

KIC 004743188

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})
004743188-01	OBS	No	1.164935	132.605700	25.1	5.522	8.7	8.7	1.00	6108	0.50	2518.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004743188-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET

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

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

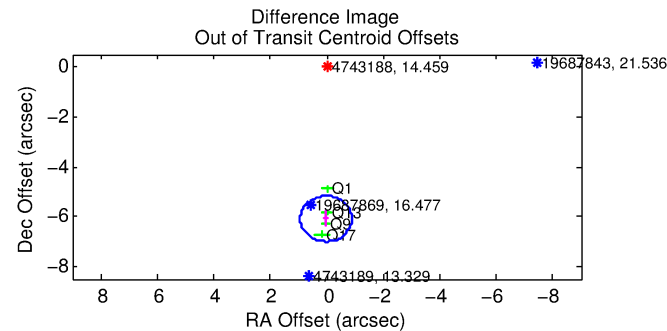
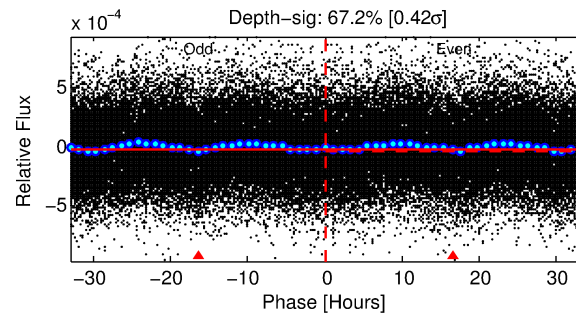
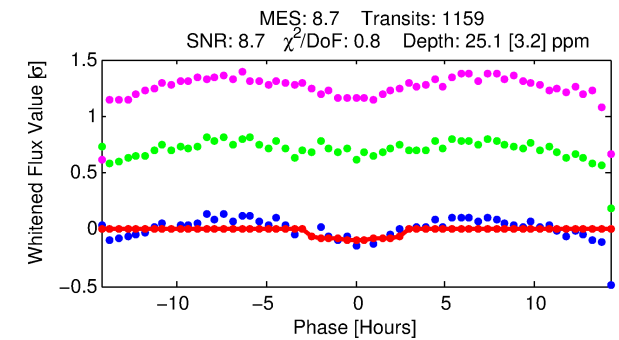
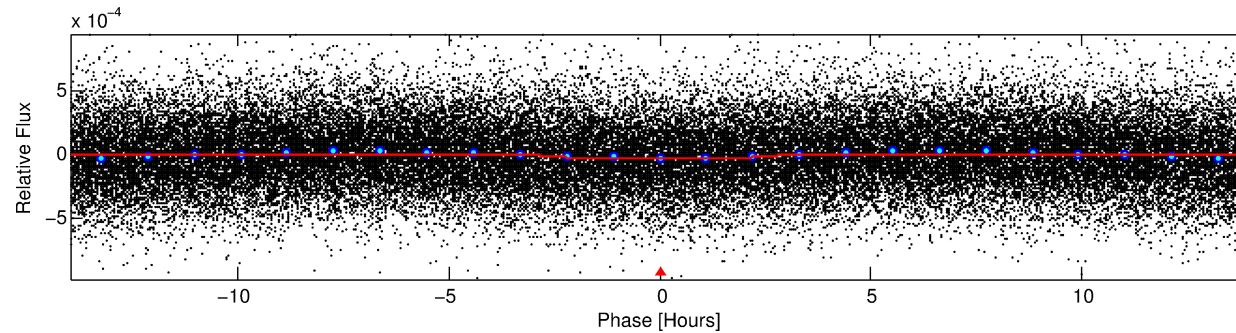
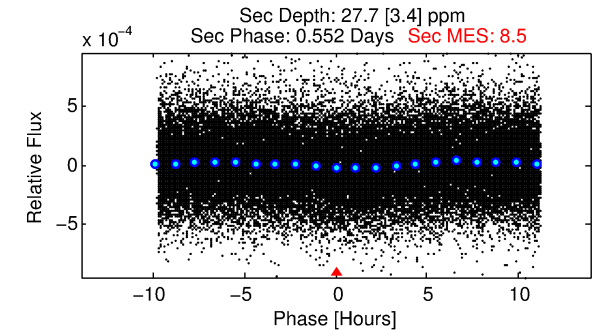
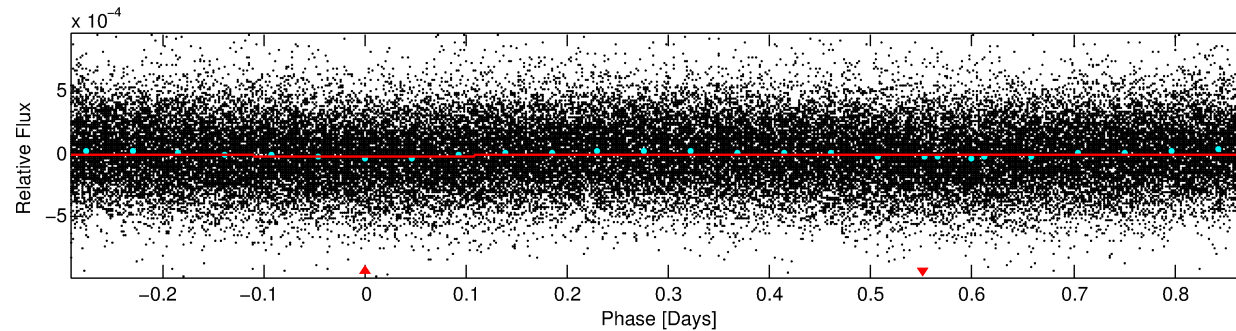
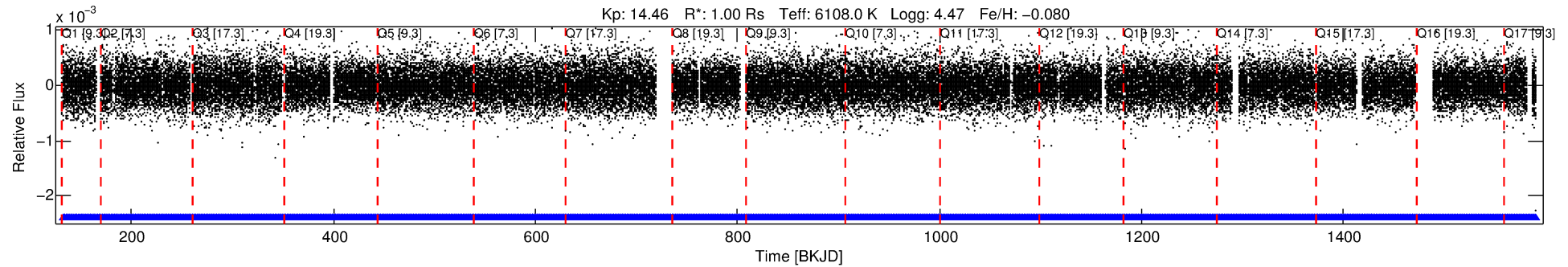
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004743188-01

No Significant Match Found

DV One-Page Summary

KIC: 4743188 Candidate: 1 of 1 Period: 1.165 d



DV Fit Results:

Period = 1.16494 [0.00002] d
Epoch = 132.6057 [0.0066] BKJD
Rp/R* = 0.0046 [0.0079]
a/R* = 1.73 [9.60]
b = 0.07 [127.44]
Seff = 2518.94 [1106.80]
Teq = 1806 [198] K
Rp = 0.50 [0.88] Re
a = 0.0222 [0.0064] AU
Ag = 30.25 [105.08] [0.28σ]
Teff = 6550 [5652] K [0.84σ]

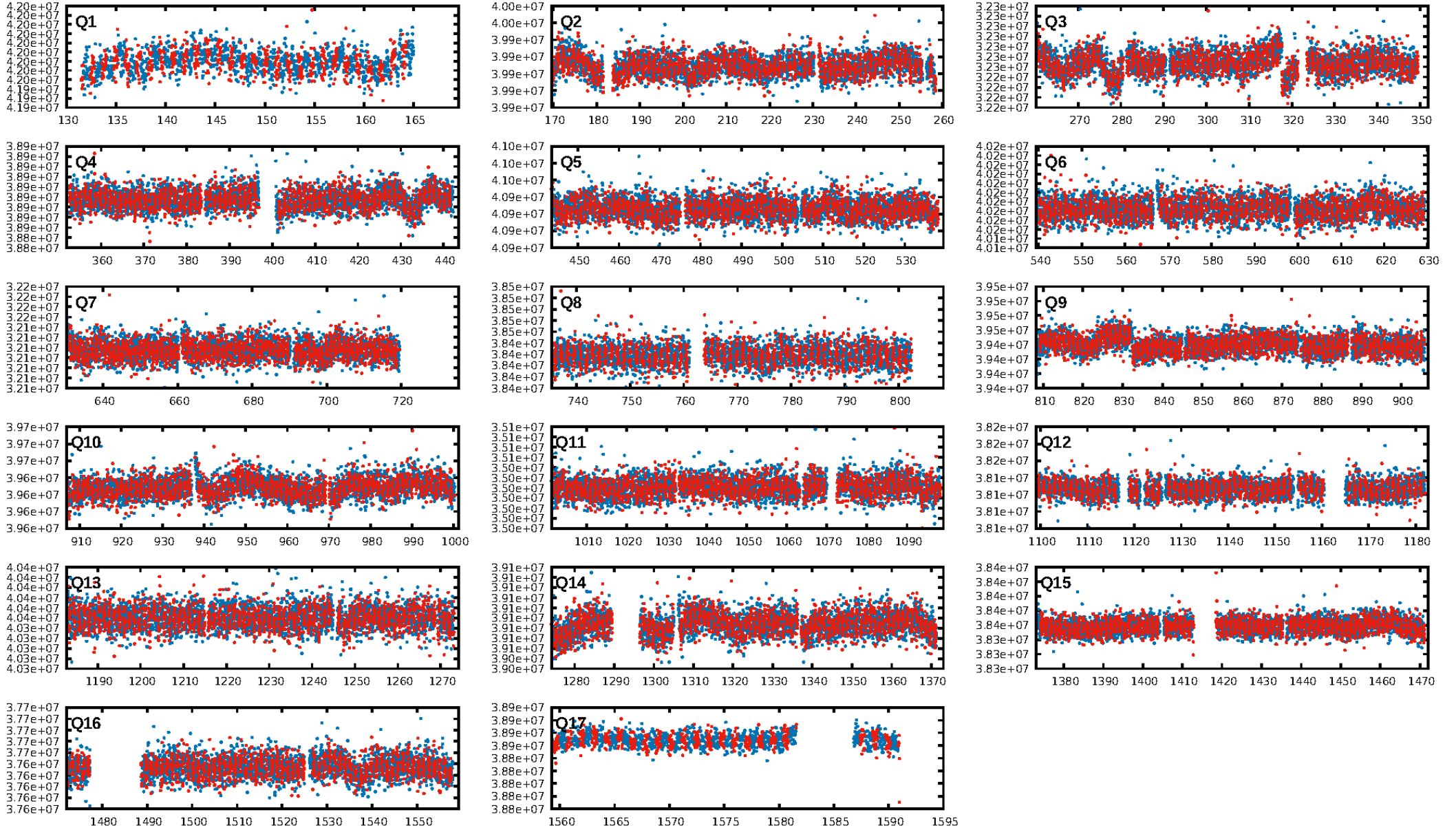
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.68e-13
RollingBand-fgt: 1.00 [1107/1107]
GhostDiagnostic-chr: -1.102
Centroid-sig: N/A
Centroid-so: 2.666 arcsec [2.27σ]
OotOffset-rm: 6.090 arcsec [20.03σ]
KicOffset-rm: 6.591 arcsec [19.06σ]
OotOffset-st: 0/0/0/4 [4]
KicOffset-st: 0/0/0/4 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

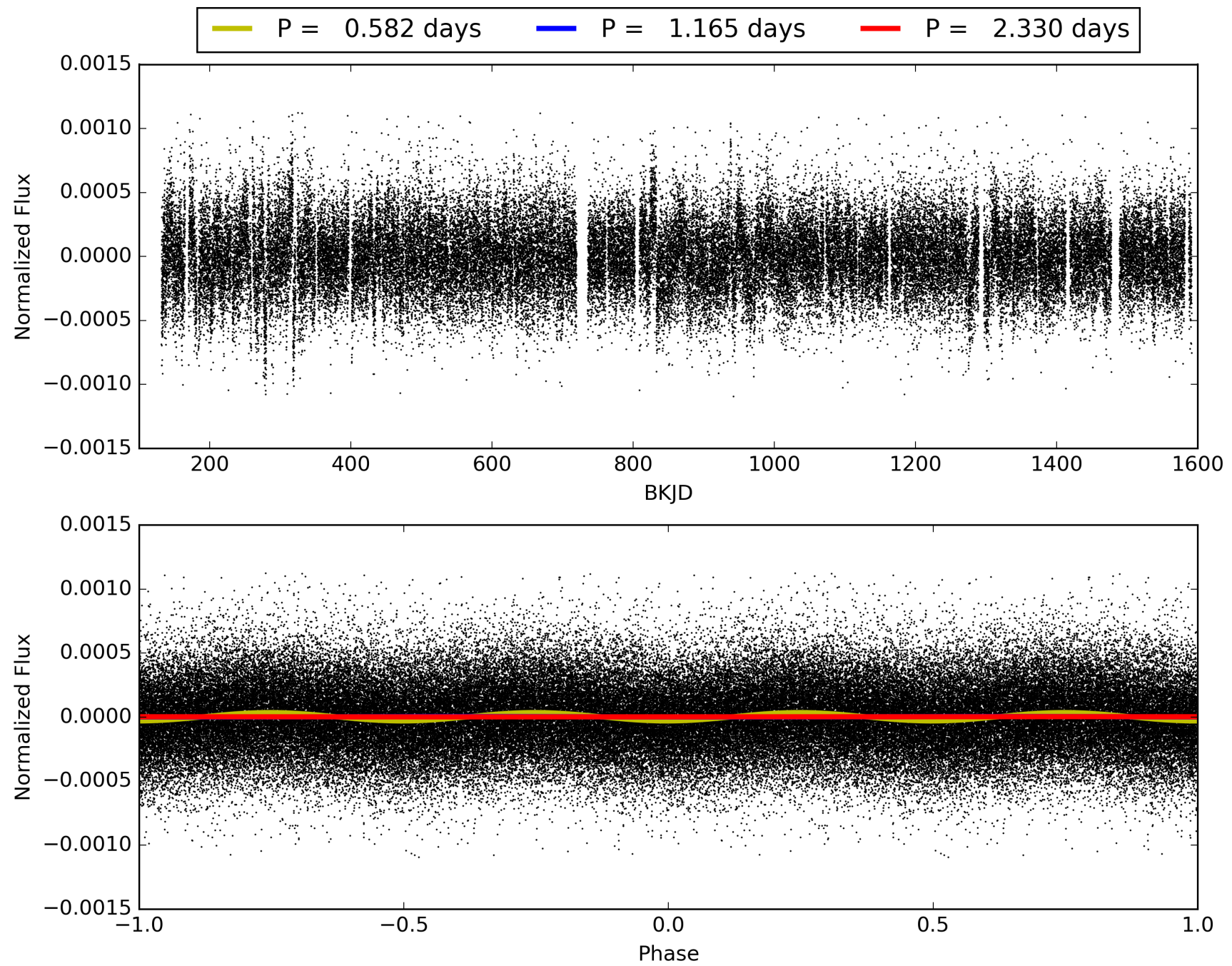
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 11:27:22 Z

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

TCE 004743188-01, PDC Light Curves

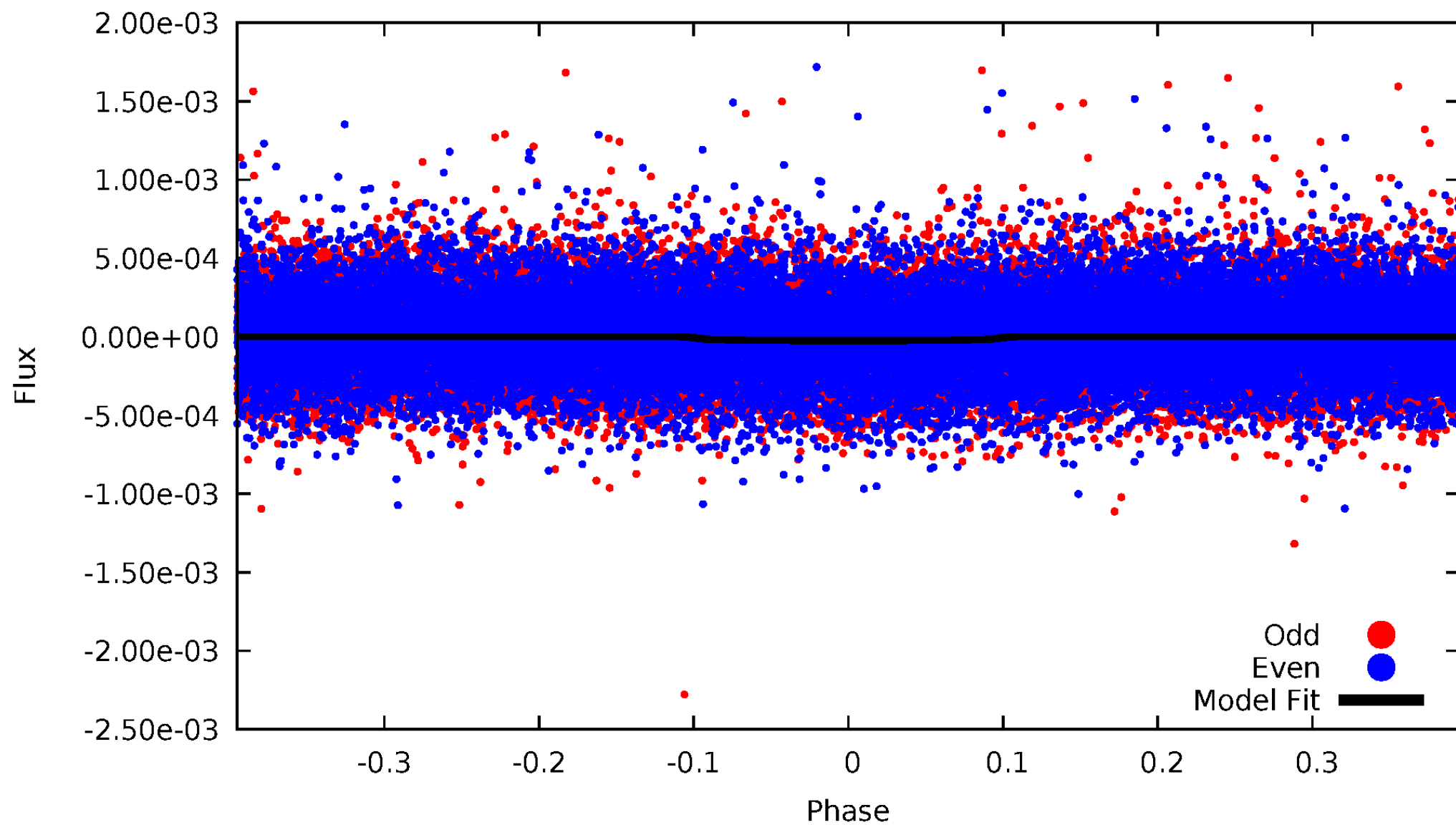


TCE 004743188-01



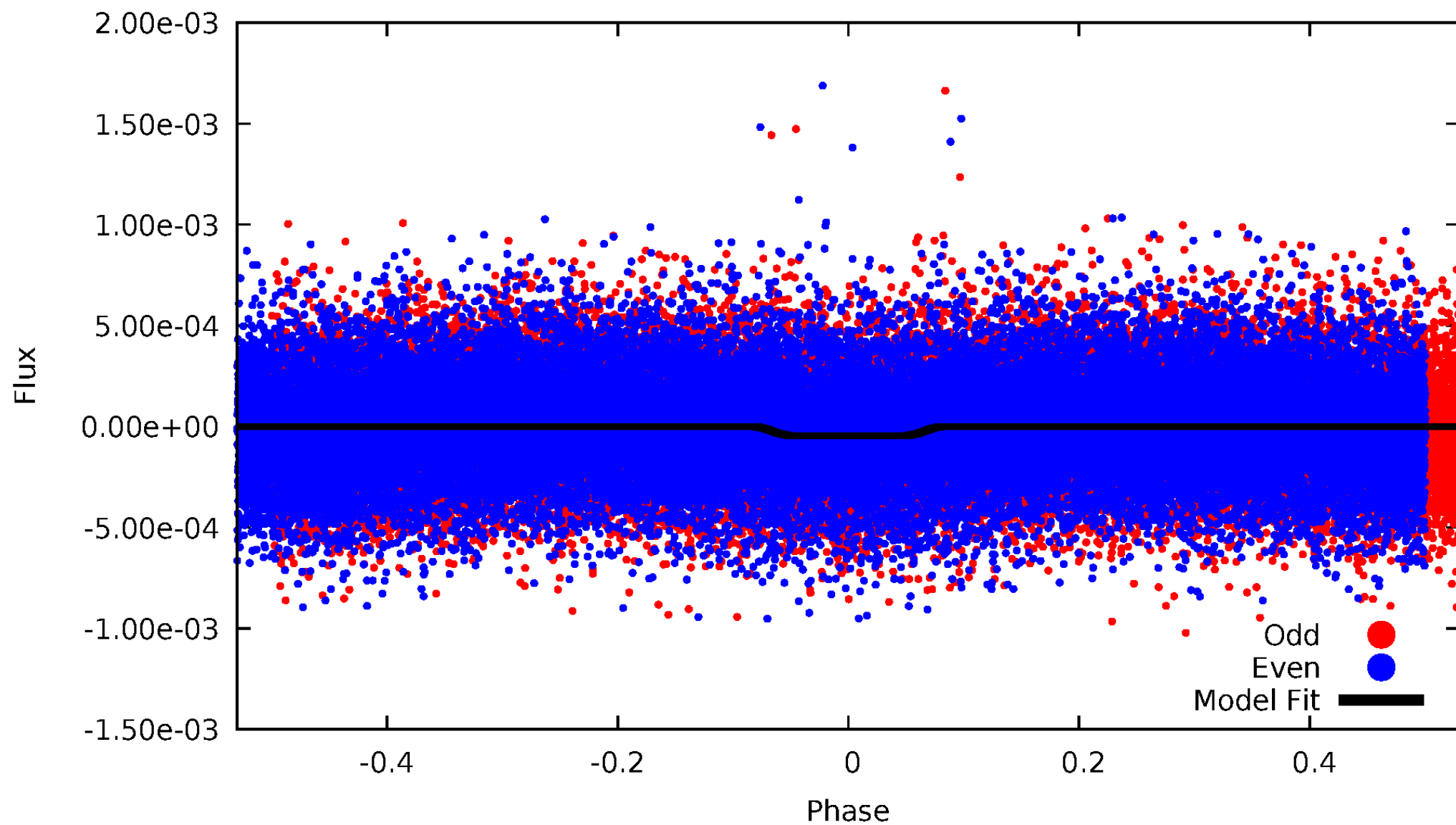
DV Odd/Even

TCE 004743188-01

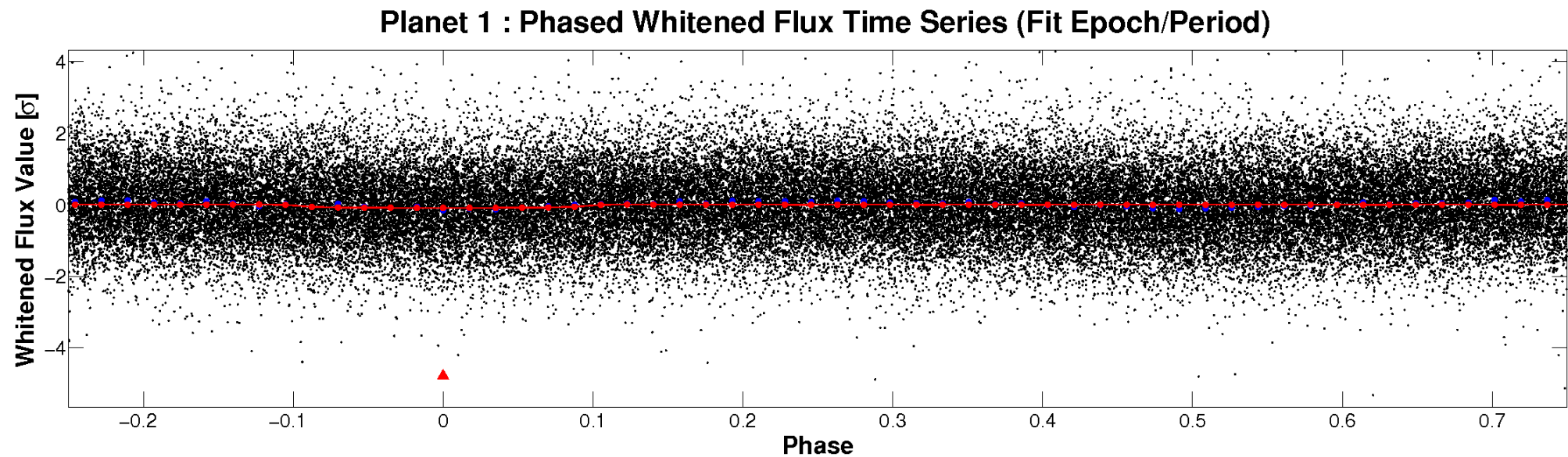
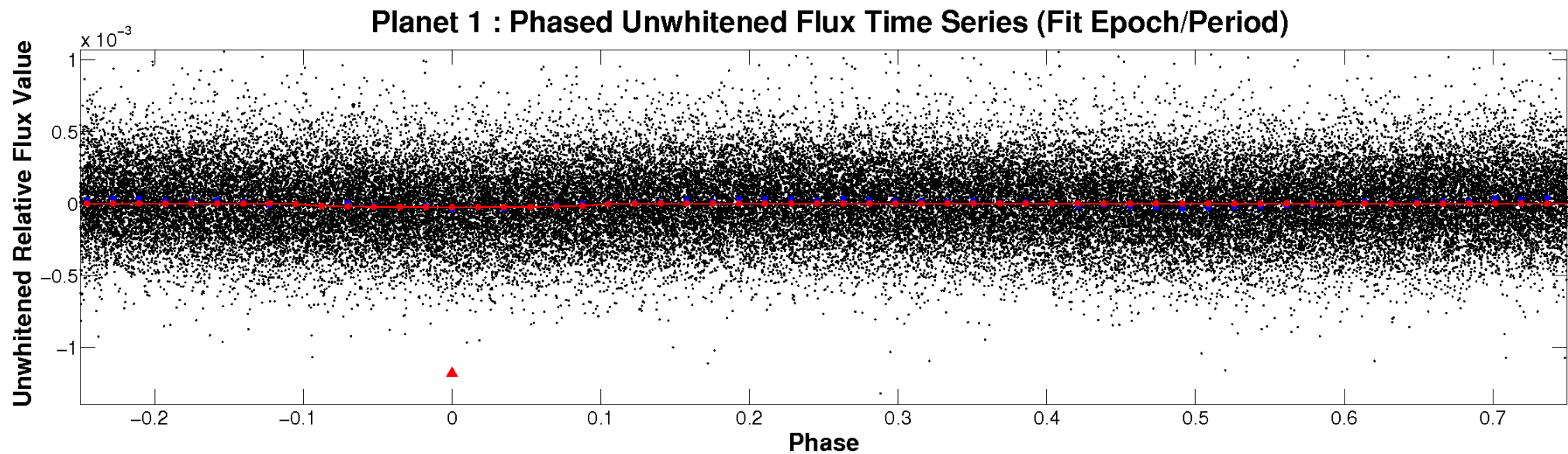


ALT Odd/Even

TCE 004743188-01

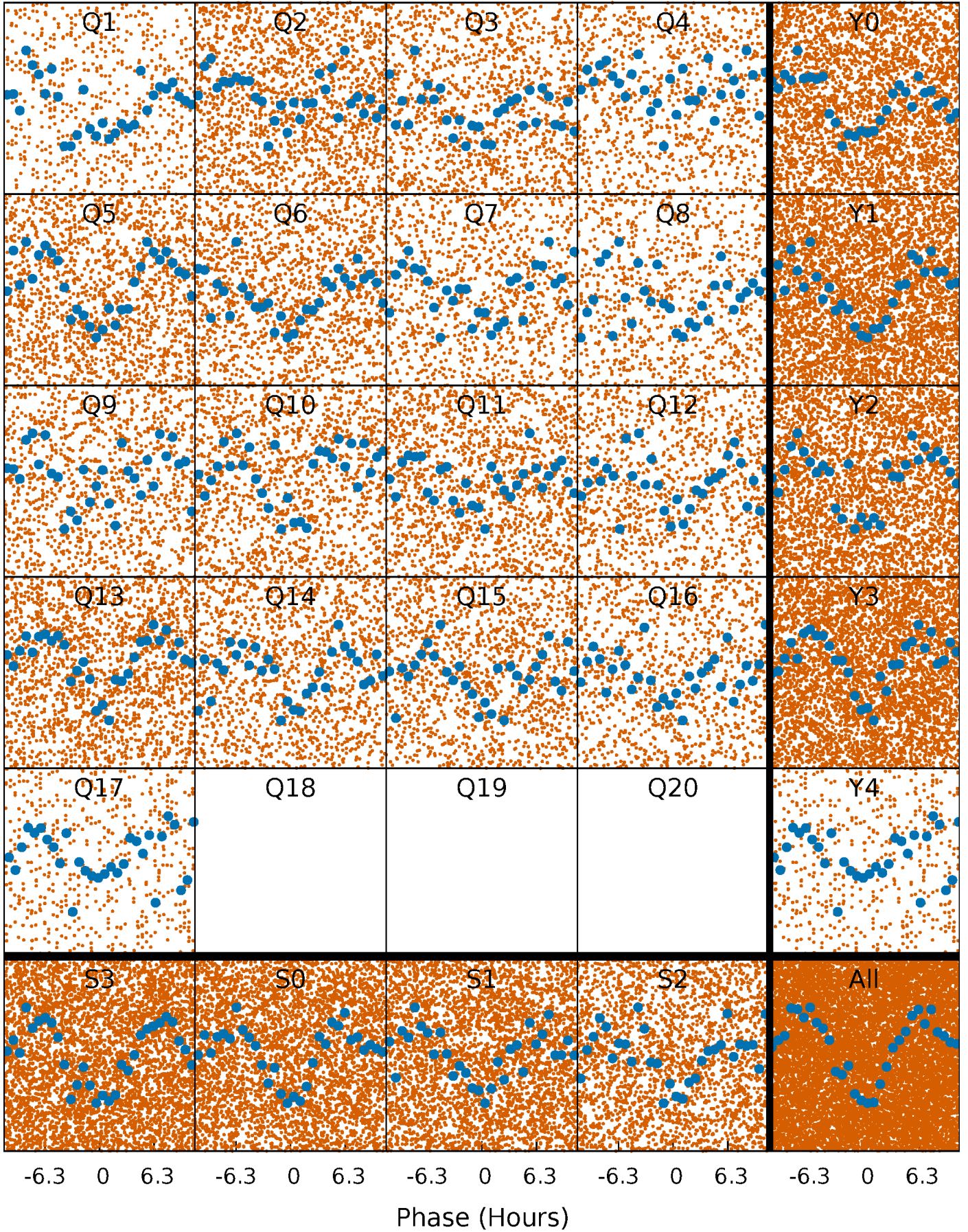


Non-Whitened Vs. Whitened Light Curve



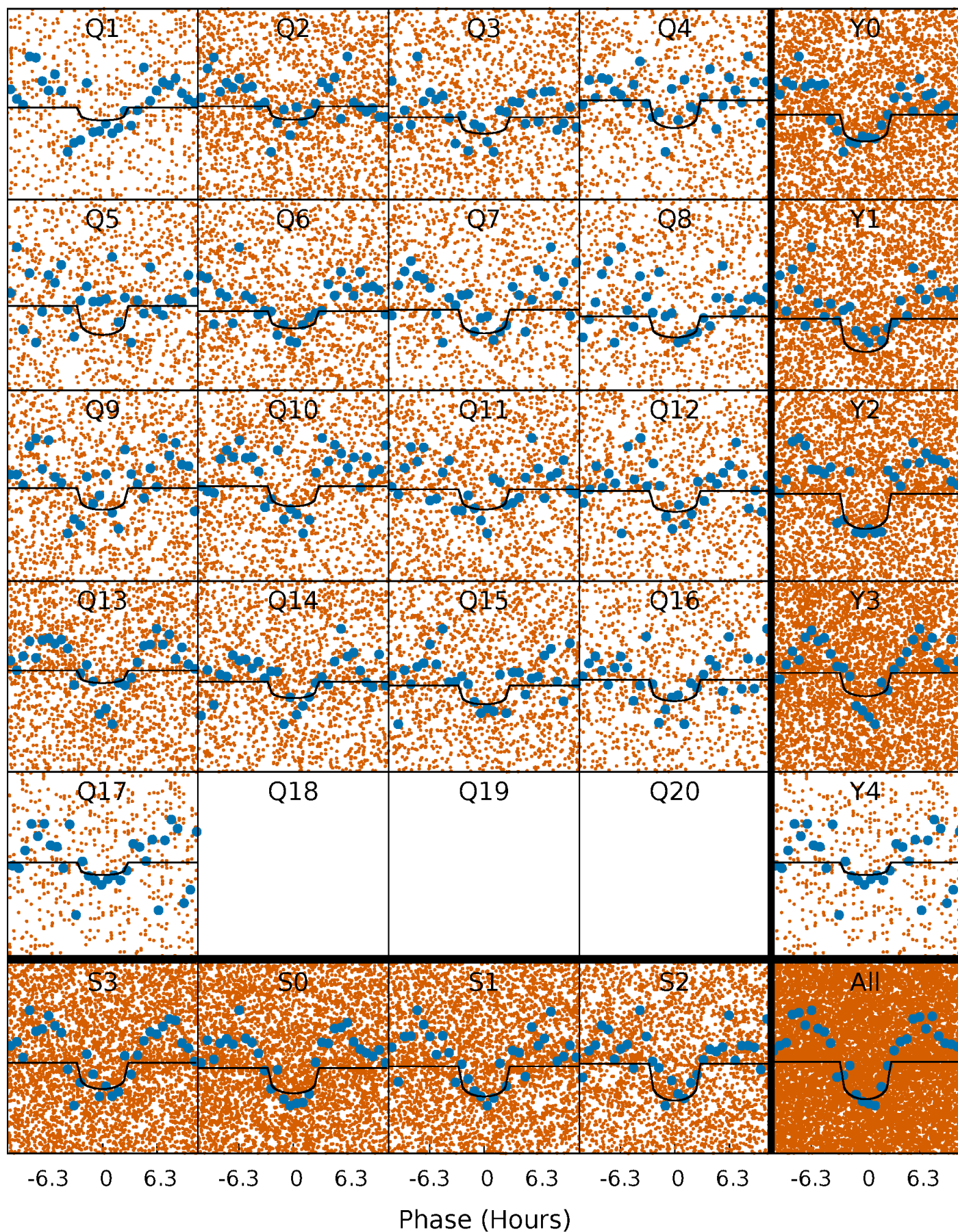
PDC Quarter-Phased Transit Curves

TCE 004743188-01 P= 1.164935 Days $T_0=132.605700$ (BKJD)



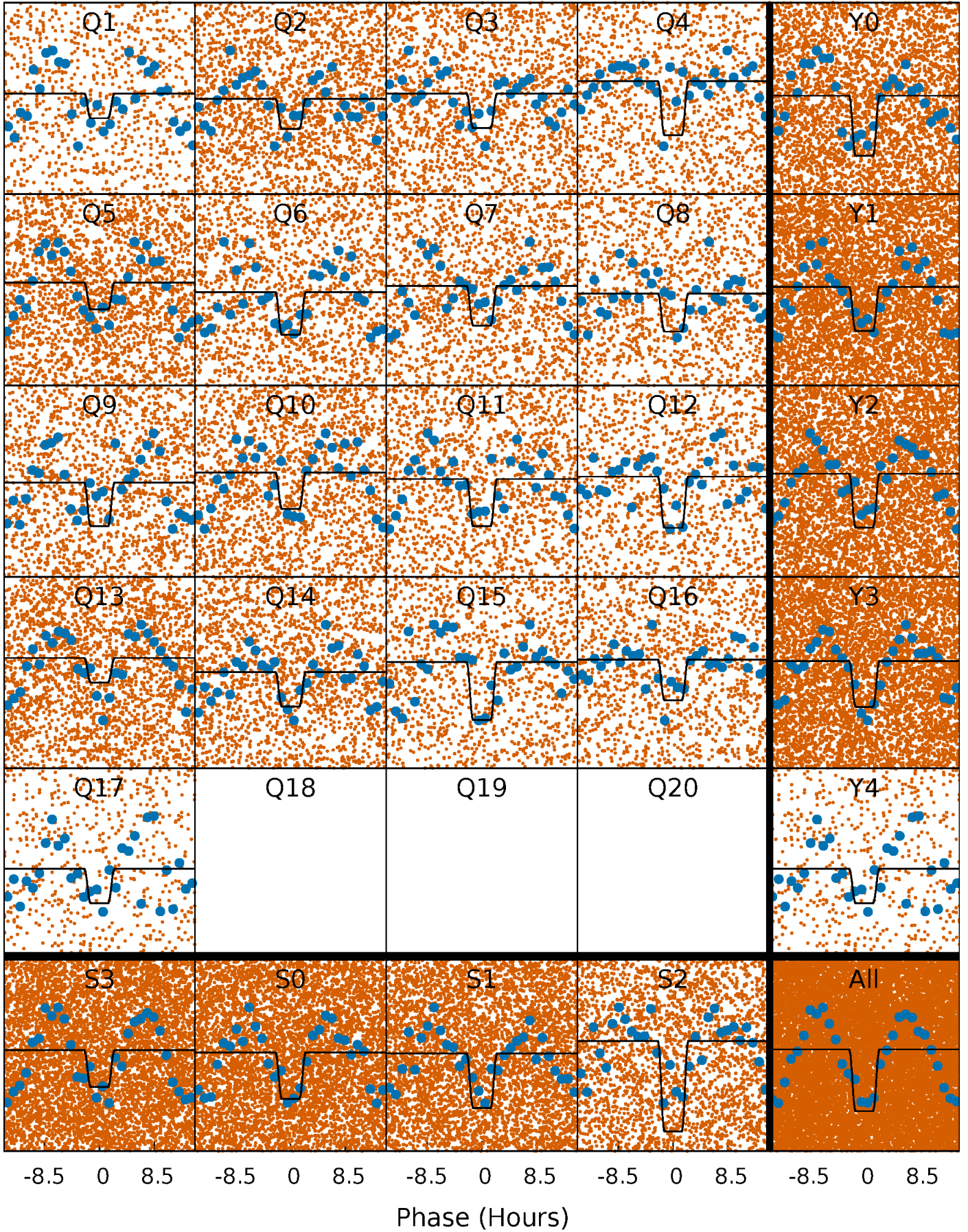
DV Quarter-Phased Transit Curves

TCE 004743188-01 P= 1.164935 Days $T_0=132.605700$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

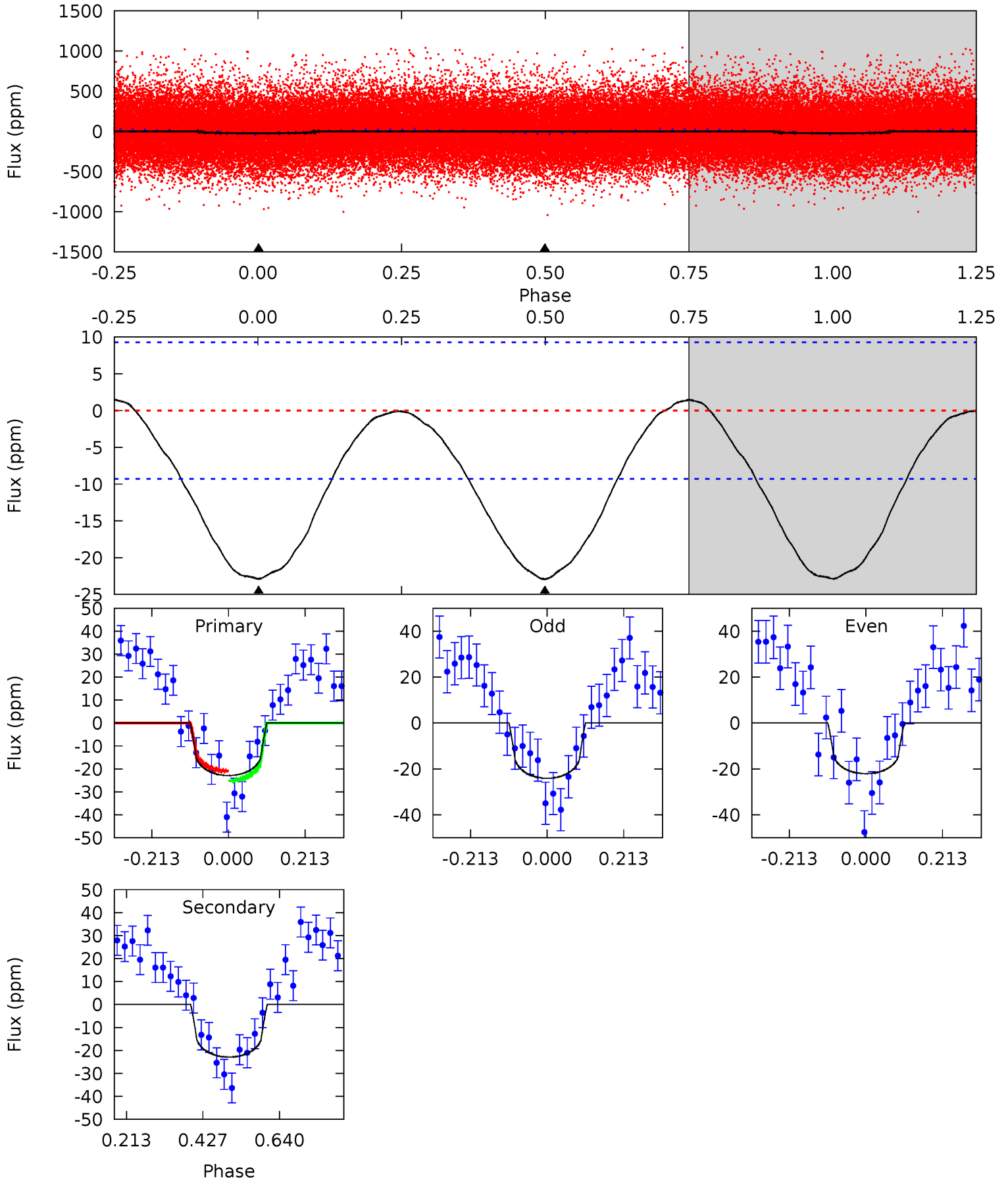
TCE 004743188-01 P= 1.164933 Days $T_0=132.608689$ (BKJD)



DV Model-Shift Uniqueness Test

004743188-01, P = 1.164935 Days, E = 131.440765 Days

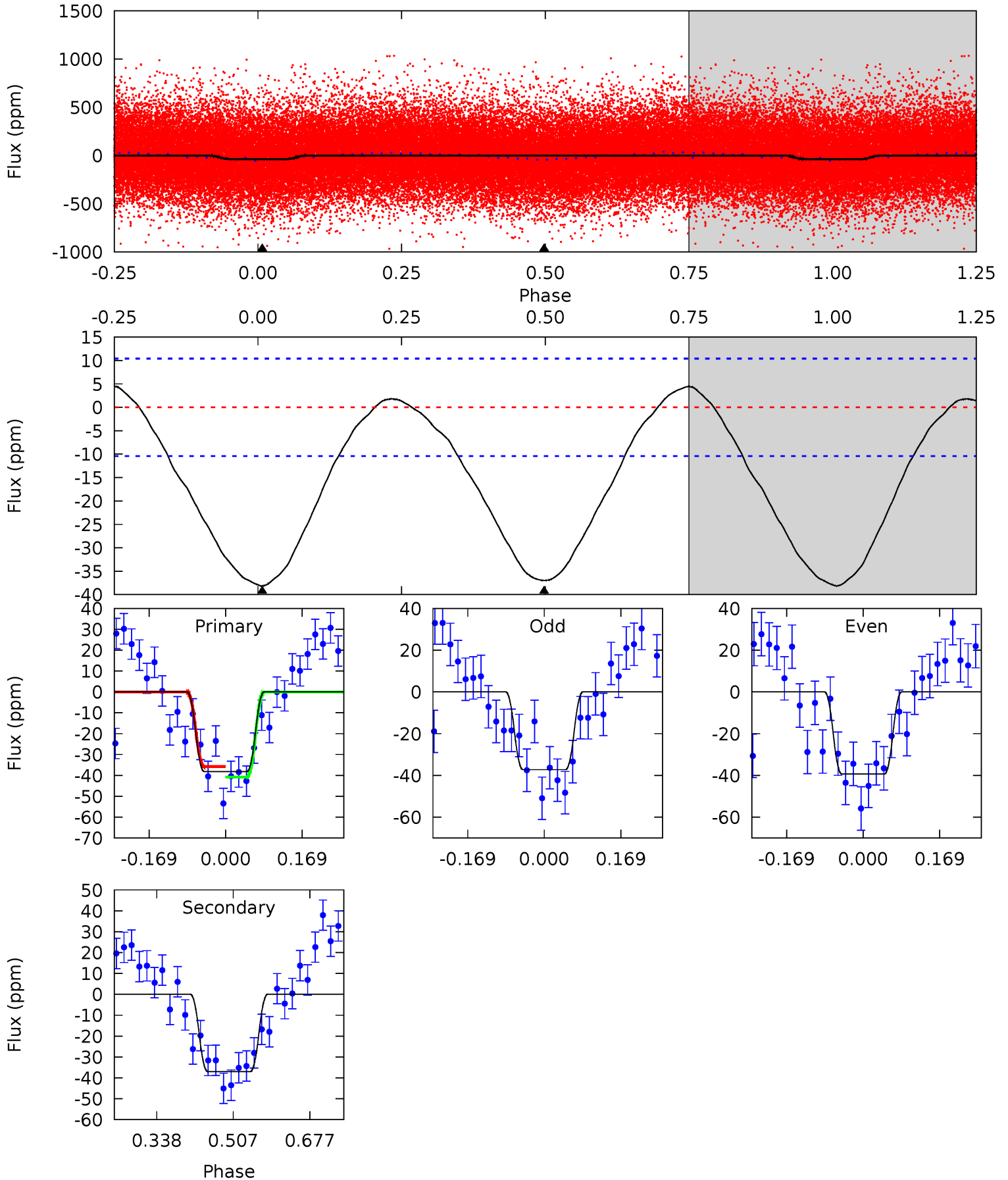
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	10.9	0	0	4.40	1.24	0.39	10.8	10.8	10.9	10.9	0.48	0.95	0.06	1.01



Alt Model-Shift Uniqueness Test

004743188-01, P = 1.164933 Days, E = 131.443756 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	15.8	0	0	4.45	1.37	1.36	16.3	16.3	15.8	15.8	0.45	1.01	0.10	1.07



Stellar Parameters For KIC 004743188

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6108^{+184}_{-202}	$4.471^{+0.054}_{-0.229}$	$-0.080^{+0.250}_{-0.350}$	$0.997^{+0.341}_{-0.114}$	$1.072^{+0.153}_{-0.139}$	$1.525^{+0.348}_{-0.817}$
	+3%/-3%	+1%/-5%	+312%/-438%	+34%/-11%	+14%/-13%	+23%/-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 004743188-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-23 ± 2	$0.83^{+0.79}_{-0.56}$	2589^{+184}_{-135}	4964^{+4519}_{-1146}	$8.846^{+83.418}_{-6.560}$
Alt.	-37 ± 2	$0.98^{+0.77}_{-0.61}$	2589^{+194}_{-136}	5153^{+3517}_{-1102}	$9.726^{+60.240}_{-6.507}$

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 $A_{obs} \gg 1.0$

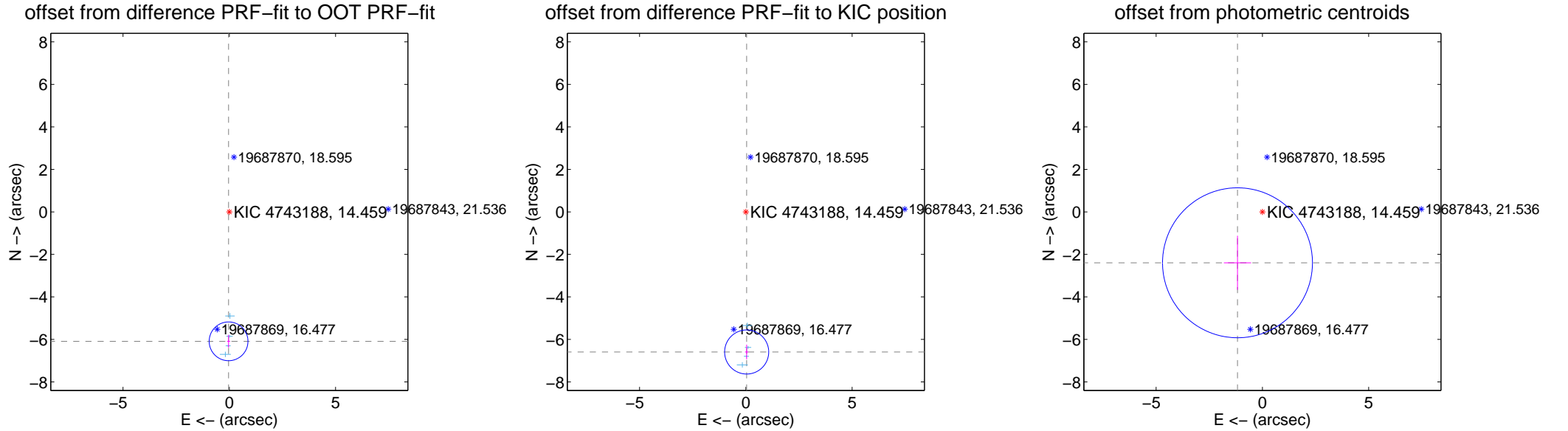
DV Centroid Data

Supplemental centroid analysis for 004743188-01. Kepler magnitude: 14.46. Transit SNR 8.69

There are 4 quarters with good PRF difference image offsets

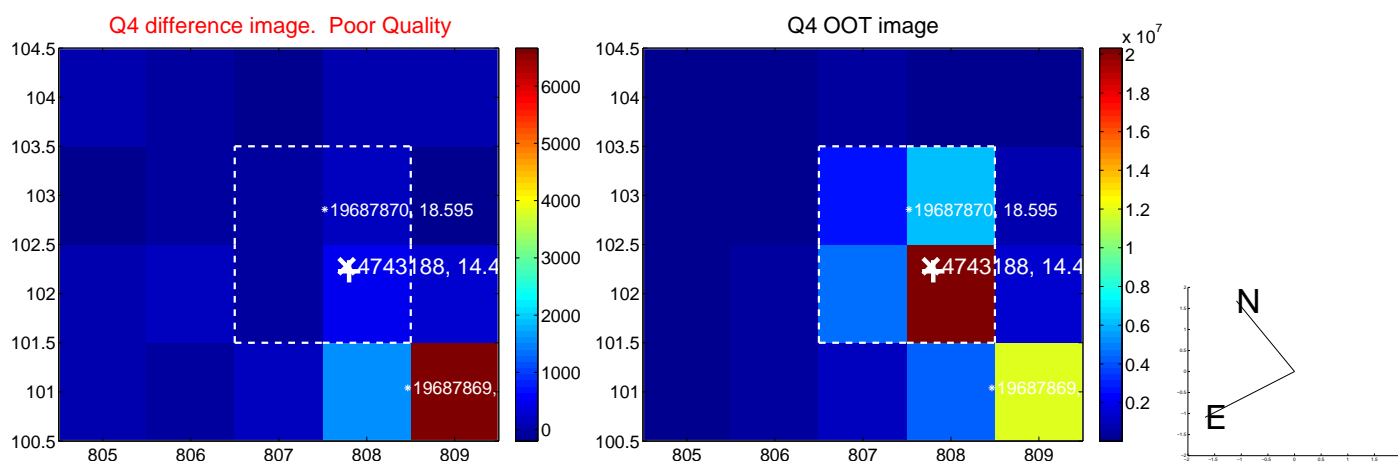
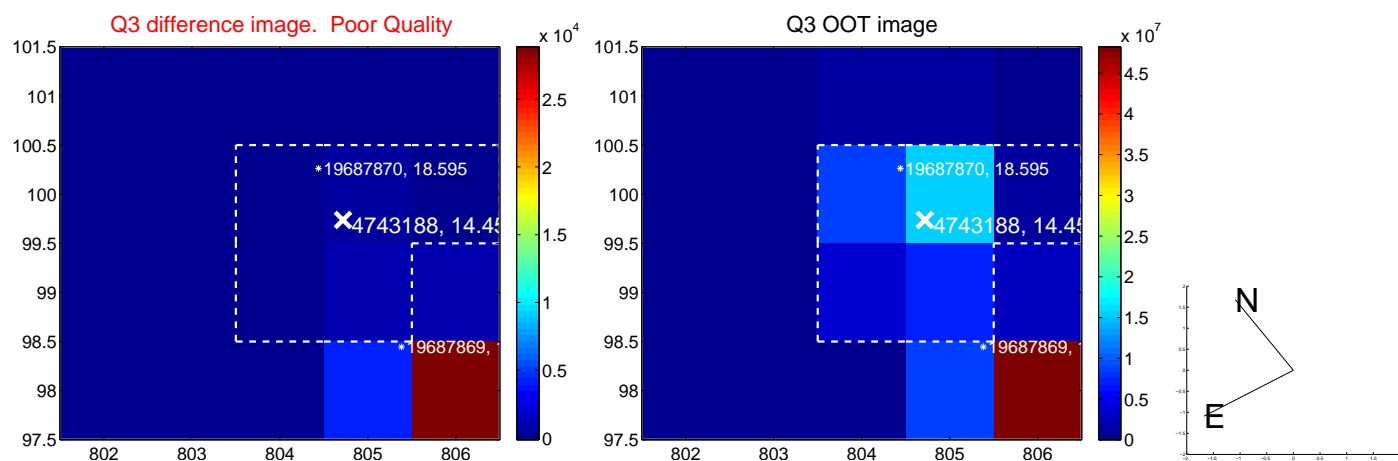
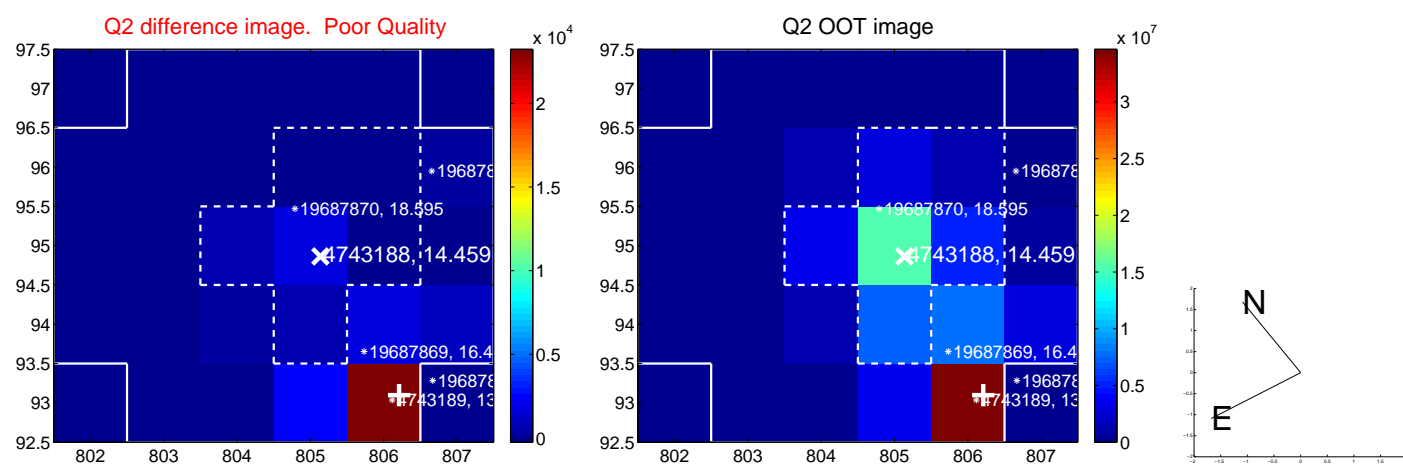
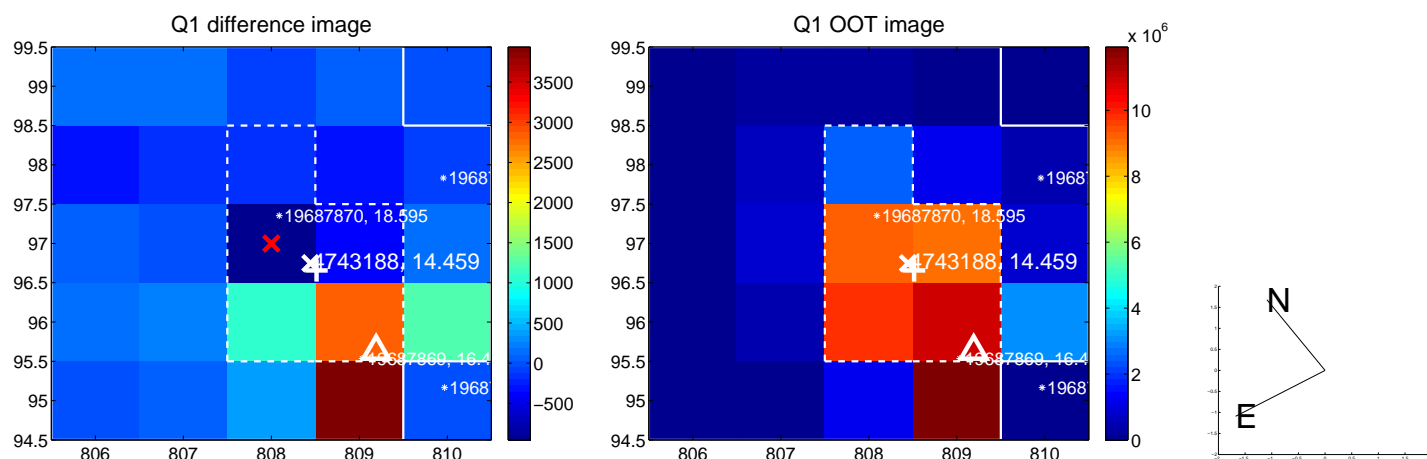
The direct PRF centroid is offset from the target star catalog position by about 0.49 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.090 ± 0.304	20.03	0.034 ± 0.071	-6.090 ± 0.304
PRF-fit source offset from KIC position	6.591 ± 0.346	19.06	-0.039 ± 0.077	-6.591 ± 0.346
photometric centroid source offset	2.67 ± 1.18	2.27	1.17 ± 0.64	-2.39 ± 1.27

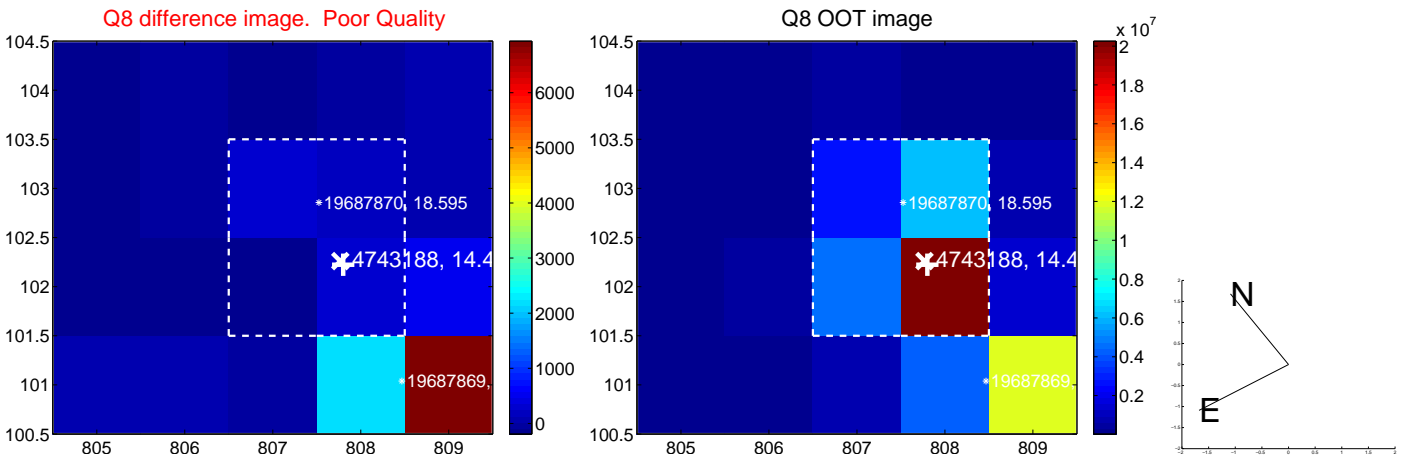
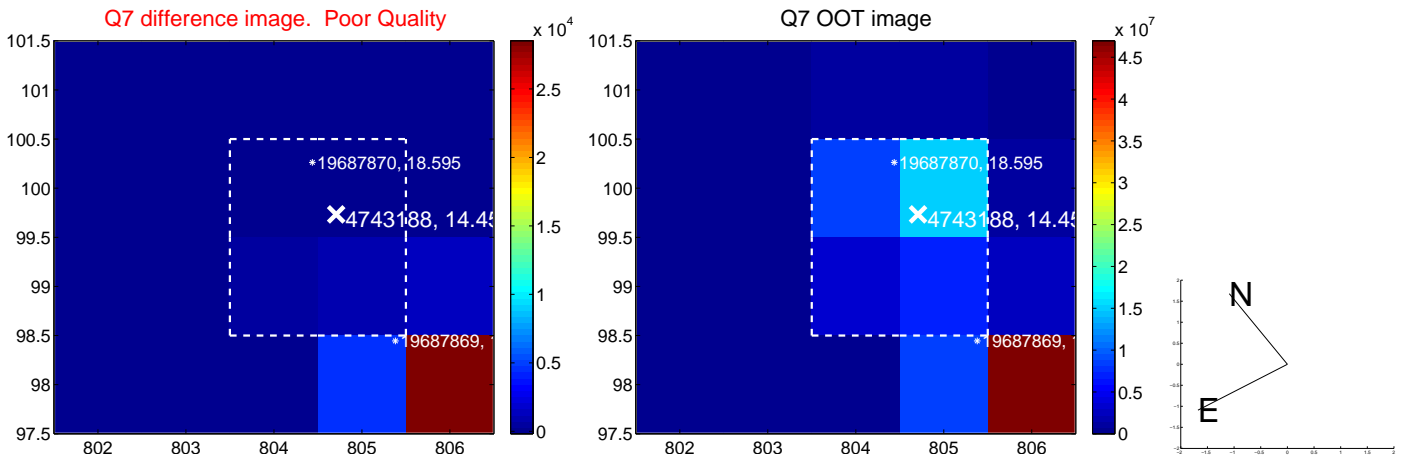
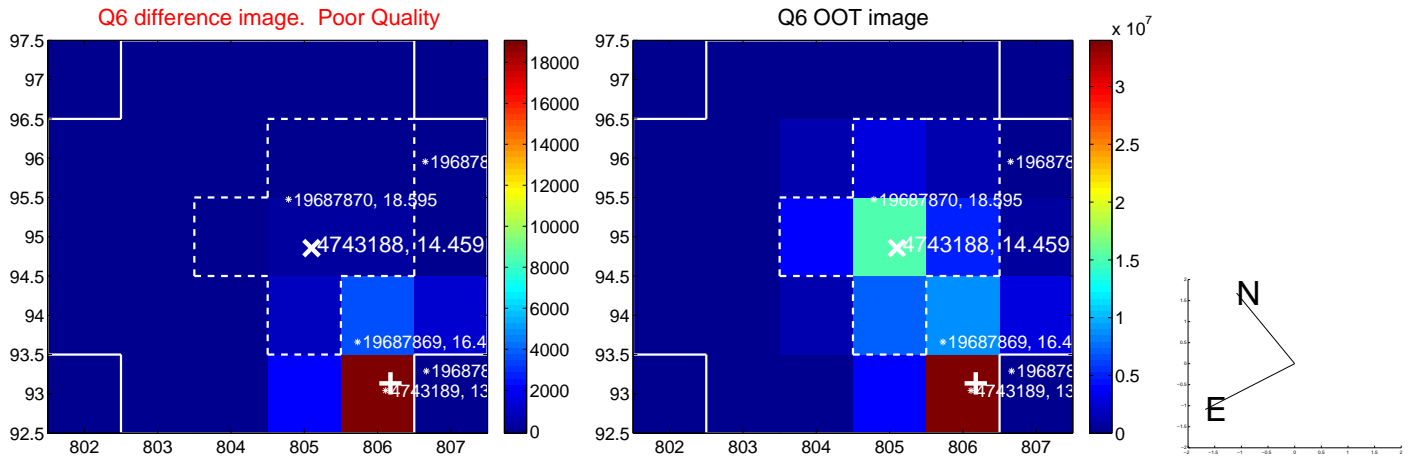
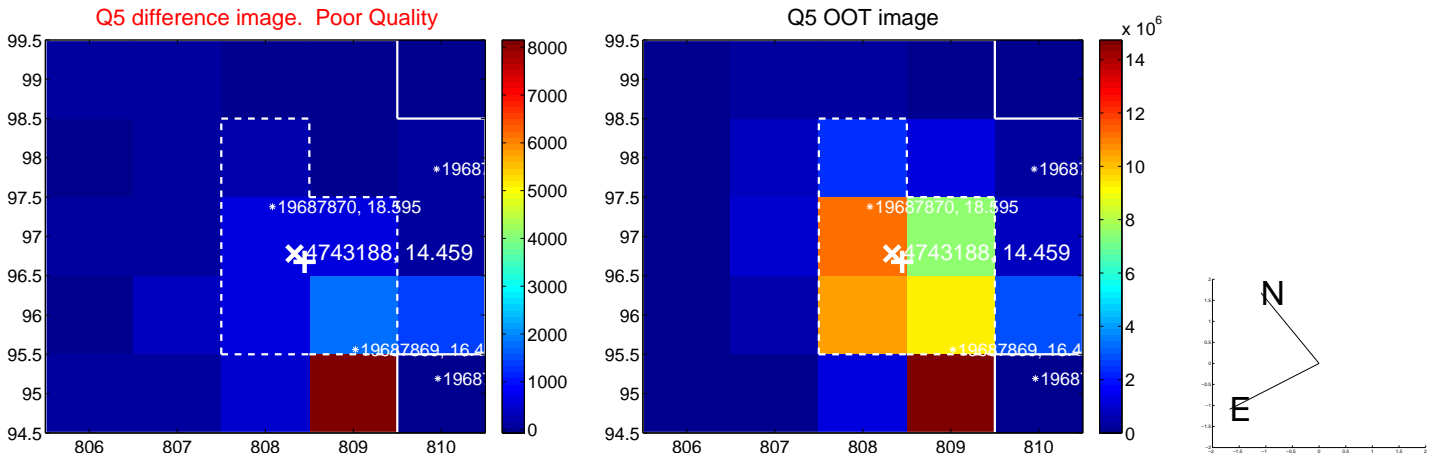


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

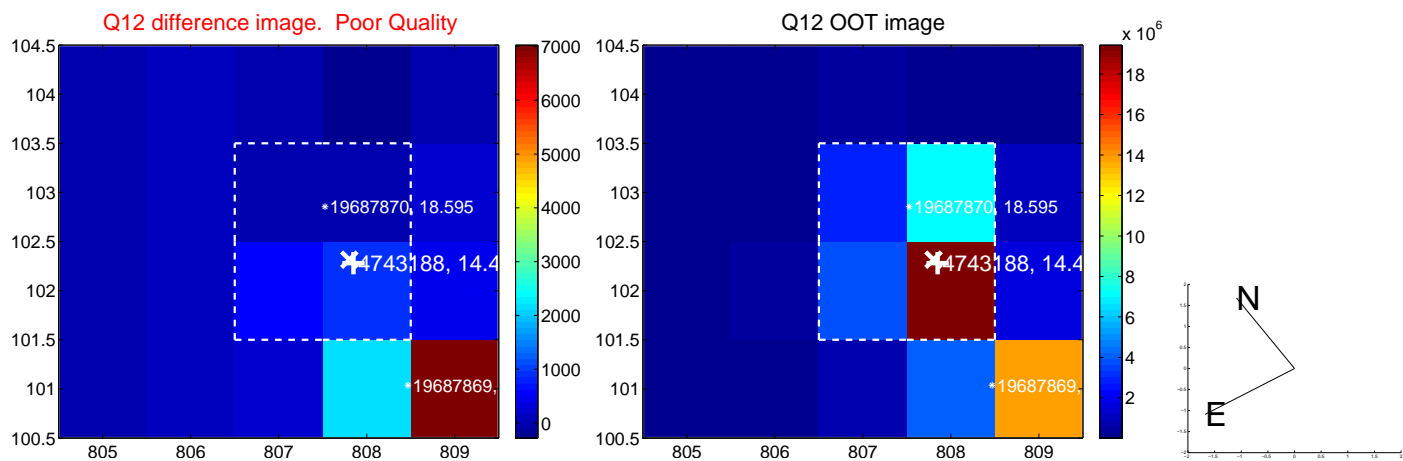
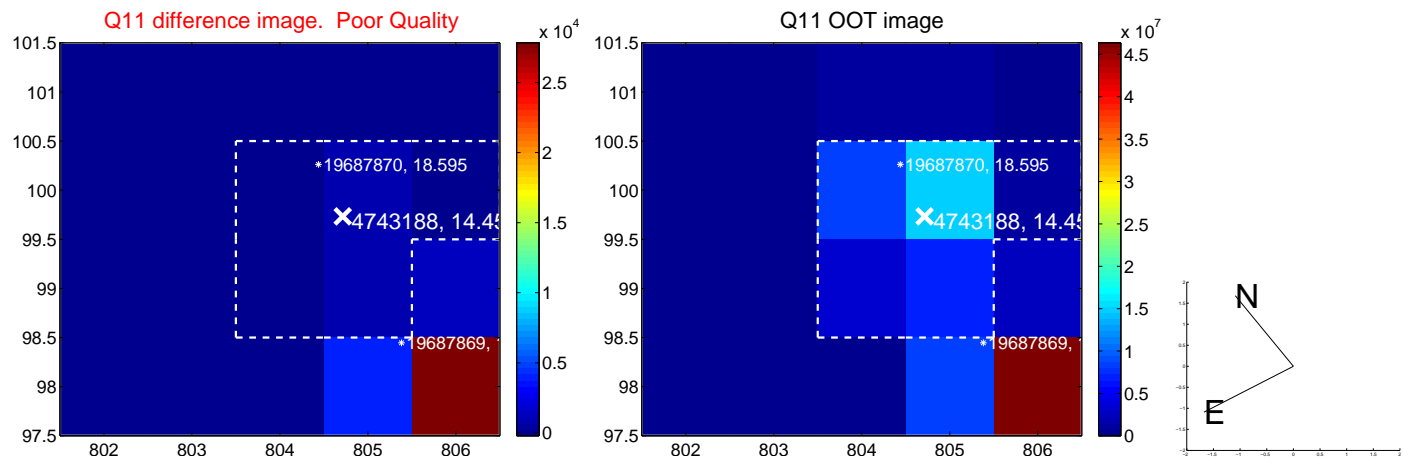
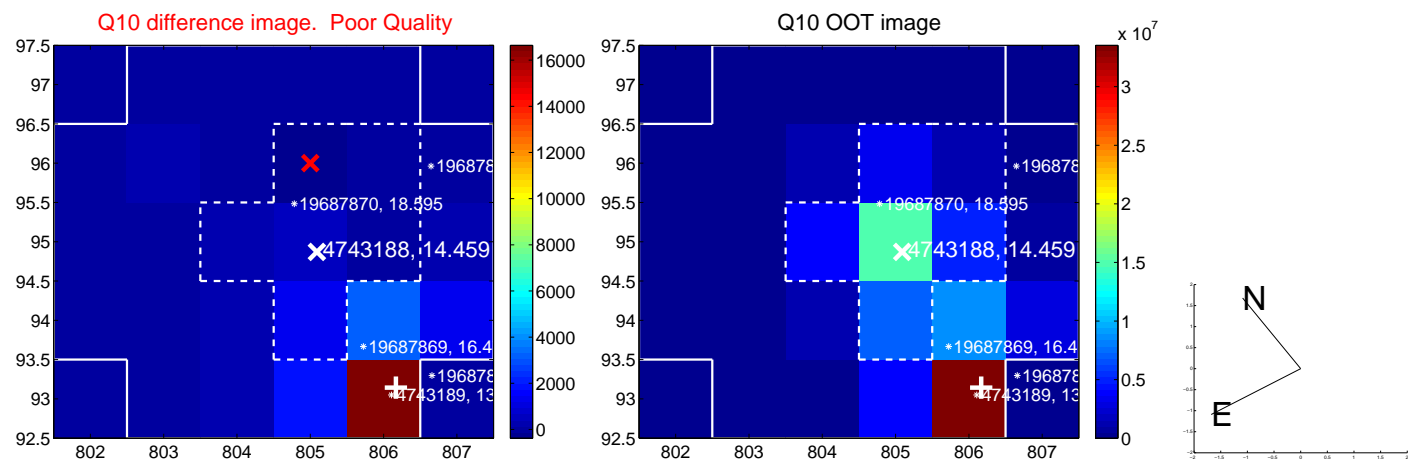
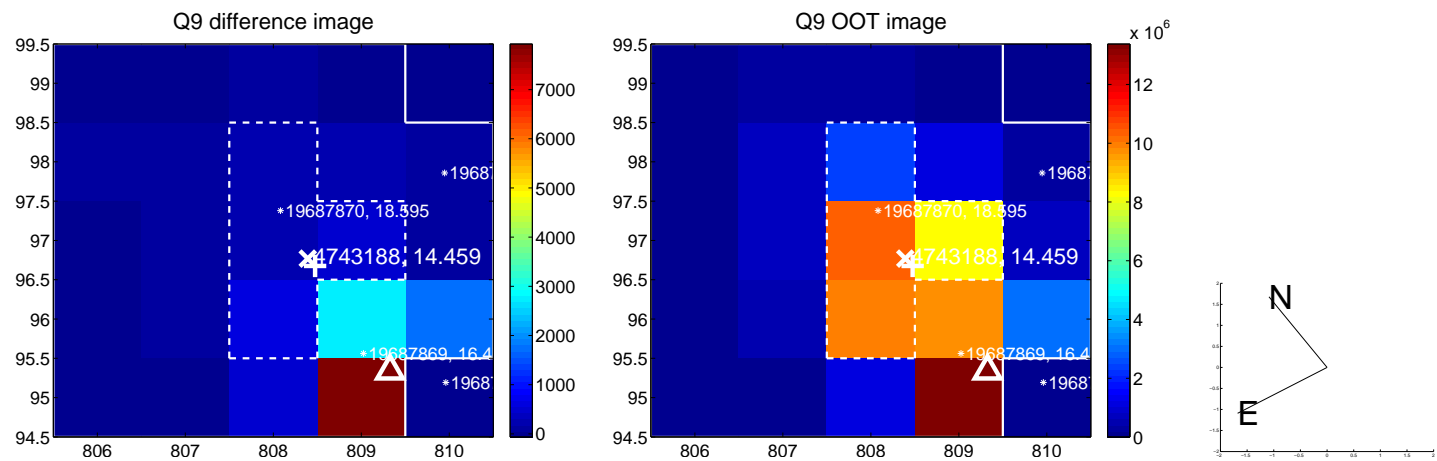
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



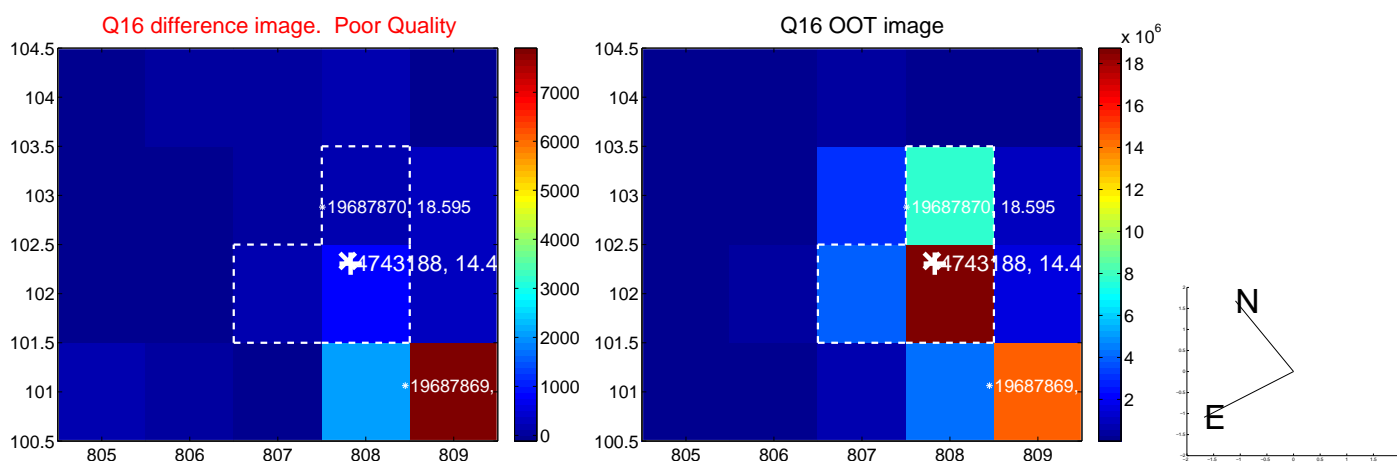
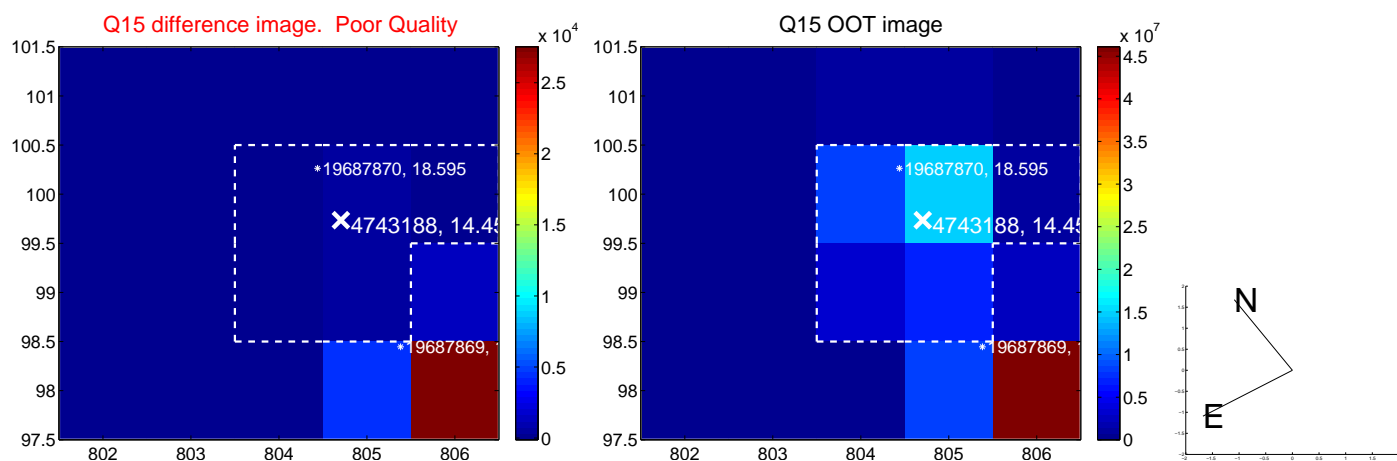
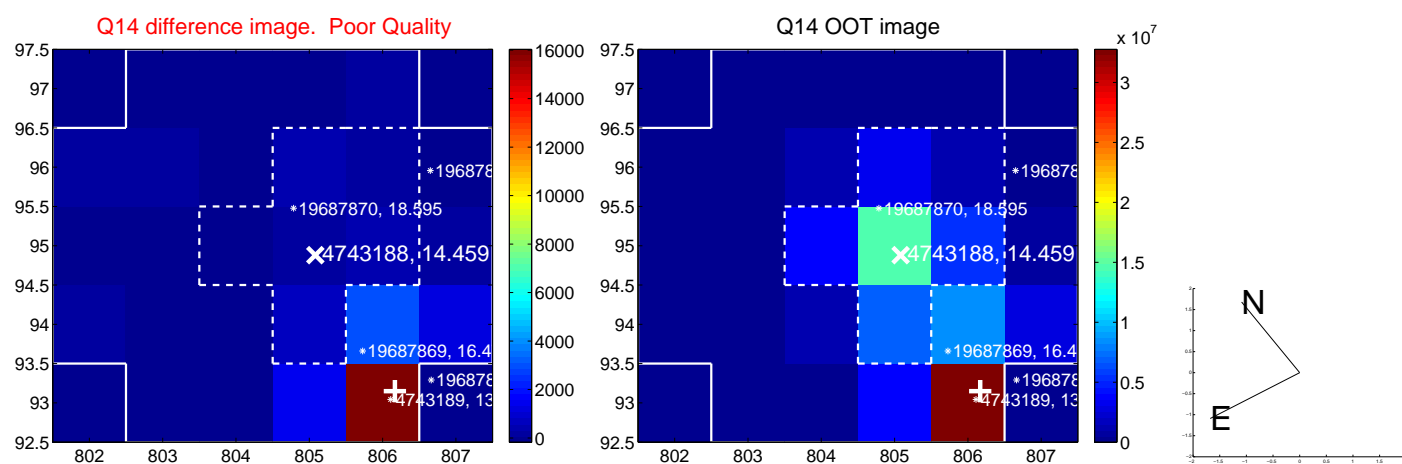
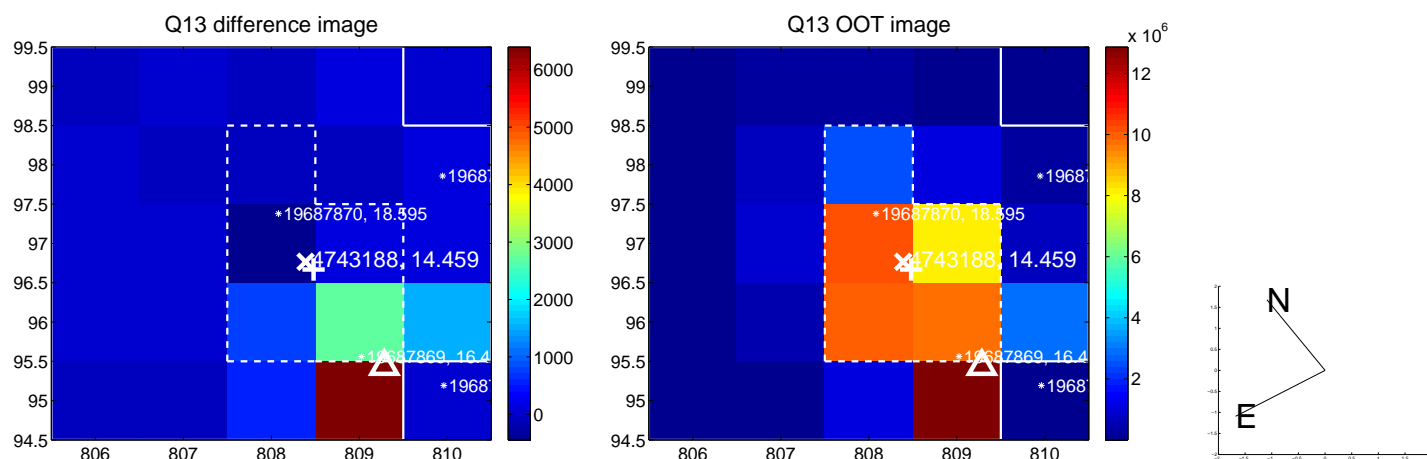
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



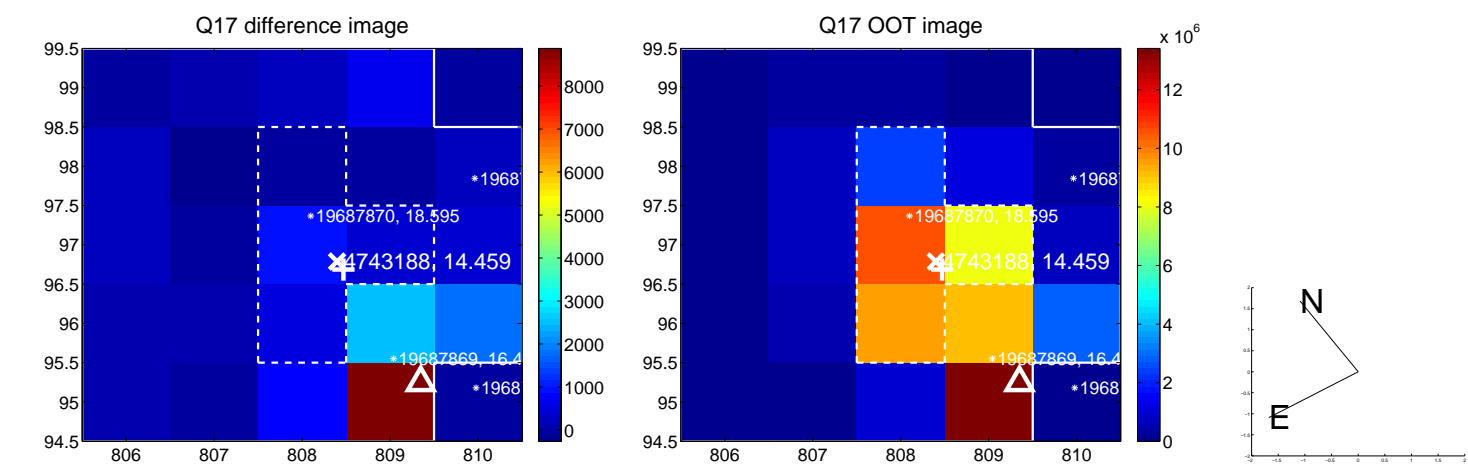
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



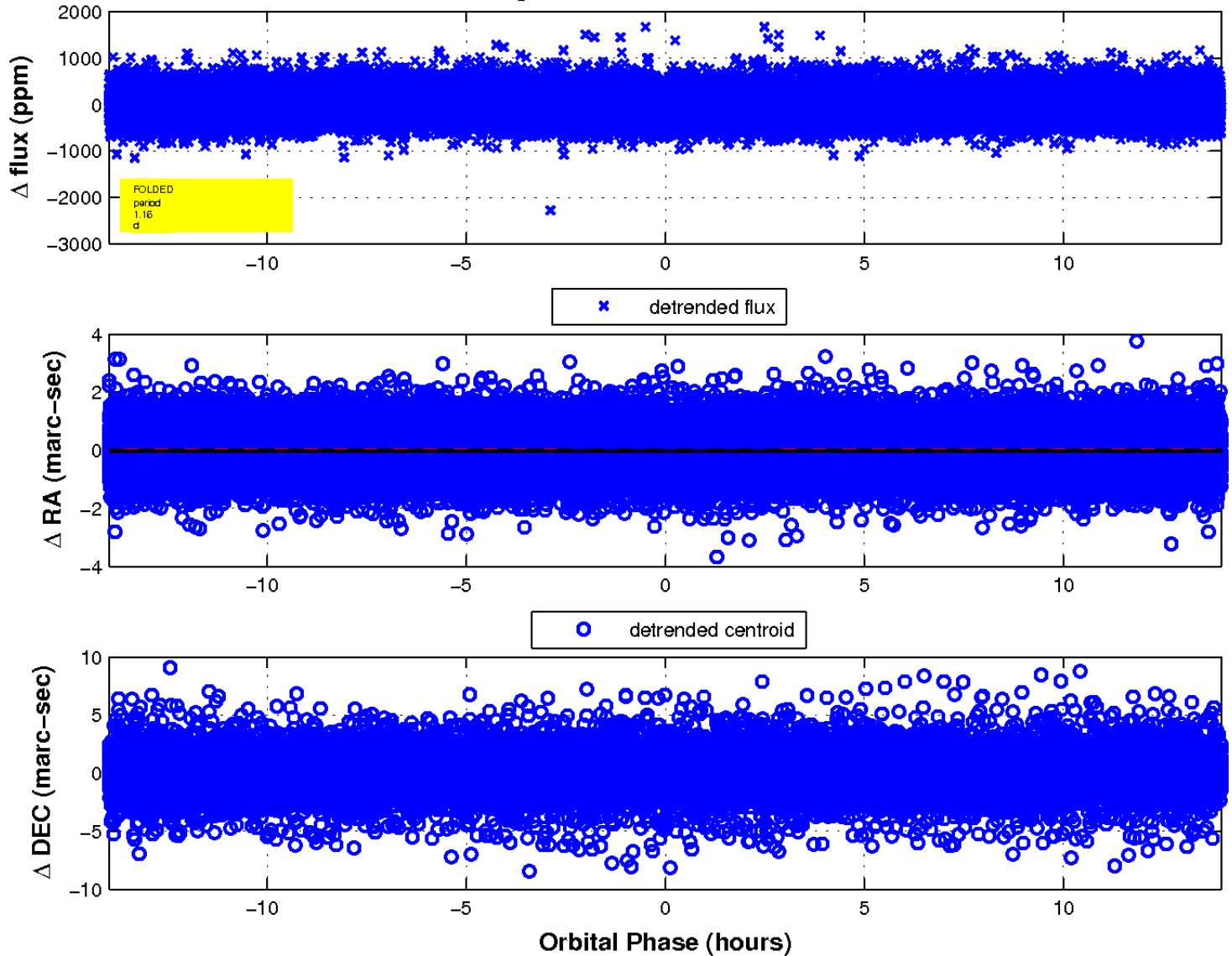
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

