

KIC 010471243

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
010471243-01	OBS	8019.01	0.933745	132.436841	37.4	3.905	8.7	7.1	0.82	5665	0.60	1893.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010471243-01	OBS	FP	0.00	1	0	1	1	LPP_DV—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.

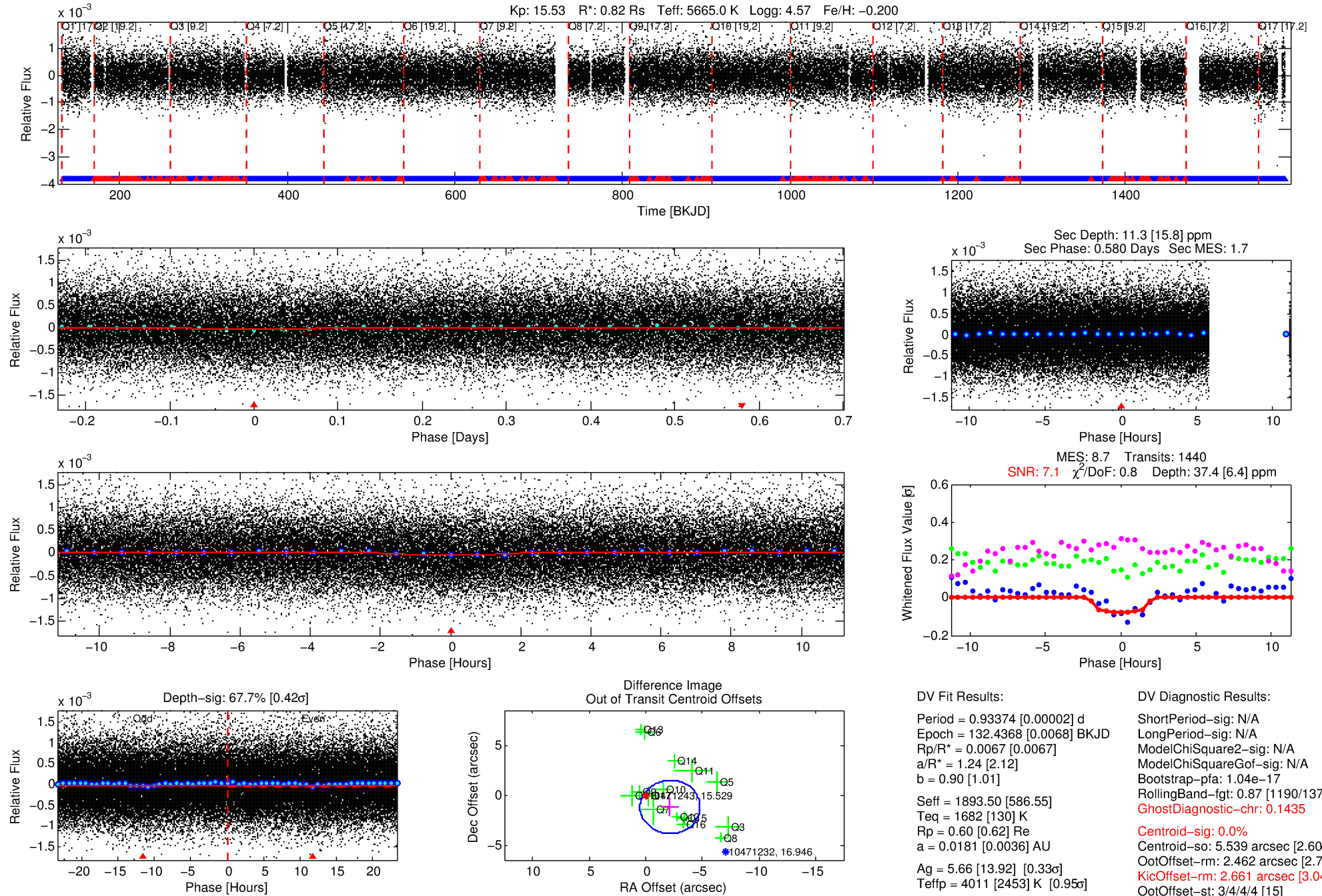
Ephemeris Match Information For 010471243-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
010471243-01	10471243	V2083-Cyg-pri	10342012	1:2	1554.2	311	-237	6.90	15.53	5360.10	Direct-PRF	0	0.44	1.13

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol 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 σ_P < 5.0 and σ_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

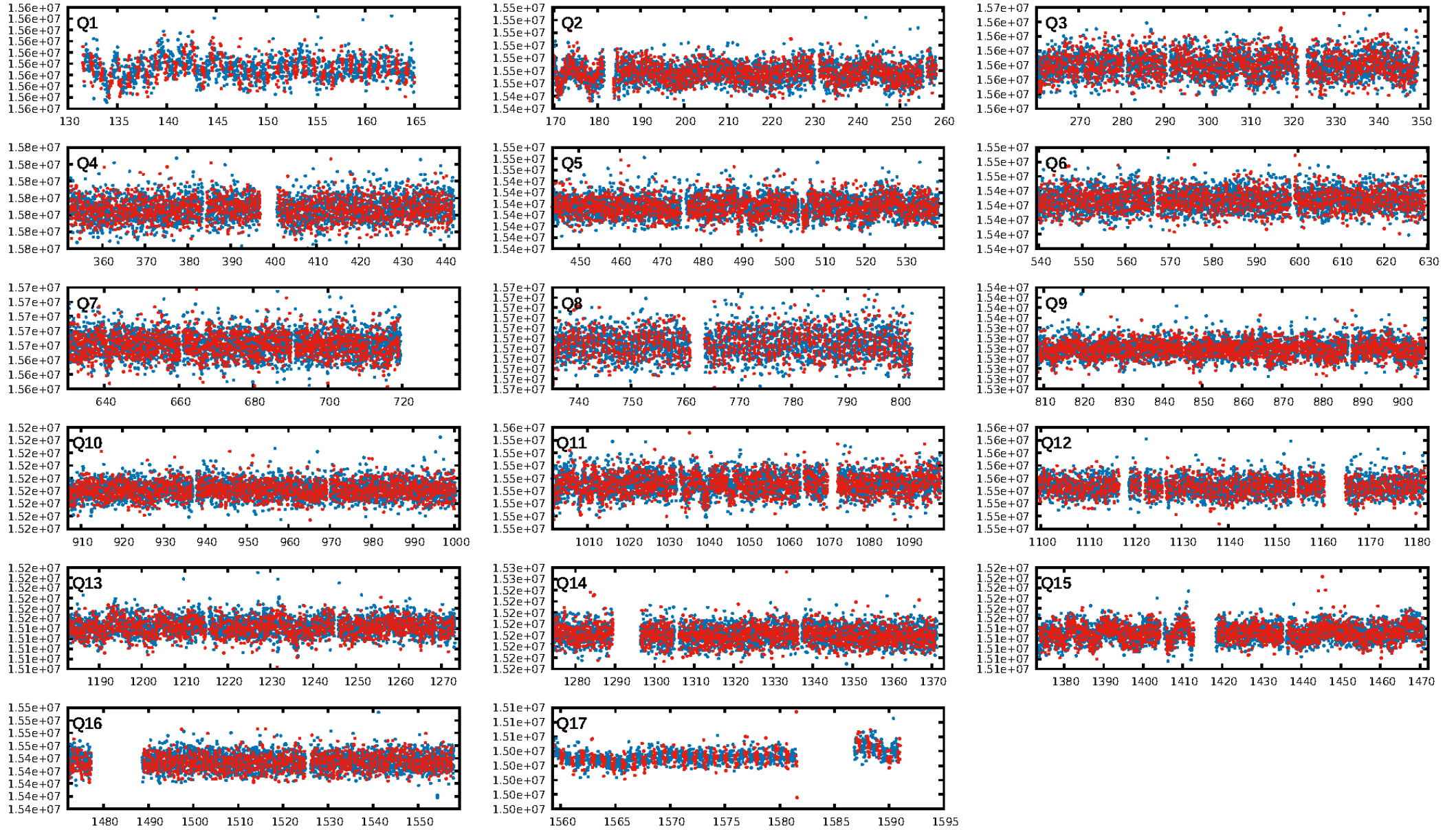
KIC: 10471243 Candidate: 1 of 1 Period: 0.934 d



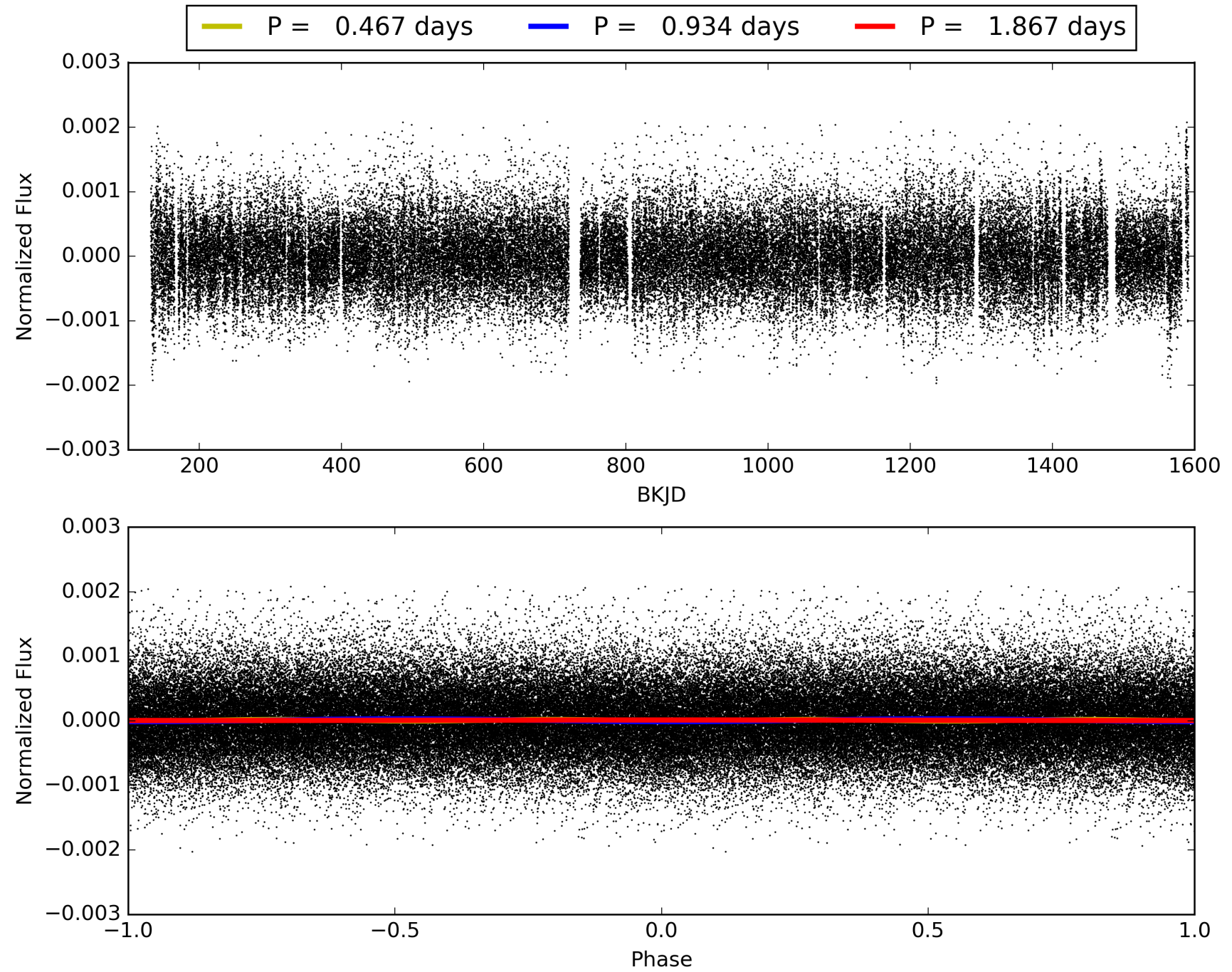
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:41:03 Z

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

TCE 010471243-01, PDC Light Curves

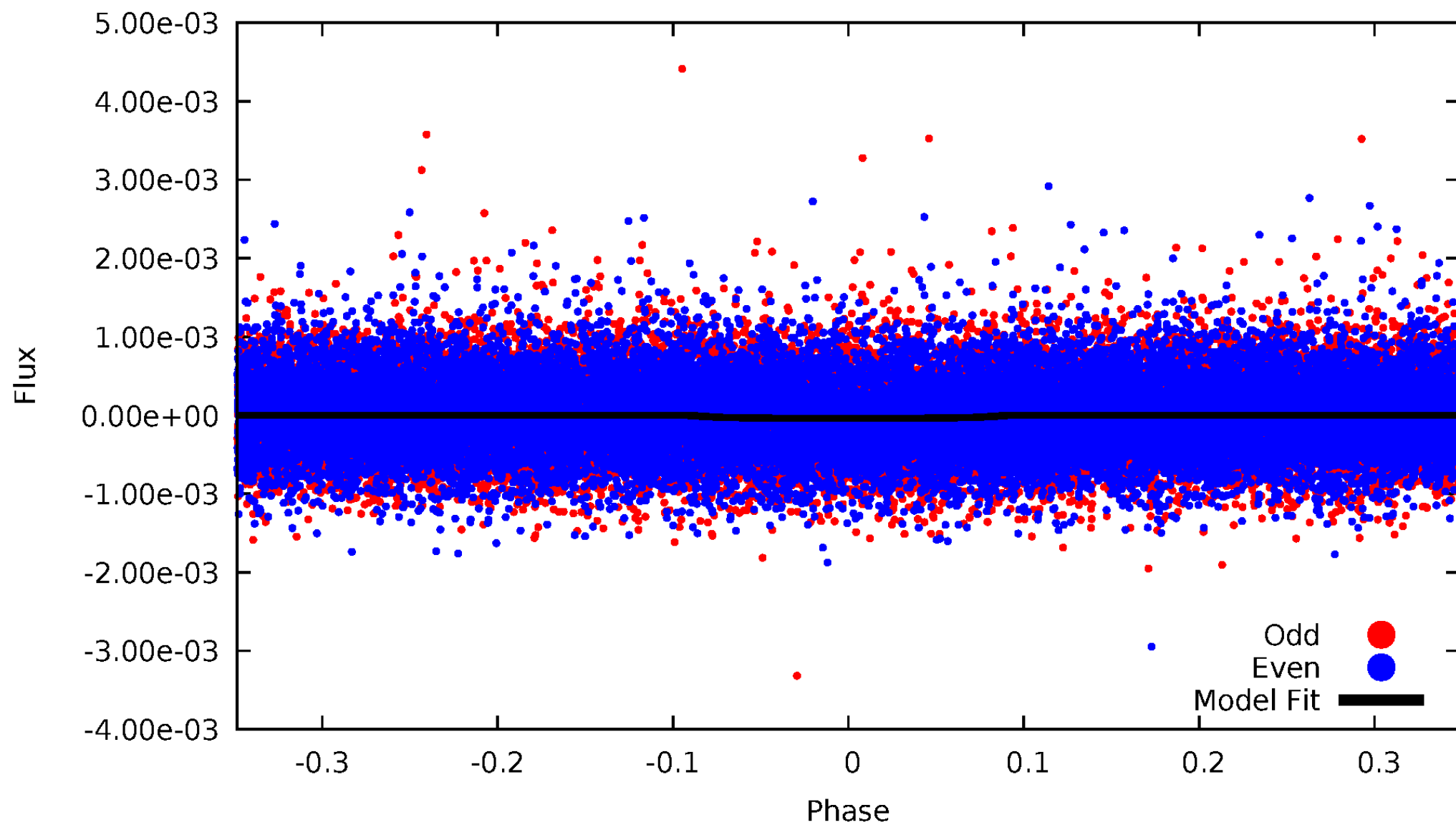


TCE 010471243-01



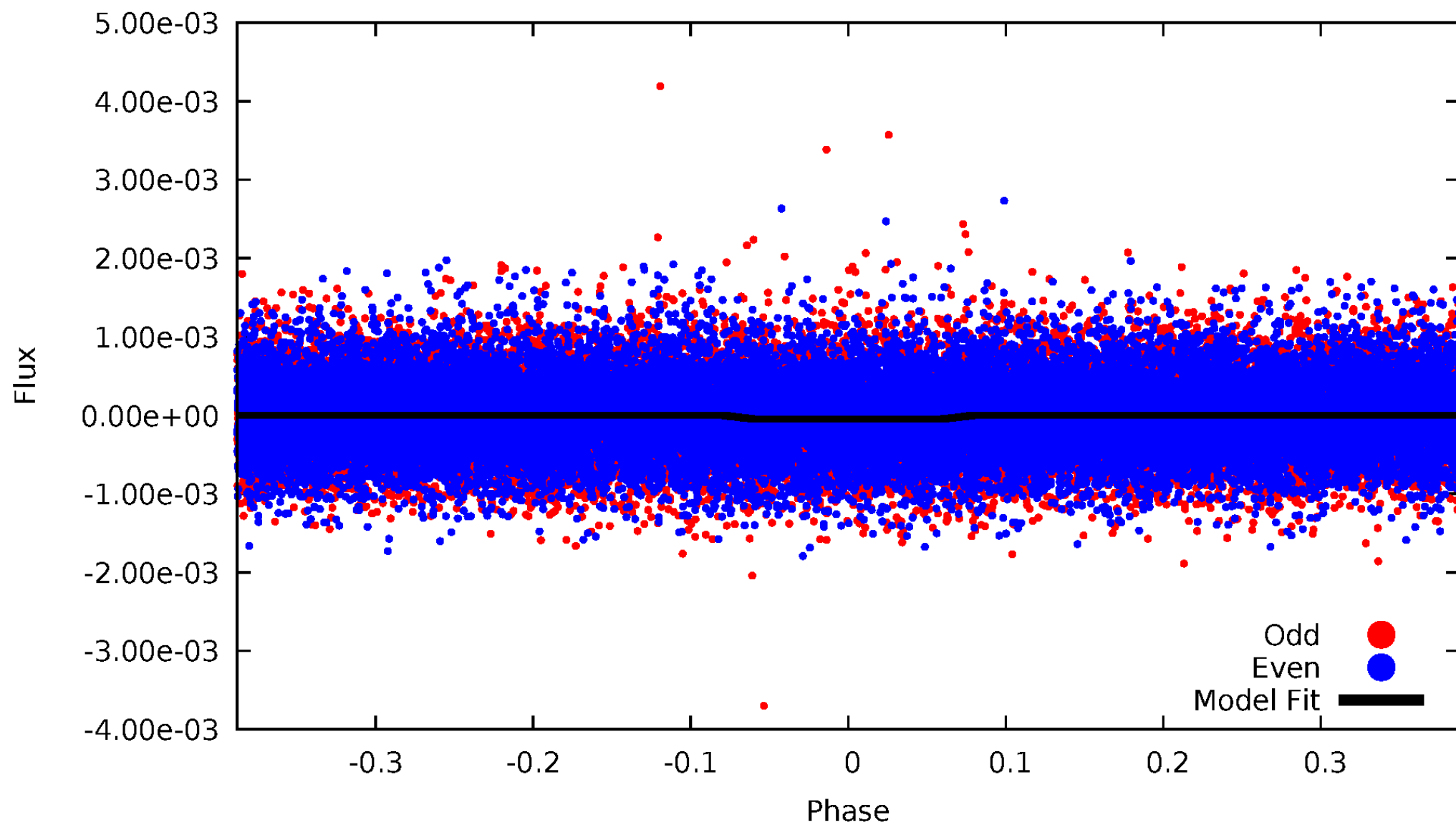
DV Odd/Even

TCE 010471243-01



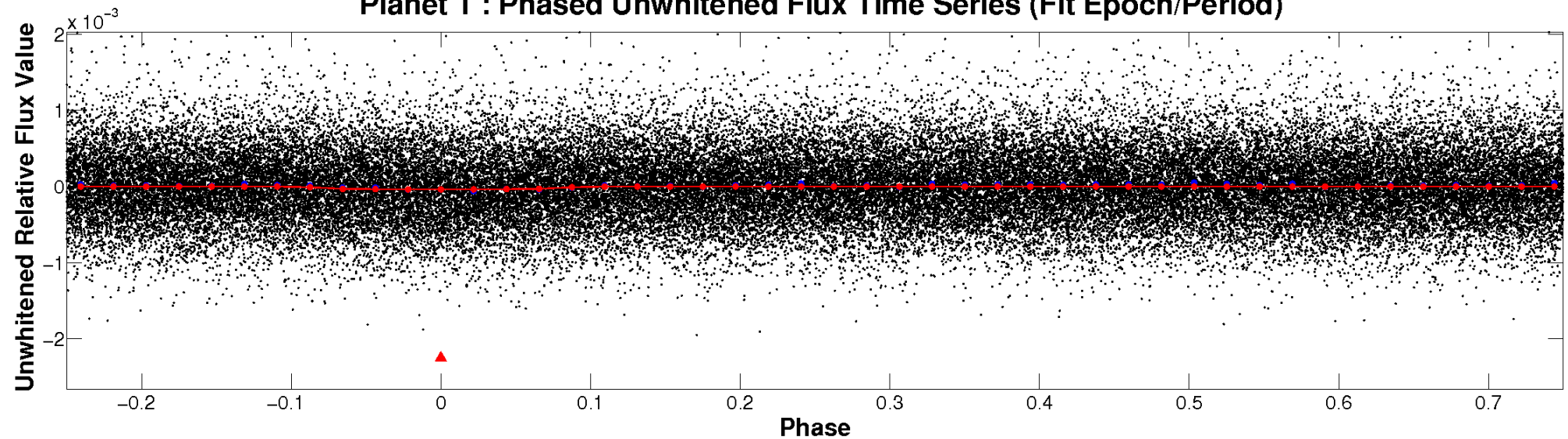
ALT Odd/Even

TCE 010471243-01

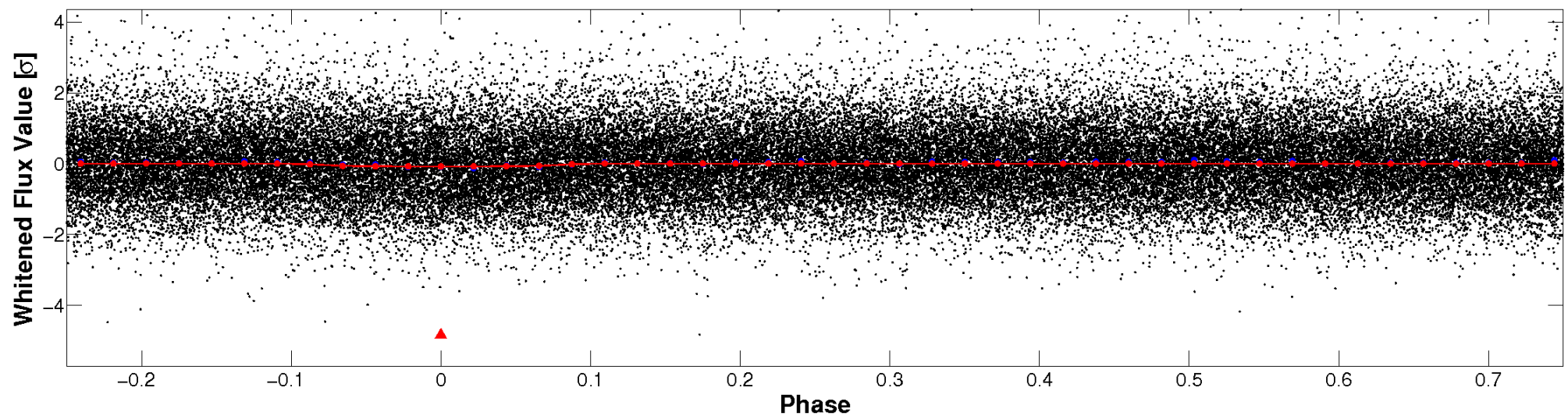


Non-Whitened Vs. Whitened Light Curve

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

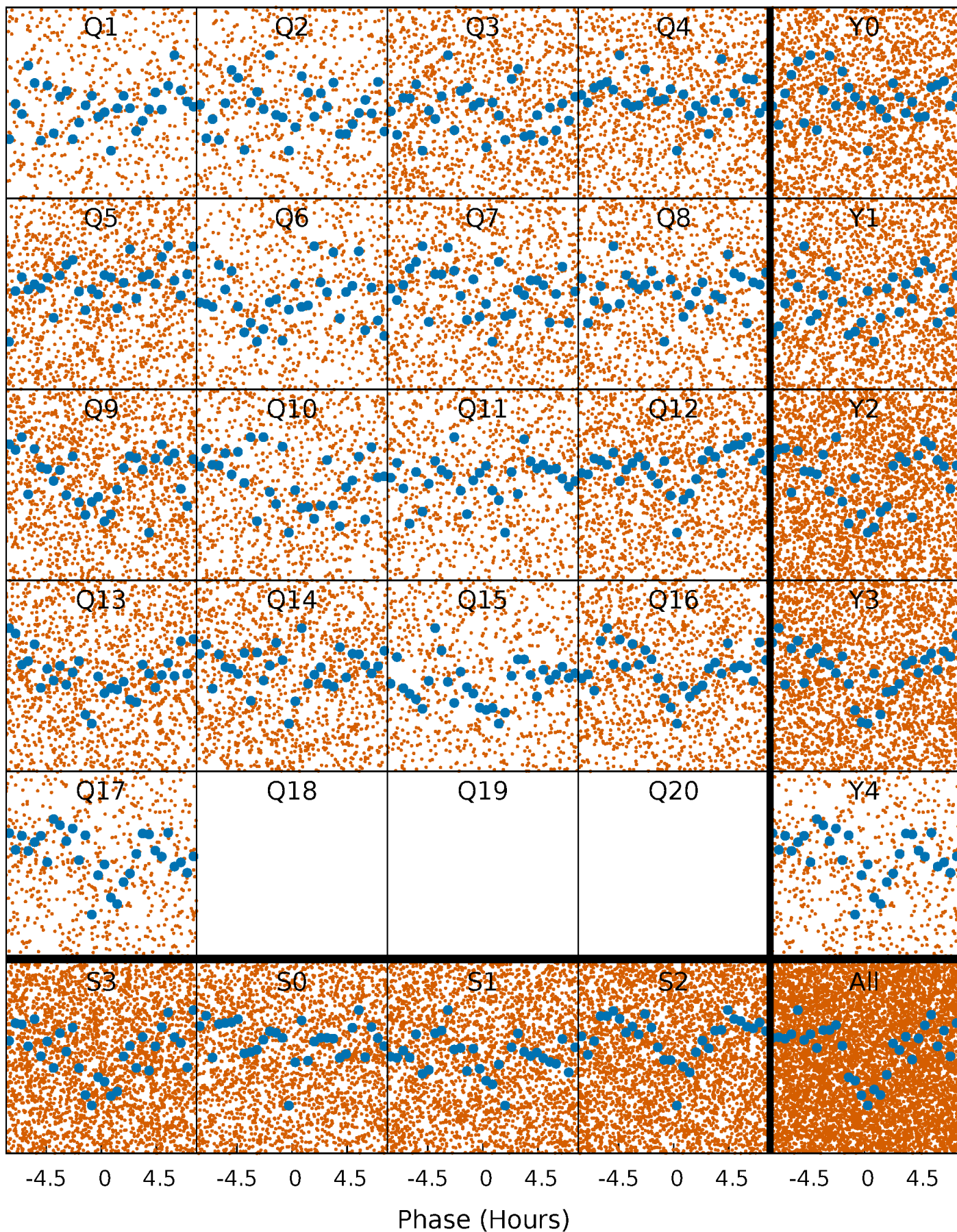


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



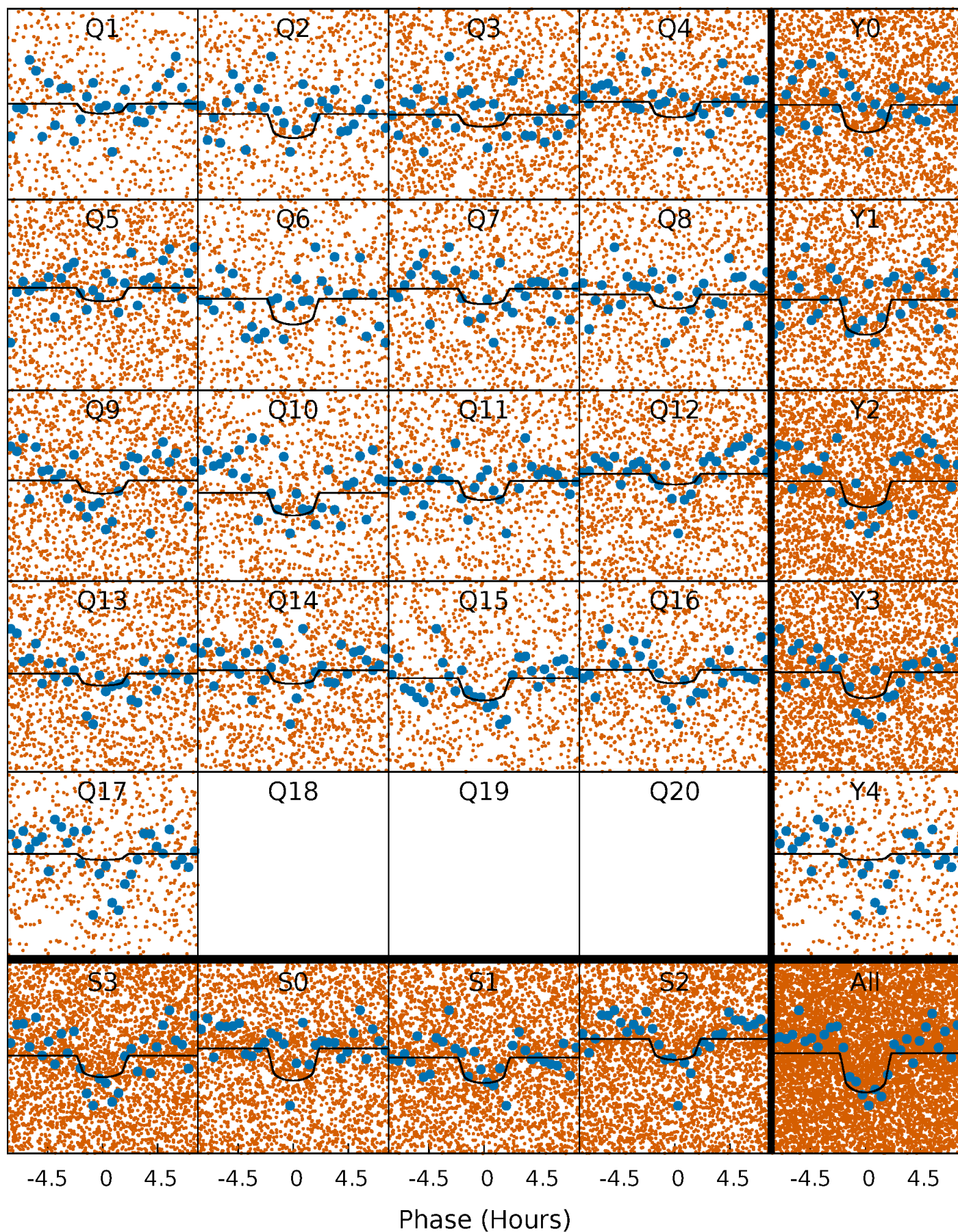
PDC Quarter-Phased Transit Curves

TCE 010471243-01 P= 0.933745 Days $T_0=132.436841$ (BKJD)



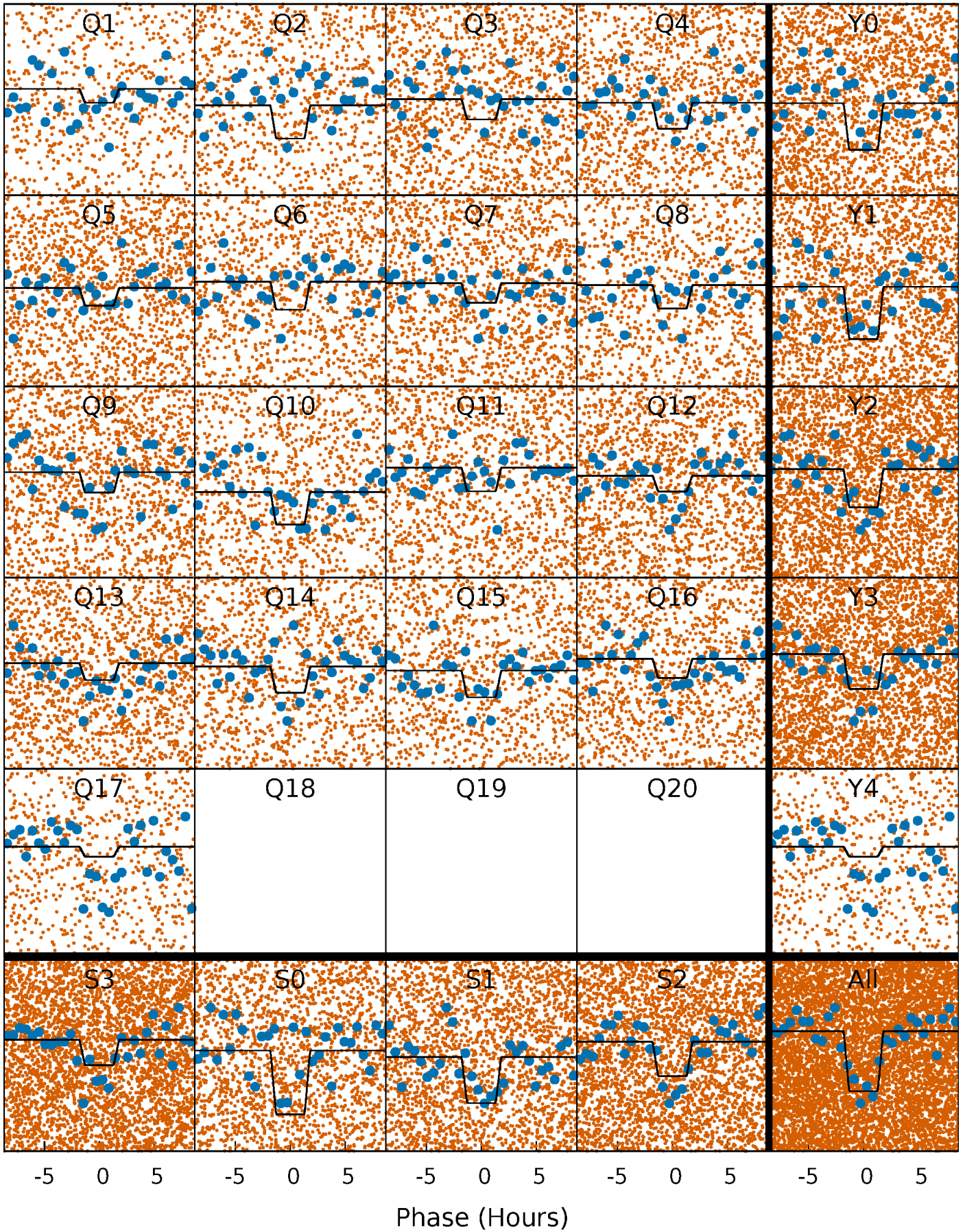
DV Quarter-Phased Transit Curves

TCE 010471243-01 P= 0.933745 Days $T_0=132.436841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

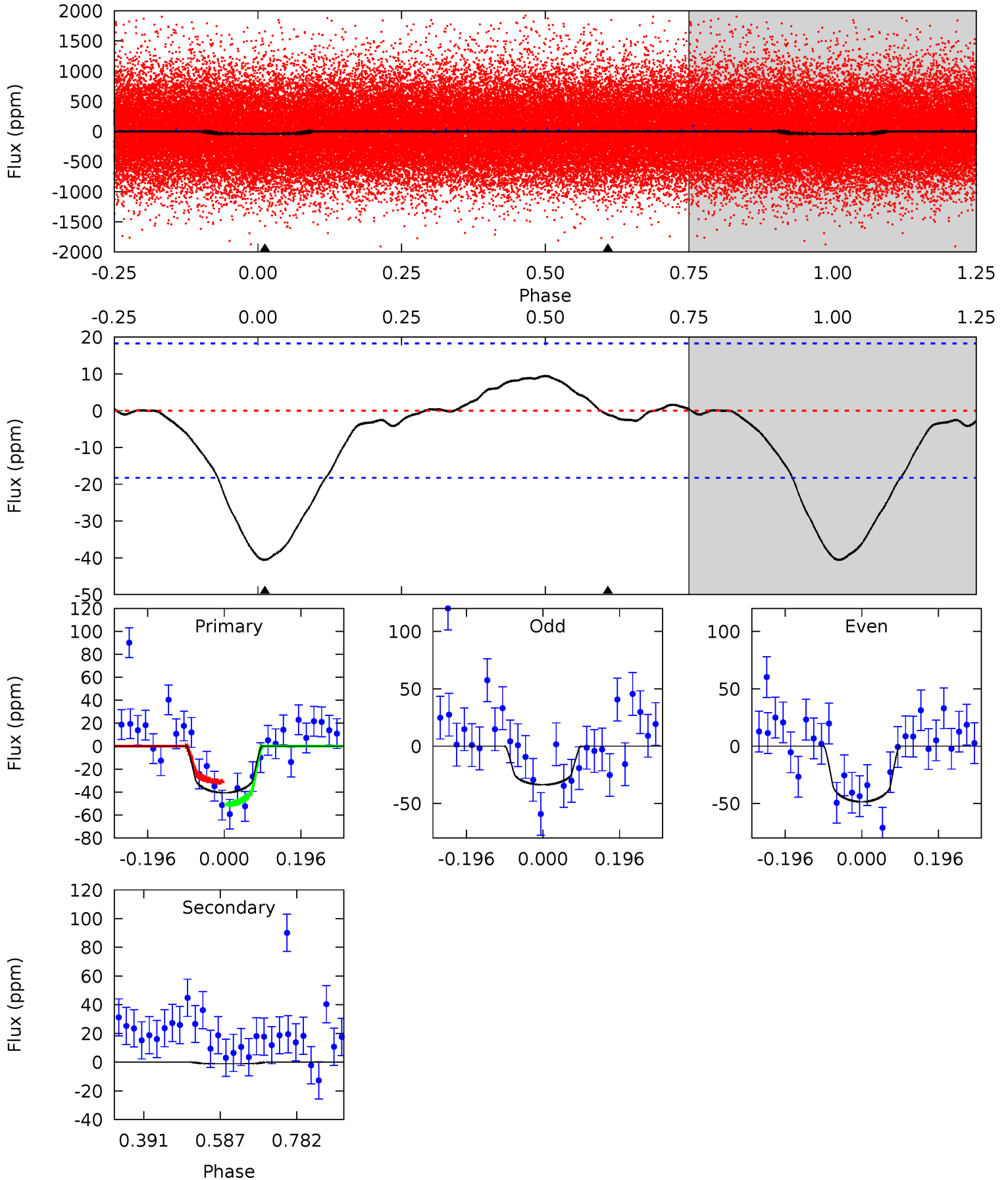
TCE 010471243-01 P= 0.933759 Days $T_0=132.436974$ (BKJD)



DV Model-Shift Uniqueness Test

010471243-01, P = 0.933745 Days, E = 131.503096 Days

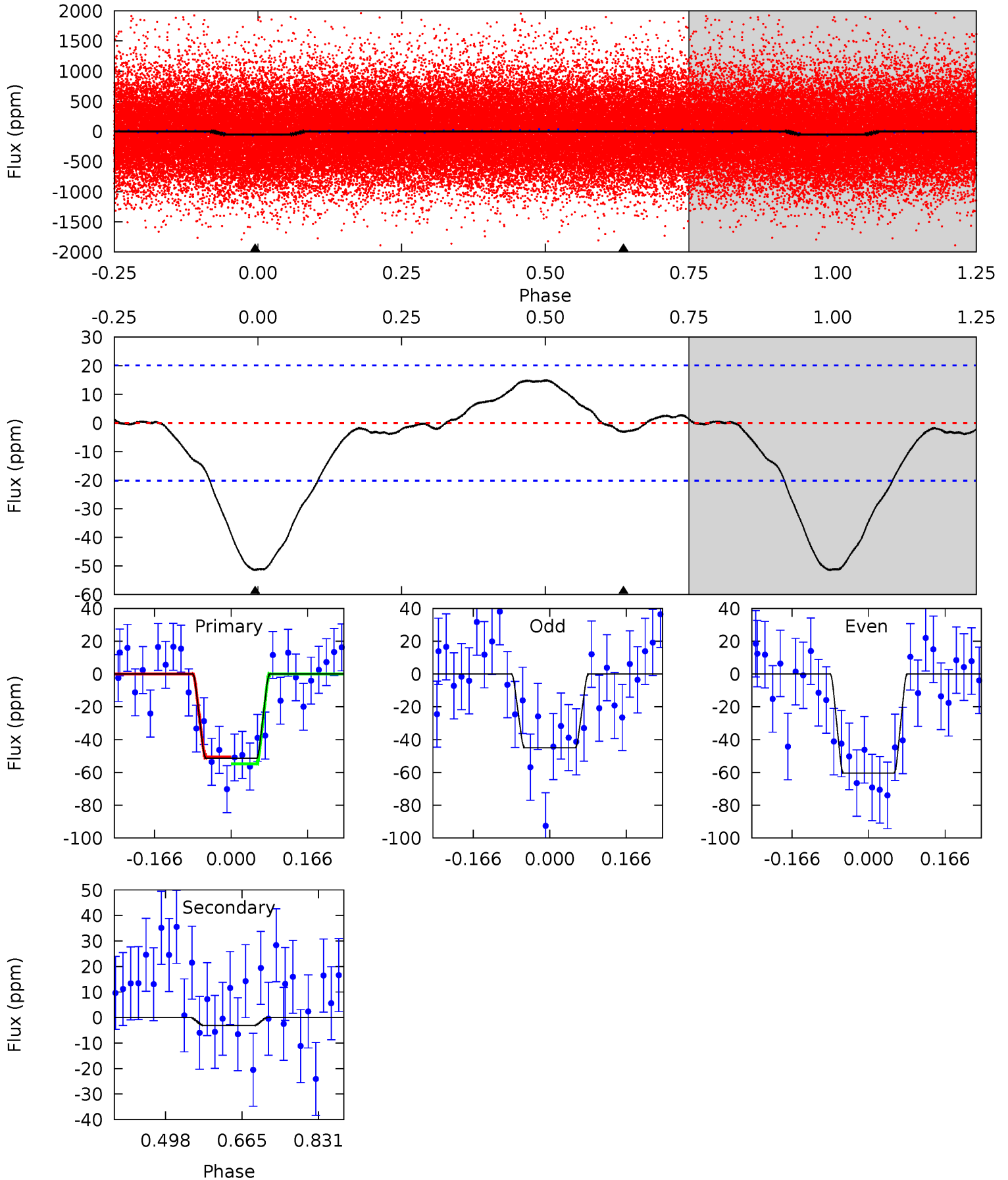
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.83	0.26	0	0	4.42	1.29	0.64	9.83	9.83	0.26	0.26	1.81	0.82	0.19	2.40



Alt Model-Shift Uniqueness Test

010471243-01, P = 0.933759 Days, E = 131.503215 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	0.69	0	0	4.46	1.38	1.21	11.4	11.4	0.69	0.69	1.72	0.94	0.22	0.46



Stellar Parameters For KIC 010471243

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5665^{+152}_{-152}	$4.568^{+0.040}_{-0.160}$	$-0.200^{+0.300}_{-0.300}$	$0.820^{+0.191}_{-0.064}$	$0.916^{+0.092}_{-0.102}$	$2.336^{+0.478}_{-1.003}$
	+3%/-3%	+1%/-4%	+150%/-150%	+23%/-8%	+10%/-11%	+20%/-43%
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 010471243-01 / KOI 8019.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1 ± 4	$0.76^{+0.59}_{-0.50}$	2405^{+133}_{-97}	-2534^{+6330}_{-880}	$0.141^{+2.832}_{-1.235}$
Alt.	-3 ± 5	$0.78^{+0.53}_{-0.51}$	2395^{+130}_{-106}	2817^{+1519}_{-5878}	$0.699^{+5.512}_{-1.093}$

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 $A_{obs} \gg 1.0$

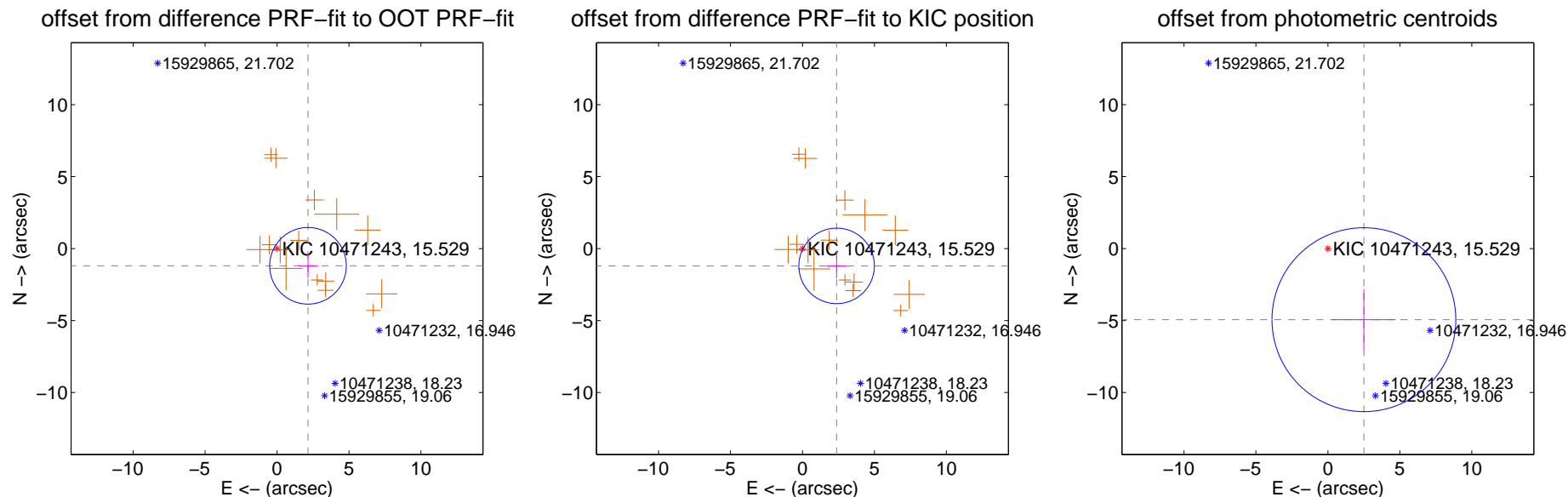
DV Centroid Data

Supplemental centroid analysis for 010471243-01. Kepler magnitude: 15.53. Transit SNR 7.07

There are 0 quarters with good PRF difference image offsets

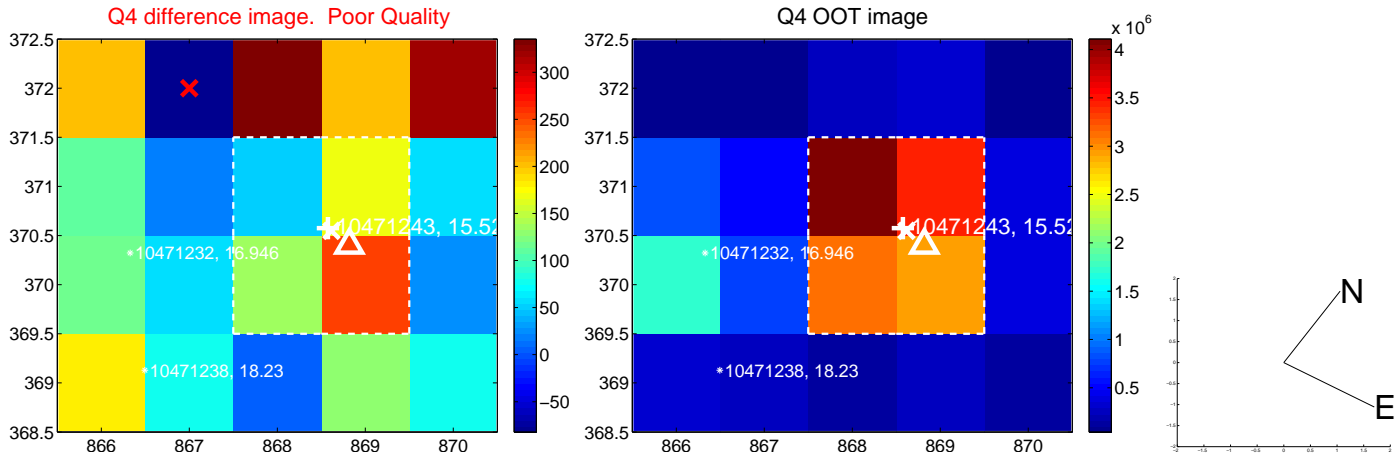
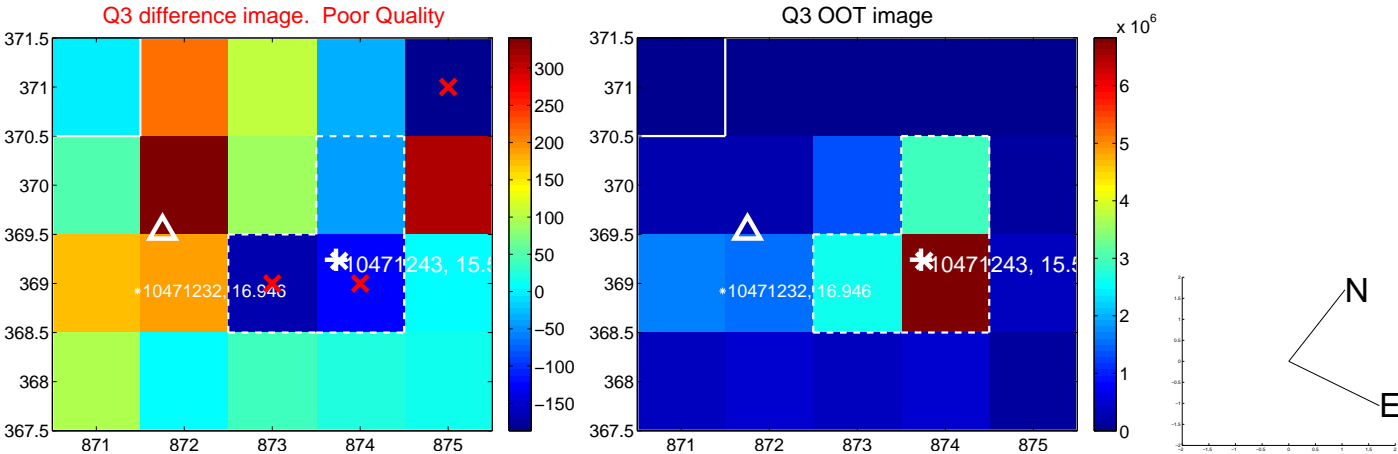
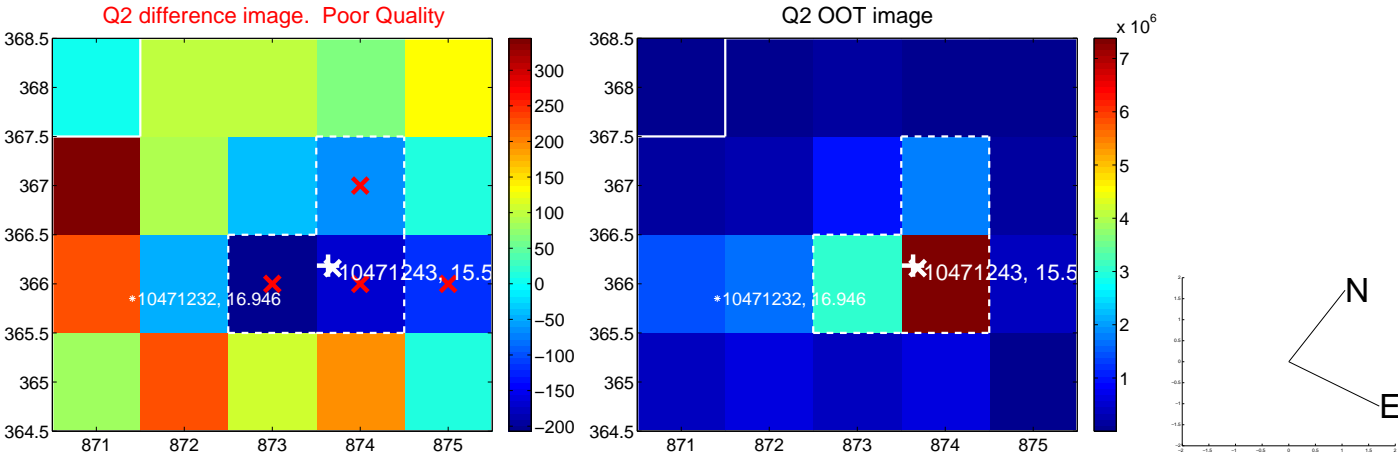
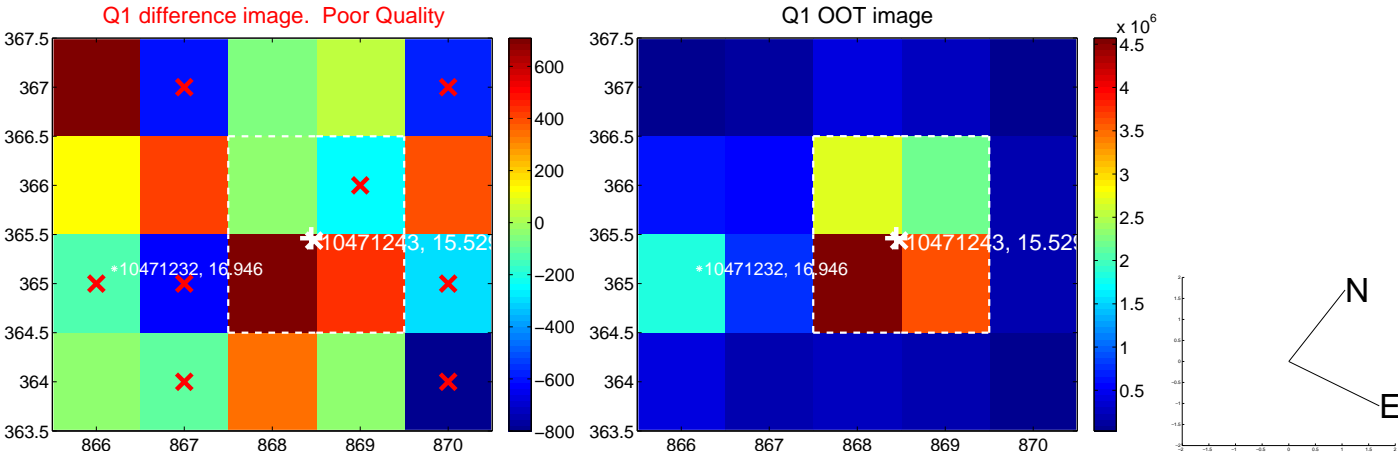
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.462 ± 0.888	2.77	-2.152 ± 0.704	-1.196 ± 0.854
PRF-fit source offset from KIC position	2.661 ± 0.875	3.04	-2.374 ± 0.698	-1.203 ± 0.865
photometric centroid source offset	5.54 ± 2.13	2.60	-2.50 ± 2.21	-4.94 ± 2.11

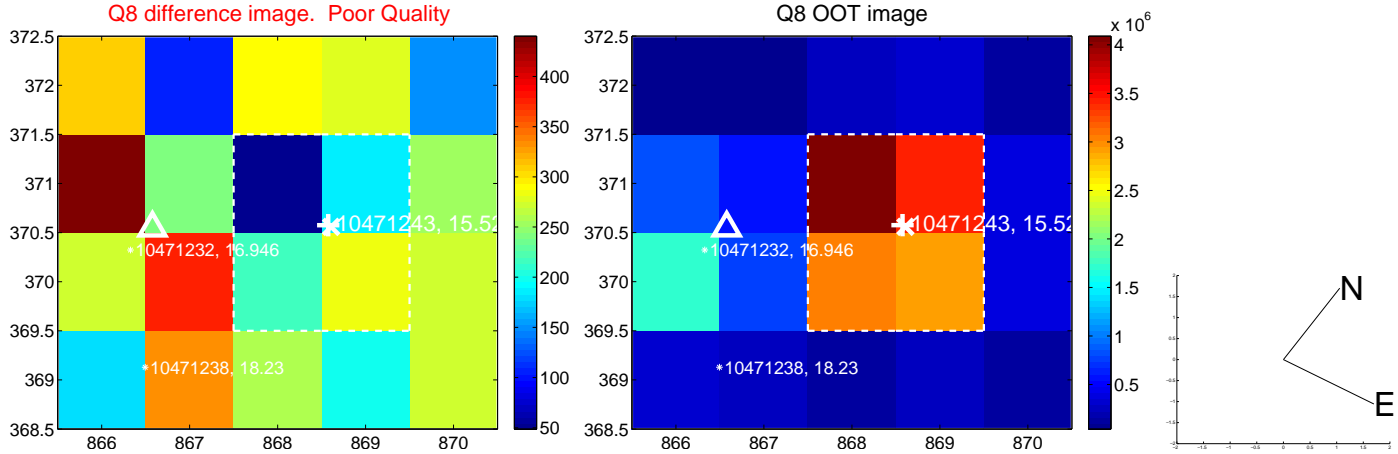
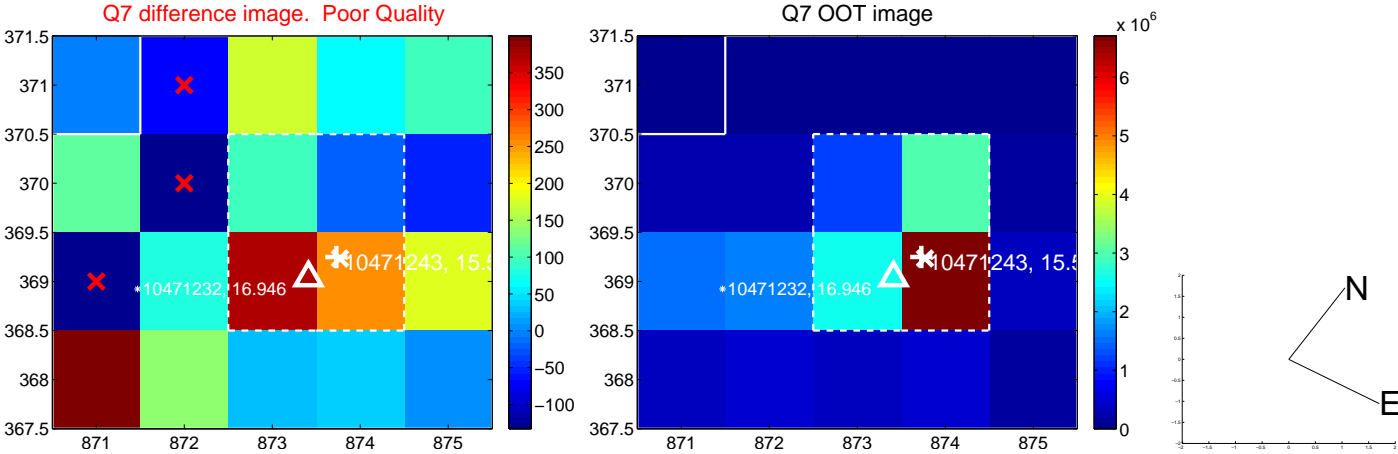
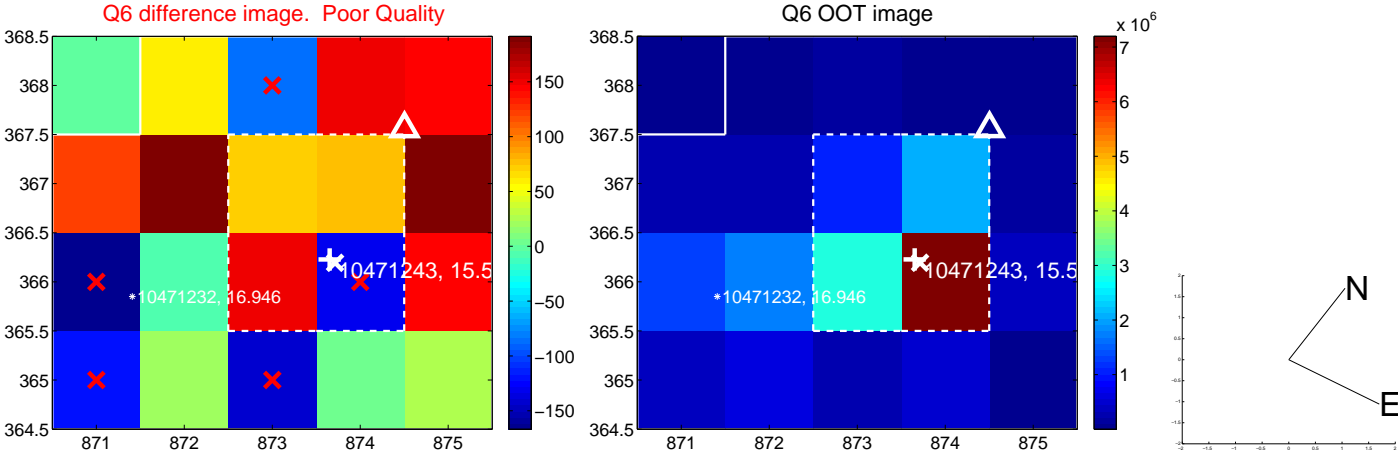
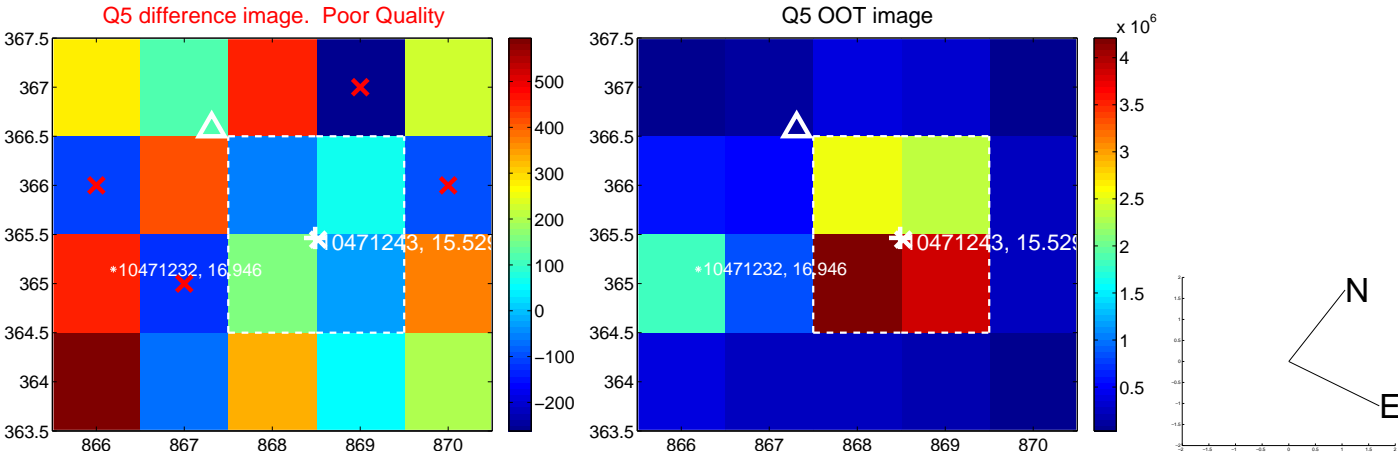


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

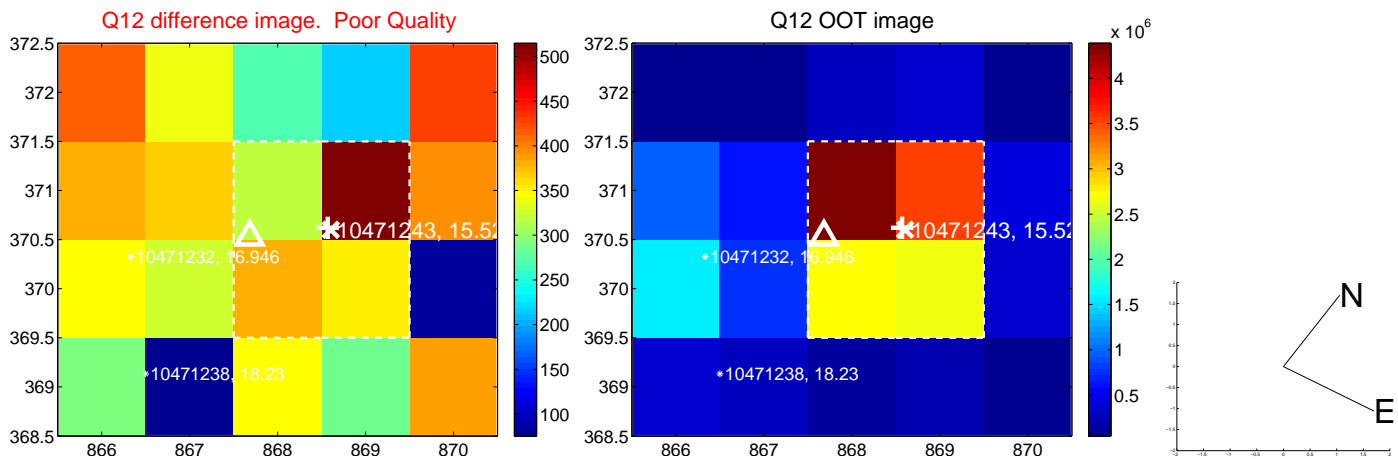
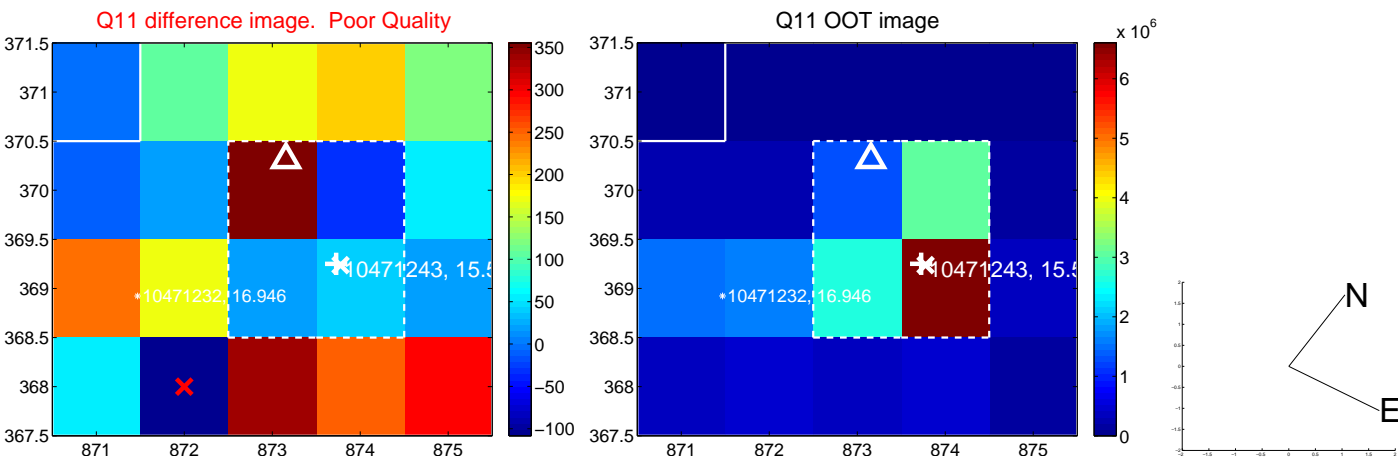
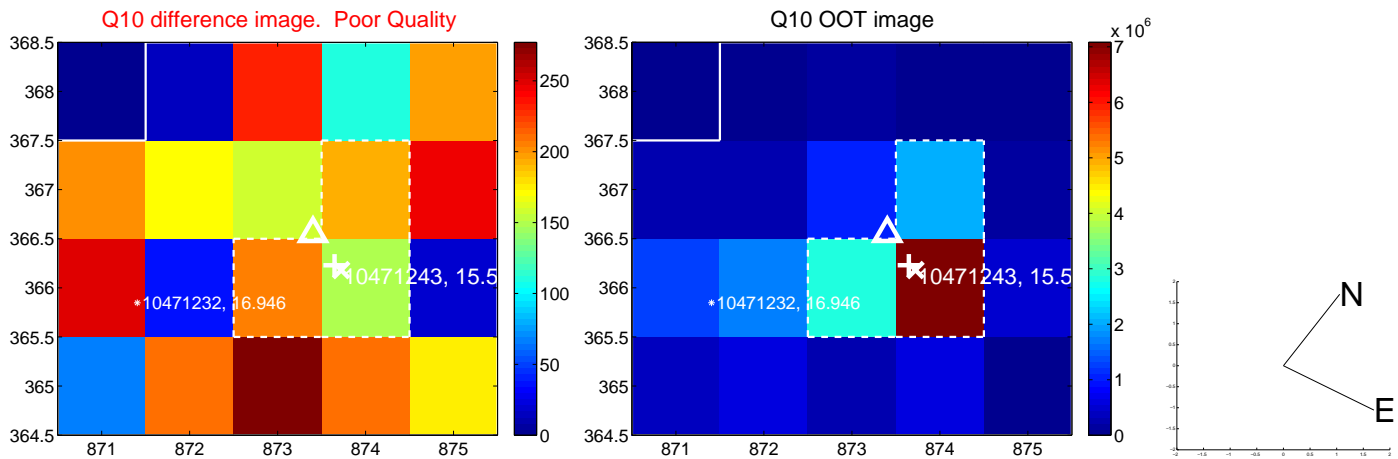
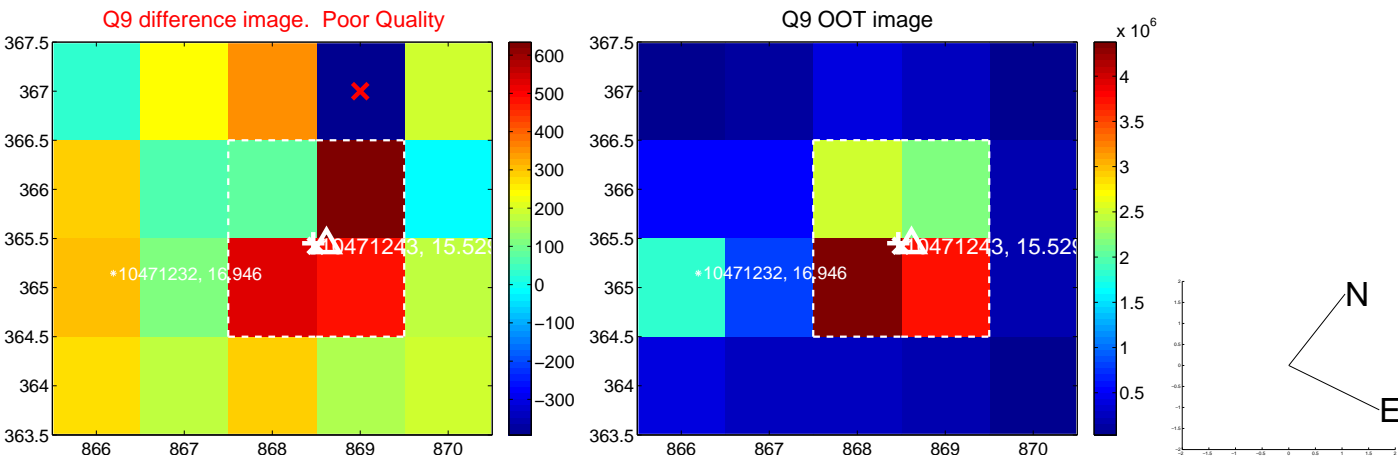
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



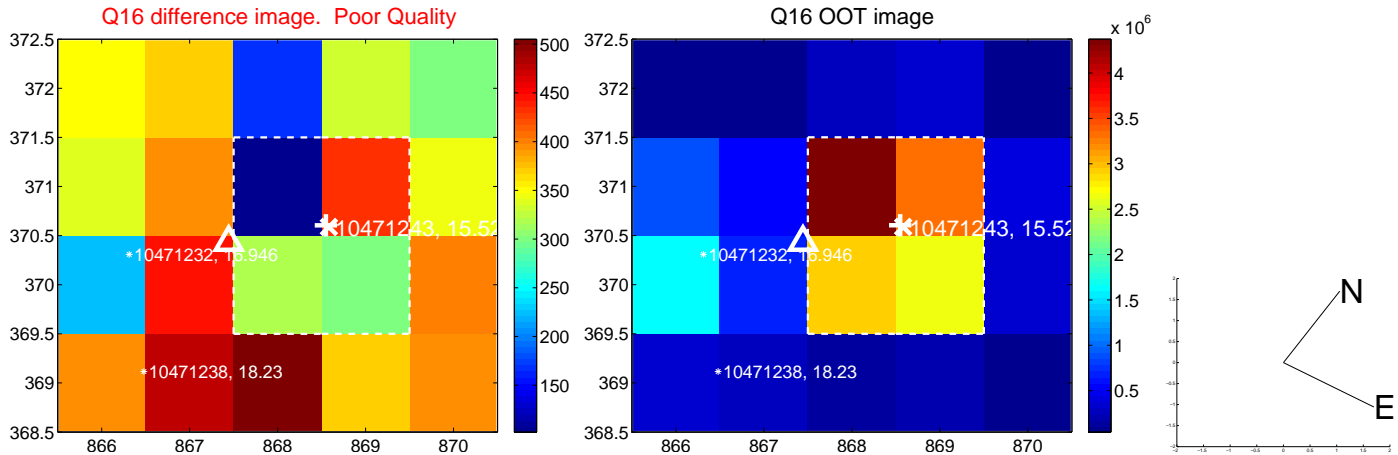
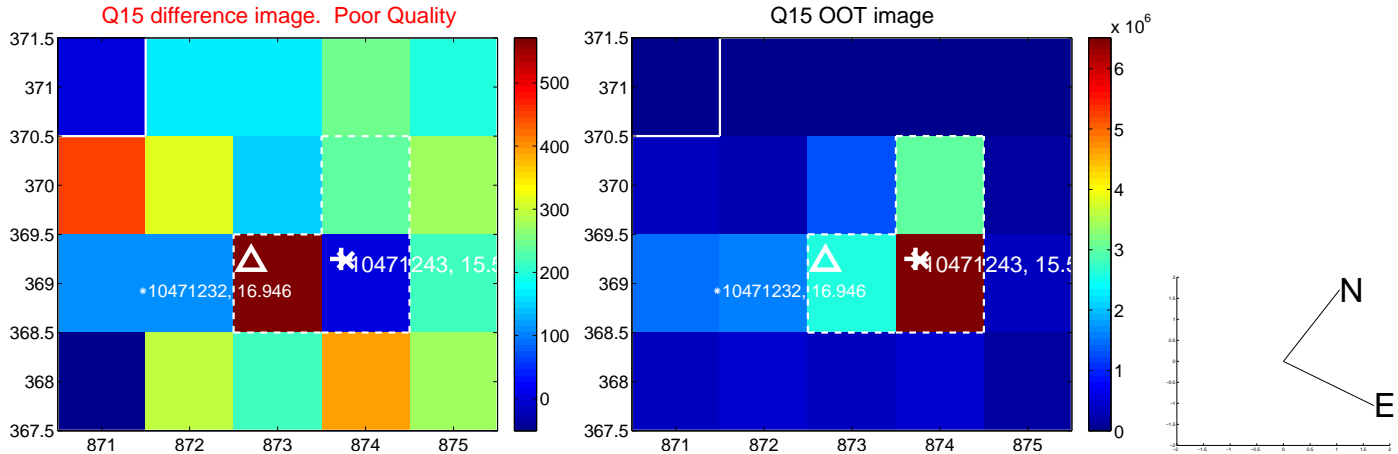
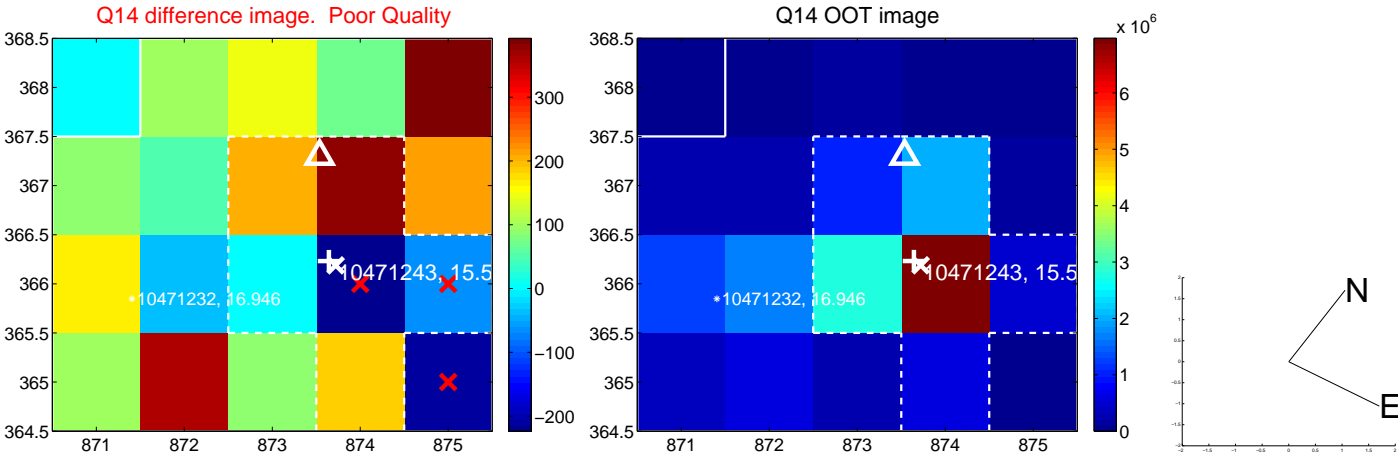
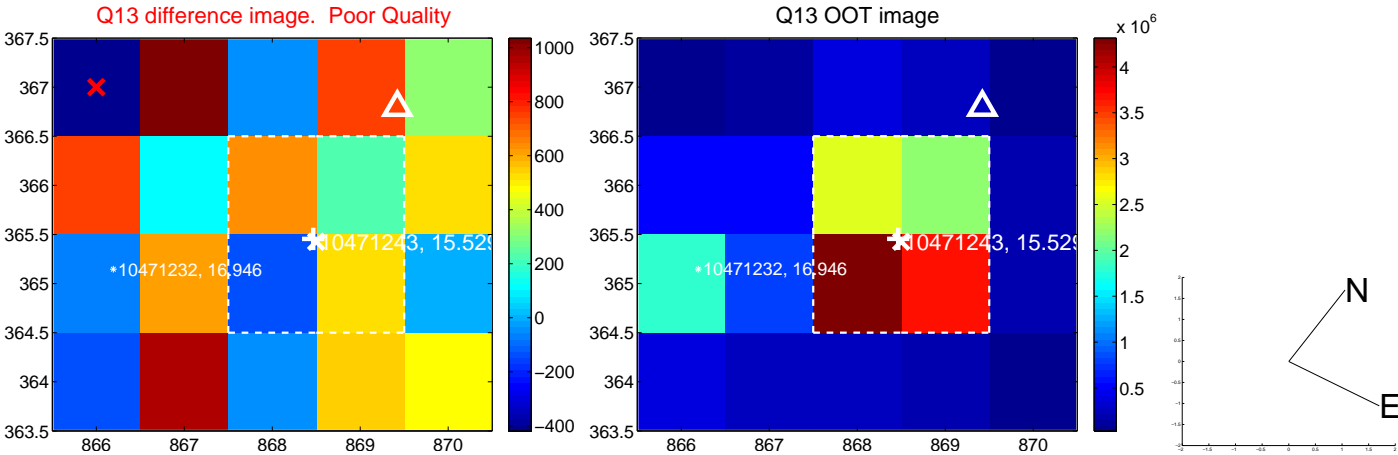
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UKIRT Image

Declination

