

KIC 003868759

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})
003868759-01	OBS	No	0.908266	131.637668	120.8	1.330	8.2	8.2	0.97	6106	1.25	3349.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003868759-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

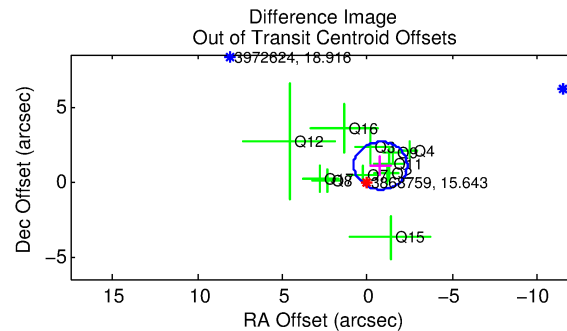
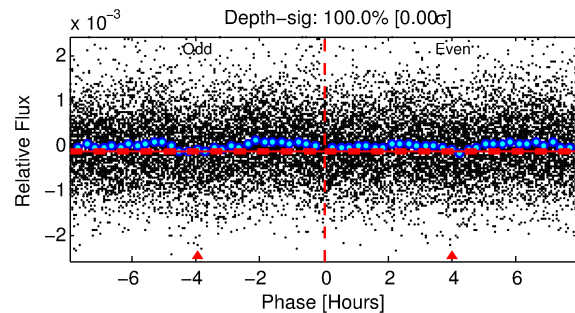
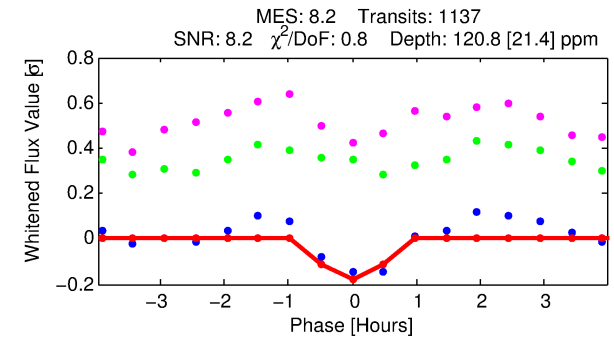
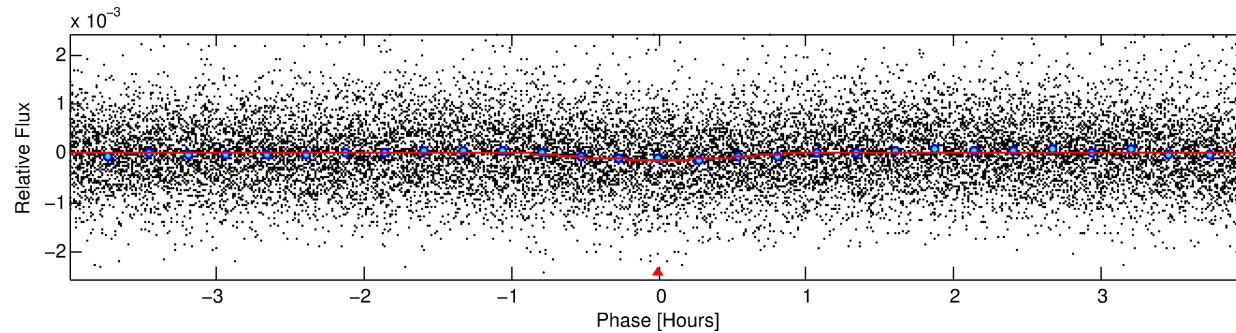
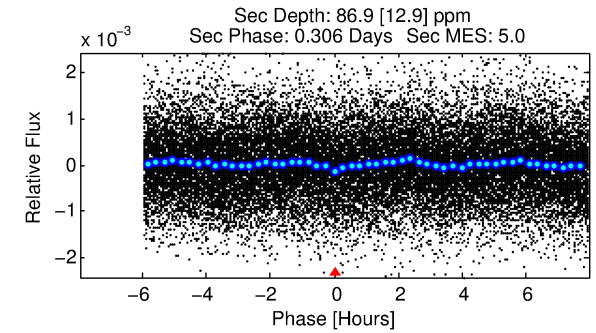
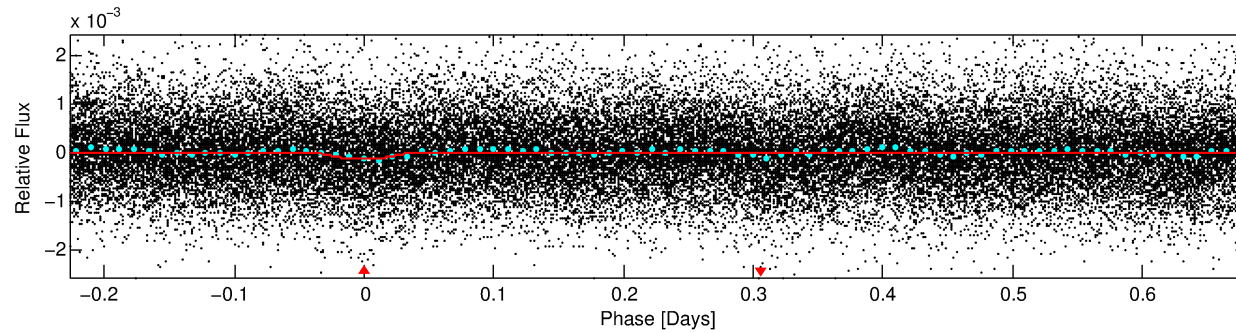
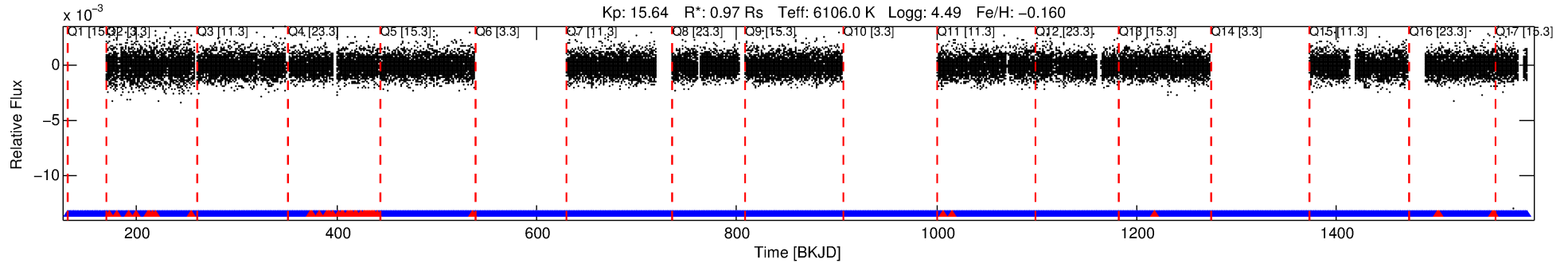
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003868759-01

No Significant Match Found

DV One-Page Summary

KIC: 3868759 Candidate: 1 of 1 Period: 0.908 d



DV Fit Results:

Period = 0.90827 [0.00001] d
Epoch = 131.6377 [0.0026] BKJD
Rp/R* = 0.0119 [0.0097]
a/R* = 2.59 [9.44]
b = 0.90 [0.92]
Seff = 3349.31 [1429.66]
Teff = 1940 [207] K
Rp = 1.25 [1.09] Re
a = 0.0186 [0.0050] AU
Ag = 10.53 [17.68] [0.54σ]
Teffp = 5403 [2212] K [1.56σ]

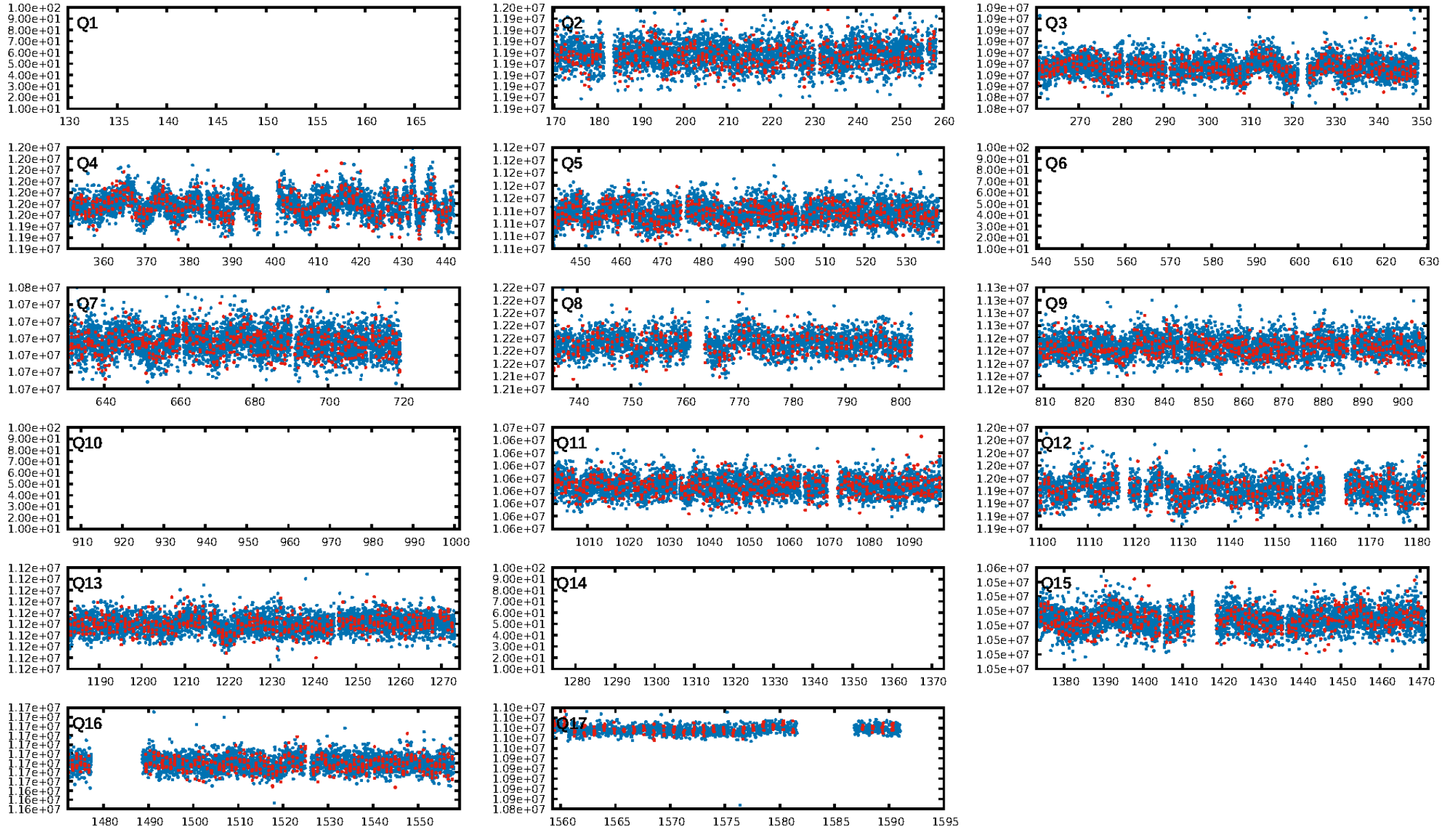
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.45e-17
RollingBand-fgt: 0.95 [1056/1108]
GhostDiagnostic-chr: 0.5115
Centroid-sig: 0.0%
Centroid-so: 4.398 arcsec [2.29σ]
OotOffset-rm: 1.323 arcsec [2.51σ]
KicOffset-rm: 1.338 arcsec [2.45σ]
OotOffset-st: 1/4/4/2 [11]
KicOffset-st: 1/4/4/2 [11]
DiffImageQuality-fgm: 0.18 [2/11]
DiffImageOverlap-fno: 1.00 [13/13]

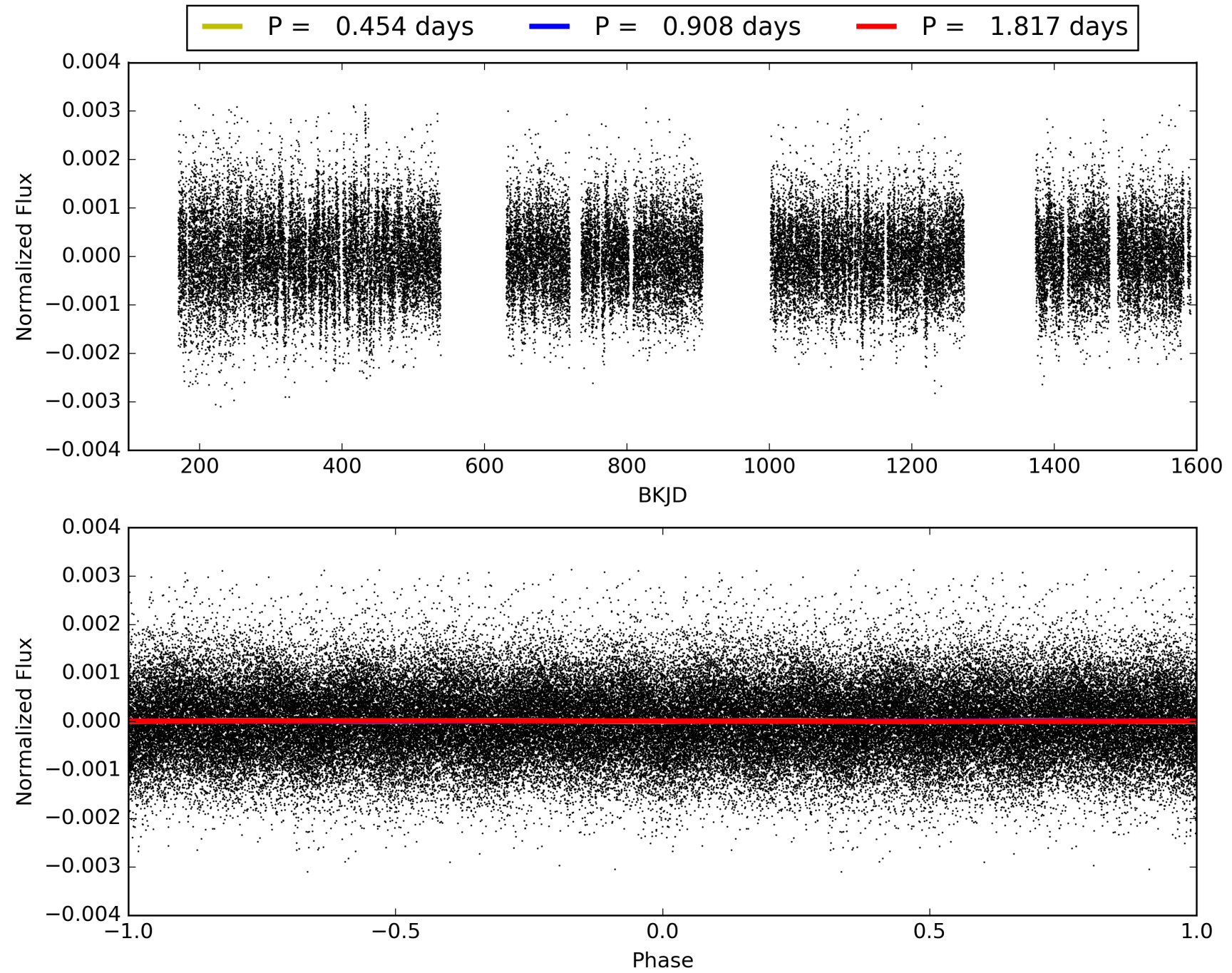
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:10:27 Z

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

TCE 003868759-01, PDC Light Curves

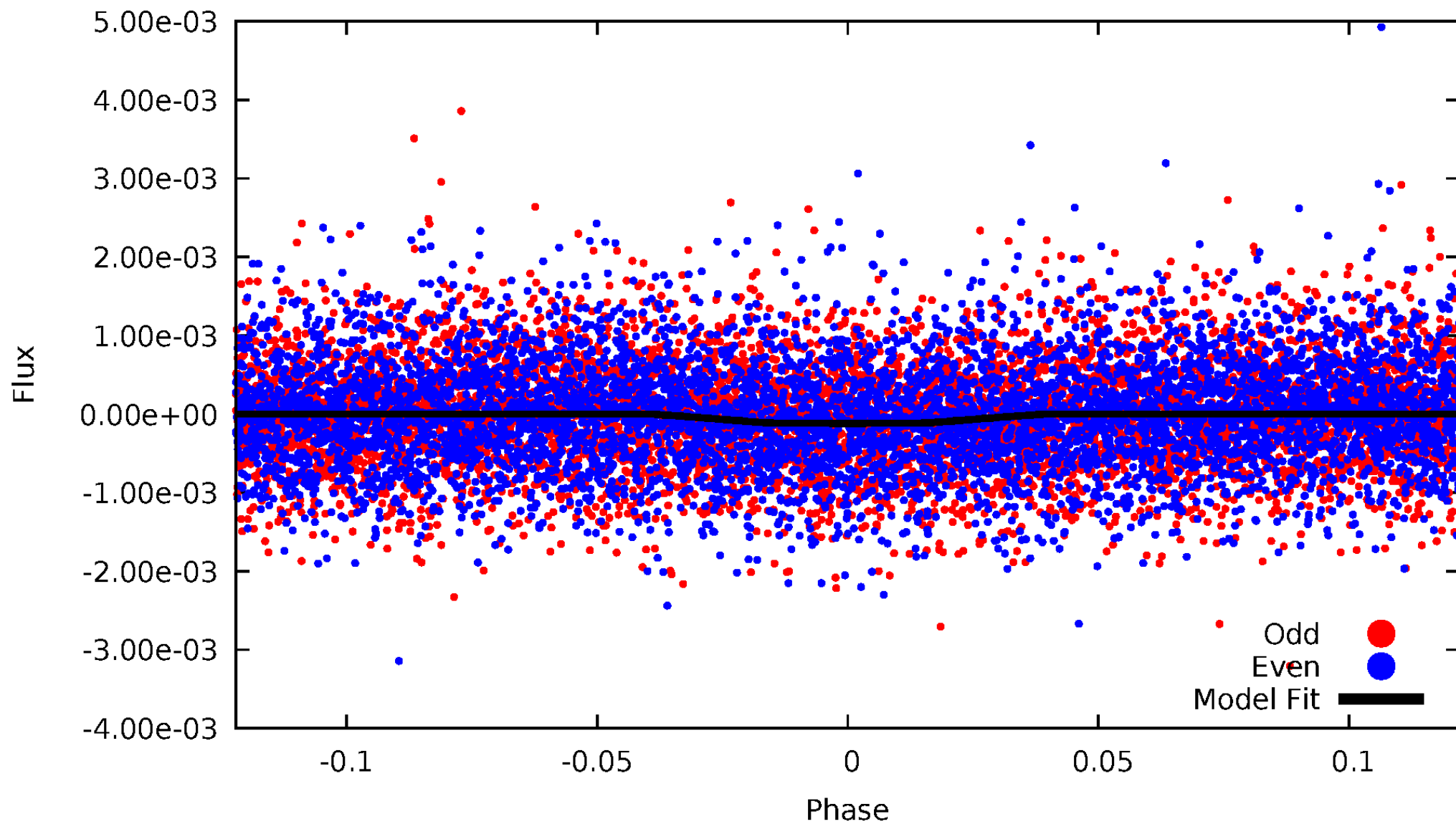


TCE 003868759-01



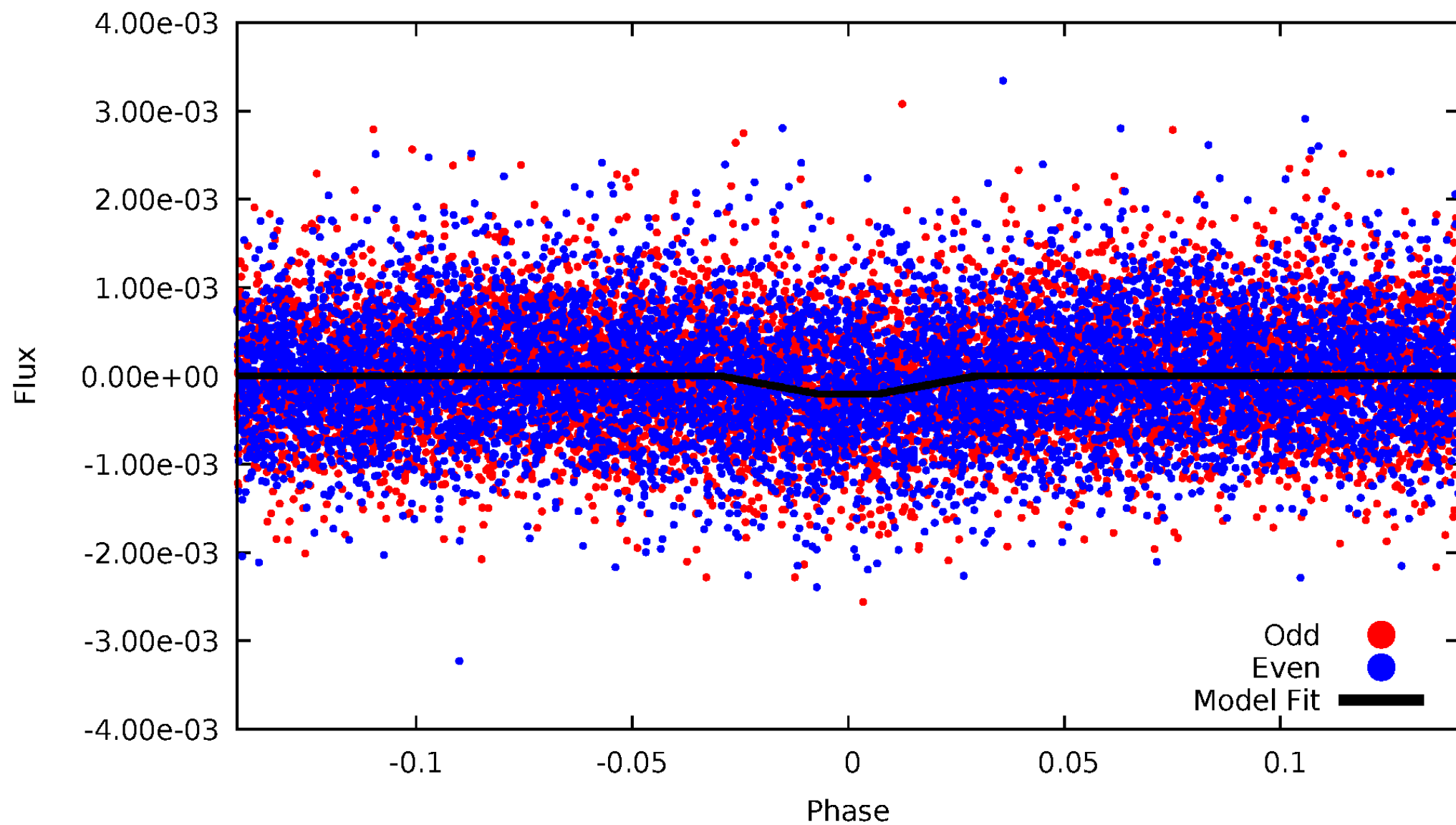
DV Odd/Even

TCE 003868759-01



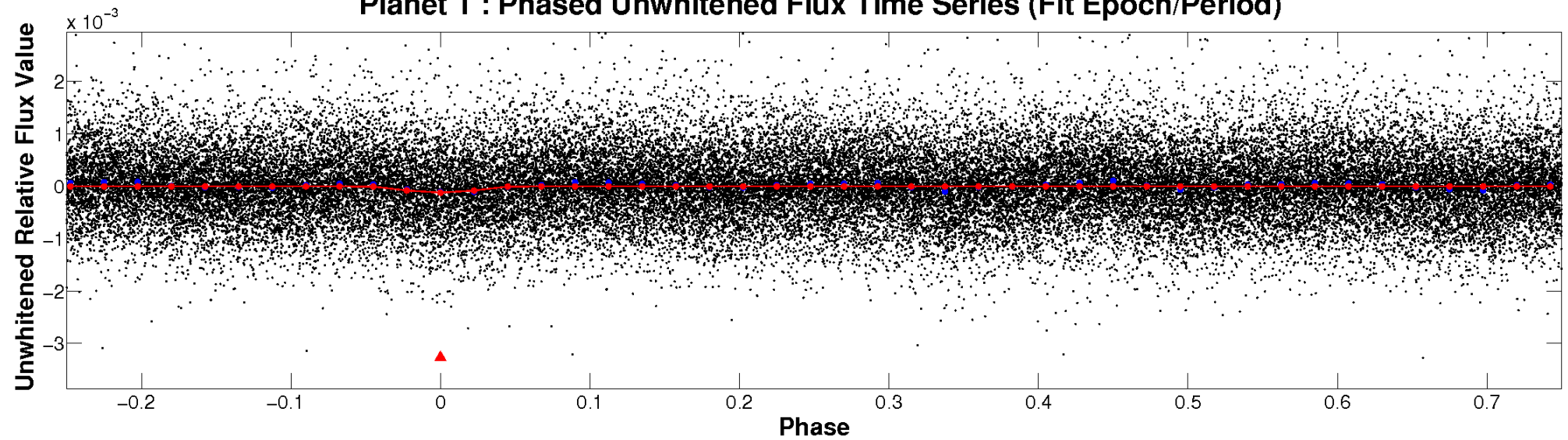
ALT Odd/Even

TCE 003868759-01

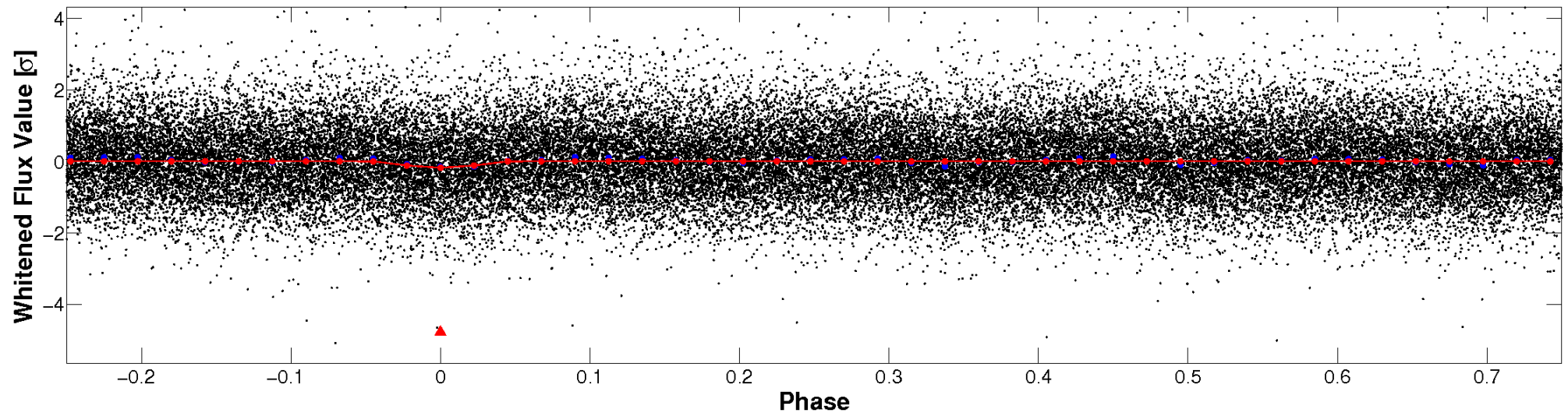


Non-Whitened Vs. Whitened Light Curve

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

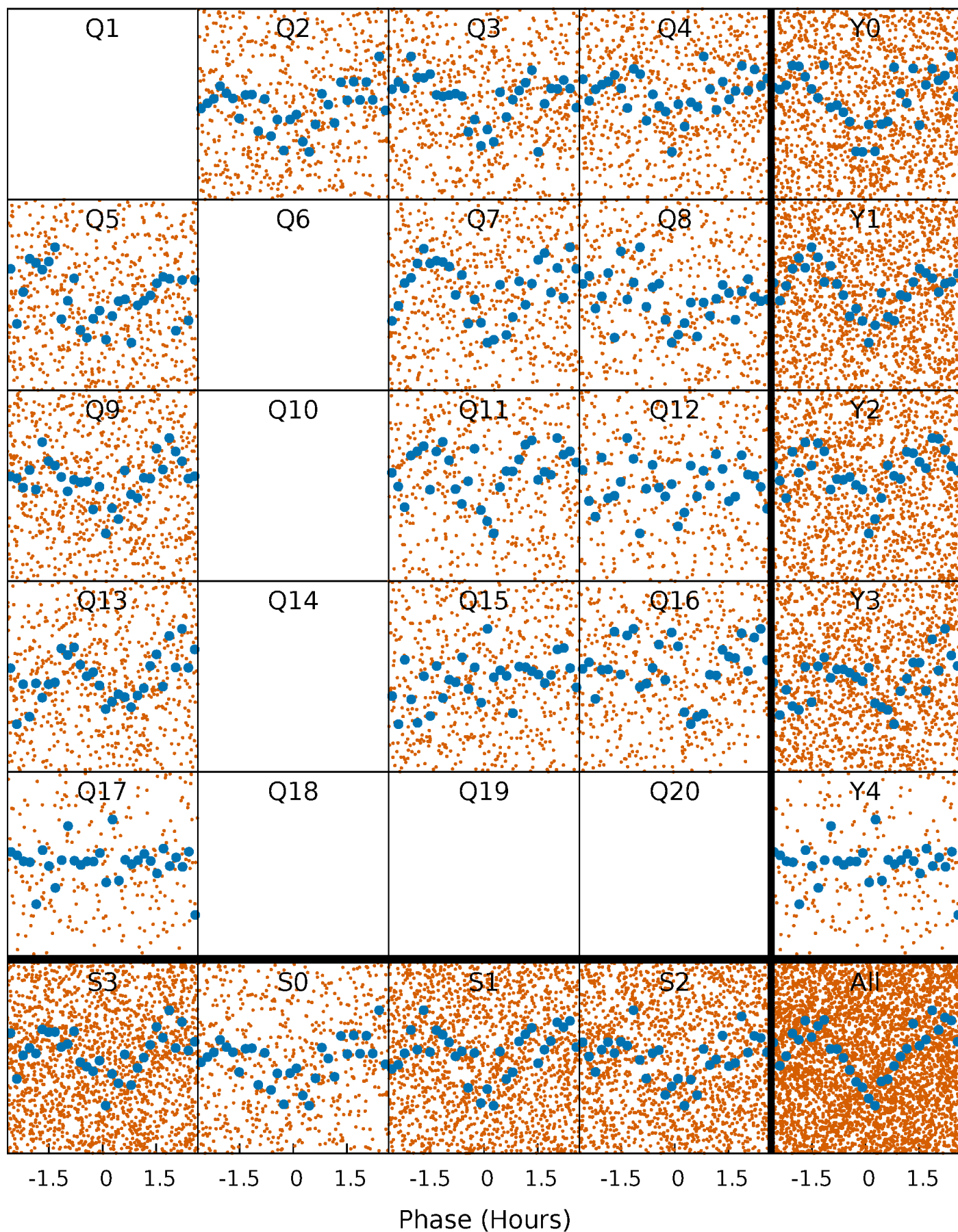


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



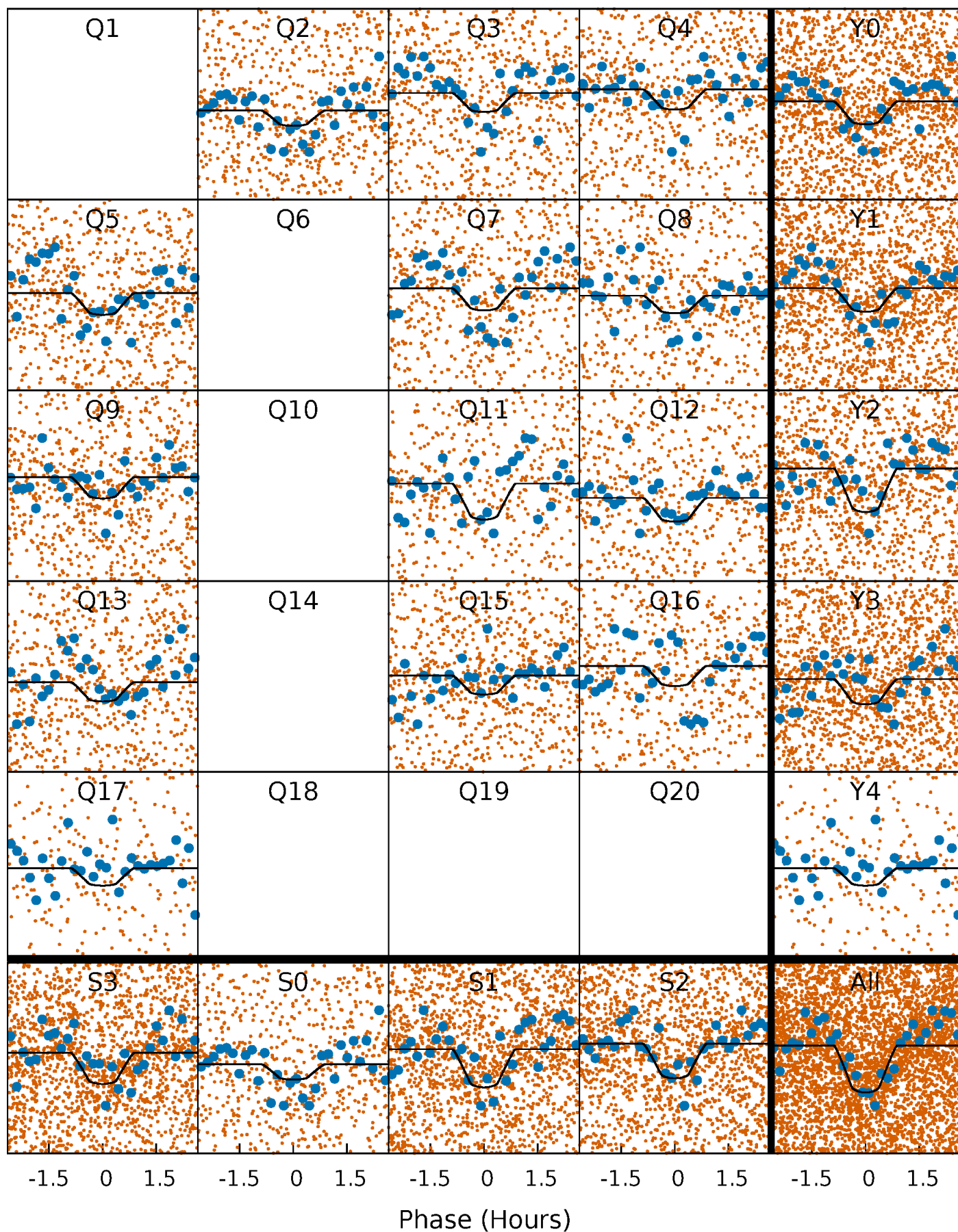
PDC Quarter-Phased Transit Curves

TCE 003868759-01 P= 0.908266 Days $T_0=131.637668$ (BKJD)



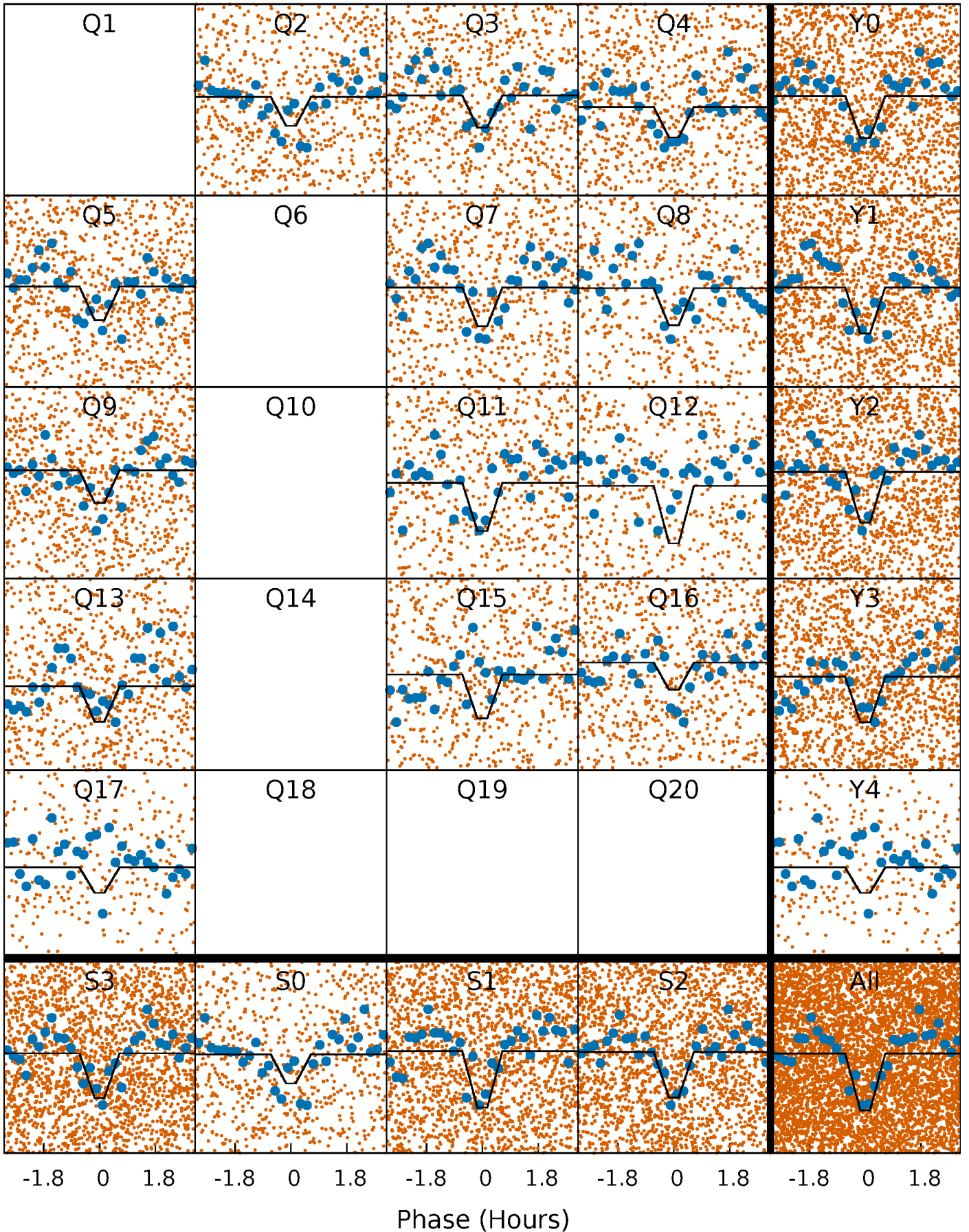
DV Quarter-Phased Transit Curves

TCE 003868759-01 P= 0.908266 Days $T_0=131.637668$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

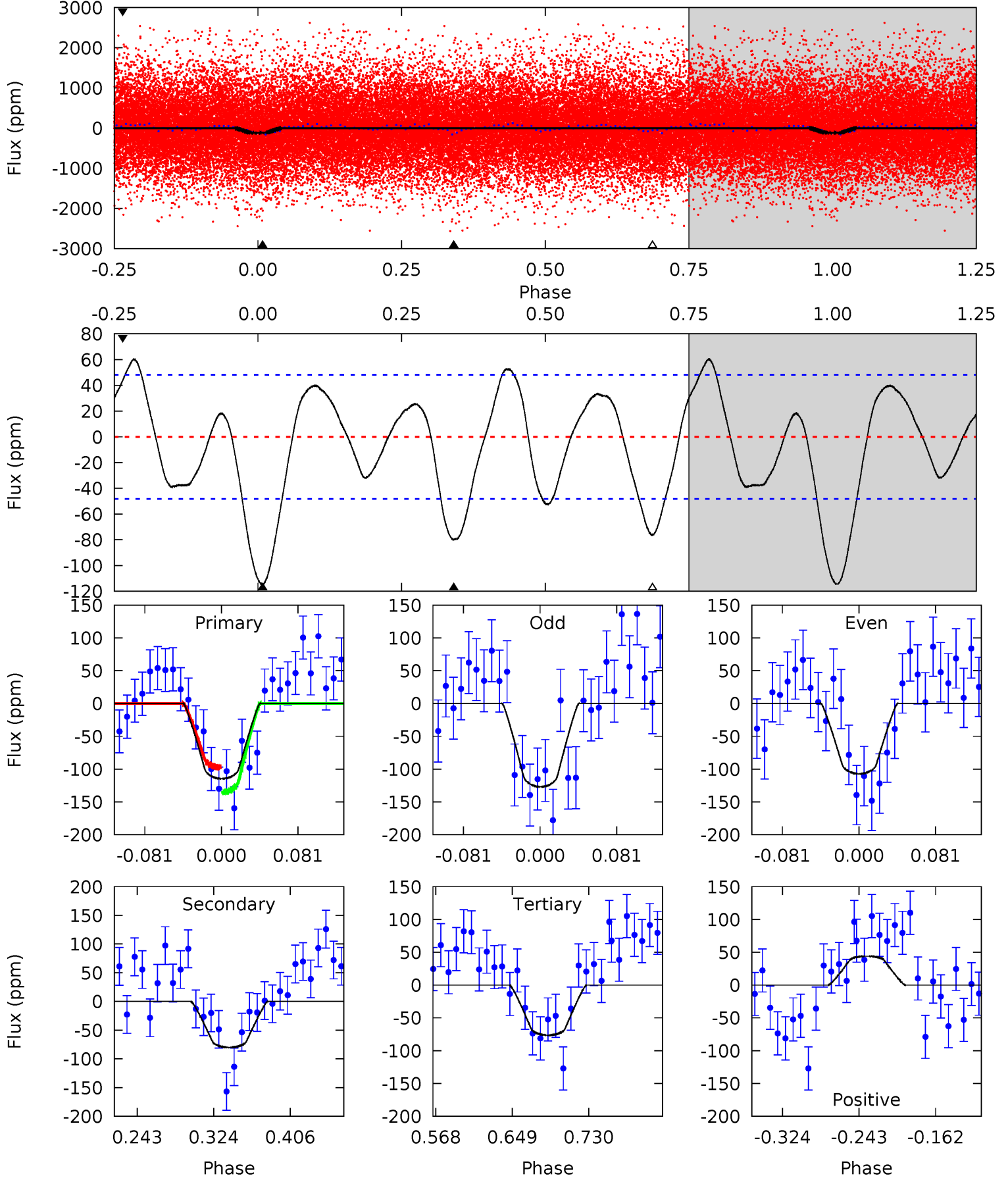
TCE 003868759-01 P= 0.908278 Days $T_0=131.636956$ (BKJD)



DV Model-Shift Uniqueness Test

003868759-01, P = 0.908266 Days, E = 131.637668 Days

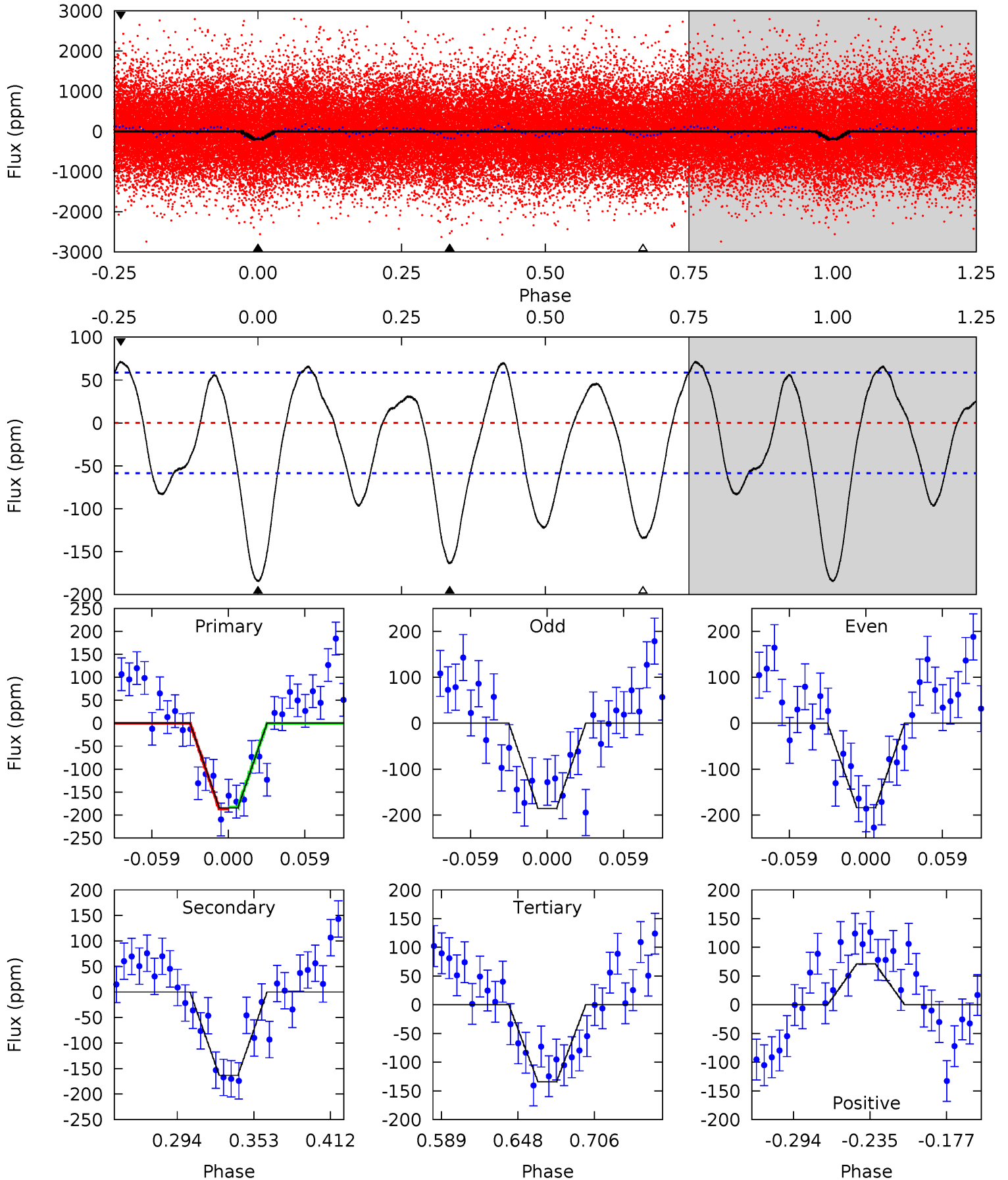
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	7.65	7.30	4.20	4.61	1.74	3.29	3.66	6.76	0.35	3.45	0.95	0.97	0.35	1.81



Alt Model-Shift Uniqueness Test

003868759-01, P = 0.908278 Days, E = 131.636956 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.7	13.0	10.7	5.68	4.67	1.89	4.66	4.03	9.05	2.35	7.37	0.06	0.87	0.28	0.15



Stellar Parameters For KIC 003868759

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6106^{+190}_{-232}	$4.487^{+0.052}_{-0.221}$	$-0.160^{+0.250}_{-0.300}$	$0.966^{+0.304}_{-0.101}$	$1.043^{+0.140}_{-0.140}$	$1.631^{+0.447}_{-0.834}$
	+3%/-4%	+1%/-5%	+156%/-188%	+31%/-10%	+13%/-13%	+27%/-51%
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 003868759-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-80 ± 10	$1.48^{+1.09}_{-0.89}$	2775^{+223}_{-149}	5029^{+3107}_{-1027}	$6.813^{+39.111}_{-4.484}$
Alt.	-163 ± 13	$1.68^{+1.11}_{-0.89}$	2773^{+200}_{-148}	5538^{+2974}_{-1072}	11^{+38}_{-7}

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 $A_{\text{obs}} \gg 1.0$

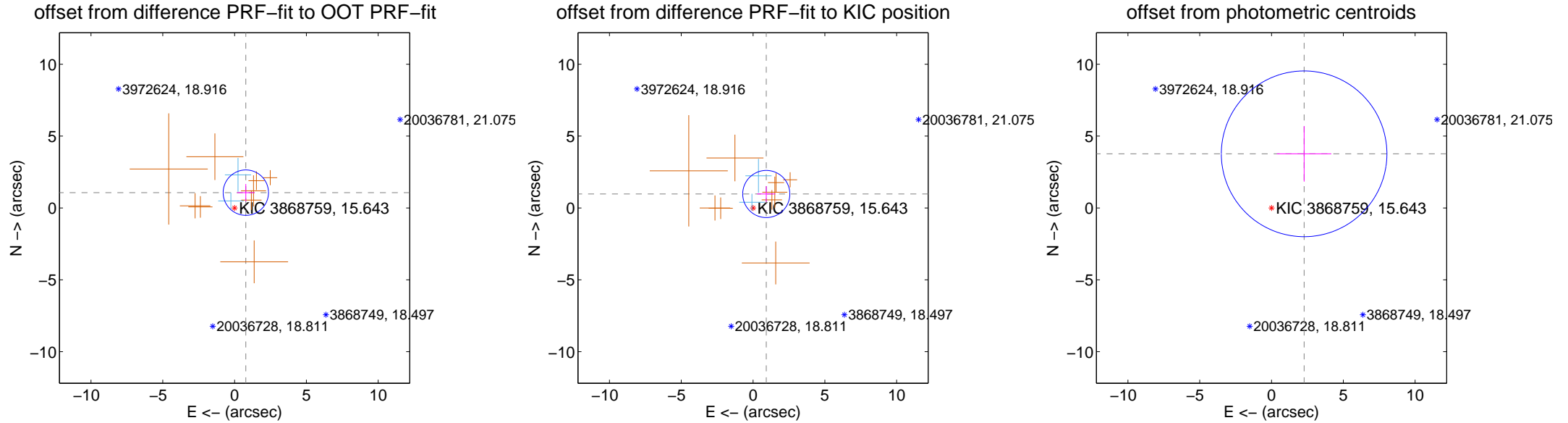
DV Centroid Data

Supplemental centroid analysis for 003868759-01. Kepler magnitude: 15.64. Transit SNR 8.16

There are 2 quarters with good PRF difference image offsets

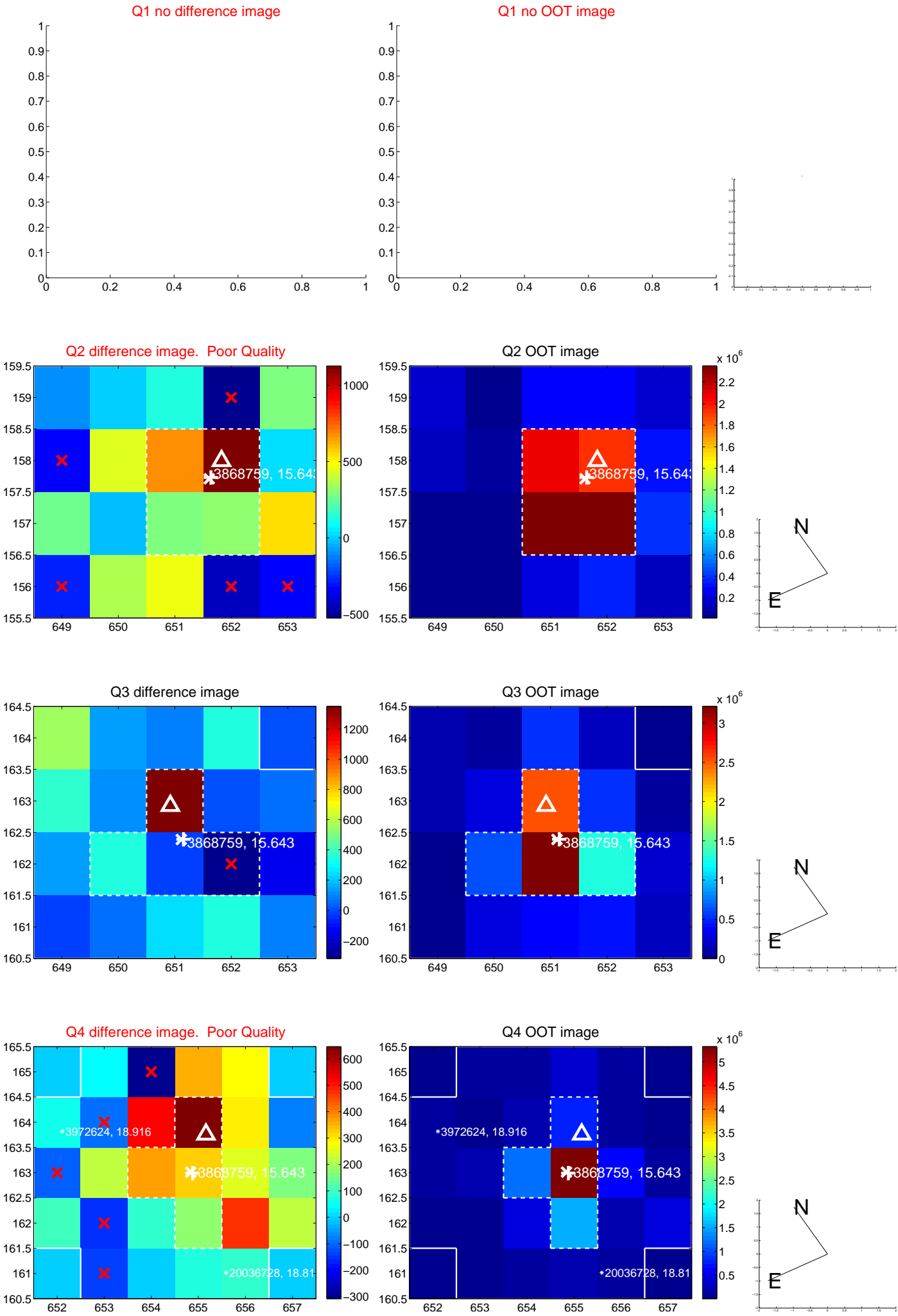
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.323 ± 0.526	2.51	-0.784 ± 0.614	1.066 ± 0.599
PRF-fit source offset from KIC position	1.338 ± 0.547	2.45	-0.921 ± 0.631	0.971 ± 0.551
photometric centroid source offset	4.40 ± 1.92	2.29	-2.27 ± 1.90	3.77 ± 1.93

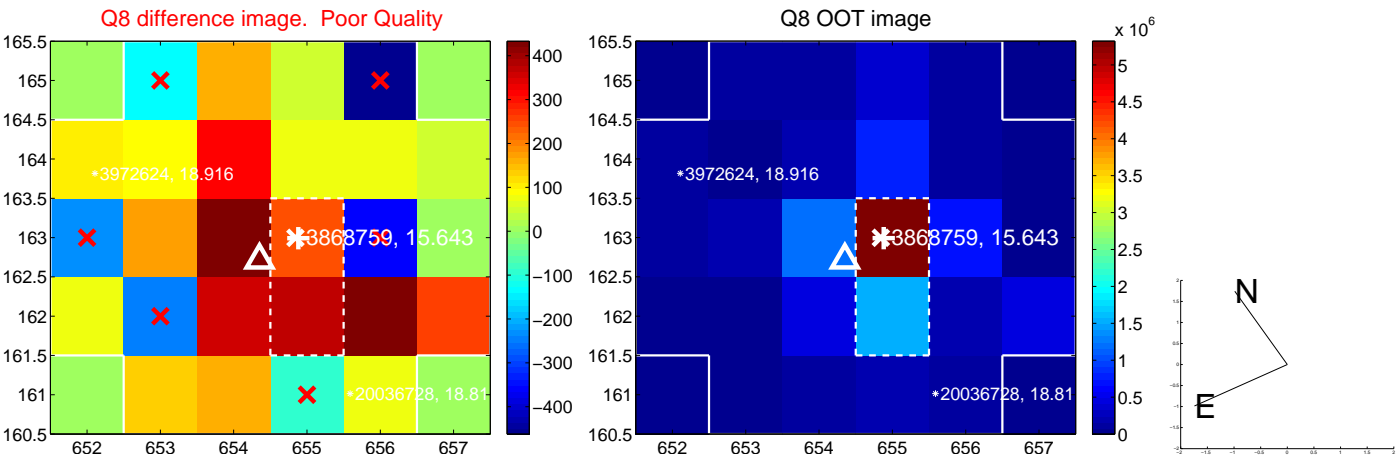
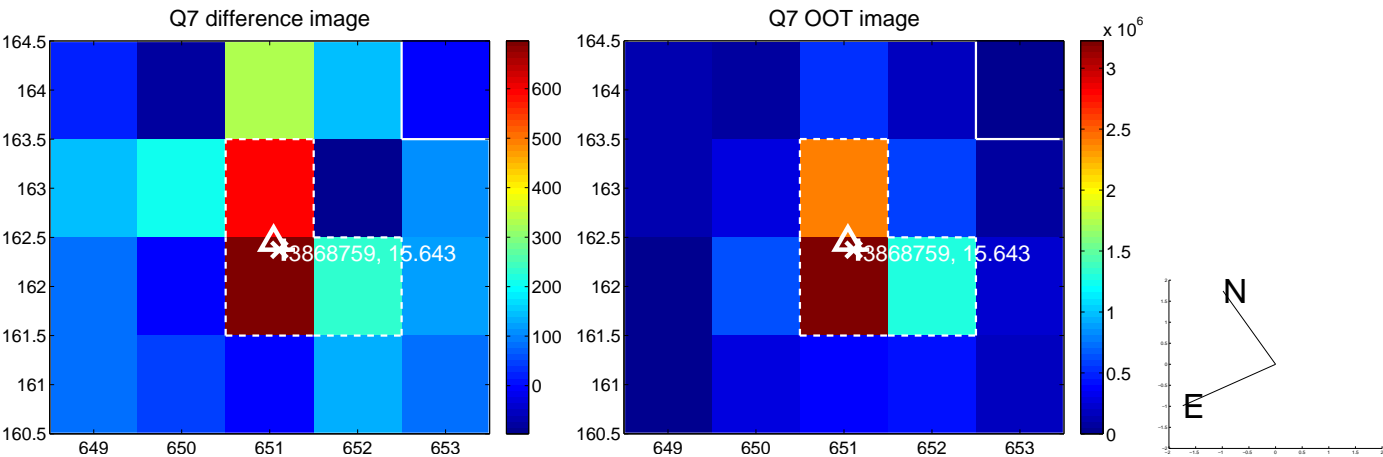
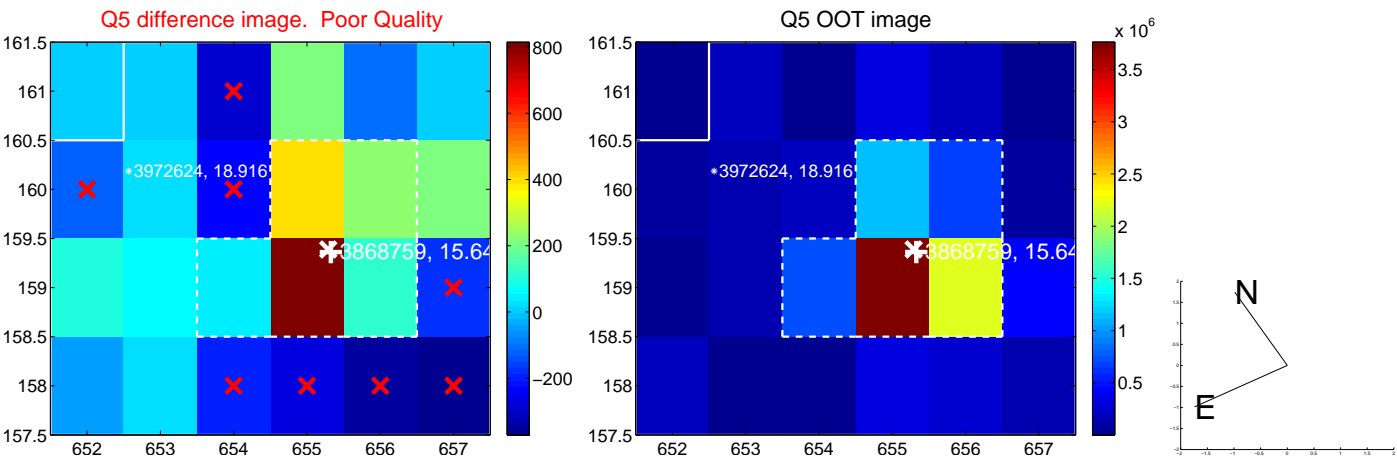


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

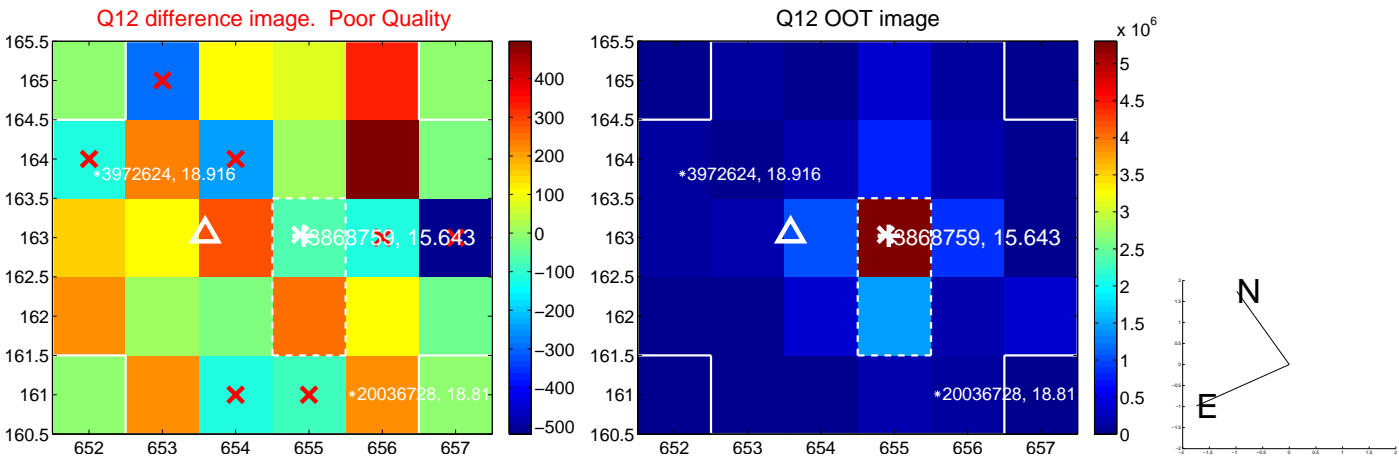
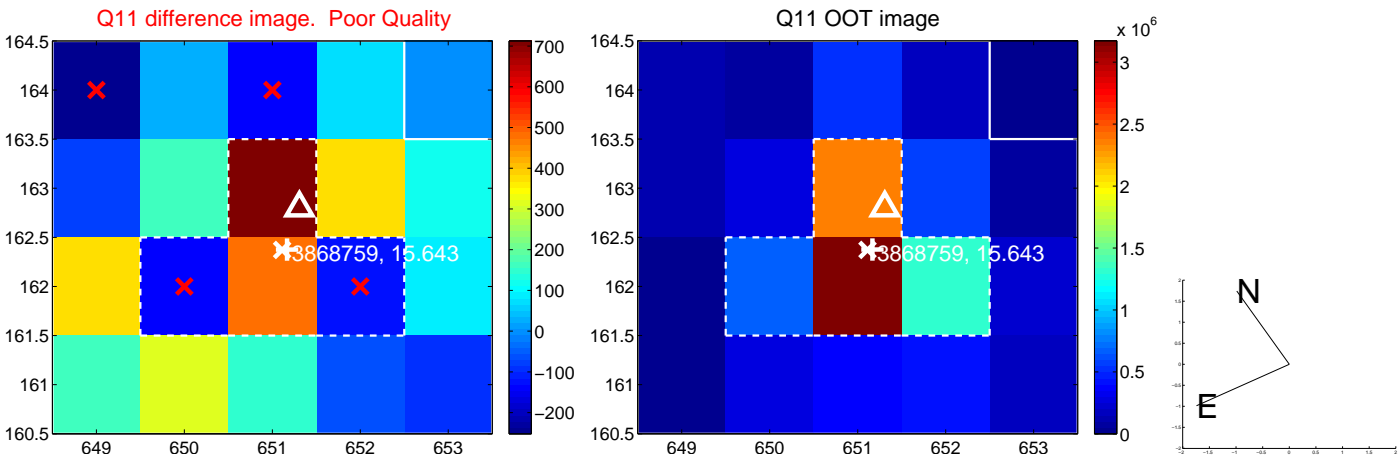
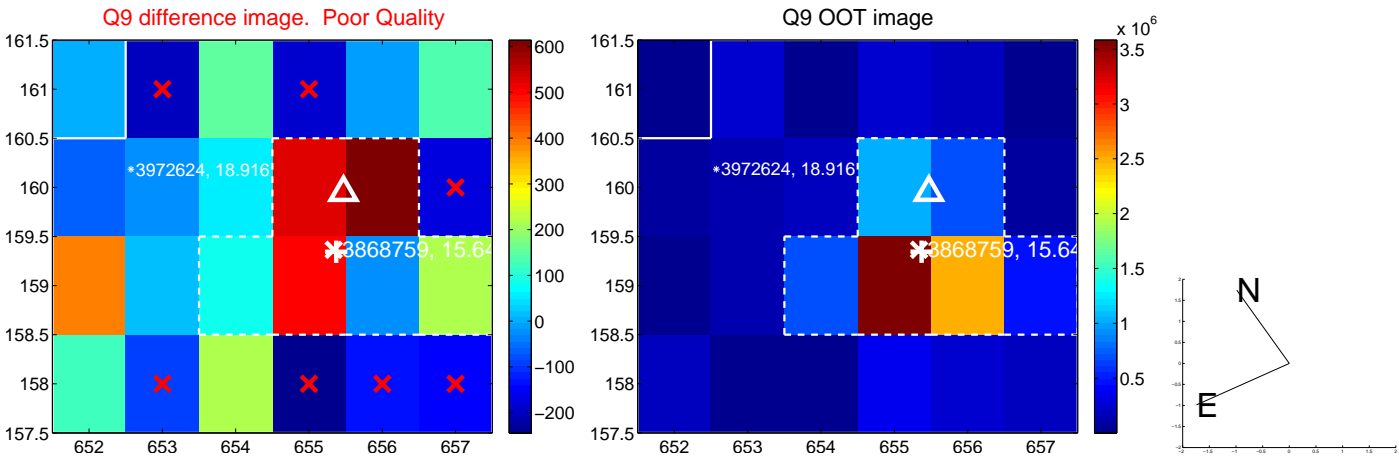
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



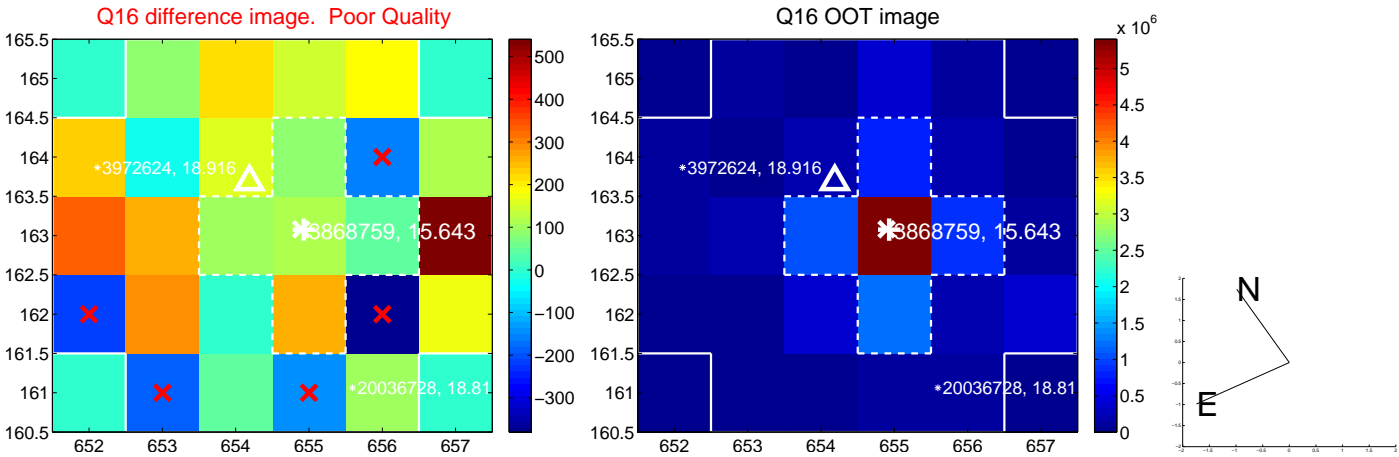
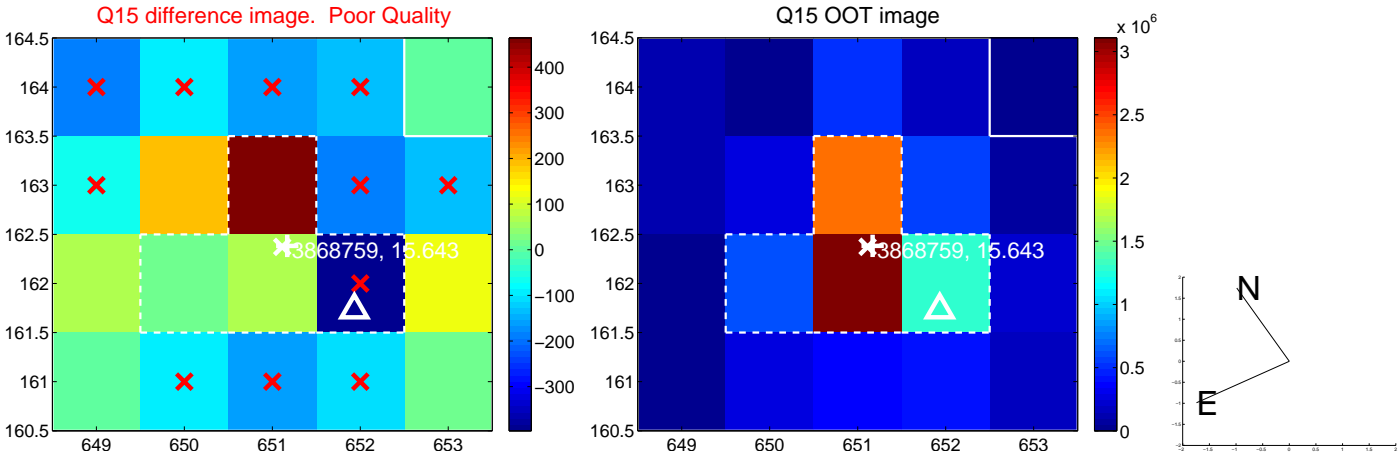
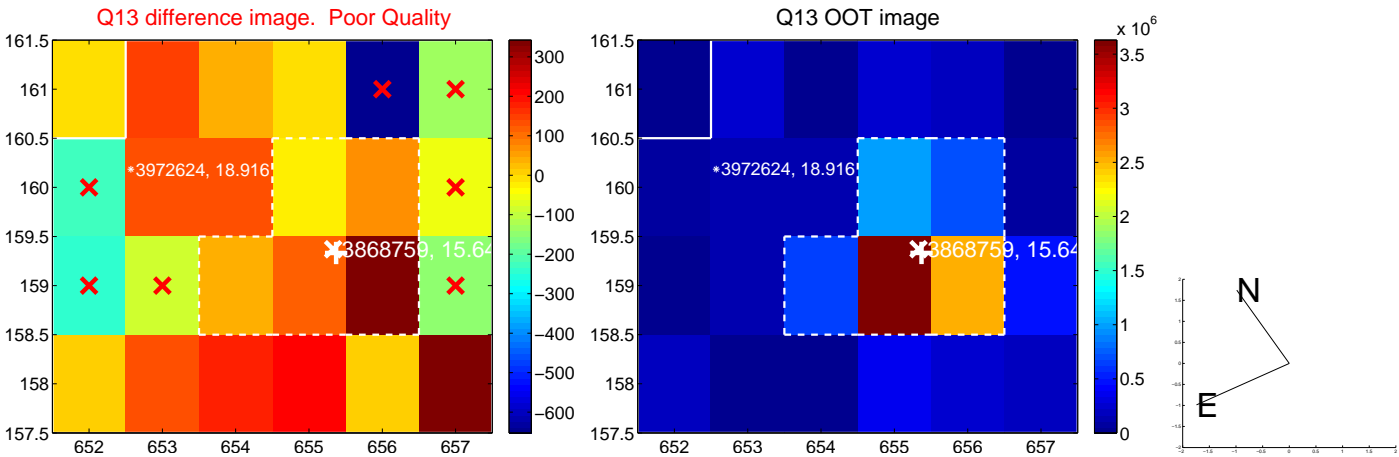
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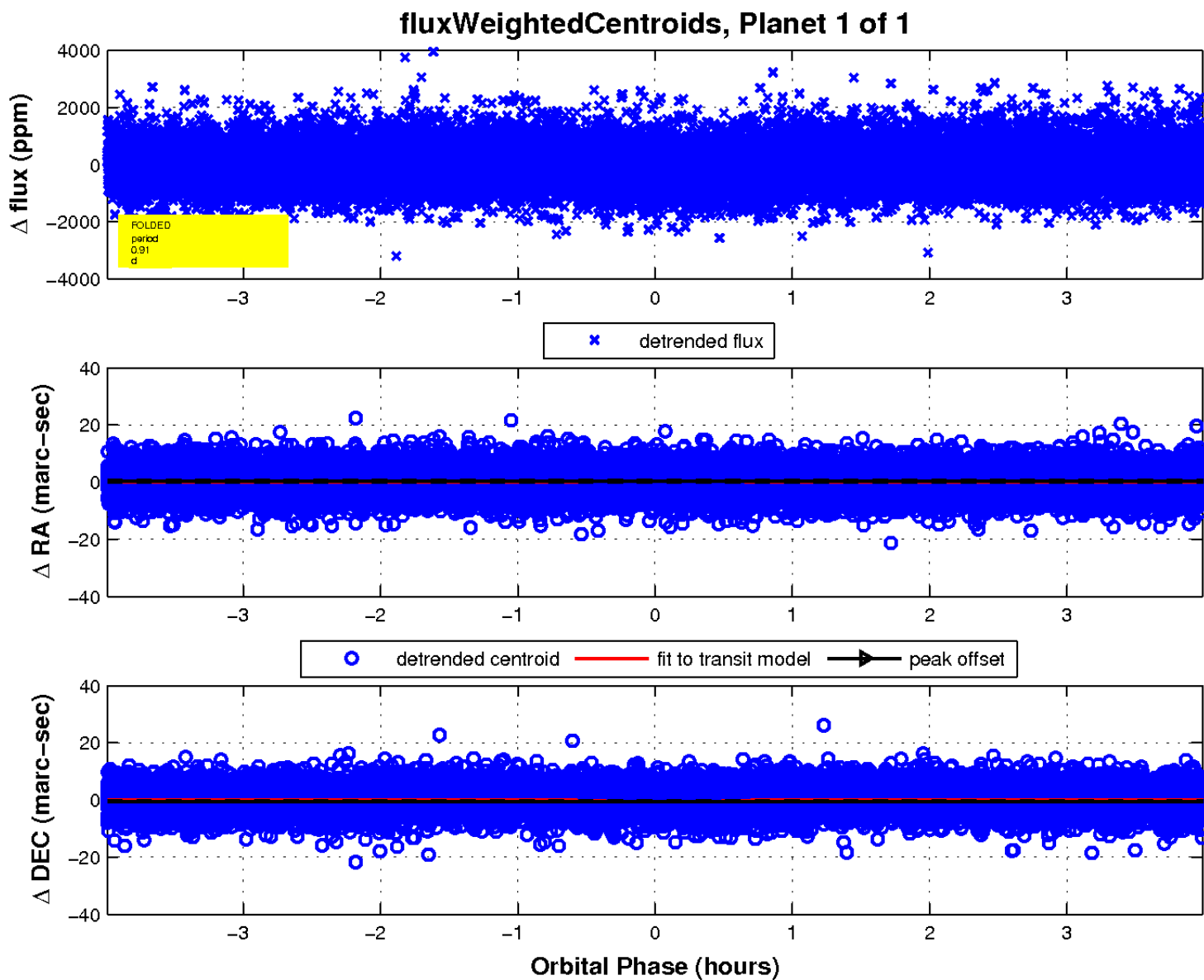
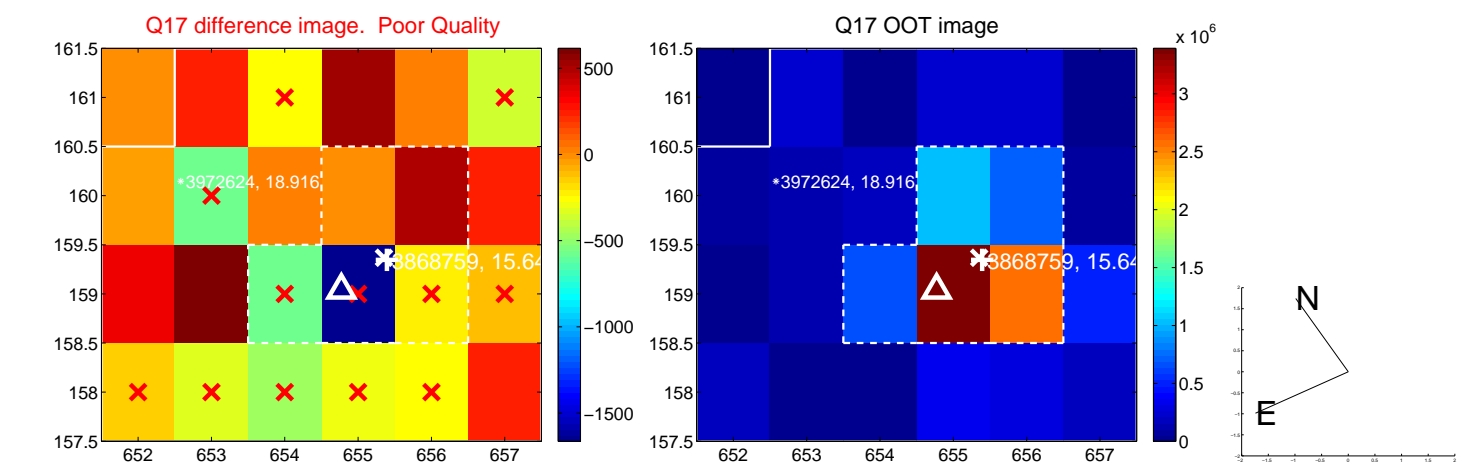
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UKIRT Image

Declination

