

KIC 012258334

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})
012258334-01	OBS	No	0.566298	131.731208	17.2	1.987	7.7	7.7	3.44	5255	1.72	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
012258334-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_CROWDED

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

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

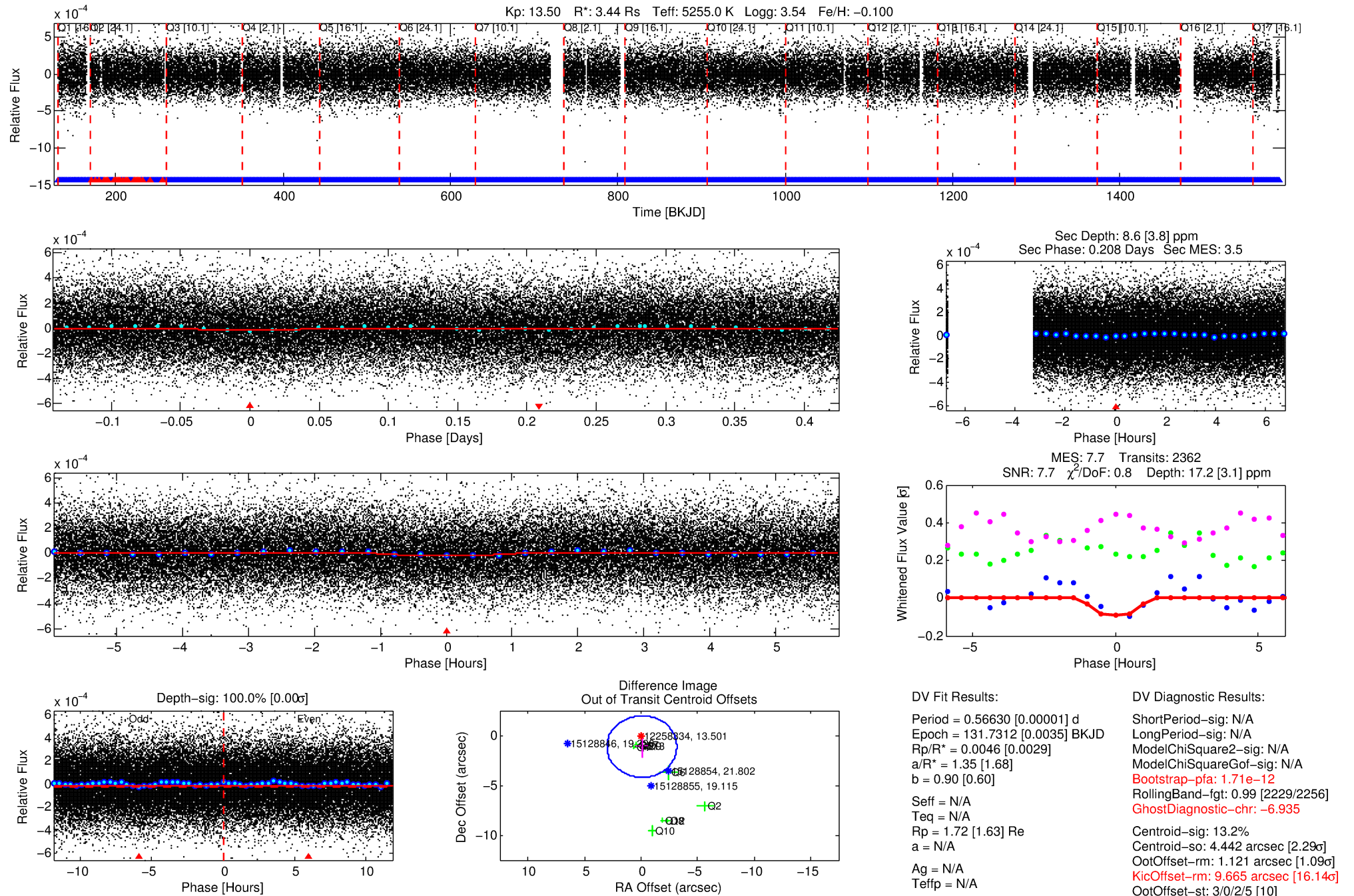
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 012258334-01

No Significant Match Found

DV One-Page Summary

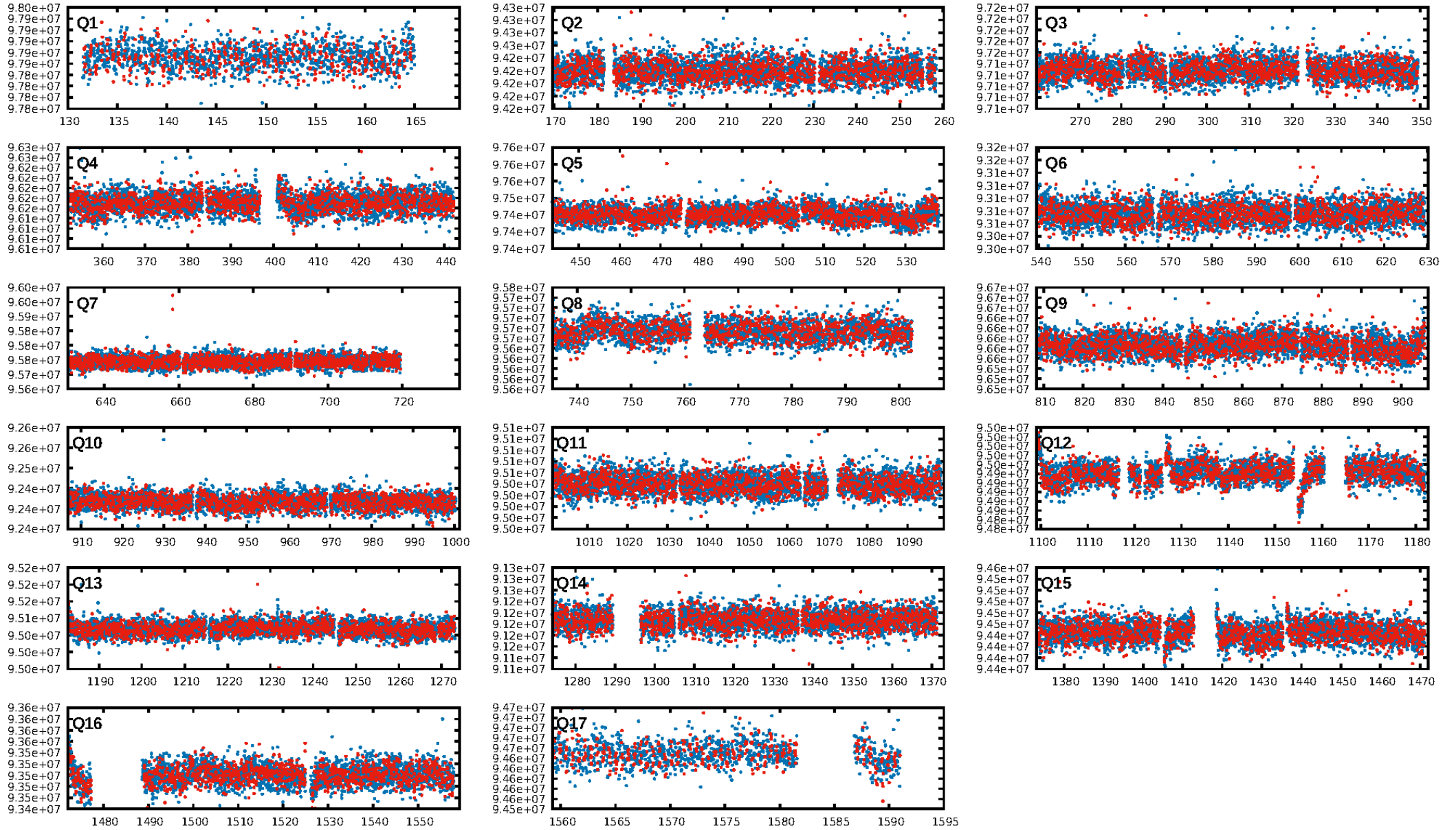
KIC: 12258334 Candidate: 1 of 1 Period: 0.566 d



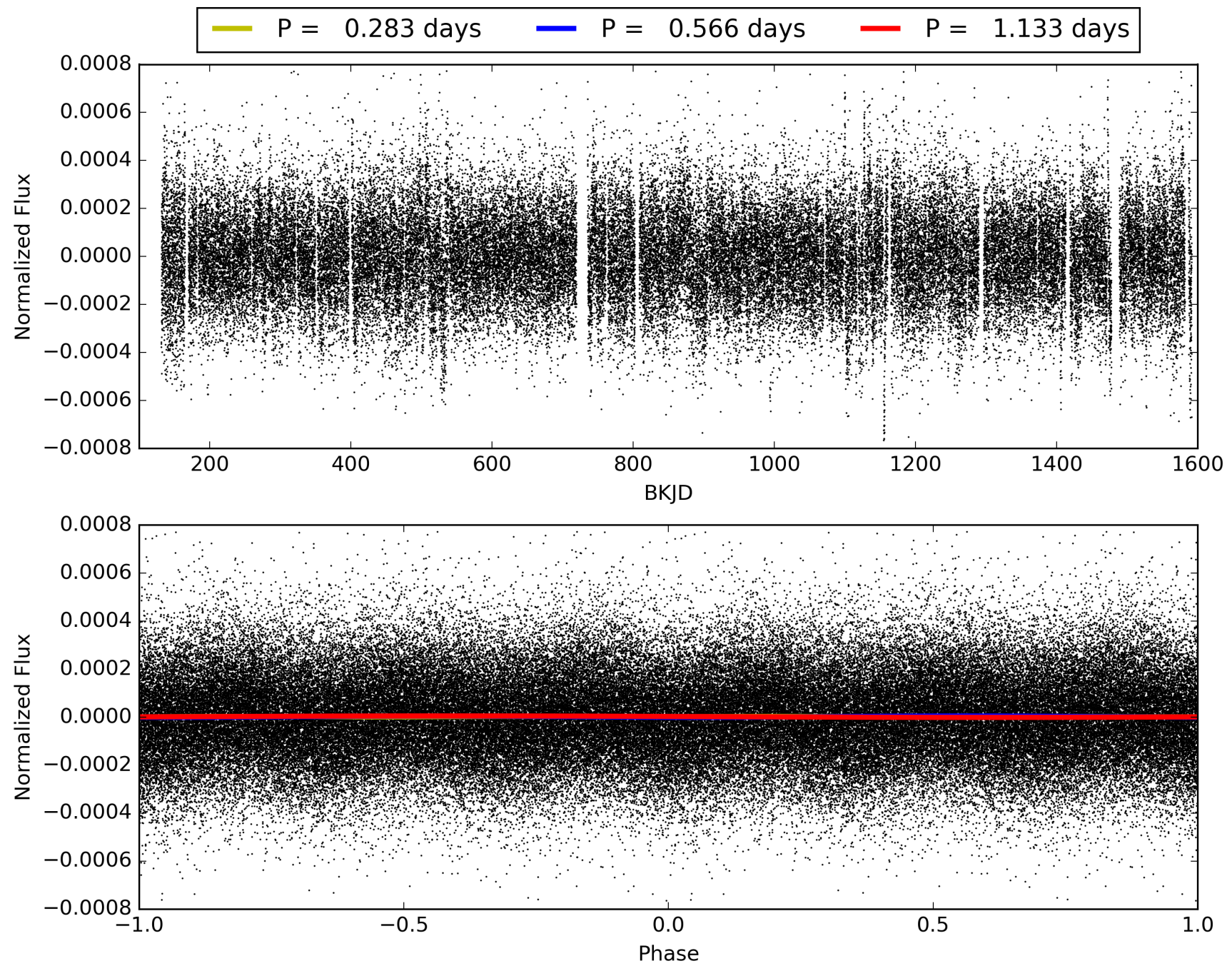
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:18:14 Z

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

TCE 012258334-01, PDC Light Curves

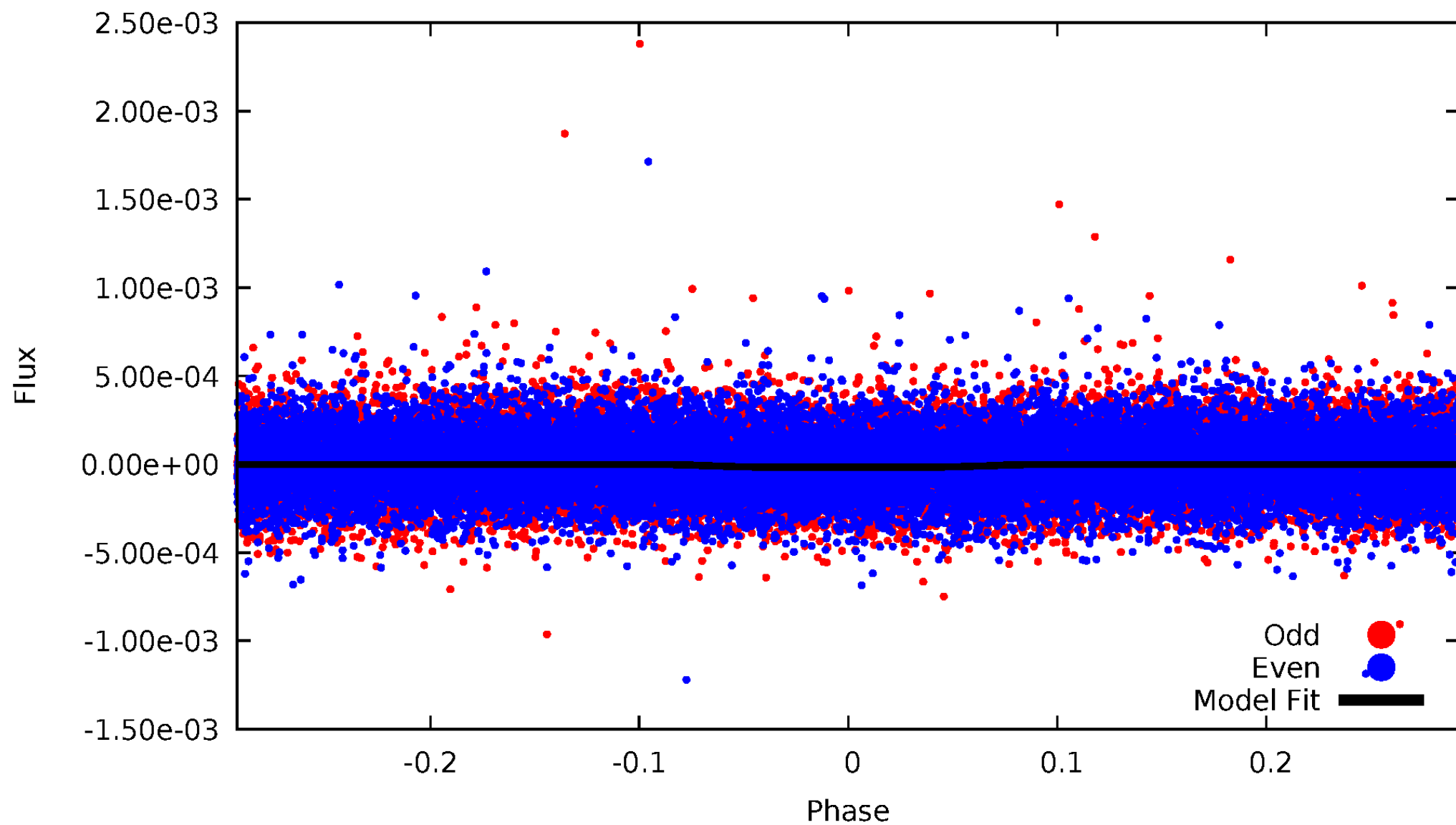


TCE 012258334-01



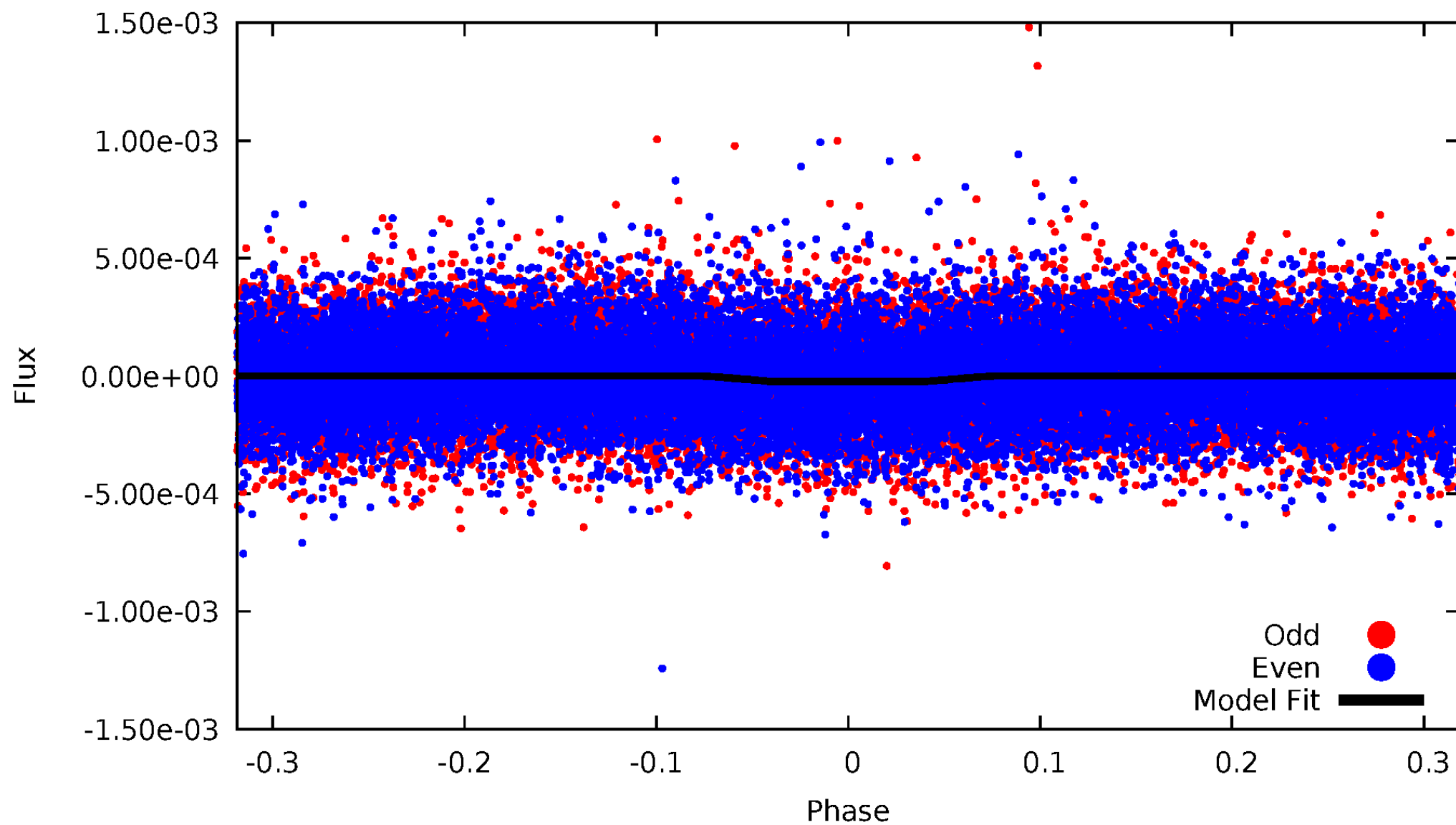
DV Odd/Even

TCE 012258334-01



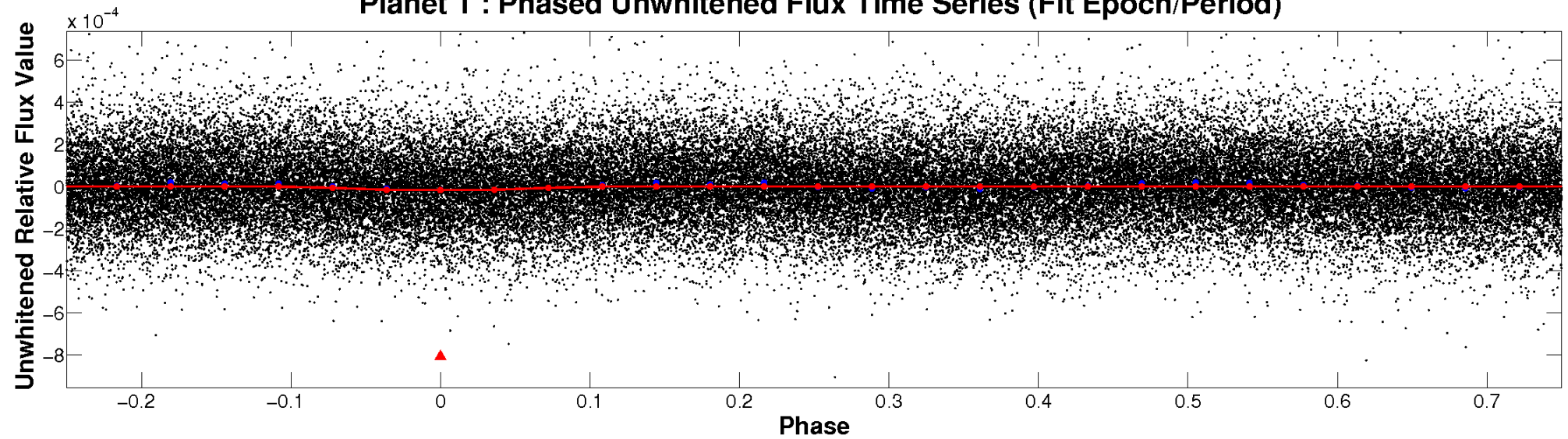
ALT Odd/Even

TCE 012258334-01

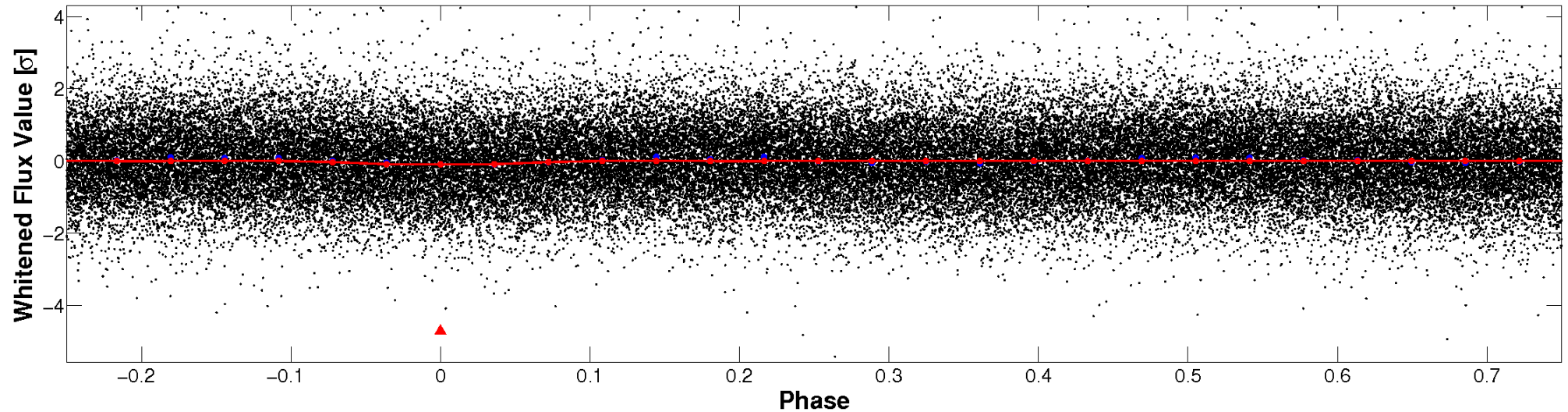


Non-Whitened Vs. Whitened Light Curve

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

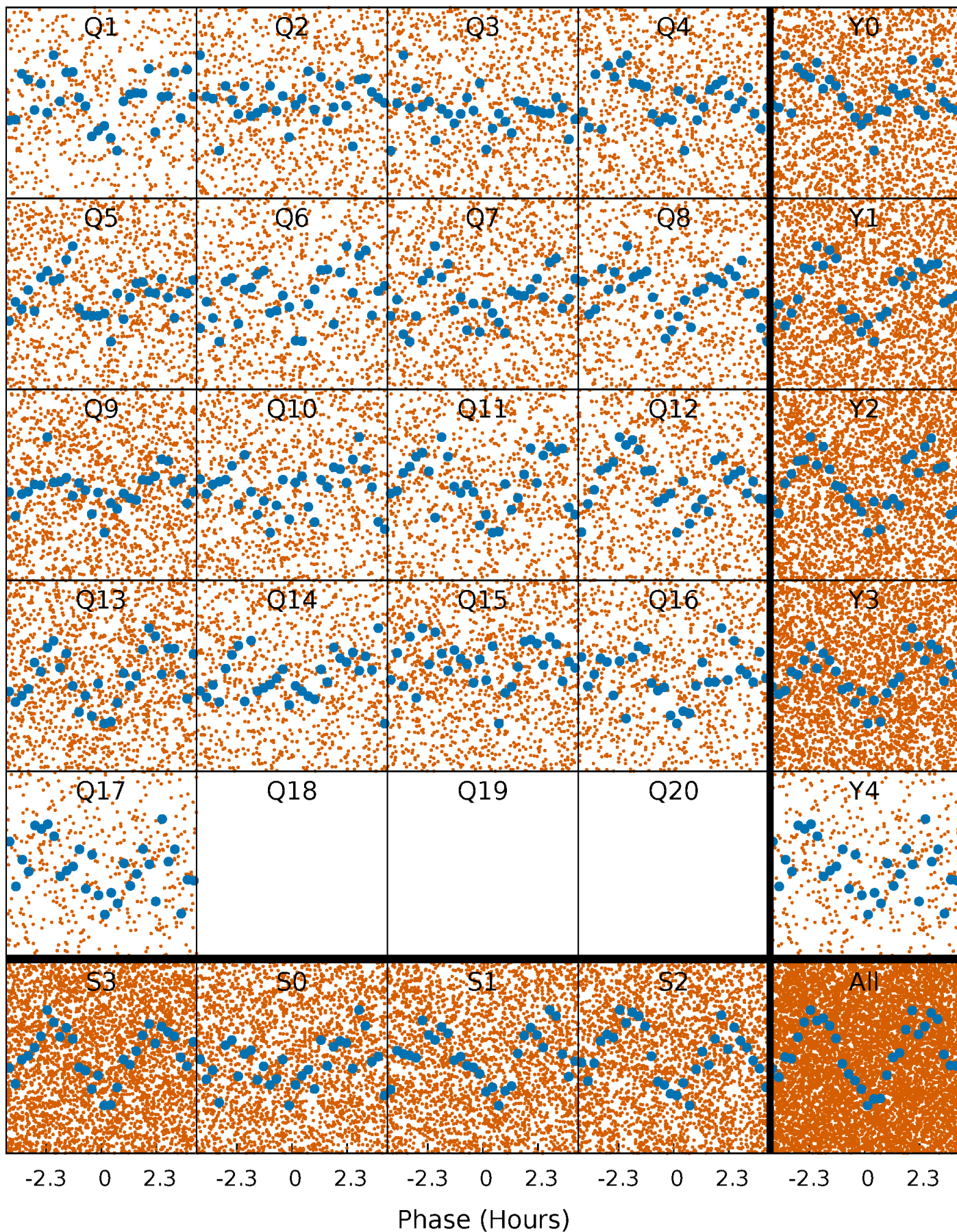


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



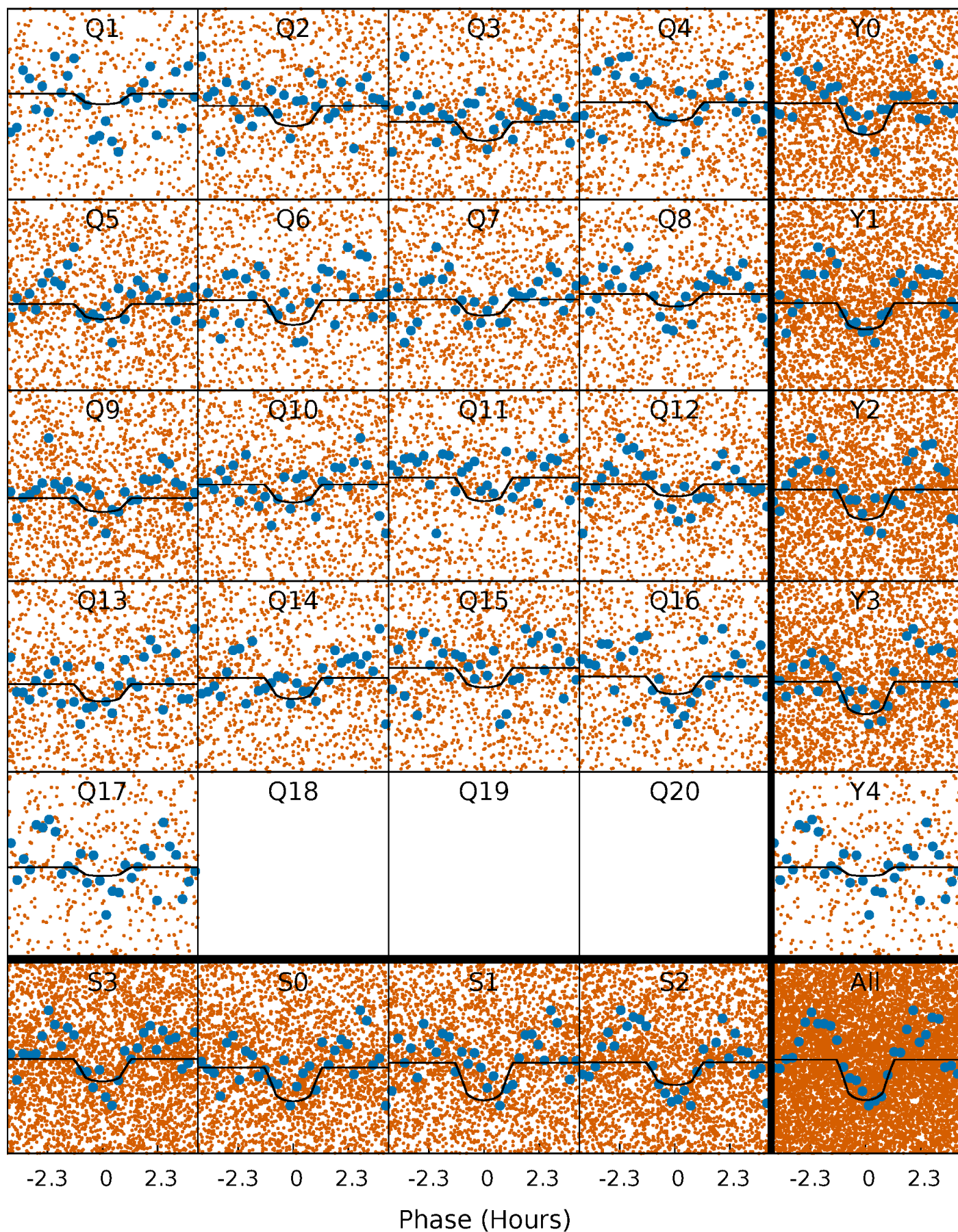
PDC Quarter-Phased Transit Curves

TCE 012258334-01 P= 0.566298 Days $T_0=131.731208$ (BKJD)



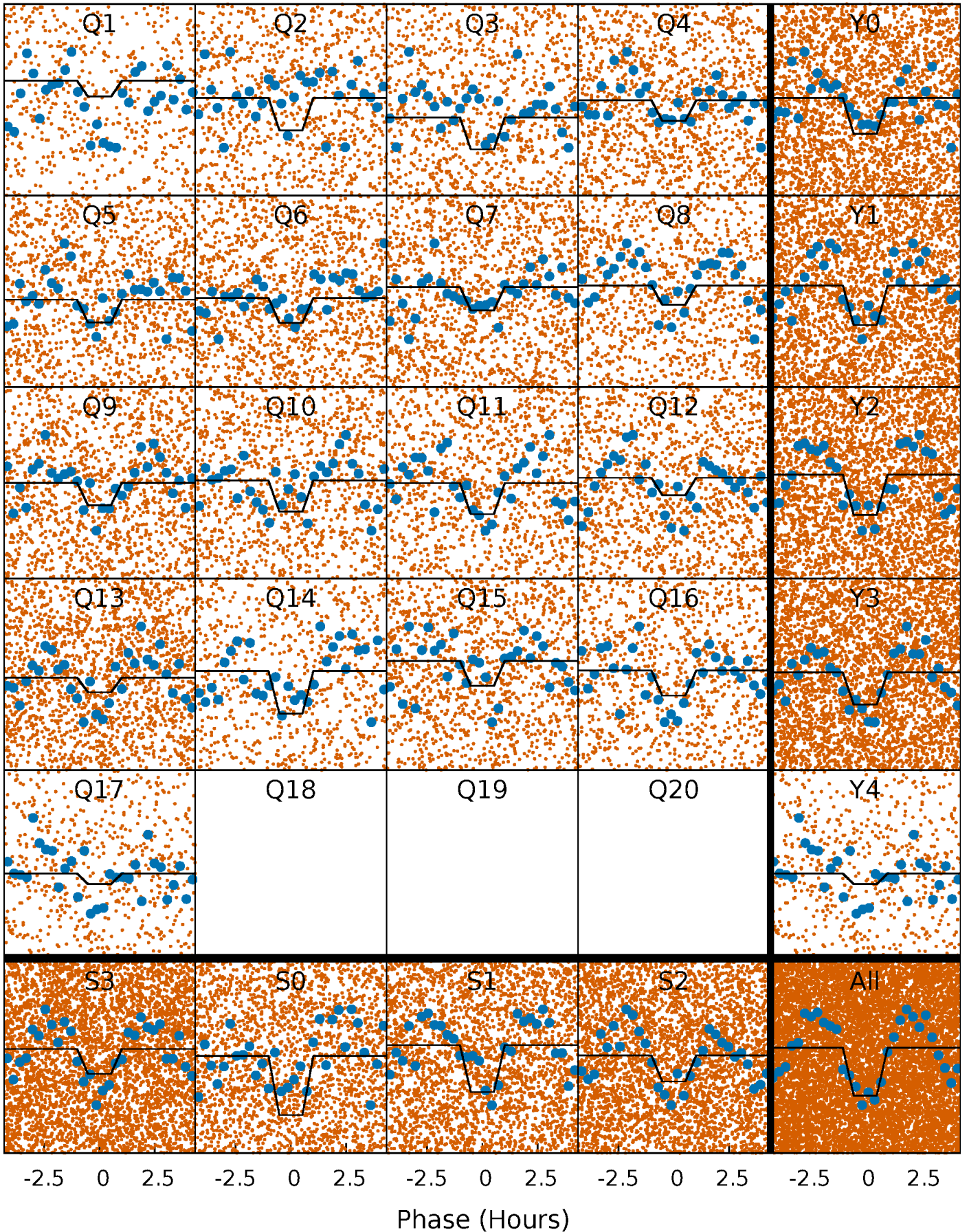
DV Quarter-Phased Transit Curves

TCE 012258334-01 P= 0.566298 Days $T_0=131.731208$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

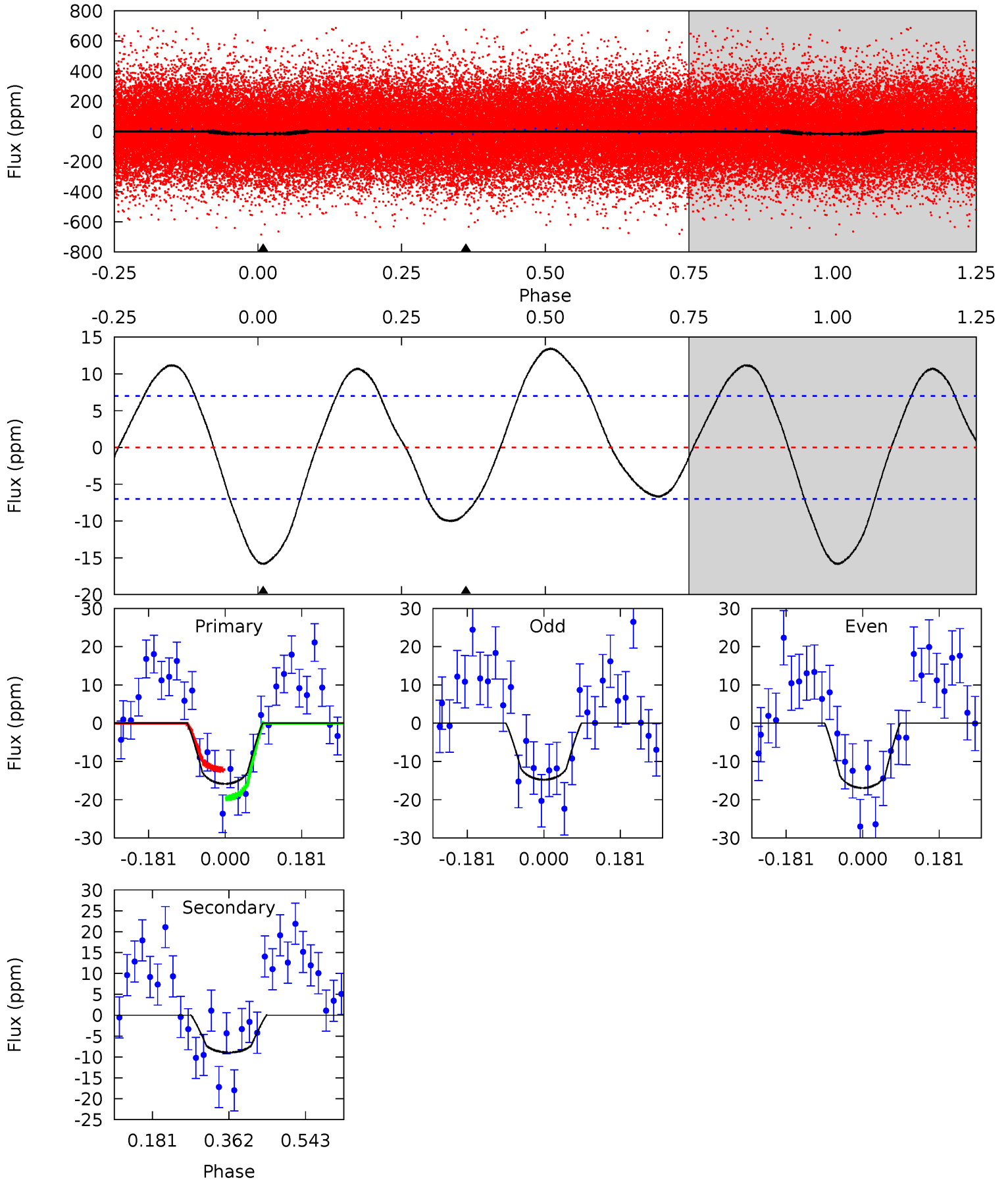
TCE 012258334-01 P= 0.566303 Days $T_0=131.731761$ (BKJD)



DV Model-Shift Uniqueness Test

012258334-01, P = 0.566298 Days, E = 131.164910 Days

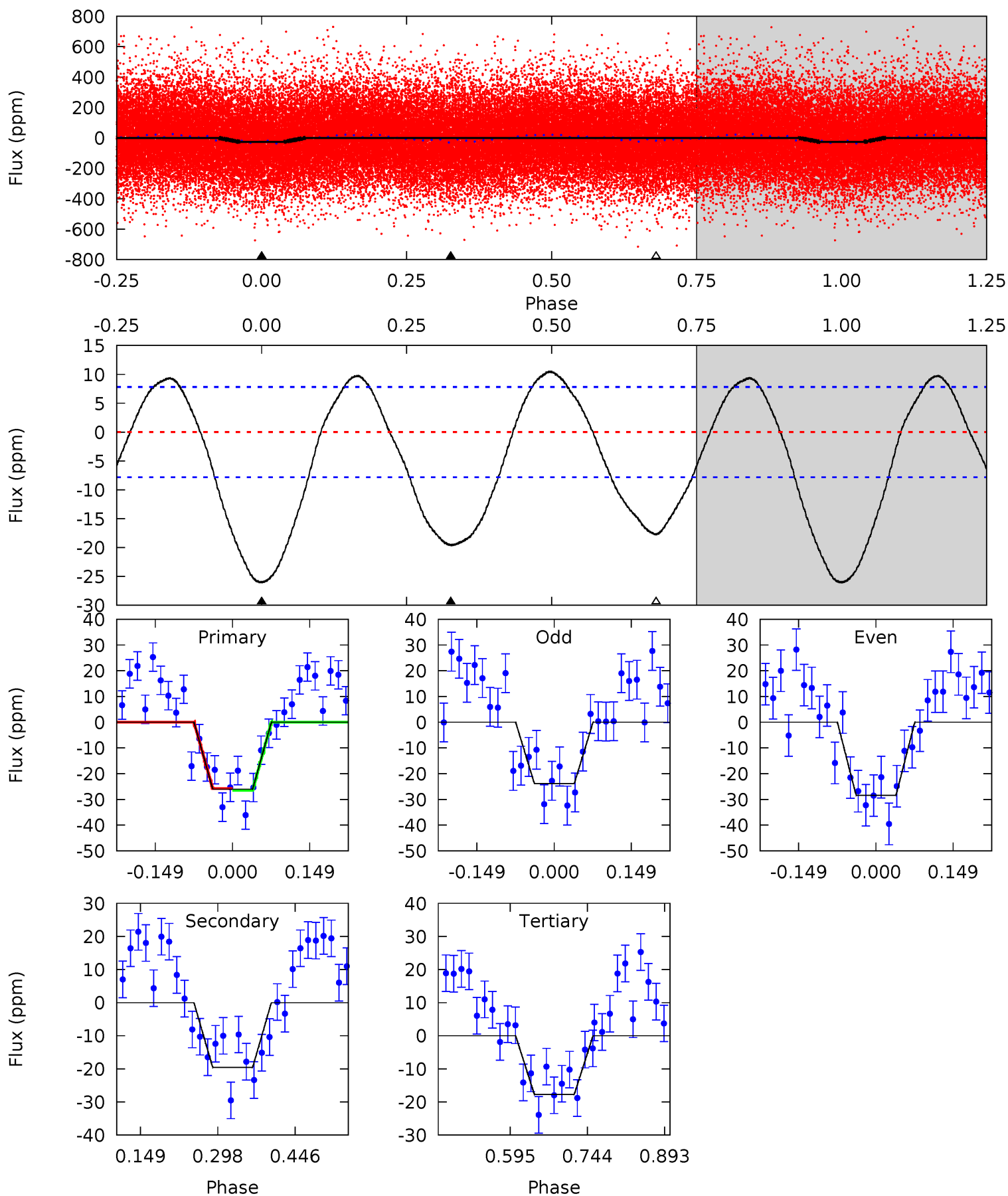
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	5.66	0	0	4.44	1.34	3.66	10.1	10.1	5.66	5.66	0.69	0.96	0.46	2.38



Alt Model-Shift Uniqueness Test

012258334-01, P = 0.566303 Days, E = 131.165458 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	11.2	10.2	0	4.48	1.44	5.70	4.76	14.9	1.07	11.2	1.30	1.02	0.29	0.20



Stellar Parameters For KIC 012258334

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5255^{+230}_{-188}	$3.544^{+0.888}_{-0.222}$	$-0.100^{+0.300}_{-0.300}$	$3.437^{+1.035}_{-2.416}$	$1.509^{+0.208}_{-0.623}$	$0.052^{+1.239}_{-0.028}$
	+4%/-4%	+25%/-6%	+300%/-300%	+30%/-70%	+14%/-41%	+2367%/-53%
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 012258334-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-9 ± 2	$1.46^{+1.18}_{-0.90}$	4745^{+547}_{-862}	3691^{+2364}_{-7438}	$0.525^{+3.055}_{-0.371}$
Alt.	-20 ± 2	$1.65^{+1.22}_{-0.98}$	4754^{+564}_{-926}	4494^{+2566}_{-2197}	$0.895^{+4.449}_{-0.592}$

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 $A_{obs} \gg 1.0$

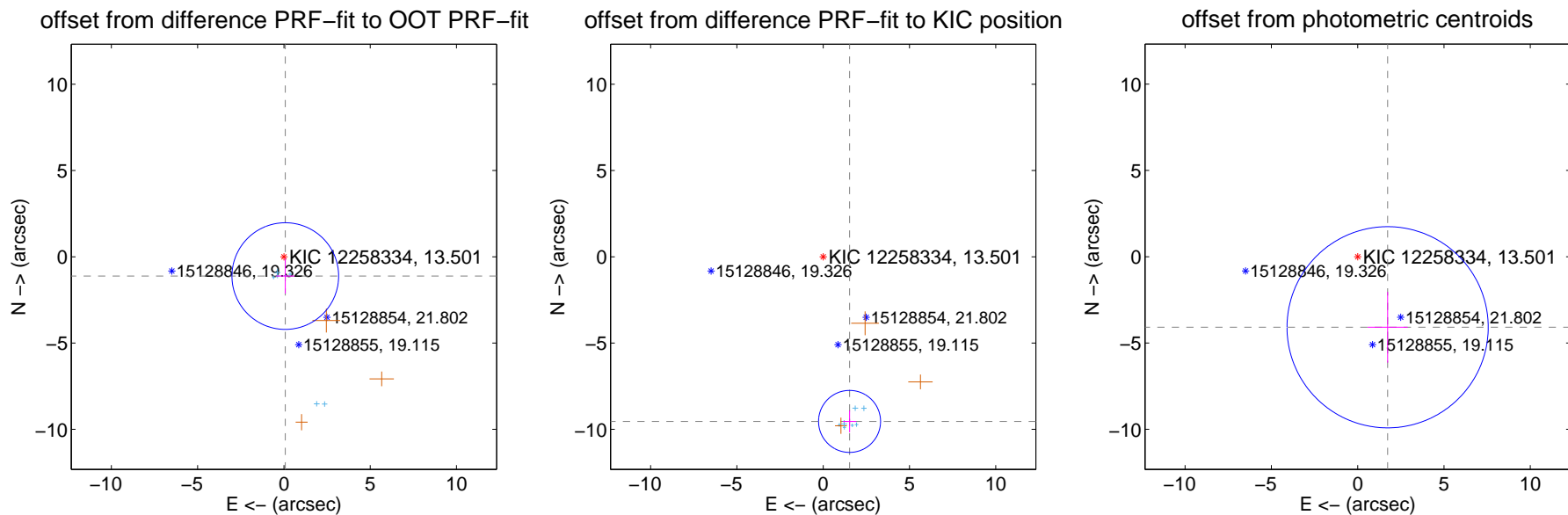
DV Centroid Data

Supplemental centroid analysis for 012258334-01. Kepler magnitude: 13.50. Transit SNR 7.67

There are 7 quarters with good PRF difference image offsets

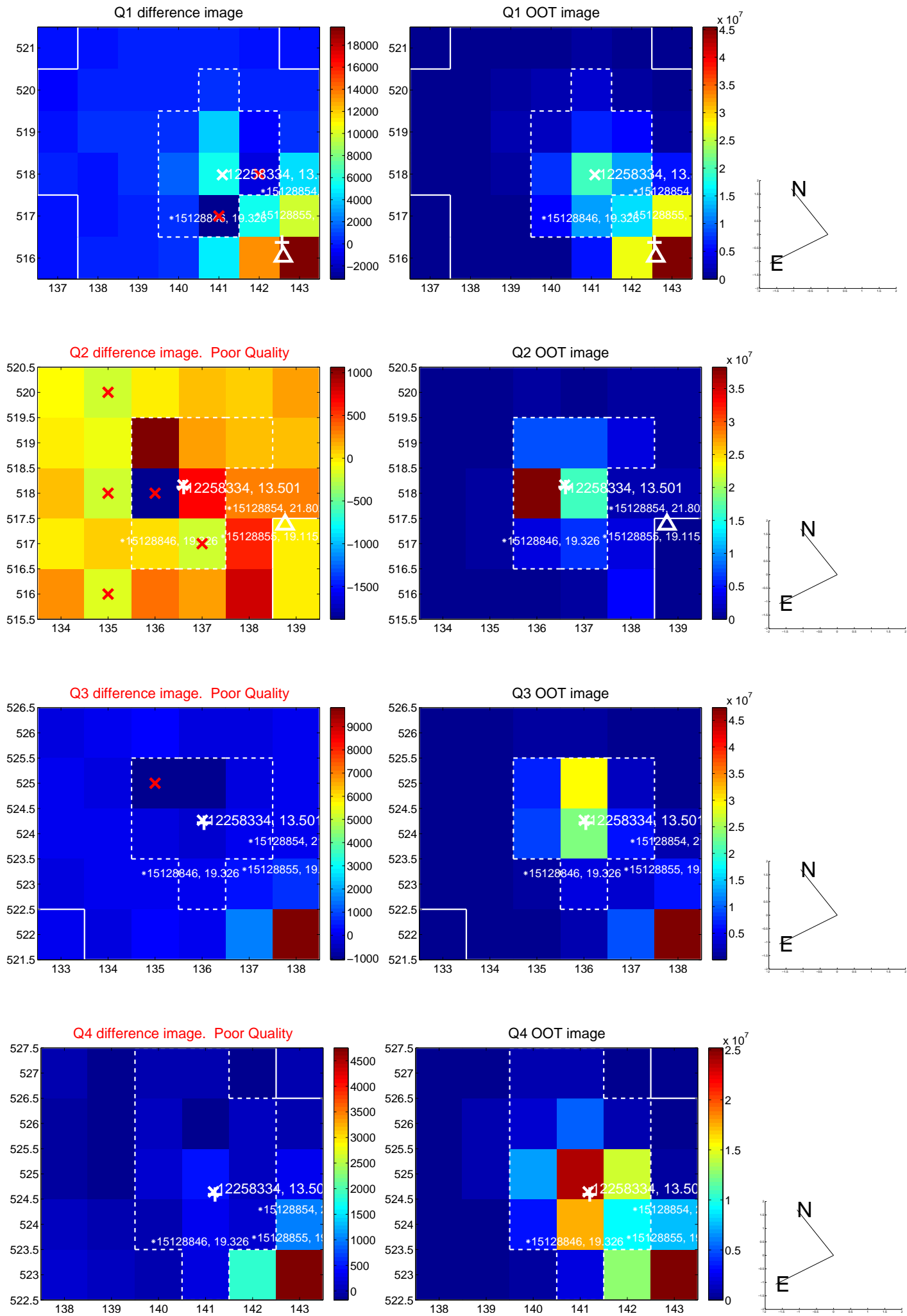
The OOT PRF centroid is offset from the target star catalog position by about 8.92 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.121 ± 1.030	1.09	-0.079 ± 0.528	-1.119 ± 1.012
PRF-fit source offset from KIC position	9.665 ± 0.599	16.14	-1.528 ± 0.391	-9.543 ± 0.634
photometric centroid source offset	4.44 ± 1.94	2.29	-1.73 ± 1.16	-4.09 ± 2.05

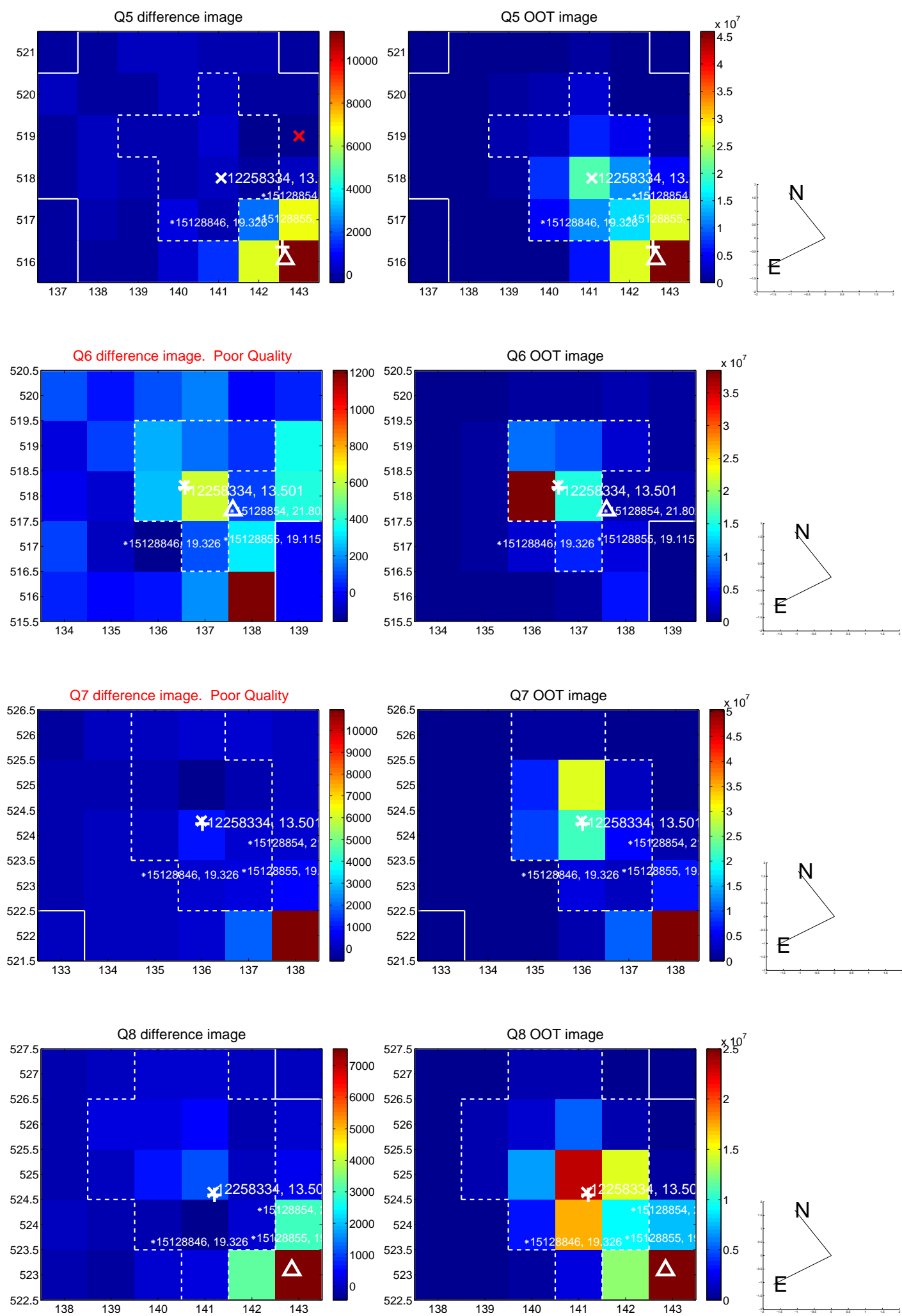


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

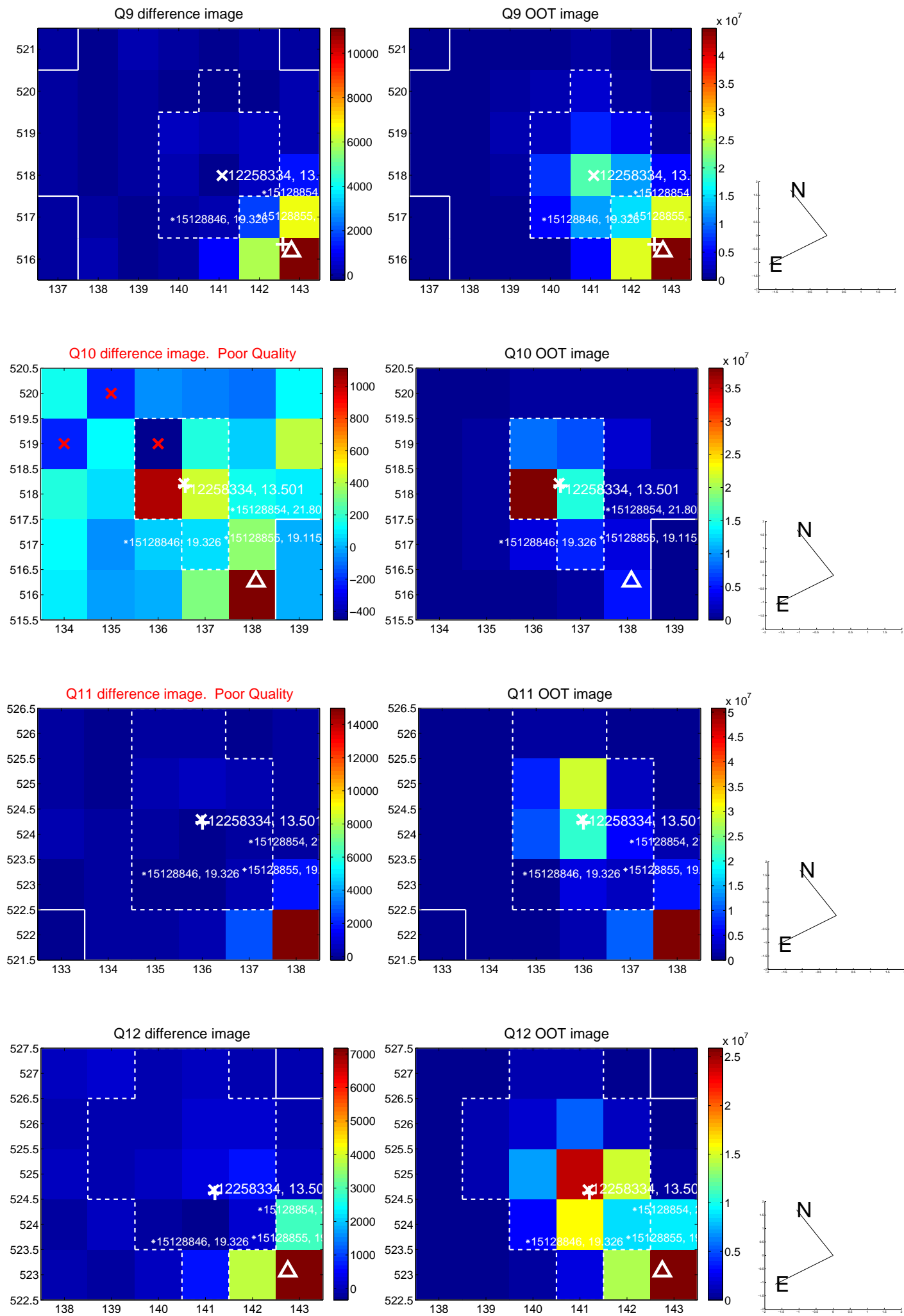
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



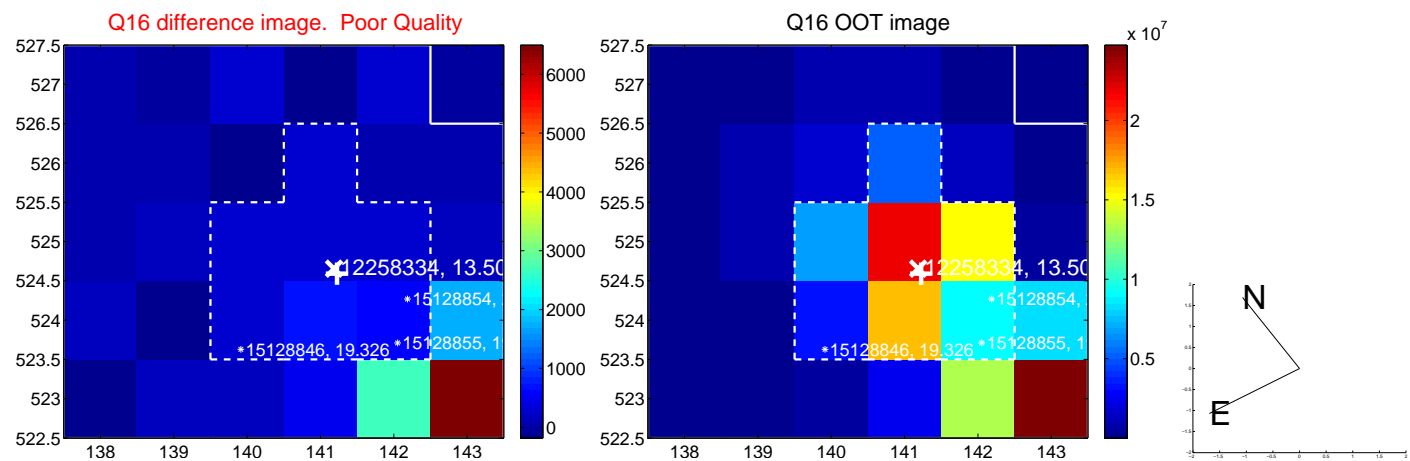
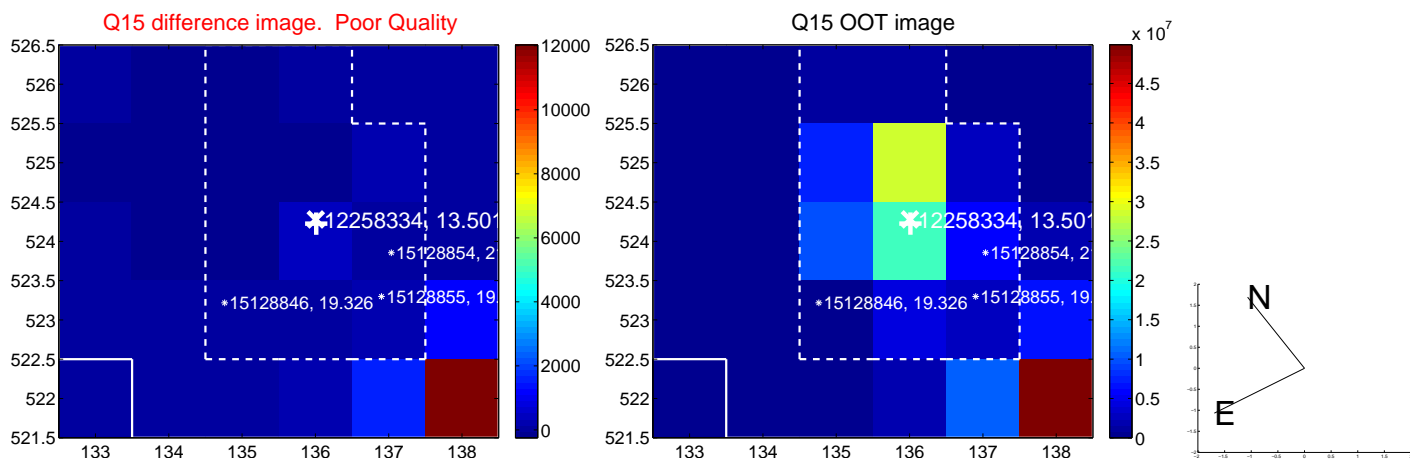
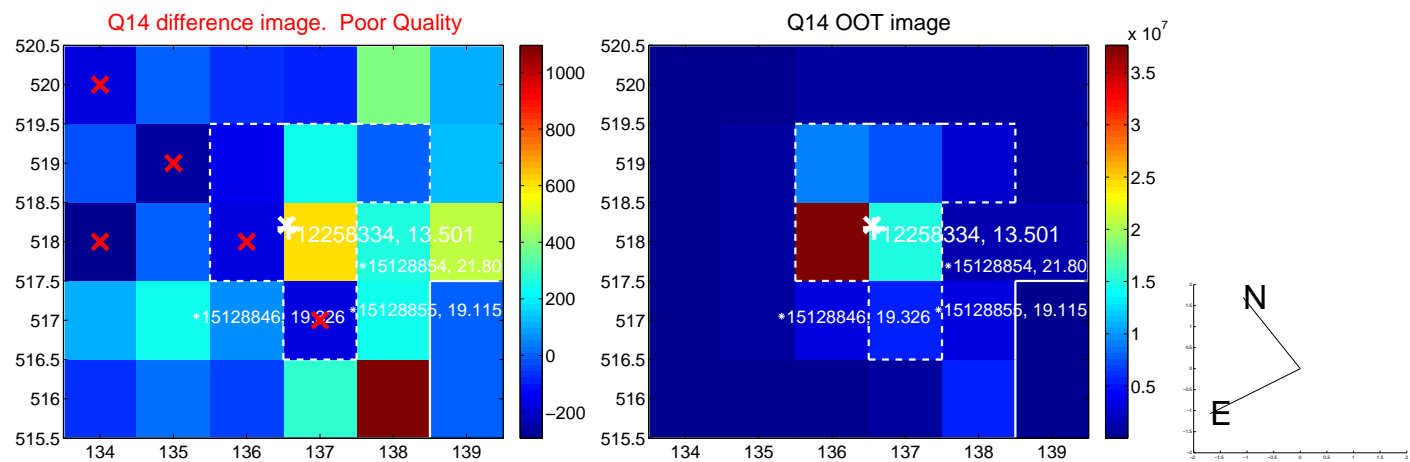
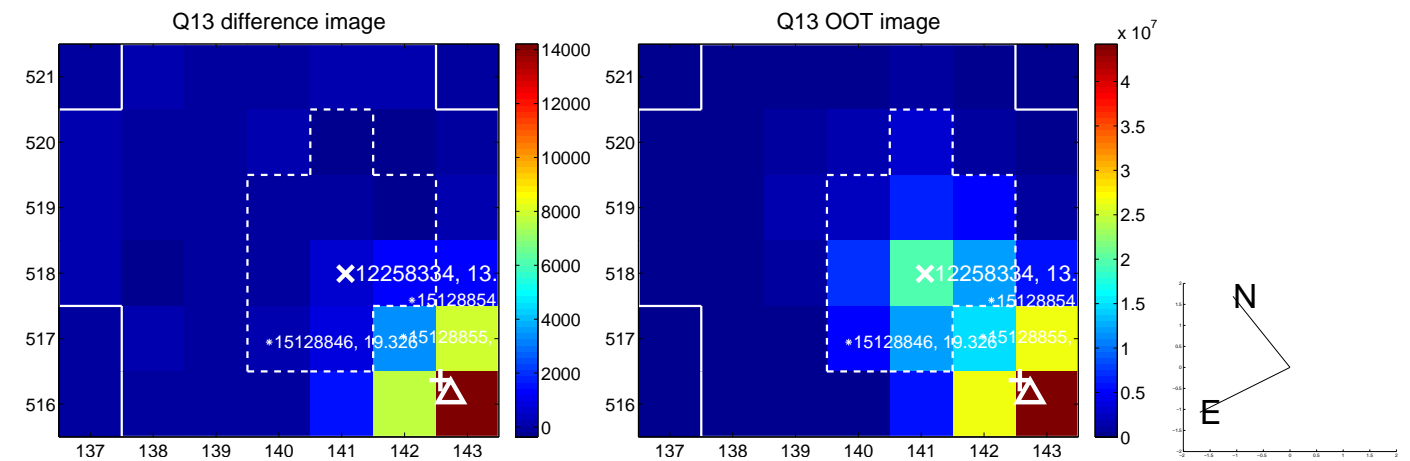
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



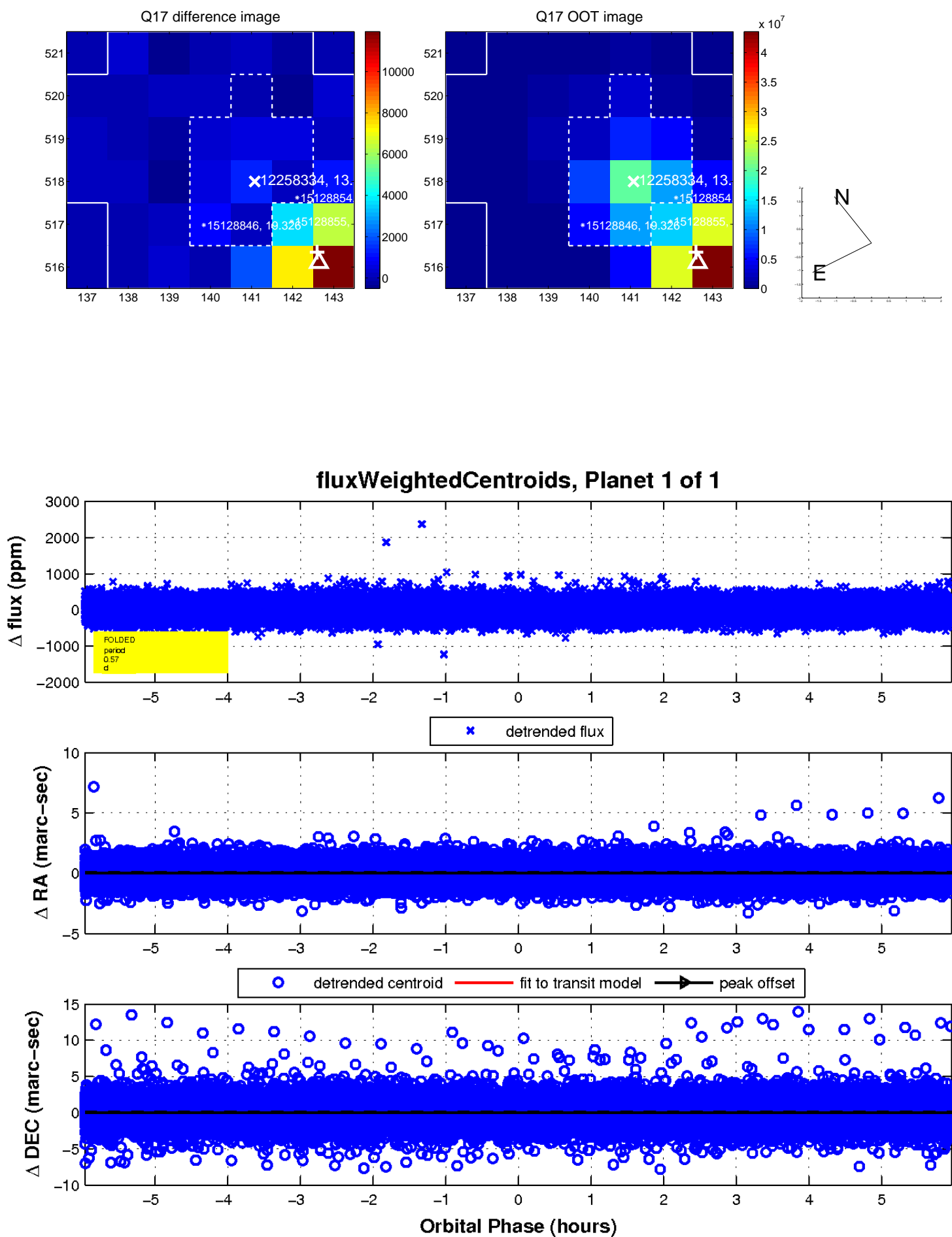
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

