

KIC 006721526

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})
006721526-01	OBS	No	2.416588	133.809876	48.5	11.898	9.6	10.3	1.07	6247	0.74	1154.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006721526-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

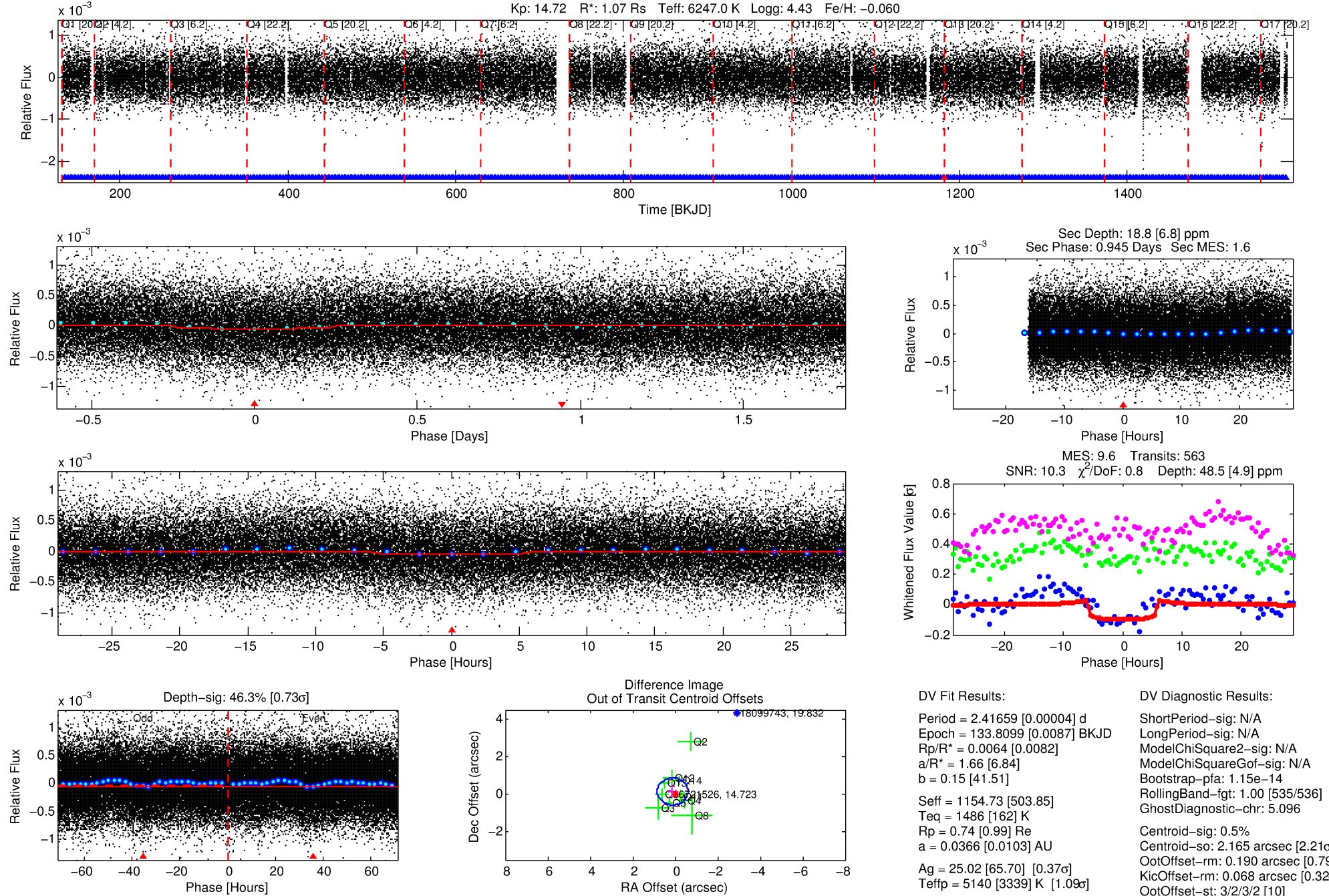
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006721526-01

No Significant Match Found

DV One-Page Summary

KIC: 6721526 Candidate: 1 of 1 Period: 2.417 d



DV Fit Results:

Period = 2.41659 [0.00004] d
Epoch = 133.8099 [0.0087] BKJD
Rp/R* = 0.0064 [0.0082]
a/R* = 1.66 [6.84]
b = 0.15 [41.51]
Seff = 1154.73 [503.85]
Teff = 1486 [162] K
Rp = 0.74 [0.99] Re
a = 0.0366 [0.0103] AU
Ag = 25.02 [65.70] [0.37 σ]
Teffp = 5140 [3339] K [1.09 σ]

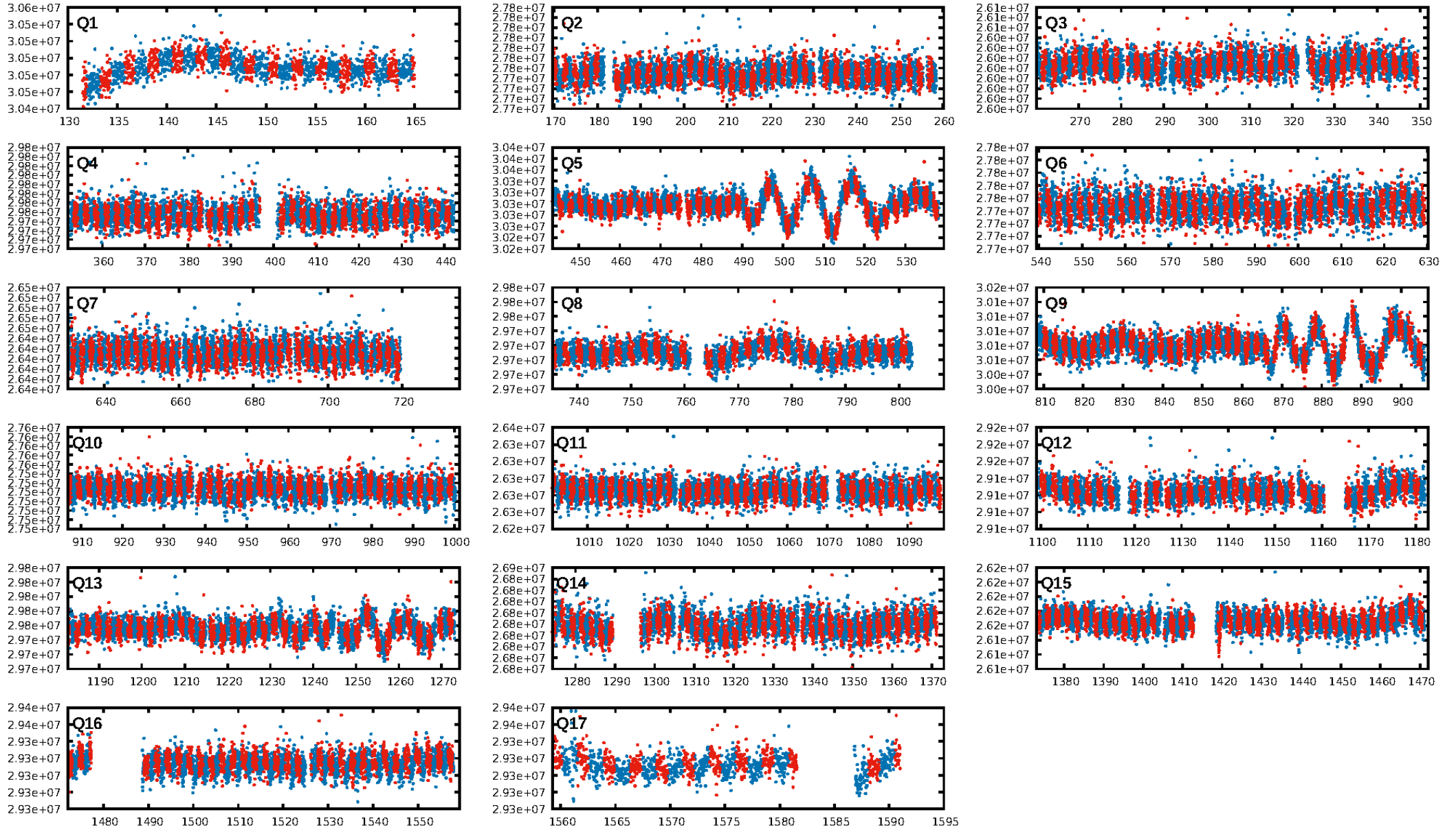
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.15e-14
RollingBand-fgt: 1.00 [535/536]
GhostDiagnostic-chr: 5.096
Centroid-sig: 0.5%
Centroid-so: 2.165 arcsec [2.21 σ]
OotOffset-rm: 0.190 arcsec [0.79 σ]
KicOffset-rm: 0.068 arcsec [0.32 σ]
OotOffset-st: 3/2/3/2 [10]
KicOffset-st: 3/2/3/2 [10]
DiffImageQuality-fgm: 0.90 [9/10]
DiffImageOverlap-fno: 1.00 [17/17]

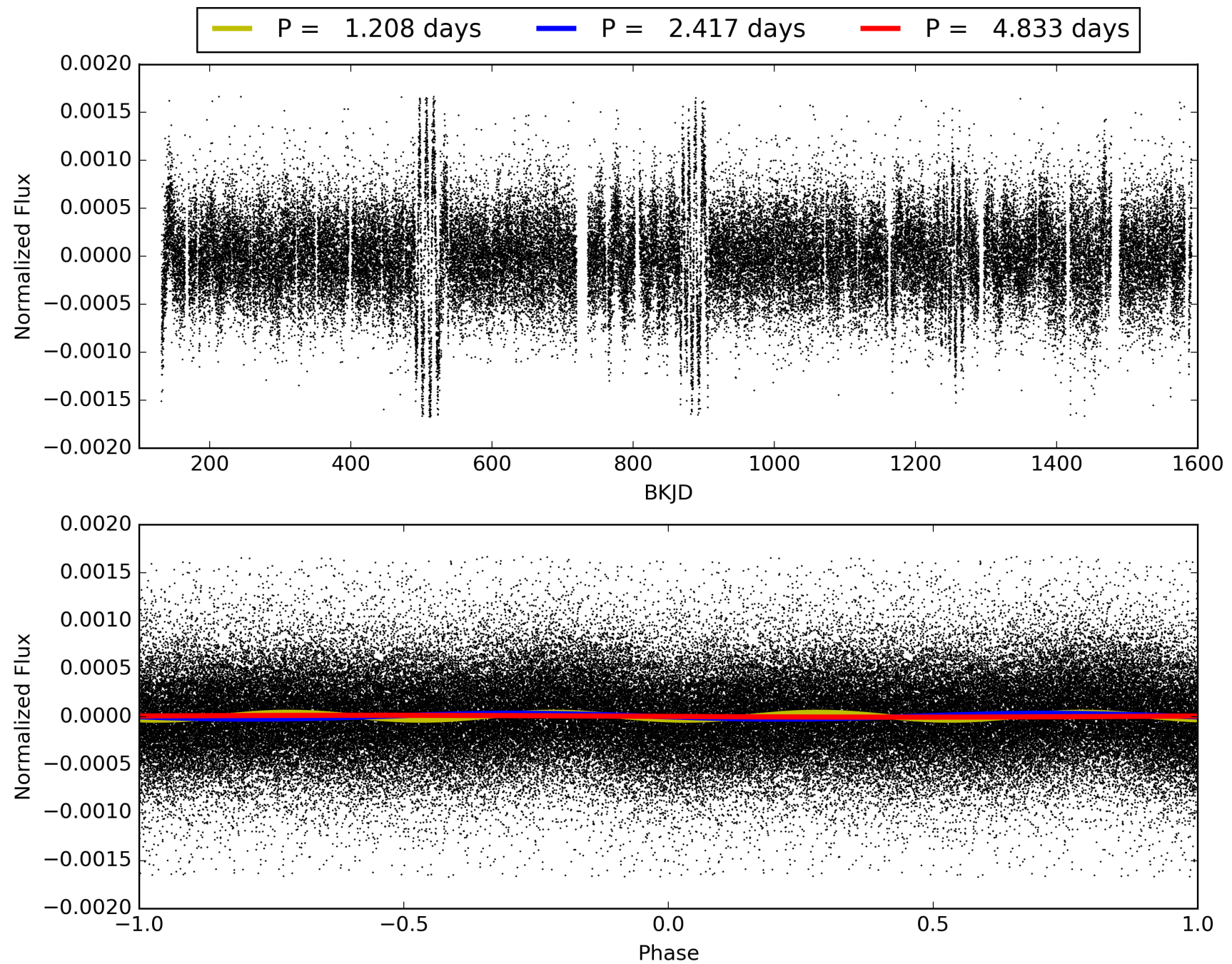
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:43:32 Z

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

TCE 006721526-01, PDC Light Curves

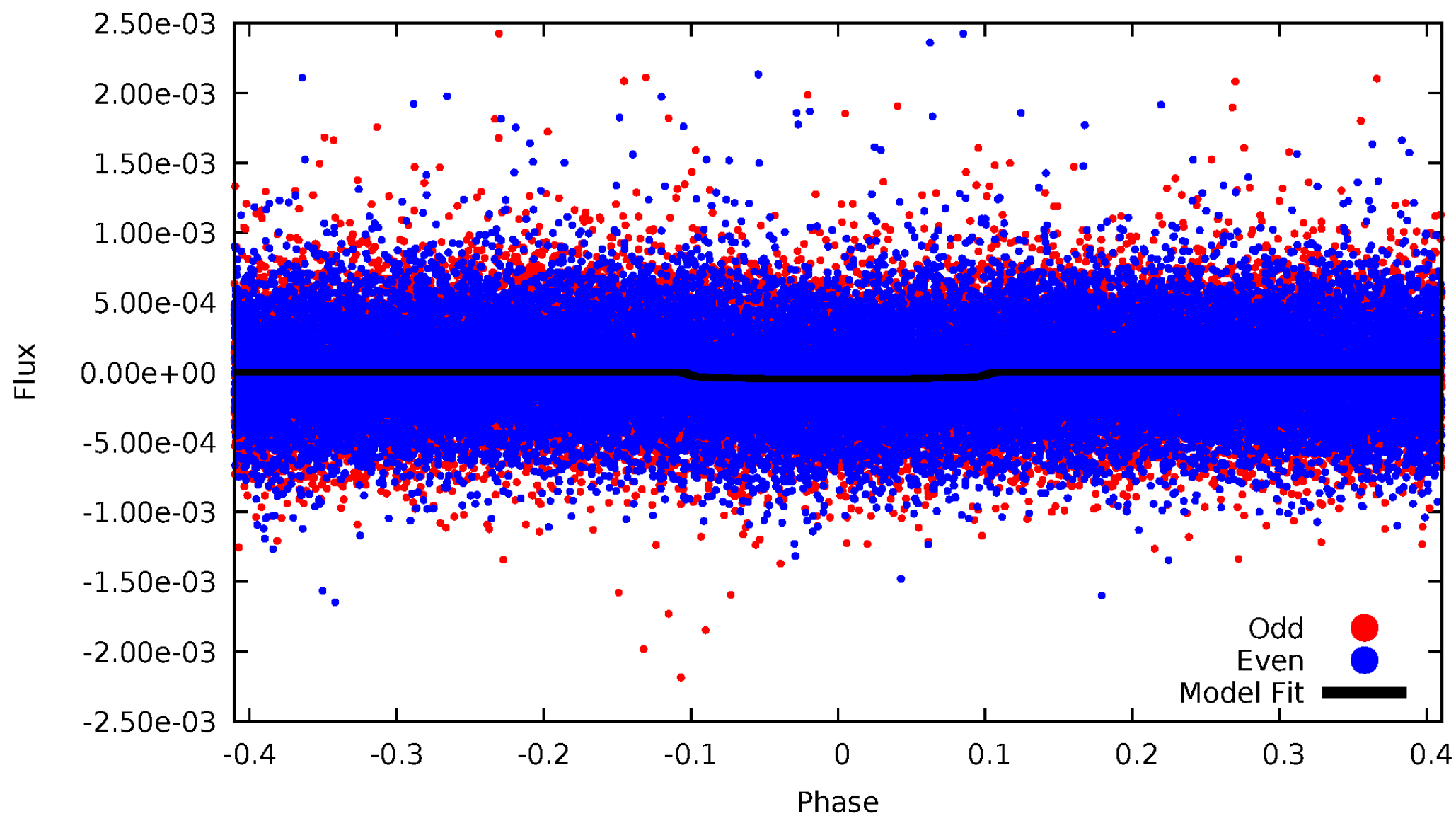


TCE 006721526-01



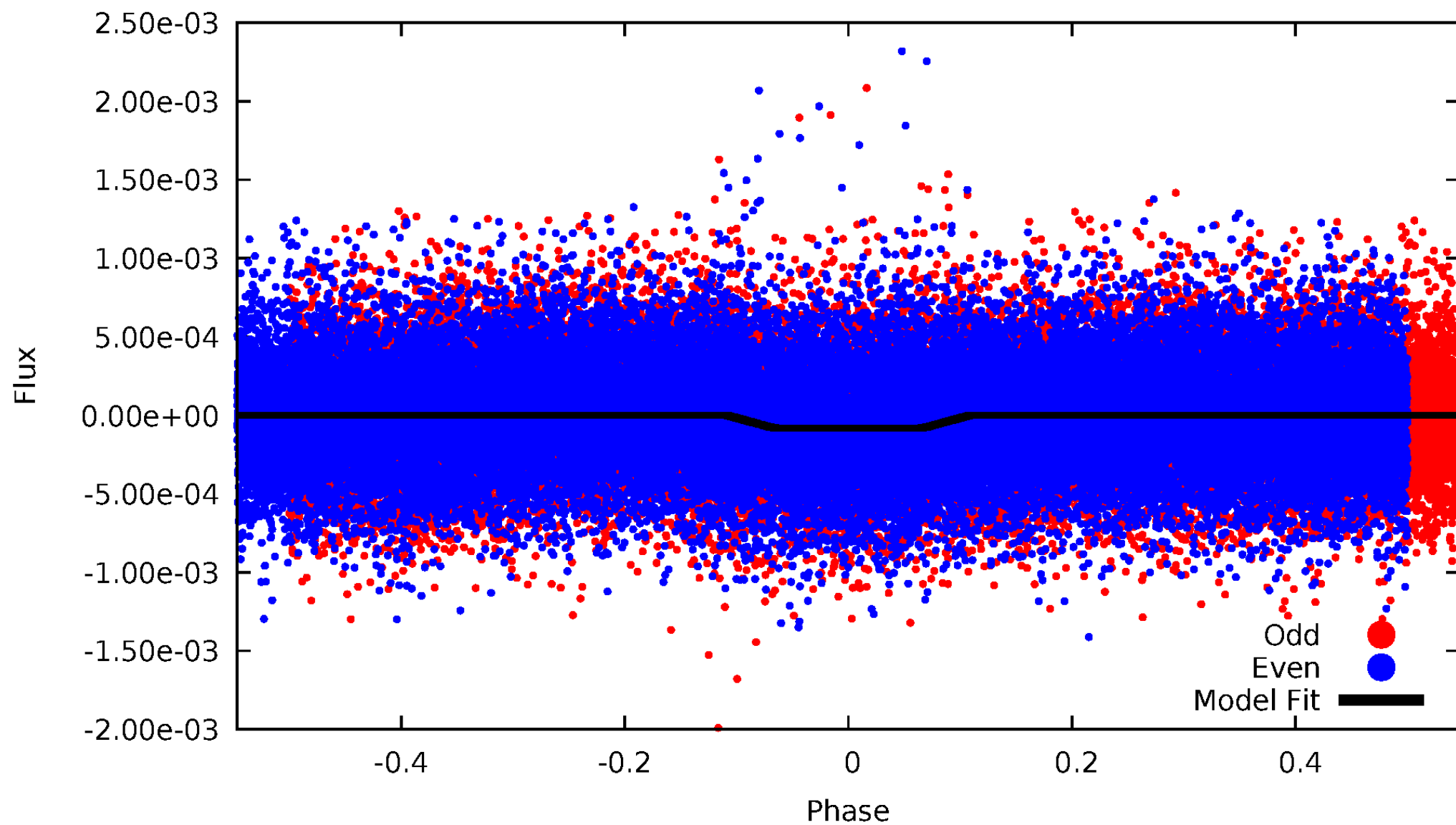
DV Odd/Even

TCE 006721526-01



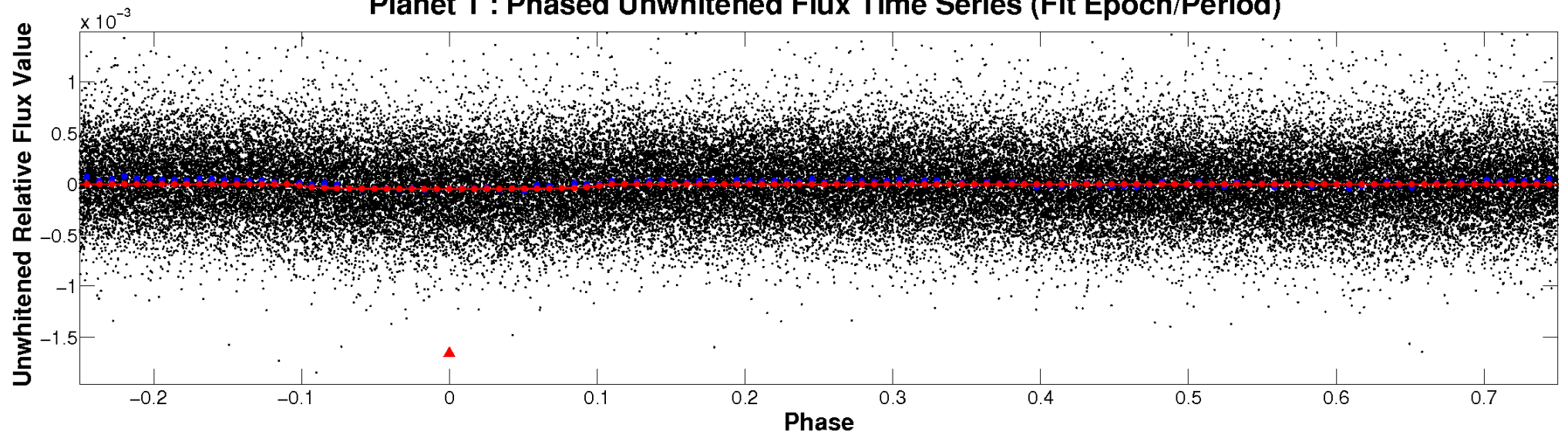
ALT Odd/Even

TCE 006721526-01

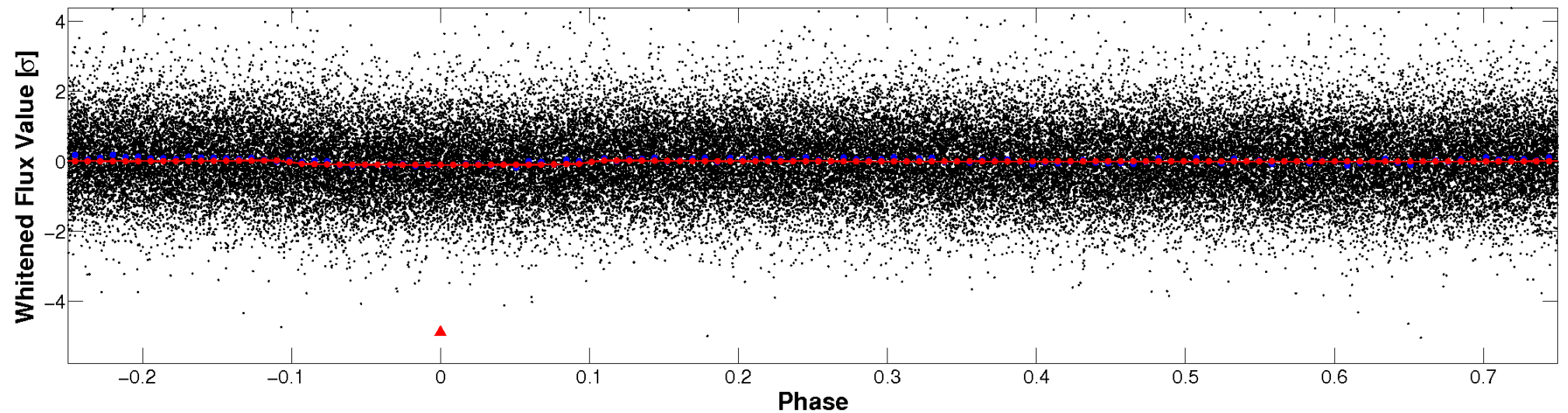


Non-Whitened Vs. Whitened Light Curve

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

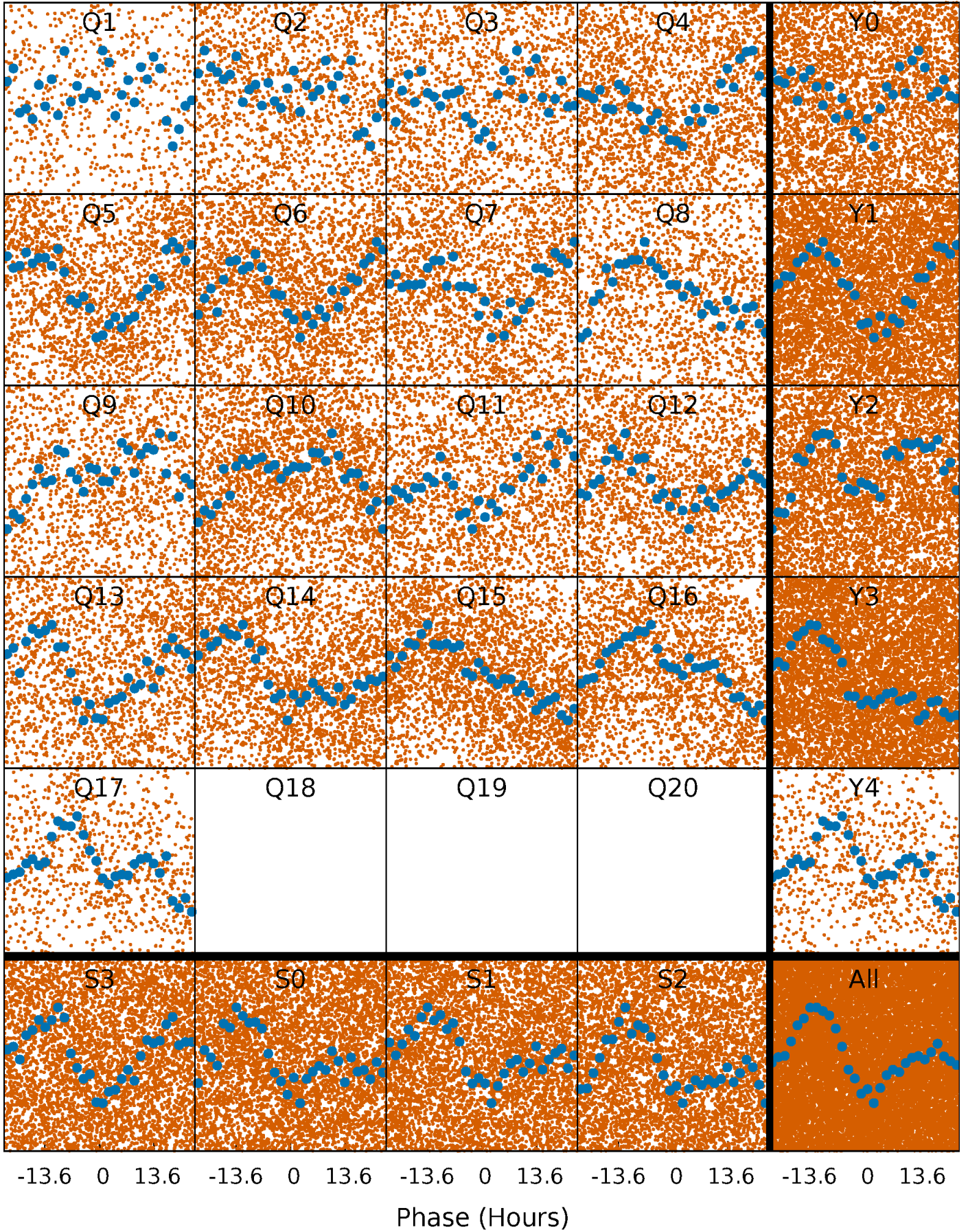


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



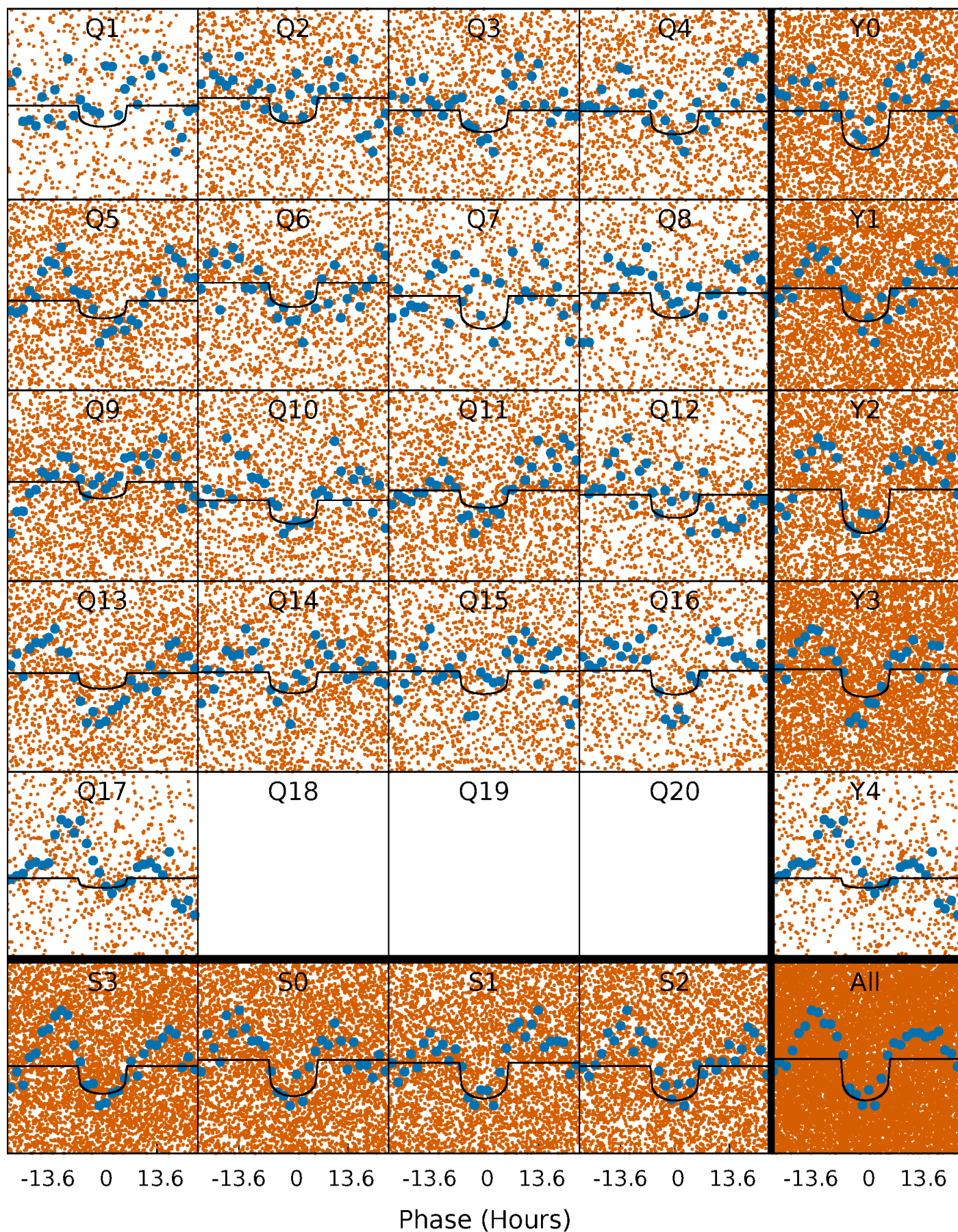
PDC Quarter-Phased Transit Curves

TCE 006721526-01 P= 2.416588 Days $T_0=133.809876$ (BKJD)



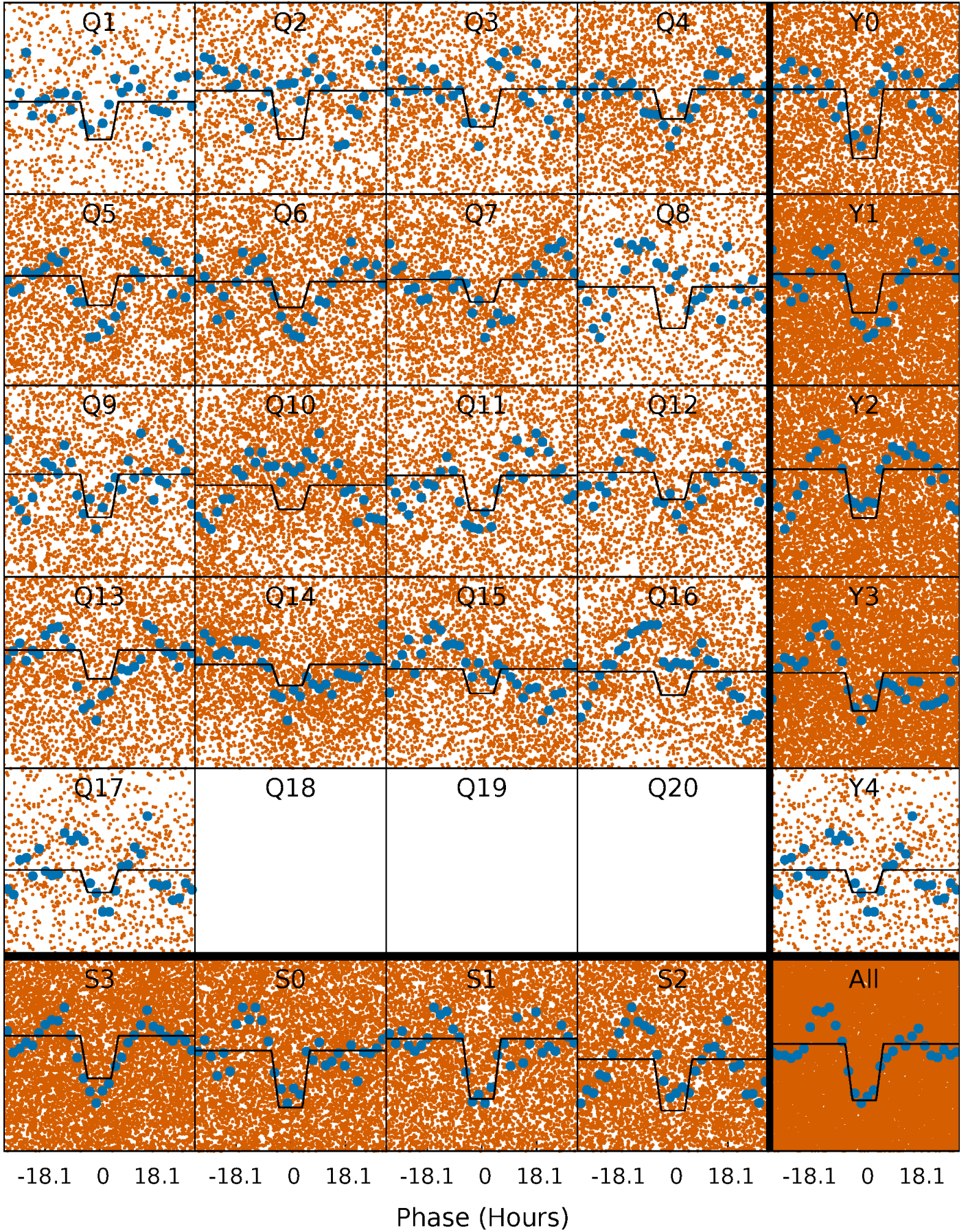
DV Quarter-Phased Transit Curves

TCE 006721526-01 P= 2.416588 Days $T_0=133.809876$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

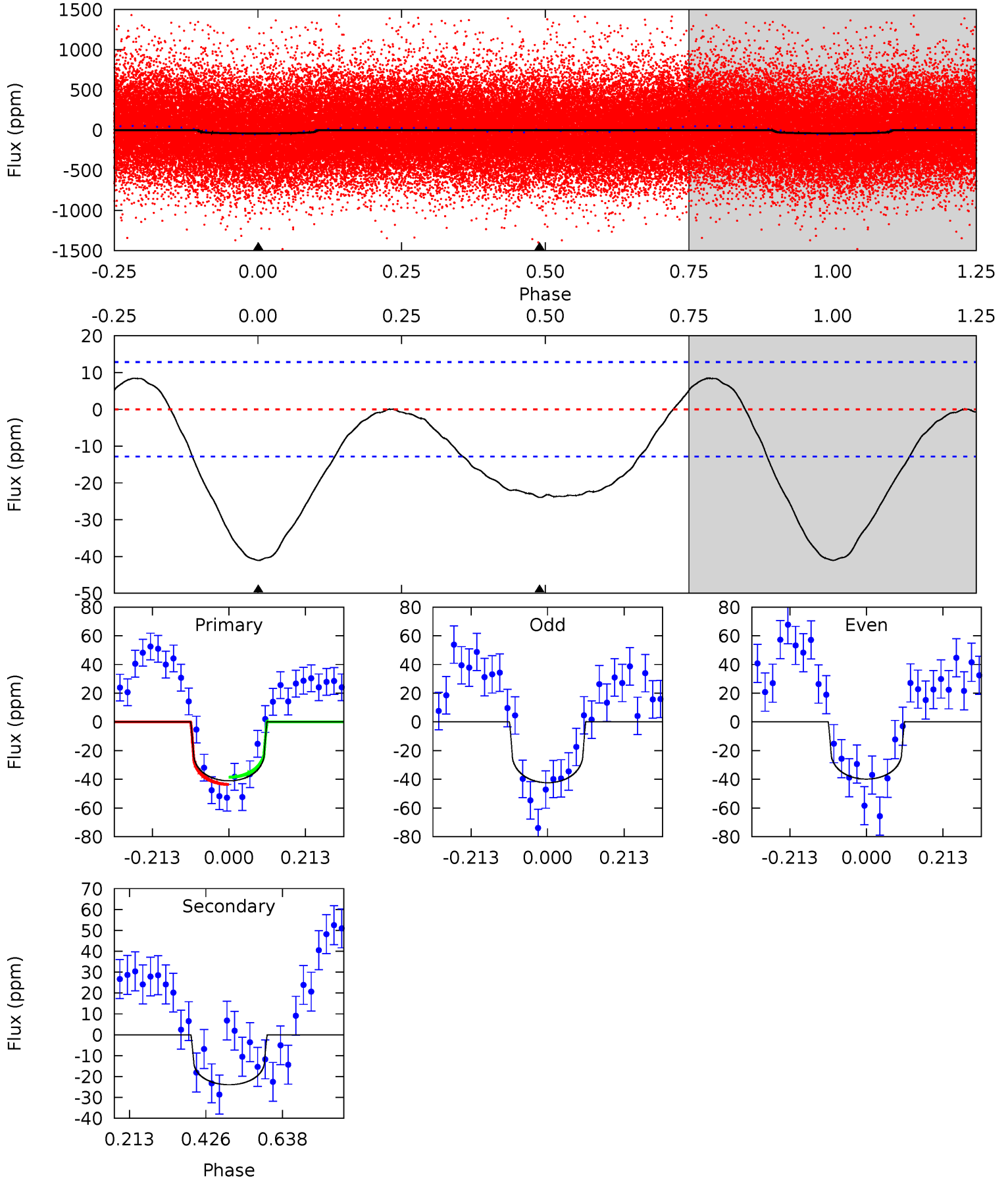
TCE 006721526-01 P= 2.416455 Days $T_0=133.903657$ (BKJD)



DV Model-Shift Uniqueness Test

006721526-01, P = 2.416588 Days, E = 131.393288 Days

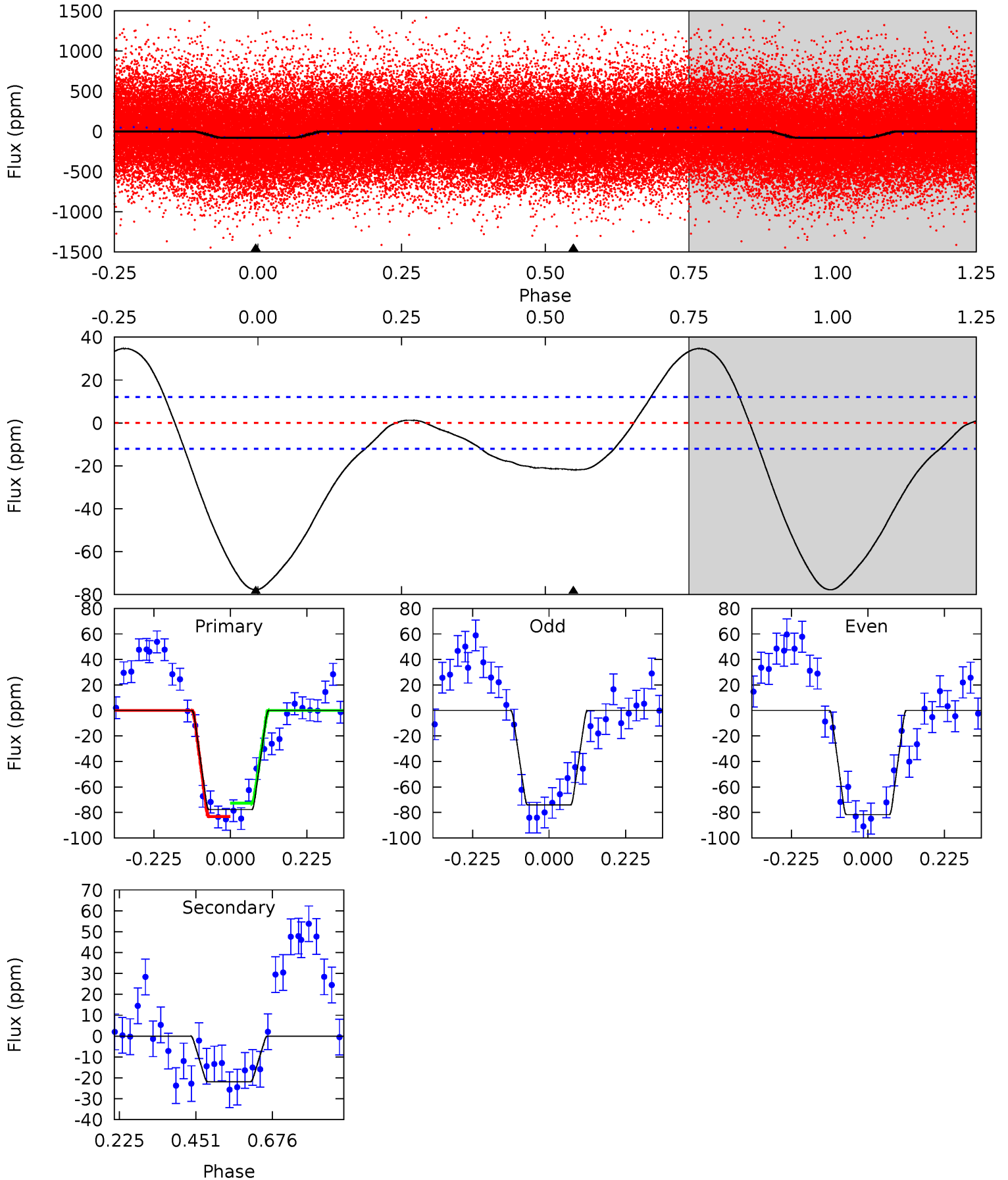
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	8.20	0	0	4.40	1.25	1.27	14.1	14.1	8.20	8.20	0.43	1.17	0.17	0.87



Alt Model-Shift Uniqueness Test

006721526-01, P = 2.416455 Days, E = 131.487202 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.3	7.94	0	0	4.39	1.21	0.54	28.3	28.3	7.94	7.94	1.37	1.00	0.31	1.93



Stellar Parameters For KIC 006721526

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6247^{+174}_{-239}	$4.433^{+0.056}_{-0.224}$	$-0.060^{+0.250}_{-0.300}$	$1.066^{+0.353}_{-0.118}$	$1.122^{+0.157}_{-0.157}$	$1.304^{+0.400}_{-0.722}$
	+3%/-4%	+1%/-5%	+417%/-500%	+33%/-11%	+14%/-14%	+31%/-55%
Source	PHO1	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 006721526-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 3	$1.04^{+0.90}_{-0.70}$	2130^{+156}_{-122}	4829^{+3990}_{-1008}	16^{+134}_{-12}
Alt.	-22 ± 3	$1.33^{+0.94}_{-0.80}$	2117^{+172}_{-114}	4278^{+2261}_{-778}	$8.471^{+49.212}_{-5.441}$

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

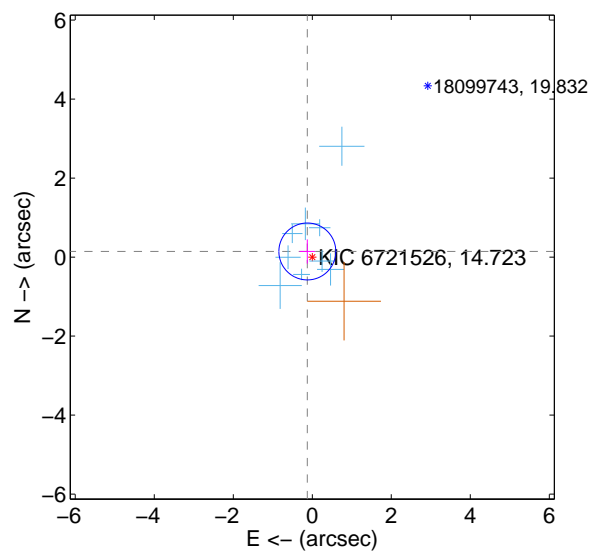
Supplemental centroid analysis for 006721526-01. Kepler magnitude: 14.72. Transit SNR 10.35

There are 9 quarters with good PRF difference image offsets

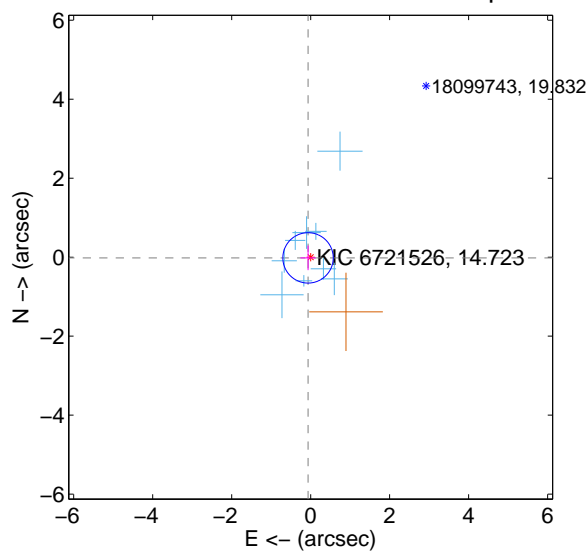
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.190 ± 0.240	0.79	0.125 ± 0.197	0.143 ± 0.306
PRF-fit source offset from KIC position	0.068 ± 0.213	0.32	0.066 ± 0.194	-0.018 ± 0.311
photometric centroid source offset	2.16 ± 0.98	2.21	-2.01 ± 0.97	0.80 ± 1.02

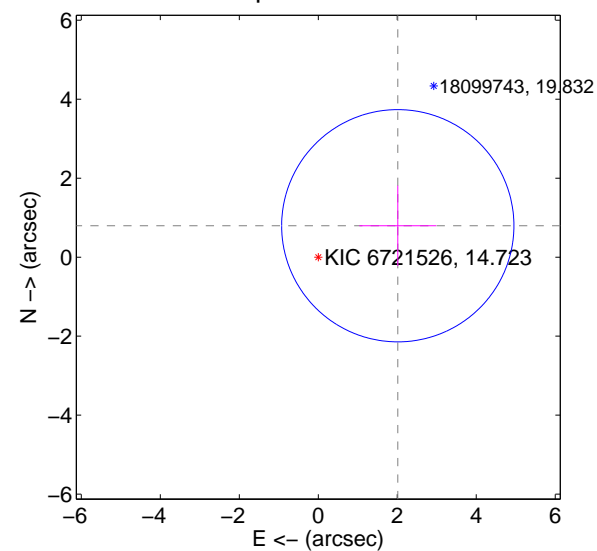
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

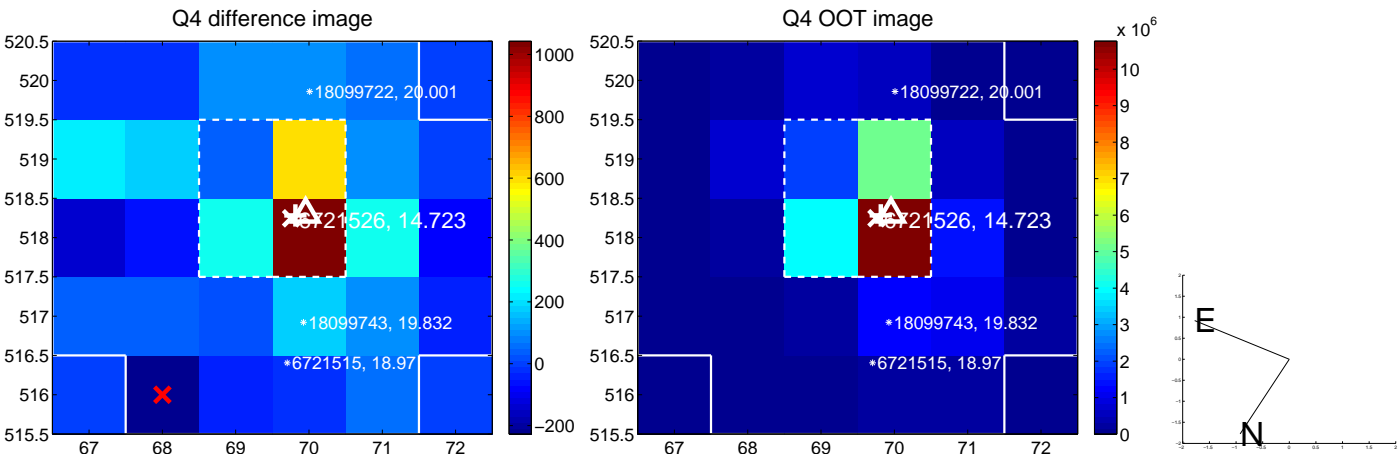
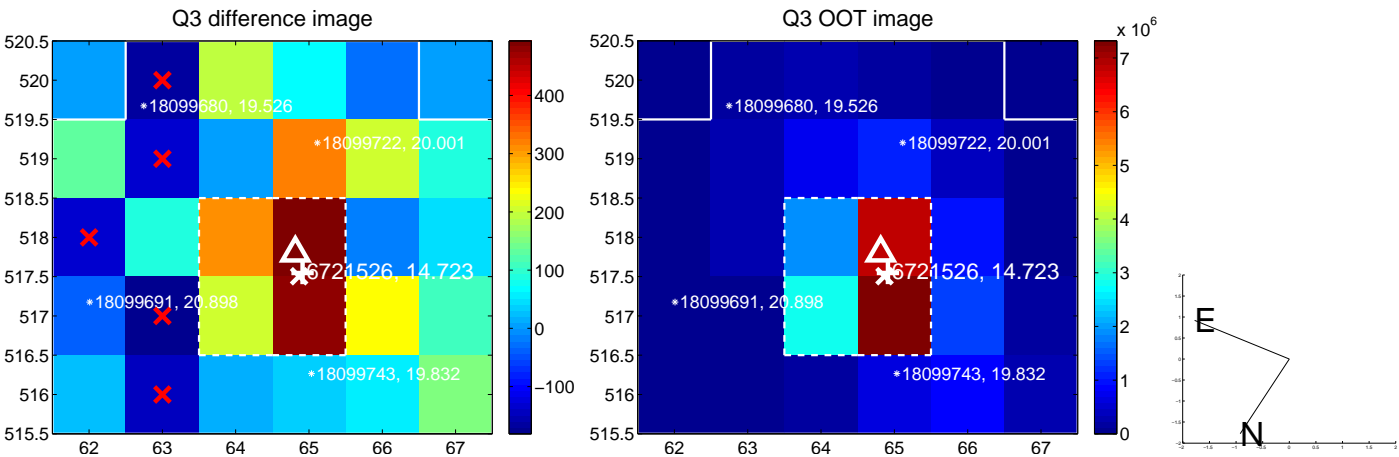
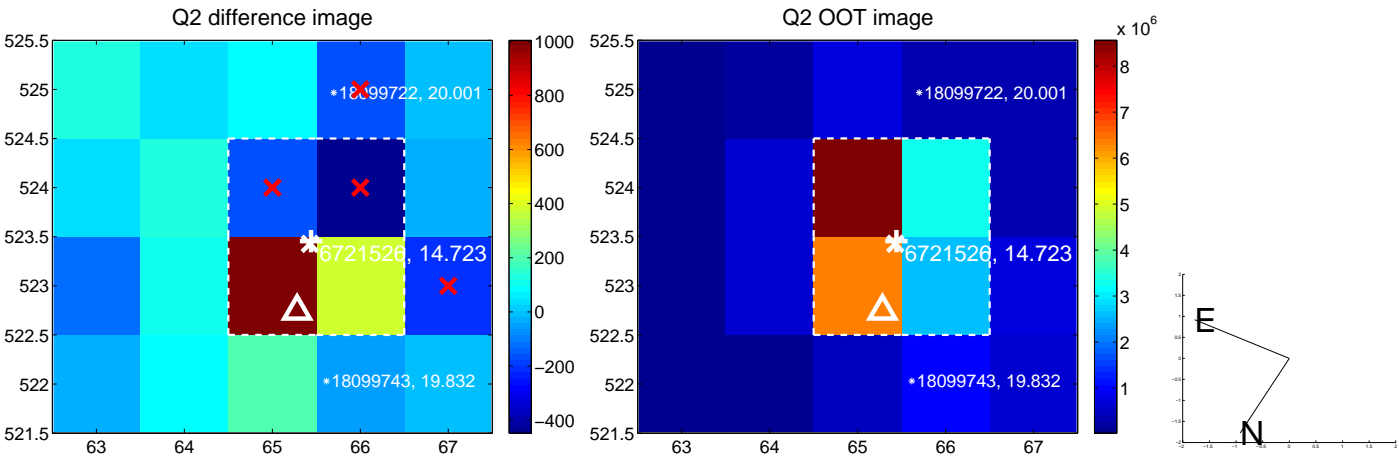
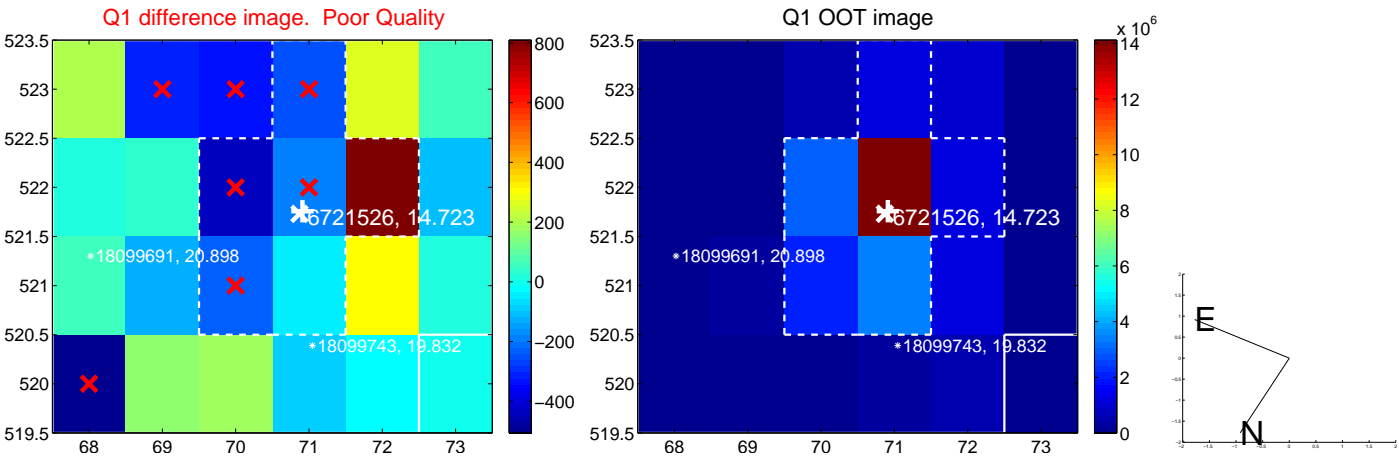


offset from photometric centroids

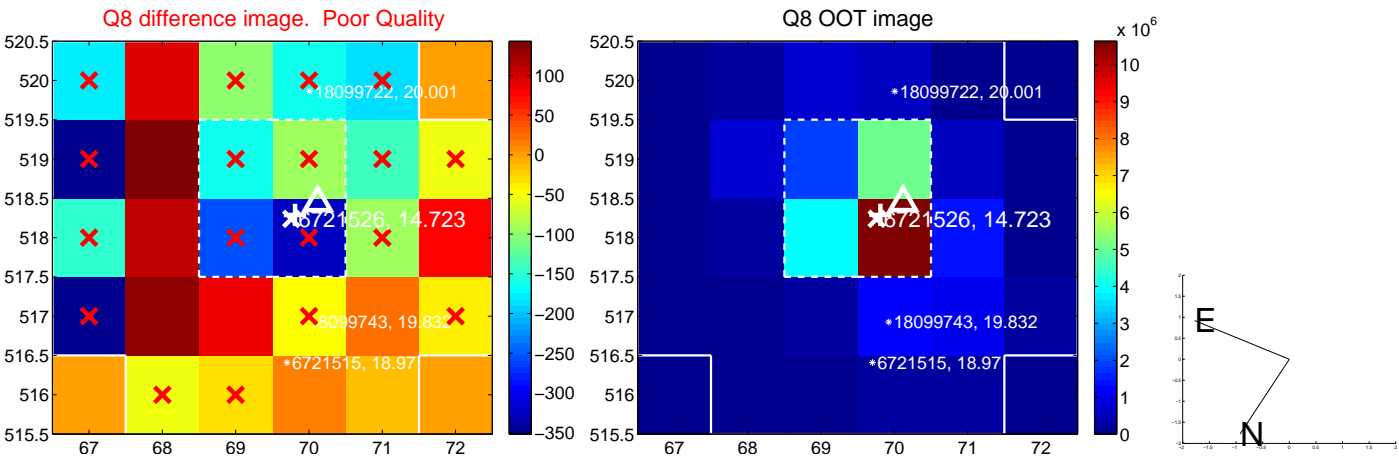
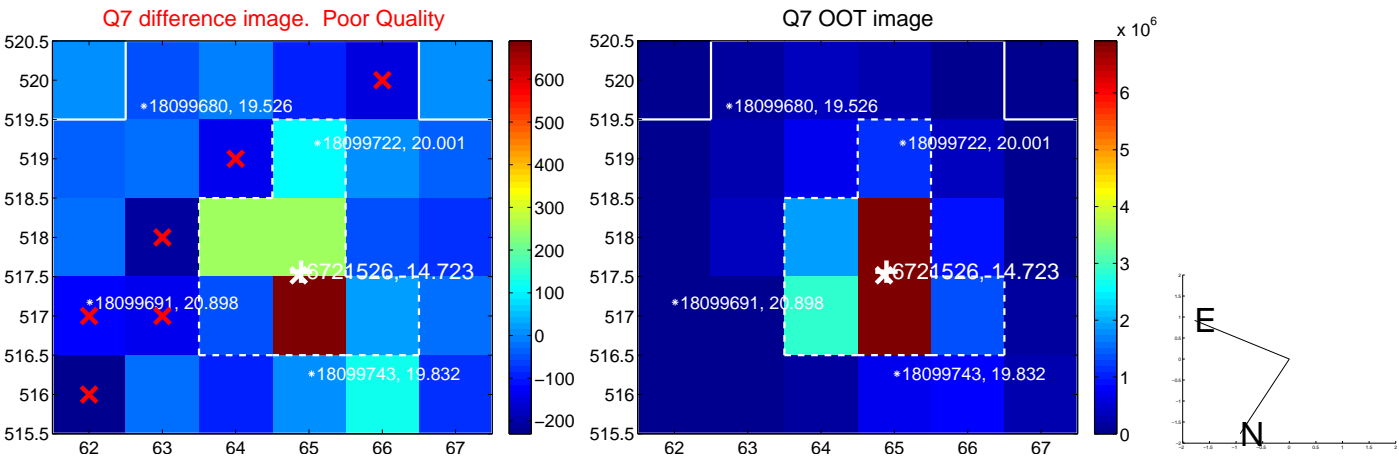
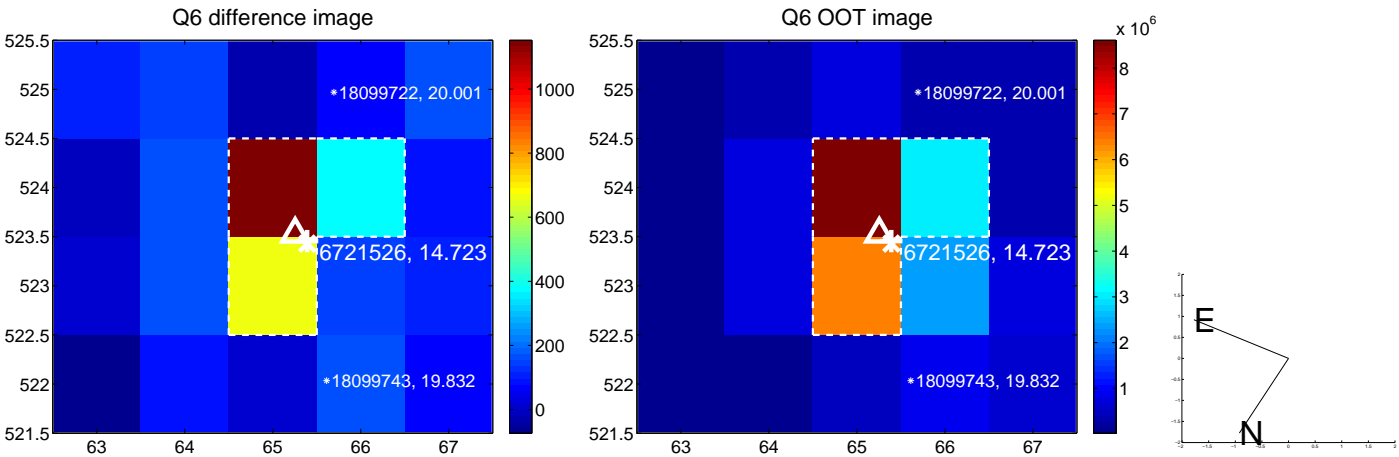
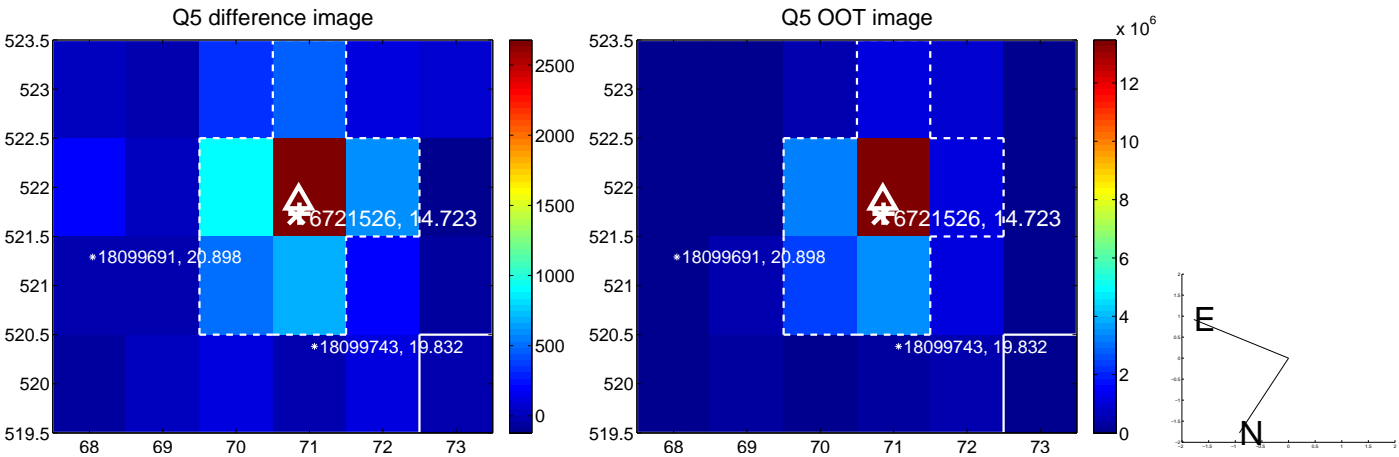


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

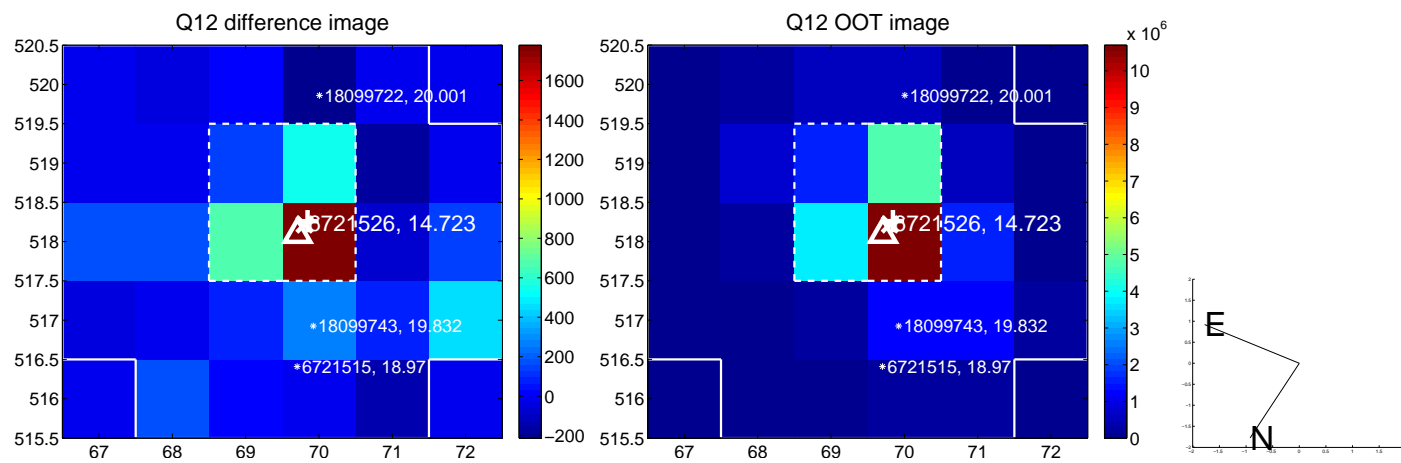
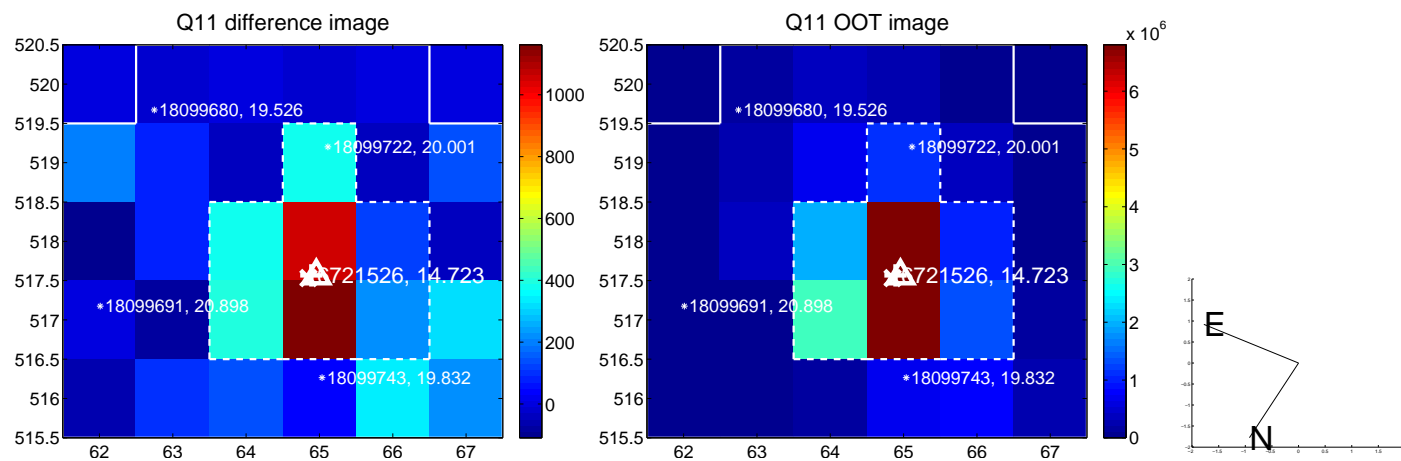
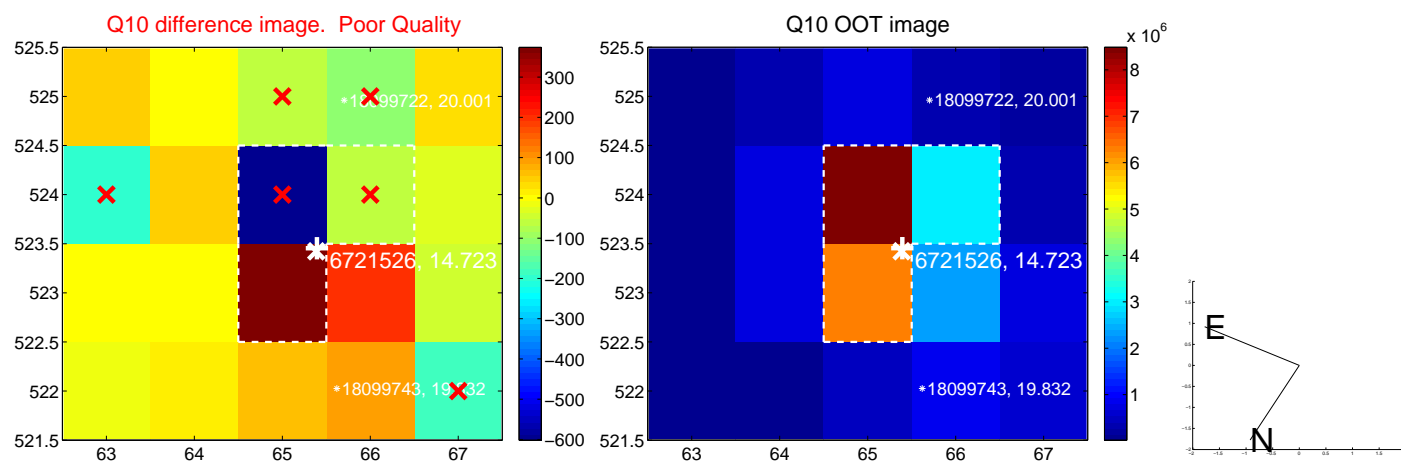
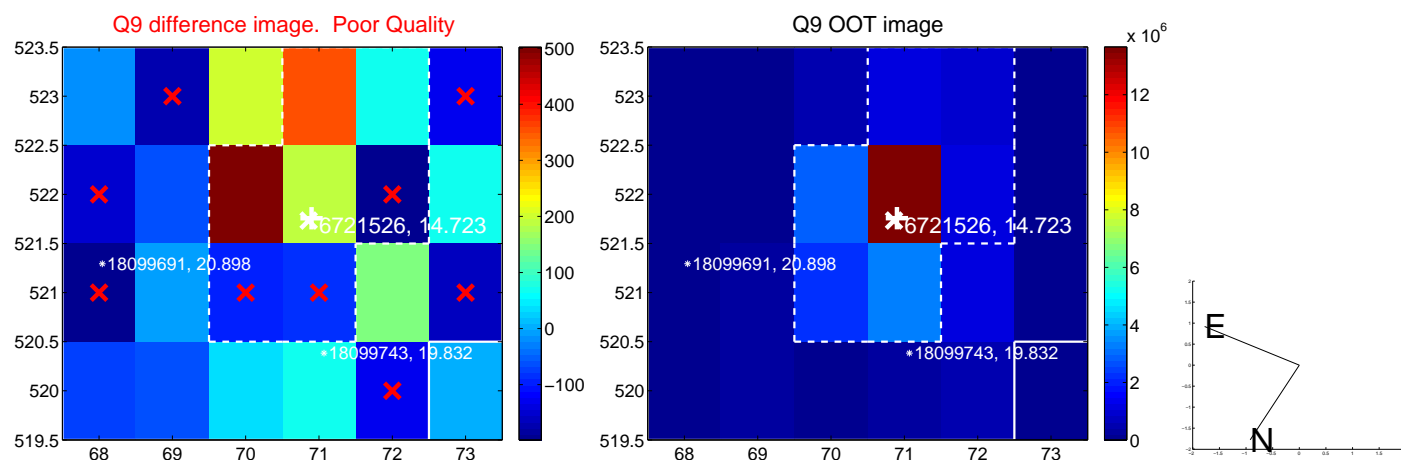
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



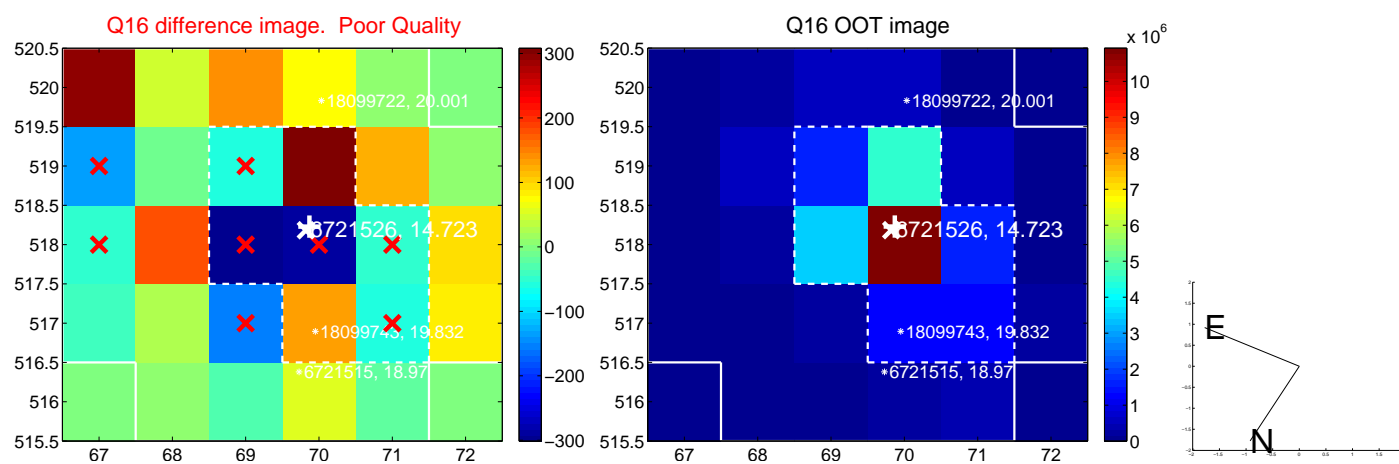
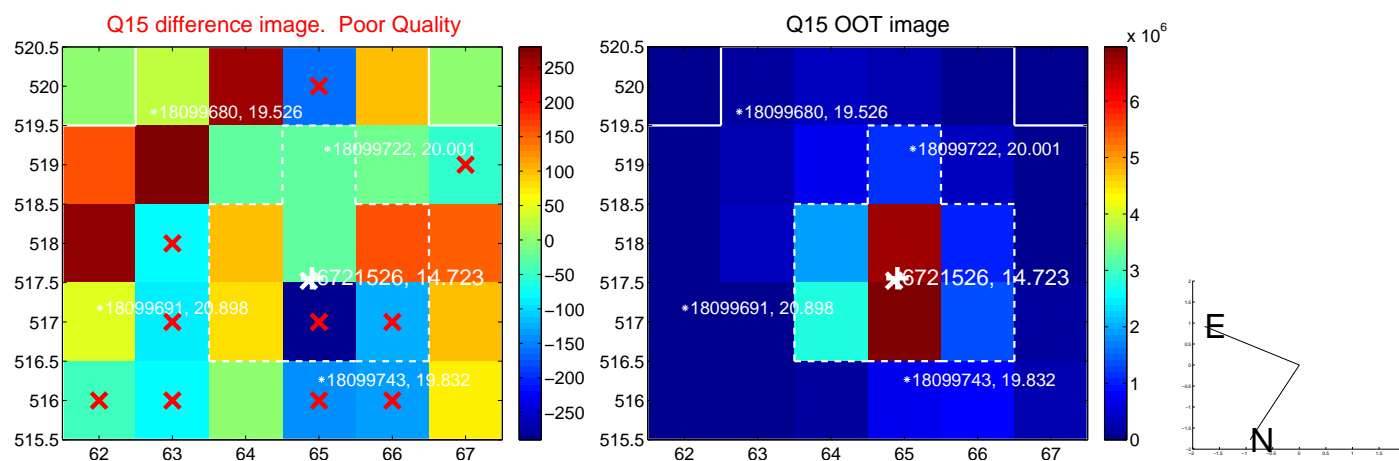
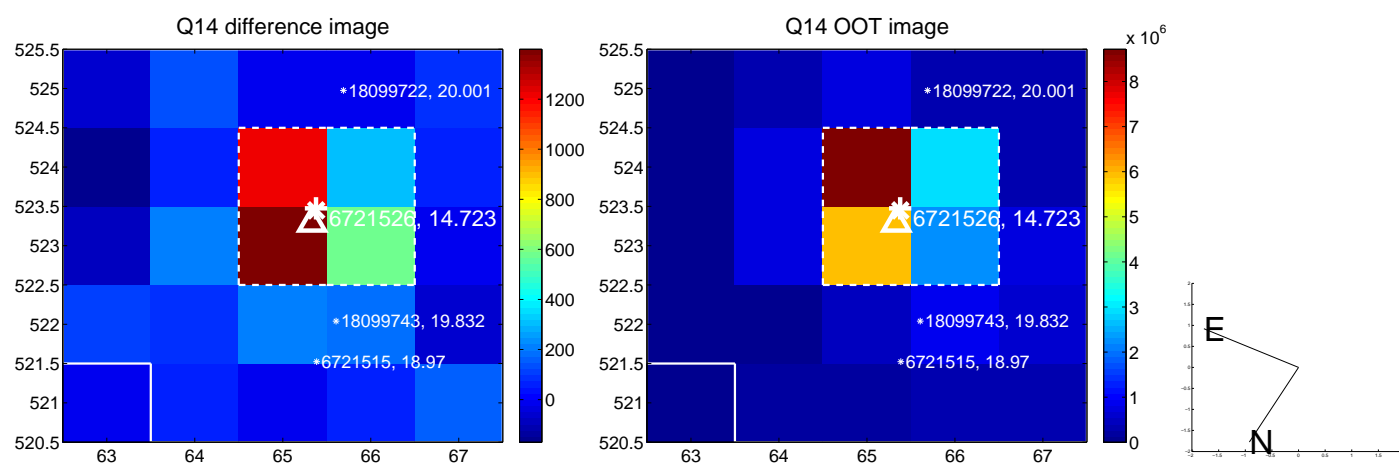
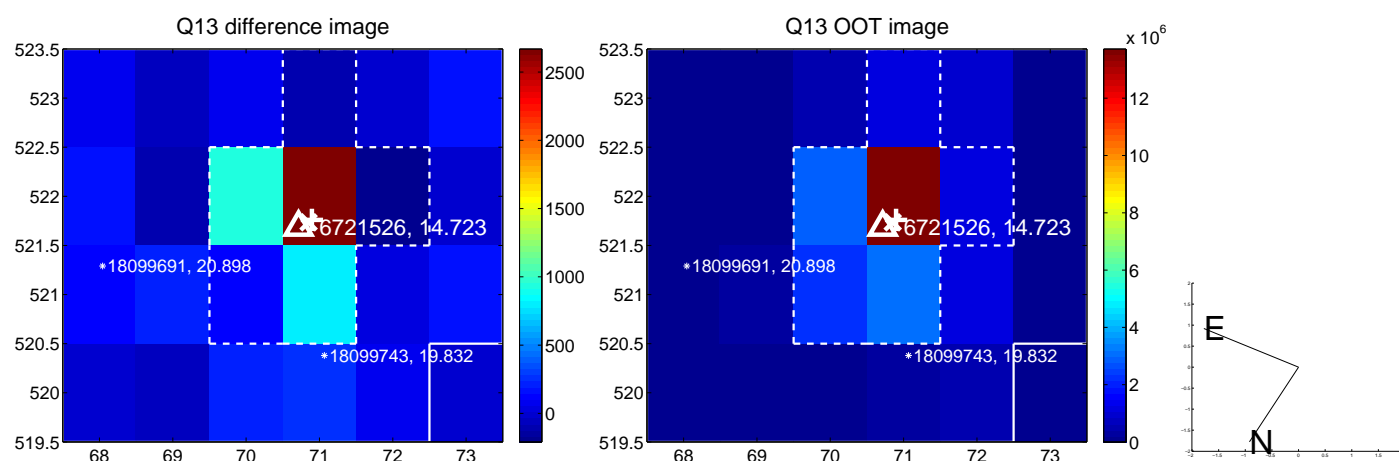
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



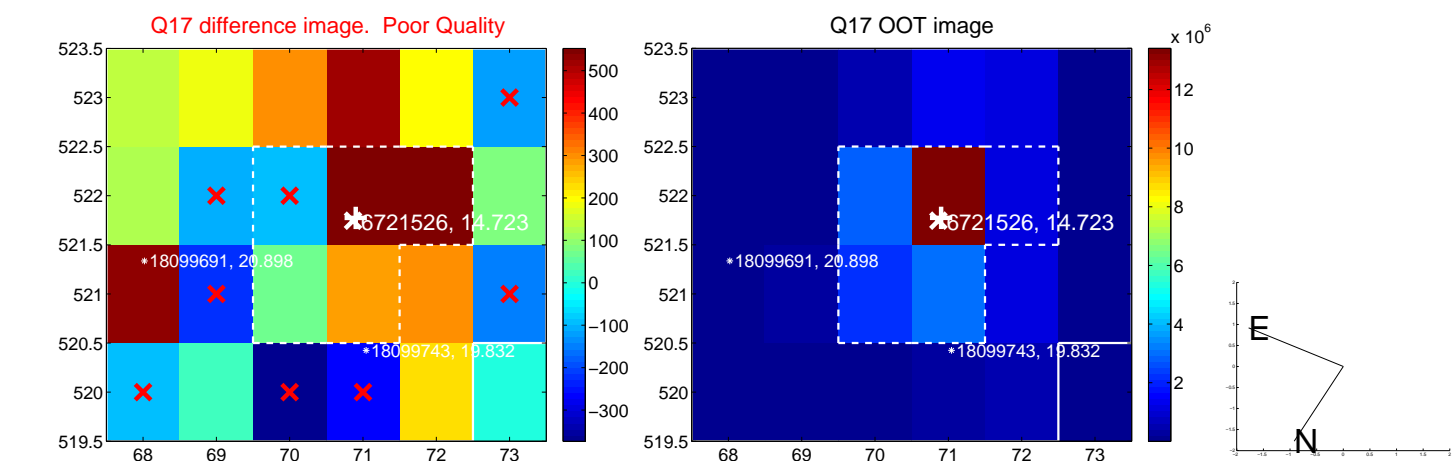
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



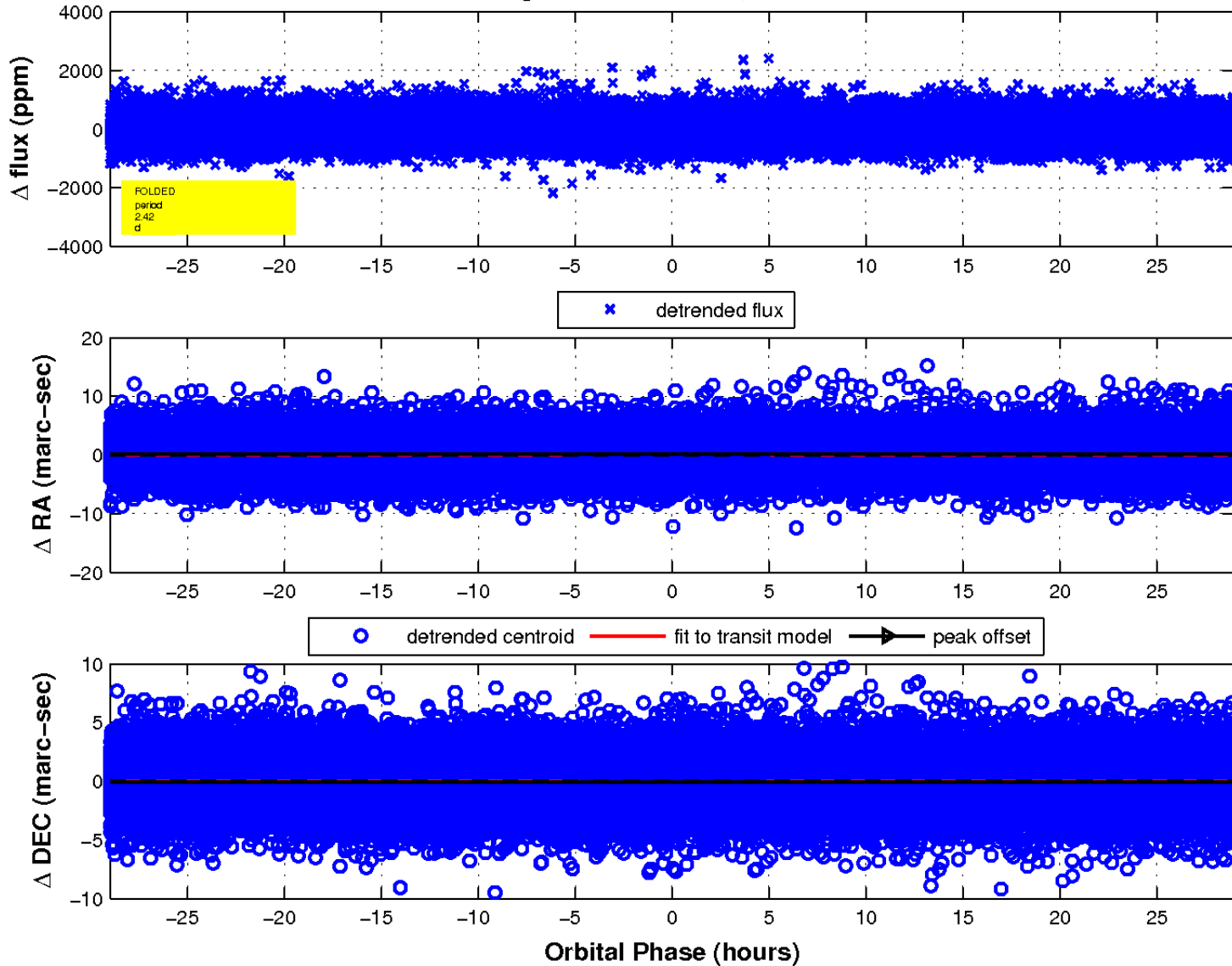
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

