

KIC 011701407

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})
011701407-01	OBS	2376.01	18.826344	134.701383	797.0	2.476	16.3	18.0	0.84	5215	2.72	28.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011701407-01	OBS	PC	0.94	0	0	0	0	NO_COMMENT

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.

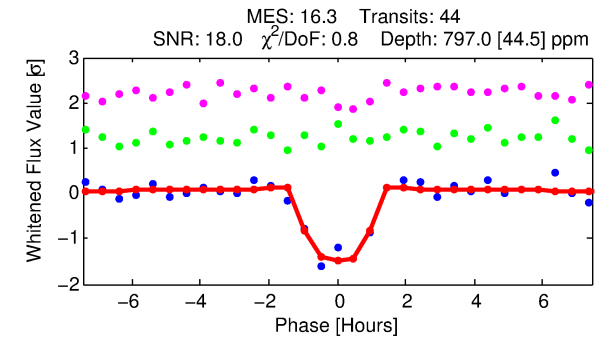
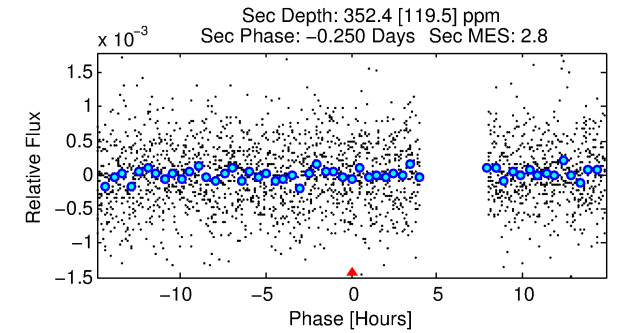
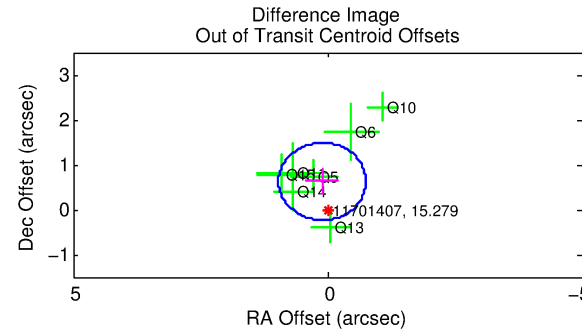
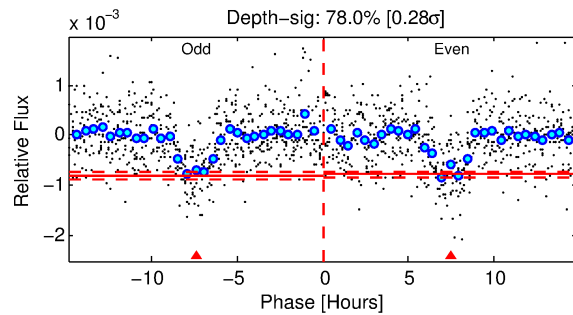
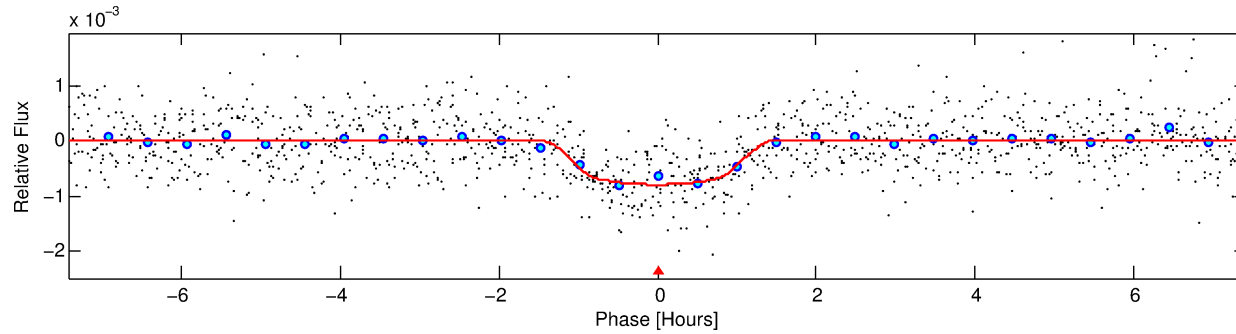
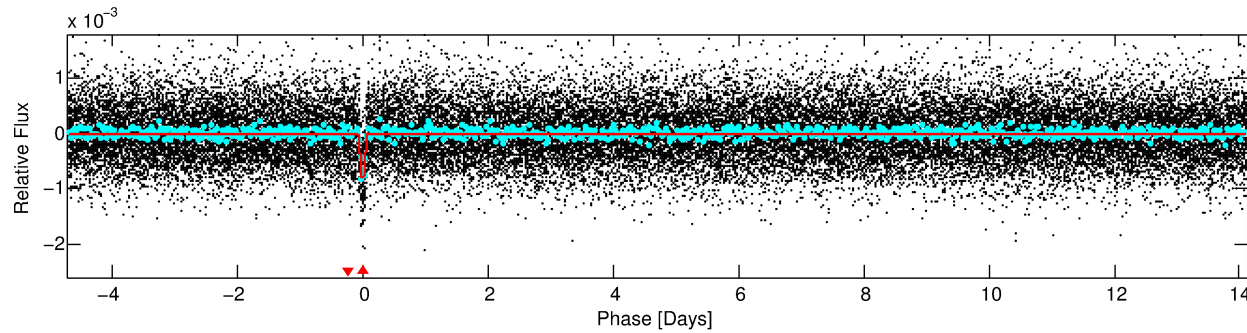
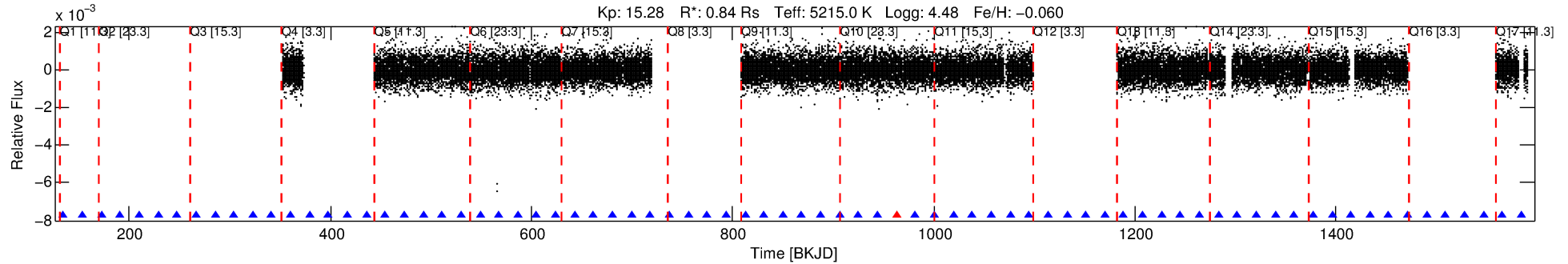
Ephemeris Match Information For 011701407-01

No Significant Match Found

DV One-Page Summary

KIC: 11701407 Candidate: 1 of 1 Period: 18.826 d

KOI: K02376.01 Corr: 0.971



DV Fit Results:

Period = 18.82634 [0.00009] d
Epoch = 134.7014 [0.0042] BKJD
Rp/R* = 0.0295 [0.0124]
a/R* = 35.36 [57.13]
b = 0.83 [0.62]
Seff = 28.89 [7.08]
Teq = 591 [36] K
Rp = 2.72 [1.21] Re
a = 0.1280 [0.0166] AU
Ag = 429.34 [399.65] [1.07 σ]
Teffp = 4161 [957] K [3.73 σ]

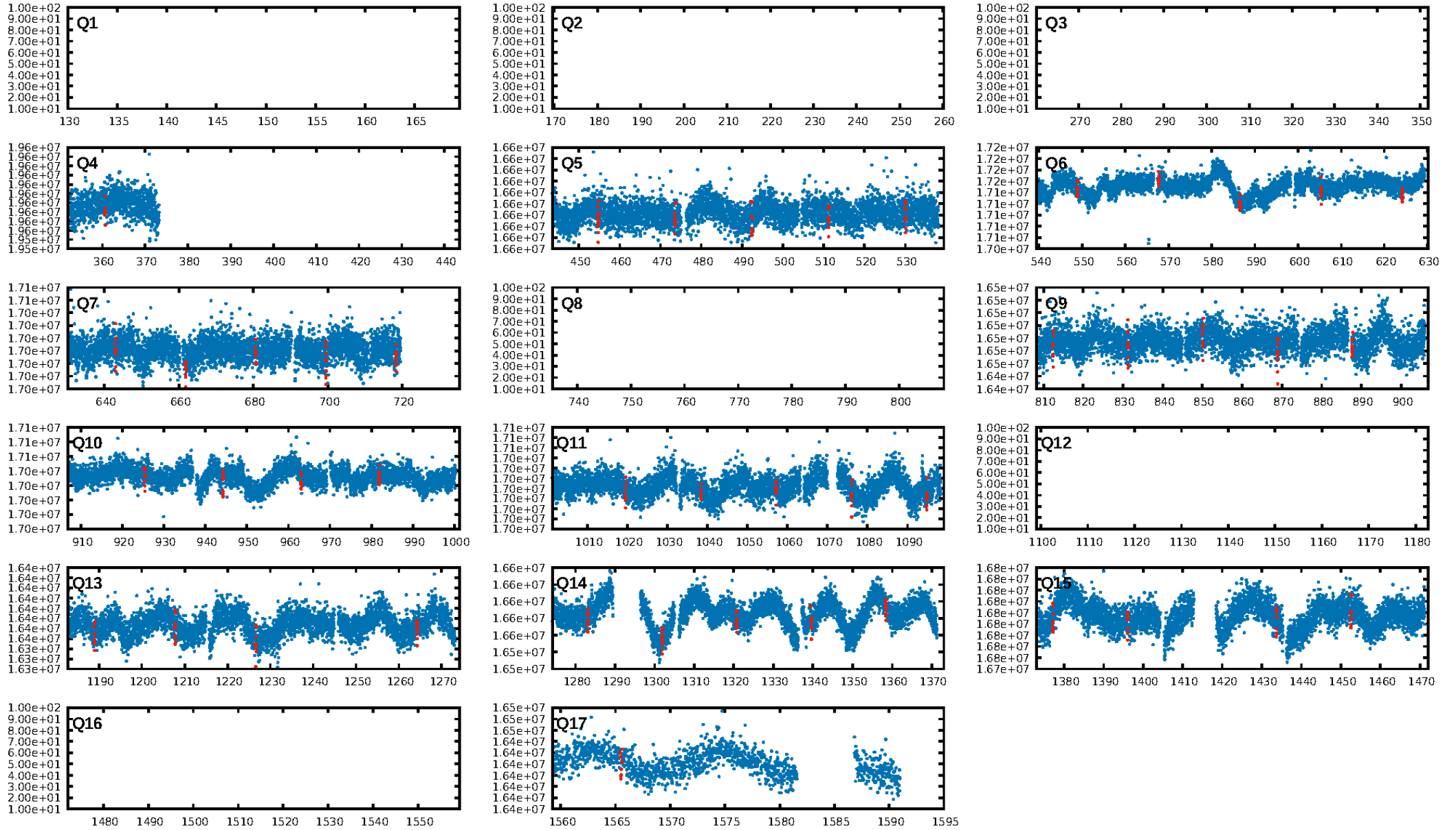
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.09e-59
RollingBand-fgt: 0.98 [41/42]
GhostDiagnostic-chr: -9.015
Centroid-sig: 43.5%
Centroid-so: 1.022 arcsec [1.44 σ]
OotOffset-rm: 0.635 arcsec [2.22 σ]
KicOffset-rm: 0.476 arcsec [1.40 σ]
OotOffset-st: 3/2/0/2 [7]
KicOffset-st: 3/2/0/2 [7]
DiffImageQuality-fgm: 1.00 [7/7]
DiffImageOverlap-fno: 1.00 [11/11]

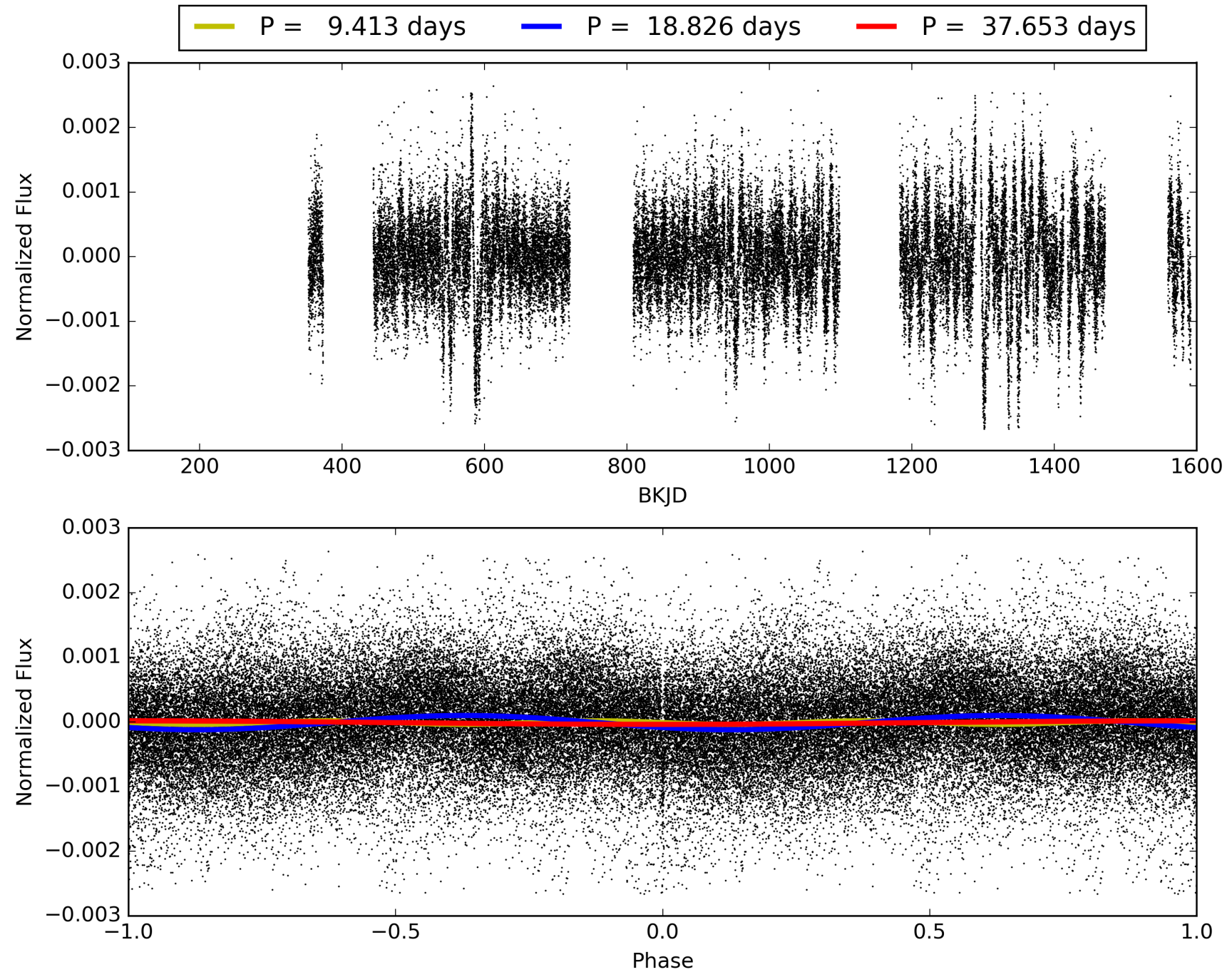
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 18:55:18 Z

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

TCE 011701407-01, PDC Light Curves

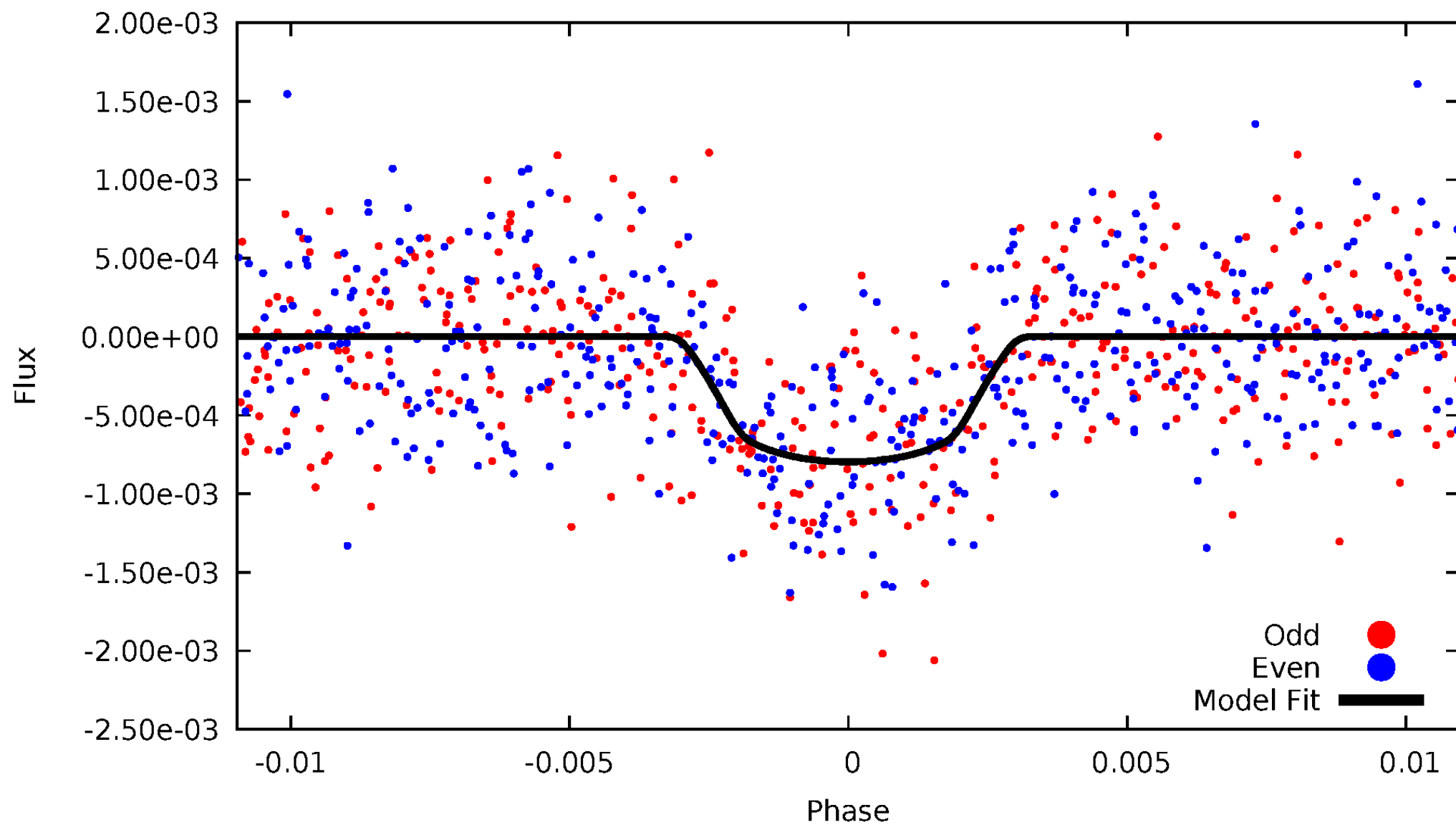


TCE 011701407-01



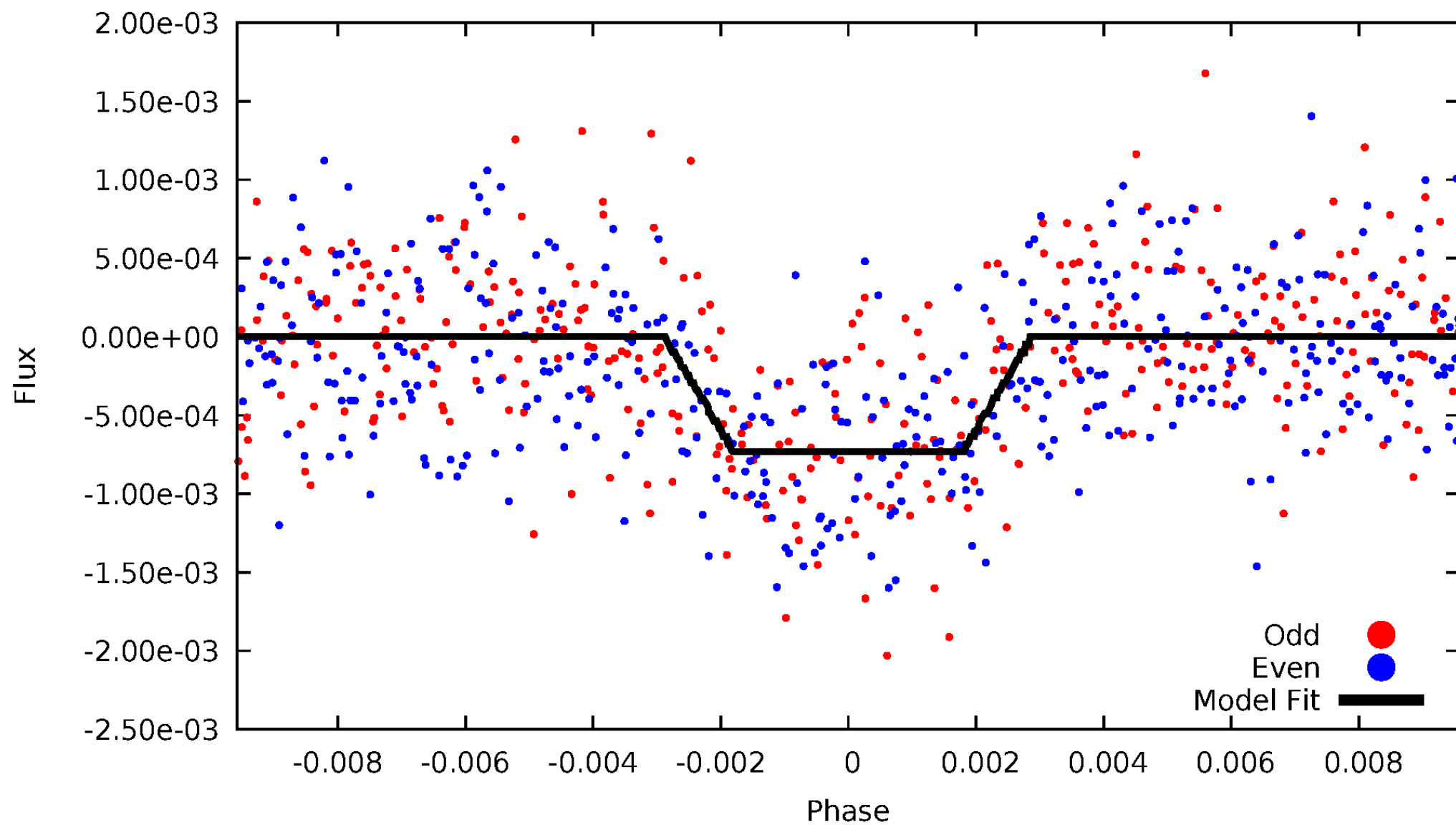
DV Odd/Even

TCE 011701407-01



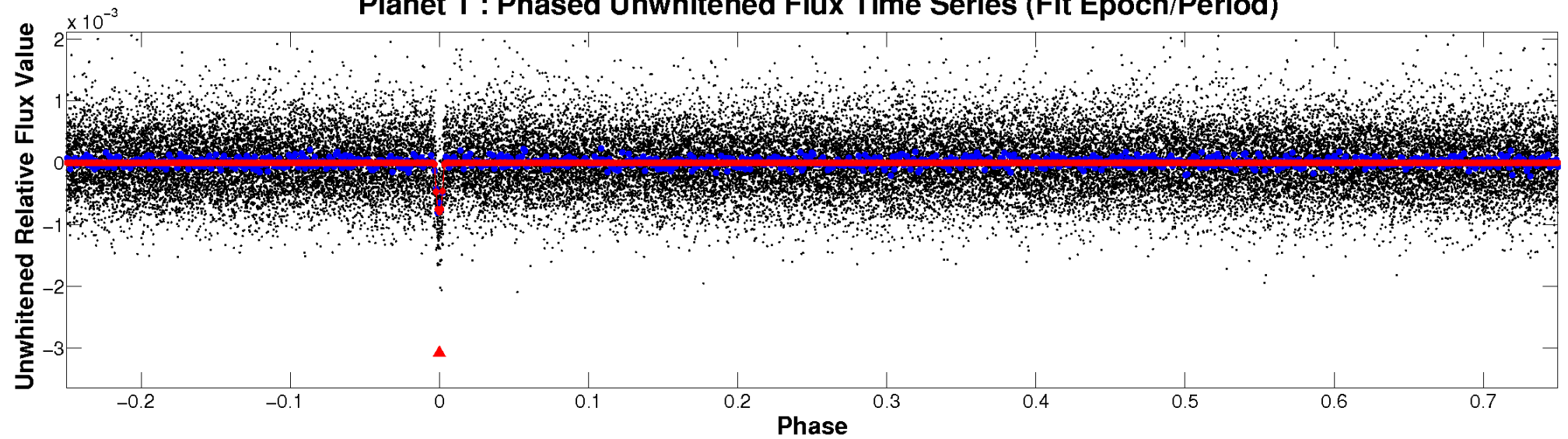
ALT Odd/Even

TCE 011701407-01

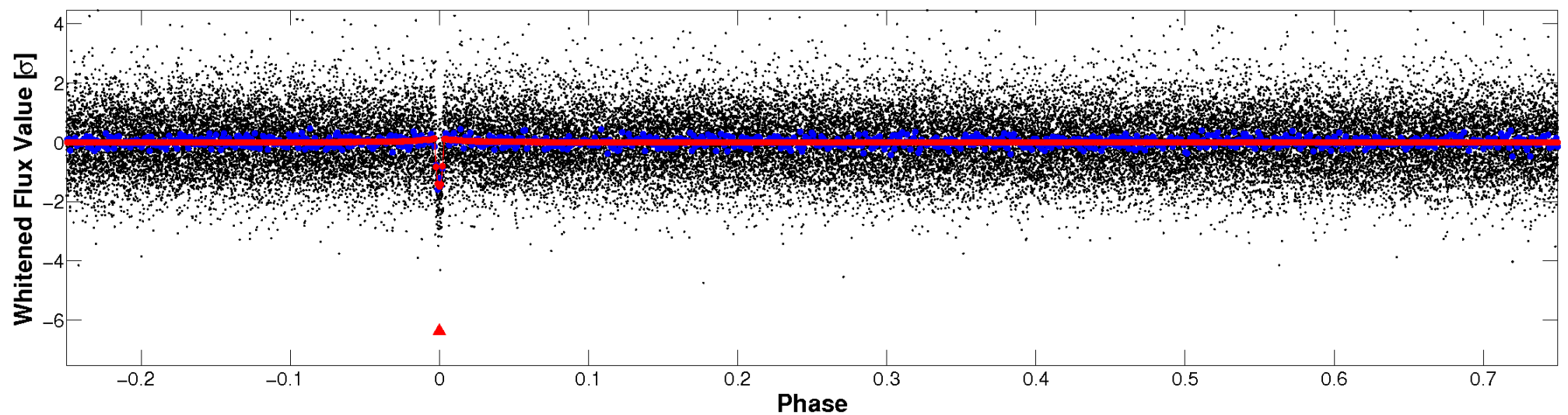


Non-Whitened Vs. Whitened Light Curve

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

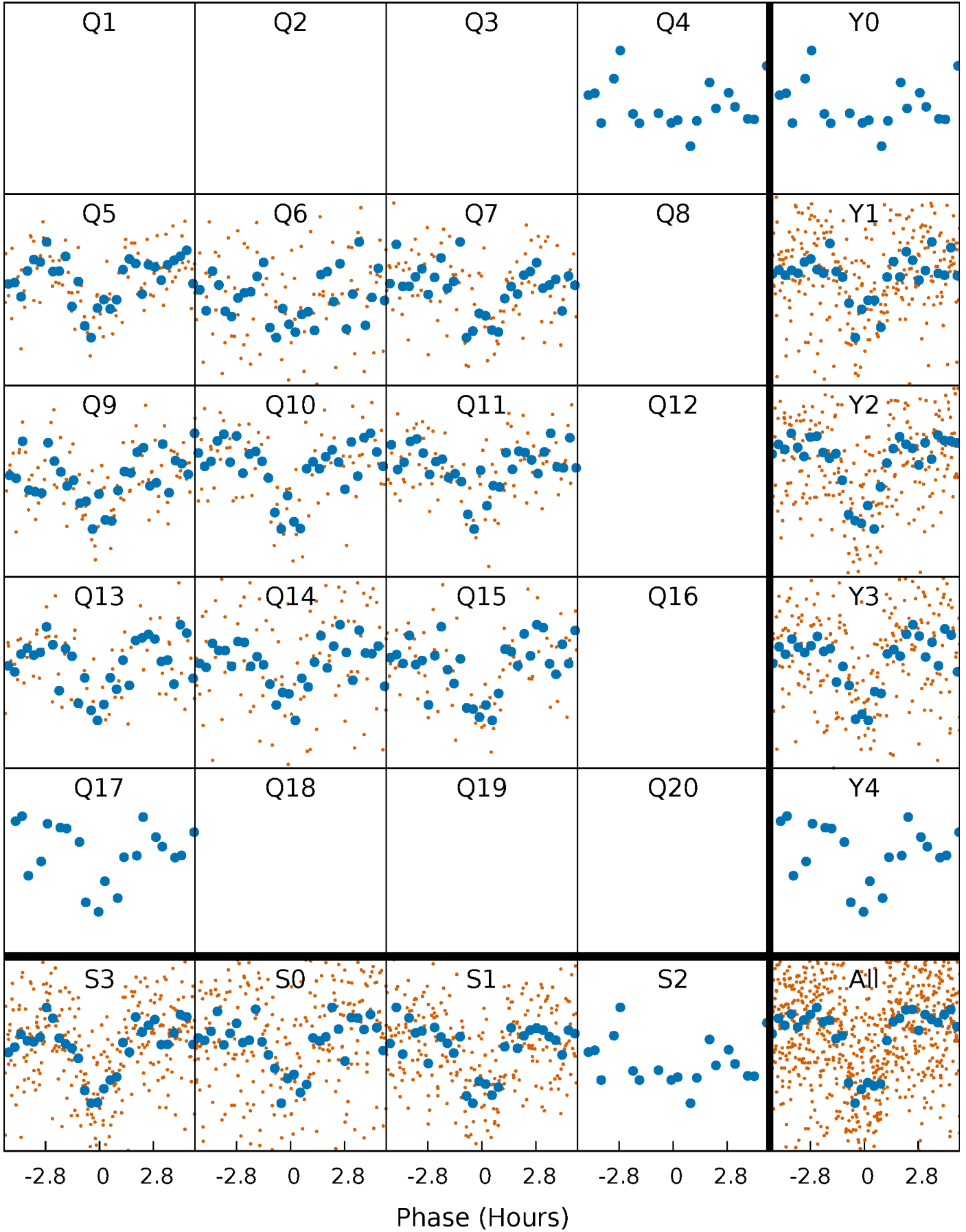


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



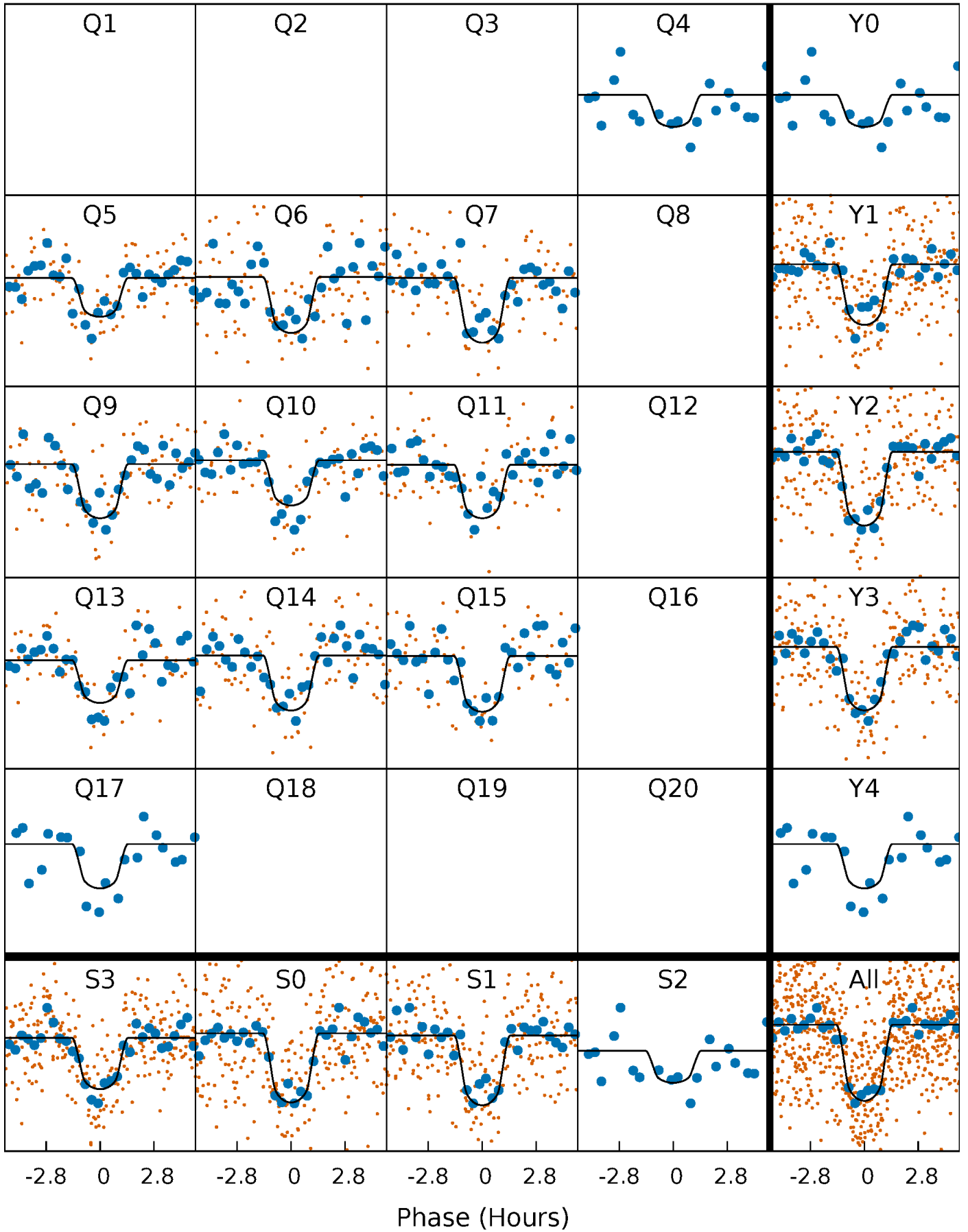
PDC Quarter-Phased Transit Curves

TCE 011701407-01 P= 18.826344 Days $T_0=134.701383$ (BKJD)



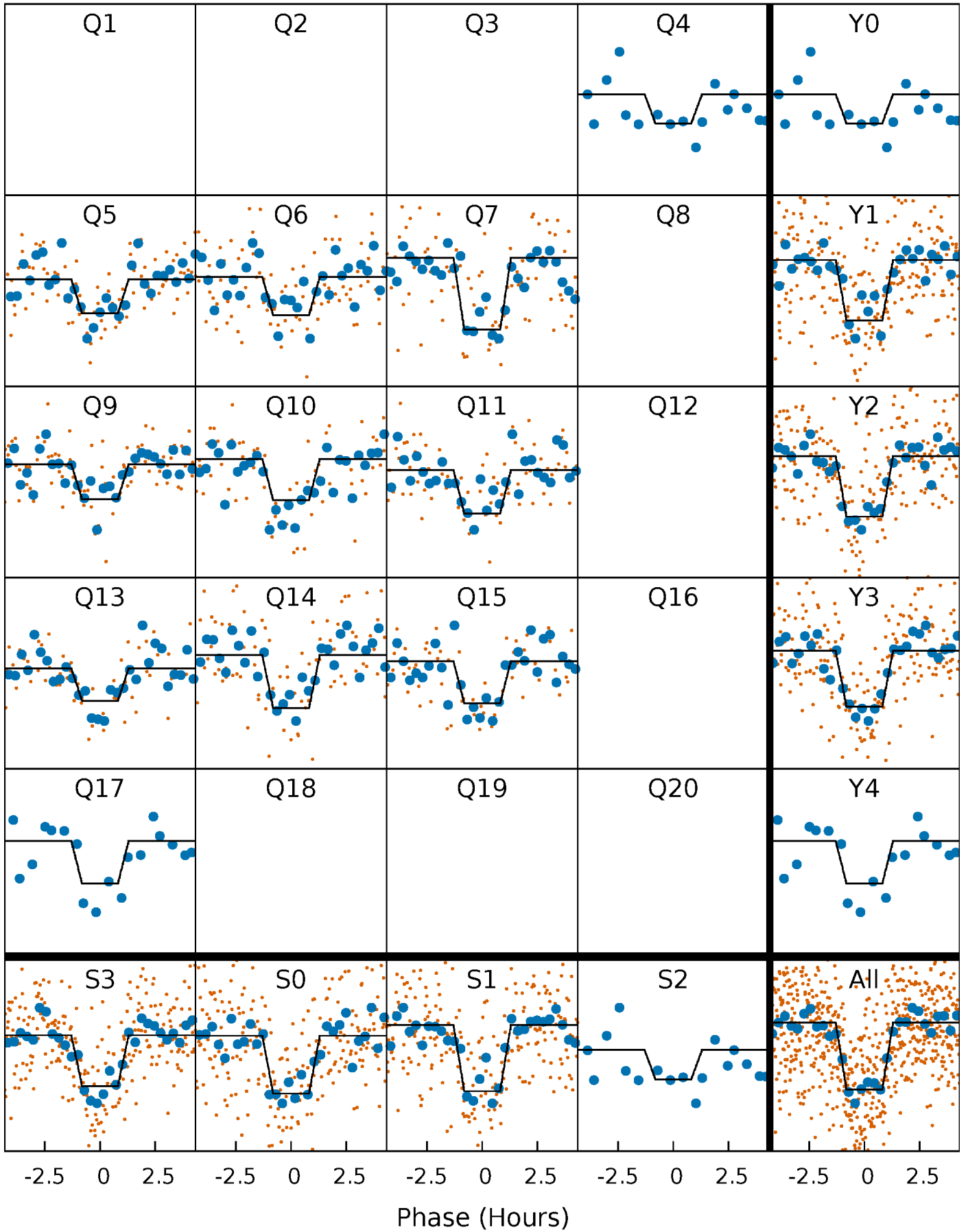
DV Quarter-Phased Transit Curves

TCE 011701407-01 P= 18.826344 Days $T_0=134.701383$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

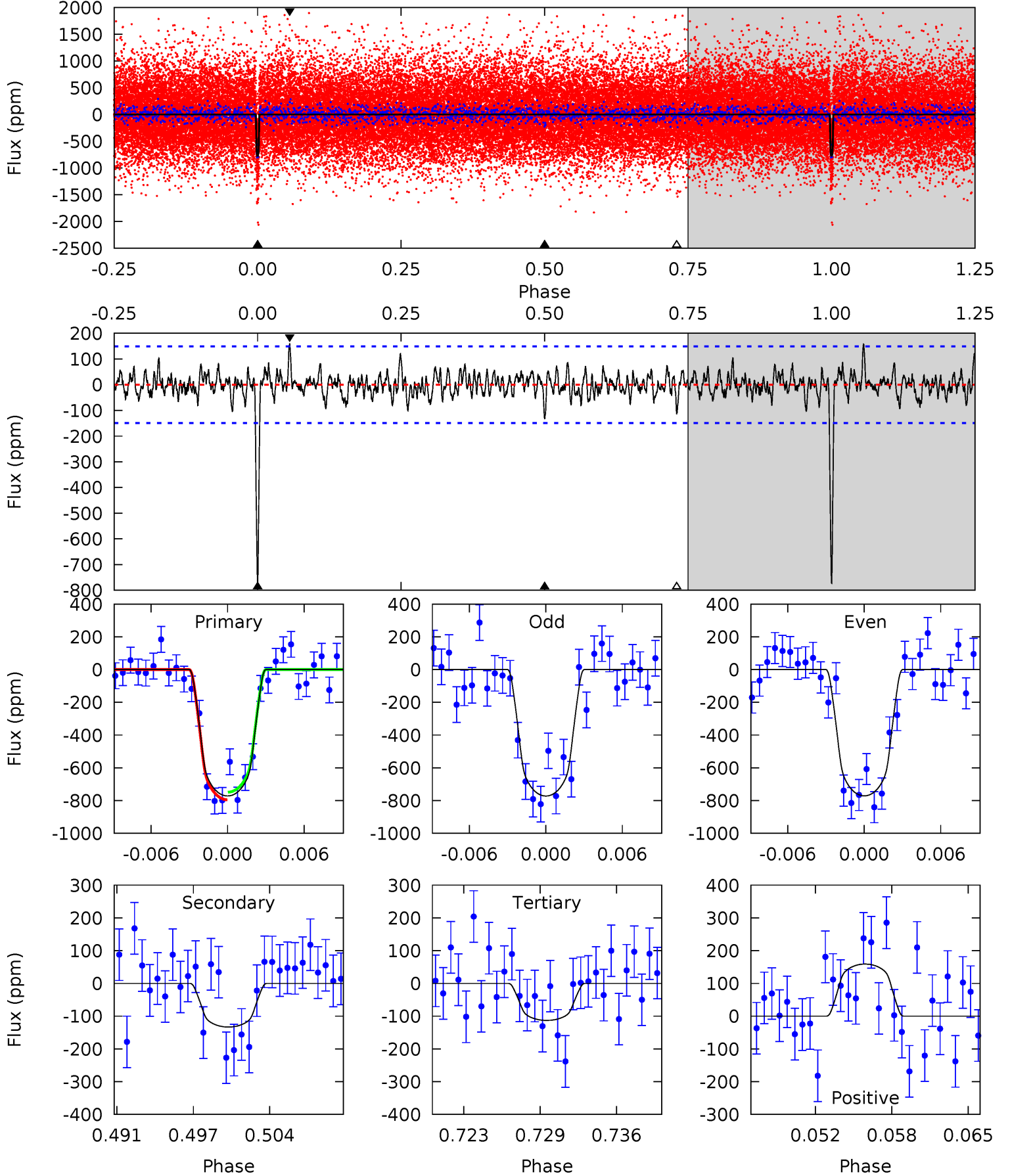
TCE 011701407-01 P= 18.826407 Days $T_0=134.699087$ (BKJD)



DV Model-Shift Uniqueness Test

011701407-01, P = 18.826344 Days, E = 134.701383 Days

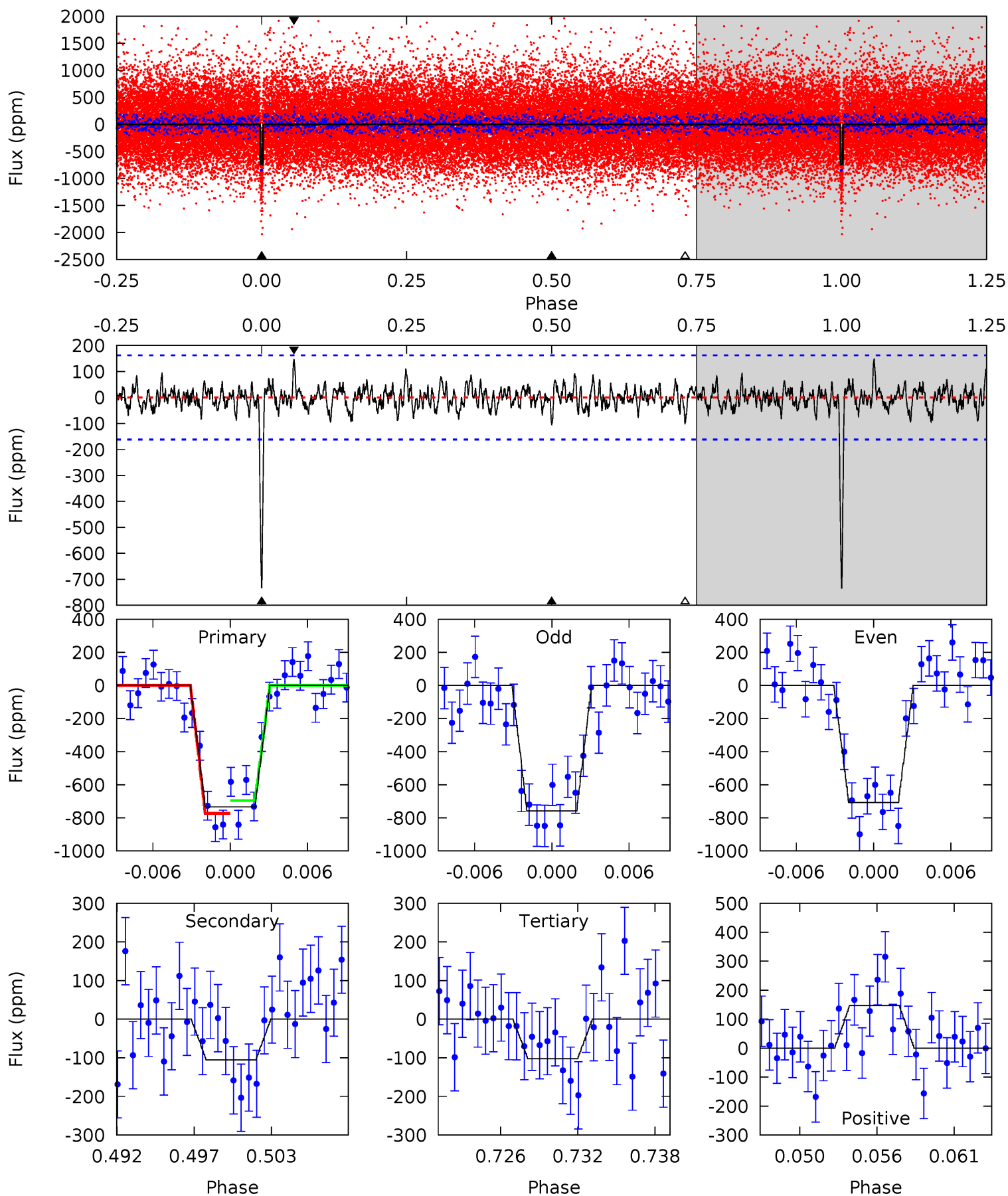
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.5	4.57	3.87	5.45	5.11	2.72	1.23	22.6	21.0	0.70	-0.88	0.02	0.93	0.17	0.80



Alt Model-Shift Uniqueness Test

011701407-01, P = 18.826407 Days, E = 134.699087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
23.3	3.33	3.25	4.67	5.14	2.77	1.09	20.0	18.6	0.08	-1.33	0.82	0.93	0.17	1.22



Stellar Parameters For KIC 011701407

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5215^{+184}_{-184}	$4.481^{+0.105}_{-0.115}$	$-0.060^{+0.300}_{-0.300}$	$0.845^{+0.120}_{-0.109}$	$0.787^{+0.112}_{-0.060}$	$1.839^{+0.778}_{-0.589}$
	+4%/-4%	+2%/-3%	+500%/-500%	+14%/-13%	+14%/-8%	+42%/-32%
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 011701407-01 / KOI 2376.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-133 ± 29	$2.71^{+1.19}_{-1.15}$	827^{+44}_{-42}	3664^{+763}_{-405}	166^{+305}_{-91}
Alt.	-105 ± 32	$2.47^{+1.37}_{-1.06}$	831^{+44}_{-46}	3606^{+822}_{-462}	149^{+335}_{-90}

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 $A_{obs} \gg 1.0$

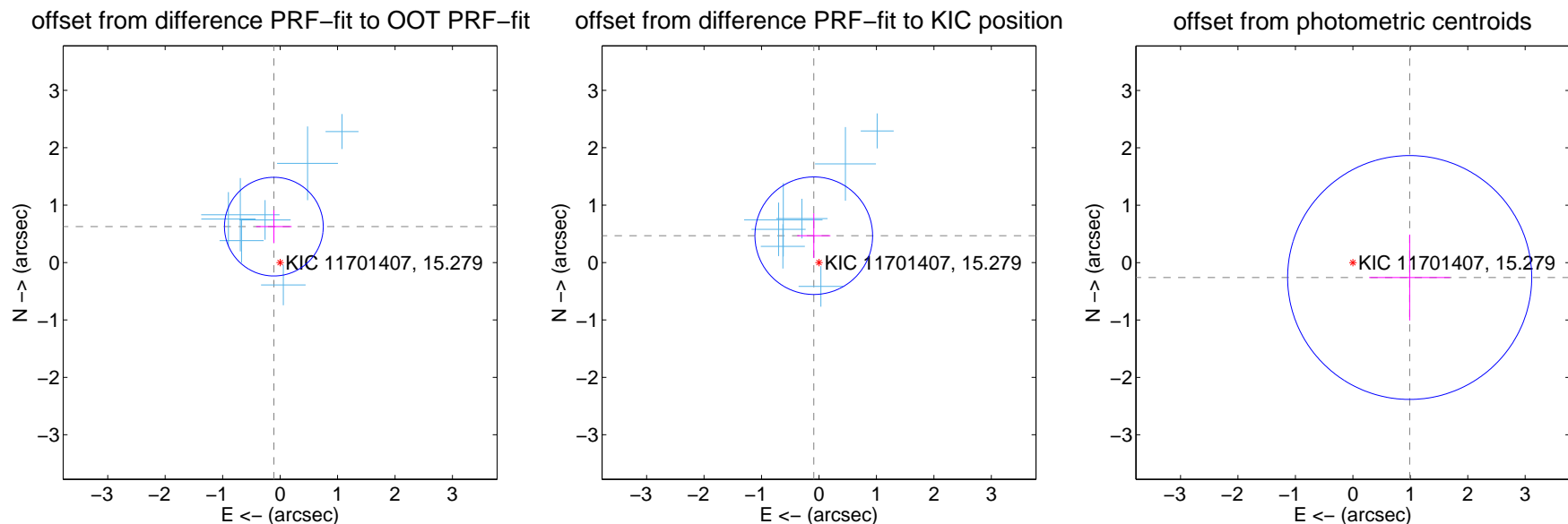
DV Centroid Data

Supplemental centroid analysis for 011701407-01. Kepler magnitude: 15.28. Transit SNR 17.99

There are 7 quarters with good PRF difference image offsets

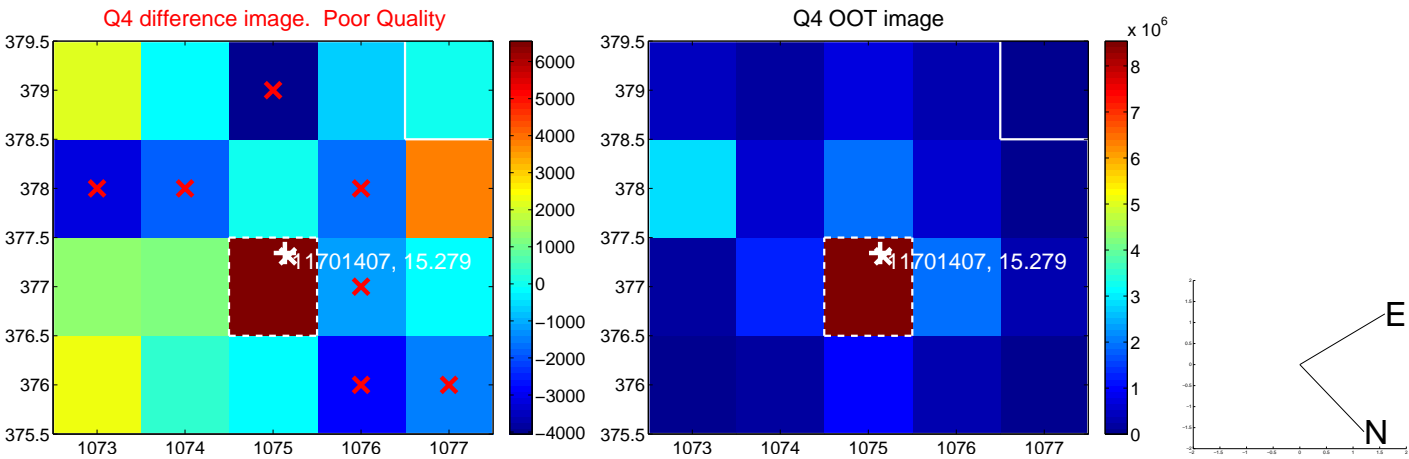
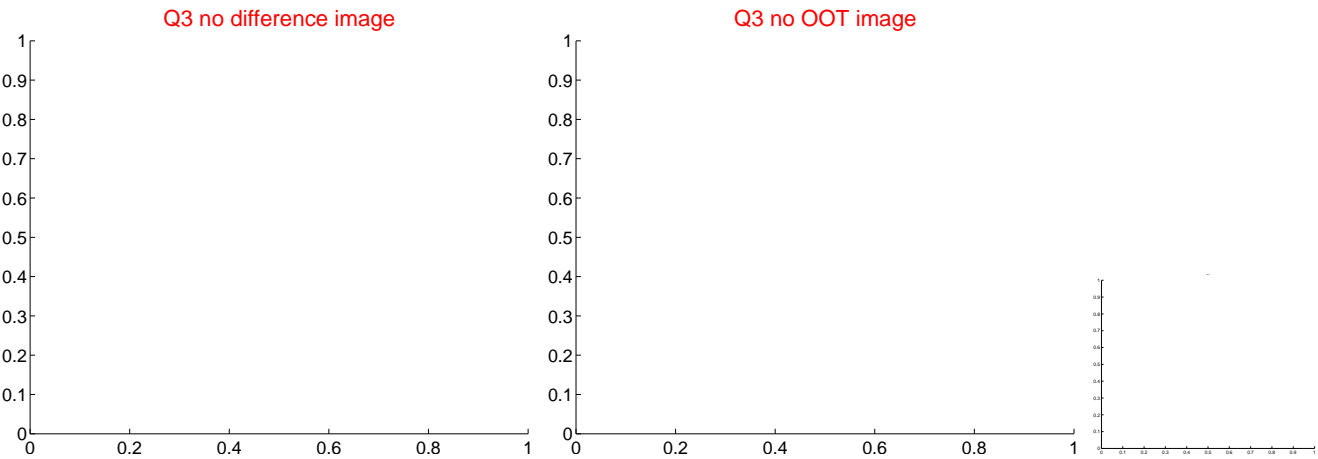
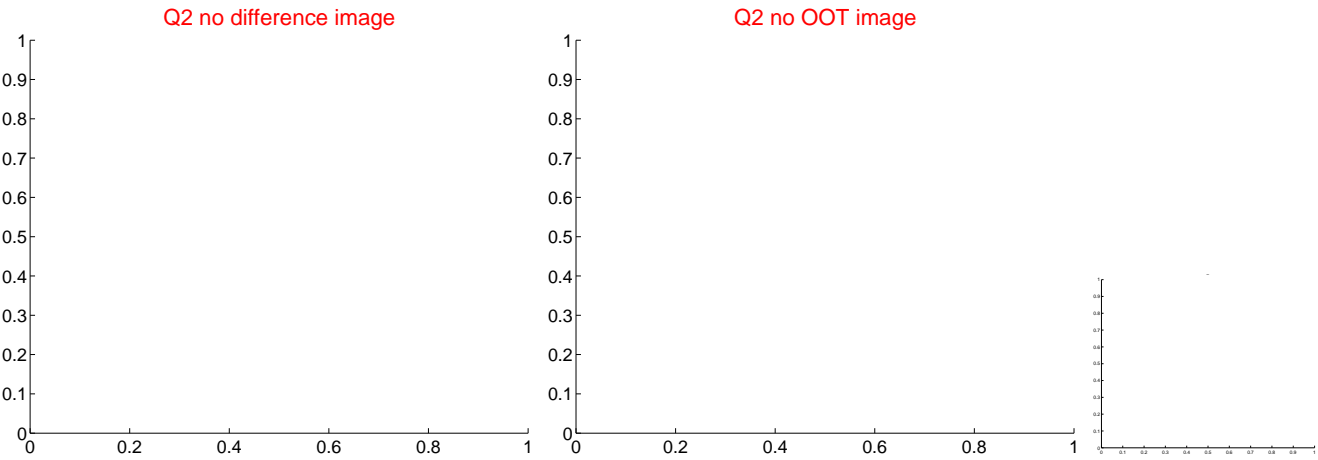
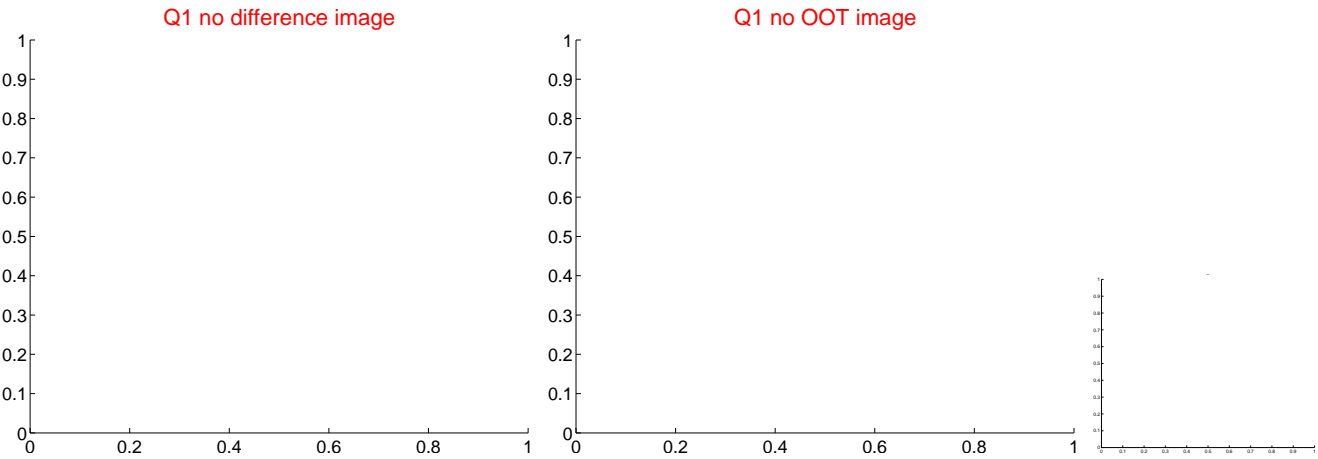
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.635 ± 0.286	2.22	0.109 ± 0.309	0.625 ± 0.286
PRF-fit source offset from KIC position	0.476 ± 0.341	1.40	0.091 ± 0.289	0.467 ± 0.389
photometric centroid source offset	1.02 ± 0.71	1.44	-0.99 ± 0.71	-0.26 ± 0.75

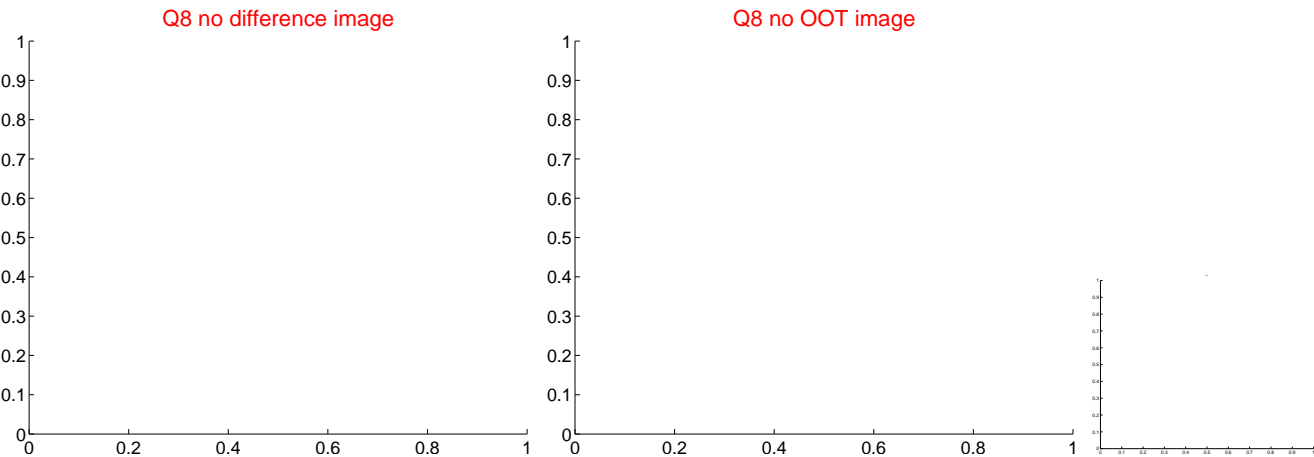
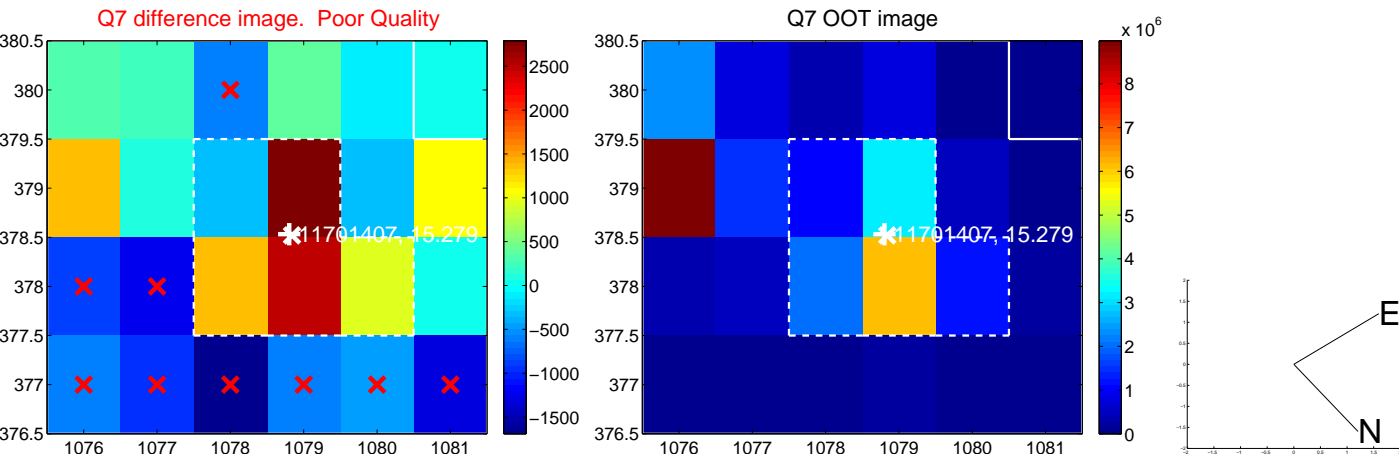
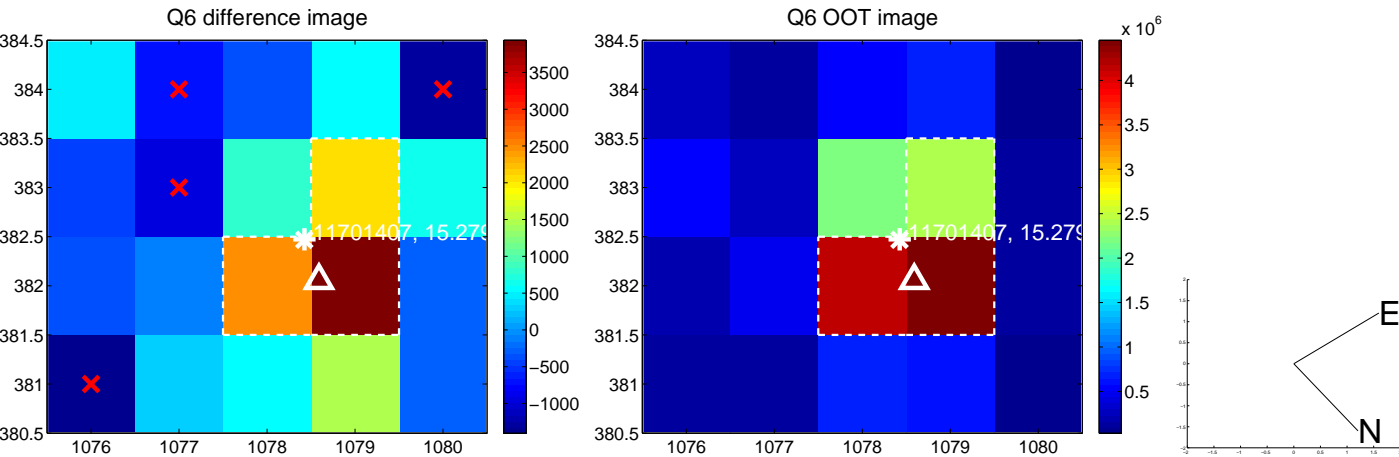
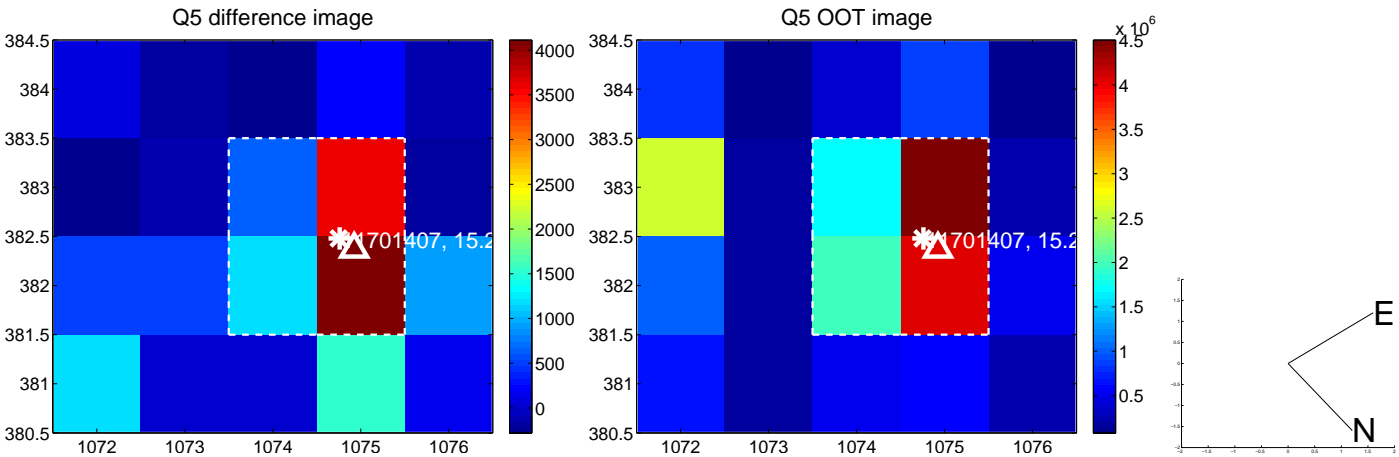


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

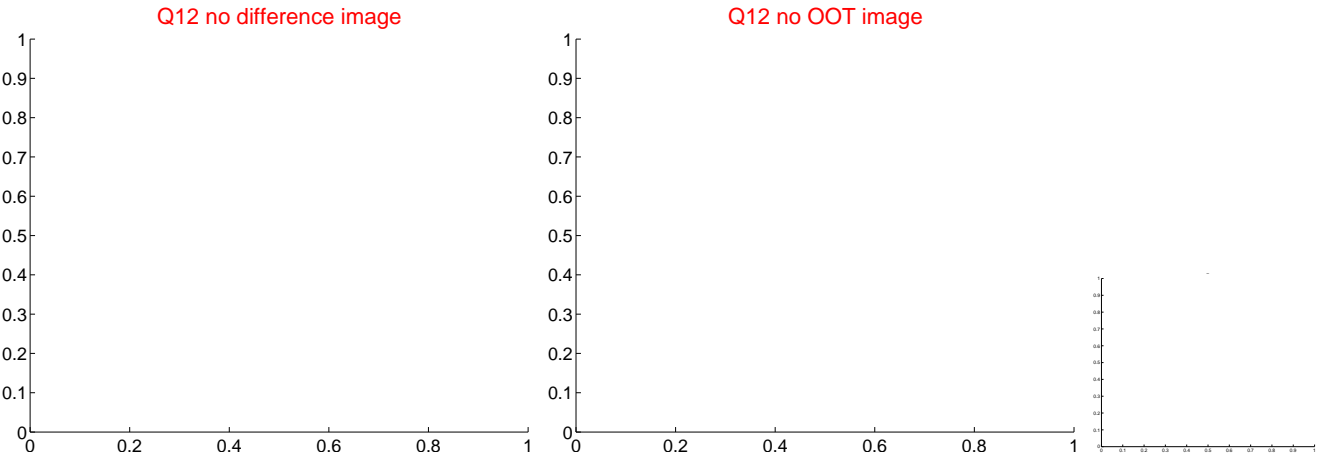
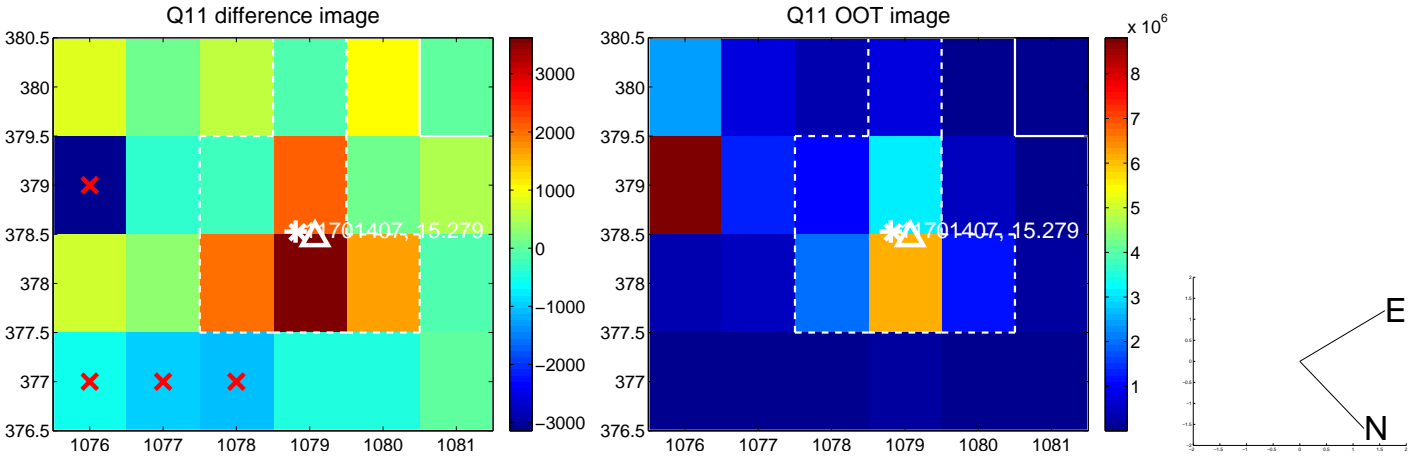
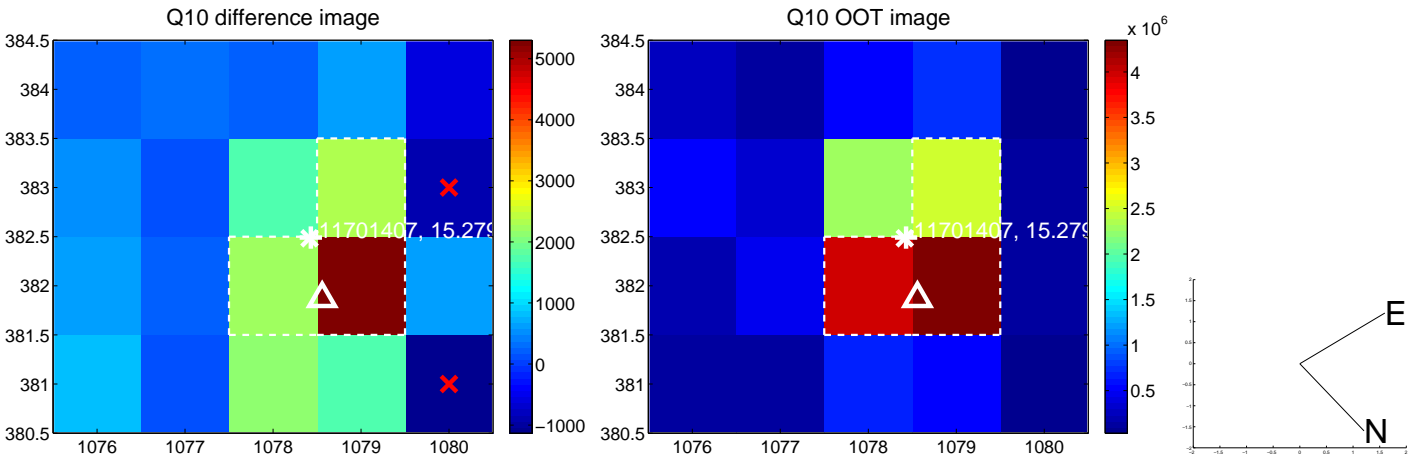
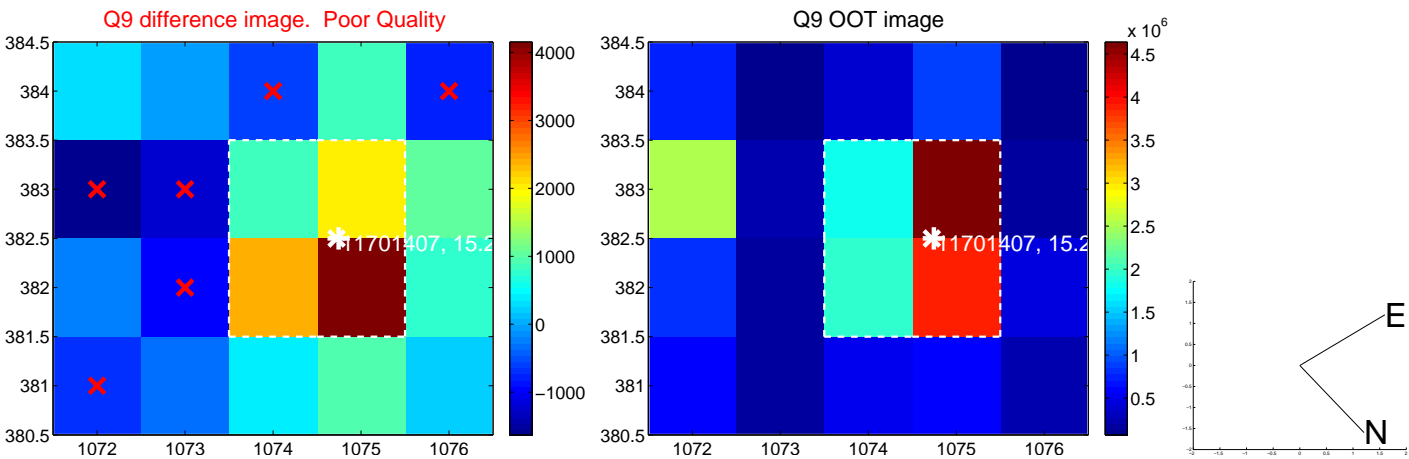
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



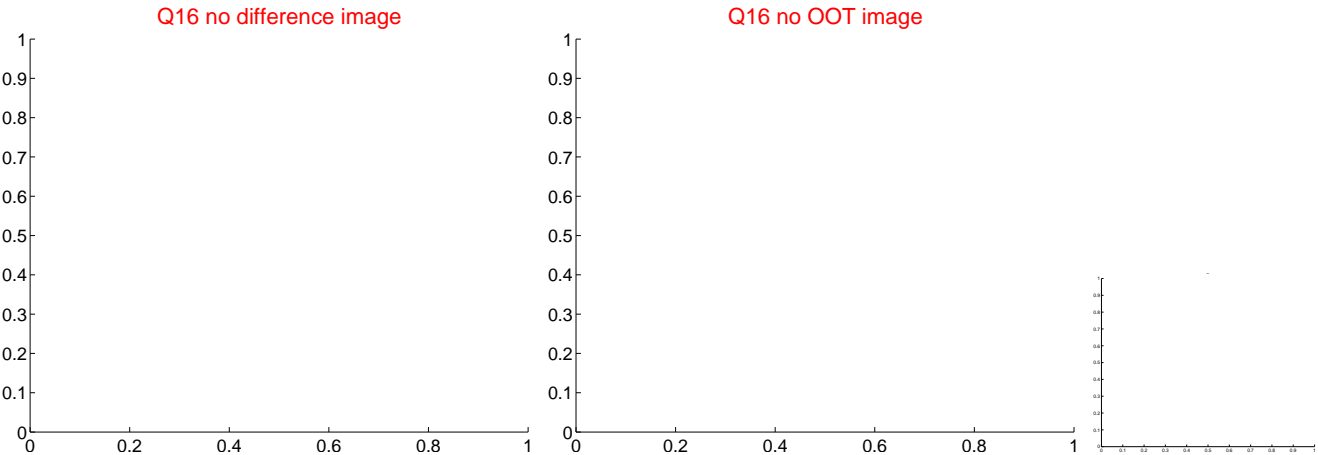
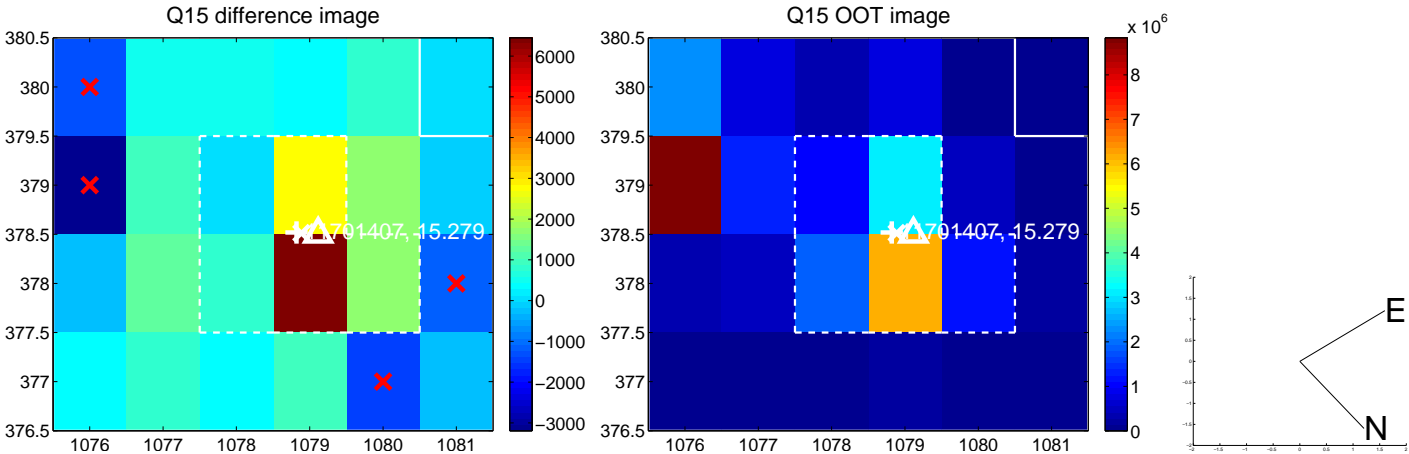
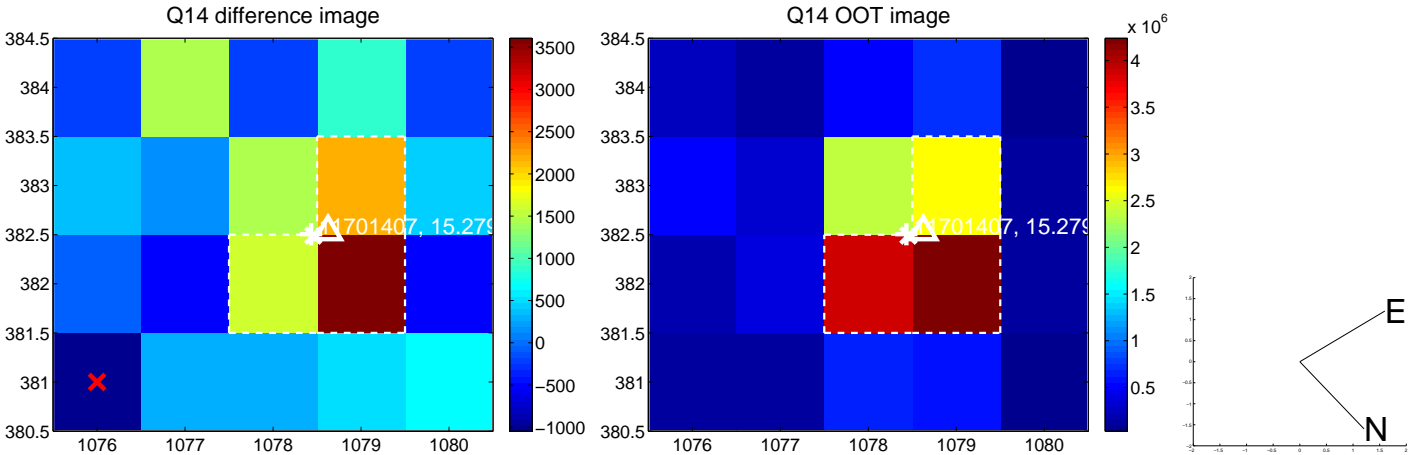
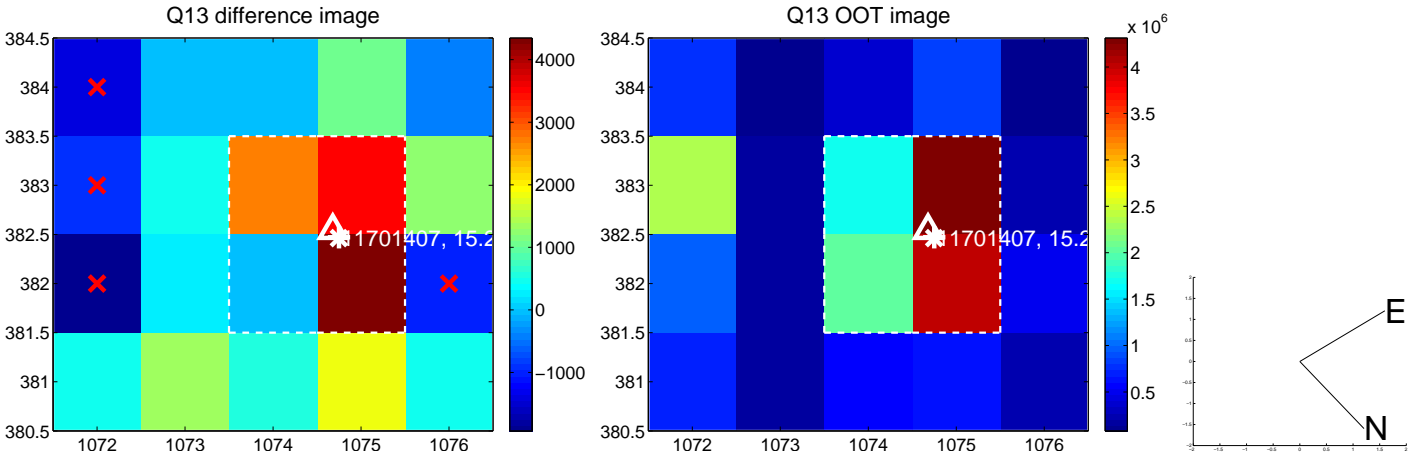
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



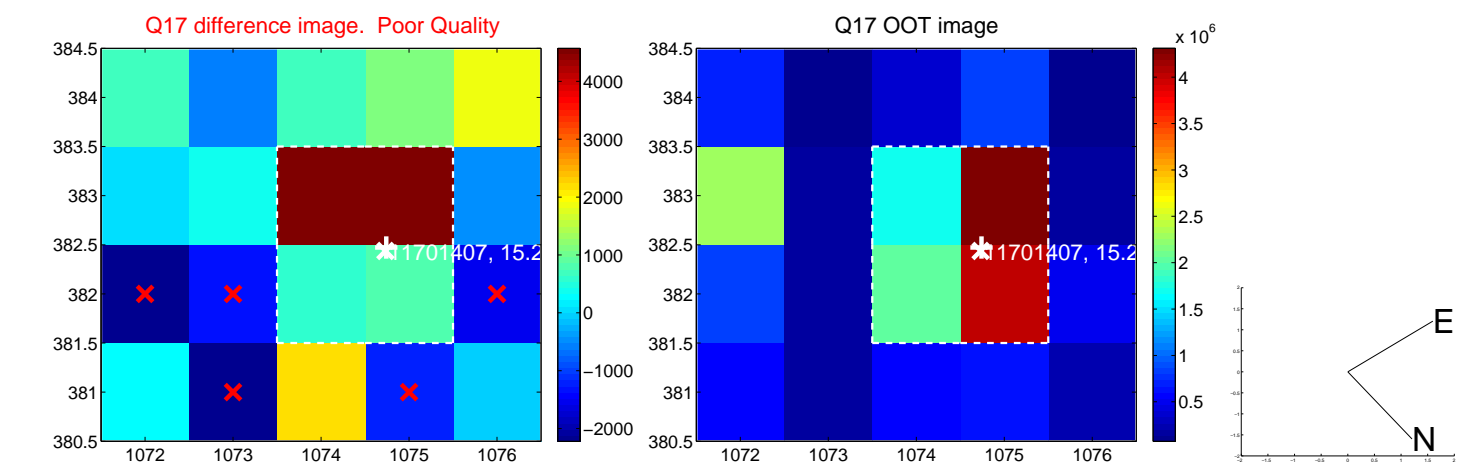
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



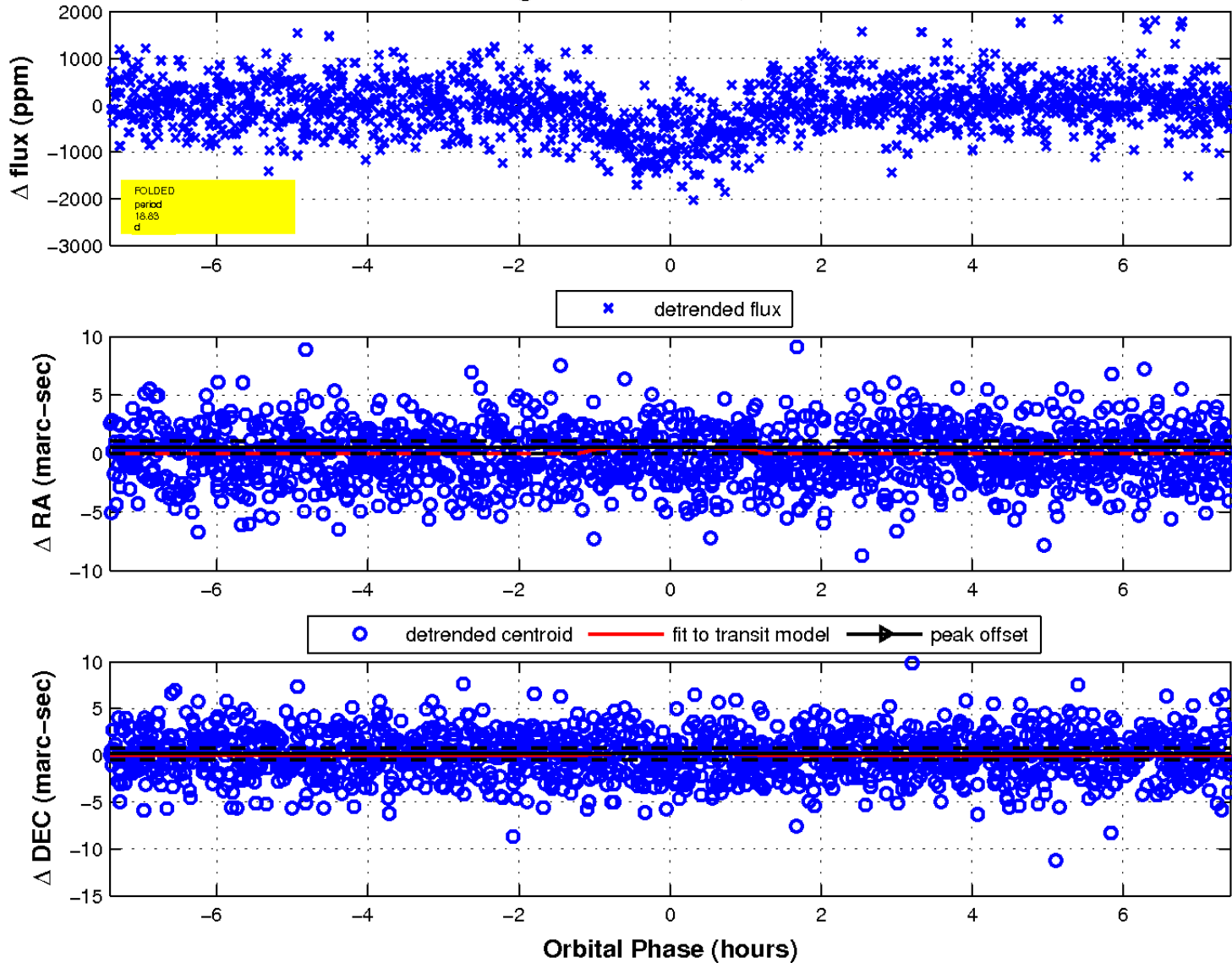
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

