

KIC 007200013

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})
007200013-01	OBS	No	0.566776	131.866018	70.8	4.956	12.7	16.0	0.94	5788	0.80	4869.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007200013-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_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.

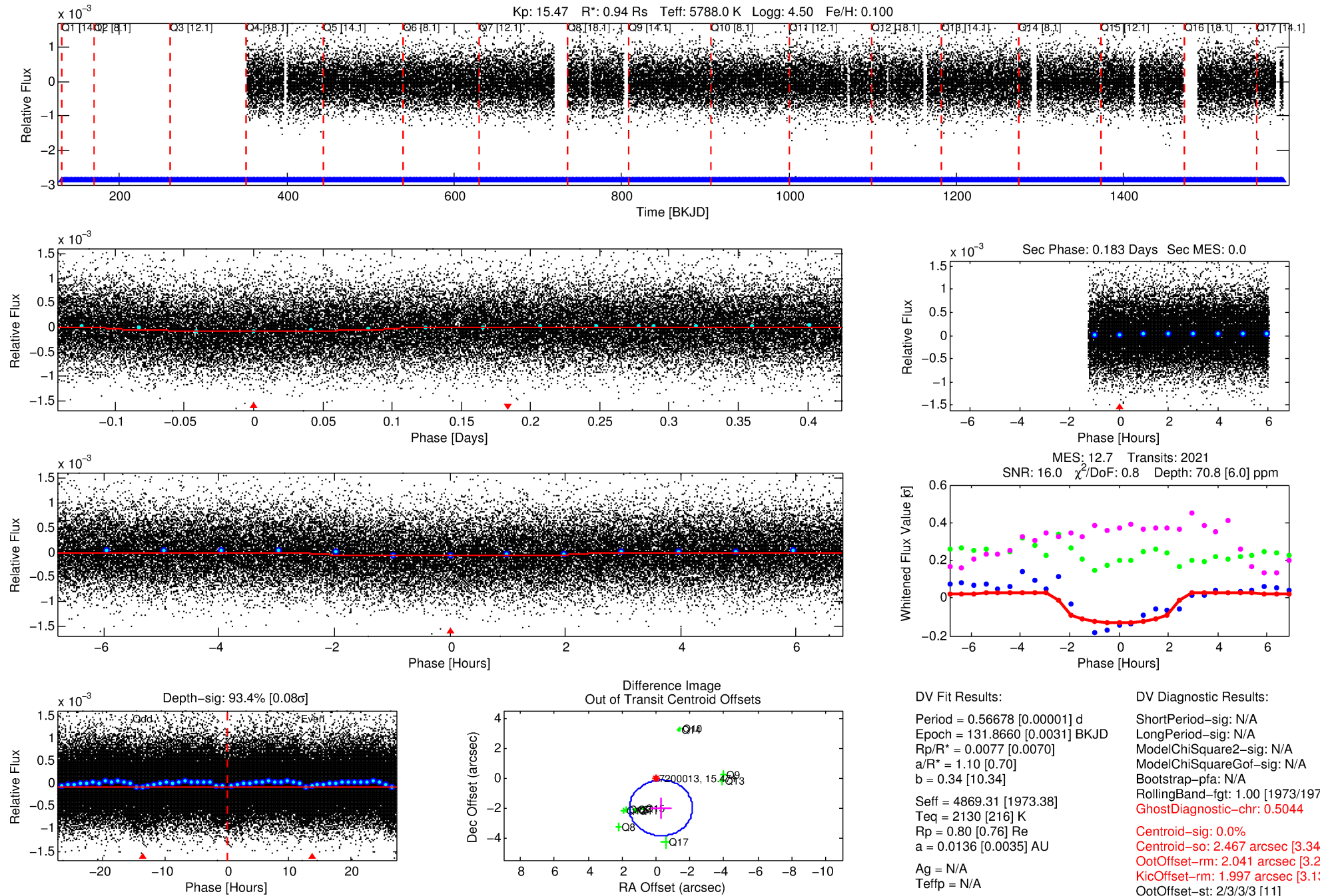
Ephemeris Match Information For 007200013-01

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
007200013-01	7200013	RR-Lyr-pri	7198959	1:1	842.9	142	157	7.86	15.47	8778.80	Direct-PRF	0	4.32	15.24

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

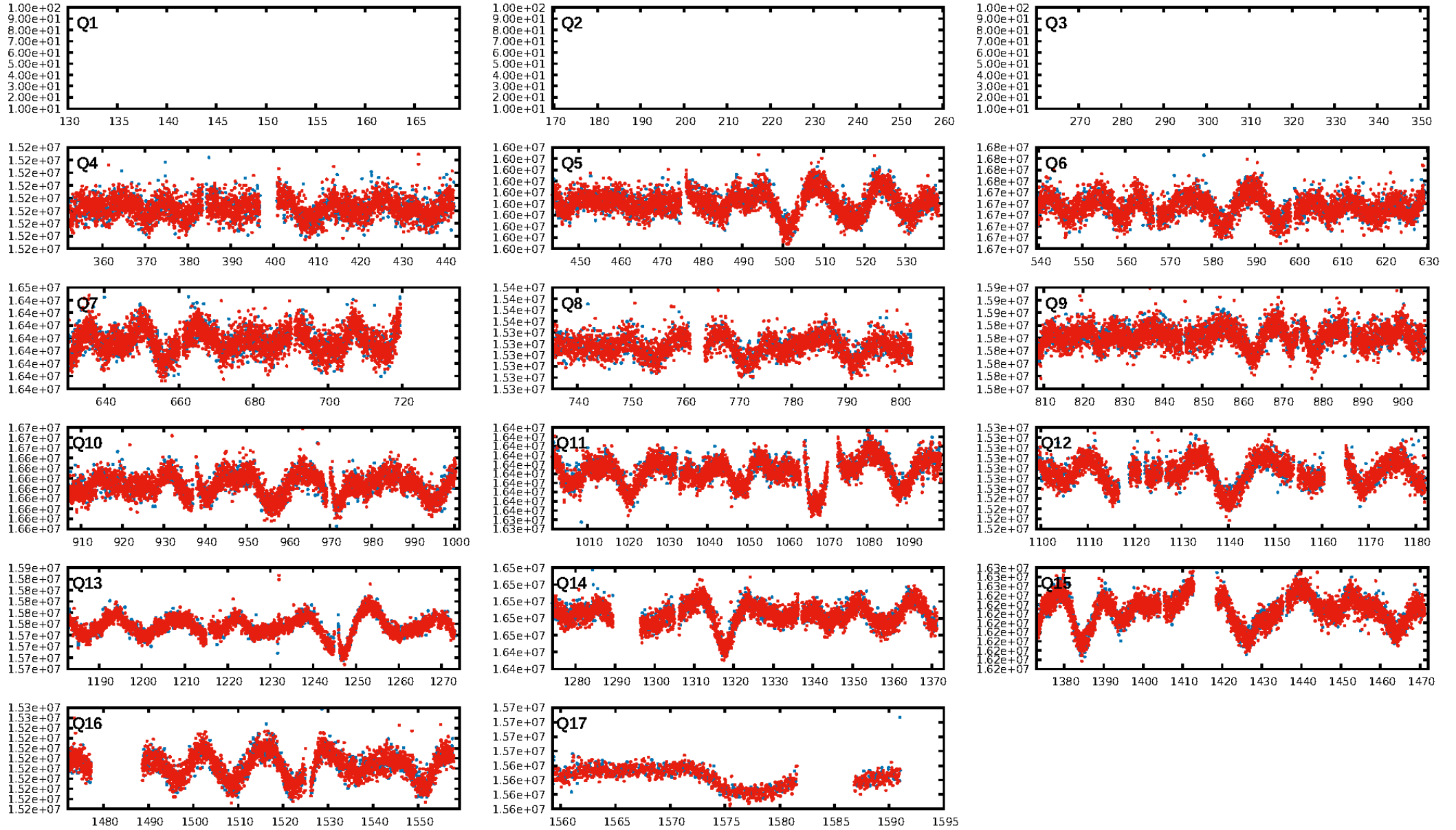
KIC: 7200013 Candidate: 1 of 1 Period: 0.567 d



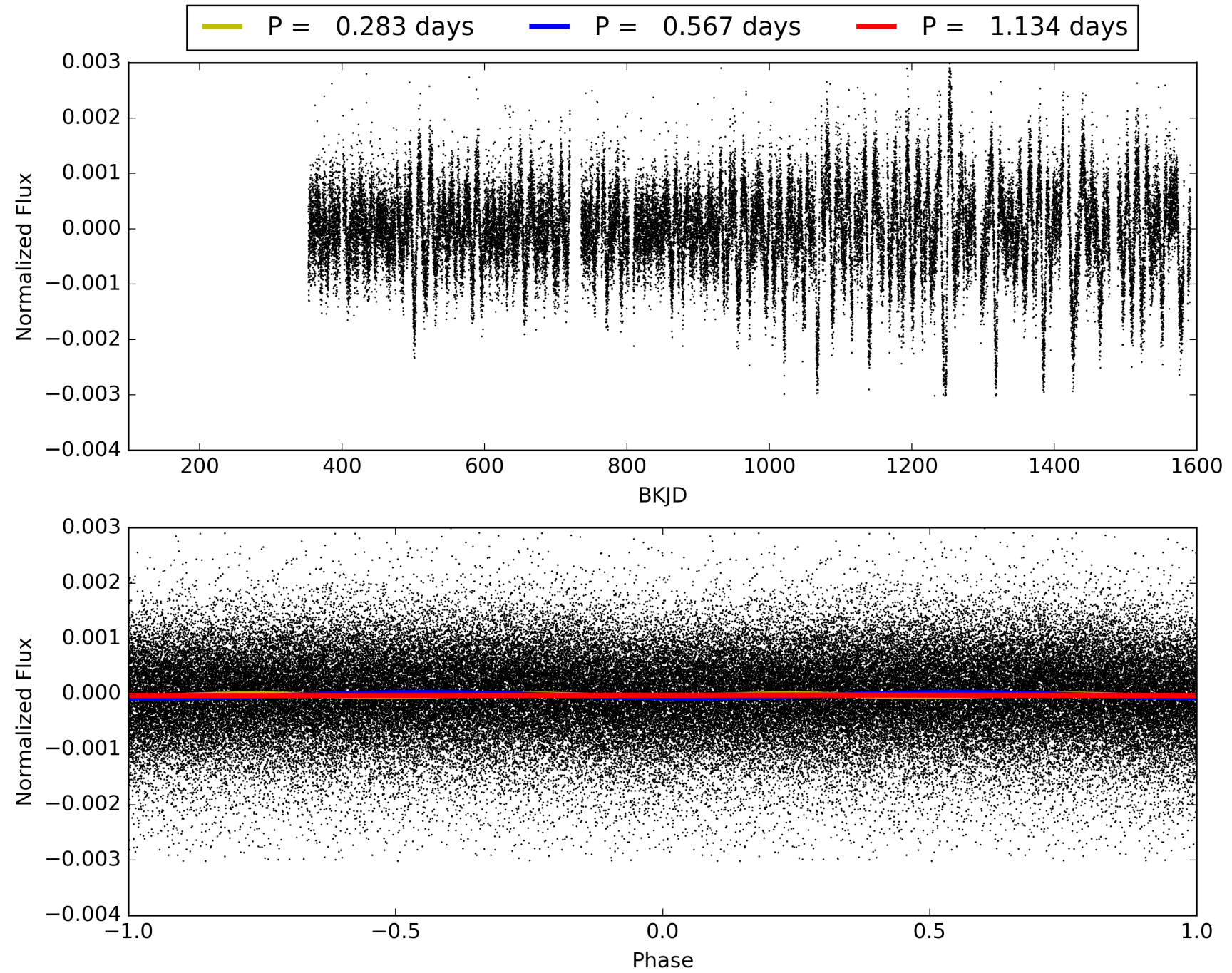
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:55:12 Z

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

TCE 007200013-01, PDC Light Curves

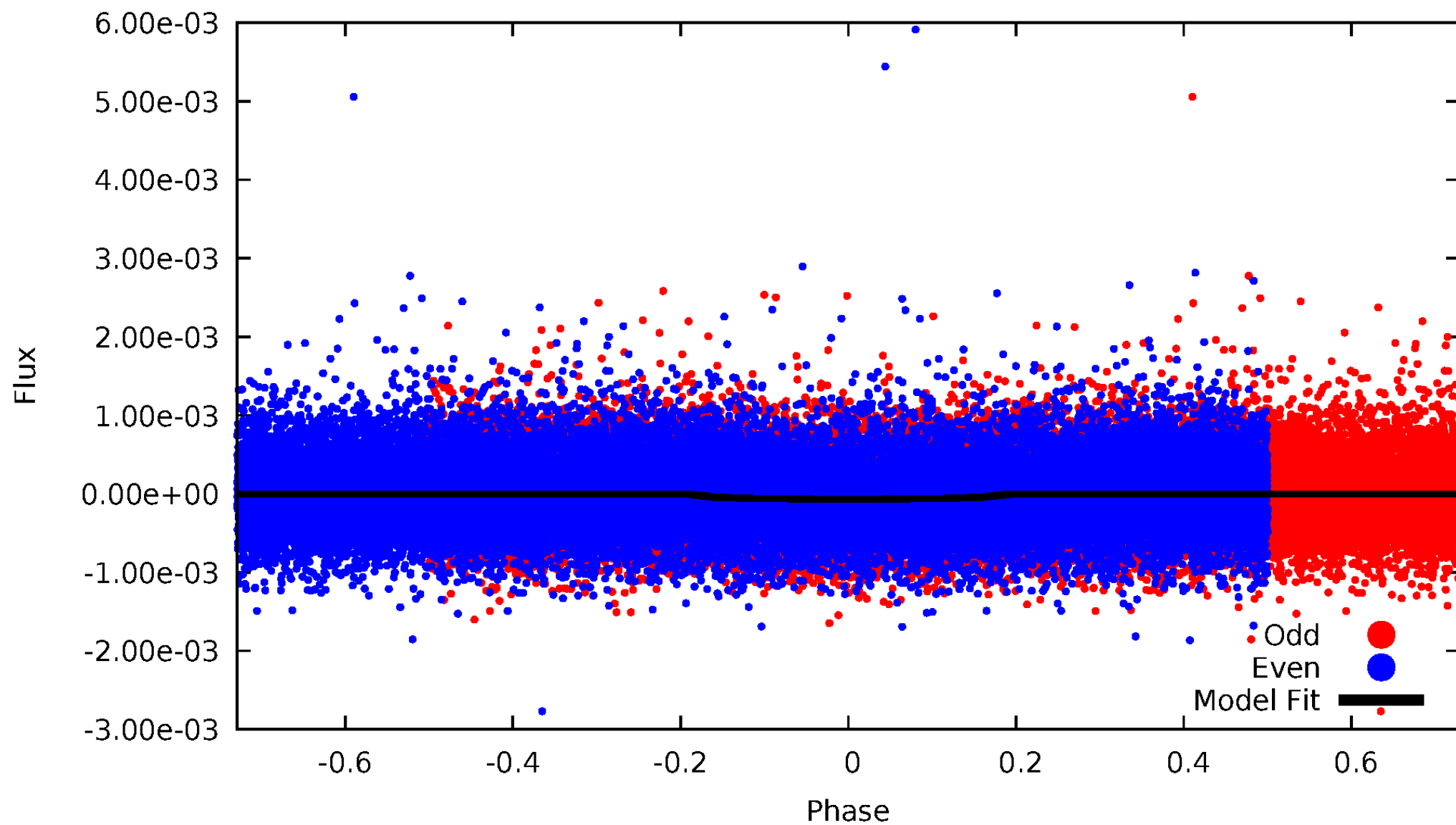


TCE 007200013-01



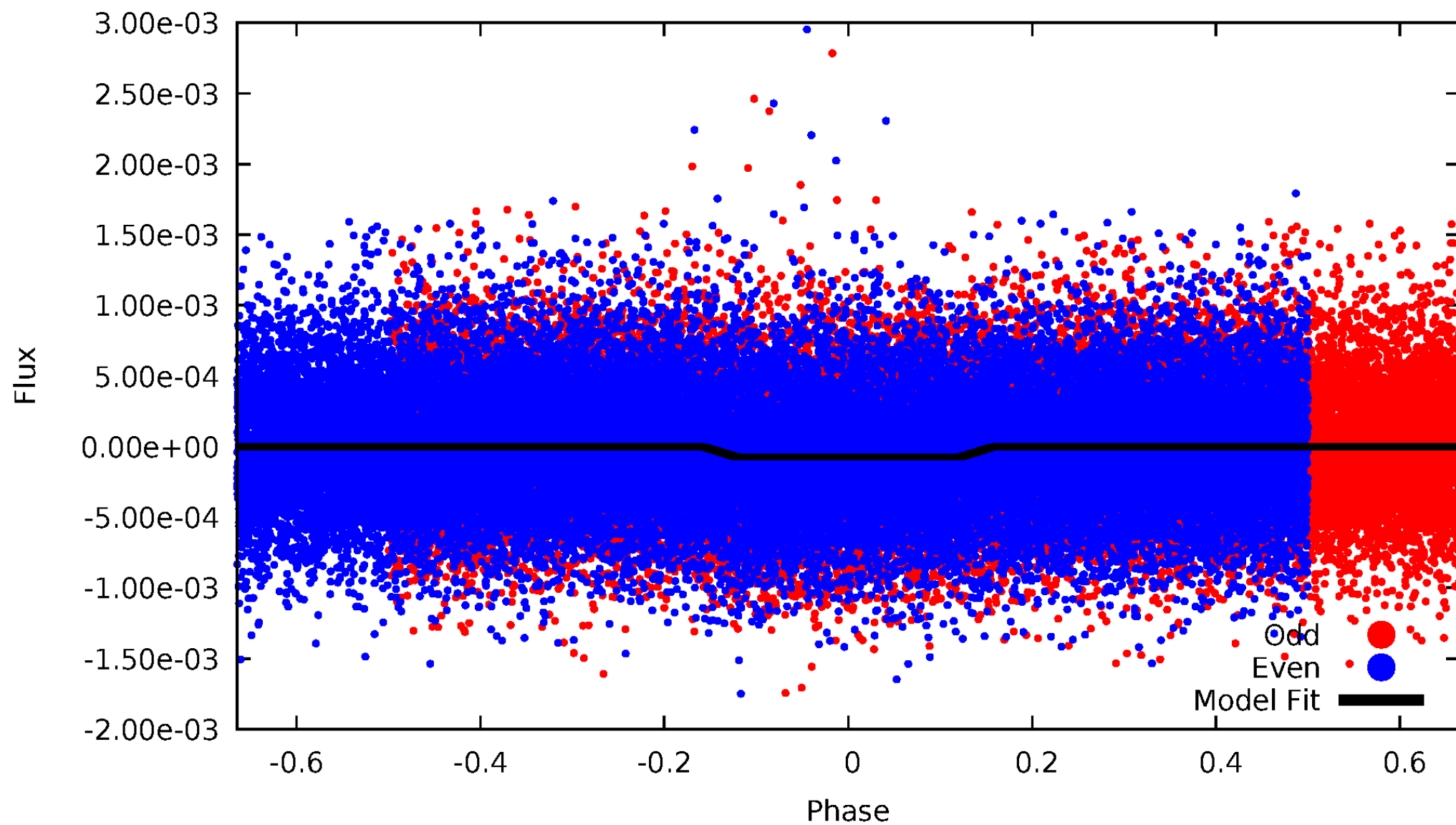
DV Odd/Even

TCE 007200013-01

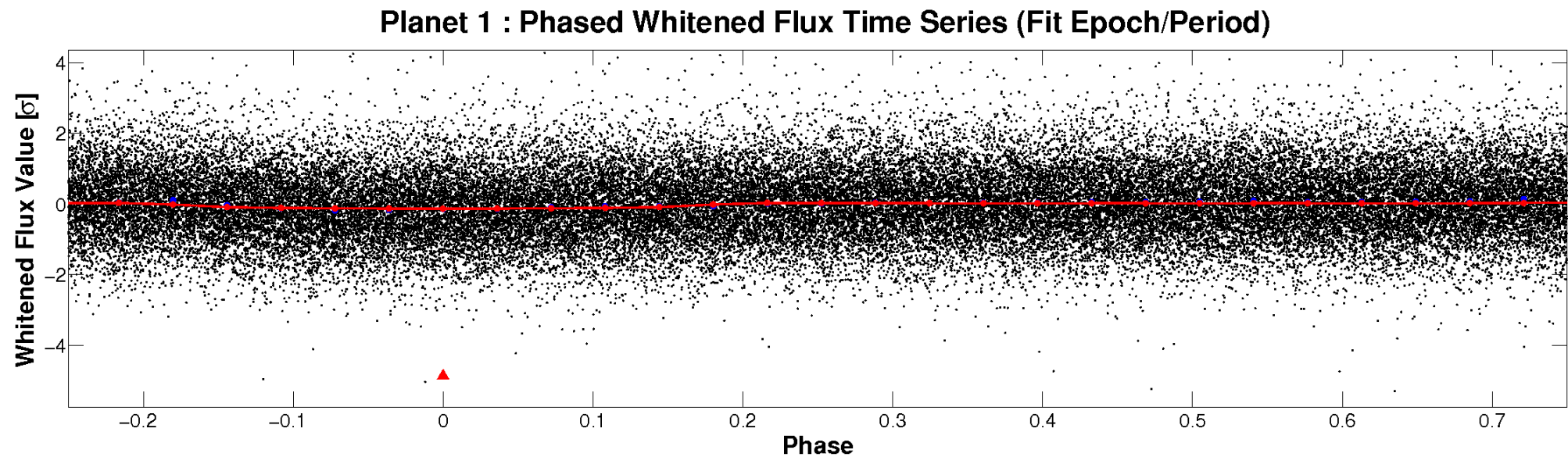
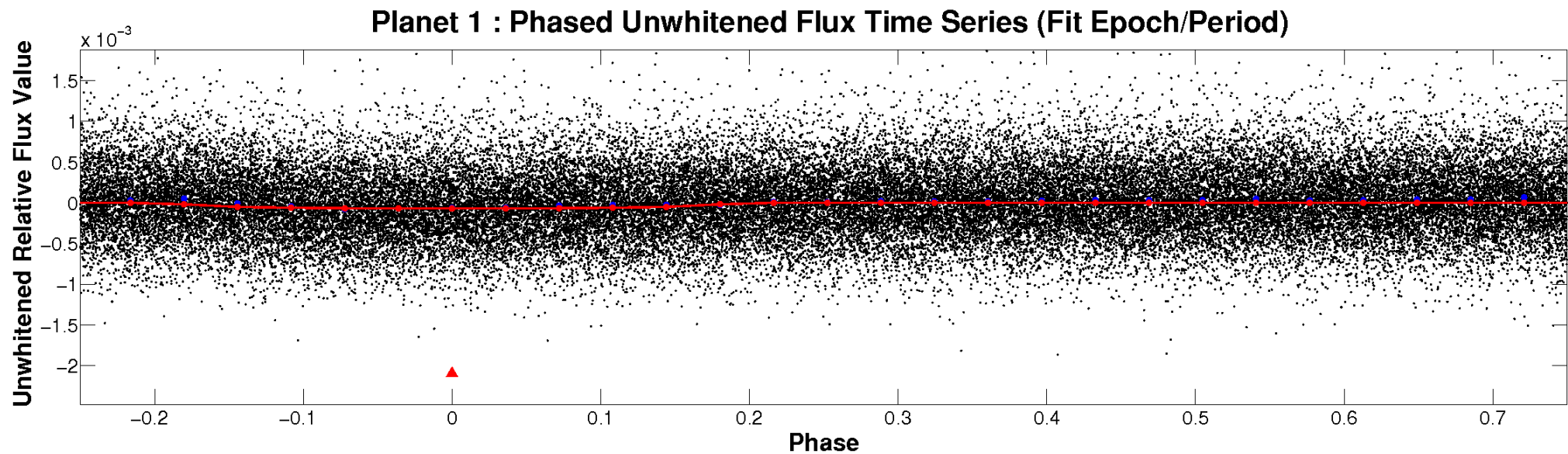


ALT Odd/Even

TCE 007200013-01

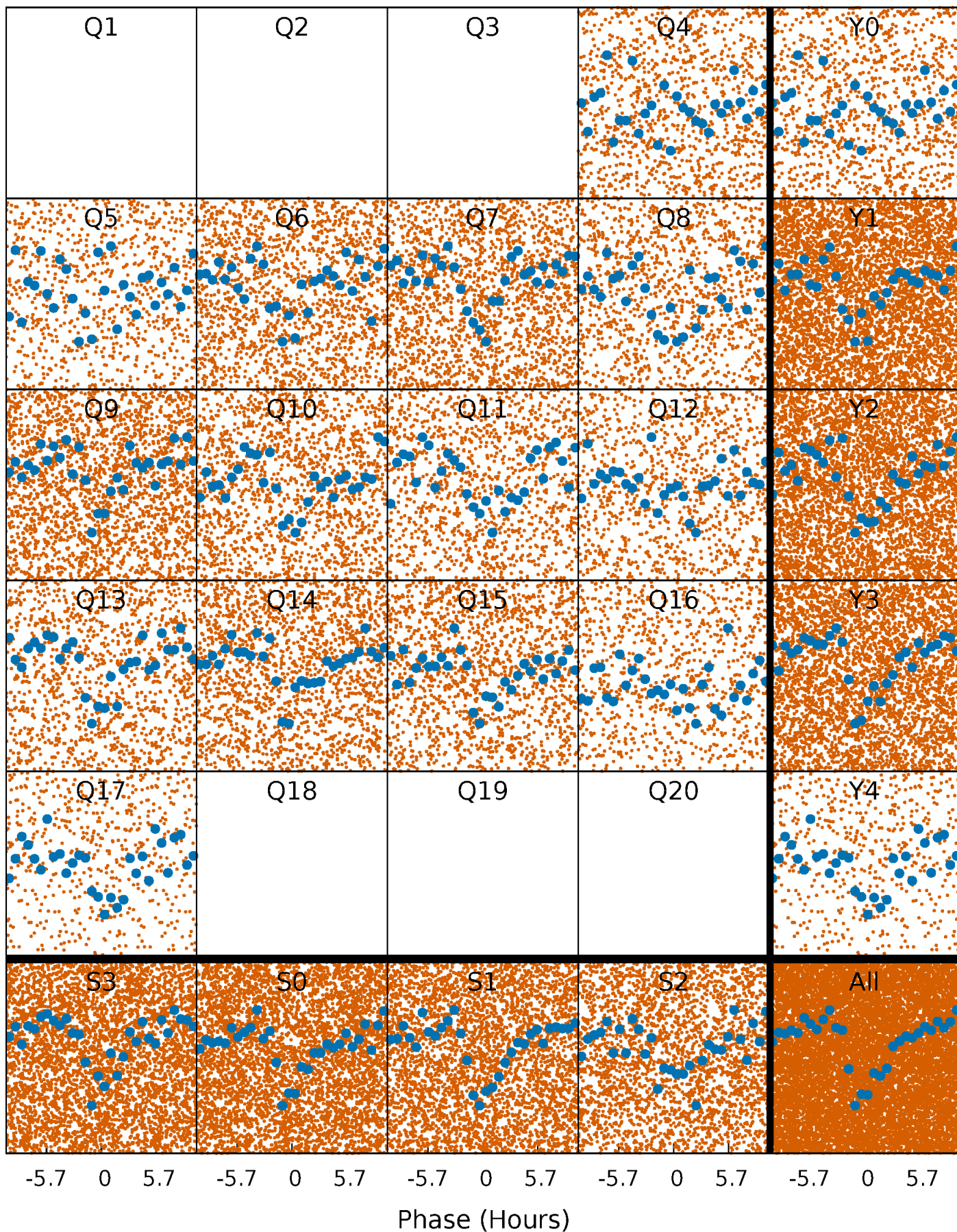


Non-Whitened Vs. Whitened Light Curve



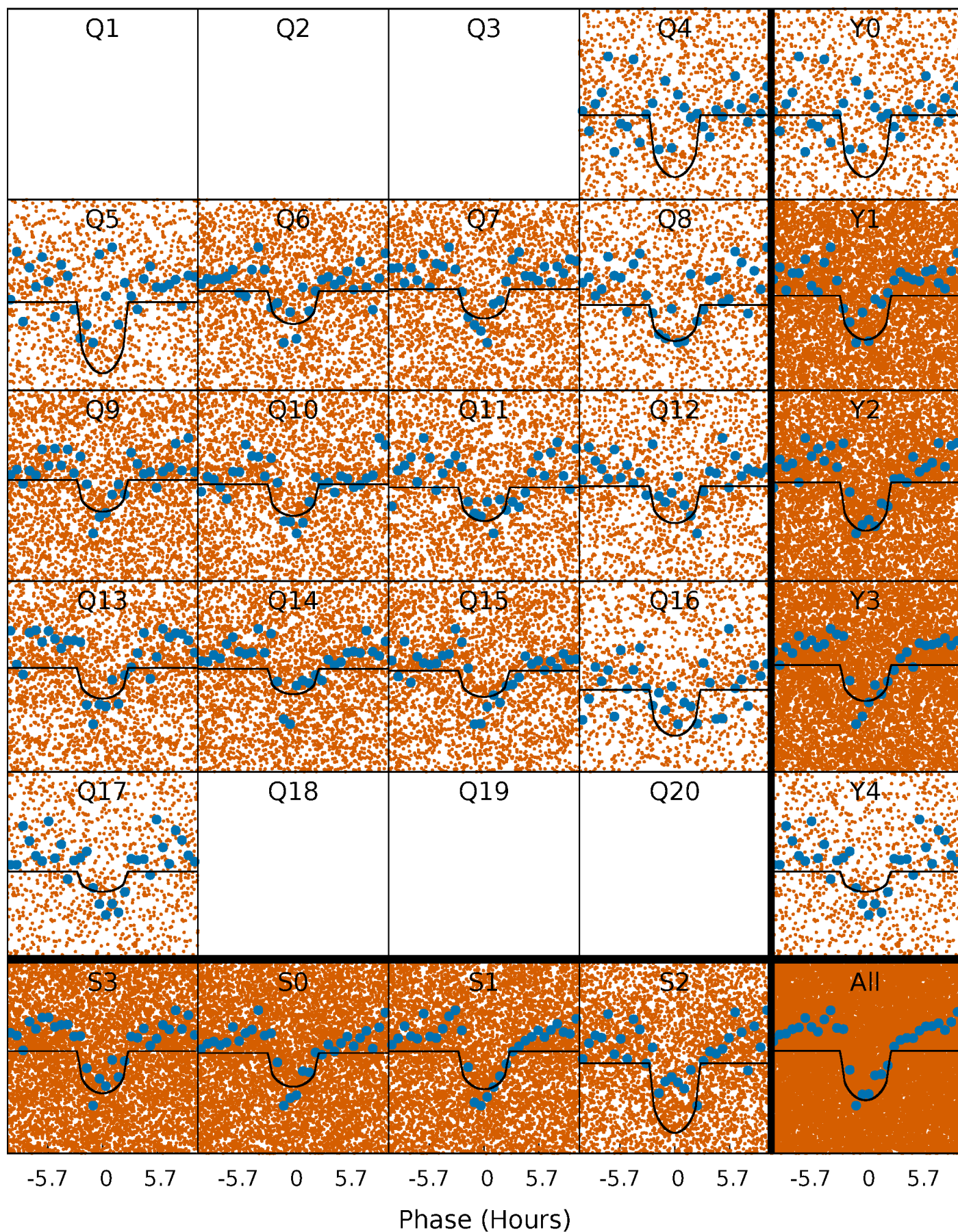
PDC Quarter-Phased Transit Curves

TCE 007200013-01 P= 0.566776 Days $T_0=131.866018$ (BKJD)



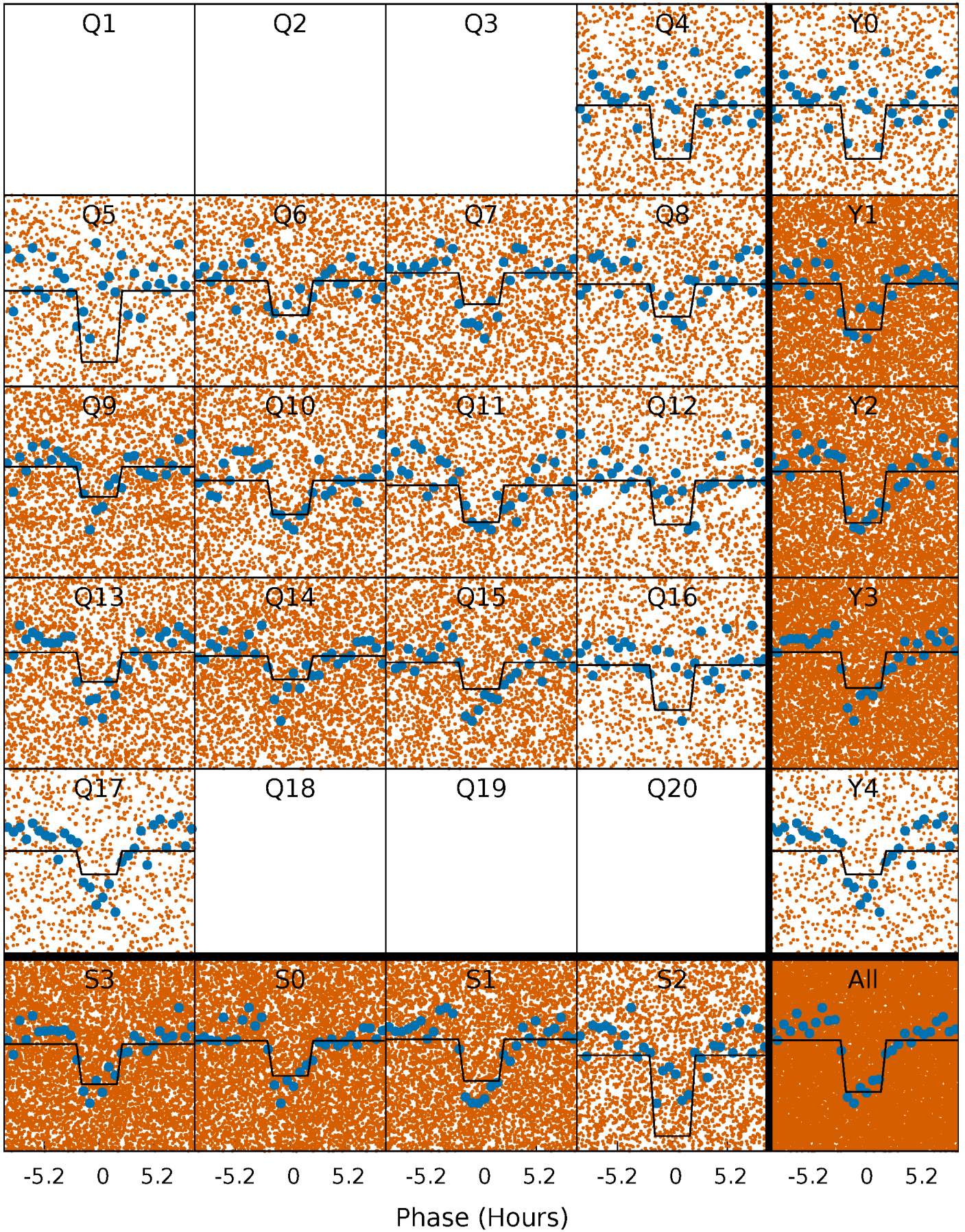
DV Quarter-Phased Transit Curves

TCE 007200013-01 P= 0.566776 Days $T_0=131.866018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

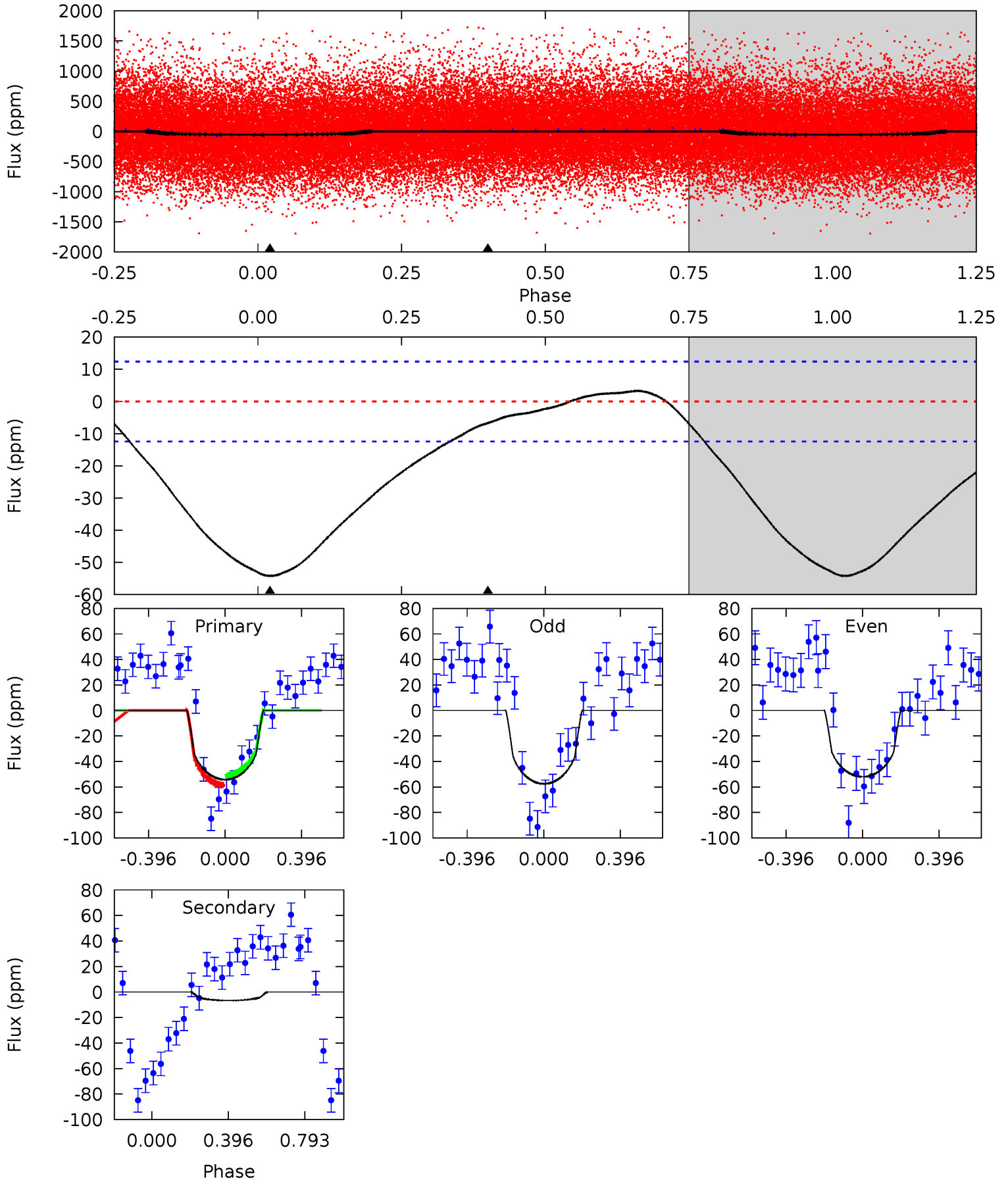
TCE 007200013-01 P= 0.566788 Days $T_0=131.854387$ (BKJD)



DV Model-Shift Uniqueness Test

007200013-01, P = 0.566776 Days, E = 131.866018 Days

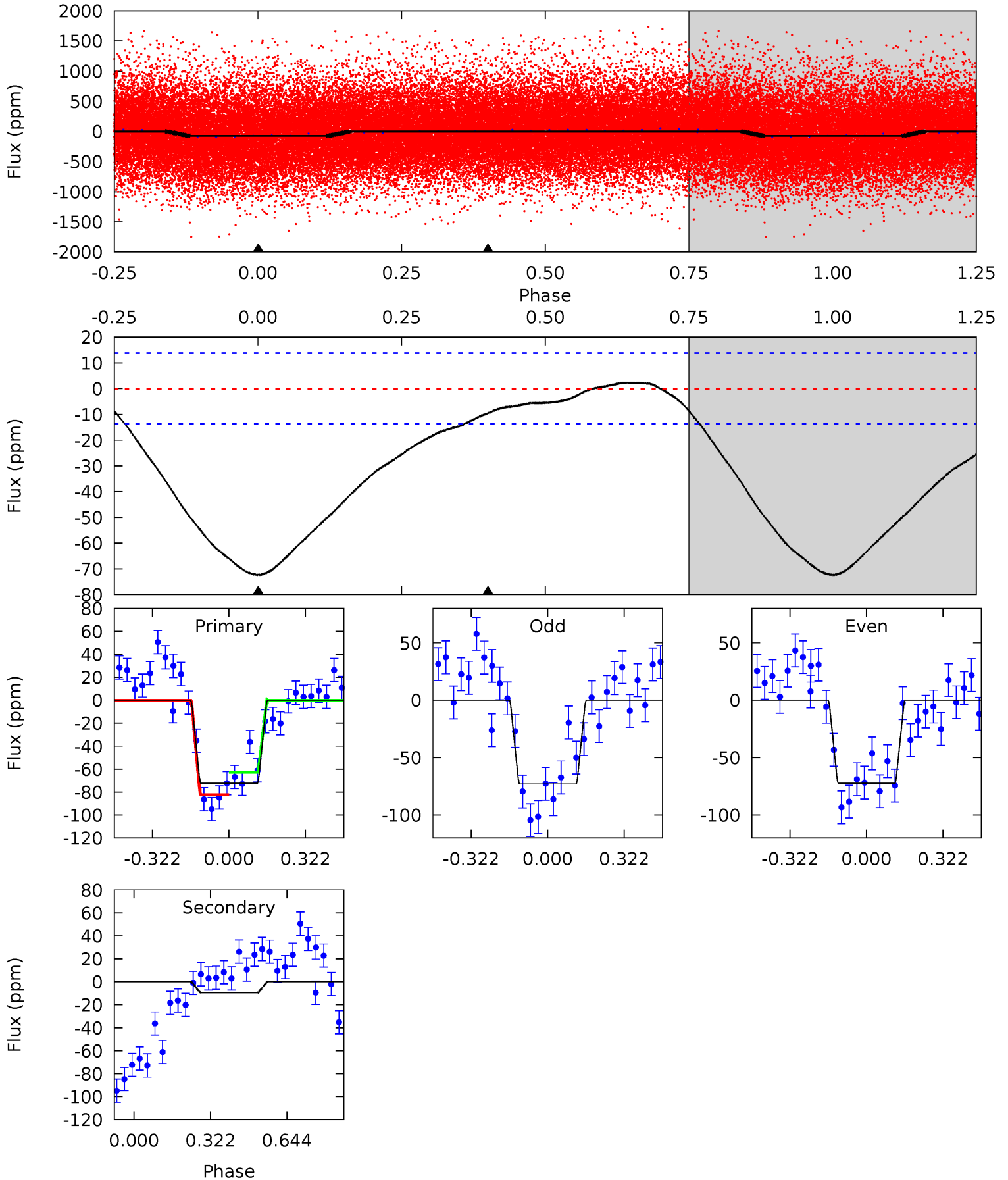
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	2.30	0	0	4.27	0.85	1.32	18.6	18.6	2.30	2.30	0.95	0.93	0.06	1.40



Alt Model-Shift Uniqueness Test

007200013-01, P = 0.566788 Days, E = 131.854387 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.6	3.00	0	0	4.31	0.99	1.04	22.6	22.6	3.00	3.00	0.09	1.02	0.03	3.03



Stellar Parameters For KIC 007200013

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5788^{+162}_{-203}	$4.503^{+0.052}_{-0.208}$	$0.100^{+0.250}_{-0.300}$	$0.943^{+0.292}_{-0.091}$	$1.033^{+0.112}_{-0.137}$	$1.738^{+0.365}_{-0.931}$
	+3%/-4%	+1%/-5%	+250%/-300%	+31%/-10%	+11%/-13%	+21%/-54%
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 007200013-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-7 ± 3	$0.91^{+0.70}_{-0.55}$	3031^{+220}_{-139}	3250^{+1828}_{-5957}	$0.693^{+4.748}_{-0.506}$
Alt.	-10 ± 3	$1.04^{+0.75}_{-0.64}$	3034^{+209}_{-155}	3386^{+1820}_{-5658}	$0.813^{+4.504}_{-0.539}$

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 $A_{obs} \gg 1.0$

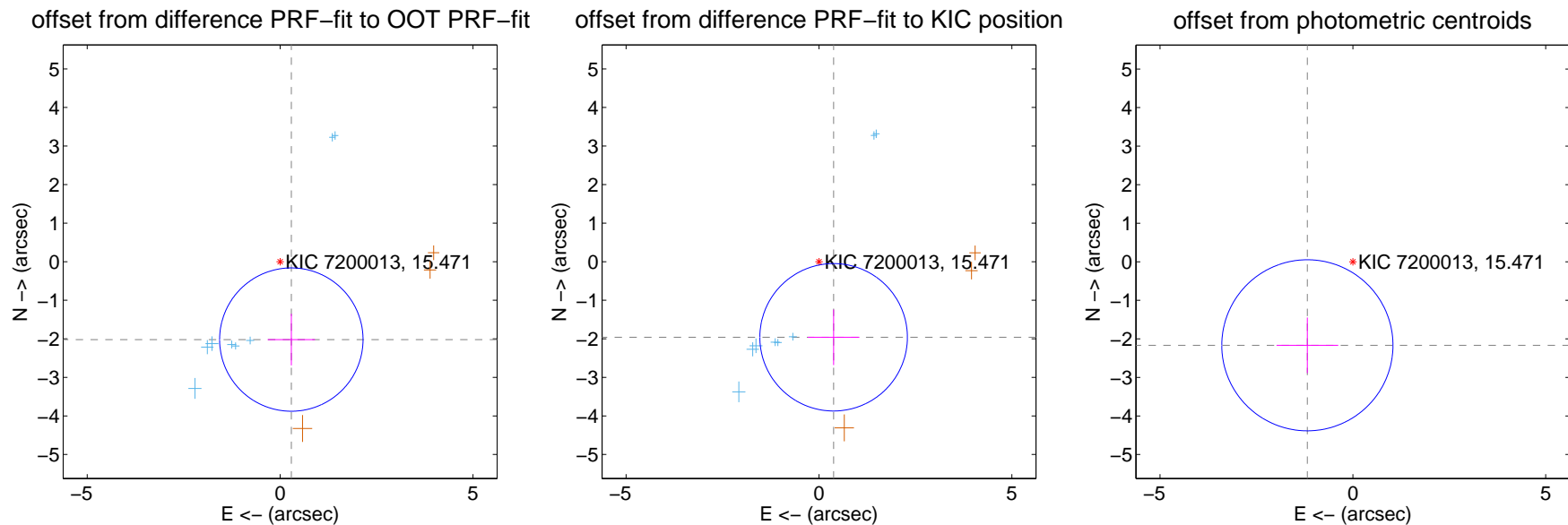
DV Centroid Data

Supplemental centroid analysis for 007200013-01. Kepler magnitude: 15.47. Transit SNR 15.96

There are 8 quarters with good PRF difference image offsets

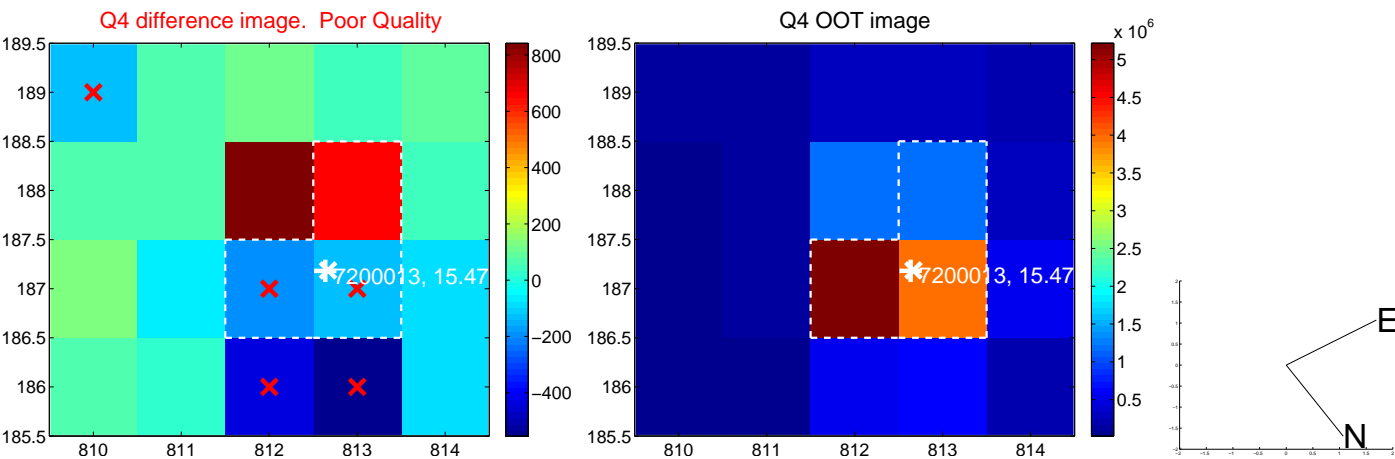
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.041 ± 0.619	3.29	-0.291 ± 0.613	-2.020 ± 0.668
PRF-fit source offset from KIC position	1.997 ± 0.637	3.13	-0.379 ± 0.667	-1.960 ± 0.720
photometric centroid source offset	2.47 ± 0.74	3.34	1.18 ± 0.80	-2.17 ± 0.72

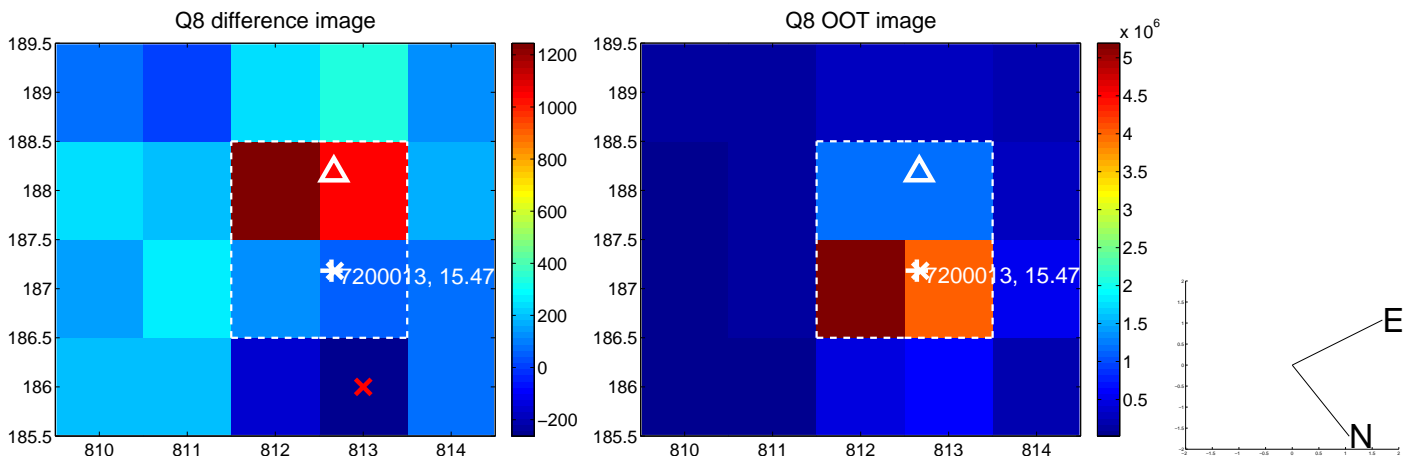
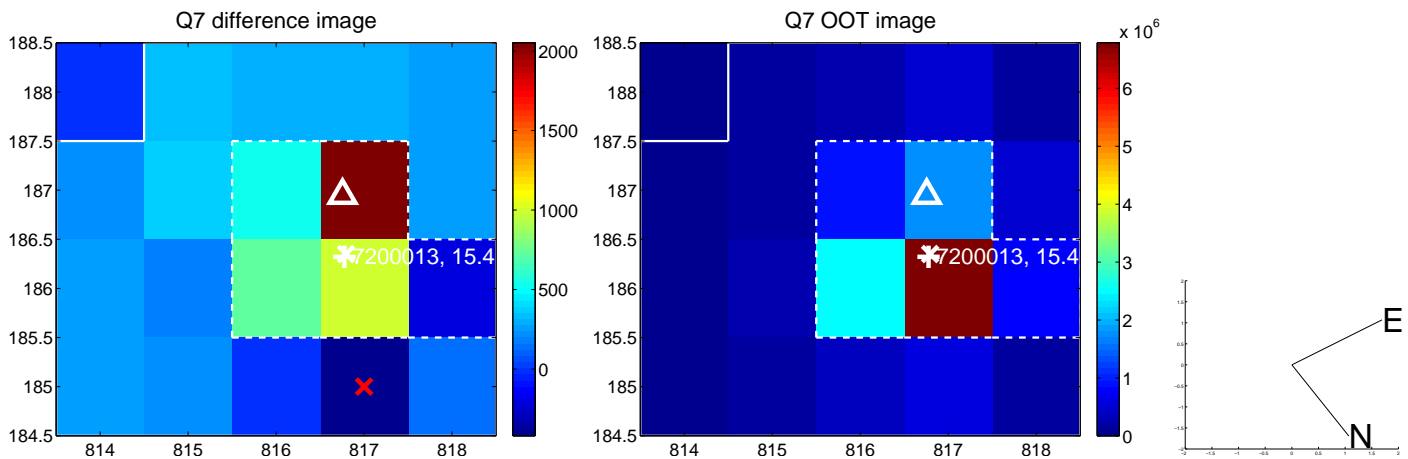
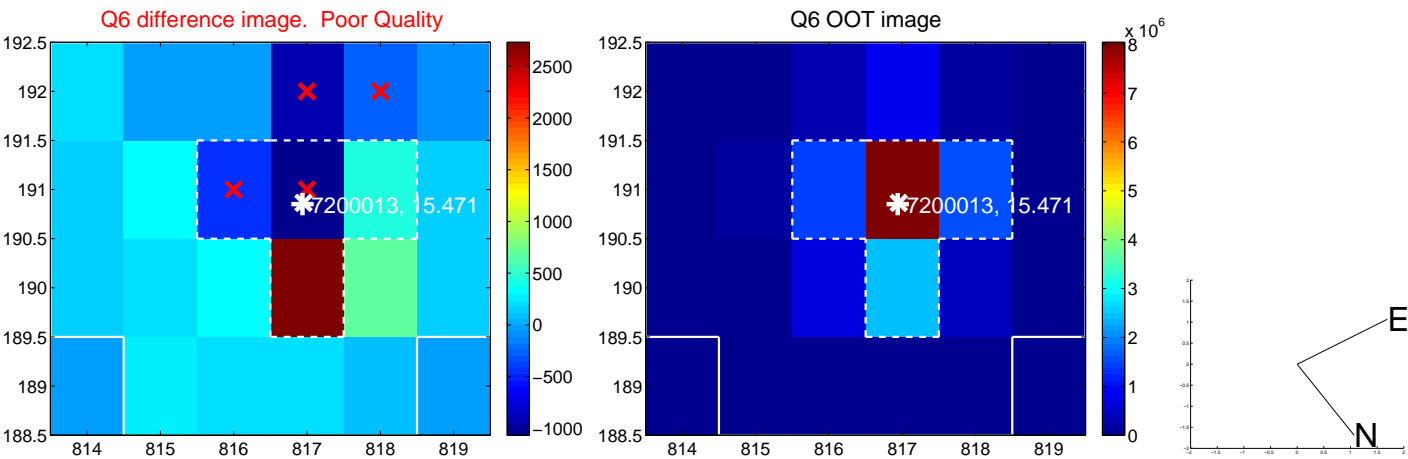
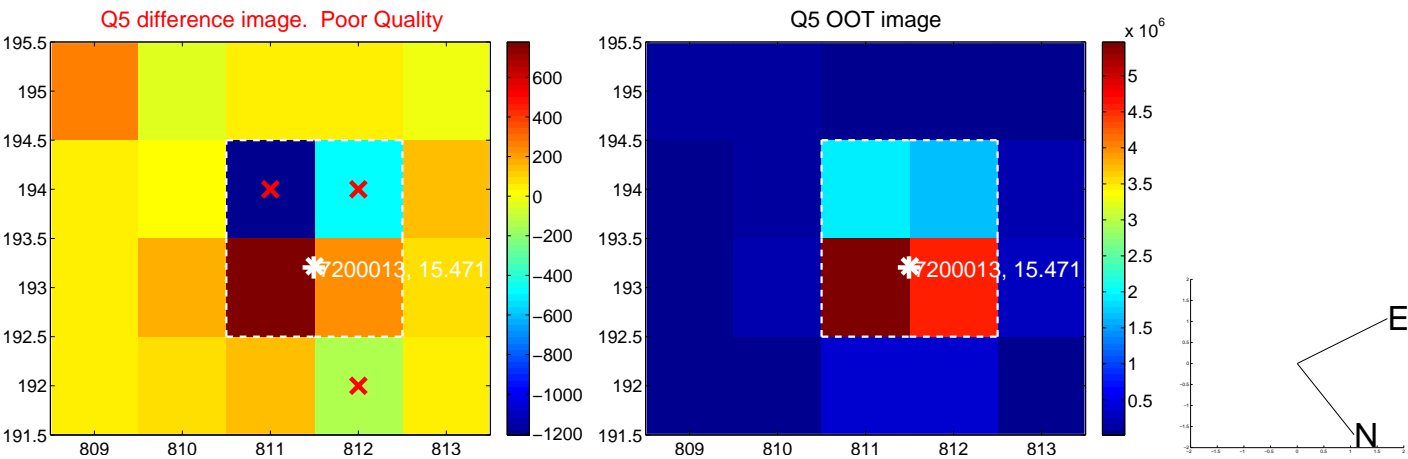


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

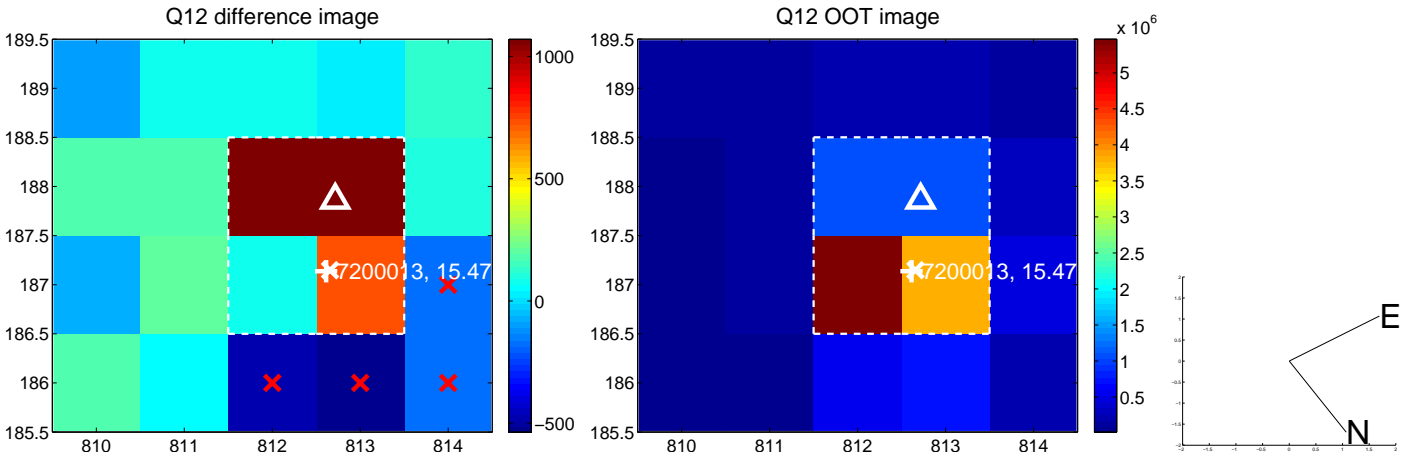
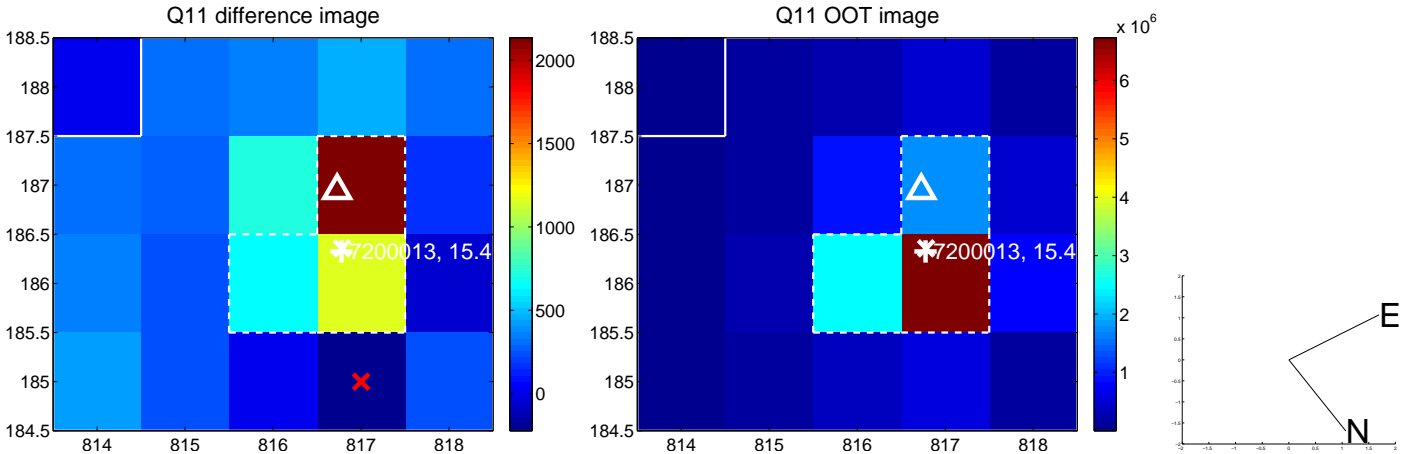
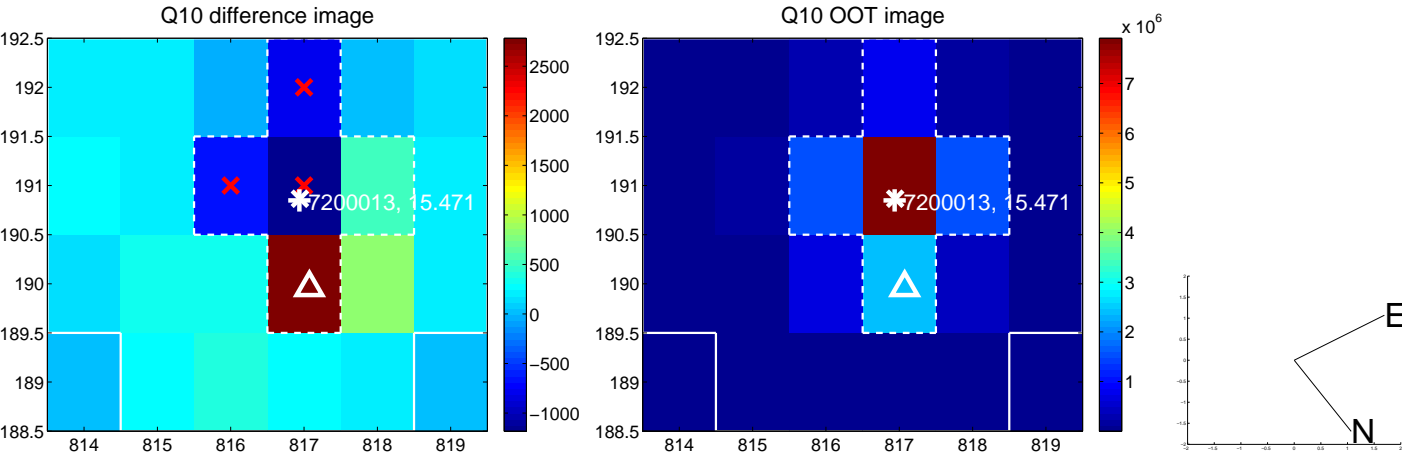
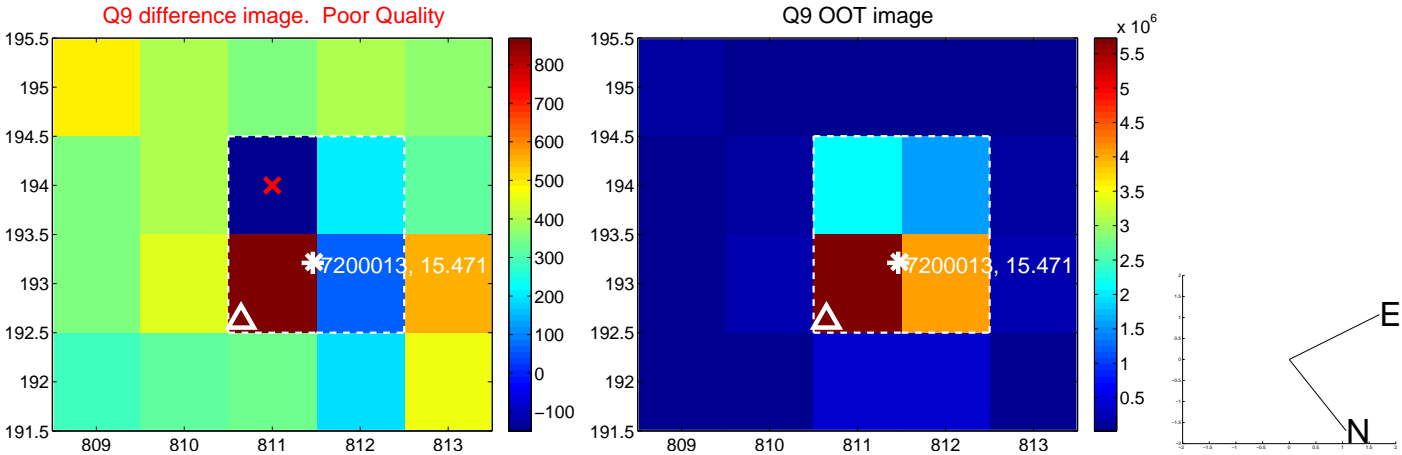
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



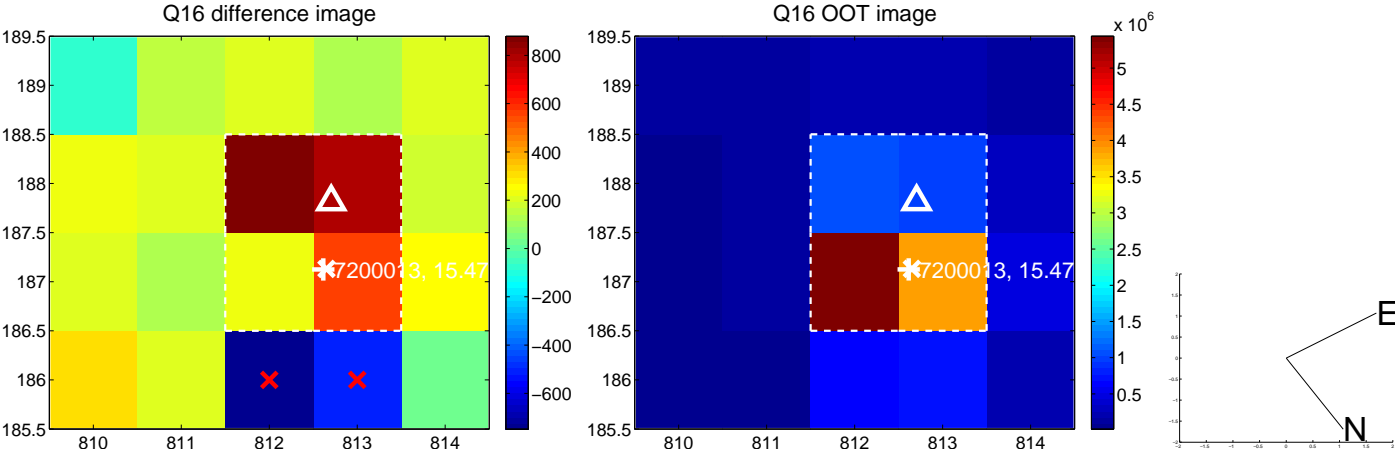
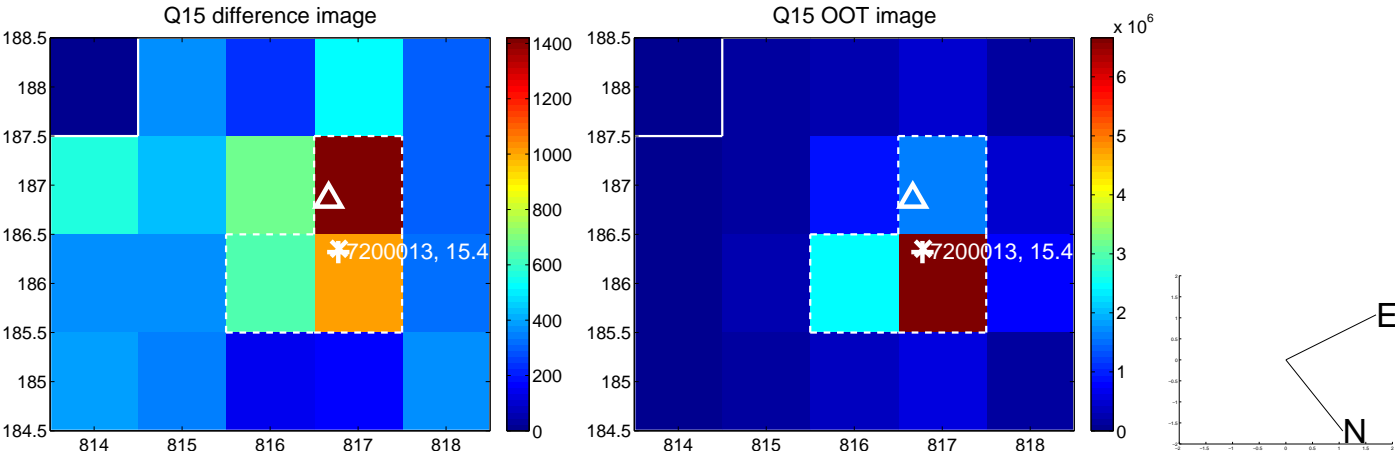
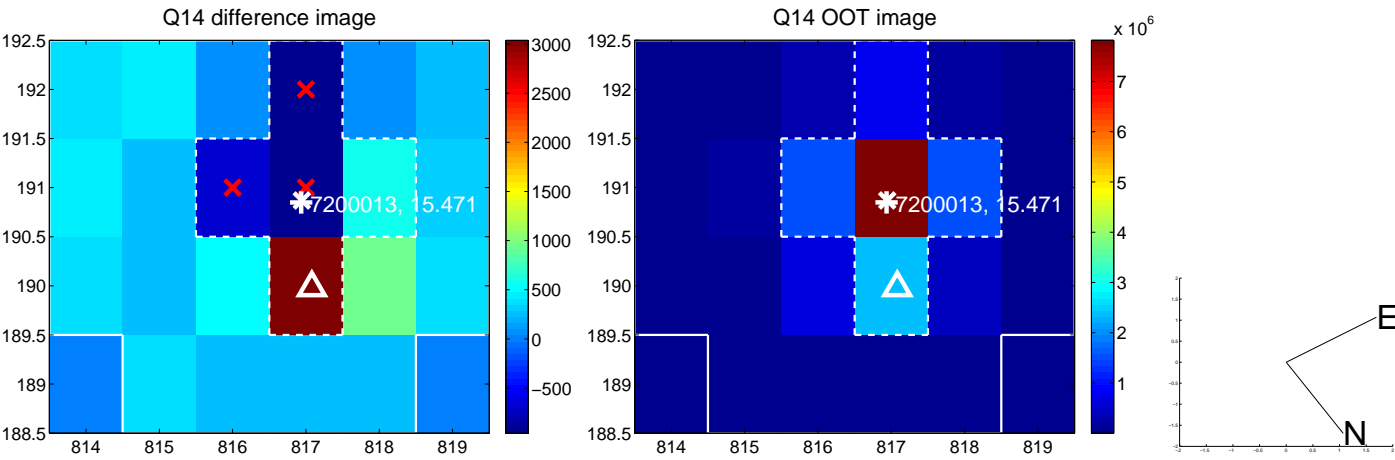
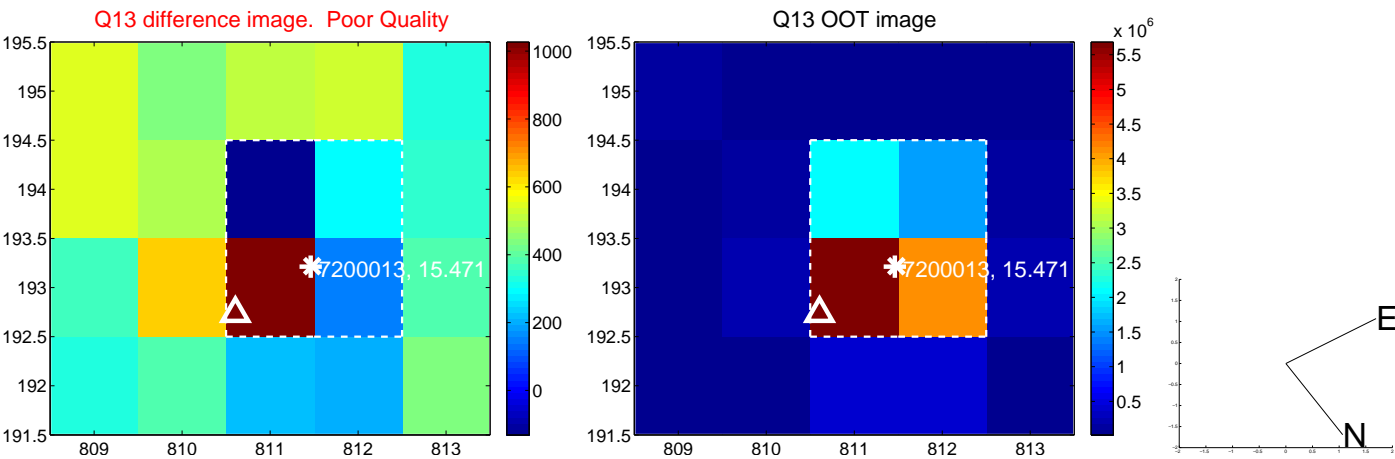
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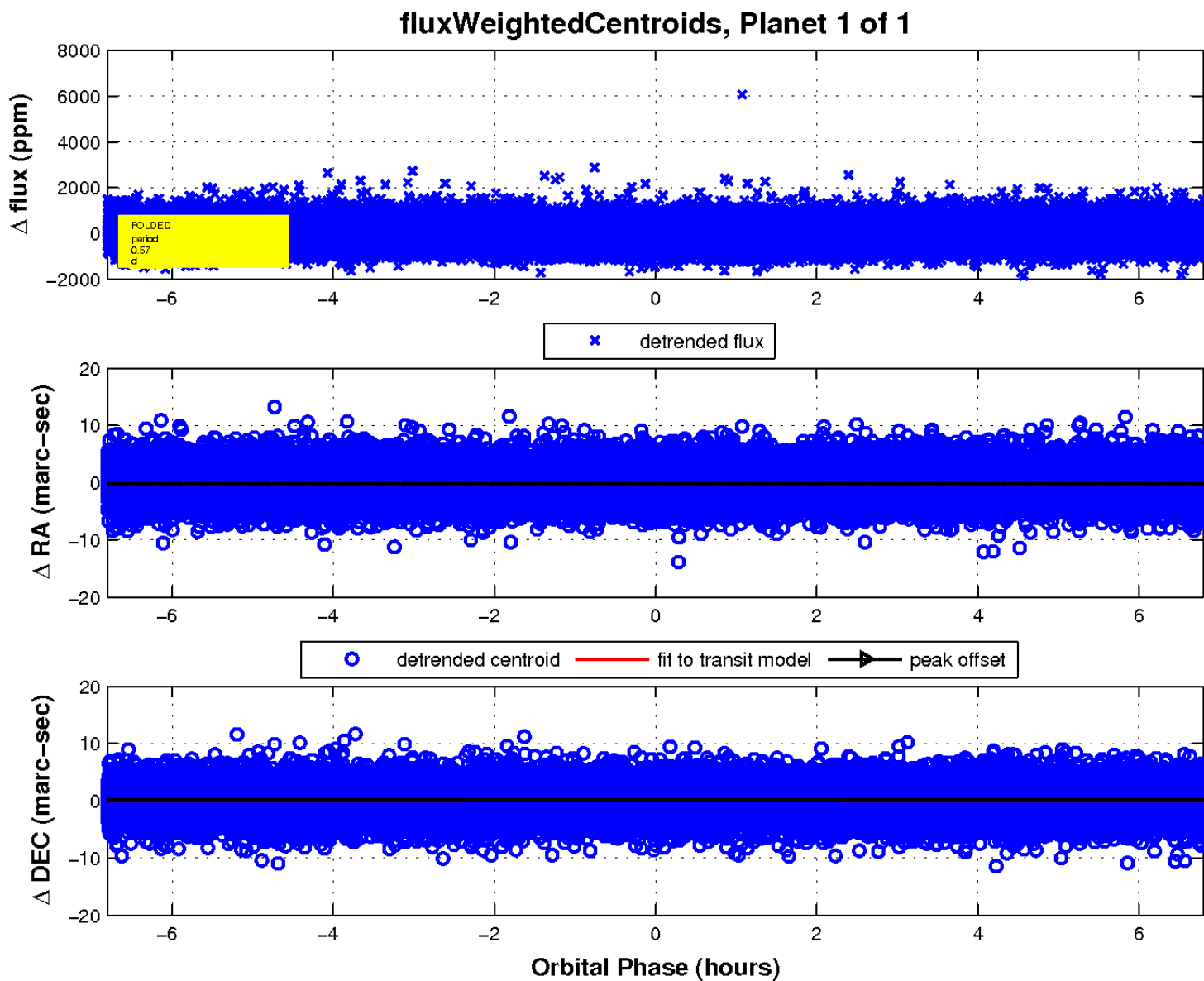
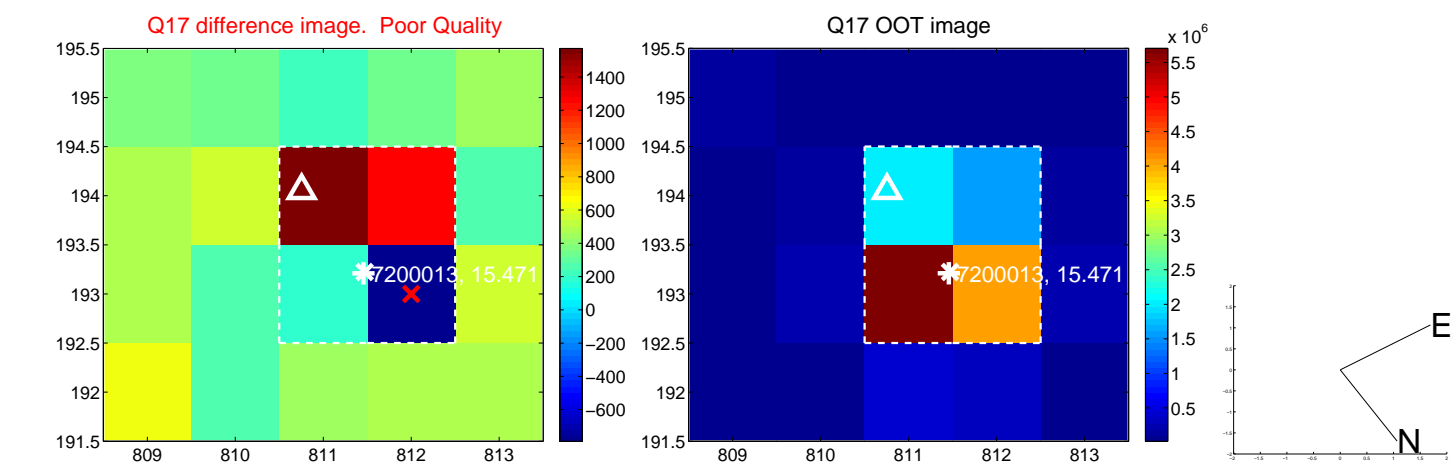
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UKIRT Image

