

KIC 006430330

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})
006430330-01	OBS	No	0.728502	131.805730	1.8	7.215	8.4	2.0	2.26	6698	0.30	27543.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006430330-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_SATURATED

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

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

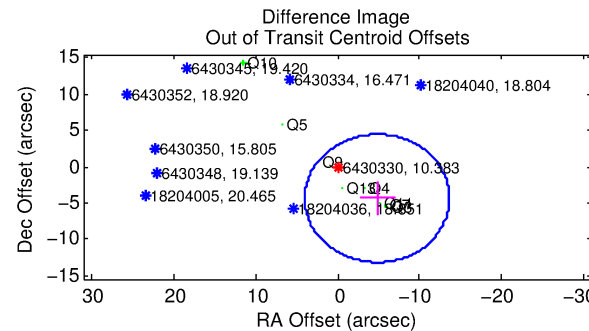
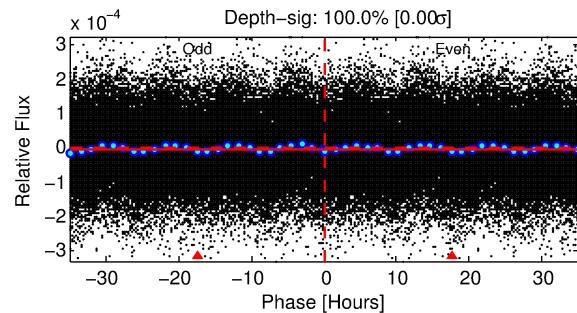
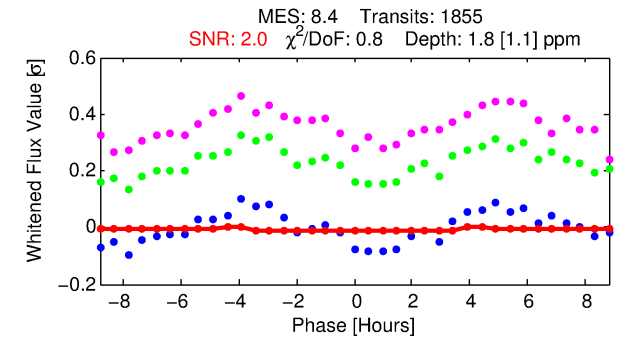
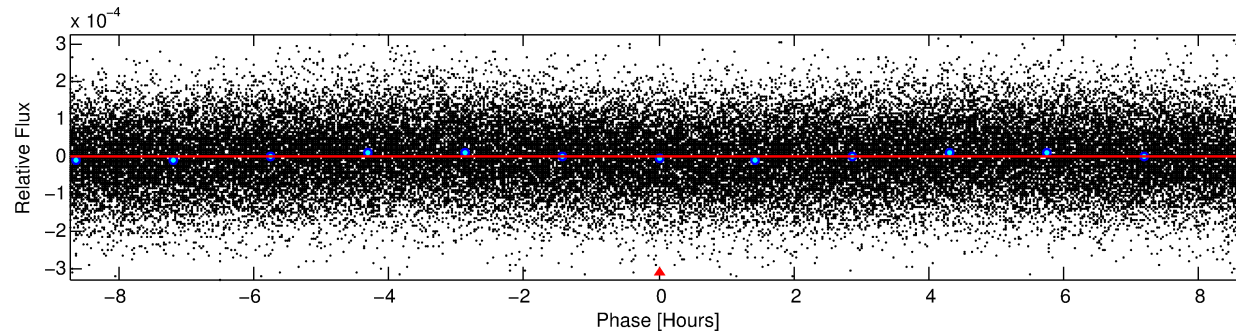
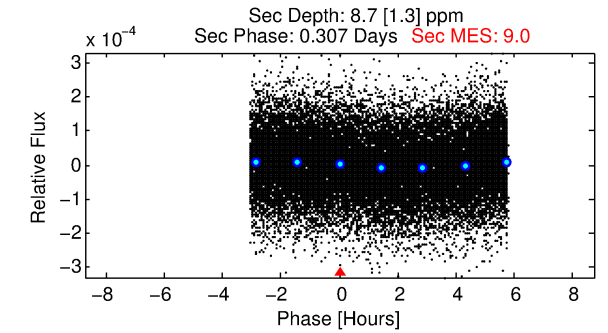
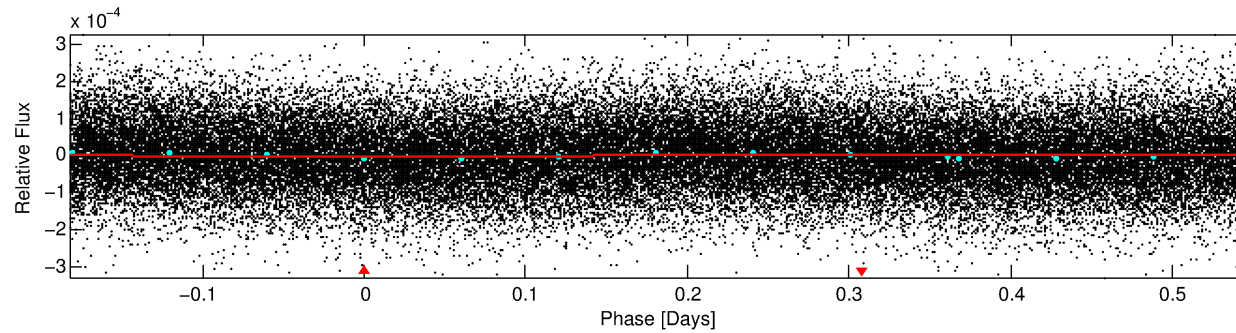
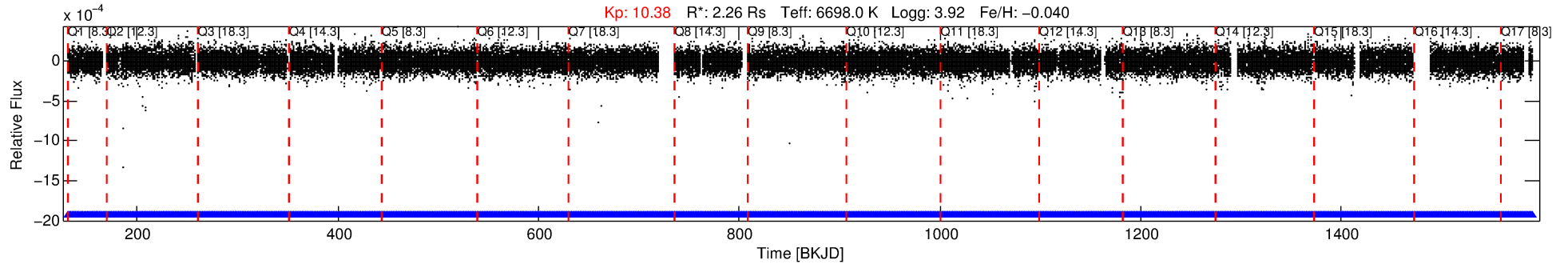
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006430330-01

No Significant Match Found

DV One-Page Summary

KIC: 6430330 Candidate: 1 of 1 Period: 0.729 d



DV Fit Results:

Period = 0.72850 [0.00008] d
Epoch = 131.8057 [0.0209] BKJD
Rp/R* = 0.0012 [0.0038]
a/R* = 1.04 [1.33]
b = 0.10 [171.42]
Seff = 27543.43 [16512.47]
Teq = 3285 [492] K
Rp = 0.31 [0.95] Re
a = 0.0183 [0.0068] AU
Ag = 17.25 [107.42] [0.15σ]
Teffp = 10350 [16053] K [0.44σ]

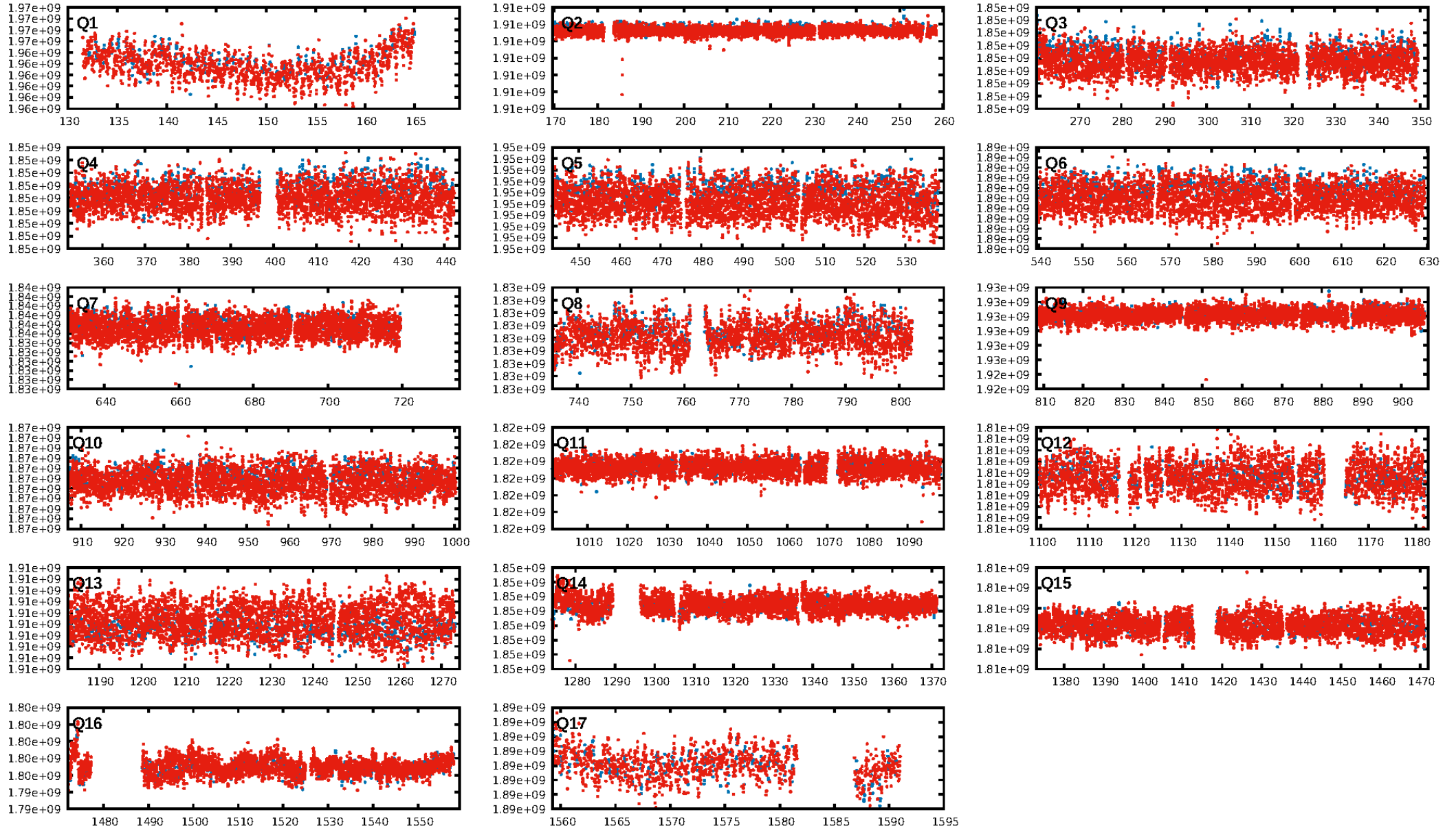
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1772/1772]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 6.510 arcsec [2.21σ]
KicOffset-rm: 7.558 arcsec [2.86σ]
OotOffset-st: 1/3/1/3 [8]
KicOffset-st: 1/3/1/3 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [17/17]

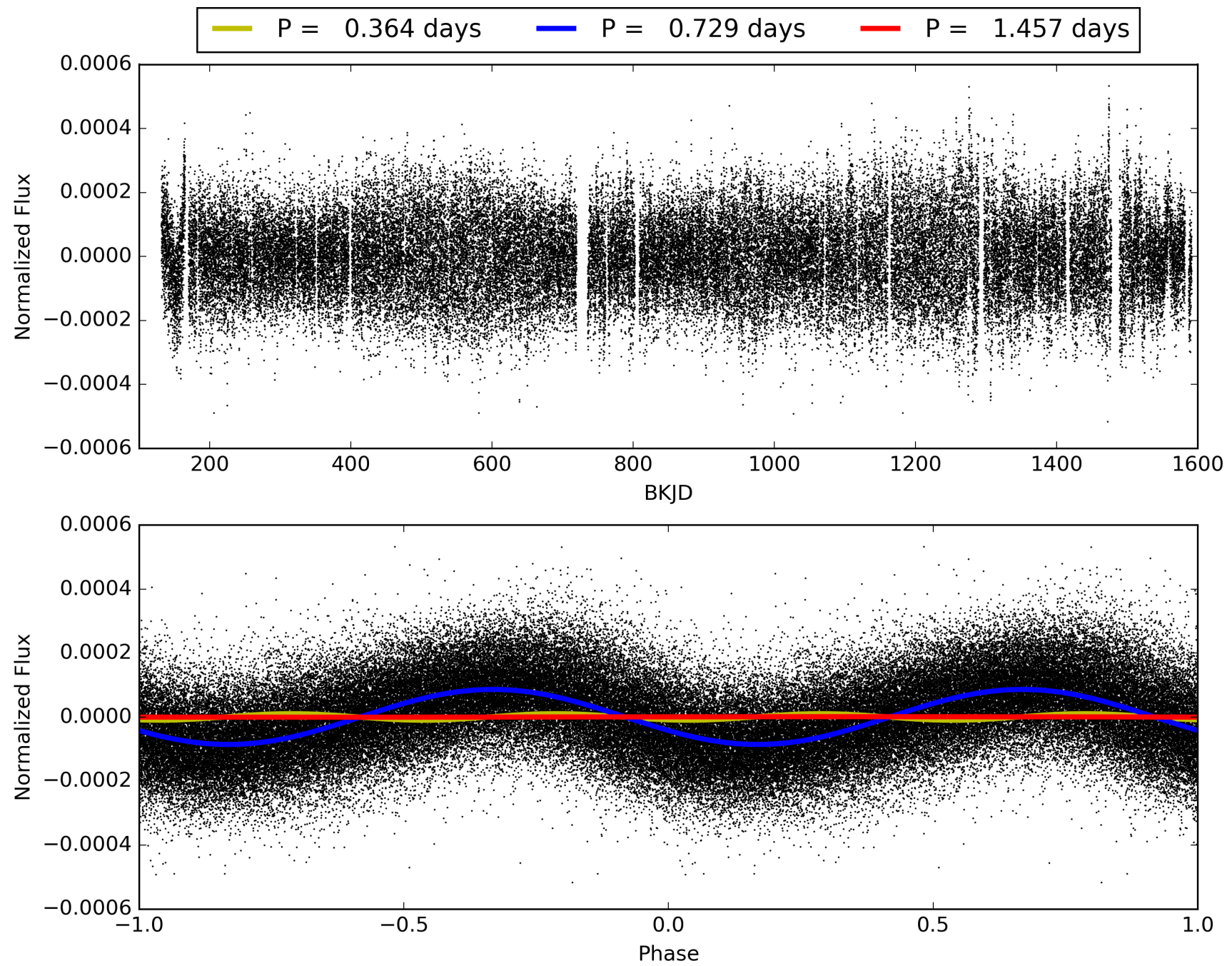
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:04:15 Z

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

TCE 006430330-01, PDC Light Curves

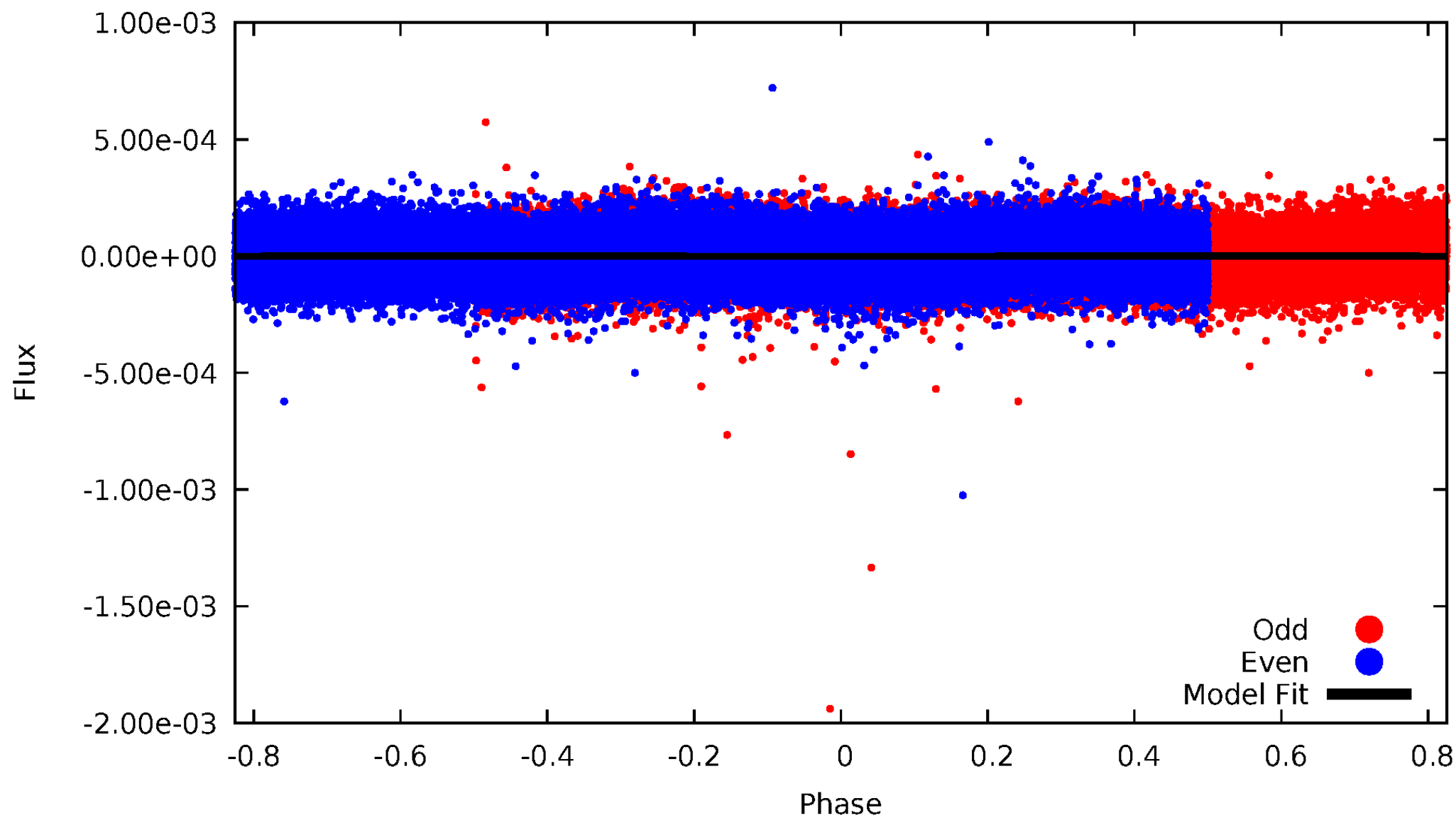


TCE 006430330-01



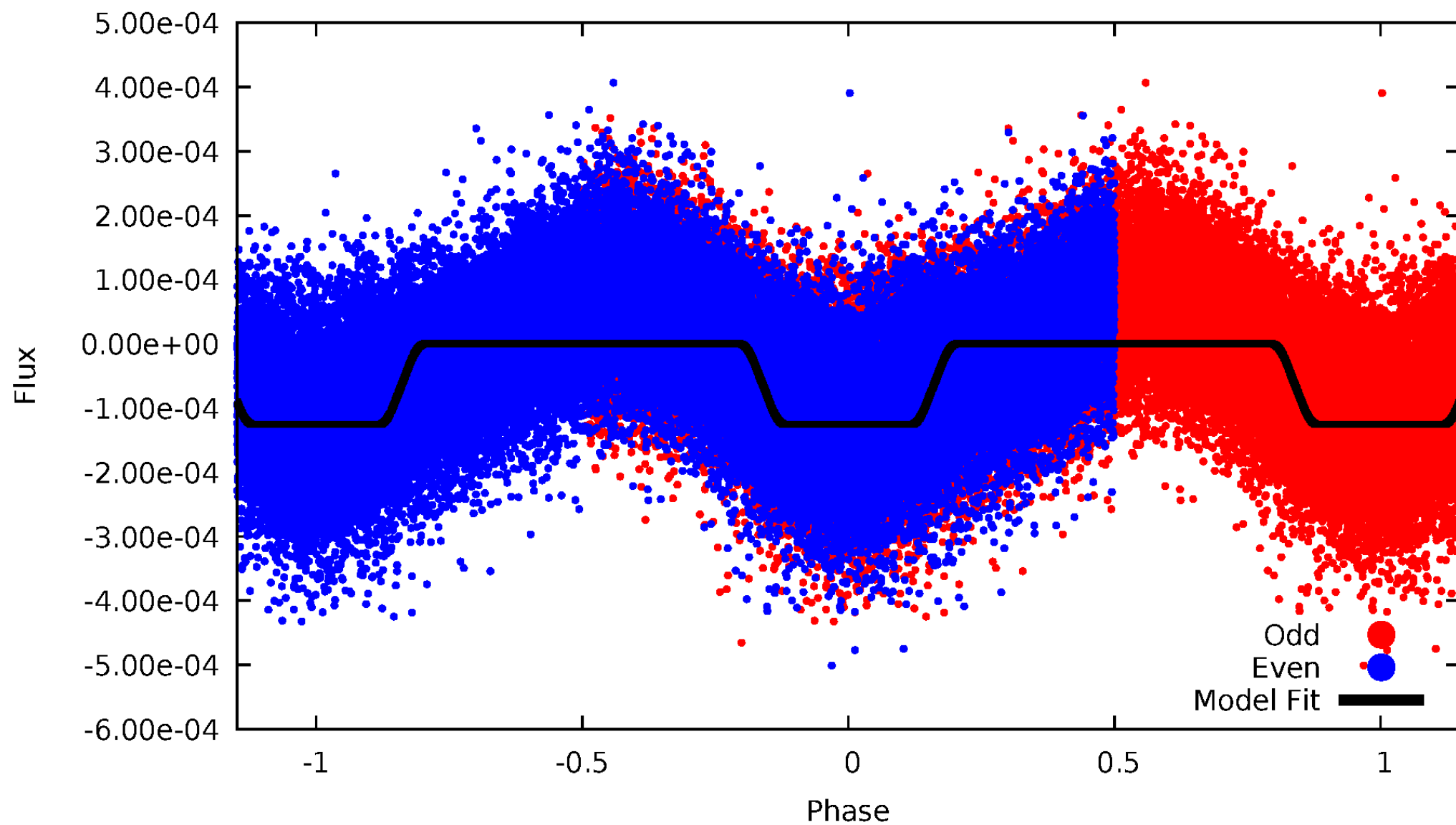
DV Odd/Even

TCE 006430330-01



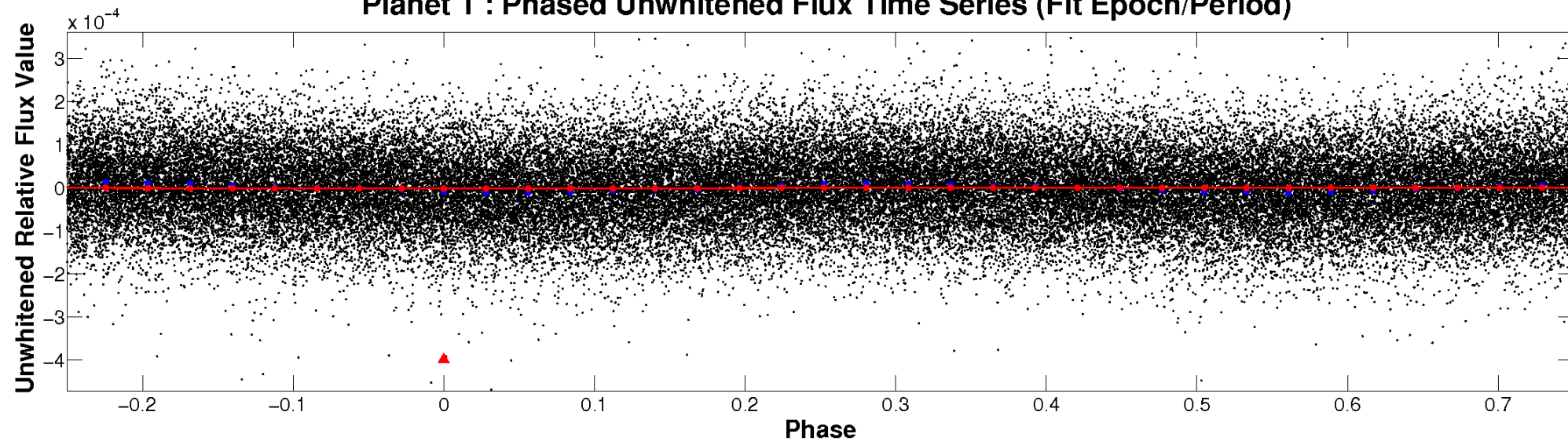
ALT Odd/Even

TCE 006430330-01

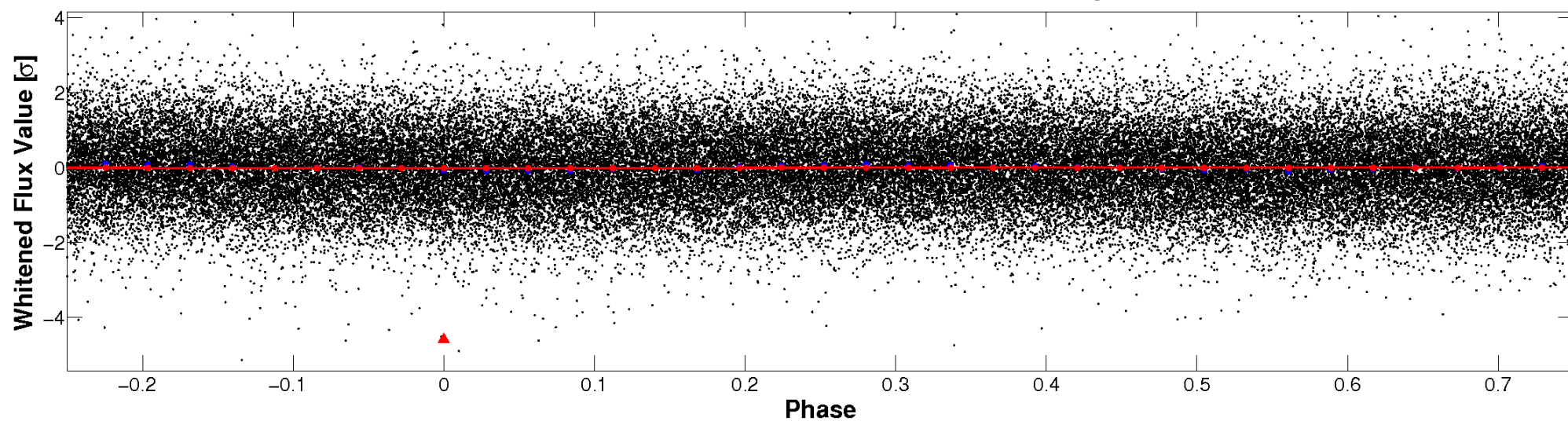


Non-Whitened Vs. Whitened Light Curve

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

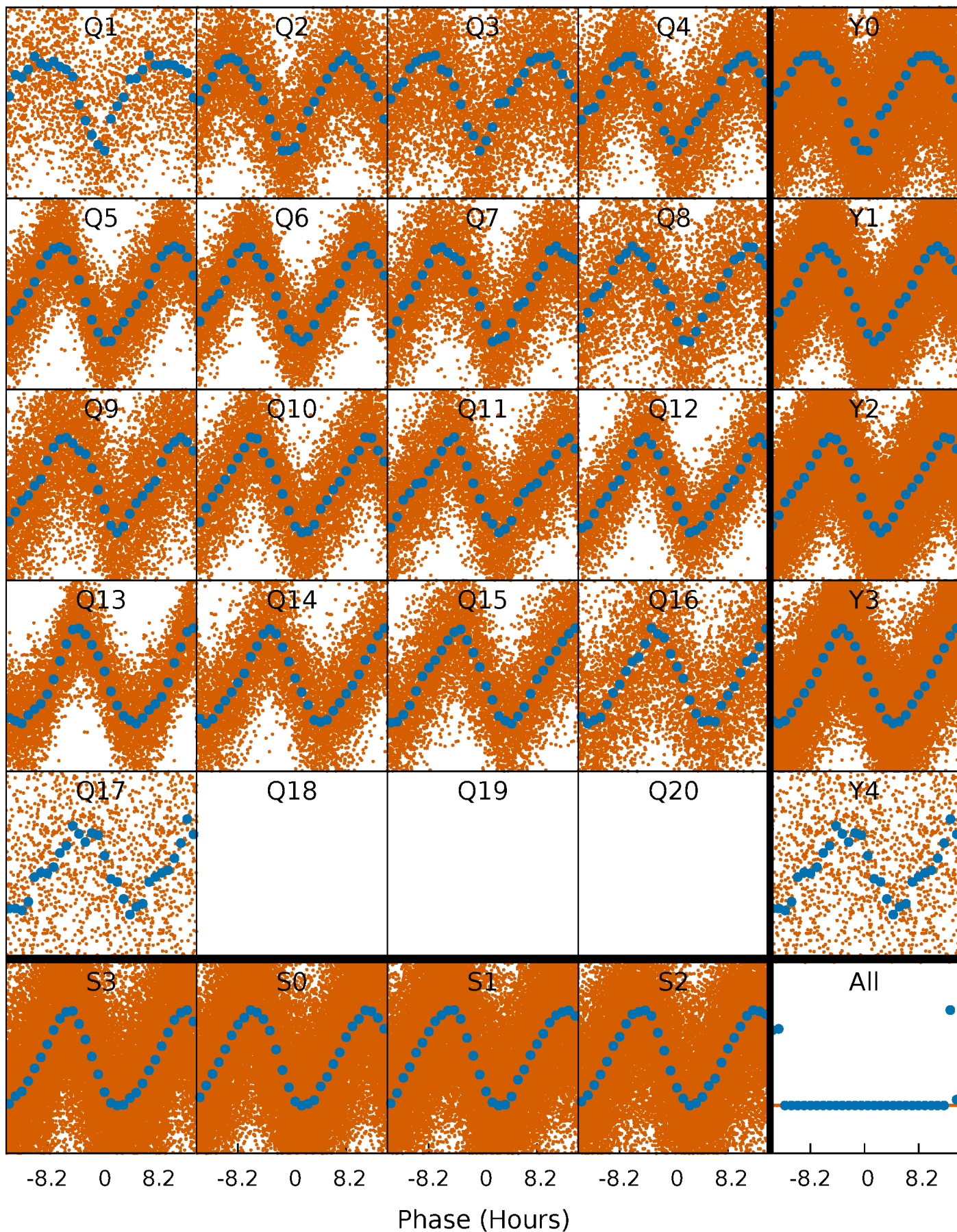


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



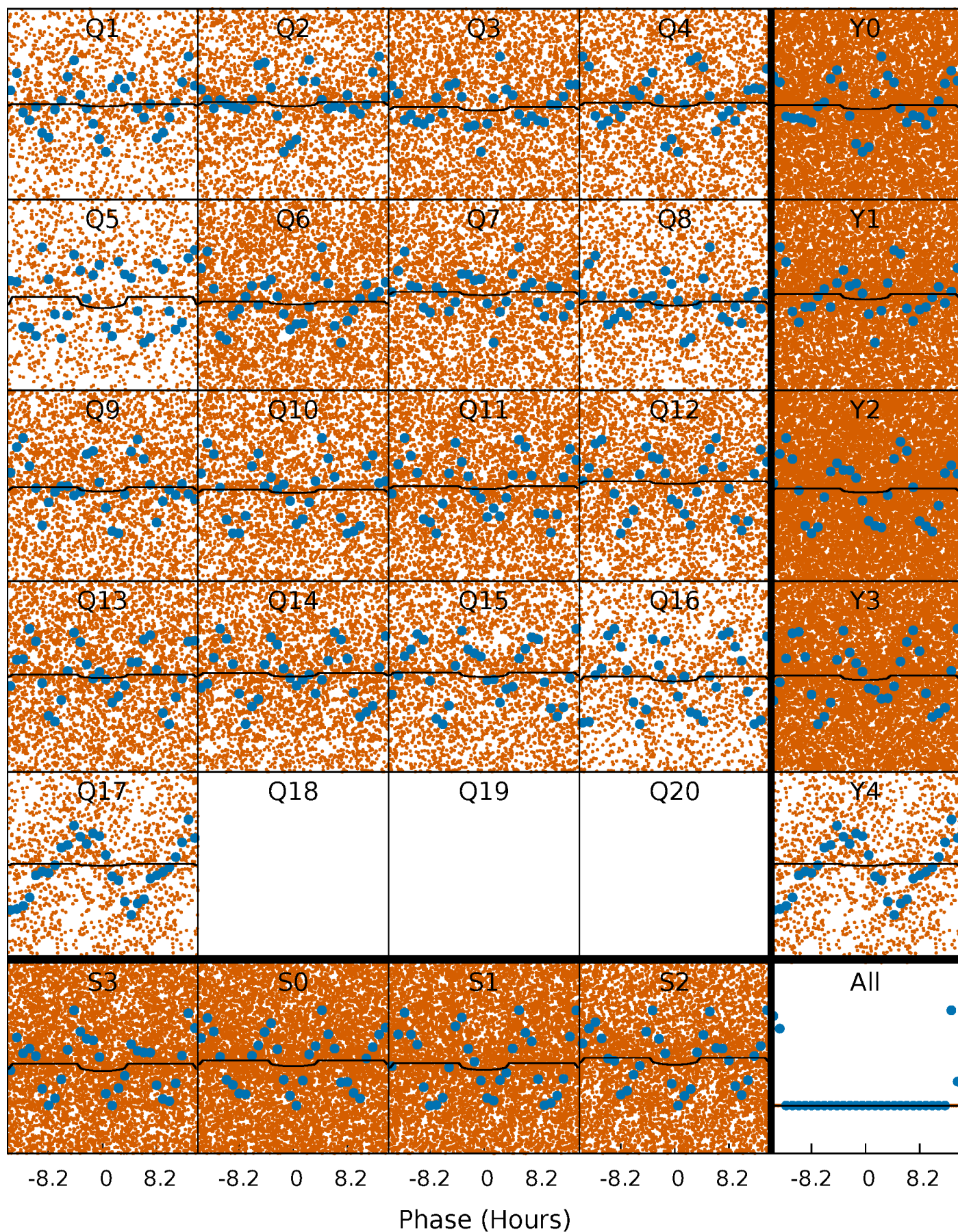
PDC Quarter-Phased Transit Curves

TCE 006430330-01 P= 0.728502 Days $T_0=131.805730$ (BKJD)



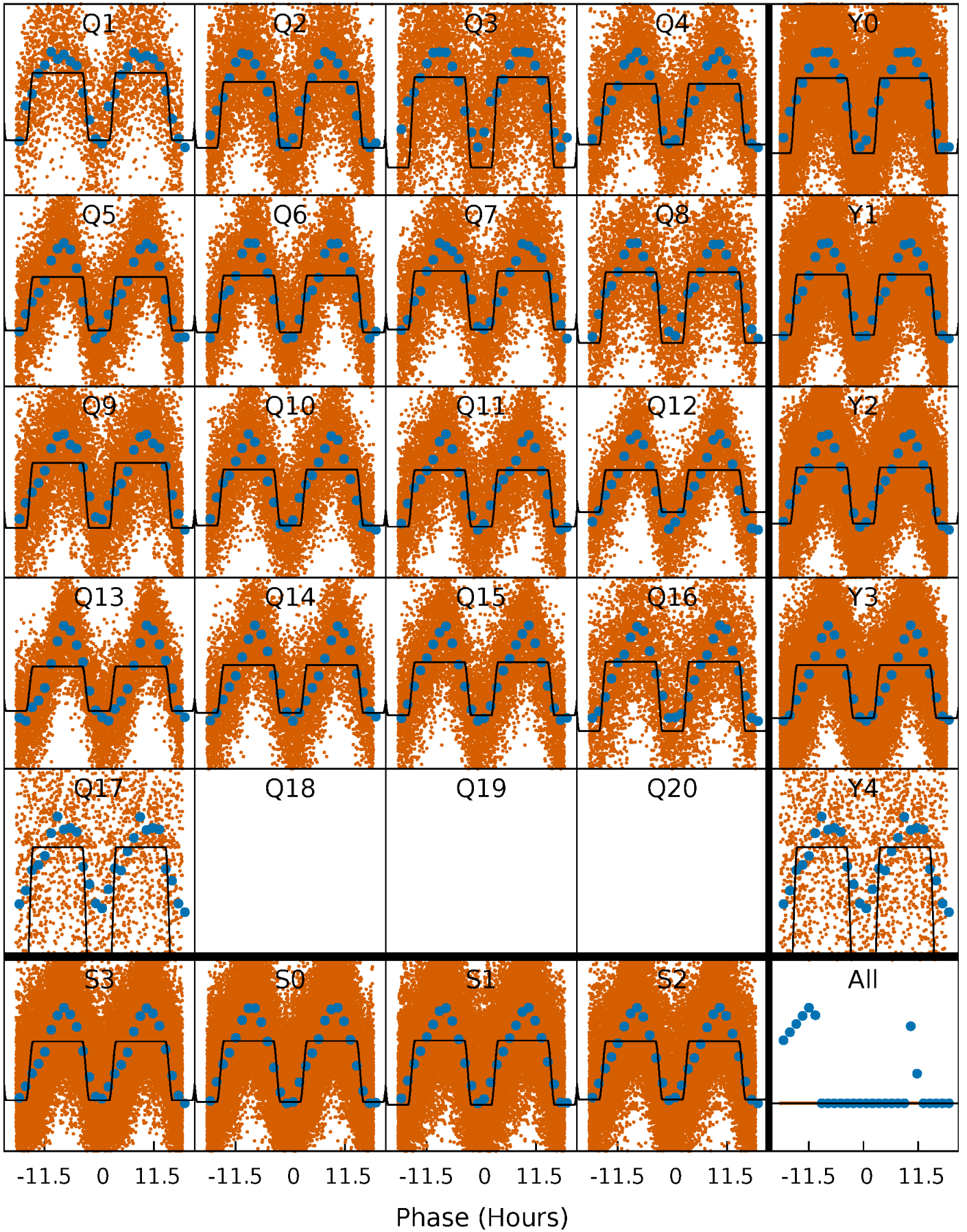
DV Quarter-Phased Transit Curves

TCE 006430330-01 P= 0.728502 Days $T_0=131.805730$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

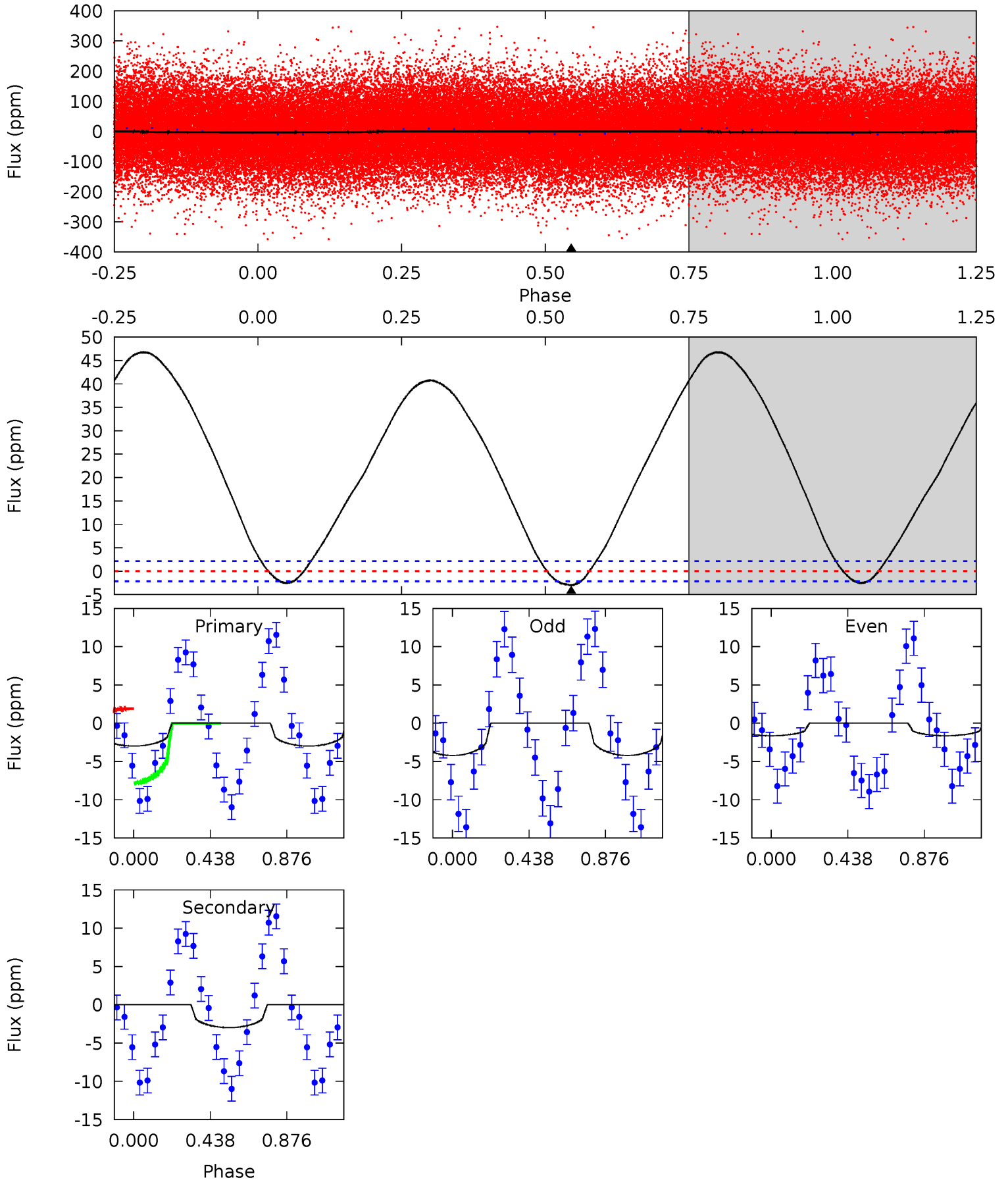
TCE 006430330-01 P= 0.728602 Days $T_0=131.802862$ (BKJD)



DV Model-Shift Uniqueness Test

006430330-01, P = 0.728502 Days, E = 131.077228 Days

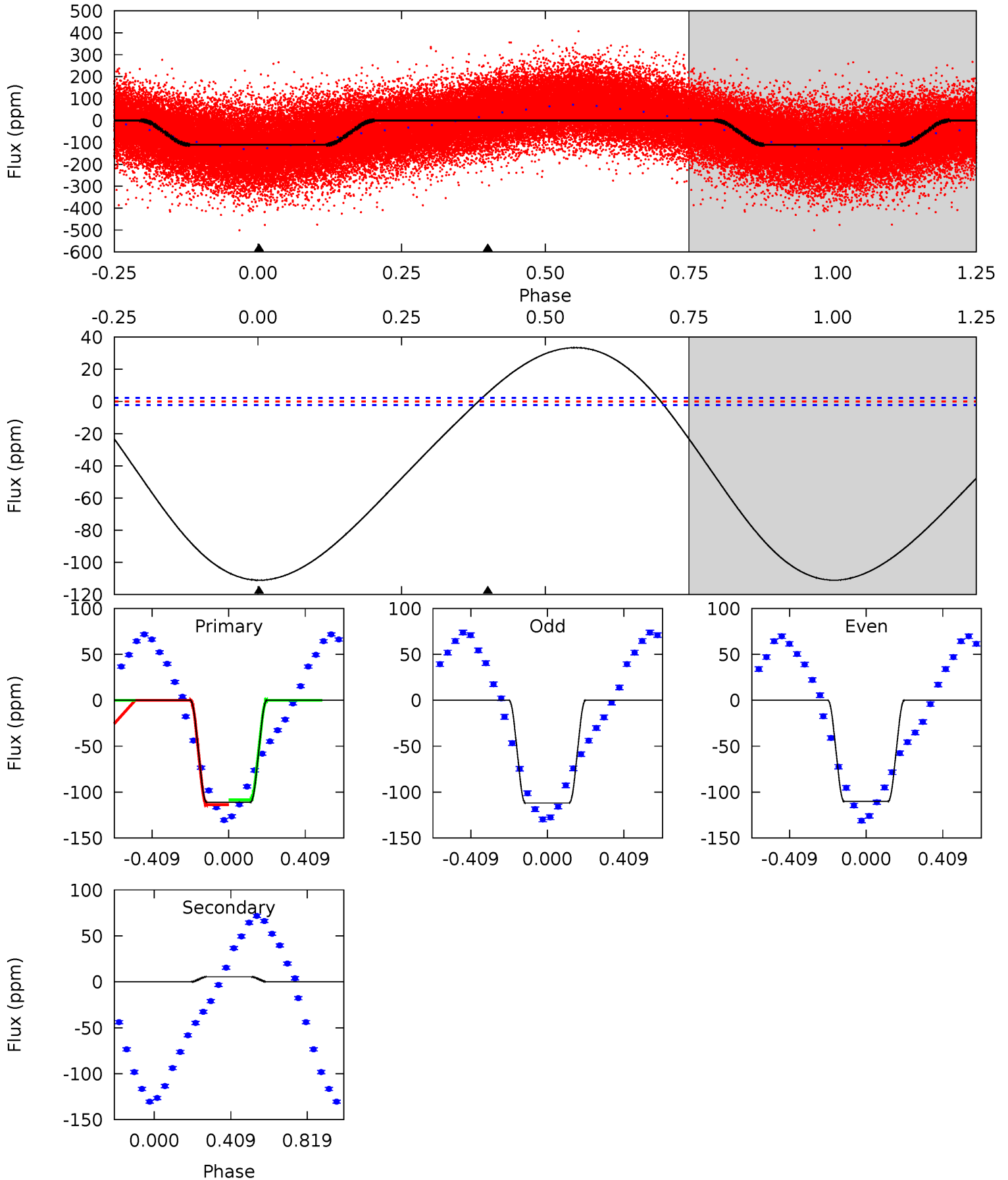
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.95	5.95	0	0	4.24	0.78	5.40	5.95	5.95	5.95	5.95	2.56	0.99	0.94	5.79



Alt Model-Shift Uniqueness Test

006430330-01, P = 0.728602 Days, E = 131.074260 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
211.5	-10.3	0	0	4.26	0.83	24.1	211.5	211.5	-10.3	-10.3	1.60	0.99	0.23	4.88



Stellar Parameters For KIC 006430330

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+189}_{-259}	$3.917^{+0.336}_{-0.144}$	$-0.040^{+0.250}_{-0.300}$	$2.264^{+0.597}_{-0.895}$	$1.544^{+0.190}_{-0.354}$	$0.187^{+0.479}_{-0.077}$
	+3%/-4%	+9%/-4%	+625%/-750%	+26%/-40%	+12%/-23%	+256%/-41%
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 006430330-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3 ± 1	$0.70^{+0.74}_{-0.50}$	4482^{+391}_{-469}	4667^{+5282}_{-7555}	$1.054^{+11.280}_{-0.791}$
Alt.	5 ± 1	$2.57^{+1.12}_{-0.91}$	4488^{+363}_{-493}	-4312^{+267}_{-330}	$-0.144^{+0.071}_{-0.207}$

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

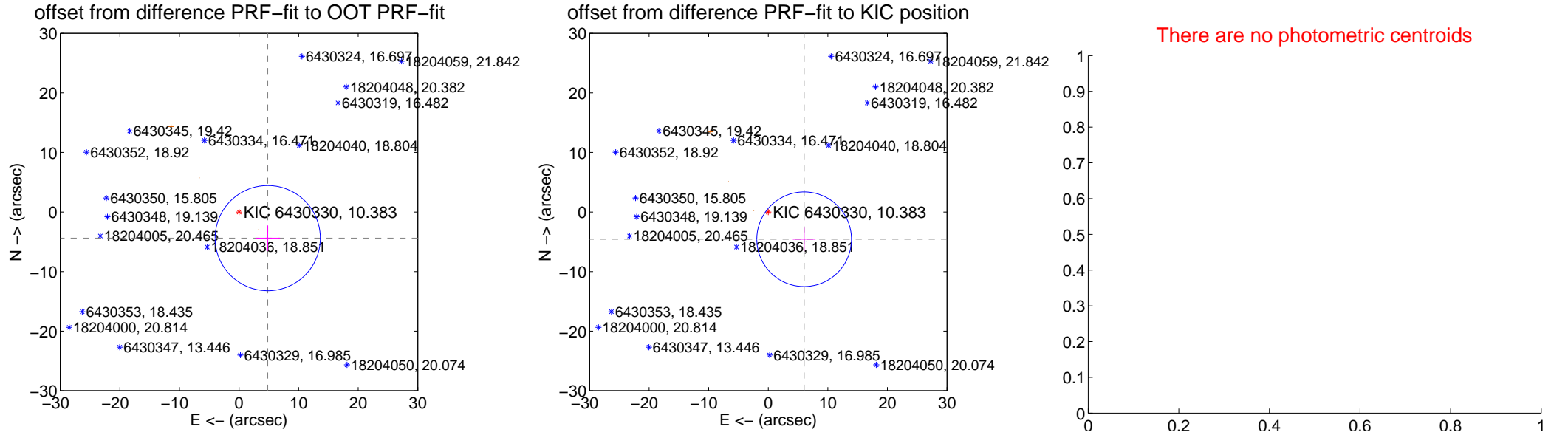
DV Centroid Data

Supplemental centroid analysis for 006430330-01. **Kepler magnitude: 10.38.** Transit SNR 2.04

There are 3 quarters with good PRF difference image offsets

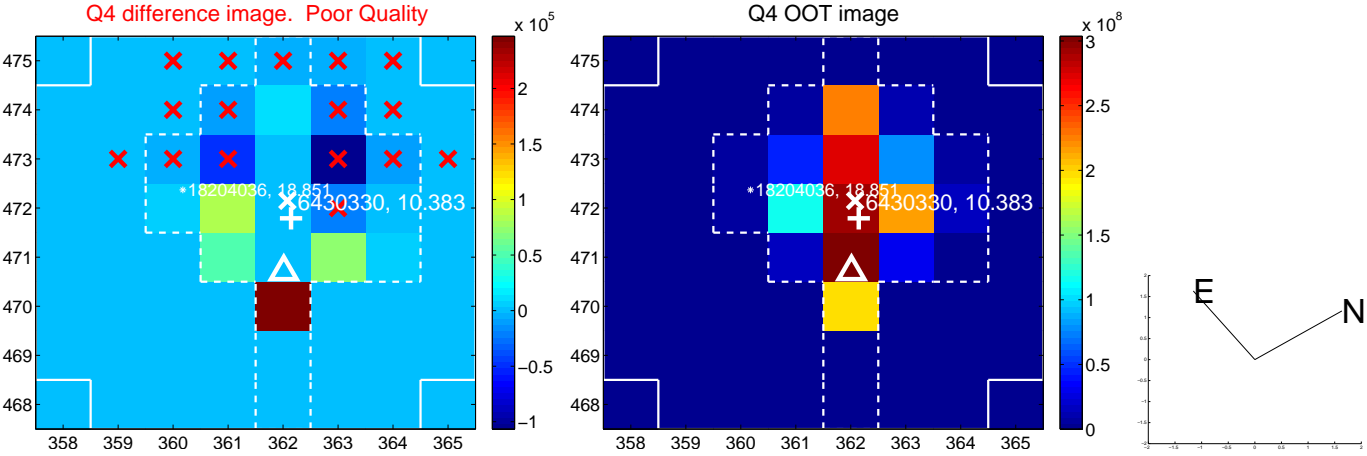
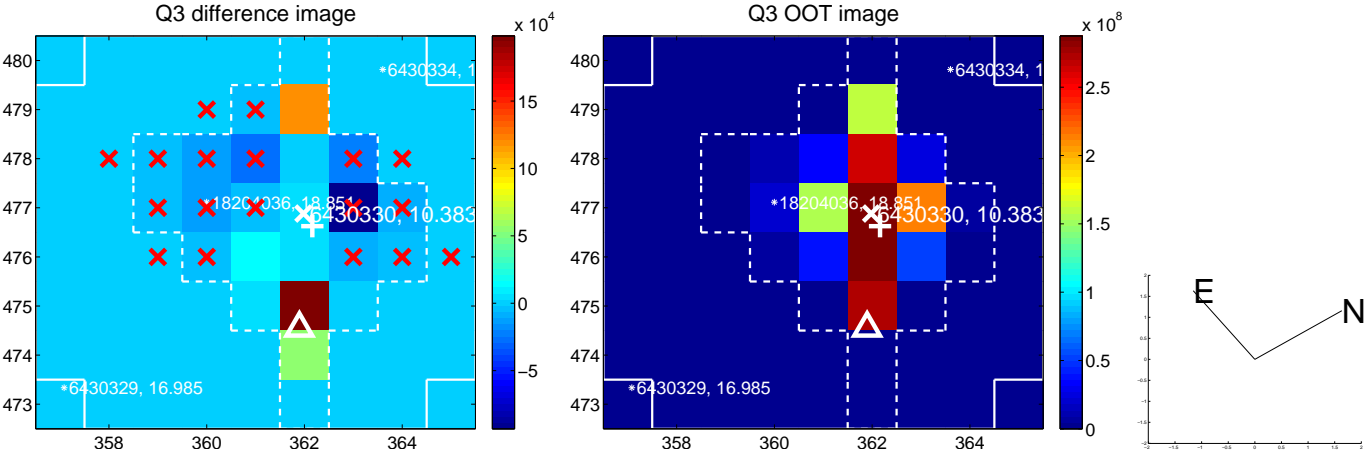
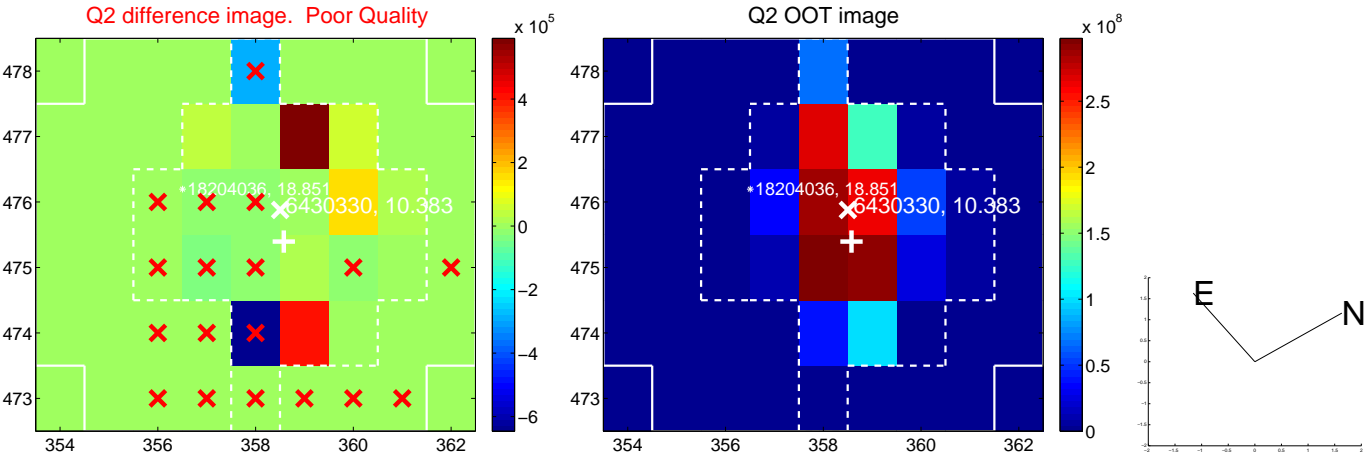
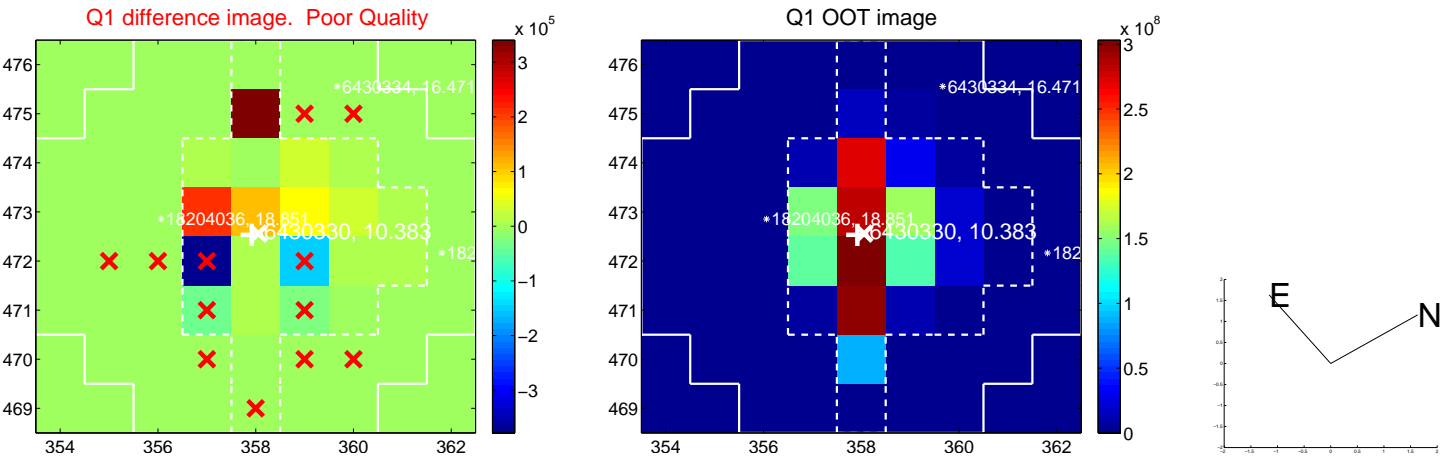
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.510 ± 2.942	2.21	-4.815 ± 2.064	-4.382 ± 2.135
PRF-fit source offset from KIC position	7.558 ± 2.647	2.86	-6.021 ± 1.903	-4.569 ± 1.952
photometric centroid source offset	—	—	—	—

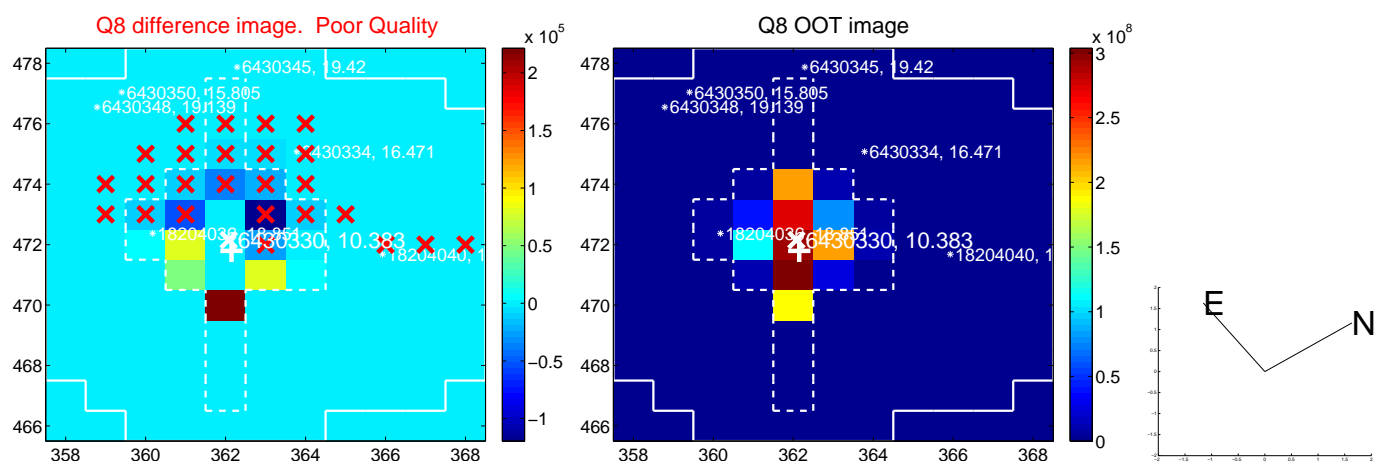
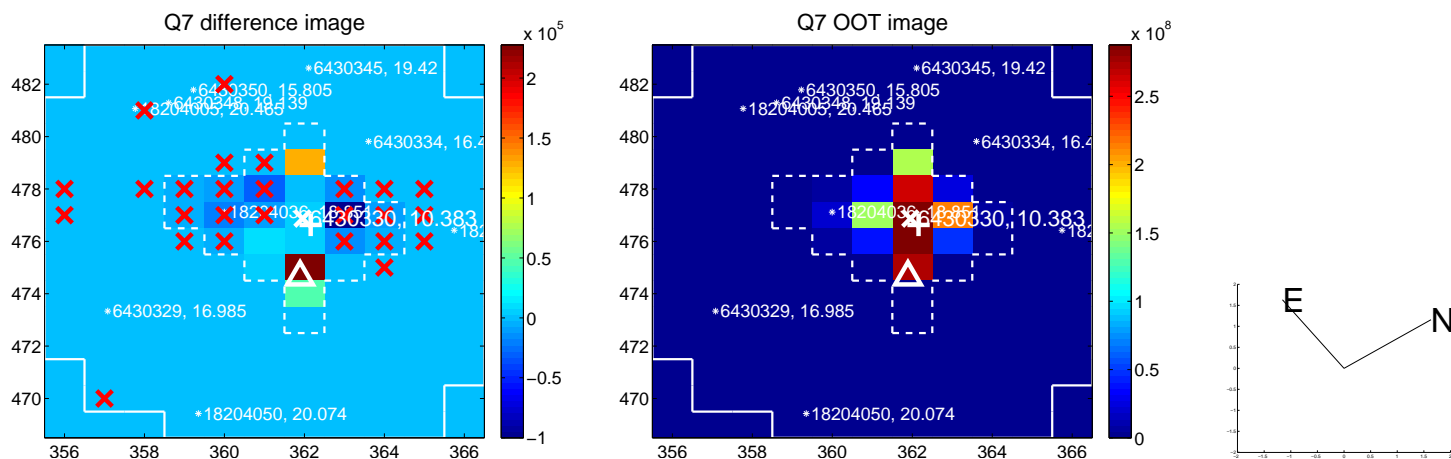
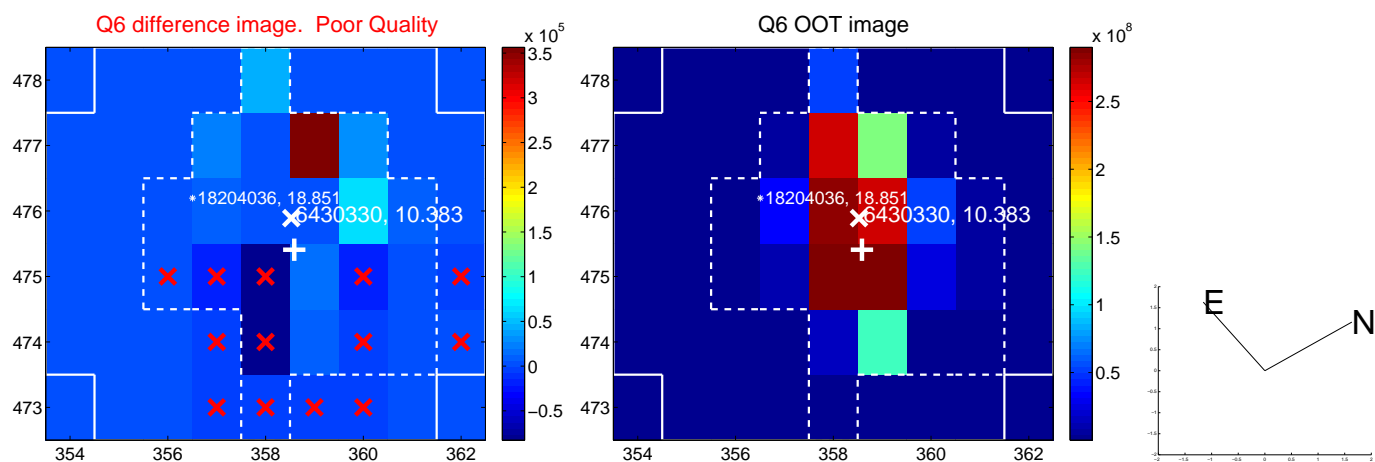
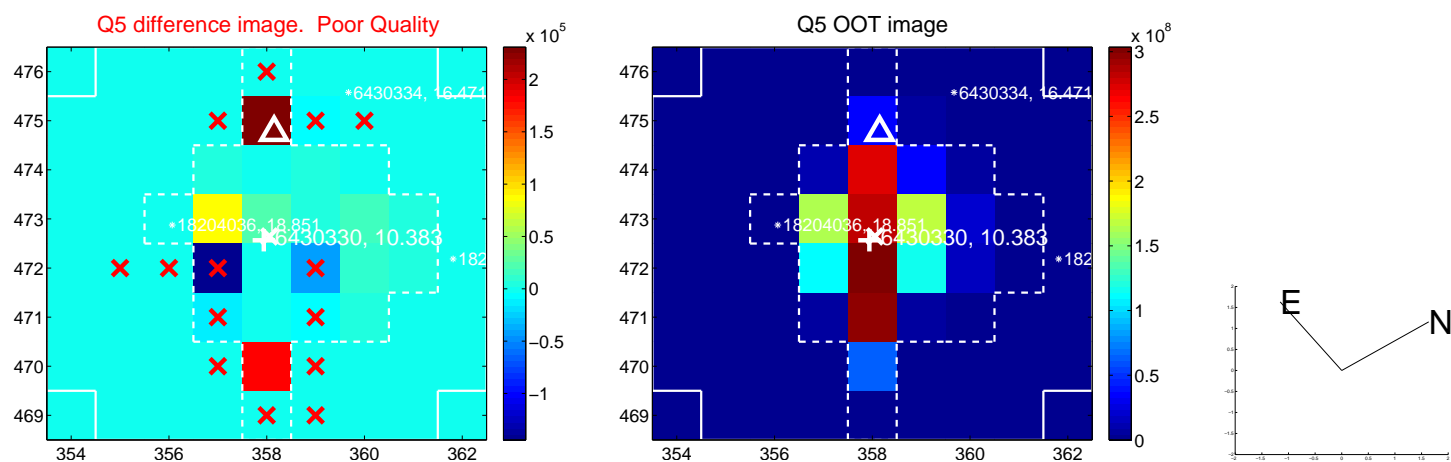


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

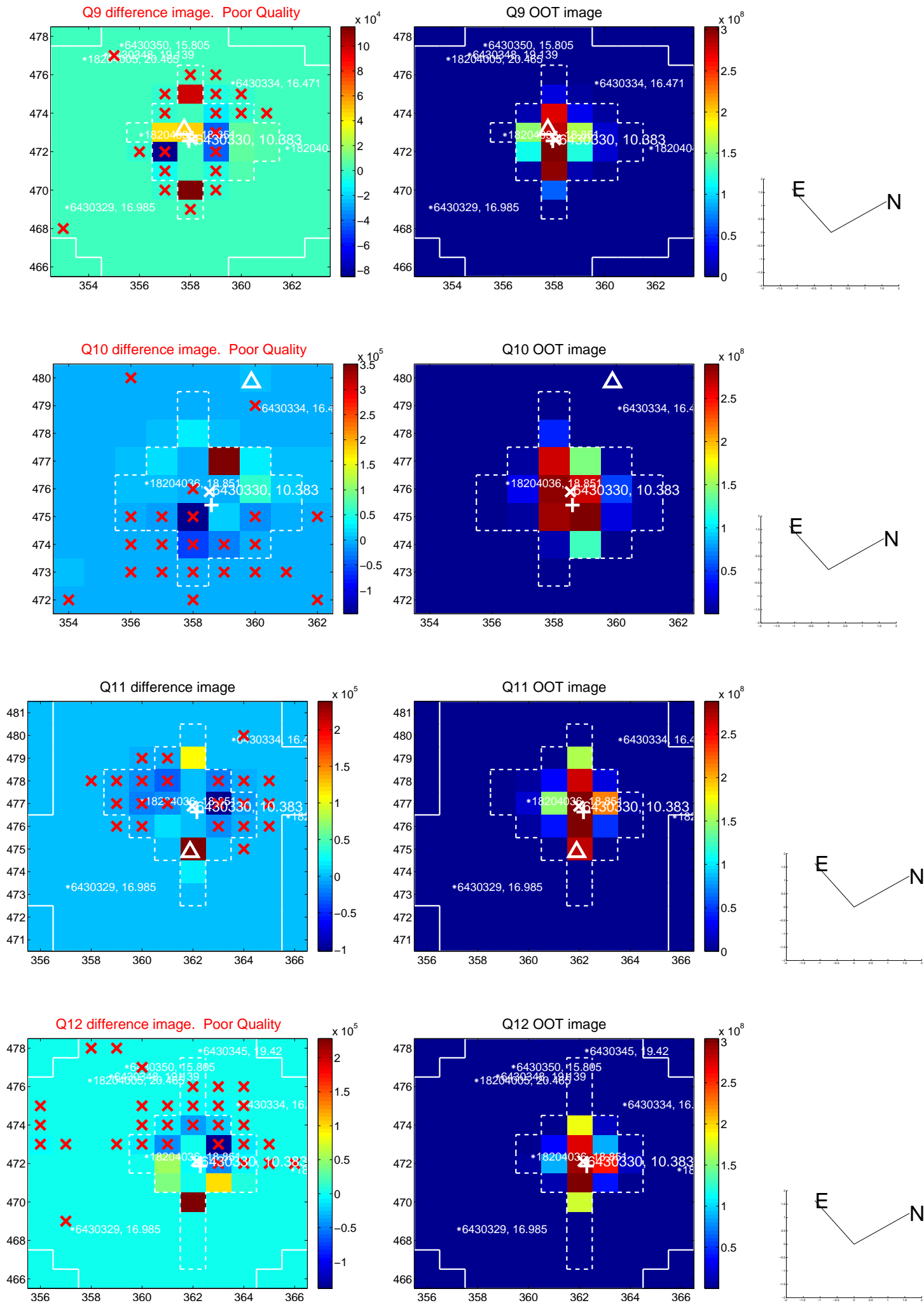
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



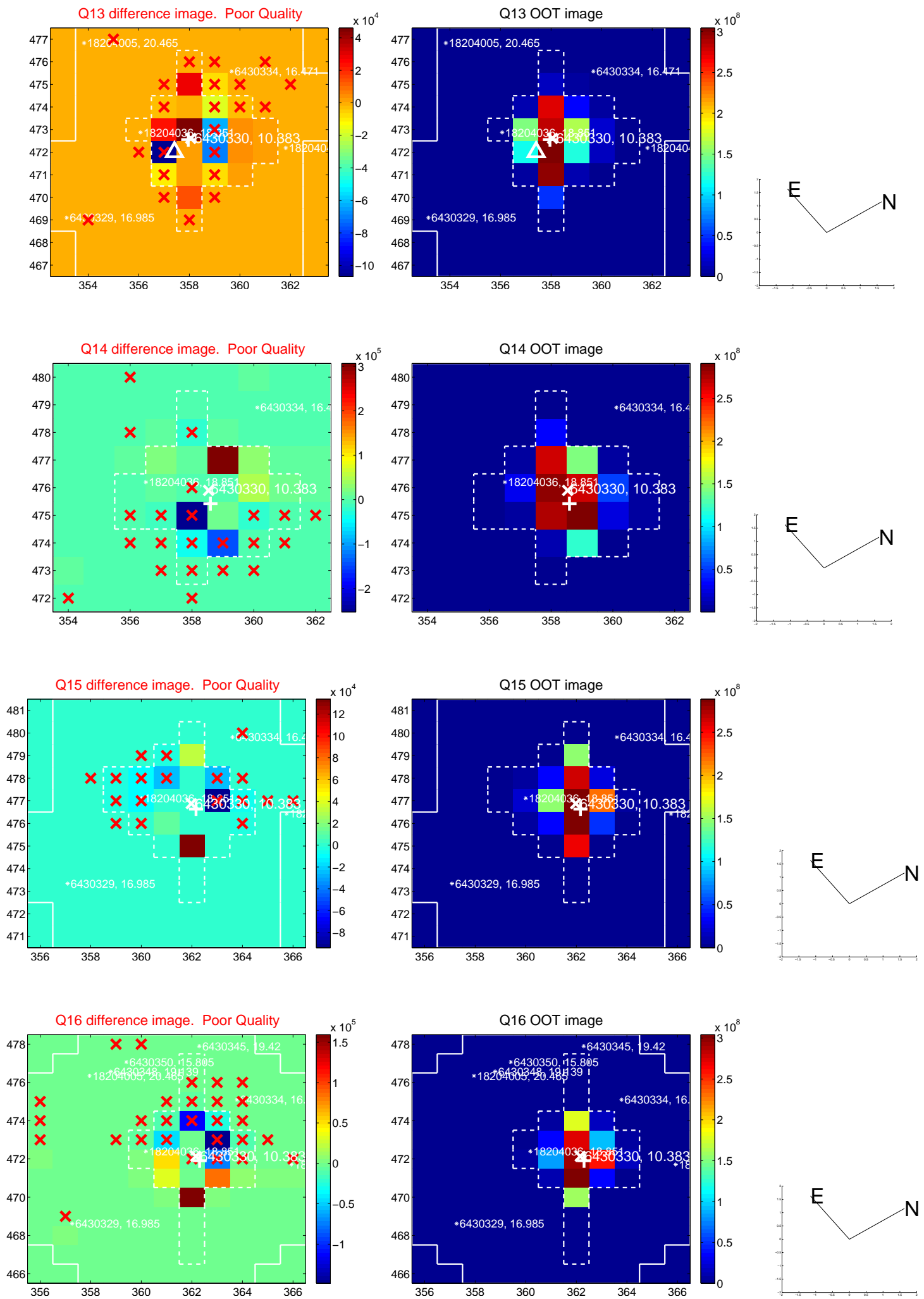
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



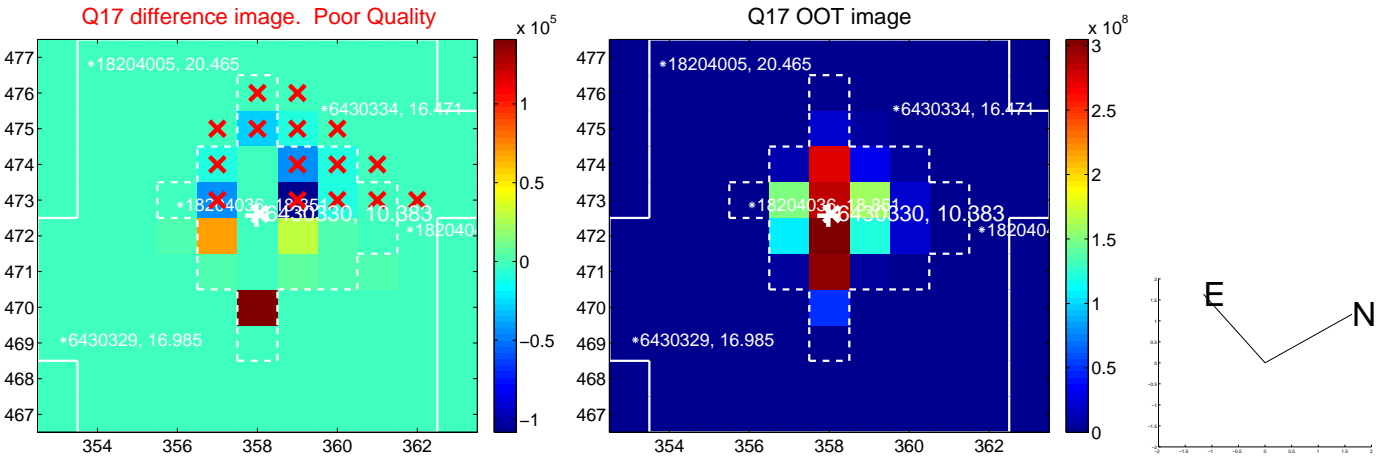
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

