

KIC 006619815

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})
006619815-01	OBS	3361.01	65.940898	166.029549	557.3	7.929	16.1	16.9	0.96	5982	2.45	10.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006619815-01	OBS	PC	0.48	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 006619815-01

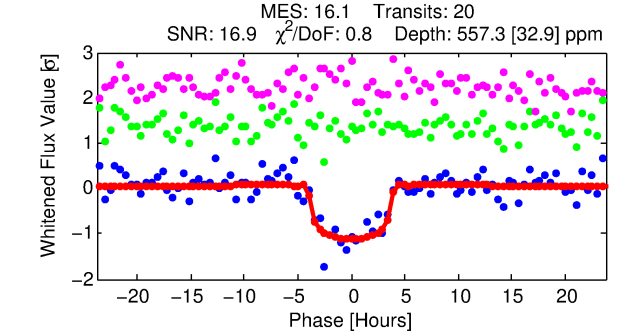
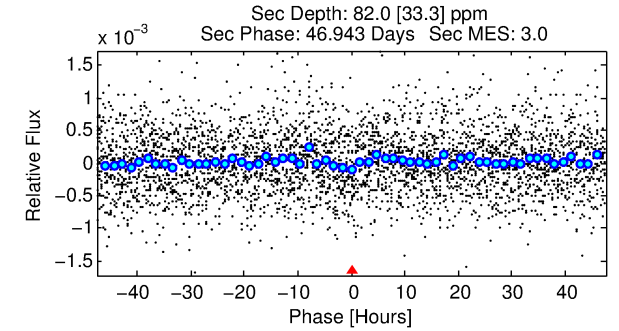
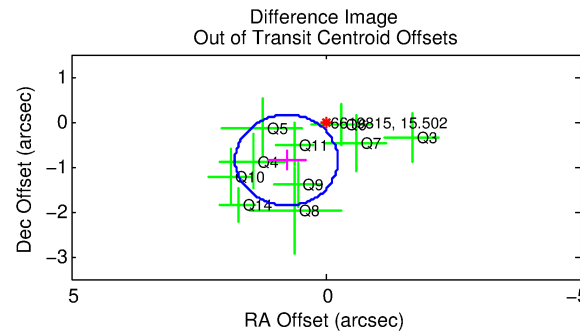
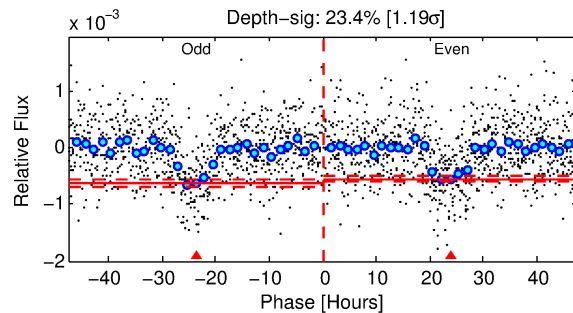
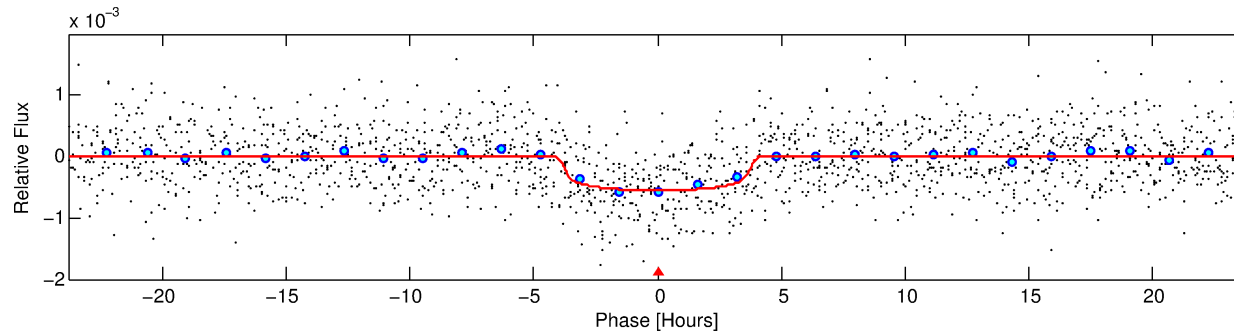
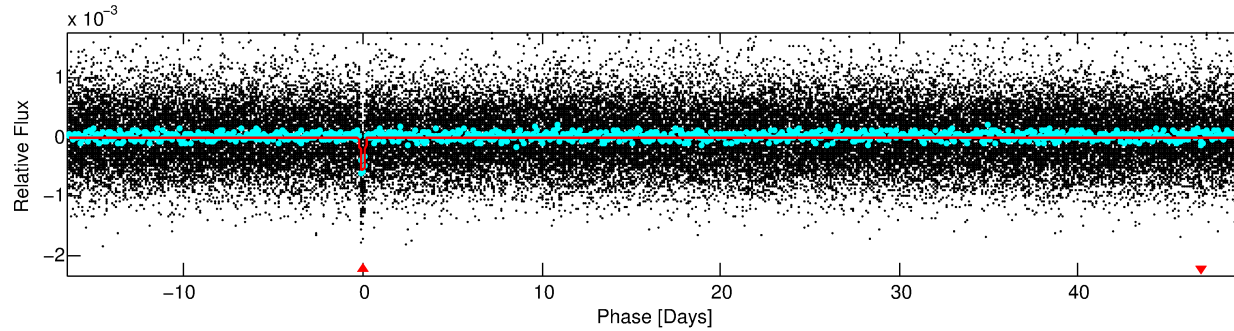
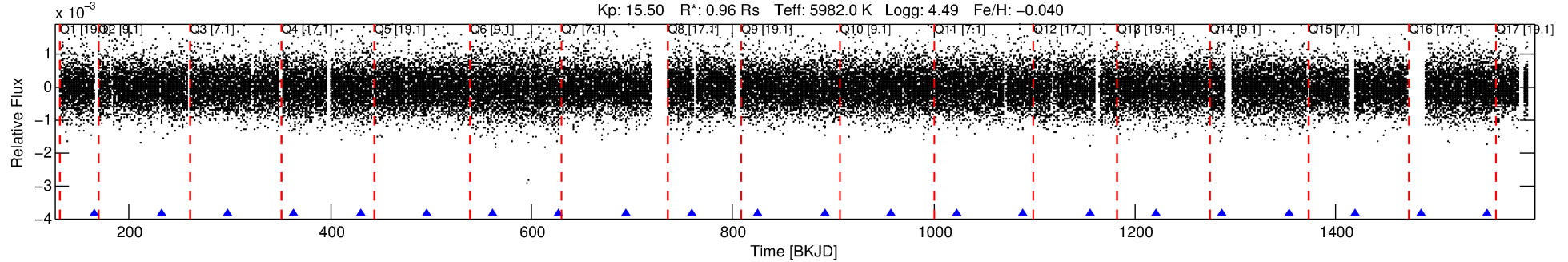
No Significant Match Found

DV One-Page Summary

KIC: 6619815 Candidate: 1 of 1 Period: 65.941 d

KOI: K03361.01 Corr: 0.983

Kp: 15.50 R*: 0.96 Rs Teff: 5982.0 K Logg: 4.49 Fe/H: -0.040



DV Fit Results:

Period = 65.94090 [0.00072] d
Epoch = 166.0295 [0.0087] BKJD
Rp/R* = 0.0234 [0.0064]
a/R* = 44.81 [57.86]
b = 0.74 [0.79]
Seff = 10.05 [3.87]
Teq = 454 [44] K
Rp = 2.45 [0.96] Re
a = 0.3243 [0.0779] AU
Ag = 788.78 [607.31] [1.30σ]
Teffp = 3720 [647] K [5.04σ]

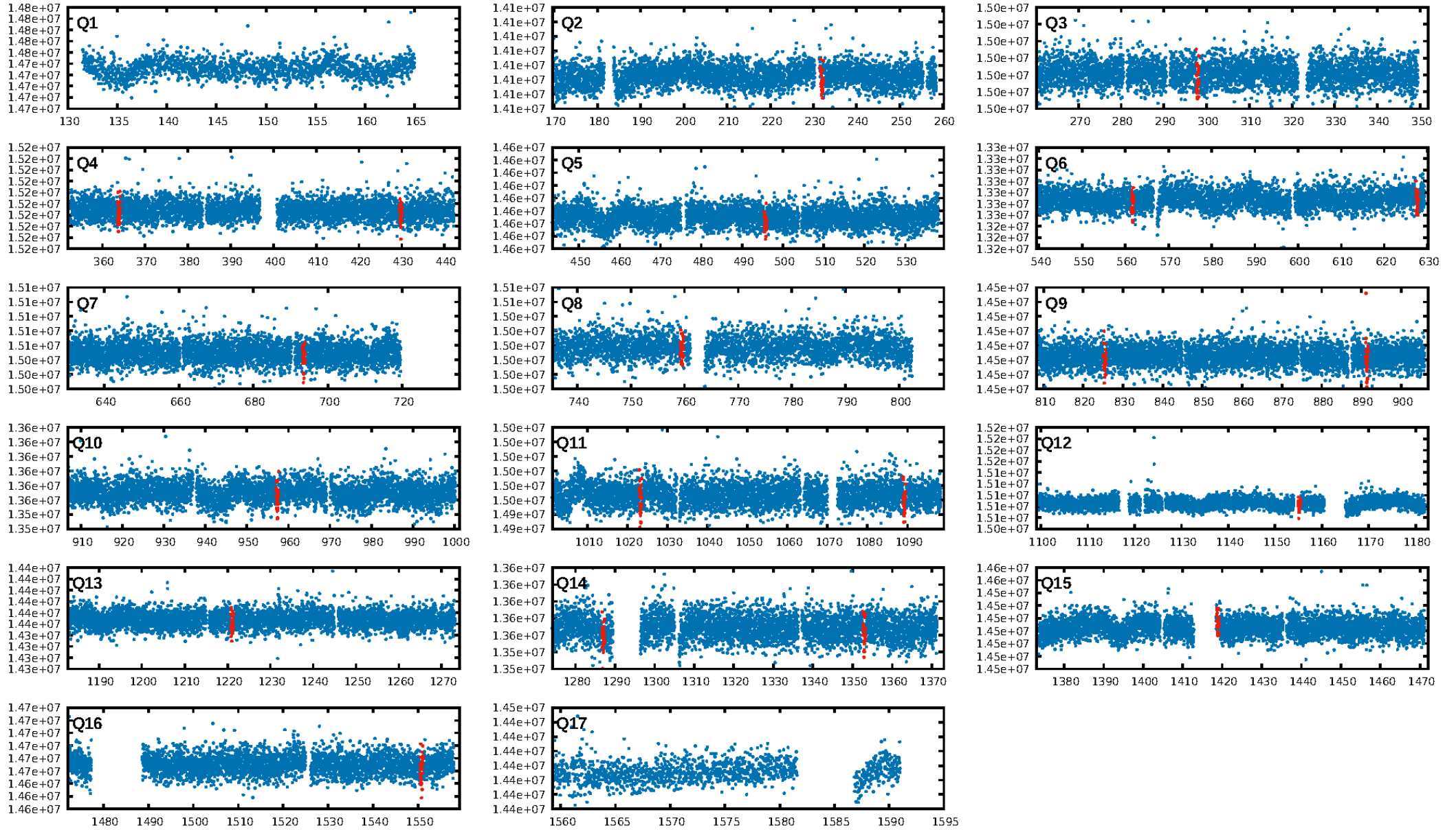
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 95.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.65e-59
RollingBand-fgt: 1.00 [20/20]
GhostDiagnostic-chr: 133.8
Centroid-sig: 12.0%
Centroid-so: 0.699 arcsec [0.95σ]
OotOffset-rm: 1.146 arcsec [3.41σ]
KicOffset-rm: 1.192 arcsec [3.41σ]
OotOffset-st: 3/3/2/2 [10]
KicOffset-st: 3/3/2/2 [10]
DiffImageQuality-fgm: 0.90 [9/10]
DiffImageOverlap-fno: 1.00 [11/11]

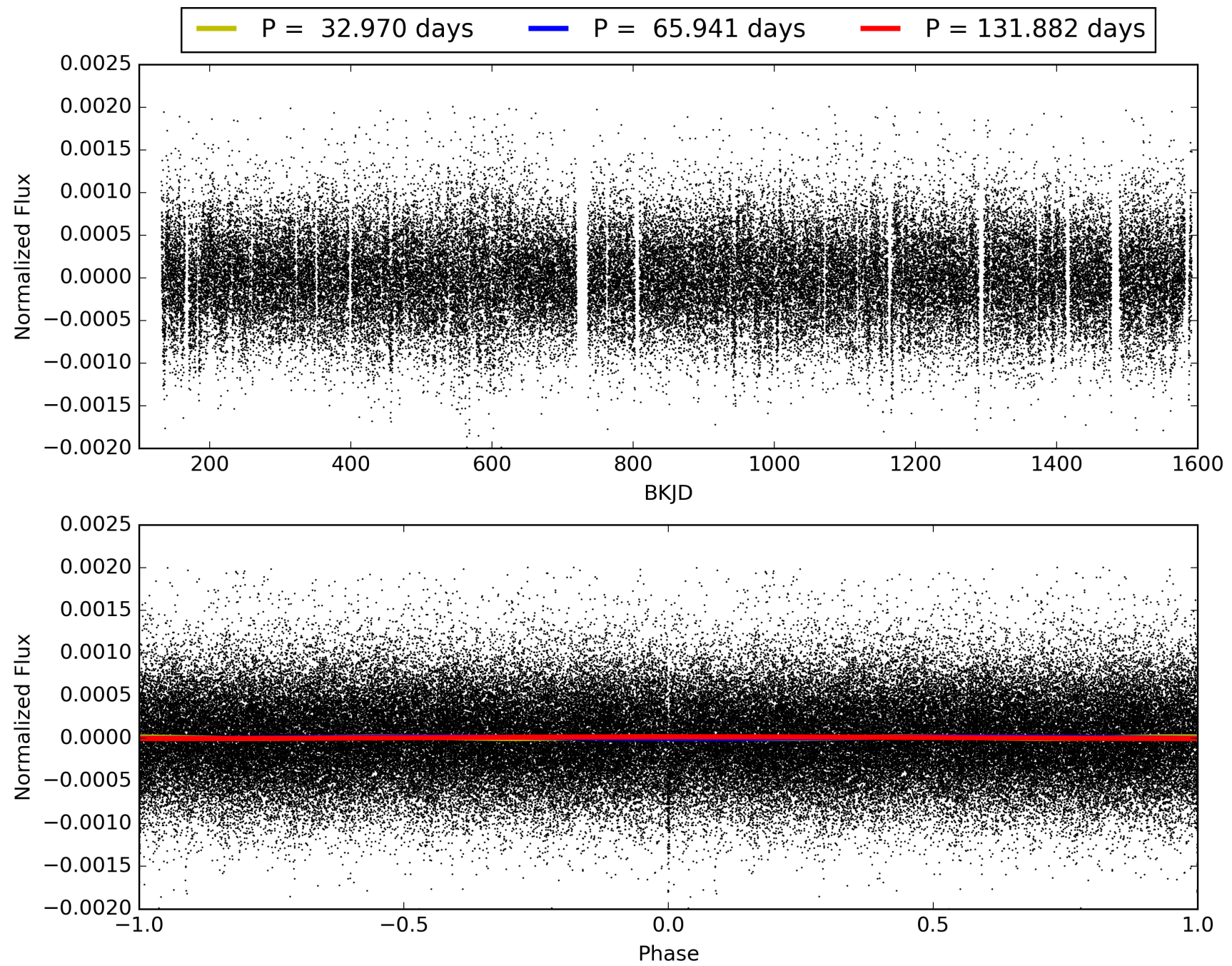
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:34:05 Z

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

TCE 006619815-01, PDC Light Curves

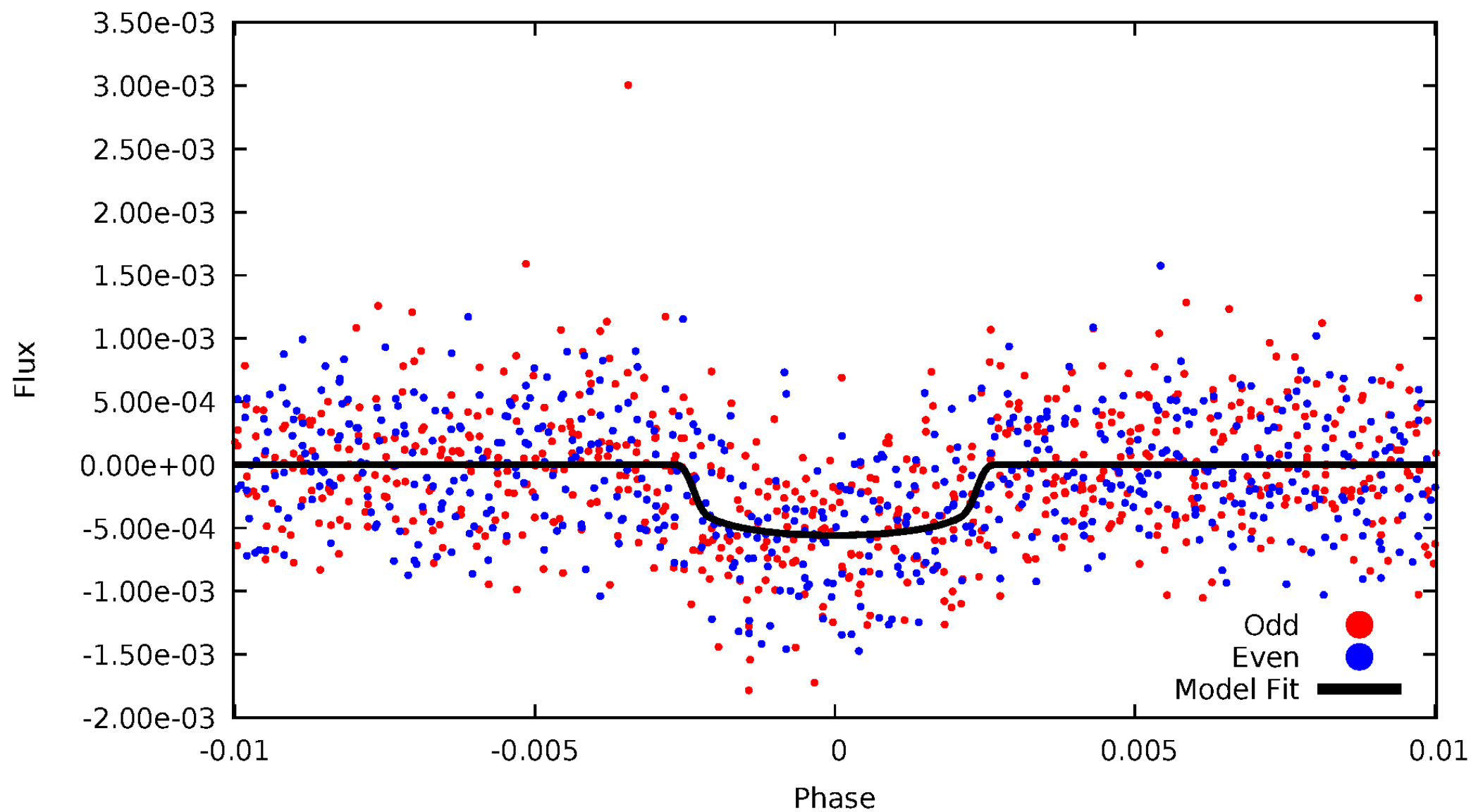


TCE 006619815-01



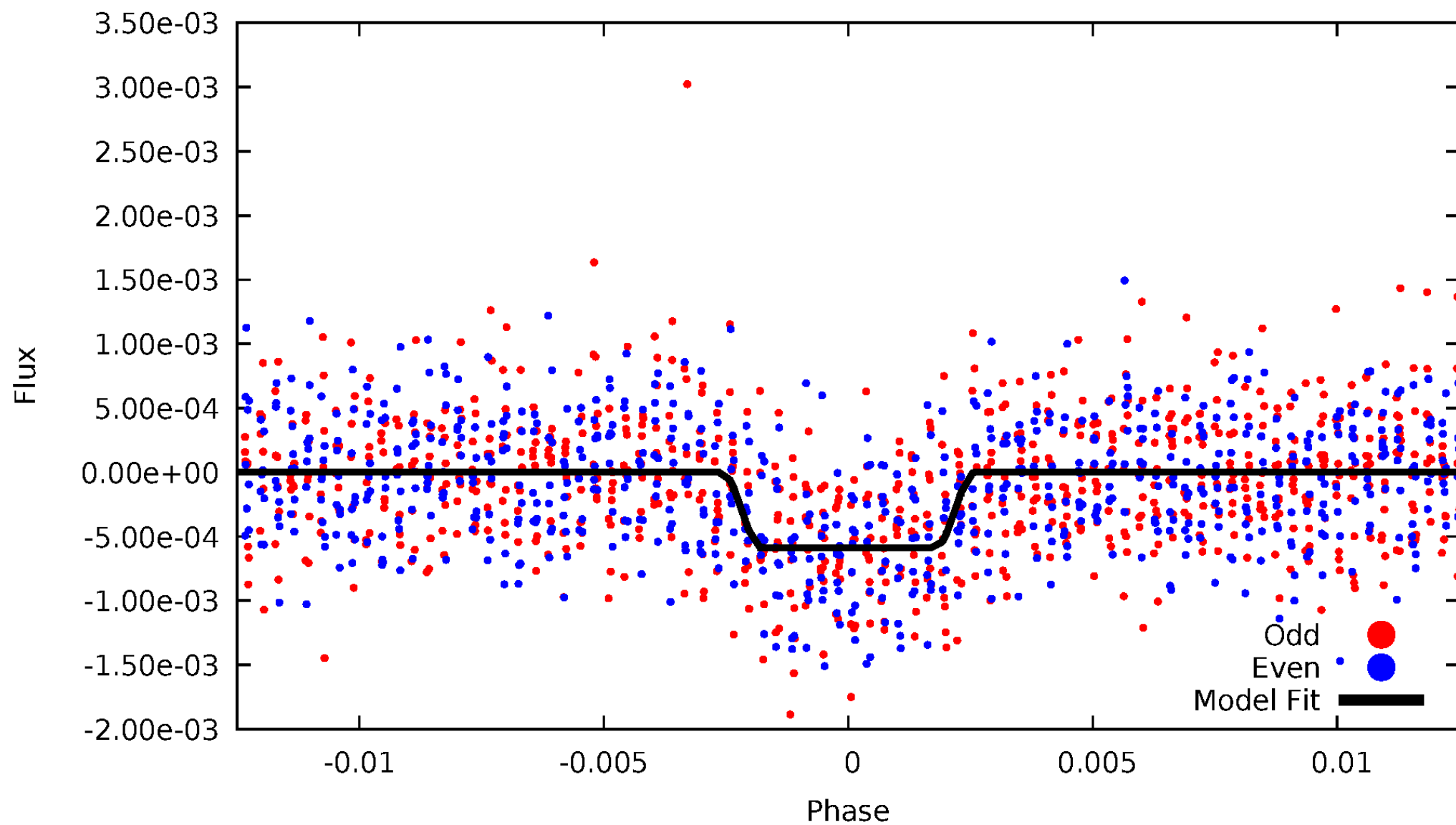
DV Odd/Even

TCE 006619815-01



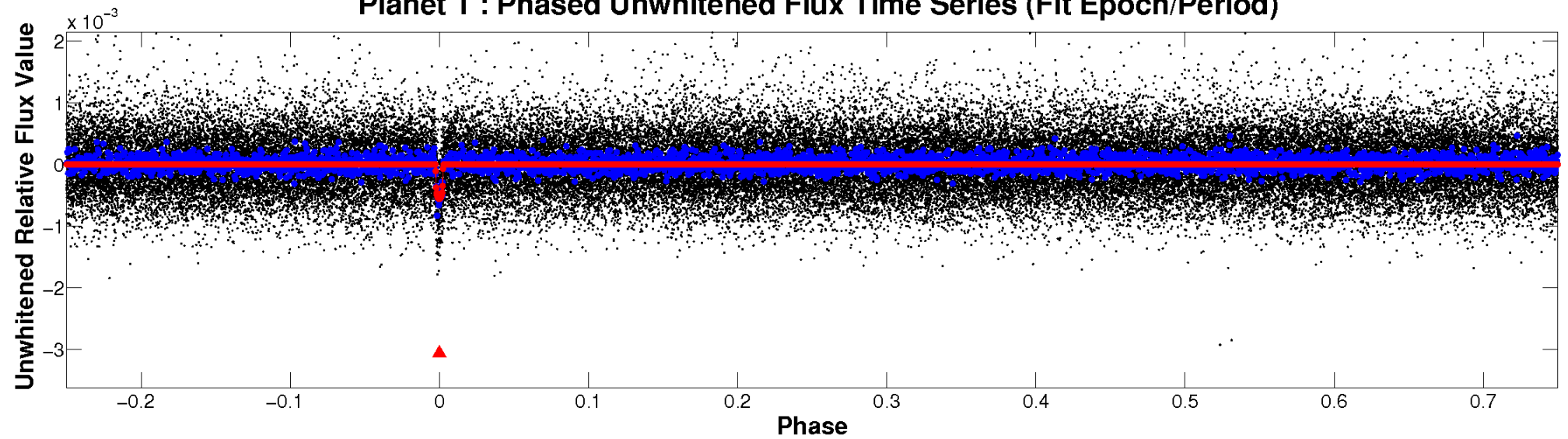
ALT Odd/Even

TCE 006619815-01

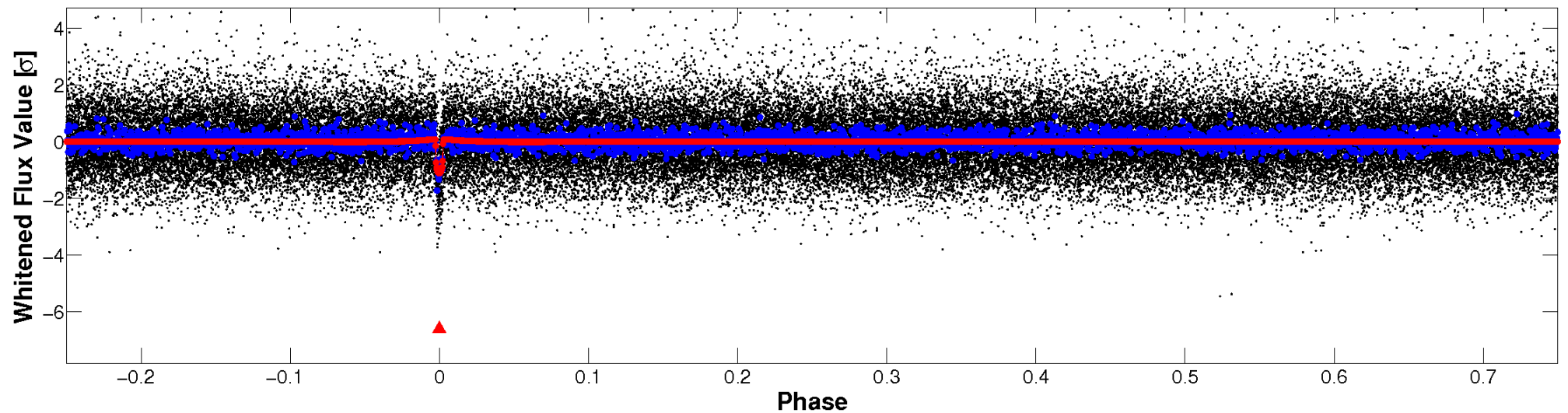


Non-Whitened Vs. Whitened Light Curve

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

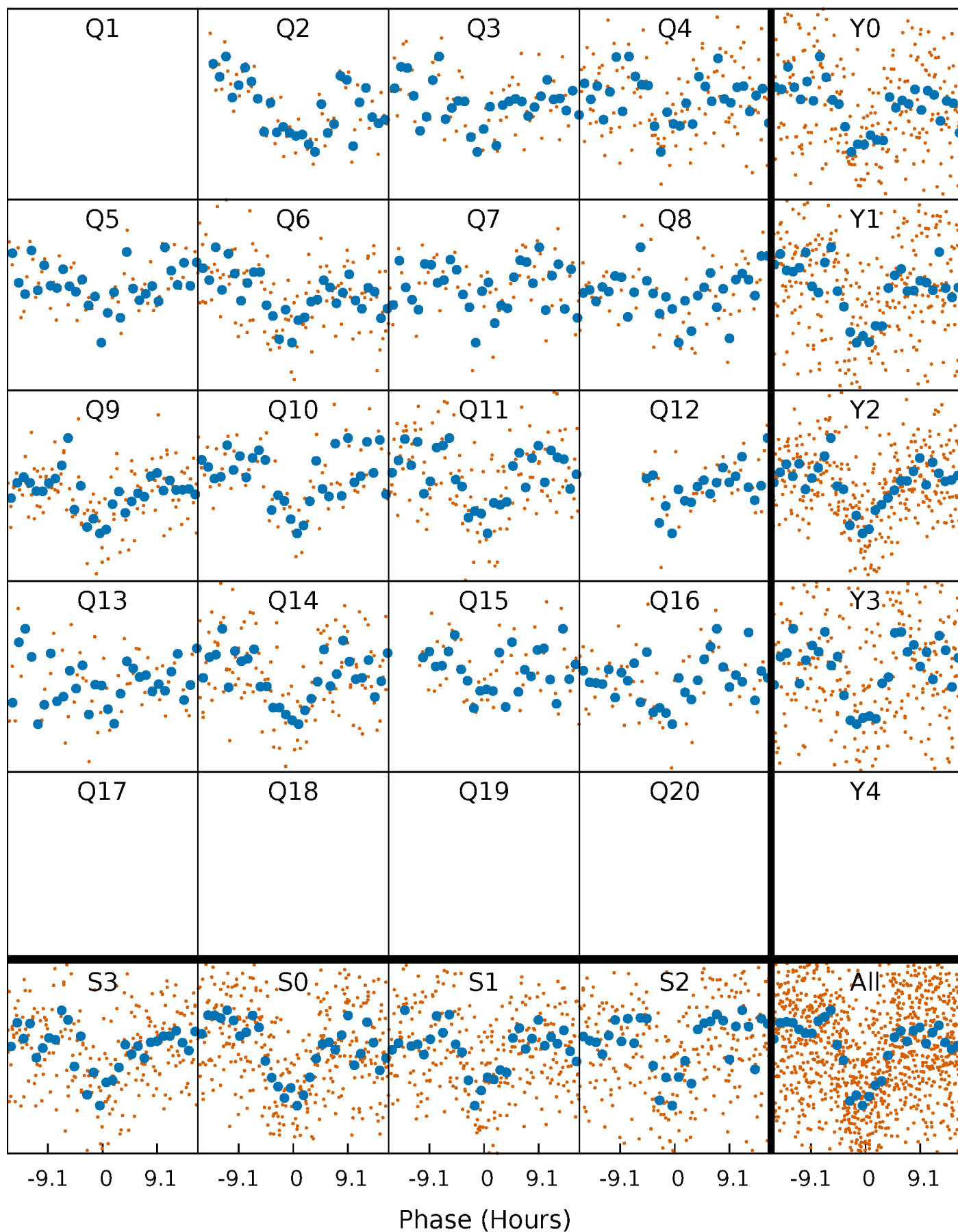


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



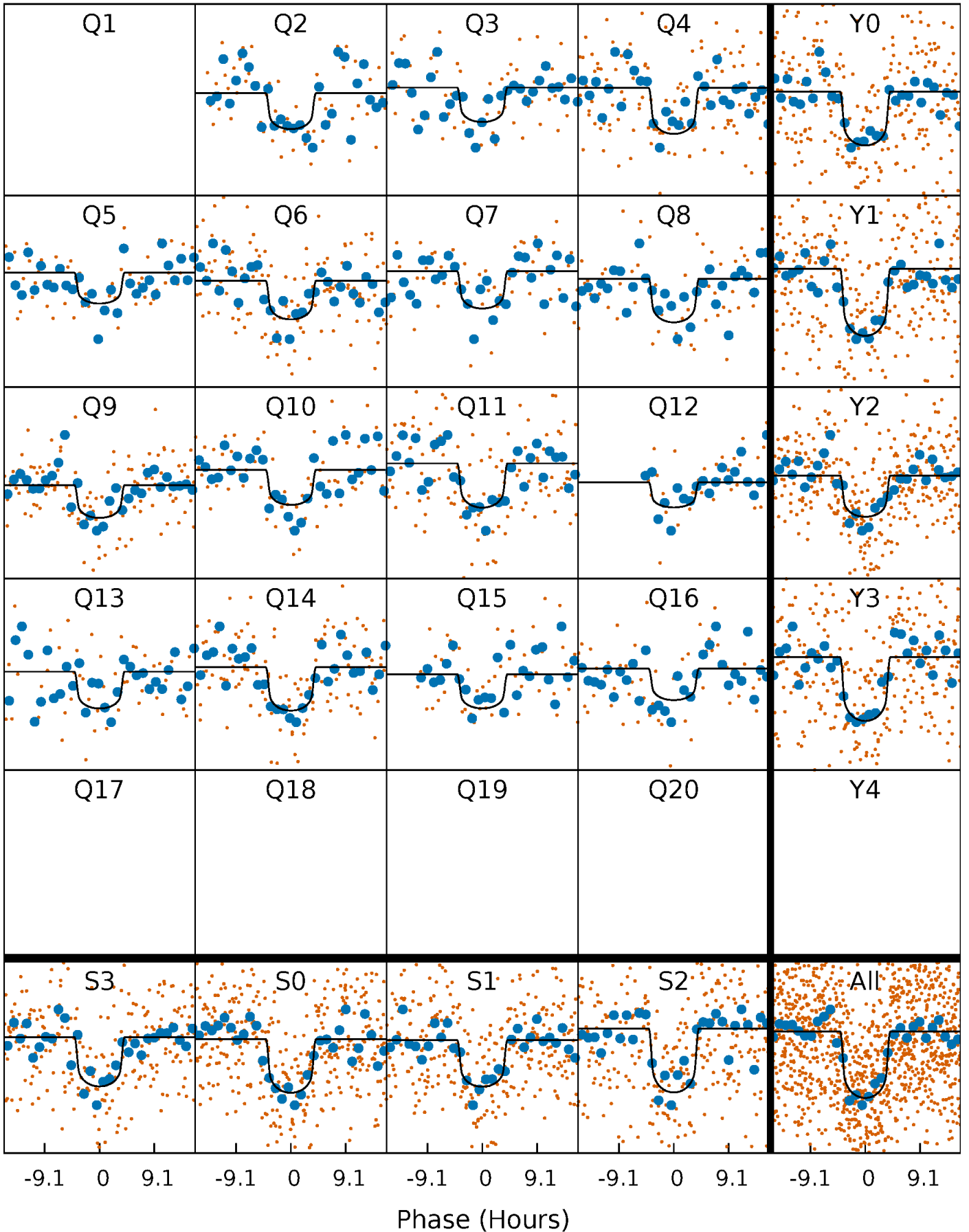
PDC Quarter-Phased Transit Curves

TCE 006619815-01 P= 65.940898 Days $T_0=166.029549$ (BKJD)



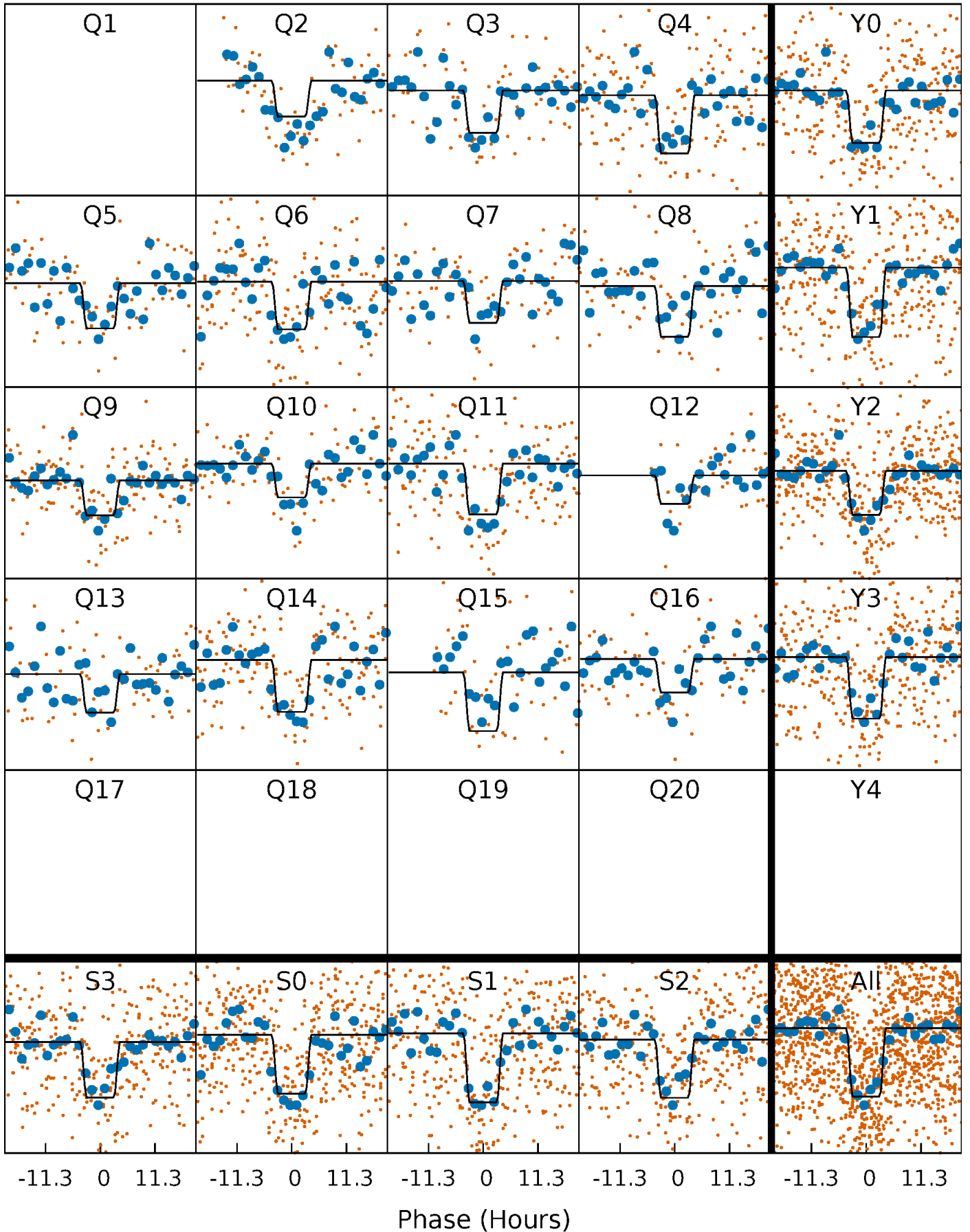
DV Quarter-Phased Transit Curves

TCE 006619815-01 P= 65.940898 Days $T_0=166.029549$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

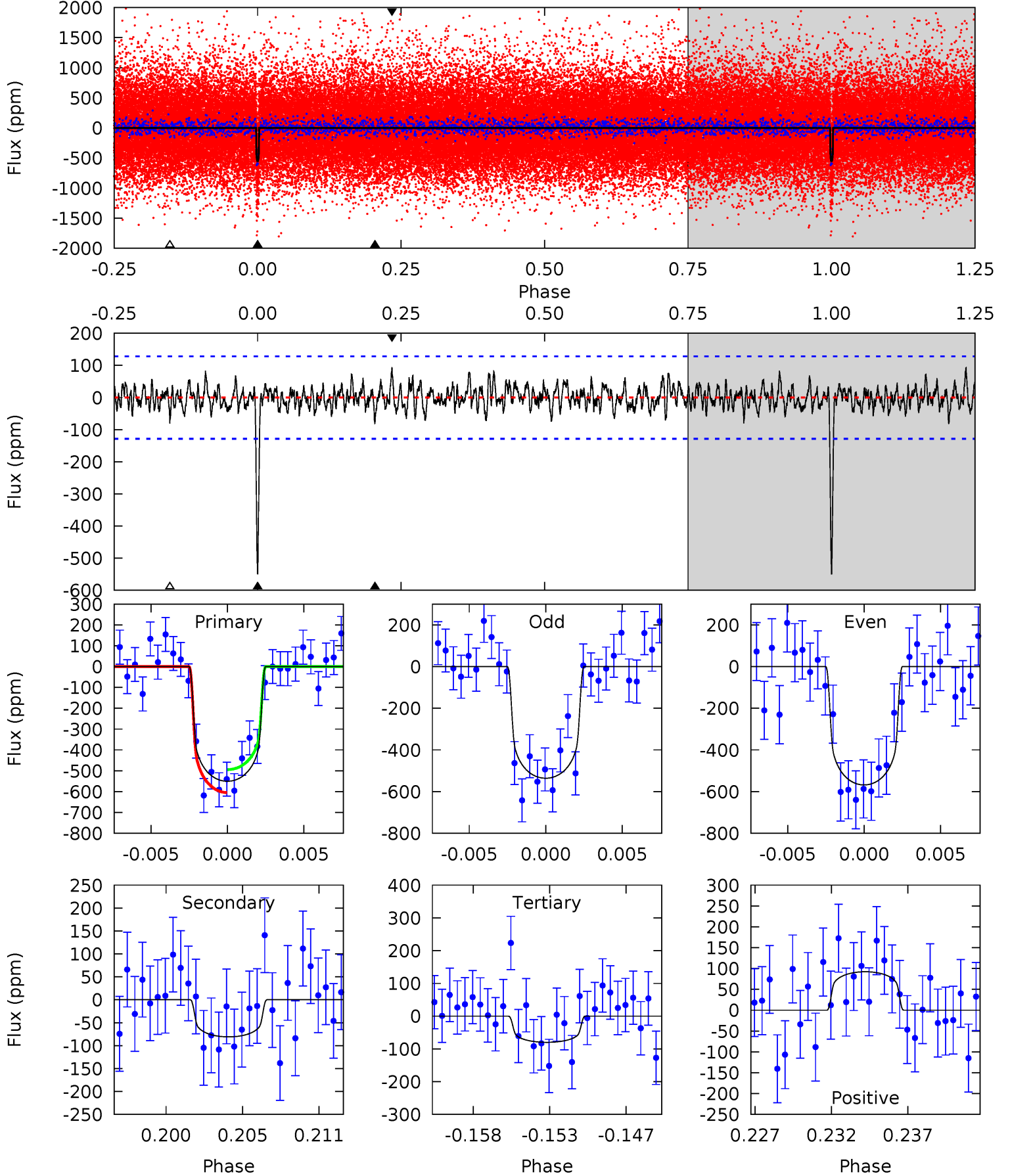
TCE 006619815-01 P= 65.939257 Days $T_0=166.037771$ (BKJD)



DV Model-Shift Uniqueness Test

006619815-01, P = 65.940898 Days, E = 100.088651 Days

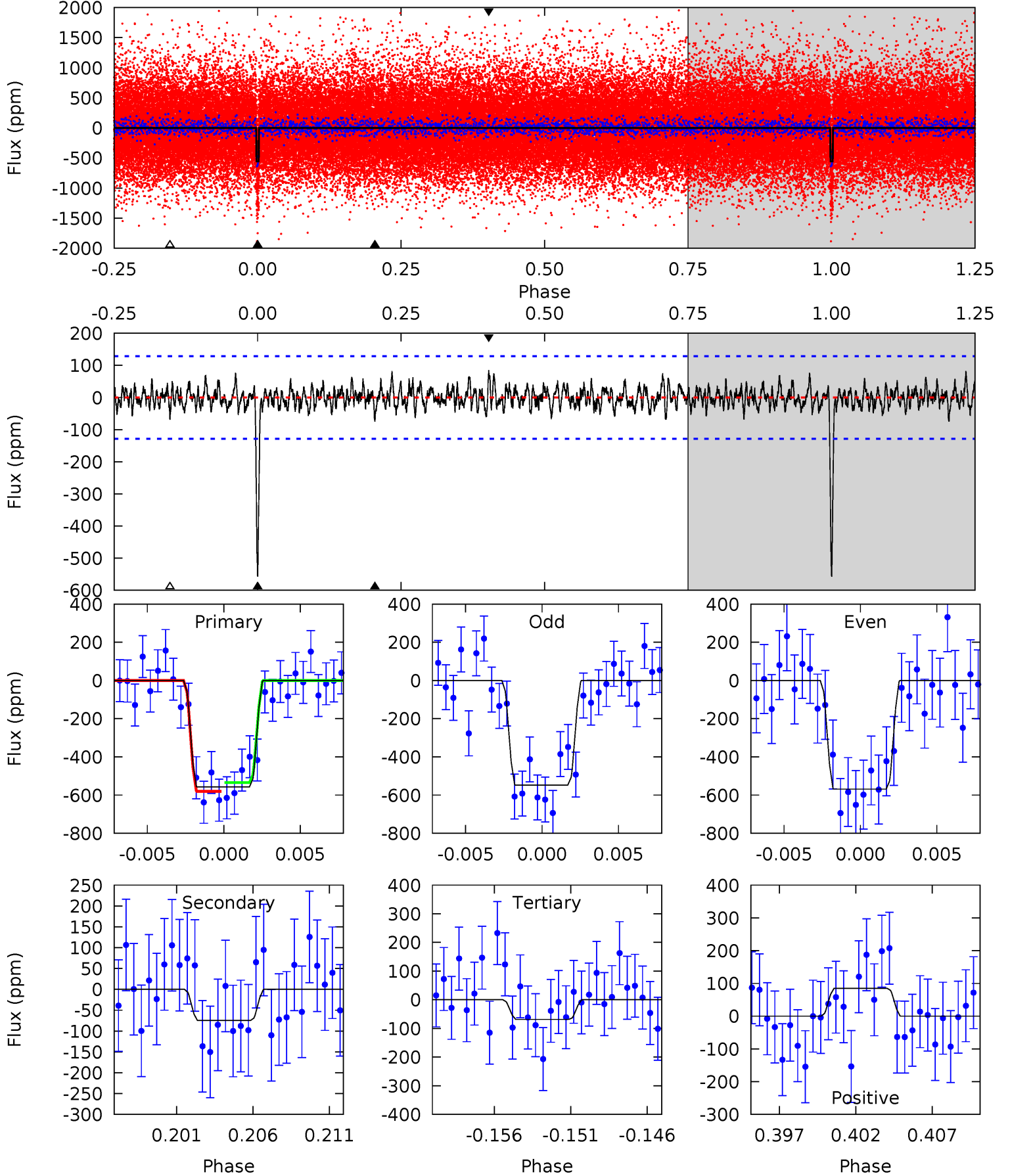
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.1	3.25	3.21	3.70	5.15	2.79	1.13	18.9	18.4	0.04	-0.45	0.64	0.99	0.14	2.22



Alt Model-Shift Uniqueness Test

006619815-01, $P = 65.939257$ Days, $E = 100.098514$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.3	3.00	2.75	3.41	5.16	2.81	1.01	19.6	18.9	0.25	-0.41	0.42	1.03	0.13	0.91



Stellar Parameters For KIC 006619815

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5982^{+168}_{-210}	$4.493^{+0.050}_{-0.200}$	$-0.040^{+0.250}_{-0.350}$	$0.960^{+0.266}_{-0.114}$	$1.047^{+0.126}_{-0.153}$	$1.667^{+0.437}_{-0.842}$
	+3%/-4%	+1%/-4%	+625%/-875%	+28%/-12%	+12%/-15%	+26%/-51%
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 006619815-01 / KOI 3361.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-81 ± 25	$2.63^{+0.75}_{-0.69}$	648^{+43}_{-33}	3980^{+506}_{-395}	653^{+613}_{-298}
Alt.	-75 ± 25	$2.67^{+0.77}_{-0.74}$	648^{+43}_{-32}	3911^{+494}_{-401}	580^{+613}_{-282}

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 $A_{obs} \gg 1.0$

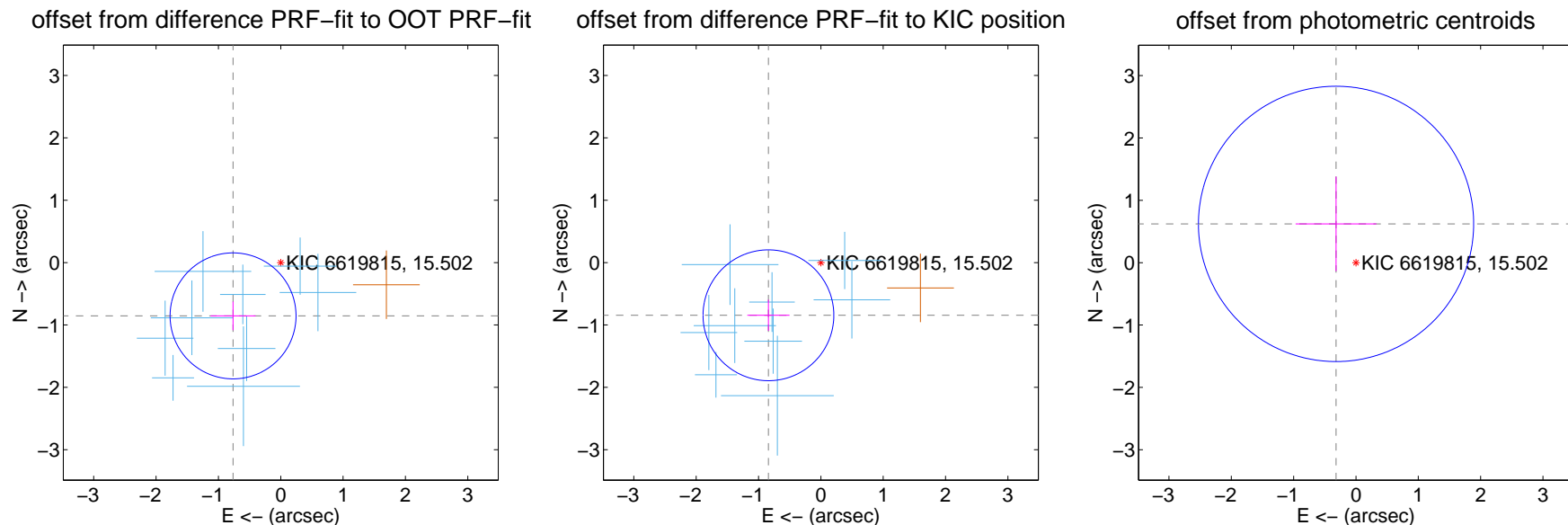
DV Centroid Data

Supplemental centroid analysis for 006619815-01. Kepler magnitude: 15.50. Transit SNR 16.85

There are 9 quarters with good PRF difference image offsets

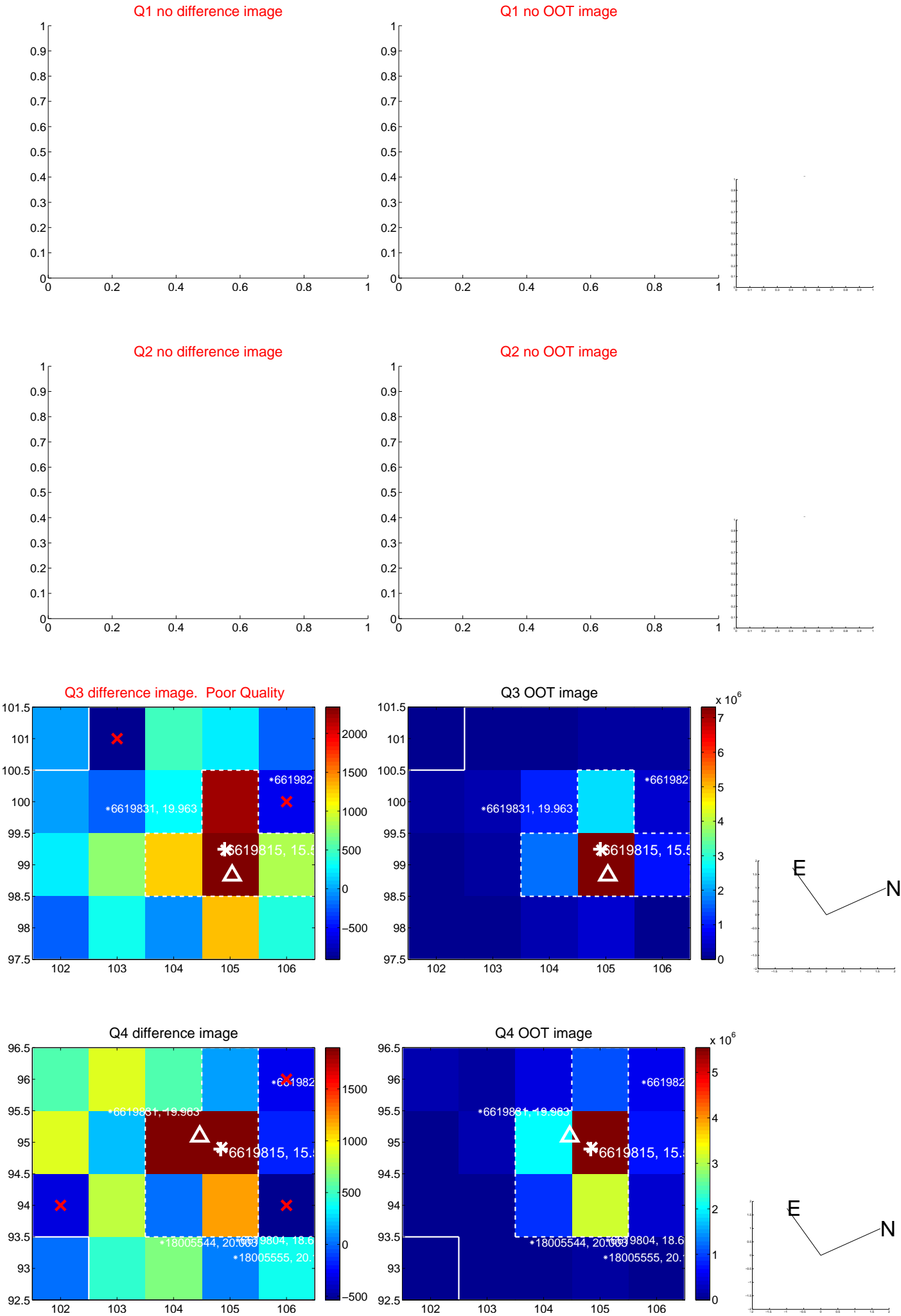
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.146 ± 0.337	3.41	0.765 ± 0.361	-0.854 ± 0.229
PRF-fit source offset from KIC position	1.192 ± 0.350	3.41	0.841 ± 0.339	-0.845 ± 0.249
photometric centroid source offset	0.70 ± 0.74	0.95	0.32 ± 0.65	0.62 ± 0.76

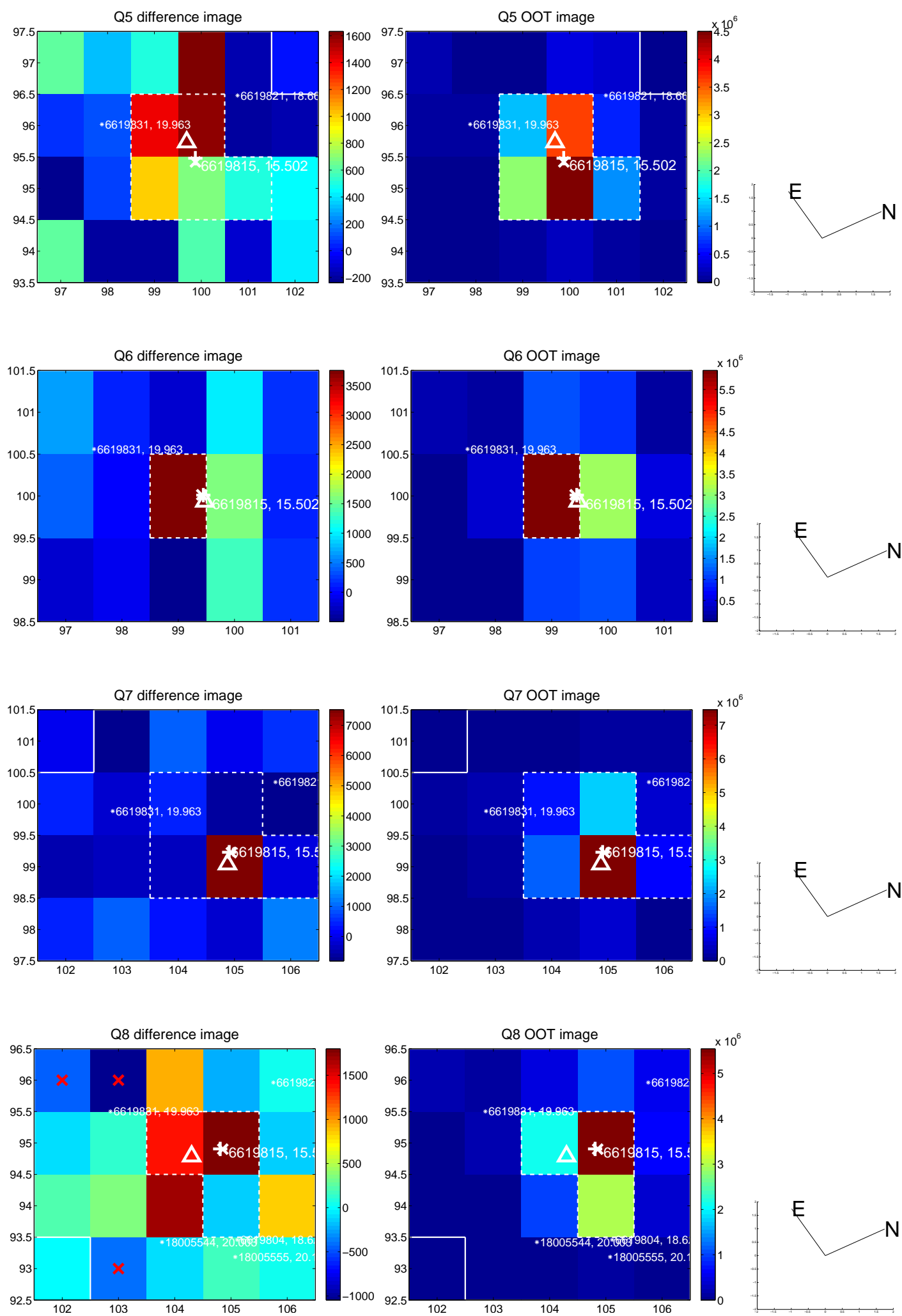


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

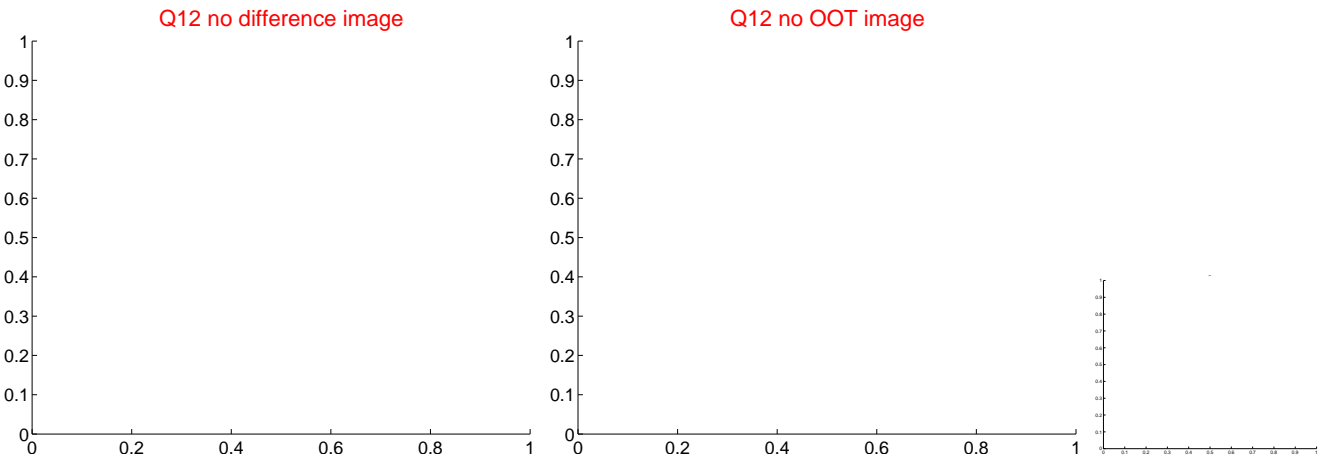
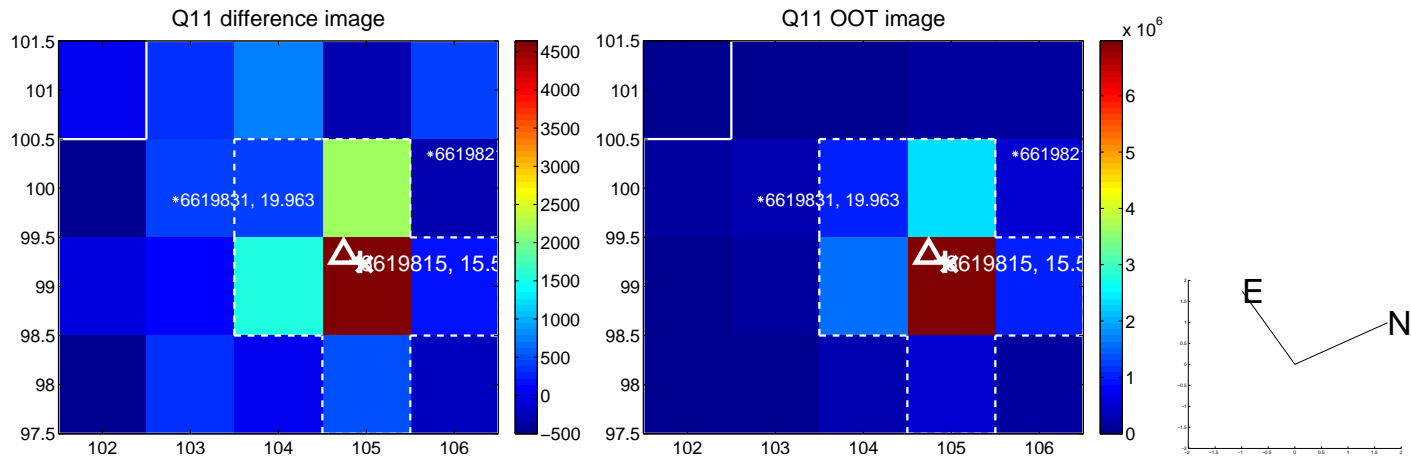
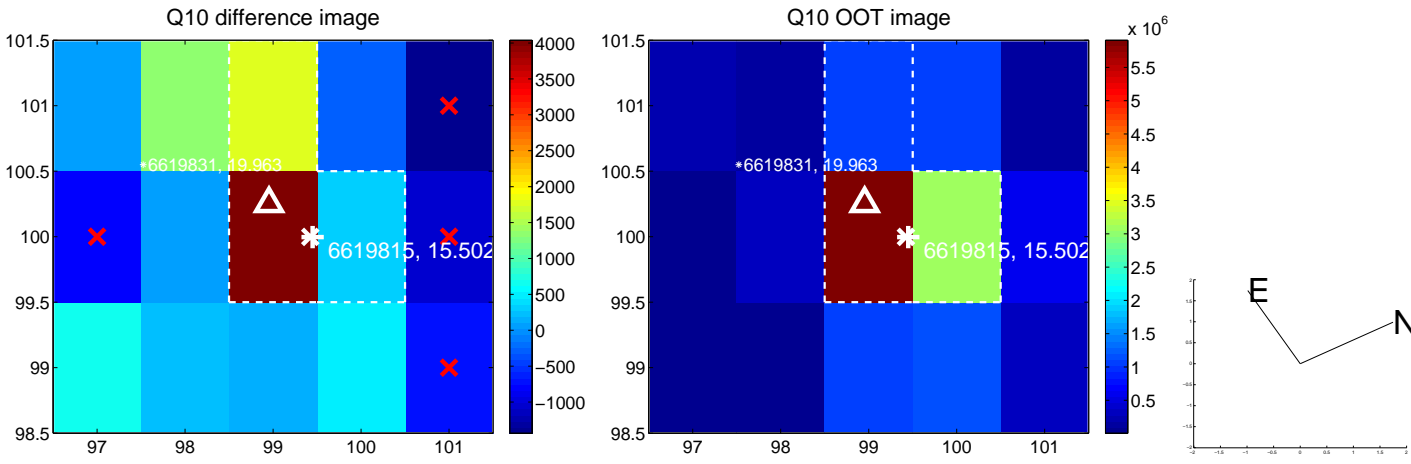
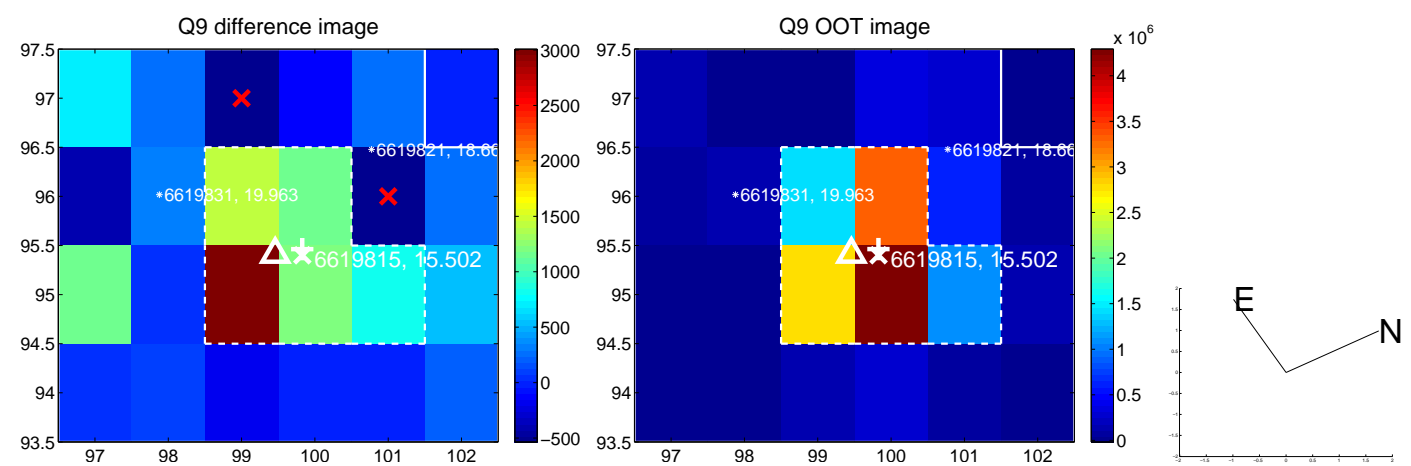
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



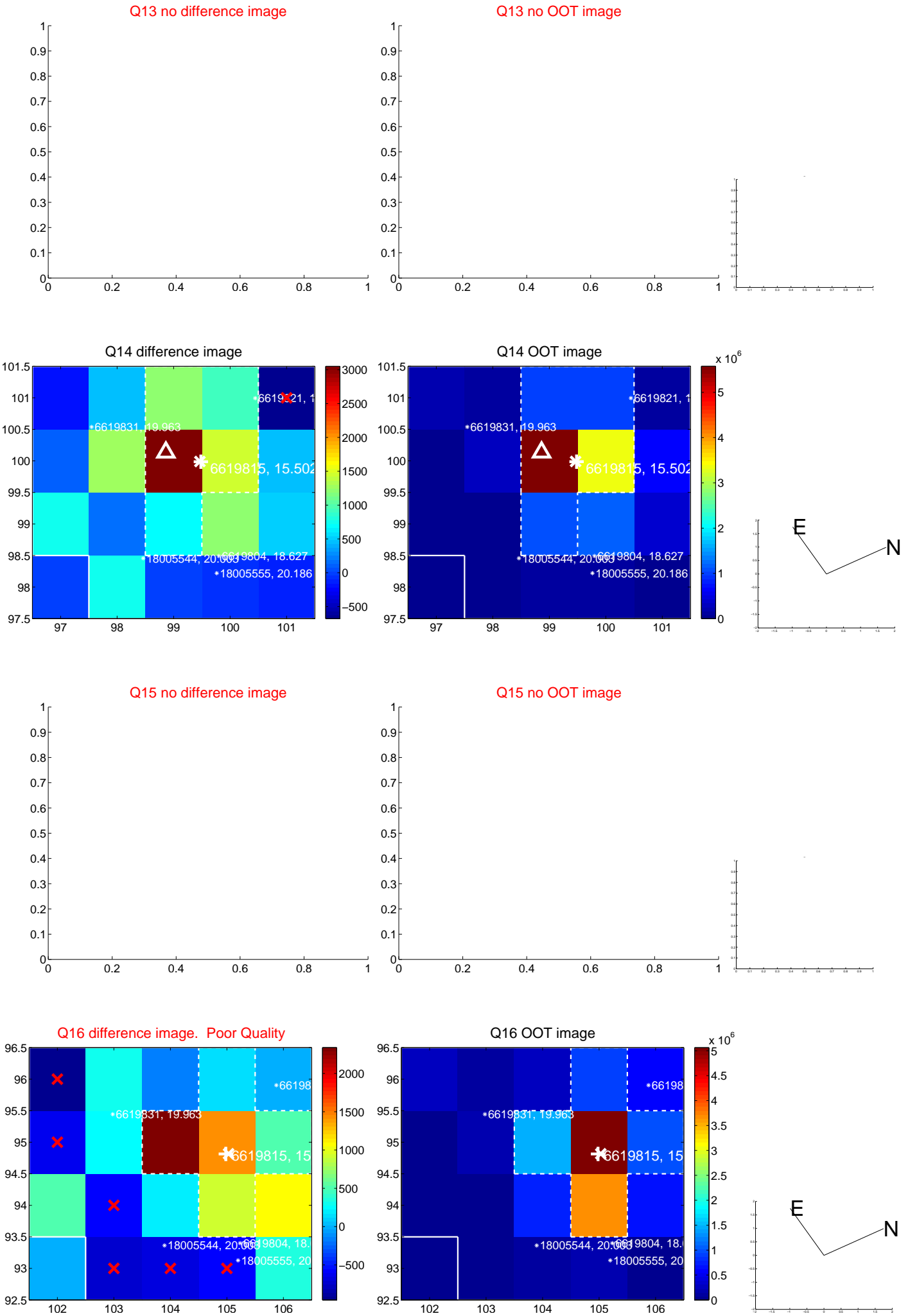
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



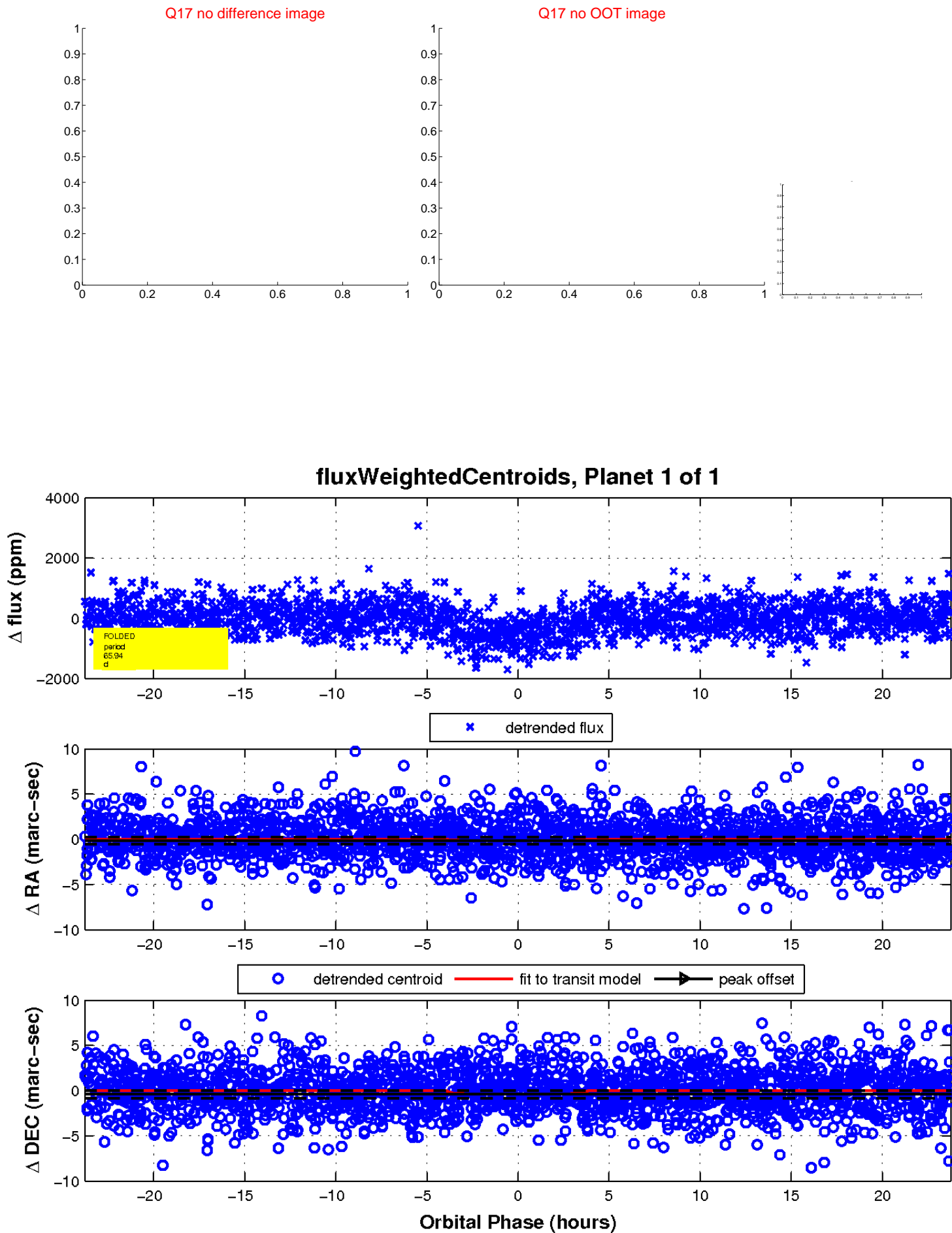
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

