

KIC 012884588

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})
012884588-01	OBS	No	0.690454	132.002723	17.7	7.361	9.4	11.8	1.50	7280	0.64	19668.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012884588-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_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.

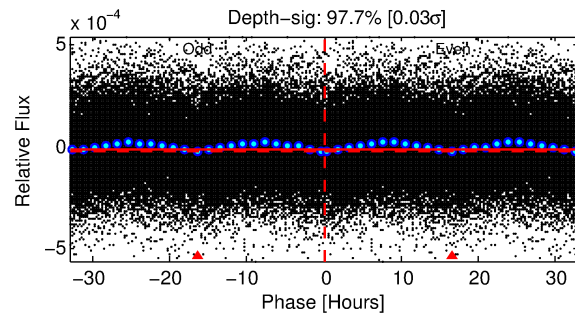
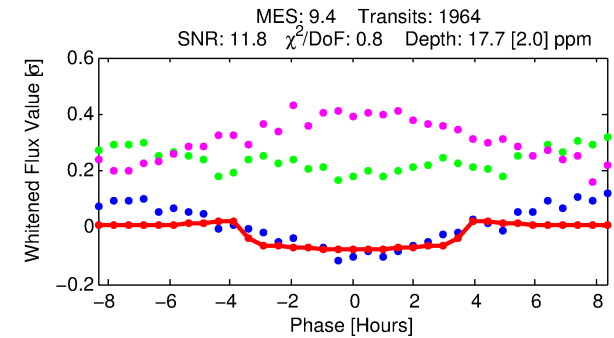
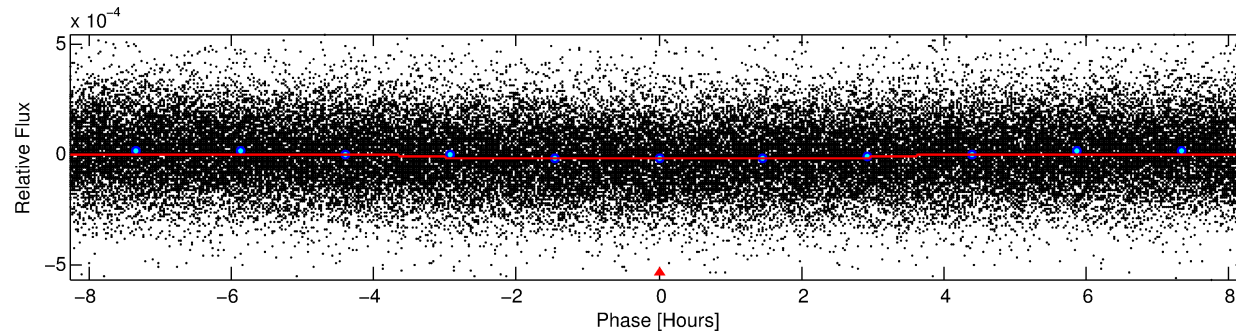
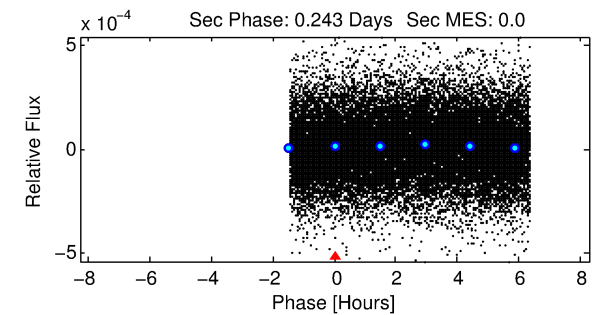
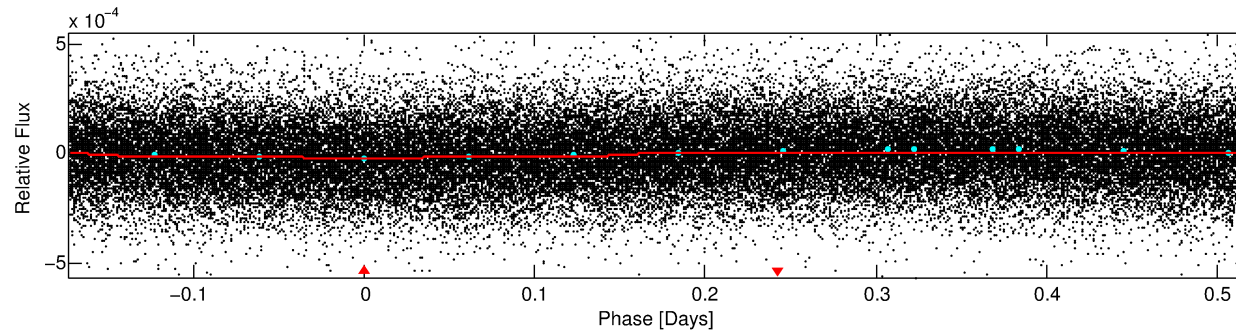
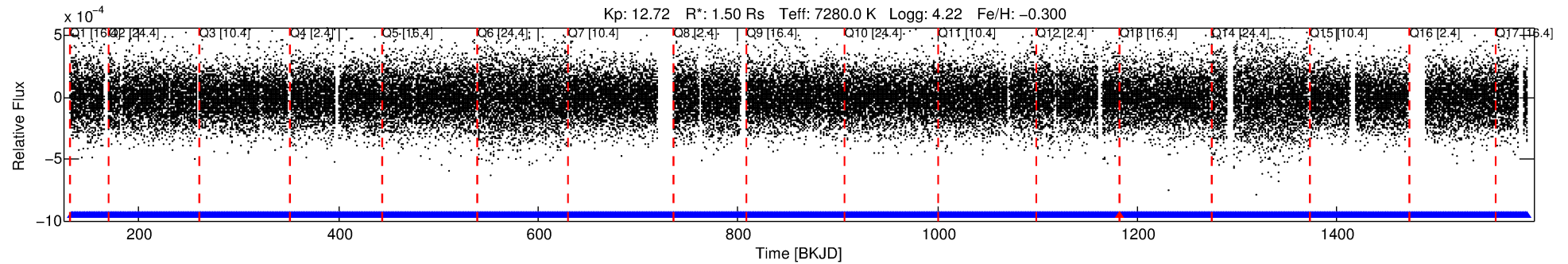
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012884588-01

No Significant Match Found

DV One-Page Summary

KIC: 12884588 Candidate: 1 of 1 Period: 0.690 d



DV Fit Results:

Period = 0.69045 [0.00001] d
Epoch = 132.0027 [0.0045] BKJD
Rp/R* = 0.0039 [0.0025]
a/R* = 1.02 [0.14]
b = 0.06 [66.22]
Seff = 19668.64 [8077.52]
Teq = 3020 [310] K
Rp = 0.64 [0.46] Re
a = 0.0170 [0.0044] AU
Ag = N/A
Teffp = N/A

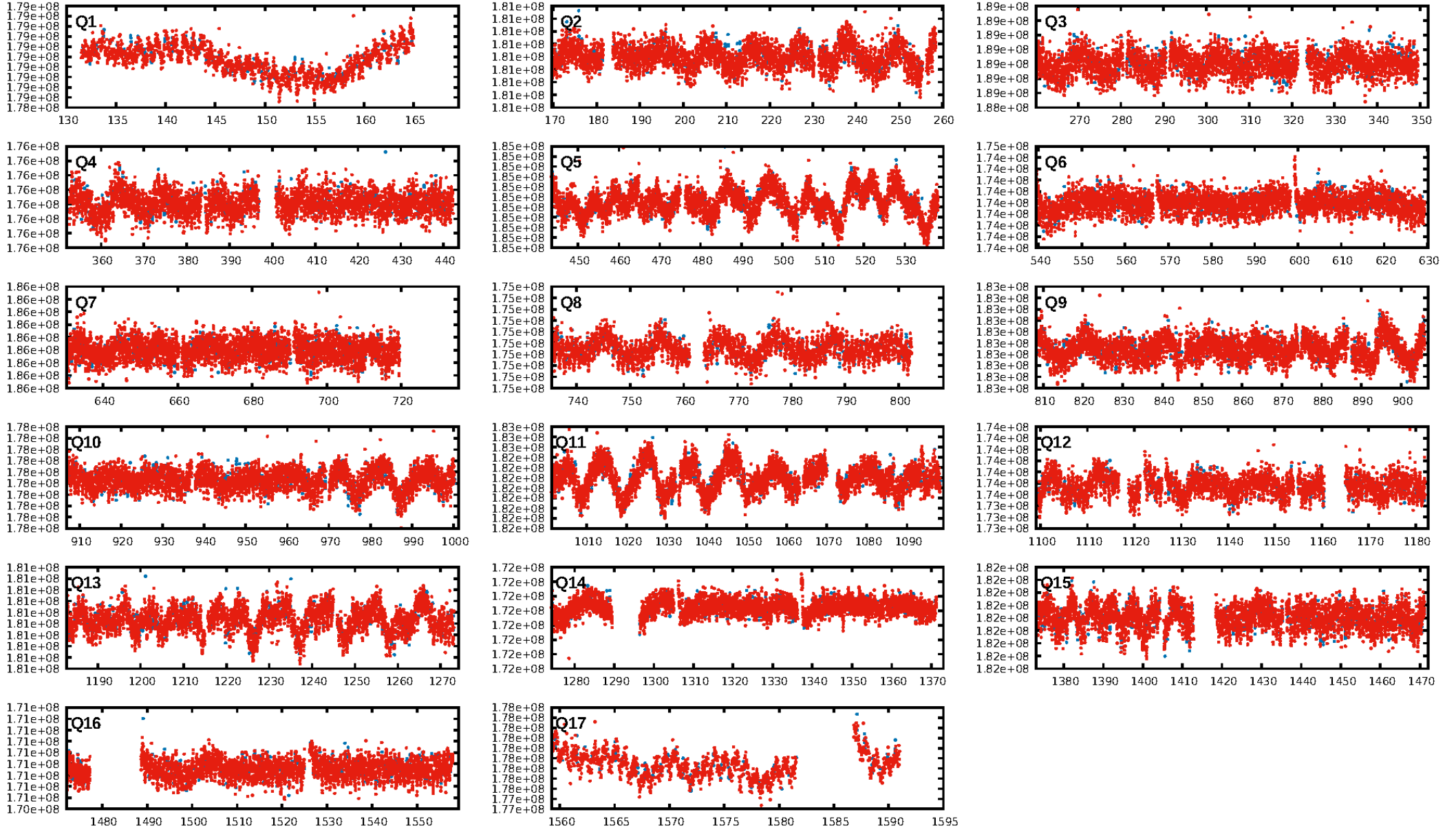
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1874/1875]
GhostDiagnostic-chr: 2.998
Centroid-sig: 78.2%
Centroid-so: 0.396 arcsec [0.61σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

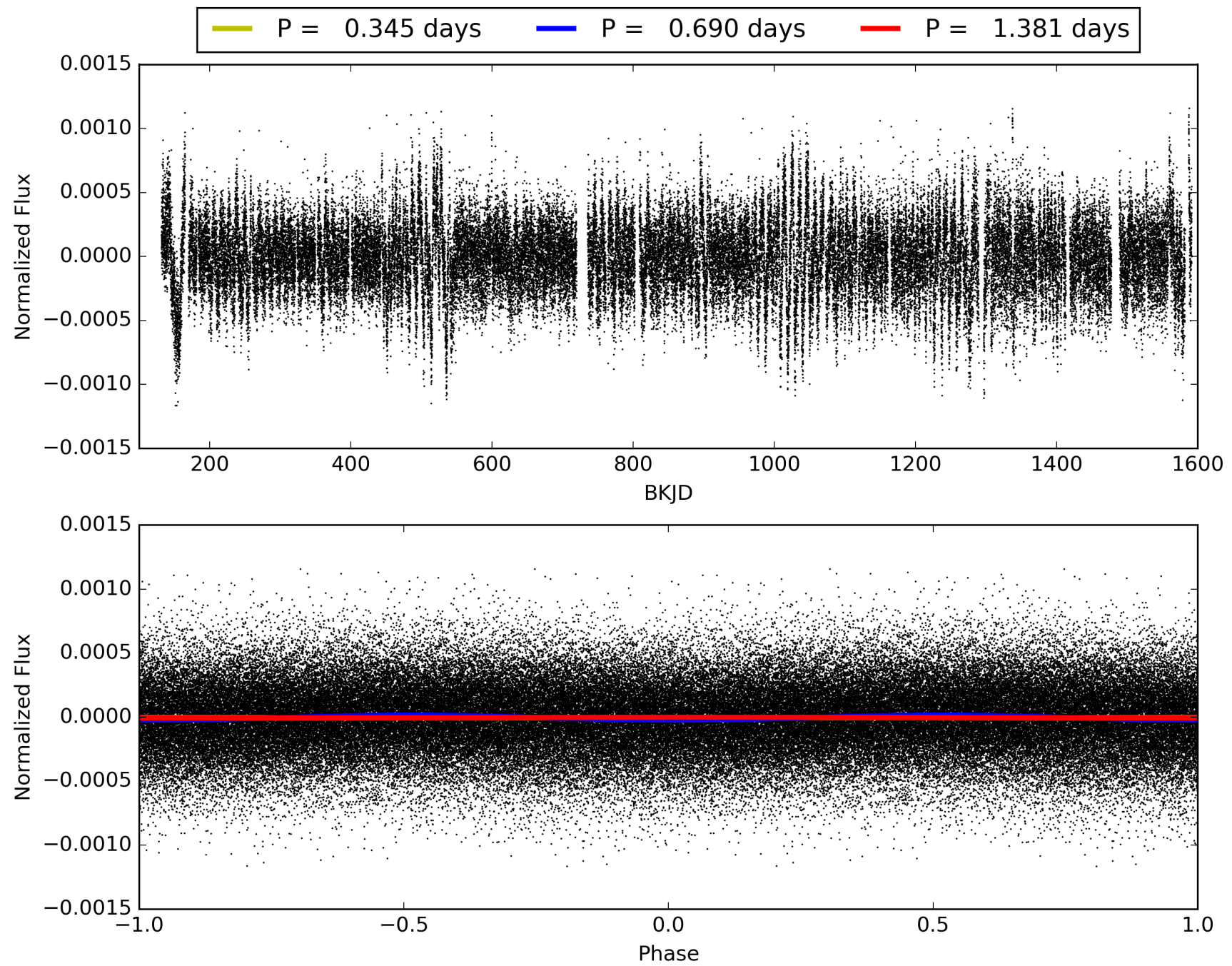
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:48:31 Z

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

TCE 012884588-01, PDC Light Curves

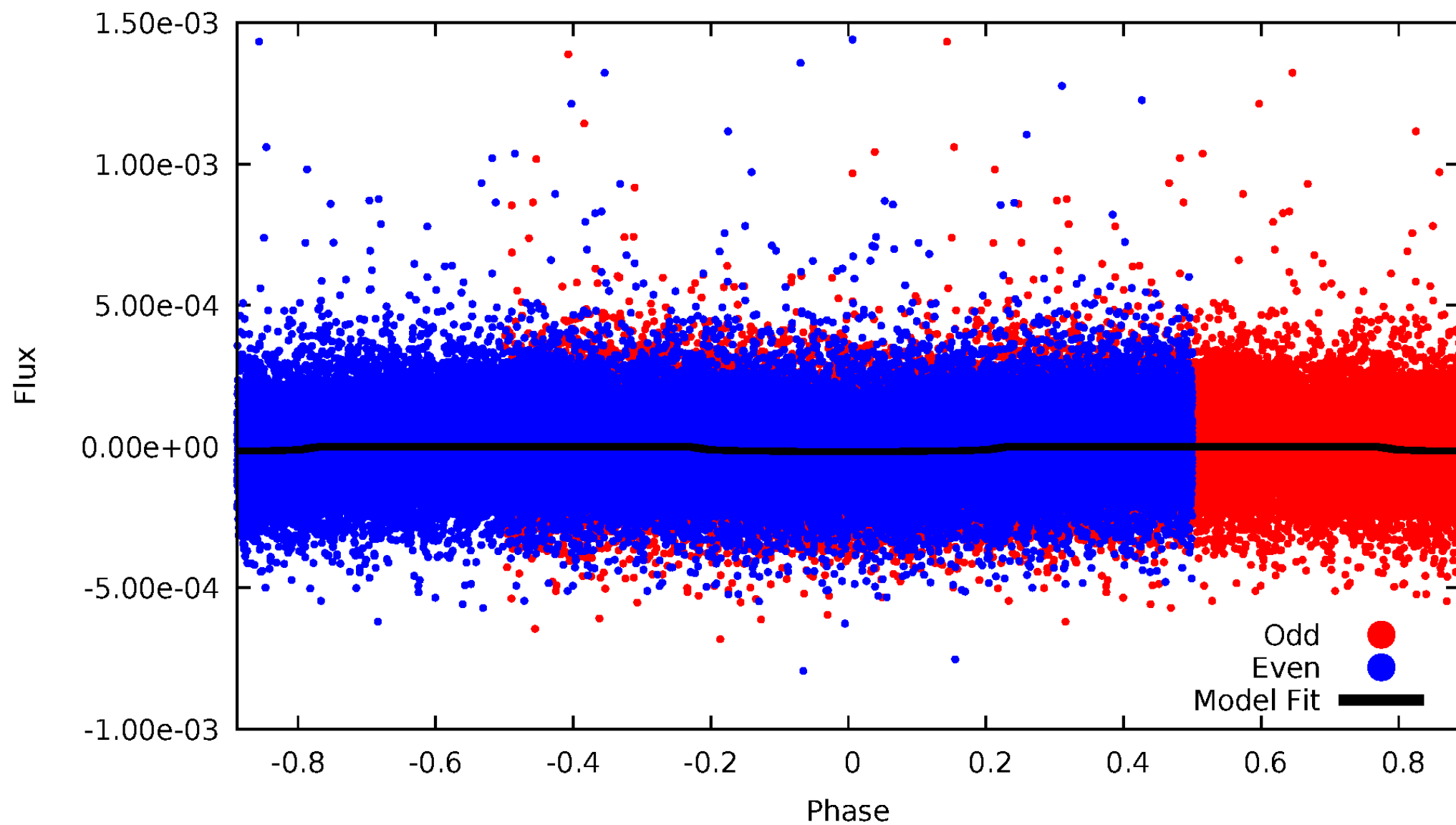


TCE 012884588-01



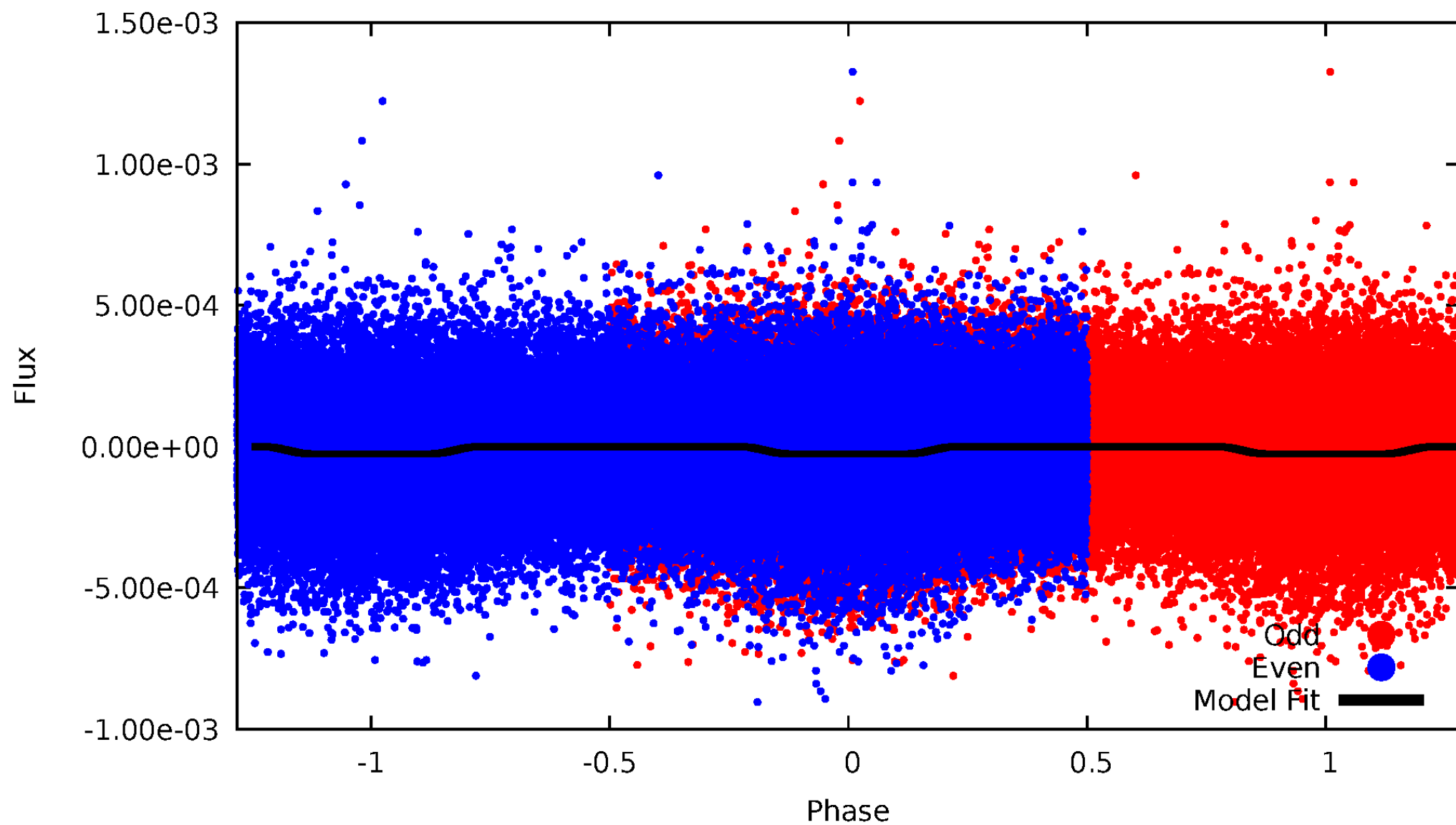
DV Odd/Even

TCE 012884588-01



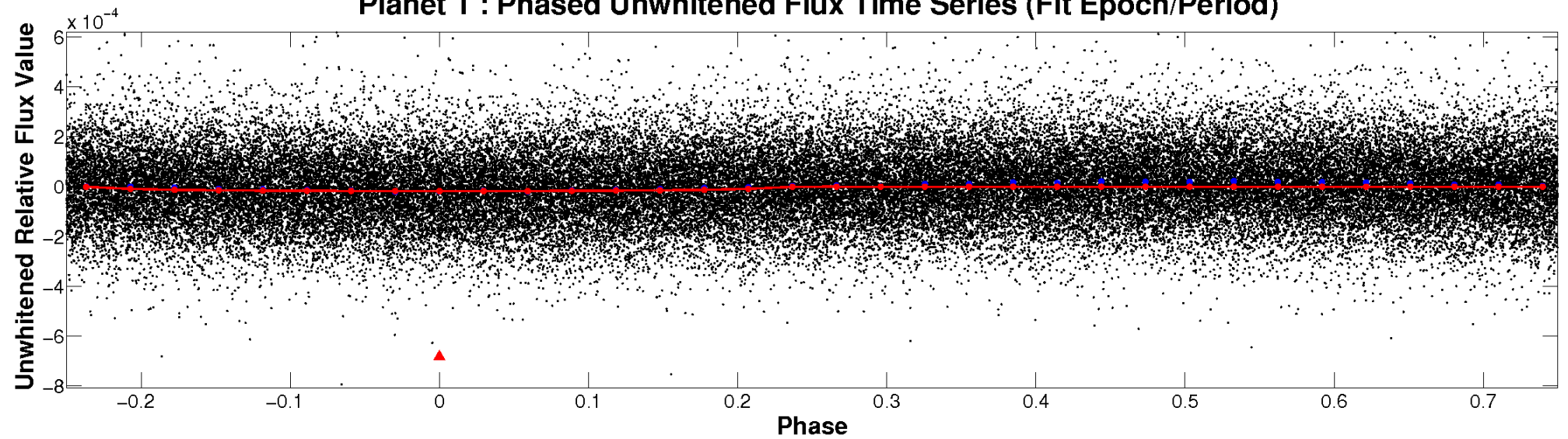
ALT Odd/Even

TCE 012884588-01

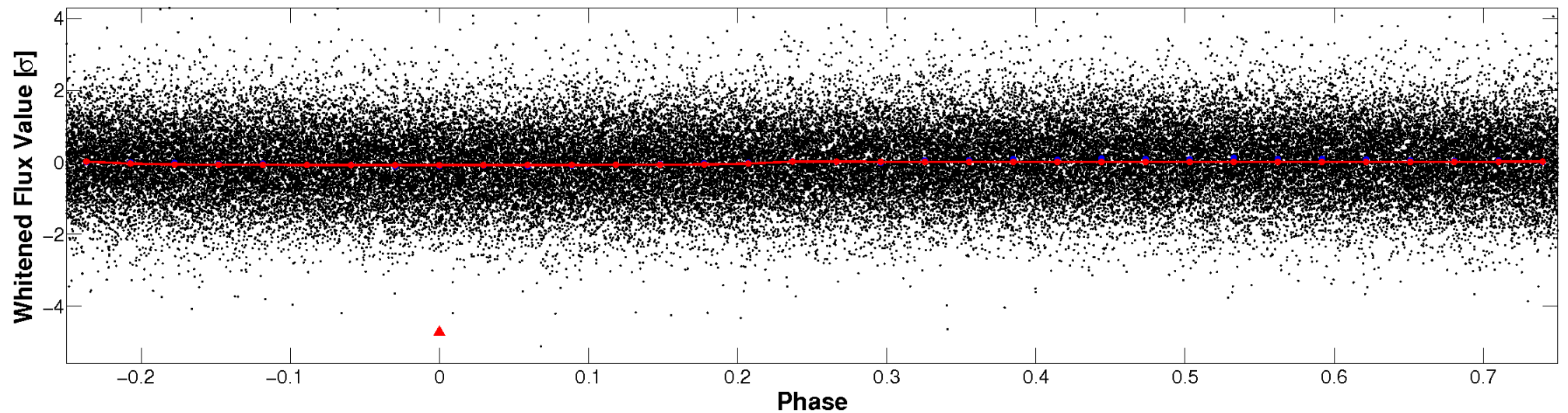


Non-Whitened Vs. Whitened Light Curve

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

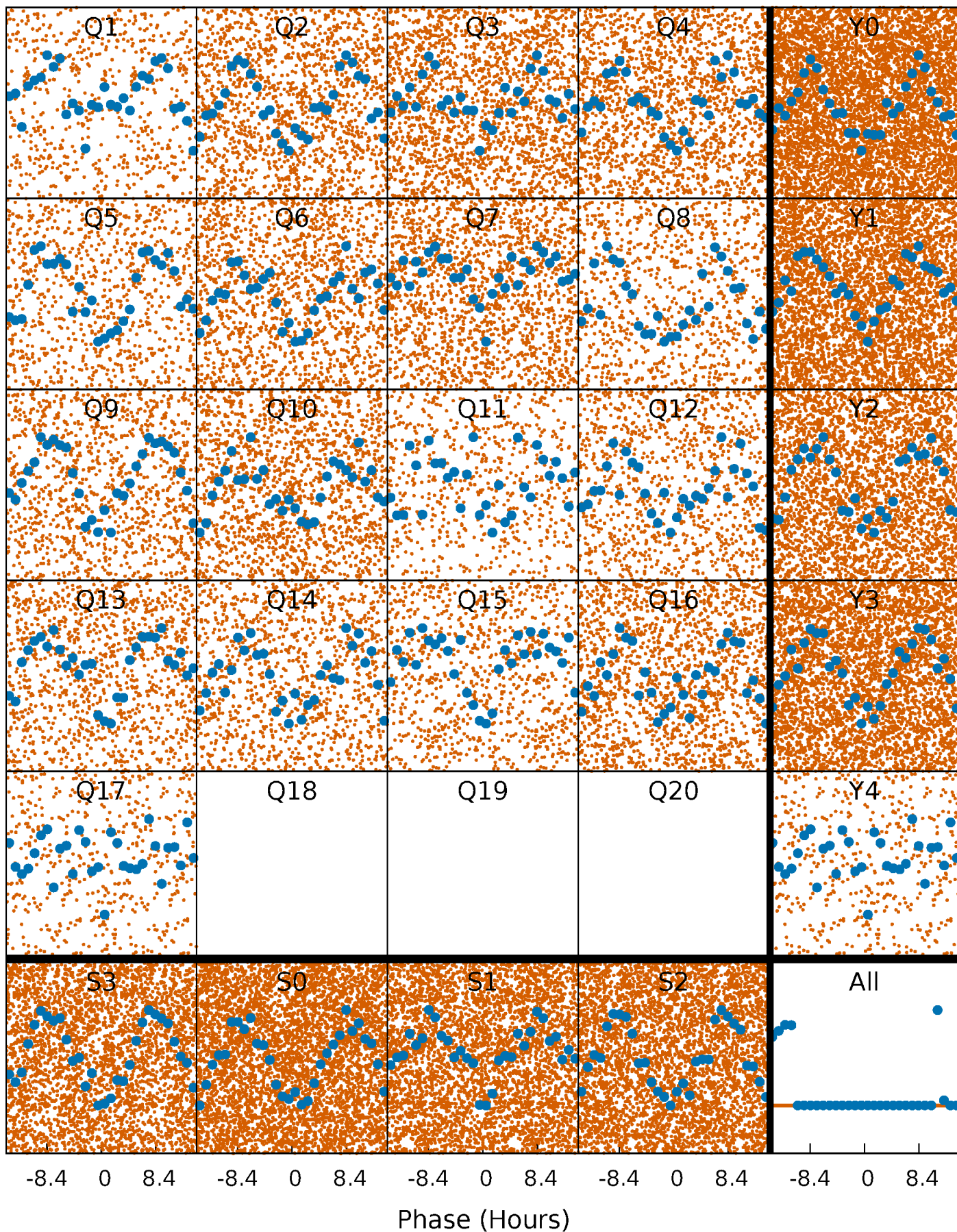


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



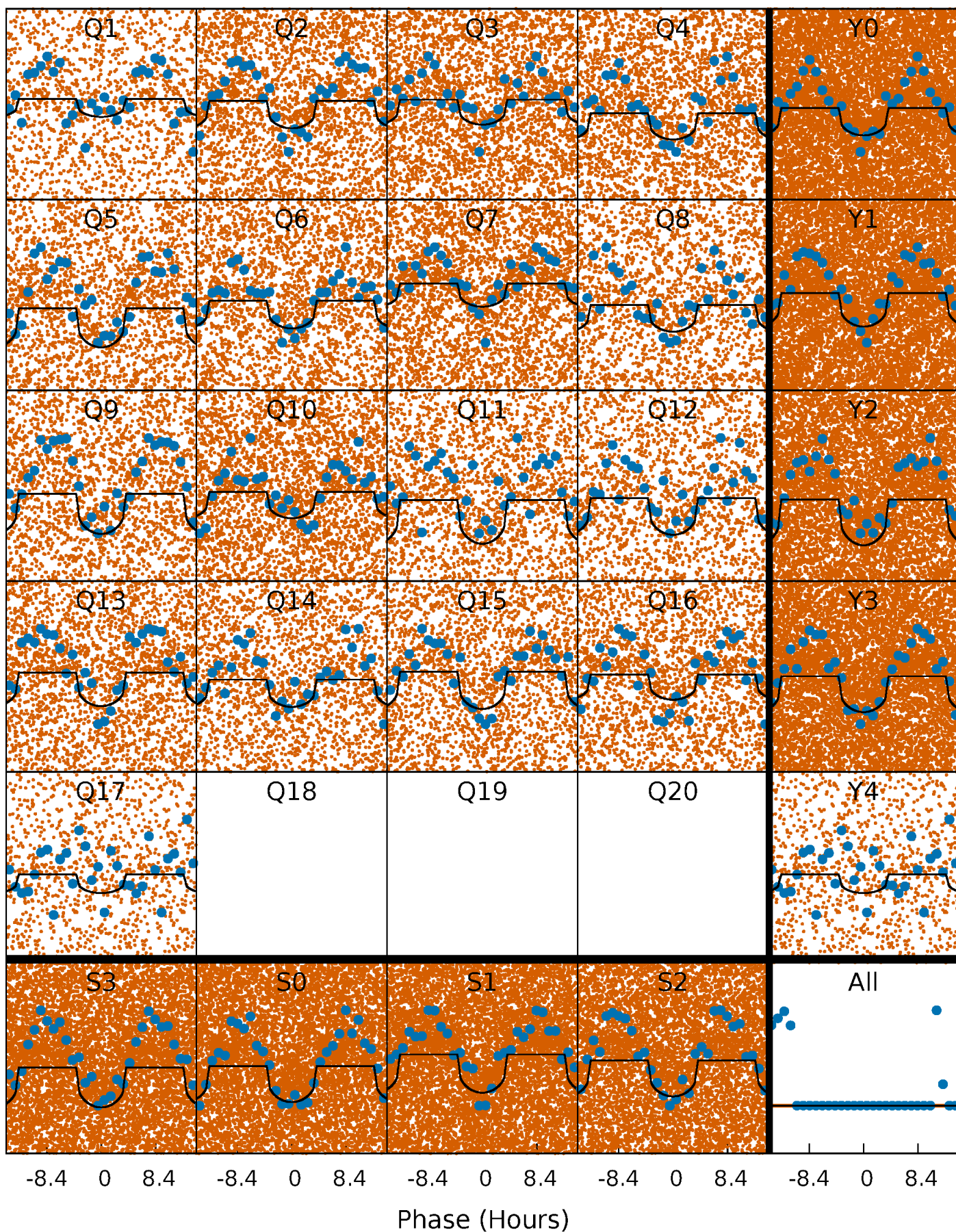
PDC Quarter-Phased Transit Curves

TCE 012884588-01 P= 0.690454 Days $T_0=132.002723$ (BKJD)



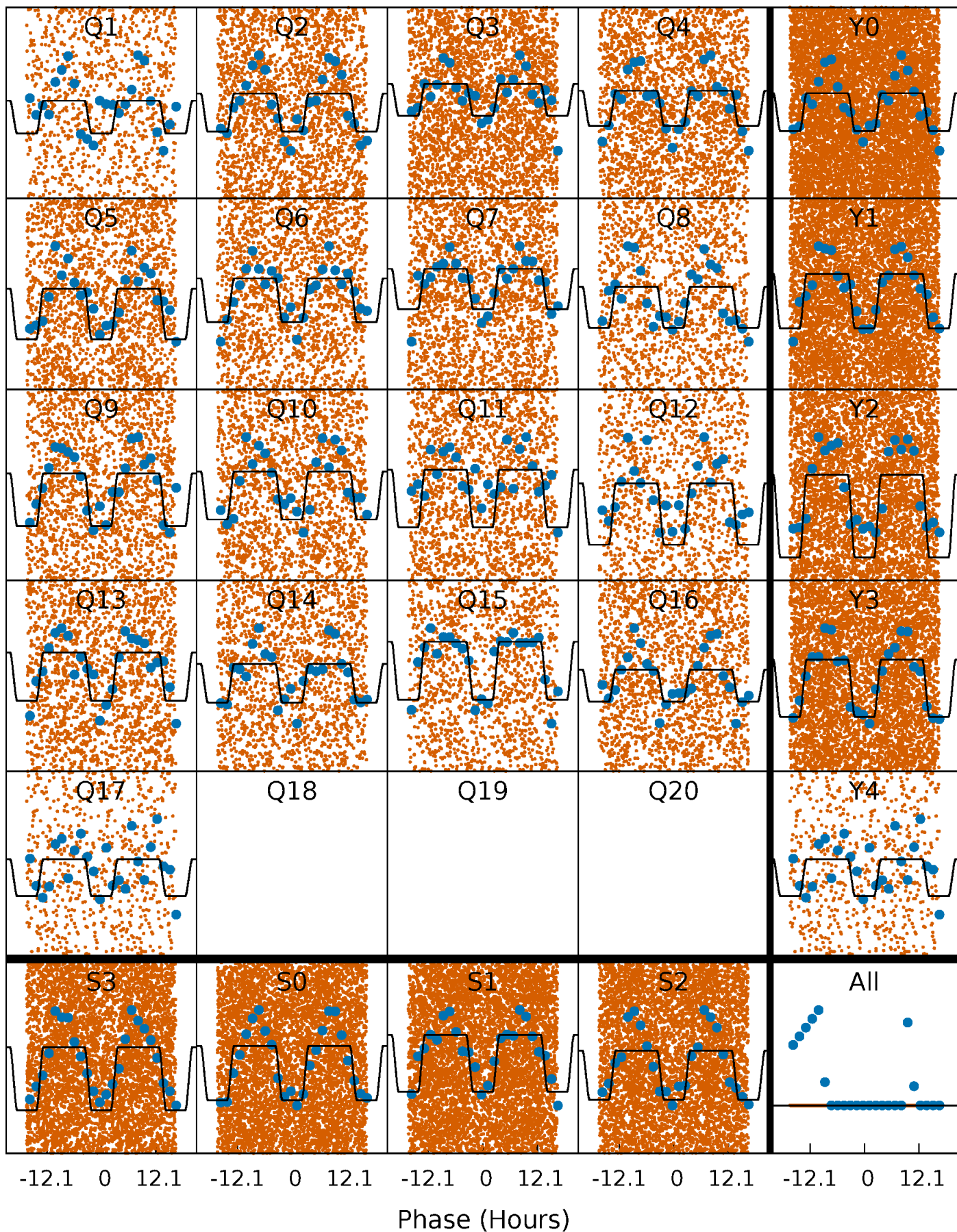
DV Quarter-Phased Transit Curves

TCE 012884588-01 P= 0.690454 Days $T_0=132.002723$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

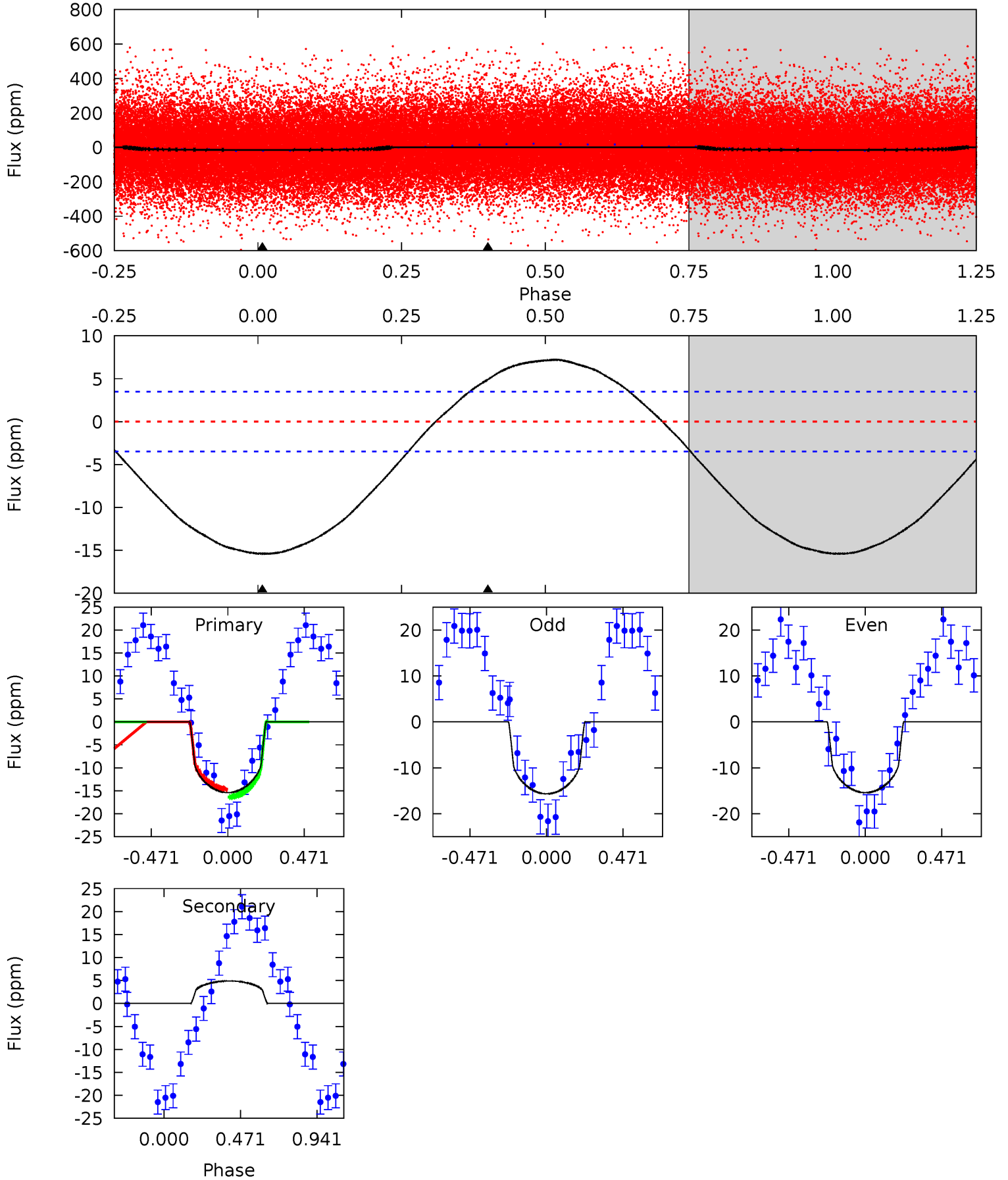
TCE 012884588-01 P= 0.690468 Days $T_0=131.999960$ (BKJD)



DV Model-Shift Uniqueness Test

012884588-01, P = 0.690454 Days, E = 131.312269 Days

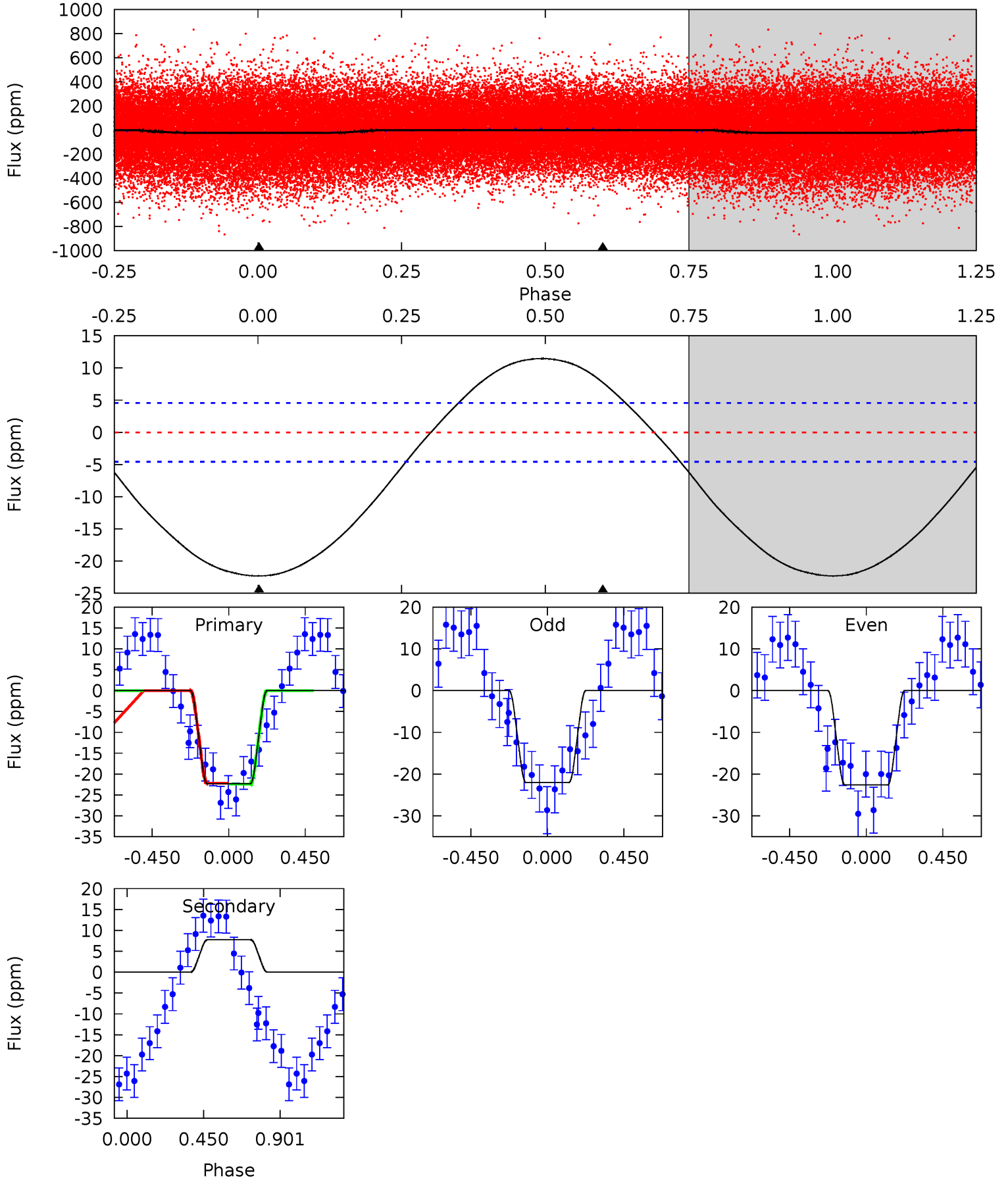
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	-5.95	0	0	4.23	0.72	2.39	18.7	18.7	-5.95	-5.95	0.16	0.90	0.32	1.05



Alt Model-Shift Uniqueness Test

012884588-01, P = 0.690468 Days, E = 131.309492 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.7	-7.19	0	0	4.24	0.75	2.76	20.7	20.7	-7.19	-7.19	0.26	6.59	0.34	0.08



Stellar Parameters For KIC 012884588

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7280^{+230}_{-307}	$4.221^{+0.108}_{-0.201}$	$-0.300^{+0.250}_{-0.350}$	$1.499^{+0.477}_{-0.257}$	$1.366^{+0.223}_{-0.203}$	$0.572^{+0.304}_{-0.300}$
	+3%/-4%	+3%/-5%	+83%/-117%	+32%/-17%	+16%/-15%	+53%/-52%
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 012884588-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	5 ± 1	$0.68^{+0.41}_{-0.39}$	4269^{+328}_{-278}	-5583^{+824}_{-2753}	$-1.647^{+1.006}_{-6.970}$
Alt.	8 ± 1	$0.87^{+0.48}_{-0.45}$	4268^{+344}_{-267}	-5567^{+746}_{-2166}	$-1.637^{+0.977}_{-5.366}$

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 $A_{obs} \gg 1.0$

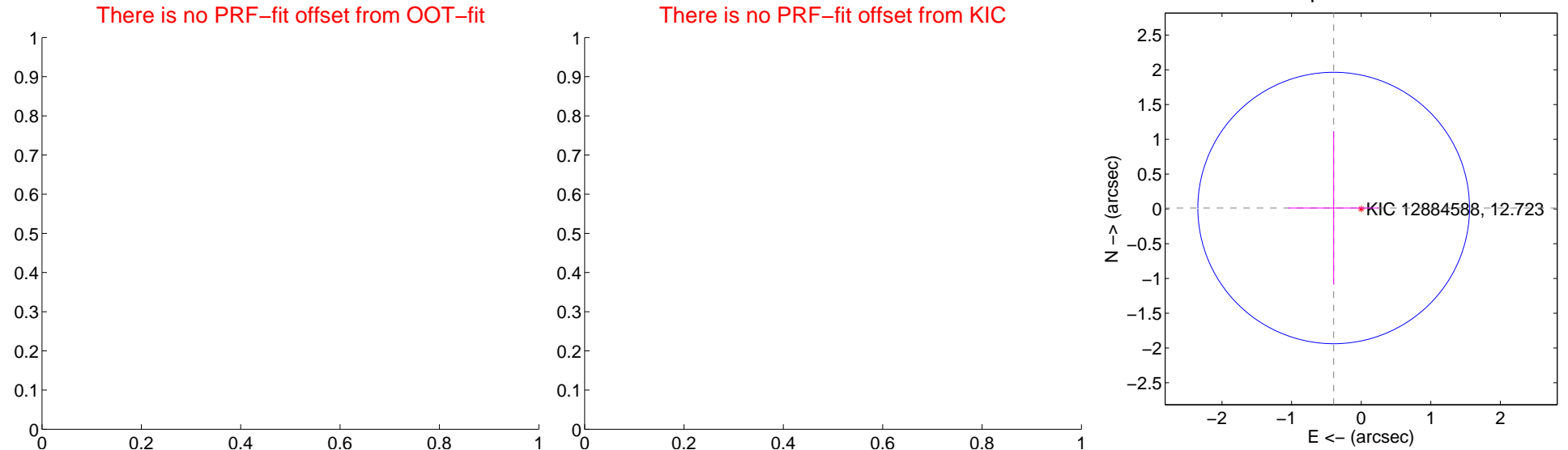
DV Centroid Data

Supplemental centroid analysis for 012884588-01. Kepler magnitude: 12.72. Transit SNR 11.78

There are 0 quarters with good PRF difference image offsets

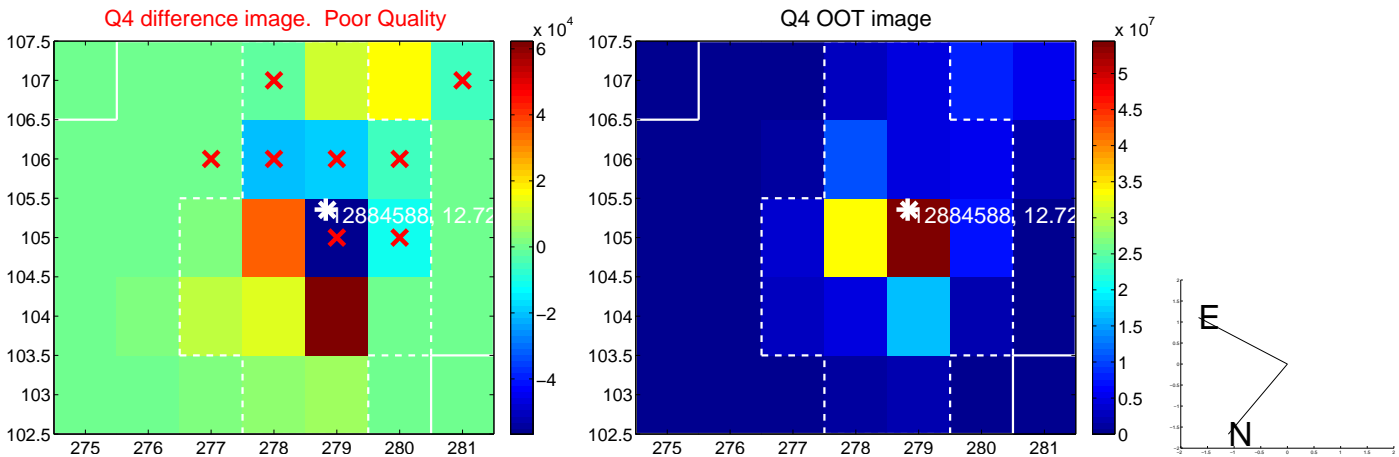
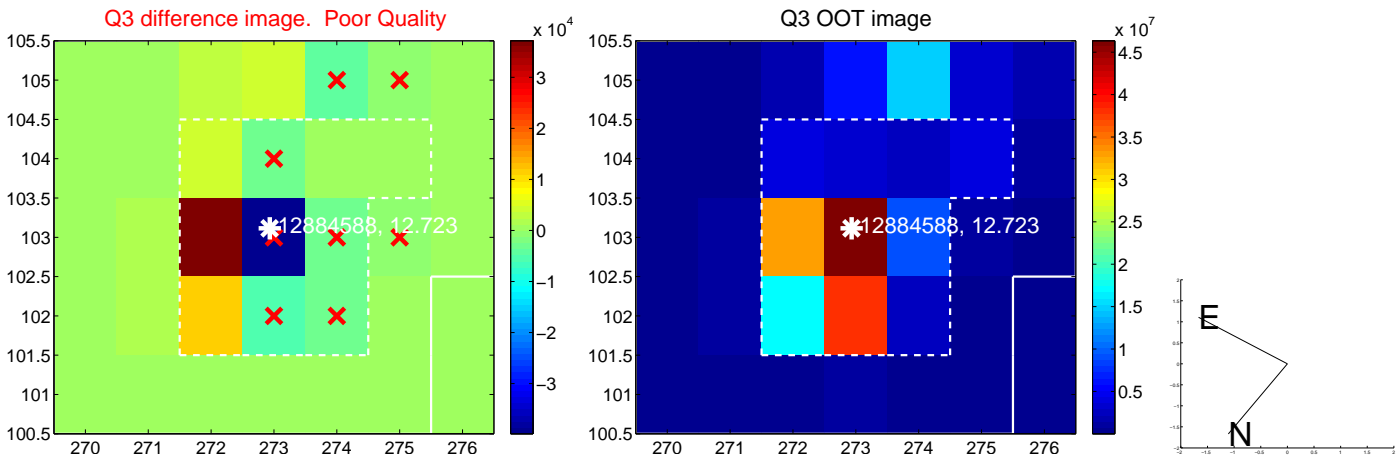
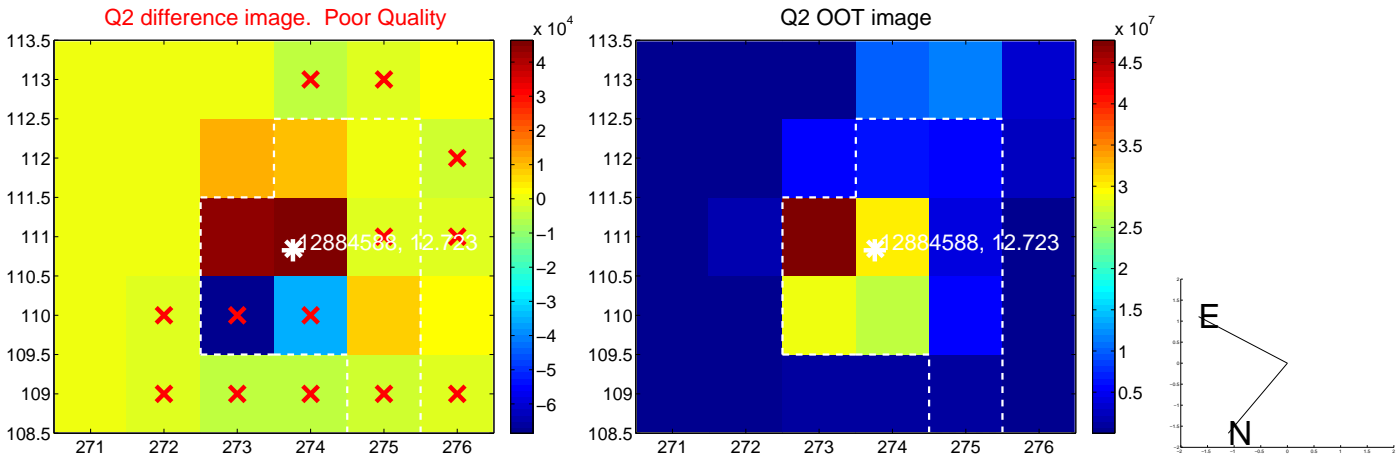
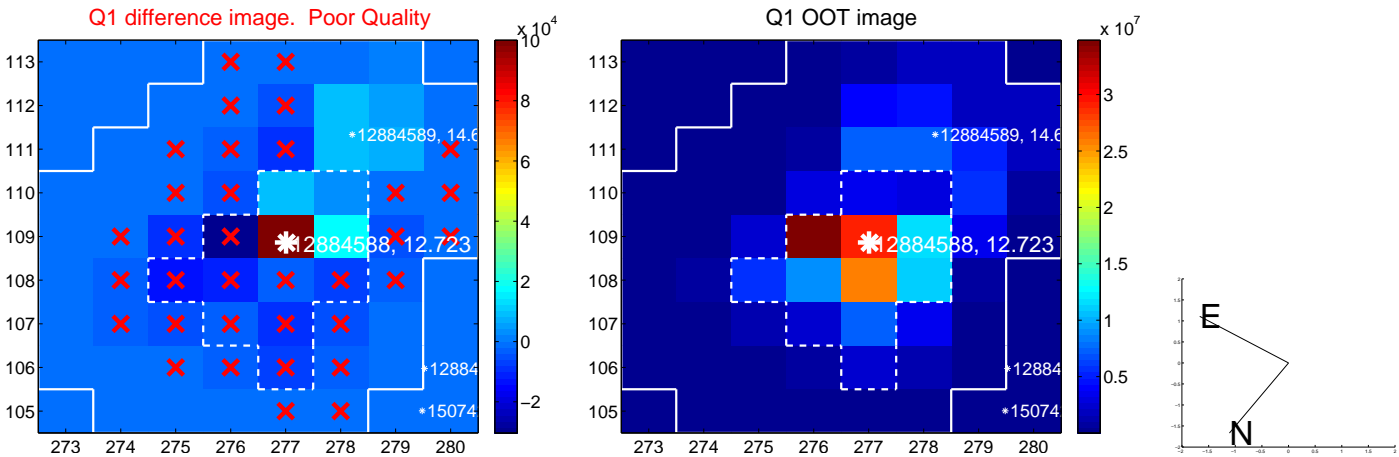
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	0.40 ± 0.65	0.61	0.40 ± 0.65	0.01 ± 1.10

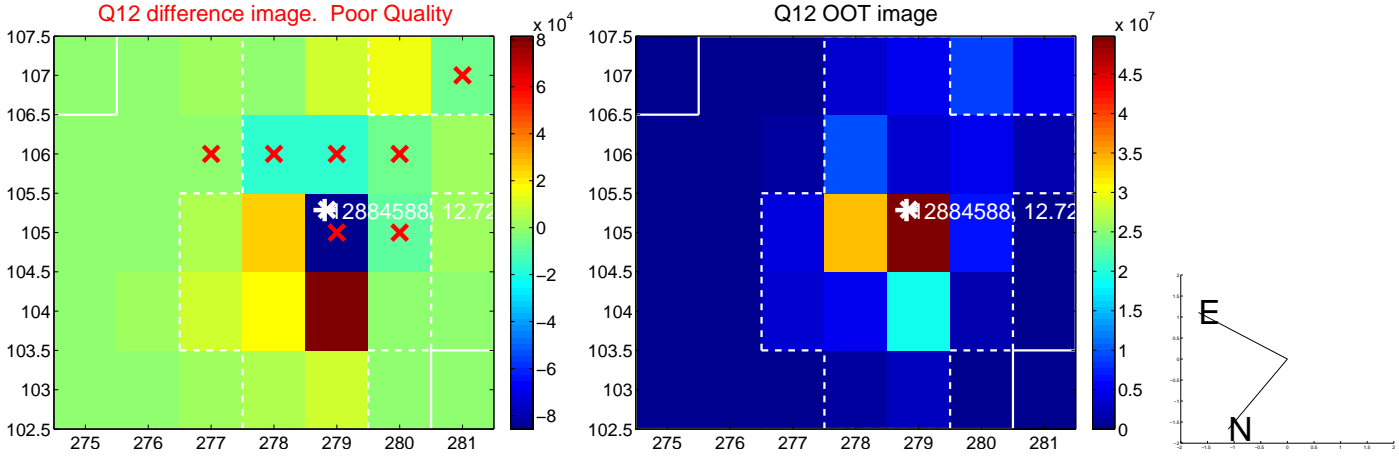
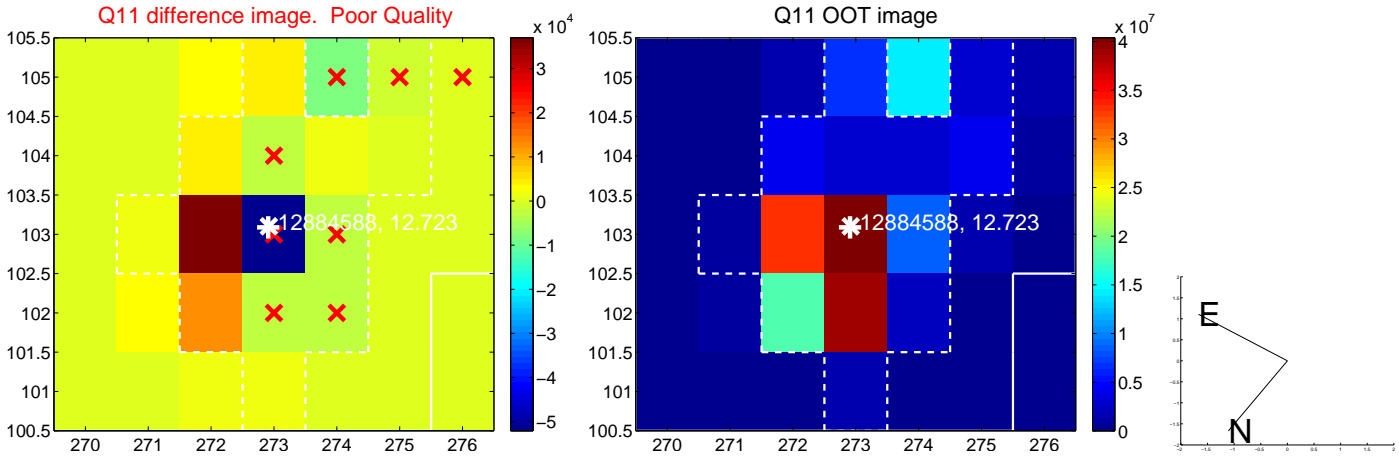
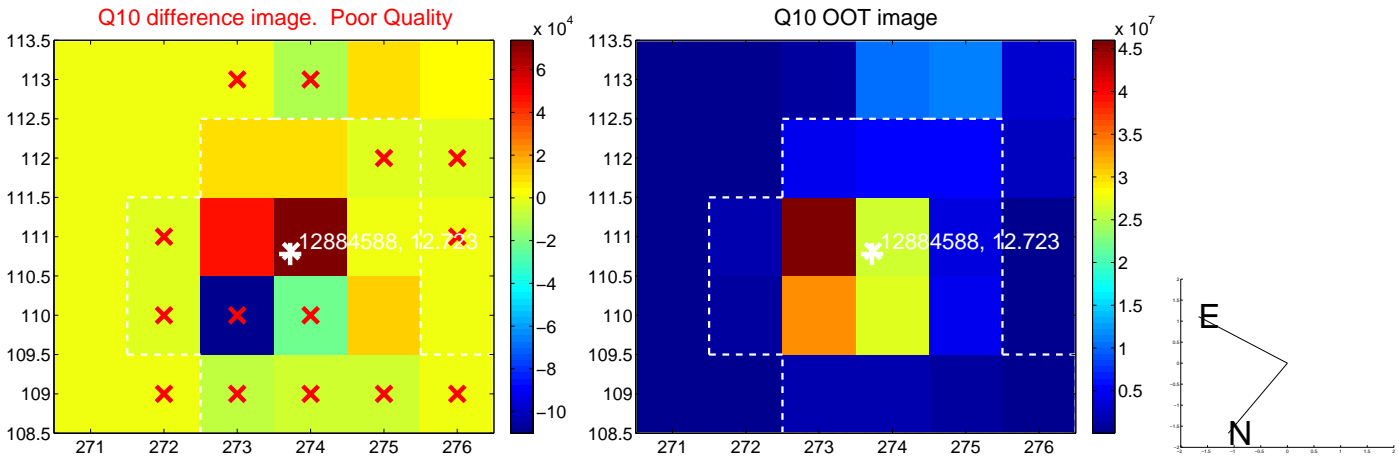
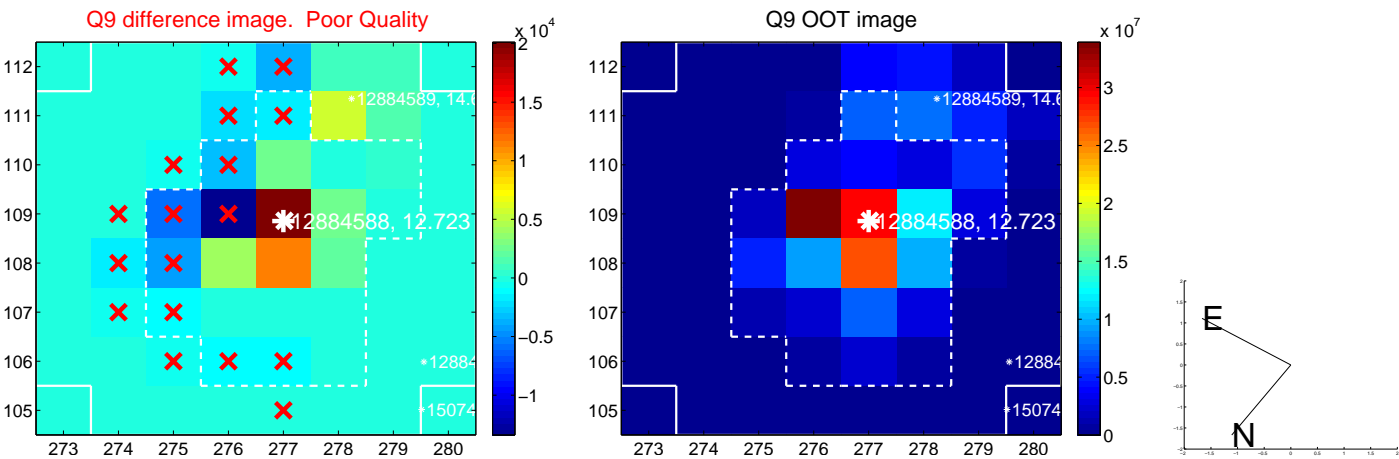


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

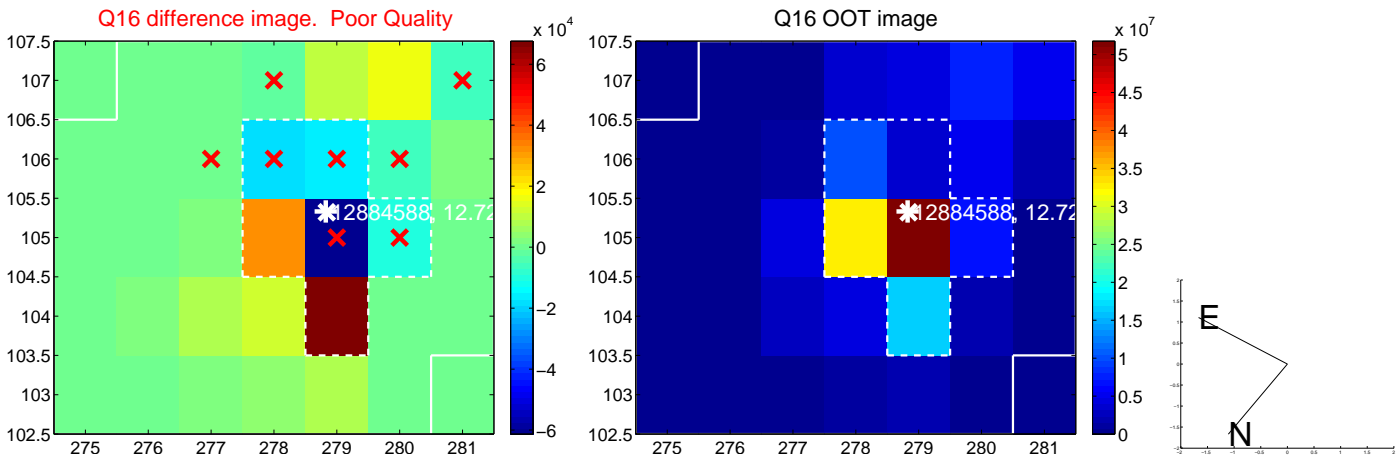
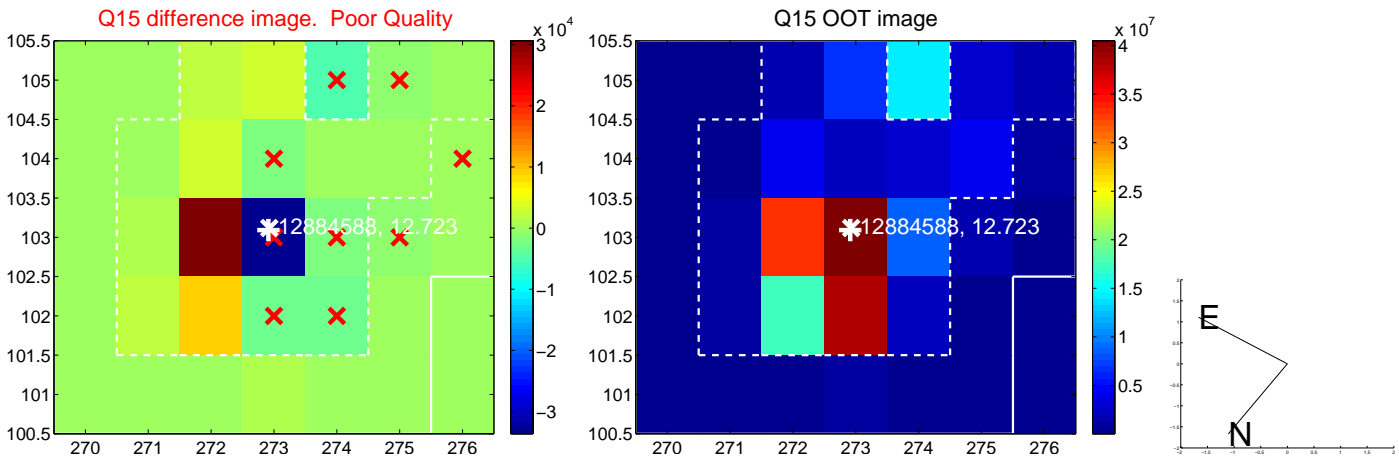
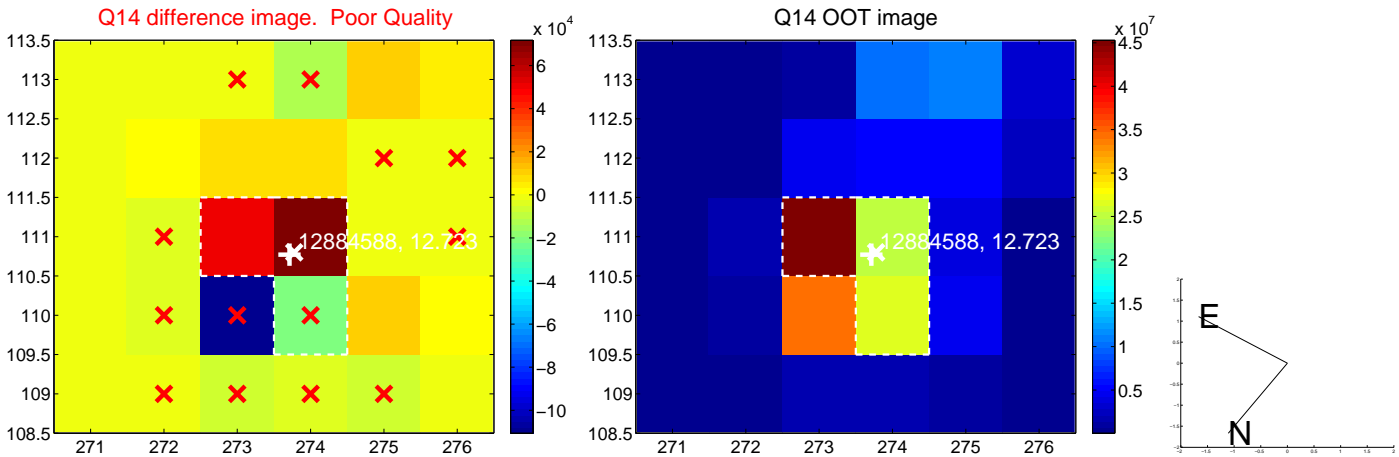
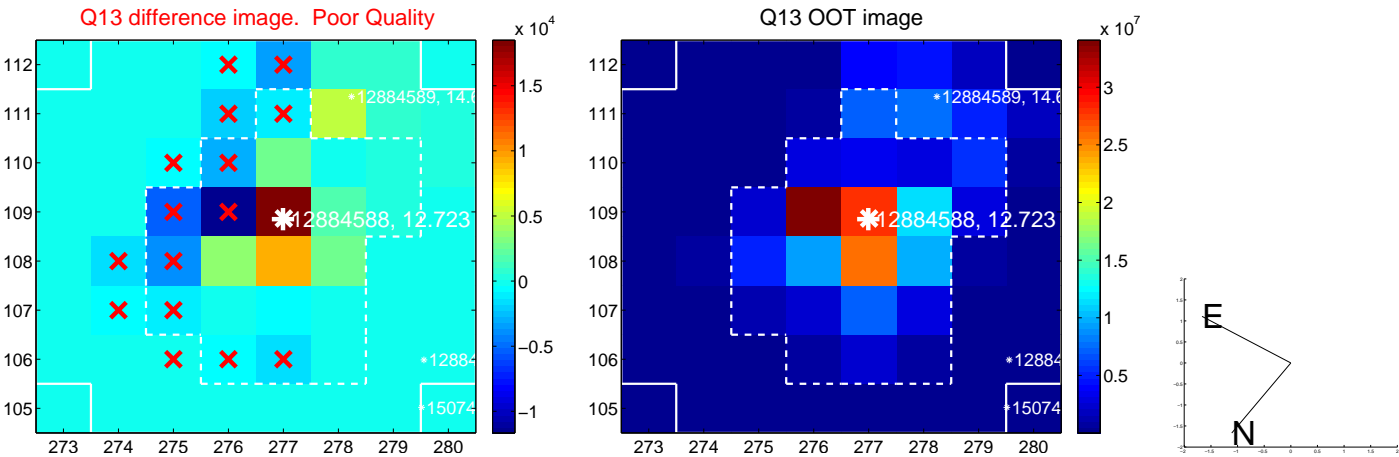
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



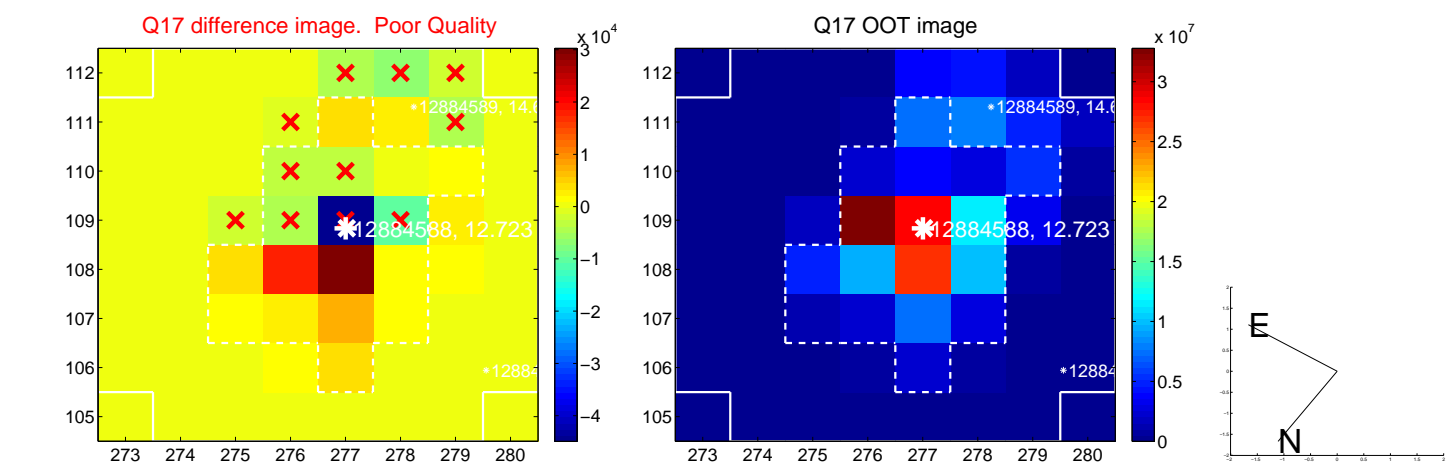
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



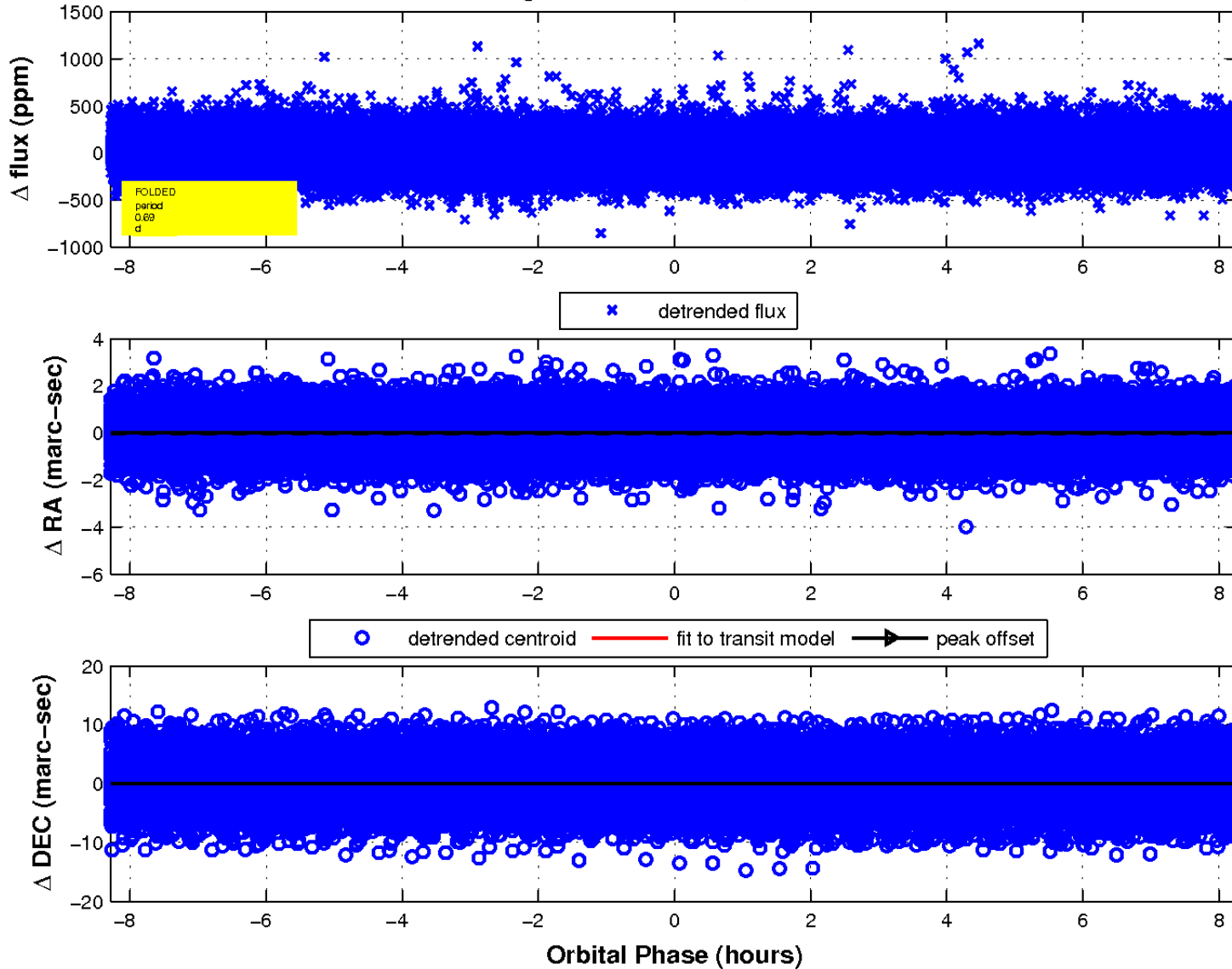
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

