

KIC 006688100

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})
006688100-01	OBS	No	255.561561	307.605009	1647.9	4.636	9.6	6.8	0.67	4523	2.60	0.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006688100-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—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.

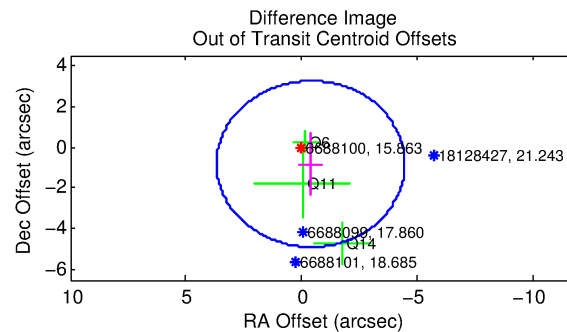
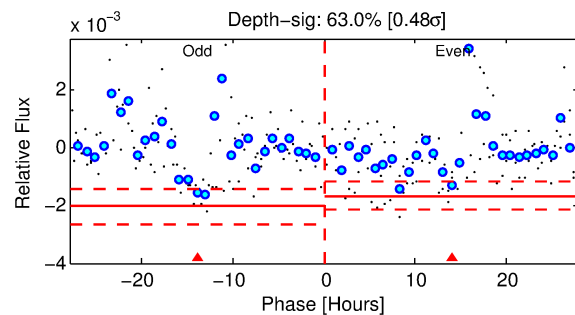
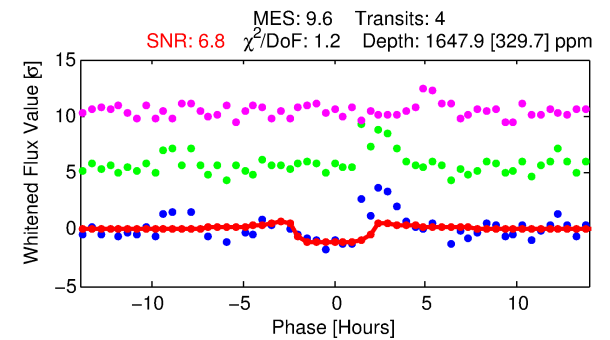
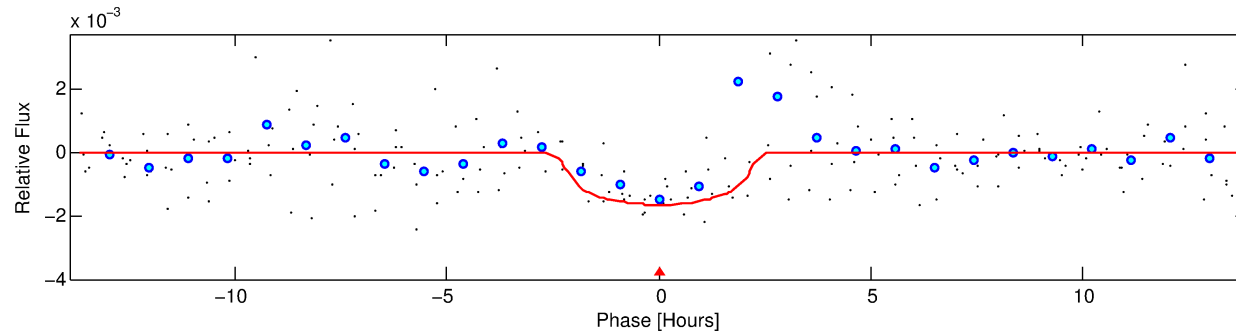
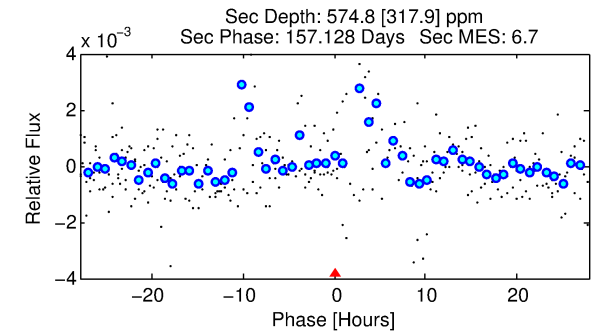
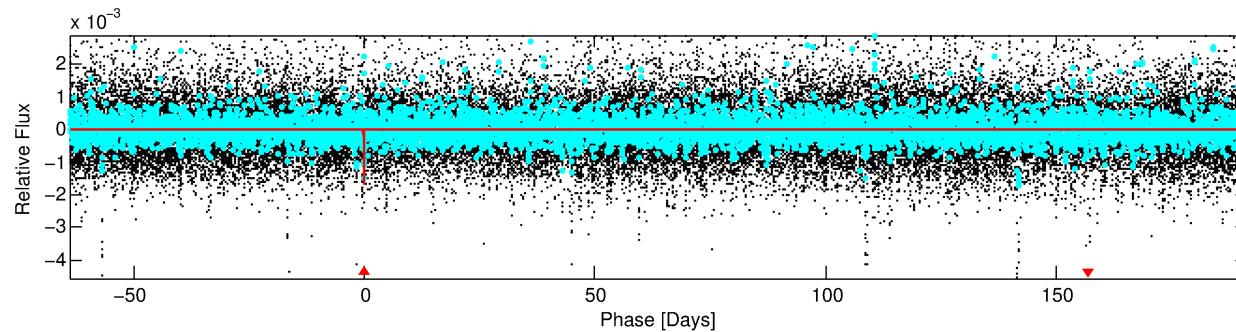
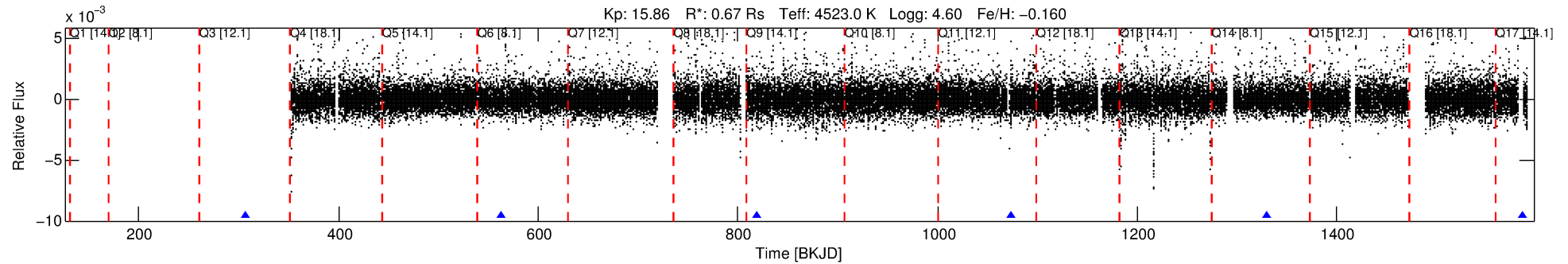
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006688100-01

No Significant Match Found

DV One-Page Summary

KIC: 6688100 Candidate: 1 of 1 Period: 255.562 d



DV Fit Results:

Period = 255.56156 [0.00503] d
Epoch = 307.6050 [0.0152] BKJD
Rp/R* = 0.0356 [0.0799]
a/R* = 433.19 [2881.39]
b = 0.12 [56.25]
Seff = 0.36 [0.06]
Teq = 197 [9] K
Rp = 2.60 [5.84] Re
a = 0.6849 [0.0504] AU
Ag = 21912.75 [99032.03] [0.22σ]
Teffp = 3710 [4192] K [0.84σ]

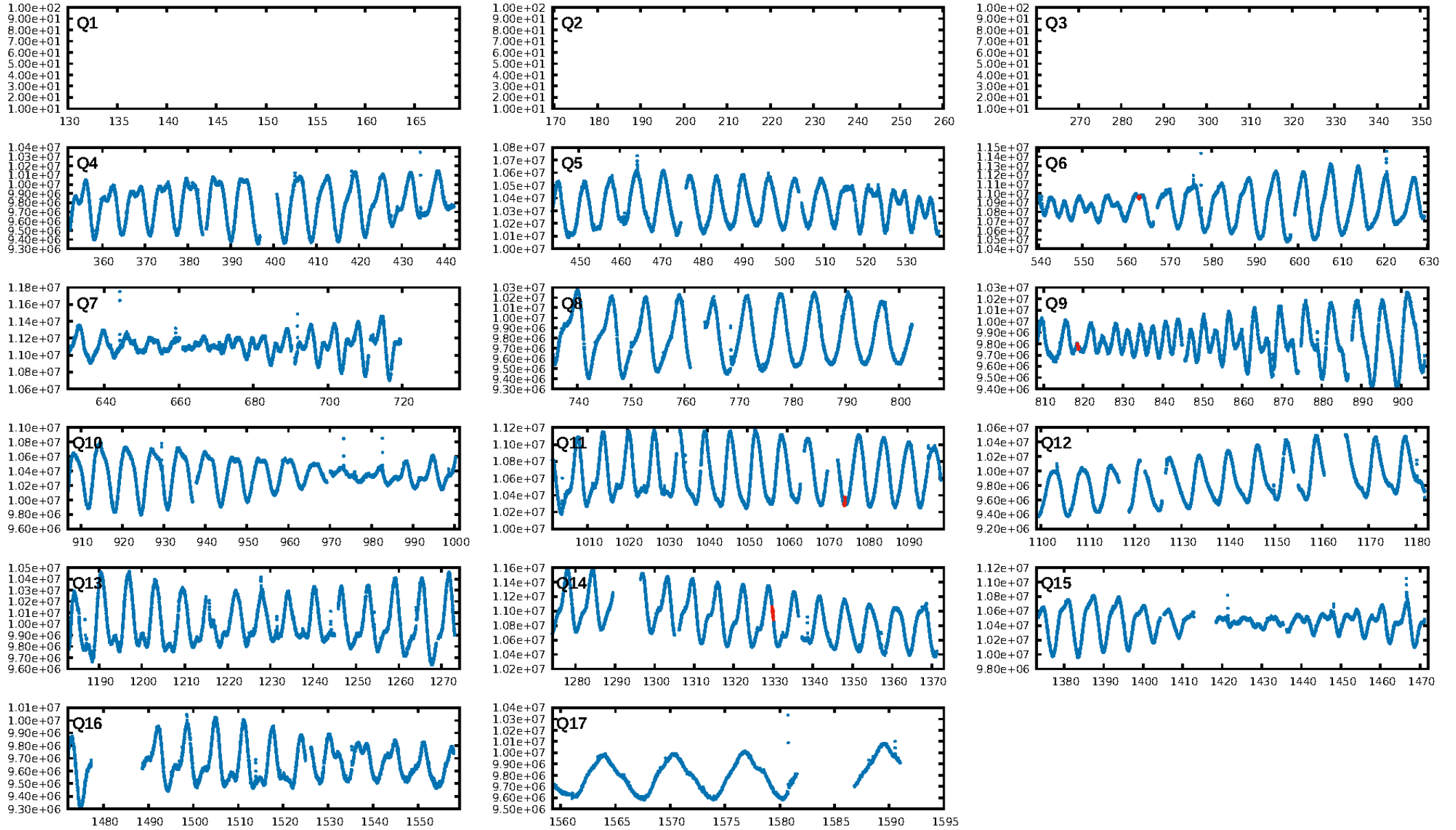
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.9%
ModelChiSquareGof-sig: 98.6%
Bootstrap-pfa: 9.21e-11
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.3434
Centroid-sig: 3.8%
Centroid-so: 1.898 arcsec [2.04σ]
OotOffset-rm: 0.913 arcsec [0.67σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-rm: 1.185 arcsec [1.00σ]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [4/4]

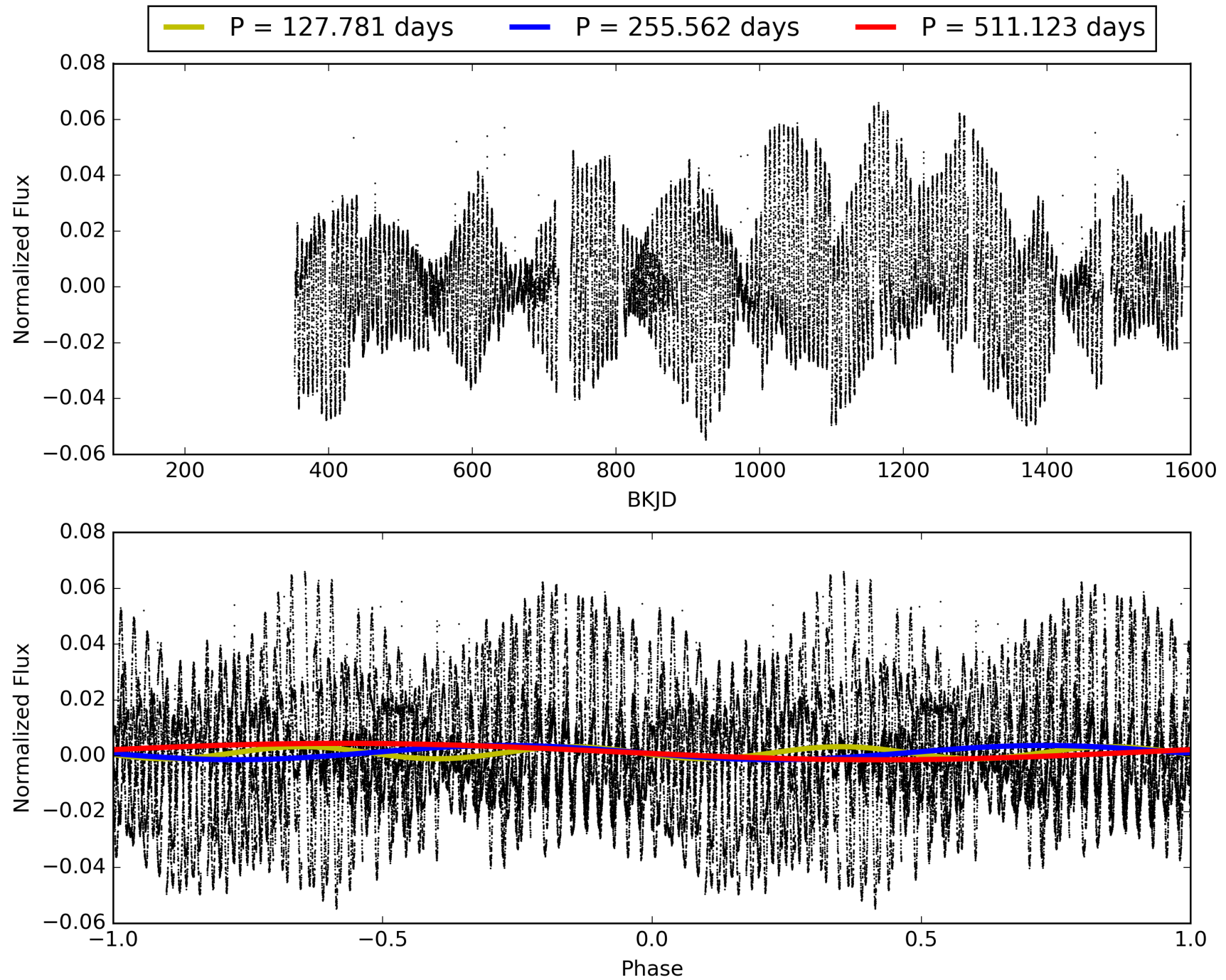
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 07:29:06 Z

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

TCE 006688100-01, PDC Light Curves

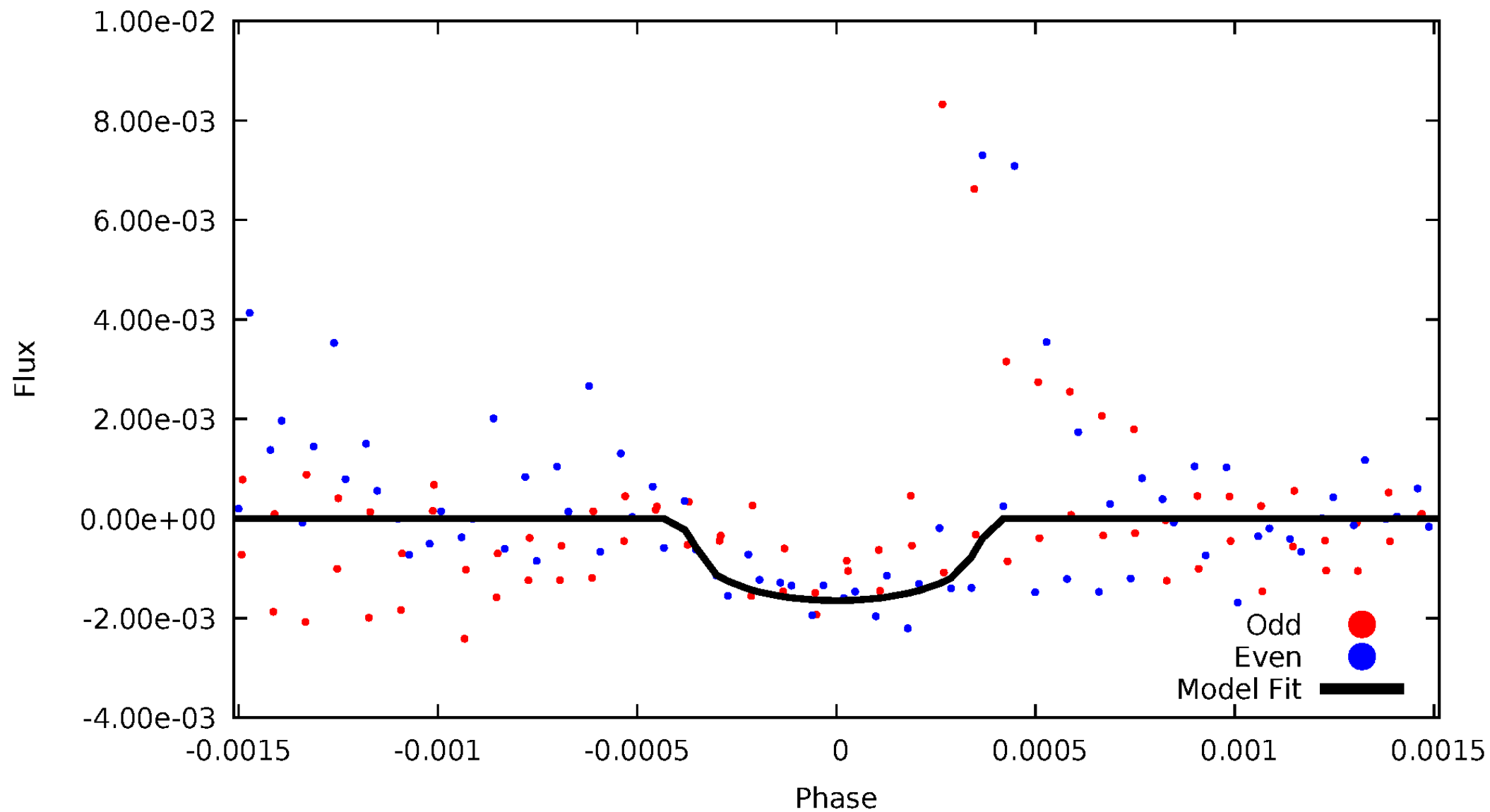


TCE 006688100-01



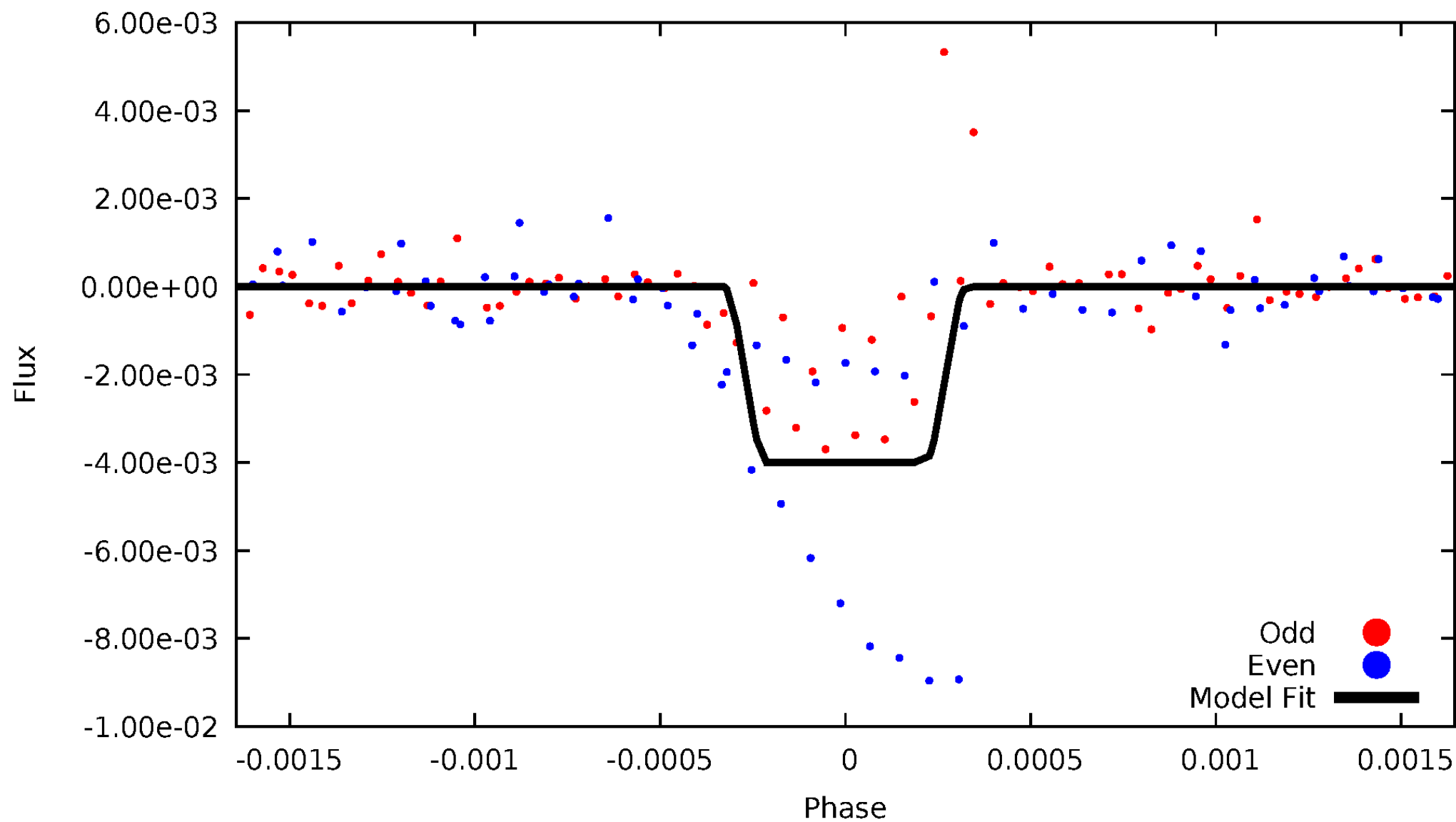
DV Odd/Even

TCE 006688100-01



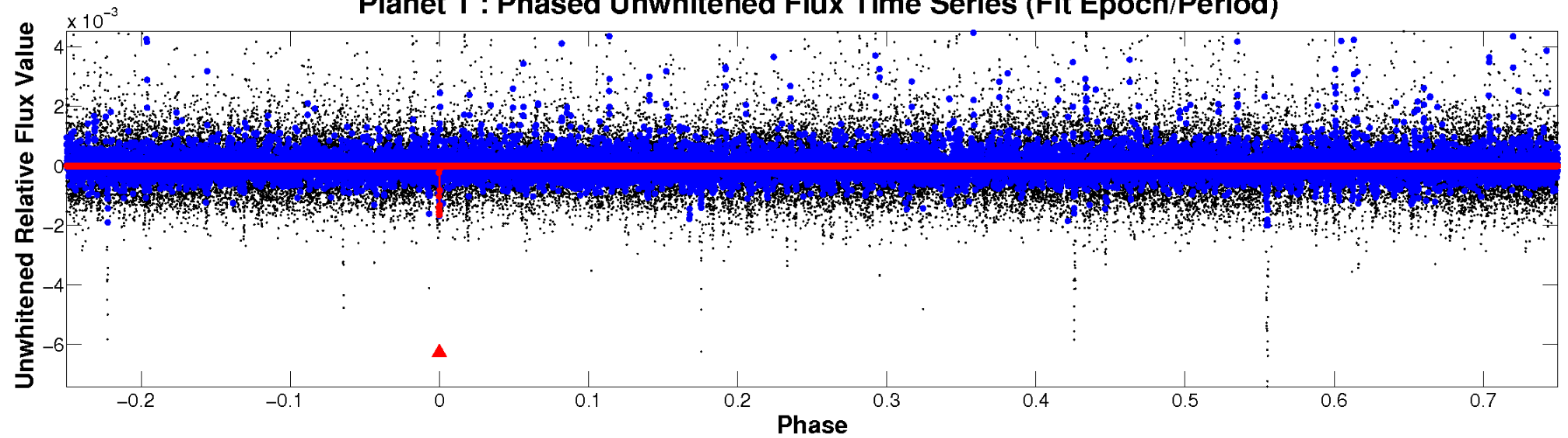
ALT Odd/Even

TCE 006688100-01

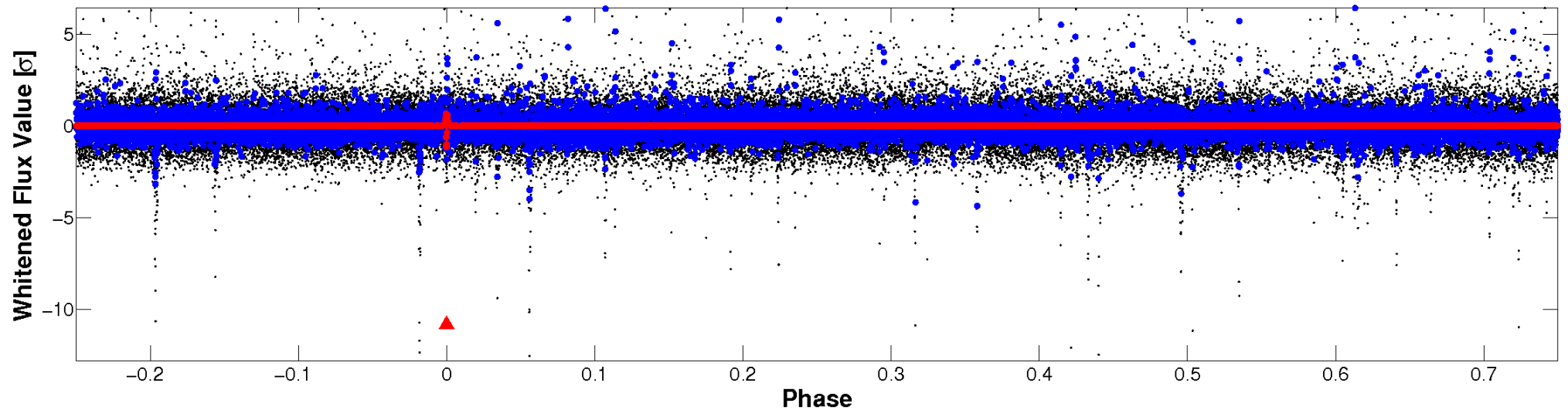


Non-Whitened Vs. Whitened Light Curve

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

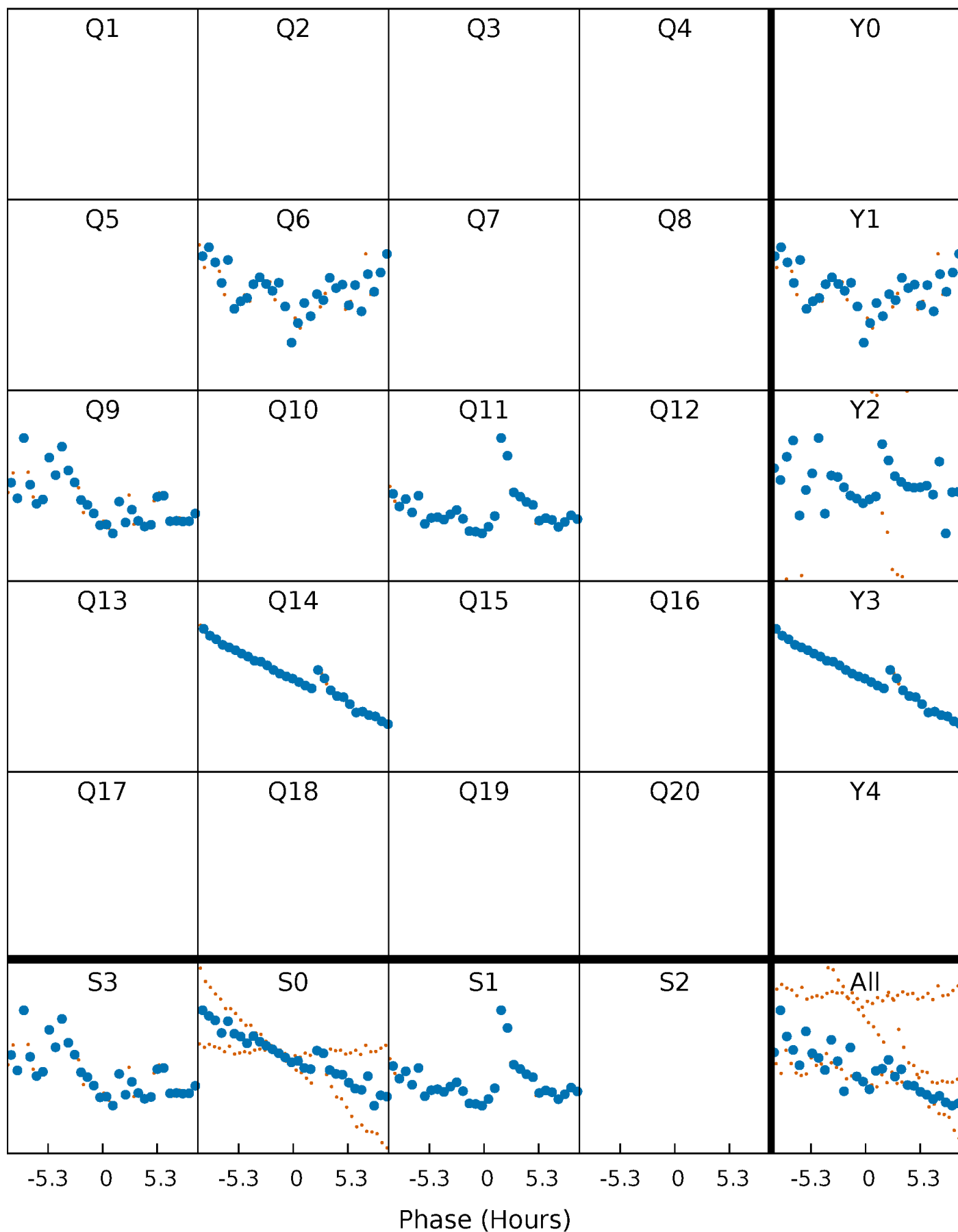


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



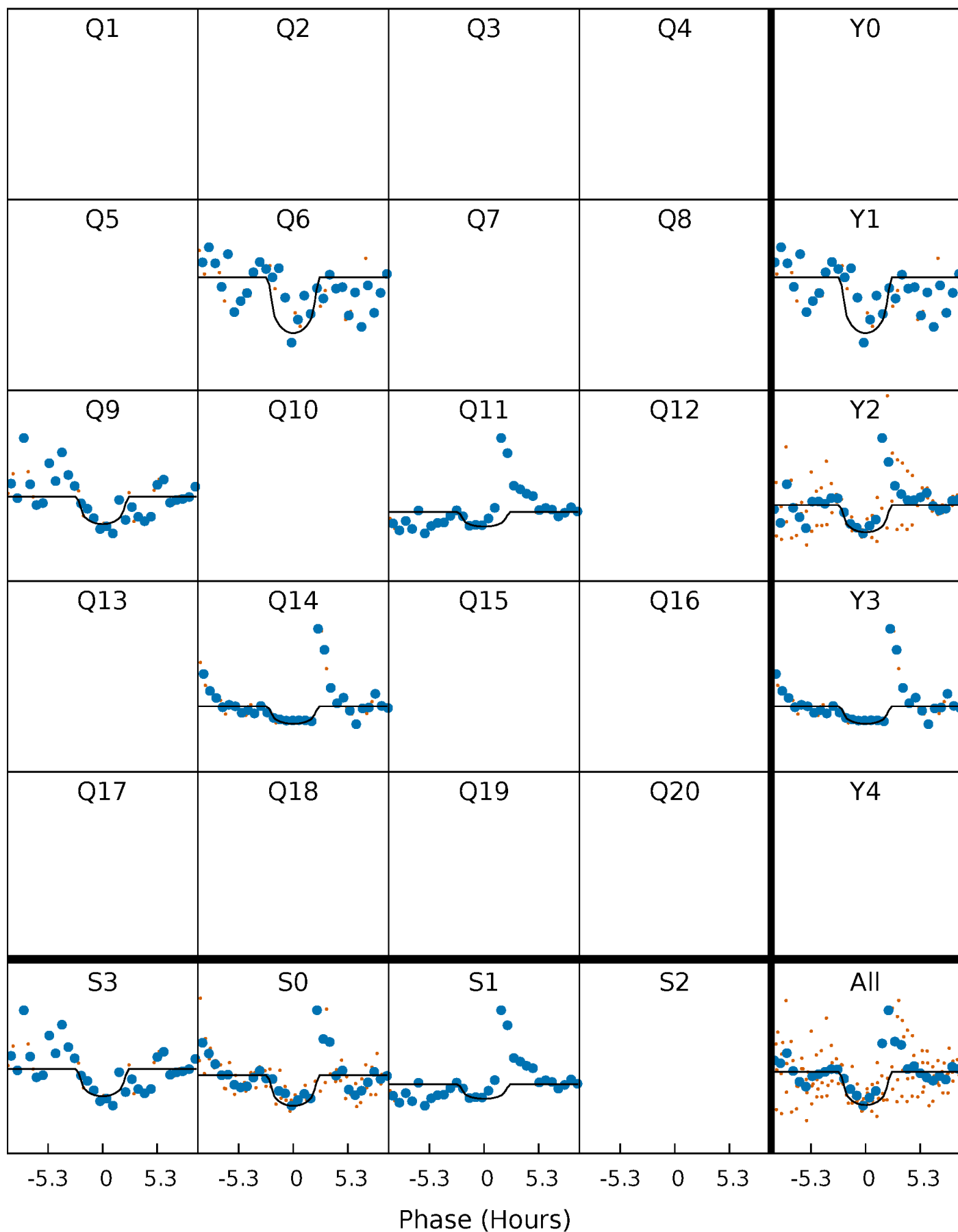
PDC Quarter-Phased Transit Curves

TCE 006688100-01 P=255.561561 Days $T_0=307.605009$ (BKJD)



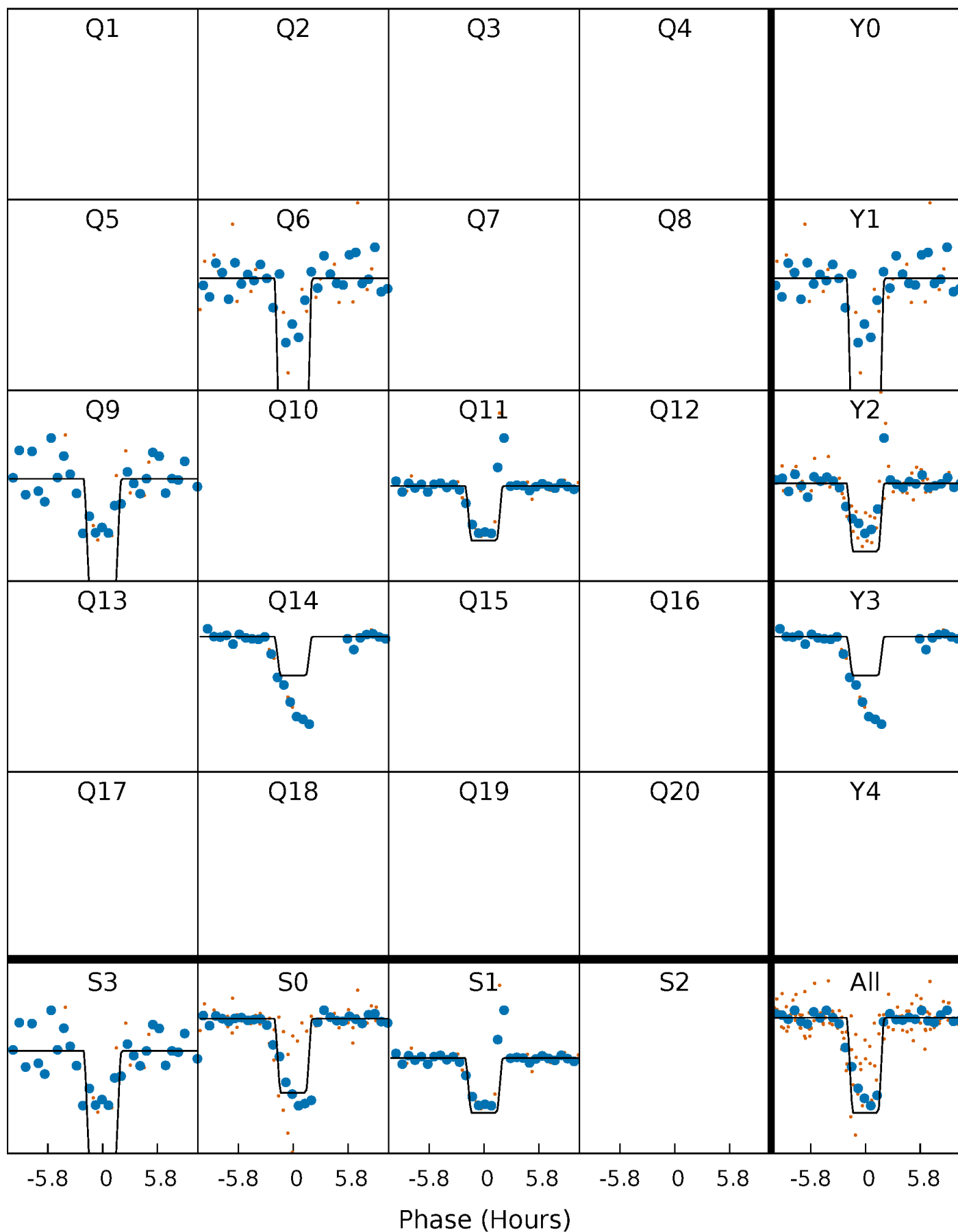
DV Quarter-Phased Transit Curves

TCE 006688100-01 P=255.561561 Days $T_0=307.605009$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

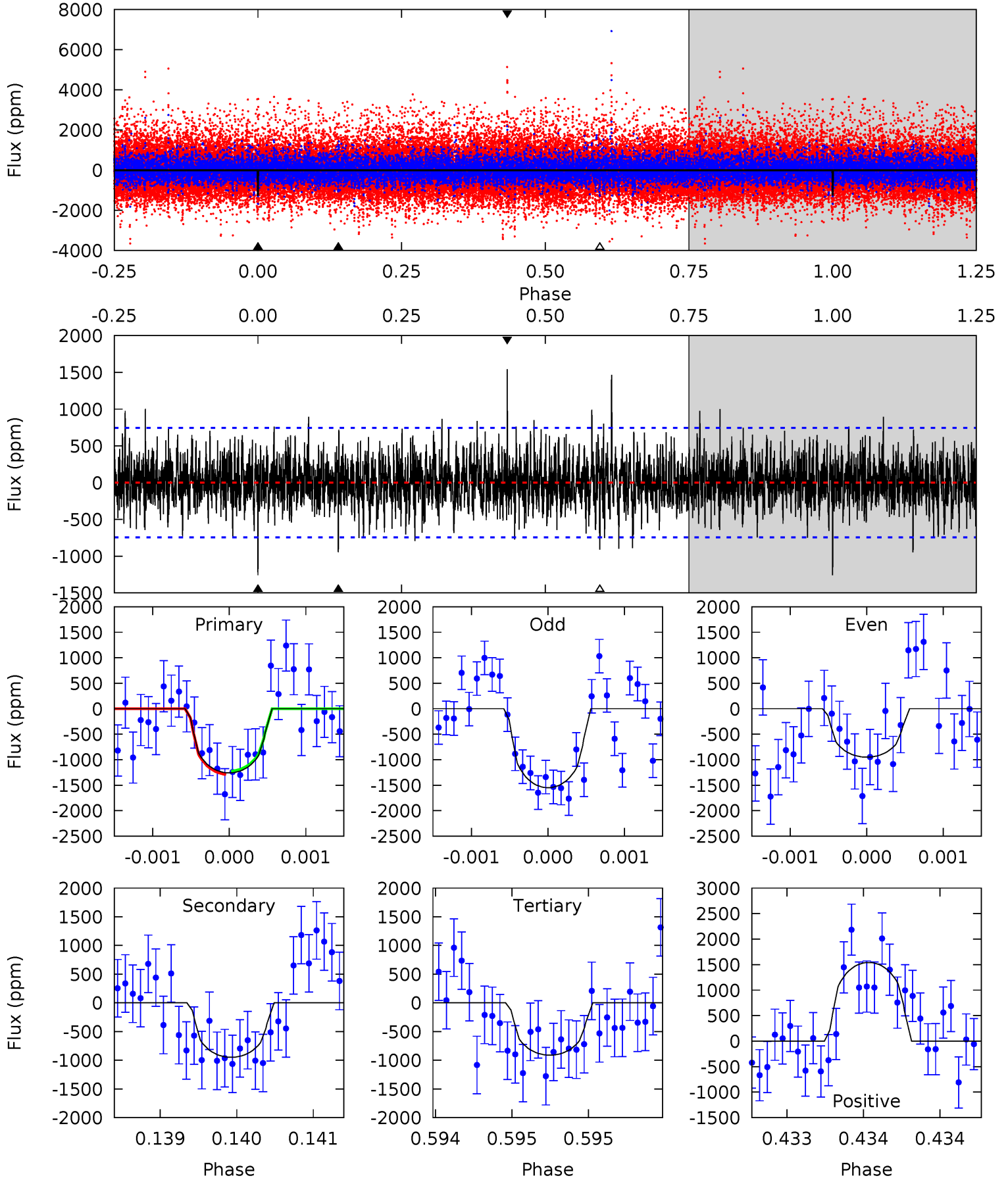
TCE 006688100-01 P=255.556693 Days $T_0=307.619589$ (BKJD)



DV Model-Shift Uniqueness Test

006688100-01, P = 255.561561 Days, E = 307.605009 Days

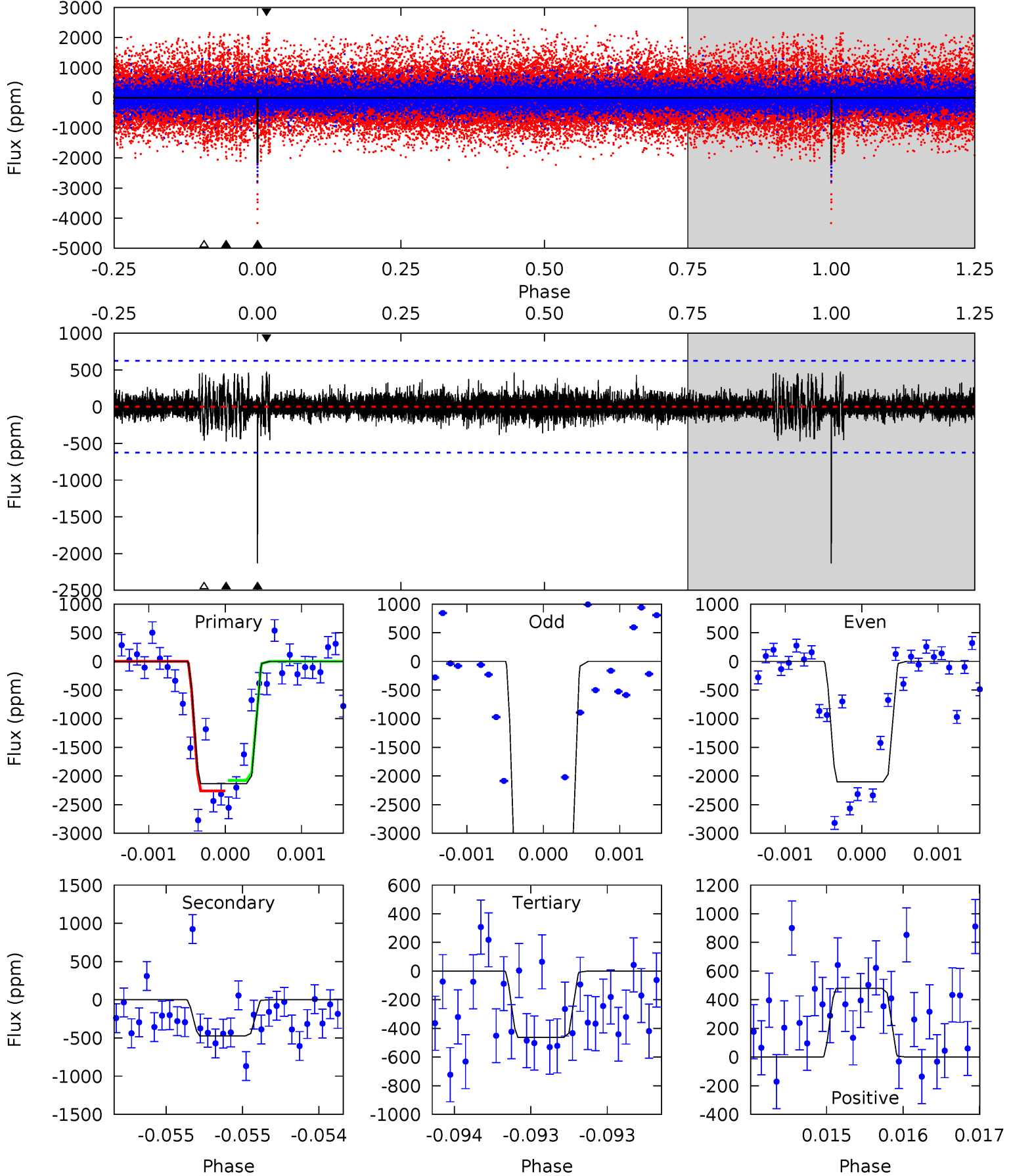
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	7.01	6.73	11.4	5.50	3.37	1.87	2.56	-2.09	0.28	-4.38	2.09	0.75	0.55	0.24



Alt Model-Shift Uniqueness Test

006688100-01, P = 255.556693 Days, E = 307.619589 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.8	4.17	4.08	4.23	5.52	3.40	0.89	14.7	14.6	0.09	-0.06	13.7	1.47	0.18	0.79



Stellar Parameters For KIC 006688100

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4523^{+163}_{-163}	$4.604^{+0.056}_{-0.024}$	$-0.160^{+0.300}_{-0.300}$	$0.669^{+0.048}_{-0.060}$	$0.655^{+0.075}_{-0.054}$	$3.087^{+0.779}_{-0.328}$
	+4%/-4%	+1%/-1%	+188%/-188%	+7%/-9%	+11%/-8%	+25%/-11%
Source	KIC0	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 006688100-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-948 ± 135	$5.24^{+4.83}_{-3.67}$	273^{+11}_{-11}	3373^{+1823}_{-613}	9058^{+85224}_{-6627}
Alt.	-472 ± 113	$6.39^{+4.58}_{-4.28}$	274^{+11}_{-11}	2869^{+1171}_{-387}	3105^{+24532}_{-2147}

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 $A_{obs} \gg 1.0$

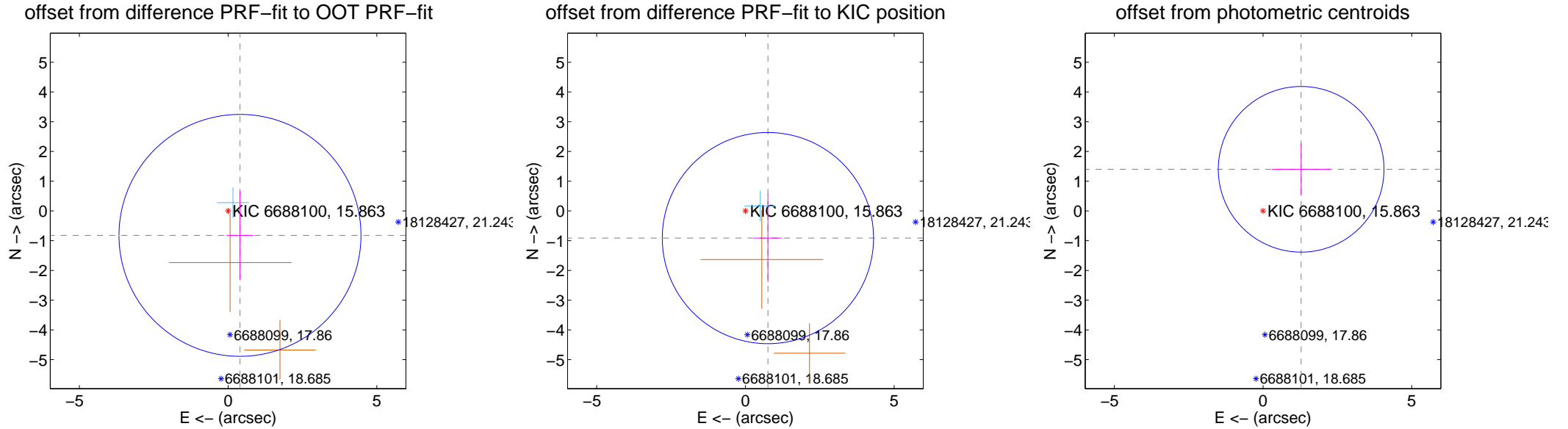
DV Centroid Data

Supplemental centroid analysis for 006688100-01. Kepler magnitude: 15.86. Transit SNR 6.81

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.913 ± 1.356	0.67	-0.399 ± 0.451	-0.821 ± 1.491
PRF-fit source offset from KIC position	1.185 ± 1.183	1.00	-0.755 ± 0.468	-0.912 ± 1.487
photometric centroid source offset	1.90 ± 0.93	2.04	-1.28 ± 0.99	1.40 ± 0.87

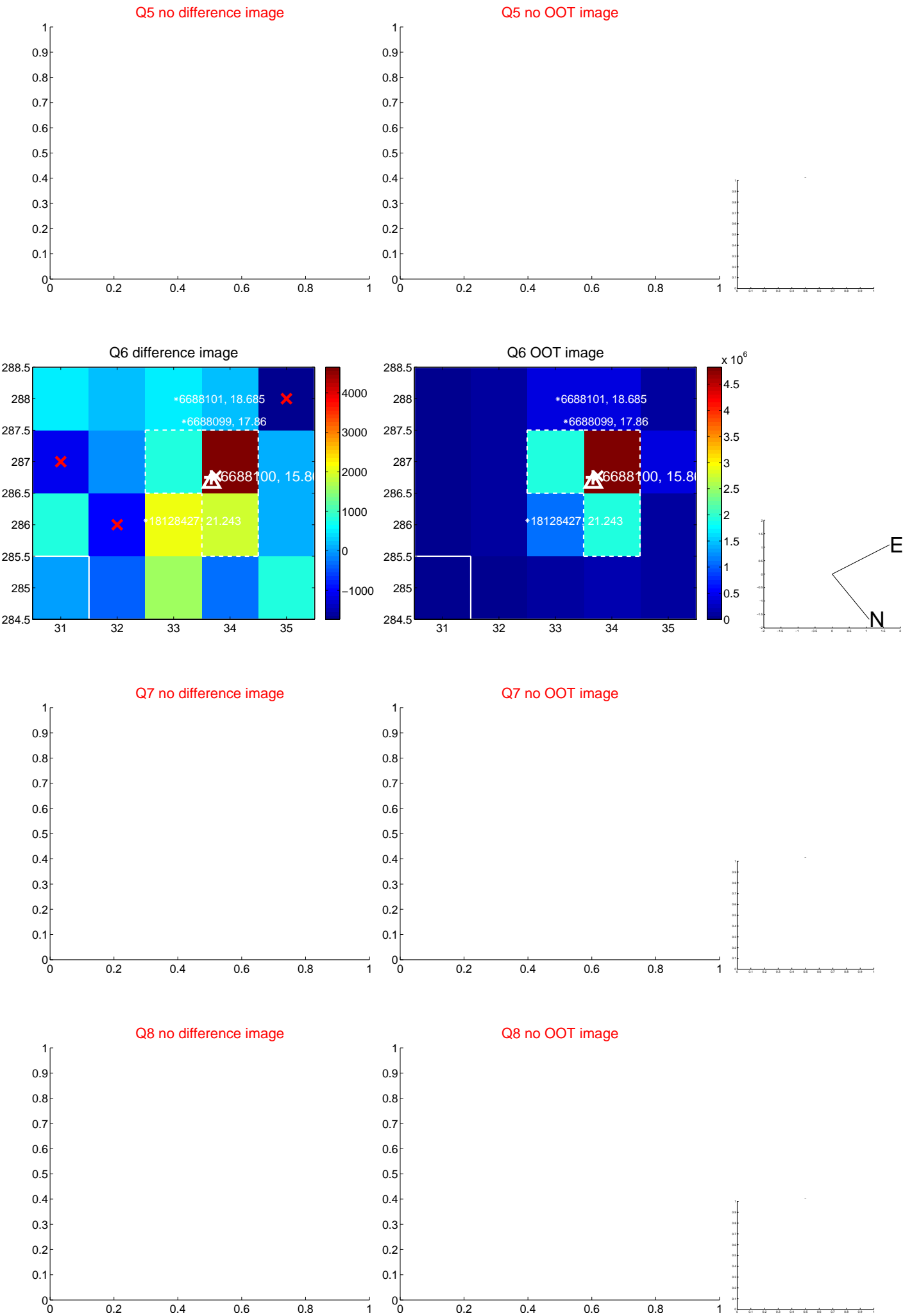


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

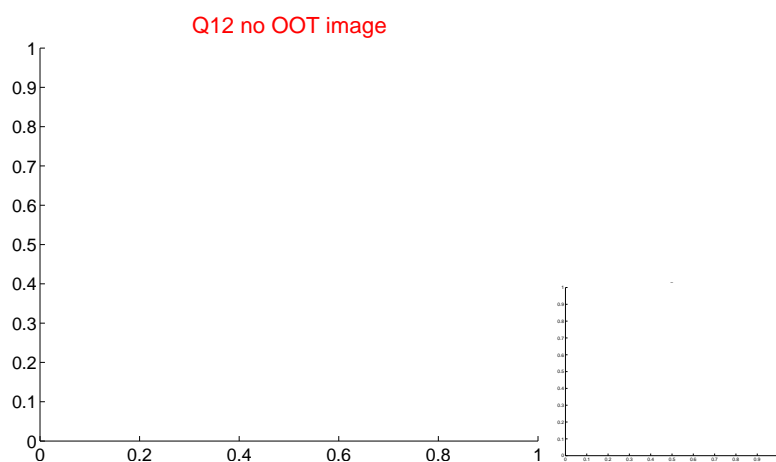
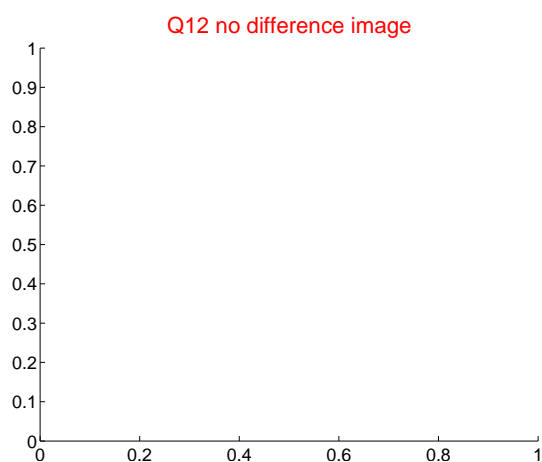
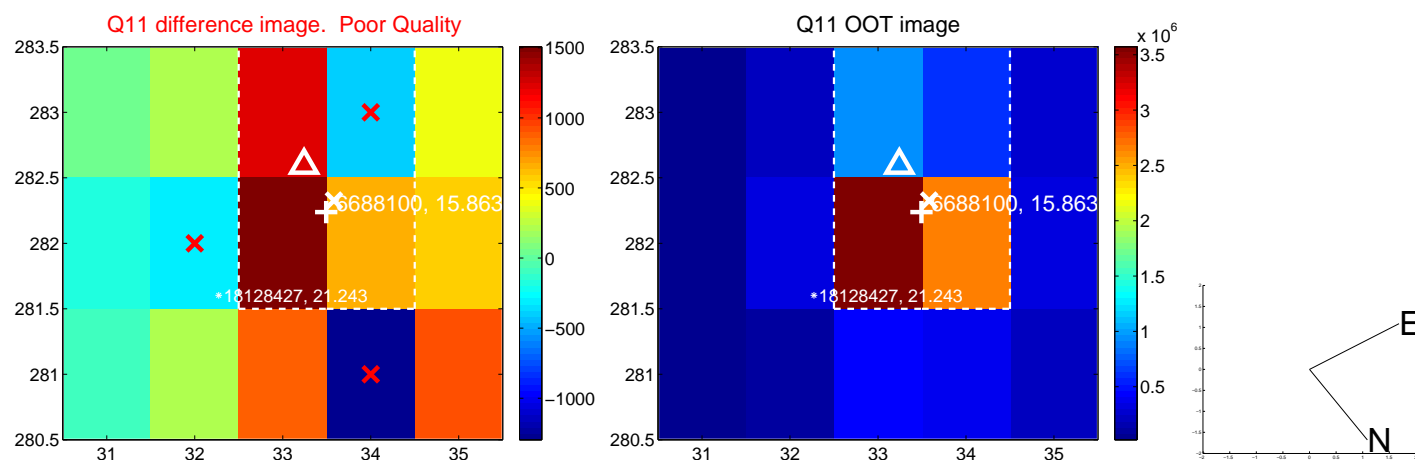
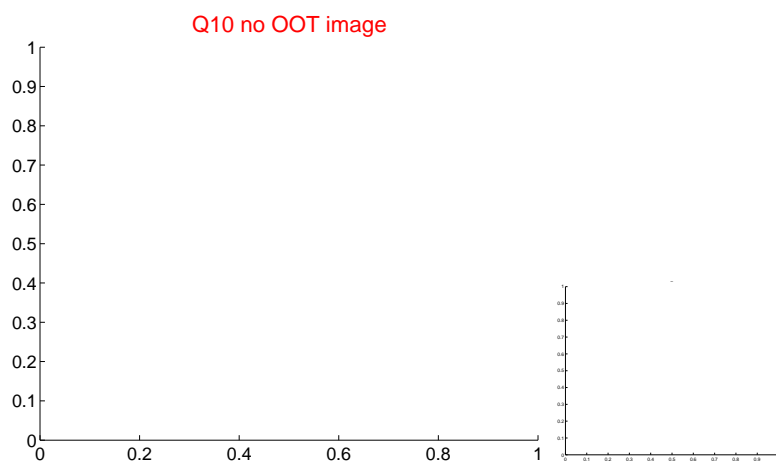
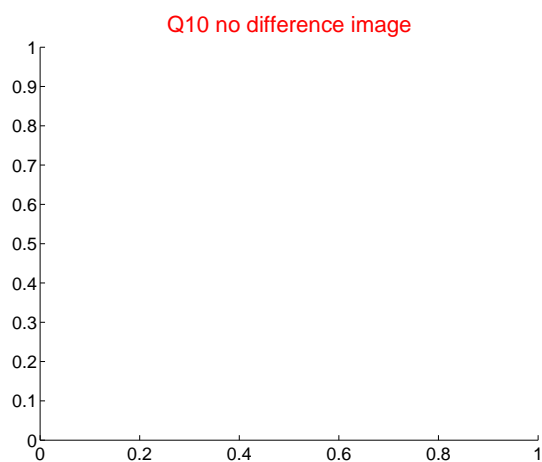
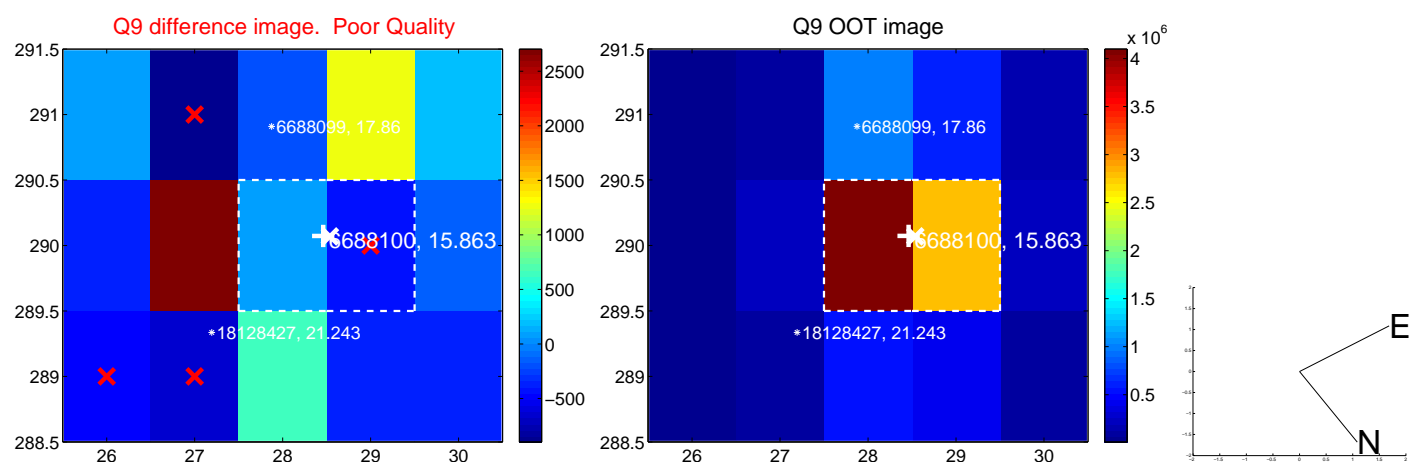
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



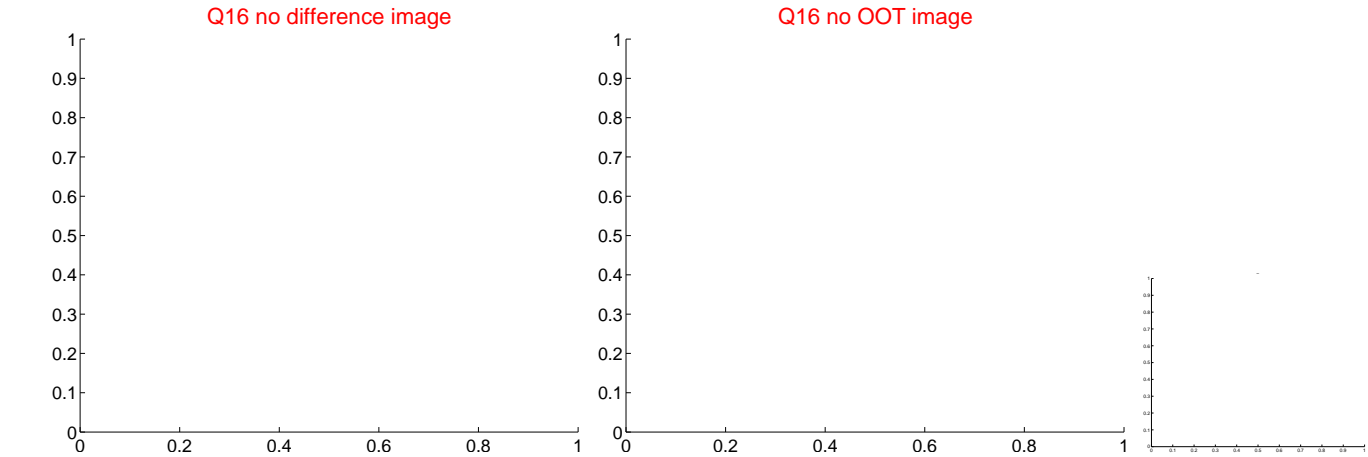
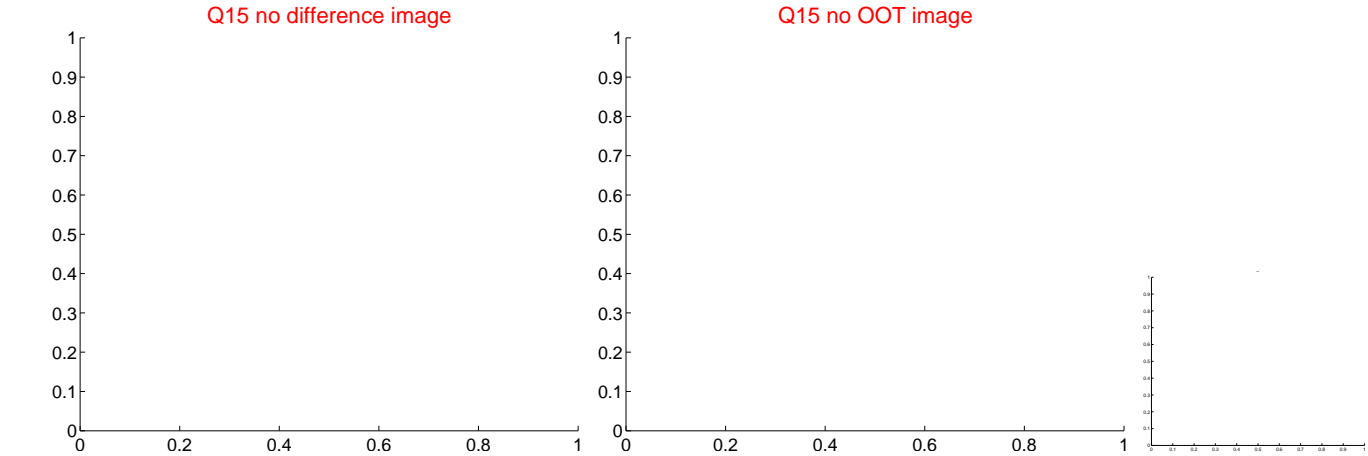
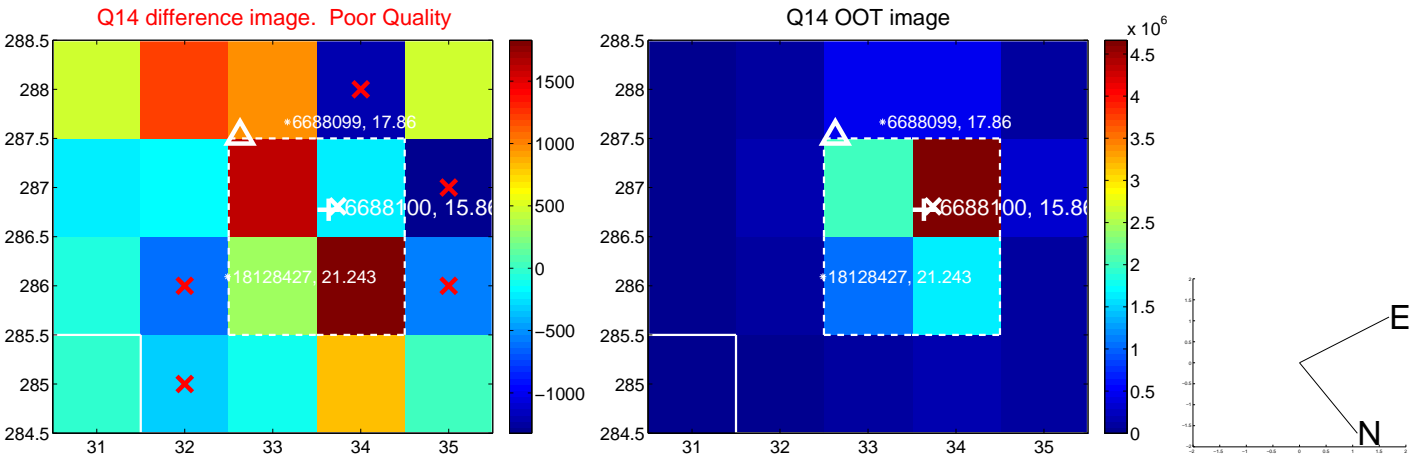
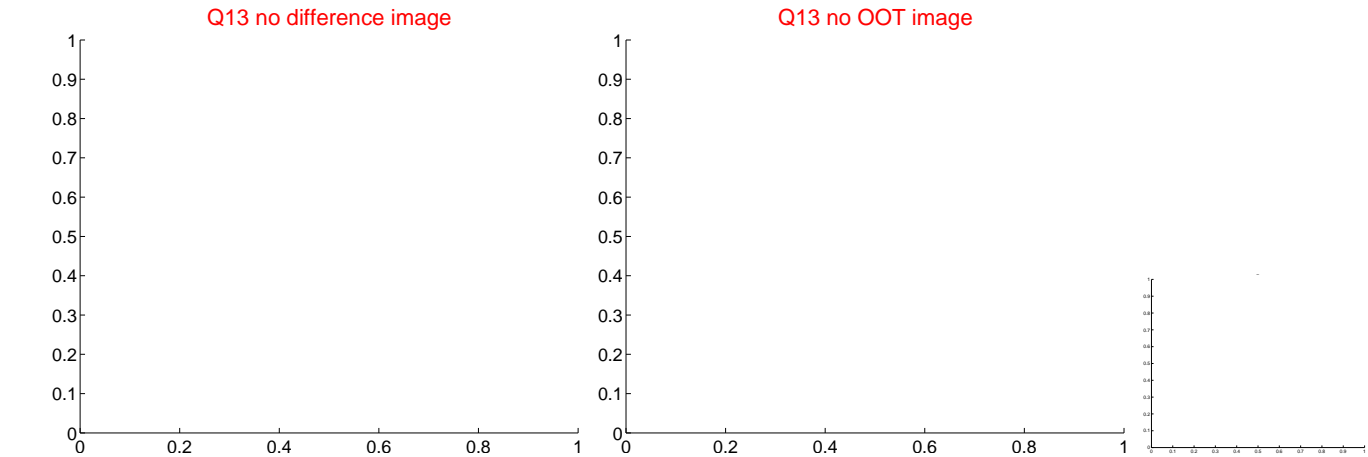
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



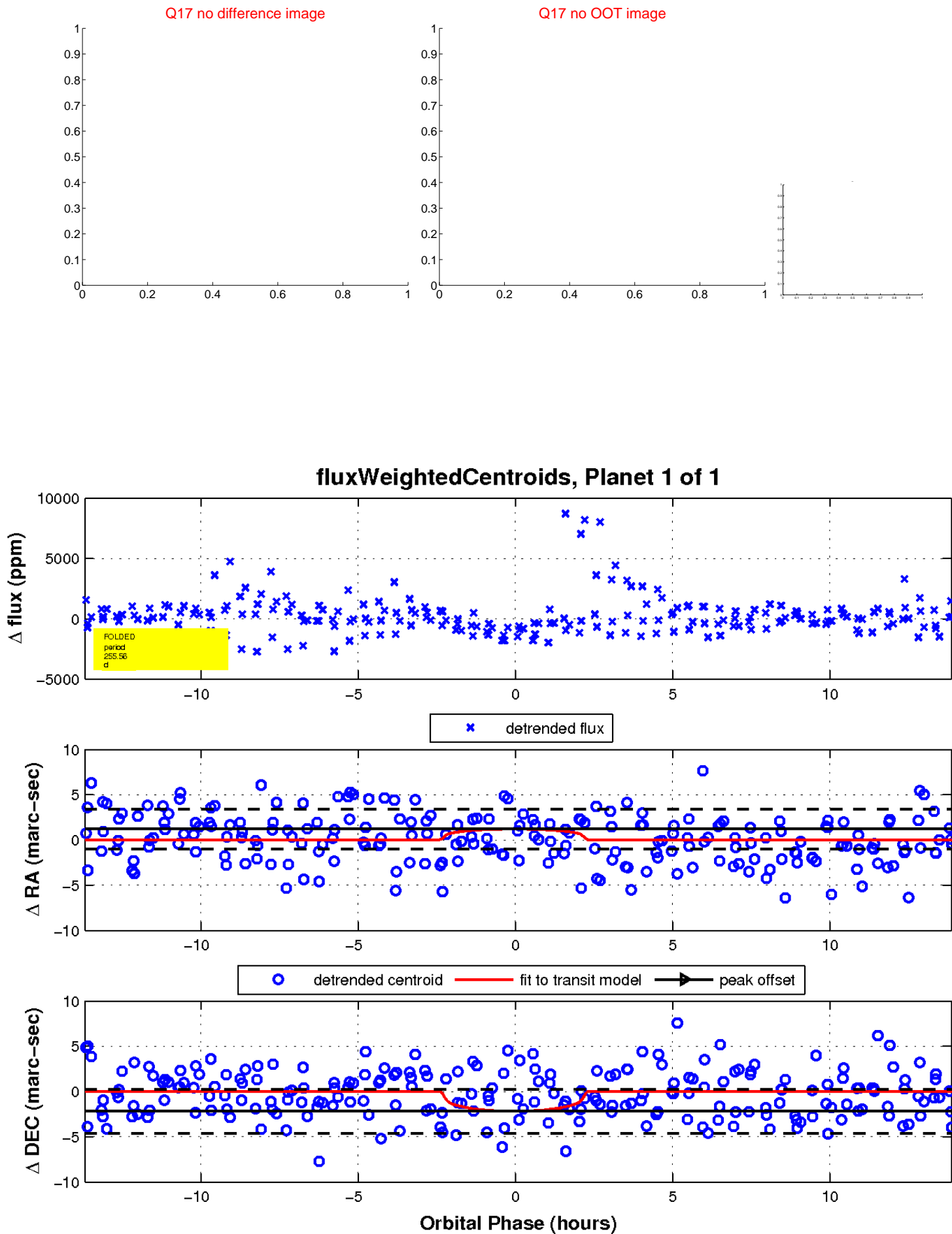
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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UKIRT Image

Declination

