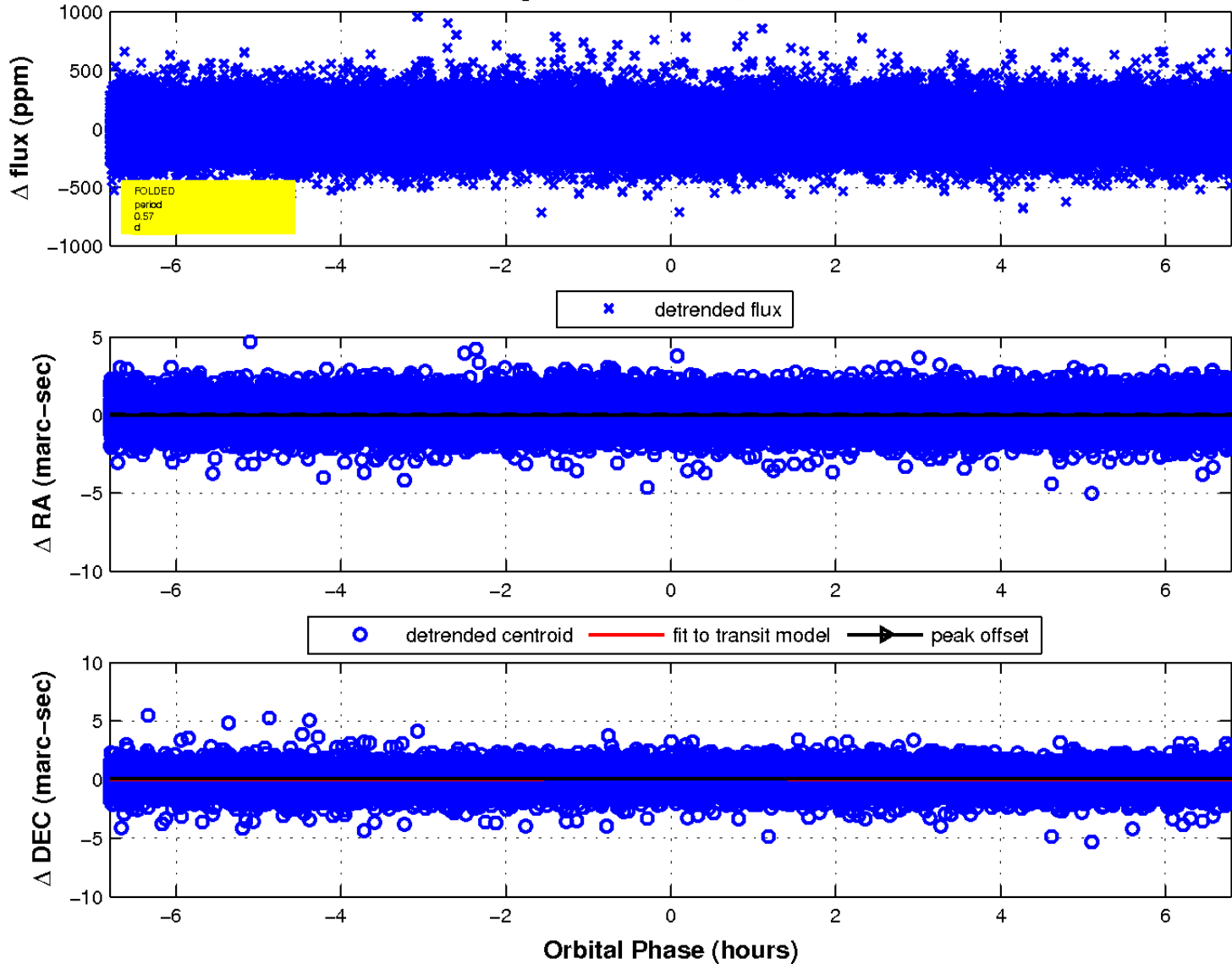
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

