

KIC 006975615

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})
006975615-01	OBS	1698.01	2.065369	133.153271	165.7	2.732	21.6	23.5	0.75	5266	1.16	485.07

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006975615-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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.

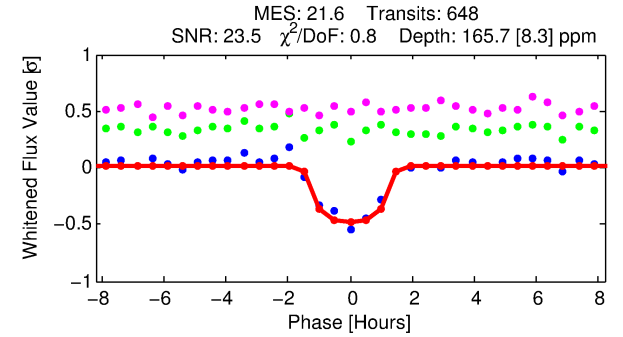
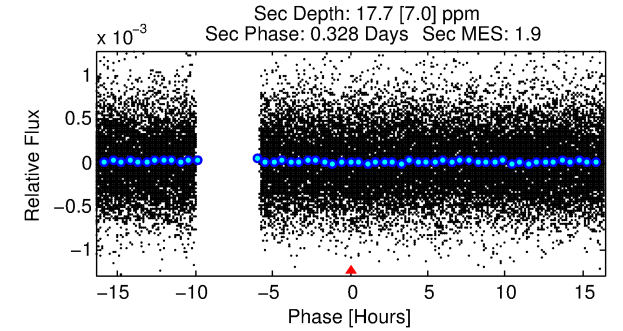
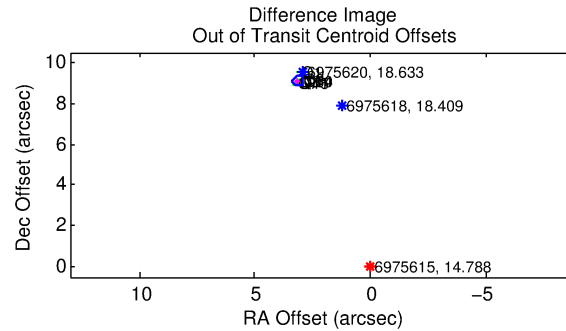
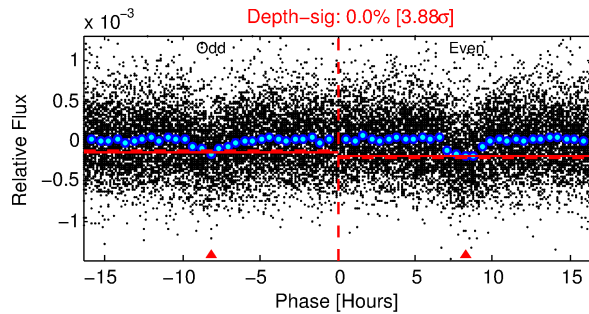
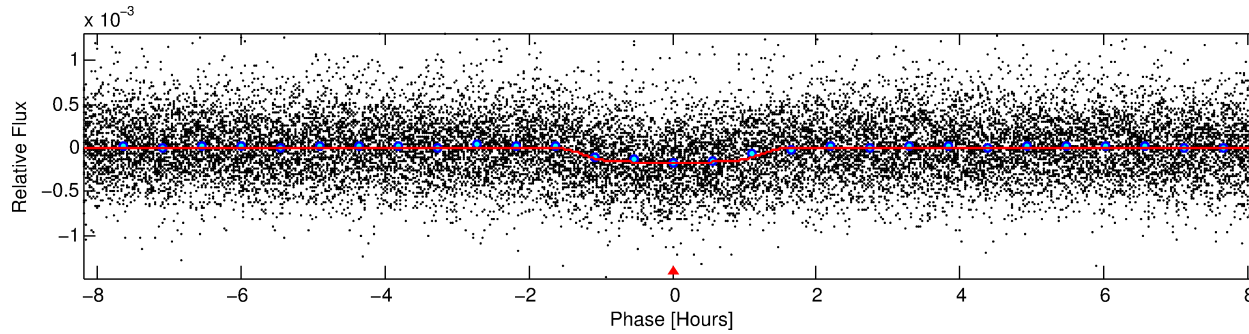
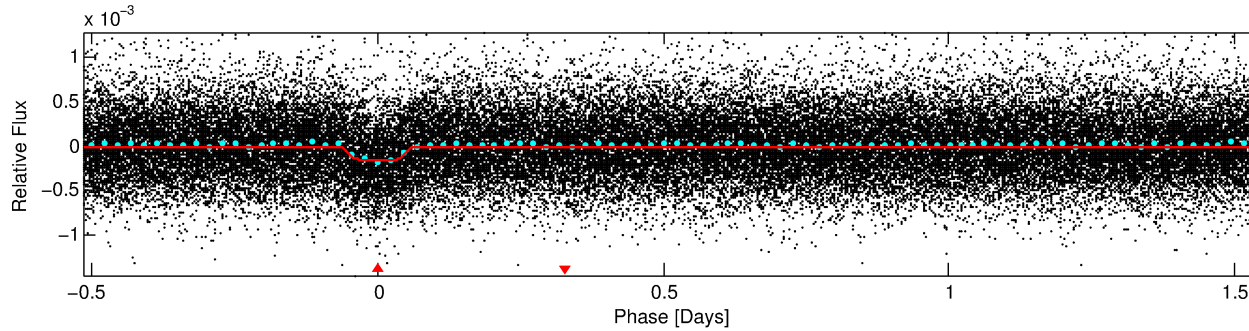
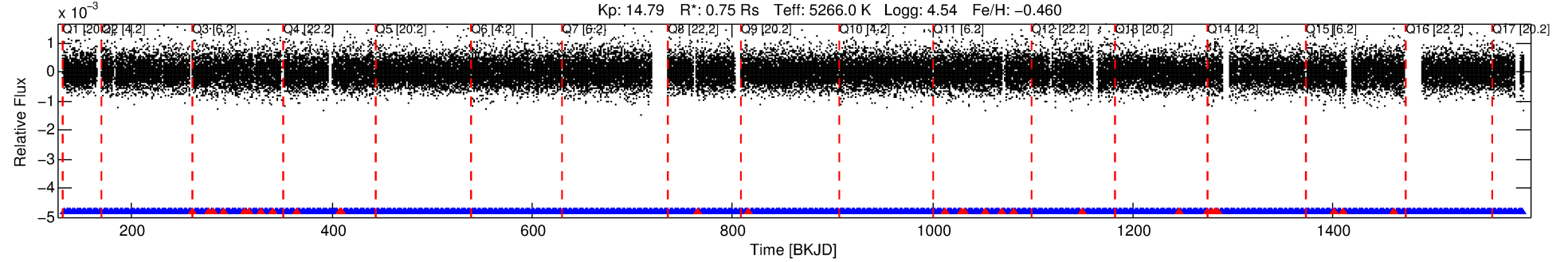
Ephemeris Match Information For 006975615-01

No Significant Match Found

DV One-Page Summary

KIC: 6975615 Candidate: 1 of 1 Period: 2.065 d
KOI: K01698.01 Corr: 0.956

Kp: 14.79 R*: 0.75 Rs Teff: 5266.0 K Logg: 4.54 Fe/H: -0.460



DV Fit Results:

Period = 2.06537 [0.00001] d
Epoch = 133.1533 [0.0018] BKJD
Rp/R* = 0.0142 [0.0045]
a/R* = 2.86 [3.55]
b = 0.90 [0.31]
Seff = 485.07 [103.02]
Teq = 1197 [64] K
Rp = 1.16 [0.40] Re
a = 0.0282 [0.0033] AU
Ag = 5.80 [4.47] [1.07σ]
Teffp = 2872 [545] K [3.05σ]

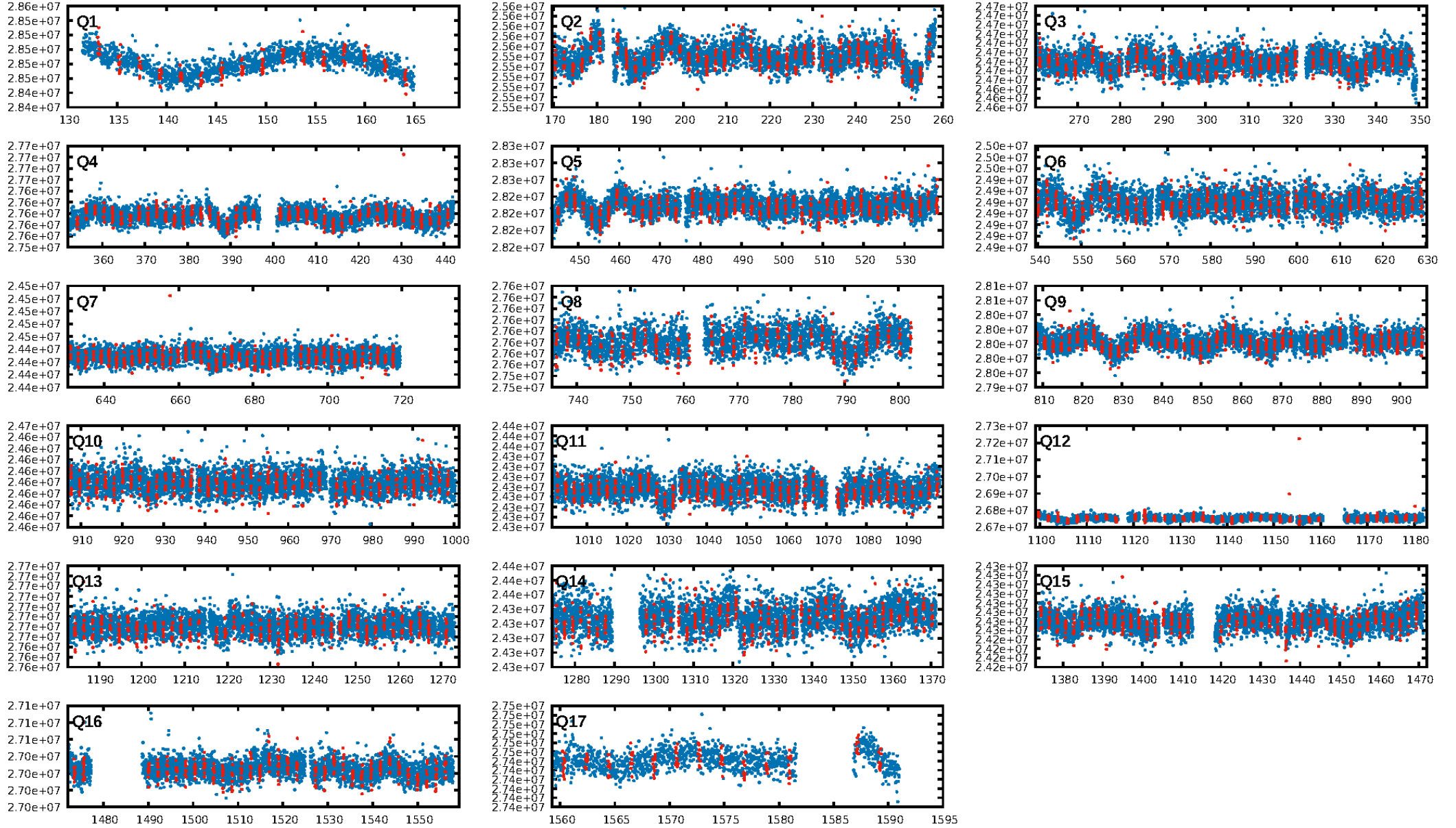
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.57e-99
RollingBand-fgt: 0.95 [591/619]
GhostDiagnostic-chr: -0.3422
Centroid-sig: 0.0%
Centroid-so: N/A
OotOffset-rm: 9.628 arcsec [119.28σ]
KicOffset-rm: 10.039 arcsec [125.82σ]
OotOffset-st: 4/4/0/1 [9]
KicOffset-st: 4/4/0/1 [9]
DiffImageQuality-fgm: 1.00 [9/9]
DiffImageOverlap-fno: 1.00 [17/17]

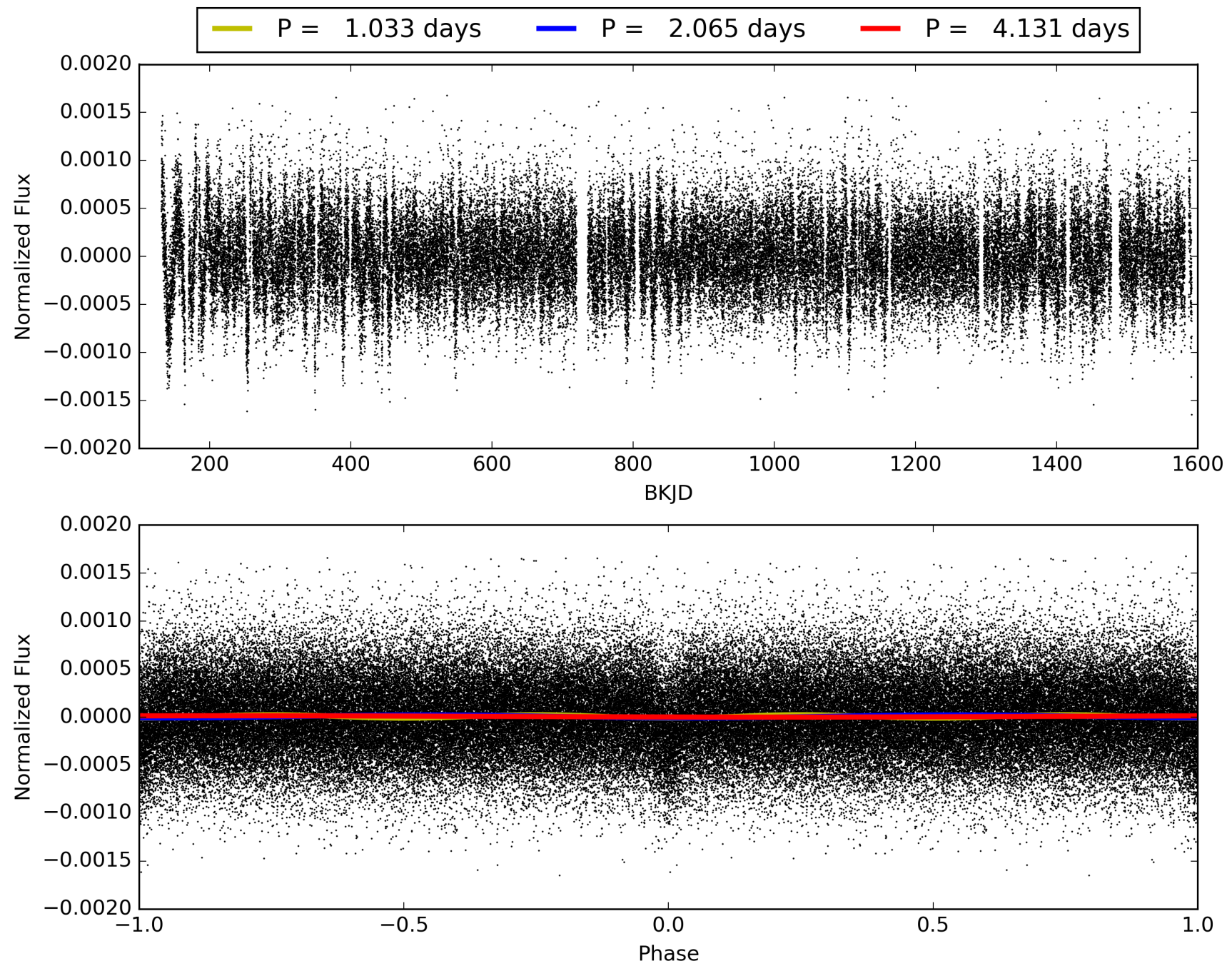
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:44:43 Z

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

TCE 006975615-01, PDC Light Curves

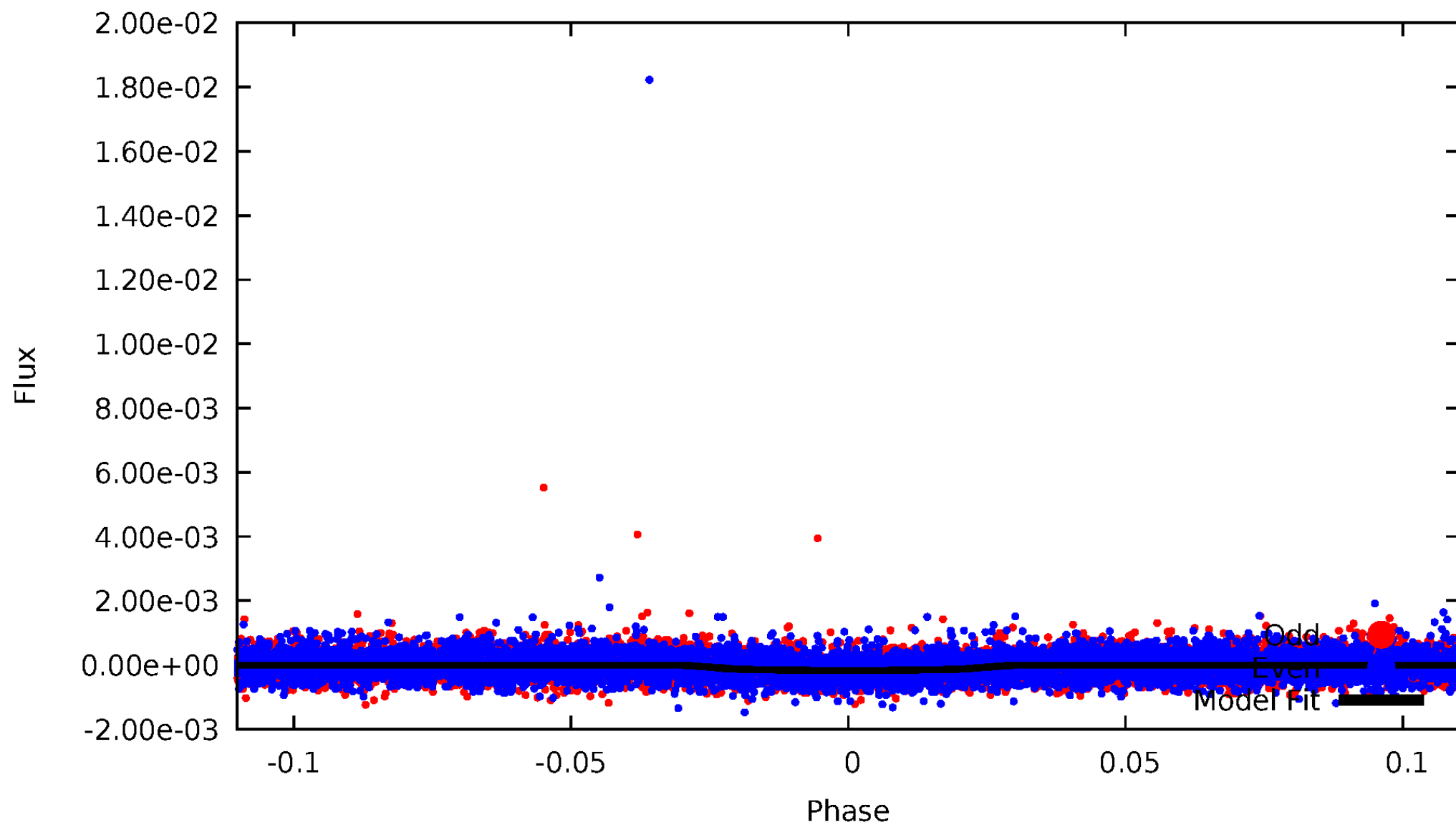


TCE 006975615-01



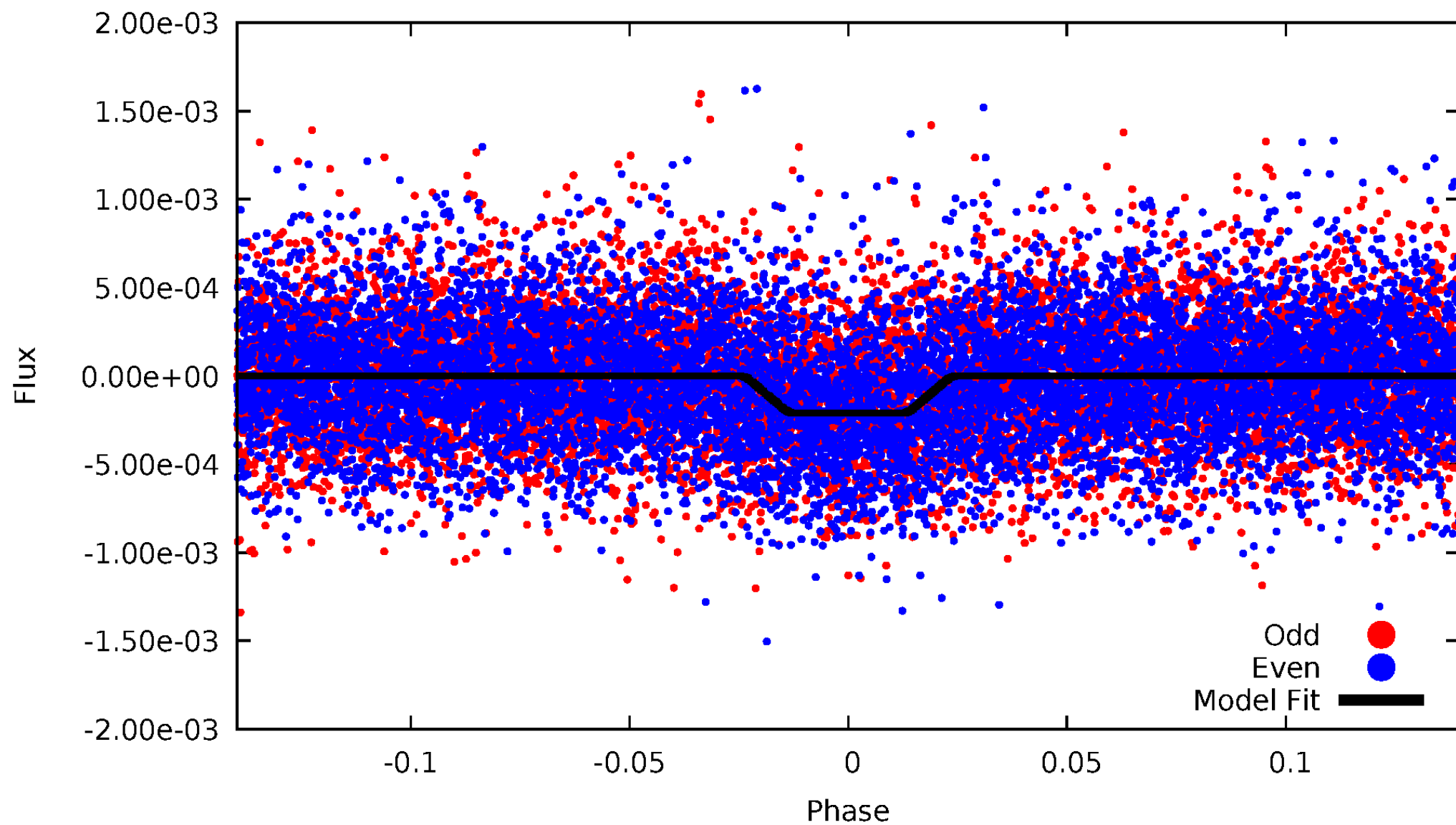
DV Odd/Even

TCE 006975615-01



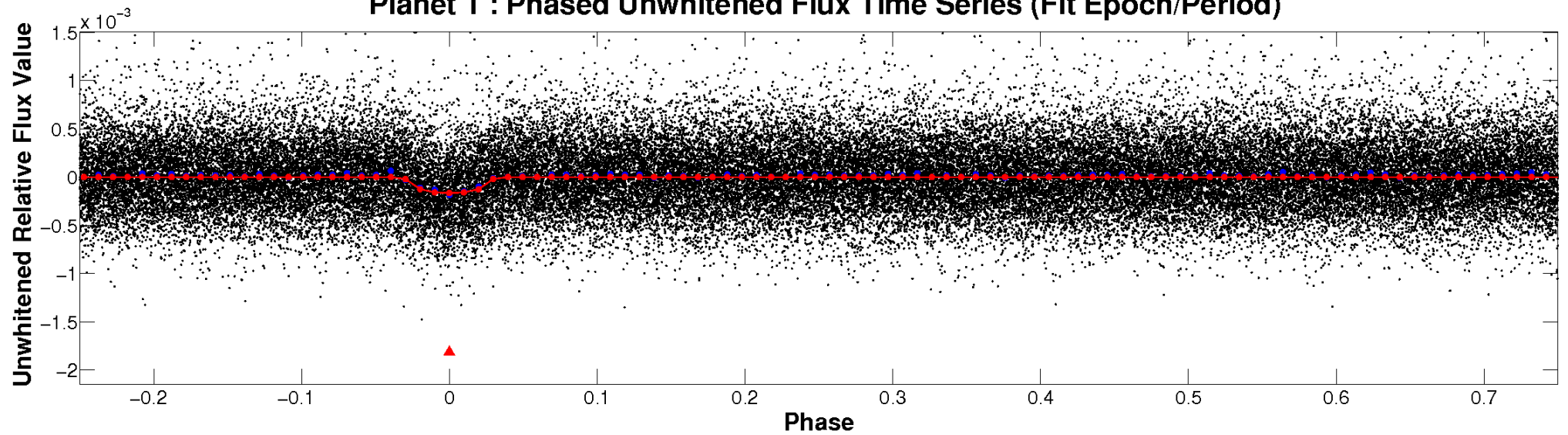
ALT Odd/Even

TCE 006975615-01

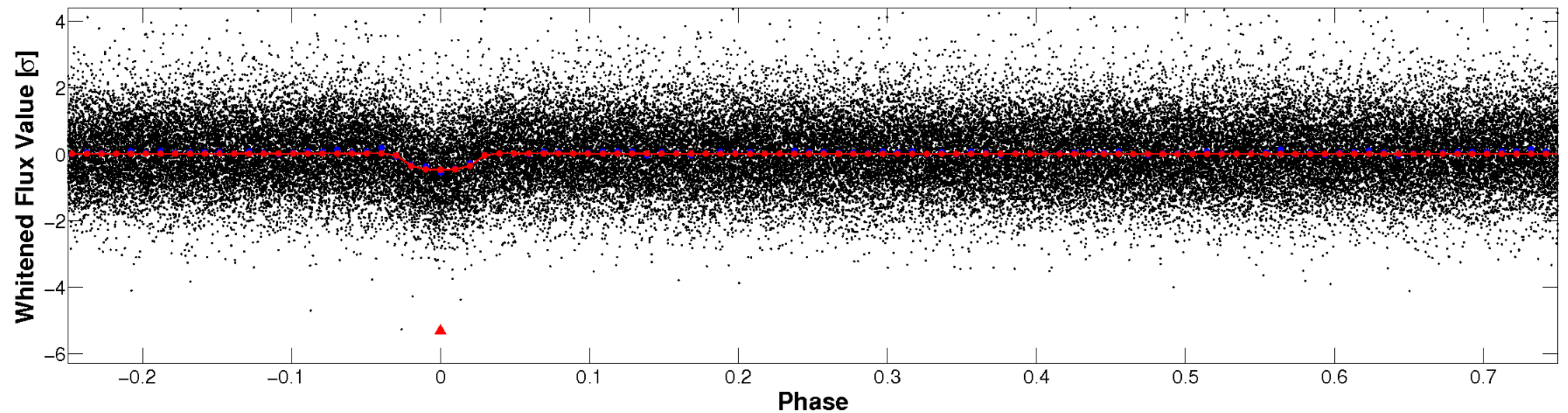


Non-Whitened Vs. Whitened Light Curve

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

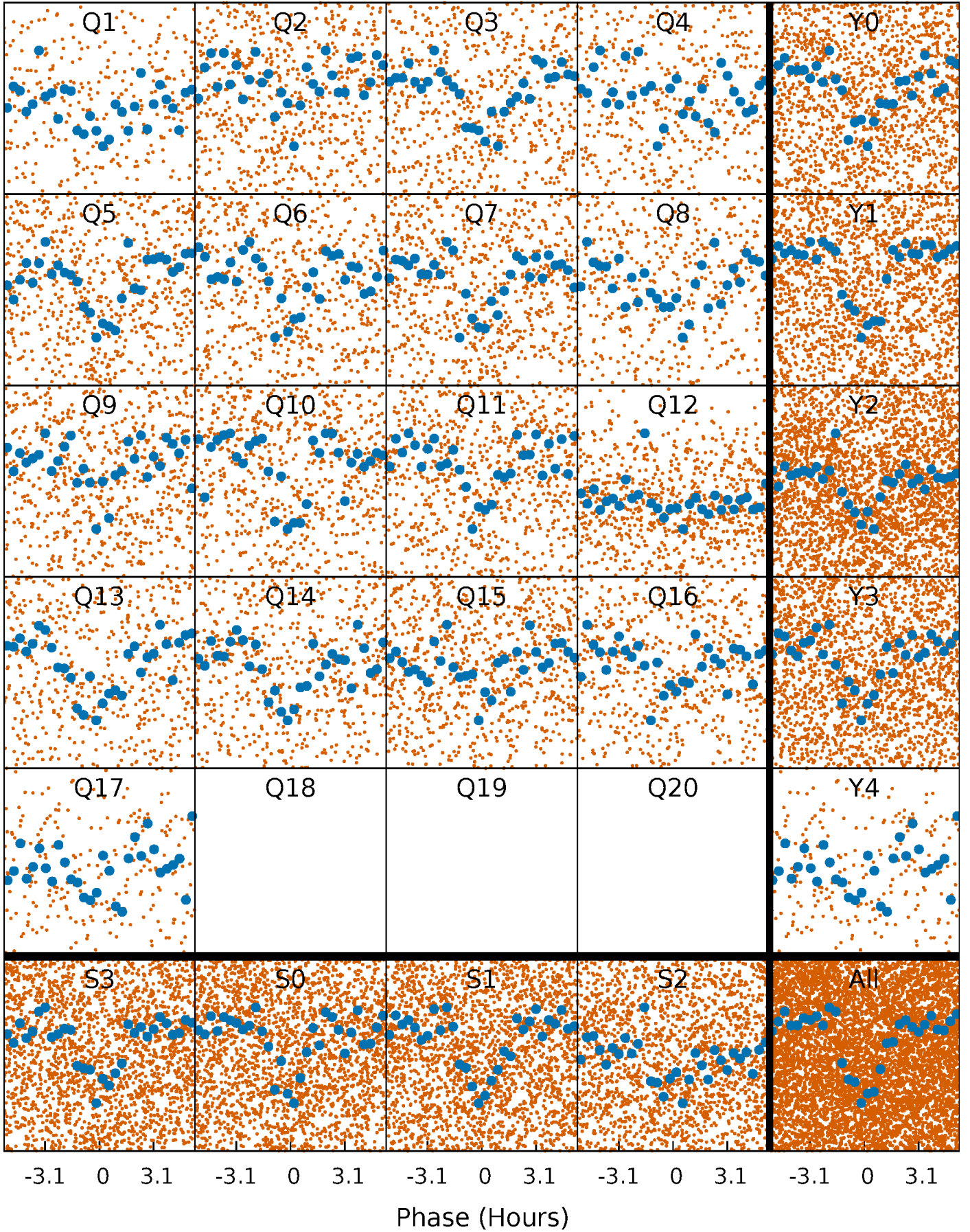


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



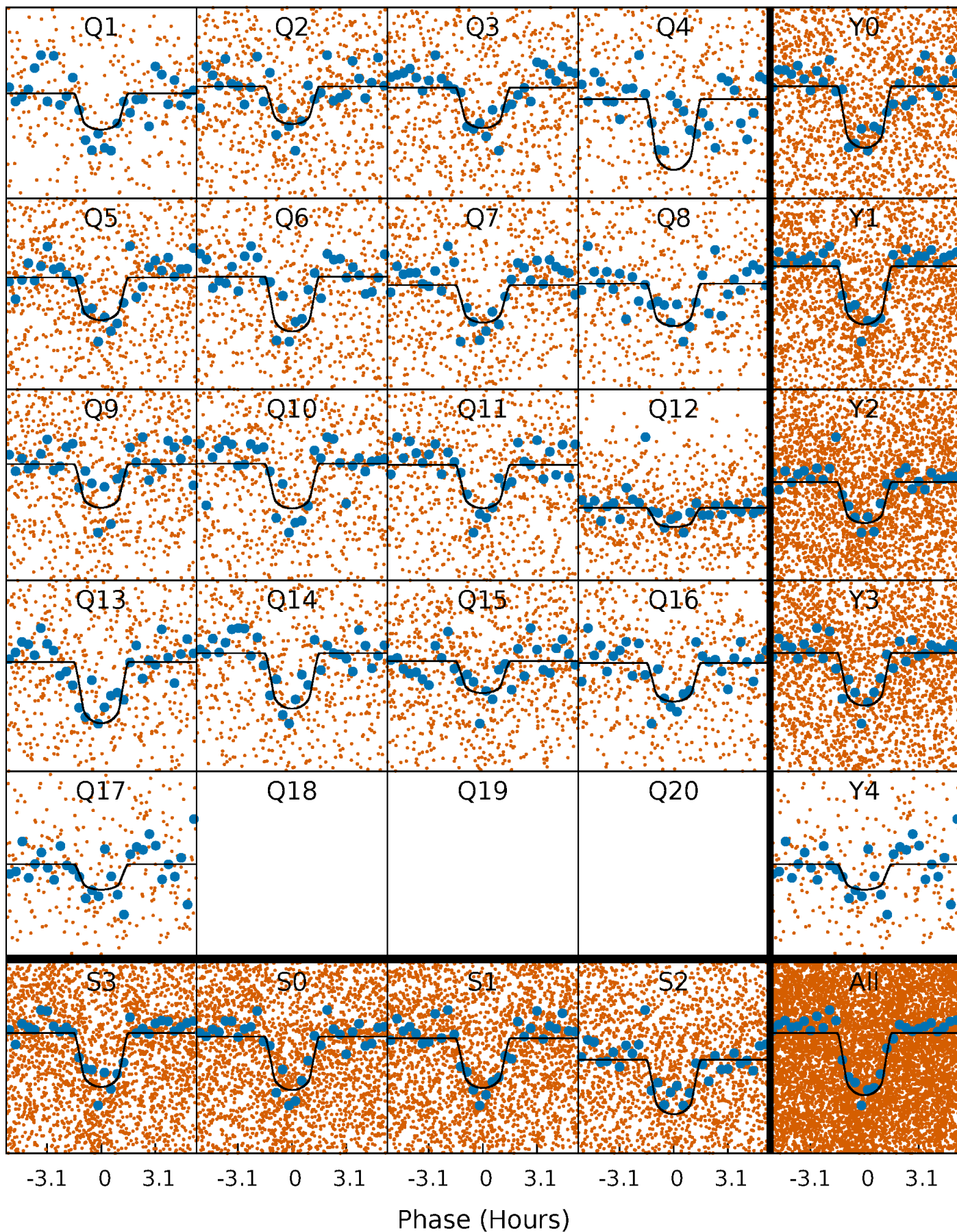
PDC Quarter-Phased Transit Curves

TCE 006975615-01 P= 2.065369 Days $T_0=133.153271$ (BKJD)



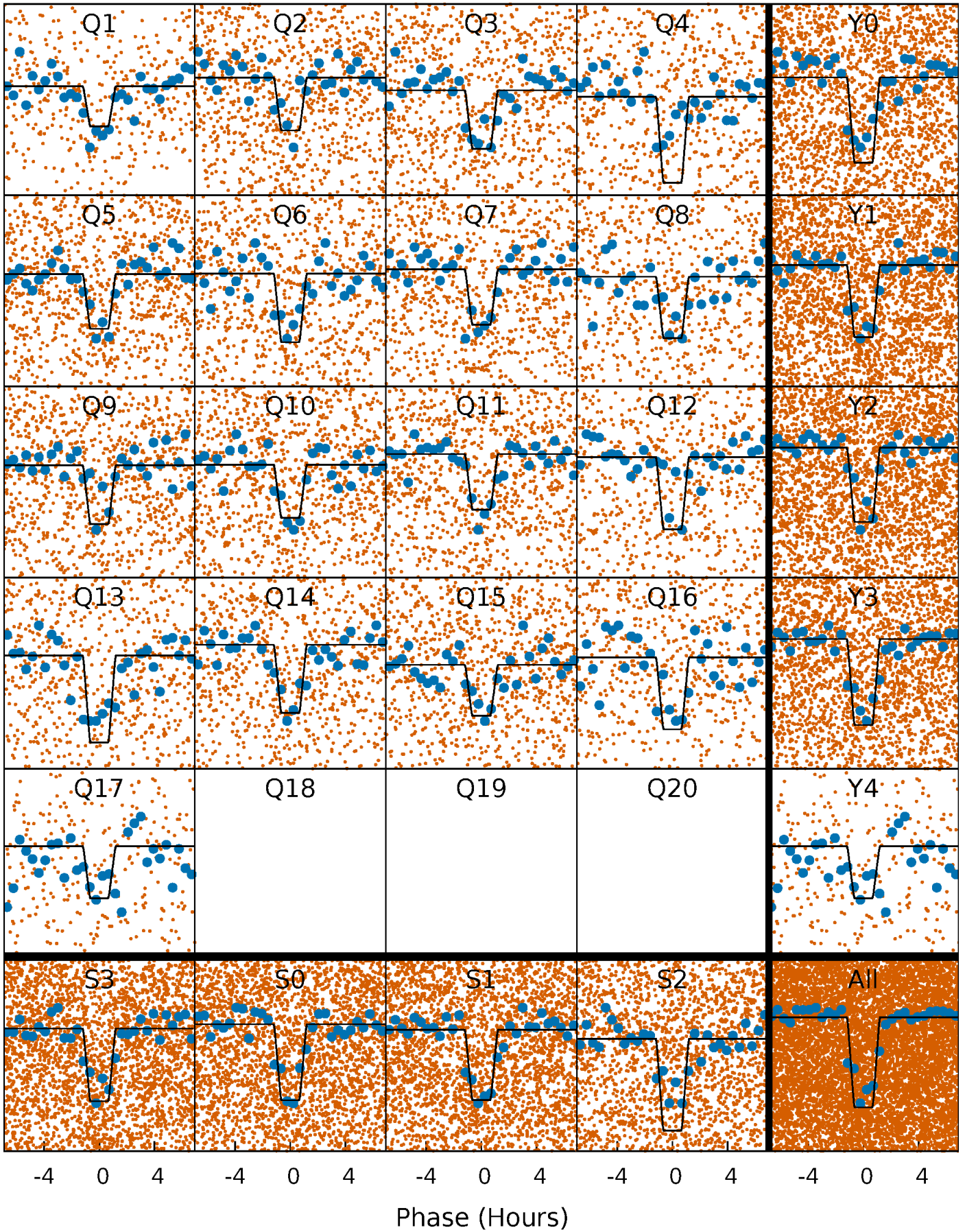
DV Quarter-Phased Transit Curves

TCE 006975615-01 P= 2.065369 Days $T_0=133.153271$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

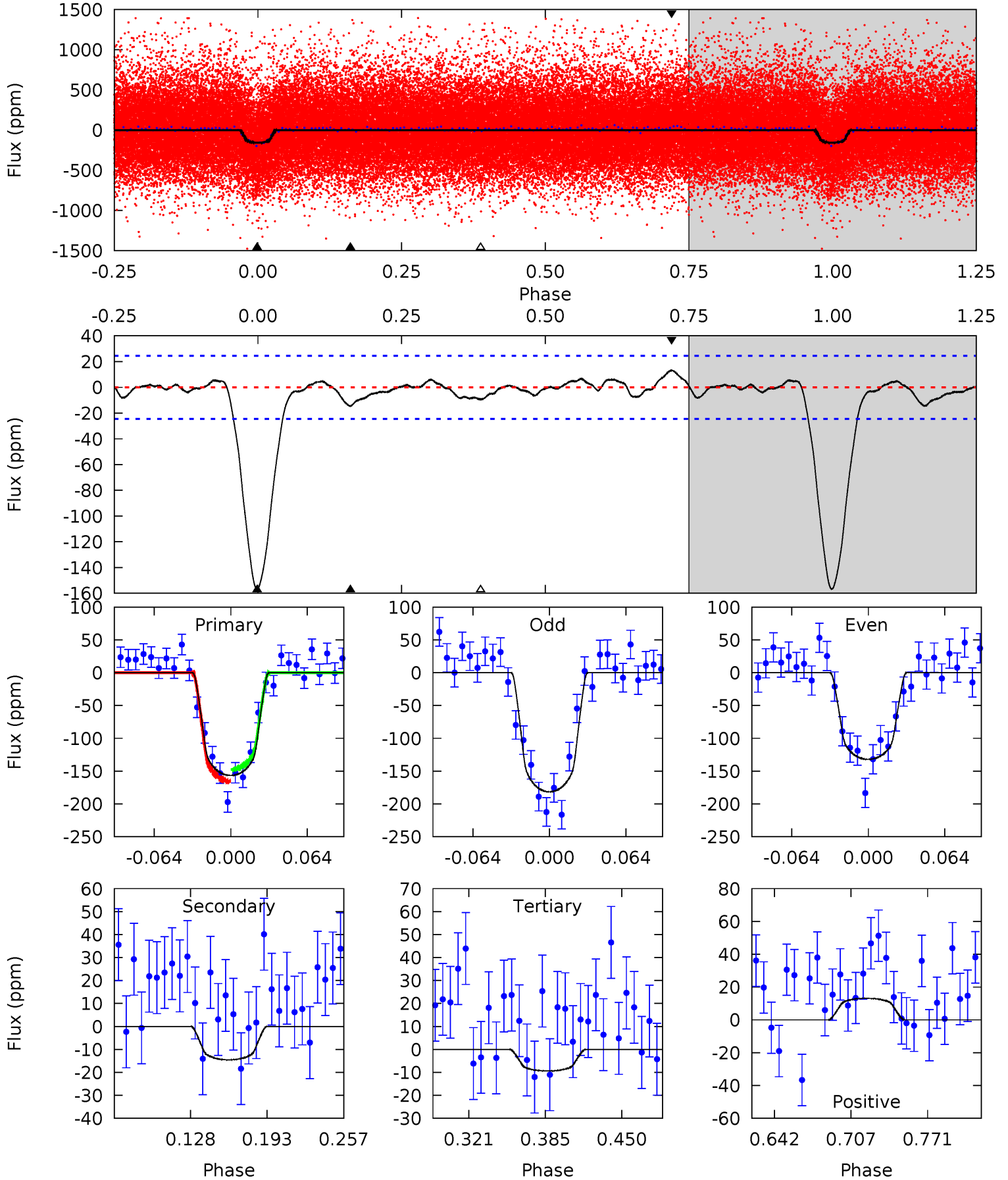
TCE 006975615-01 P= 2.065342 Days $T_0=133.160535$ (BKJD)



DV Model-Shift Uniqueness Test

006975615-01, P = 2.065369 Days, E = 131.087902 Days

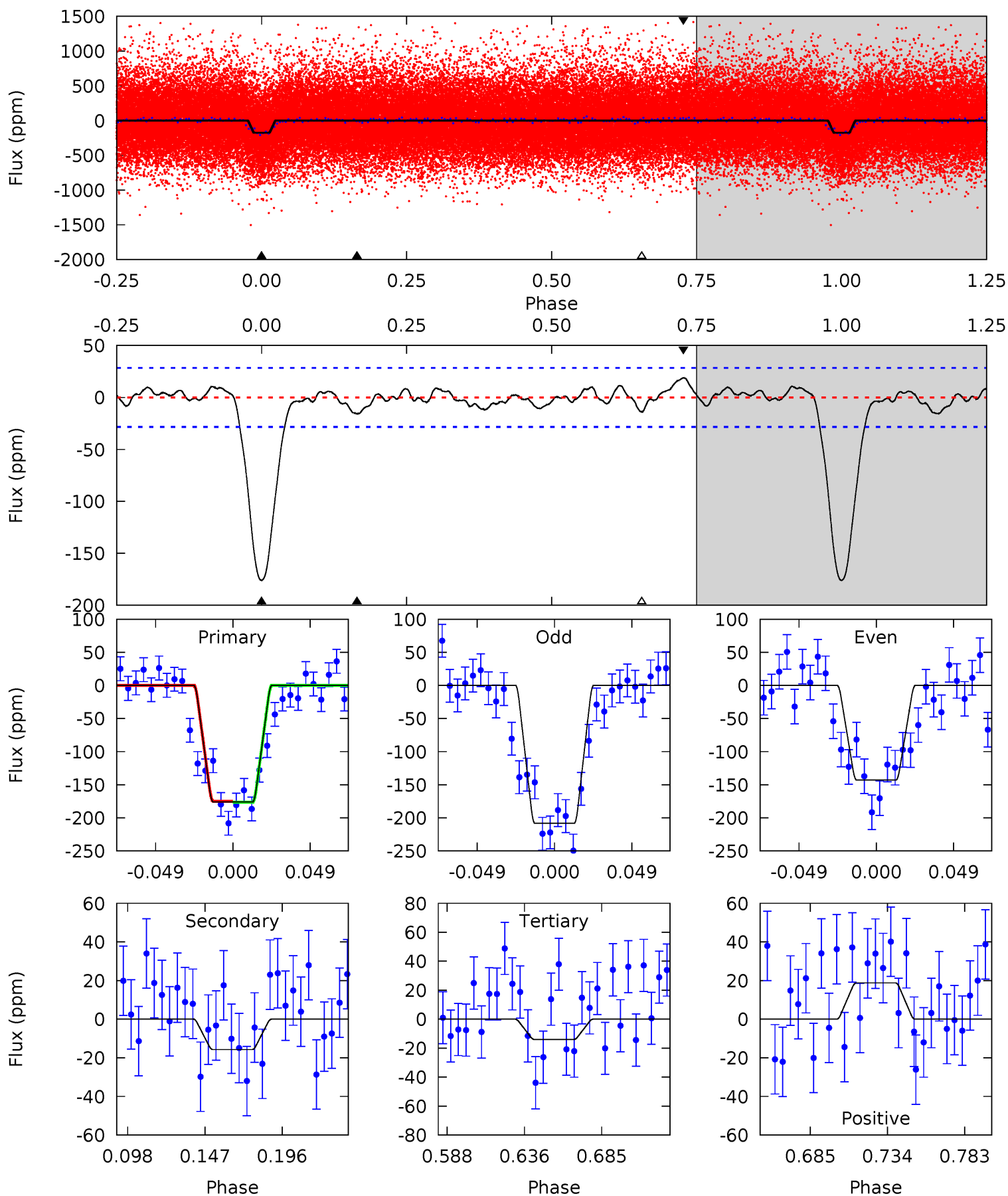
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.8	2.76	1.78	2.49	4.66	1.85	0.86	28.0	27.3	0.98	0.27	4.71	1.00	0.08	1.73



Alt Model-Shift Uniqueness Test

006975615-01, P = 2.065342 Days, E = 131.095193 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.2	2.61	2.32	3.12	4.71	1.97	1.05	26.9	26.1	0.29	-0.51	5.43	0.97	0.10	0.11



Stellar Parameters For KIC 006975615

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5266^{+158}_{-158}	$4.536^{+0.099}_{-0.090}$	$-0.460^{+0.350}_{-0.300}$	$0.749^{+0.098}_{-0.088}$	$0.702^{+0.103}_{-0.044}$	$2.359^{+0.932}_{-0.610}$
	+3%/-3%	+2%/-2%	+76%/-65%	+13%/-12%	+15%/-6%	+40%/-26%
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 006975615-01 / KOI 1698.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 5	$1.18^{+0.36}_{-0.39}$	1673^{+70}_{-76}	3220^{+454}_{-330}	$4.552^{+6.064}_{-2.249}$
Alt.	-16 ± 6	$1.17^{+0.40}_{-0.37}$	1667^{+76}_{-73}	3250^{+462}_{-352}	$5.002^{+6.146}_{-2.694}$

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 $A_{obs} \gg 1.0$

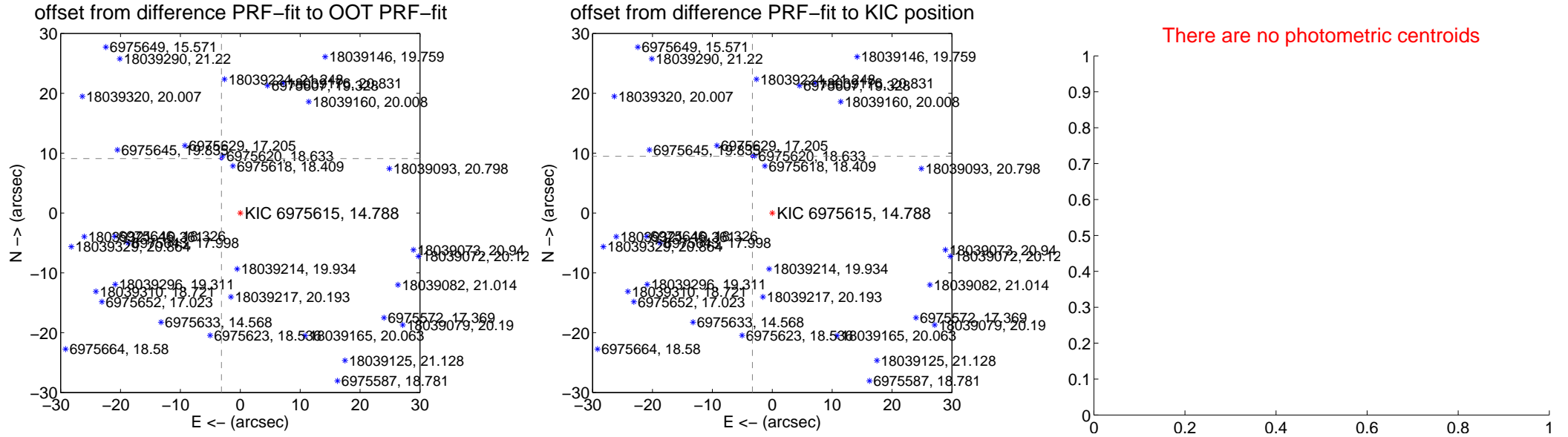
DV Centroid Data

Supplemental centroid analysis for 006975615-01. Kepler magnitude: 14.79. Transit SNR 23.48

There are 9 quarters with good PRF difference image offsets

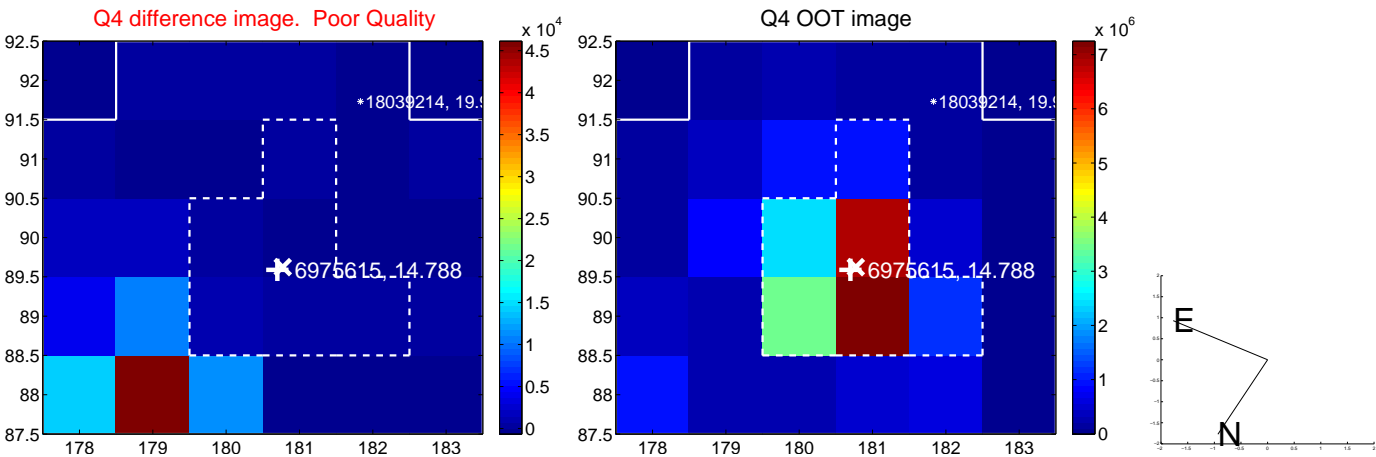
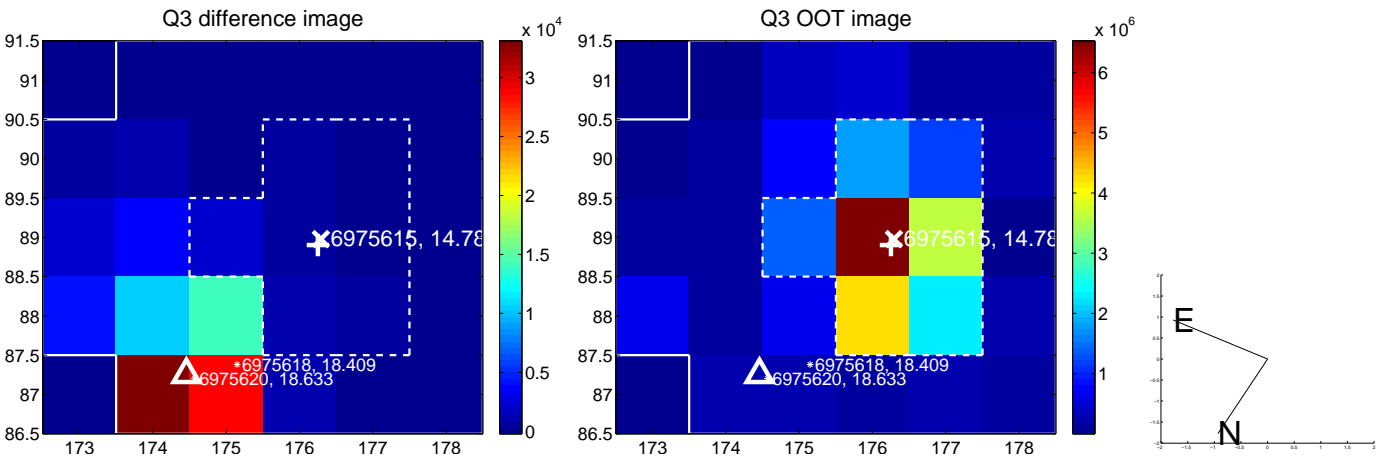
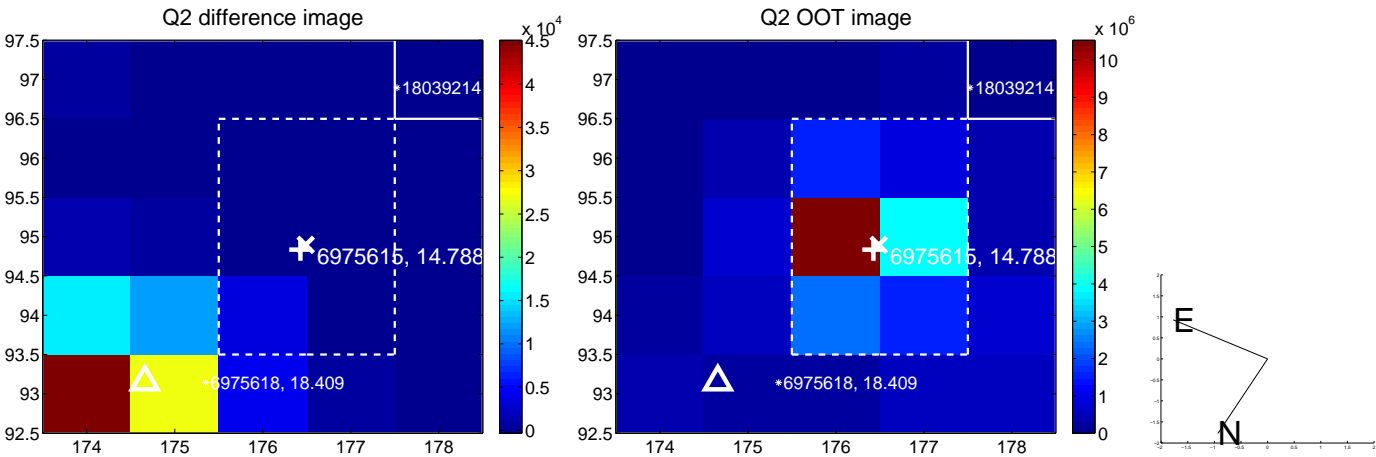
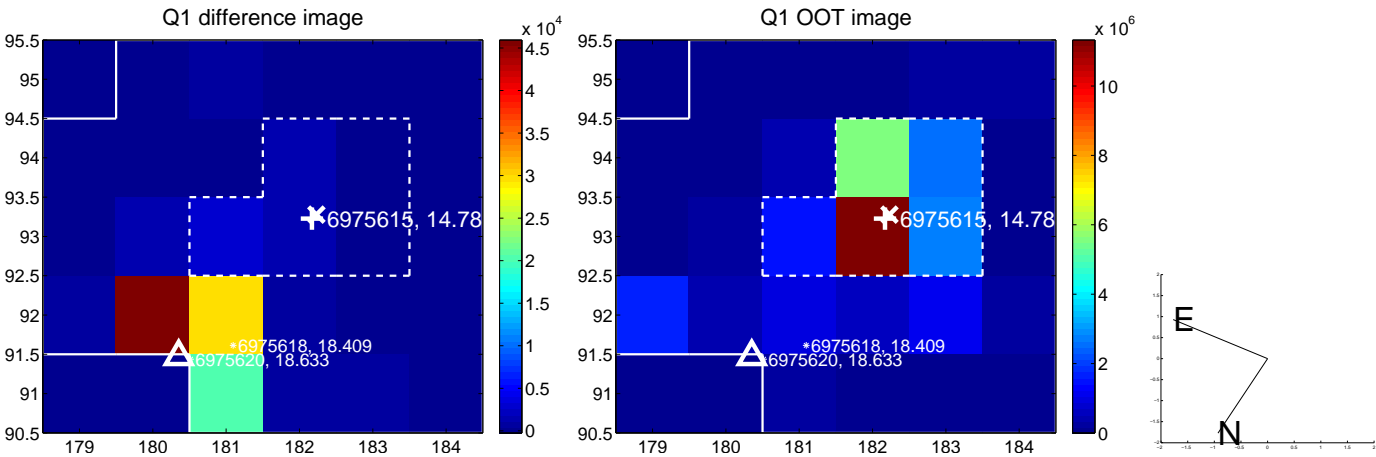
The direct PRF centroid is offset from the target star catalog position by about 0.38 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.628 \pm 0.081	119.28	3.144 \pm 0.074	9.101 \pm 0.083
PRF-fit source offset from KIC position	10.039 \pm 0.080	125.82	3.322 \pm 0.069	9.473 \pm 0.082
photometric centroid source offset	—	—	—	—

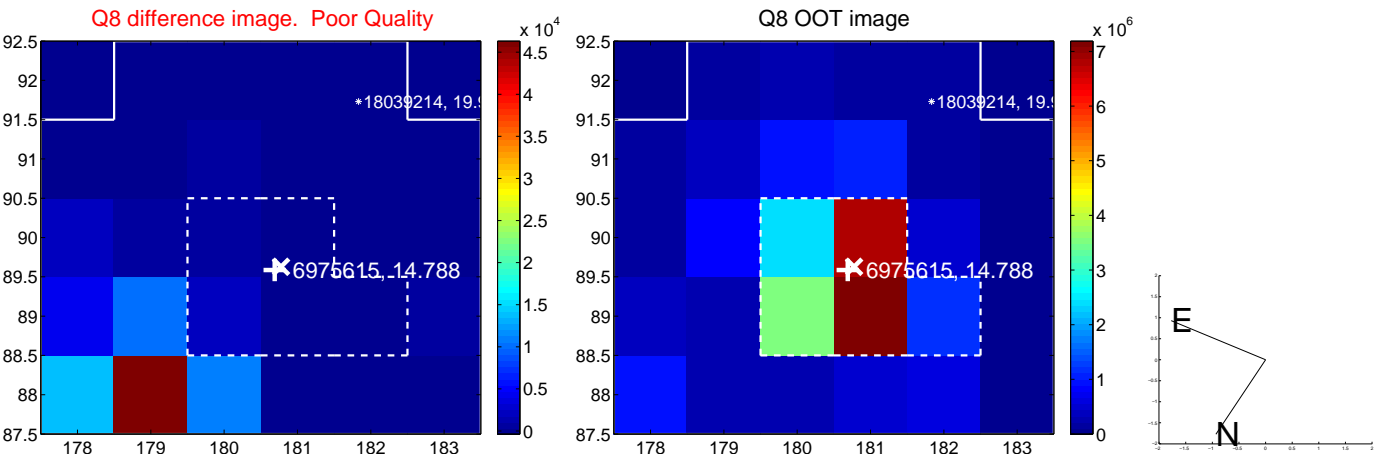
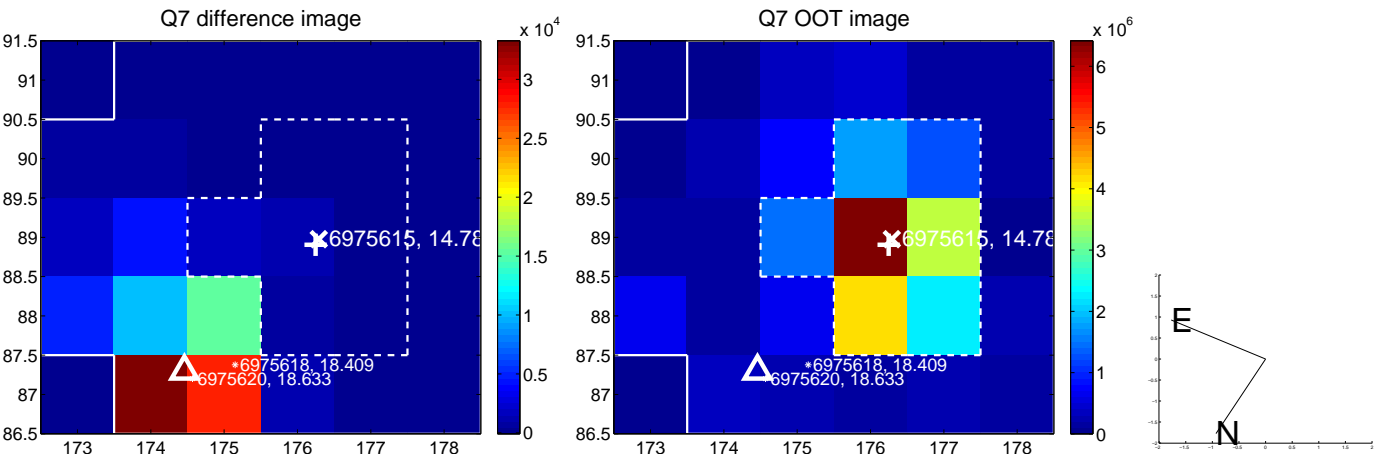
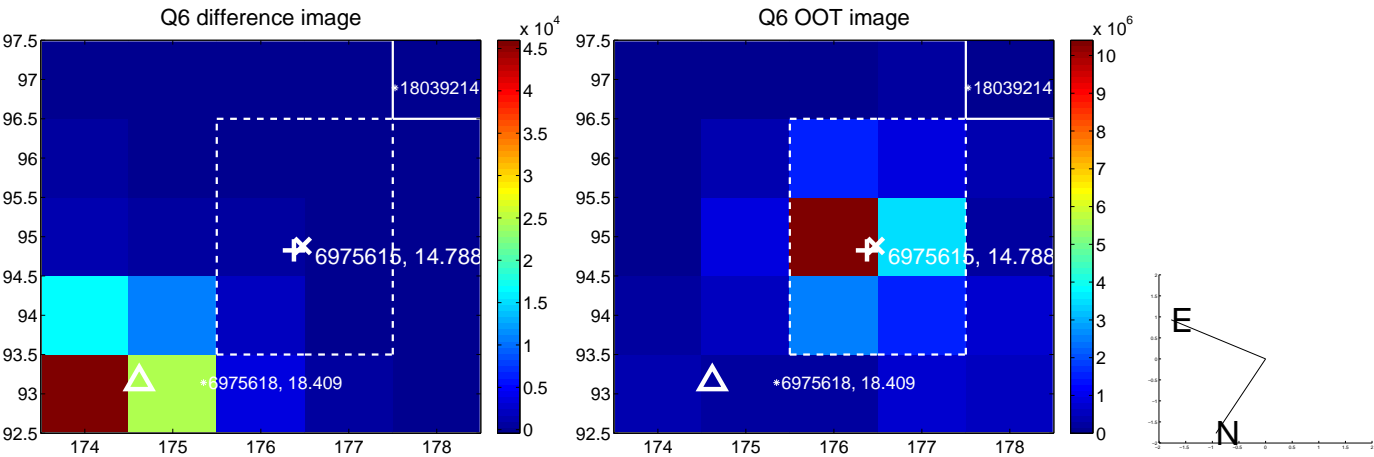
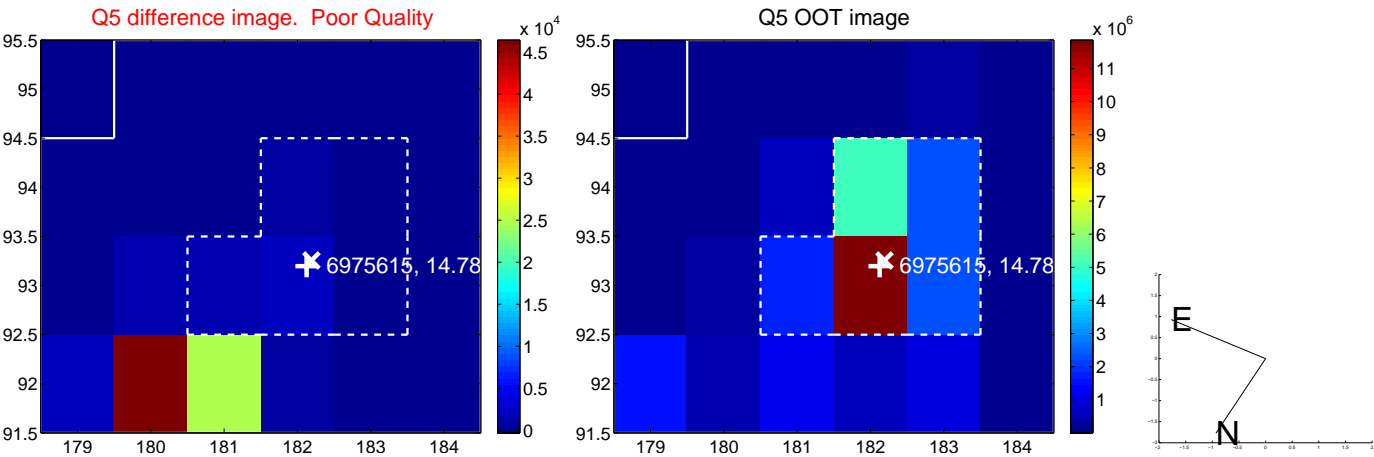


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

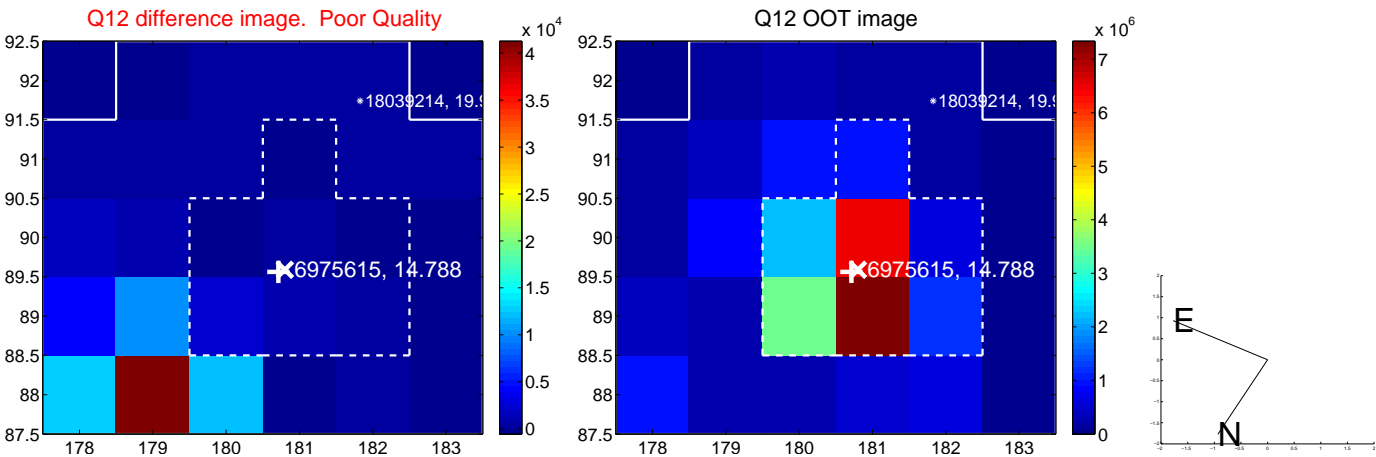
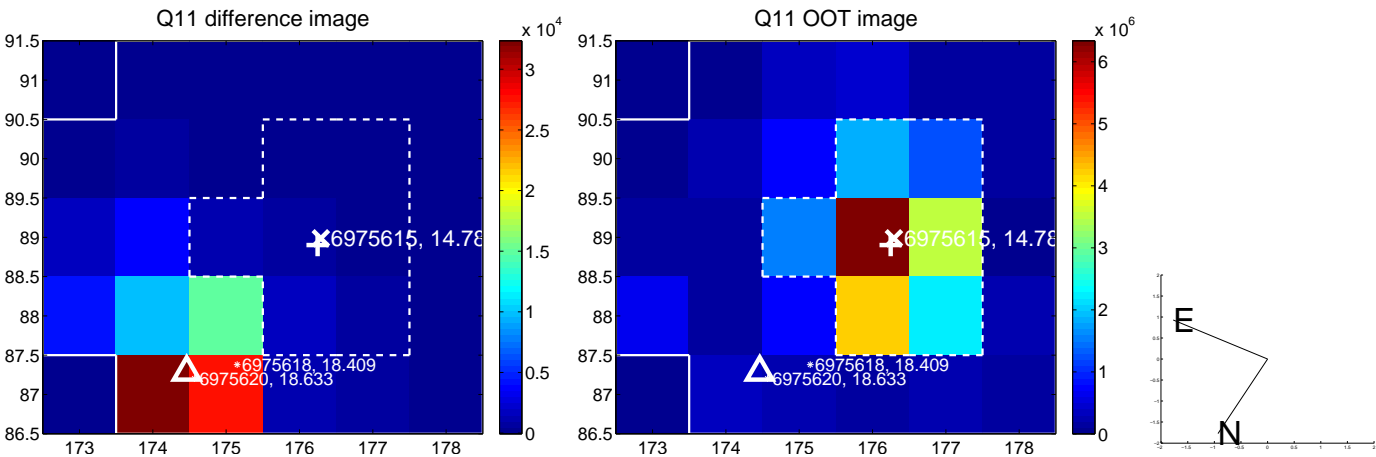
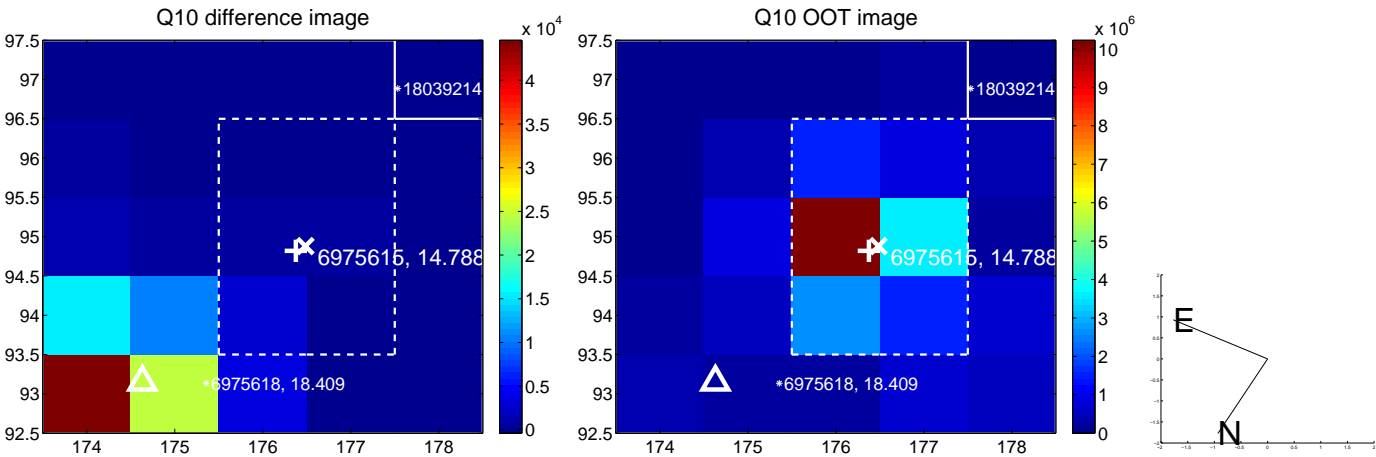
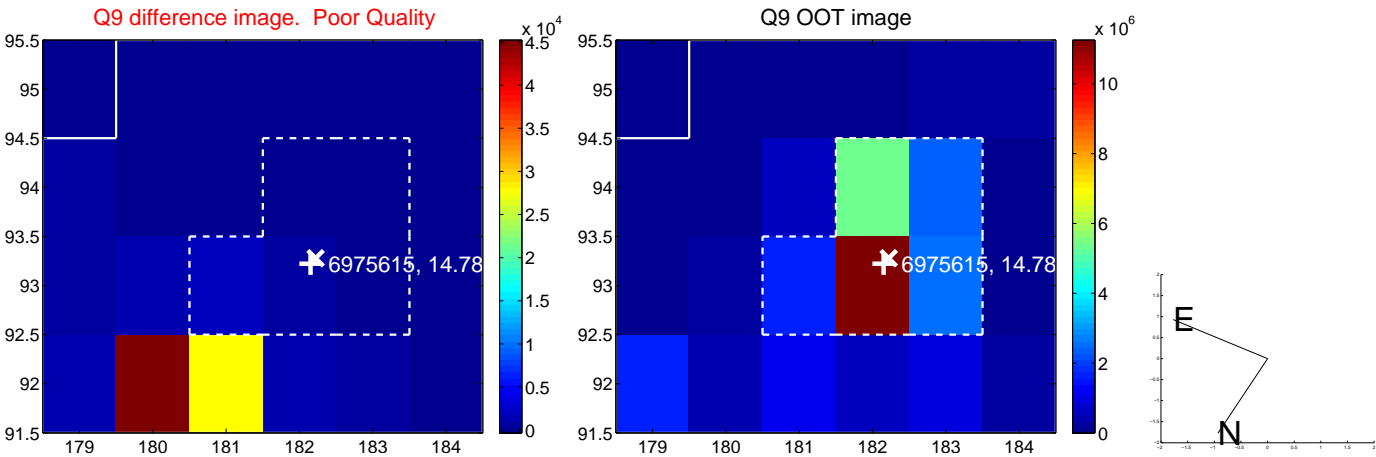
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



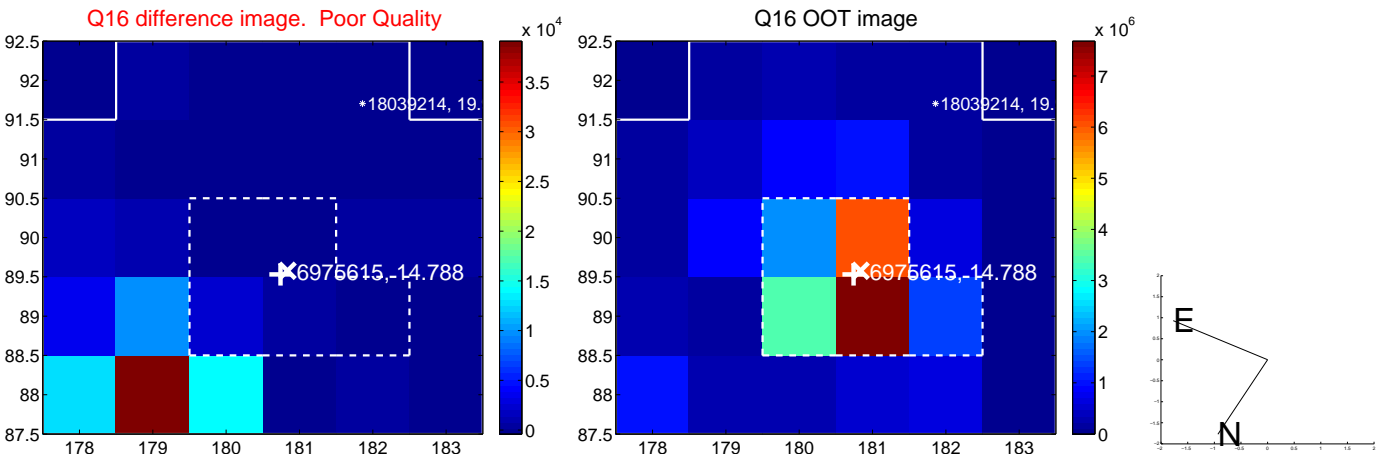
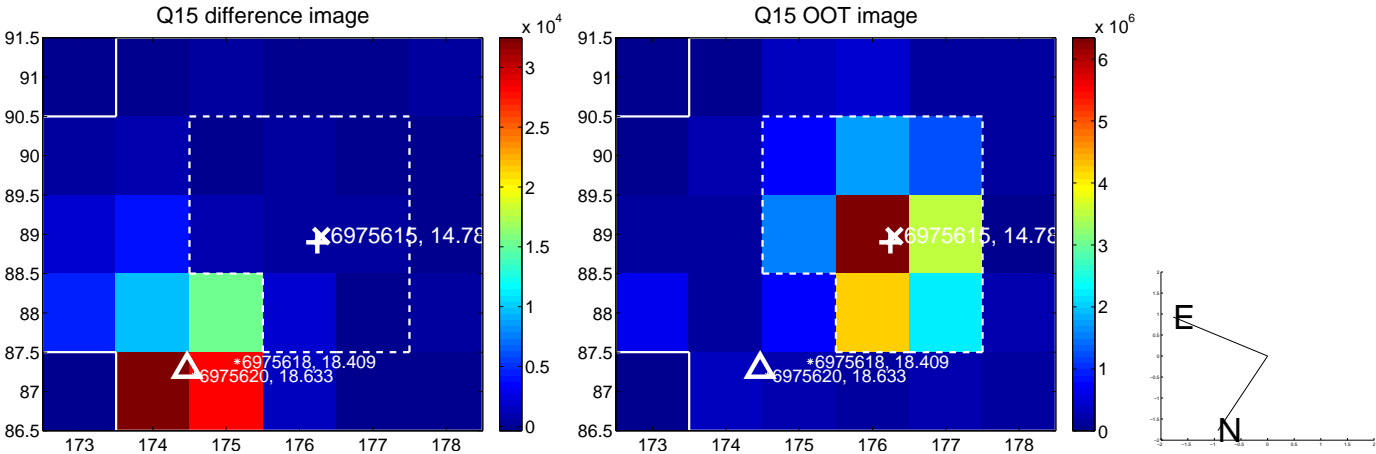
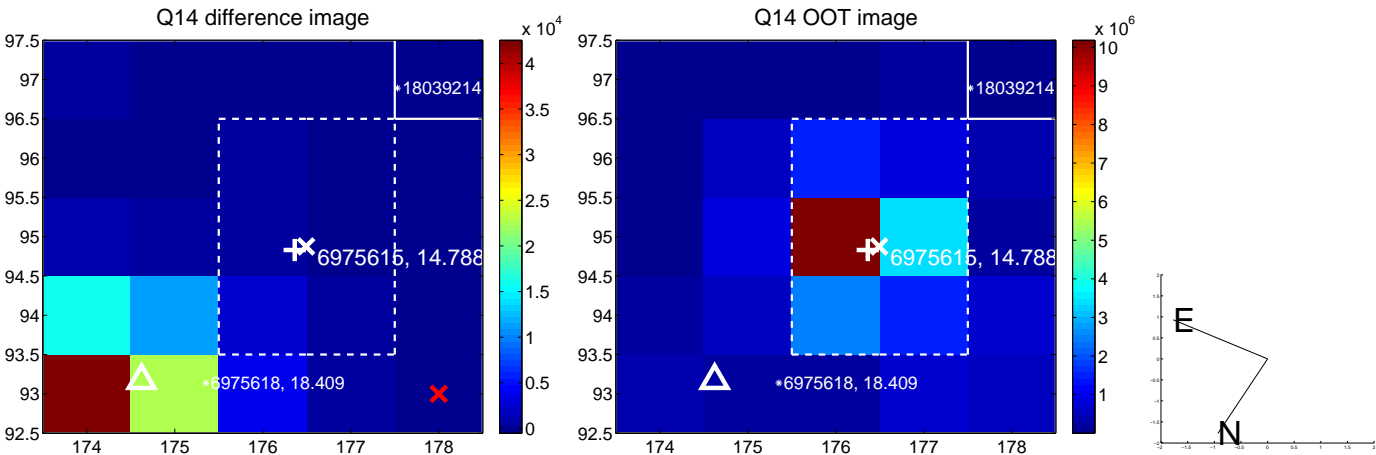
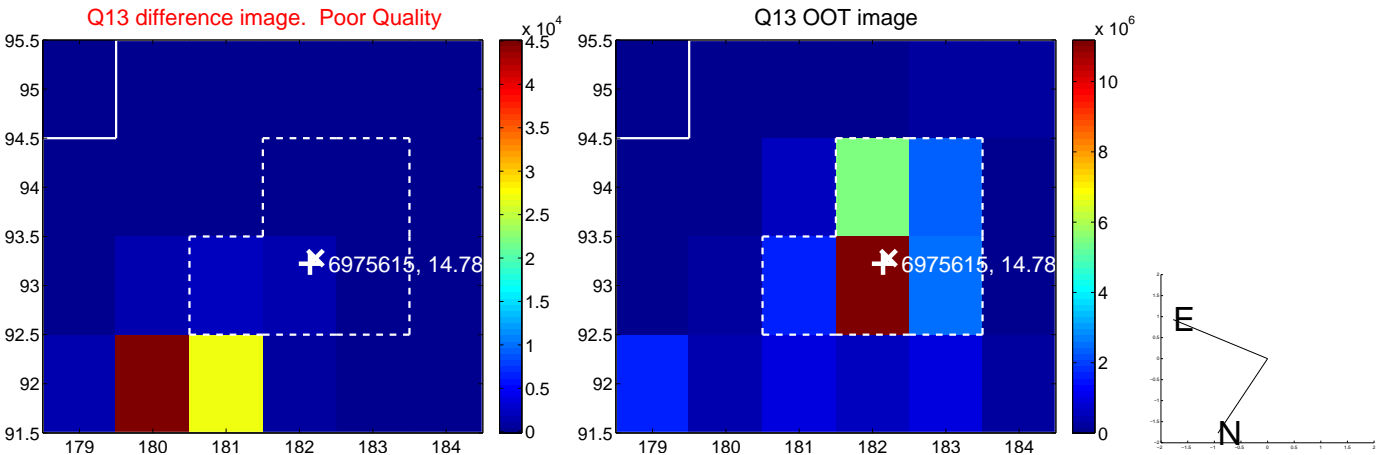
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



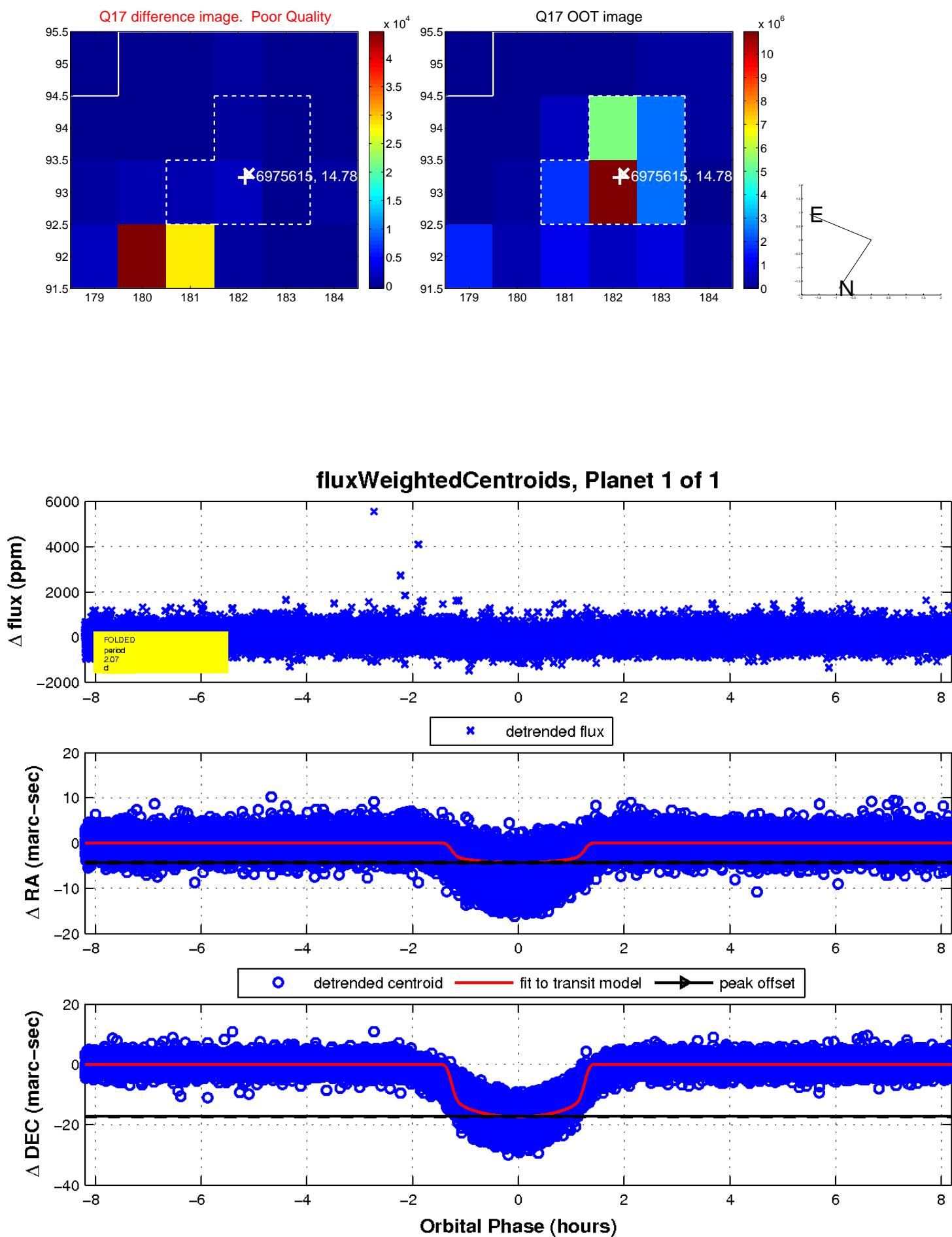
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UKIRT Image

Declination

