

KIC 008973529

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})
008973529-01	OBS	No	0.621160	131.942152	1.1	5.827	8.4	0.2	5.09	6926	0.56	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008973529-01	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.

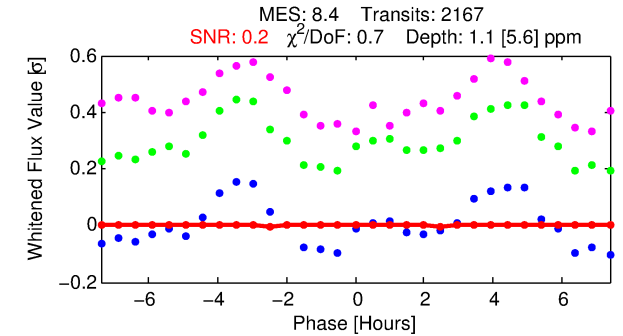
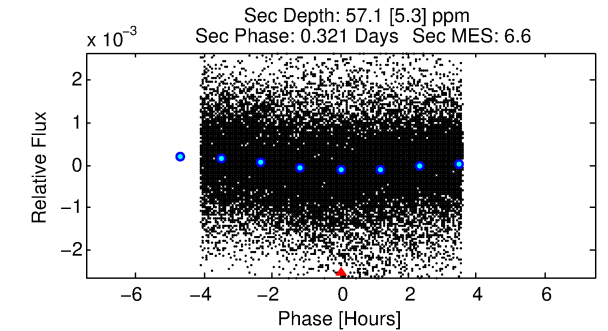
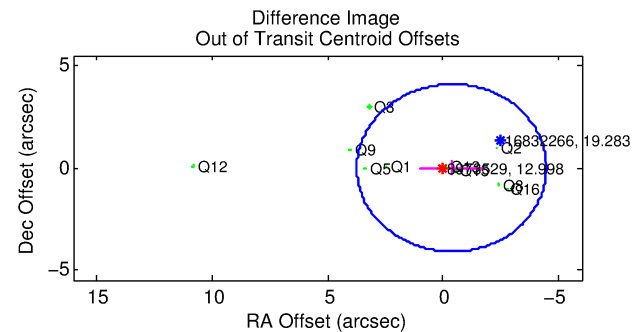
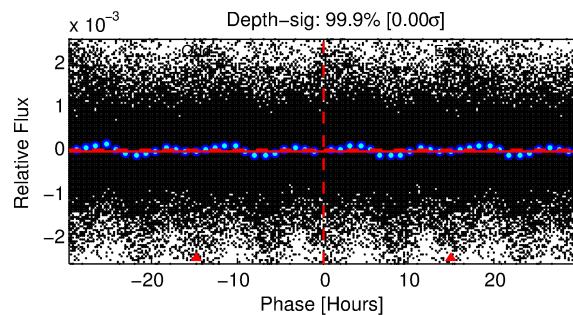
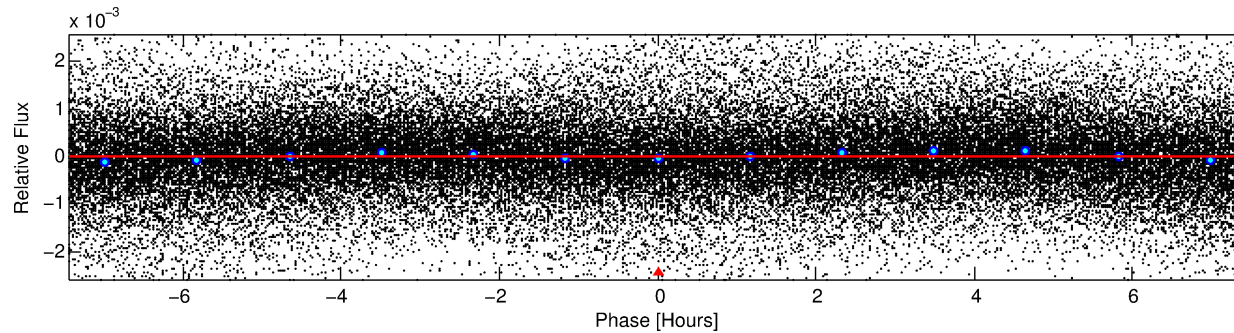
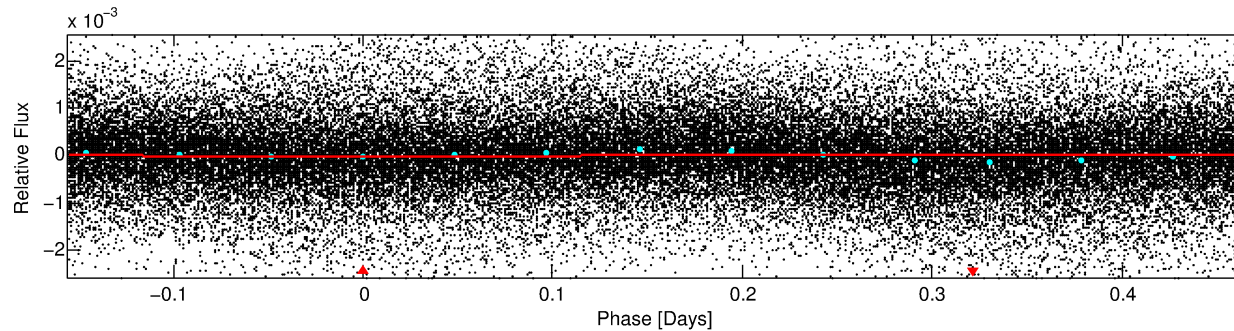
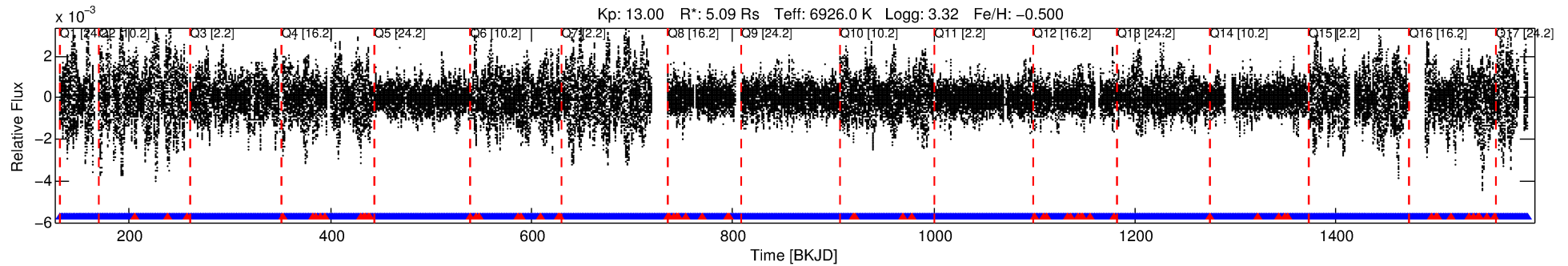
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008973529-01

No Significant Match Found

DV One-Page Summary

KIC: 8973529 Candidate: 1 of 1 Period: 0.621 d



DV Fit Results:

Period = 0.62116 [0.00046] d
Epoch = 131.9422 [0.0708] BKJD
Rp/R* = 0.0010 [0.0075]
a/R* = 1.03 [3.01]
b = 0.69 [34.92]
Seff = N/A
Teq = N/A
Rp = 0.56 [4.15] Re
a = N/A
Ag = N/A
Teffp = N/A

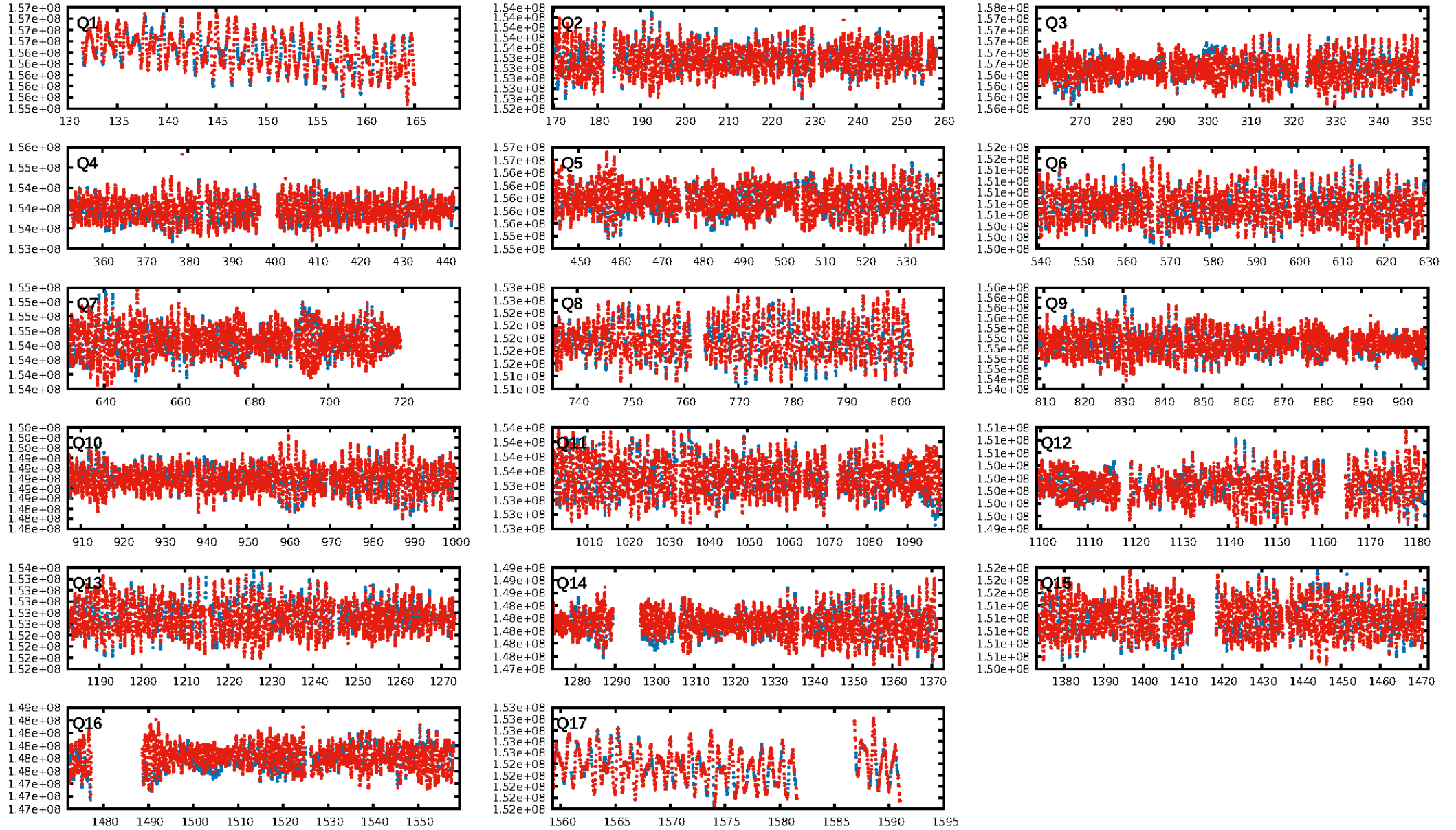
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [2007/2070]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.369 arcsec [0.27 σ]
KicOffset-rm: 0.349 arcsec [0.37 σ]
OotOffset-st: 1/2/3/4 [10]
KicOffset-st: 1/2/3/4 [10]
DiffImageQuality-fgm: 0.20 [2/10]
DiffImageOverlap-fno: 1.00 [17/17]

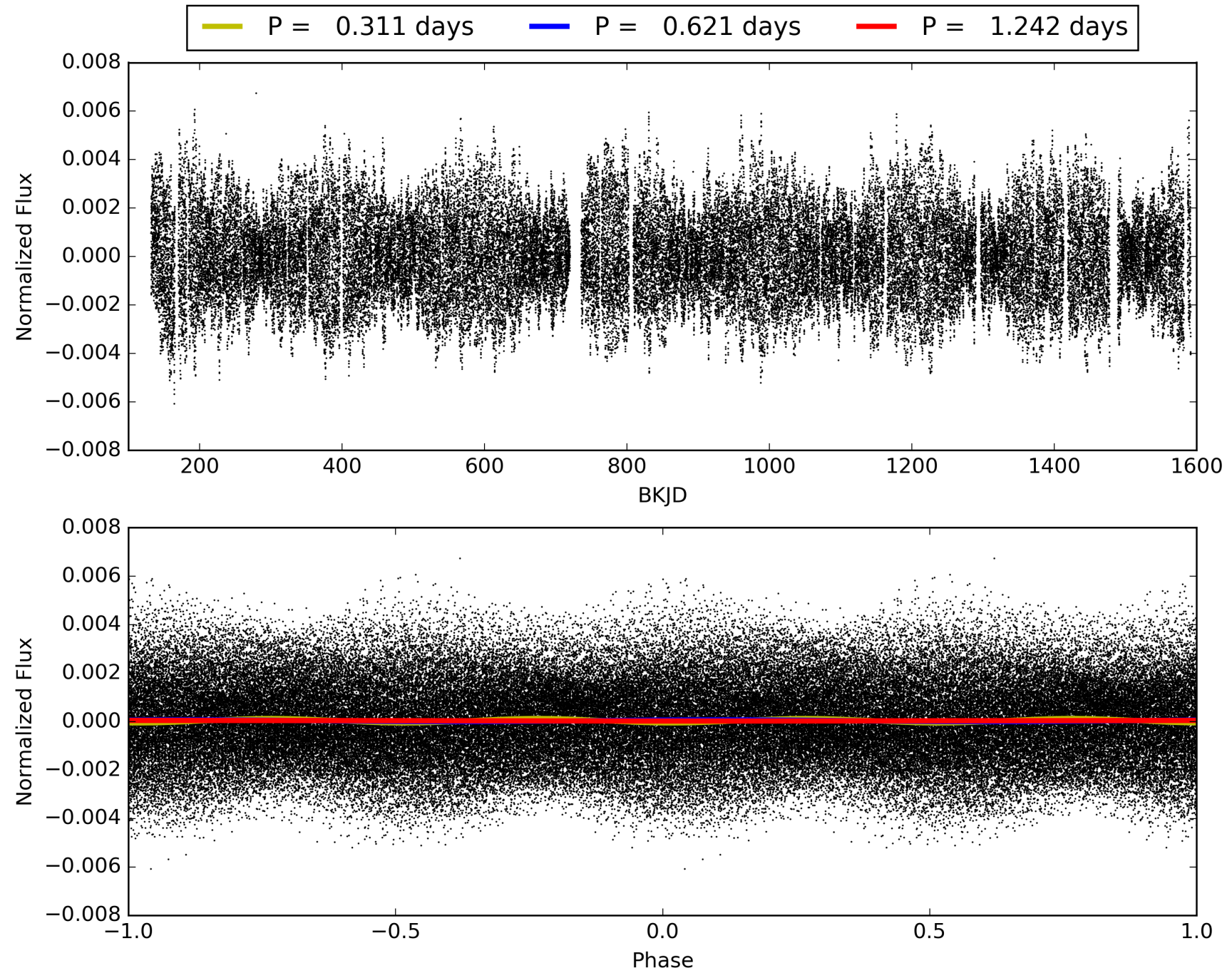
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:31:34 Z

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

TCE 008973529-01, PDC Light Curves

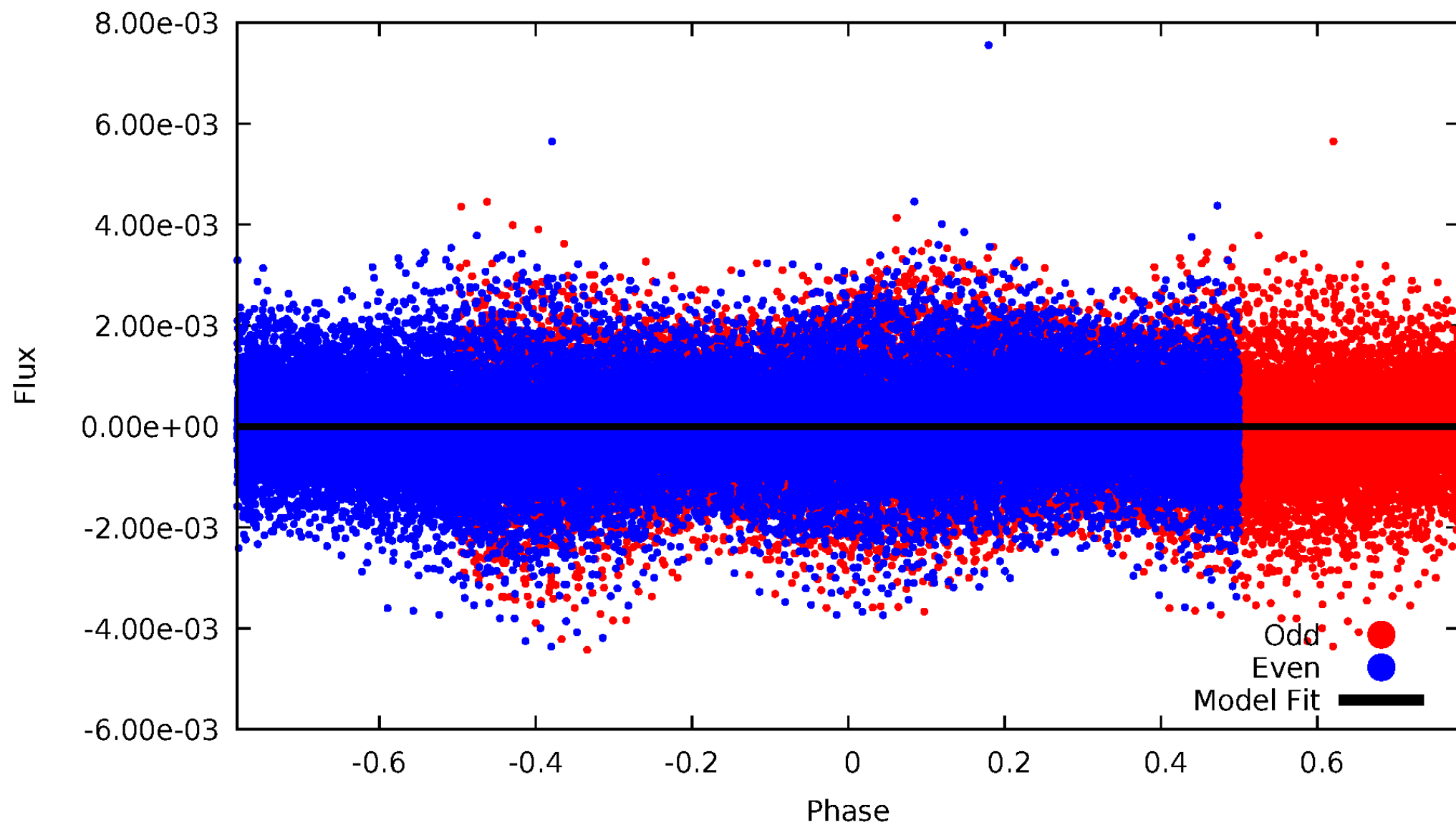


TCE 008973529-01



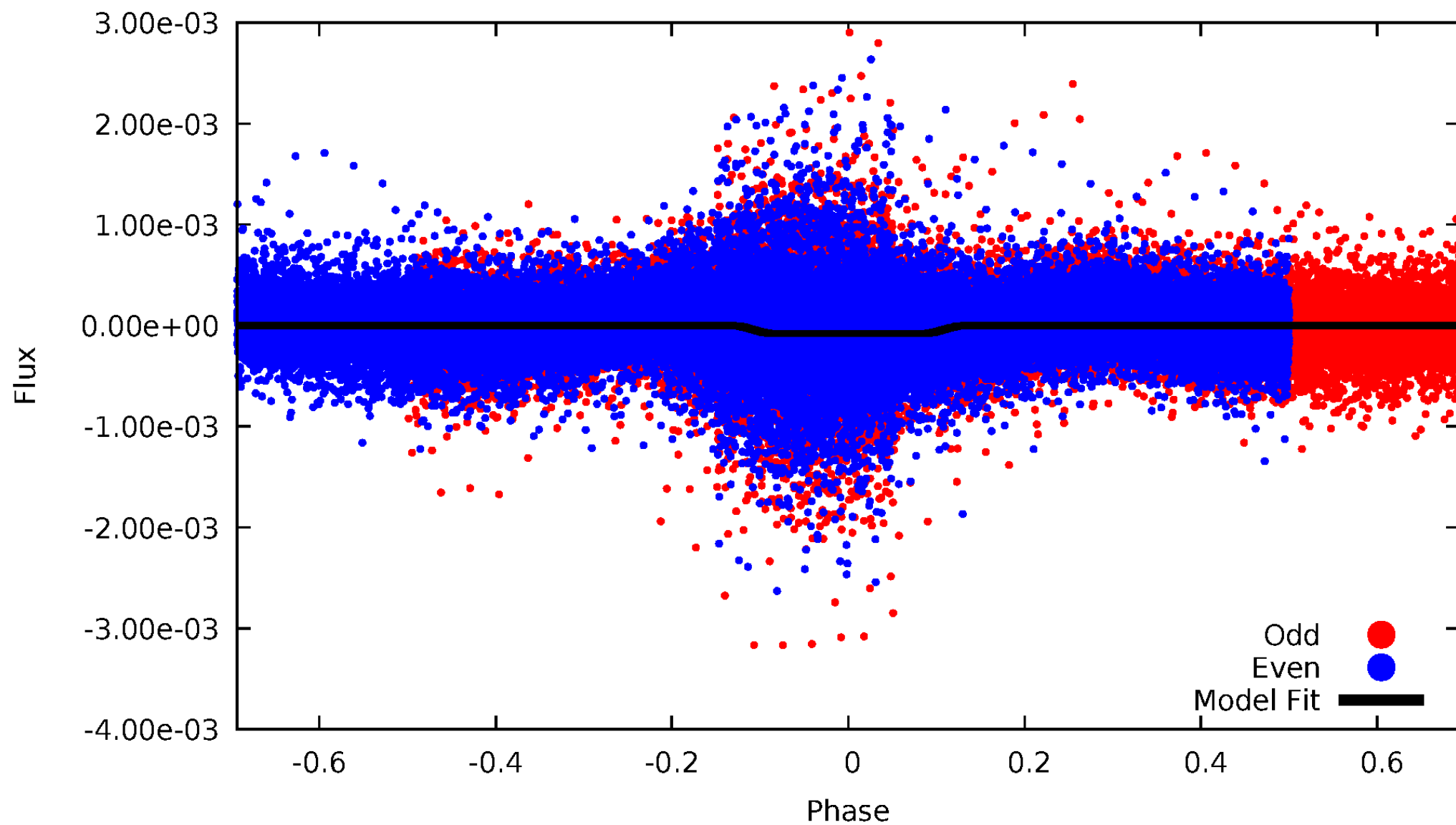
DV Odd/Even

TCE 008973529-01



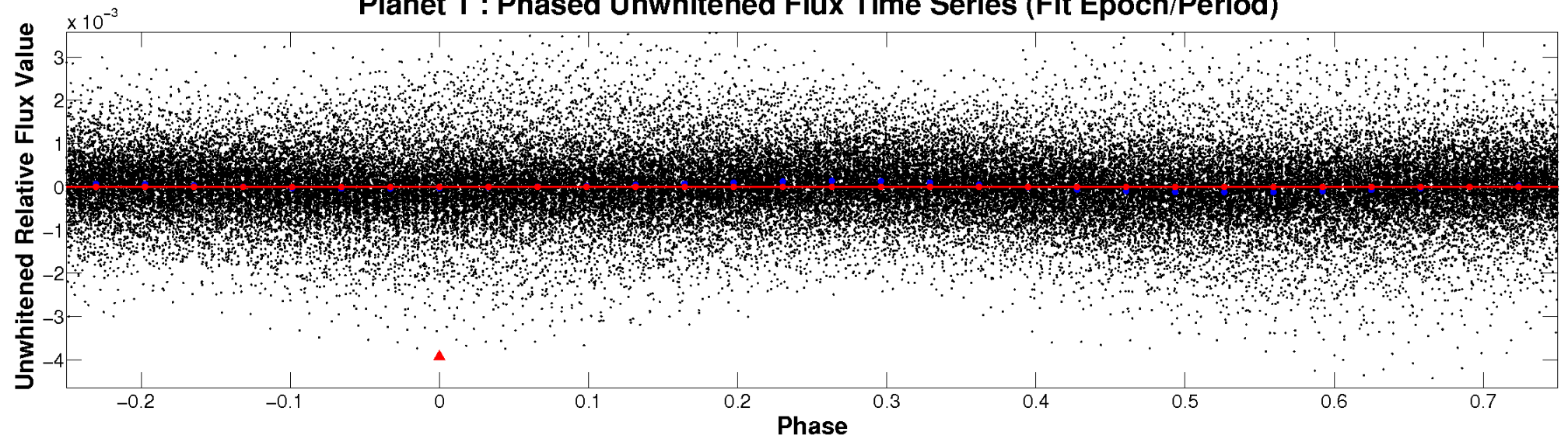
ALT Odd/Even

TCE 008973529-01

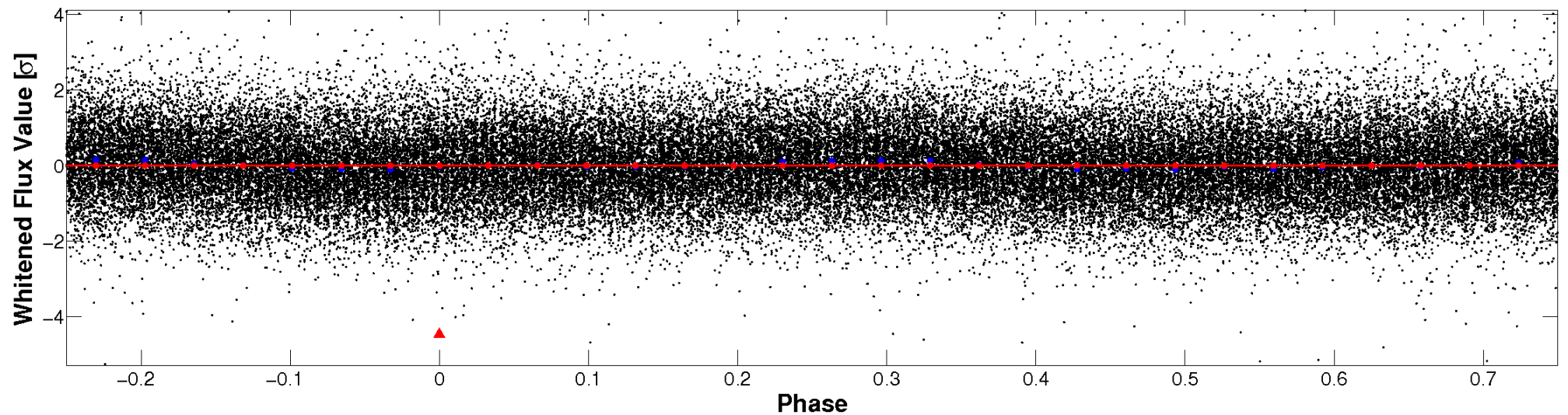


Non-Whitened Vs. Whitened Light Curve

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

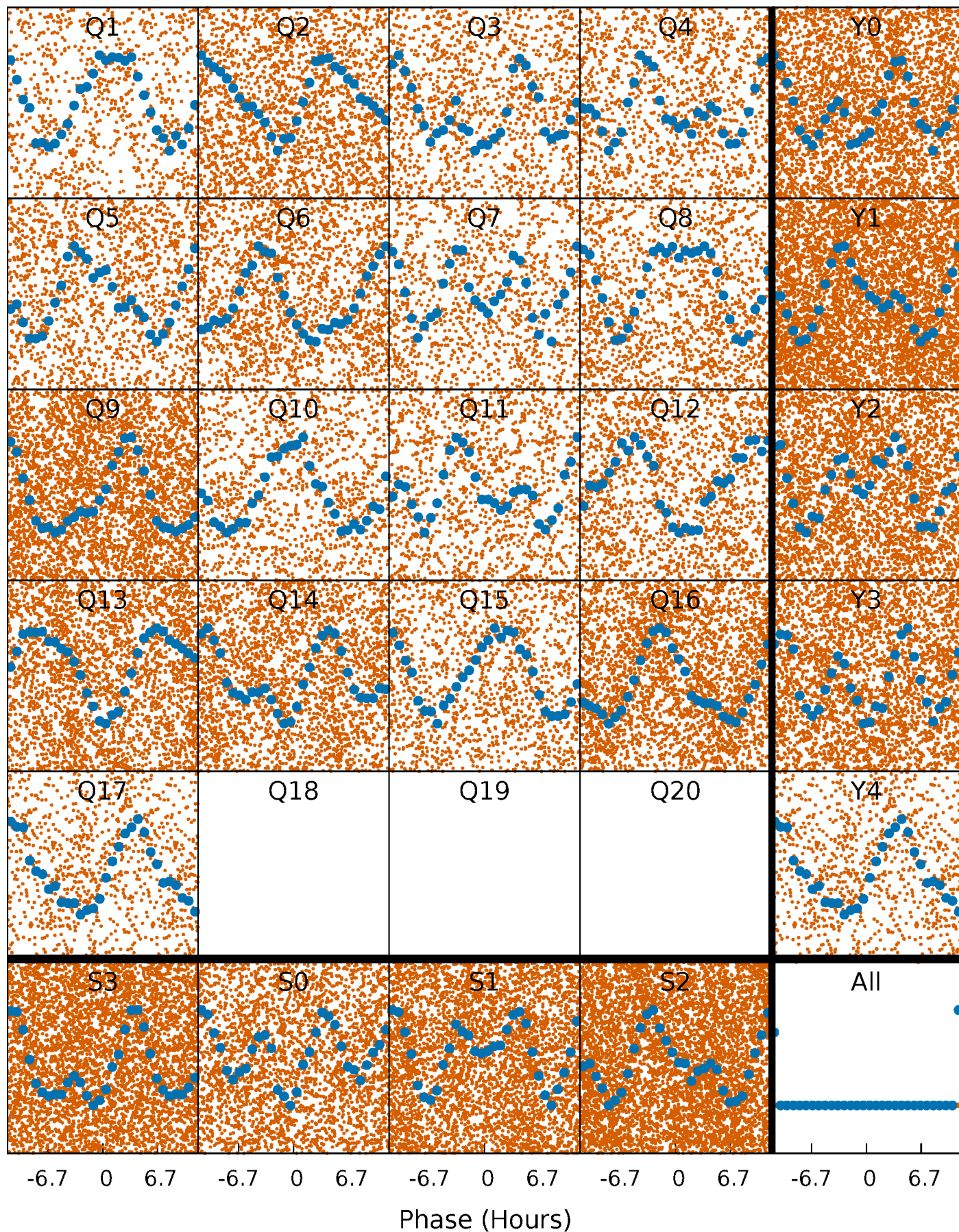


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



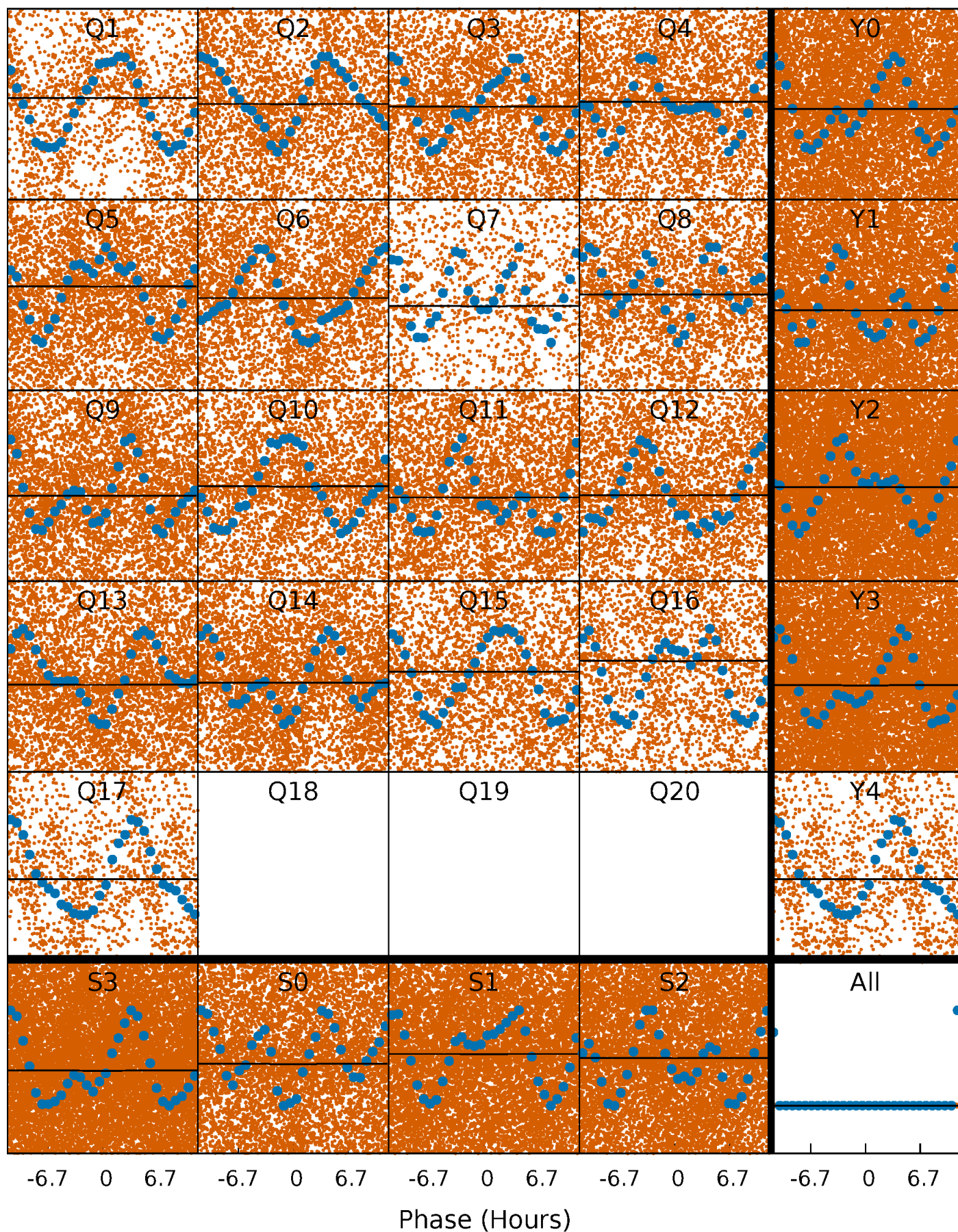
PDC Quarter-Phased Transit Curves

TCE 008973529-01 P= 0.621160 Days $T_0=131.942152$ (BKJD)



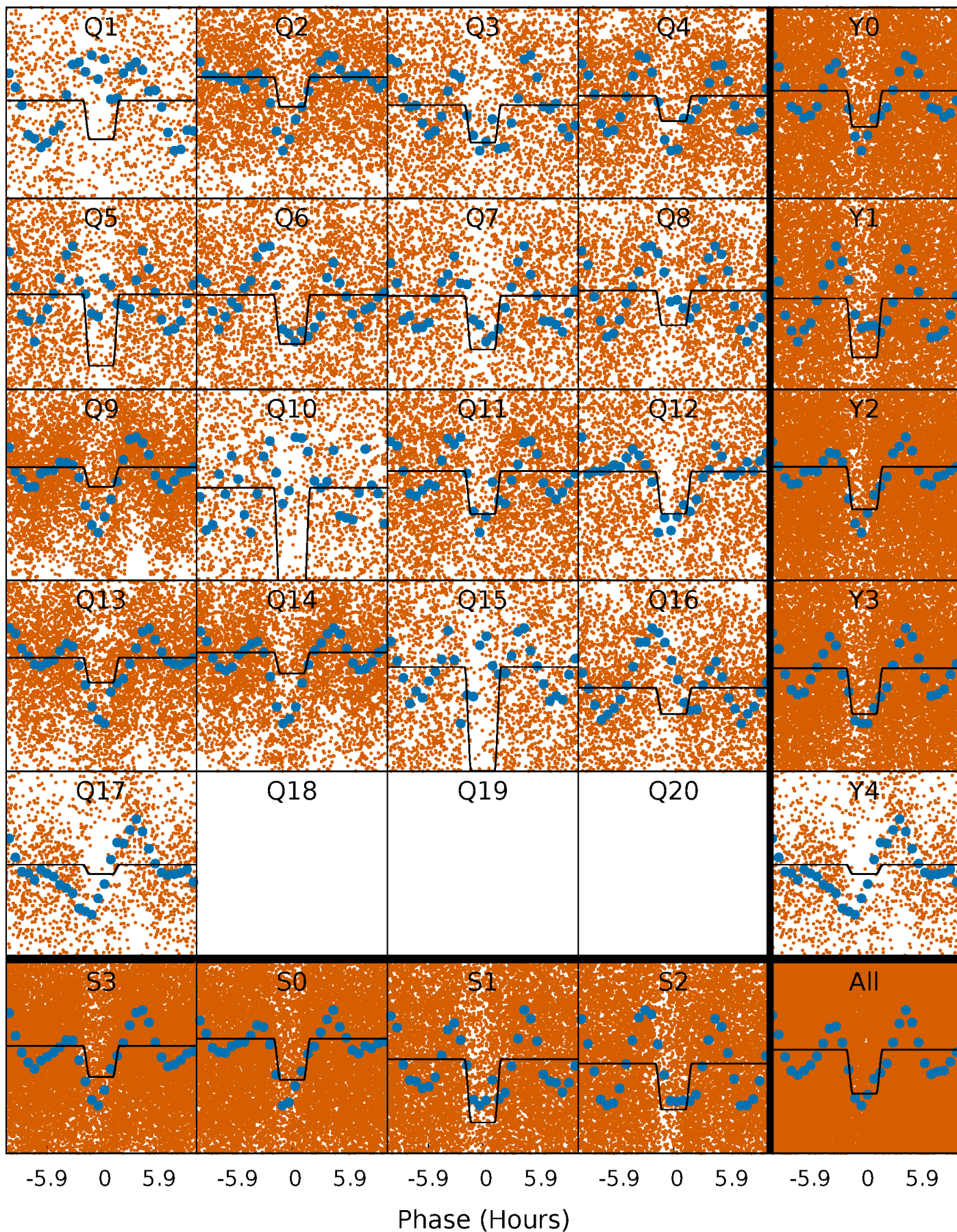
DV Quarter-Phased Transit Curves

TCE 008973529-01 P= 0.621160 Days $T_0=131.942152$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

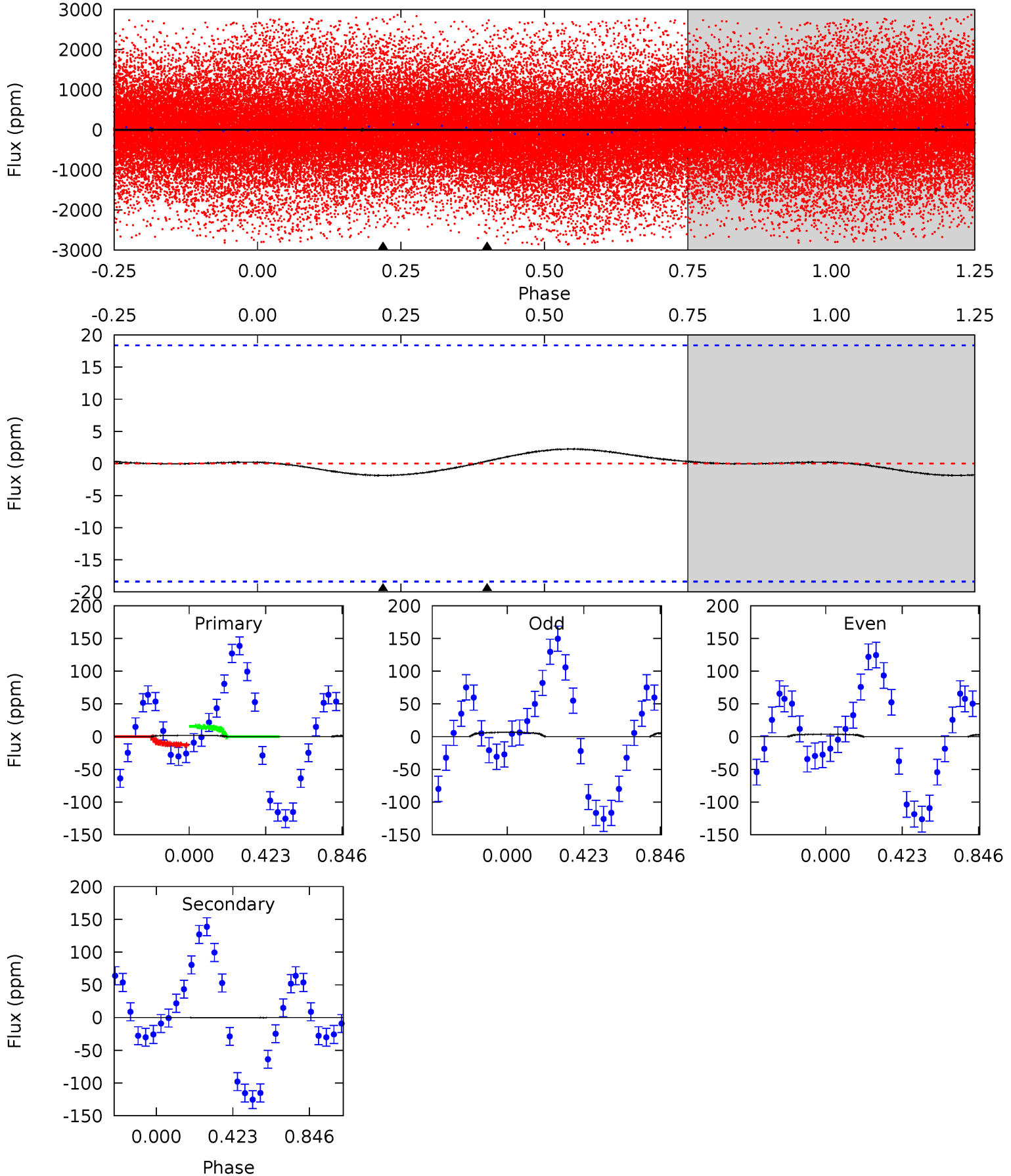
TCE 008973529-01 P= 0.621179 Days $T_0=131.909873$ (BKJD)



DV Model-Shift Uniqueness Test

008973529-01, P = 0.621160 Days, E = 131.320992 Days

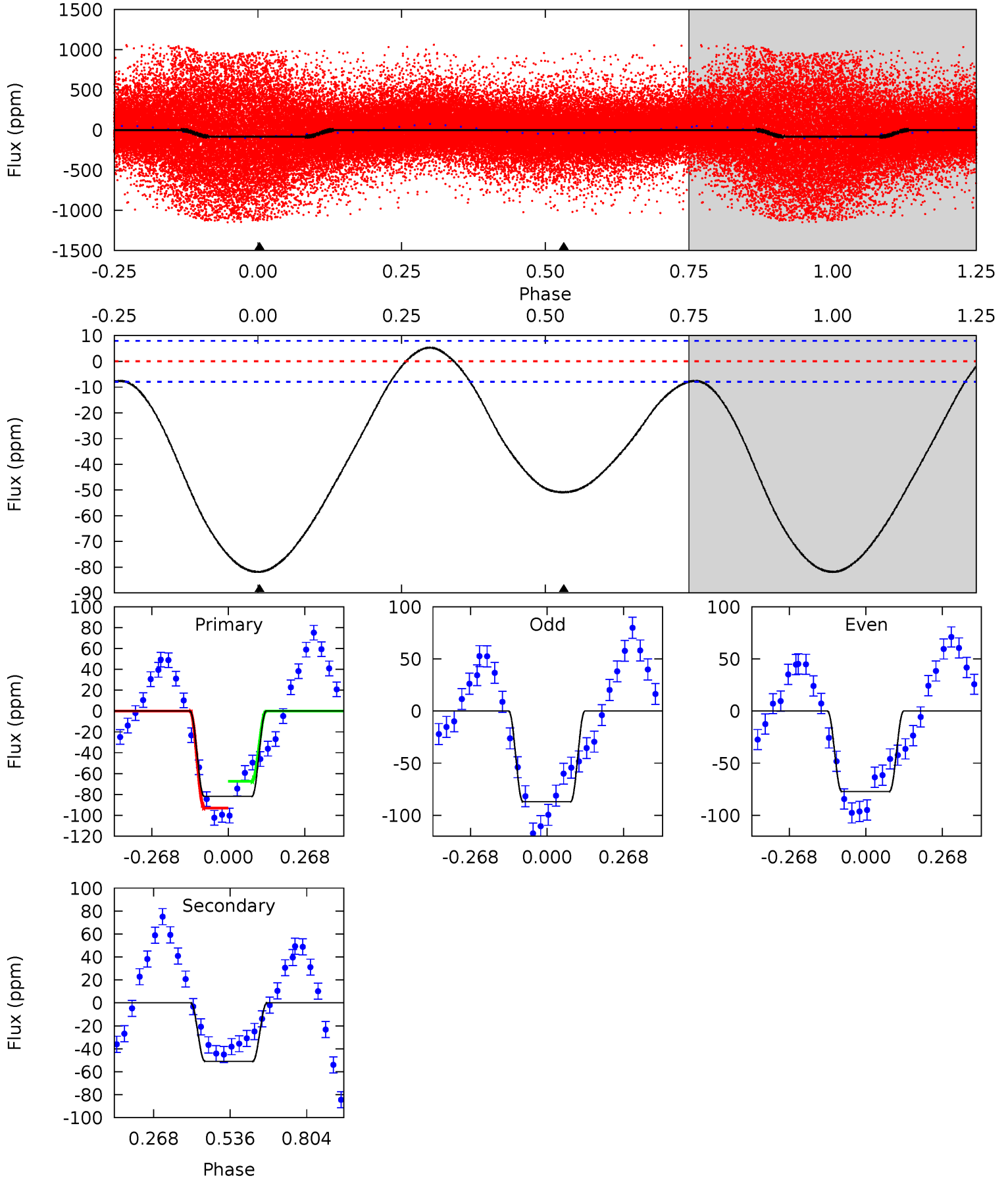
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.43	-0.09	0	0	4.25	0.80	0.02	0.43	0.43	-0.09	-0.09	0.33	-0.78	0.55	0.31



Alt Model-Shift Uniqueness Test

008973529-01, P = 0.621179 Days, E = 131.288694 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.9	27.9	0	0	4.35	1.11	2.85	44.9	44.9	27.9	27.9	2.67	1.01	0.06	4.56



Stellar Parameters For KIC 008973529

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6926^{+193}_{-241}	$3.321^{+0.441}_{-0.049}$	$-0.500^{+0.350}_{-0.350}$	$5.086^{+0.408}_{-2.448}$	$1.977^{+0.101}_{-0.574}$	$0.021^{+0.091}_{-0.004}$
	+3%/-3%	+13%/-1%	+70%/-70%	+8%/-48%	+5%/-29%	+429%/-17%
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 008973529-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 4	$2.49^{+3.11}_{-1.79}$	6937^{+410}_{-933}	-5654^{+1414}_{-812}	$-0.005^{+0.194}_{-0.256}$
Alt.	-51 ± 2	$4.90^{+3.44}_{-3.18}$	6993^{+389}_{-846}	3995^{+5938}_{-9019}	$0.366^{+2.582}_{-0.238}$

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 $A_{obs} \gg 1.0$

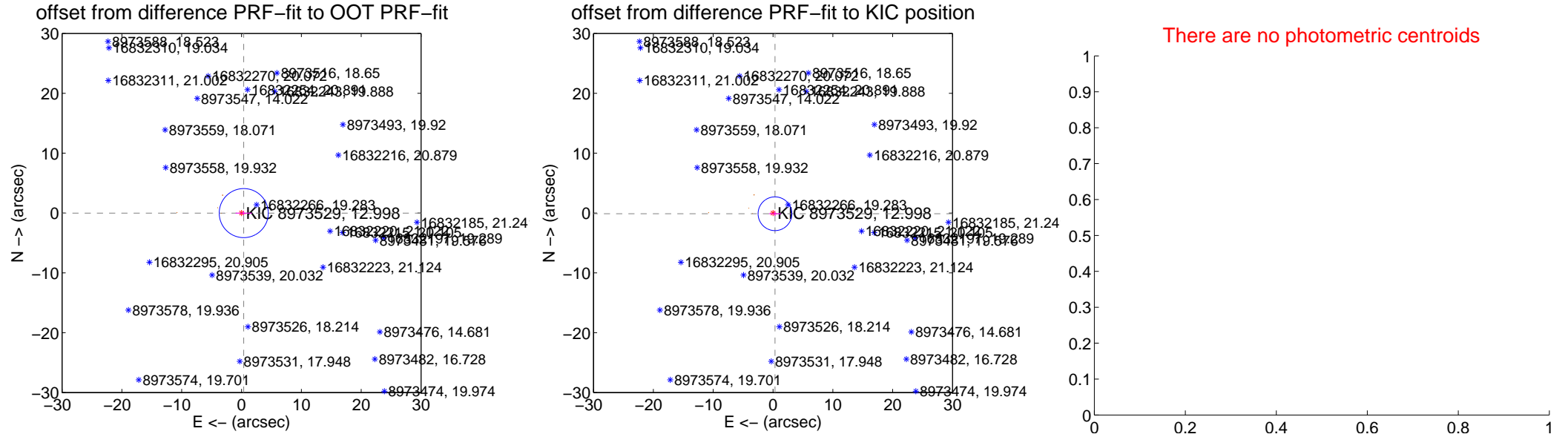
DV Centroid Data

Supplemental centroid analysis for 008973529-01. Kepler magnitude: 13.00. Transit SNR 0.22

There are 2 quarters with good PRF difference image offsets

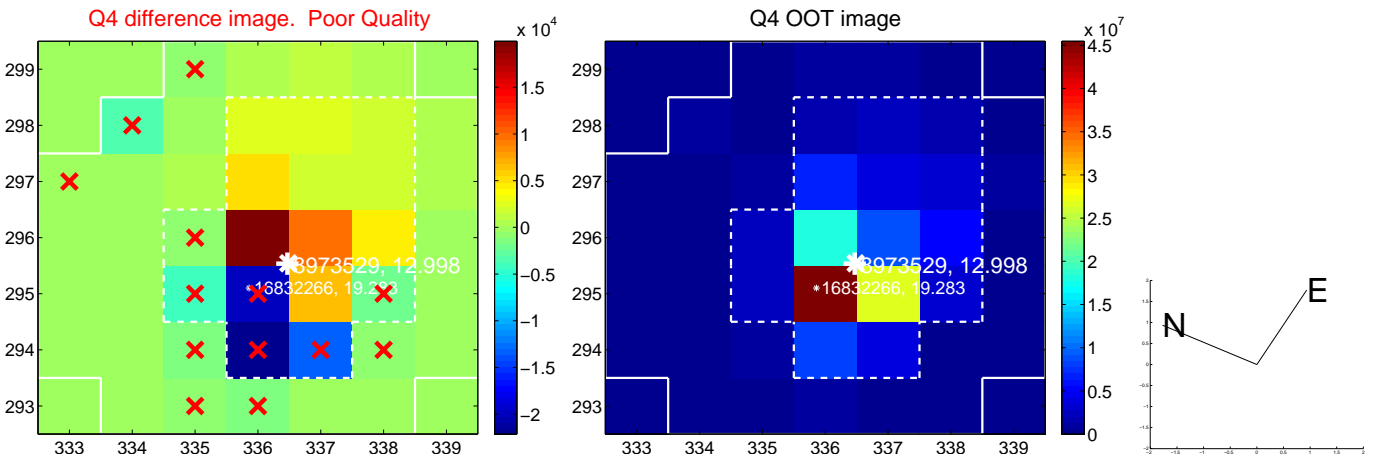
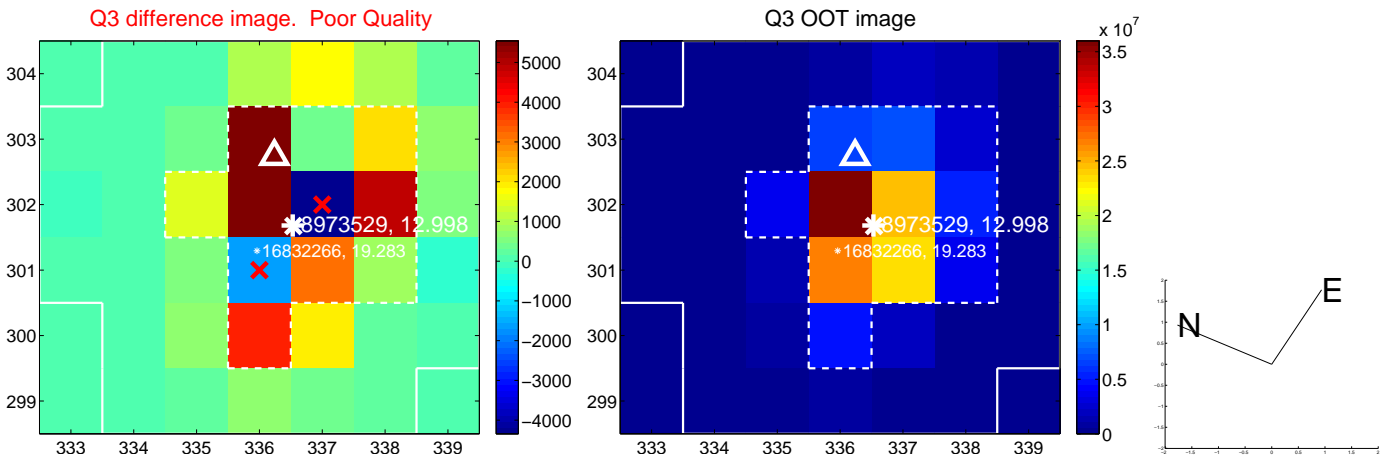
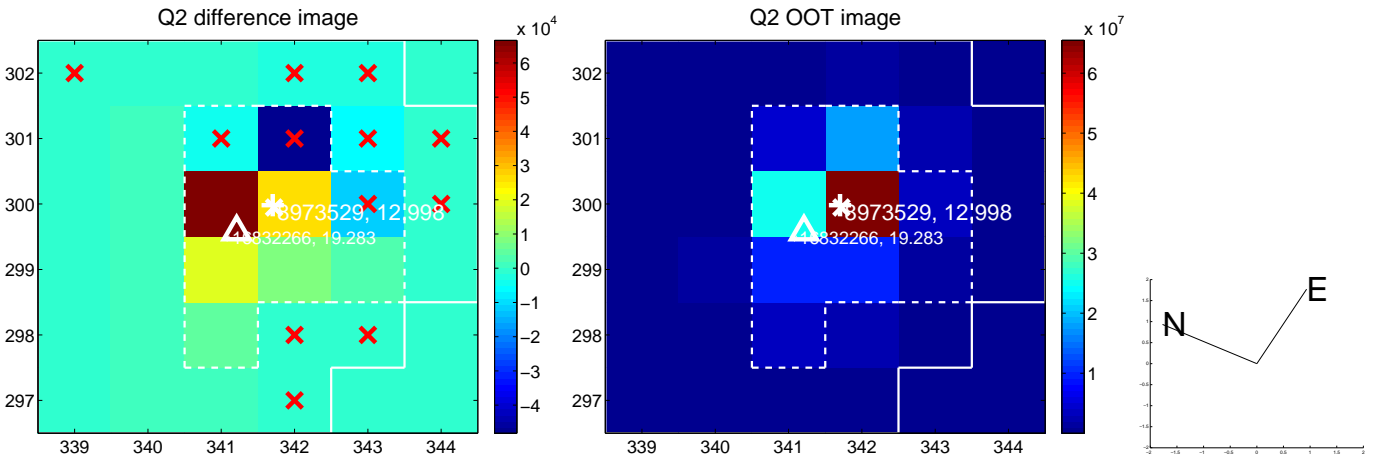
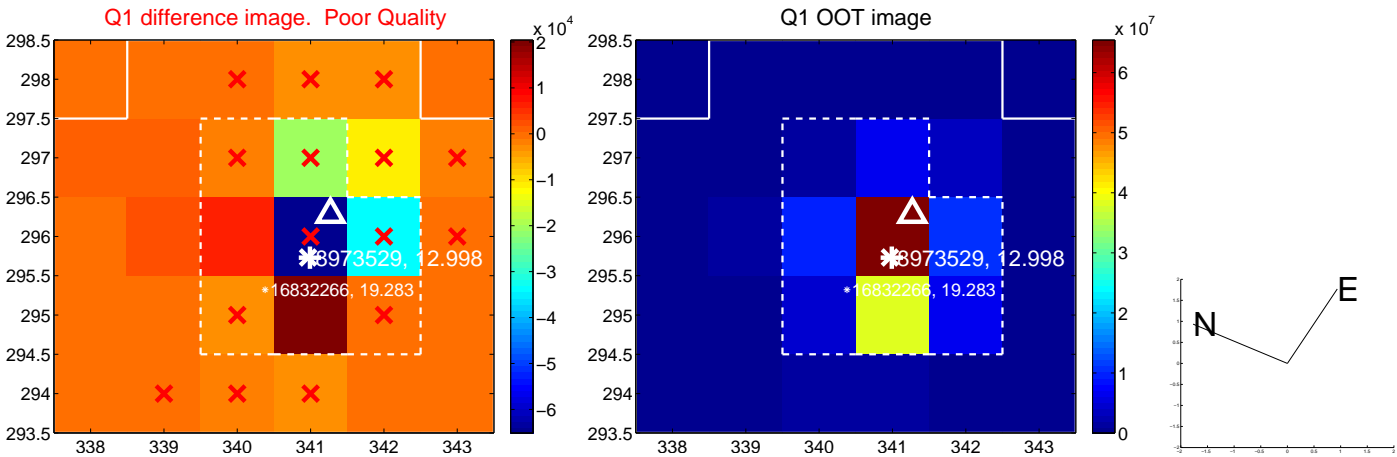
The direct PRF centroid is offset from the target star catalog position by about 0.00 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.369 ± 1.366	0.27	-0.369 ± 1.365	-0.015 ± 0.320
PRF-fit source offset from KIC position	0.349 ± 0.940	0.37	-0.327 ± 0.988	-0.122 ± 0.364
photometric centroid source offset	—	—	—	—

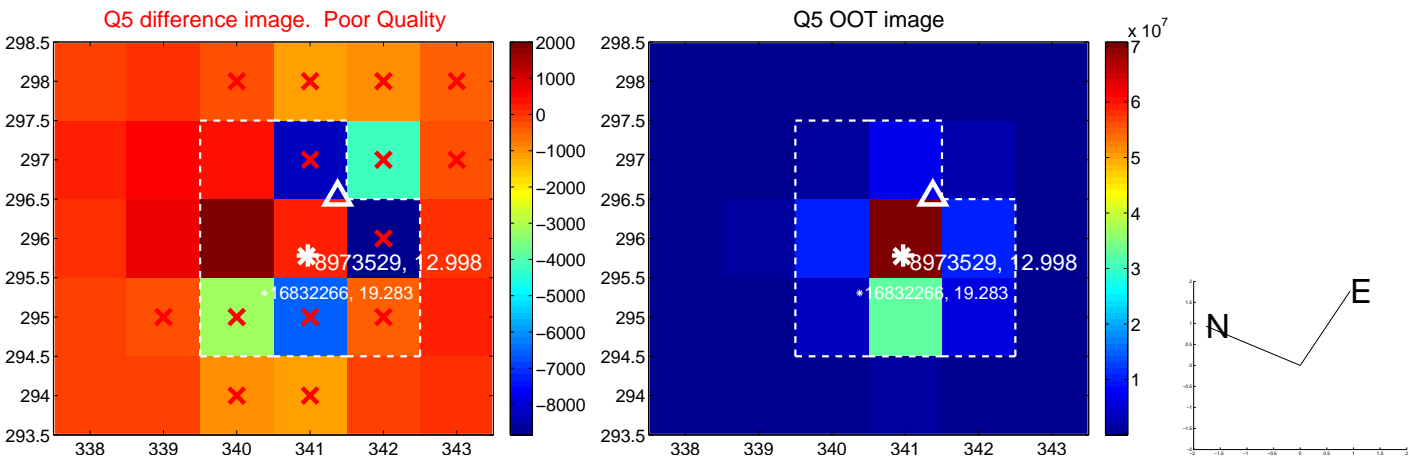


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

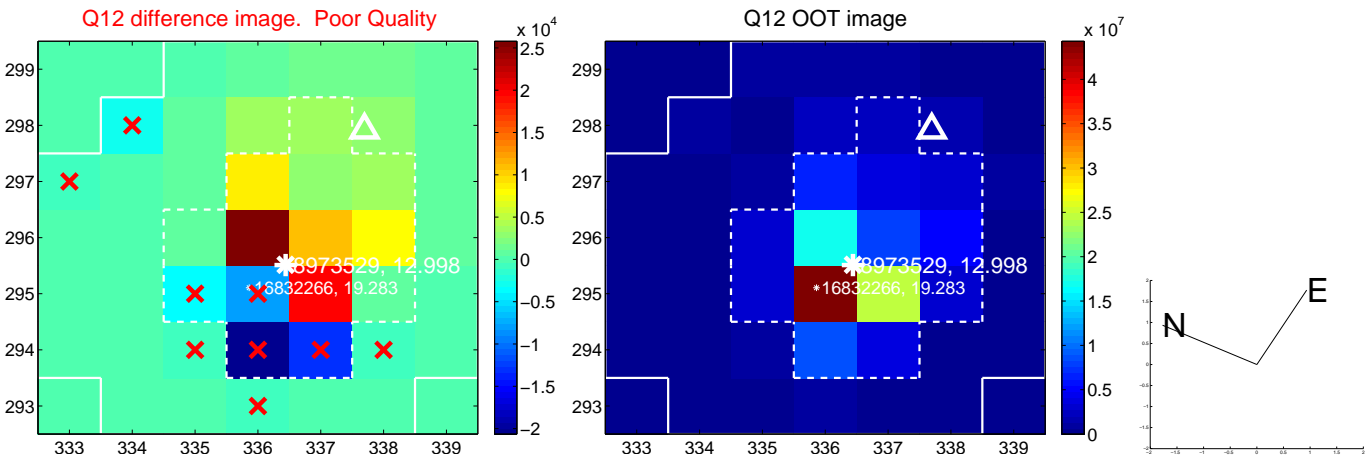
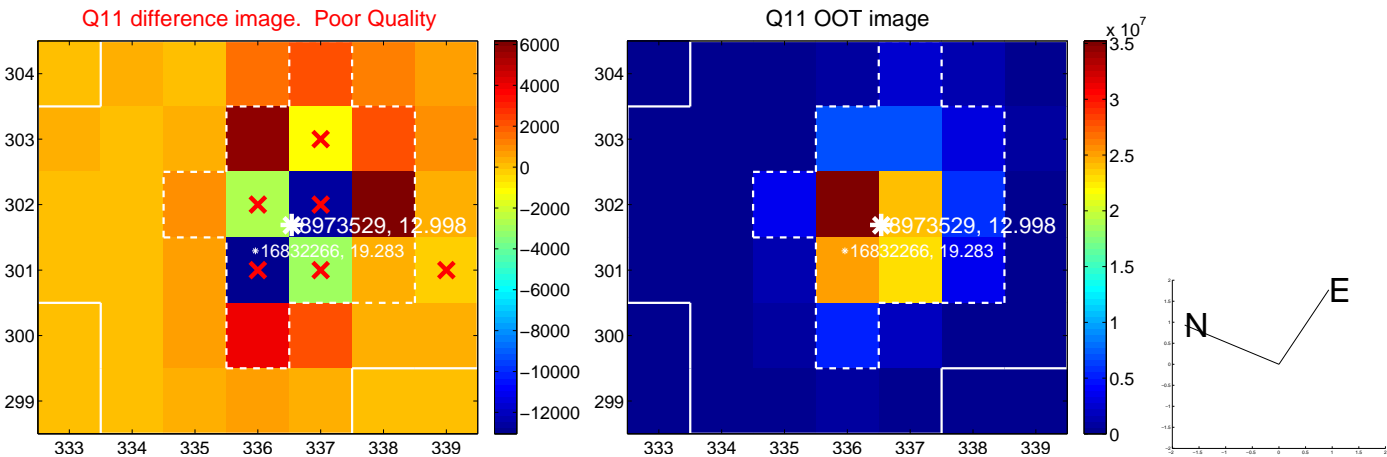
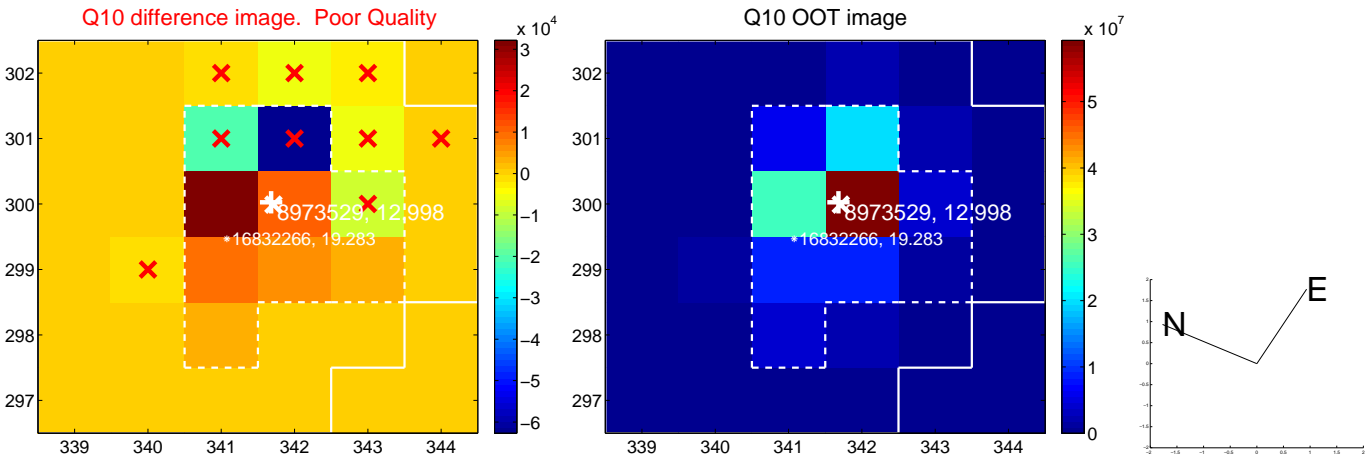
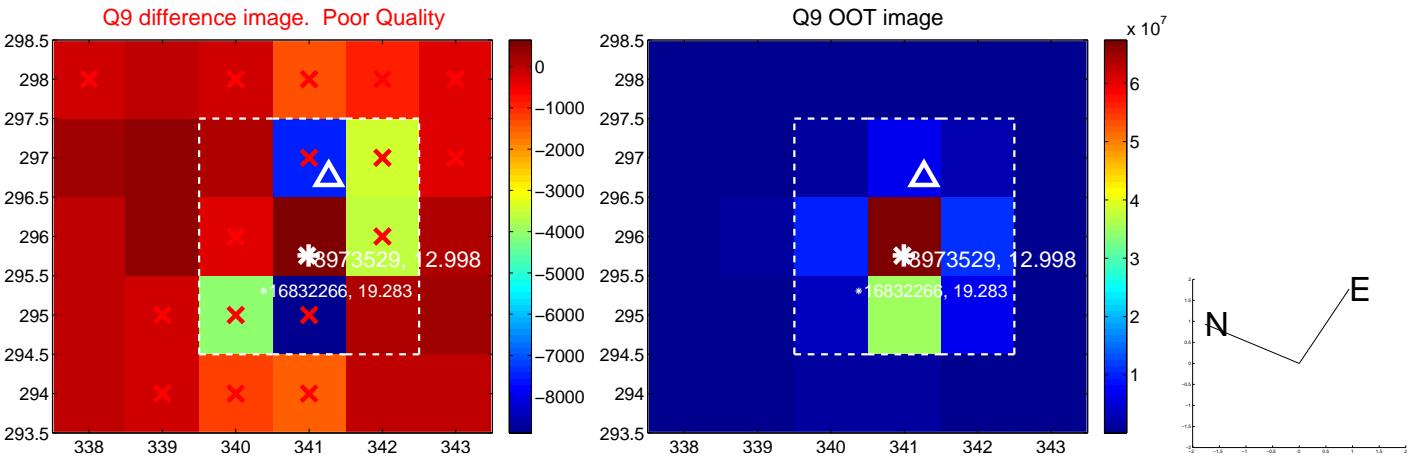
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



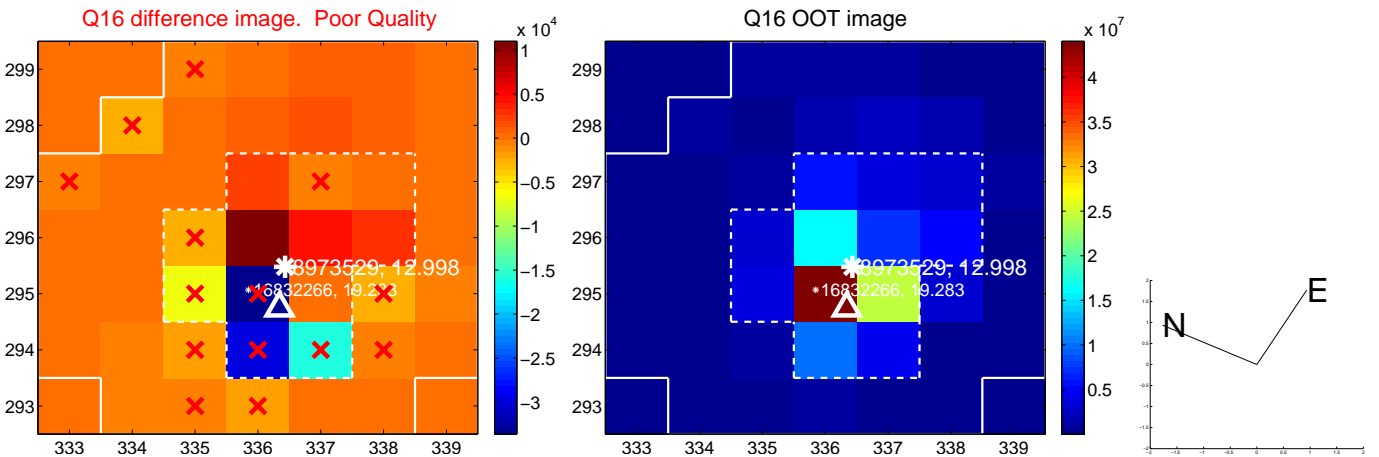
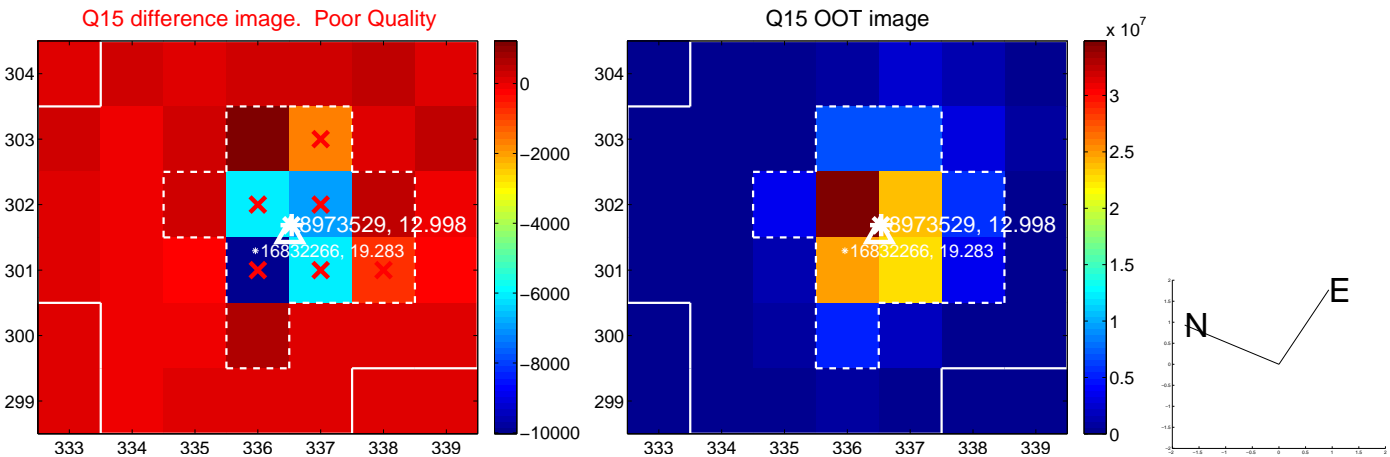
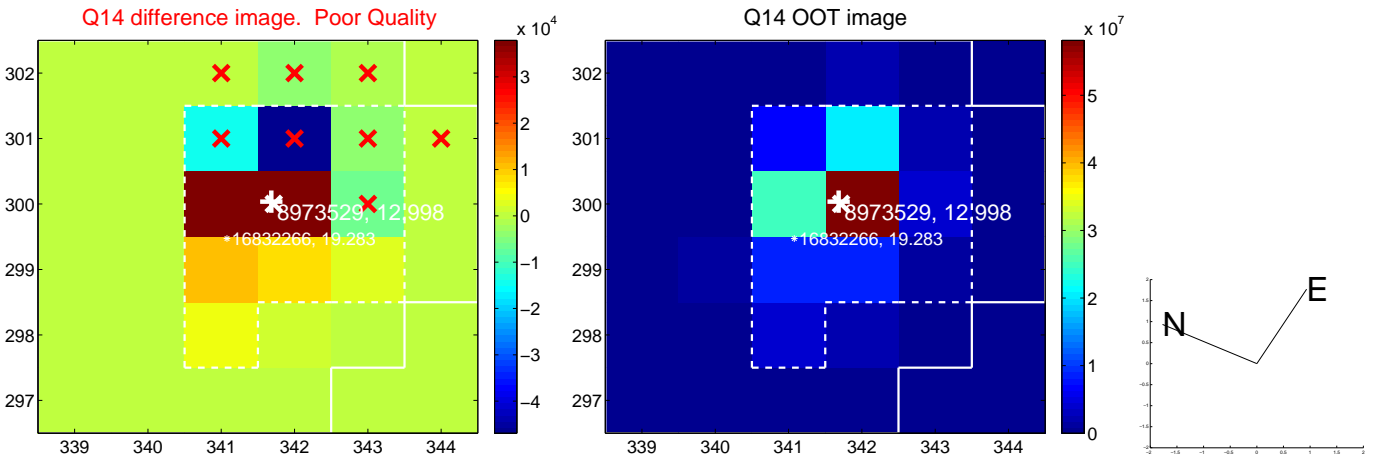
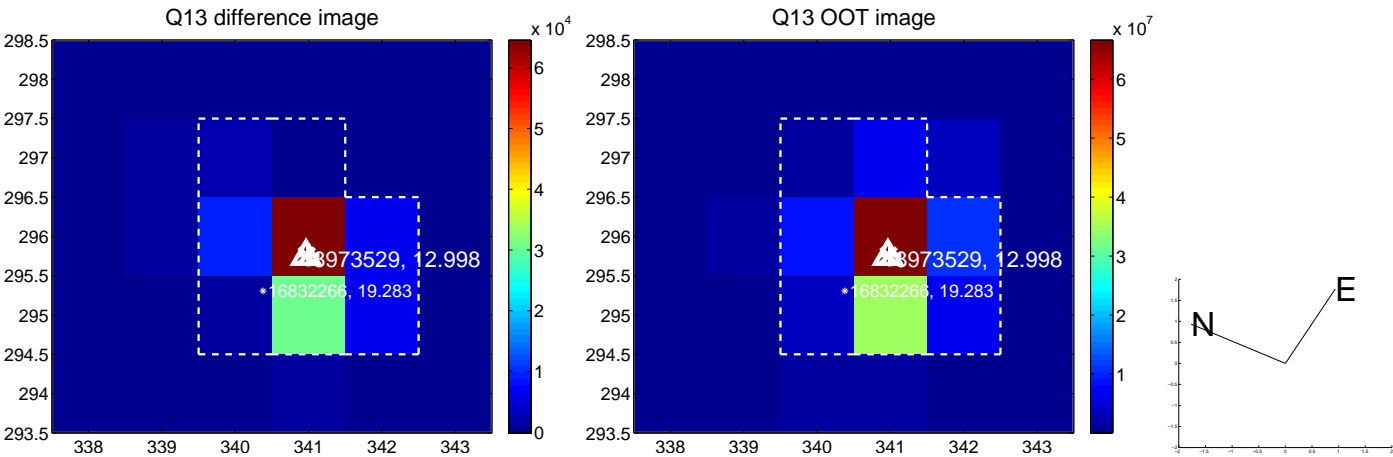
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



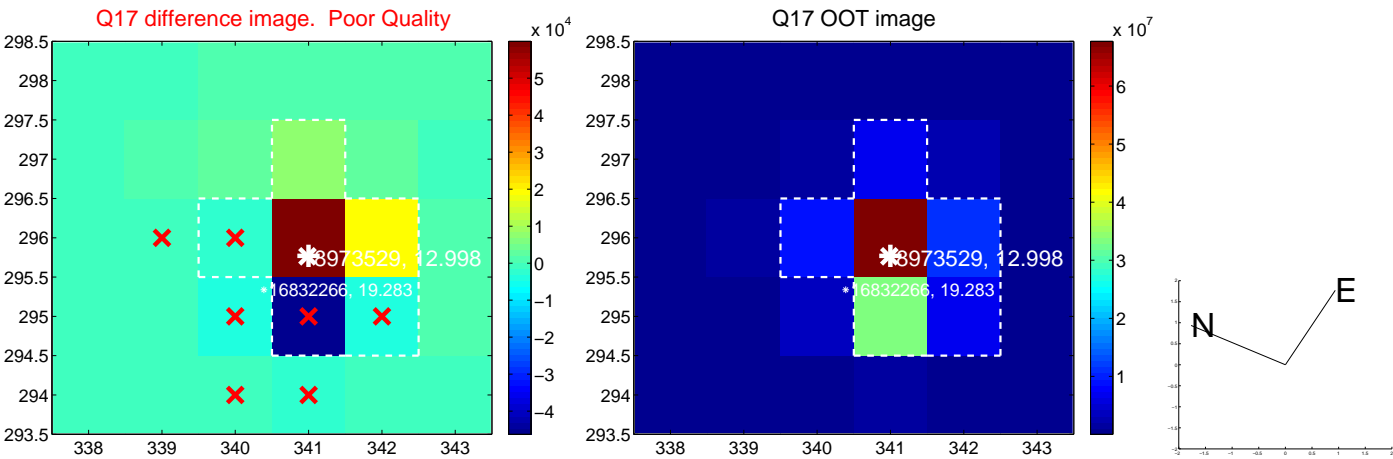
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

