

KIC 006953281

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
006953281-01	OBS	8130.01	0.566789	131.806133	65.5	1.290	9.2	9.3	1.07	6322	1.04	8511.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006953281-01	OBS	FP	0.00	0	0	1	1	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.

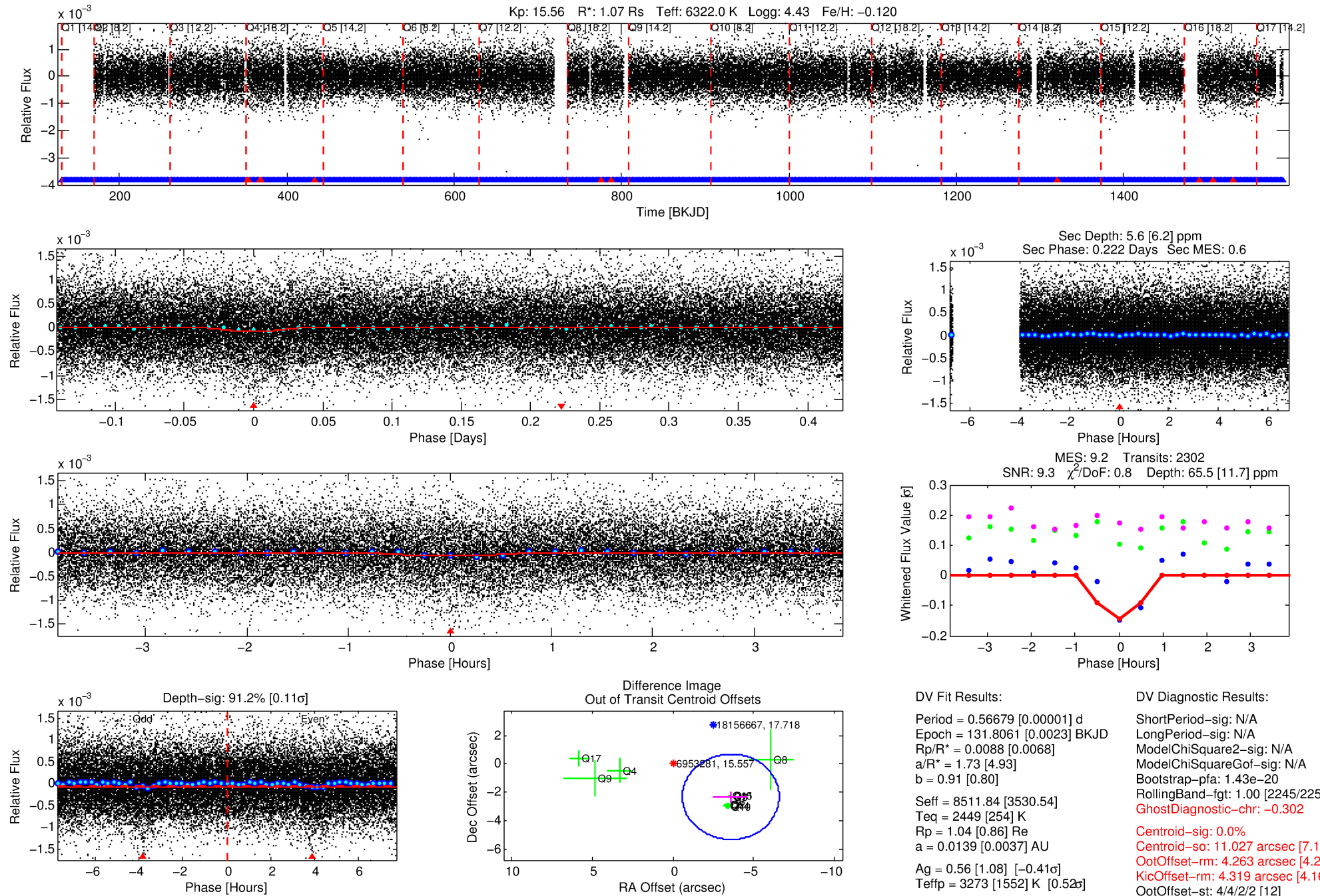
Ephemeris Match Information For 006953281-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
006953281-01	6953281	RR-Lyr-pri	7198959	1:1	5197.6	942	-2	7.86	15.56	9443.90	Col-Anomaly	0	1.87	20.72

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol 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 σ_P < 5.0 and σ_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

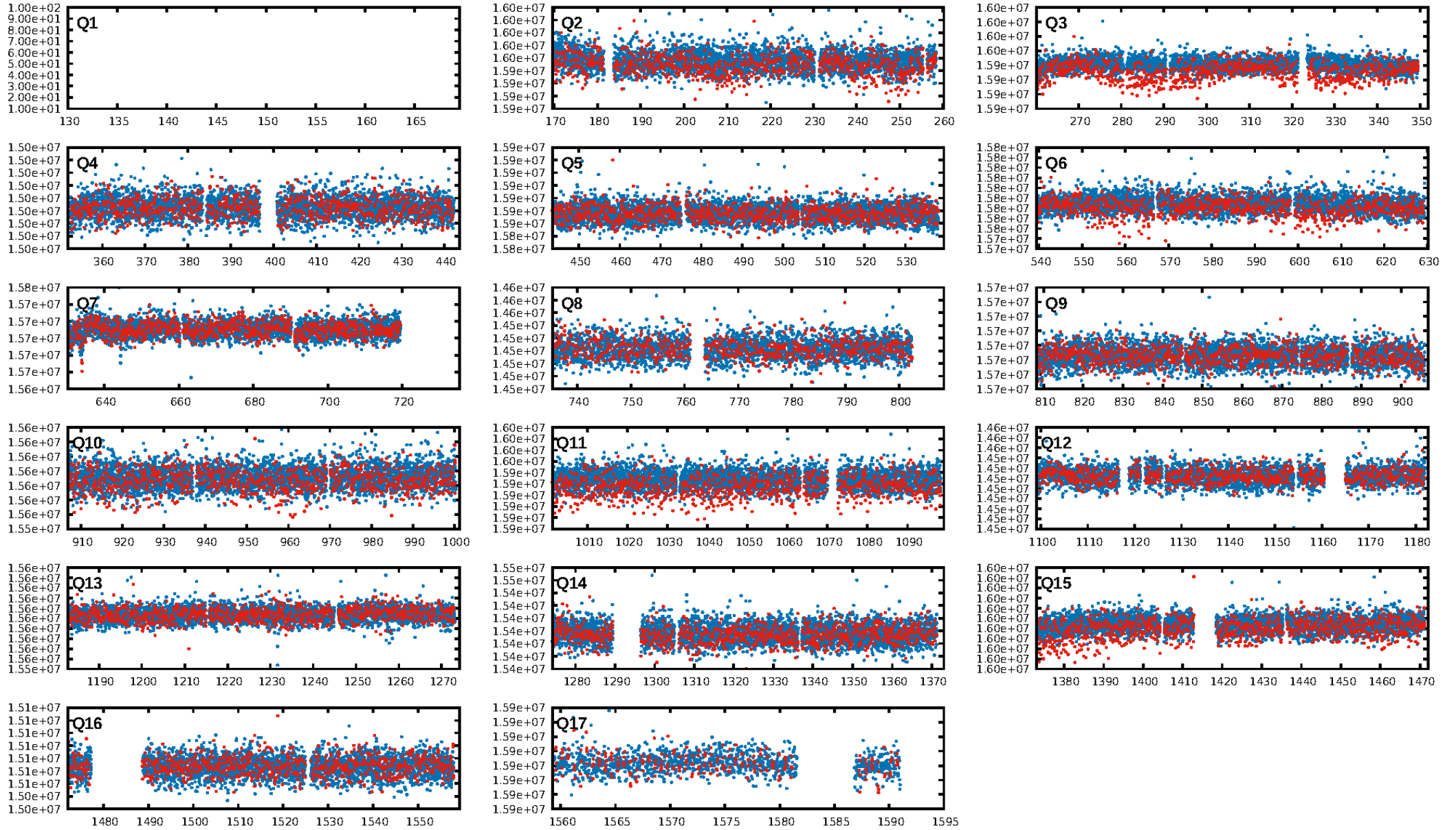
KIC: 6953281 Candidate: 1 of 1 Period: 0.567 d



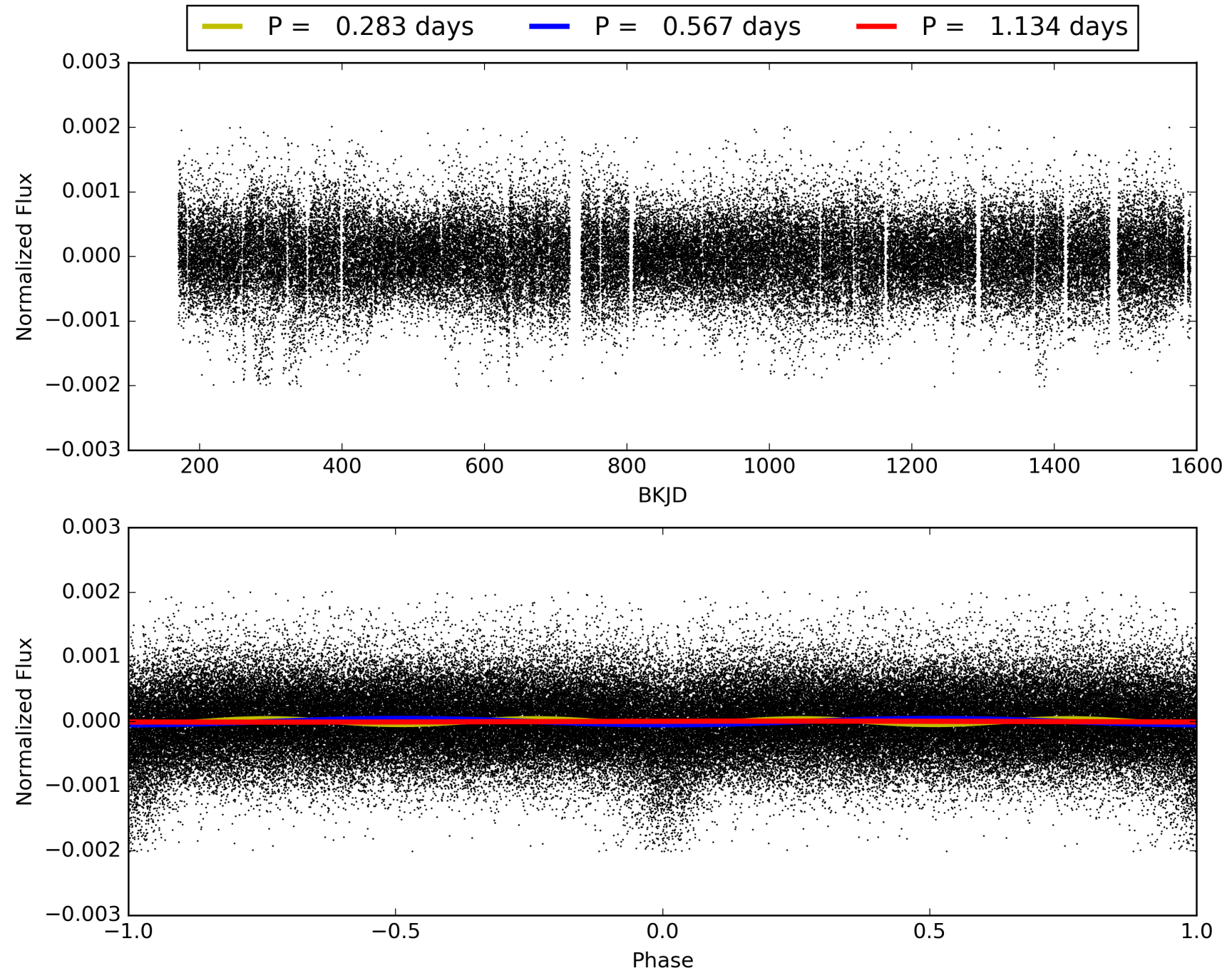
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 13:11:17 Z

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

TCE 006953281-01, PDC Light Curves

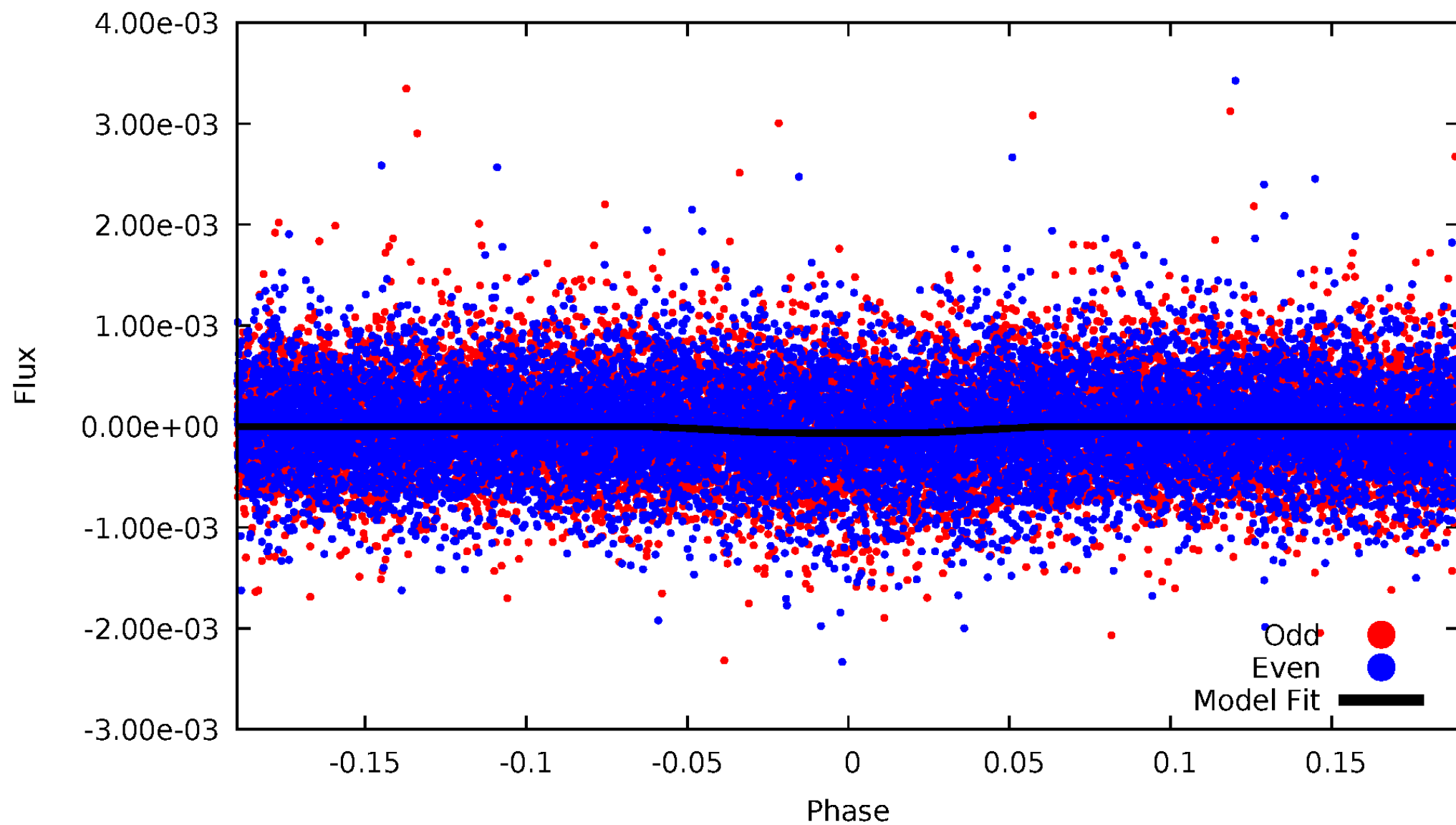


TCE 006953281-01



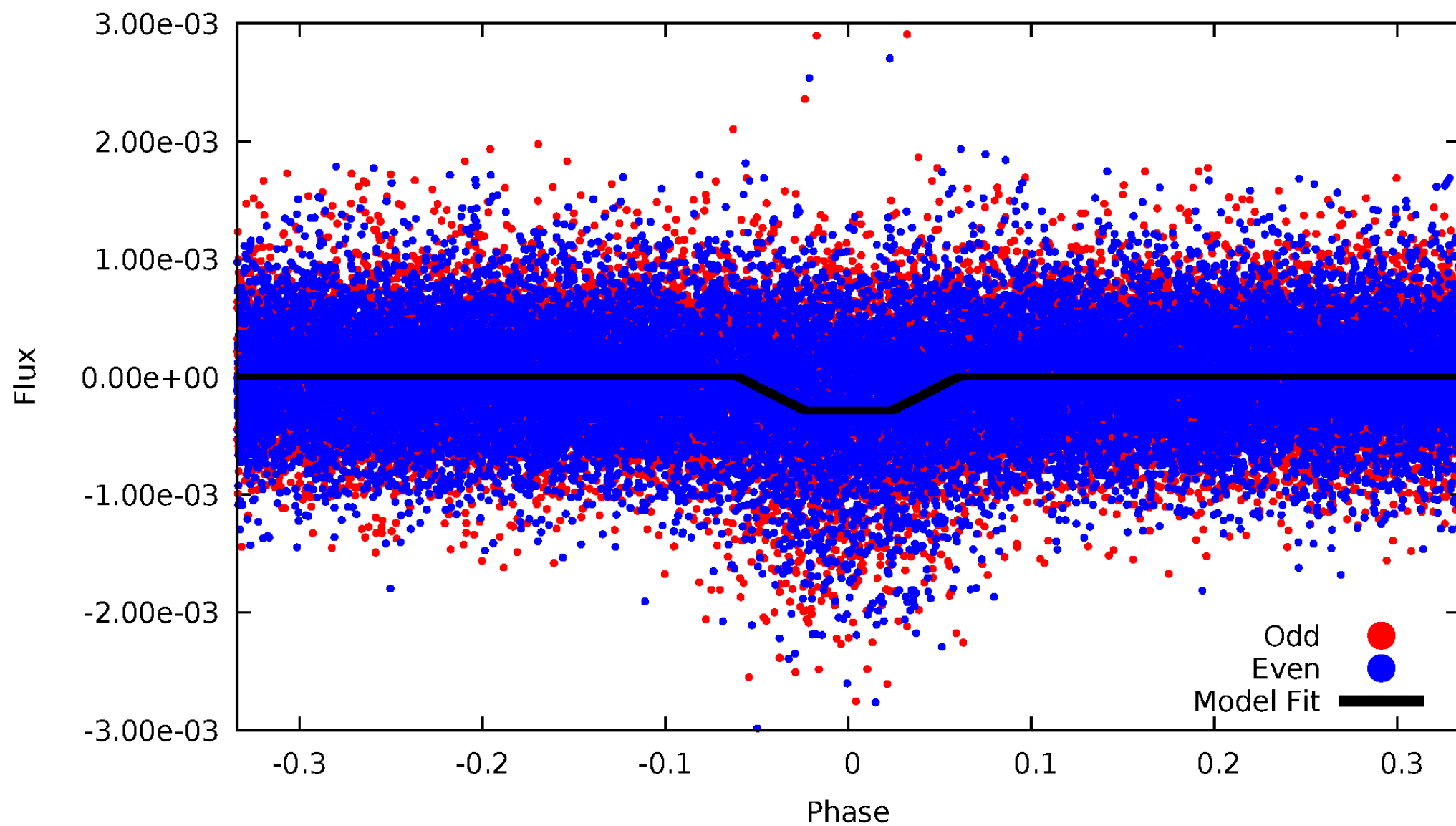
DV Odd/Even

TCE 006953281-01

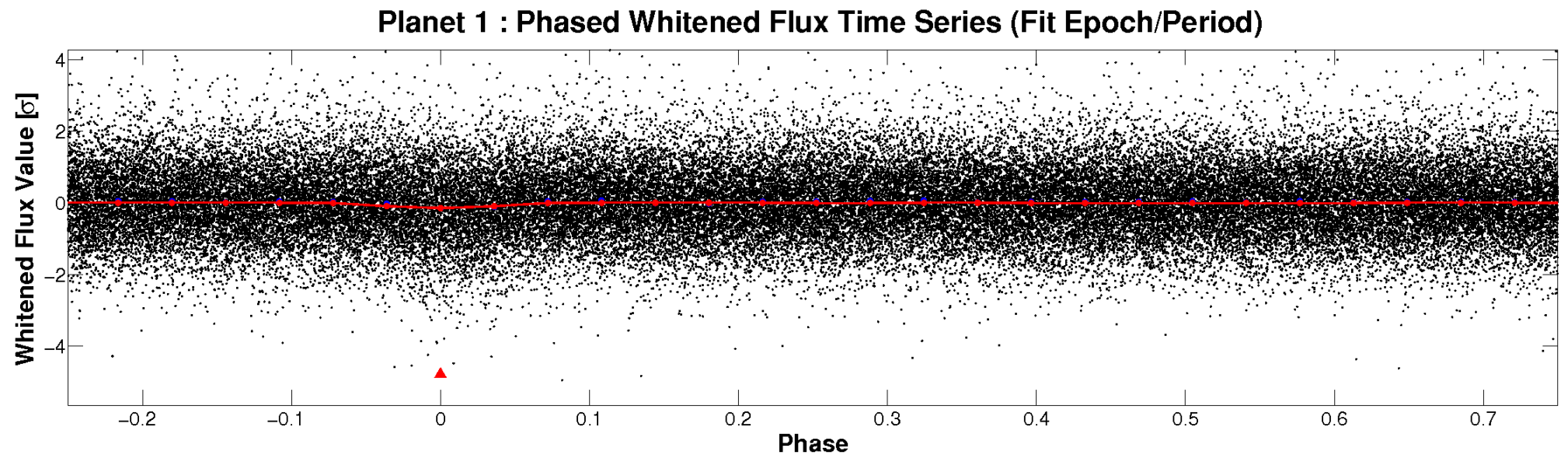
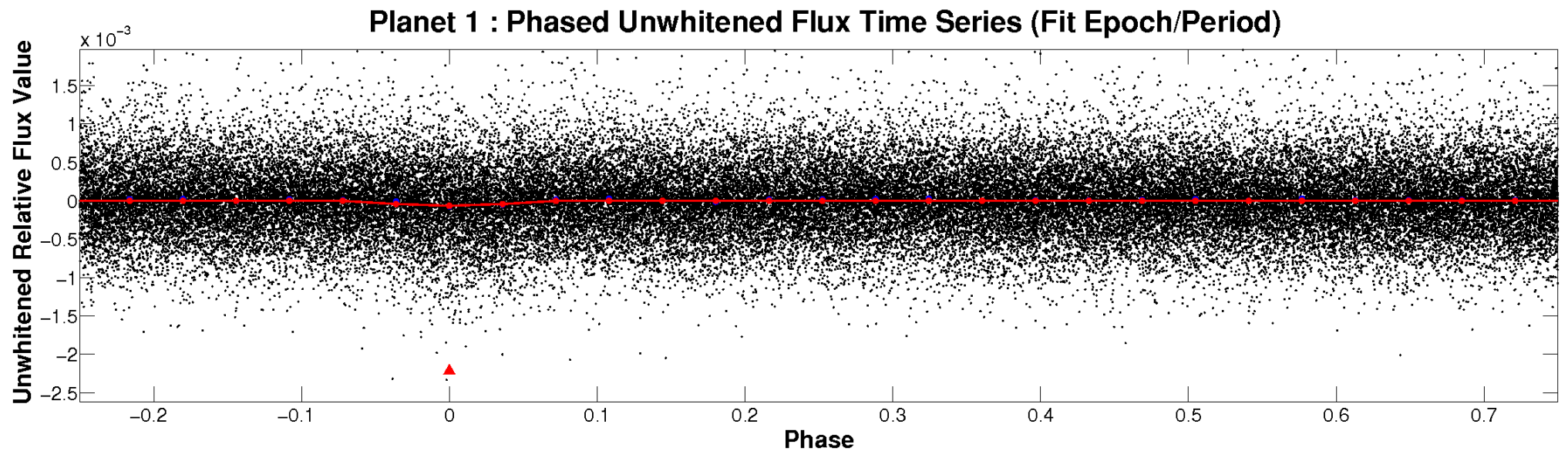


ALT Odd/Even

TCE 006953281-01

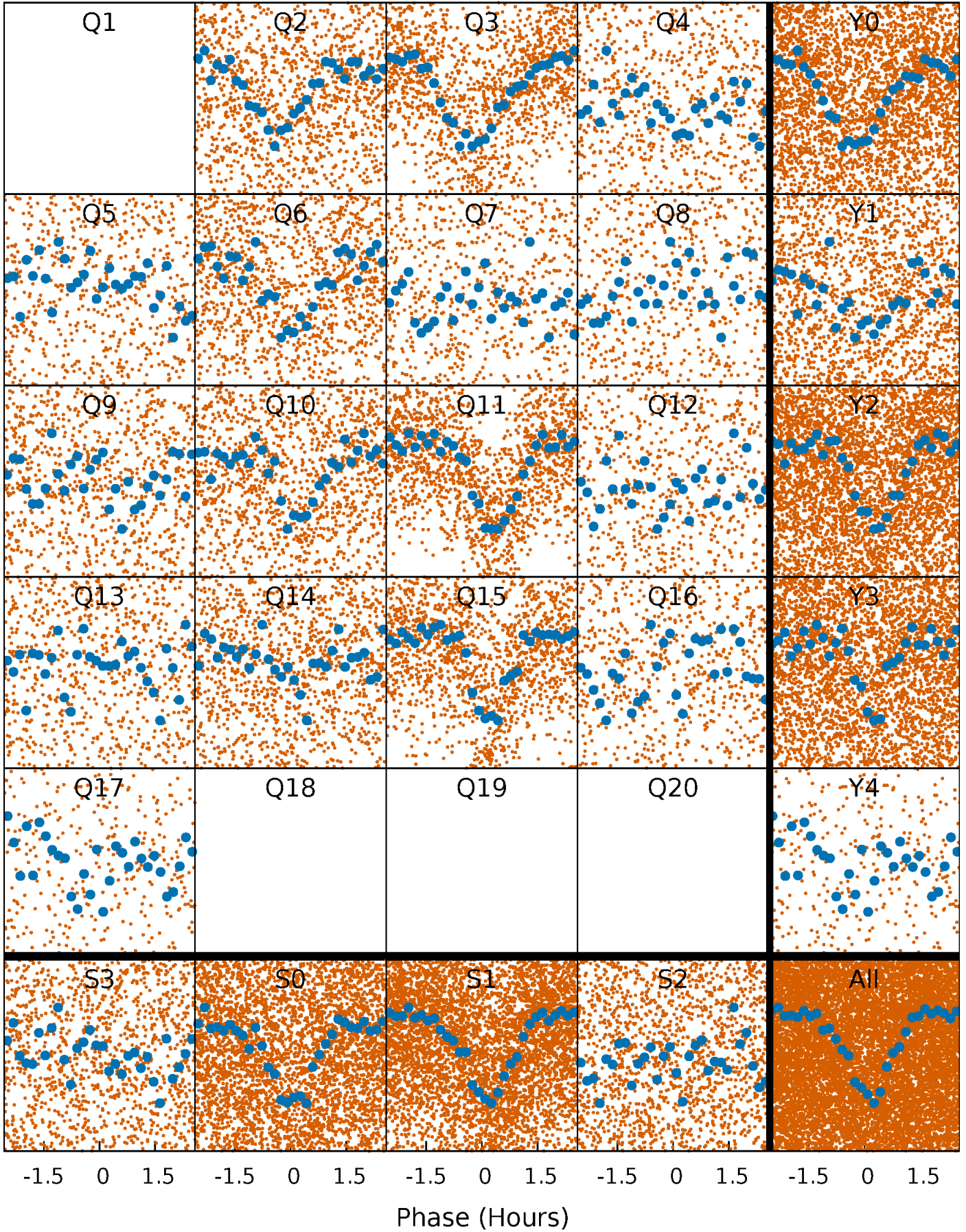


Non-Whitened Vs. Whitened Light Curve



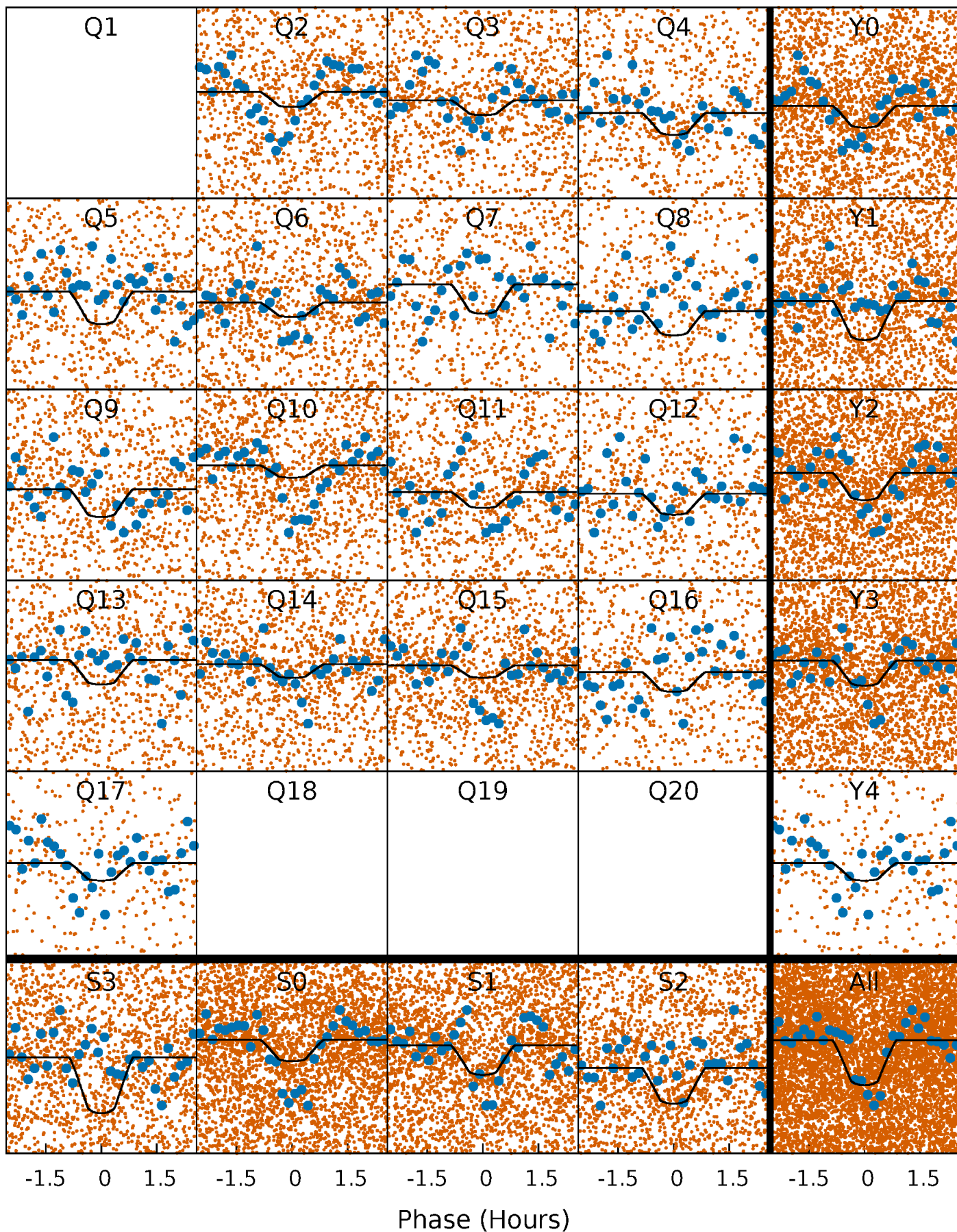
PDC Quarter-Phased Transit Curves

TCE 006953281-01 P= 0.566789 Days $T_0=131.806133$ (BKJD)



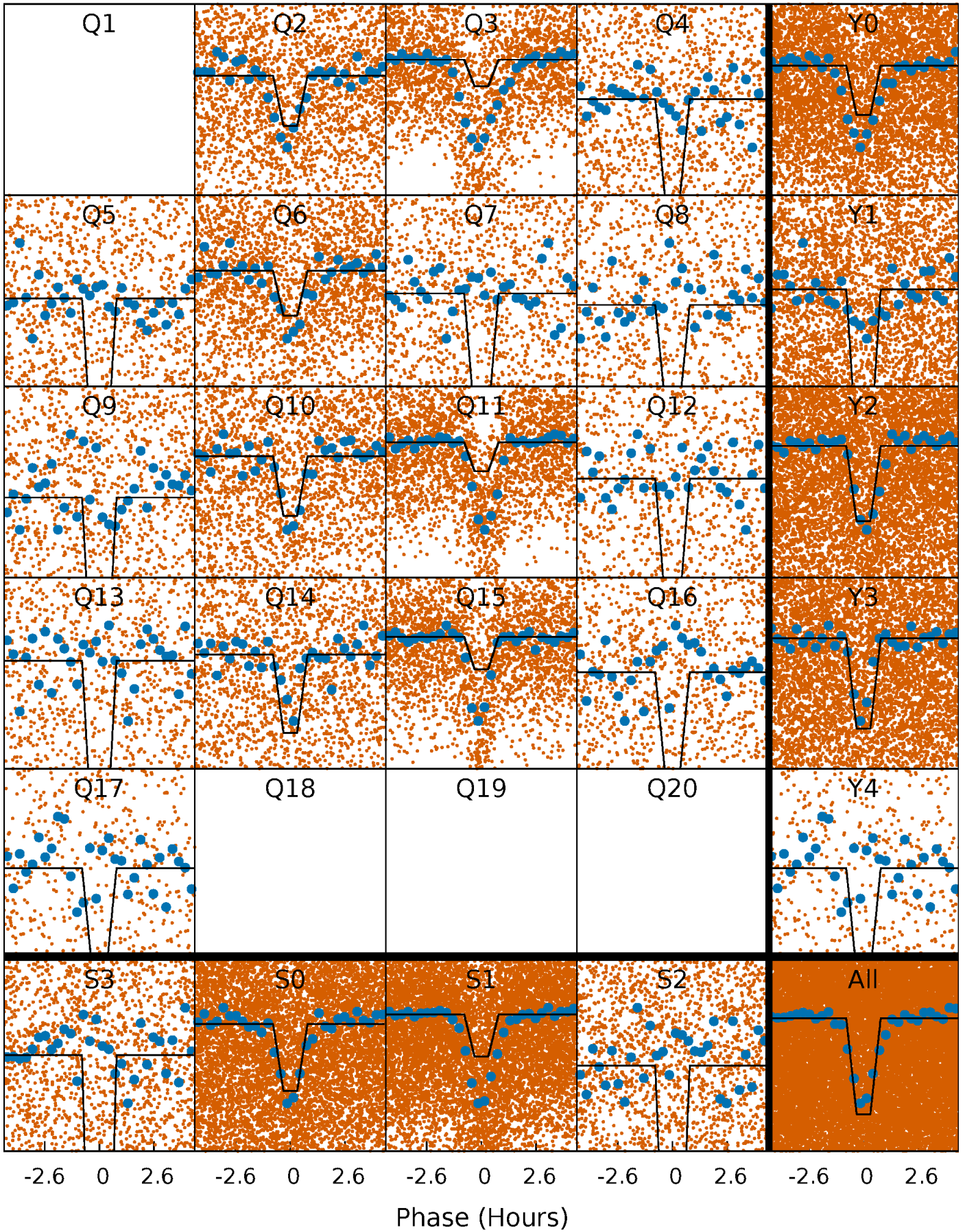
DV Quarter-Phased Transit Curves

TCE 006953281-01 P= 0.566789 Days $T_0=131.806133$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

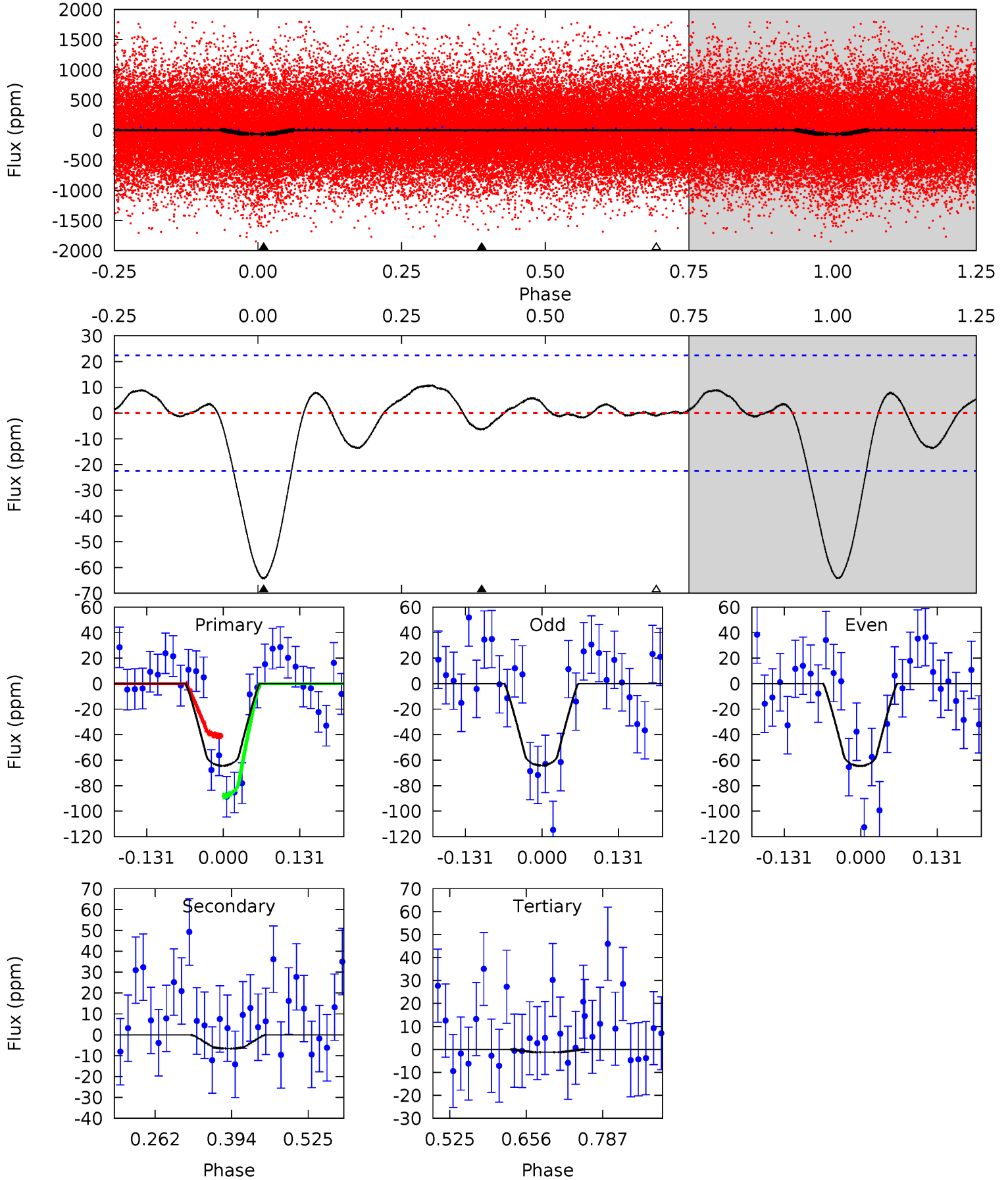
TCE 006953281-01 P= 0.566798 Days $T_0=131.798024$ (BKJD)



DV Model-Shift Uniqueness Test

006953281-01, P = 0.566789 Days, E = 131.806133 Days

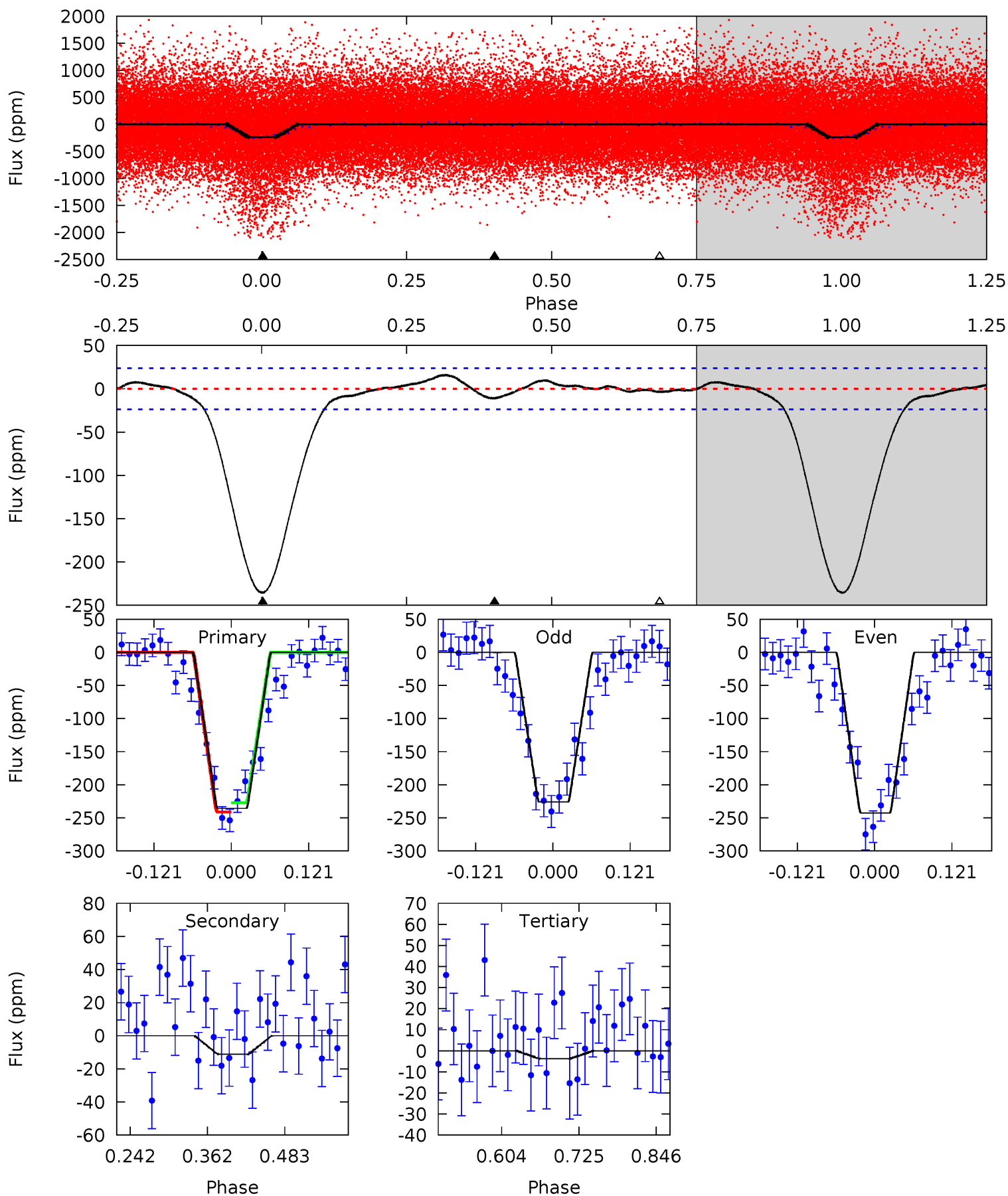
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.9	1.32	0.25	0	4.51	1.51	1.04	12.7	12.9	1.07	1.32	0.04	1.53	0.14	4.71



Alt Model-Shift Uniqueness Test

006953281-01, P = 0.566798 Days, E = 131.798024 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.8	2.13	0.71	0	4.52	1.55	0.84	44.1	44.8	1.42	2.13	1.59	1.48	0.06	1.33



Stellar Parameters For KIC 006953281

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6322^{+175}_{-241}	$4.426^{+0.065}_{-0.208}$	$-0.120^{+0.250}_{-0.300}$	$1.075^{+0.349}_{-0.116}$	$1.124^{+0.154}_{-0.154}$	$1.274^{+0.372}_{-0.686}$
	+3%/-4%	+1%/-5%	+208%/-250%	+32%/-11%	+14%/-14%	+29%/-54%
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 006953281-01 / KOI 8130.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 5	$1.15^{+0.82}_{-0.72}$	3467^{+251}_{-165}	2946^{+2183}_{-6237}	$0.415^{+2.869}_{-0.344}$
Alt.	-11 ± 5	$2.01^{+0.92}_{-0.76}$	3474^{+247}_{-178}	-2556^{+6170}_{-664}	$0.259^{+0.509}_{-0.157}$

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

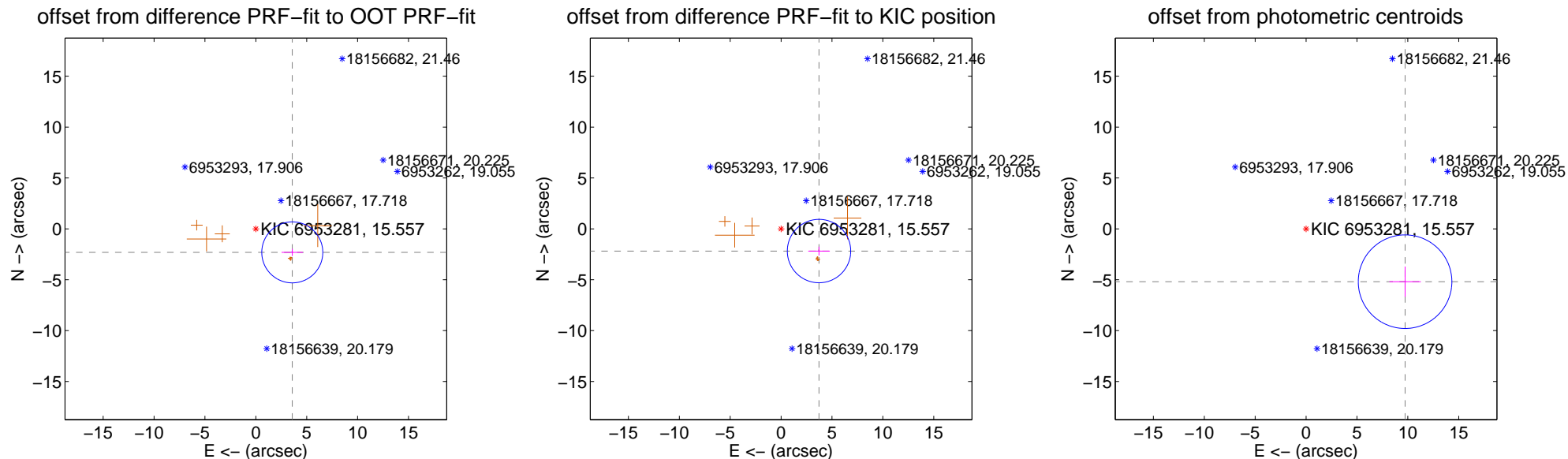
DV Centroid Data

Supplemental centroid analysis for 006953281-01. Kepler magnitude: 15.56. Transit SNR 9.25

There are 1 quarters with good PRF difference image offsets

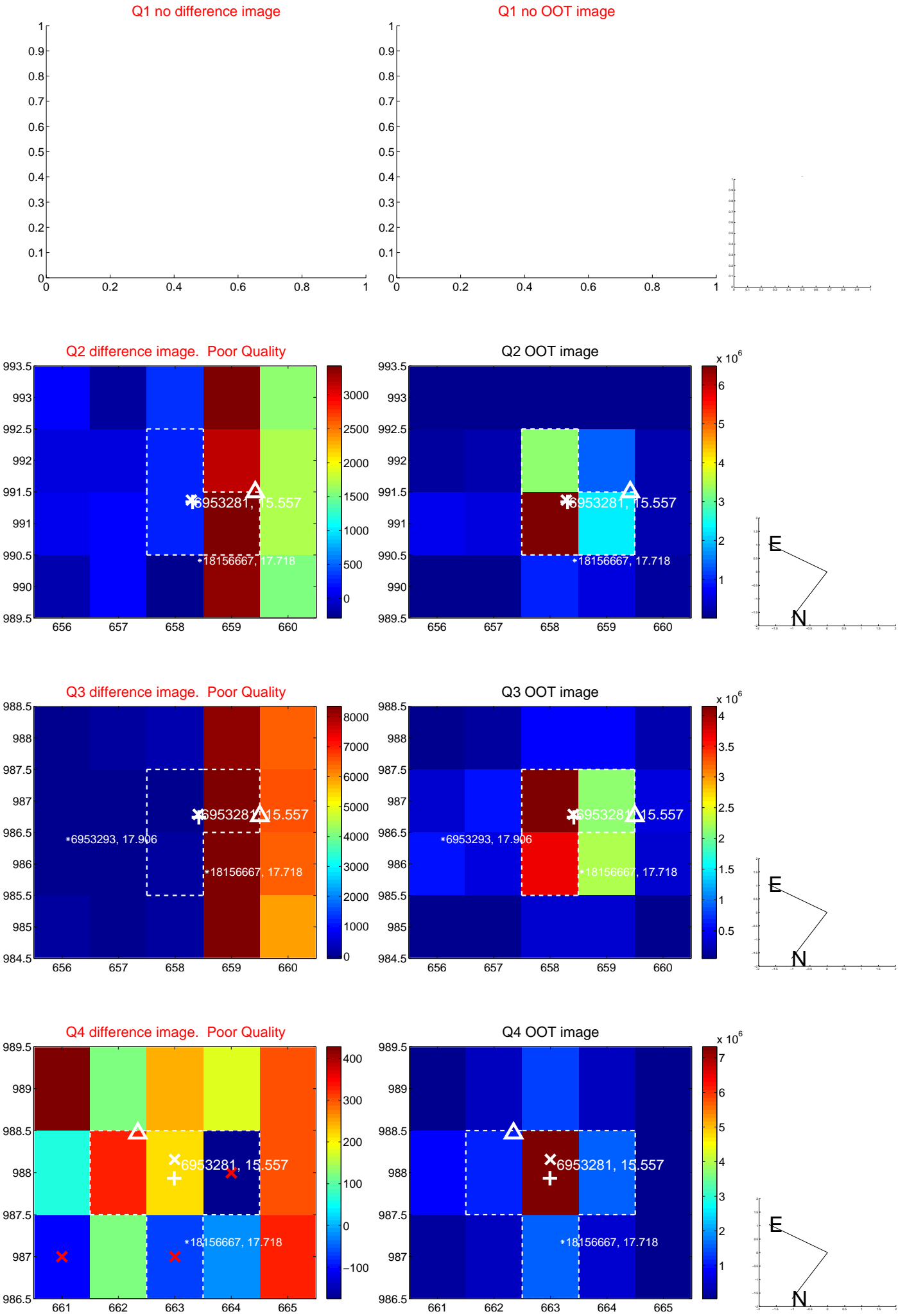
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.263 ± 0.999	4.27	-3.582 ± 1.047	-2.312 ± 0.352
PRF-fit source offset from KIC position	4.319 ± 1.038	4.16	-3.727 ± 1.057	-2.183 ± 0.428
photometric centroid source offset	11.03 ± 1.53	7.19	-9.73 ± 1.55	-5.19 ± 1.48

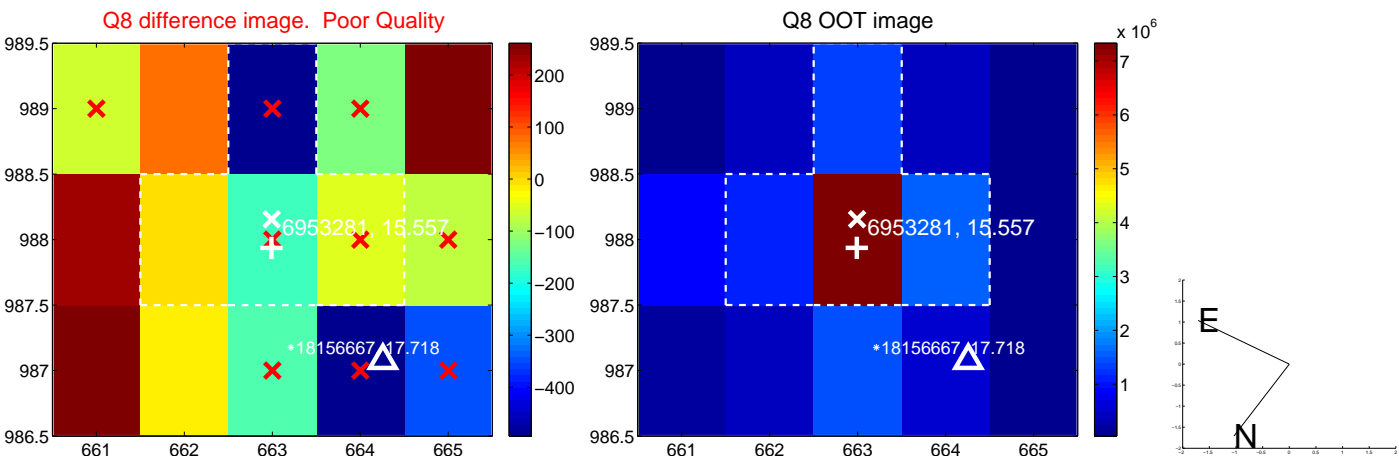
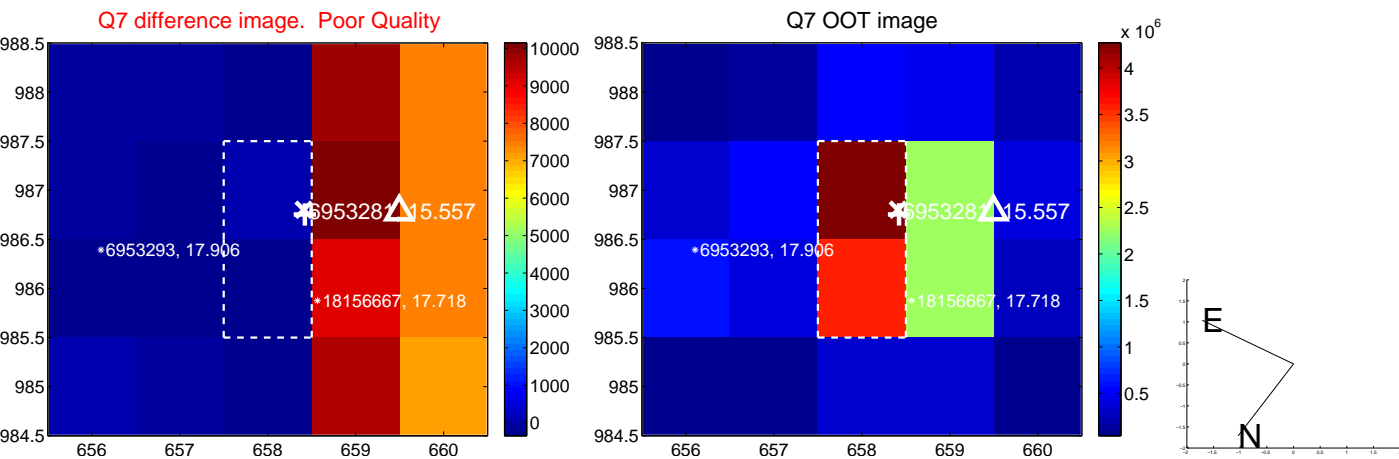
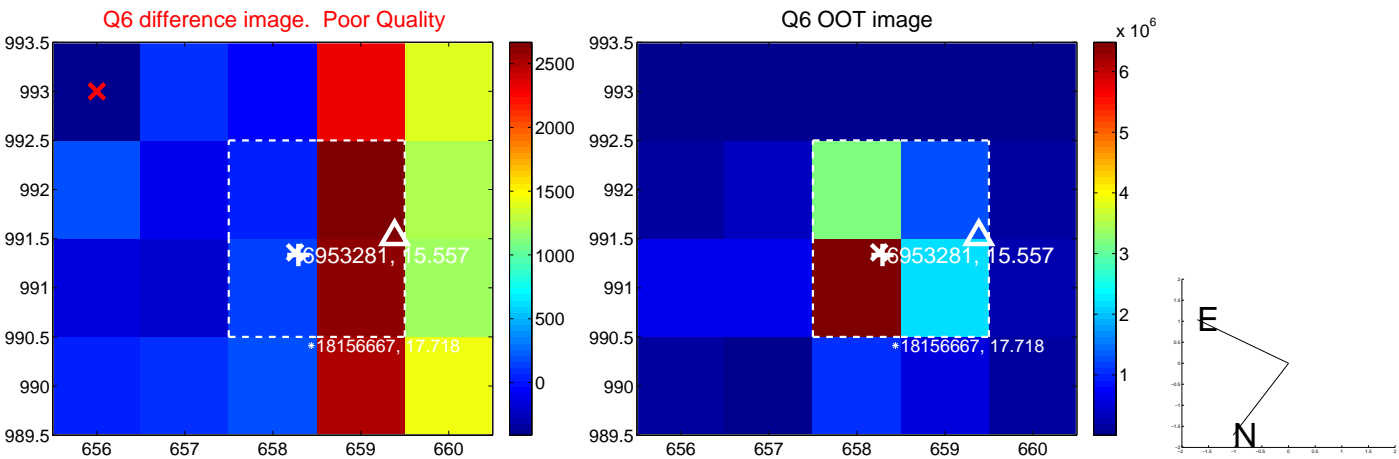
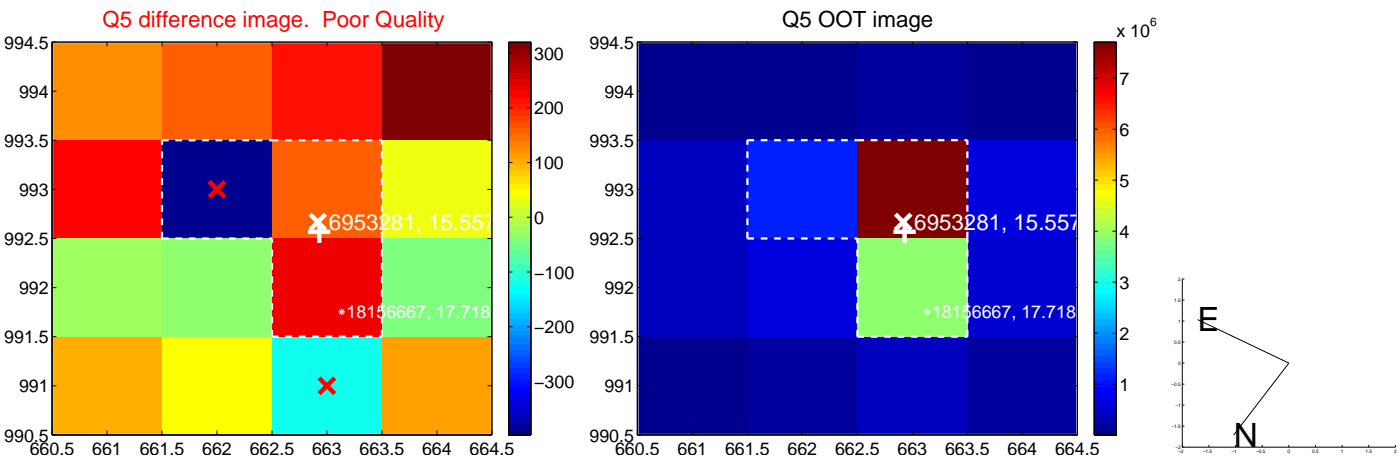


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

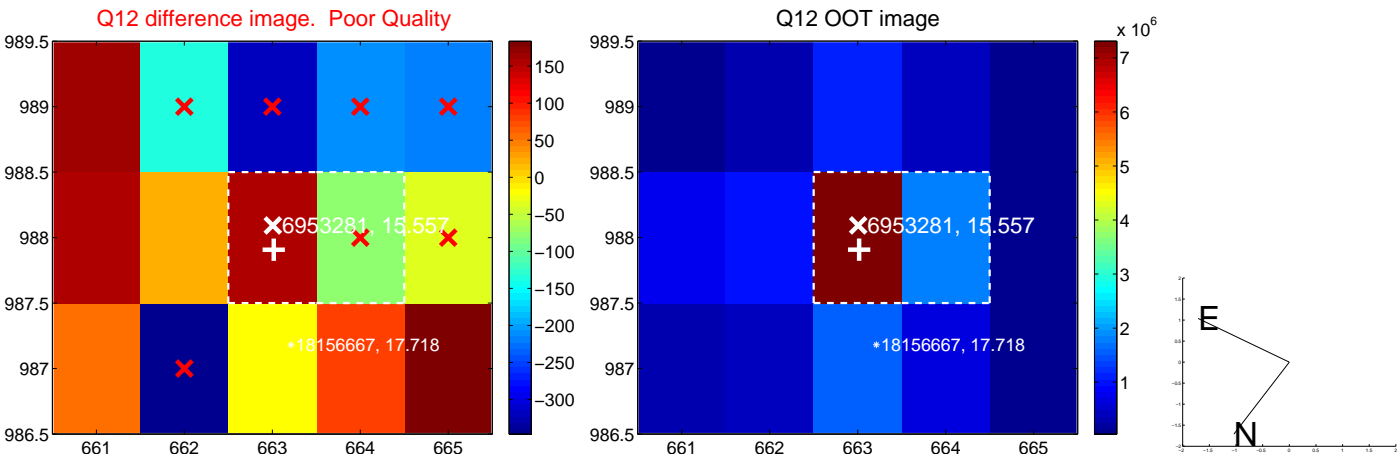
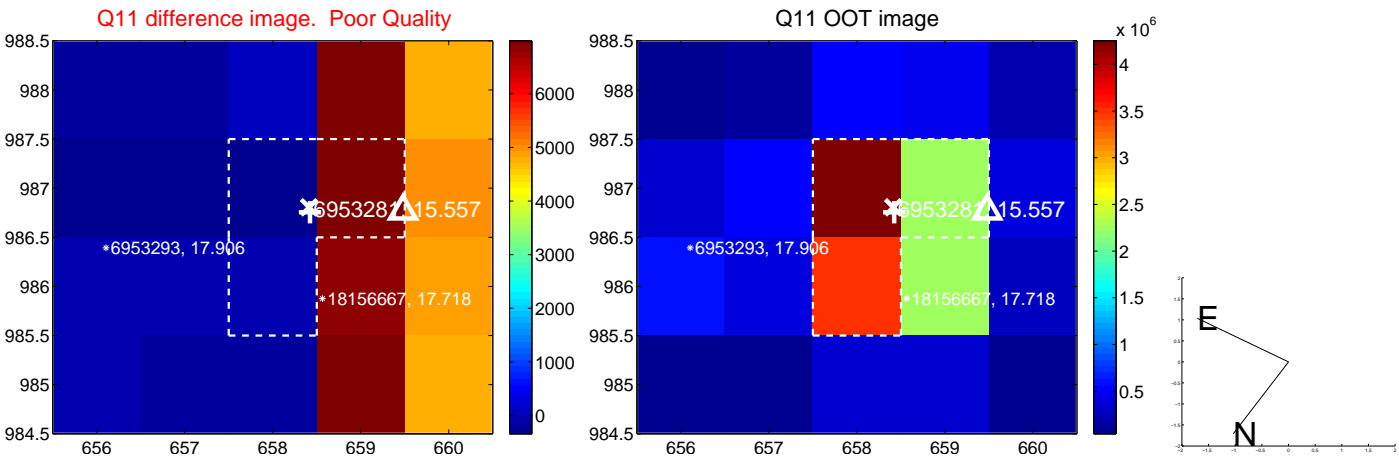
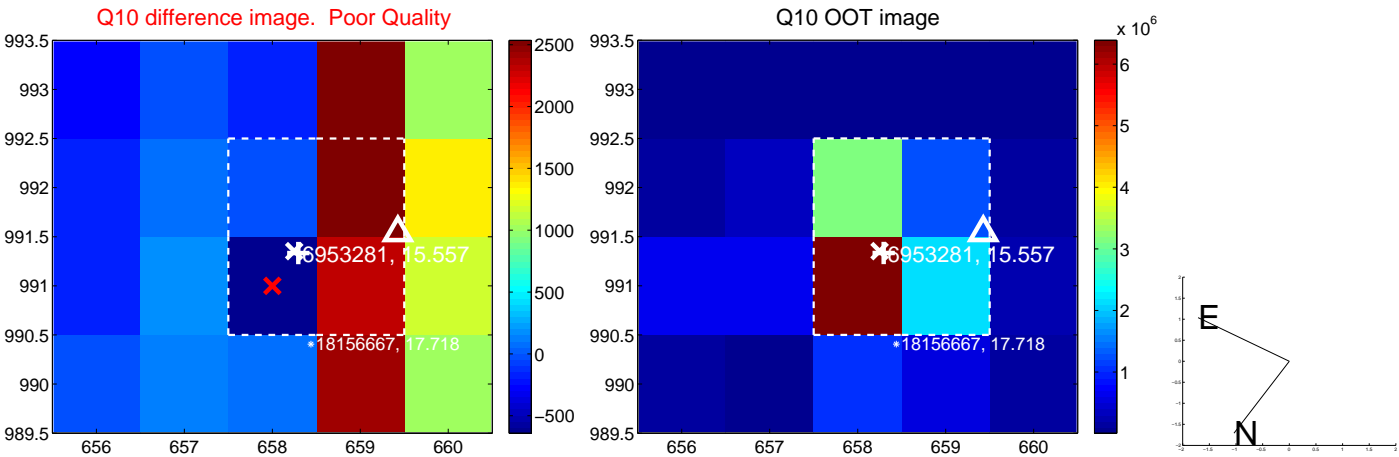
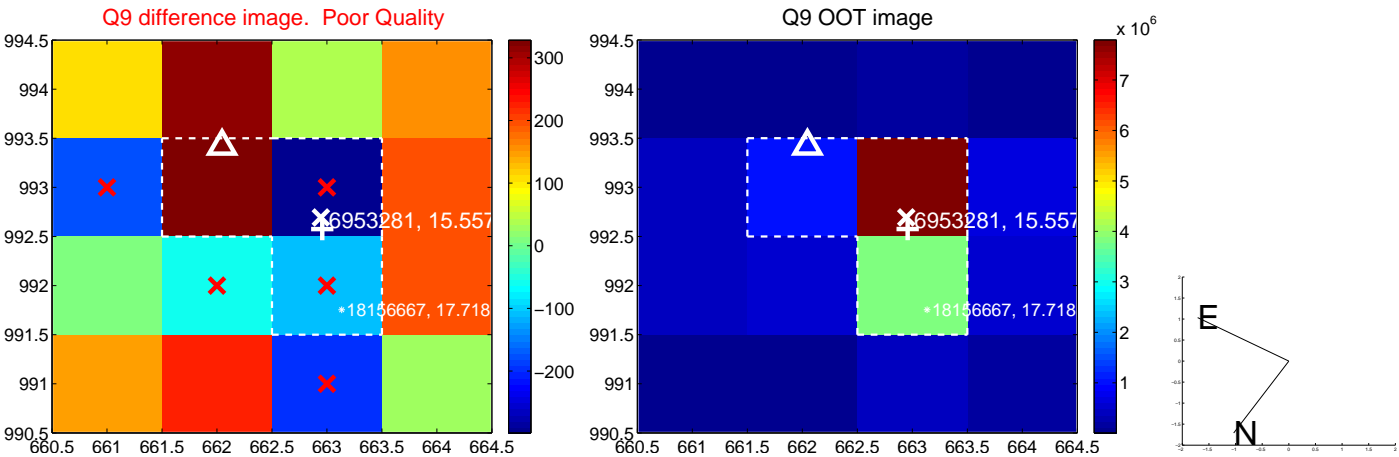
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



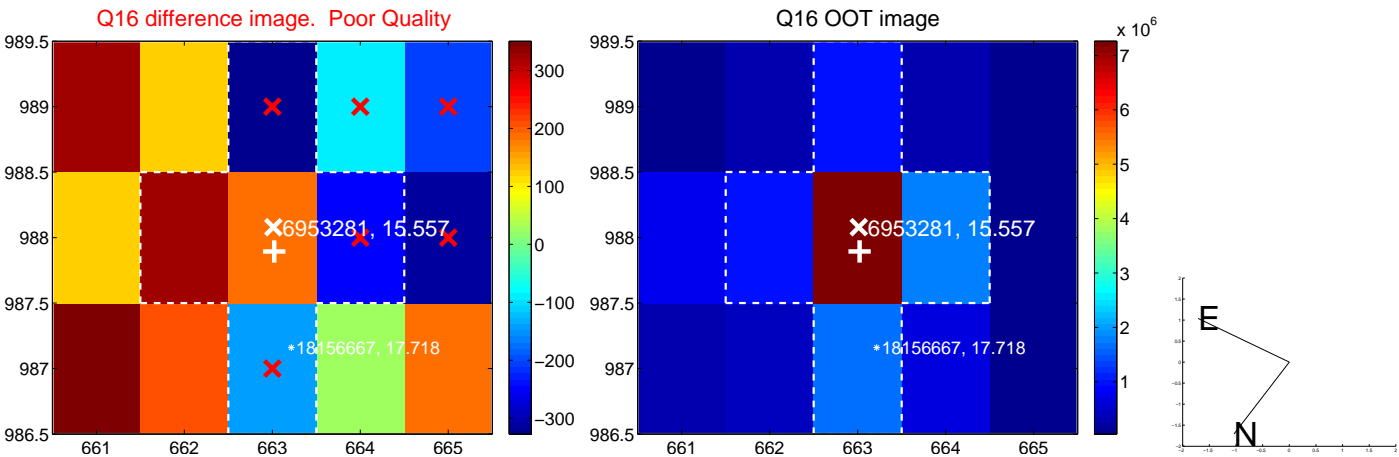
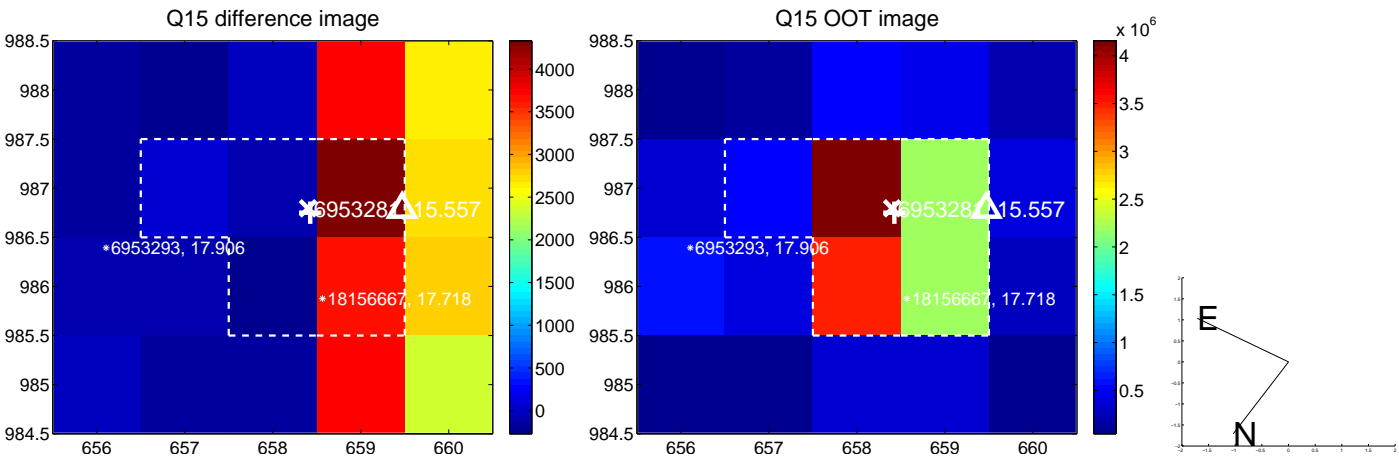
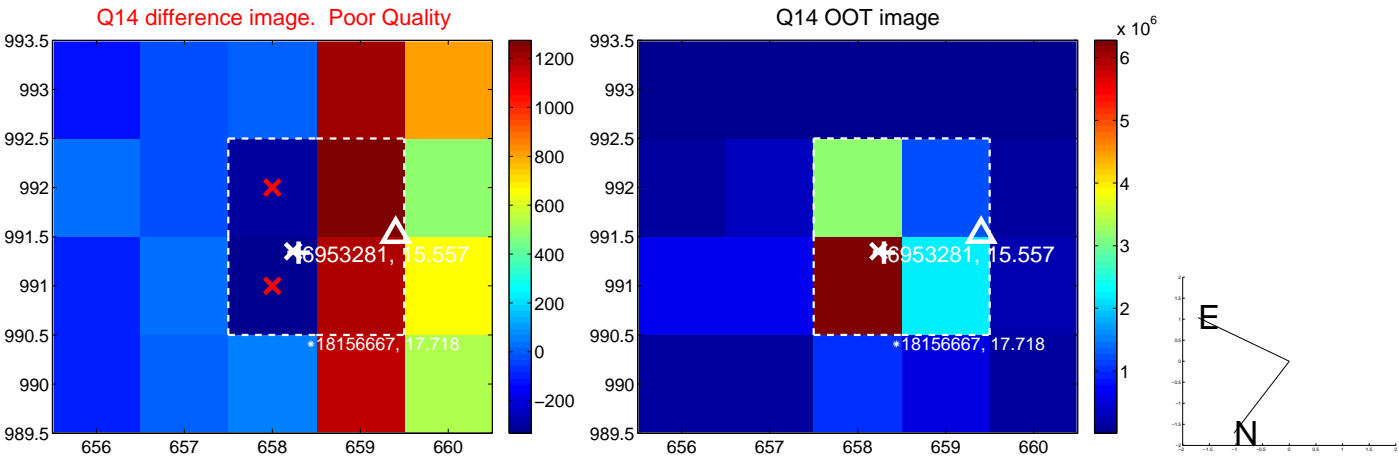
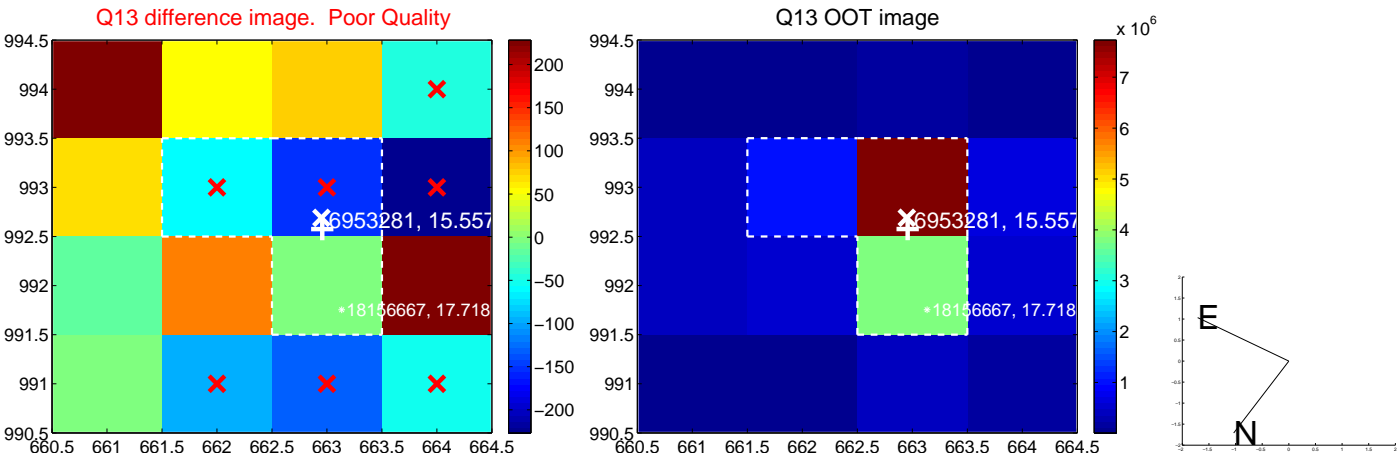
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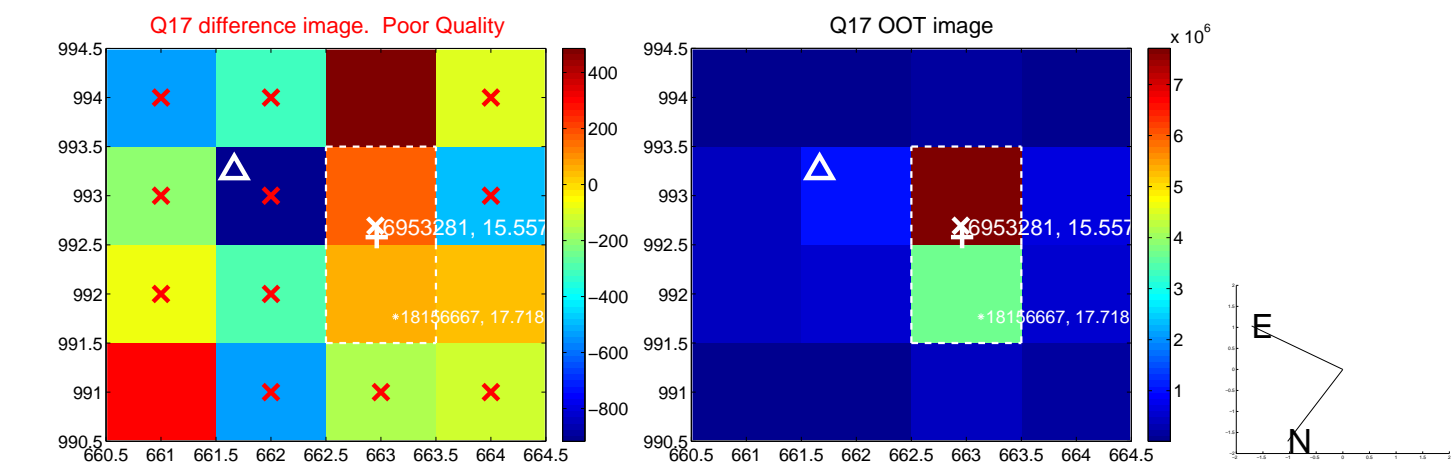
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



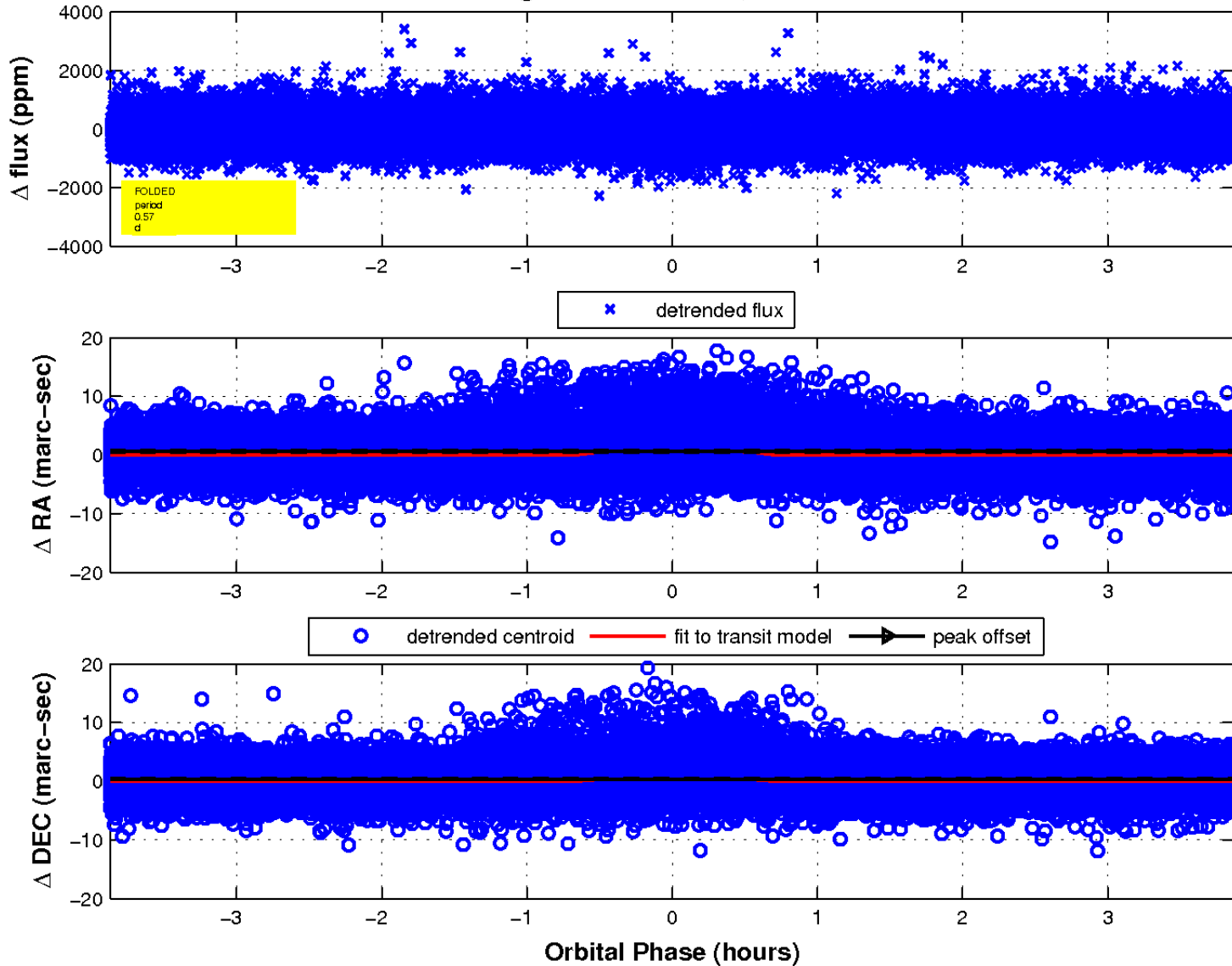
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

