

KIC 007060330

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})
007060330-01	OBS	No	27.782508	147.473235	66.7	2.834	9.0	9.2	9.43	5021	8.20	992.64

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007060330-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA—MOD_POS_ALT—CENT_SATURATED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

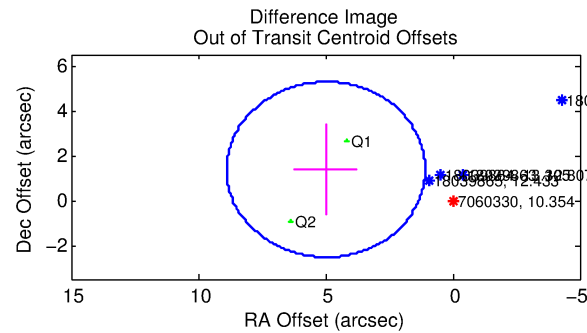
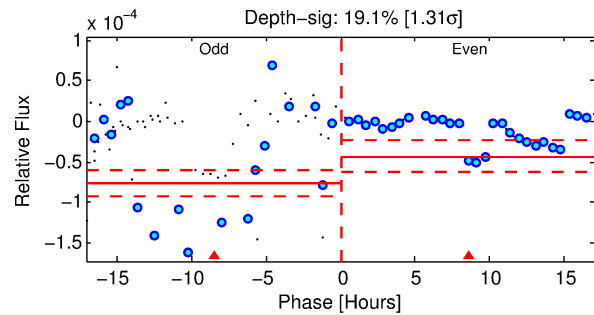
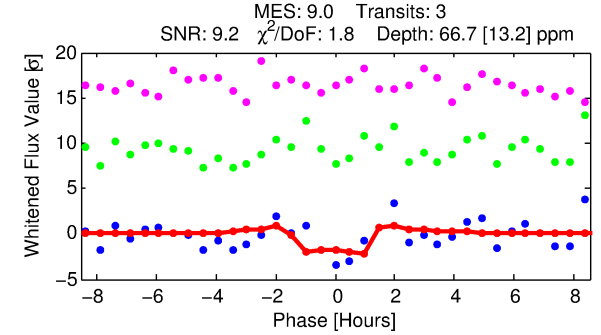
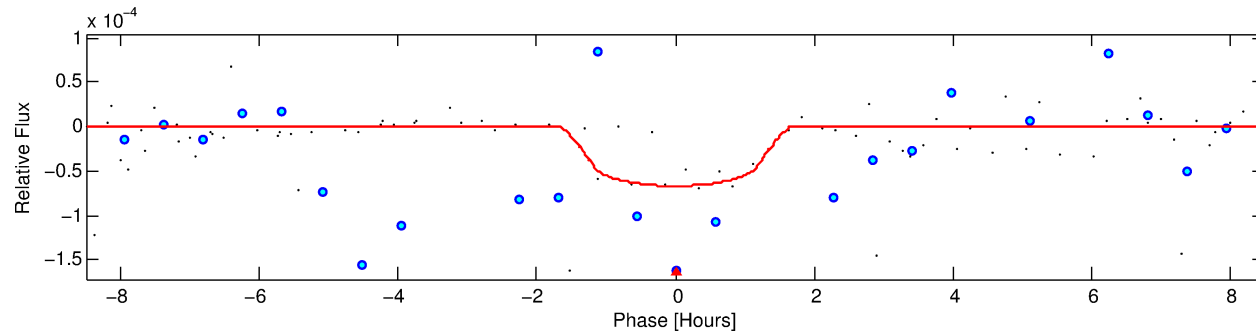
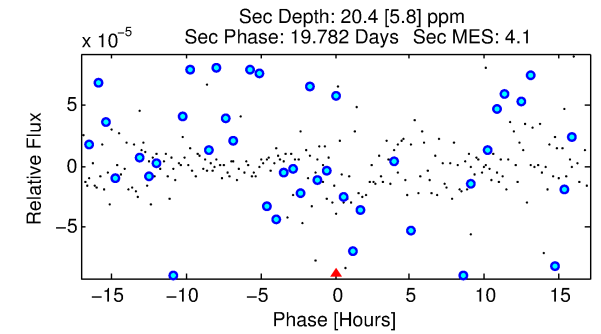
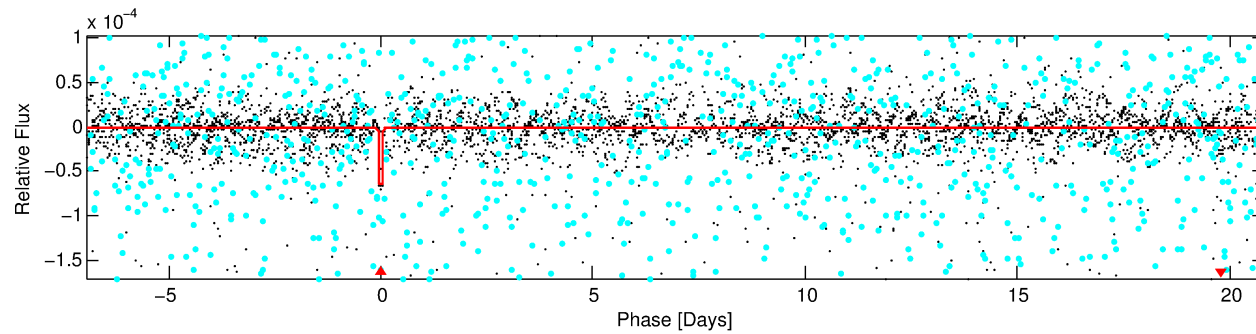
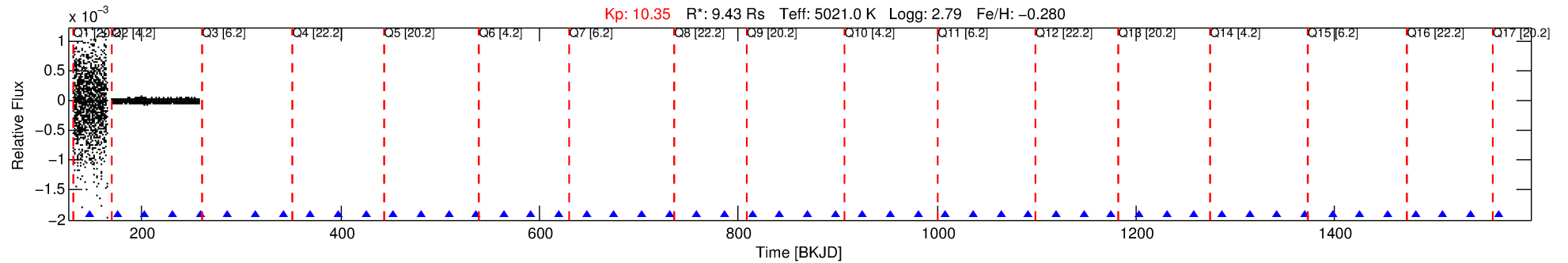
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007060330-01

No Significant Match Found

DV One-Page Summary

KIC: 7060330 Candidate: 1 of 1 Period: 27.783 d



DV Fit Results:

Period = 27.78251 [0.00876] d
Epoch = 147.4732 [0.0120] BKJD
Rp/R* = 0.0080 [0.0126]
a/R* = 55.00 [317.36]
b = 0.69 [4.55]
Seff = 992.64 [796.69]
Teff = 1431 [287] K
Rp = 8.20 [13.76] Re
a = 0.2259 [0.1143] AU
Ag = 8.55 [28.09] [0.27σ]
Teffp = 3784 [3019] K [0.78σ]

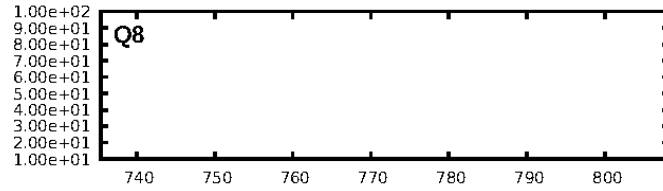
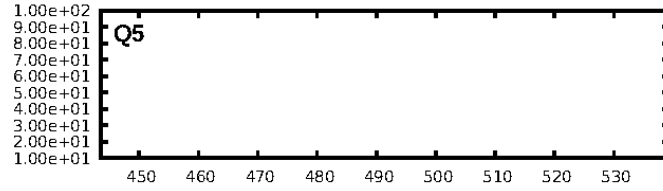
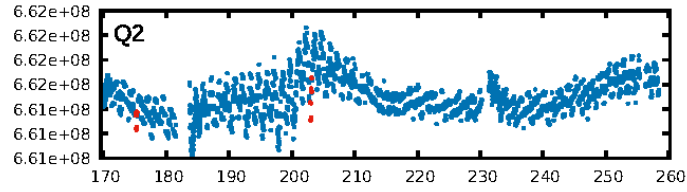
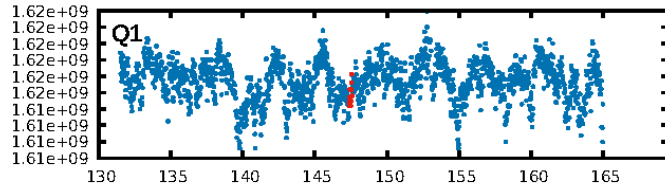
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGof-sig: 84.1%
Bootstrap-pfa: 7.84e-12
RollingBand-fgt: 1.00 [2/2]
GhostDiagnostic-chr: N/A
Centroid-sig: 30.5%
Centroid-so: 6.572 arcsec [0.89σ]
OotOffset-rm: 5.168 arcsec [3.97σ]
KicOffset-rm: 9.346 arcsec [9.82σ]
OotOffset-st: 1/0/0/1 [2]
KicOffset-st: 1/0/0/1 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [2/2]

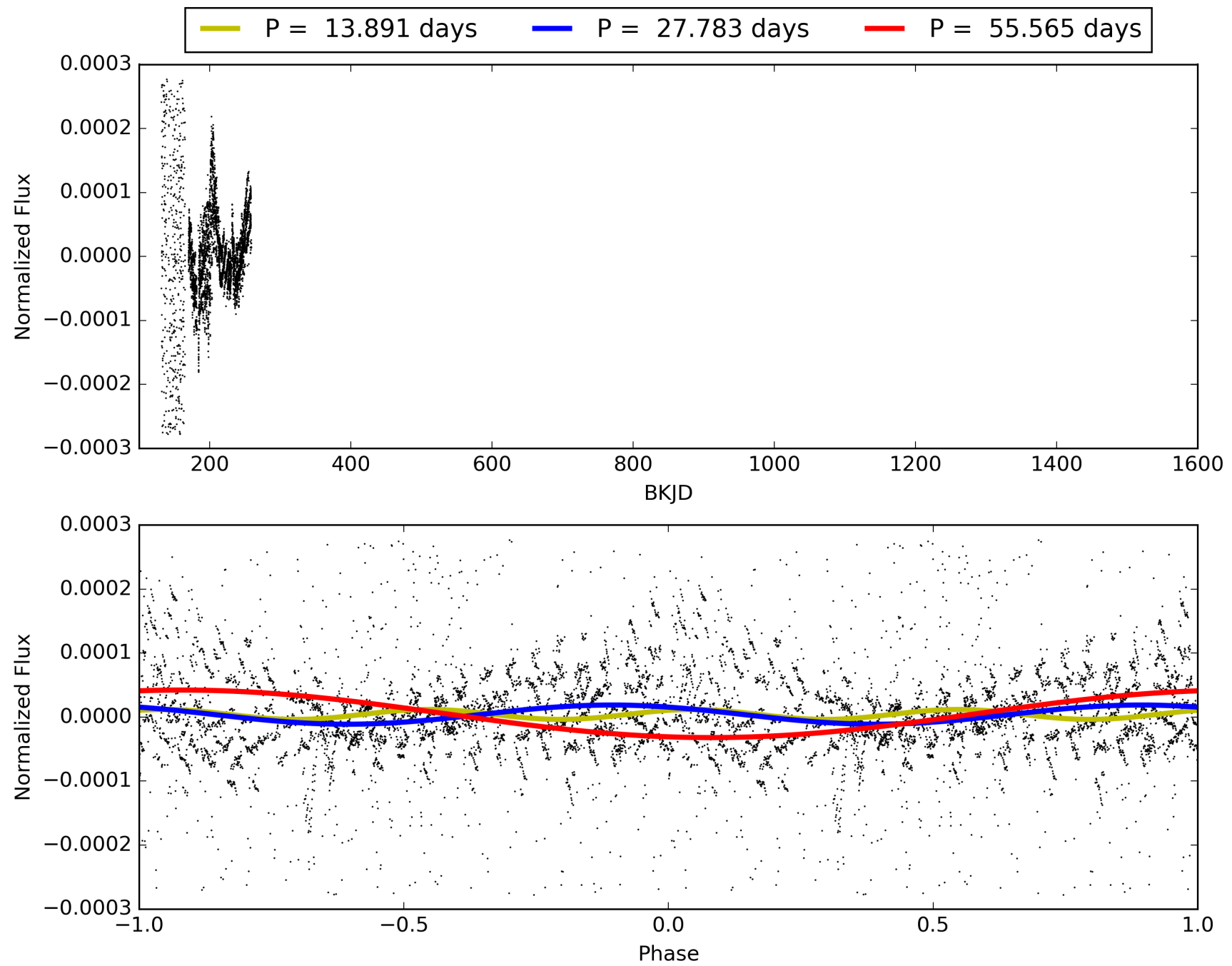
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:03:40 Z

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

TCE 007060330-01, PDC Light Curves

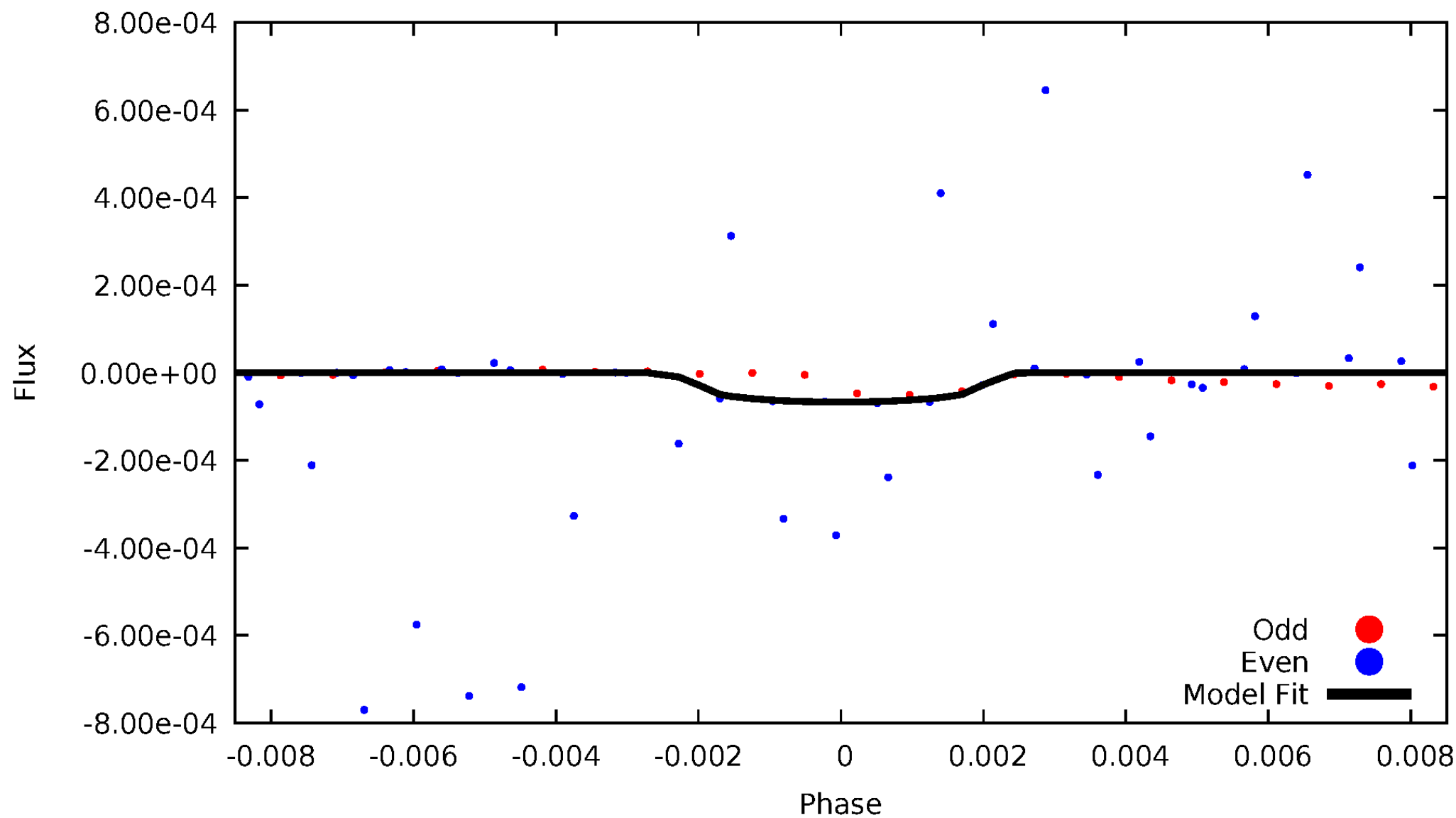


TCE 007060330-01



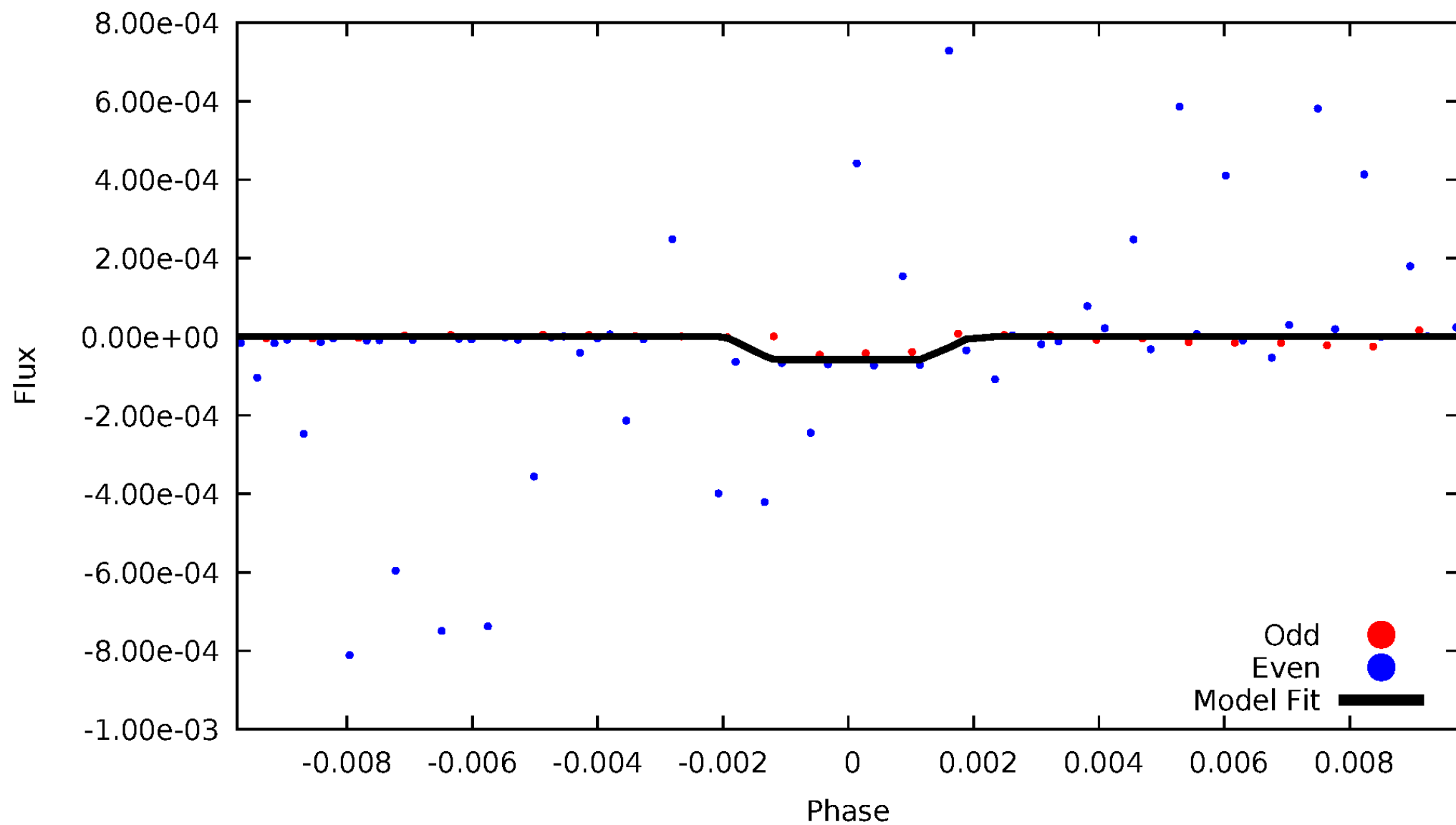
DV Odd/Even

TCE 007060330-01



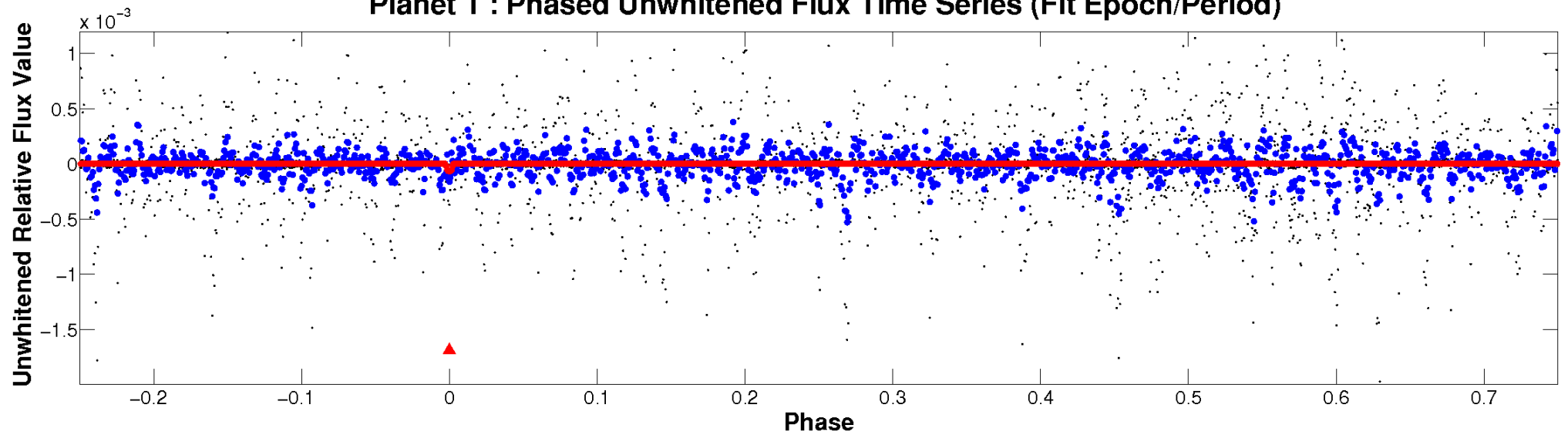
ALT Odd/Even

TCE 007060330-01

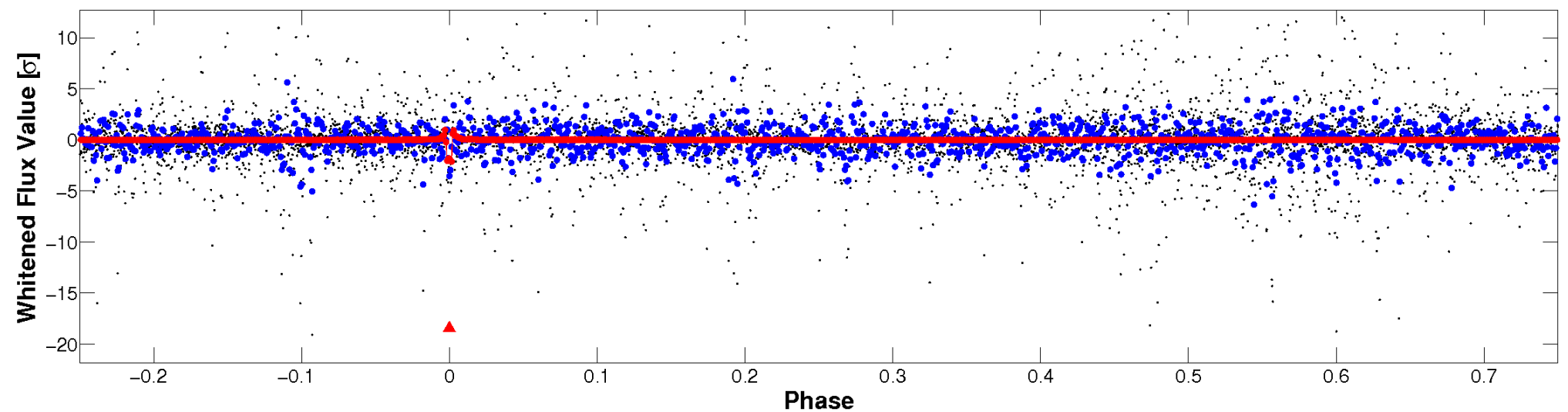


Non-Whitened Vs. Whitened Light Curve

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

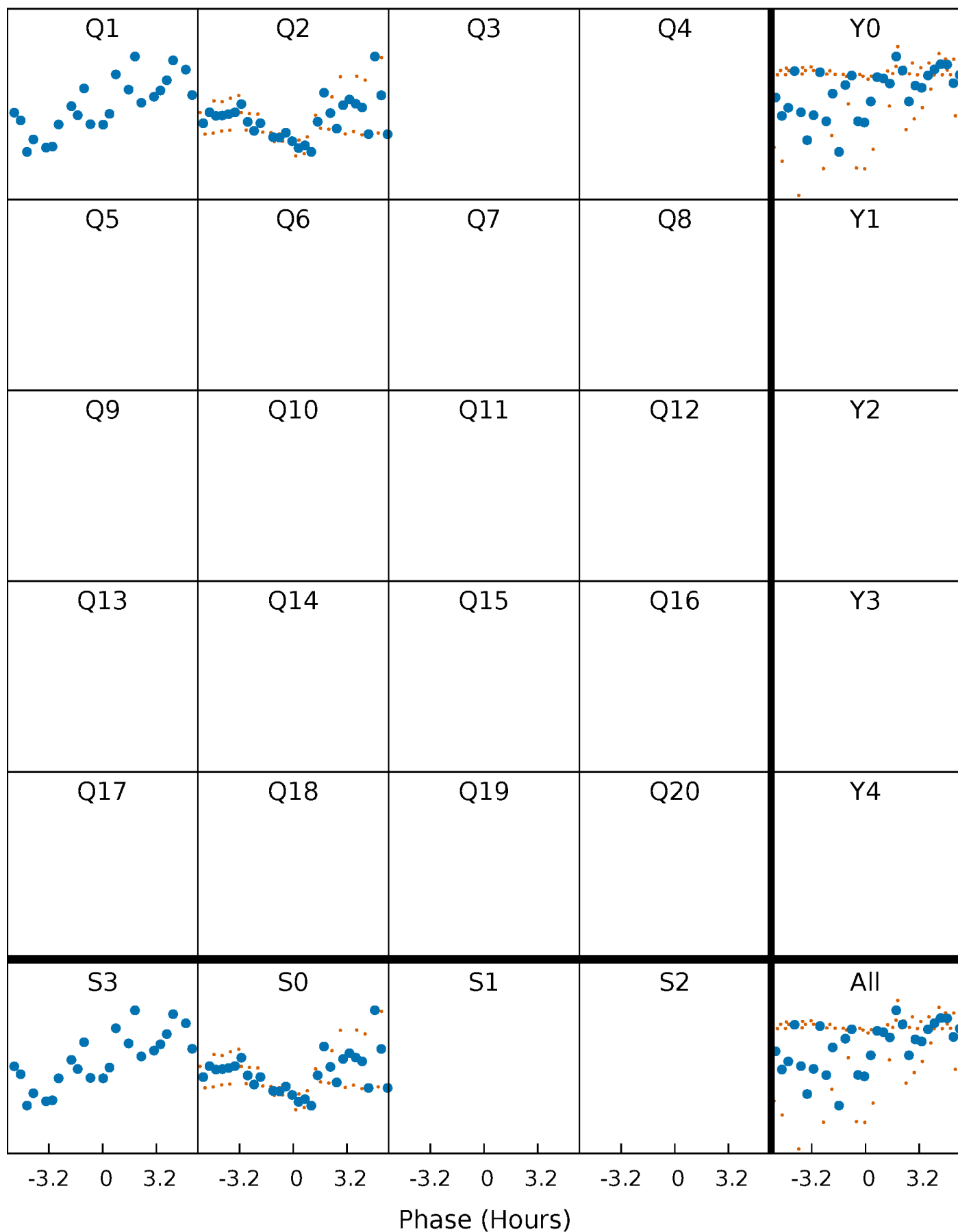


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



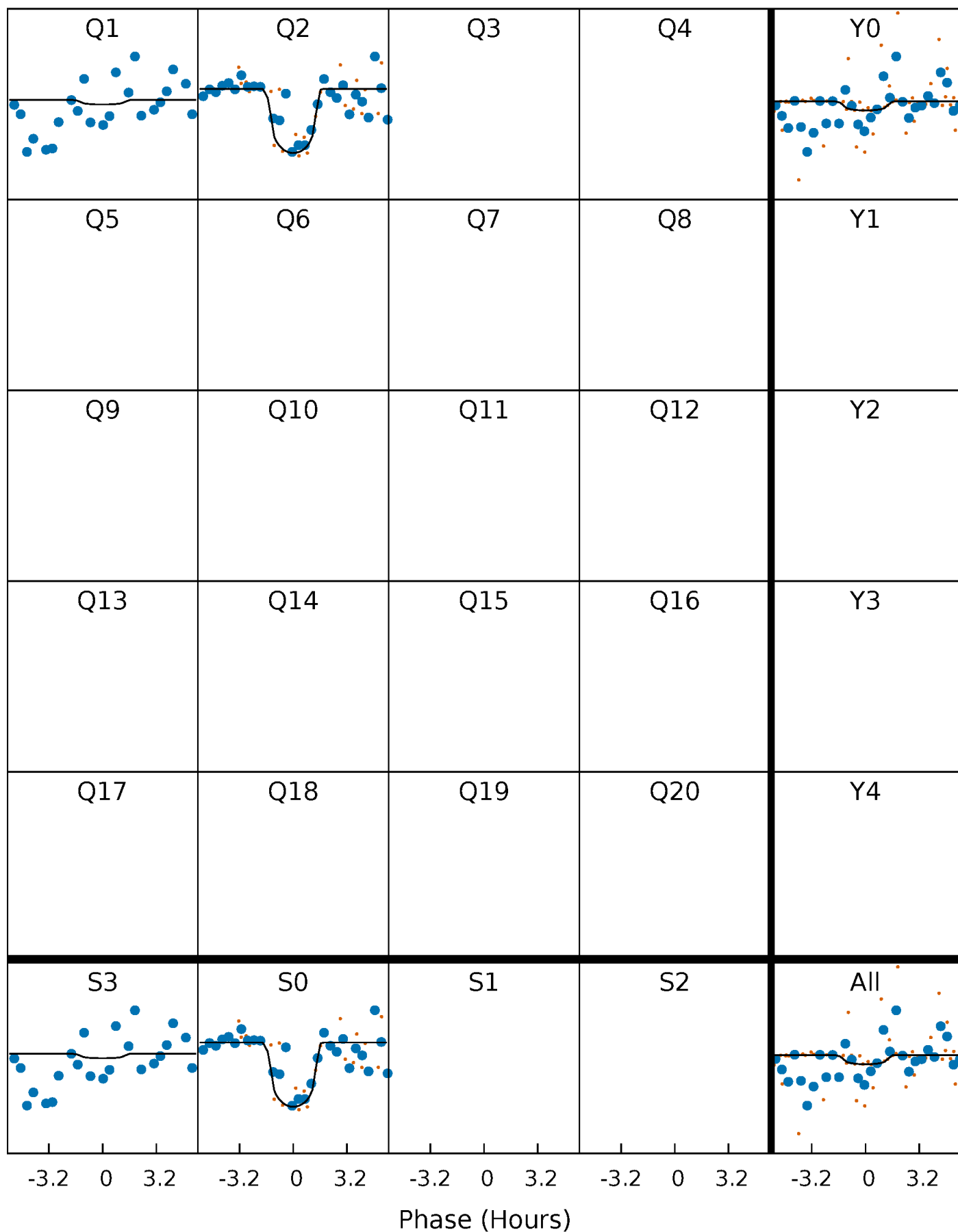
PDC Quarter-Phased Transit Curves

TCE 007060330-01 P= 27.782508 Days $T_0=147.473235$ (BKJD)



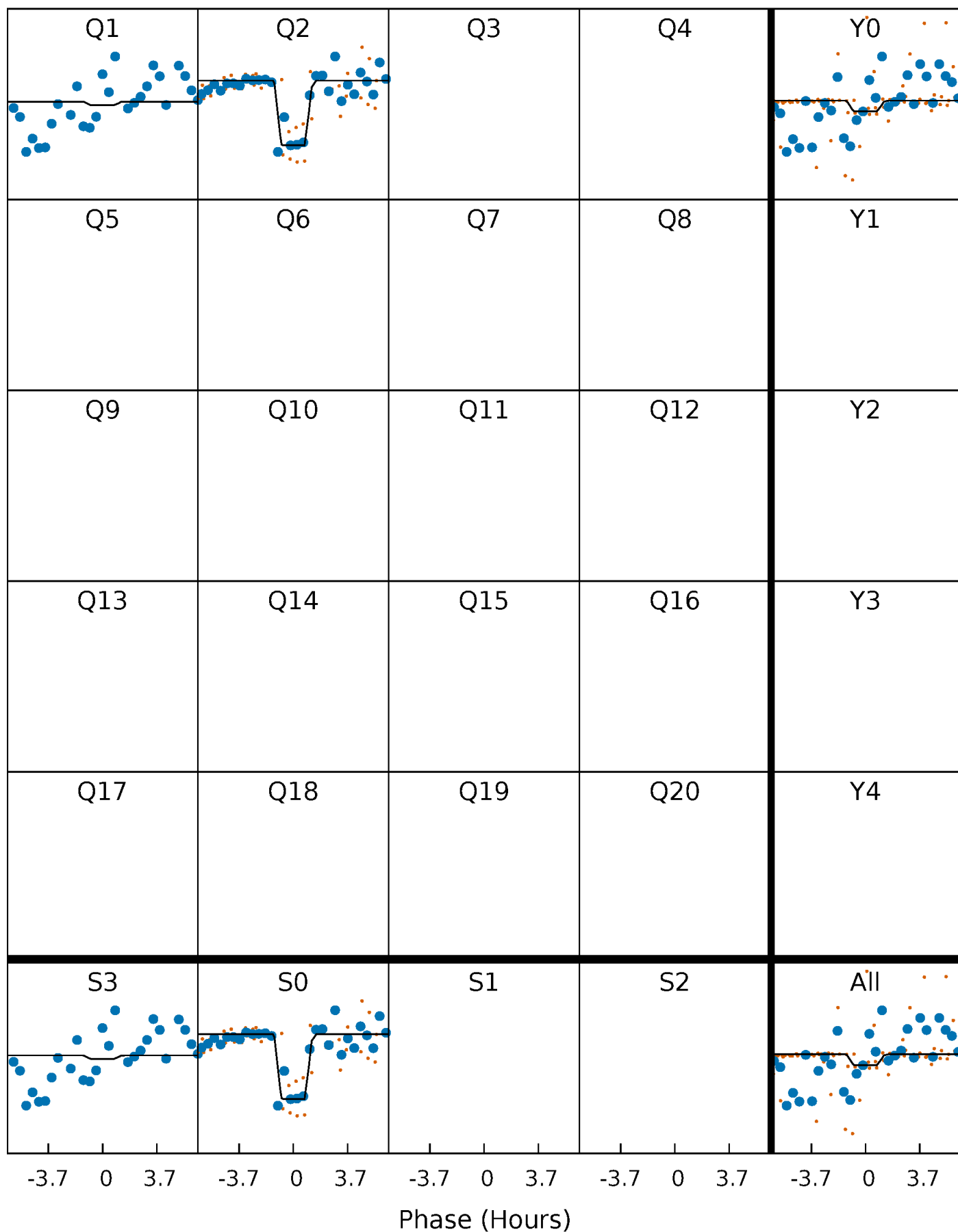
DV Quarter-Phased Transit Curves

TCE 007060330-01 P= 27.782508 Days $T_0=147.473235$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

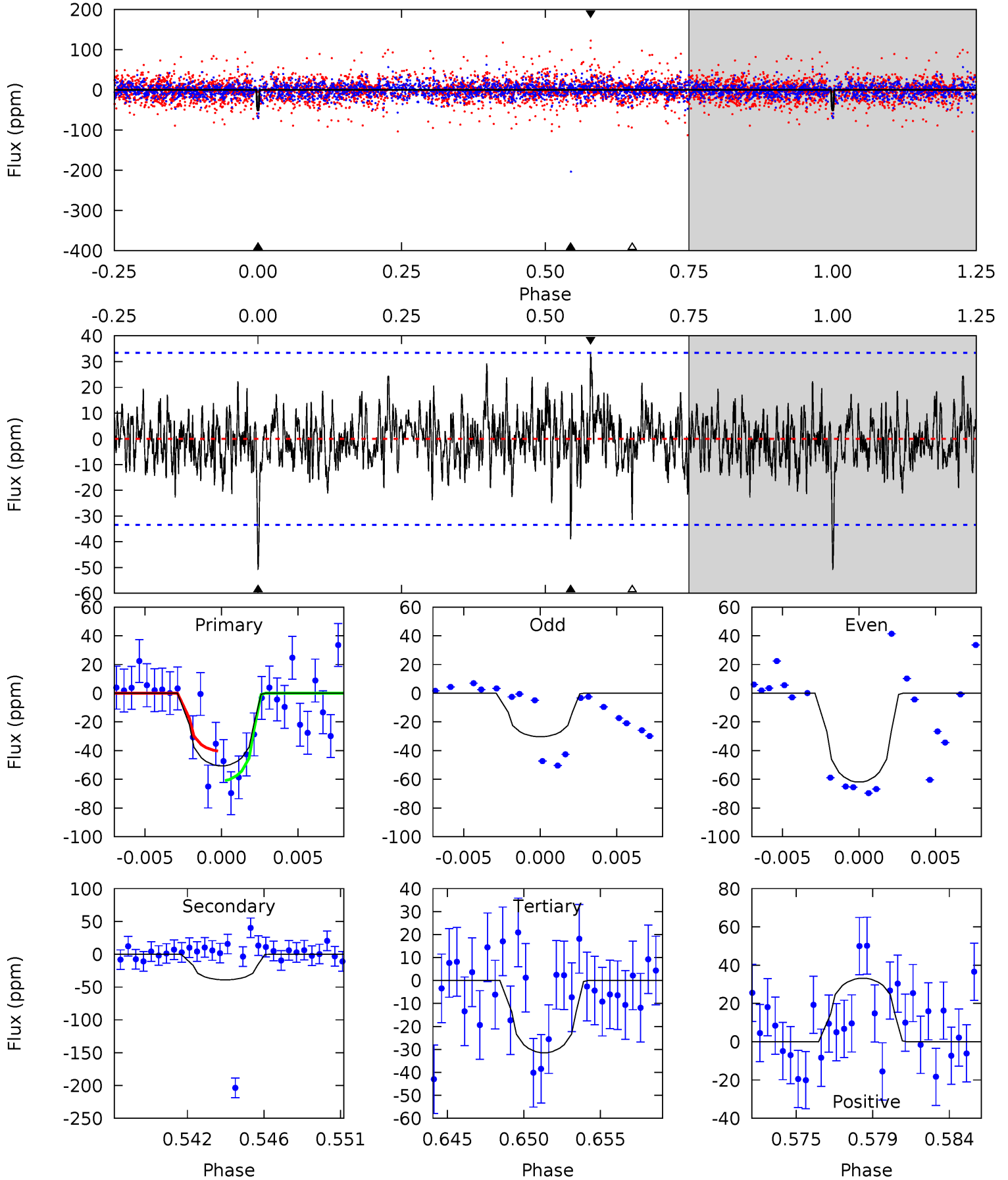
TCE 007060330-01 P= 27.766327 Days $T_0=147.508405$ (BKJD)



DV Model-Shift Uniqueness Test

007060330-01, P = 27.782508 Days, E = 119.690727 Days

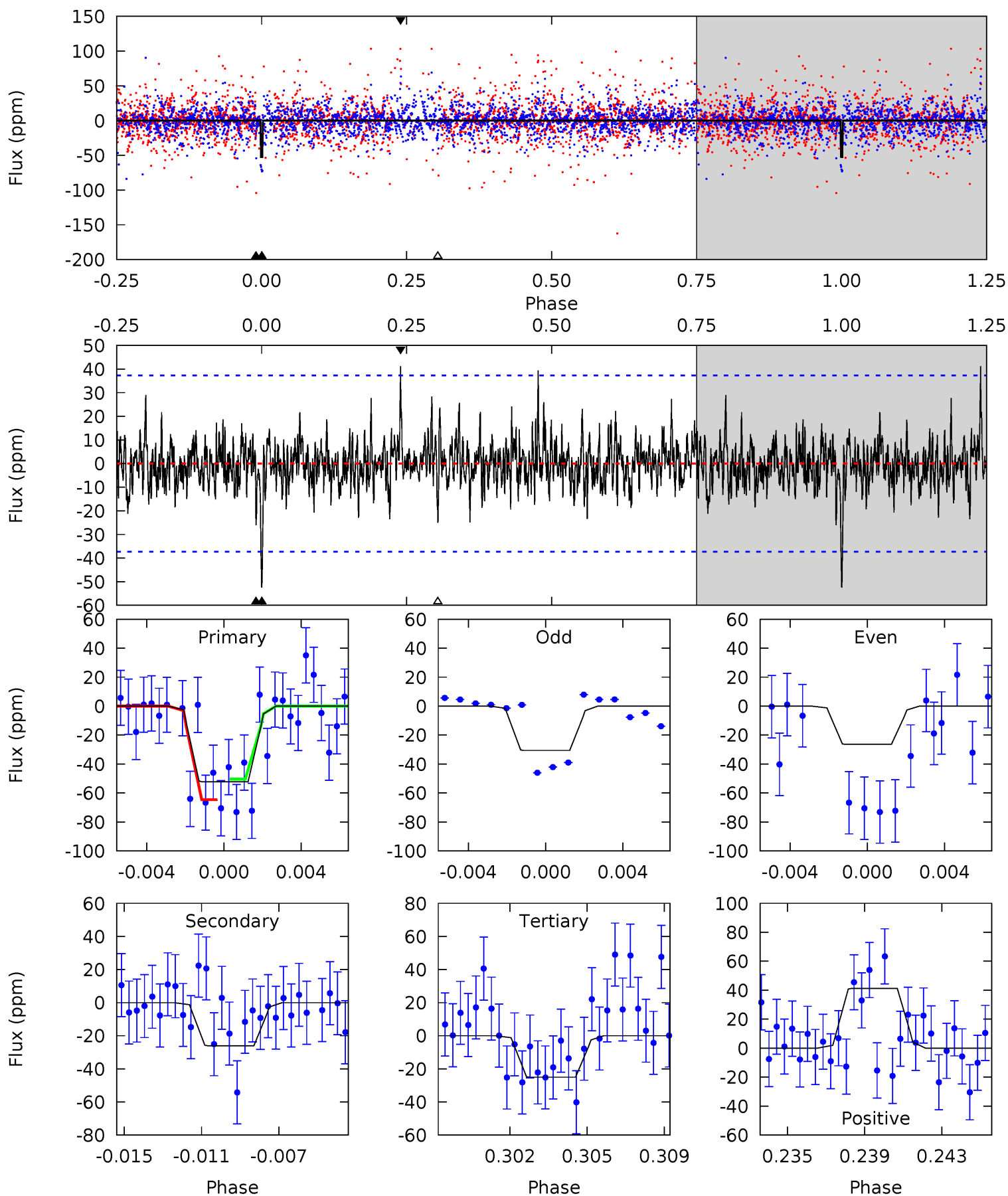
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.82	6.03	4.86	5.12	5.17	2.83	1.30	2.96	2.70	1.17	0.90	0.80	0.82	0.40	0



Alt Model-Shift Uniqueness Test

007060330-01, $P = 27.766327$ Days, $E = 119.742078$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.30	3.64	3.50	5.75	5.21	2.90	1.13	3.81	1.55	0.14	-2.11	0.08	0.19	0.44	0.90



Stellar Parameters For KIC 007060330

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5021^{+102}_{-140}	$2.788^{+0.461}_{-0.248}$	$-0.280^{+0.200}_{-0.300}$	$9.433^{+3.413}_{-5.120}$	$1.991^{+0.920}_{-0.920}$	$0.003^{+0.015}_{-0.002}$
	+2%/-3%	+17%/-9%	+71%/-107%	+36%/-54%	+46%/-46%	+464%/-61%
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 007060330-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-39 ± 6	$12.12^{+11.87}_{-8.04}$	1991^{+206}_{-257}	3830^{+2110}_{-728}	$7.741^{+57.968}_{-5.830}$
Alt.	-26 ± 7	$11.61^{+12.87}_{-7.90}$	1982^{+211}_{-240}	3562^{+1965}_{-738}	$5.432^{+42.300}_{-4.197}$

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 $A_{\text{obs}} \gg 1.0$

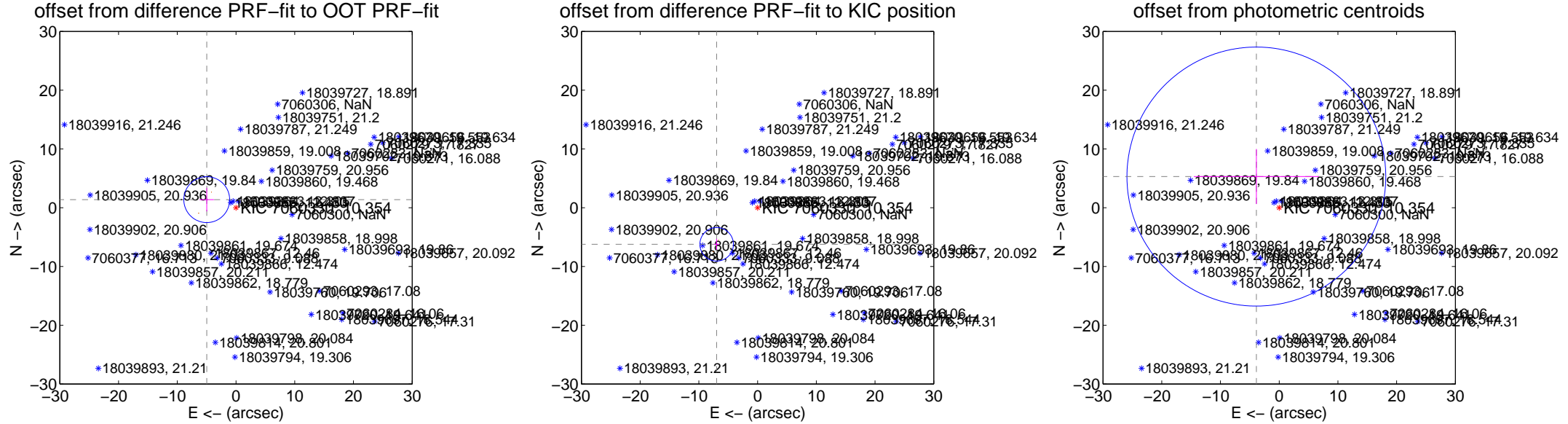
DV Centroid Data

Supplemental centroid analysis for 007060330-01. **Kepler magnitude: 10.35.** Transit SNR 9.25

There are 0 quarters with good PRF difference image offsets

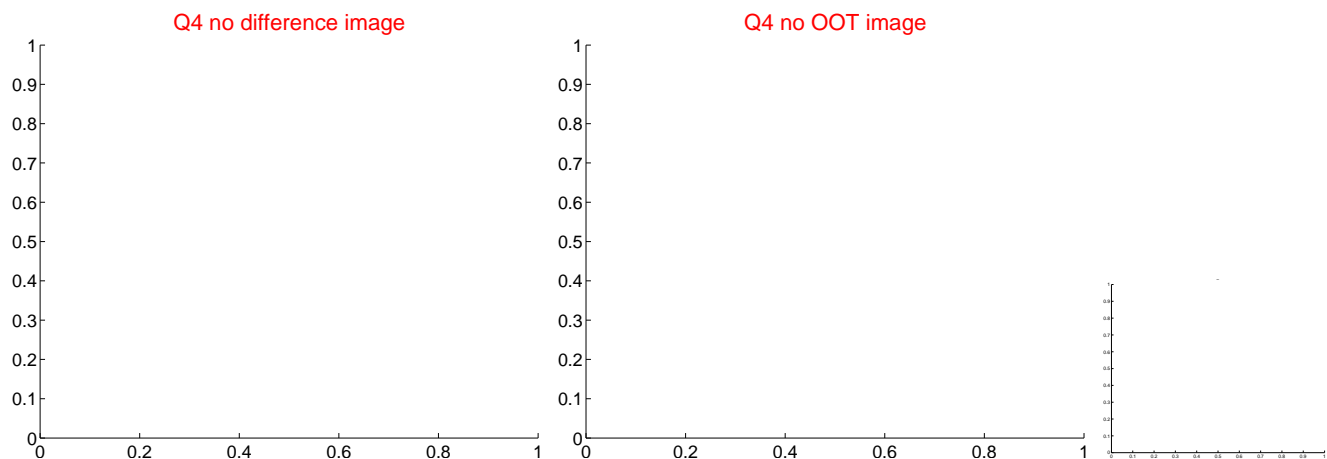
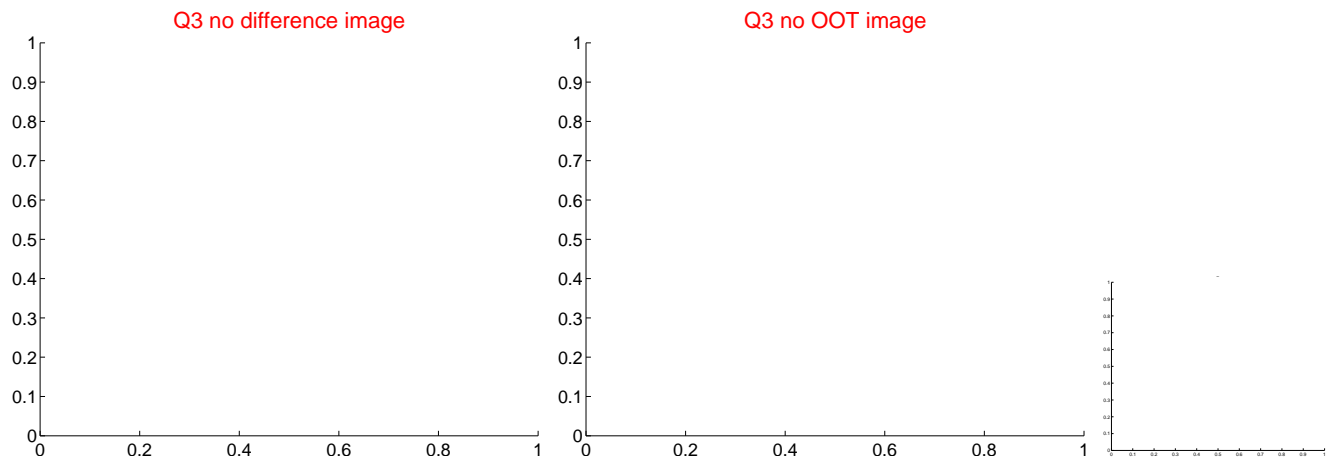
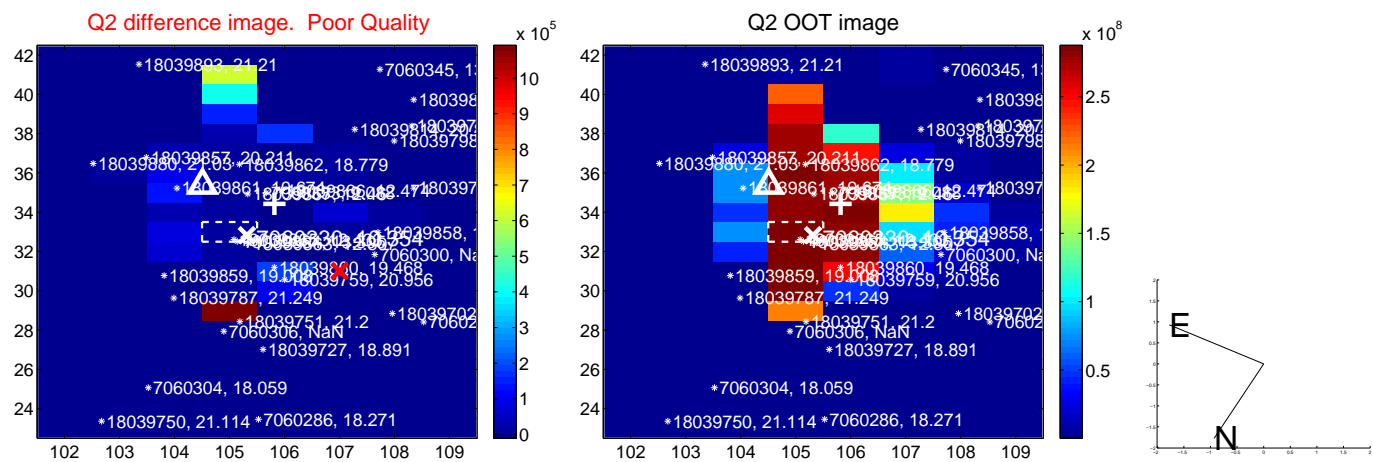
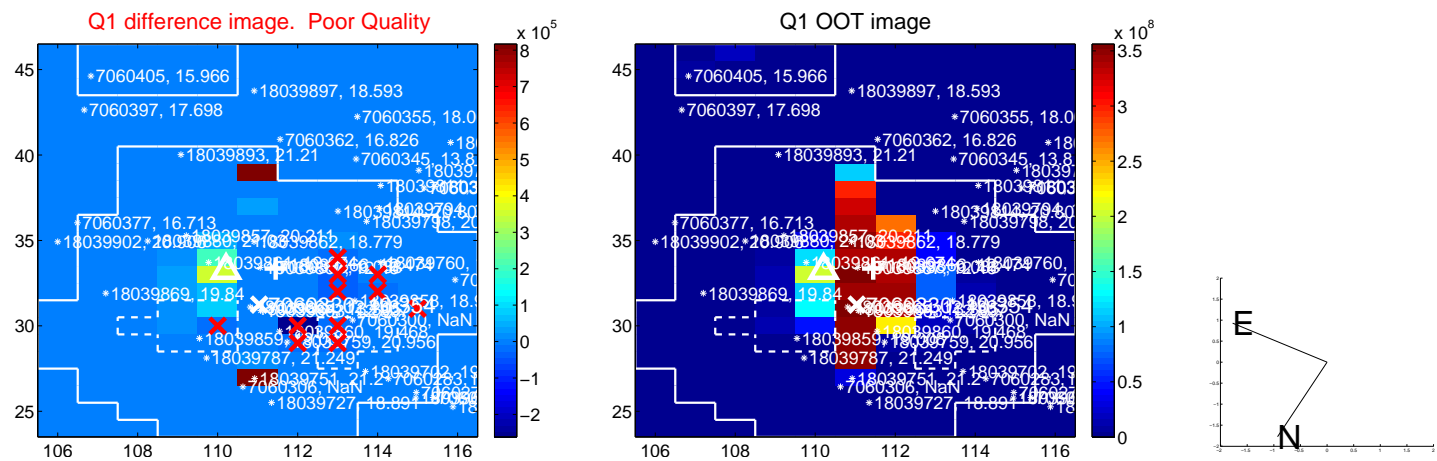
The OOT PRF centroid is offset from the target star catalog position by about 6.65 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.168 \pm 1.301	3.97	4.983 \pm 1.232	1.371 \pm 2.004
PRF-fit source offset from KIC position	9.346 \pm 0.952	9.82	6.972 \pm 0.449	-6.224 \pm 0.930
photometric centroid source offset	6.57 \pm 7.35	0.89	3.89 \pm 10.65	5.30 \pm 4.68



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.



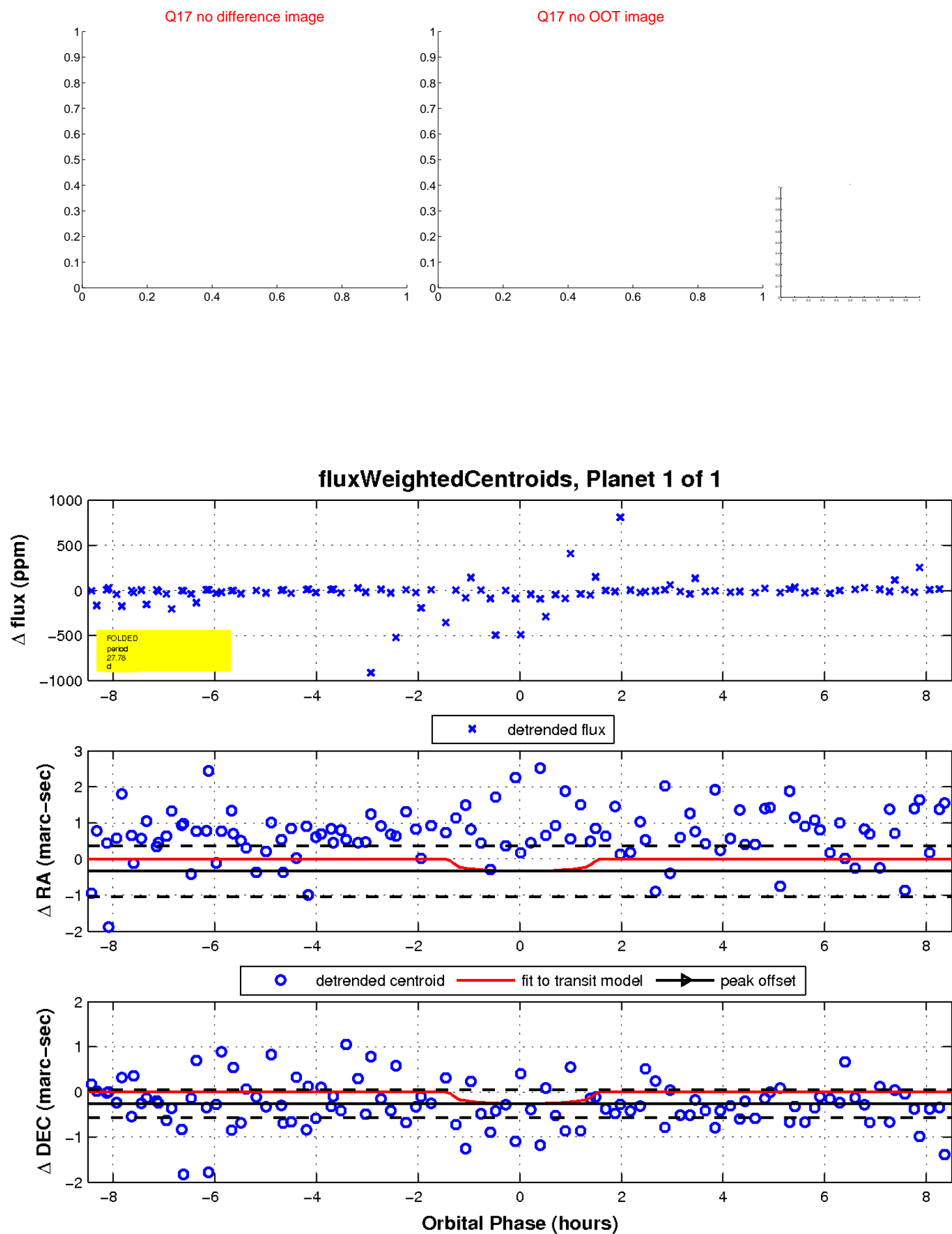
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

