

KIC 012688835

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})
012688835-01	OBS	No	0.591879	131.889837	27.0	4.541	8.1	7.8	2.88	8759	1.71	146036.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012688835-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

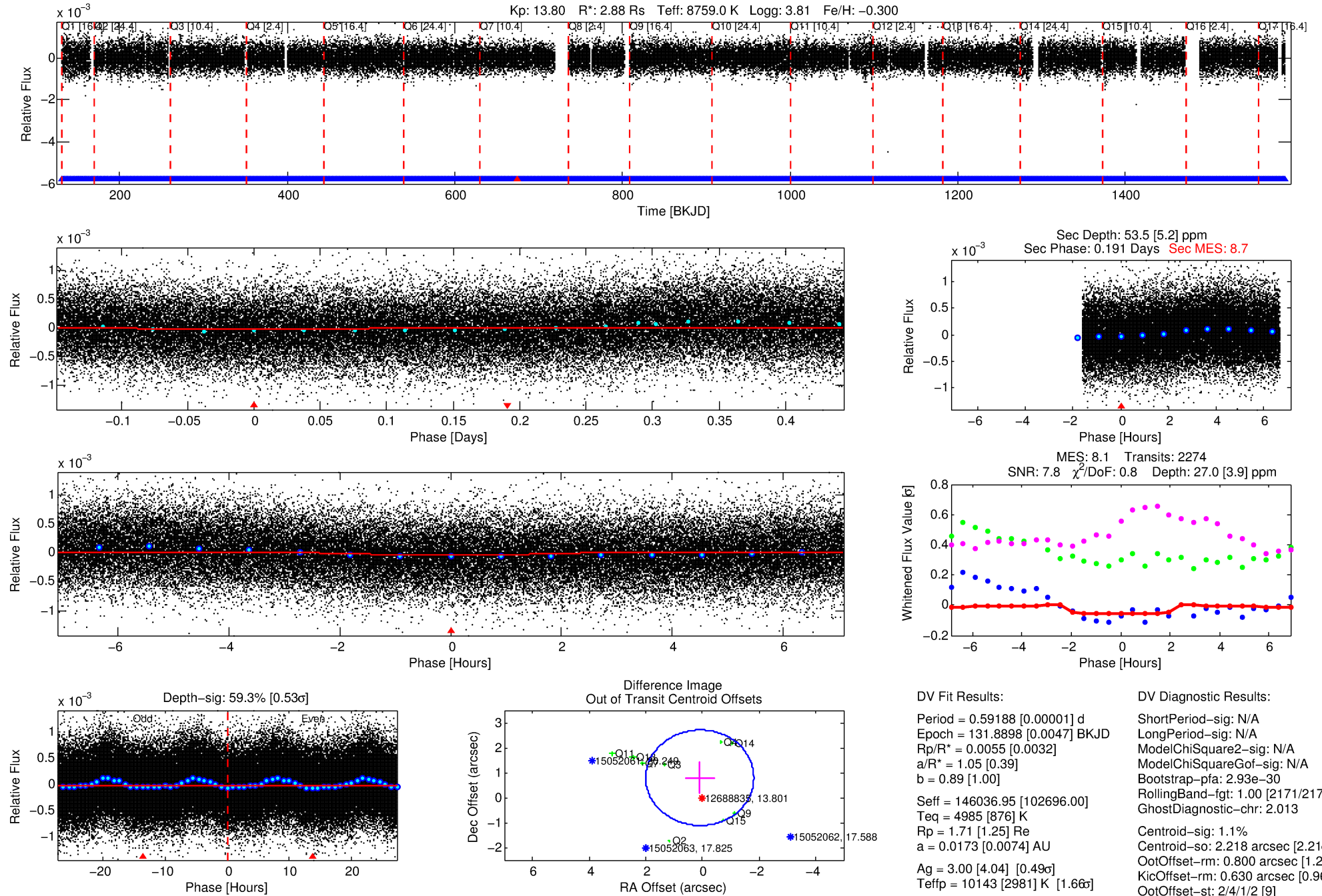
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012688835-01

No Significant Match Found

DV One-Page Summary

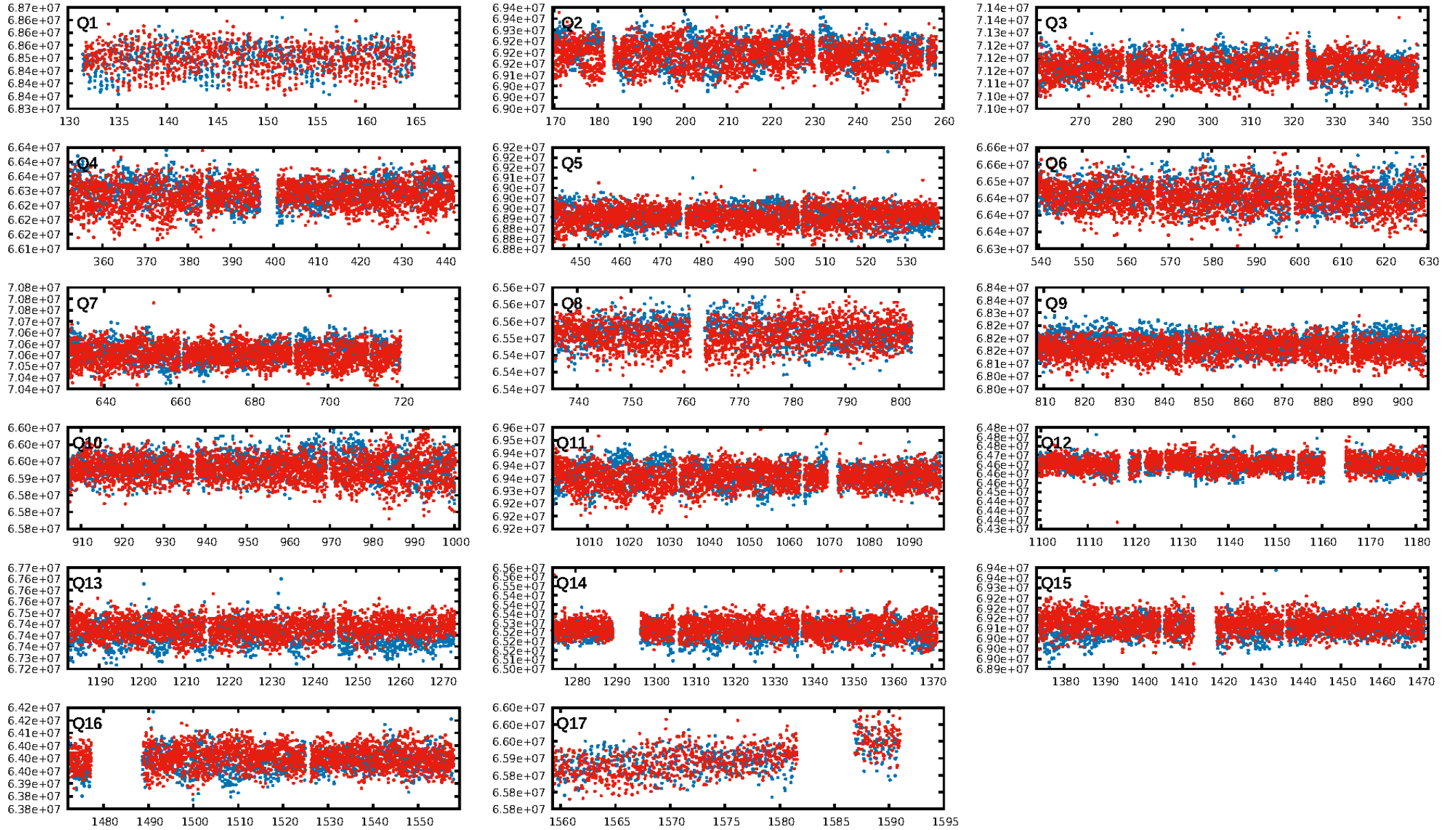
KIC: 12688835 Candidate: 1 of 1 Period: 0.592 d



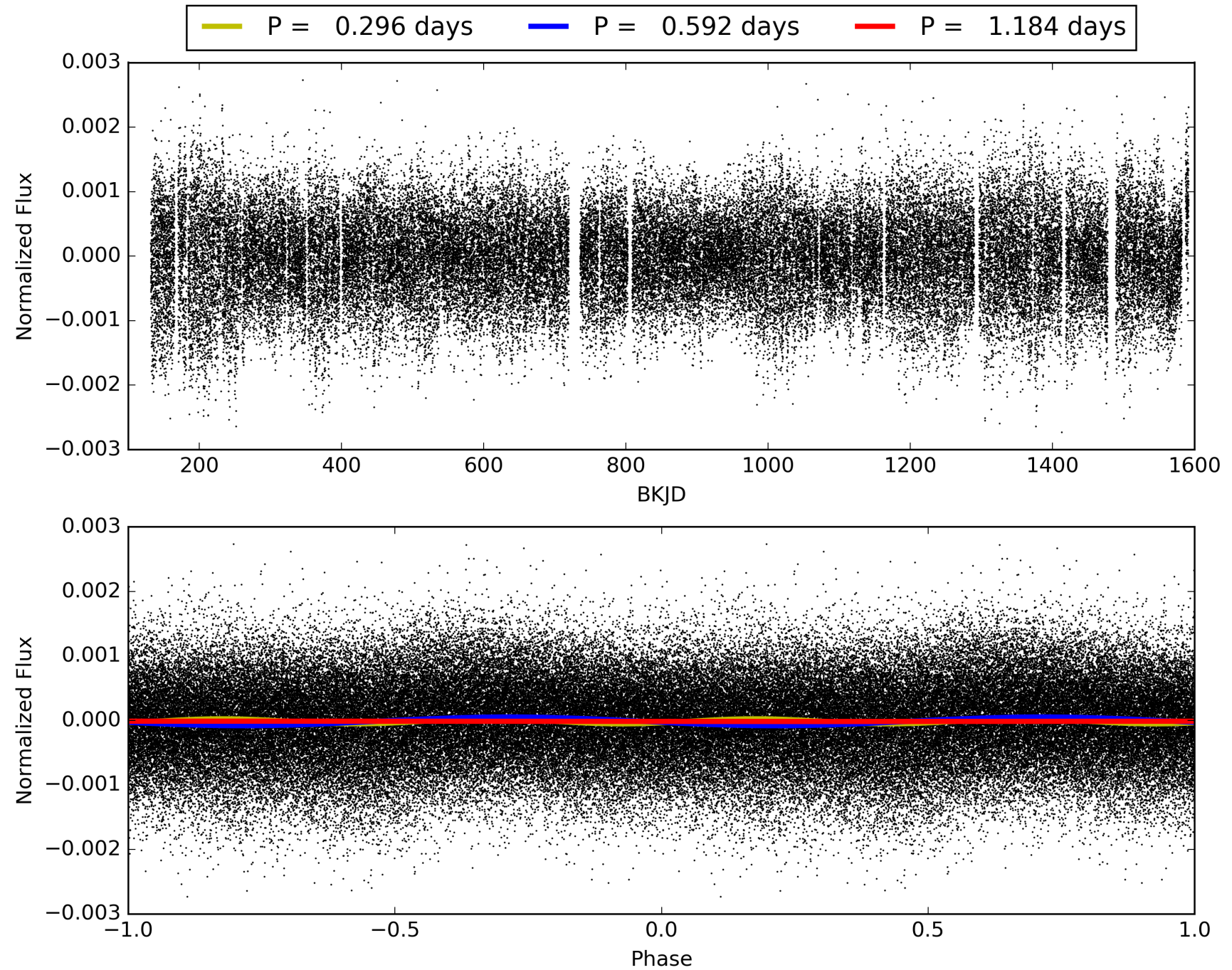
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:10:12 Z

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

TCE 012688835-01, PDC Light Curves

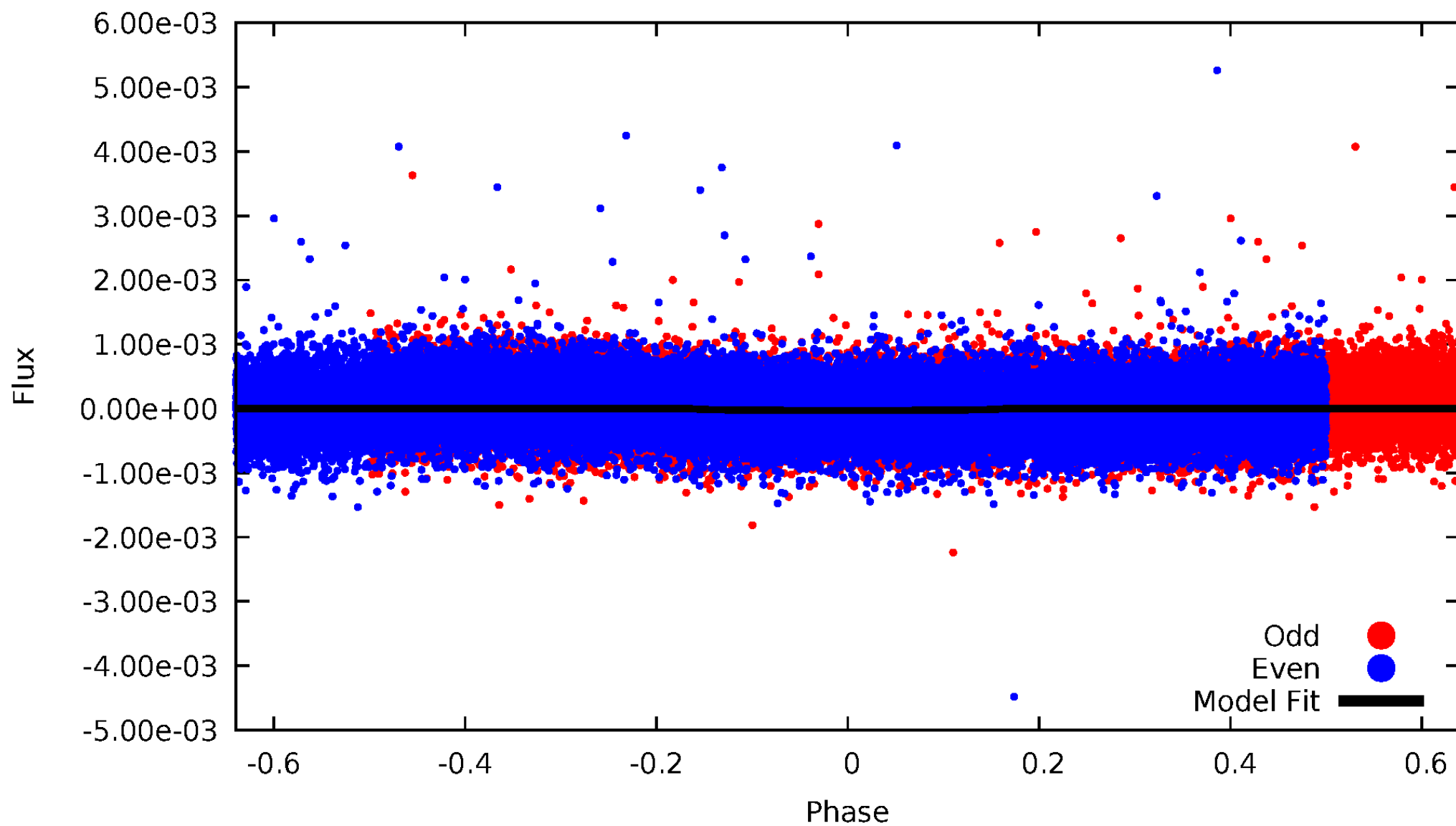


TCE 012688835-01



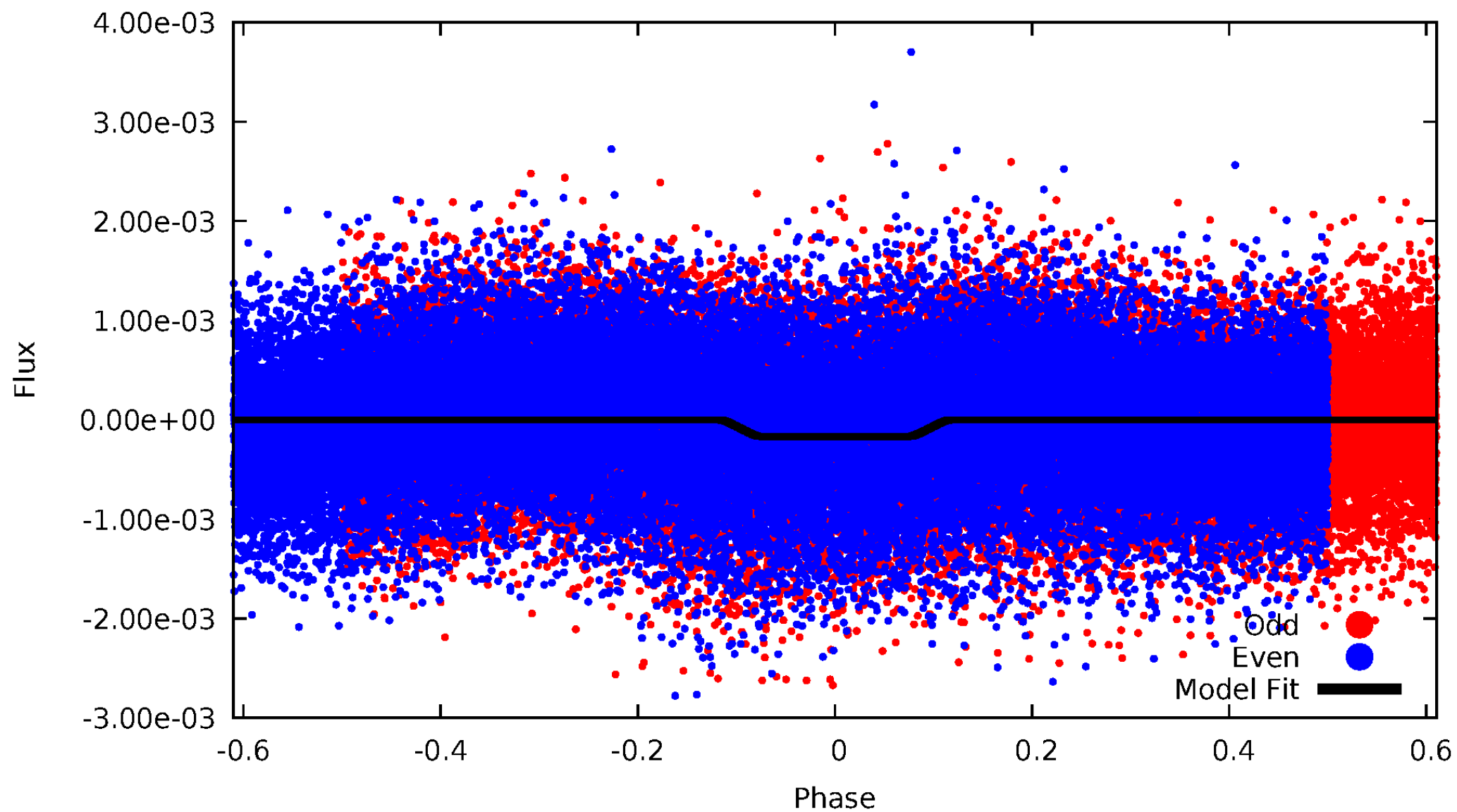
DV Odd/Even

TCE 012688835-01



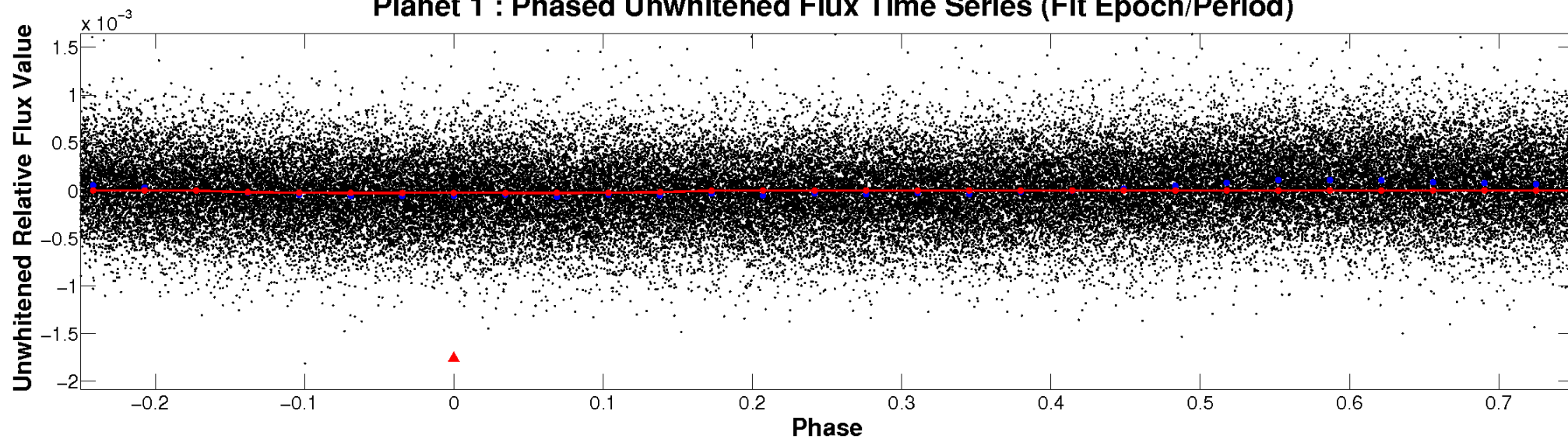
ALT Odd/Even

TCE 012688835-01

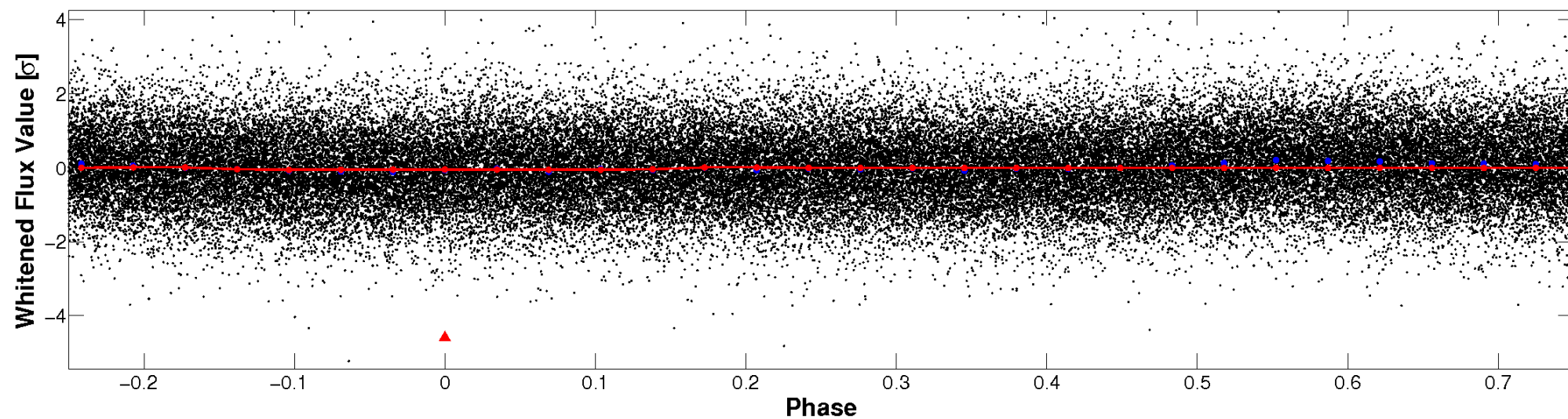


Non-Whitened Vs. Whitened Light Curve

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

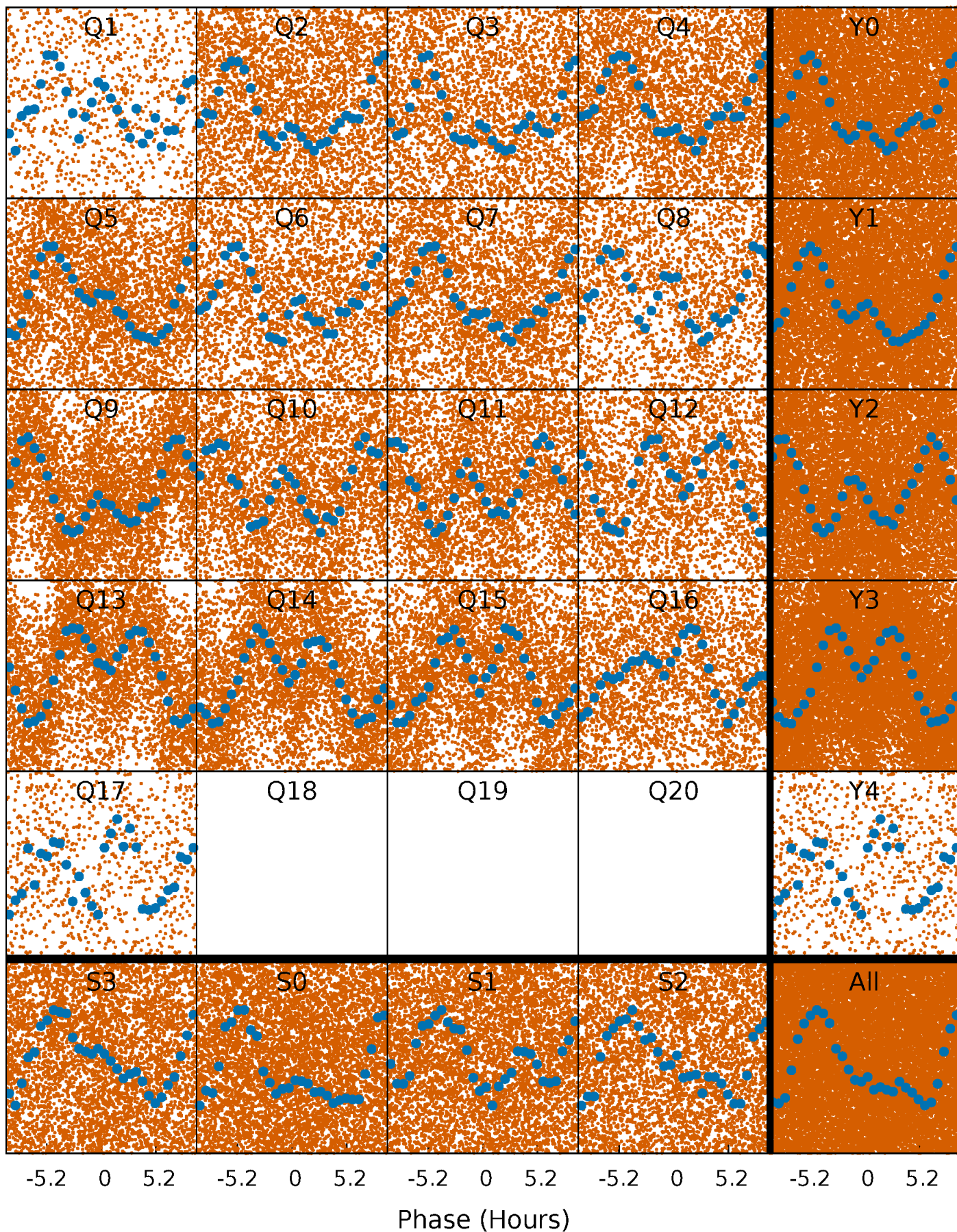


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



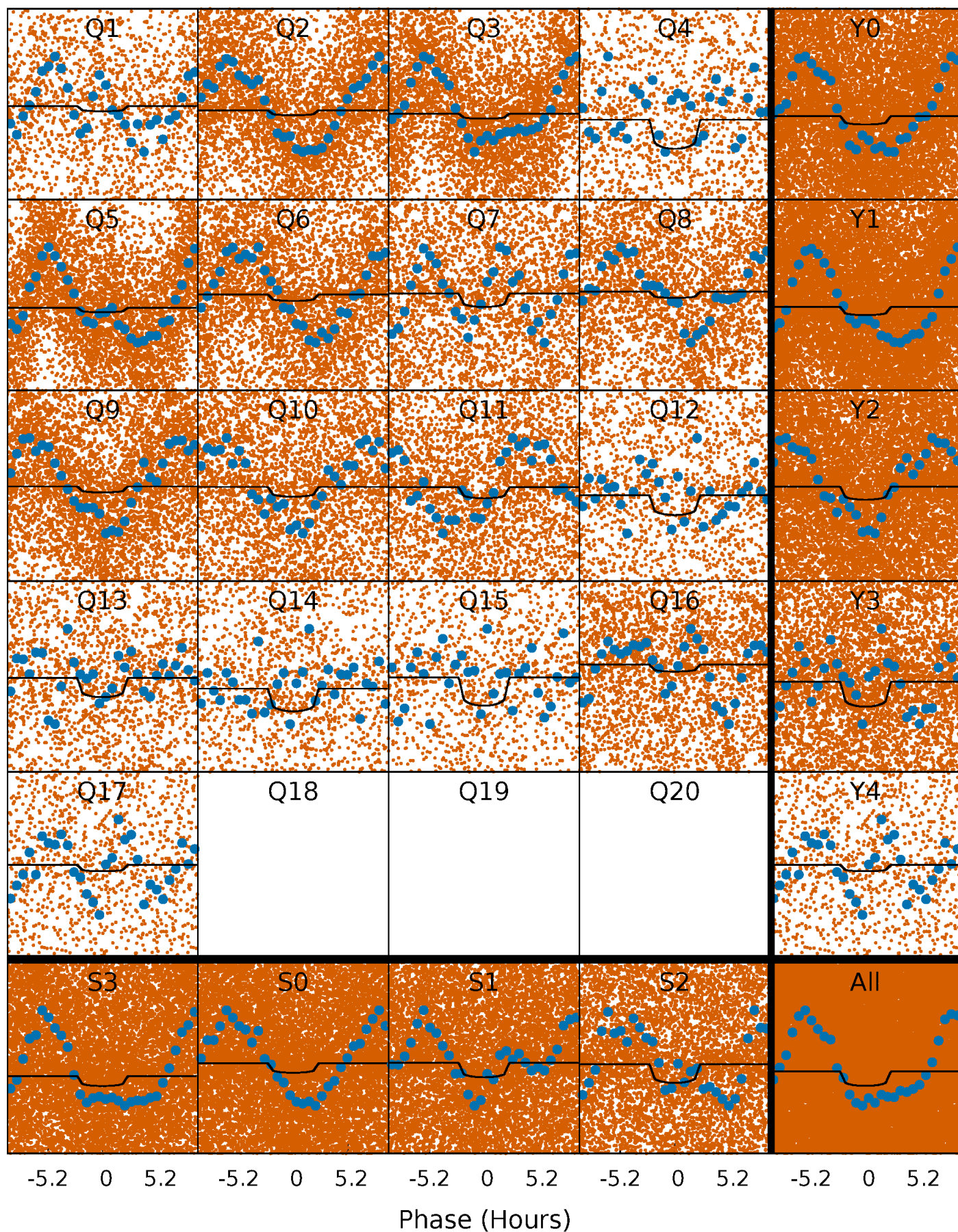
PDC Quarter-Phased Transit Curves

TCE 012688835-01 P= 0.591879 Days $T_0=131.889837$ (BKJD)



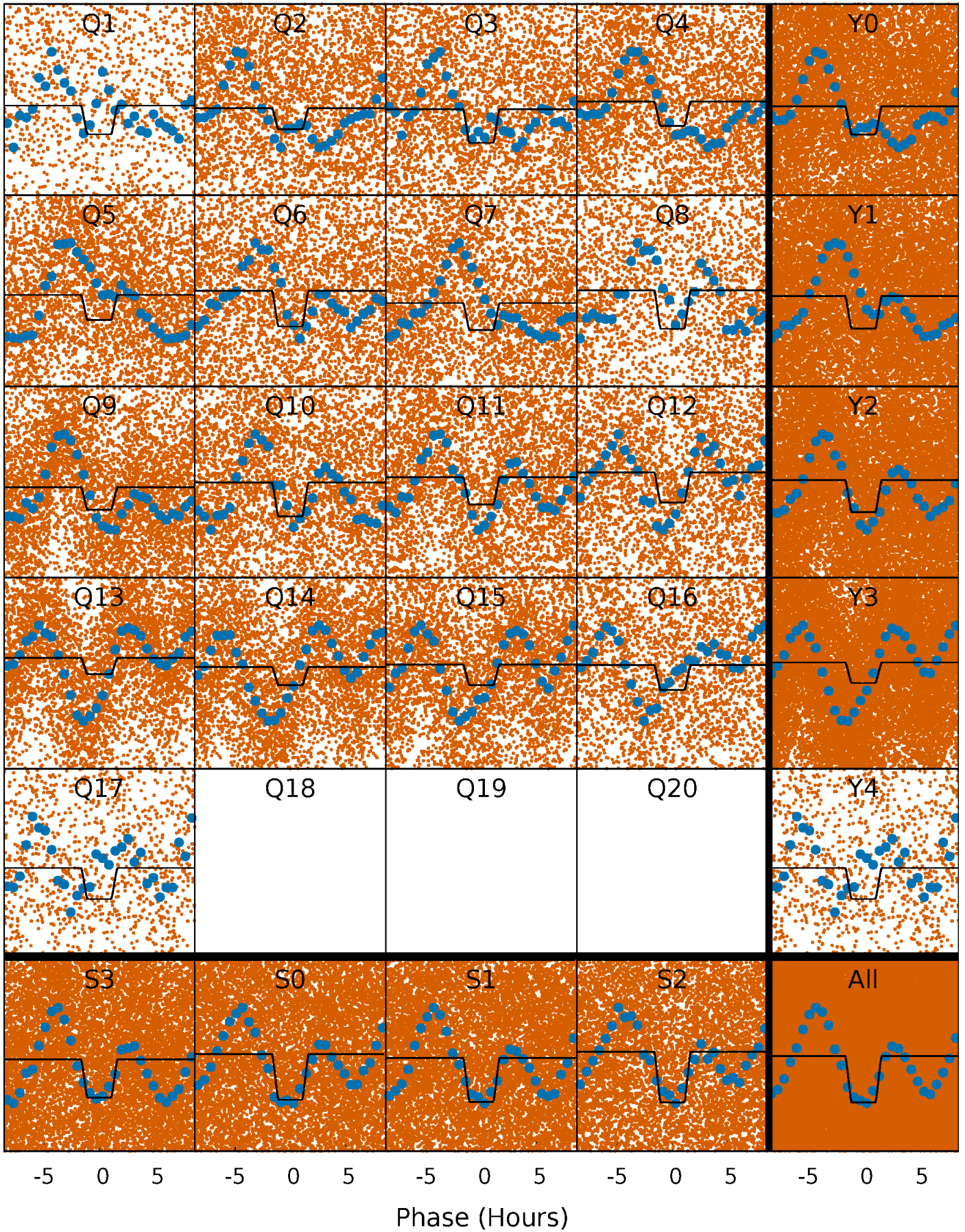
DV Quarter-Phased Transit Curves

TCE 012688835-01 P= 0.591879 Days $T_0=131.889837$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

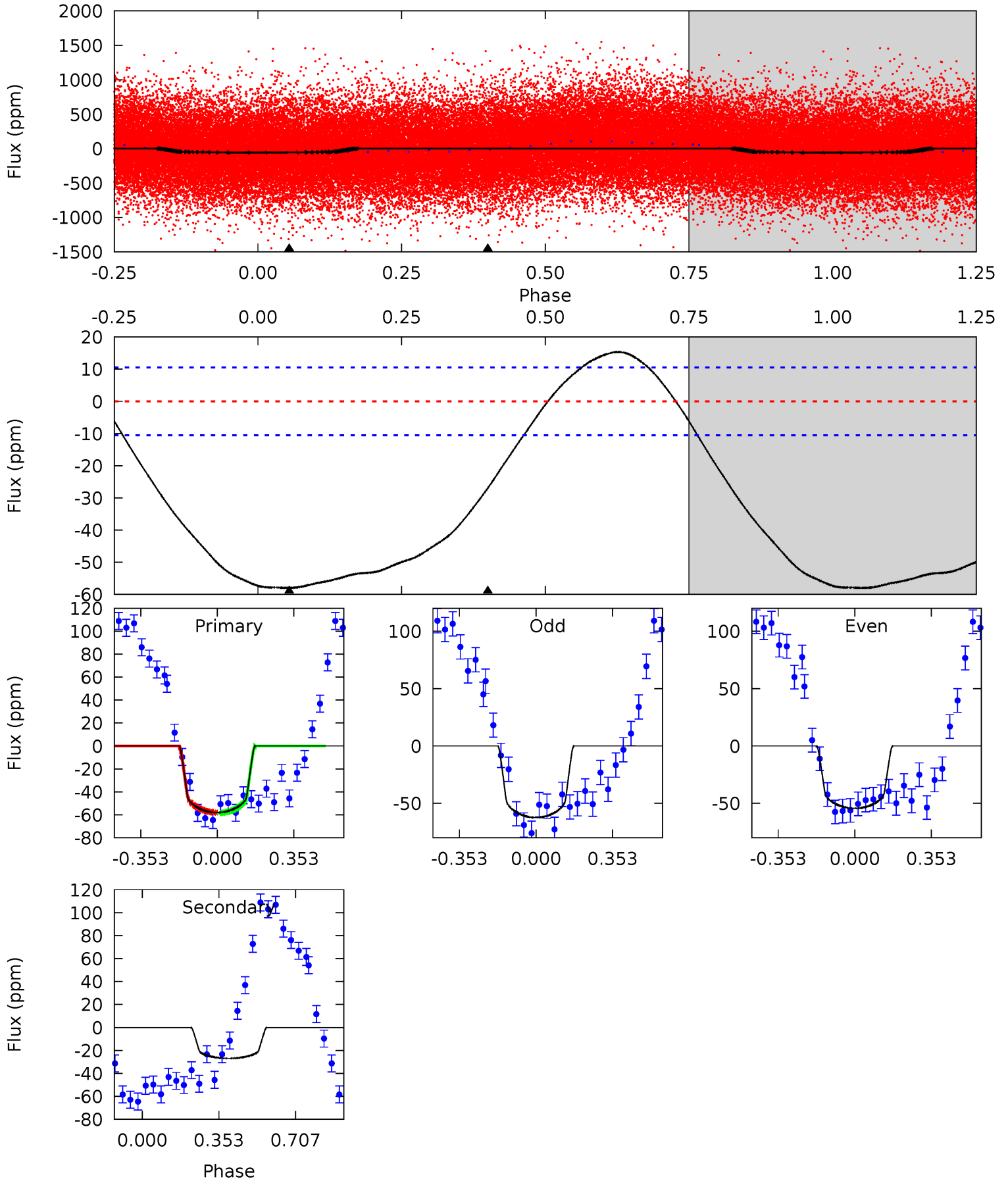
TCE 012688835-01 P= 0.591770 Days $T_0=131.871046$ (BKJD)



DV Model-Shift Uniqueness Test

012688835-01, P = 0.591879 Days, E = 131.297958 Days

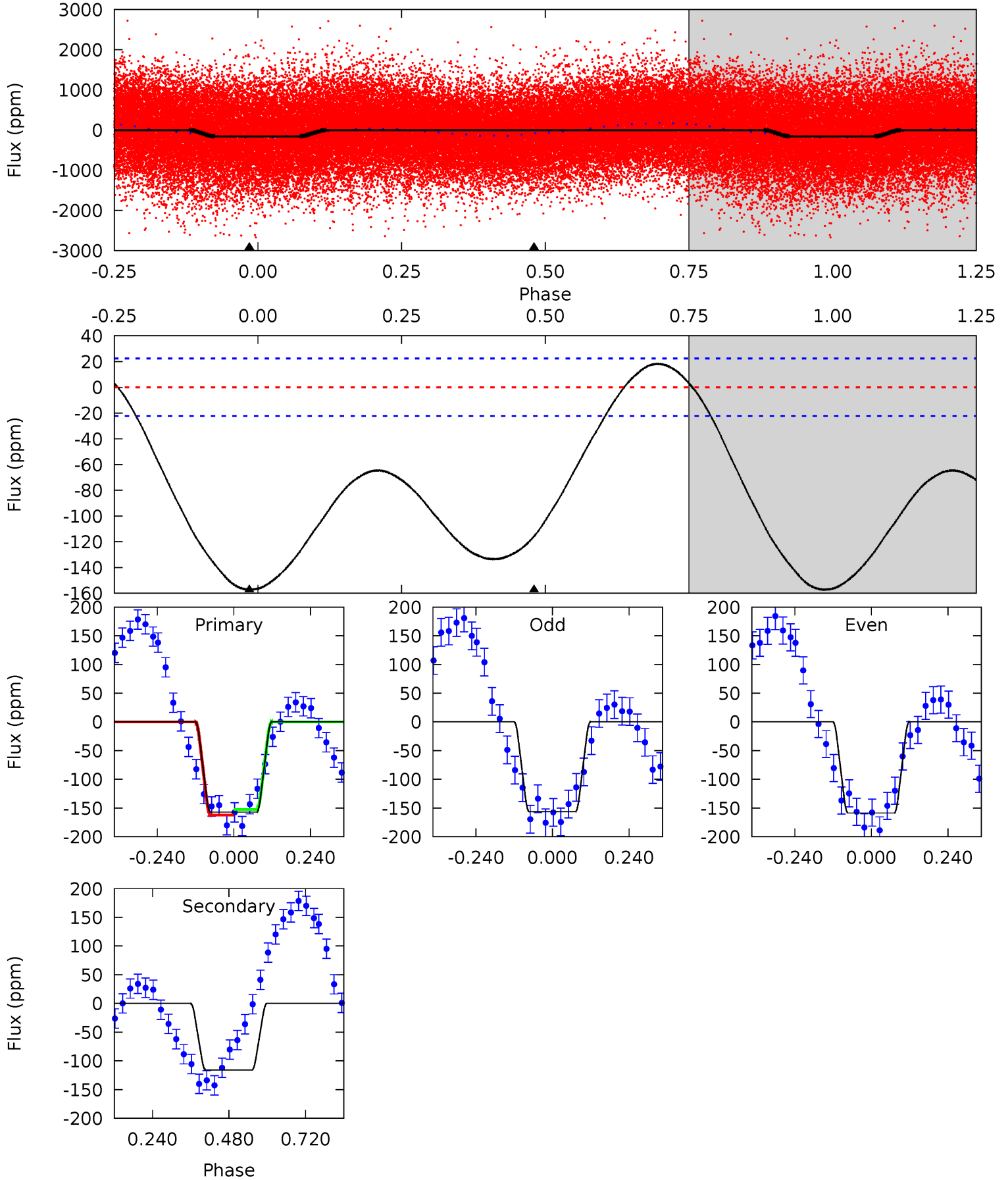
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.6	11.0	0	0	4.29	0.93	3.08	23.6	23.6	11.0	11.0	1.62	1.04	0.21	0.13



Alt Model-Shift Uniqueness Test

012688835-01, P = 0.591770 Days, E = 131.279276 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
30.8	22.7	0	0	4.38	1.17	7.66	30.8	30.8	22.7	22.7	0.24	1.10	0.10	0.93



Stellar Parameters For KIC 012688835

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8759^{+237}_{-385}	$3.814^{+0.399}_{-0.094}$	$-0.300^{+0.350}_{-0.400}$	$2.878^{+0.550}_{-1.284}$	$1.971^{+0.367}_{-0.448}$	$0.117^{+0.402}_{-0.036}$
	+3%/-4%	+10%/-2%	+117%/-133%	+19%/-45%	+19%/-23%	+345%/-31%
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 012688835-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-27 ± 2	$1.53^{+1.09}_{-0.79}$	6731^{+458}_{-795}	7845^{+6698}_{-2347}	$1.822^{+6.224}_{-1.152}$
Alt.	-116 ± 5	$3.78^{+1.28}_{-1.18}$	6701^{+520}_{-708}	7117^{+1751}_{-1102}	$1.356^{+1.406}_{-0.582}$

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 $A_{obs} \gg 1.0$

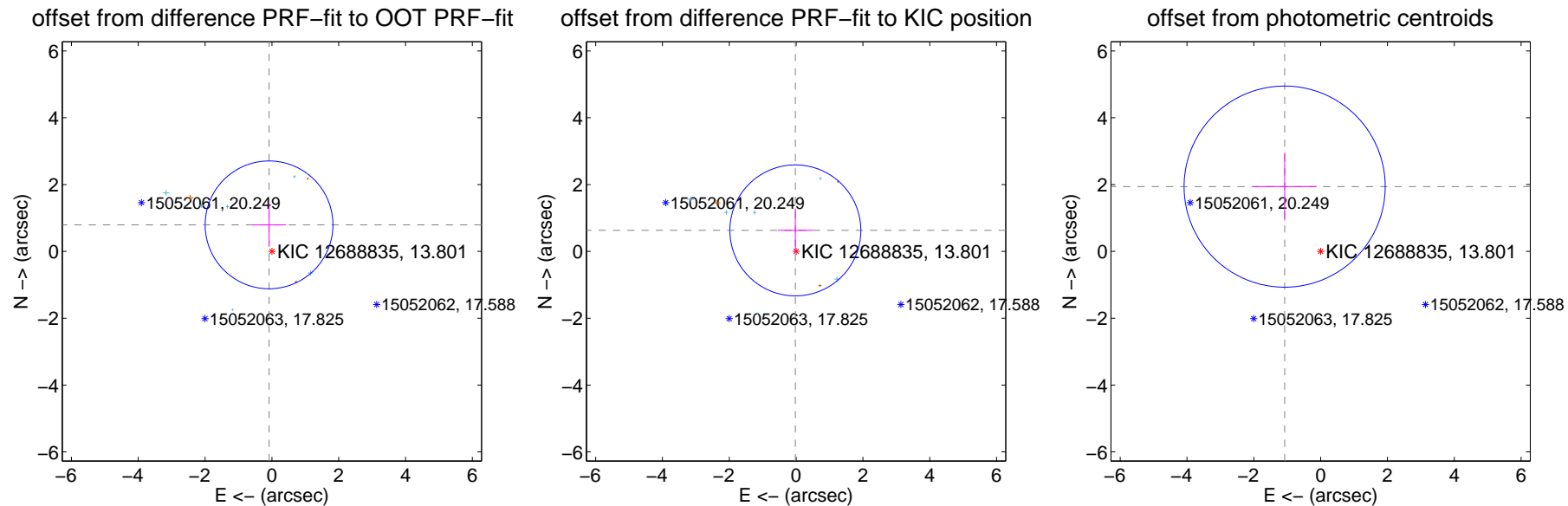
DV Centroid Data

Supplemental centroid analysis for 012688835-01. Kepler magnitude: 13.80. Transit SNR 7.81

There are 6 quarters with good PRF difference image offsets

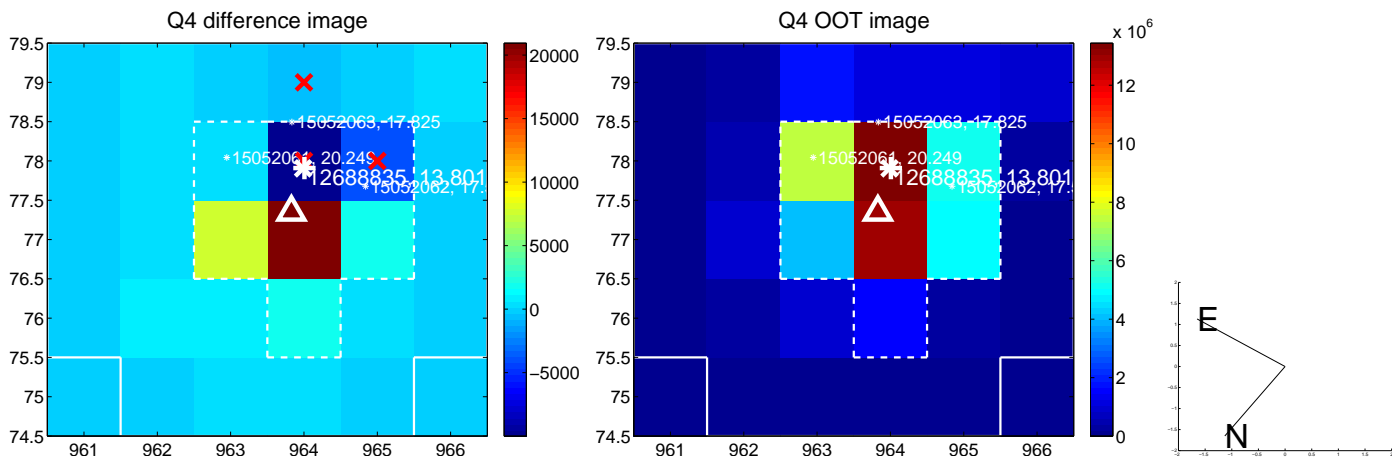
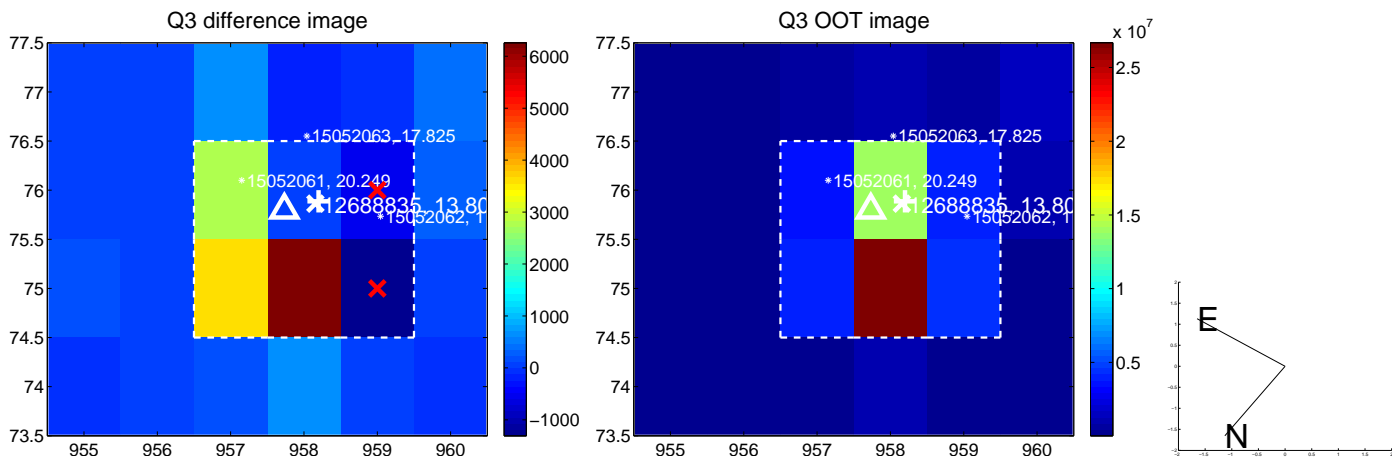
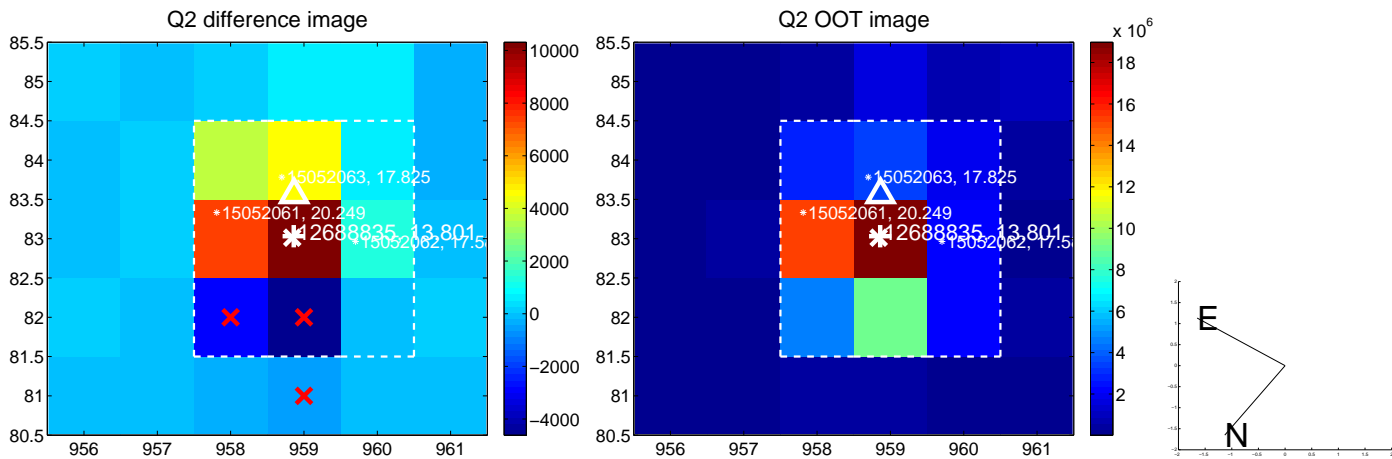
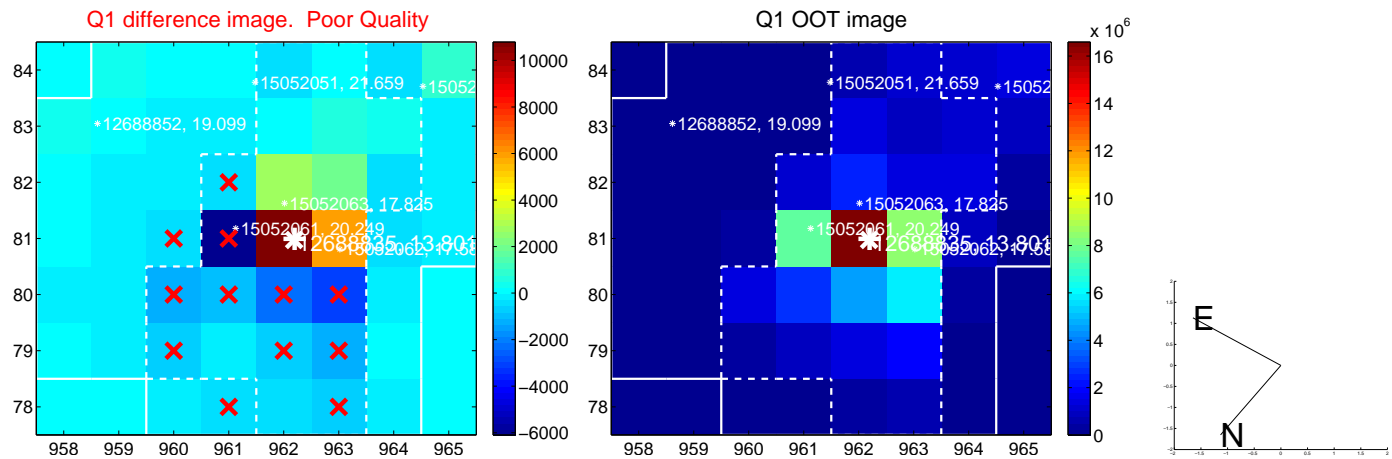
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.800 ± 0.637	1.25	0.086 ± 0.504	0.795 ± 0.639
PRF-fit source offset from KIC position	0.630 ± 0.653	0.96	0.023 ± 0.523	0.630 ± 0.653
photometric centroid source offset	2.22 ± 1.00	2.21	1.08 ± 0.96	1.94 ± 1.02

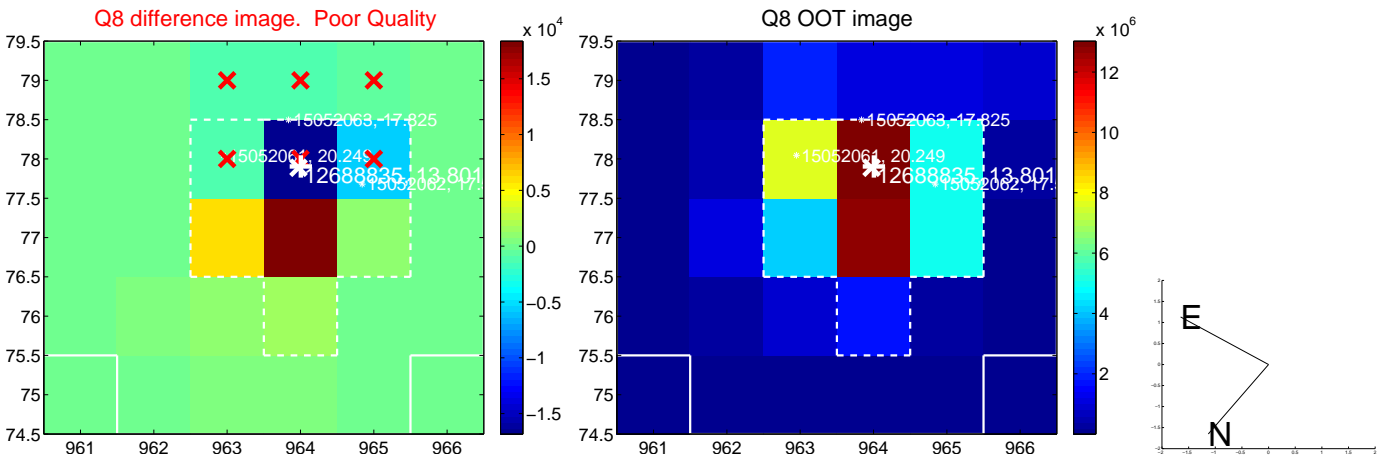
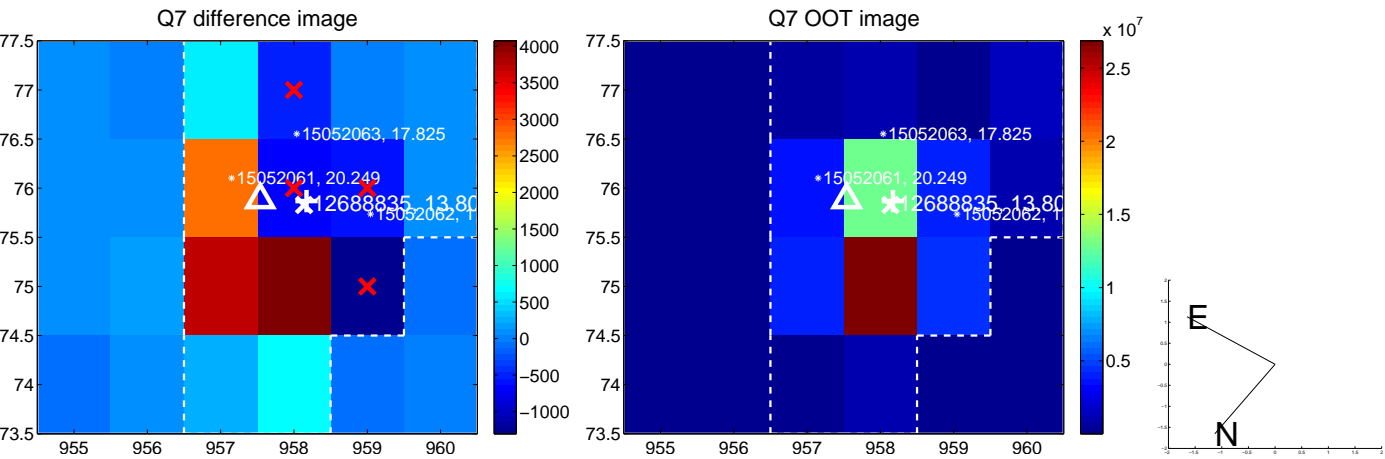
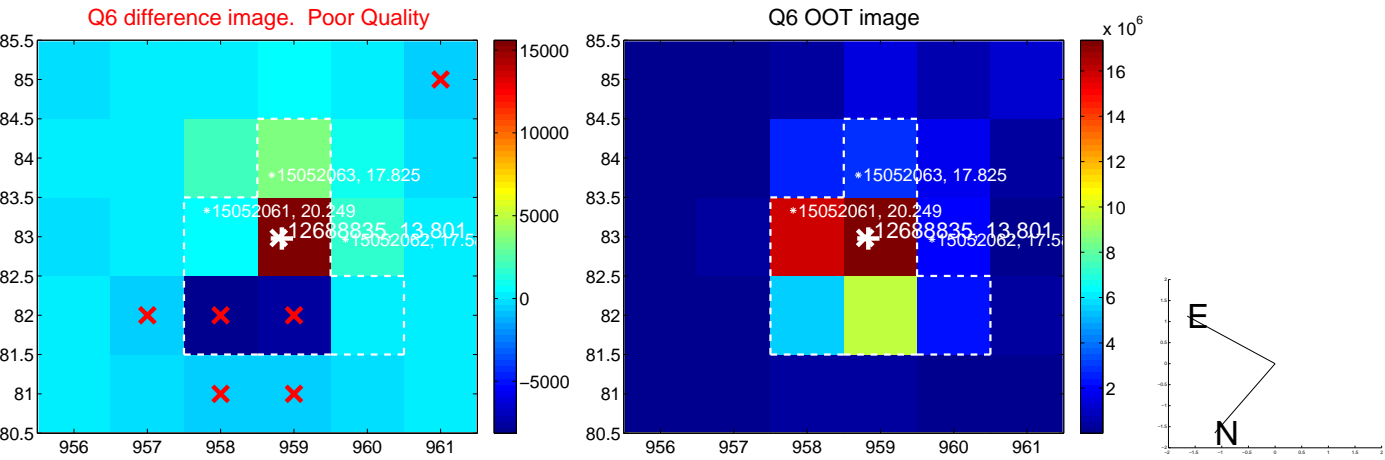
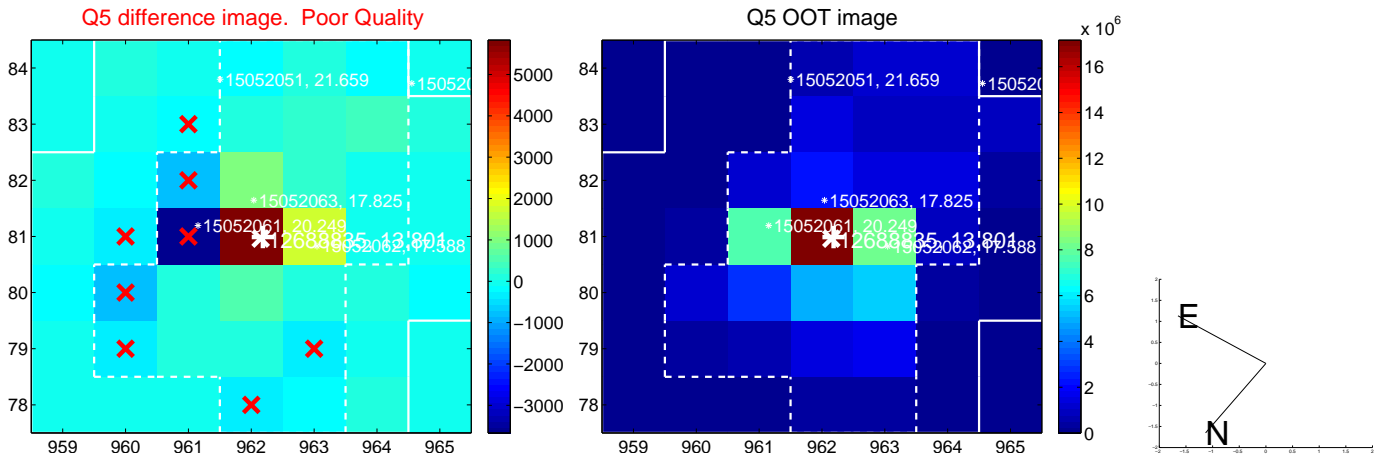


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

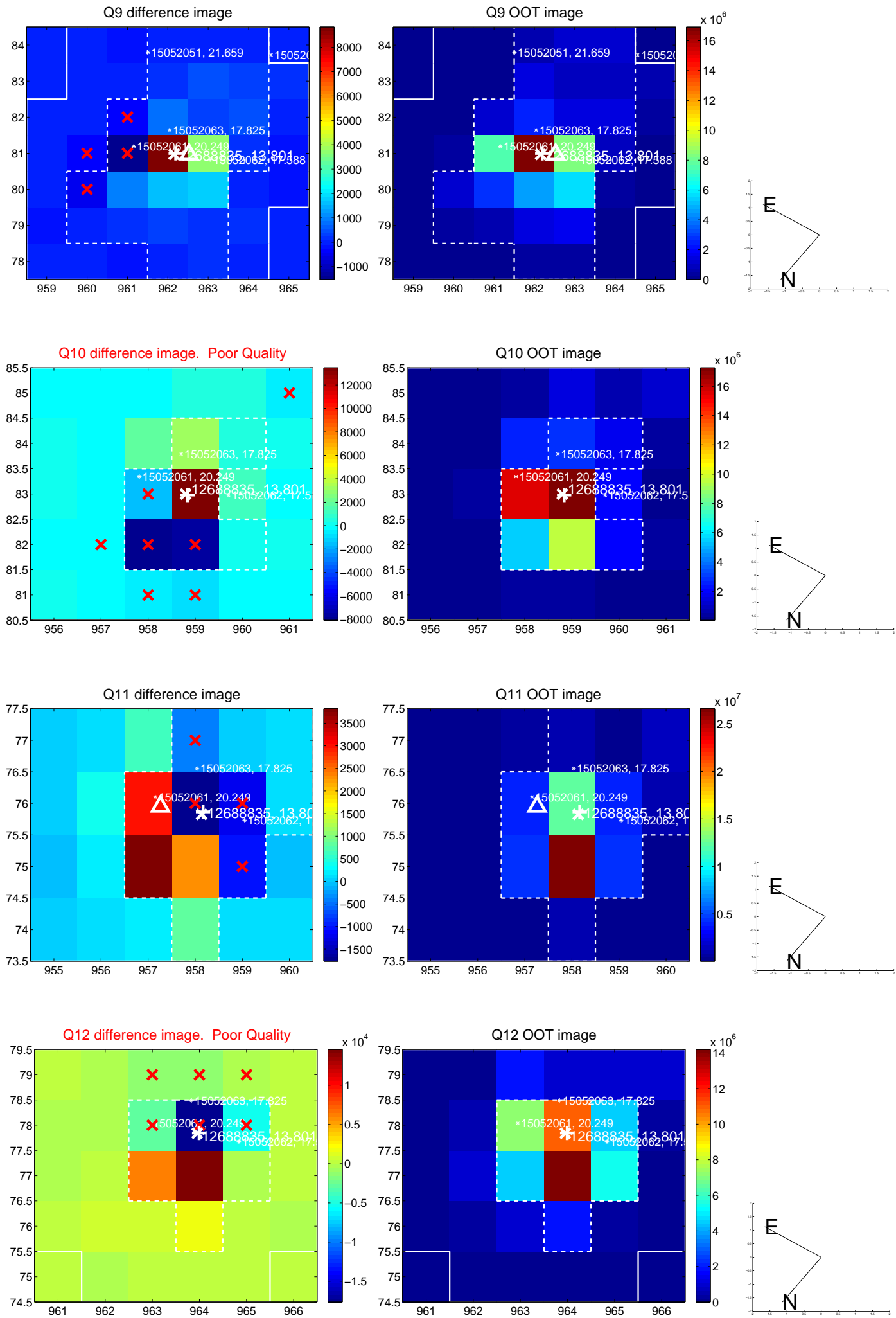
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



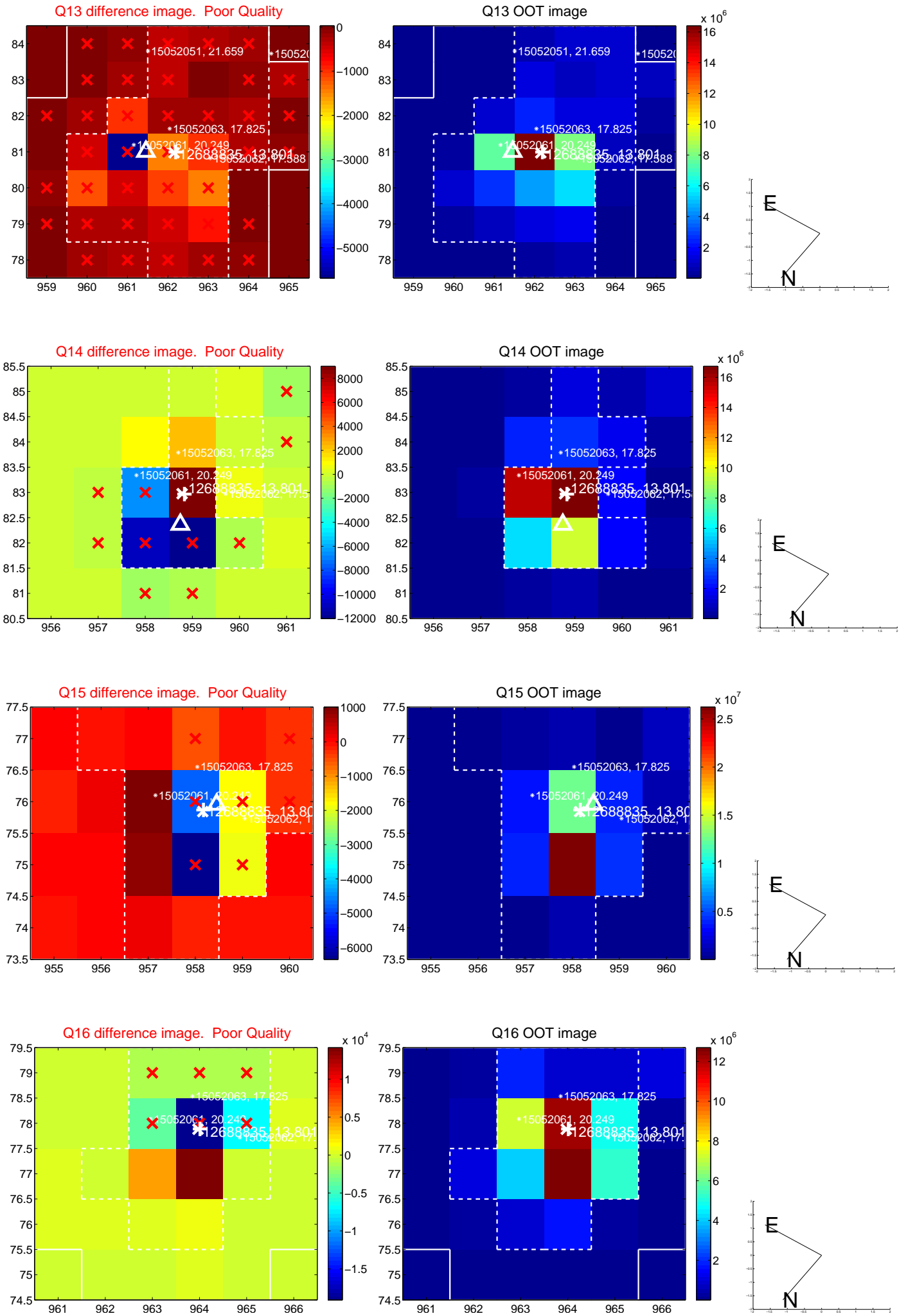
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

