

KIC 010411796

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})
010411796-01	OBS	No	0.737097	131.897242	8.3	7.741	22.1	0.5	0.54	3847	0.16	333.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010411796-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_KIC_POS

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

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

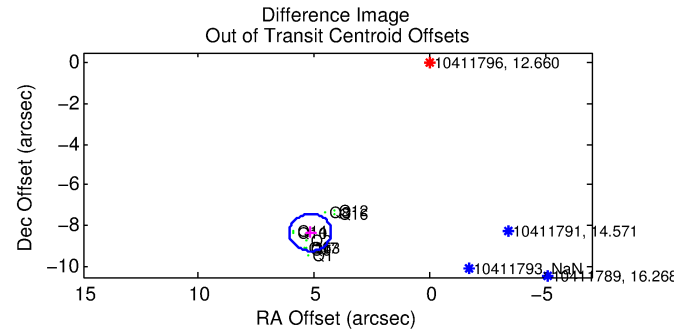
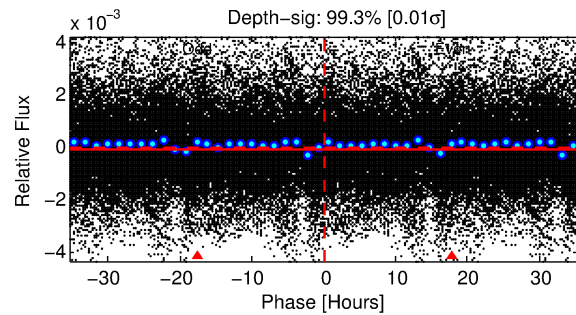
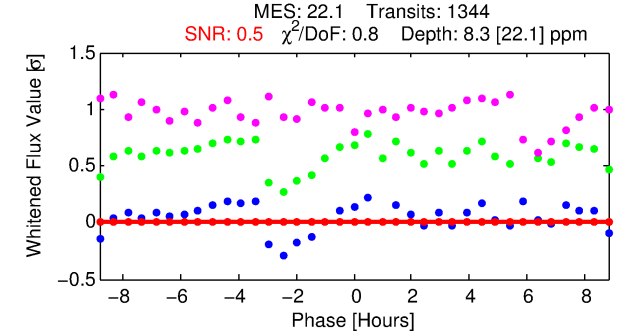
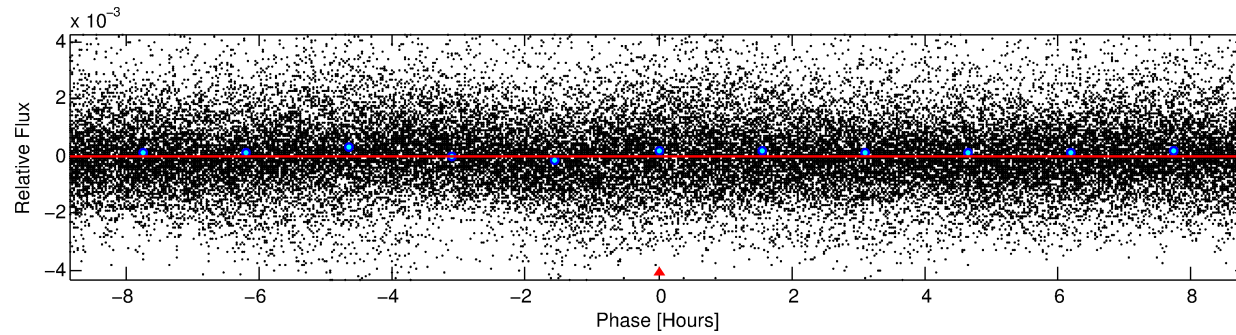
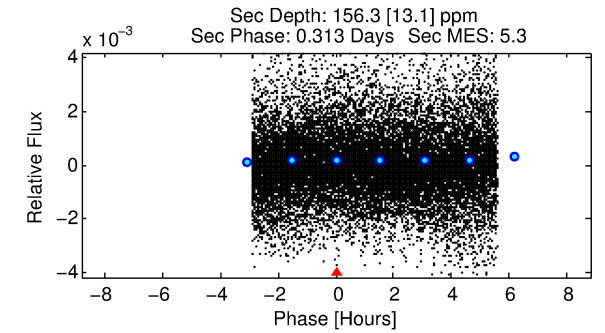
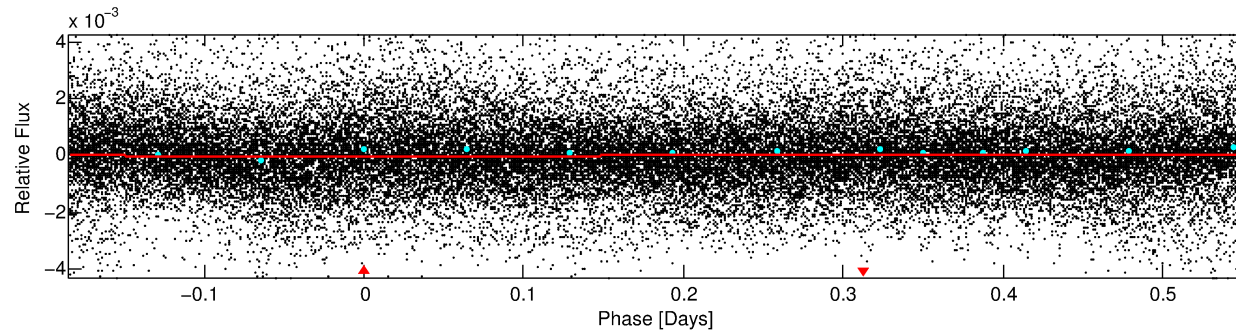
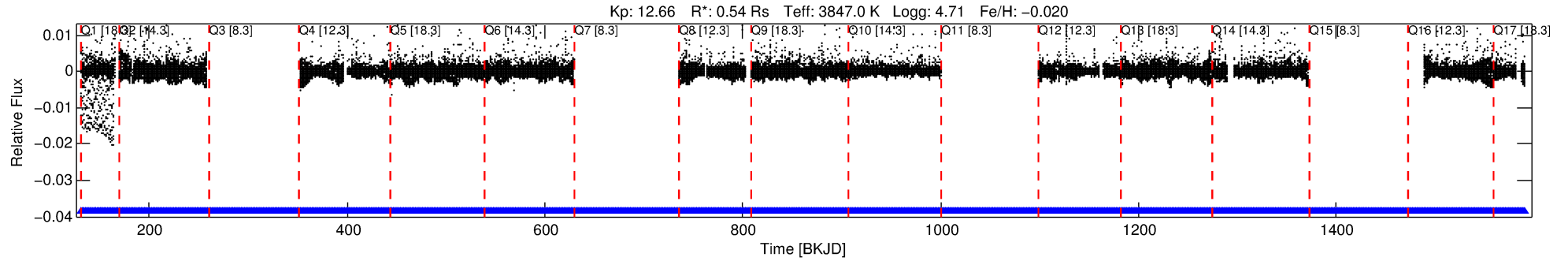
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010411796-01

No Significant Match Found

DV One-Page Summary

KIC: 10411796 Candidate: 1 of 1 Period: 0.737 d



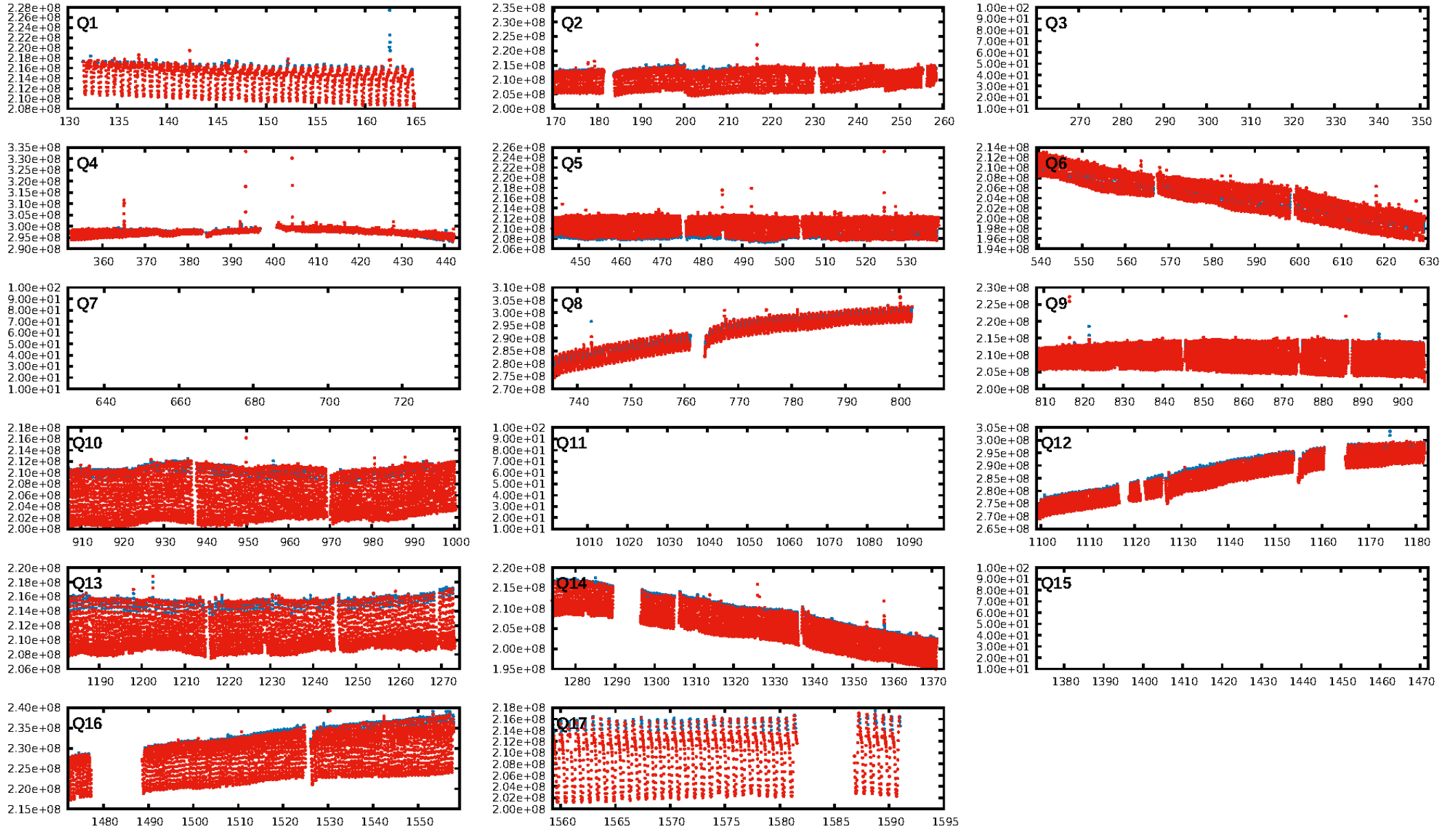
DV Fit Results:

Period = 0.73710 [0.00023] d
Epoch = 131.8972 [0.0414] BKJD
Rp/R* = 0.0027 [0.0205]
a/R* = 1.02 [1.19]
b = 0.42 [64.83]
Seff = 333.48 [79.14]
Teff = 1090 [65] K
Rp = 0.16 [1.21] Re
a = 0.0131 [0.0016] AU
Ag = 605.04 [9381.55] [0.06σ]
Teffp = 8356 [32390] K [0.22σ]

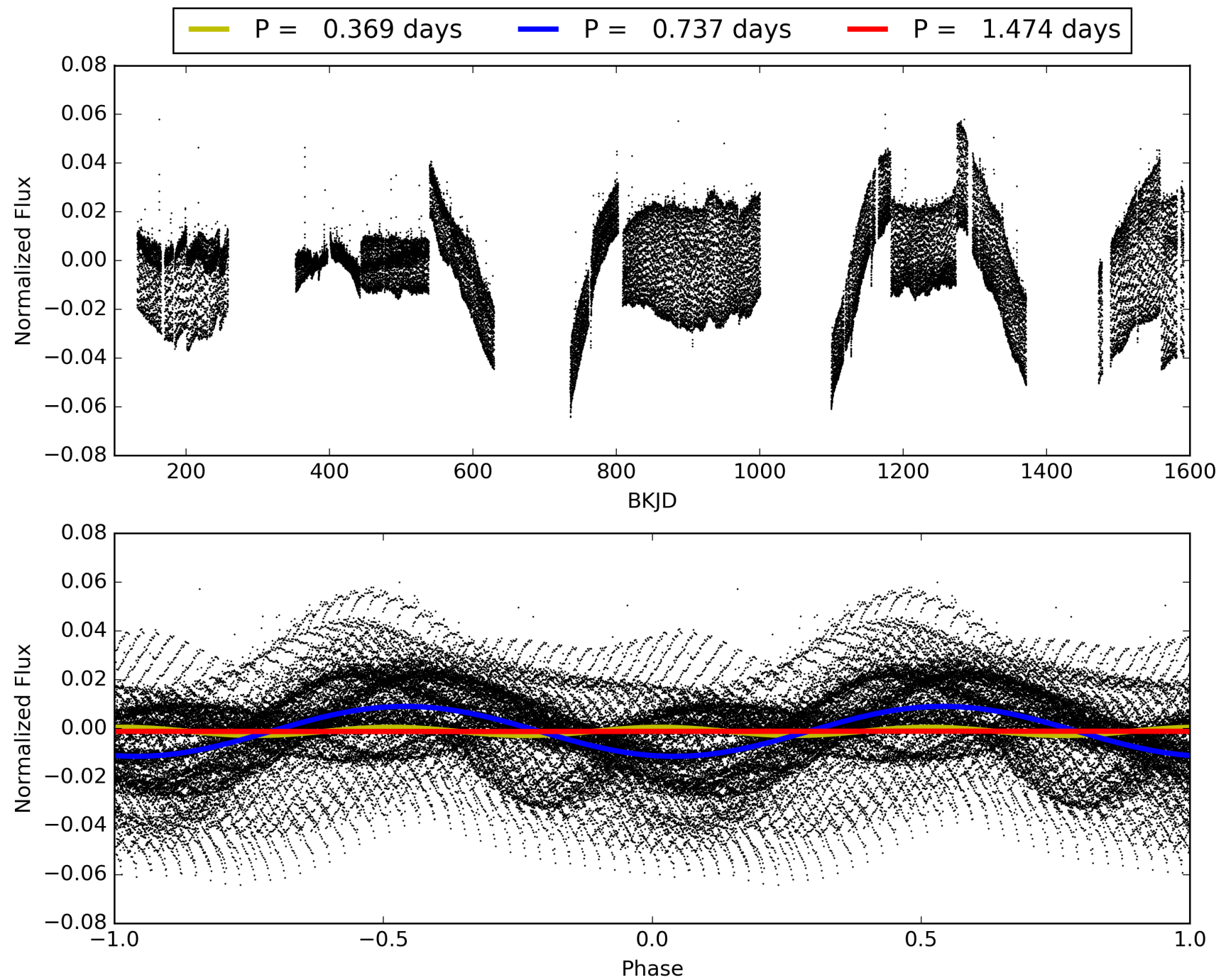
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1262/1262]
GhostDiagnostic-chr: -0.9469
Centroid-sig: N/A
Centroid-so: 51.772 arcsec [5.62σ]
OotOffset-rm: 9.792 arcsec [32.37σ]
KicOffset-rm: 0.431 arcsec [4.17σ]
OotOffset-st: 3/0/3/5 [11]
KicOffset-st: 3/0/3/5 [11]
DiffImageQuality-fgm: 0.91 [10/11]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 010411796-01, PDC Light Curves

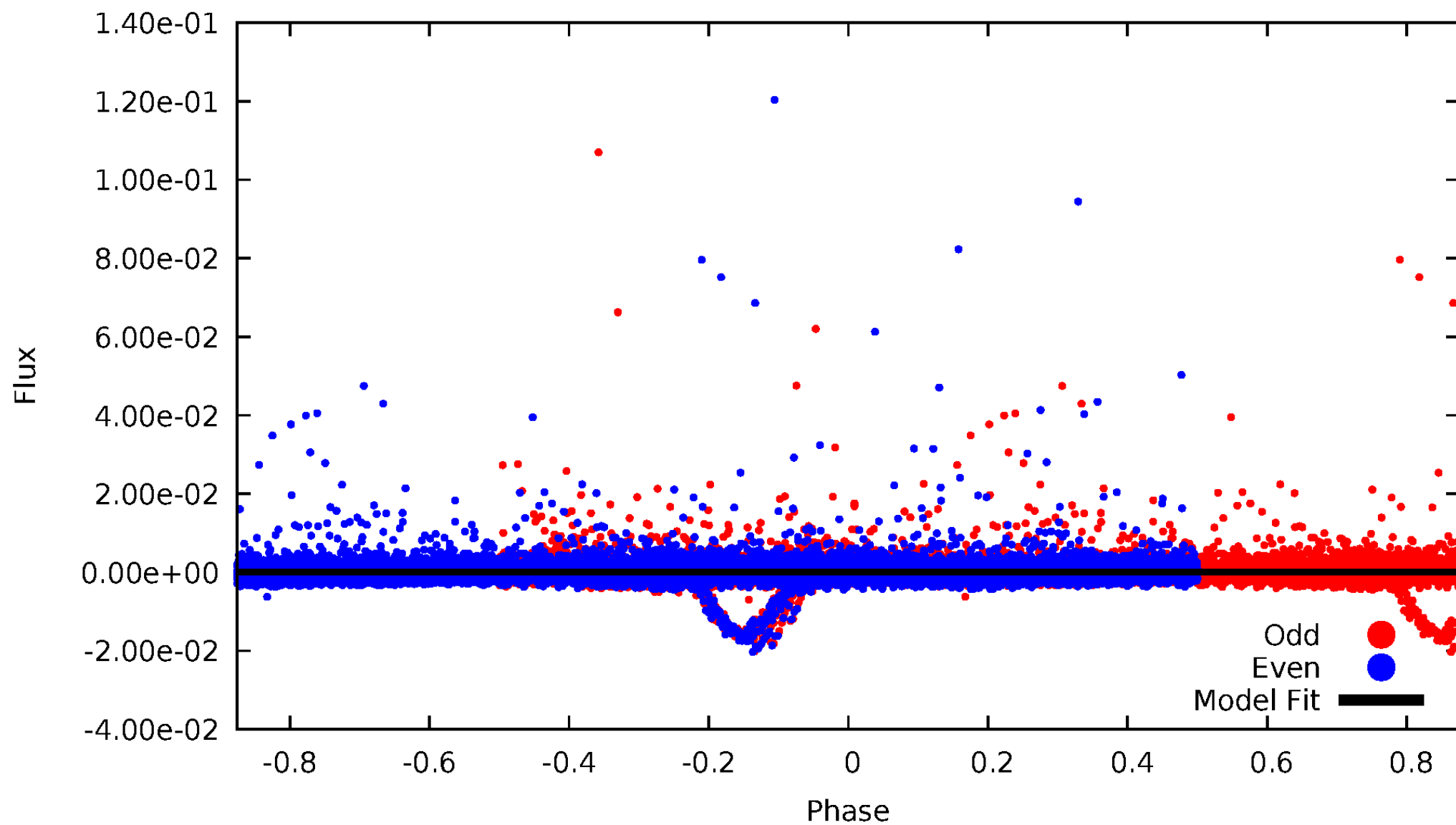


TCE 010411796-01



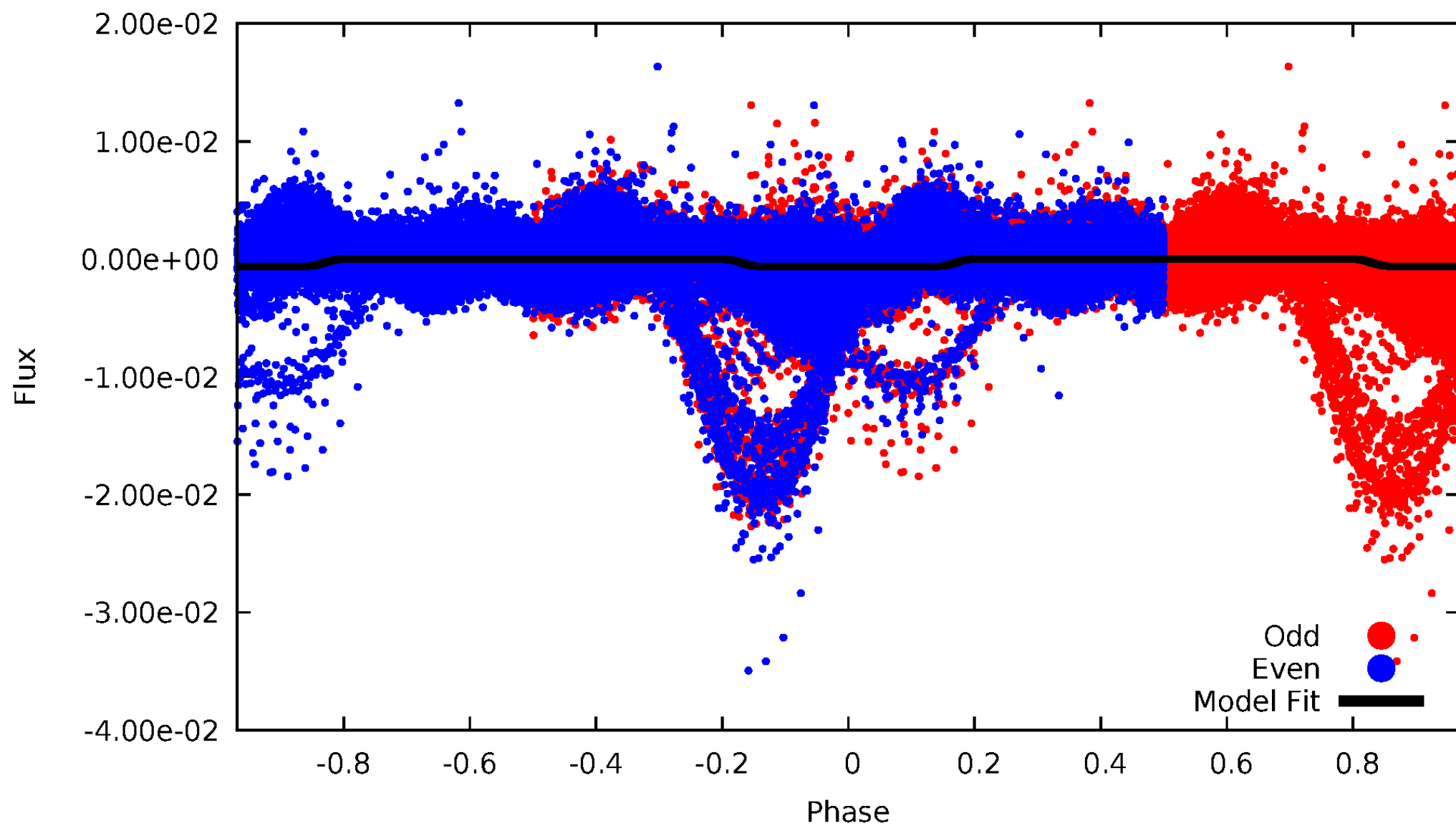
DV Odd/Even

TCE 010411796-01



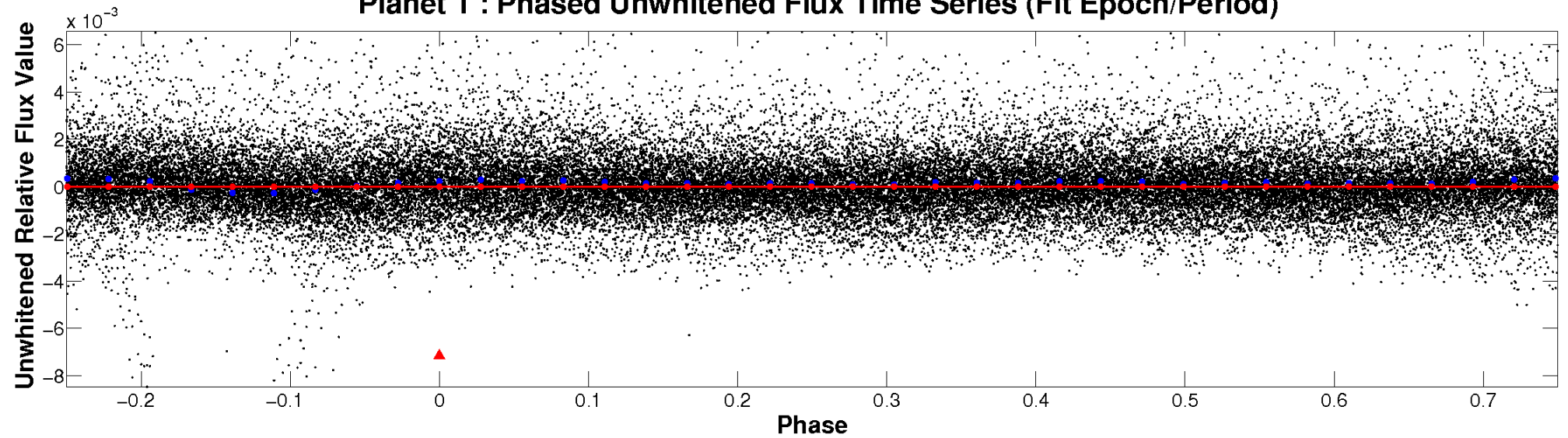
ALT Odd/Even

TCE 010411796-01

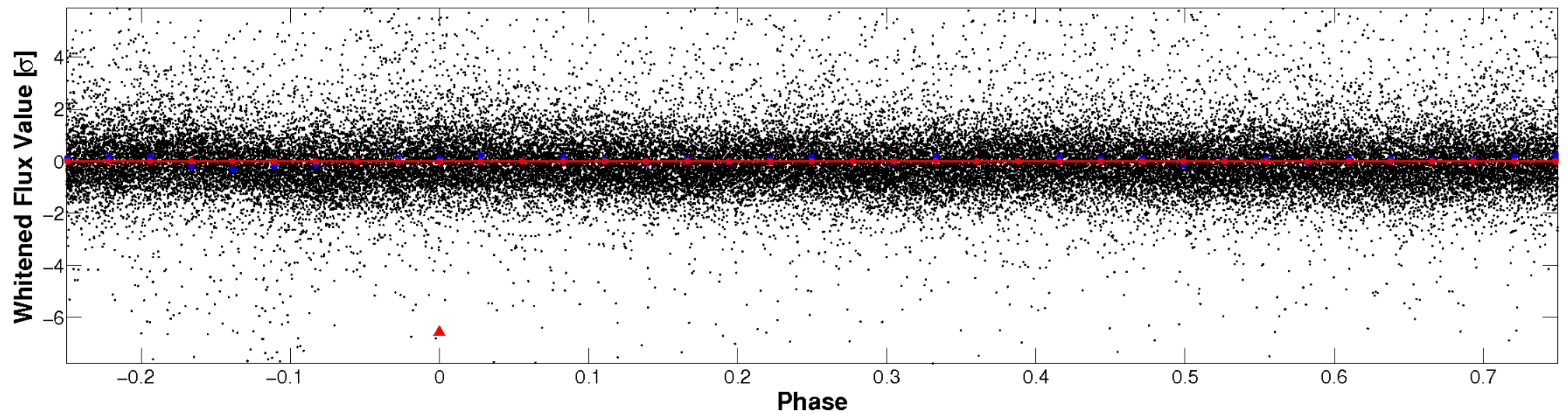


Non-Whitened Vs. Whitened Light Curve

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

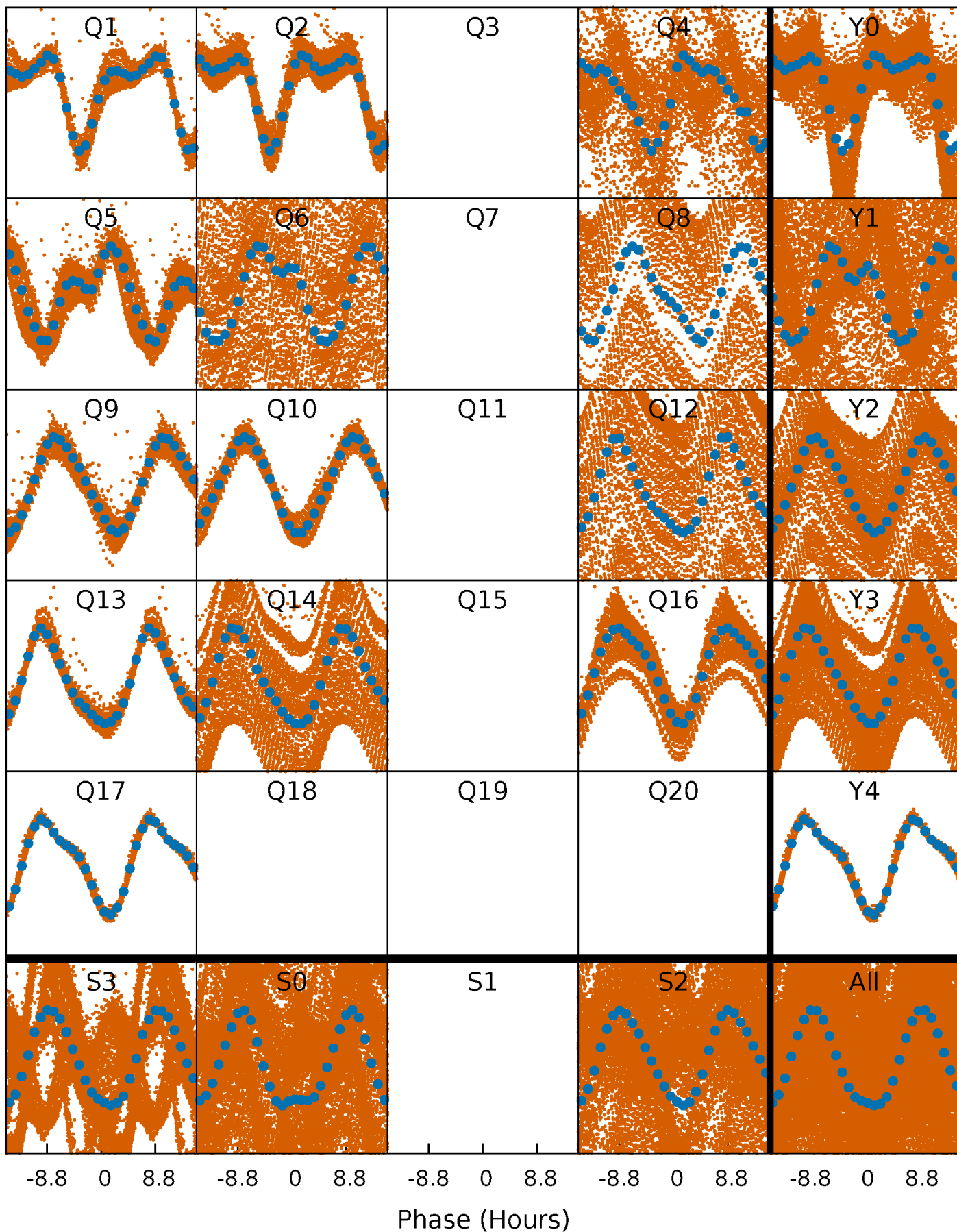


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



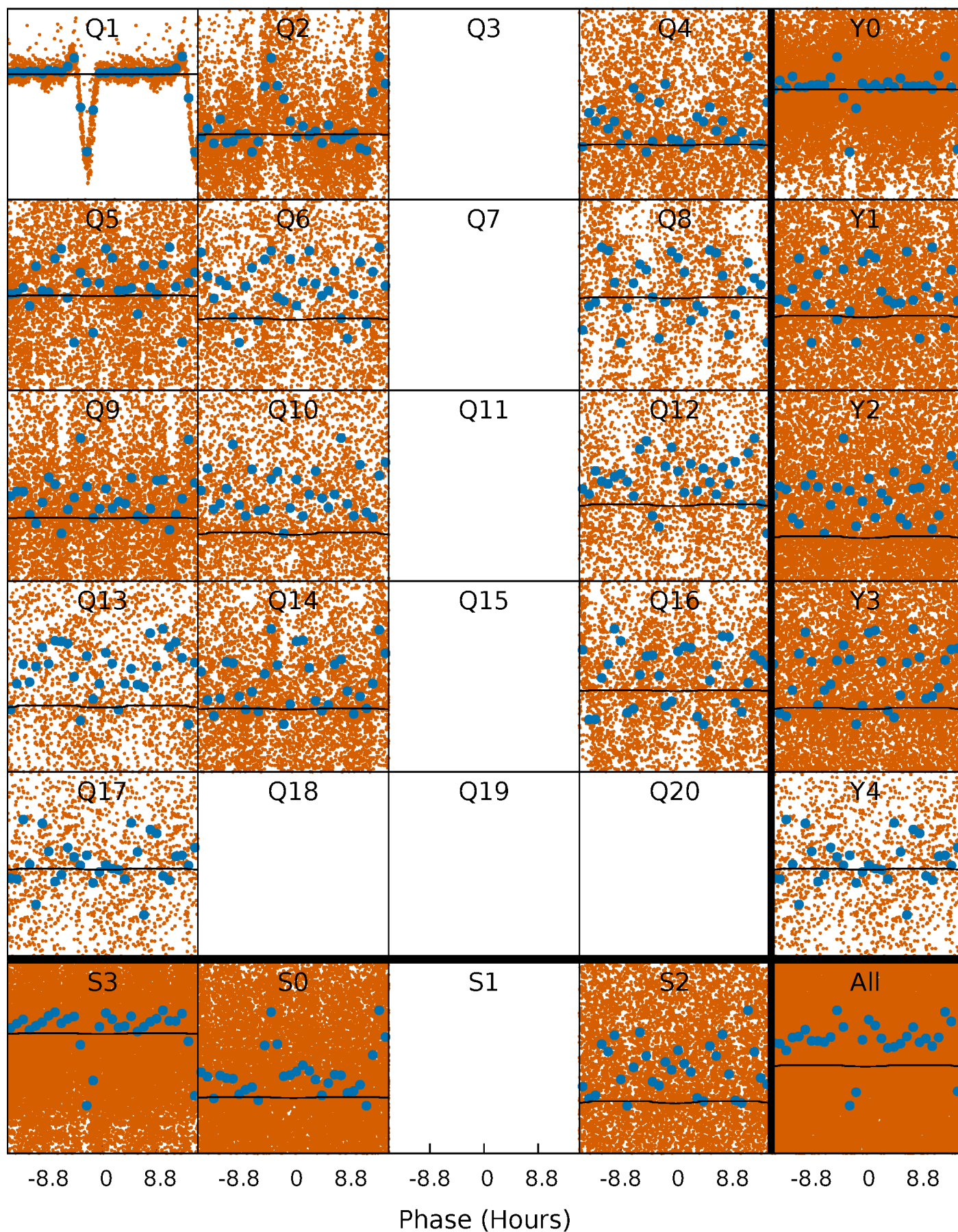
PDC Quarter-Phased Transit Curves

TCE 010411796-01 P= 0.737097 Days $T_0=131.897242$ (BKJD)



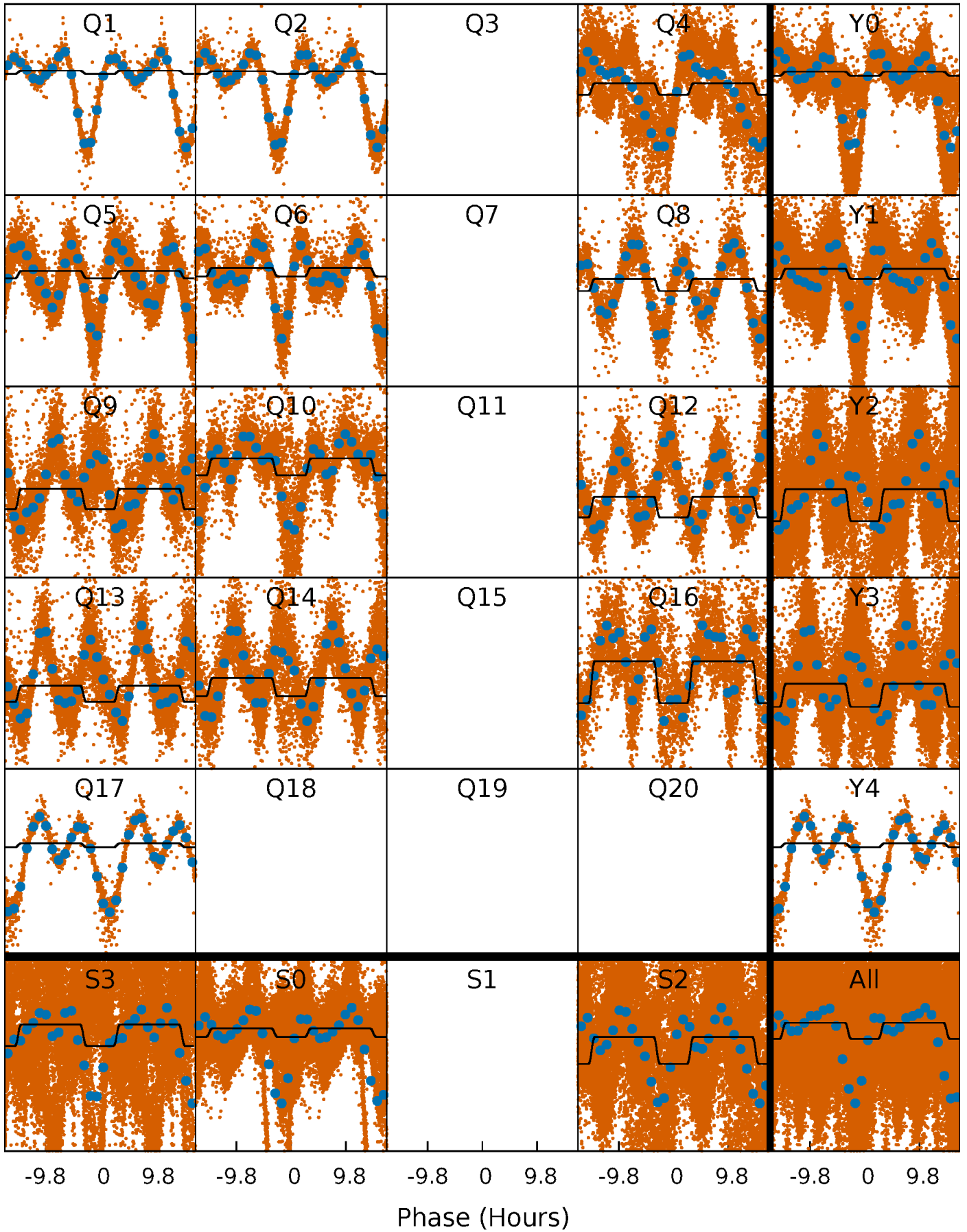
DV Quarter-Phased Transit Curves

TCE 010411796-01 P= 0.737097 Days $T_0=131.897242$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

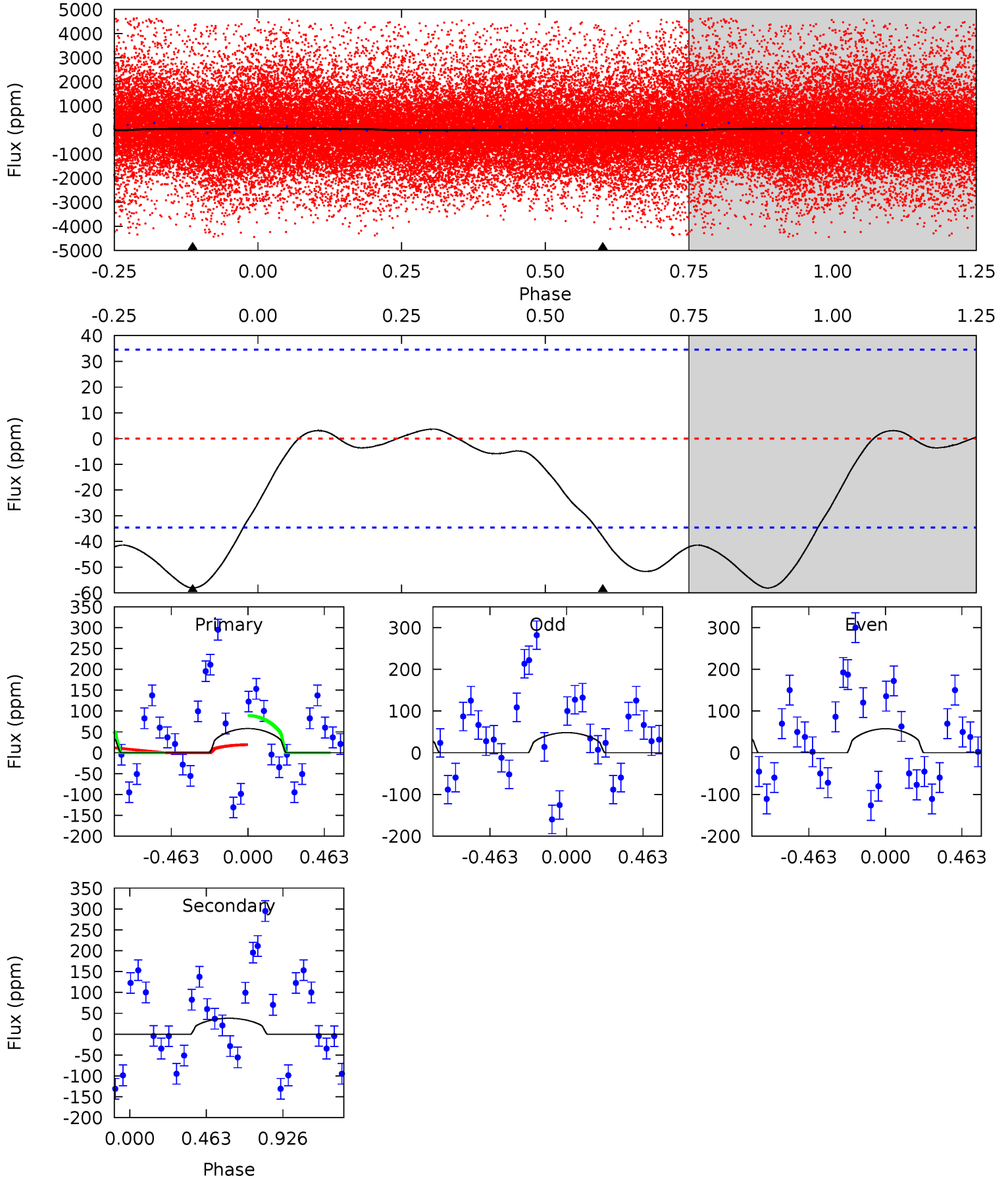
TCE 010411796-01 P= 0.737131 Days $T_0=131.849321$ (BKJD)



DV Model-Shift Uniqueness Test

010411796-01, P = 0.737097 Days, E = 131.160145 Days

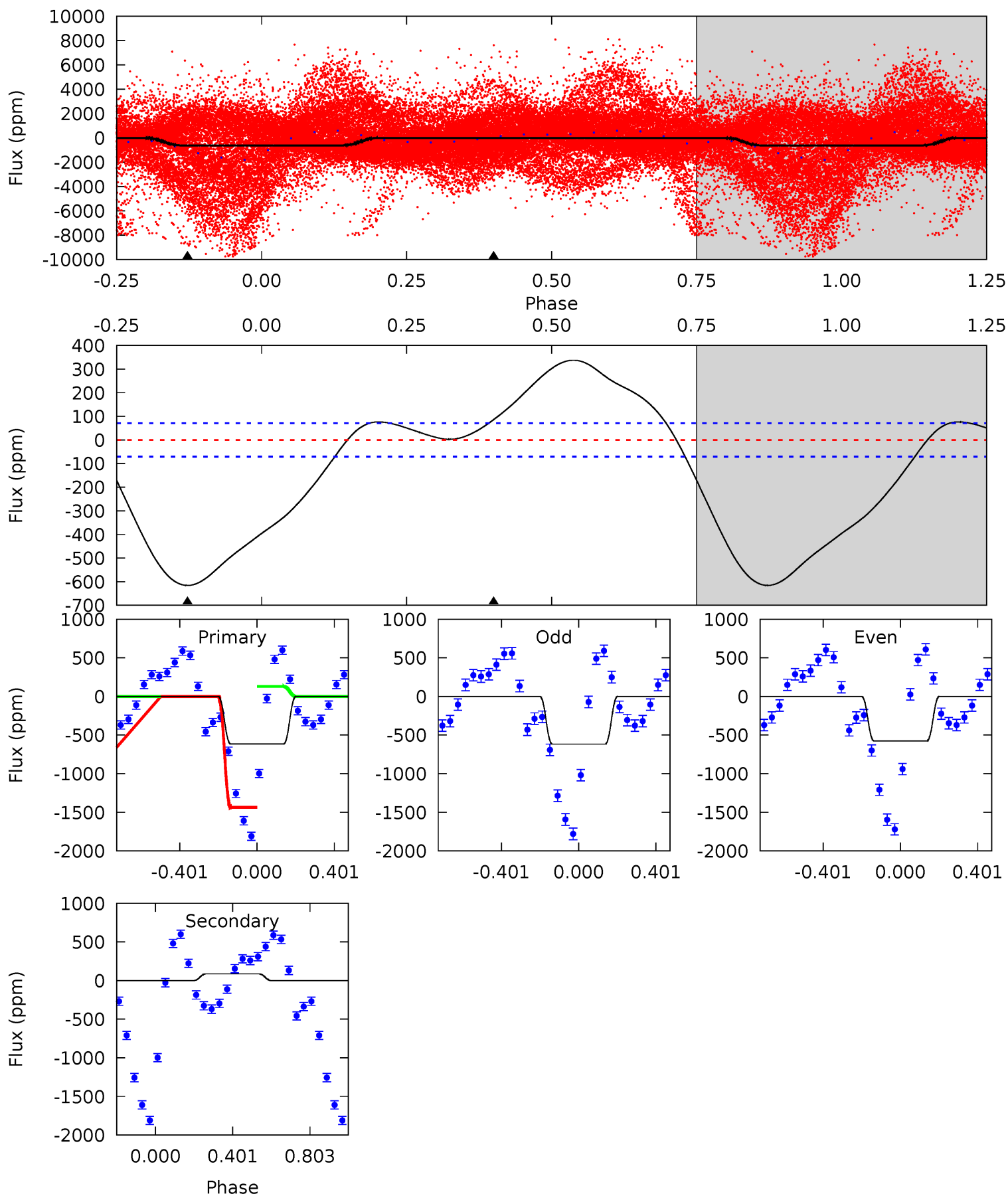
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.11	4.67	0	0	4.23	0.73	0.27	7.11	7.11	4.67	4.67	0.56	2.55	0.06	3.86



Alt Model-Shift Uniqueness Test

010411796-01, P = 0.737131 Days, E = 131.112190 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.0	-5.18	0	0	4.26	0.84	7.30	37.0	37.0	-5.18	-5.18	1.25	1.51	0.35	35.7



Stellar Parameters For KIC 010411796

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	3847^{+121}_{-162}	$4.714^{+0.084}_{-0.036}$	$-0.020^{+0.250}_{-0.350}$	$0.539^{+0.046}_{-0.086}$	$0.548^{+0.056}_{-0.084}$	$4.930^{+2.218}_{-0.726}$
	+3%/-4%	+2%/-1%	+1250%/-1750%	+9%/-16%	+10%/-15%	+45%/-15%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010411796-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 8	$0.85^{+0.93}_{-0.57}$	1503^{+65}_{-69}	2888^{+1283}_{-569}	$5.035^{+41.852}_{-3.981}$
Alt.	86 ± 17	$1.53^{+1.16}_{-1.01}$	1508^{+62}_{-72}	-2829^{+348}_{-982}	$-3.414^{+2.344}_{-24.627}$

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 $A_{obs} \gg 1.0$

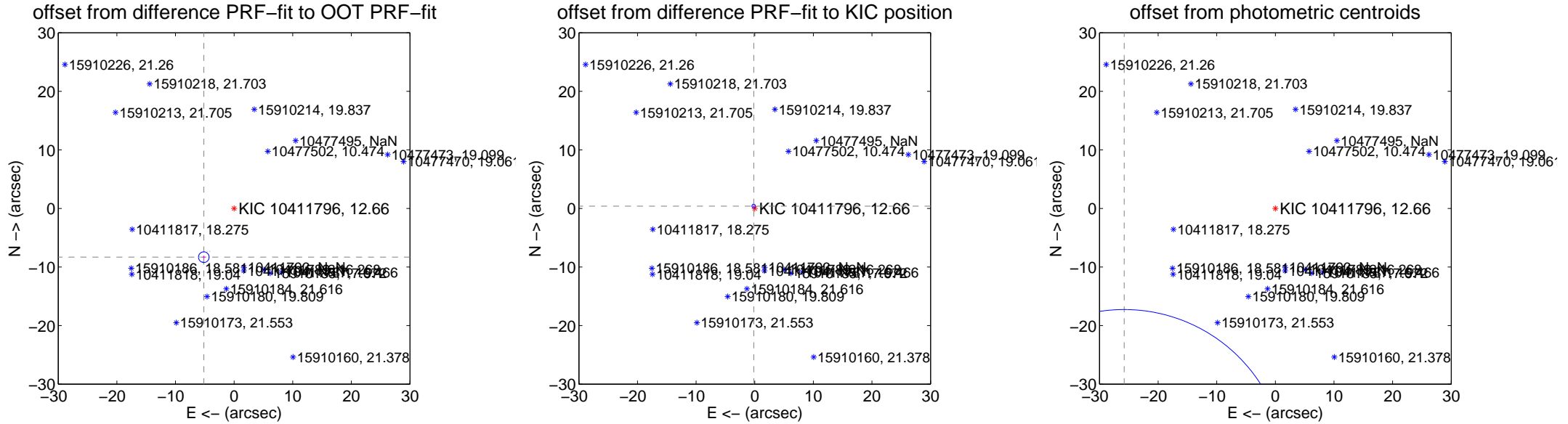
DV Centroid Data

Supplemental centroid analysis for 010411796-01. Kepler magnitude: 12.66. Transit SNR 0.47

There are 10 quarters with good PRF difference image offsets

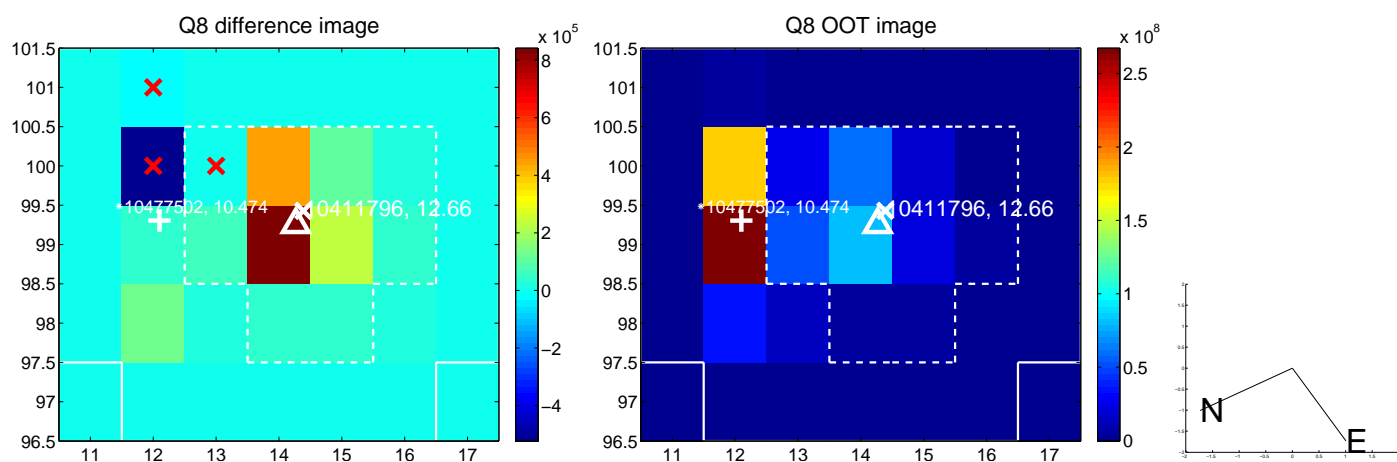
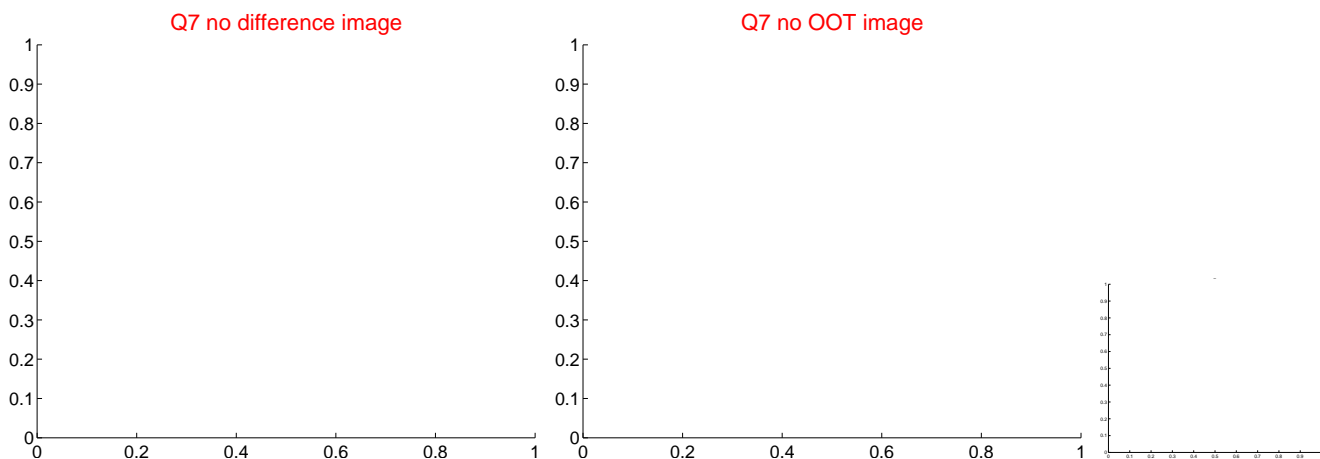
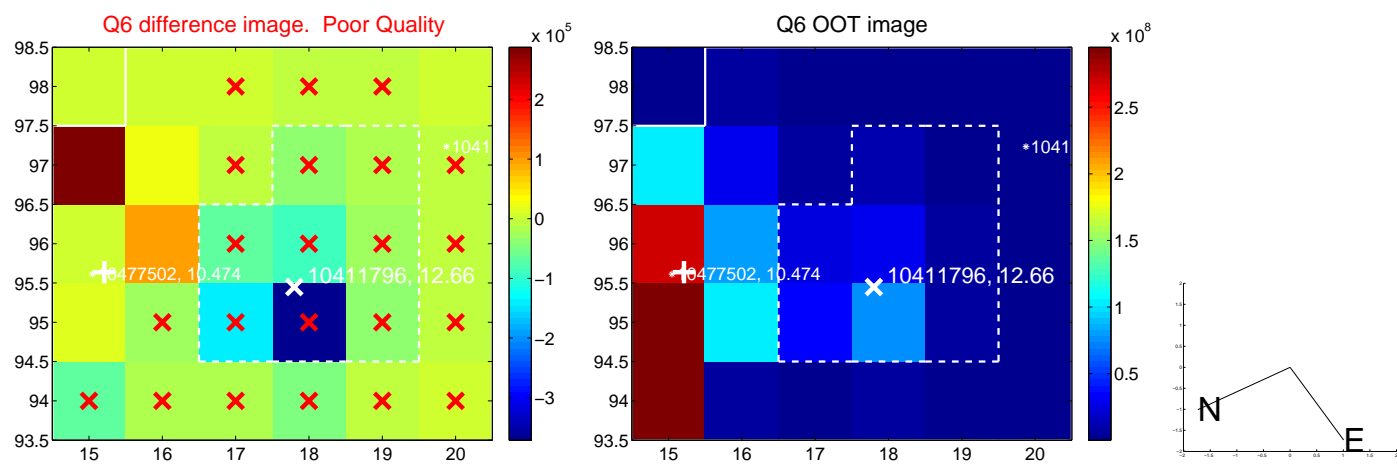
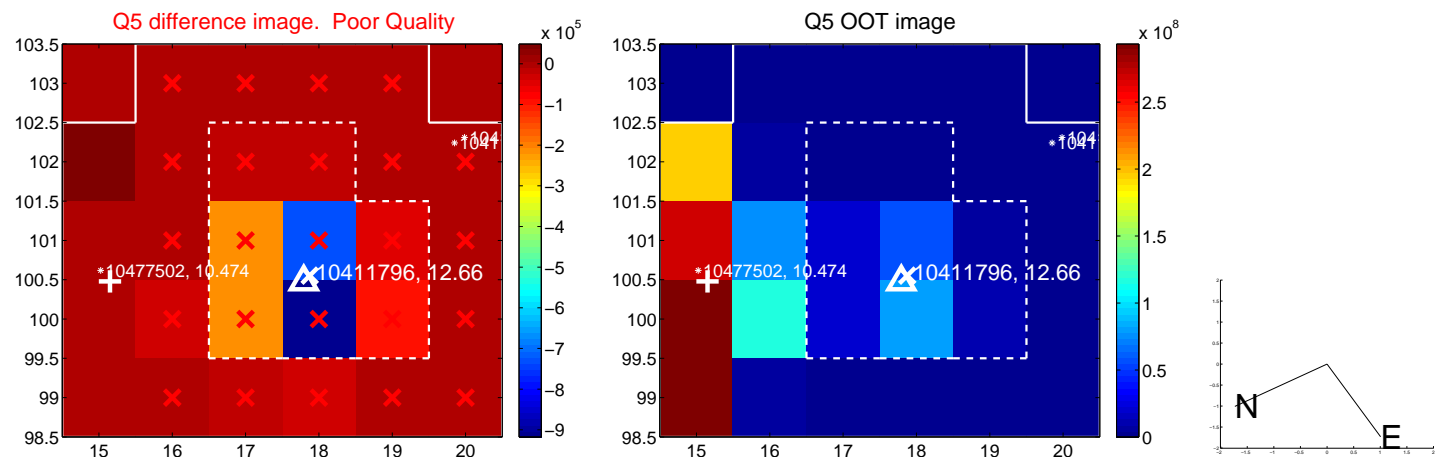
The OOT PRF centroid is offset from the target star catalog position by about 10.84 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.792 \pm 0.303	32.37	5.167 \pm 0.208	-8.318 \pm 0.256
PRF-fit source offset from KIC position	0.431 \pm 0.103	4.17	0.170 \pm 0.084	0.396 \pm 0.095
photometric centroid source offset	51.78 \pm 9.21	5.62	25.79 \pm 6.09	-44.89 \pm 10.03

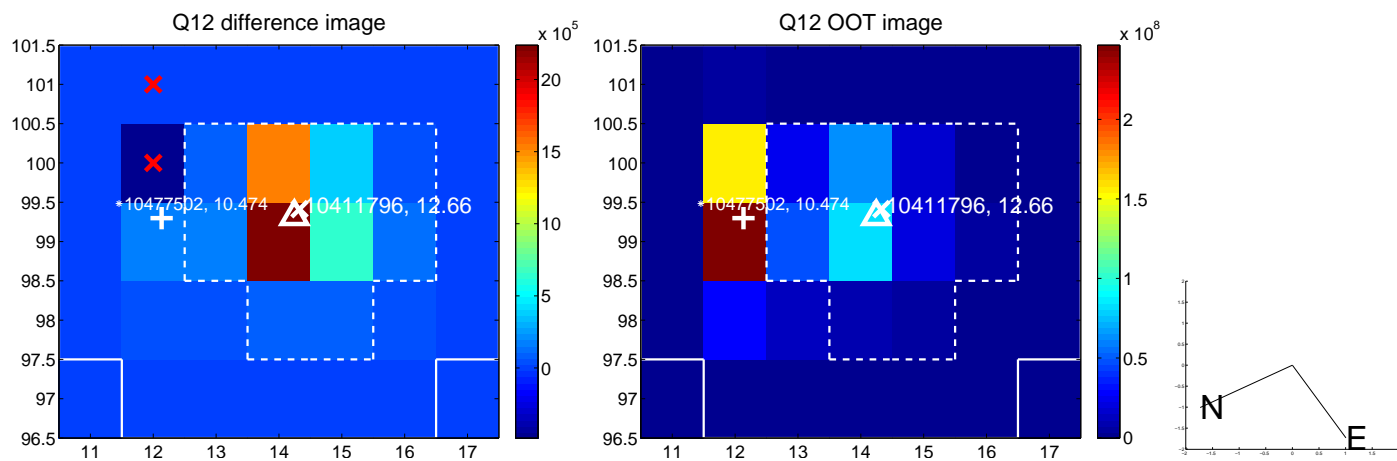
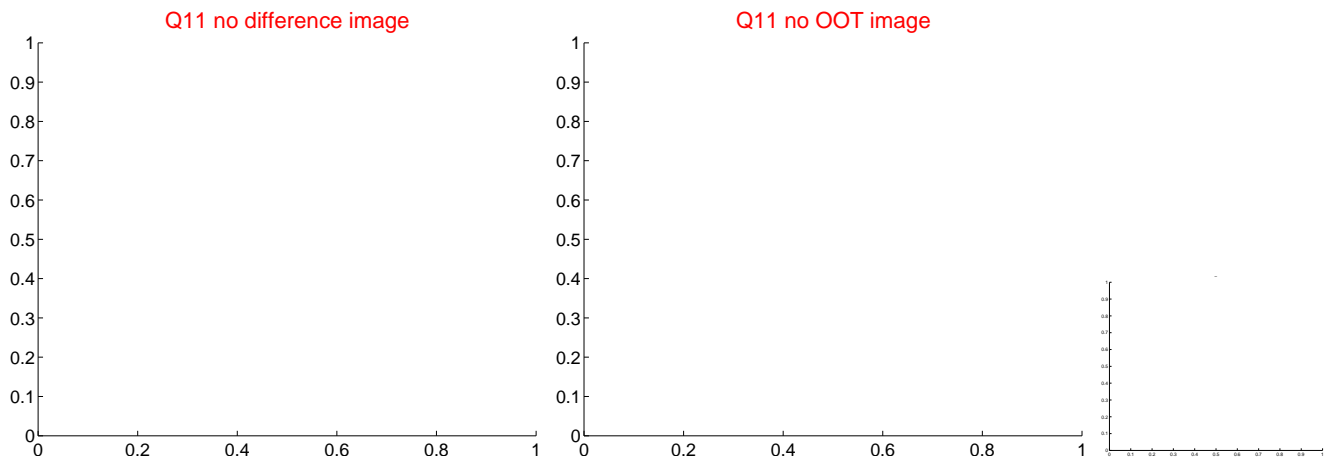
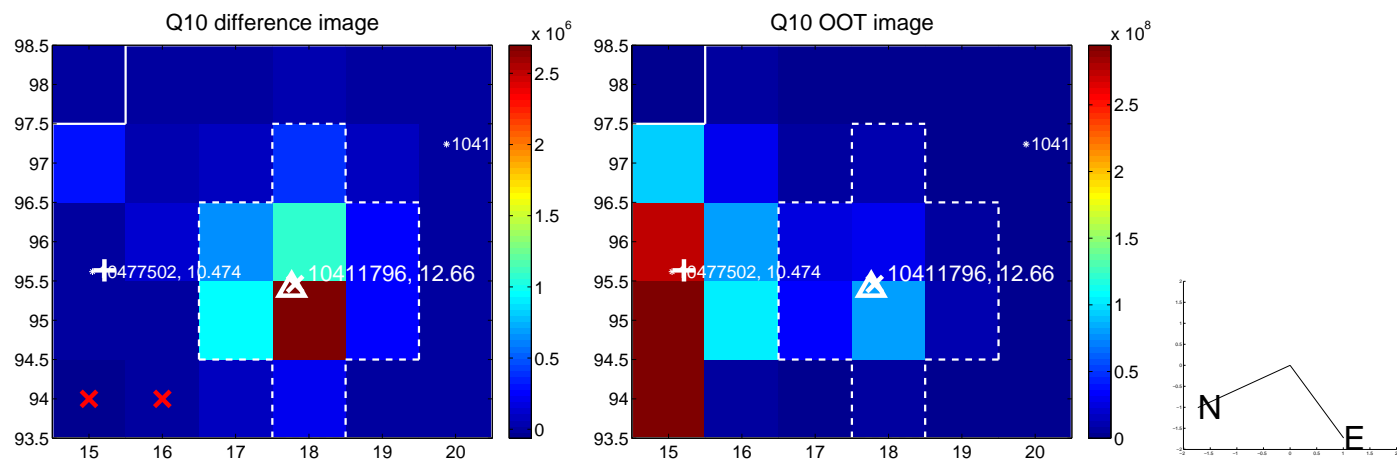
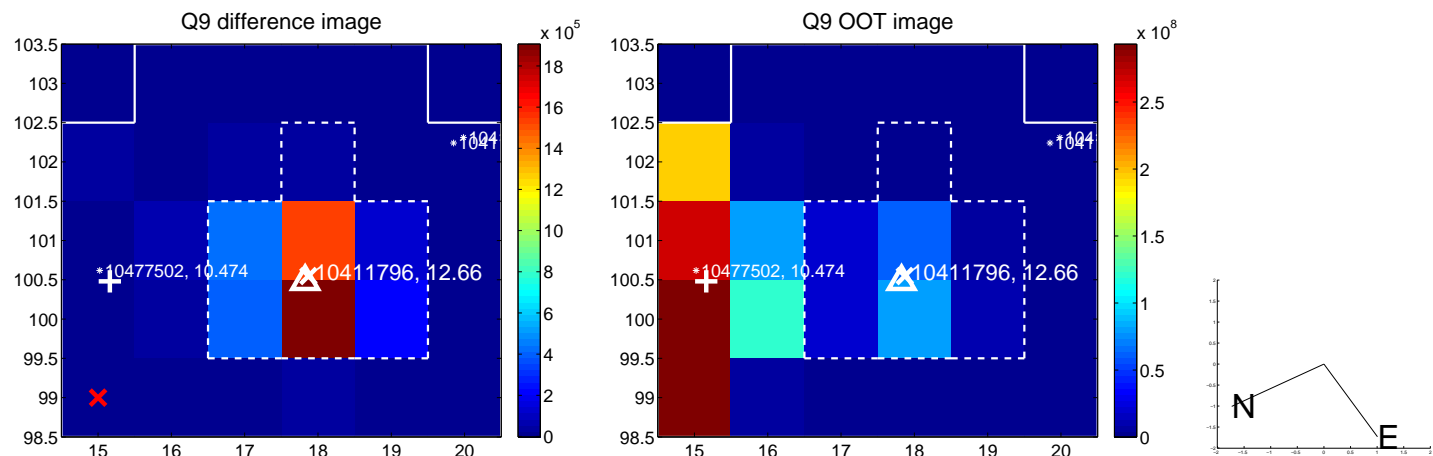


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

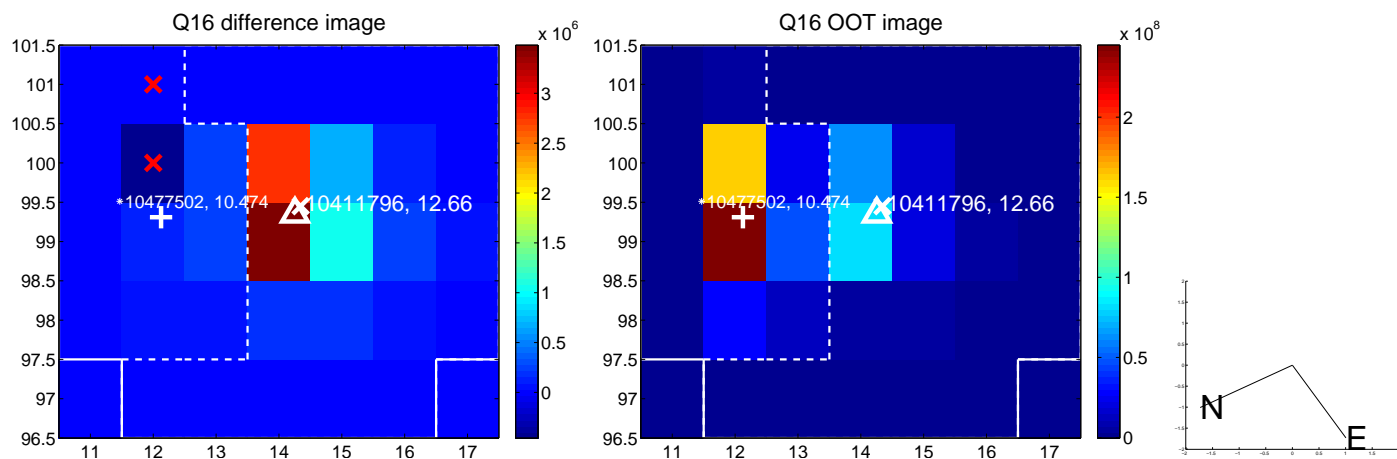
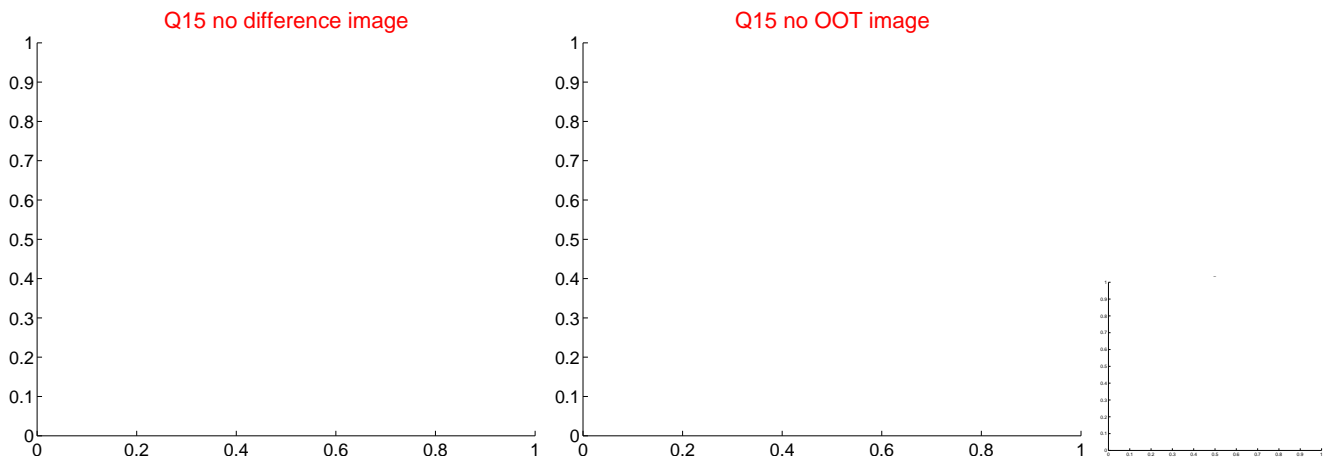
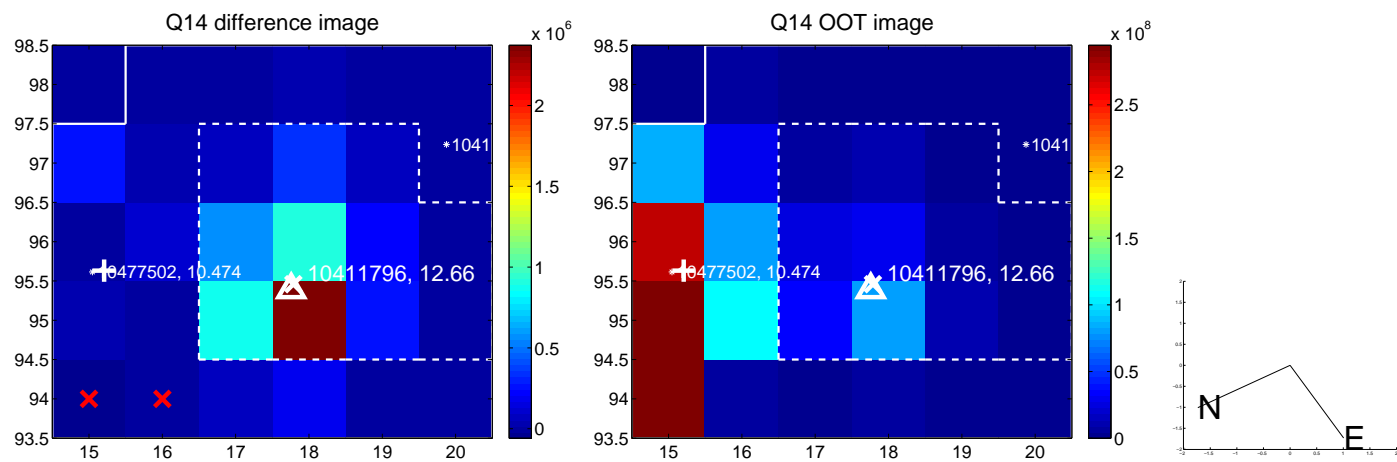
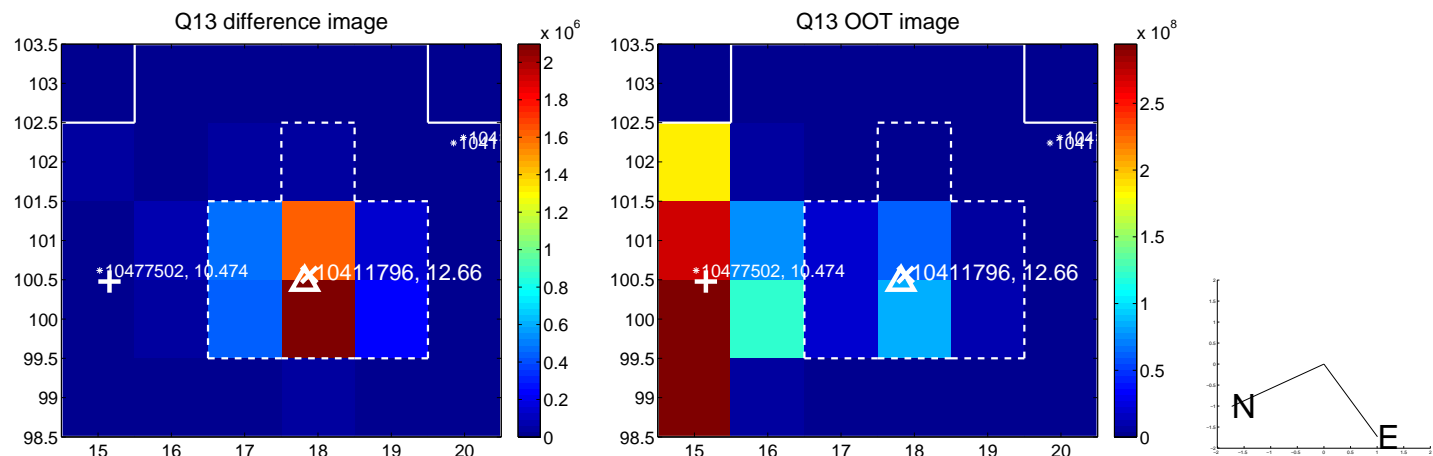
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



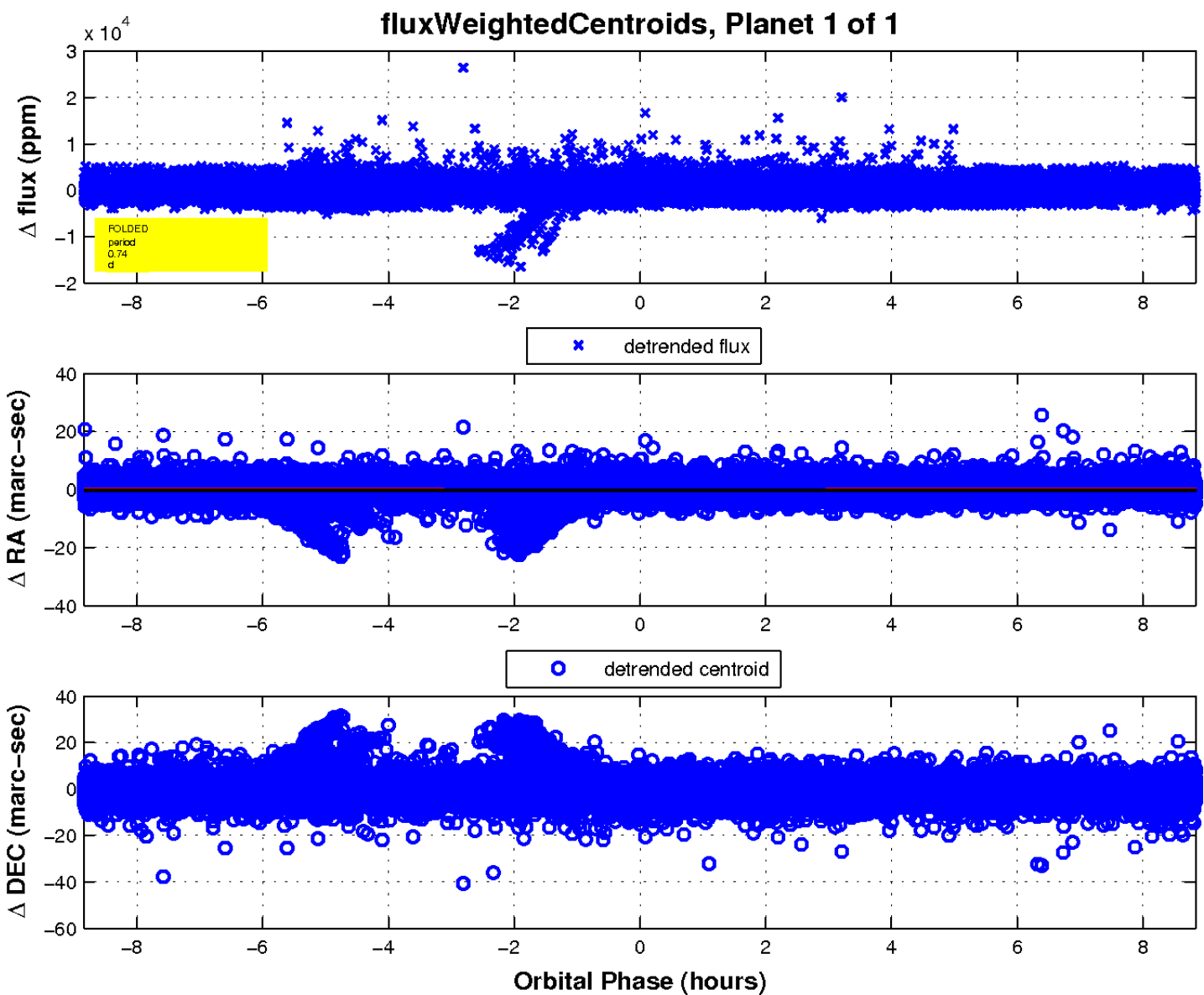
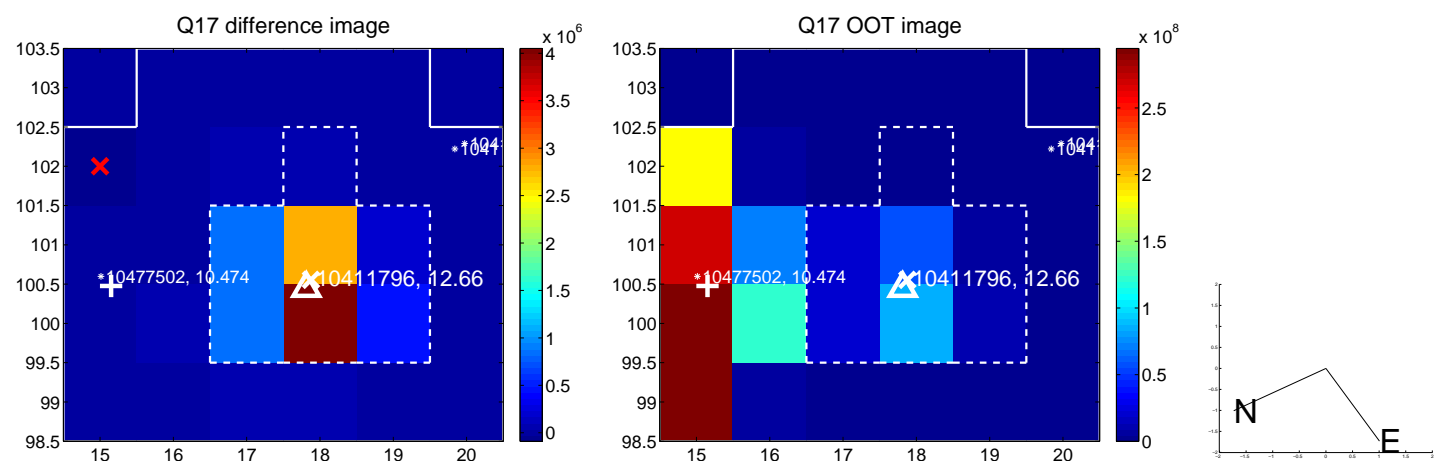
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

