

KIC 004391108

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})
004391108-01	OBS	No	1.895005	131.916092	17.8	14.855	7.2	9.1	2.15	7884	0.95	11836.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004391108-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

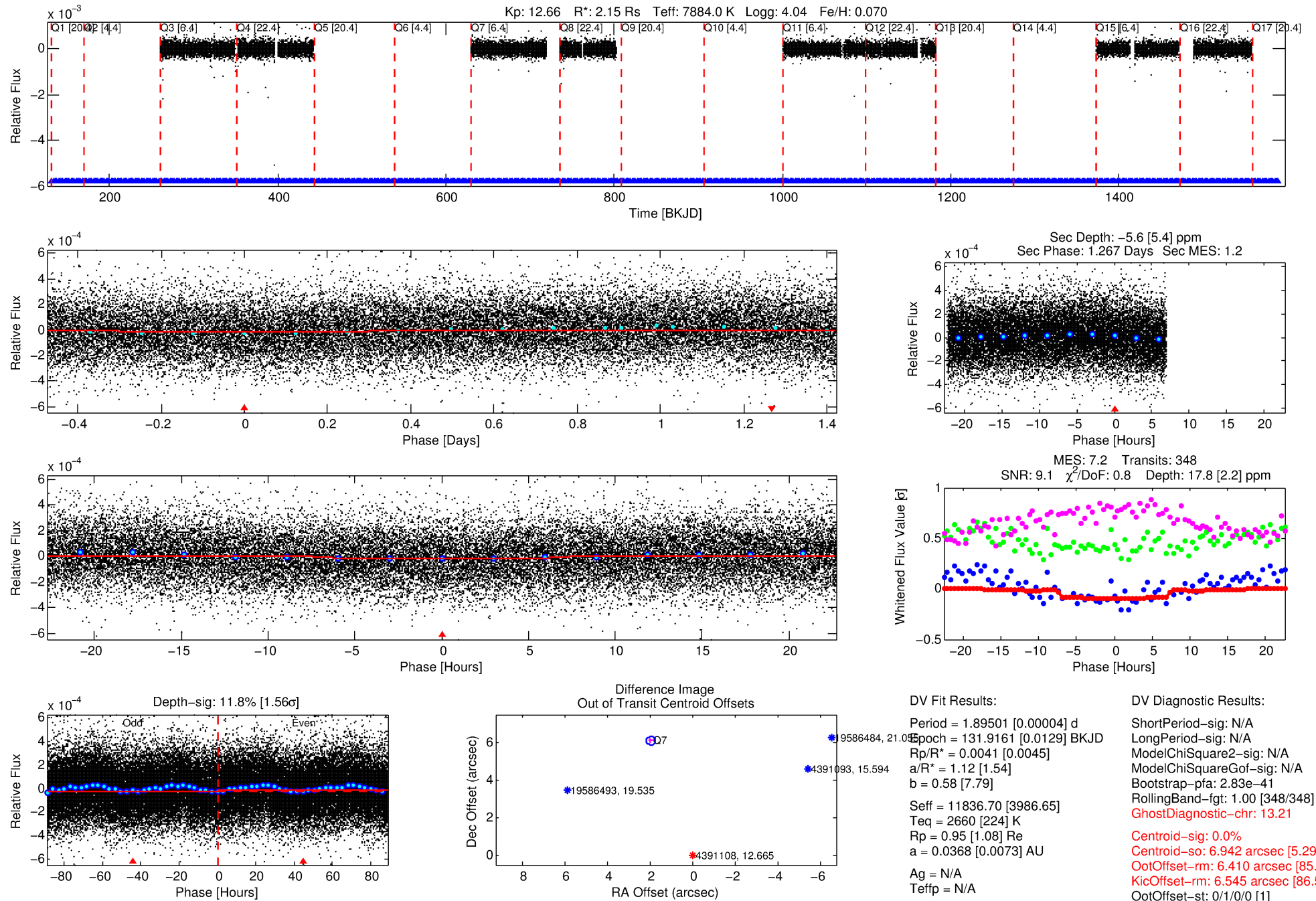
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004391108-01

No Significant Match Found

DV One-Page Summary

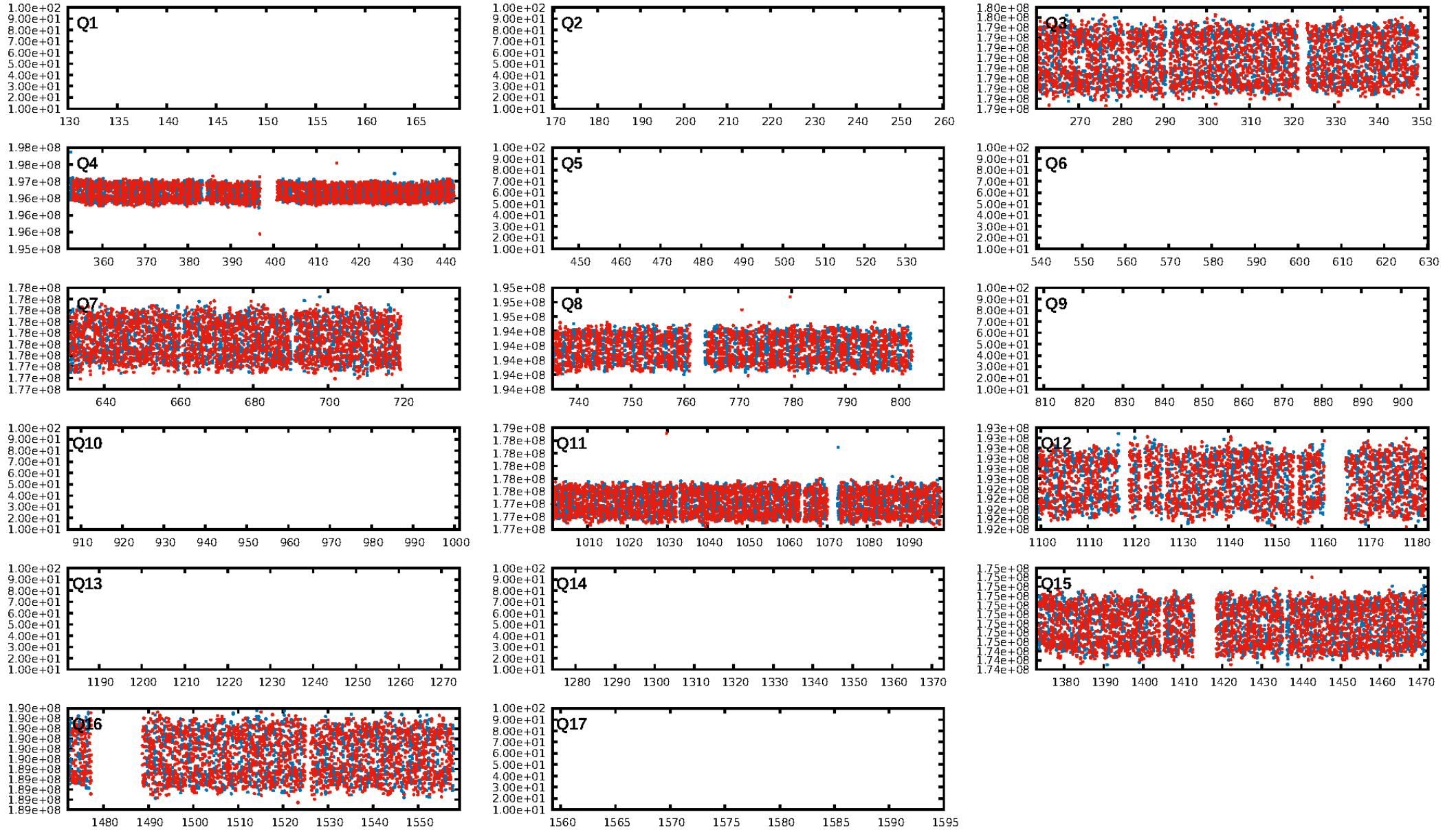
KIC: 4391108 Candidate: 1 of 1 Period: 1.895 d



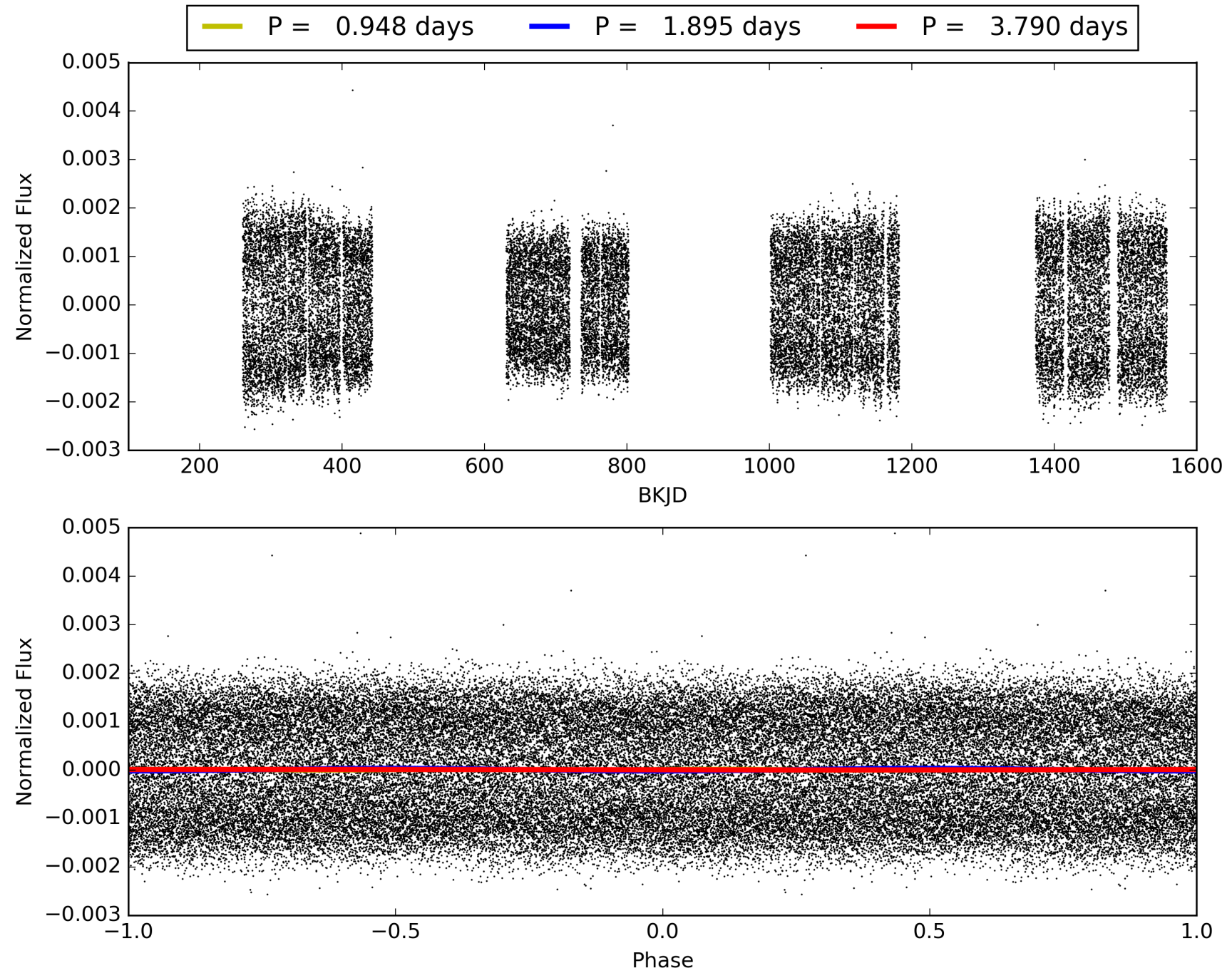
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:35:44 Z

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

TCE 004391108-01, PDC Light Curves

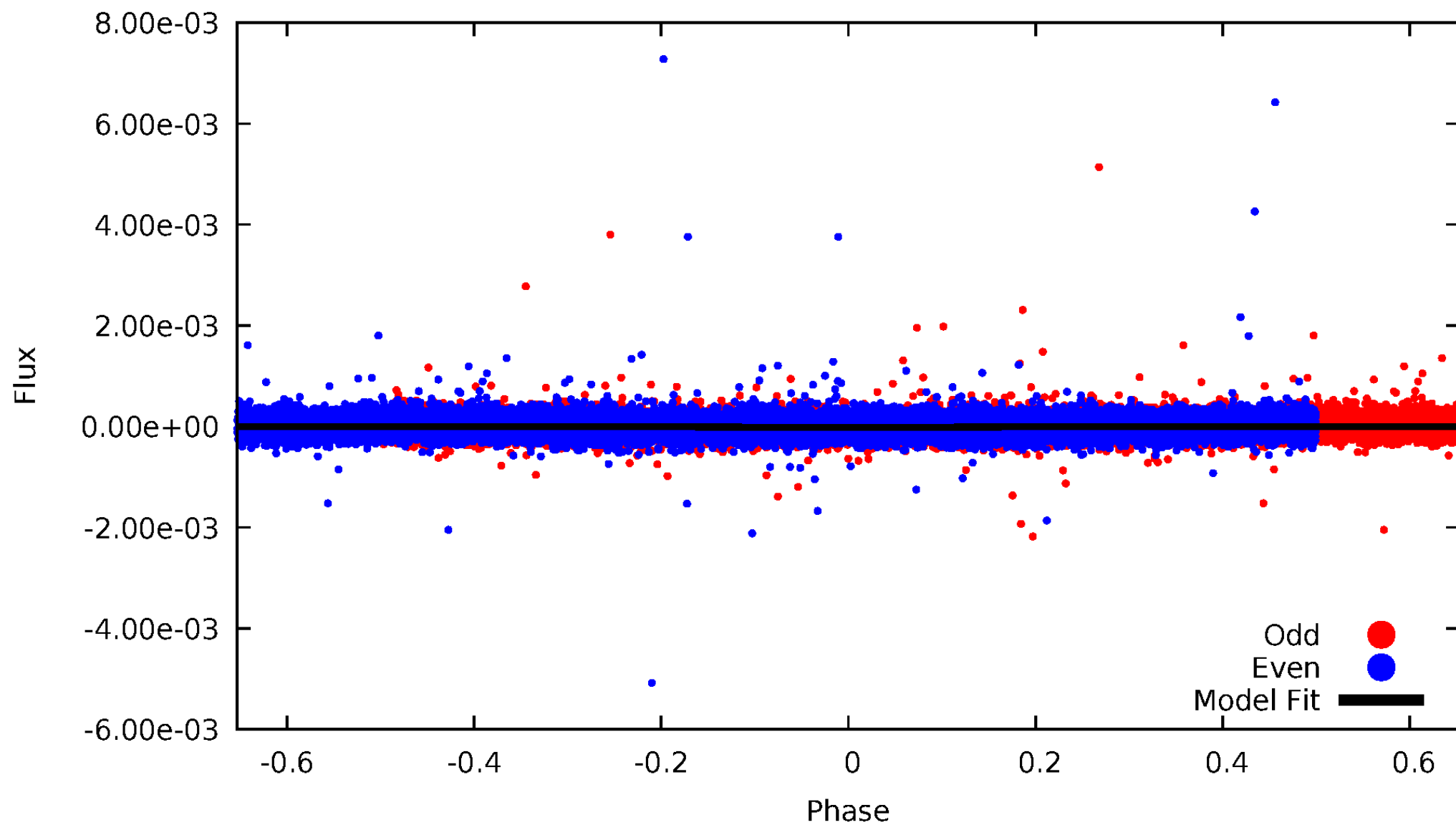


TCE 004391108-01



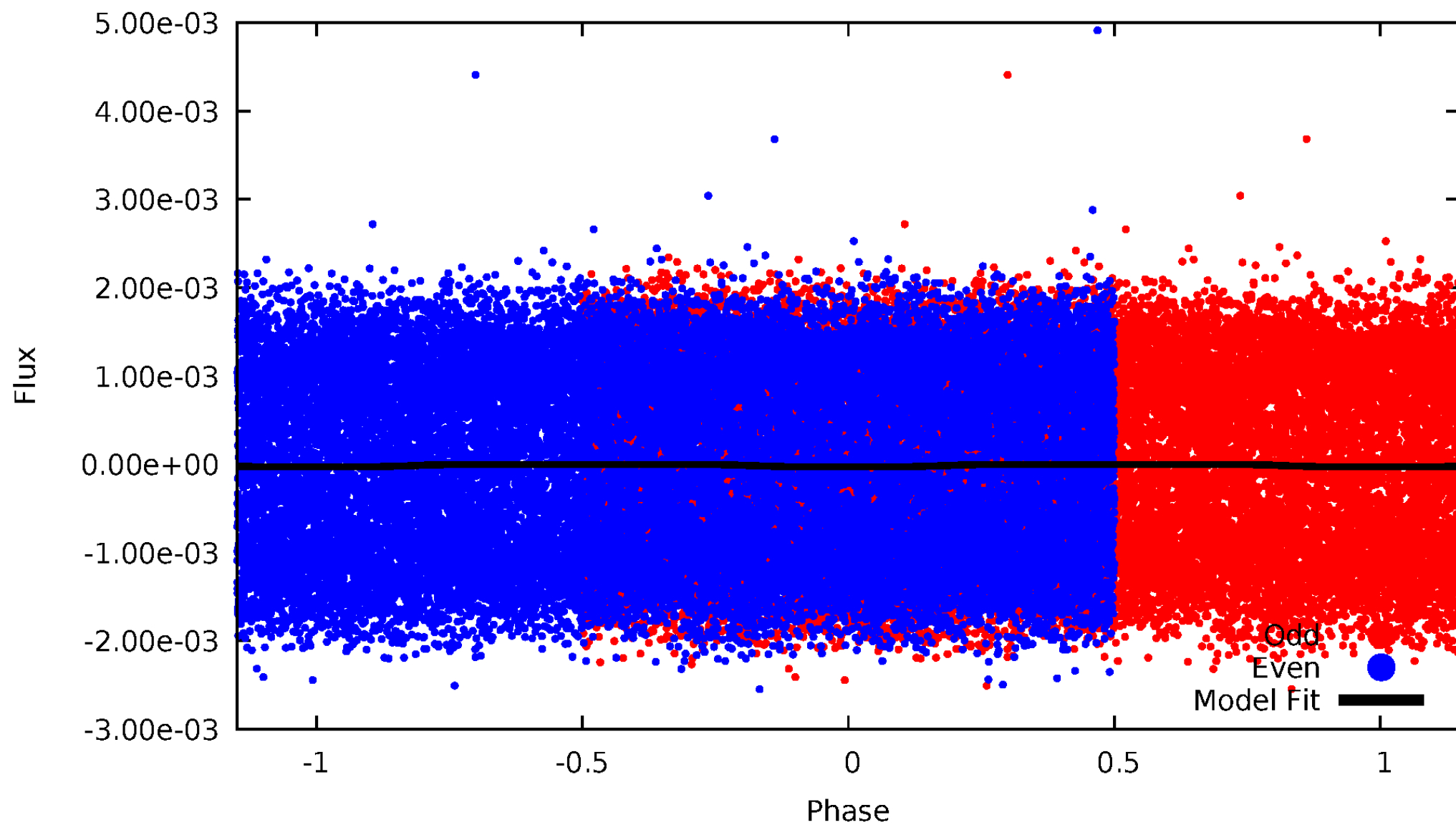
DV Odd/Even

TCE 004391108-01



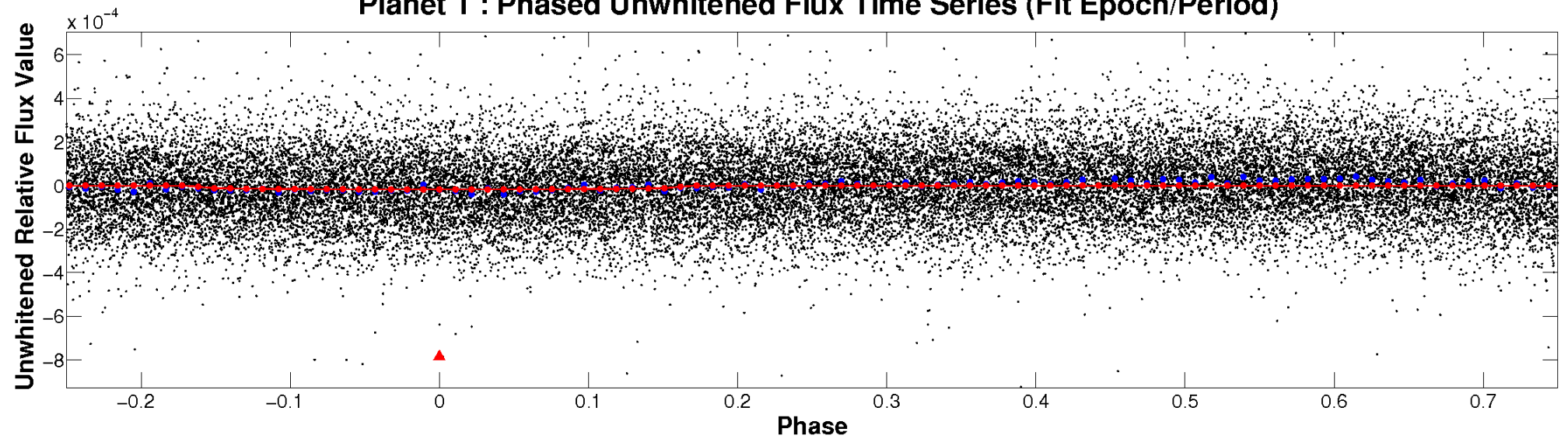
ALT Odd/Even

TCE 004391108-01

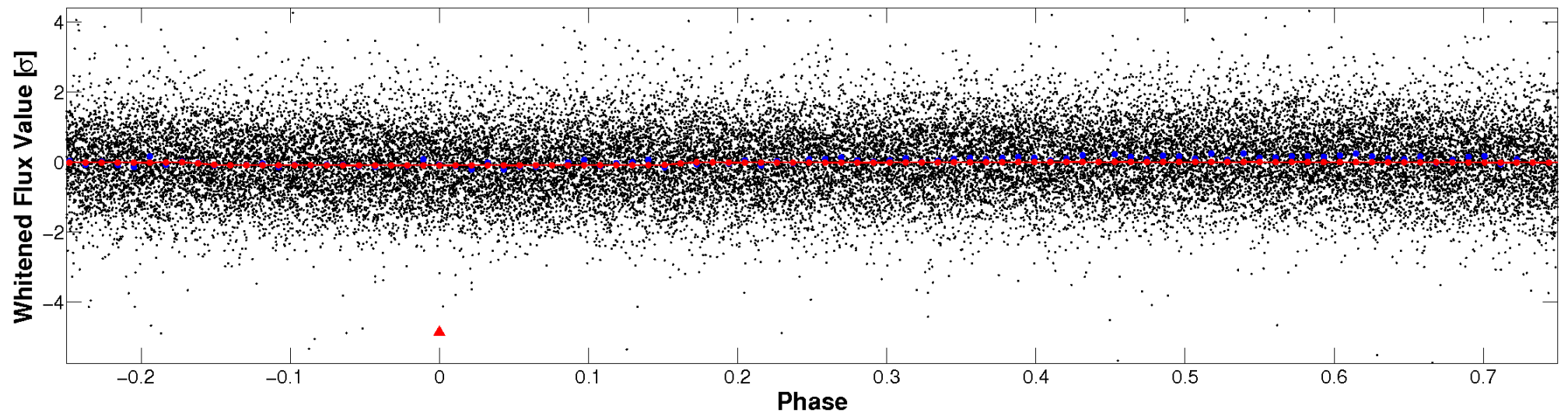


Non-Whitened Vs. Whitened Light Curve

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

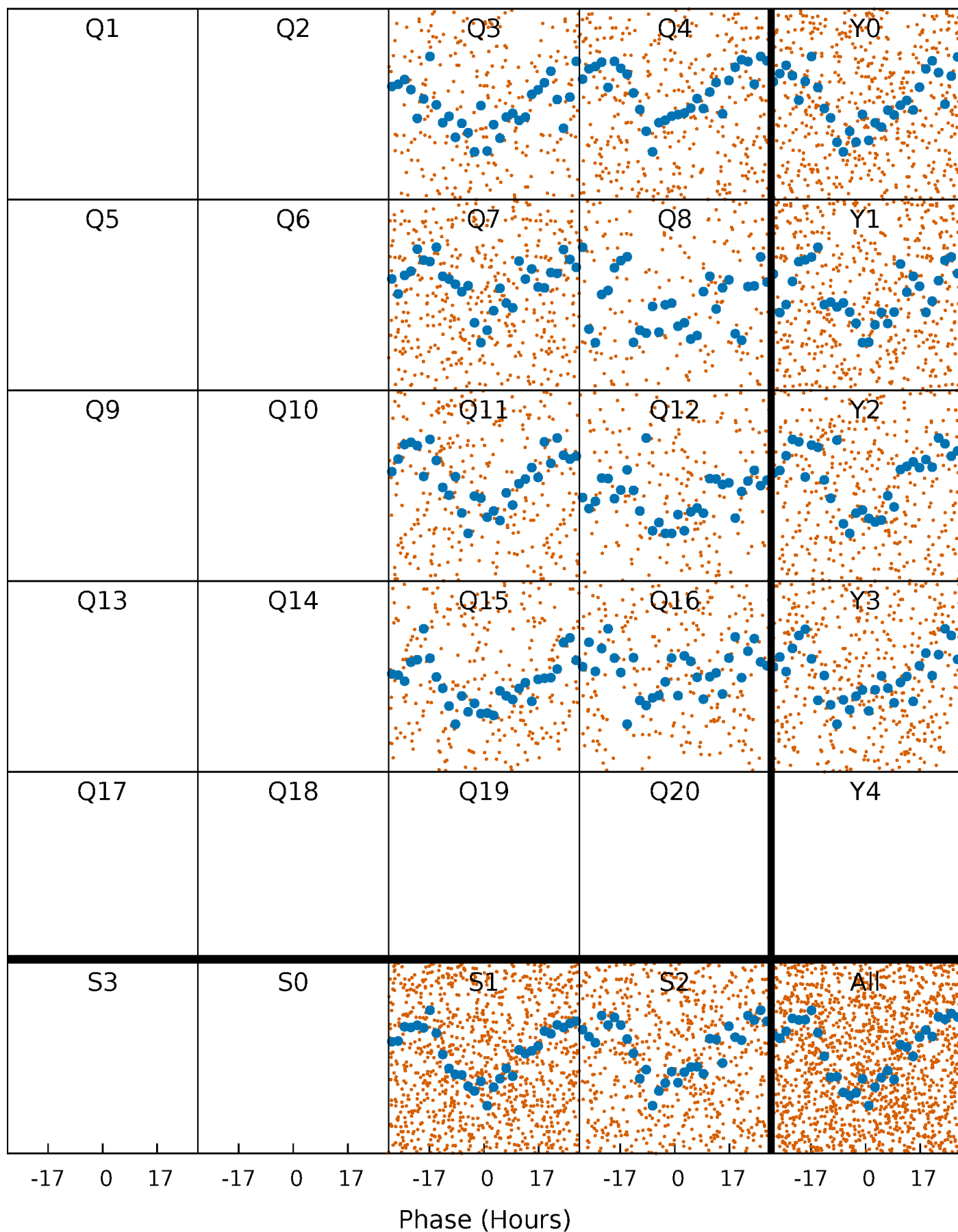


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



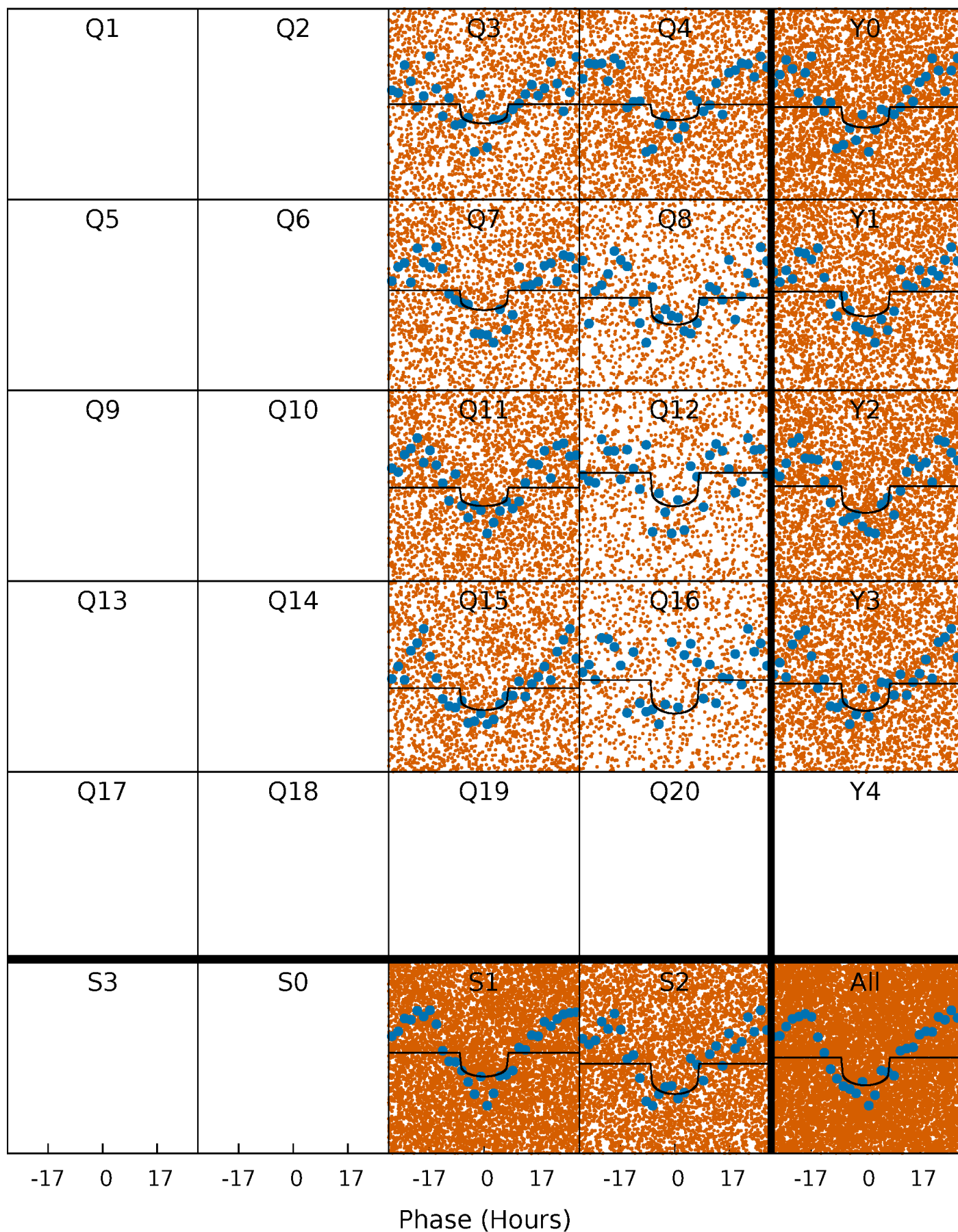
PDC Quarter-Phased Transit Curves

TCE 004391108-01 P= 1.895005 Days $T_0=131.916092$ (BKJD)



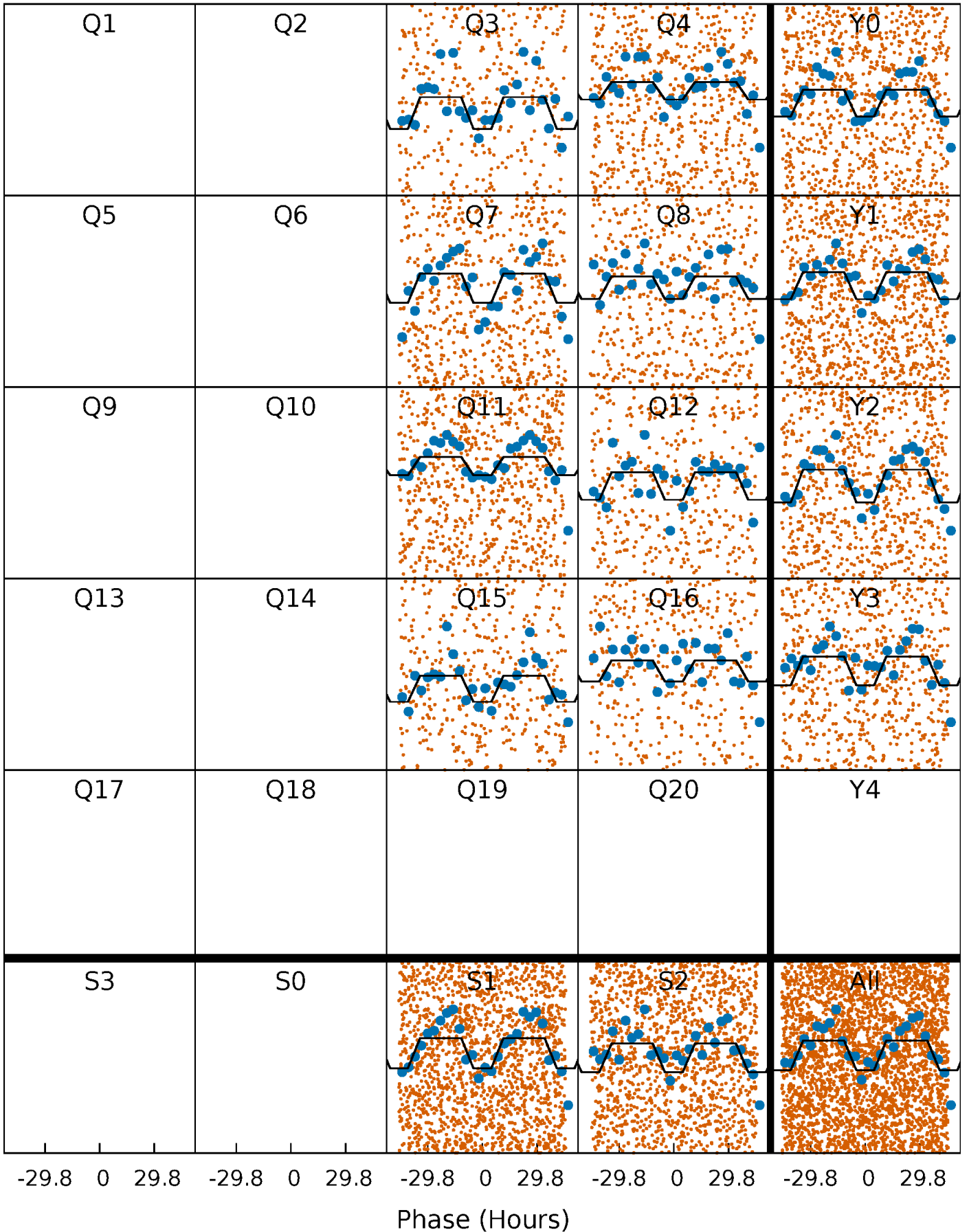
DV Quarter-Phased Transit Curves

TCE 004391108-01 P= 1.895005 Days $T_0=131.916092$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

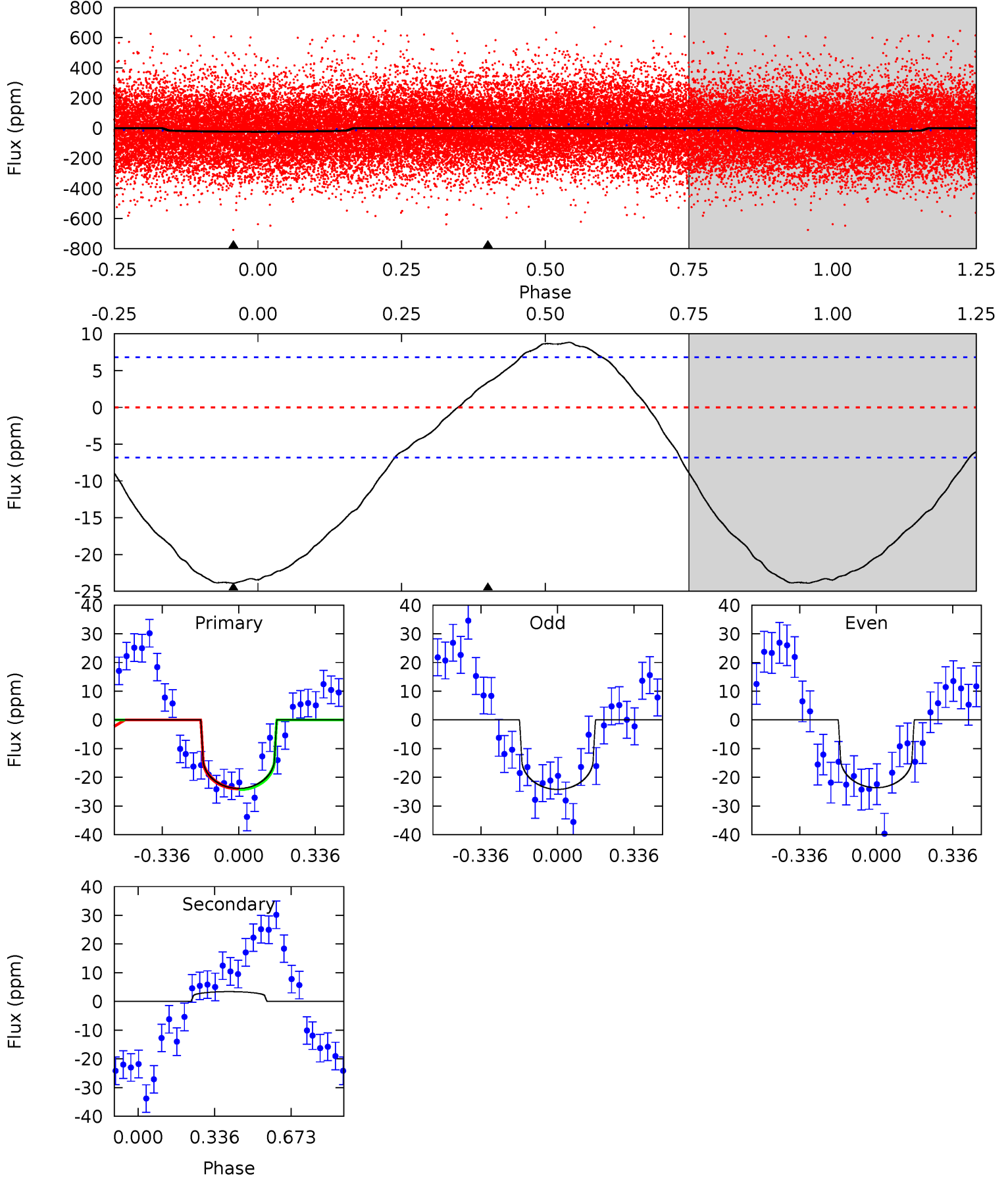
TCE 004391108-01 P= 1.894992 Days $T_0=131.858884$ (BKJD)



DV Model-Shift Uniqueness Test

004391108-01, P = 1.895005 Days, E = 131.916092 Days

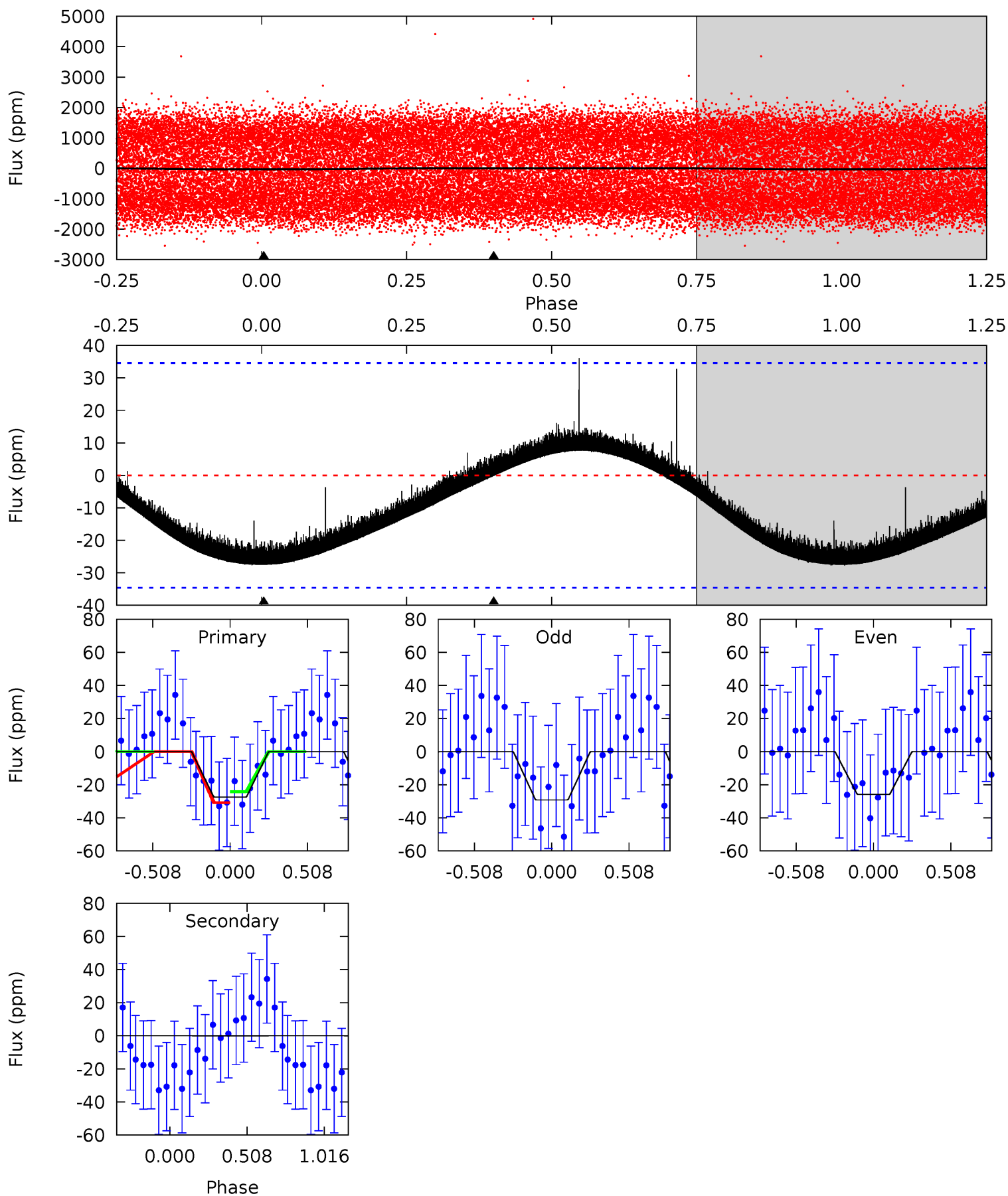
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	-2.16	0	0	4.30	0.96	2.03	15.1	15.1	-2.16	-2.16	0.19	0.95	0.27	0.09



Alt Model-Shift Uniqueness Test

004391108-01, P = 1.894992 Days, E = 131.858884 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.35	0.02	0	0	4.21	0.66	0.41	3.35	3.35	0.02	0.02	0.20	-2.54	0.57	0.40



Stellar Parameters For KIC 004391108

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7884^{+216}_{-351}	$4.040^{+0.155}_{-0.155}$	$0.070^{+0.150}_{-0.400}$	$2.154^{+0.461}_{-0.512}$	$1.853^{+0.147}_{-0.344}$	$0.261^{+0.231}_{-0.105}$
	+3%/-4%	+4%/-4%	+214%/-571%	+21%/-24%	+8%/-19%	+89%/-40%
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 004391108-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	3 ± 2	$1.16^{+1.02}_{-0.72}$	3708^{+236}_{-253}	-4843^{+833}_{-2496}	$-1.718^{+1.313}_{-9.910}$
Alt.	-0 ± 8	$1.35^{+1.06}_{-0.79}$	3707^{+240}_{-246}	-3265^{+9193}_{-2648}	$0.094^{+5.517}_{-4.209}$

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 $A_{obs} \gg 1.0$

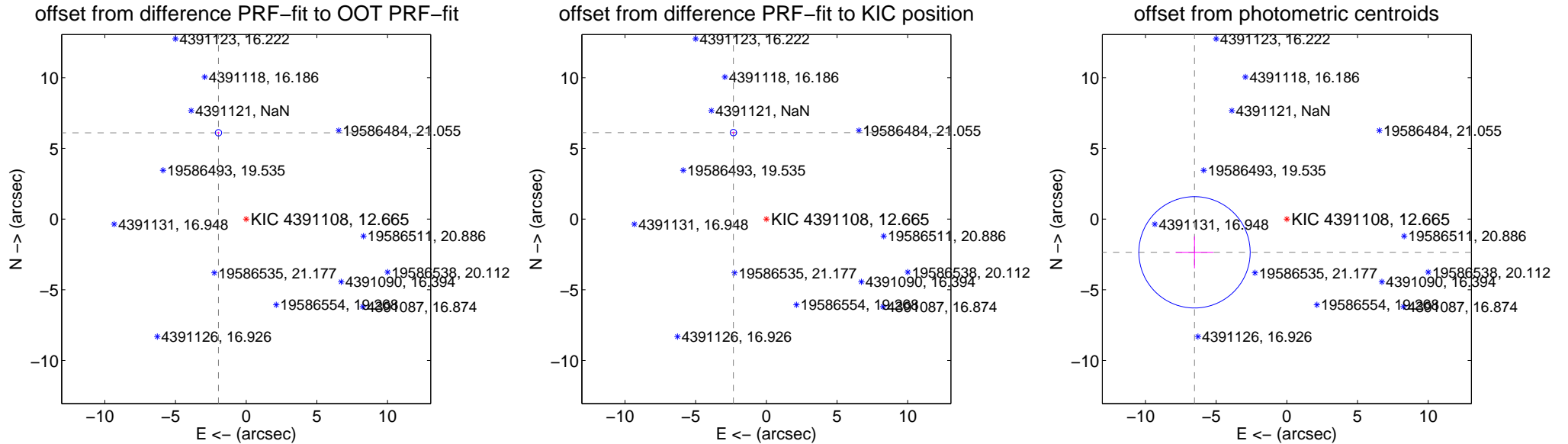
DV Centroid Data

Supplemental centroid analysis for 004391108-01. Kepler magnitude: 12.66. Transit SNR 9.11

There are 0 quarters with good PRF difference image offsets

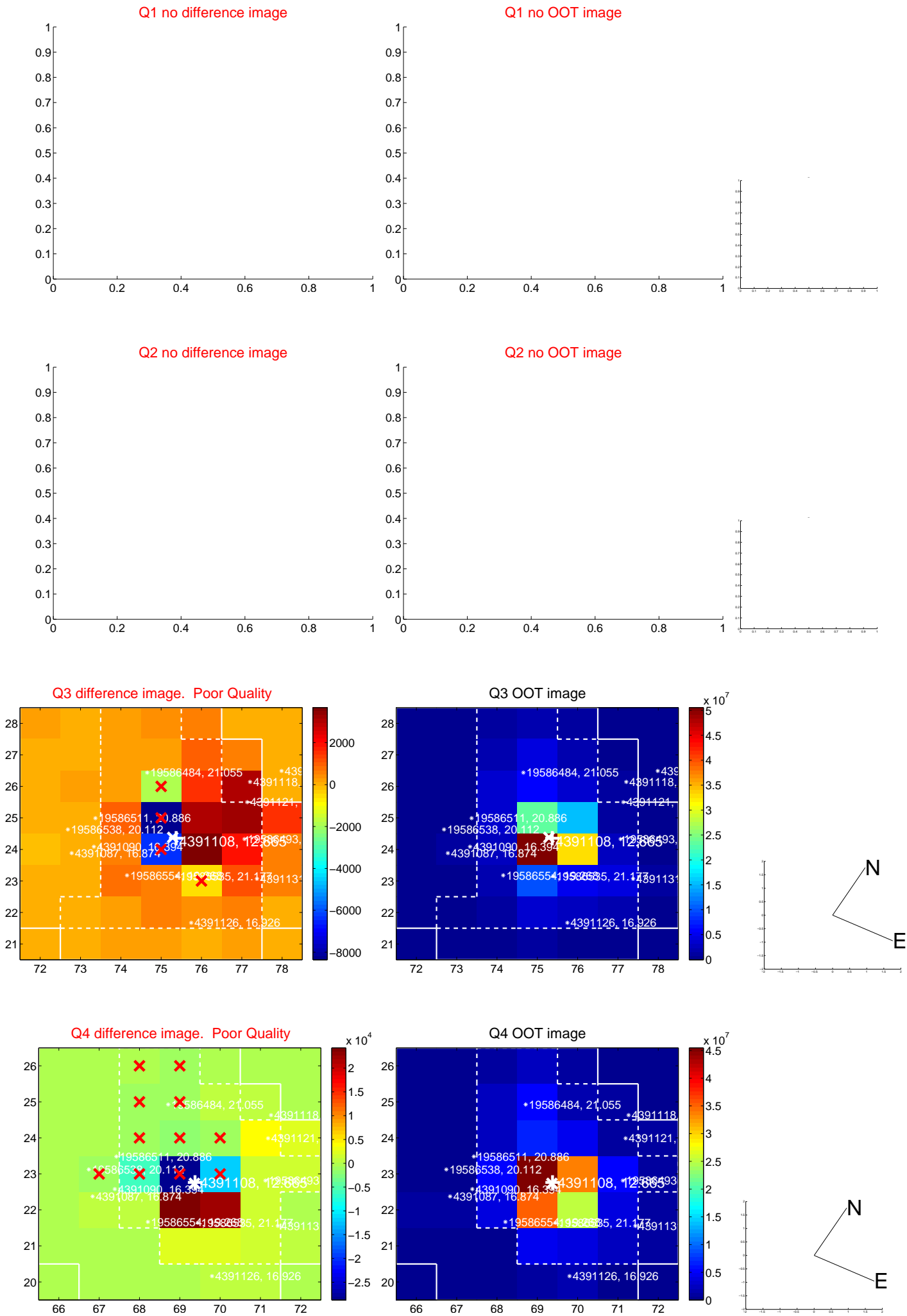
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.410 ± 0.075	85.00	1.960 ± 0.082	6.103 ± 0.075
PRF-fit source offset from KIC position	6.545 ± 0.076	86.51	2.332 ± 0.082	6.115 ± 0.075
photometric centroid source offset	6.94 ± 1.31	5.29	6.53 ± 1.33	-2.35 ± 1.13

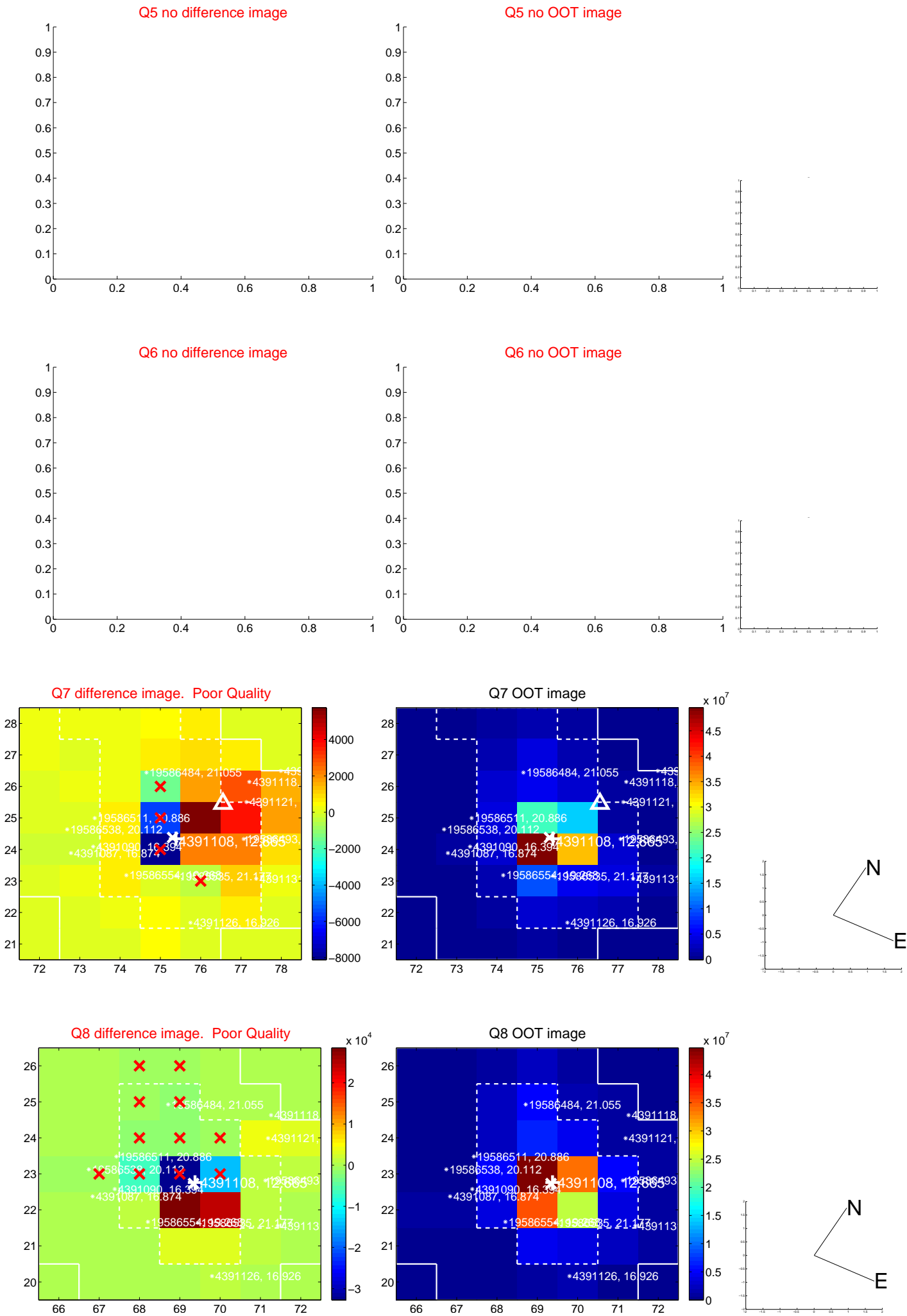


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

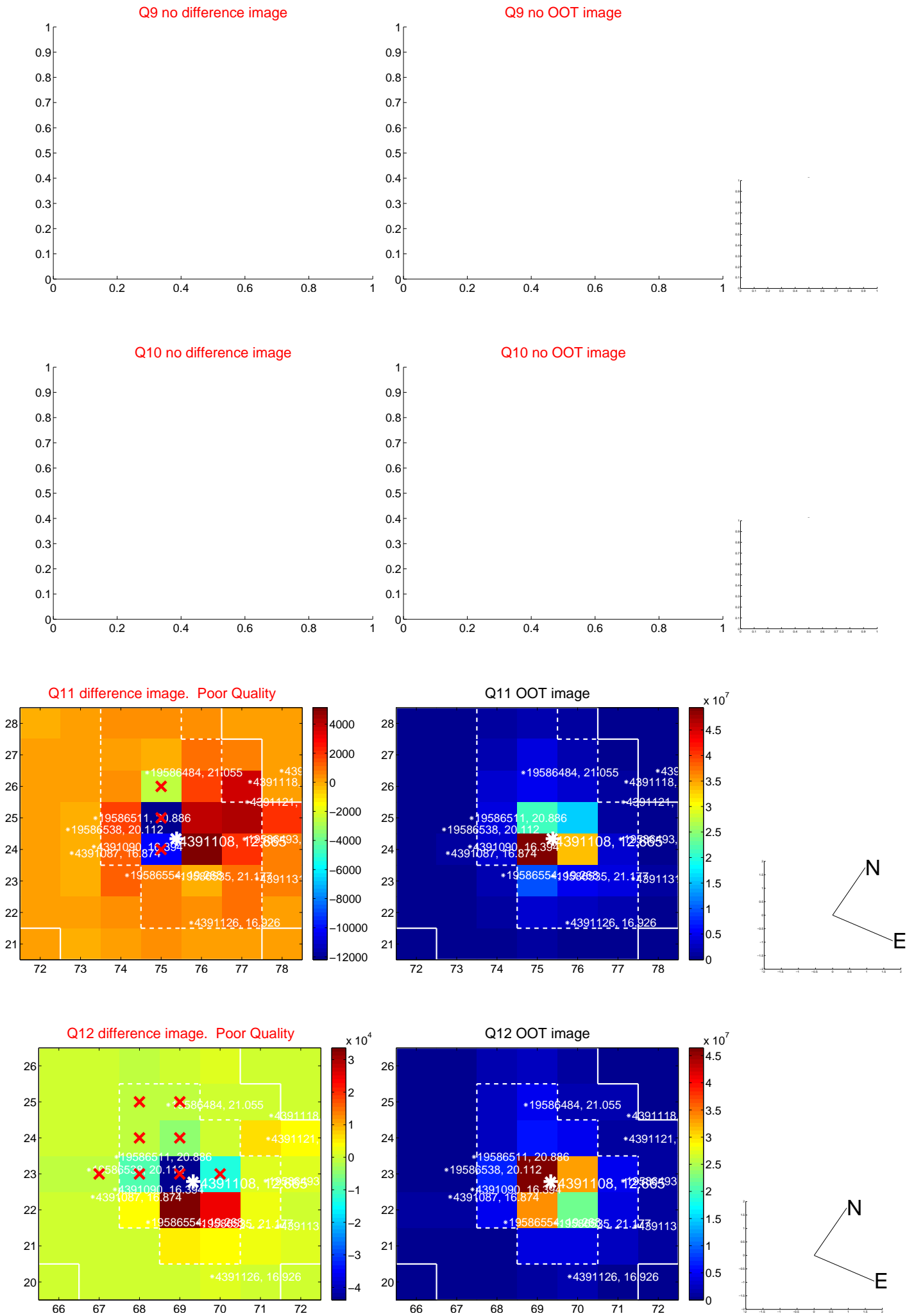
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



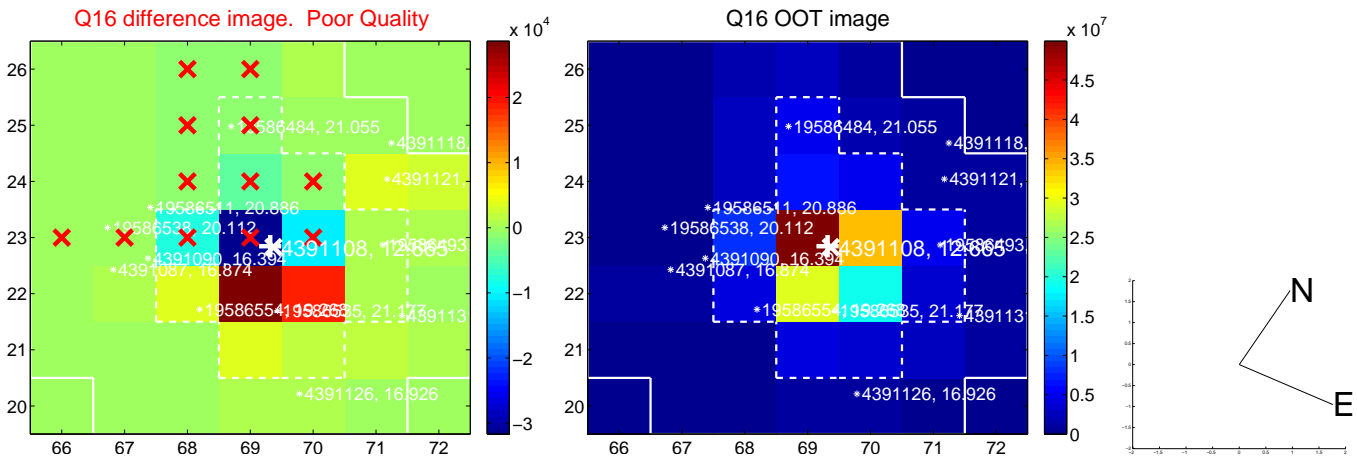
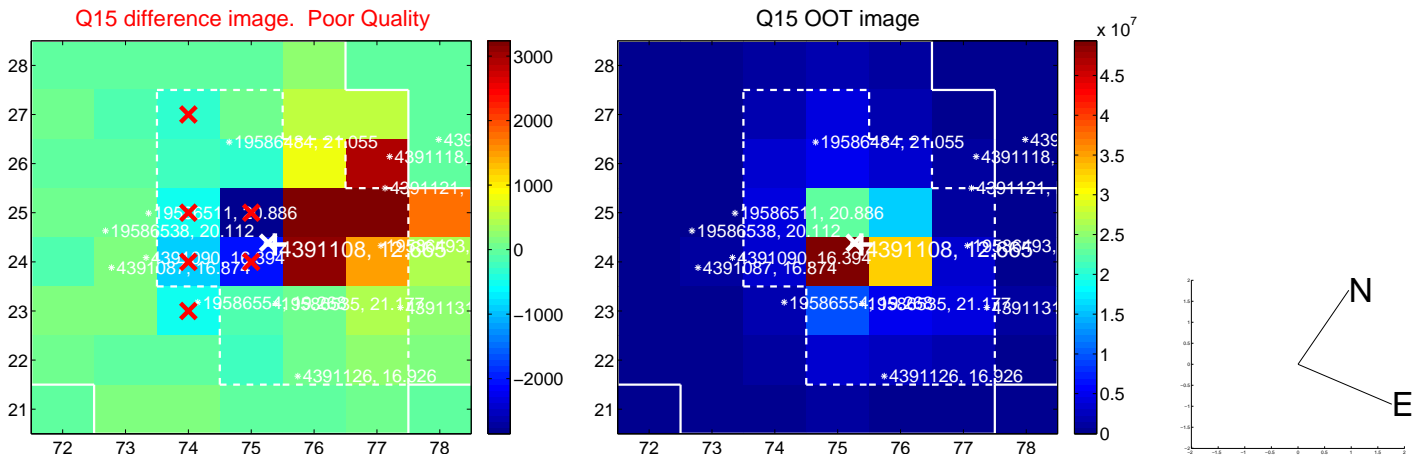
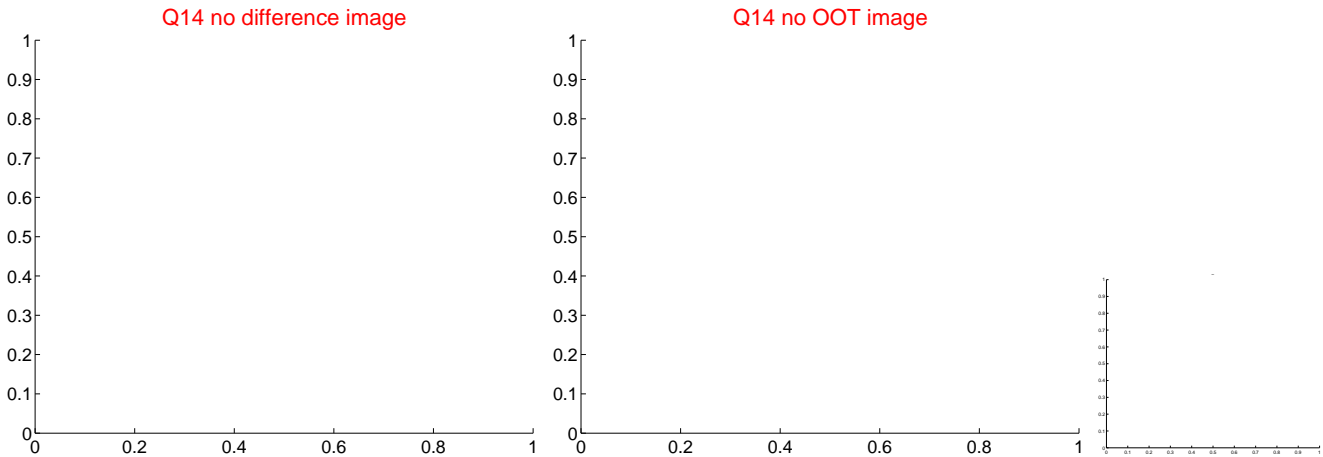
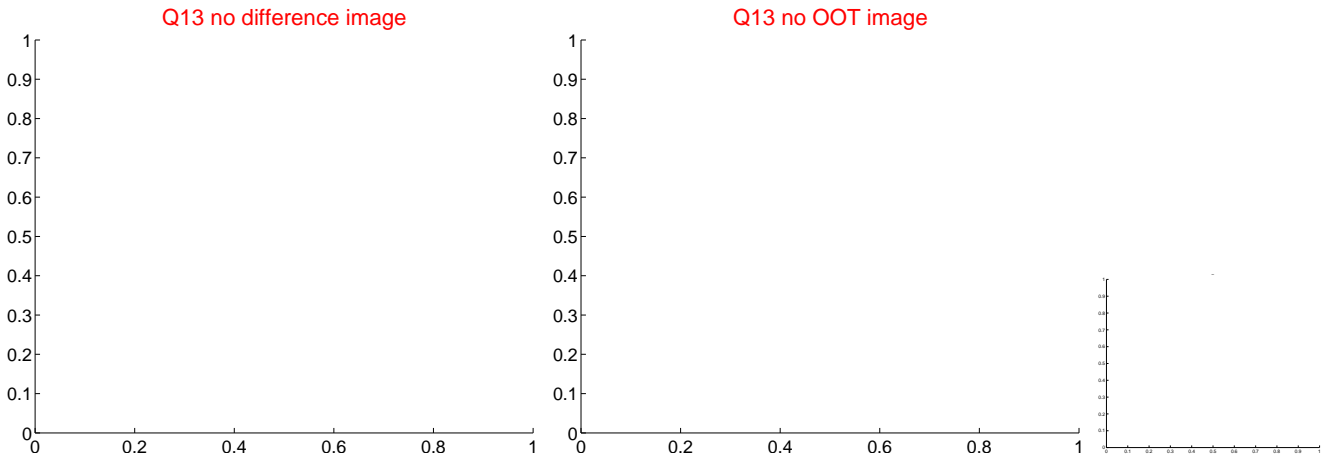
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



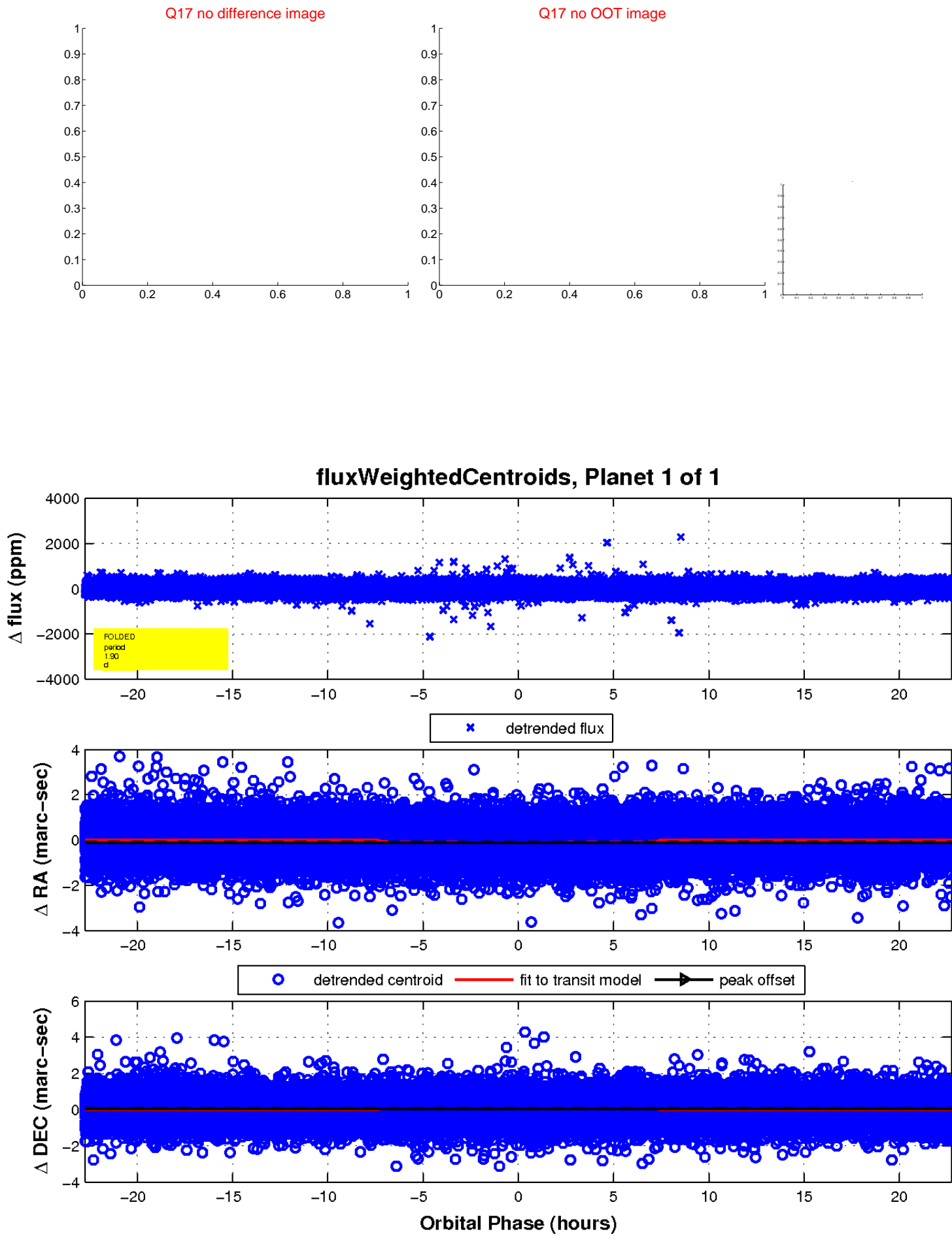
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UKIRT Image

Declination

