

KIC 005982368

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})
005982368-01	OBS	1041.01	19.563085	134.356203	5125.4	6.713	262.1	190.1	1.08	5766	9.06	58.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005982368-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_DV—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 005982368-01

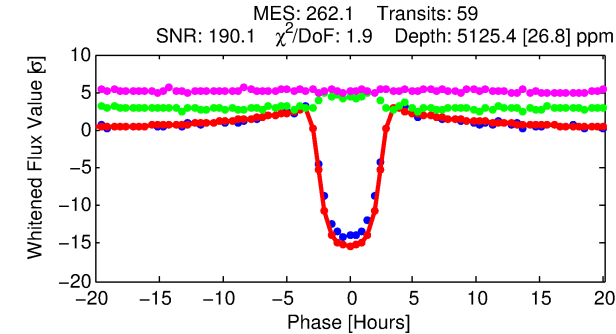
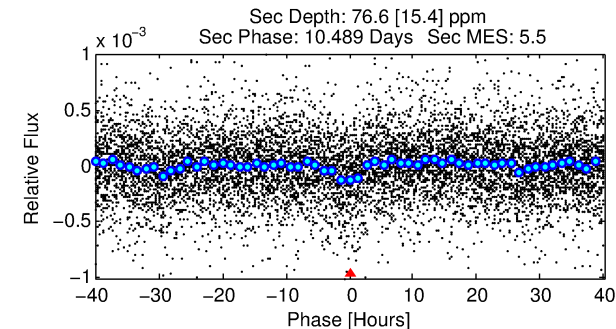
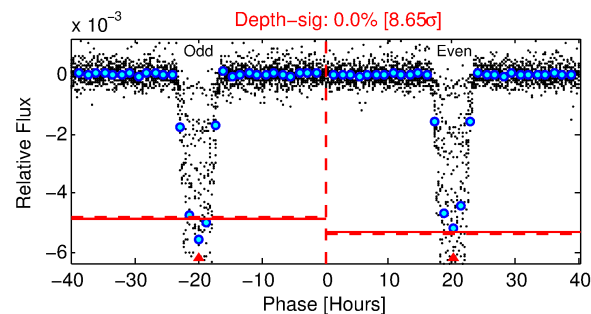
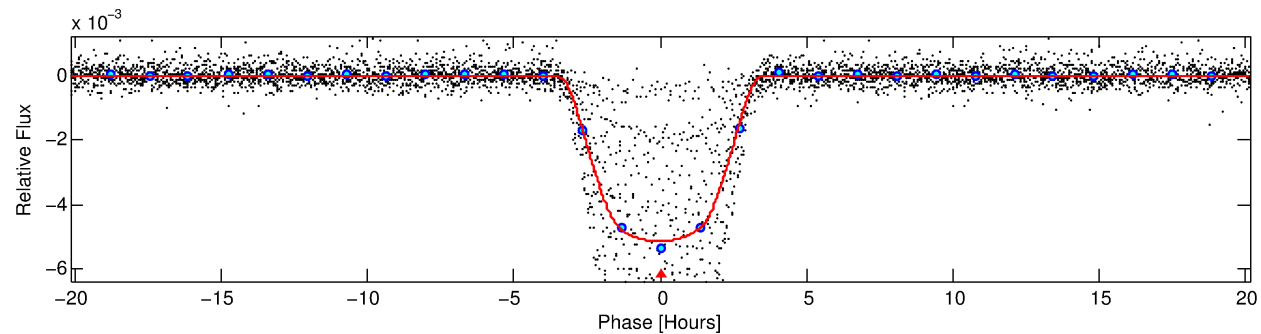
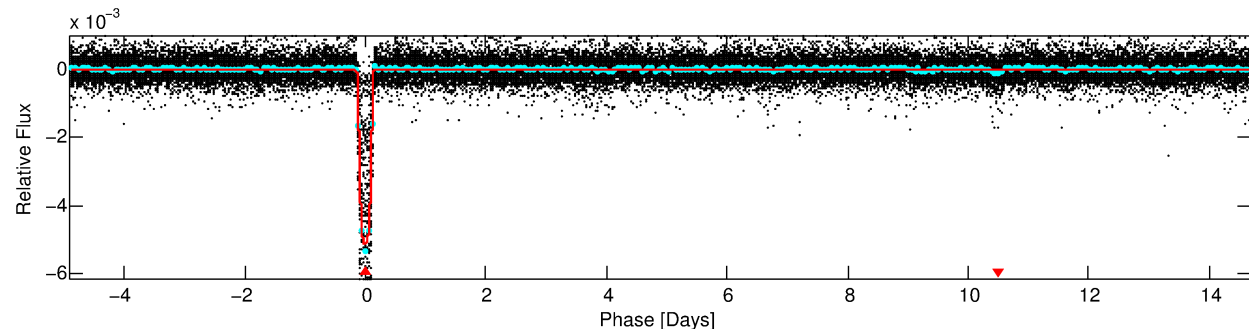
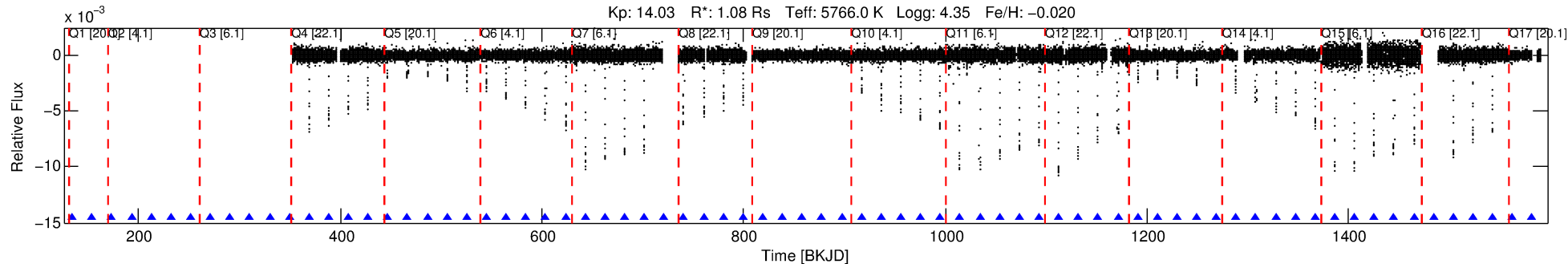
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
005982368-01	5982368	005982353-pri	5982353	1:1	11.0	3	1	11.12	14.04	2.60	Direct-PRF	0	0.02	0.06

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 5982368 Candidate: 1 of 1 Period: 19.563 d
KOI: K01041.01 Corr: 0.987

Kp: 14.03 R*: 1.08 Rs Teff: 5766.0 K Logg: 4.35 Fe/H: -0.020



DV Fit Results:

Period = 19.56308 [0.00002] d
Epoch = 134.3562 [0.0008] BKJD
Rp/R* = 0.0771 [0.0003]
a/R* = 13.80 [0.15]
b = 0.88 [0.00]
Seff = 58.79 [21.50]
Teq = 706 [65] K
Rp = 9.06 [2.51] Re
a = 0.1398 [0.0327] AU
Ag = 10.03 [3.97] [2.27σ]
Teffp = 1943 [117] K [9.26σ]

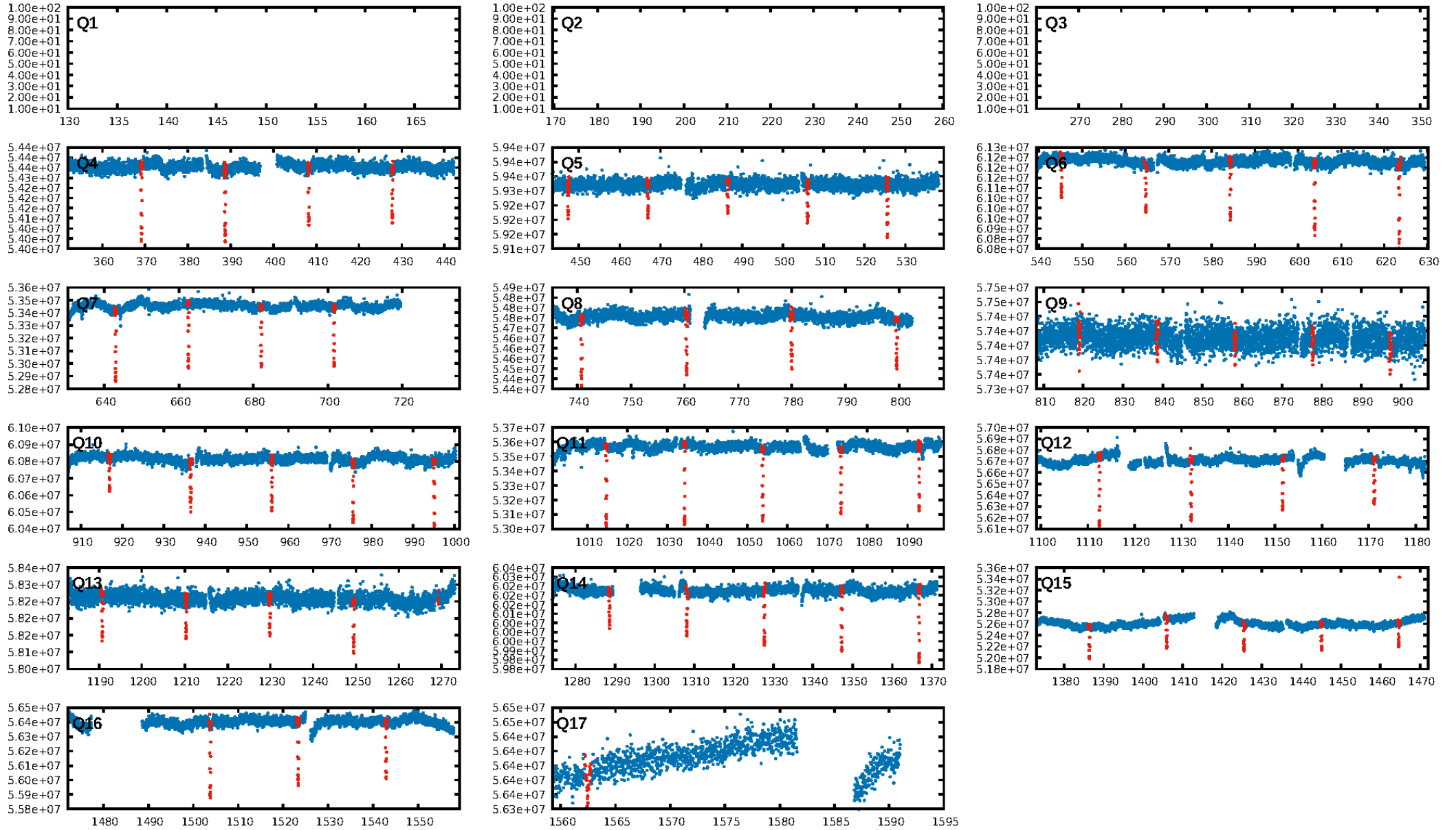
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [58/58]
GhostDiagnostic-chr: -0.6545
Centroid-sig: 0.0%
Centroid-so: 7.635 arcsec [457.92σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [14/14]

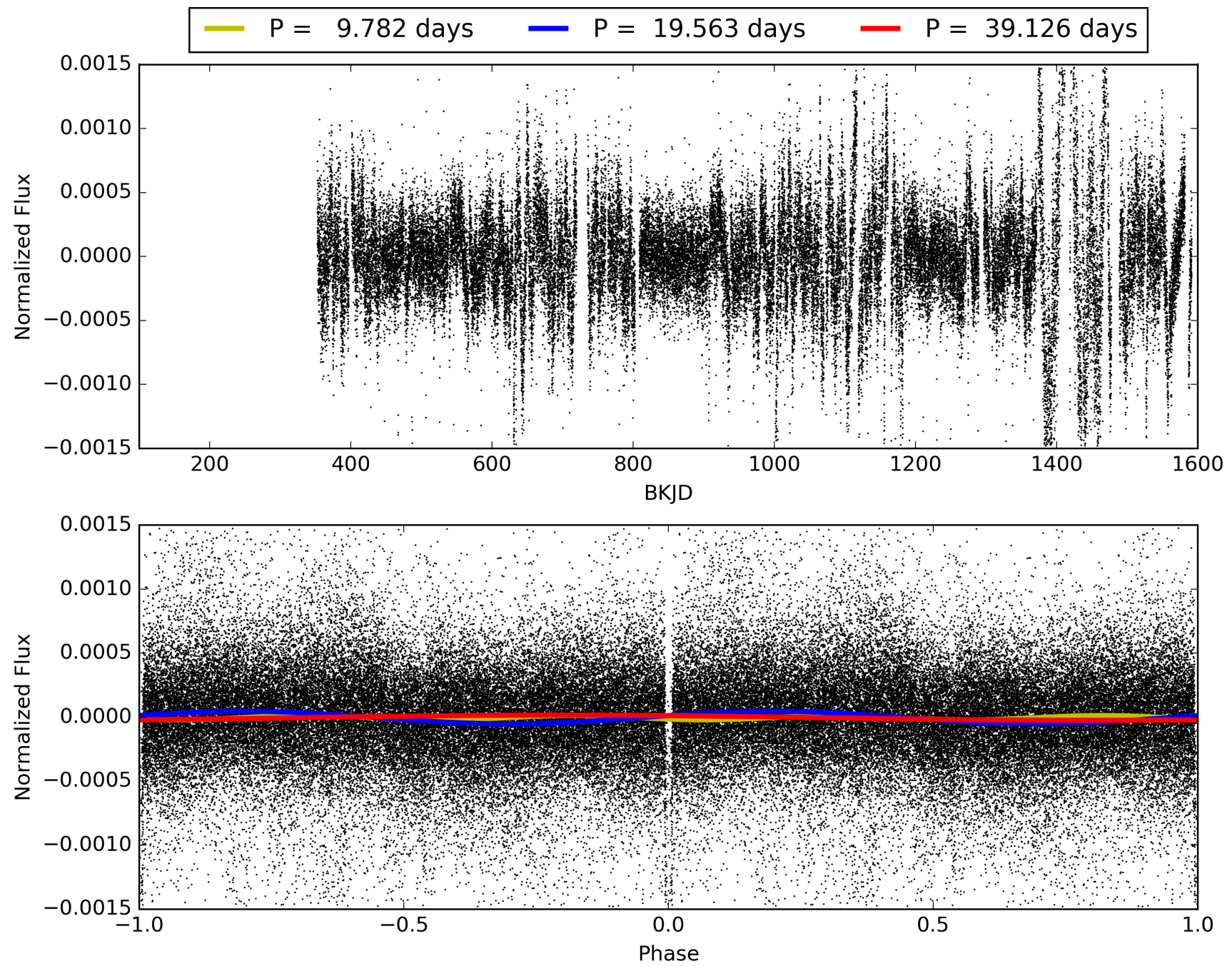
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:17:39 Z

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

TCE 005982368-01, PDC Light Curves

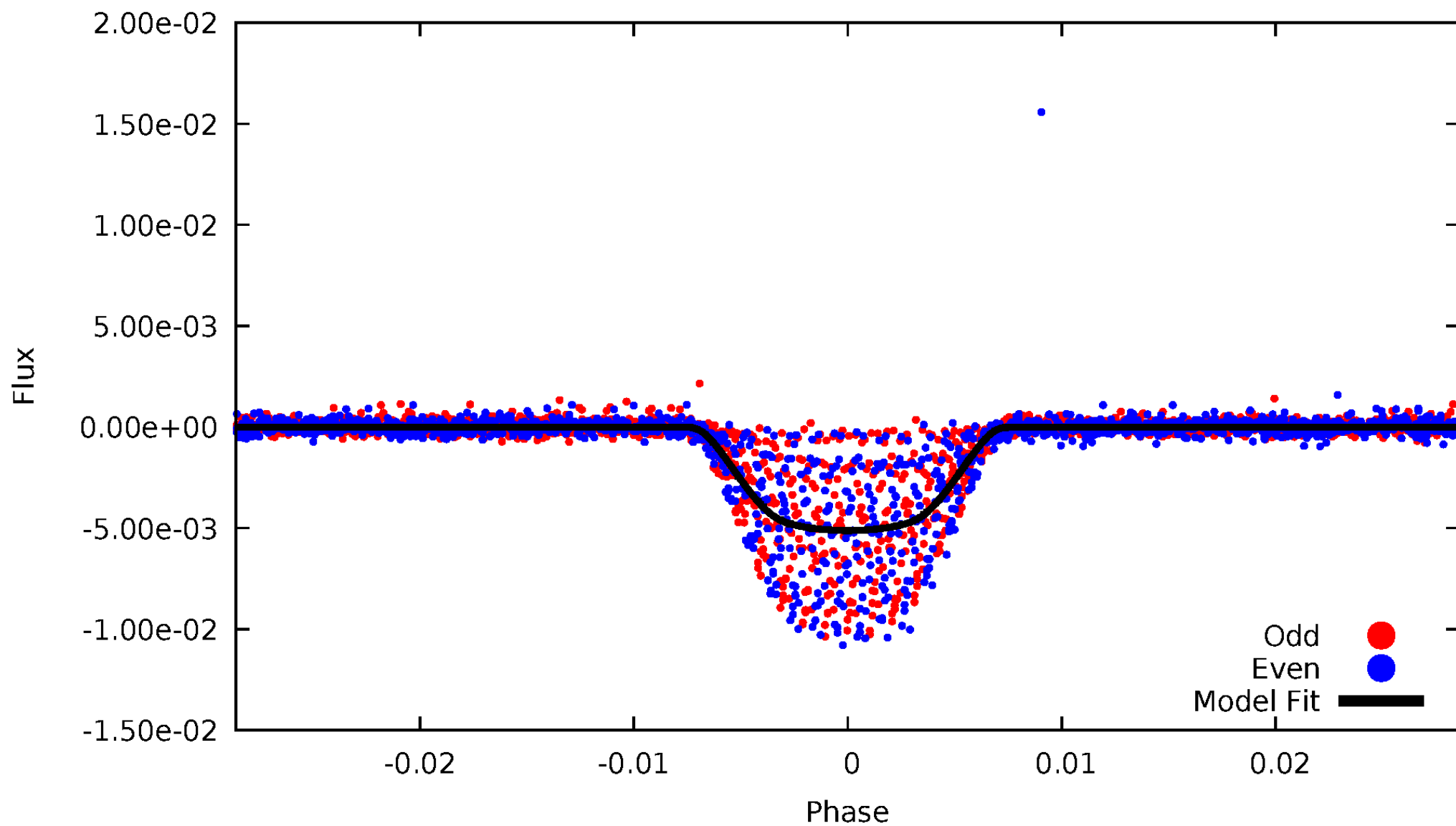


TCE 005982368-01



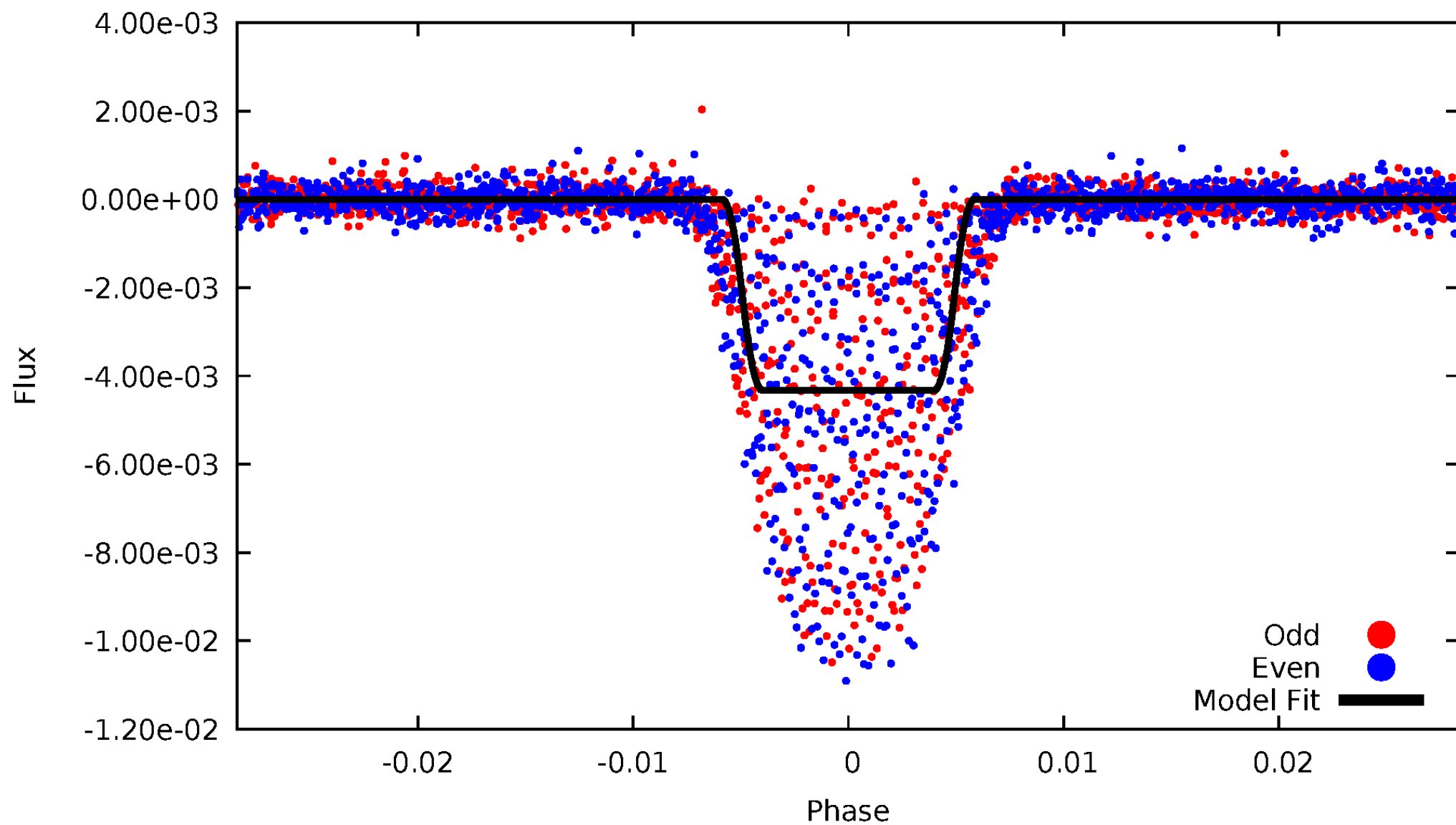
DV Odd/Even

TCE 005982368-01



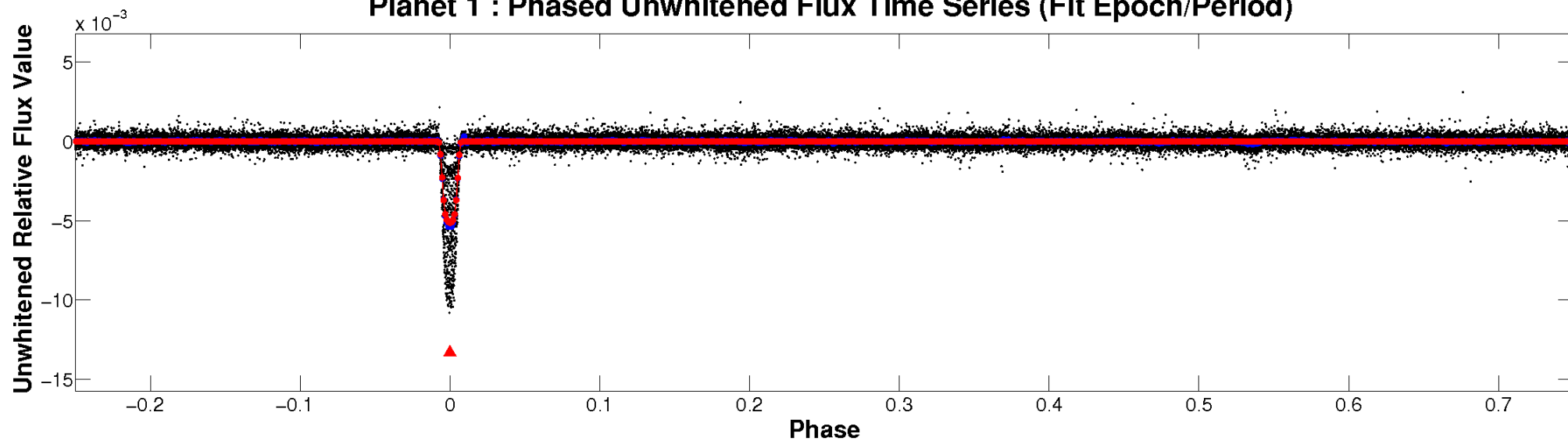
ALT Odd/Even

TCE 005982368-01

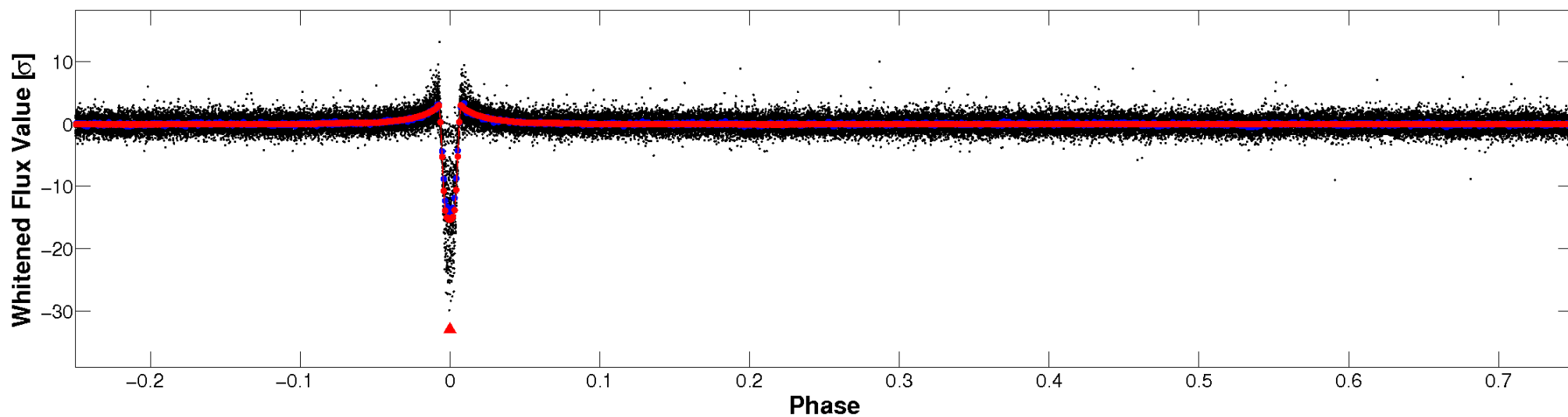


Non-Whitened Vs. Whitened Light Curve

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

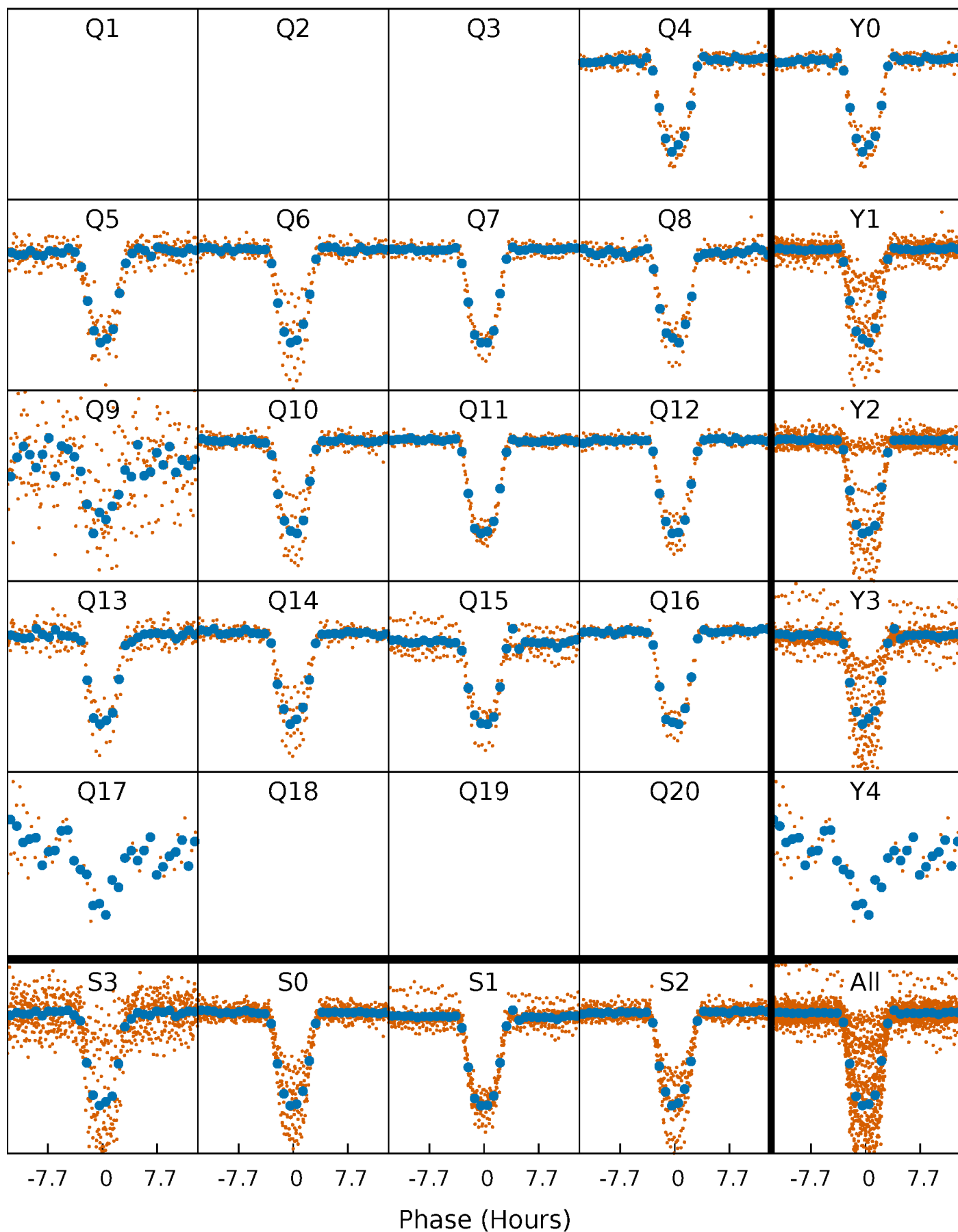


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



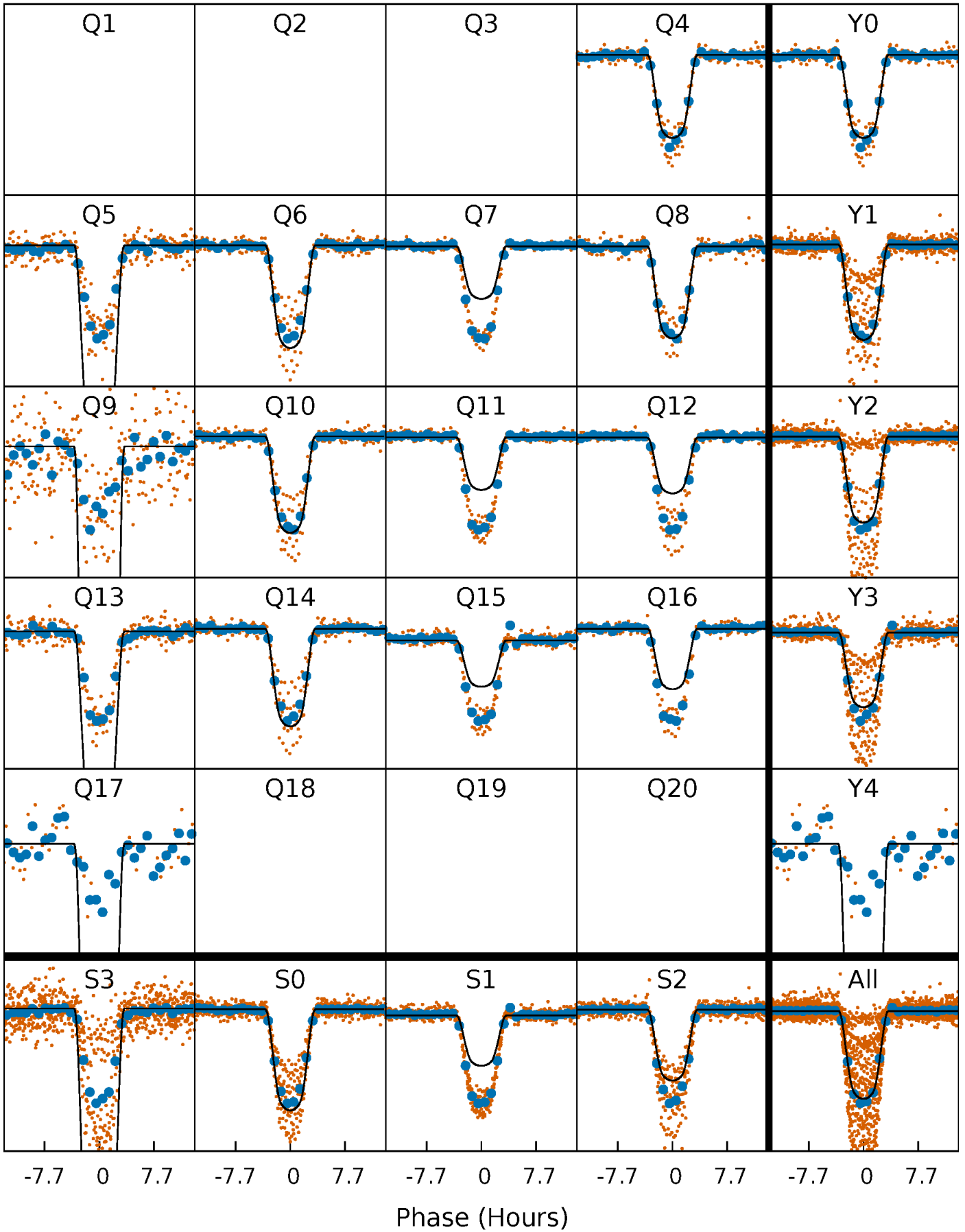
PDC Quarter-Phased Transit Curves

TCE 005982368-01 P= 19.563085 Days $T_0=134.356202$ (BKJD)



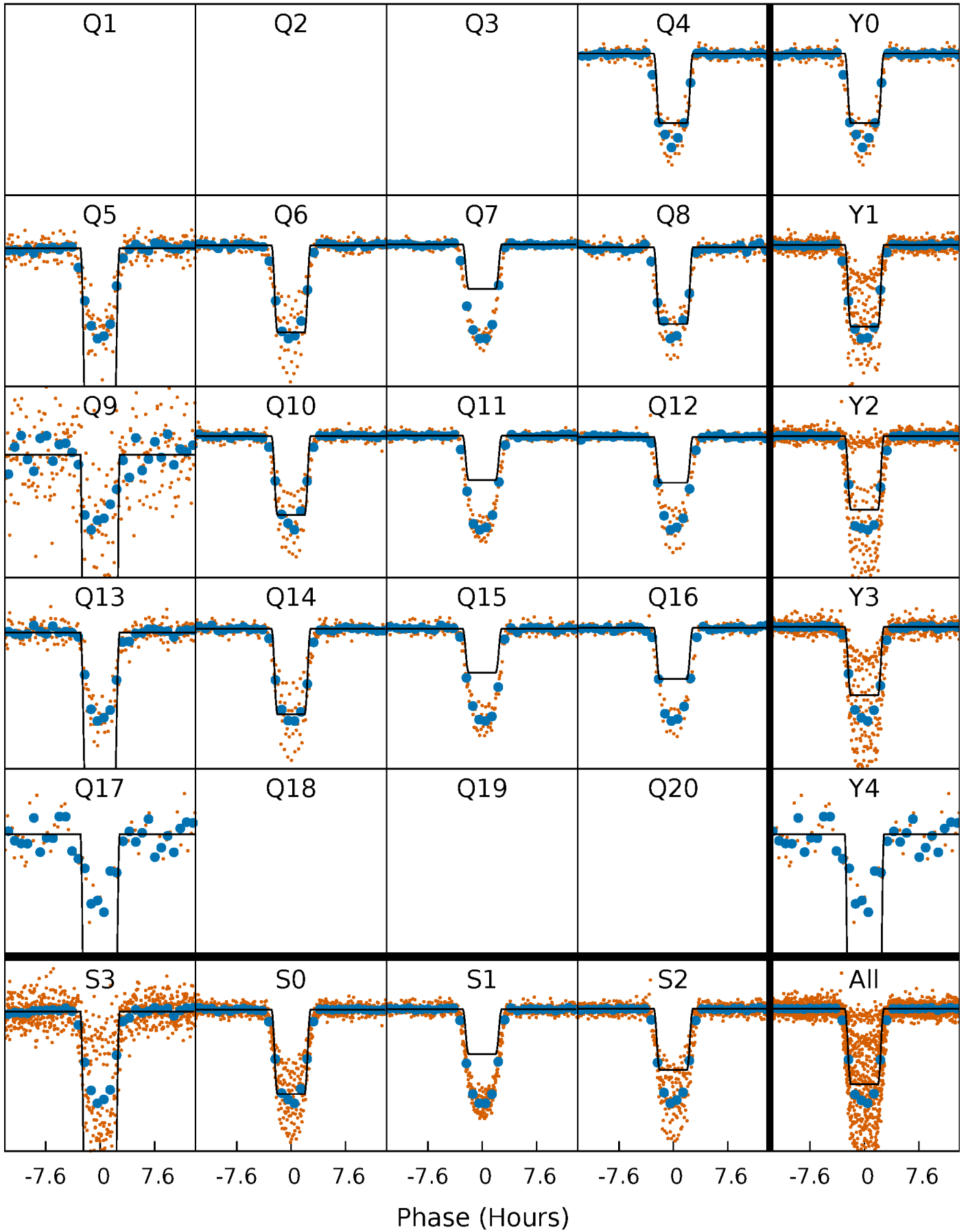
DV Quarter-Phased Transit Curves

TCE 005982368-01 P= 19.563085 Days $T_0=134.356202$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

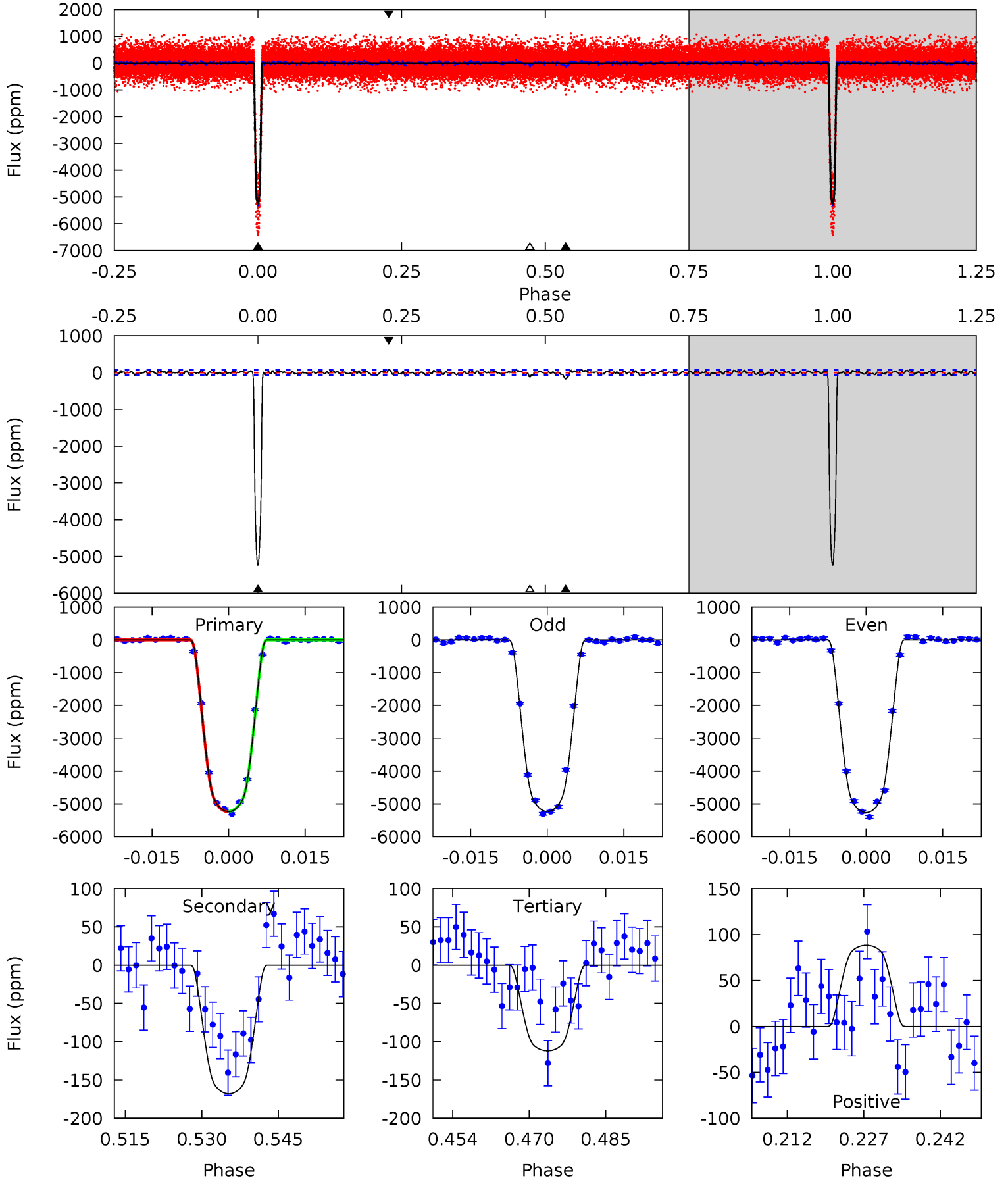
TCE 005982368-01 P= 19.562853 Days $T_0=134.365522$ (BKJD)



DV Model-Shift Uniqueness Test

005982368-01, P = 19.563085 Days, E = 134.356202 Days

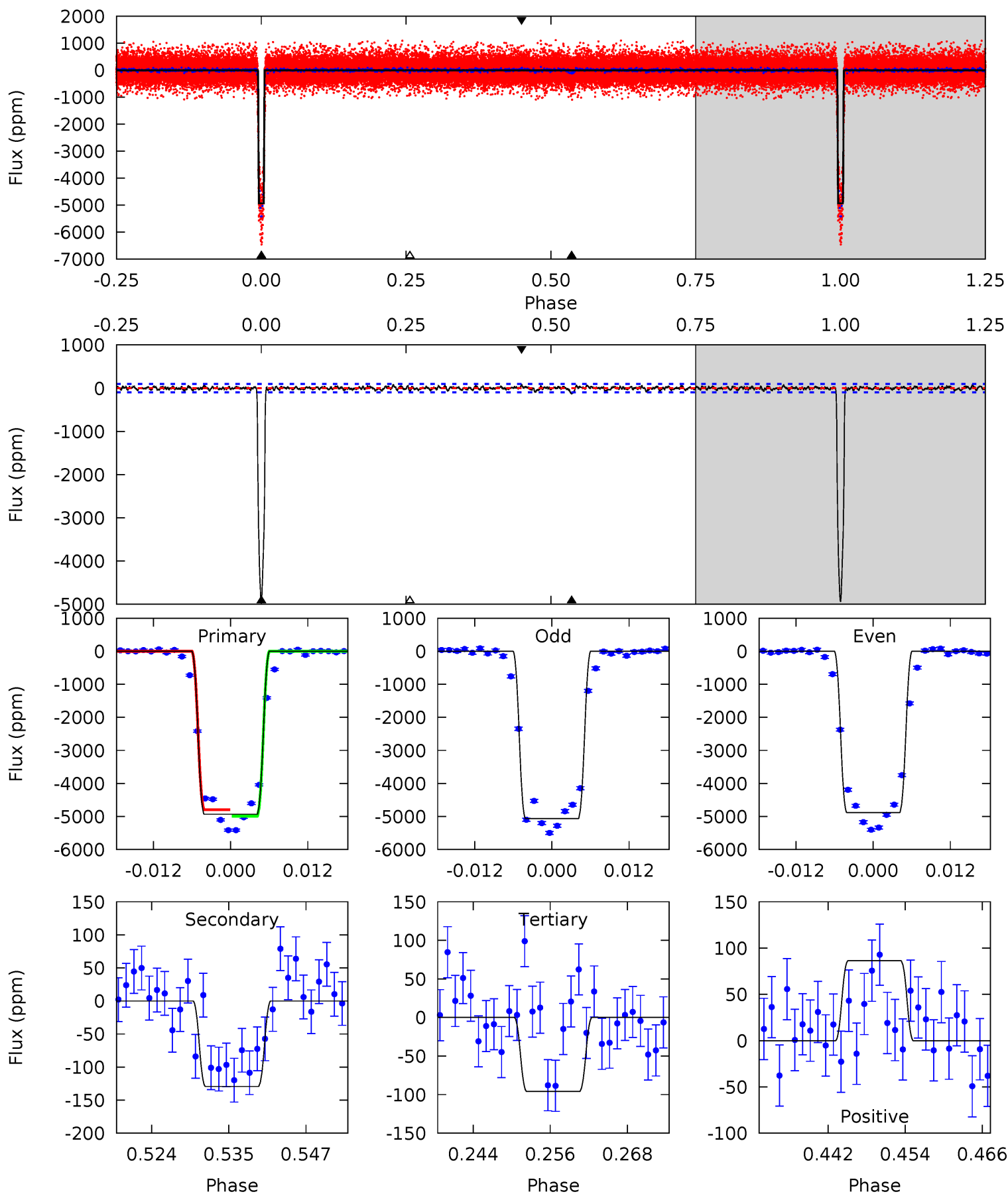
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
384.4	12.3	8.22	6.49	4.95	2.43	2.12	376.2	377.9	4.11	5.84	1.19	1.01	0.02	0



Alt Model-Shift Uniqueness Test

005982368-01, P = 19.562853 Days, E = 134.365522 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
254.0	6.66	4.94	4.44	5.00	2.52	1.30	249.1	249.6	1.72	2.22	4.74	1.01	0.02	0



Stellar Parameters For KIC 005982368

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5766^{+173}_{-190}	$4.352^{+0.153}_{-0.187}$	$-0.020^{+0.300}_{-0.300}$	$1.077^{+0.298}_{-0.174}$	$0.952^{+0.136}_{-0.102}$	$1.074^{+0.769}_{-0.520}$
	+3%/-3%	+4%/-4%	+1500%/-1500%	+28%/-16%	+14%/-11%	+72%/-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 005982368-01 / KOI 1041.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-168 ± 14	$9.08^{+1.59}_{-0.84}$	993^{+67}_{-66}	3010^{+71}_{-66}	22^{+5}_{-5}
Alt.	-129 ± 19	$7.70^{+1.21}_{-0.77}$	986^{+71}_{-58}	3038^{+88}_{-95}	23^{+7}_{-6}

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

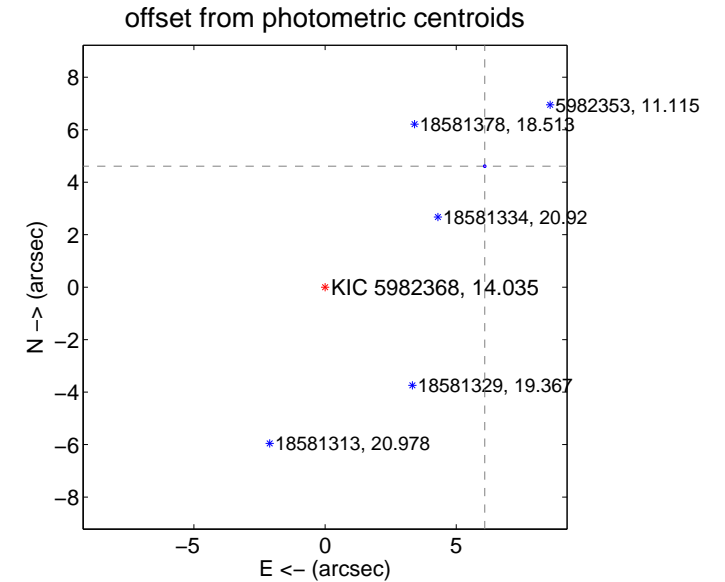
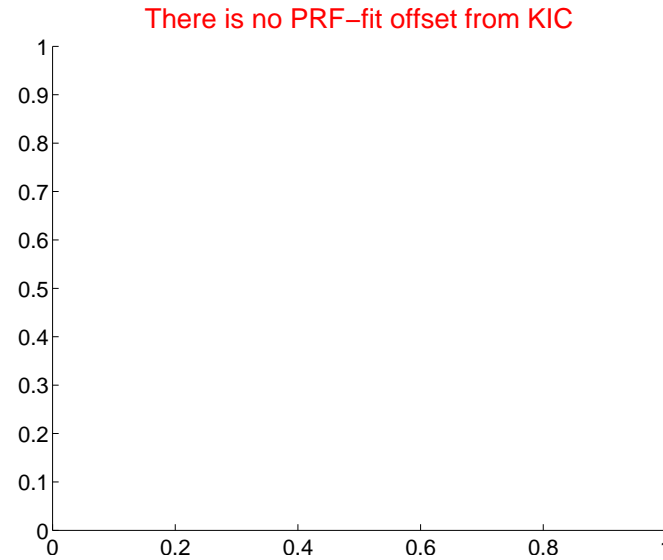
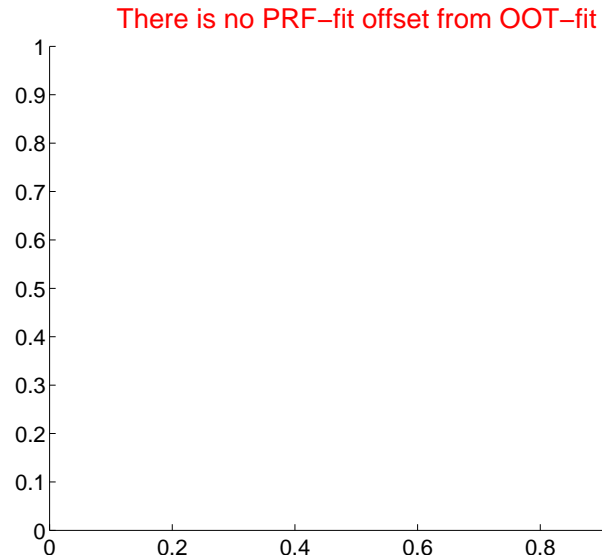
DV Centroid Data

Supplemental centroid analysis for 005982368-01. Kepler magnitude: 14.04. Transit SNR 190.11

There are 0 quarters with good PRF difference image offsets

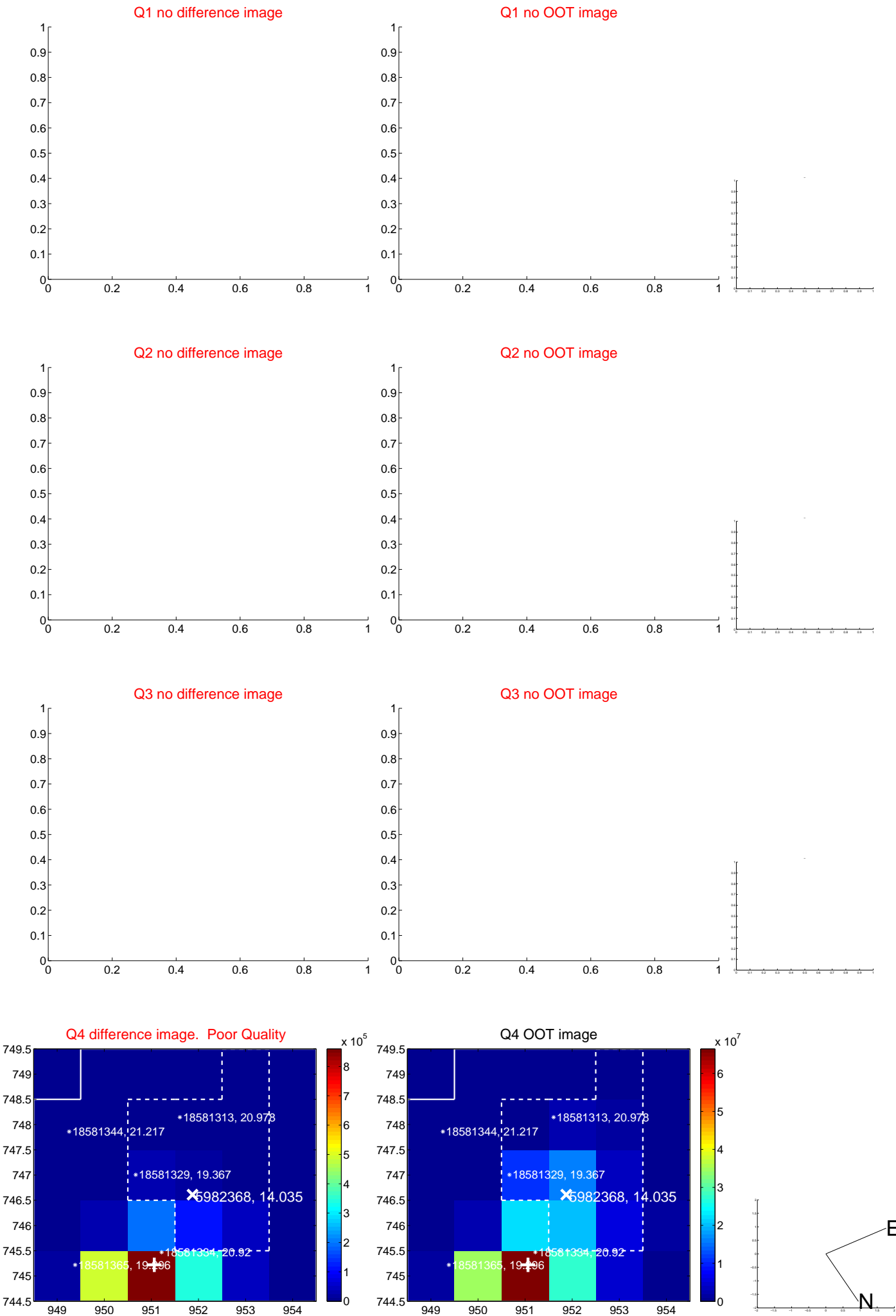
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	7.63 ± 0.02	457.92	-6.09 ± 0.02	4.61 ± 0.01

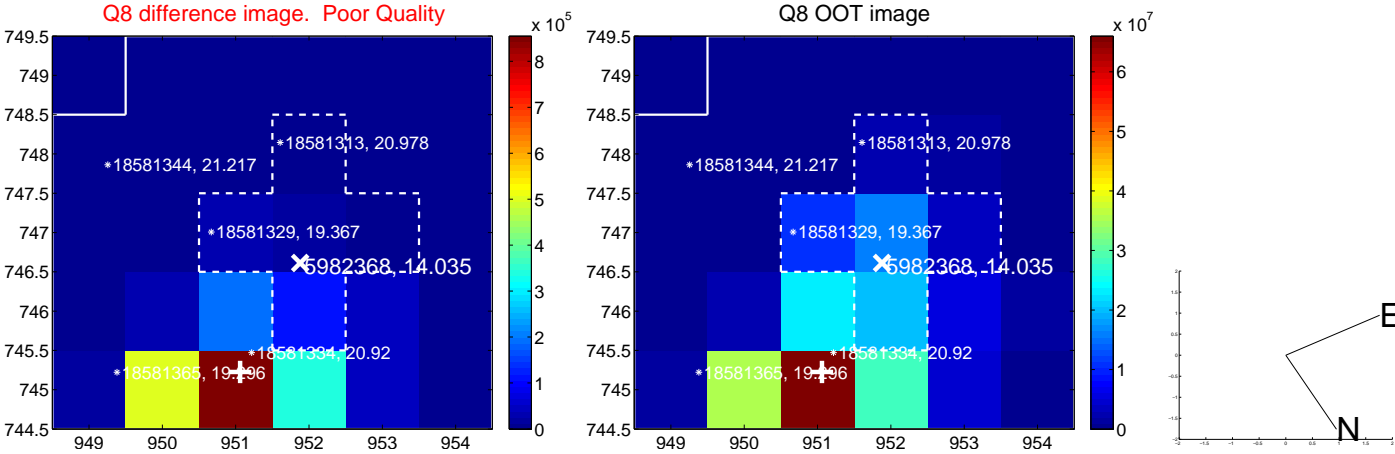
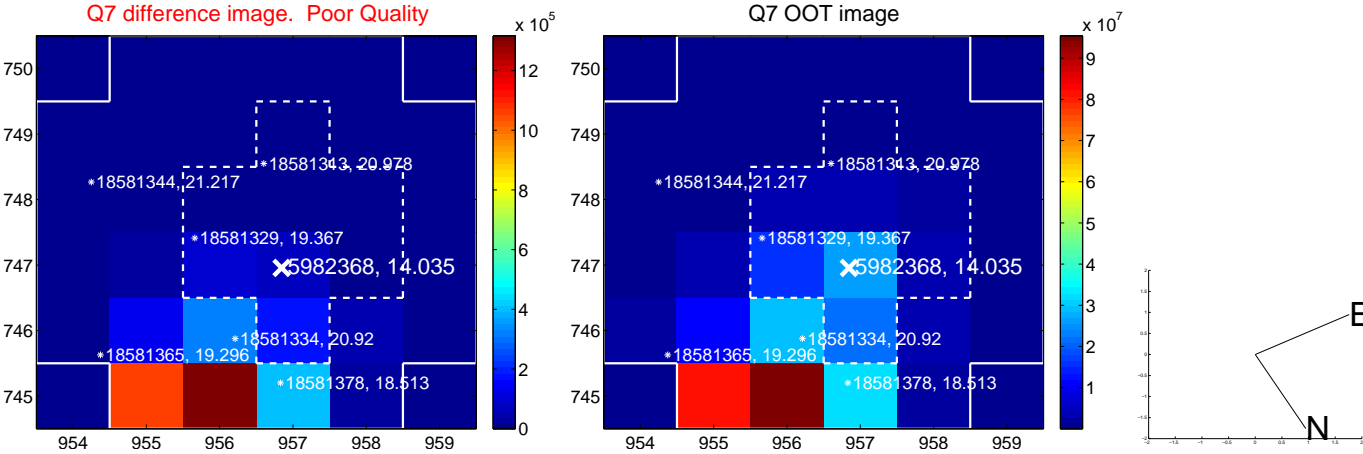
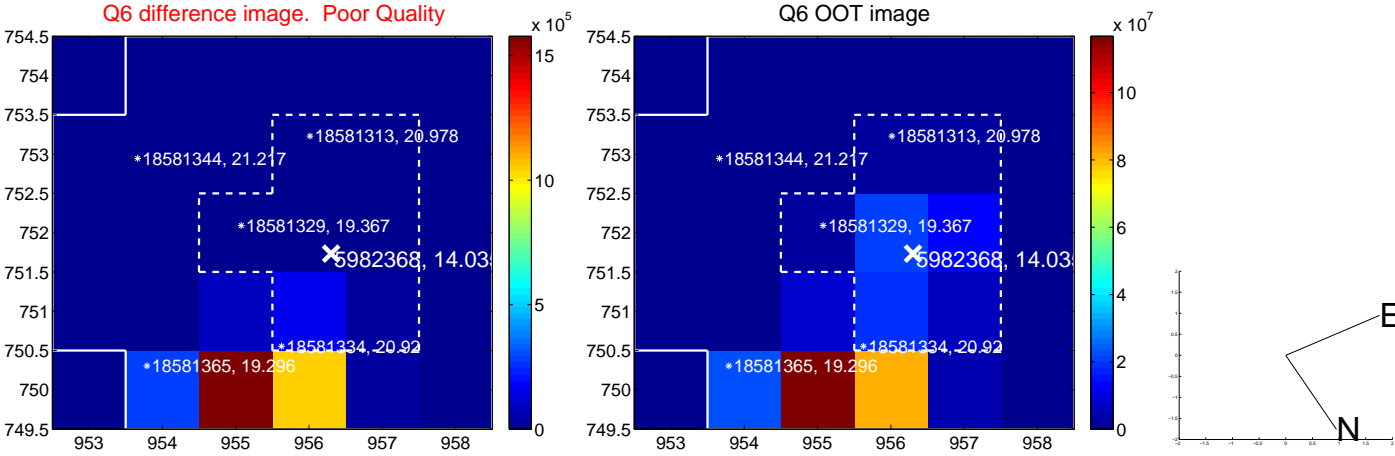
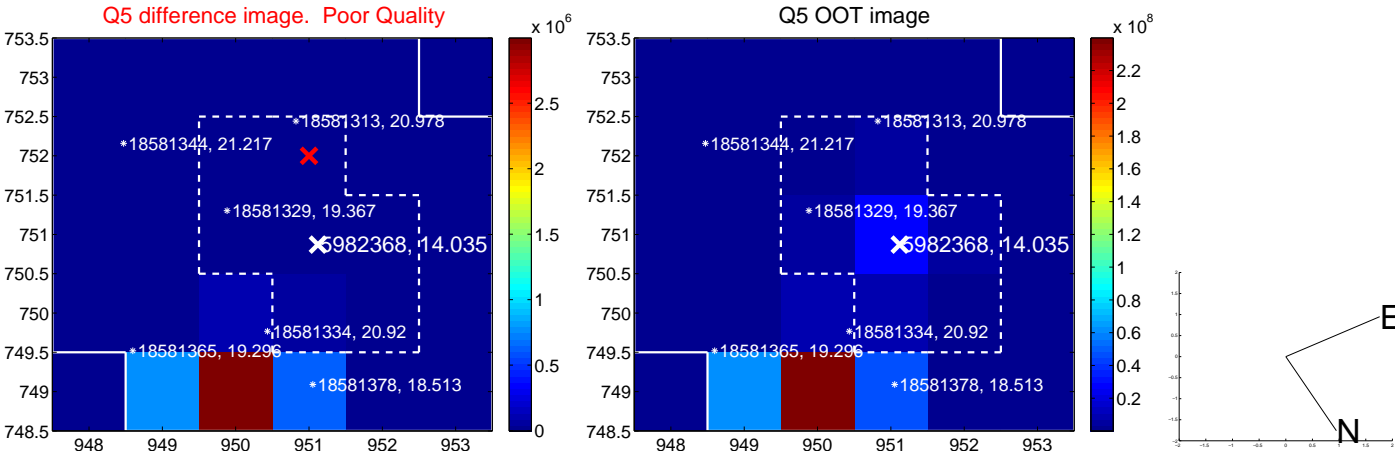


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

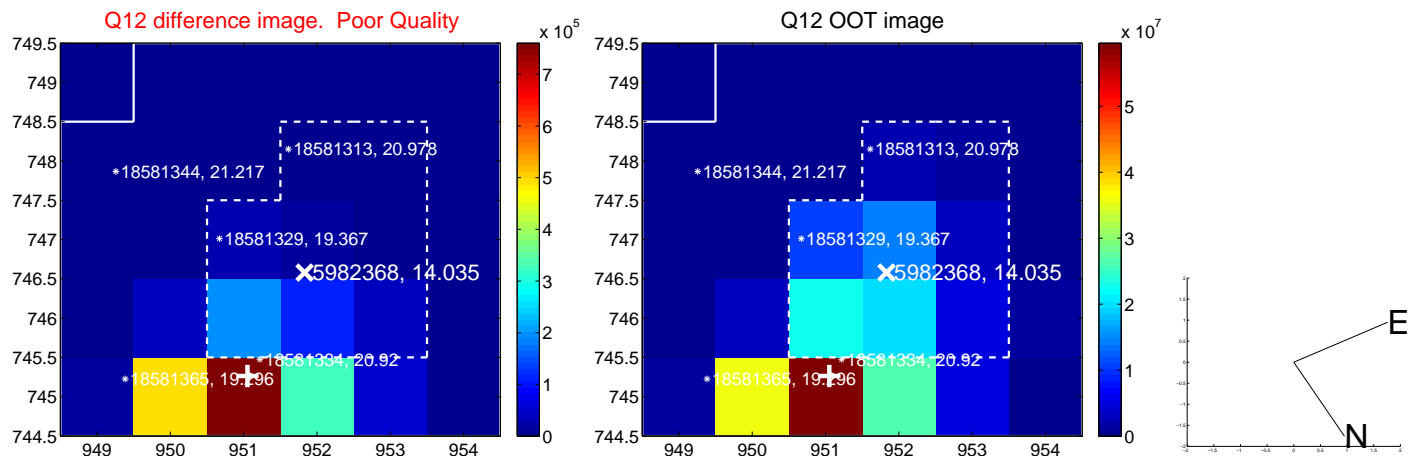
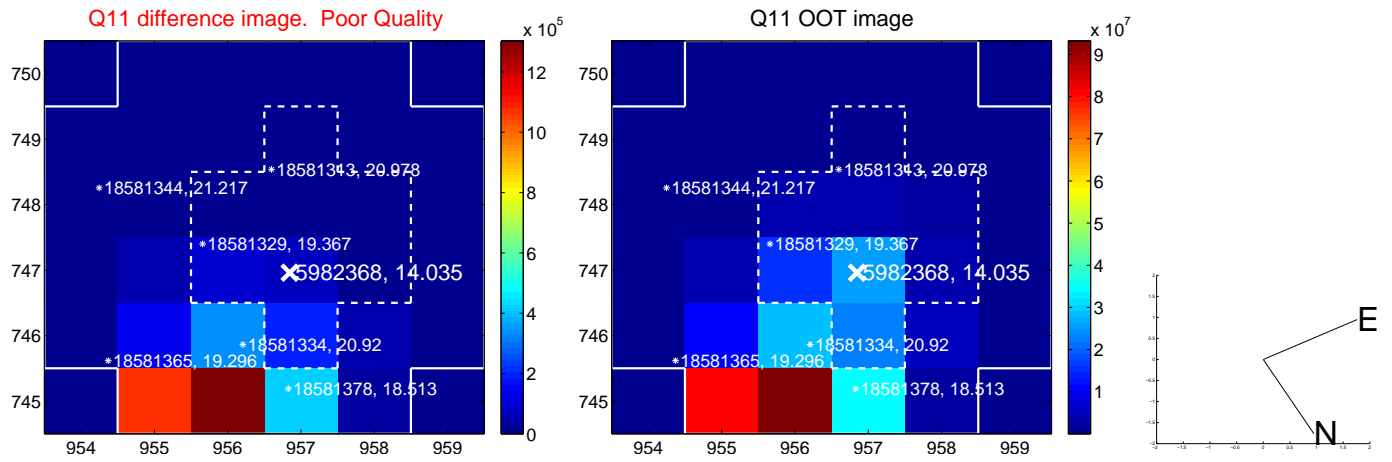
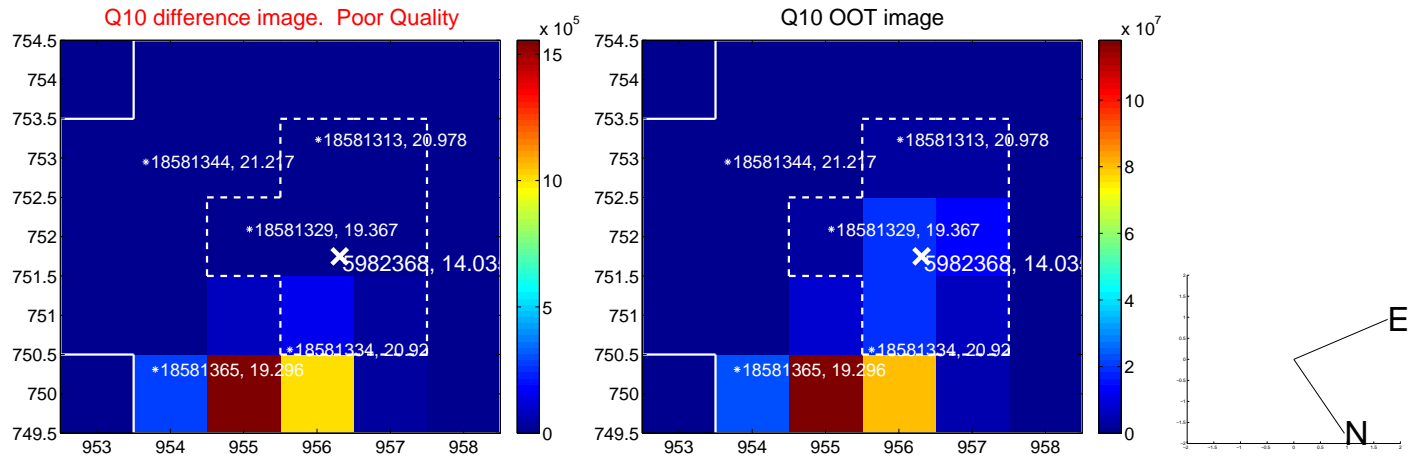
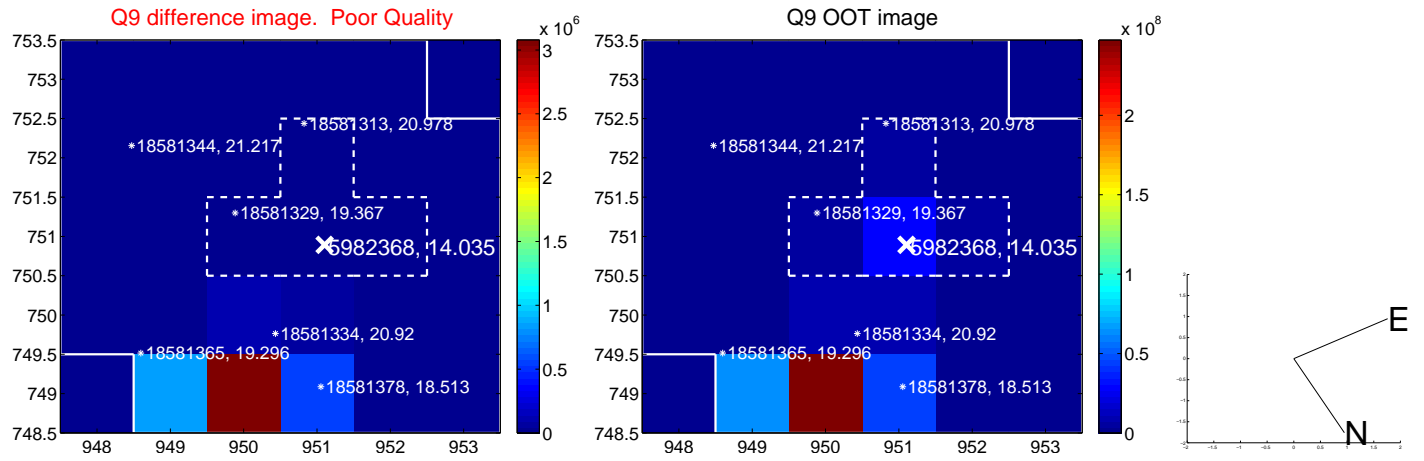
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



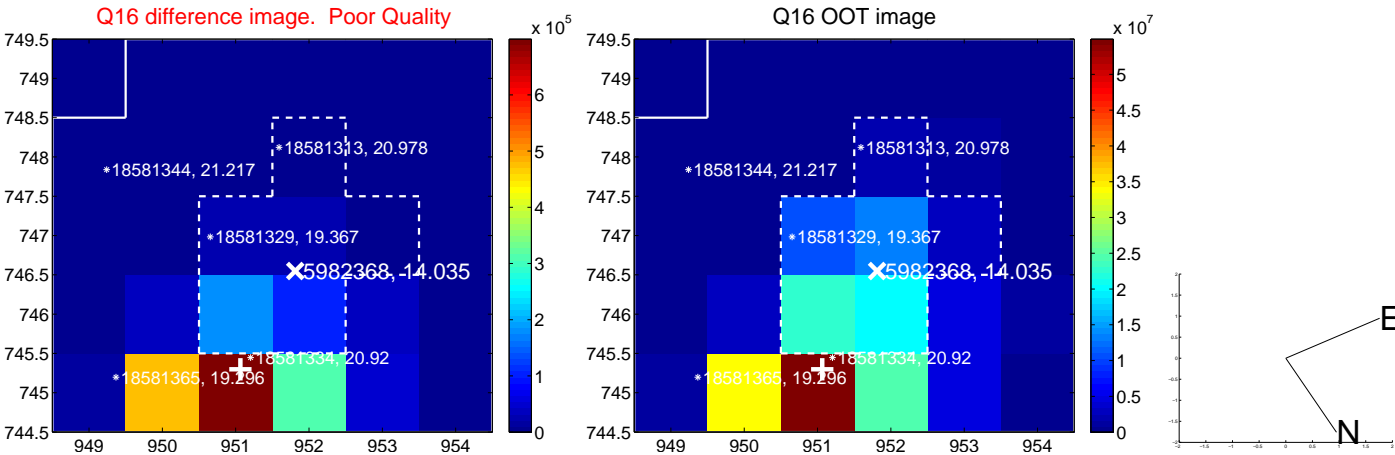
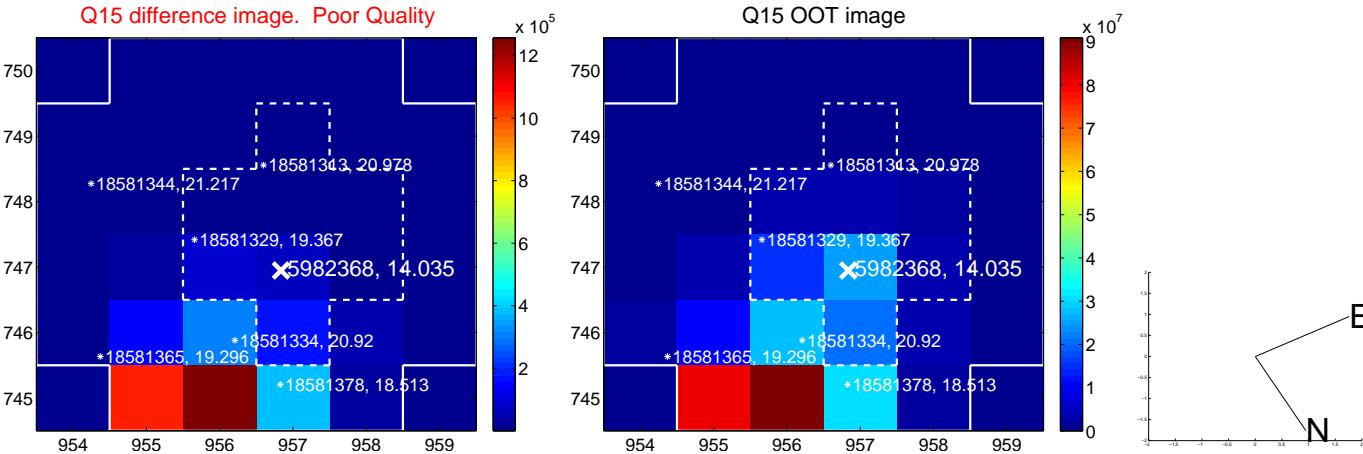
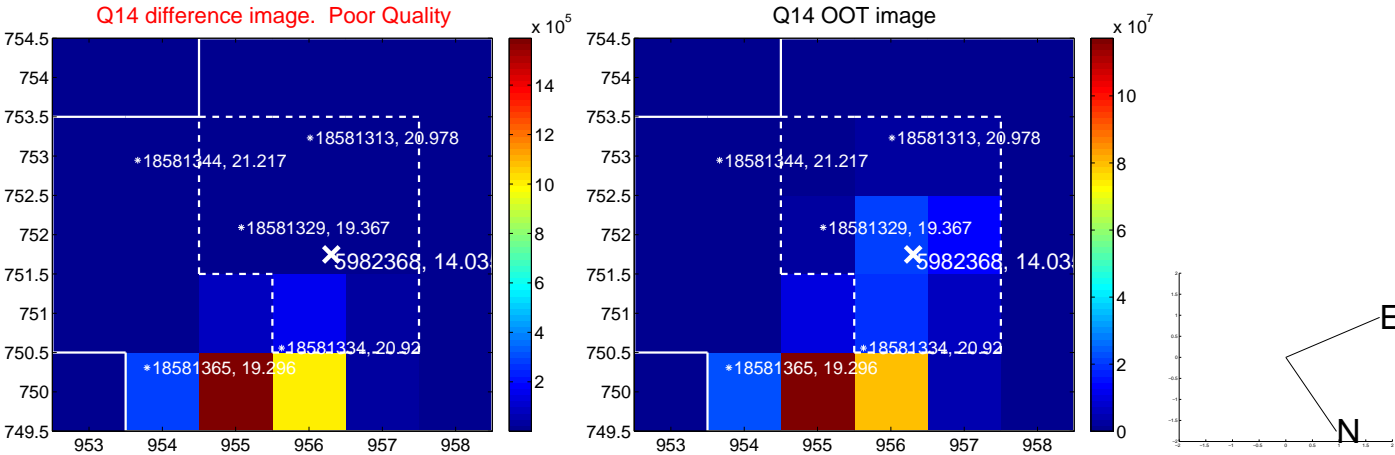
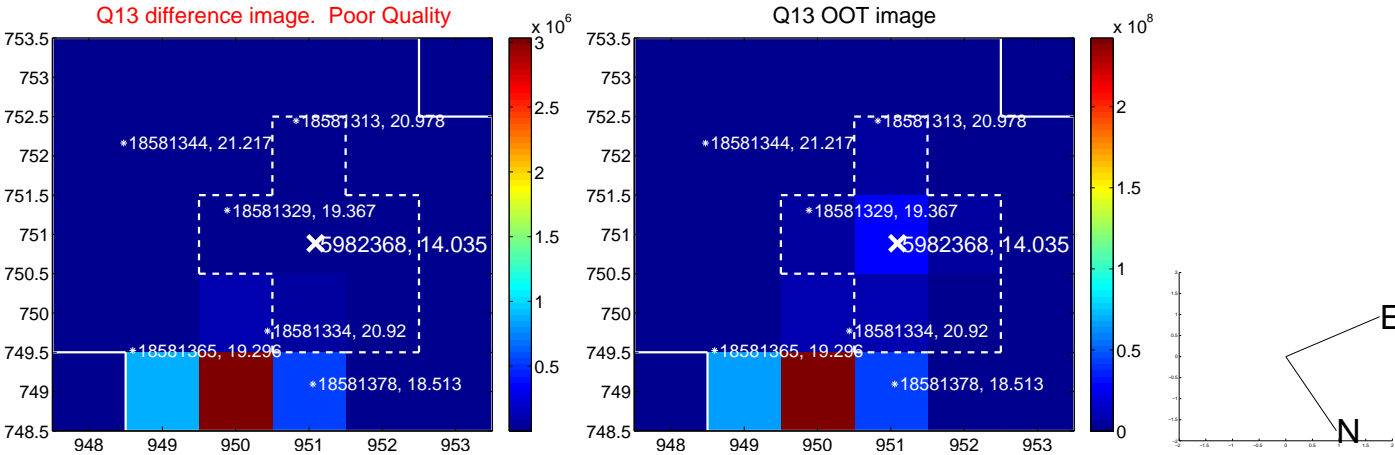
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



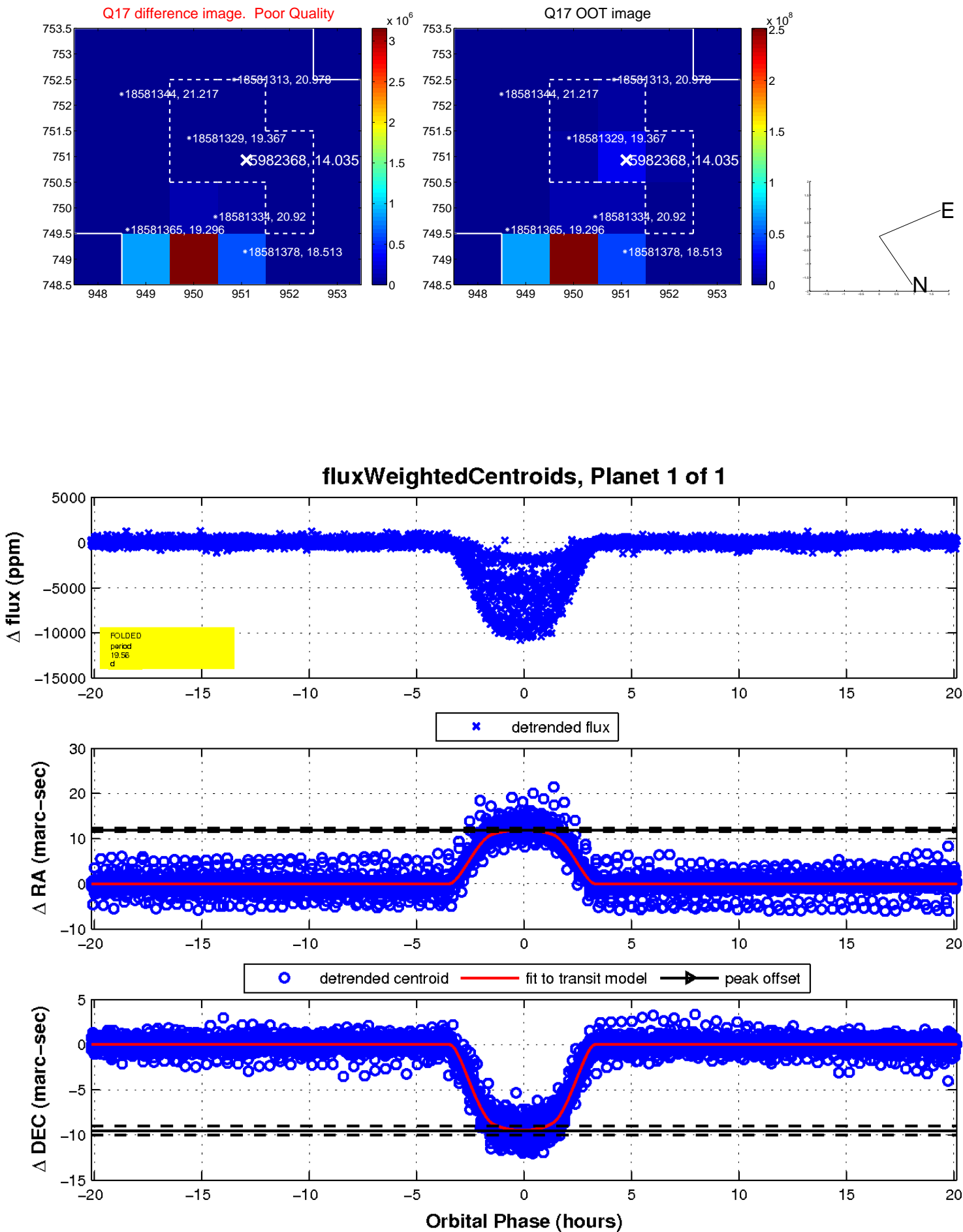
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

