

KIC 010665749

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})
010665749-01	OBS	7359.01	4.237463	135.172839	350.1	0.518	7.7	11.5	0.99	5993	1.94	446.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010665749-01	OBS	PC	0.96	0	0	0	0	NO_COMMENT

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.

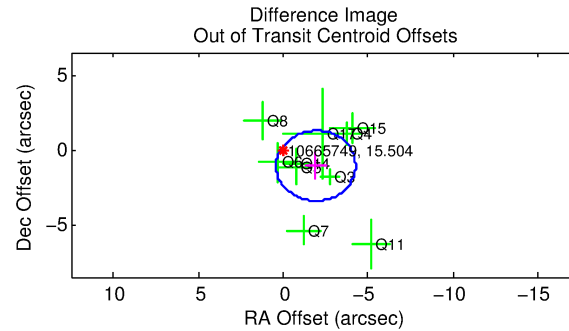
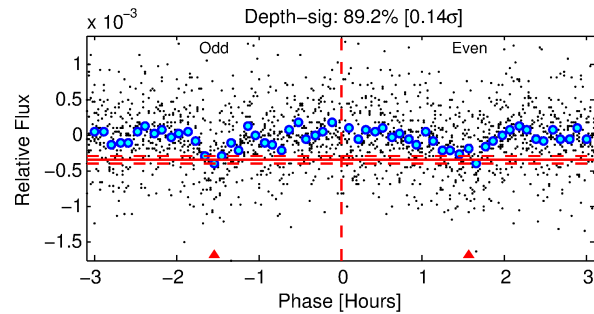
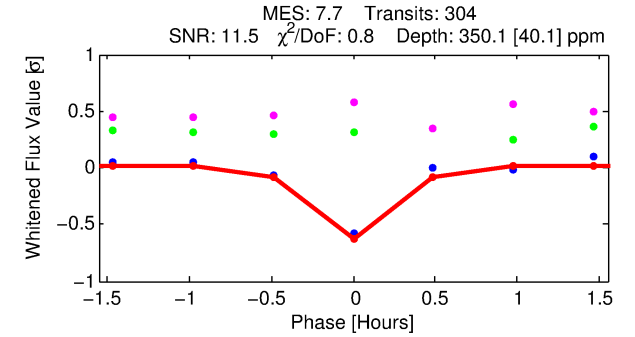
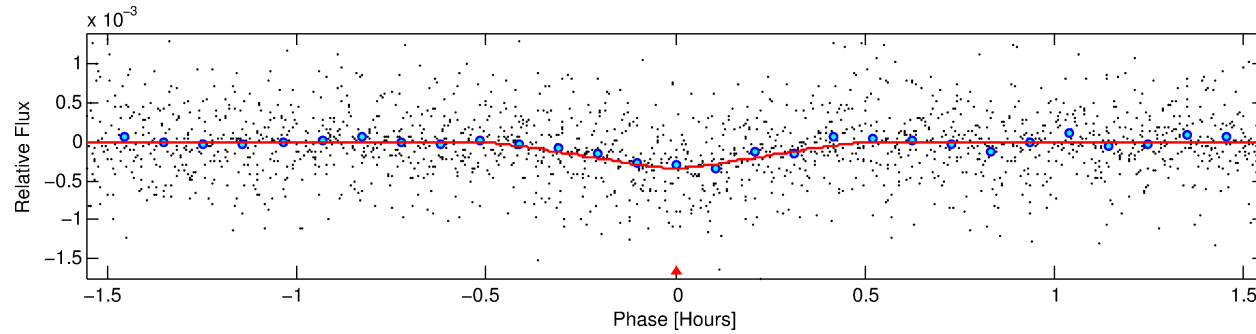
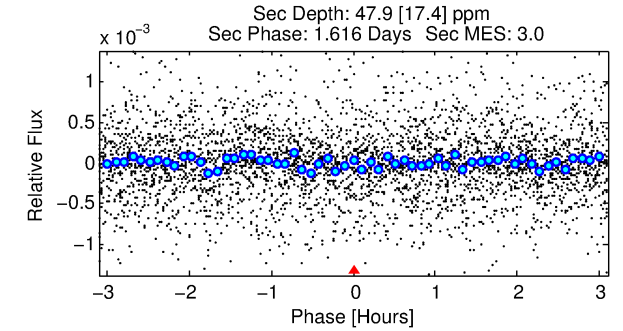
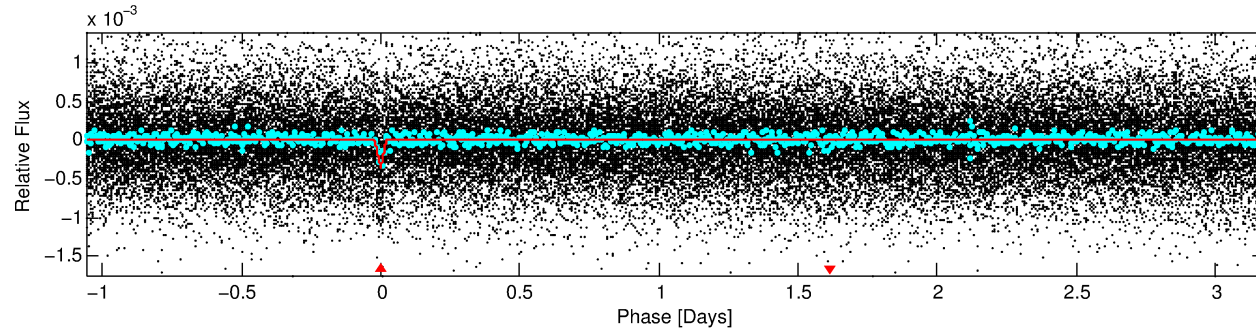
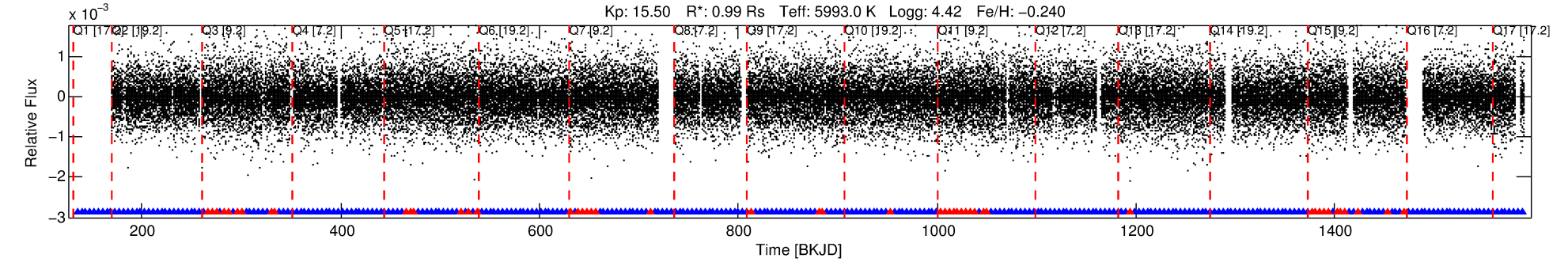
Ephemeris Match Information For 010665749-01

No Significant Match Found

DV One-Page Summary

KIC: 10665749 Candidate: 1 of 1 Period: 4.237 d

KOI: K07359.01 Corr: 0.783



DV Fit Results:

Period = 4.23746 [0.00001] d
Epoch = 135.1728 [0.0011] BKJD
Rp/R* = 0.0179 [0.0196]
a/R* = 63.27 [336.96]
b = 0.10 [52.38]
Seff = 446.65 [175.62]
Teff = 1172 [115] K
Rp = 1.94 [2.20] Re
a = 0.0505 [0.0128] AU
Ag = 17.83 [40.00] [0.42σ]
Teffp = 3724 [2064] K [1.23σ]

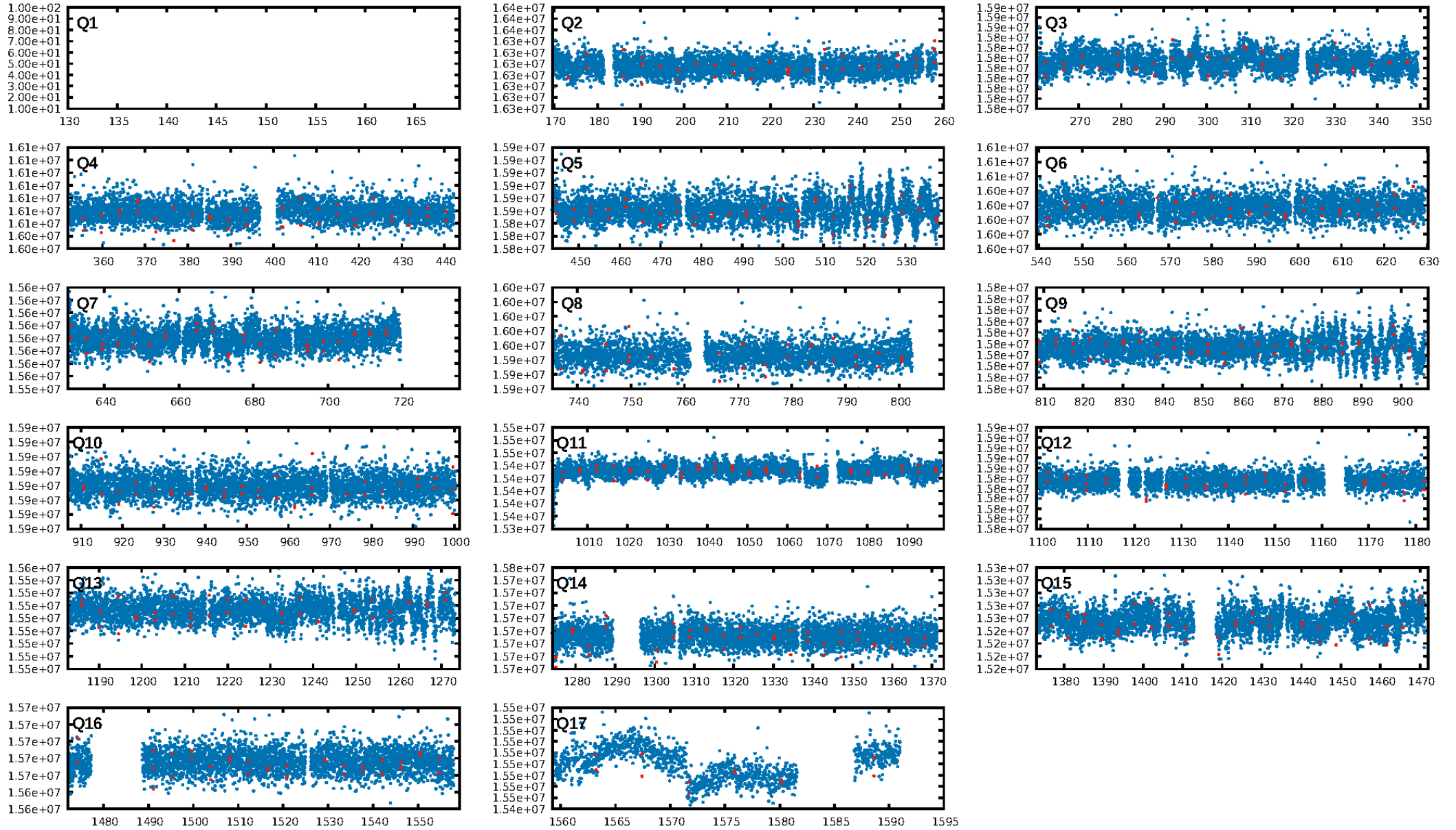
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.80e-14
RollingBand-fgt: 0.84 [249/298]
GhostDiagnostic-chr: 0.6378
Centroid-sig: 0.8%
Centroid-so: 3.027 arcsec [2.02σ]
OotOffset-rm: 2.212 arcsec [2.83σ]
KicOffset-rm: 2.186 arcsec [2.65σ]
OotOffset-st: 2/4/2/2 [10]
KicOffset-st: 2/4/2/2 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 1.00 [16/16]

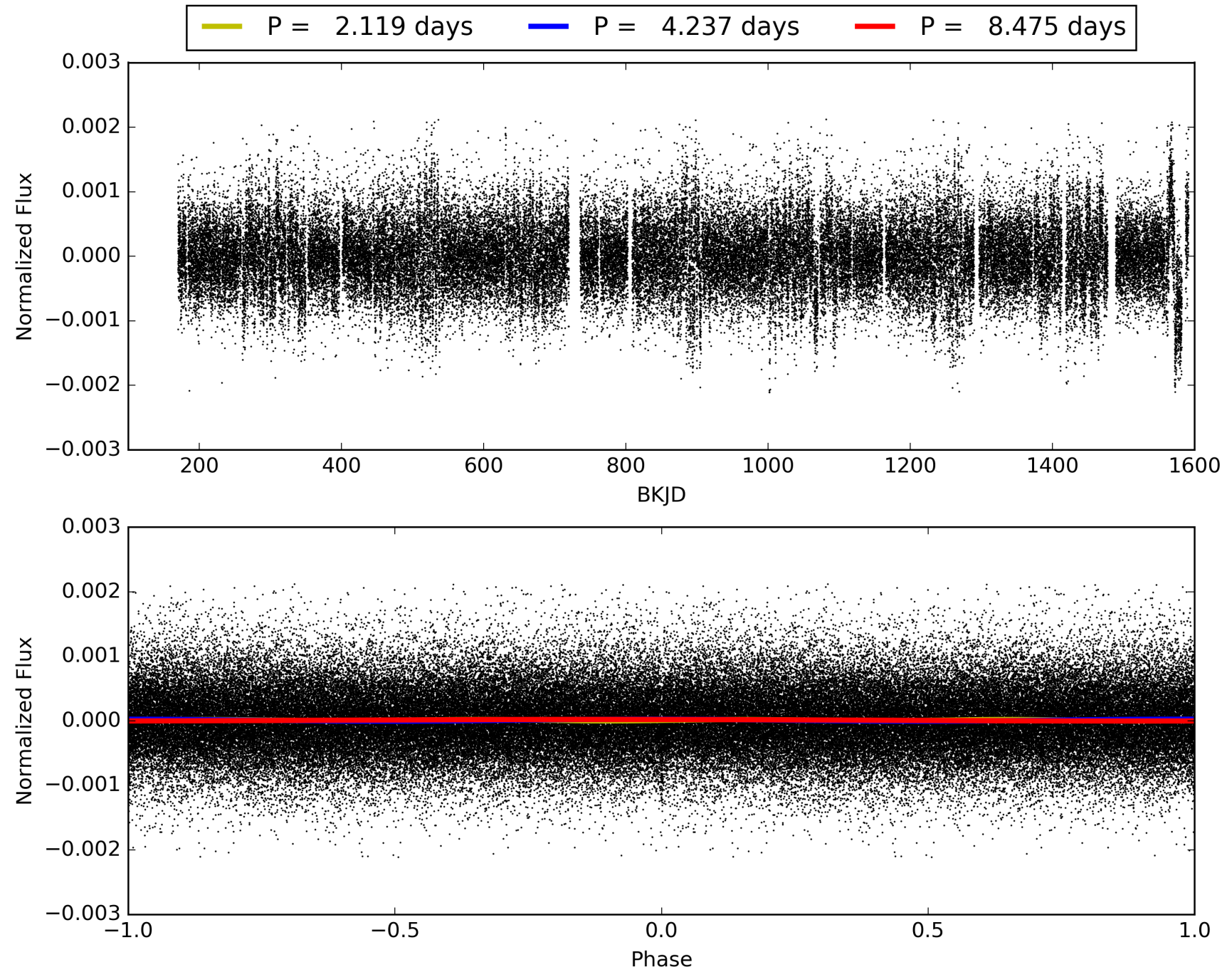
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:33:34 Z

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

TCE 010665749-01, PDC Light Curves

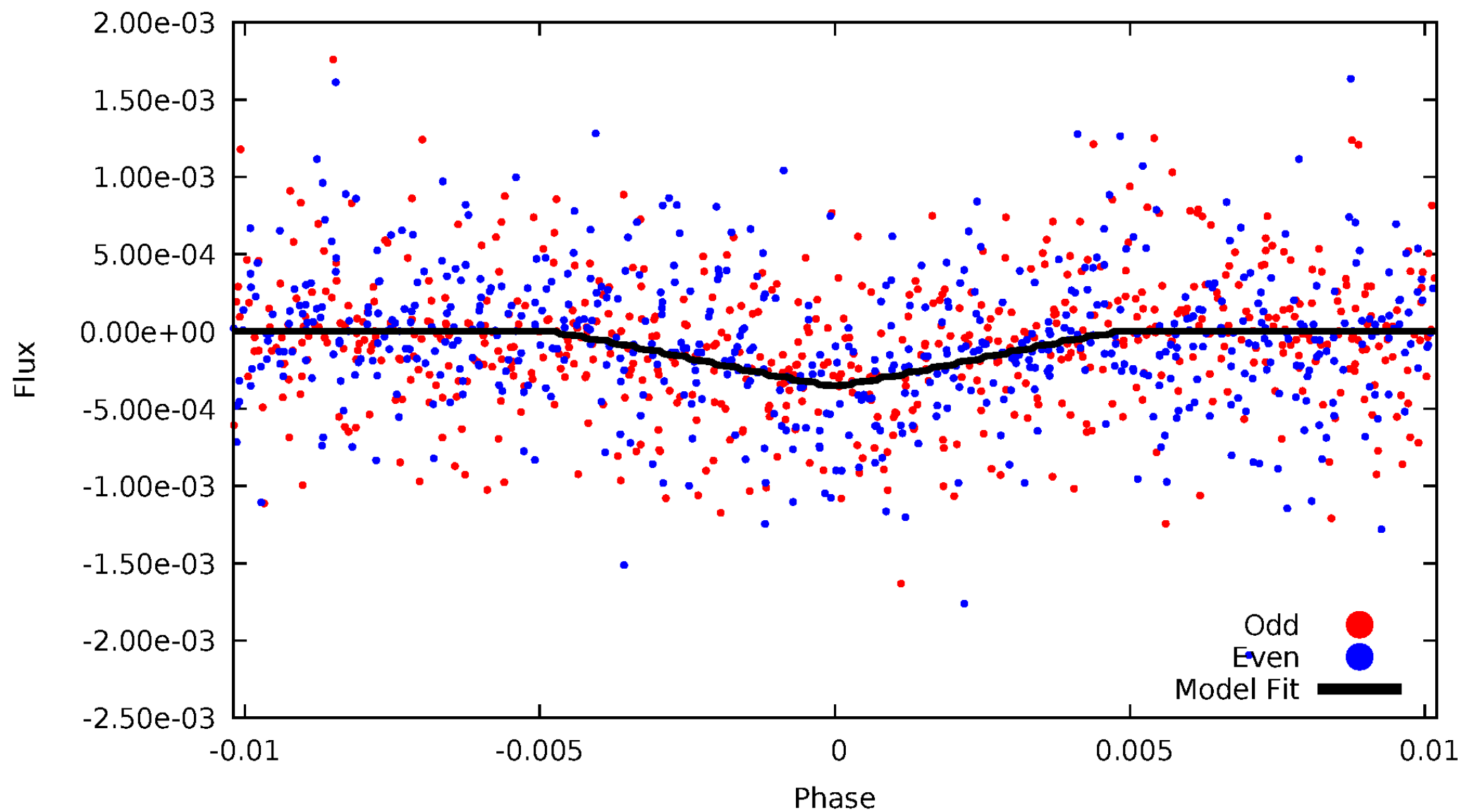


TCE 010665749-01



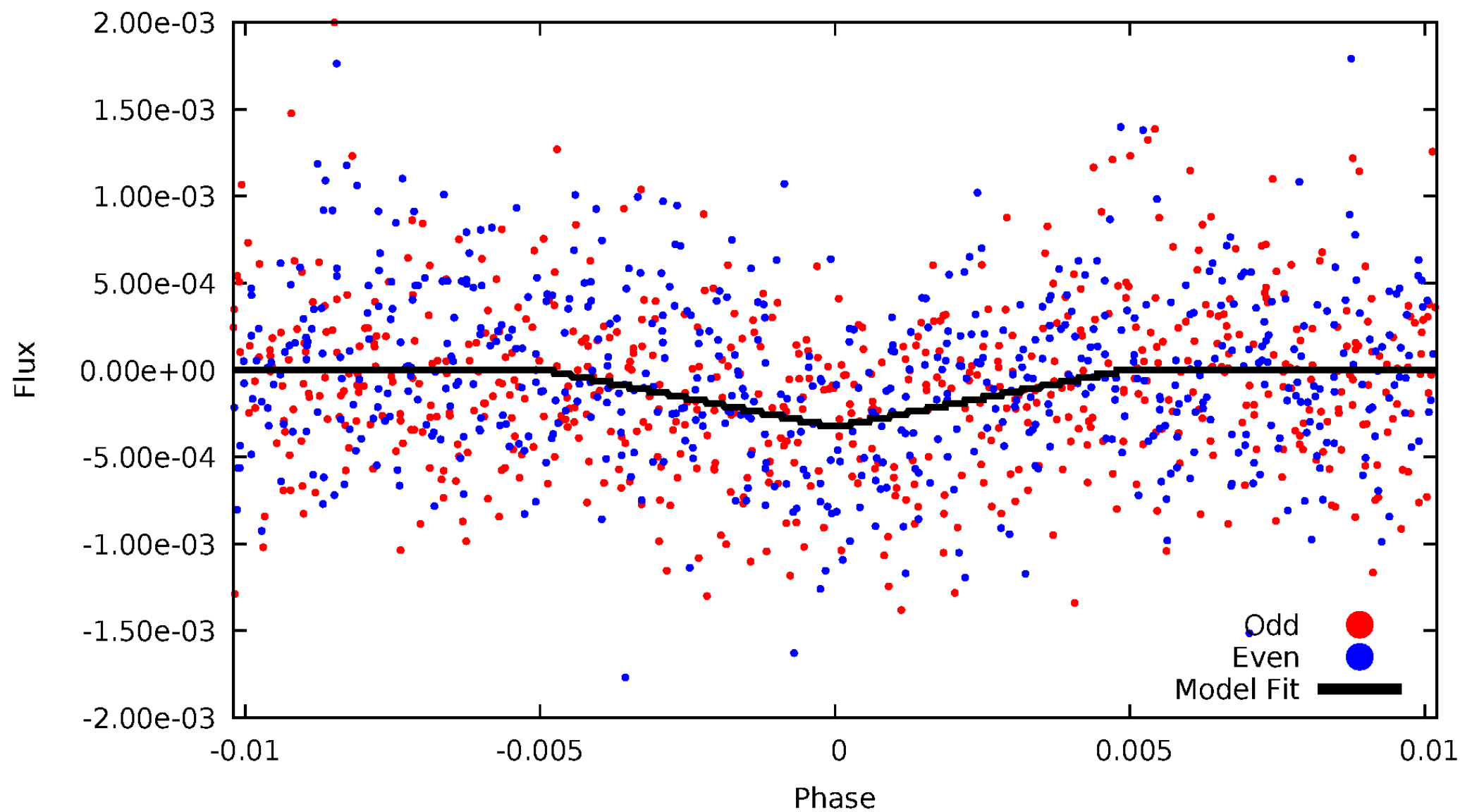
DV Odd/Even

TCE 010665749-01



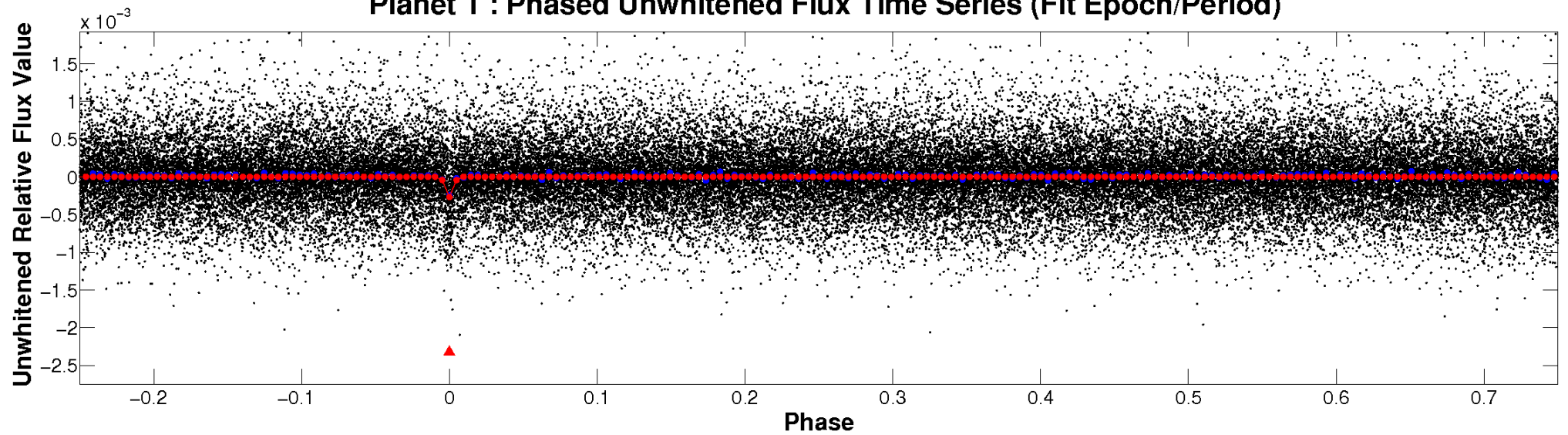
ALT Odd/Even

TCE 010665749-01

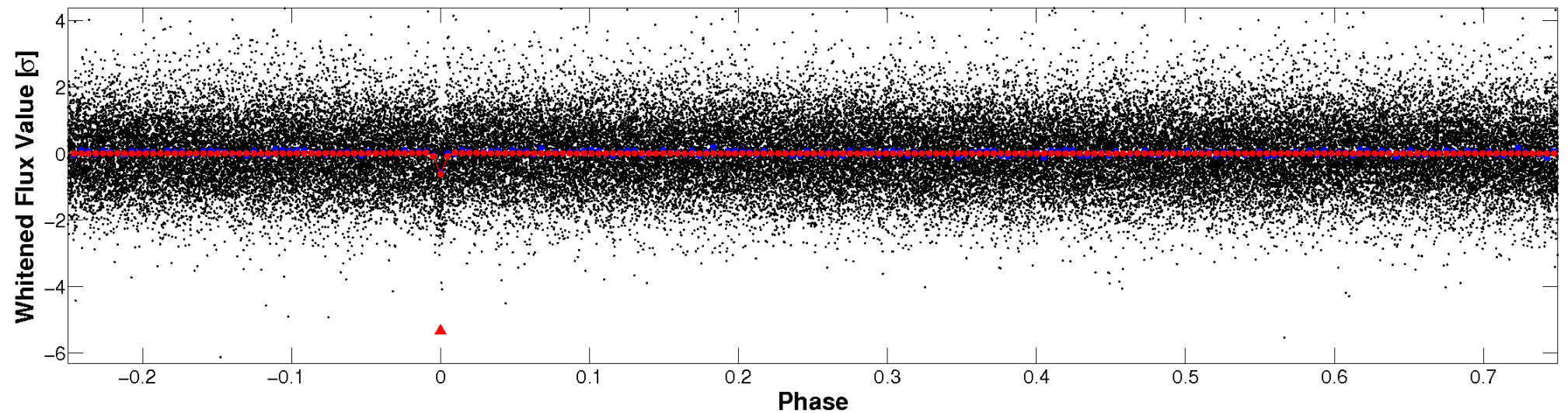


Non-Whitened Vs. Whitened Light Curve

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

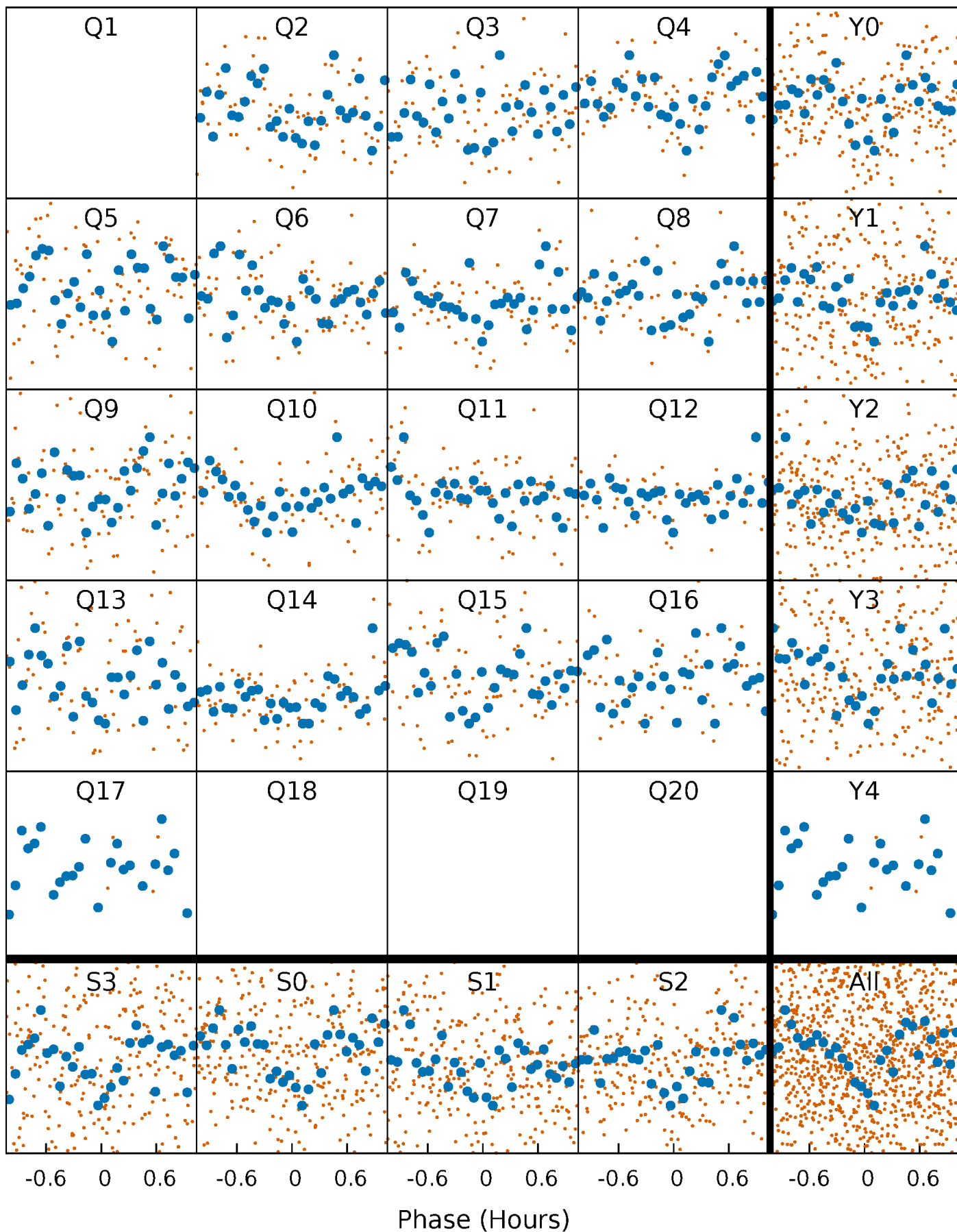


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



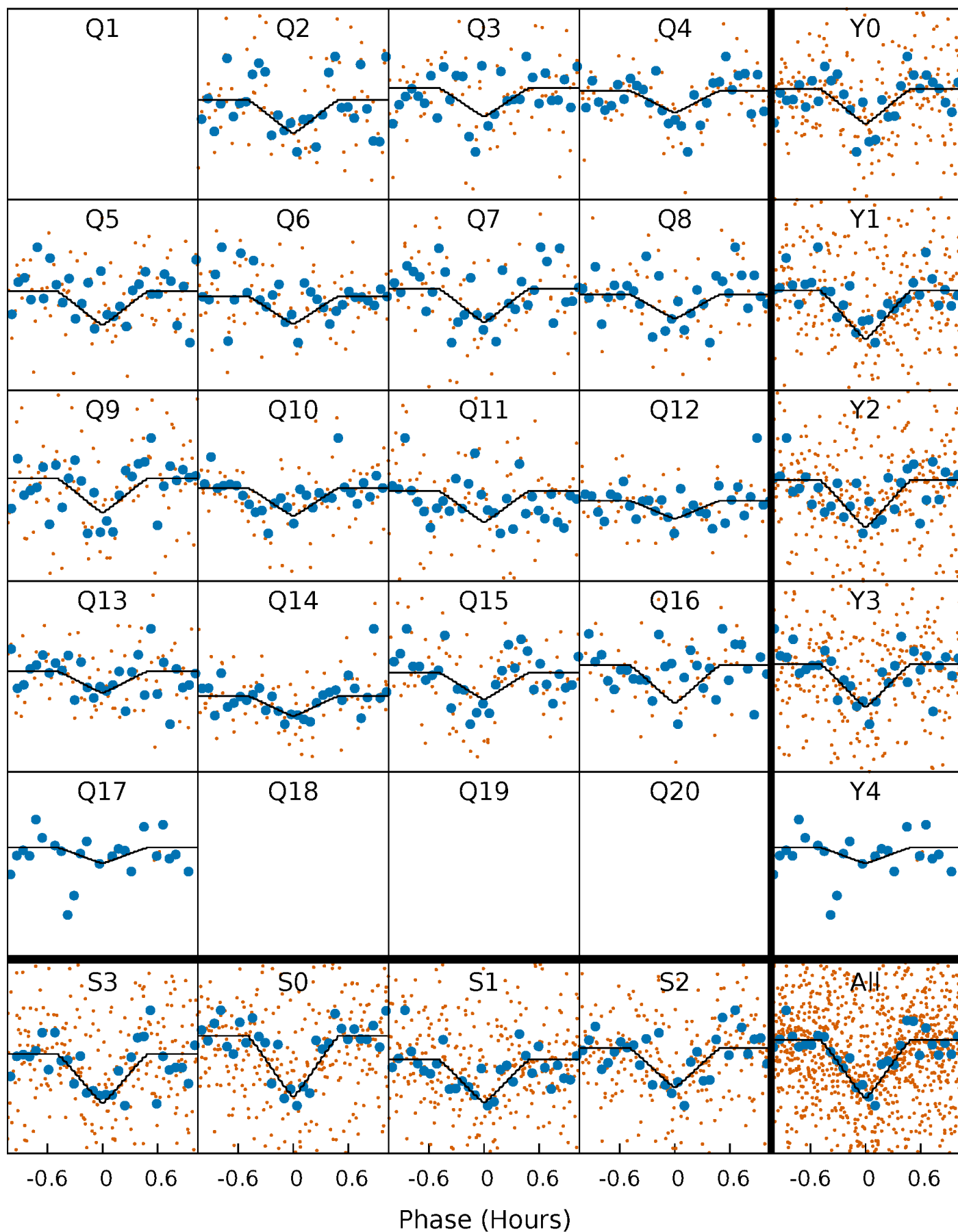
PDC Quarter-Phased Transit Curves

TCE 010665749-01 P= 4.237463 Days $T_0=135.172839$ (BKJD)



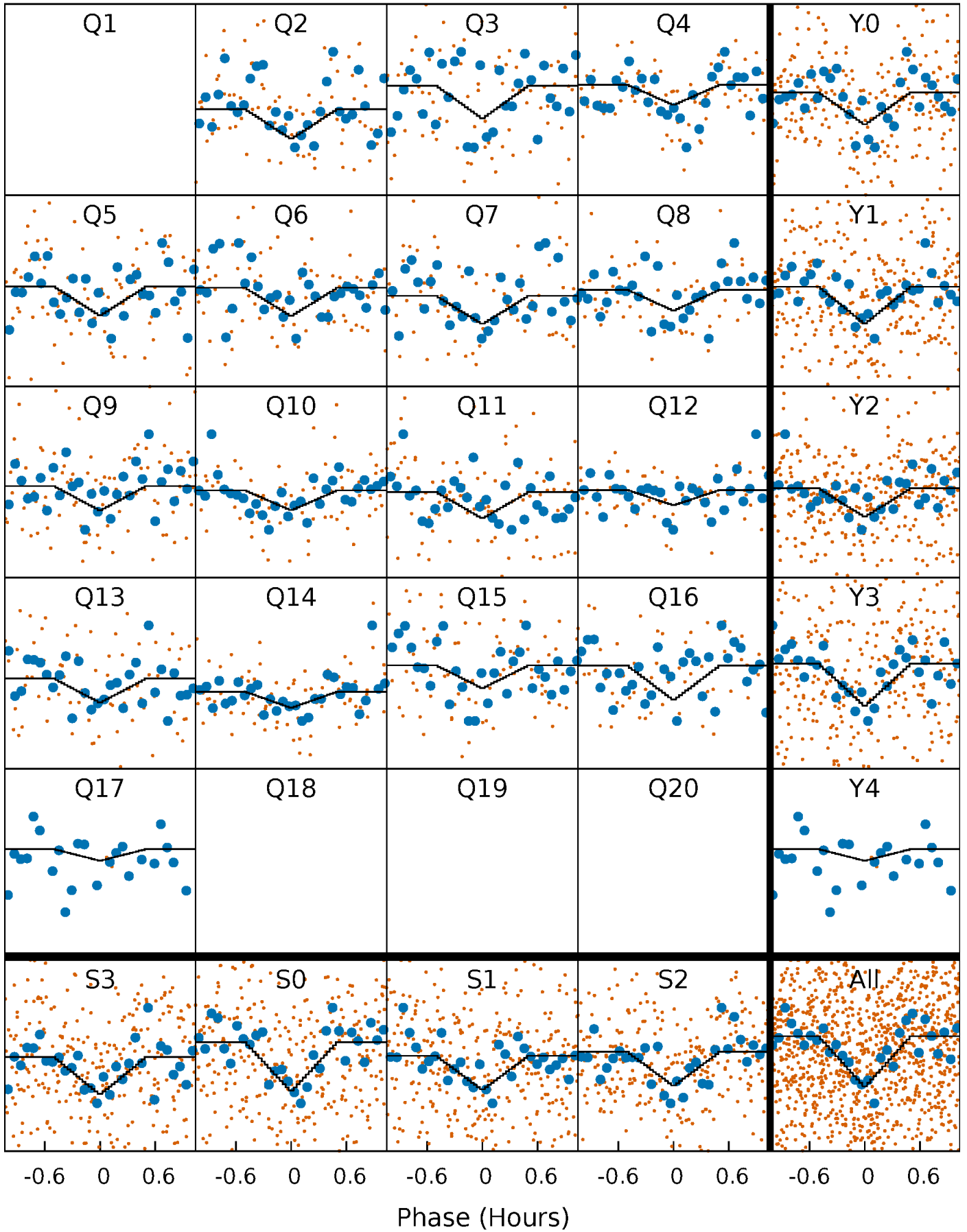
DV Quarter-Phased Transit Curves

TCE 010665749-01 P= 4.237463 Days $T_0=135.172839$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

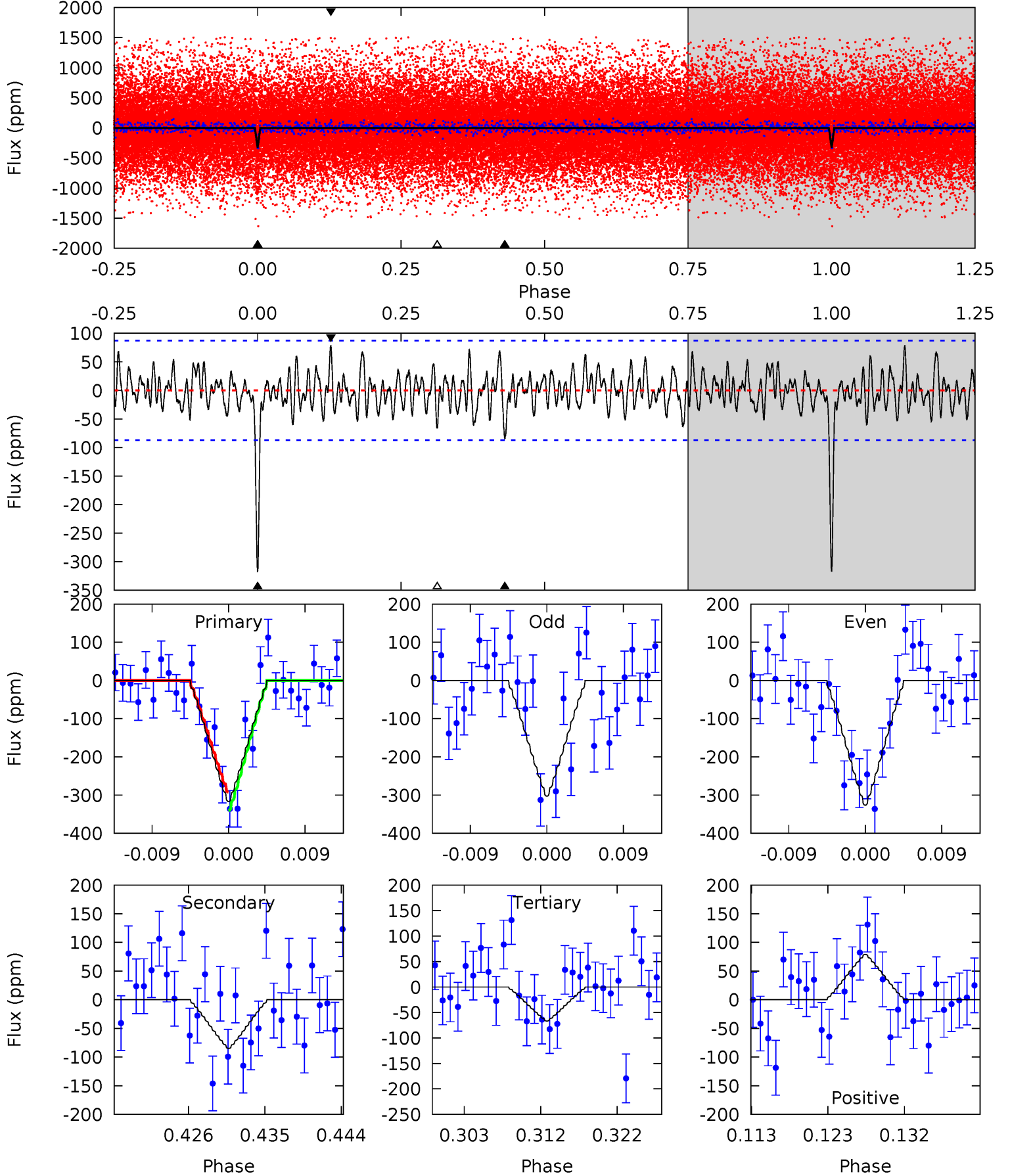
TCE 010665749-01 P= 4.237463 Days $T_0=135.172834$ (BKJD)



DV Model-Shift Uniqueness Test

010665749-01, P = 4.237463 Days, E = 135.172839 Days

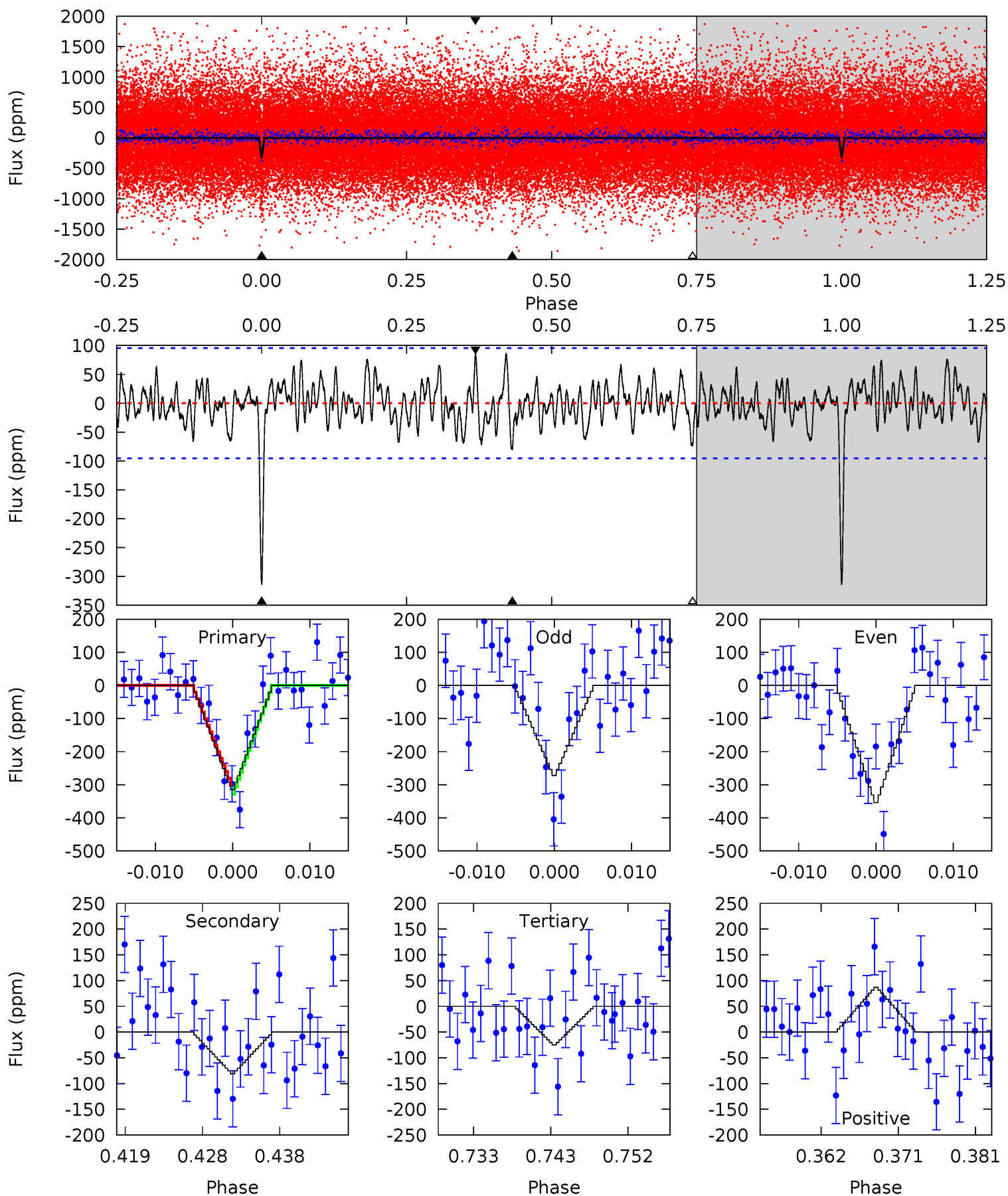
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.3	4.90	3.85	4.57	5.04	2.60	1.47	14.5	13.8	1.05	0.34	0.69	0.99	0.20	1.39



Alt Model-Shift Uniqueness Test

010665749-01, P = 4.237463 Days, E = 135.172834 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.6	4.27	3.96	4.60	5.04	2.59	1.51	12.6	12.0	0.31	-0.33	2.17	0.97	0.22	0.75



Stellar Parameters For KIC 010665749

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5993^{+180}_{-198}	$4.425^{+0.101}_{-0.203}$	$-0.240^{+0.300}_{-0.300}$	$0.993^{+0.298}_{-0.128}$	$0.958^{+0.131}_{-0.105}$	$1.378^{+0.625}_{-0.686}$
	+3%/-3%	+2%/-5%	+125%/-125%	+30%/-13%	+14%/-11%	+45%/-50%
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 010665749-01 / KOI 7359.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-85 ± 17	$2.60^{+2.05}_{-1.57}$	1651^{+137}_{-85}	4053^{+1911}_{-740}	17^{+92}_{-12}
Alt.	-81 ± 19	$2.64^{+2.11}_{-1.57}$	1655^{+118}_{-95}	3977^{+1784}_{-687}	16^{+84}_{-11}

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 $A_{obs} \gg 1.0$

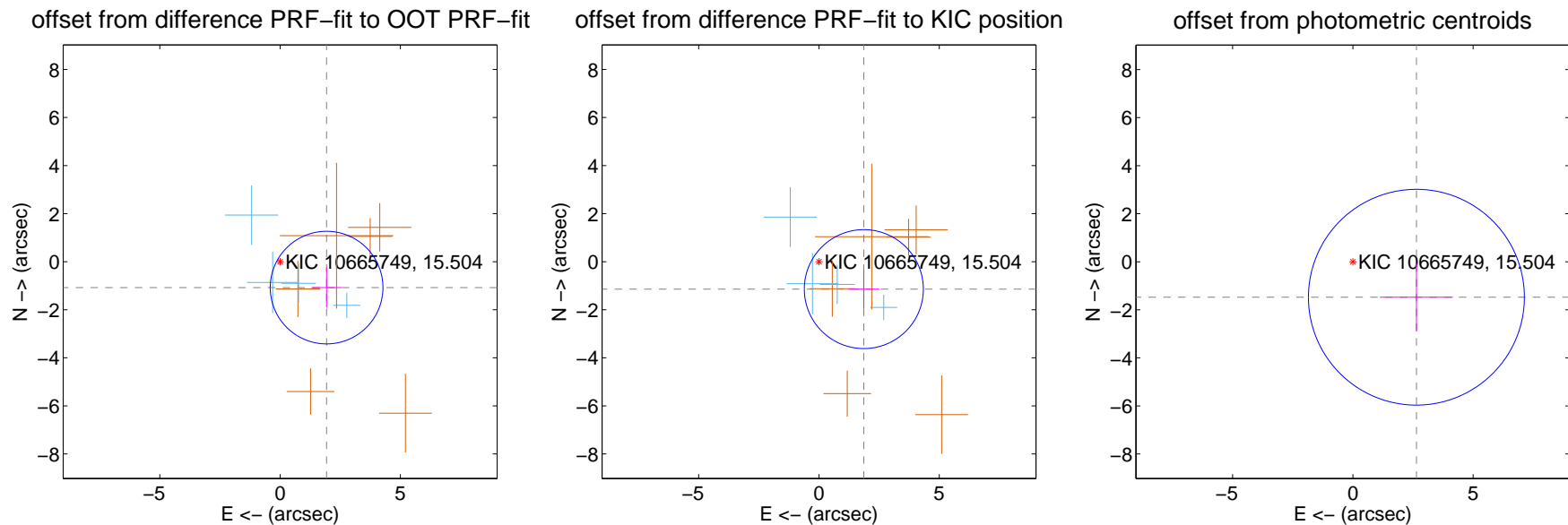
DV Centroid Data

Supplemental centroid analysis for 010665749-01. Kepler magnitude: 15.50. Transit SNR 11.49

There are 4 quarters with good PRF difference image offsets

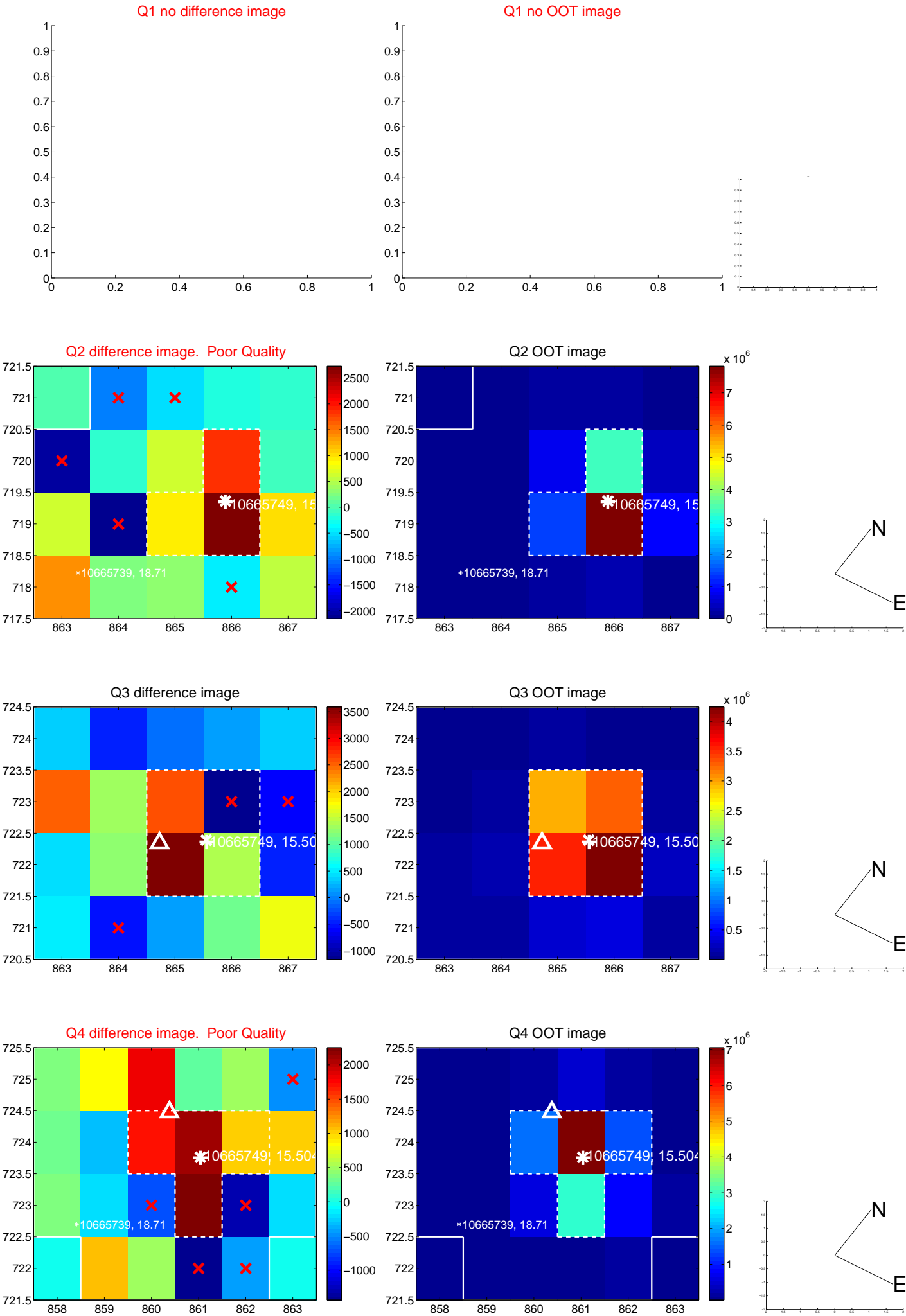
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.212 ± 0.781	2.83	-1.932 ± 0.629	-1.077 ± 0.838
PRF-fit source offset from KIC position	2.186 ± 0.825	2.65	-1.865 ± 0.647	-1.140 ± 0.813
photometric centroid source offset	3.03 ± 1.50	2.02	-2.64 ± 1.52	-1.48 ± 1.42

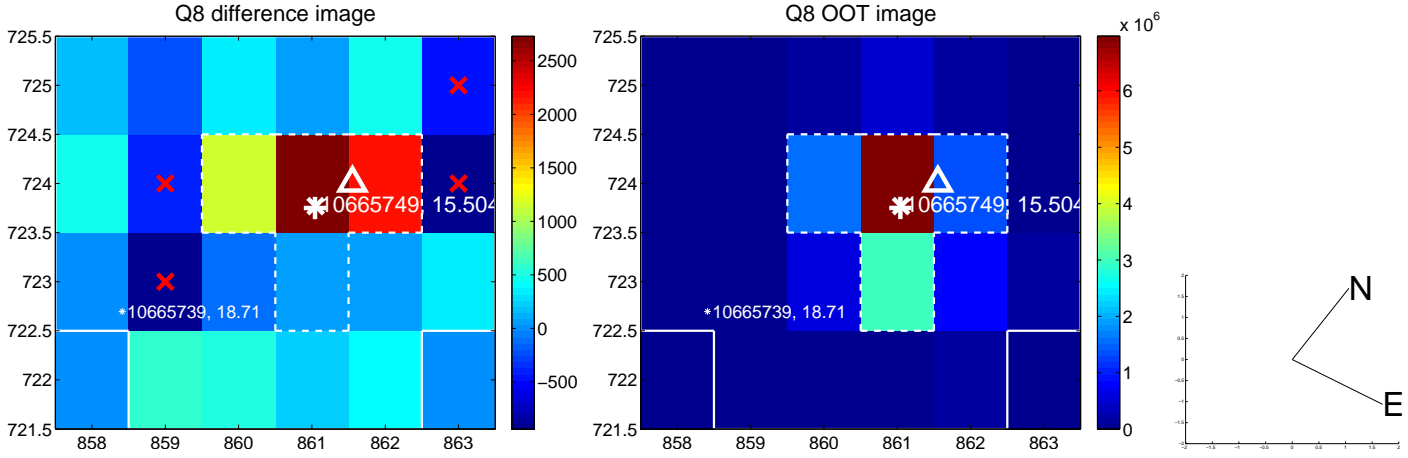
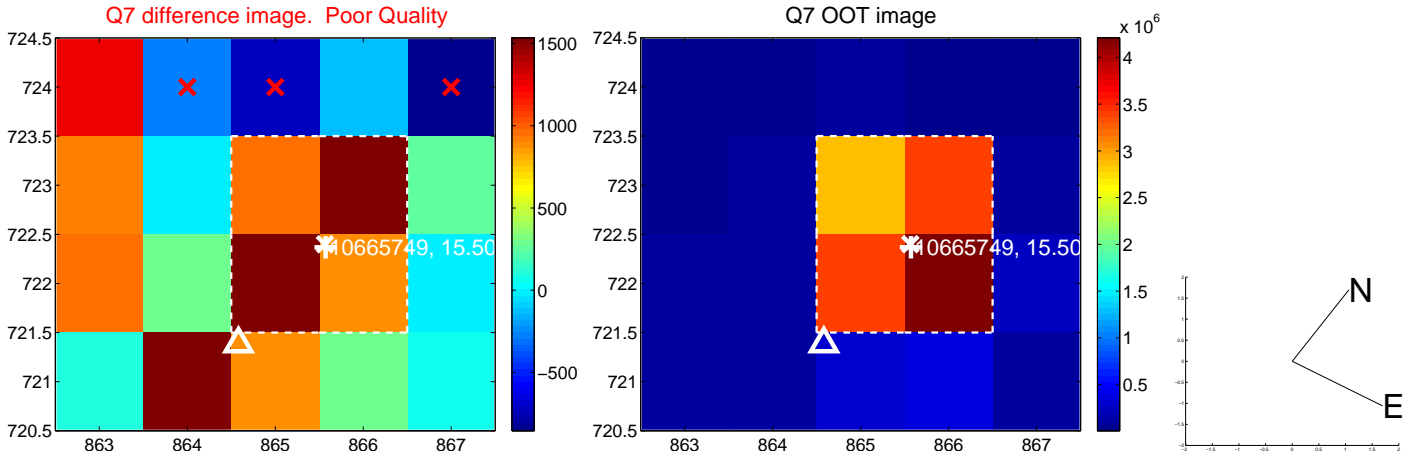
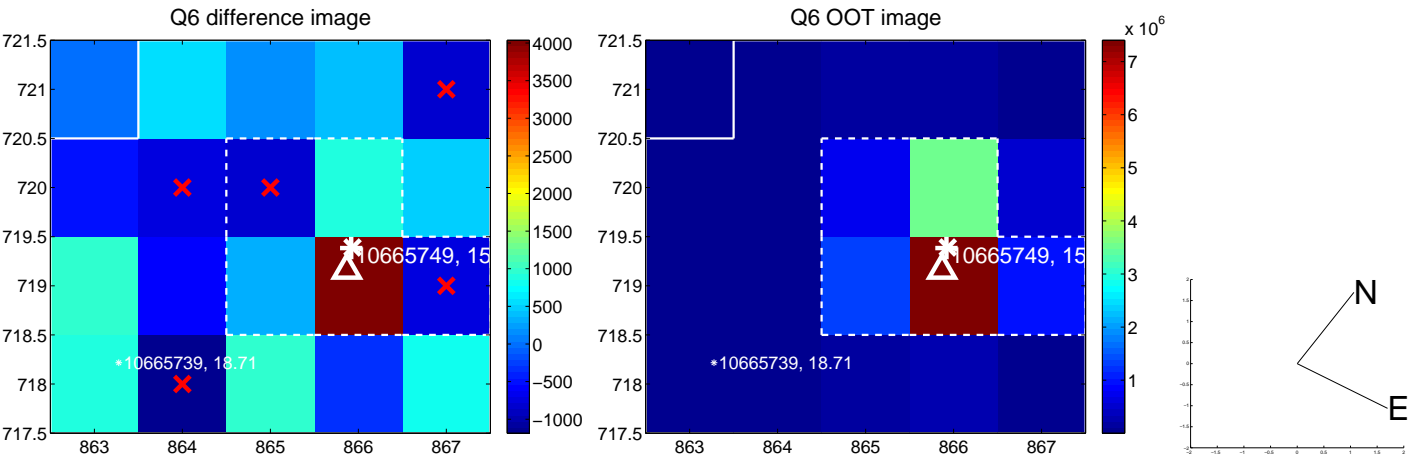
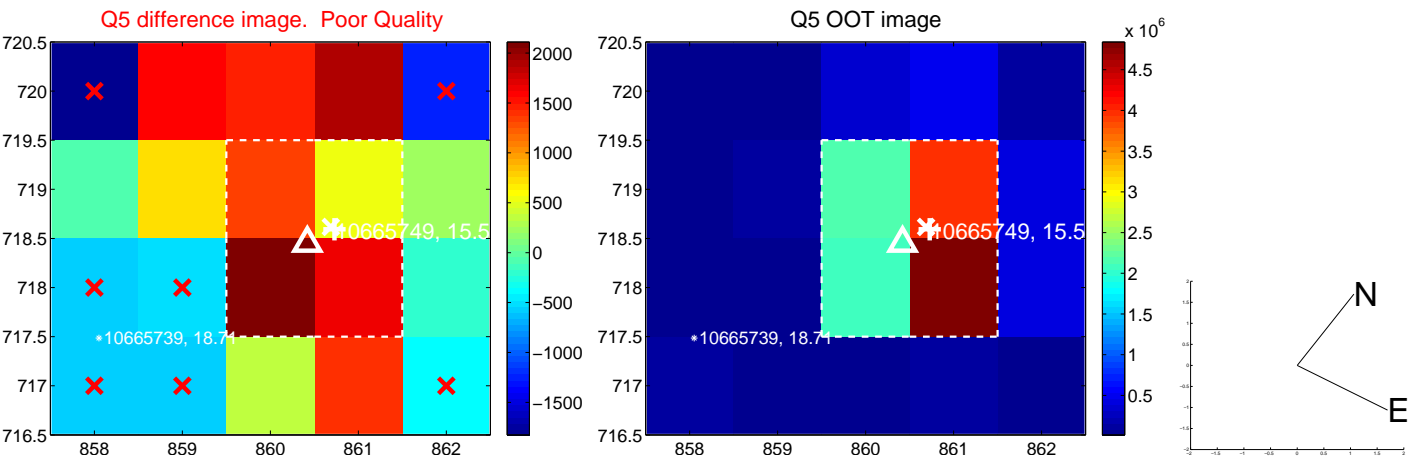


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

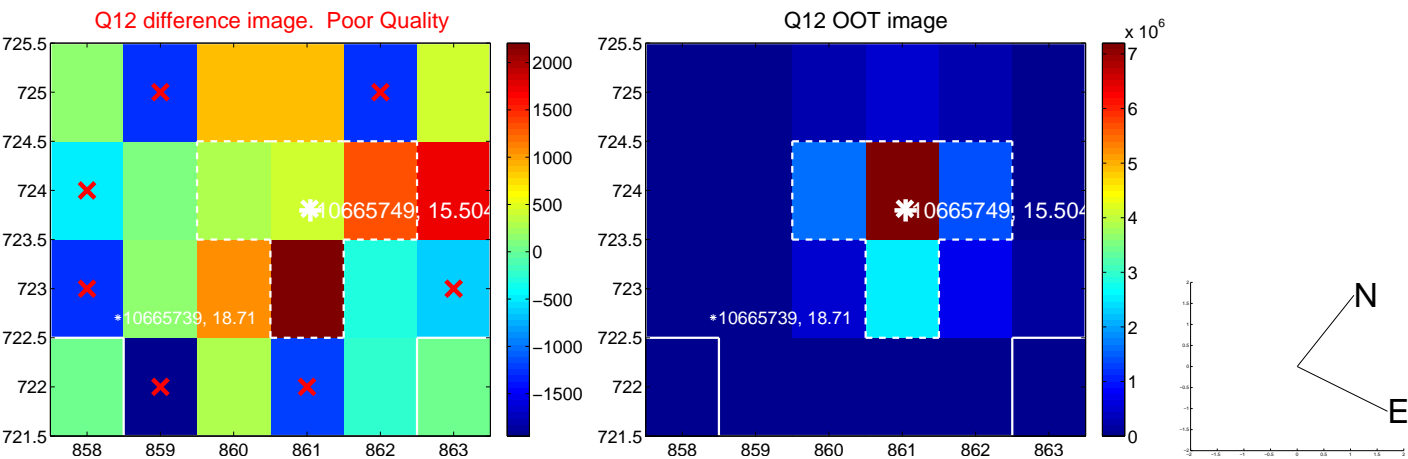
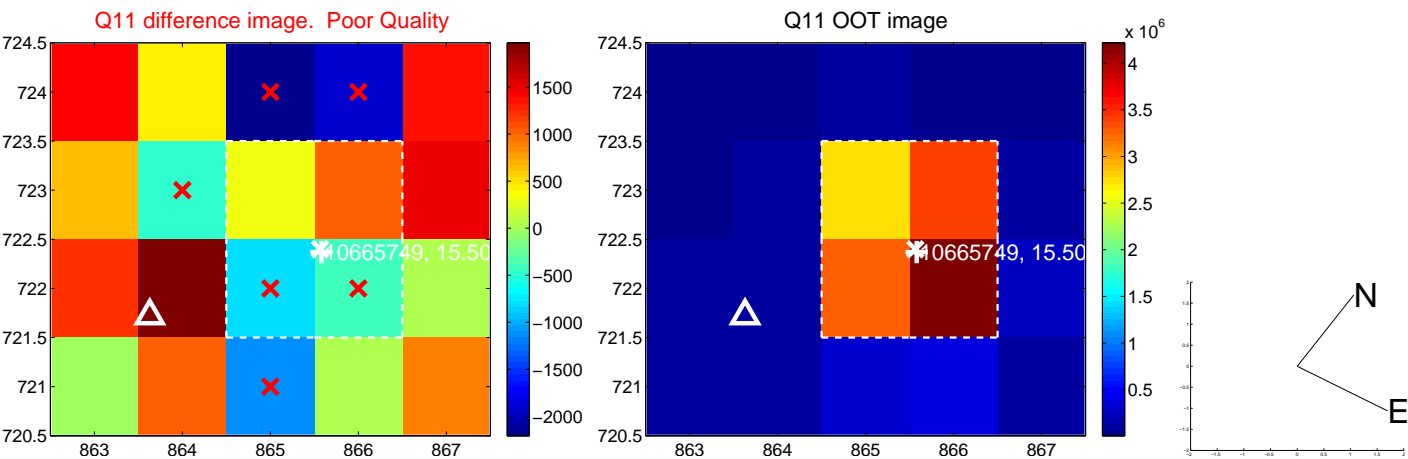
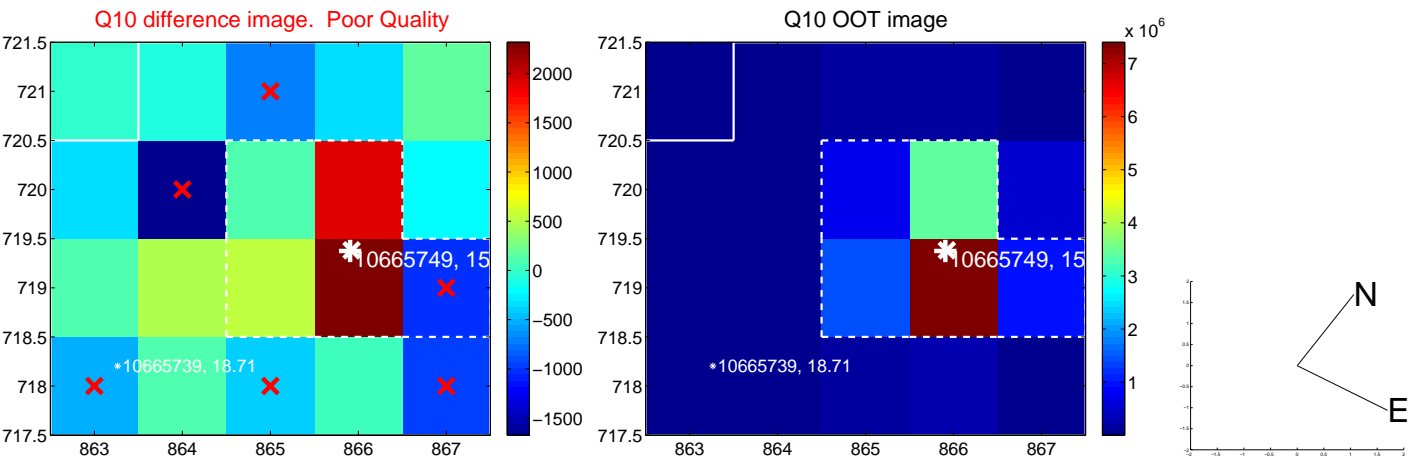
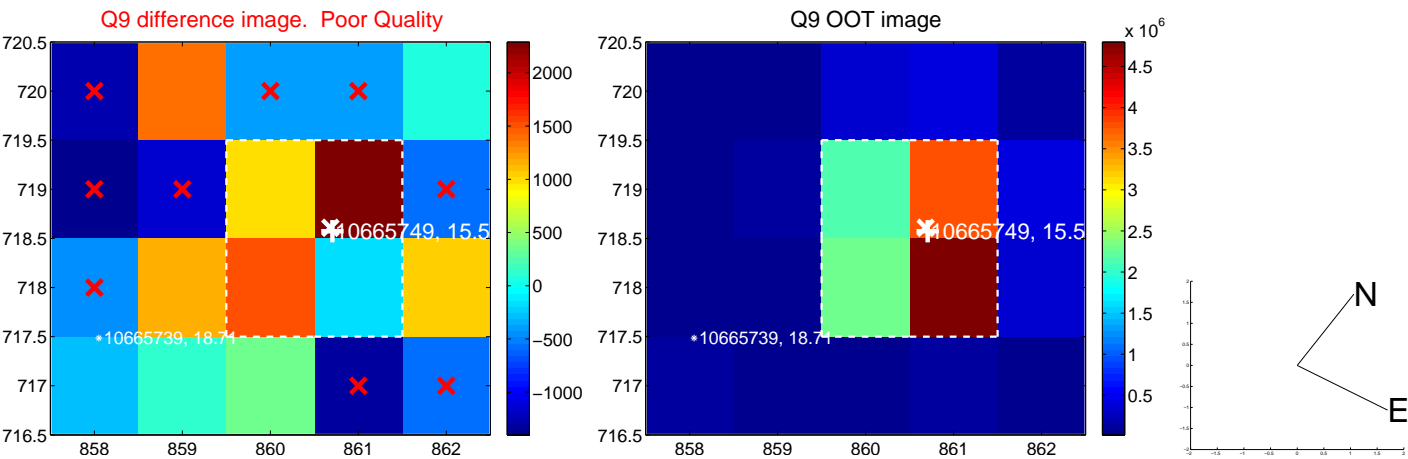
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



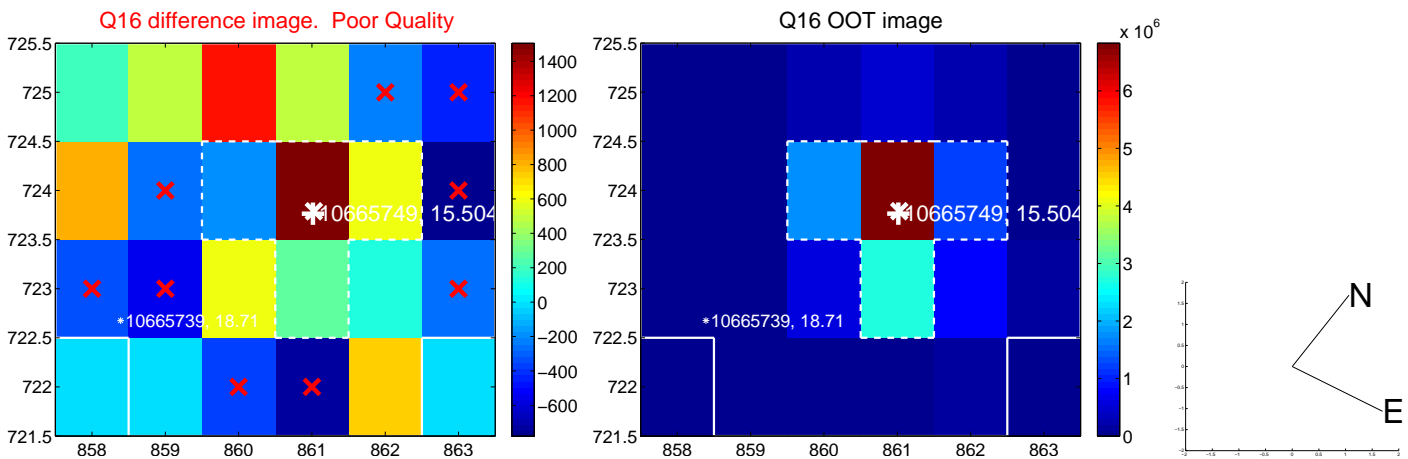
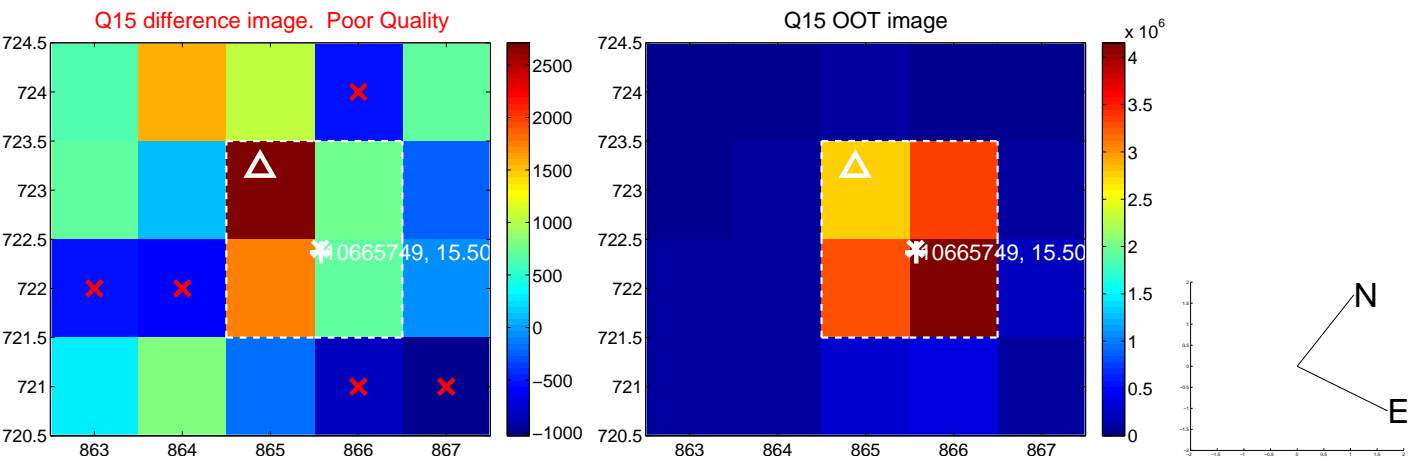
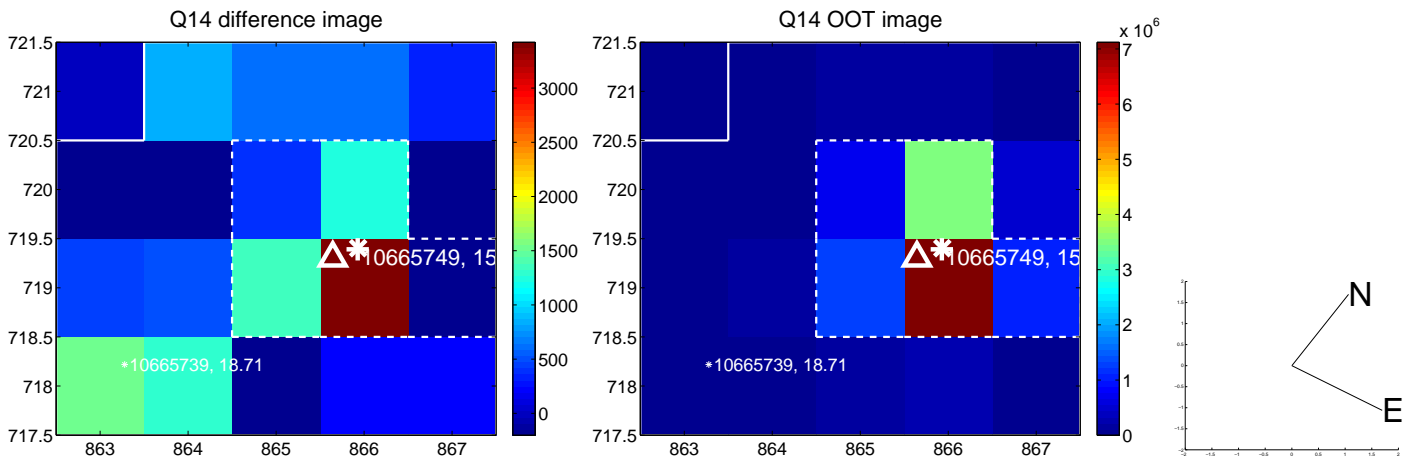
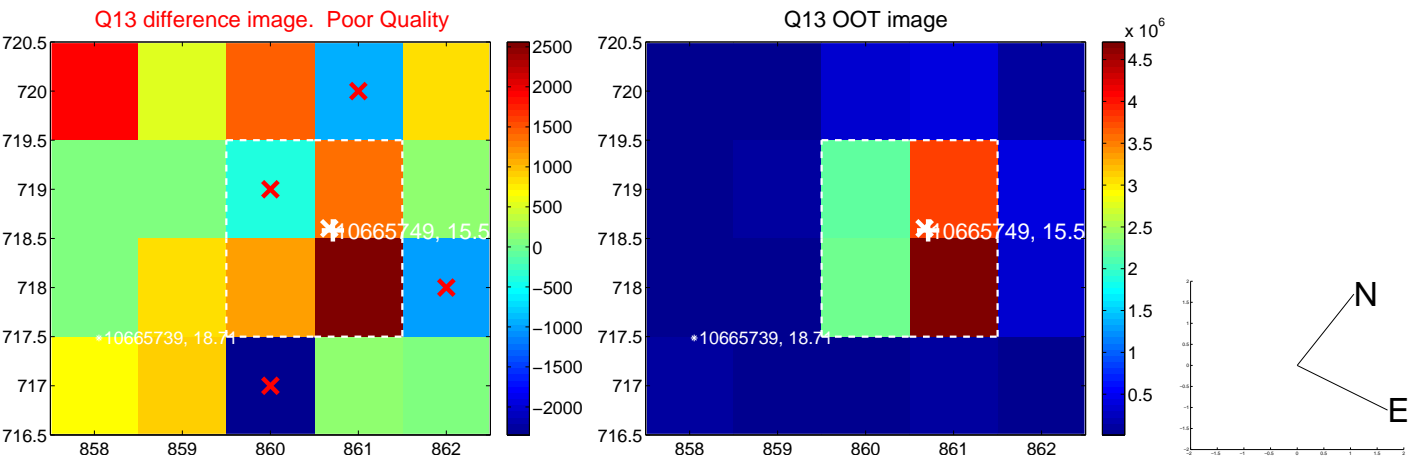
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



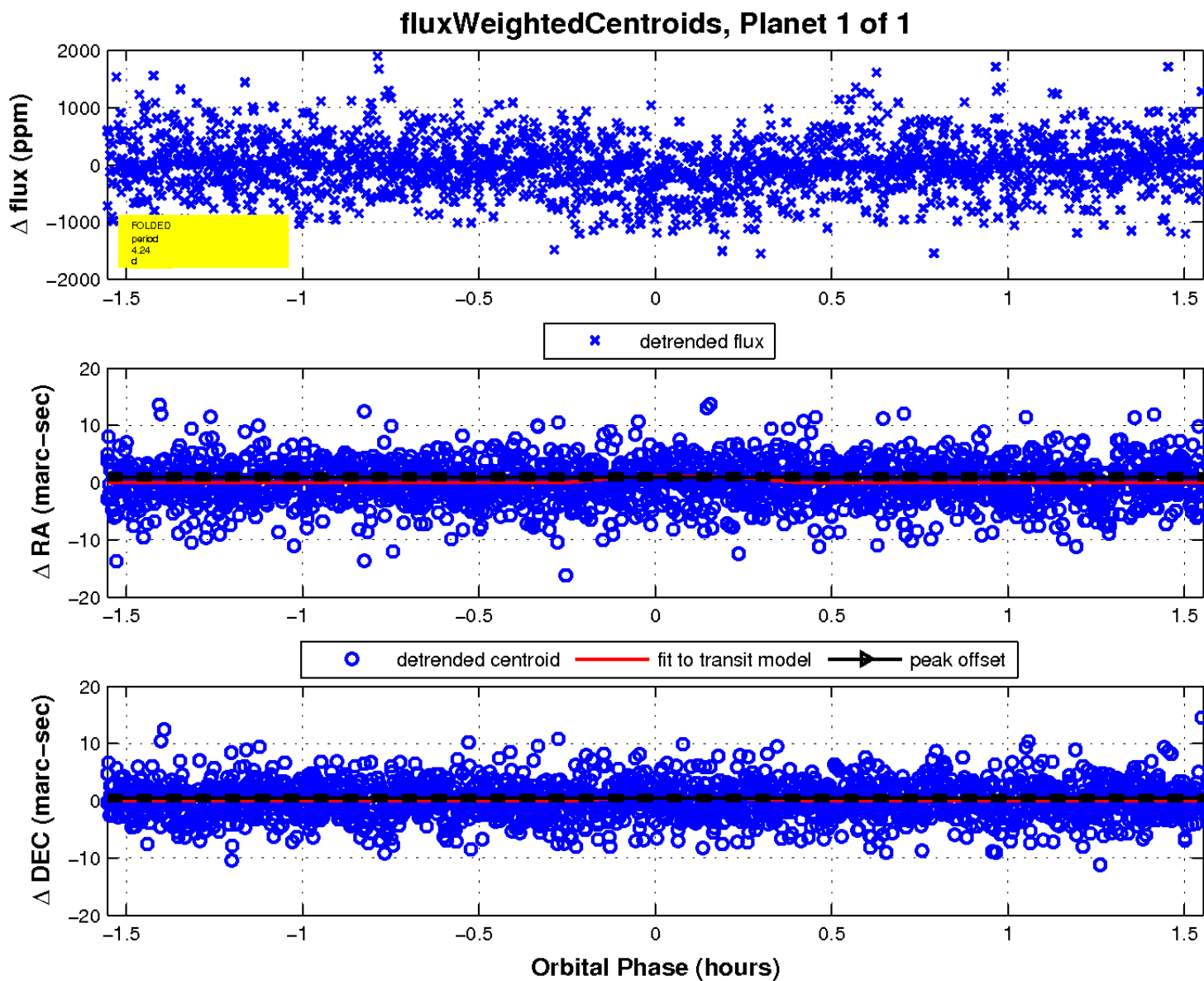
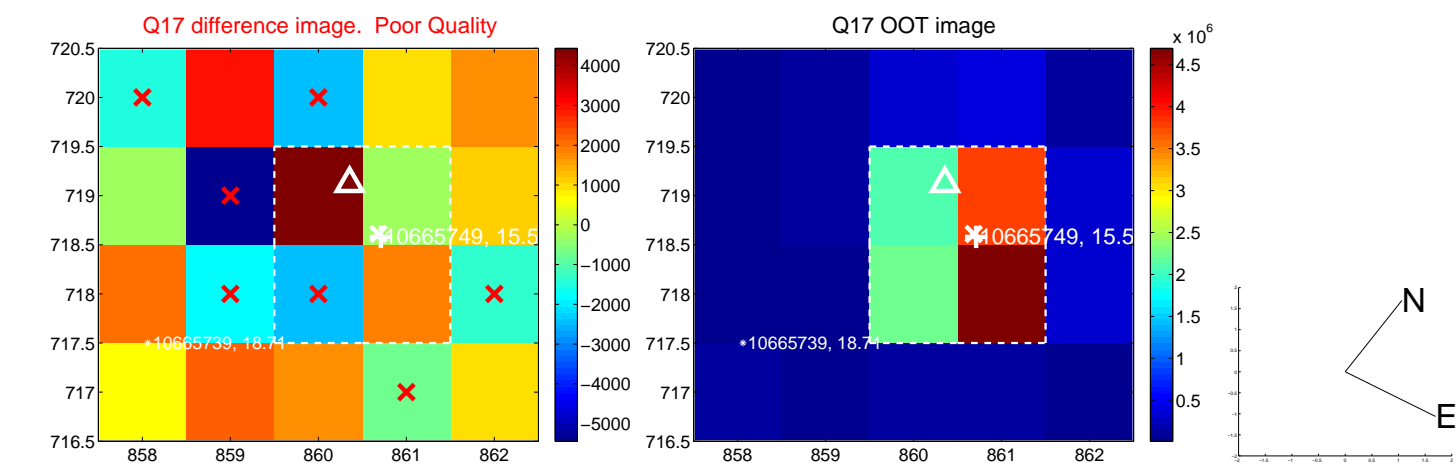
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

