

KIC 007362420

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})
007362420-01	OBS	No	0.566722	131.905326	14.4	3.737	11.5	3.9	0.89	5602	0.34	4684.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007362420-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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.

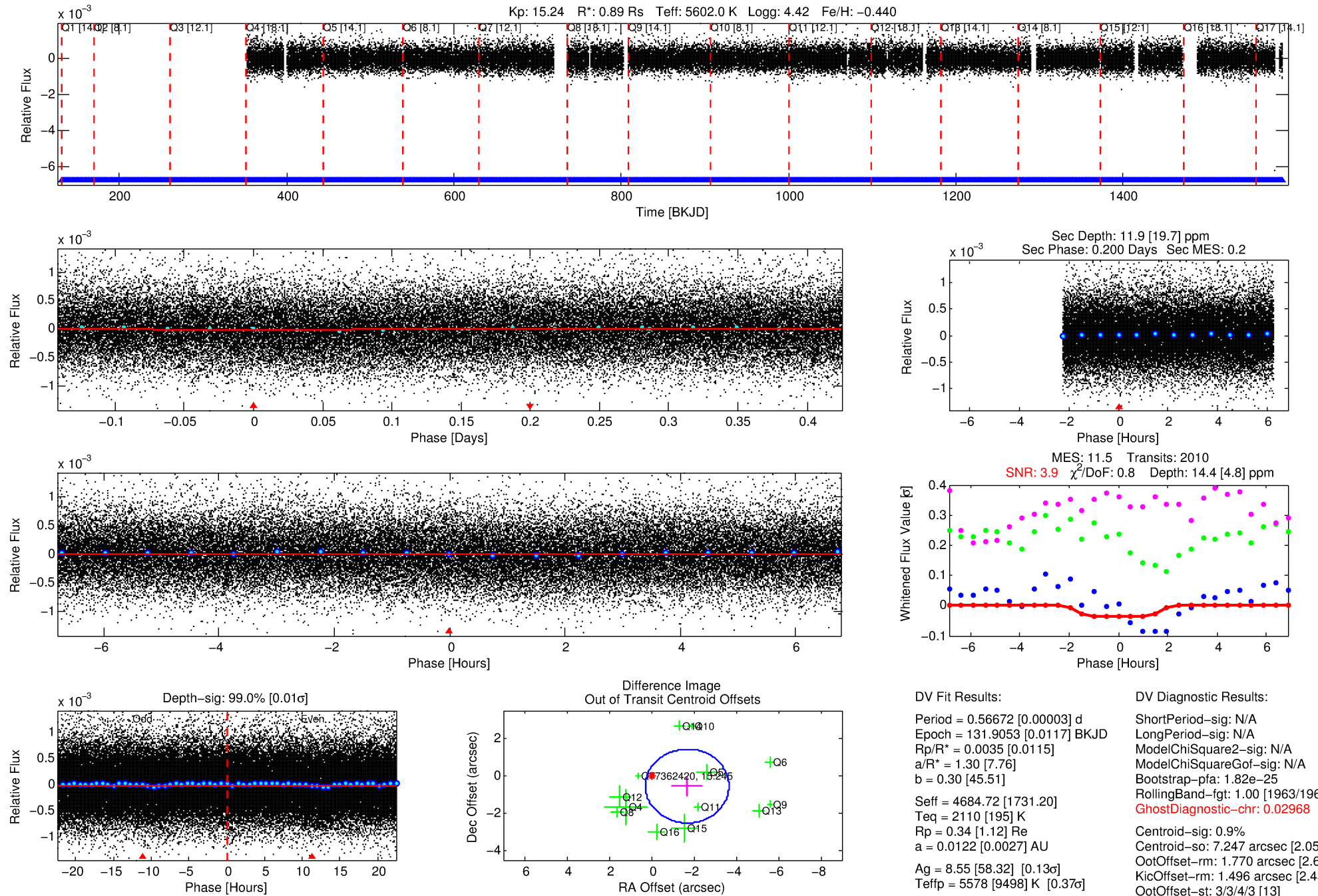
Ephemeris Match Information For 007362420-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007362420-01	7362420	RR-Lyr-pri	7198959	1:1	966.7	-3	243	7.86	15.24	44521.00	Direct-PRF	0	0.85	11.98

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

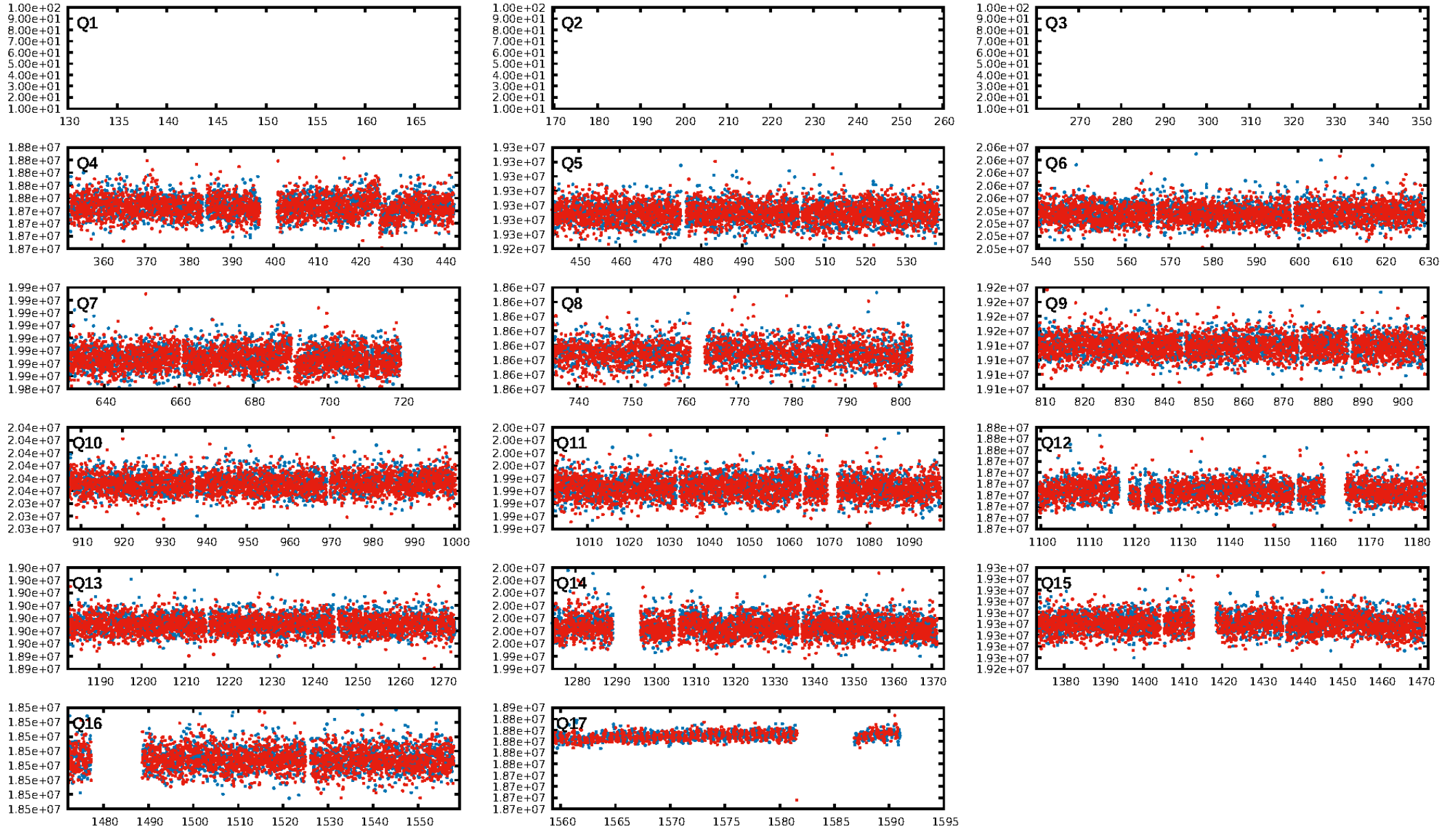
KIC: 7362420 Candidate: 1 of 1 Period: 0.567 d



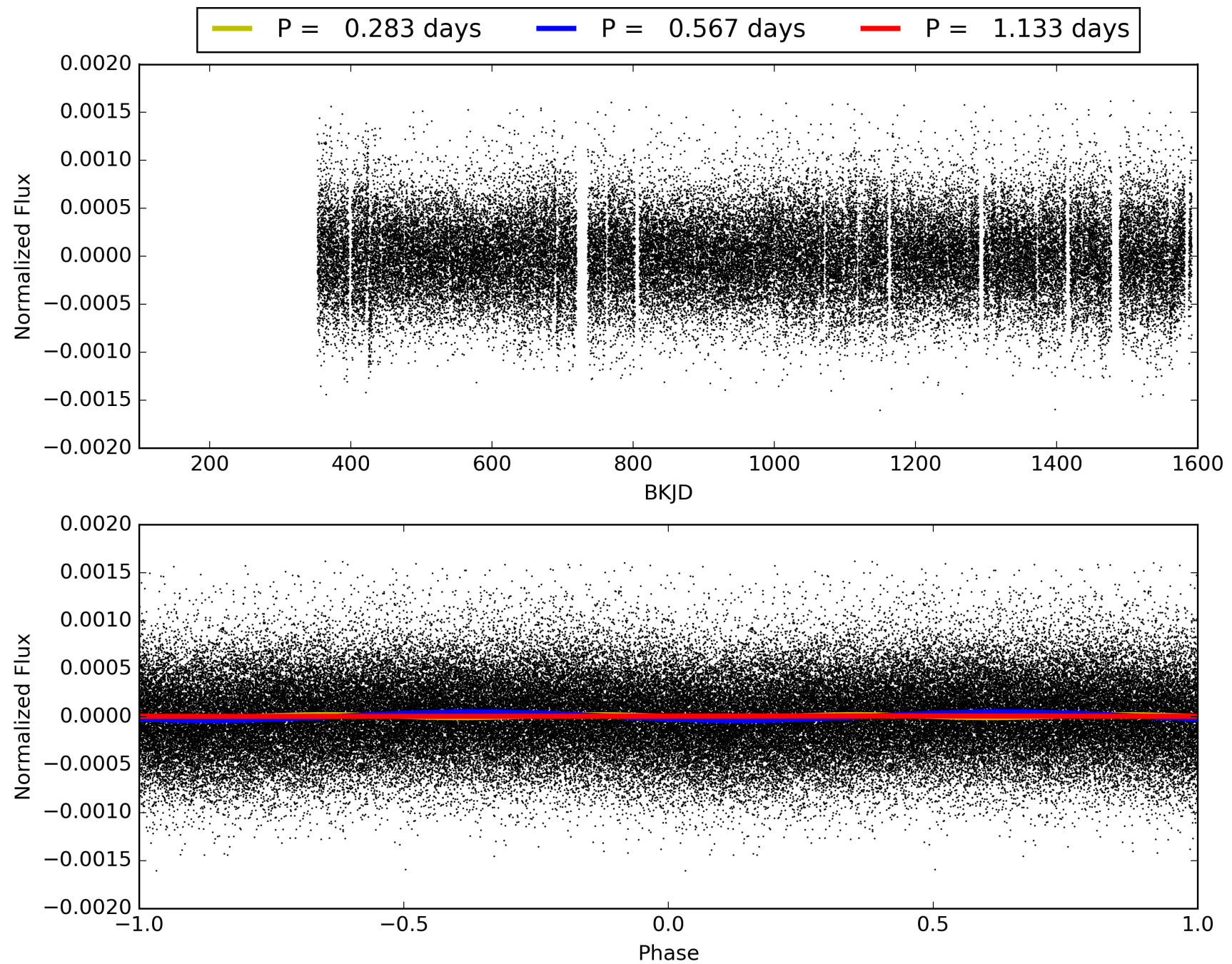
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:43:48 Z

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

TCE 007362420-01, PDC Light Curves

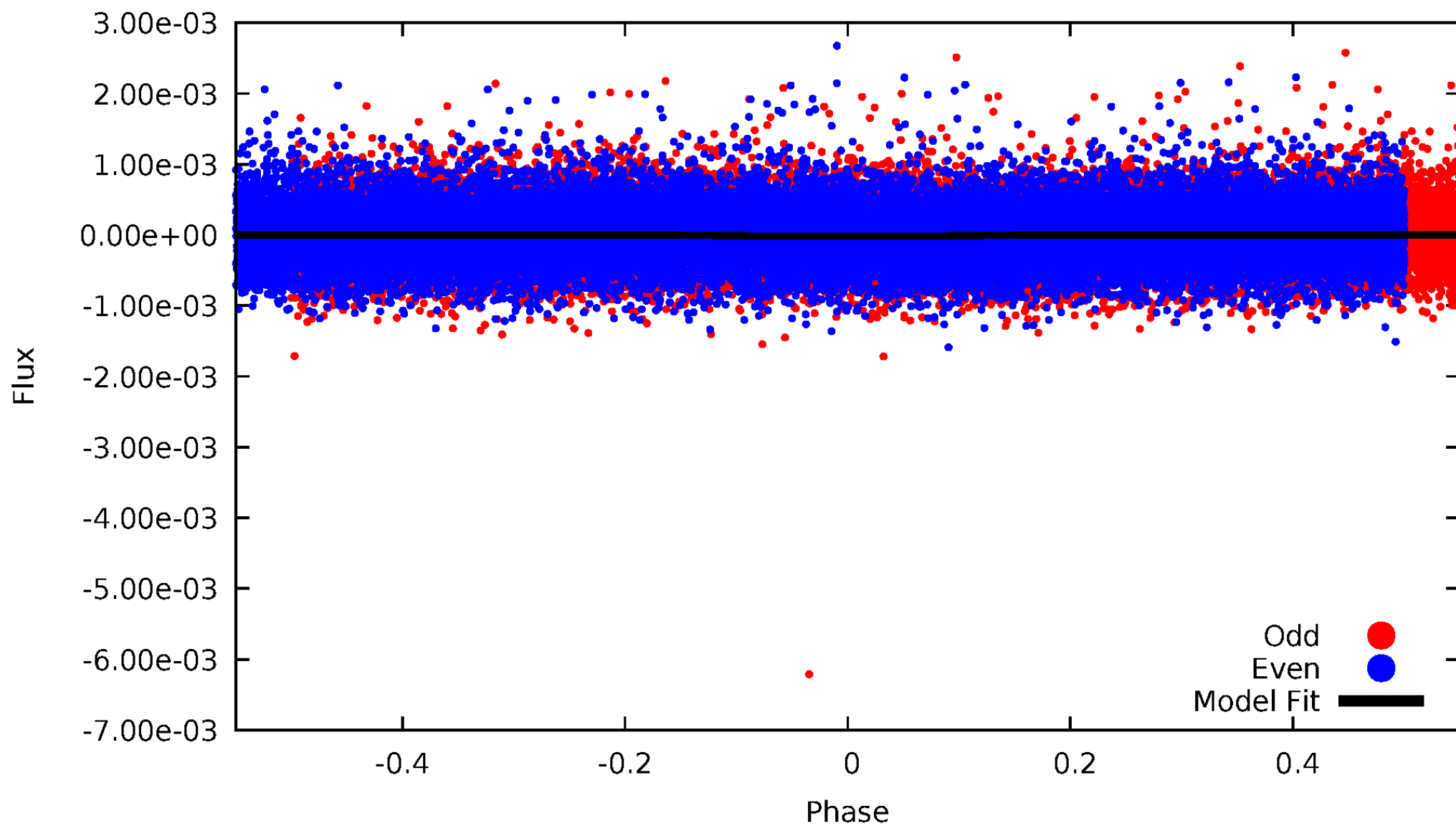


TCE 007362420-01



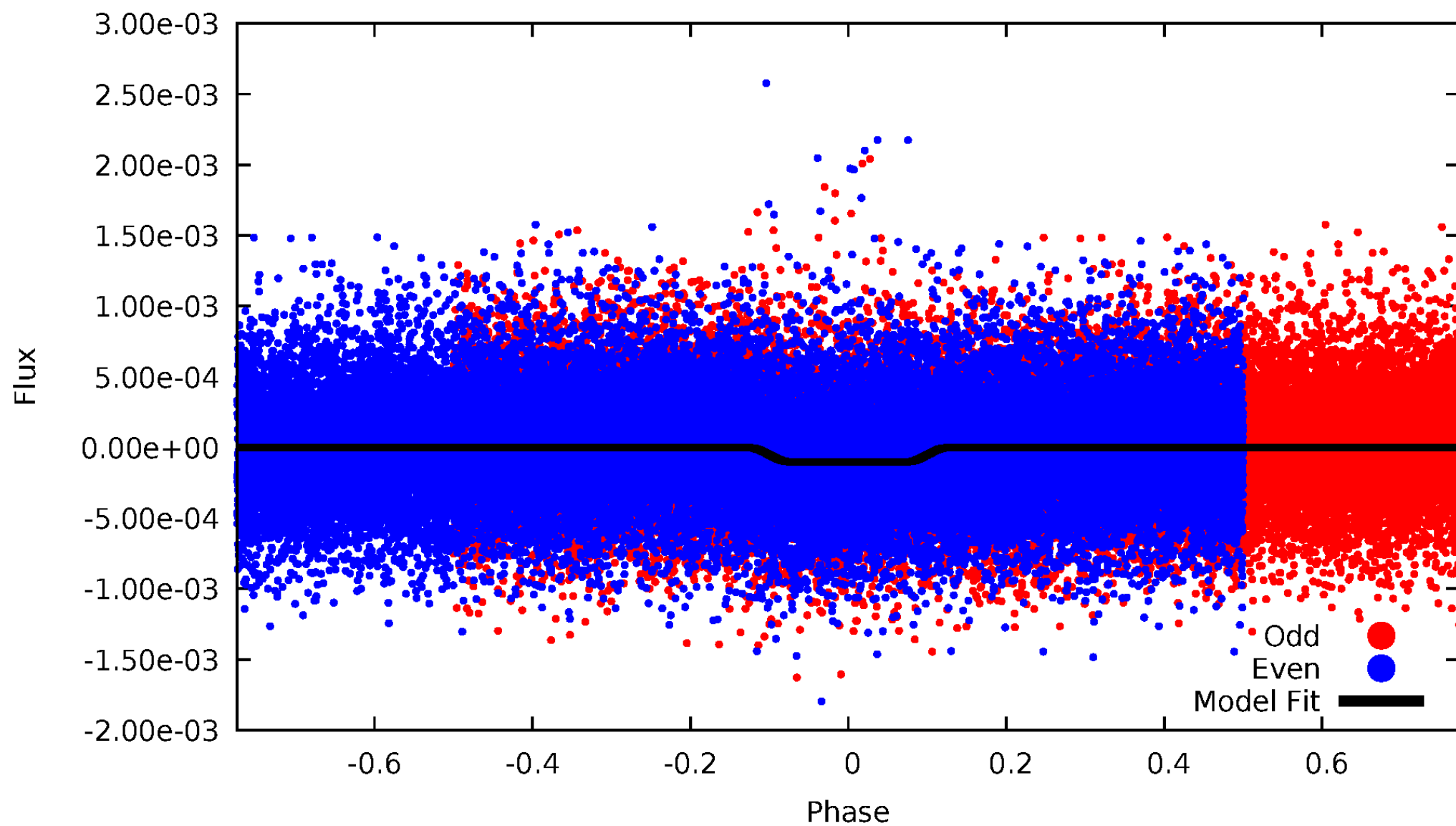
DV Odd/Even

TCE 007362420-01



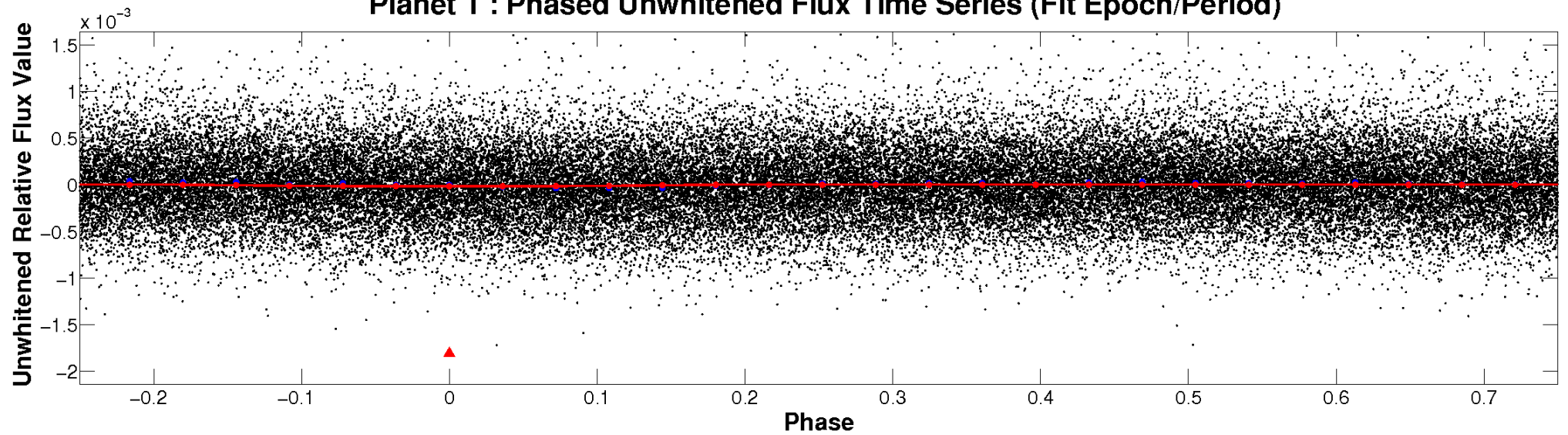
ALT Odd/Even

TCE 007362420-01

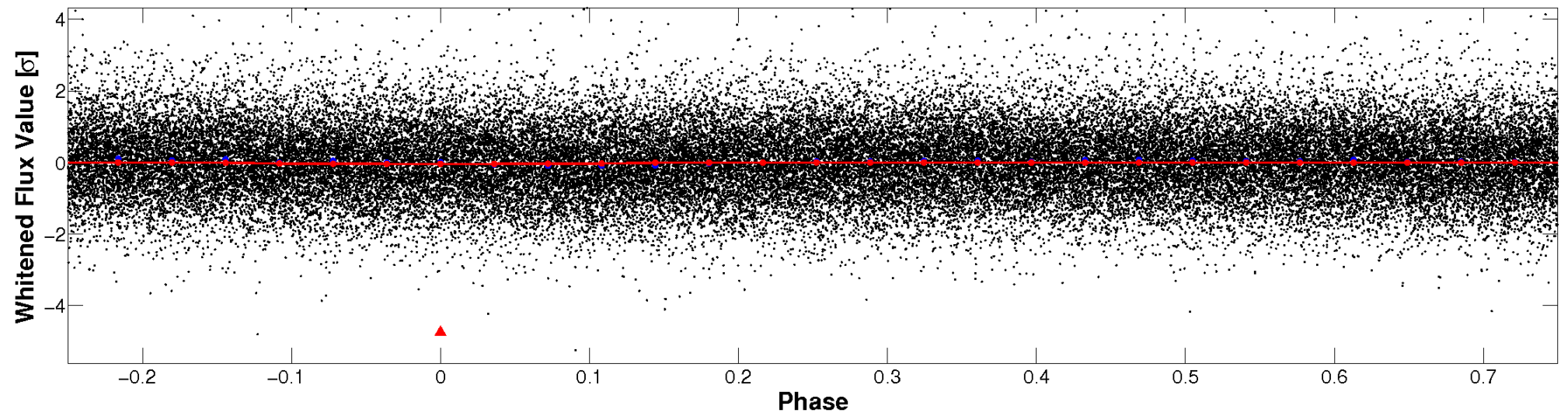


Non-Whitened Vs. Whitened Light Curve

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

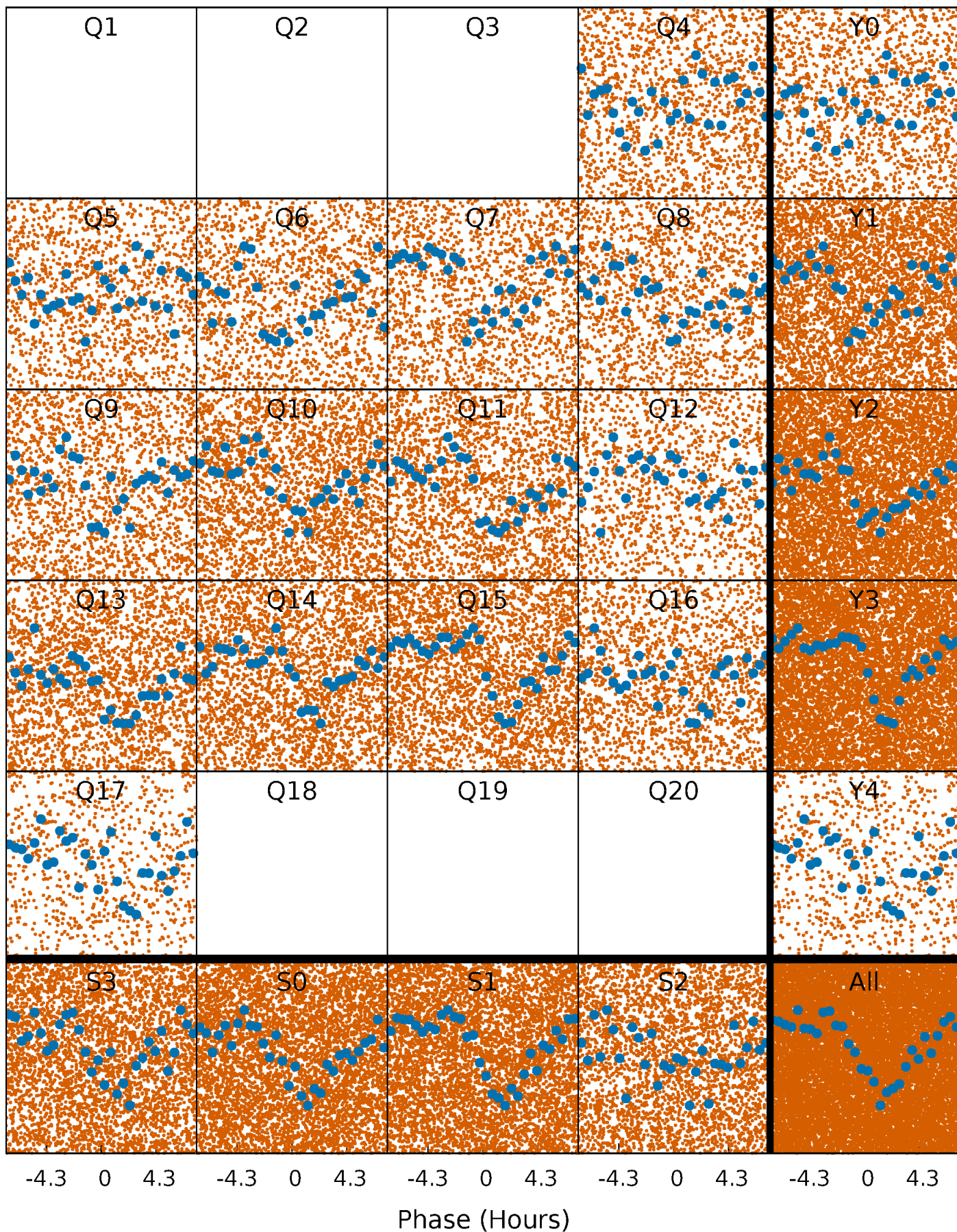


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



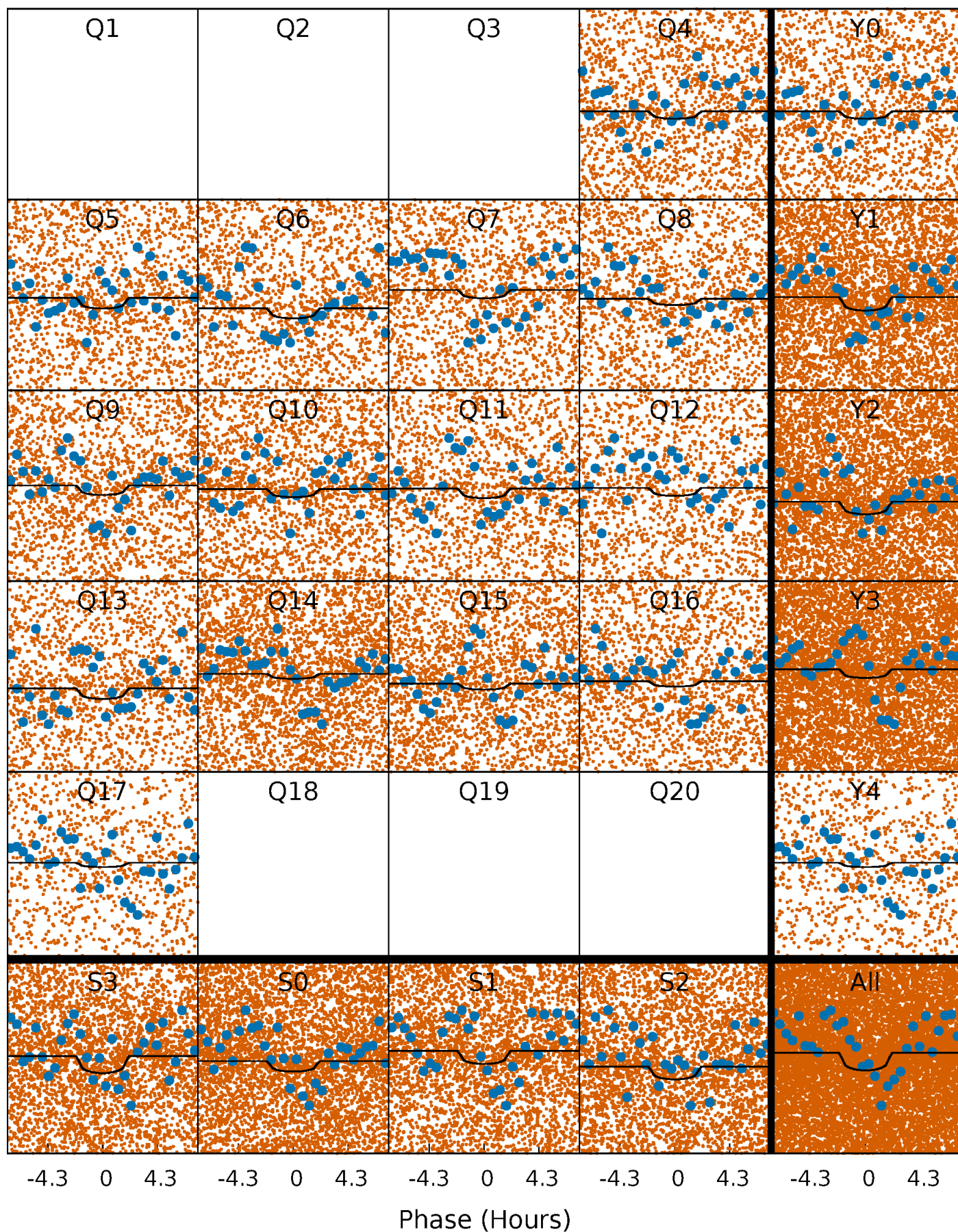
PDC Quarter-Phased Transit Curves

TCE 007362420-01 P= 0.566722 Days $T_0=131.905326$ (BKJD)



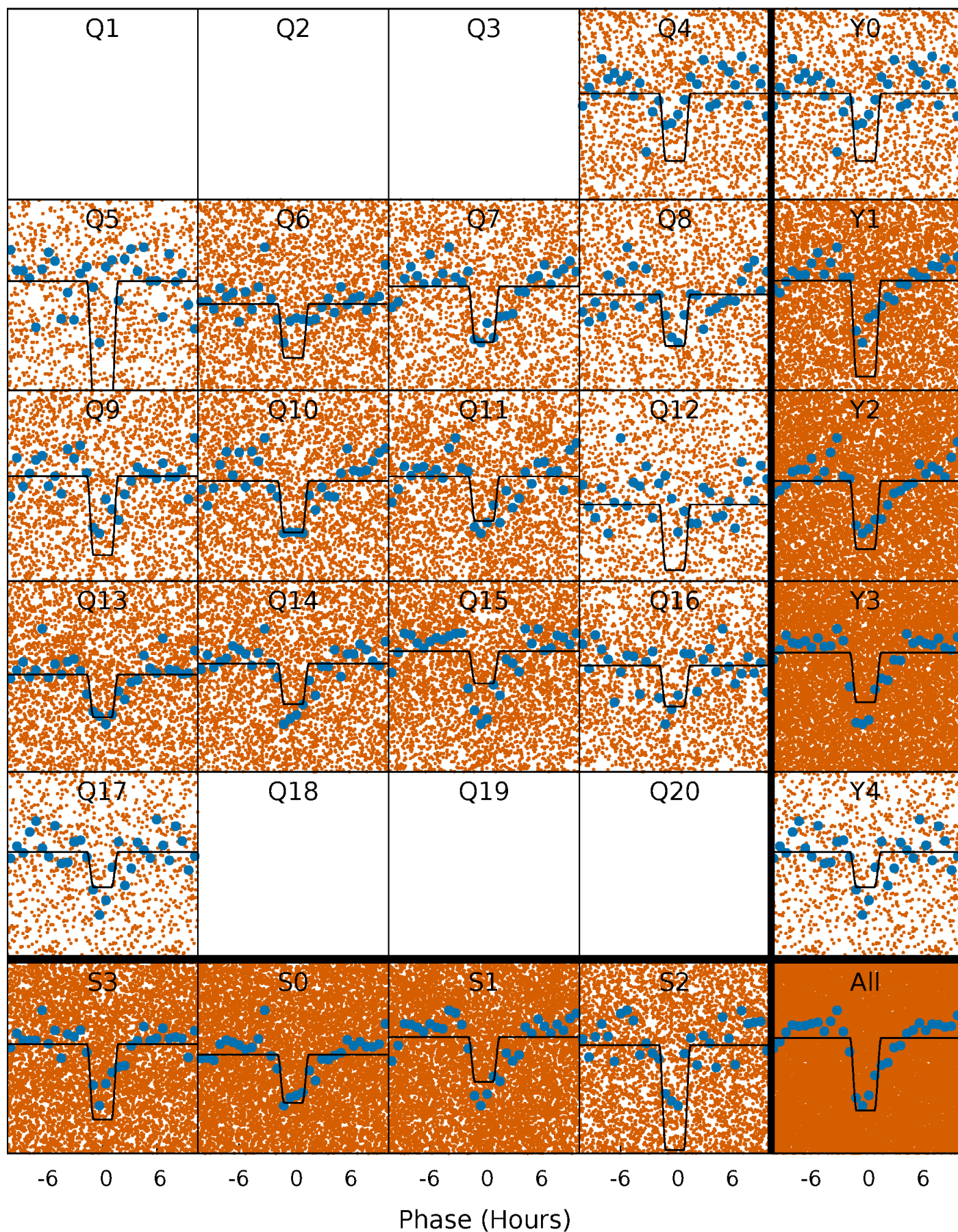
DV Quarter-Phased Transit Curves

TCE 007362420-01 P= 0.566722 Days $T_0=131.905326$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

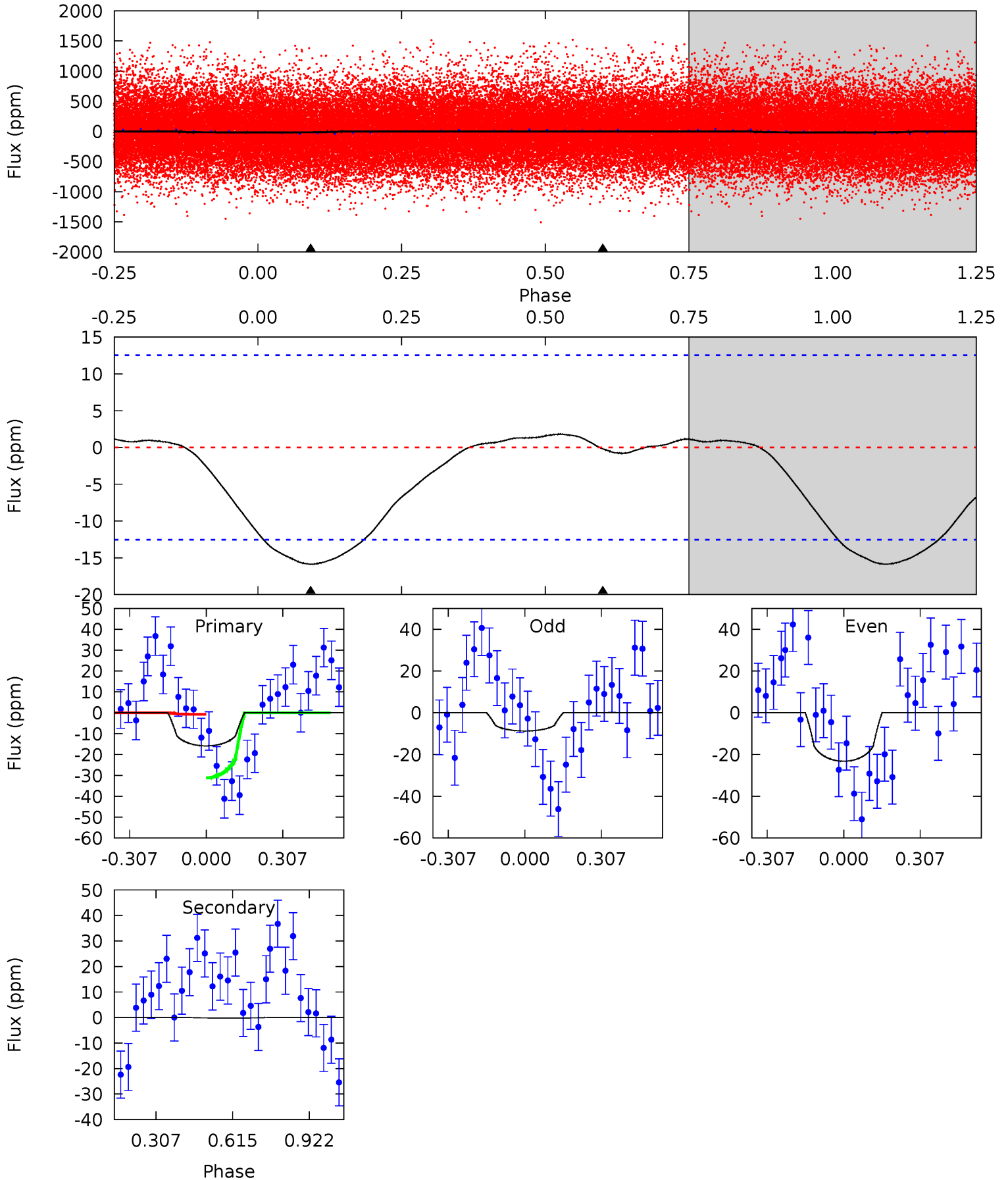
TCE 007362420-01 P= 0.566795 Days $T_0=131.830016$ (BKJD)



DV Model-Shift Uniqueness Test

007362420-01, P = 0.566722 Days, E = 131.905326 Days

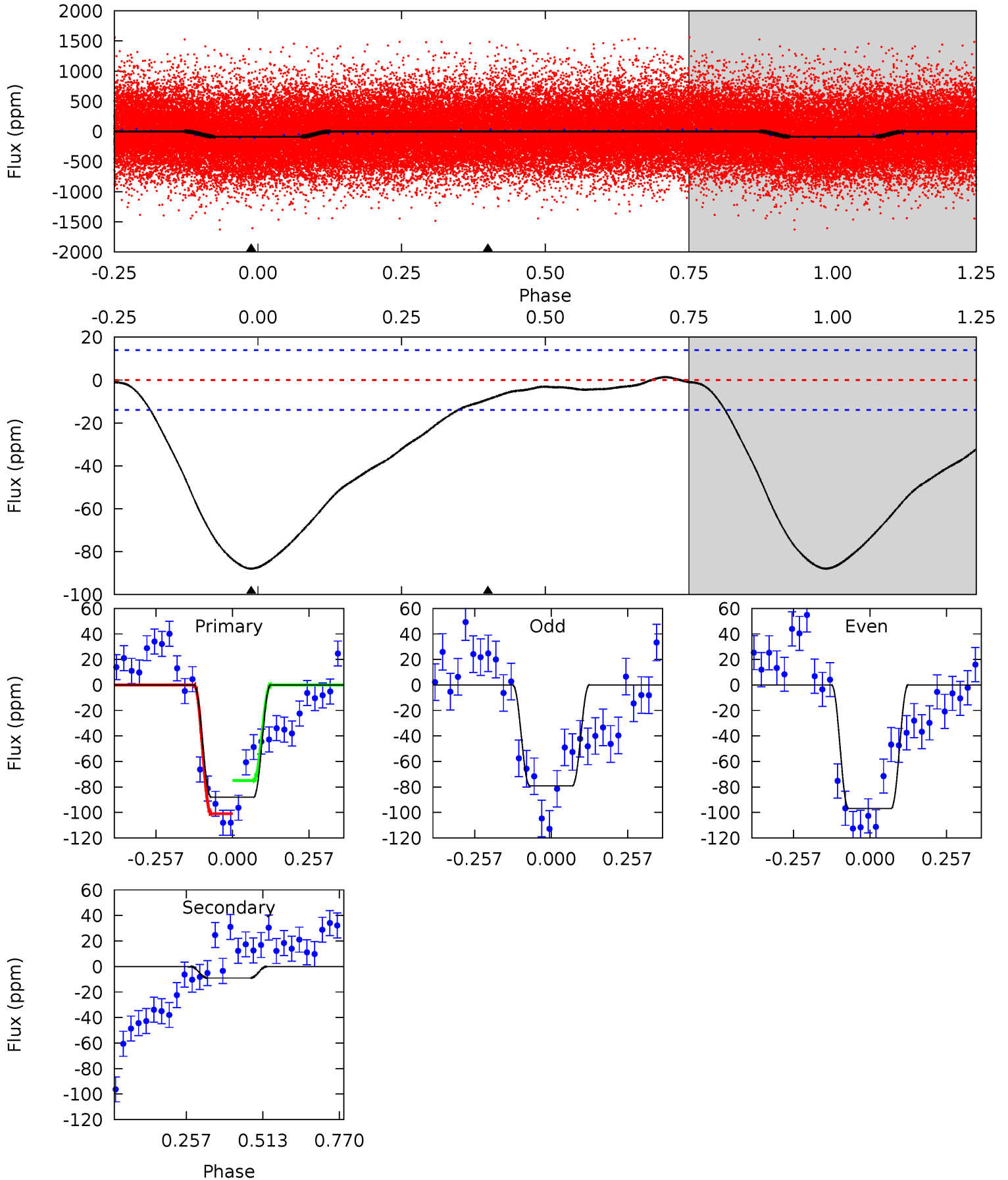
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.47	0.07	0	0	4.32	1.02	0.37	5.47	5.47	0.07	0.07	2.50	0.95	0.10	5.20



Alt Model-Shift Uniqueness Test

007362420-01, P = 0.566795 Days, E = 131.830016 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.5	2.82	0	0	4.36	1.13	0.43	27.5	27.5	2.82	2.82	2.78	1.03	0.02	4.04



Stellar Parameters For KIC 007362420

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5602^{+203}_{-186}	$4.419^{+0.158}_{-0.193}$	$-0.440^{+0.300}_{-0.300}$	$0.892^{+0.223}_{-0.148}$	$0.761^{+0.124}_{-0.044}$	$1.511^{+1.051}_{-0.710}$
	+4%/-3%	+4%/-4%	+68%/-68%	+25%/-17%	+16%/-6%	+70%/-47%
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 007362420-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-0 ± 3	$0.94^{+0.90}_{-0.63}$	2958^{+226}_{-191}	-3046^{+5910}_{-480}	$0.011^{+0.472}_{-0.433}$
Alt.	-9 ± 3	$1.26^{+1.16}_{-0.77}$	2952^{+224}_{-188}	2763^{+1662}_{-5630}	$0.453^{+2.689}_{-0.332}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

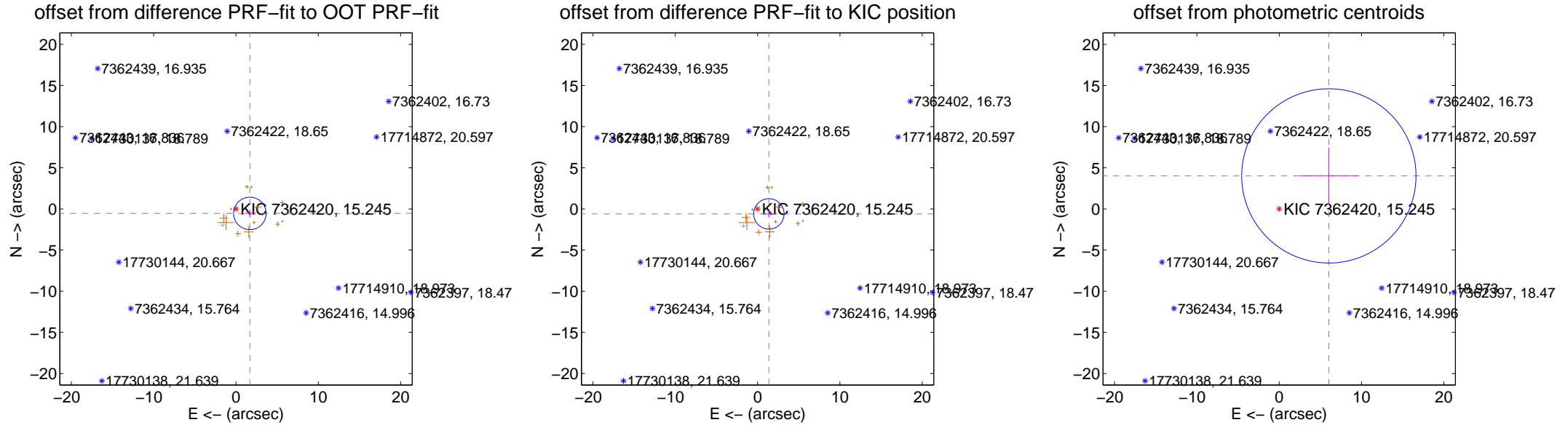
DV Centroid Data

Supplemental centroid analysis for 007362420-01. Kepler magnitude: 15.24. Transit SNR 3.93

There are 1 quarters with good PRF difference image offsets

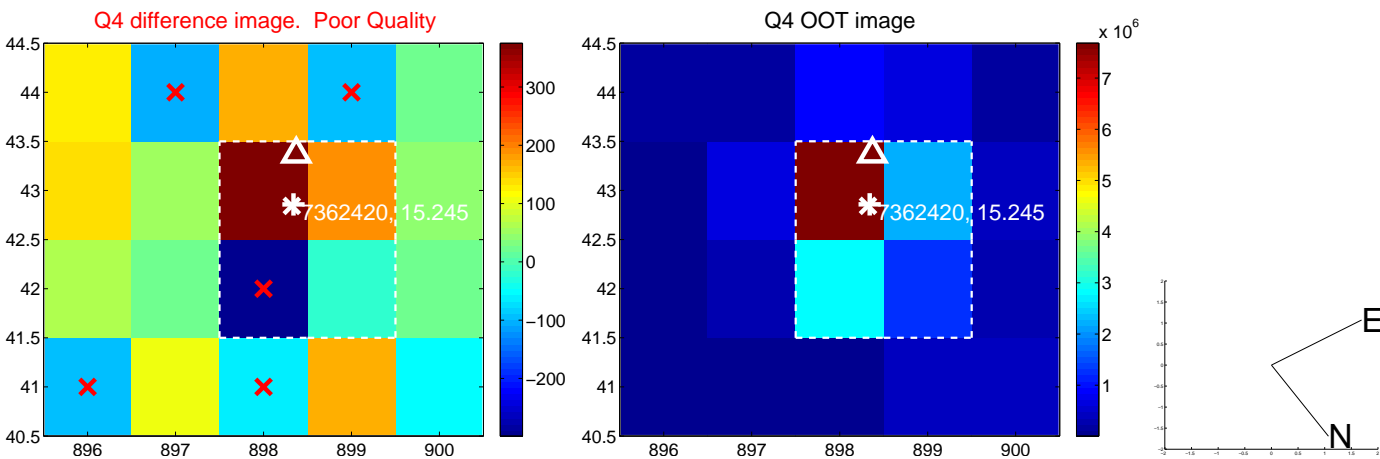
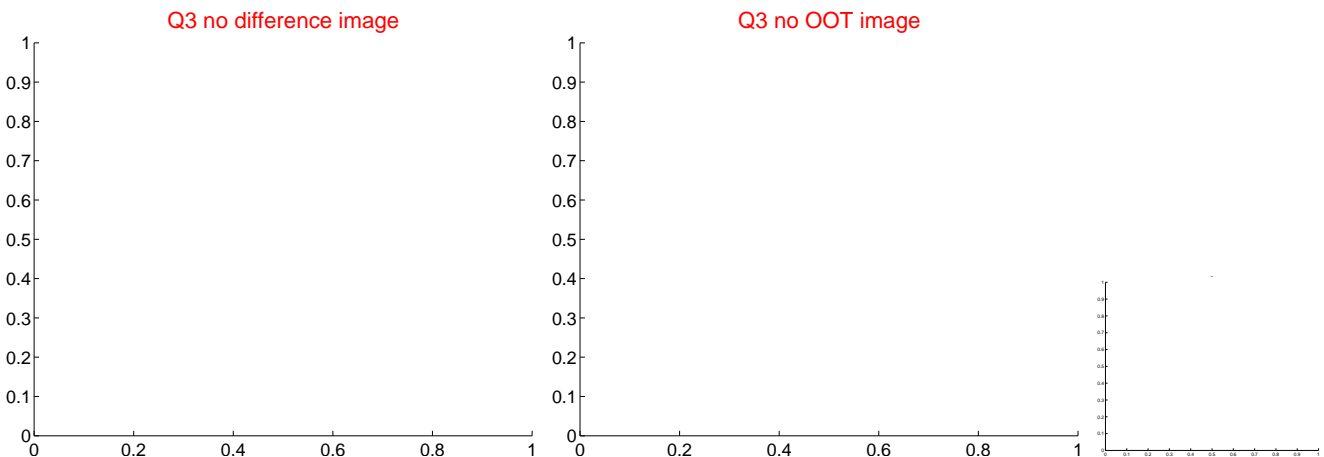
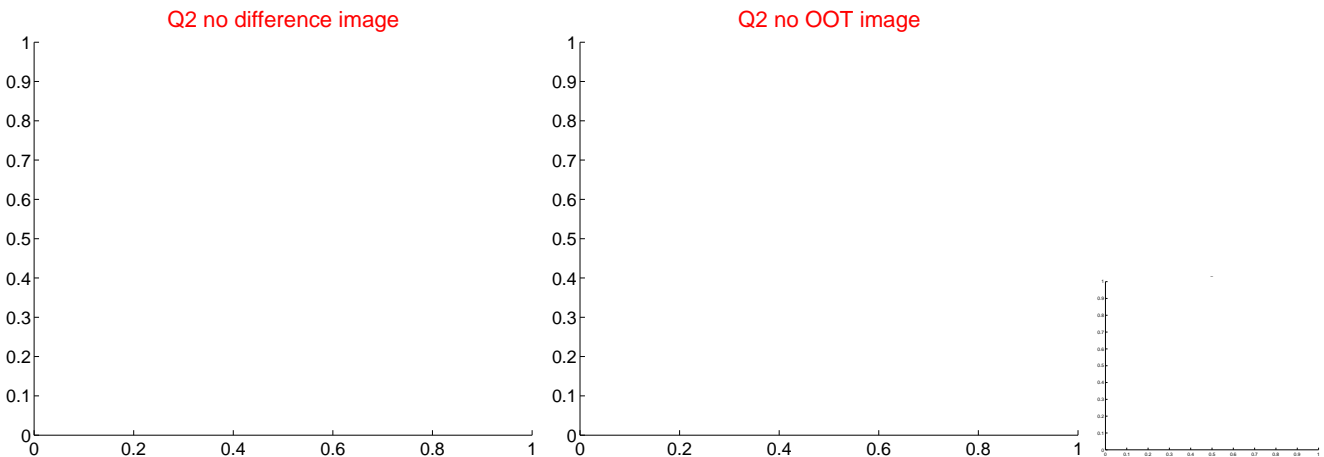
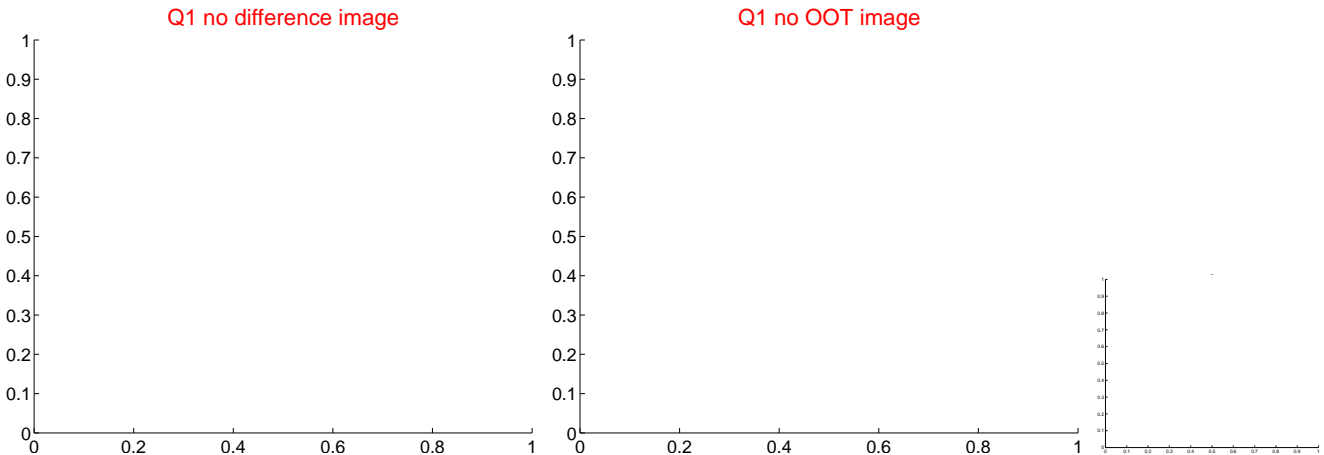
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.770 ± 0.658	2.69	-1.684 ± 0.701	-0.545 ± 0.495
PRF-fit source offset from KIC position	1.496 ± 0.616	2.43	-1.370 ± 0.642	-0.601 ± 0.433
photometric centroid source offset	7.25 ± 3.53	2.05	-6.03 ± 3.57	4.02 ± 3.44

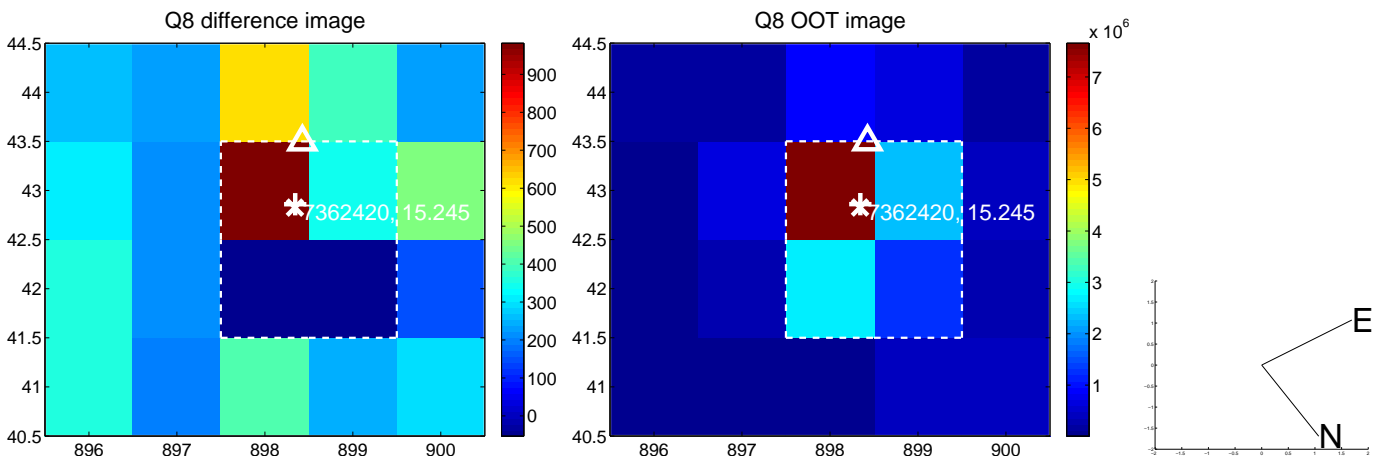
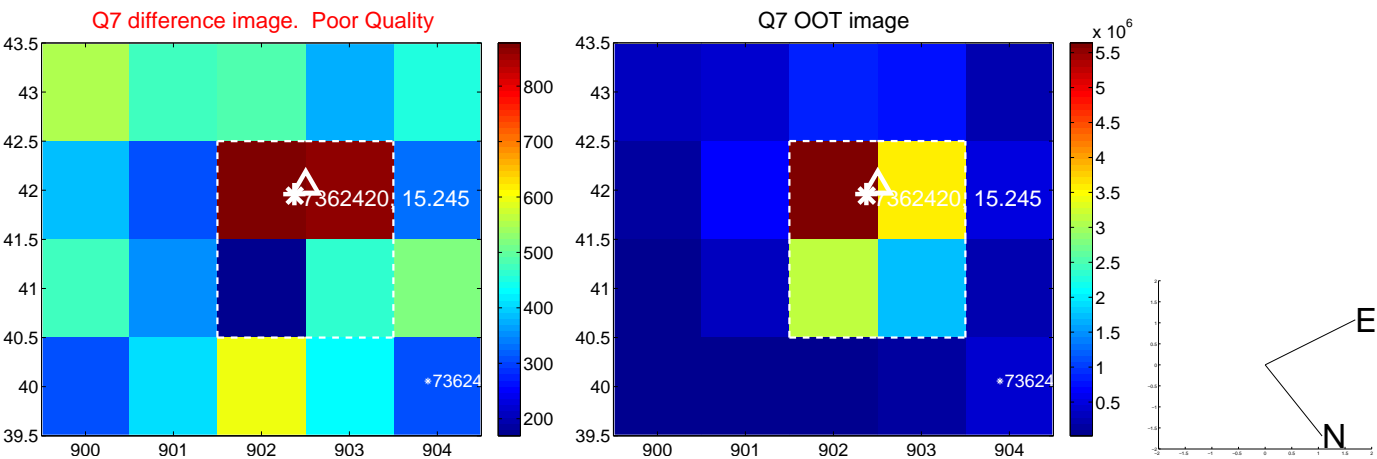
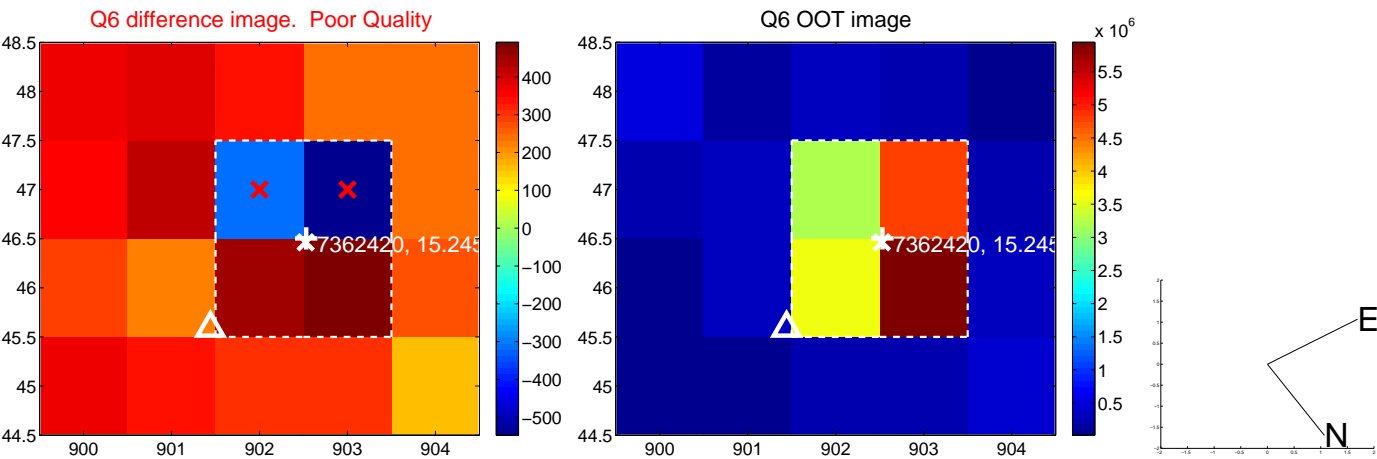
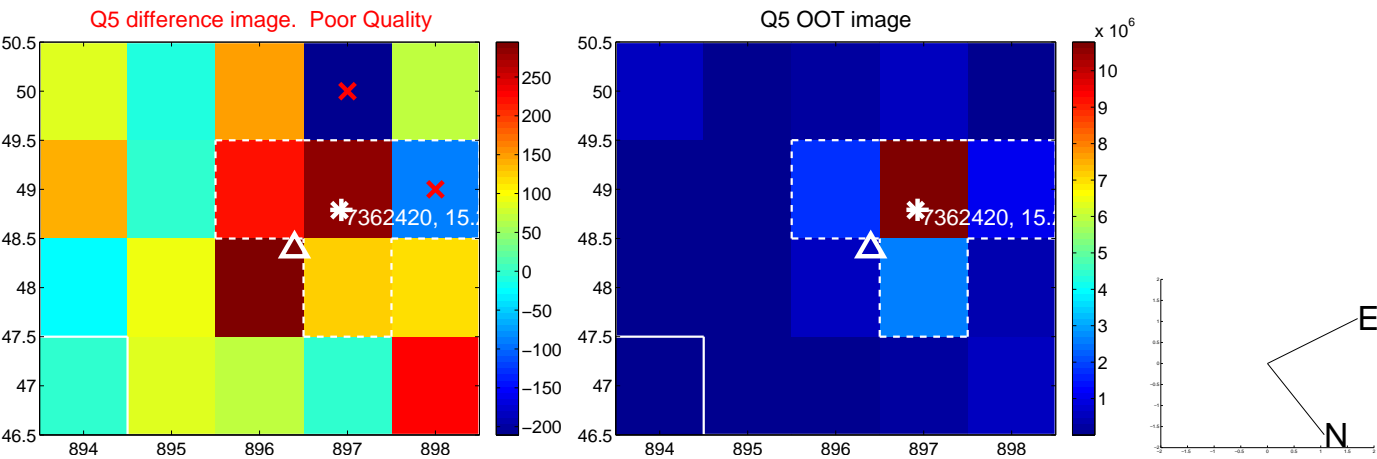


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

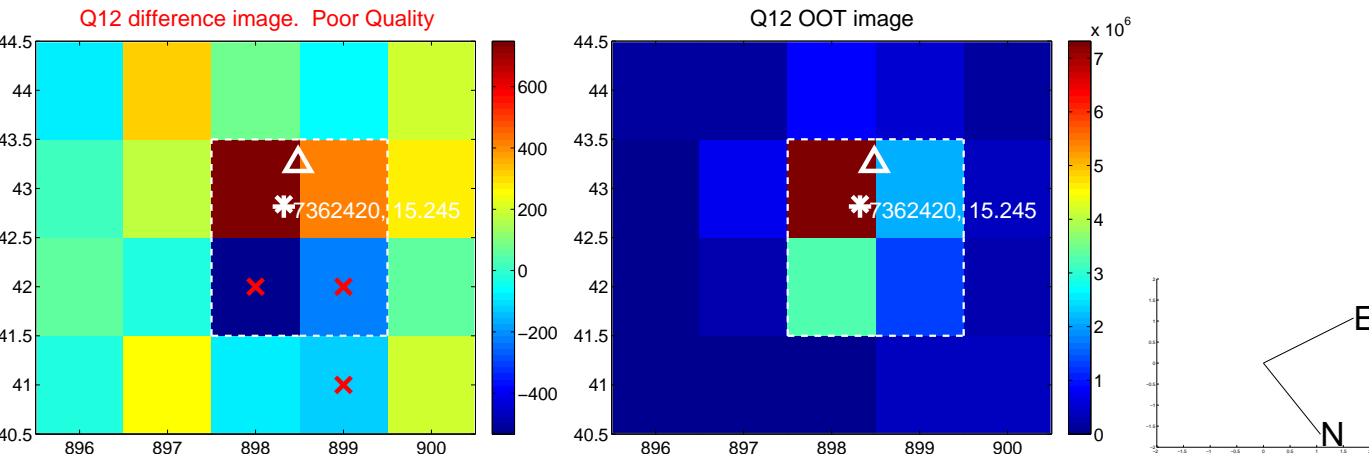
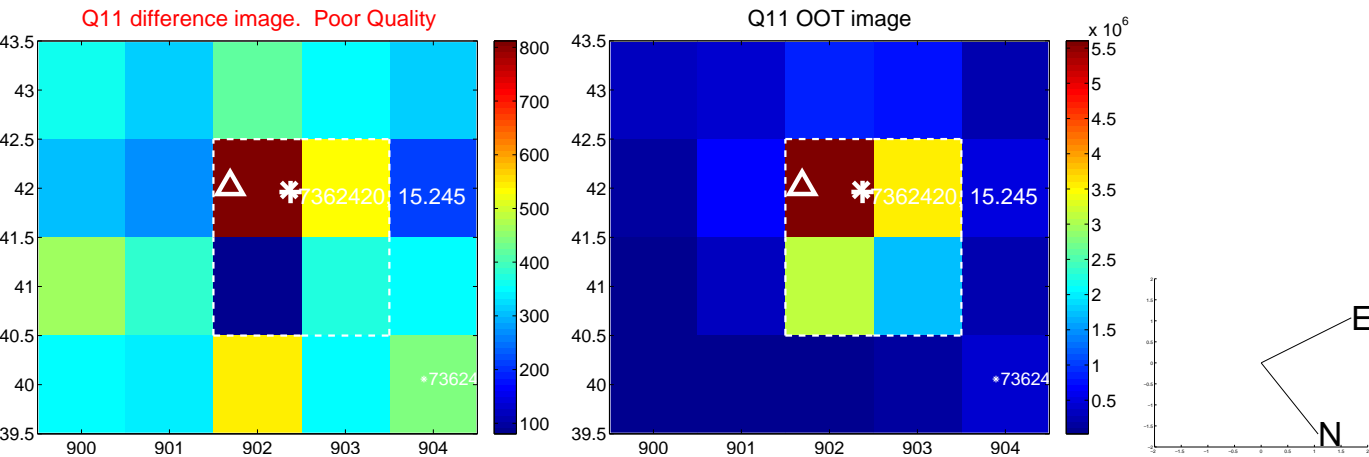
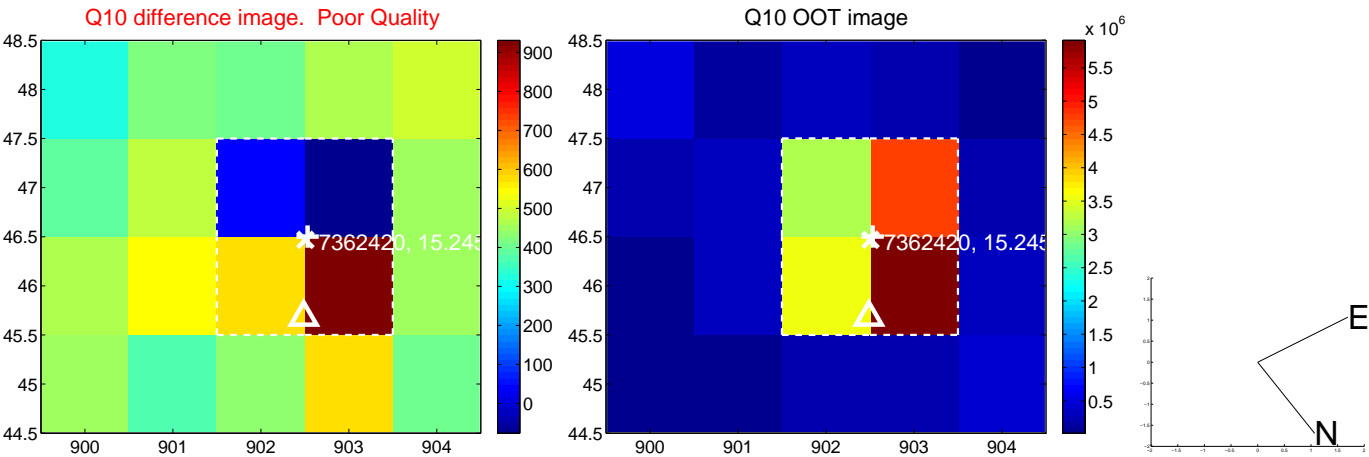
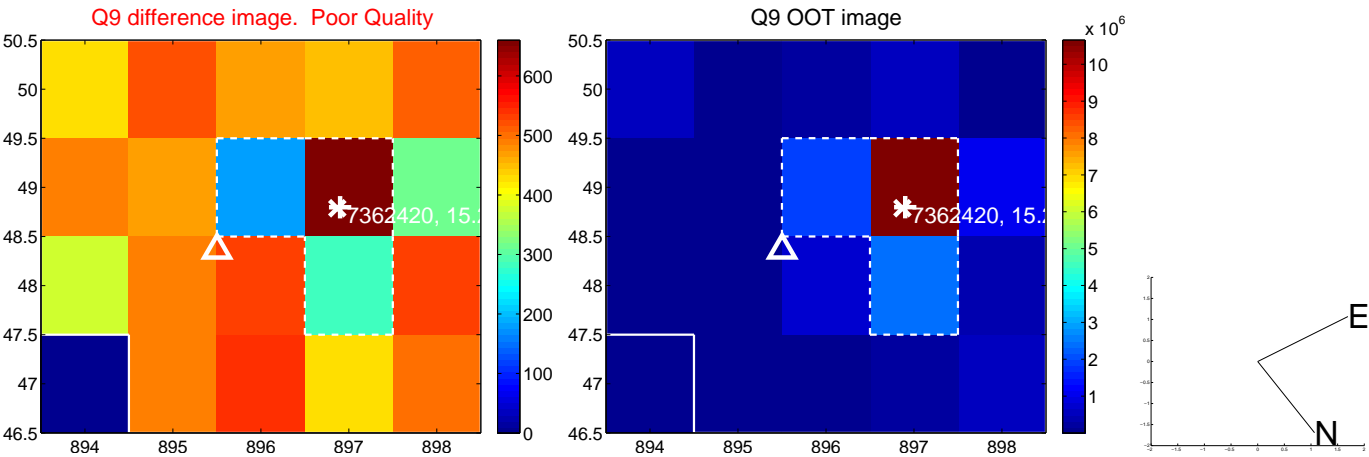
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



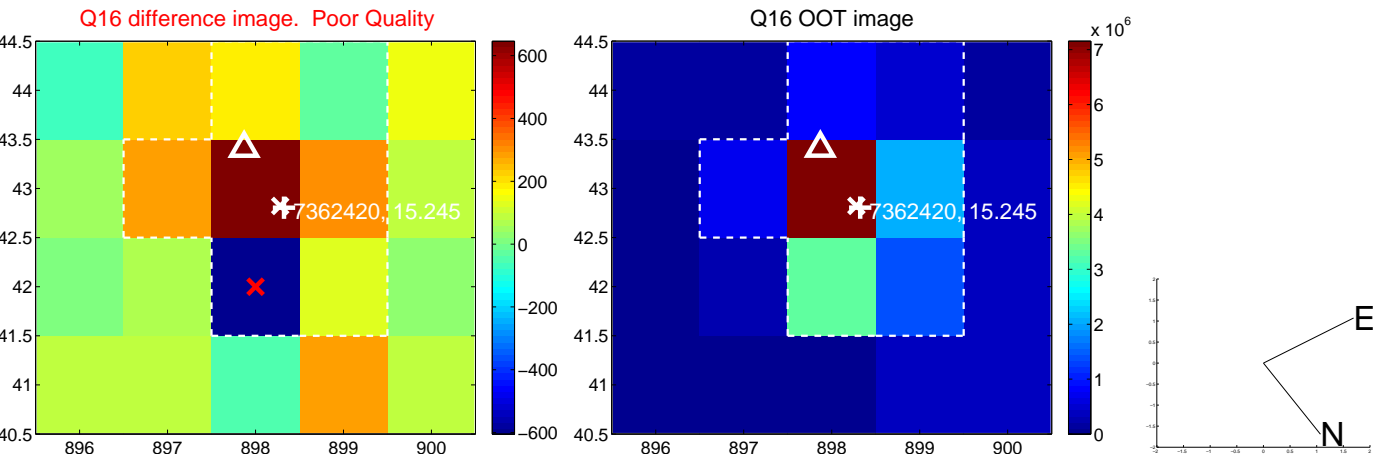
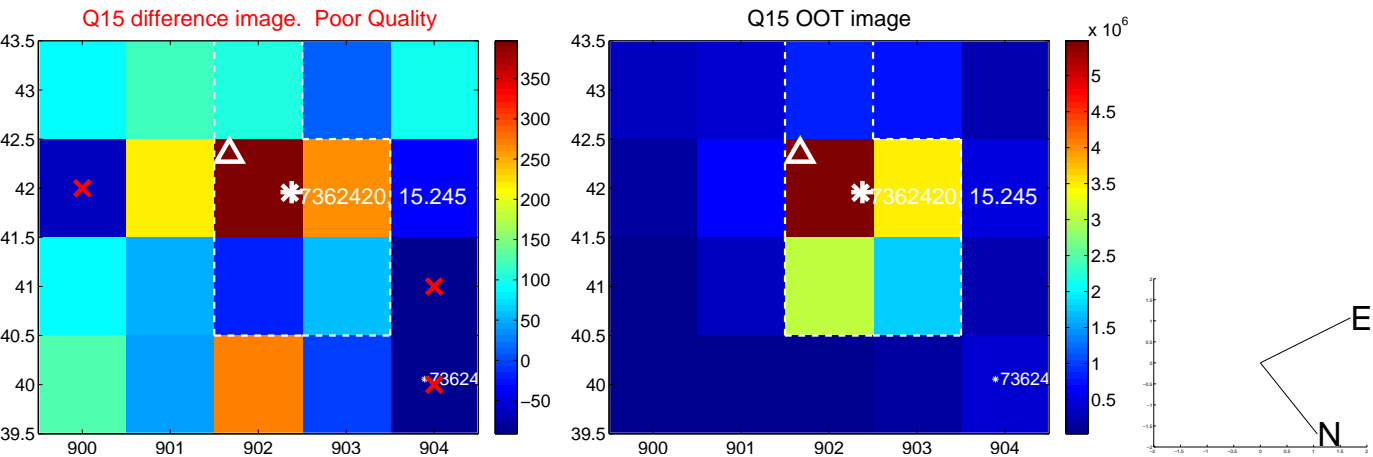
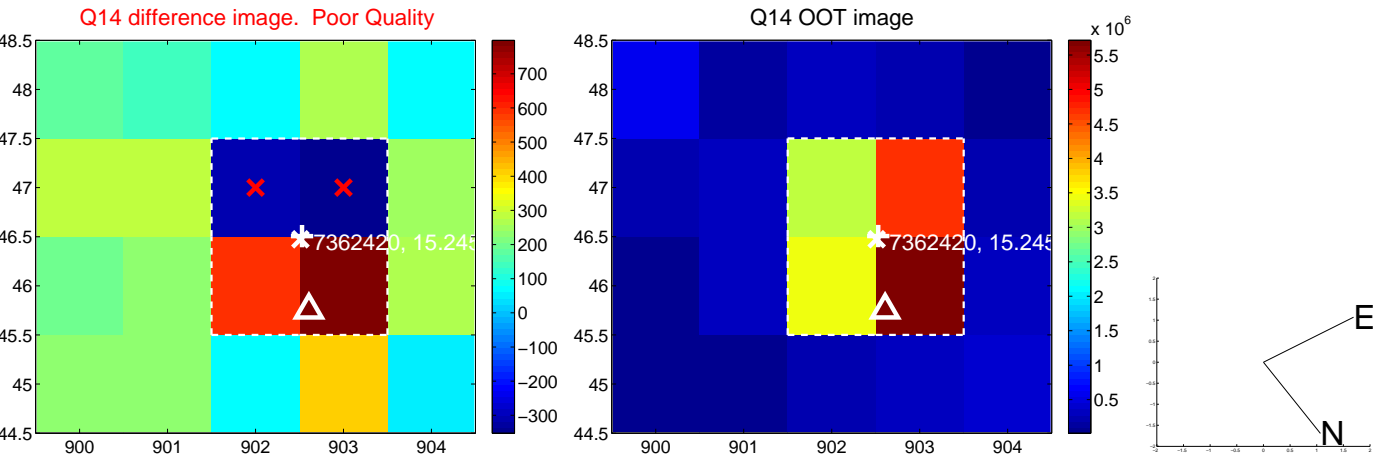
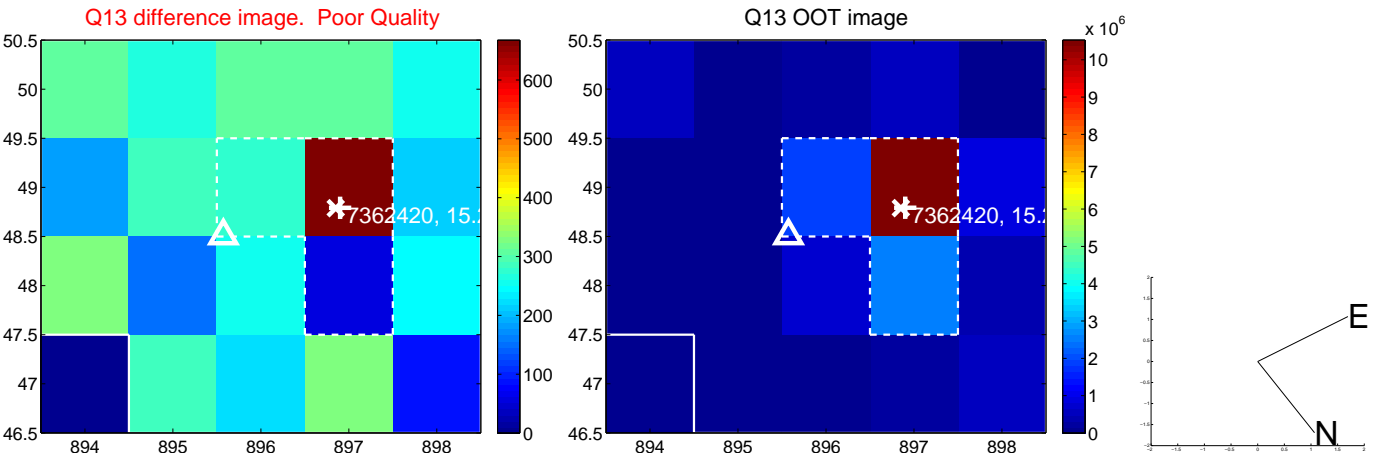
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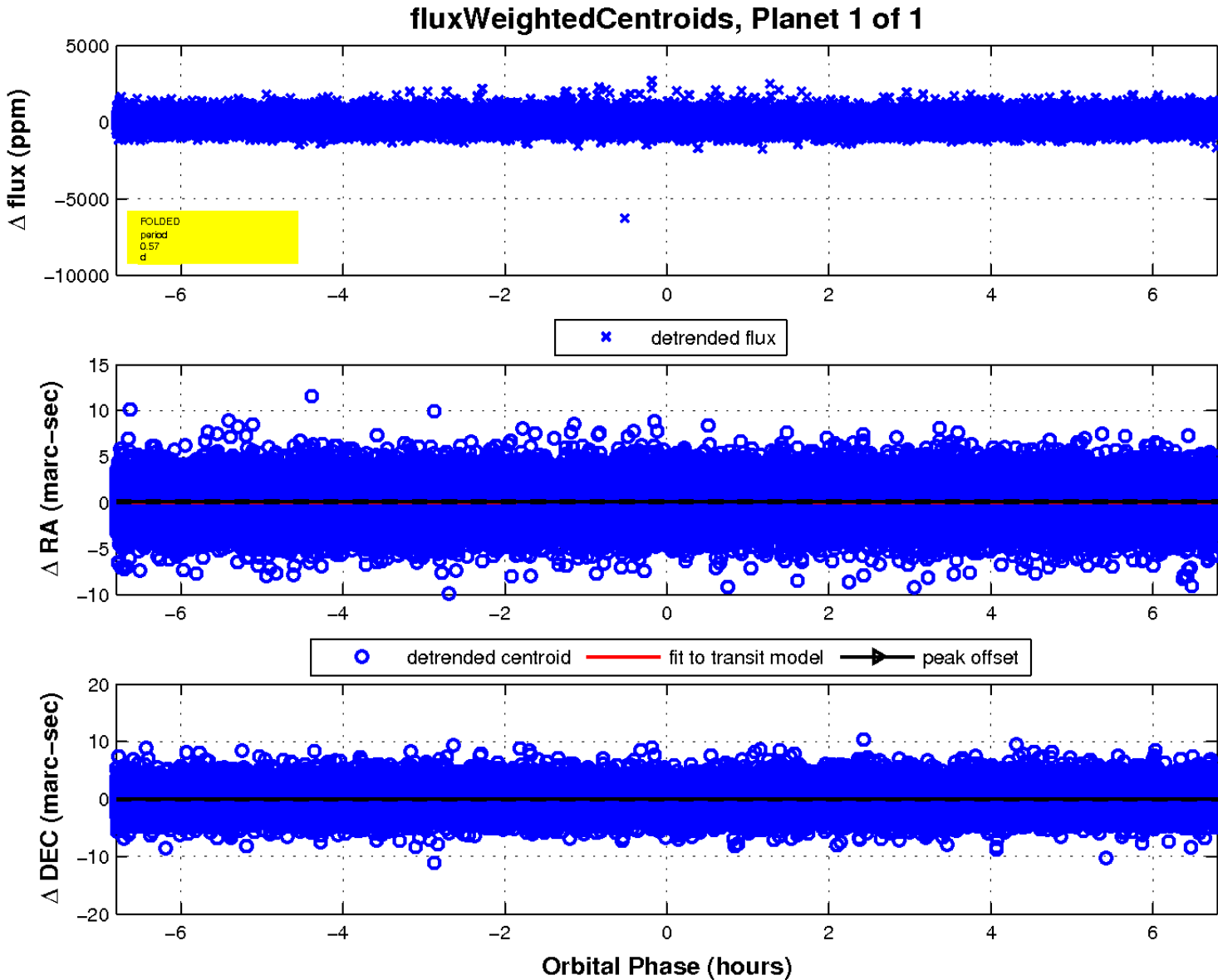
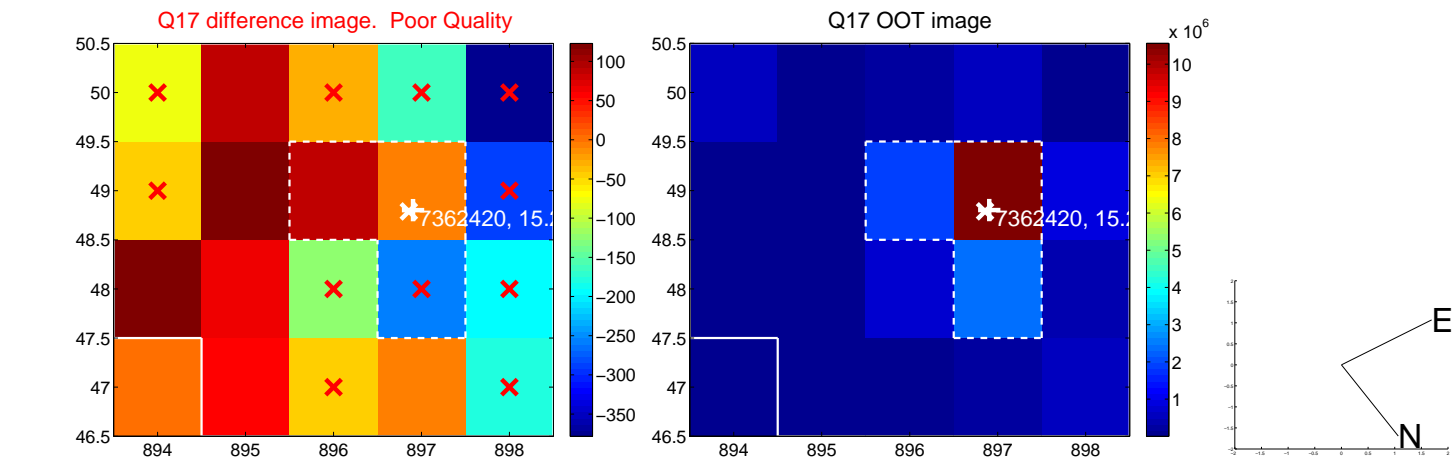
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UKIRT Image

Declination

