

KIC 003966749

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})
003966749-01	OBS	No	350.523351	133.668604	958.8	3.922	7.7	7.5	0.84	5662	2.89	0.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003966749-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_SKYE—ALL_TRANS_CHASES—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.

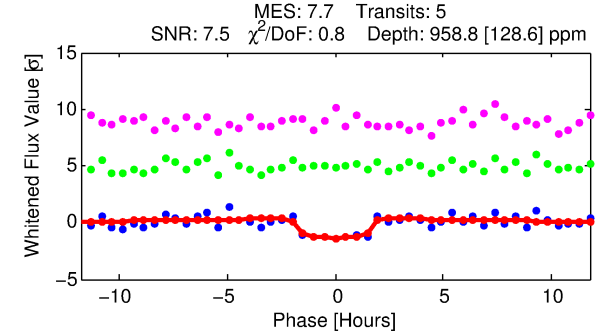
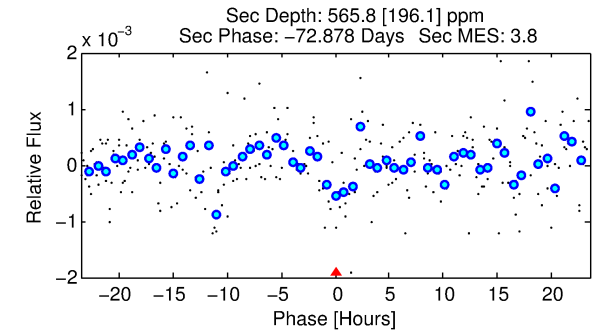
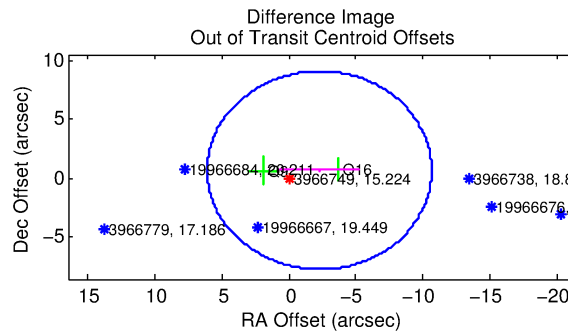
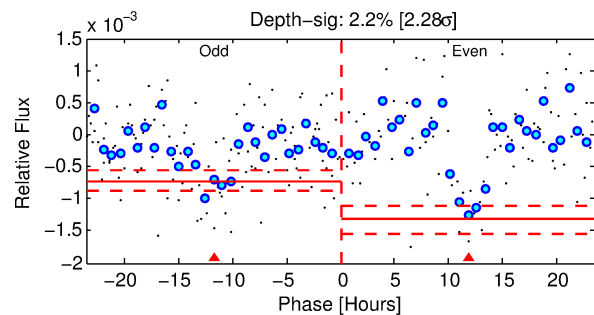
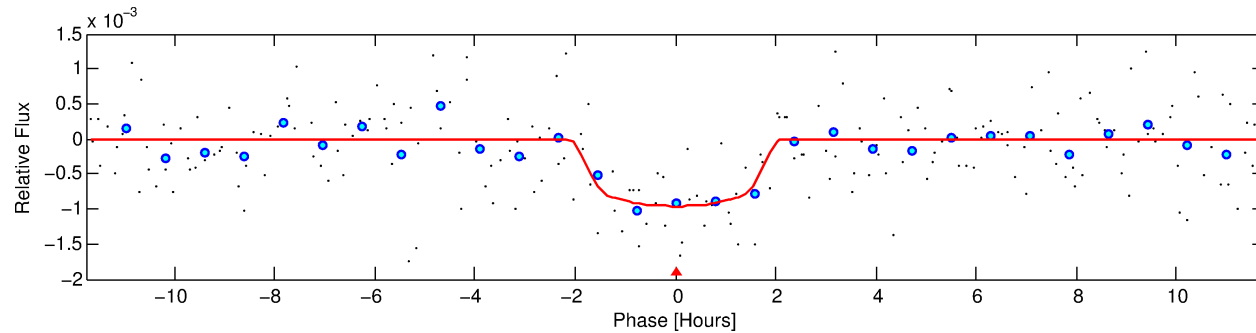
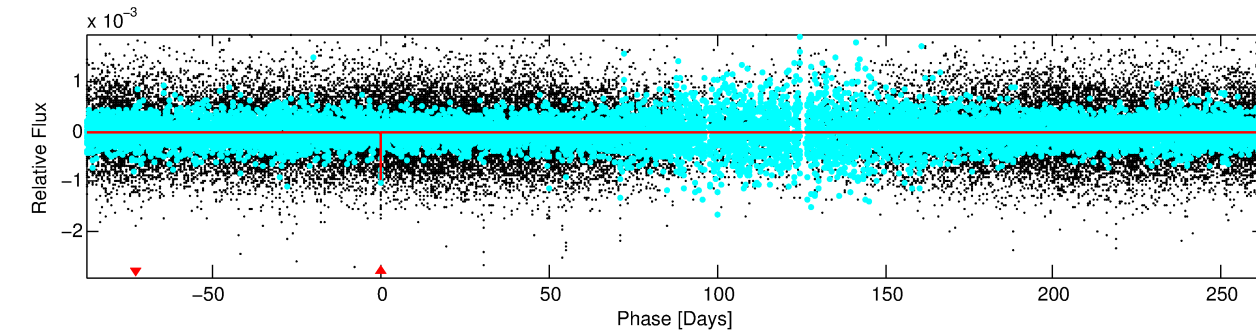
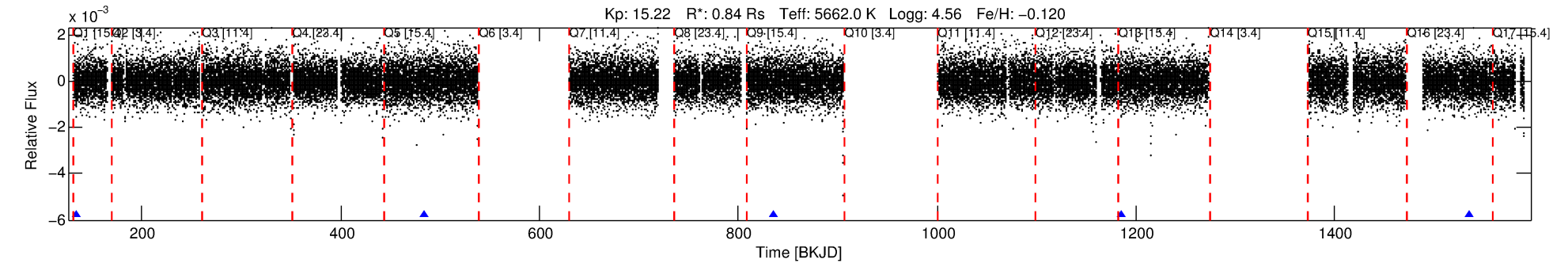
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003966749-01

No Significant Match Found

DV One-Page Summary

KIC: 3966749 Candidate: 1 of 1 Period: 350.523 d



DV Fit Results:

Period = 350.52335 [0.00309] d
Epoch = 133.6686 [0.0083] BKJD
Rp/R* = 0.0315 [0.0185]
a/R* = 445.03 [1131.43]
b = 0.80 [1.16]
Seff = 0.72 [0.26]
Teff = 235 [21] K
Rp = 2.89 [1.88] Re
a = 0.9514 [0.2239] AU
Ag = 33726.43 [42935.10] [0.79σ]
Teffp = 4918 [1515] K [3.09σ]

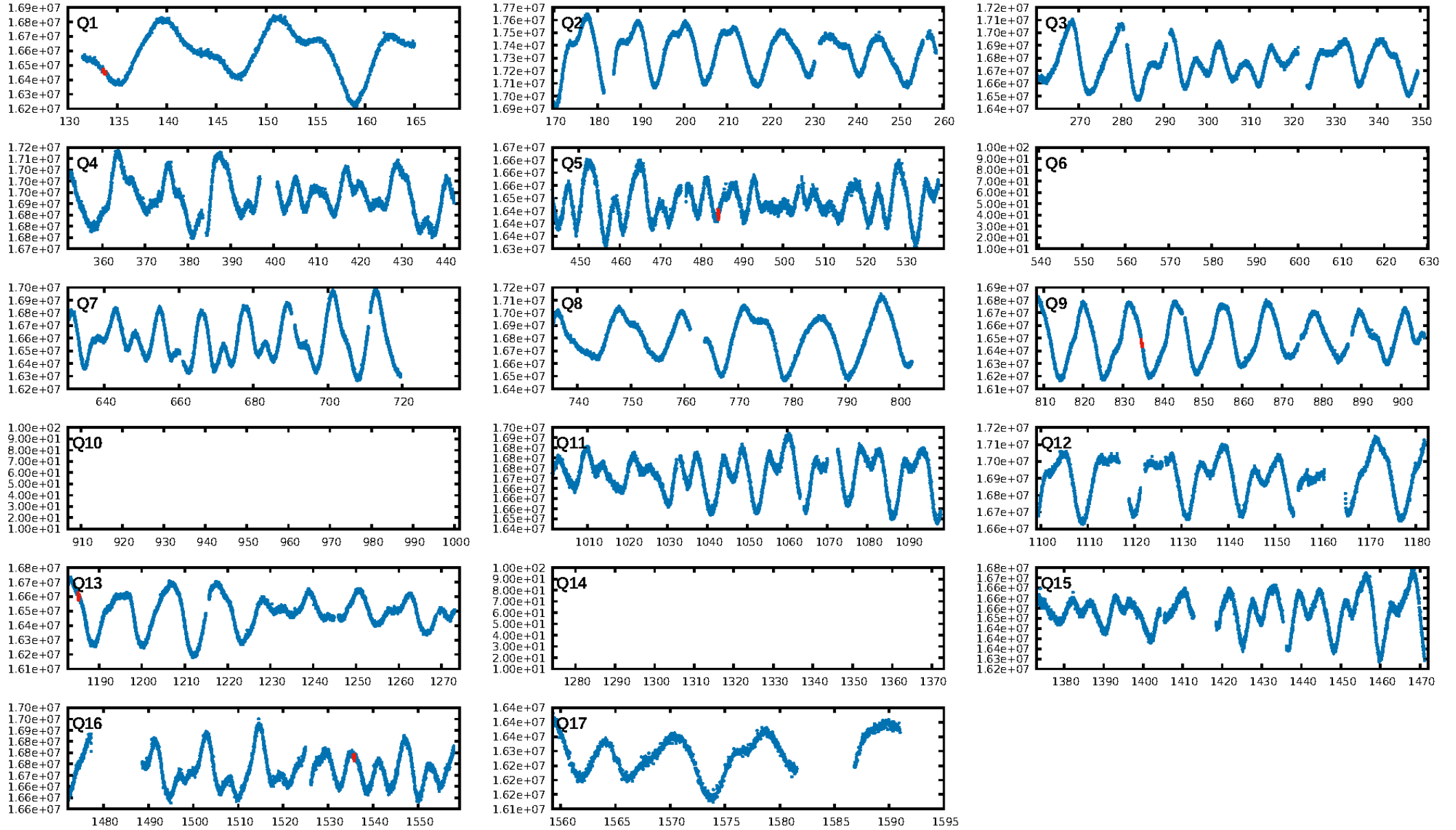
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 36.2%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.84e-09
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.9931
Centroid-sig: 5.5%
Centroid-so: 2.341 arcsec [1.38σ]
OotOffset-rm: 2.385 arcsec [0.85σ]
KicOffset-rm: 2.346 arcsec [0.85σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [4/4]

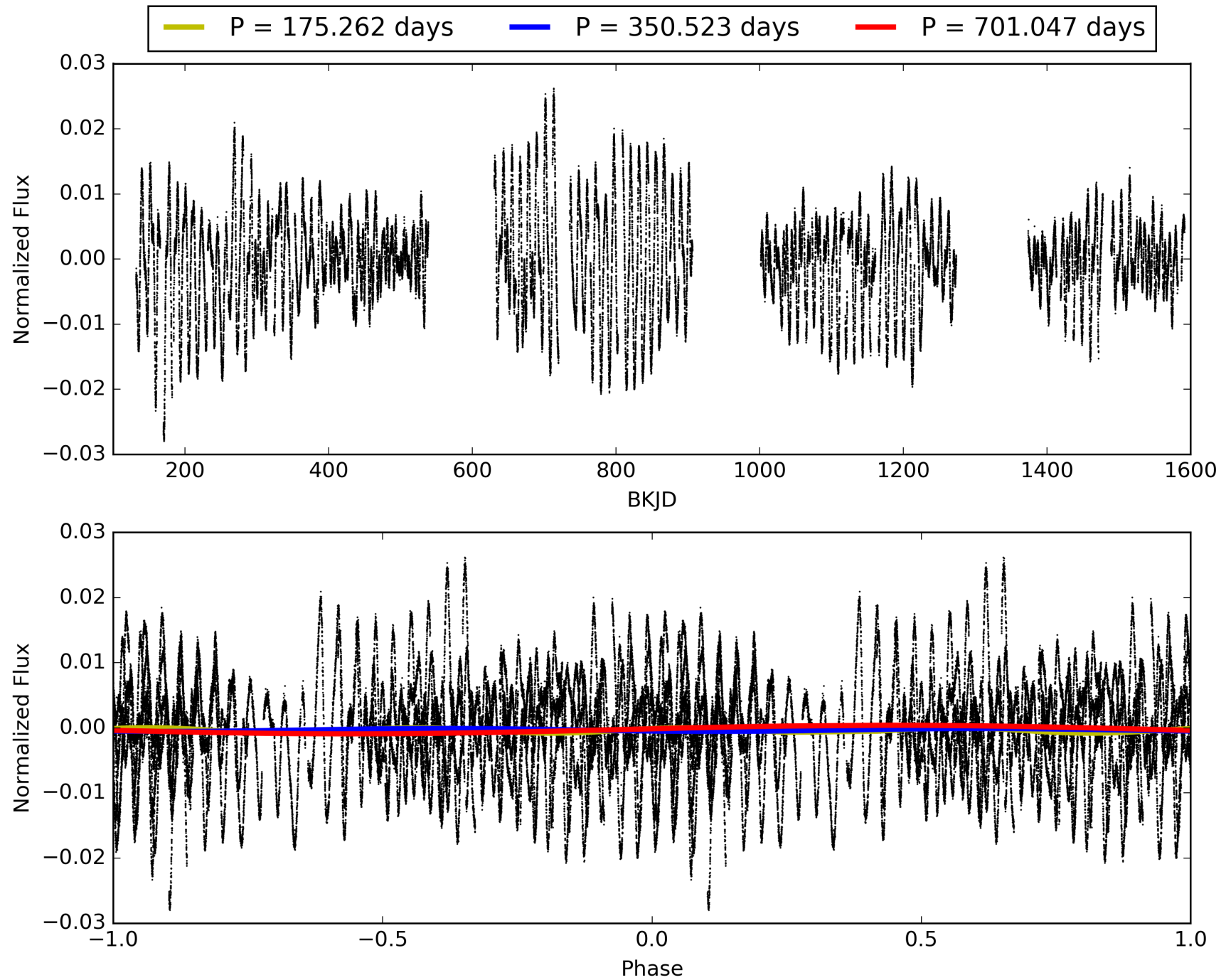
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 11:46:52 Z

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

TCE 003966749-01, PDC Light Curves

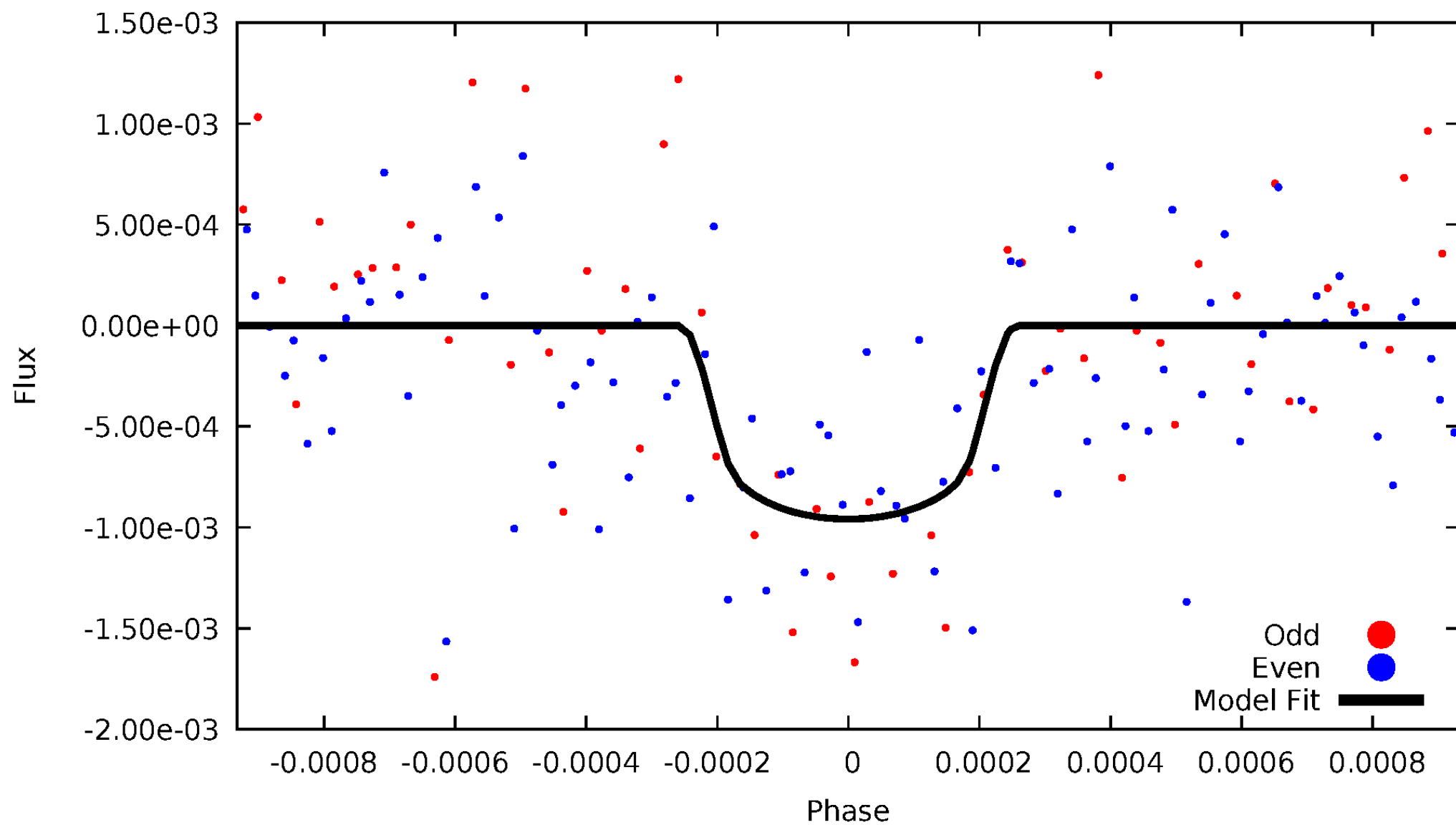


TCE 003966749-01



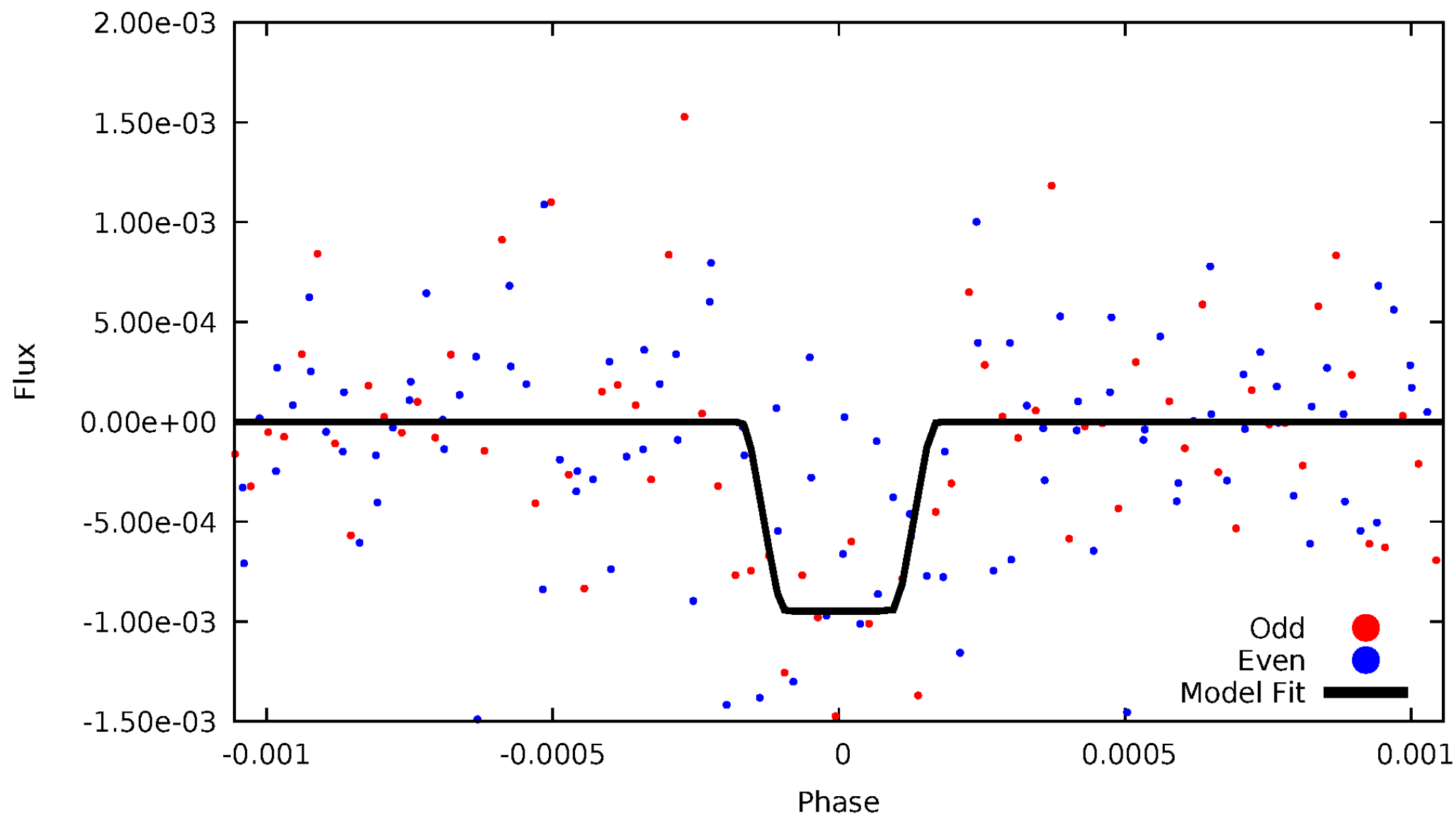
DV Odd/Even

TCE 003966749-01



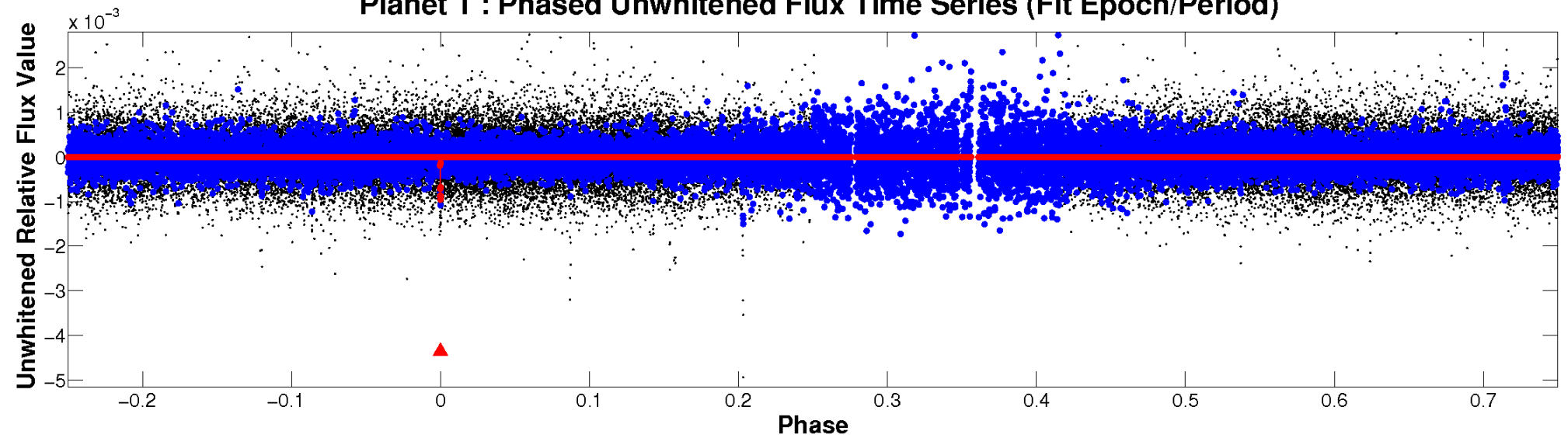
ALT Odd/Even

TCE 003966749-01

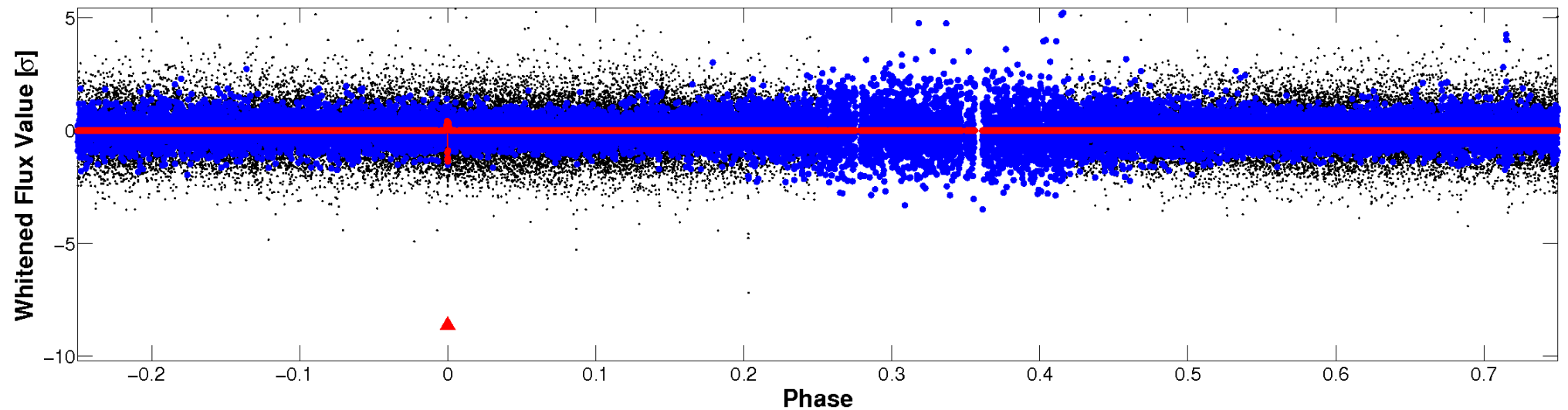


Non-Whitened Vs. Whitened Light Curve

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

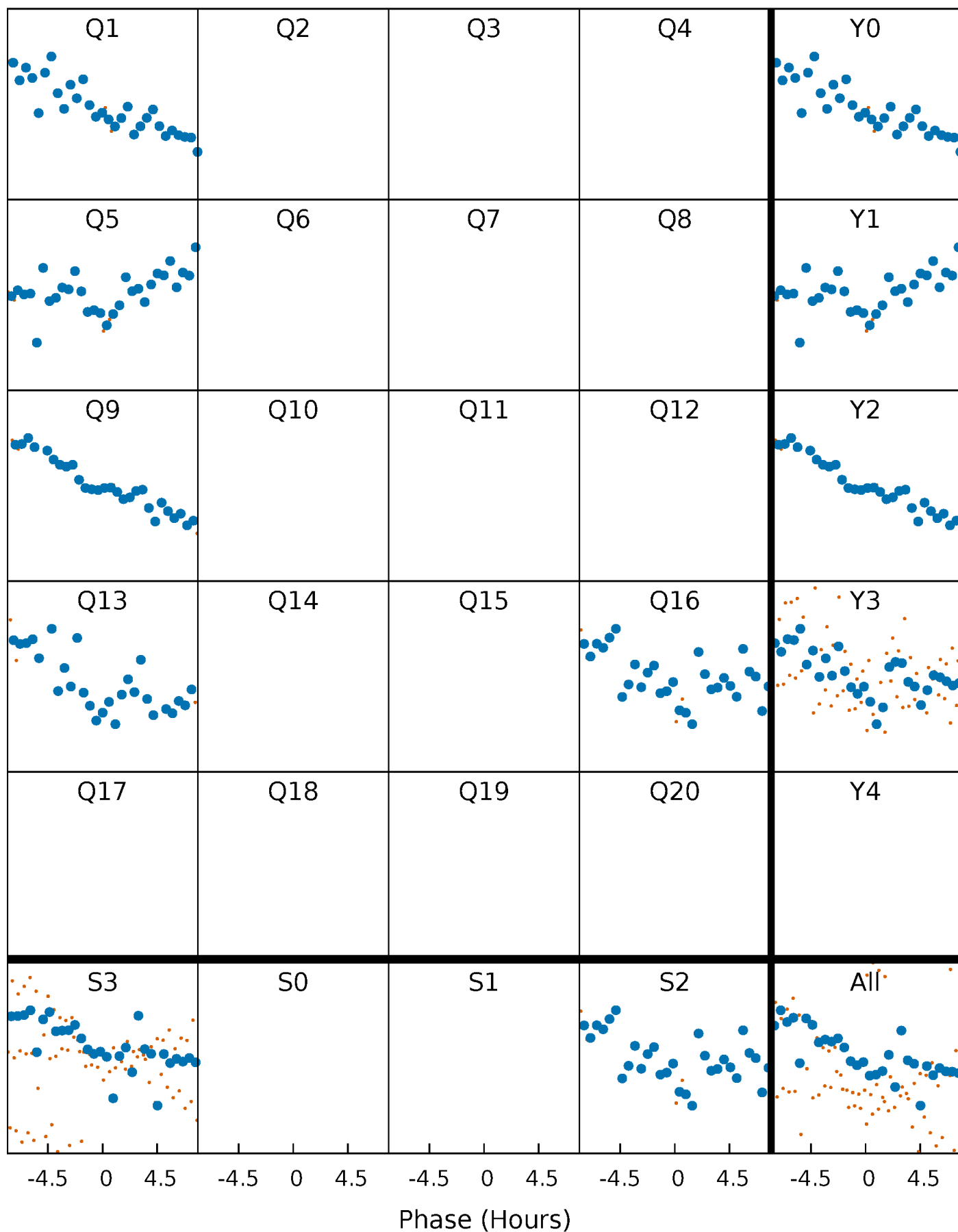


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



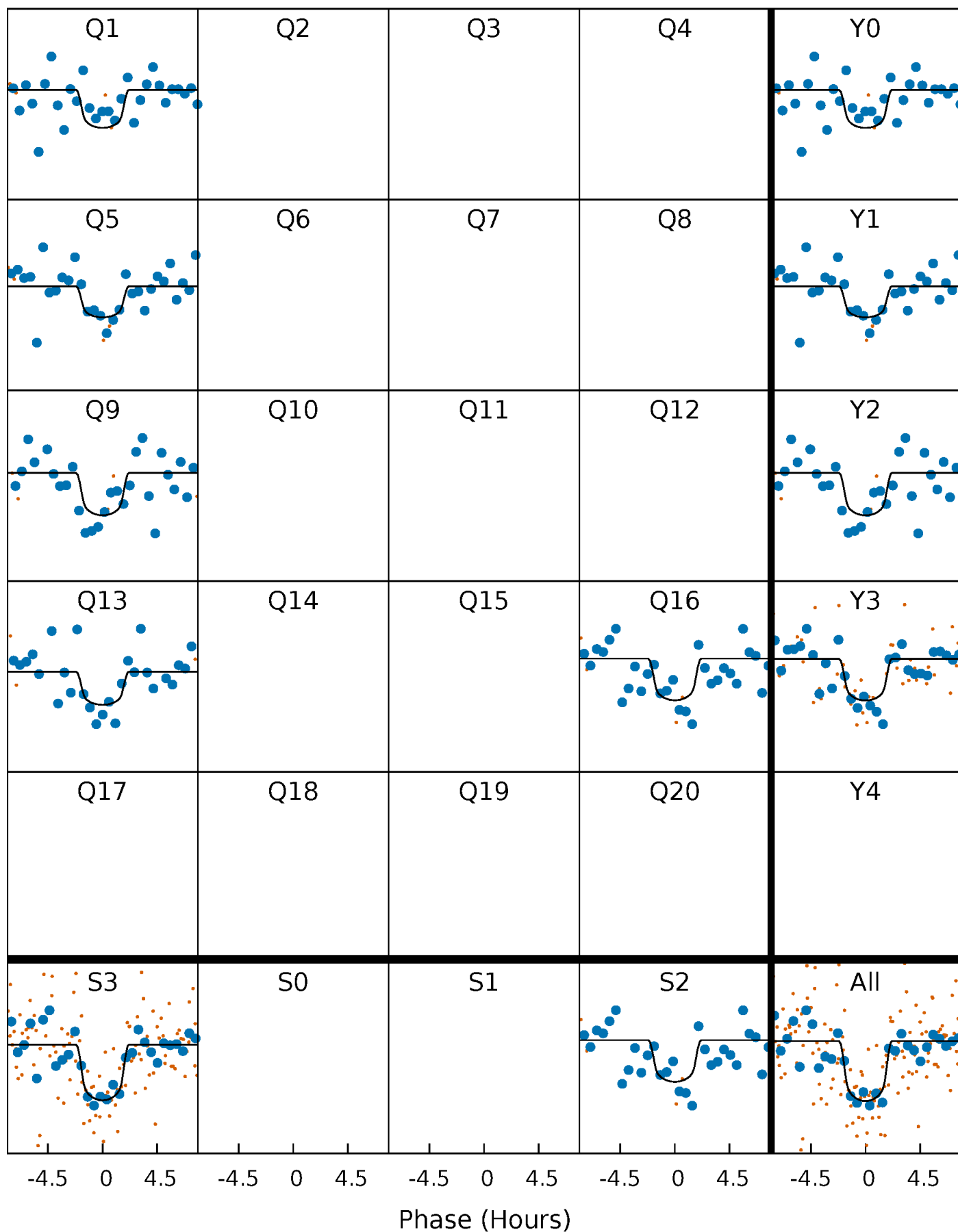
PDC Quarter-Phased Transit Curves

TCE 003966749-01 P=350.523351 Days $T_0=133.668604$ (BKJD)



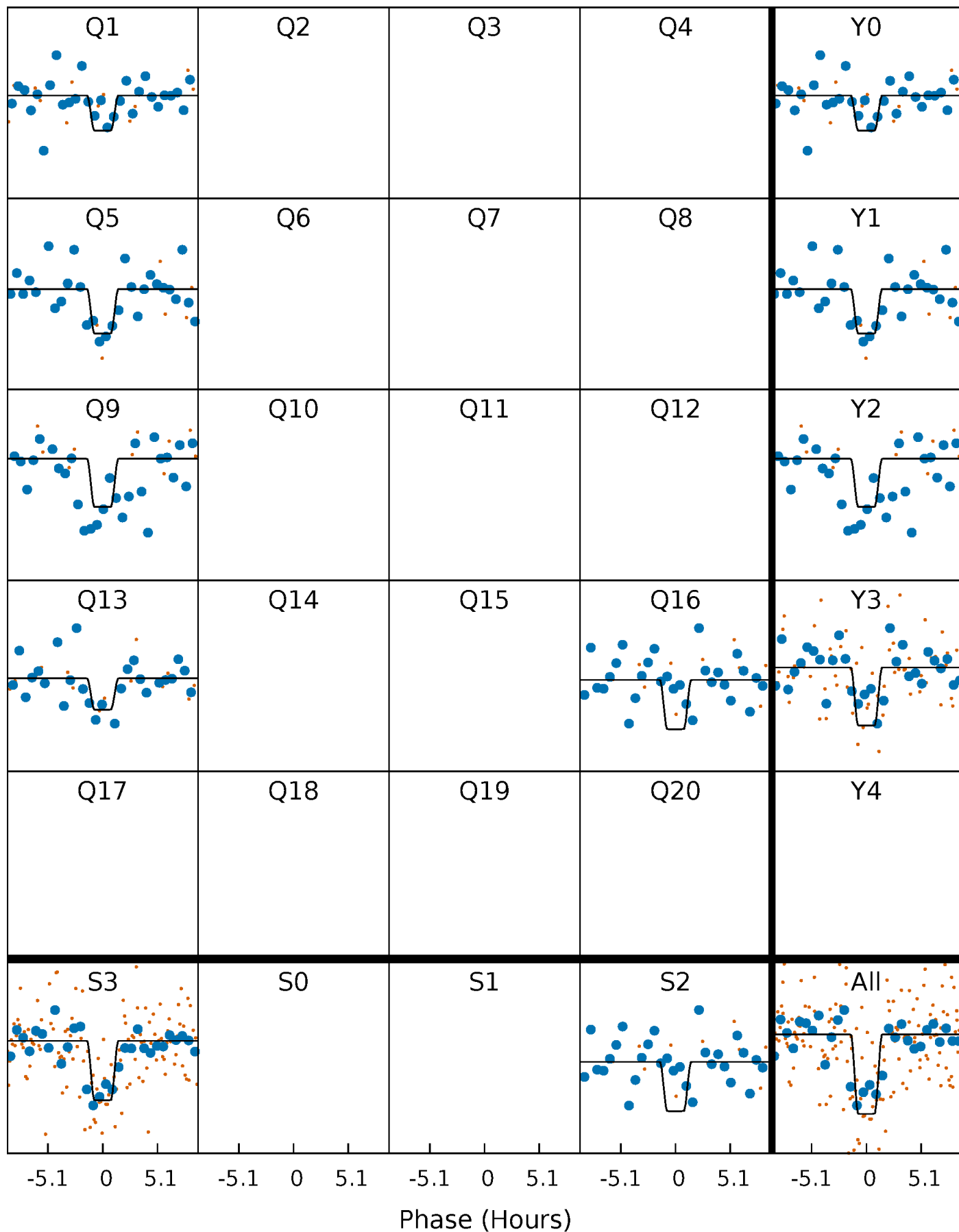
DV Quarter-Phased Transit Curves

TCE 003966749-01 $P=350.523351$ Days $T_0=133.668604$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

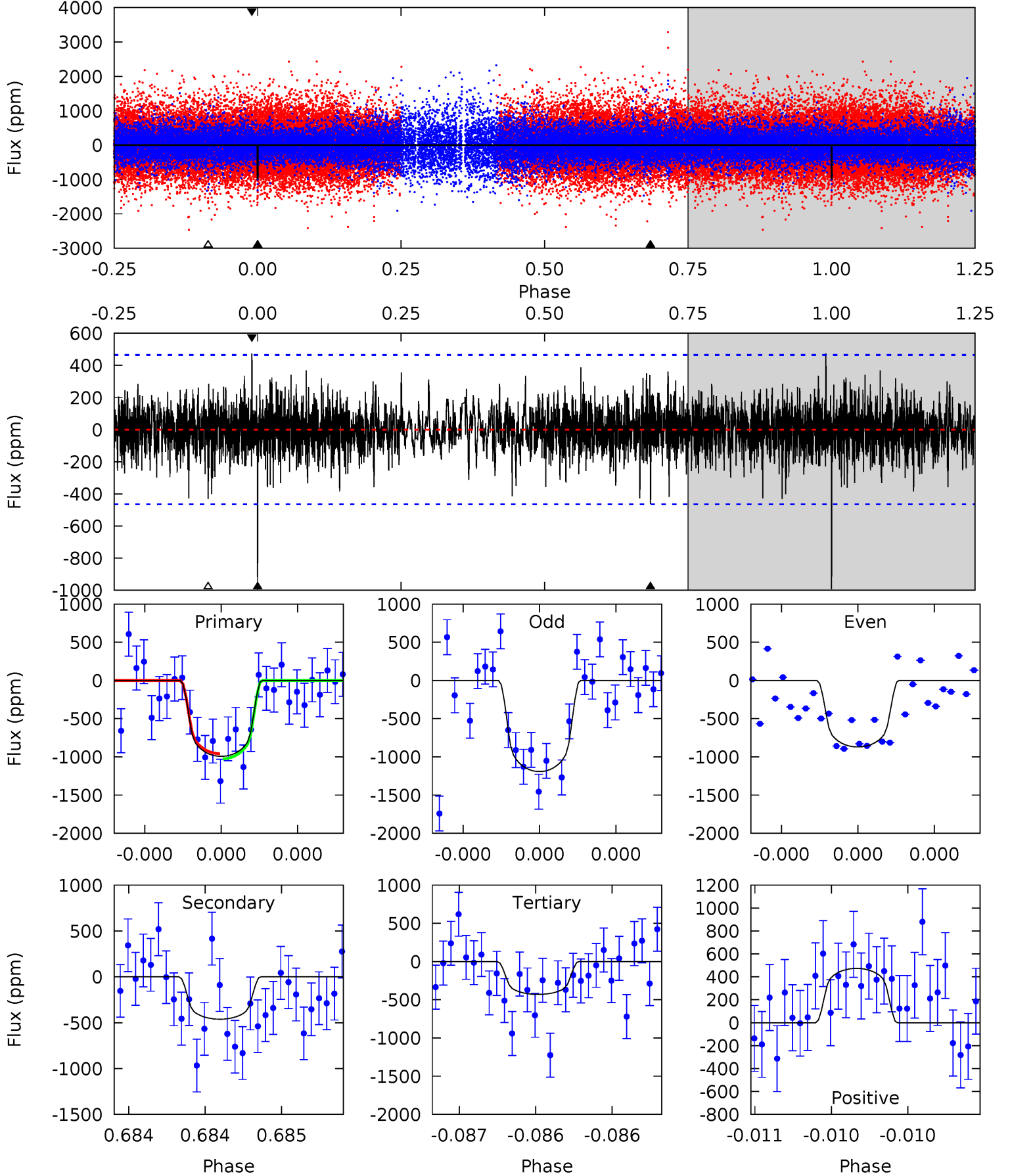
TCE 003966749-01 P=350.522410 Days $T_0=133.674955$ (BKJD)



DV Model-Shift Uniqueness Test

003966749-01, P = 350.523351 Days, E = 133.668604 Days

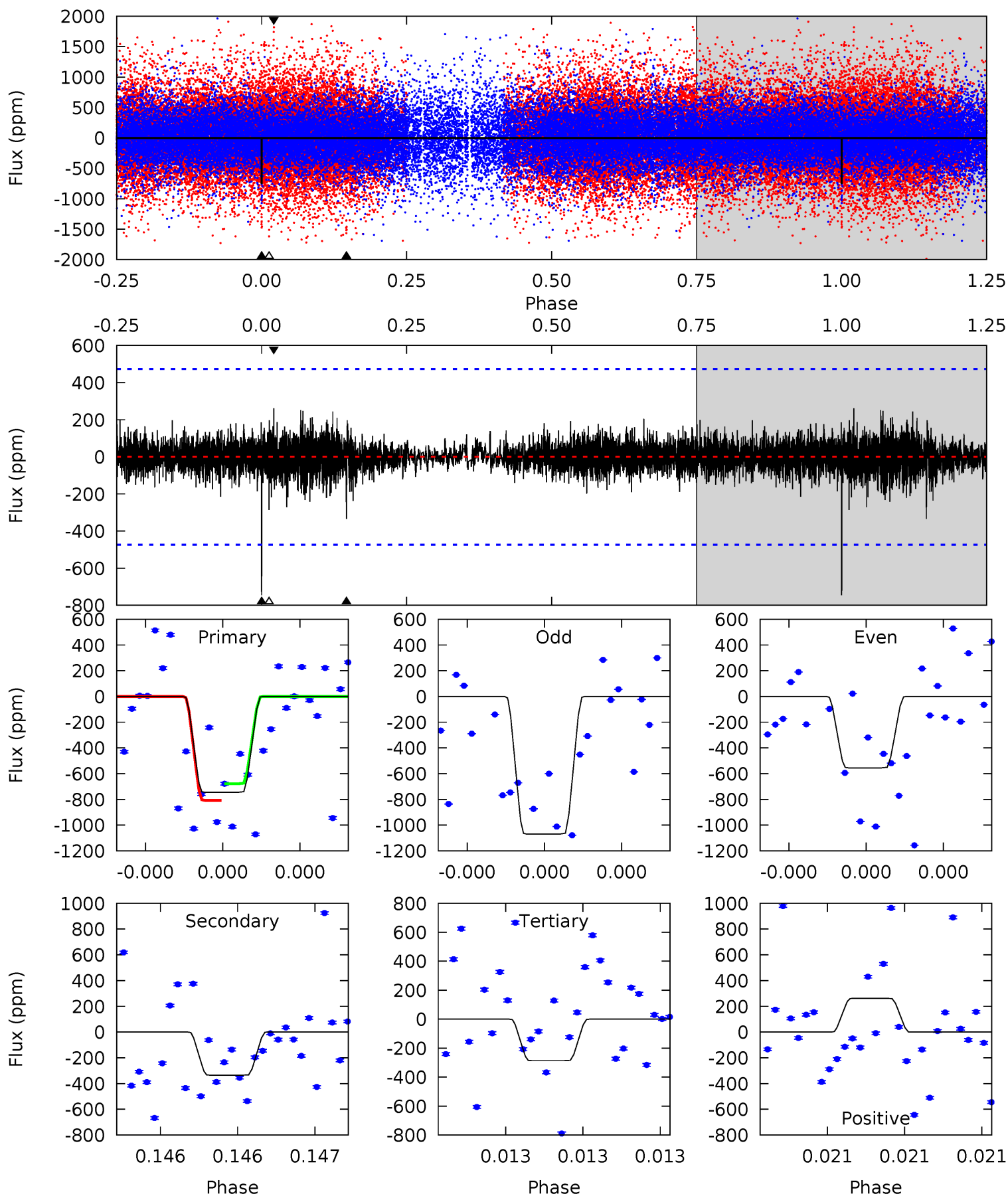
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	5.54	5.16	5.68	5.58	3.49	1.27	6.75	6.23	0.38	-0.14	1.87	0.93	0.32	0.40



Alt Model-Shift Uniqueness Test

003966749-01, P = 350.522410 Days, E = 133.674955 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.87	3.98	3.40	3.11	5.64	3.58	0.66	5.46	5.75	0.58	0.87	3.01	0.74	0.26	0.77



Stellar Parameters For KIC 003966749

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5662^{+152}_{-169}	$4.560^{+0.033}_{-0.187}$	$-0.120^{+0.300}_{-0.300}$	$0.840^{+0.235}_{-0.073}$	$0.937^{+0.094}_{-0.115}$	$2.228^{+0.423}_{-1.124}$
	+3%/-3%	+1%/-4%	+250%/-250%	+28%/-9%	+10%/-12%	+19%/-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 003966749-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-462 ± 83	$3.12^{+1.73}_{-1.53}$	335^{+22}_{-13}	4740^{+1643}_{-763}	22911^{+63011}_{-13981}
Alt.	-335 ± 84	$3.01^{+1.80}_{-1.54}$	336^{+21}_{-15}	4495^{+1781}_{-750}	17709^{+63679}_{-11576}

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

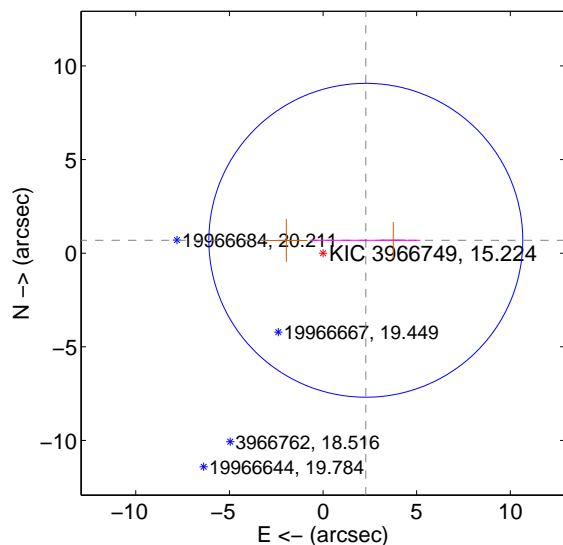
Supplemental centroid analysis for 003966749-01. Kepler magnitude: 15.22. Transit SNR 7.47

There are 0 quarters with good PRF difference image offsets

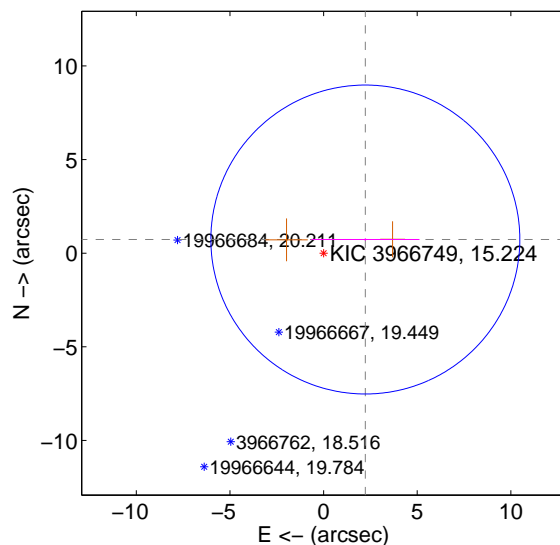
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.385 ± 2.793	0.85	-2.284 ± 2.917	0.689 ± 0.068
PRF-fit source offset from KIC position	2.346 ± 2.749	0.85	-2.229 ± 2.892	0.729 ± 0.068
photometric centroid source offset	2.34 ± 1.69	1.38	1.73 ± 1.75	1.58 ± 1.63

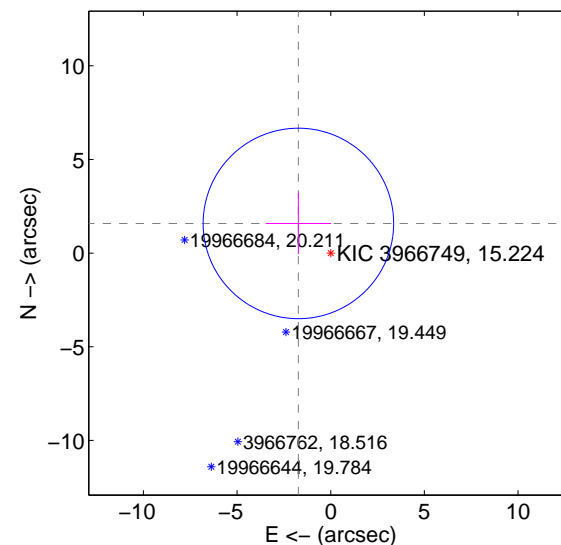
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

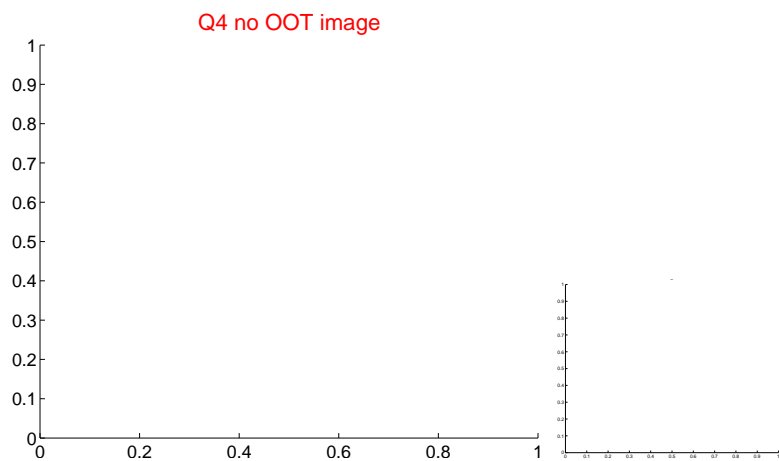
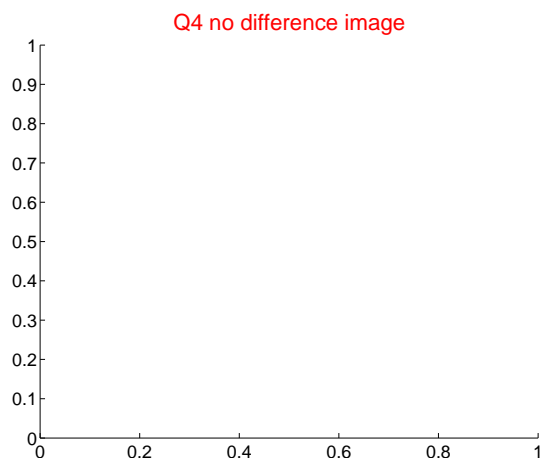
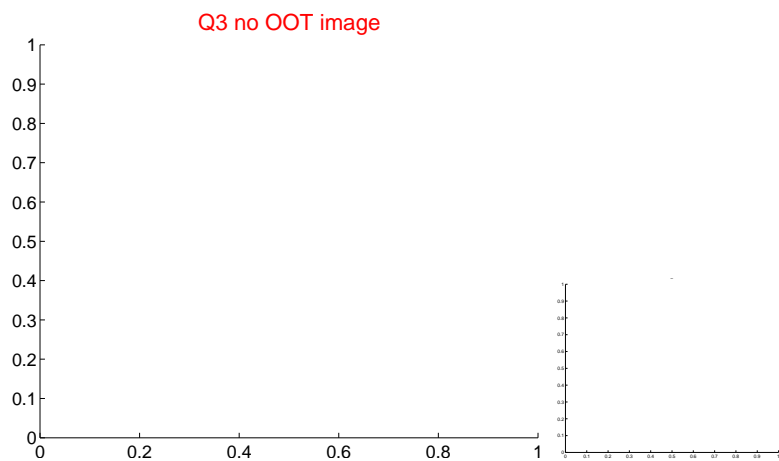
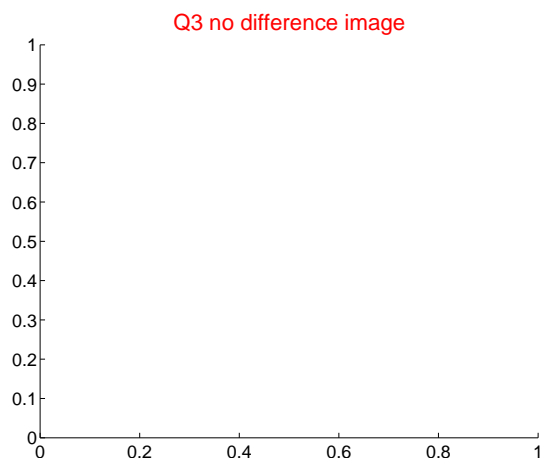
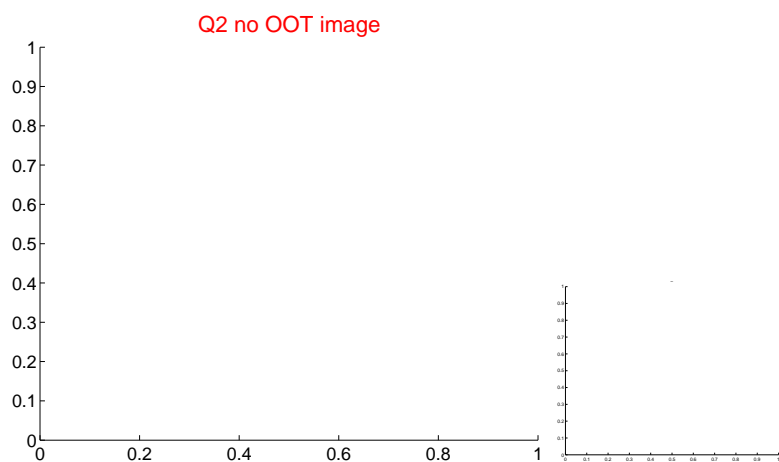
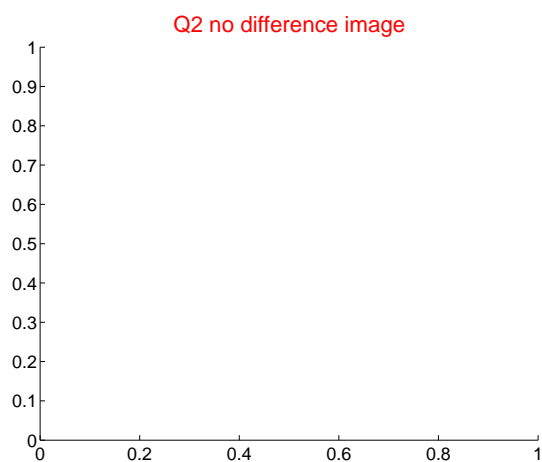
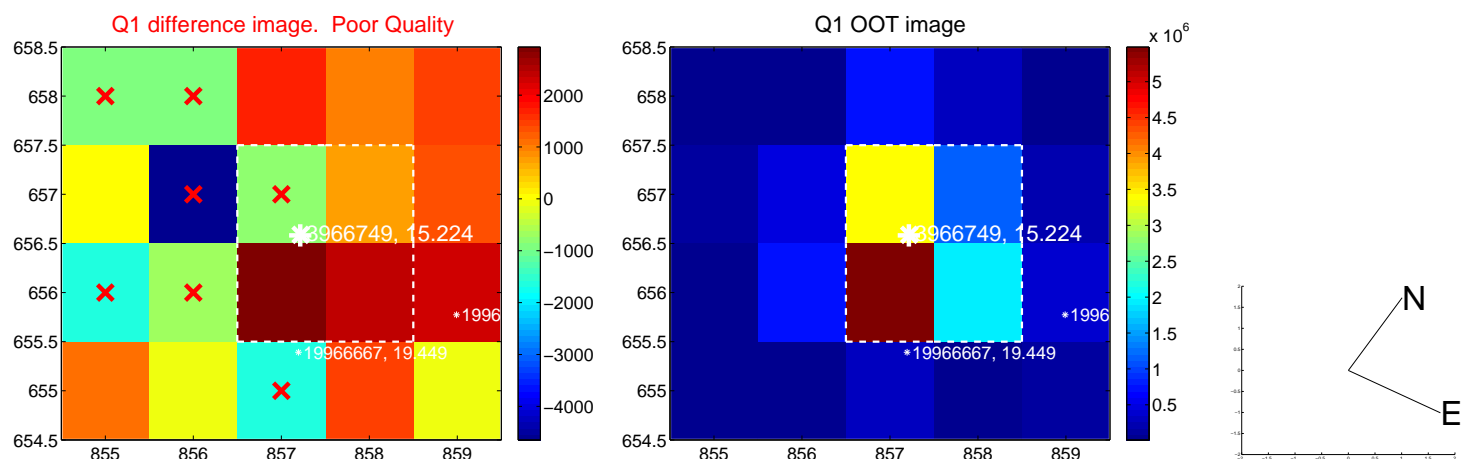


offset from photometric centroids

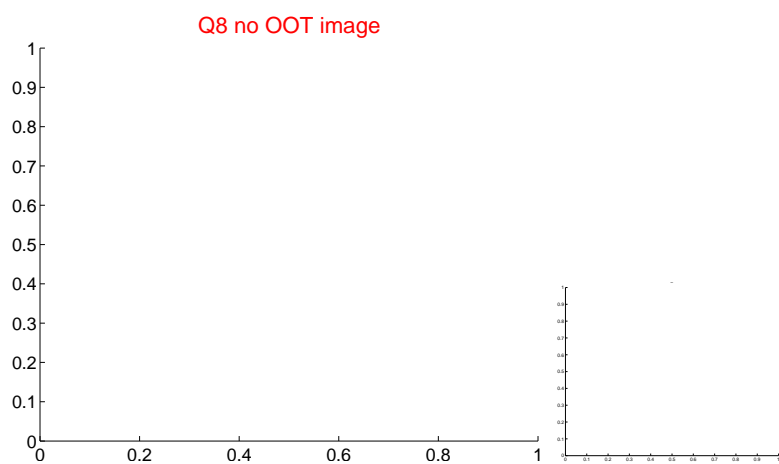
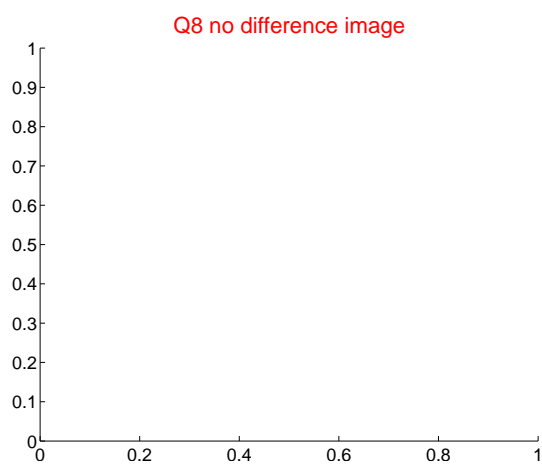
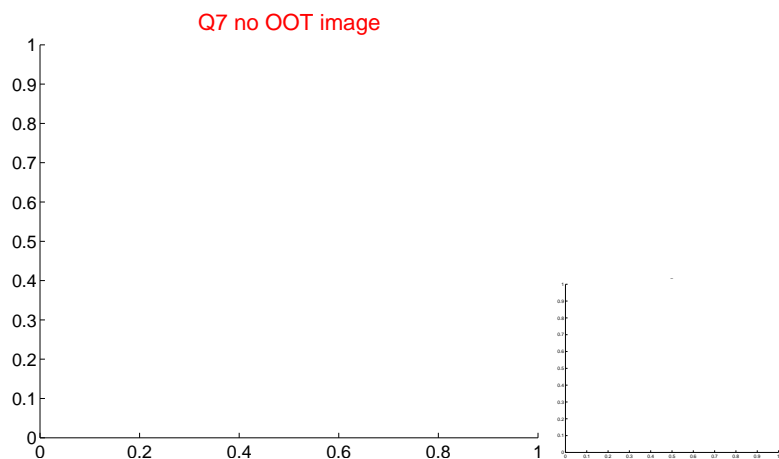
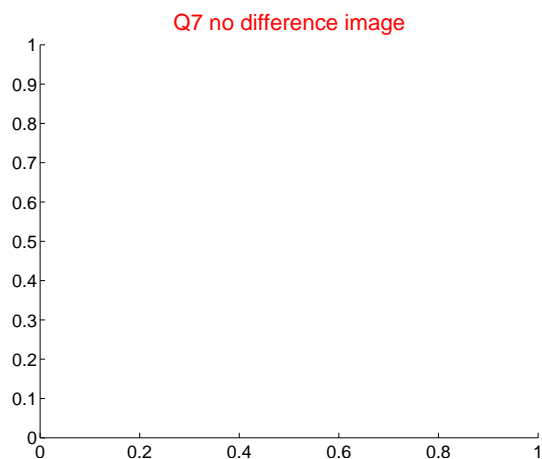
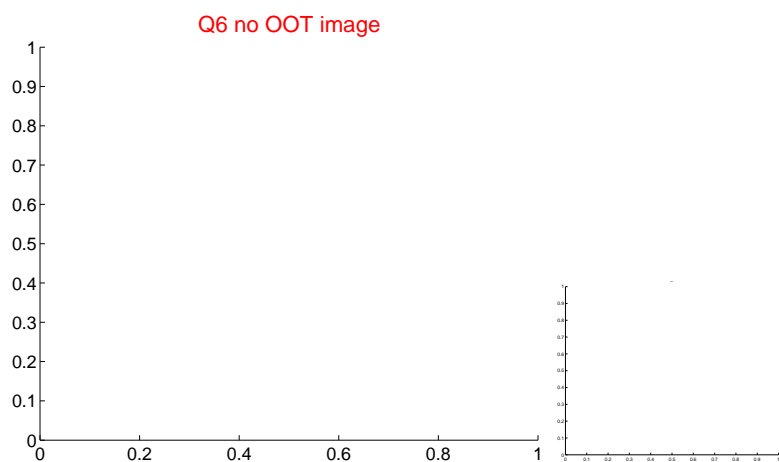
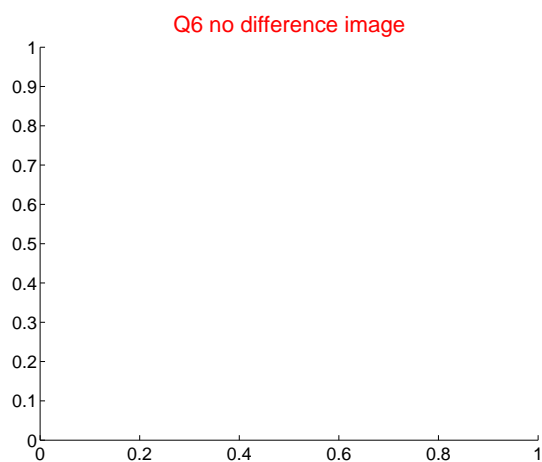
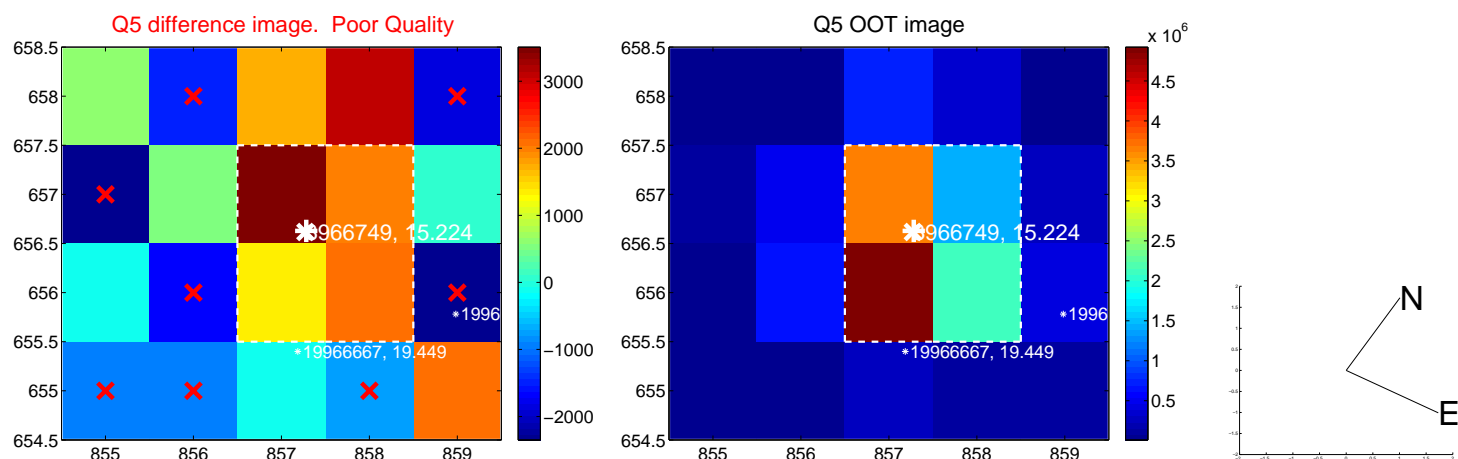


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

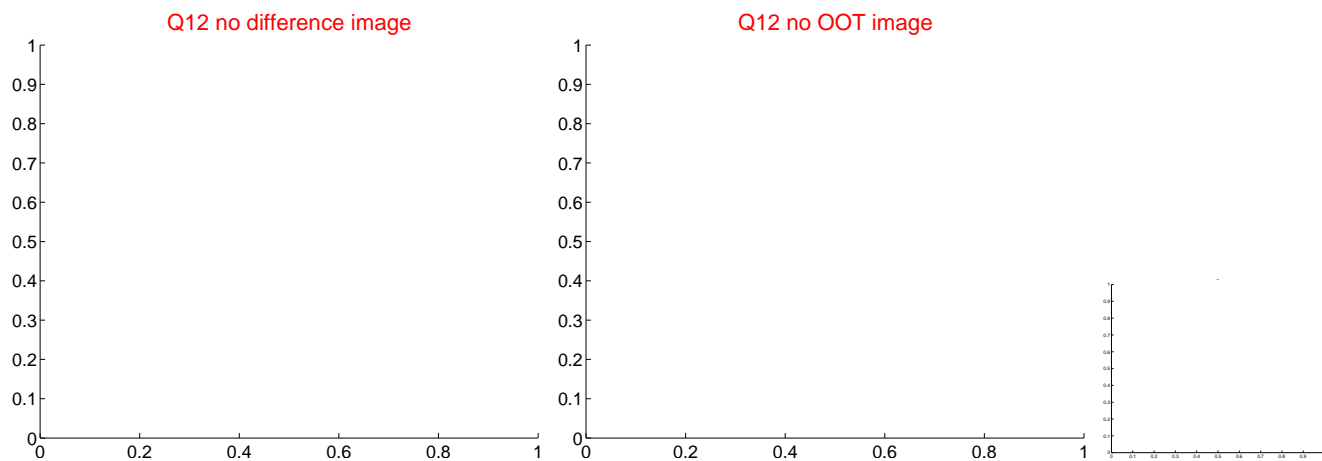
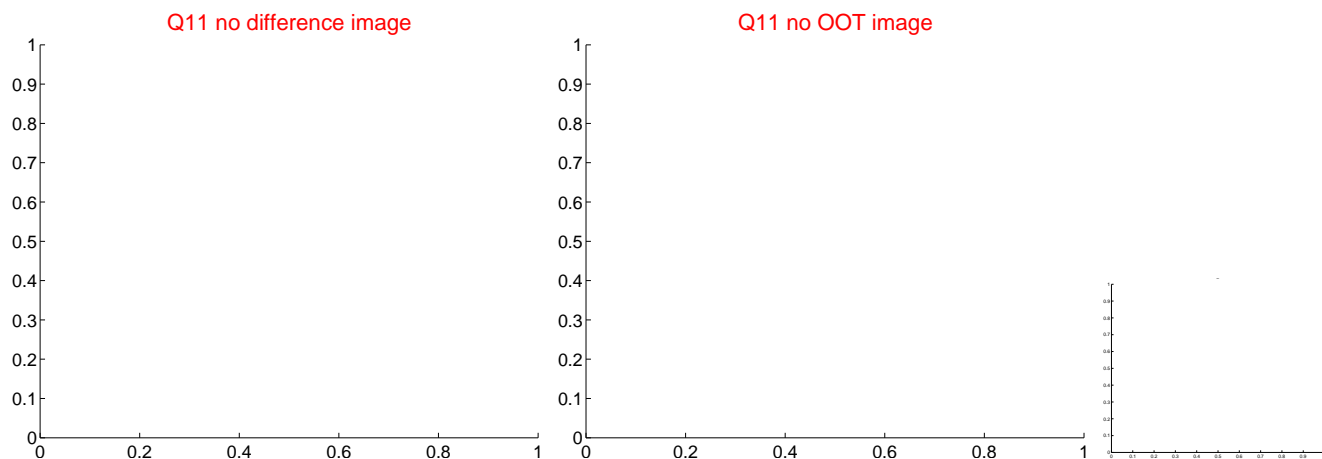
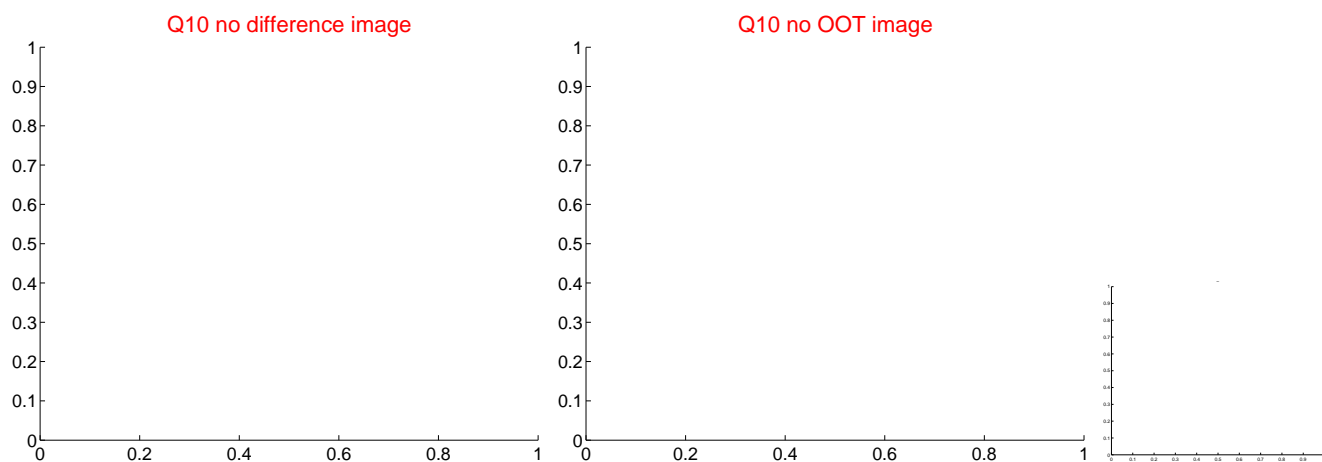
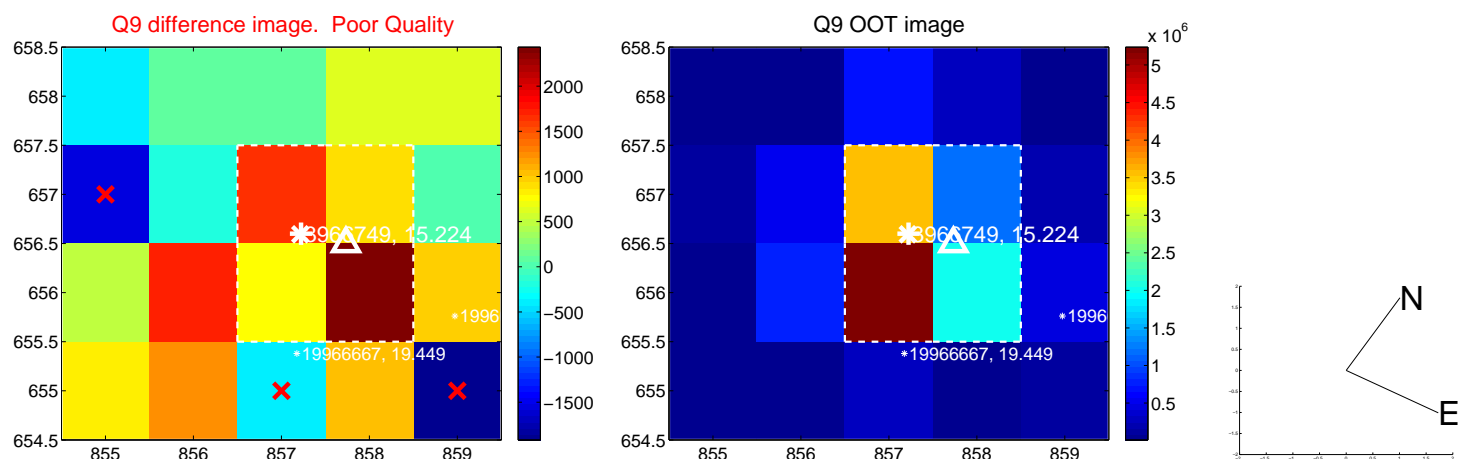
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



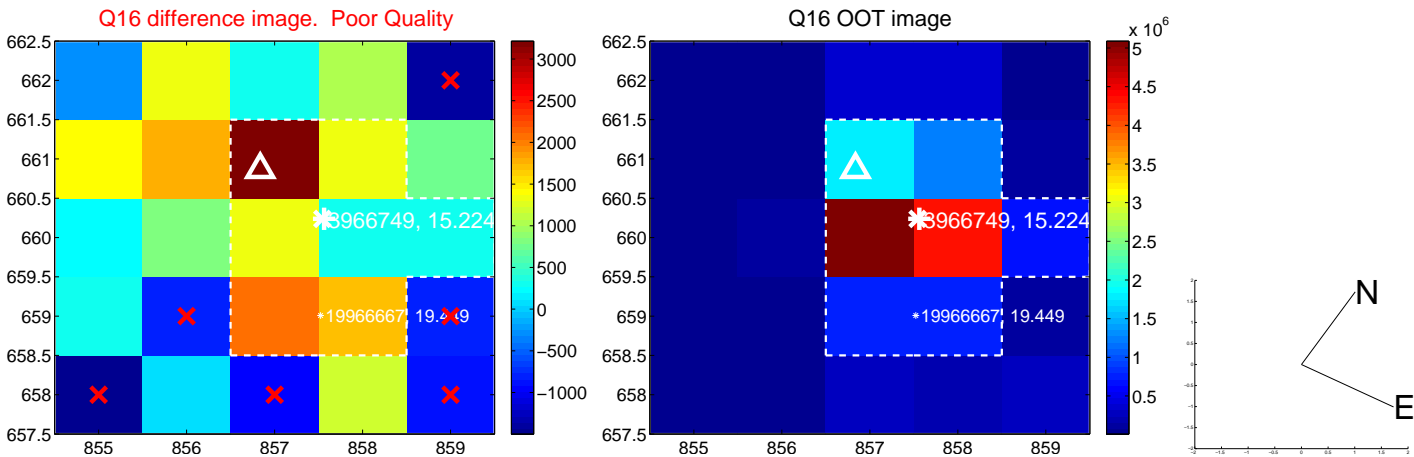
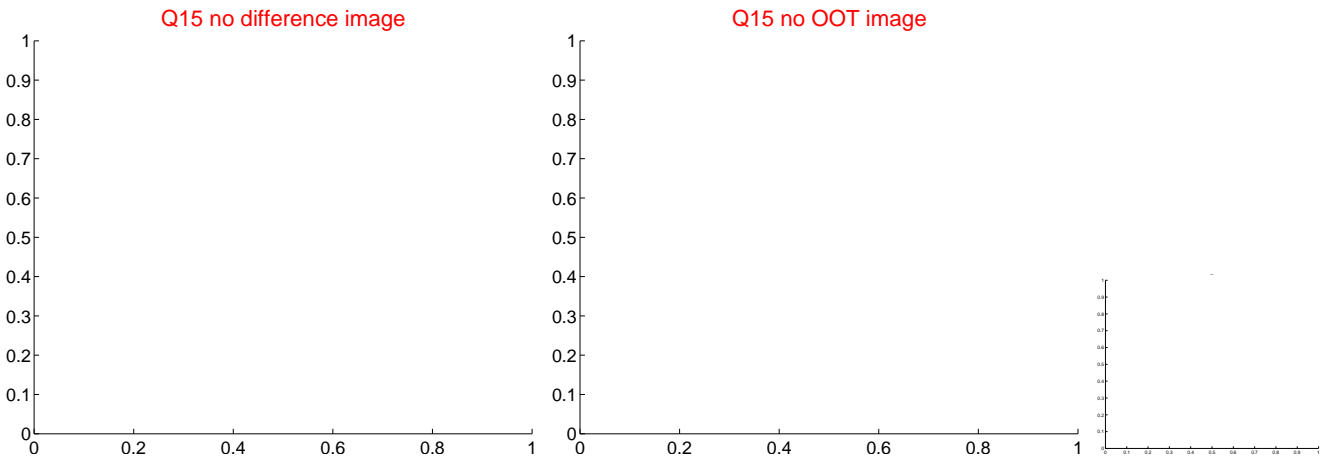
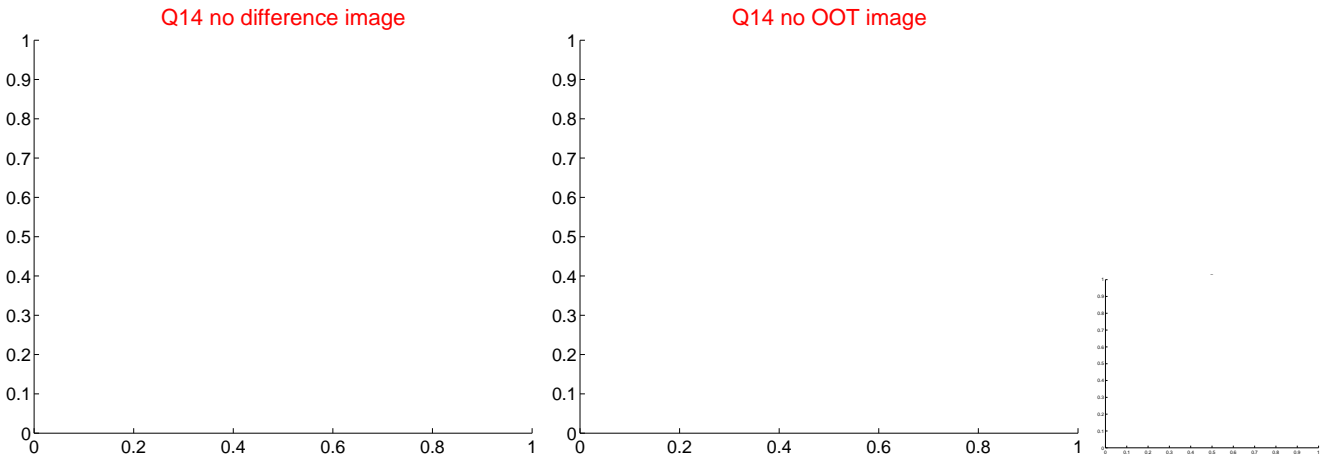
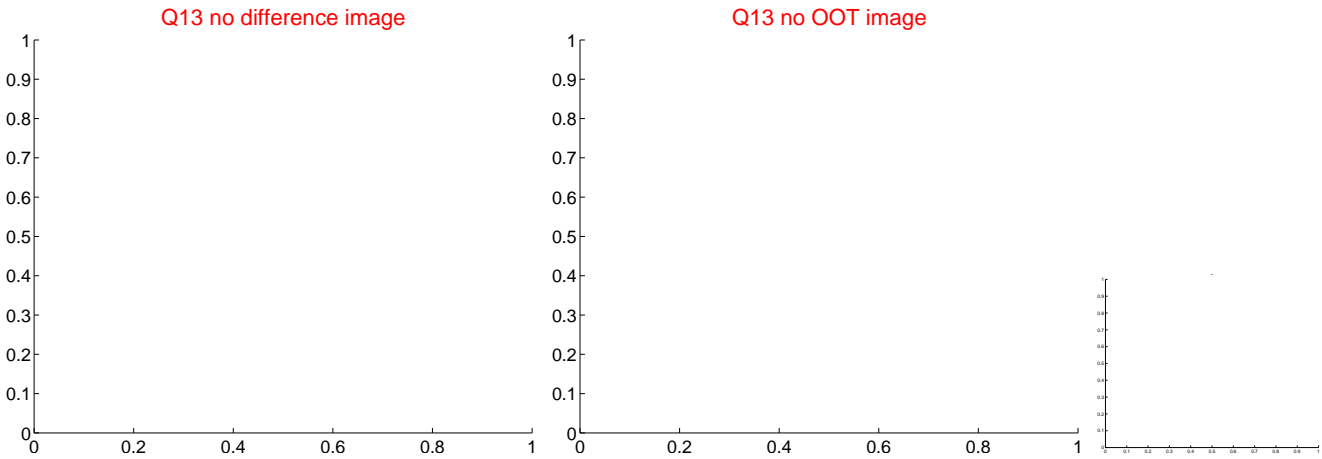
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



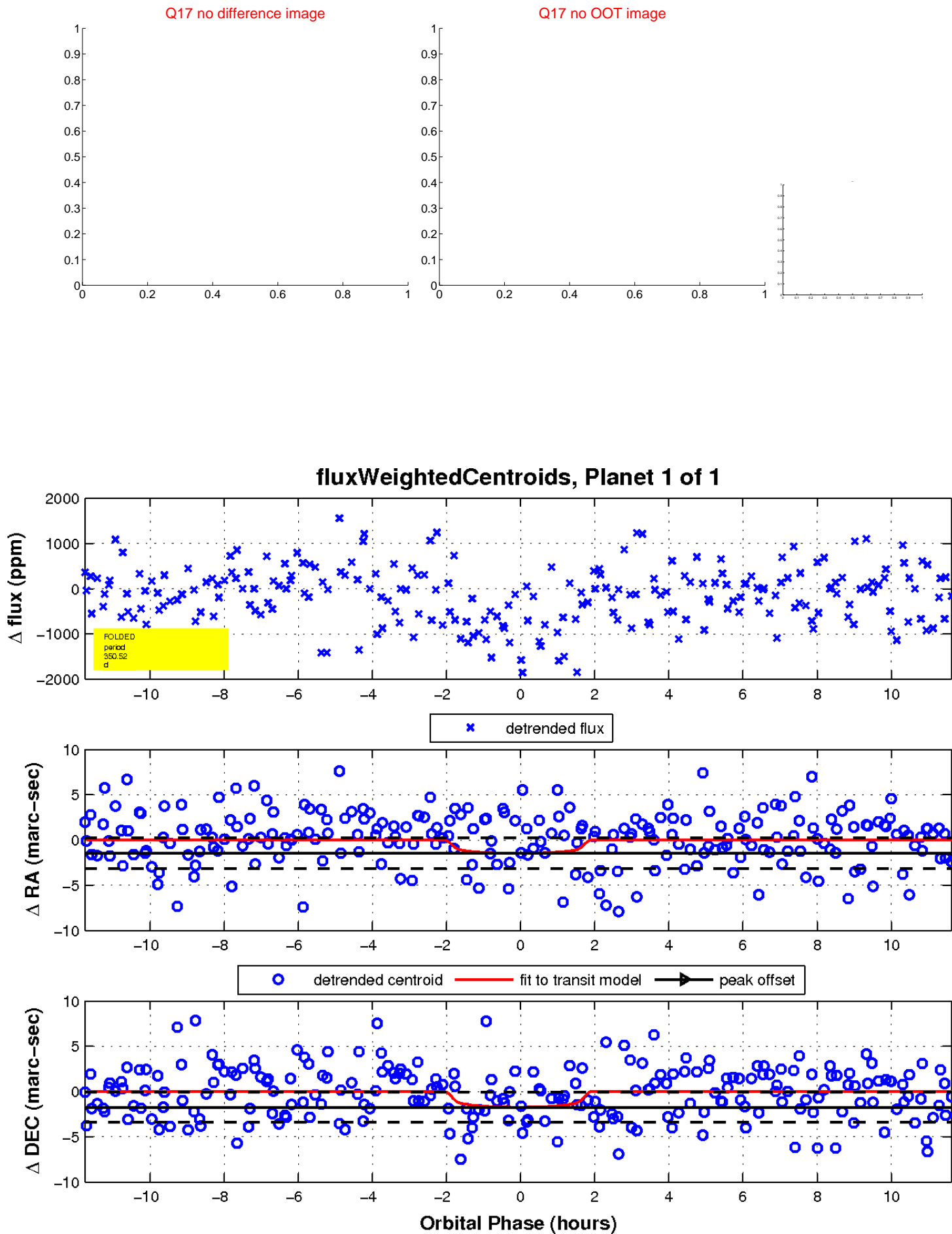
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

