

KIC 007135045

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})
007135045-01	OBS	No	0.560744	132.005344	35.3	4.561	7.5	10.4	1.56	6683	1.00	22403.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007135045-01	OBS	FP	0.00	1	0	0	0	LPP_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.

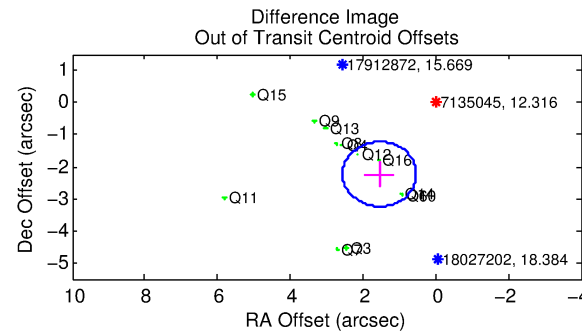
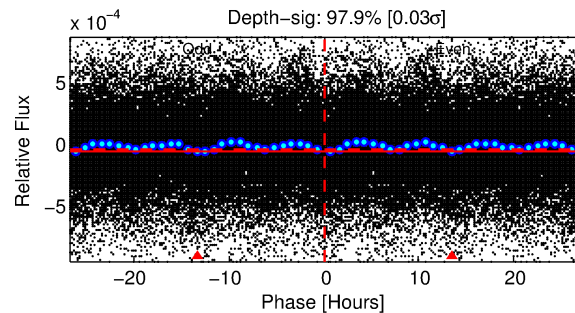
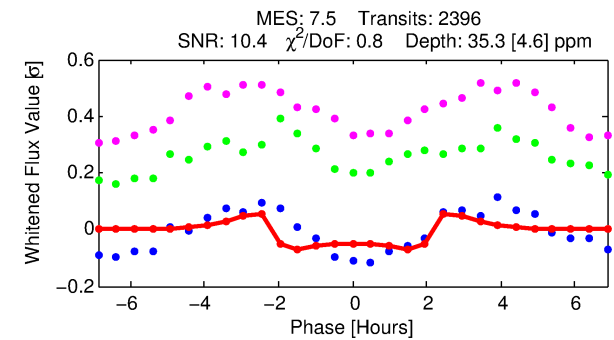
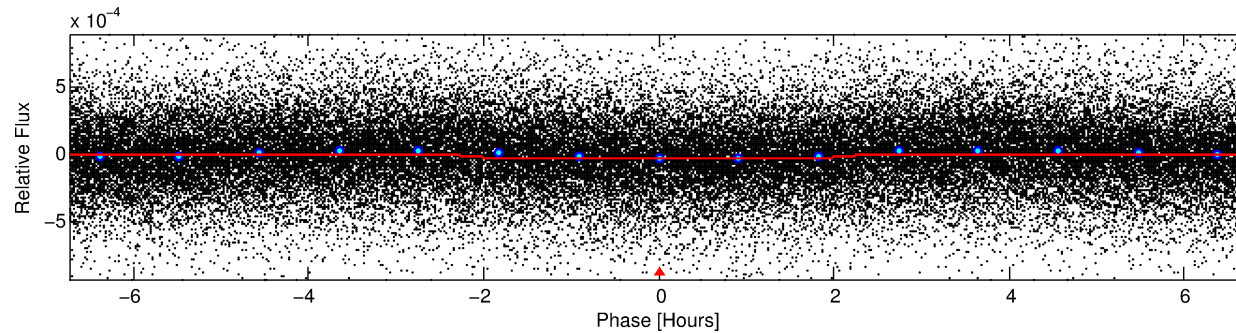
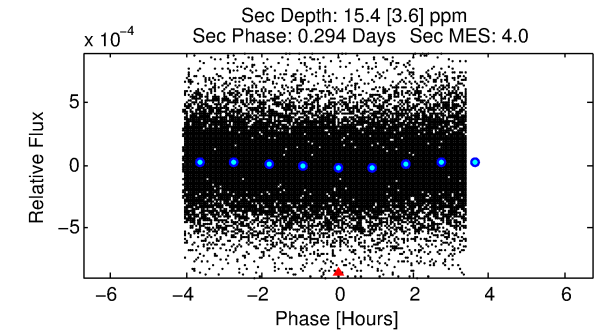
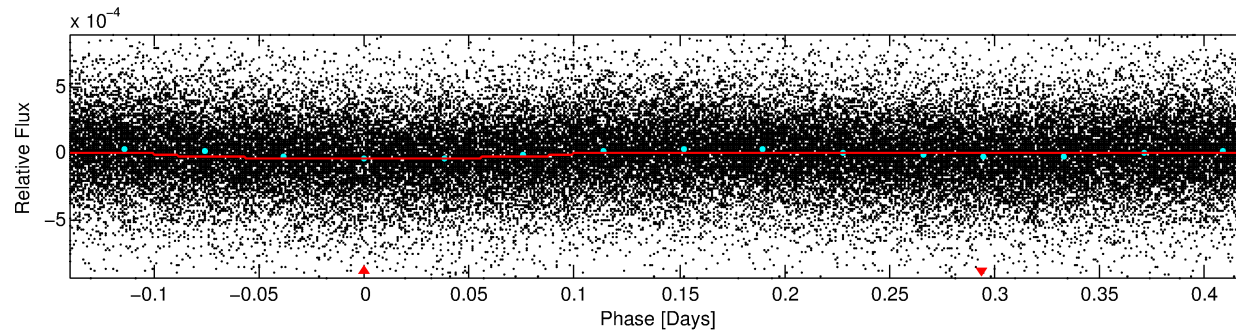
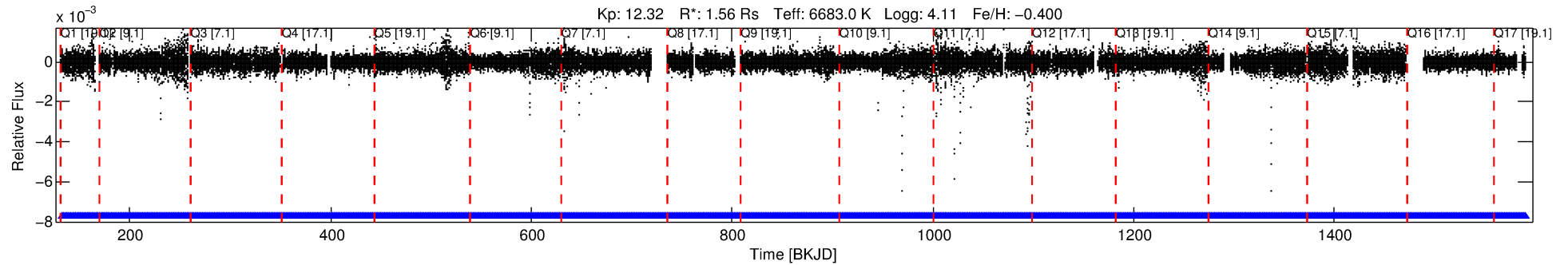
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007135045-01

No Significant Match Found

DV One-Page Summary

KIC: 7135045 Candidate: 1 of 1 Period: 0.561 d



DV Fit Results:

Period = 0.56074 [0.00001] d
Epoch = 132.0053 [0.0020] BKJD
Rp/R* = 0.0059 [0.0024]
a/R* = 1.08 [0.36]
b = 0.73 [1.58]
Seff = 22403.94 [9791.75]
Teq = 3120 [341] K
Rp = 1.00 [0.50] Re
a = 0.0139 [0.0037] AU
Ag = 1.65 [1.58] [0.41σ]
Teff = 5466 [1192] K [1.89σ]

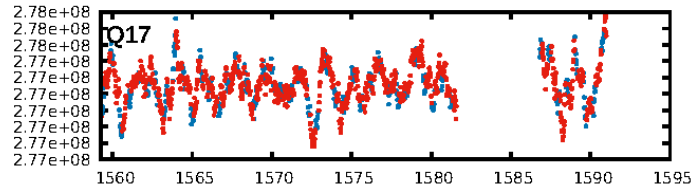
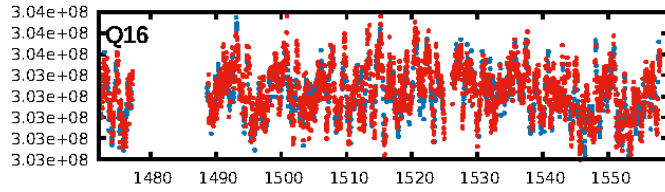
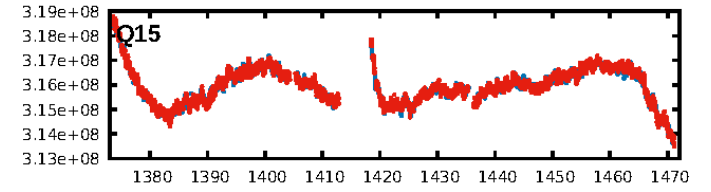
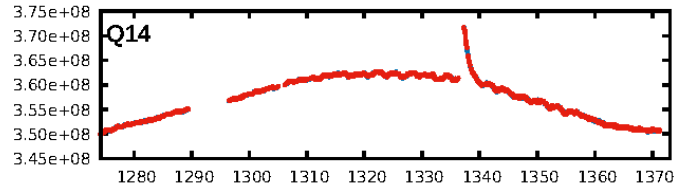
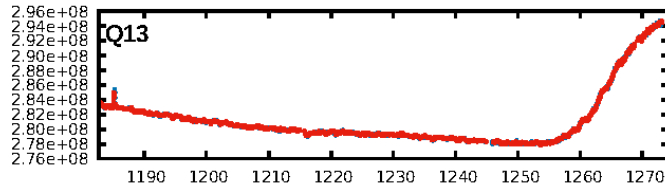
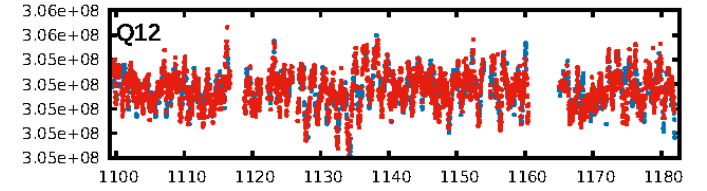
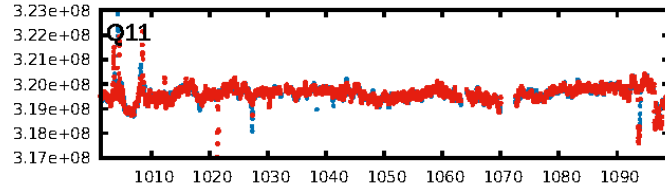
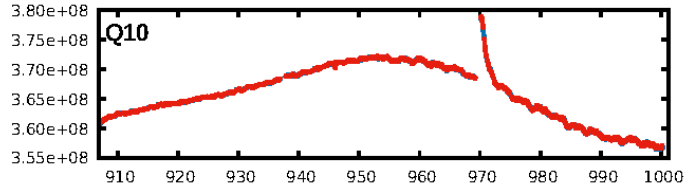
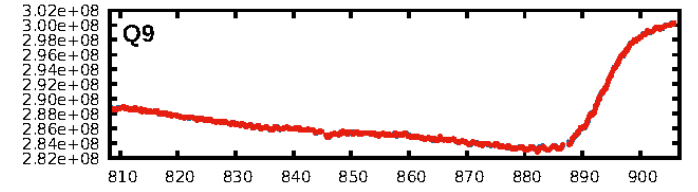
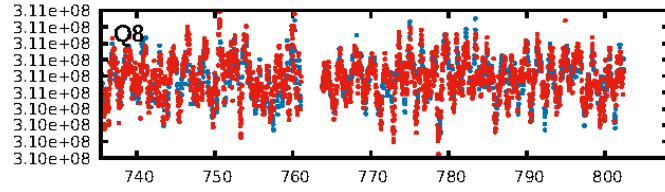
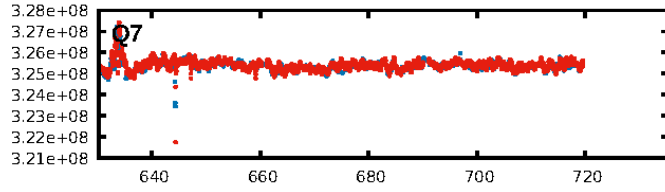
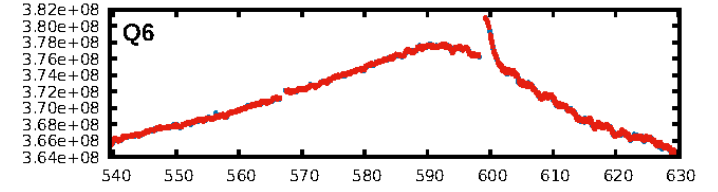
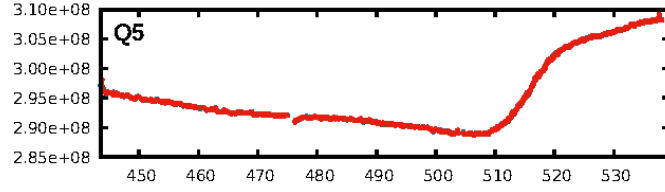
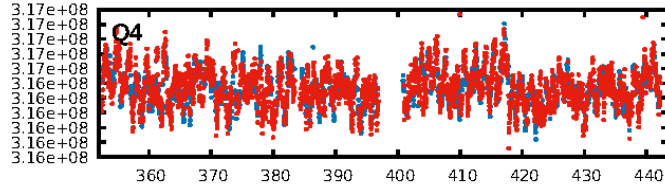
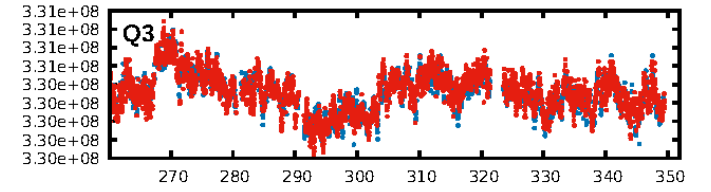
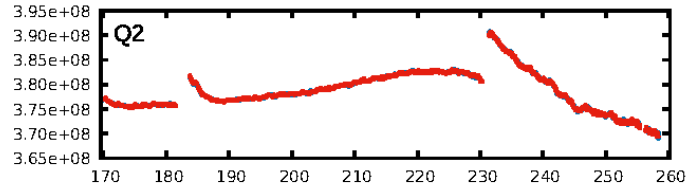
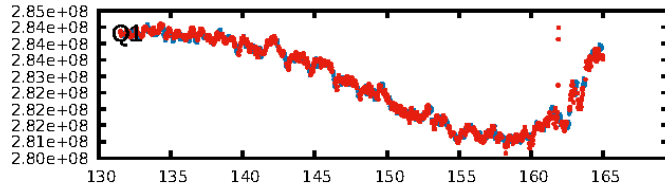
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2288/2288]
GhostDiagnostic-chr: 8.702
Centroid-sig: 0.0%
Centroid-so: 1.880 arcsec [6.42σ]
OotOffset-rm: 2.720 arcsec [8.07σ]
KicOffset-rm: 6.436 arcsec [12.35σ]
OotOffset-st: 3/4/4/2 [13]
KicOffset-st: 3/4/4/2 [13]
DiffImageQuality-fgm: 0.31 [4/13]
DiffImageOverlap-fno: 1.00 [17/17]

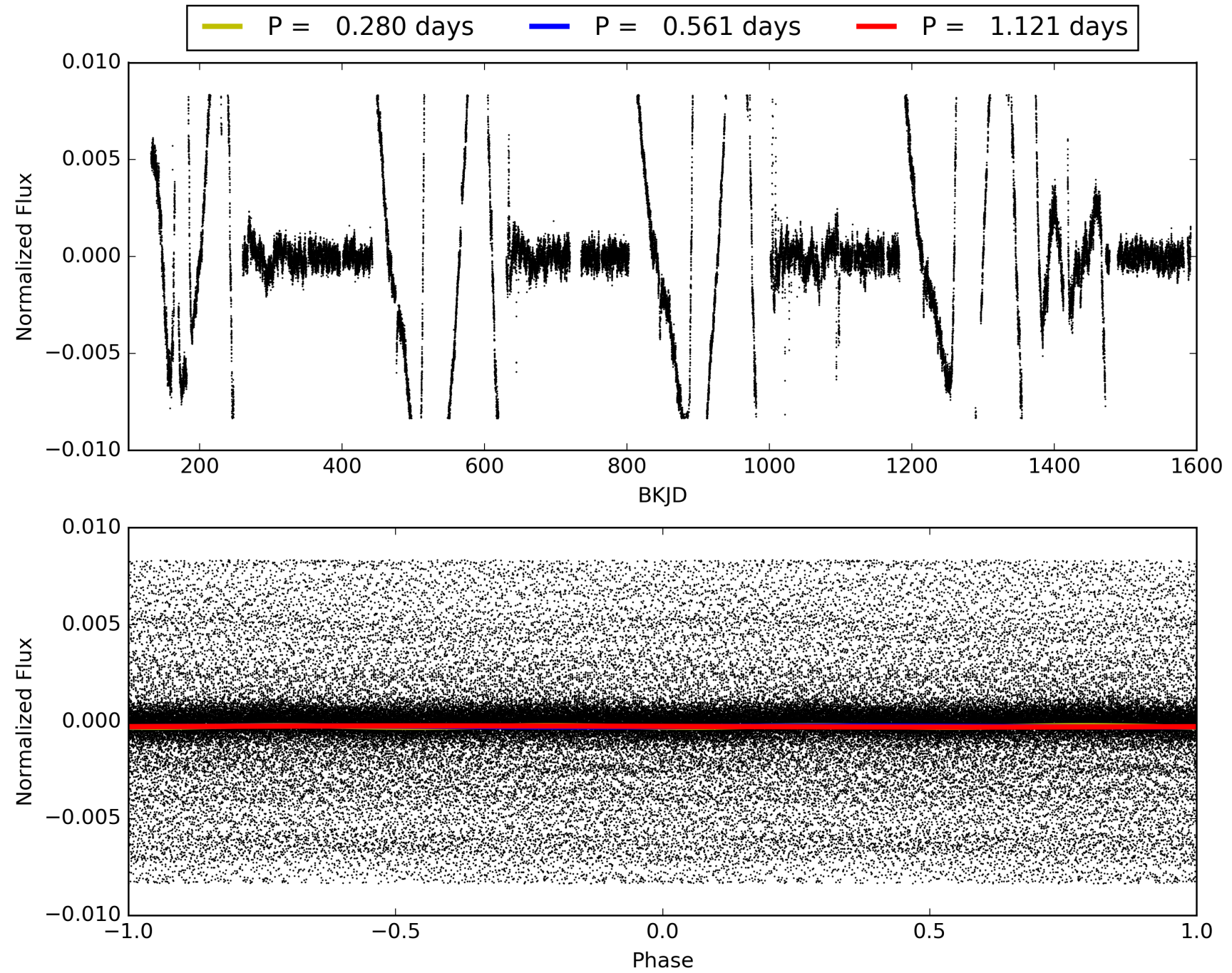
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:09:11 Z

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

TCE 007135045-01, PDC Light Curves

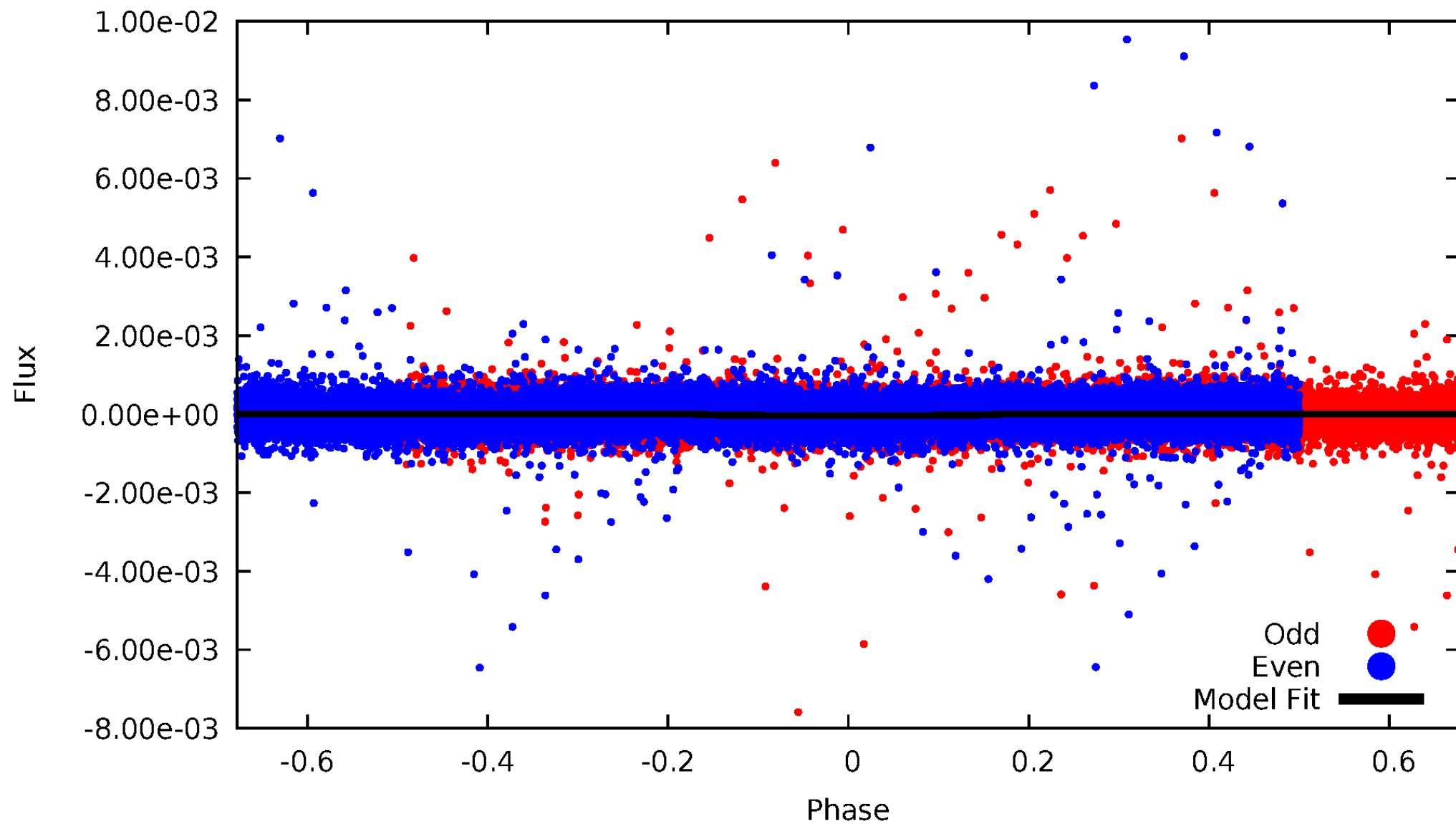


TCE 007135045-01



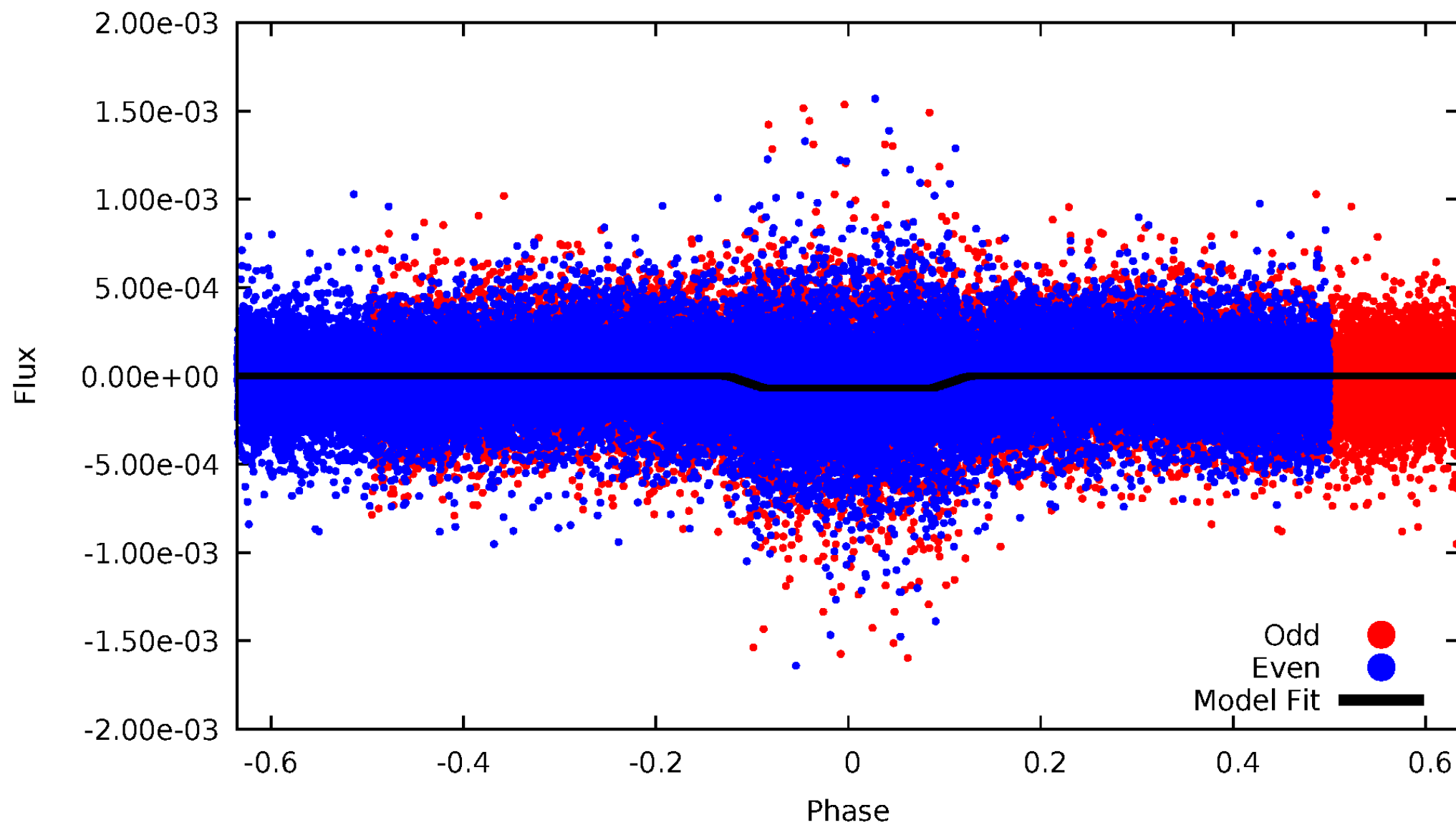
DV Odd/Even

TCE 007135045-01



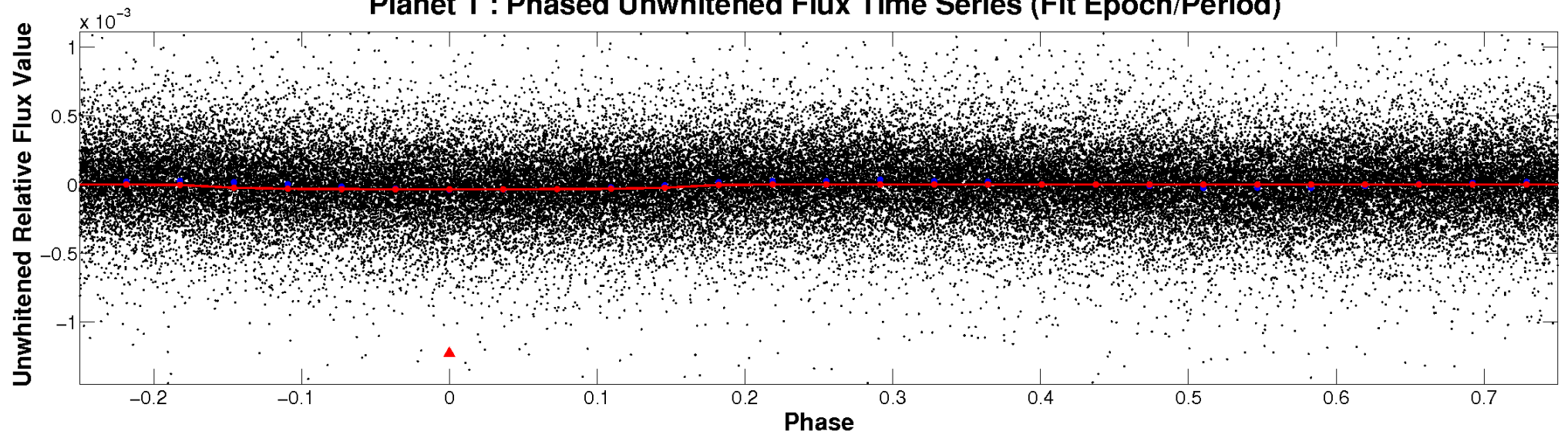
ALT Odd/Even

TCE 007135045-01

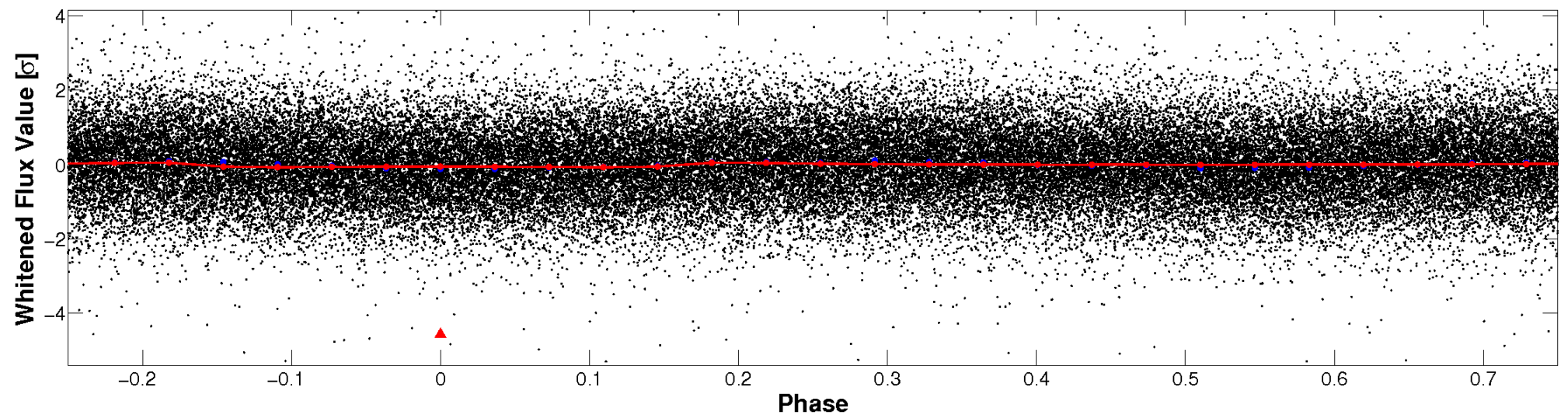


Non-Whitened Vs. Whitened Light Curve

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

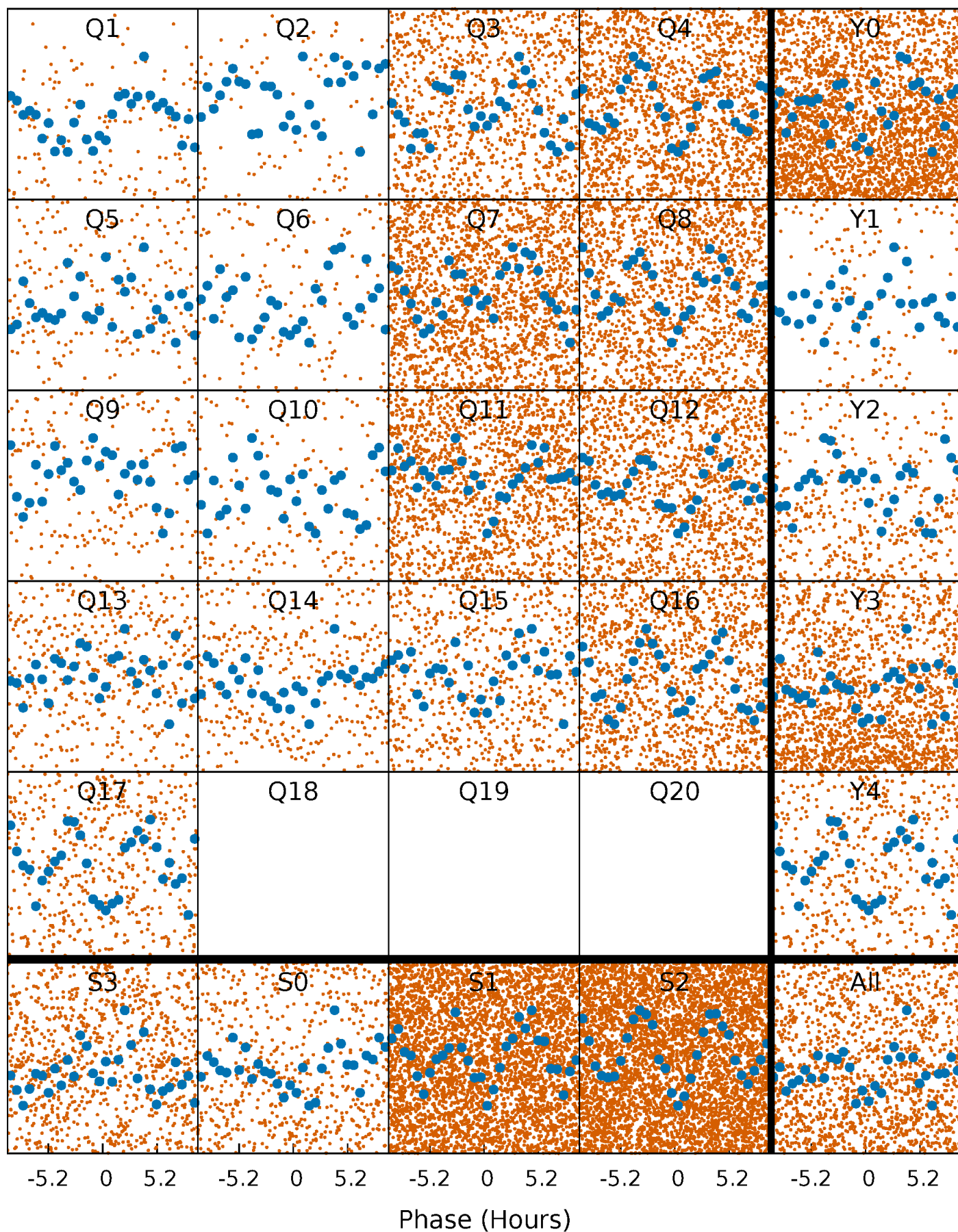


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



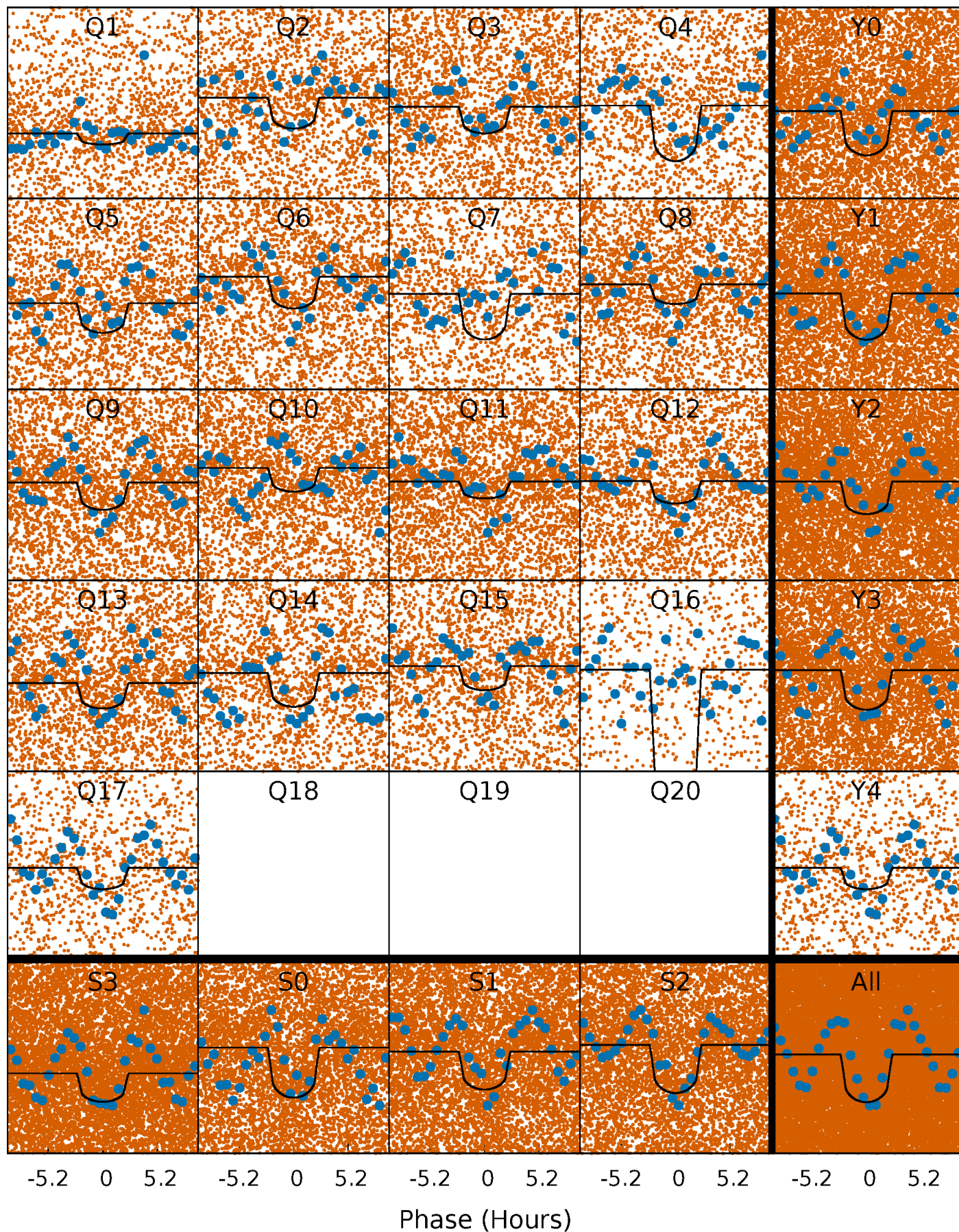
PDC Quarter-Phased Transit Curves

TCE 007135045-01 P= 0.560744 Days $T_0=132.005344$ (BKJD)



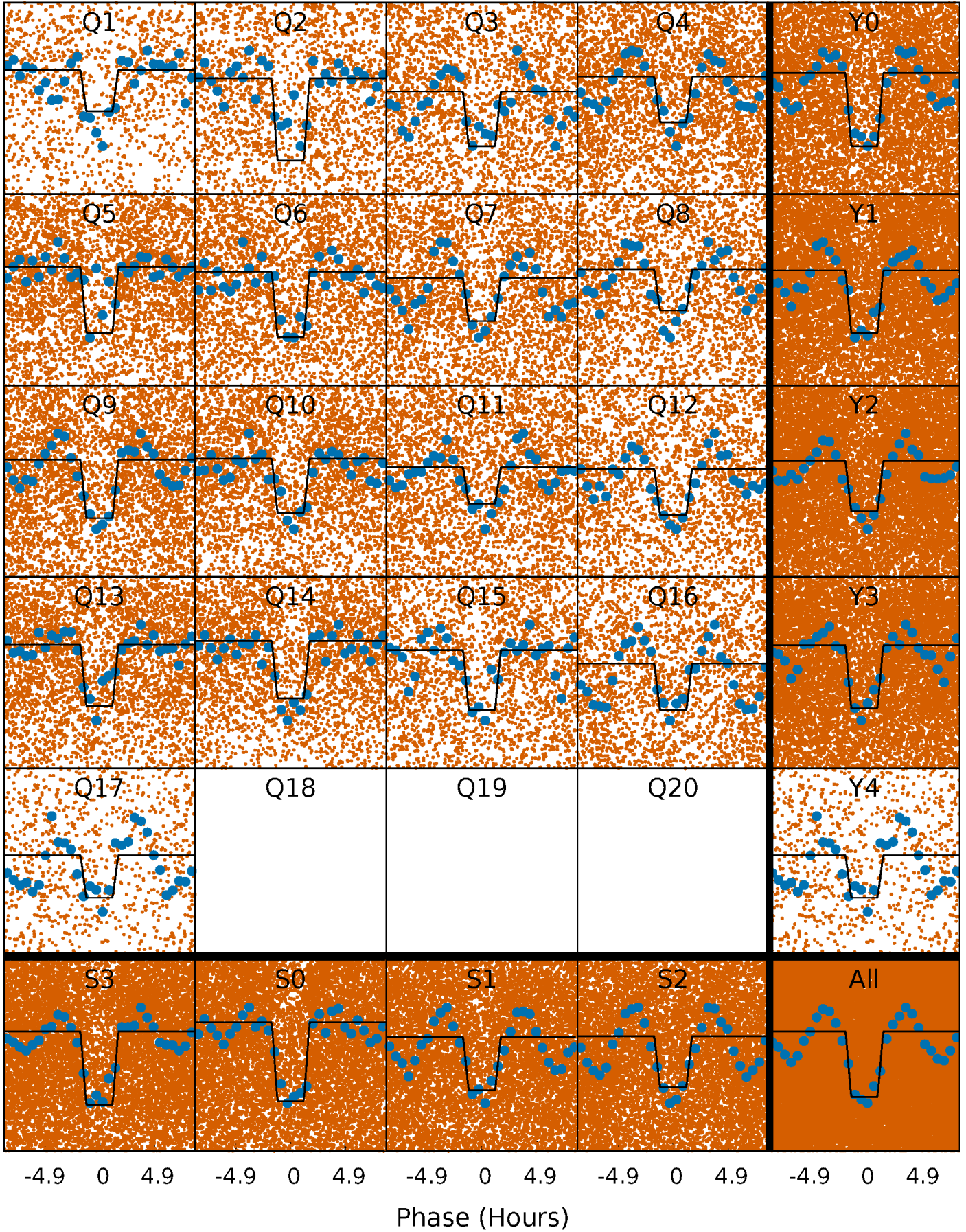
DV Quarter-Phased Transit Curves

TCE 007135045-01 P= 0.560744 Days $T_0=132.005344$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

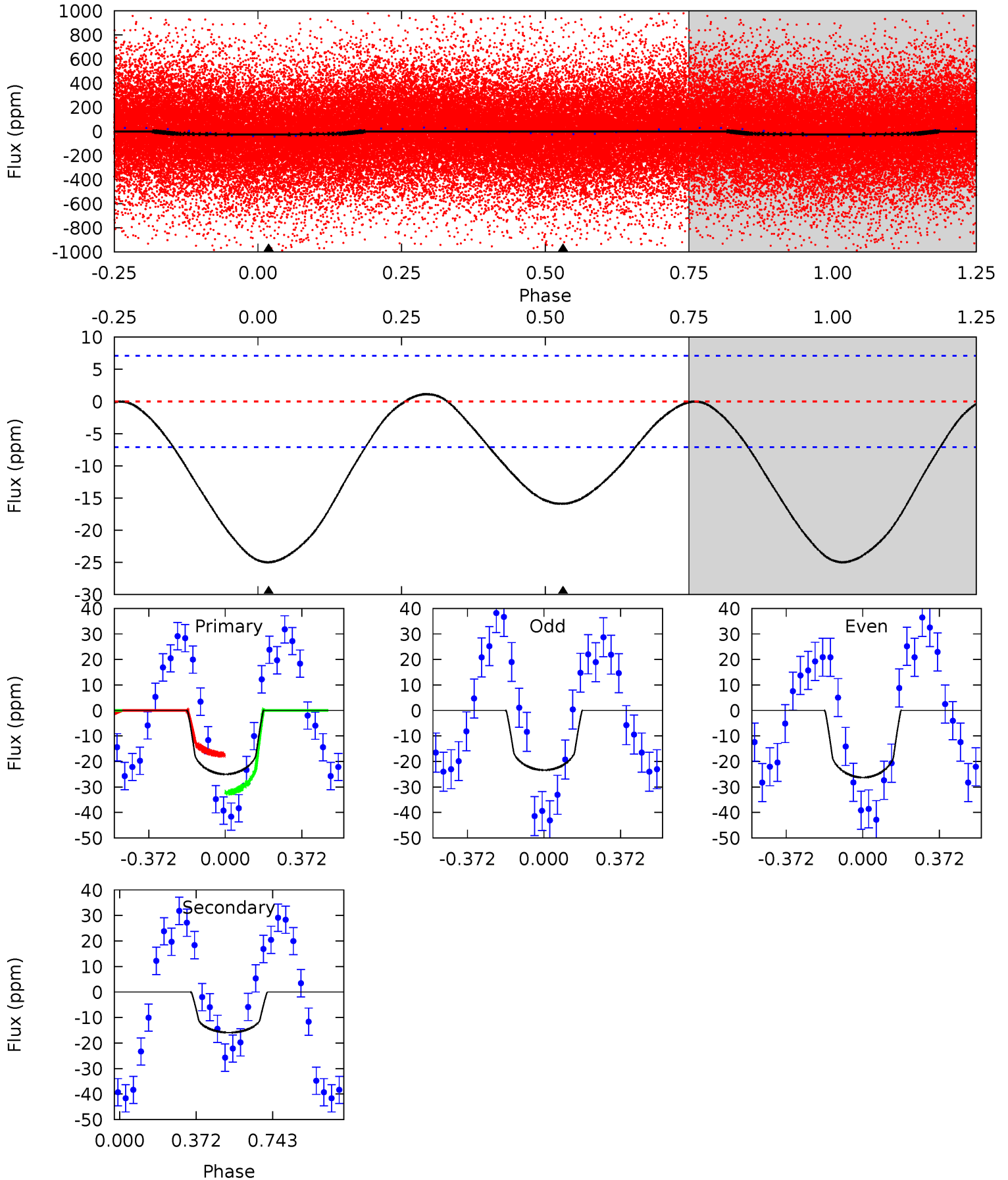
TCE 007135045-01 P= 0.560757 Days $T_0=132.001222$ (BKJD)



DV Model-Shift Uniqueness Test

007135045-01, P = 0.560744 Days, E = 131.444600 Days

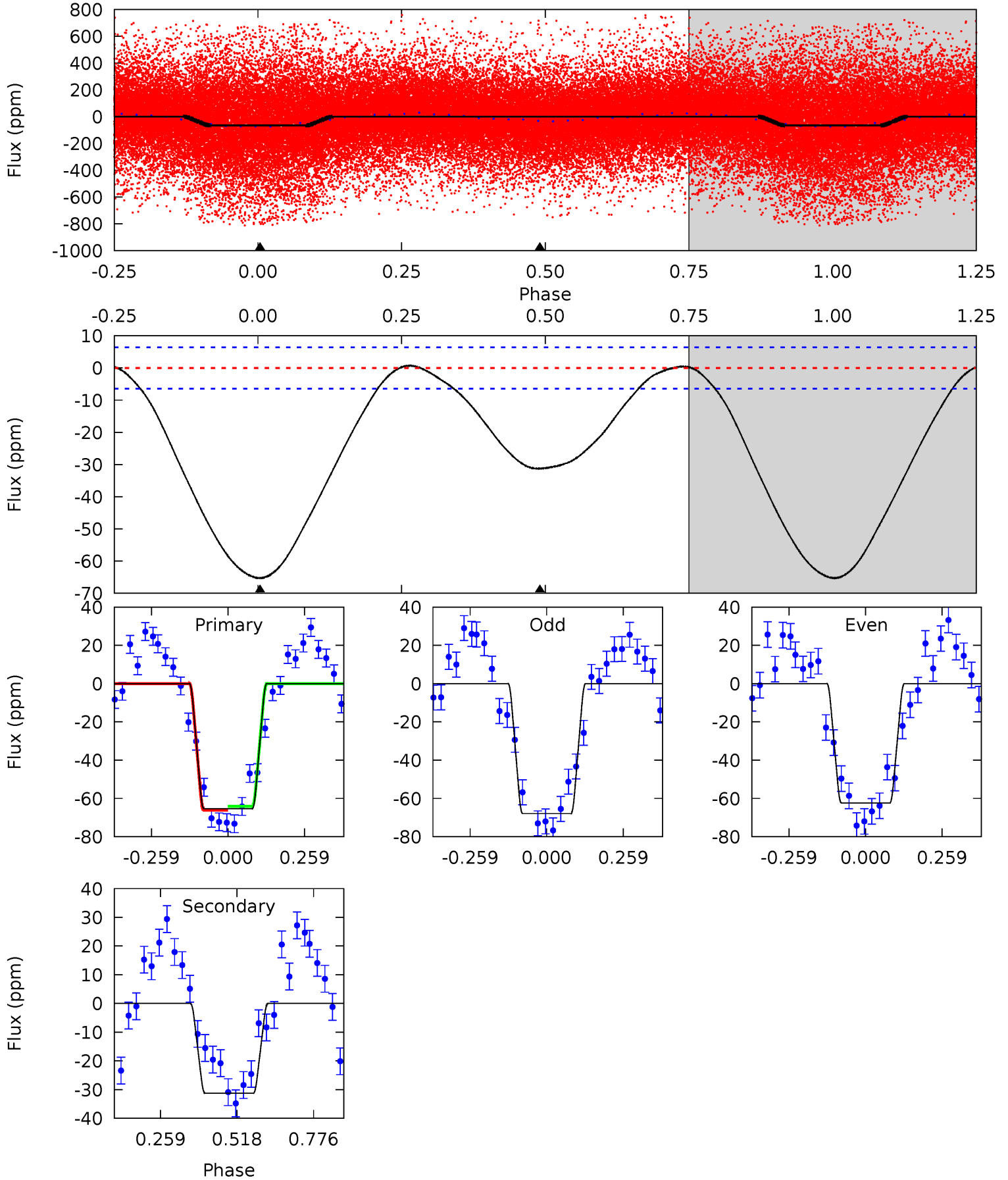
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	9.59	0	0	4.28	0.89	0.41	15.1	15.1	9.59	9.59	0.87	1.17	0.04	4.52



Alt Model-Shift Uniqueness Test

007135045-01, P = 0.560757 Days, E = 131.440465 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.2	21.2	0	0	4.36	1.13	0.66	44.2	44.2	21.2	21.2	1.89	1.11	0.01	0.63



Stellar Parameters For KIC 007135045

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	ρ_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6683^{+182}_{-203}	$4.111^{+0.246}_{-0.164}$	$-0.400^{+0.250}_{-0.300}$	$1.559^{+0.429}_{-0.429}$	$1.145^{+0.193}_{-0.158}$	$0.426^{+0.610}_{-0.189}$
	+3%/-3%	+6%/-4%	+62%/-75%	+28%/-28%	+17%/-14%	+143%/-44%
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 007135045-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-16 ± 2	$0.98^{+0.45}_{-0.40}$	4318^{+325}_{-342}	5265^{+1560}_{-890}	$1.804^{+3.151}_{-0.940}$
Alt.	-31 ± 1	$1.43^{+0.50}_{-0.43}$	4317^{+344}_{-300}	5159^{+1080}_{-674}	$1.652^{+1.749}_{-0.733}$

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

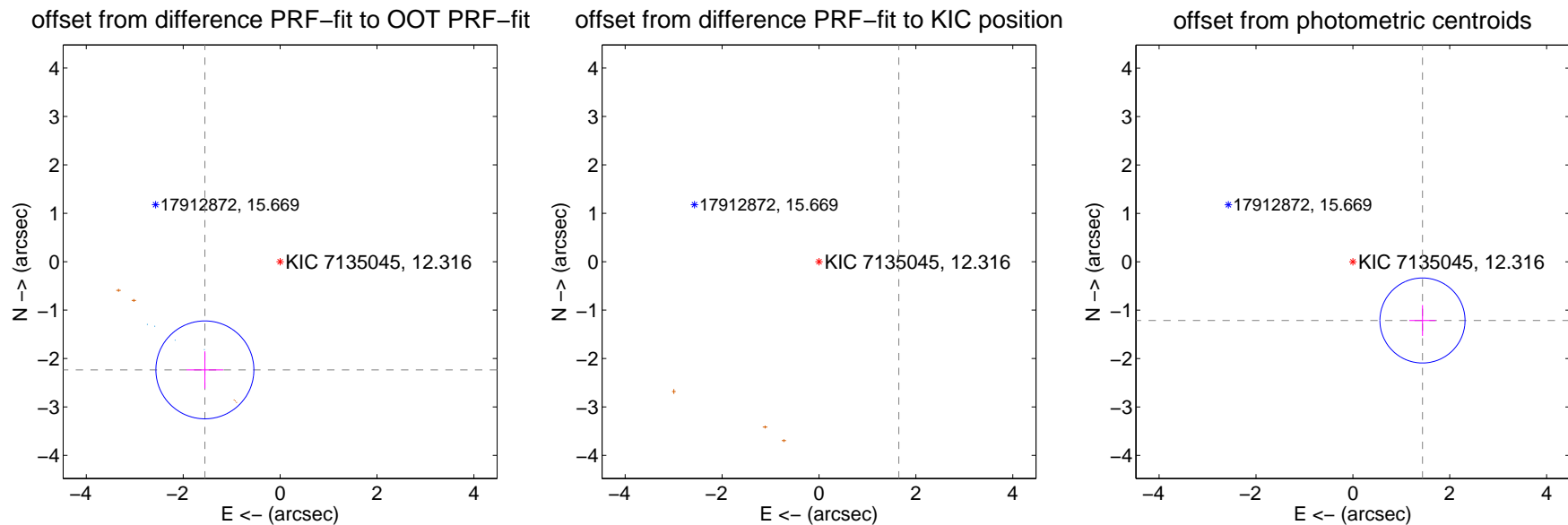
DV Centroid Data

Supplemental centroid analysis for 007135045-01. Kepler magnitude: 12.32. Transit SNR 10.39

There are 4 quarters with good PRF difference image offsets

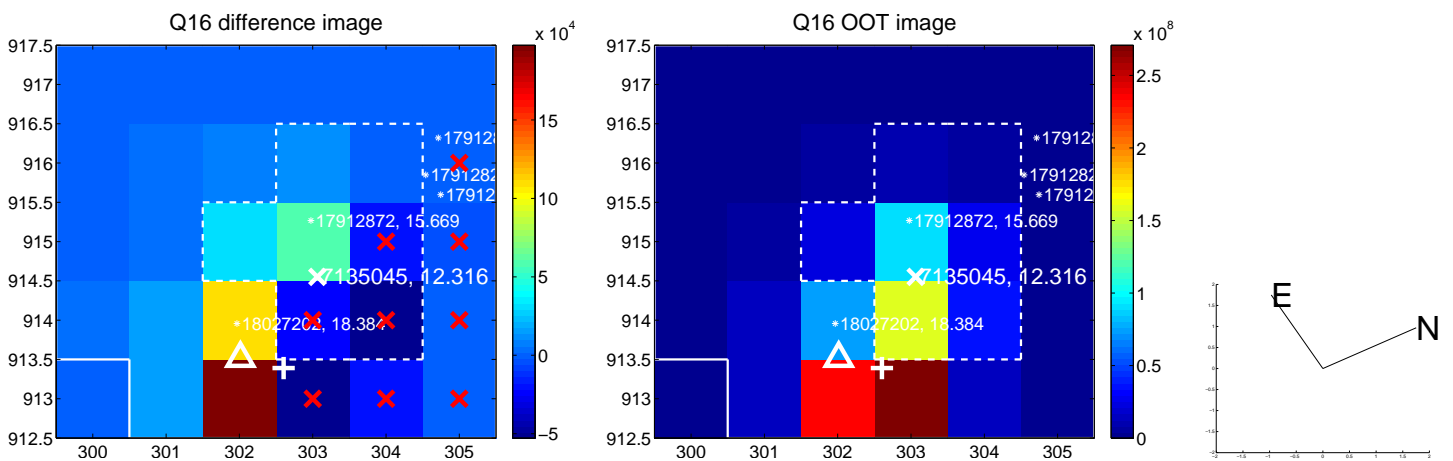
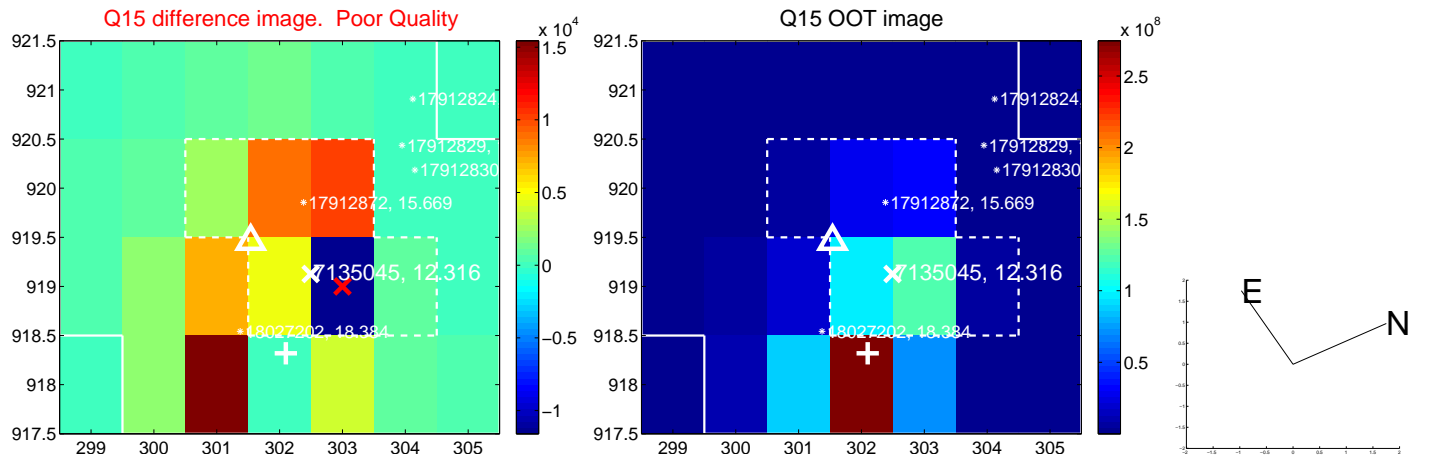
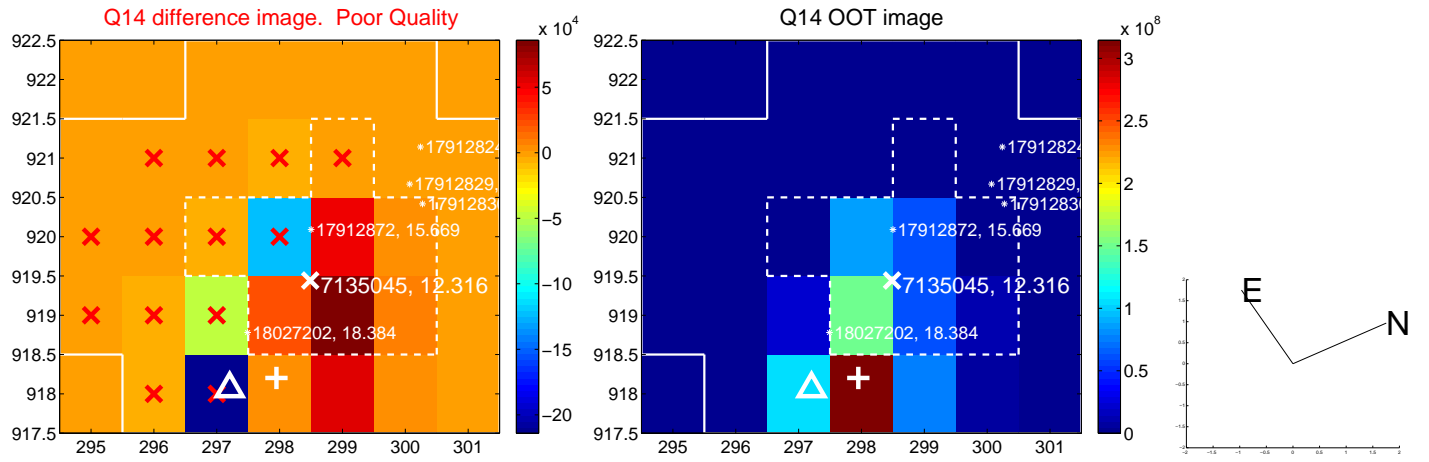
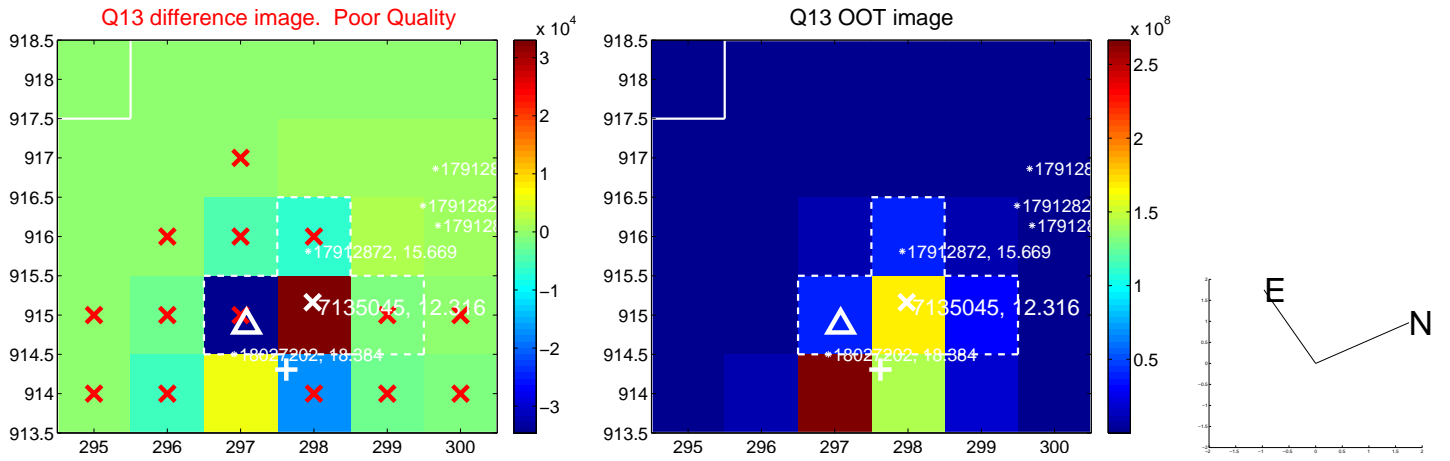
The OOT PRF centroid is offset from the target star catalog position by about 4.96 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.720 ± 0.337	8.07	1.552 ± 0.379	-2.234 ± 0.384
PRF-fit source offset from KIC position	6.436 ± 0.521	12.35	-1.648 ± 0.476	-6.222 ± 0.458
photometric centroid source offset	1.88 ± 0.29	6.42	-1.44 ± 0.27	-1.21 ± 0.32

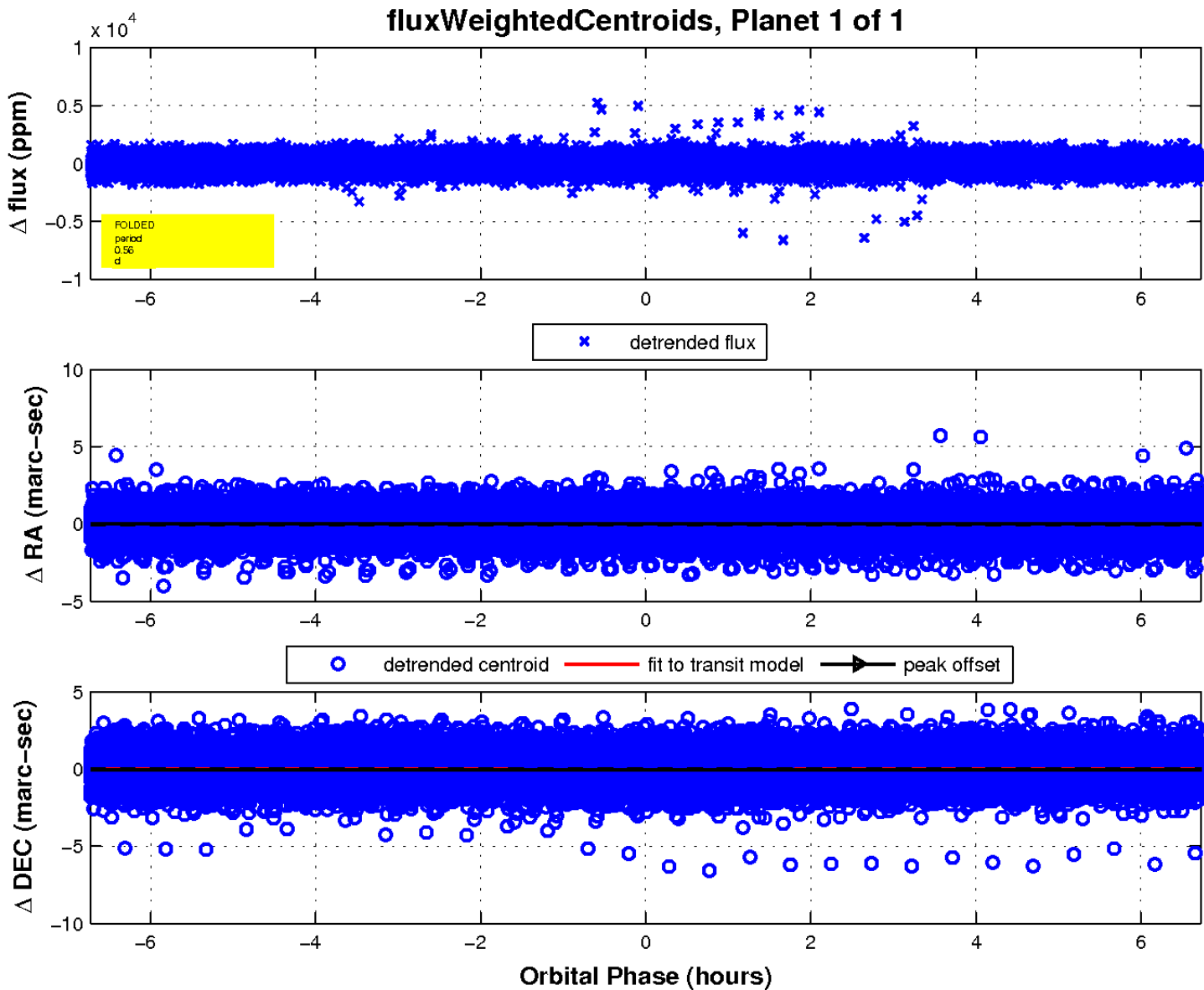
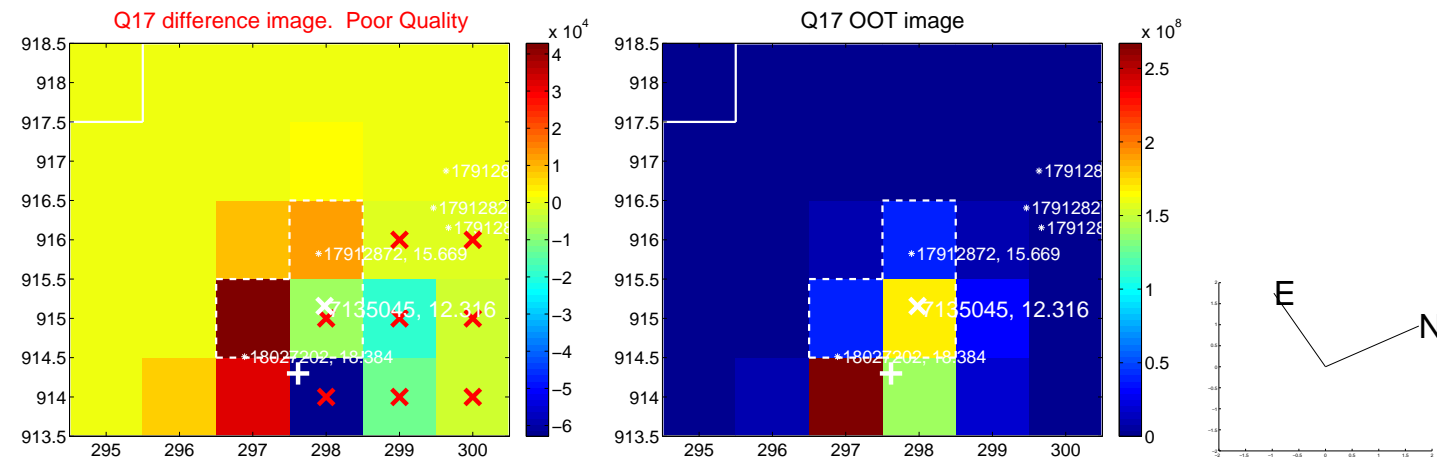


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



UKIRT Image

