

KIC 006141163

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})
006141163-01	OBS	No	4.964037	132.571132	9.2	41.638	7.5	4.7	2.24	6785	0.69	2208.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006141163-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—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.

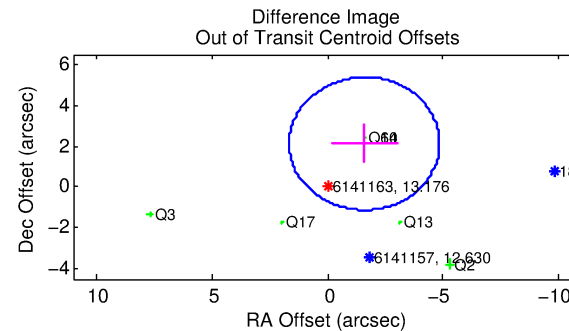
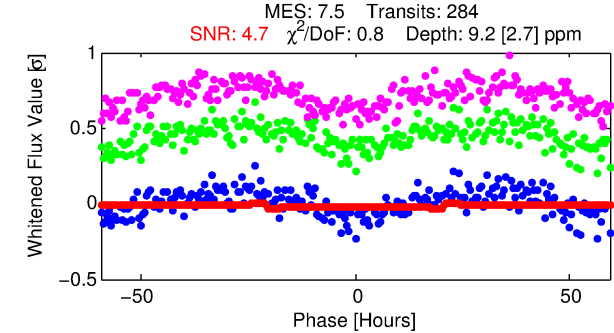
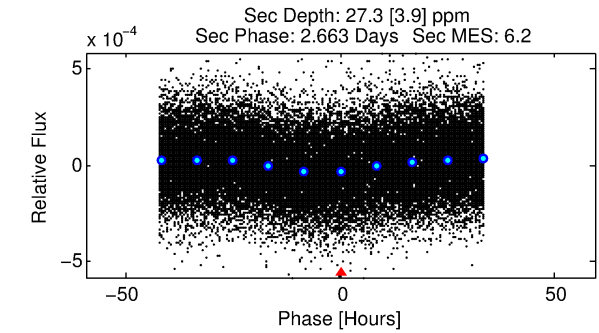
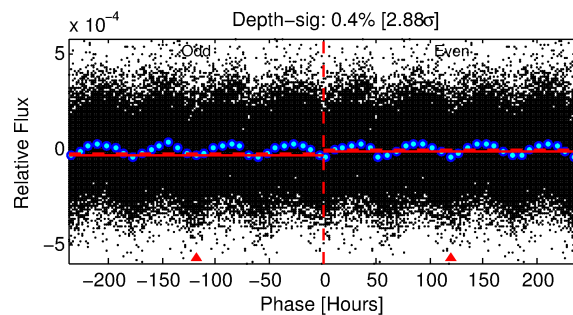
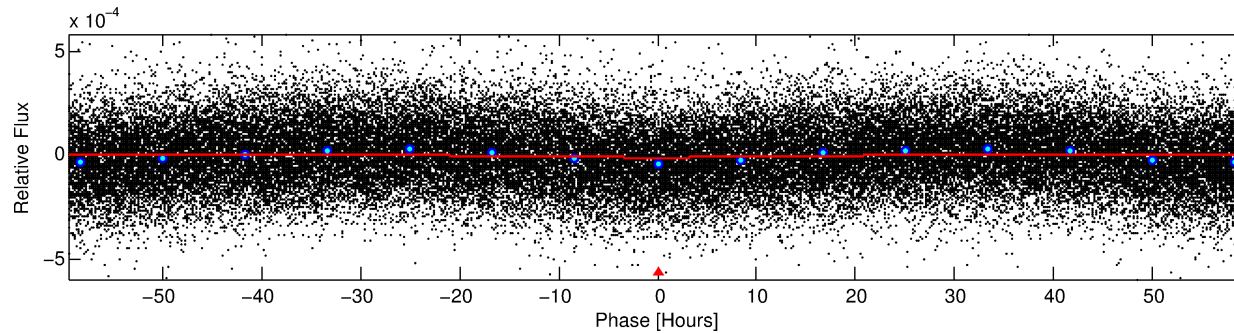
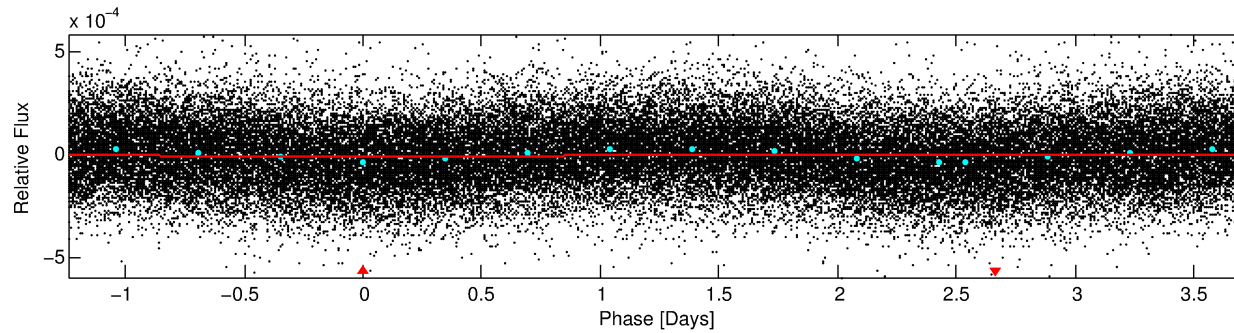
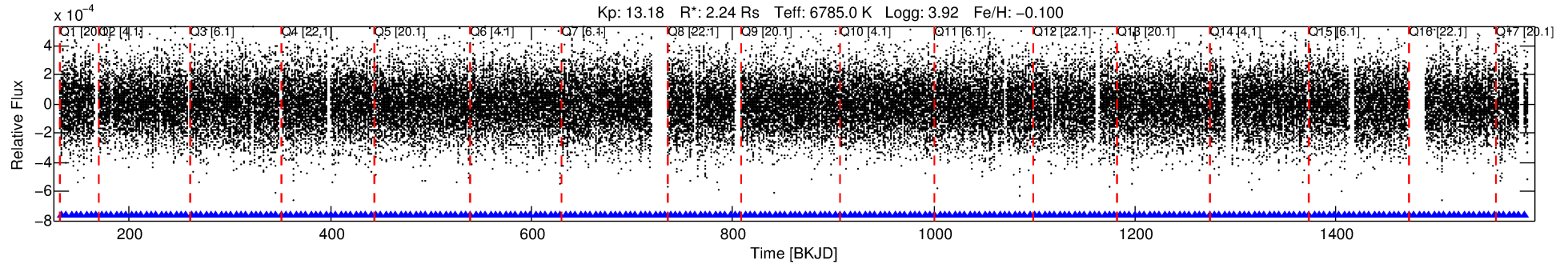
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006141163-01

No Significant Match Found

DV One-Page Summary

KIC: 6141163 Candidate: 1 of 1 Period: 4.964 d



DV Fit Results:

Period = 4.96404 [0.00027] d
Epoch = 132.5711 [0.0378] BKJD
Rp/R* = 0.0028 [0.0050]
a/R* = 1.12 [2.26]
b = 0.27 [35.15]
Seff = 2208.09 [976.09]
Teq = 1748 [193] K
Rp = 0.69 [1.24] Re
a = 0.0657 [0.0181] AU
Ag = 136.70 [490.34] [0.28 σ]
Teffp = 9241 [8235] K [0.91 σ]

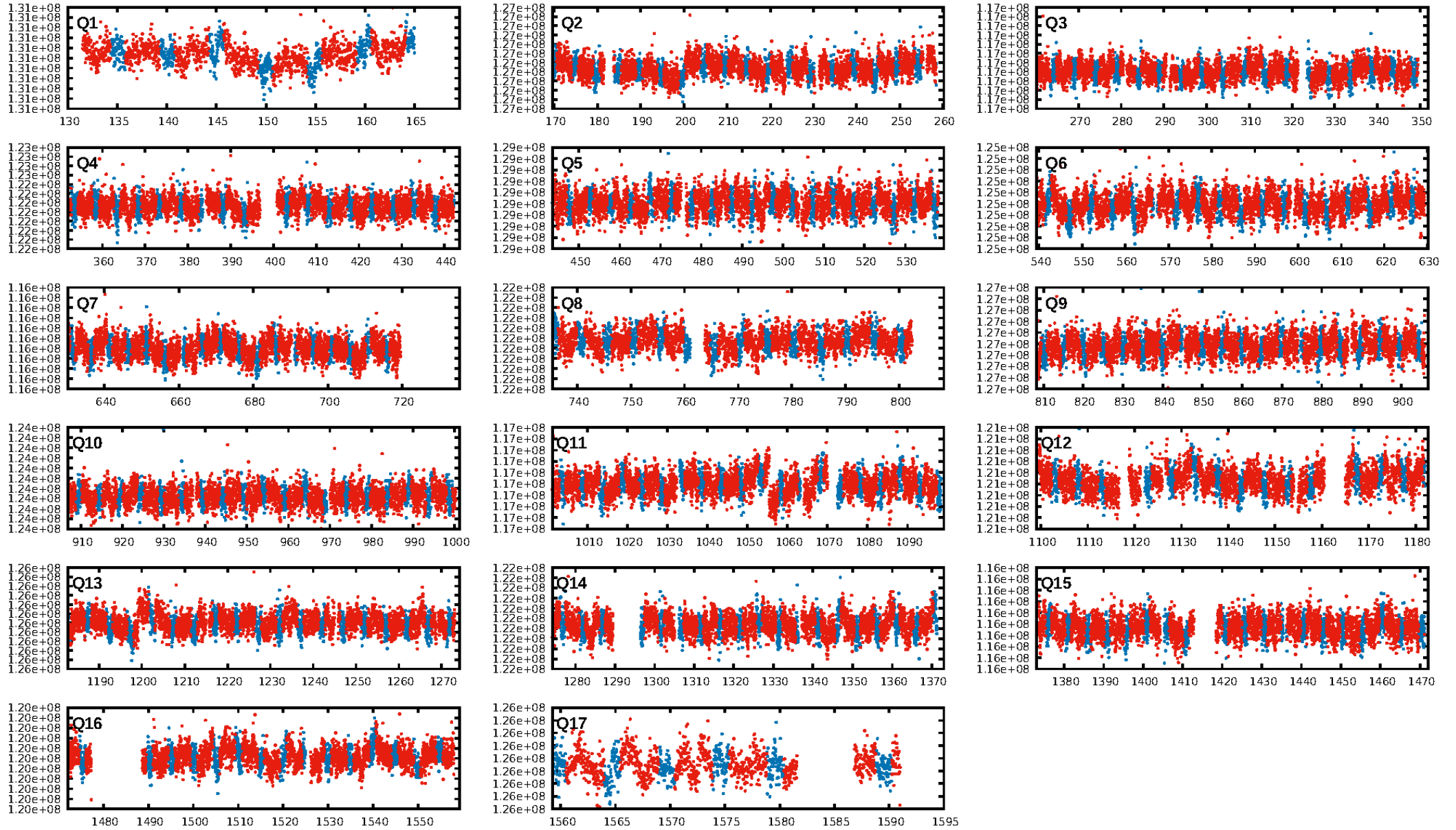
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [271/271]
GhostDiagnostic-chr: 1.997
Centroid-sig: 70.2%
Centroid-so: 1.664 arcsec [0.88 σ]
OotOffset-rm: 2.657 arcsec [2.45 σ]
KicOffset-rm: 2.785 arcsec [2.32 σ]
OotOffset-st: 4/1/0/2 [7]
KicOffset-st: 4/1/0/2 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 1.00 [17/17]

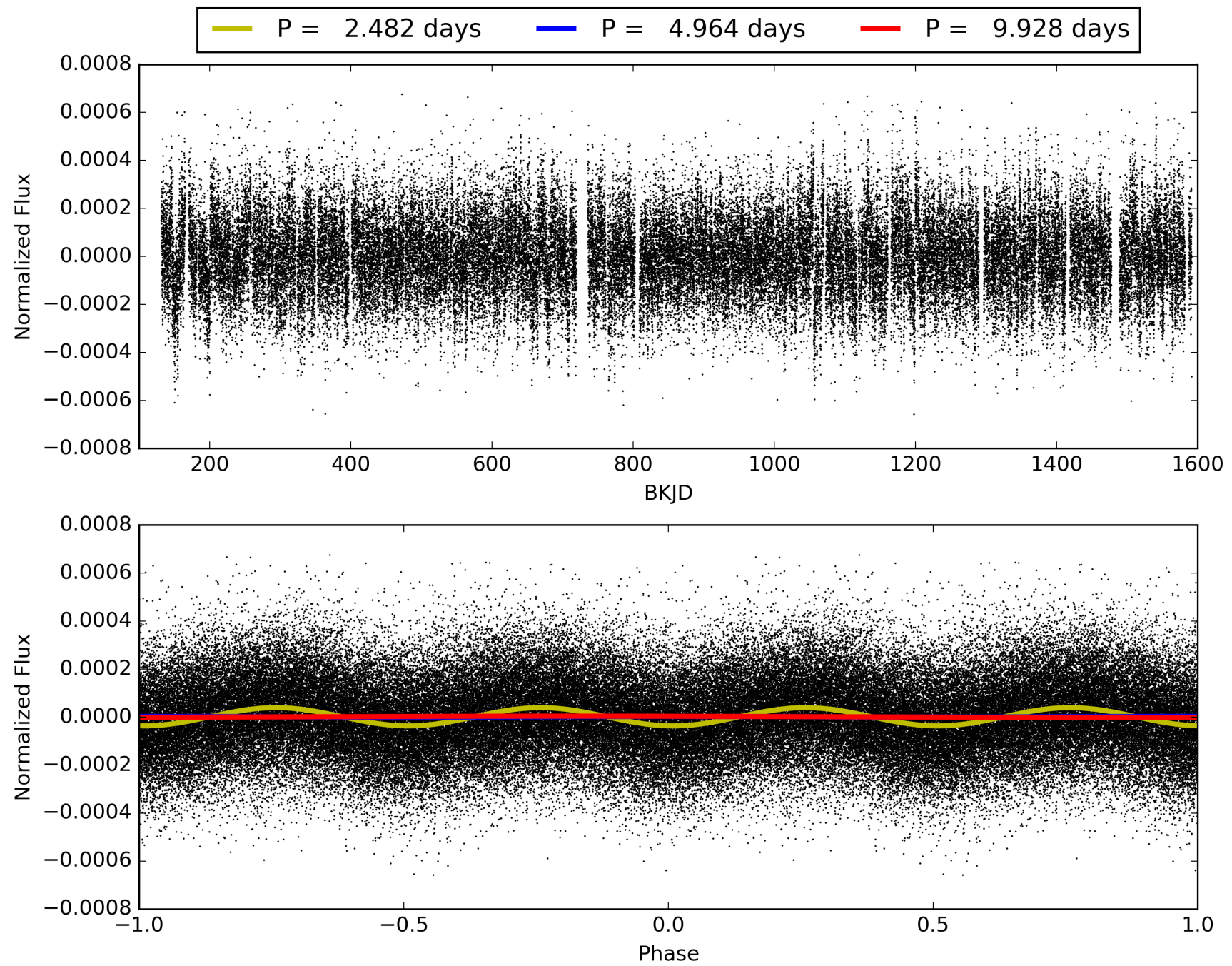
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:48:25 Z

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

TCE 006141163-01, PDC Light Curves

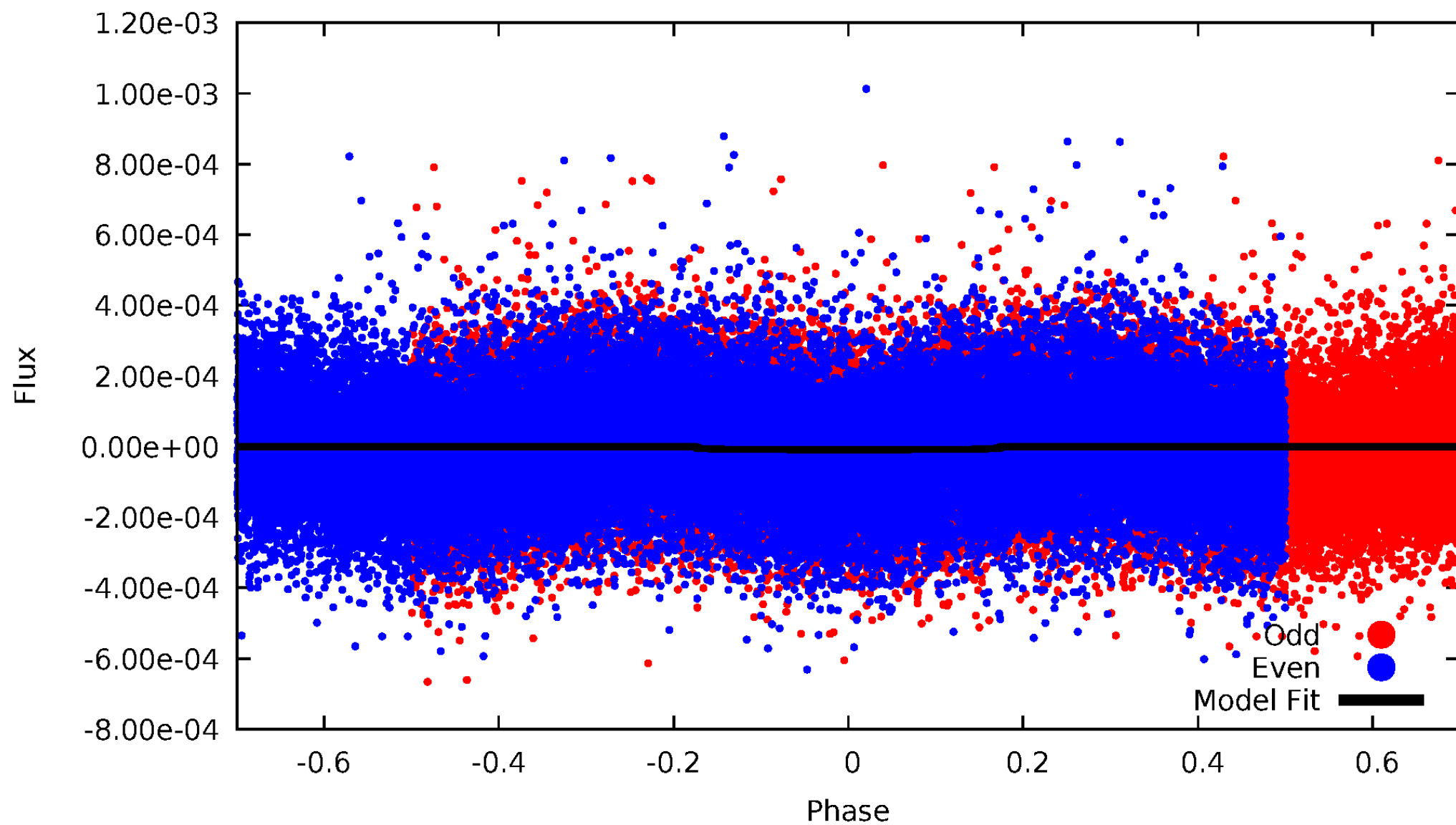


TCE 006141163-01



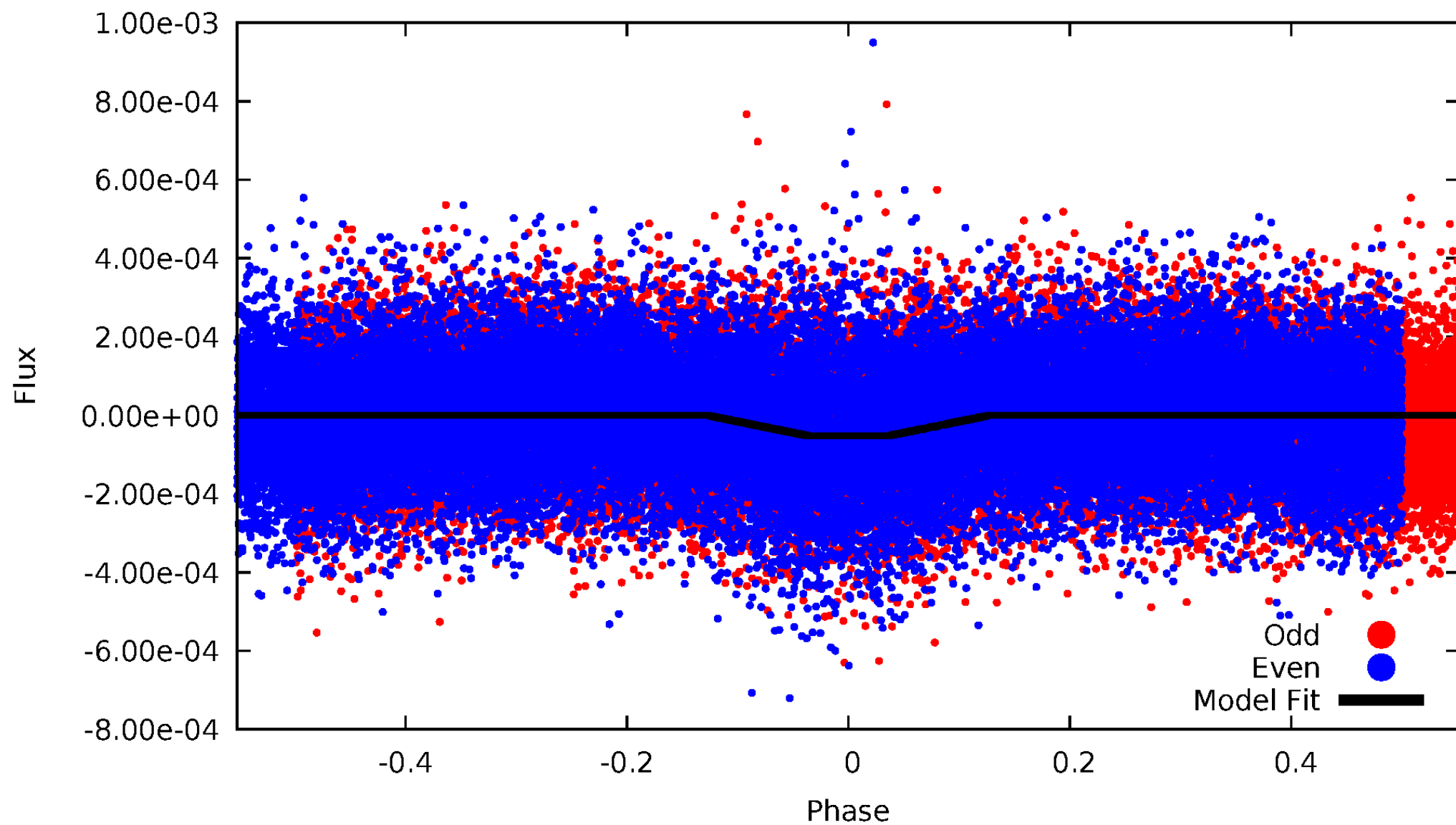
DV Odd/Even

TCE 006141163-01



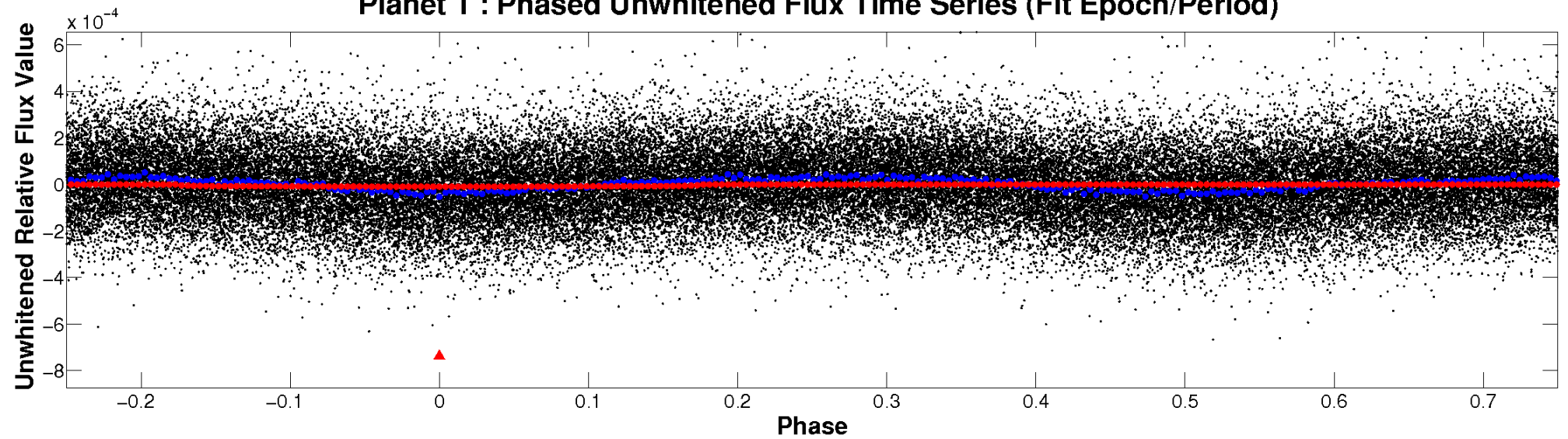
ALT Odd/Even

TCE 006141163-01

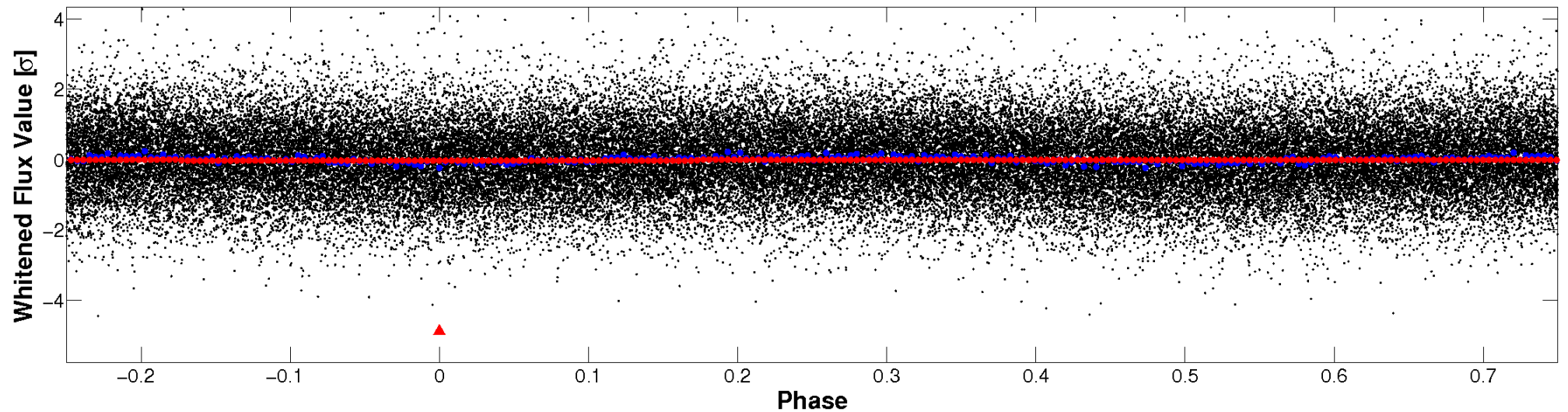


Non-Whitened Vs. Whitened Light Curve

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

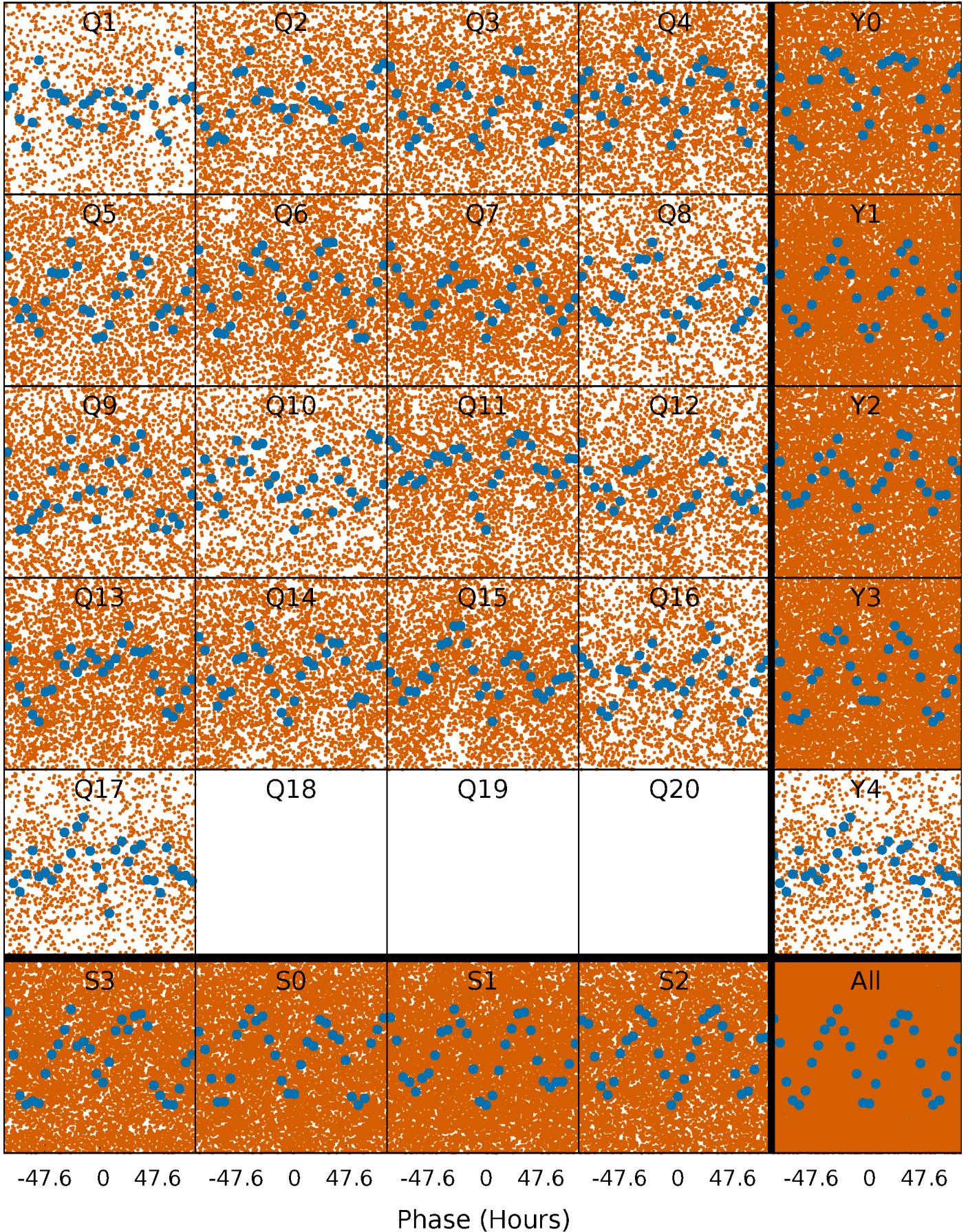


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



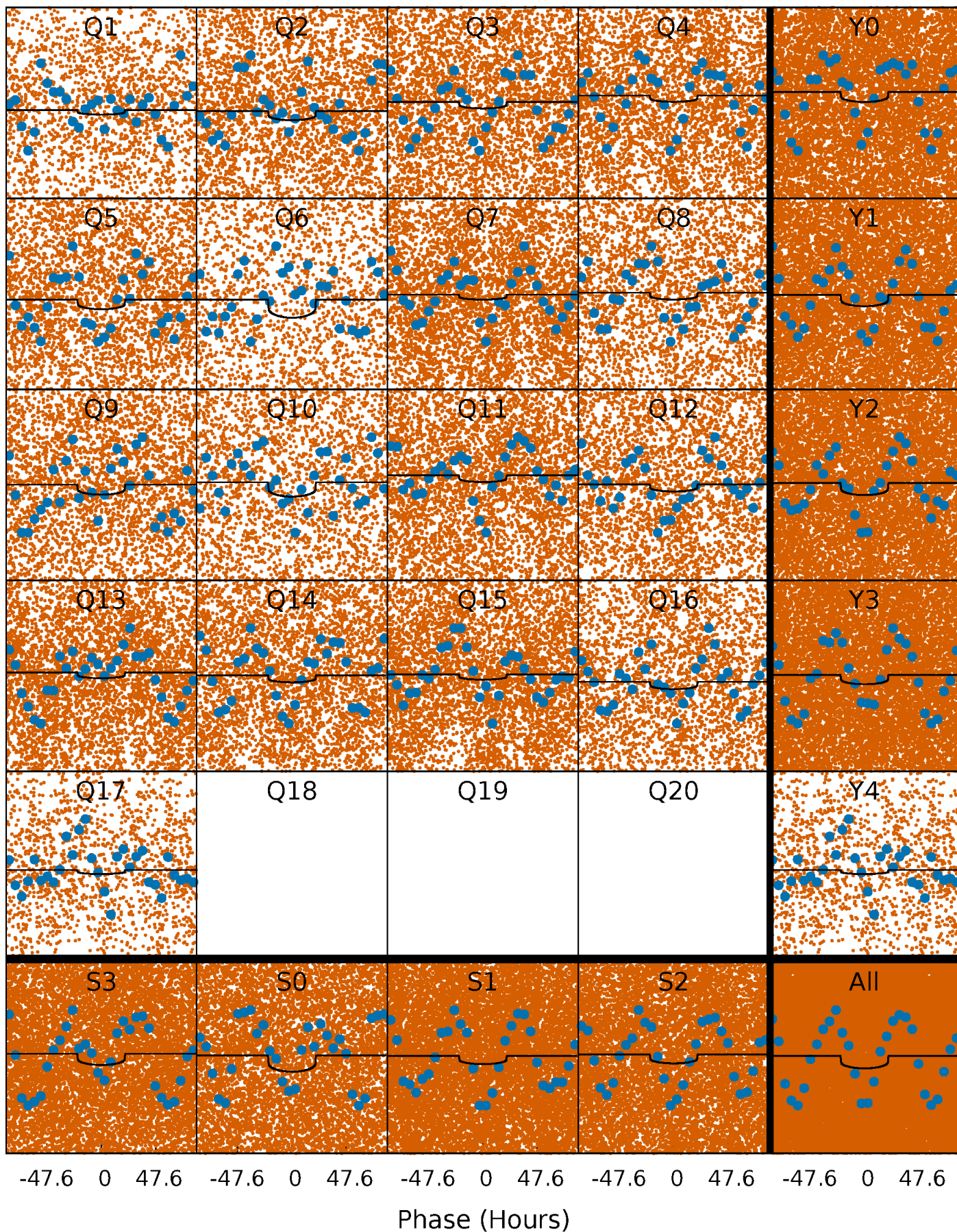
PDC Quarter-Phased Transit Curves

TCE 006141163-01 P= 4.964037 Days $T_0=132.571132$ (BKJD)



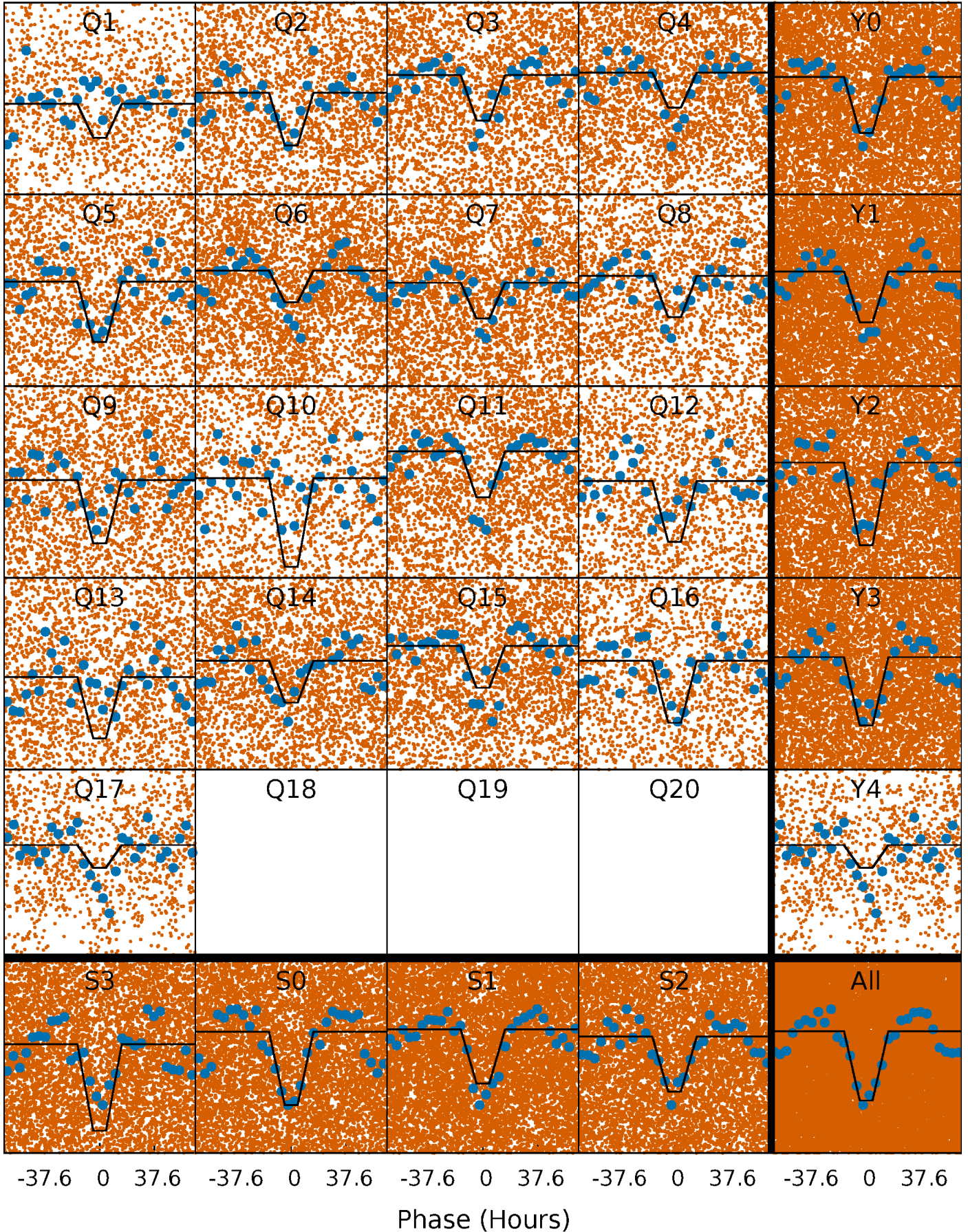
DV Quarter-Phased Transit Curves

TCE 006141163-01 P= 4.964037 Days $T_0=132.571132$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

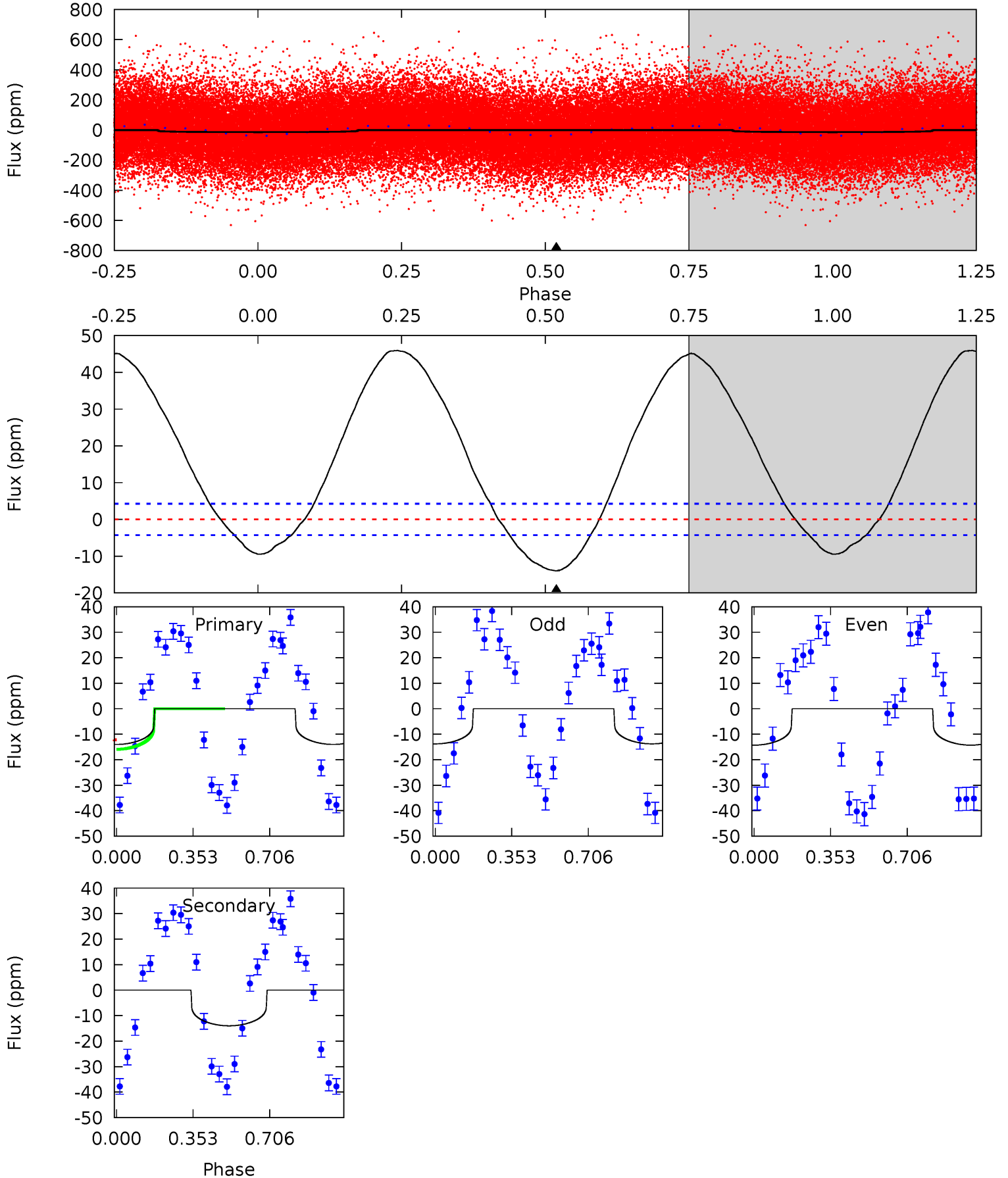
TCE 006141163-01 P= 4.964273 Days $T_0=132.554939$ (BKJD)



DV Model-Shift Uniqueness Test

006141163-01, P = 4.964037 Days, E = 127.607095 Days

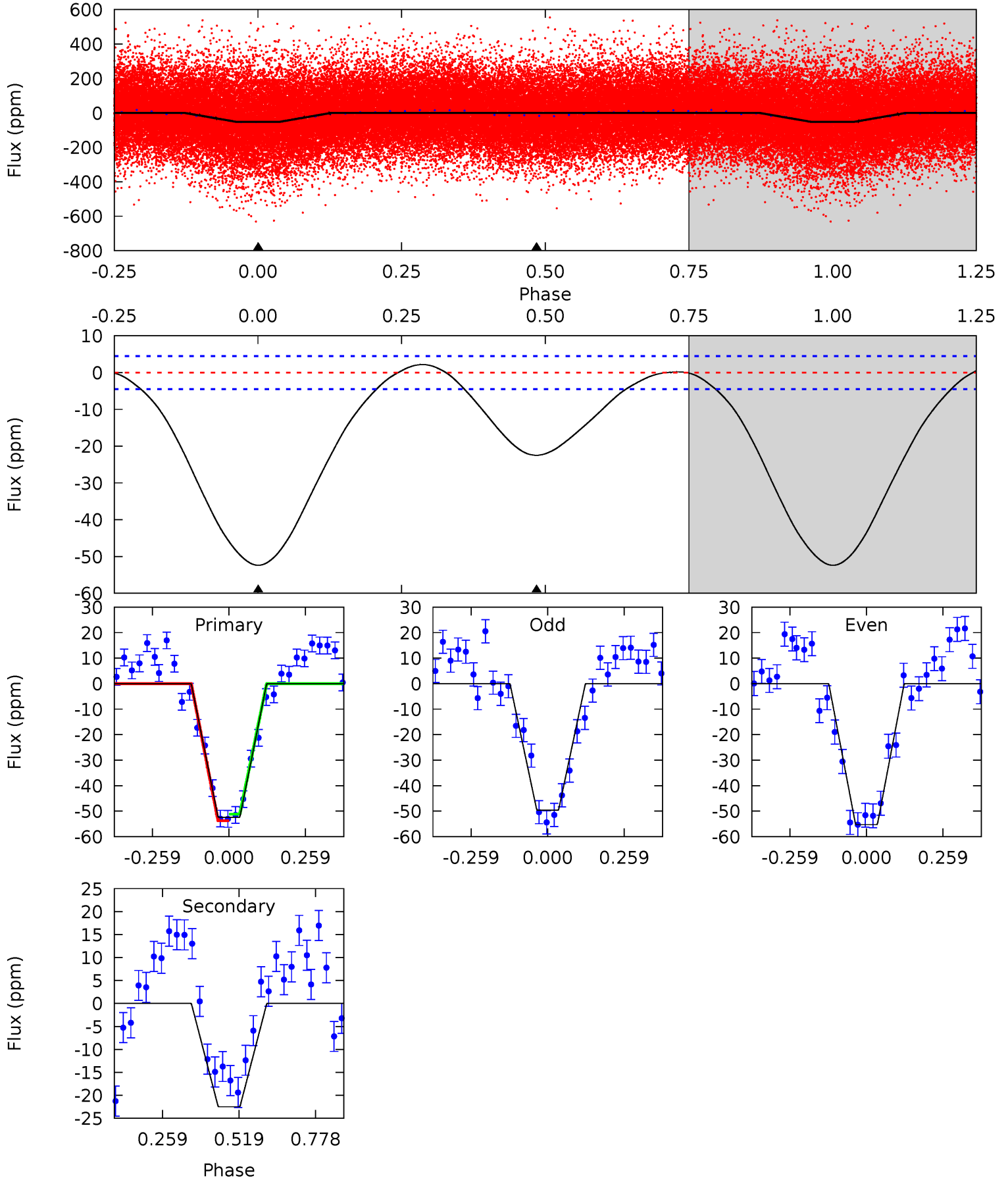
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	14.1	0	0	4.29	0.93	10.5	14.1	14.1	14.1	14.1	0.25	0.58	0.77	1.90



Alt Model-Shift Uniqueness Test

006141163-01, P = 4.964273 Days, E = 127.590666 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.8	21.8	0	0	4.36	1.13	0.72	50.8	50.8	21.8	21.8	2.75	1.12	0.04	1.19



Stellar Parameters For KIC 006141163

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6785^{+184}_{-225}	$3.923^{+0.240}_{-0.129}$	$-0.100^{+0.300}_{-0.250}$	$2.239^{+0.459}_{-0.689}$	$1.531^{+0.194}_{-0.267}$	$0.192^{+0.288}_{-0.076}$
	+3%/-3%	+6%/-3%	+300%/-250%	+21%/-31%	+13%/-17%	+150%/-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 006141163-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 1	$1.09^{+1.03}_{-0.73}$	2420^{+157}_{-195}	6009^{+6692}_{-1479}	27^{+232}_{-20}
Alt.	-22 ± 1	$1.82^{+1.21}_{-1.08}$	2411^{+166}_{-177}	5261^{+3232}_{-971}	16^{+76}_{-10}

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

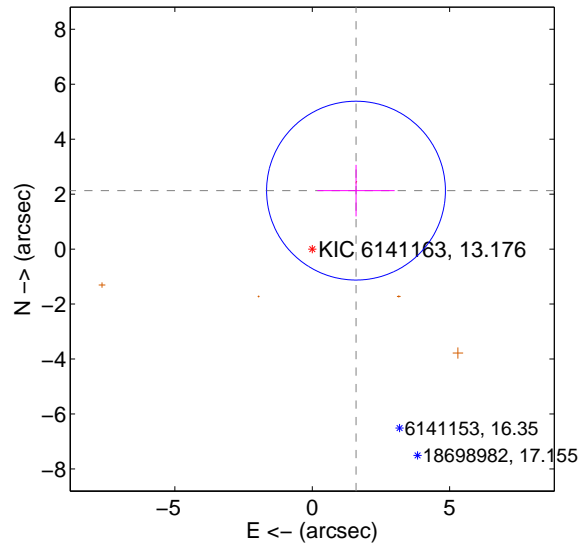
Supplemental centroid analysis for 006141163-01. Kepler magnitude: 13.18. Transit SNR 4.75

There are 0 quarters with good PRF difference image offsets

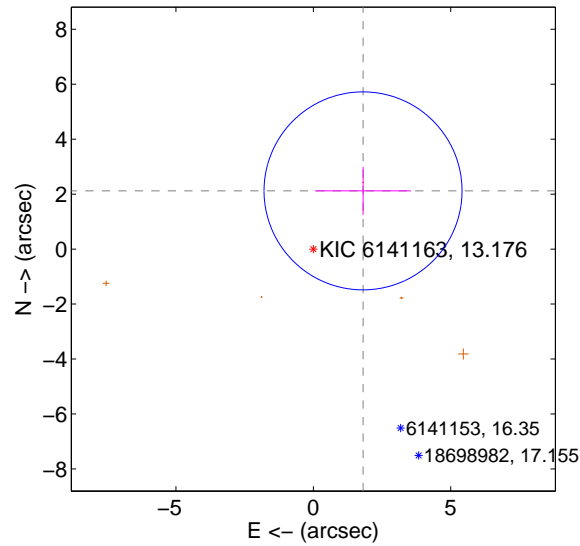
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.657 ± 1.084	2.45	-1.592 ± 1.406	2.127 ± 0.938
PRF-fit source offset from KIC position	2.785 ± 1.201	2.32	-1.809 ± 1.746	2.118 ± 0.871
photometric centroid source offset	1.66 ± 1.89	0.88	-1.66 ± 1.89	0.03 ± 1.80

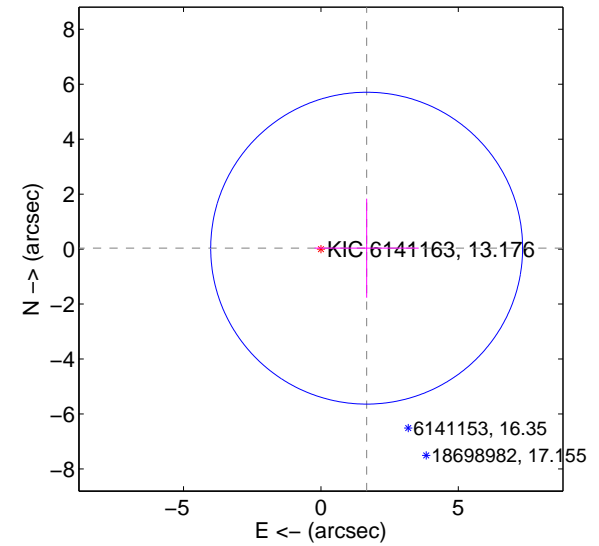
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

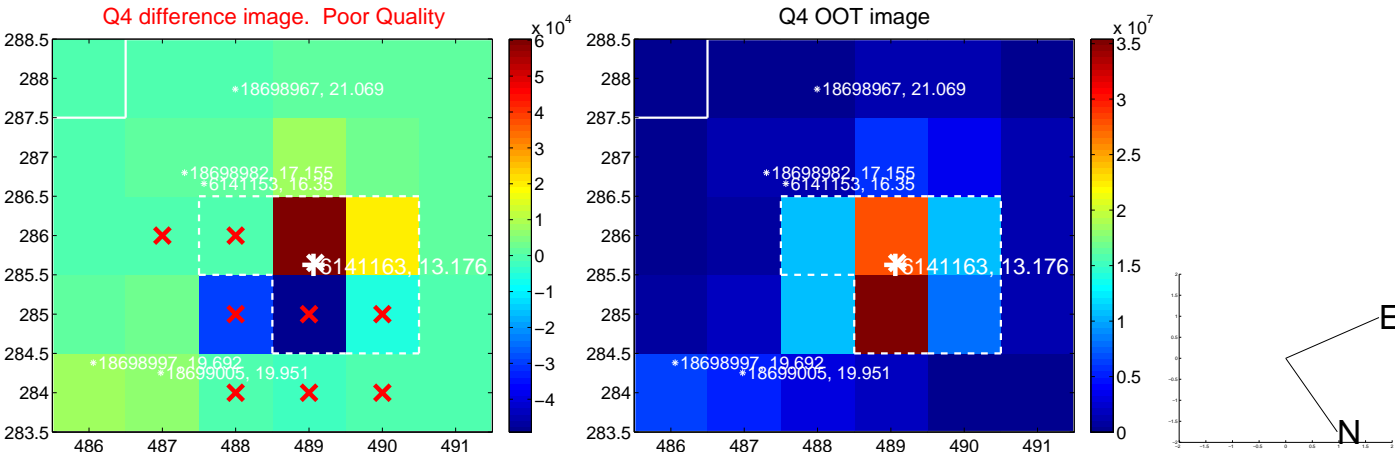
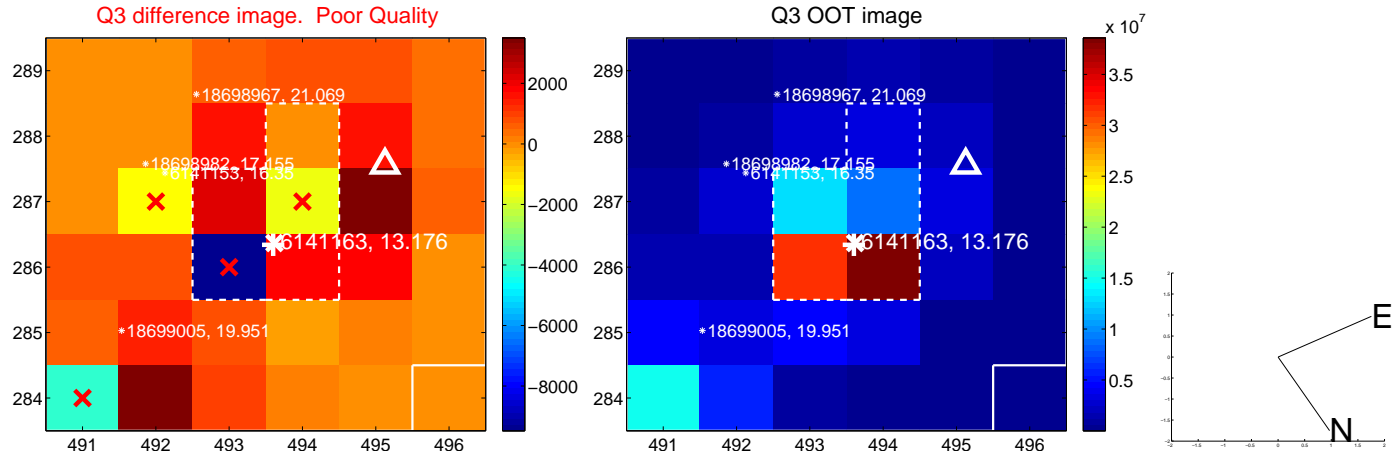
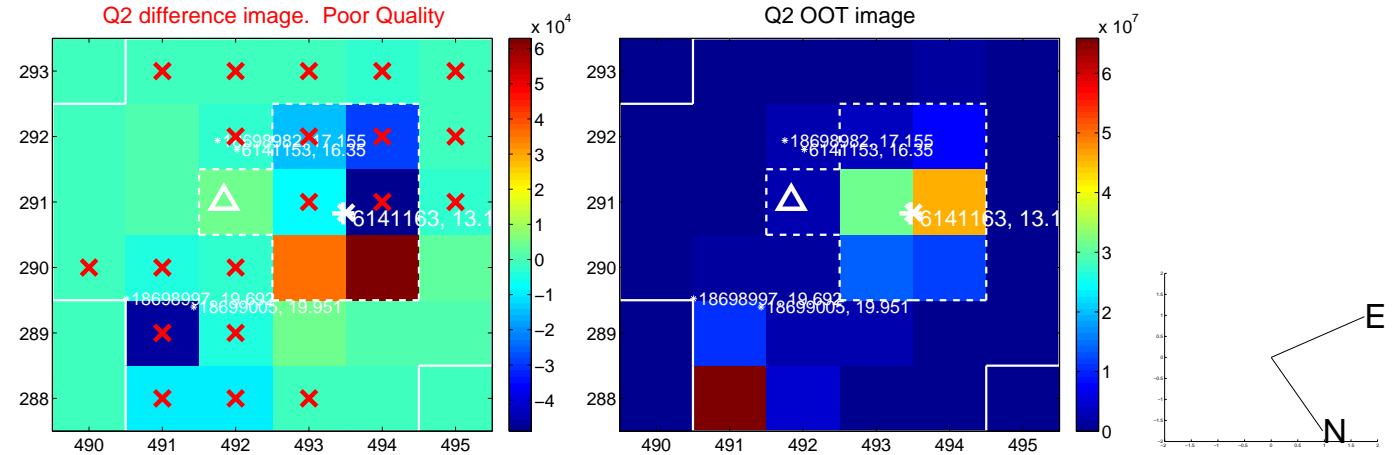
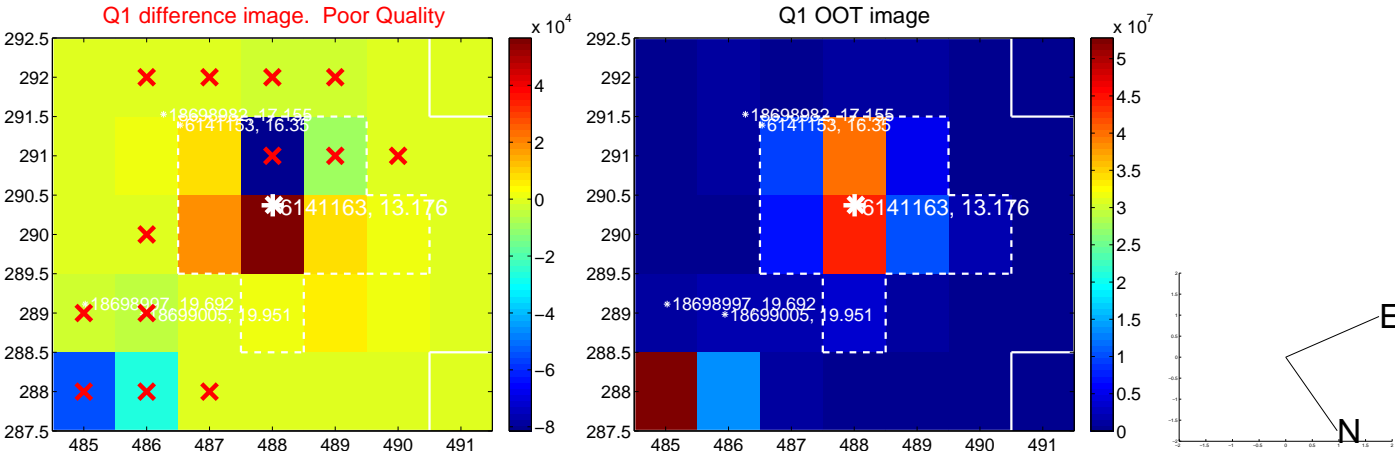


offset from photometric centroids

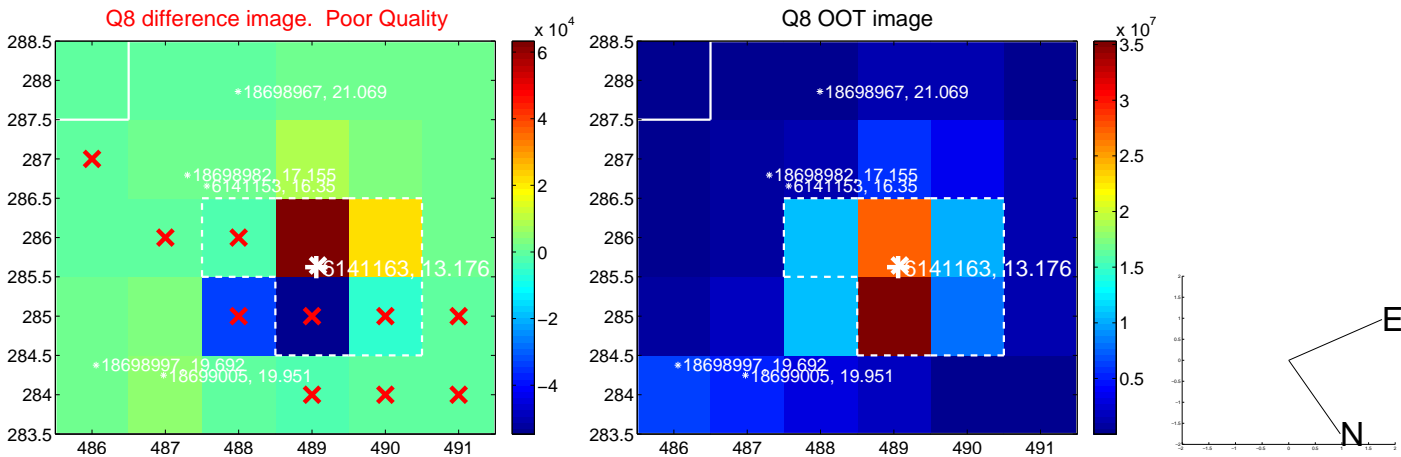
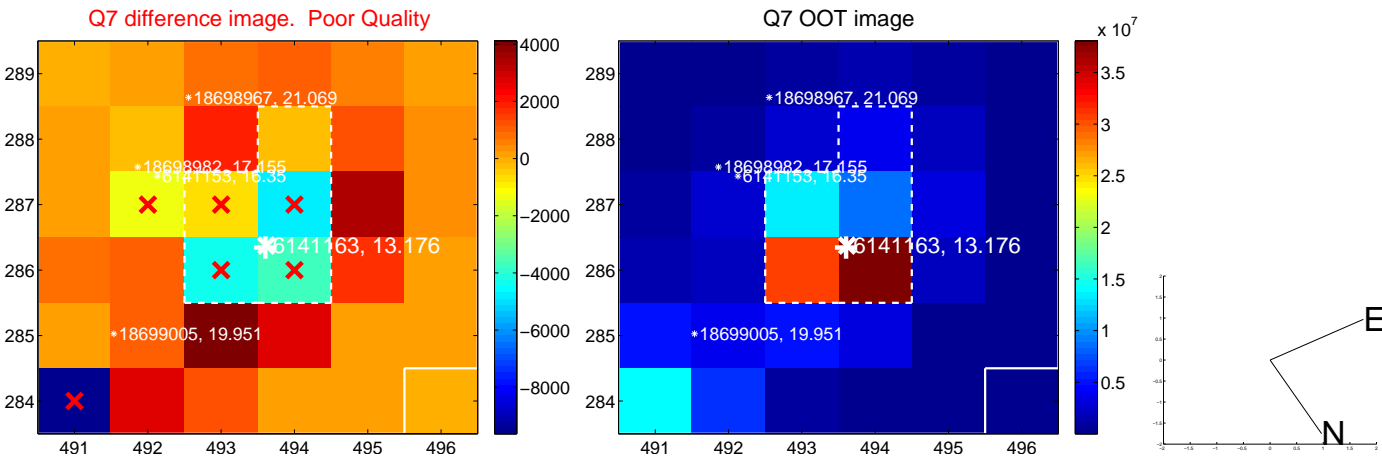
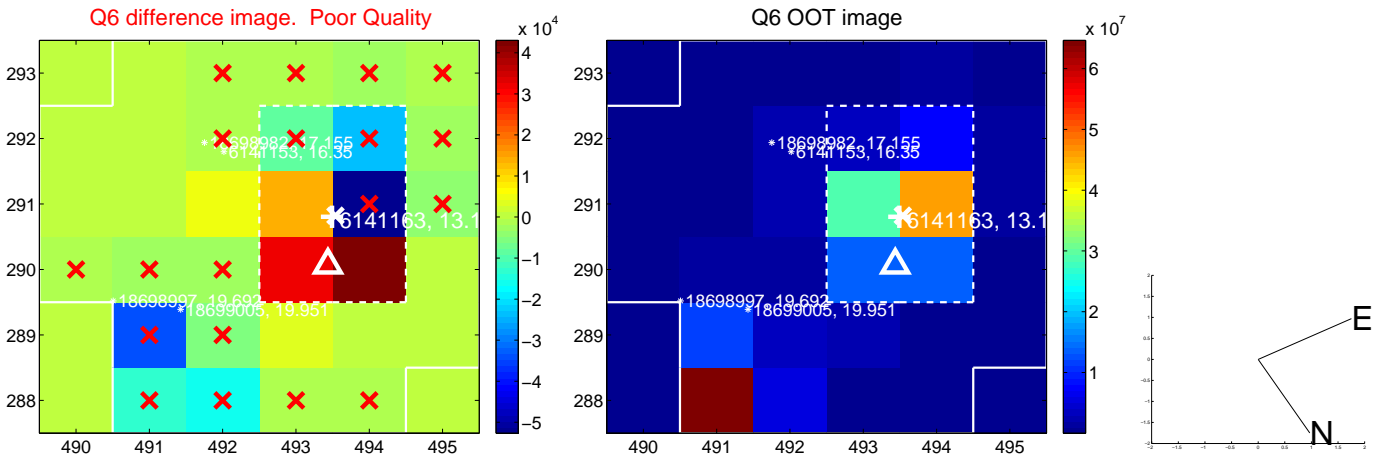
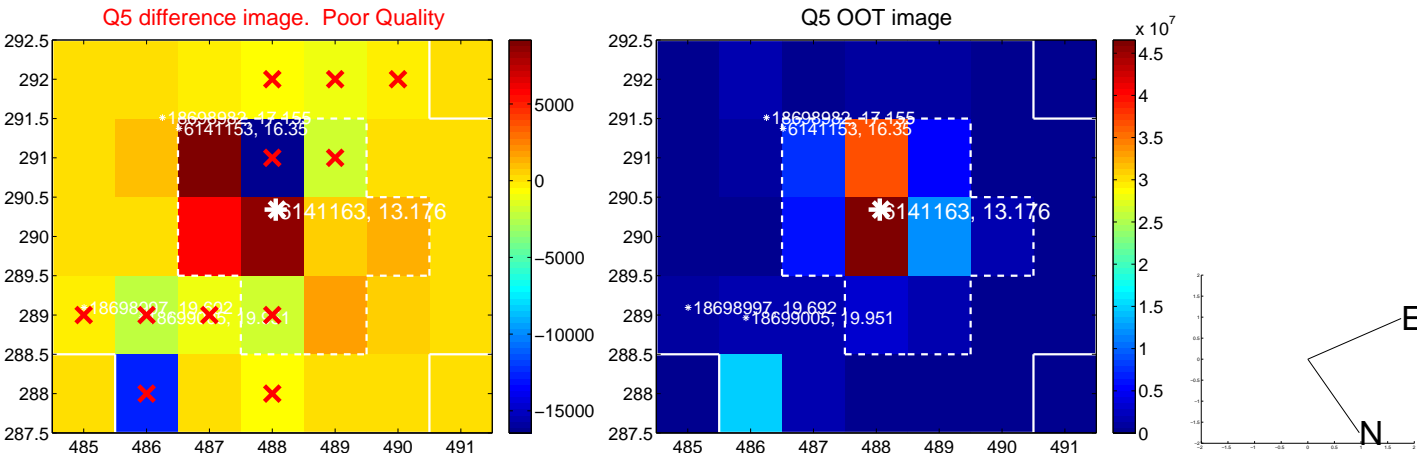


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

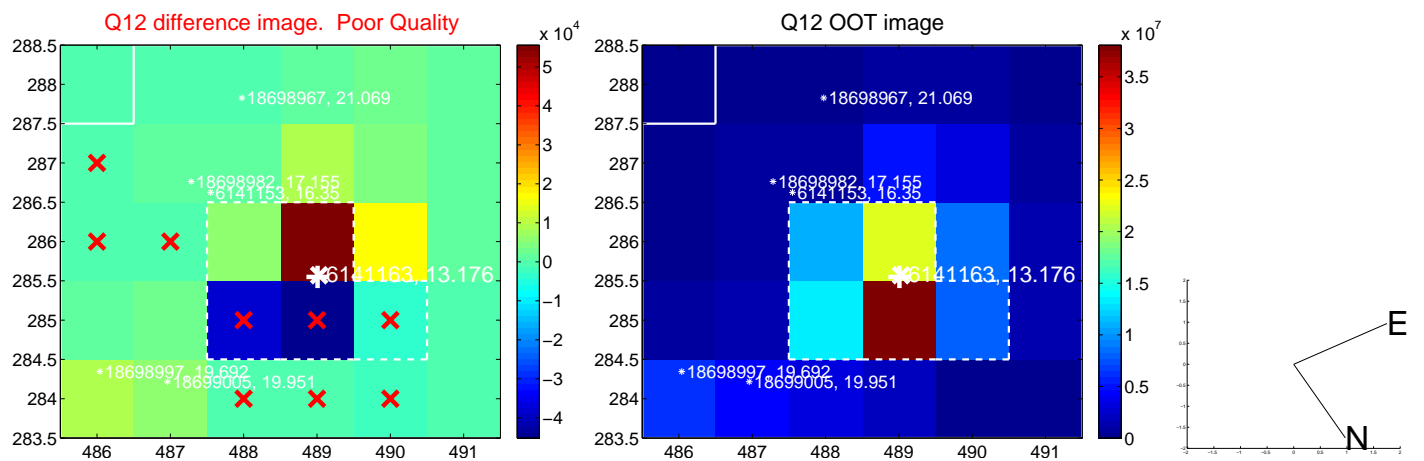
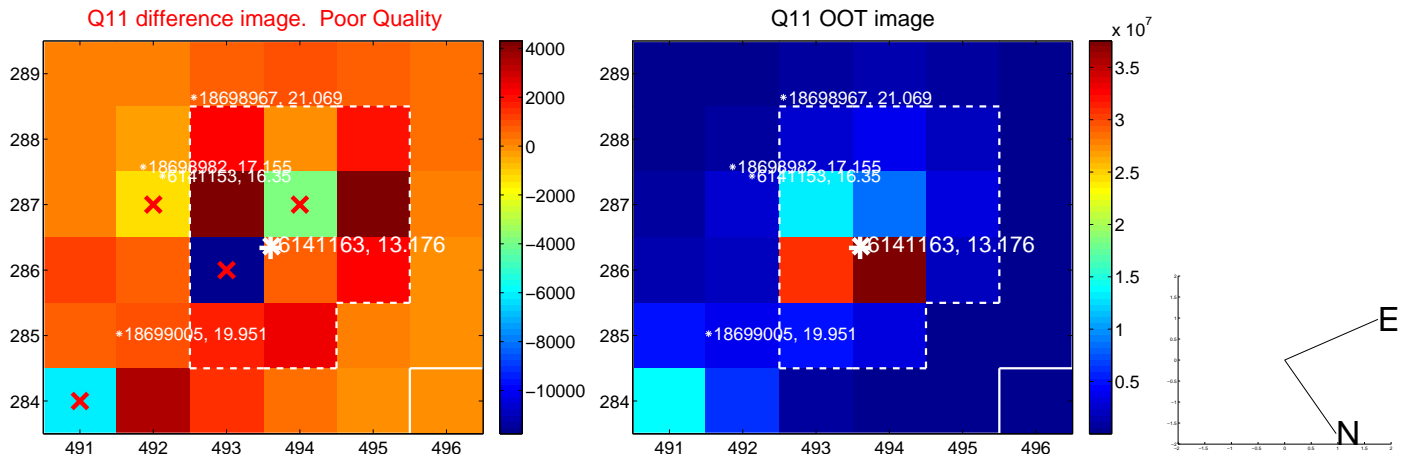
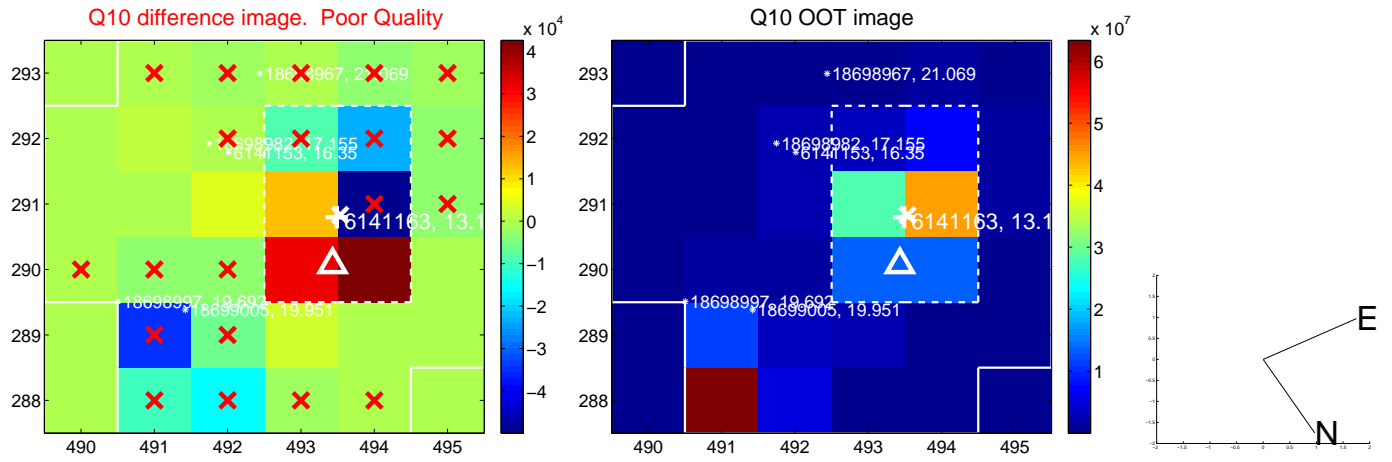
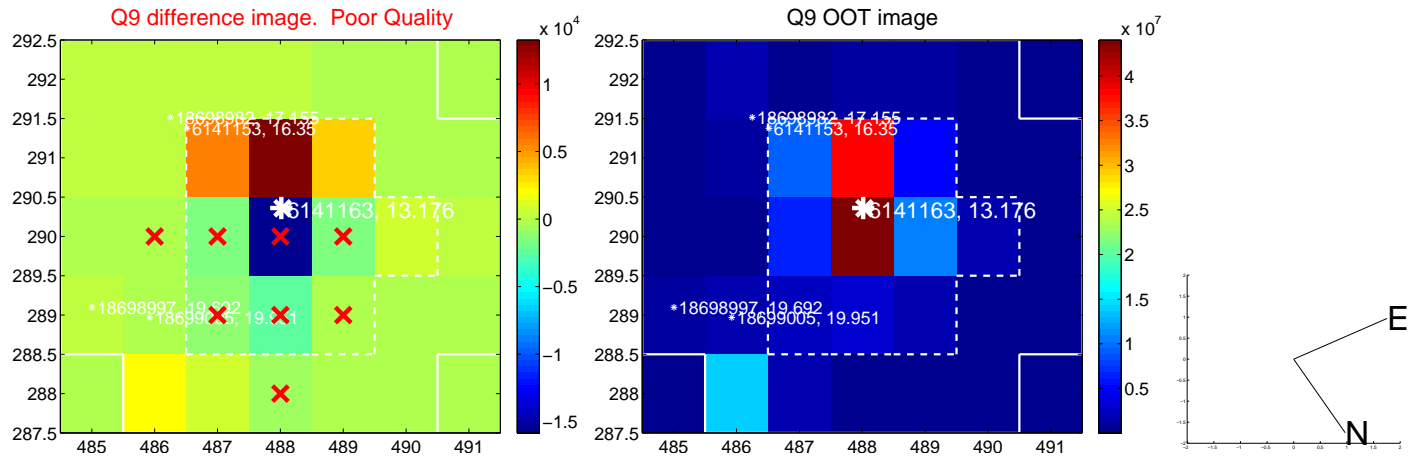
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



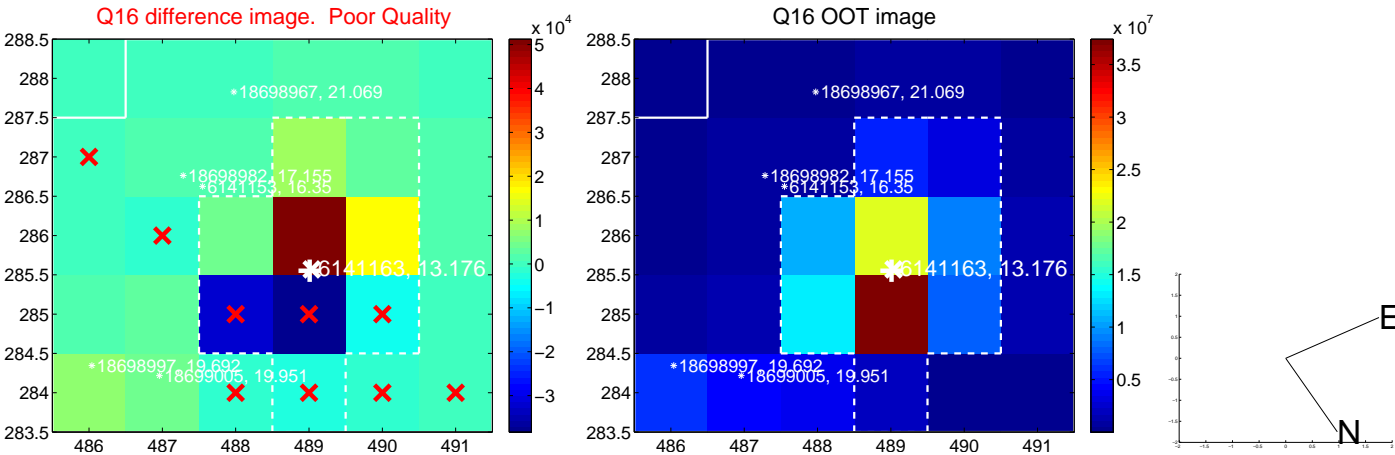
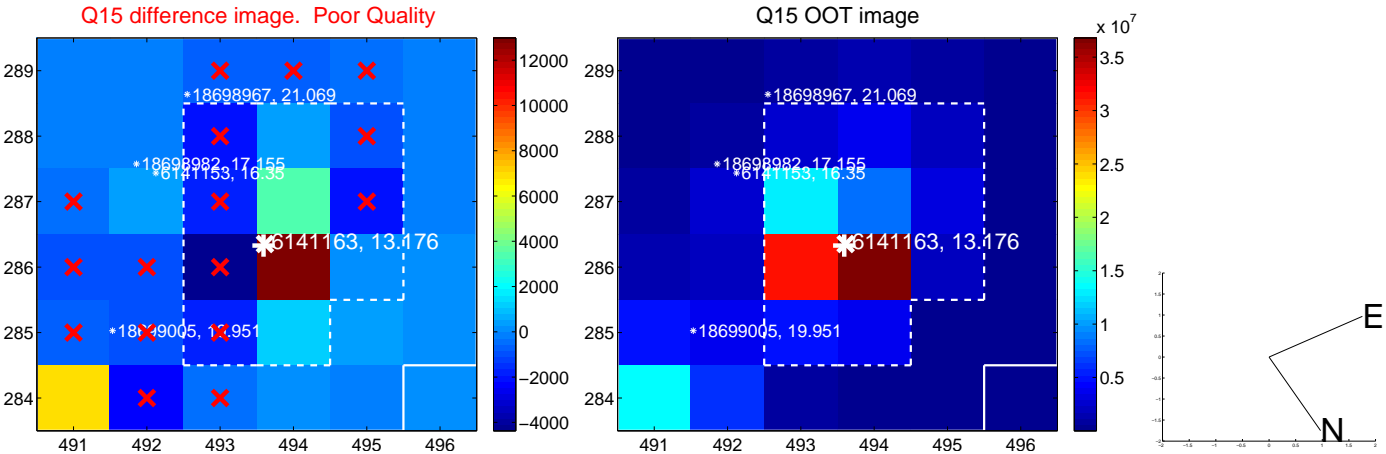
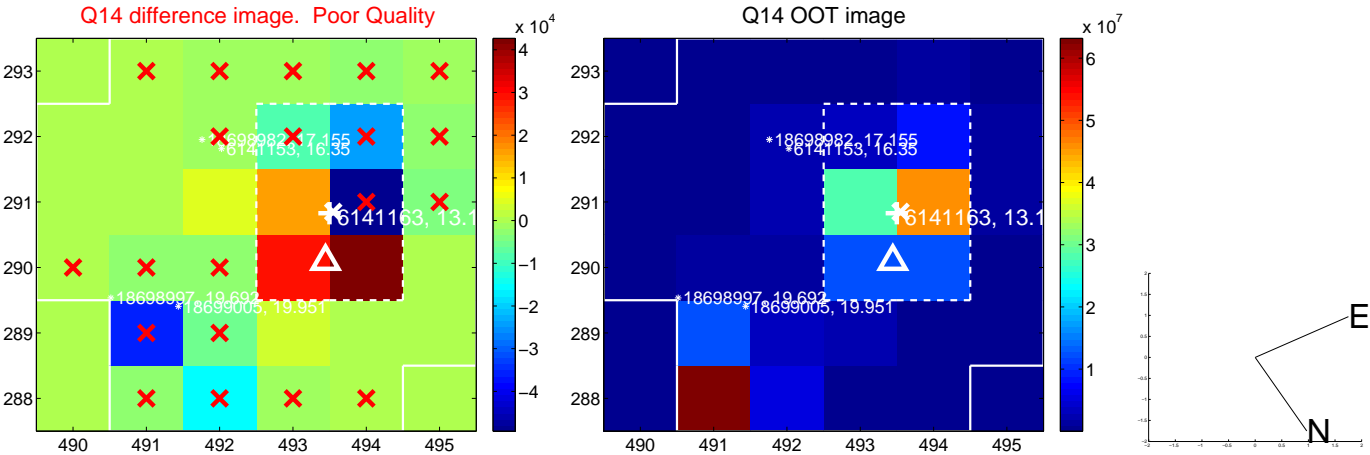
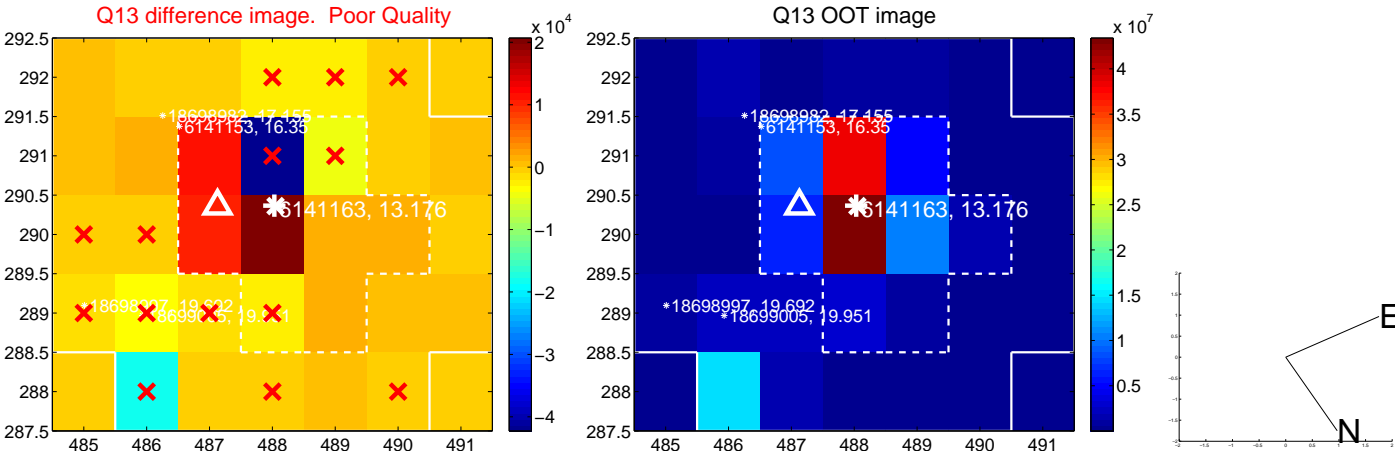
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



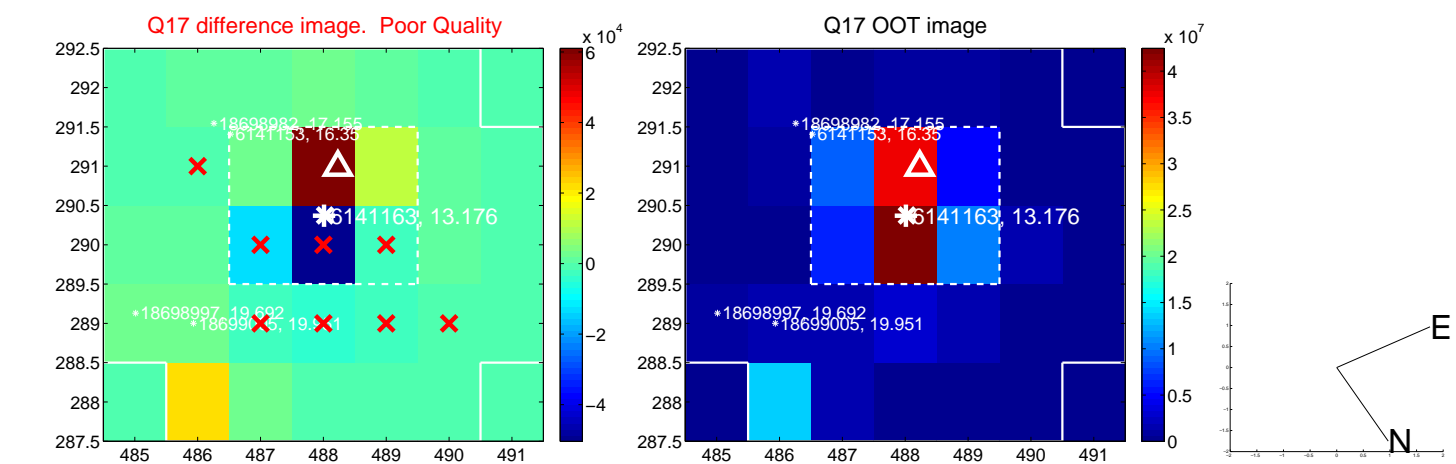
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



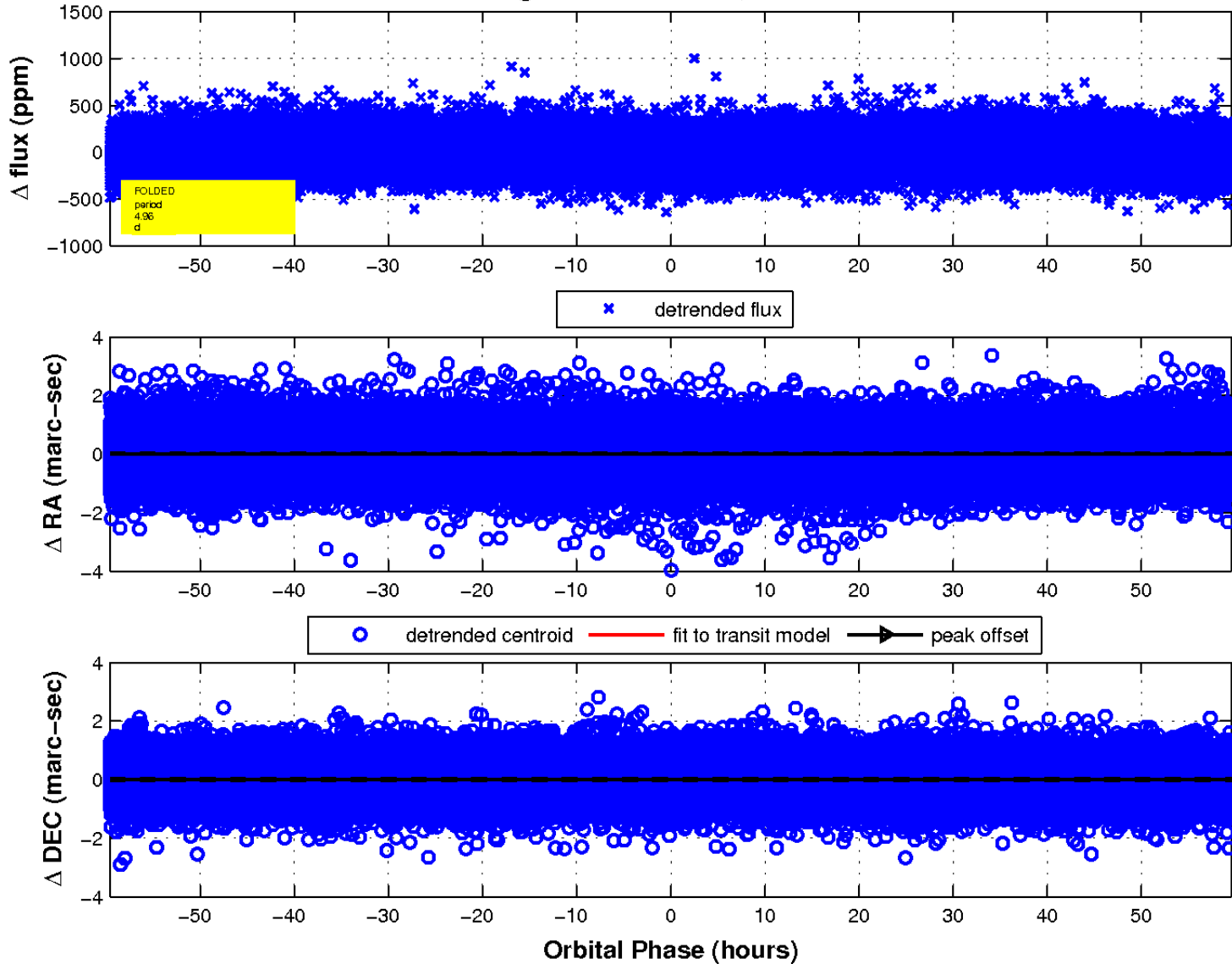
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

