

KIC 011825955

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})
011825955-01	OBS	No	0.543139	131.959557	23.7	1.933	10.3	10.8	1.90	7008	1.08	39449.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011825955-01	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.

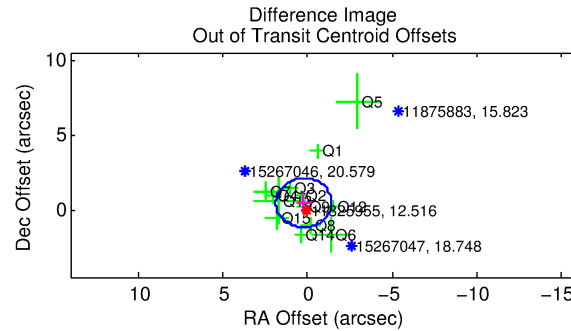
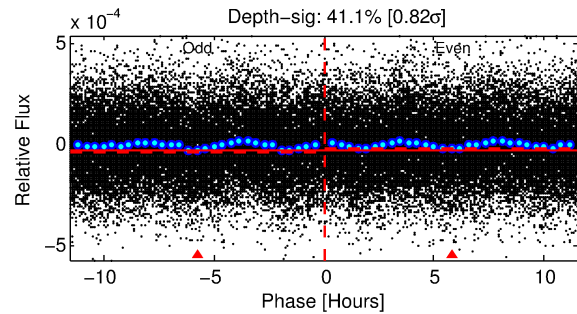
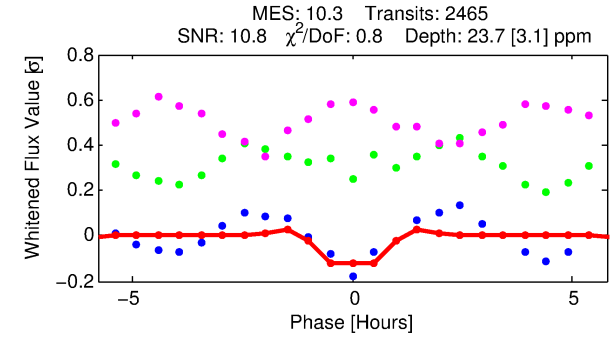
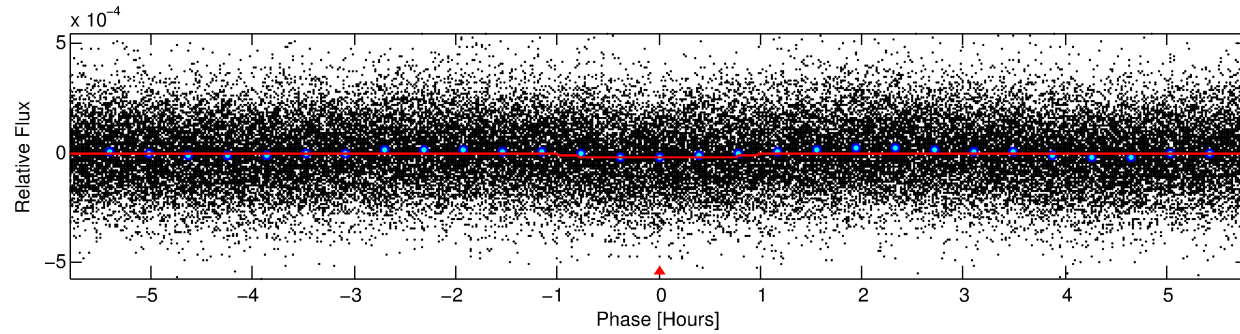
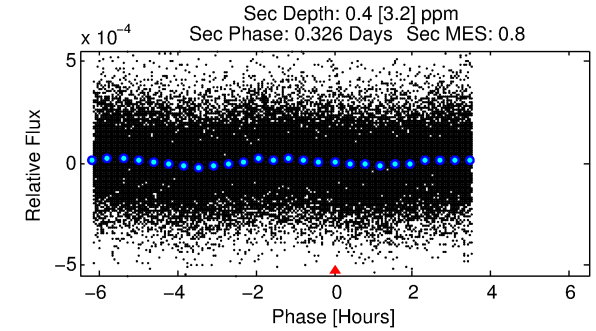
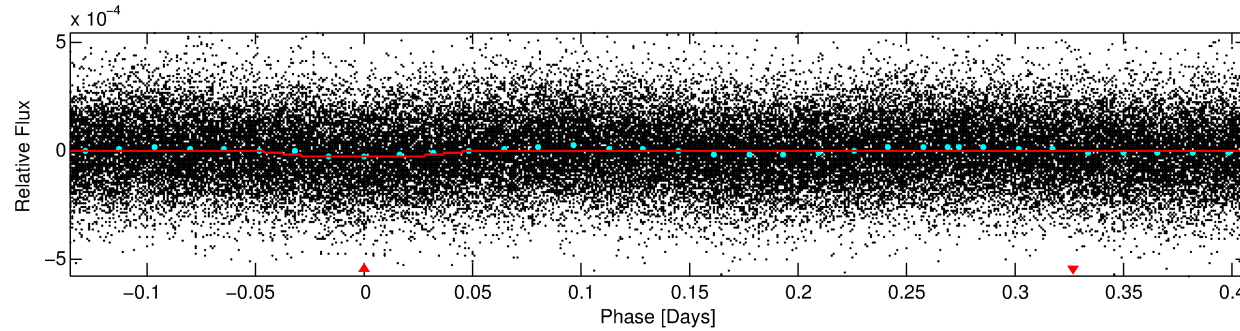
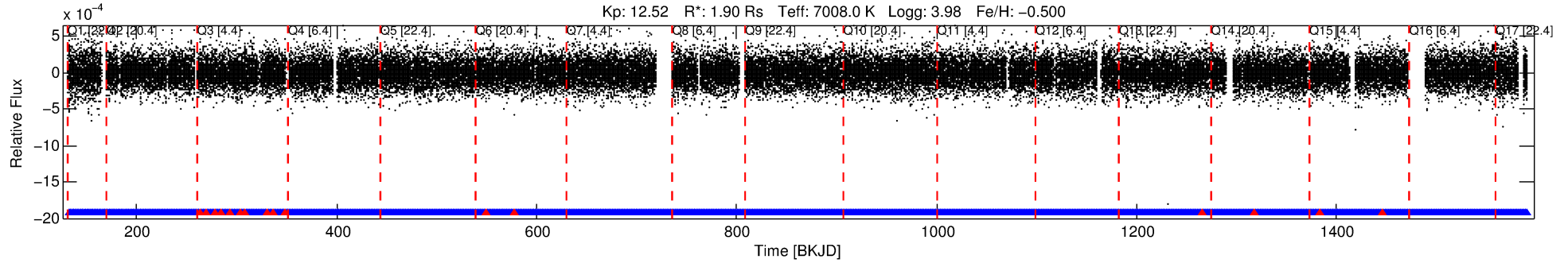
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011825955-01

No Significant Match Found

DV One-Page Summary

KIC: 11825955 Candidate: 1 of 1 Period: 0.543 d



DV Fit Results:

Period = 0.54314 [0.00001] d
Epoch = 131.9596 [0.0019] BKJD
Rp/R* = 0.0052 [0.0015]
a/R* = 1.34 [1.05]
b = 0.90 [0.38]
Seff = 39449.77 [23245.50]
Teq = 3594 [529] K
Rp = 1.08 [0.50] Re
a = 0.0141 [0.0050] AU
Ag = 0.04 [0.30] [-3.21σ]
Teffp = 2428 [4991] K [-0.23σ]

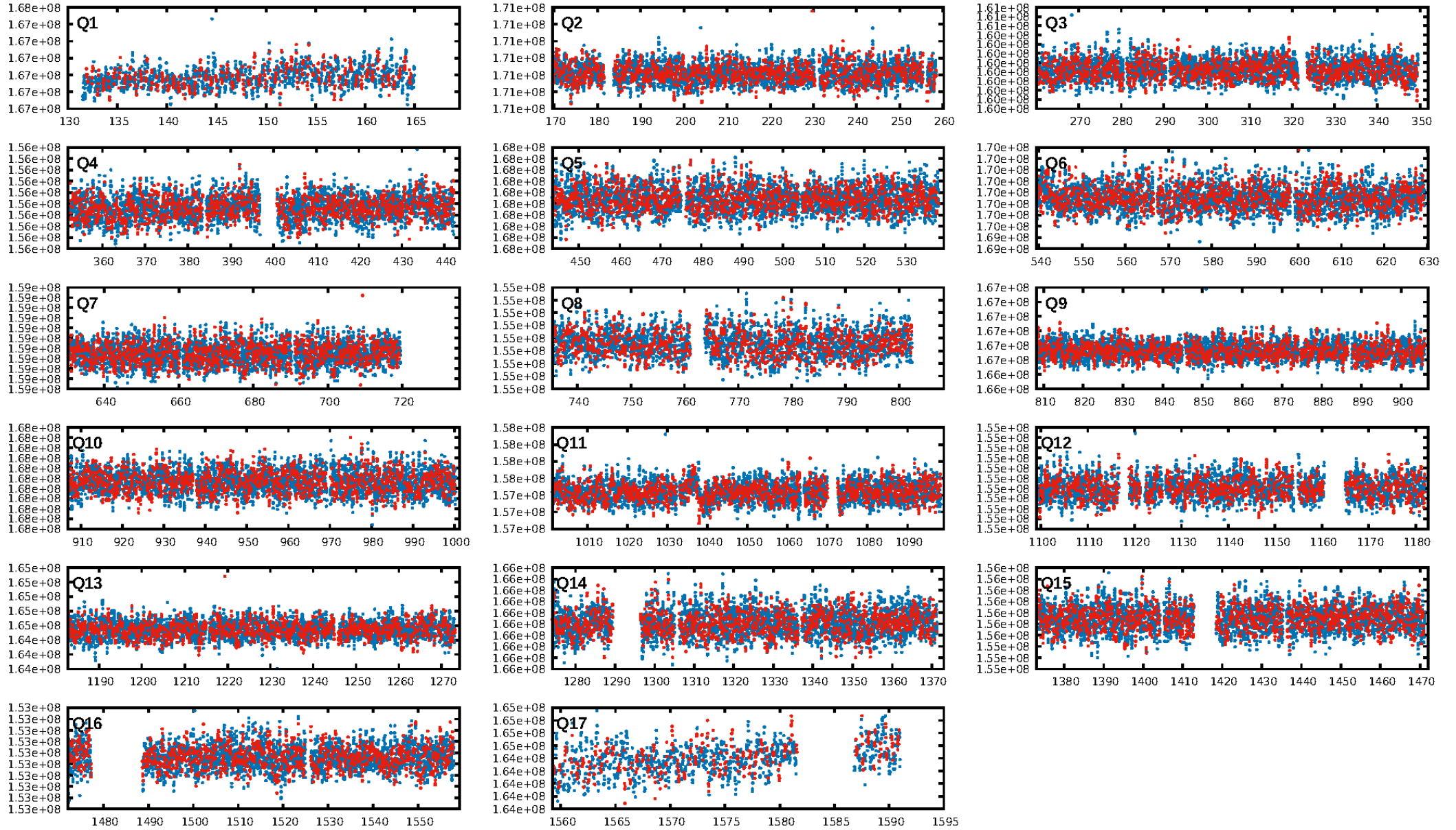
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.47e-21
RollingBand-fgt: 0.99 [2338/2354]
GhostDiagnostic-chr: 20.46
Centroid-sig: 0.0%
Centroid-so: 2.310 arcsec [2.77σ]
OotOffset-rm: 0.514 arcsec [0.94σ]
KicOffset-rm: 0.562 arcsec [0.91σ]
OotOffset-st: 3/3/3/4 [13]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.54 [7/13]
DiffImageOverlap-fno: 1.00 [17/17]

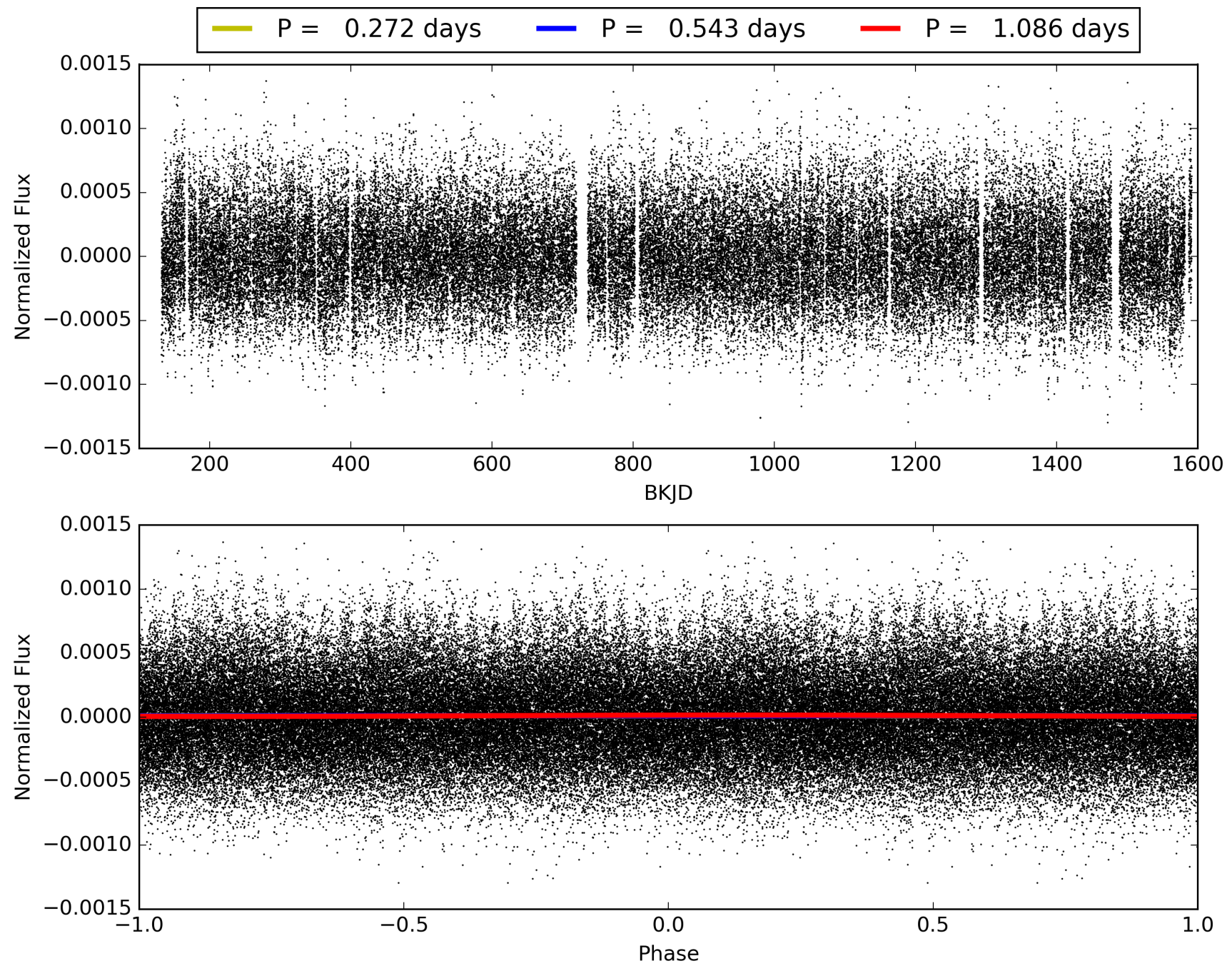
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 06:55:51 Z

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

TCE 011825955-01, PDC Light Curves

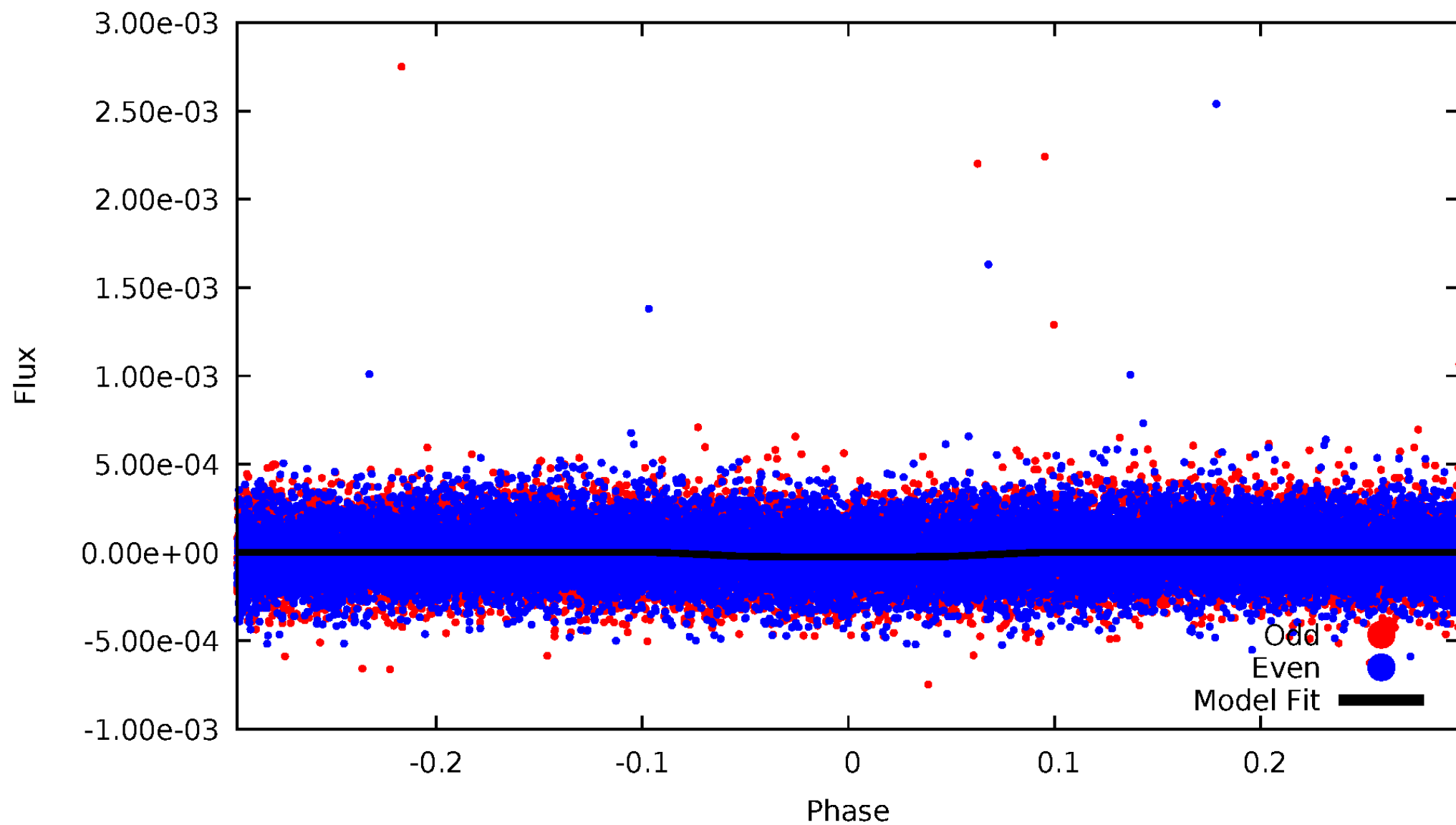


TCE 011825955-01



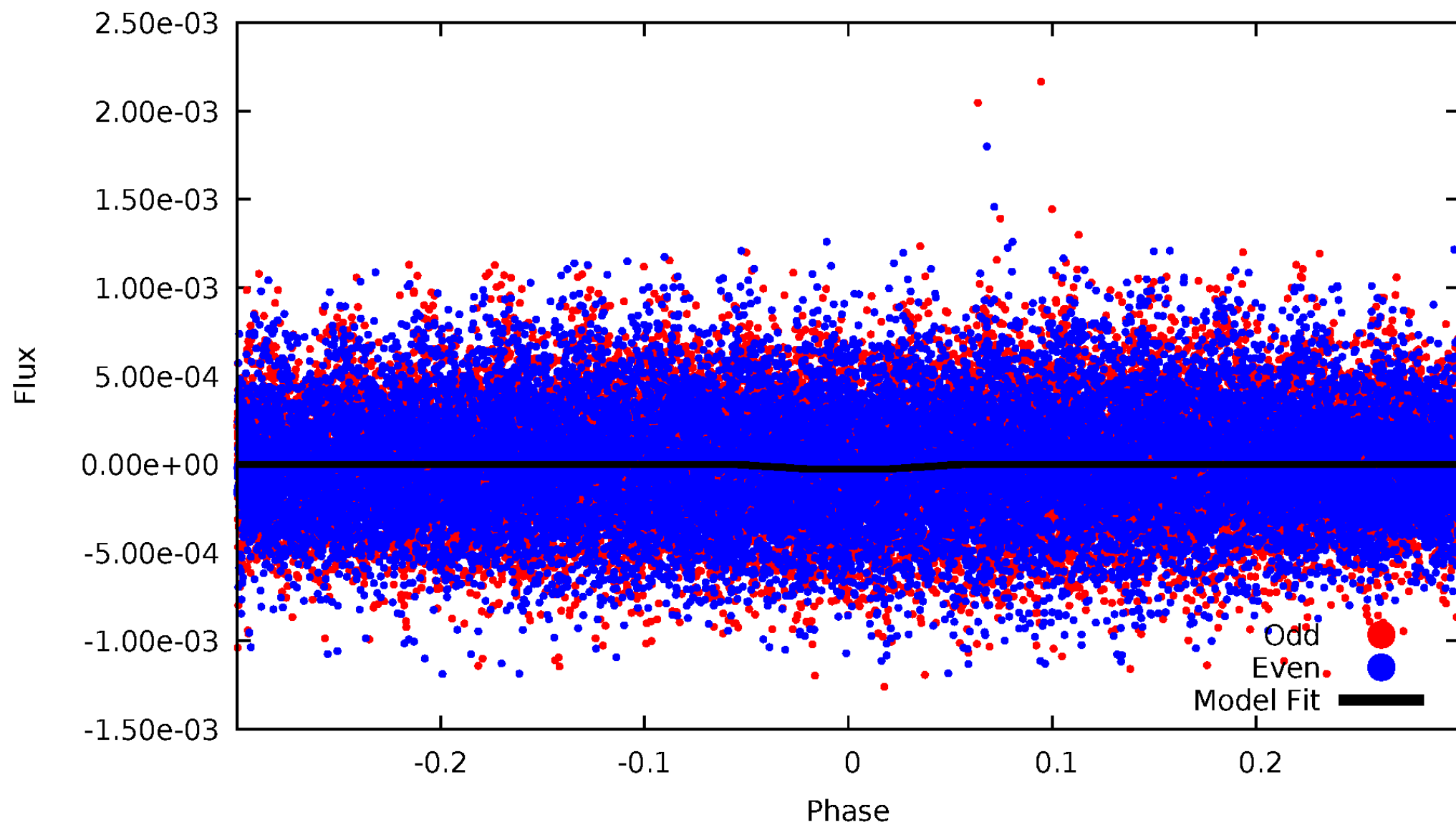
DV Odd/Even

TCE 011825955-01



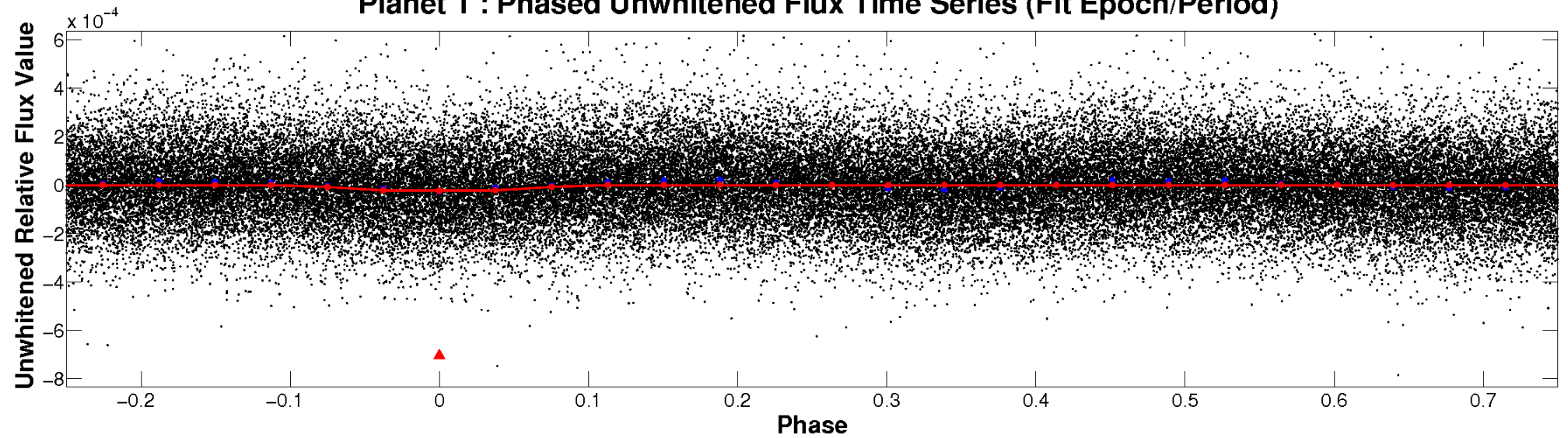
ALT Odd/Even

TCE 011825955-01

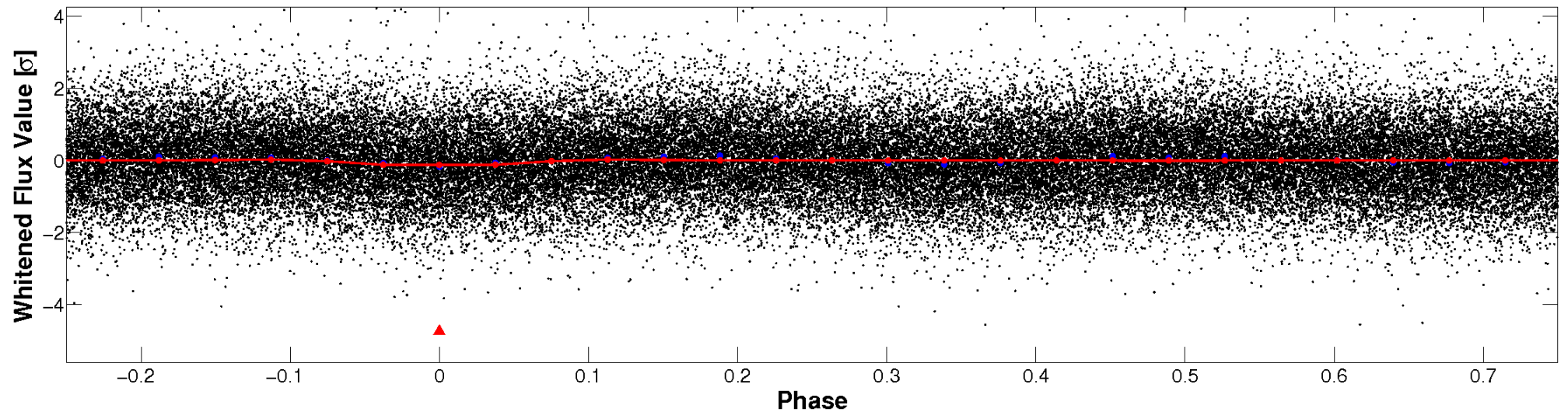


Non-Whitened Vs. Whitened Light Curve

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

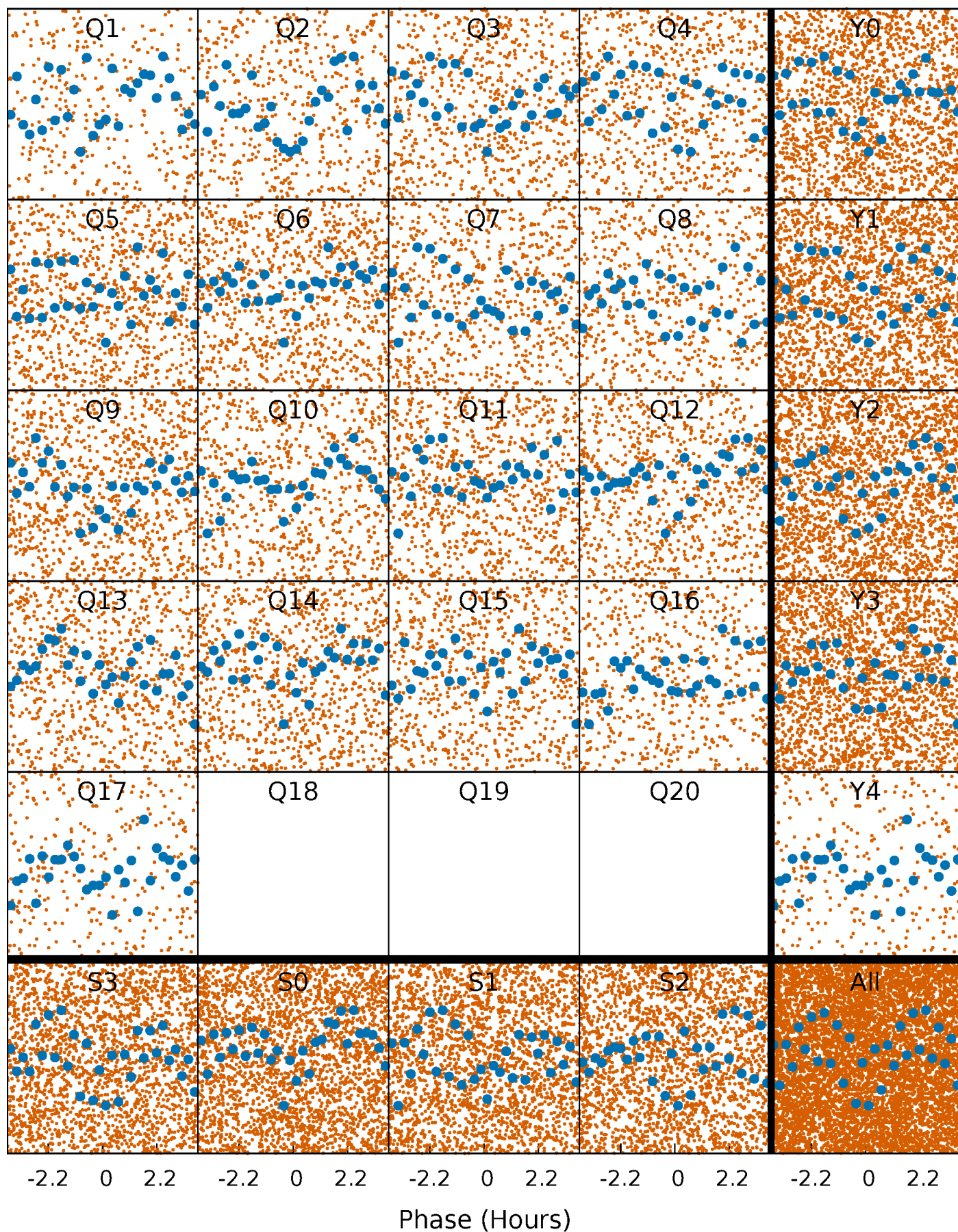


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



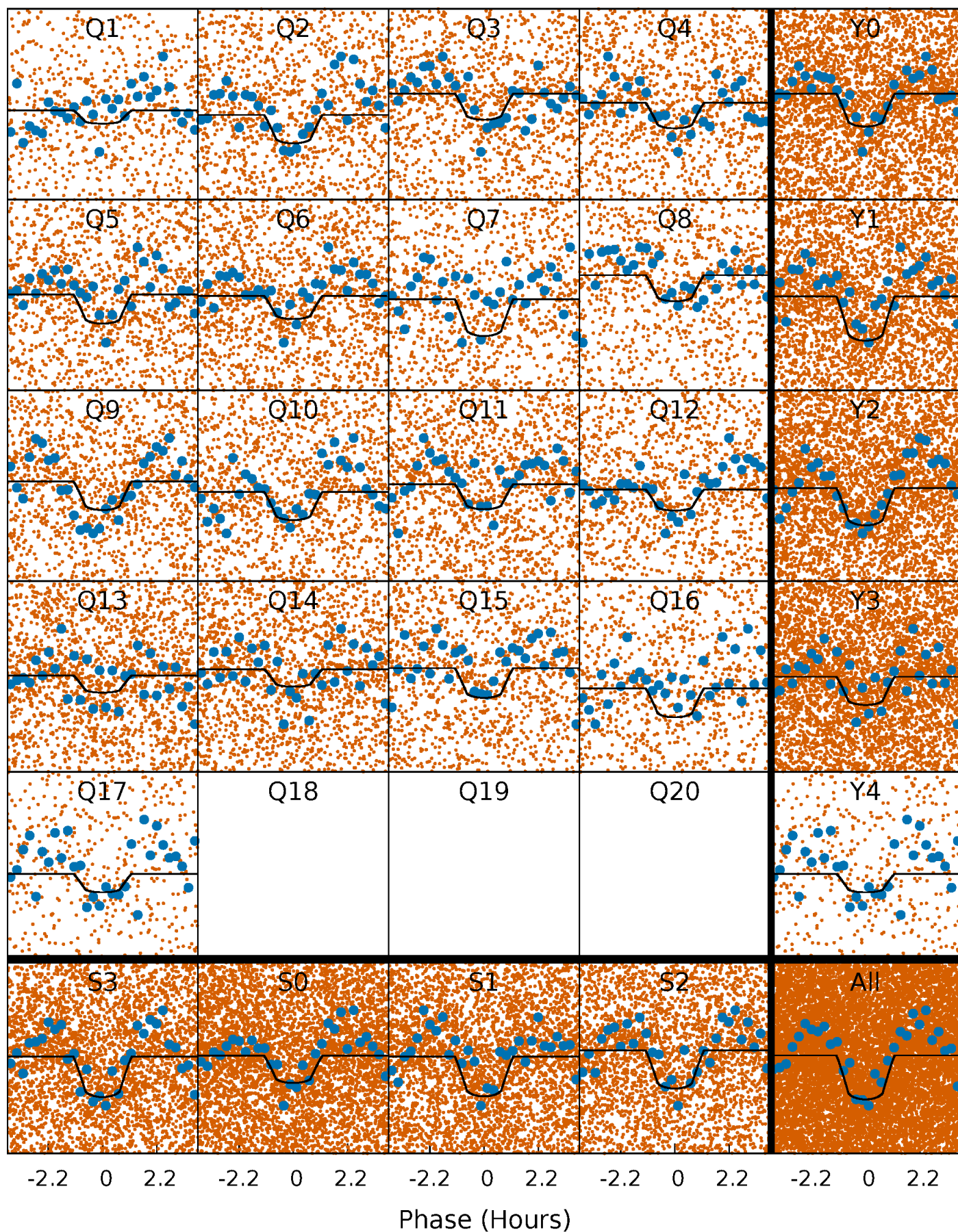
PDC Quarter-Phased Transit Curves

TCE 011825955-01 P= 0.543139 Days $T_0=131.959557$ (BKJD)



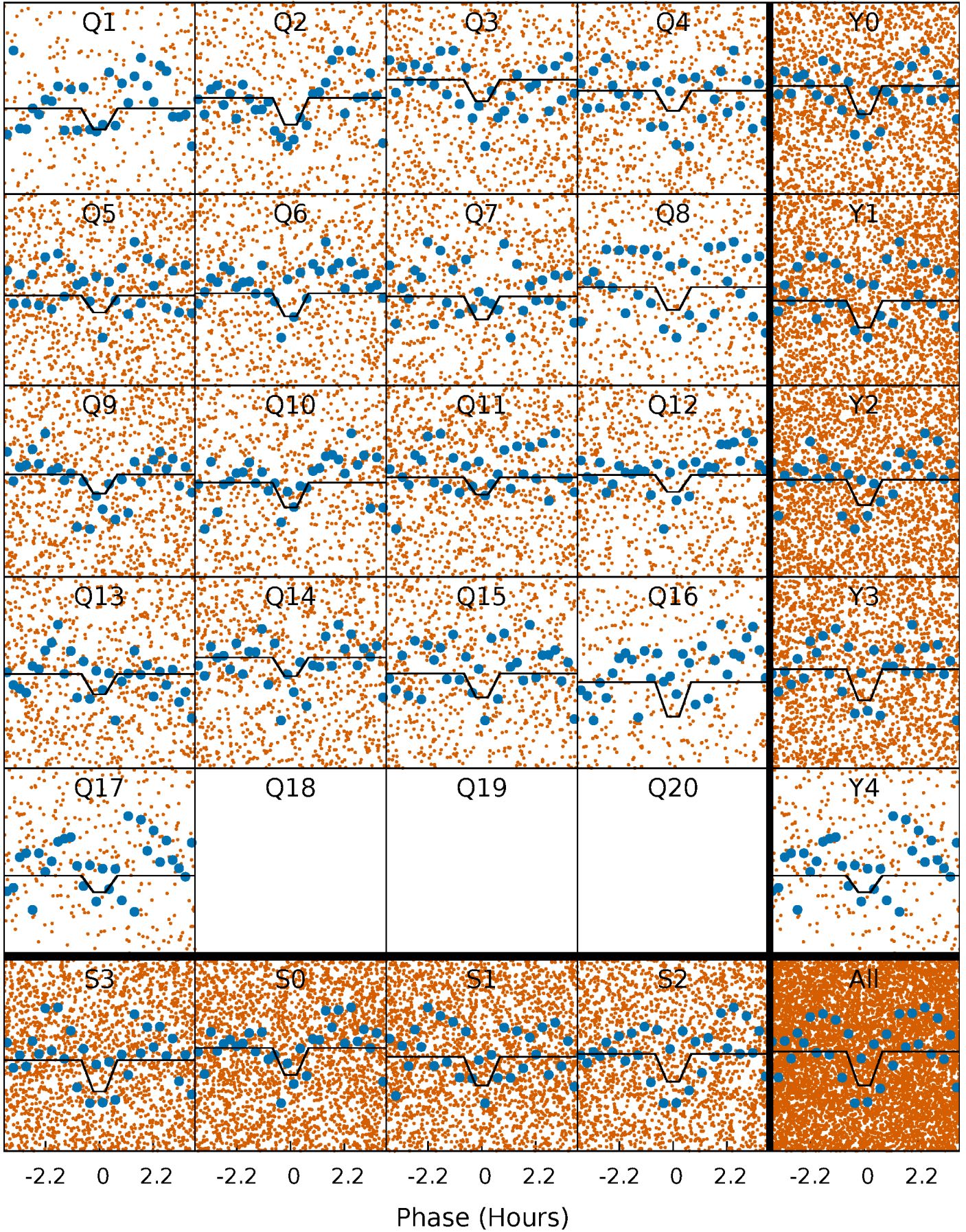
DV Quarter-Phased Transit Curves

TCE 011825955-01 P= 0.543139 Days $T_0=131.959557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

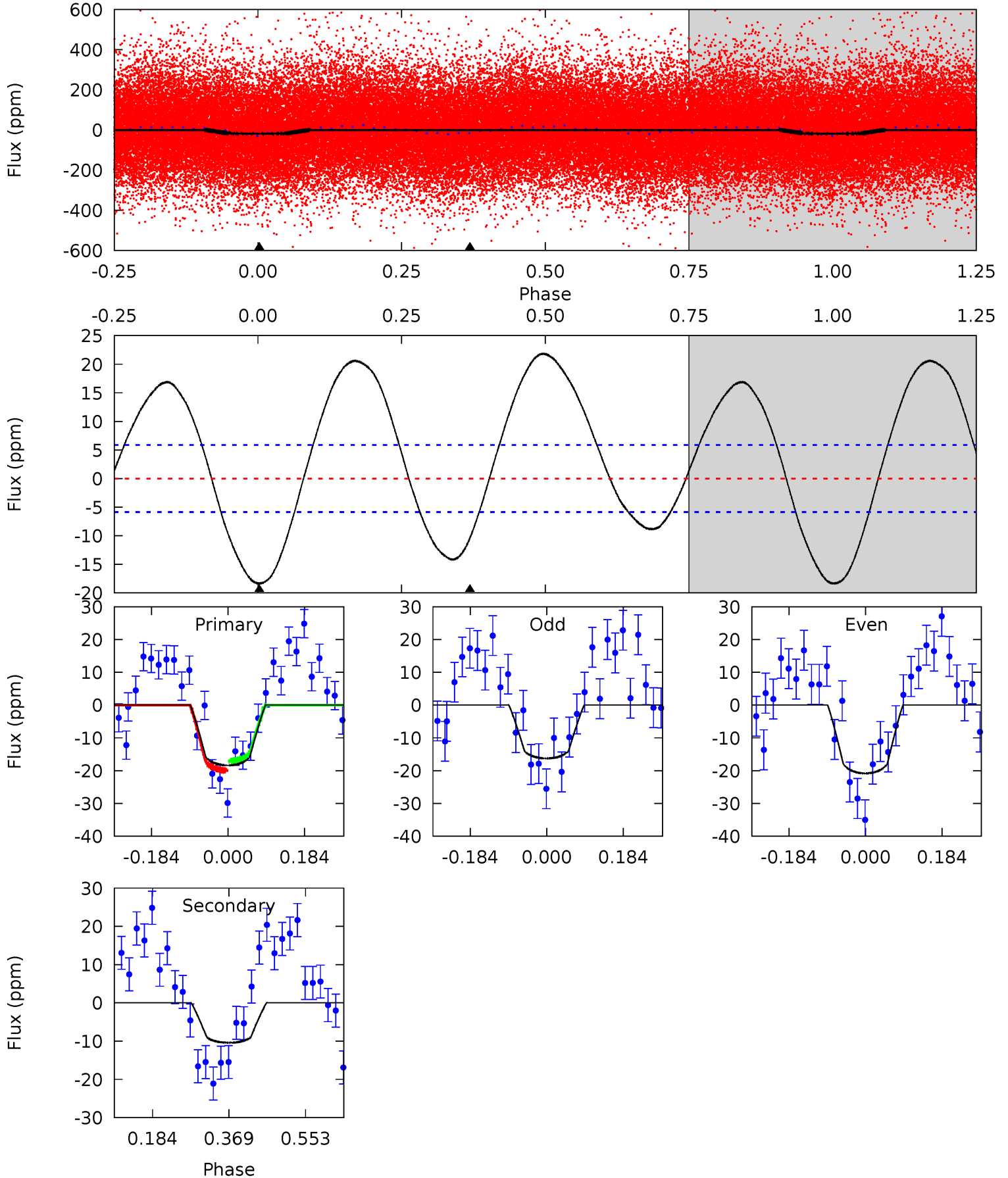
TCE 011825955-01 P= 0.543139 Days $T_0=131.959063$ (BKJD)



DV Model-Shift Uniqueness Test

011825955-01, P = 0.543139 Days, E = 131.416418 Days

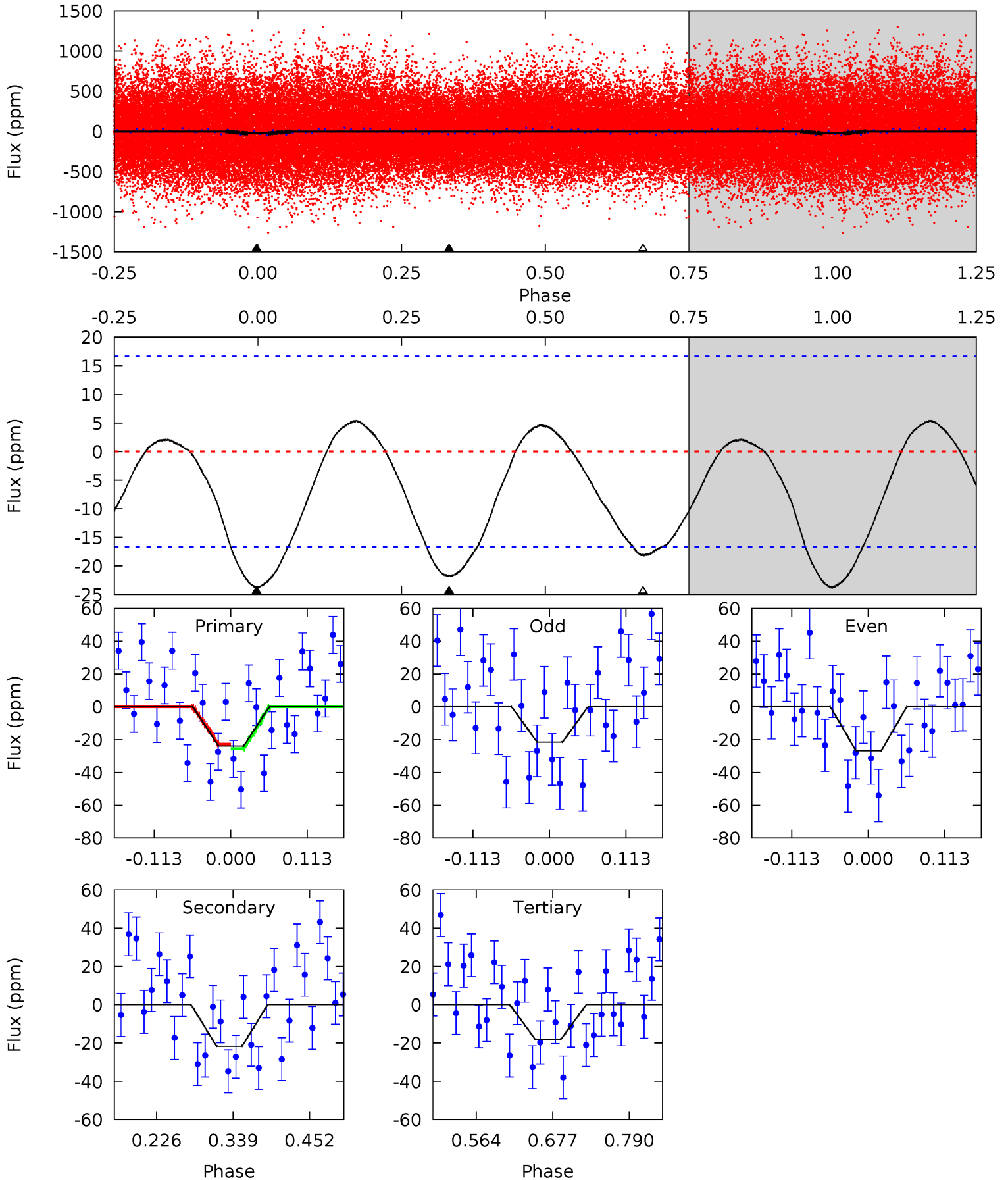
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	7.88	0	0	4.43	1.33	5.96	13.9	13.9	7.88	7.88	1.73	1.05	0.54	1.11



Alt Model-Shift Uniqueness Test

011825955-01, P = 0.543139 Days, E = 131.415924 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.50	5.93	4.95	0	4.54	1.59	2.11	1.55	6.50	0.98	5.93	0.71	0.73	0.18	0.38



Stellar Parameters For KIC 011825955

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7008^{+216}_{-312}	$3.980^{+0.329}_{-0.141}$	$-0.500^{+0.250}_{-0.300}$	$1.901^{+0.467}_{-0.701}$	$1.258^{+0.198}_{-0.198}$	$0.258^{+0.585}_{-0.101}$
	+3%/-4%	+8%/-4%	+50%/-60%	+25%/-37%	+16%/-16%	+227%/-39%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 011825955-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 1	$1.03^{+0.38}_{-0.36}$	4927^{+387}_{-492}	5075^{+1259}_{-875}	$1.067^{+1.511}_{-0.498}$
Alt.	-22 ± 4	$1.05^{+0.39}_{-0.36}$	4971^{+333}_{-537}	6238^{+1607}_{-957}	$2.178^{+2.801}_{-1.054}$

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

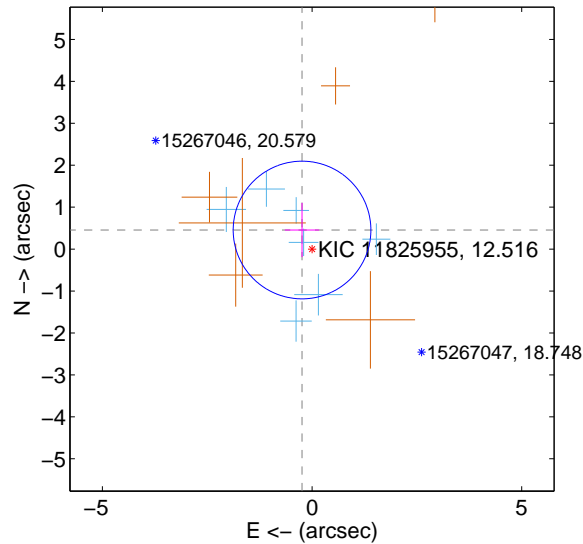
Supplemental centroid analysis for 011825955-01. Kepler magnitude: 12.52. Transit SNR 10.82

There are 7 quarters with good PRF difference image offsets

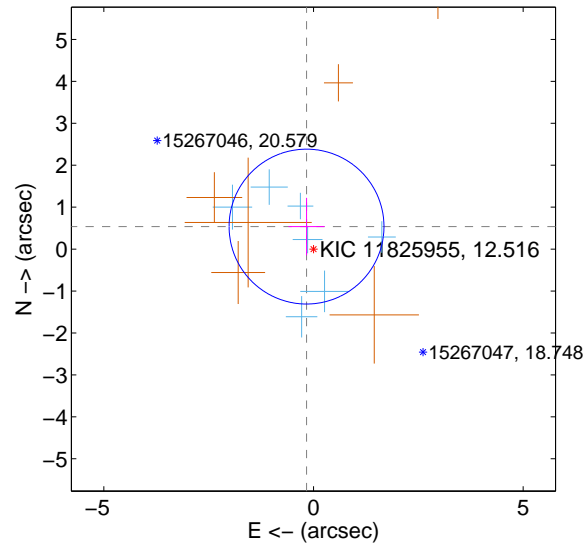
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.514 ± 0.547	0.94	0.239 ± 0.409	0.455 ± 0.646
PRF-fit source offset from KIC position	0.562 ± 0.615	0.91	0.166 ± 0.430	0.537 ± 0.686
photometric centroid source offset	2.31 ± 0.83	2.77	-1.60 ± 0.86	-1.67 ± 0.81

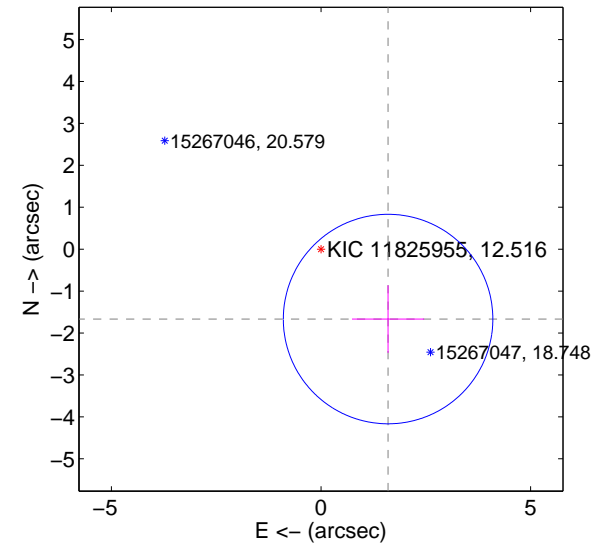
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

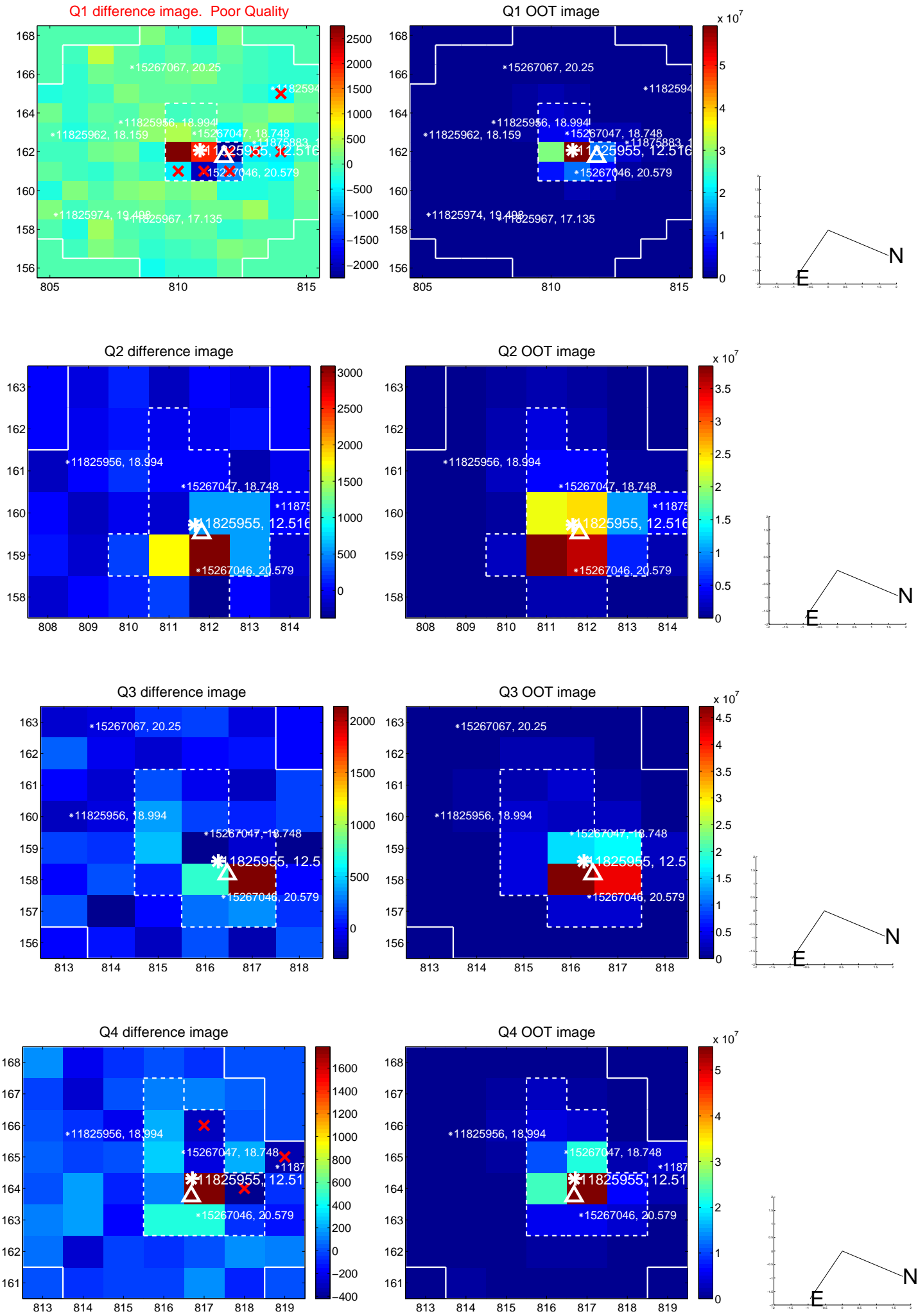


offset from photometric centroids

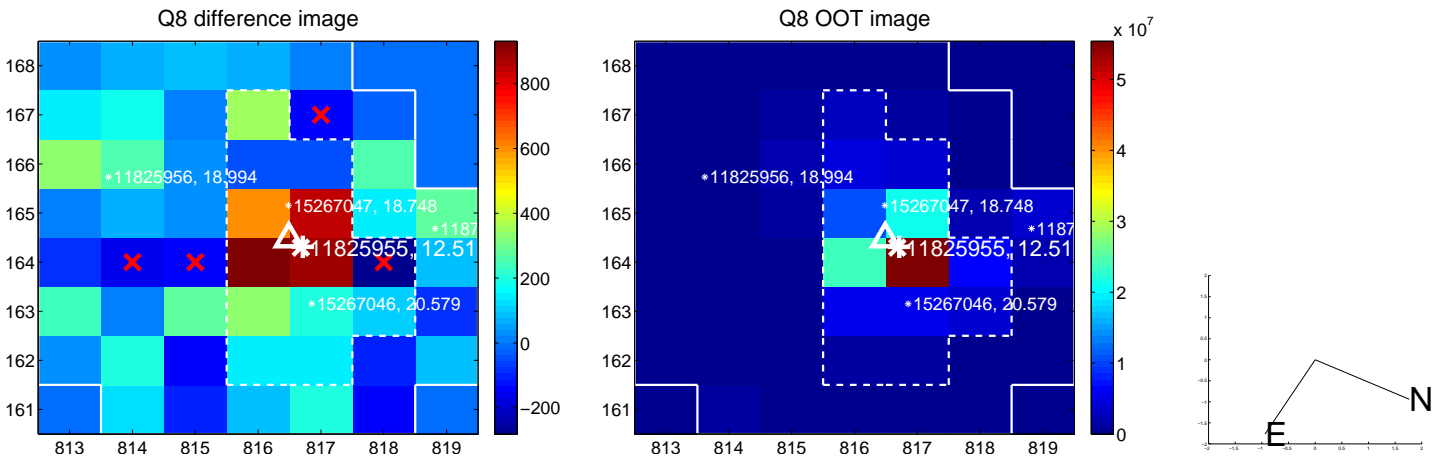
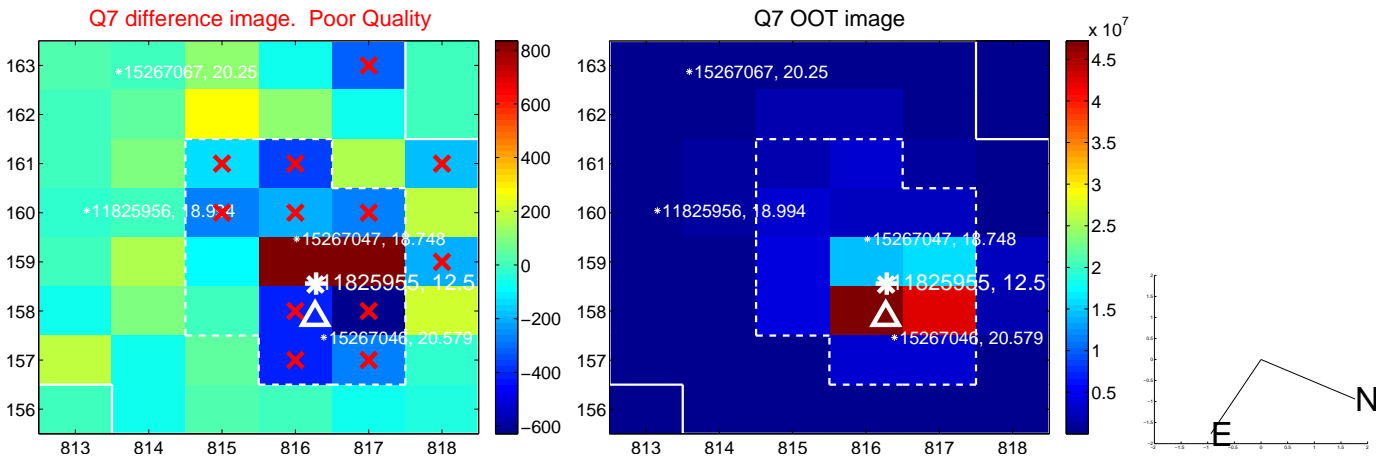
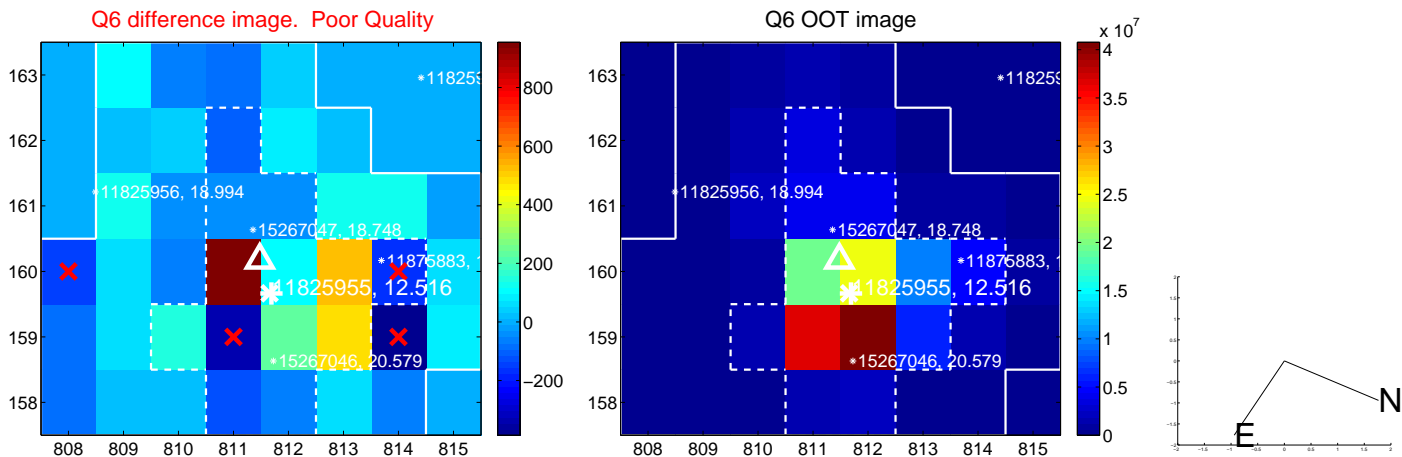
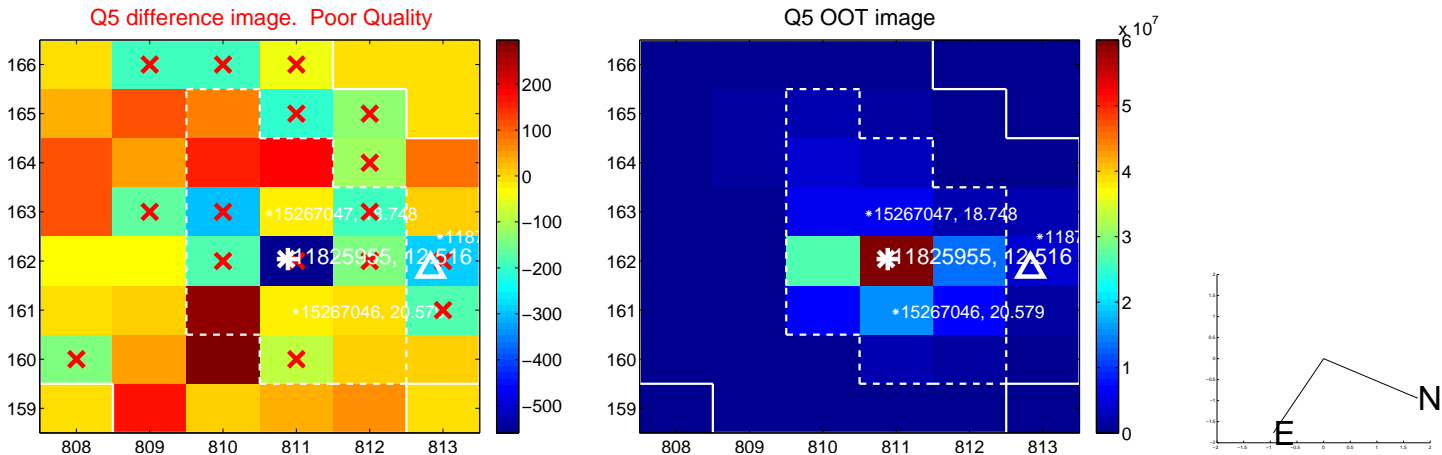


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

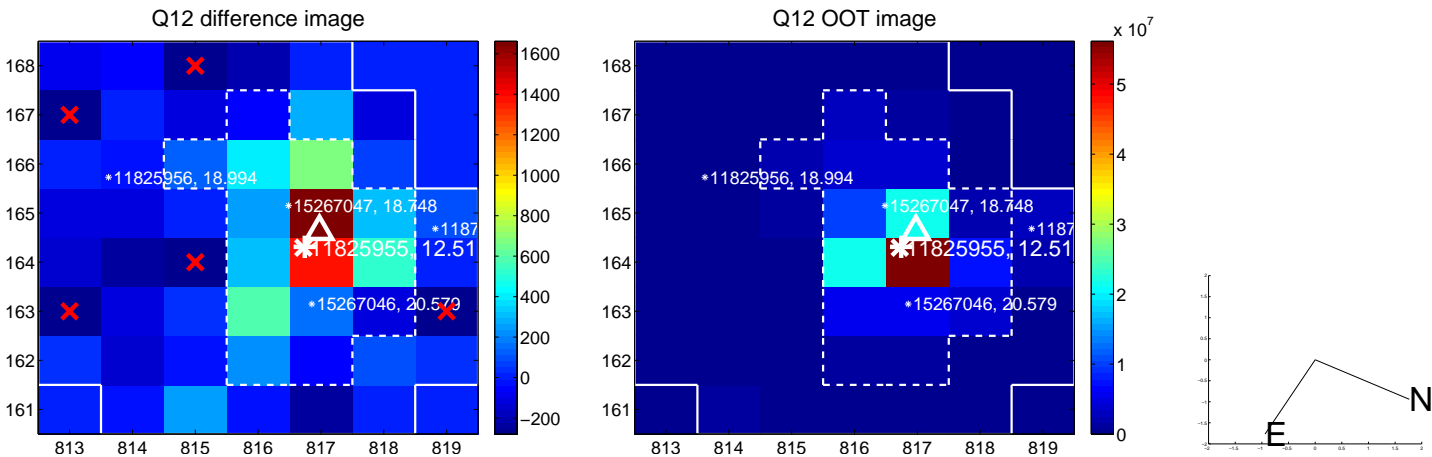
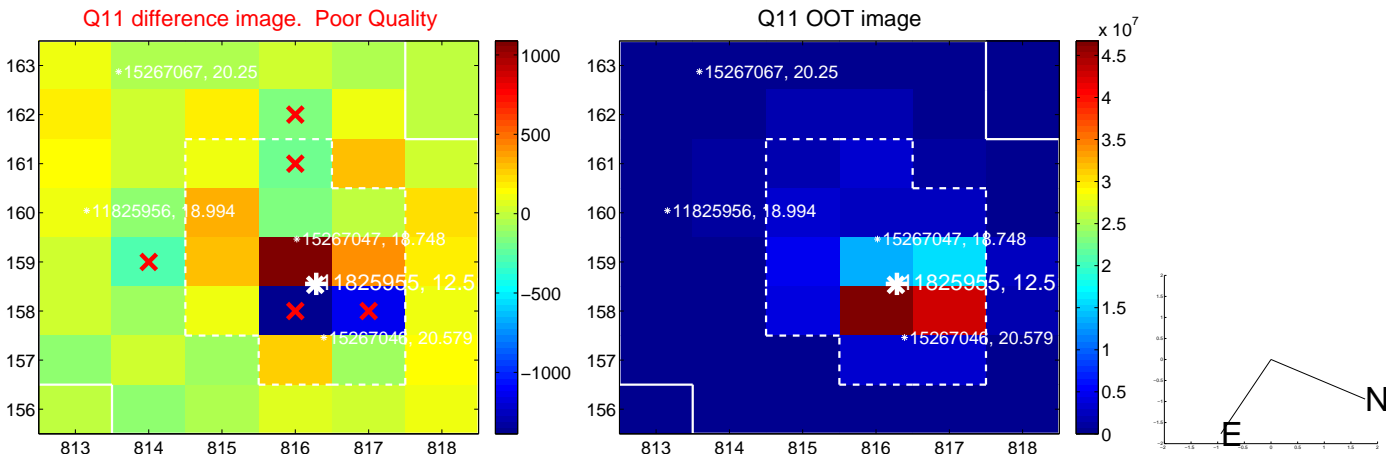
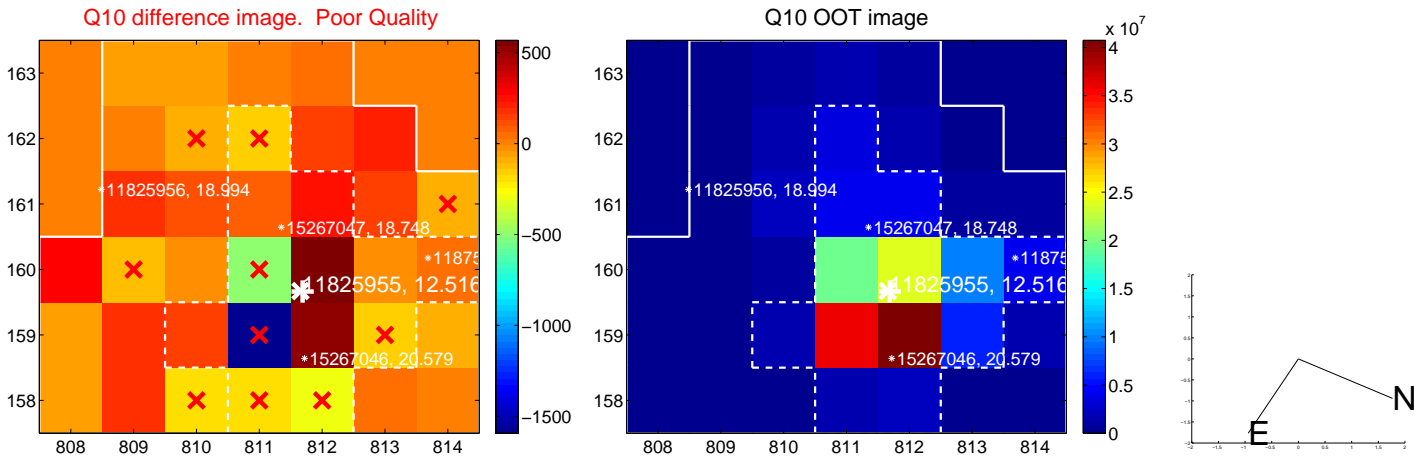
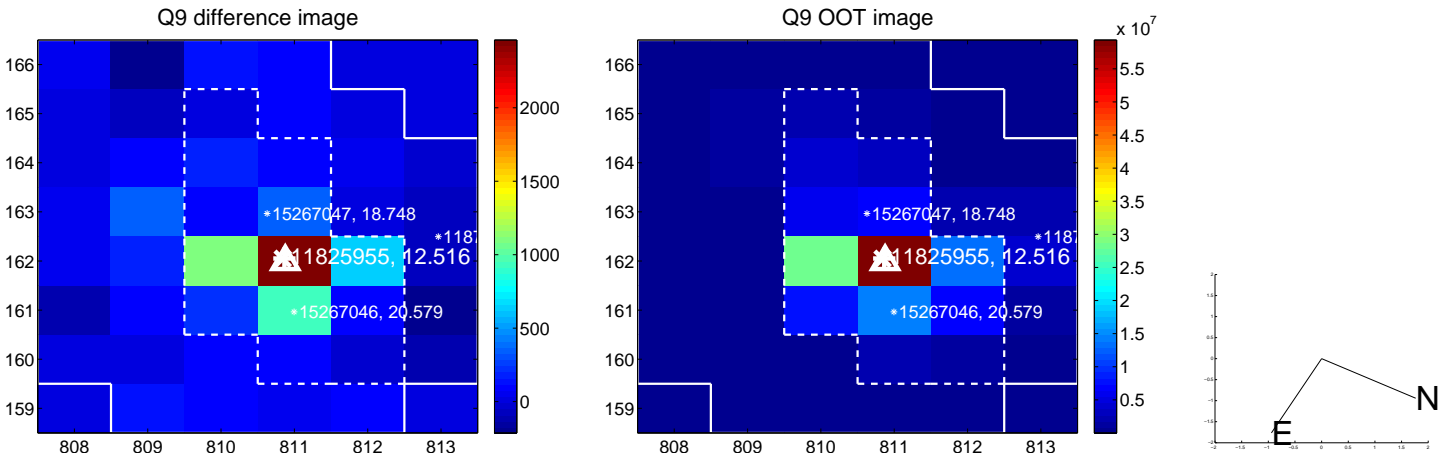
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



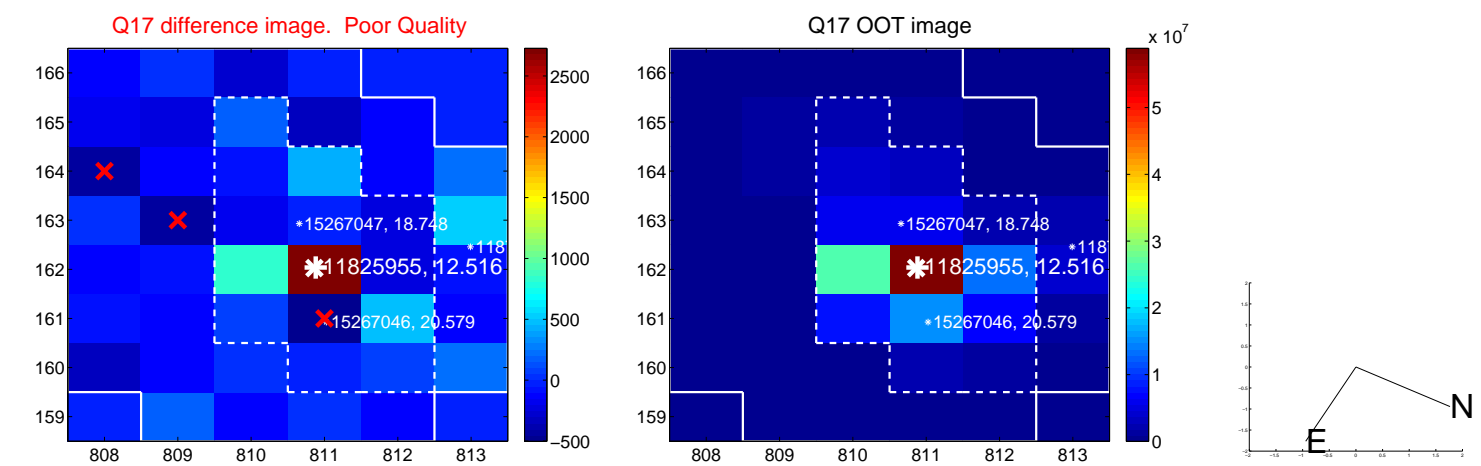
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



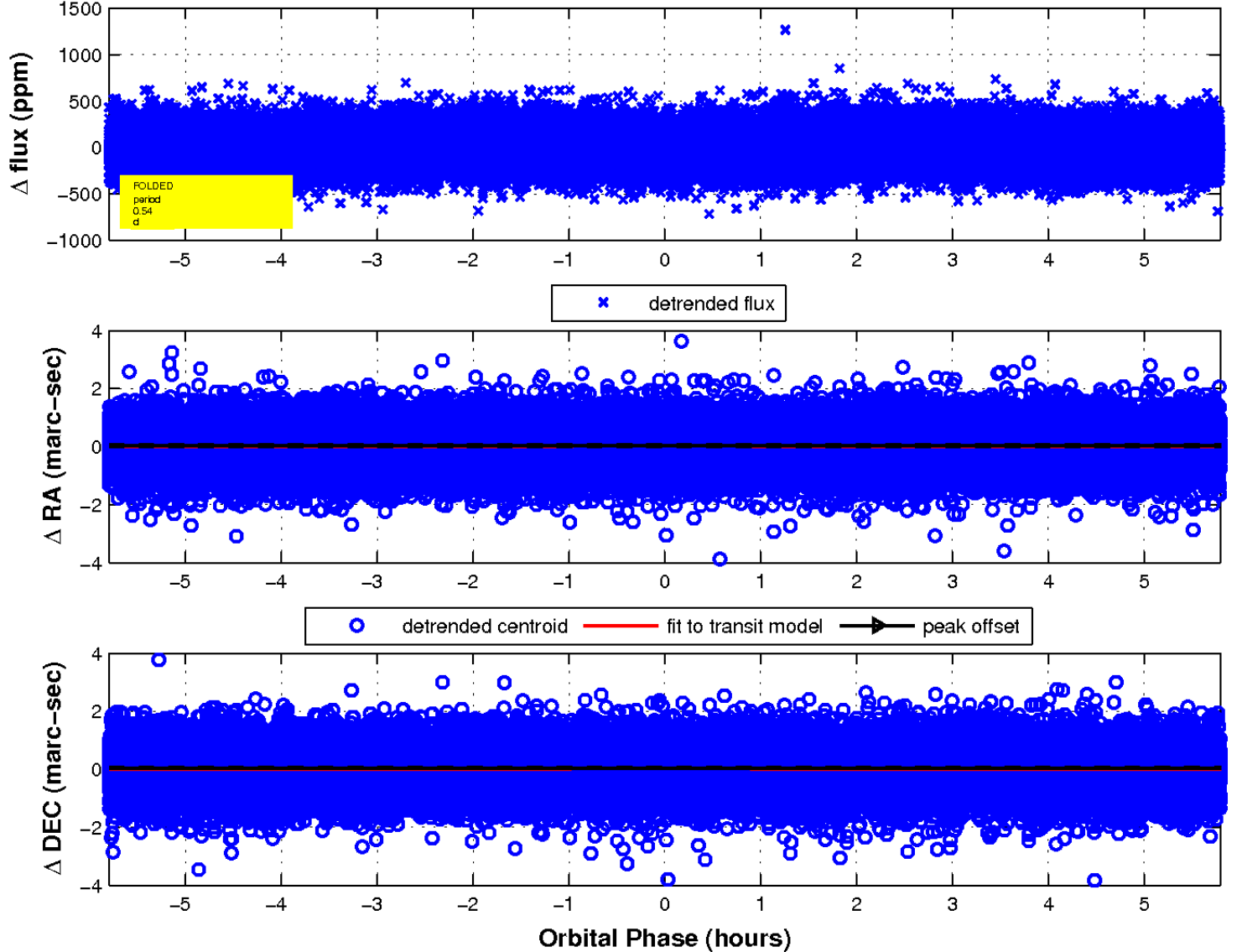
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

