

KIC 005475664

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})
005475664-01	OBS	No	0.535063	131.578966	15.1	1.252	7.3	5.5	1.95	8079	0.89	62564.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475664-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

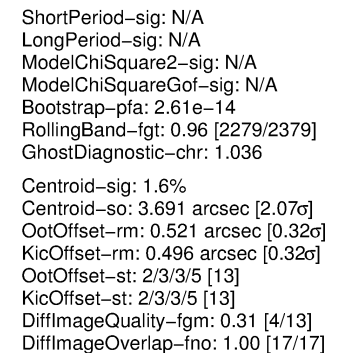
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

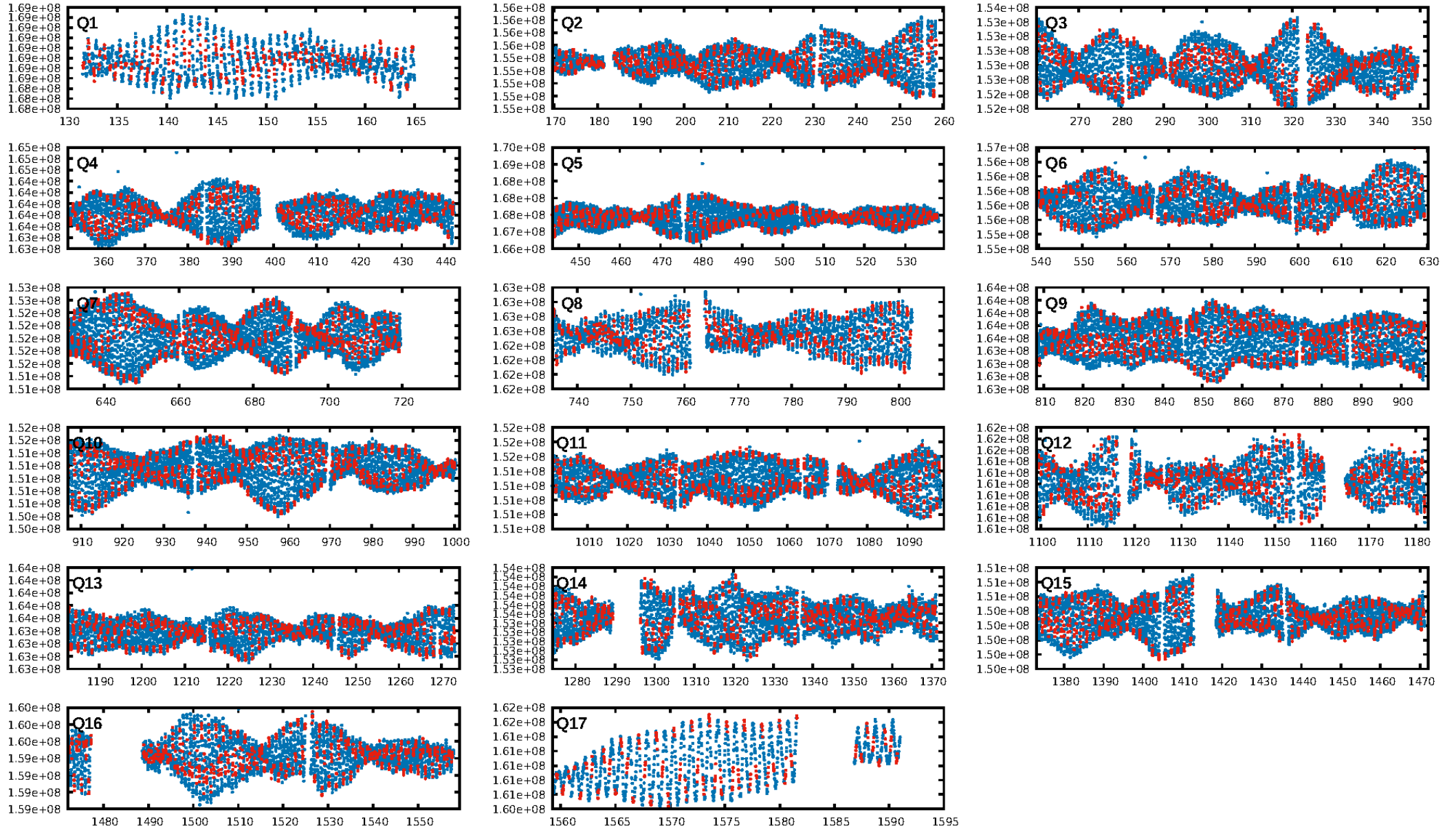
Ephemeris Match Information For 005475664-01

No Significant Match Found

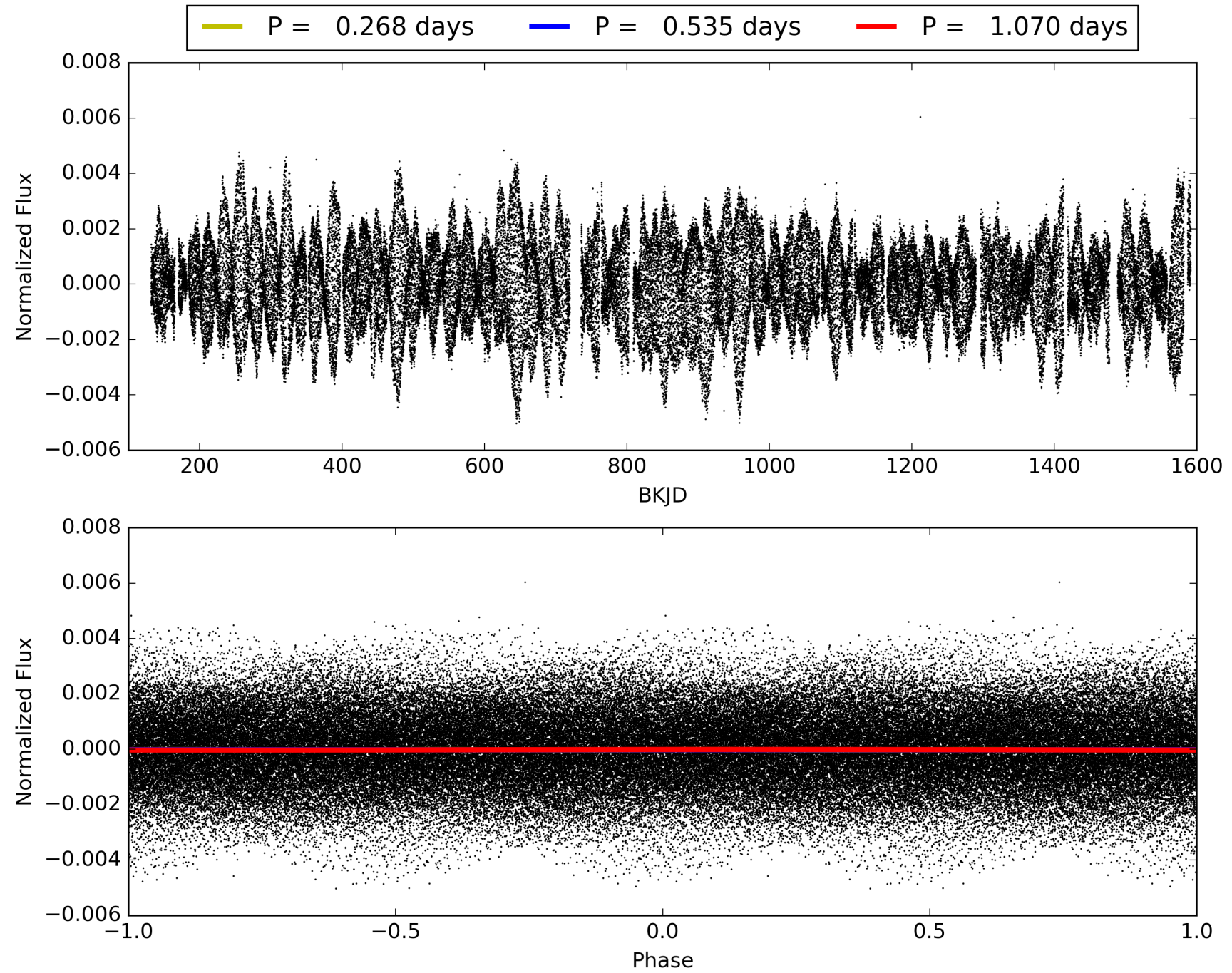
KIC: 5475664 Candidate: 1 of 1 Period: 0.535 d



TCE 005475664-01, PDC Light Curves

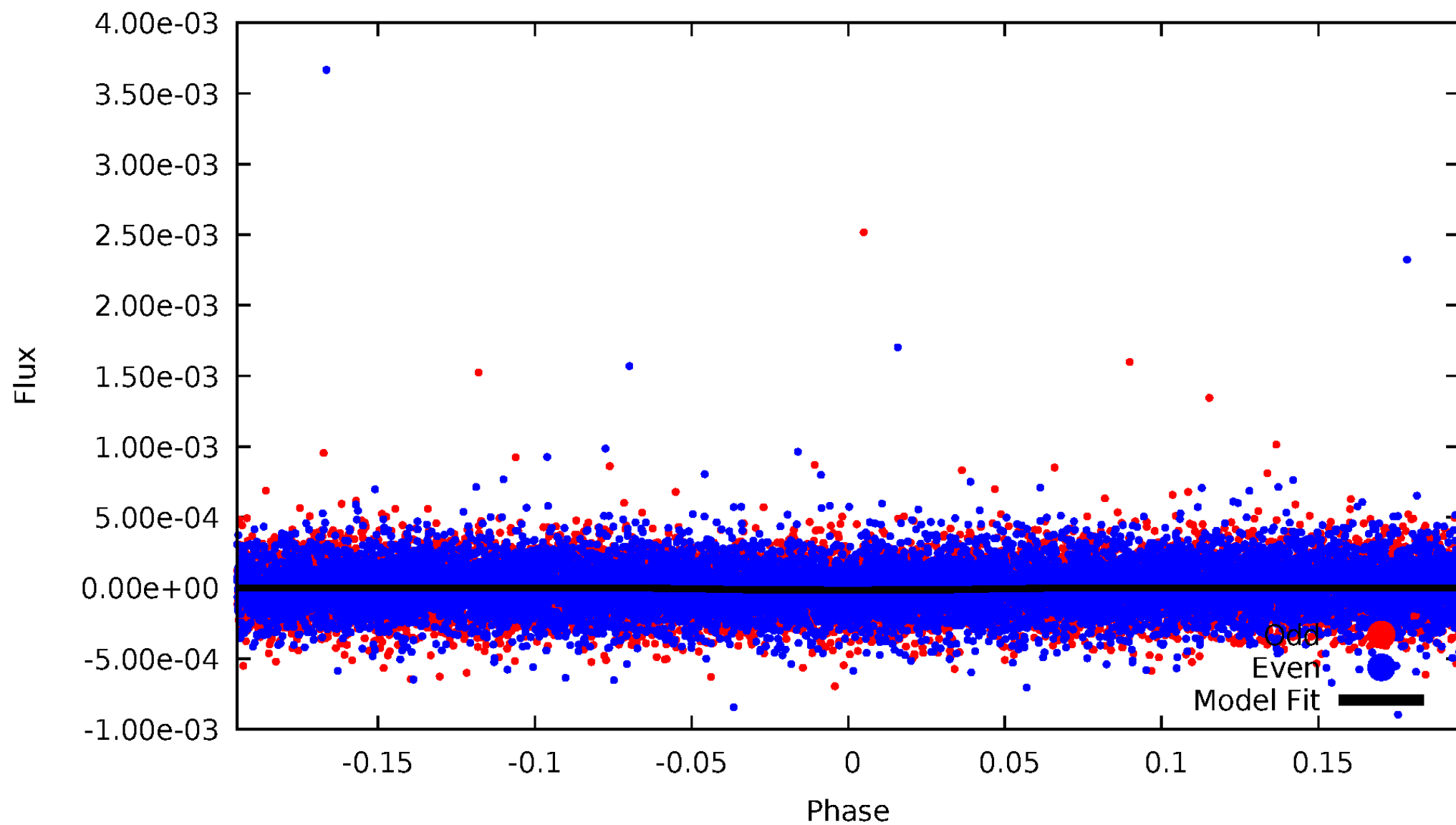


TCE 005475664-01



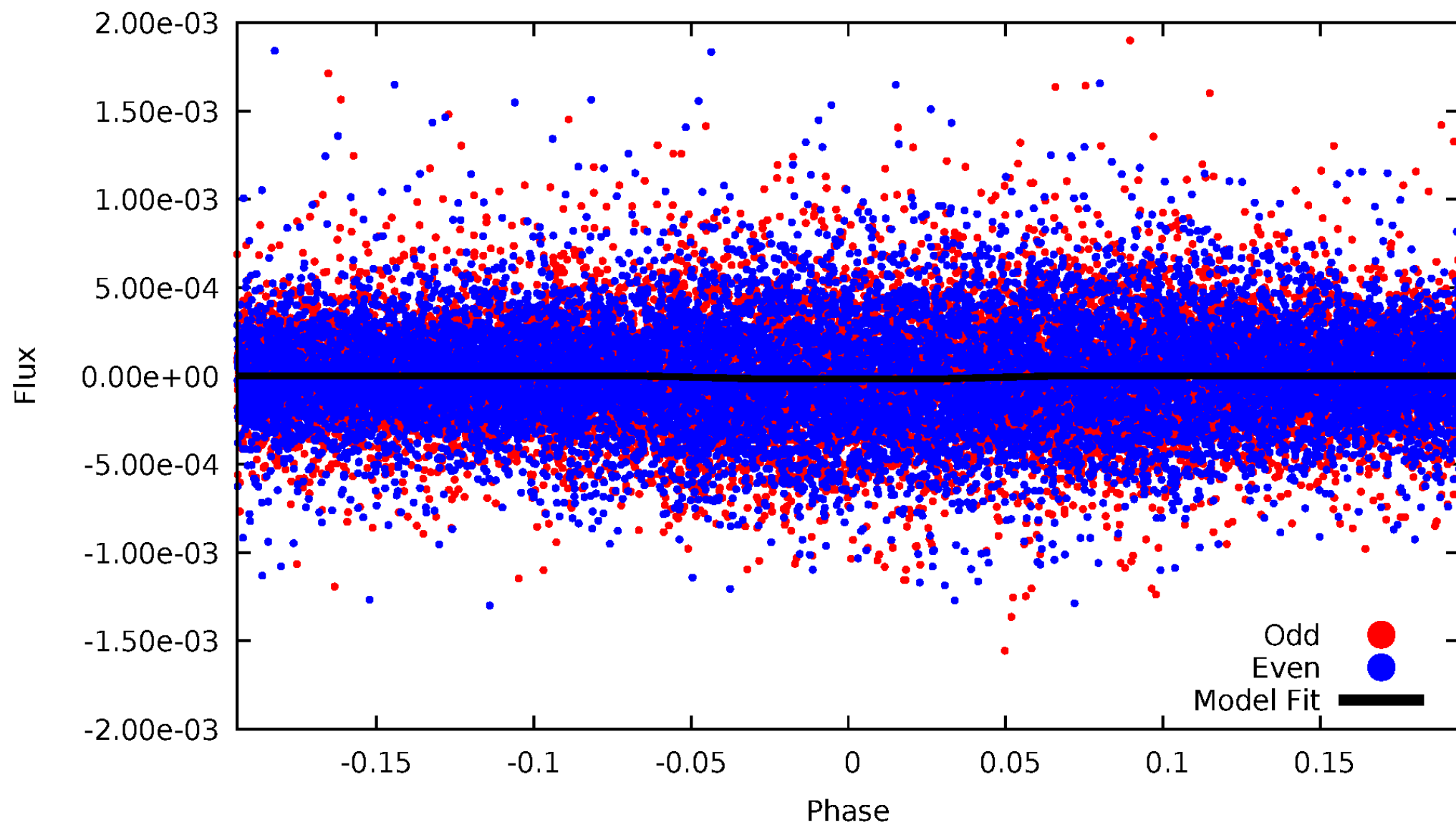
DV Odd/Even

TCE 005475664-01

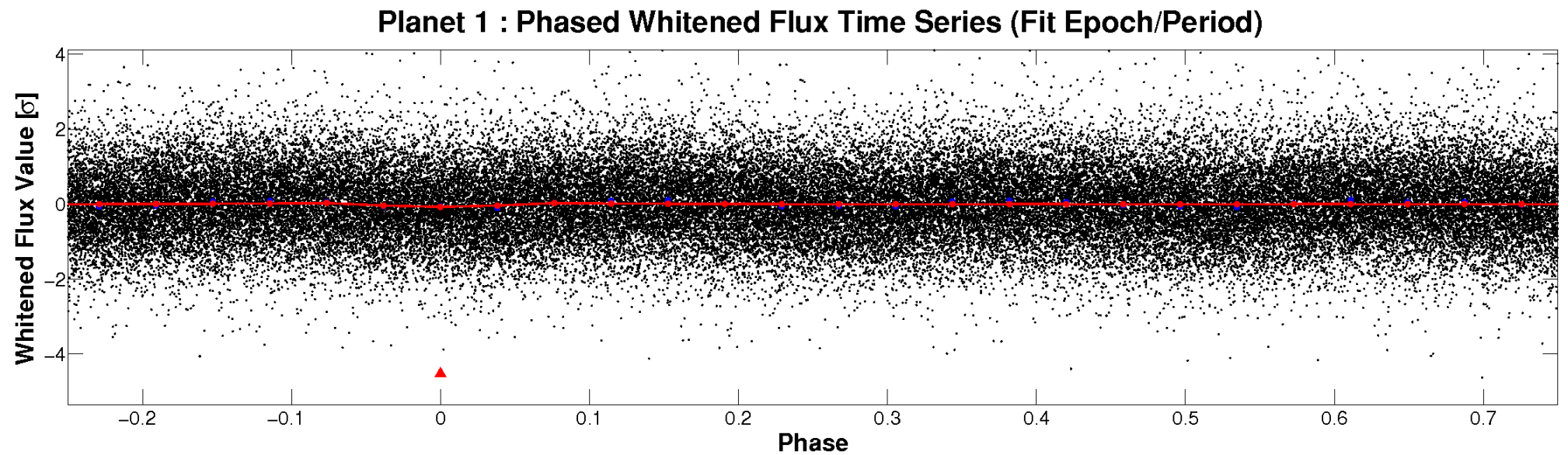
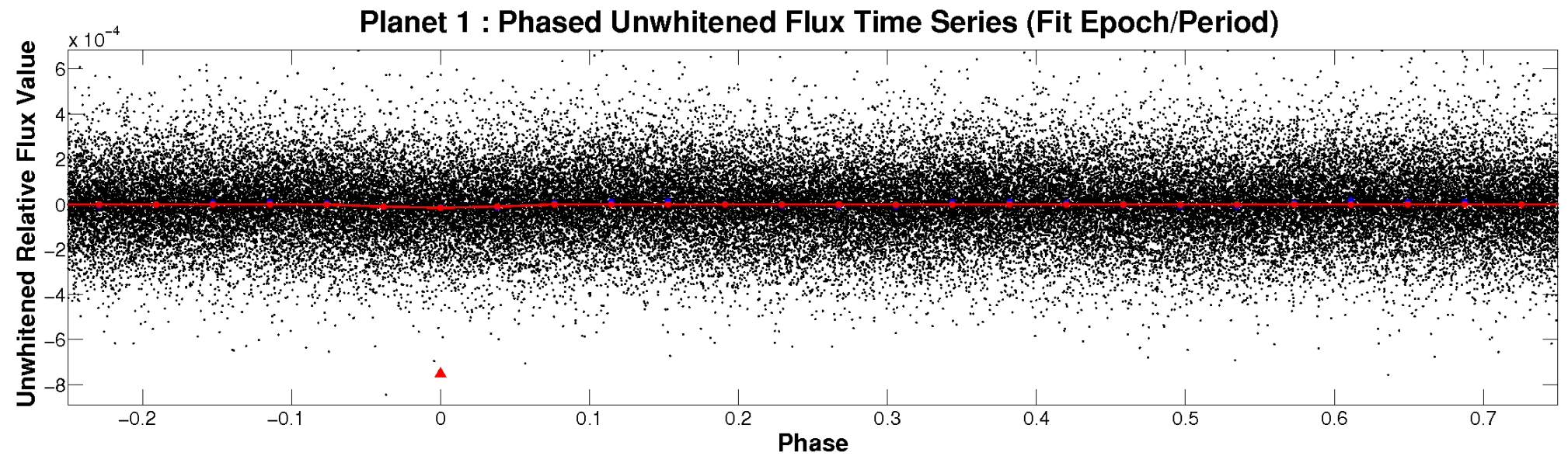


ALT Odd/Even

TCE 005475664-01

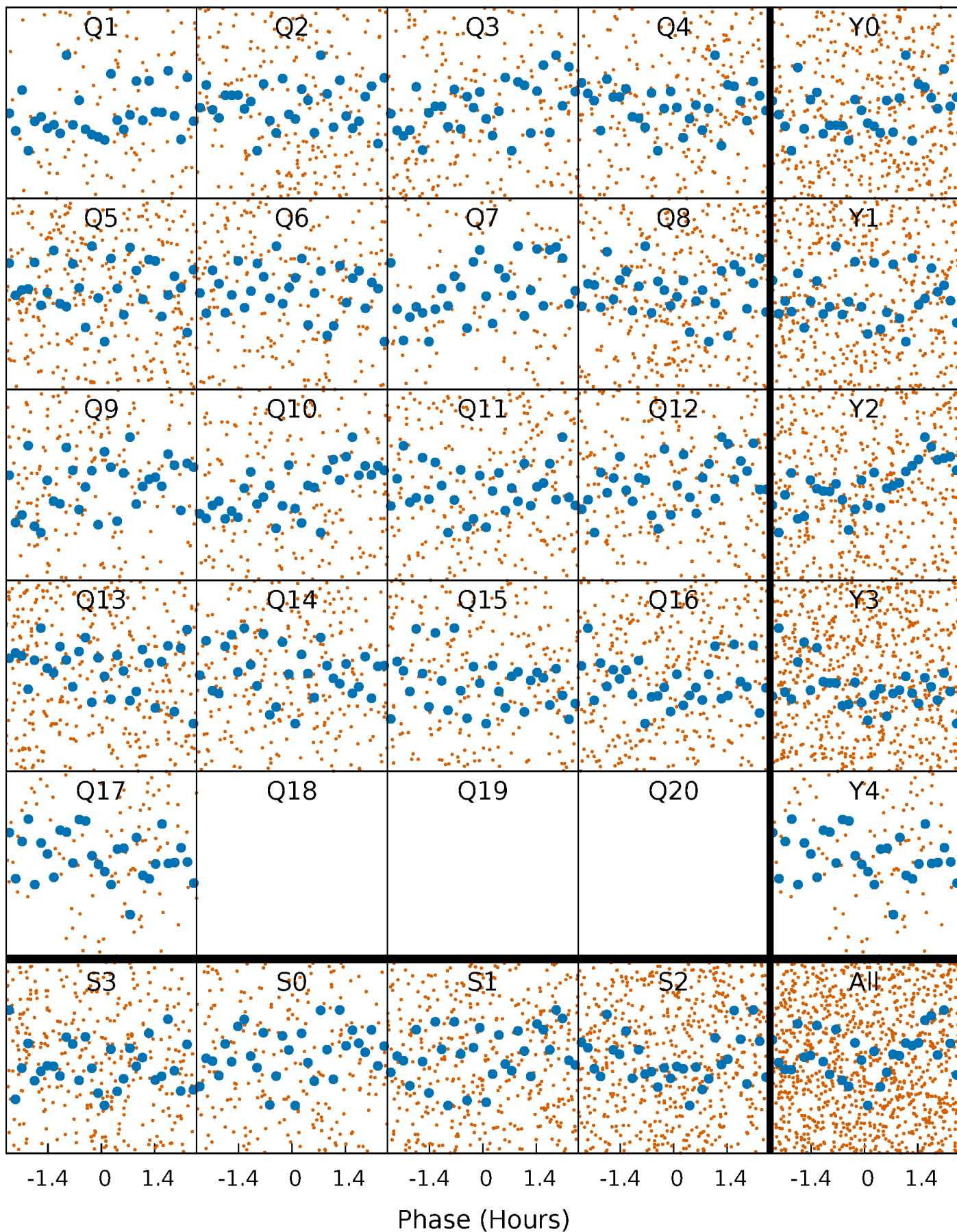


Non-Whitened Vs. Whitened Light Curve



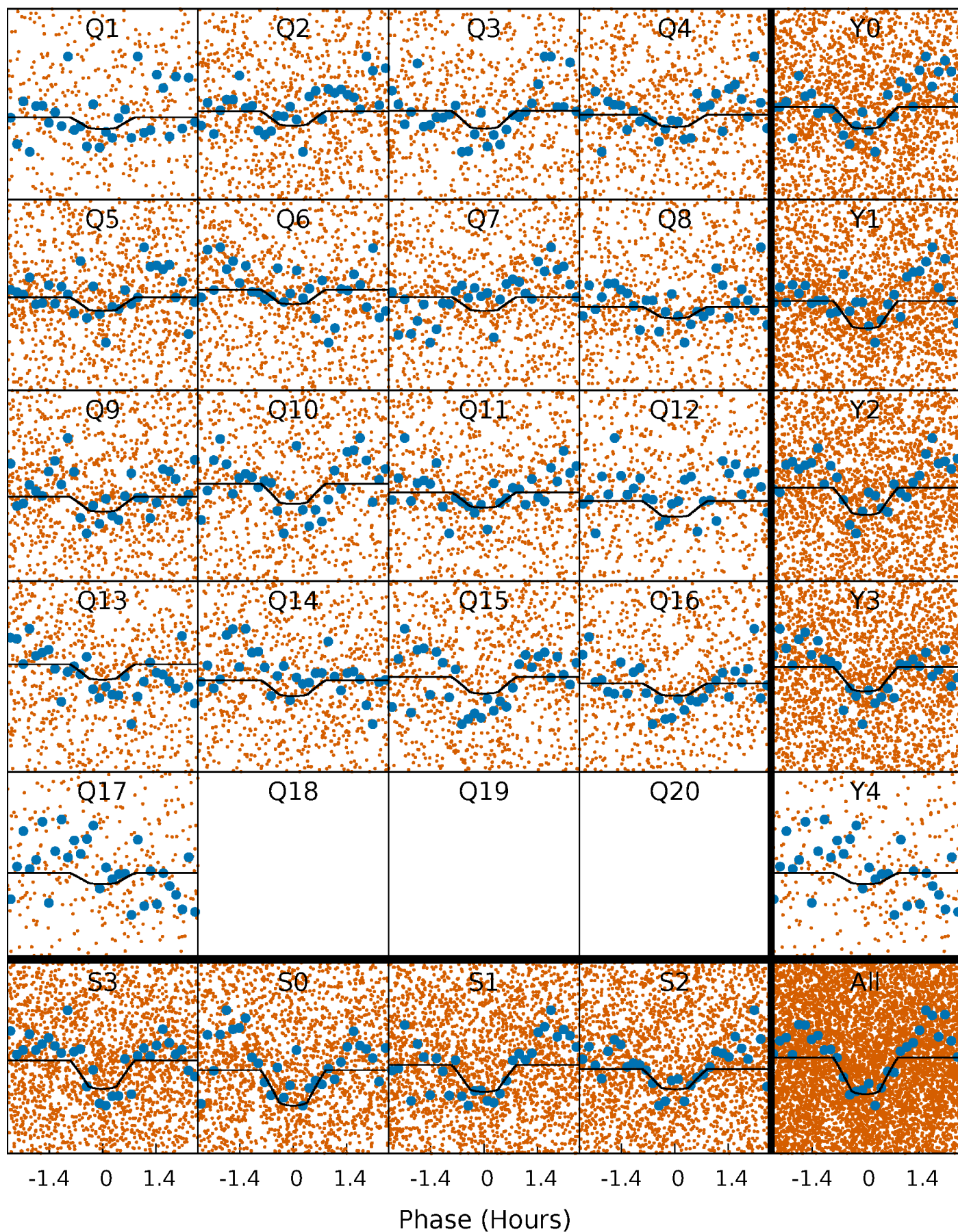
PDC Quarter-Phased Transit Curves

TCE 005475664-01 P= 0.535063 Days $T_0=131.578966$ (BKJD)



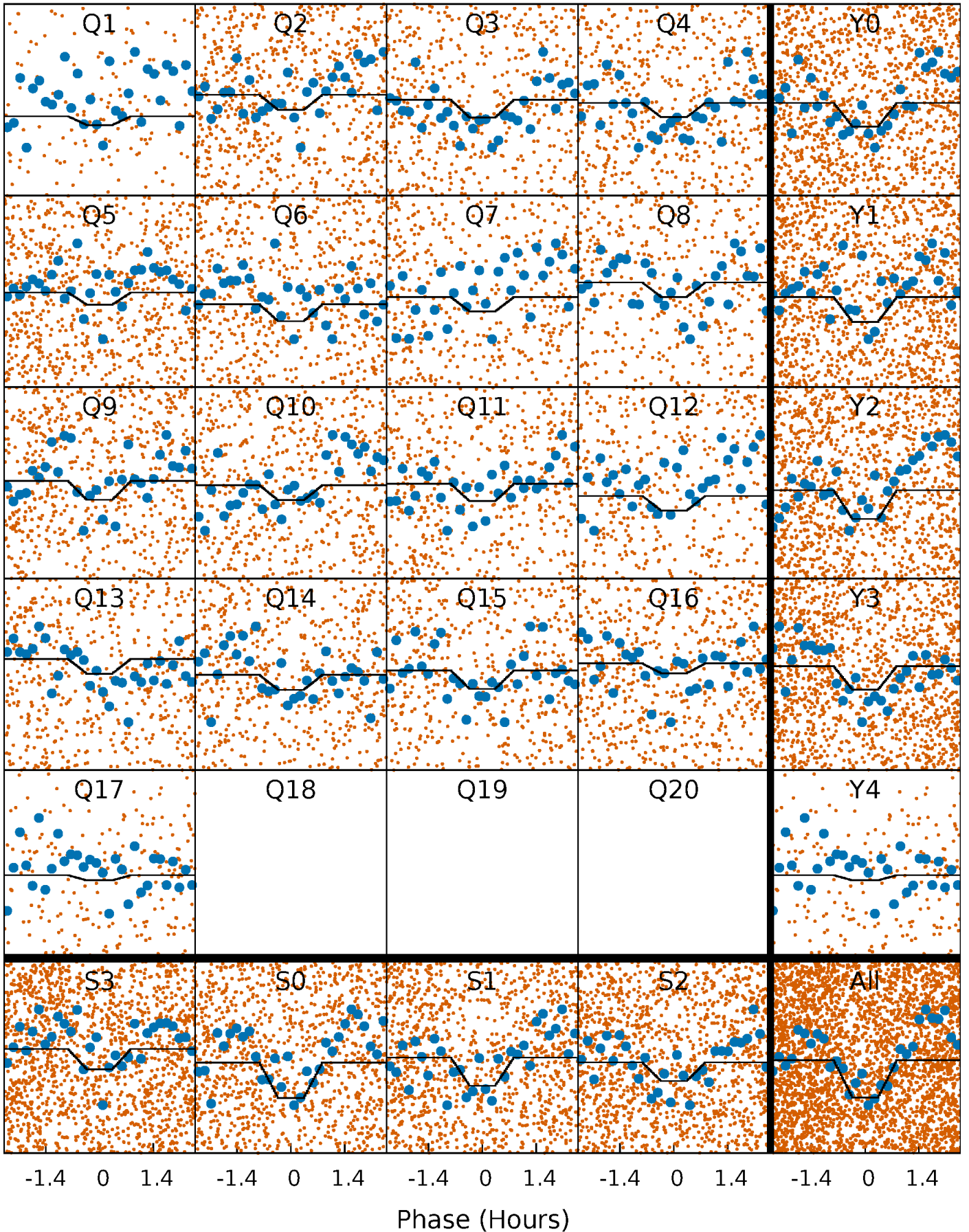
DV Quarter-Phased Transit Curves

TCE 005475664-01 P= 0.535063 Days $T_0=131.578966$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

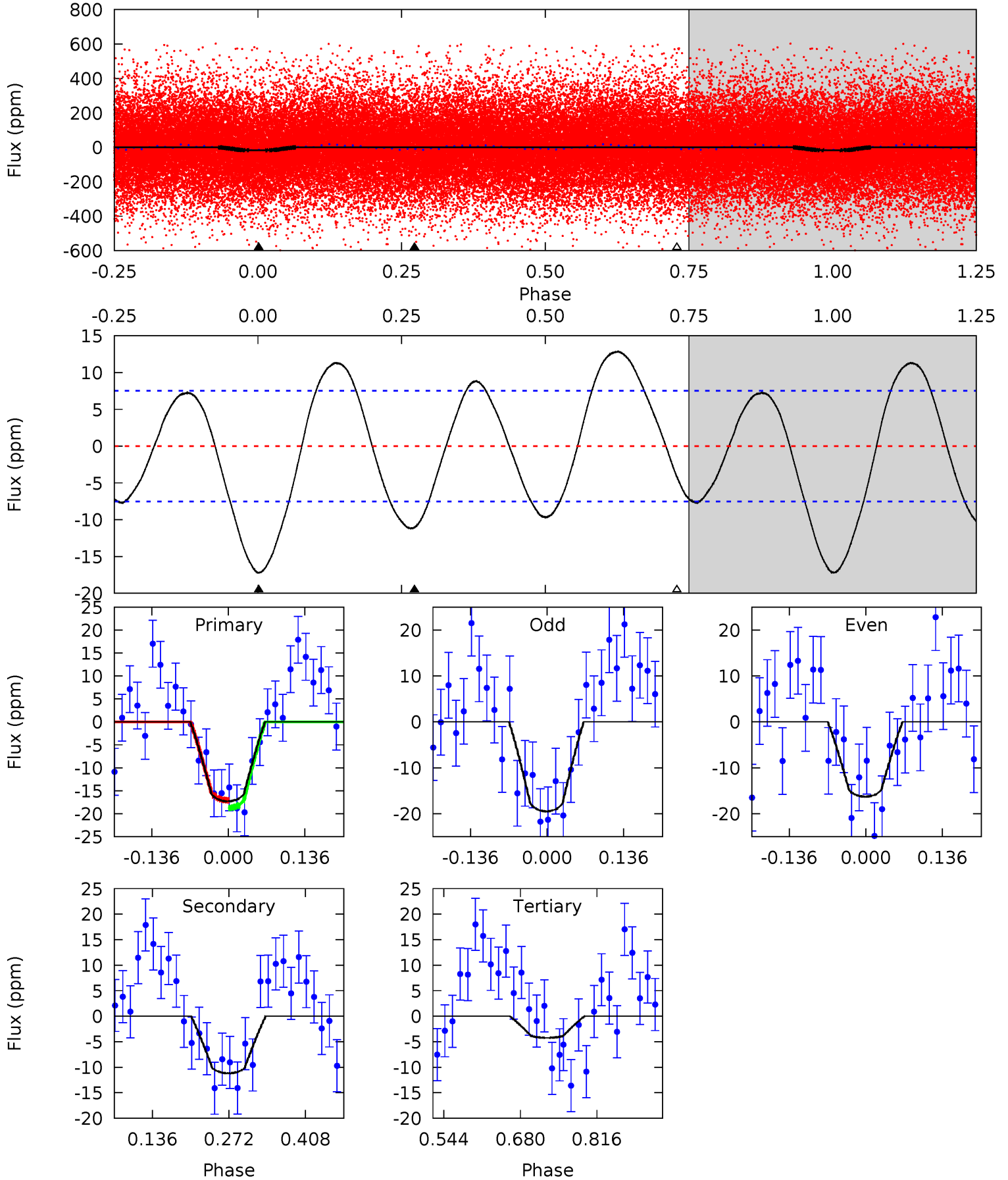
TCE 005475664-01 P= 0.535063 Days $T_0=131.578938$ (BKJD)



DV Model-Shift Uniqueness Test

005475664-01, P = 0.535063 Days, E = 131.043903 Days

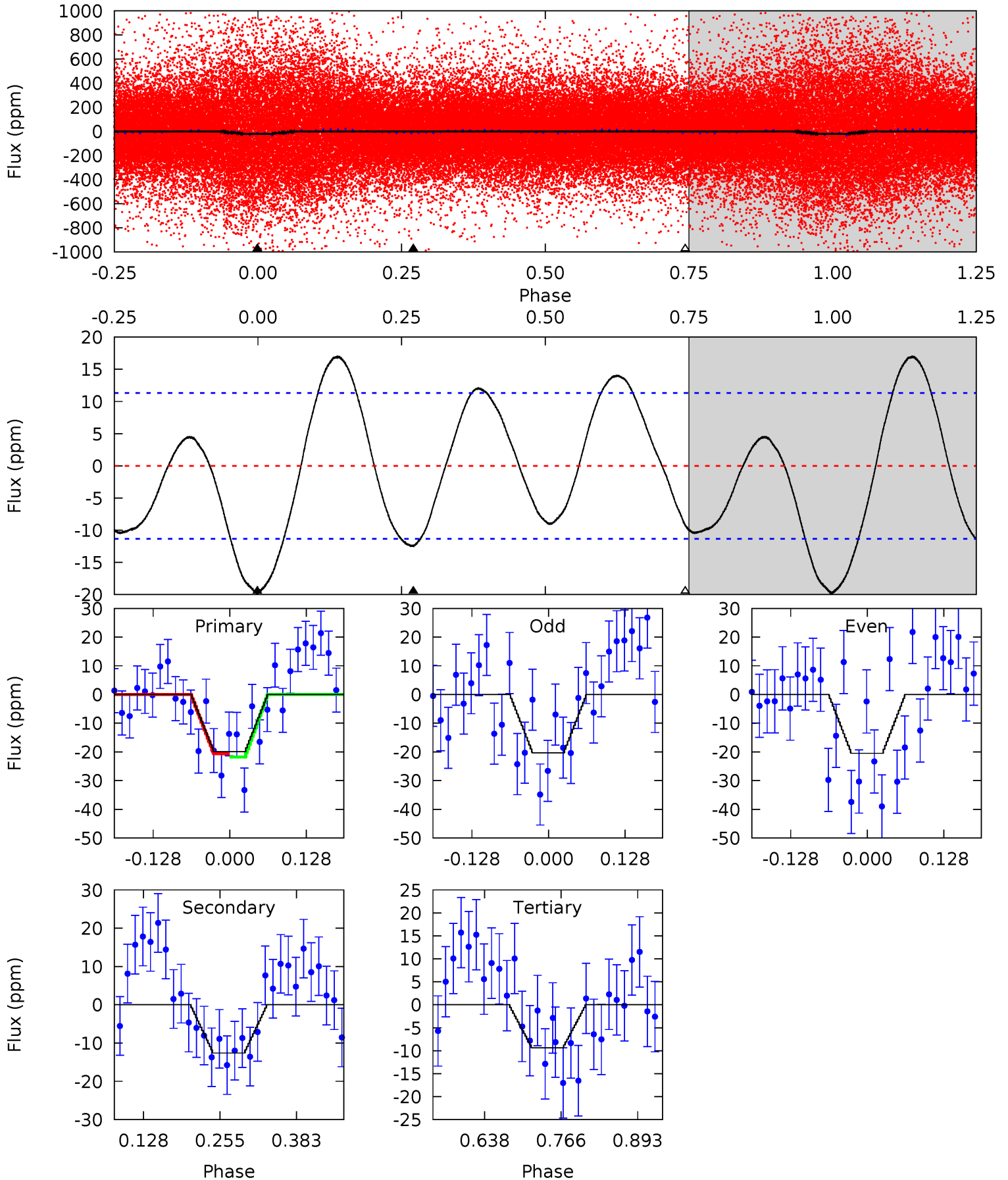
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	6.68	2.53	0	4.50	1.49	4.19	7.82	10.3	4.15	6.68	0.96	0.87	0.43	0.51



Alt Model-Shift Uniqueness Test

005475664-01, P = 0.535063 Days, E = 131.043875 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.93	5.02	3.72	0	4.51	1.52	3.28	4.21	7.93	1.30	5.02	0.04	0.56	0.46	0.23



Stellar Parameters For KIC 005475664

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8079^{+225}_{-337}	$4.074^{+0.187}_{-0.136}$	$-0.320^{+0.200}_{-0.350}$	$1.949^{+0.424}_{-0.519}$	$1.641^{+0.178}_{-0.289}$	$0.312^{+0.354}_{-0.122}$
	+3%/-4%	+5%/-3%	+62%/-109%	+22%/-27%	+11%/-18%	+113%/-39%
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 005475664-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-11 ± 2	$0.86^{+0.27}_{-0.24}$	5575^{+349}_{-386}	6732^{+1508}_{-982}	$1.931^{+1.696}_{-0.807}$
Alt.	-13 ± 3	$0.85^{+0.25}_{-0.23}$	5581^{+392}_{-432}	7043^{+1779}_{-1066}	$2.205^{+2.014}_{-0.968}$

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 $A_{obs} \gg 1.0$

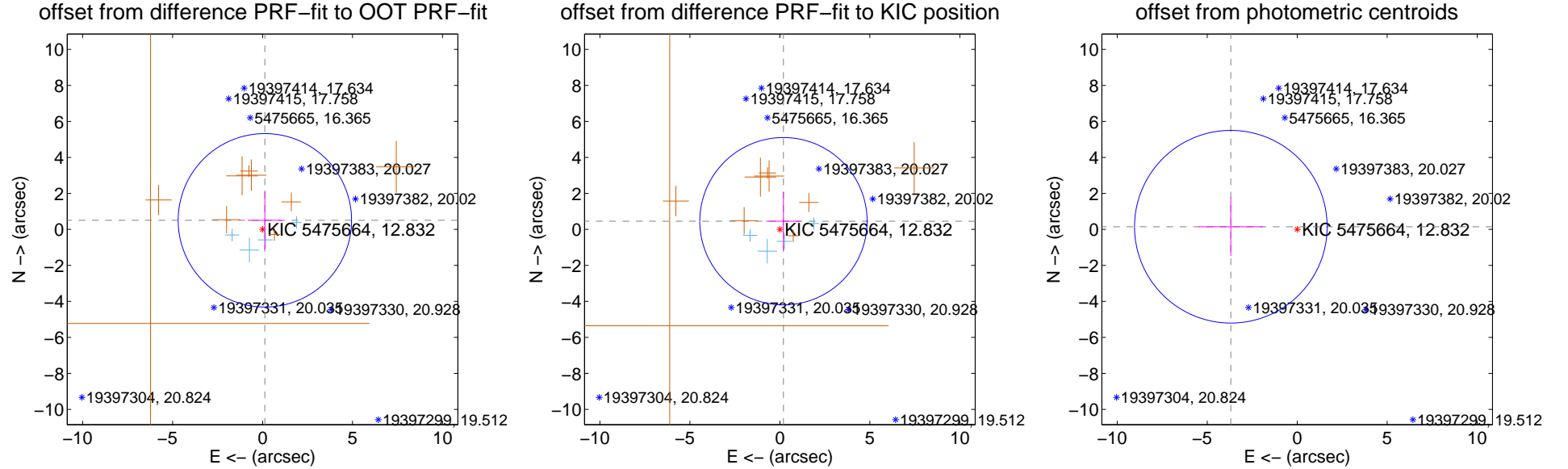
DV Centroid Data

Supplemental centroid analysis for 005475664-01. Kepler magnitude: 12.83. Transit SNR 5.48

There are 4 quarters with good PRF difference image offsets

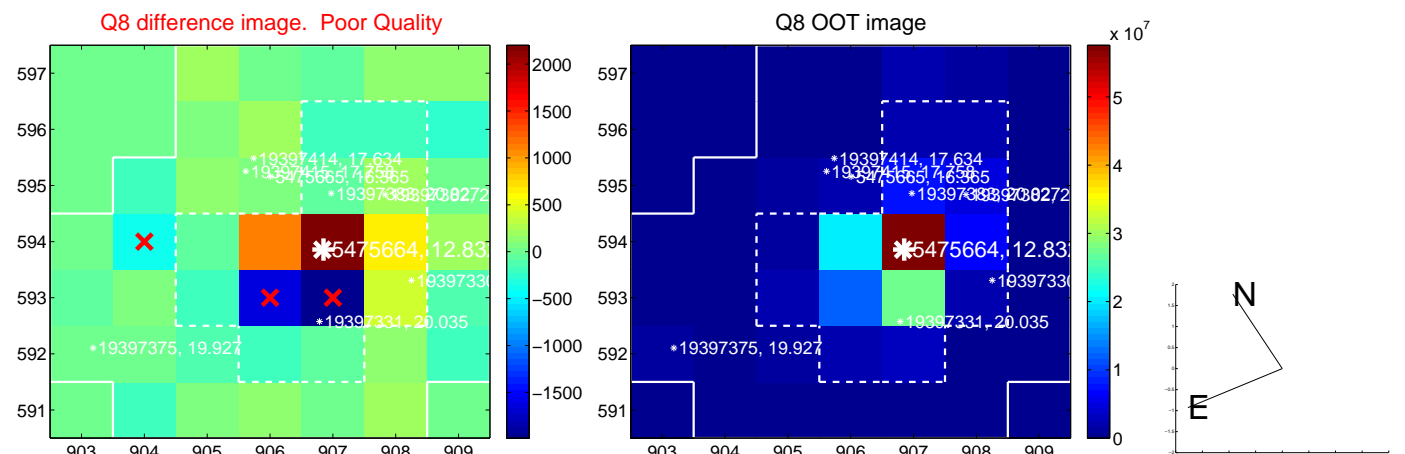
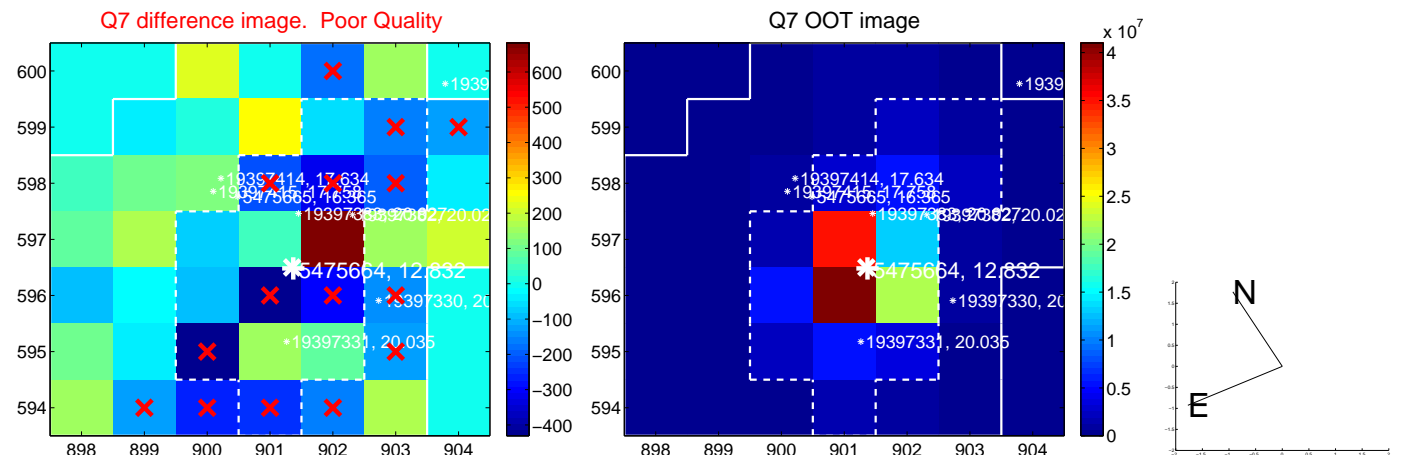
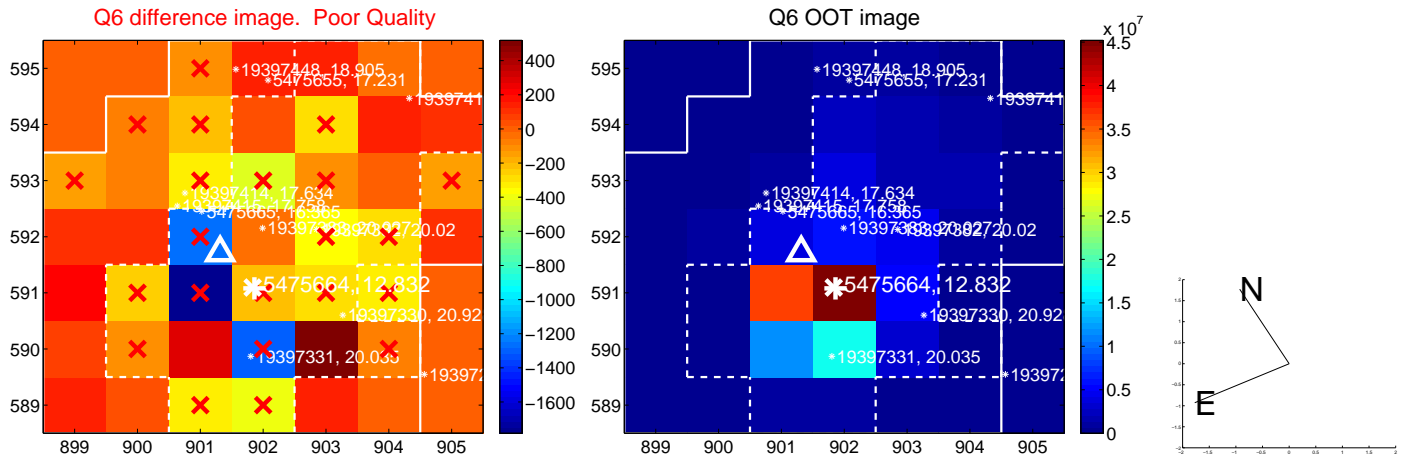
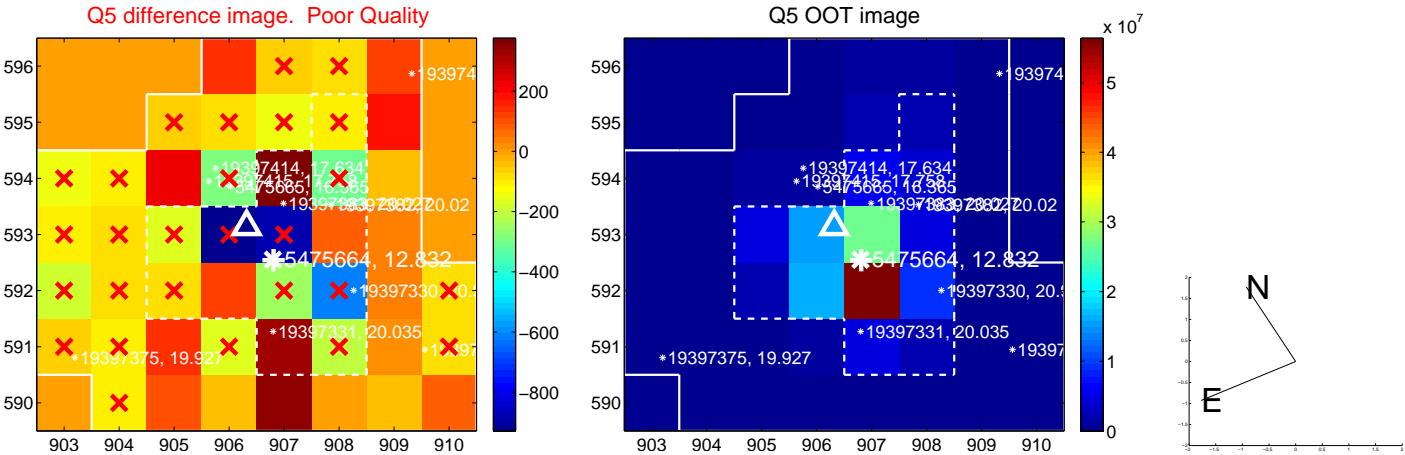
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.521 ± 1.606	0.32	-0.127 ± 0.955	0.505 ± 1.639
PRF-fit source offset from KIC position	0.496 ± 1.550	0.32	-0.199 ± 0.955	0.455 ± 1.639
photometric centroid source offset	3.69 ± 1.78	2.07	3.69 ± 1.78	0.15 ± 1.63

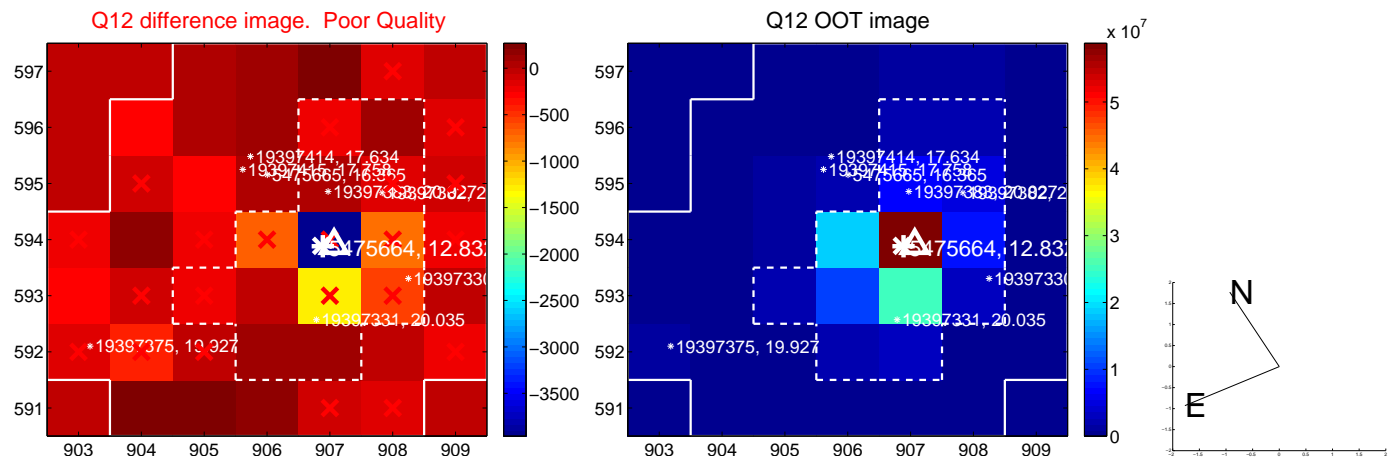
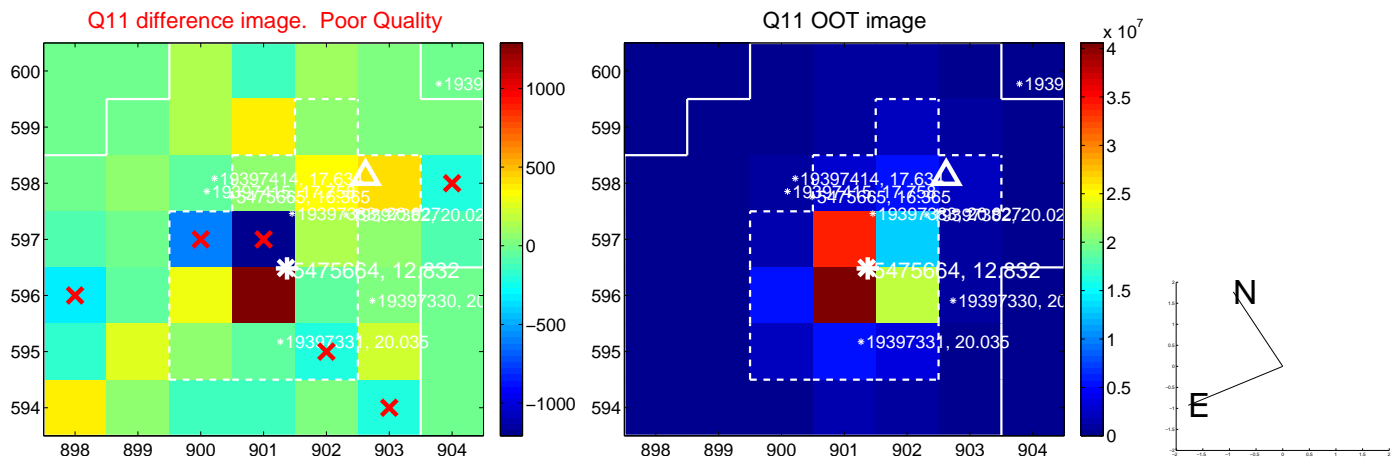
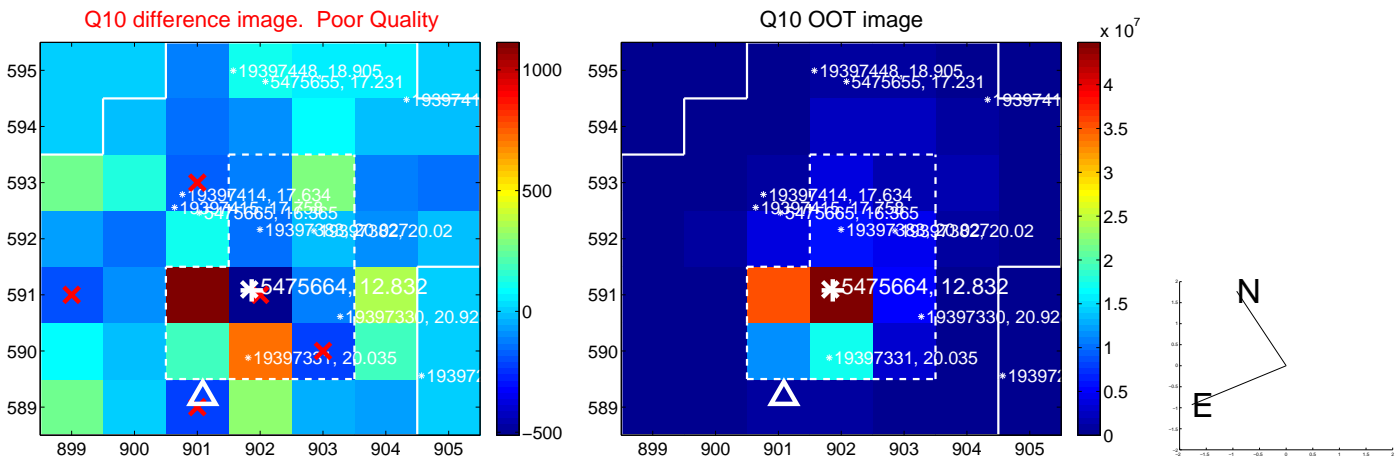
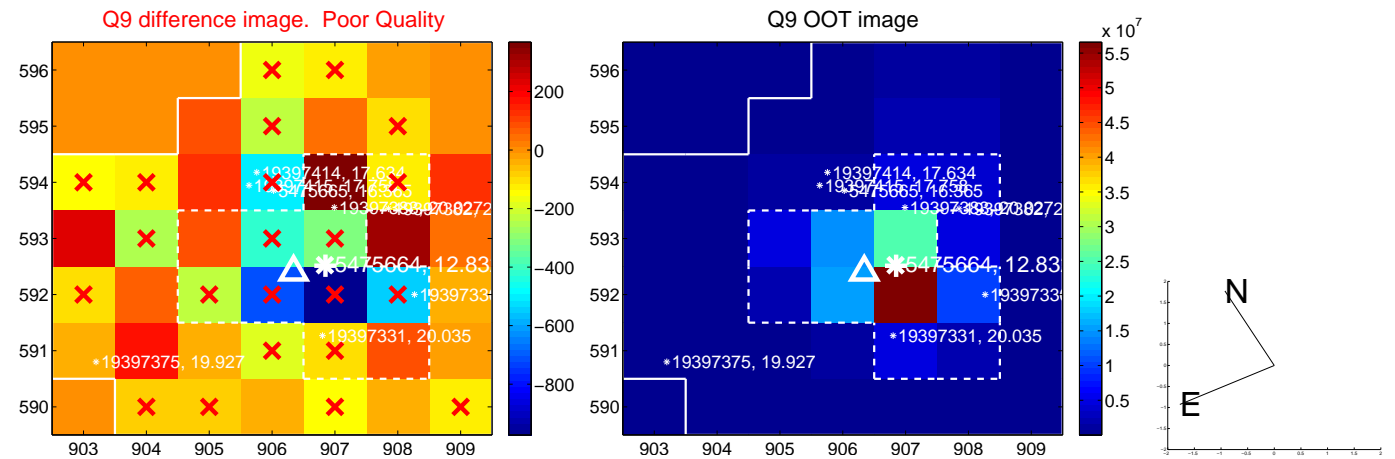


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

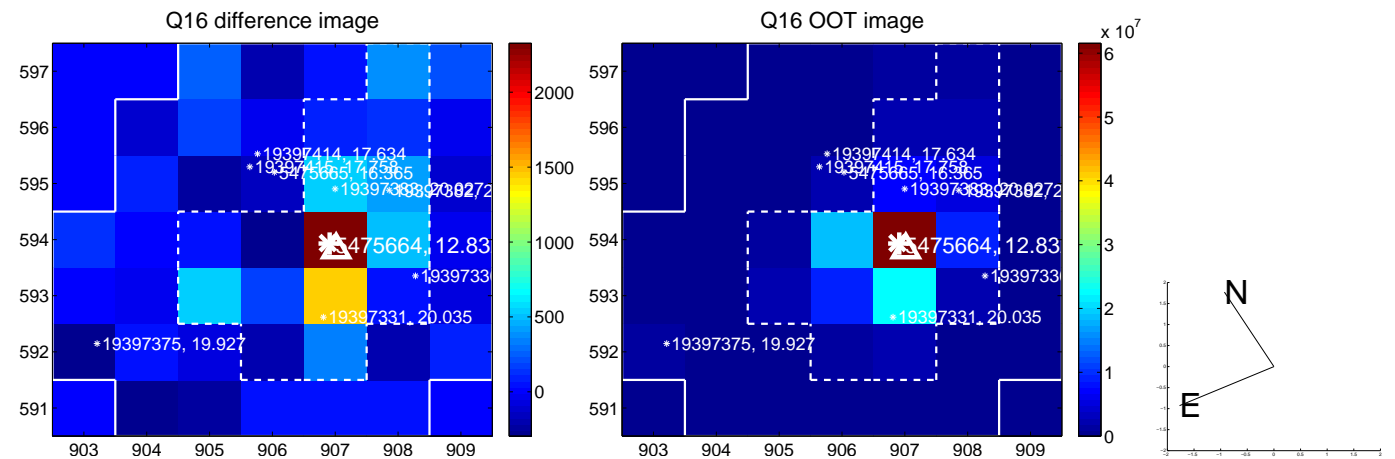
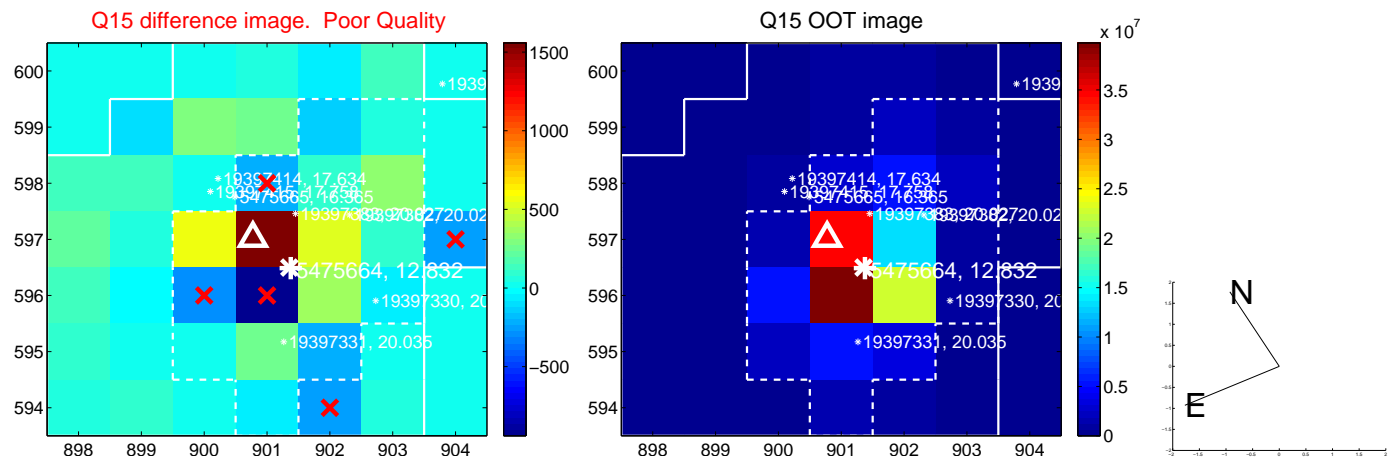
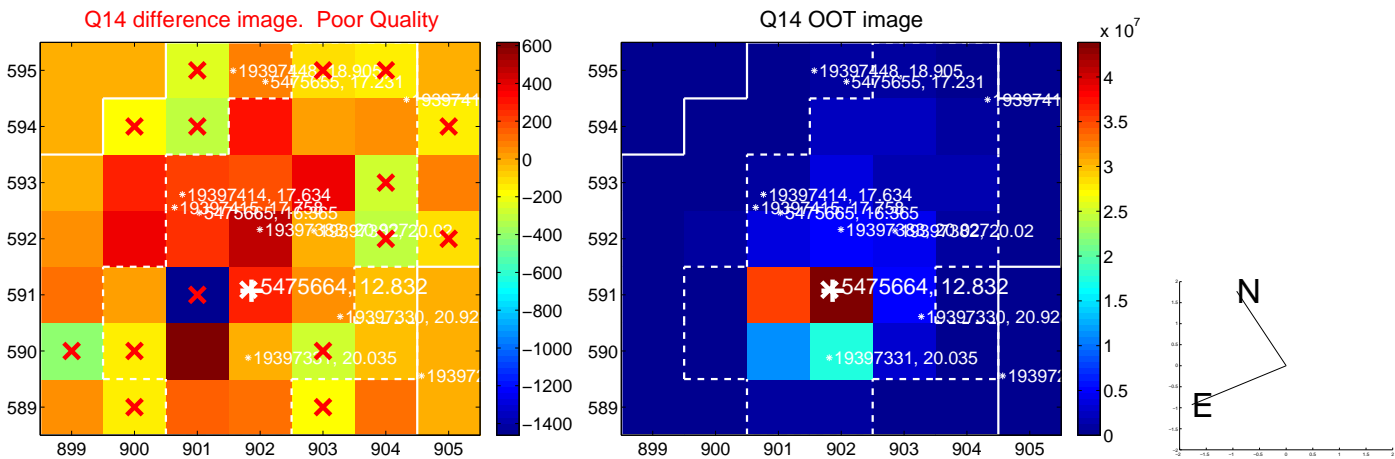
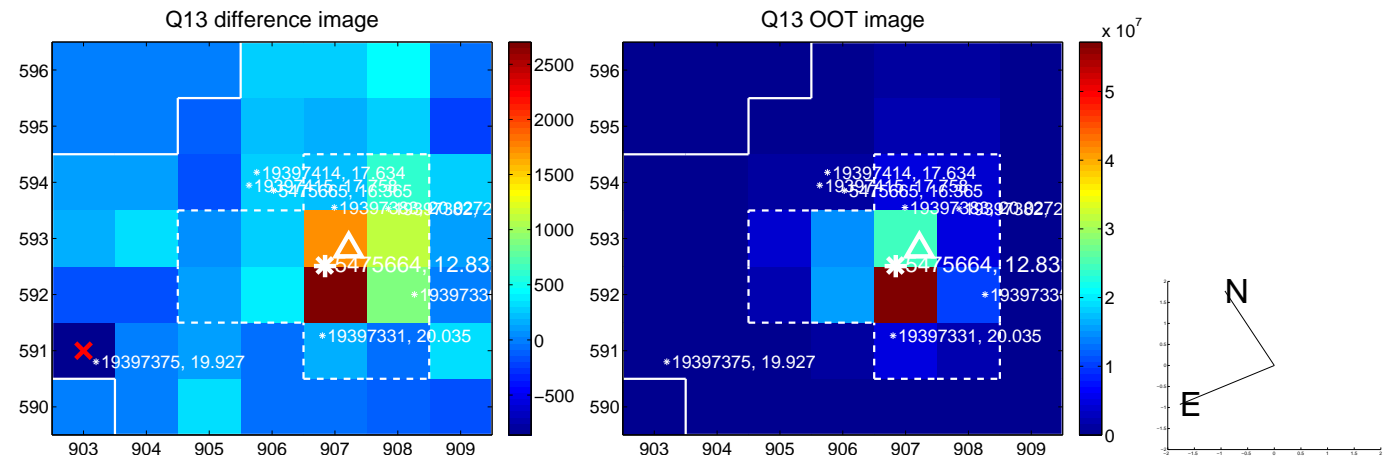
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



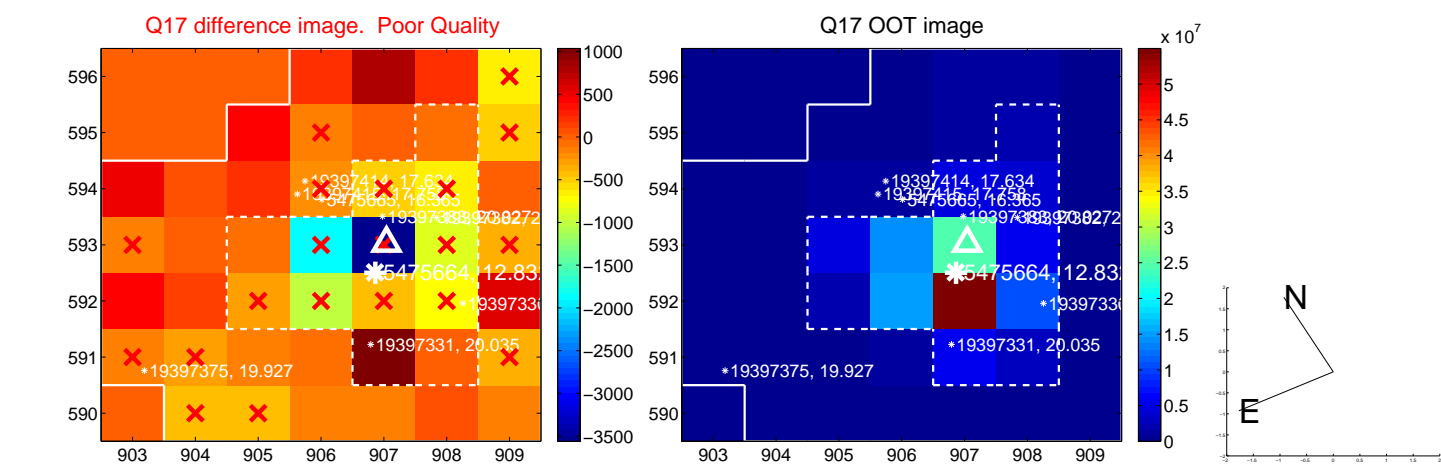
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



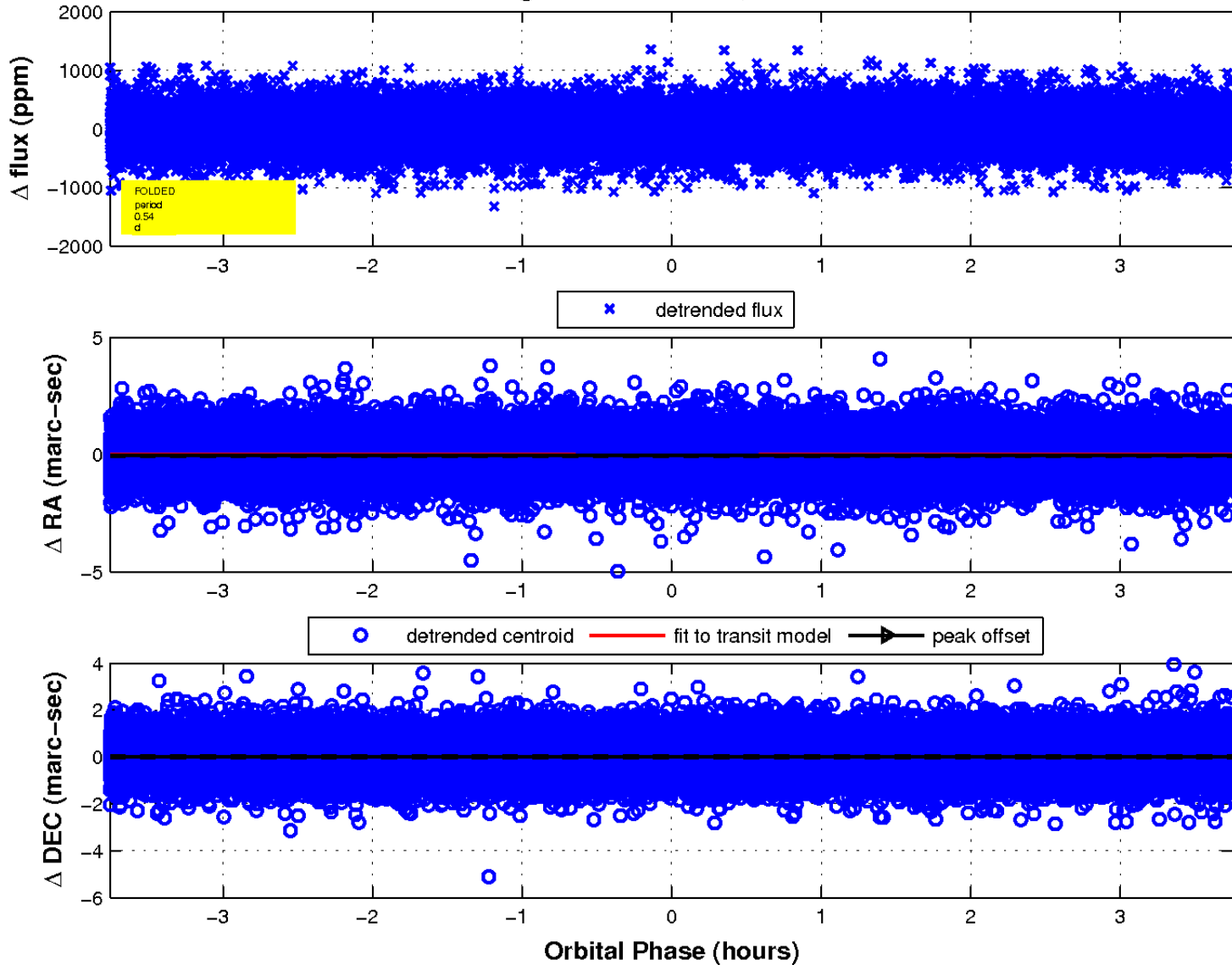
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

