

KIC 009655312

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})
009655312-01	OBS	No	1.267259	132.367875	9.1	9.832	11.6	10.8	2.26	7827	0.74	21740.58

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009655312-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

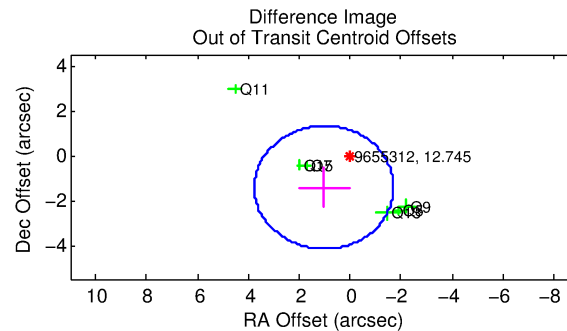
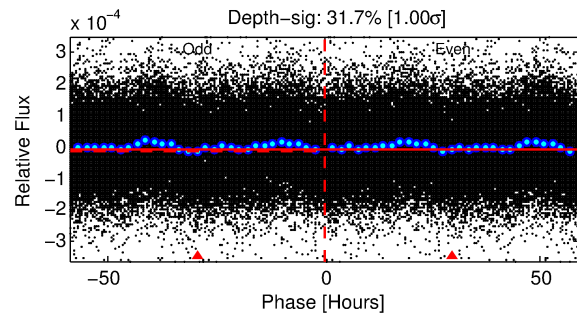
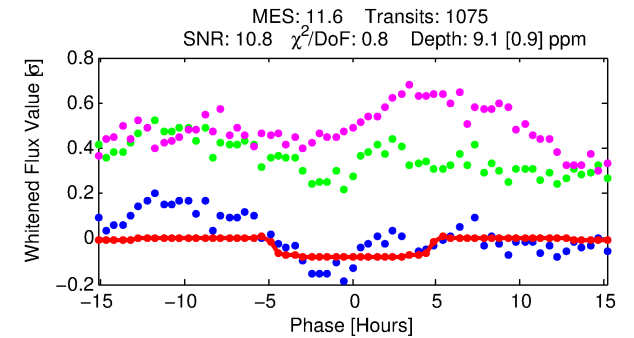
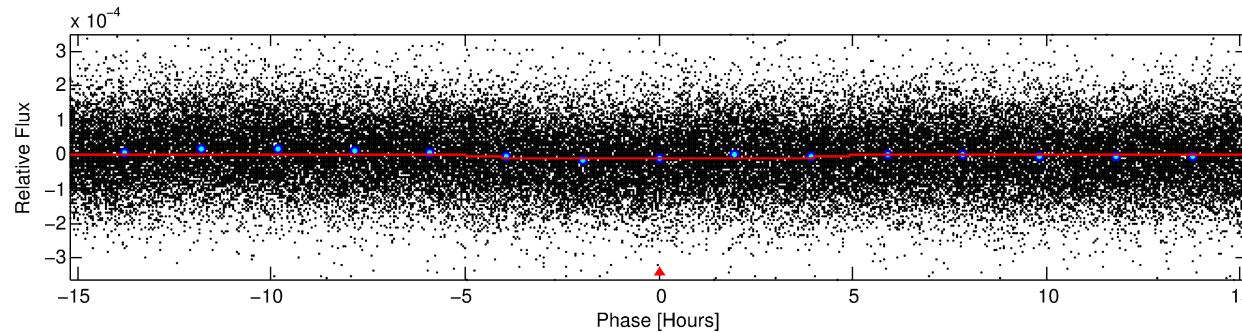
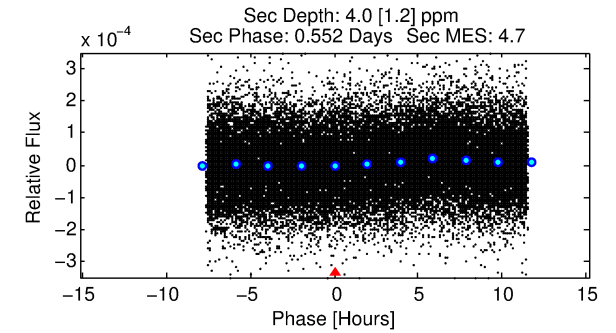
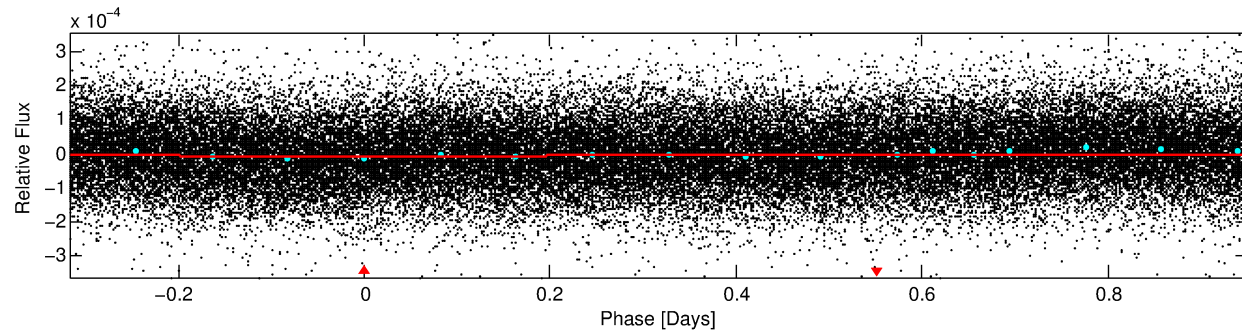
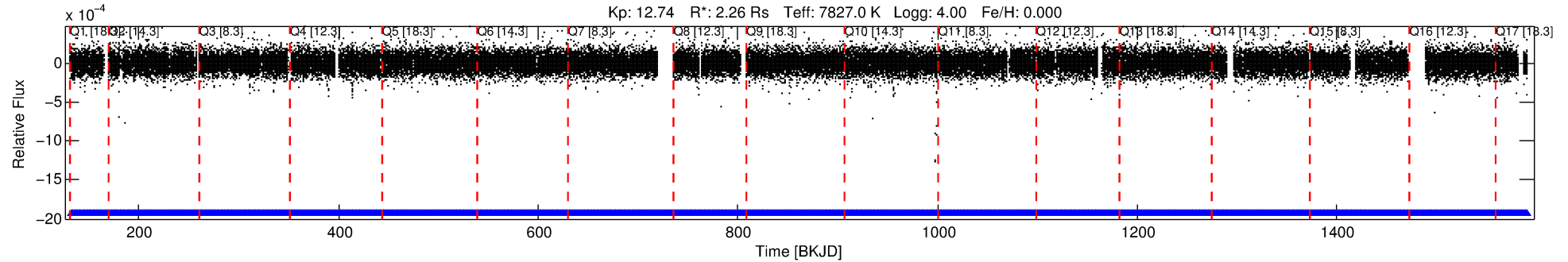
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 009655312-01

No Significant Match Found

DV One-Page Summary

KIC: 9655312 Candidate: 1 of 1 Period: 1.267 d



DV Fit Results:

Period = 1.26726 [0.00002] d
Epoch = 132.3679 [0.0075] BKJD
Rp/R* = 0.0030 [0.0019]
a/R* = 1.08 [0.58]
b = 0.78 [2.02]
Seff = 21740.58 [8458.96]
Teq = 3096 [301] K
Rp = 0.74 [0.50] Re
a = 0.0281 [0.0066] AU
Ag = 3.13 [4.12] [0.52σ]
Teffp = 6369 [2037] K [1.59σ]

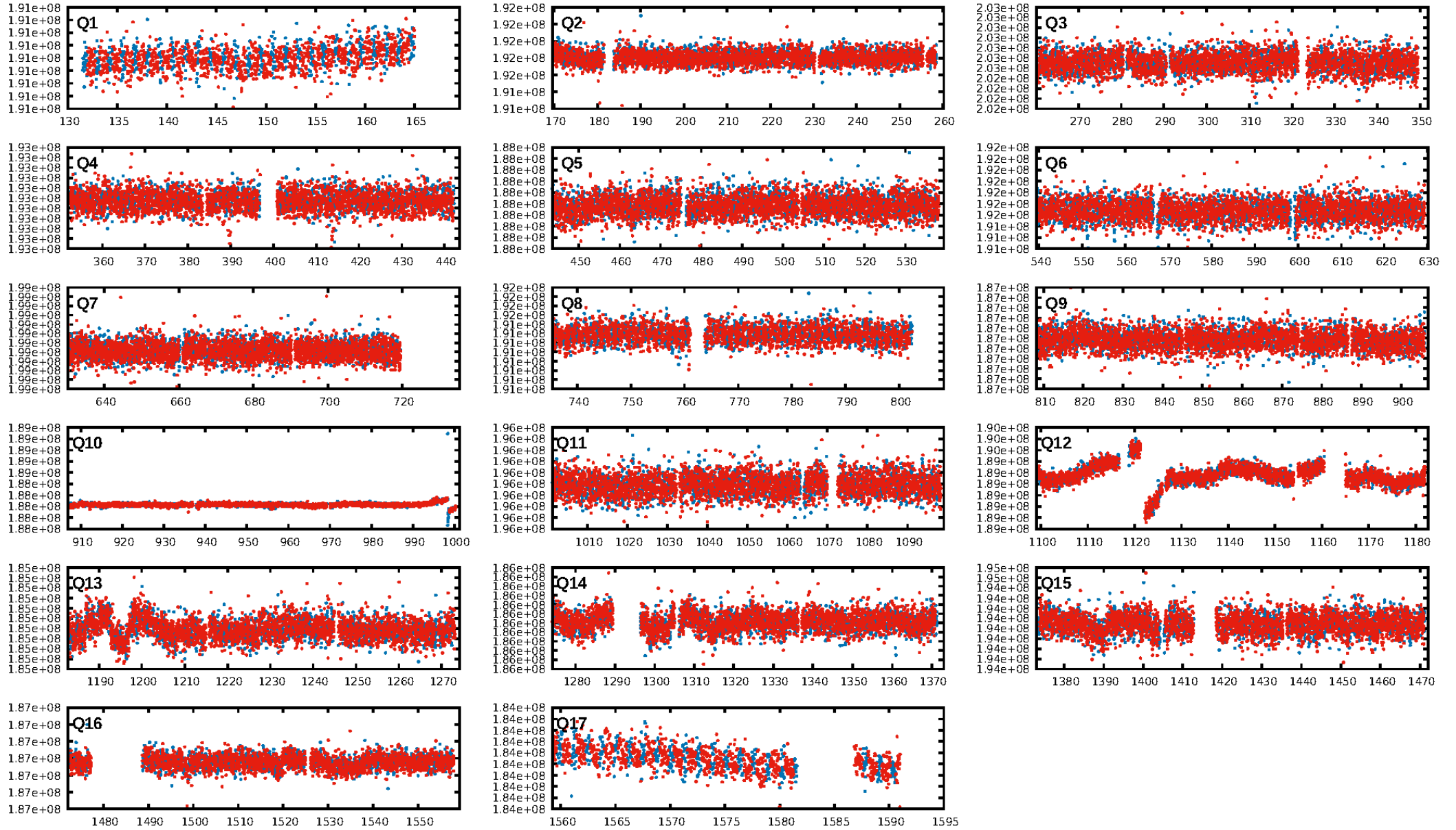
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.35e-29
RollingBand-fgt: 1.00 [1027/1027]
GhostDiagnostic-chr: 14.3
Centroid-sig: 3.4%
Centroid-so: 1.507 arcsec [1.37σ]
OotOffset-rm: 1.754 arcsec [1.92σ]
KicOffset-rm: 1.768 arcsec [1.97σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.33 [2/6]
DiffImageOverlap-fno: 1.00 [17/17]

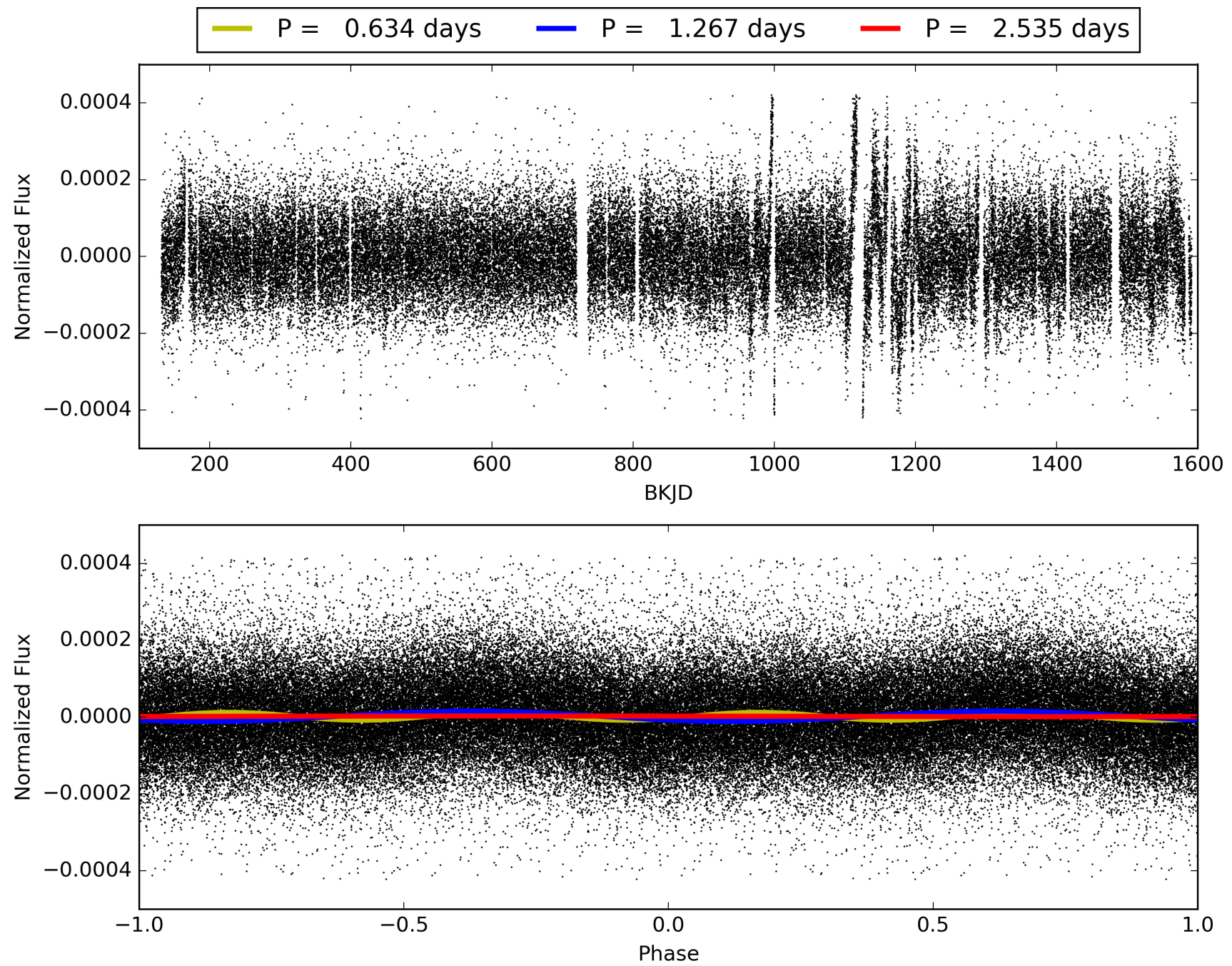
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:46:48 Z

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

TCE 009655312-01, PDC Light Curves

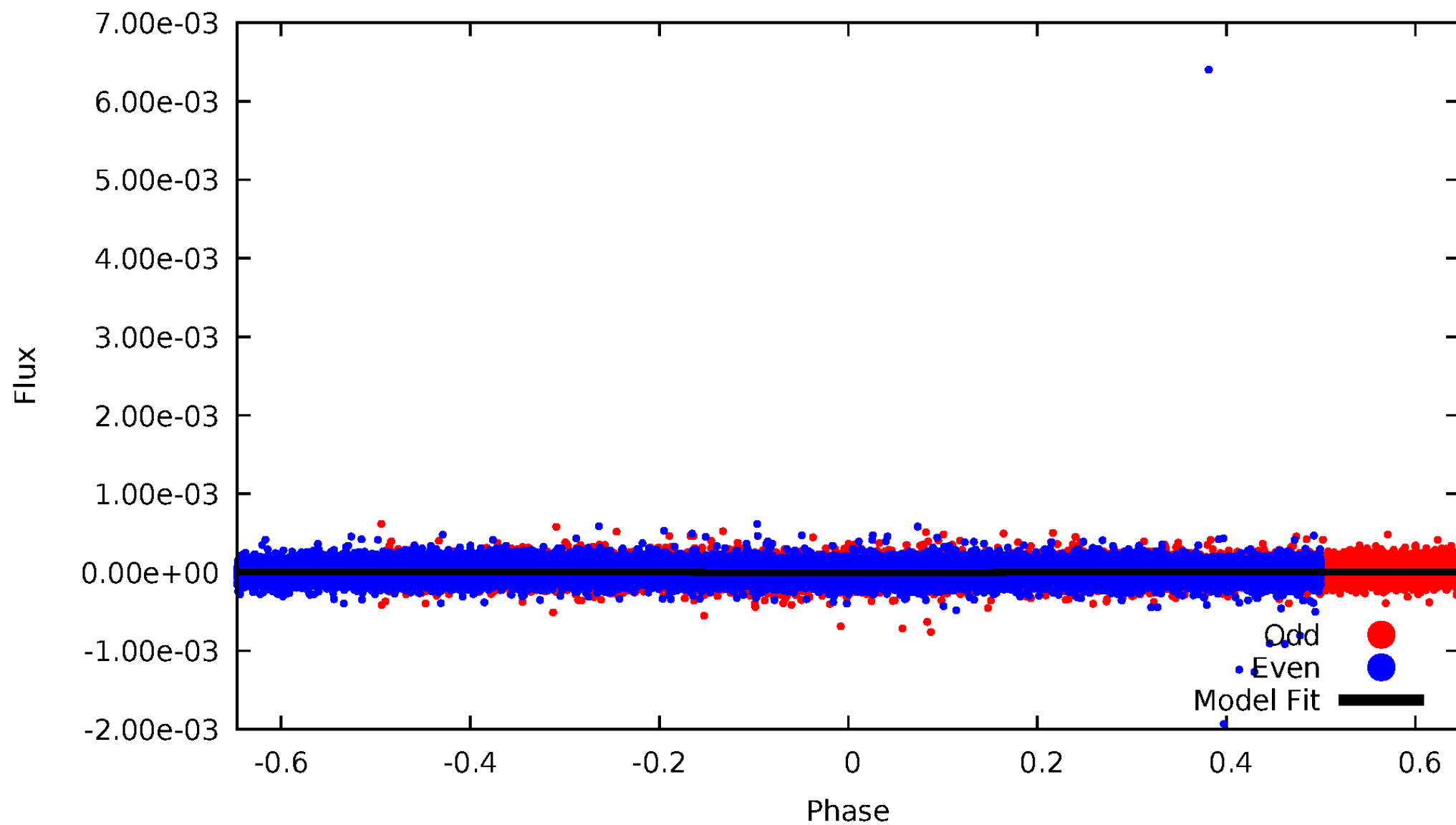


TCE 009655312-01



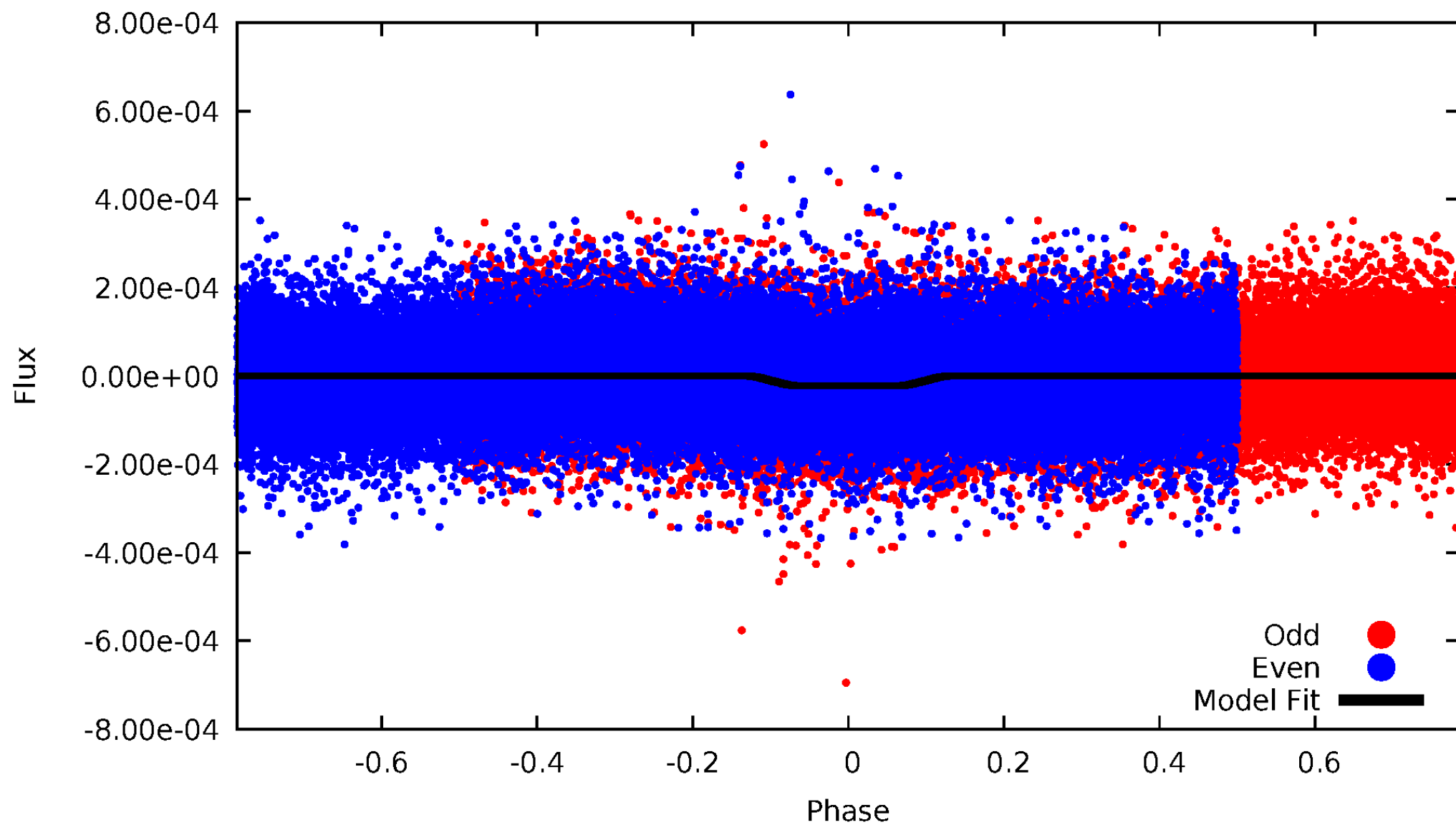
DV Odd/Even

TCE 009655312-01



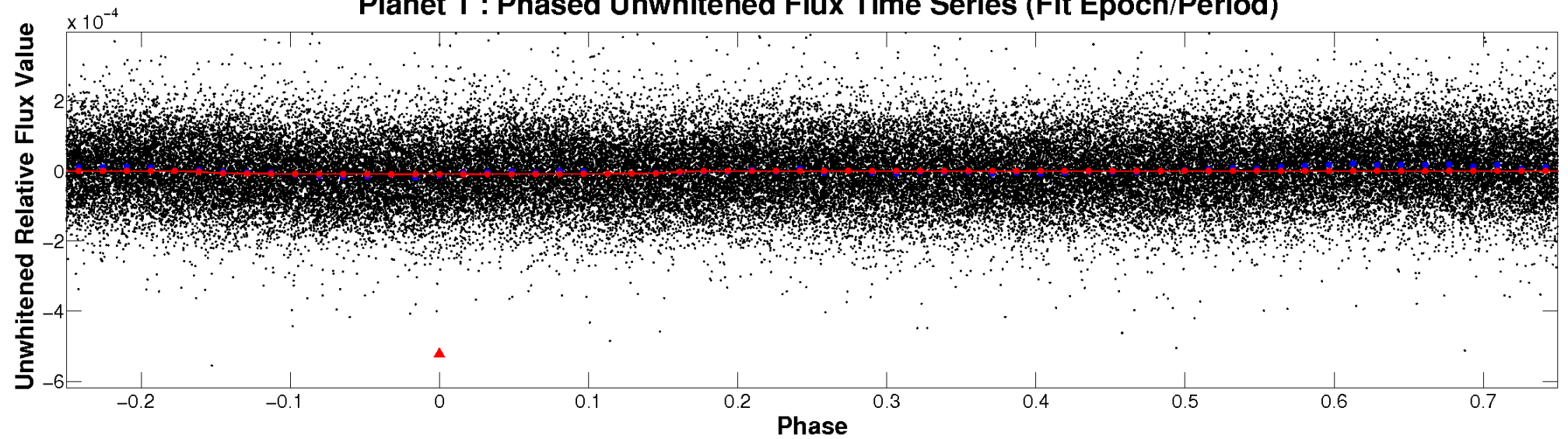
ALT Odd/Even

TCE 009655312-01

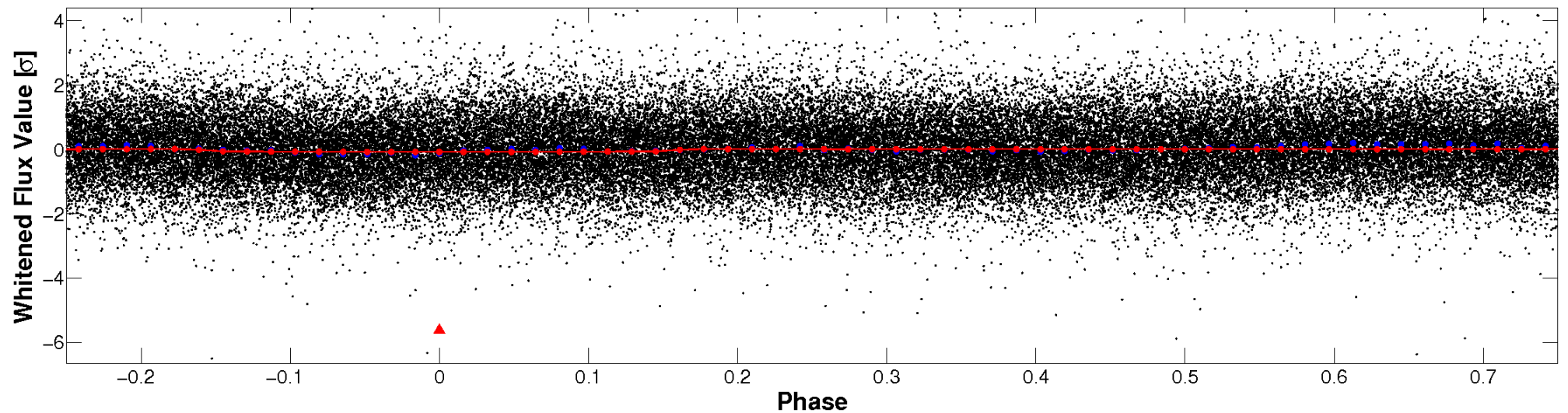


Non-Whitened Vs. Whitened Light Curve

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

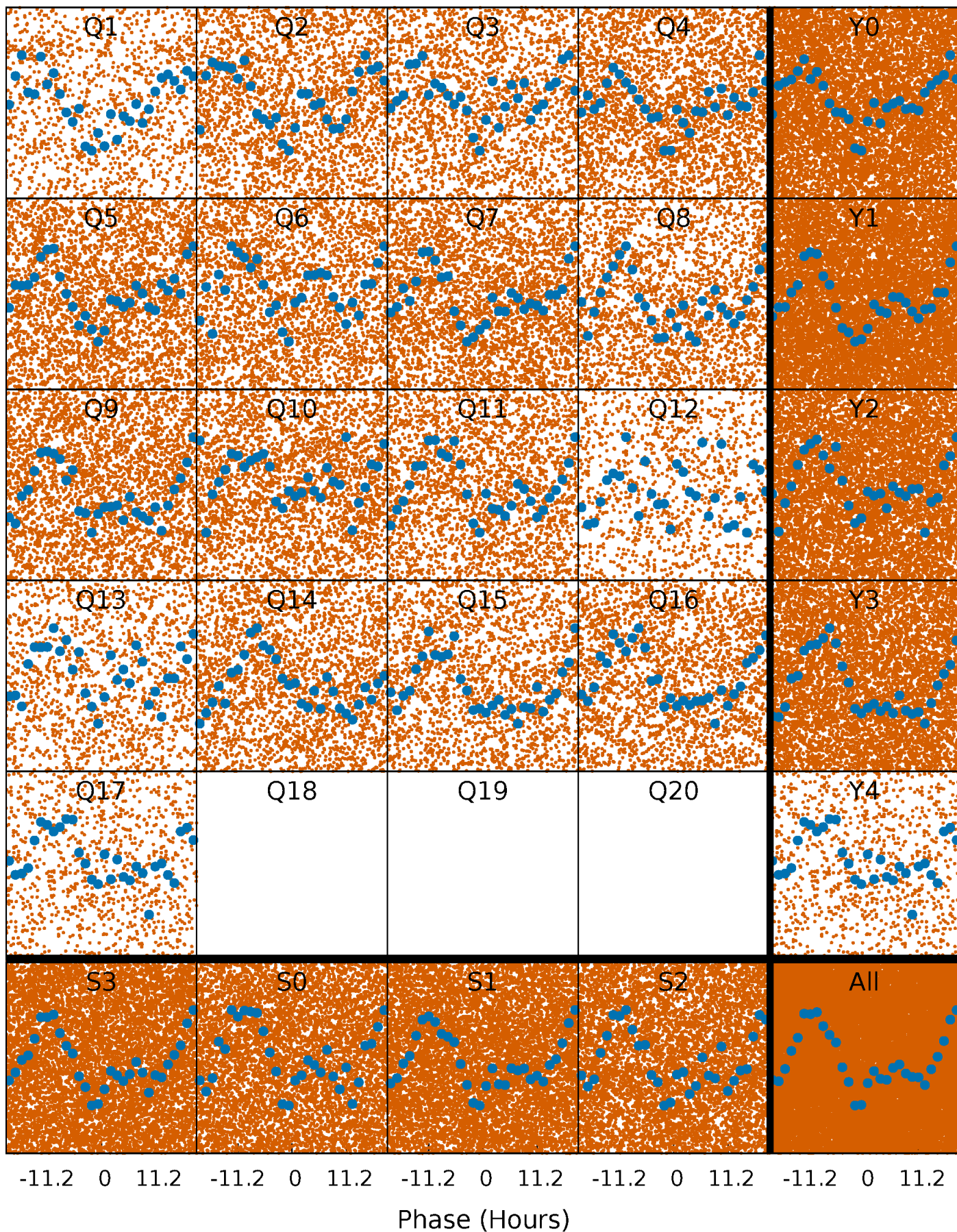


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



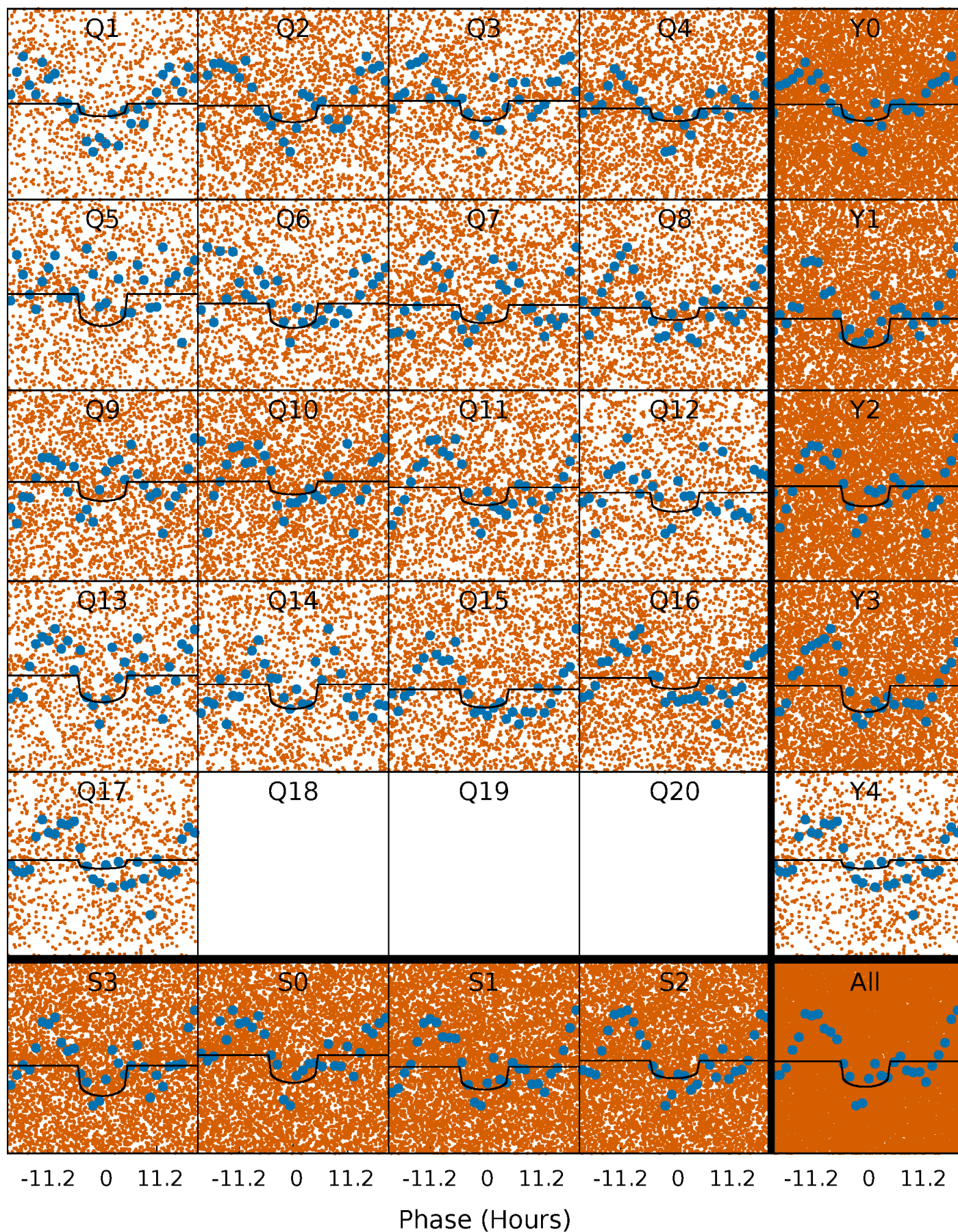
PDC Quarter-Phased Transit Curves

TCE 009655312-01 P= 1.267259 Days $T_0=132.367875$ (BKJD)



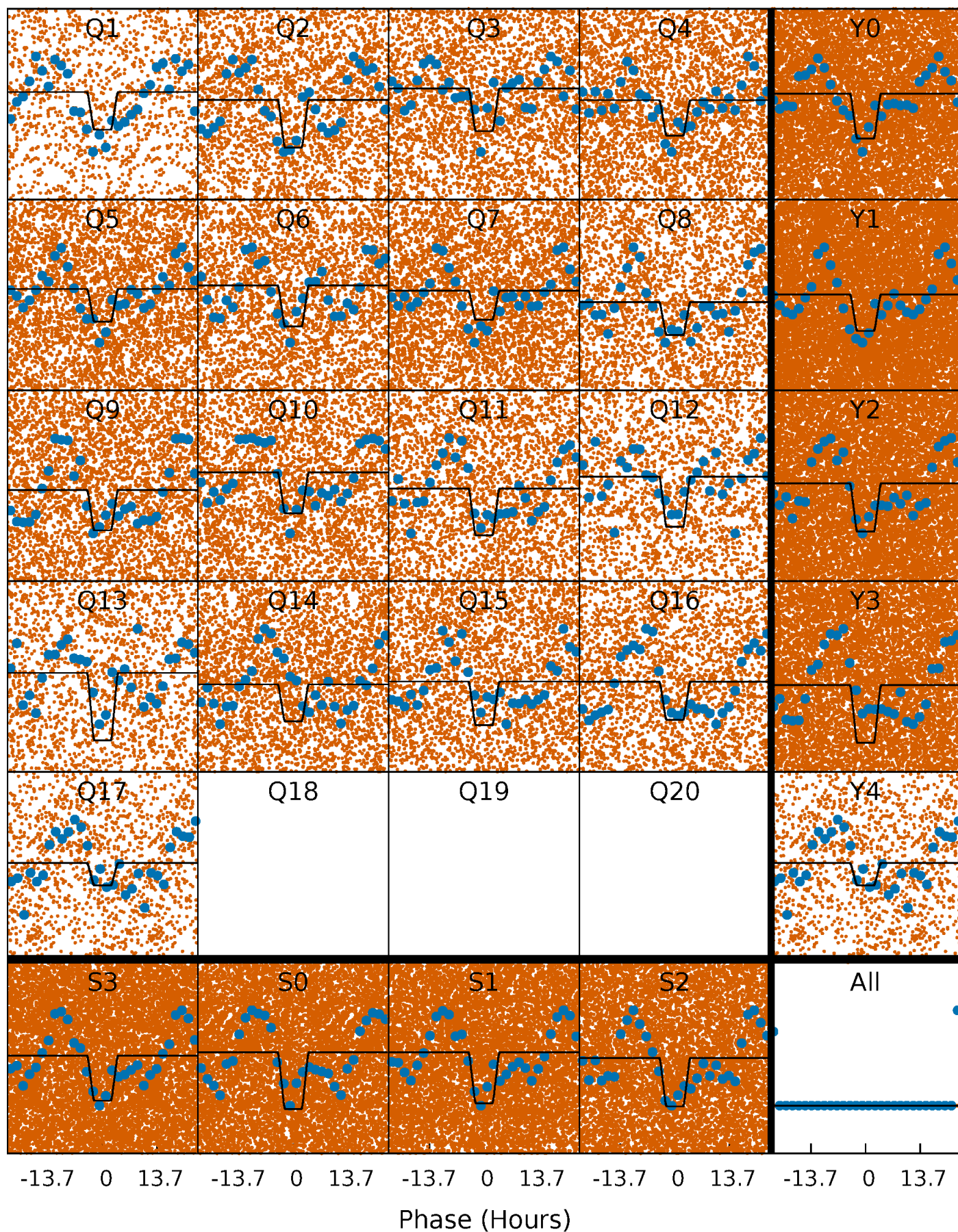
DV Quarter-Phased Transit Curves

TCE 009655312-01 P= 1.267259 Days $T_0=132.367875$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

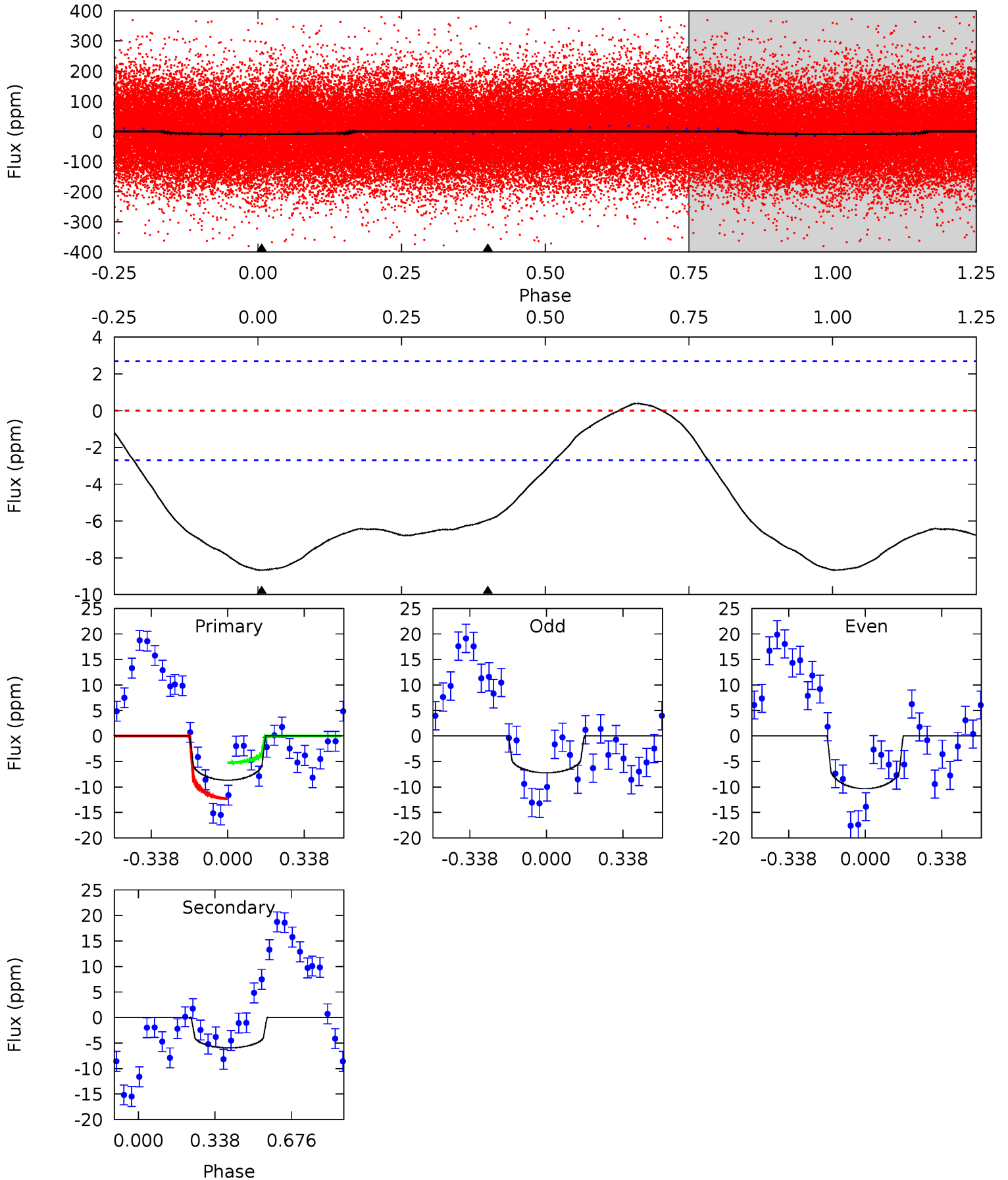
TCE 009655312-01 P= 1.267231 Days $T_0=132.362370$ (BKJD)



DV Model-Shift Uniqueness Test

009655312-01, P = 1.267259 Days, E = 131.100616 Days

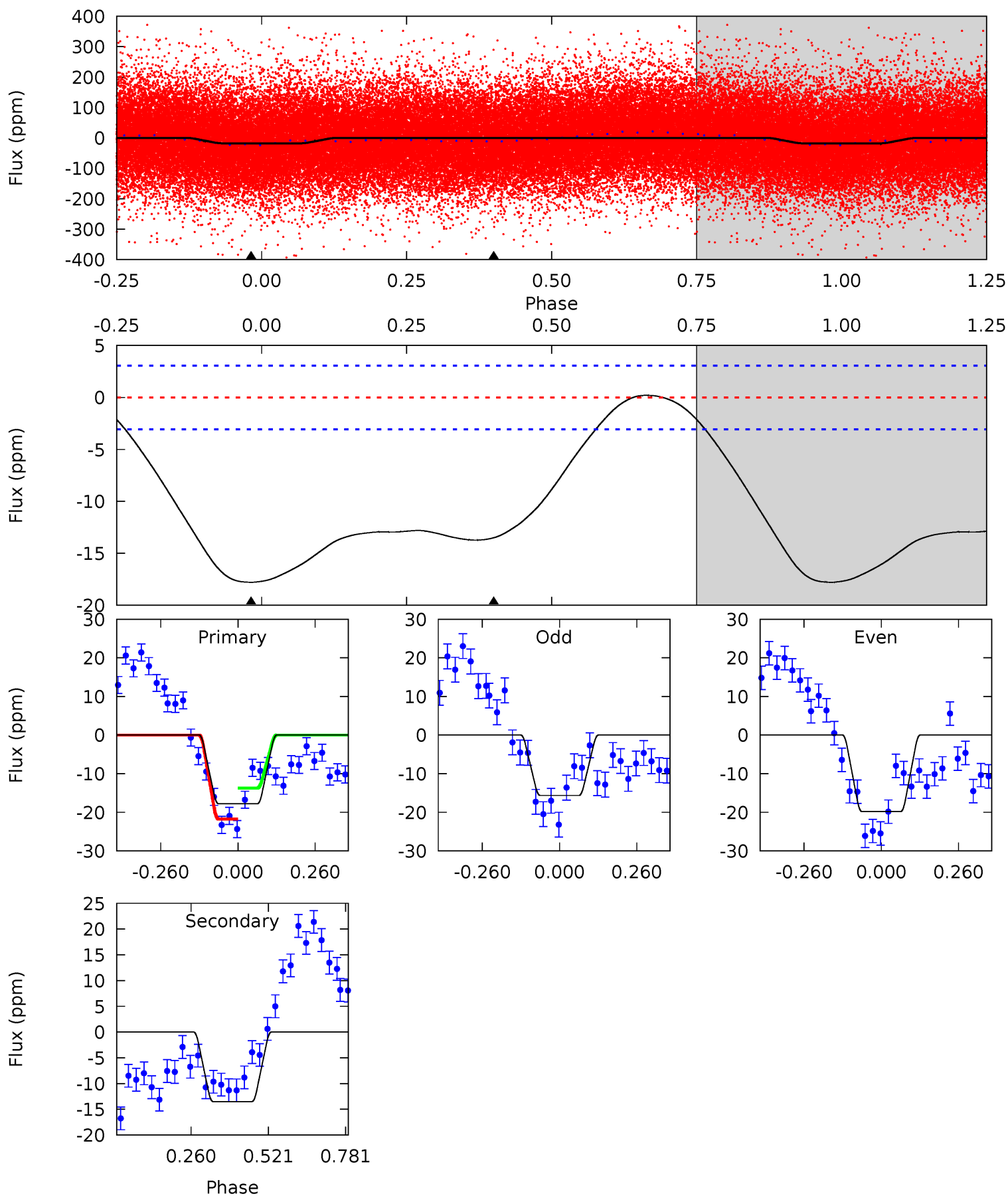
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	9.49	0	0	4.30	0.96	0.82	13.9	13.9	9.49	9.49	2.49	1.03	0.04	5.78



Alt Model-Shift Uniqueness Test

009655312-01, P = 1.267231 Days, E = 131.095139 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.3	19.2	0	0	4.36	1.13	0.76	25.3	25.3	19.2	19.2	2.96	0.98	0.01	5.70



Stellar Parameters For KIC 009655312

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7827^{+216}_{-324}	$3.995^{+0.198}_{-0.148}$	$0.000^{+0.200}_{-0.350}$	$2.258^{+0.493}_{-0.602}$	$1.840^{+0.138}_{-0.344}$	$0.225^{+0.254}_{-0.089}$
	+3%/-4%	+5%/-4%	+inf%/-inf%	+22%/-27%	+8%/-19%	+113%/-39%
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 009655312-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 1	$0.74^{+0.45}_{-0.39}$	4312^{+292}_{-316}	6680^{+4326}_{-1436}	$4.535^{+16.463}_{-2.718}$
Alt.	-14 ± 1	$1.14^{+0.51}_{-0.49}$	4314^{+294}_{-312}	6739^{+2446}_{-1254}	$4.557^{+8.918}_{-2.485}$

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 $A_{obs} \gg 1.0$

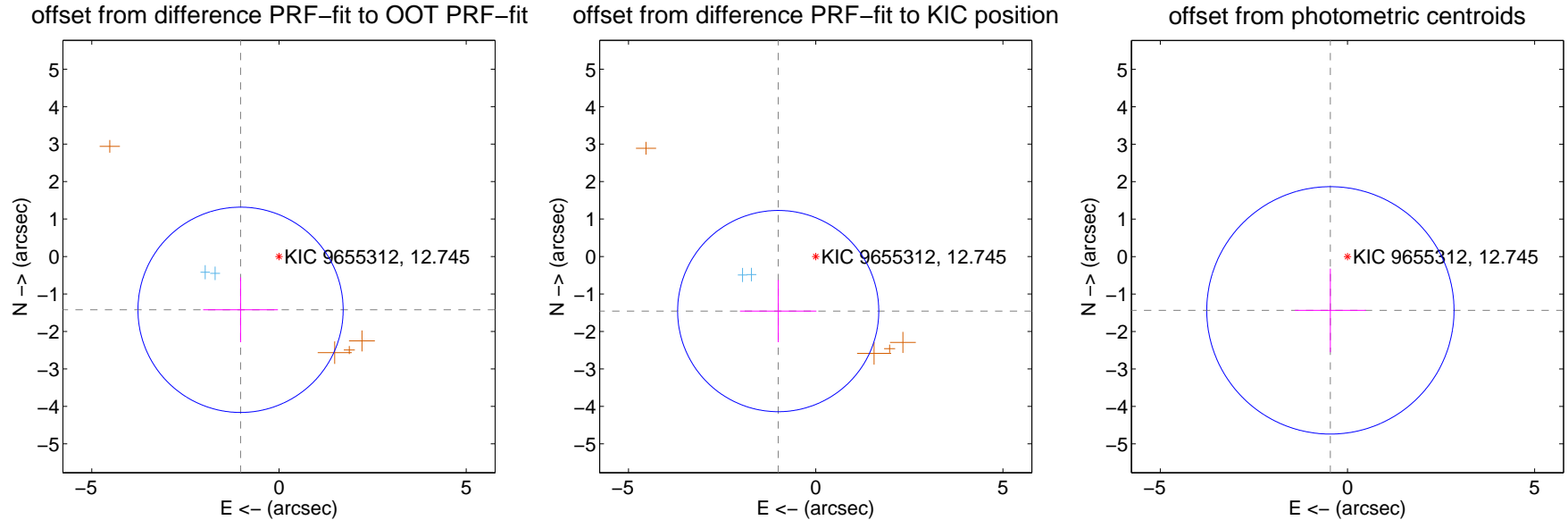
DV Centroid Data

Supplemental centroid analysis for 009655312-01. Kepler magnitude: 12.74. Transit SNR 10.83

There are 2 quarters with good PRF difference image offsets

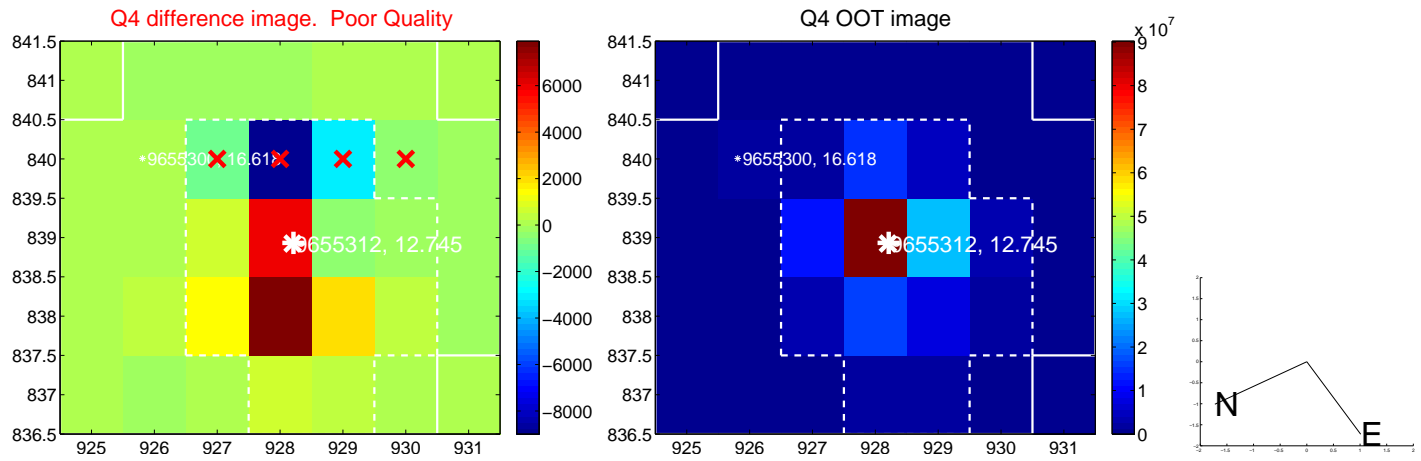
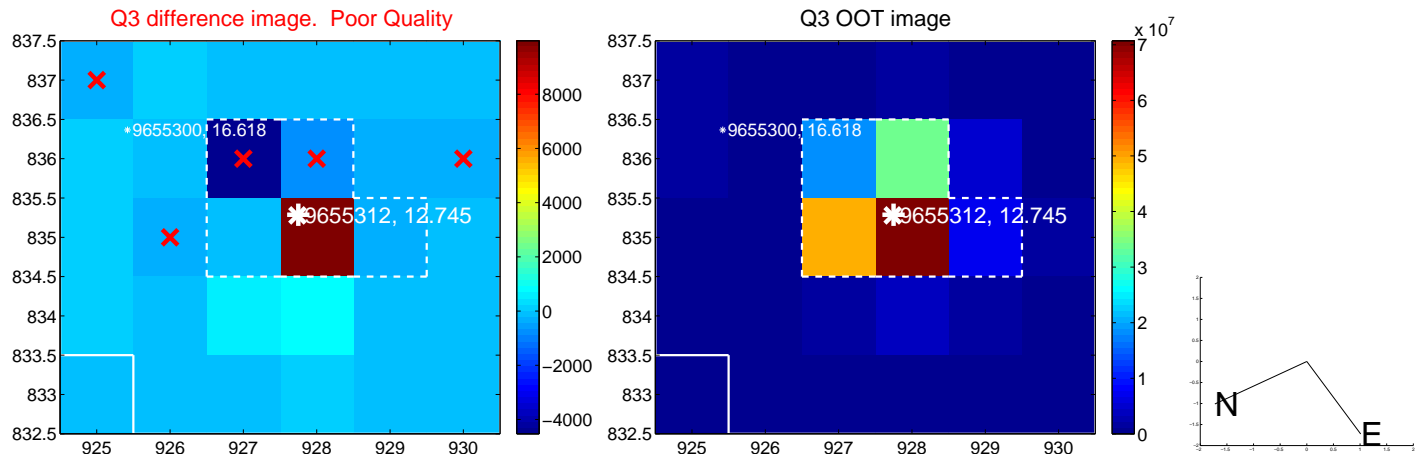
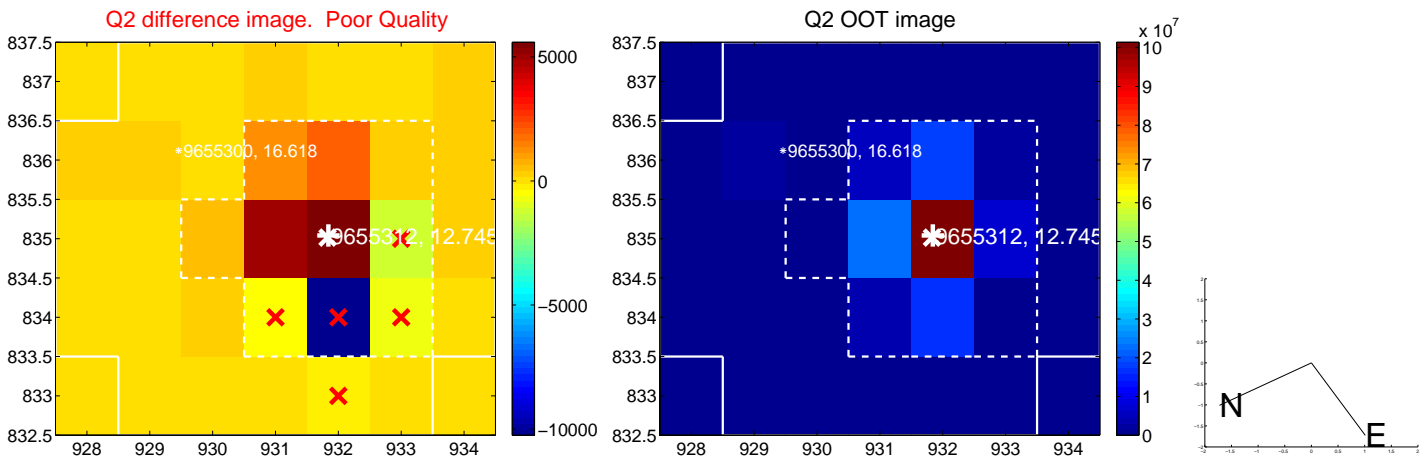
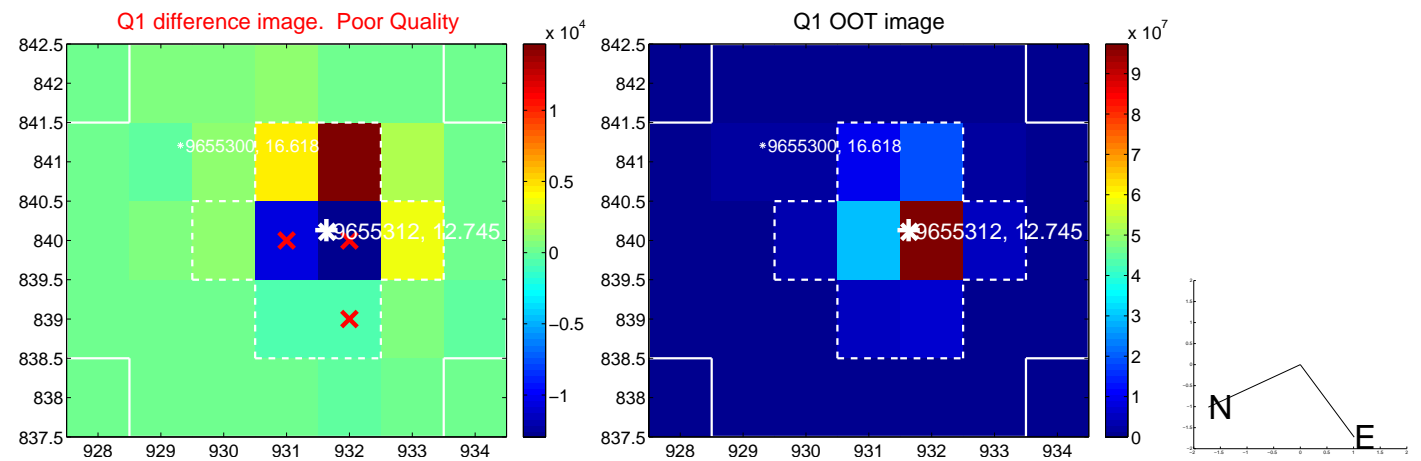
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.754 ± 0.913	1.92	1.026 ± 0.998	-1.423 ± 0.866
PRF-fit source offset from KIC position	1.768 ± 0.895	1.97	1.002 ± 1.019	-1.456 ± 0.830
photometric centroid source offset	1.51 ± 1.10	1.37	0.46 ± 0.95	-1.44 ± 1.12

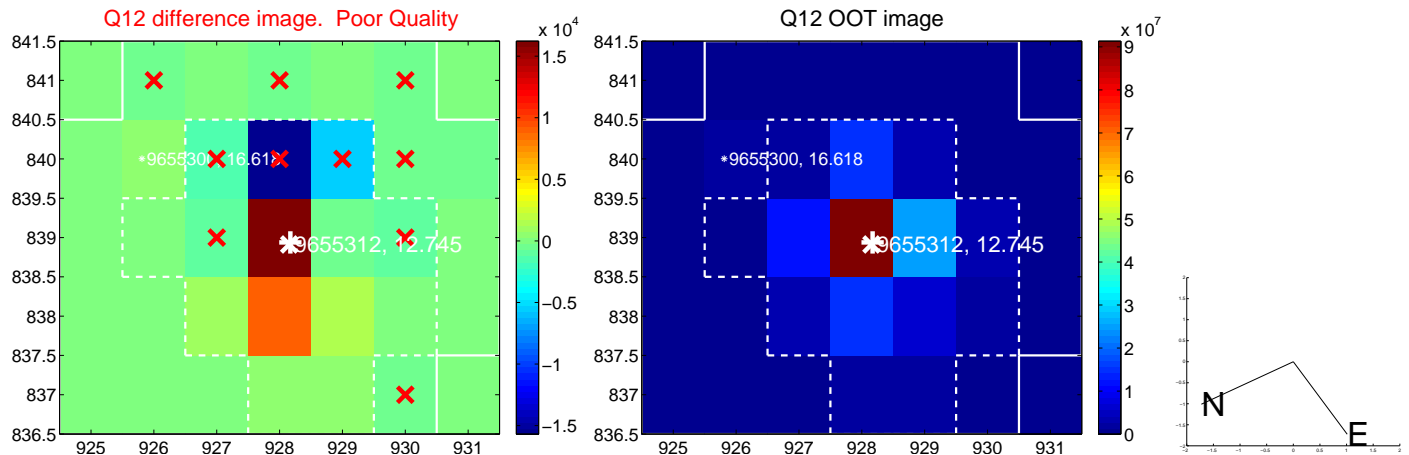
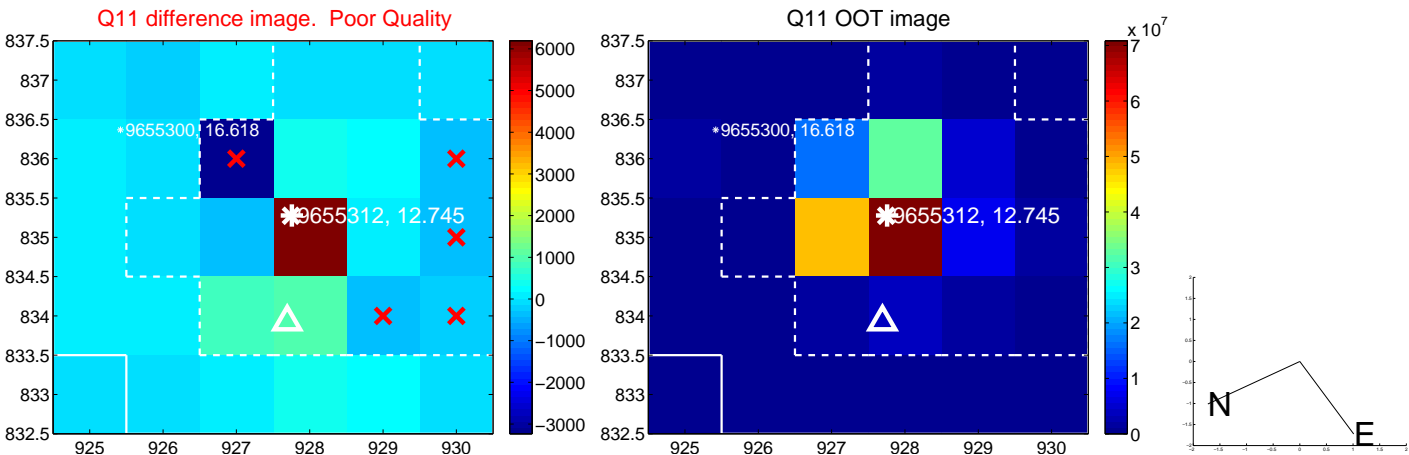
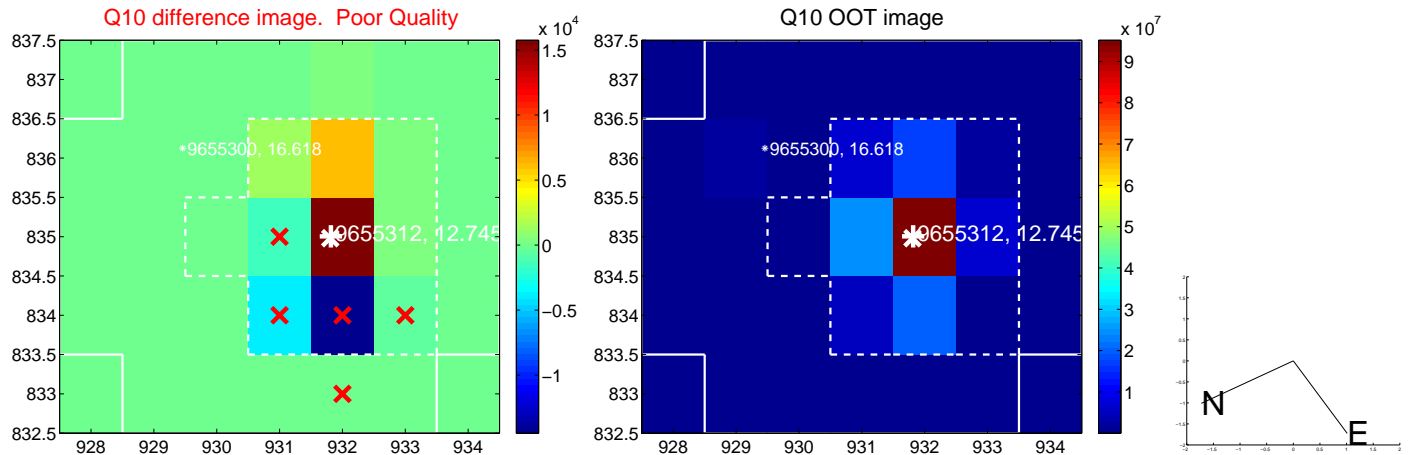
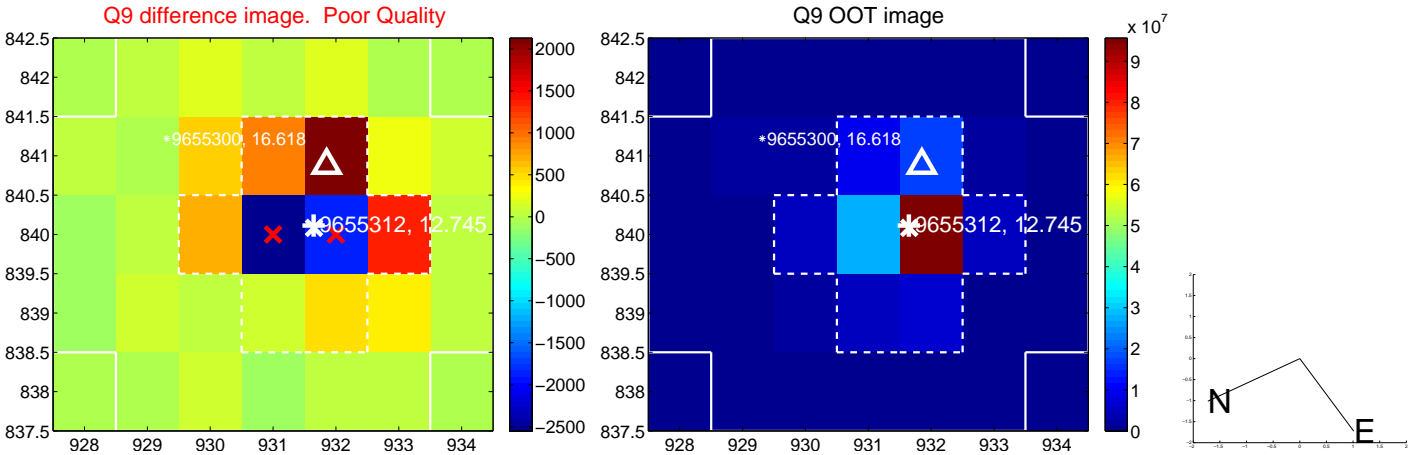


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

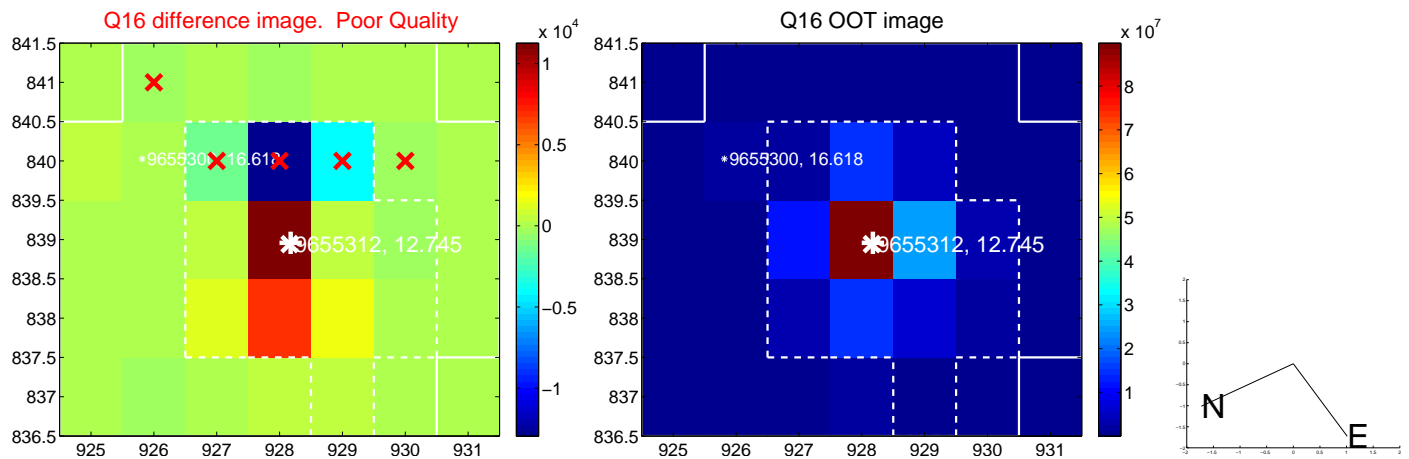
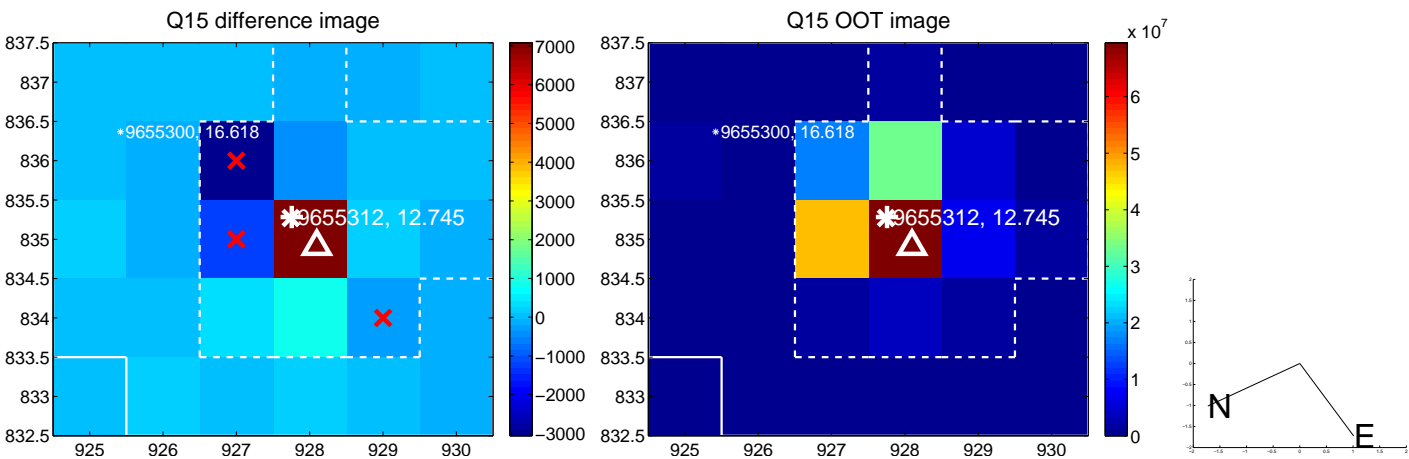
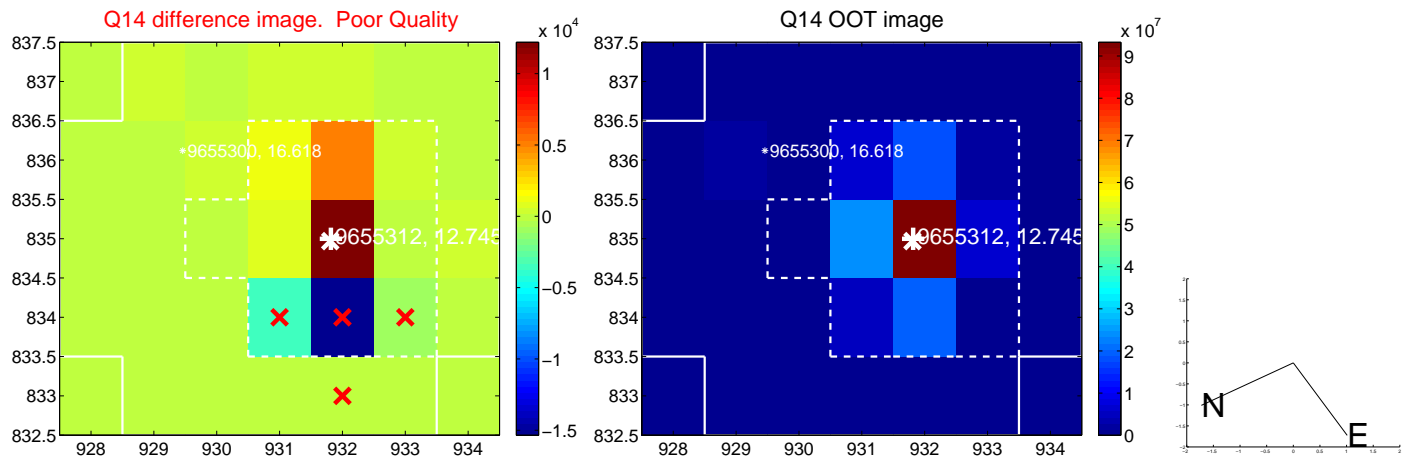
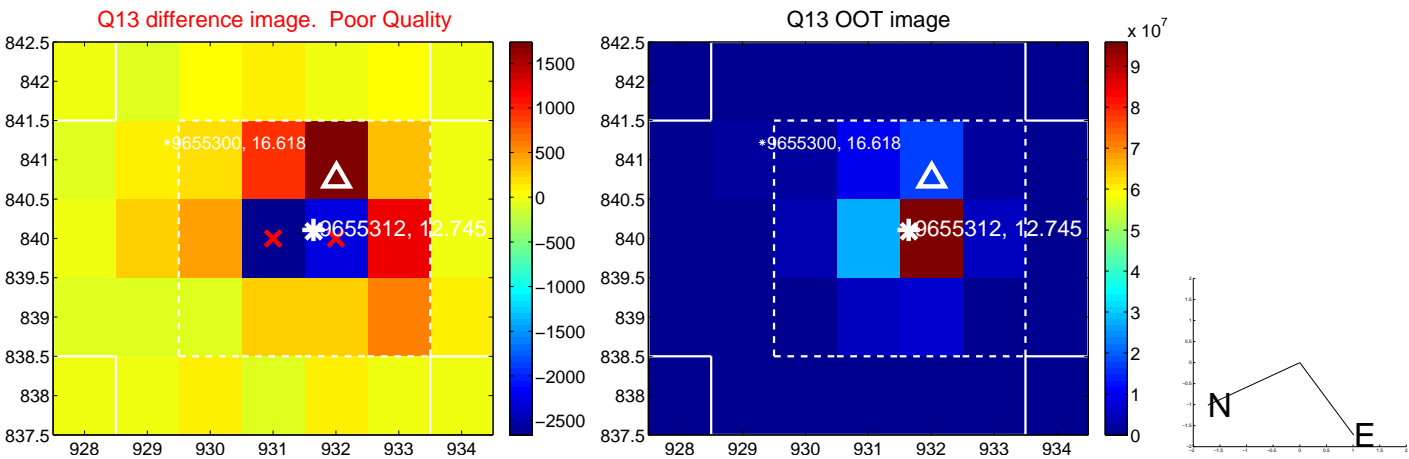
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



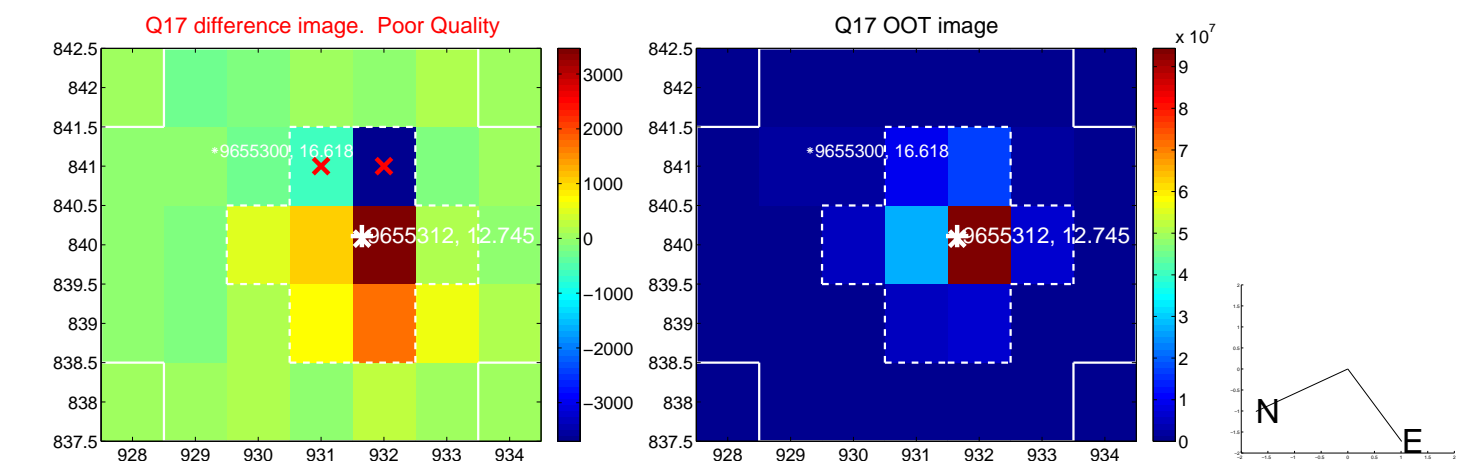
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



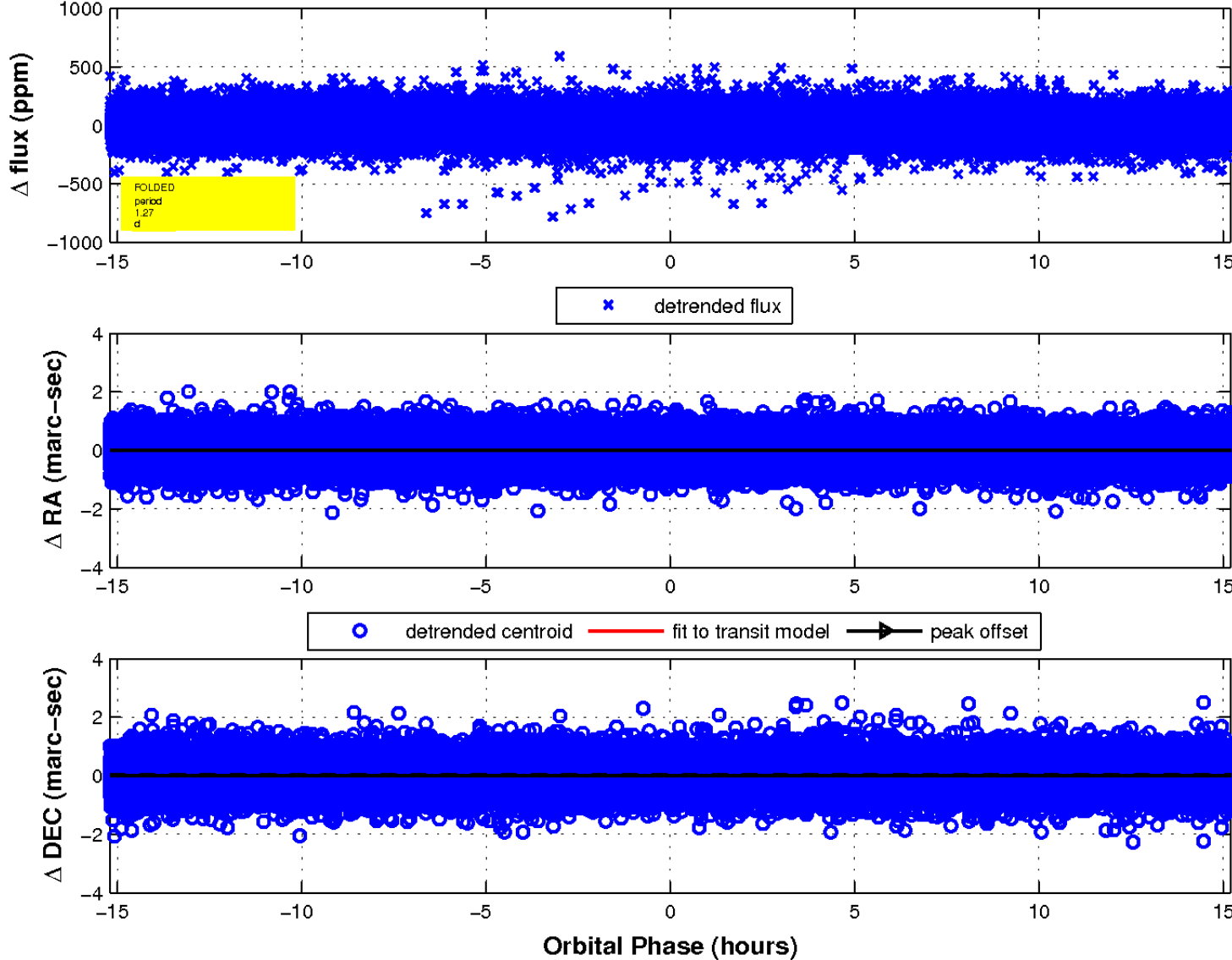
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

