

KIC 006610219

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})
006610219-01	OBS	6743.01	5.650503	134.784107	376067.1	7.068	32845.7	14858.7	1.45	6143	97.74	643.89

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006610219-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED

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.

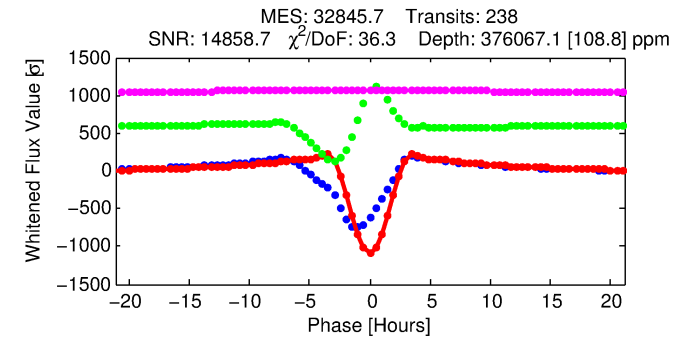
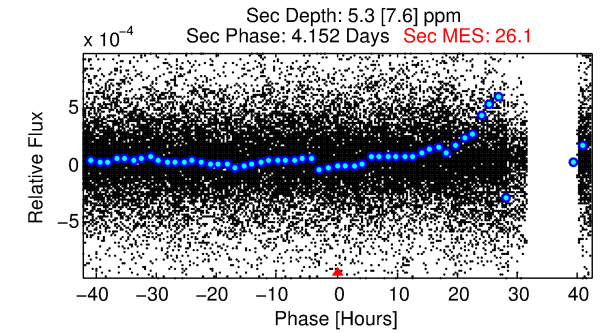
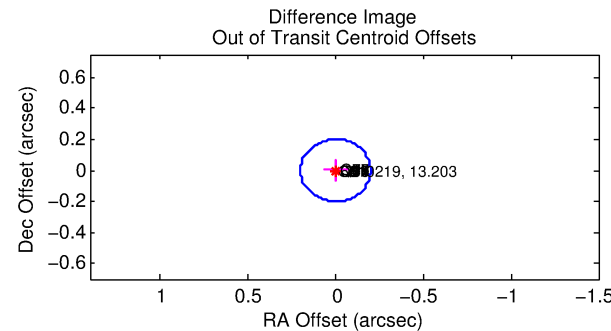
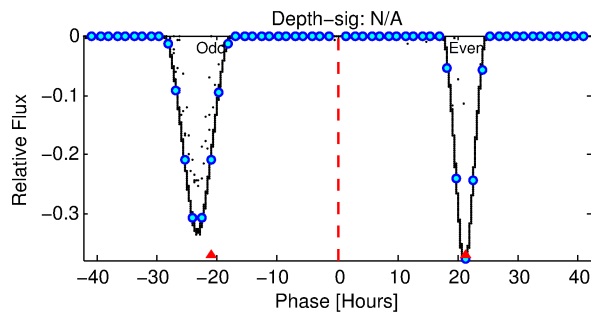
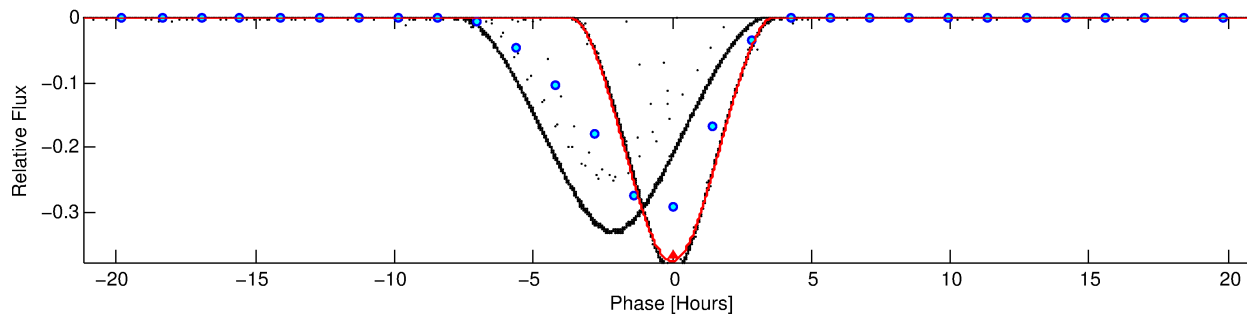
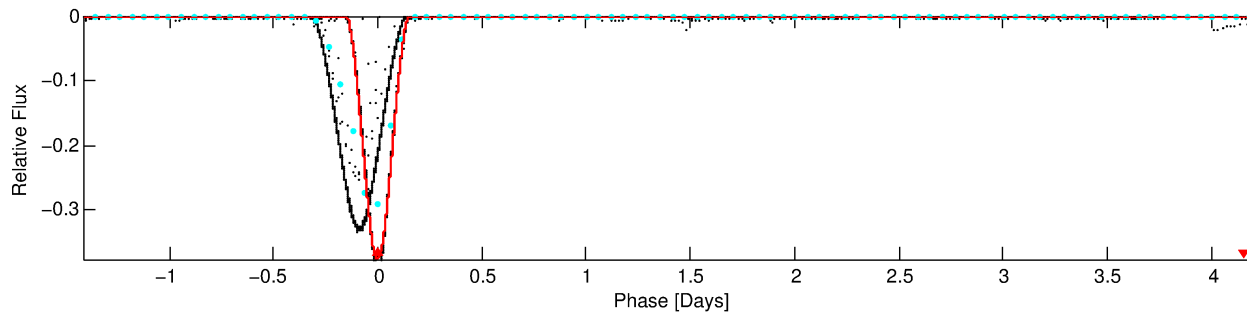
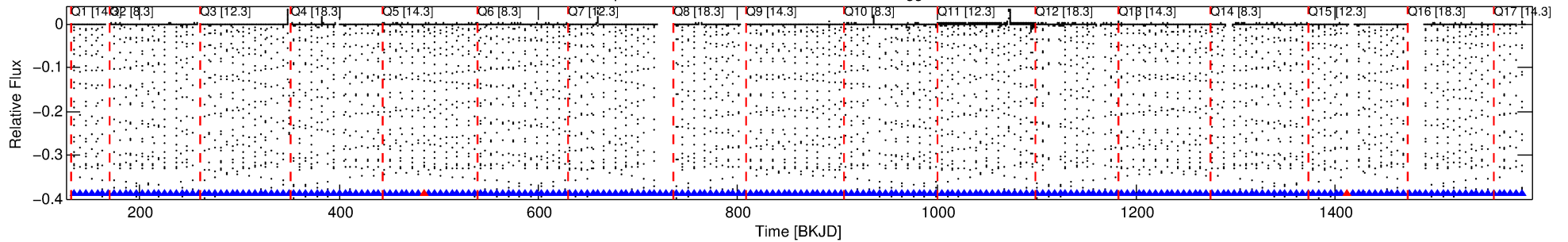
Ephemeris Match Information For 006610219-01

No Significant Match Found

DV One-Page Summary

KIC: 6610219 Candidate: 1 of 1 Period: 5.651 d
KOI: K06743 Corr: No Ephemeris Match

Kp: 13.20 R*: 1.45 Rs Teff: 6143.0 K Logg: 4.17 Fe/H: -0.020



DV Fit Results:

Period = 5.65050 [0.00000] d
Epoch = 134.7841 [0.0000] BKJD
Rp/R* = 0.6186 [0.0020]
a/R* = 9.47 [0.00]
b = 0.49 [0.00]
Seff = 643.89 [180.84]
Teq = 1284 [90] K
Rp = 97.74 [18.77] Re
a = 0.0645 [0.0114] AU
Ag = 0.00 [0.00] [-536.06σ]
Teffp = 375 [135] K [-5.60σ]

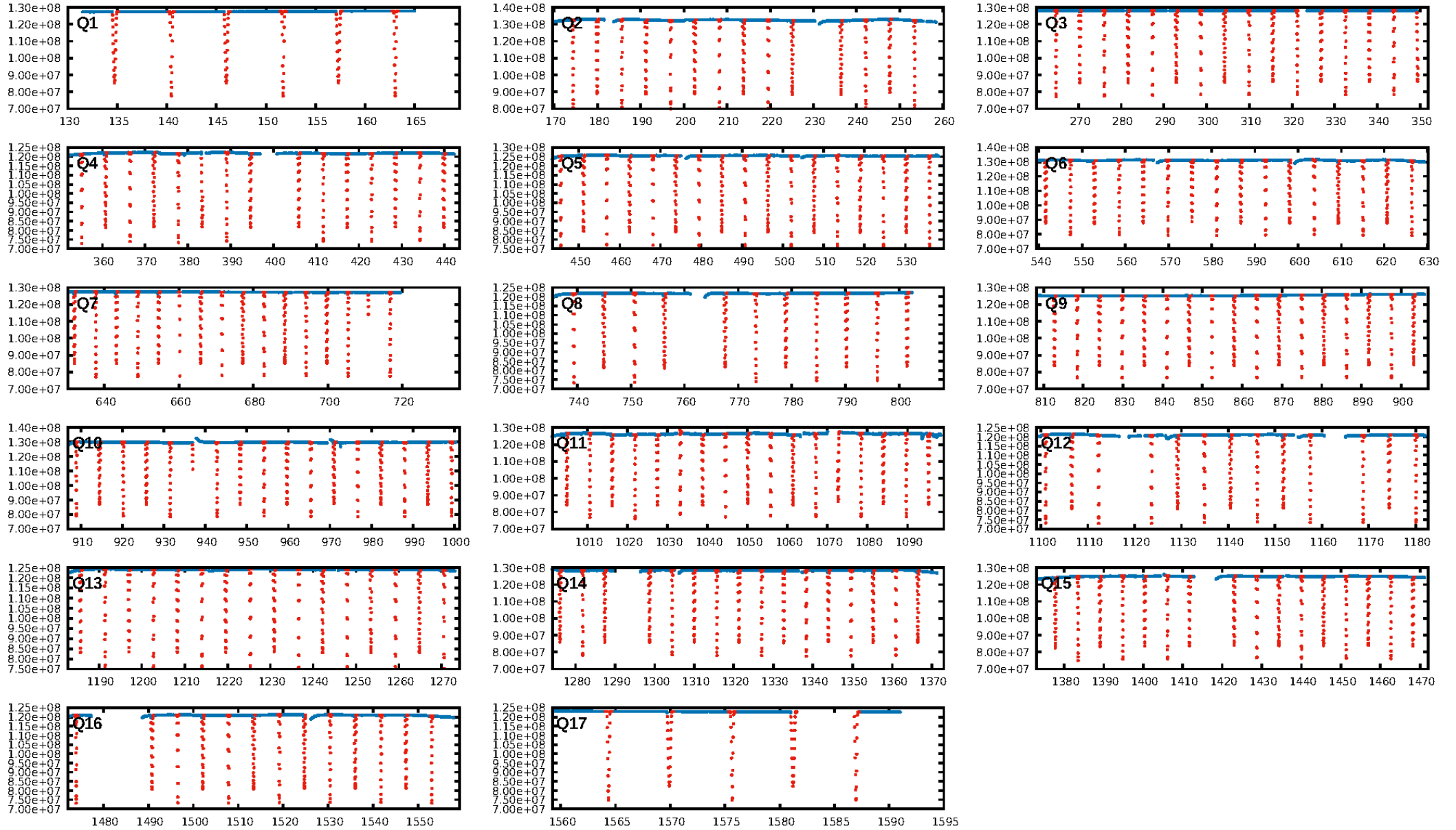
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [225/227]
GhostDiagnostic-chr: 4.068
Centroid-sig: 0.0%
Centroid-so: 0.099 arcsec [449.48σ]
OotOffset-rm: 0.001 arcsec [0.01σ]
KicOffset-rm: 0.045 arcsec [0.67σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

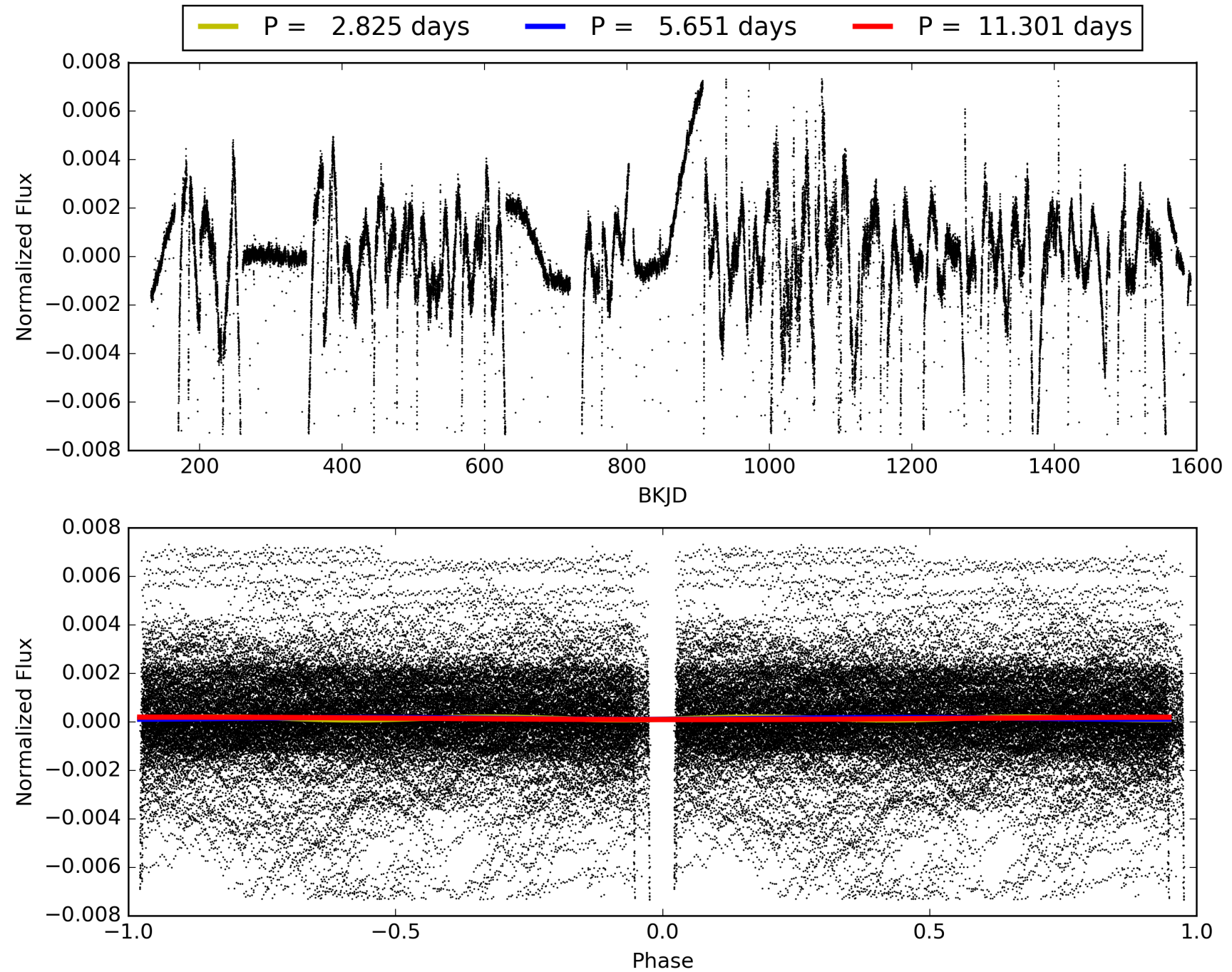
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:53:26 Z

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

TCE 006610219-01, PDC Light Curves

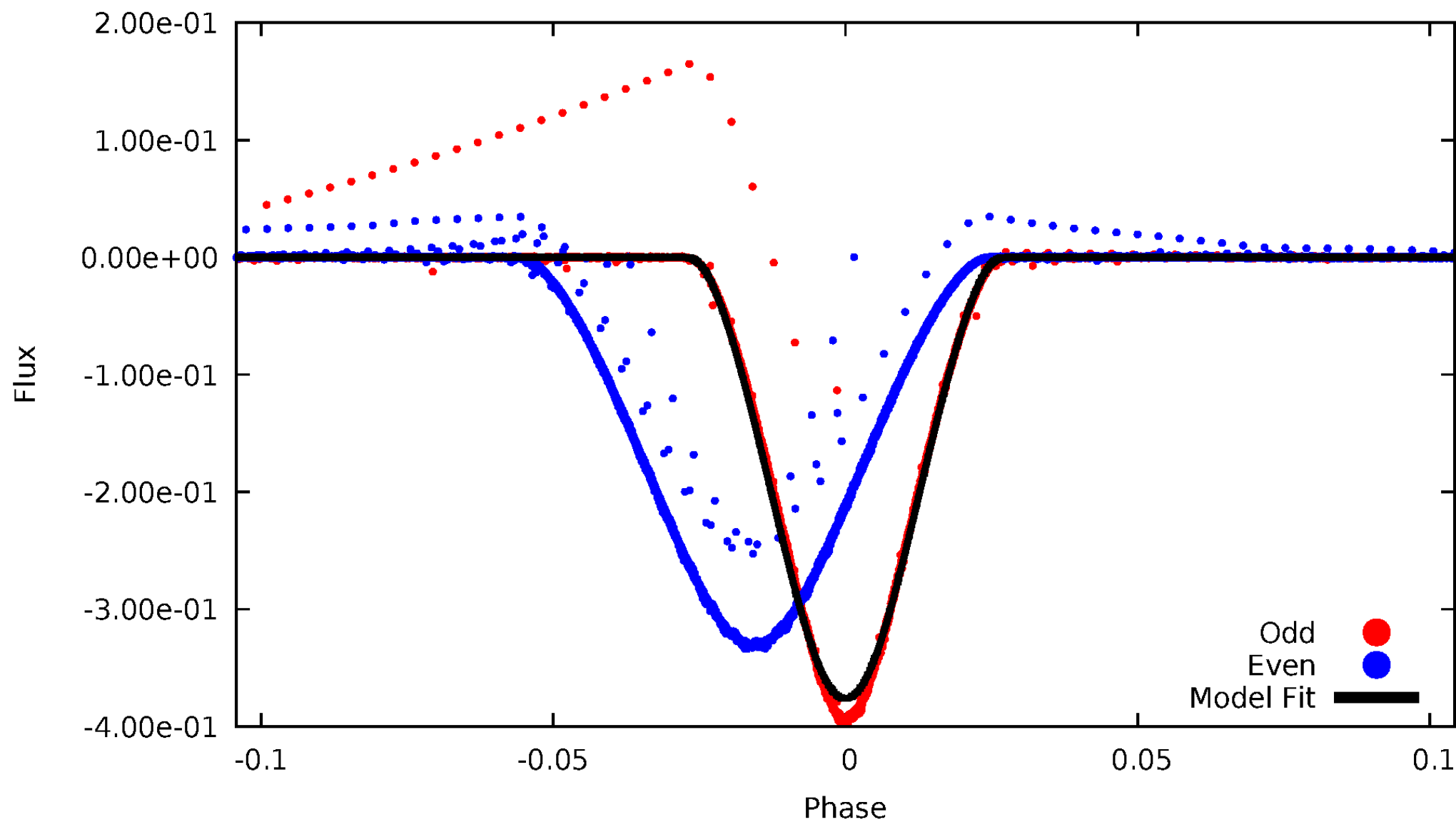


TCE 006610219-01



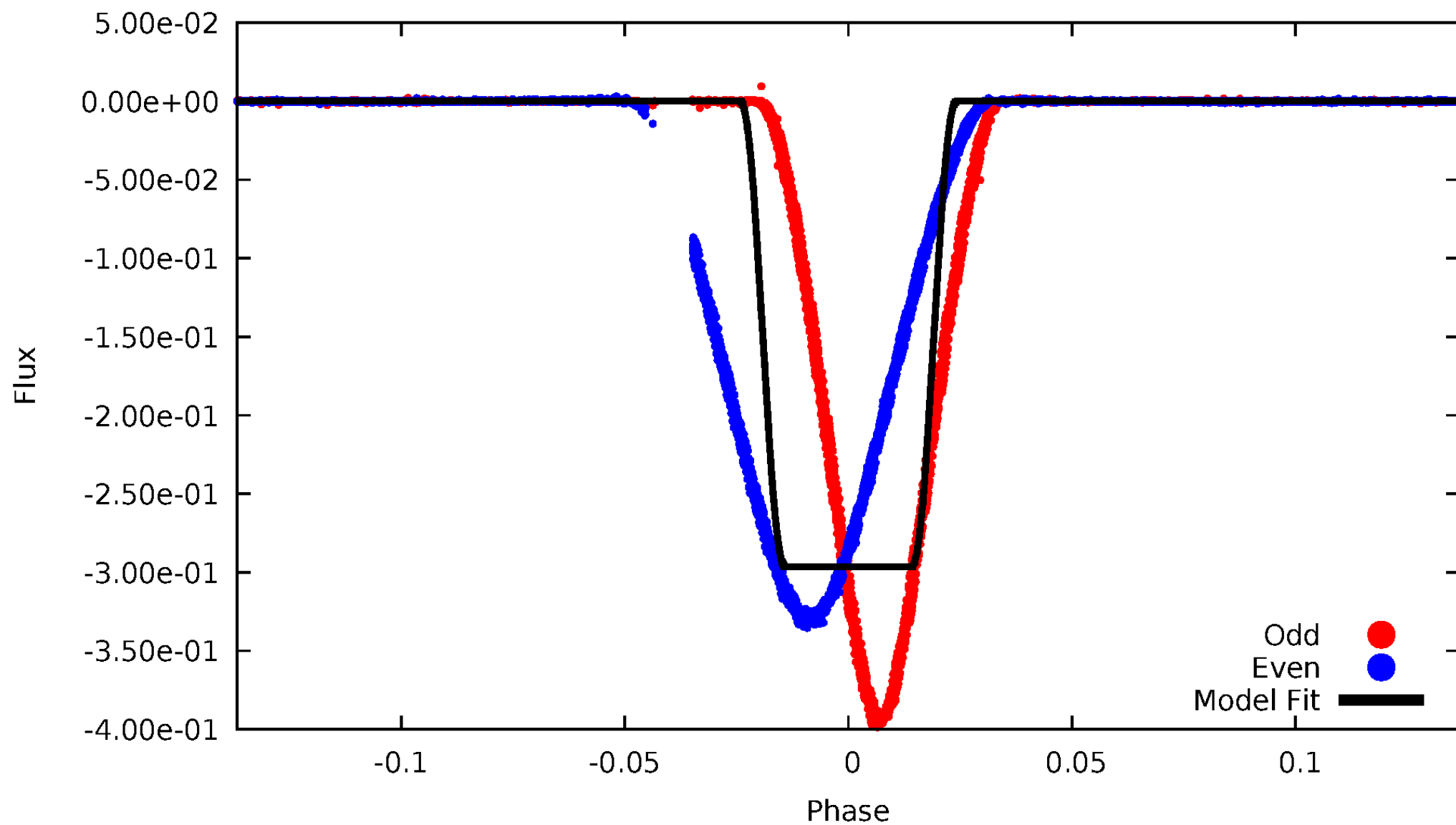
DV Odd/Even

TCE 006610219-01



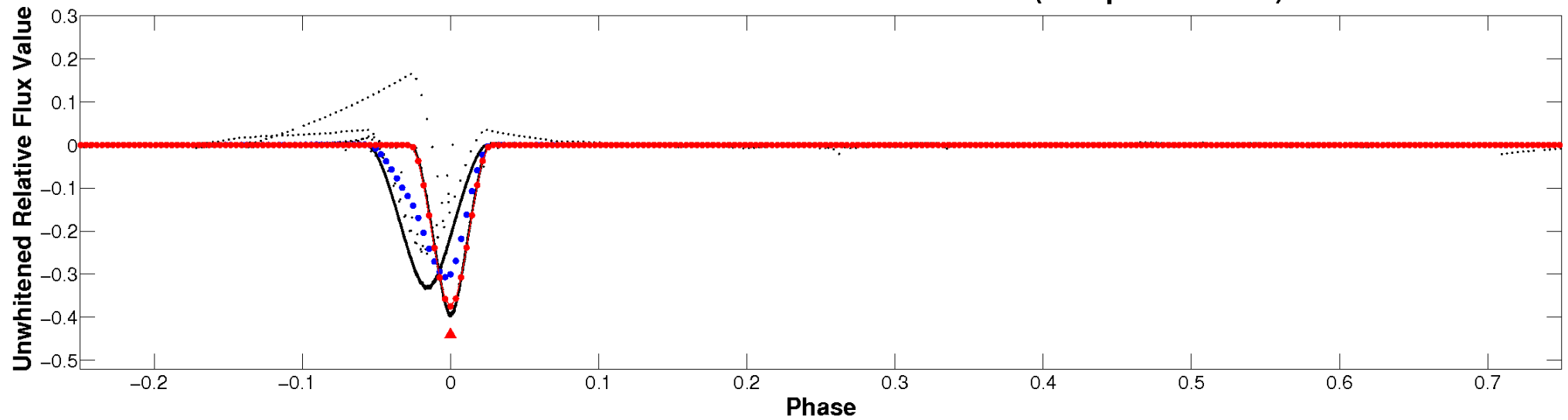
ALT Odd/Even

TCE 006610219-01

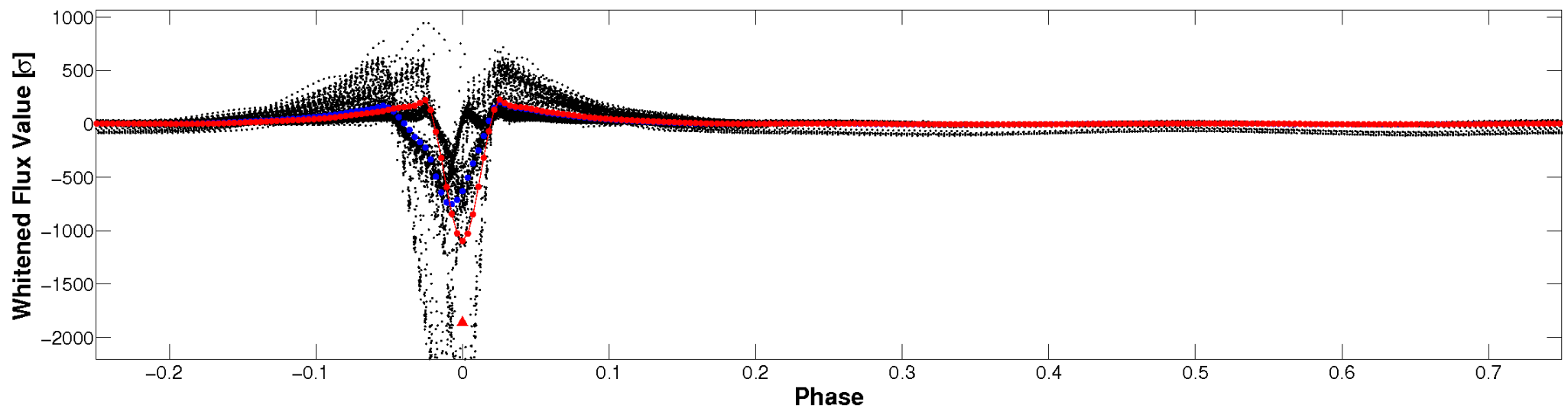


Non-Whitened Vs. Whitened Light Curve

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

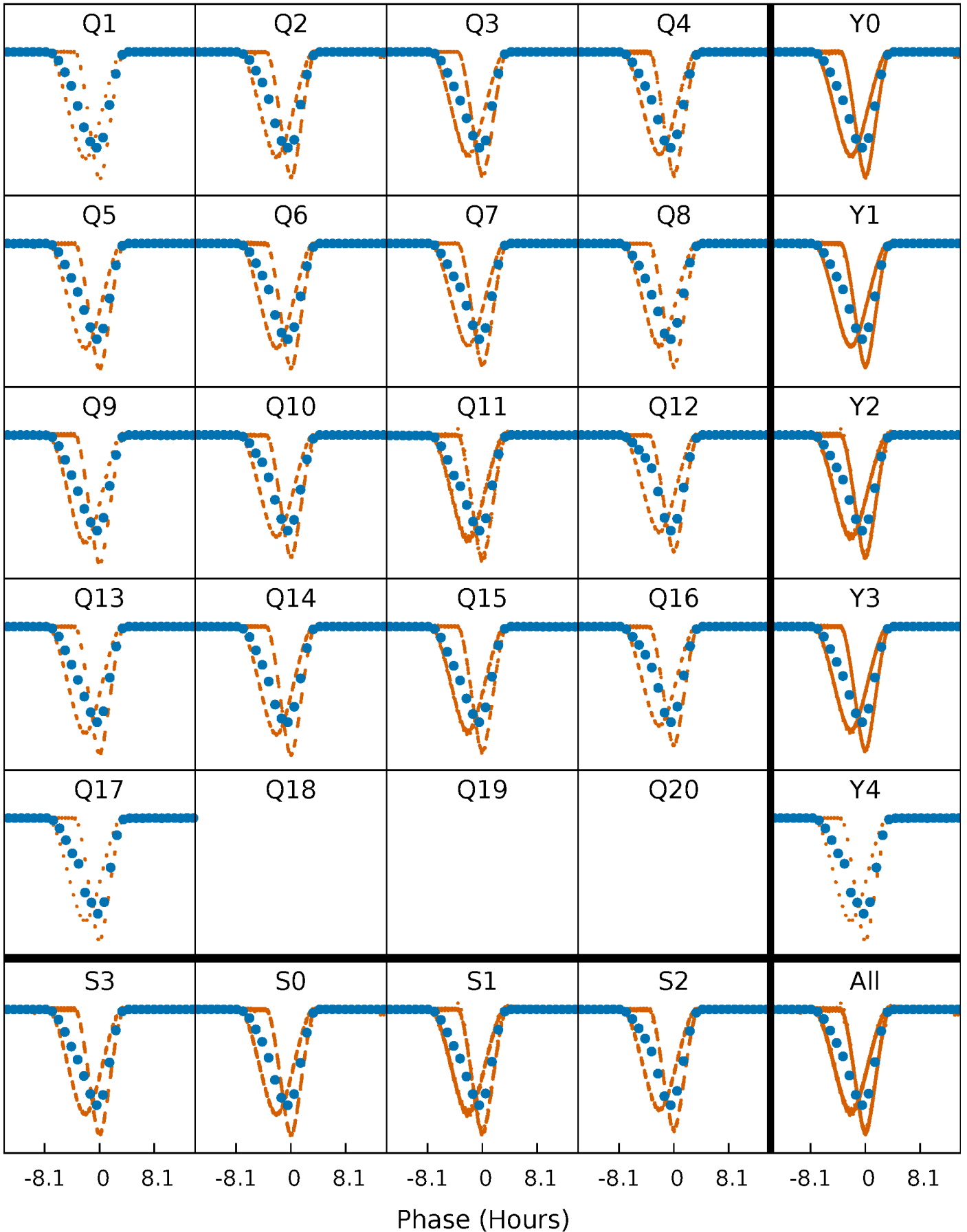


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



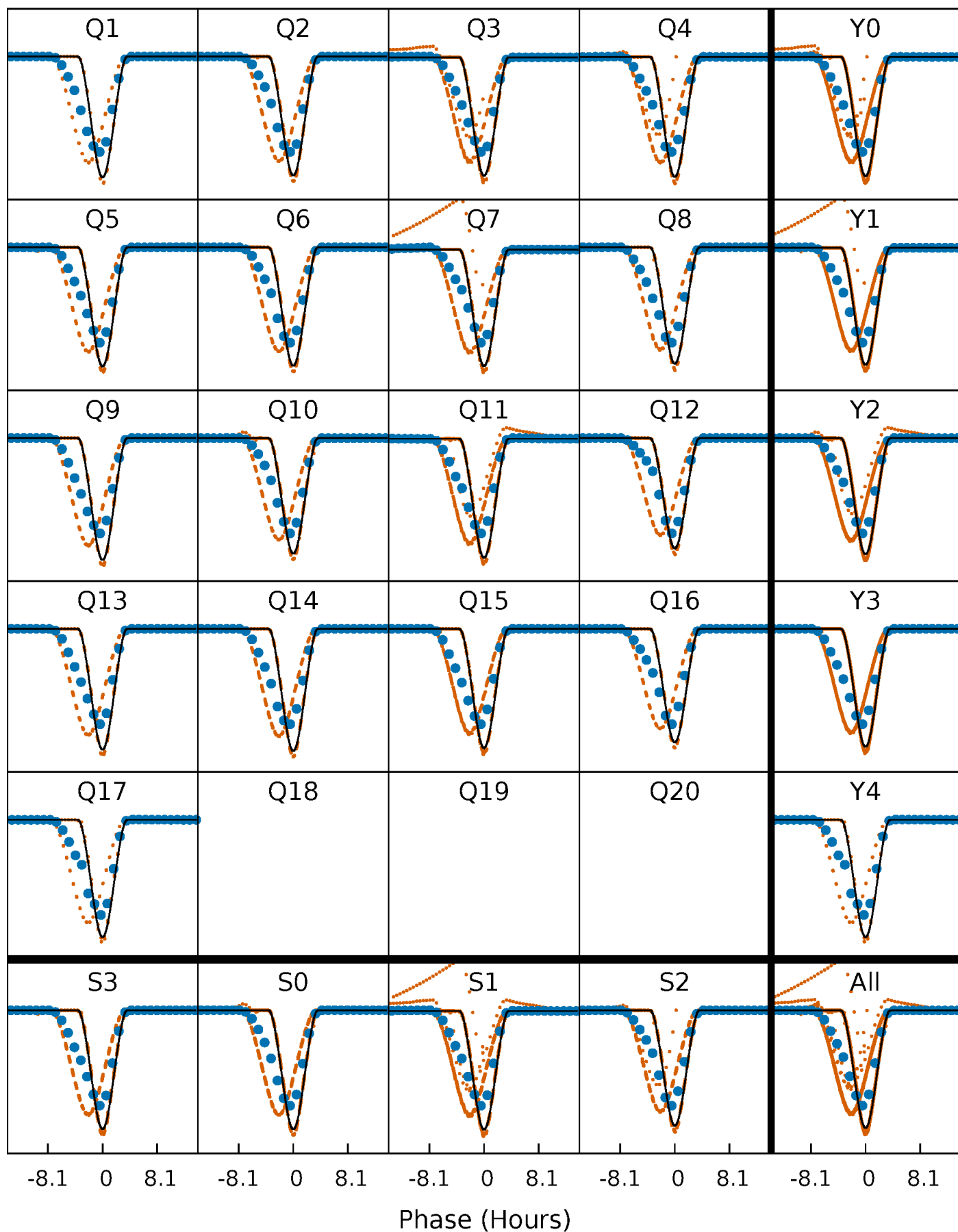
PDC Quarter-Phased Transit Curves

TCE 006610219-01 P= 5.650503 Days $T_0=134.784107$ (BKJD)



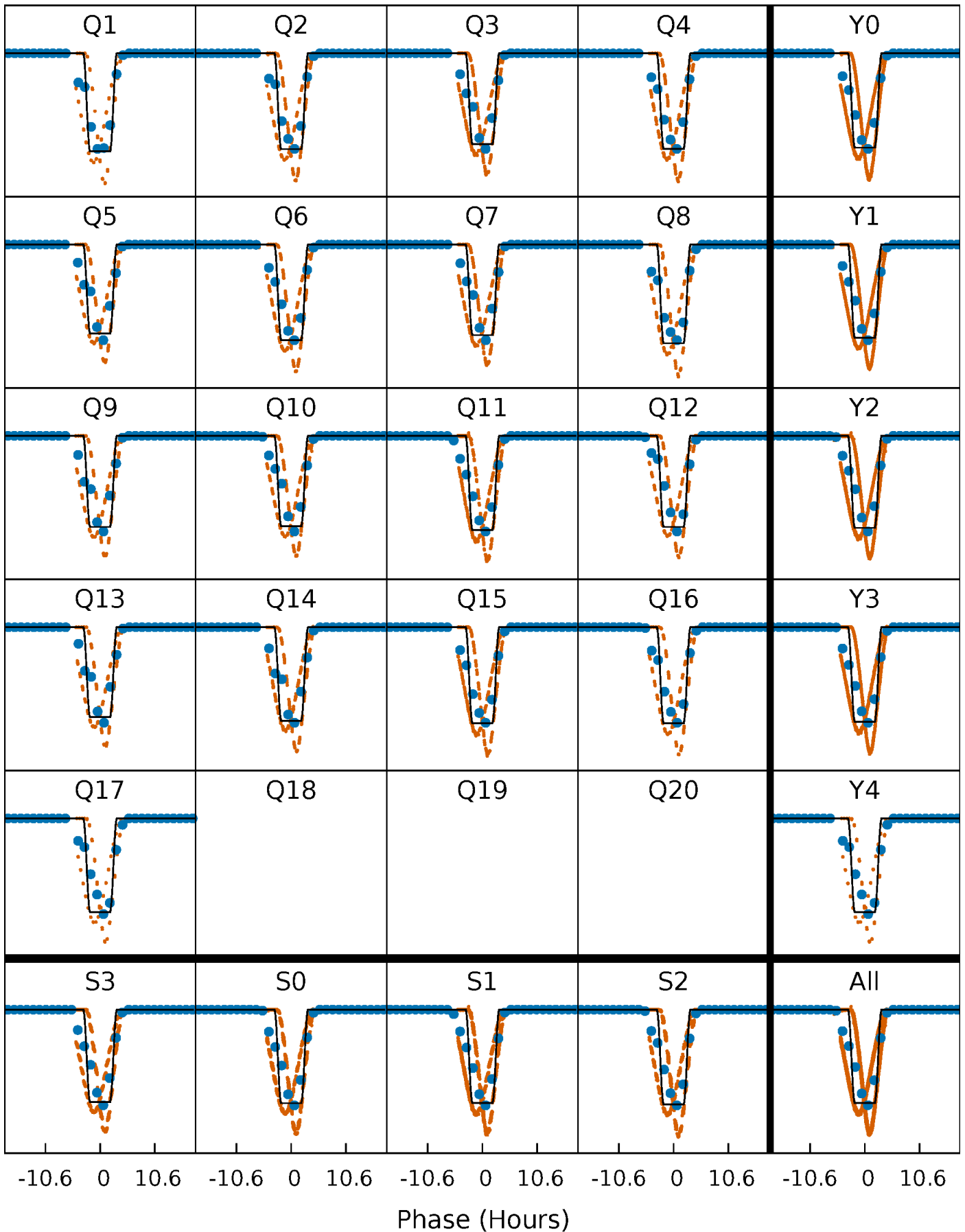
DV Quarter-Phased Transit Curves

TCE 006610219-01 P= 5.650503 Days $T_0=134.784107$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

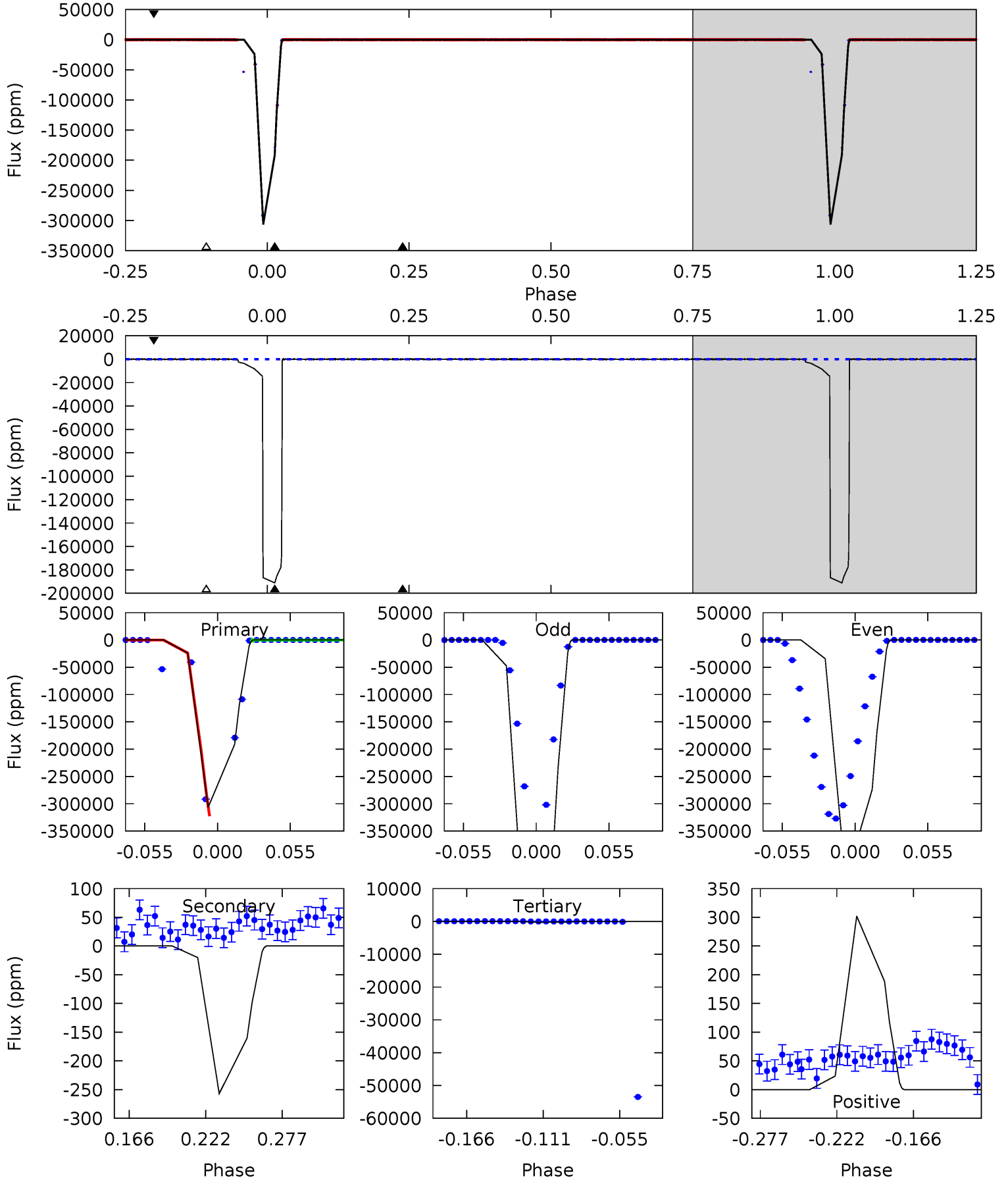
TCE 006610219-01 P= 5.650459 Days $T_0=134.750445$ (BKJD)



DV Model-Shift Uniqueness Test

006610219-01, P = 5.650503 Days, E = 129.133604 Days

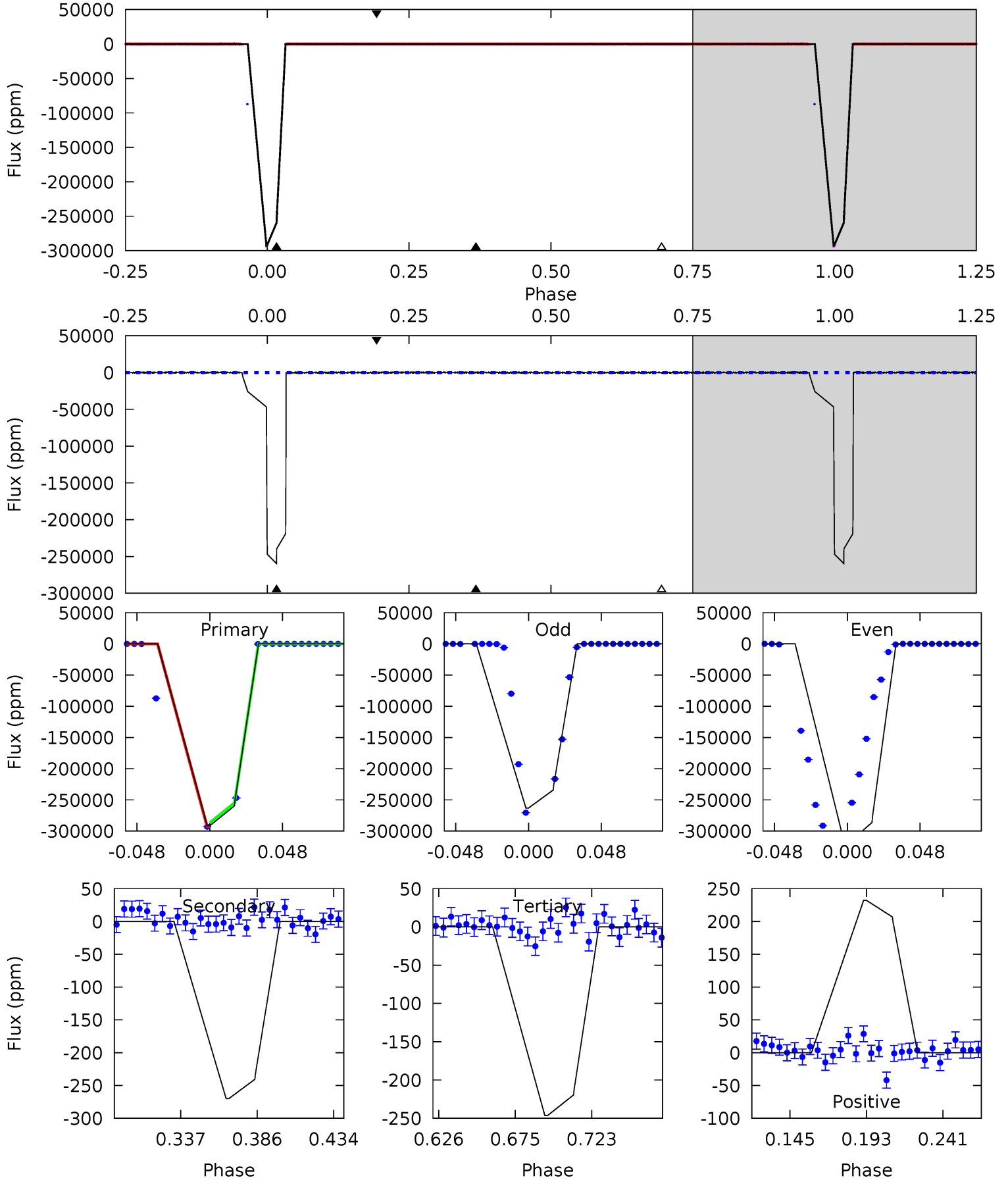
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7036	5.91	6.39	6.94	4.69	1.92	1.91	7030	7029	-0.49	-1.03	7219	1.09	0.00	0



Alt Model-Shift Uniqueness Test

006610219-01, P = 5.650459 Days, E = 129.099986 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2011	1.86	1.70	1.60	4.72	1.98	1.02	2010	2010	0.16	0.26	2611	1.00	0.00	51.3



Stellar Parameters For KIC 006610219

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6143^{+83}_{-83}	$4.165^{+0.159}_{-0.116}$	$-0.020^{+0.150}_{-0.150}$	$1.448^{+0.278}_{-0.278}$	$1.118^{+0.114}_{-0.083}$	$0.519^{+0.424}_{-0.186}$
	+1%/-1%	+4%/-3%	+750%/-750%	+19%/-19%	+10%/-7%	+82%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006610219-01 / KOI 6743.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-160 ± 27	$97.65^{+10.12}_{-10.02}$	1789^{+93}_{-89}	-2330^{+63}_{-62}	$0.039^{+0.011}_{-0.010}$
Alt.	-240 ± 129	$86.08^{+8.67}_{-8.55}$	1796^{+78}_{-98}	-2292^{+93}_{-70}	$0.075^{+0.047}_{-0.039}$

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 $A_{obs} \gg 1.0$

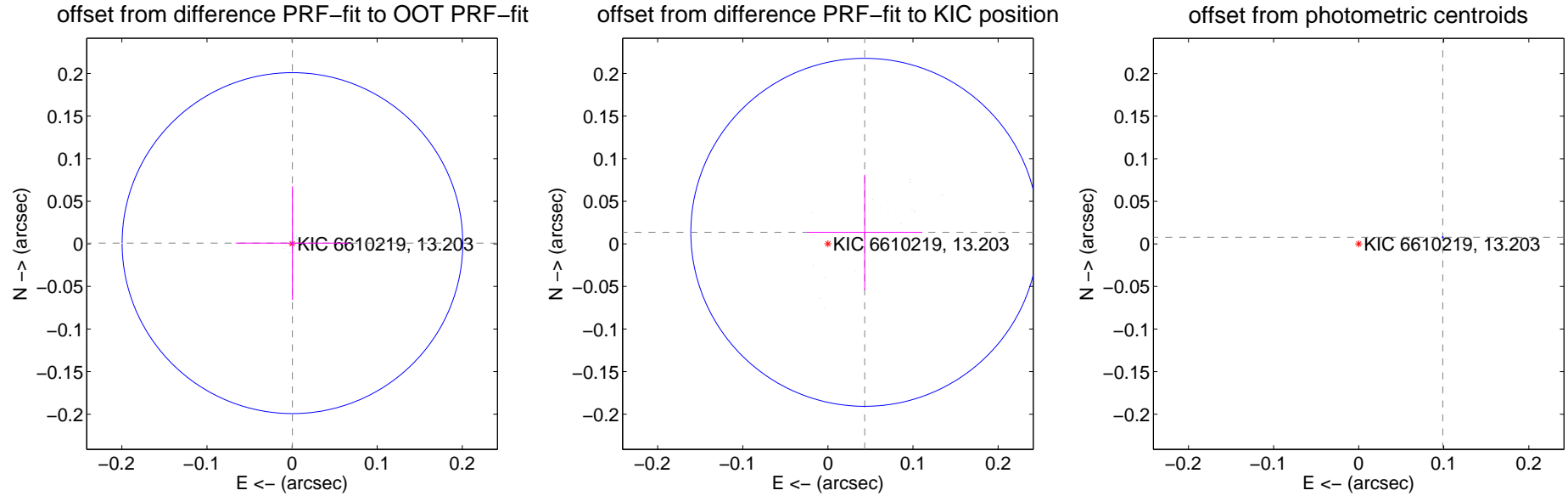
DV Centroid Data

Supplemental centroid analysis for 006610219-01. Kepler magnitude: 13.20. Transit SNR 14858.69

There are 17 quarters with good PRF difference image offsets

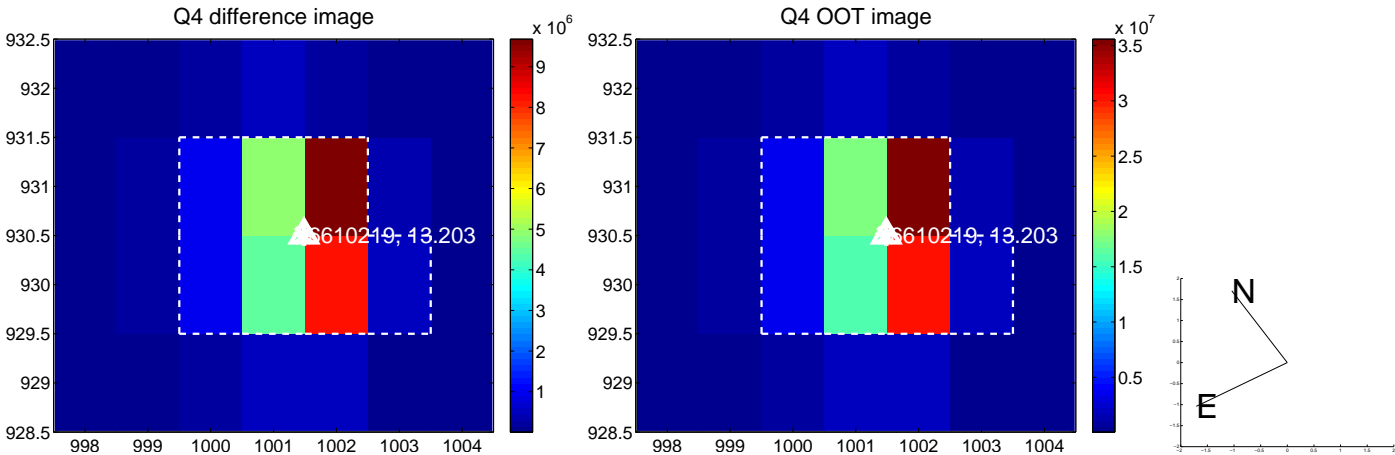
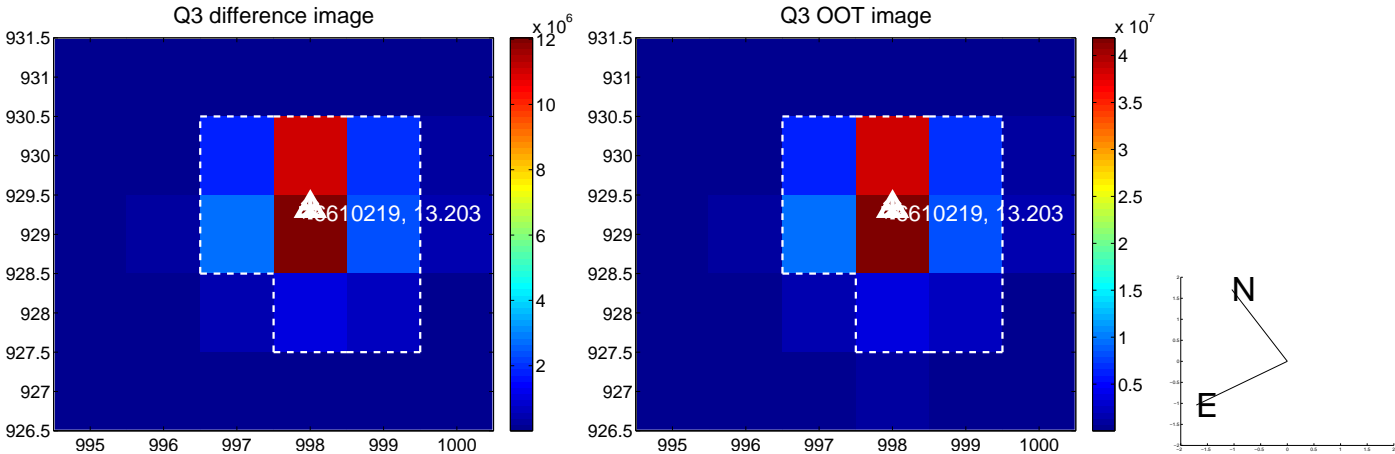
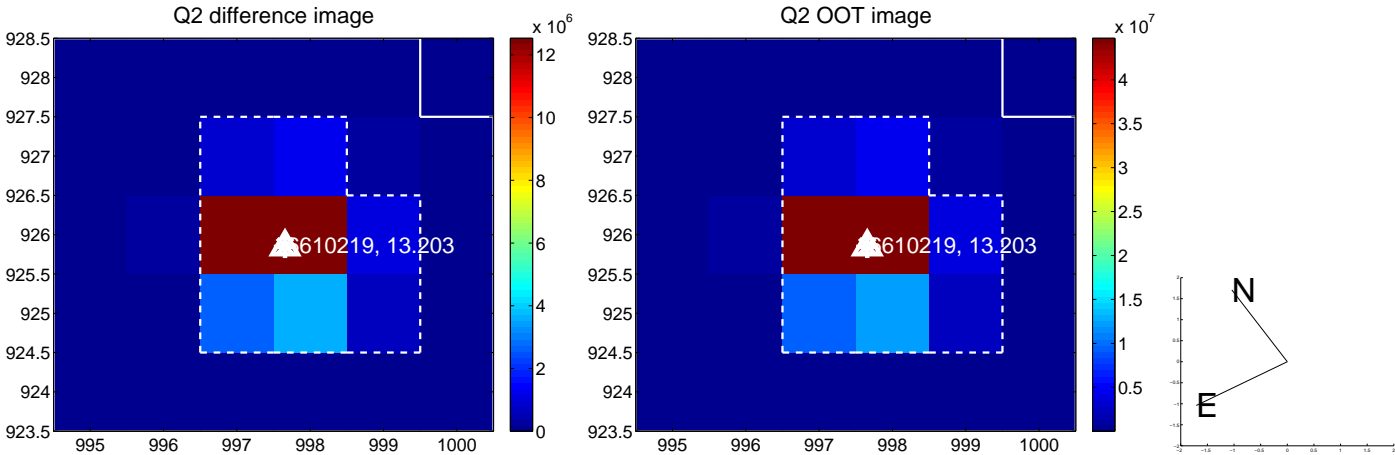
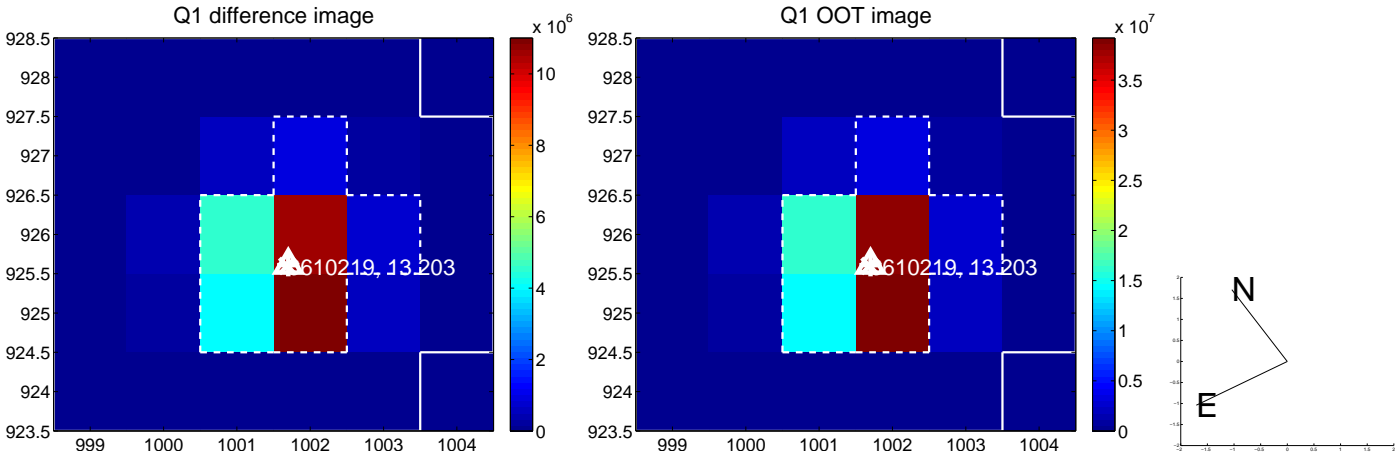
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.001 ± 0.067	0.01	-0.000 ± 0.067	0.001 ± 0.067
PRF-fit source offset from KIC position	0.045 ± 0.068	0.67	-0.043 ± 0.068	0.014 ± 0.068
photometric centroid source offset	0.10 ± 0.00	449.48	-0.10 ± 0.00	0.01 ± 0.00

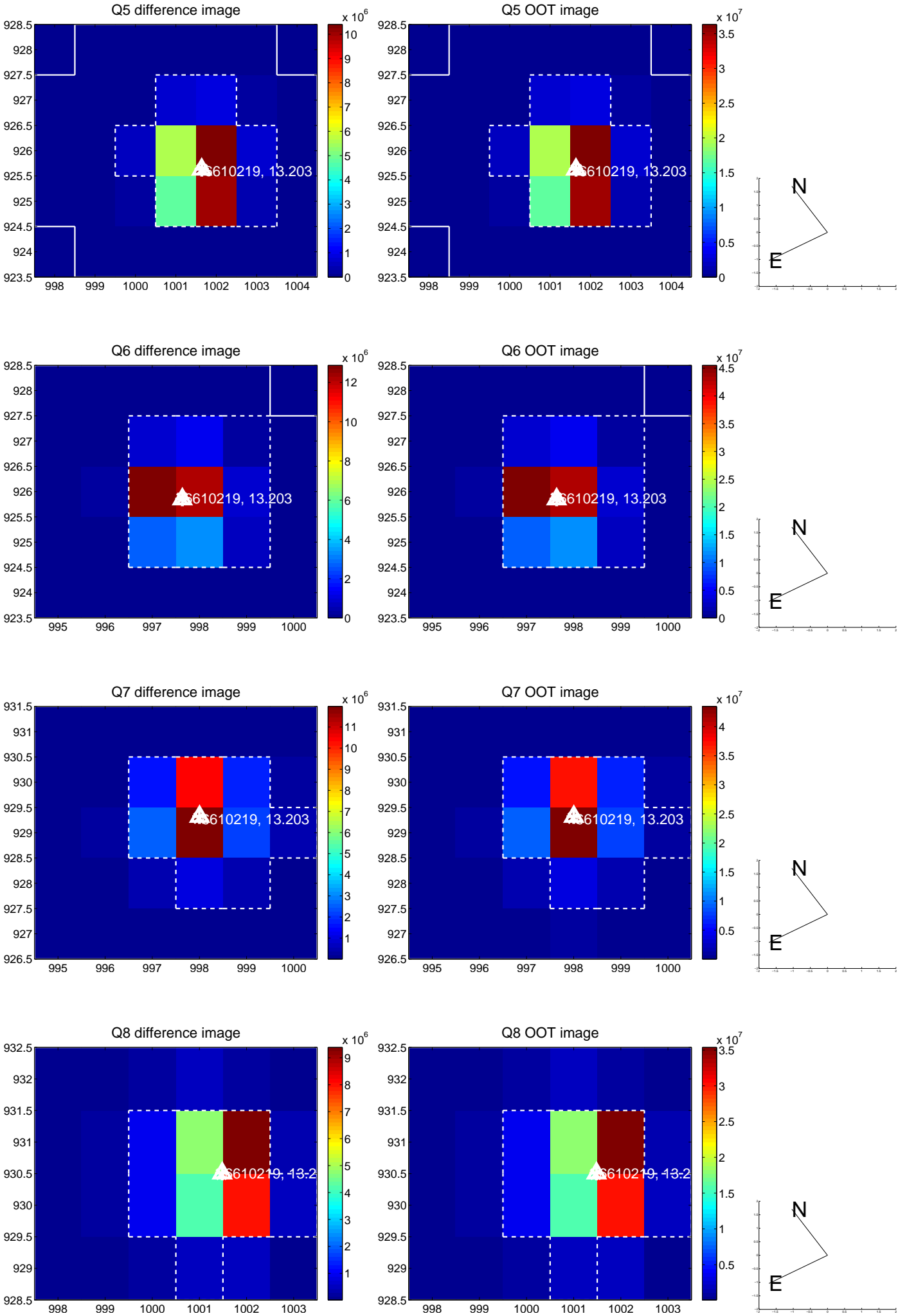


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

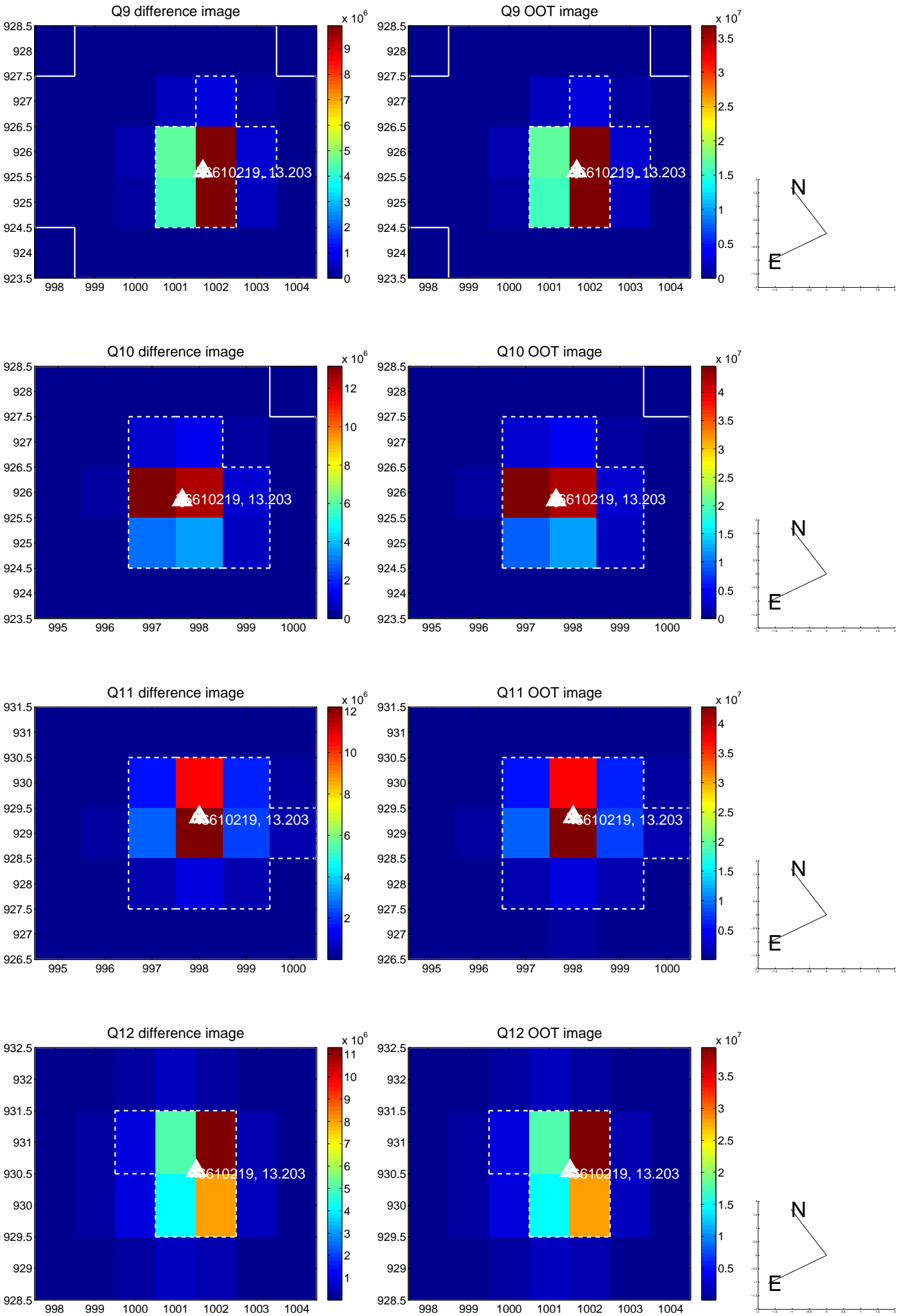
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



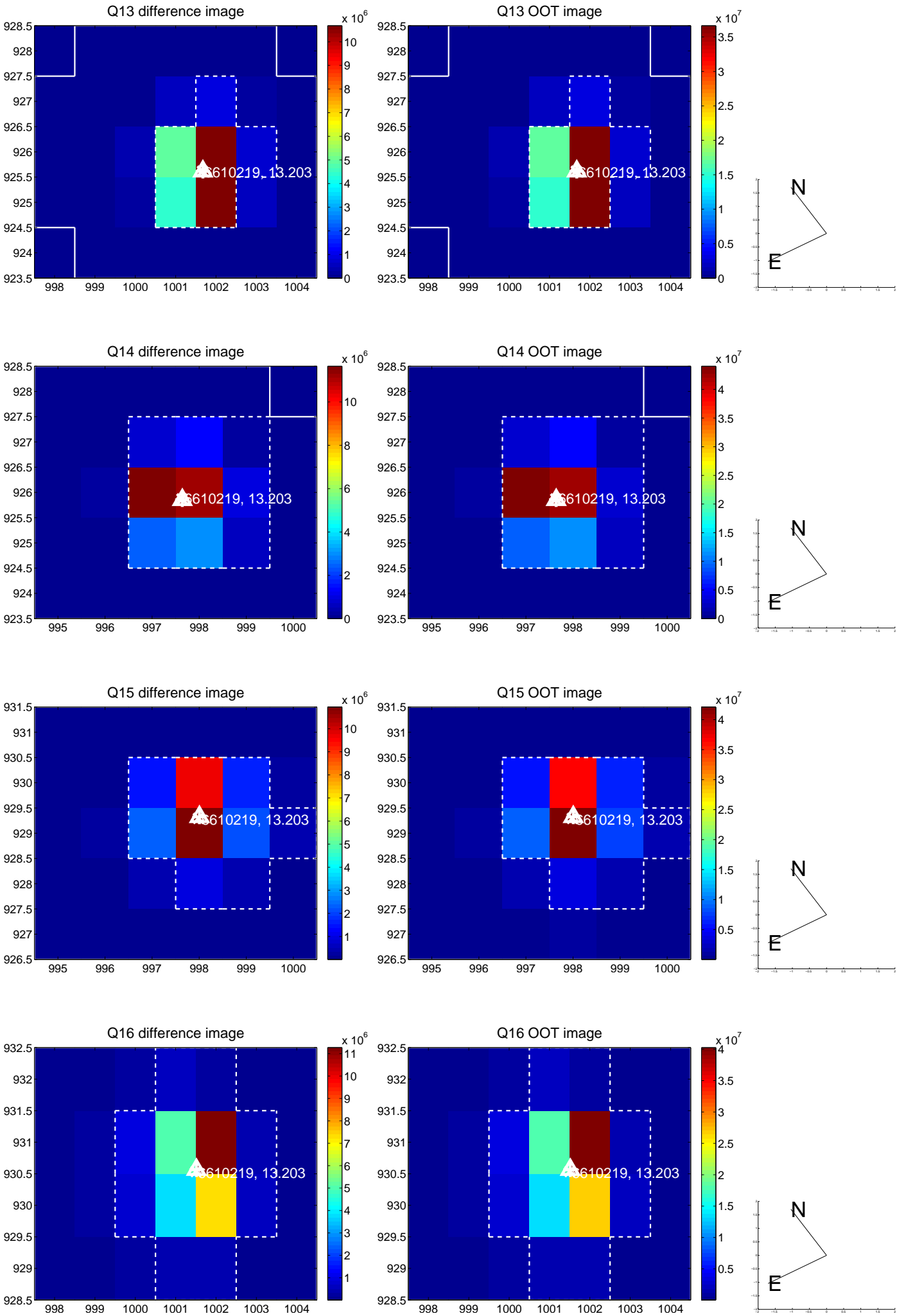
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



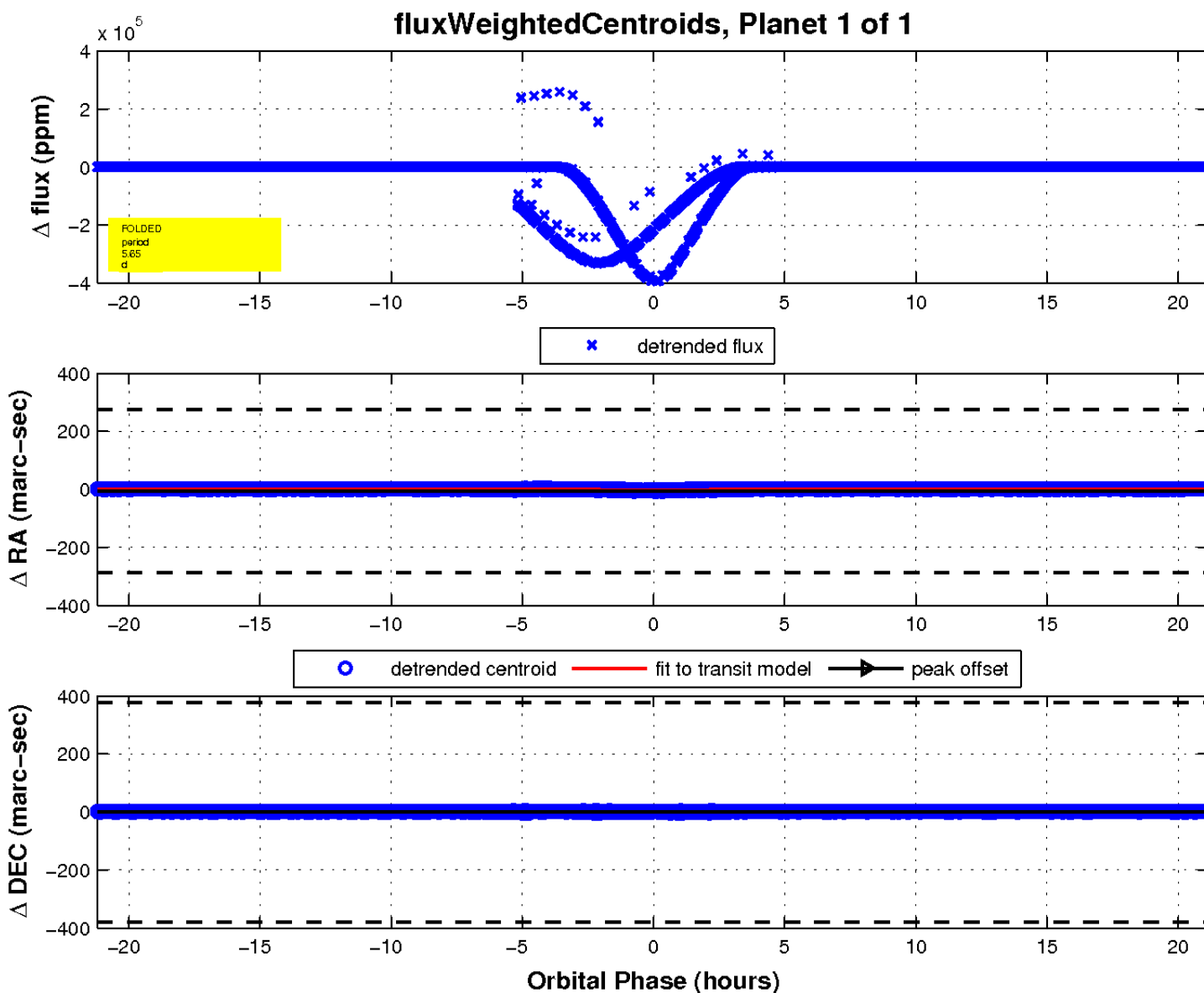
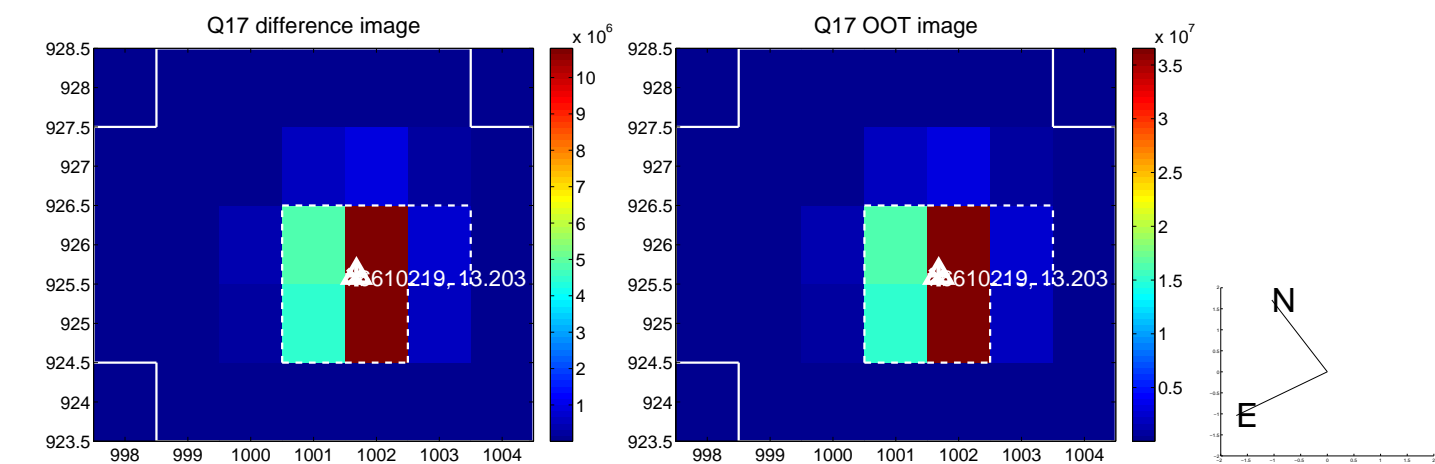
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UKIRT Image

Declination

