

KIC 003649426

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})
003649426-01	OBS	No	3.381900	132.864389	33.5	20.871	7.2	8.2	1.18	6639	0.95	1102.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003649426-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

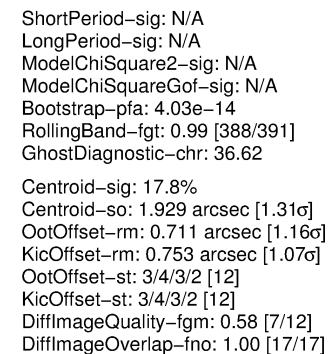
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

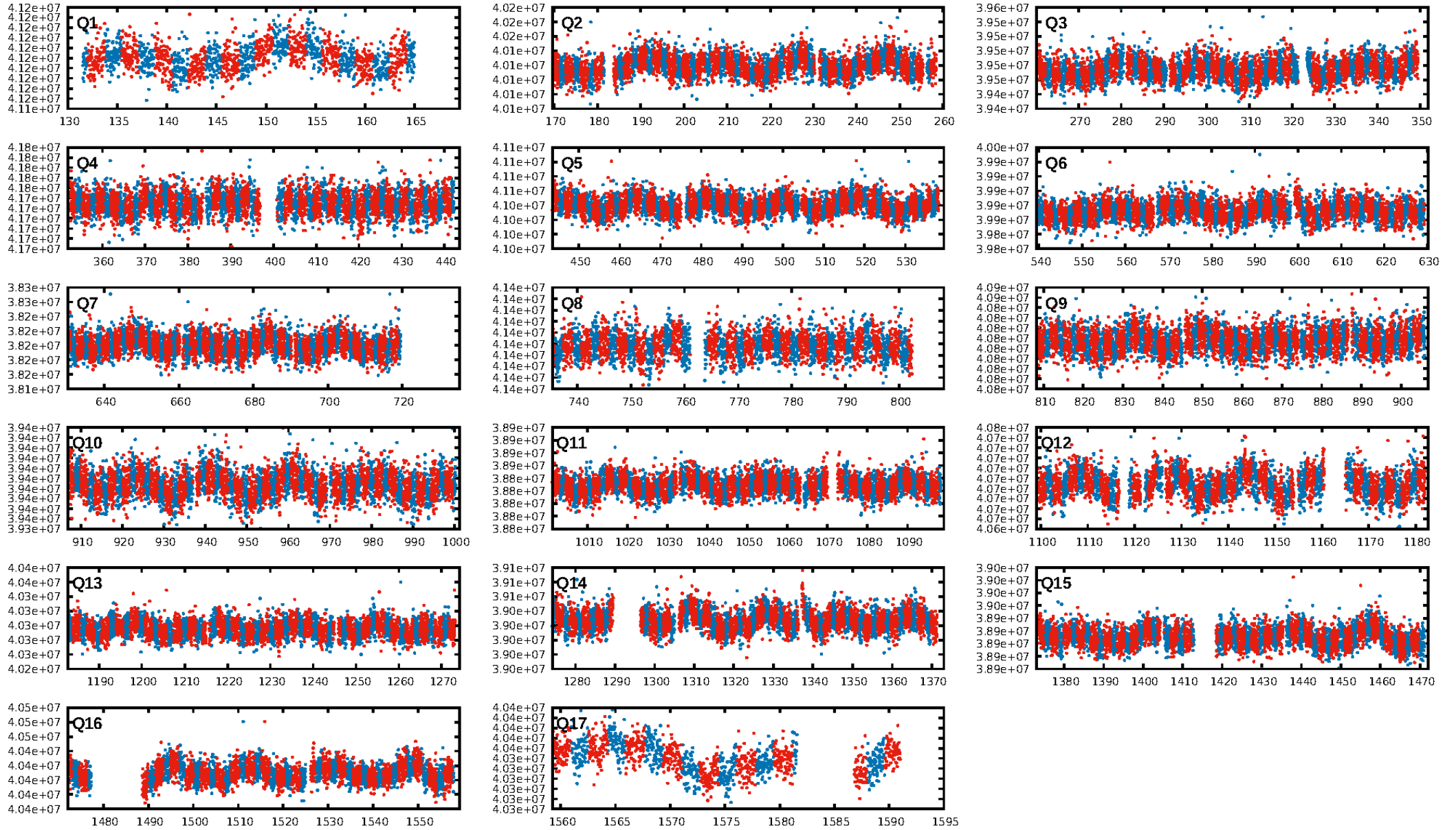
Ephemeris Match Information For 003649426-01

No Significant Match Found

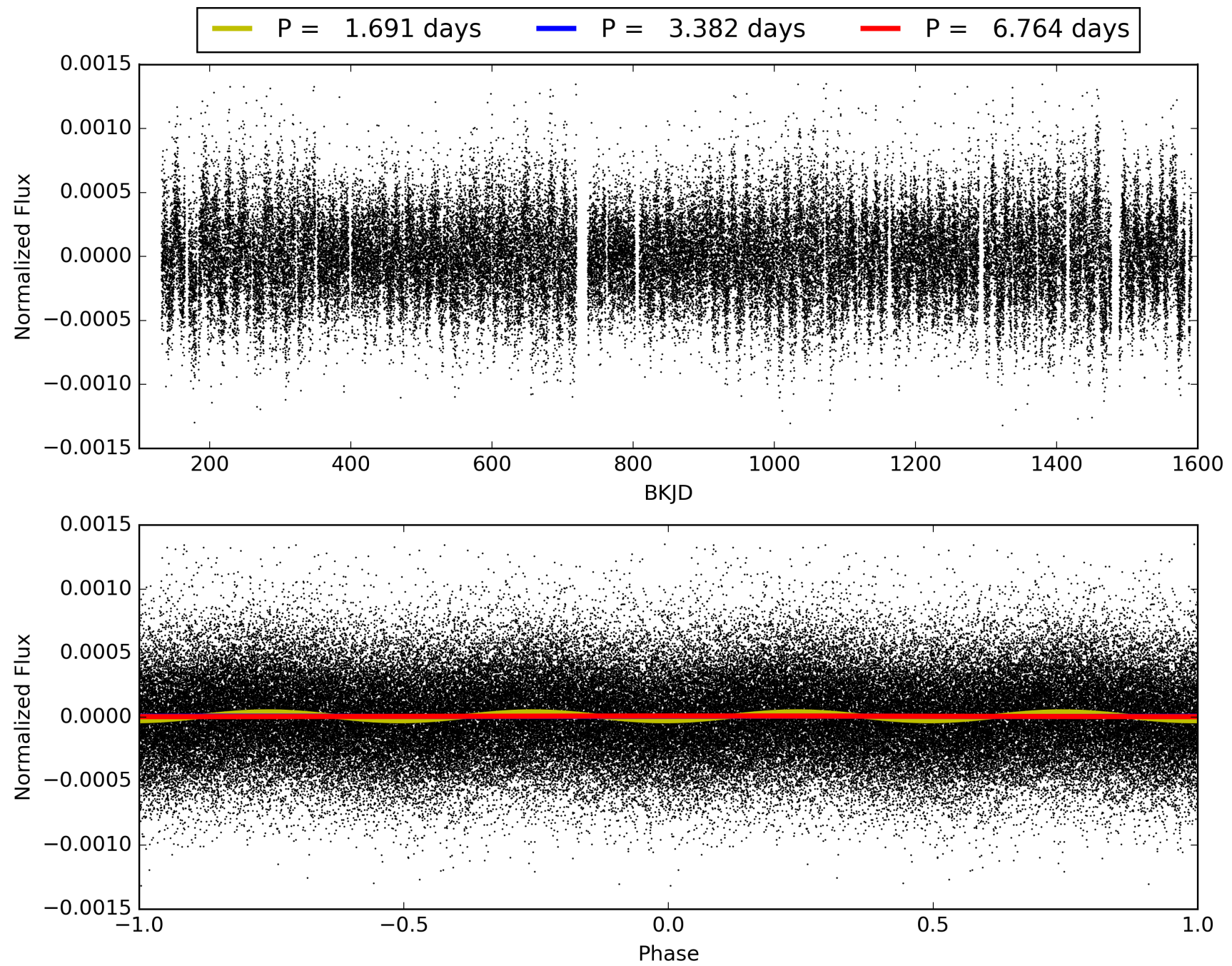
KIC: 3649426 Candidate: 1 of 1 Period: 3.382 d



TCE 003649426-01, PDC Light Curves

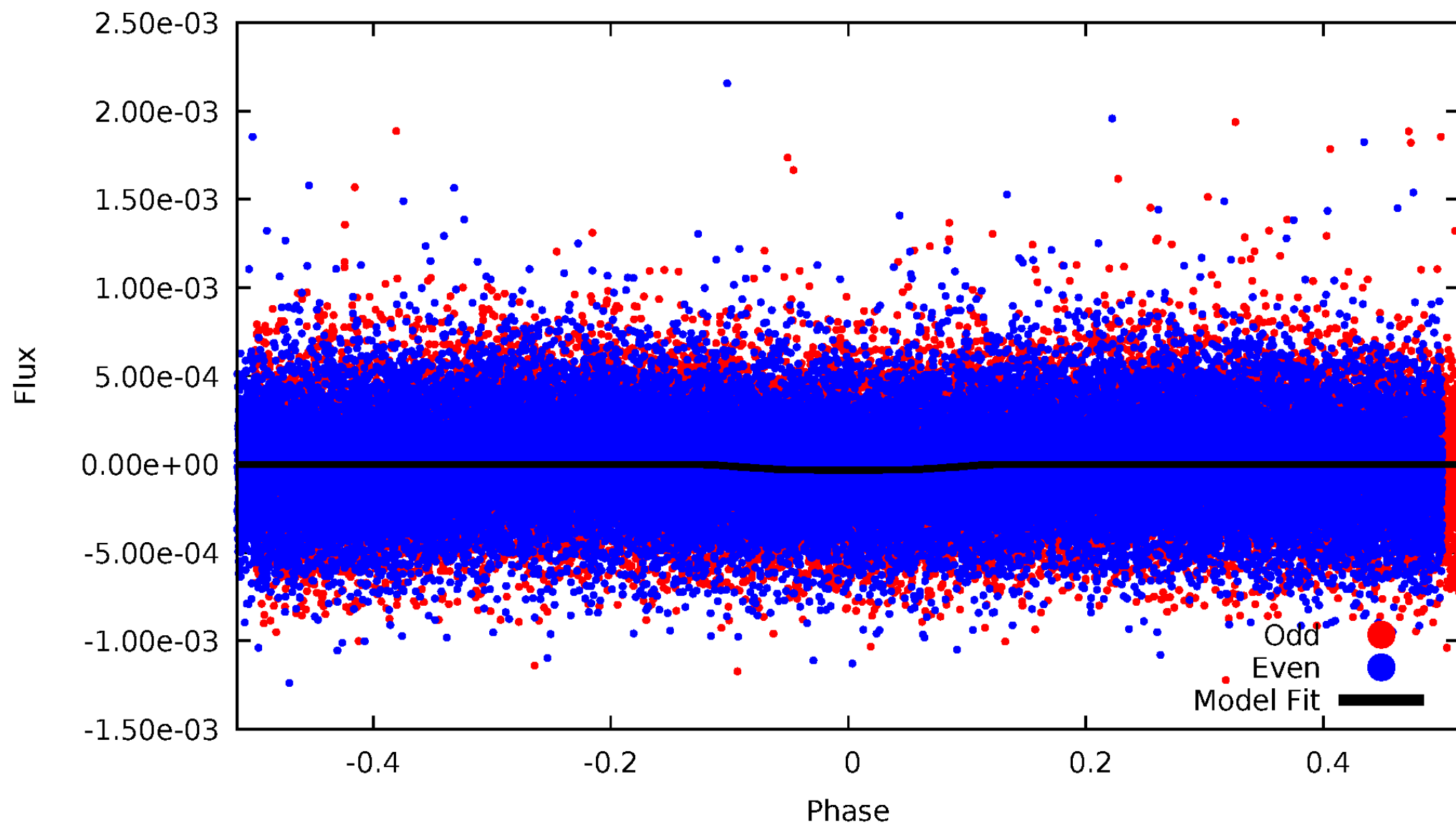


TCE 003649426-01



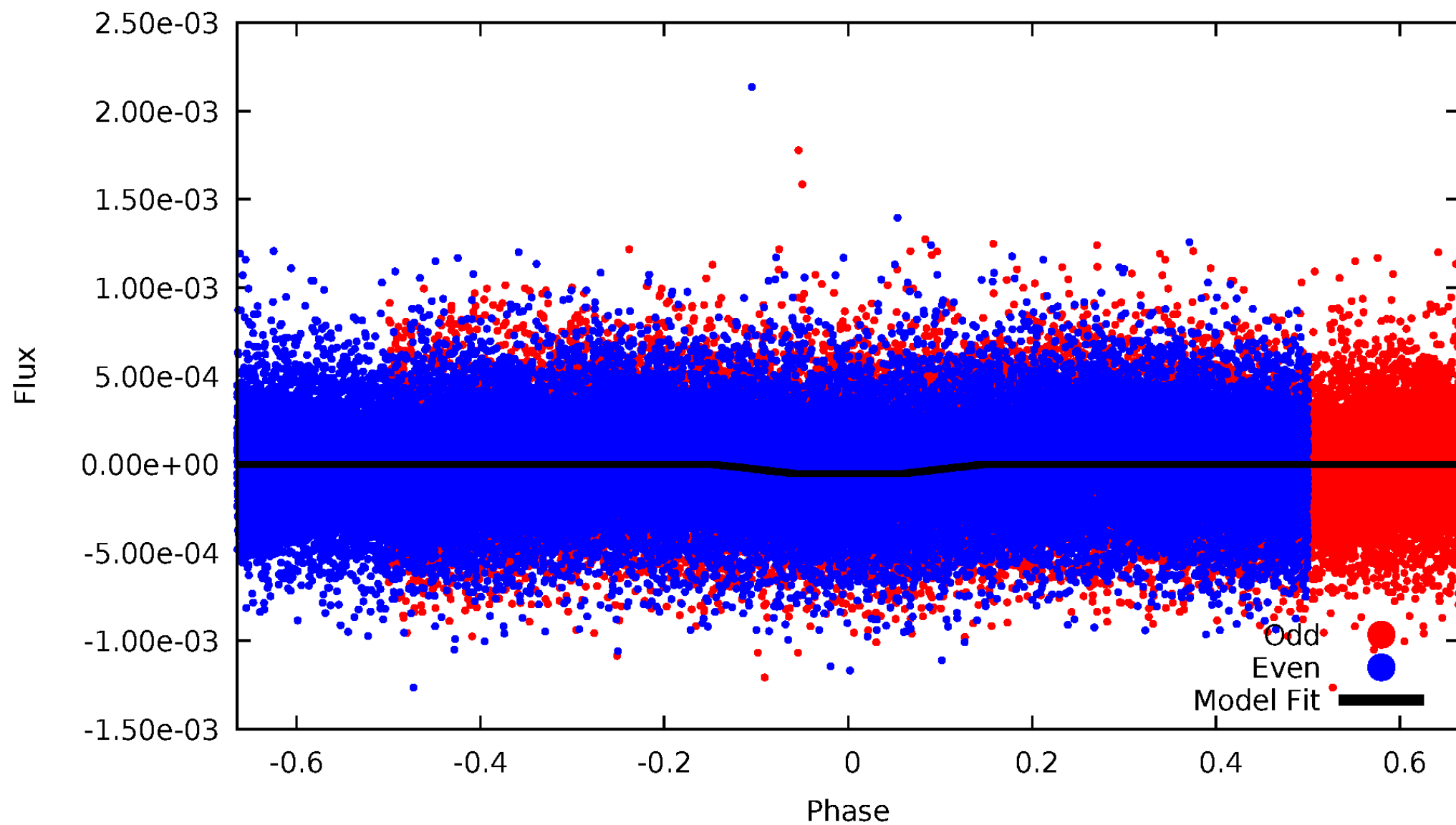
DV Odd/Even

TCE 003649426-01

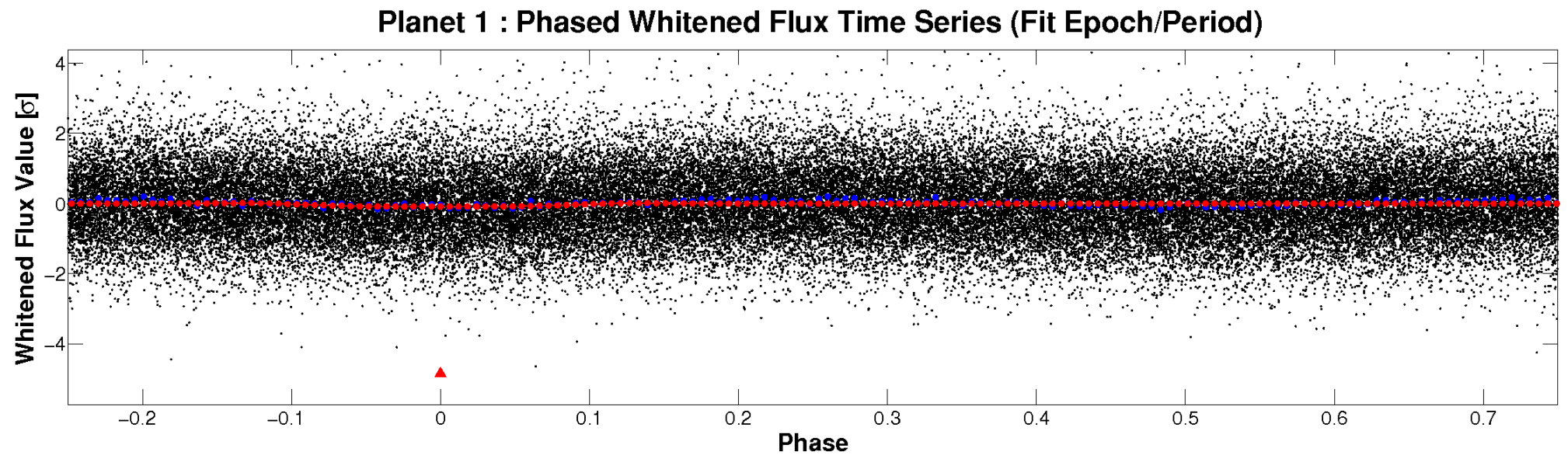
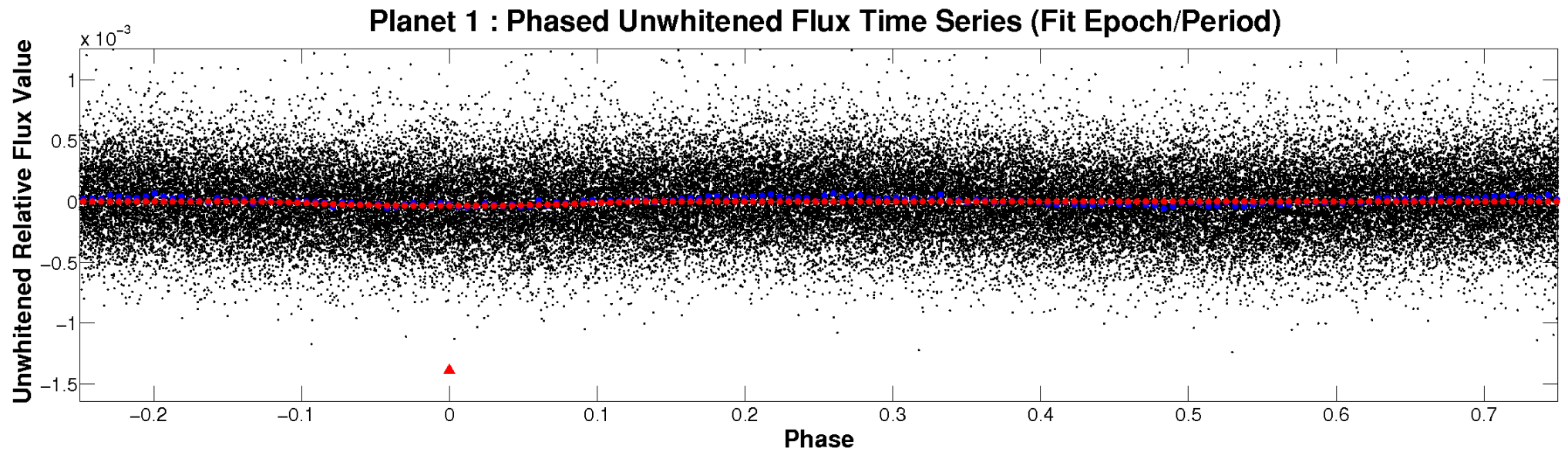


ALT Odd/Even

TCE 003649426-01

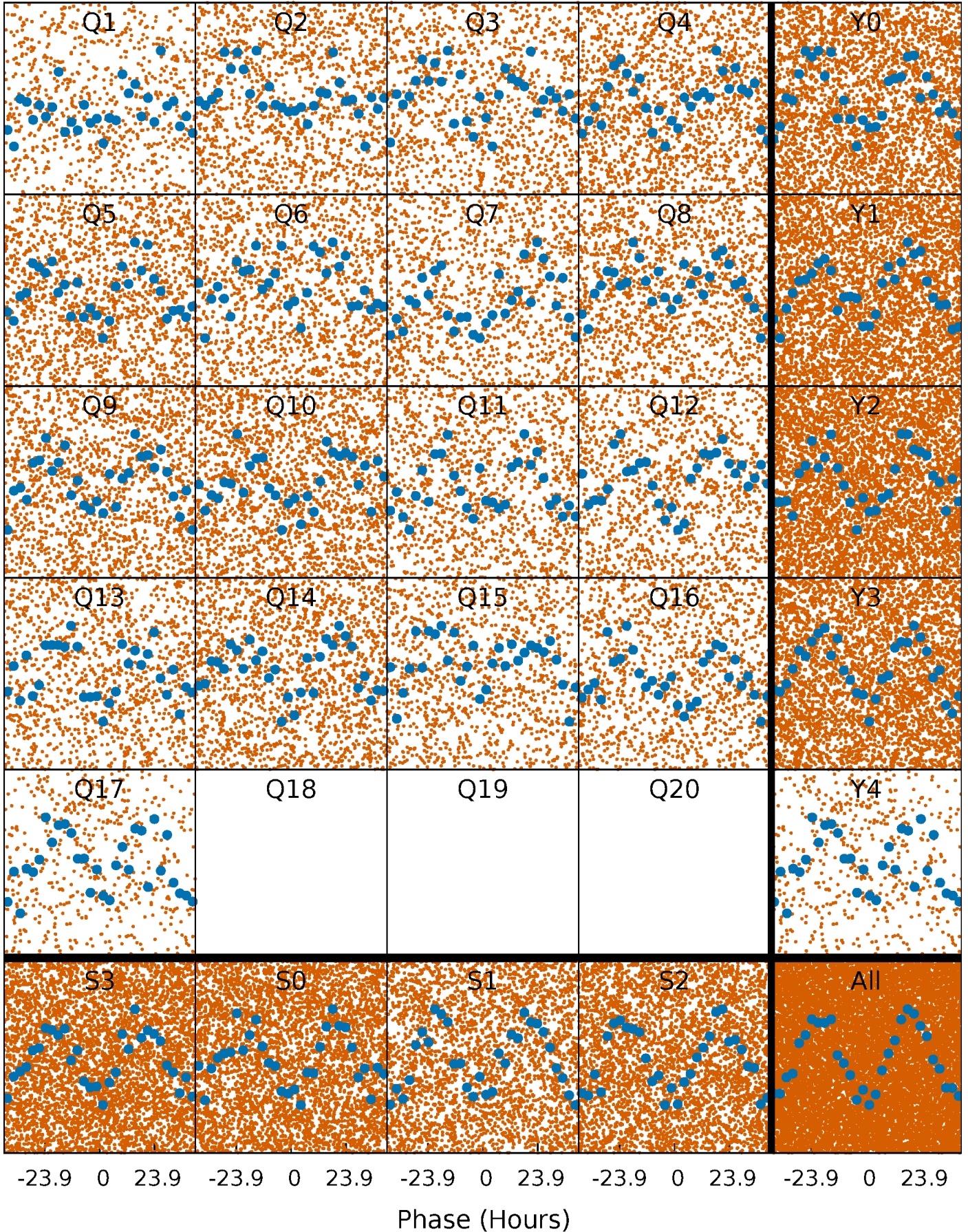


Non-Whitened Vs. Whitened Light Curve



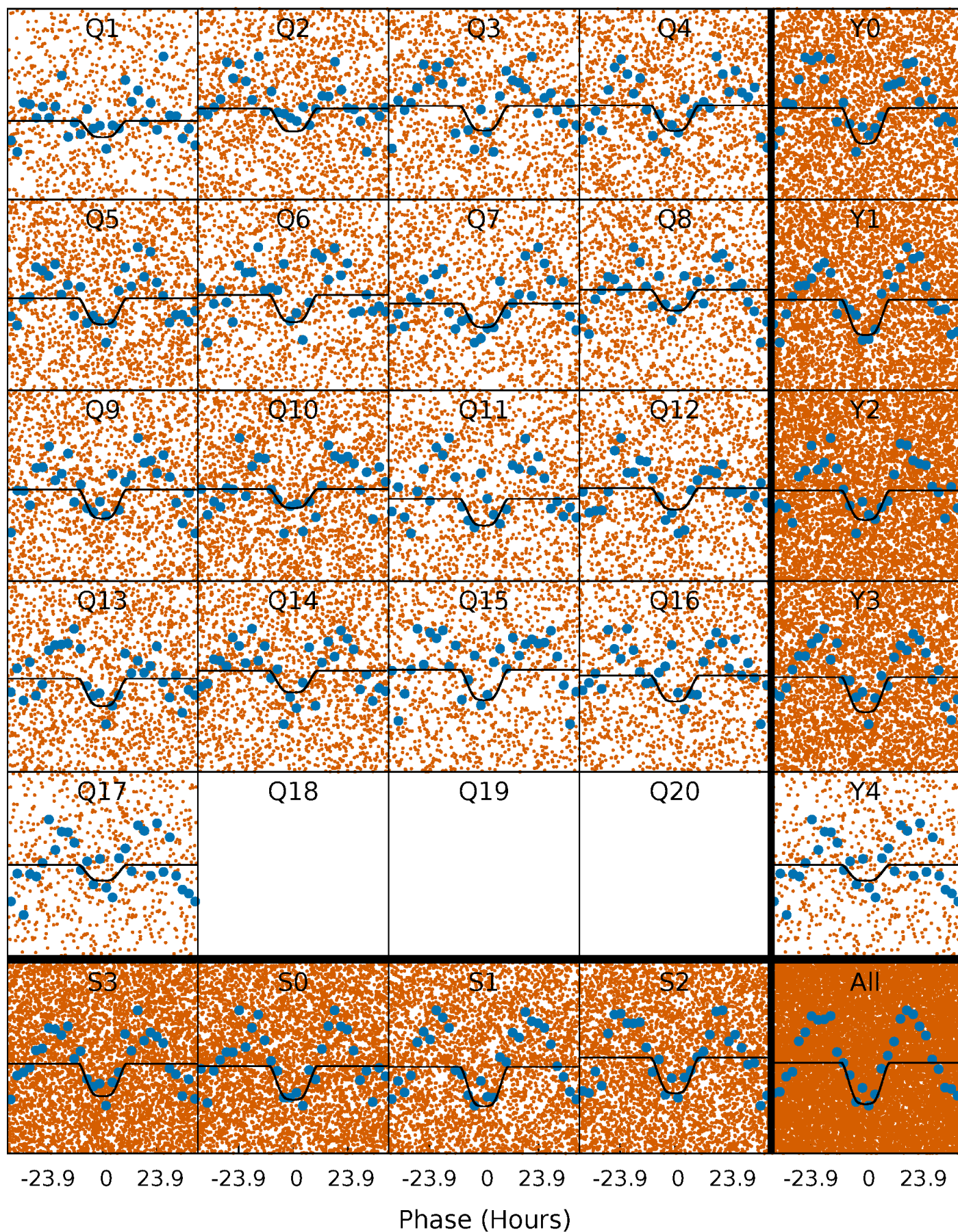
PDC Quarter-Phased Transit Curves

TCE 003649426-01 P= 3.381900 Days $T_0=132.864389$ (BKJD)



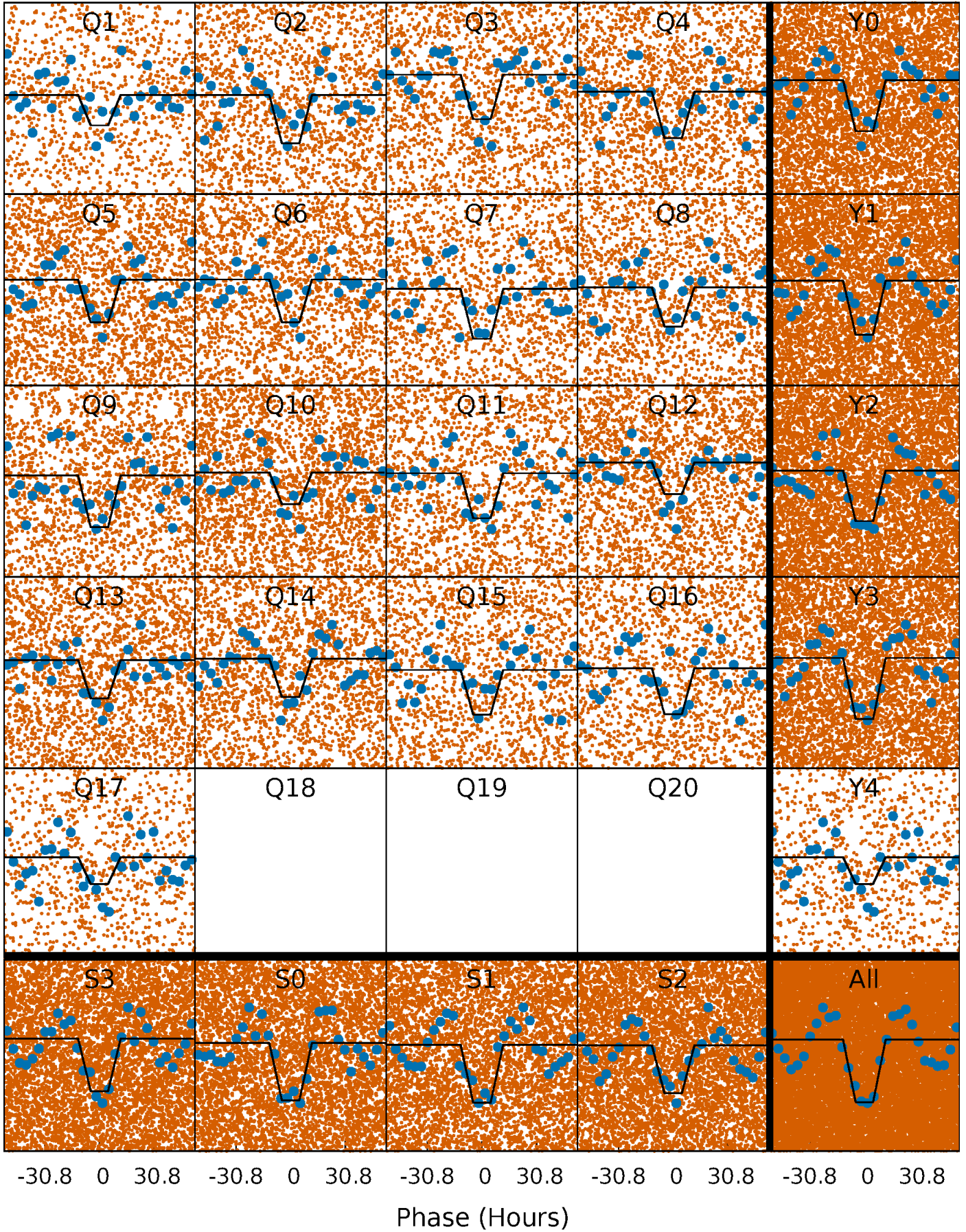
DV Quarter-Phased Transit Curves

TCE 003649426-01 P= 3.381900 Days $T_0=132.864389$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

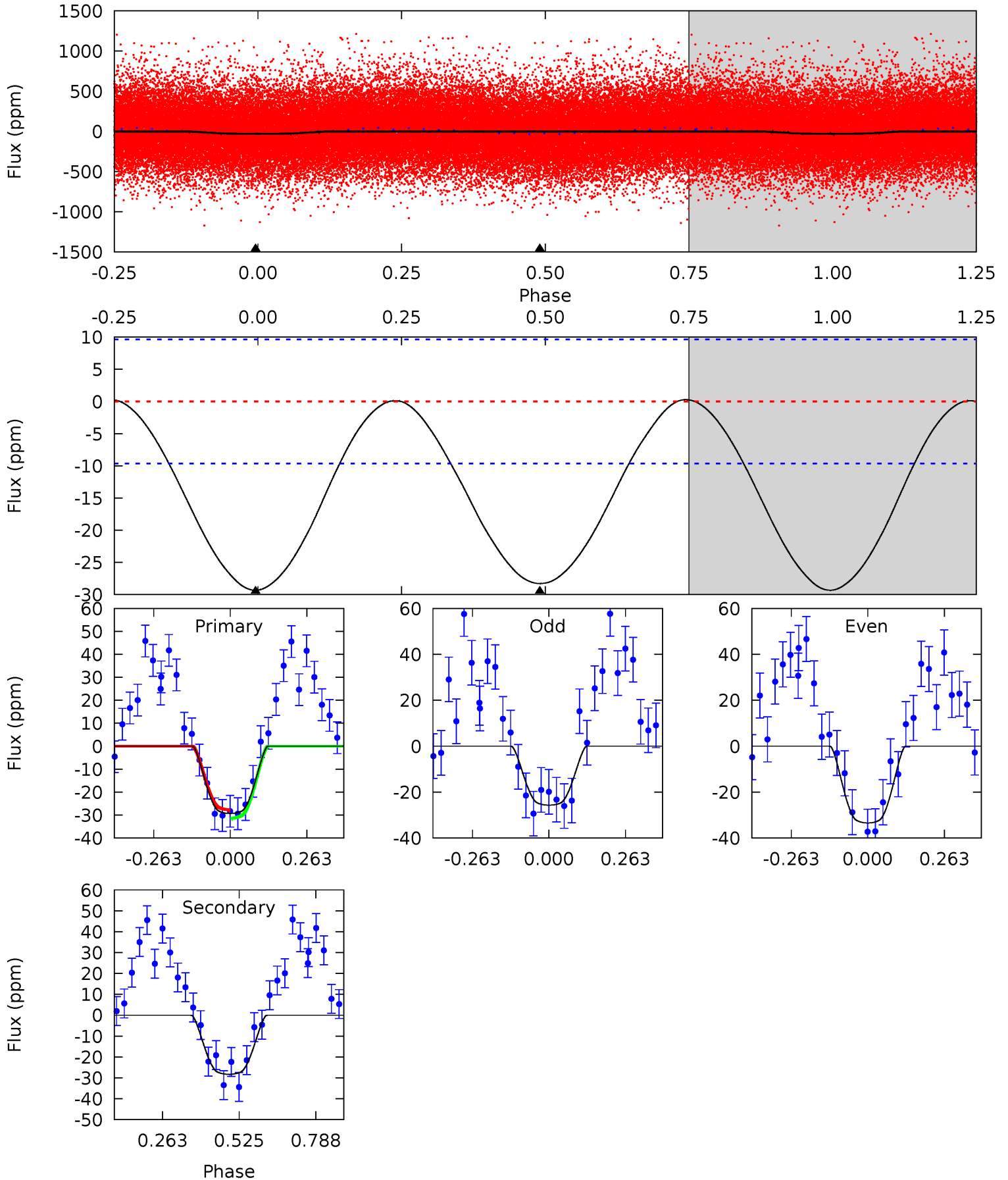
TCE 003649426-01 P= 3.382044 Days $T_0=132.818976$ (BKJD)



DV Model-Shift Uniqueness Test

003649426-01, P = 3.381900 Days, E = 129.482489 Days

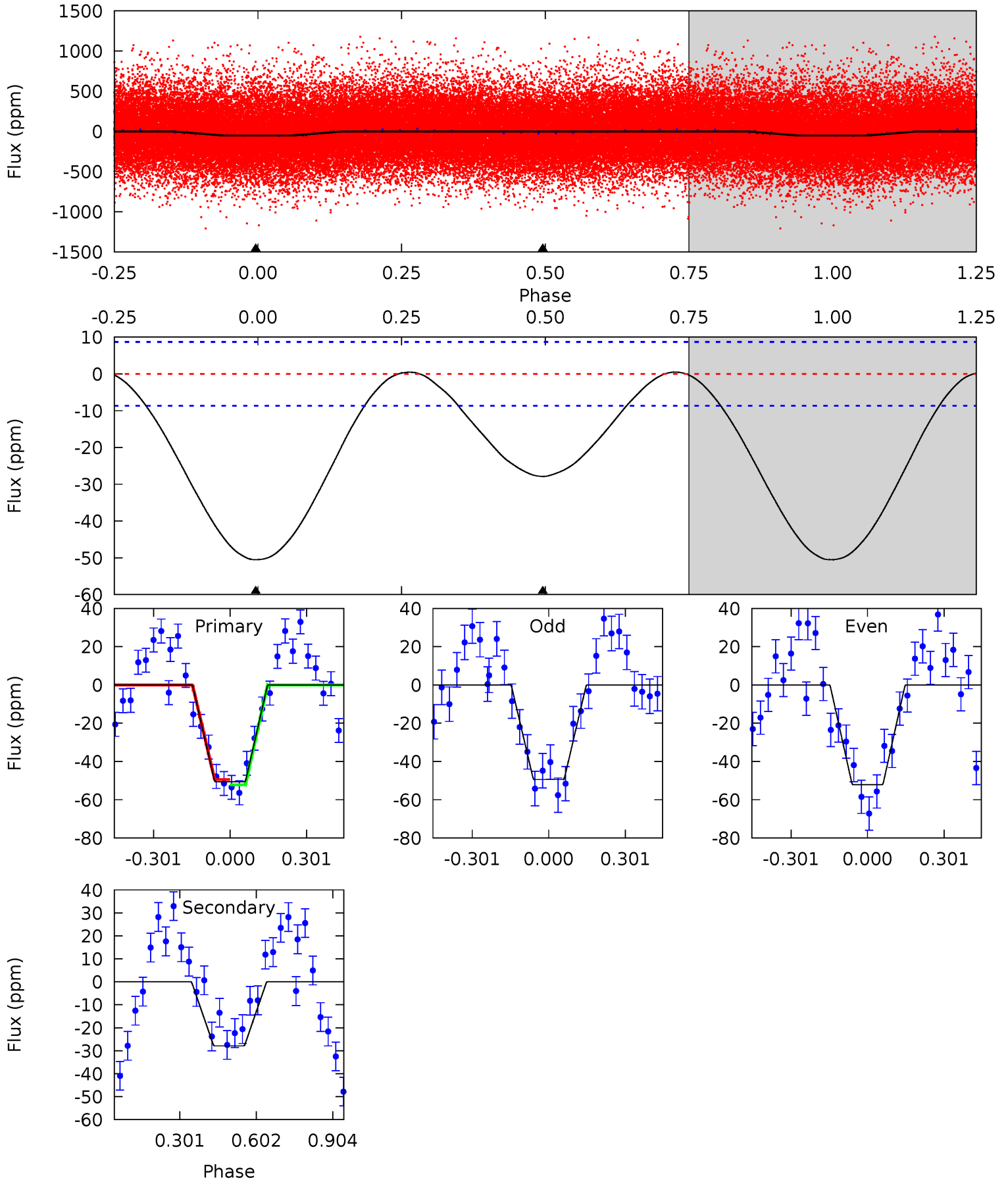
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	12.8	0	0	4.36	1.12	0.13	13.3	13.3	12.8	12.8	1.76	1.10	0.01	0.83



Alt Model-Shift Uniqueness Test

003649426-01, P = 3.382044 Days, E = 129.436932 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.2	13.9	0	0	4.33	1.03	0.43	25.2	25.2	13.9	13.9	0.67	0.83	0.01	0.69



Stellar Parameters For KIC 003649426

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6639^{+165}_{-232}	$4.373^{+0.060}_{-0.180}$	$-0.180^{+0.250}_{-0.300}$	$1.177^{+0.350}_{-0.140}$	$1.200^{+0.165}_{-0.165}$	$1.036^{+0.324}_{-0.484}$
	+2%/-3%	+1%/-4%	+139%/-167%	+30%/-12%	+14%/-14%	+31%/-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 003649426-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-28 ± 2	$0.98^{+0.17}_{-0.13}$	2083^{+135}_{-98}	5610^{+341}_{-304}	35^{+11}_{-9}
Alt.	-28 ± 2	$0.96^{+0.15}_{-0.13}$	2084^{+128}_{-103}	5659^{+330}_{-306}	36^{+12}_{-9}

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 $A_{obs} \gg 1.0$

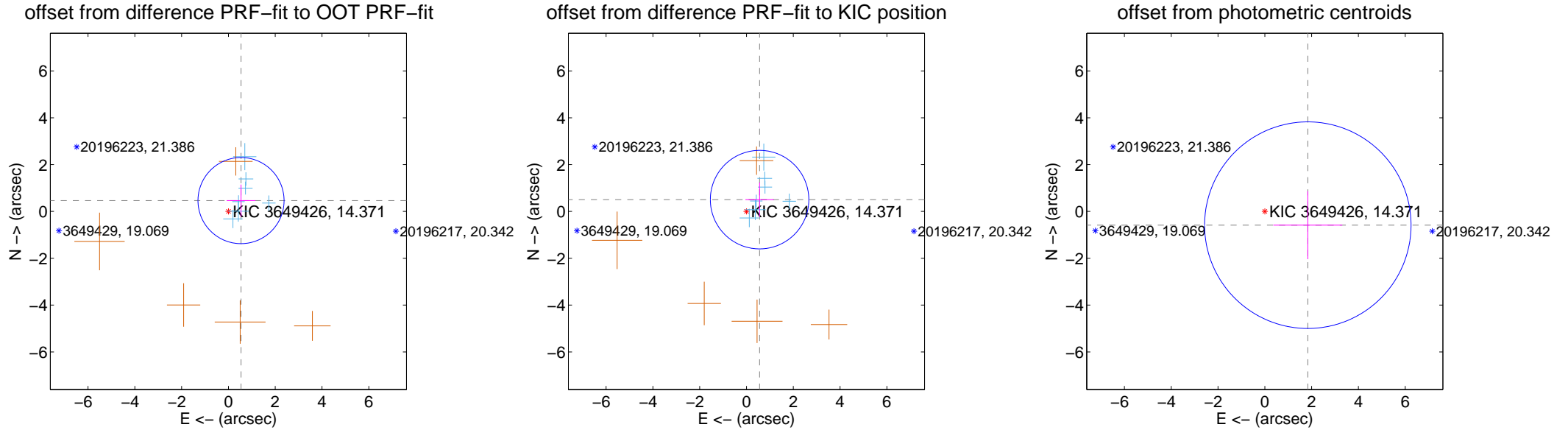
DV Centroid Data

Supplemental centroid analysis for 003649426-01. Kepler magnitude: 14.37. Transit SNR 8.17

There are 7 quarters with good PRF difference image offsets

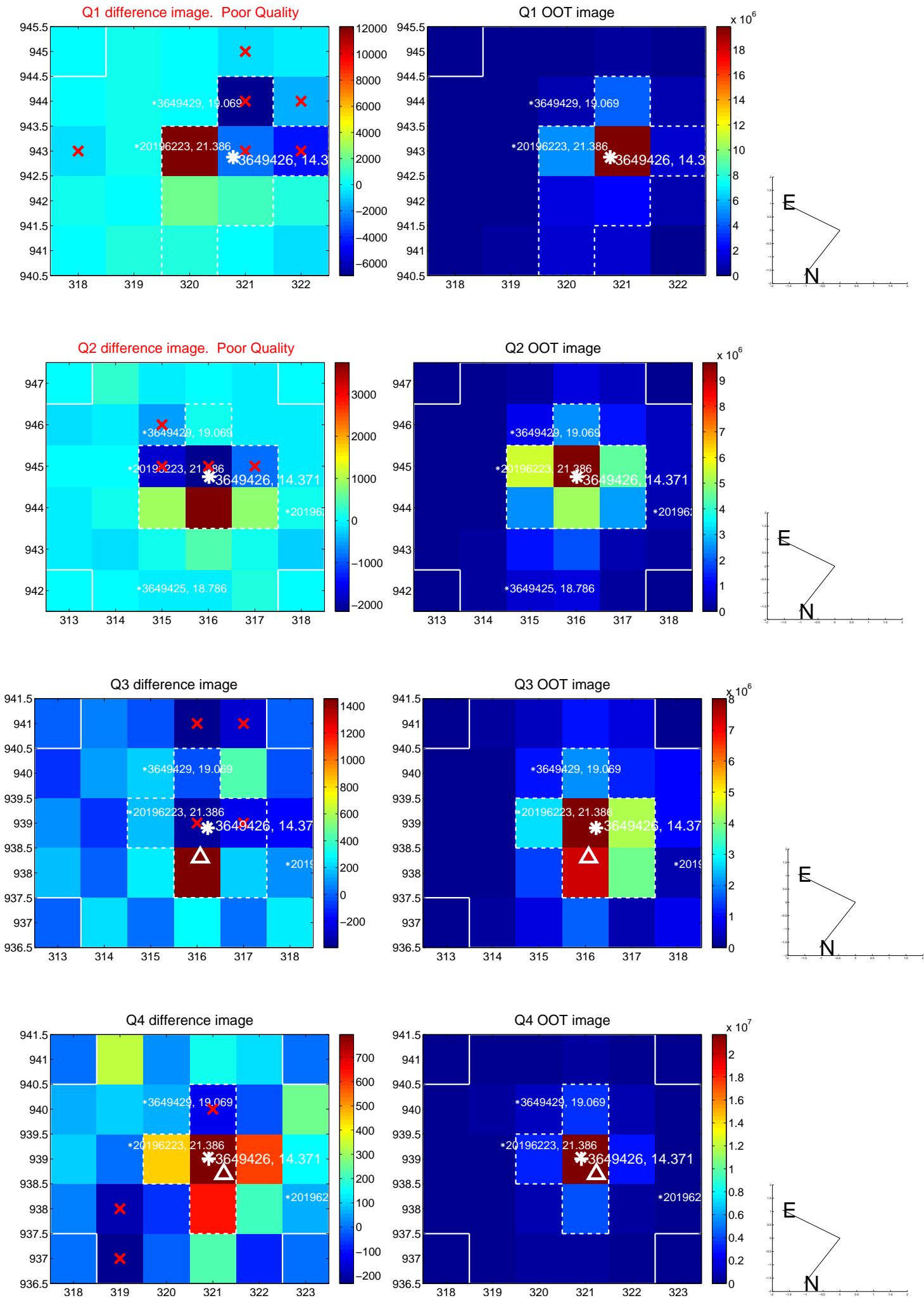
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.711 ± 0.613	1.16	-0.538 ± 0.611	0.464 ± 0.683
PRF-fit source offset from KIC position	0.753 ± 0.701	1.07	-0.559 ± 0.604	0.505 ± 0.731
photometric centroid source offset	1.93 ± 1.47	1.31	-1.84 ± 1.47	-0.59 ± 1.45

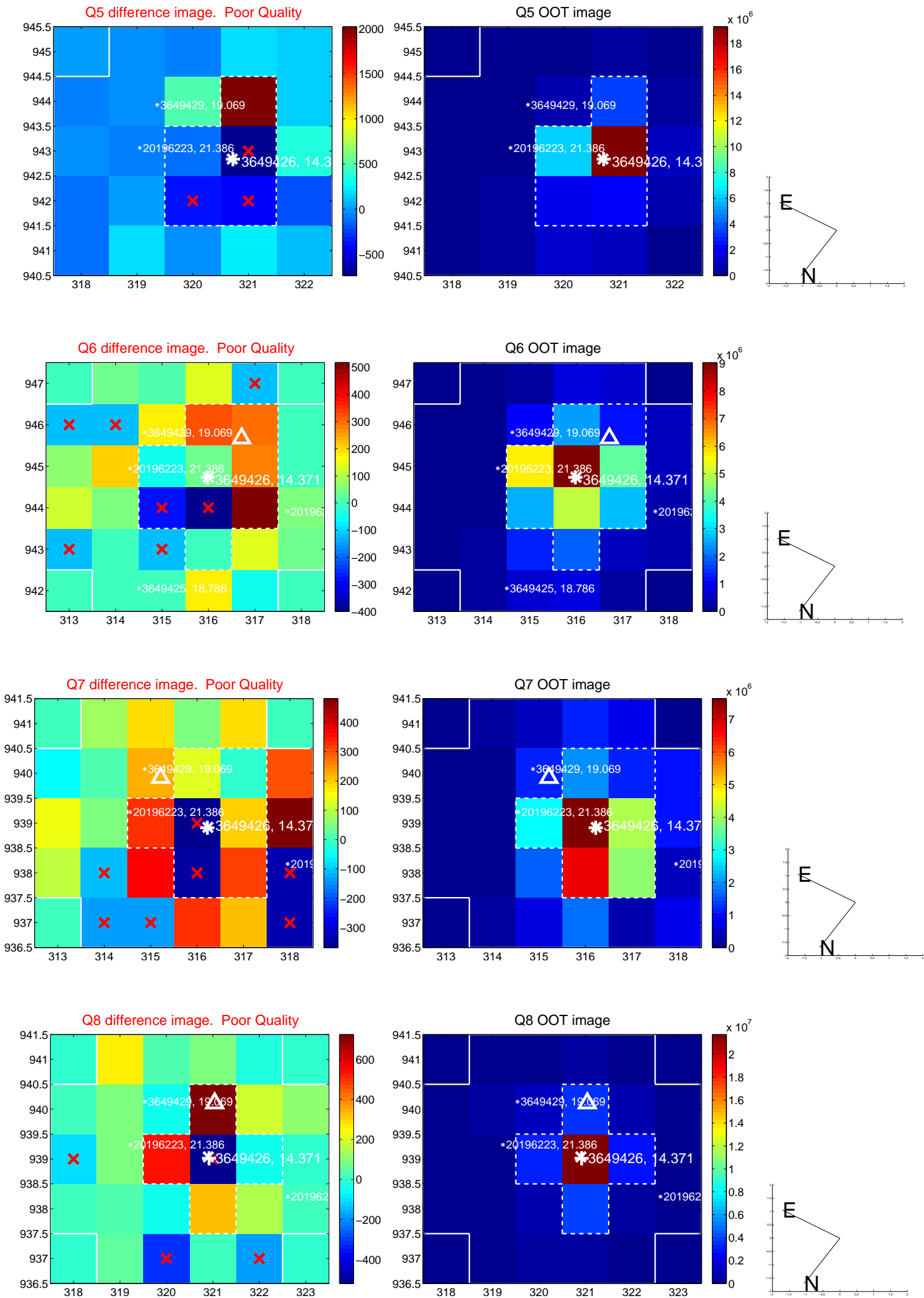


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

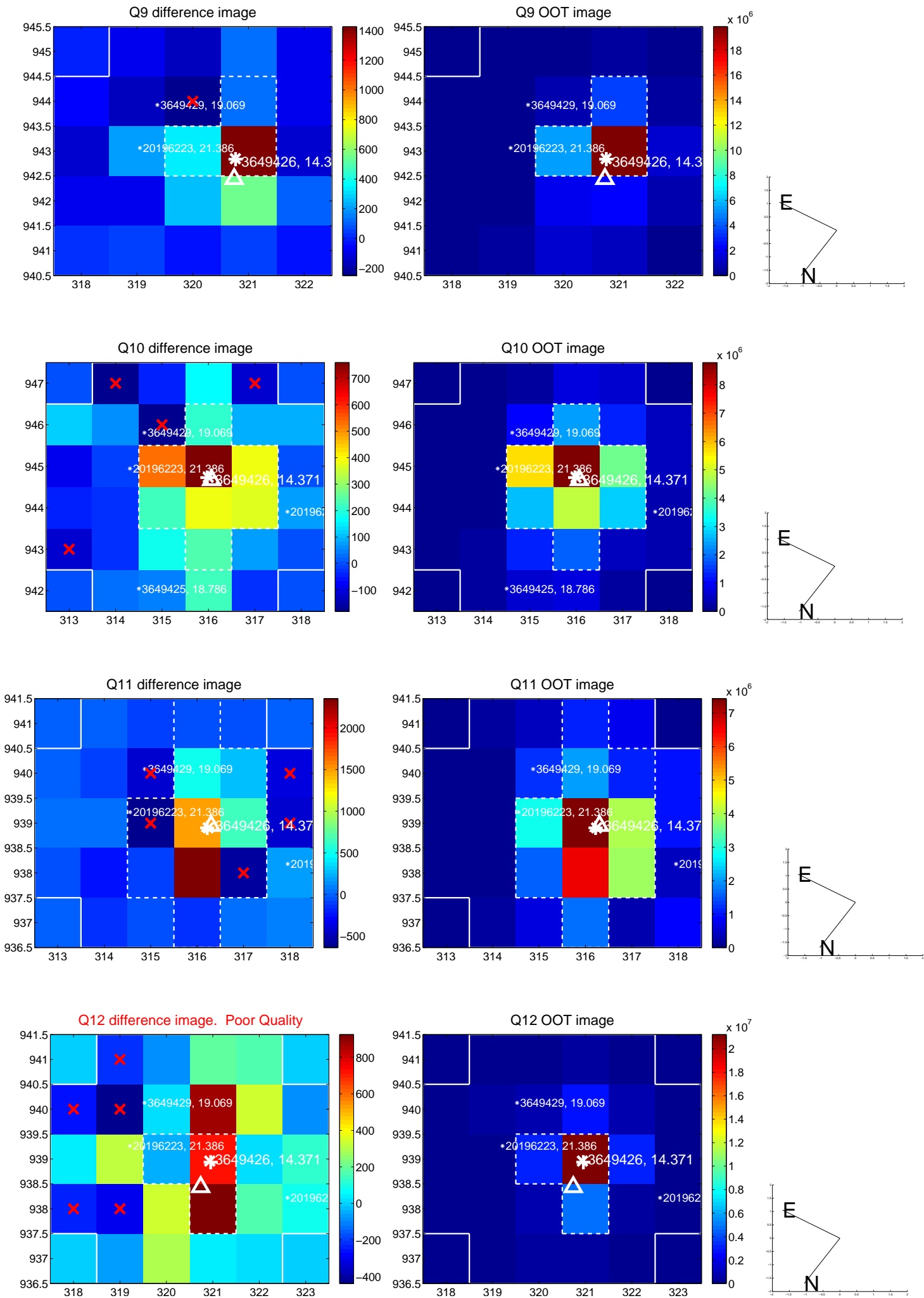
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



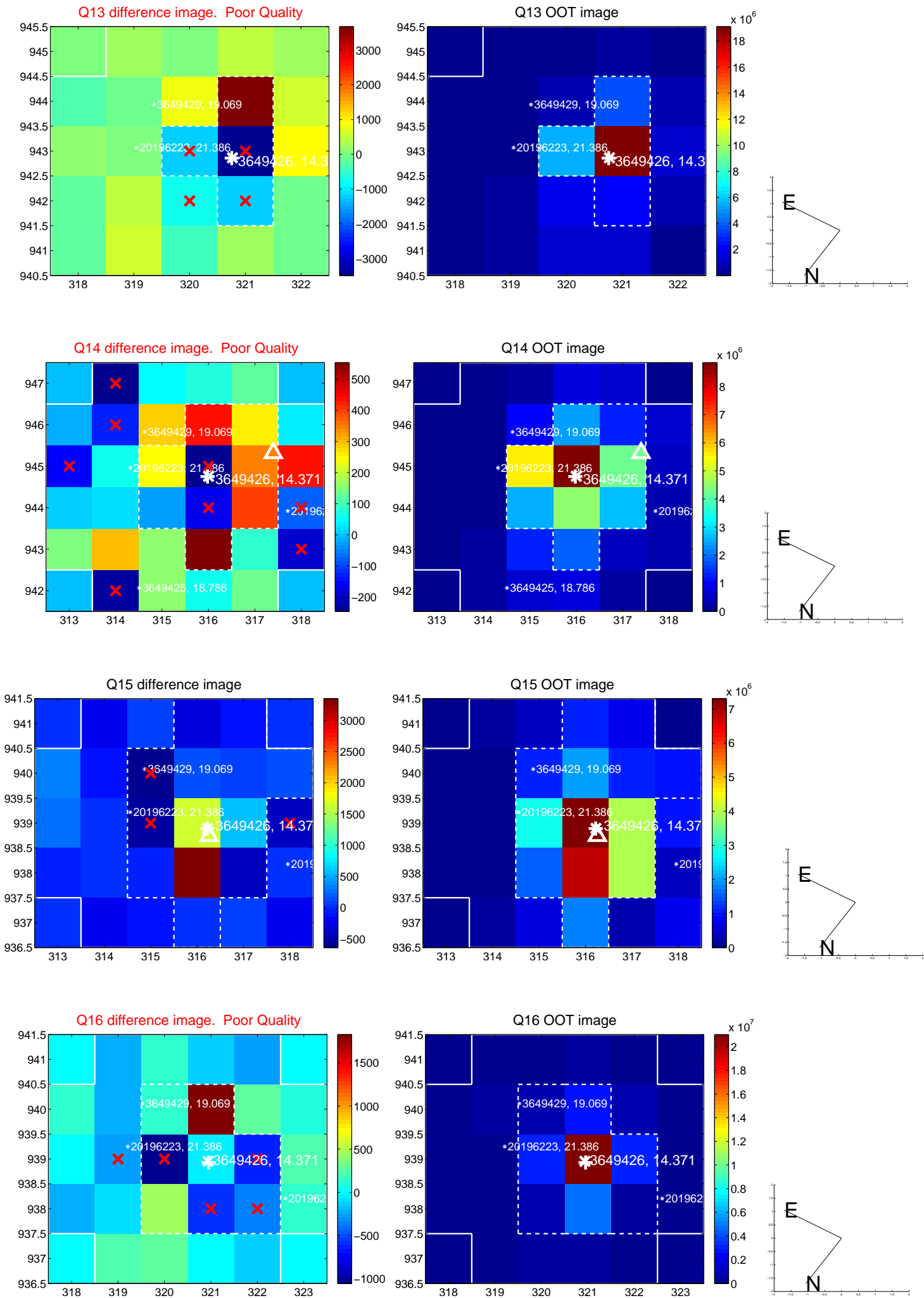
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



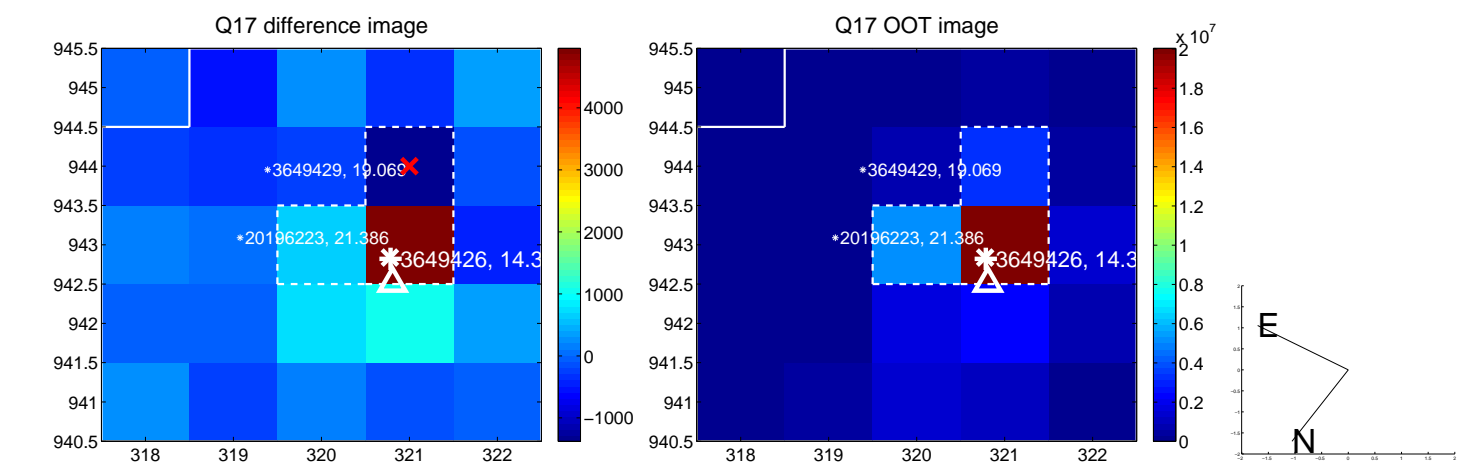
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

