

KIC 007200506

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})
007200506-01	OBS	No	0.566767	131.833431	34.4	1.797	8.2	7.1	0.91	5984	0.63	5269.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007200506-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST—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.

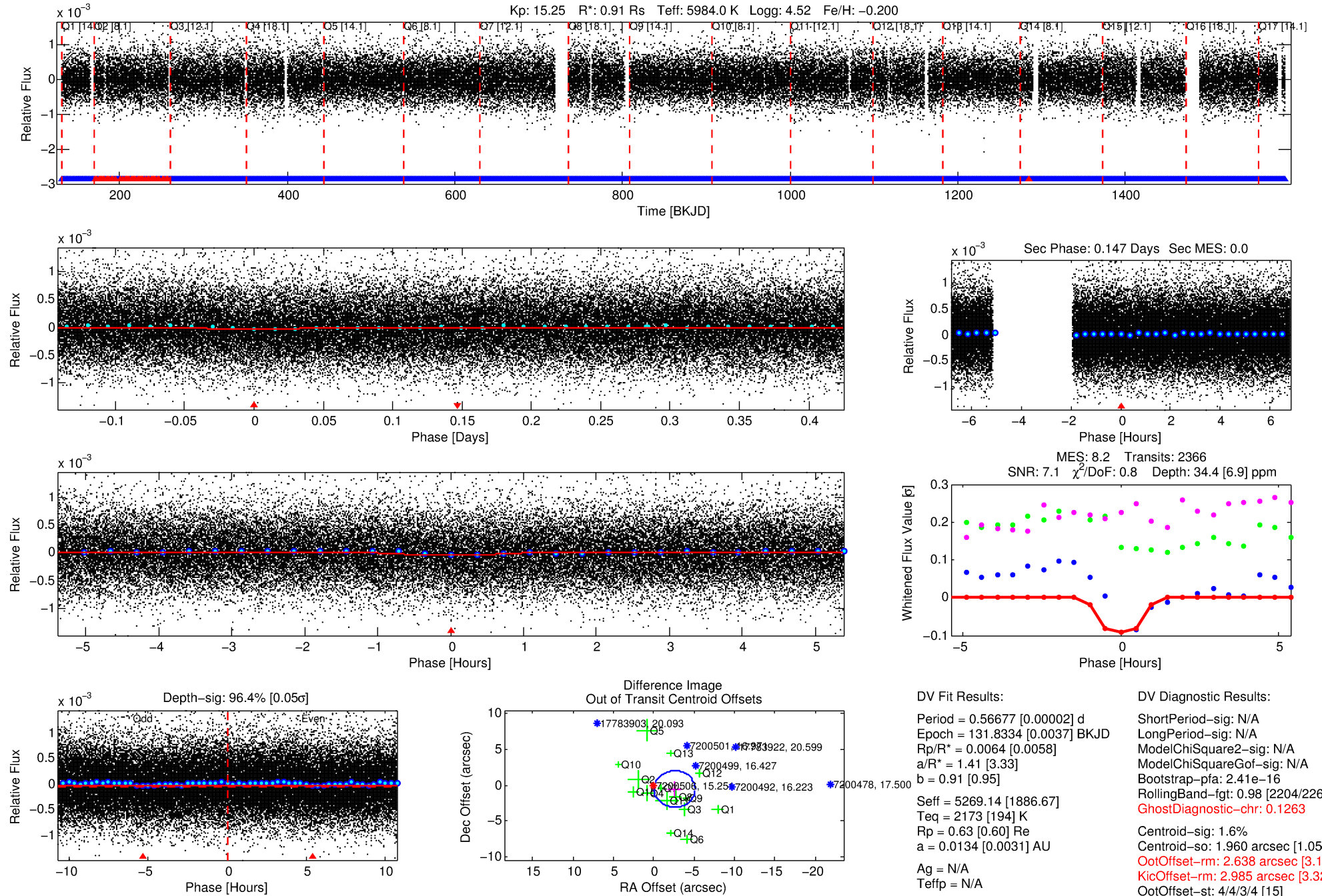
Ephemeris Match Information For 007200506-01

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
007200506-01	7200506	RR-Lyr-pri	7198959	1:1	1243.8	184	252	7.86	15.25	18332.00	Direct-PRF	0	3.87	24.75

Notes: P₁:P₂ 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. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ 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

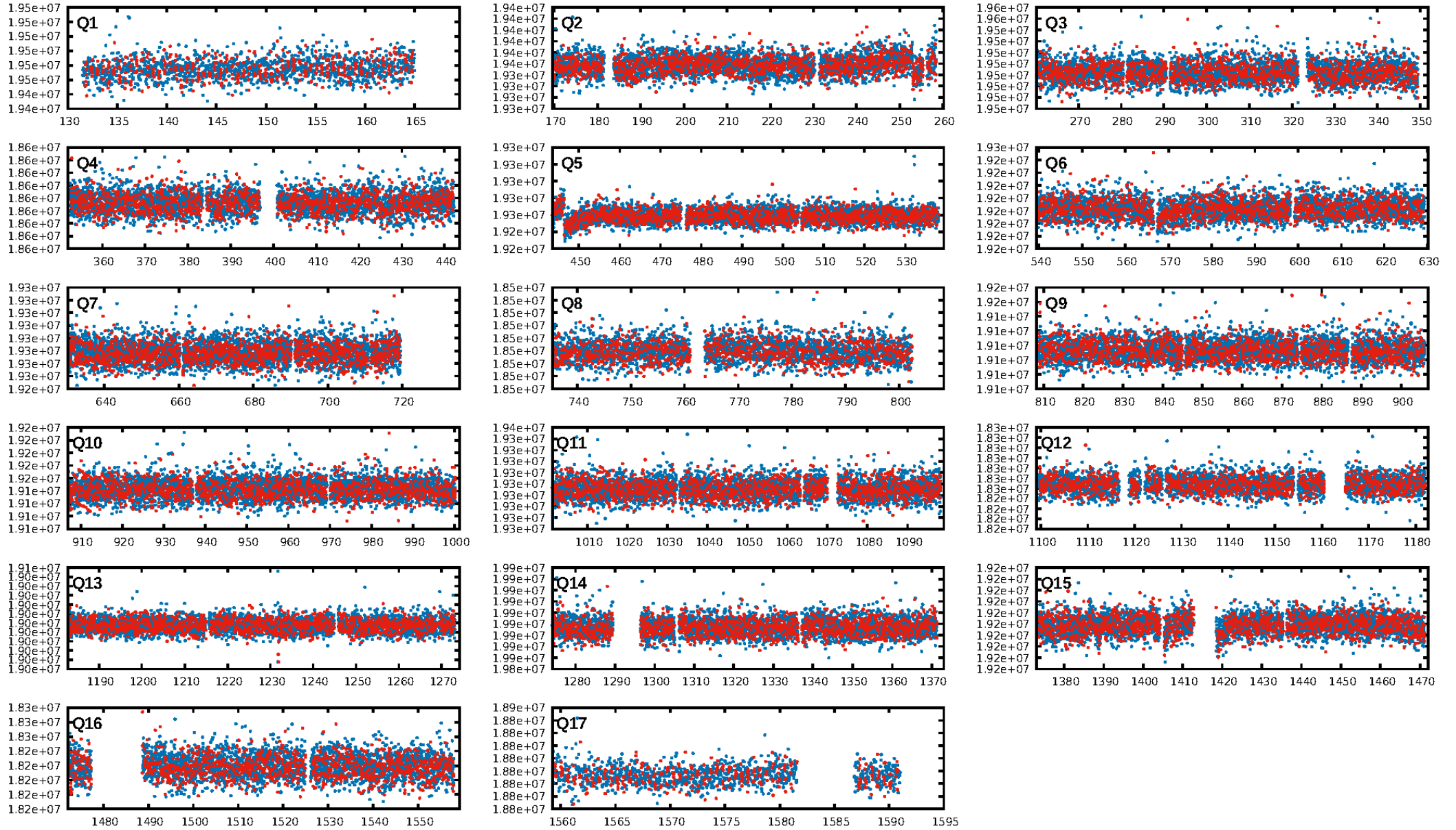
KIC: 7200506 Candidate: 1 of 1 Period: 0.567 d



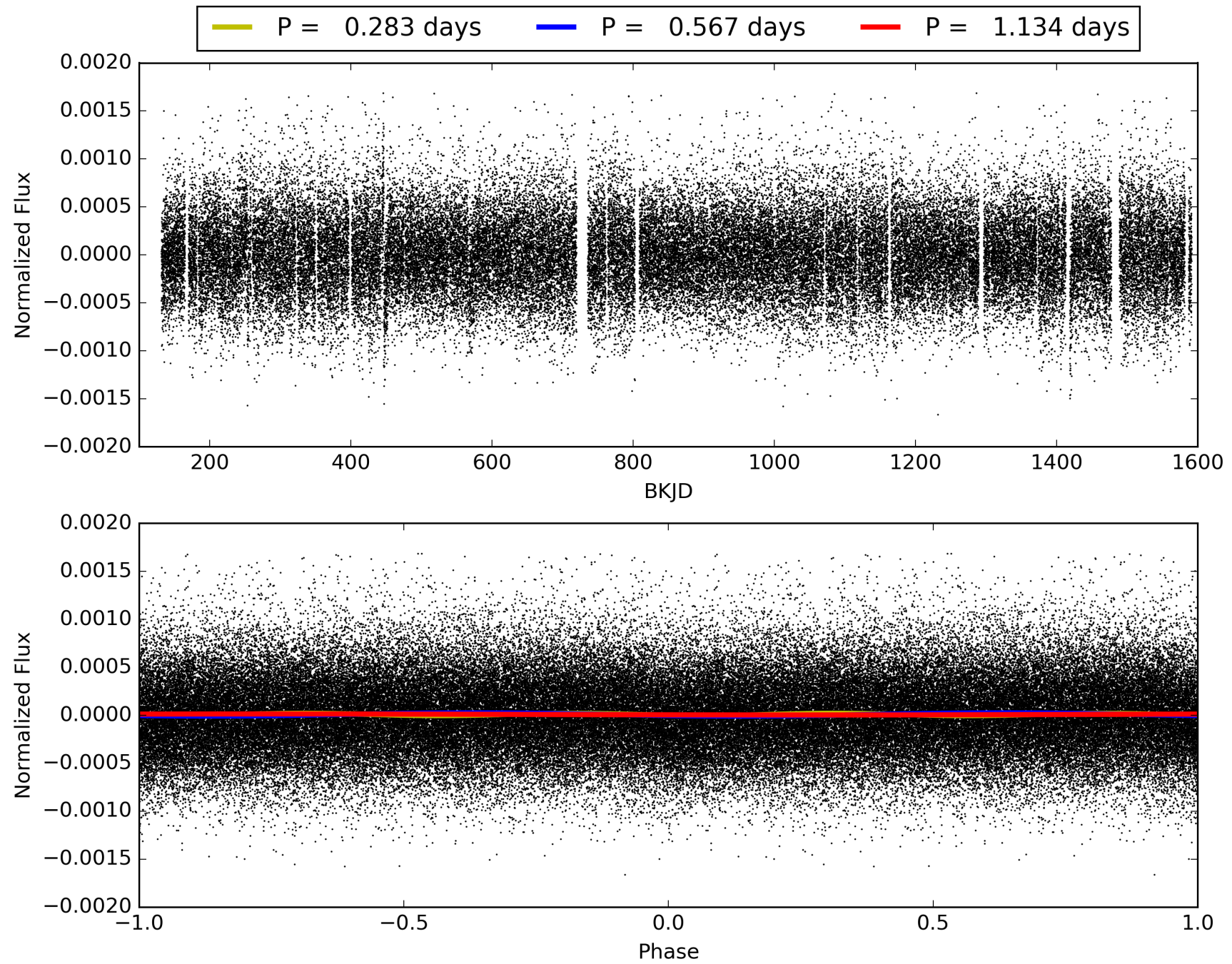
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 09:51:33 Z

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

TCE 007200506-01, PDC Light Curves

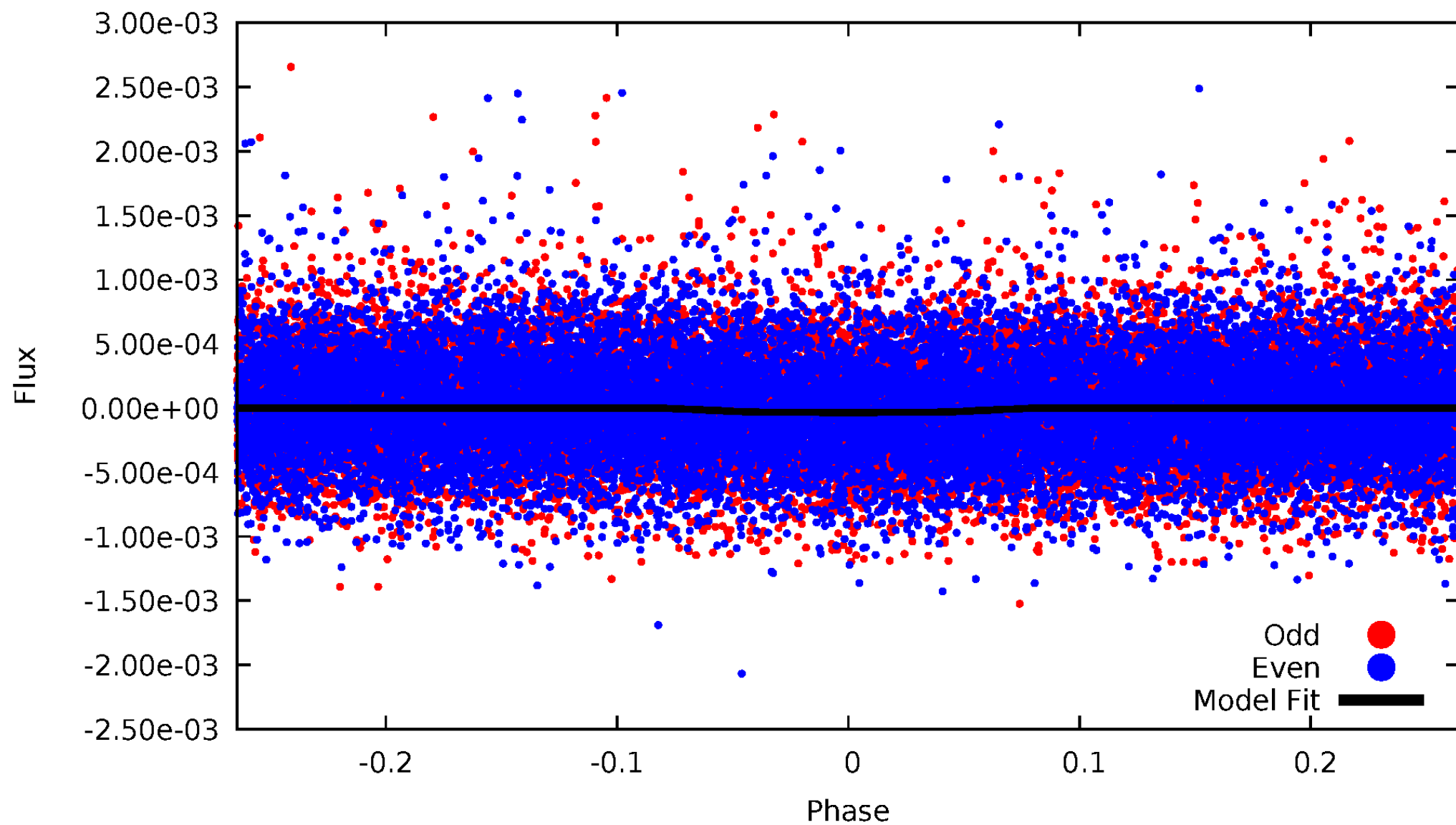


TCE 007200506-01



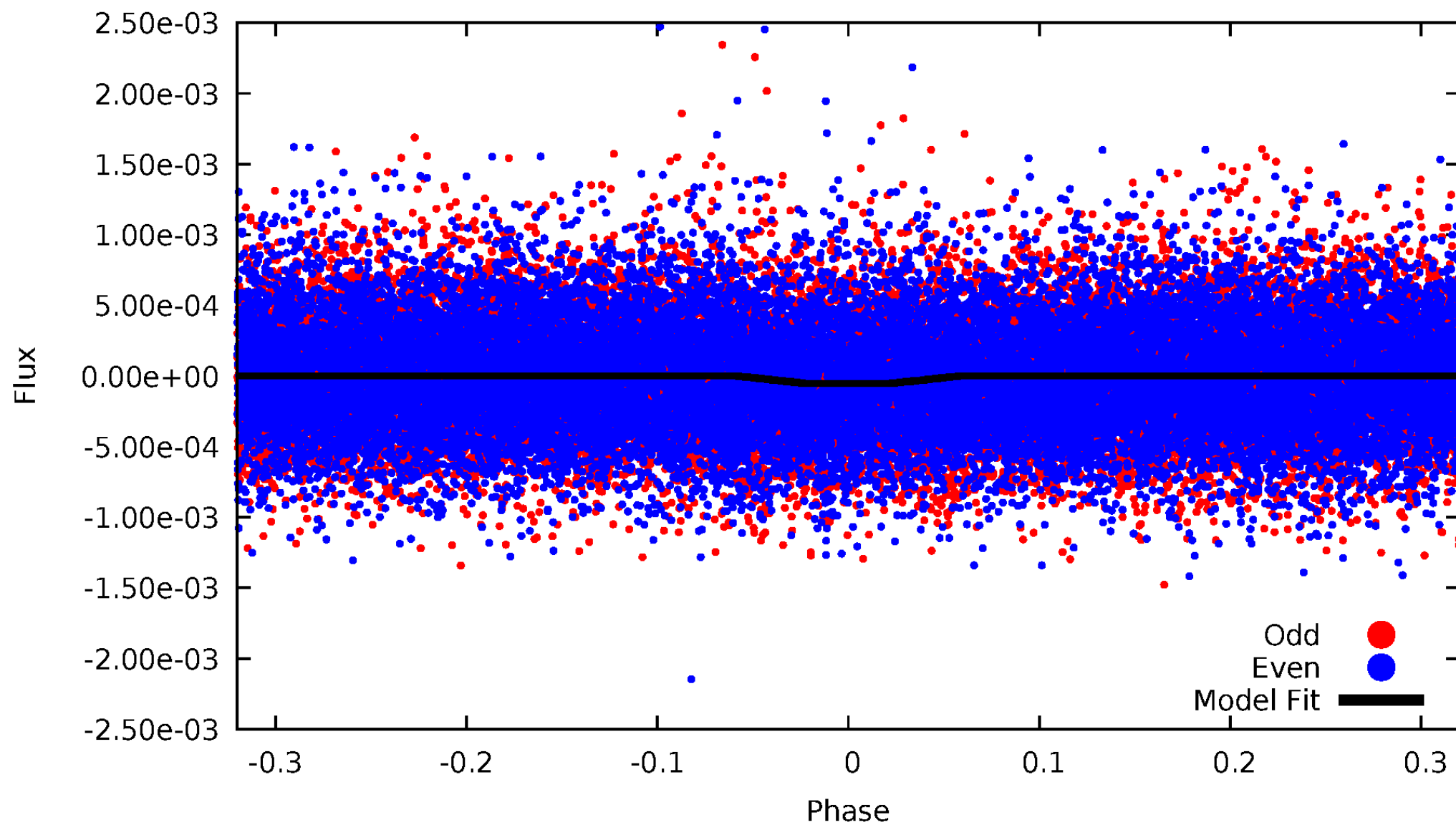
DV Odd/Even

TCE 007200506-01



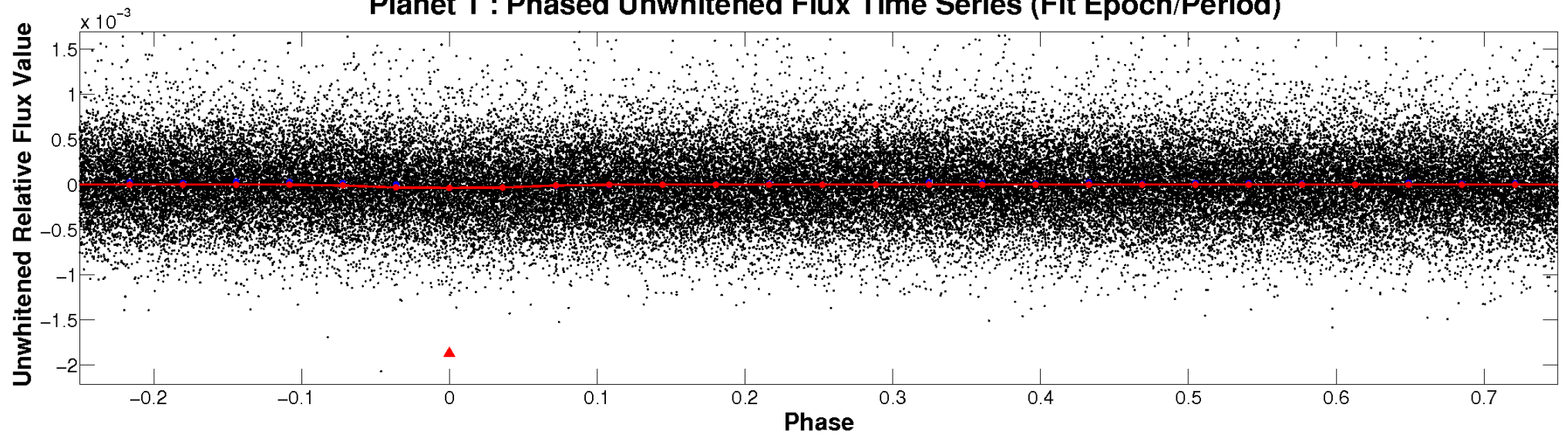
ALT Odd/Even

TCE 007200506-01

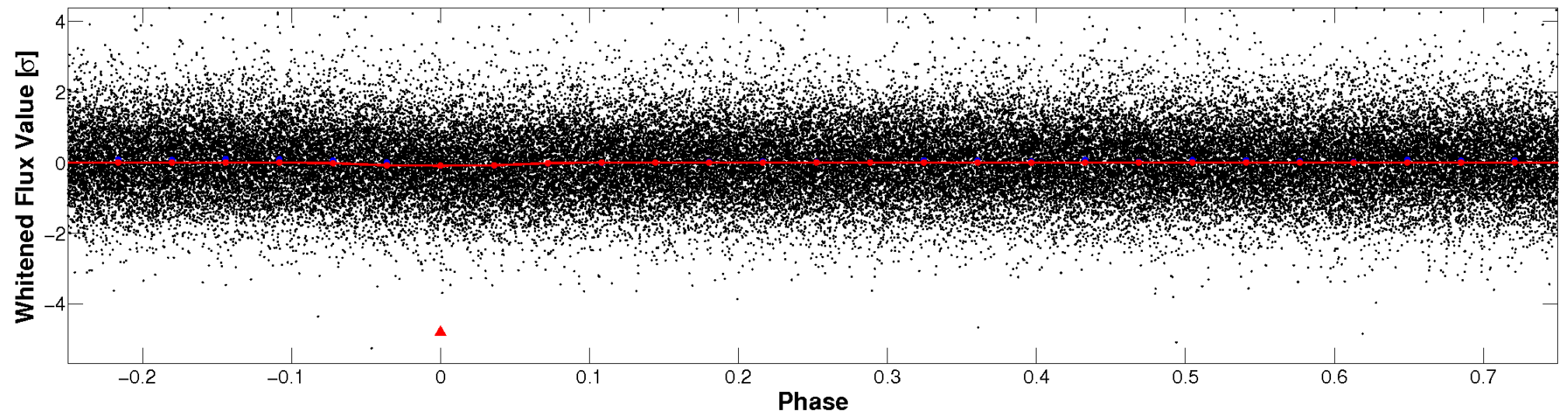


Non-Whitened Vs. Whitened Light Curve

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

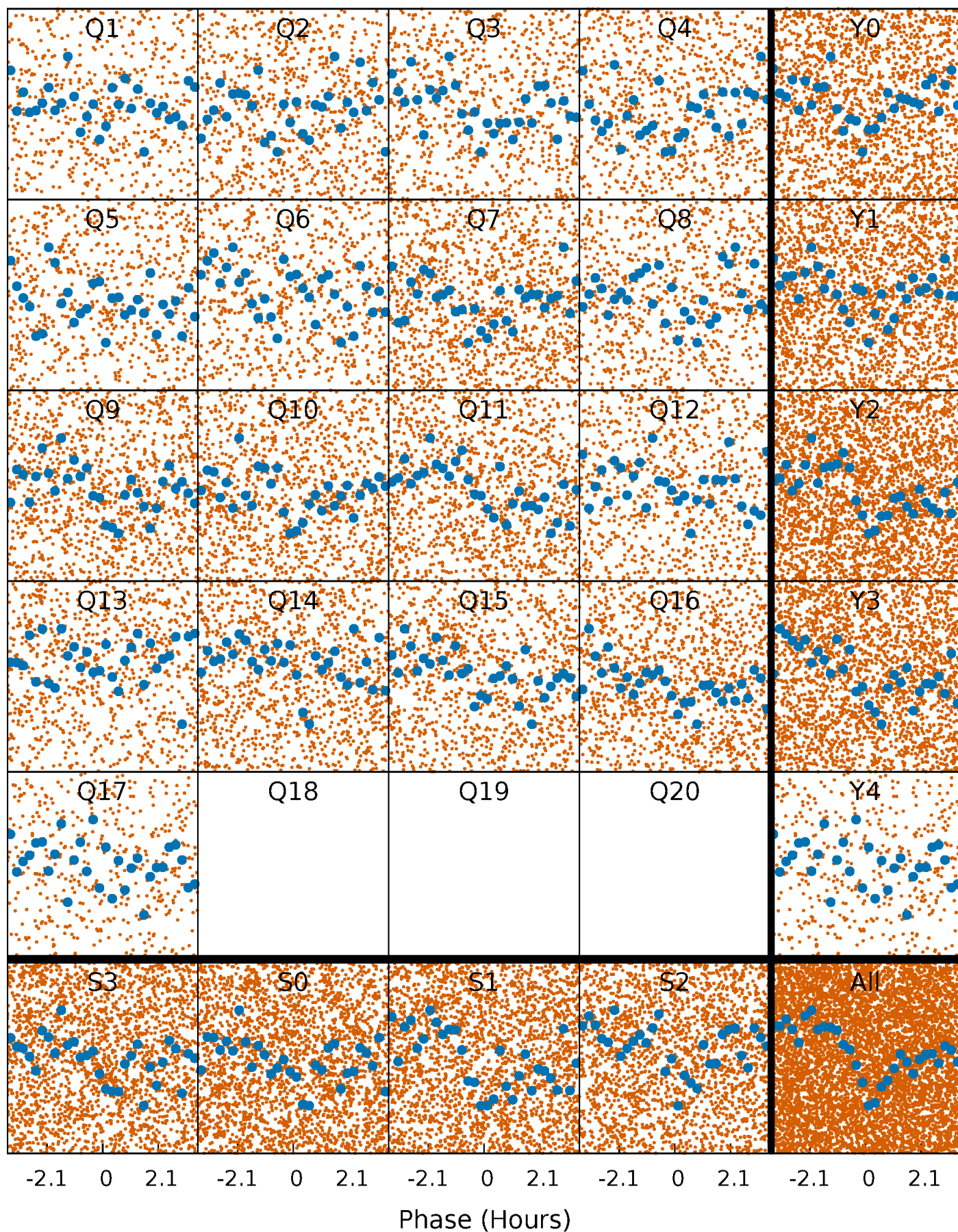


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



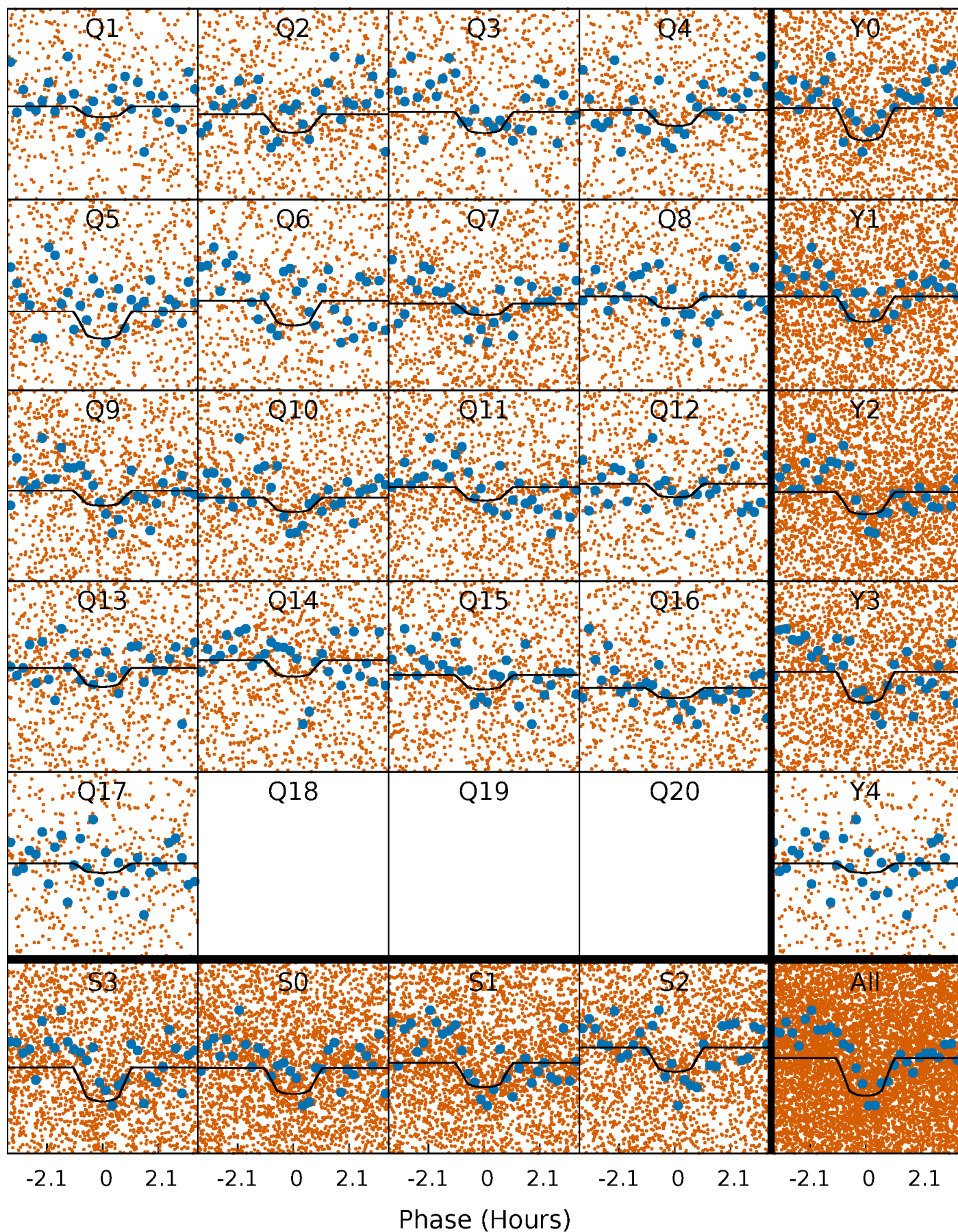
PDC Quarter-Phased Transit Curves

TCE 007200506-01 P= 0.566767 Days $T_0=131.833431$ (BKJD)



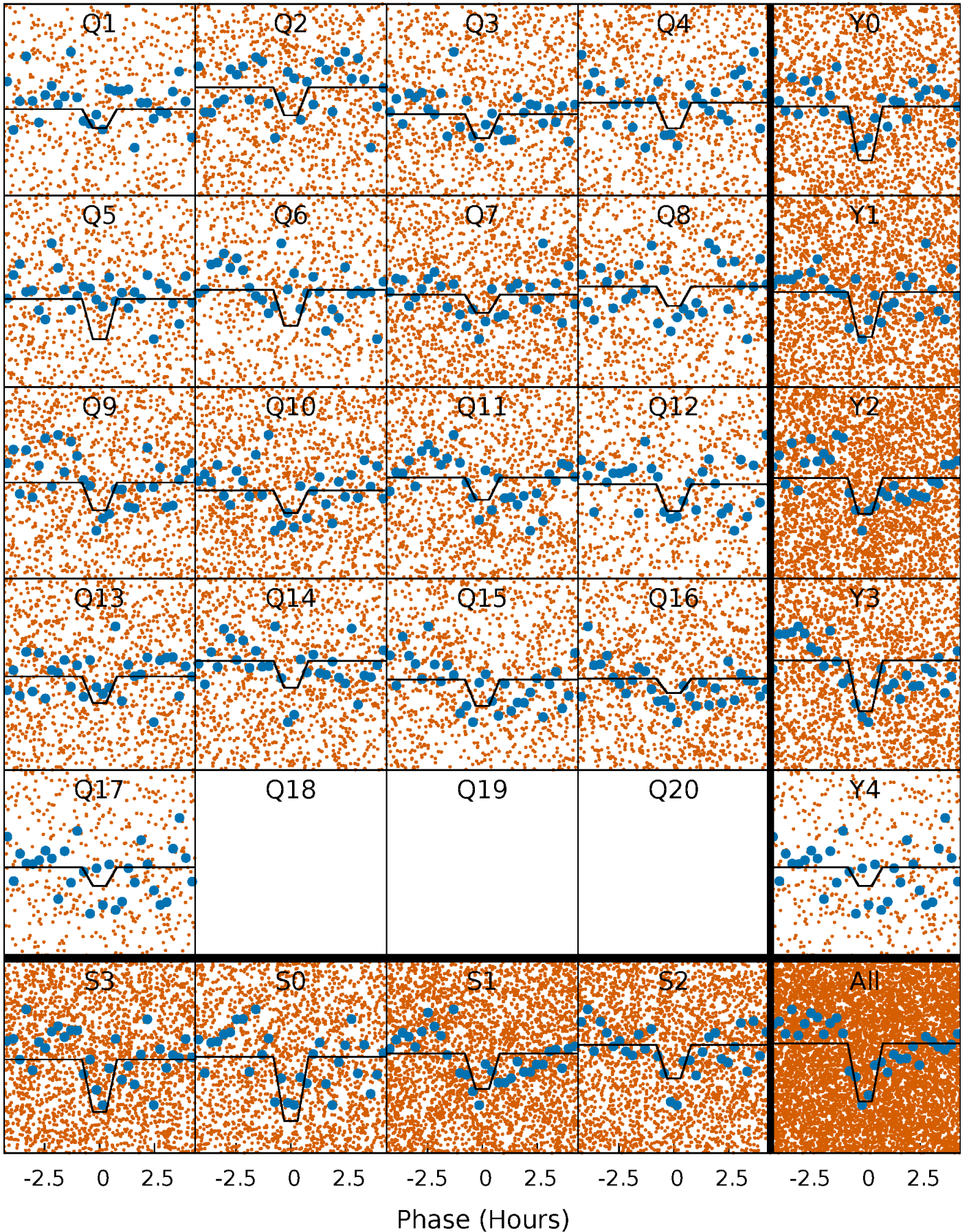
DV Quarter-Phased Transit Curves

TCE 007200506-01 P= 0.566767 Days $T_0=131.833431$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

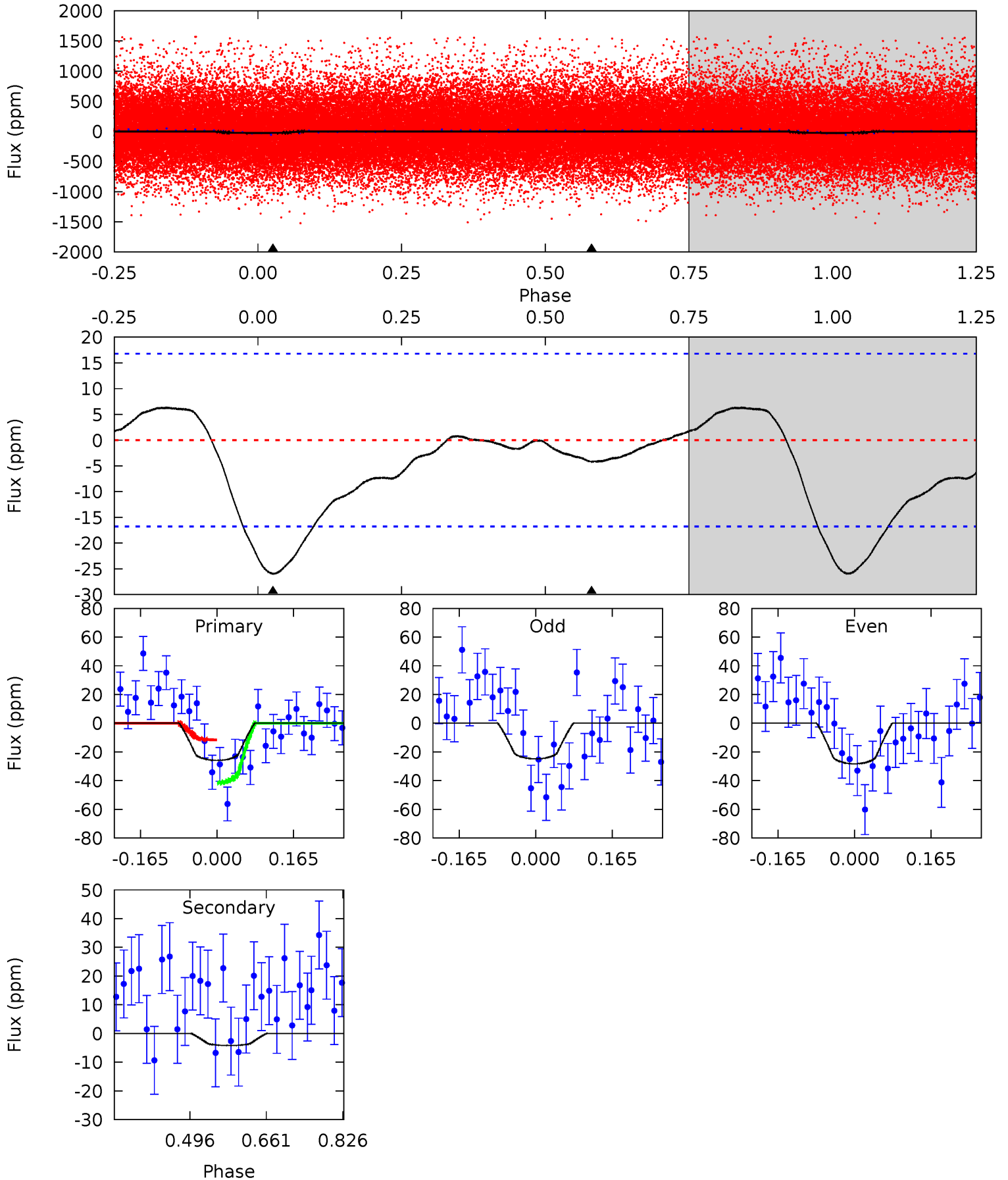
TCE 007200506-01 P= 0.566779 Days $T_0=131.830437$ (BKJD)



DV Model-Shift Uniqueness Test

007200506-01, P = 0.566767 Days, E = 131.266664 Days

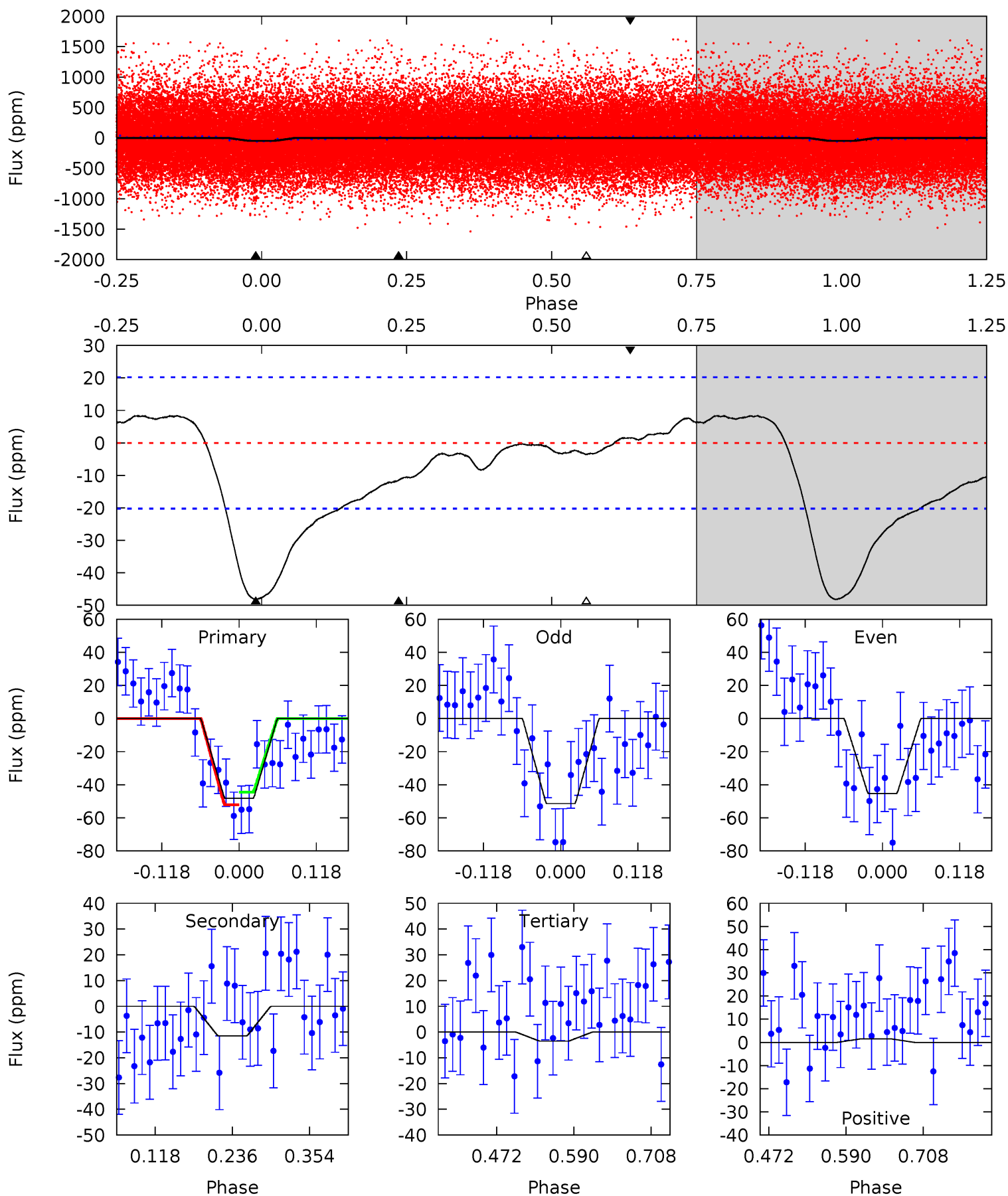
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.89	1.11	0	0	4.46	1.39	1.20	6.89	6.89	1.11	1.11	0.46	0.73	0.20	3.99



Alt Model-Shift Uniqueness Test

007200506-01, P = 0.566779 Days, E = 131.263658 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	2.57	0.79	0.35	4.53	1.56	1.28	10.00	10.4	1.78	2.23	0.69	0.83	0.15	0.86



Stellar Parameters For KIC 007200506

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5984^{+161}_{-179}	$4.521^{+0.046}_{-0.184}$	$-0.200^{+0.250}_{-0.350}$	$0.906^{+0.251}_{-0.084}$	$0.993^{+0.121}_{-0.133}$	$1.883^{+0.456}_{-0.898}$
	+3%/-3%	+1%/-4%	+125%/-175%	+28%/-9%	+12%/-13%	+24%/-48%
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 007200506-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-4 ± 4	$0.76^{+0.57}_{-0.44}$	3099^{+200}_{-146}	3067^{+1663}_{-6144}	$0.563^{+2.866}_{-0.518}$
Alt.	-12 ± 4	$0.83^{+0.56}_{-0.52}$	3094^{+200}_{-130}	3969^{+2221}_{-1009}	$1.564^{+9.131}_{-1.078}$

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 $A_{obs} \gg 1.0$

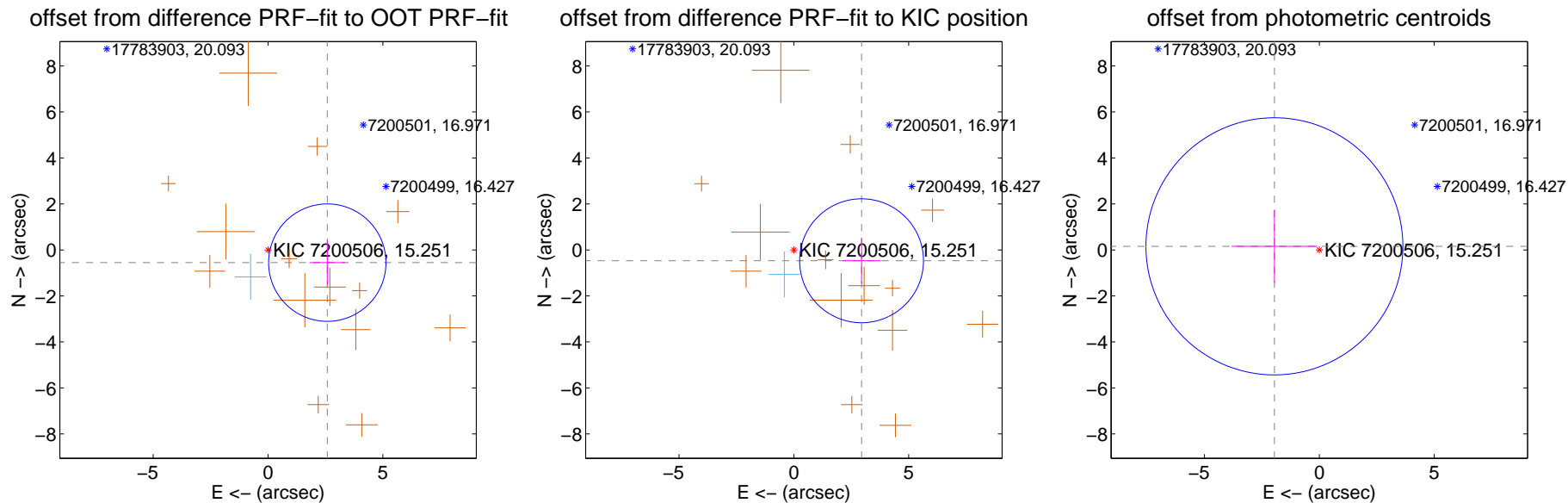
DV Centroid Data

Supplemental centroid analysis for 007200506-01. Kepler magnitude: 15.25. Transit SNR 7.10

There are 1 quarters with good PRF difference image offsets

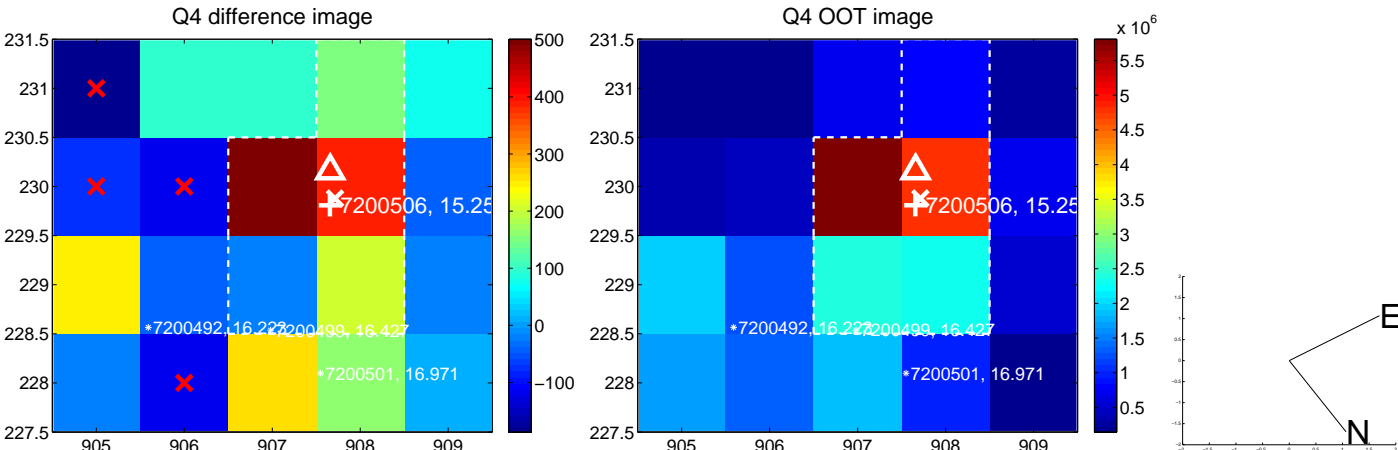
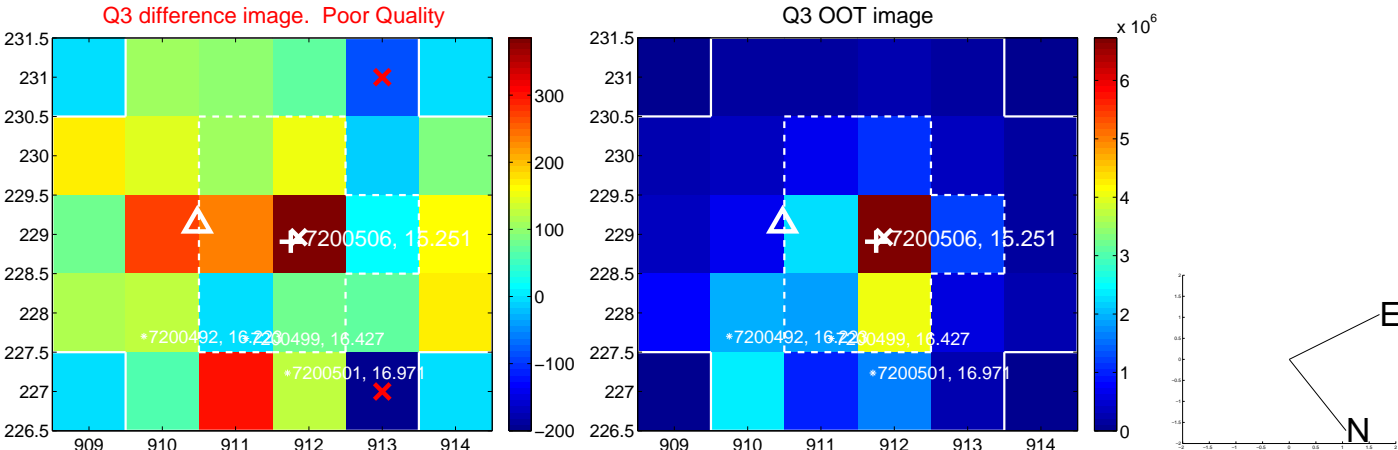
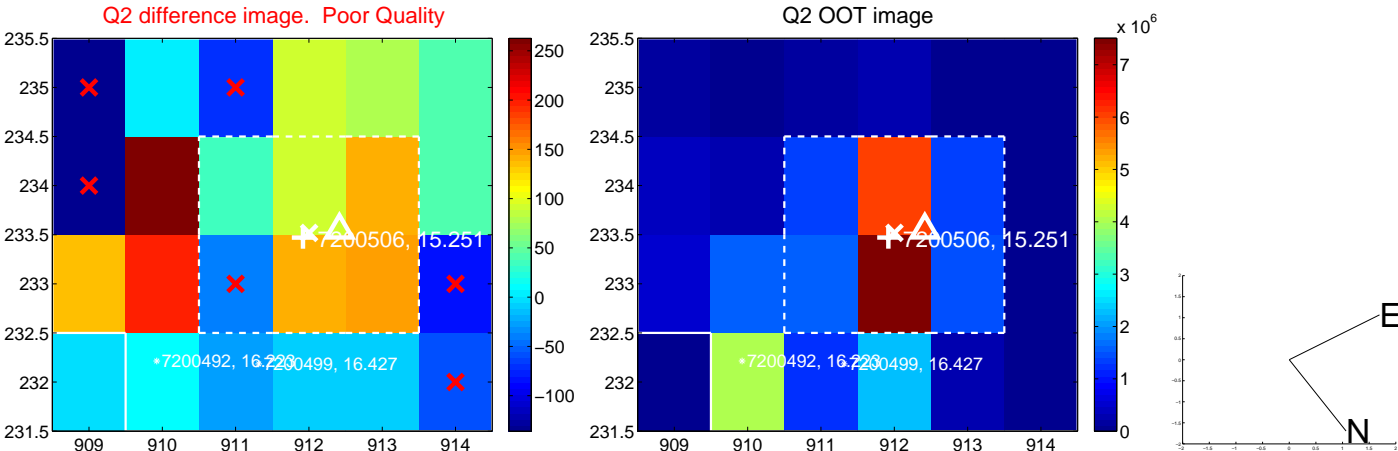
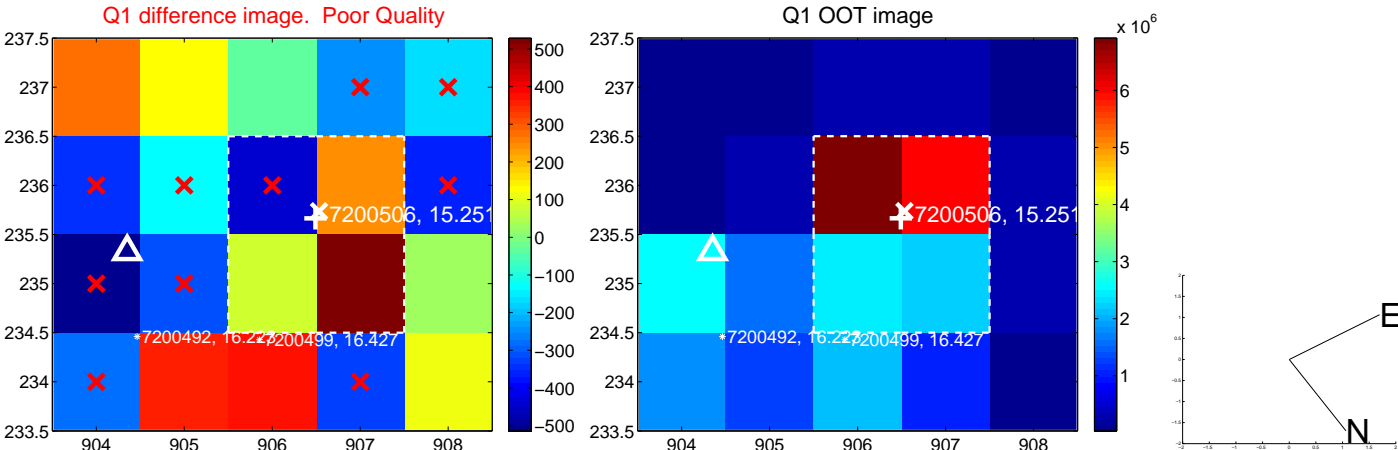
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.638 ± 0.851	3.10	-2.579 ± 0.773	-0.552 ± 0.967
PRF-fit source offset from KIC position	2.985 ± 0.898	3.32	-2.947 ± 0.833	-0.471 ± 0.995
photometric centroid source offset	1.96 ± 1.86	1.05	1.95 ± 1.87	0.16 ± 1.58

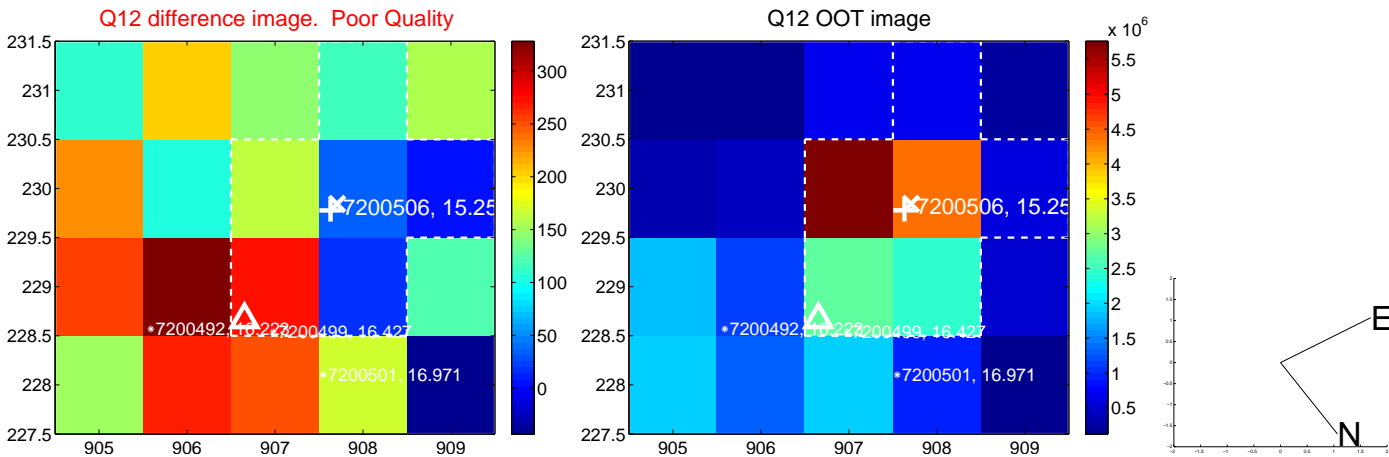
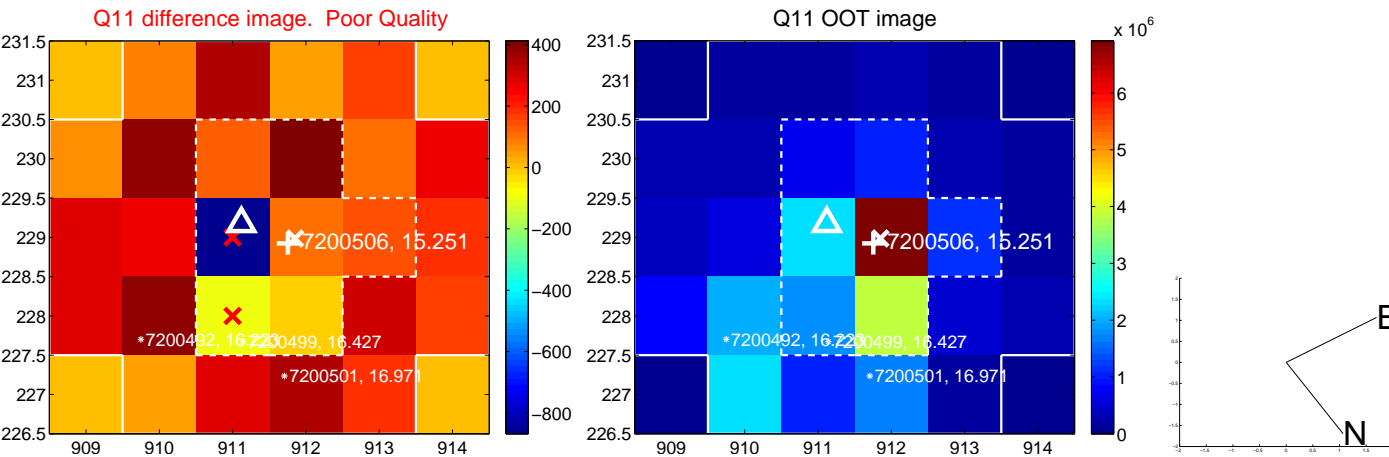
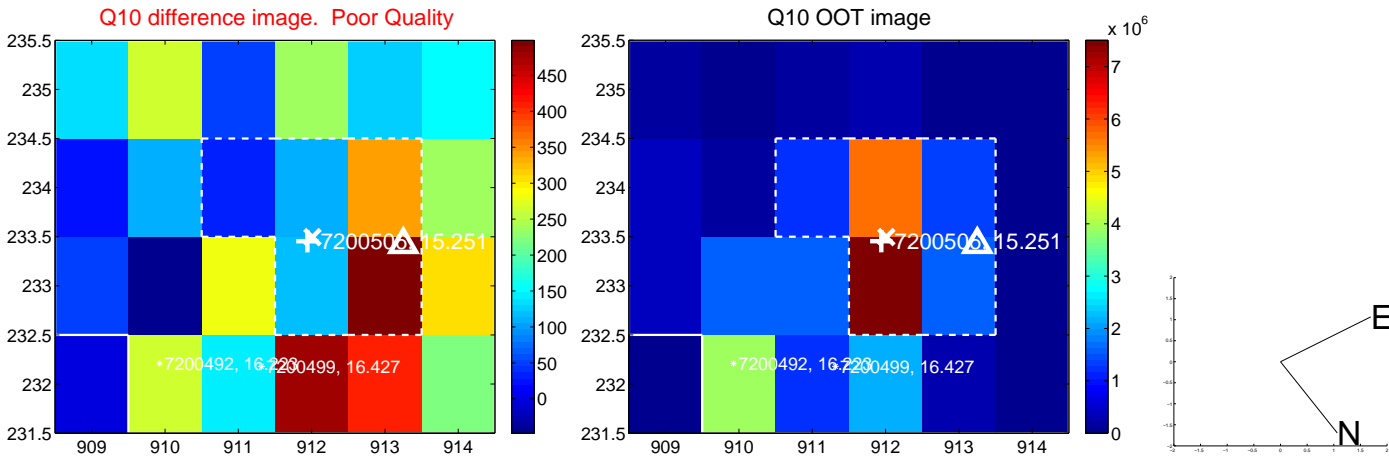
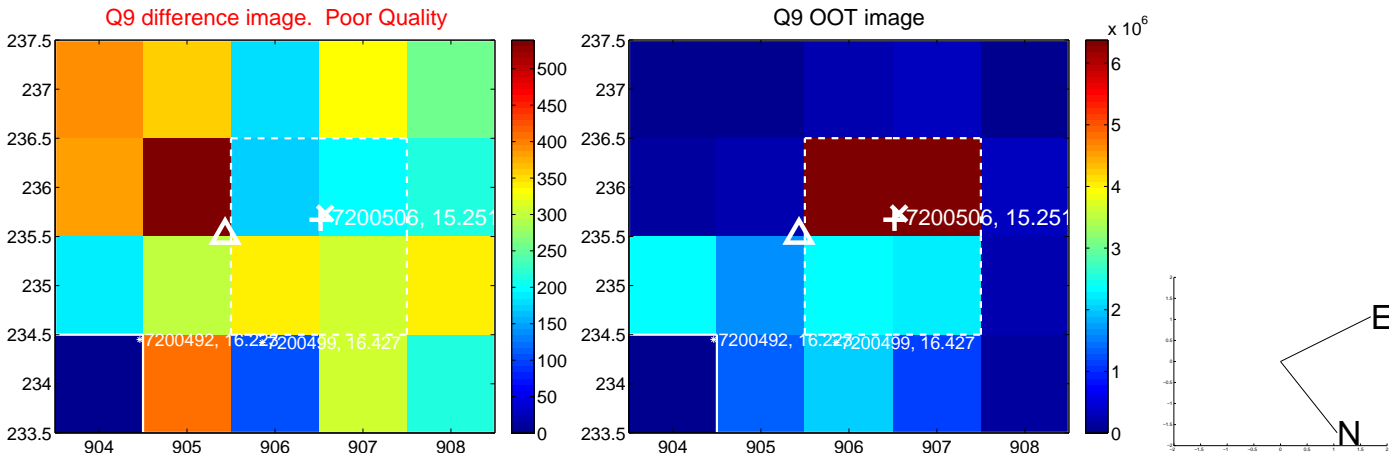


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

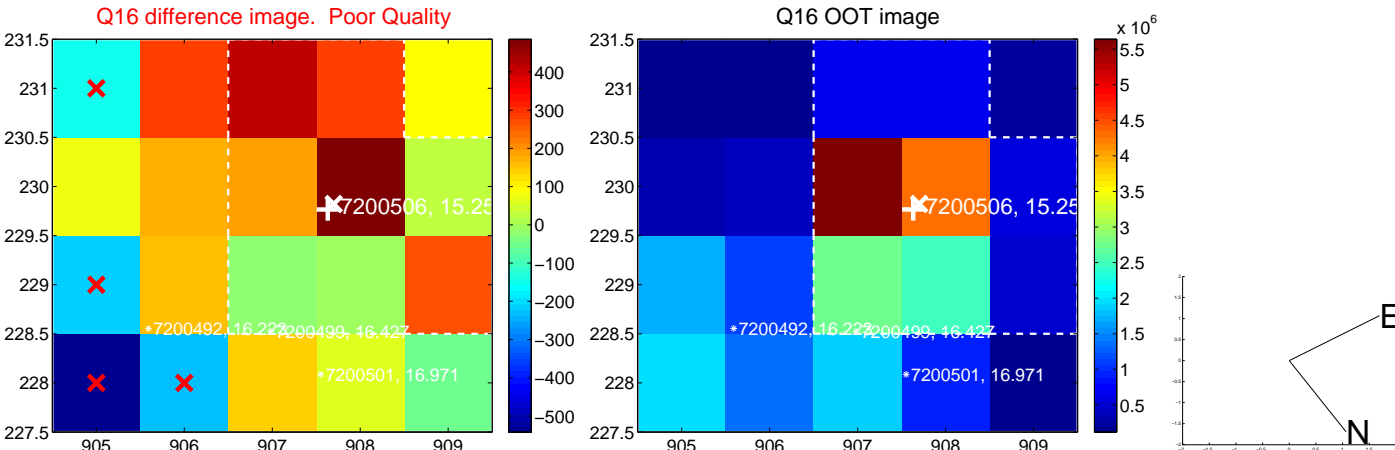
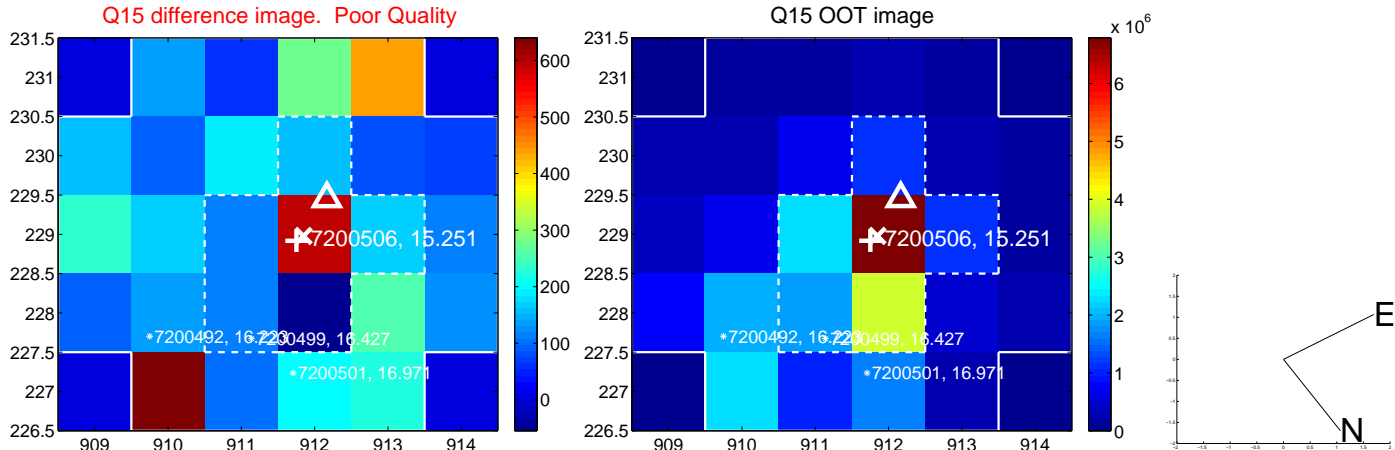
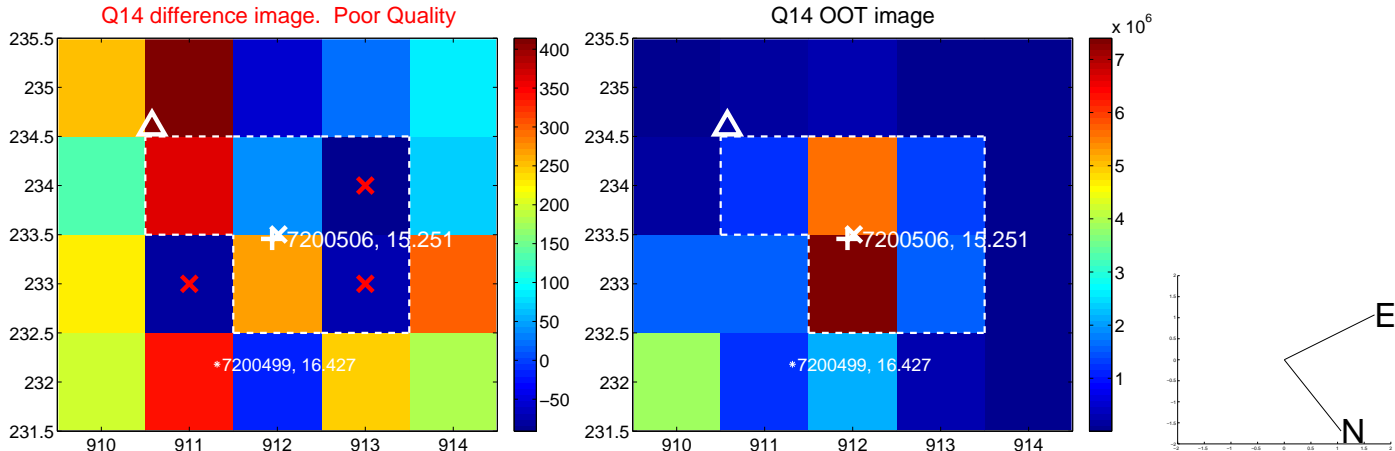
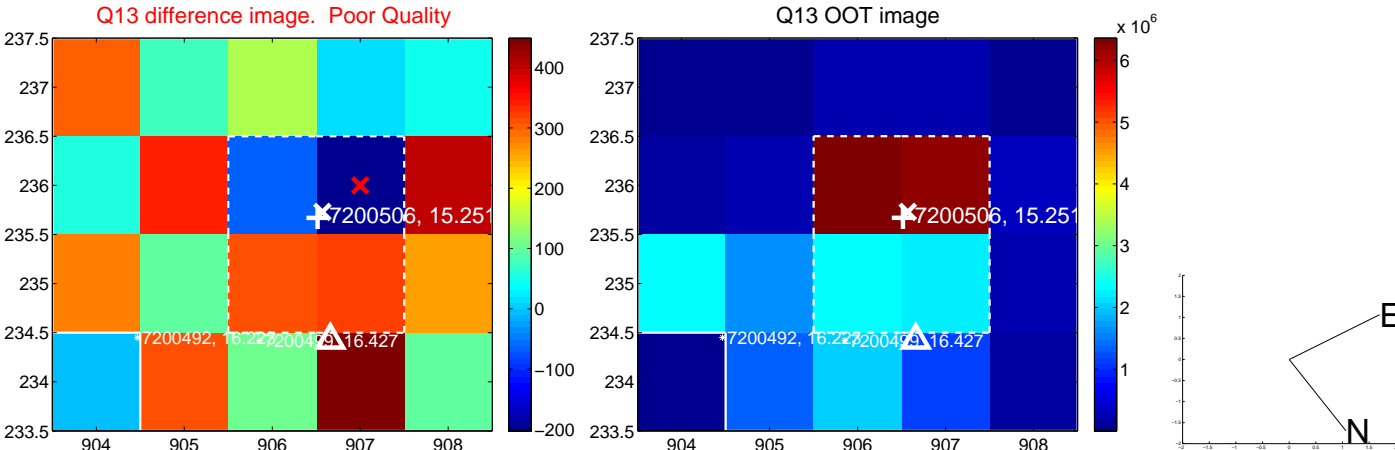
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



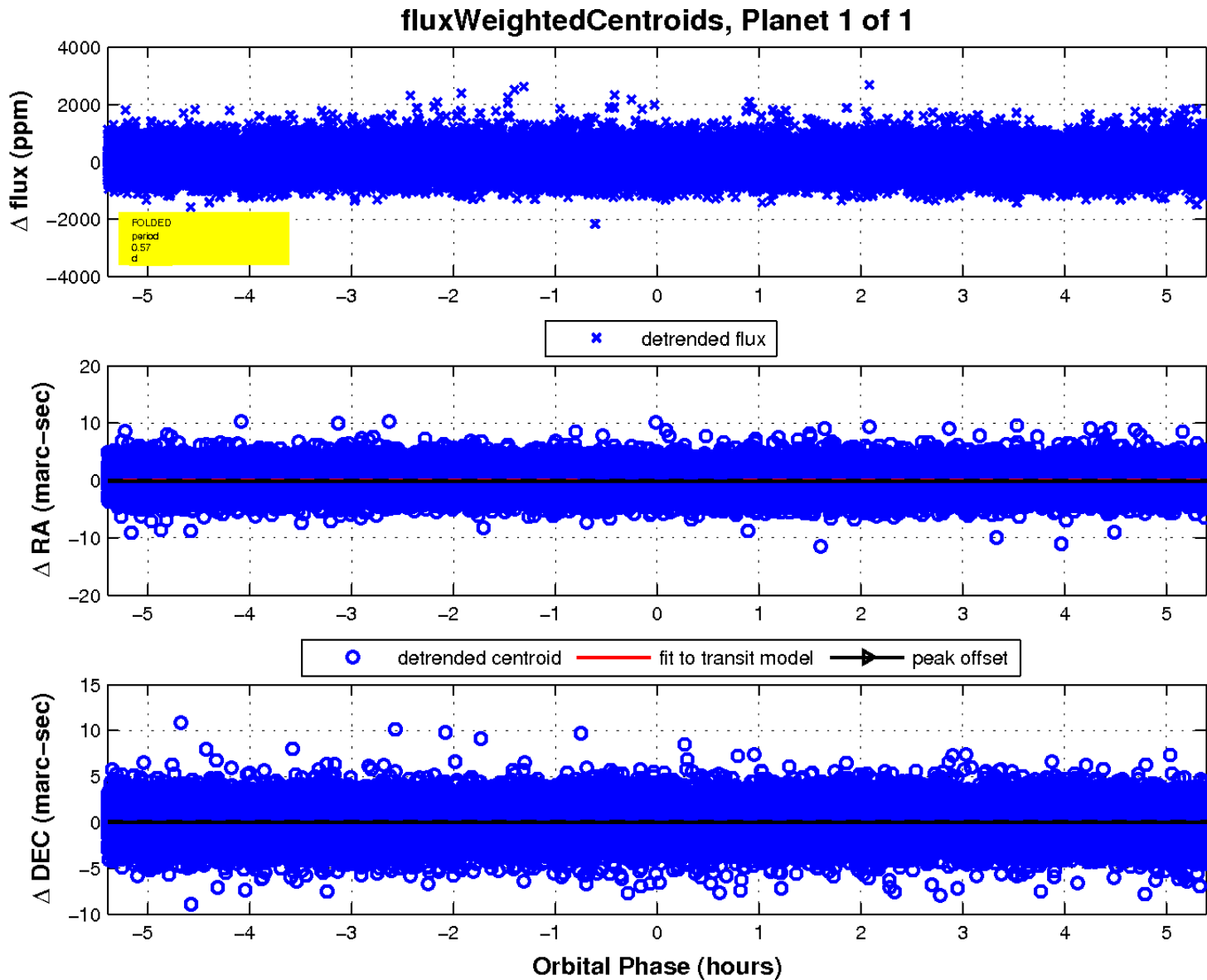
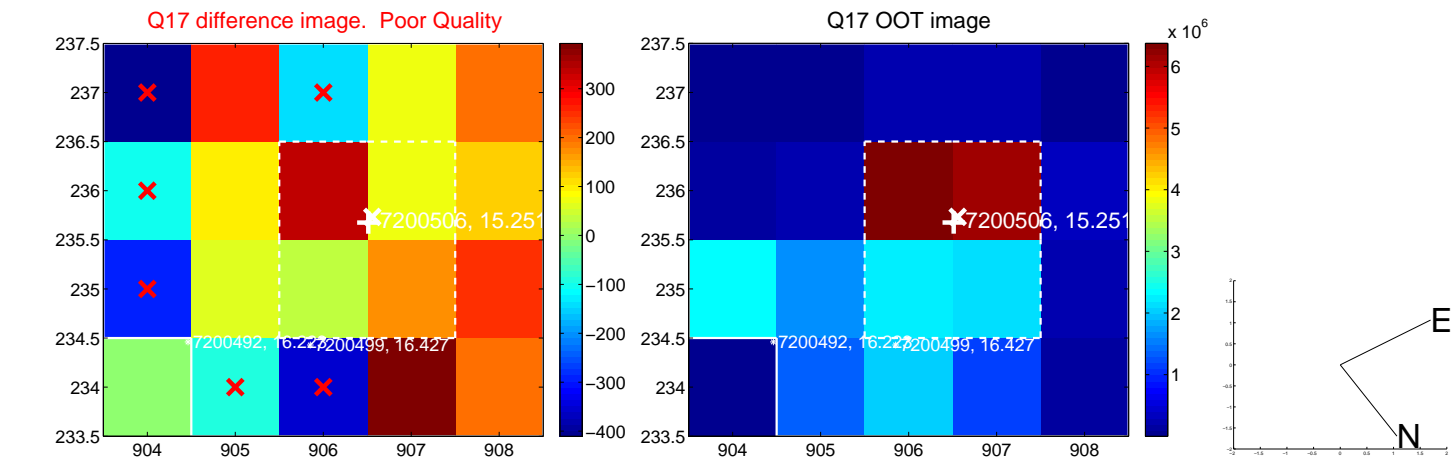
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

