

KIC 007053328

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})
007053328-01	OBS	8133.01	455.766459	338.796016	301.6	4.866	7.7	6.7	2.62	6785	4.74	7.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007053328-01	OBS	FP	0.00	1	0	0	0	MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

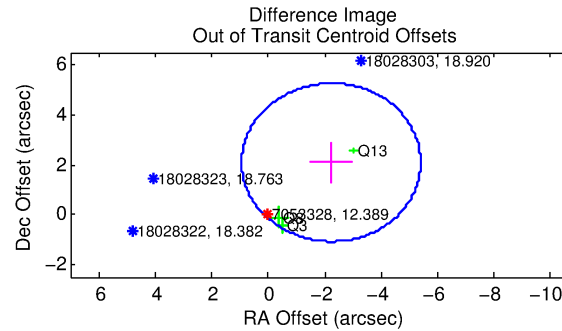
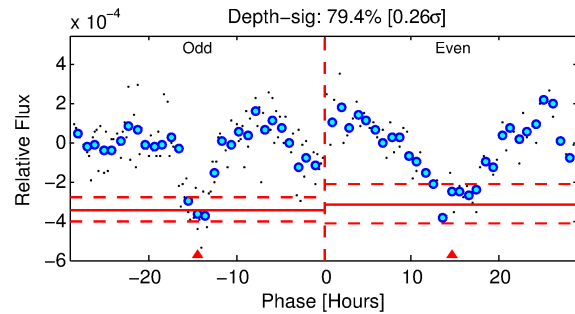
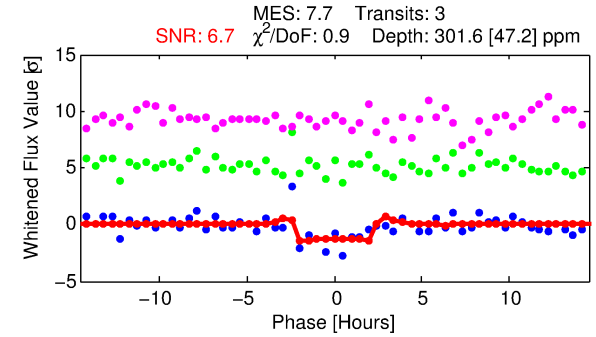
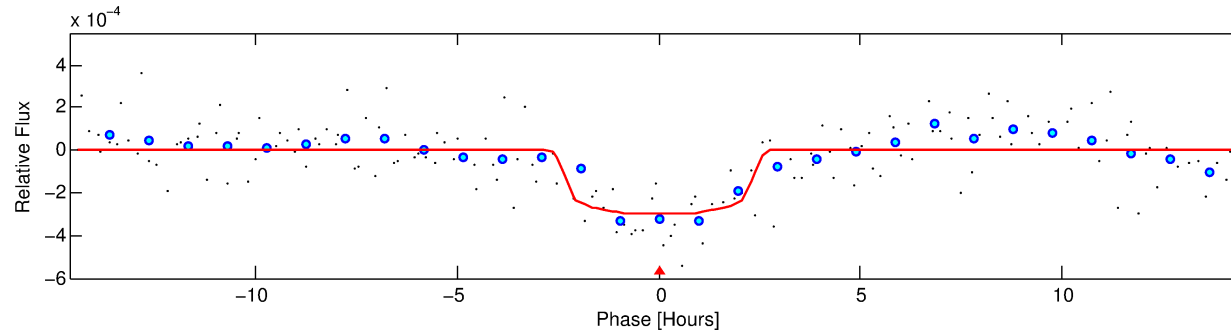
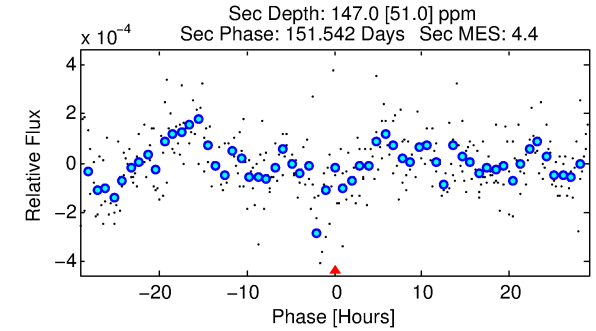
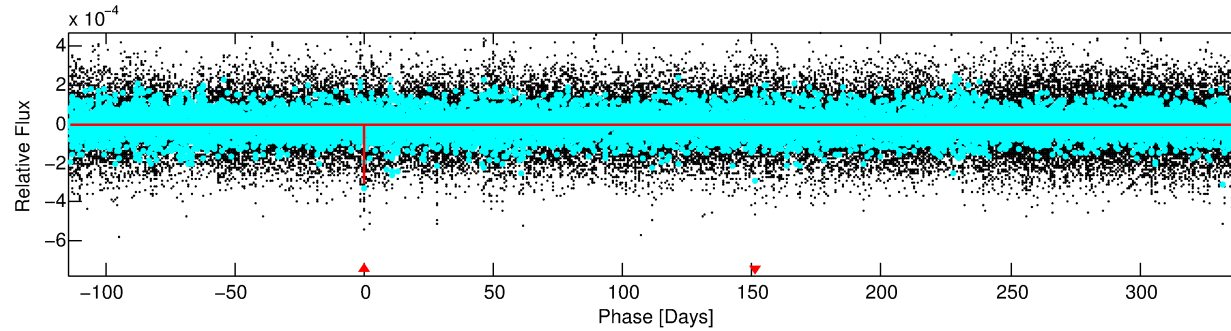
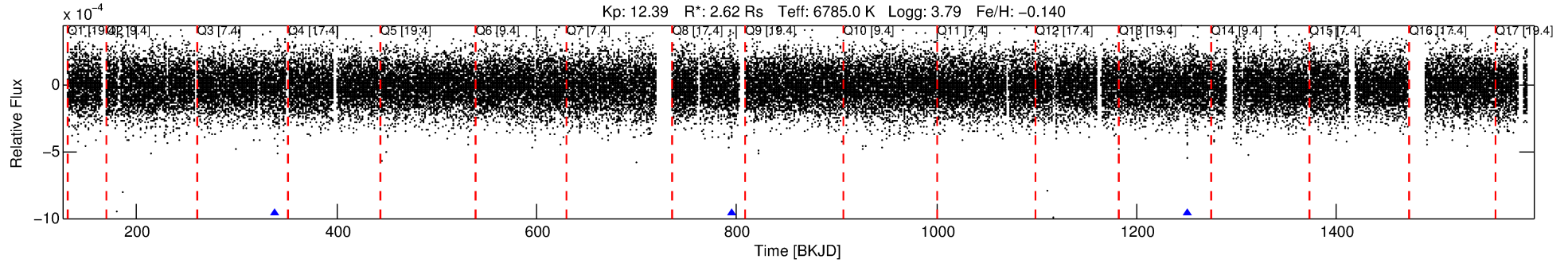
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007053328-01

No Significant Match Found

DV One-Page Summary

KIC: 7053328 Candidate: 1 of 1 Period: 455.766 d



DV Fit Results:

Period = 455.76646 [0.00525] d
Epoch = 338.7960 [0.0054] BKJD
Rp/R* = 0.0165 [0.0137]
a/R* = 619.28 [2849.28]
b = 0.53 [6.21]
Seff = 7.29 [3.72]
Teq = 419 [53] K
Rp = 4.73 [4.22] Re
a = 1.3388 [0.4176] AU
Ag = 6466.84 [11373.00] [0.57σ]
Teffp = 5809 [2461] K [2.19σ]

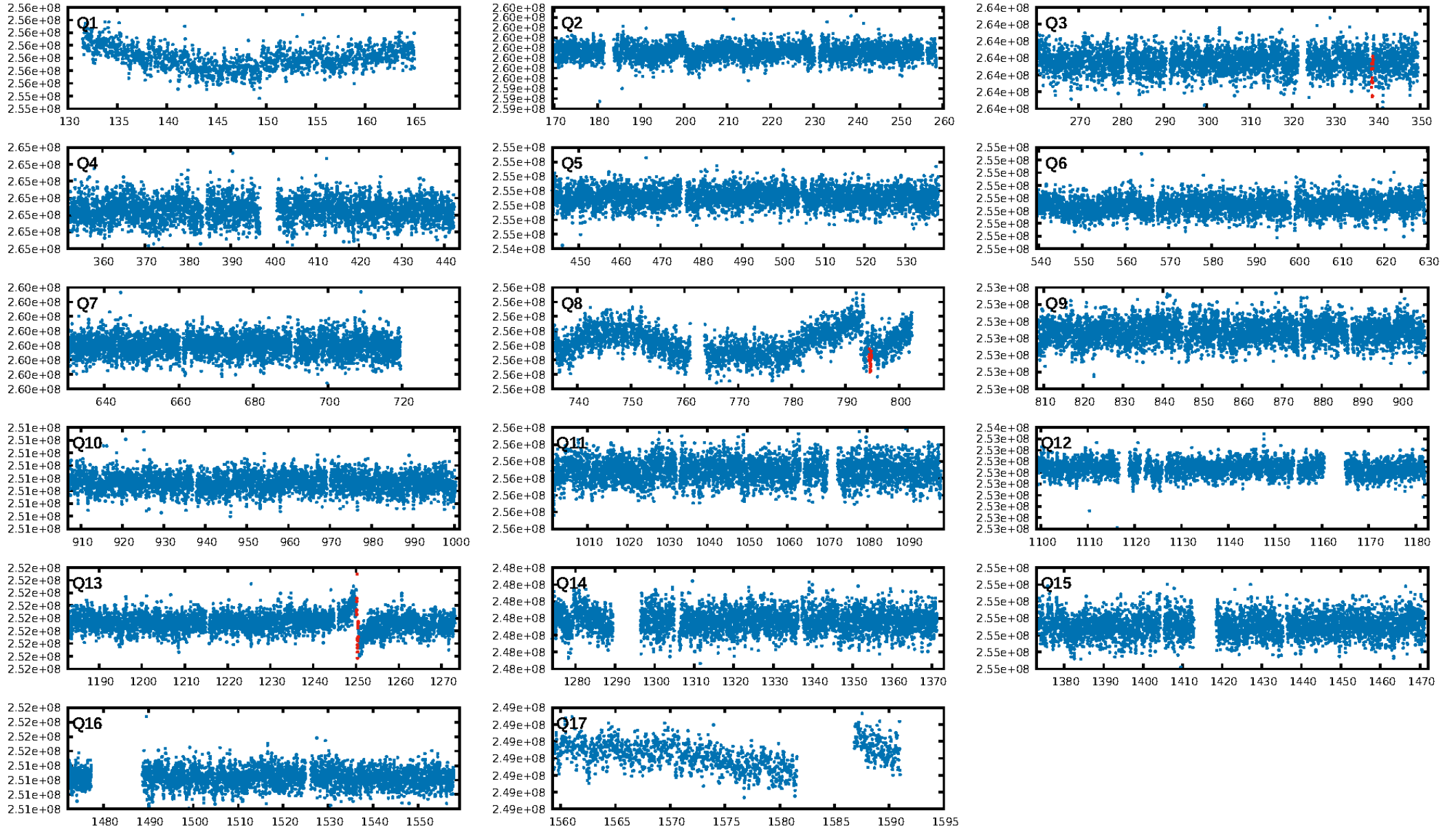
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 15.7%
ModelChiSquareGof-sig: 93.4%
Bootstrap-pfa: 1.26e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.336
Centroid-sig: 76.6%
Centroid-so: 0.345 arcsec [0.53σ]
OotOffset-rm: 3.055 arcsec [2.89σ]
KicOffset-rm: 2.984 arcsec [3.36σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

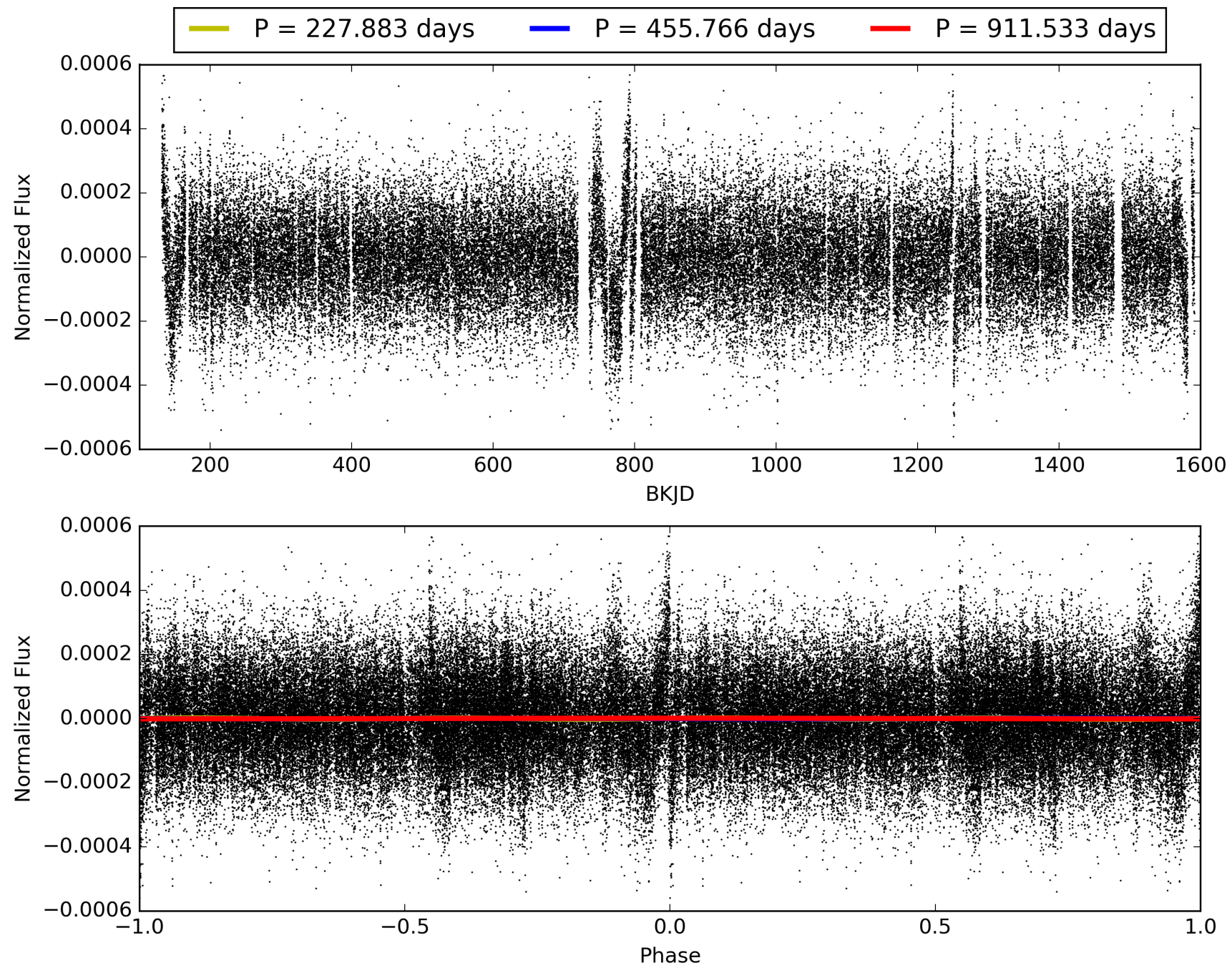
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:34:07 Z

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

TCE 007053328-01, PDC Light Curves

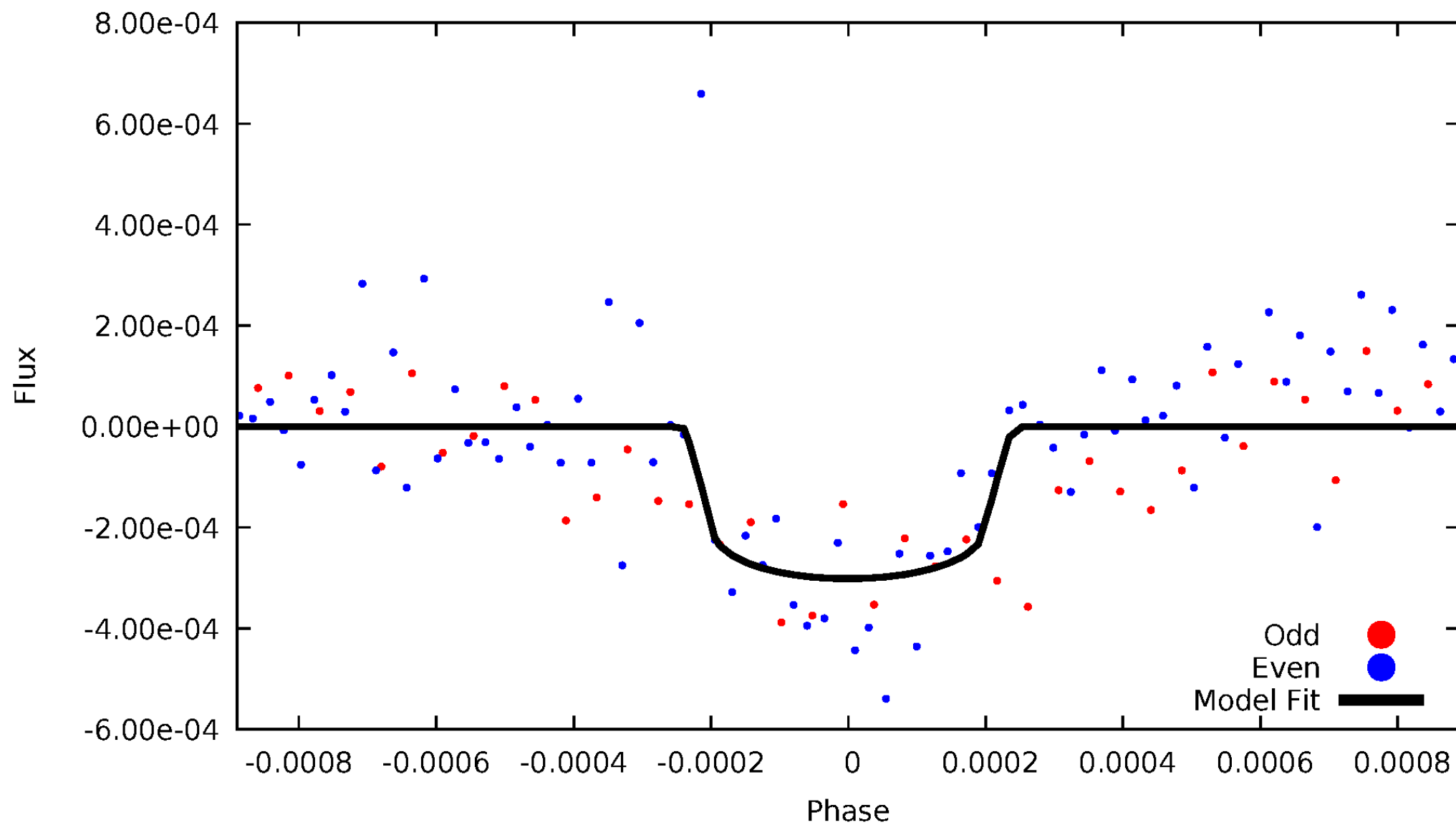


TCE 007053328-01



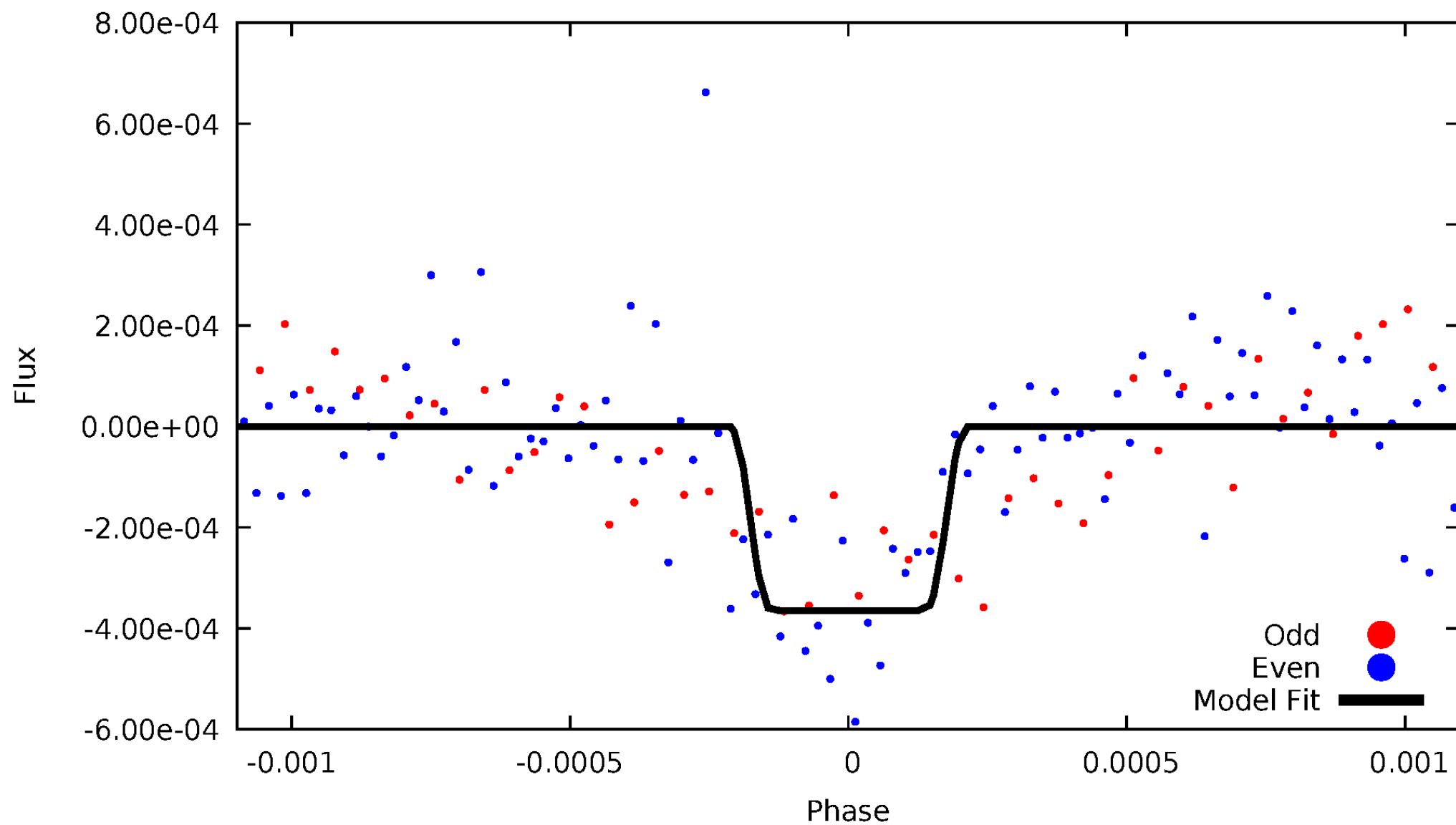
DV Odd/Even

TCE 007053328-01

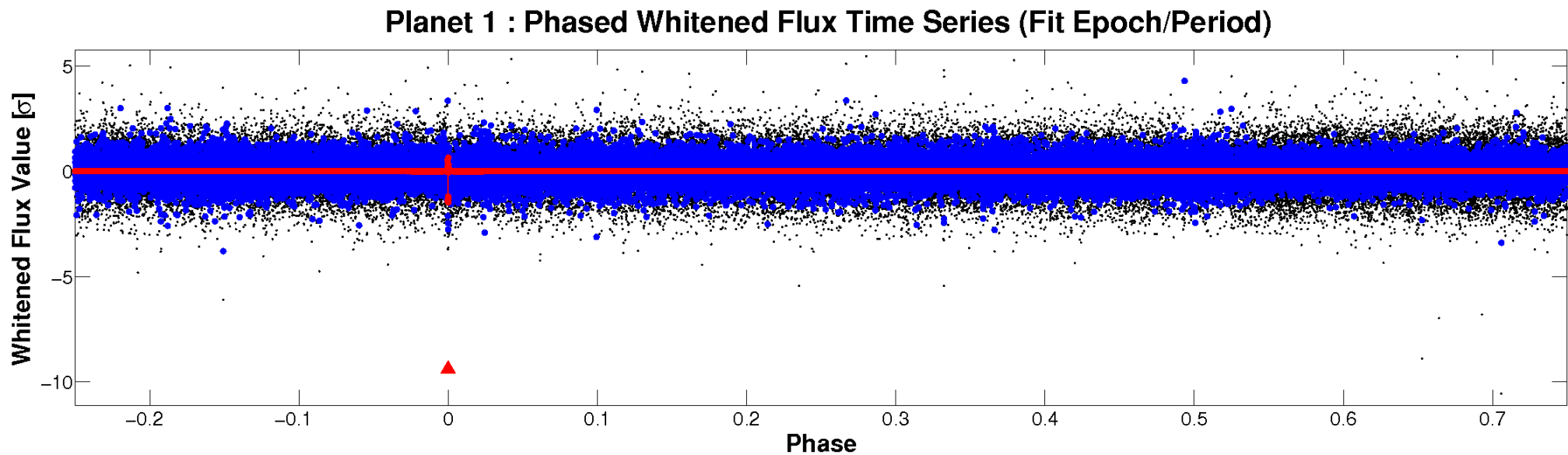
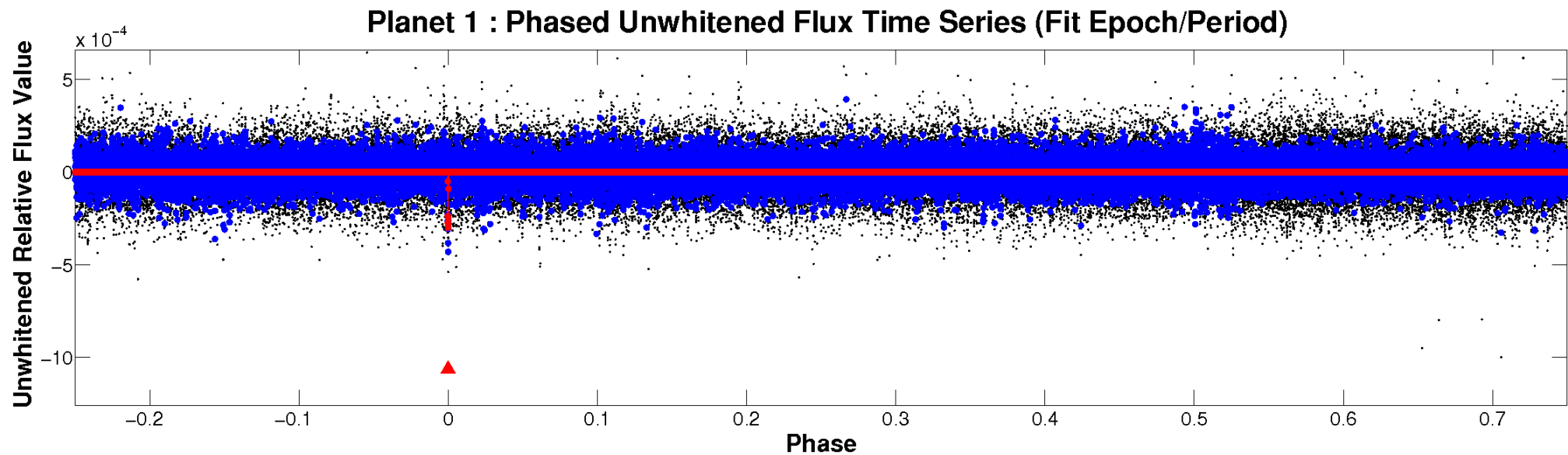


ALT Odd/Even

TCE 007053328-01

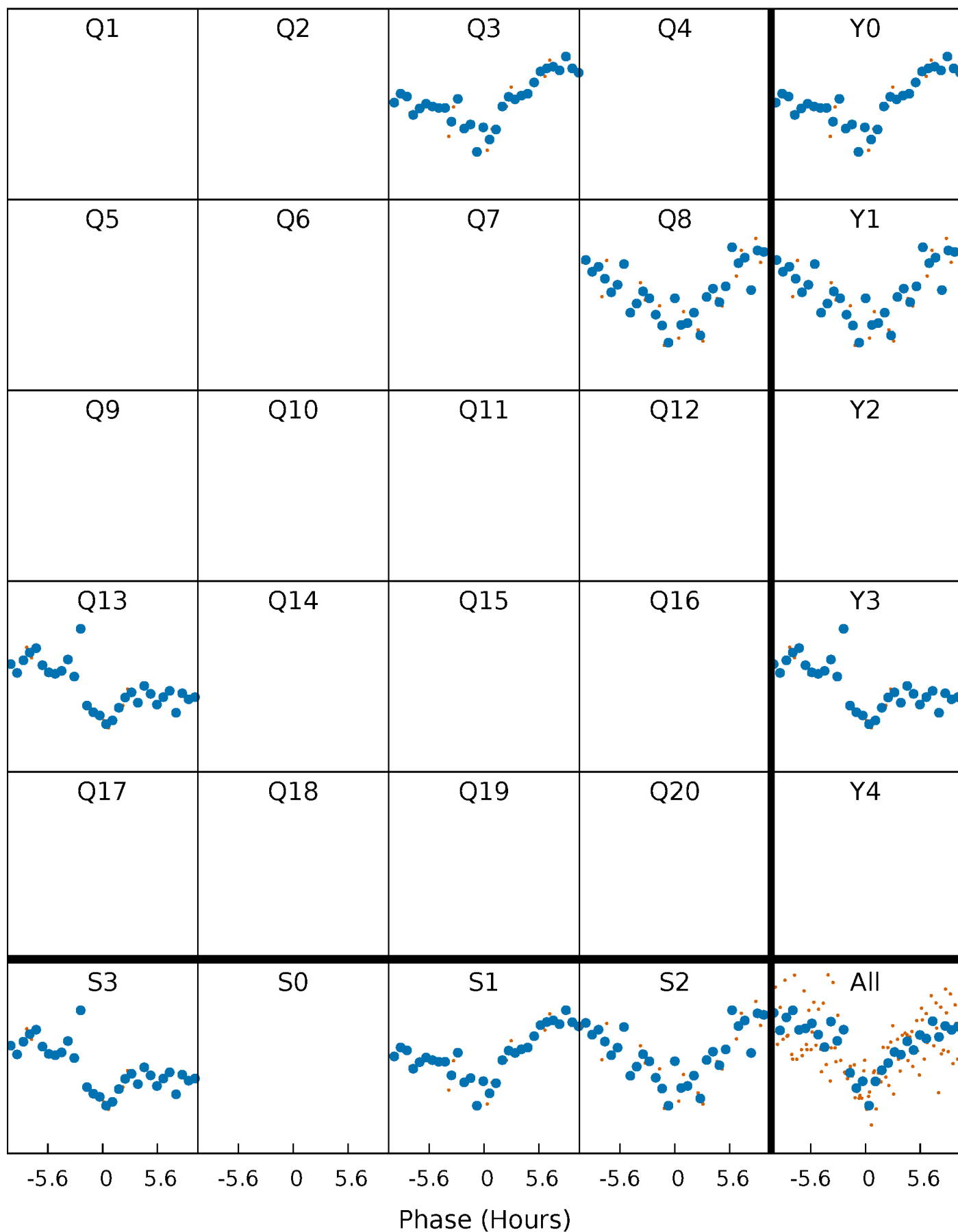


Non-Whitened Vs. Whitened Light Curve



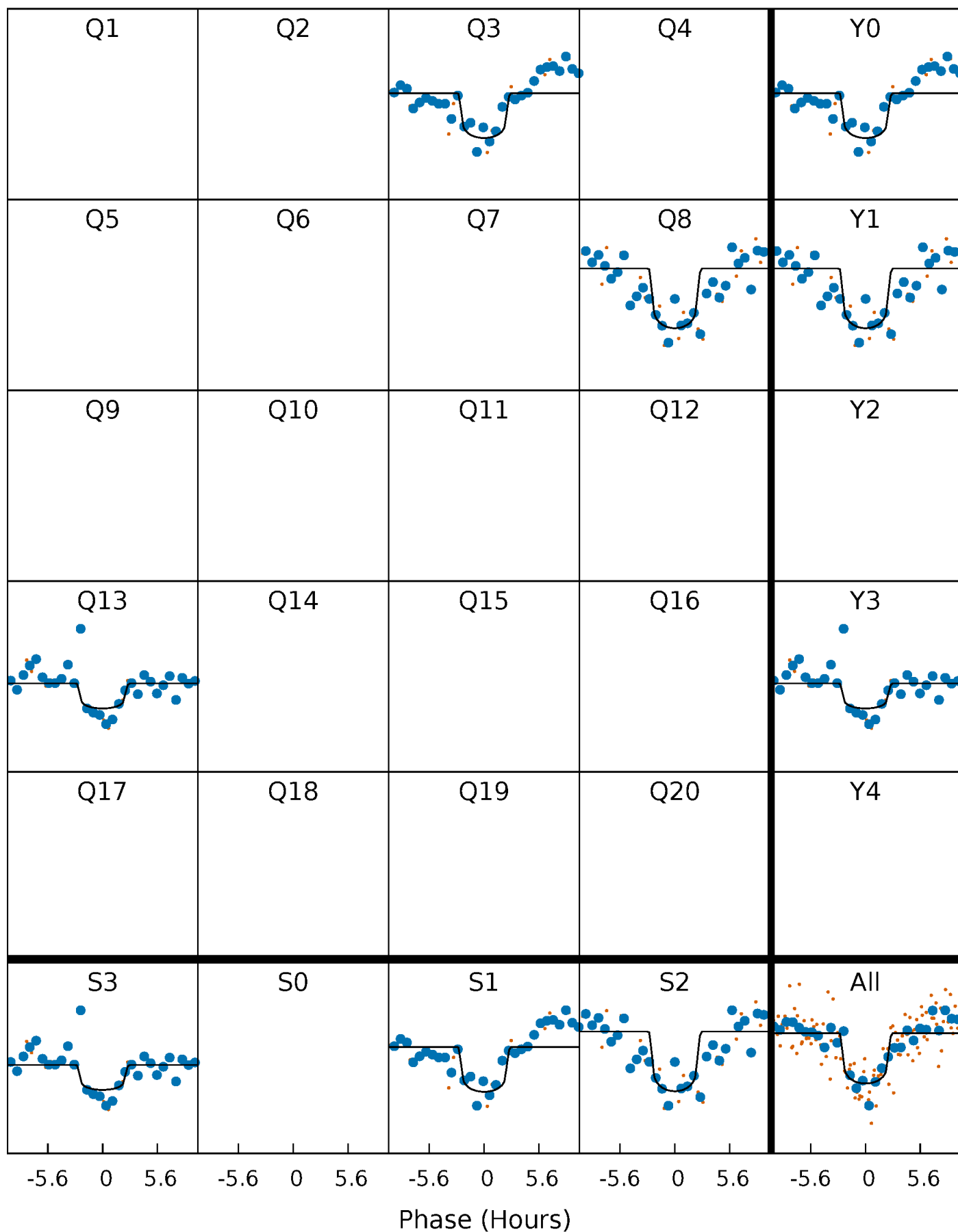
PDC Quarter-Phased Transit Curves

TCE 007053328-01 P=455.766459 Days $T_0=338.796016$ (BKJD)



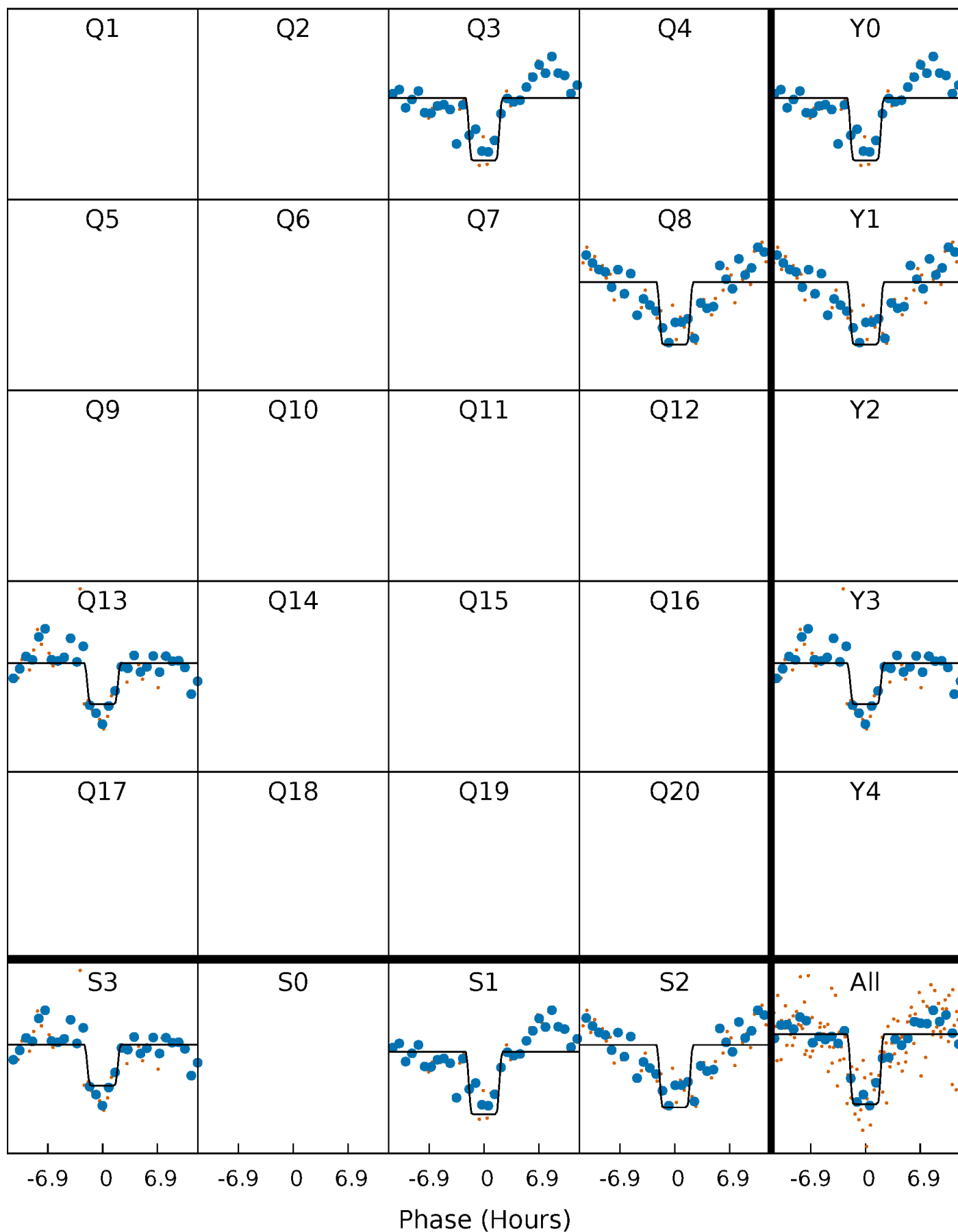
DV Quarter-Phased Transit Curves

TCE 007053328-01 P=455.766459 Days $T_0=338.796016$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

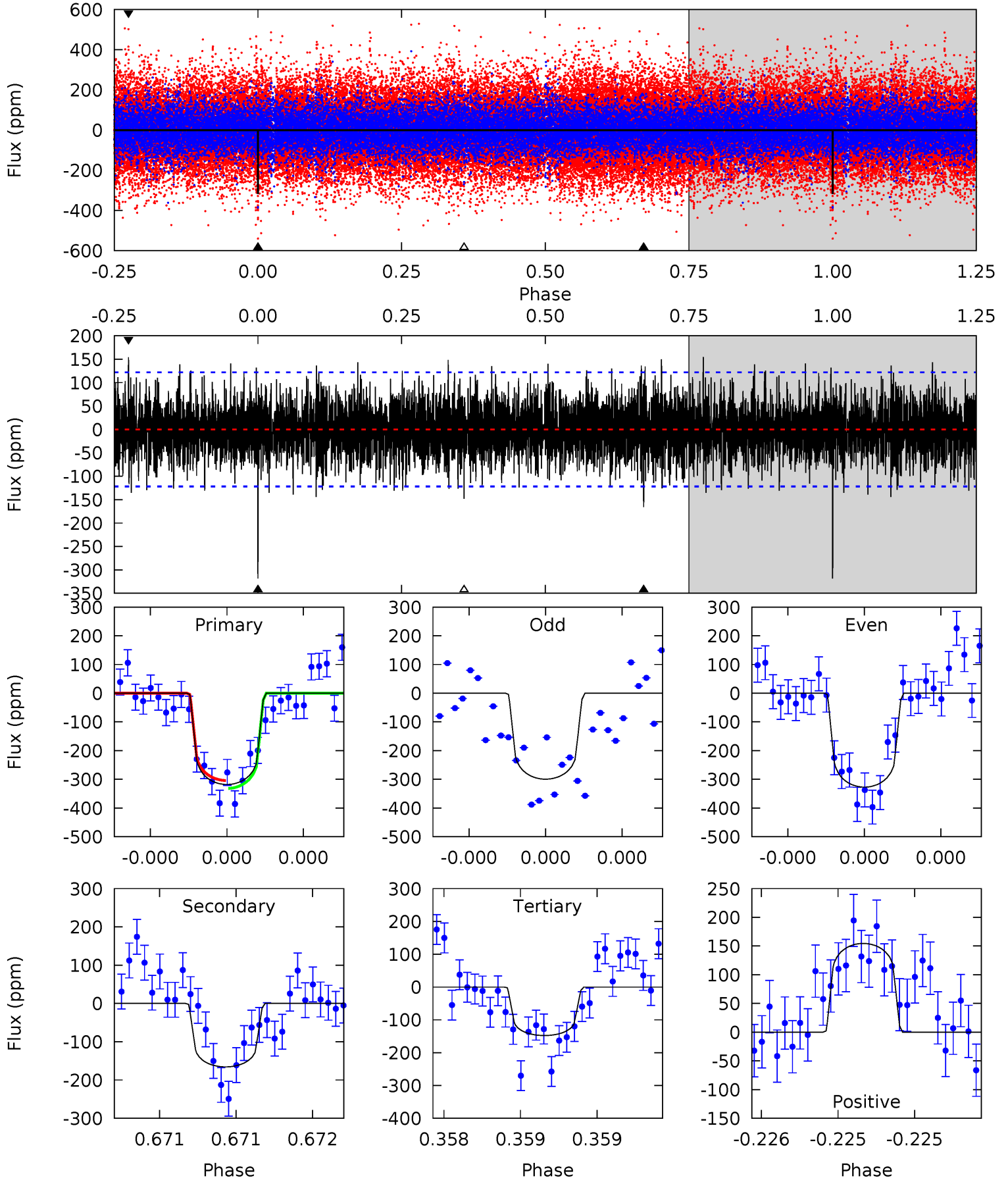
TCE 007053328-01 P=455.777367 Days $T_0=338.793462$ (BKJD)



DV Model-Shift Uniqueness Test

007053328-01, P = 455.766459 Days, E = 338.796016 Days

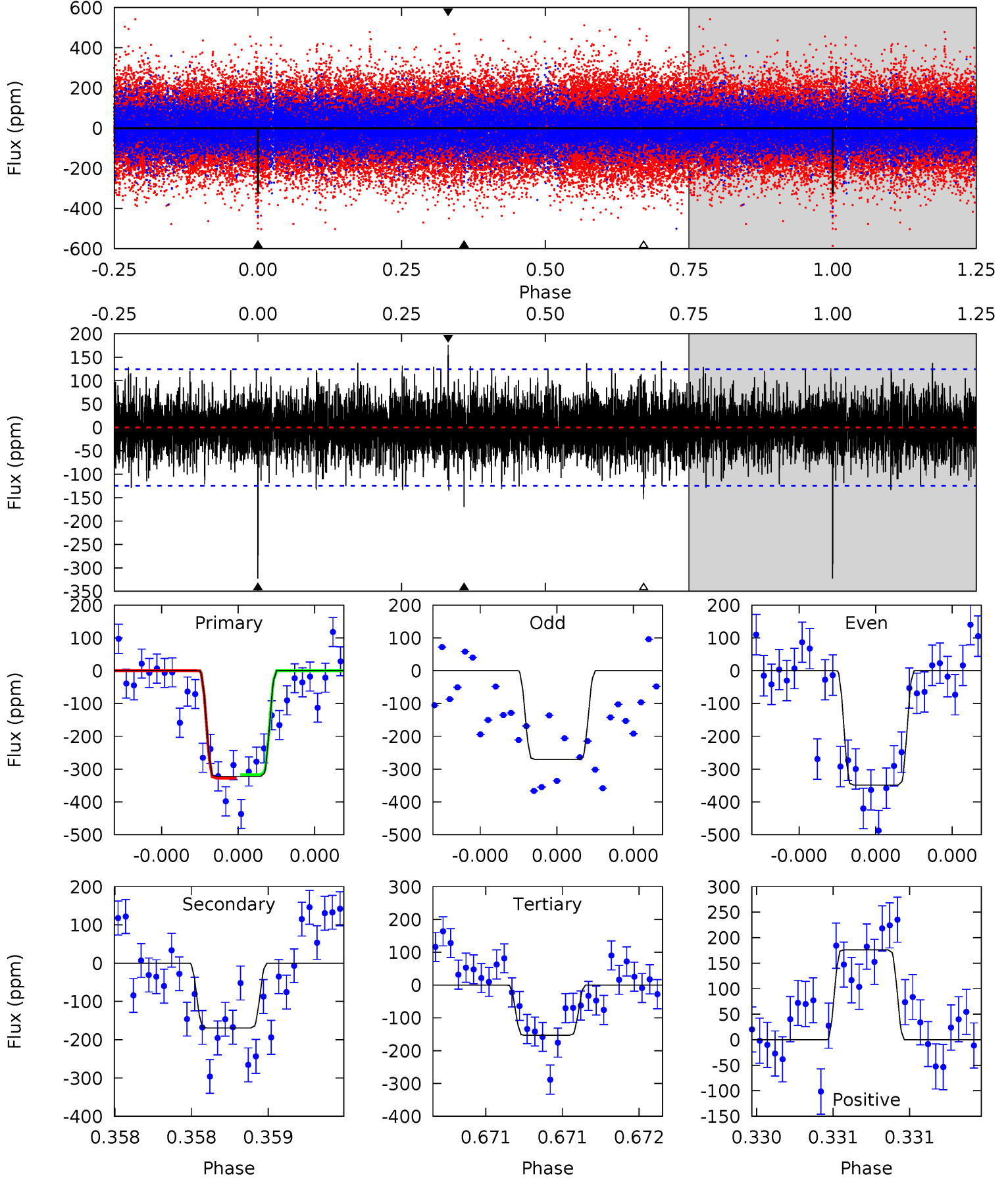
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	7.57	6.75	7.06	5.58	3.48	1.98	7.78	7.47	0.82	0.51	0.60	1.02	0.33	0.63



Alt Model-Shift Uniqueness Test

007053328-01, P = 455.777367 Days, E = 338.793462 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	7.60	6.88	7.91	5.60	3.52	1.79	7.60	6.57	0.72	-0.31	1.68	1.19	0.35	0.23



Stellar Parameters For KIC 007053328

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6785^{+190}_{-238}	$3.788^{+0.285}_{-0.095}$	$-0.140^{+0.300}_{-0.250}$	$2.623^{+0.471}_{-0.875}$	$1.542^{+0.232}_{-0.283}$	$0.120^{+0.216}_{-0.043}$
	+3%/-4%	+8%/-3%	+214%/-179%	+18%/-33%	+15%/-18%	+180%/-36%
Source	PHO1	FLK73	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 007053328-01 / KOI 8133.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-166 ± 22	$4.99^{+3.52}_{-3.12}$	572^{+40}_{-50}	5666^{+4484}_{-1102}	6826^{+40961}_{-4520}
Alt.	-169 ± 22	$5.21^{+3.84}_{-3.05}$	572^{+36}_{-48}	5533^{+3829}_{-1122}	6260^{+30434}_{-4194}

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

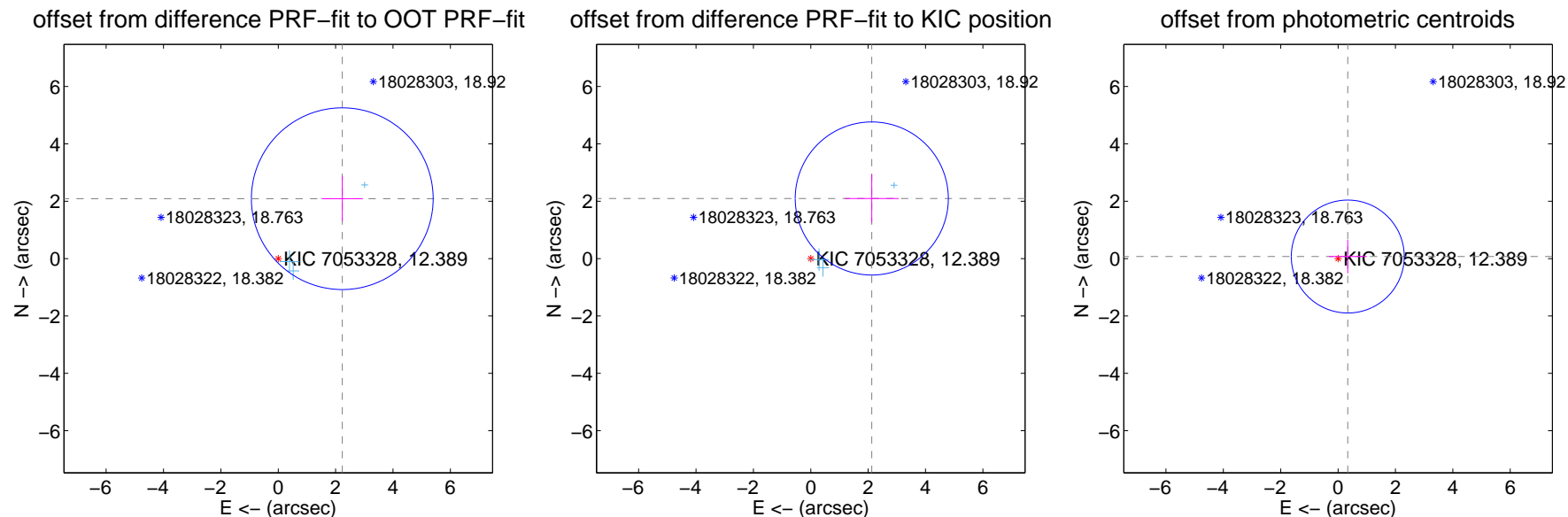
DV Centroid Data

Supplemental centroid analysis for 007053328-01. Kepler magnitude: 12.39. Transit SNR 6.75

There are 3 quarters with good PRF difference image offsets

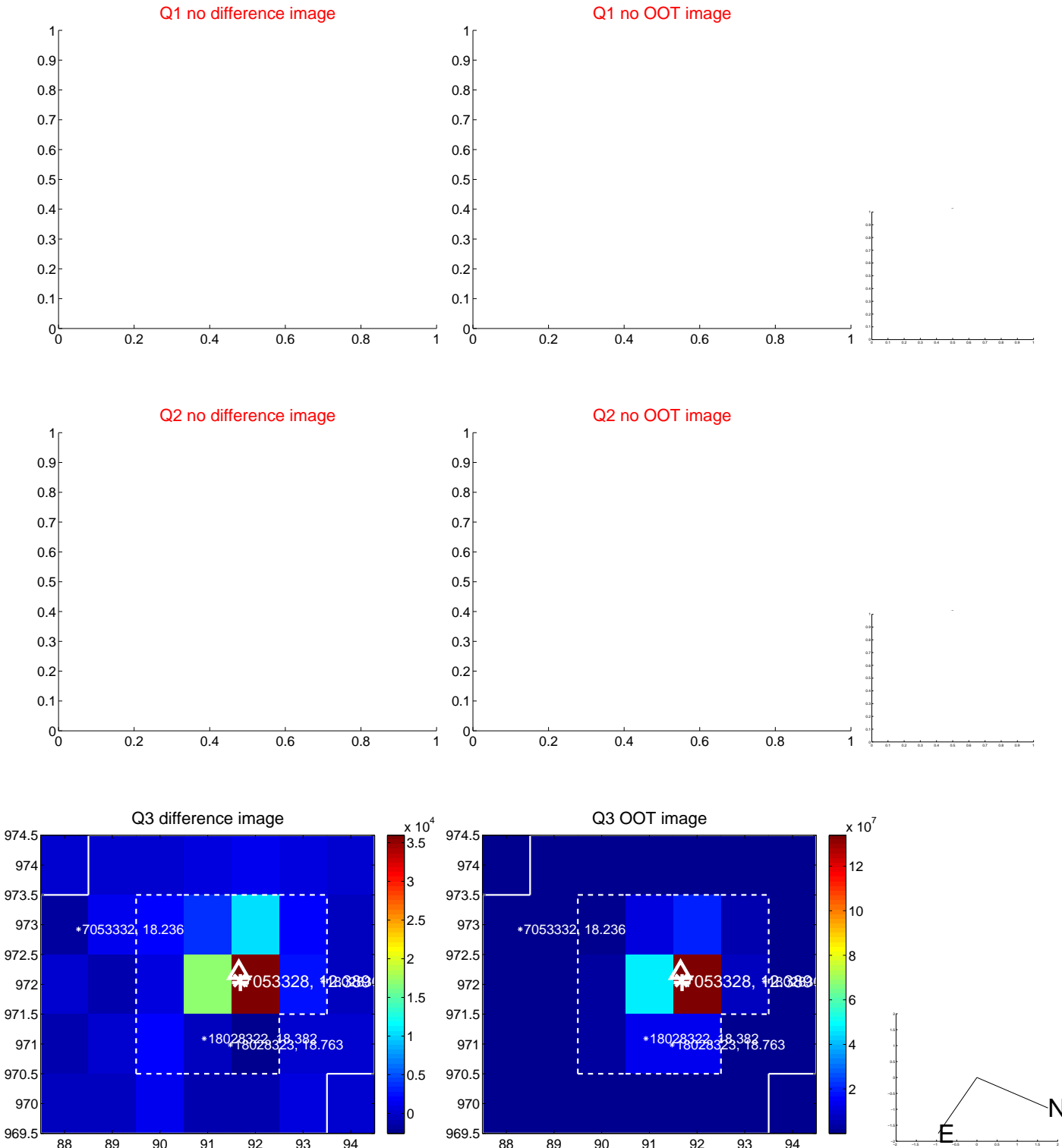
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.055 ± 1.056	2.89	-2.231 ± 0.716	2.088 ± 0.785
PRF-fit source offset from KIC position	2.984 ± 0.889	3.36	-2.126 ± 0.937	2.095 ± 0.837
photometric centroid source offset	0.35 ± 0.66	0.53	-0.34 ± 0.66	0.07 ± 0.59

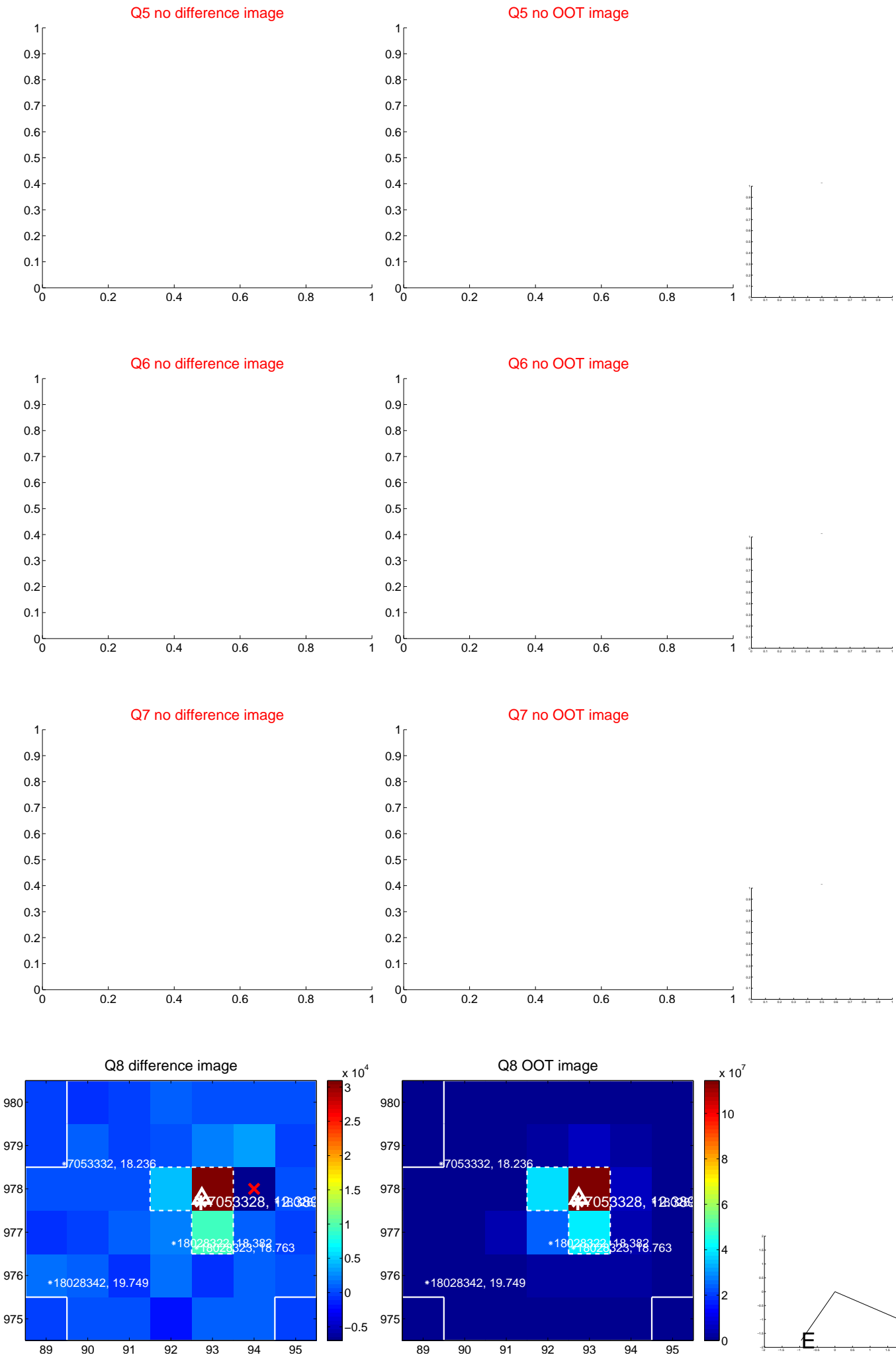


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



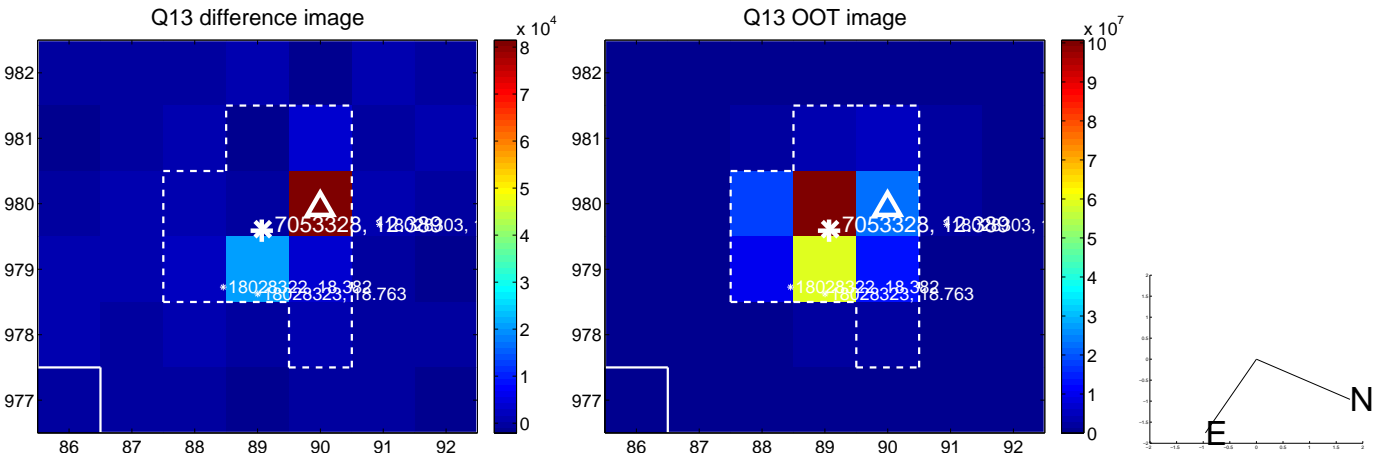
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



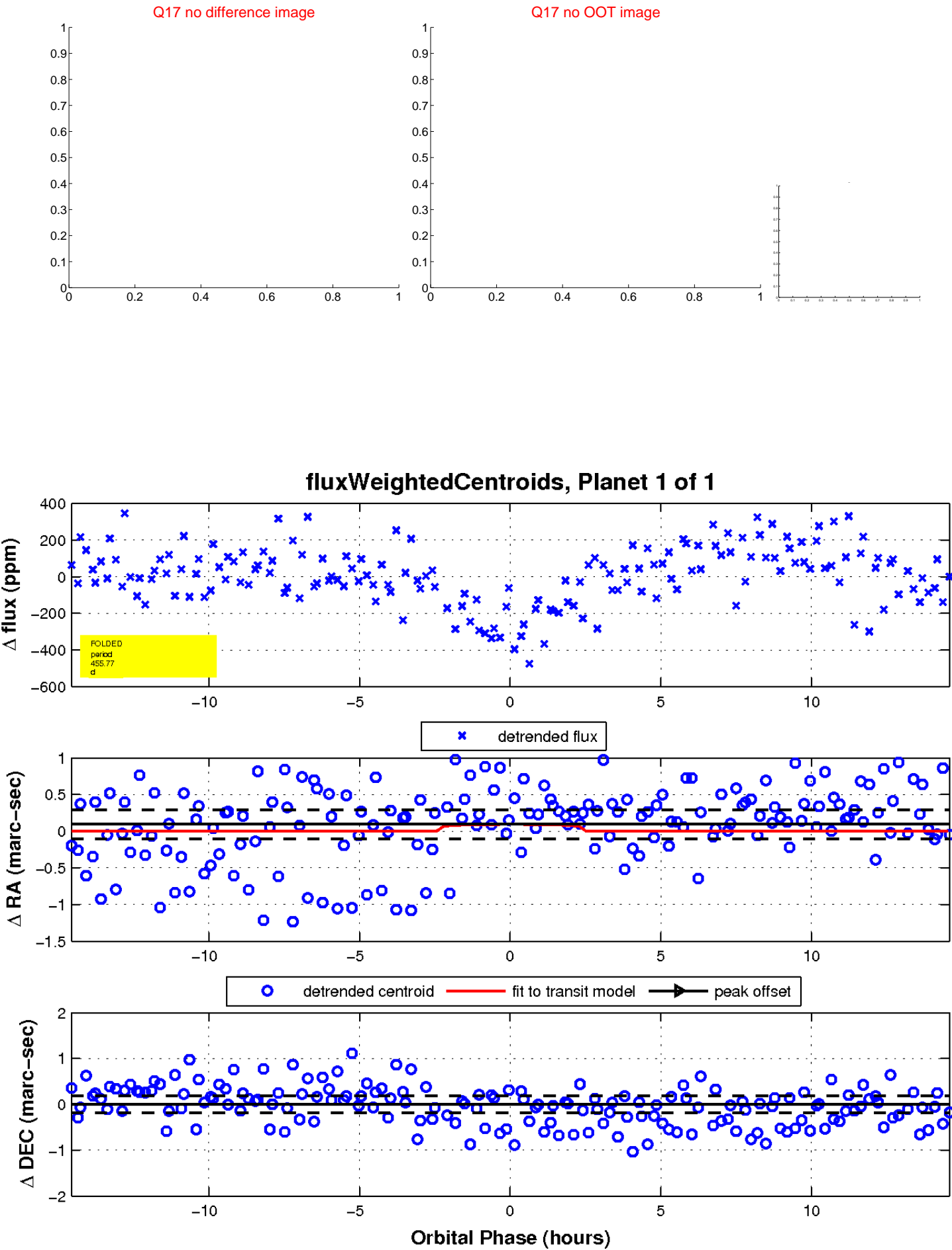
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

