

KIC 001296721

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})
001296721-01	OBS	No	3.913556	132.234243	68.8	16.802	8.2	8.2	1.29	6071	1.42	903.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001296721-01	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.

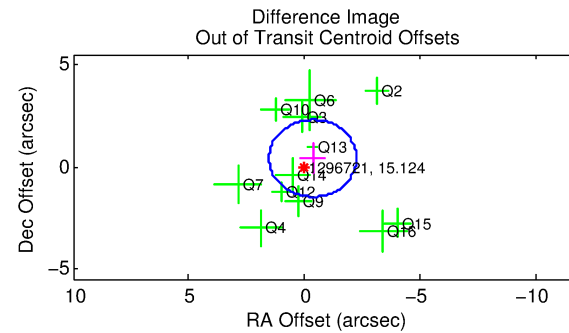
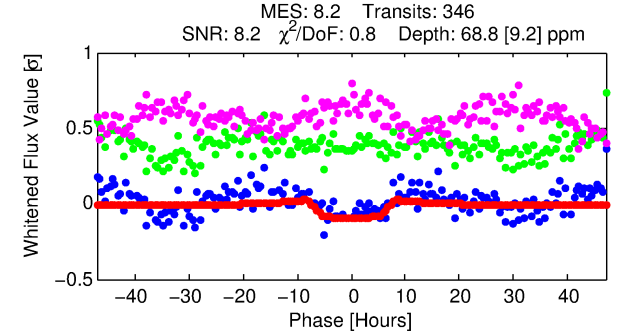
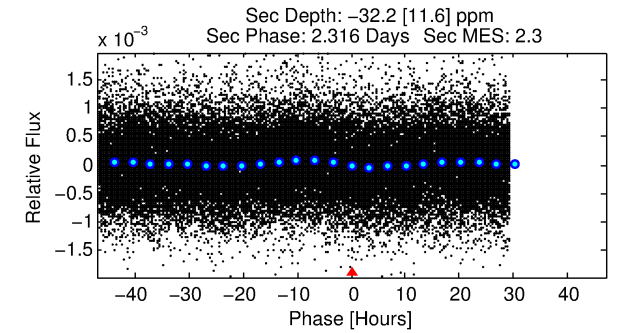
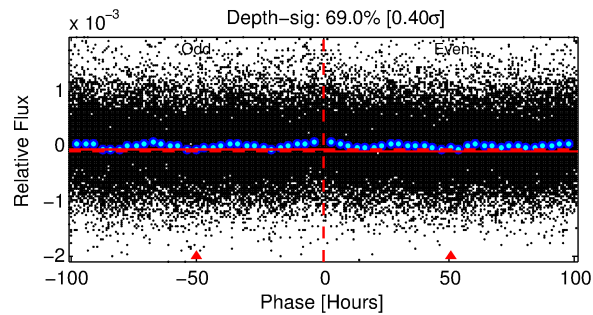
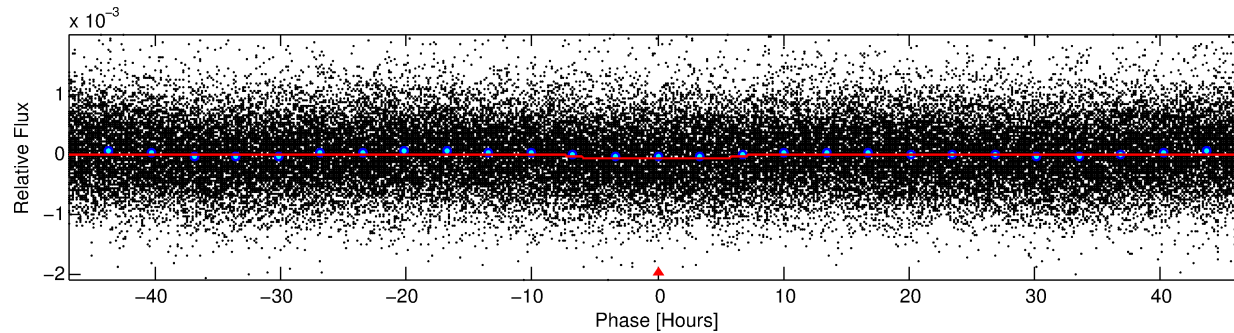
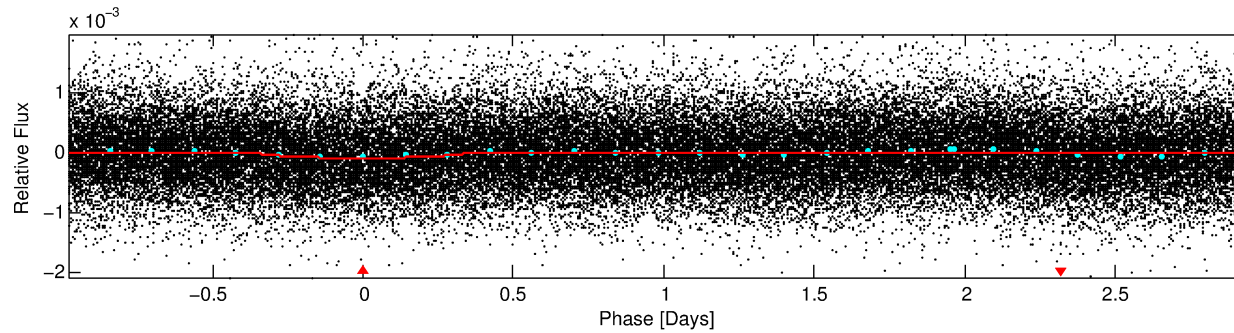
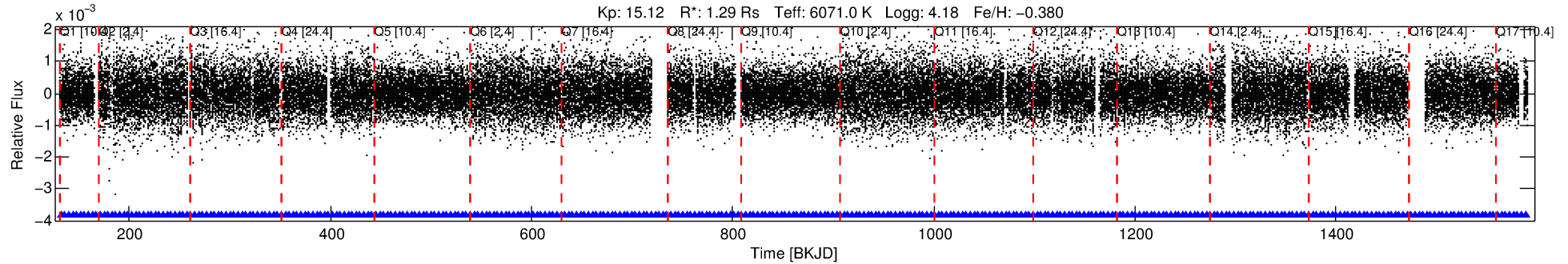
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 001296721-01

No Significant Match Found

DV One-Page Summary

KIC: 1296721 Candidate: 1 of 1 Period: 3.914 d



DV Fit Results:

Period = 3.91356 [0.00017] d
Epoch = 132.2342 [0.0345] BKJD
Rp/R* = 0.0101 [0.0009]
a/R* = 1.09 [0.05]
b = 0.98 [0.01]
Seff = 903.69 [280.72]
Teff = 1398 [109] K
Rp = 1.42 [0.29] Re
a = 0.0475 [0.0089] AU
Ag = N/A
Teffp = N/A

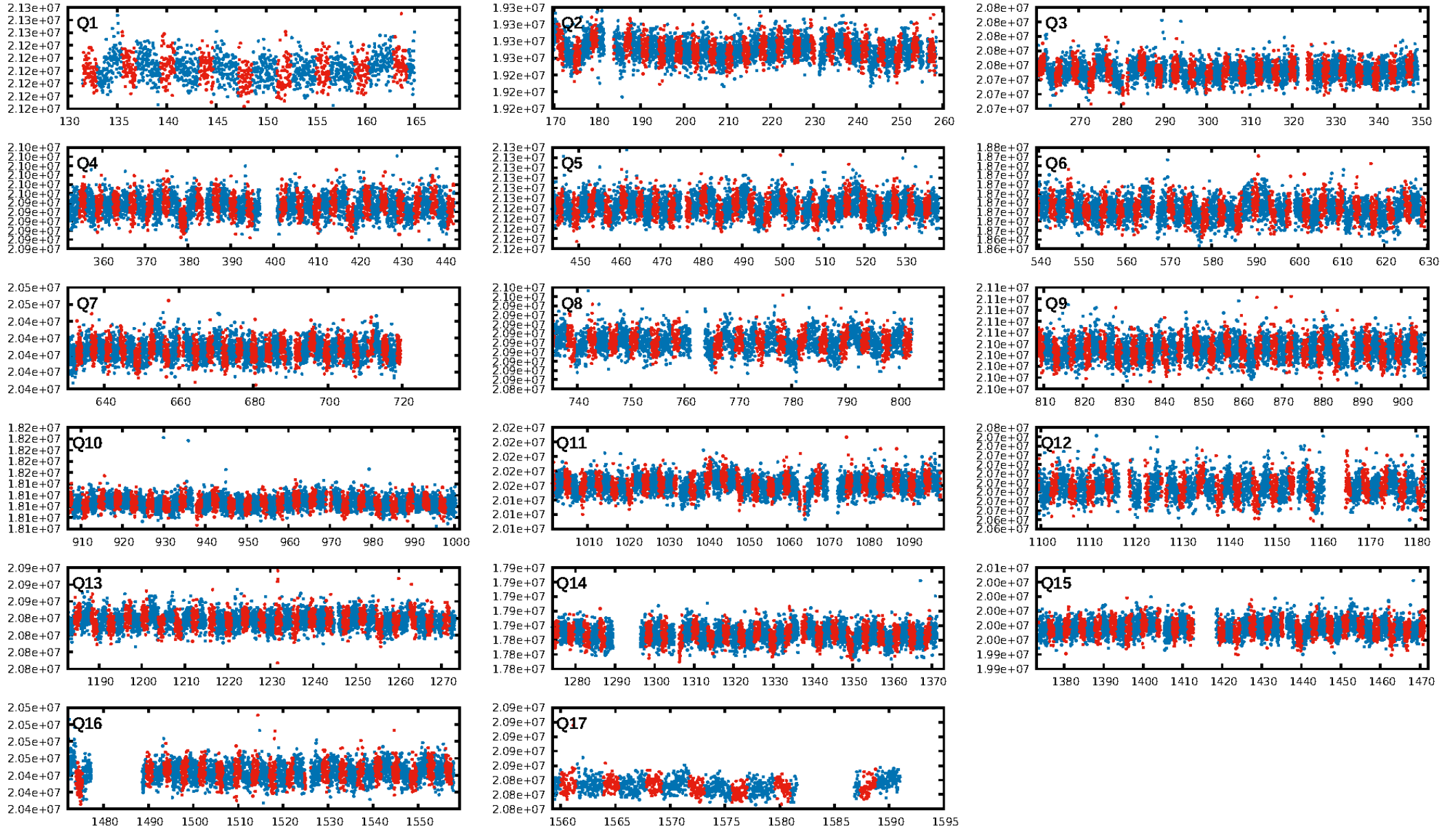
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.04e-15
RollingBand-fgt: 1.00 [330/330]
GhostDiagnostic-chr: 2.82
Centroid-sig: 0.1%
Centroid-so: 4.350 arcsec [3.13 σ]
OotOffset-rm: 0.541 arcsec [0.86 σ]
KicOffset-rm: 0.588 arcsec [0.83 σ]
OotOffset-st: 4/3/3/2 [12]
KicOffset-st: 4/3/3/2 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 1.00 [17/17]

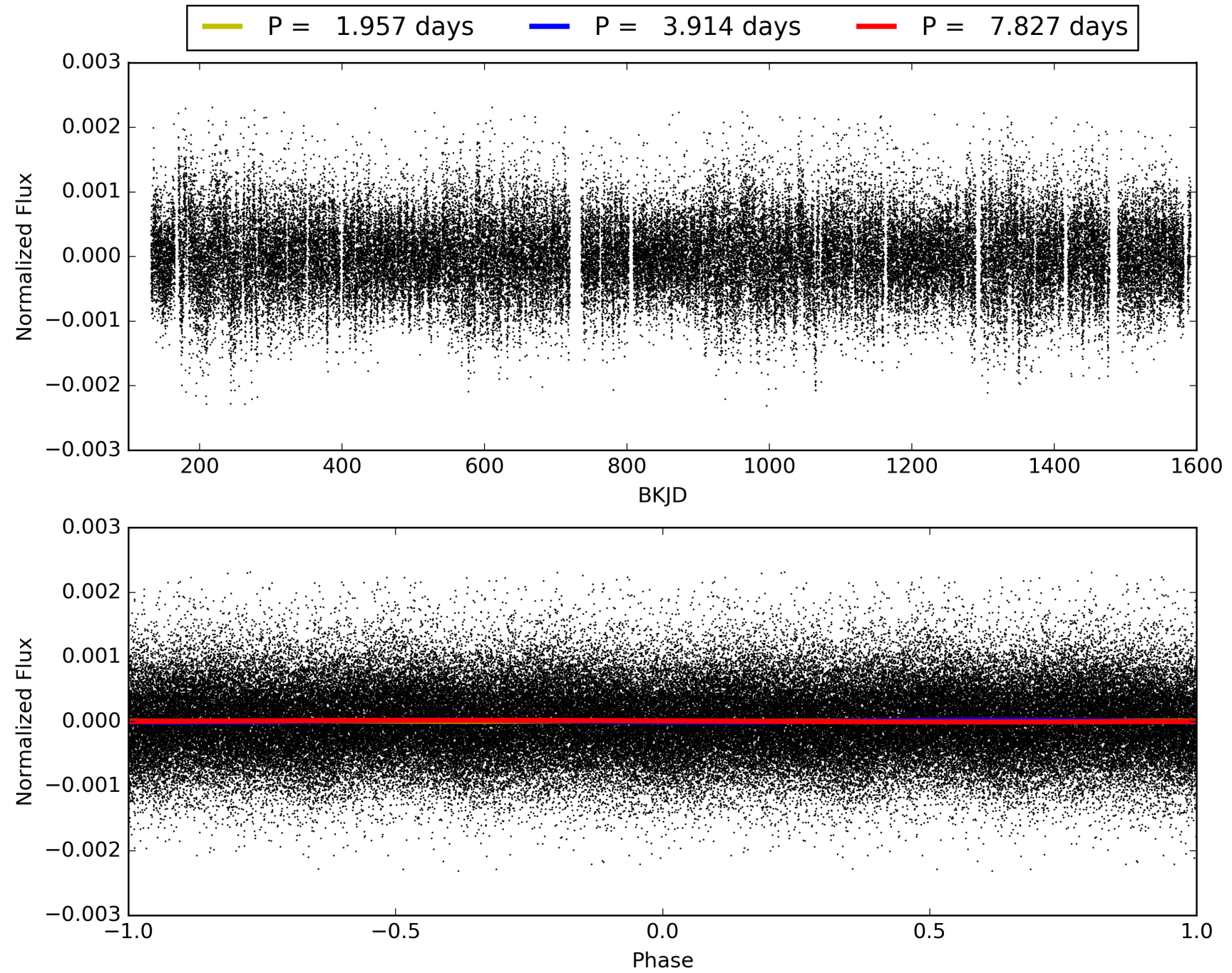
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 15:56:09 Z

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

TCE 001296721-01, PDC Light Curves

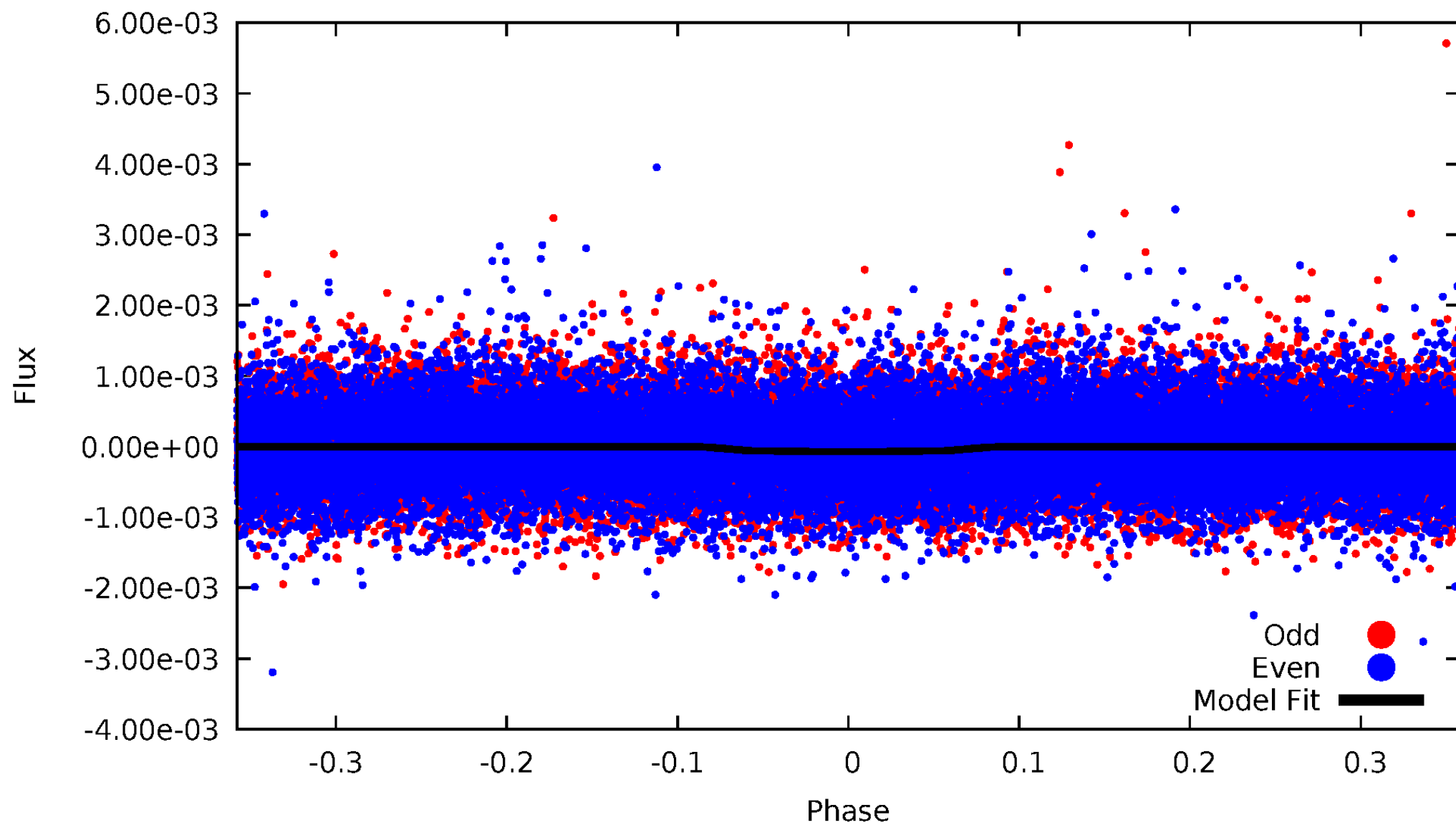


TCE 001296721-01



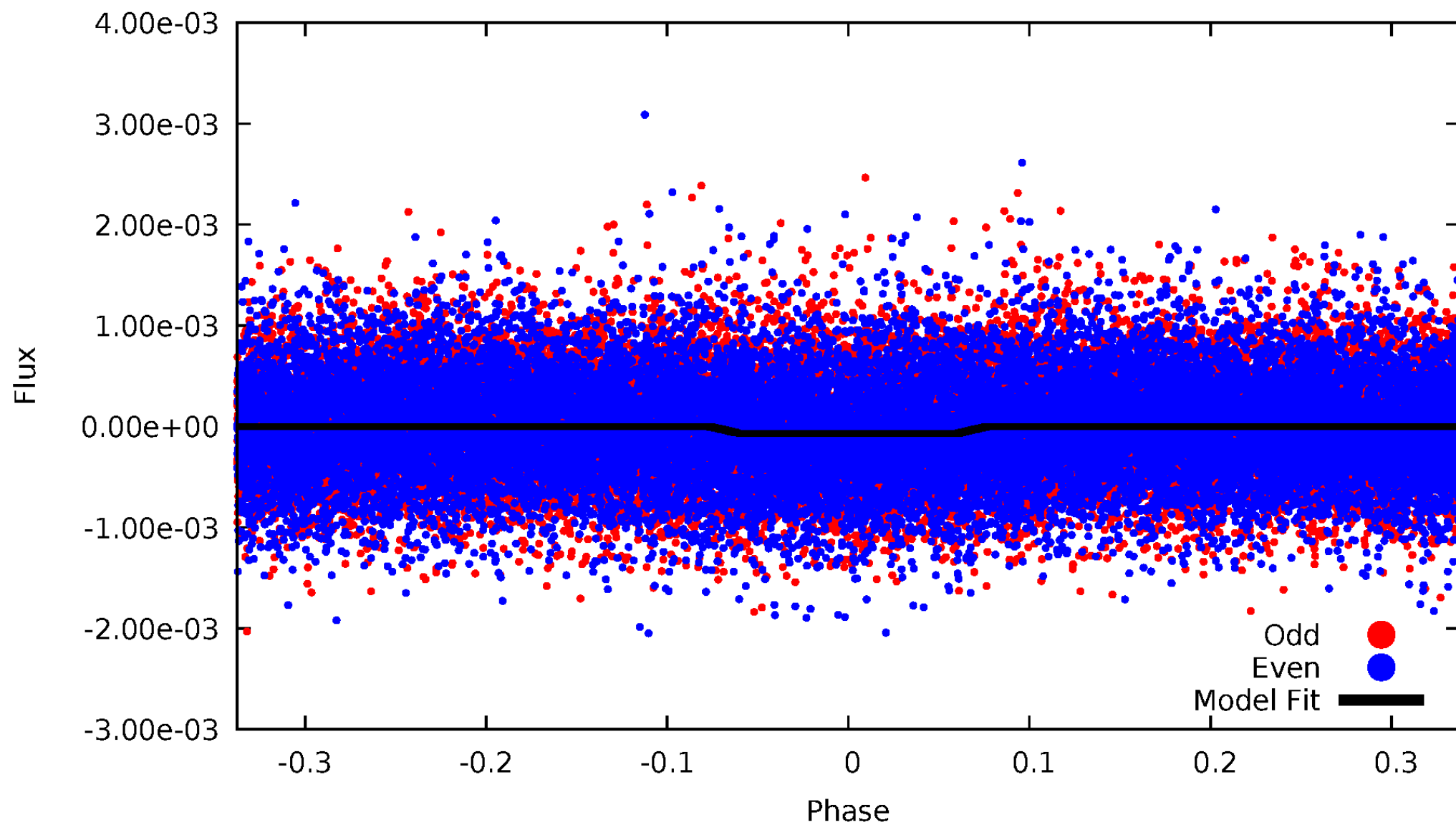
DV Odd/Even

TCE 001296721-01



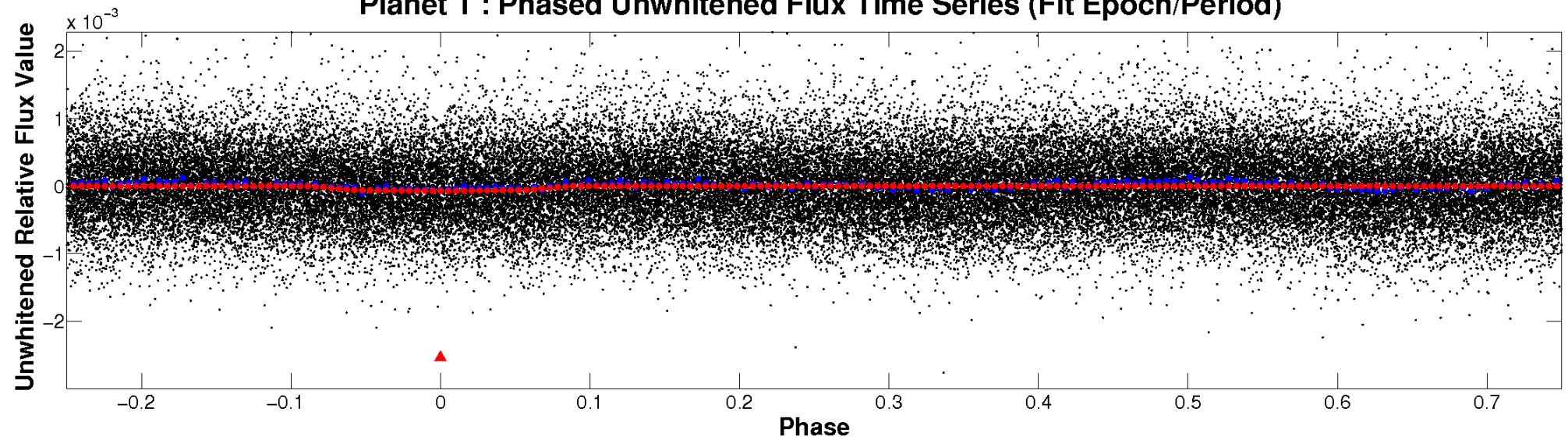
ALT Odd/Even

TCE 001296721-01

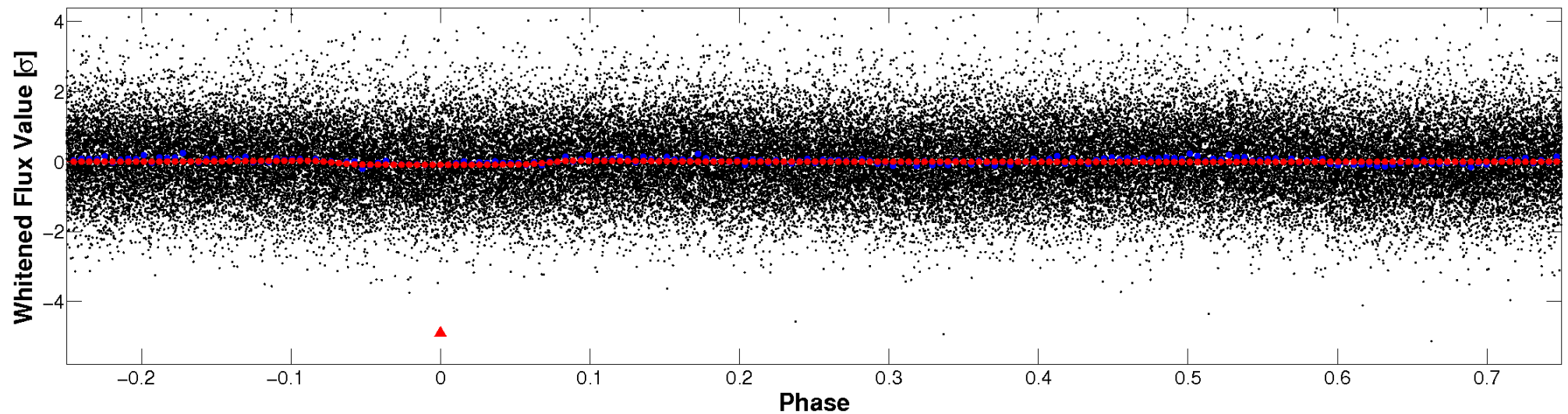


Non-Whitened Vs. Whitened Light Curve

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

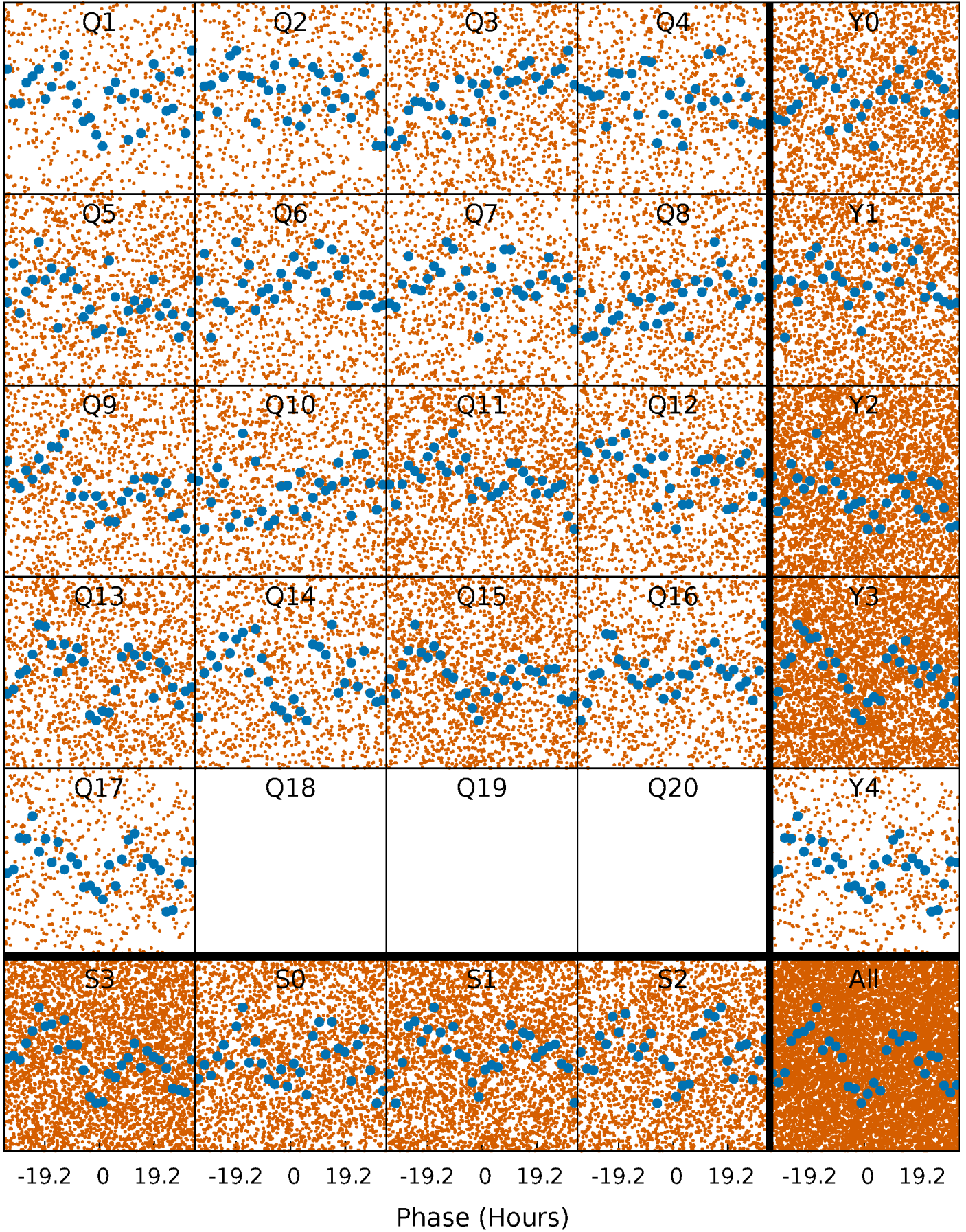


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



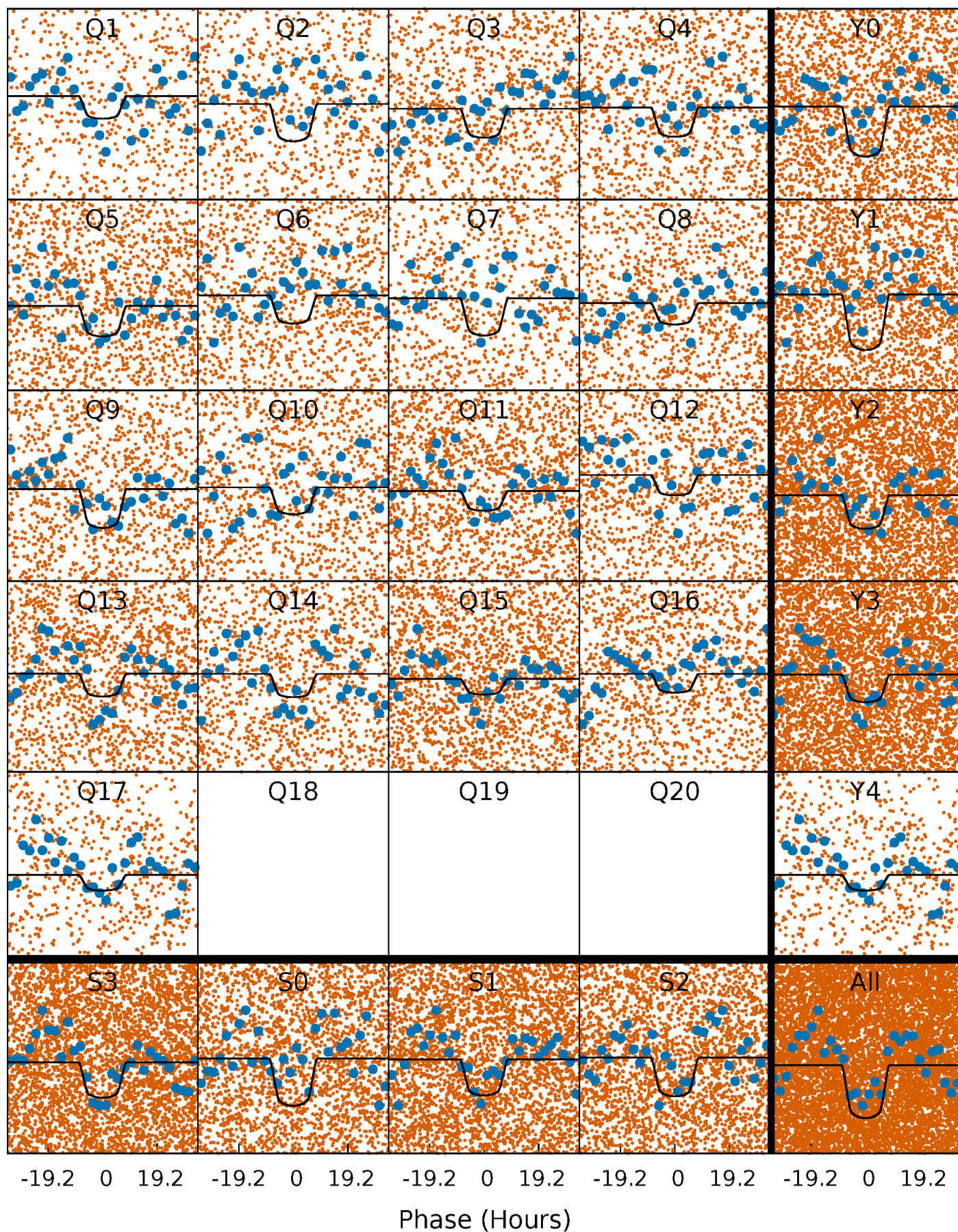
PDC Quarter-Phased Transit Curves

TCE 001296721-01 P= 3.913556 Days $T_0=132.234243$ (BKJD)



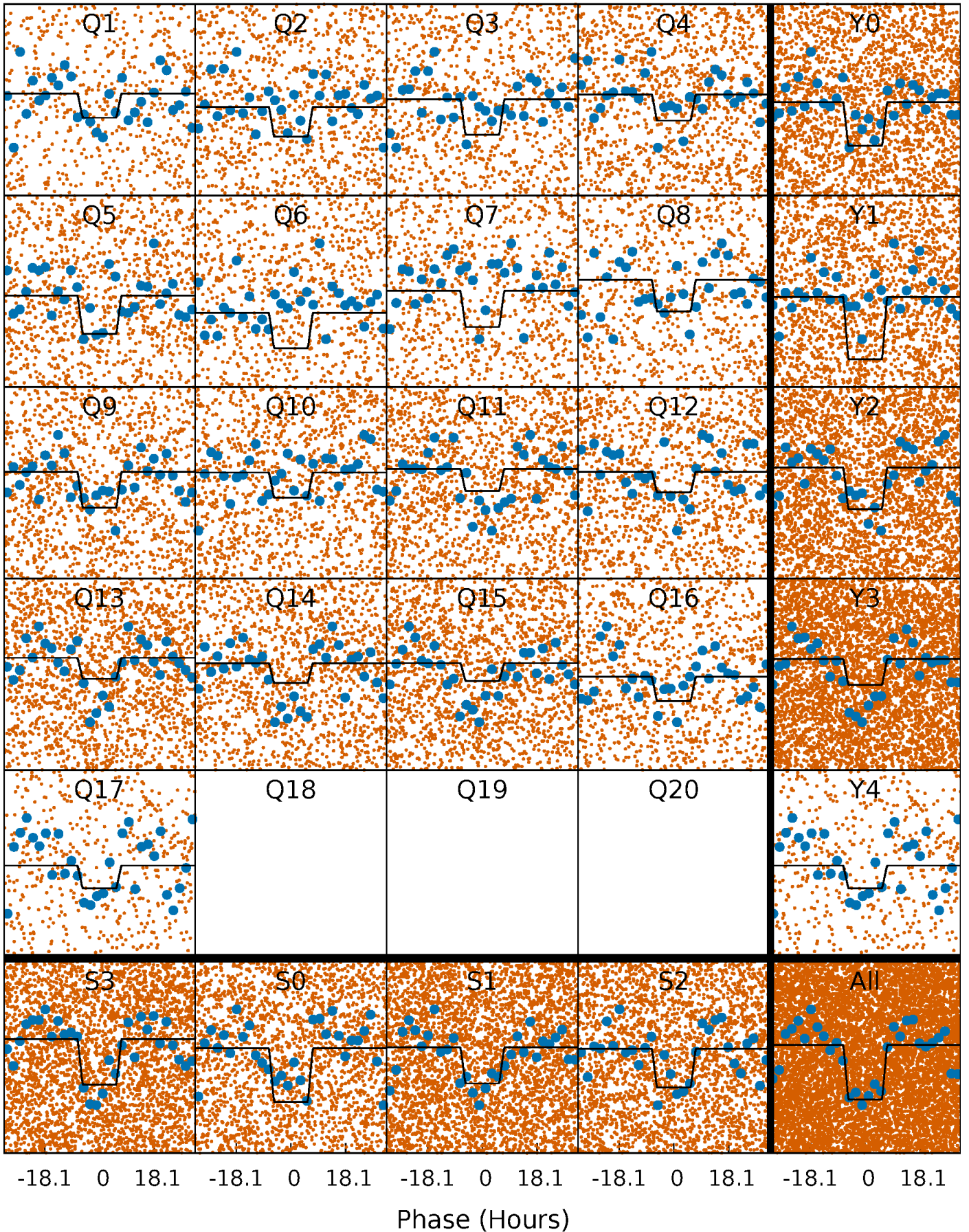
DV Quarter-Phased Transit Curves

TCE 001296721-01 P= 3.913556 Days $T_0=132.234243$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

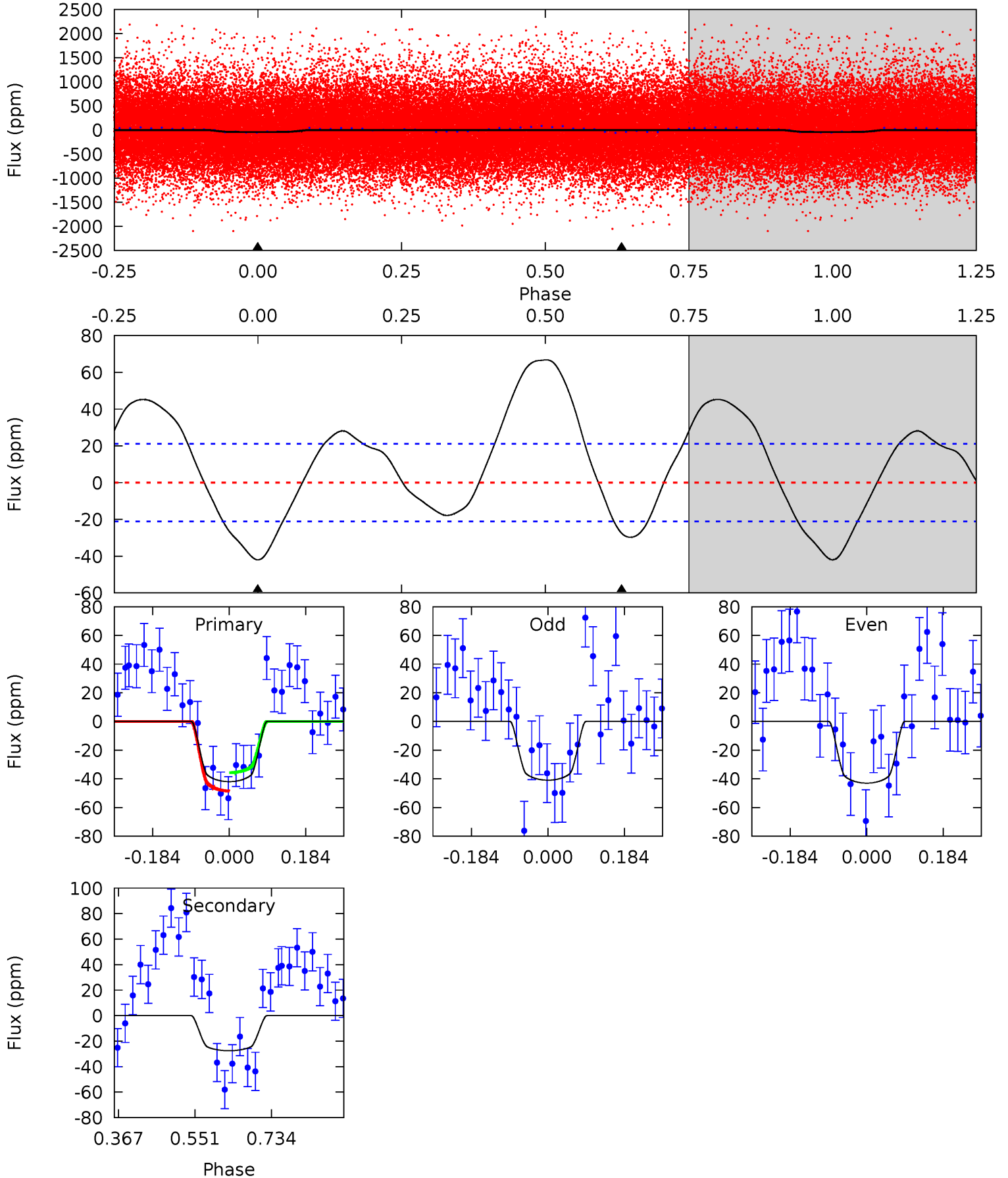
TCE 001296721-01 P= 3.913605 Days $T_0=132.223510$ (BKJD)



DV Model-Shift Uniqueness Test

001296721-01, P = 3.913556 Days, E = 128.320687 Days

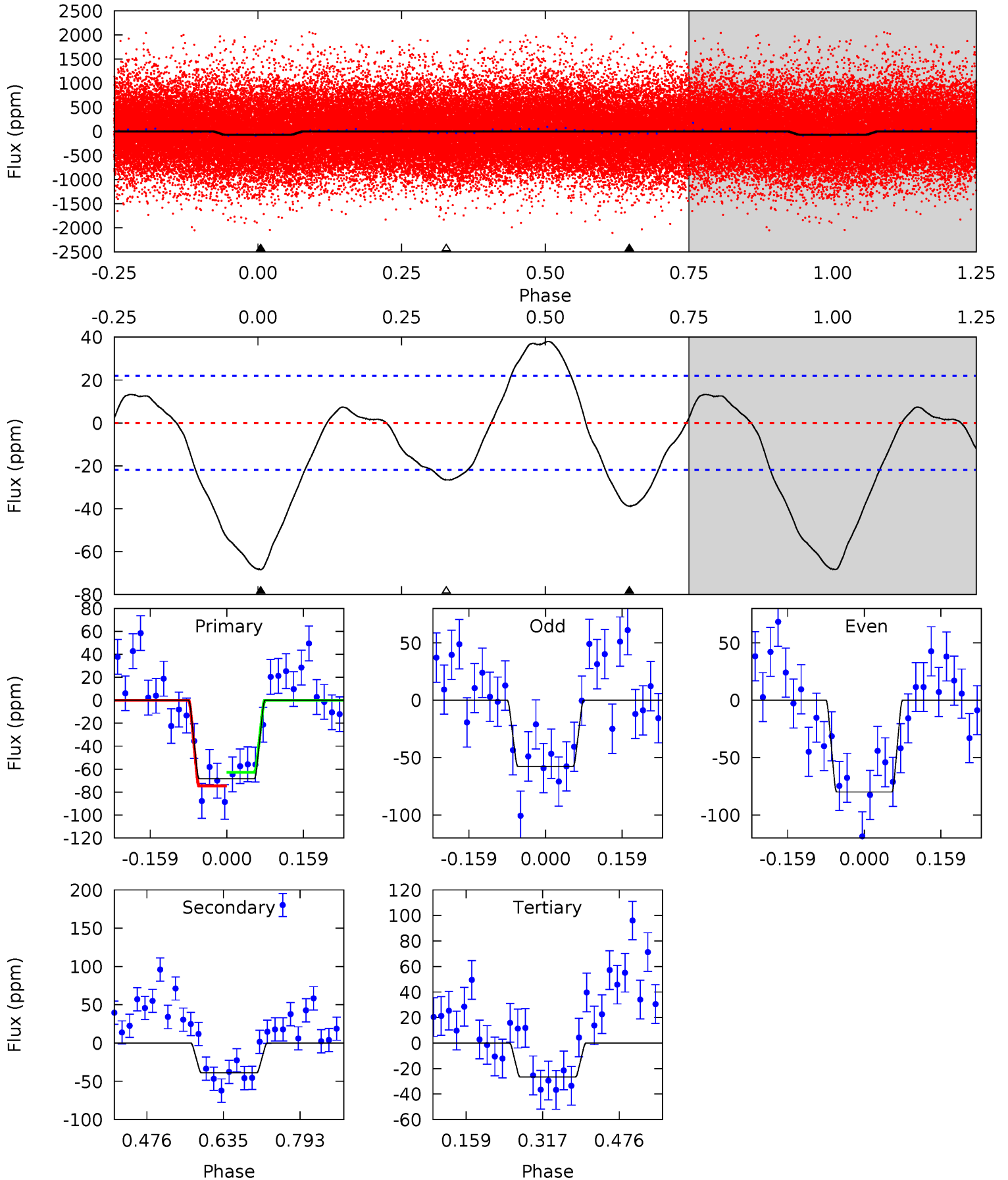
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.82	5.78	0	0	4.44	1.33	3.86	8.82	8.82	5.78	5.78	0.22	1.44	0.61	1.32



Alt Model-Shift Uniqueness Test

001296721-01, P = 3.913605 Days, E = 128.309905 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	7.90	5.42	0	4.47	1.41	3.72	8.50	13.9	2.48	7.90	2.27	0.86	0.36	1.20



Stellar Parameters For KIC 001296721

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6071^{+82}_{-82}	$4.184^{+0.182}_{-0.098}$	$-0.380^{+0.150}_{-0.150}$	$1.295^{+0.193}_{-0.242}$	$0.936^{+0.072}_{-0.059}$	$0.607^{+0.531}_{-0.188}$
	+1%/-1%	+4%/-2%	+39%/-39%	+15%/-19%	+8%/-6%	+88%/-31%
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 001296721-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-27 ± 5	$1.40^{+0.19}_{-0.19}$	1941^{+84}_{-99}	4534^{+235}_{-220}	18^{+6}_{-5}
Alt.	-39 ± 5	$1.16^{+0.18}_{-0.17}$	1941^{+83}_{-99}	5275^{+313}_{-281}	36^{+14}_{-9}

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 $A_{obs} \gg 1.0$

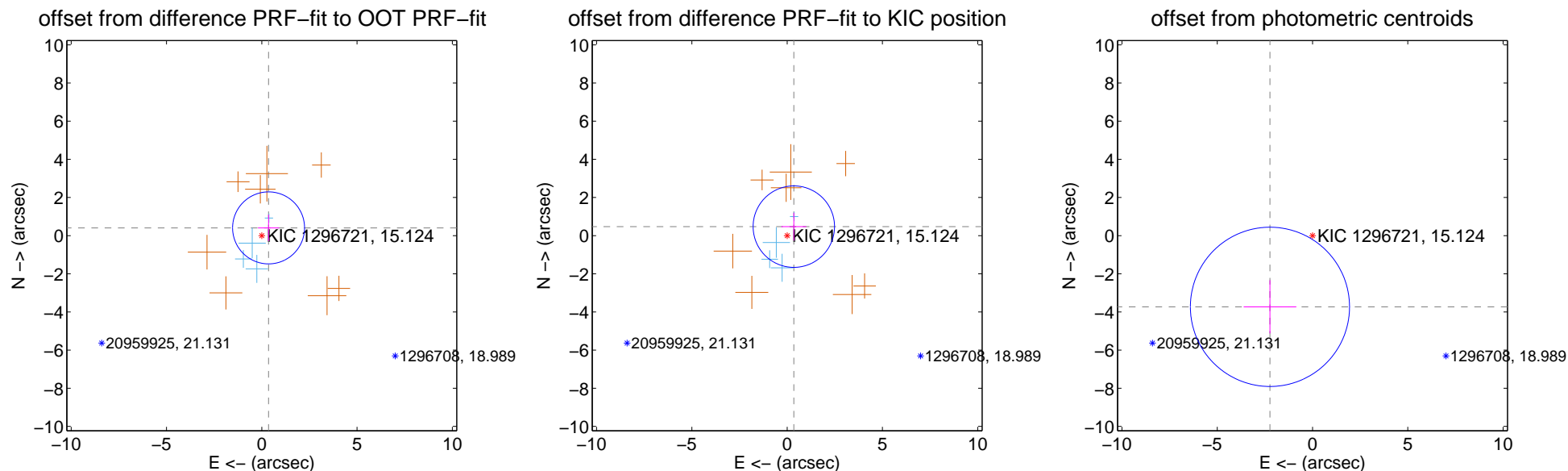
DV Centroid Data

Supplemental centroid analysis for 001296721-01. Kepler magnitude: 15.12. Transit SNR 8.16

There are 4 quarters with good PRF difference image offsets

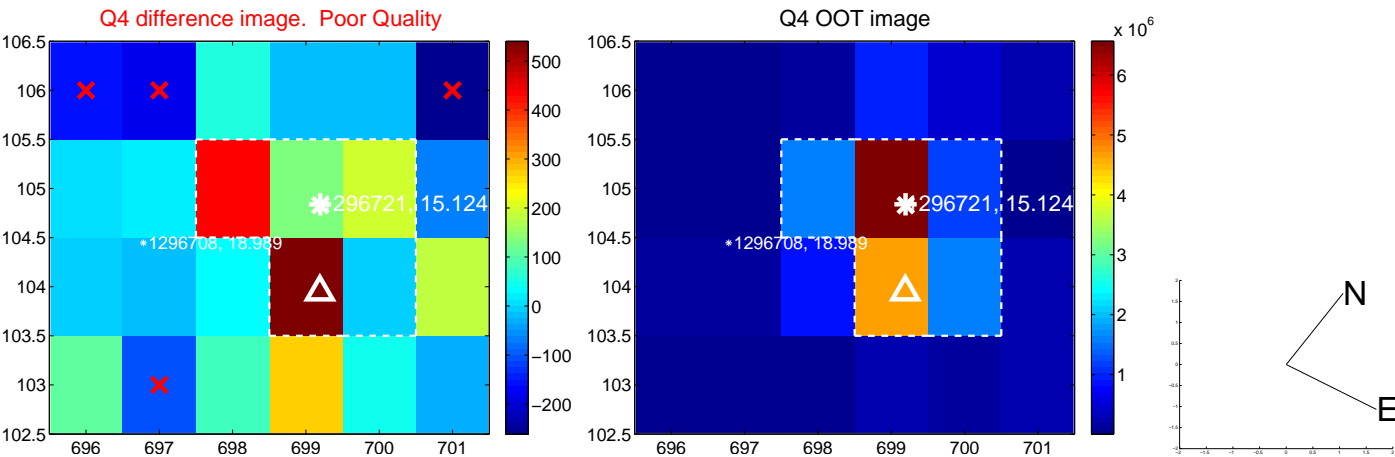
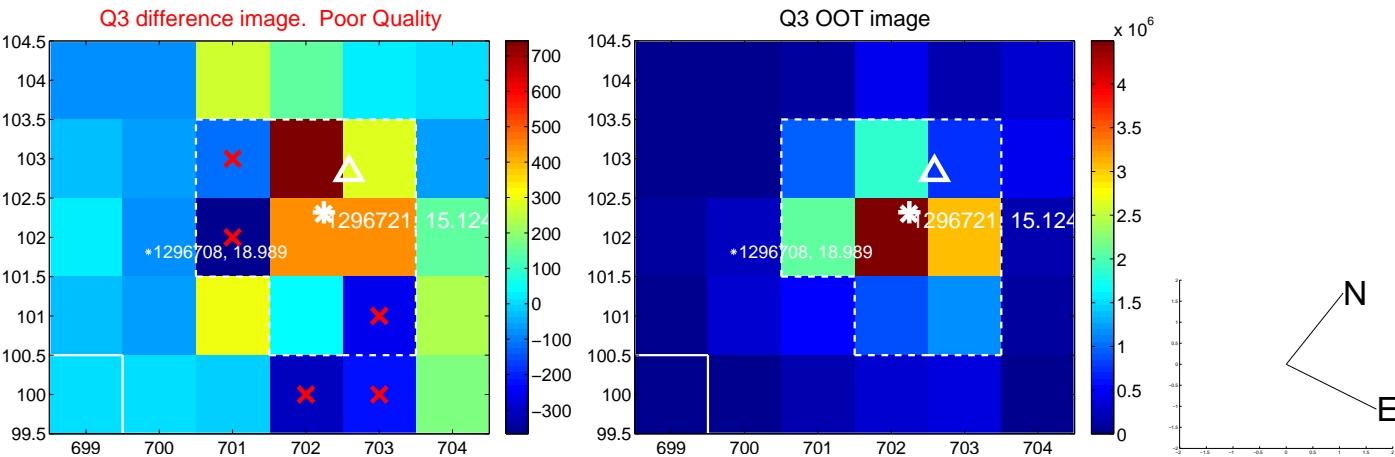
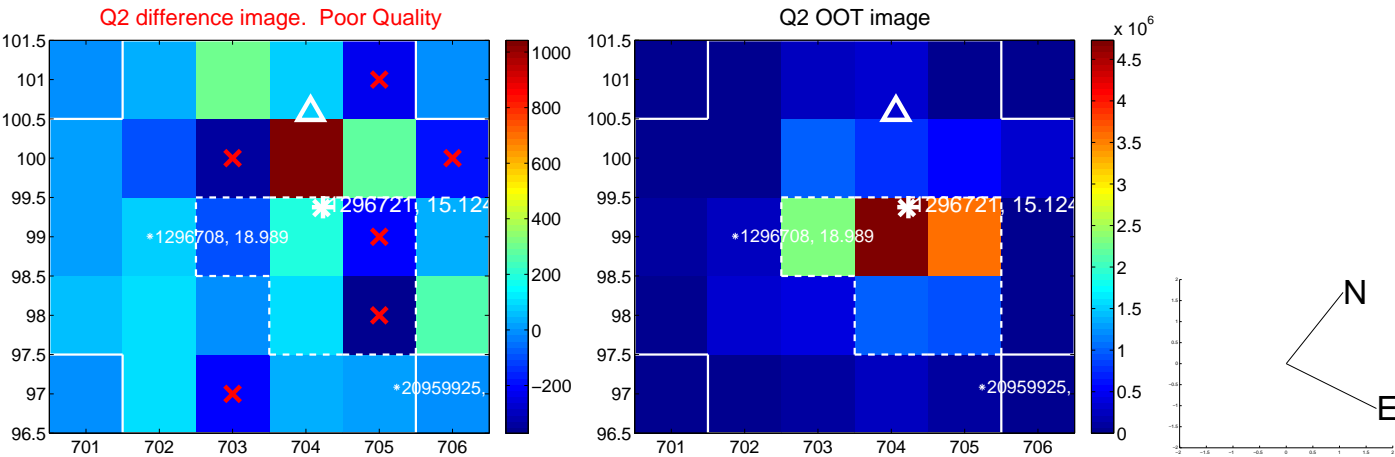
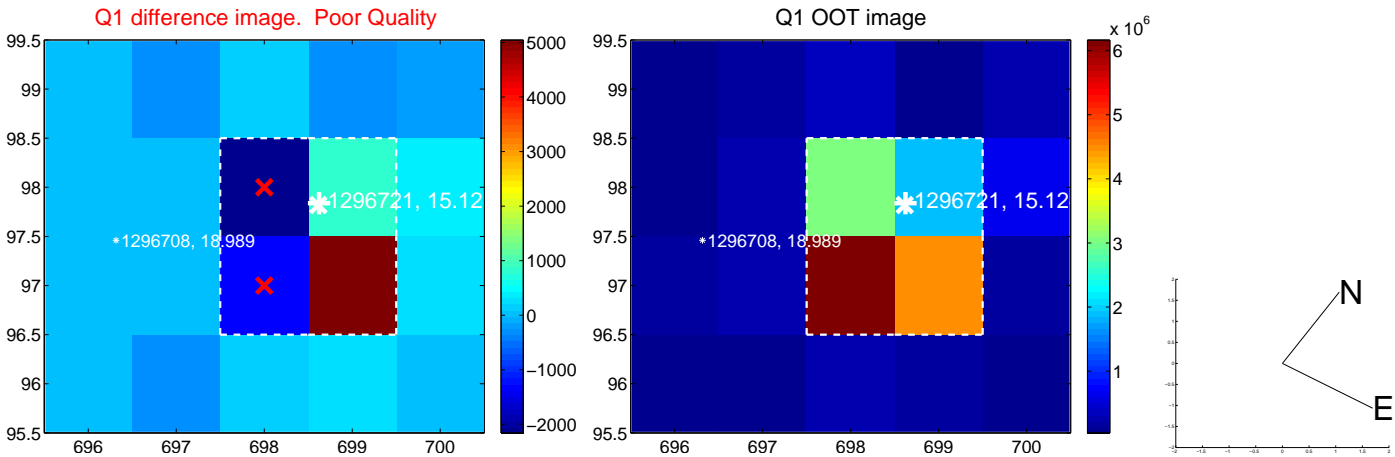
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.541 ± 0.629	0.86	-0.357 ± 0.558	0.407 ± 0.695
PRF-fit source offset from KIC position	0.588 ± 0.712	0.83	-0.350 ± 0.653	0.472 ± 0.728
photometric centroid source offset	4.35 ± 1.39	3.13	2.23 ± 1.38	-3.73 ± 1.40

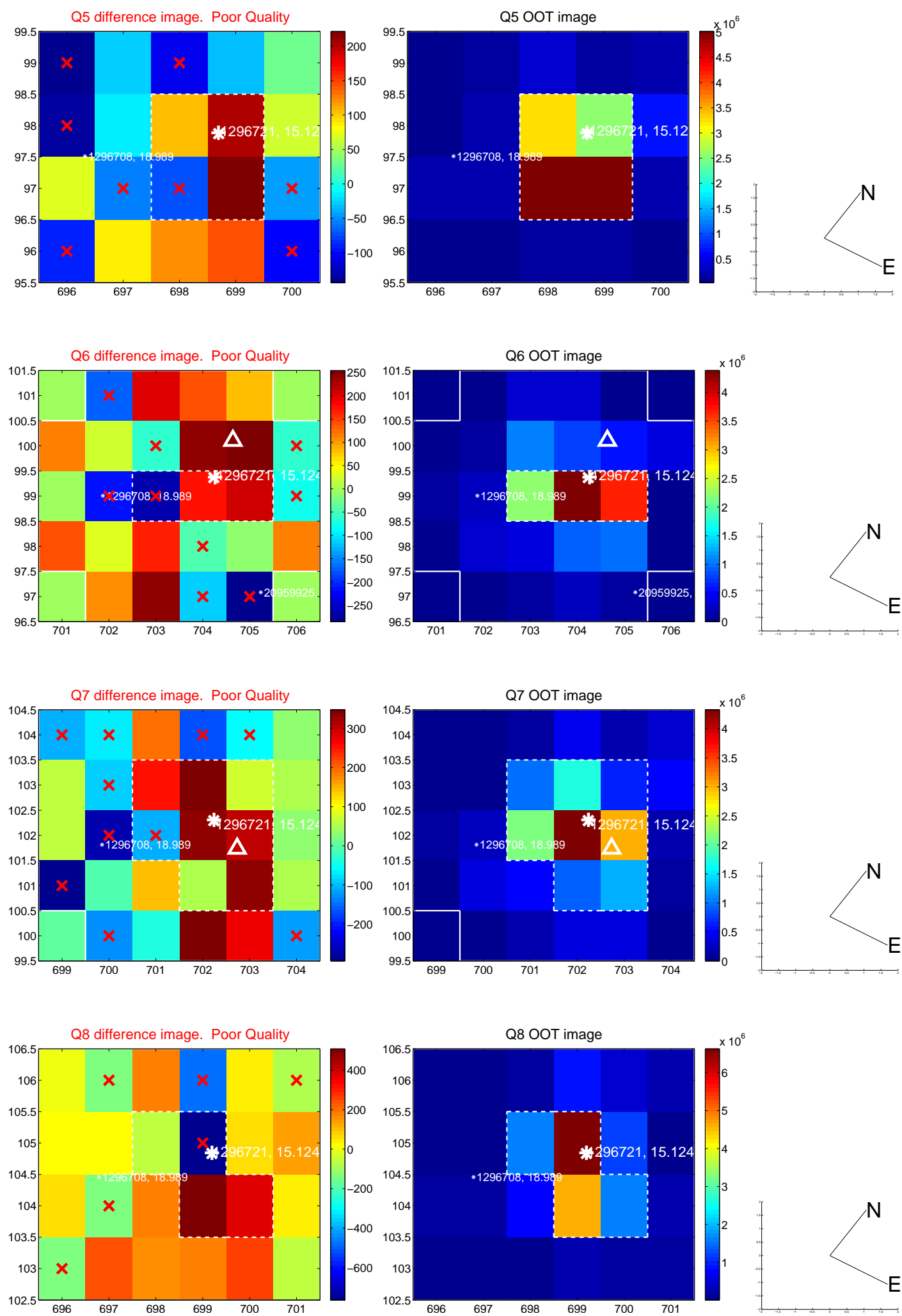


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

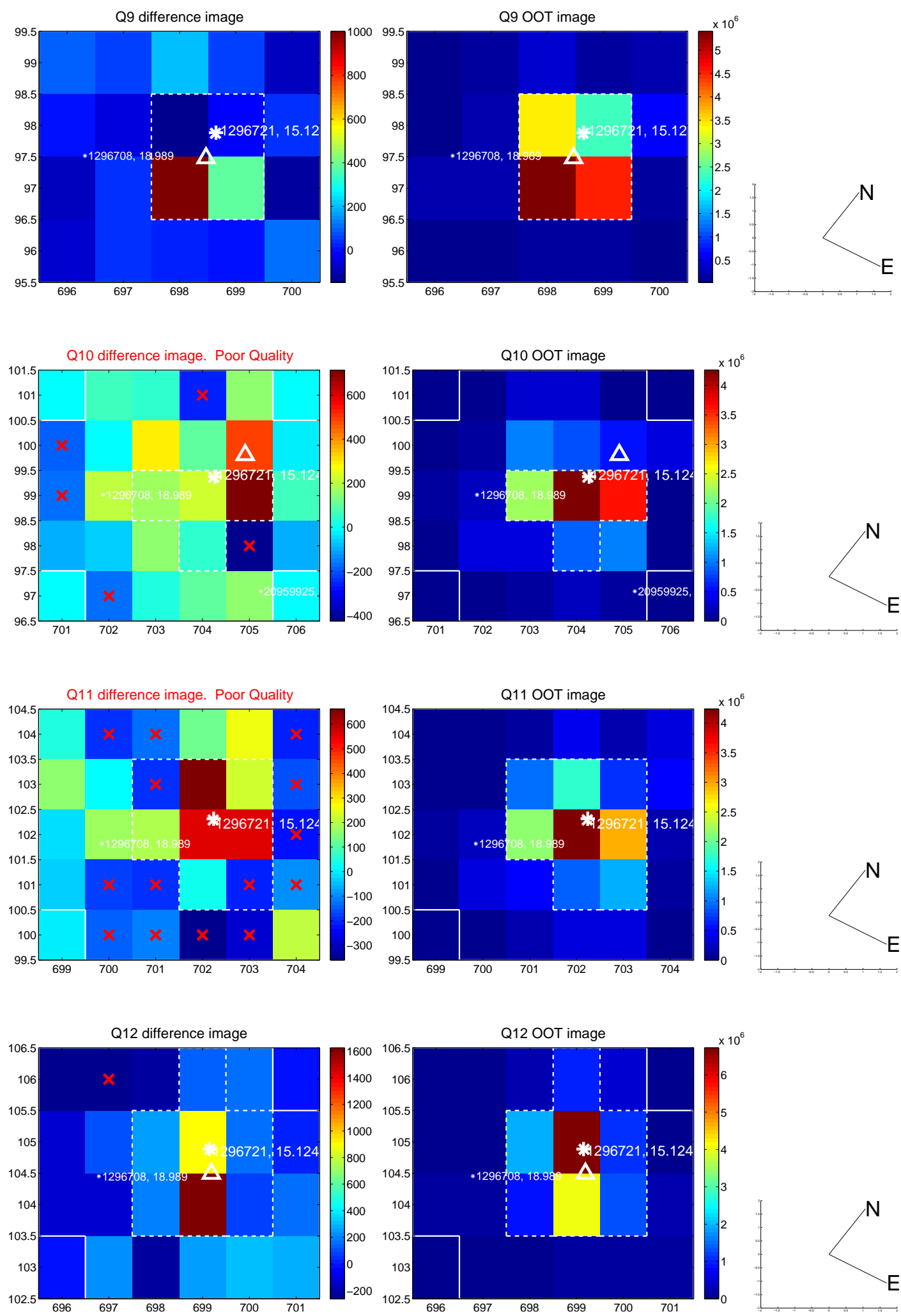
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



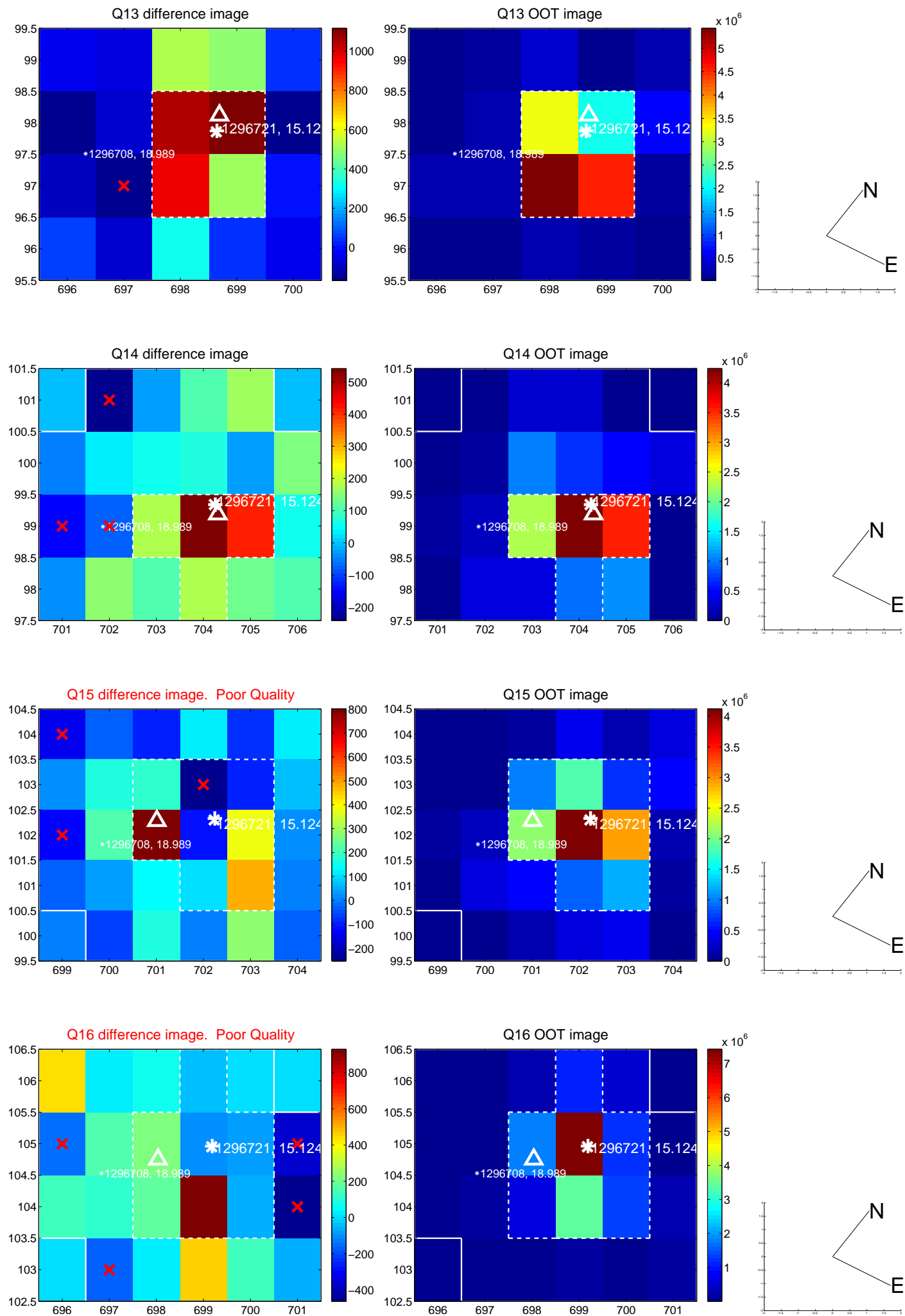
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



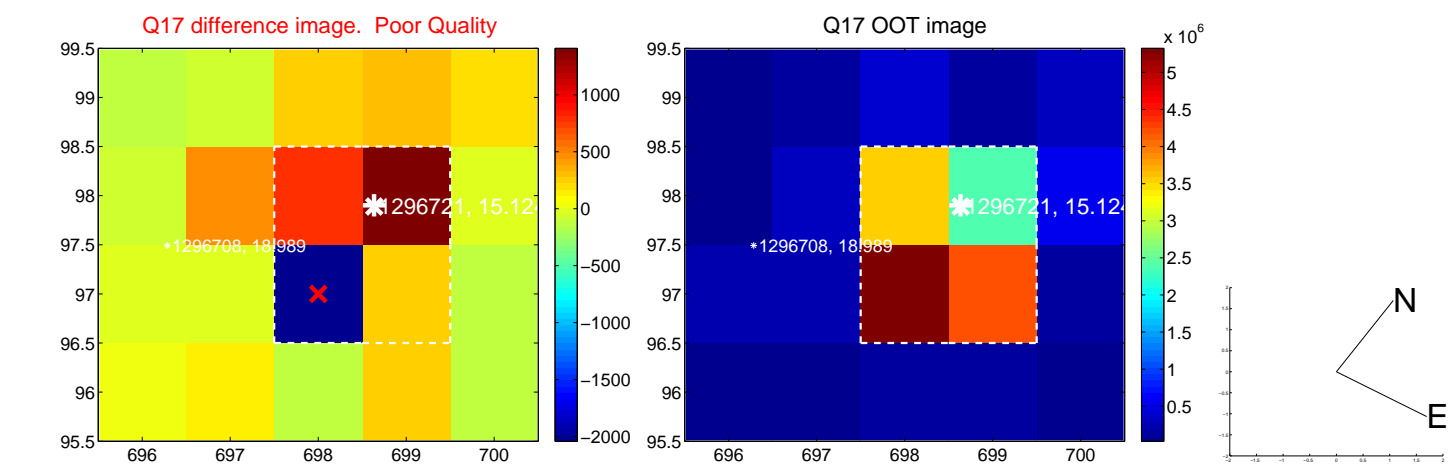
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



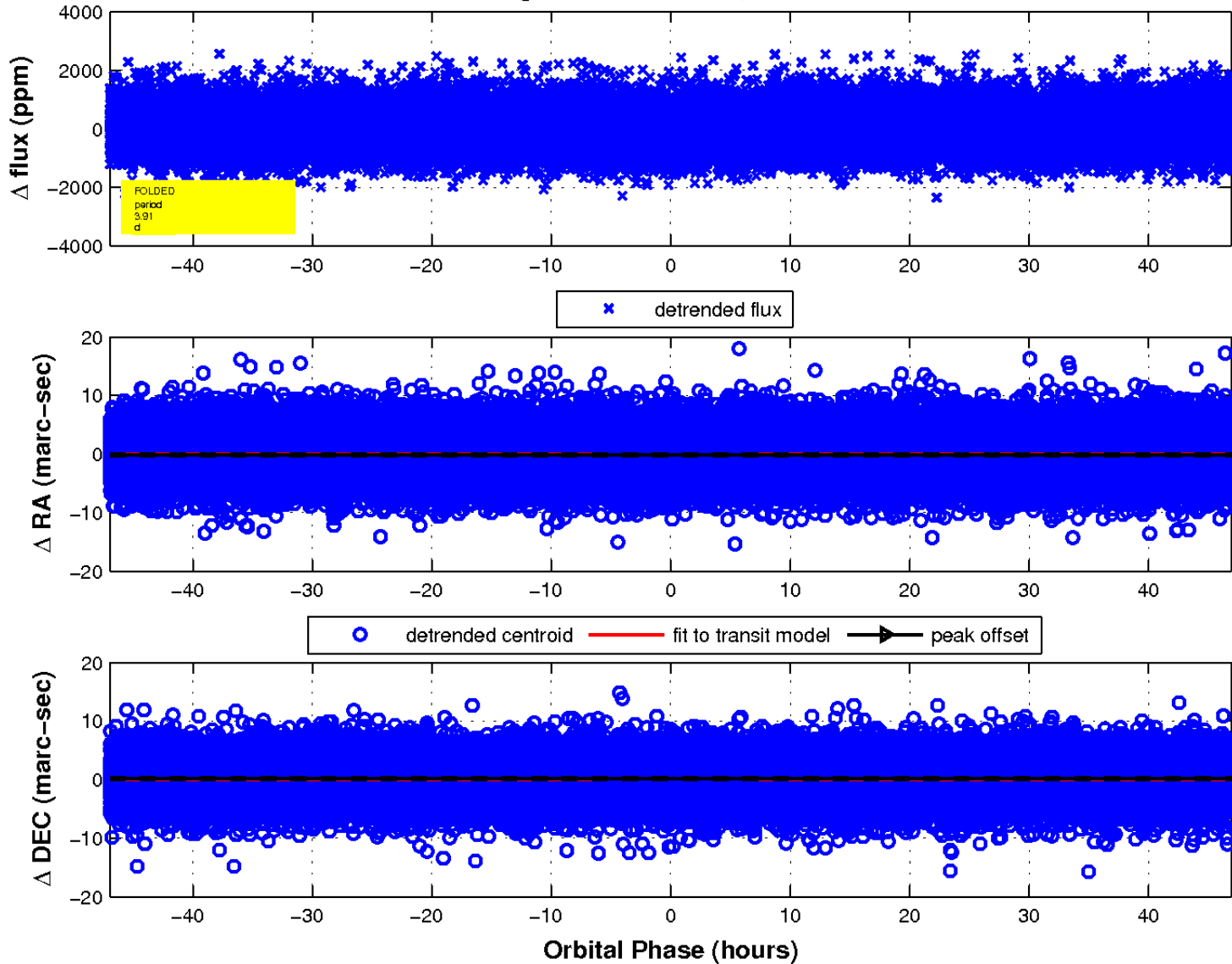
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

