

KIC 002715194

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})
002715194-01	OBS	No	373.610343	421.082776	781.1	14.097	11.0	8.8	0.92	5861	2.65	0.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002715194-01	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

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

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

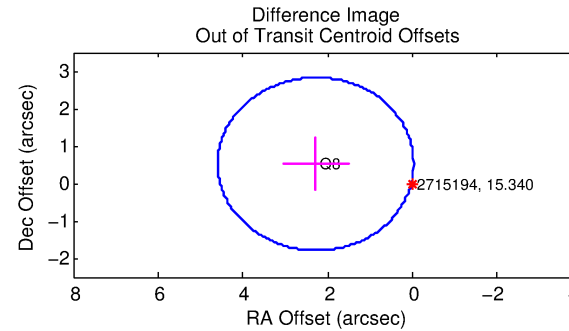
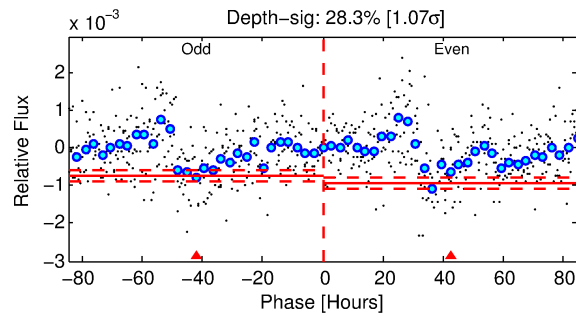
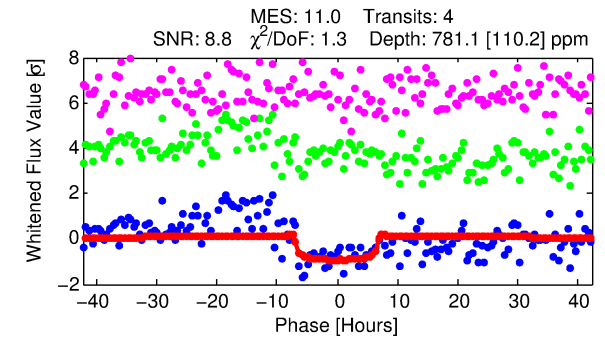
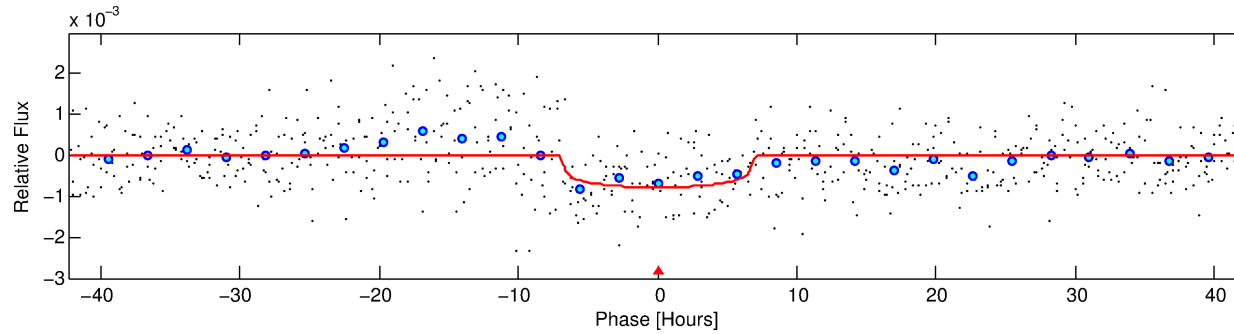
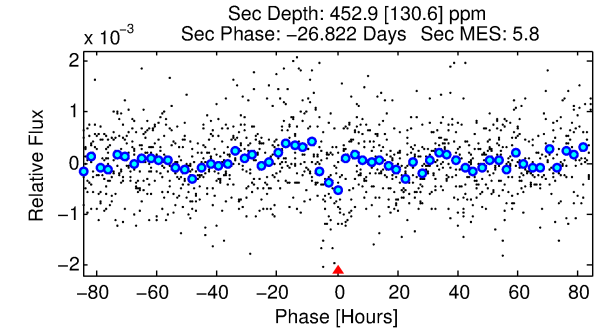
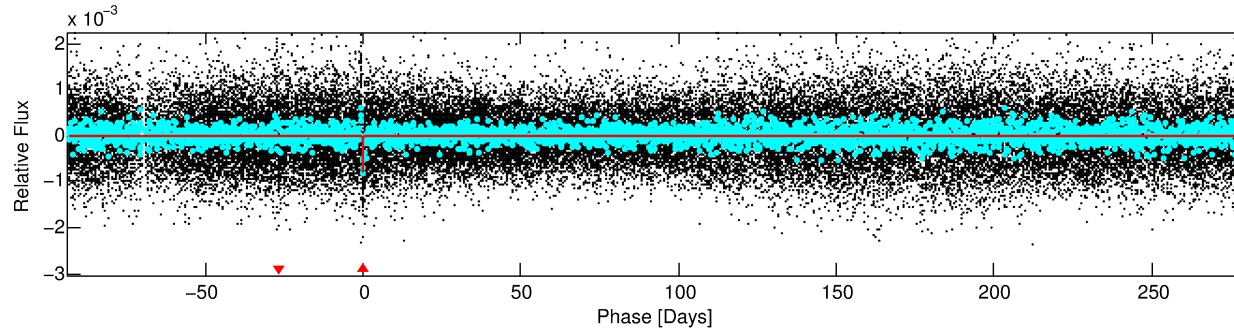
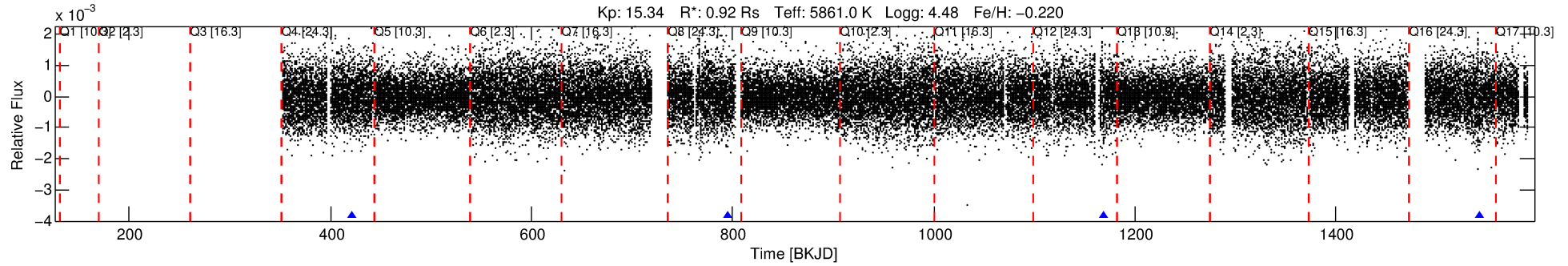
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002715194-01

No Significant Match Found

DV One-Page Summary

KIC: 2715194 Candidate: 1 of 1 Period: 373.610 d



DV Fit Results:

Period = 373.61034 [0.01191] d
Epoch = 421.0828 [0.0229] BKJD
Rp/R* = 0.0265 [0.0130]
a/R* = 173.17 [390.31]
b = 0.57 [2.70]
Seff = 0.90 [0.35]
Teq = 248 [24] K
Rp = 2.65 [1.52] Re
a = 0.9914 [0.2485] AU
Ag = 34895.78 [37751.07] [0.92σ]
Teffp = 5249 [1349] K [3.71σ]

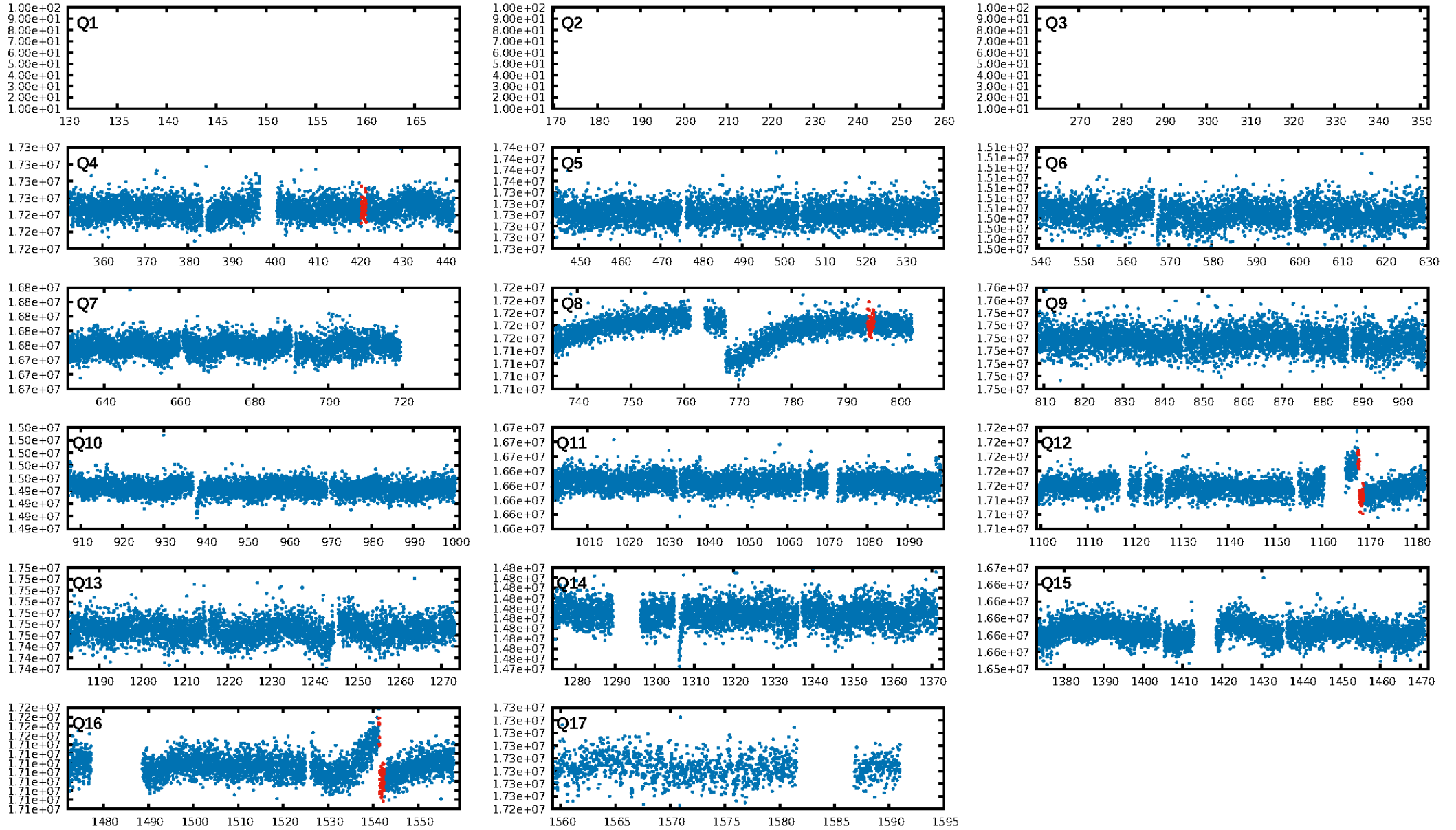
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 82.0%
Bootstrap-pfa: 1.85e-23
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -0.01259
Centroid-sig: 1.1%
Centroid-so: 4.576 arcsec [2.12σ]
OotOffset-rm: 2.334 arcsec [3.03σ]
KicOffset-rm: 2.318 arcsec [3.01σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

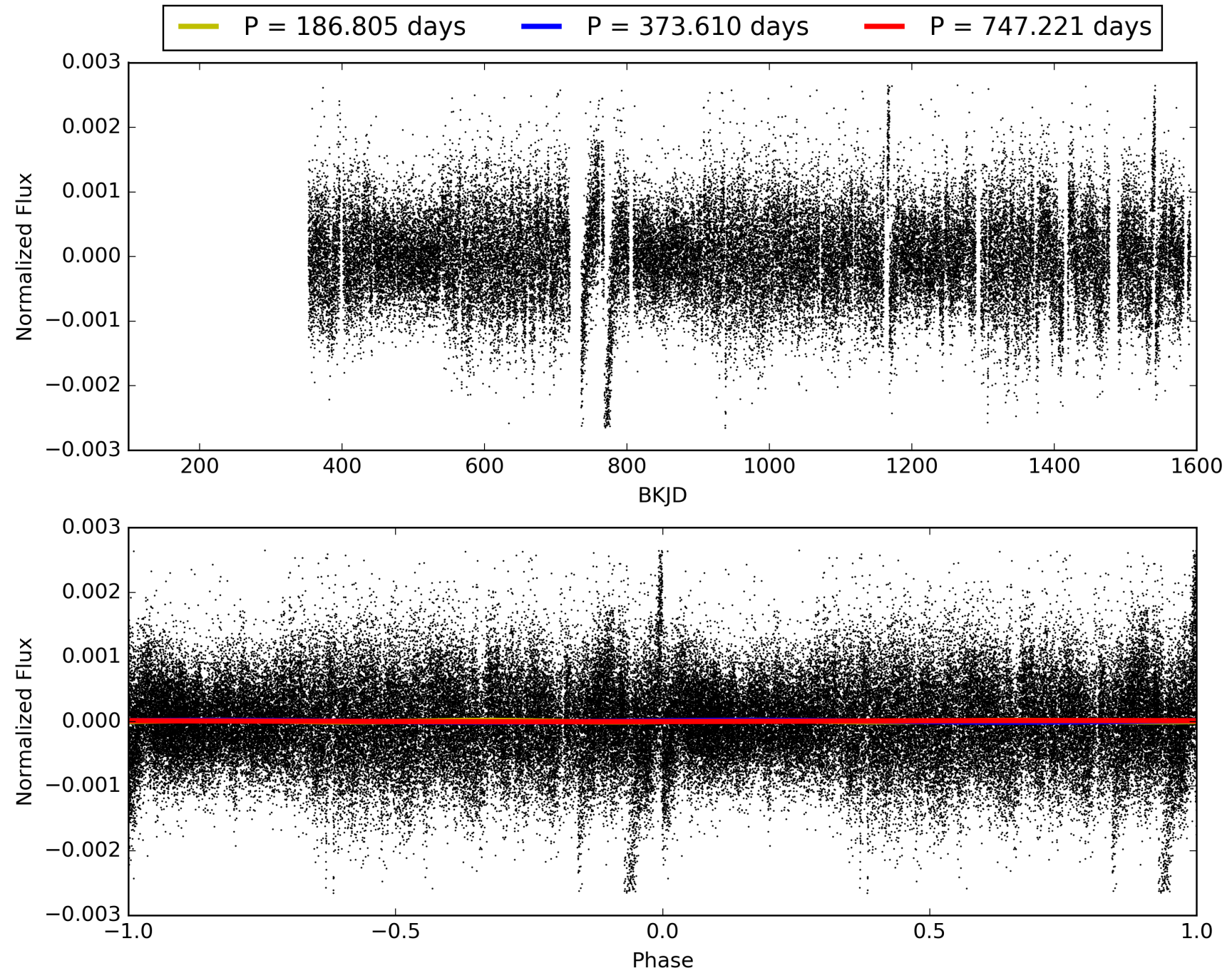
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 23:16:07 Z

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

TCE 002715194-01, PDC Light Curves

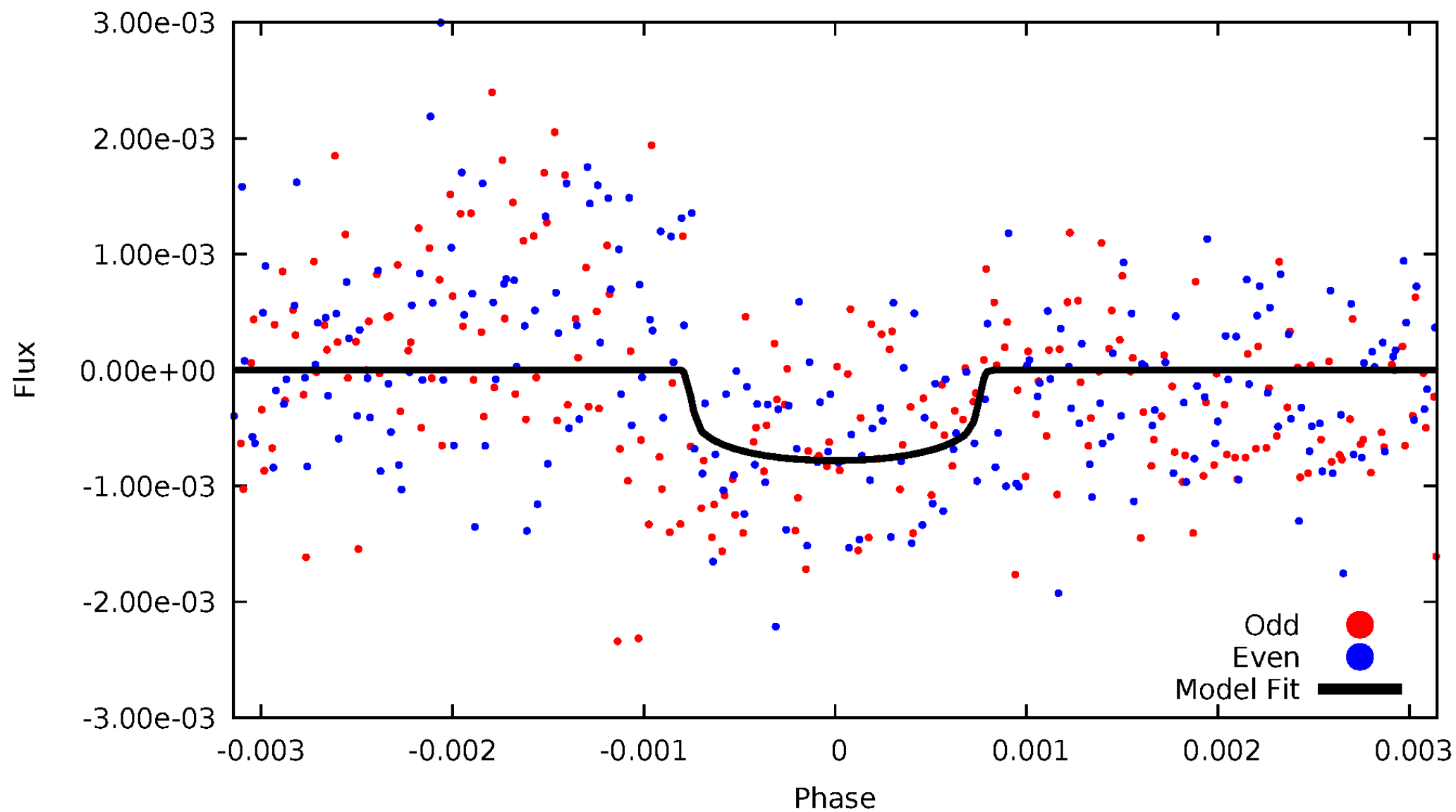


TCE 002715194-01



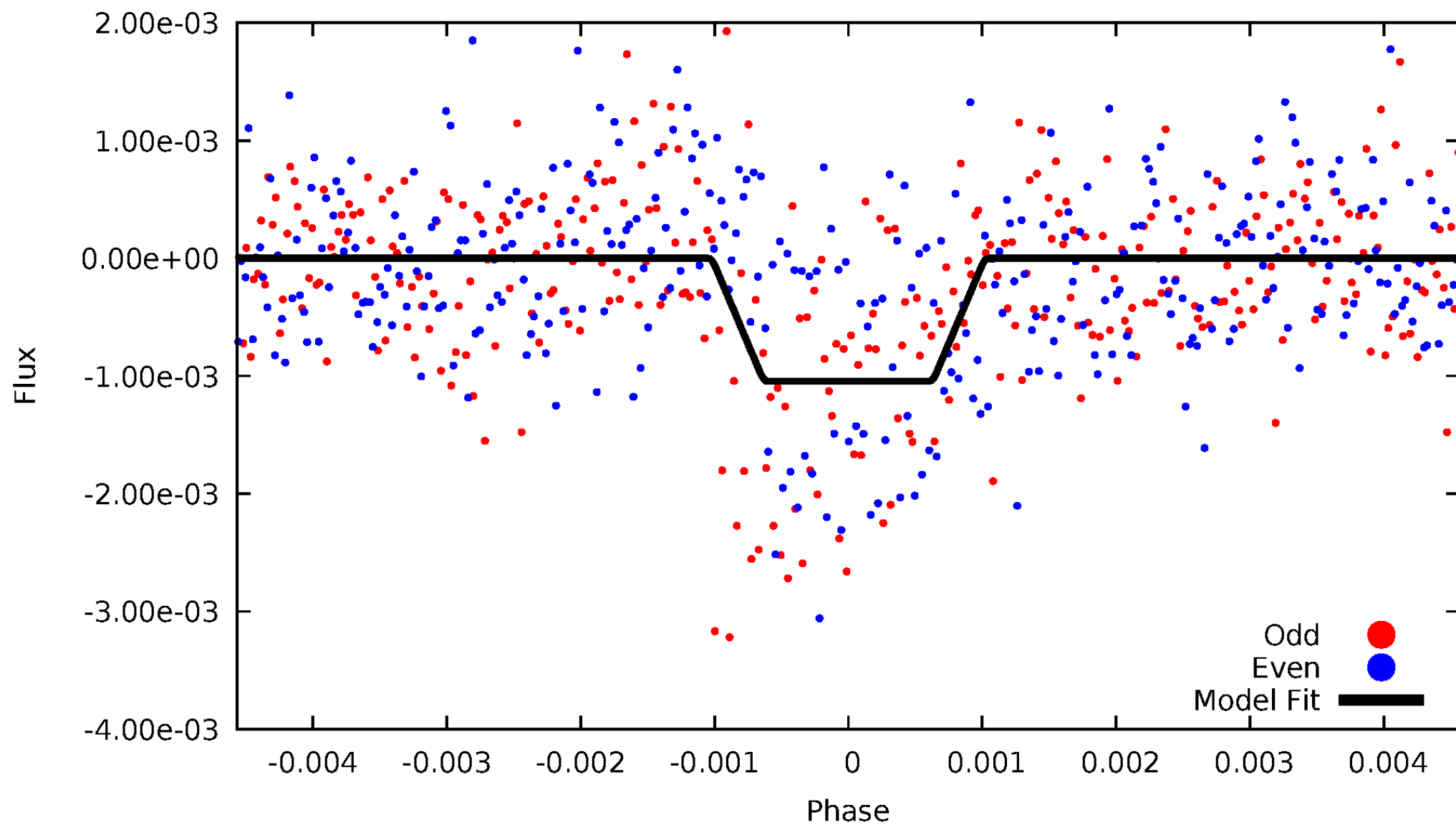
DV Odd/Even

TCE 002715194-01



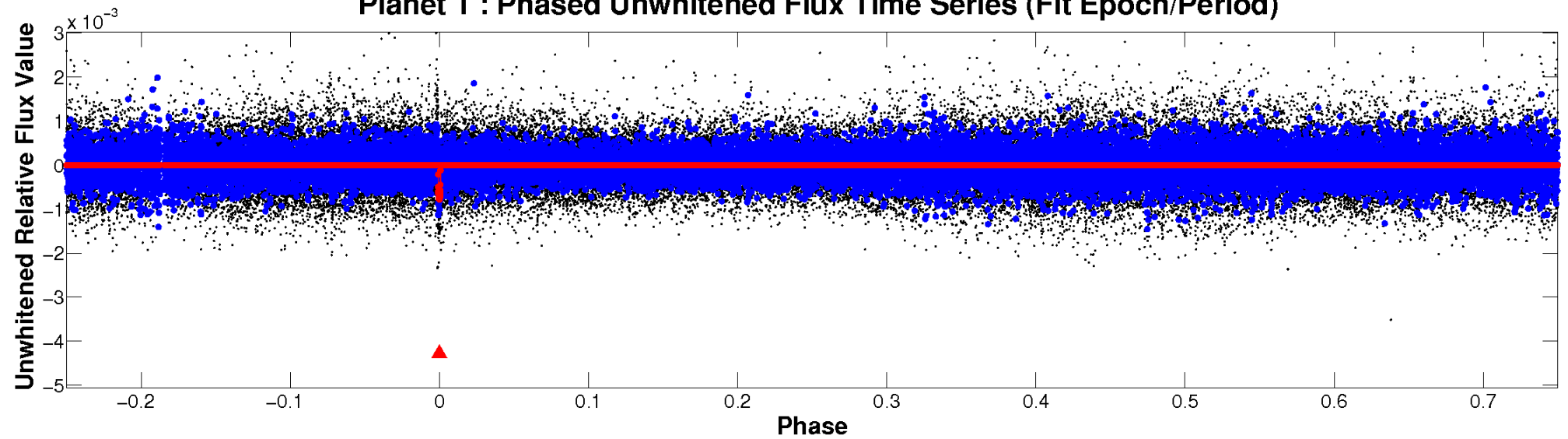
ALT Odd/Even

TCE 002715194-01

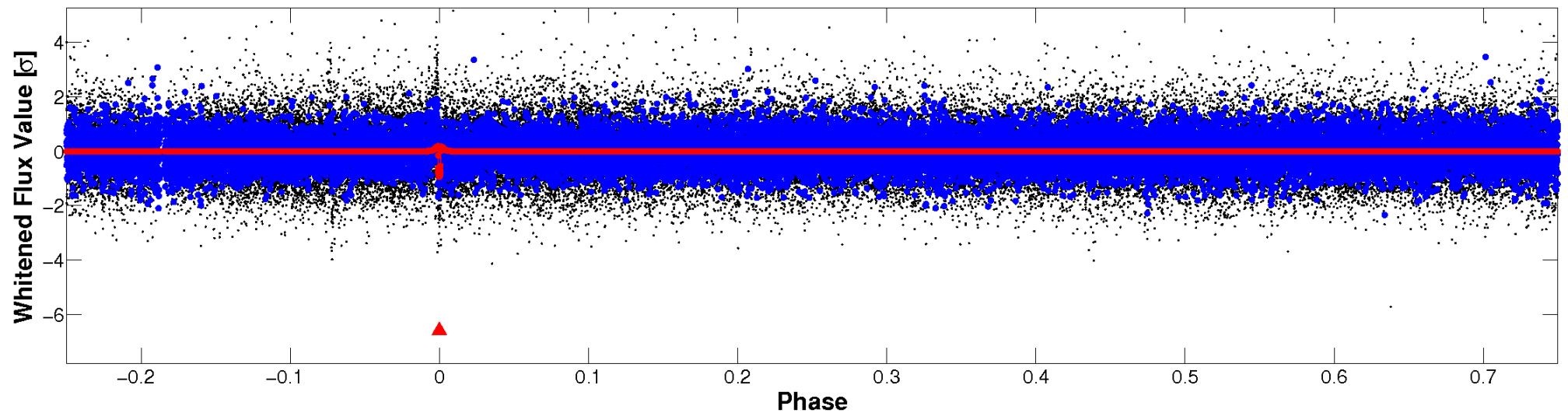


Non-Whitened Vs. Whitened Light Curve

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



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



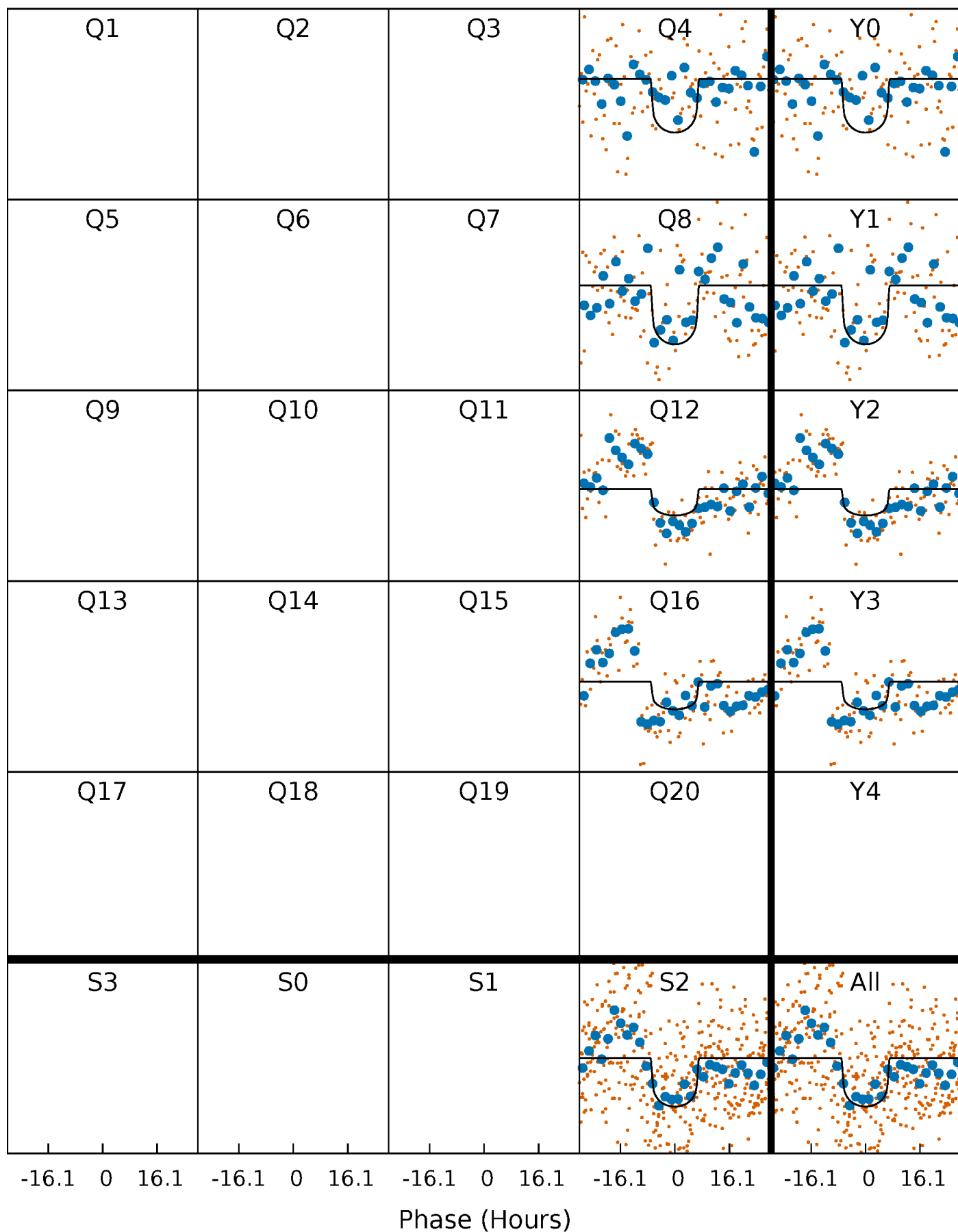
PDC Quarter-Phased Transit Curves

TCE 002715194-01 P=373.610343 Days $T_0=421.082776$ (BKJD)



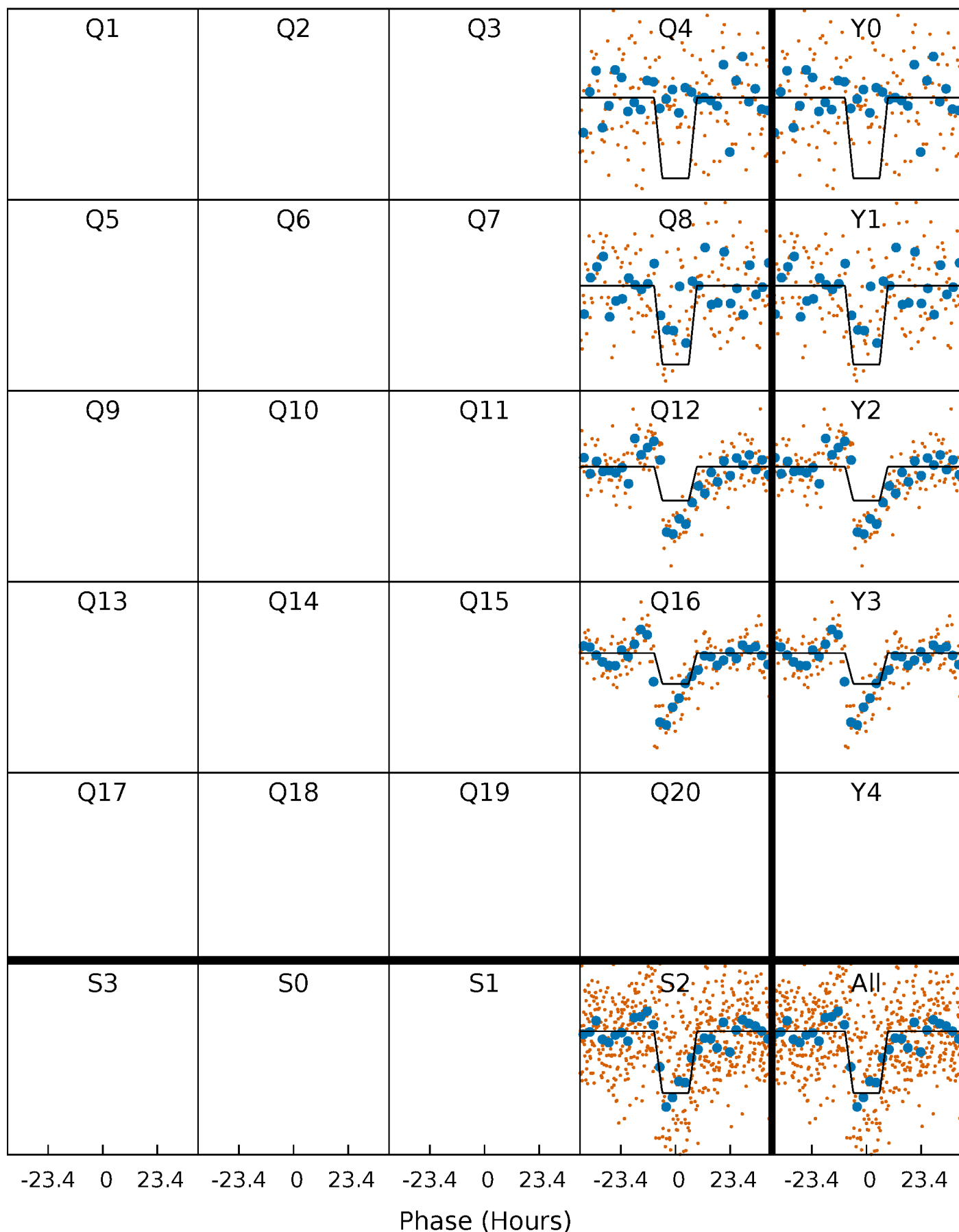
DV Quarter-Phased Transit Curves

TCE 002715194-01 P=373.610343 Days $T_0=421.082776$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

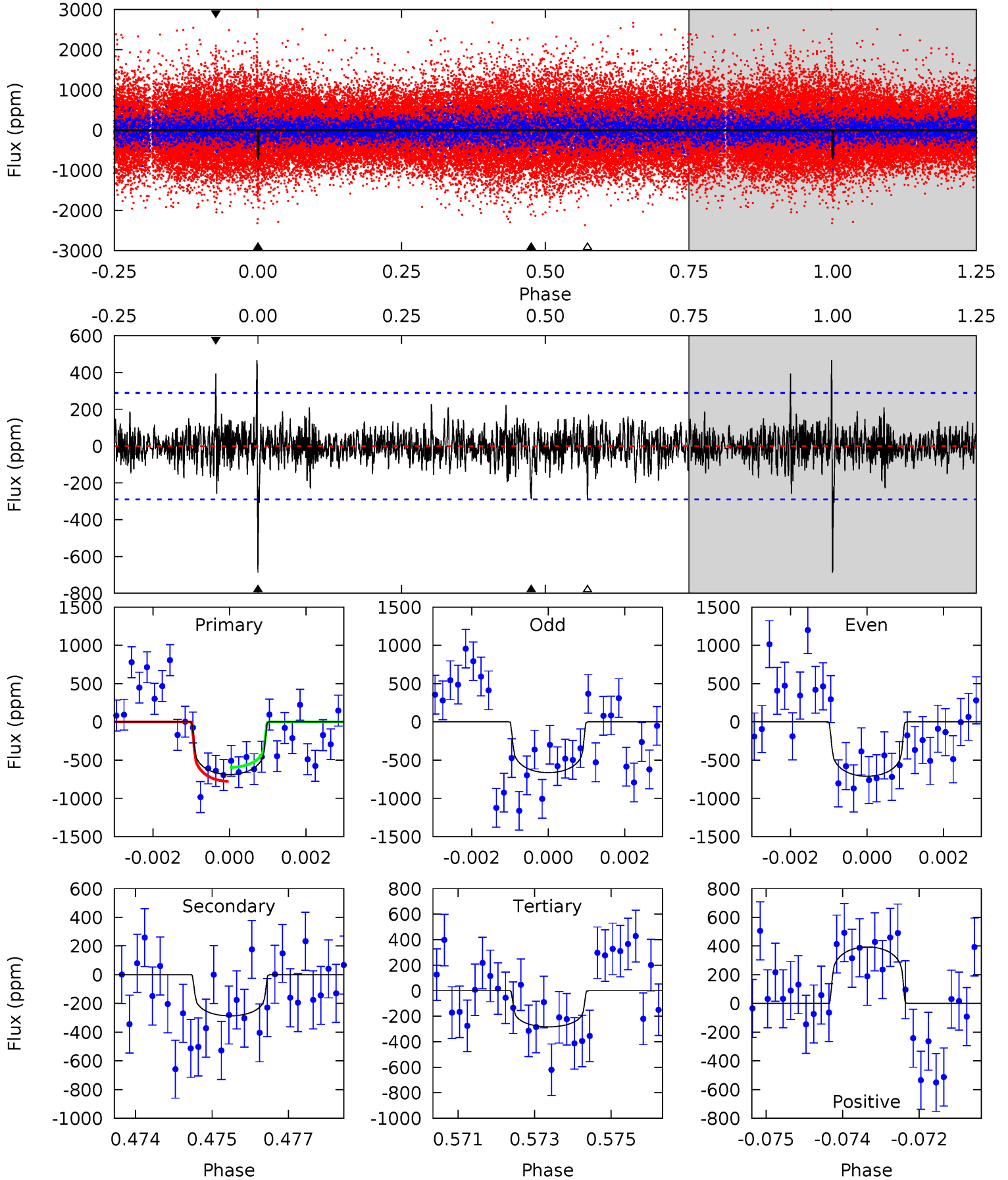
TCE 002715194-01 P=373.593589 Days $T_0=421.080639$ (BKJD)



DV Model-Shift Uniqueness Test

002715194-01, P = 373.610343 Days, E = 47.472433 Days

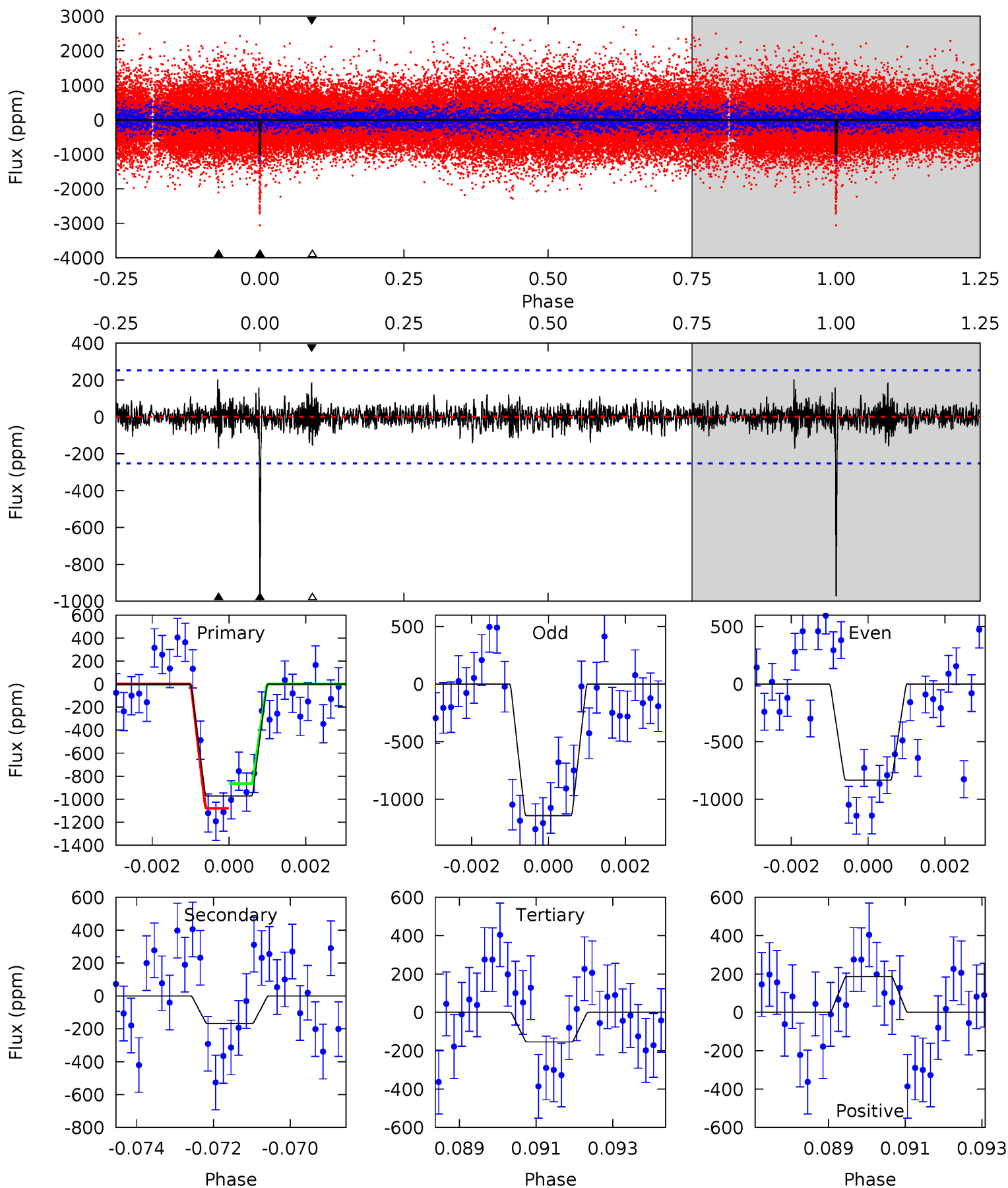
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	5.32	5.26	7.31	5.37	3.15	1.27	7.49	5.44	0.06	-1.99	0.44	1.02	0.41	1.70



Alt Model-Shift Uniqueness Test

002715194-01, P = 373.593589 Days, E = 47.487050 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.5	3.53	3.25	3.93	5.32	3.08	0.83	17.2	16.6	0.28	-0.40	3.26	0.96	0.17	2.26



Stellar Parameters For KIC 002715194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5861^{+174}_{-192}	$4.484^{+0.065}_{-0.195}$	$-0.220^{+0.300}_{-0.300}$	$0.915^{+0.276}_{-0.110}$	$0.933^{+0.121}_{-0.110}$	$1.713^{+0.565}_{-0.826}$
	+3%/-3%	+1%/-4%	+136%/-136%	+30%/-12%	+13%/-12%	+33%/-48%
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 002715194-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-287 ± 54	$2.78^{+1.41}_{-1.34}$	353^{+24}_{-17}	4801^{+1638}_{-742}	20659^{+53095}_{-12176}
Alt.	-168 ± 47	$3.34^{+1.52}_{-1.21}$	353^{+23}_{-18}	4003^{+807}_{-467}	7662^{+12179}_{-3998}

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 $A_{\text{obs}} \gg 1.0$

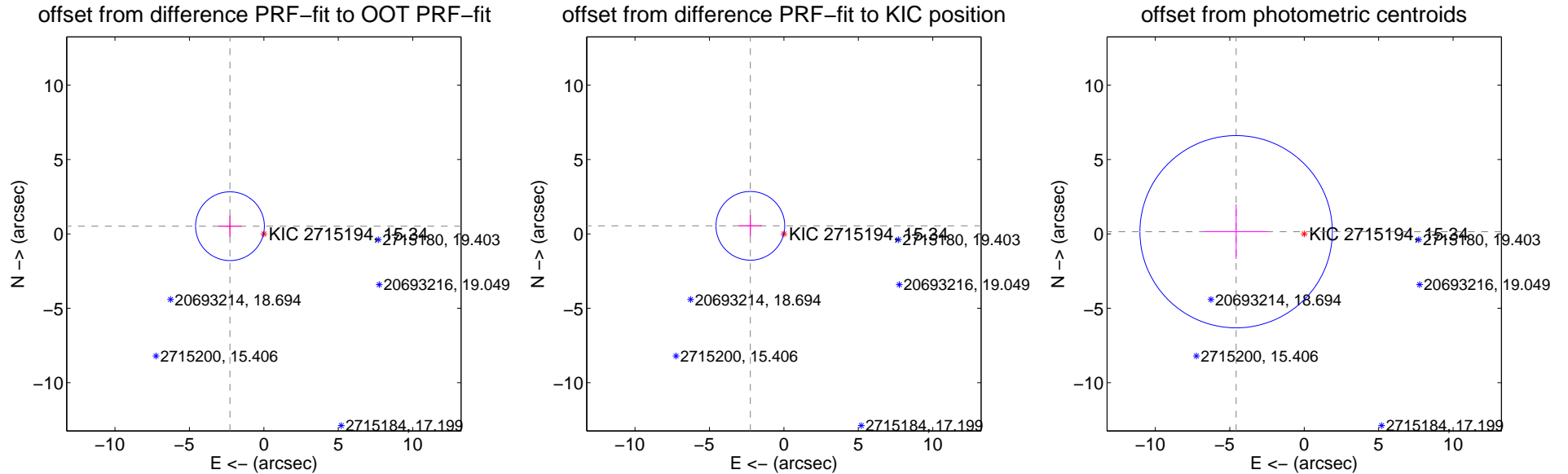
DV Centroid Data

Supplemental centroid analysis for 002715194-01. Kepler magnitude: 15.34. Transit SNR 8.82

There are 0 quarters with good PRF difference image offsets

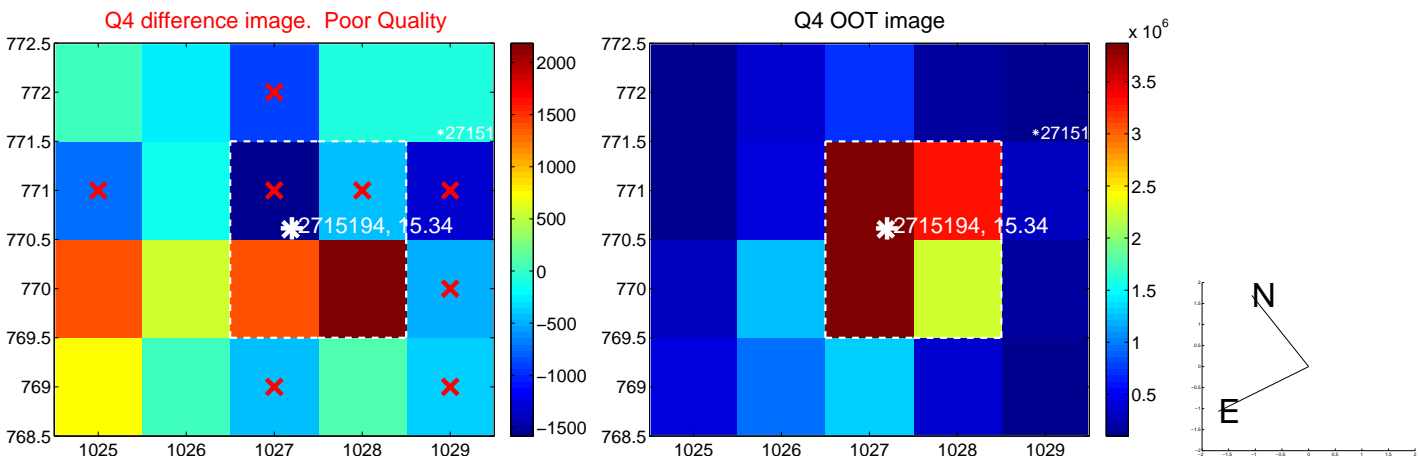
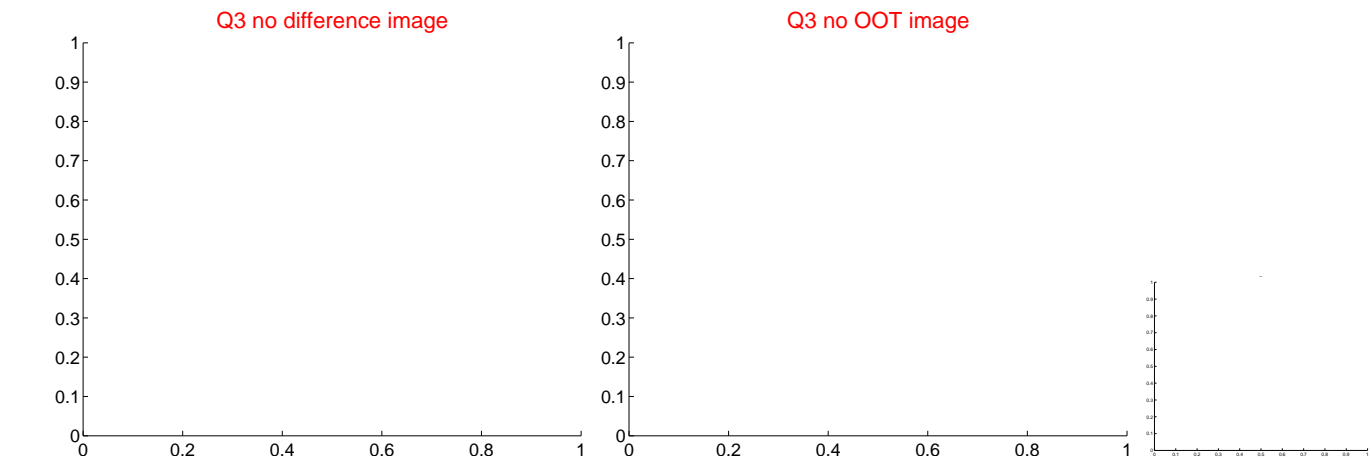
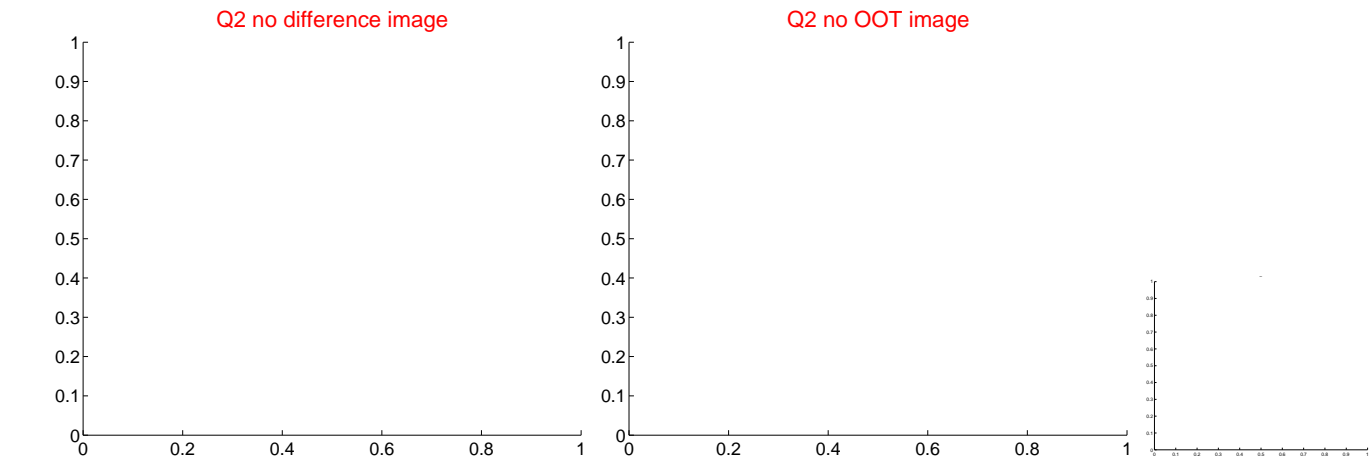
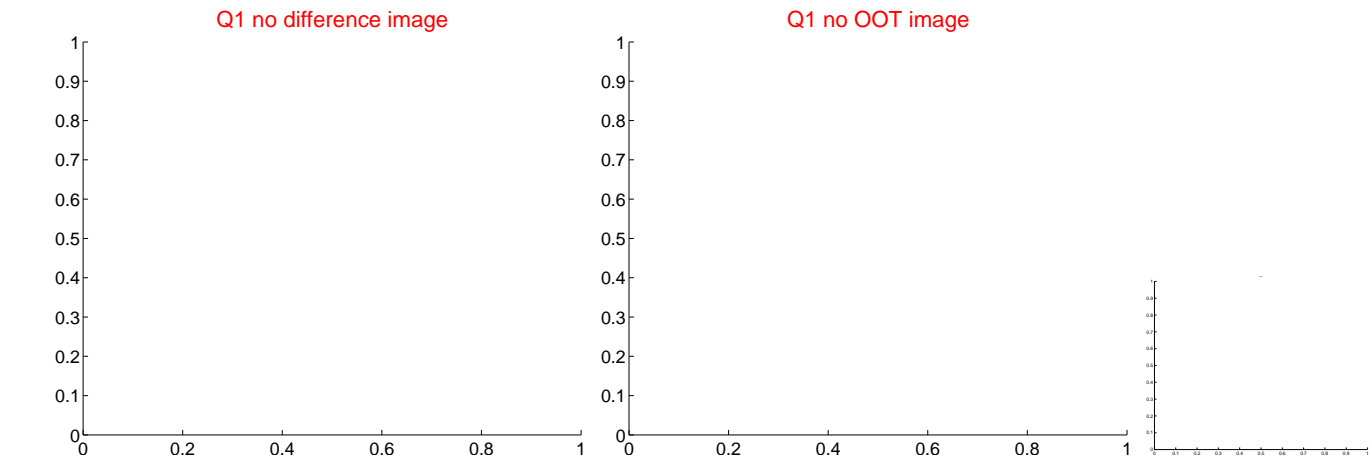
The direct PRF centroid is offset from the target star catalog position by about 0.03 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.334 ± 0.770	3.03	2.276 ± 0.774	0.517 ± 0.703
PRF-fit source offset from KIC position	2.318 ± 0.770	3.01	2.254 ± 0.774	0.542 ± 0.703
photometric centroid source offset	4.58 ± 2.15	2.12	4.57 ± 2.15	0.14 ± 1.83

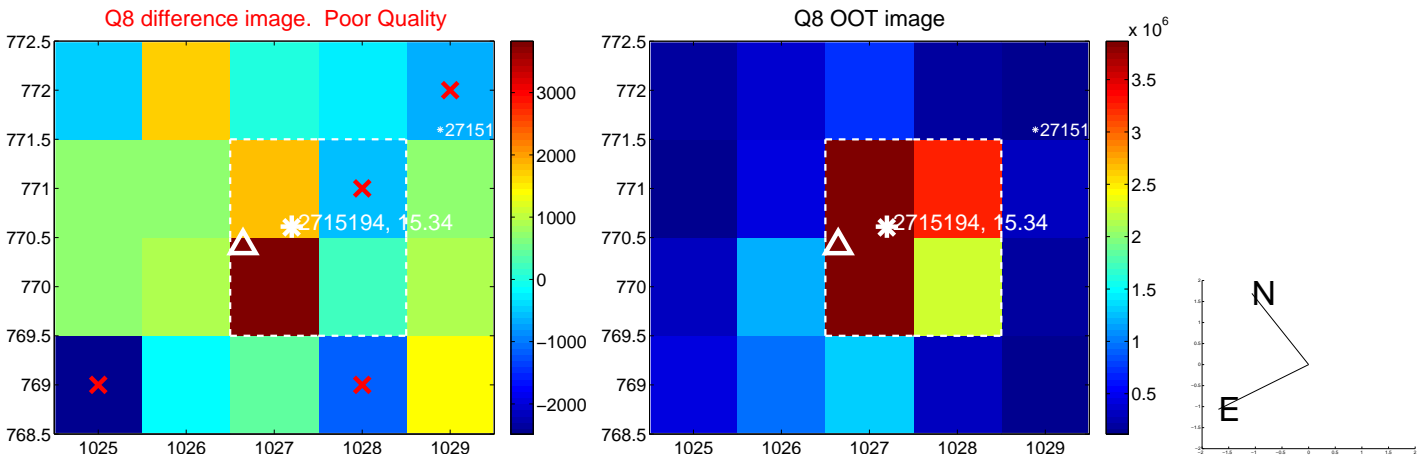
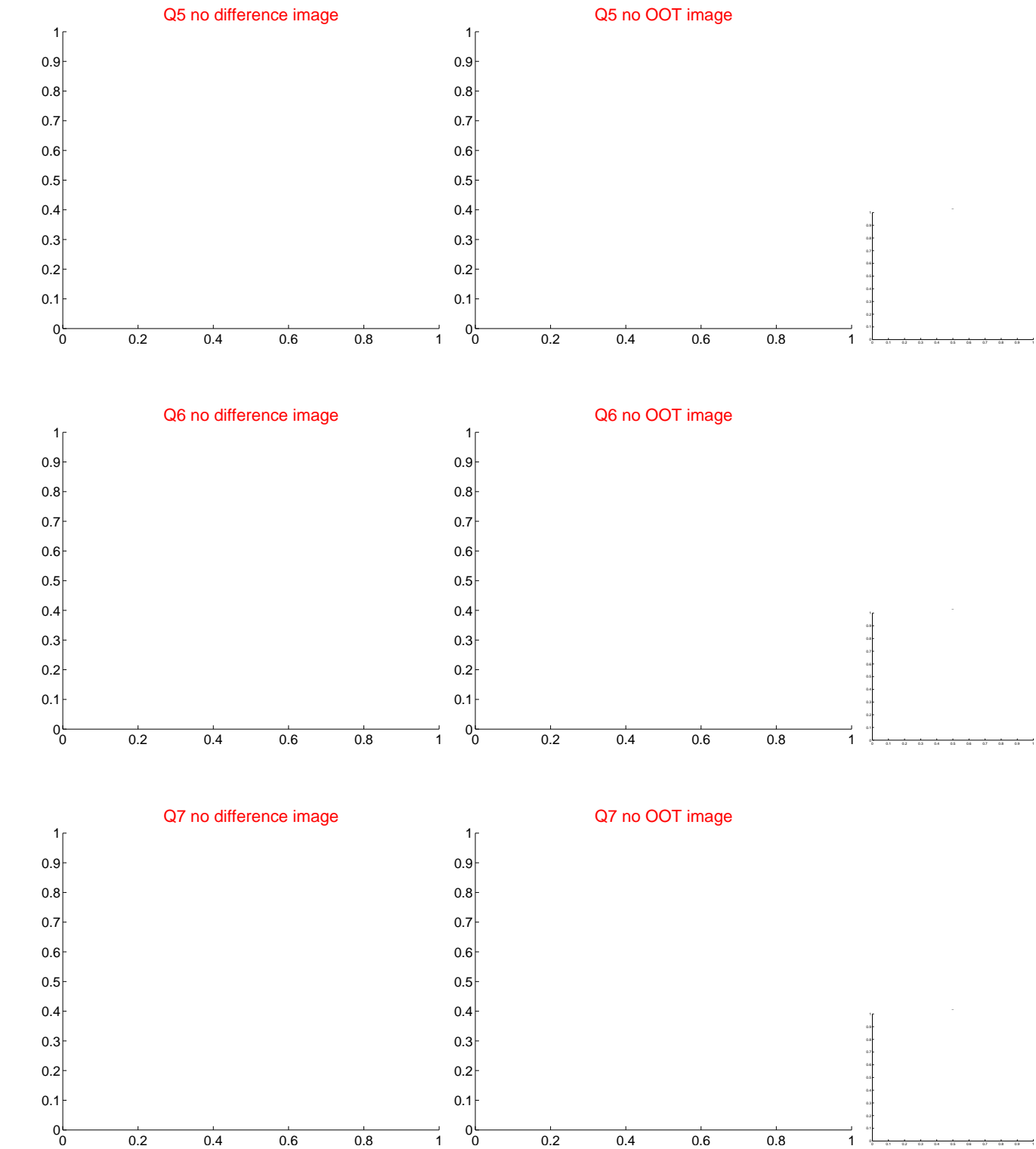


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

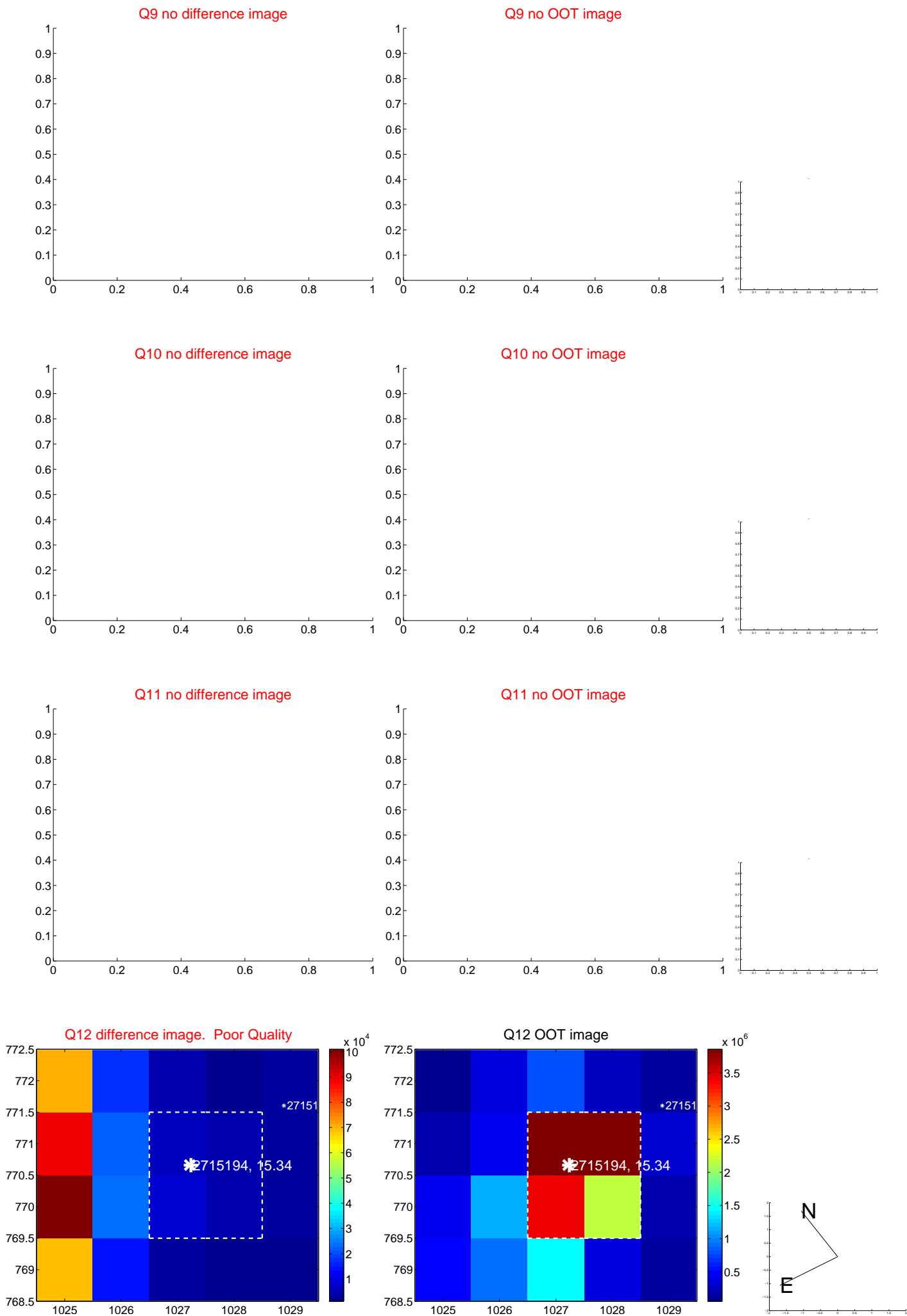
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



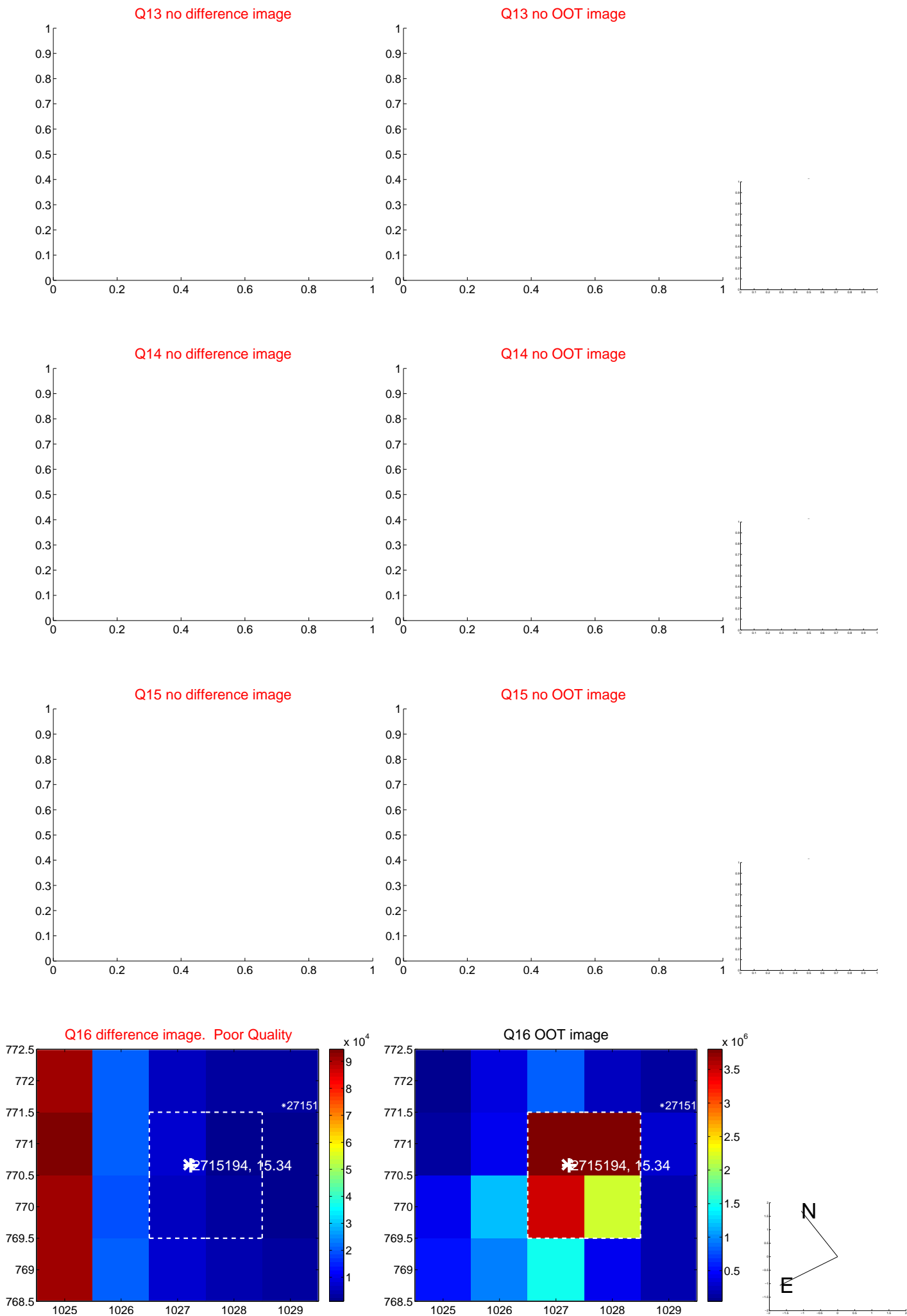
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



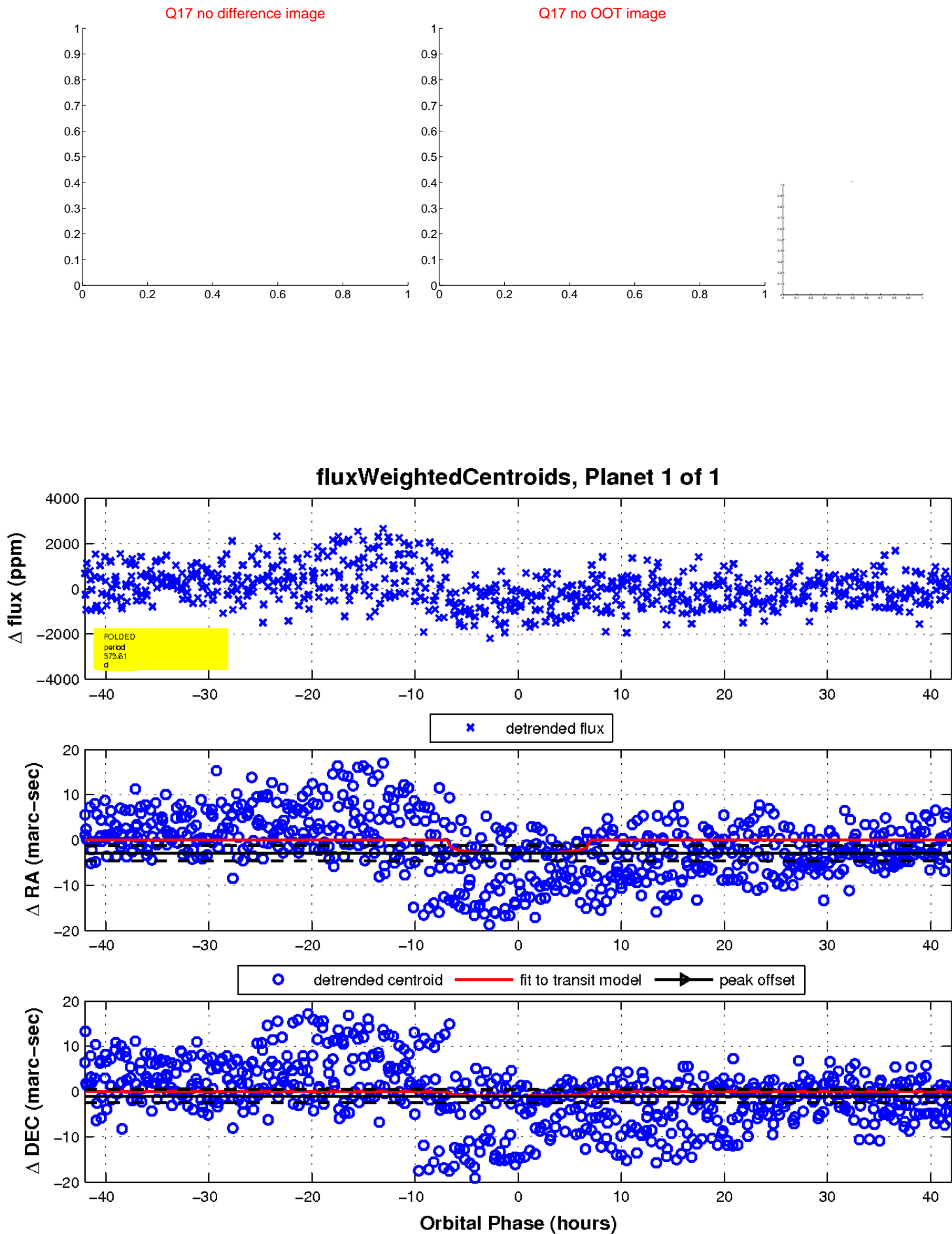
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

