

KIC 002558273

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})
002558273-01	OBS	No	0.980864	131.774372	22.8	8.396	7.2	6.9	7.78	6691	3.77	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002558273-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

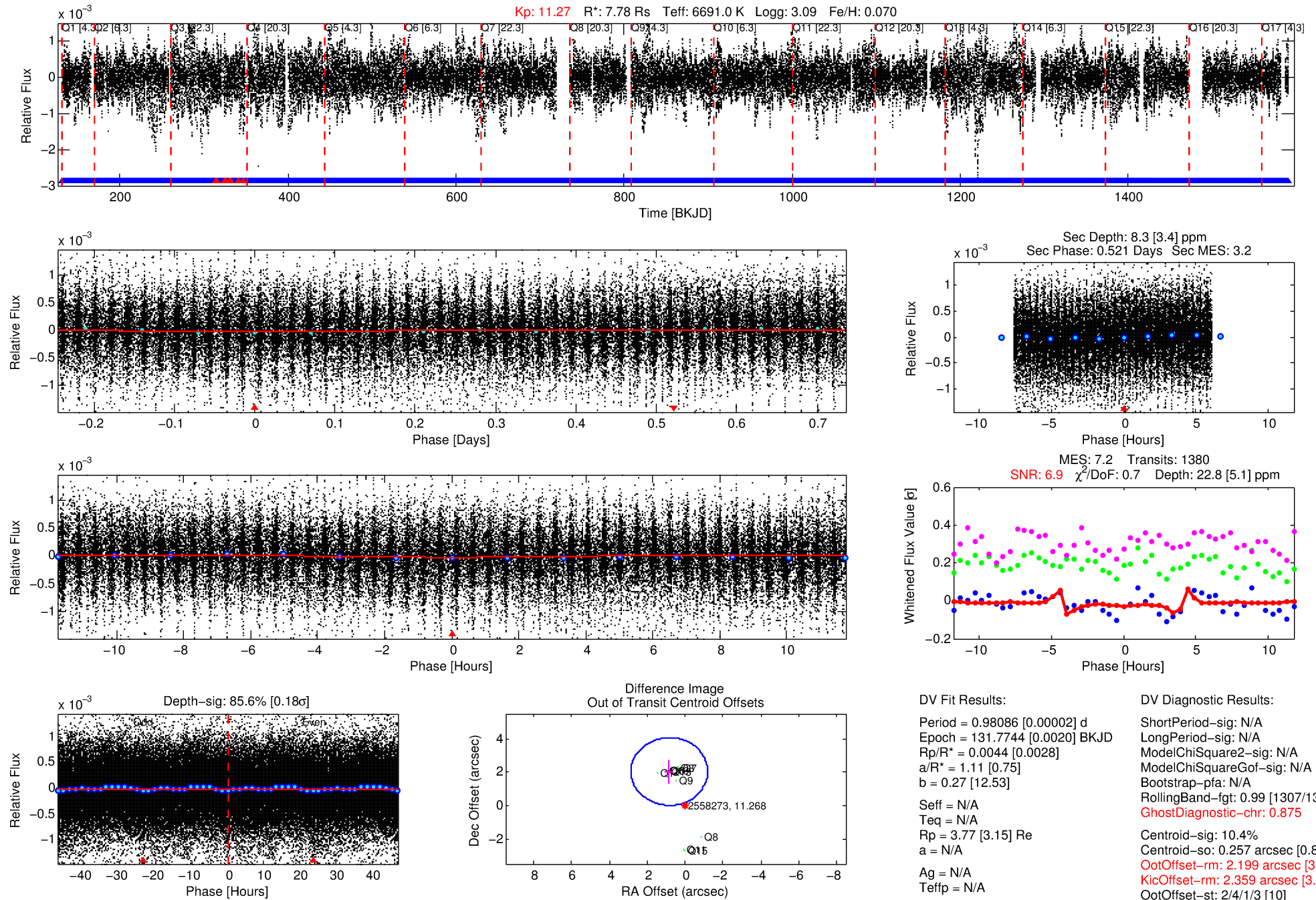
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002558273-01

No Significant Match Found

DV One-Page Summary

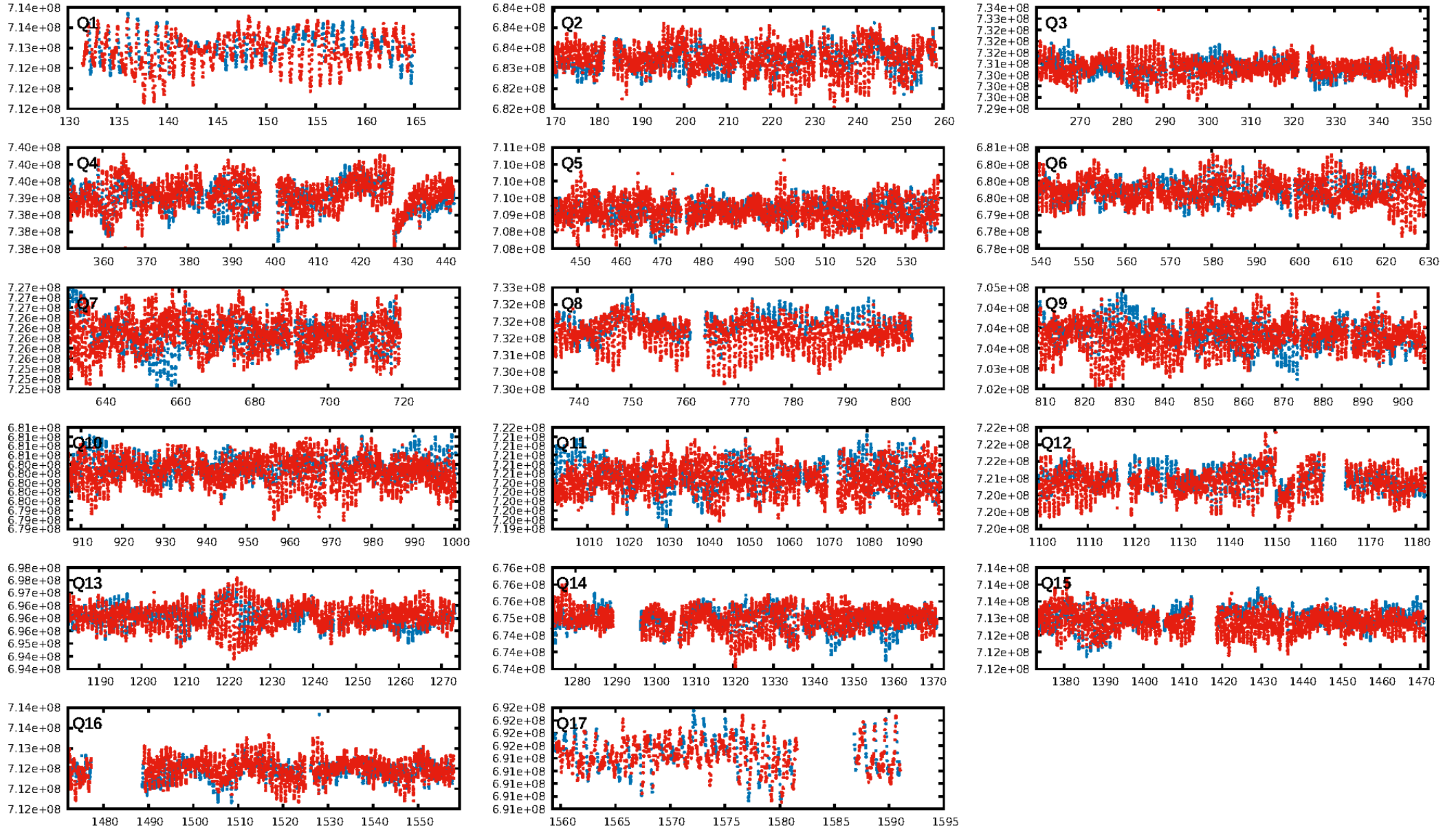
KIC: 2558273 Candidate: 1 of 1 Period: 0.981 d



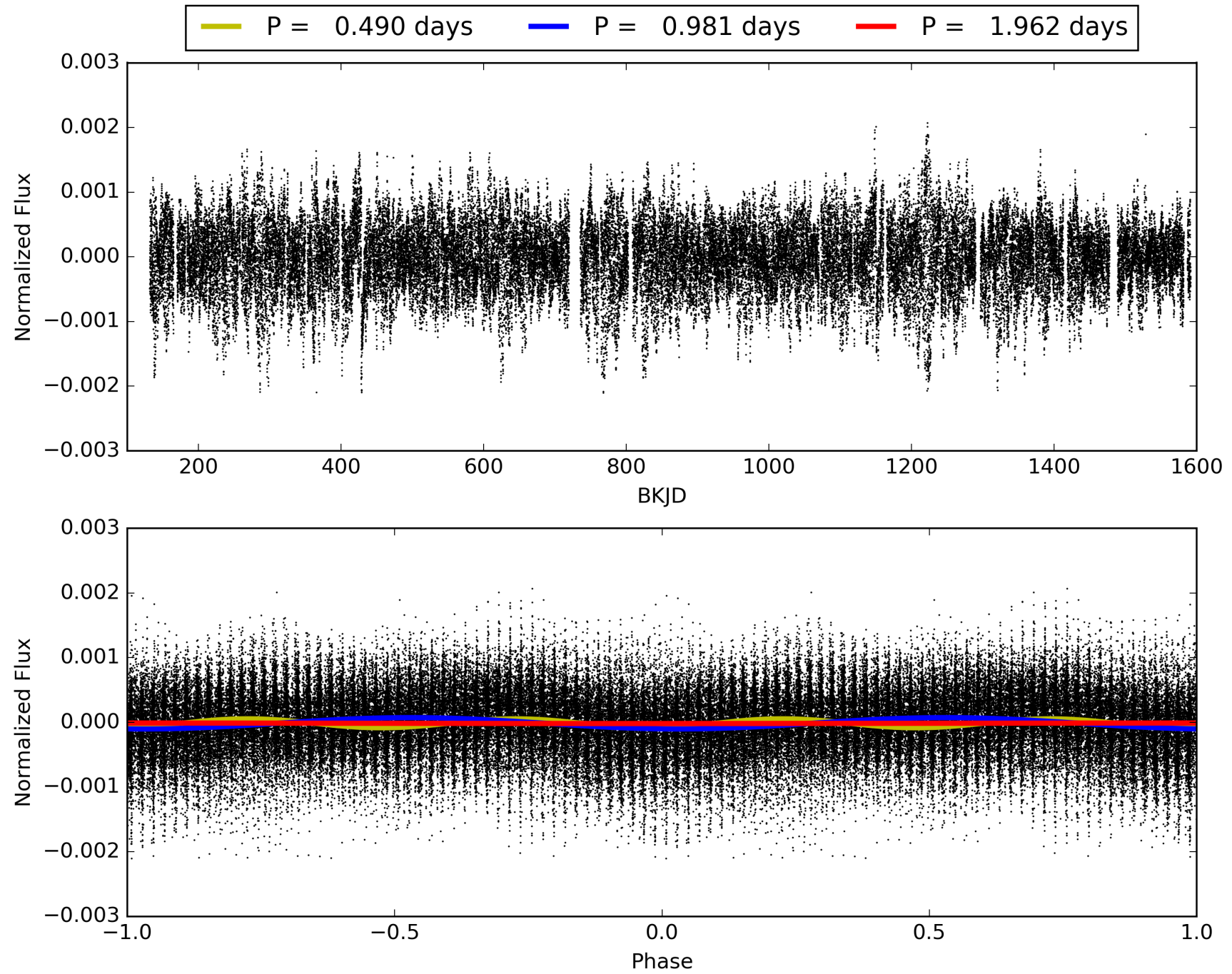
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 21:33:39 Z

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

TCE 002558273-01, PDC Light Curves

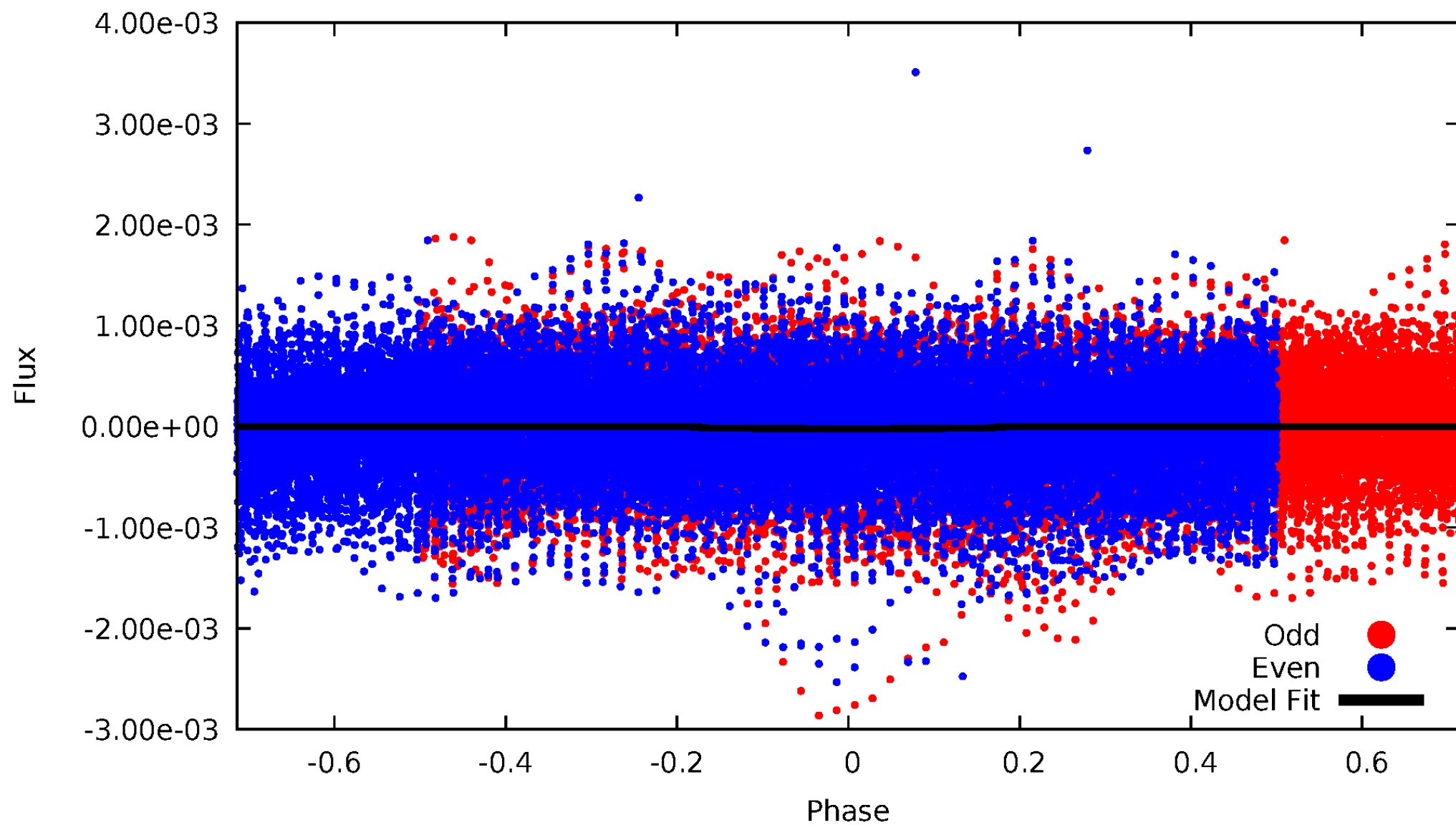


TCE 002558273-01



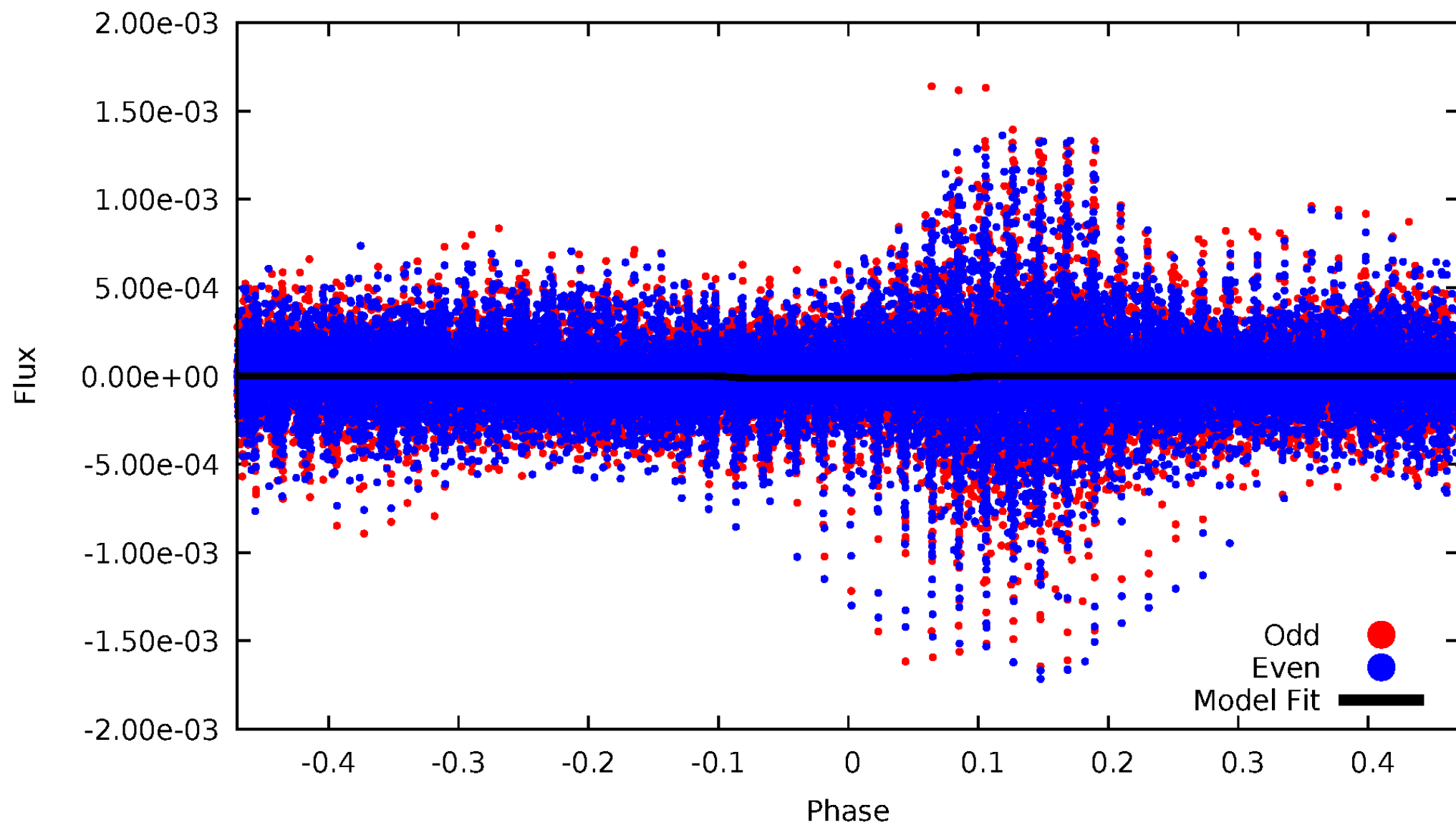
DV Odd/Even

TCE 002558273-01

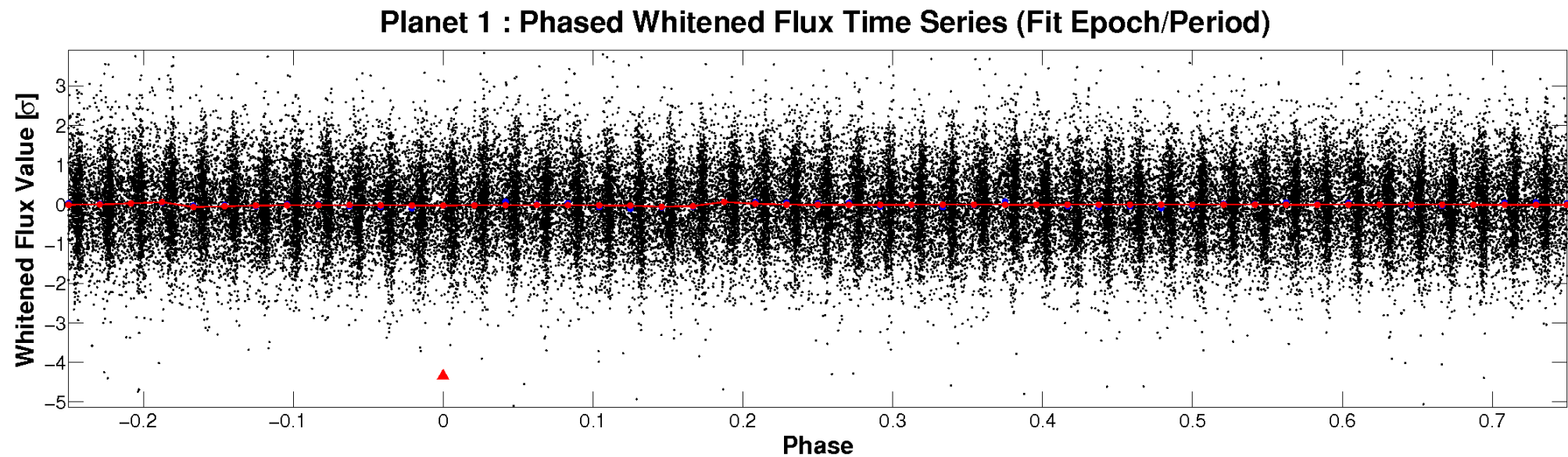
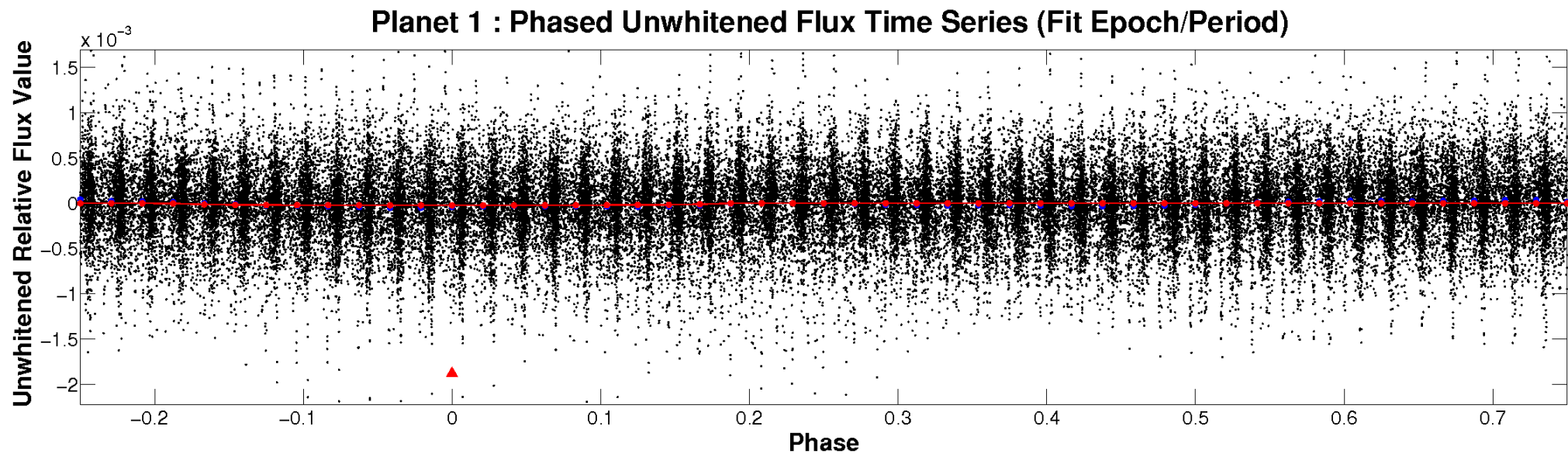


ALT Odd/Even

TCE 002558273-01

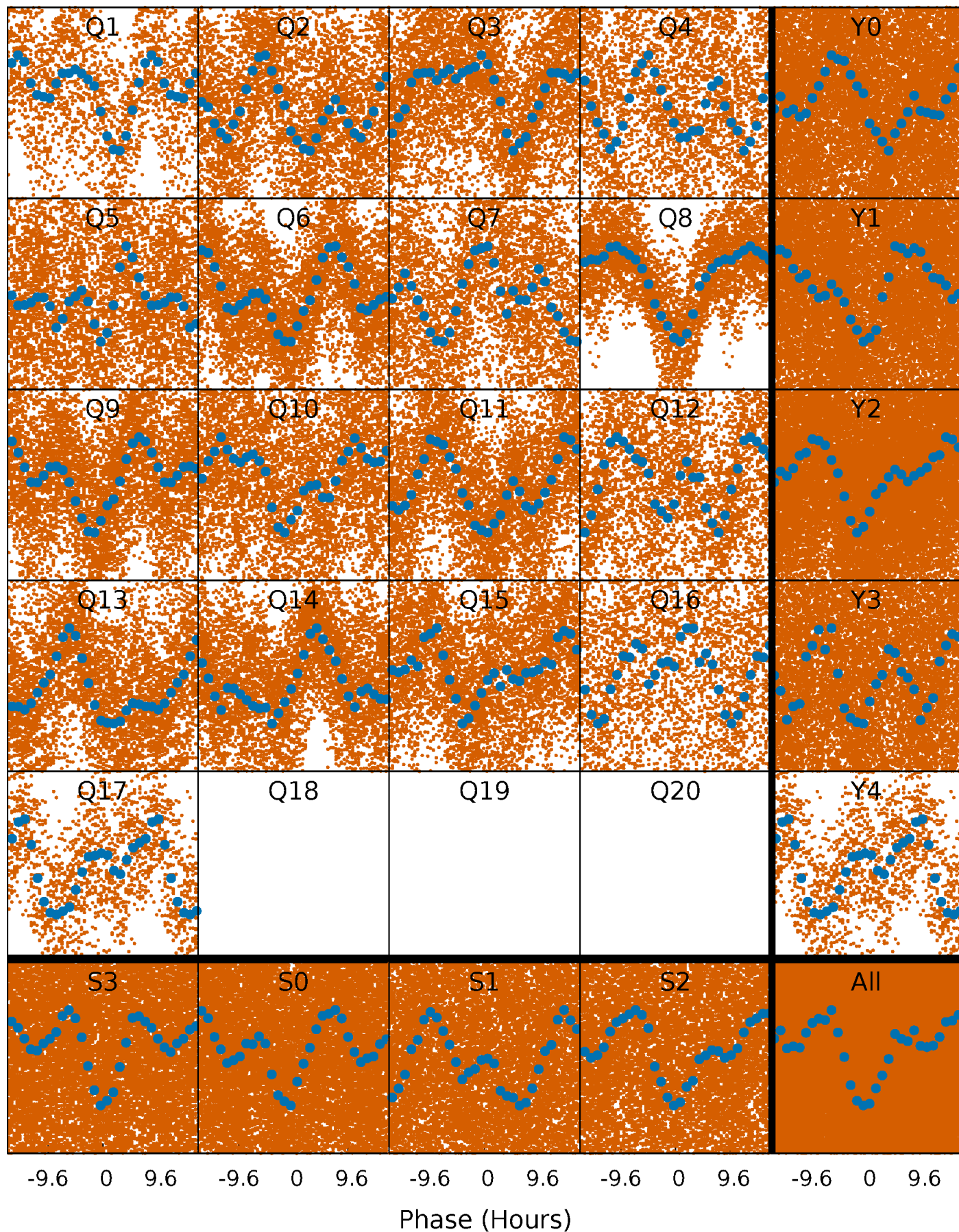


Non-Whitened Vs. Whitened Light Curve



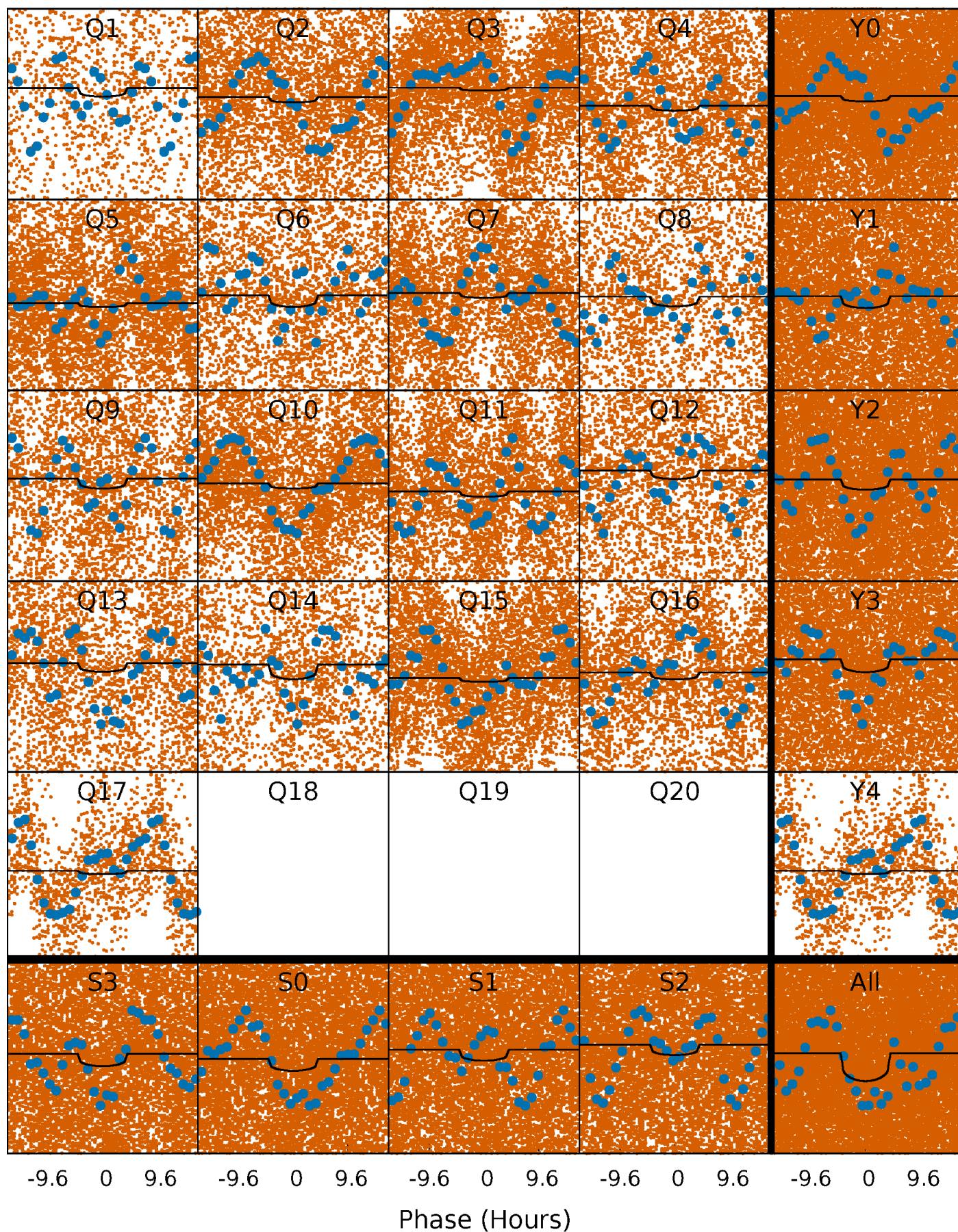
PDC Quarter-Phased Transit Curves

TCE 002558273-01 P= 0.980864 Days $T_0=131.774372$ (BKJD)



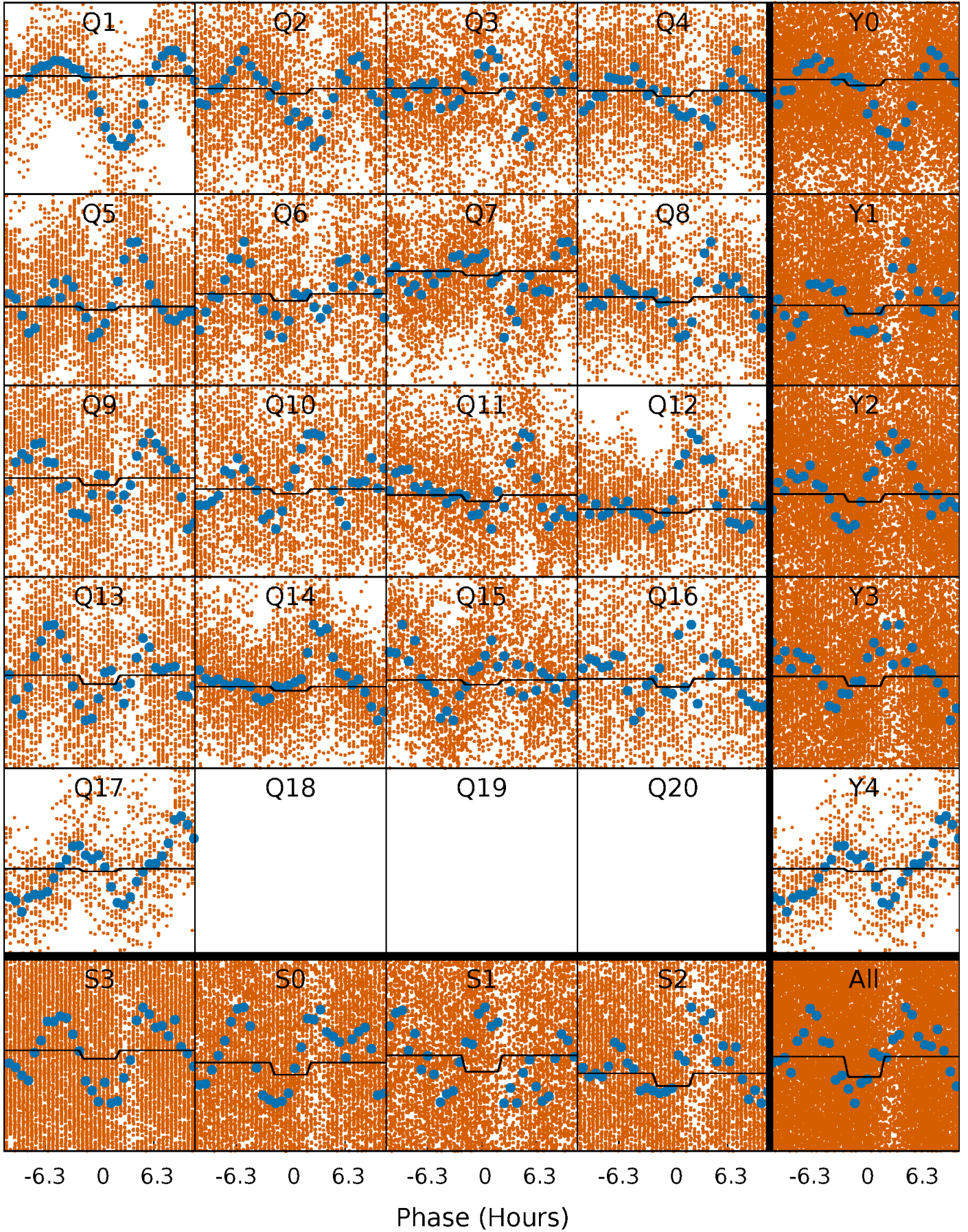
DV Quarter-Phased Transit Curves

TCE 002558273-01 P= 0.980864 Days $T_0=131.774372$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

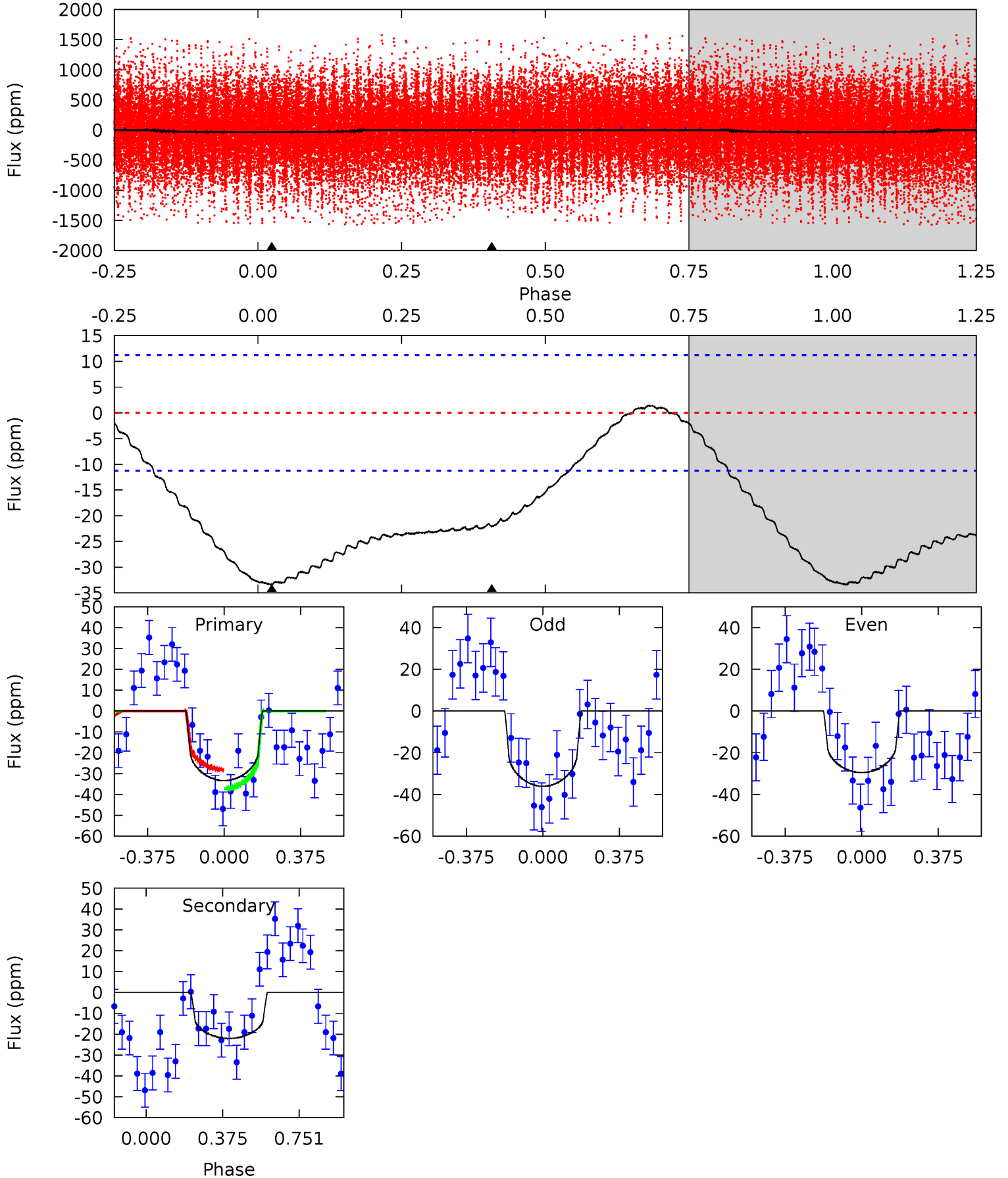
TCE 002558273-01 P= 0.980869 Days $T_0=131.776197$ (BKJD)



DV Model-Shift Uniqueness Test

002558273-01, P = 0.980864 Days, E = 130.793508 Days

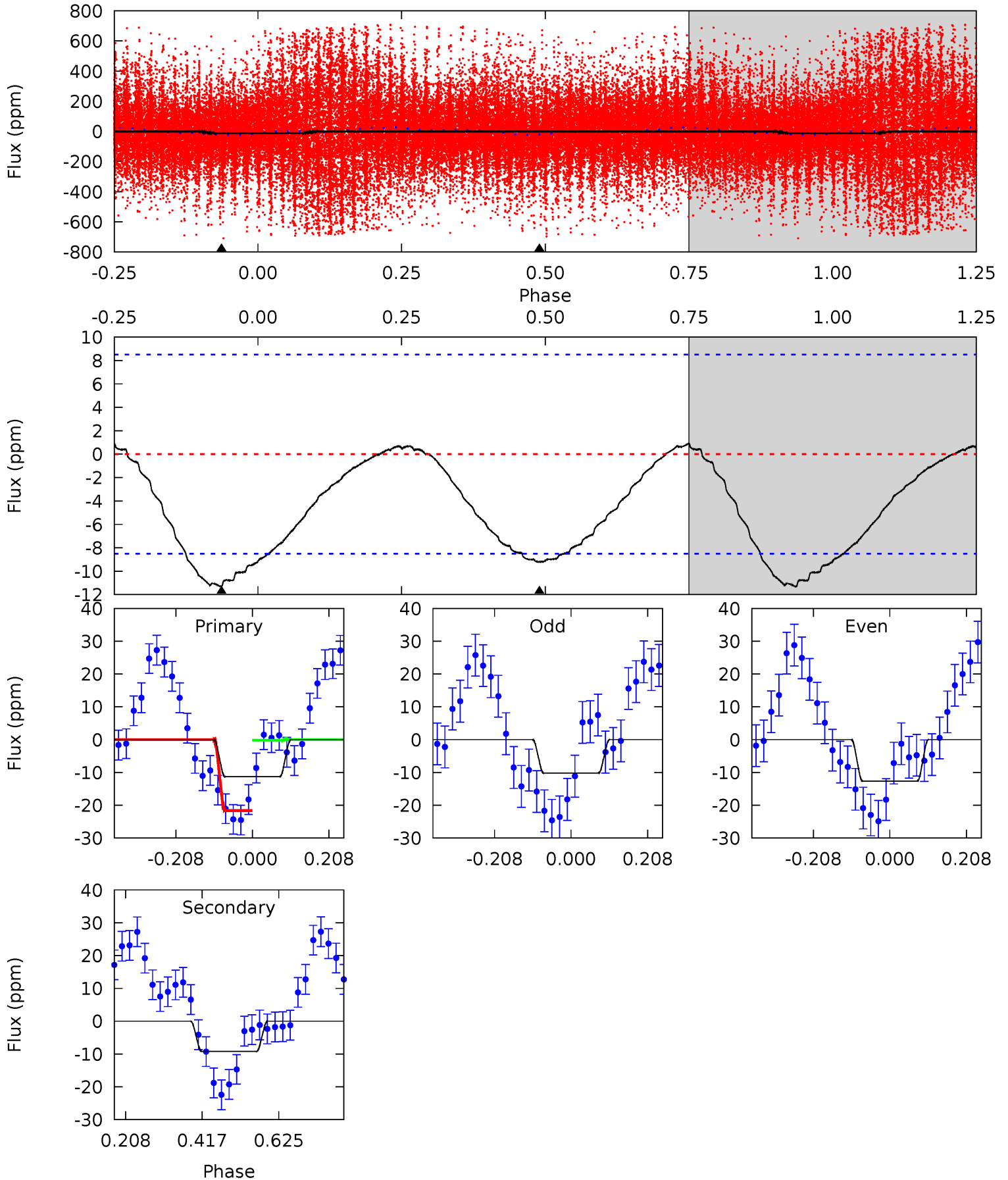
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	8.38	0	0	4.28	0.89	0.60	12.7	12.7	8.38	8.38	1.26	2.21	0.04	1.70



Alt Model-Shift Uniqueness Test

002558273-01, P = 0.980869 Days, E = 130.795328 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.86	4.77	0	0	4.41	1.26	0.40	5.86	5.86	4.77	4.77	0.63	0.85	0.08	5.55



Stellar Parameters For KIC 002558273

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6691^{+150}_{-200}	$3.088^{+0.536}_{-0.134}$	$0.070^{+0.200}_{-0.450}$	$7.781^{+1.844}_{-4.303}$	$2.703^{+0.306}_{-0.917}$	$0.008^{+0.056}_{-0.003}$
	+2%/-3%	+17%/-4%	+286%/-643%	+24%/-55%	+11%/-34%	+691%/-41%
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 002558273-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-22 ± 3	$3.54^{+2.37}_{-2.00}$	6833^{+512}_{-866}	5681^{+4867}_{-9585}	$0.675^{+3.054}_{-0.421}$
Alt.	-9 ± 2	$2.78^{+2.33}_{-1.68}$	6760^{+557}_{-1002}	4628^{+4984}_{-9592}	$0.462^{+2.172}_{-0.332}$

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 $A_{obs} \gg 1.0$

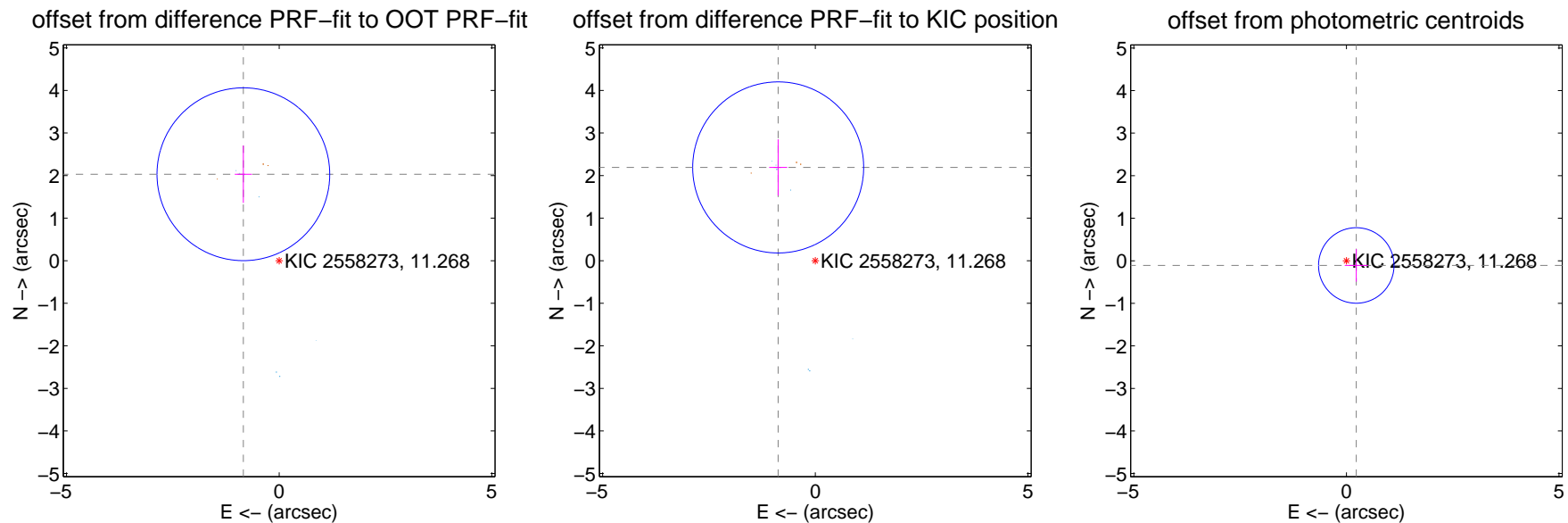
DV Centroid Data

Supplemental centroid analysis for 002558273-01. **Kepler magnitude: 11.27.** Transit SNR 6.86

There are 7 quarters with good PRF difference image offsets

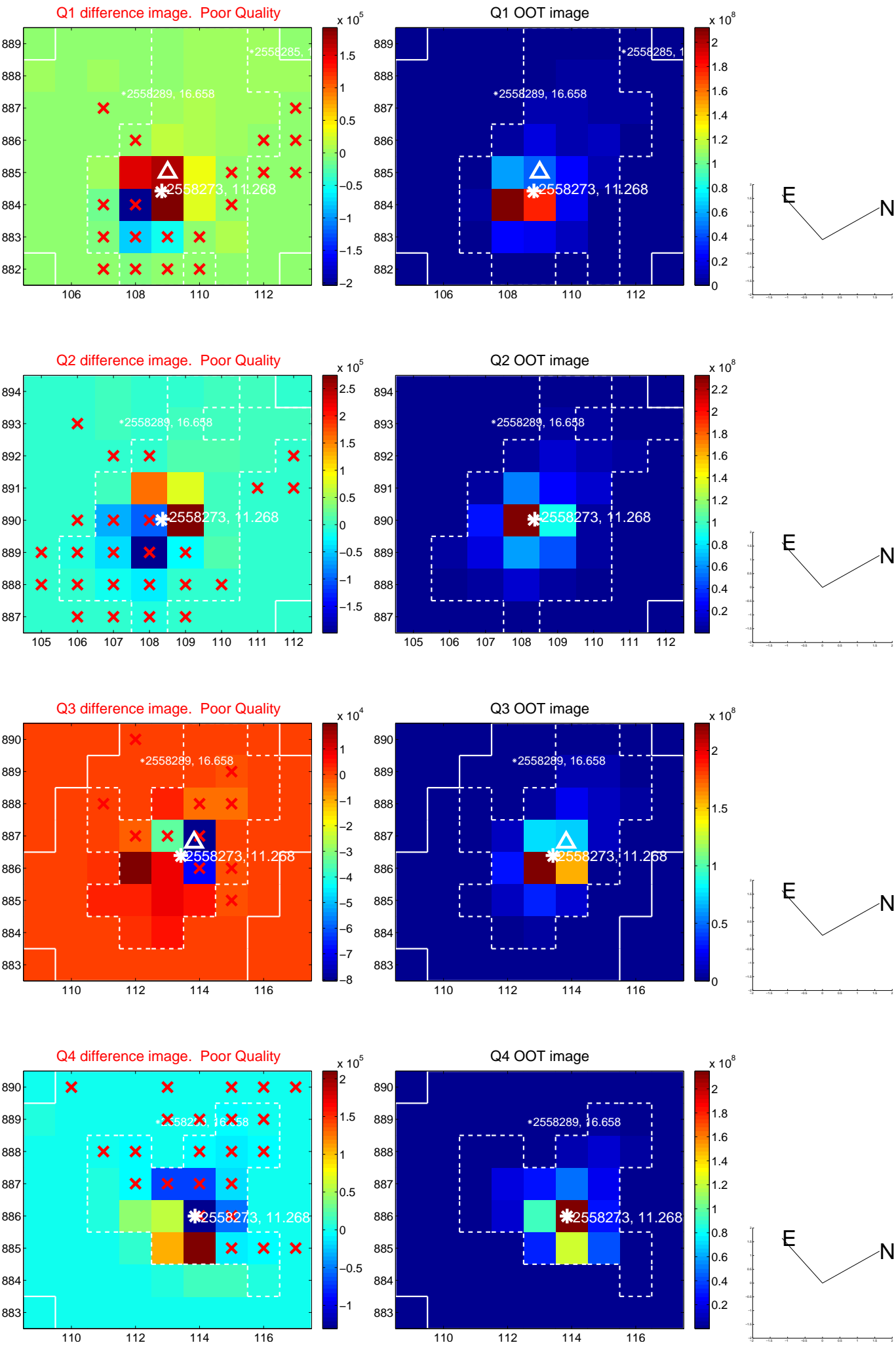
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.199 \pm 0.677	3.25	0.841 \pm 0.201	2.032 \pm 0.674
PRF-fit source offset from KIC position	2.359 \pm 0.670	3.52	0.872 \pm 0.212	2.192 \pm 0.661
photometric centroid source offset	0.26 \pm 0.30	0.87	-0.23 \pm 0.27	-0.11 \pm 0.38

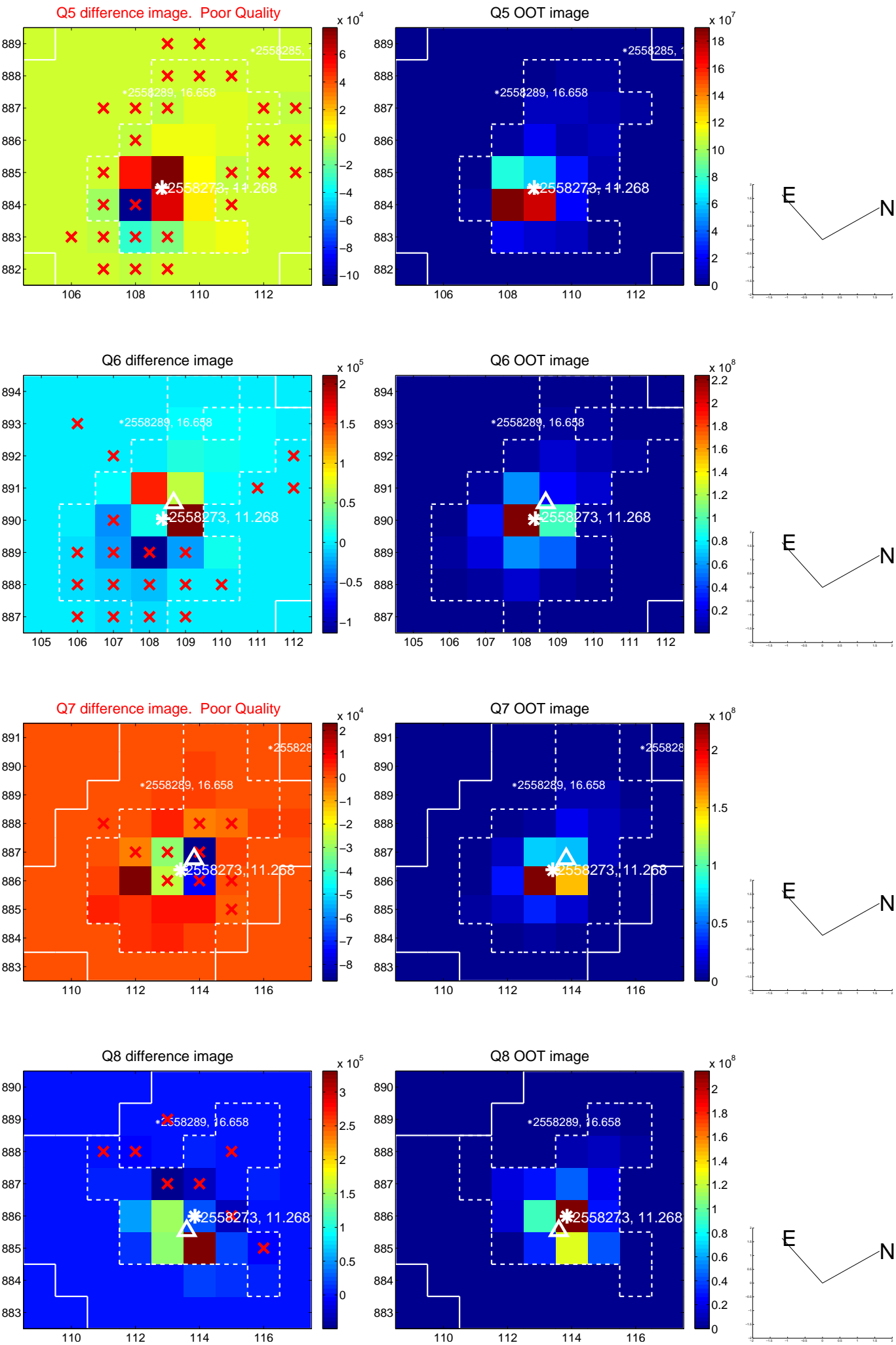


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

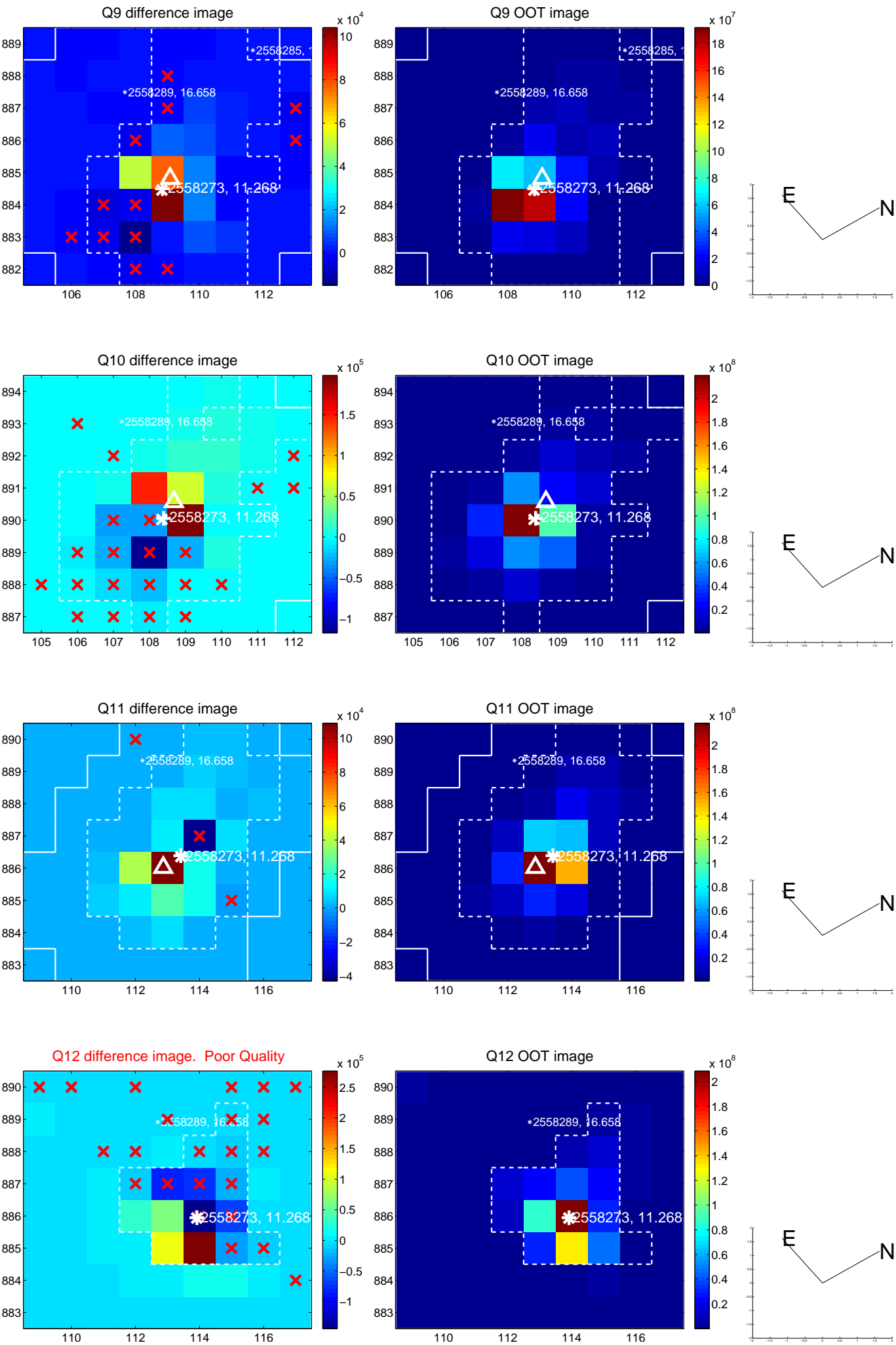
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



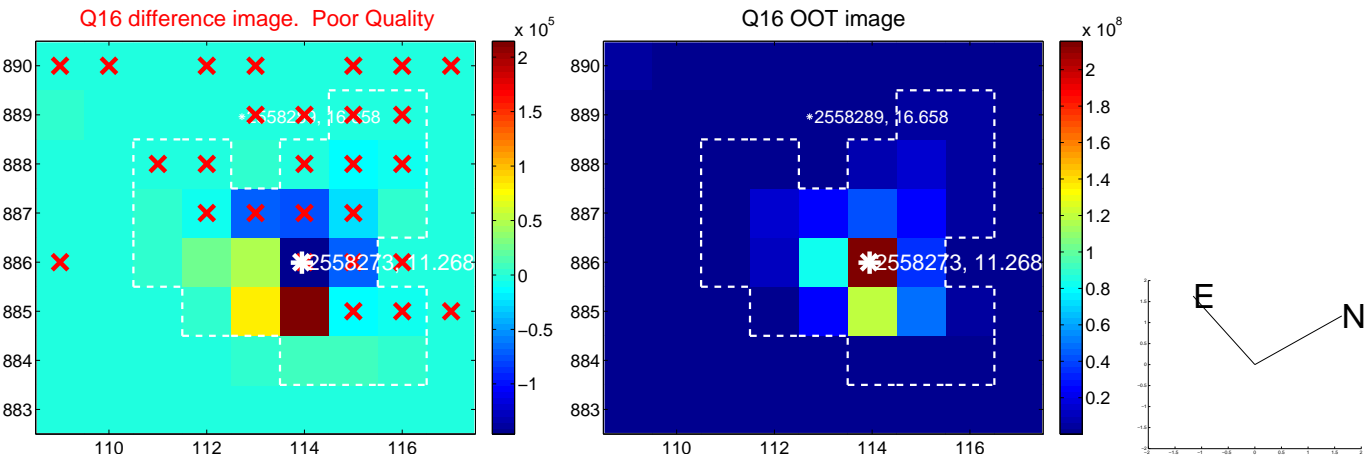
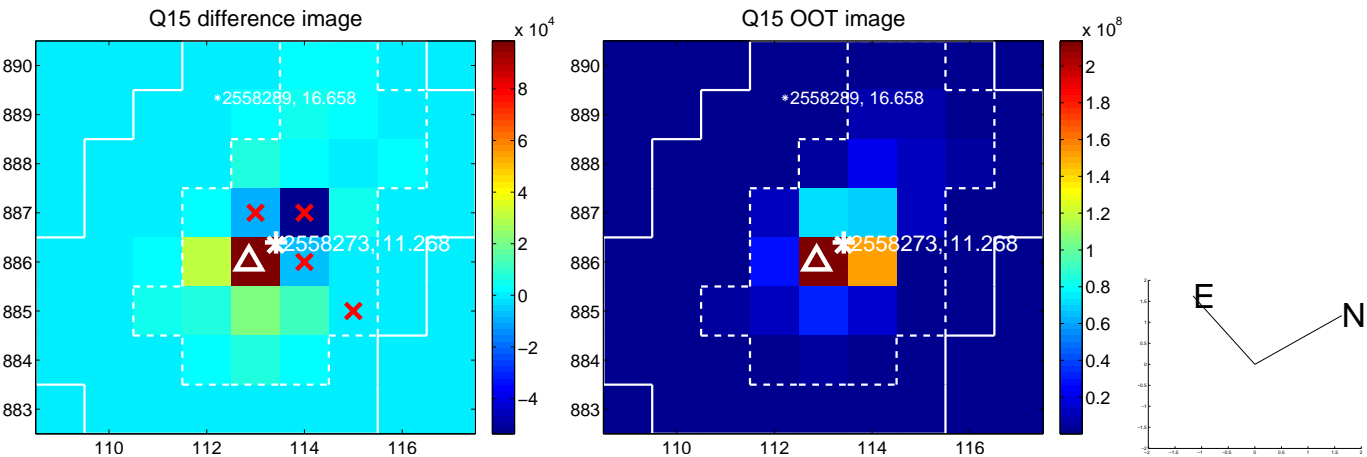
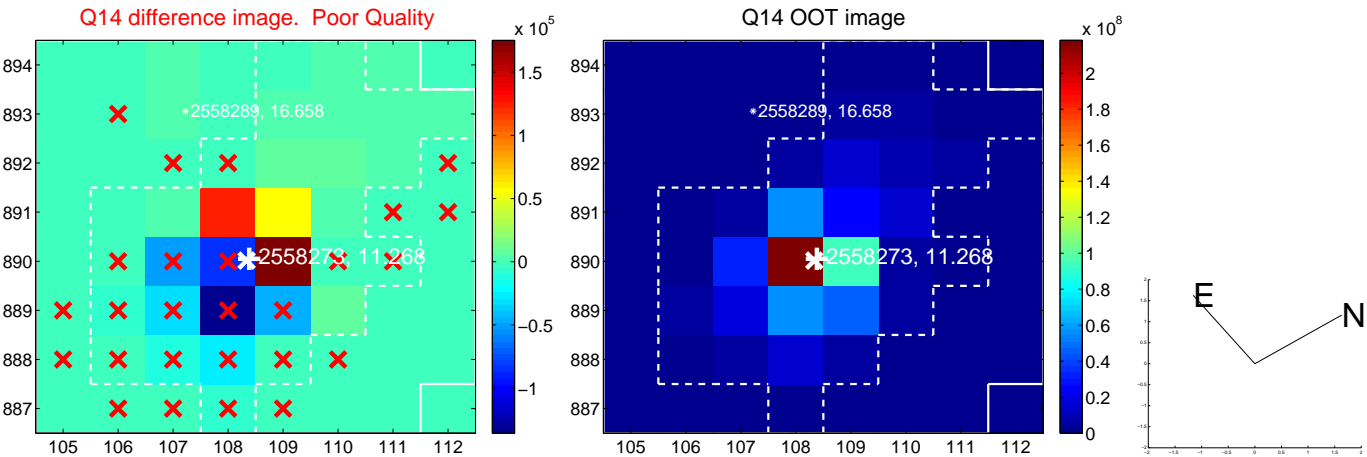
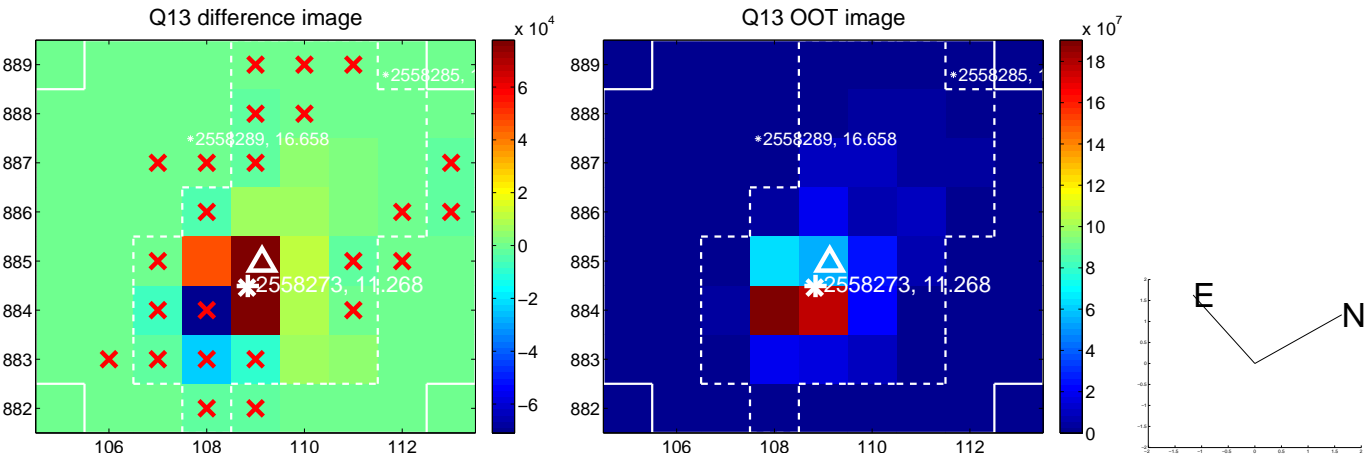
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



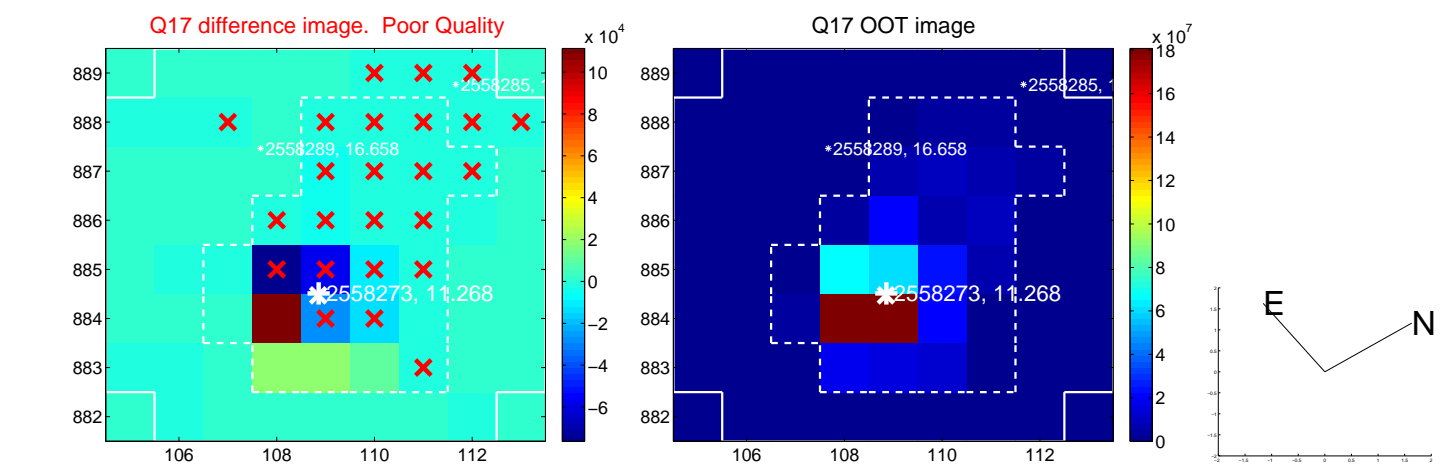
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



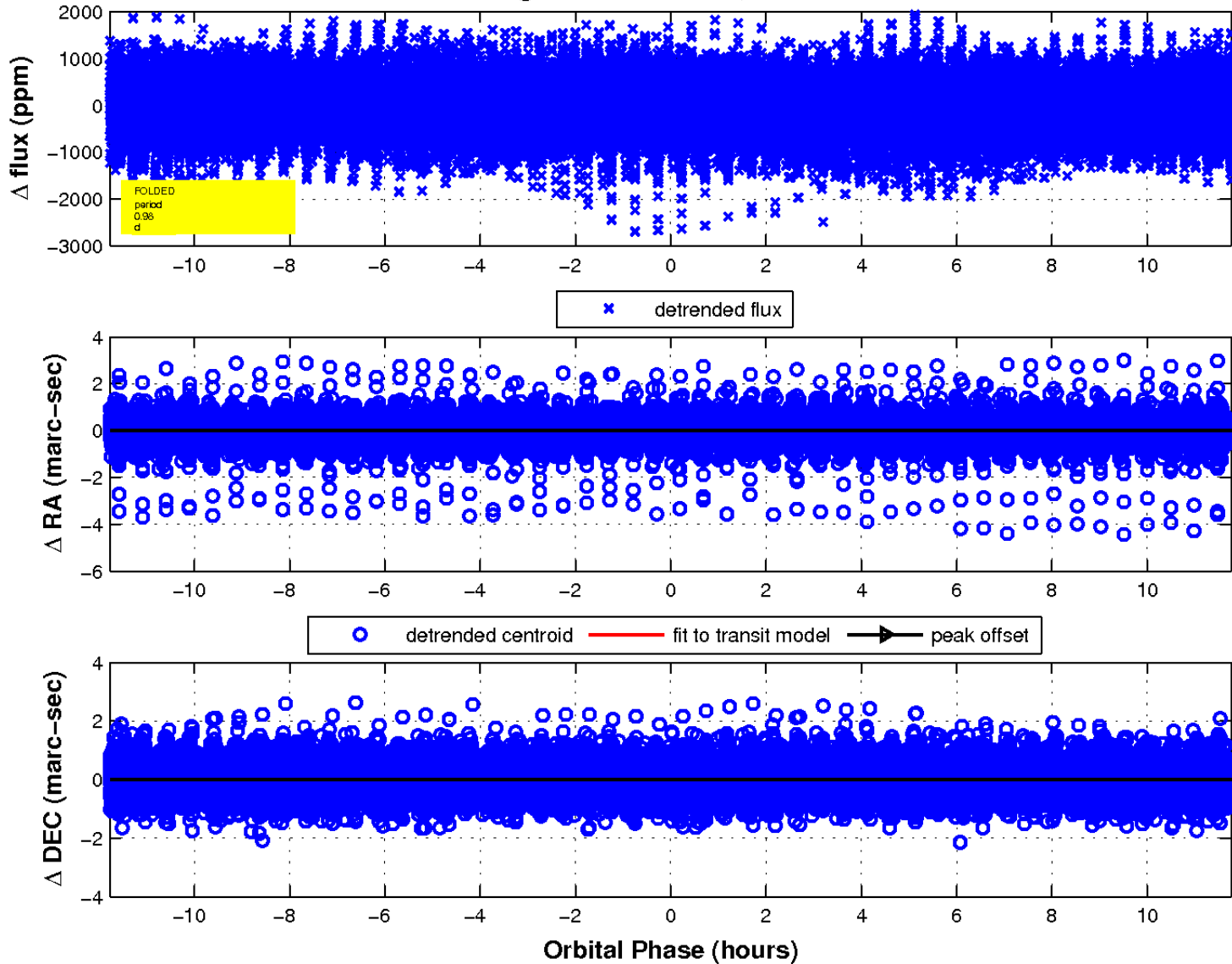
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

