

KIC 011019739

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})
011019739-01	OBS	7400.01	4.157296	132.870038	167.9	2.605	8.6	9.5	0.78	5183	1.14	178.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011019739-01	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.

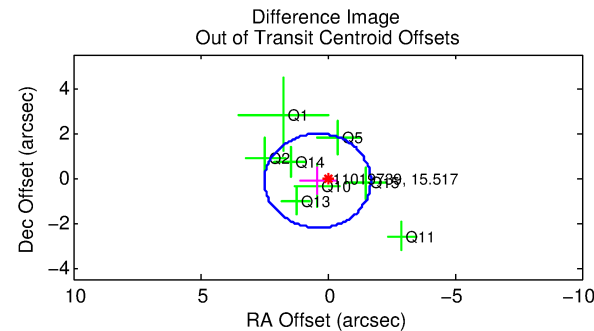
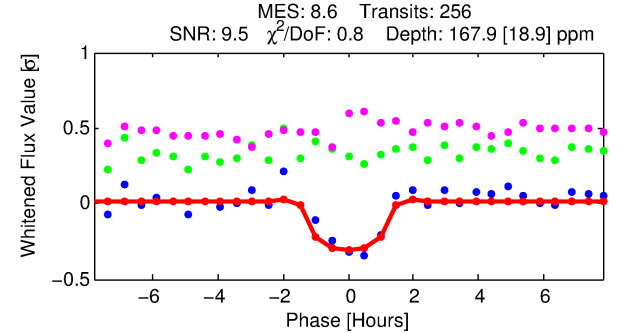
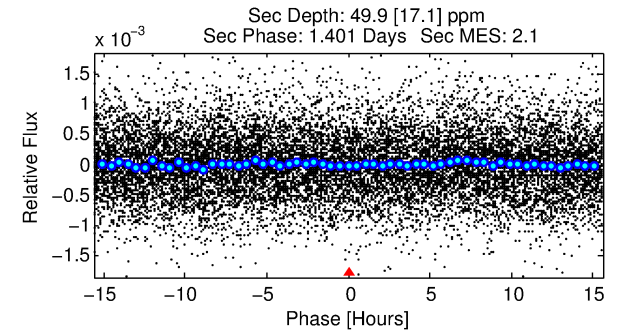
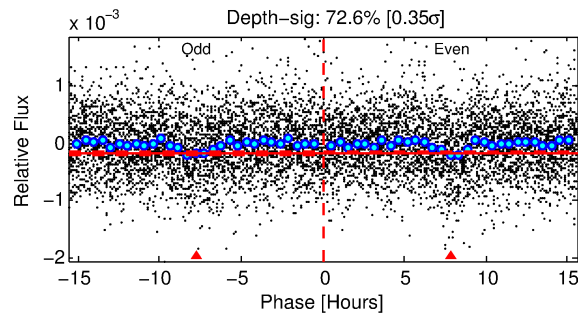
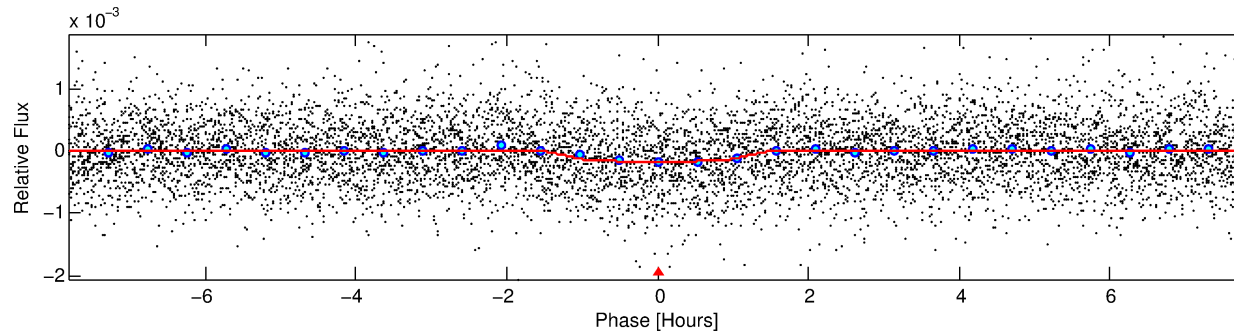
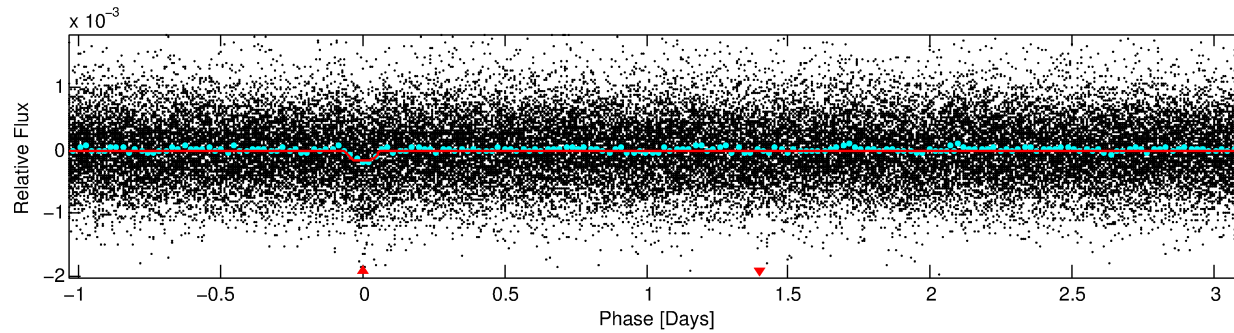
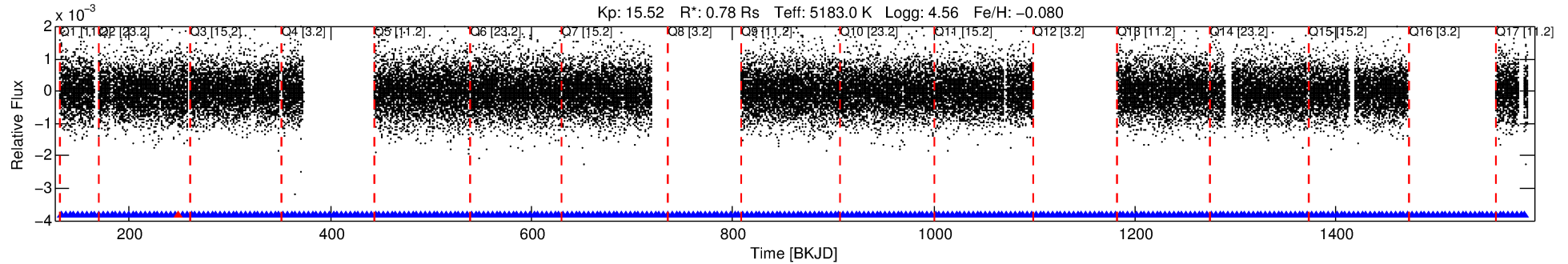
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011019739-01

No Significant Match Found

DV One-Page Summary

KIC: 11019739 Candidate: 1 of 1 Period: 4.157 d
KOI: K07400.01 Corr: 0.964



DV Fit Results:

Period = 4.15730 [0.00003] d
Epoch = 132.8700 [0.0047] BKJD
Rp/R* = 0.0133 [0.0141]
a/R* = 7.59 [30.37]
b = 0.80 [1.85]
Seff = 178.21 [33.55]
Teq = 932 [44] K
Rp = 1.14 [1.21] Re
a = 0.0471 [0.0048] AU
Ag = 47.30 [101.93] [0.45 σ]
Teffp = 3778 [2033] K [1.40 σ]

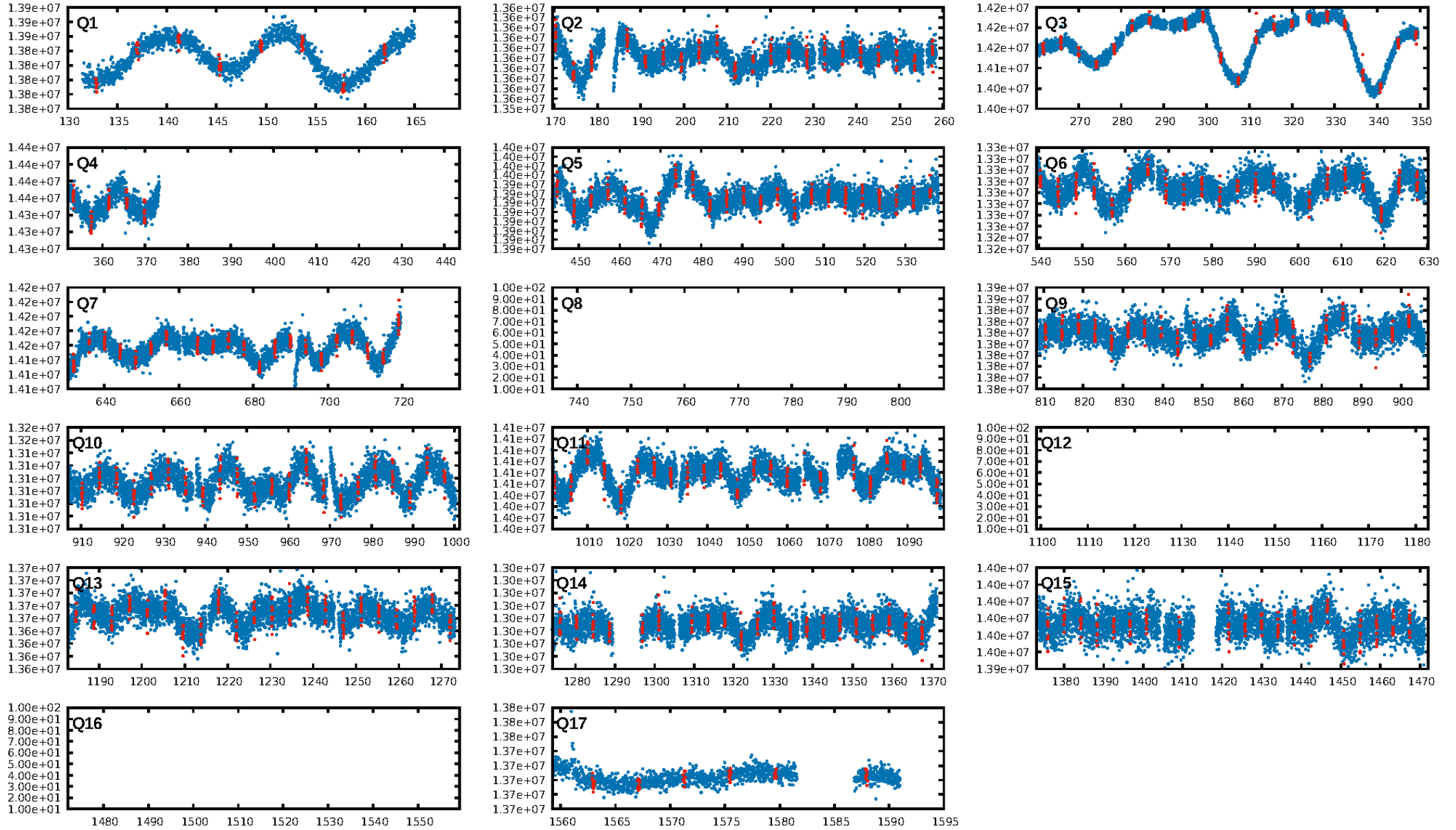
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.07e-17
RollingBand-fgt: 1.00 [236/237]
GhostDiagnostic-chr: 18.72
Centroid-sig: 97.4%
Centroid-so: 0.280 arcsec [0.20 σ]
OotOffset-rm: 0.410 arcsec [0.59 σ]
KicOffset-rm: 0.588 arcsec [0.93 σ]
OotOffset-st: 3/2/0/3 [8]
KicOffset-st: 3/2/0/3 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 1.00 [14/14]

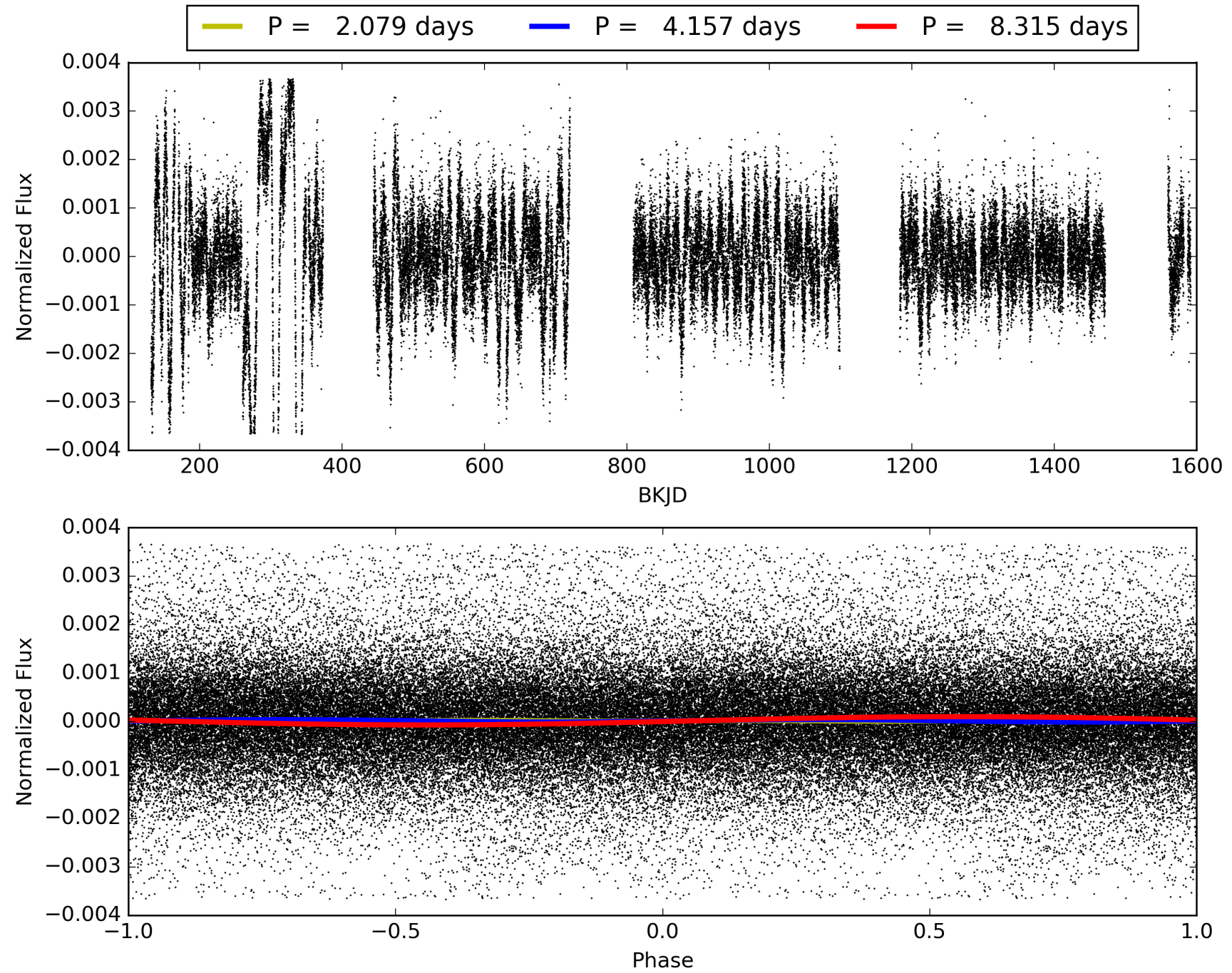
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:32:12 Z

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

TCE 011019739-01, PDC Light Curves

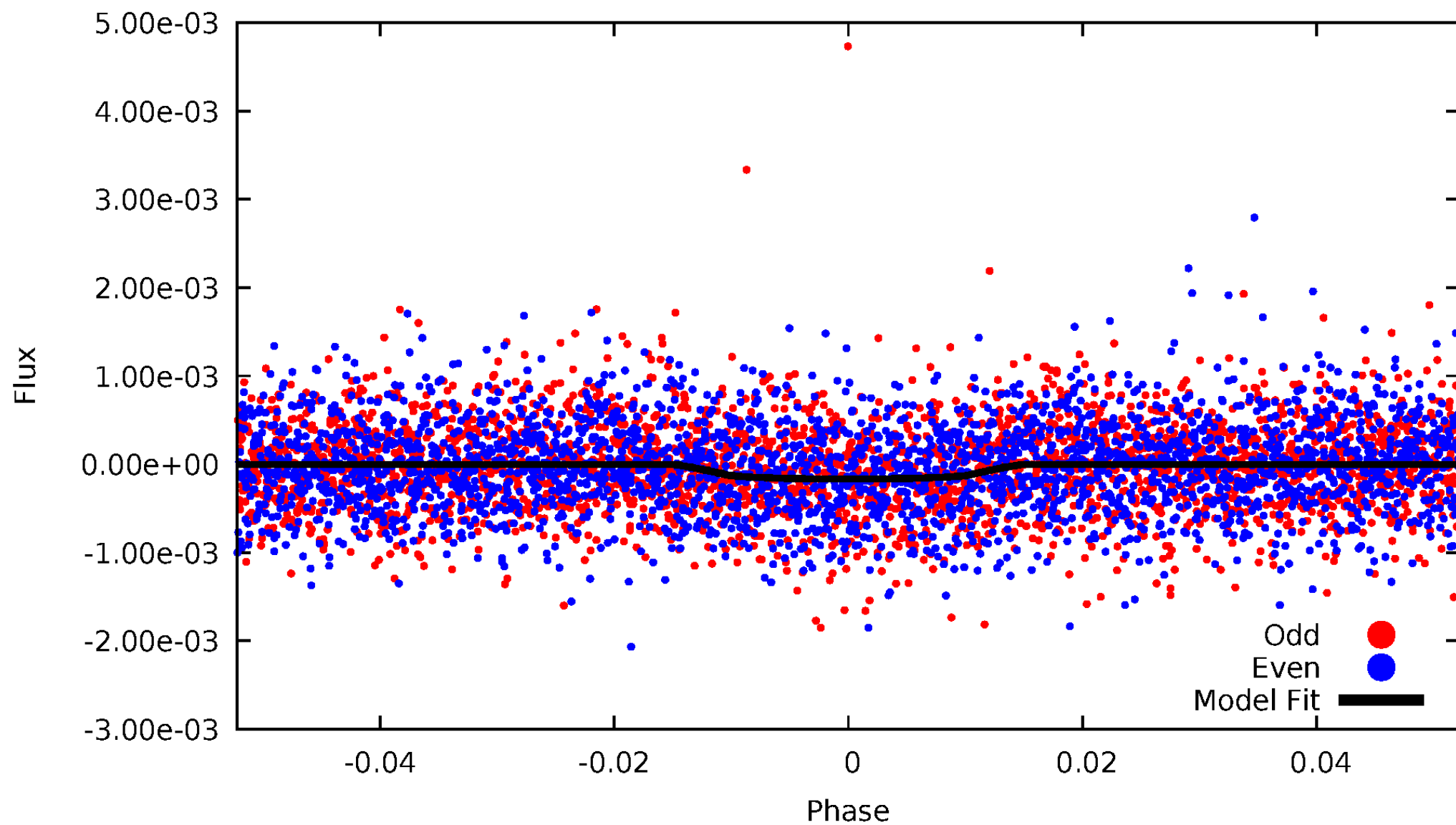


TCE 011019739-01



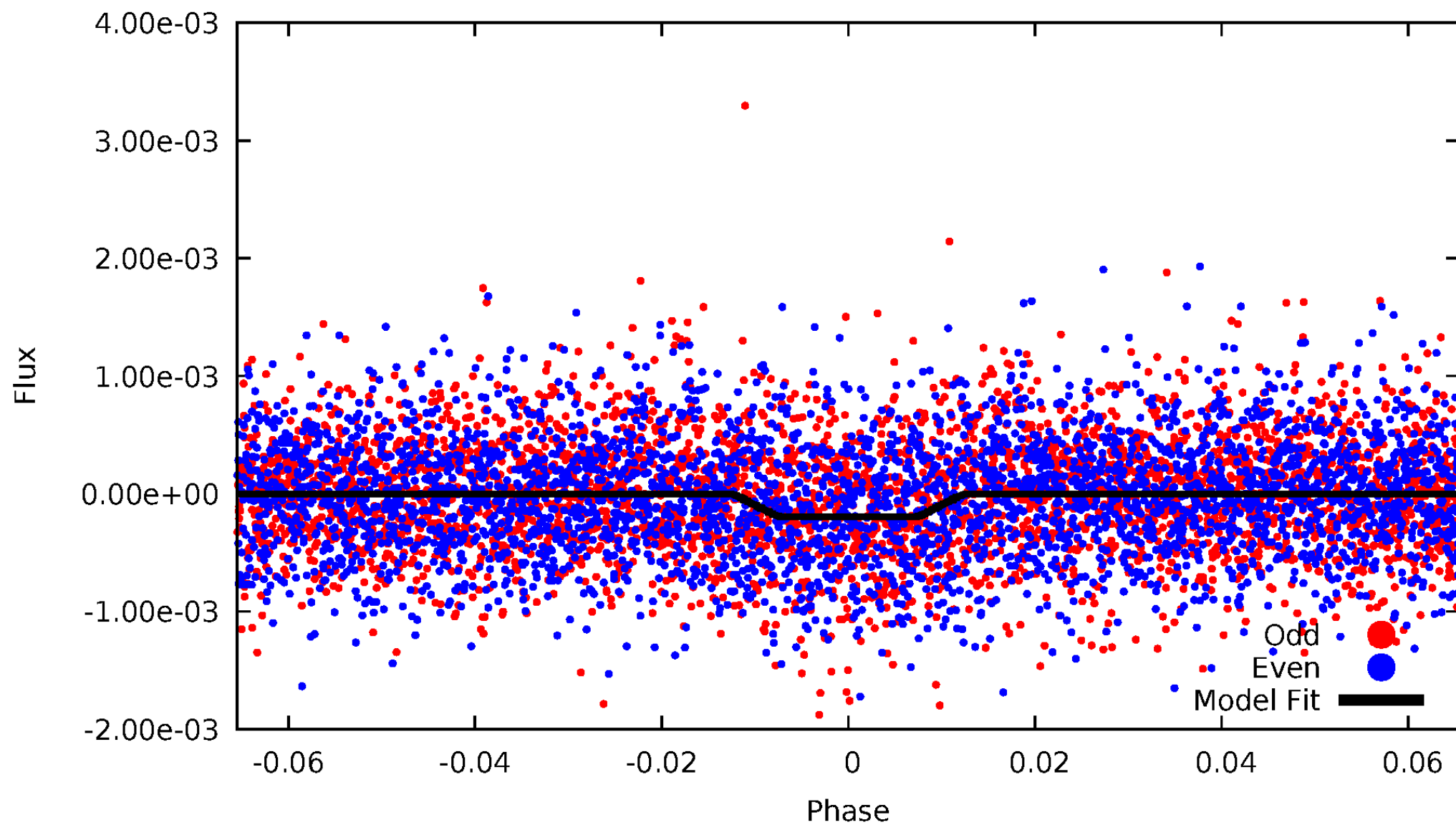
DV Odd/Even

TCE 011019739-01

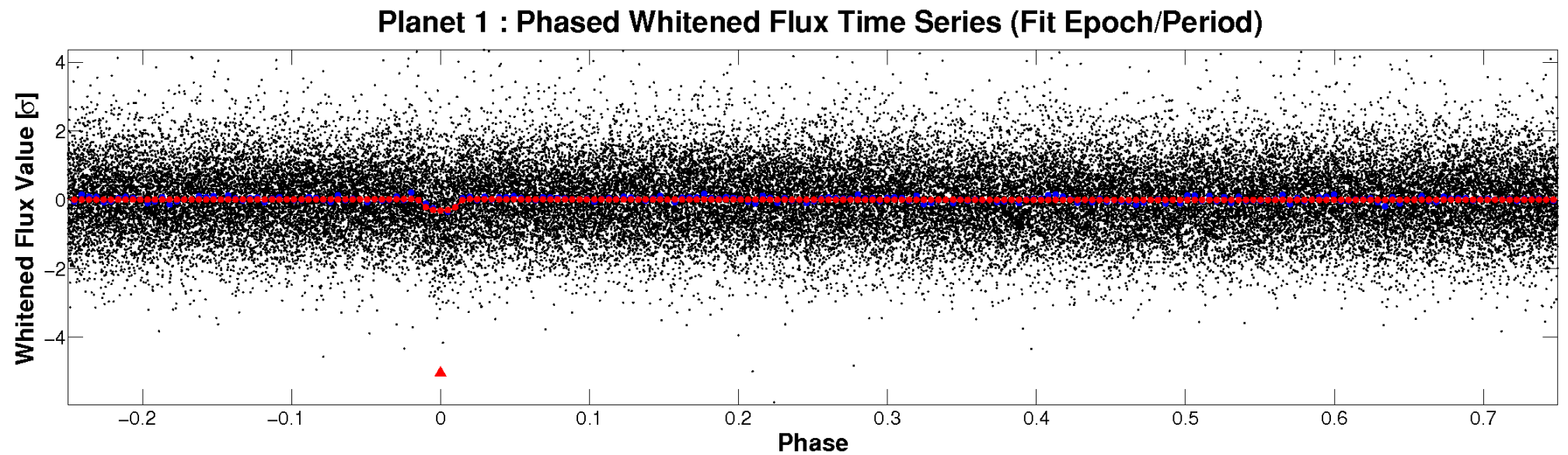
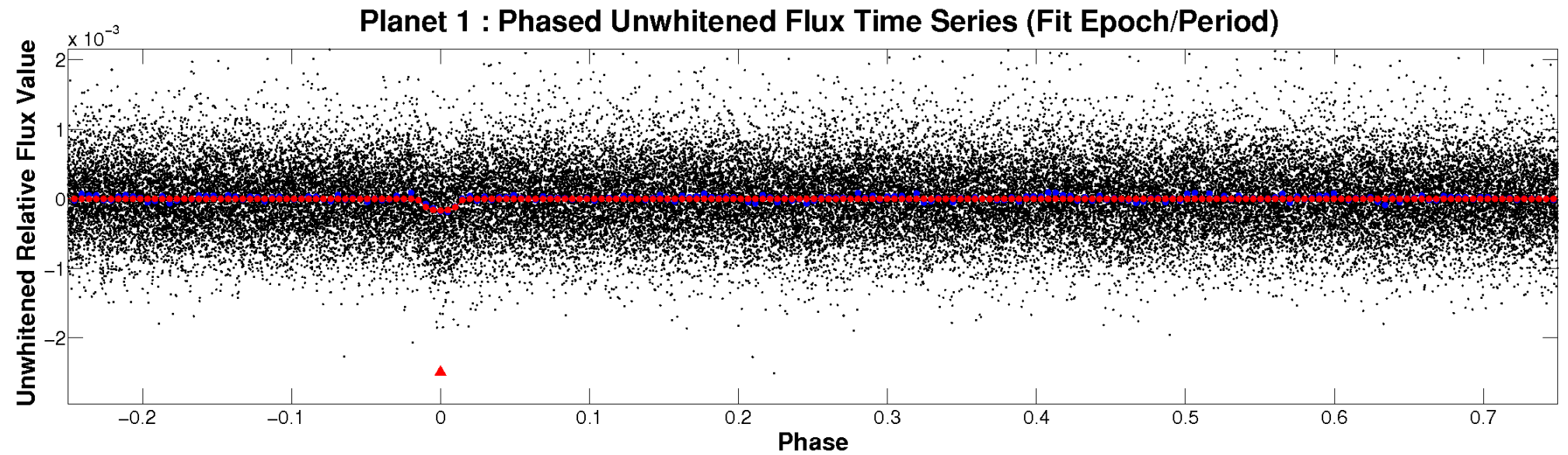


ALT Odd/Even

TCE 011019739-01

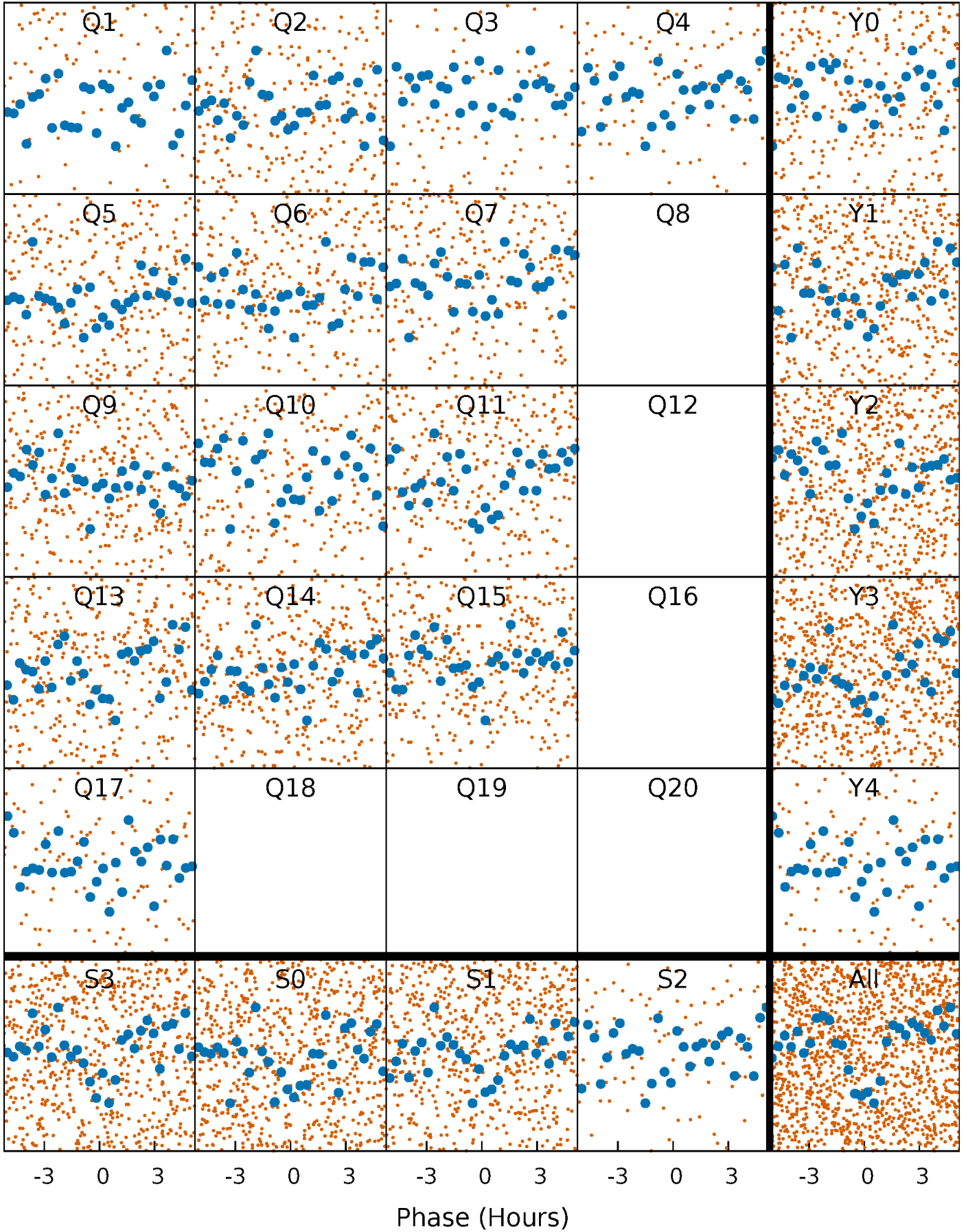


Non-Whitened Vs. Whitened Light Curve



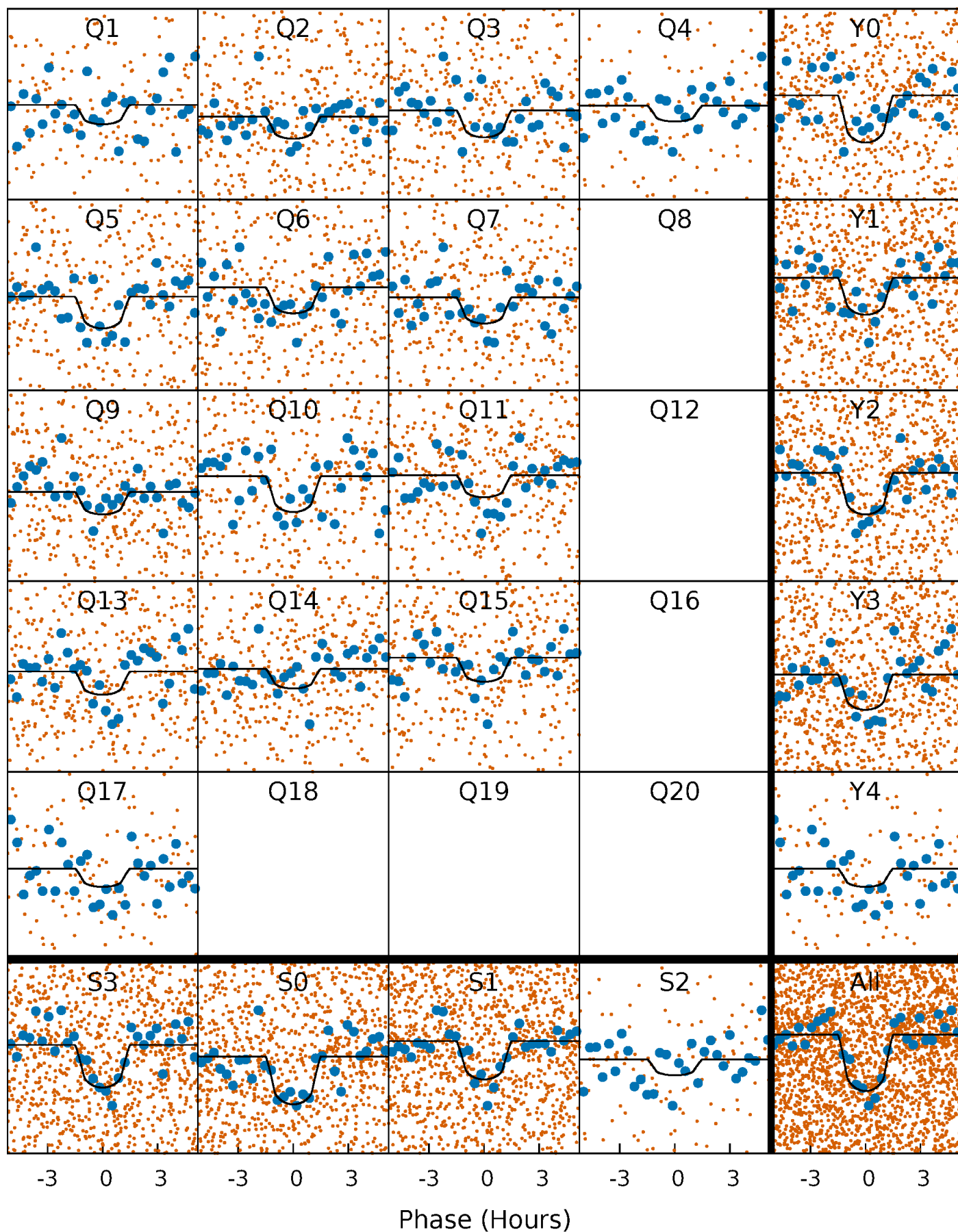
PDC Quarter-Phased Transit Curves

TCE 011019739-01 P= 4.157296 Days $T_0=132.870038$ (BKJD)



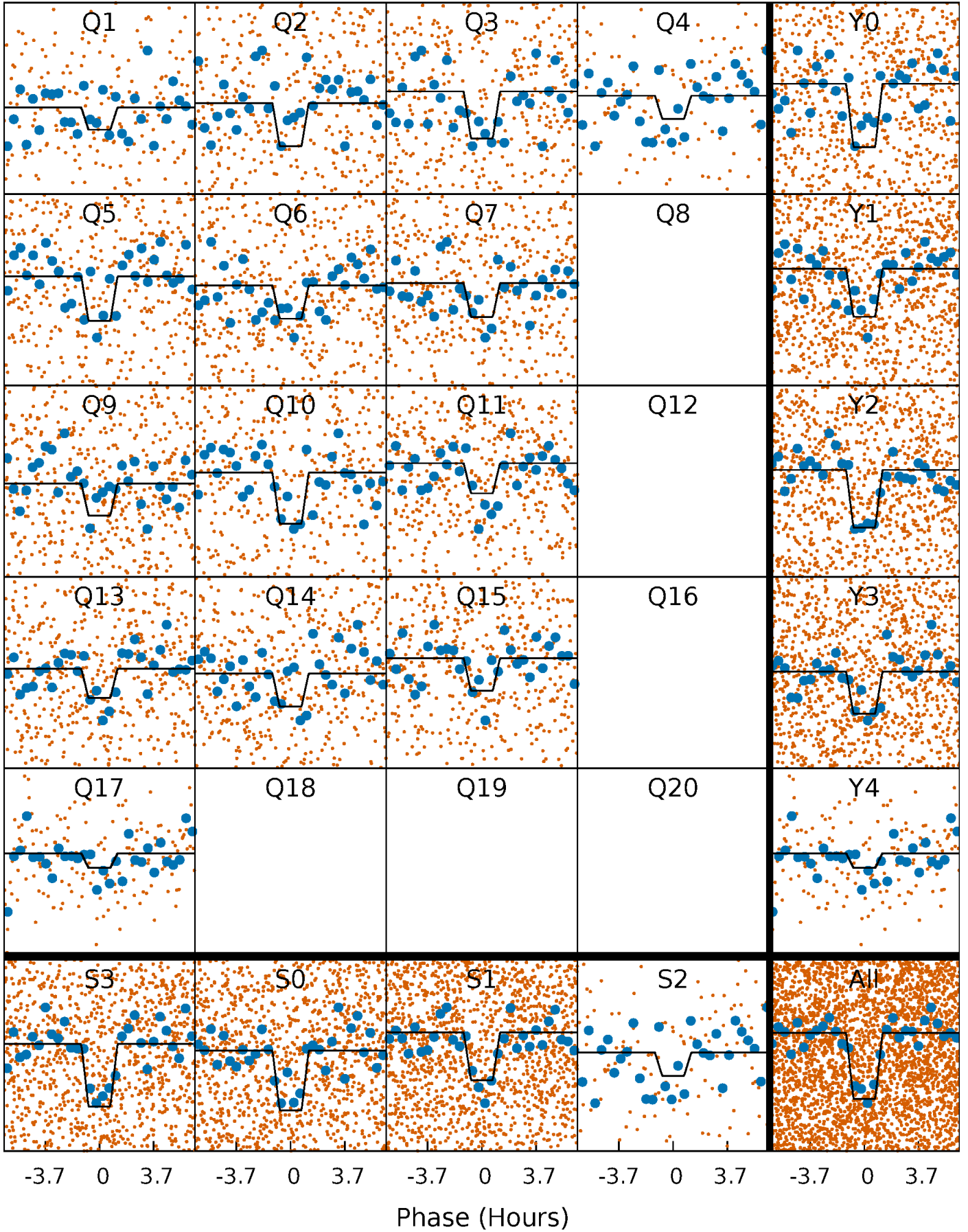
DV Quarter-Phased Transit Curves

TCE 011019739-01 P= 4.157296 Days $T_0=132.870038$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

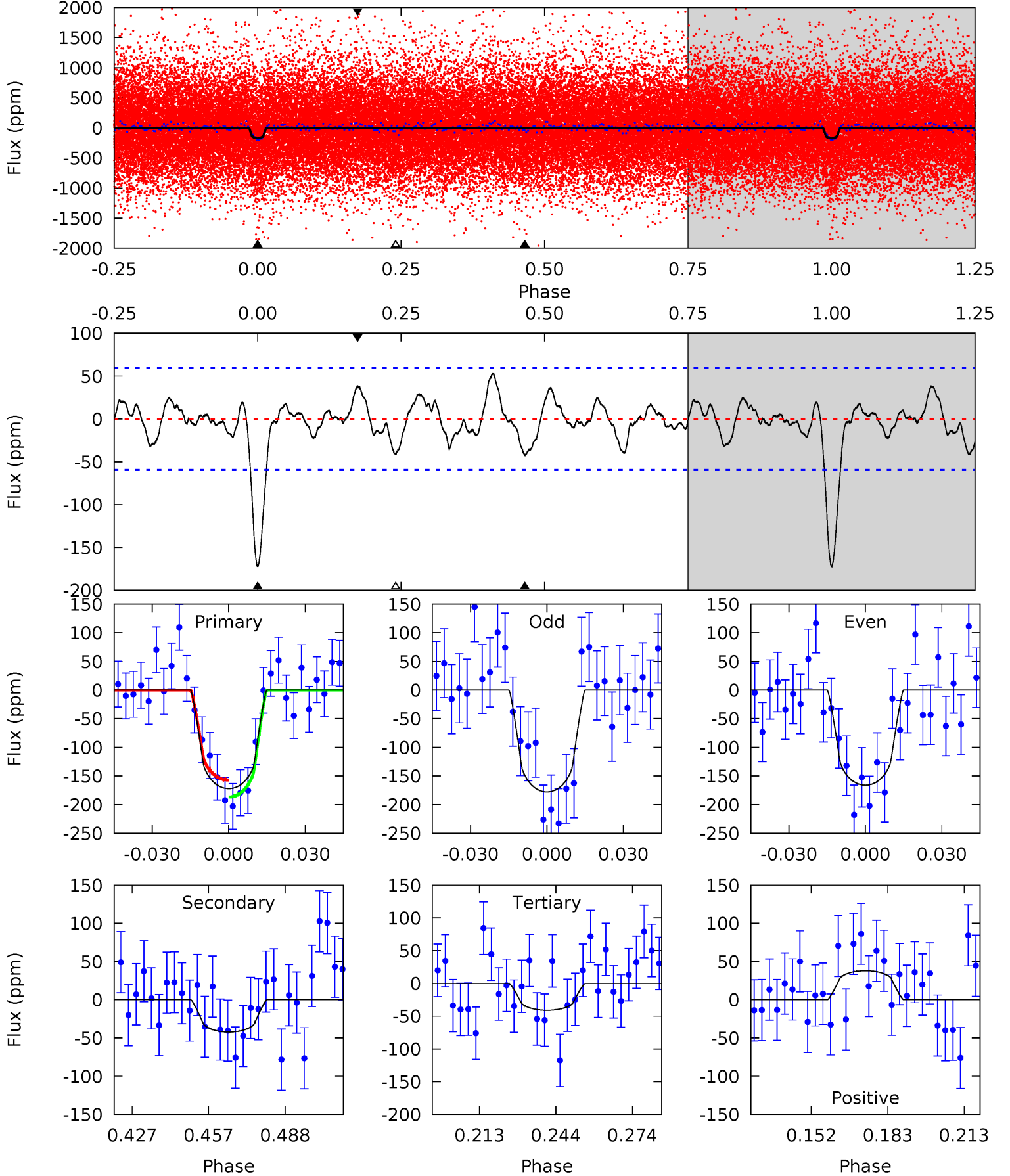
TCE 011019739-01 P= 4.157246 Days $T_0=132.882315$ (BKJD)



DV Model-Shift Uniqueness Test

011019739-01, P = 4.157296 Days, E = 128.712742 Days

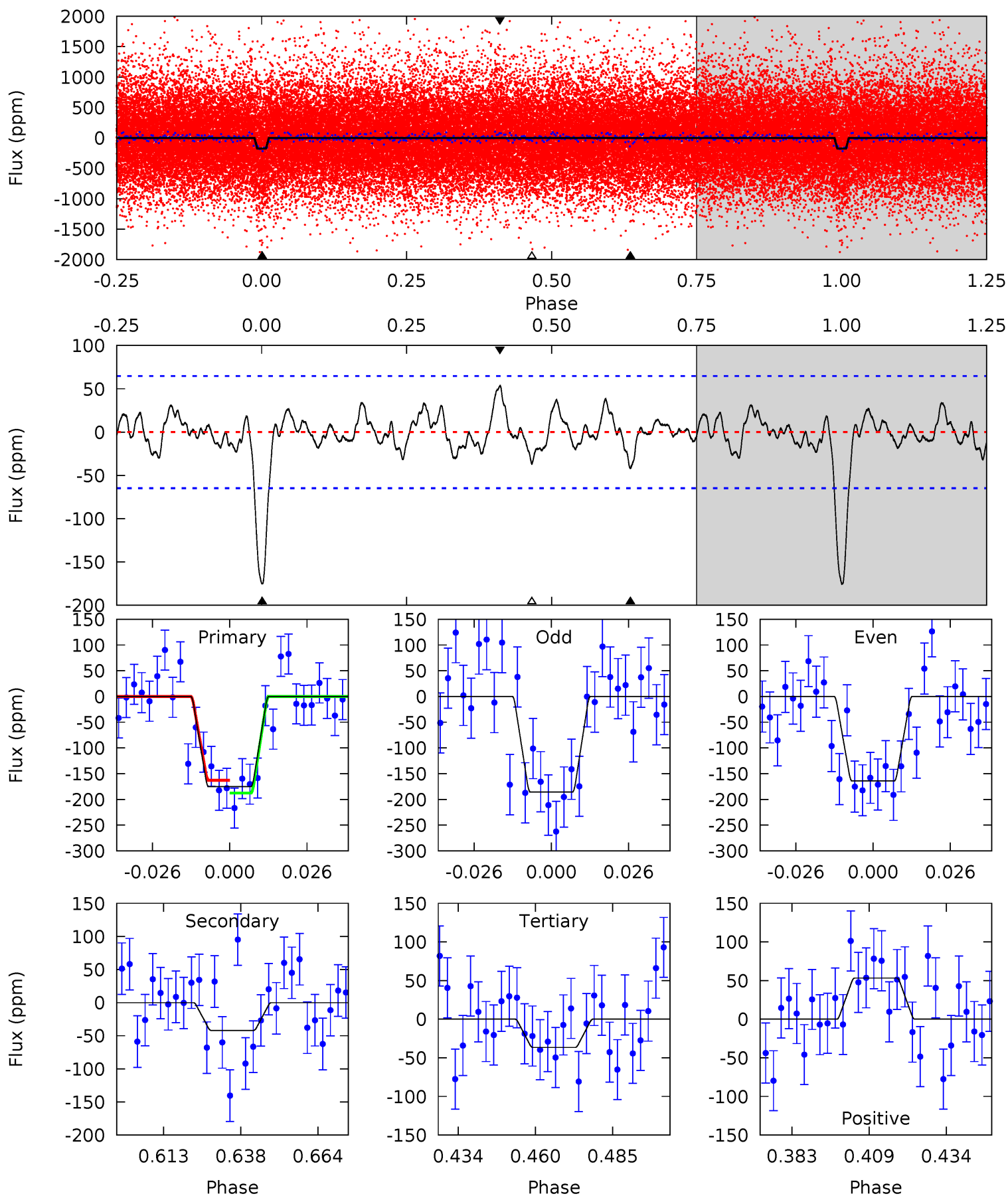
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	3.42	3.32	3.07	4.81	2.16	1.38	10.6	10.8	0.10	0.34	0.48	1.03	0.23	1.20



Alt Model-Shift Uniqueness Test

011019739-01, P = 4.157246 Days, E = 128.725069 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	3.14	2.74	3.98	4.84	2.23	1.21	10.4	9.12	0.40	-0.84	0.80	1.09	0.23	0.92



Stellar Parameters For KIC 011019739

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5183^{+154}_{-154}	$4.558^{+0.045}_{-0.078}$	$-0.080^{+0.300}_{-0.300}$	$0.782^{+0.098}_{-0.072}$	$0.806^{+0.082}_{-0.074}$	$2.375^{+0.535}_{-0.580}$
	+3%/-3%	+1%/-2%	+375%/-375%	+13%/-9%	+10%/-9%	+23%/-24%
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 011019739-01 / KOI 7400.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-42 ± 12	$1.44^{+1.07}_{-0.93}$	1309^{+54}_{-48}	3617^{+1805}_{-595}	25^{+179}_{-17}
Alt.	-42 ± 13	$1.44^{+1.29}_{-0.87}$	1309^{+51}_{-46}	3607^{+1519}_{-666}	23^{+137}_{-16}

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

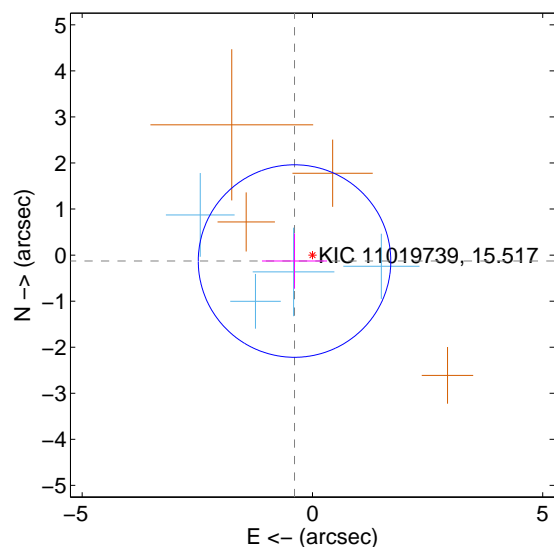
Supplemental centroid analysis for 011019739-01. Kepler magnitude: 15.52. Transit SNR 9.50

There are 4 quarters with good PRF difference image offsets

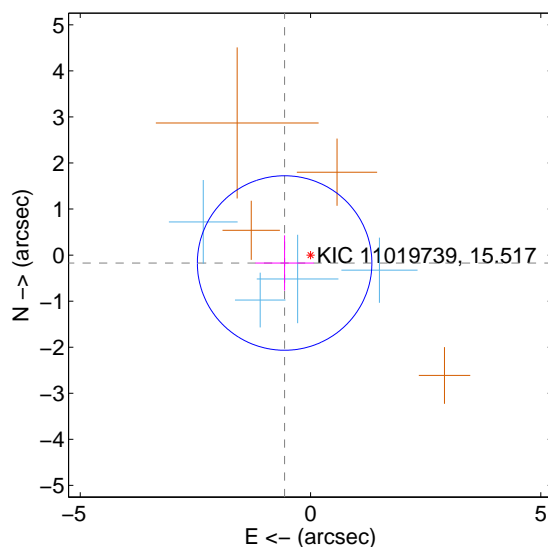
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.410 ± 0.697	0.59	0.389 ± 0.706	-0.129 ± 0.602
PRF-fit source offset from KIC position	0.588 ± 0.632	0.93	0.563 ± 0.634	-0.172 ± 0.601
photometric centroid source offset	0.28 ± 1.37	0.20	0.04 ± 1.49	-0.28 ± 1.36

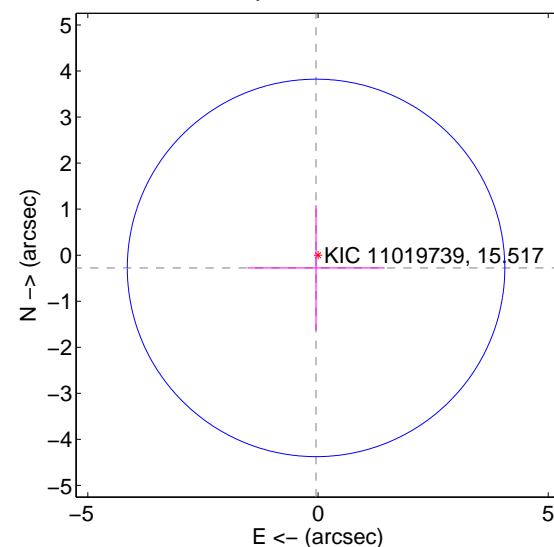
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

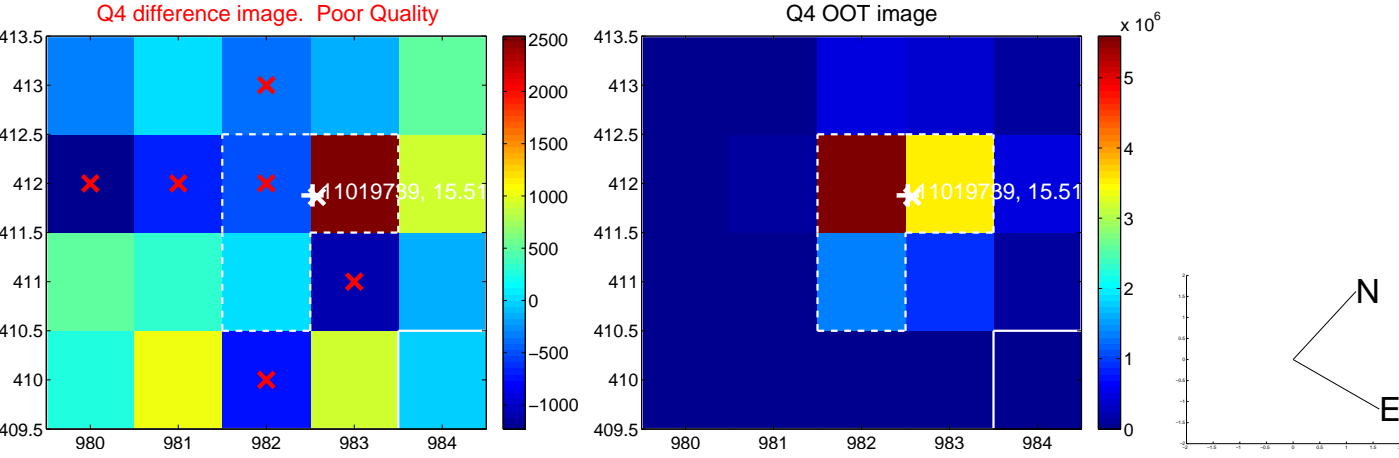
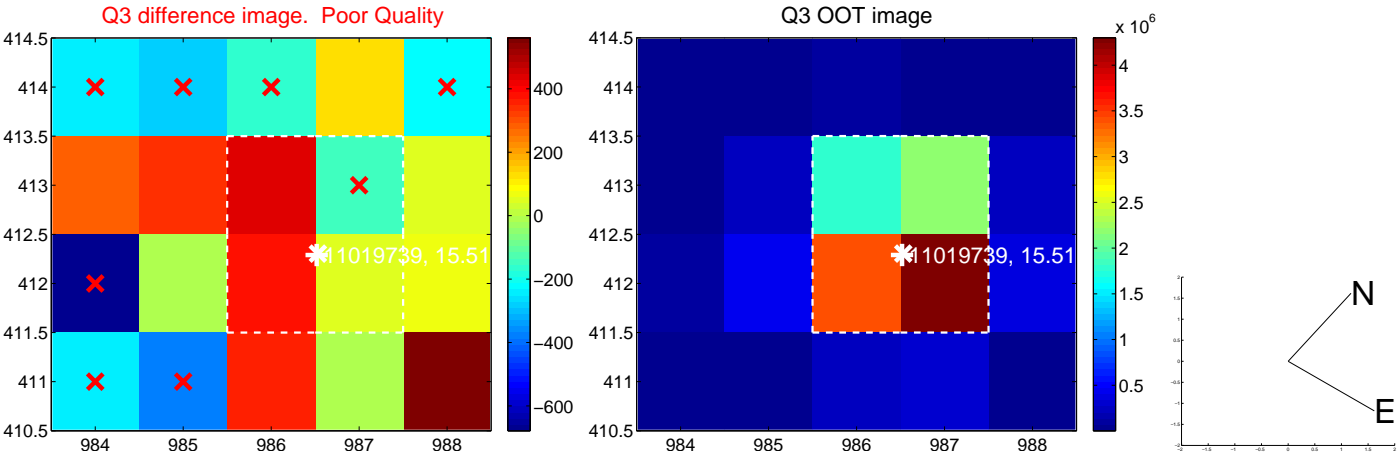
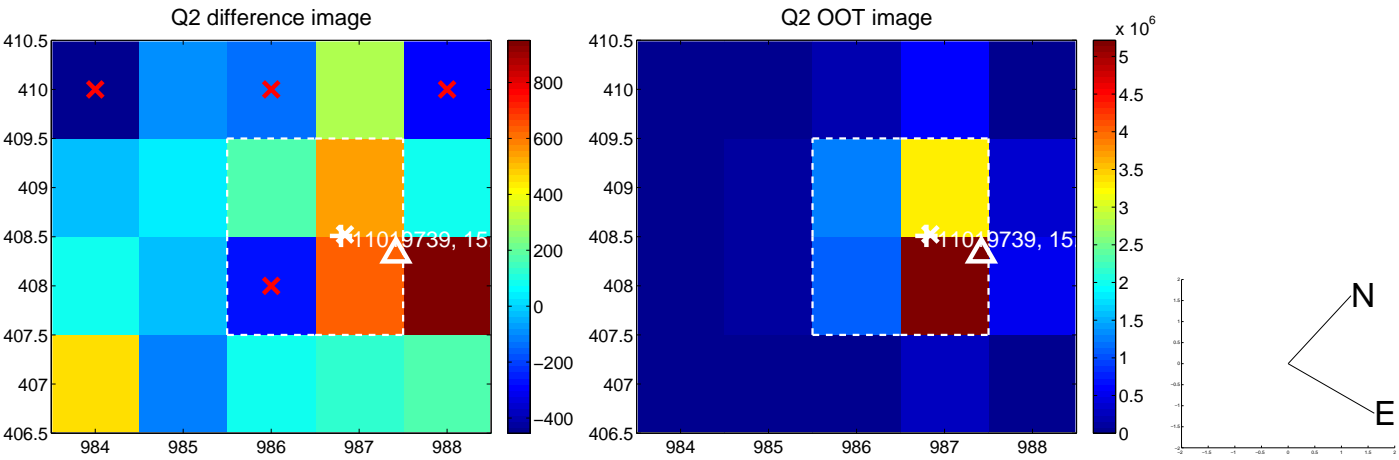
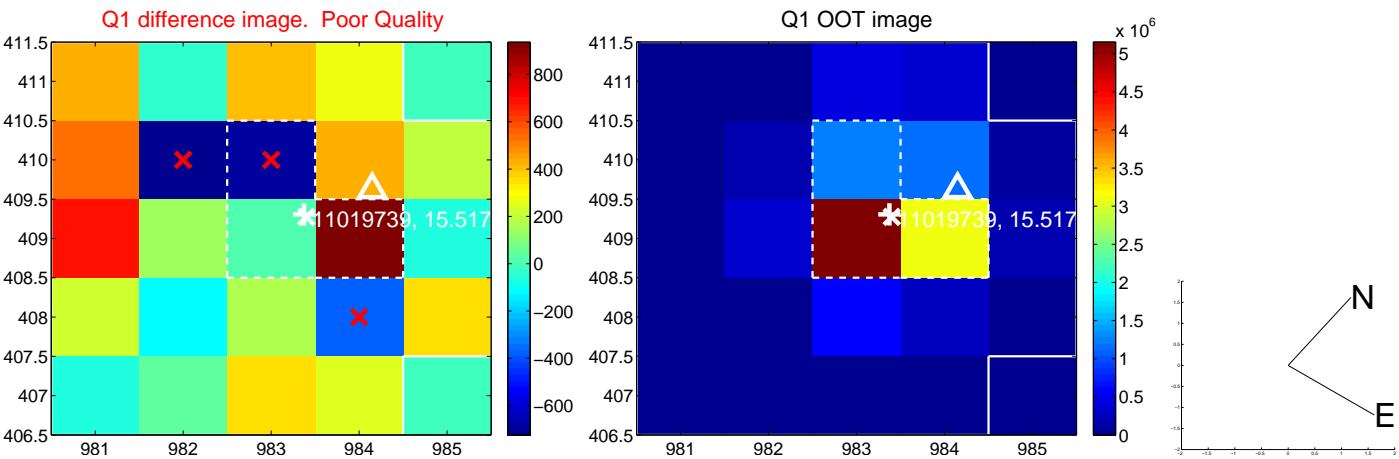


offset from photometric centroids

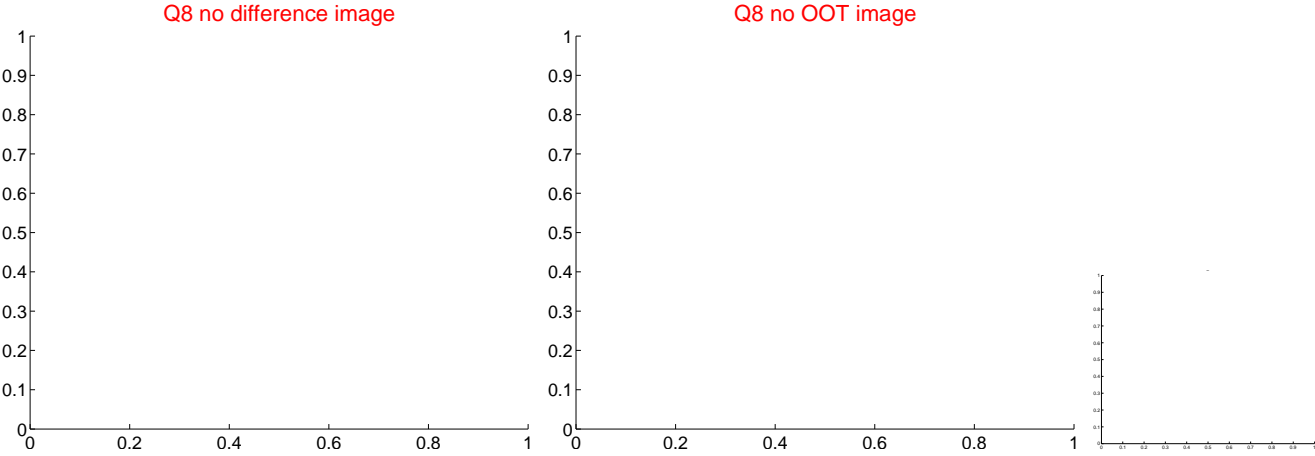
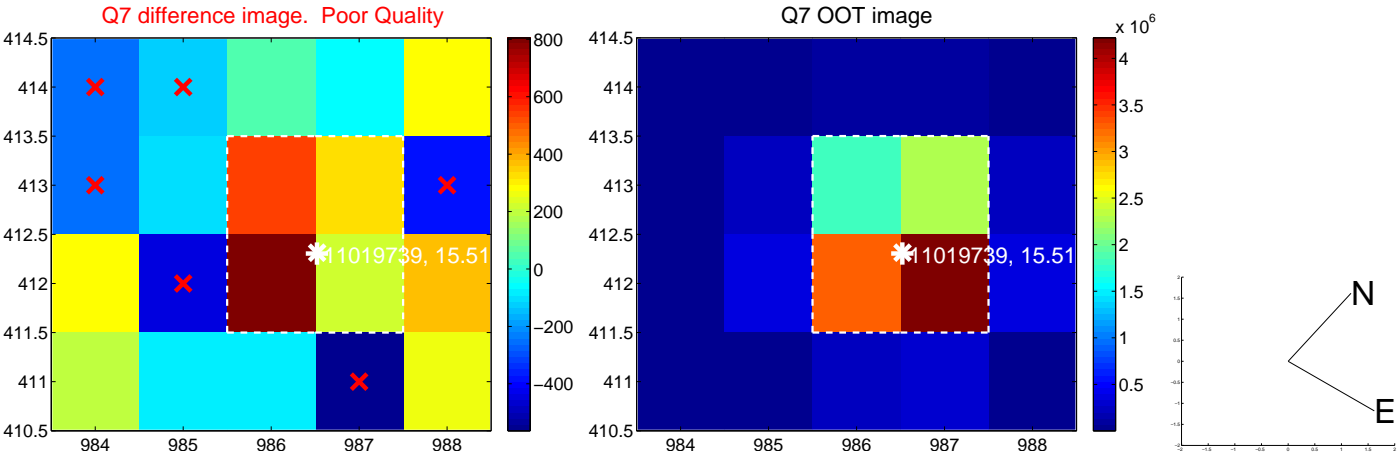
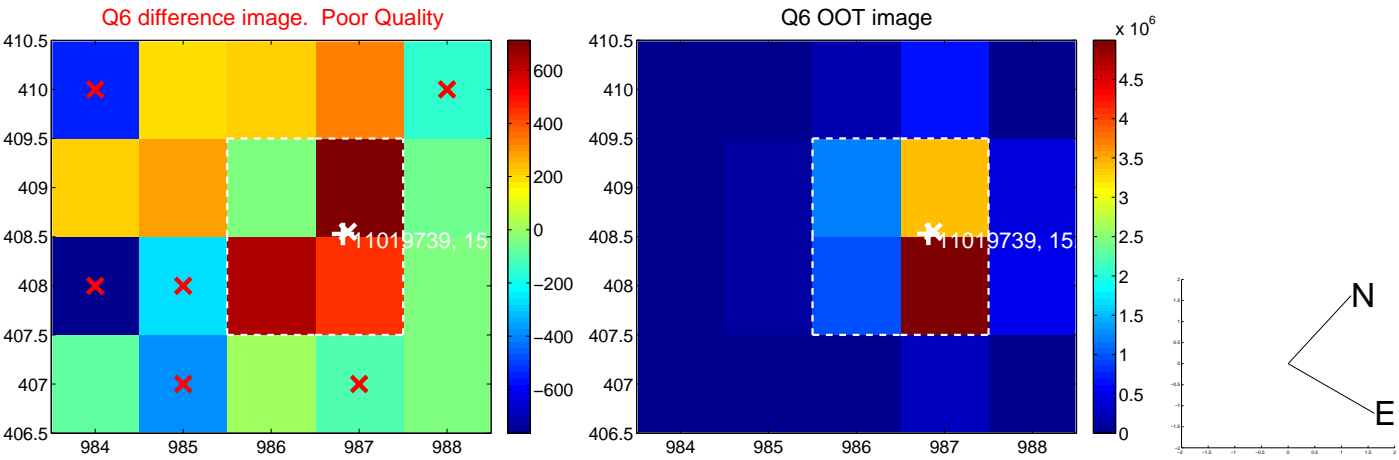
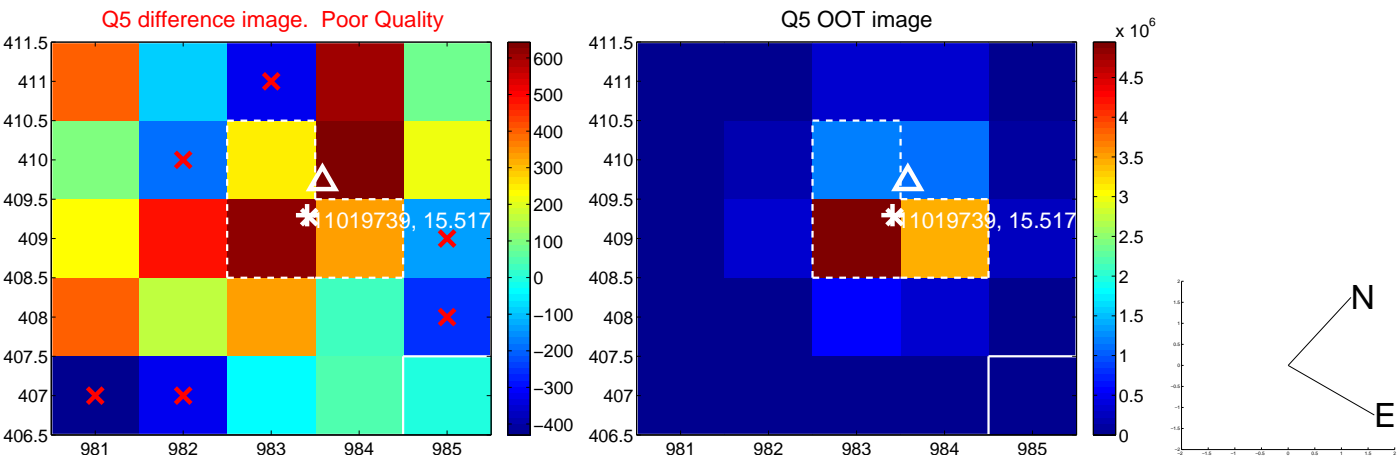


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

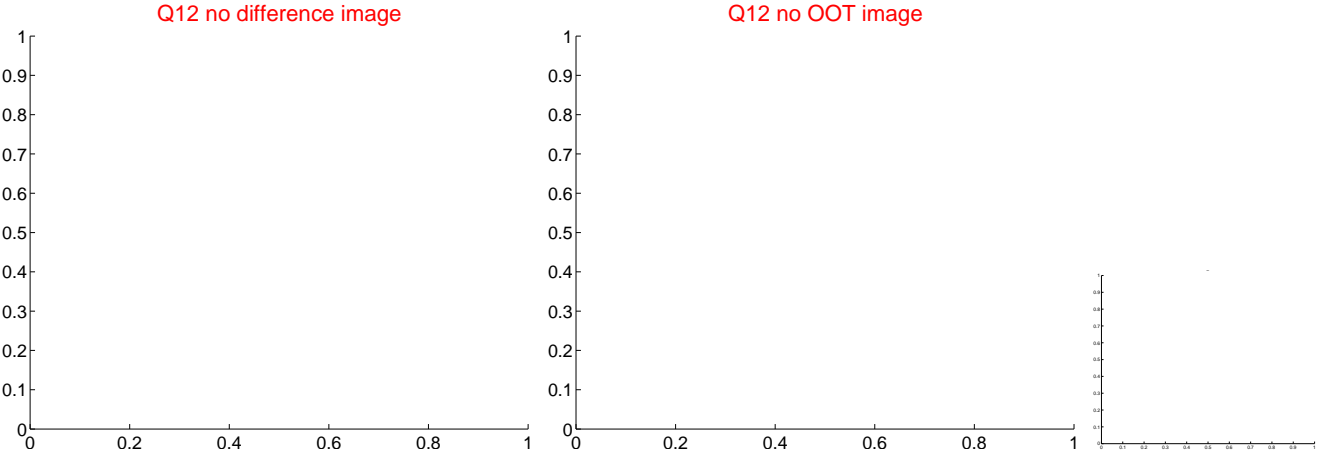
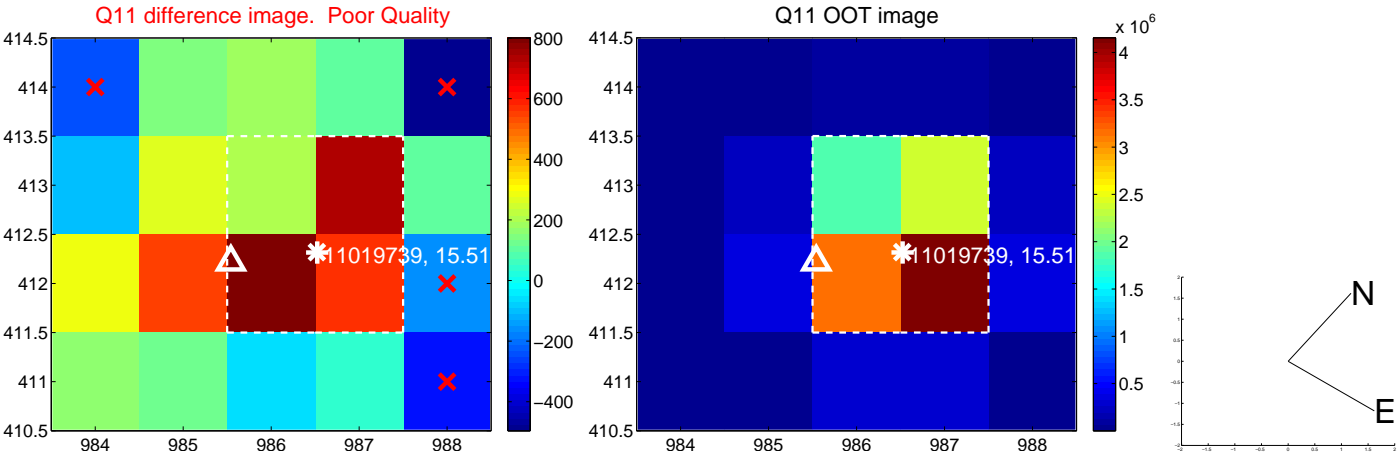
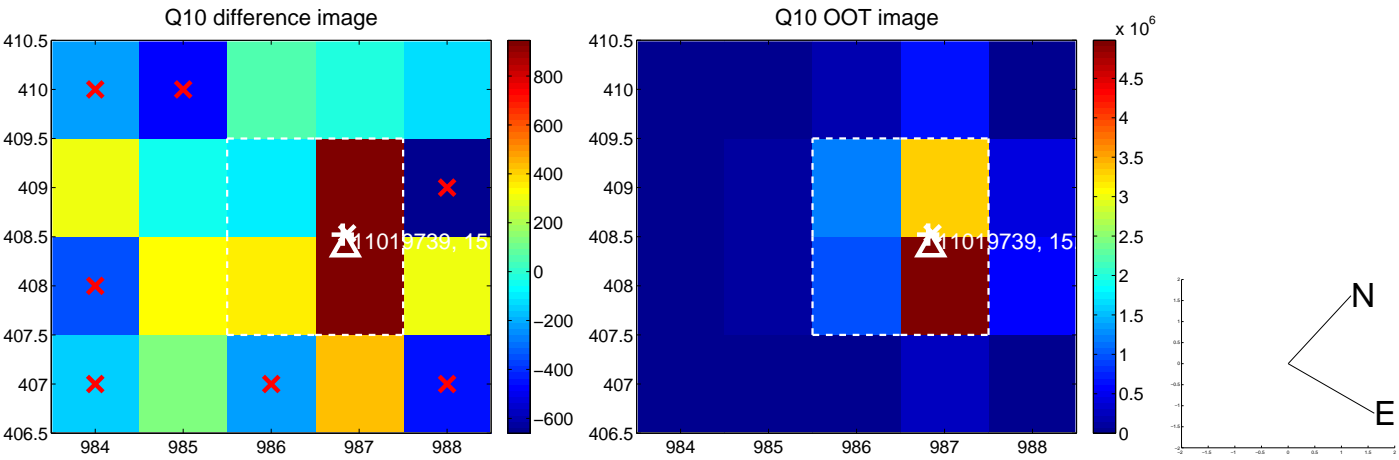
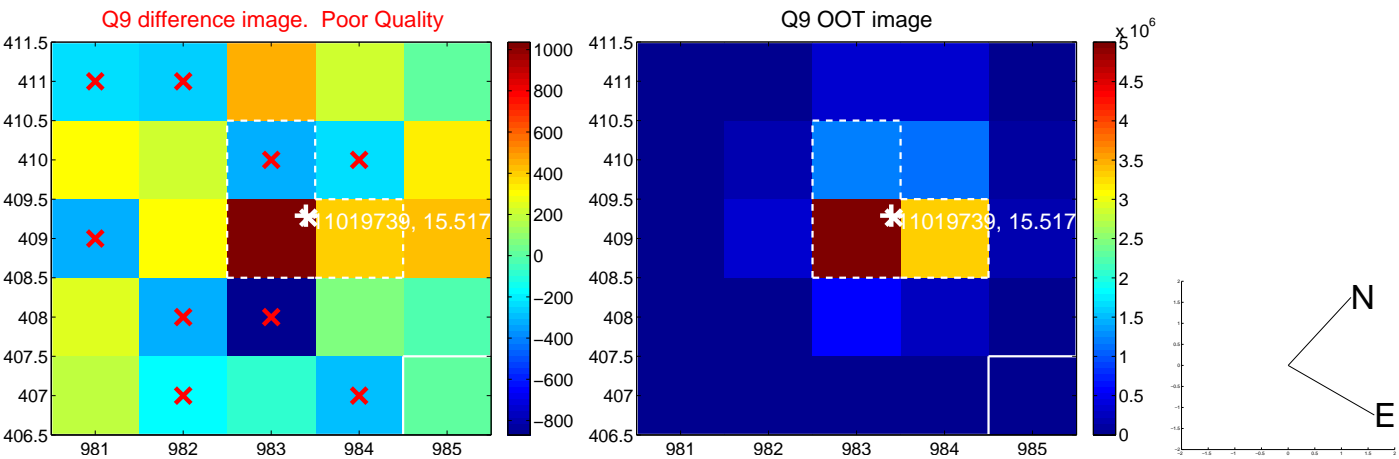
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



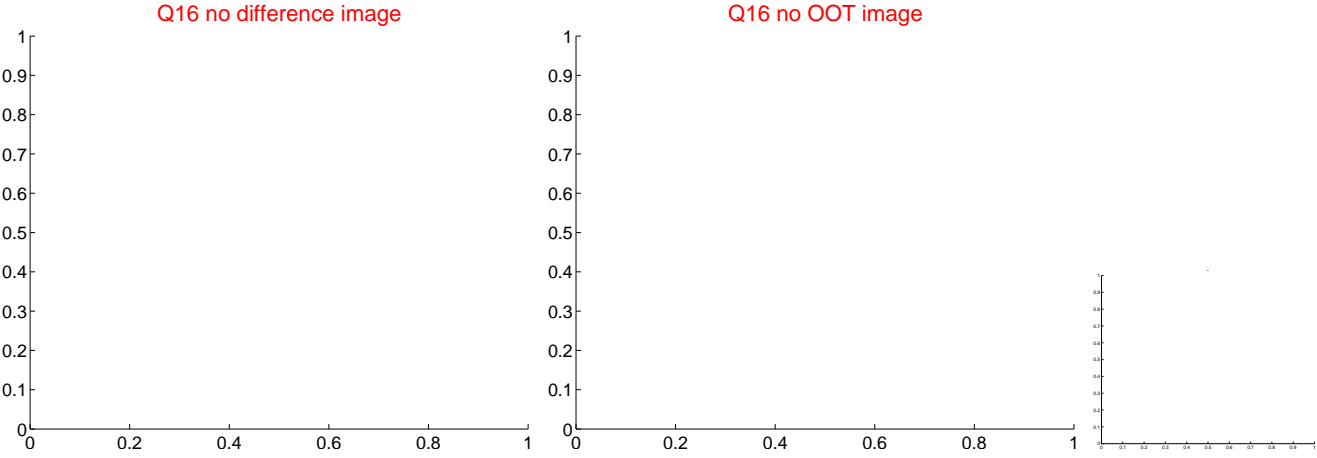
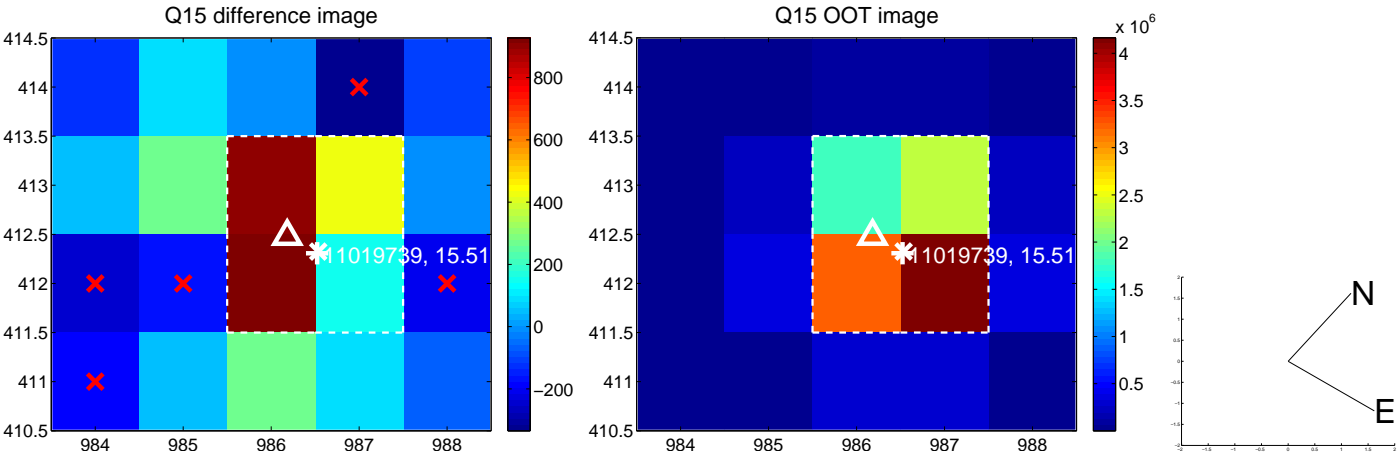
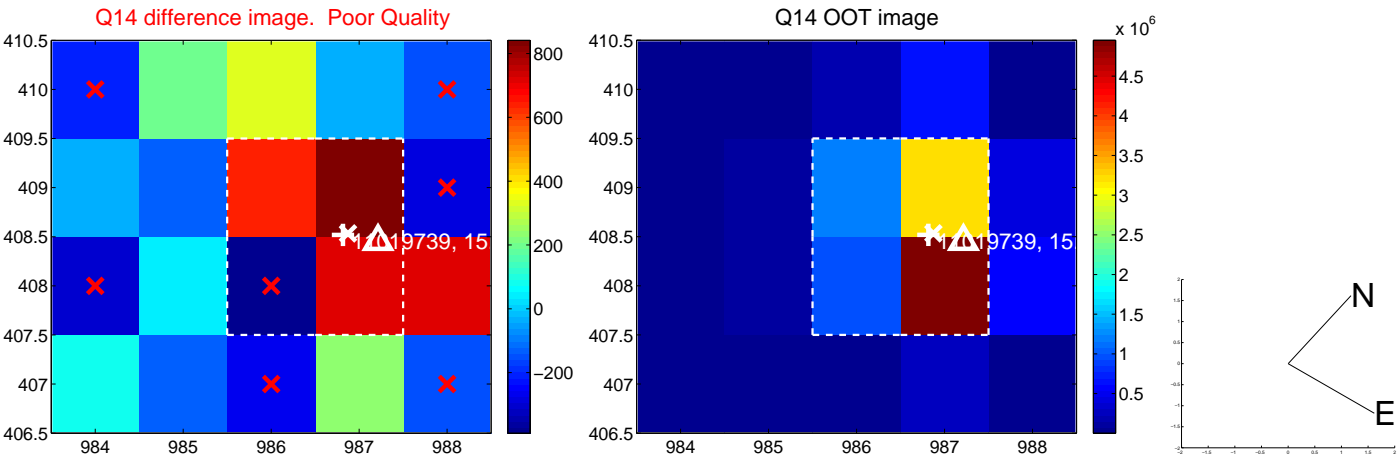
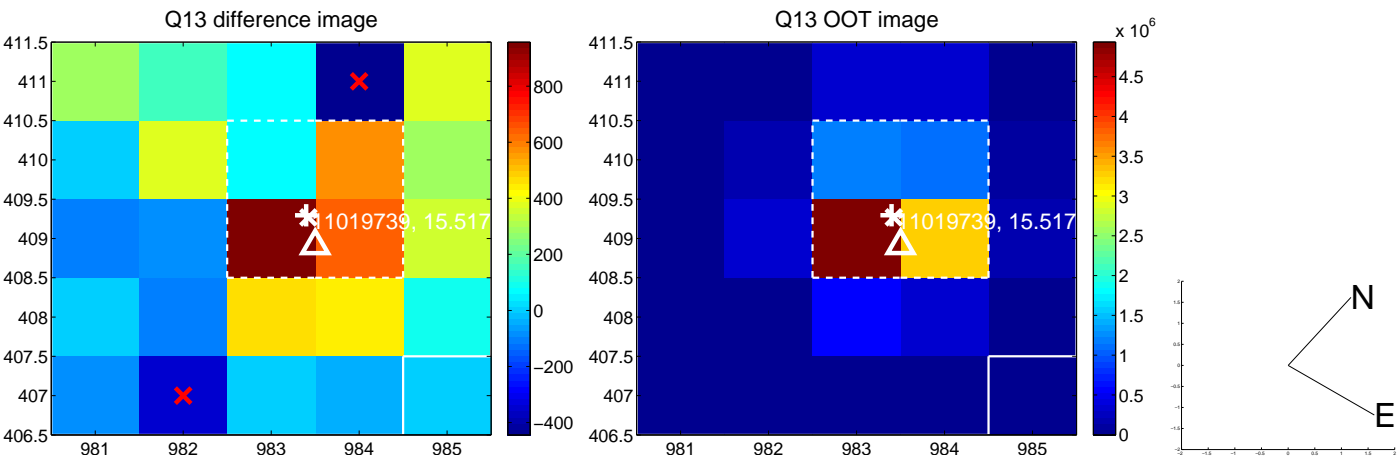
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



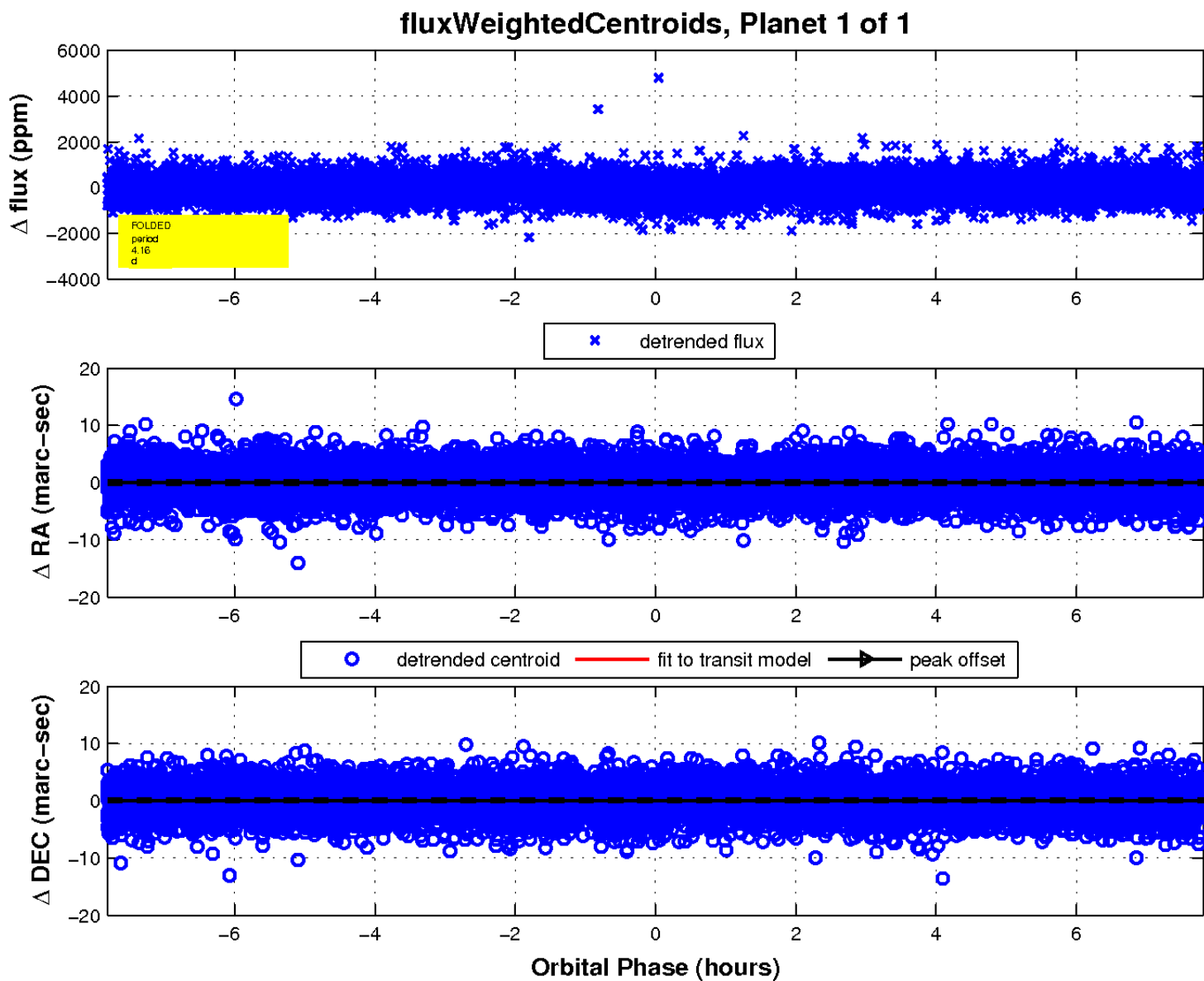
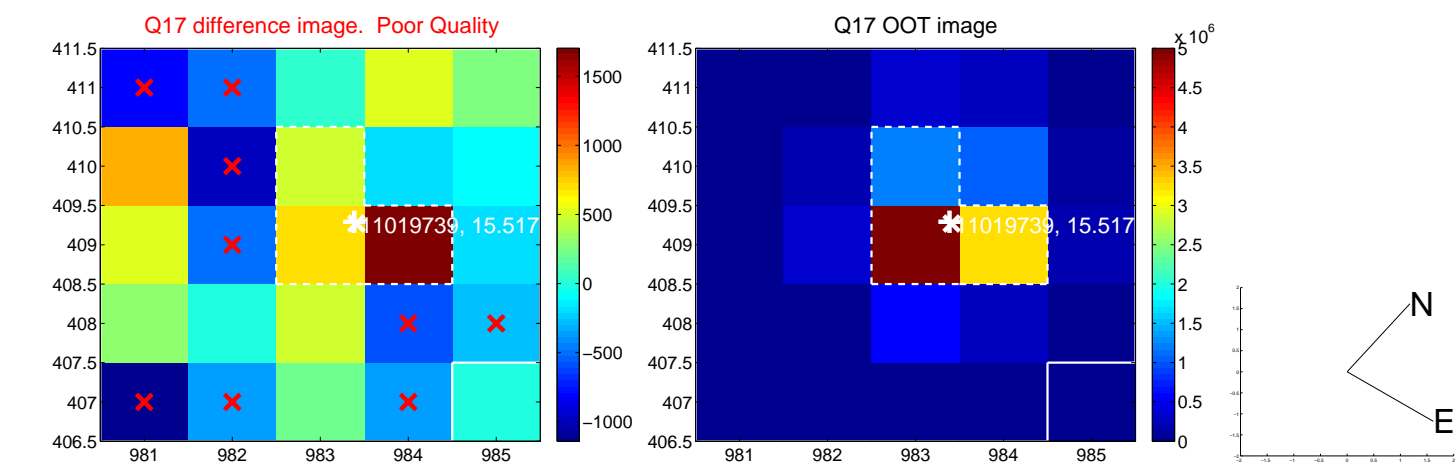
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

