

KIC 007918652

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})
007918652-01	OBS	2984.01	11.455454	136.318927	62.7	4.977	12.3	12.7	1.36	6231	1.22	214.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007918652-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

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

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

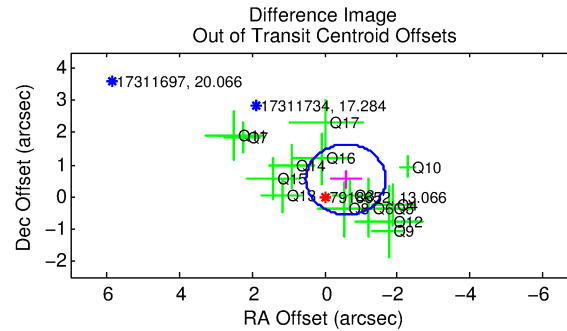
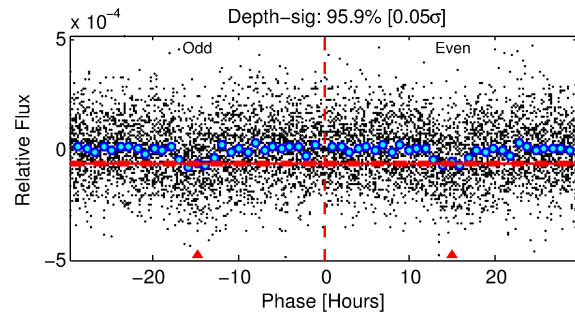
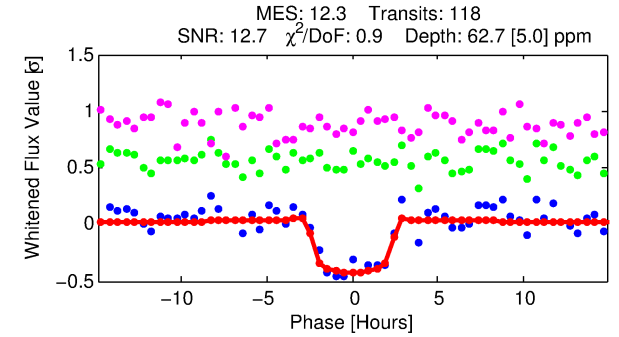
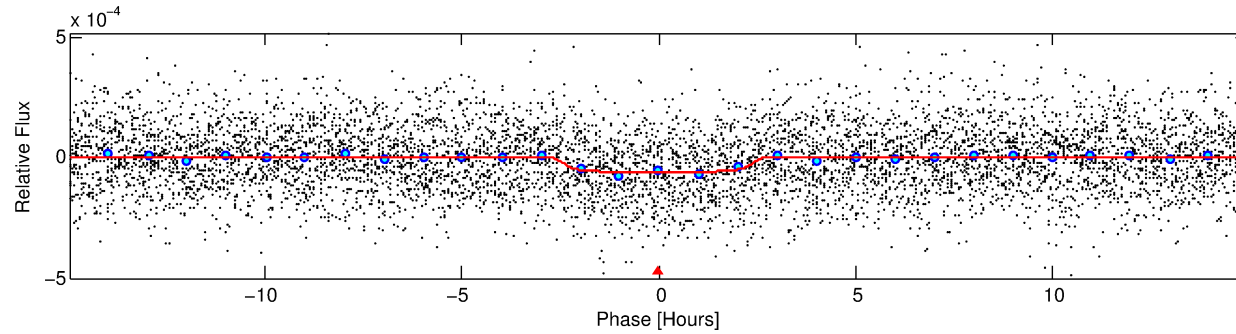
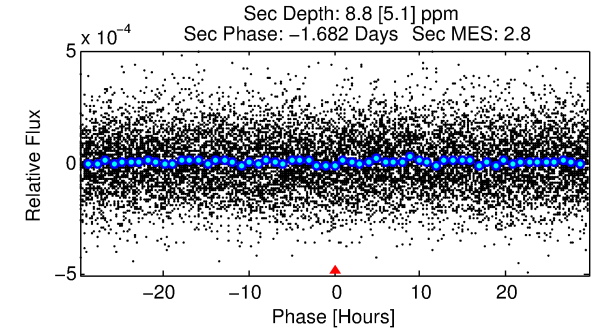
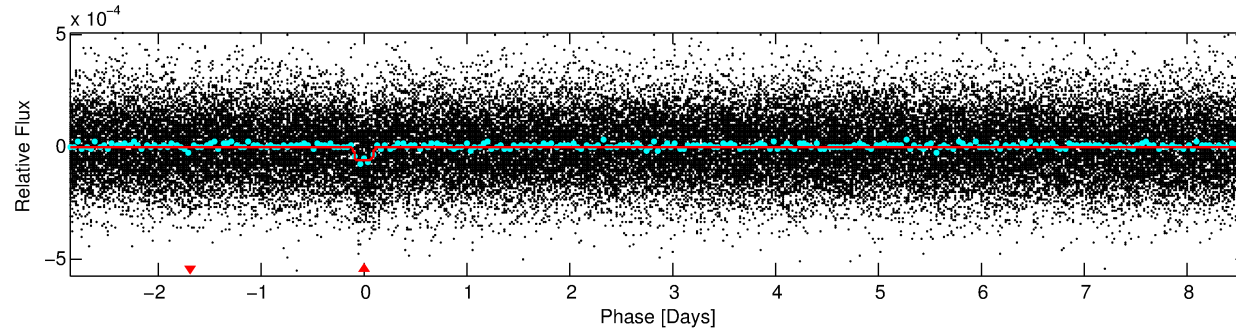
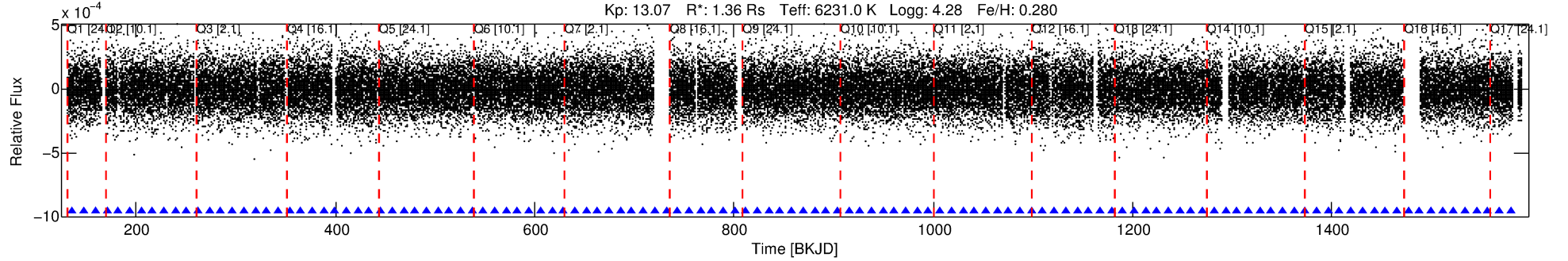
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007918652-01

No Significant Match Found

DV One-Page Summary

KIC: 7918652 Candidate: 1 of 1 Period: 11.455 d
KOI: K02984.01 Corr: 0.986



DV Fit Results:

Period = 11.45545 [0.00010] d
Epoch = 136.3189 [0.0072] BKJD
Rp/R* = 0.0082 [0.0035]
a/R* = 9.60 [20.16]
b = 0.85 [0.71]
Seff = 214.43 [51.28]
Teff = 976 [58] K
Rp = 1.22 [0.56] Re
a = 0.1076 [0.0162] AU
Ag = 37.69 [39.29] [0.93σ]
Teffp = 3738 [955] K [2.89σ]

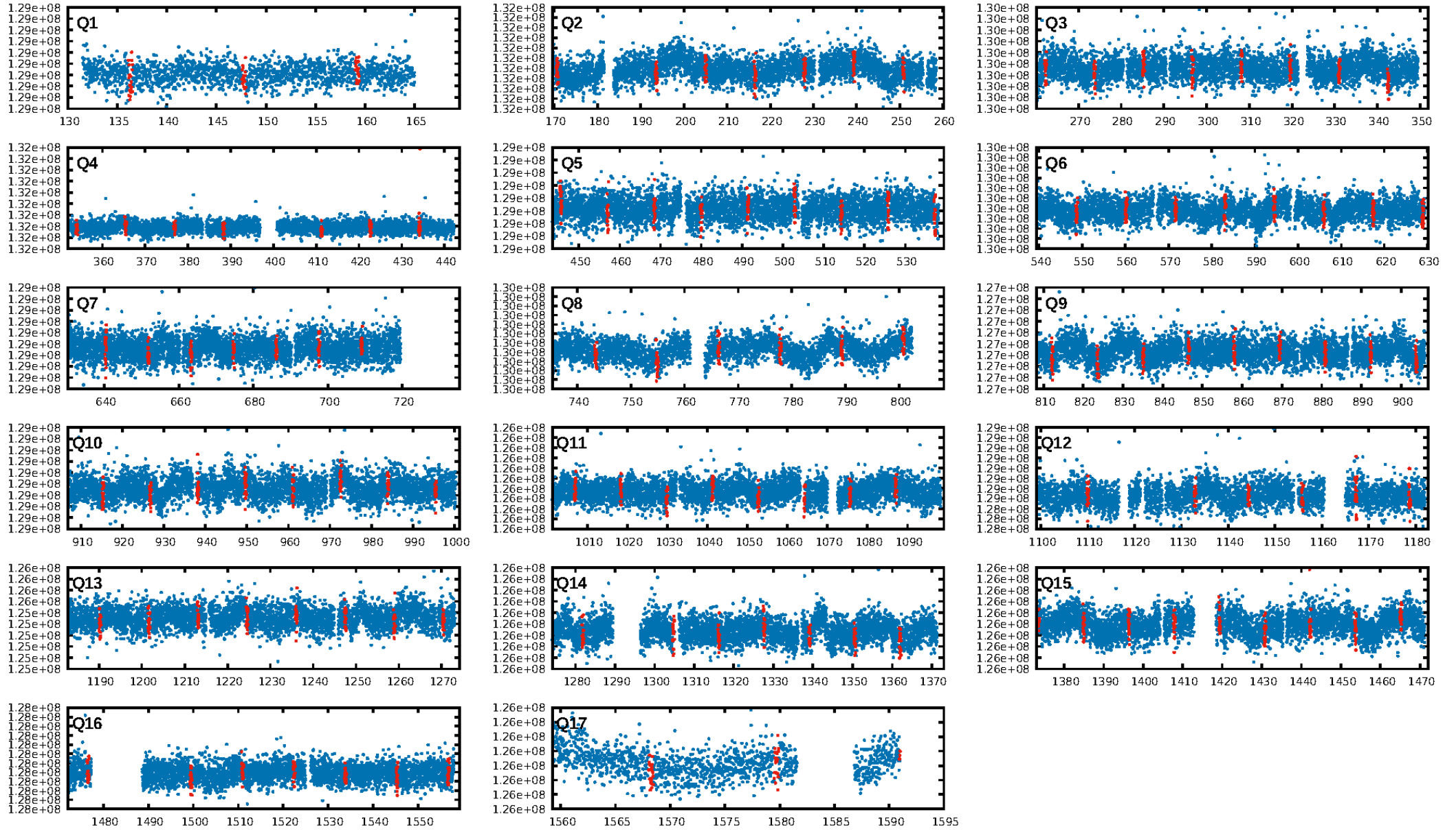
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.81e-33
RollingBand-fgt: 1.00 [113/113]
GhostDiagnostic-chr: 0.505
Centroid-sig: 5.6%
Centroid-so: 1.987 arcsec [1.75σ]
OotOffset-rm: 0.791 arcsec [2.17σ]
KicOffset-rm: 0.853 arcsec [2.34σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.67 [10/15]
DiffImageOverlap-fno: 1.00 [17/17]

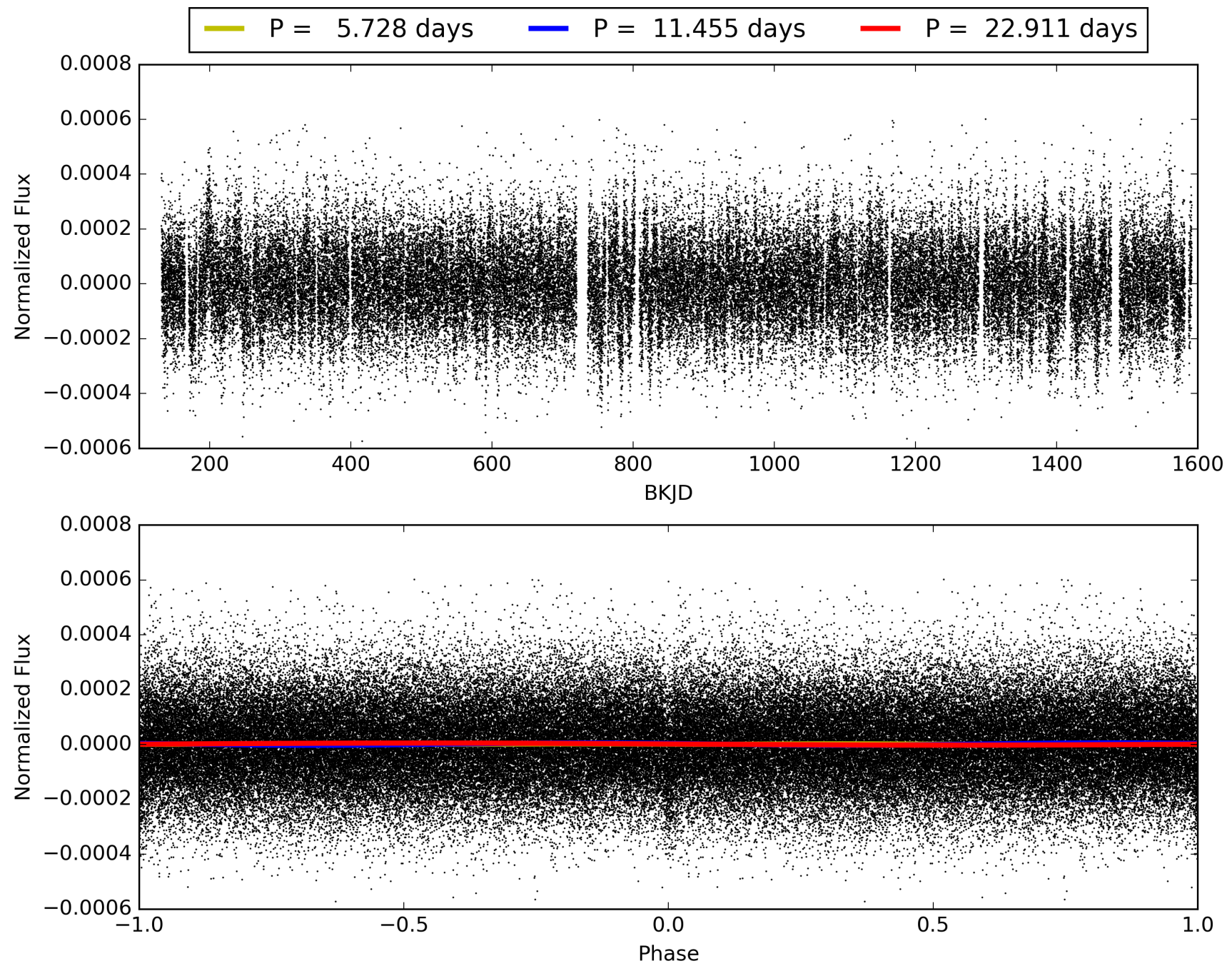
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:32:50 Z

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

TCE 007918652-01, PDC Light Curves

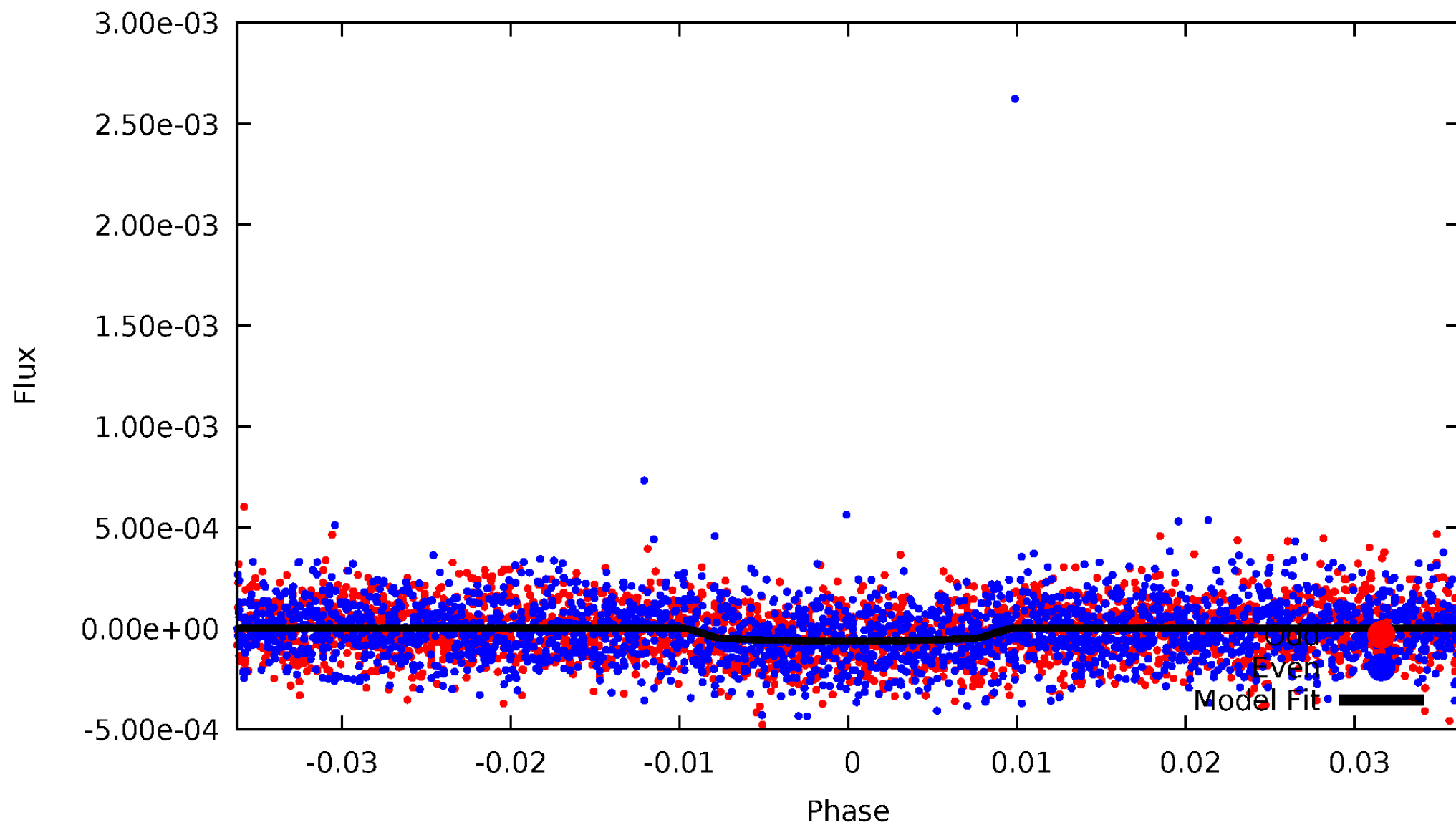


TCE 007918652-01



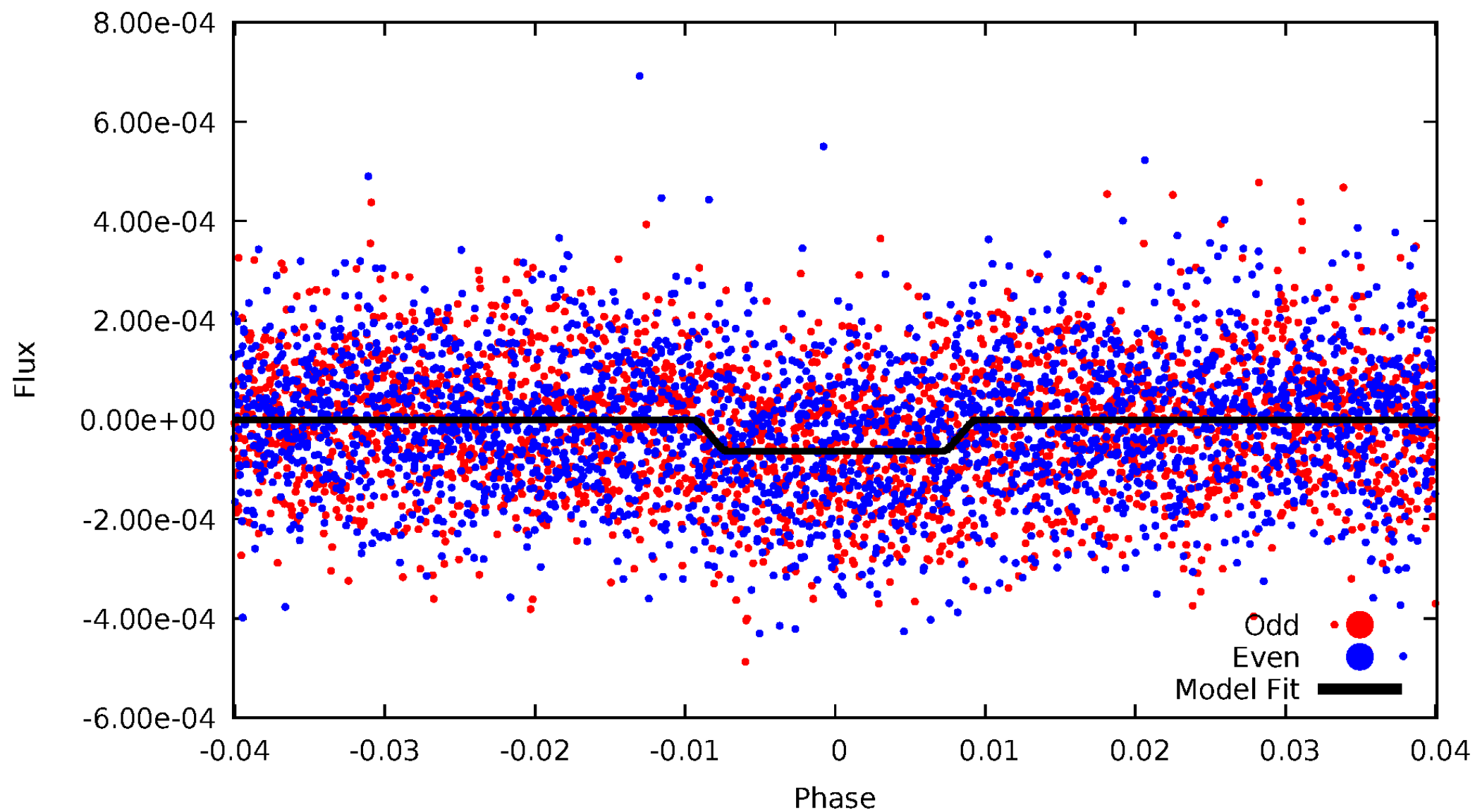
DV Odd/Even

TCE 007918652-01

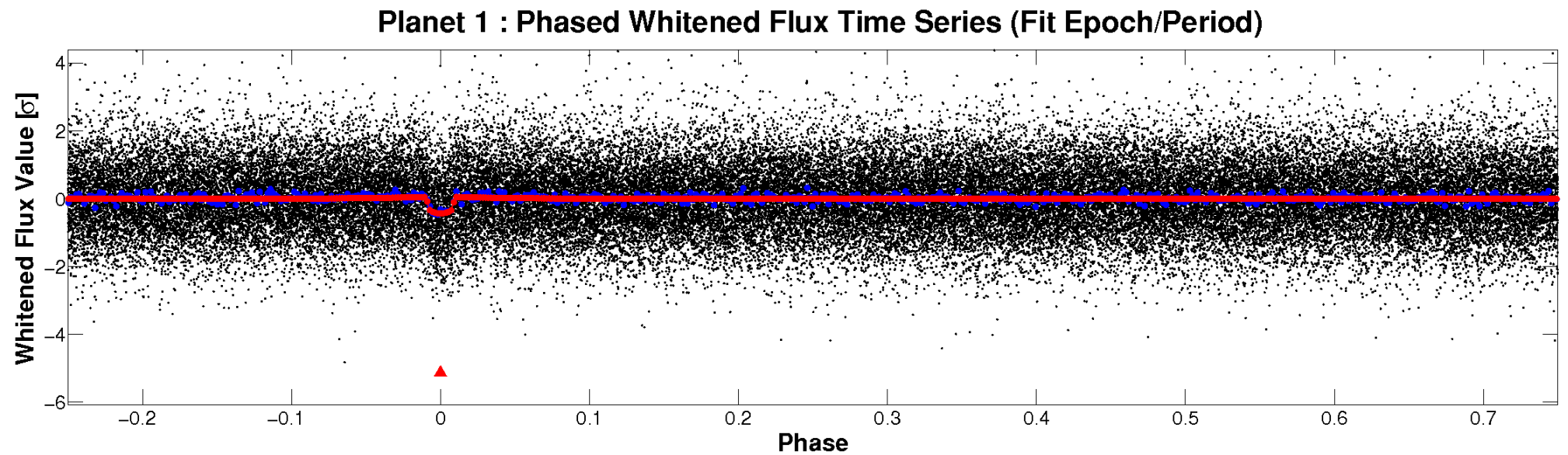
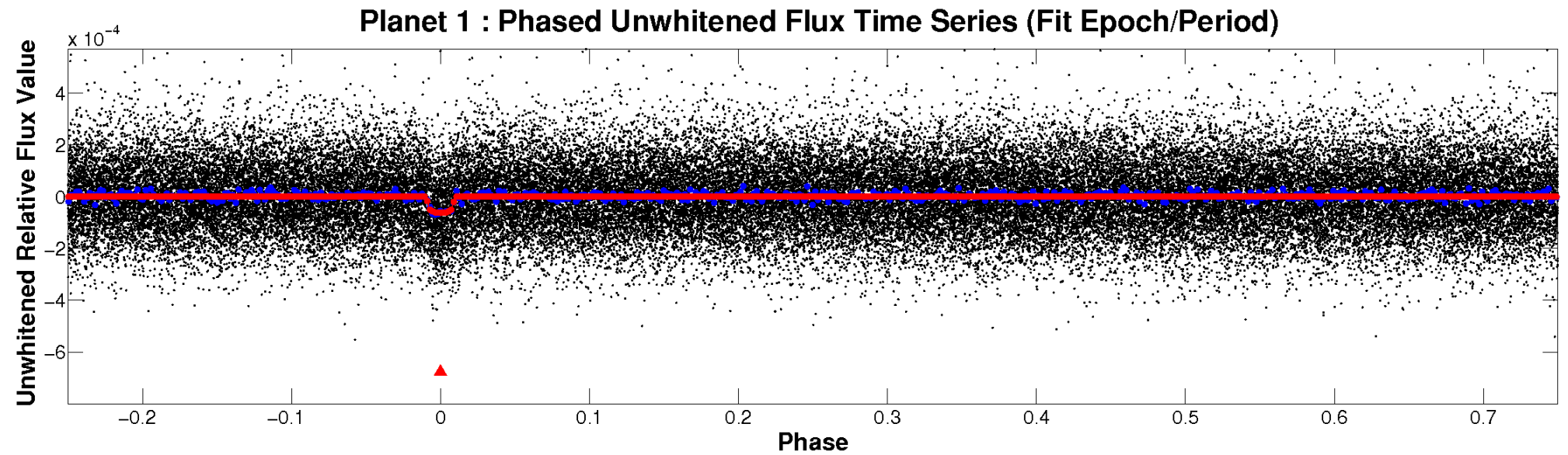


ALT Odd/Even

TCE 007918652-01

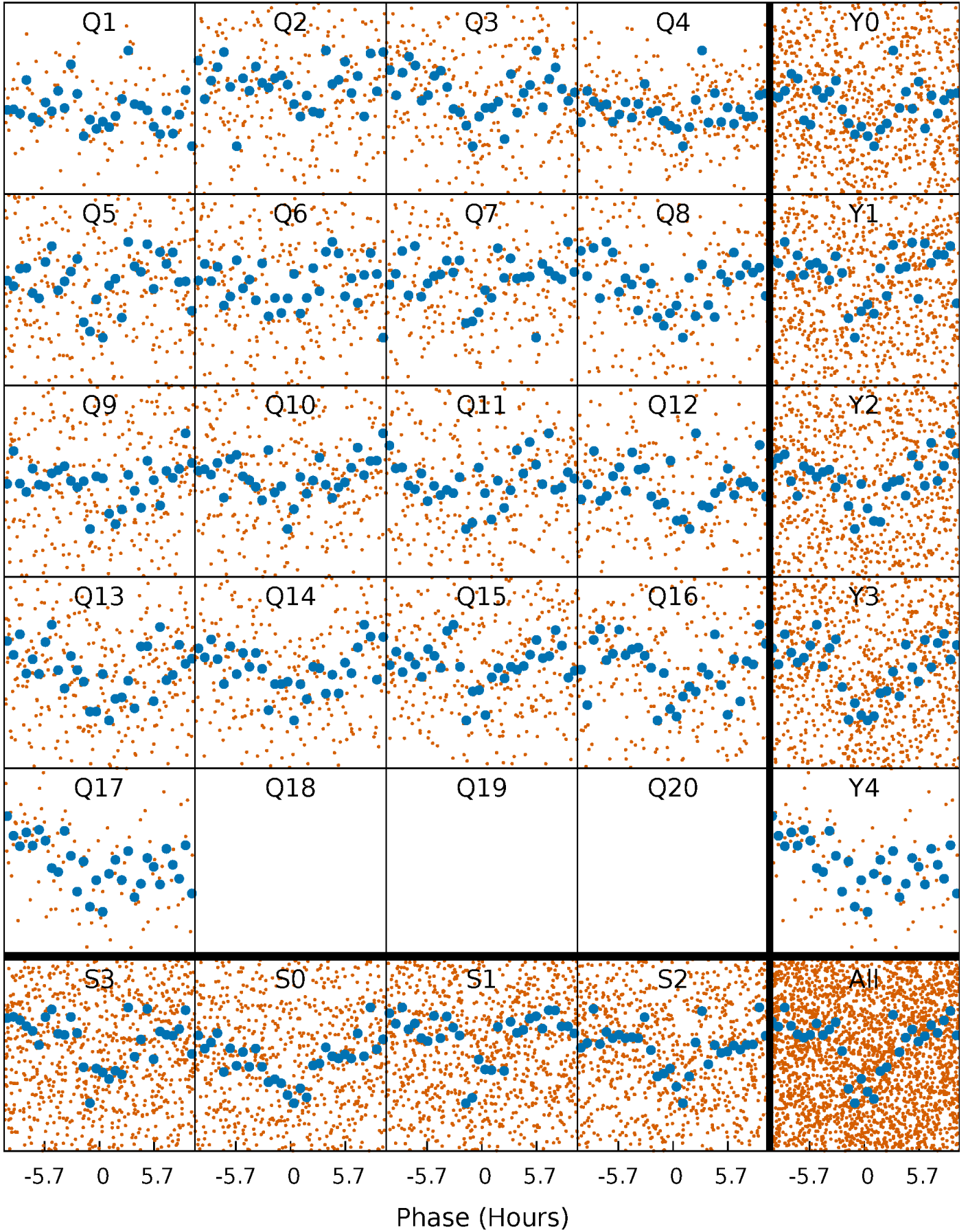


Non-Whitened Vs. Whitened Light Curve



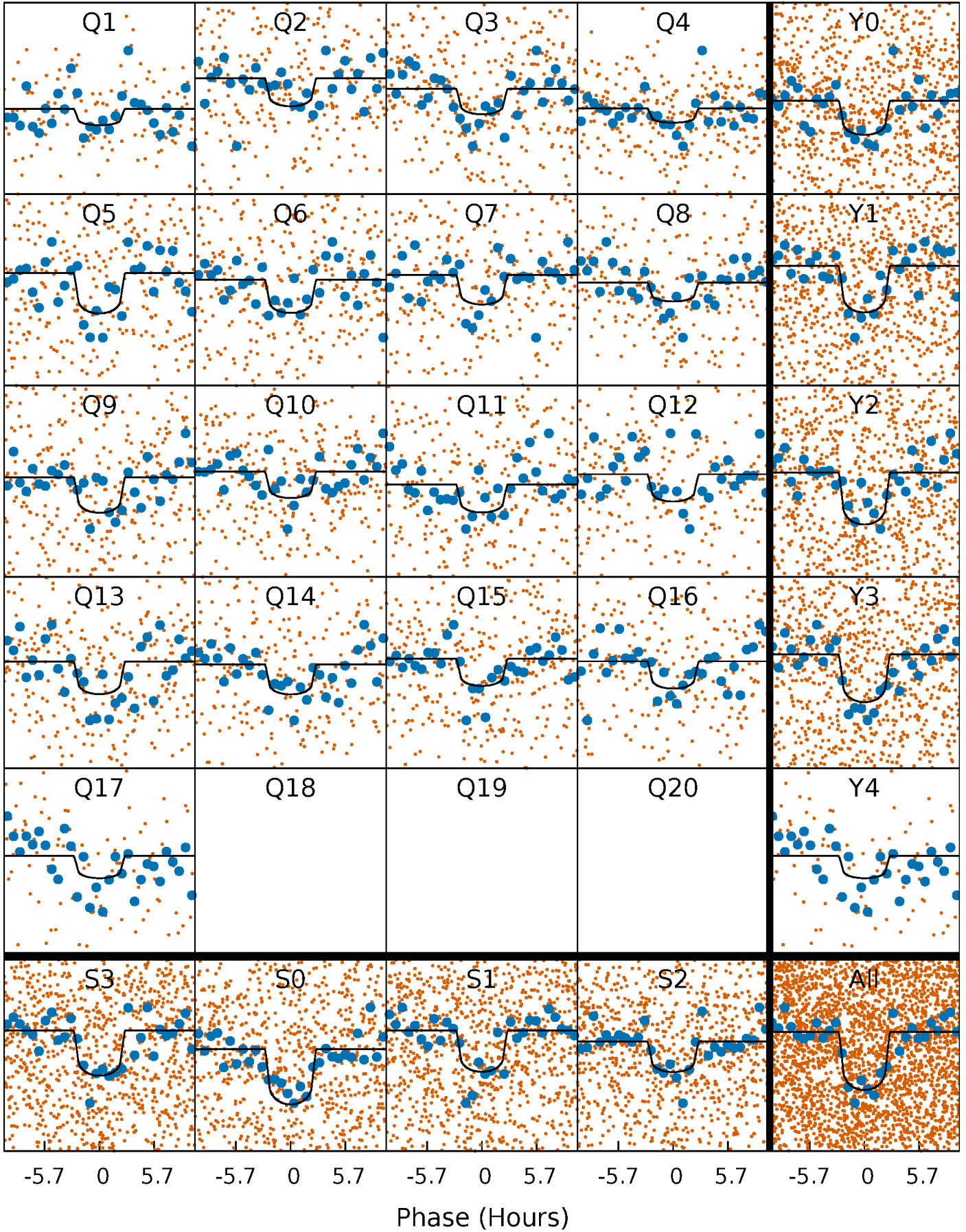
PDC Quarter-Phased Transit Curves

TCE 007918652-01 P= 11.455454 Days $T_0=136.318927$ (BKJD)



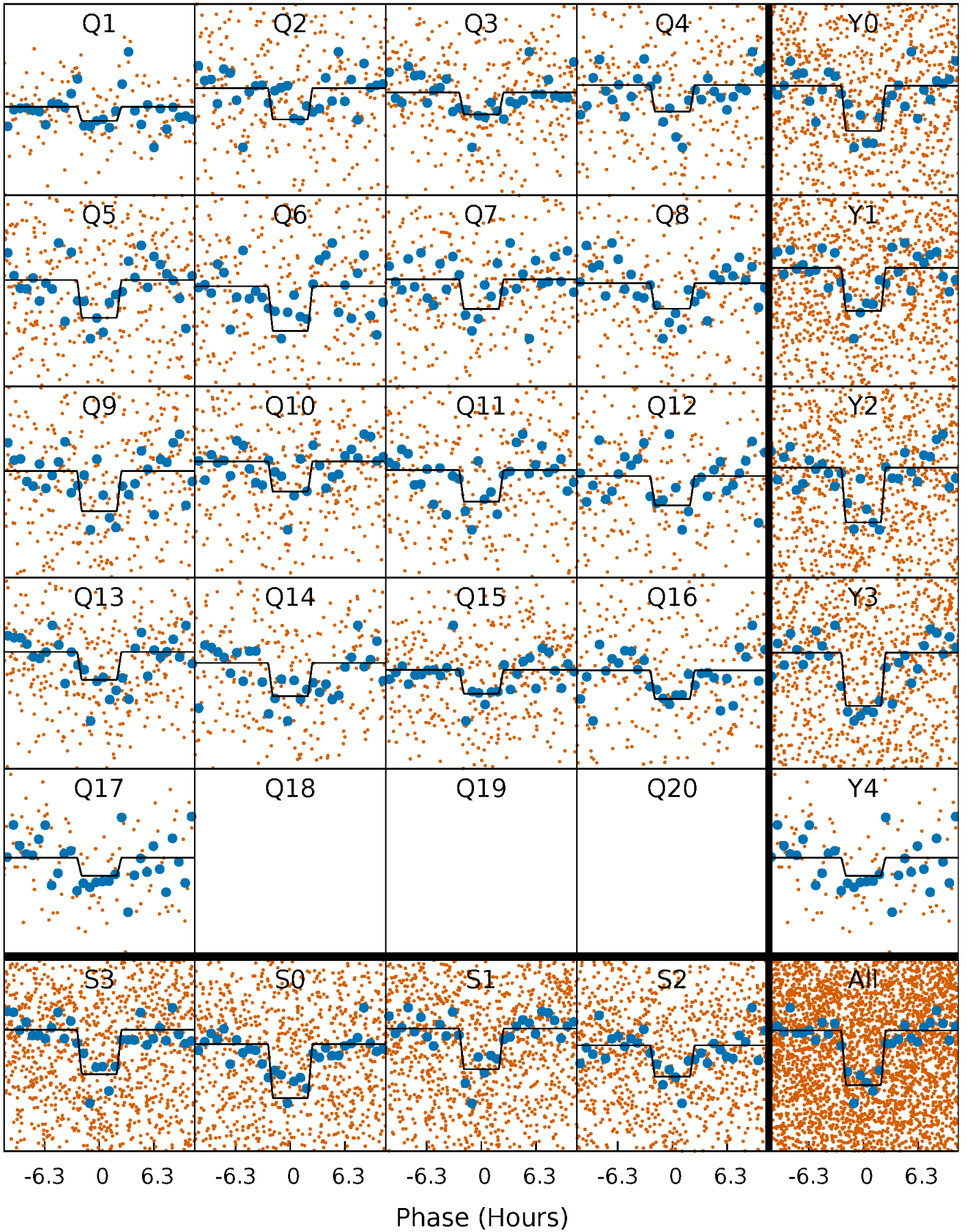
DV Quarter-Phased Transit Curves

TCE 007918652-01 P= 11.455454 Days $T_0=136.318927$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

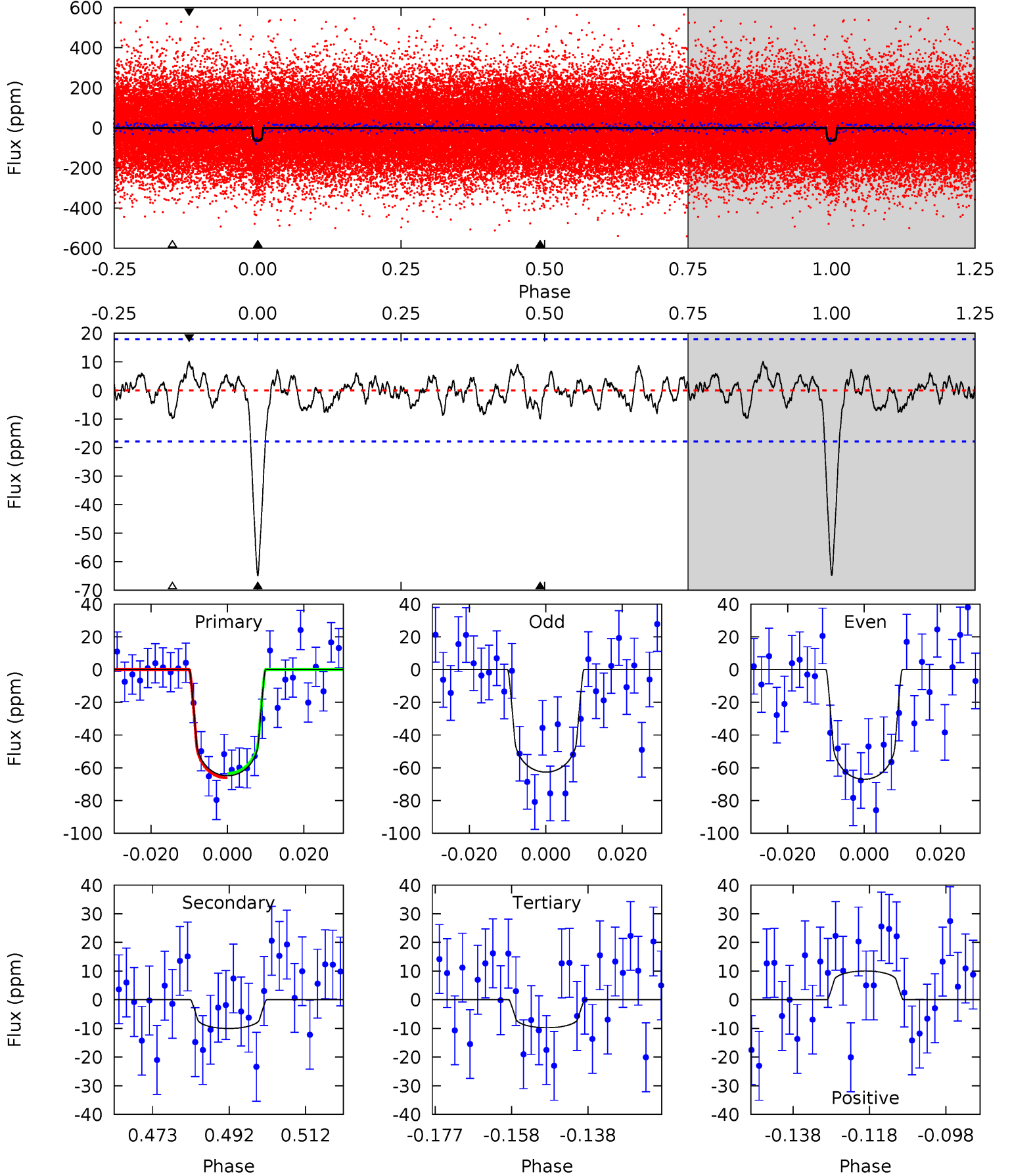
TCE 007918652-01 P= 11.455568 Days $T_0=136.316469$ (BKJD)



DV Model-Shift Uniqueness Test

007918652-01, $P = 11.455454$ Days, $E = 124.863473$ Days

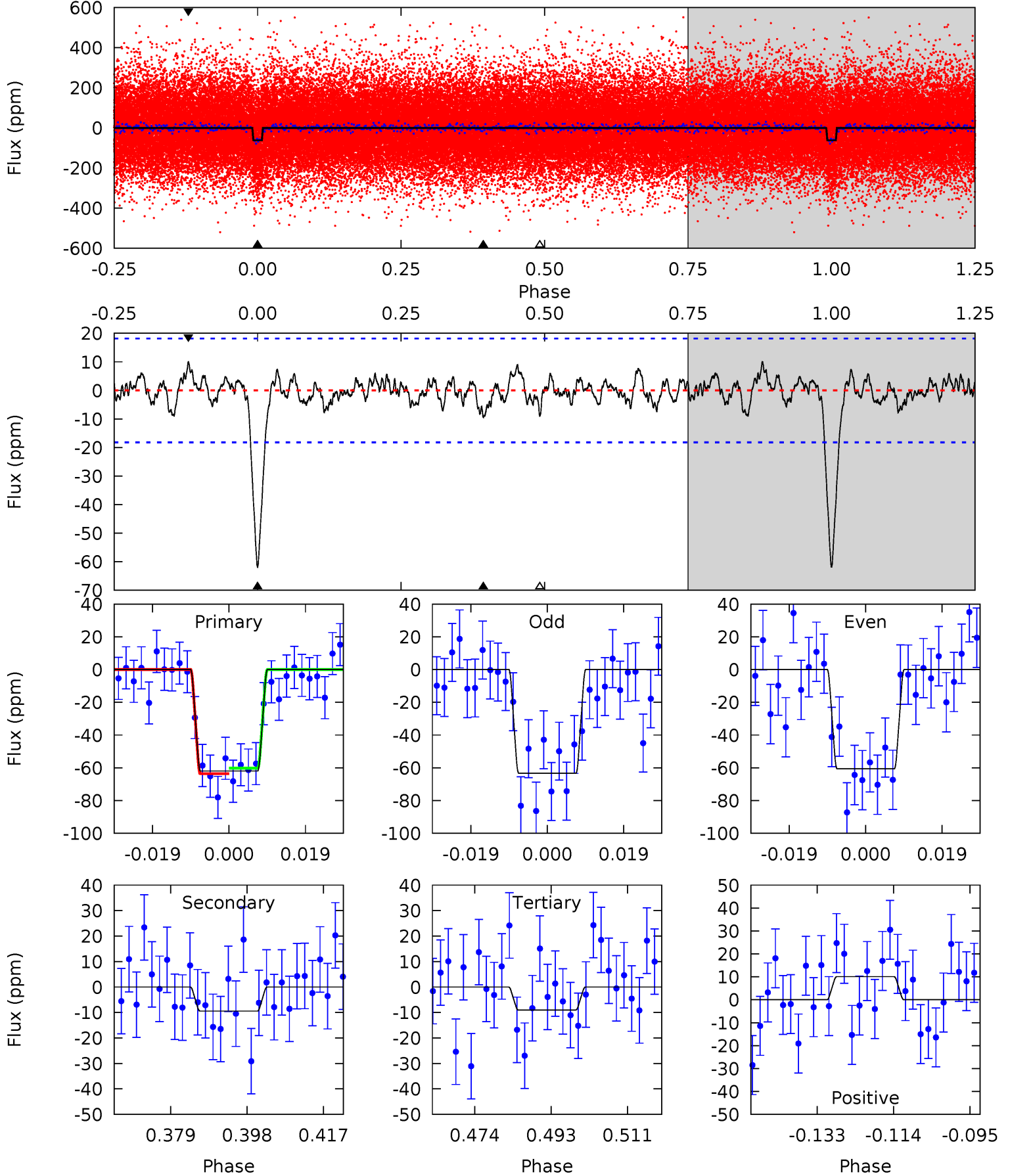
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.7	2.74	2.67	2.75	4.89	2.33	1.03	15.1	15.0	0.07	-0.01	0.60	1.06	0.13	0.37



Alt Model-Shift Uniqueness Test

007918652-01, $P = 11.455568$ Days, $E = 124.860901$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	2.55	2.44	2.72	4.90	2.35	0.90	14.3	14.0	0.11	-0.17	0.37	1.08	0.14	0.46



Stellar Parameters For KIC 007918652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6231^{+112}_{-137}	$4.276^{+0.076}_{-0.123}$	$0.280^{+0.150}_{-0.200}$	$1.356^{+0.239}_{-0.139}$	$1.269^{+0.090}_{-0.090}$	$0.717^{+0.243}_{-0.254}$
	+2%/-2%	+2%/-3%	+54%/-71%	+18%/-10%	+7%/-7%	+34%/-35%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007918652-01 / KOI 2984.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 4	$1.20^{+0.54}_{-0.49}$	1370^{+60}_{-53}	4154^{+1011}_{-536}	42^{+82}_{-23}
Alt.	-9 ± 4	$1.23^{+0.52}_{-0.56}$	1364^{+66}_{-44}	4064^{+1095}_{-551}	39^{+87}_{-24}

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

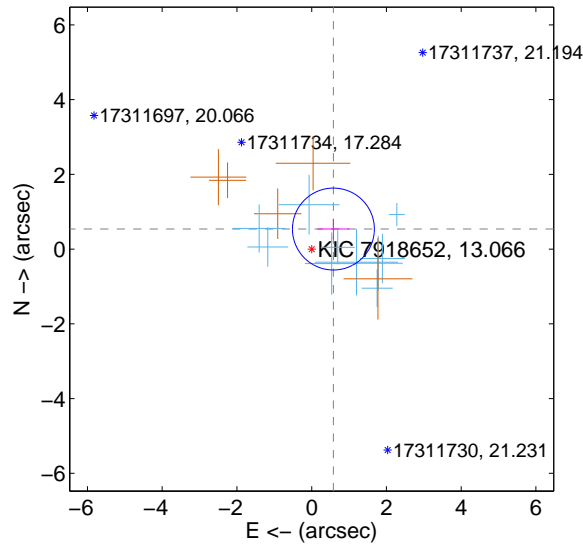
Supplemental centroid analysis for 007918652-01. Kepler magnitude: 13.07. Transit SNR 12.70

There are 10 quarters with good PRF difference image offsets

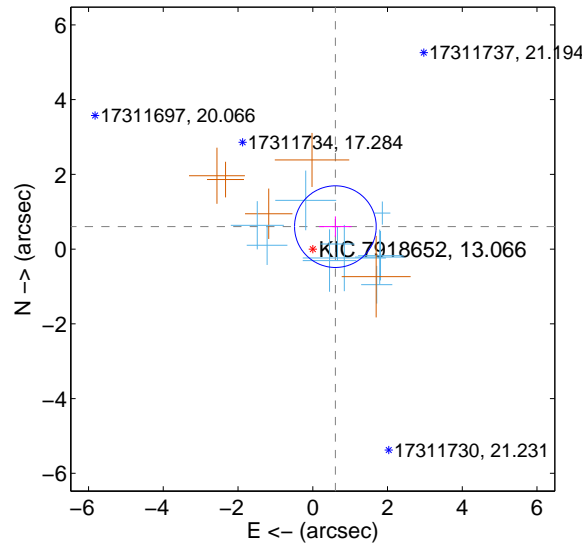
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.791 ± 0.365	2.17	-0.581 ± 0.426	0.537 ± 0.277
PRF-fit source offset from KIC position	0.853 ± 0.364	2.34	-0.605 ± 0.435	0.601 ± 0.274
photometric centroid source offset	1.99 ± 1.14	1.75	-1.97 ± 1.14	-0.24 ± 1.06

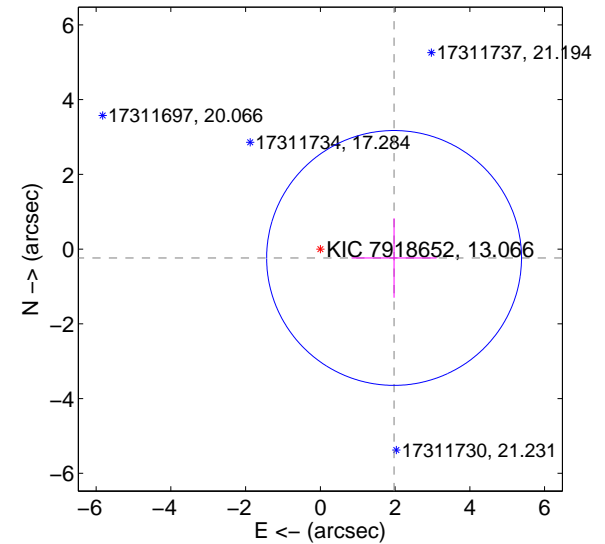
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

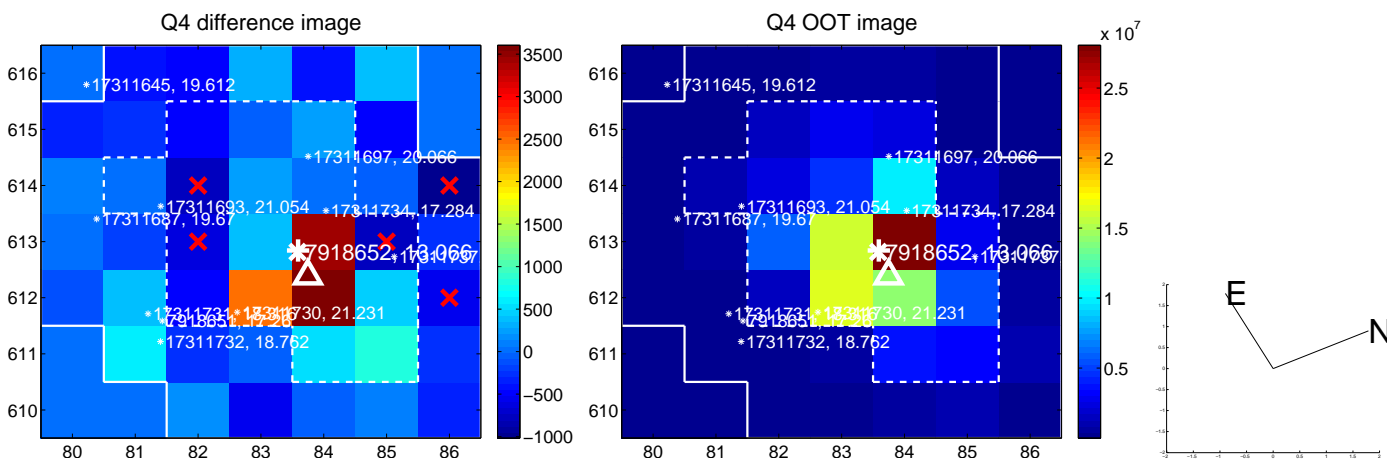
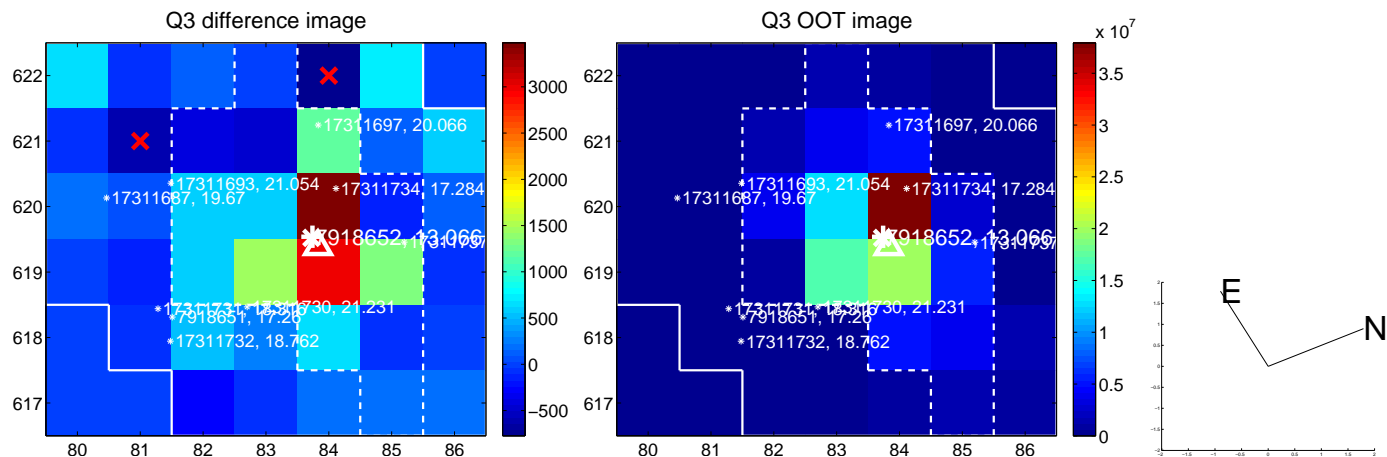
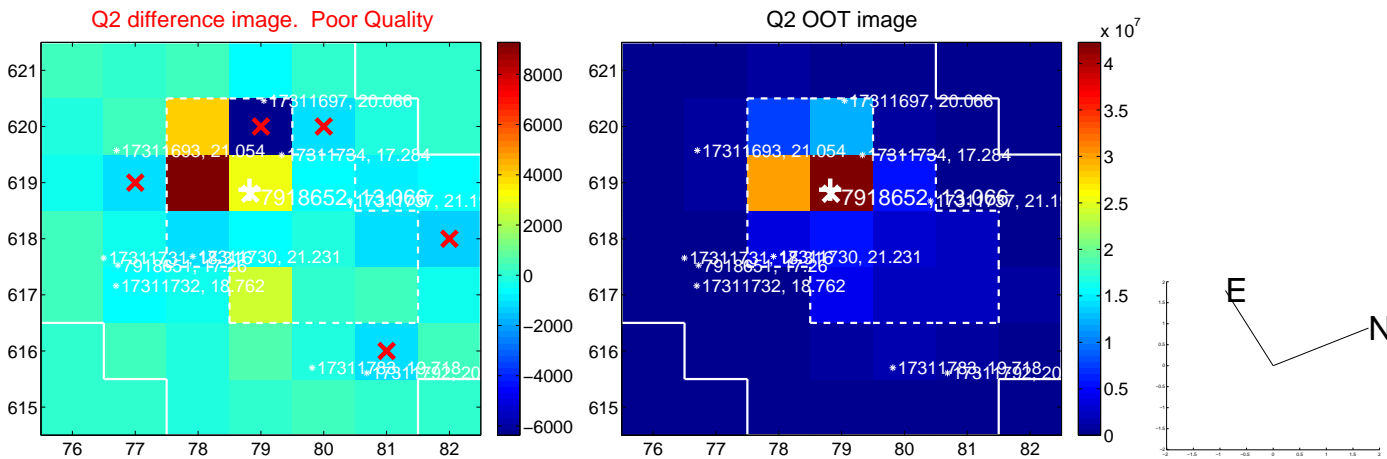
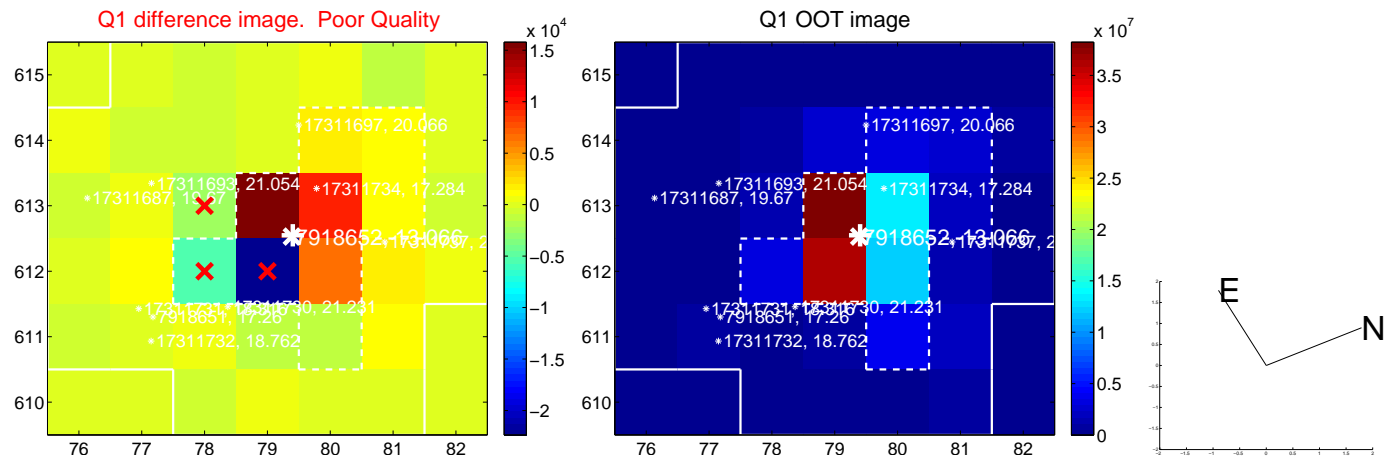


offset from photometric centroids

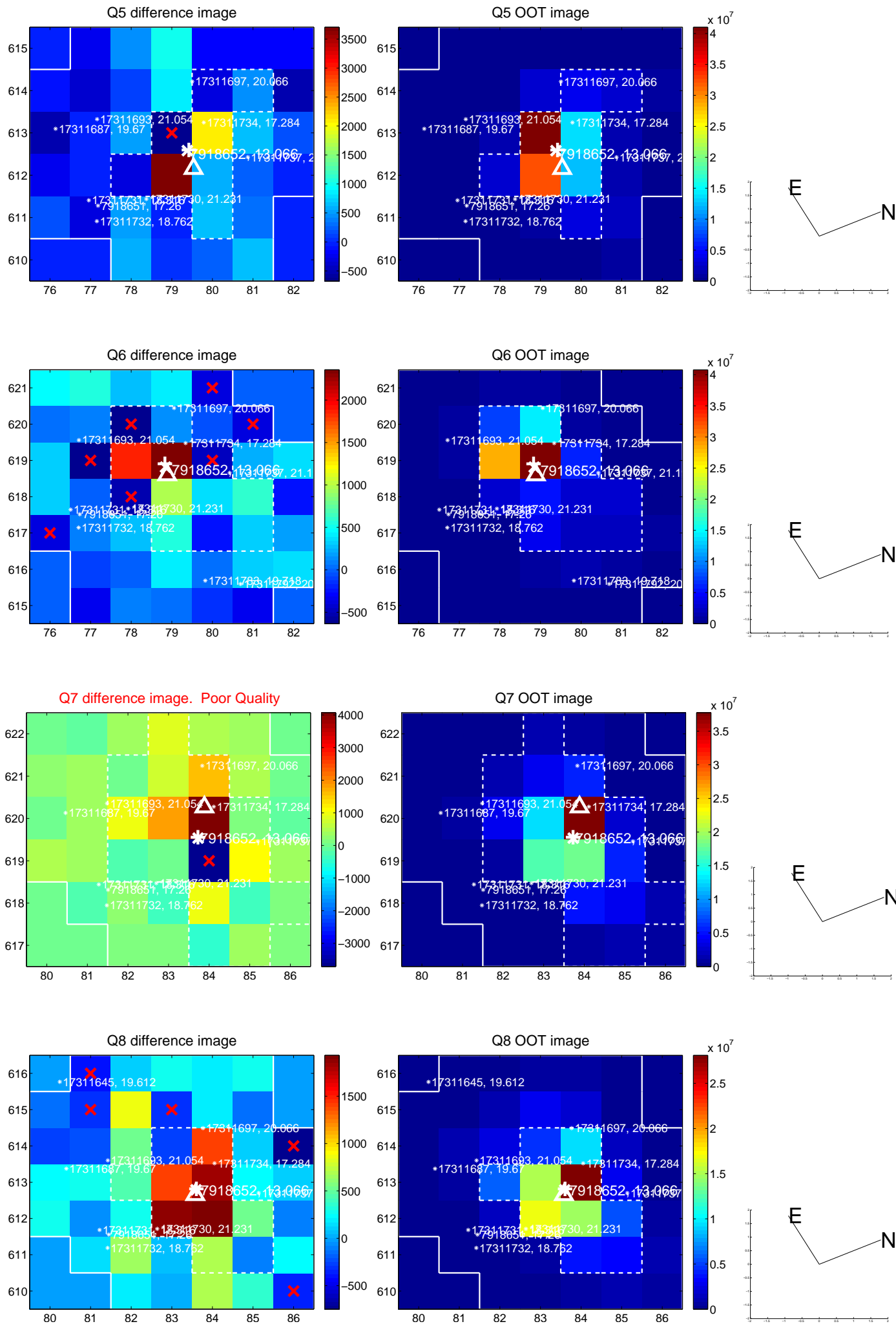


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

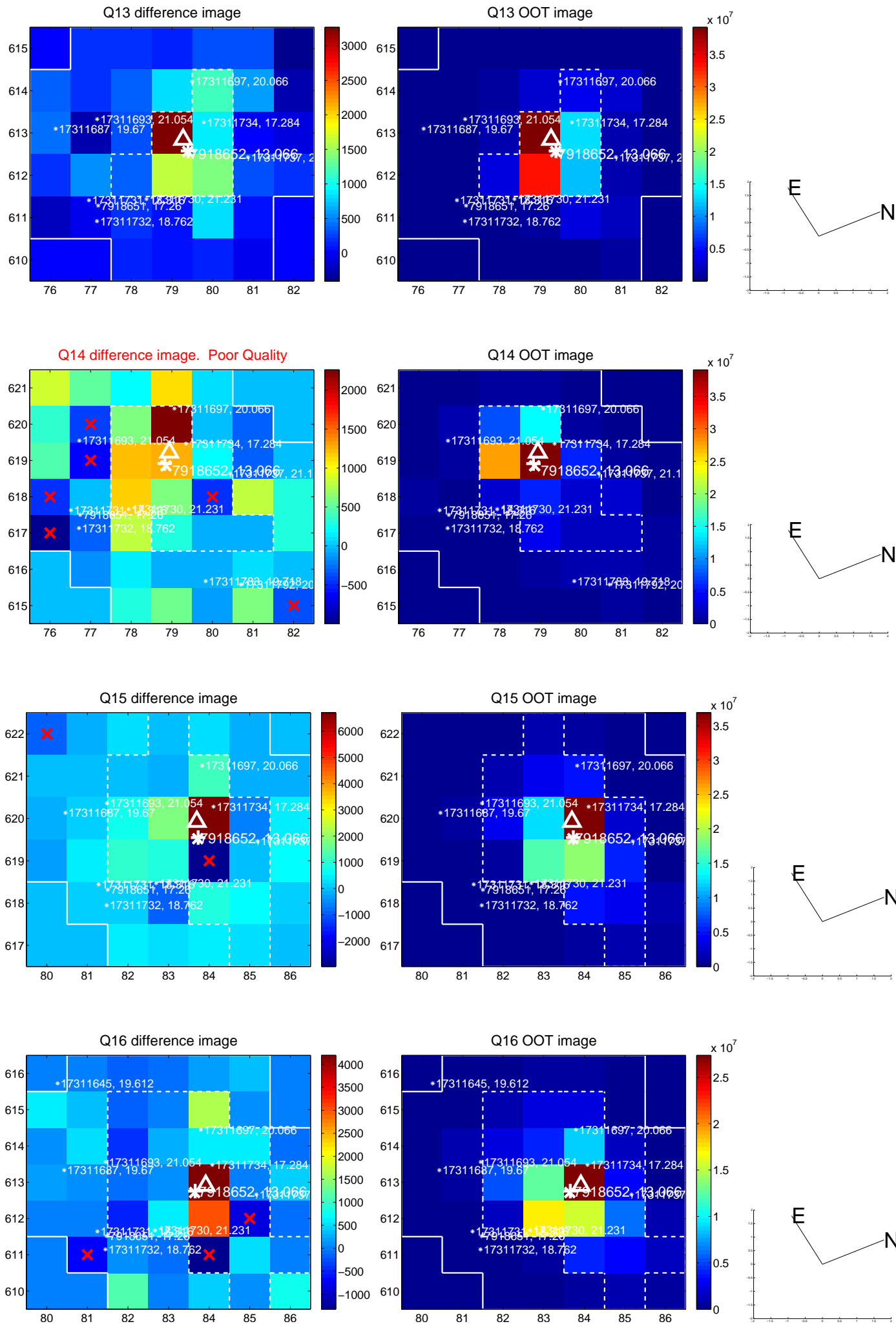
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

Declination

