

KIC 011966668

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})
011966668-01	OBS	8071.01	313.198660	340.937335	689.4	8.757	7.2	7.0	0.73	5254	2.09	0.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011966668-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—MOD_NONUNIQ_ALT—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.

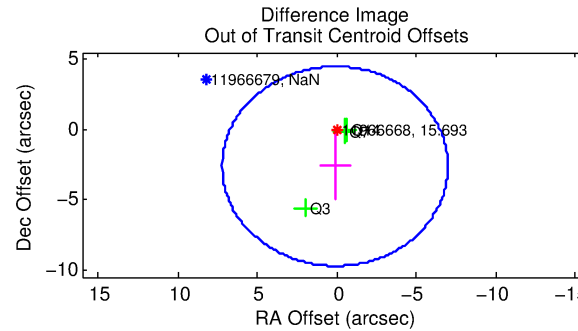
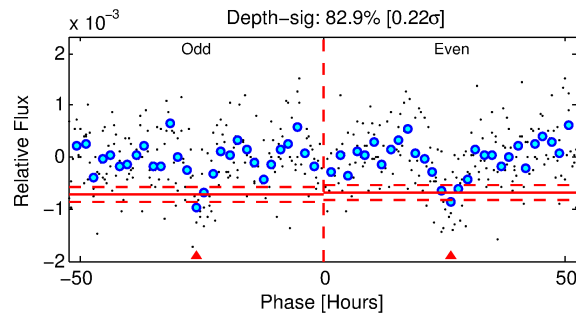
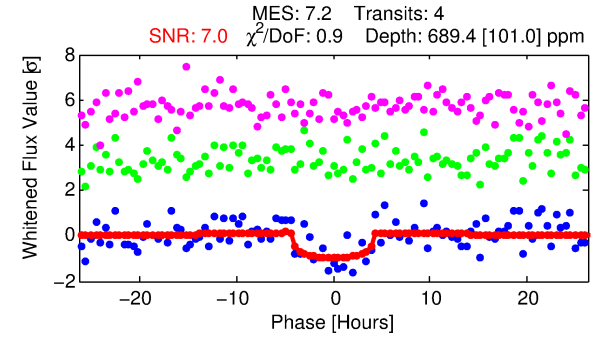
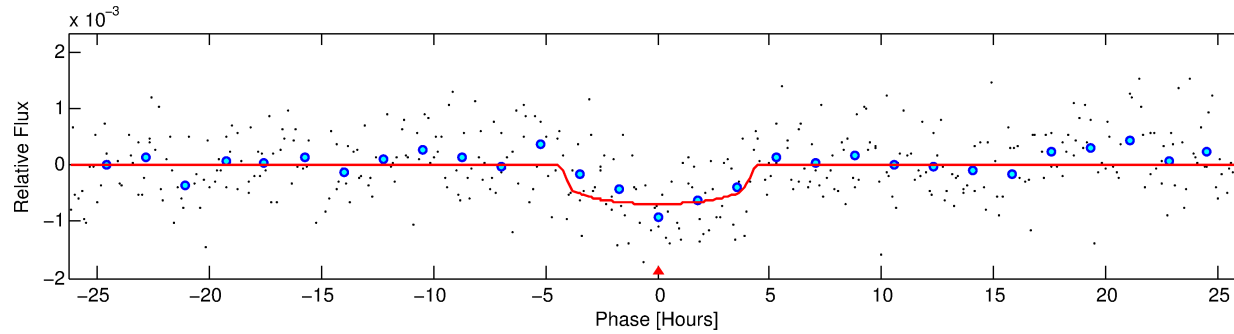
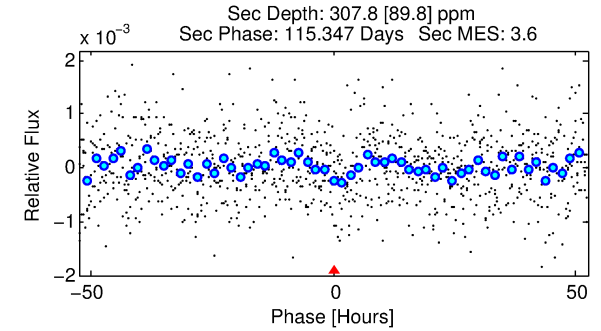
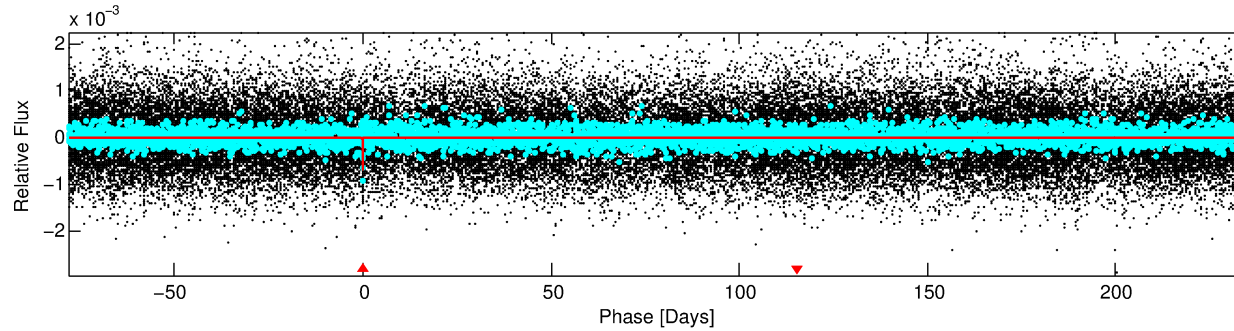
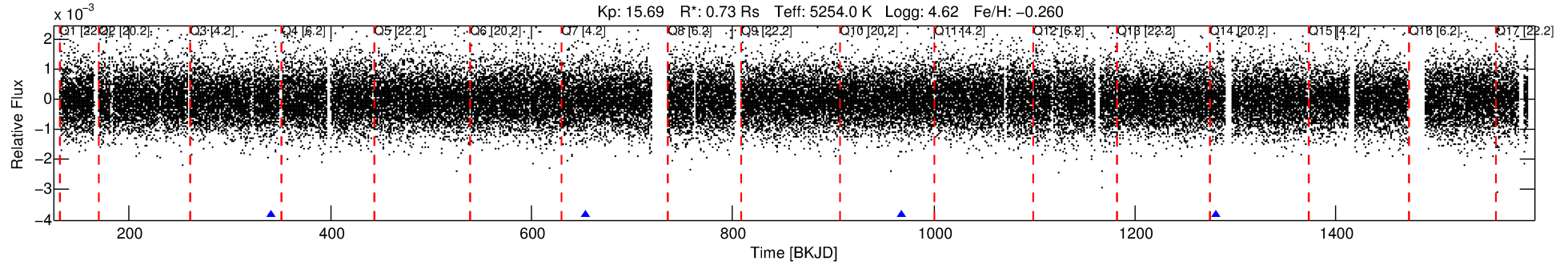
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011966668-01

No Significant Match Found

DV One-Page Summary

KIC: 11966668 Candidate: 1 of 1 Period: 313.199 d



DV Fit Results:

Period = 313.19866 [0.01044] d
Epoch = 340.9373 [0.0191] BKJD
Rp/R* = 0.0262 [0.0132]
a/R* = 190.38 [373.04]
b = 0.75 [1.14]
Seff = 0.52 [0.11]
Teq = 216 [11] K
Rp = 2.09 [1.09] Re
a = 0.8403 [0.0981] AU
Ag = 27446.26 [29197.15] [0.94σ]
Teffp = 4299 [1137] K [3.59σ]

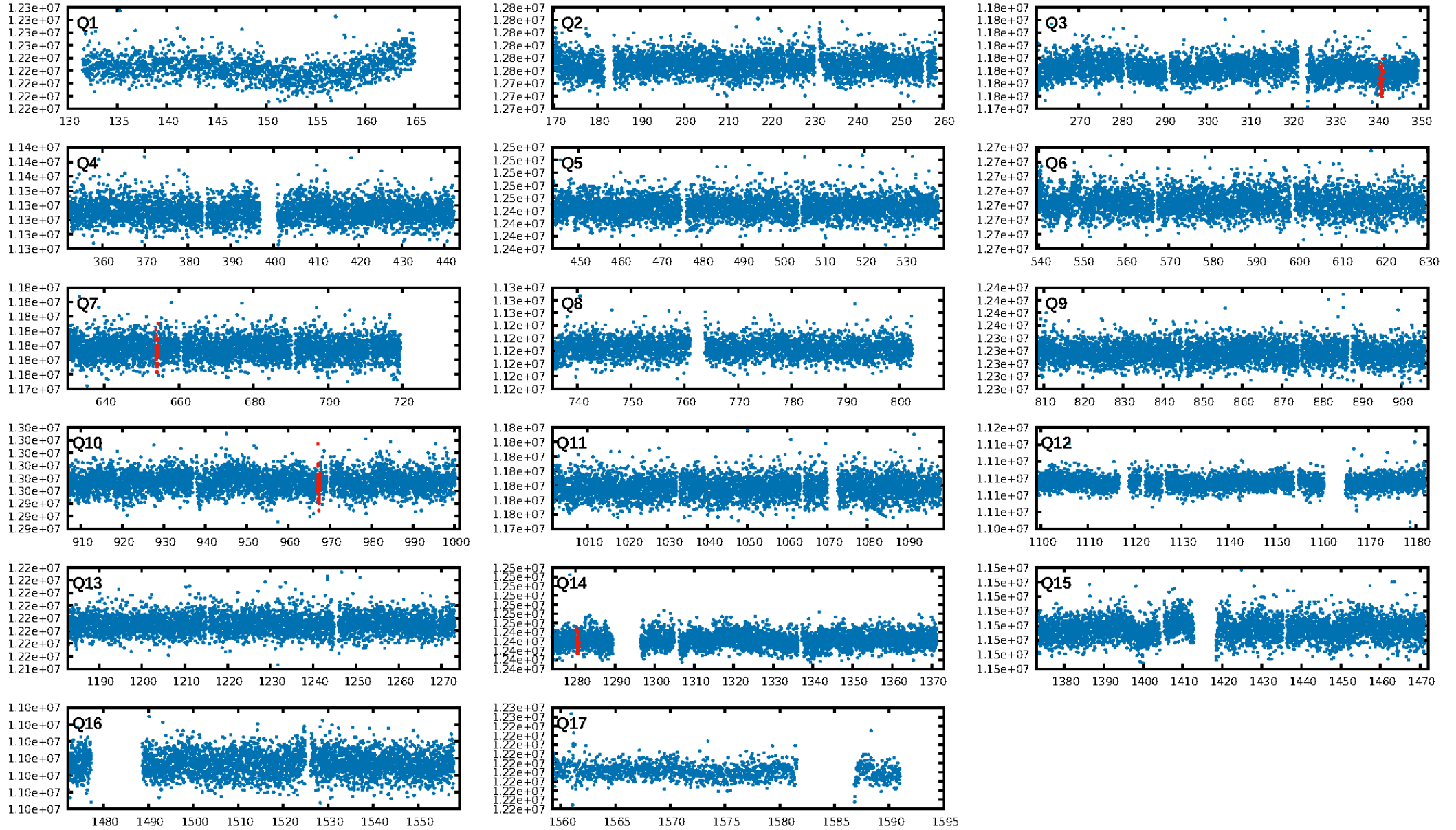
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 87.5%
ModelChiSquareGof-sig: 97.7%
Bootstrap-pfa: 2.62e-13
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 1.948
Centroid-sig: 13.9%
Centroid-so: 1.890 arcsec [0.96σ]
OotOffset-rm: 2.618 arcsec [1.11σ]
KicOffset-rm: 2.526 arcsec [1.06σ]
OotOffset-st: 1/2/0/0 [3]
KicOffset-st: 1/2/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

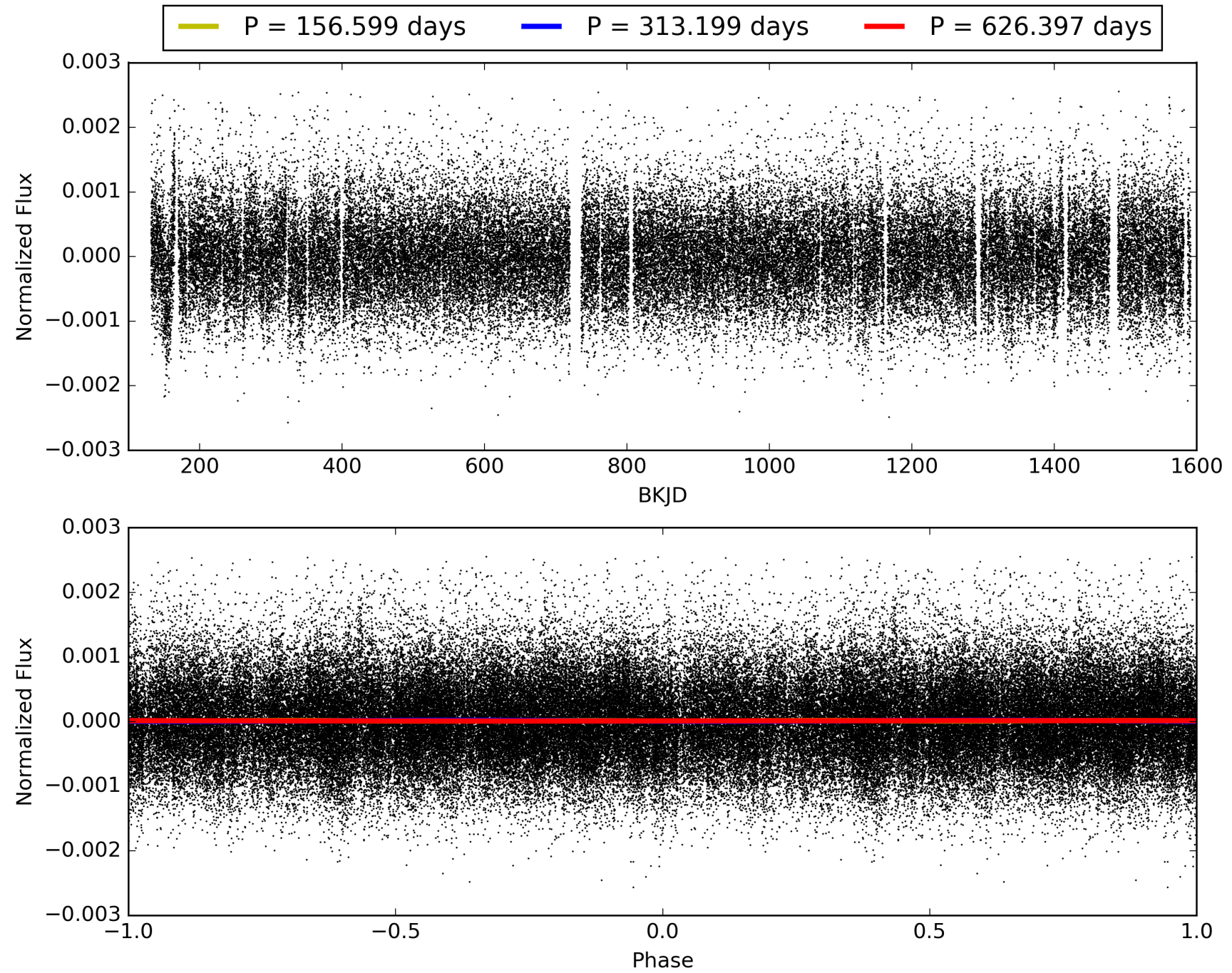
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:54:55 Z

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

TCE 011966668-01, PDC Light Curves

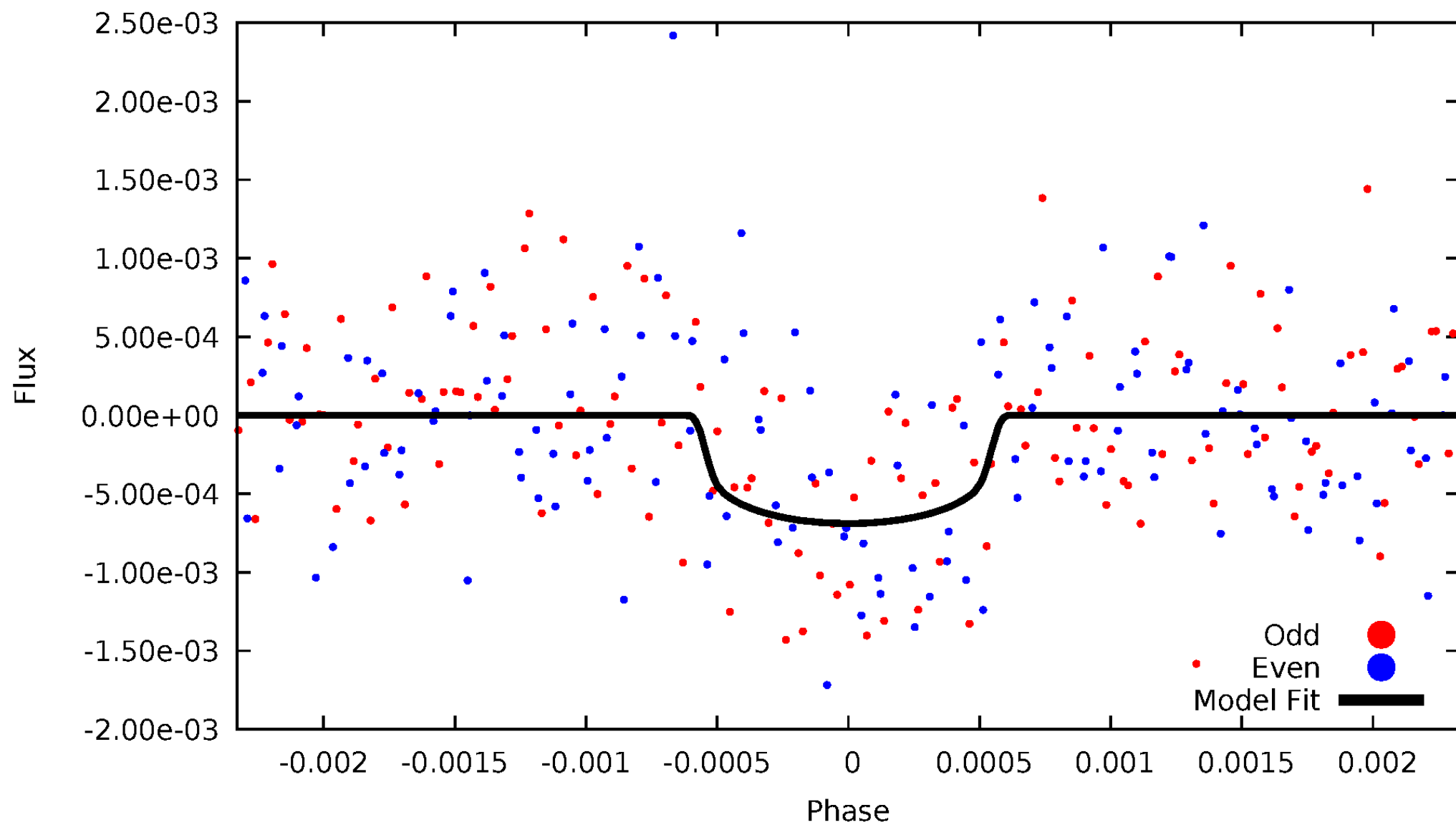


TCE 011966668-01



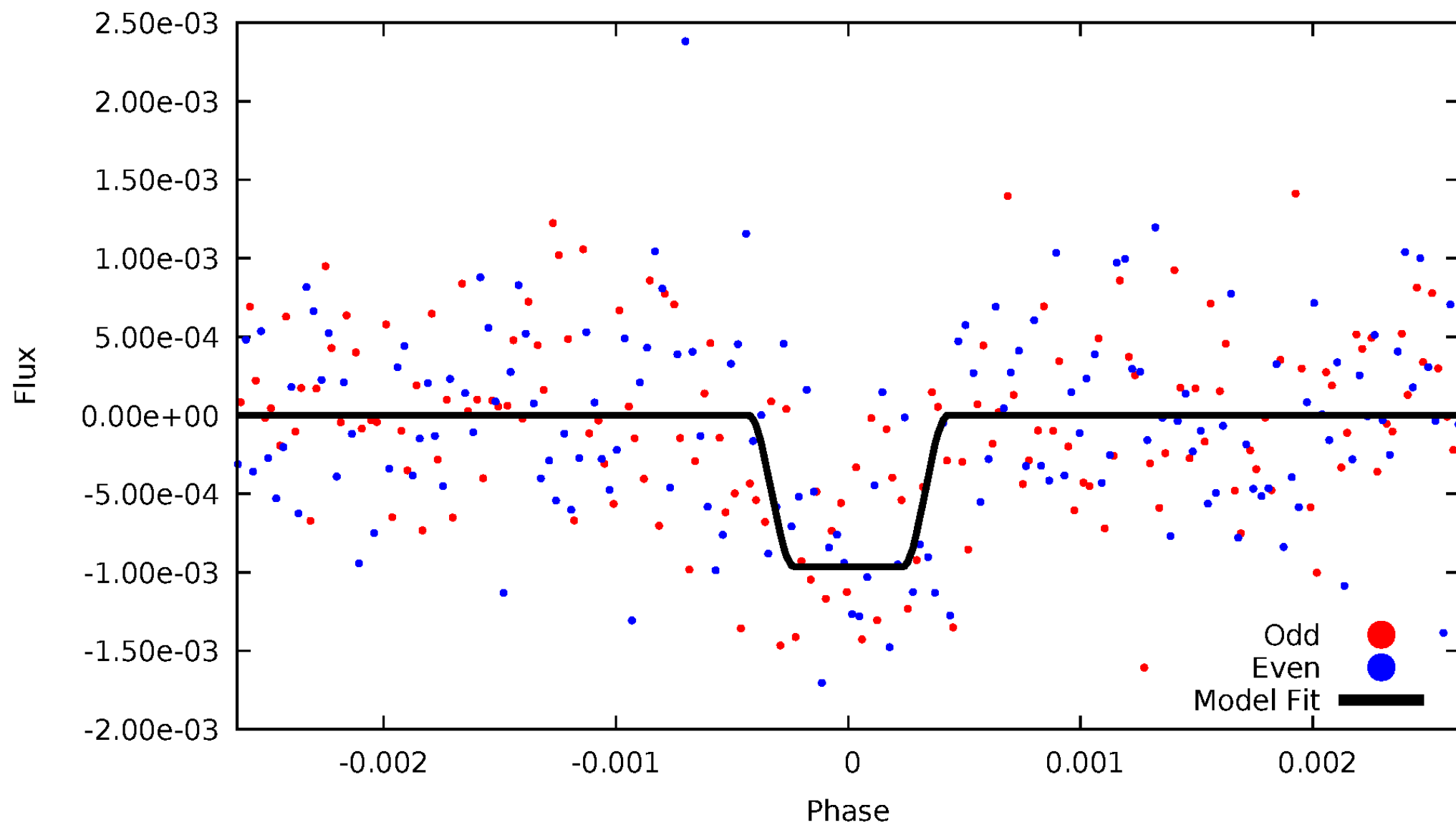
DV Odd/Even

TCE 011966668-01



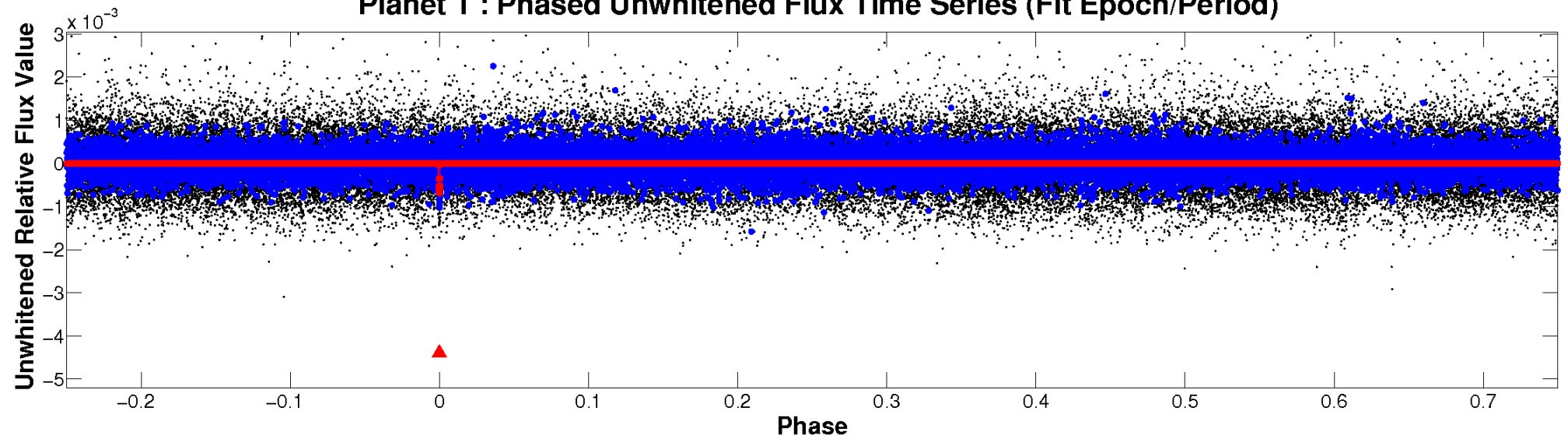
ALT Odd/Even

TCE 011966668-01

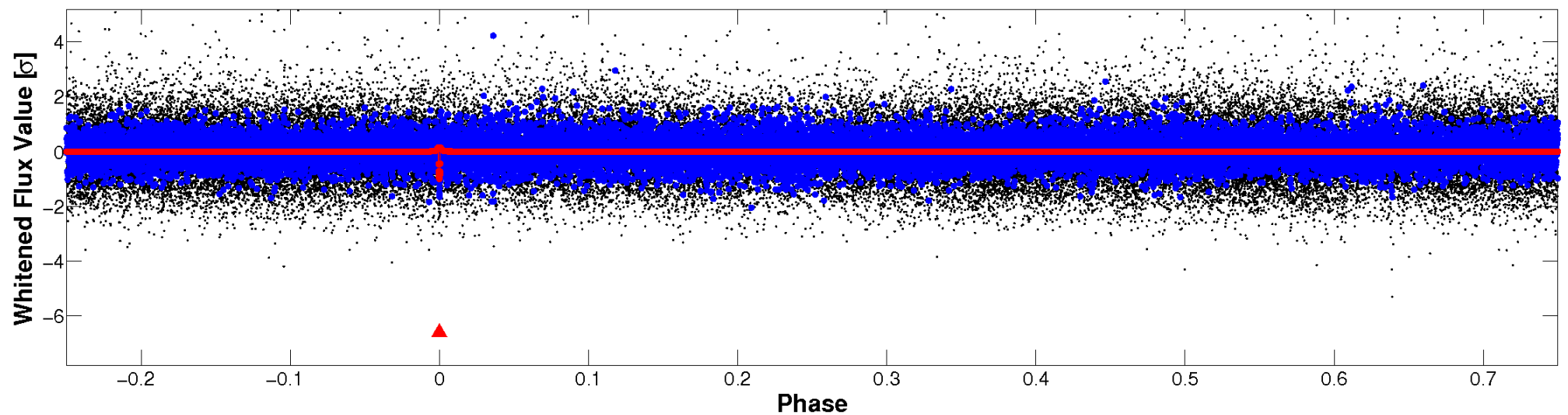


Non-Whitened Vs. Whitened Light Curve

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

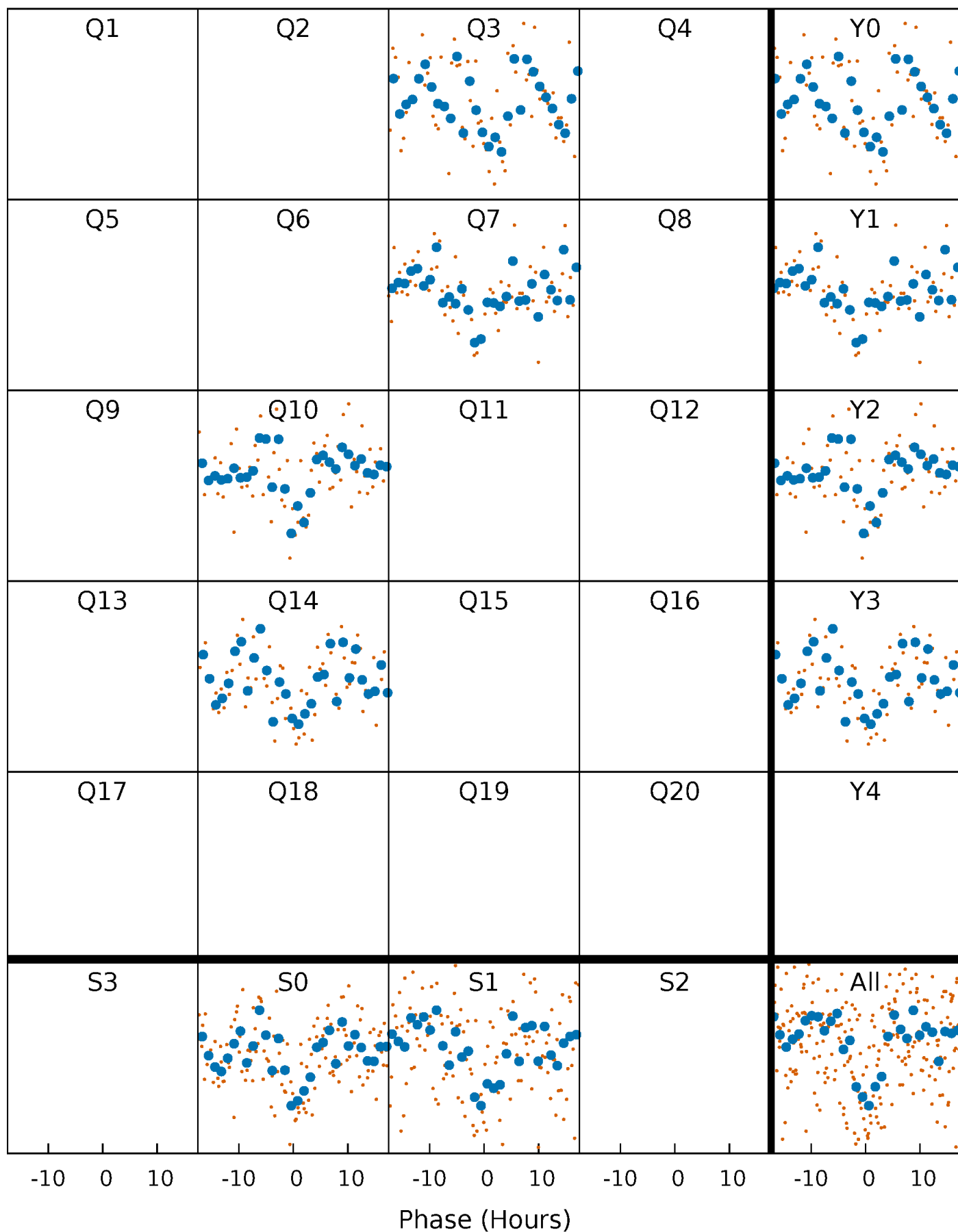


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



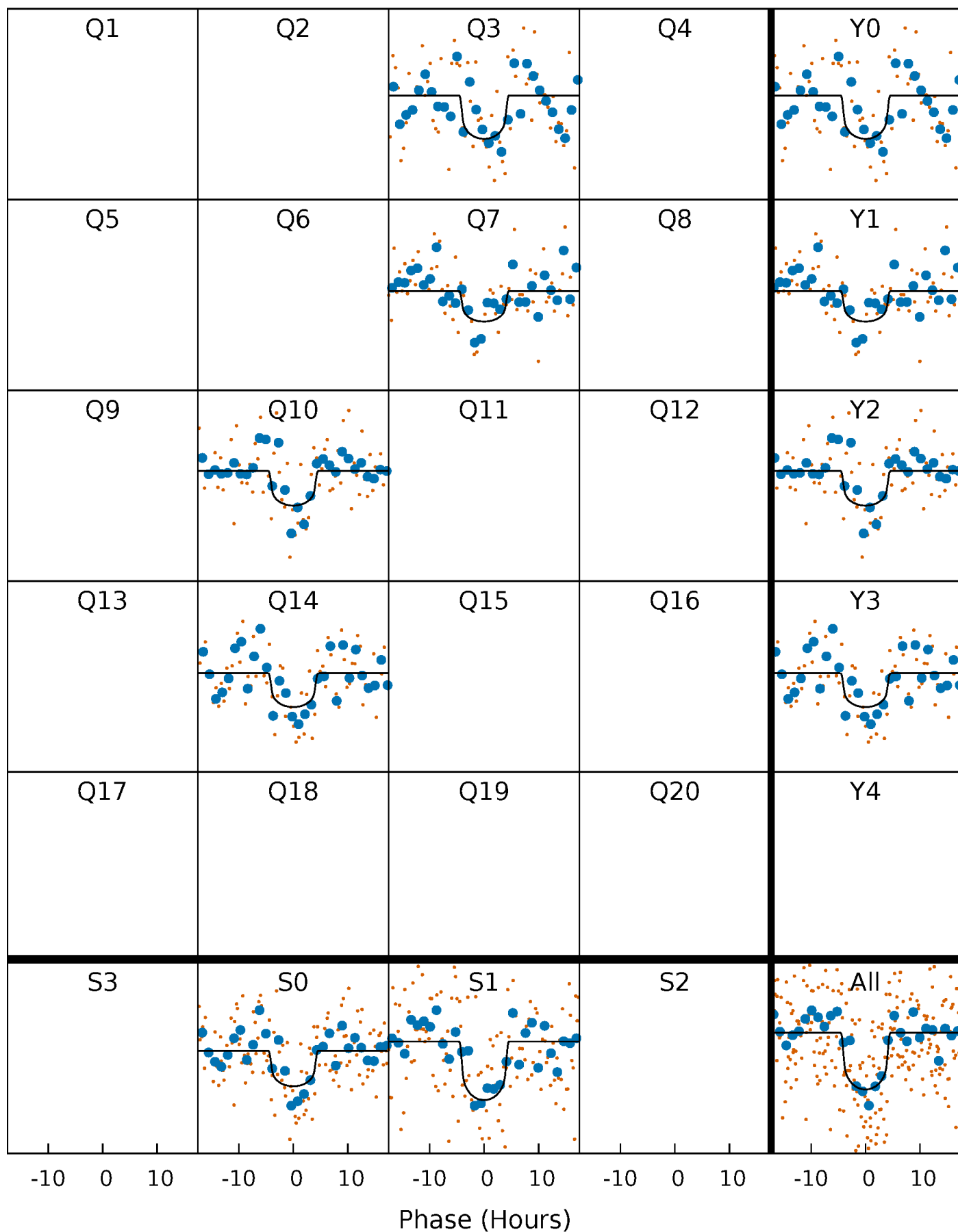
PDC Quarter-Phased Transit Curves

TCE 011966668-01 P=313.198660 Days $T_0=340.937335$ (BKJD)



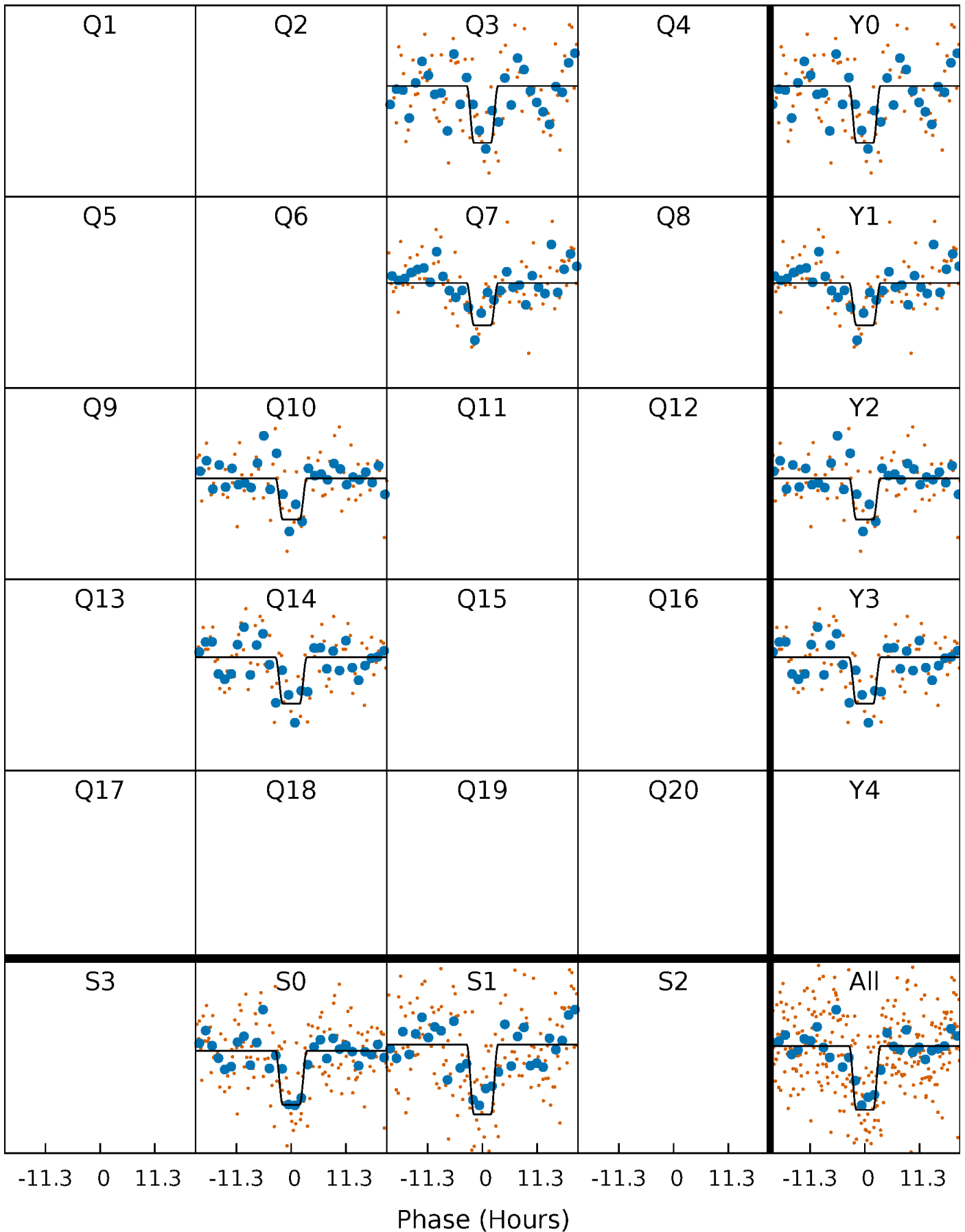
DV Quarter-Phased Transit Curves

TCE 011966668-01 P=313.198660 Days $T_0=340.937335$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

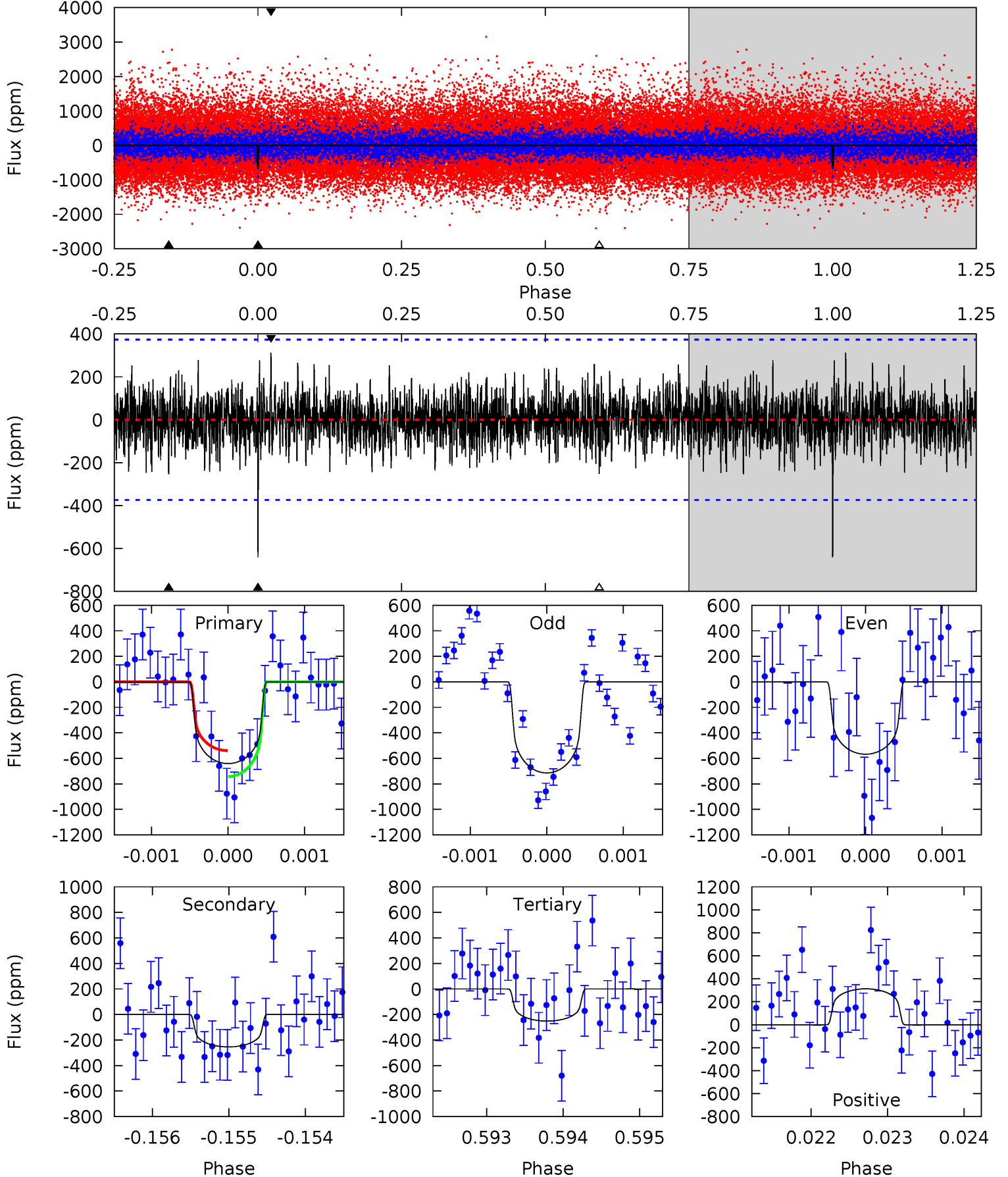
TCE 011966668-01 P=313.191985 Days $T_0=340.961001$ (BKJD)



DV Model-Shift Uniqueness Test

011966668-01, P = 313.198660 Days, E = 27.738675 Days

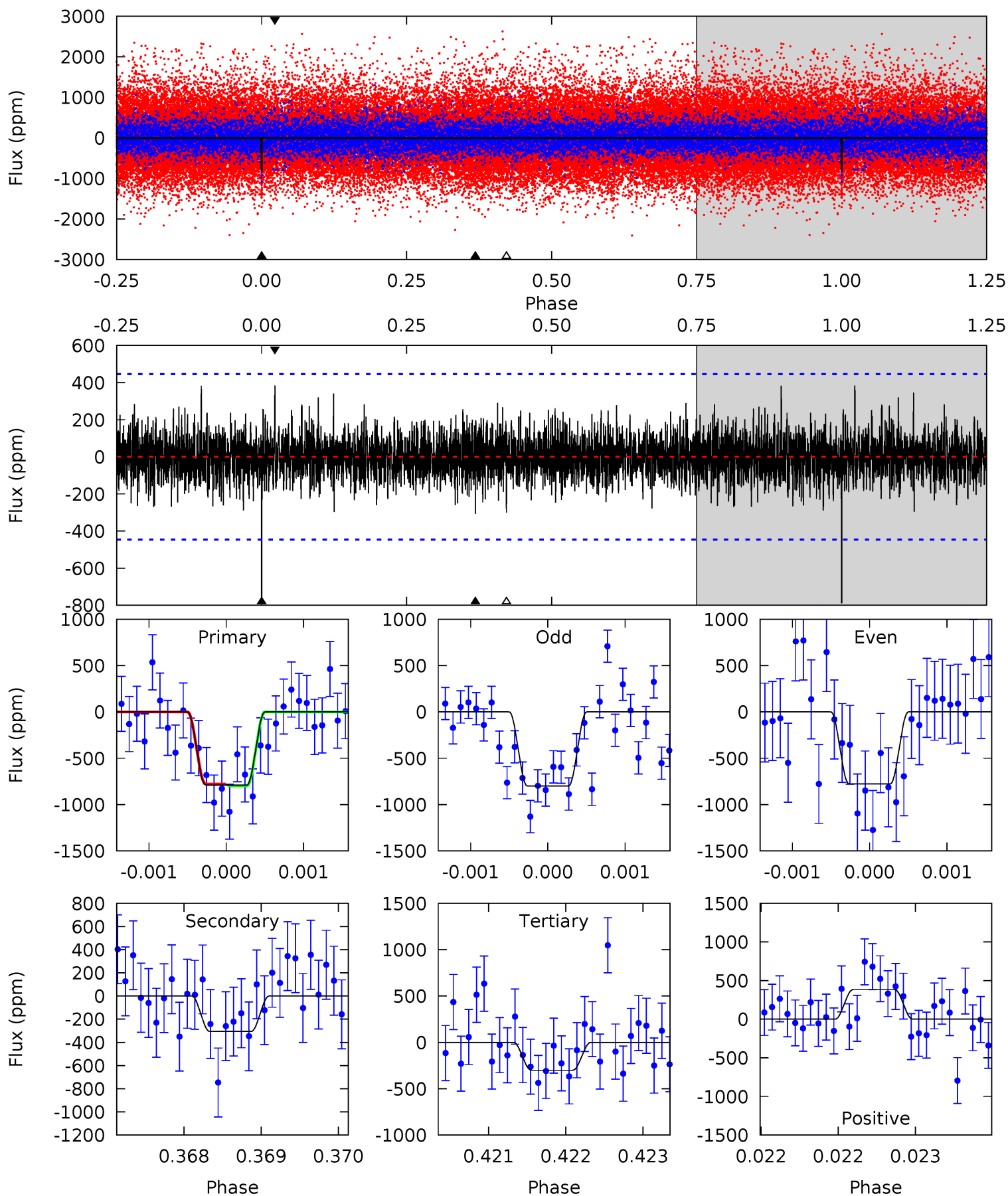
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	3.68	3.65	4.52	5.42	3.24	1.18	5.64	4.76	0.03	-0.85	1.06	1.05	0.33	1.47



Alt Model-Shift Uniqueness Test

011966668-01, P = 313.191985 Days, E = 27.769016 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.68	3.76	3.69	4.72	5.48	3.33	1.10	5.99	4.96	0.06	-0.96	0.14	0.99	0.33	0.13



Stellar Parameters For KIC 011966668

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5254^{+158}_{-142}	$4.618^{+0.030}_{-0.090}$	$-0.260^{+0.300}_{-0.300}$	$0.730^{+0.103}_{-0.060}$	$0.816^{+0.069}_{-0.095}$	$2.958^{+0.491}_{-0.893}$
	+3%/-3%	+1%/-2%	+115%/-115%	+14%/-8%	+8%/-12%	+17%/-30%
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 011966668-01 / KOI 8071.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-254 ± 69	$2.12^{+1.09}_{-0.98}$	306^{+14}_{-11}	4315^{+1250}_{-632}	21616^{+53963}_{-12815}
Alt.	-306 ± 81	$2.52^{+1.07}_{-1.00}$	306^{+13}_{-11}	4166^{+976}_{-549}	18114^{+34300}_{-9952}

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

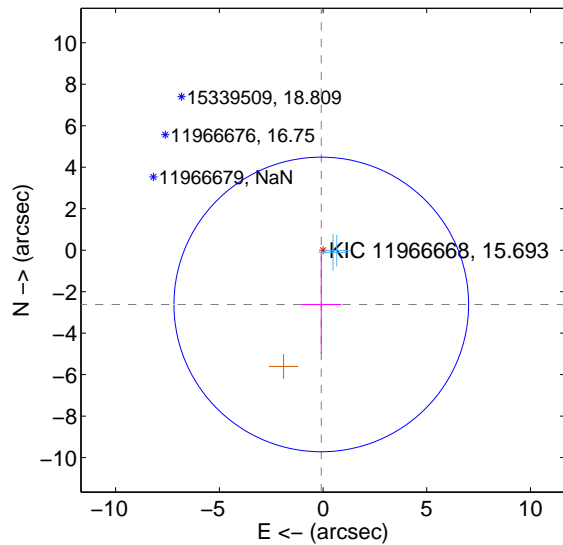
Supplemental centroid analysis for 011966668-01. Kepler magnitude: 15.69. Transit SNR 6.95

There are 2 quarters with good PRF difference image offsets

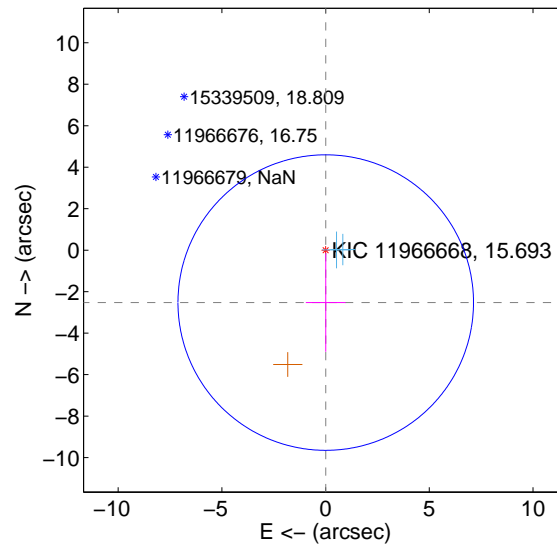
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.618 ± 2.367	1.11	0.085 ± 0.966	-2.617 ± 2.368
PRF-fit source offset from KIC position	2.526 ± 2.374	1.06	-0.007 ± 0.957	-2.526 ± 2.374
photometric centroid source offset	1.89 ± 1.97	0.96	-0.50 ± 1.72	-1.82 ± 1.99

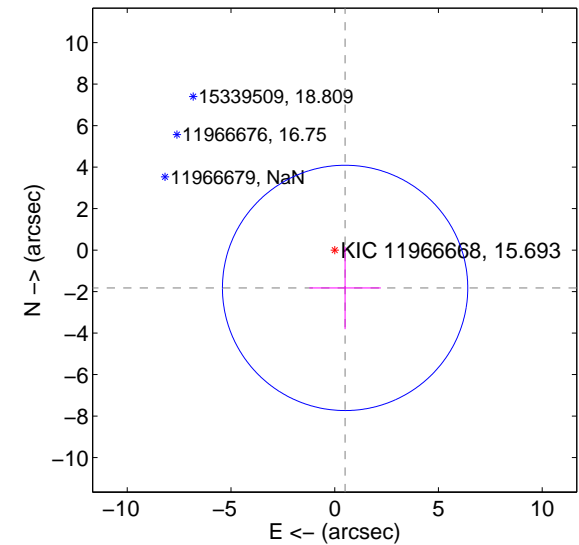
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

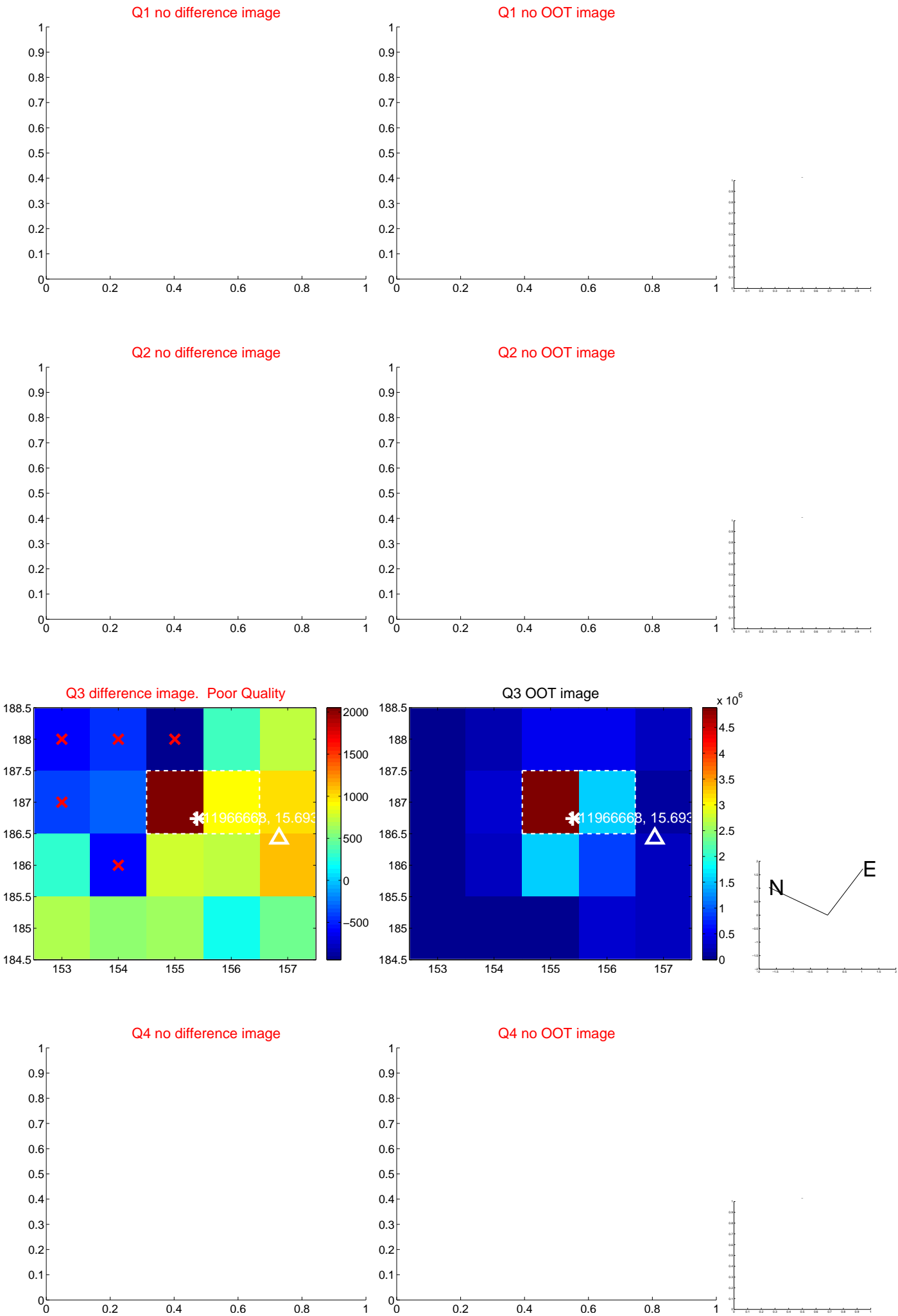


offset from photometric centroids

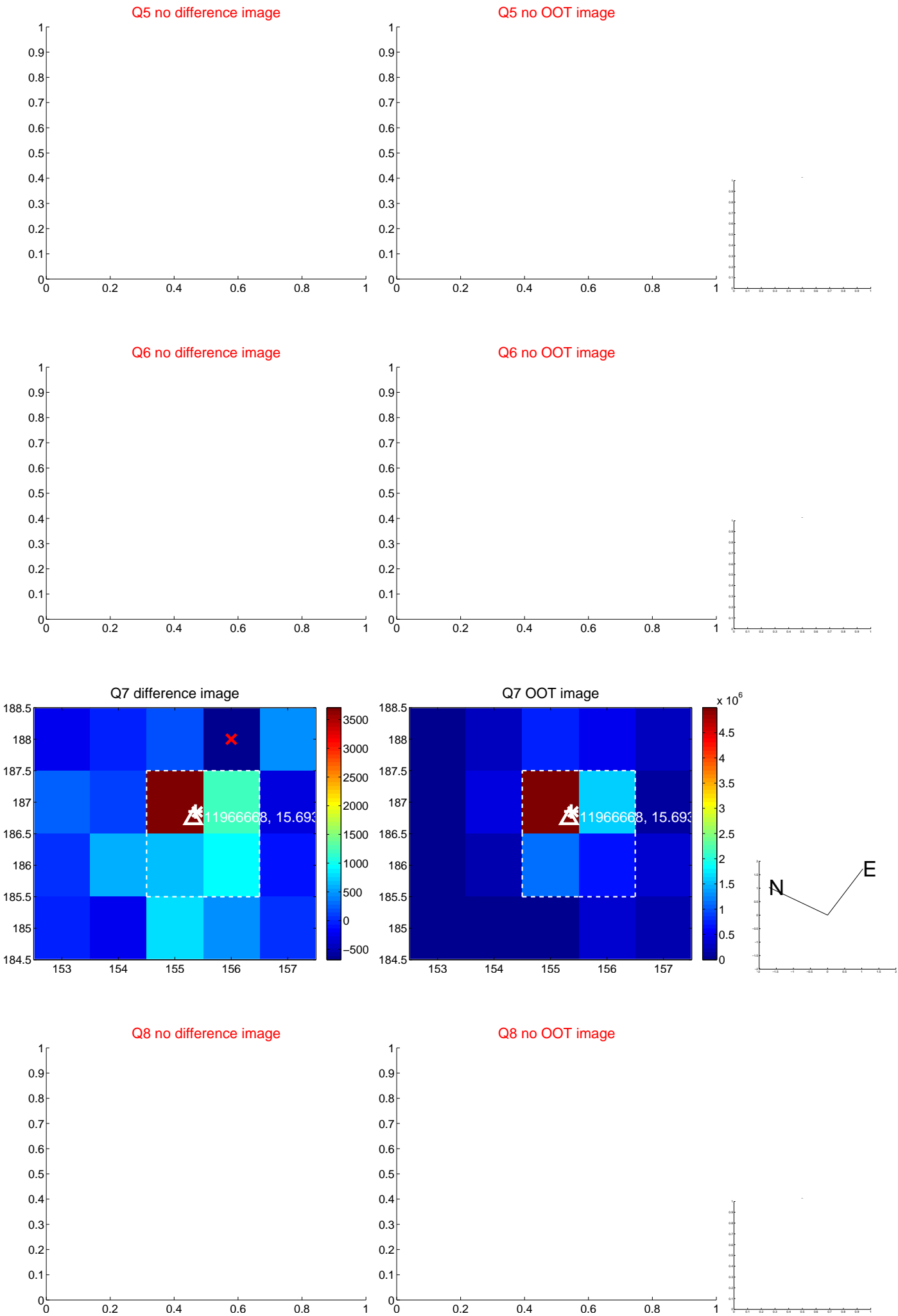


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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 ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



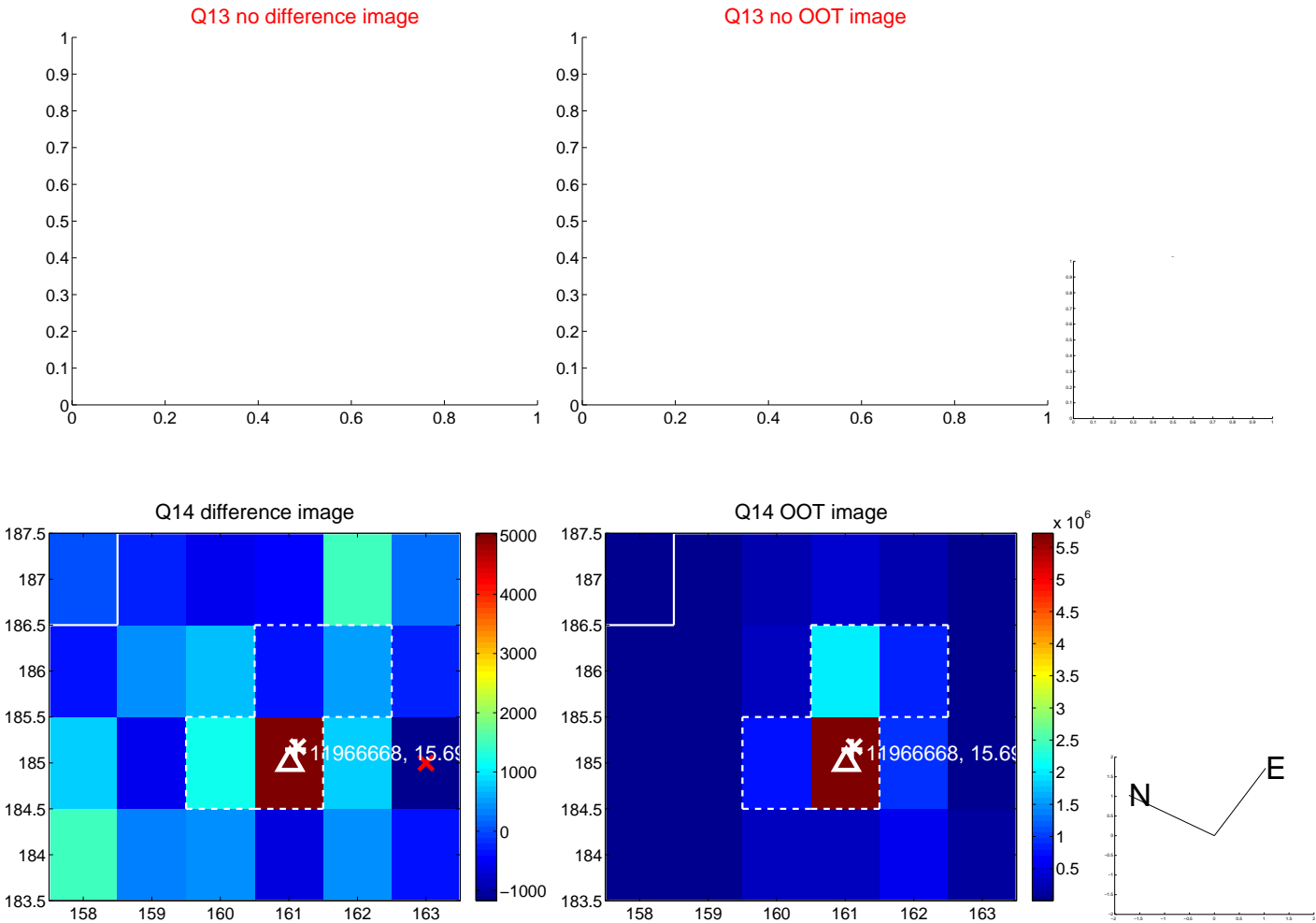
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



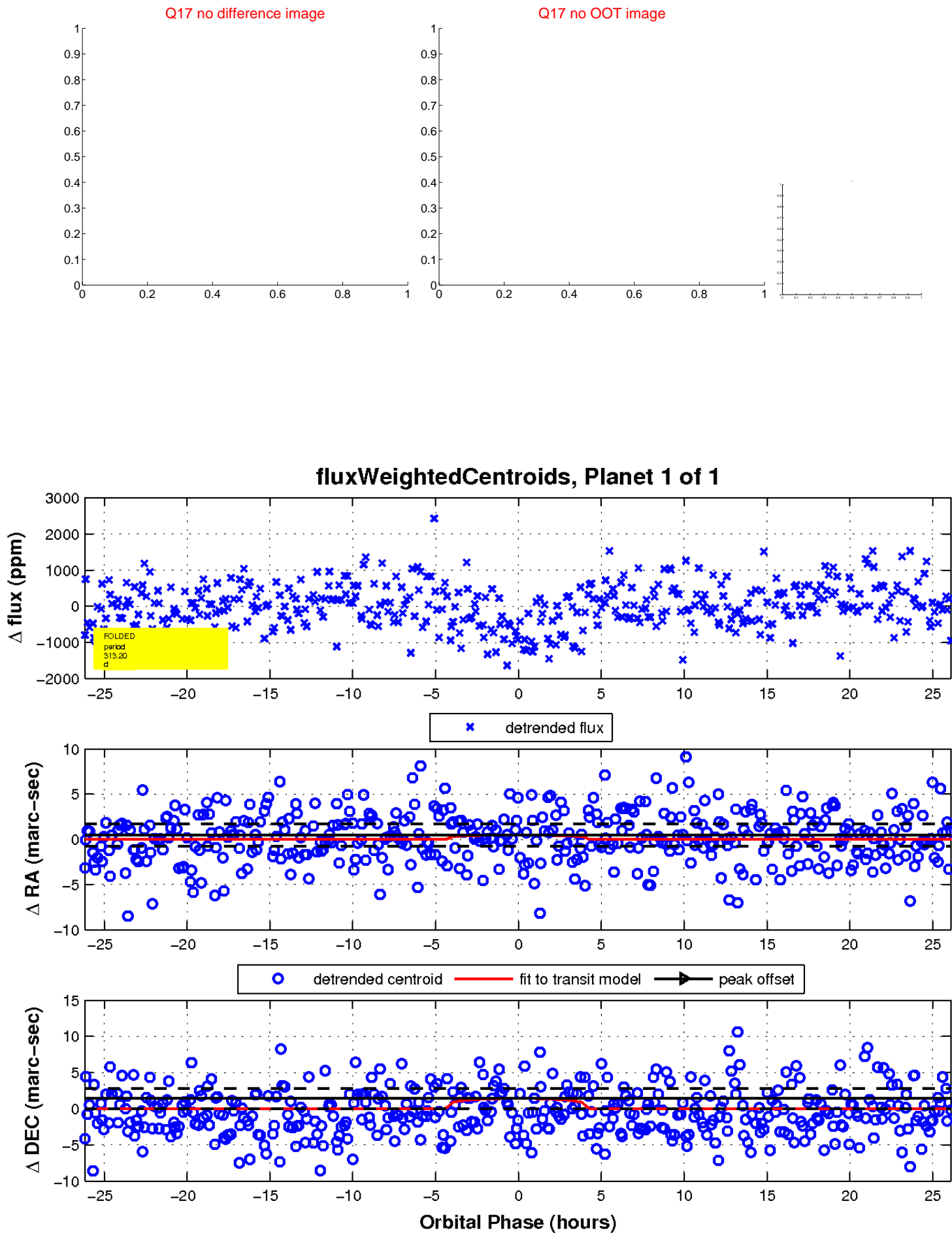
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

