

KIC 010149211

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})
010149211-01	OBS	No	0.605570	131.718188	72.6	3.940	55.3	11.6	3.39	11043	3.14	361675.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010149211-01	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.

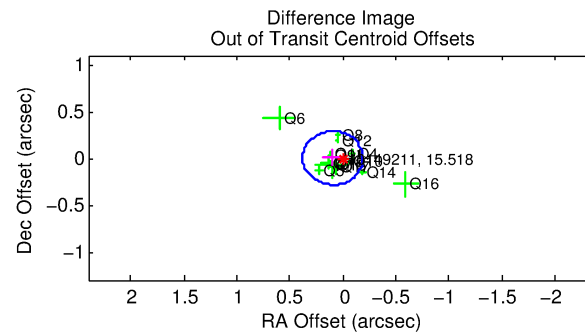
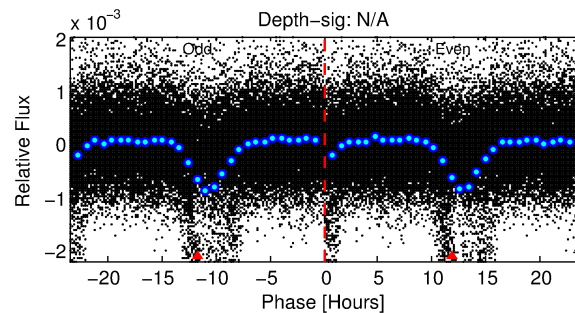
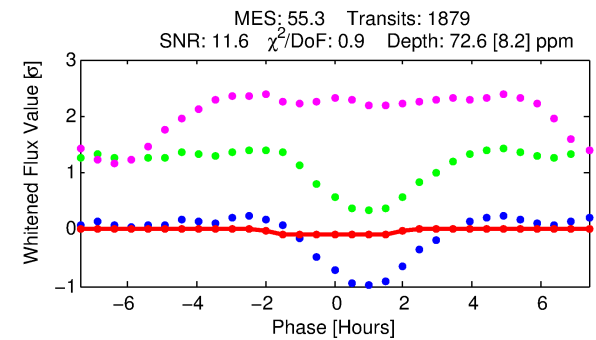
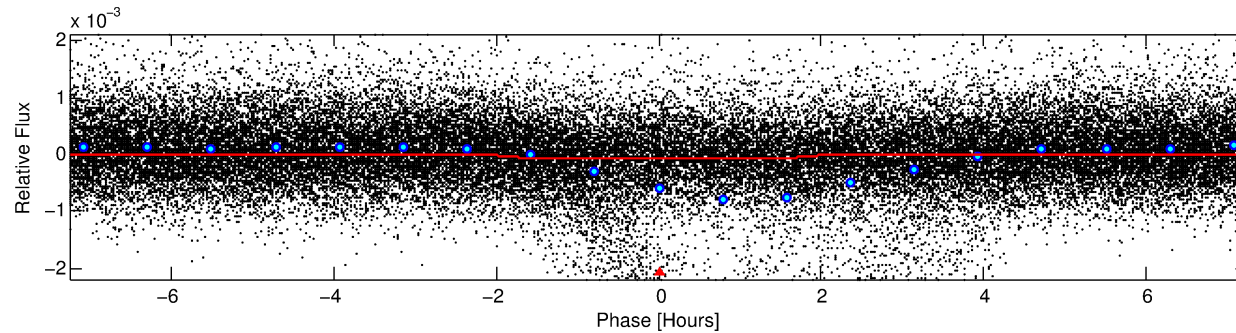
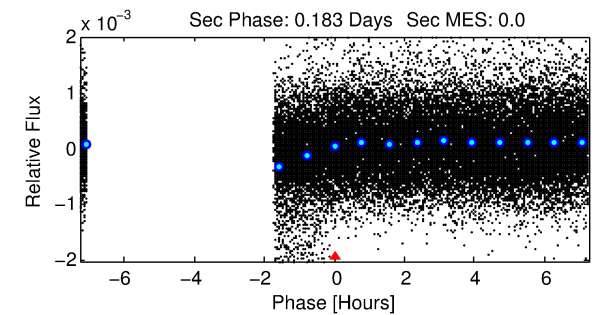
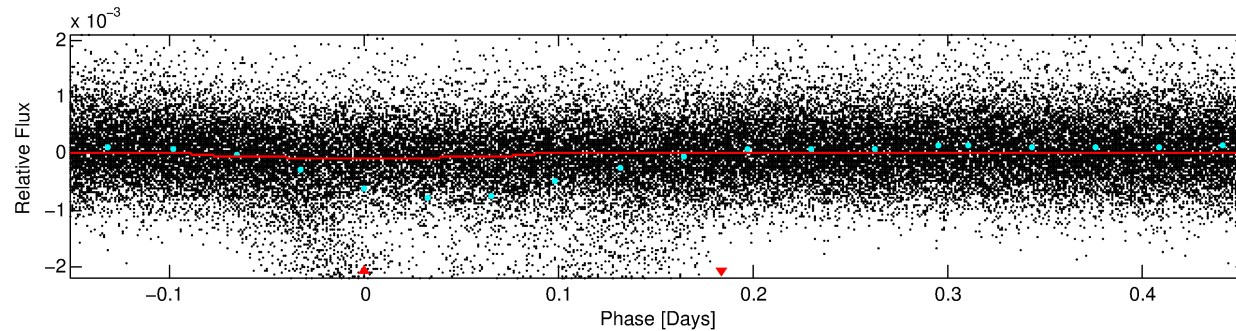
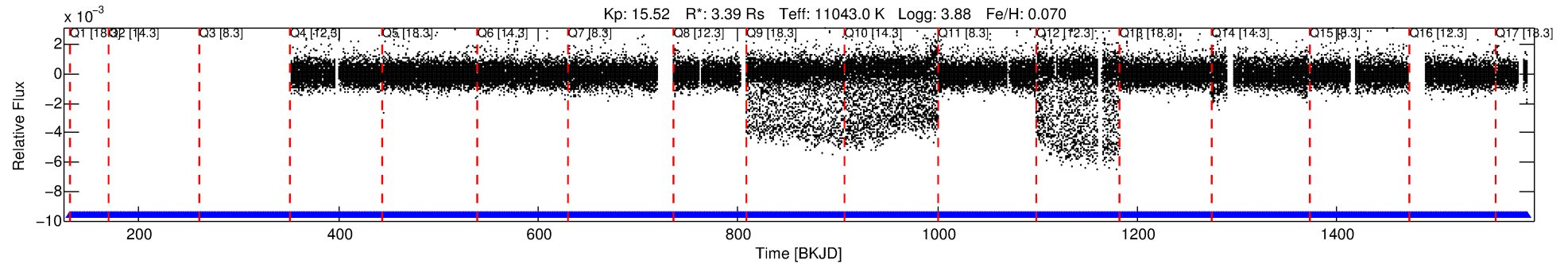
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010149211-01

No Significant Match Found

DV One-Page Summary

KIC: 10149211 Candidate: 1 of 1 Period: 0.606 d



DV Fit Results:

Period = 0.60557 [0.00001] d
 Epoch = 131.7182 [0.0031] BKJD
 Rp/R* = 0.0085 [0.0042]
 a/R* = 1.16 [1.21]
 b = 0.76 [2.23]
 Seff = 361675.57 [227904.04]
 Teq = 6253 [985] K
 Rp = 3.14 [2.05] Re
 a = 0.0206 [0.0080] AU
 Ag = N/A
 Tefp = N/A

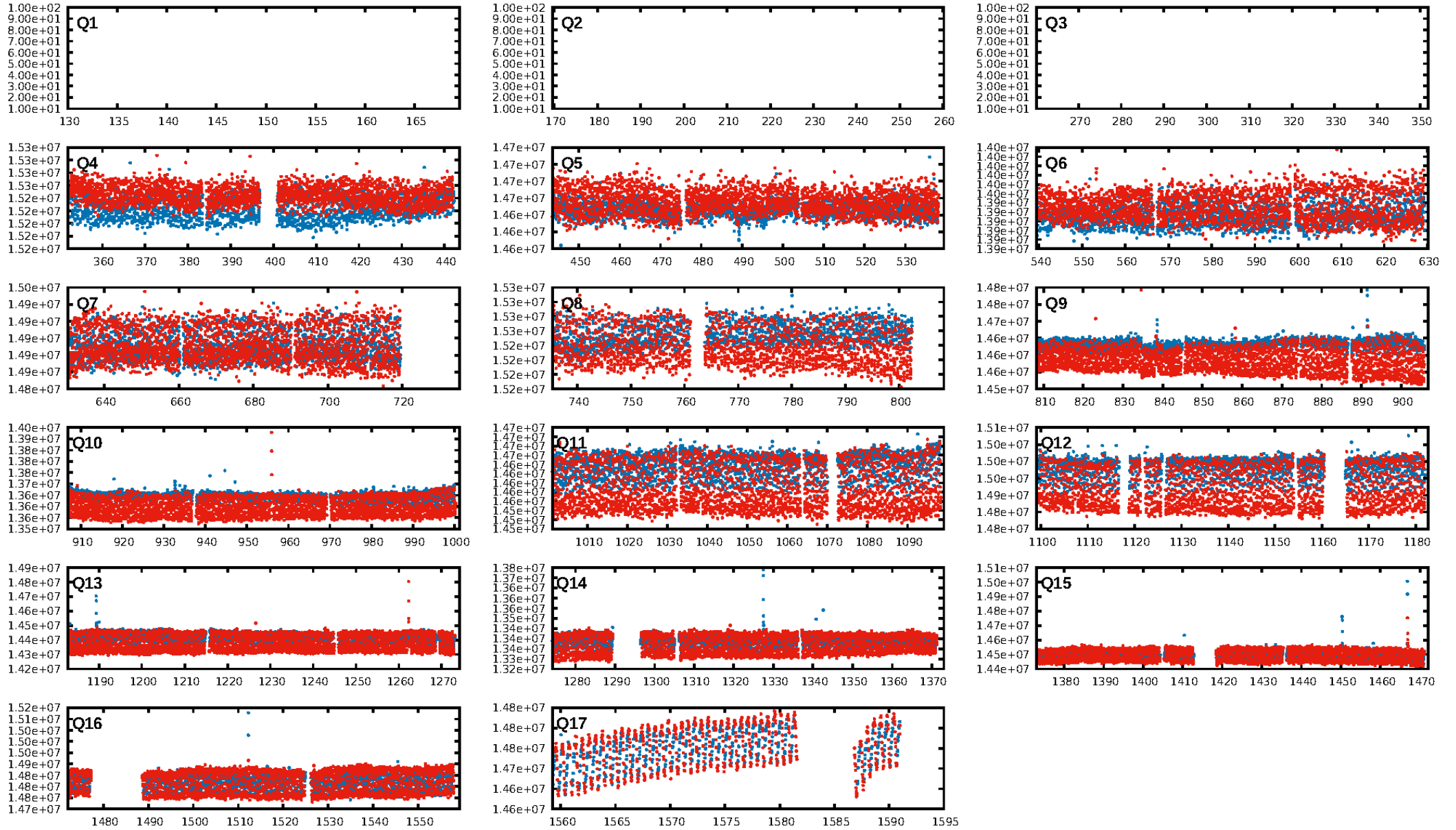
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: N/A
 ModelChiSquareGof-sig: N/A
 Bootstrap-pfa: N/A
 RollingBand-fgt: 1.00 [1835/1835]
 GhostDiagnostic-chr: 12.75
 Centroid-sig: 0.3%
 Centroid-so: 1.411 arcsec [1.69σ]
 OotOffset-rm: 0.093 arcsec [0.98σ]
 KicOffset-rm: 0.211 arcsec [2.58σ]
 OotOffset-st: 3/3/4/4 [14]
 KicOffset-st: 3/3/4/4 [14]
 DiffImageQuality-fgm: 0.57 [8/14]
 DiffImageOverlap-fno: 1.00 [14/14]

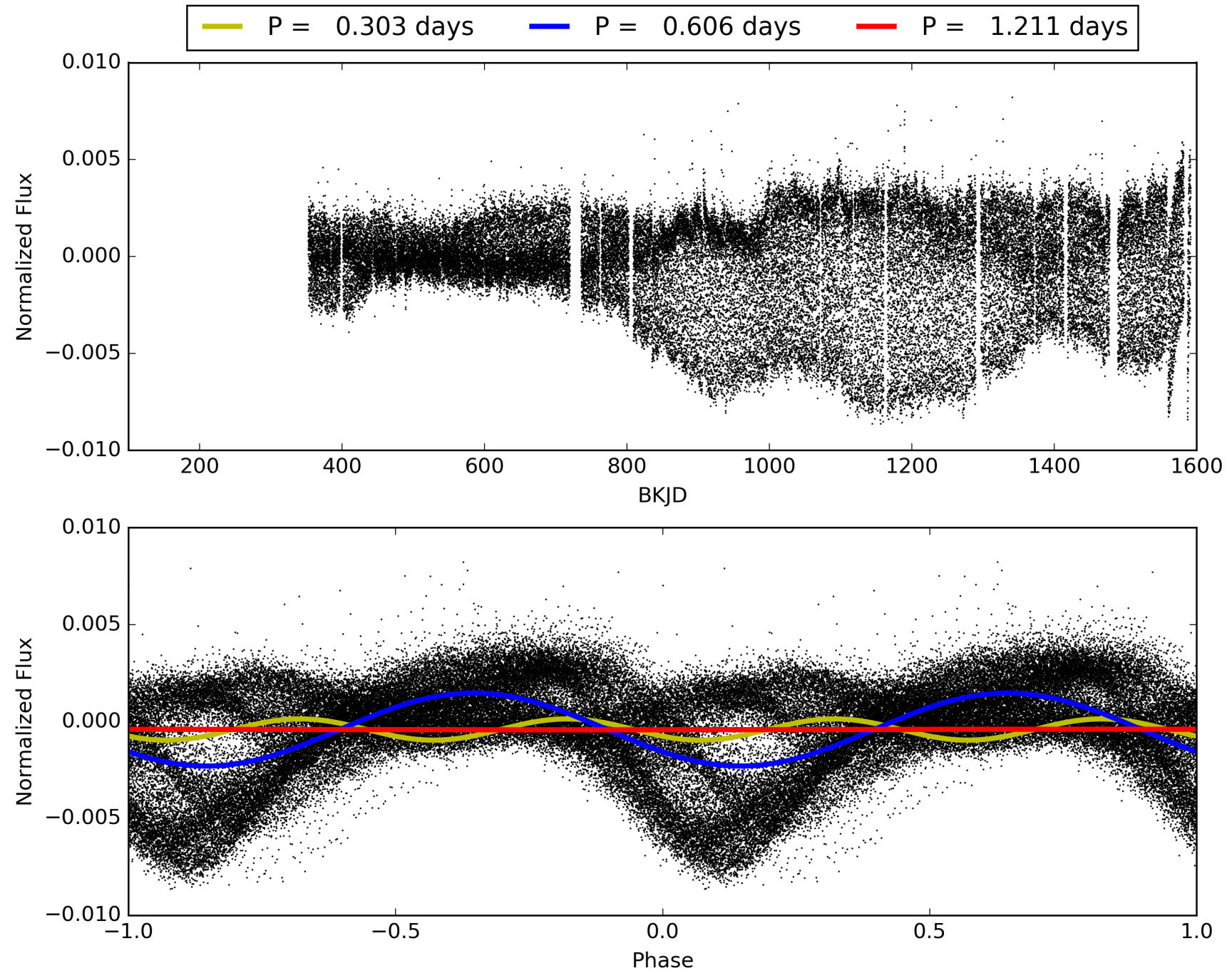
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 00:38:55 Z

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

TCE 010149211-01, PDC Light Curves

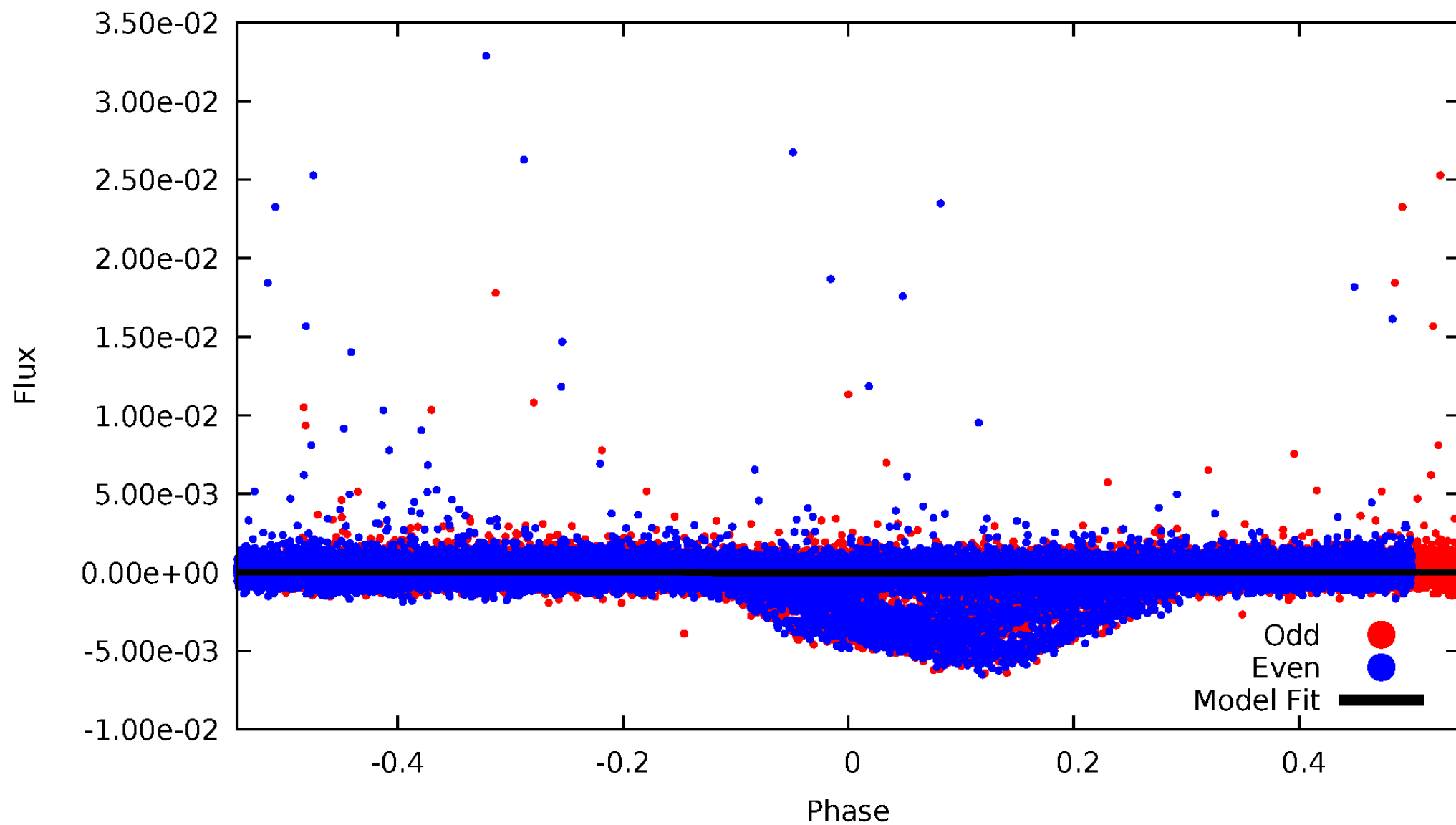


TCE 010149211-01



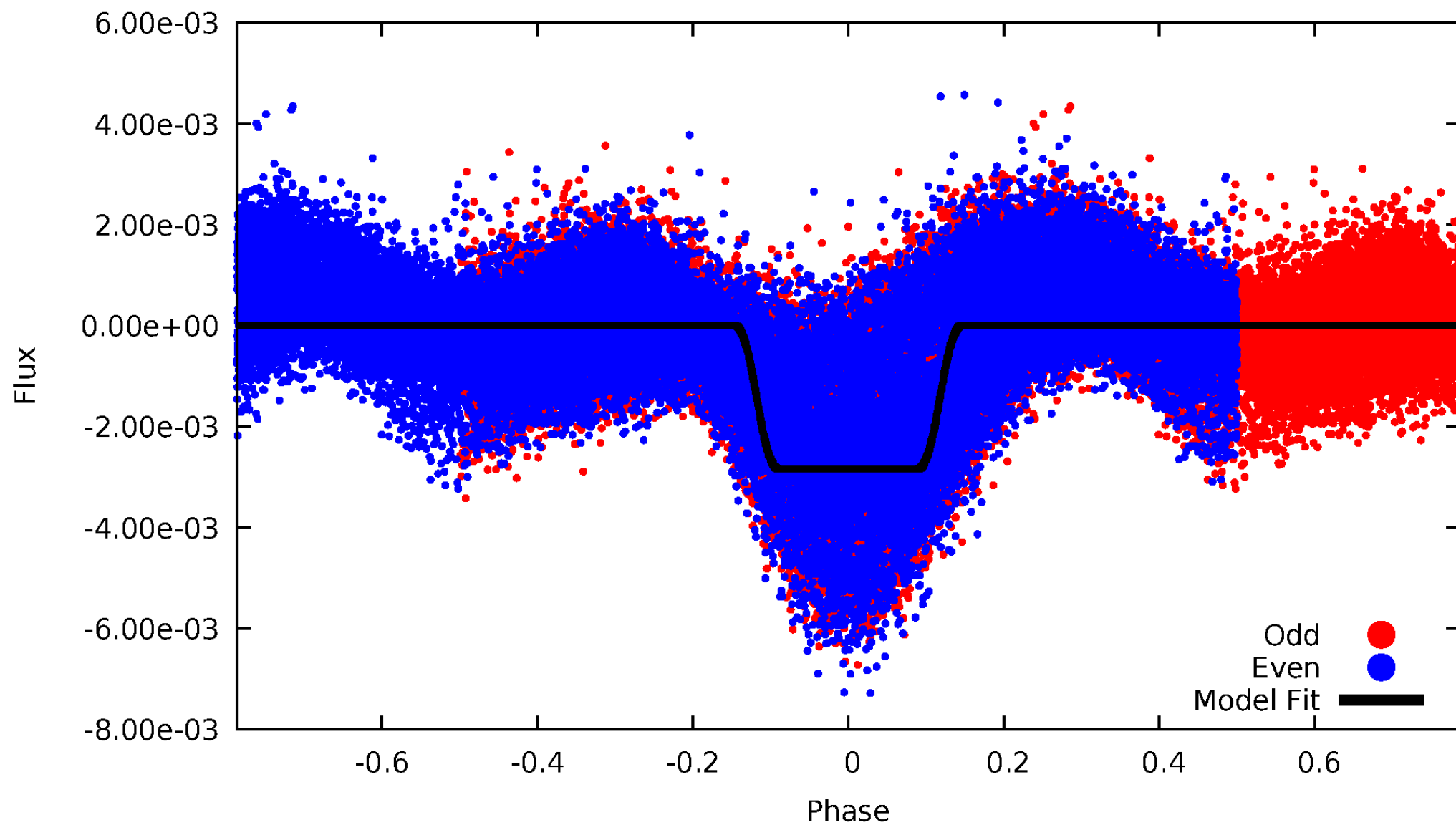
DV Odd/Even

TCE 010149211-01



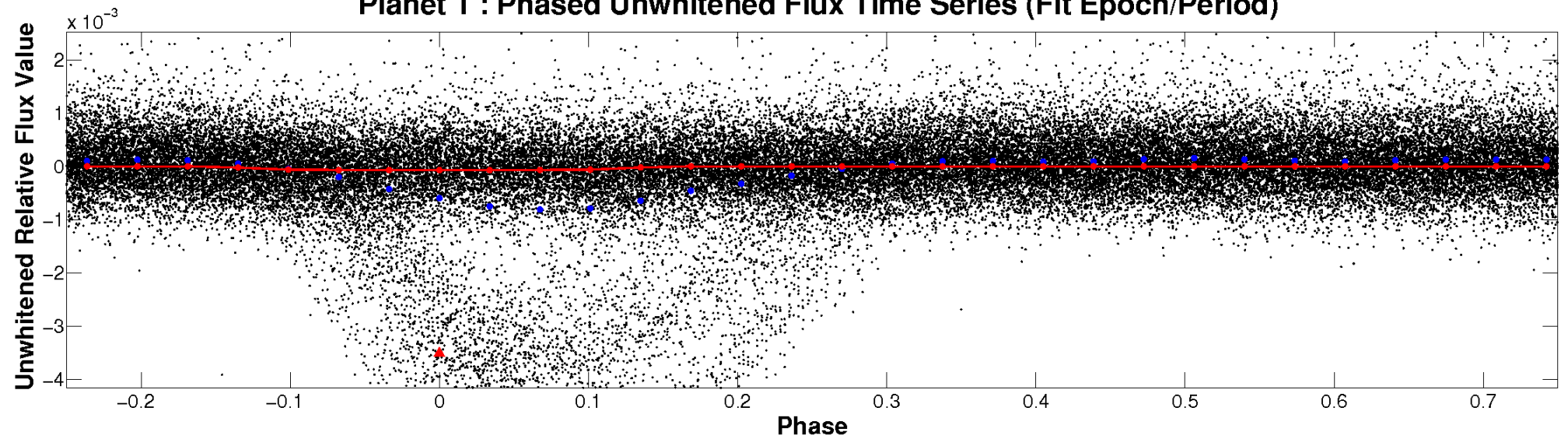
ALT Odd/Even

TCE 010149211-01

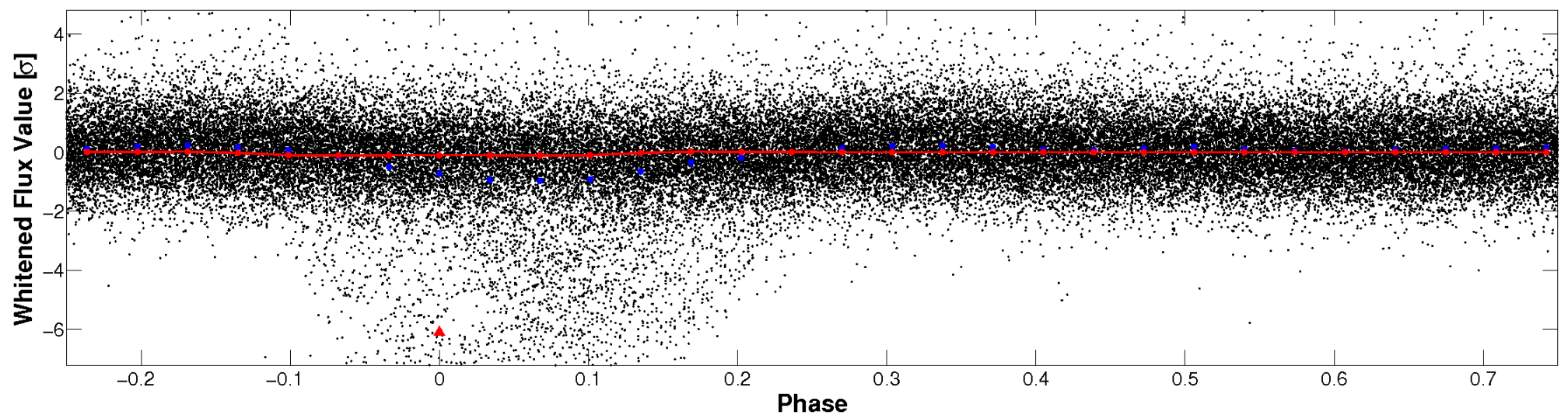


Non-Whitened Vs. Whitened Light Curve

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

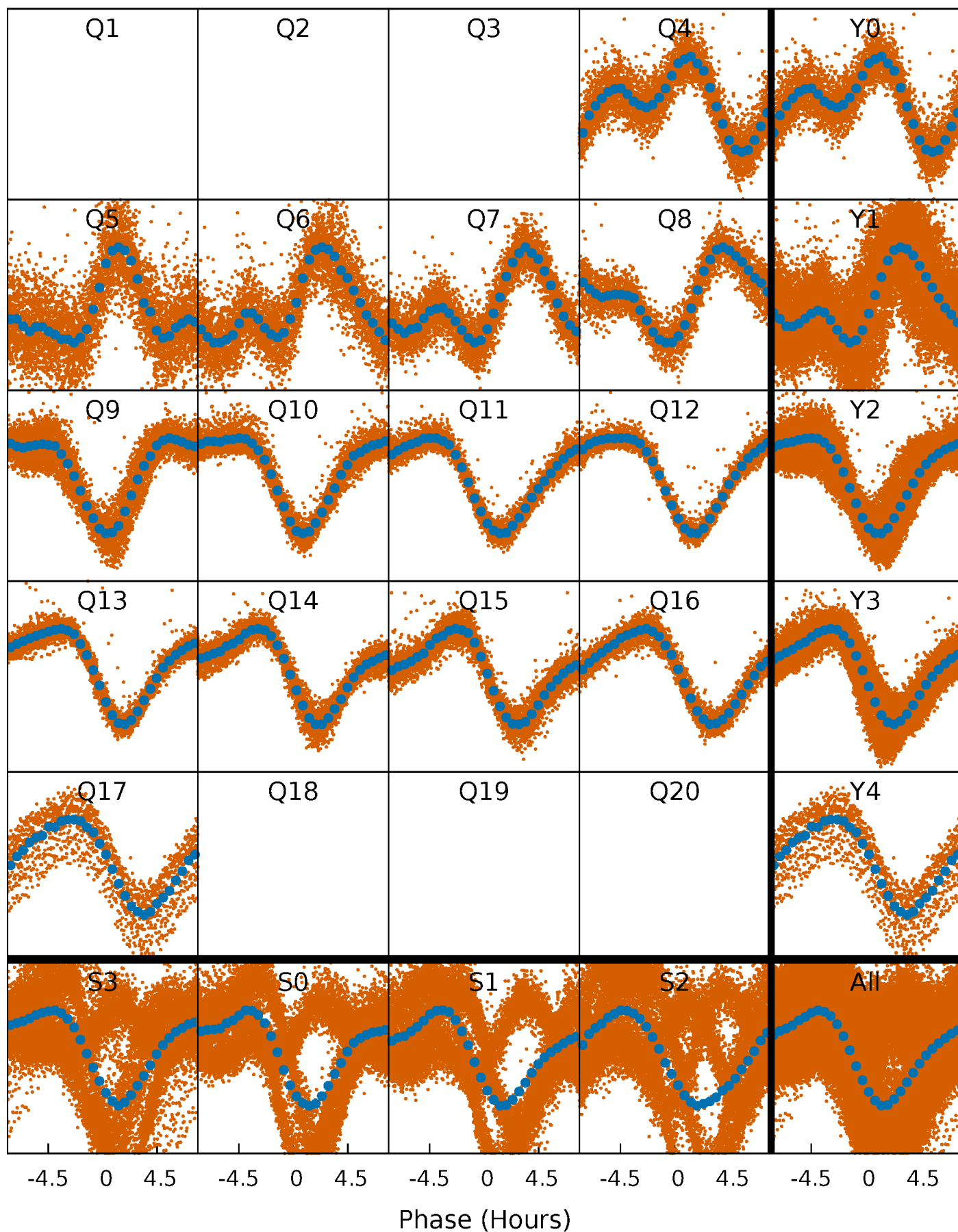


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



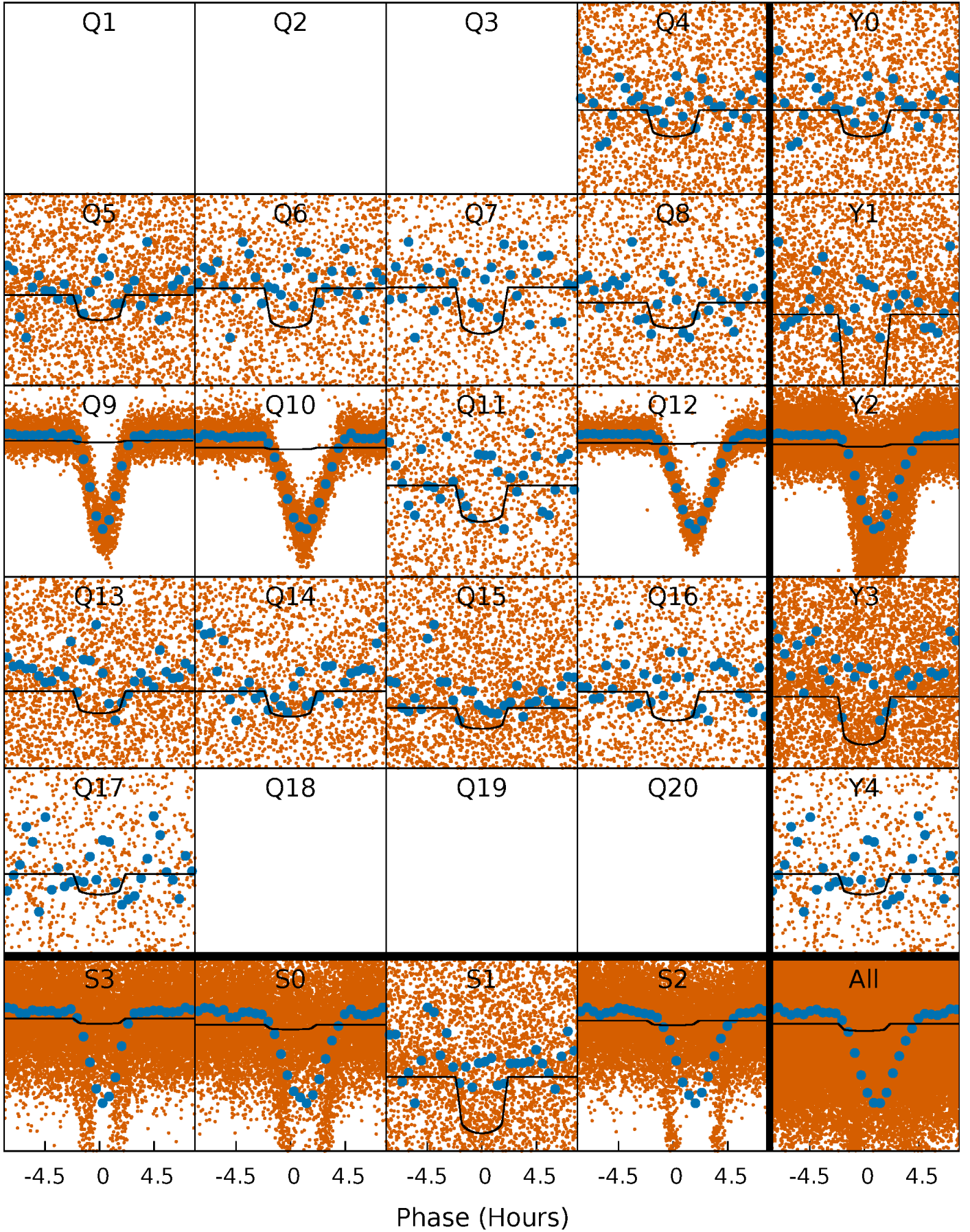
PDC Quarter-Phased Transit Curves

TCE 010149211-01 P= 0.605570 Days $T_0=131.718187$ (BKJD)



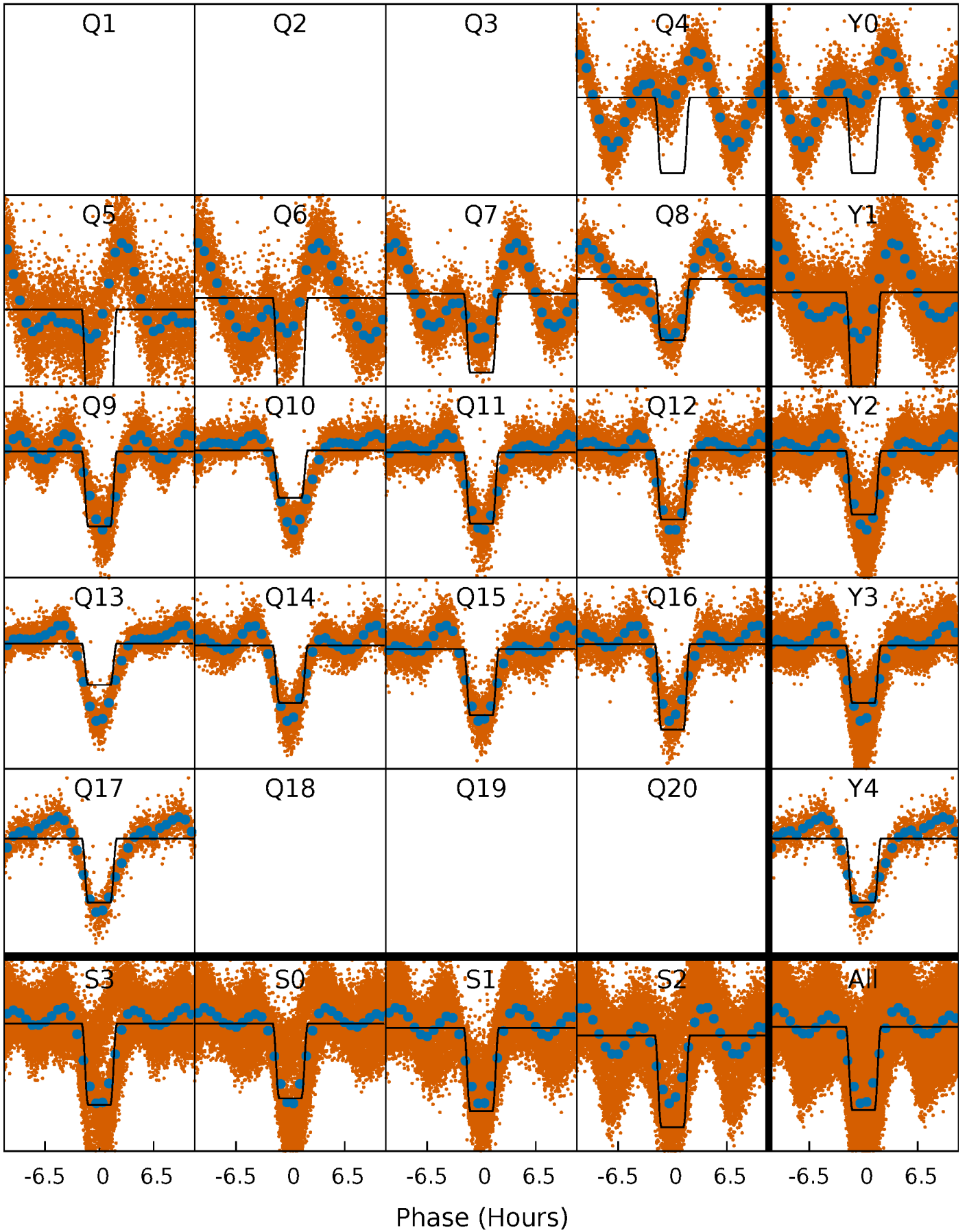
DV Quarter-Phased Transit Curves

TCE 010149211-01 P= 0.605570 Days $T_0=131.718187$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

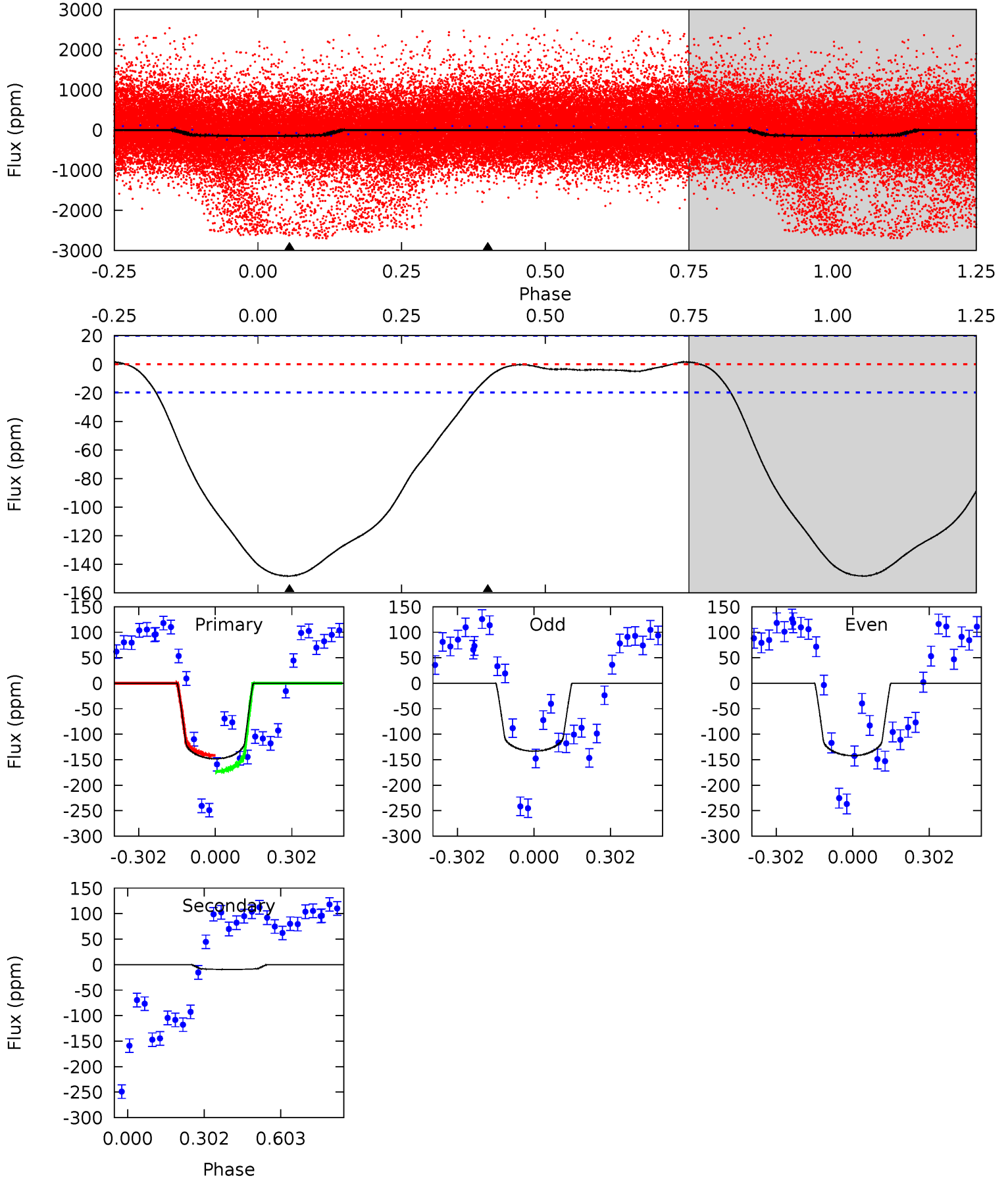
TCE 010149211-01 $P = 0.605674$ Days $T_0 = 131.598245$ (BKJD)



DV Model-Shift Uniqueness Test

010149211-01, P = 0.605570 Days, E = 131.718187 Days

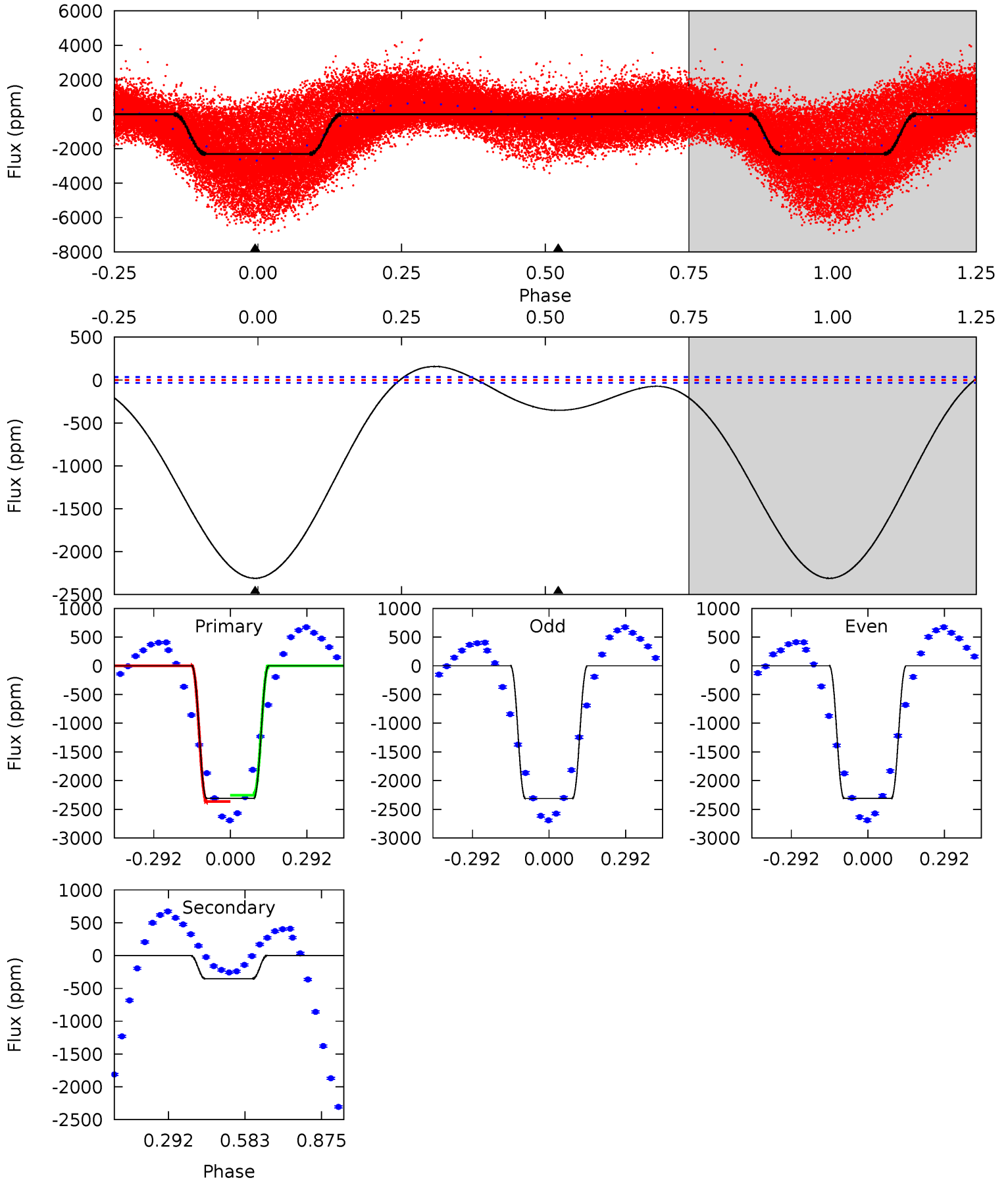
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.4	2.09	0	0	4.33	1.03	0.36	32.4	32.4	2.09	2.09	0.96	6.87	0.01	2.96



Alt Model-Shift Uniqueness Test

010149211-01, P = 0.605674 Days, E = 131.598245 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
295.6	45.2	0	0	4.33	1.05	19.5	295.6	295.6	45.2	45.2	0.07	0.92	0.06	5.64



Stellar Parameters For KIC 010149211

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	11043^{+261}_{-522}	$3.878^{+0.345}_{-0.115}$	$0.070^{+0.150}_{-0.600}$	$3.388^{+0.482}_{-1.445}$	$3.158^{+0.105}_{-0.943}$	$0.114^{+0.309}_{-0.034}$
	+2%/-5%	+9%/-3%	+214%/-857%	+14%/-43%	+3%/-30%	+270%/-29%
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 010149211-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 5	$2.87^{+1.64}_{-1.49}$	8507^{+617}_{-868}	-4199^{+11811}_{-1643}	$0.247^{+0.810}_{-0.168}$
Alt.	-353 ± 8	$18.96^{+2.88}_{-4.28}$	8552^{+597}_{-907}	-4615^{+8467}_{-780}	$0.224^{+0.117}_{-0.056}$

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

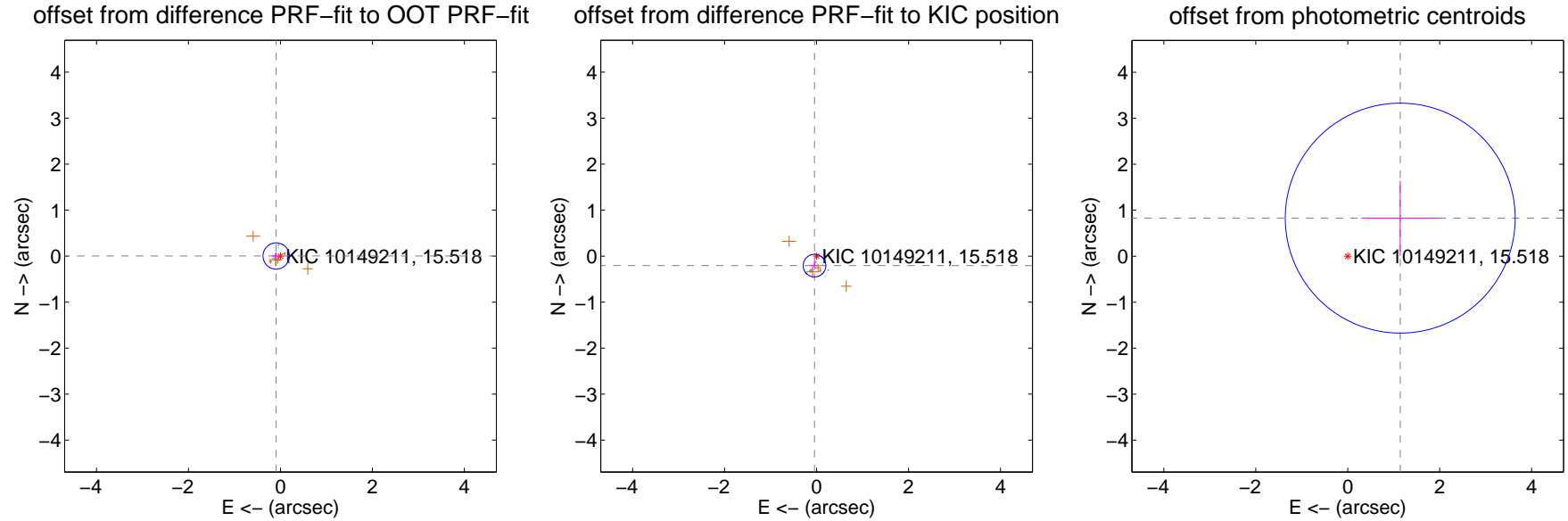
DV Centroid Data

Supplemental centroid analysis for 010149211-01. Kepler magnitude: 15.52. Transit SNR 11.61

There are 8 quarters with good PRF difference image offsets

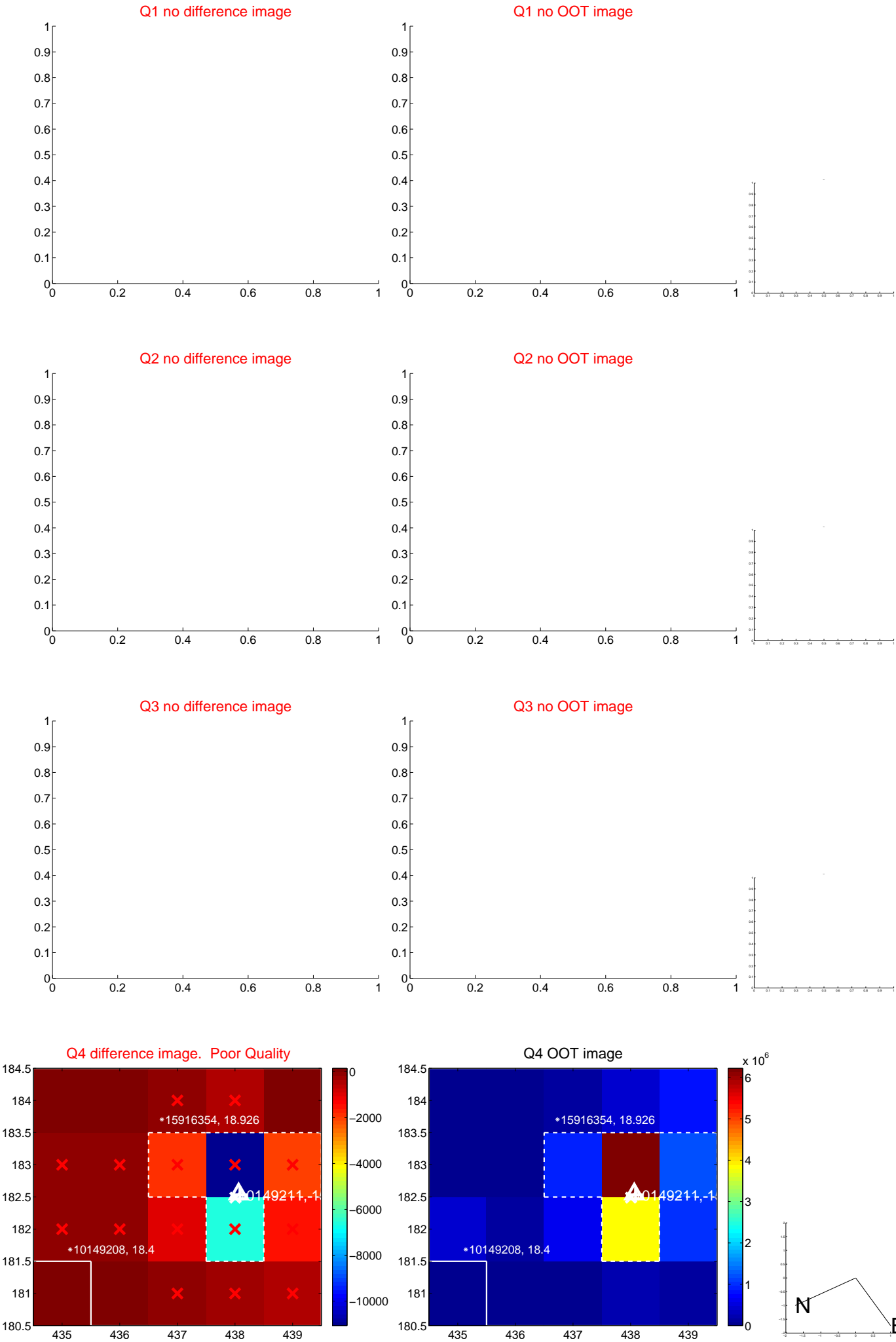
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.093 ± 0.095	0.98	0.093 ± 0.094	0.003 ± 0.083
PRF-fit source offset from KIC position	0.211 ± 0.082	2.58	0.045 ± 0.097	-0.206 ± 0.091
photometric centroid source offset	1.41 ± 0.83	1.69	-1.14 ± 0.84	0.83 ± 0.82

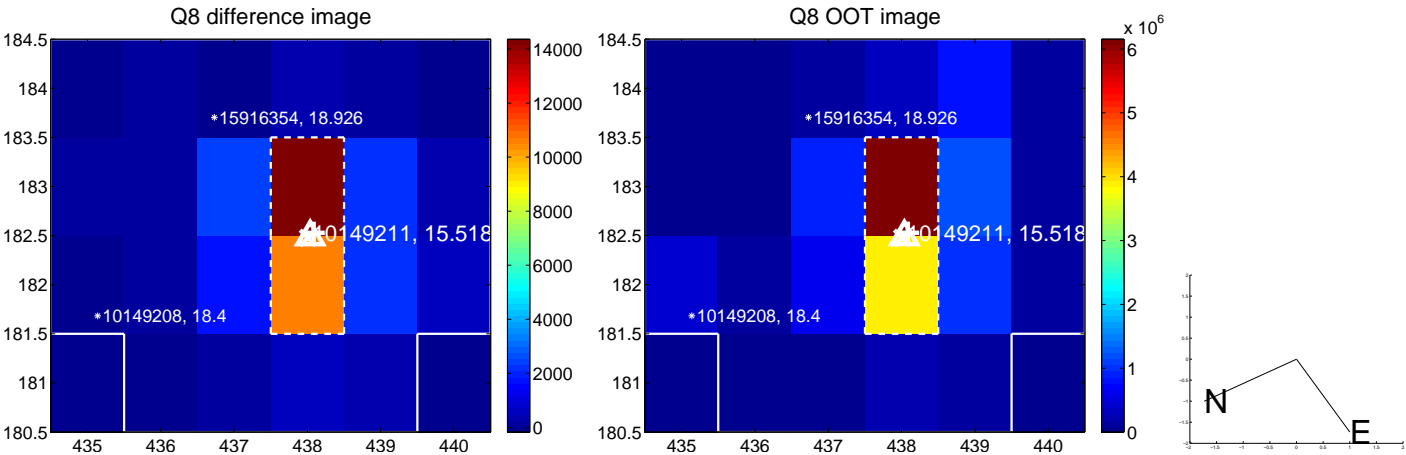
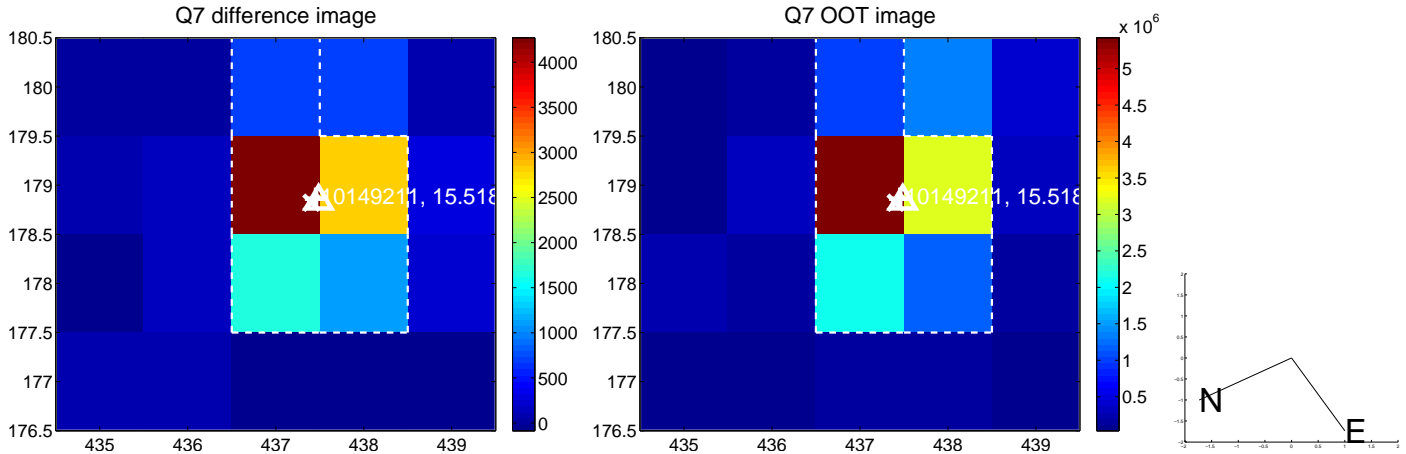
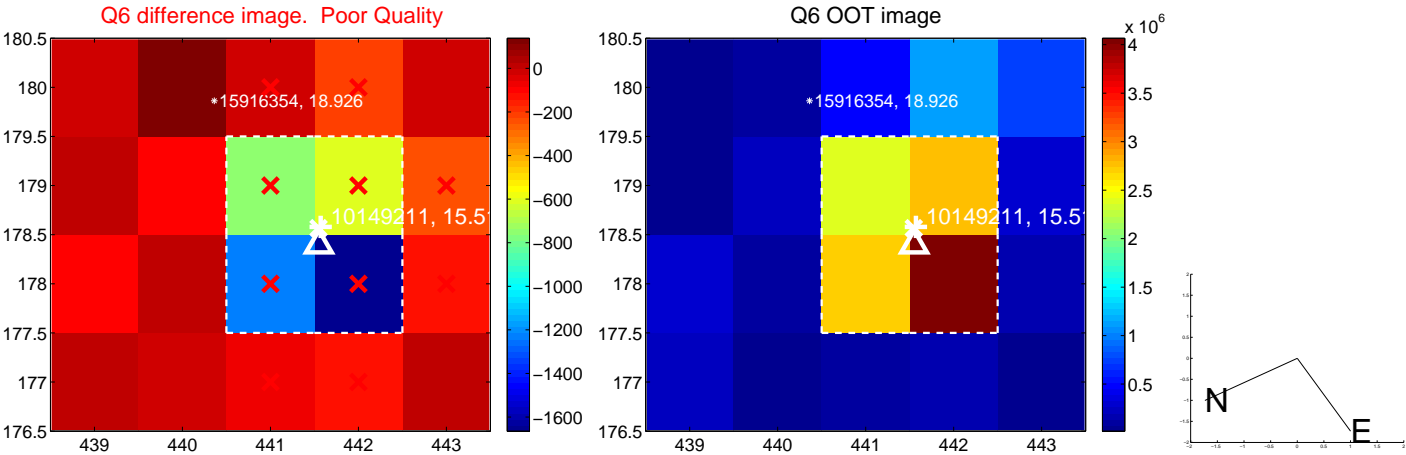
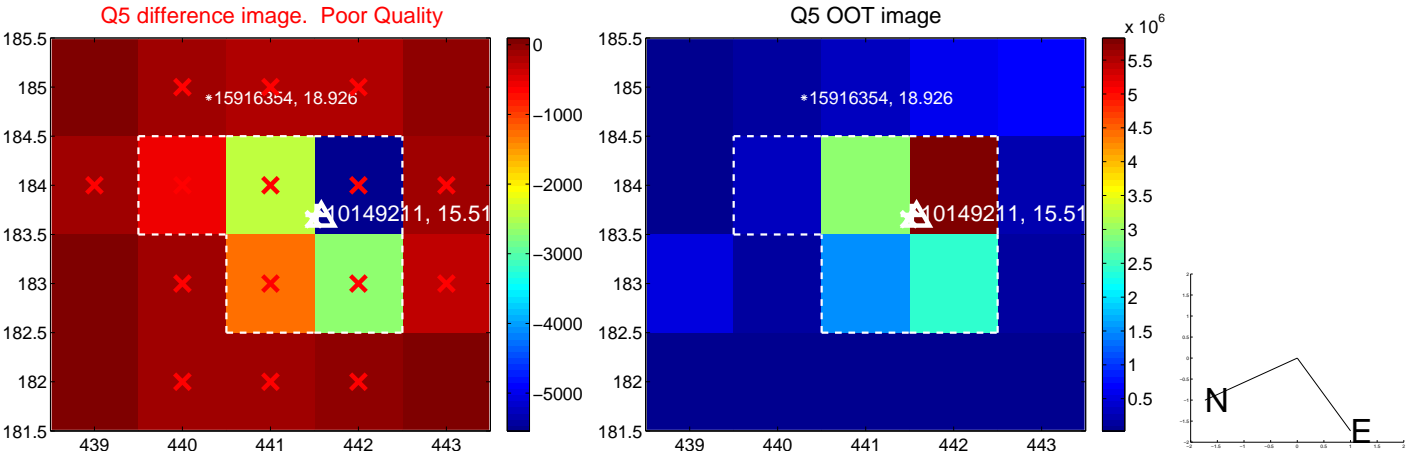


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

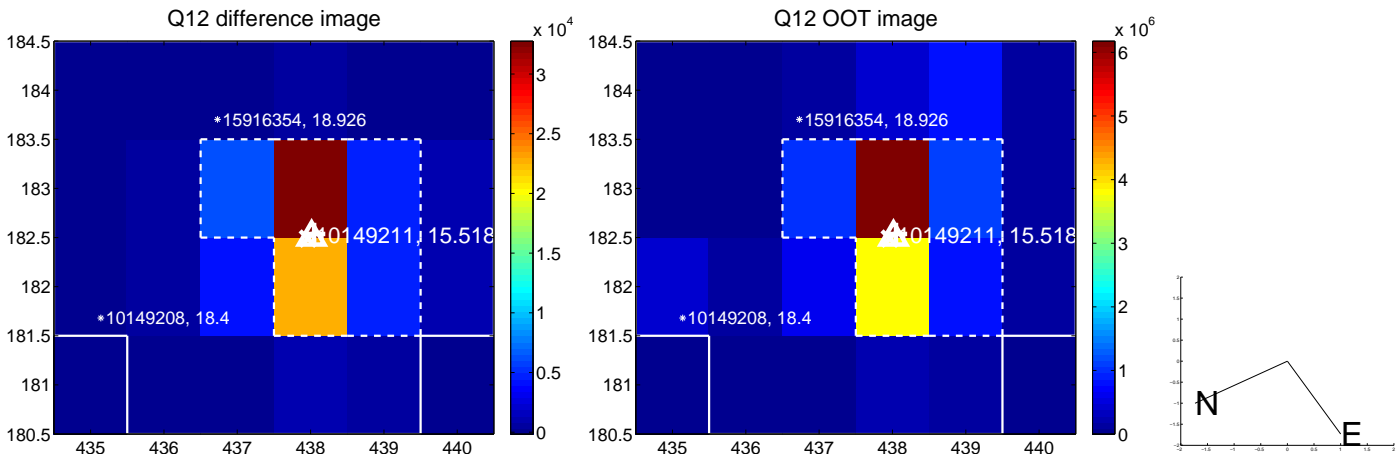
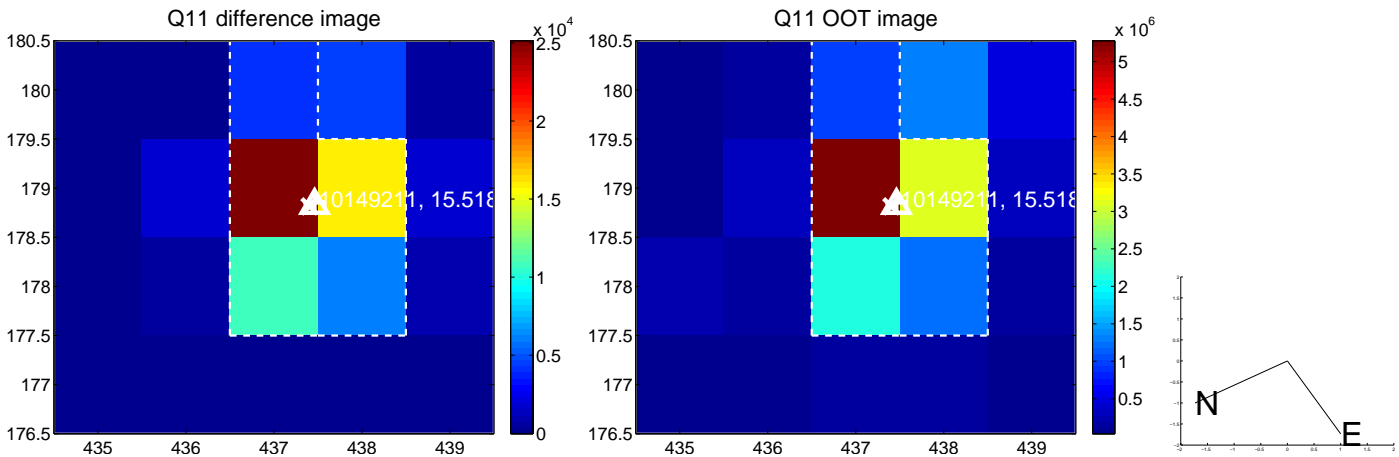
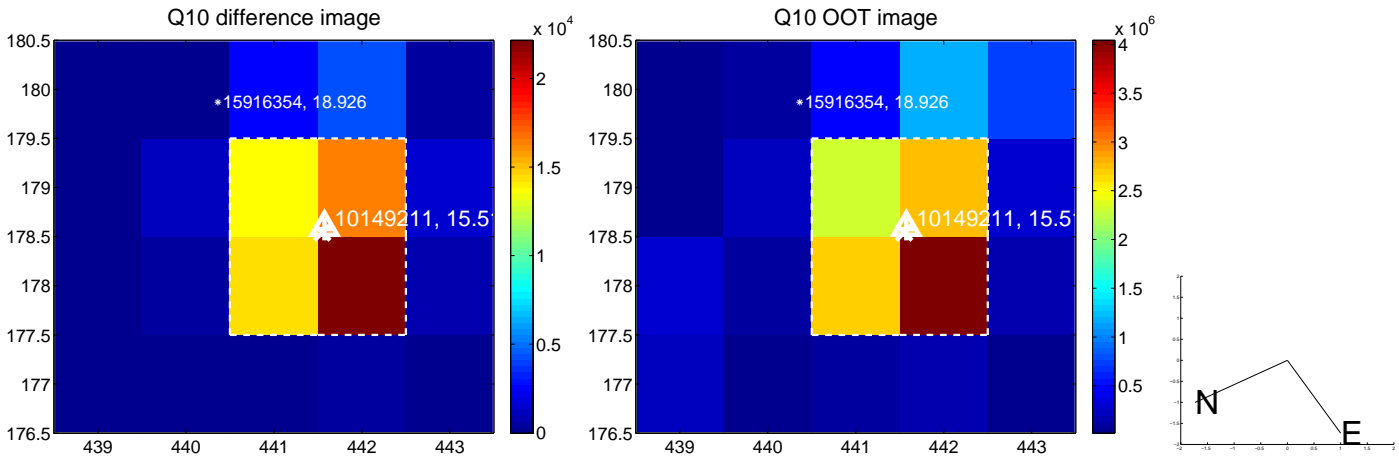
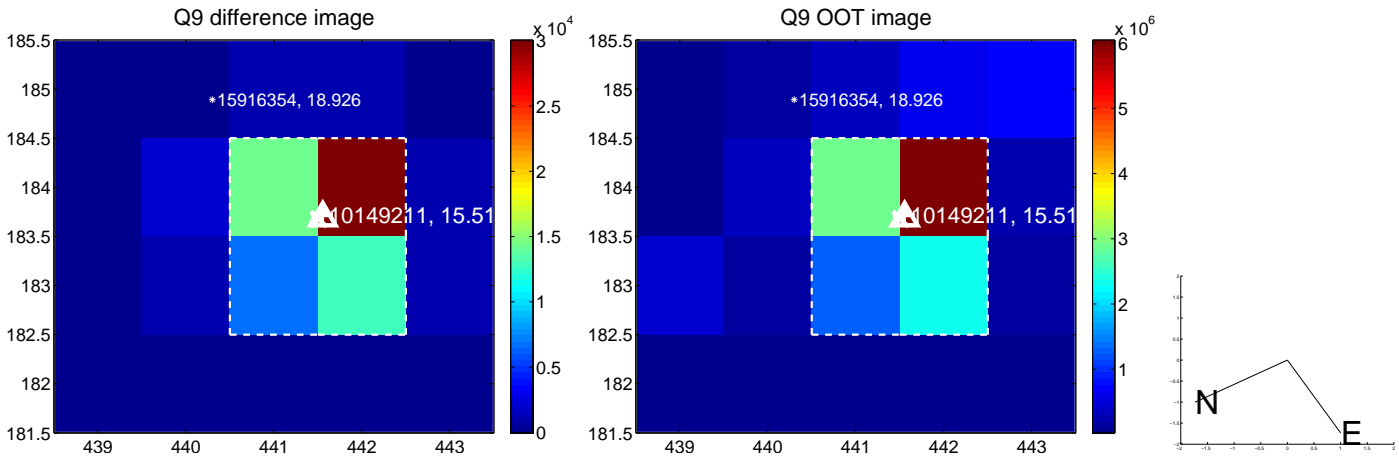
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



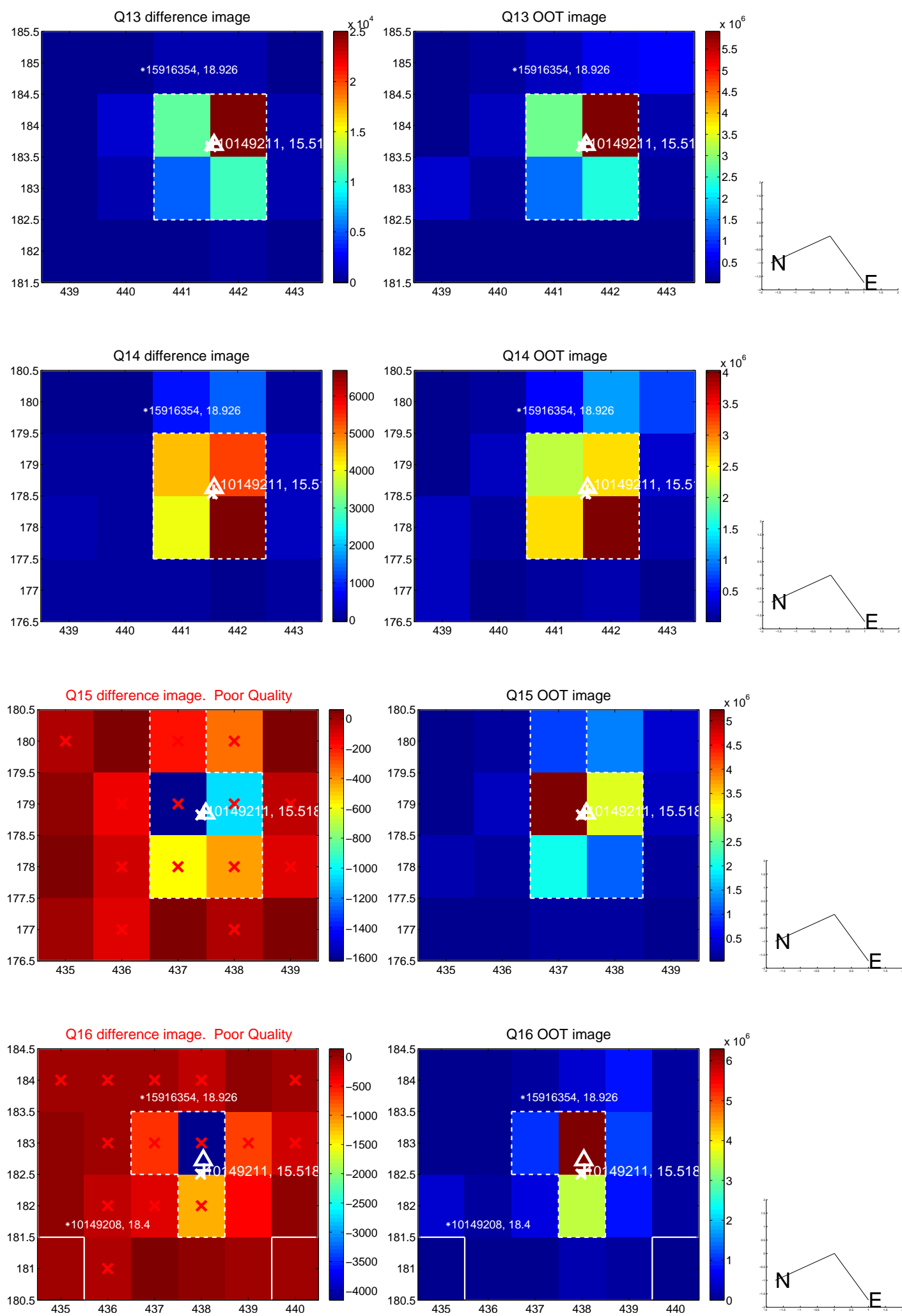
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



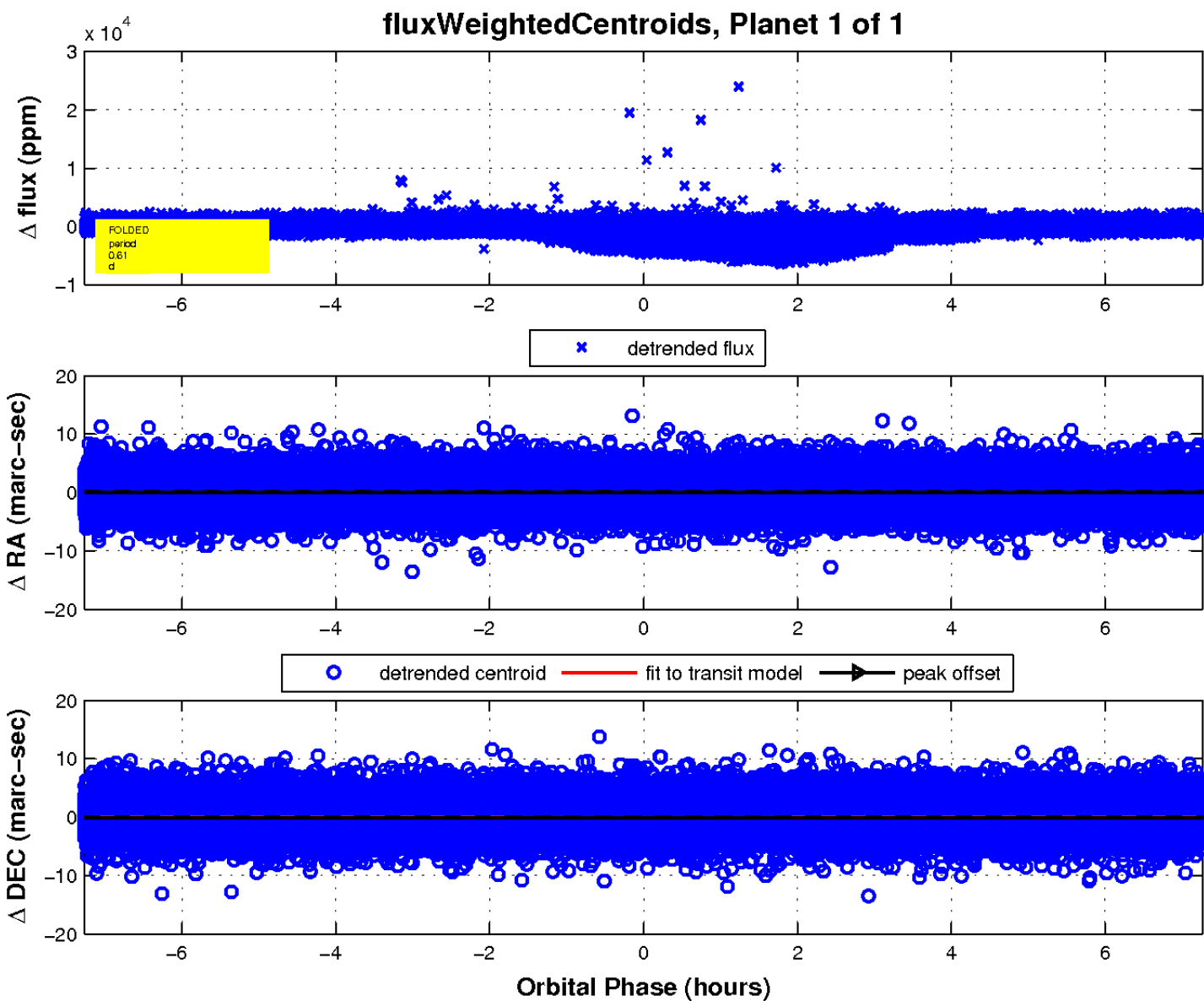
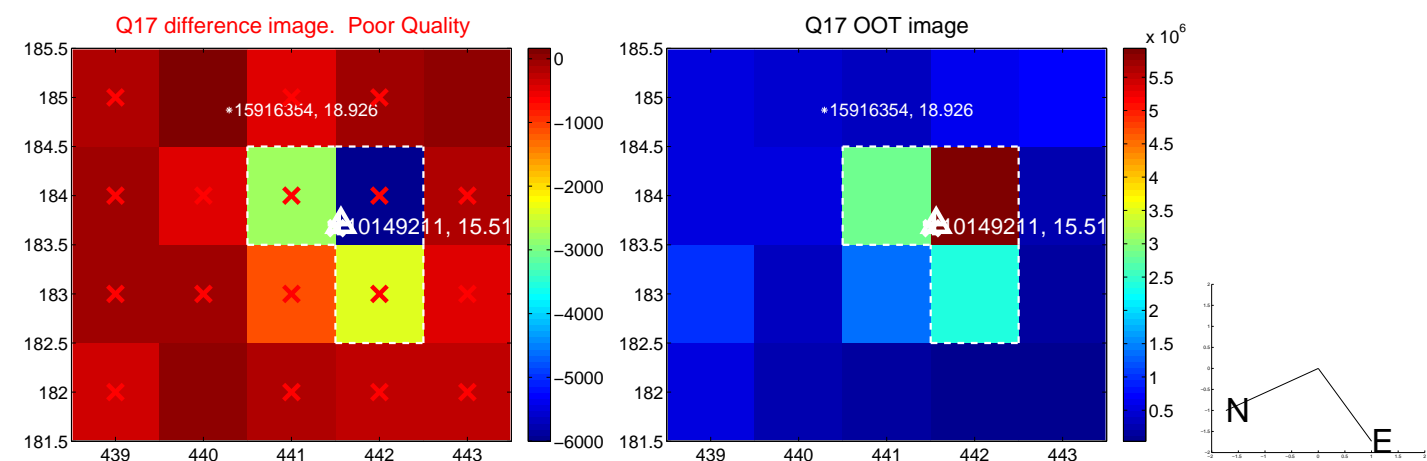
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

