

KIC 007885518

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})
007885518-01	OBS	6928.01	0.864602	131.729231	16.1	3.977	14.3	13.0	1.21	5921	0.50	5539.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007885518-01	OBS	FP	0.00	0	0	1	0	CENT_KIC_POS—HALO_GHOST

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

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

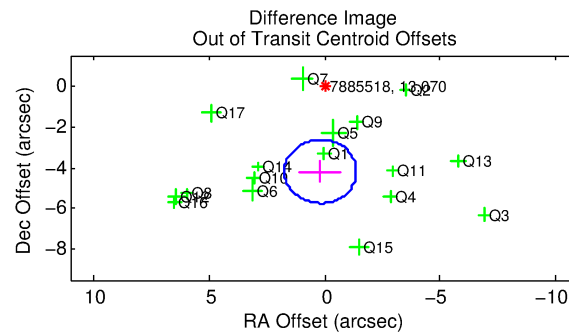
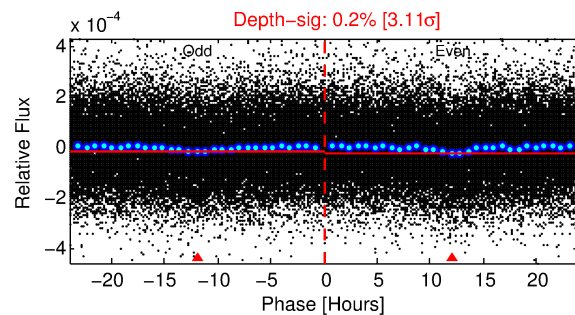
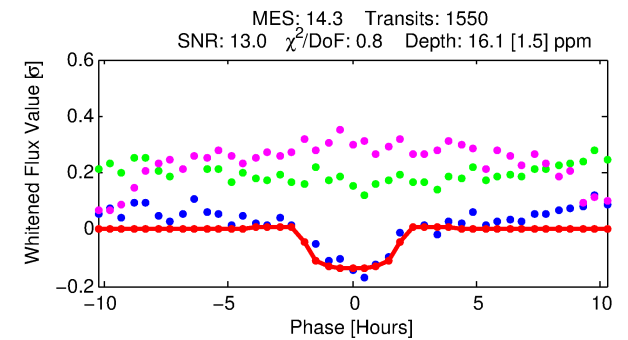
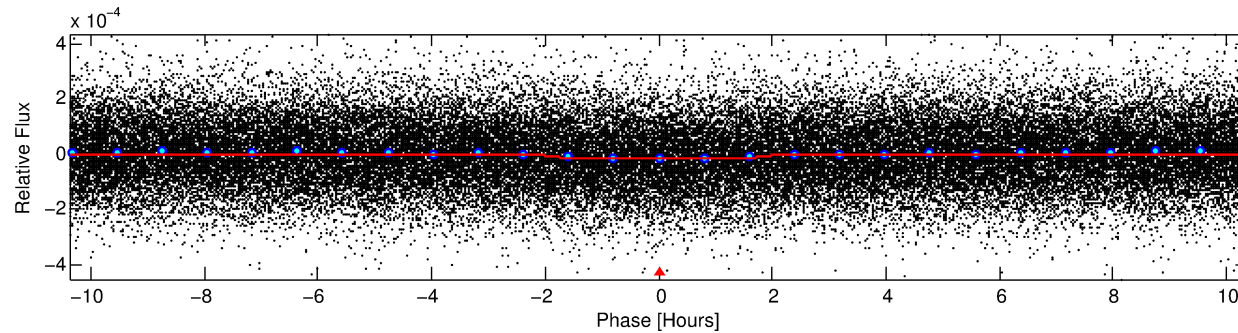
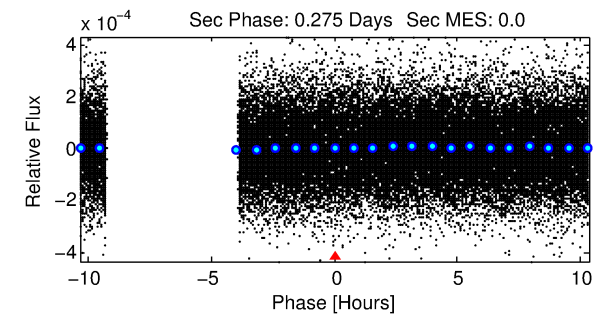
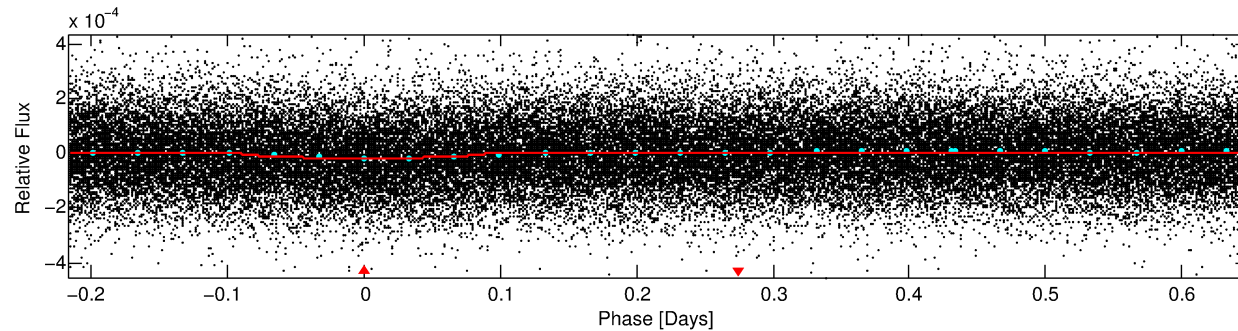
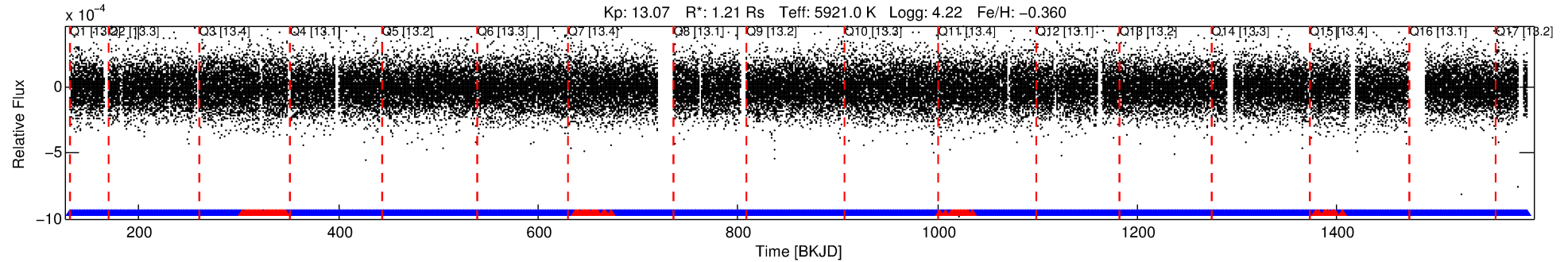
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007885518-01

No Significant Match Found

DV One-Page Summary

KIC: 7885518 Candidate: 1 of 1 Period: 0.865 d
KOI: K06928 Corr: No Ephemeris Match



DV Fit Results:

Period = 0.86460 [0.00001] d
Epoch = 131.7292 [0.0037] BKJD
Rp/R* = 0.0038 [0.0012]
a/R* = 1.60 [1.46]
b = 0.53 [2.07]
Seff = 5539.65 [2060.52]
Teq = 2200 [205] K
Rp = 0.50 [0.19] Re
a = 0.0171 [0.0038] AU
Ag = N/A
Teffp = N/A

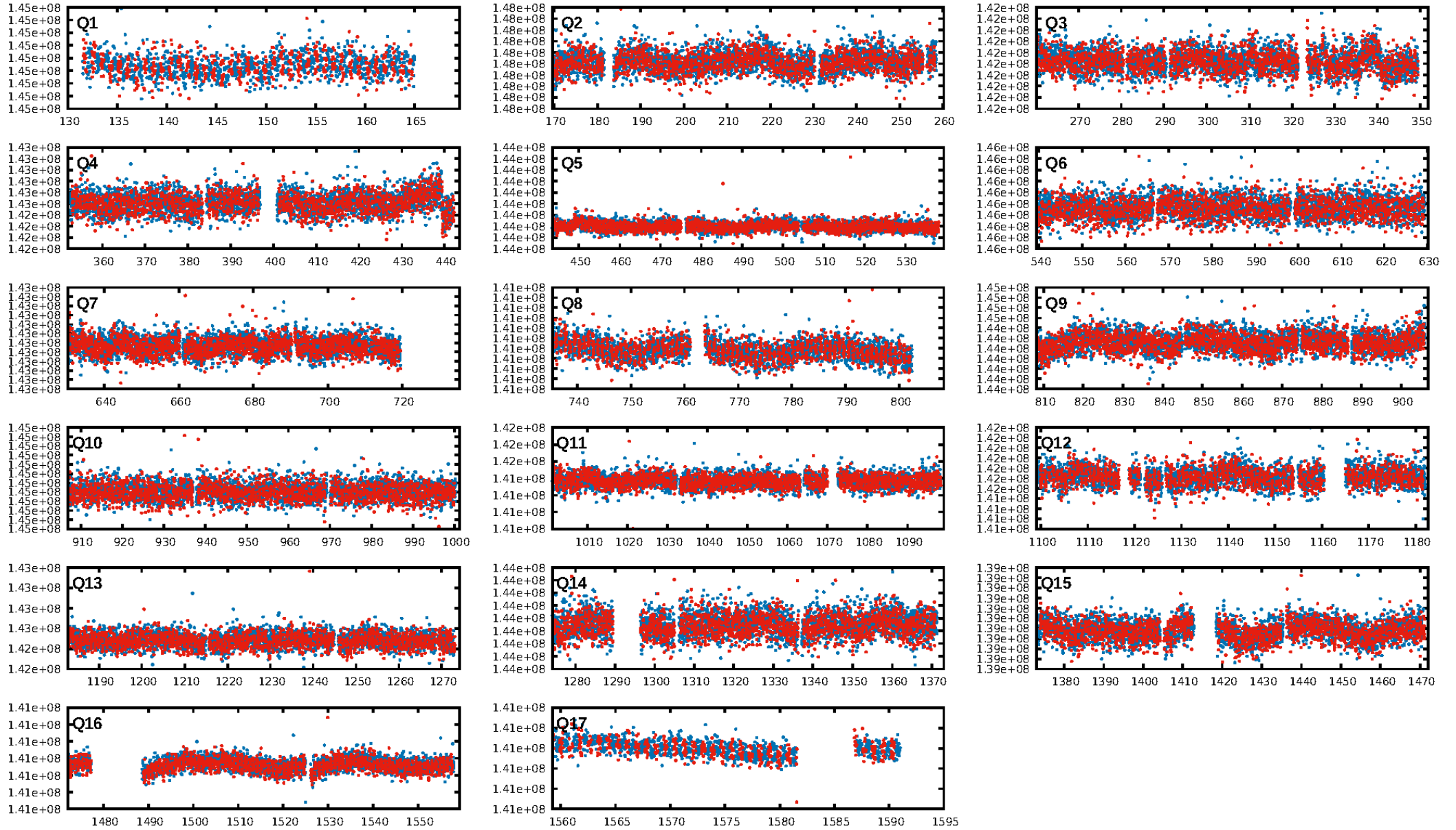
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.29e-40
RollingBand-fgt: 0.93 [1382/1479]
GhostDiagnostic-chr: 0.1016
Centroid-sig: 0.0%
Centroid-so: 4.747 arcsec [4.77σ]
OotOffset-rm: 4.193 arcsec [8.08σ]
KicOffset-rm: 3.829 arcsec [6.89σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.12 [2/17]
DiffImageOverlap-fno: 1.00 [17/17]

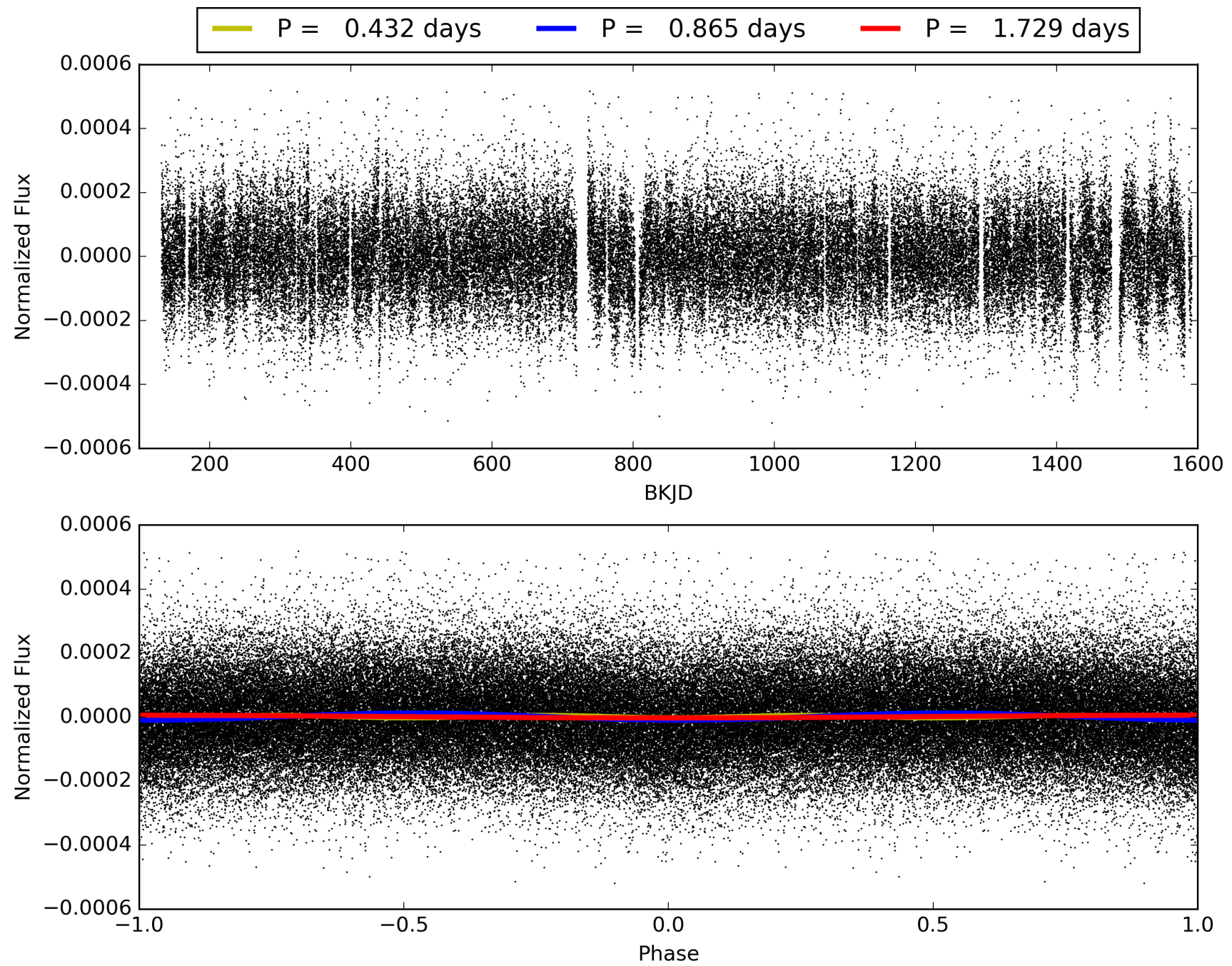
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:34:46 Z

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

TCE 007885518-01, PDC Light Curves

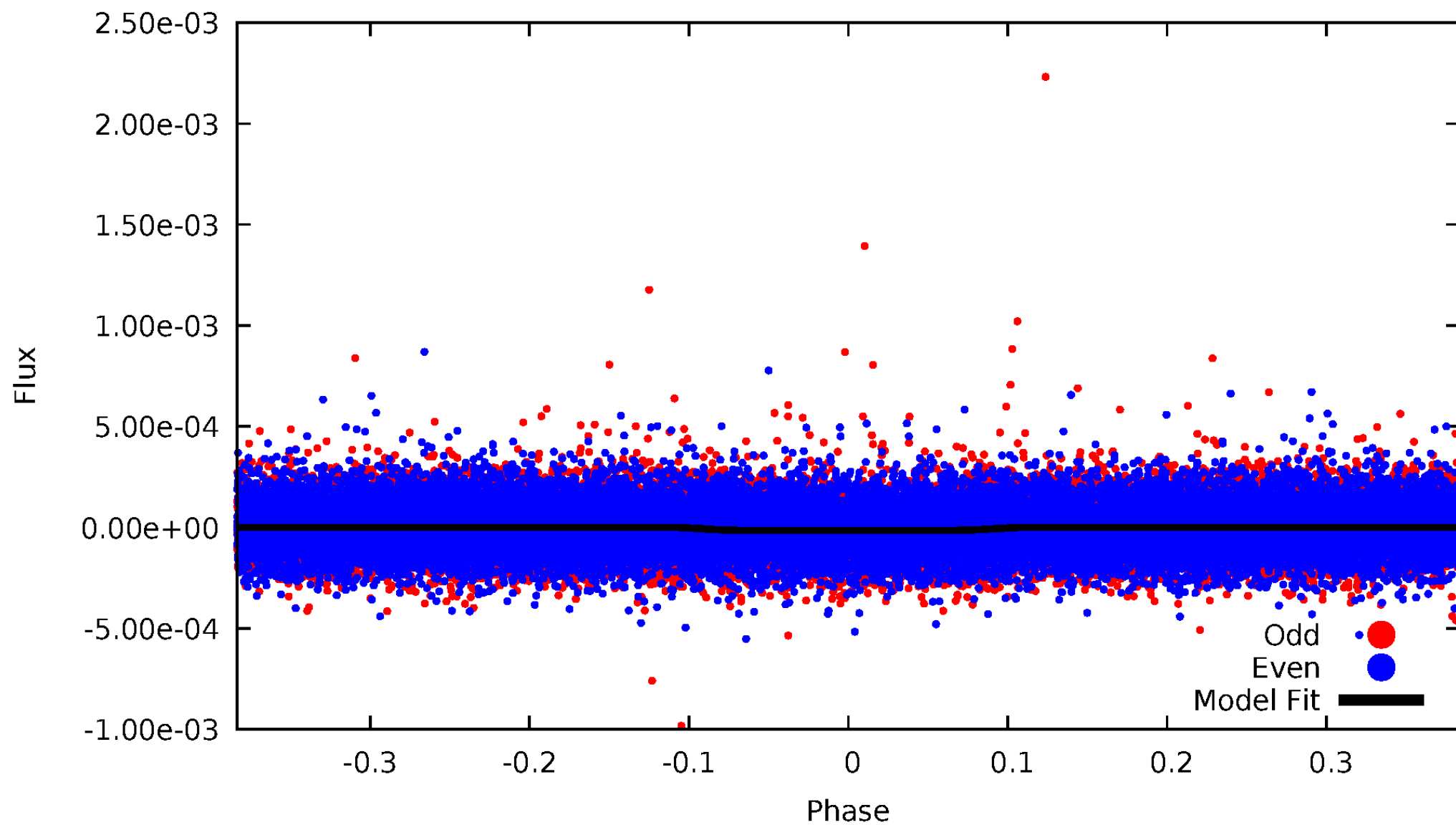


TCE 007885518-01



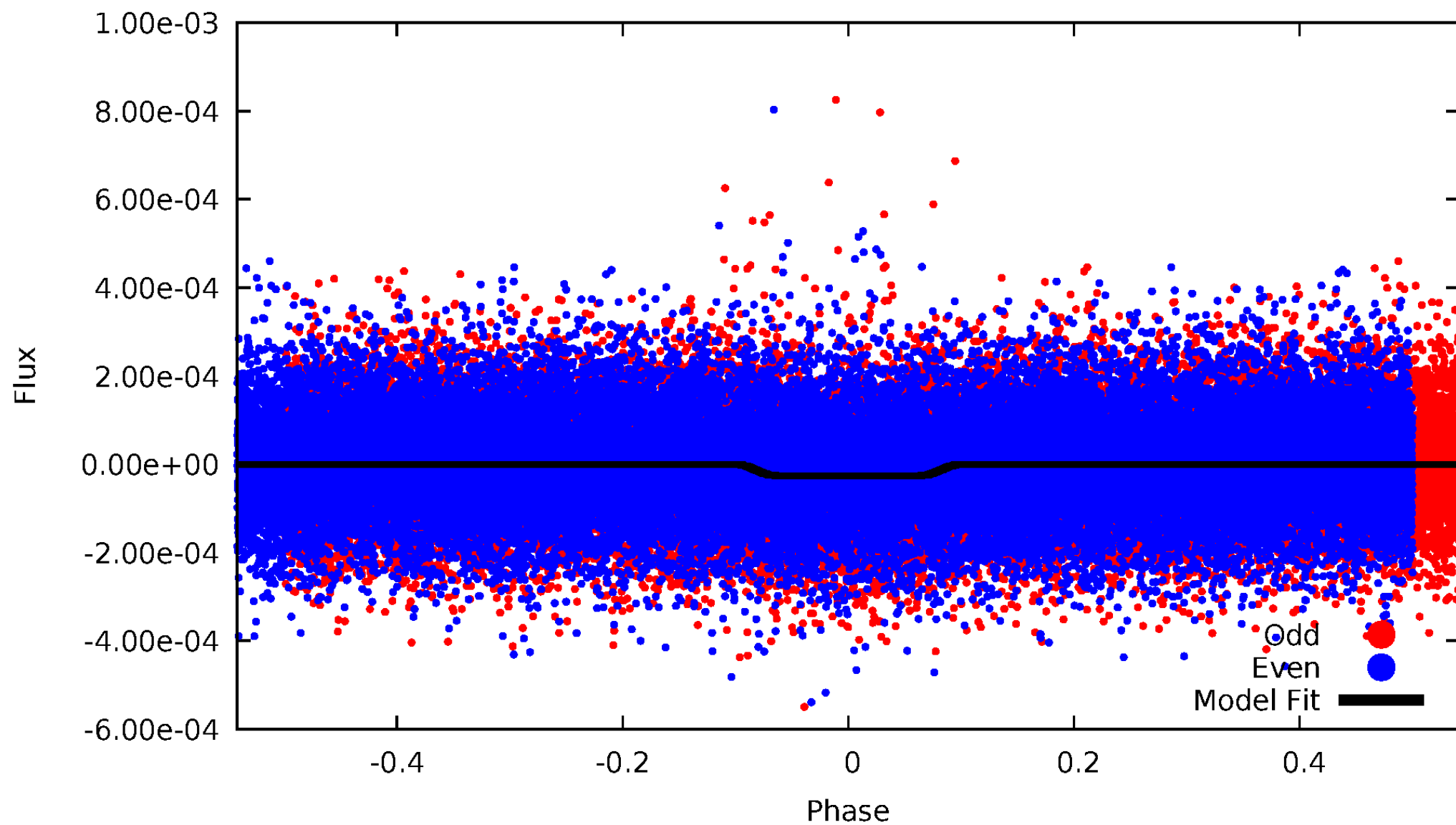
DV Odd/Even

TCE 007885518-01



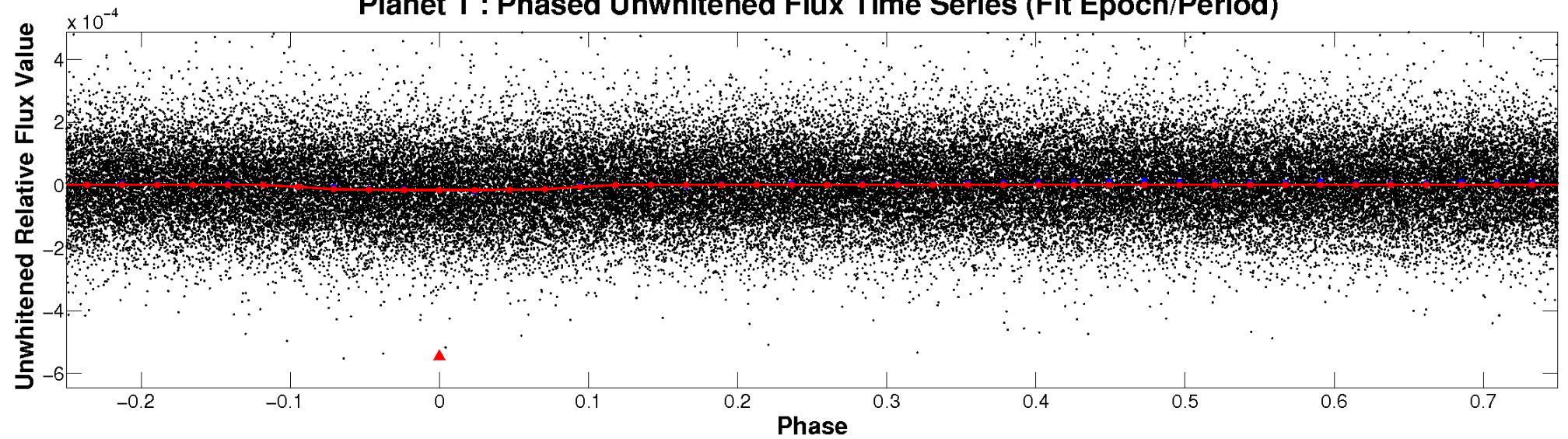
ALT Odd/Even

TCE 007885518-01

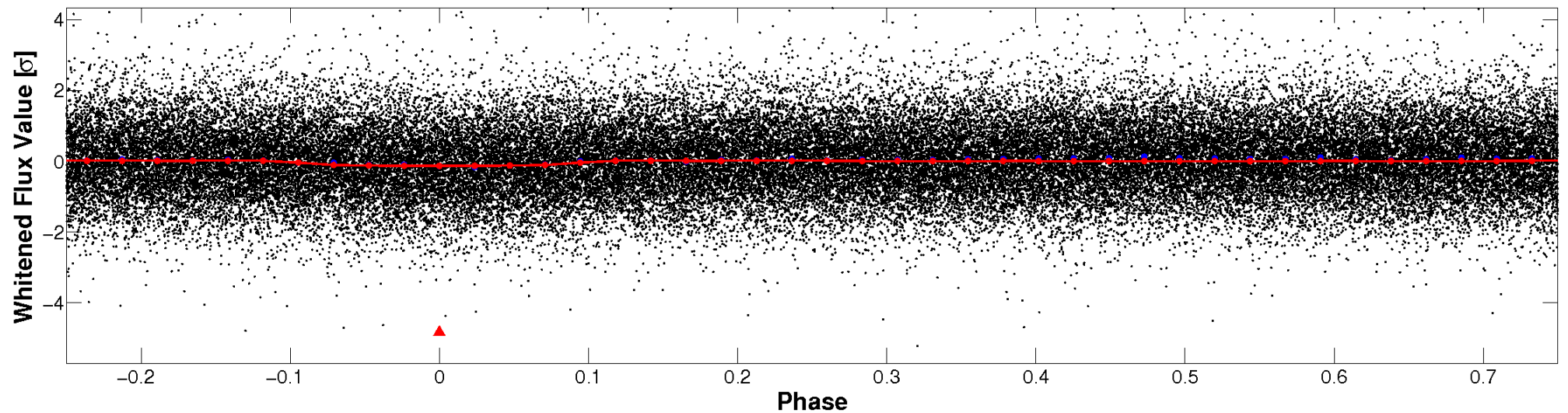


Non-Whitened Vs. Whitened Light Curve

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

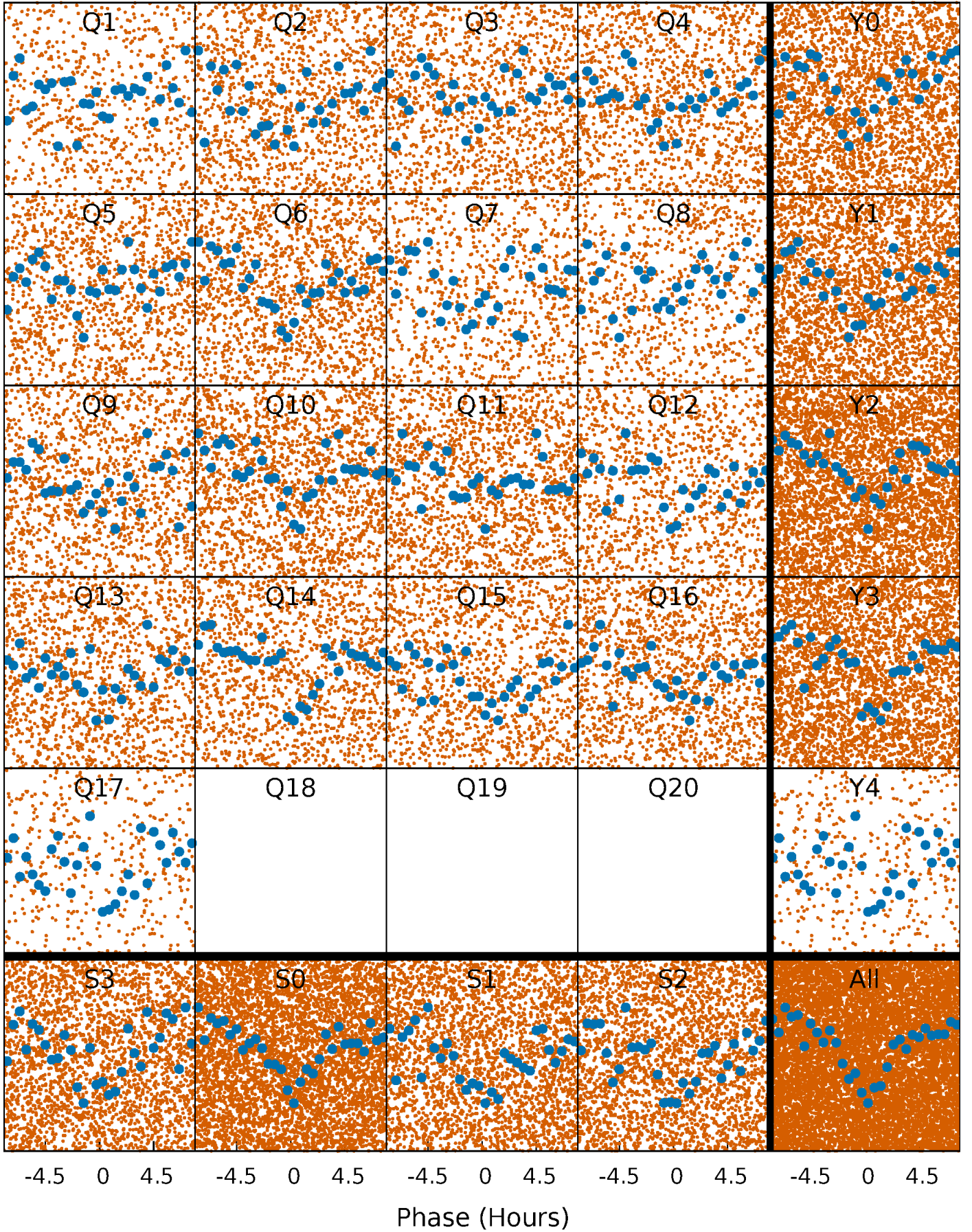


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



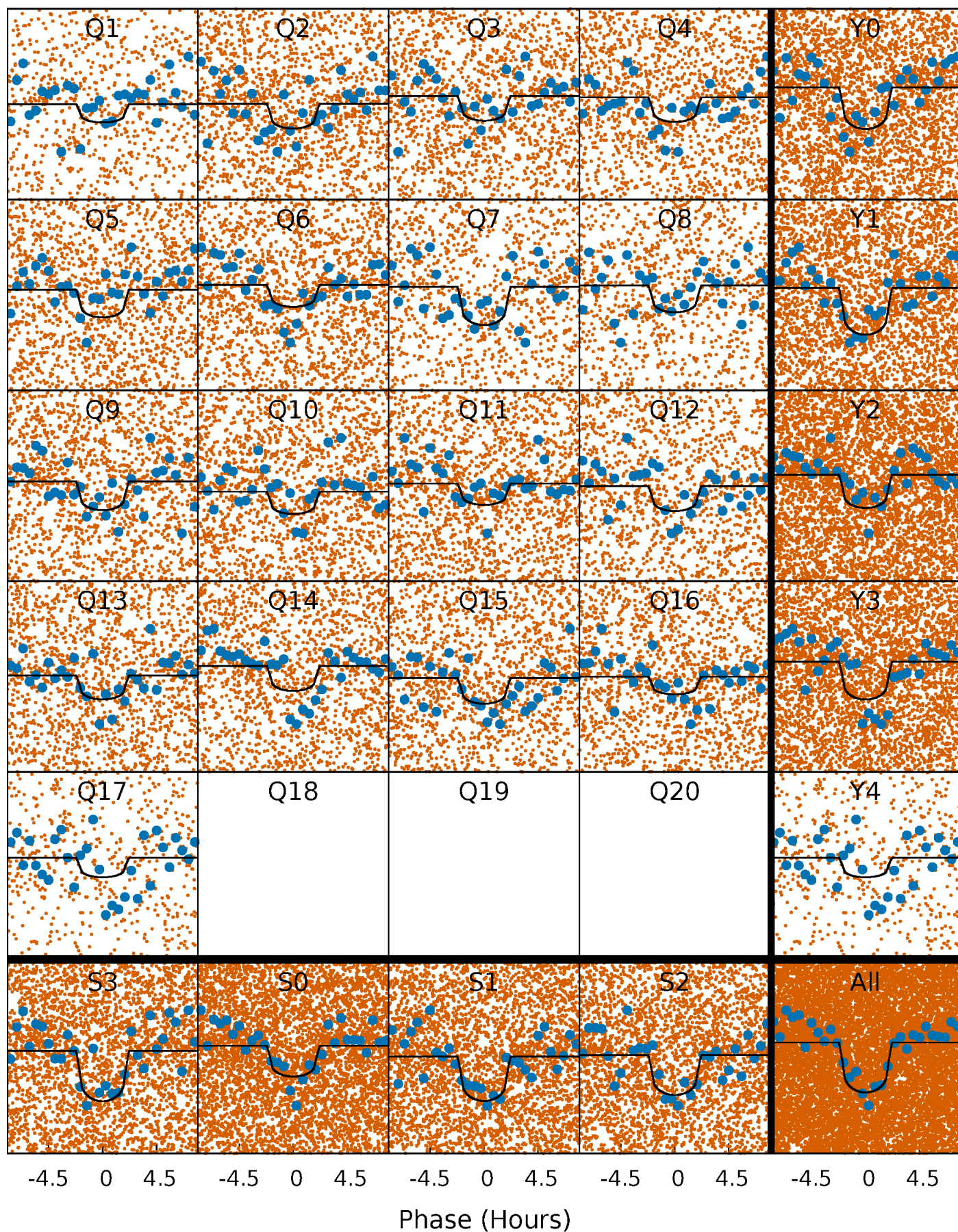
PDC Quarter-Phased Transit Curves

TCE 007885518-01 P= 0.864602 Days $T_0=131.729231$ (BKJD)



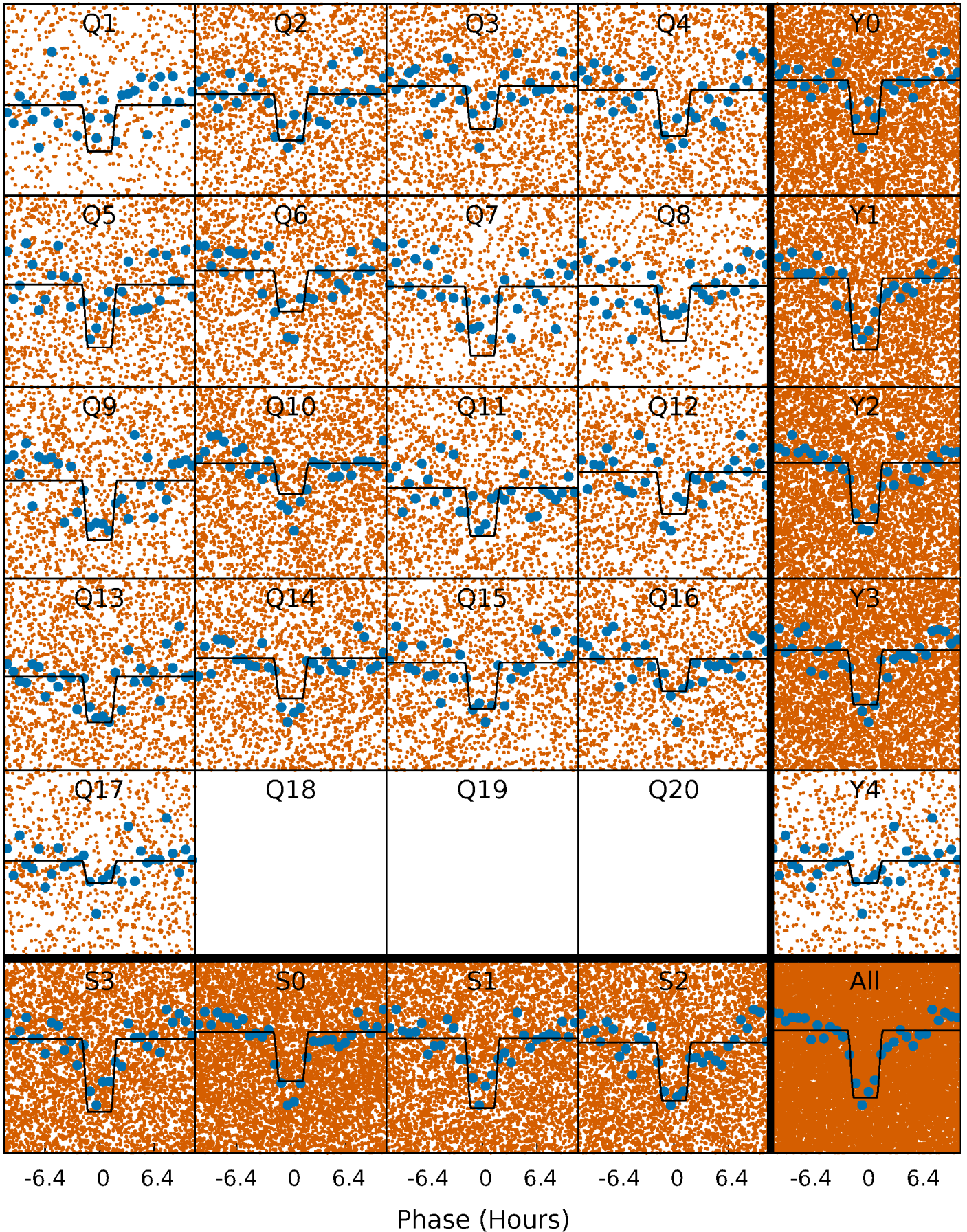
DV Quarter-Phased Transit Curves

TCE 007885518-01 P= 0.864602 Days $T_0=131.729231$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

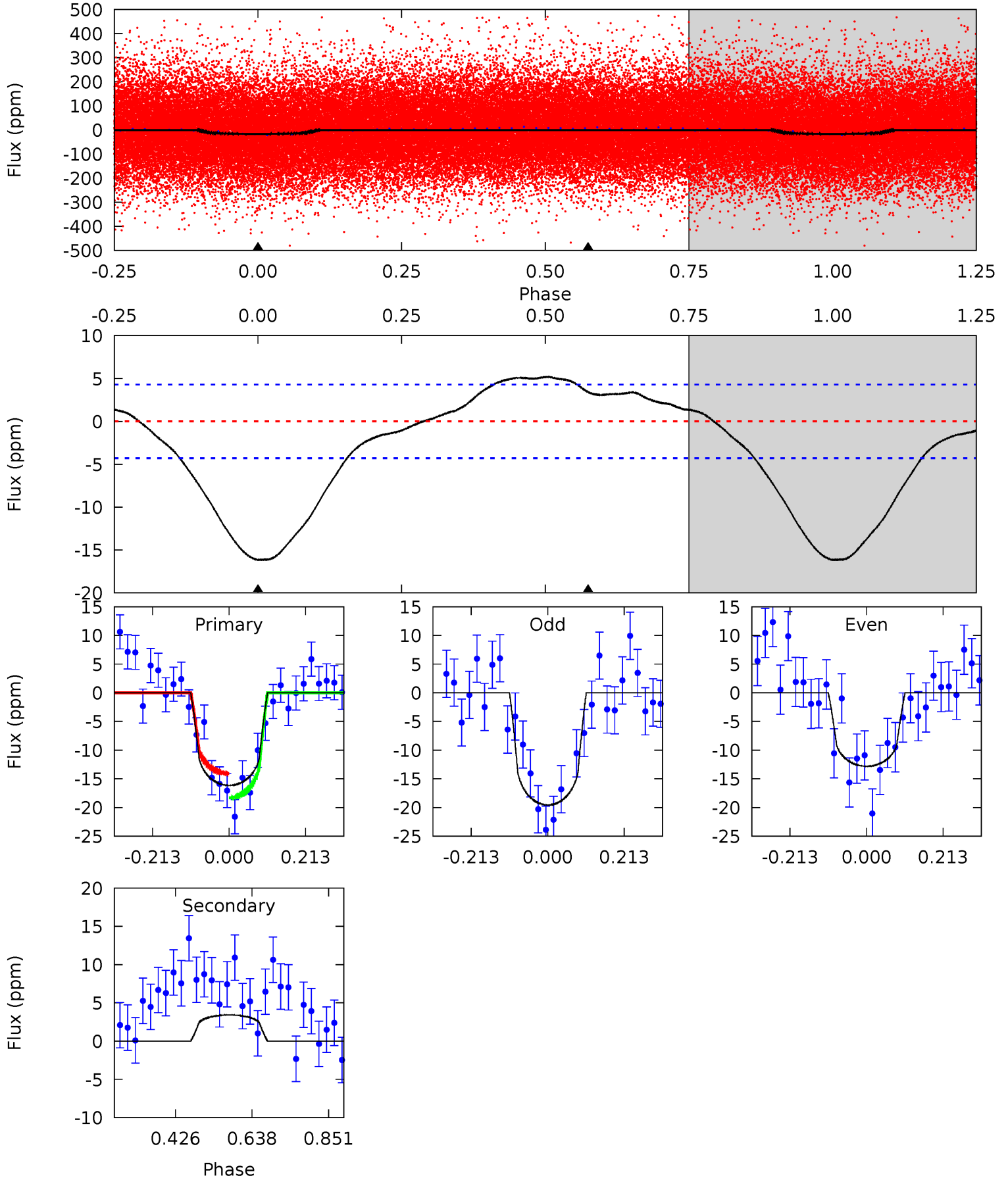
TCE 007885518-01 P= 0.864662 Days $T_0=131.681859$ (BKJD)



DV Model-Shift Uniqueness Test

007885518-01, P = 0.864602 Days, E = 130.864629 Days

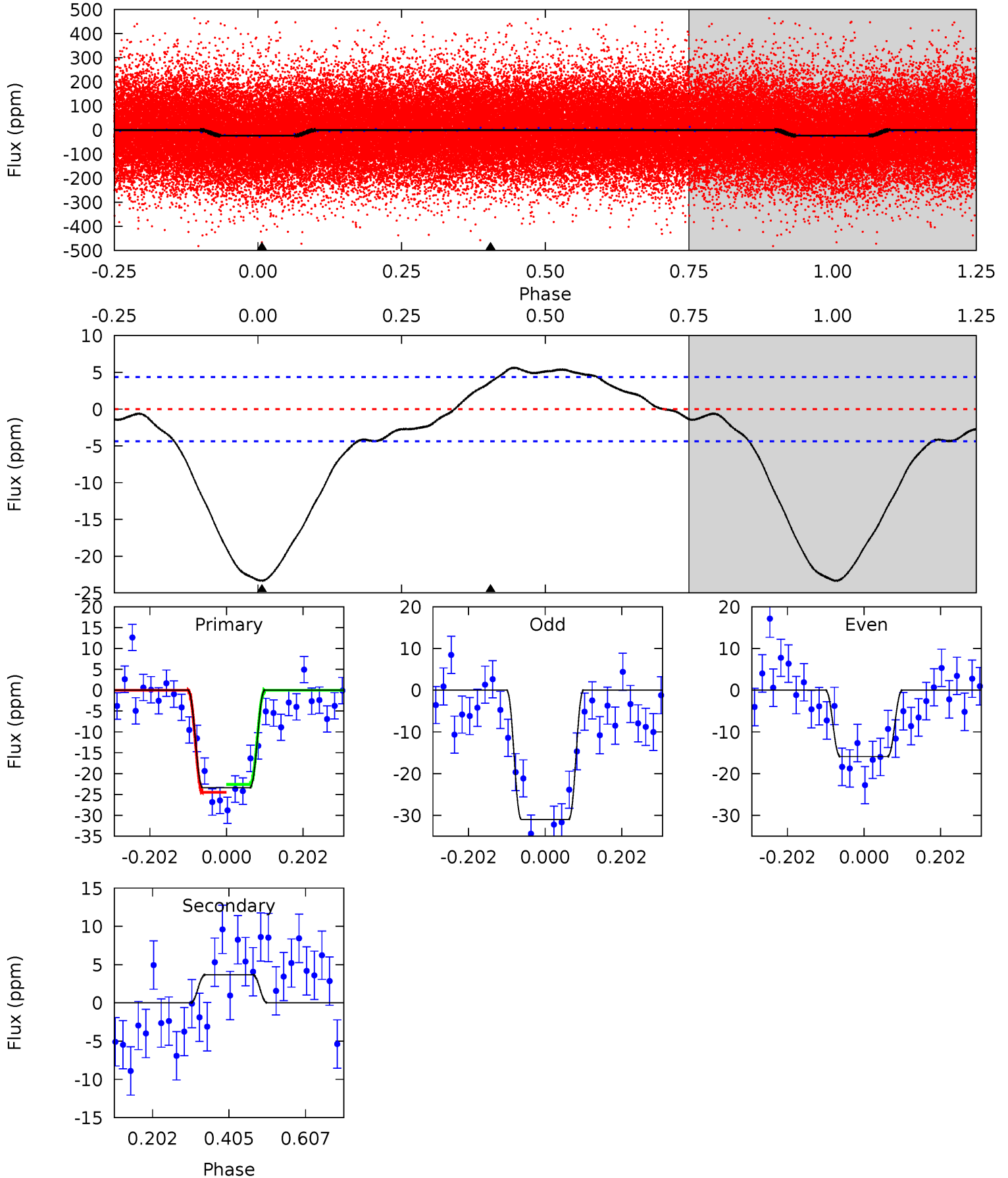
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	-3.51	0	0	4.40	1.25	1.06	16.6	16.6	-3.51	-3.51	3.47	0.99	0.24	2.16



Alt Model-Shift Uniqueness Test

007885518-01, P = 0.864662 Days, E = 130.817197 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	-3.72	0	0	4.41	1.28	1.53	23.6	23.6	-3.72	-3.72	7.56	0.94	0.19	0.95



Stellar Parameters For KIC 007885518

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5921^{+160}_{-142}	$4.220^{+0.210}_{-0.140}$	$-0.360^{+0.300}_{-0.250}$	$1.211^{+0.247}_{-0.274}$	$0.888^{+0.134}_{-0.072}$	$0.704^{+0.803}_{-0.281}$
	+3%/-2%	+5%/-3%	+83%/-69%	+20%/-23%	+15%/-8%	+114%/-40%
Source	PHO1	FLK73	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 007885518-01 / KOI 6928.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	3 ± 1	$0.49^{+0.18}_{-0.17}$	3055^{+189}_{-199}	-4475^{+446}_{-765}	$-2.338^{+1.228}_{-3.291}$
Alt.	4 ± 1	$0.67^{+0.18}_{-0.17}$	3076^{+169}_{-215}	-4105^{+299}_{-387}	$-1.309^{+0.580}_{-1.205}$

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

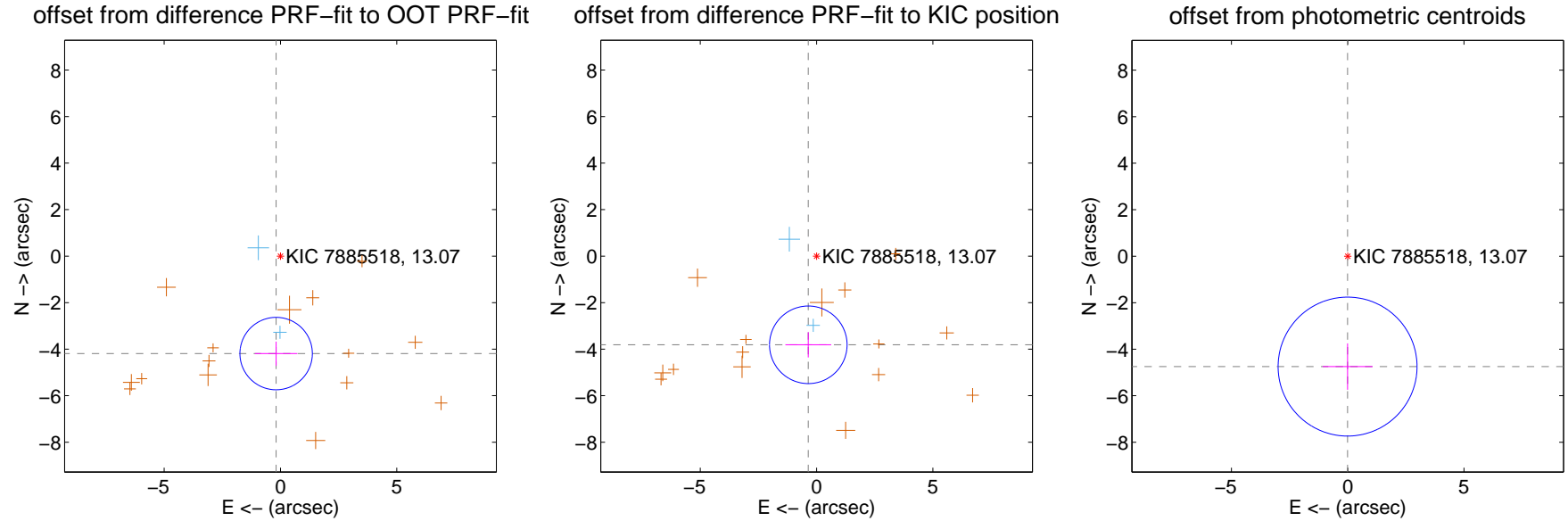
DV Centroid Data

Supplemental centroid analysis for 007885518-01. Kepler magnitude: 13.07. Transit SNR 12.97

There are 2 quarters with good PRF difference image offsets

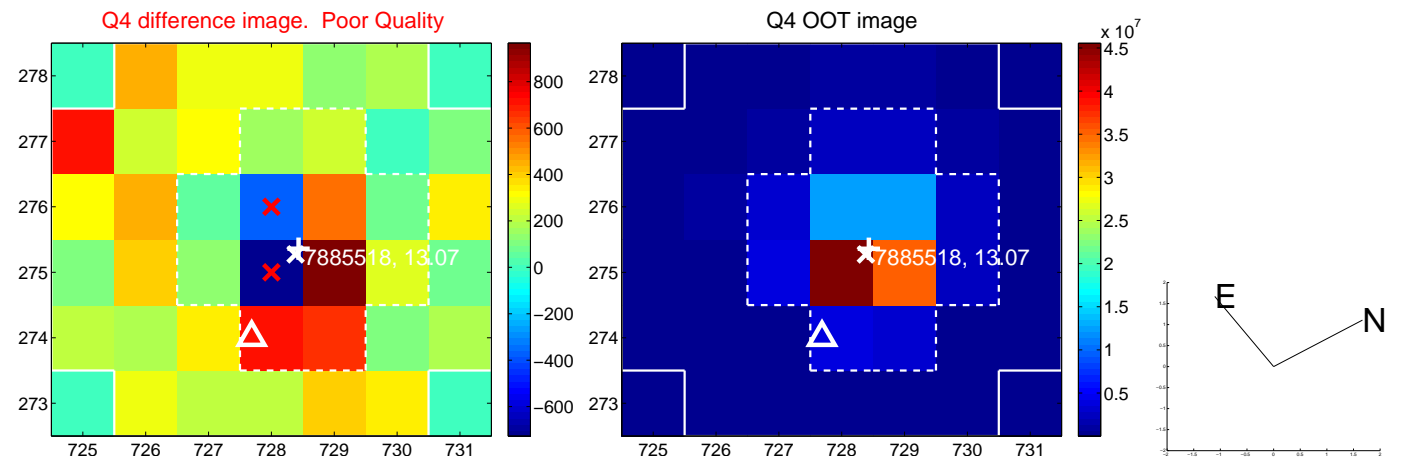
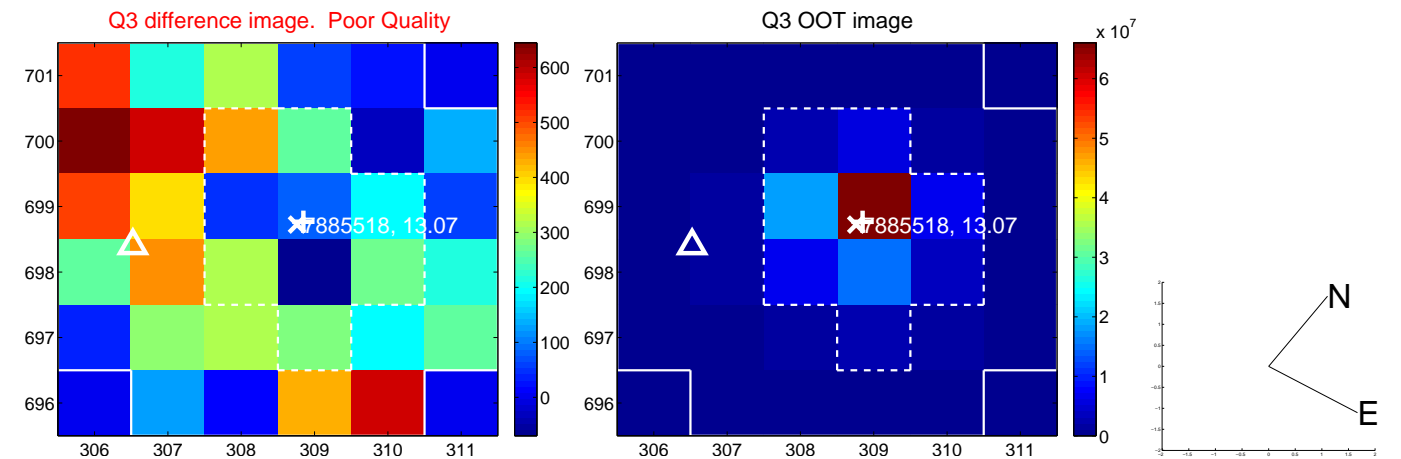
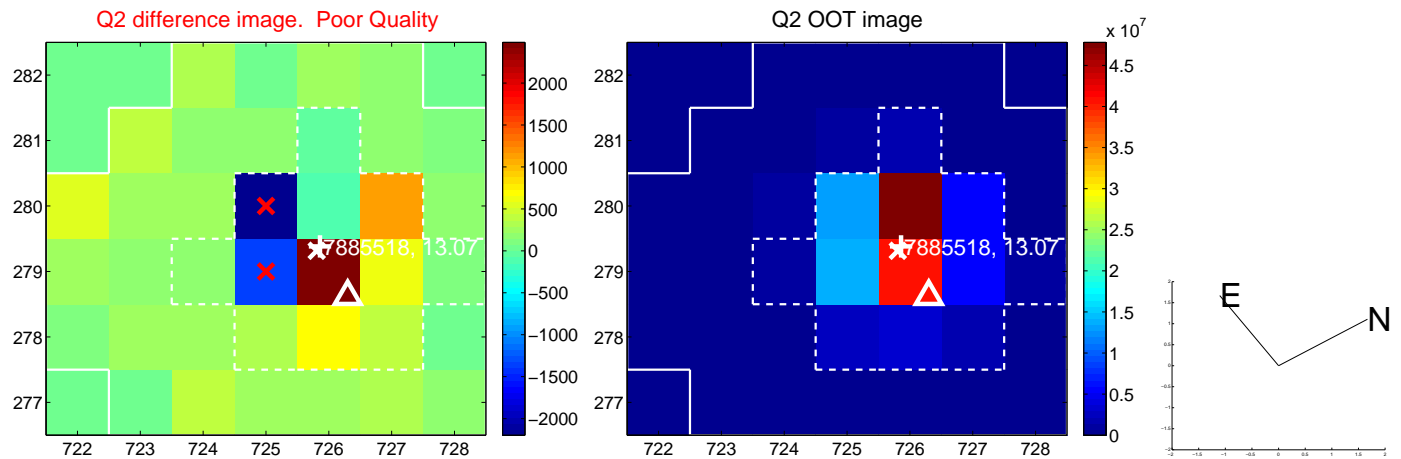
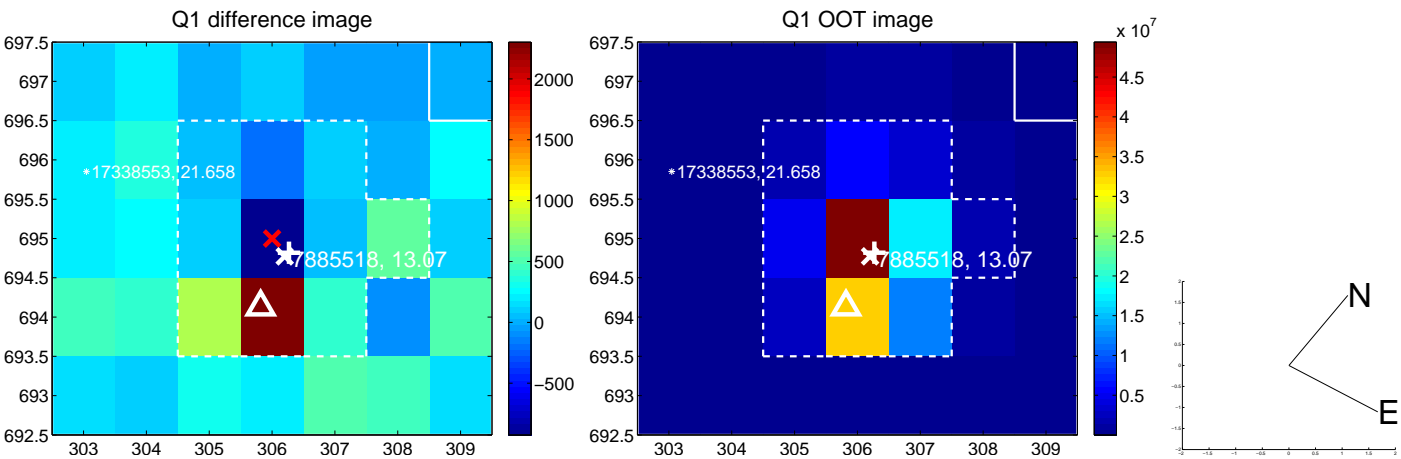
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.193 ± 0.519	8.08	0.186 ± 0.913	-4.189 ± 0.517
PRF-fit source offset from KIC position	3.829 ± 0.556	6.89	0.356 ± 0.986	-3.812 ± 0.541
photometric centroid source offset	4.75 ± 1.00	4.77	0.01 ± 1.07	-4.75 ± 1.00

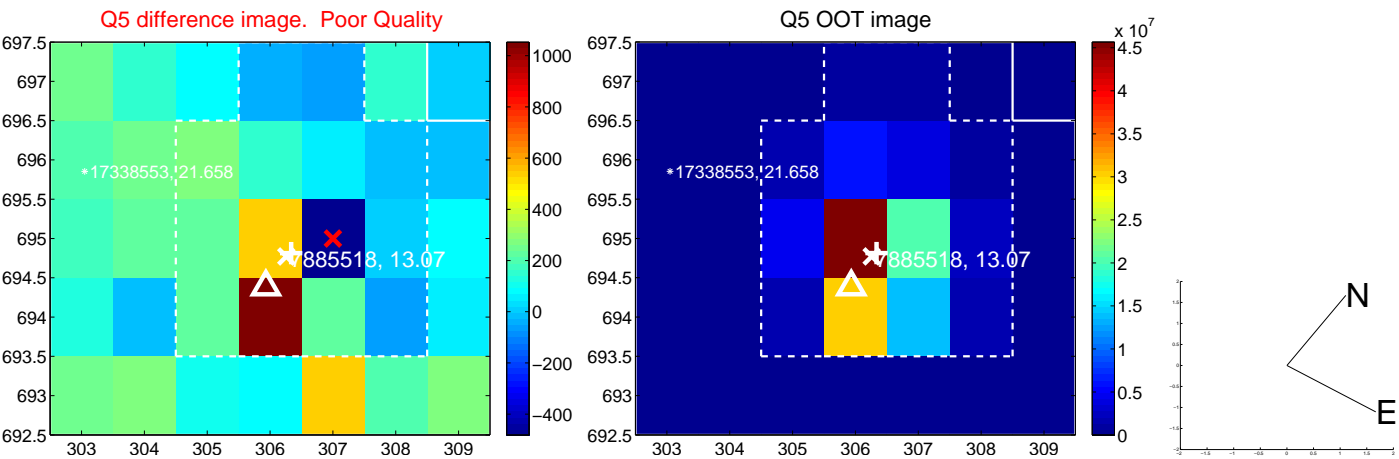


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

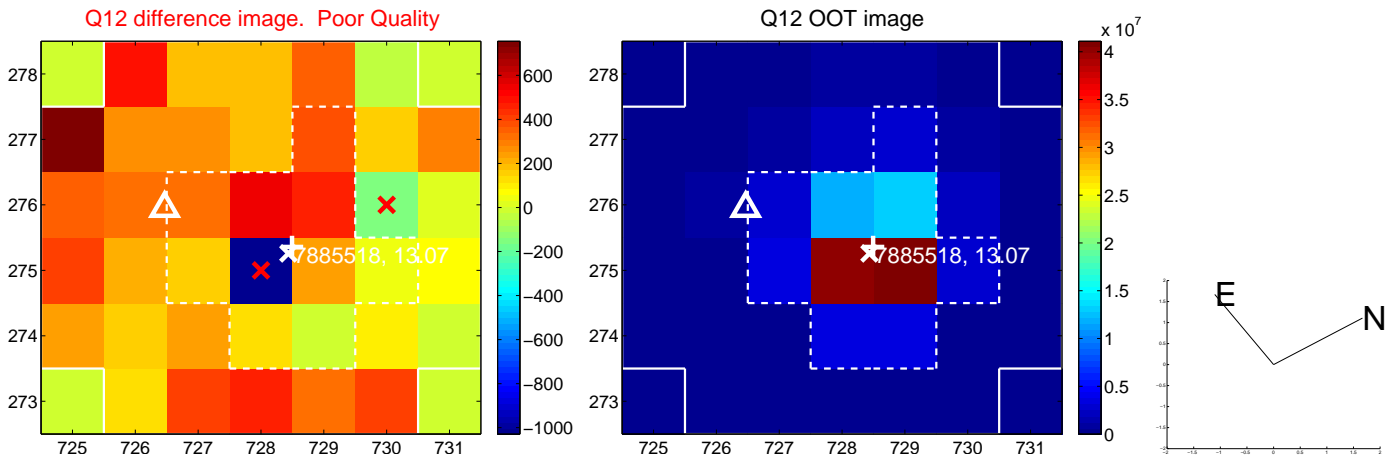
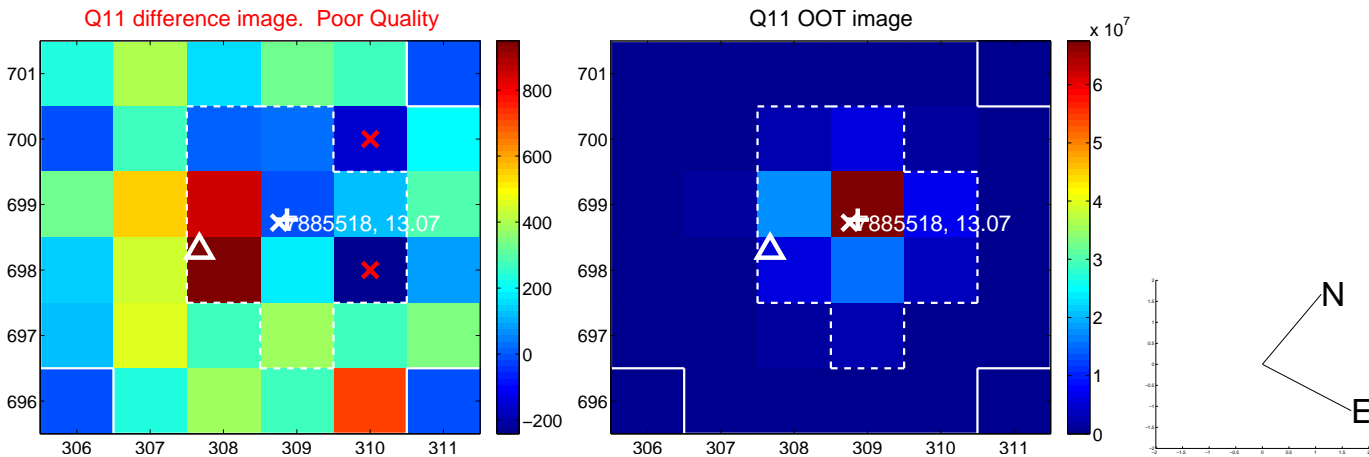
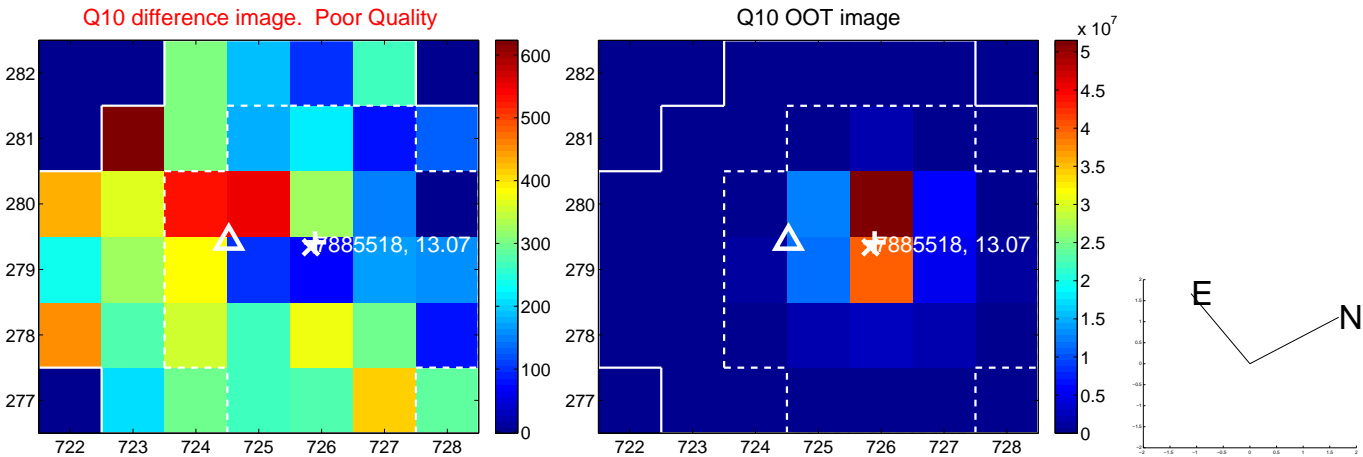
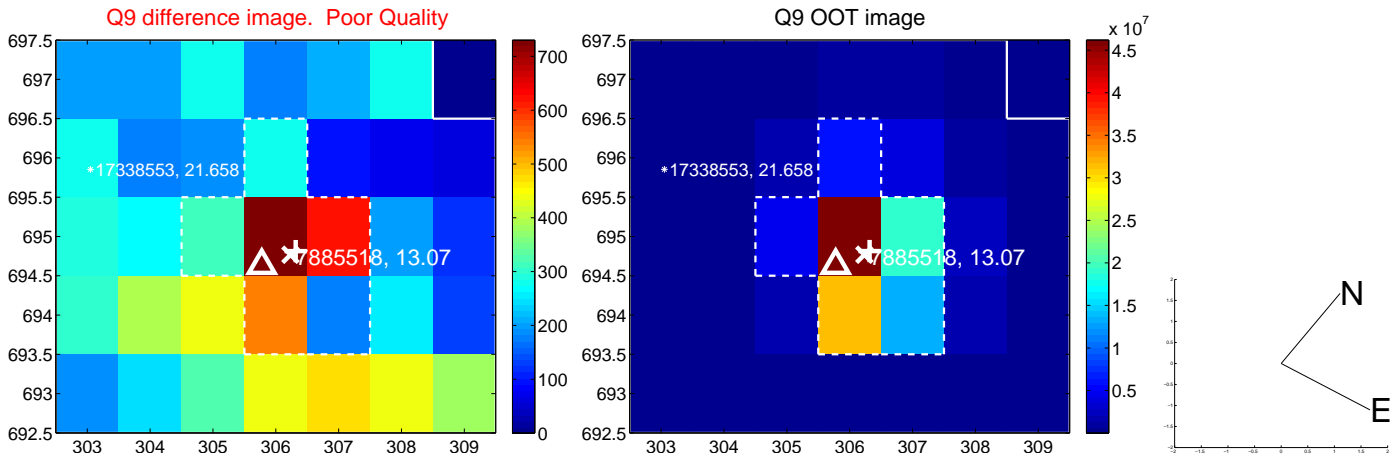
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



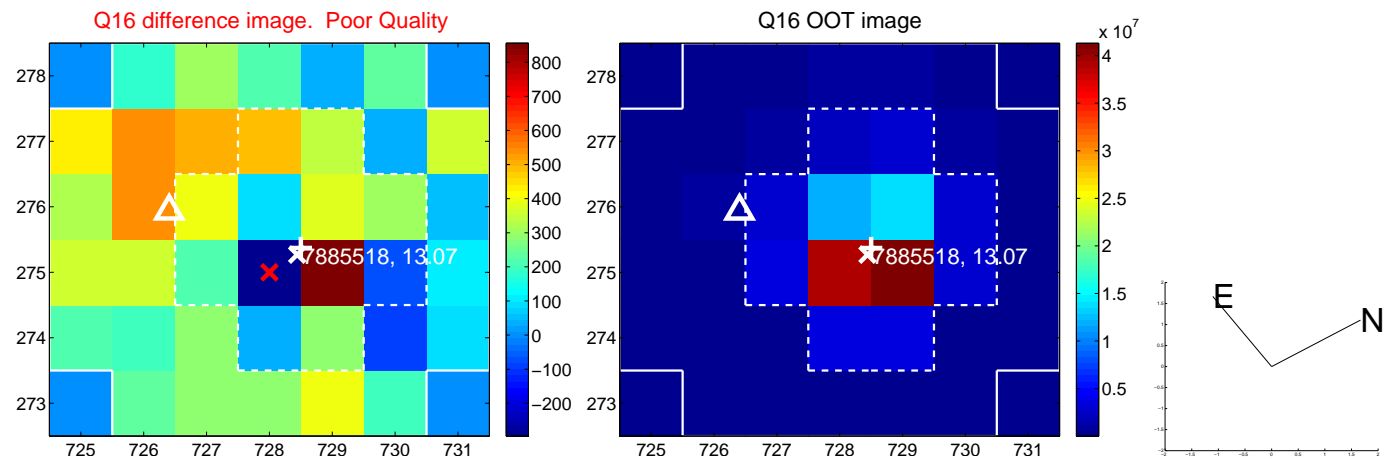
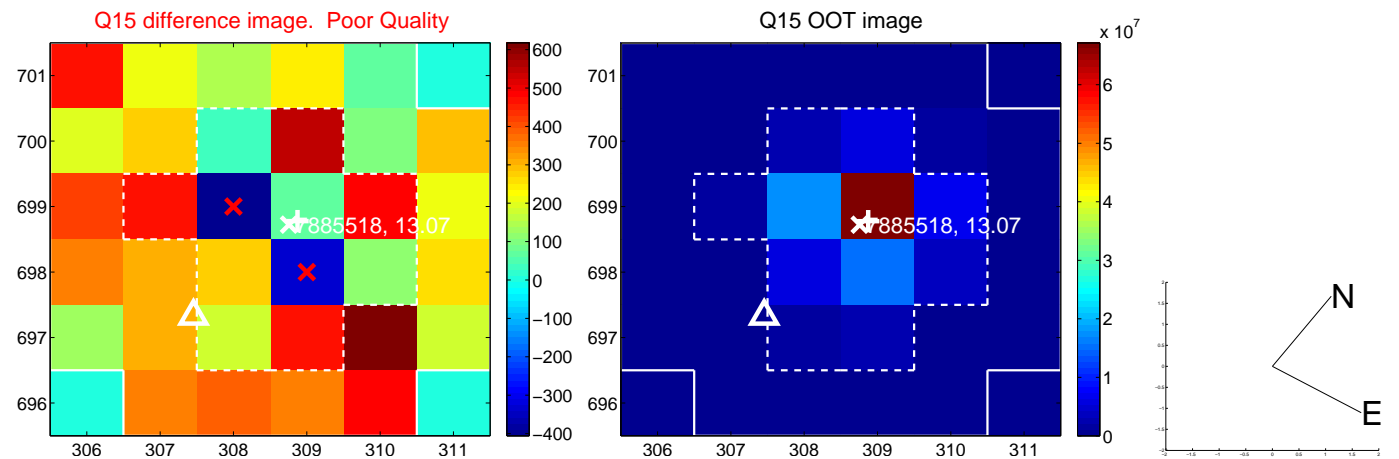
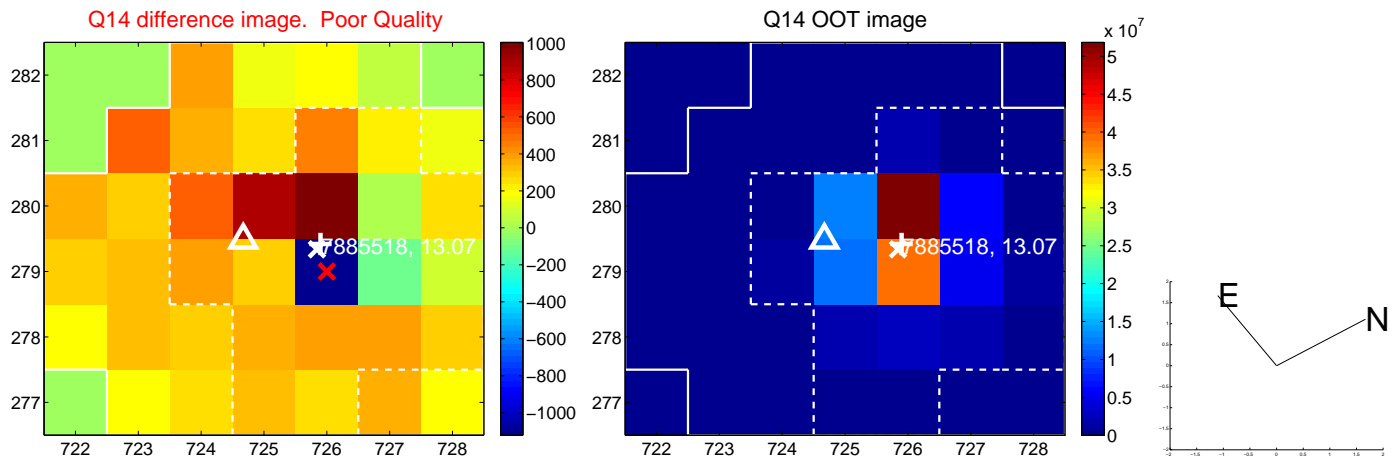
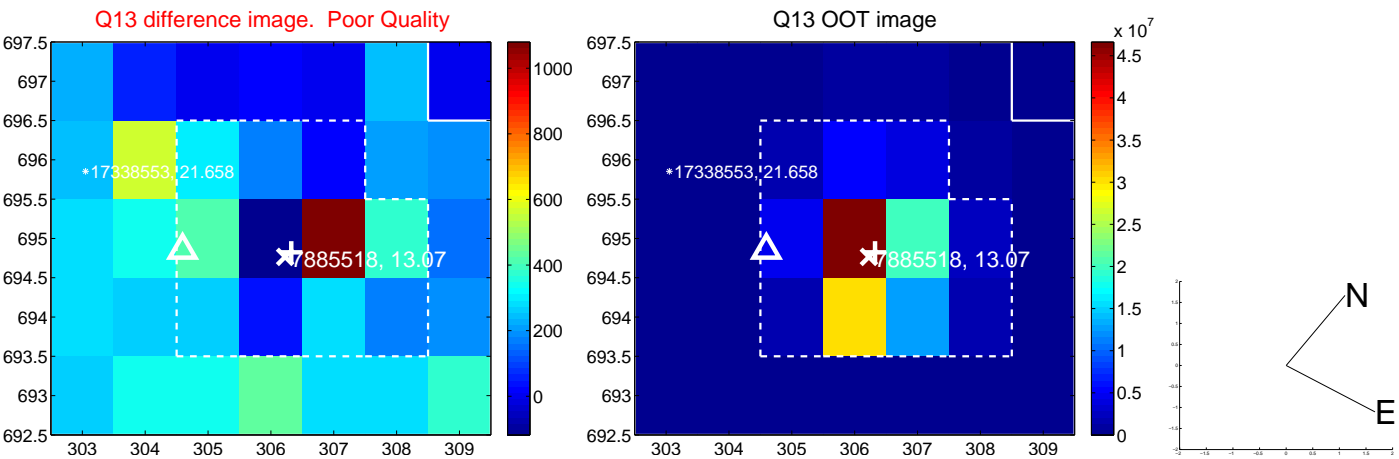
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



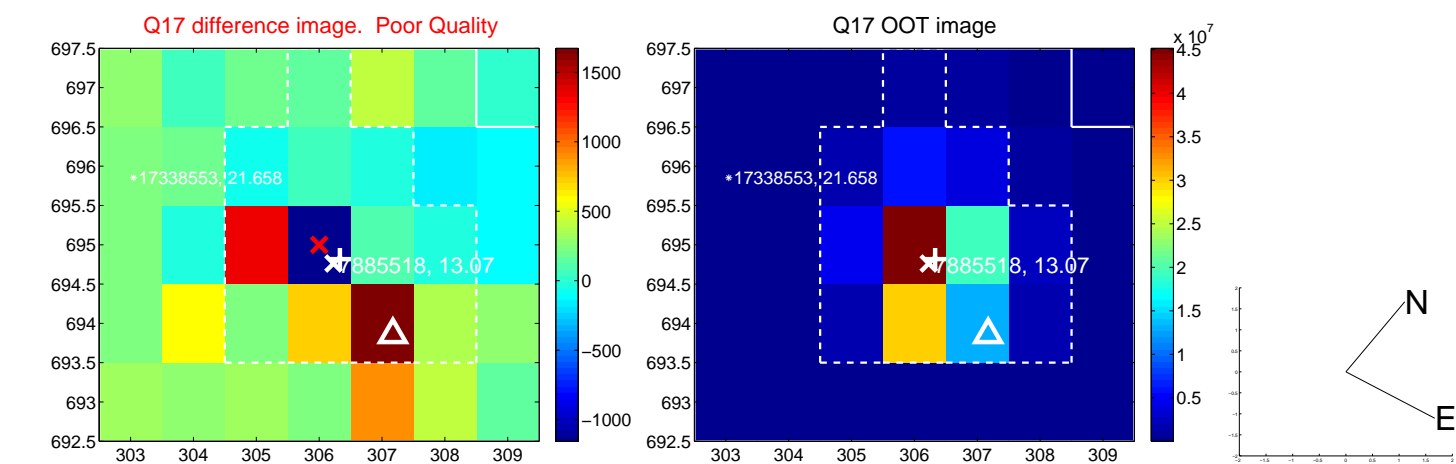
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



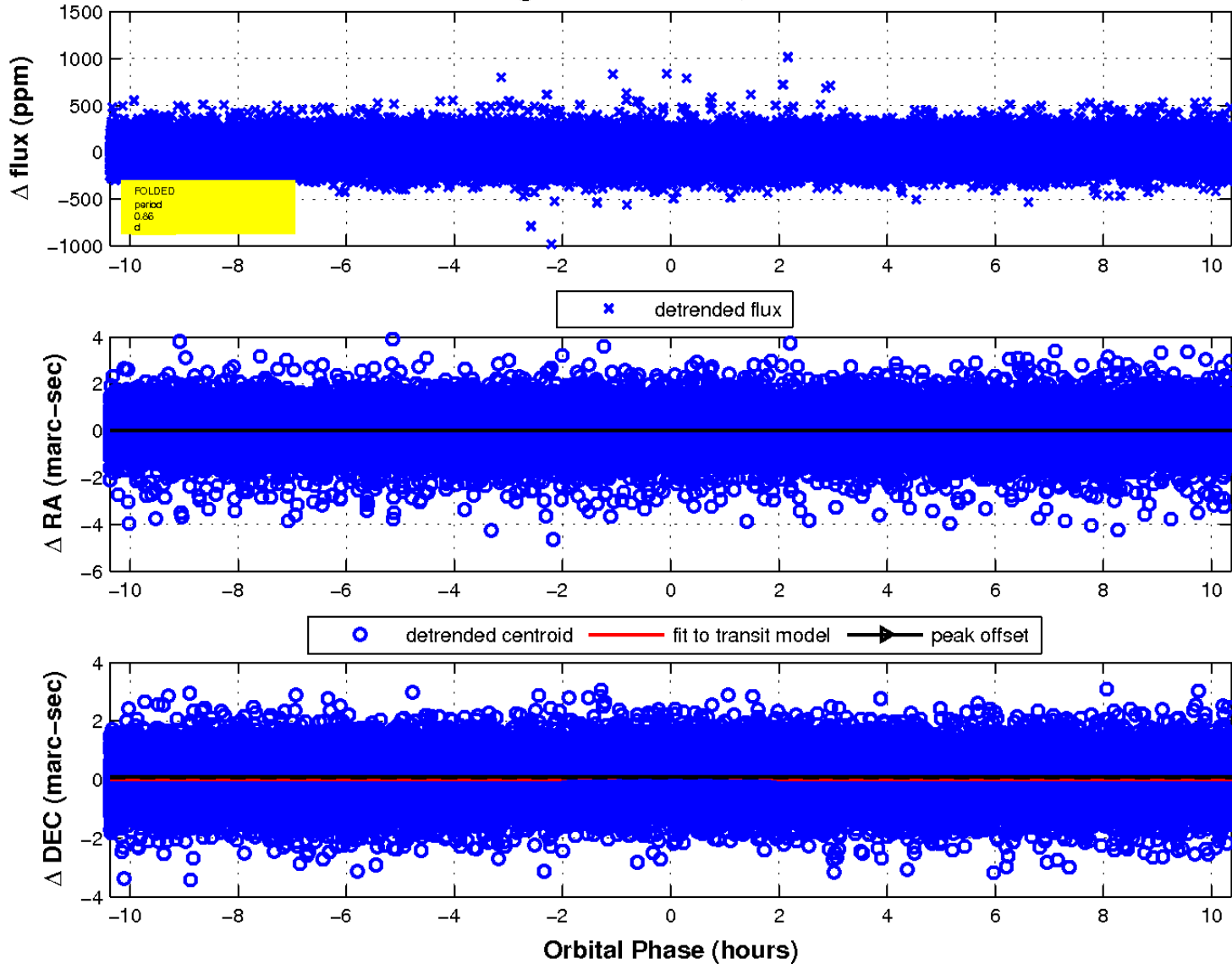
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

