

KIC 007899980

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})
007899980-01	OBS	No	0.560059	131.815437	13.2	2.140	10.7	4.2	2.38	8152	1.00	80071.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007899980-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

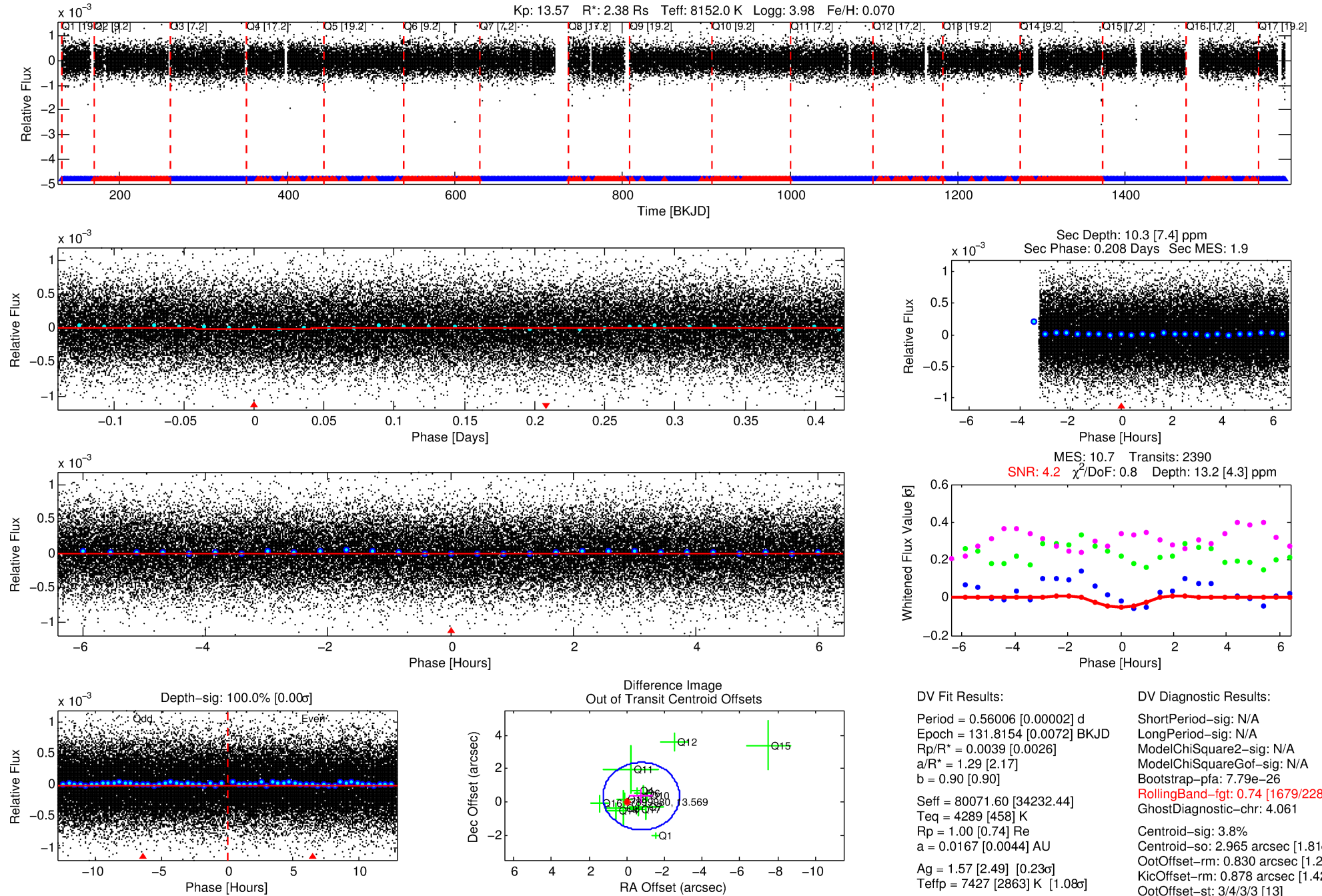
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007899980-01

No Significant Match Found

DV One-Page Summary

KIC: 7899980 Candidate: 1 of 1 Period: 0.560 d



DV Fit Results:

Period = 0.56006 [0.00002] d
Epoch = 131.8154 [0.0072] BKJD
Rp/R* = 0.0039 [0.0026]
a/R* = 1.29 [2.17]
b = 0.90 [0.90]
Seff = 80071.60 [34232.44]
Teff = 4289 [458] K
Rp = 1.00 [0.74] Re
a = 0.0167 [0.0044] AU
Ag = 1.57 [2.49] [0.23 σ]
Teffp = 7427 [2863] K [1.08 σ]

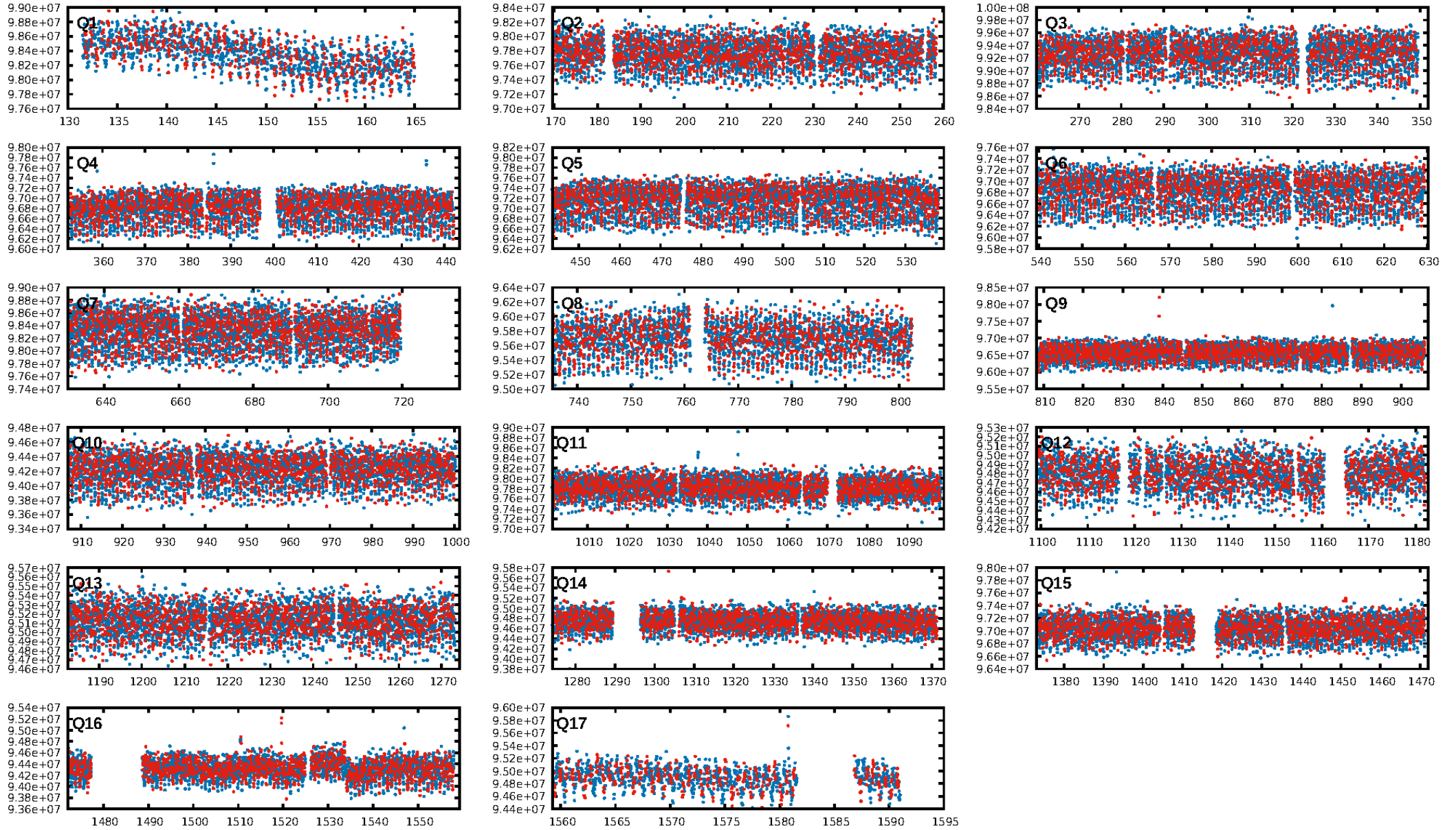
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.79e-26
RollingBand-fgt: 0.74 [1679/2282]
GhostDiagnostic-chr: 4.061
Centroid-sig: 3.8%
Centroid-so: 2.965 arcsec [1.81 σ]
OotOffset-rm: 0.830 arcsec [1.23 σ]
KicOffset-rm: 0.878 arcsec [1.42 σ]
OotOffset-st: 3/4/3/3 [13]
KicOffset-st: 3/4/3/3 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [17/17]

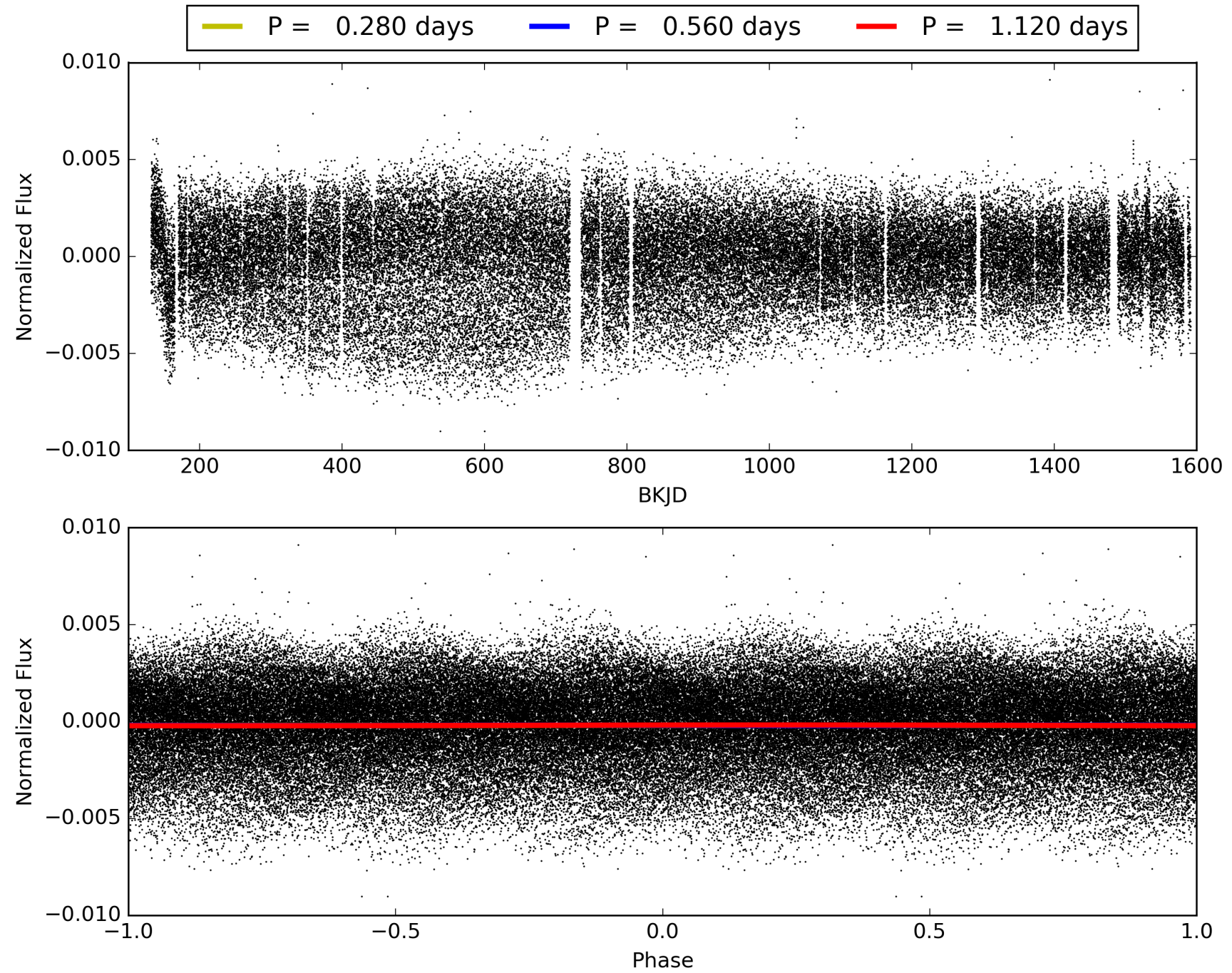
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:17:40 Z

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

TCE 007899980-01, PDC Light Curves

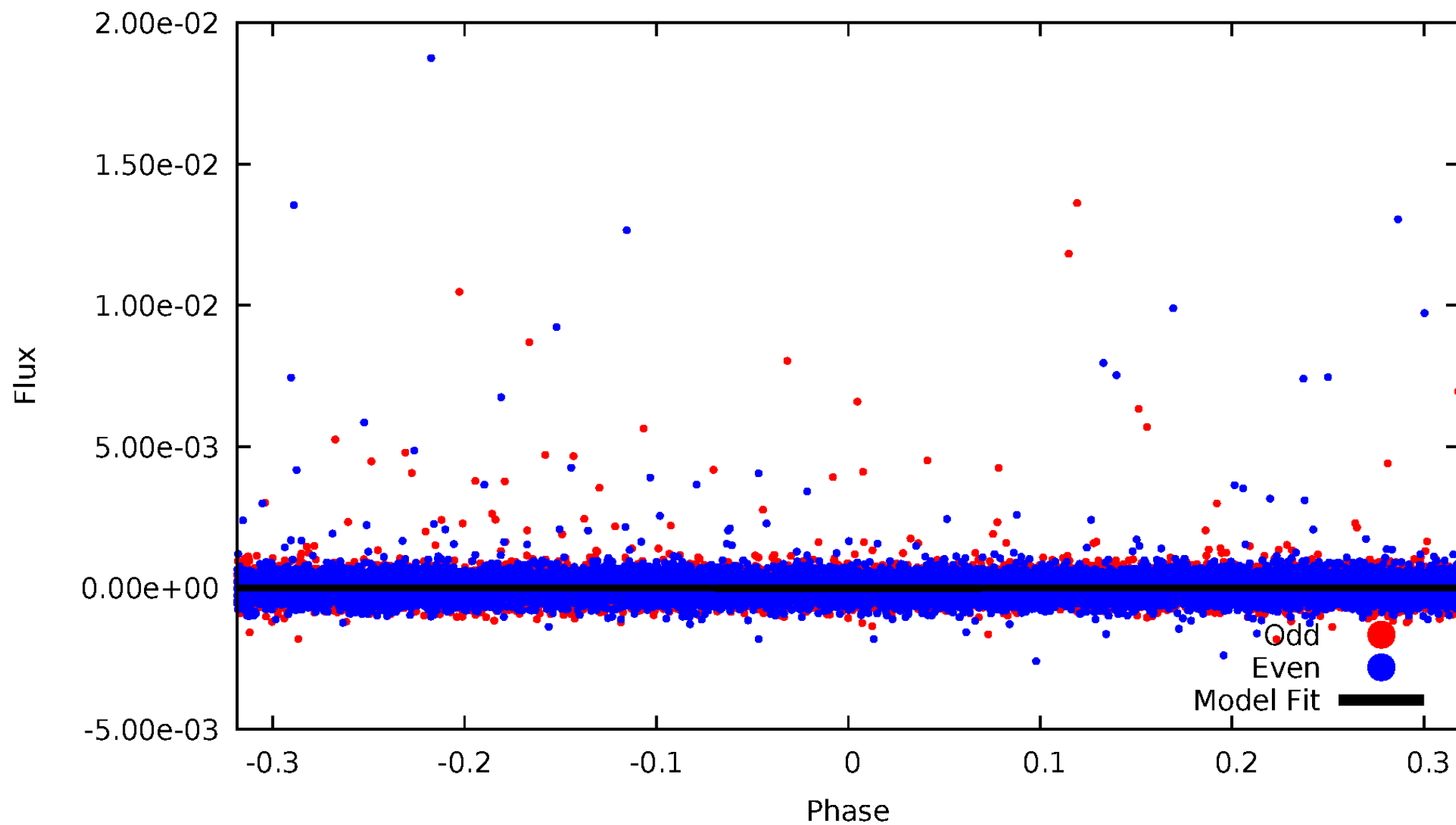


TCE 007899980-01



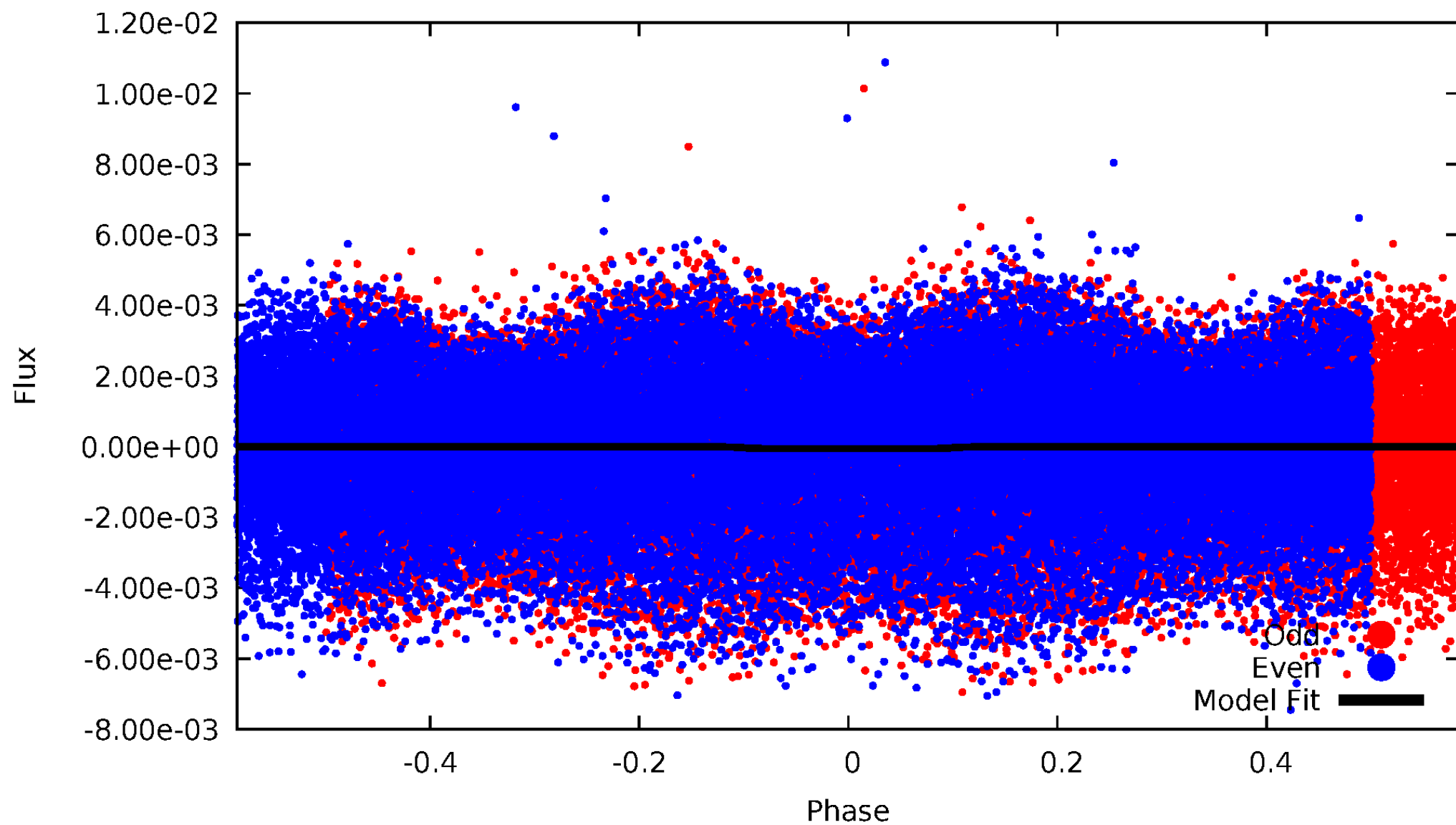
DV Odd/Even

TCE 007899980-01



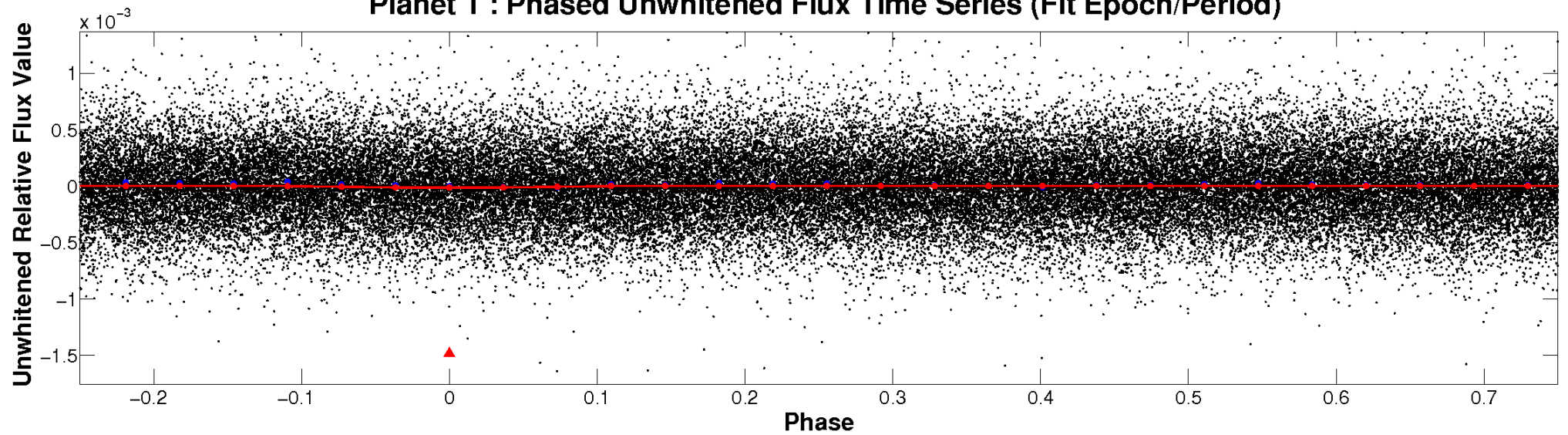
ALT Odd/Even

TCE 007899980-01

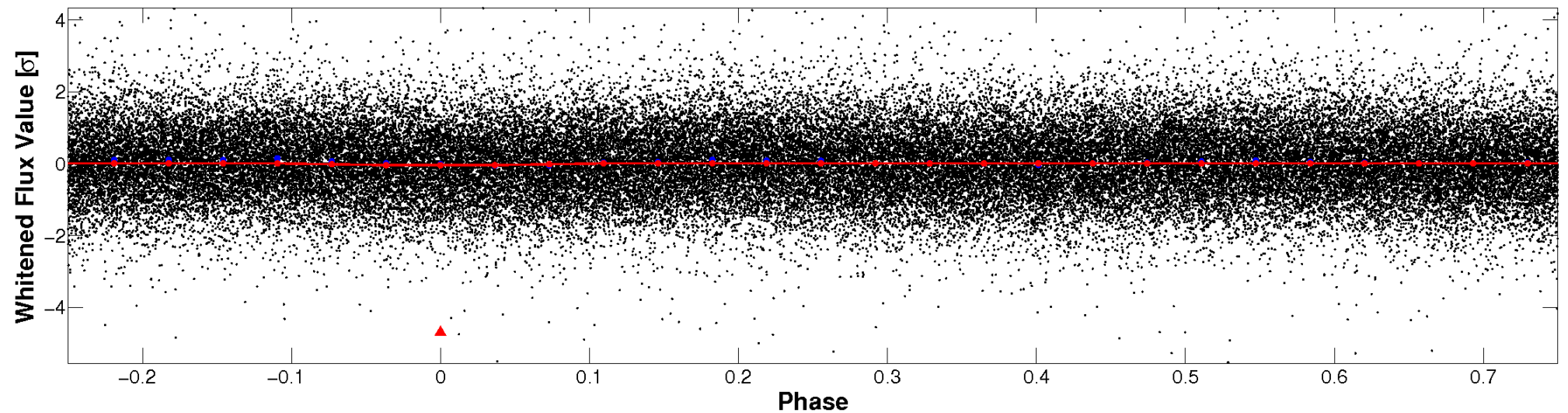


Non-Whitened Vs. Whitened Light Curve

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

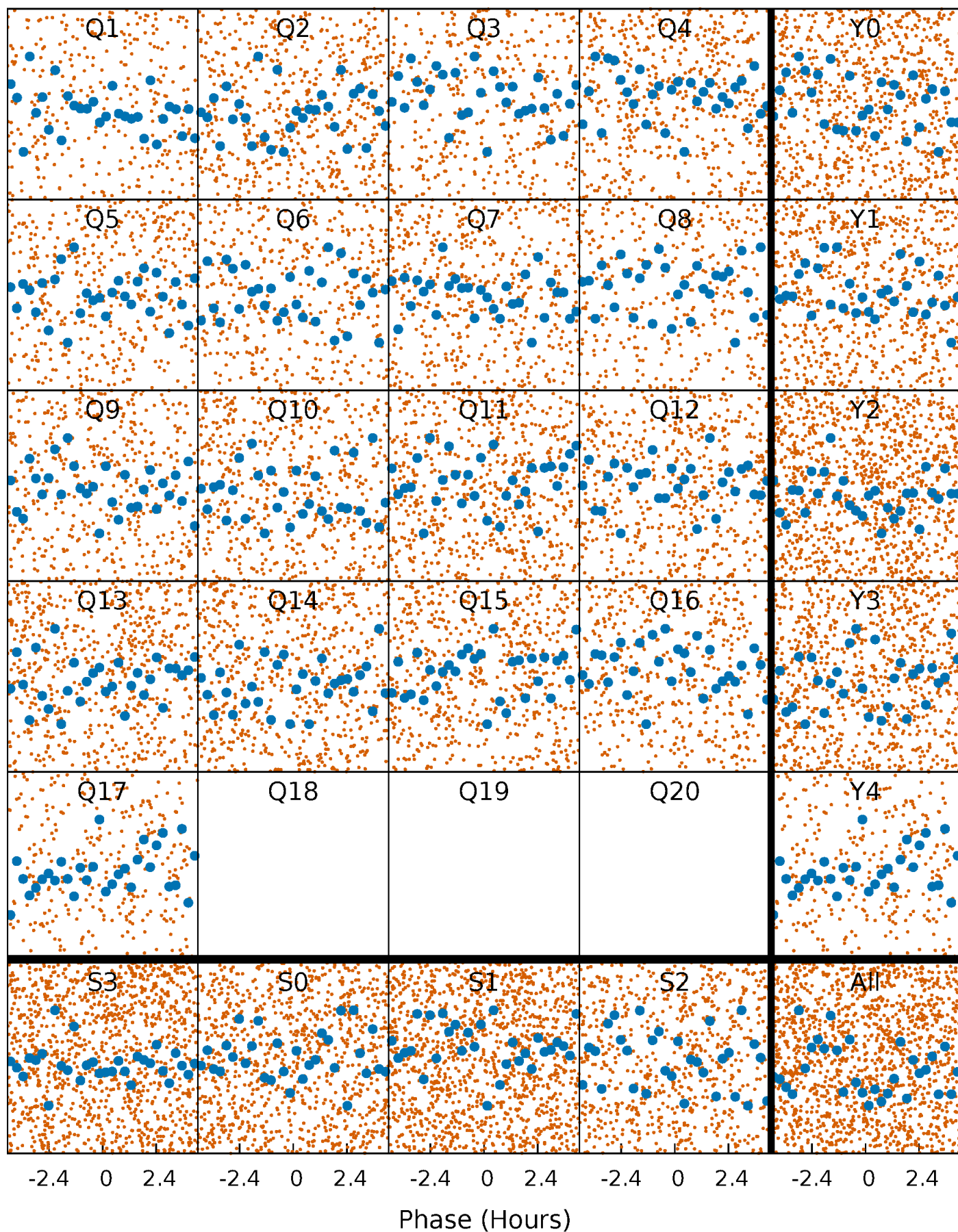


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



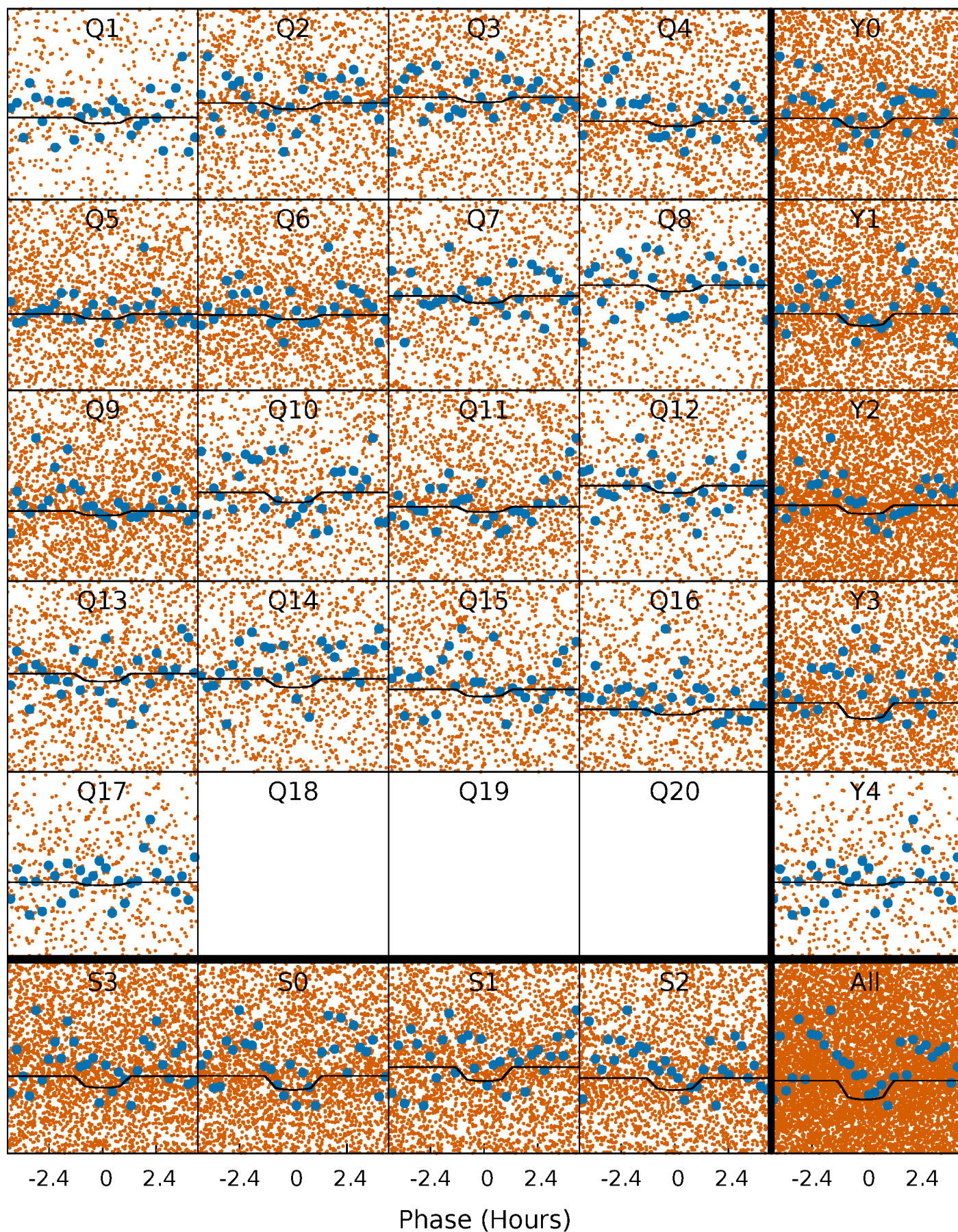
PDC Quarter-Phased Transit Curves

TCE 007899980-01 P= 0.560059 Days $T_0=131.815437$ (BKJD)



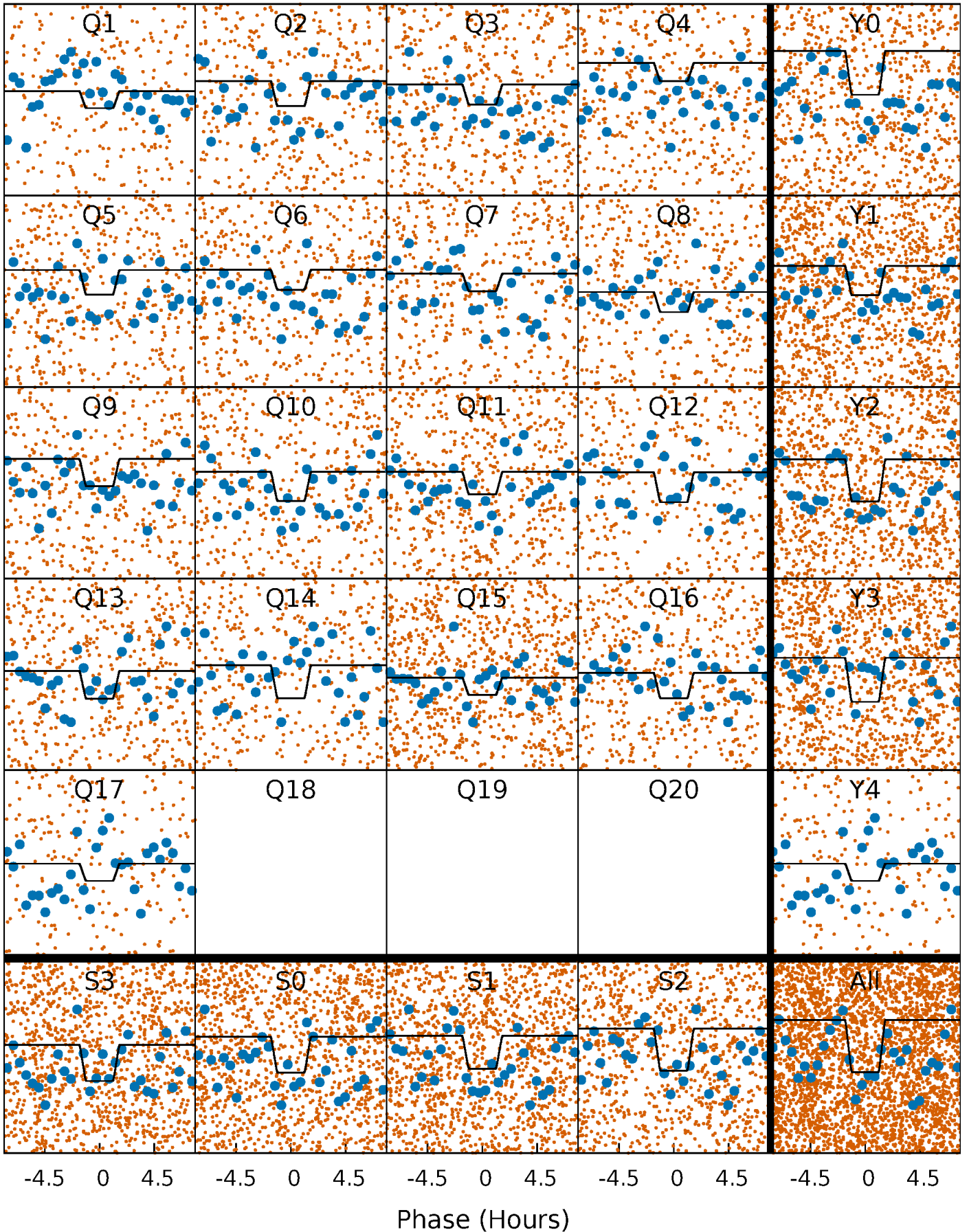
DV Quarter-Phased Transit Curves

TCE 007899980-01 P= 0.560059 Days $T_0=131.815437$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

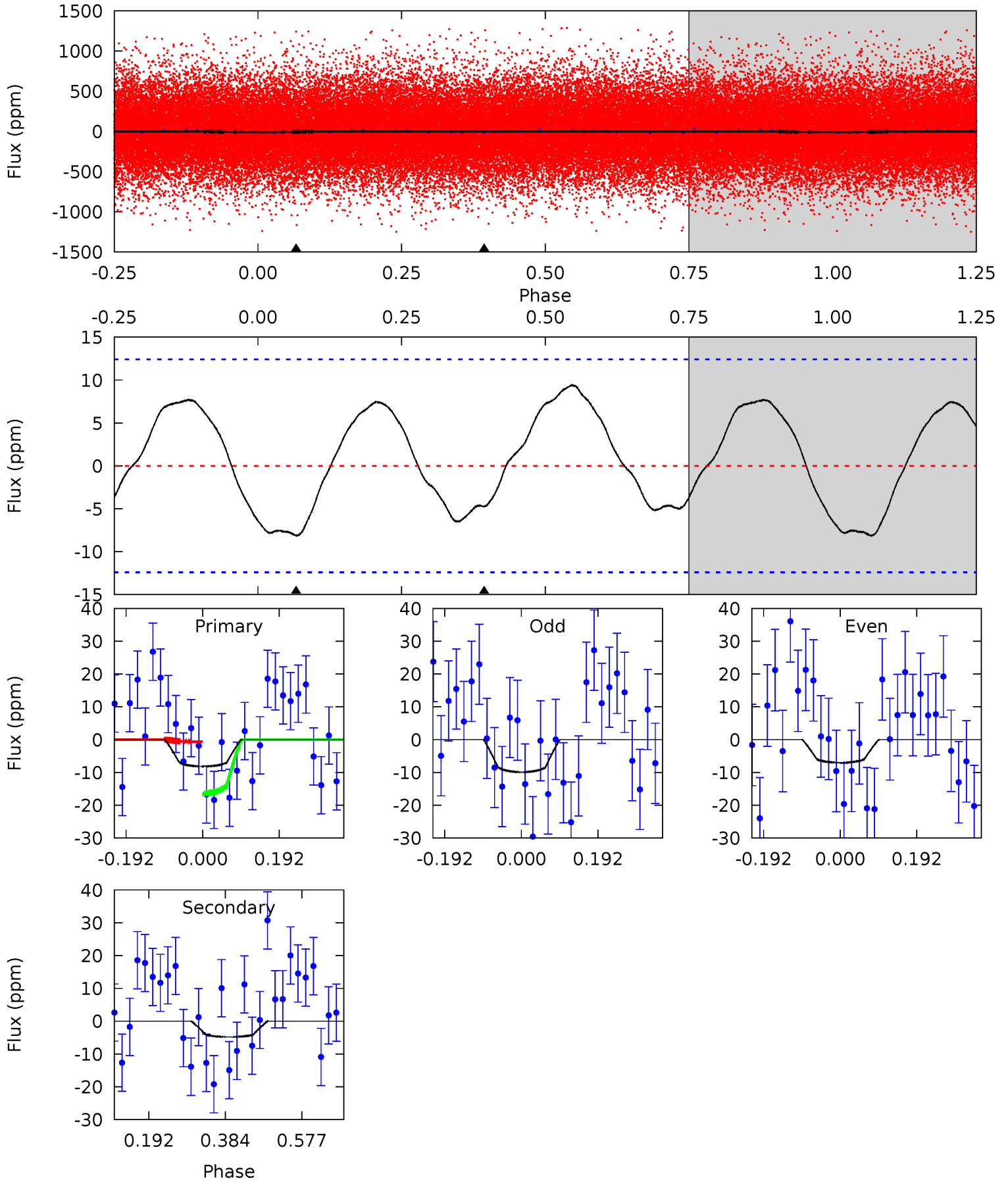
TCE 007899980-01 P= 0.560098 Days $T_0=131.790332$ (BKJD)



DV Model-Shift Uniqueness Test

007899980-01, P = 0.560059 Days, E = 131.255378 Days

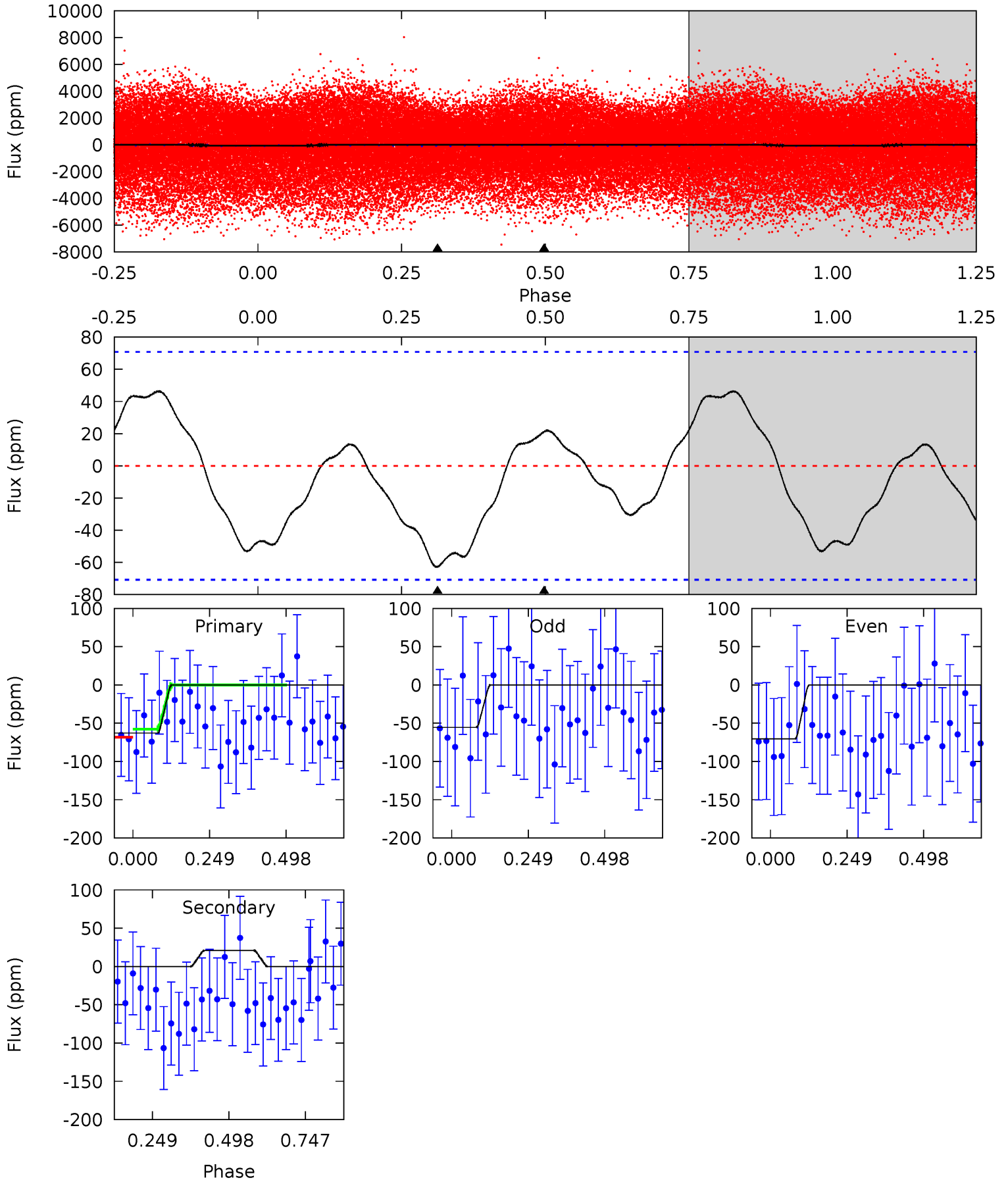
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.92	1.71	0	0	4.43	1.30	1.56	2.92	2.92	1.71	1.71	0.51	0.16	0.54	2.78



Alt Model-Shift Uniqueness Test

007899980-01, P = 0.560098 Days, E = 131.230234 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.88	-1.30	0	0	4.37	1.15	2.32	3.88	3.88	-1.30	-1.30	0.48	-0.17	0.43	0.33



Stellar Parameters For KIC 007899980

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8152^{+226}_{-340}	$3.984^{+0.221}_{-0.136}$	$0.070^{+0.200}_{-0.450}$	$2.381^{+0.476}_{-0.713}$	$1.993^{+0.295}_{-0.442}$	$0.208^{+0.265}_{-0.073}$
	+3%/-4%	+6%/-3%	+286%/-643%	+20%/-30%	+15%/-22%	+127%/-35%
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 007899980-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-5 ± 3	$0.99^{+0.69}_{-0.56}$	5932^{+415}_{-487}	4896^{+4344}_{-9062}	$0.645^{+3.347}_{-0.488}$
Alt.	21 ± 16	$1.81^{+0.79}_{-0.66}$	5937^{+419}_{-483}	-6609^{+1185}_{-2099}	$-0.882^{+0.663}_{-1.938}$

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

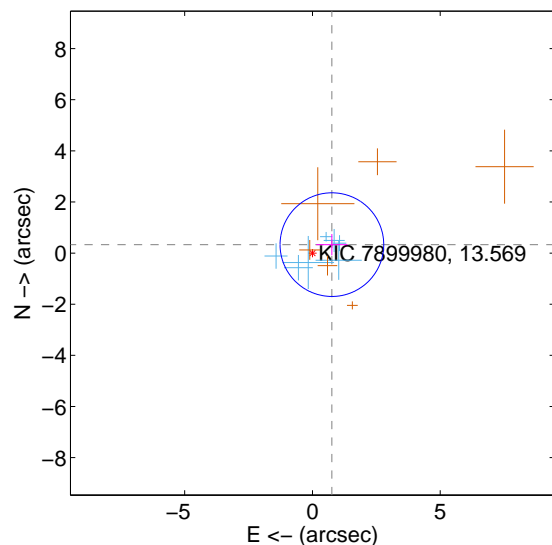
Supplemental centroid analysis for 007899980-01. Kepler magnitude: 13.57. Transit SNR 4.22

There are 7 quarters with good PRF difference image offsets

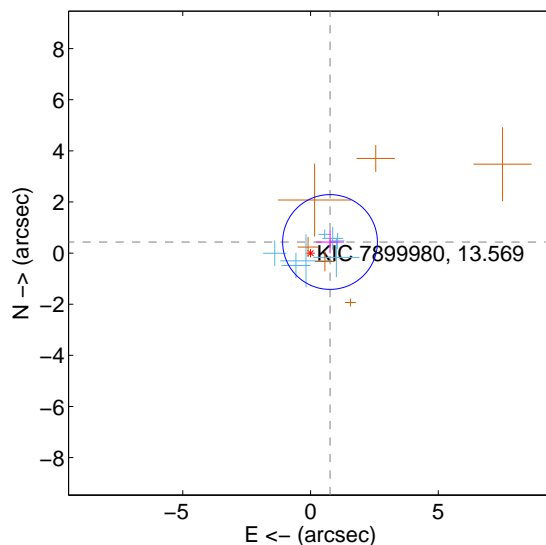
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.830 ± 0.676	1.23	-0.761 ± 0.613	0.331 ± 0.416
PRF-fit source offset from KIC position	0.878 ± 0.618	1.42	-0.763 ± 0.541	0.434 ± 0.440
photometric centroid source offset	2.96 ± 1.64	1.81	2.73 ± 1.63	1.15 ± 1.70

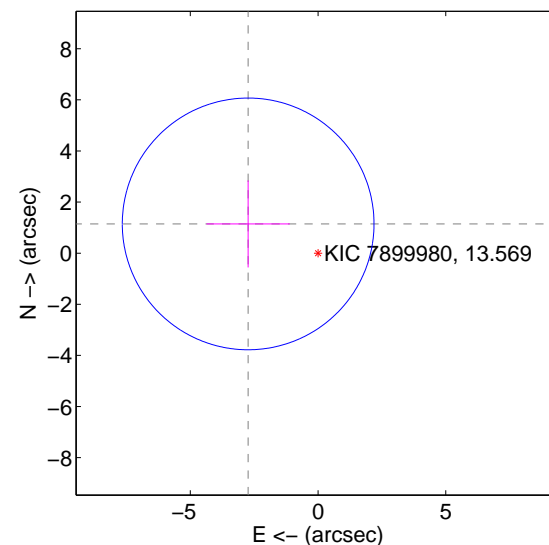
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

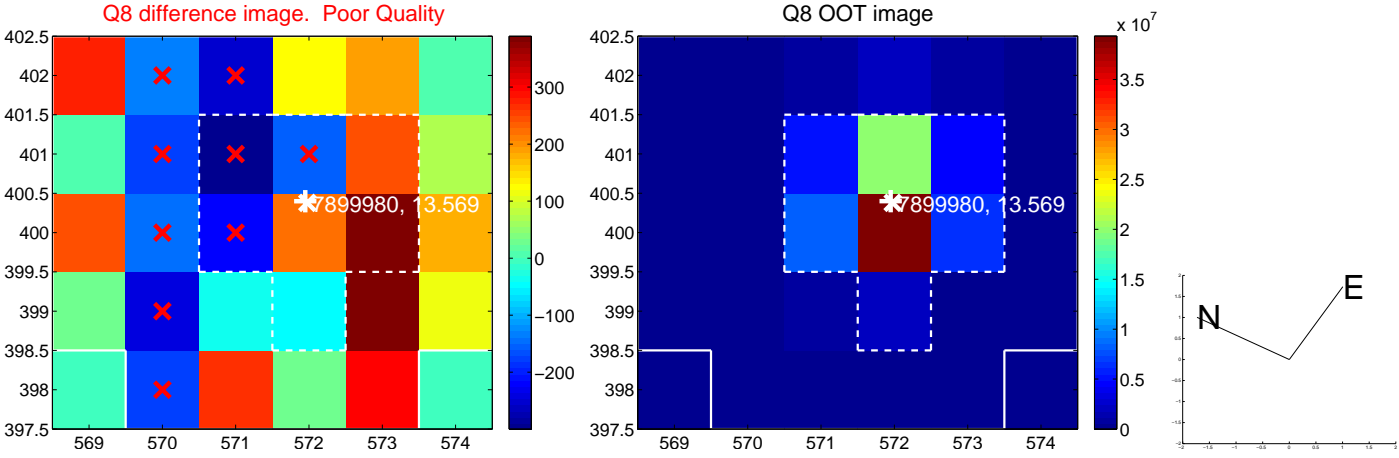
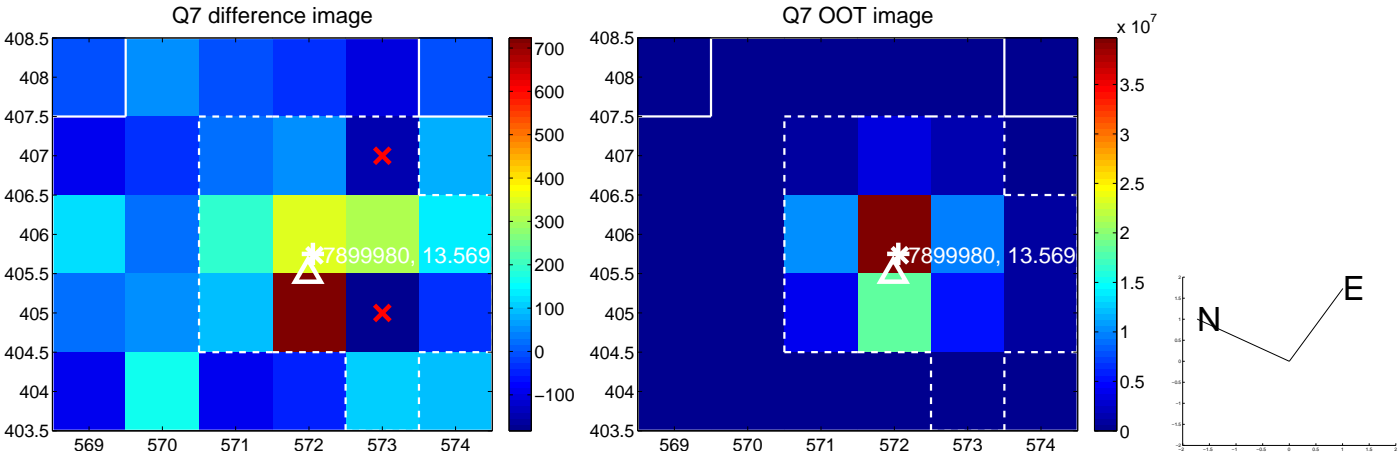
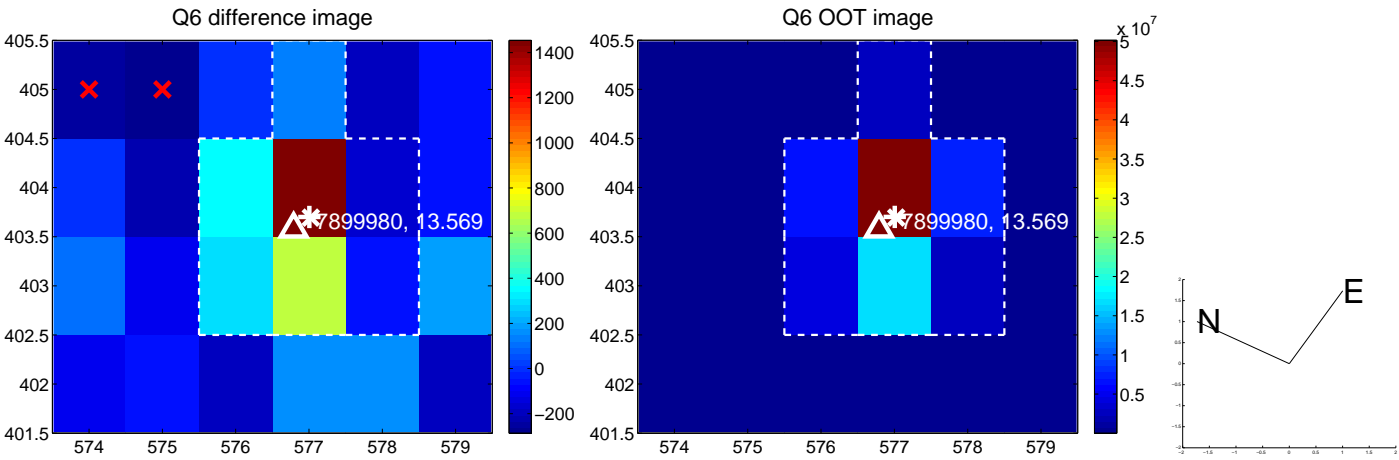
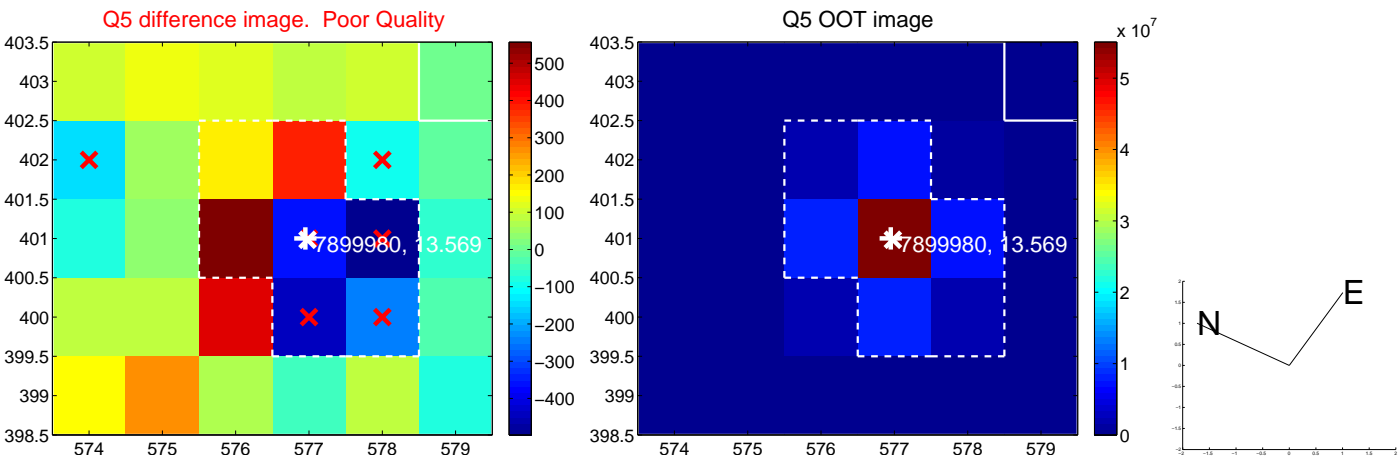


offset from photometric centroids

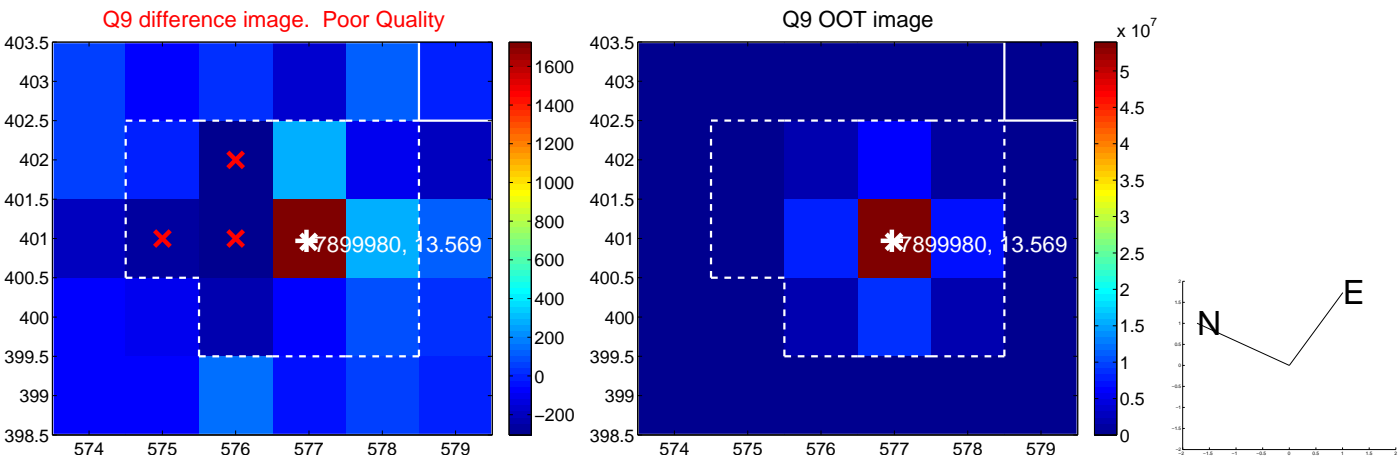


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

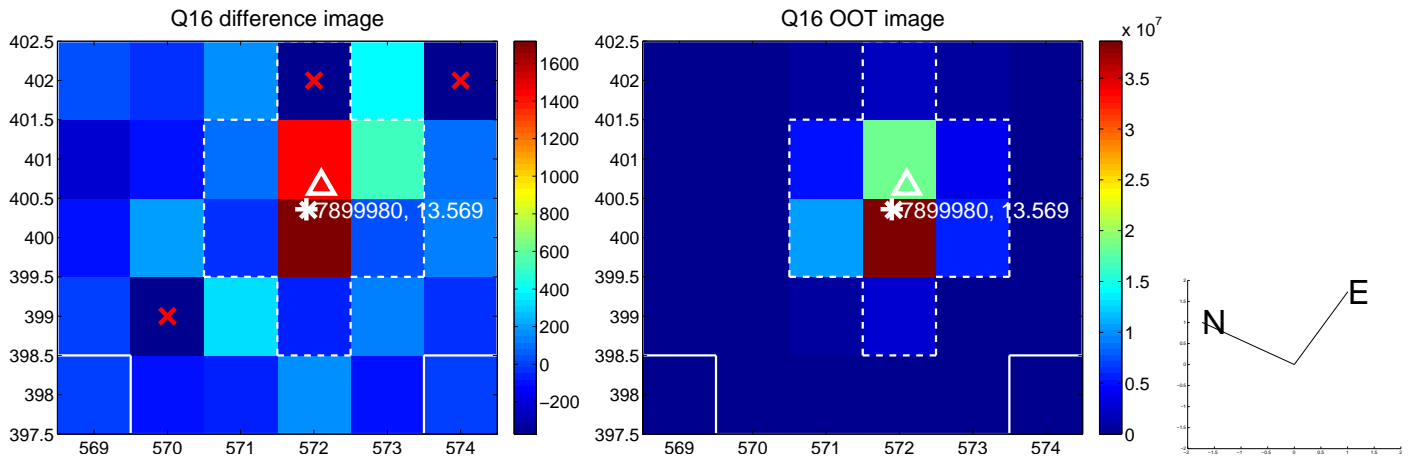
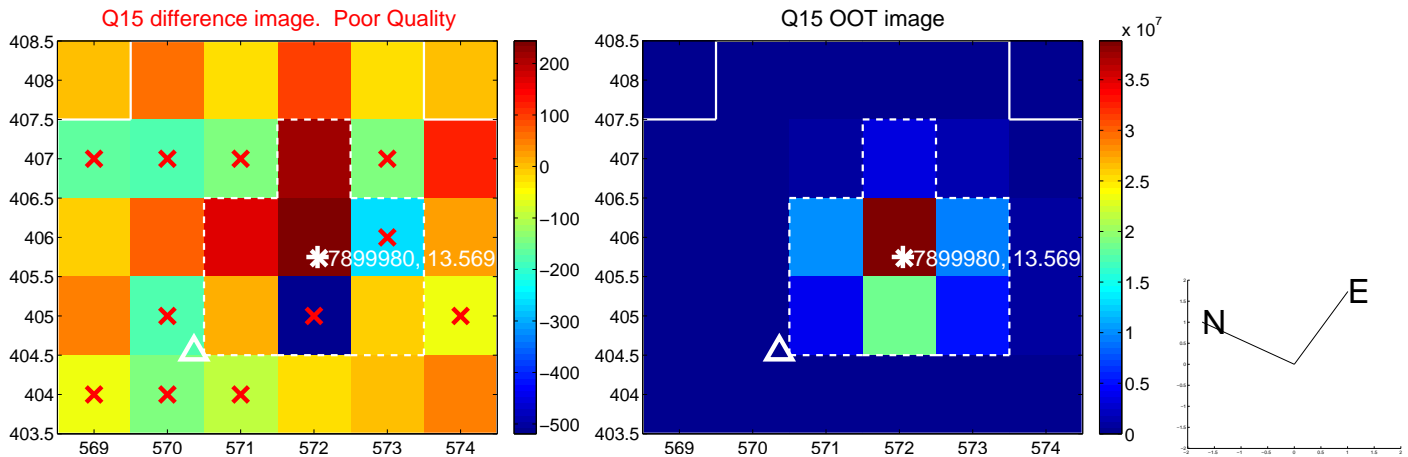
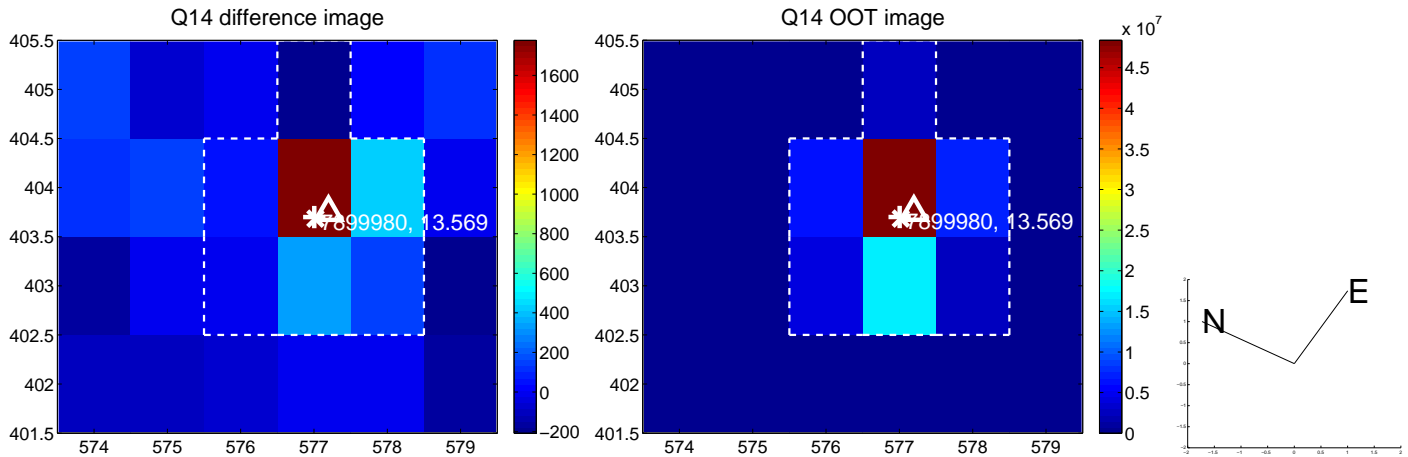
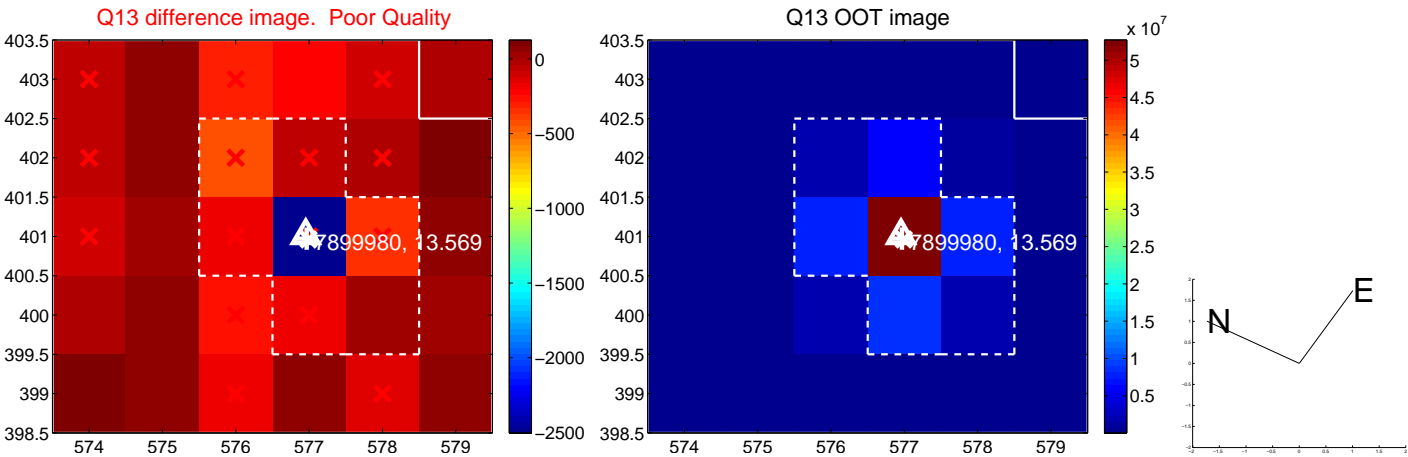
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



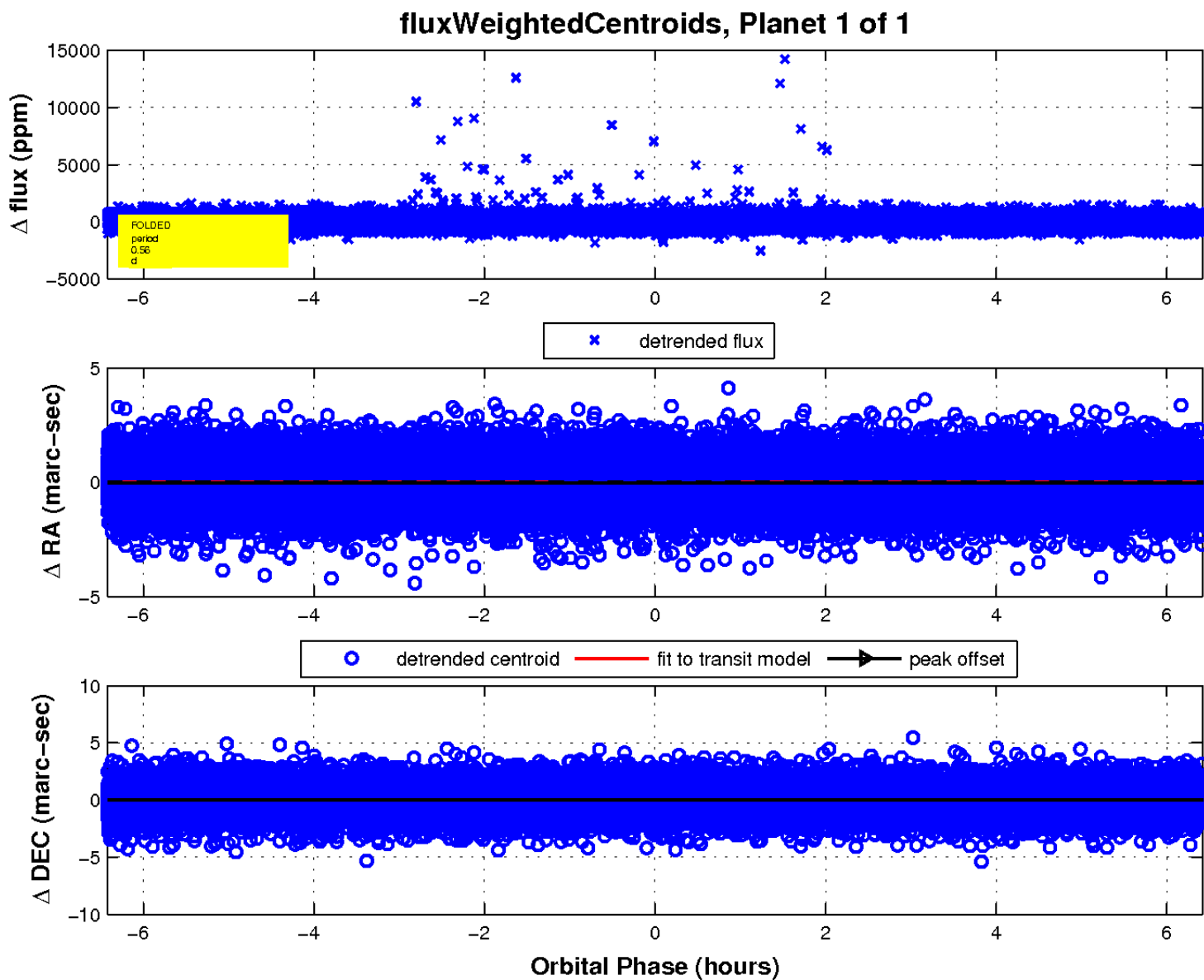
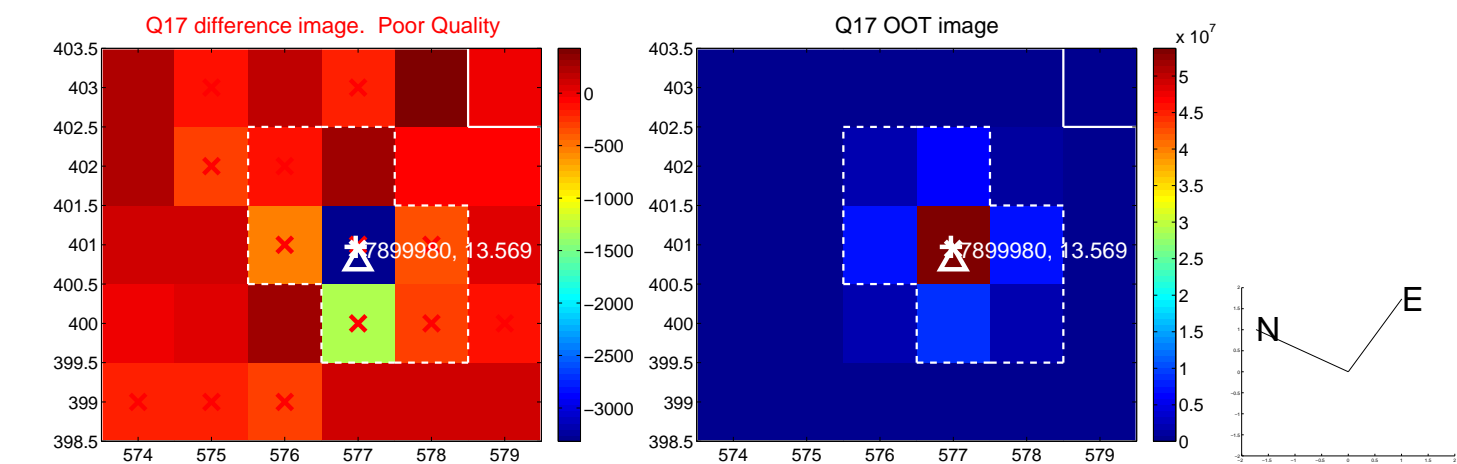
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

