

KIC 005273713

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})
005273713-01	OBS	7722.01	1.337560	132.145535	31.1	1.653	7.6	7.2	1.72	6406	1.12	6881.24

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005273713-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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

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

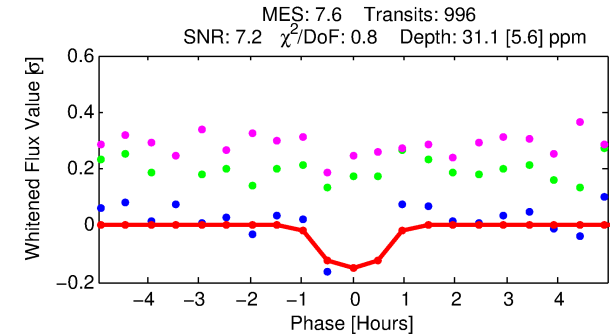
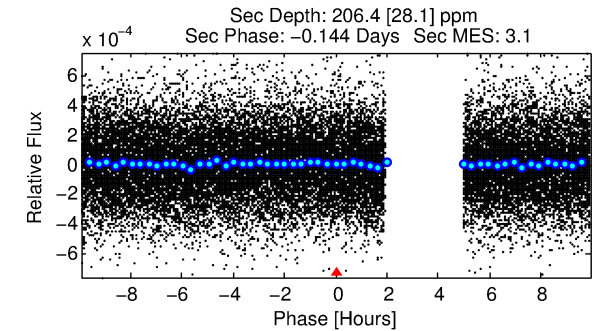
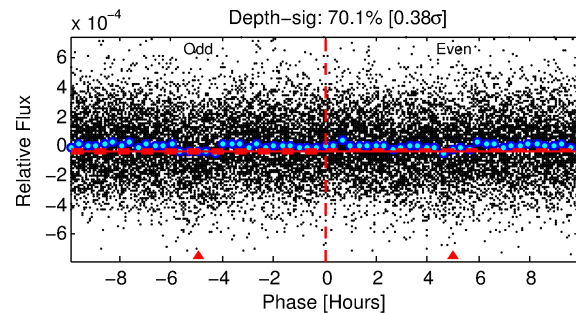
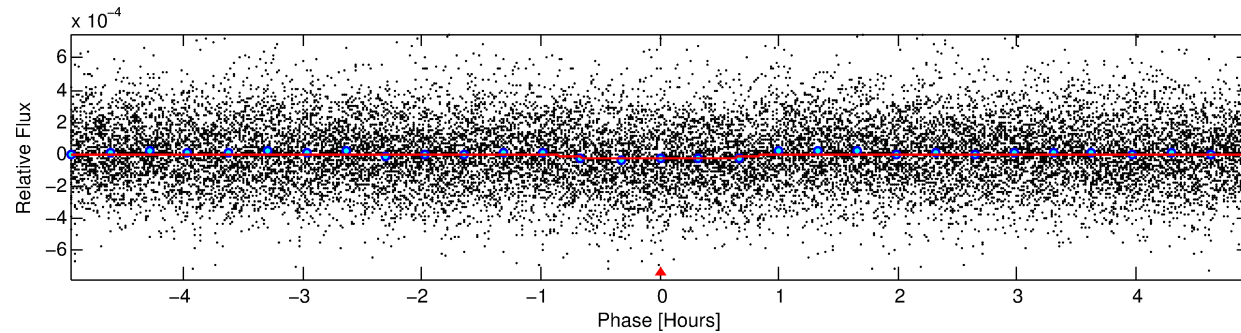
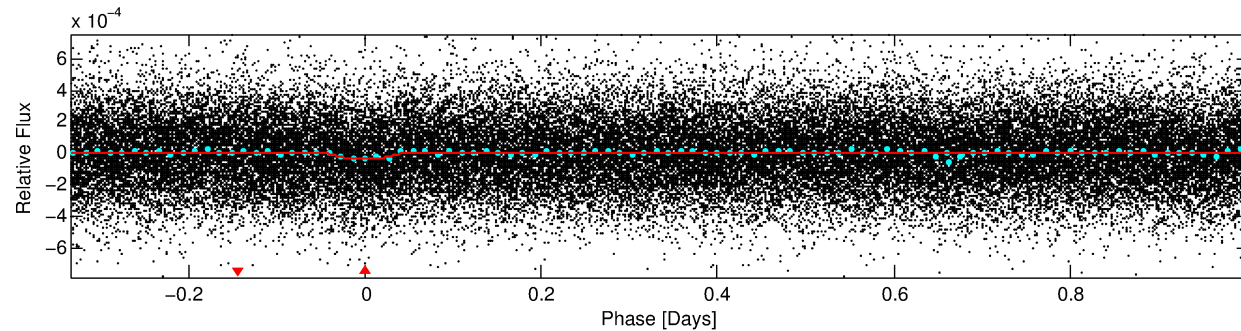
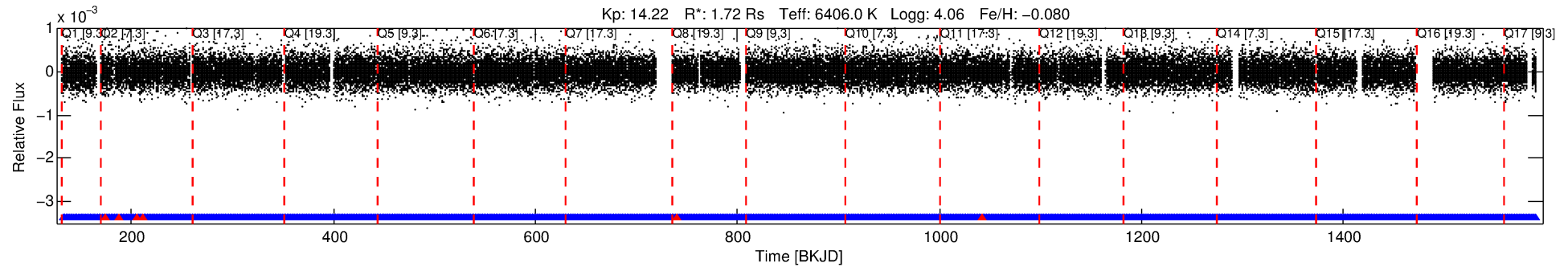
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005273713-01

No Significant Match Found

DV One-Page Summary

KIC: 5273713 Candidate: 1 of 1 Period: 1.338 d



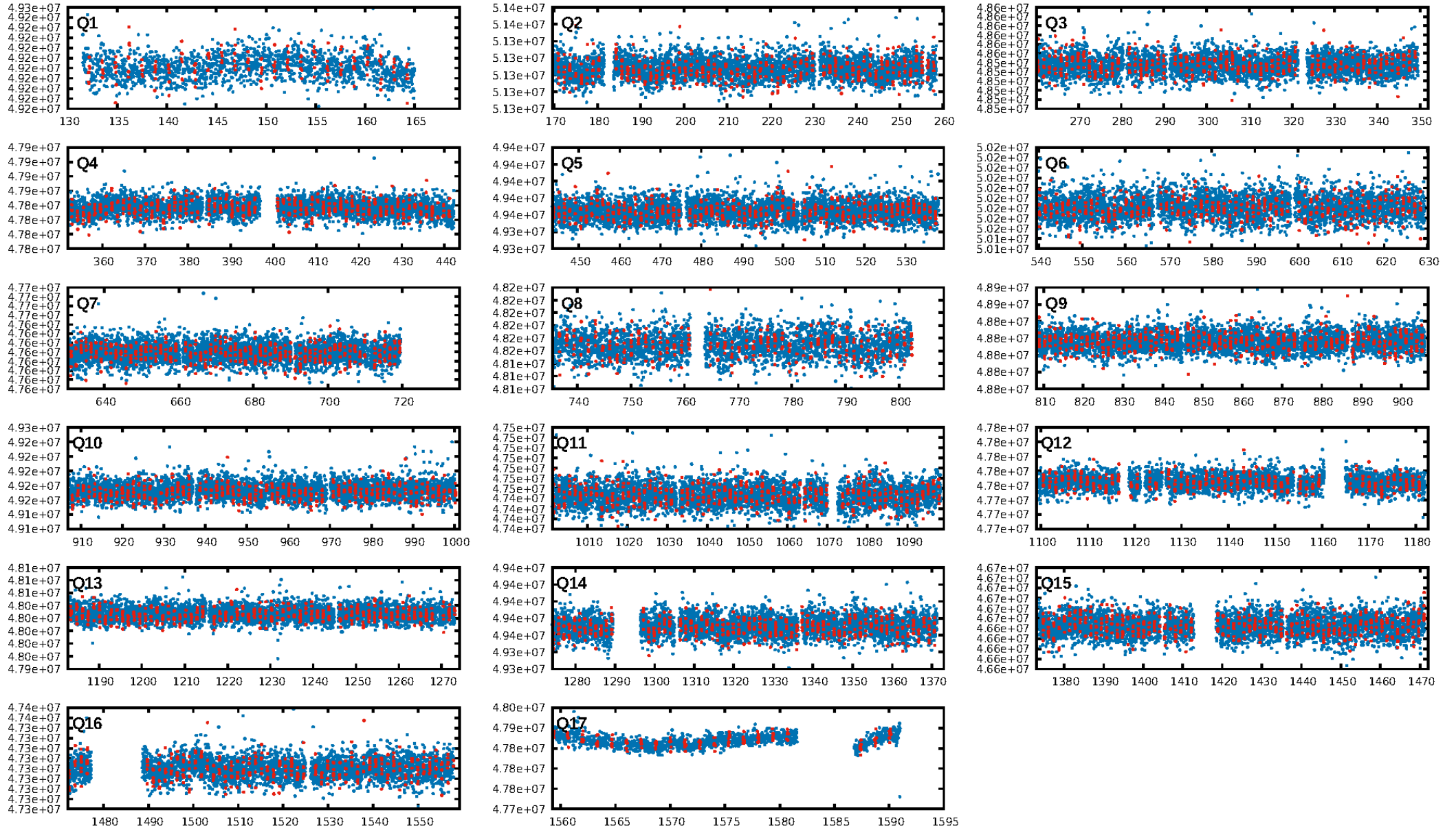
DV Fit Results:

Period = 1.33756 [0.00001] d
Epoch = 132.1455 [0.0034] BKJD
Rp/R* = 0.0060 [0.0031]
a/R* = 2.95 [7.56]
b = 0.90 [0.63]
Seff = 6881.24 [2262.84]
Teq = 2322 [191] K
Rp = 1.12 [0.63] Re
a = 0.0254 [0.0053] AU
Ag = 58.29 [63.67] [0.90 σ]
Teffp = 9922 [2590] K [2.93 σ]

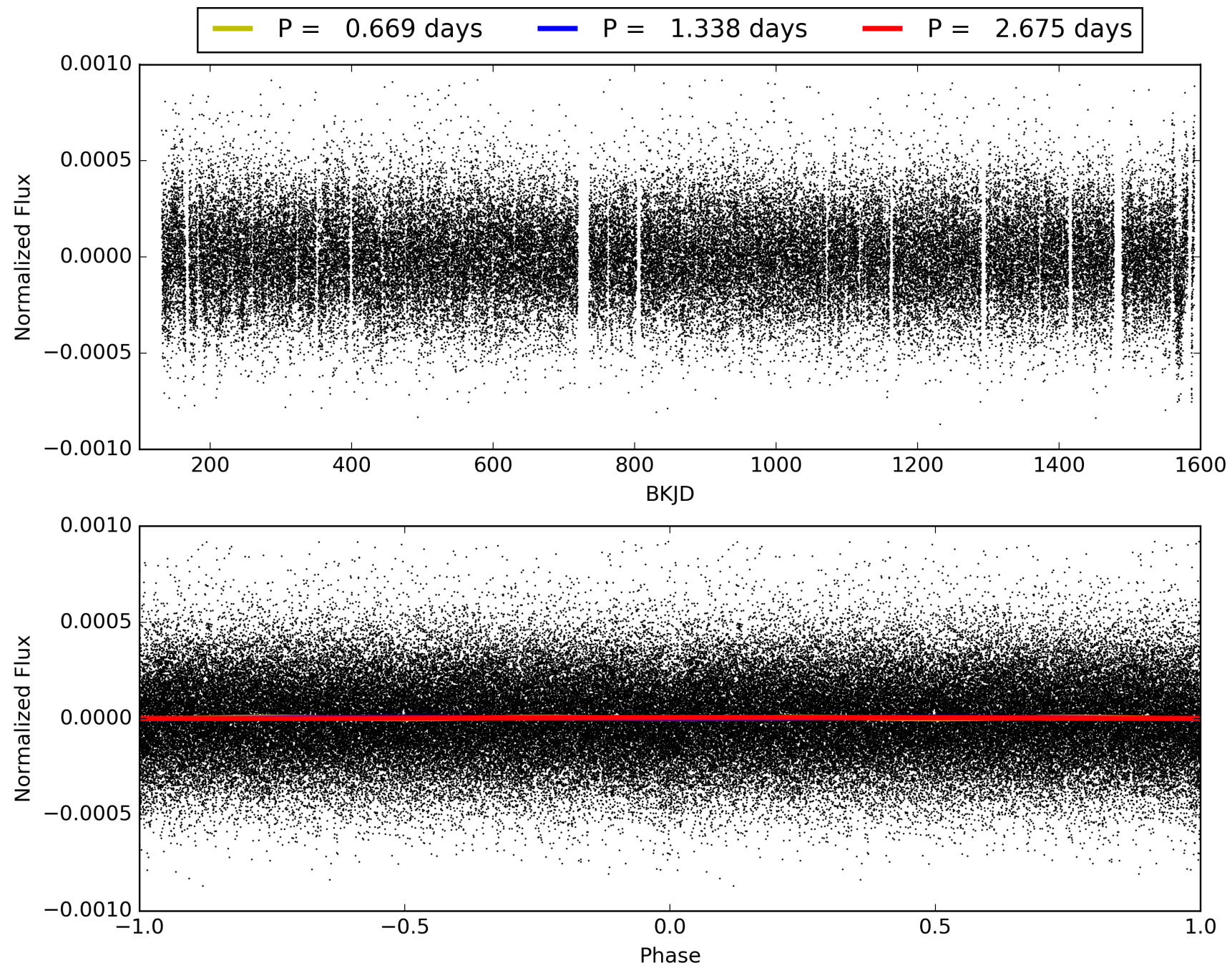
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.16e-14
RollingBand-fgt: 0.99 [945/951]
GhostDiagnostic-chr: -0.5909
Centroid-sig: 0.0%
Centroid-so: 84.050 arcsec [47.93 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005273713-01, PDC Light Curves

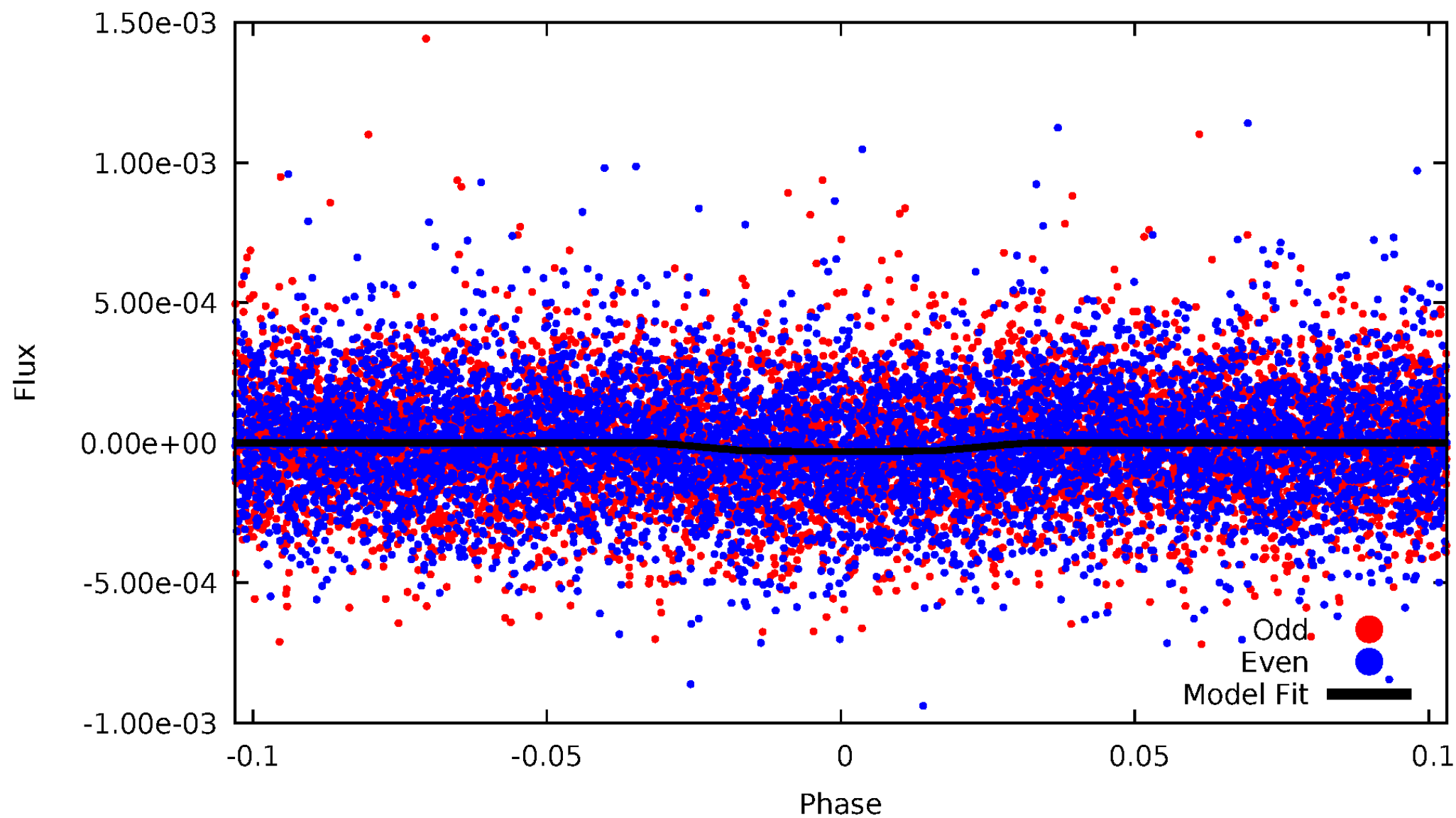


TCE 005273713-01



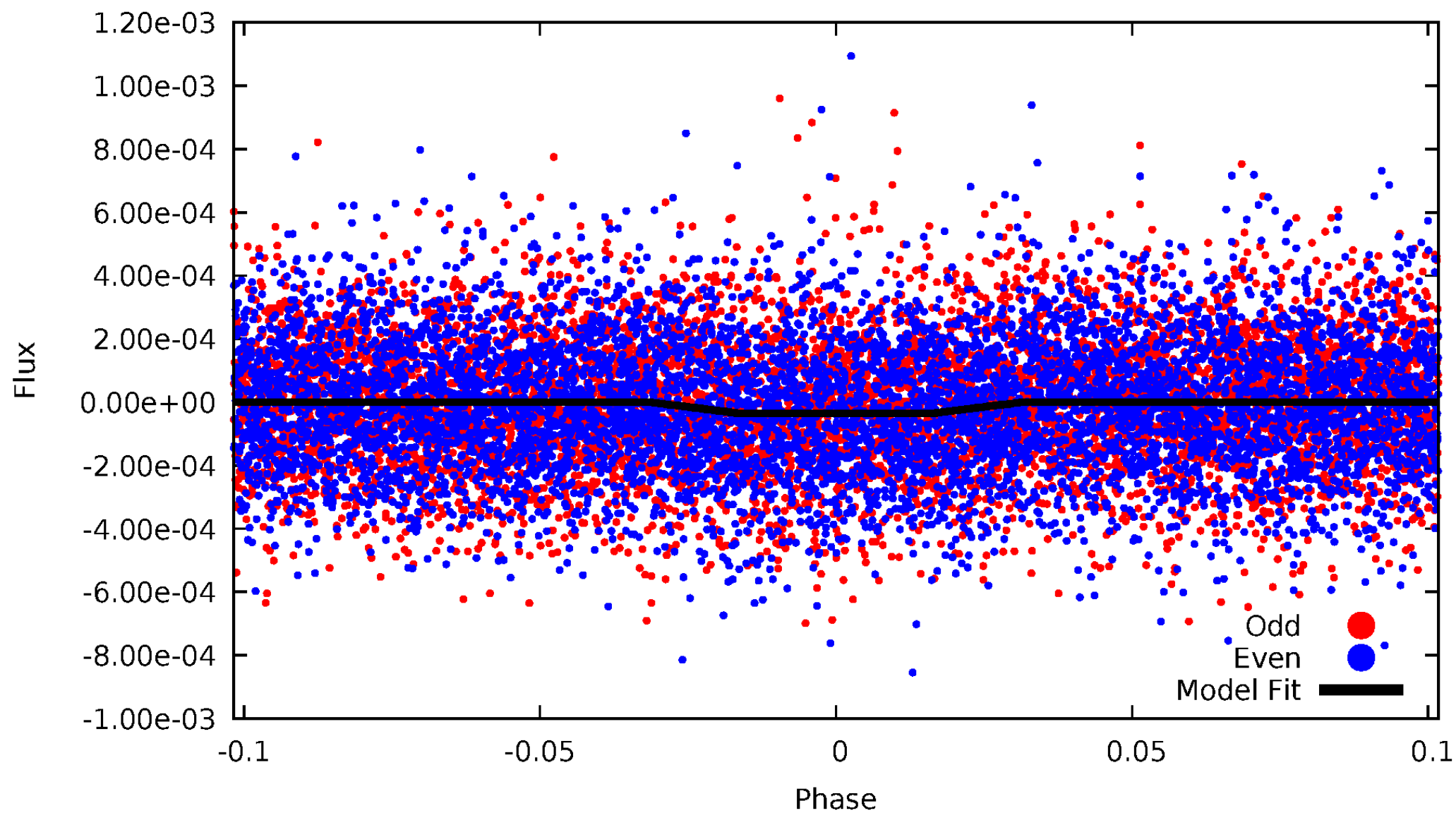
DV Odd/Even

TCE 005273713-01



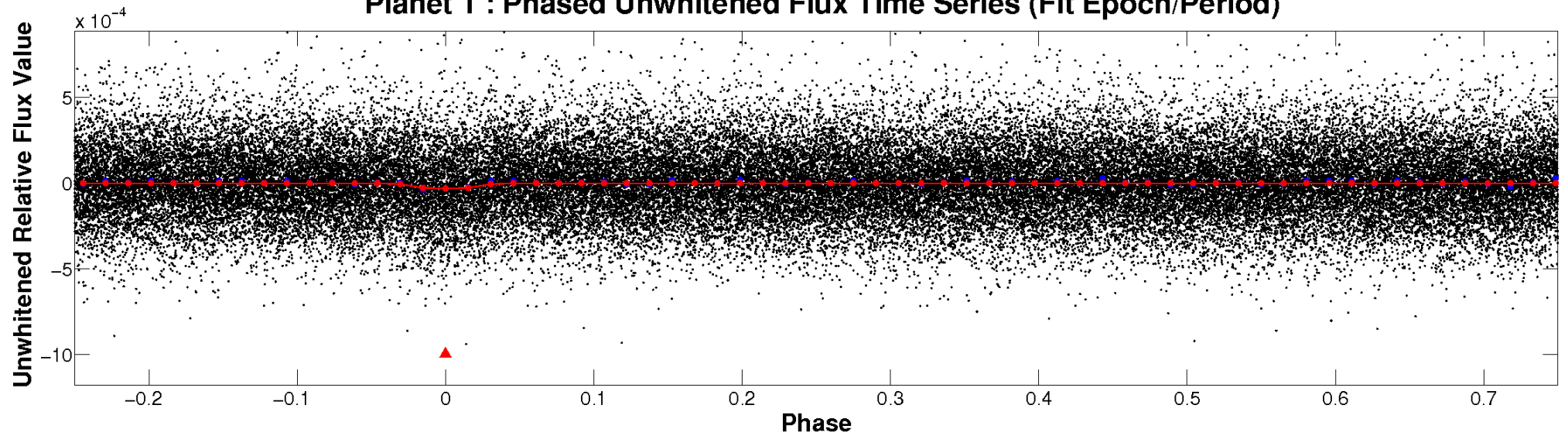
ALT Odd/Even

TCE 005273713-01

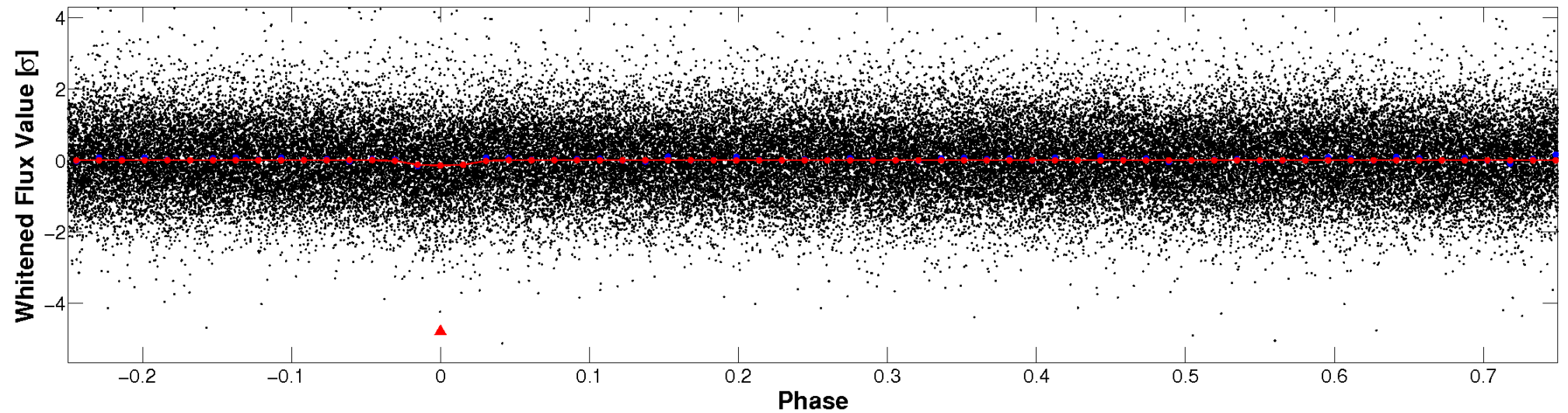


Non-Whitened Vs. Whitened Light Curve

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

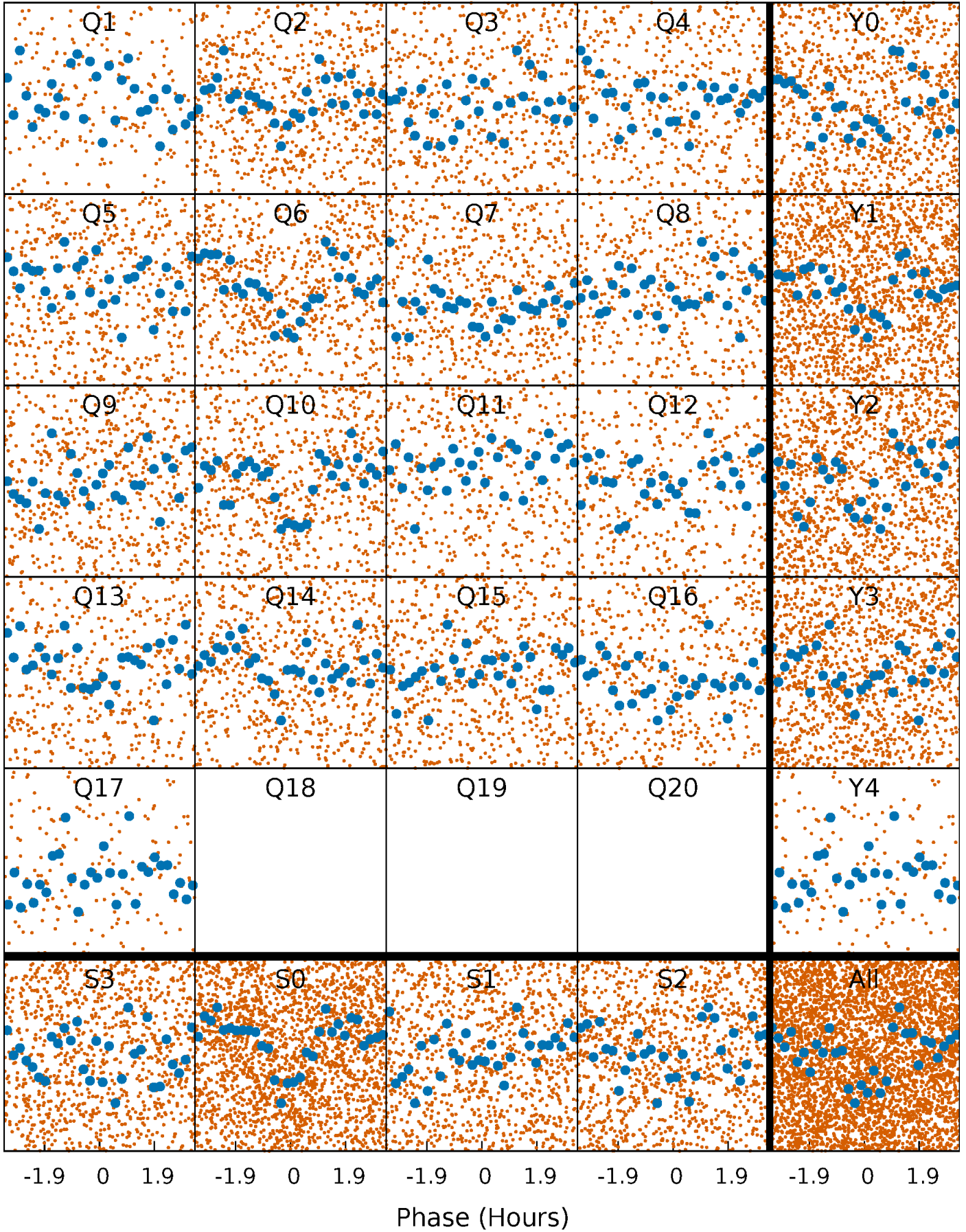


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



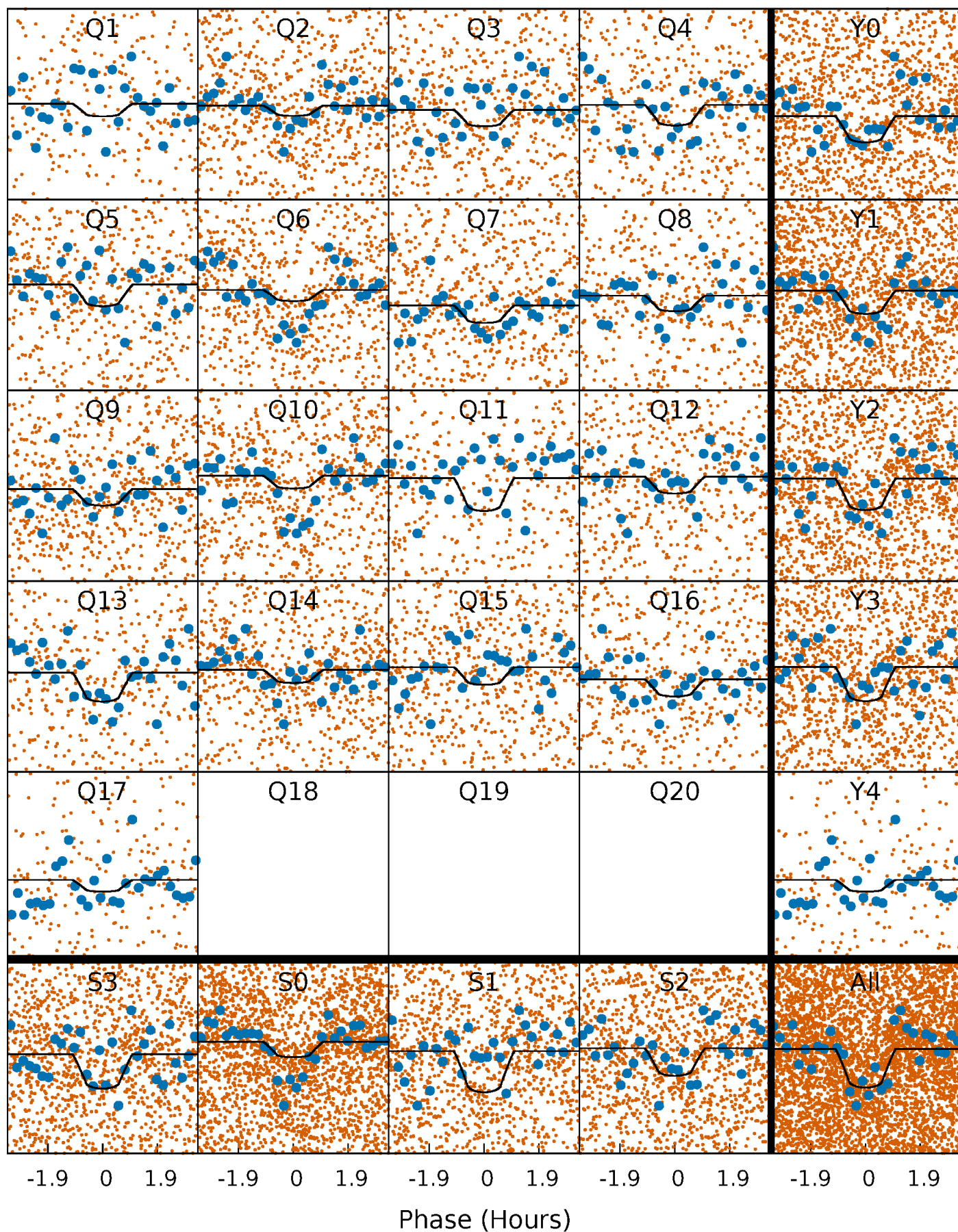
PDC Quarter-Phased Transit Curves

TCE 005273713-01 P= 1.337560 Days $T_0=132.145534$ (BKJD)



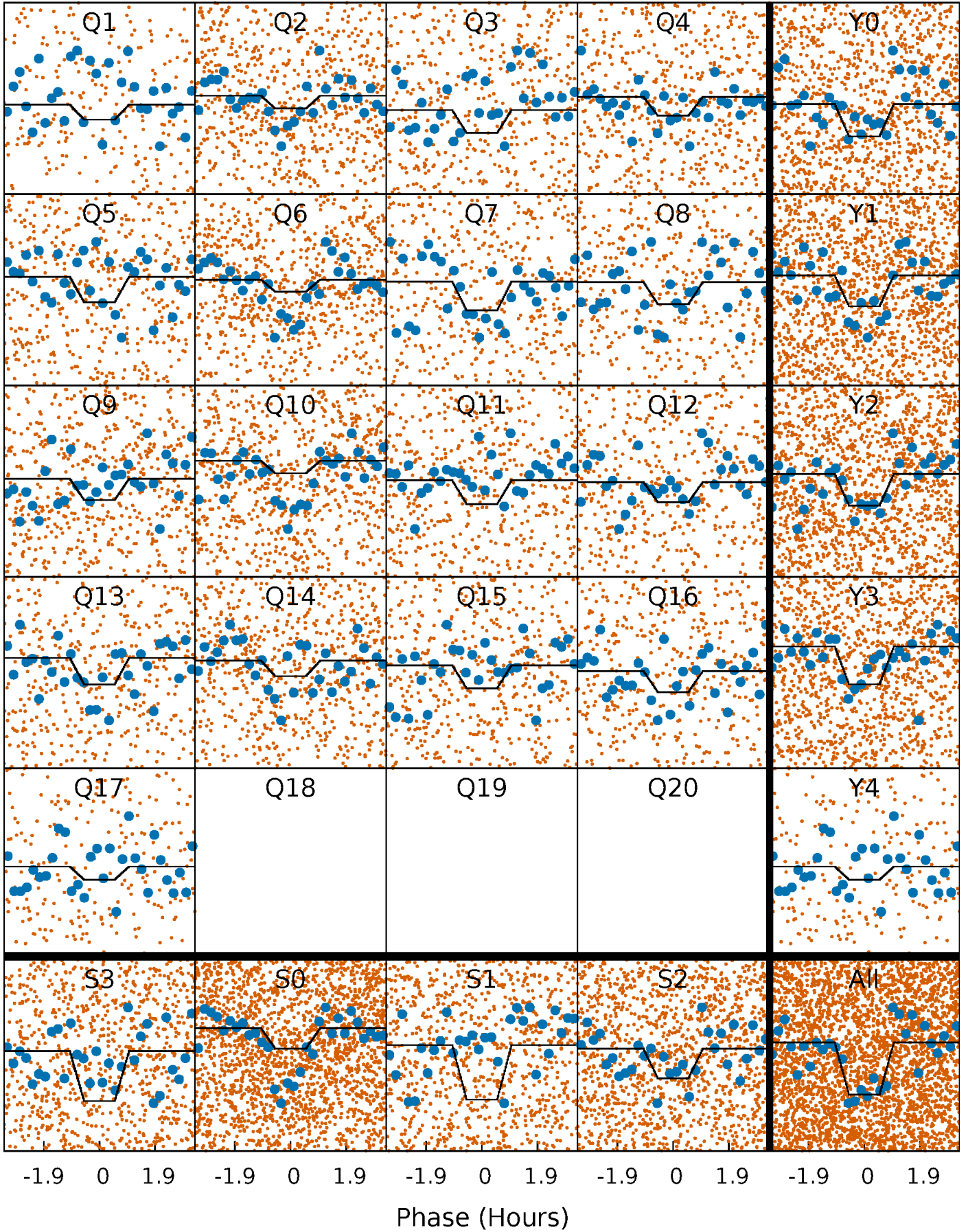
DV Quarter-Phased Transit Curves

TCE 005273713-01 P= 1.337560 Days $T_0=132.145534$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

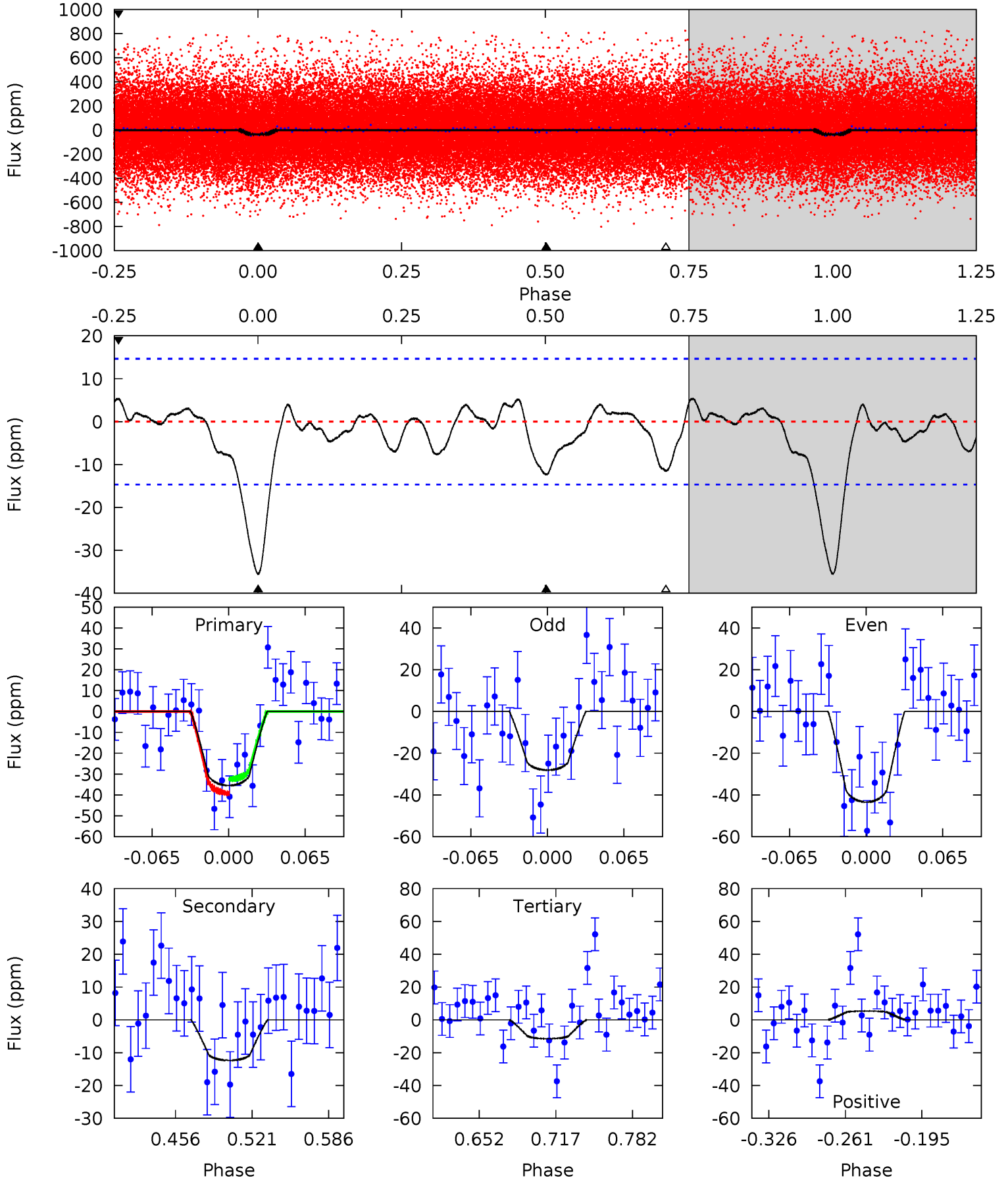
TCE 005273713-01 P= 1.337563 Days $T_0=132.145726$ (BKJD)



DV Model-Shift Uniqueness Test

005273713-01, P = 1.337560 Days, E = 130.807974 Days

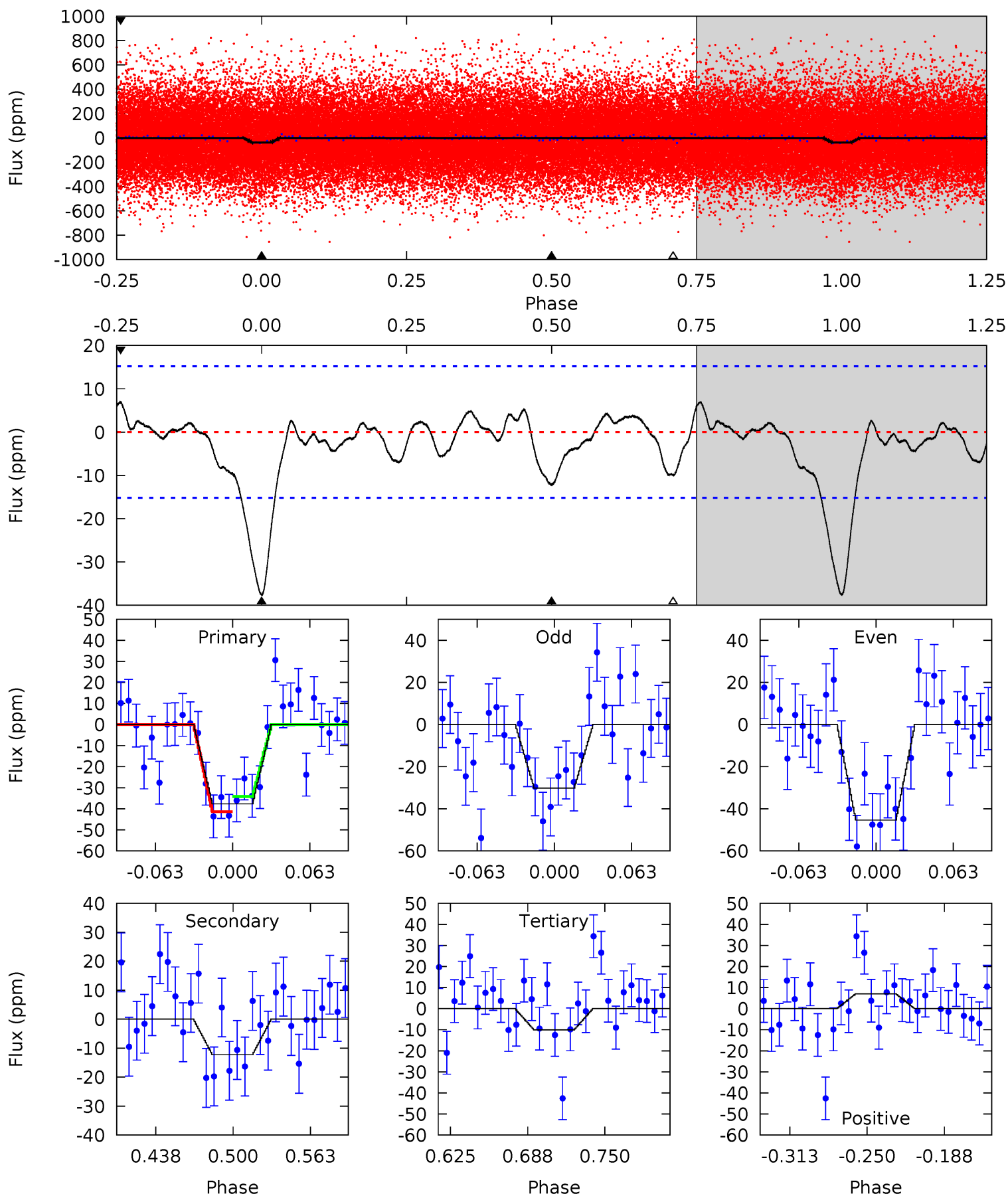
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	3.92	3.65	1.71	4.65	1.84	1.12	7.62	9.55	0.27	2.21	2.43	1.04	0.13	1.06



Alt Model-Shift Uniqueness Test

005273713-01, P = 1.337563 Days, E = 130.808163 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	3.76	3.09	2.16	4.66	1.86	1.07	8.48	9.41	0.67	1.60	2.34	0.99	0.16	1.10



Stellar Parameters For KIC 005273713

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6406^{+70}_{-83}	$4.056^{+0.188}_{-0.101}$	$-0.080^{+0.150}_{-0.150}$	$1.715^{+0.313}_{-0.383}$	$1.219^{+0.136}_{-0.111}$	$0.340^{+0.347}_{-0.107}$
	+1%/-1%	+5%/-2%	+188%/-188%	+18%/-22%	+11%/-9%	+102%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 005273713-01 / KOI 7722.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-12 ± 3	$1.10^{+0.59}_{-0.56}$	3222^{+156}_{-200}	4848^{+2050}_{-823}	$3.483^{+10.946}_{-2.051}$
Alt.	-12 ± 3	$1.07^{+0.61}_{-0.54}$	3219^{+151}_{-190}	4855^{+1966}_{-871}	$3.515^{+11.352}_{-2.126}$

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

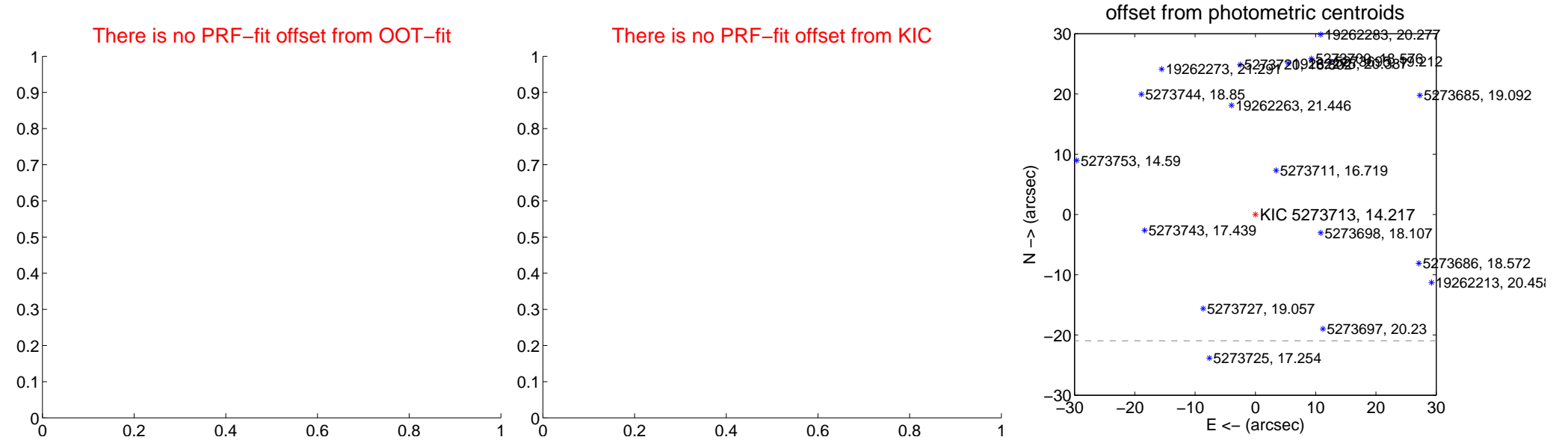
DV Centroid Data

Supplemental centroid analysis for 005273713-01. Kepler magnitude: 14.22. Transit SNR 7.25

There are 0 quarters with good PRF difference image offsets

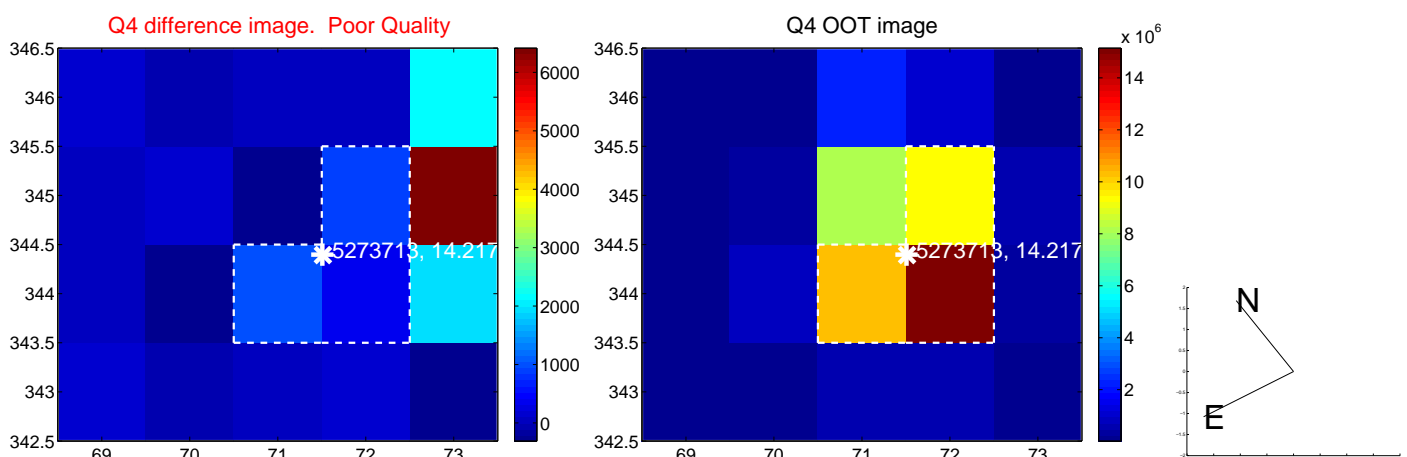
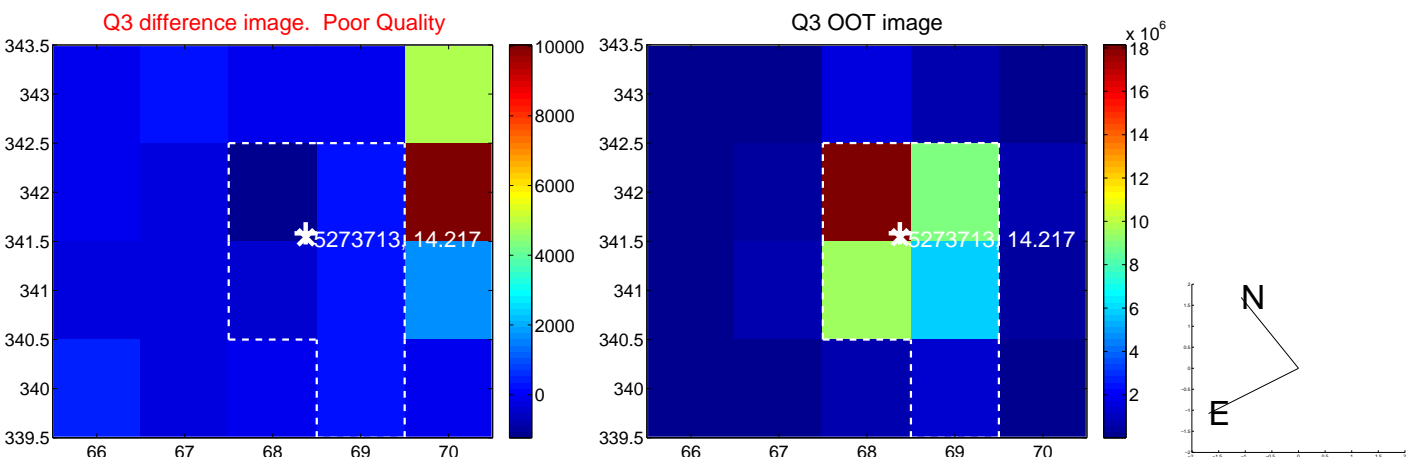
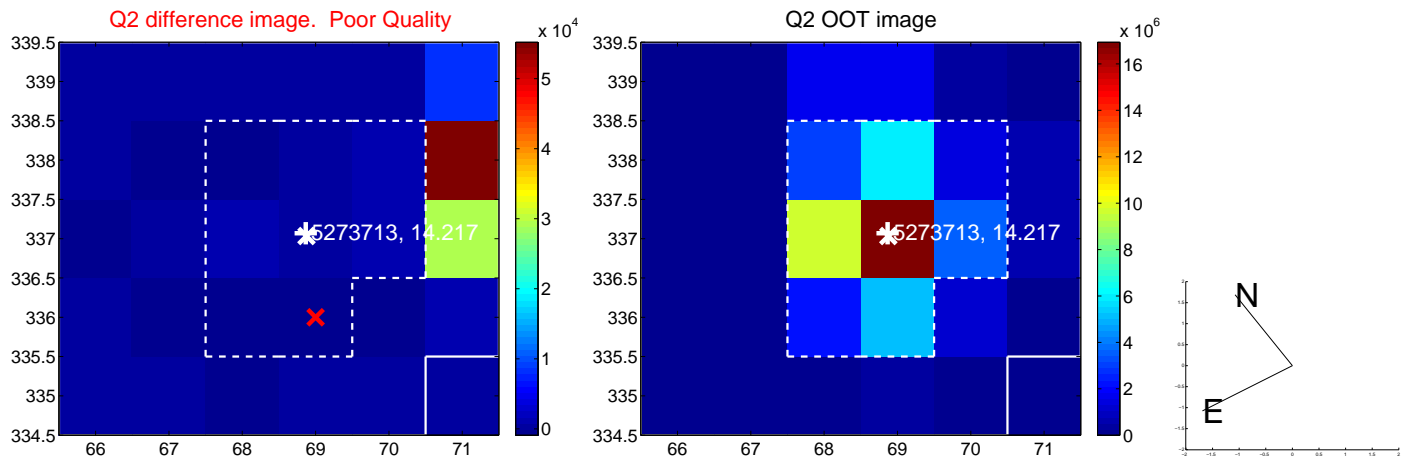
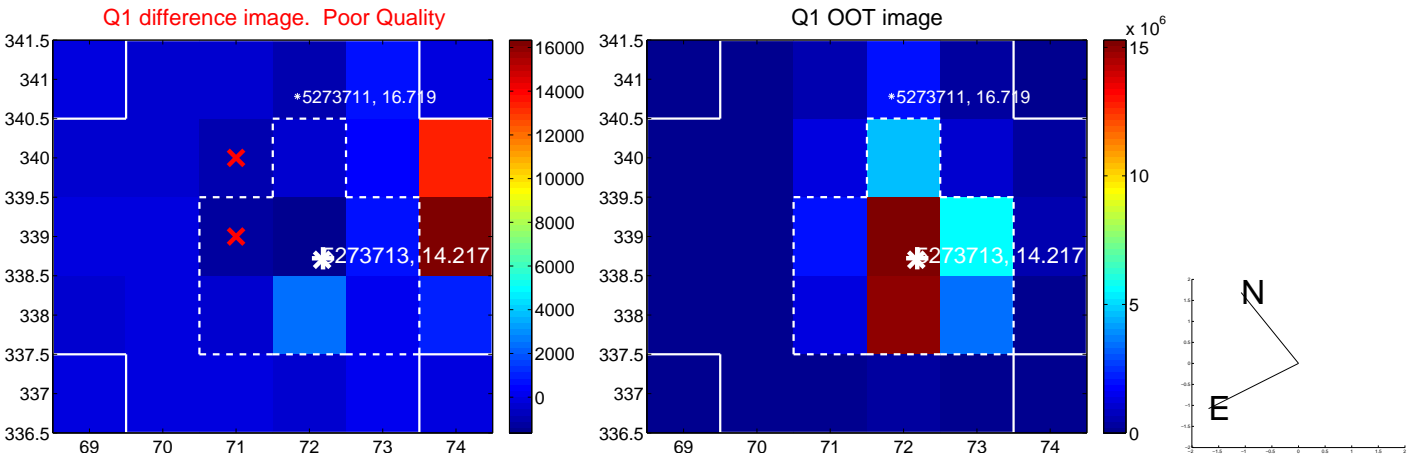
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	84.06 ± 1.75	47.93	-81.40 ± 1.76	-20.97 ± 1.61

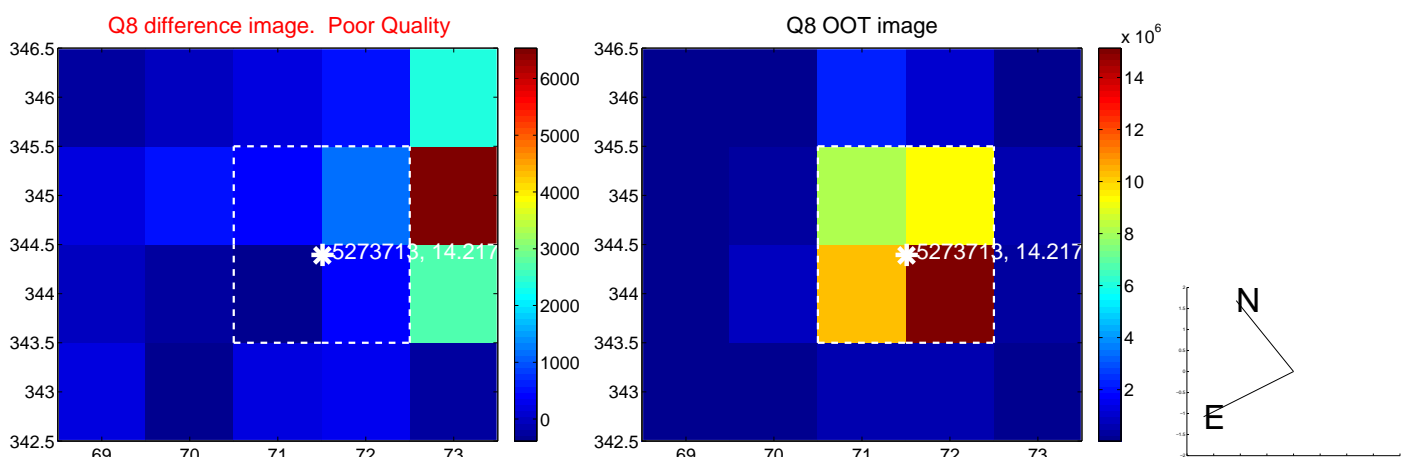
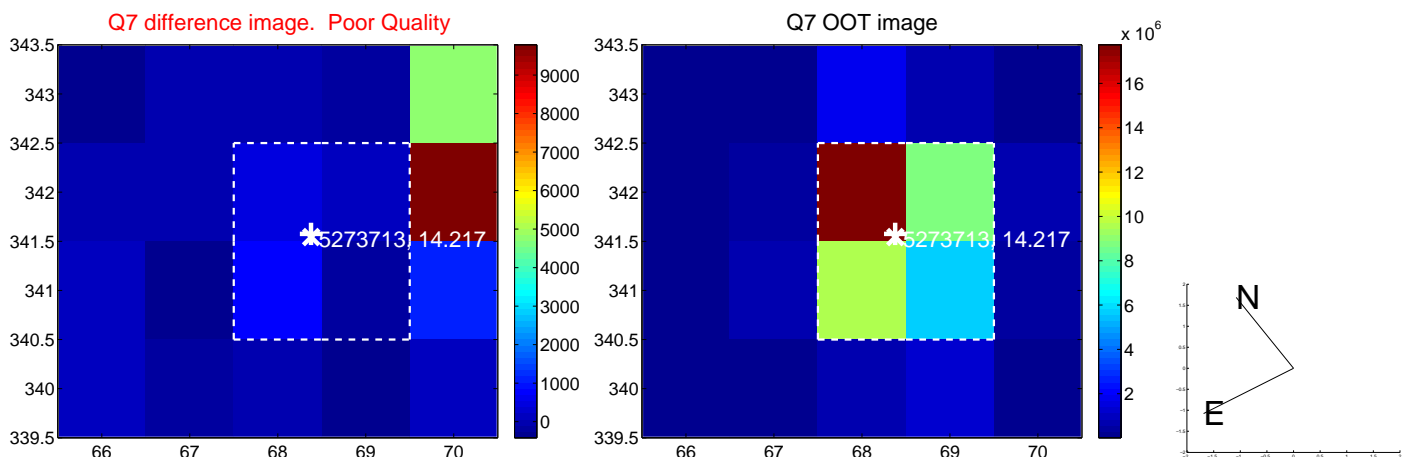
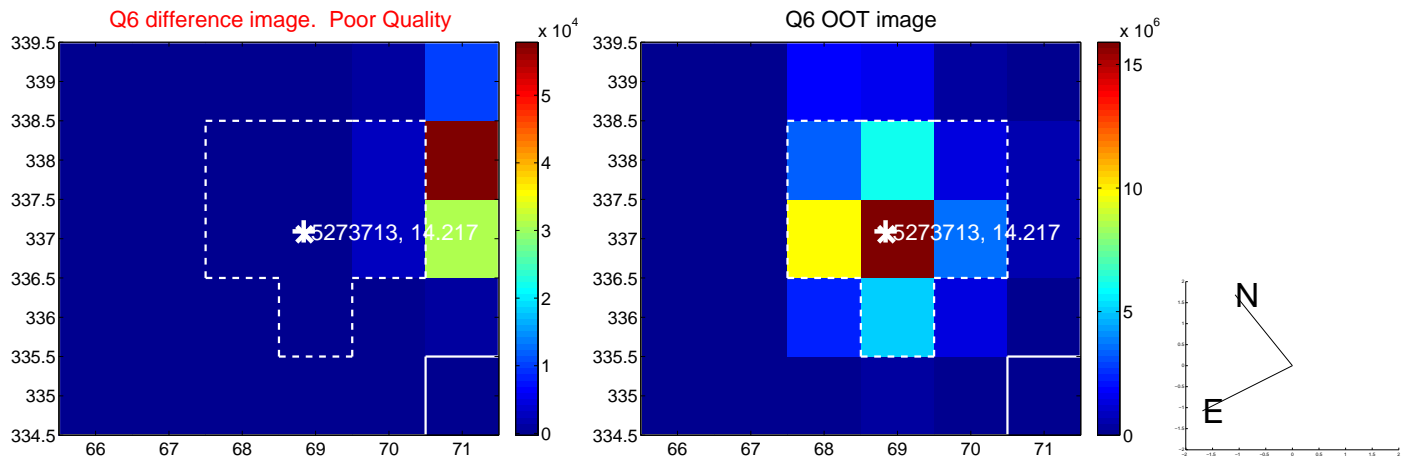
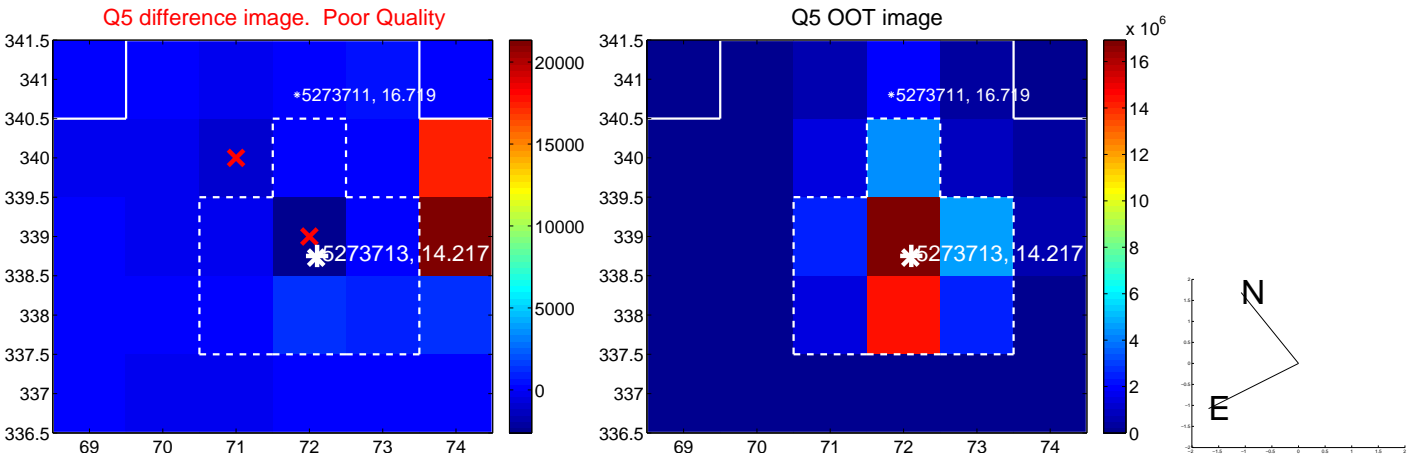


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

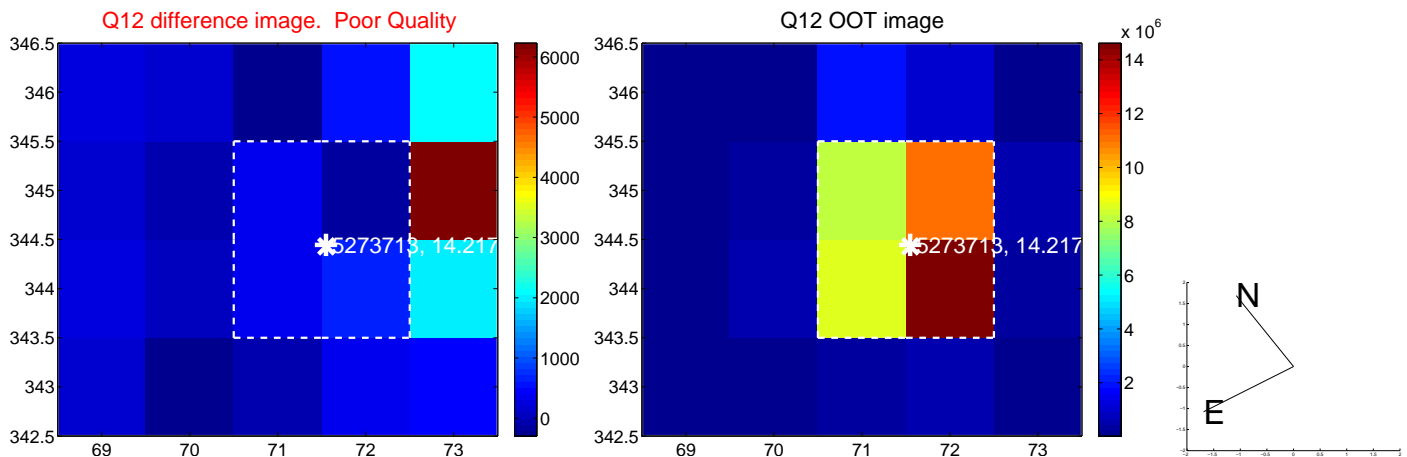
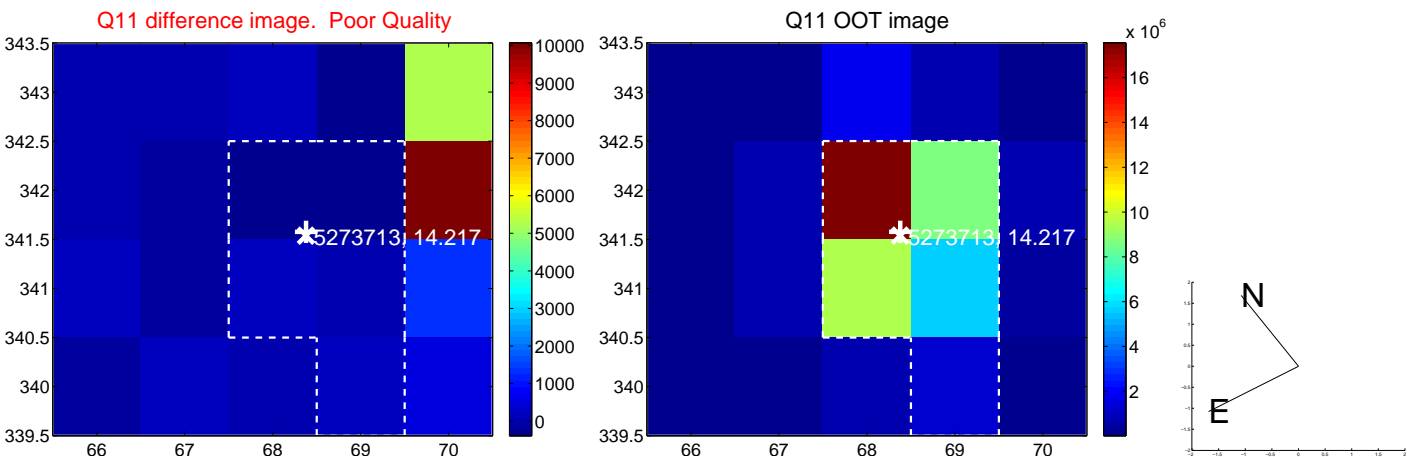
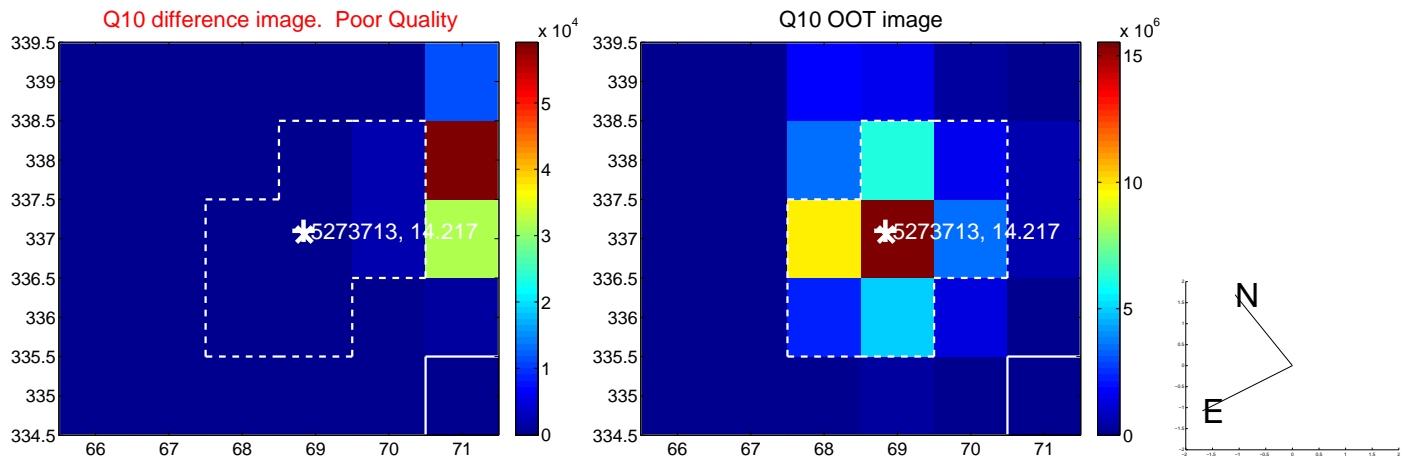
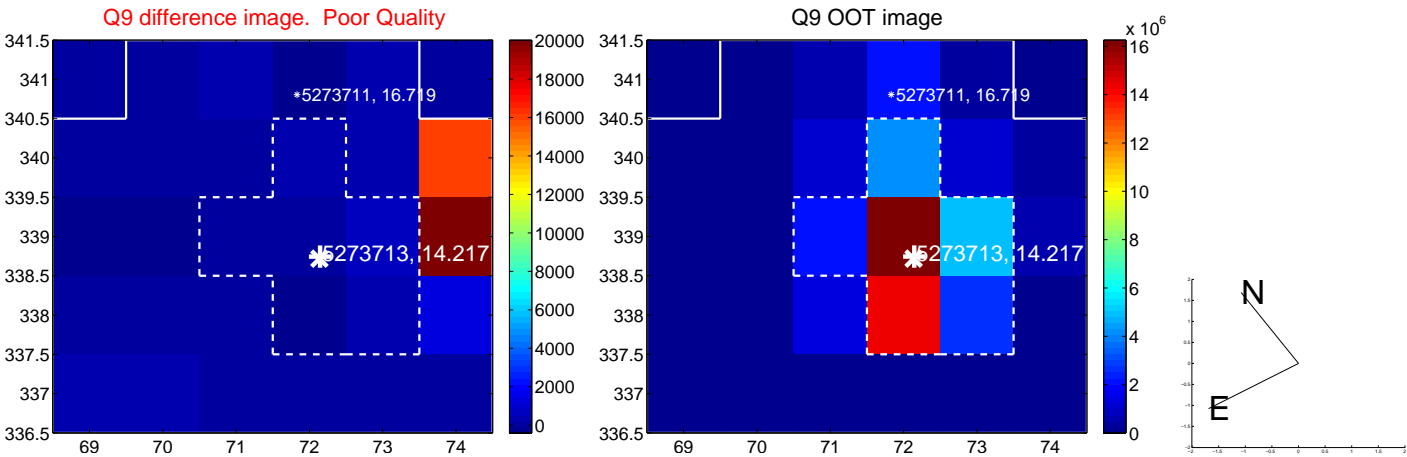
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



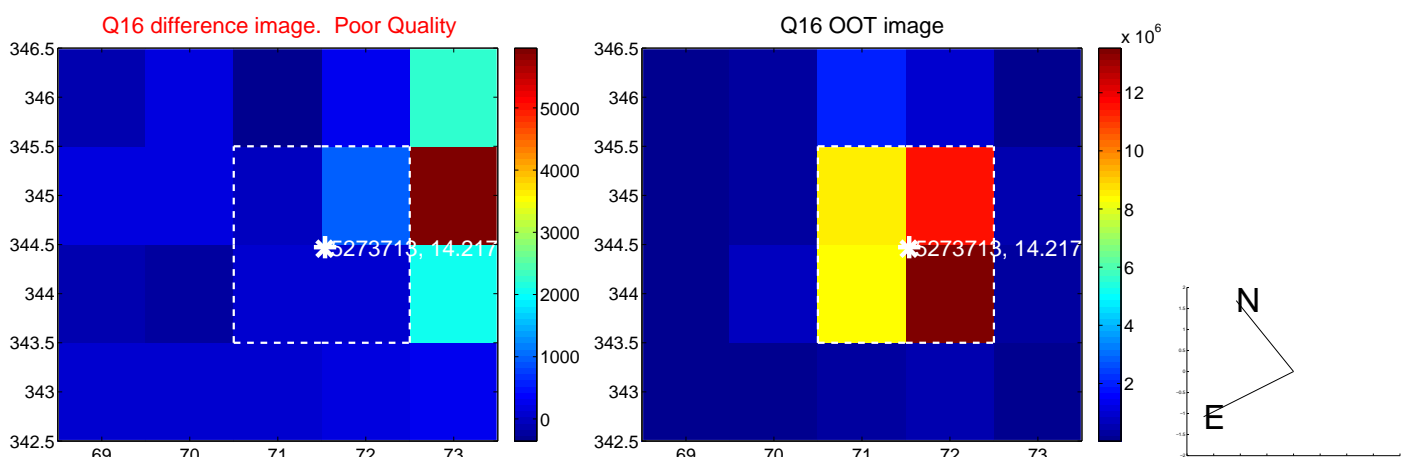
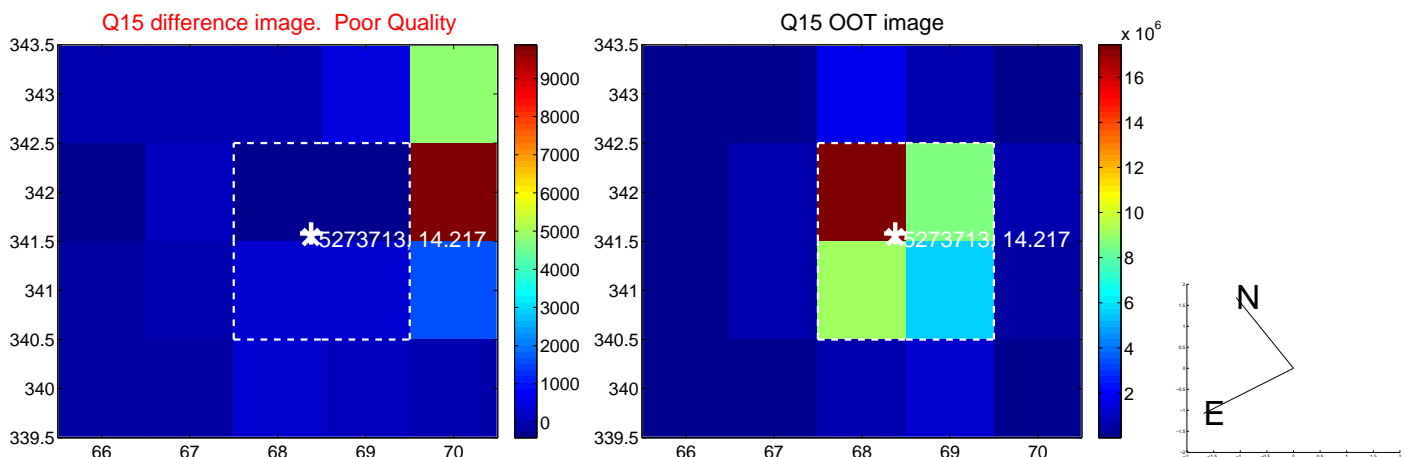
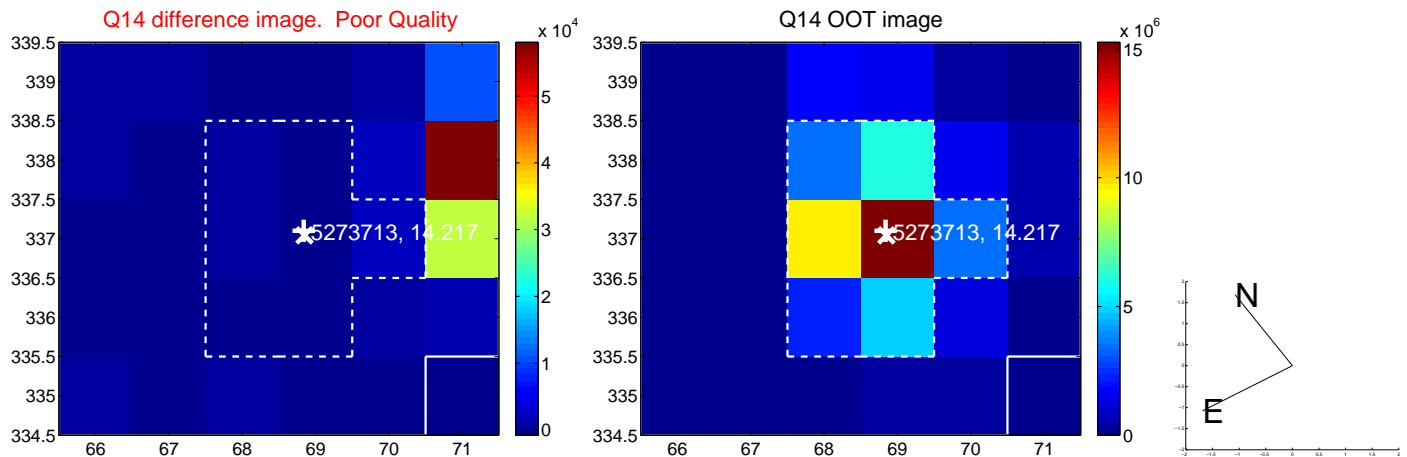
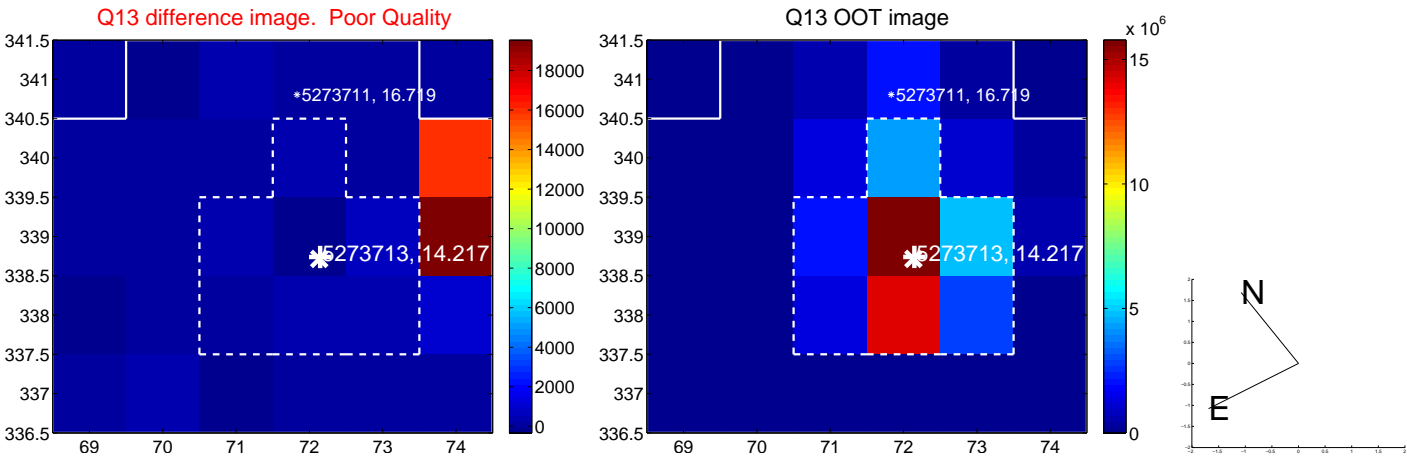
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



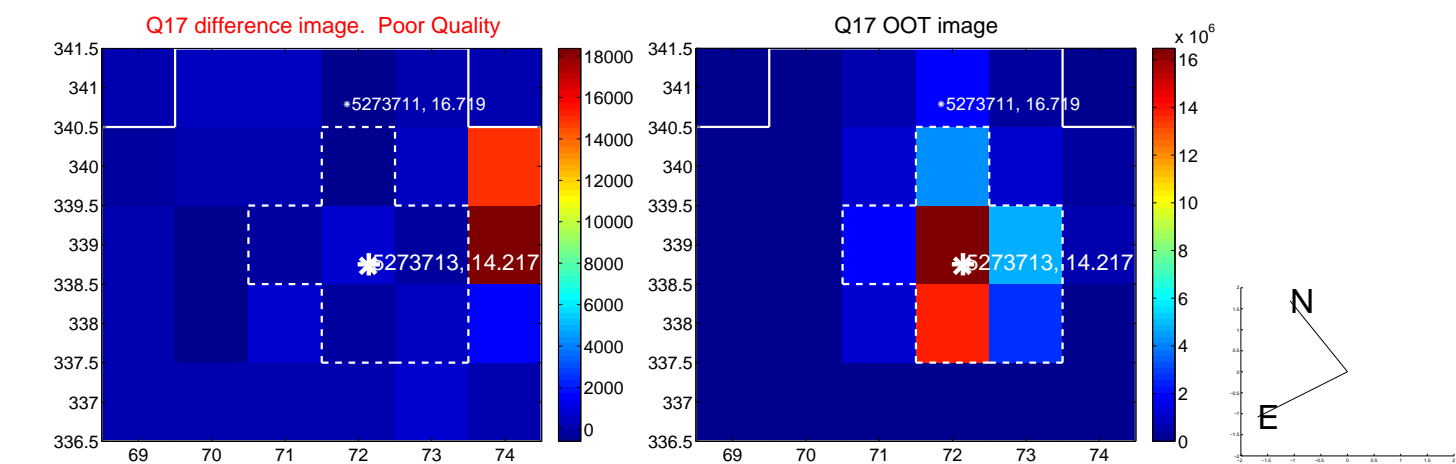
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



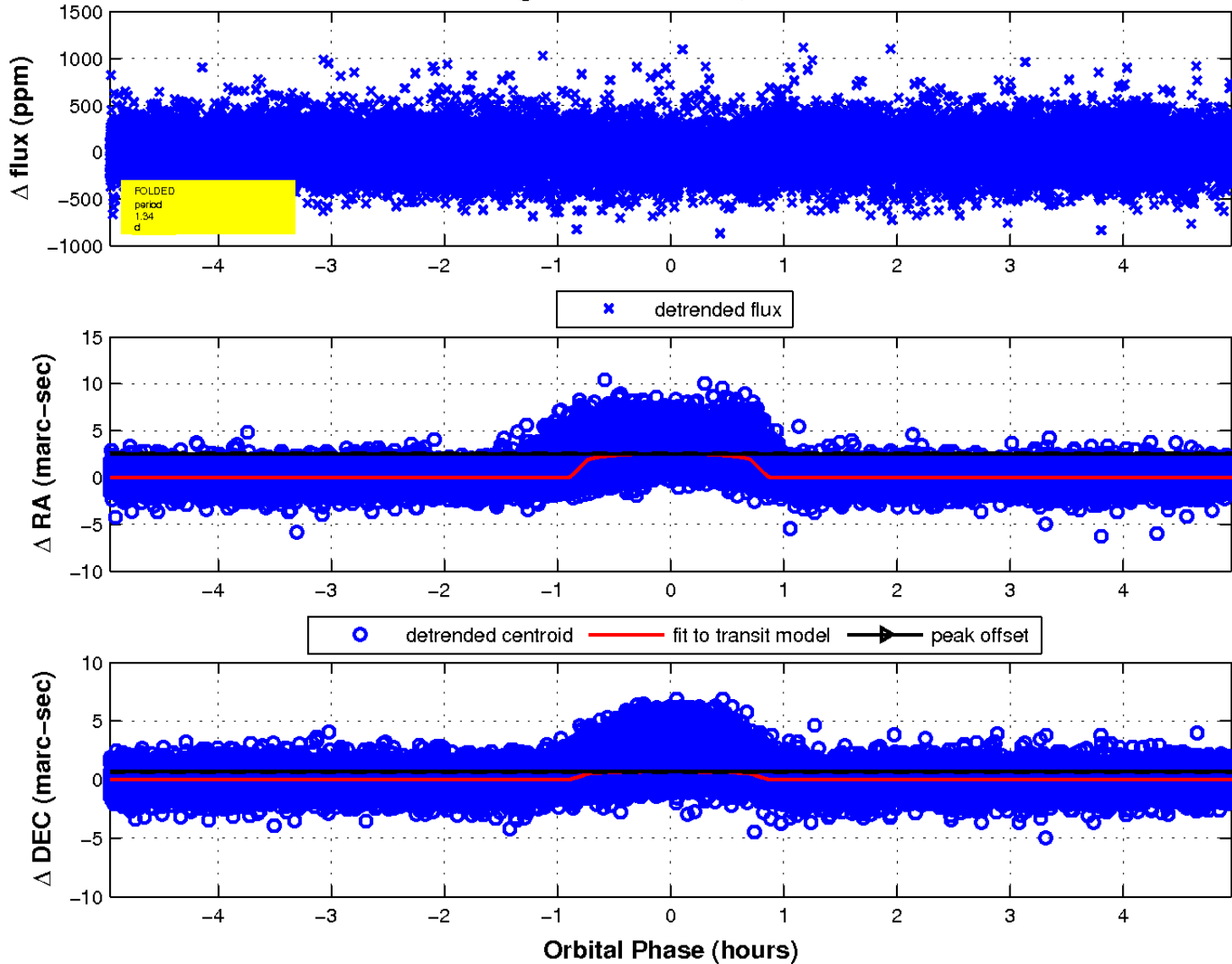
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

