

KIC 008646235

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})
008646235-01	OBS	No	1.208869	131.507017	105.8	11.797	16.3	22.2	1.81	6759	1.88	9981.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008646235-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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

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

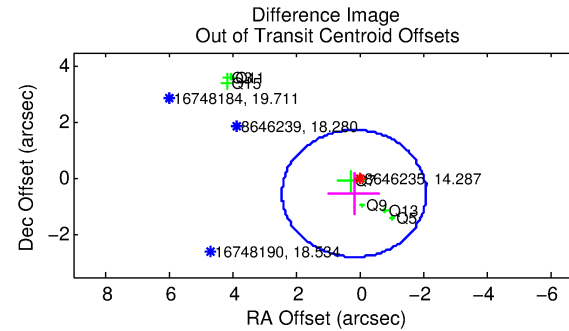
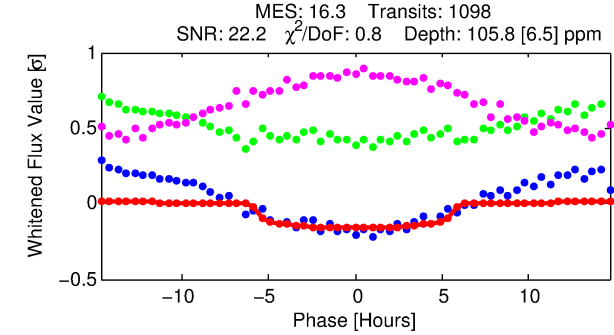
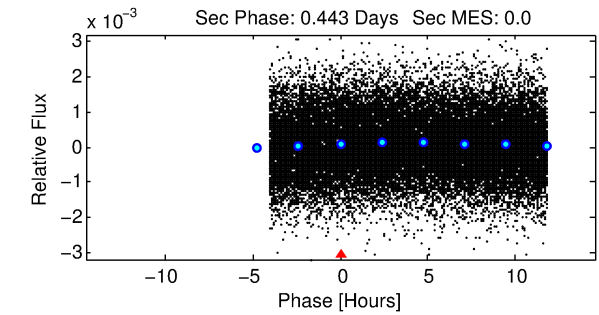
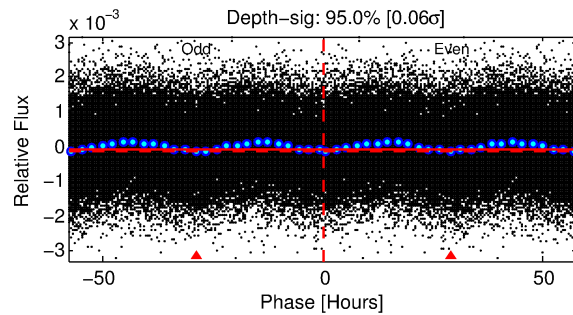
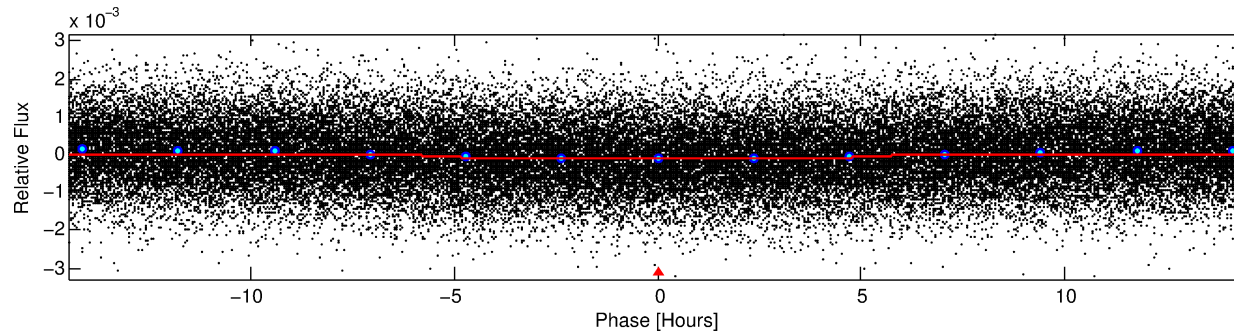
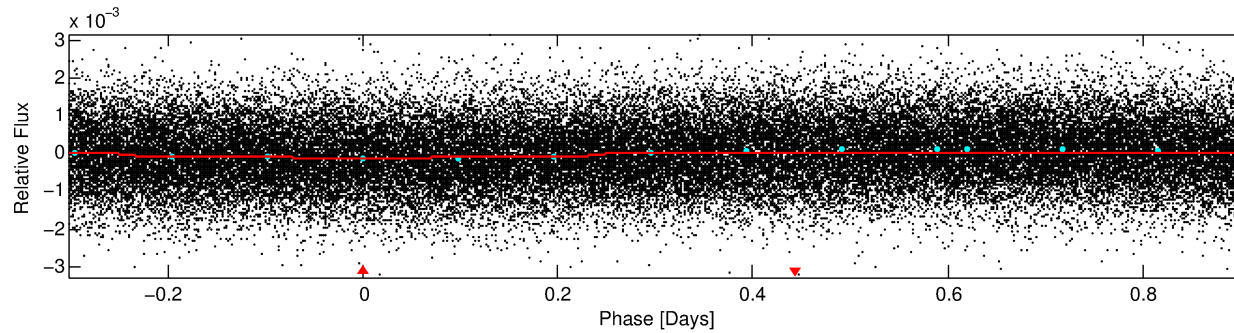
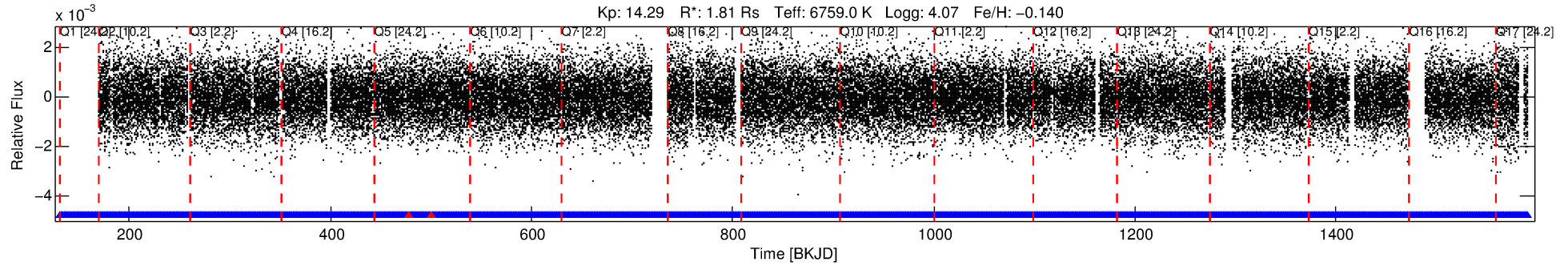
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008646235-01

No Significant Match Found

DV One-Page Summary

KIC: 8646235 Candidate: 1 of 1 Period: 1.209 d



DV Fit Results:

Period = 1.20887 [0.00001] d
Epoch = 131.5070 [0.0059] BKJD
Rp/R* = 0.0095 [0.0049]
a/R* = 1.05 [0.29]
b = 0.06 [50.79]
Seff = 9981.54 [4510.34]
Teq = 2549 [288] K
Rp = 1.88 [1.12] Re
a = 0.0248 [0.0067] AU
Ag = N/A
Teffp = N/A

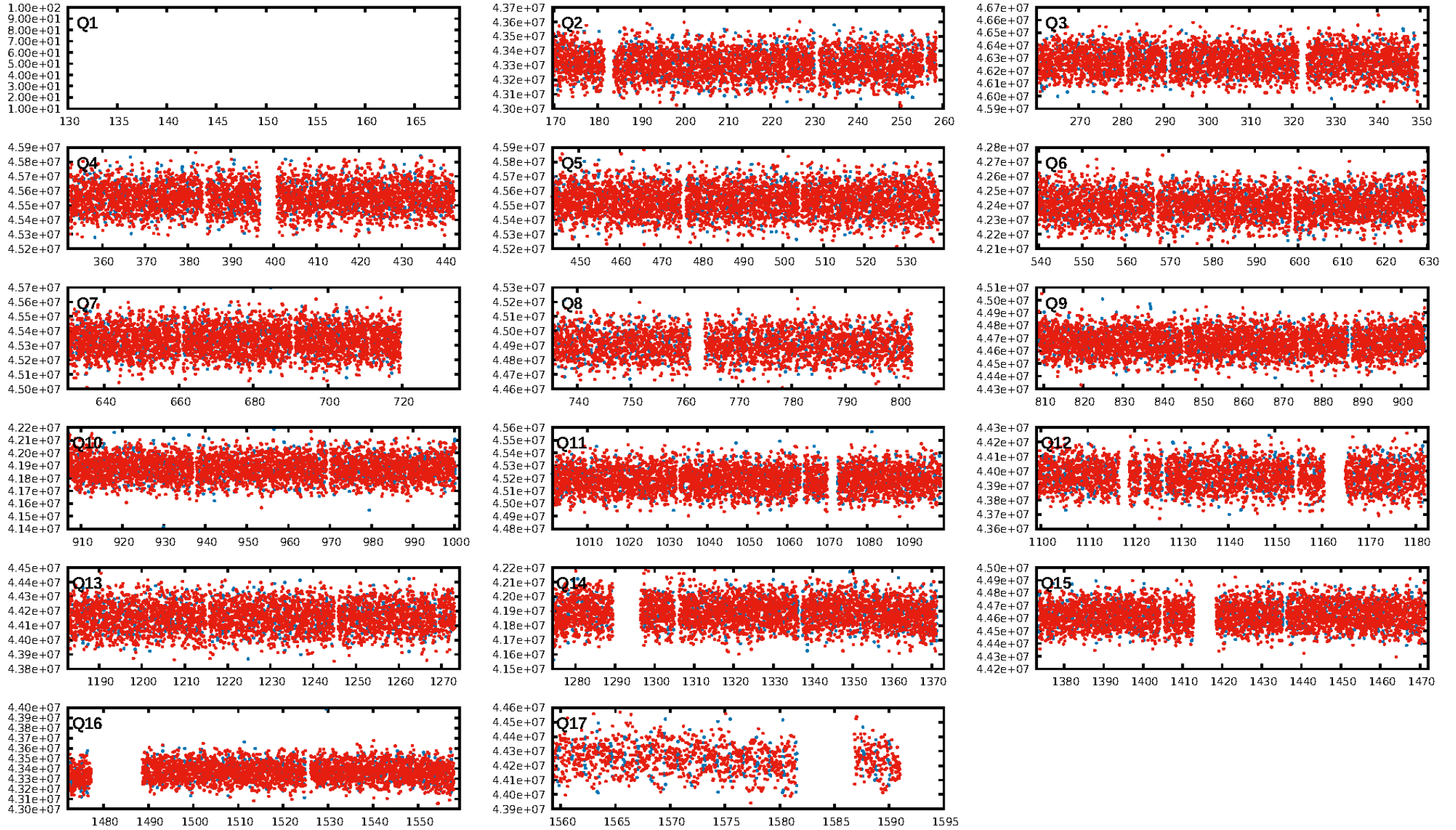
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1073/1075]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.553 arcsec [0.73 σ]
KicOffset-rm: 0.514 arcsec [0.69 σ]
OotOffset-st: 0/4/0/3 [7]
KicOffset-st: 0/4/0/3 [7]
DiffImageQuality-fgm: 0.43 [3/7]
DiffImageOverlap-fno: 1.00 [16/16]

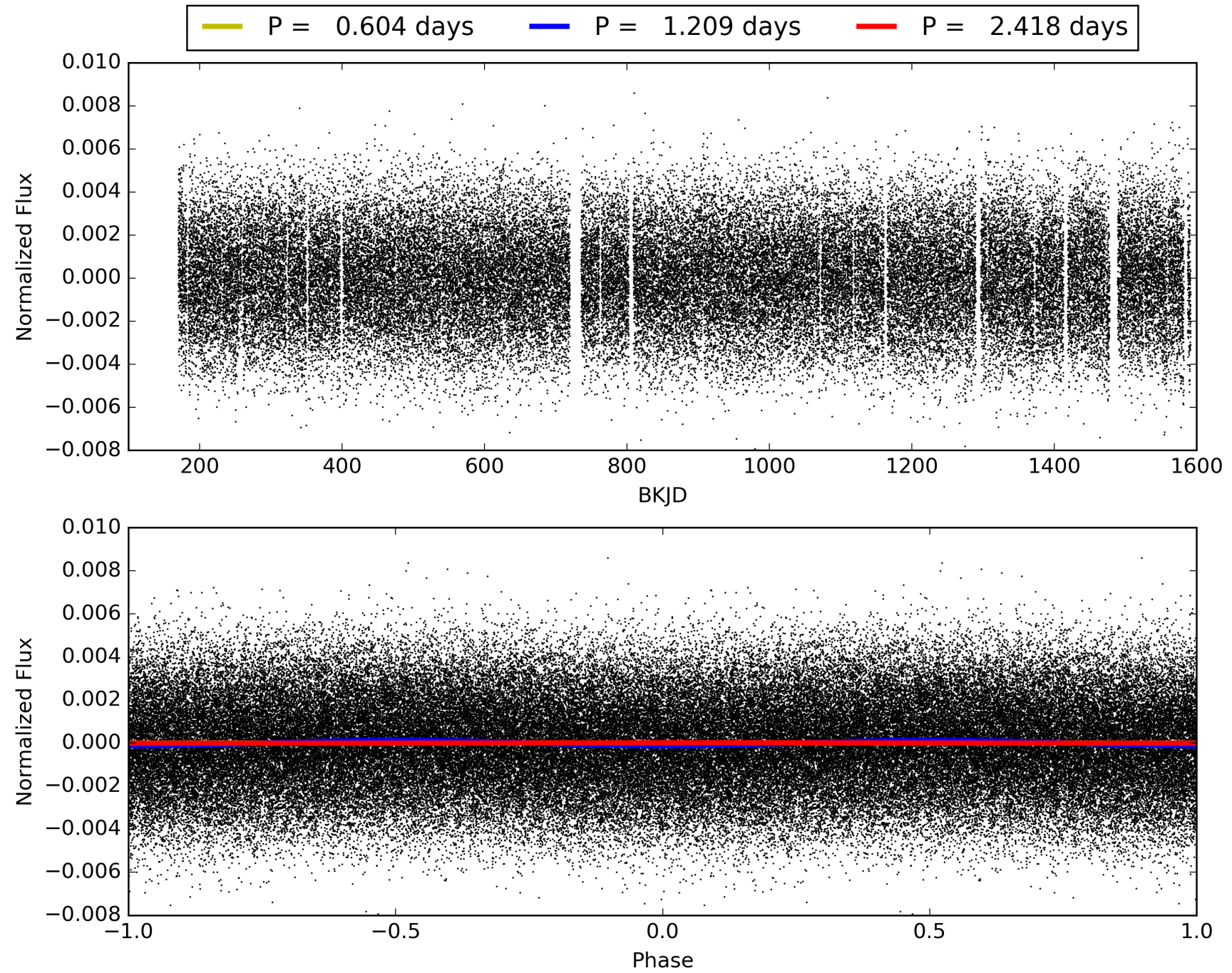
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:40:17 Z

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

TCE 008646235-01, PDC Light Curves

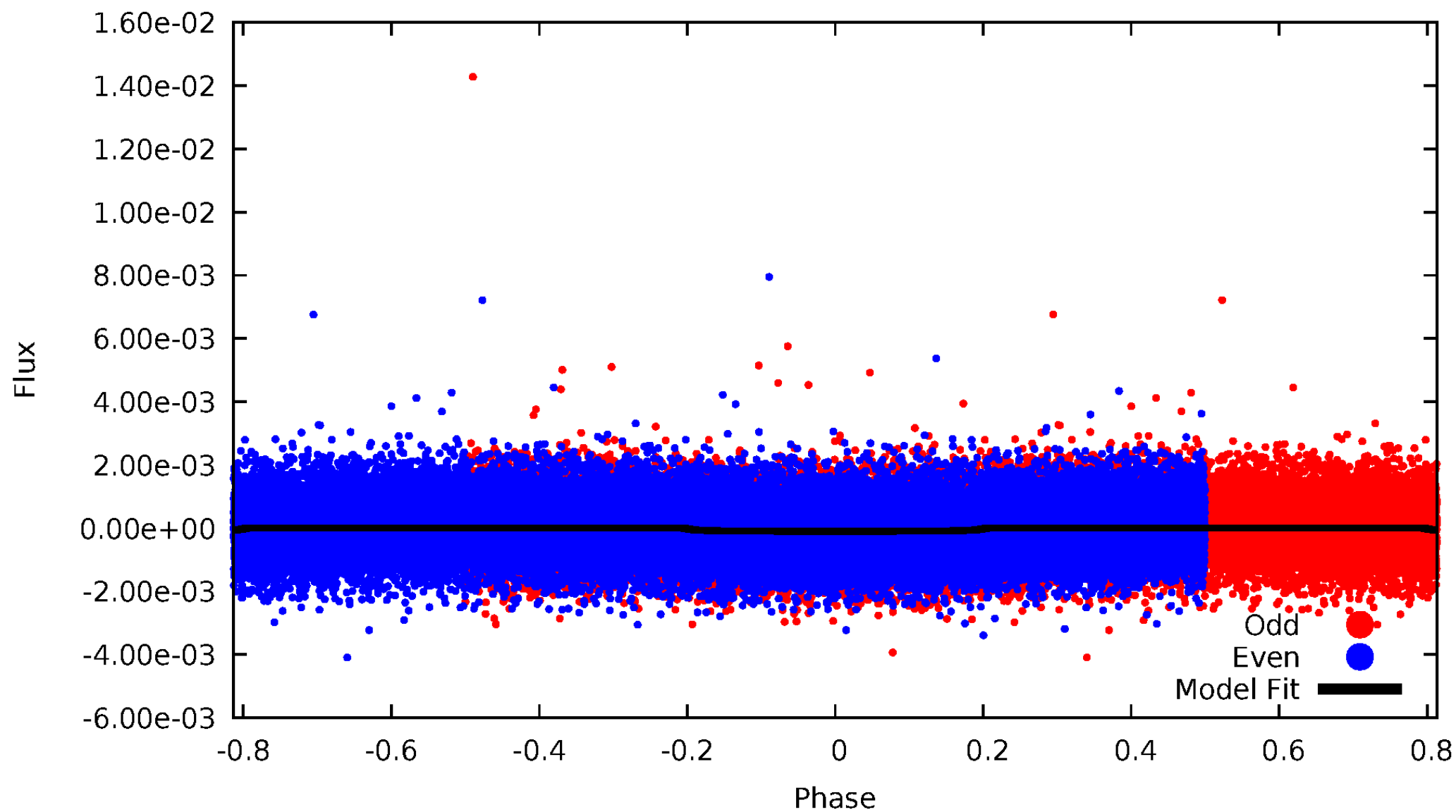


TCE 008646235-01



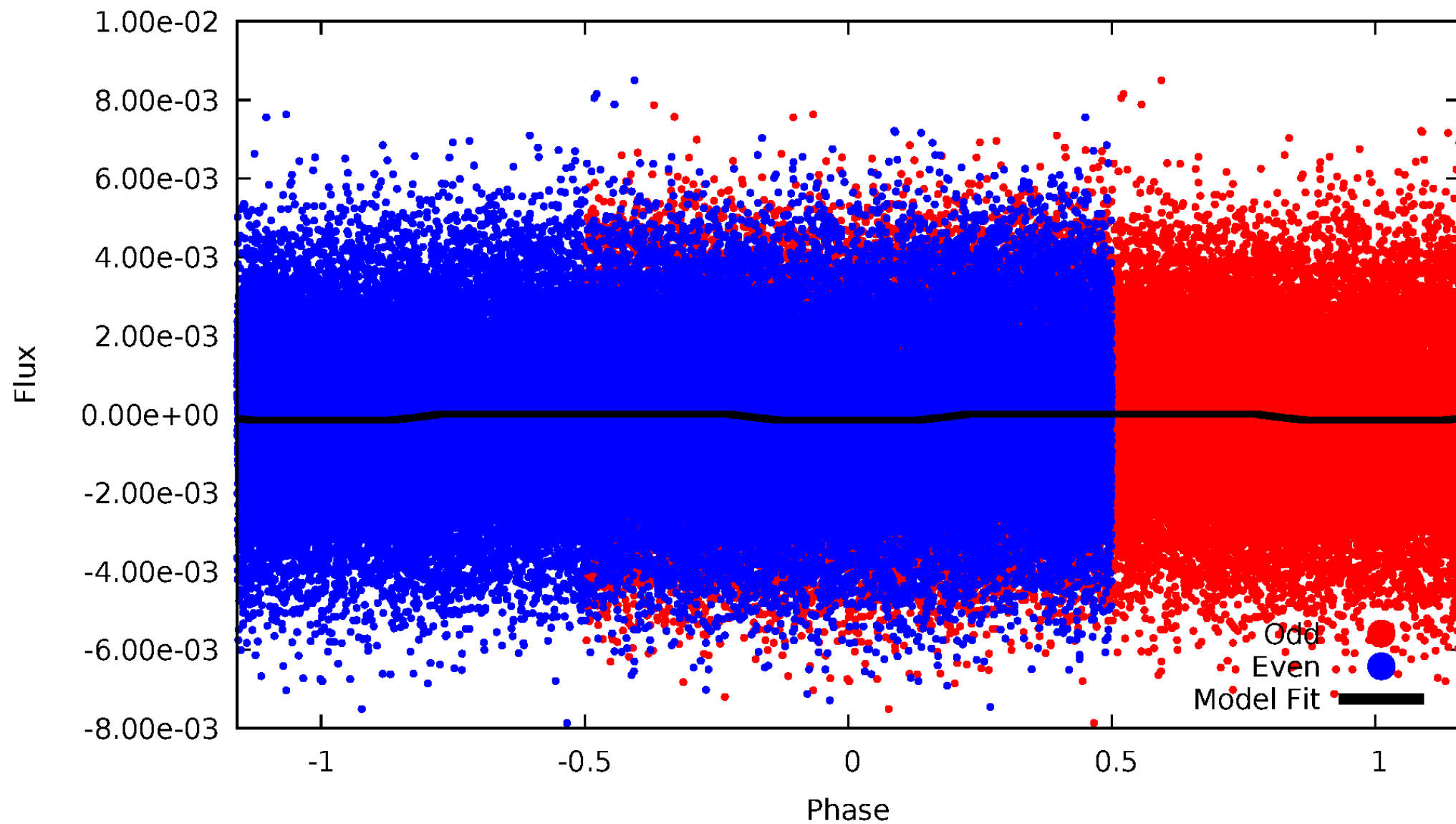
DV Odd/Even

TCE 008646235-01



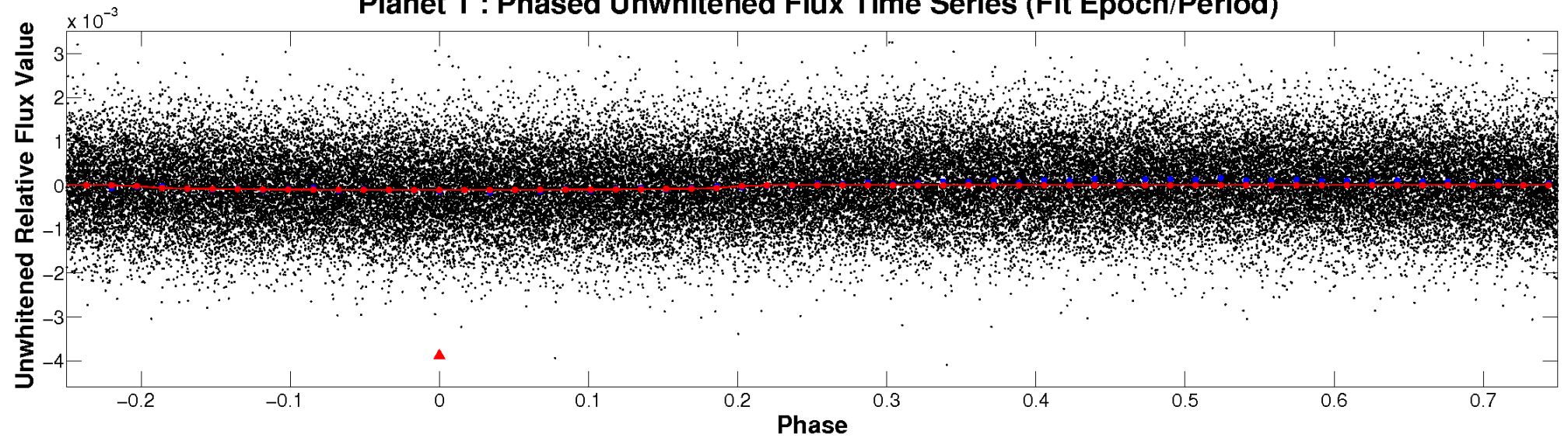
ALT Odd/Even

TCE 008646235-01

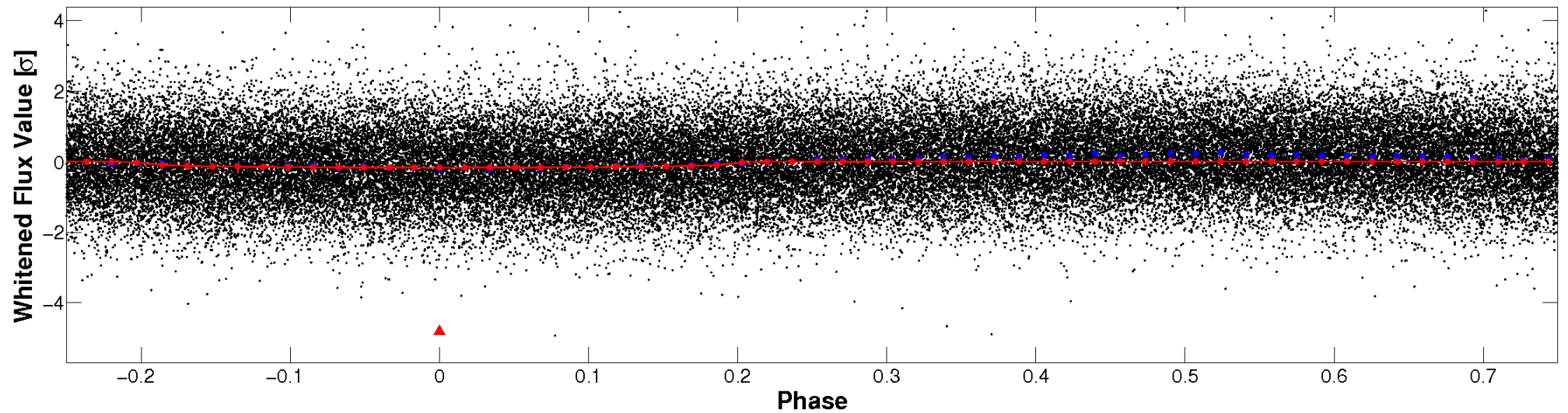


Non-Whitened Vs. Whitened Light Curve

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

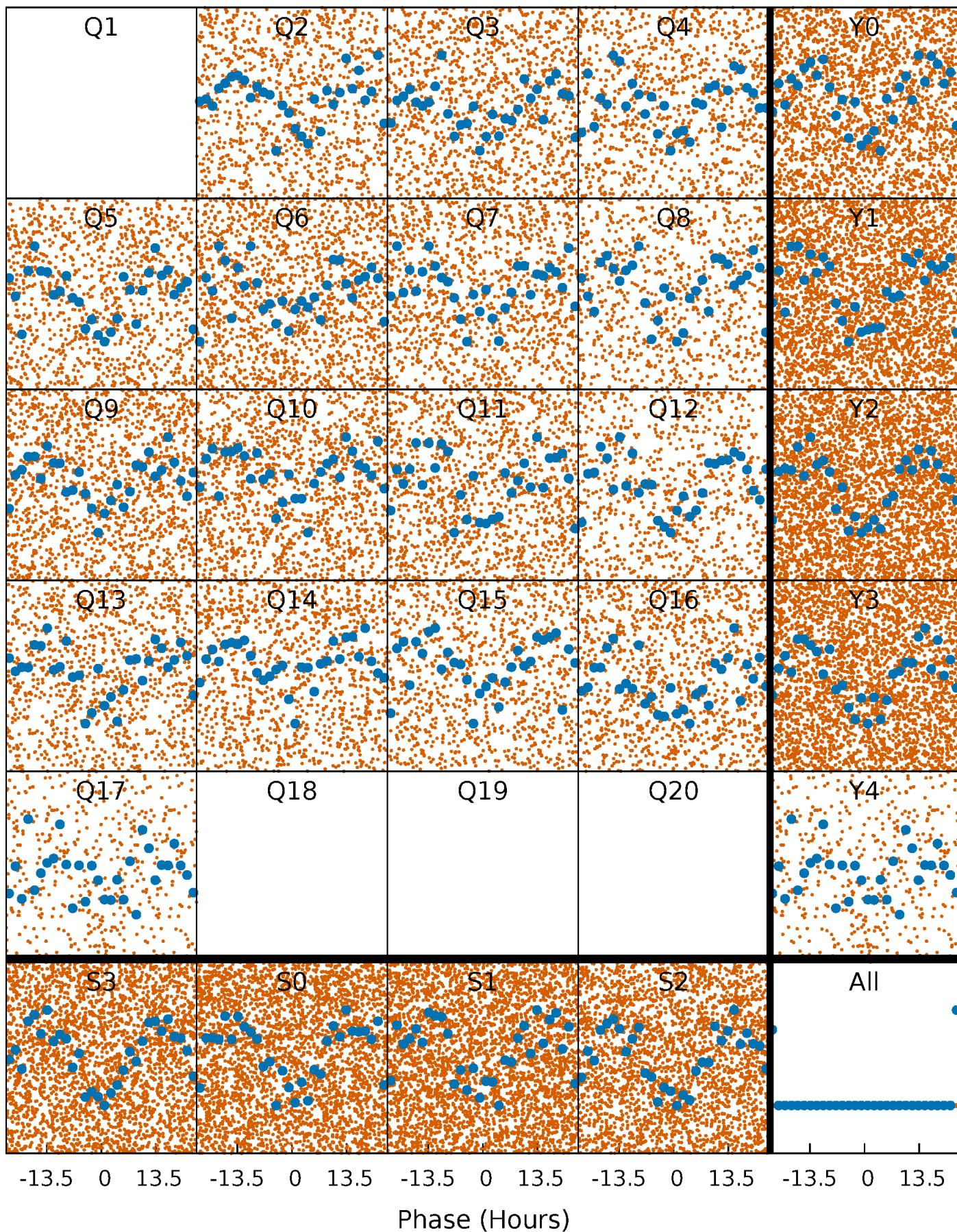


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



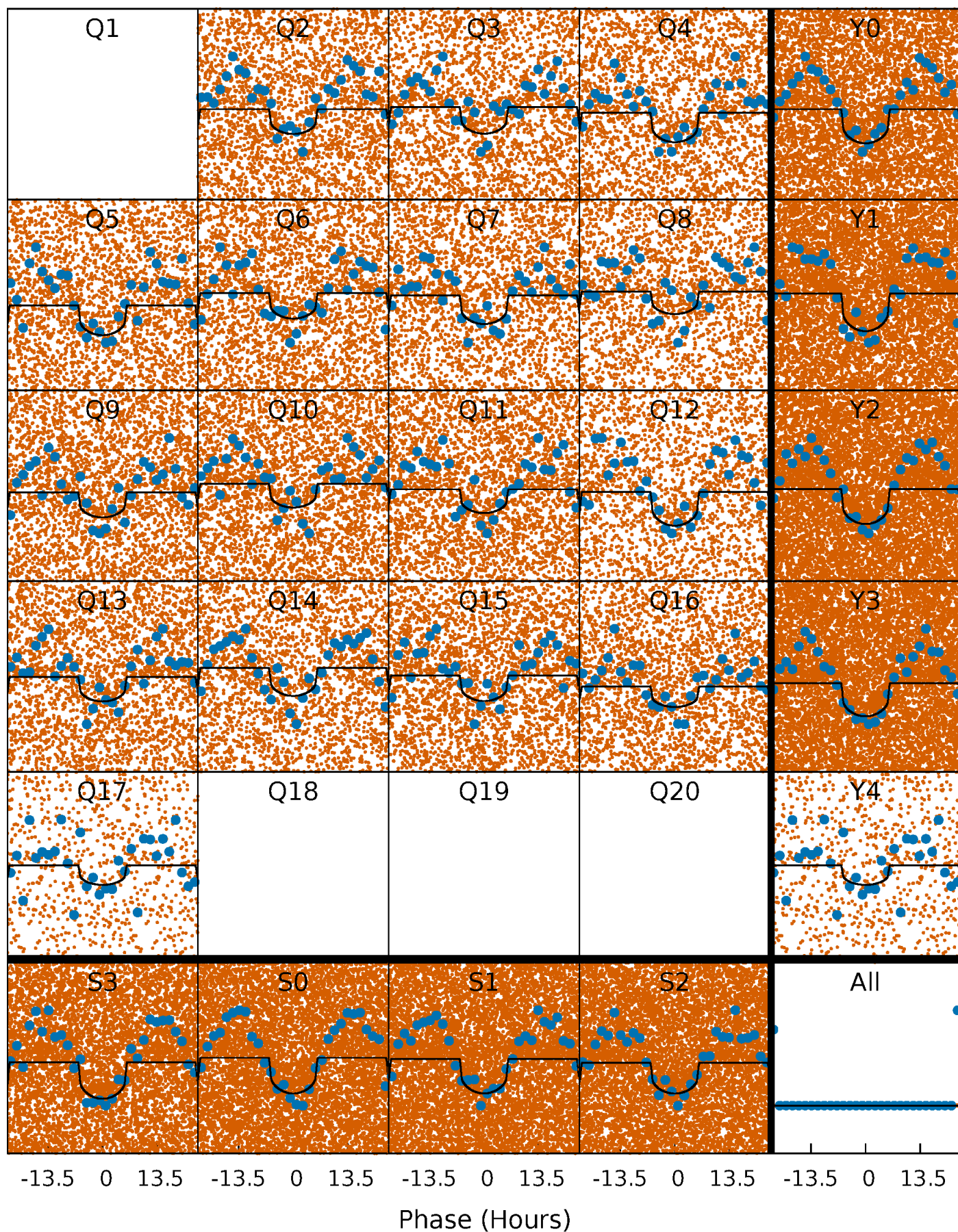
PDC Quarter-Phased Transit Curves

TCE 008646235-01 P= 1.208869 Days $T_0=131.507017$ (BKJD)



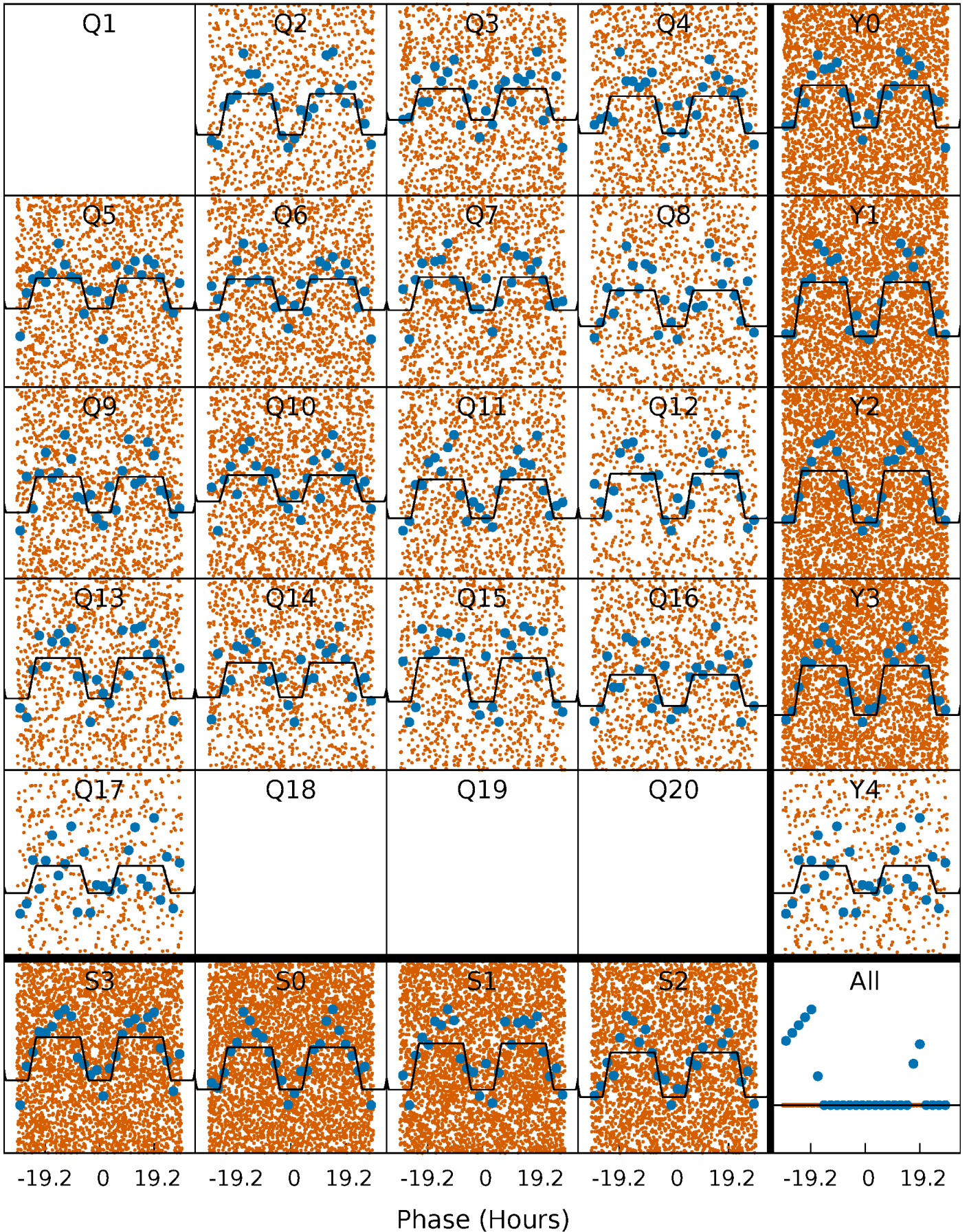
DV Quarter-Phased Transit Curves

TCE 008646235-01 P= 1.208869 Days $T_0=131.507017$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

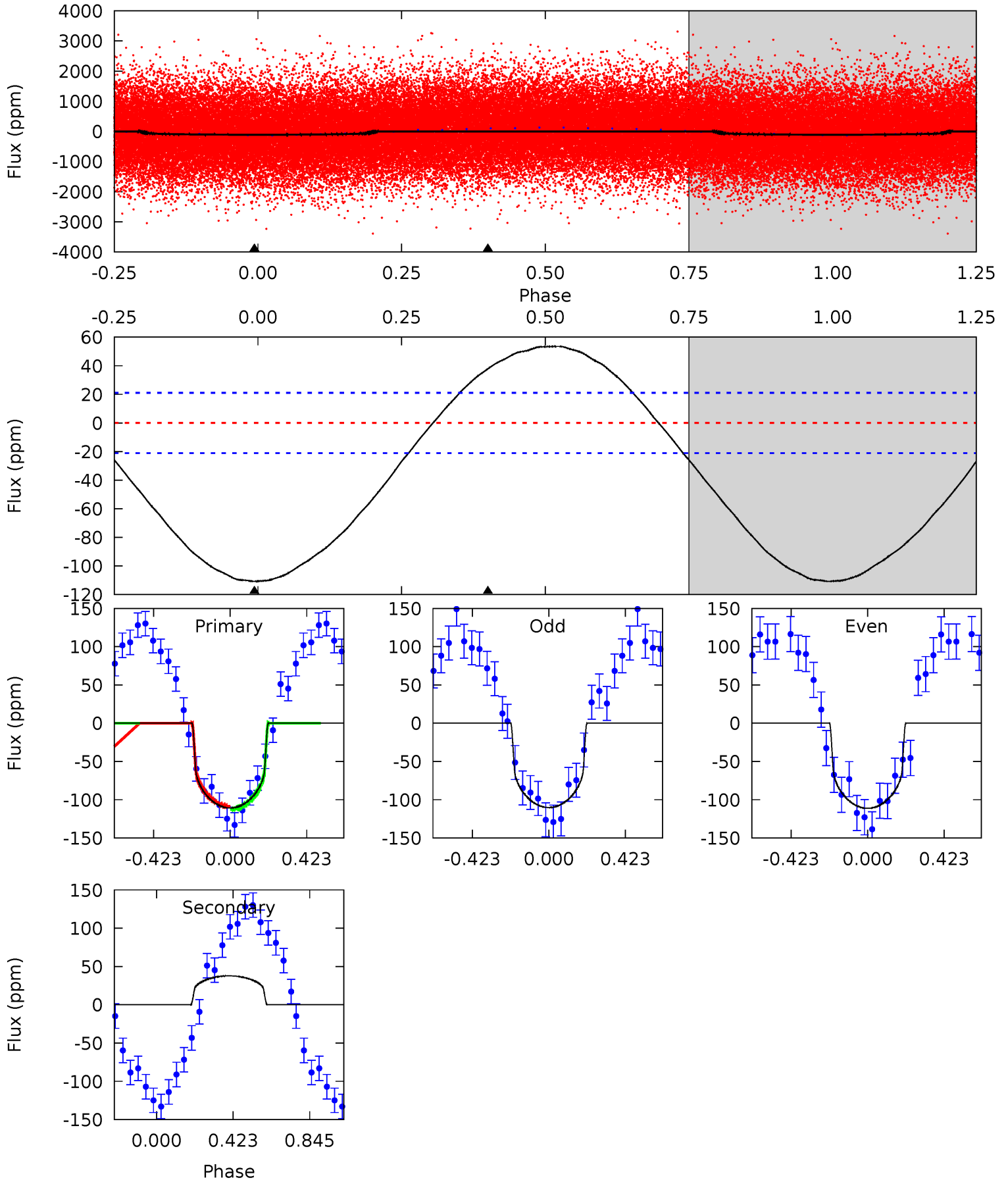
TCE 008646235-01 P= 1.208864 Days $T_0=131.511240$ (BKJD)



DV Model-Shift Uniqueness Test

008646235-01, P = 1.208869 Days, E = 131.507017 Days

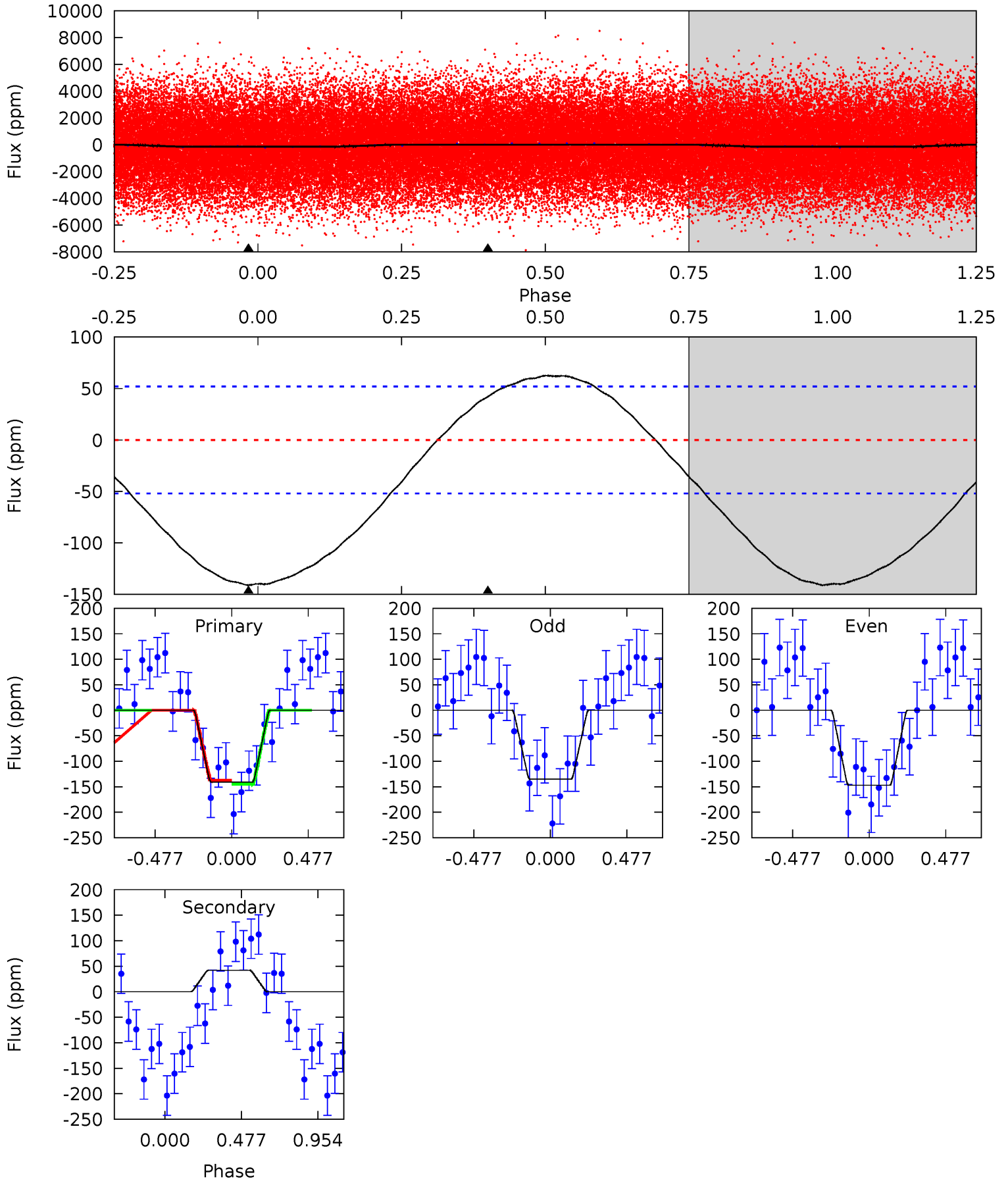
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.4	-7.65	0	0	4.25	0.80	2.92	22.4	22.4	-7.65	-7.65	0.10	0.99	0.33	0.41



Alt Model-Shift Uniqueness Test

008646235-01, P = 1.208864 Days, E = 131.511240 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	-3.42	0	0	4.23	0.71	1.40	11.5	11.5	-3.42	-3.42	0.48	1.01	0.31	0.33



Stellar Parameters For KIC 008646235

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6759^{+190}_{-286}	$4.065^{+0.240}_{-0.180}$	$-0.140^{+0.250}_{-0.300}$	$1.811^{+0.542}_{-0.542}$	$1.396^{+0.191}_{-0.262}$	$0.331^{+0.448}_{-0.154}$
	+3%/-4%	+6%/-4%	+179%/-214%	+30%/-30%	+14%/-19%	+135%/-47%
Source	PHO1	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 008646235-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	38 ± 5	$1.78^{+1.02}_{-0.91}$	3528^{+284}_{-298}	-5525^{+779}_{-2228}	$-3.963^{+2.387}_{-12.052}$
Alt.	42 ± 12	$2.31^{+1.13}_{-0.87}$	3542^{+260}_{-295}	-5110^{+655}_{-1239}	$-2.504^{+1.460}_{-4.466}$

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

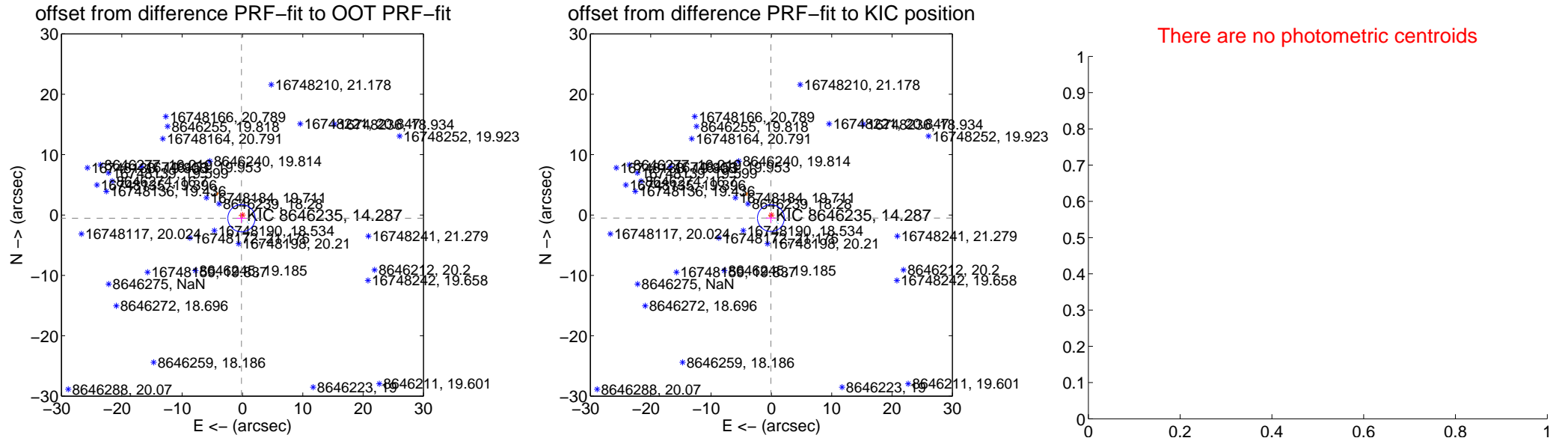
DV Centroid Data

Supplemental centroid analysis for 008646235-01. Kepler magnitude: 14.29. Transit SNR 22.15

There are 3 quarters with good PRF difference image offsets

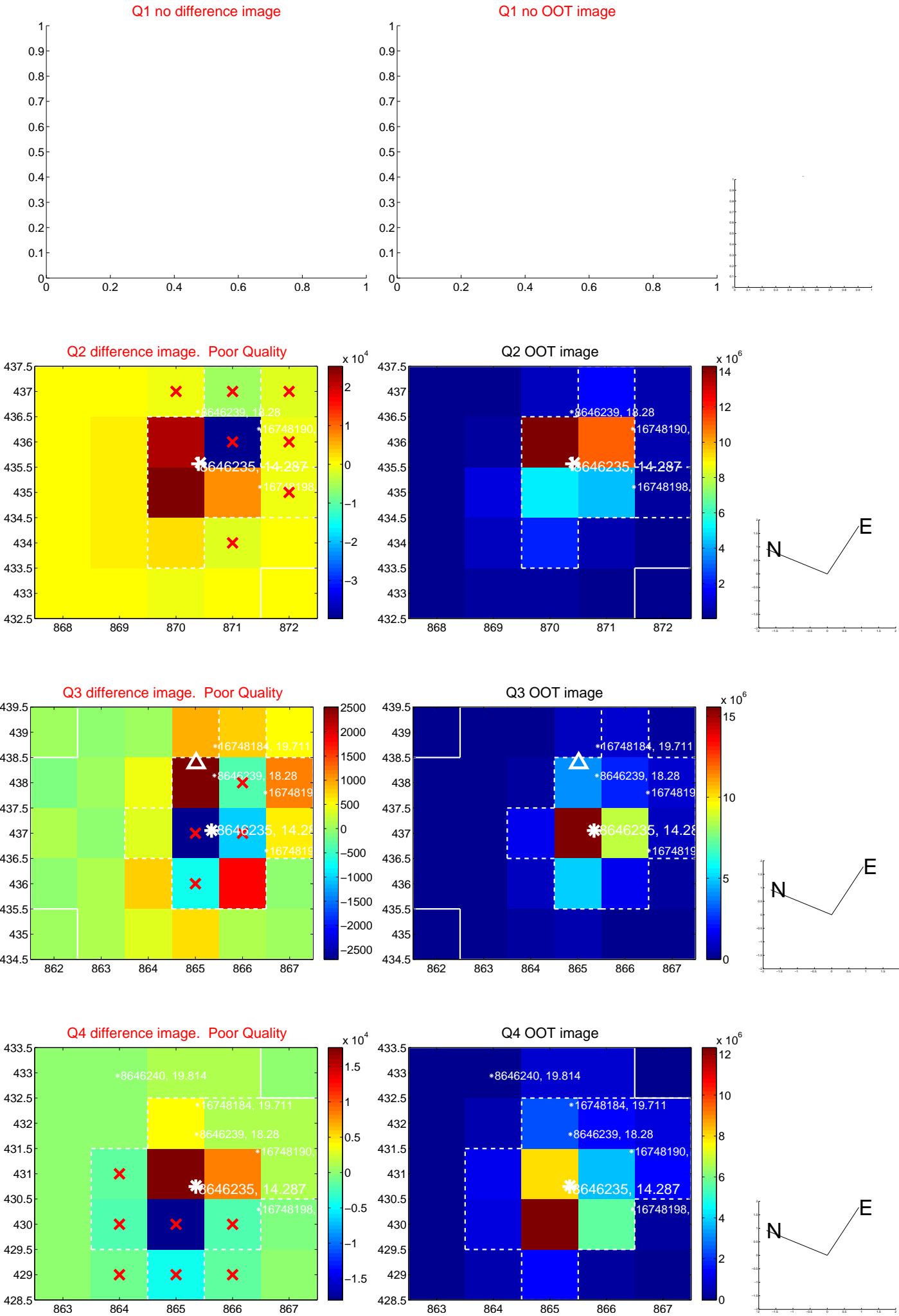
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.553 ± 0.754	0.73	0.164 ± 0.781	-0.529 ± 0.752
PRF-fit source offset from KIC position	0.514 ± 0.742	0.69	0.078 ± 0.786	-0.508 ± 0.741
photometric centroid source offset	—	—	—	—

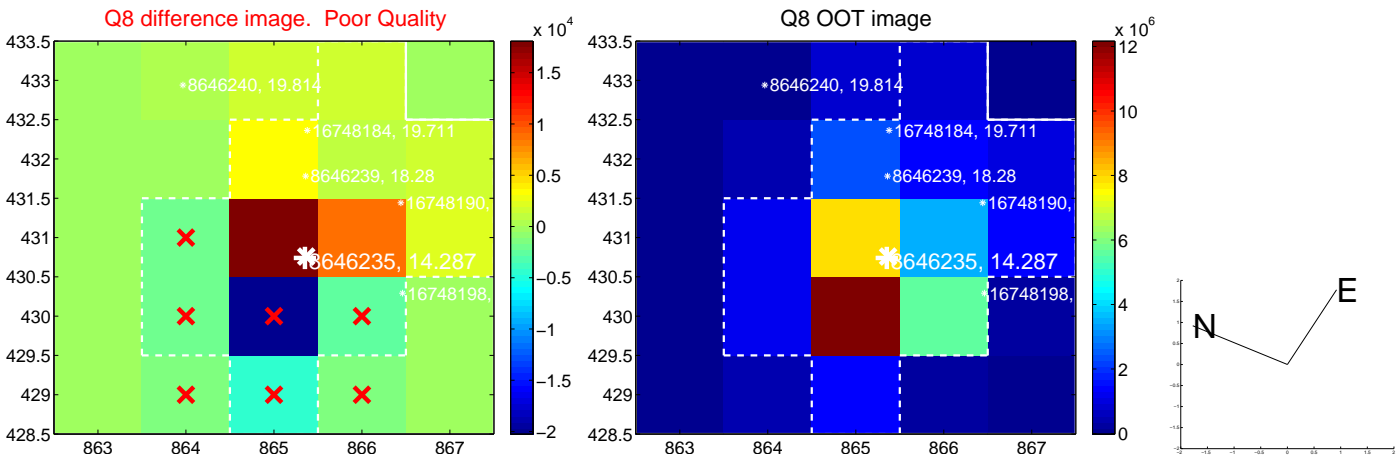
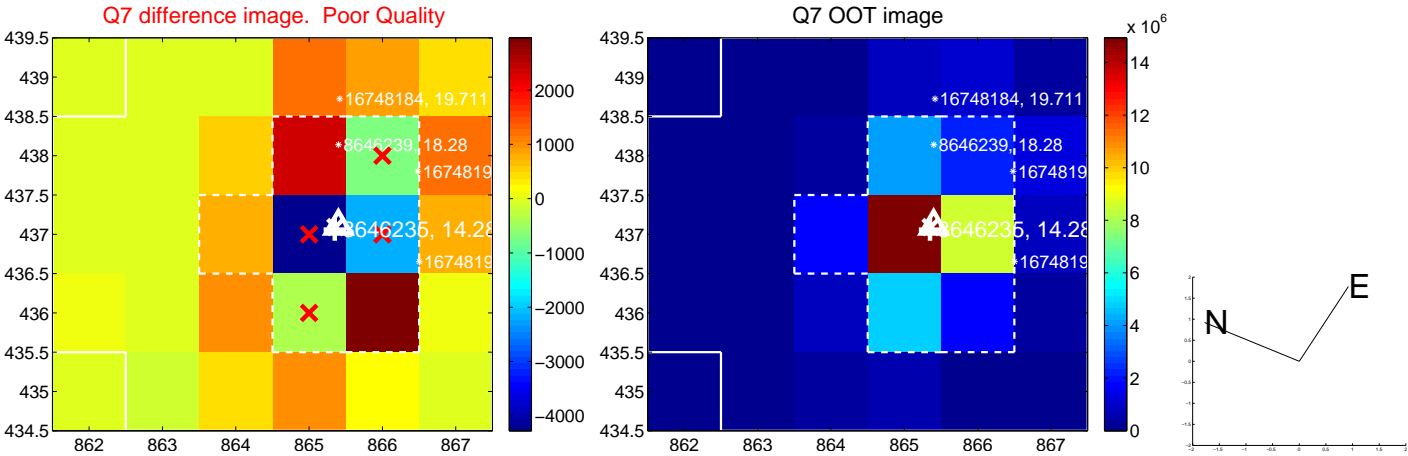
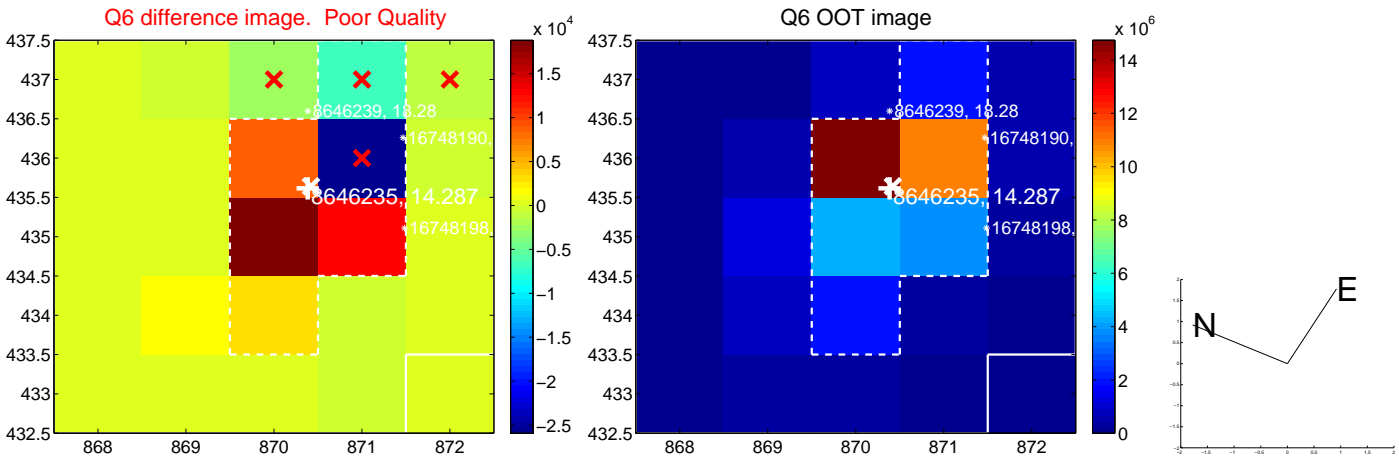
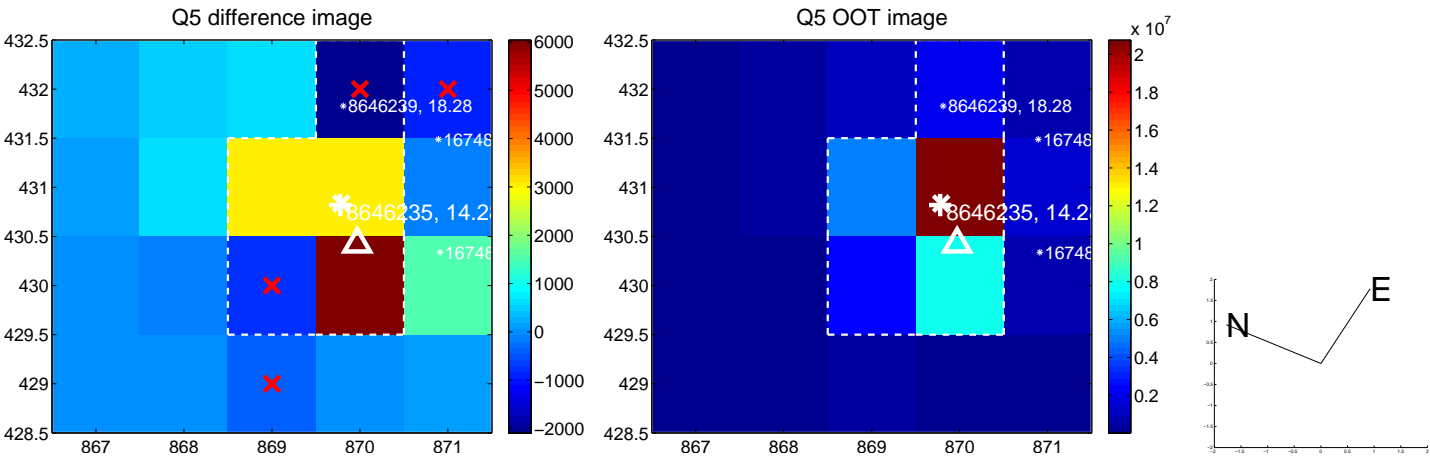


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

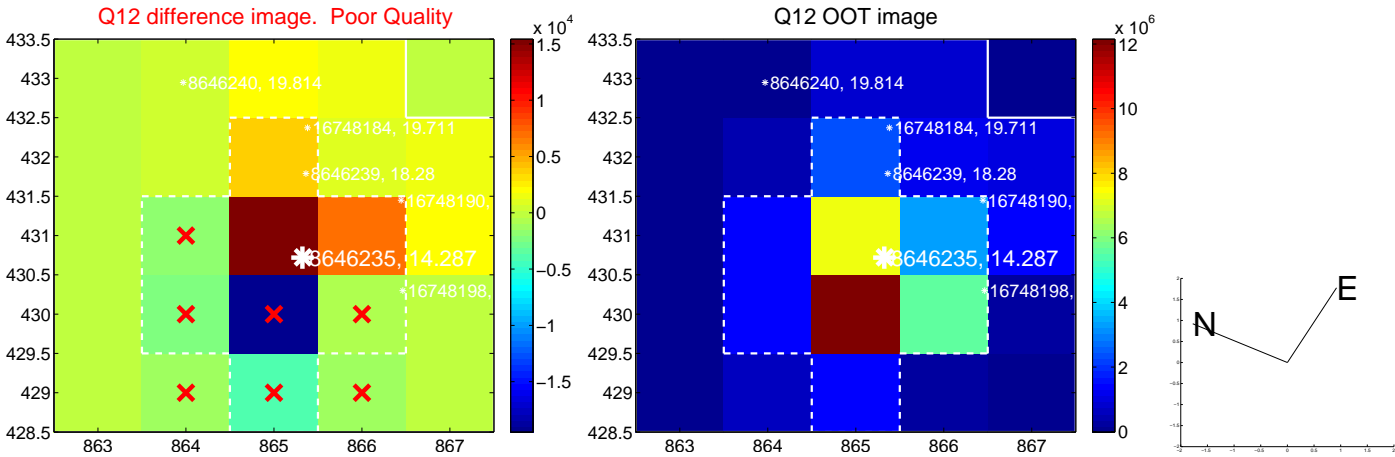
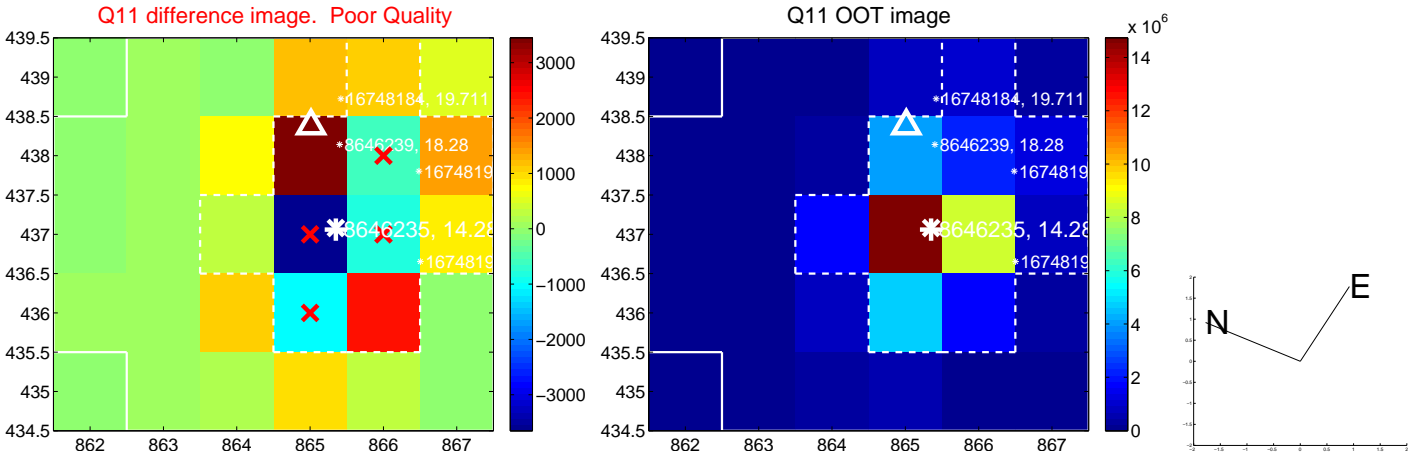
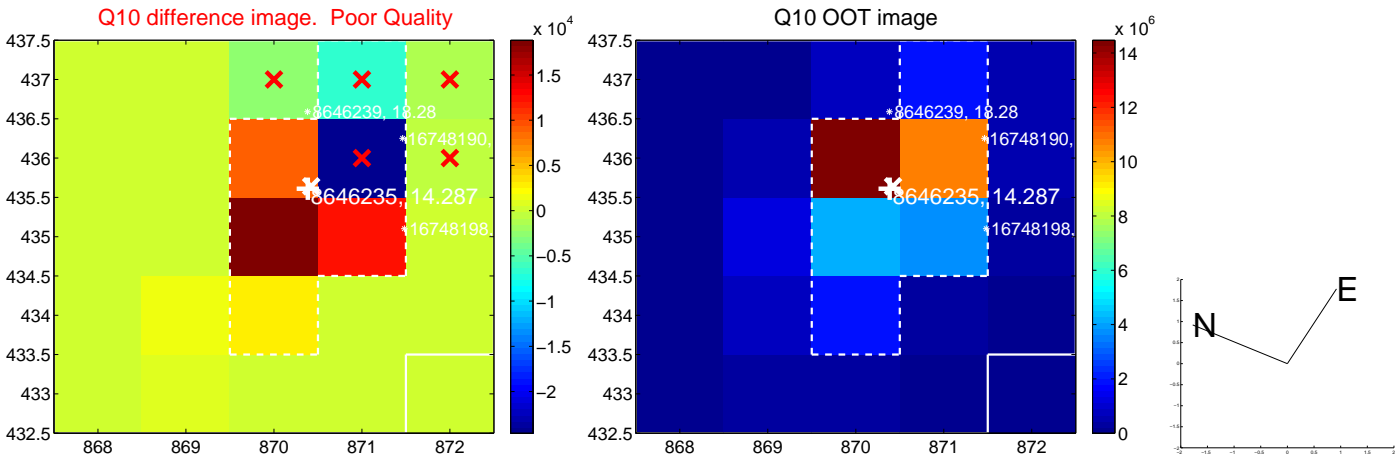
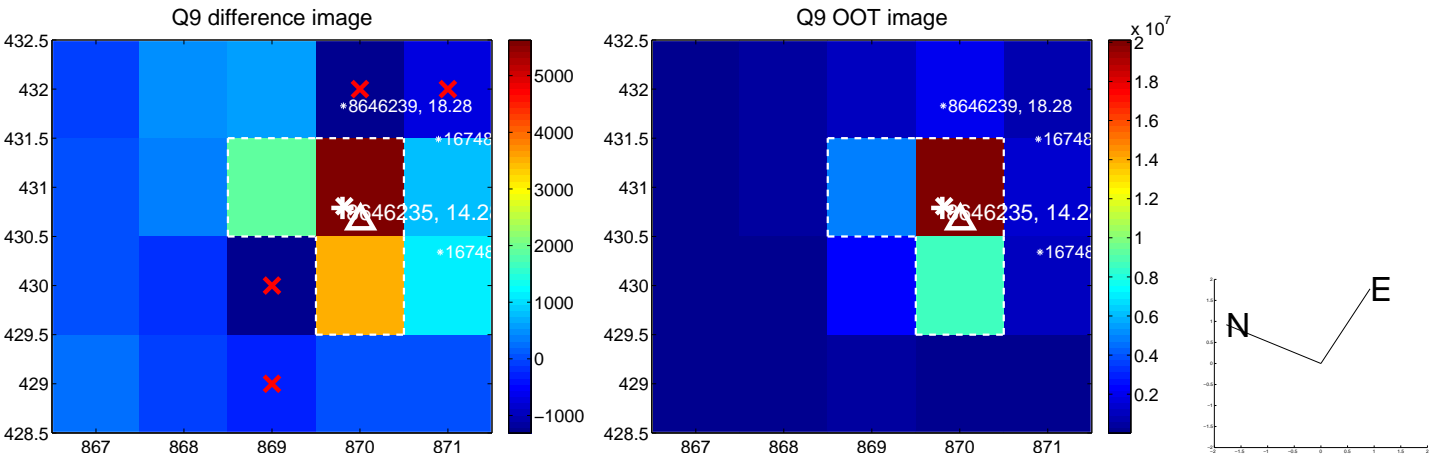
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



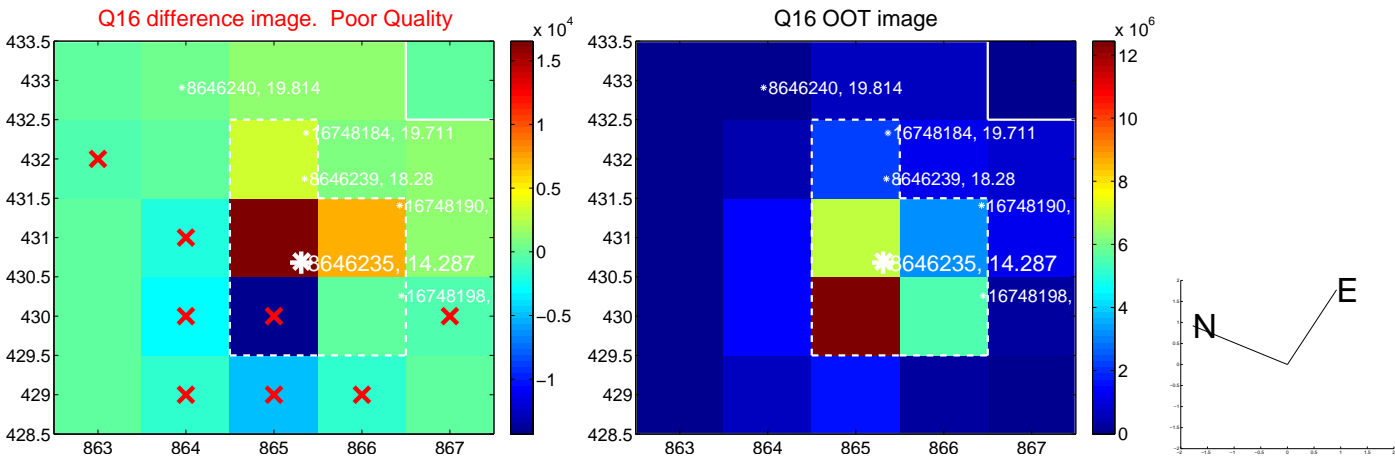
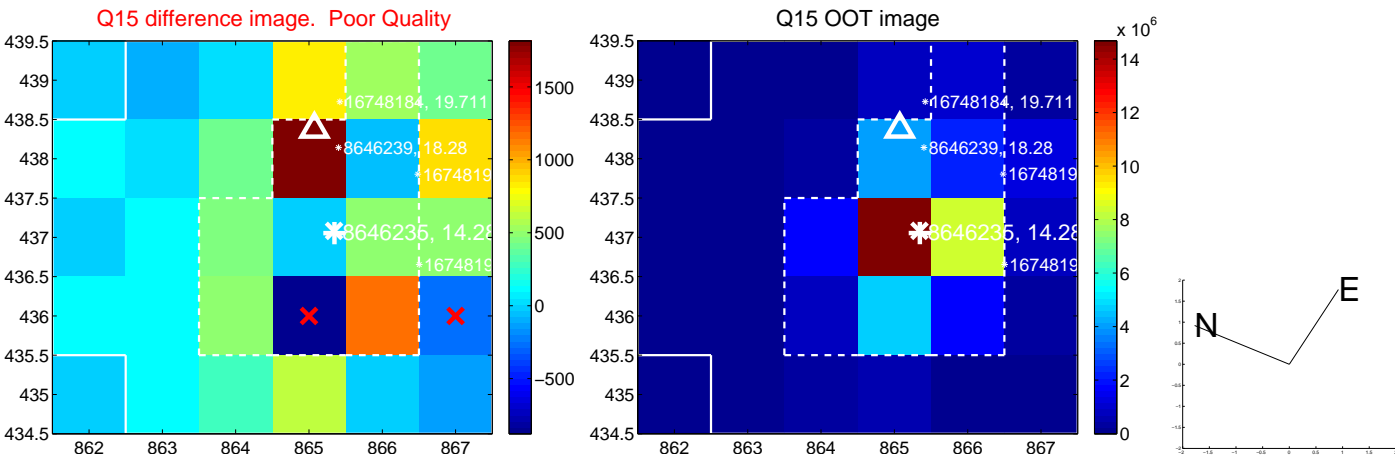
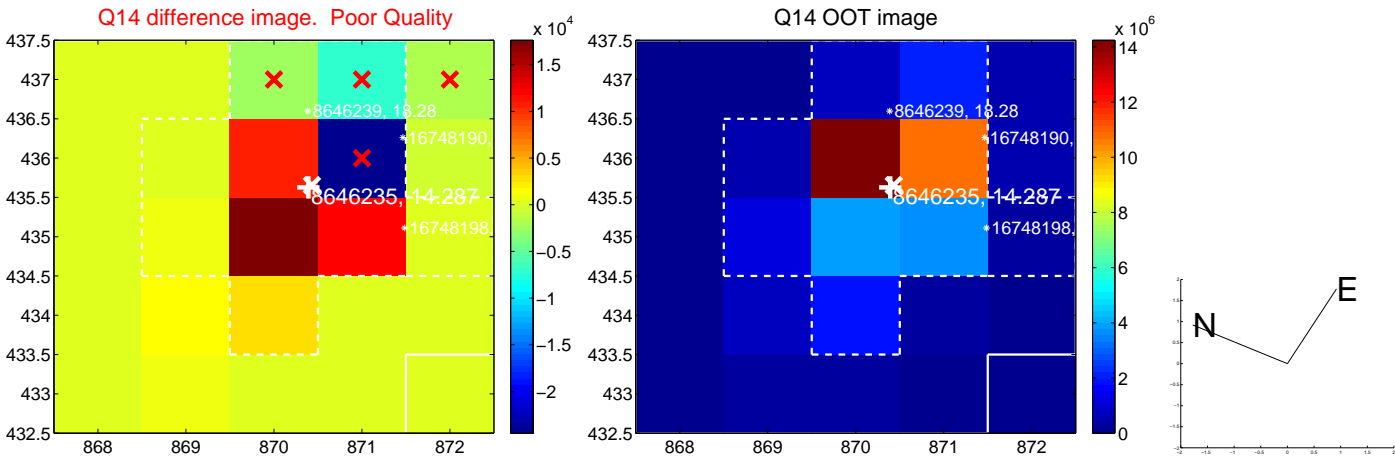
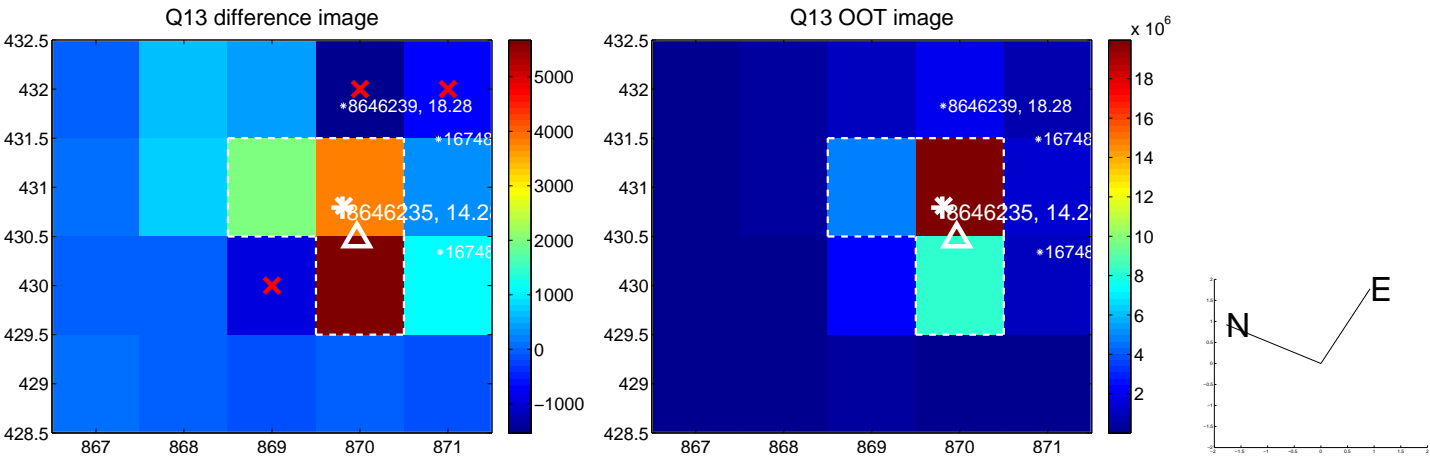
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



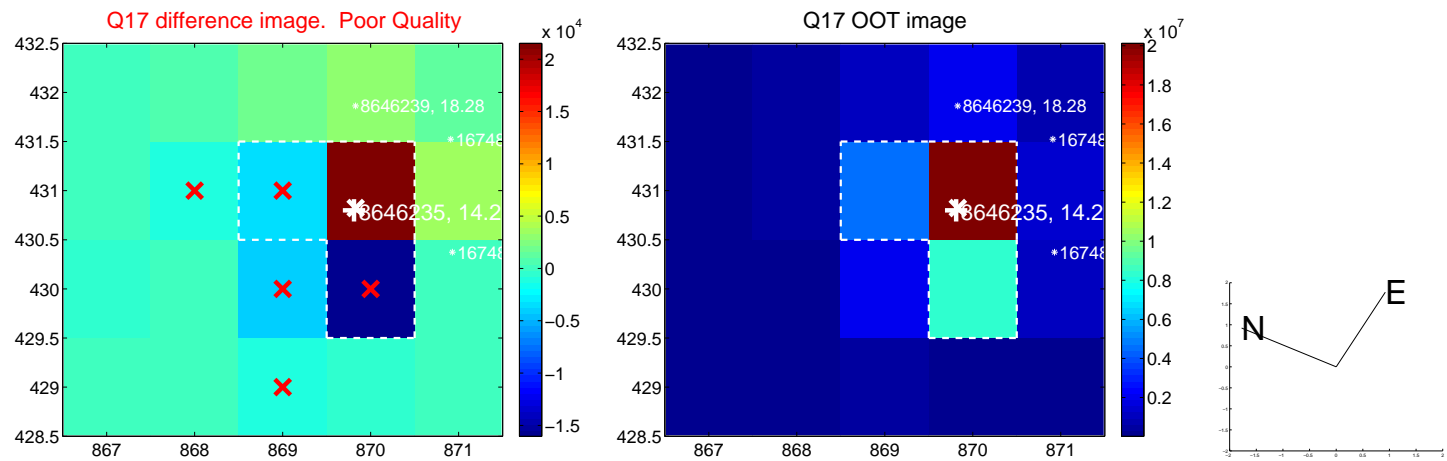
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folded centroid time series figure for this object.

UKIRT Image

Declination

