

KIC 011861688

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})
011861688-01	OBS	No	285.782952	233.751440	961.9	2.919	7.3	7.8	0.89	5671	2.95	1.01

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011861688-01	OBS	FP	0.02	1	0	0	0	MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

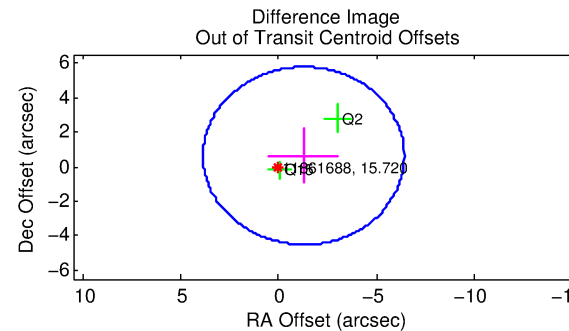
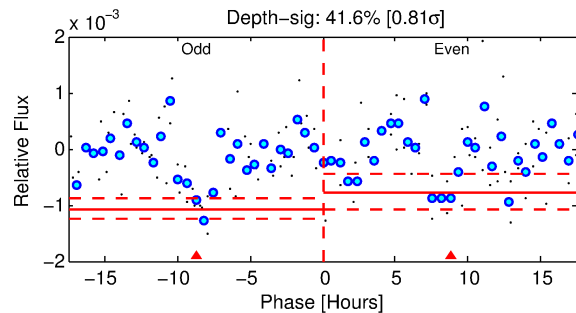
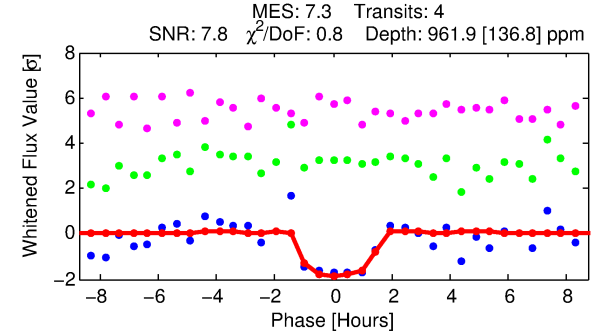
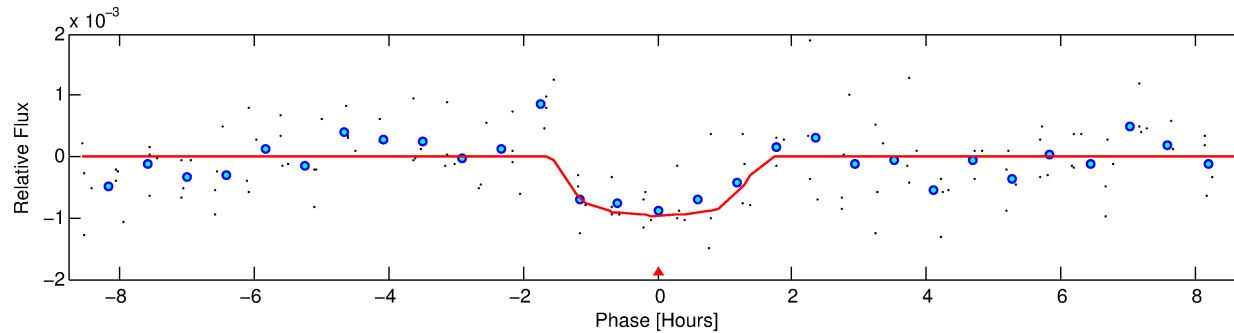
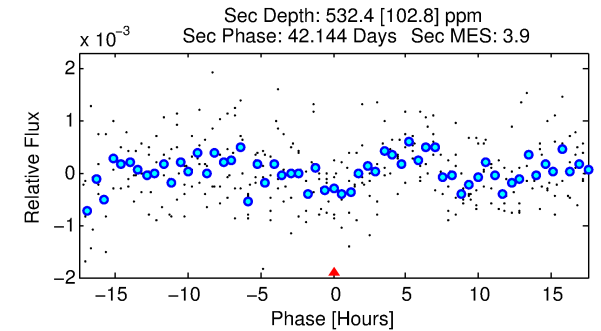
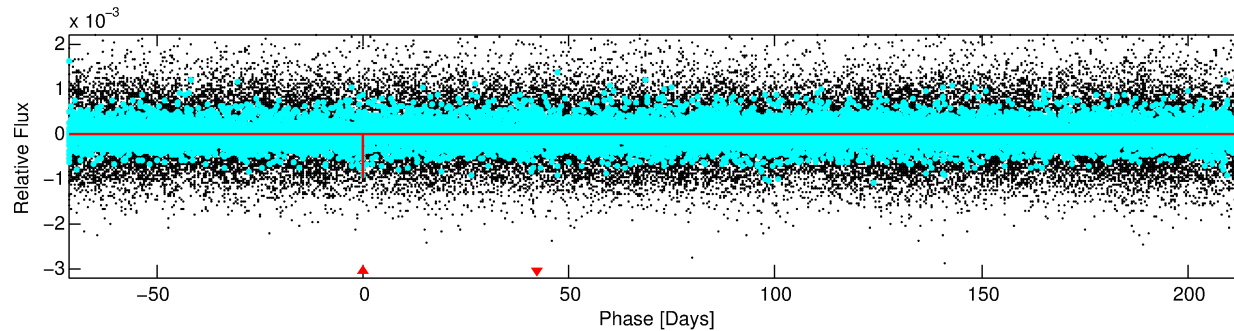
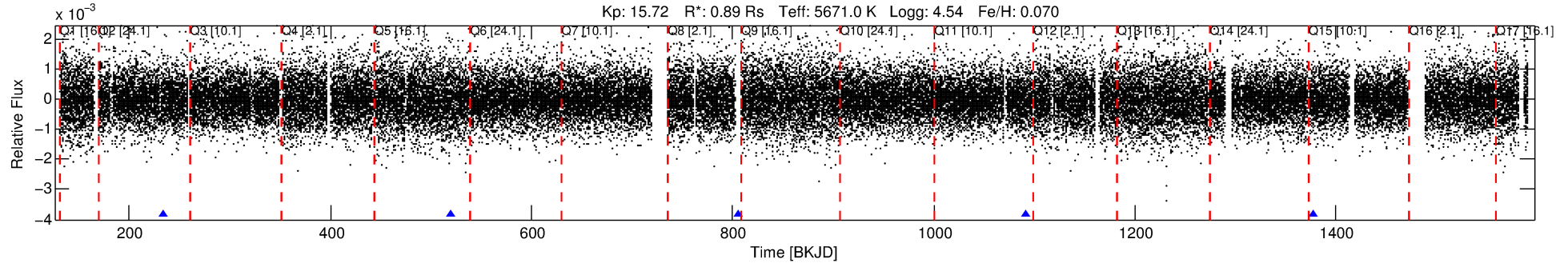
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011861688-01

No Significant Match Found

DV One-Page Summary

KIC: 11861688 Candidate: 1 of 1 Period: 285.783 d



DV Fit Results:

Period = 285.78295 [0.00303] d
Epoch = 233.7514 [0.0085] BKJD
Rp/R* = 0.0305 [0.0627]
a/R* = 556.48 [4817.46]
b = 0.71 [6.06]
Seff = 1.01 [0.38]
Teq = 256 [24] K
Rp = 2.95 [6.12] Re
a = 0.8479 [0.2032] AU
Ag = 24203.78 [99970.33] [0.24σ]
Teffp = 4932 [5077] K [0.92σ]

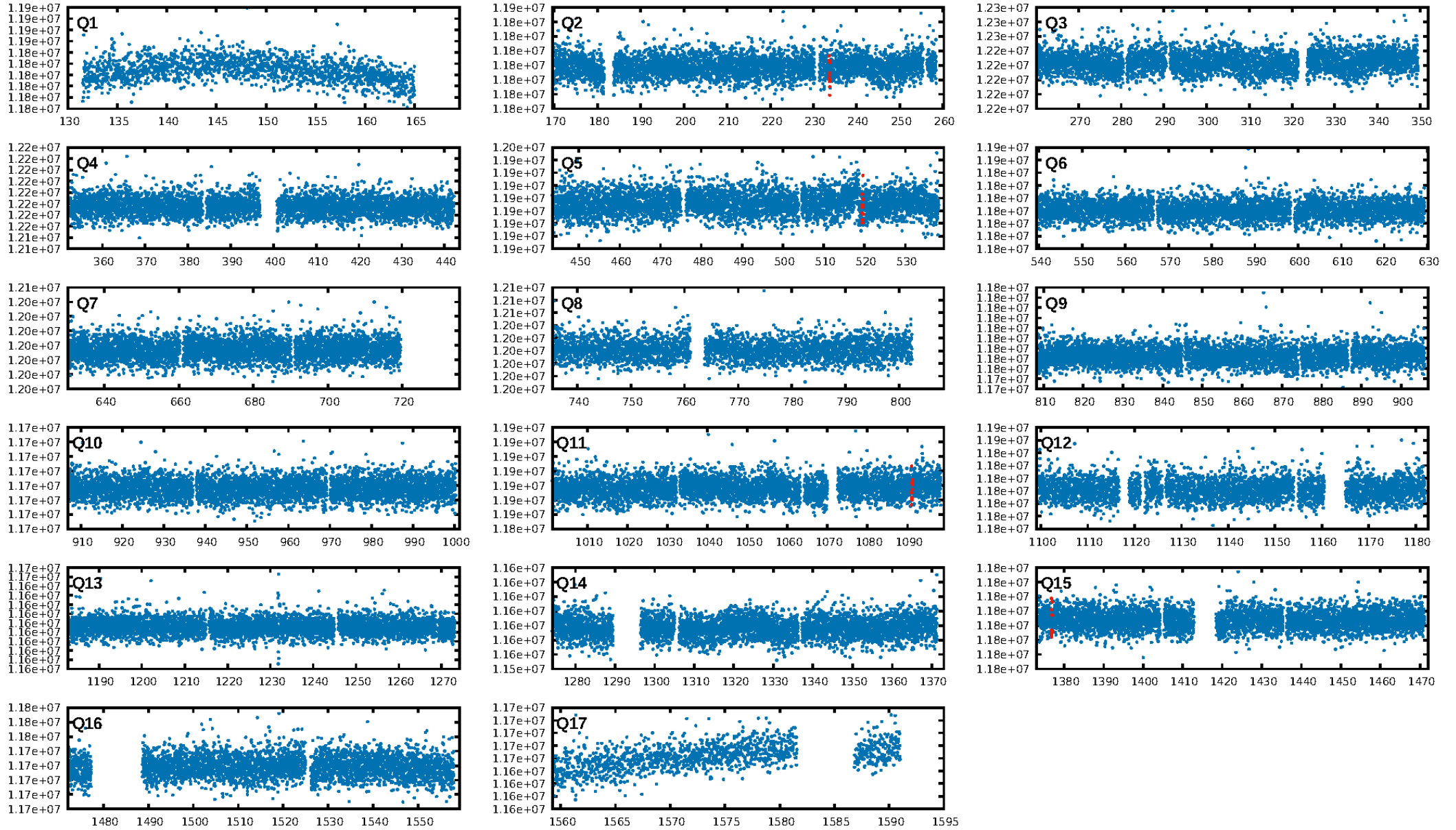
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 67.5%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: 3.09e-14
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 46.65
Centroid-sig: 23.2%
Centroid-so: 2.139 arcsec [0.91σ]
OotOffset-rm: 1.429 arcsec [0.83σ]
OotOffset-st: 1/1/0/0 [2]
KicOffset-rm: 1.335 arcsec [0.76σ]
KicOffset-st: 1/1/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [4/4]

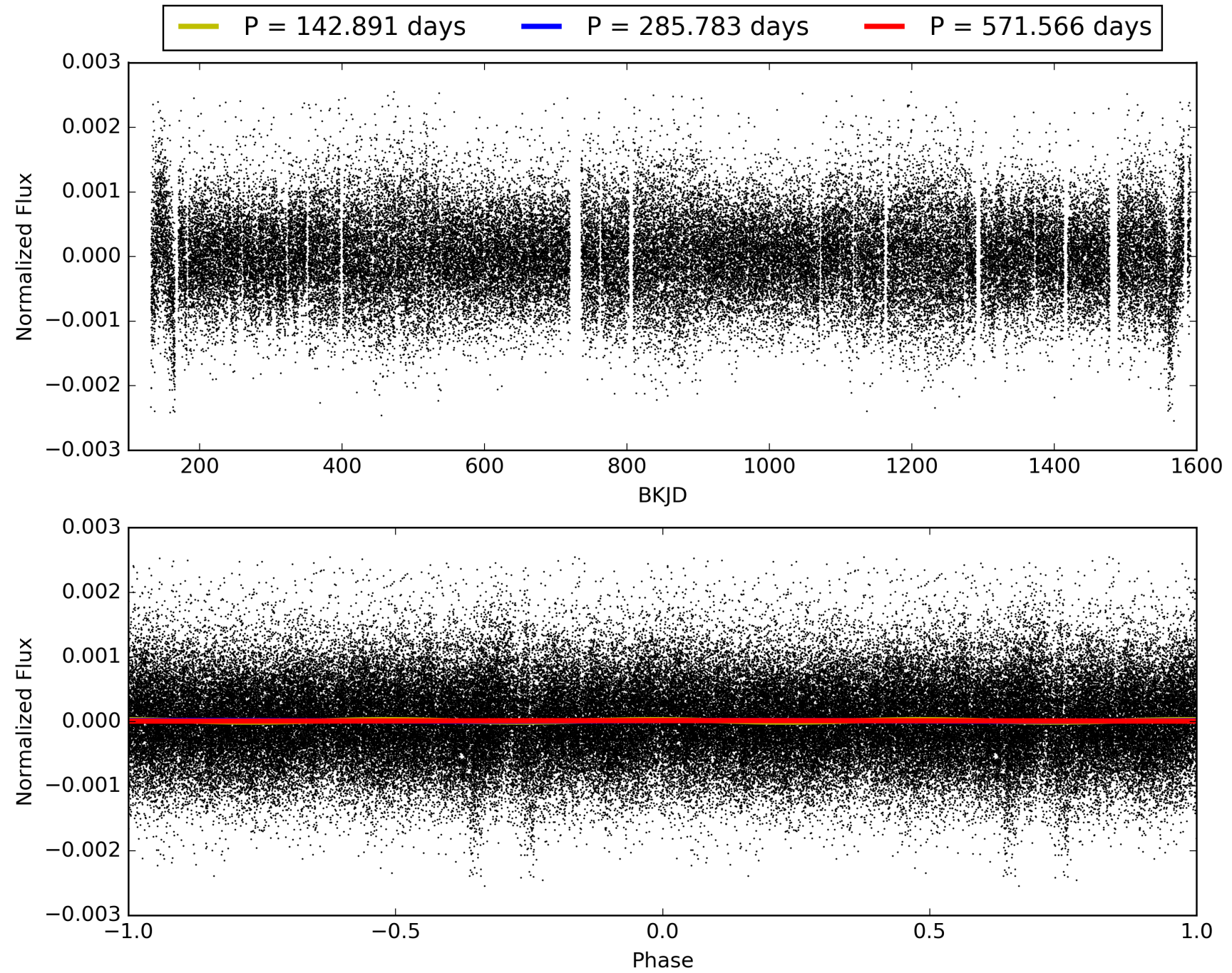
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:35:37 Z

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

TCE 011861688-01, PDC Light Curves

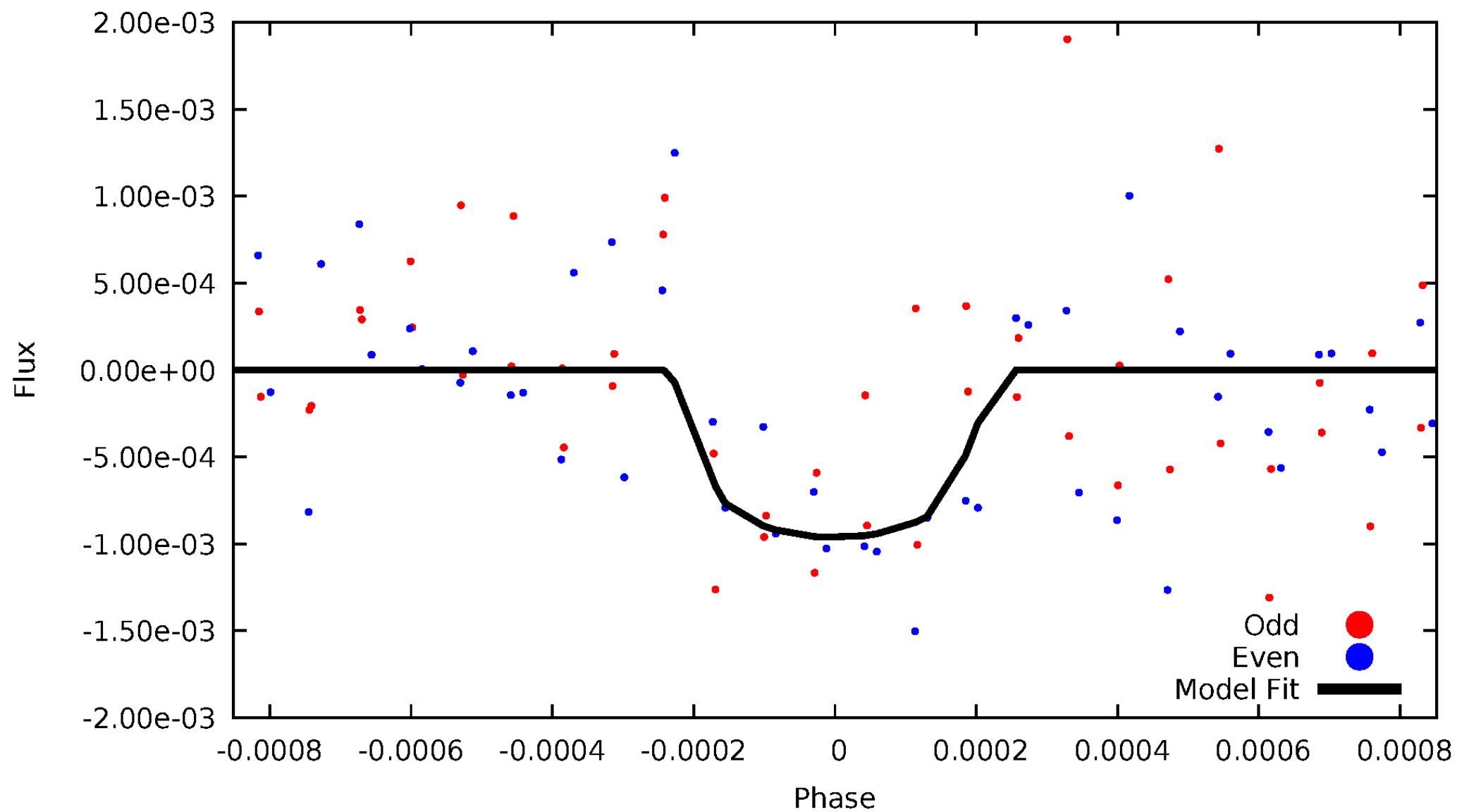


TCE 011861688-01



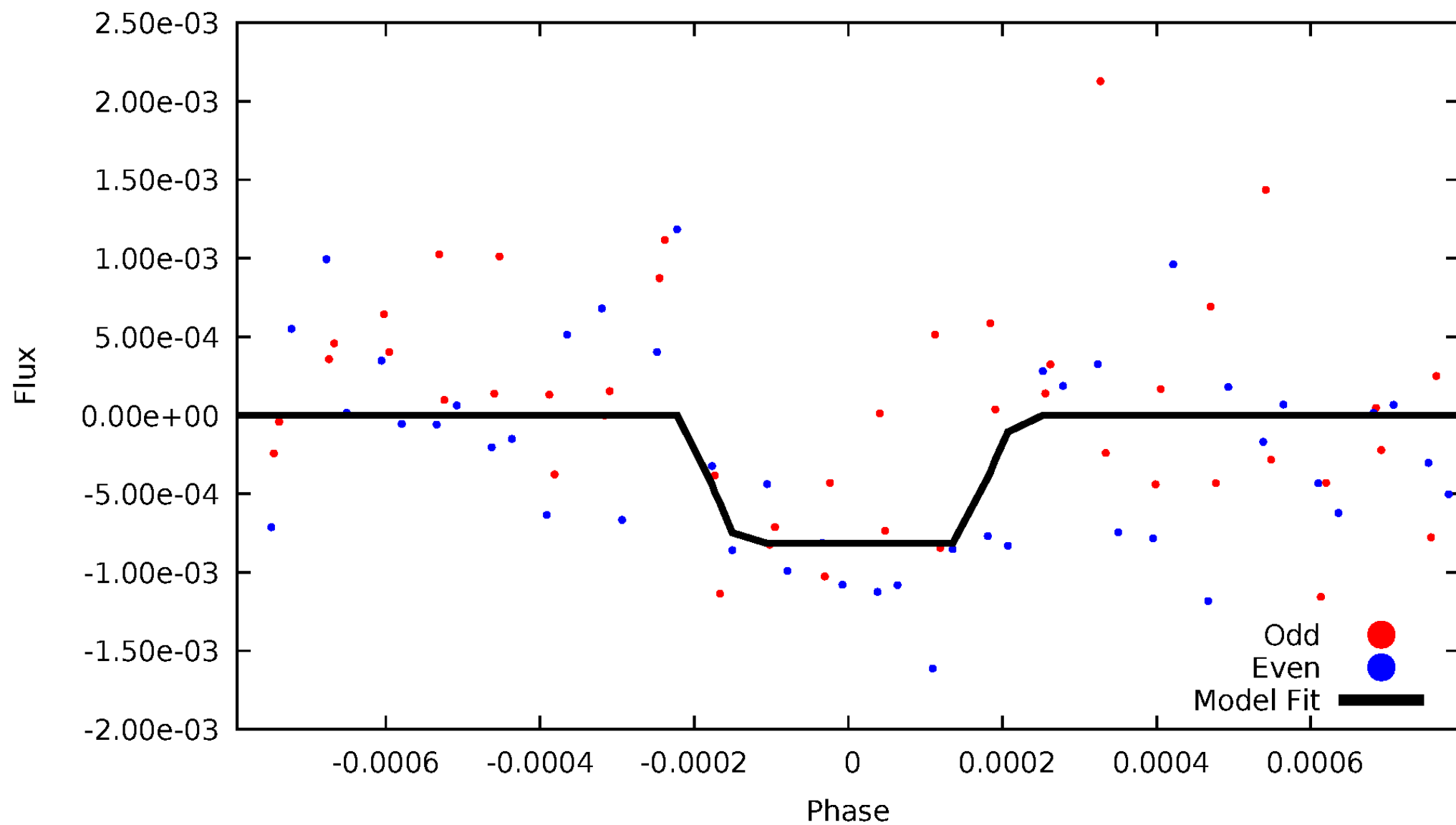
DV Odd/Even

TCE 011861688-01

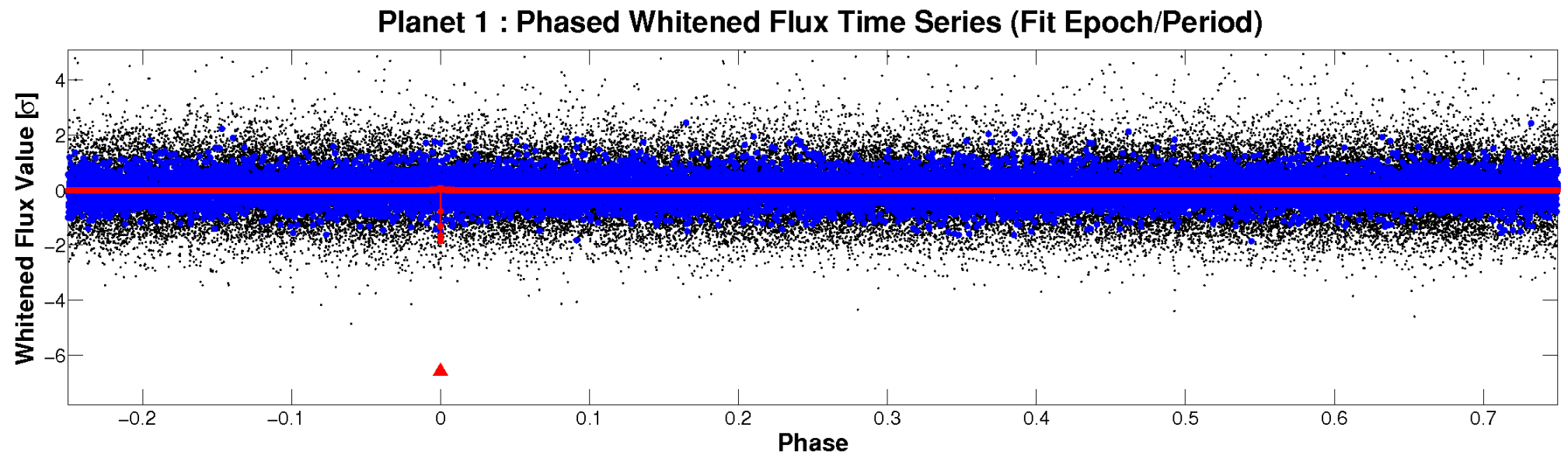
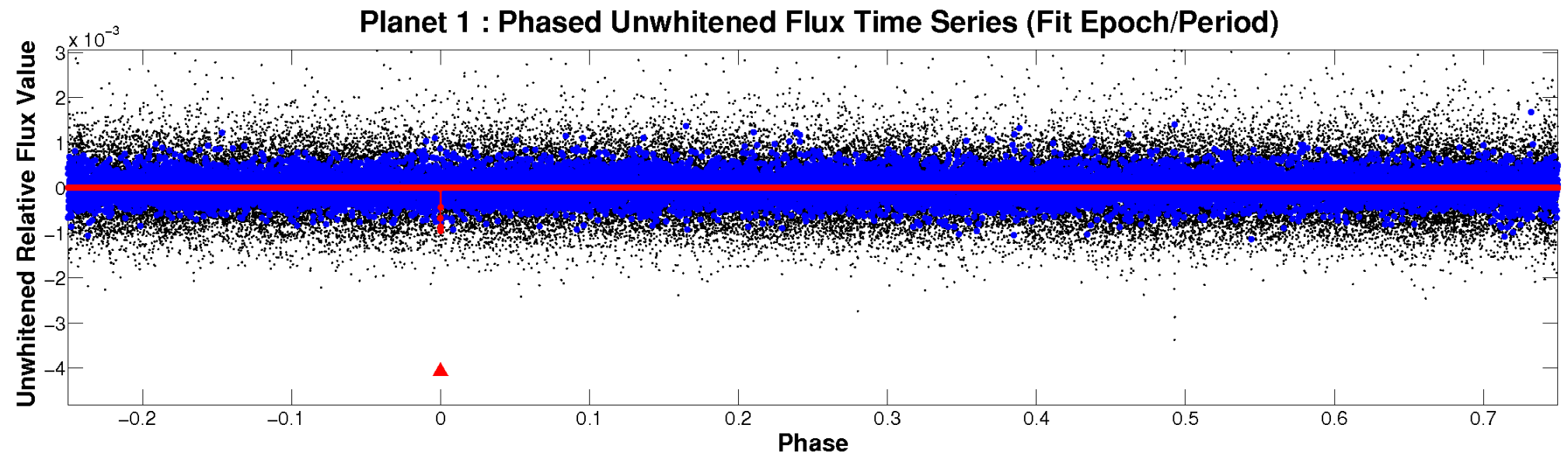


ALT Odd/Even

TCE 011861688-01

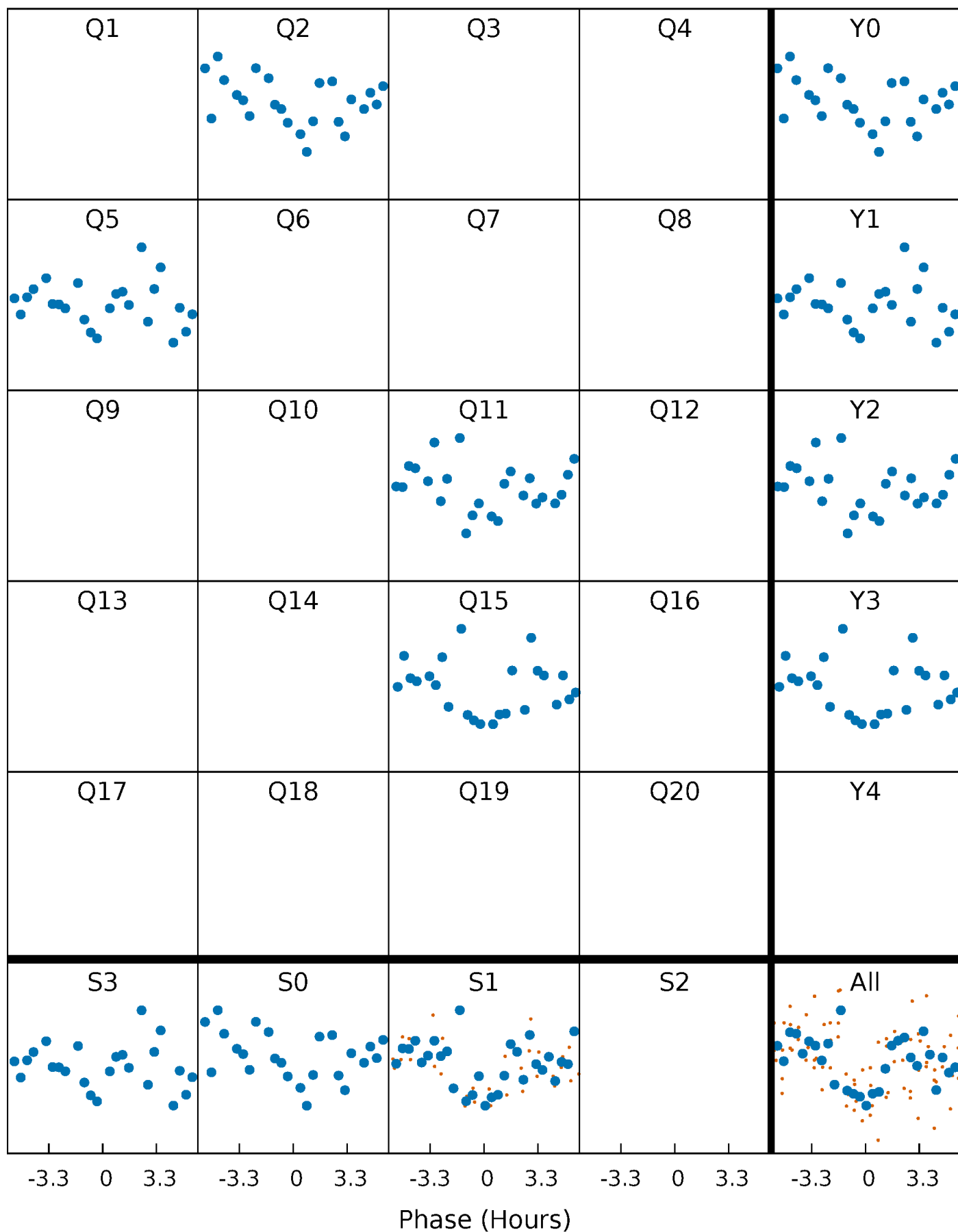


Non-Whitened Vs. Whitened Light Curve



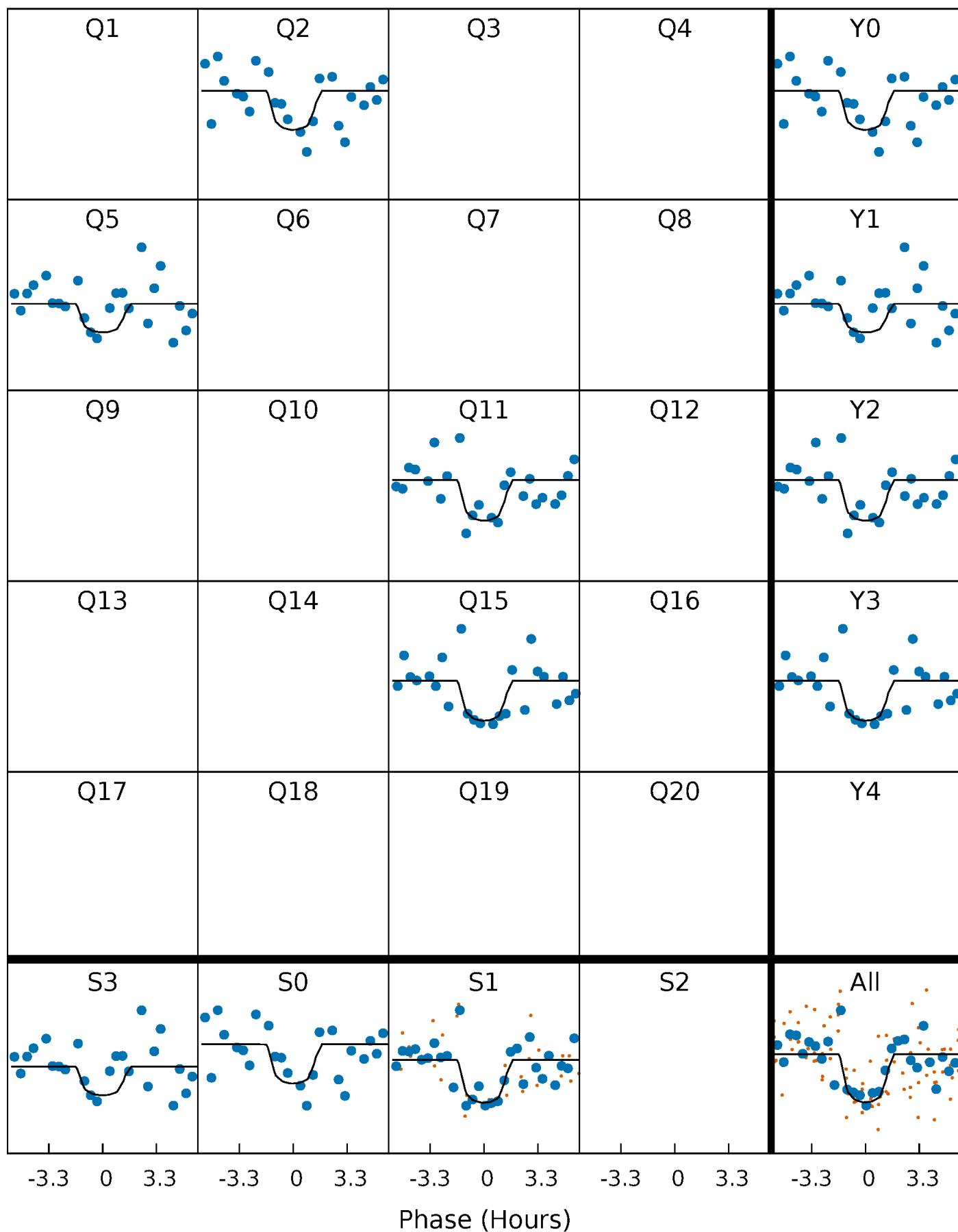
PDC Quarter-Phased Transit Curves

TCE 011861688-01 P=285.782952 Days $T_0=233.751440$ (BKJD)



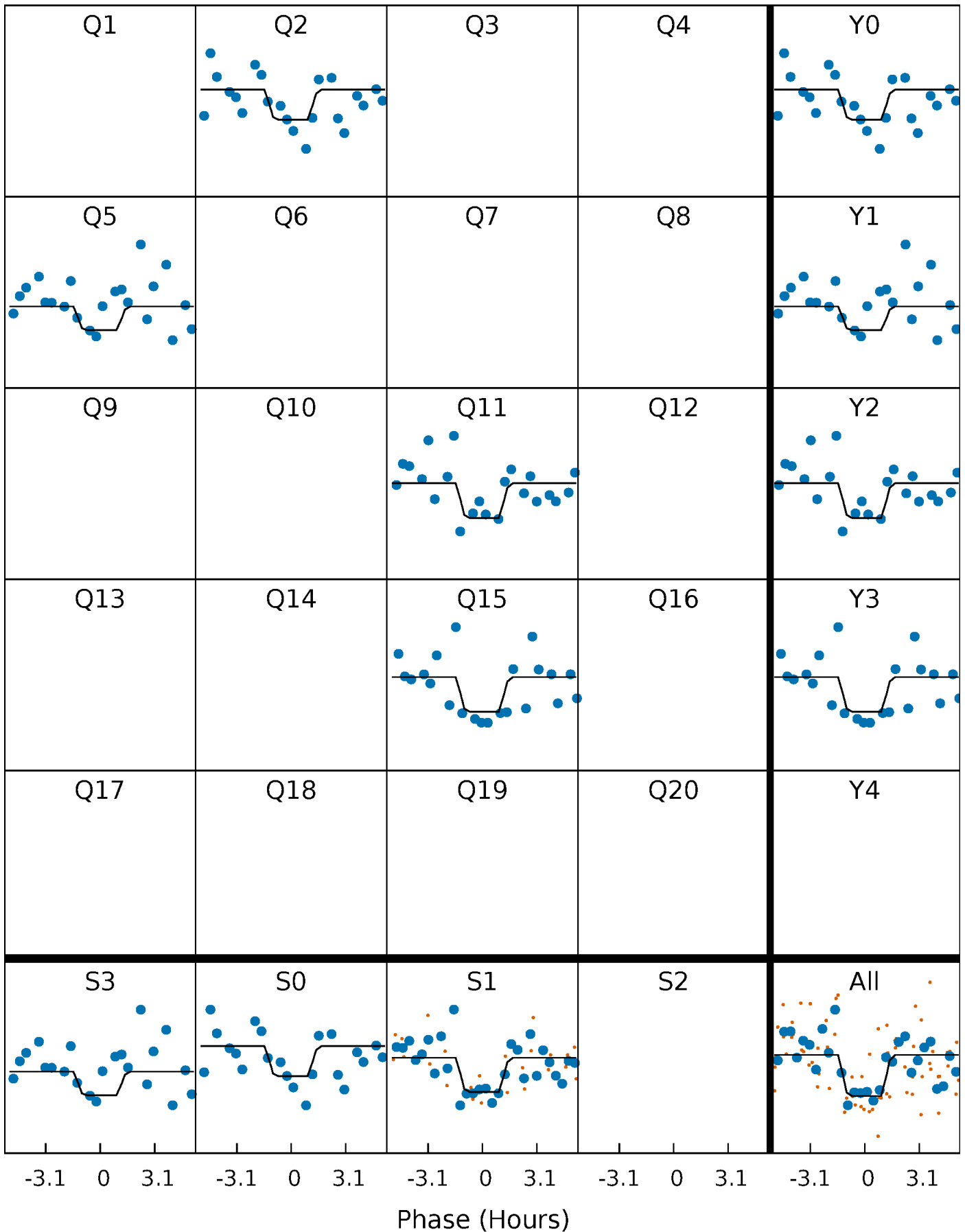
DV Quarter-Phased Transit Curves

TCE 011861688-01 P=285.782952 Days $T_0=233.751440$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

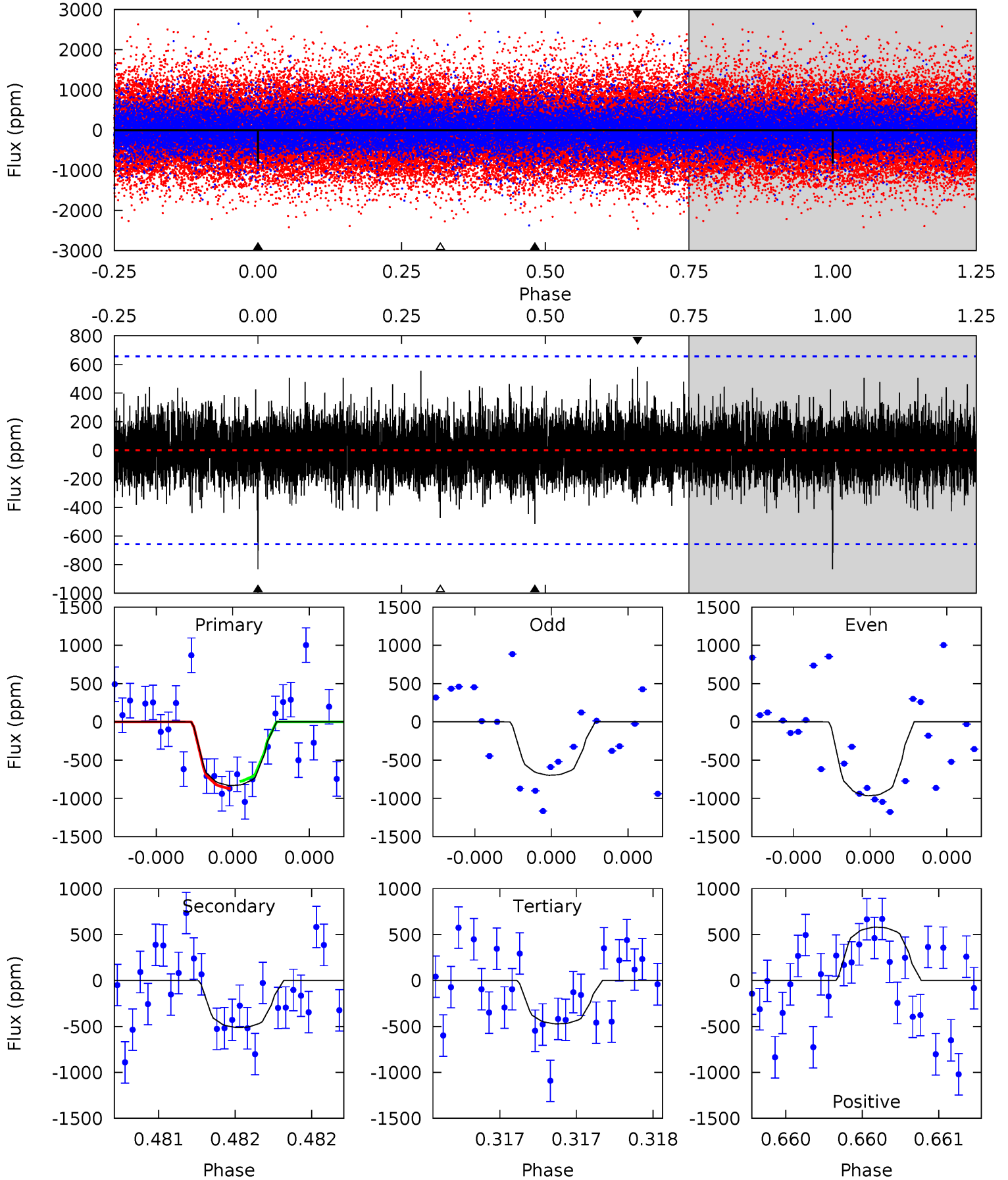
TCE 011861688-01 P=285.782335 Days $T_0=233.752572$ (BKJD)



DV Model-Shift Uniqueness Test

011861688-01, P = 285.782952 Days, E = 233.751440 Days

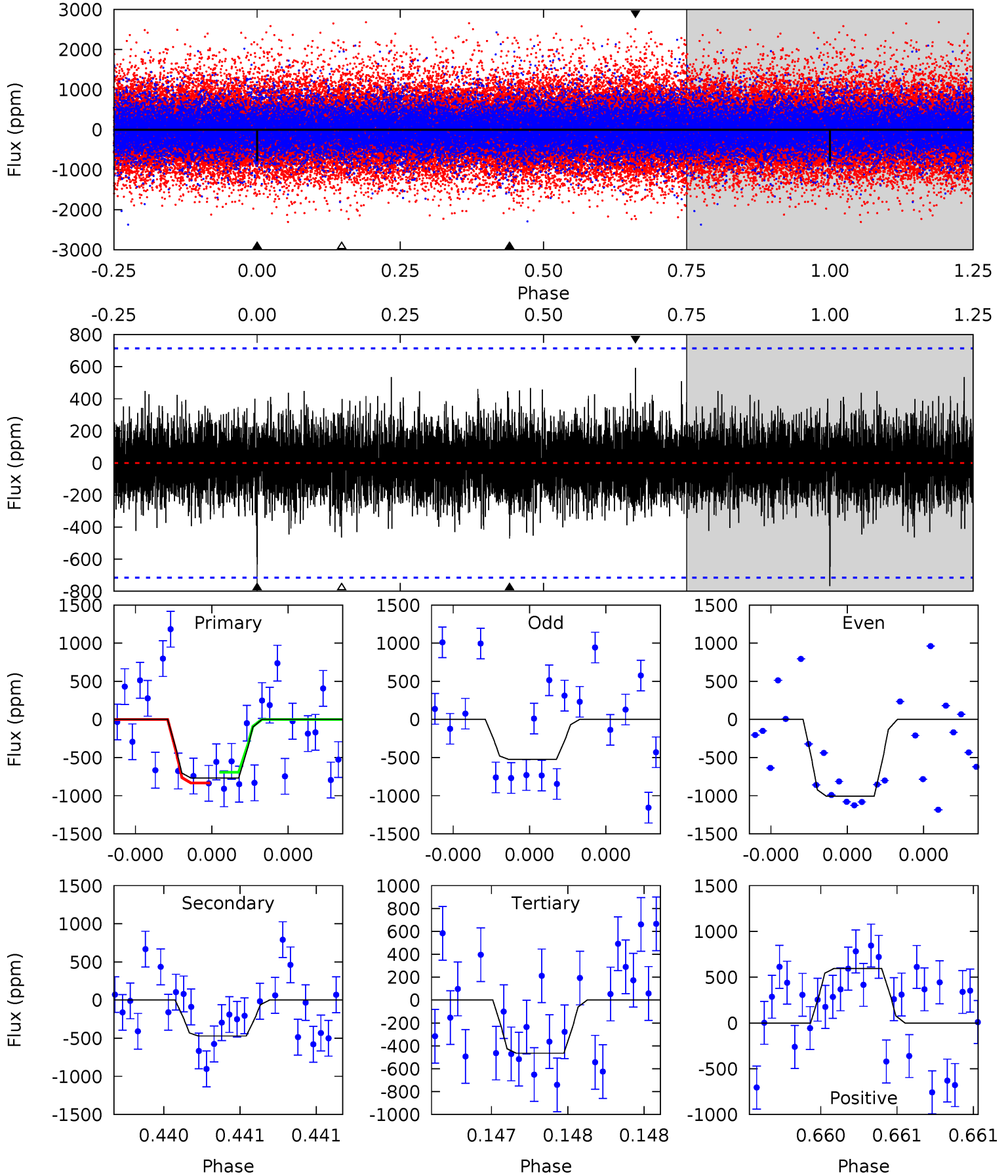
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.10	4.37	4.03	4.95	5.59	3.51	1.13	3.07	2.15	0.34	-0.58	1.14	0.90	0.41	0.39



Alt Model-Shift Uniqueness Test

011861688-01, P = 285.782335 Days, E = 233.752572 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.03	3.70	3.65	4.67	5.62	3.55	1.04	2.38	1.37	0.05	-0.97	1.90	0.87	0.44	0.55



Stellar Parameters For KIC 011861688

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5671^{+154}_{-188}	$4.541^{+0.035}_{-0.196}$	$0.070^{+0.250}_{-0.300}$	$0.886^{+0.248}_{-0.066}$	$0.996^{+0.100}_{-0.111}$	$2.015^{+0.381}_{-1.002}$
	+3%/-3%	+1%/-4%	+357%/-429%	+28%/-7%	+10%/-11%	+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 011861688-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-513 ± 117	$5.56^{+5.25}_{-3.68}$	365^{+25}_{-17}	3960^{+2369}_{-772}	6364^{+48963}_{-4676}
Alt.	-471 ± 127	$5.80^{+5.06}_{-4.00}$	365^{+25}_{-16}	3808^{+2189}_{-671}	5184^{+44938}_{-3705}

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

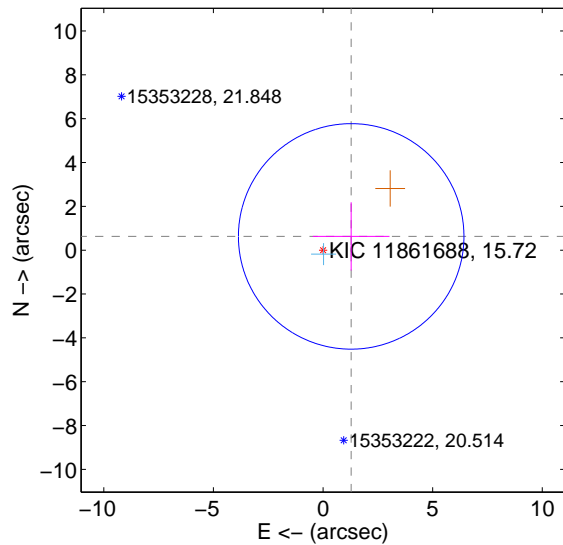
Supplemental centroid analysis for 011861688-01. Kepler magnitude: 15.72. Transit SNR 7.83

There are 1 quarters with good PRF difference image offsets

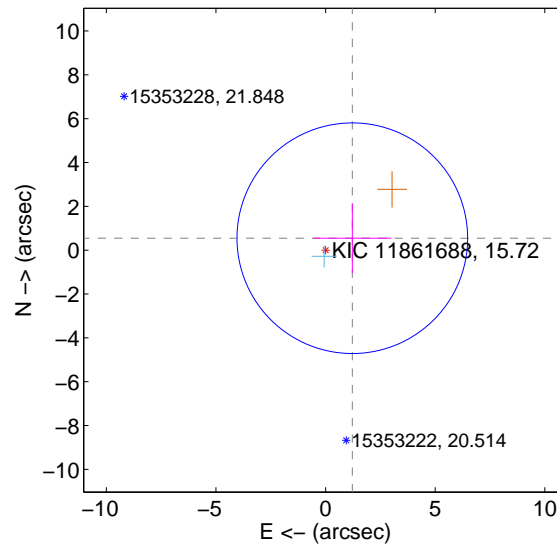
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.429 ± 1.714	0.83	-1.283 ± 1.750	0.628 ± 1.555
PRF-fit source offset from KIC position	1.335 ± 1.753	0.76	-1.219 ± 1.784	0.545 ± 1.586
photometric centroid source offset	2.14 ± 2.35	0.91	0.81 ± 2.47	-1.98 ± 2.33

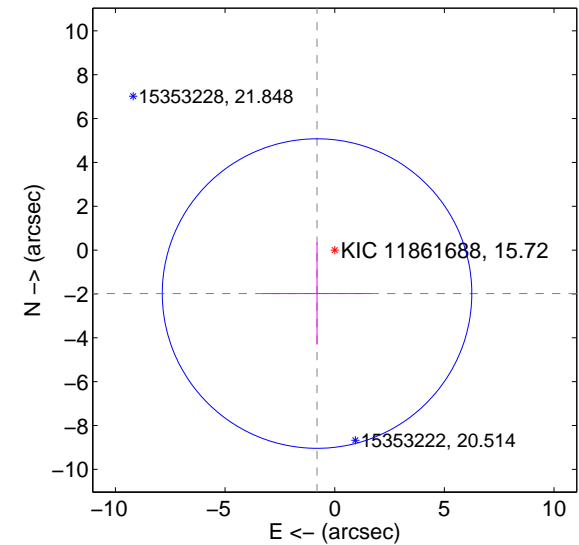
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

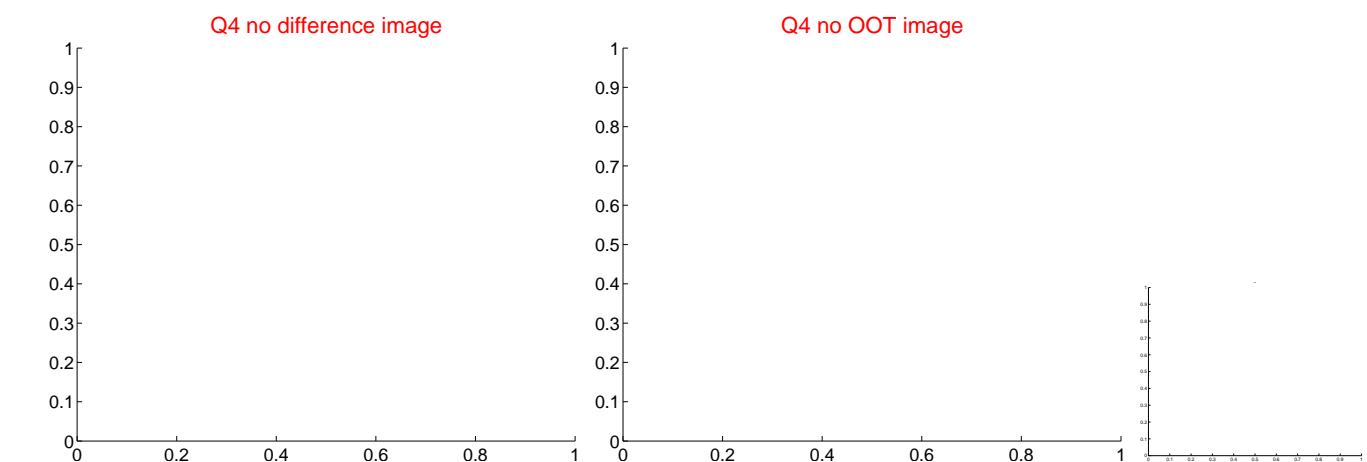
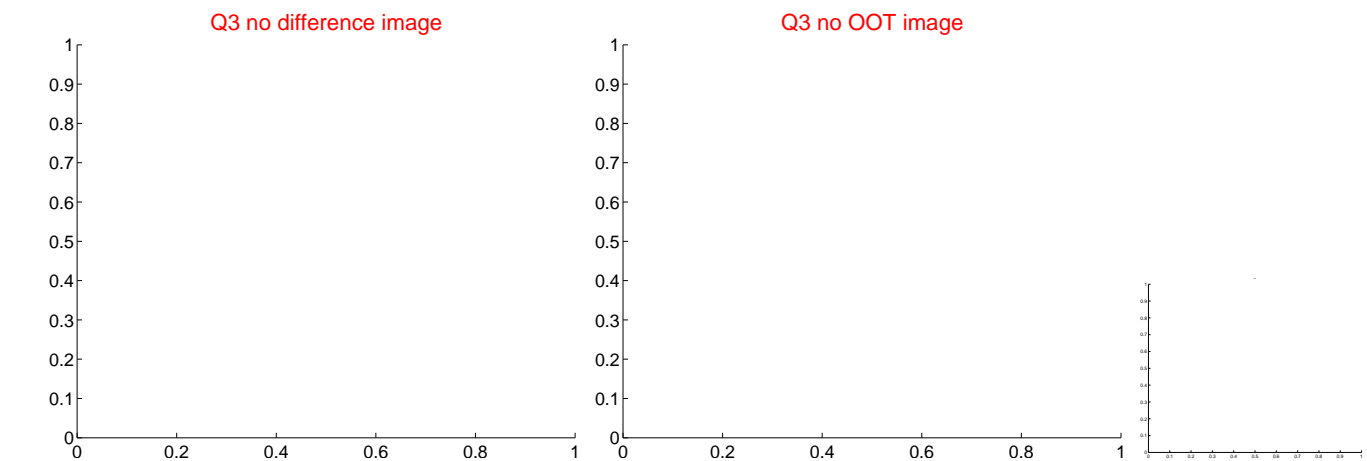
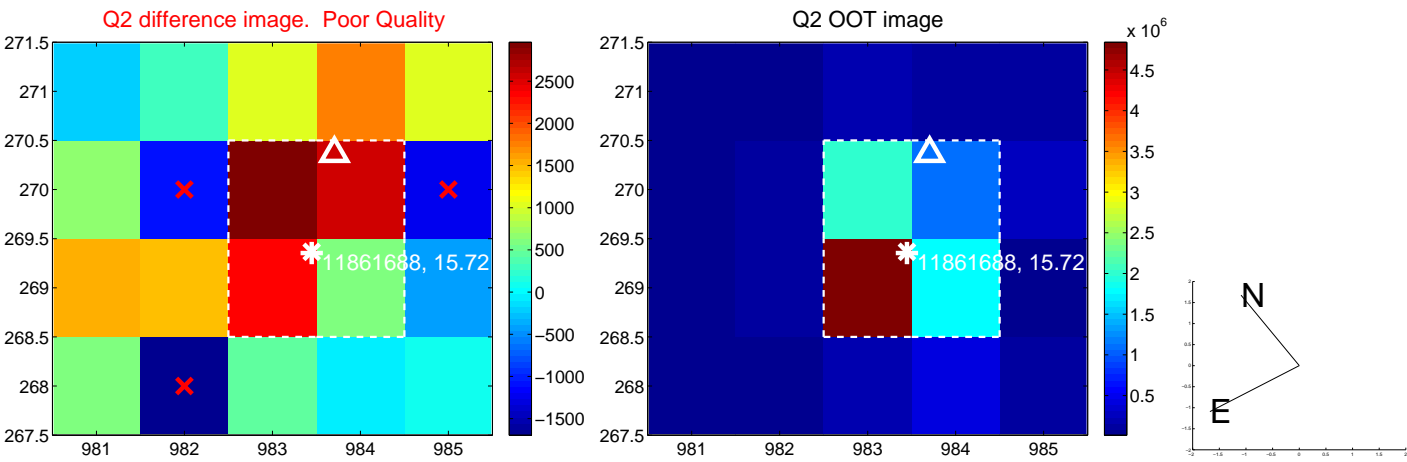
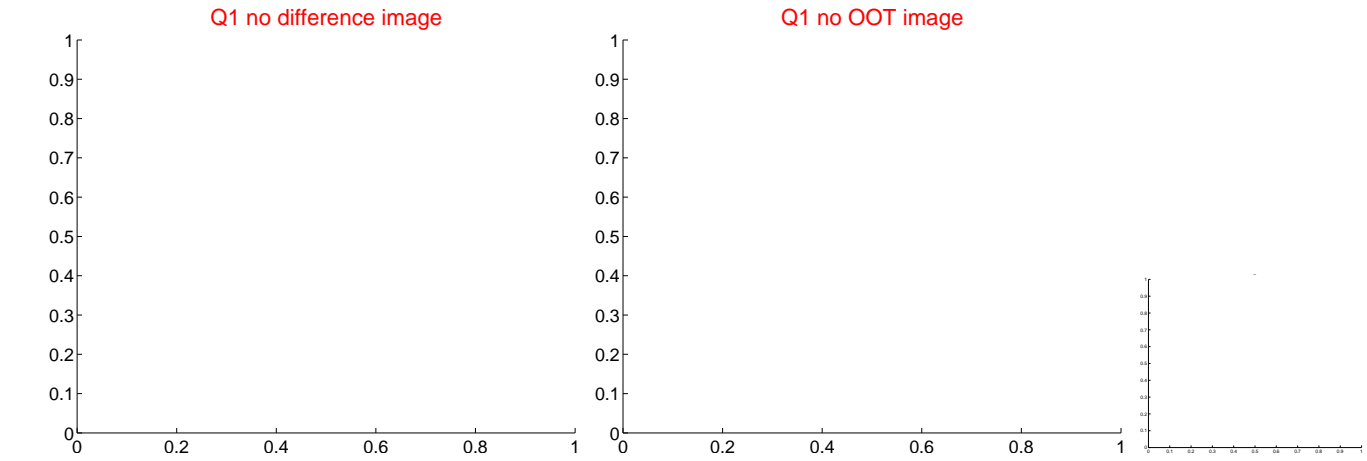


offset from photometric centroids

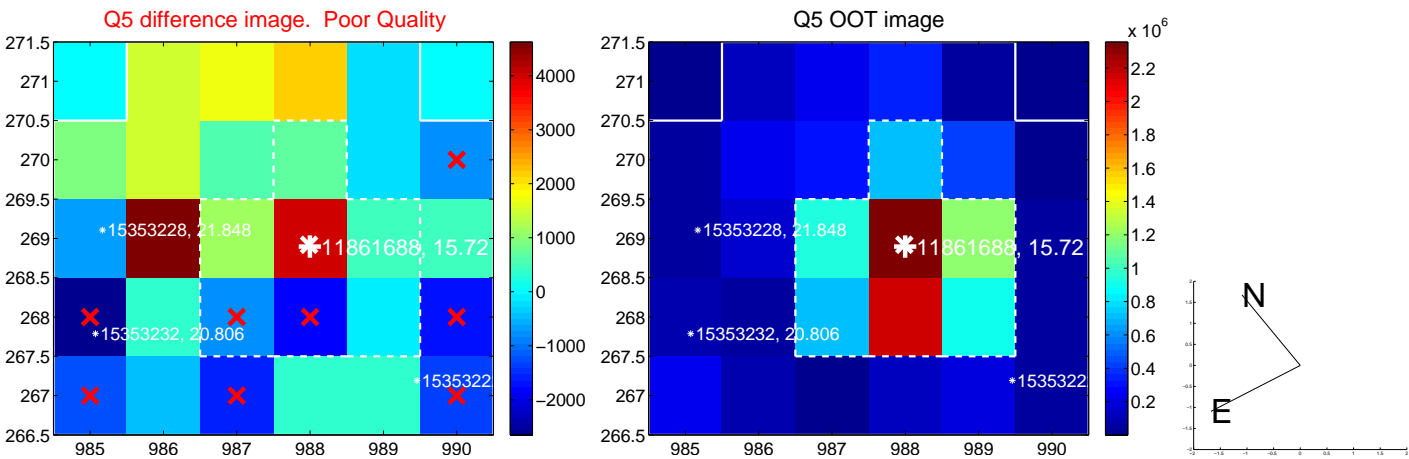


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

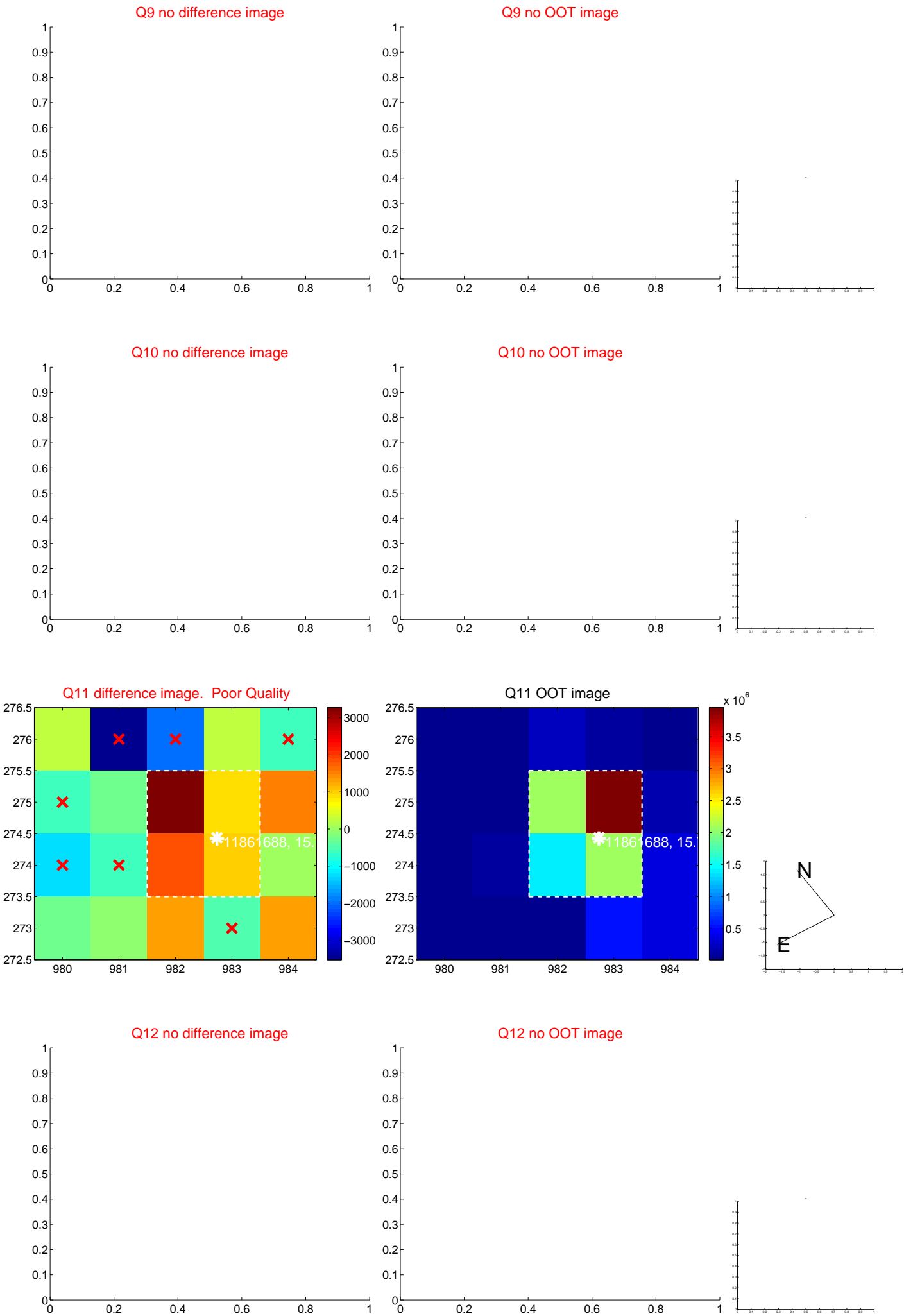
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



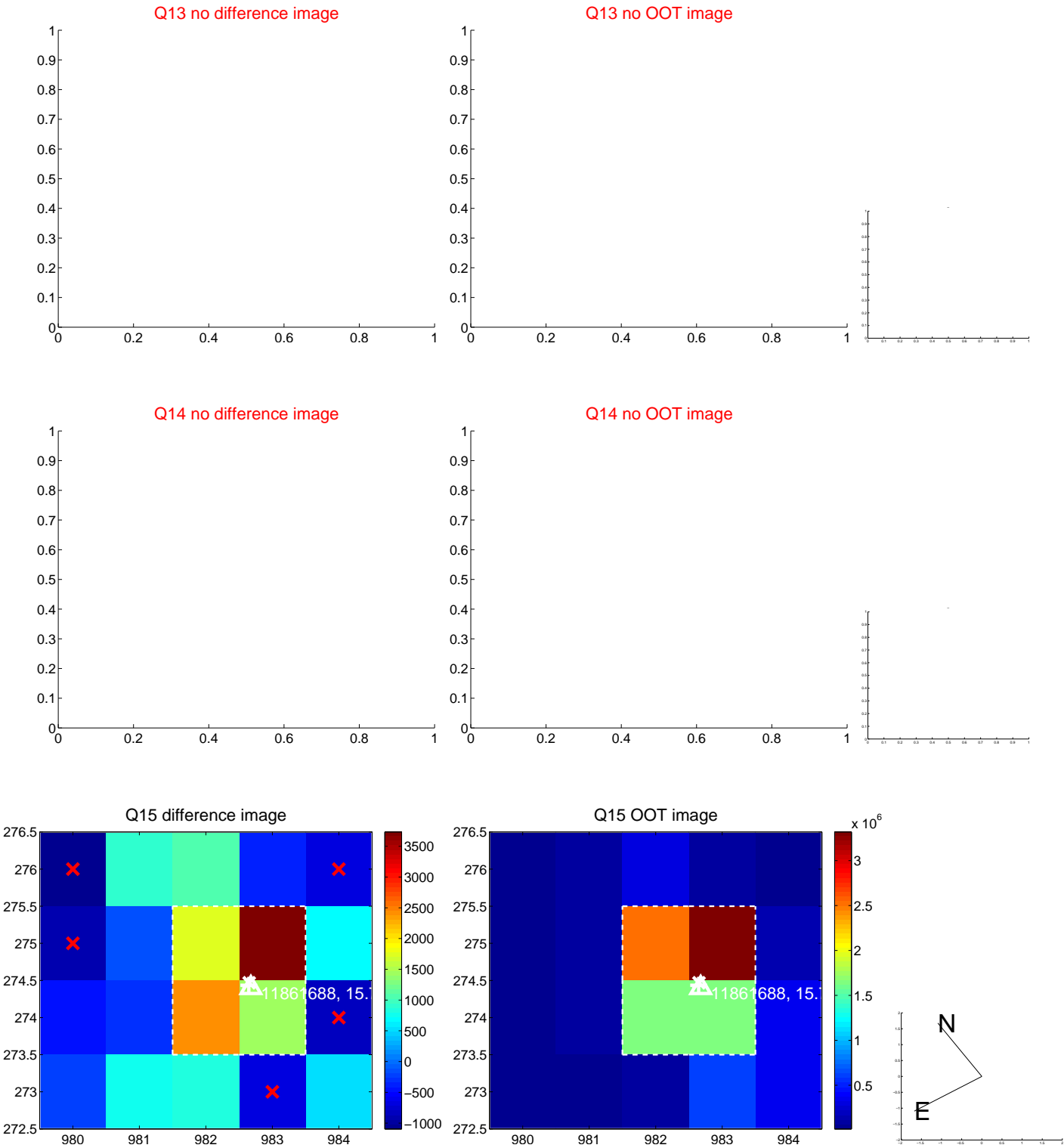
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



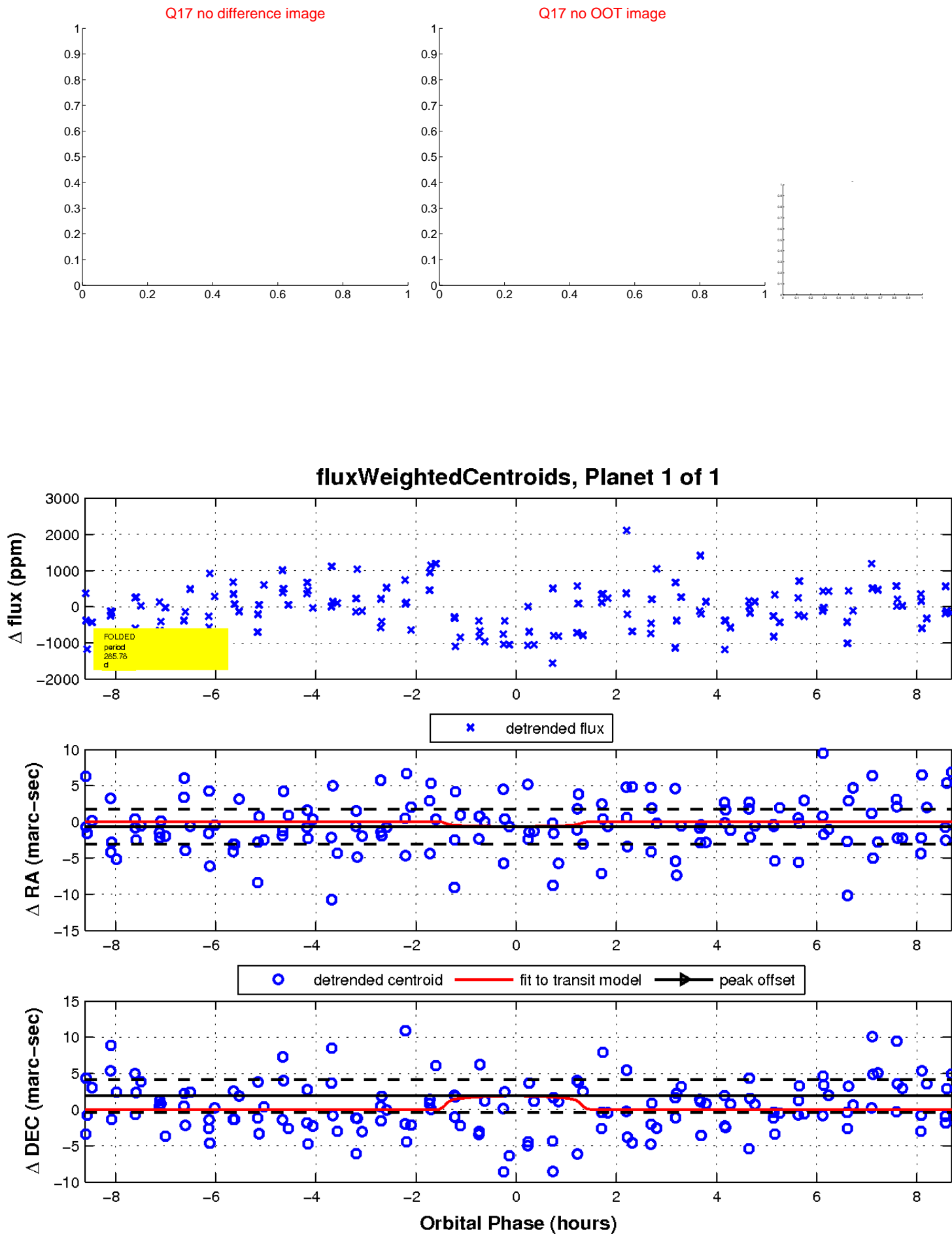
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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.



UKIRT Image

Declination

