

KIC 007116766

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})
007116766-01	OBS	No	0.566744	131.861340	13.5	3.756	9.0	3.7	0.82	5075	0.30	2655.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007116766-01	OBS	FP	0.00	1	0	0	1	LPP_DV—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.

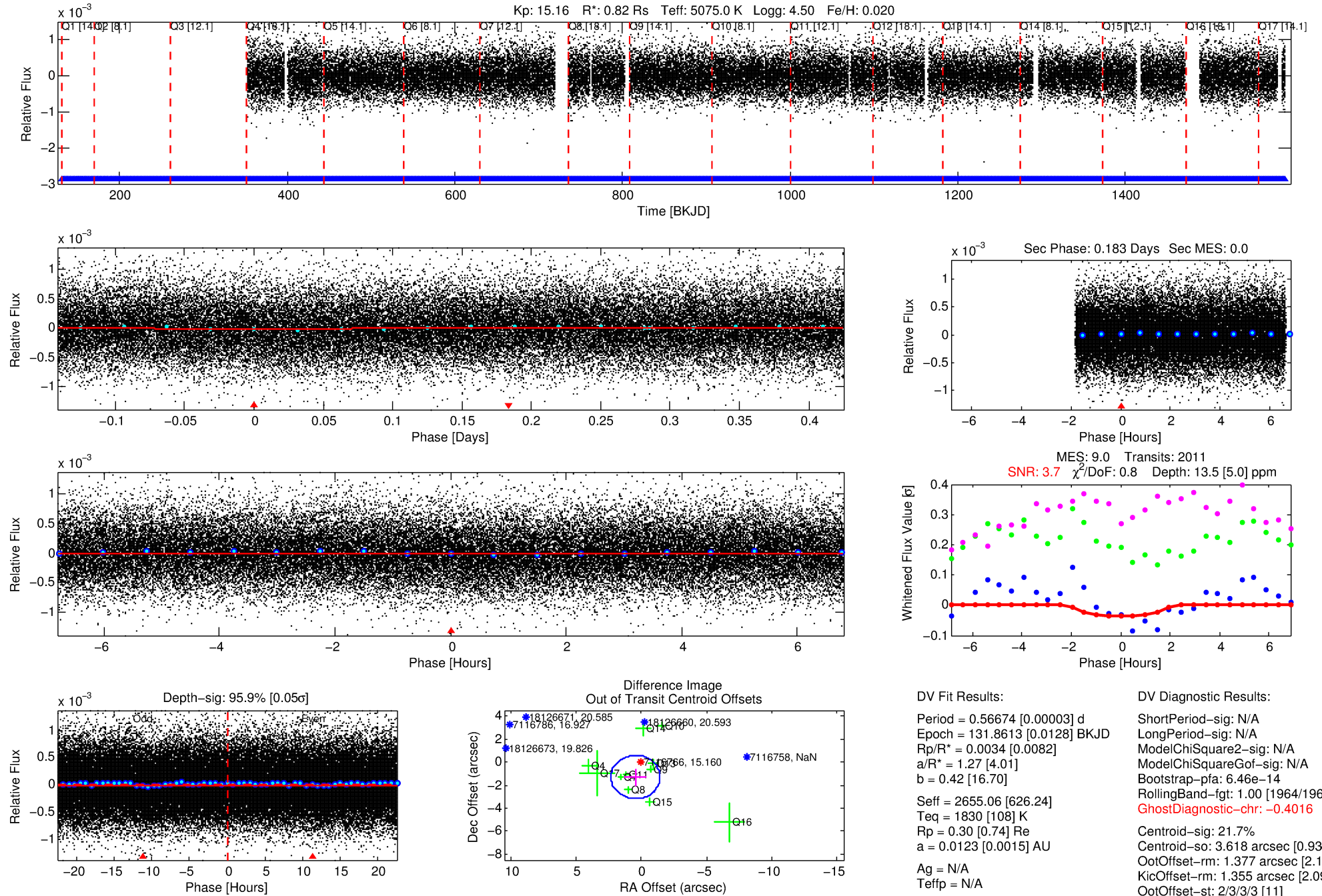
Ephemeris Match Information For 007116766-01

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
007116766-01	7116766	RR-Lyr-pri	7198959	1:1	603.5	151	-17	7.86	15.16	47946.00	Direct-PRF	0	0.82	22.21

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

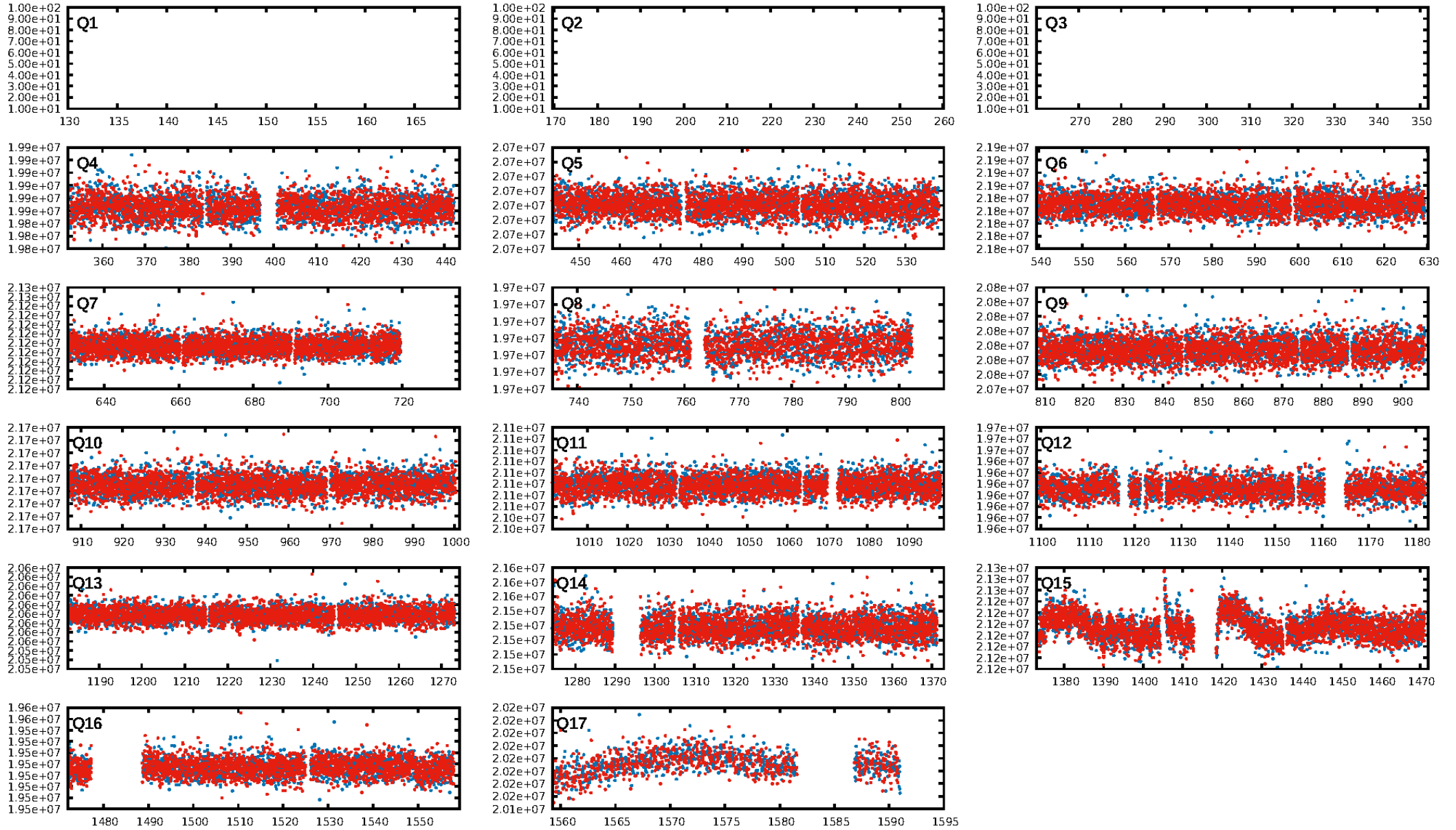
KIC: 7116766 Candidate: 1 of 1 Period: 0.567 d



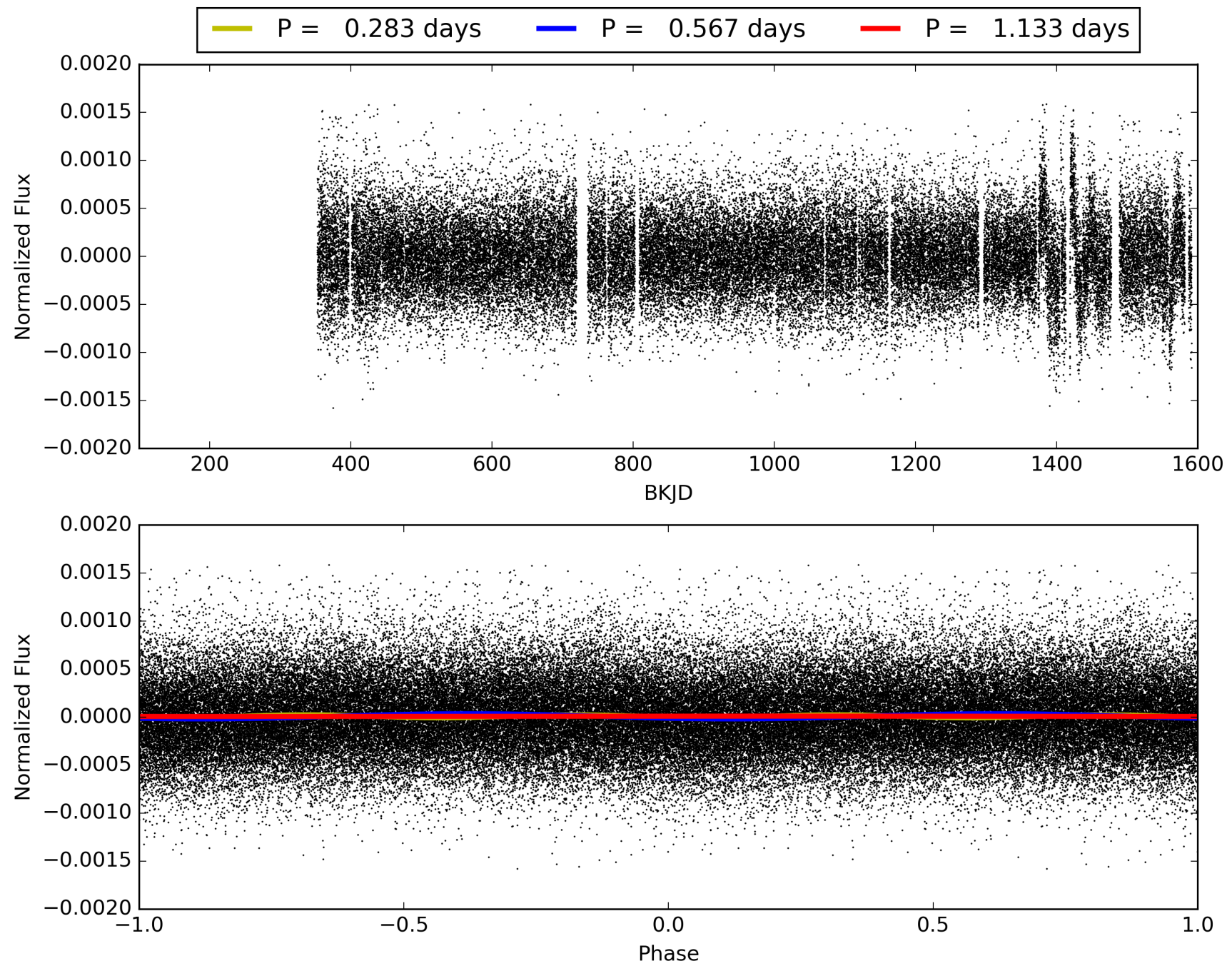
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:28:44 Z

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

TCE 007116766-01, PDC Light Curves

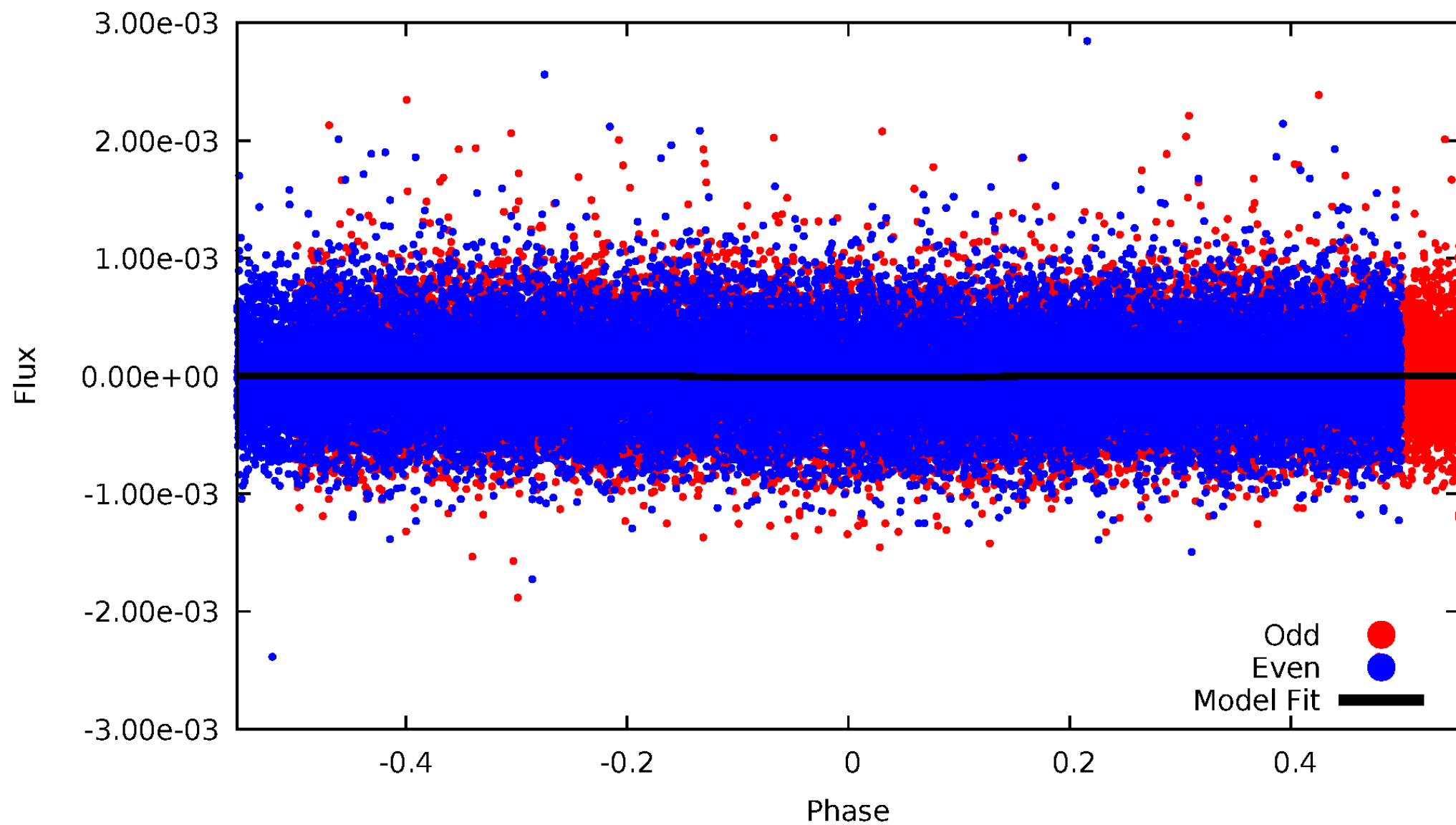


TCE 007116766-01



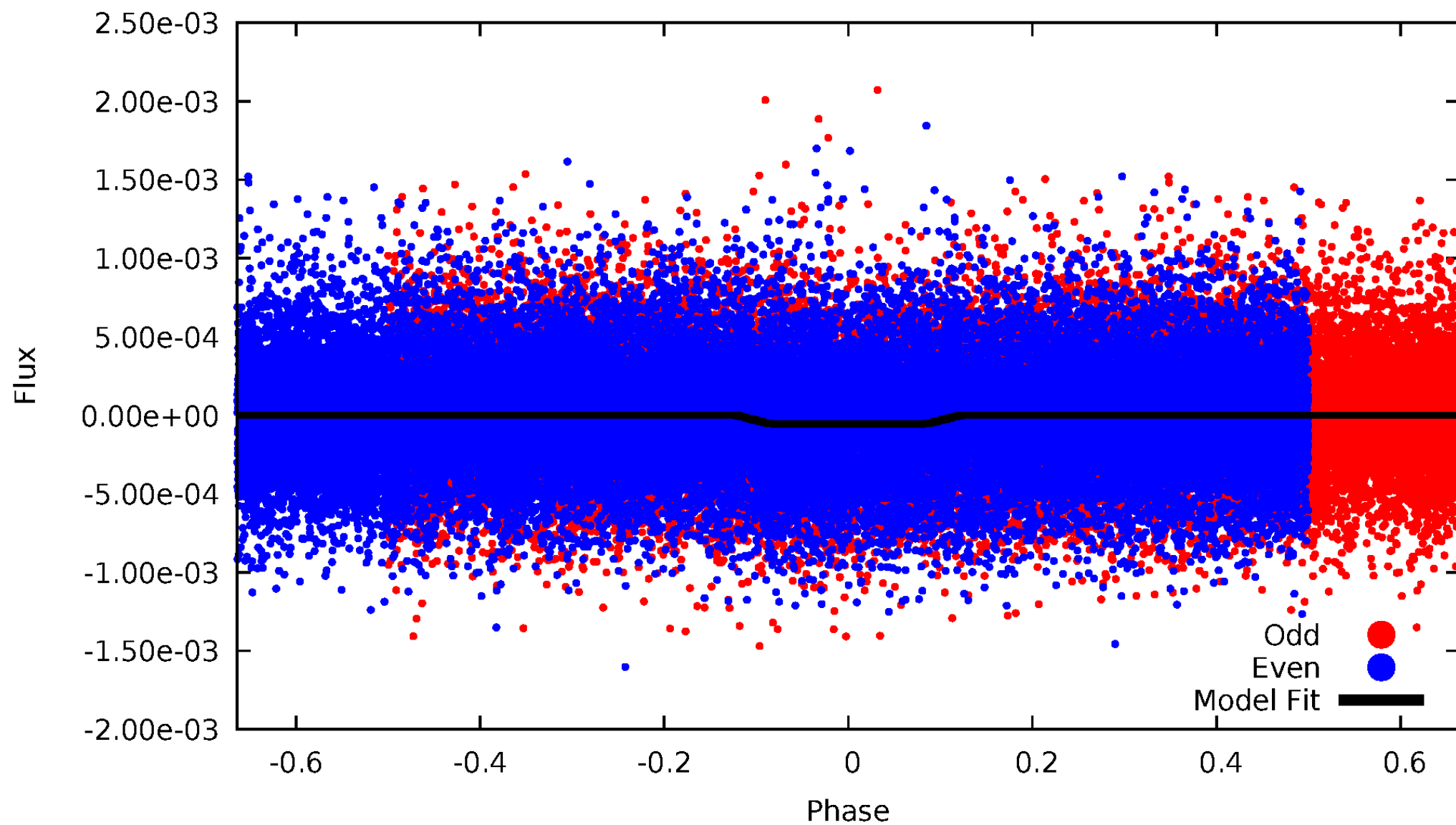
DV Odd/Even

TCE 007116766-01



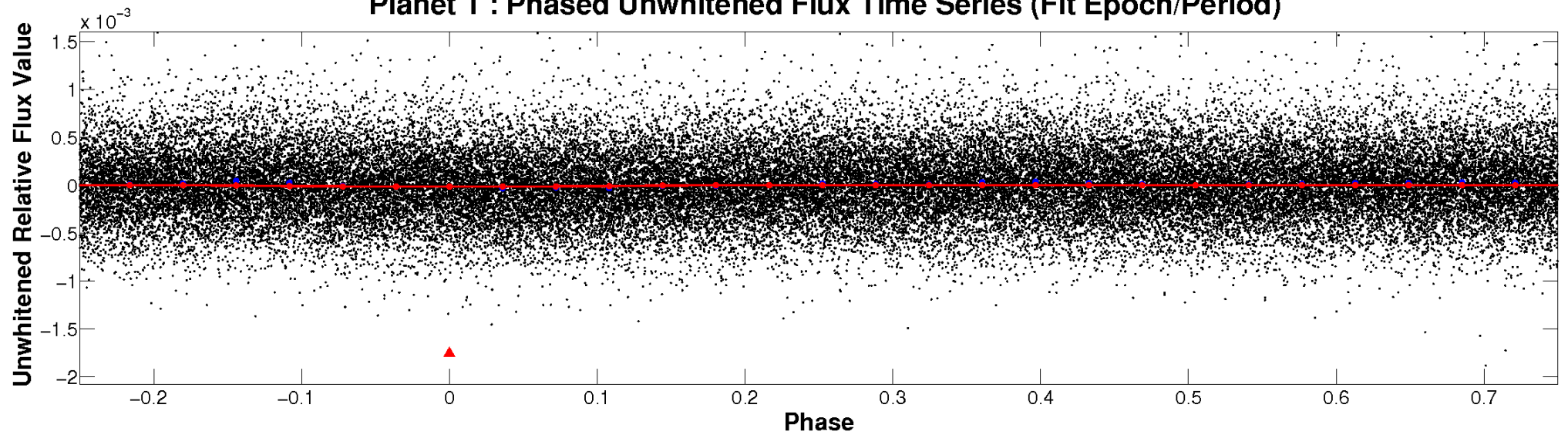
ALT Odd/Even

TCE 007116766-01

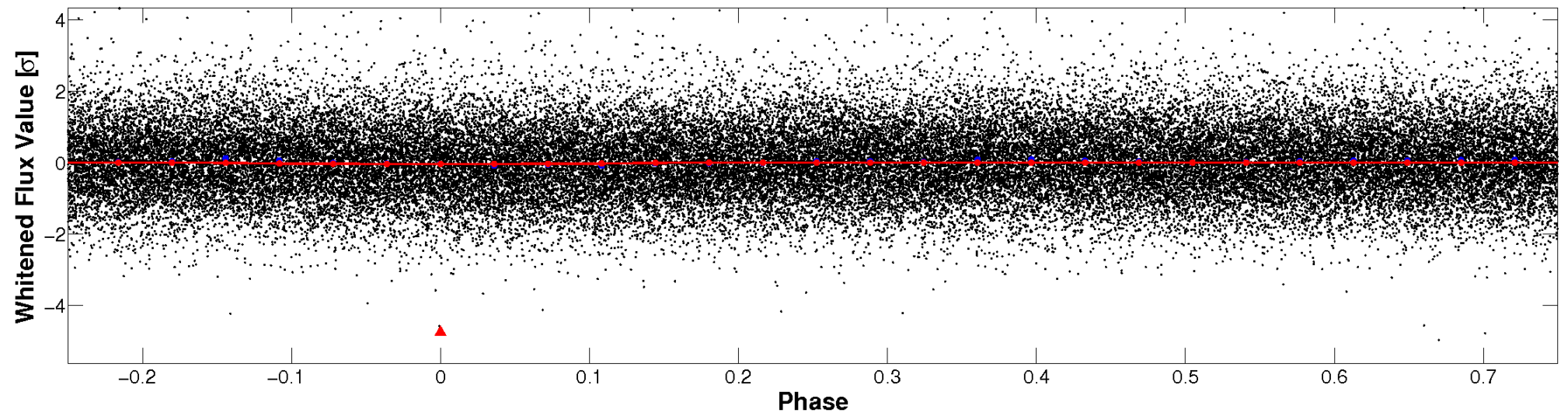


Non-Whitened Vs. Whitened Light Curve

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

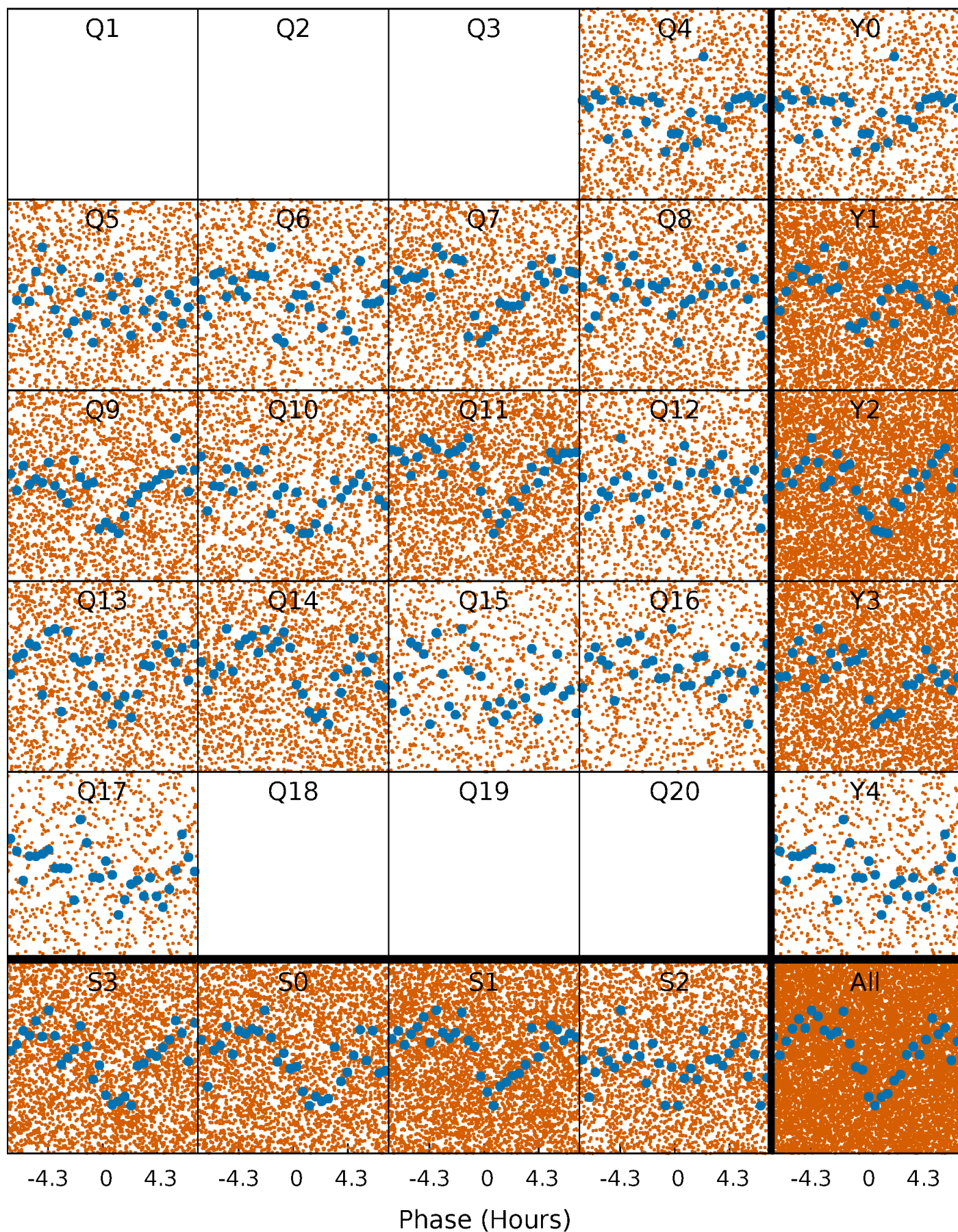


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



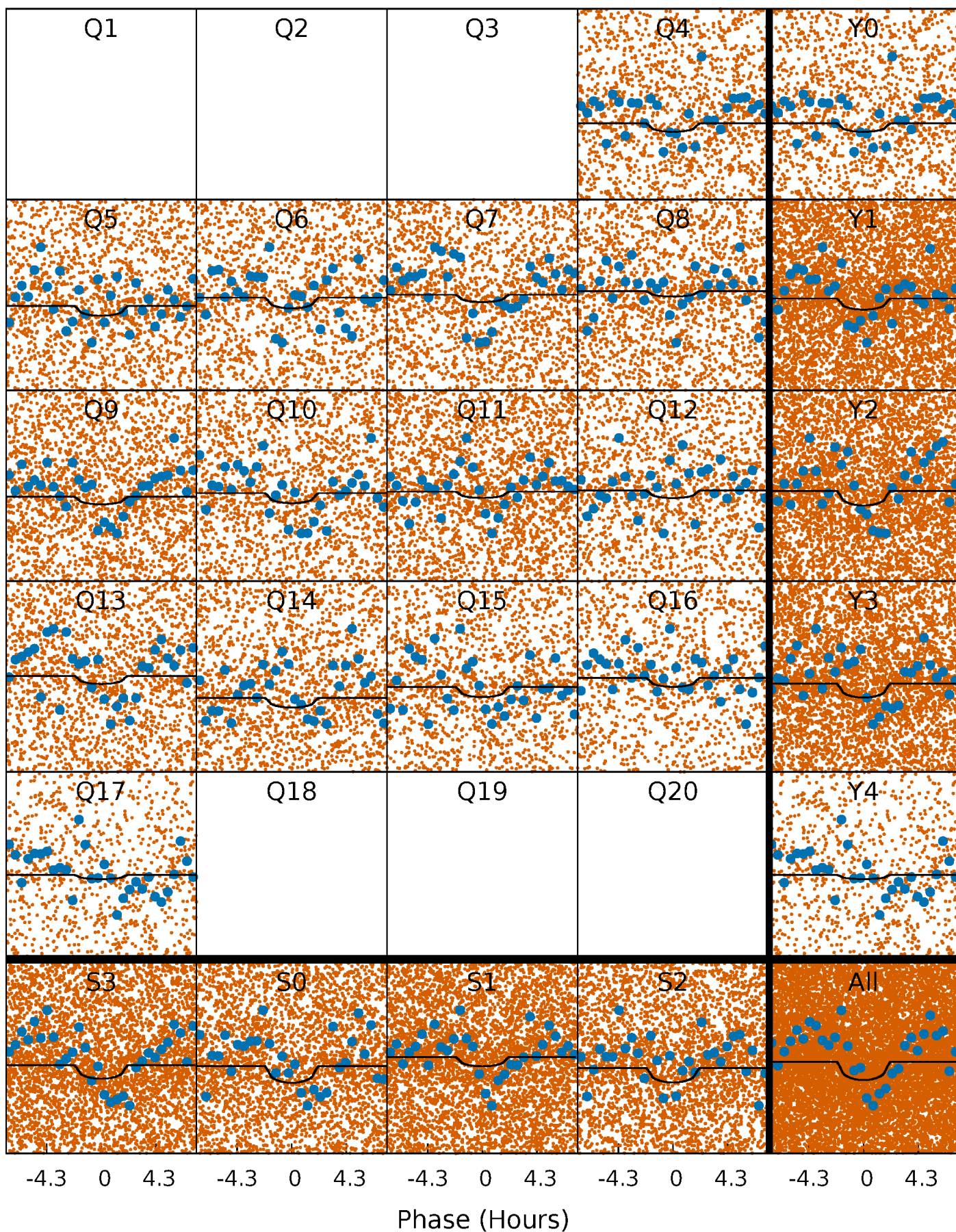
PDC Quarter-Phased Transit Curves

TCE 007116766-01 P= 0.566744 Days $T_0=131.861340$ (BKJD)



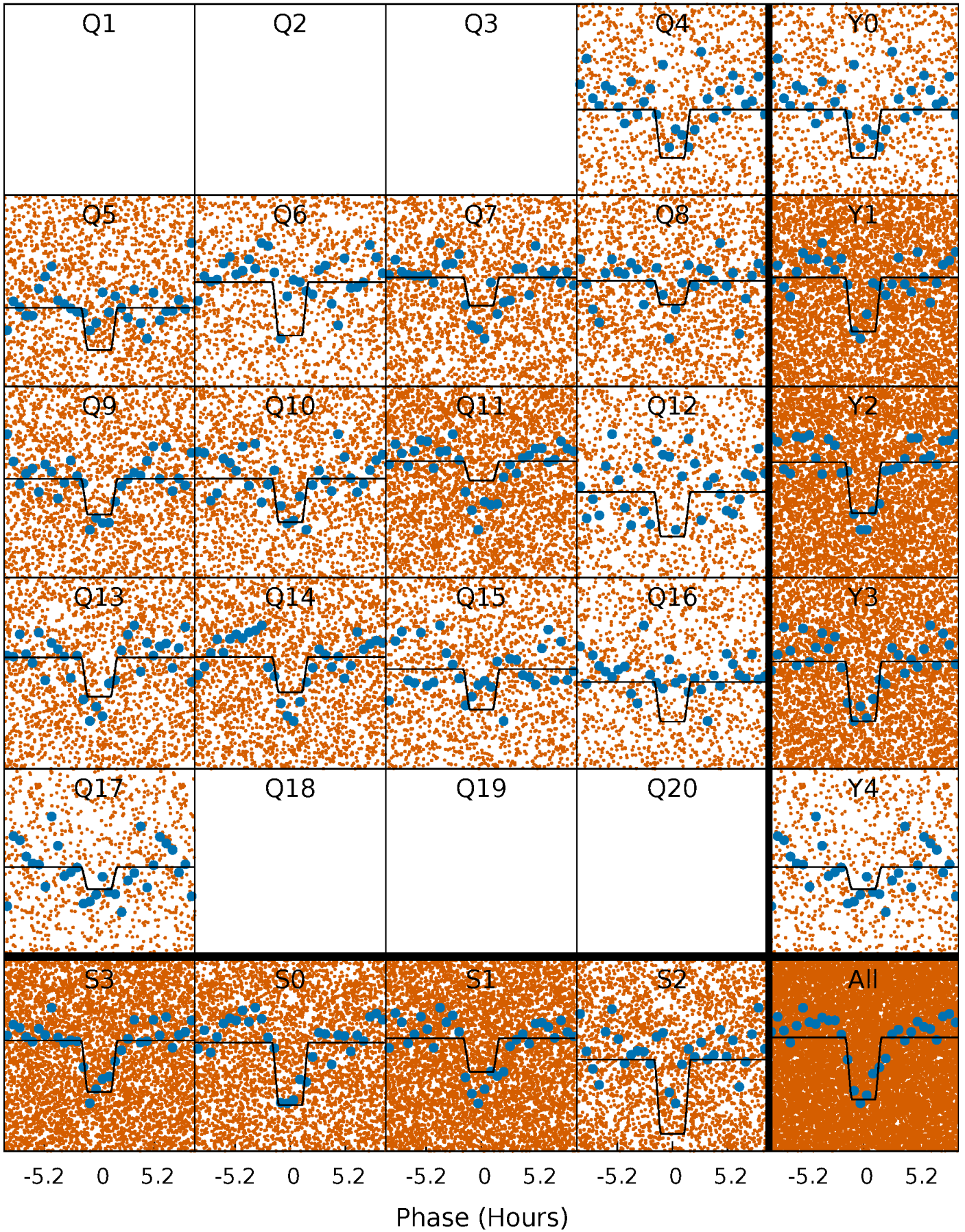
DV Quarter-Phased Transit Curves

TCE 007116766-01 P= 0.566744 Days $T_0=131.861340$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

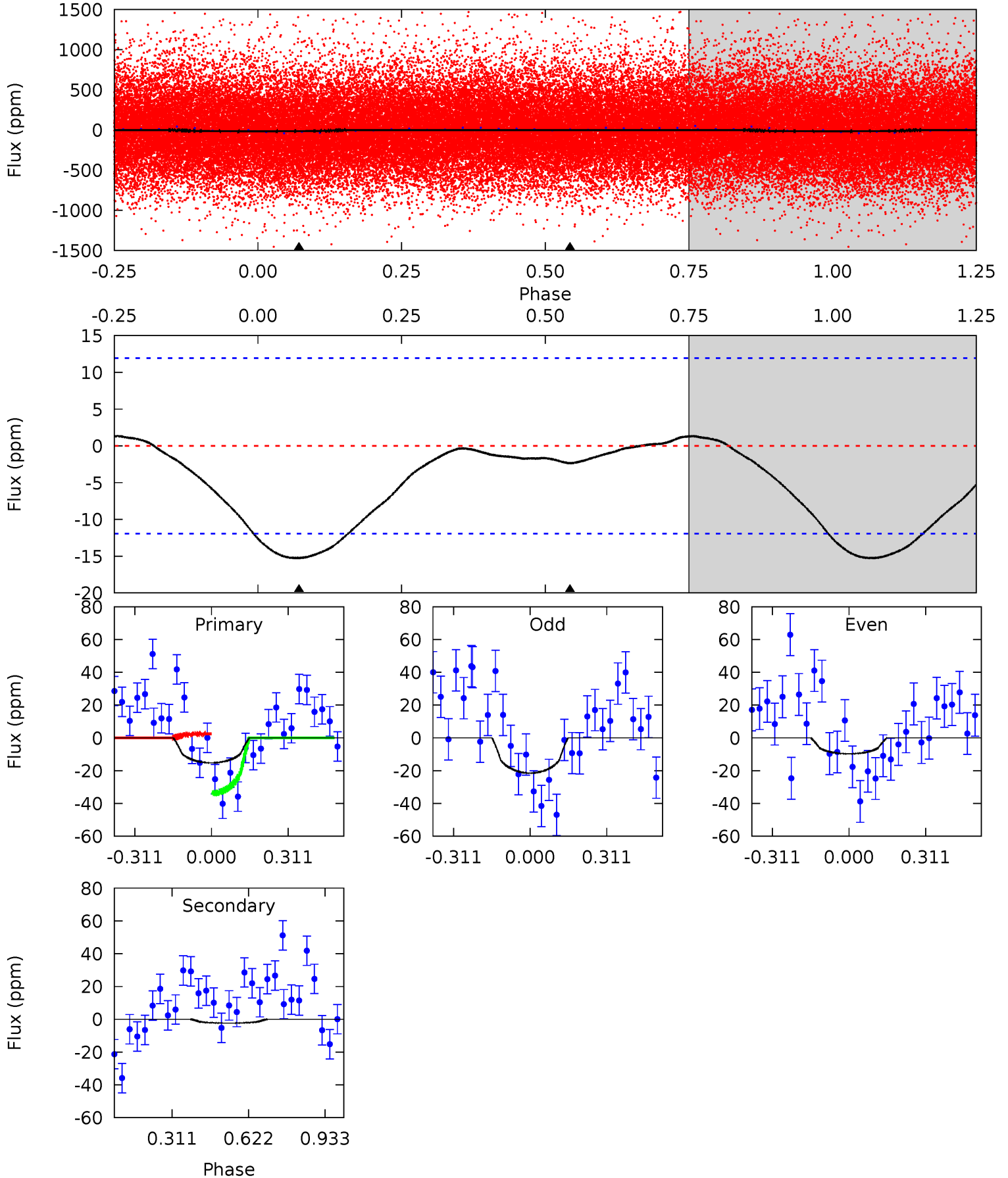
TCE 007116766-01 P= 0.566808 Days $T_0=131.809520$ (BKJD)



DV Model-Shift Uniqueness Test

007116766-01, $P = 0.566744$ Days, $E = 131.861340$ Days

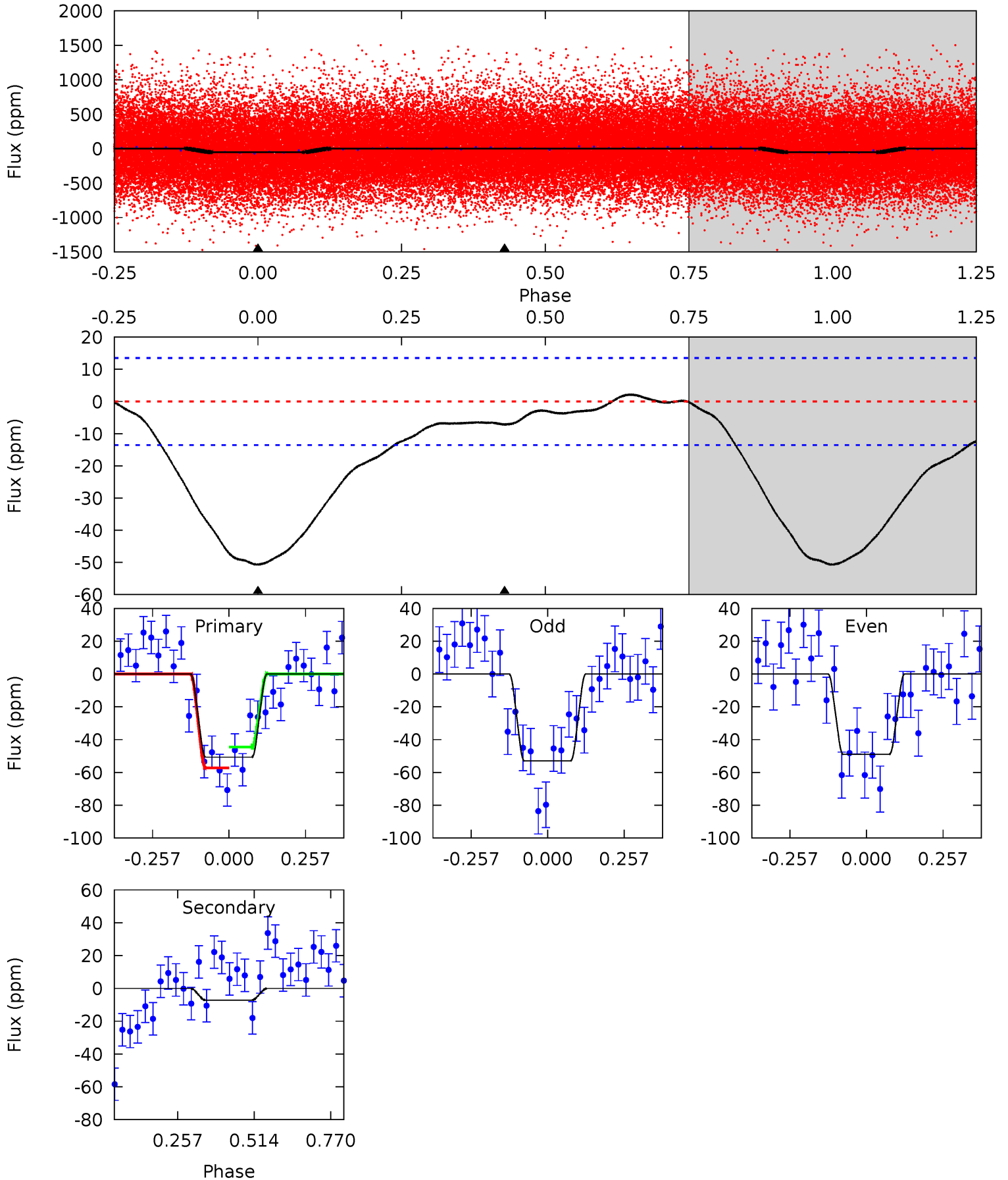
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.52	0.85	0	0	4.32	1.01	0.41	5.52	5.52	0.85	0.85	2.09	0.80	0.08	5.65



Alt Model-Shift Uniqueness Test

007116766-01, P = 0.566808 Days, E = 131.809520 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	2.31	0	0	4.36	1.13	0.23	16.3	16.3	2.31	2.31	0.65	0.99	0.04	2.06



Stellar Parameters For KIC 007116766

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5075^{+179}_{-179}	$4.497^{+0.090}_{-0.110}$	$0.020^{+0.300}_{-0.250}$	$0.824^{+0.105}_{-0.096}$	$0.777^{+0.098}_{-0.057}$	$1.957^{+0.796}_{-0.654}$
	+4%/-4%	+2%/-2%	+1500%/-1250%	+13%/-12%	+13%/-7%	+41%/-33%
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 007116766-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-2 ± 3	$0.64^{+0.61}_{-0.42}$	2565^{+136}_{-123}	2336^{+1829}_{-5200}	$0.371^{+3.532}_{-0.409}$
Alt.	-7 ± 3	$0.88^{+0.69}_{-0.56}$	2574^{+131}_{-127}	2969^{+1445}_{-5395}	$0.757^{+4.834}_{-0.555}$

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

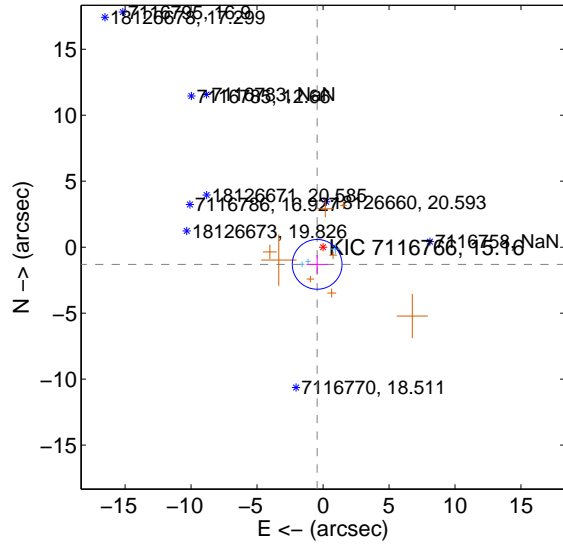
Supplemental centroid analysis for 007116766-01. Kepler magnitude: 15.16. Transit SNR 3.69

There are 3 quarters with good PRF difference image offsets

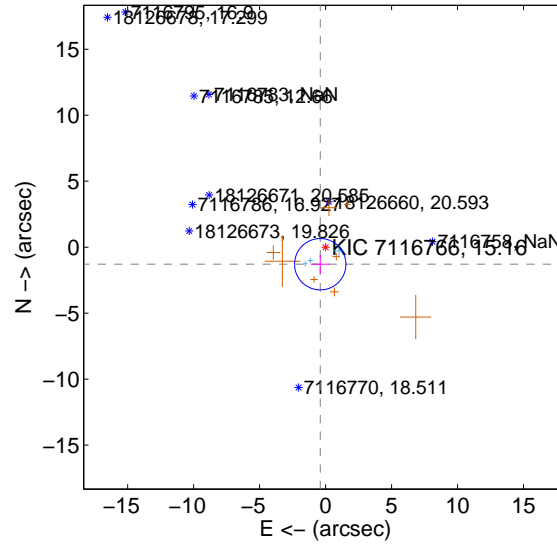
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.377 ± 0.628	2.19	0.446 ± 0.810	-1.302 ± 0.704
PRF-fit source offset from KIC position	1.355 ± 0.648	2.09	0.405 ± 0.723	-1.293 ± 0.705
photometric centroid source offset	3.62 ± 3.89	0.93	-2.68 ± 4.08	-2.43 ± 3.63

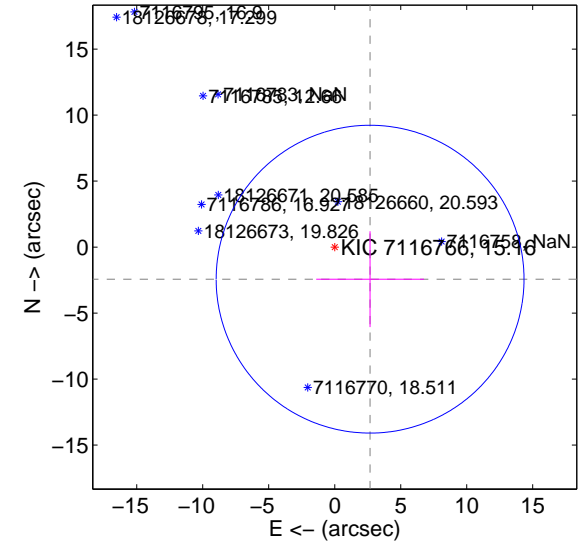
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

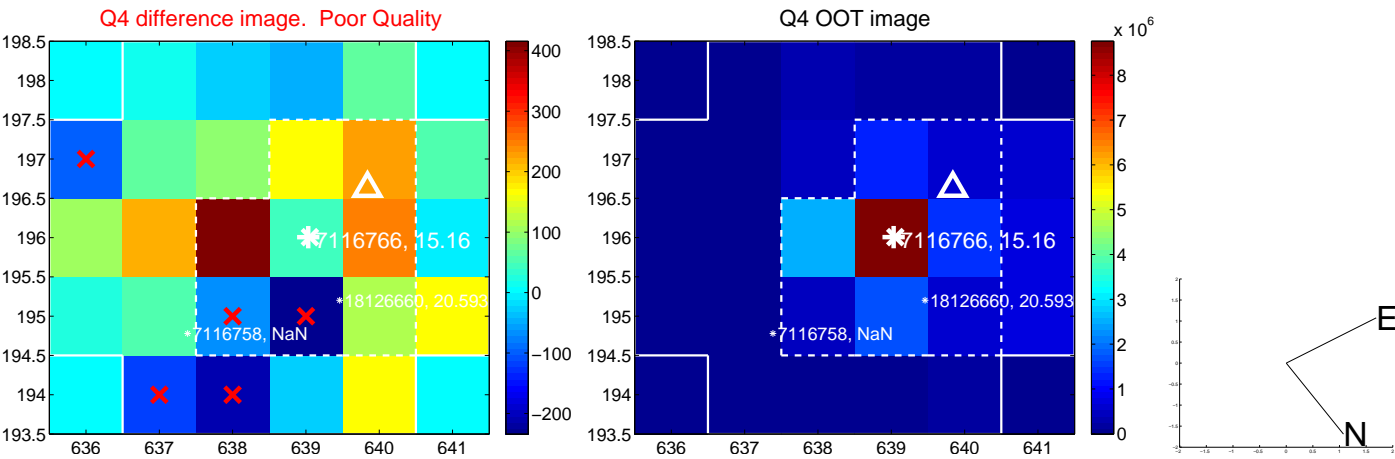
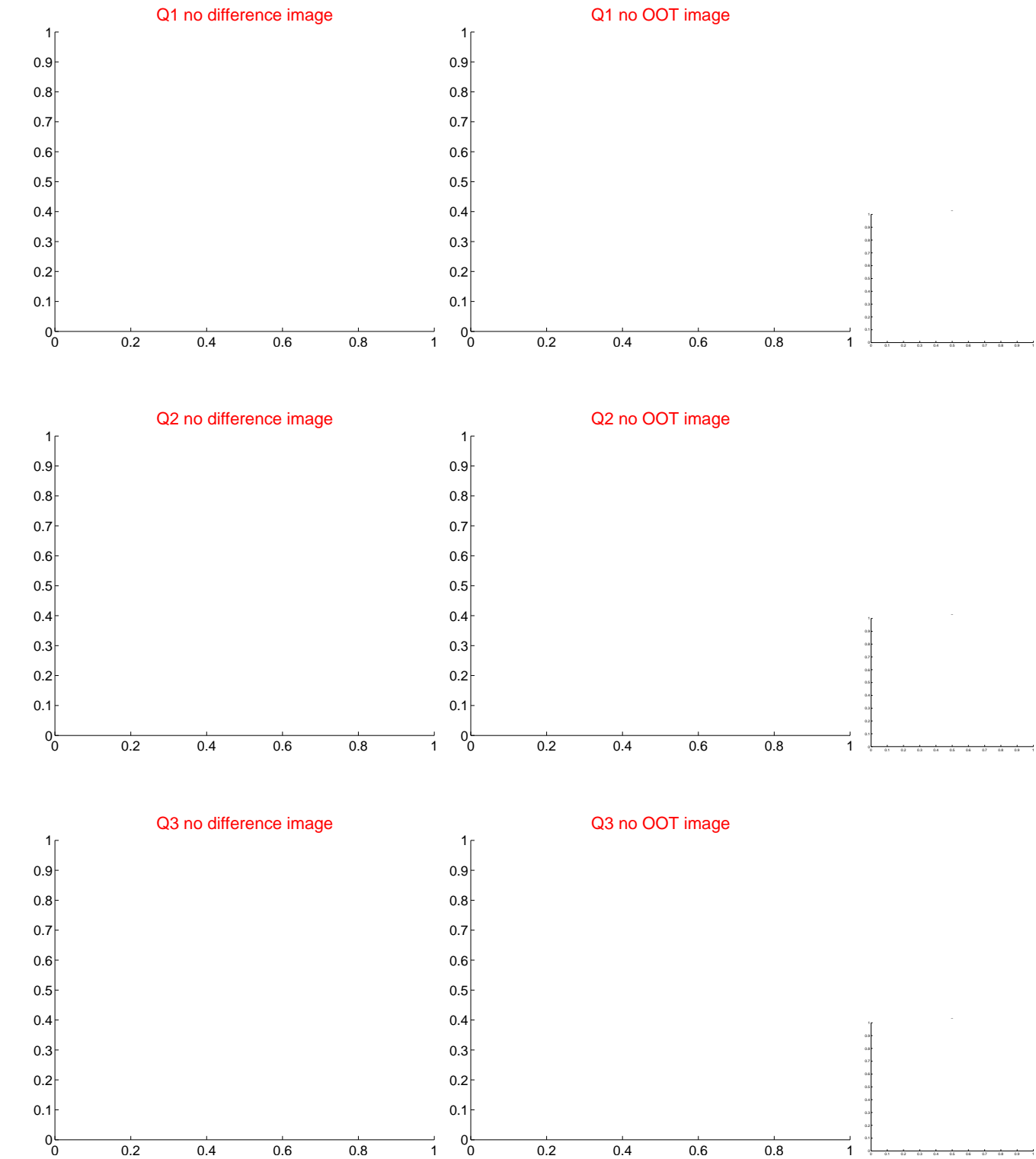


offset from photometric centroids

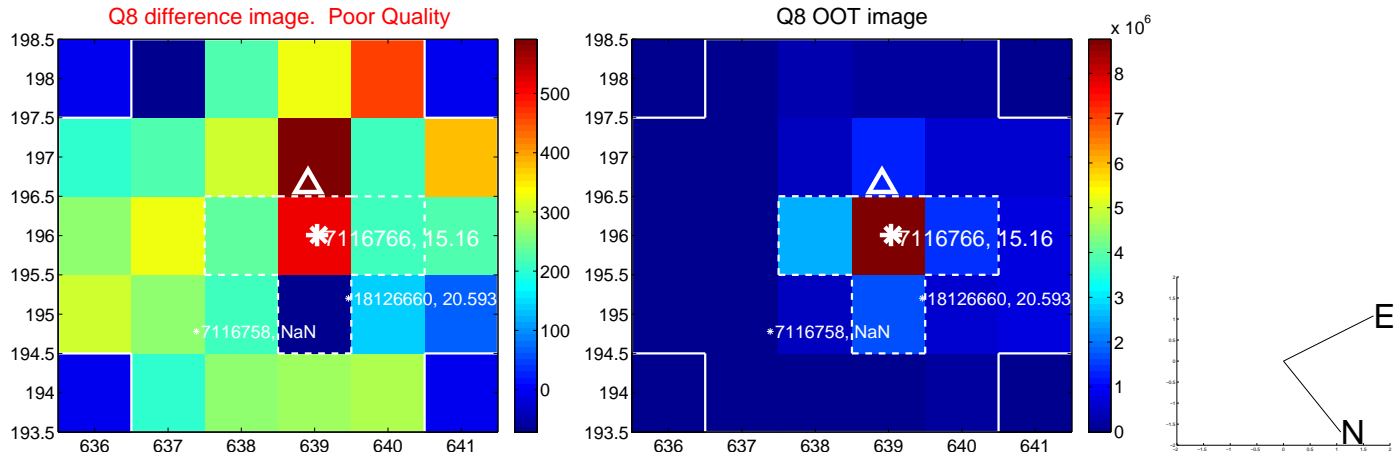
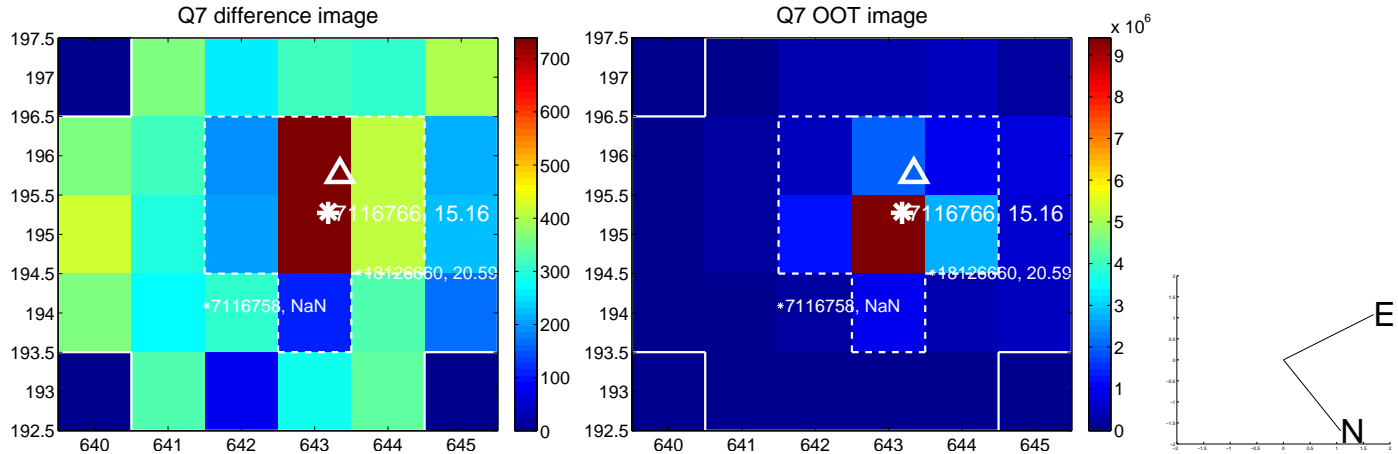
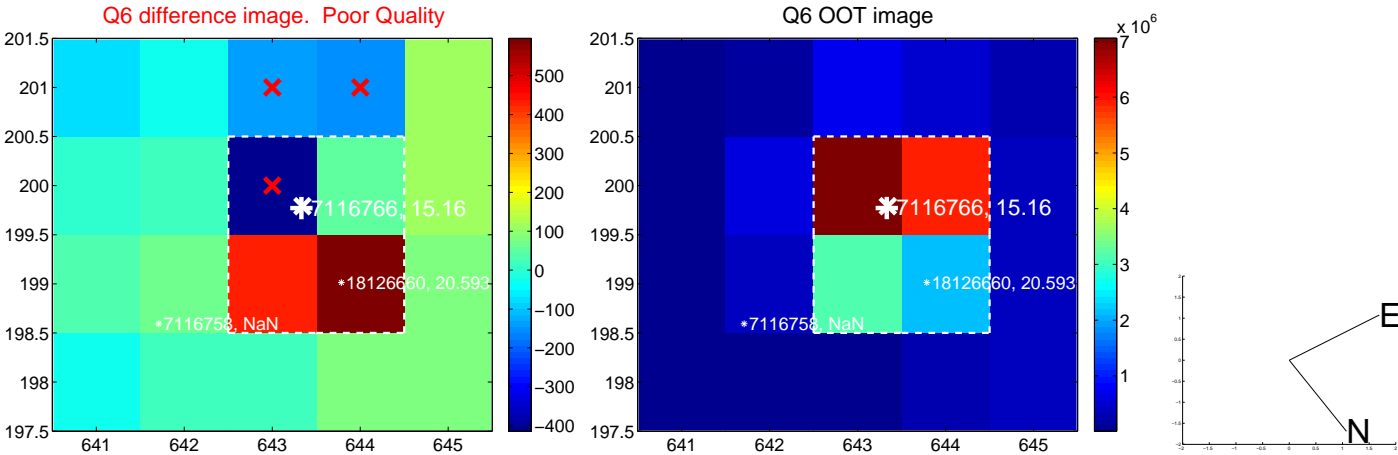
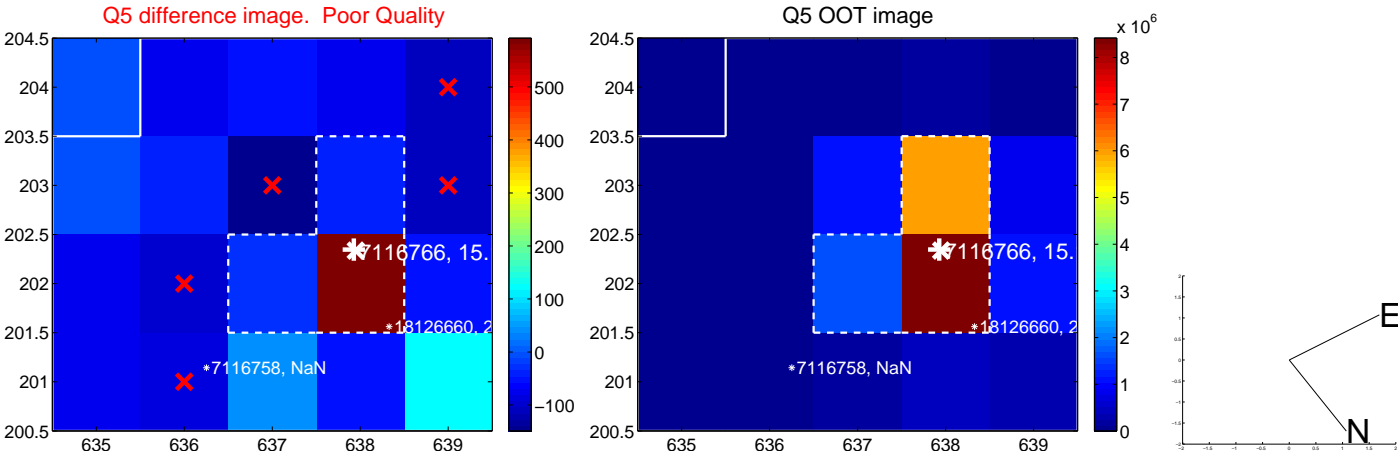


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

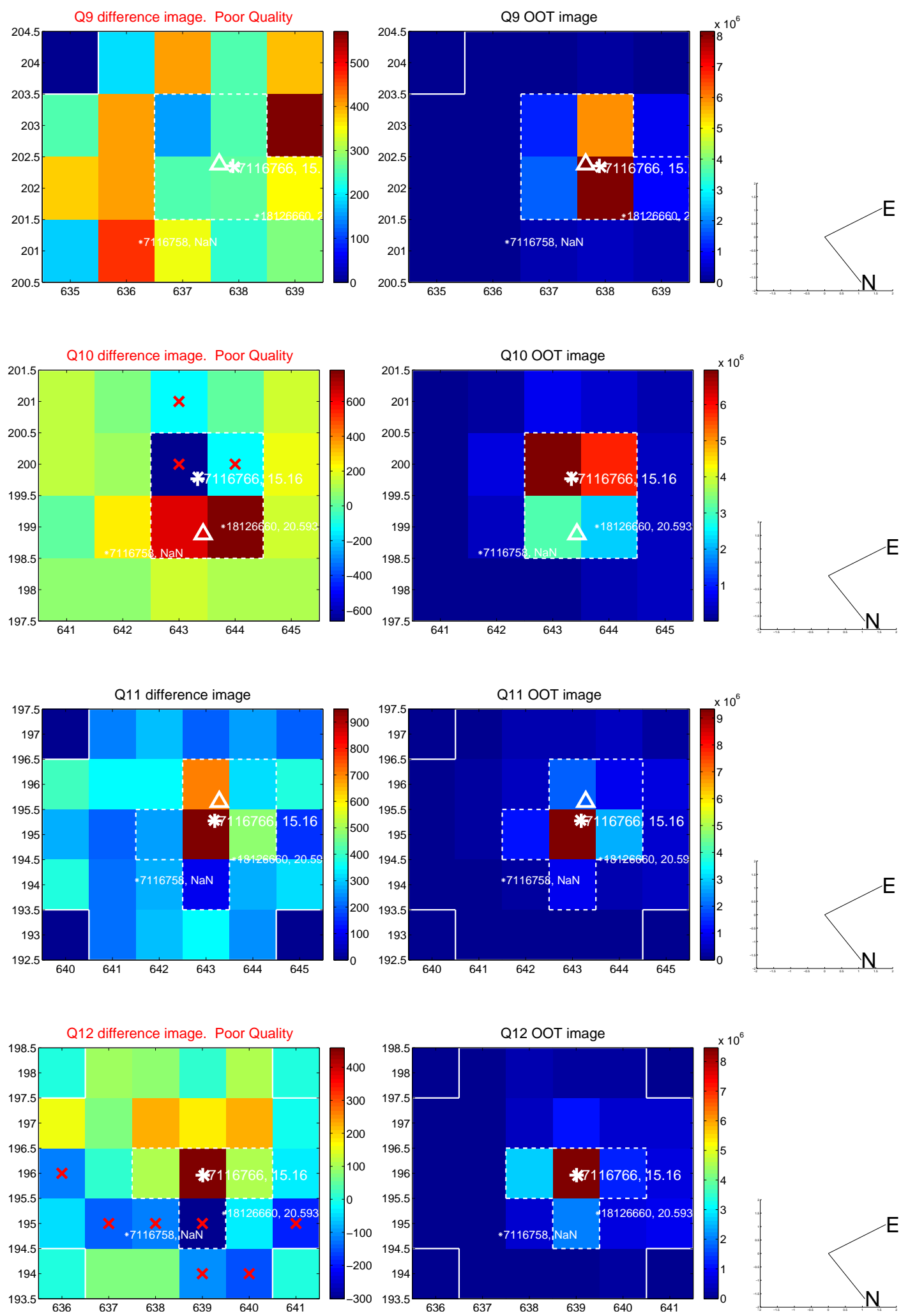
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



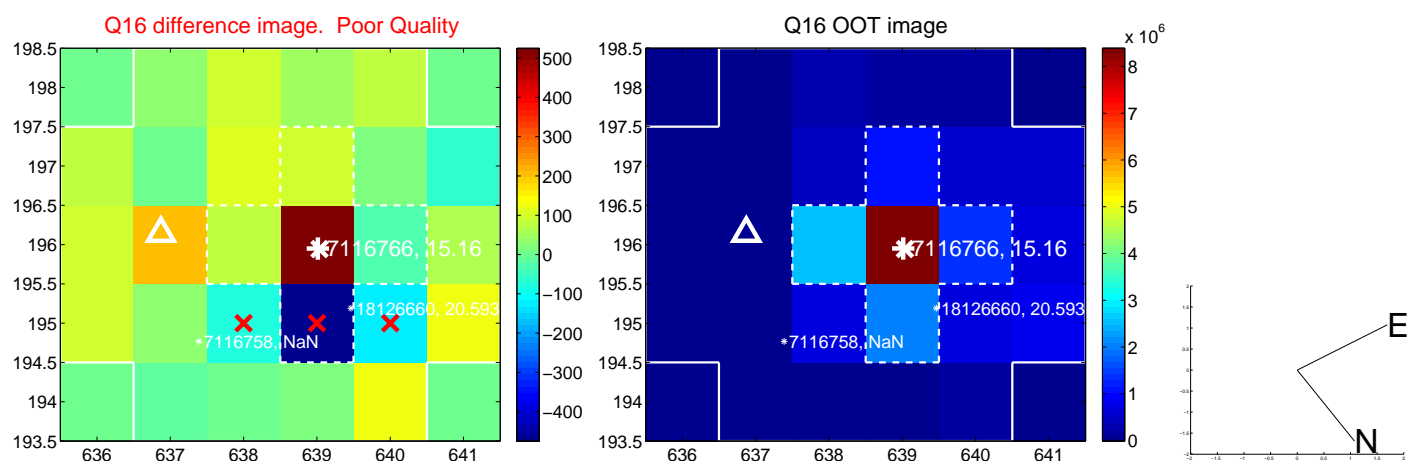
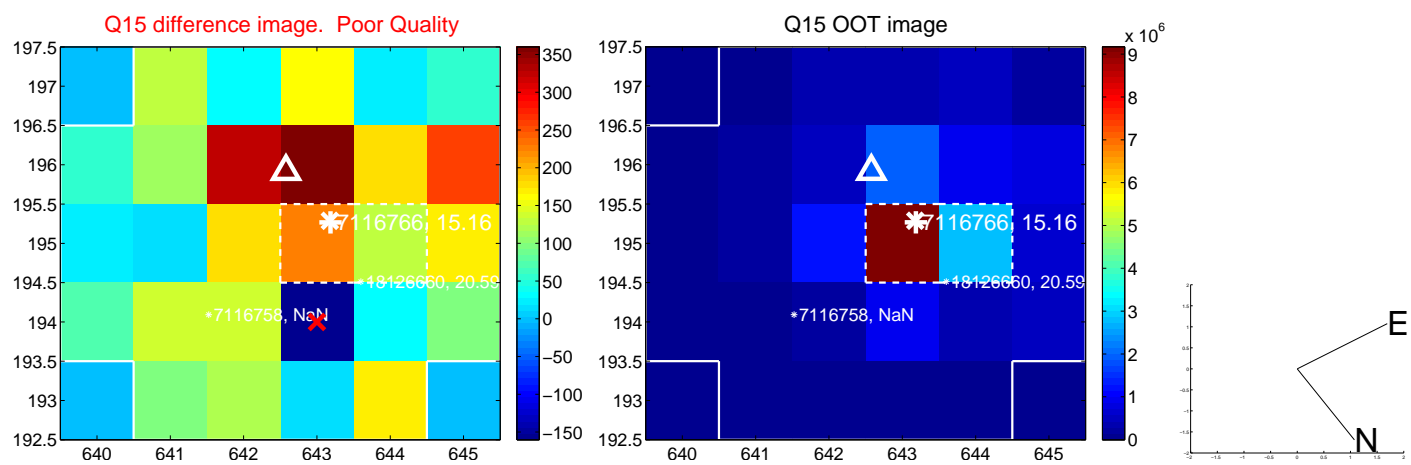
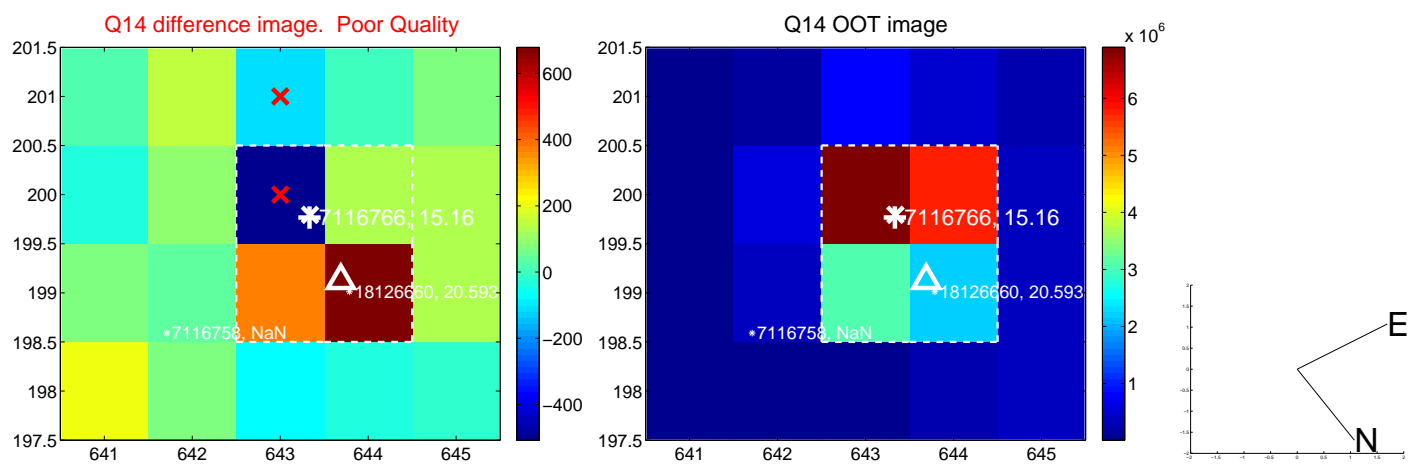
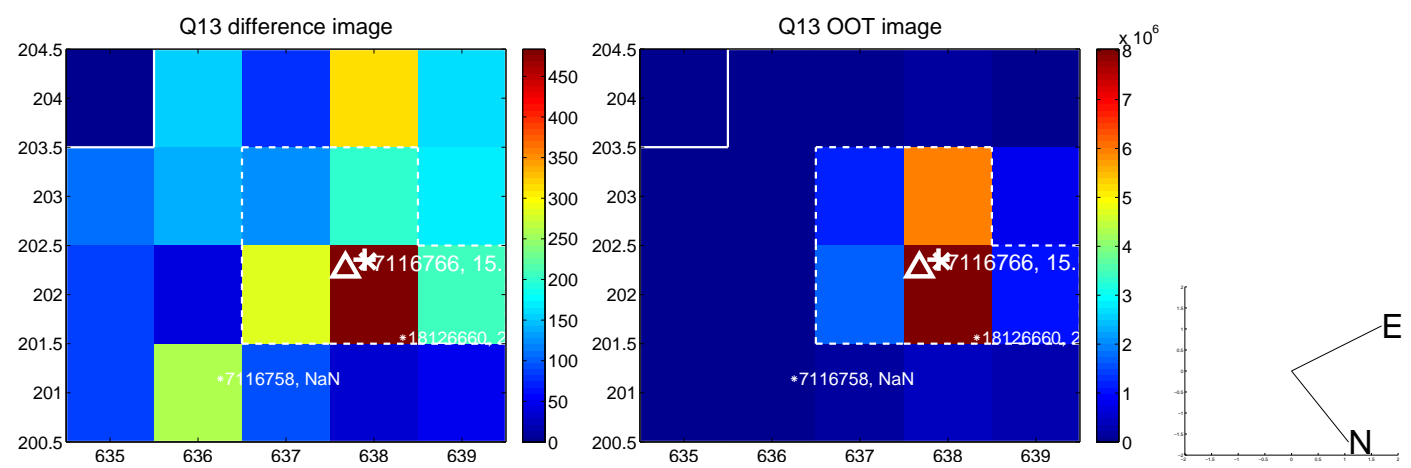
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



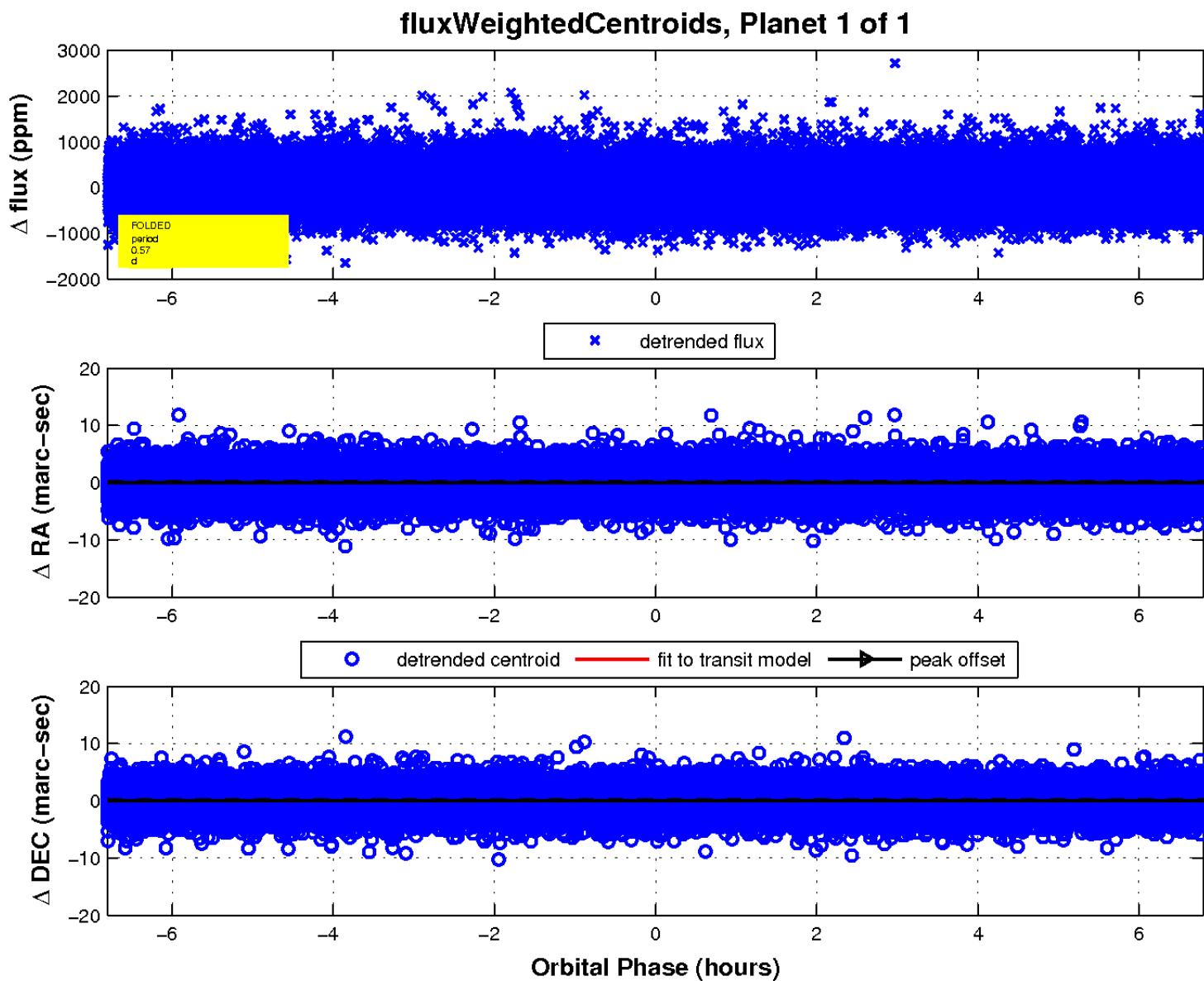
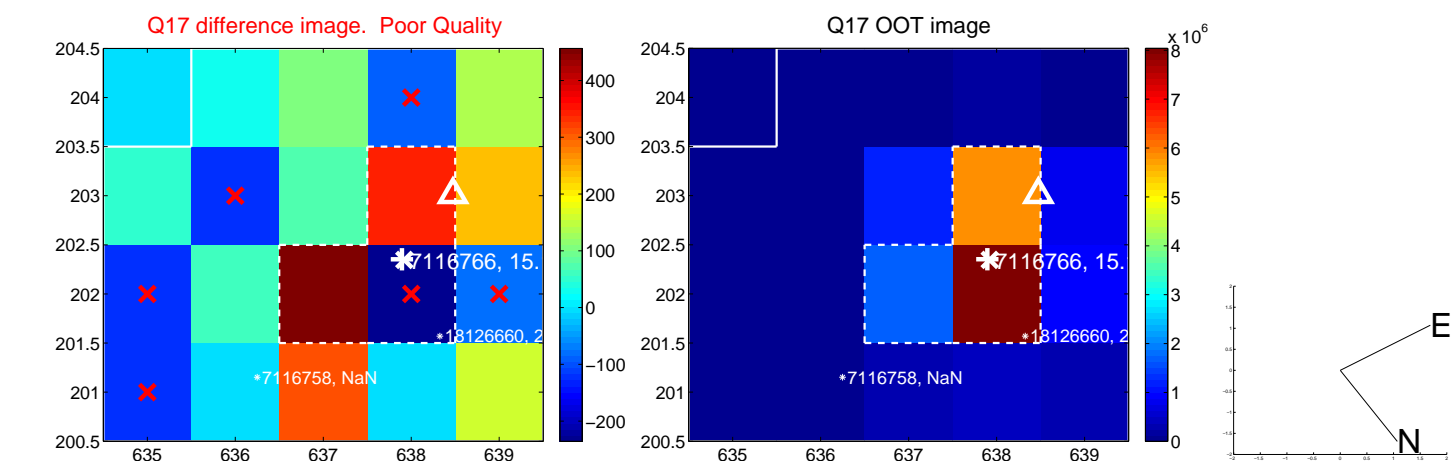
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UKIRT Image

Declination

