

KIC 005563300

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})
005563300-01	OBS	3309.01	71.054552	134.734965	4804.4	2.020	100.8	95.3	0.86	5290	6.35	5.46

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005563300-01	OBS	PC	0.99	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 005563300-01

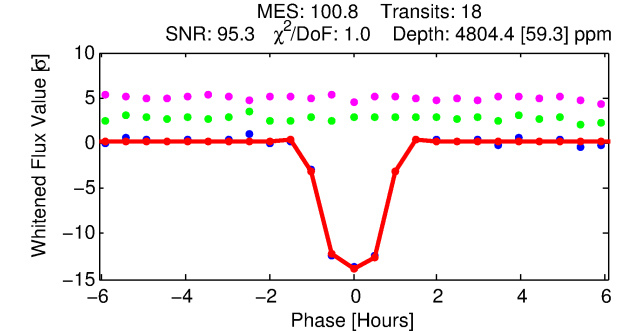
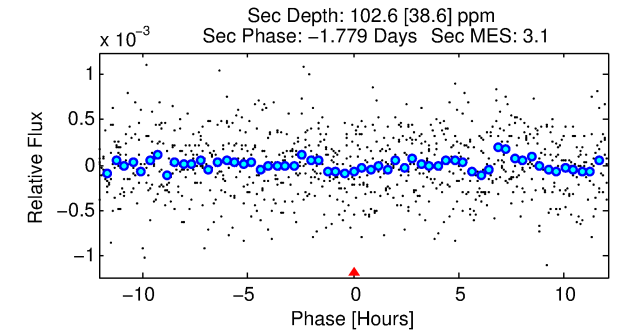
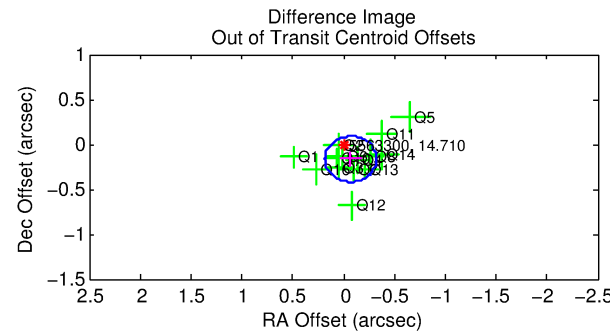
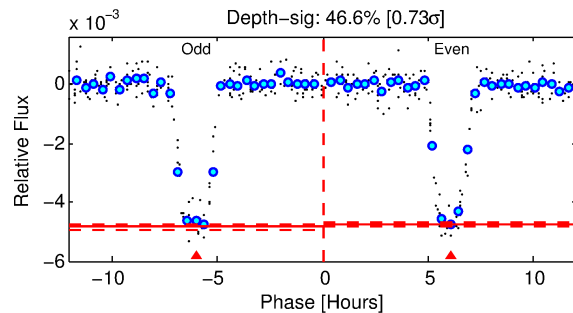
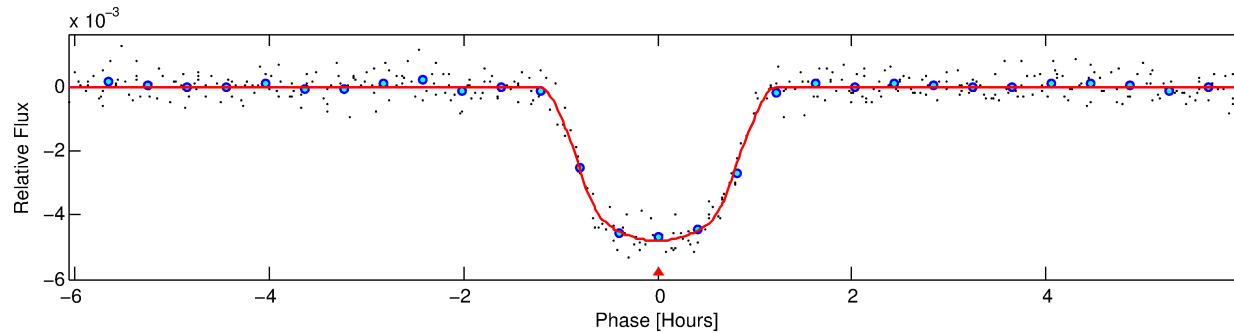
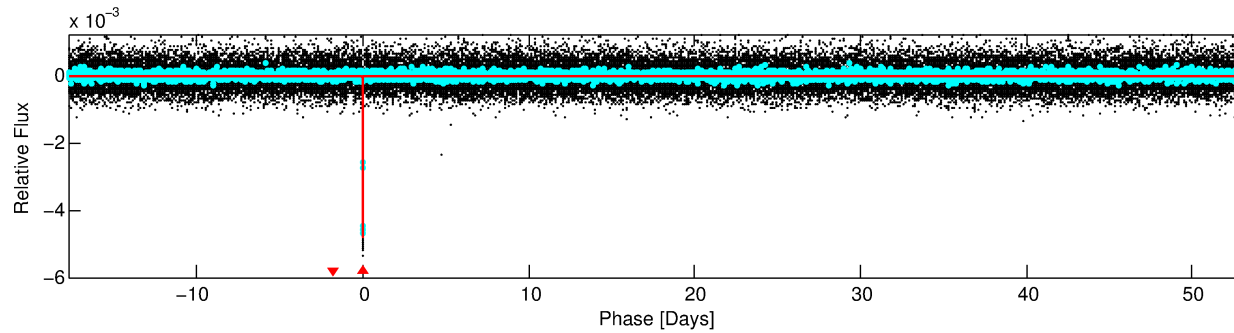
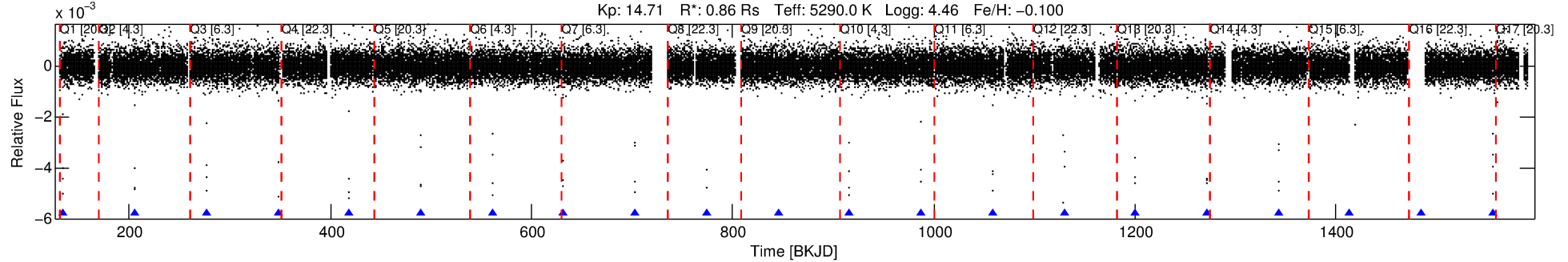
No Significant Match Found

DV One-Page Summary

KIC: 5563300 Candidate: 1 of 1 Period: 71.055 d

KOI: K03309.01 Corr: 0.975

Kp: 14.71 R*: 0.86 Rs Teff: 5290.0 K Logg: 4.46 Fe/H: -0.100



DV Fit Results:

Period = 71.05455 [0.00005] d
Epoch = 134.7350 [0.0006] BKJD
Rp/R* = 0.0673 [0.0051]
a/R* = 223.66 [61.75]
b = 0.67 [0.23]
Seff = 5.46 [2.18]
Teq = 390 [39] K
Rp = 6.35 [1.40] Re
a = 0.3101 [0.0697] AU
Ag = 134.52 [74.76] [1.79σ]
Teffp = 2052 [217] K [7.55σ]

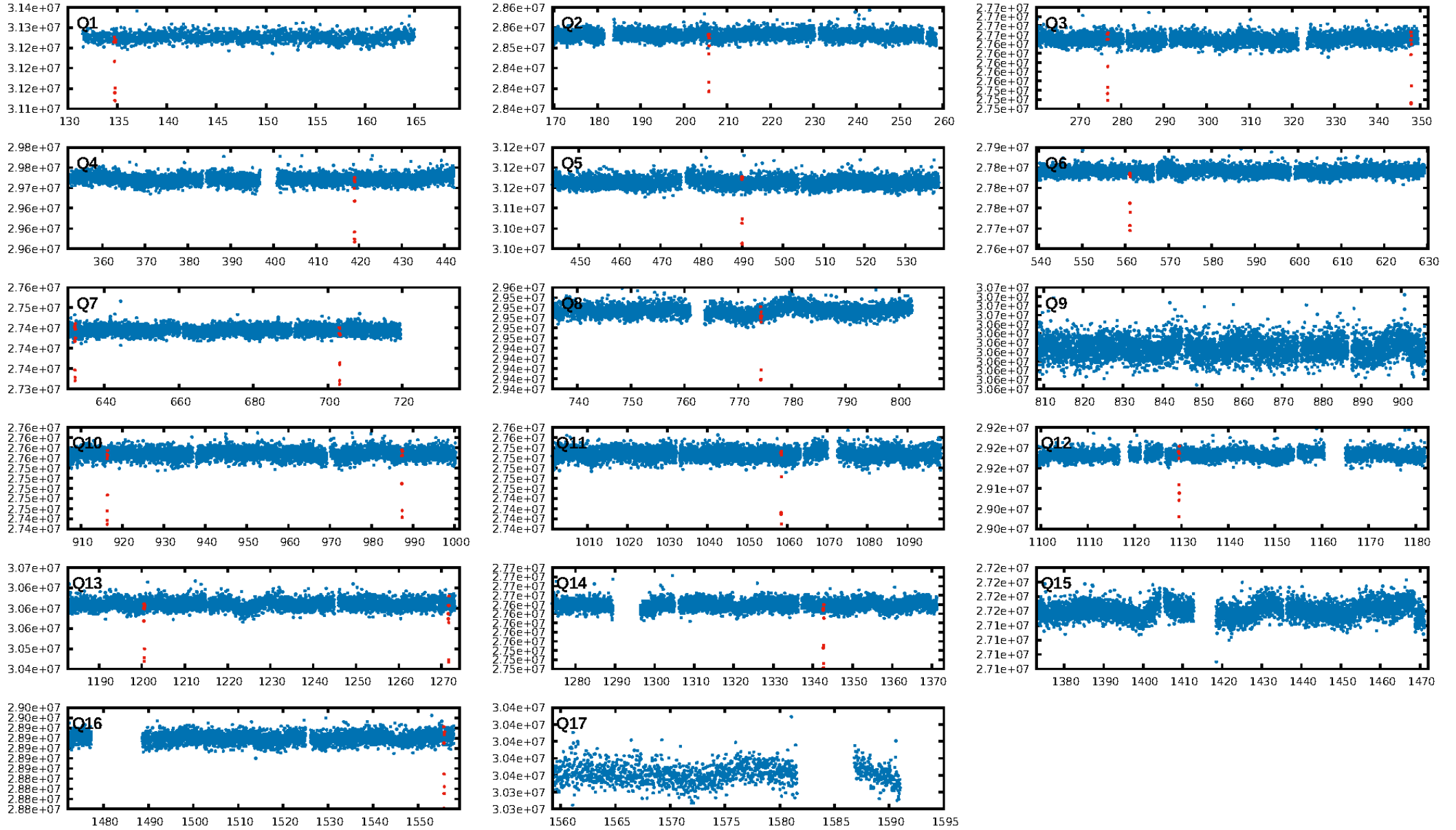
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 57.2%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: 3.832
Centroid-sig: 0.2%
Centroid-so: 0.652 arcsec [4.31σ]
OotOffset-rm: 0.180 arcsec [2.13σ]
KicOffset-rm: 0.111 arcsec [1.13σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

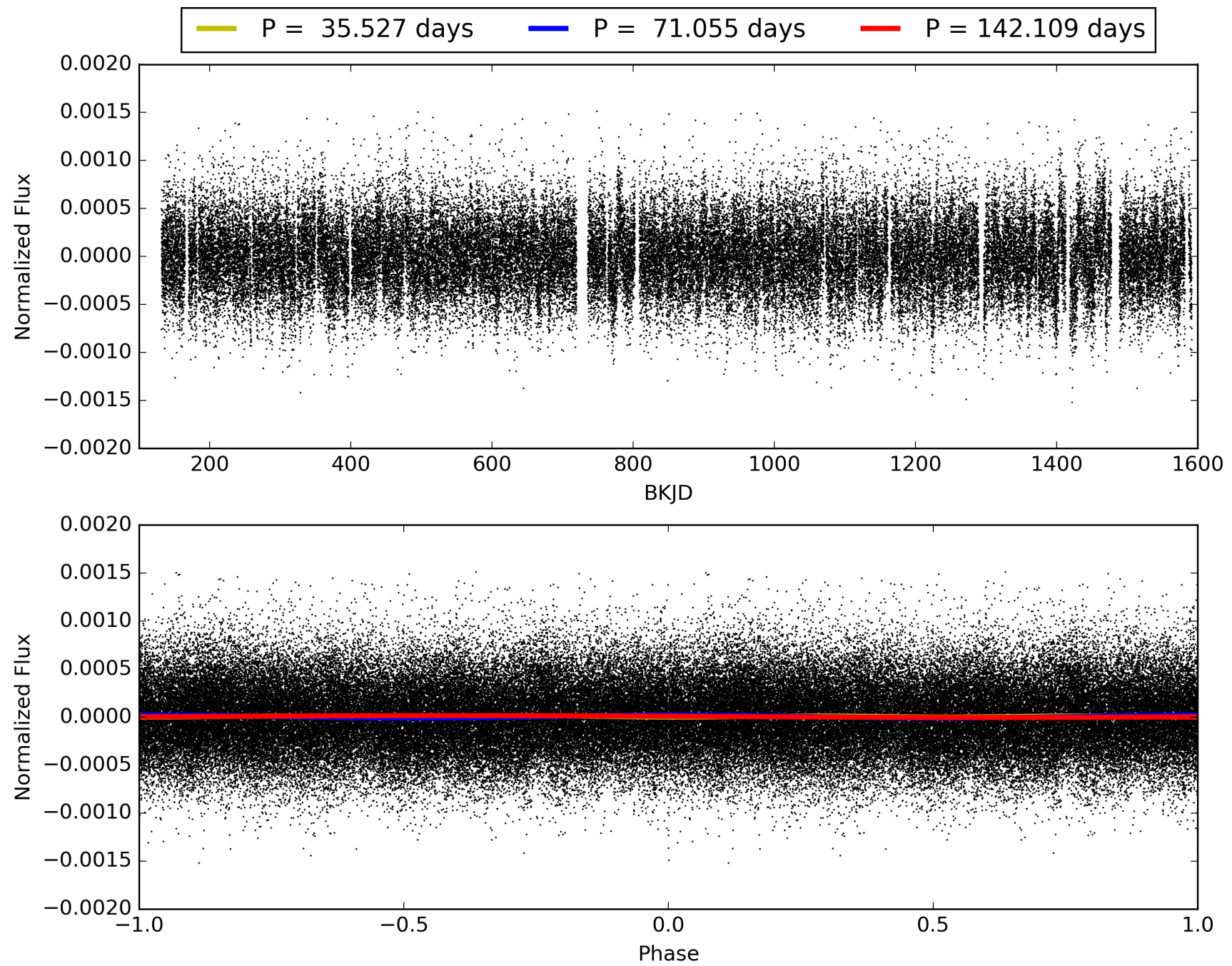
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 05:46:43 Z

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

TCE 005563300-01, PDC Light Curves

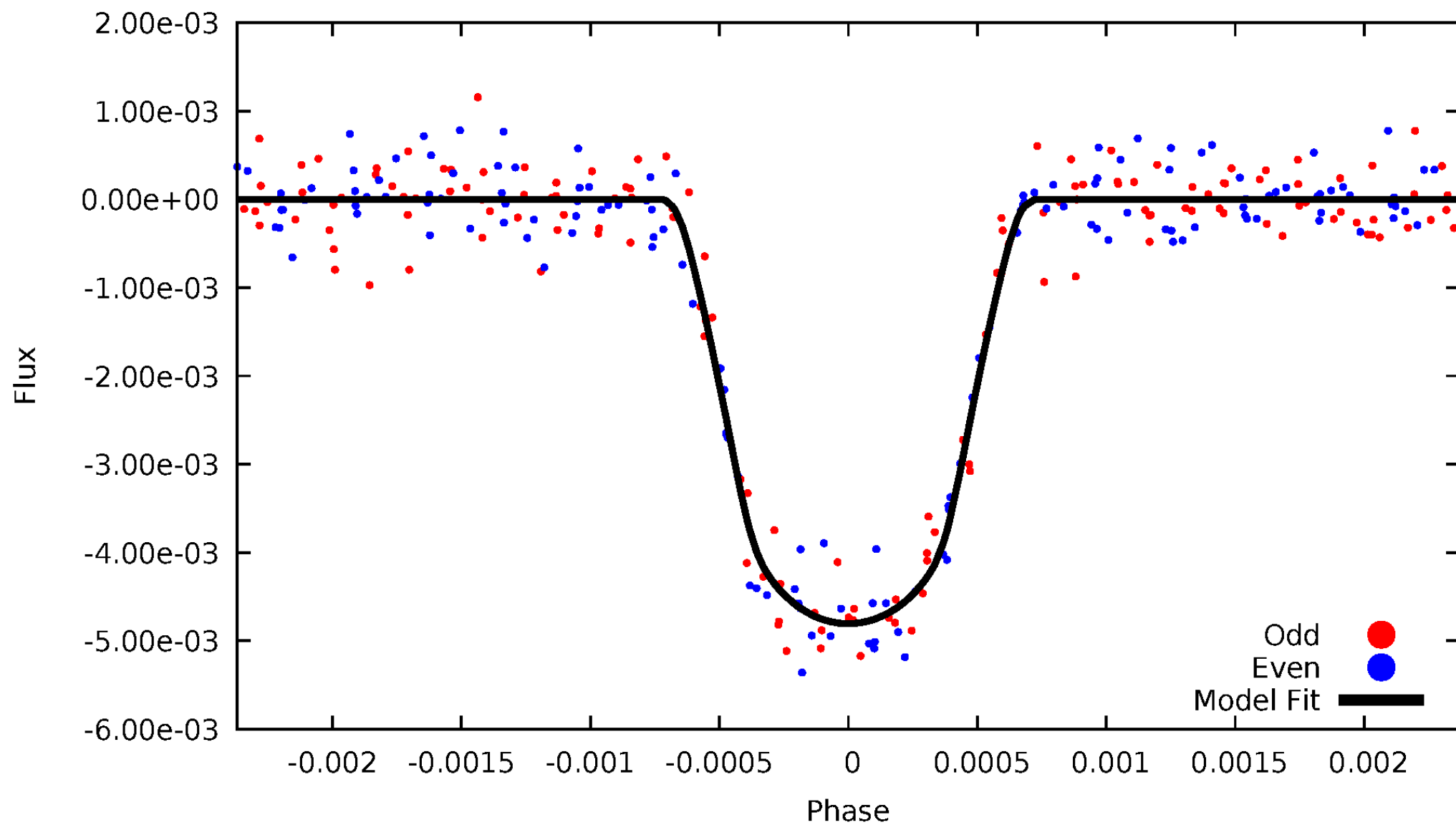


TCE 005563300-01



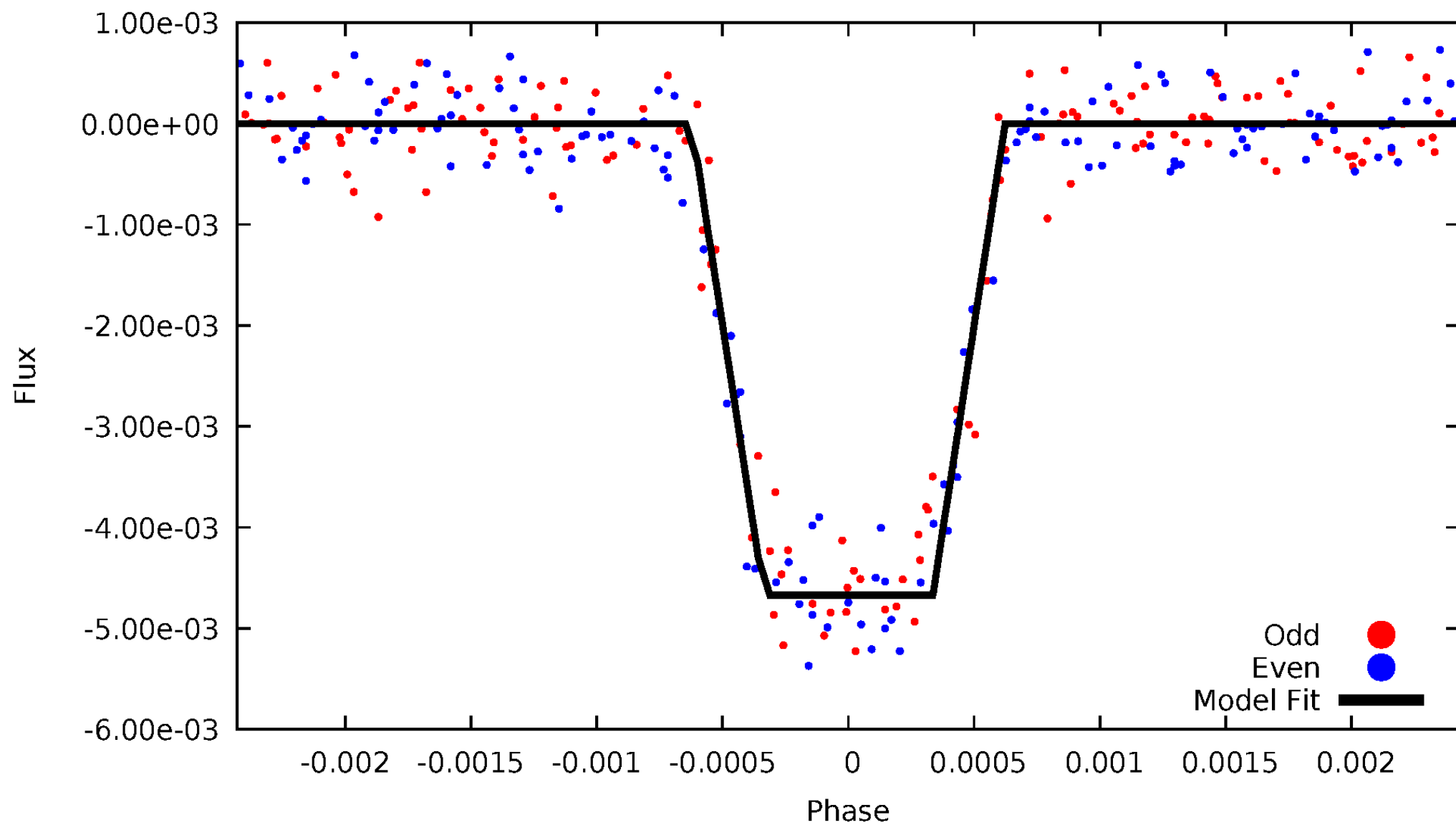
DV Odd/Even

TCE 005563300-01



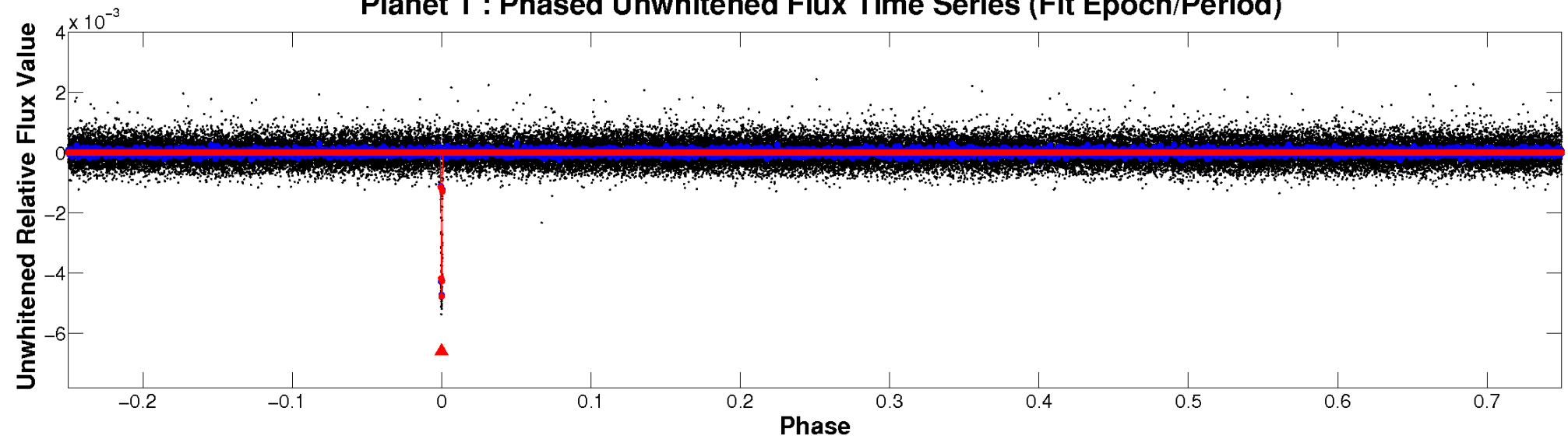
ALT Odd/Even

TCE 005563300-01

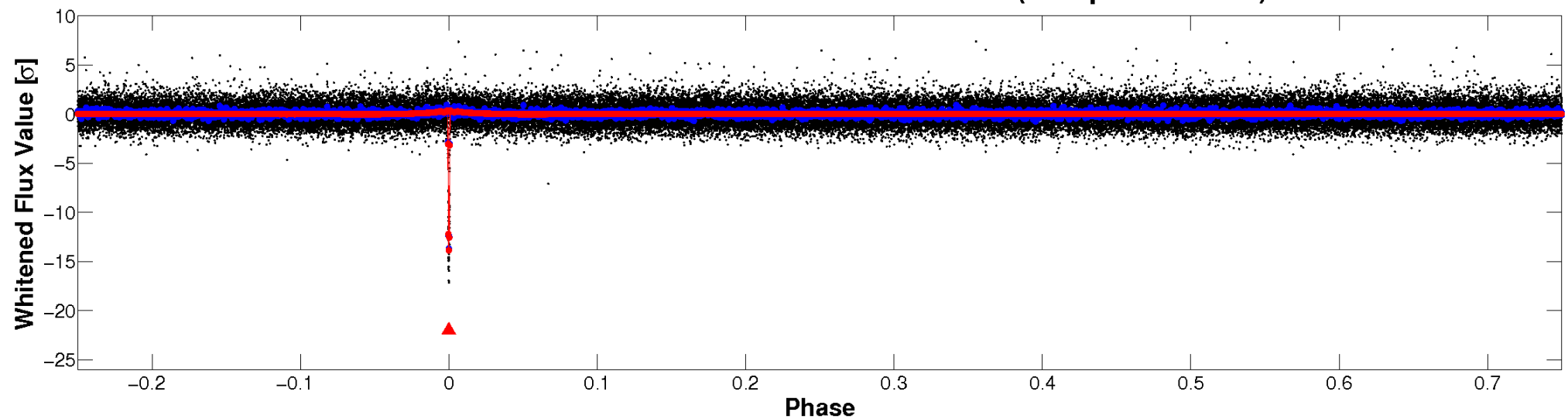


Non-Whitened Vs. Whitened Light Curve

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

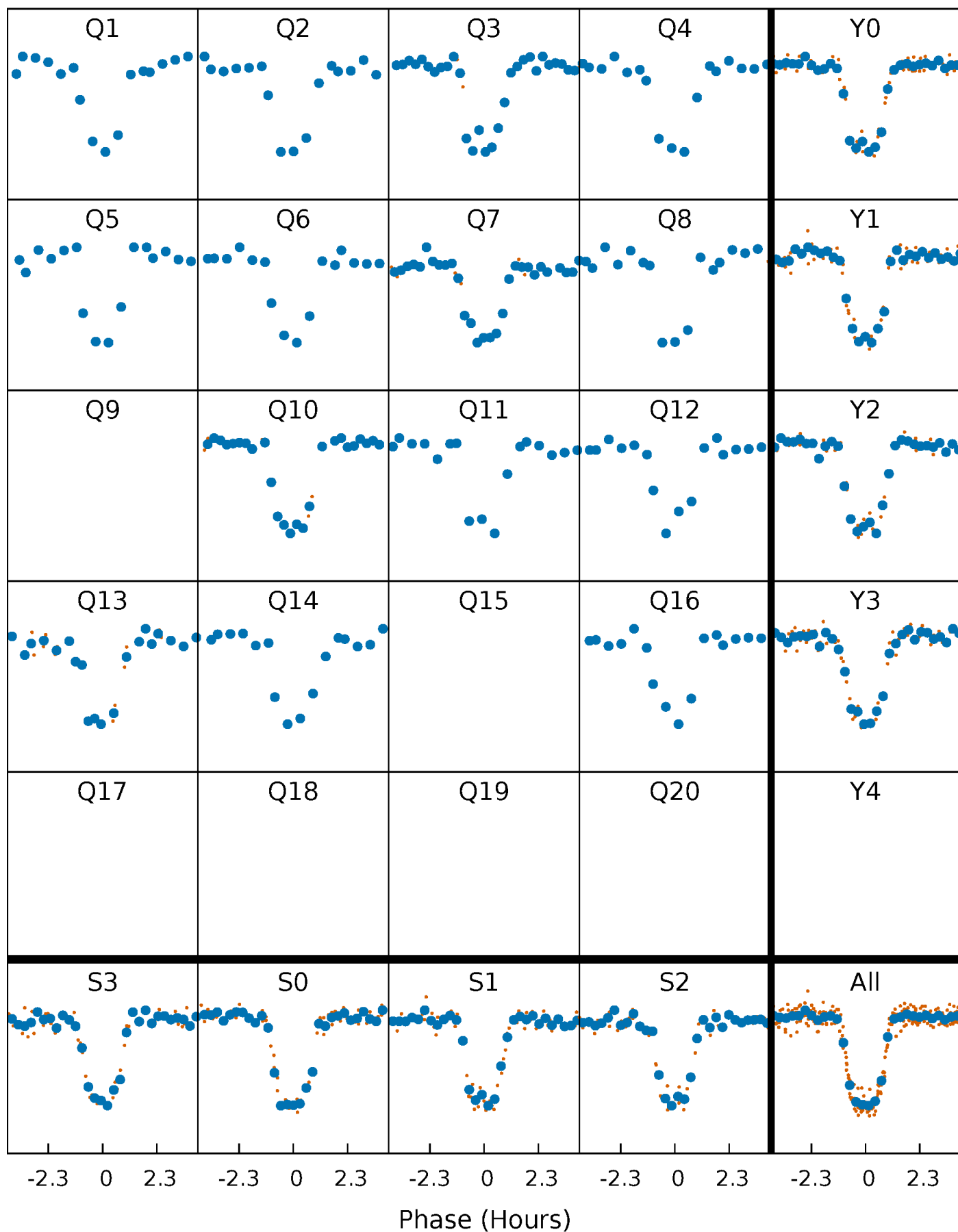


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



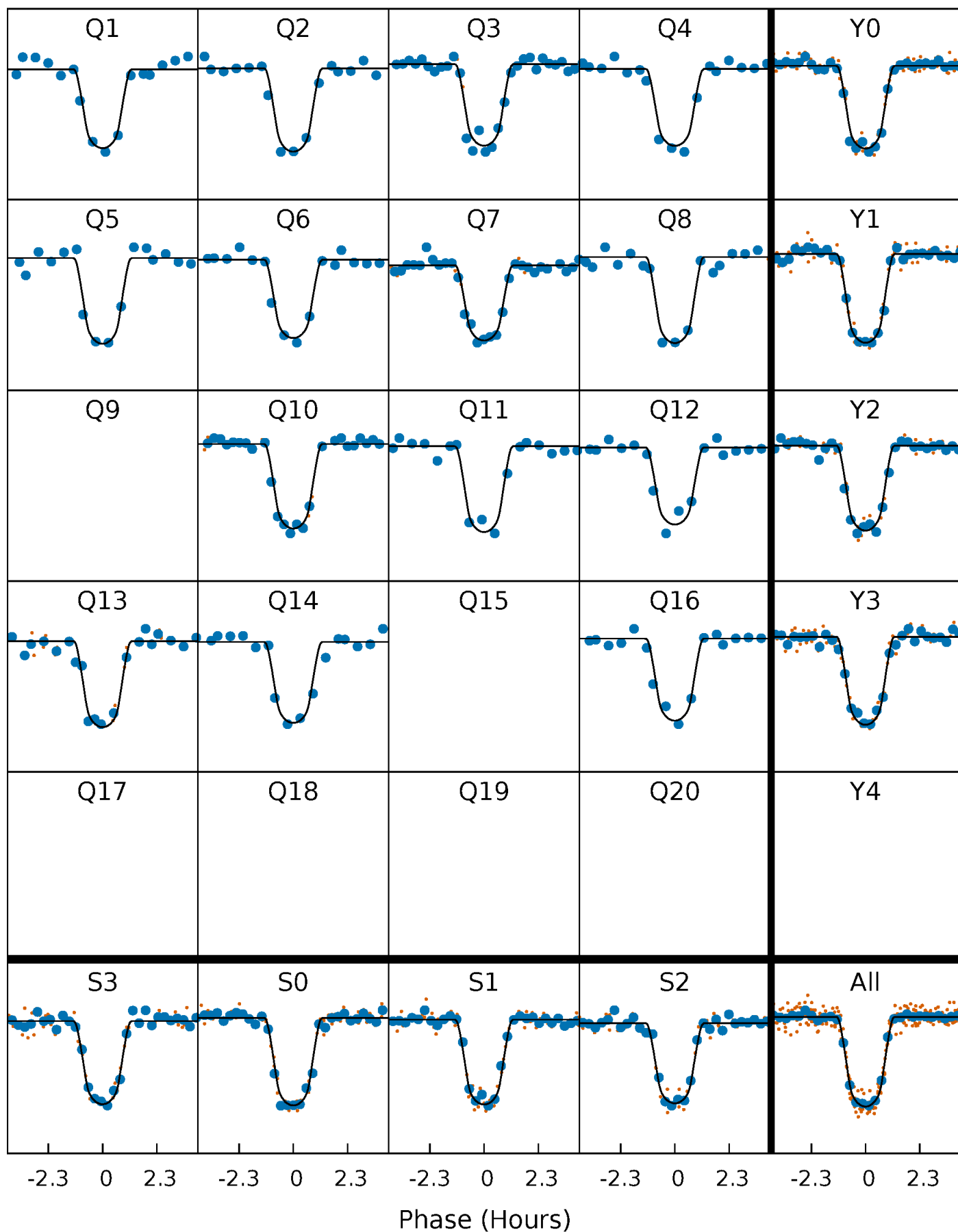
PDC Quarter-Phased Transit Curves

TCE 005563300-01 P= 71.054552 Days $T_0=134.734965$ (BKJD)



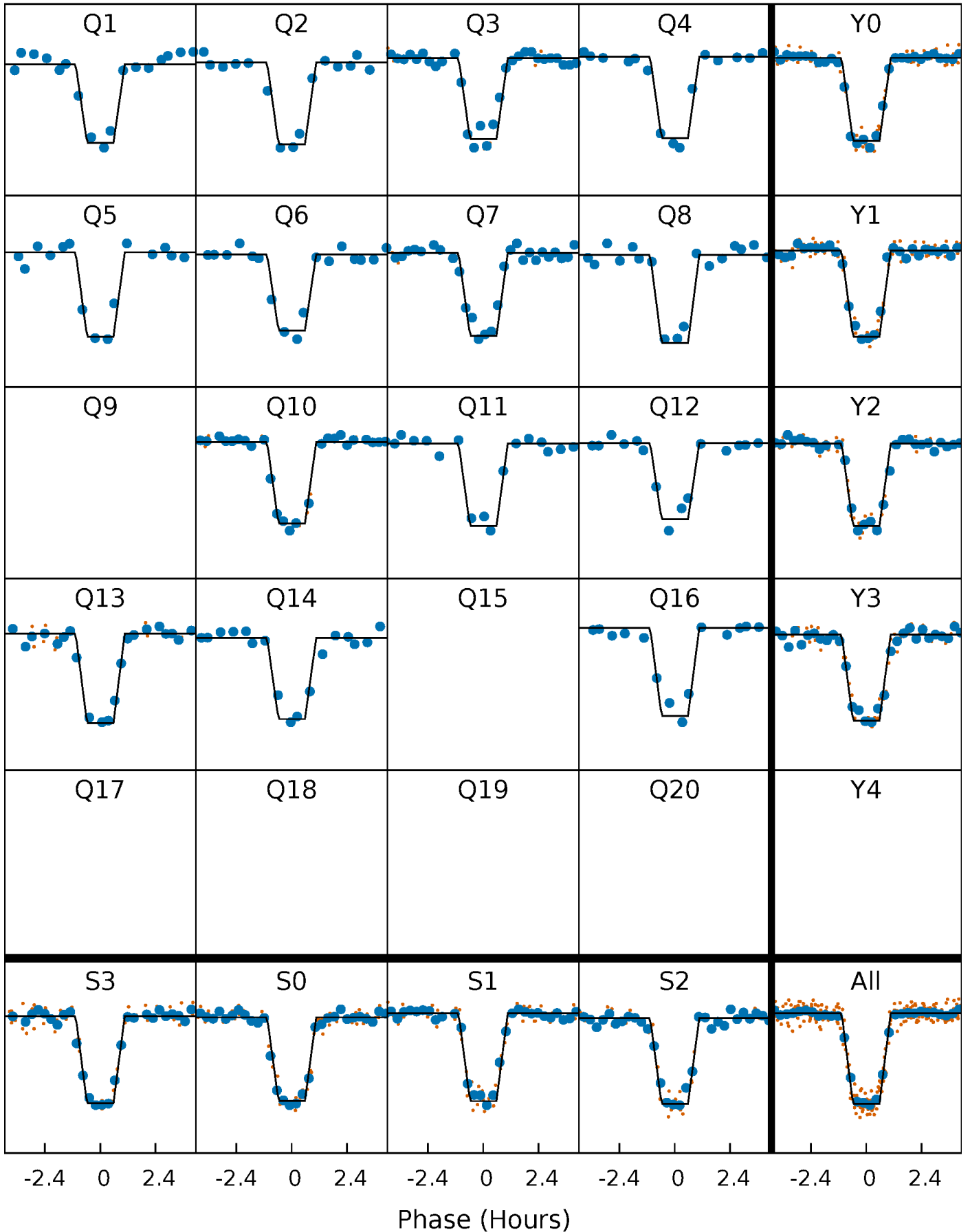
DV Quarter-Phased Transit Curves

TCE 005563300-01 P= 71.054552 Days $T_0=134.734965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

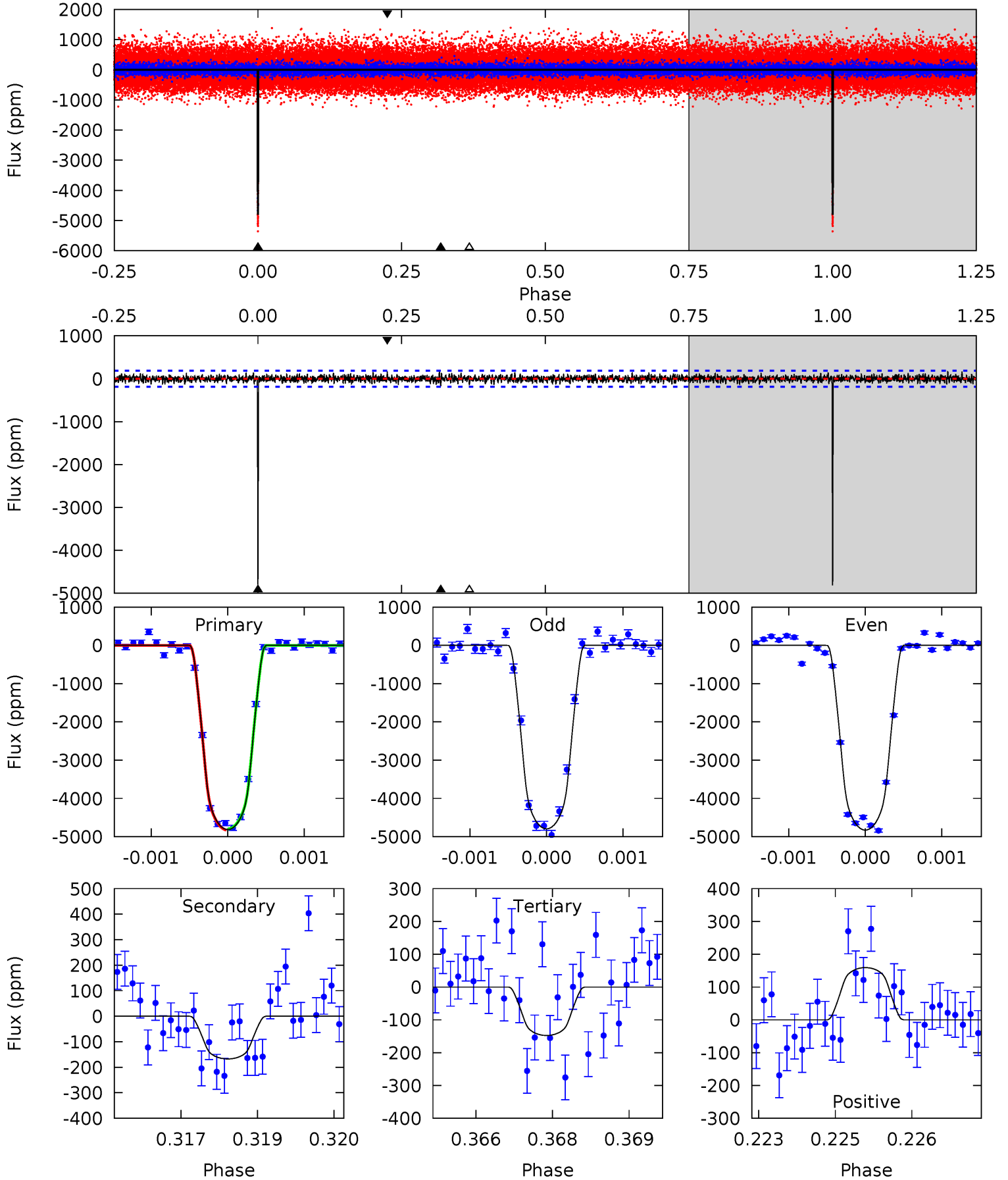
TCE 005563300-01 P= 71.054297 Days $T_0=134.737035$ (BKJD)



DV Model-Shift Uniqueness Test

005563300-01, P = 71.054552 Days, E = 63.680413 Days

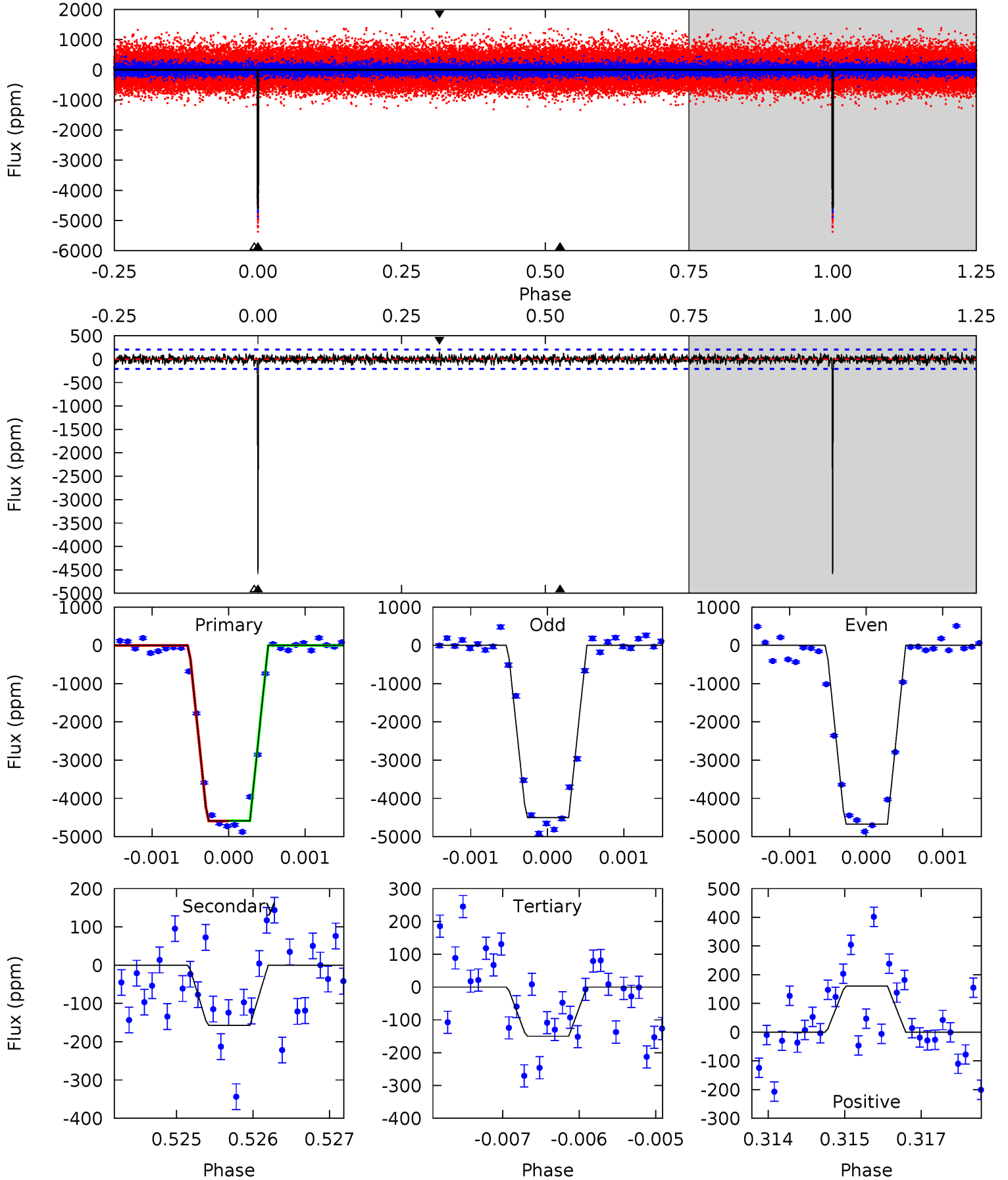
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
138.0	4.80	4.23	4.57	5.39	3.18	1.29	133.8	133.4	0.57	0.23	0.49	1.00	0.03	0.41



Alt Model-Shift Uniqueness Test

005563300-01, P = 71.054297 Days, E = 63.682738 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
120.3	4.13	3.93	4.21	5.42	3.24	1.18	116.4	116.1	0.19	-0.08	2.29	0.99	0.03	0.13



Stellar Parameters For KIC 005563300

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5290^{+159}_{-159}	$4.460^{+0.116}_{-0.231}$	$-0.100^{+0.350}_{-0.250}$	$0.865^{+0.179}_{-0.119}$	$0.788^{+0.115}_{-0.057}$	$1.714^{+0.888}_{-0.801}$
	+3%/-3%	+3%/-5%	+350%/-250%	+21%/-14%	+15%/-7%	+52%/-47%
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 005563300-01 / KOI 3309.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-167 ± 35	$6.51^{+1.03}_{-0.78}$	551^{+36}_{-30}	2976^{+130}_{-125}	207^{+78}_{-60}
Alt.	-157 ± 38	$6.58^{+1.02}_{-0.70}$	552^{+36}_{-30}	2948^{+120}_{-138}	186^{+80}_{-56}

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

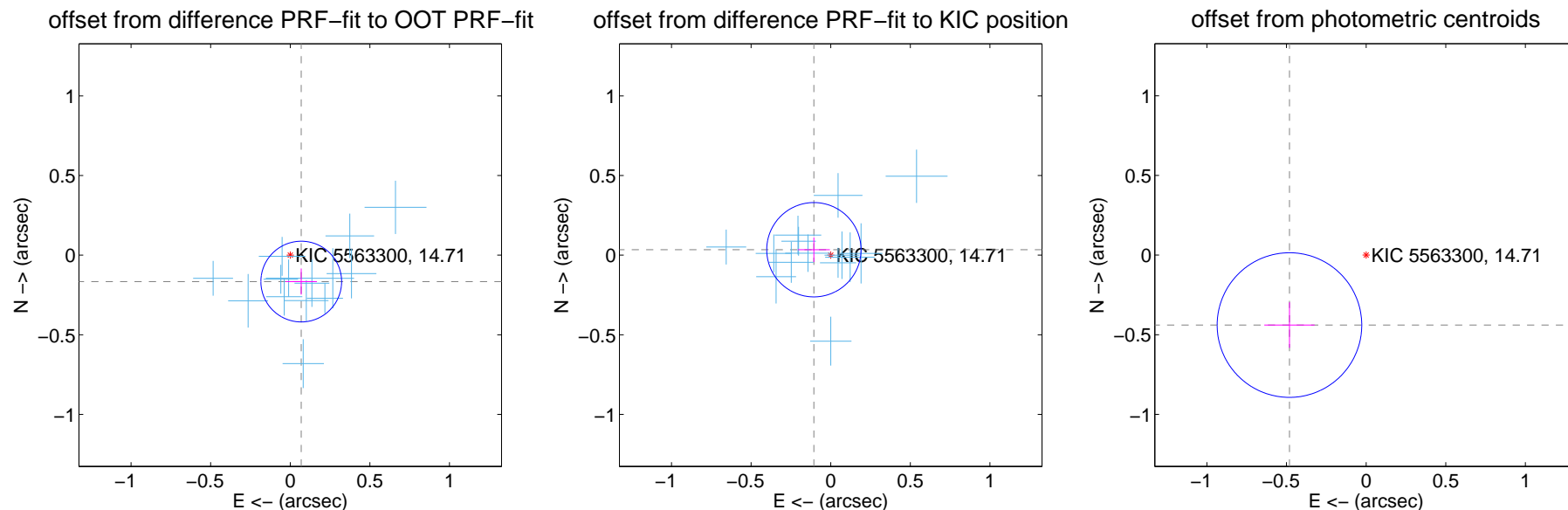
DV Centroid Data

Supplemental centroid analysis for 005563300-01. Kepler magnitude: 14.71. Transit SNR 95.31

There are 14 quarters with good PRF difference image offsets

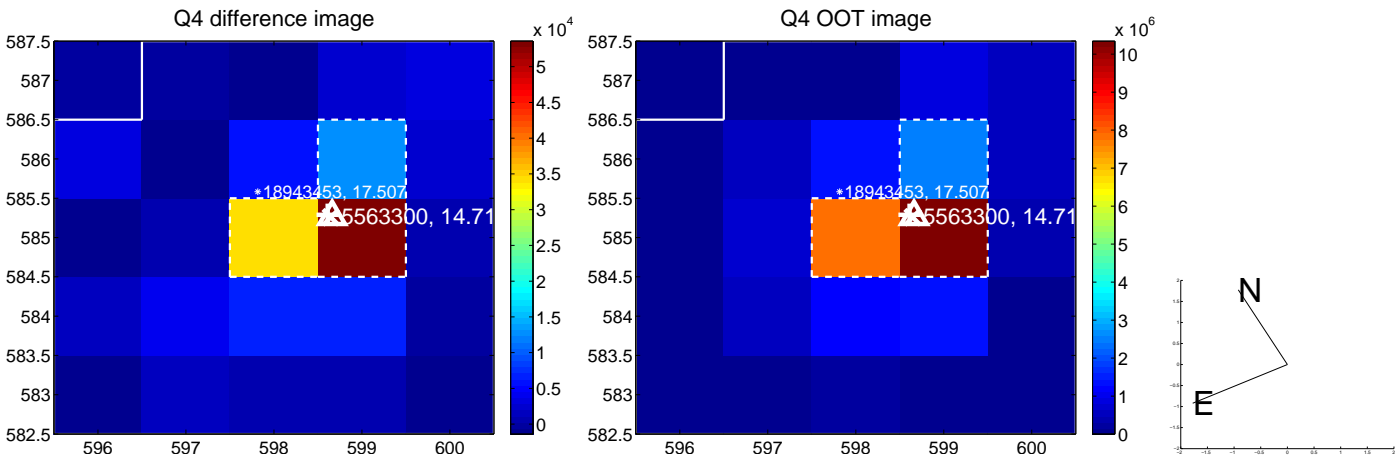
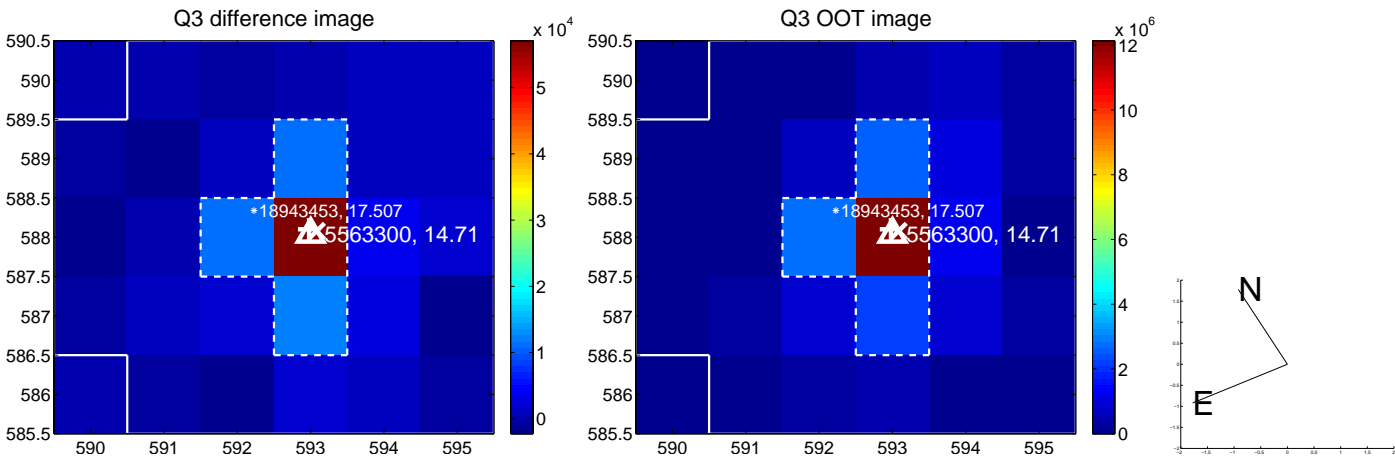
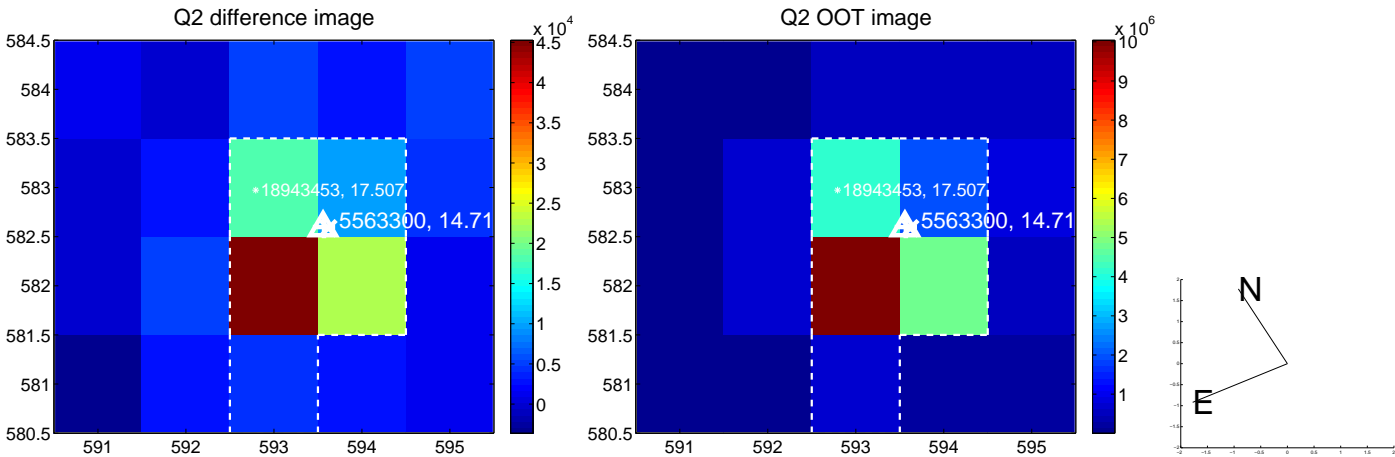
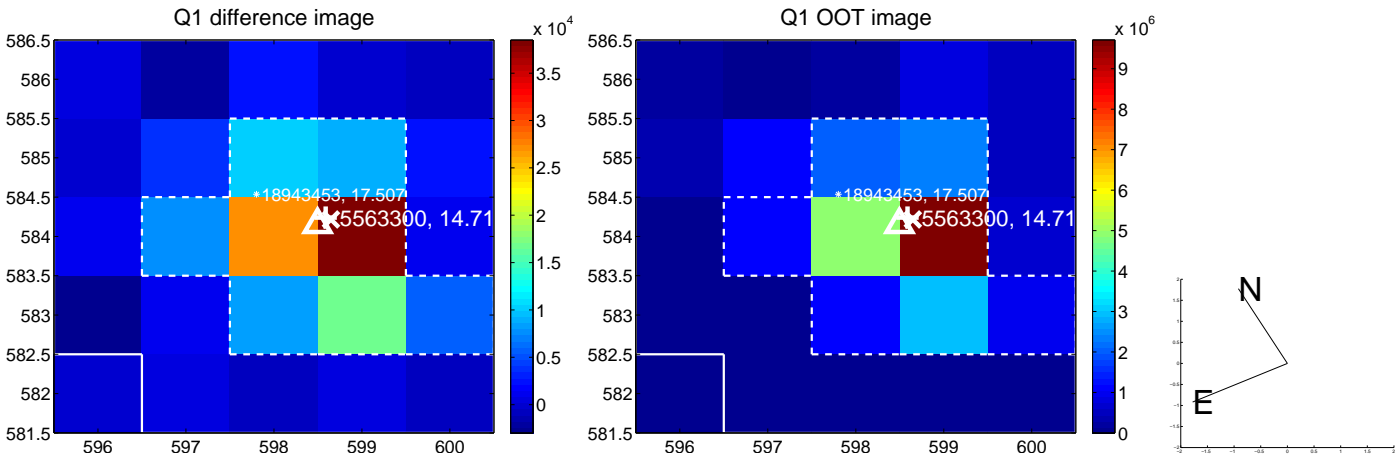
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.180 ± 0.084	2.13	-0.069 ± 0.099	-0.166 ± 0.082
PRF-fit source offset from KIC position	0.111 ± 0.099	1.13	0.106 ± 0.101	0.034 ± 0.077
photometric centroid source offset	0.65 ± 0.15	4.31	0.48 ± 0.16	-0.44 ± 0.14

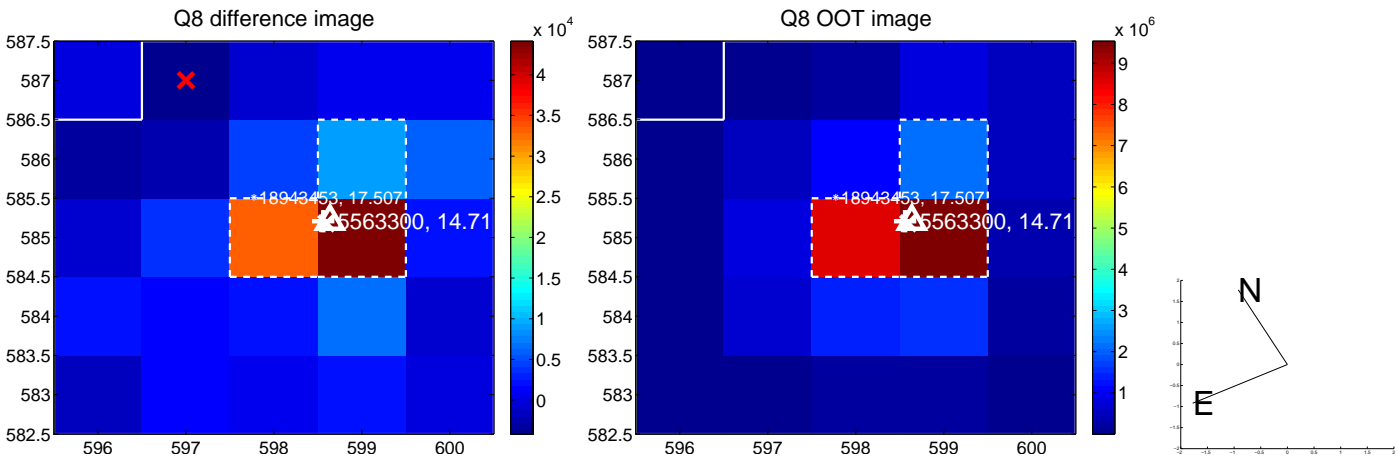
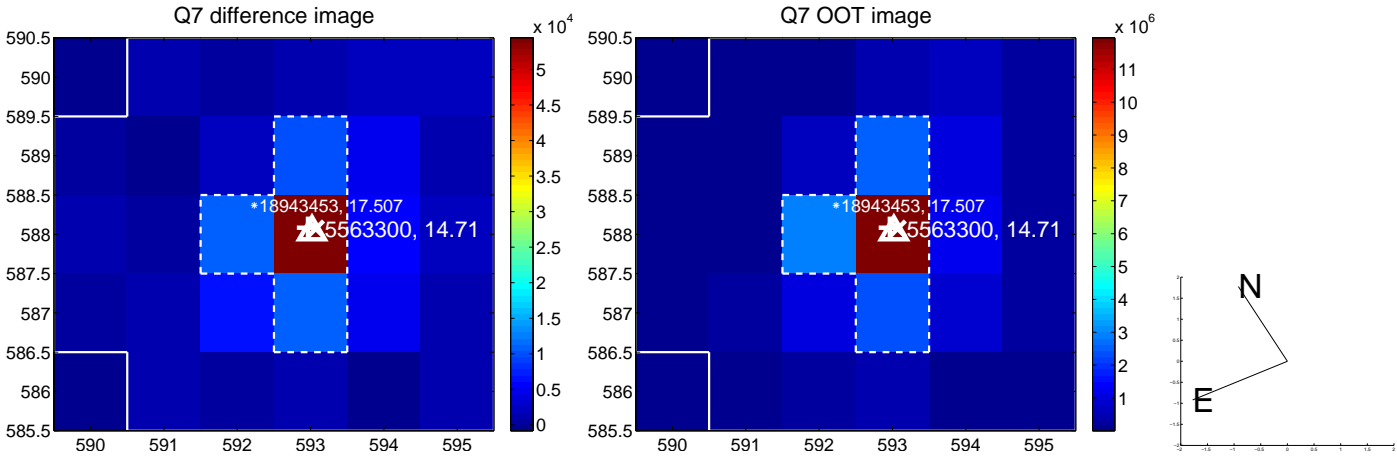
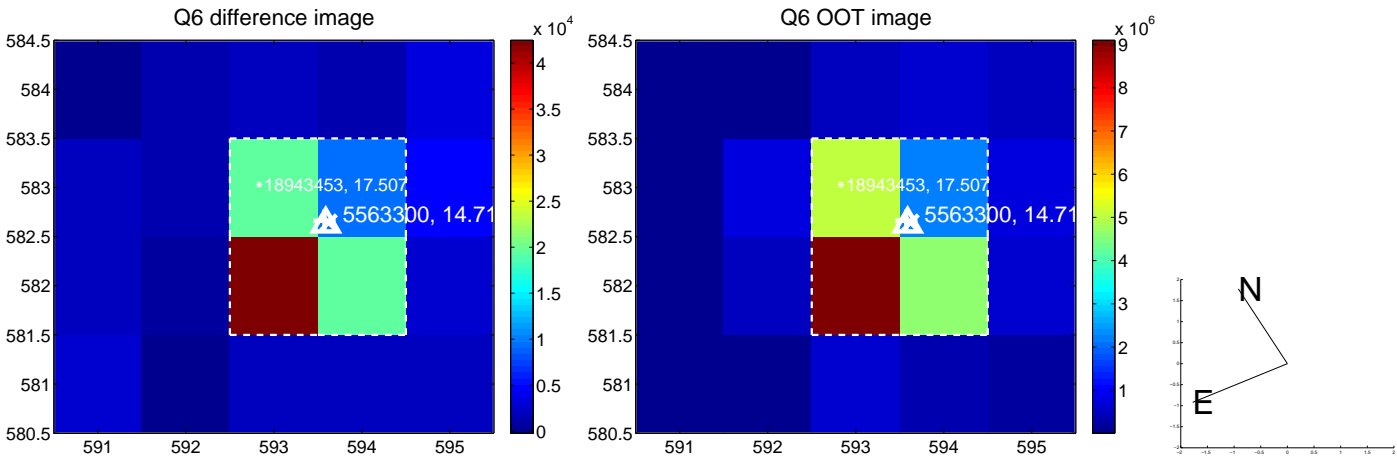
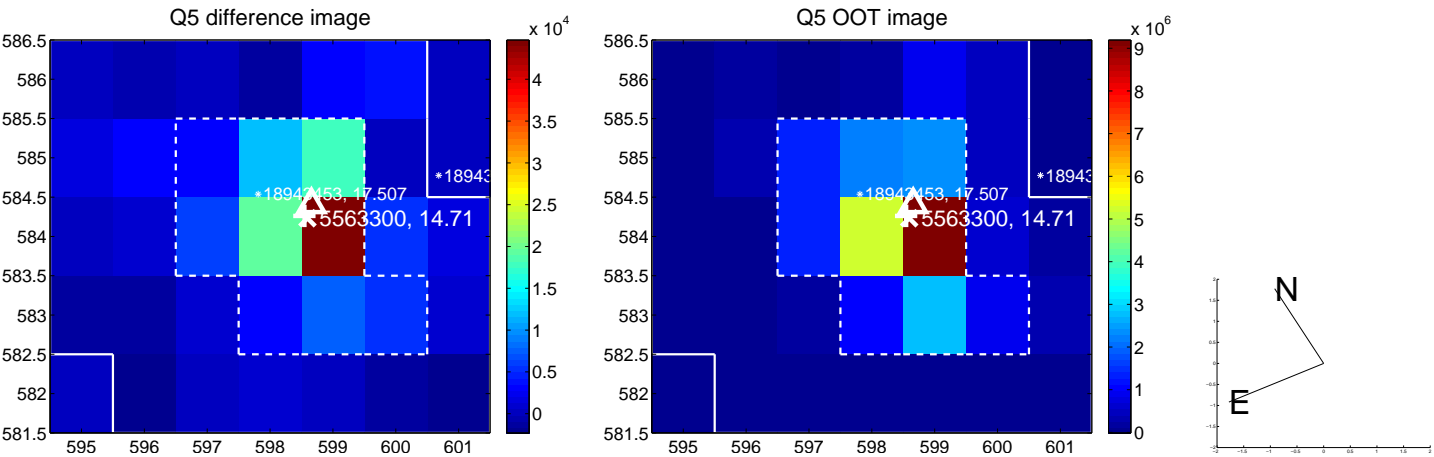


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

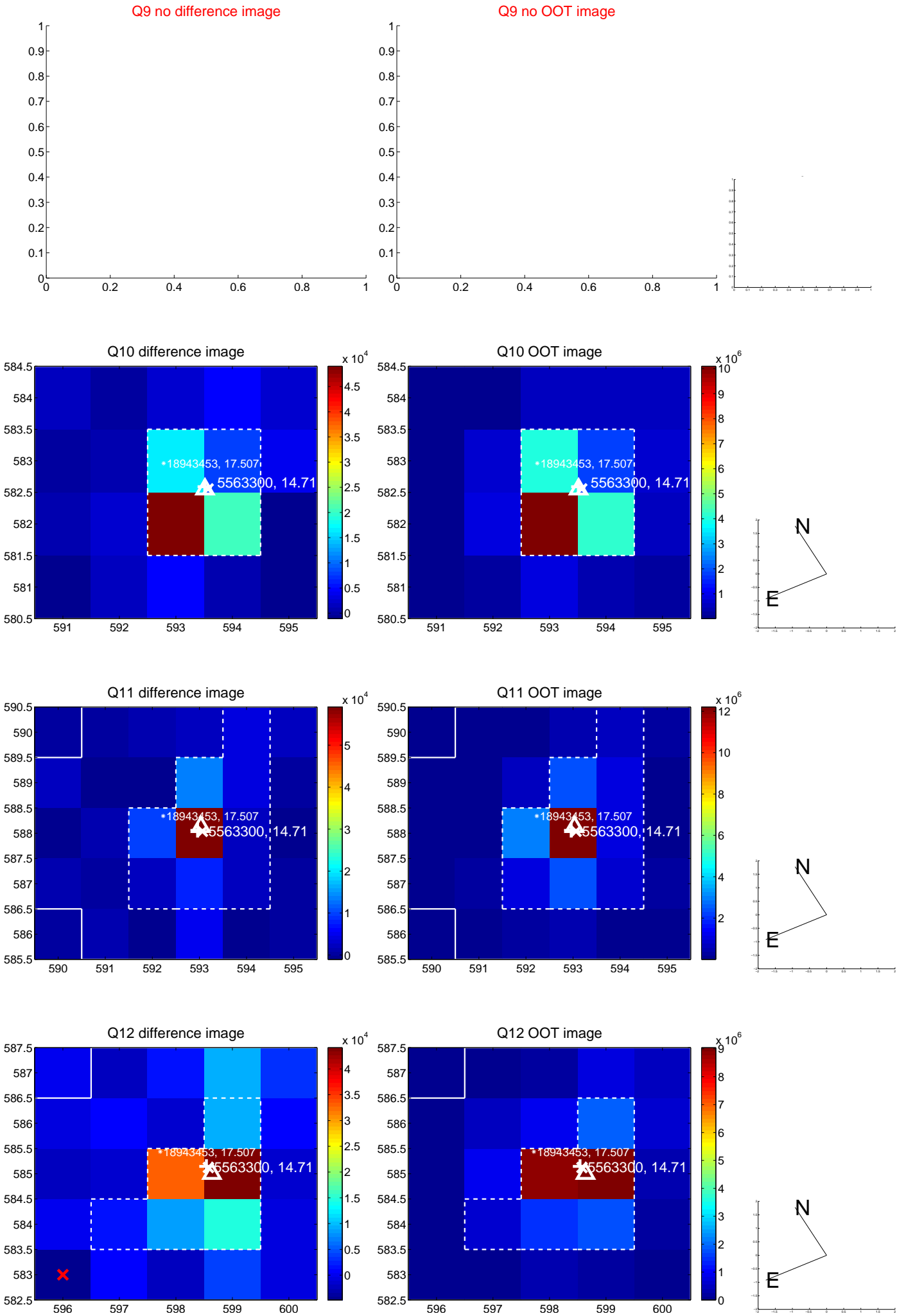
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



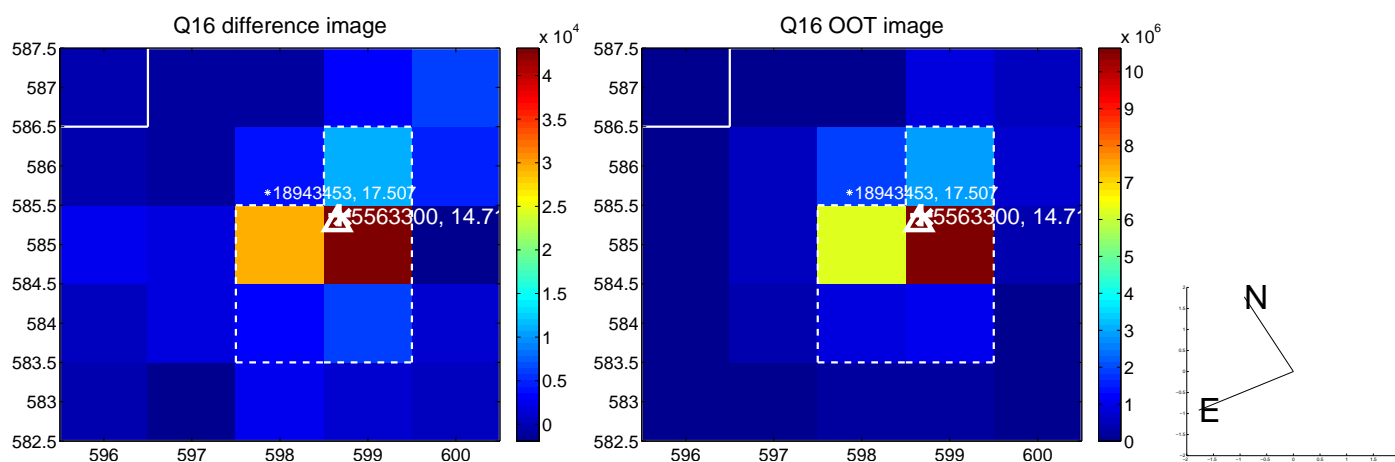
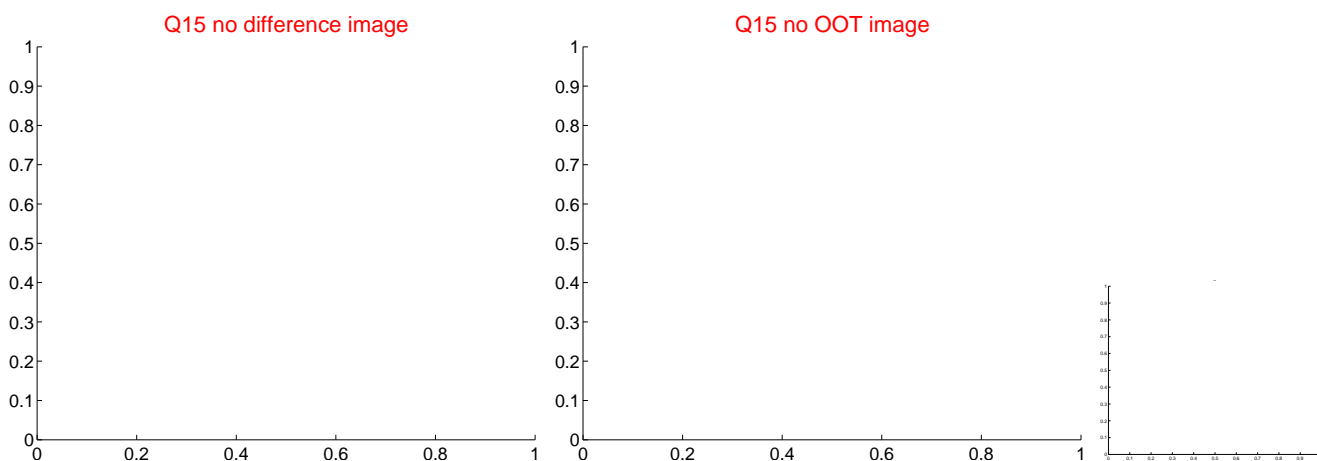
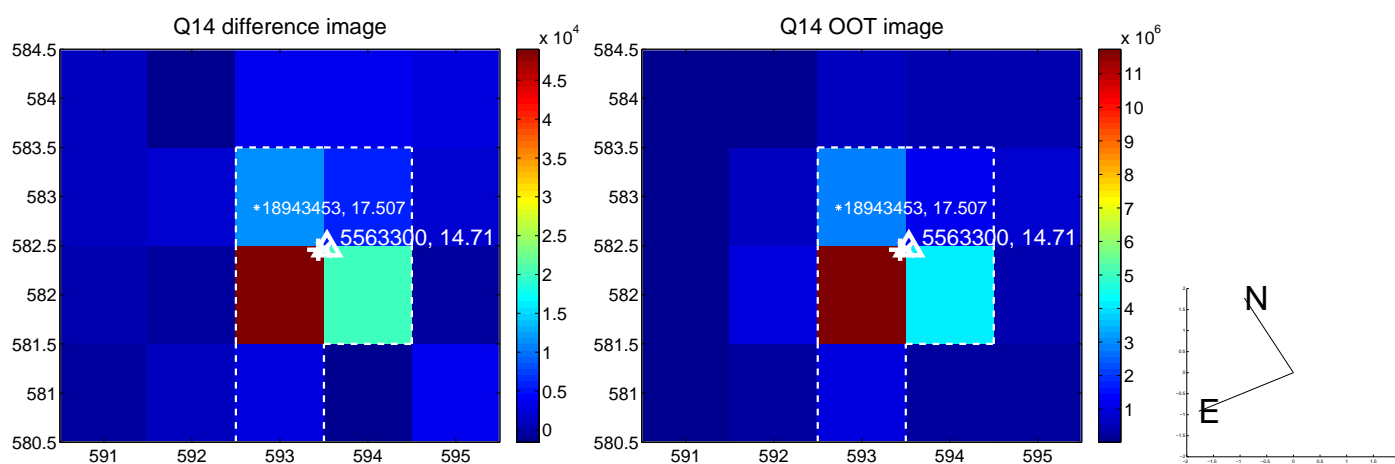
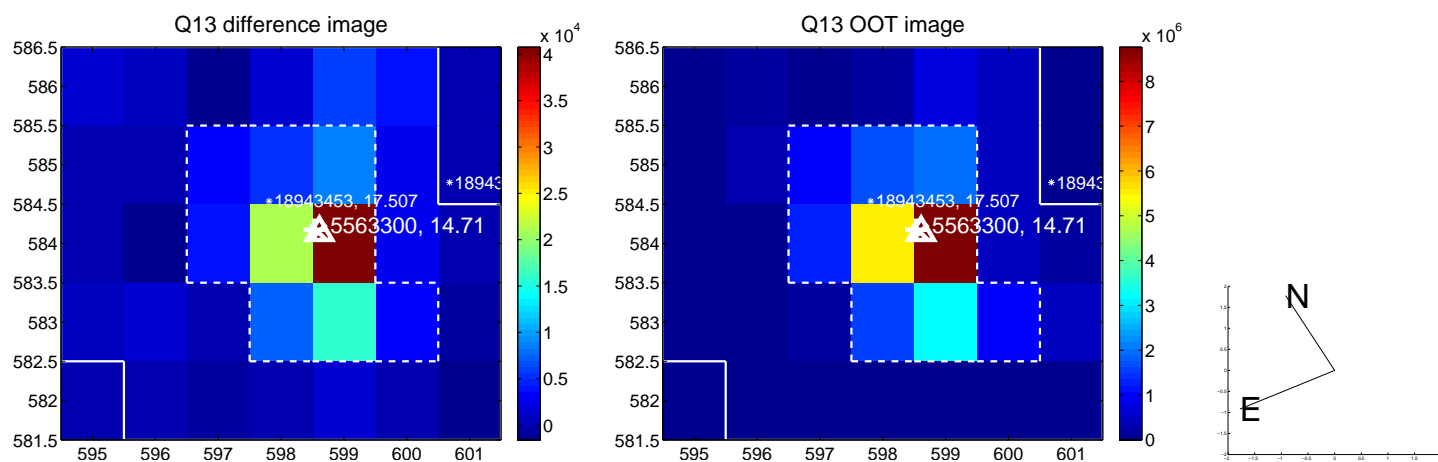
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



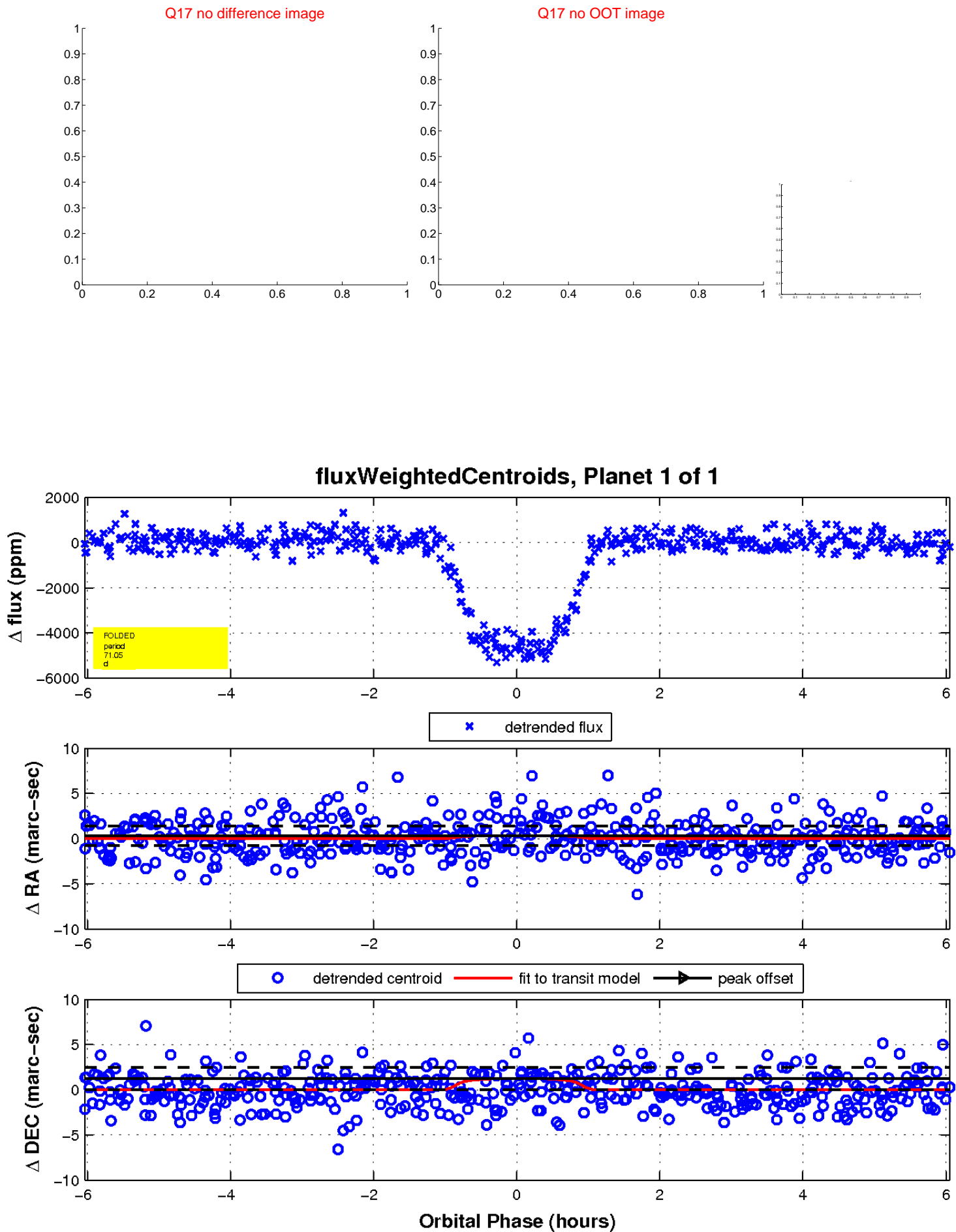
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

