

KIC 005513012

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})
005513012-01	OBS	2668.01	0.679334	132.180285	193.0	1.421	32.0	34.2	0.91	5440	1.53	2975.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005513012-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

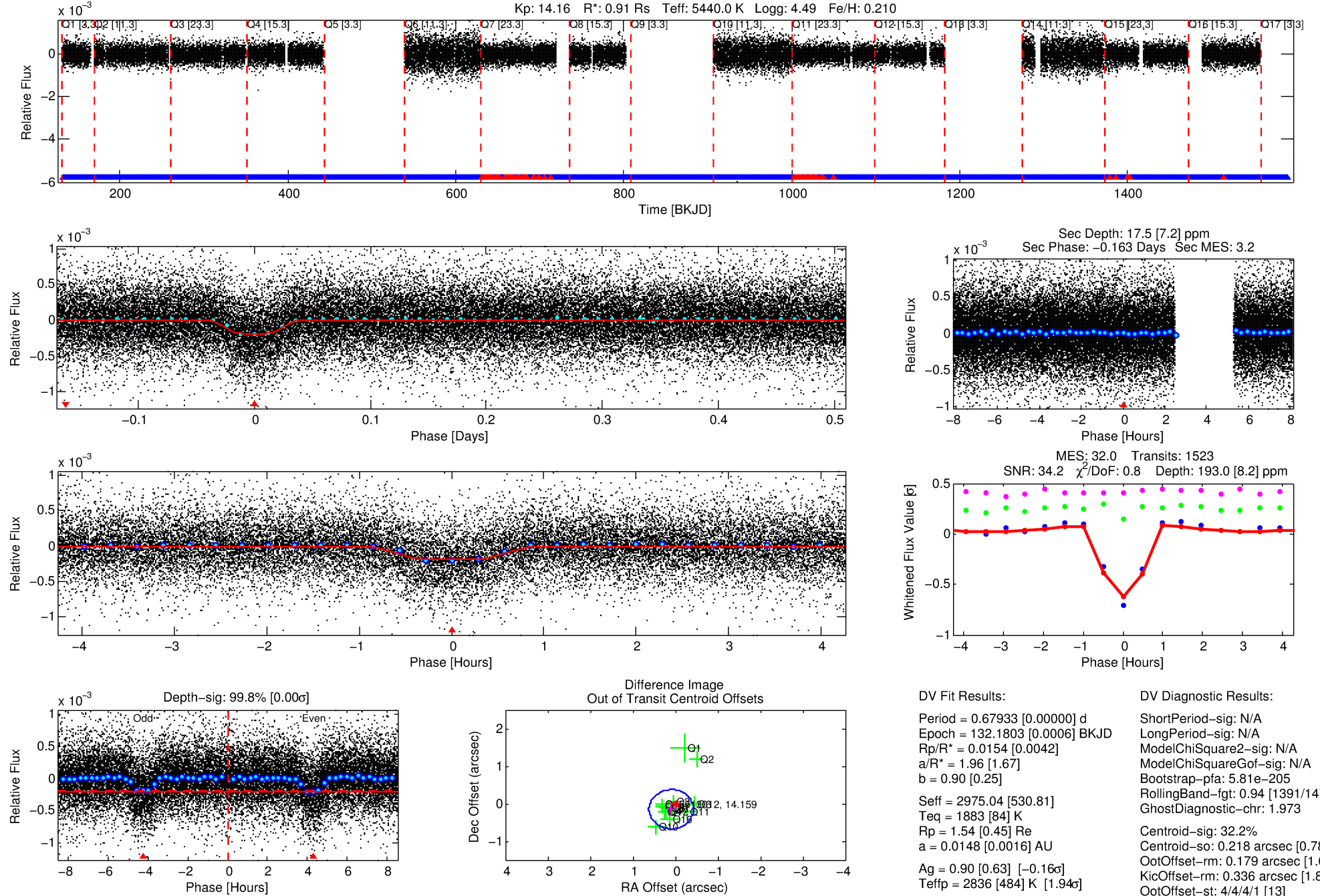
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005513012-01

No Significant Match Found

DV One-Page Summary

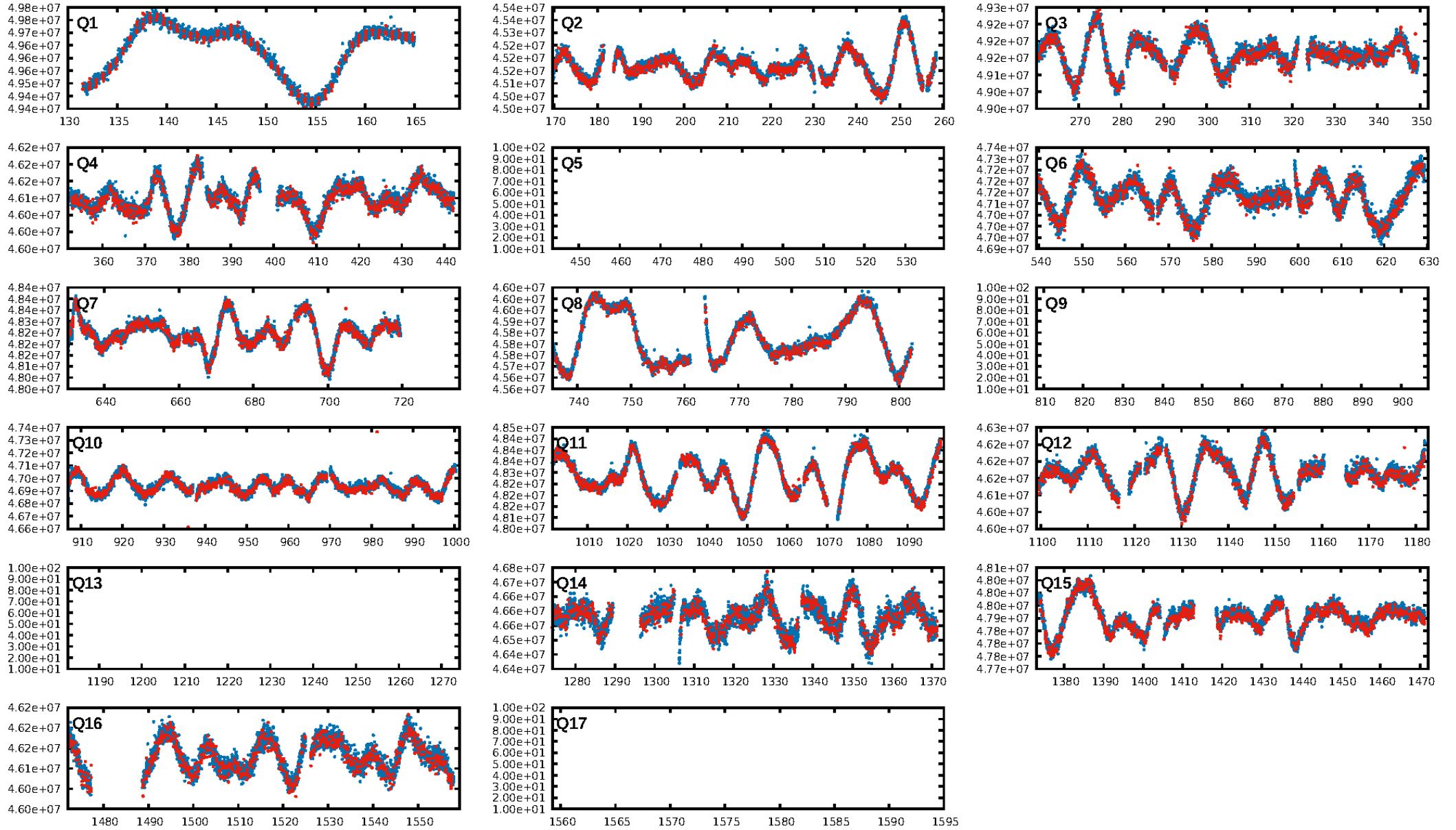
KIC: 5513012 Candidate: 1 of 1 Period: 0.679 d
KOI: K02668.01 Corr: 0.911



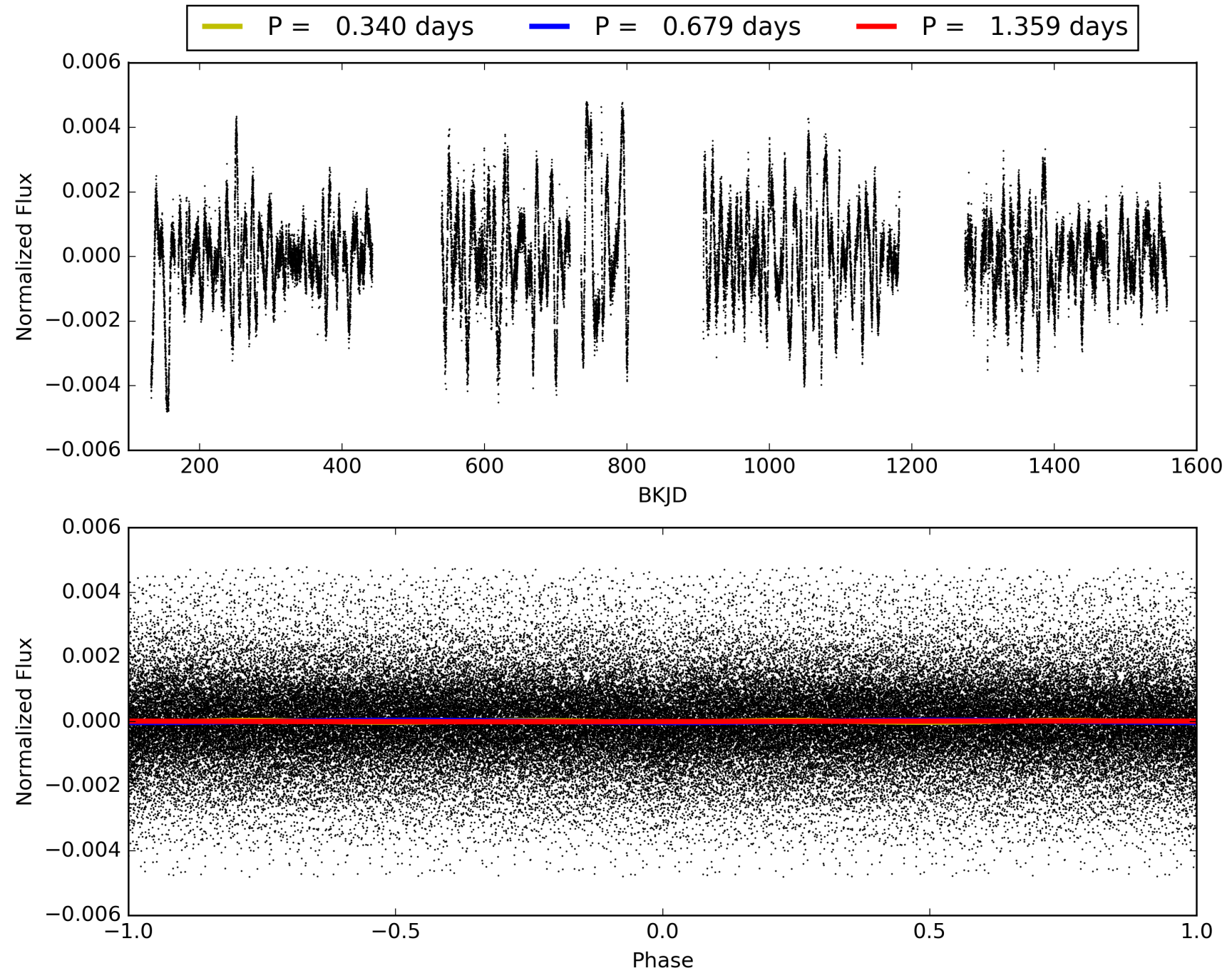
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:31:58 Z

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

TCE 005513012-01, PDC Light Curves

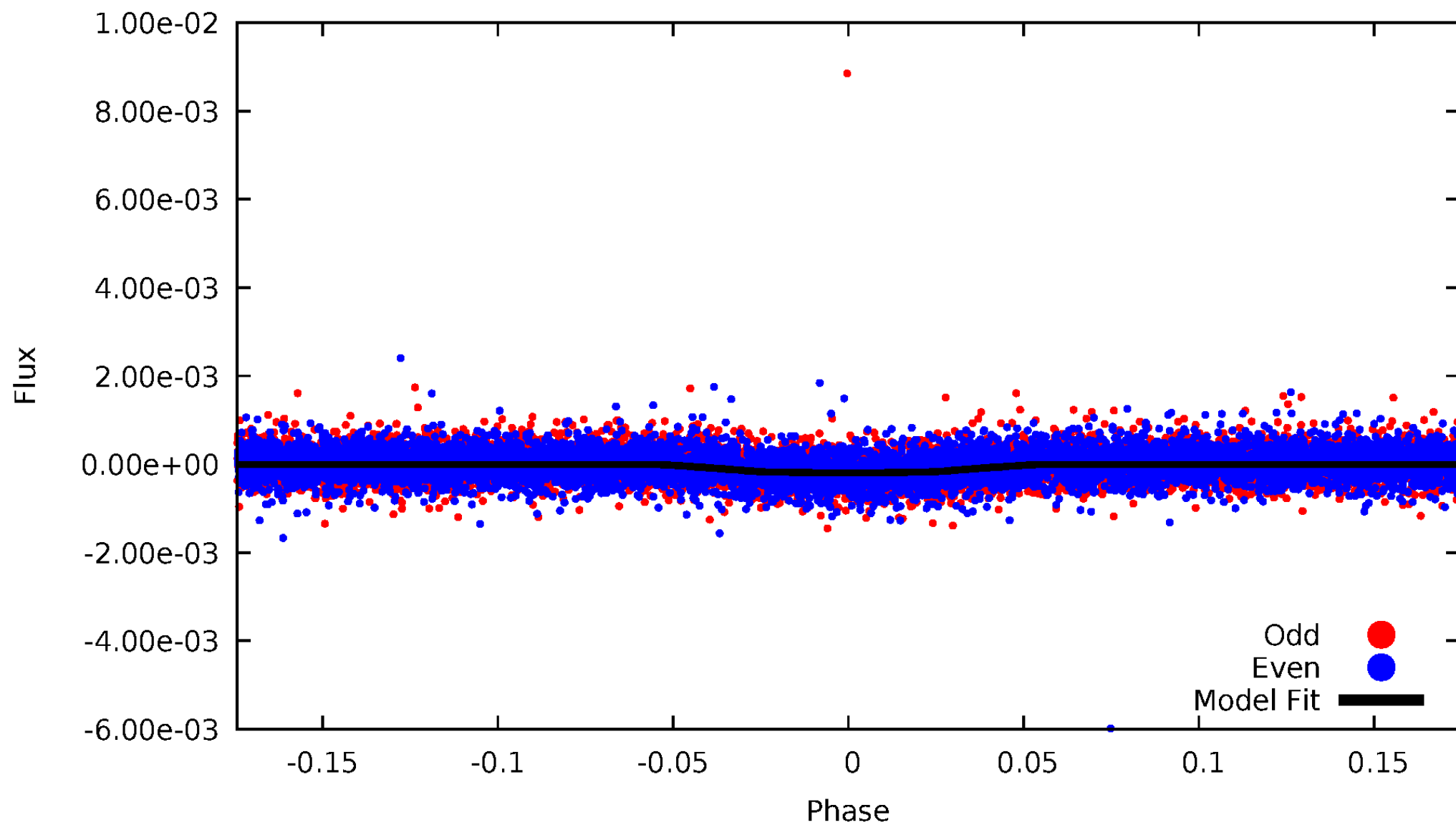


TCE 005513012-01



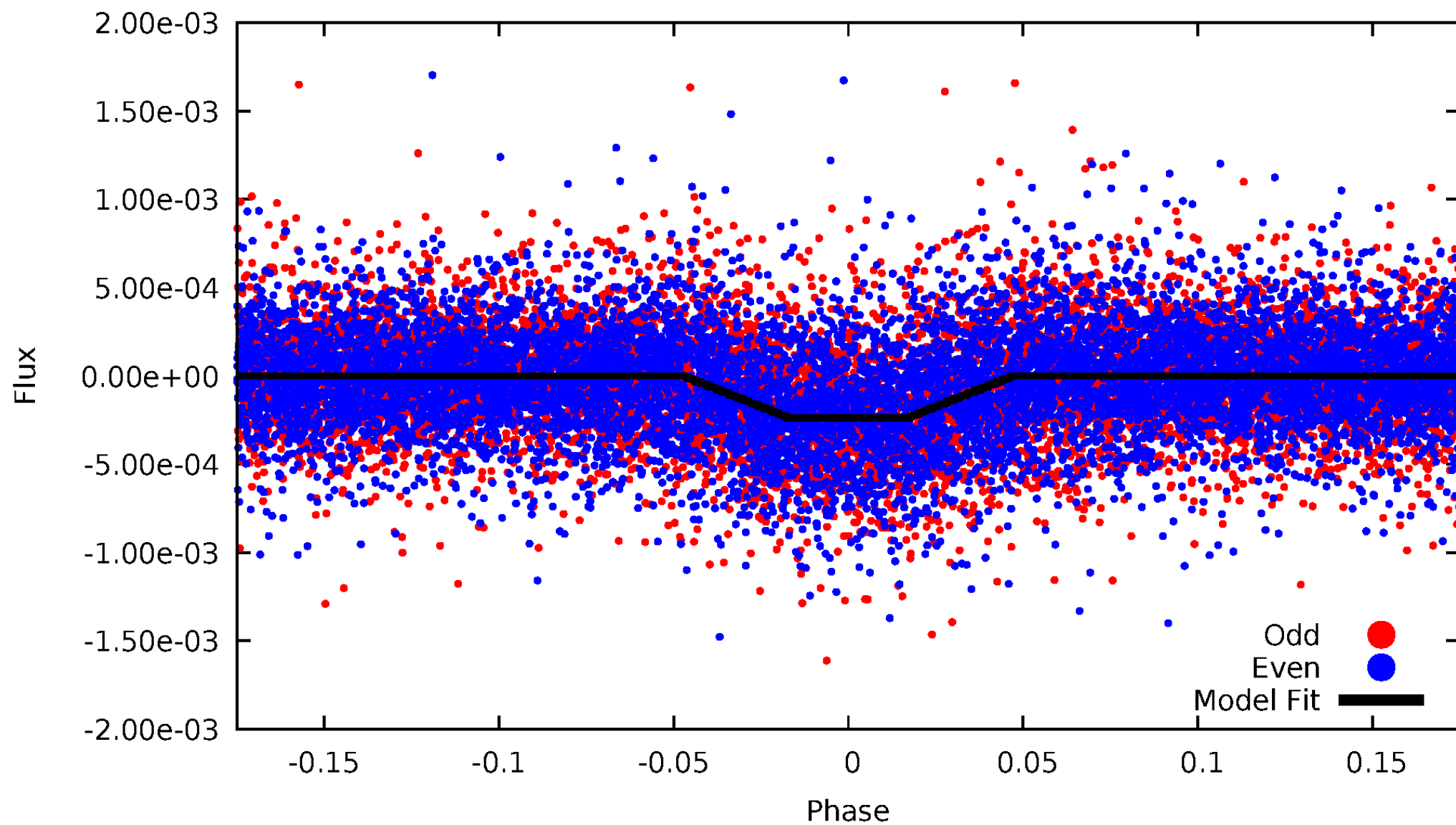
DV Odd/Even

TCE 005513012-01

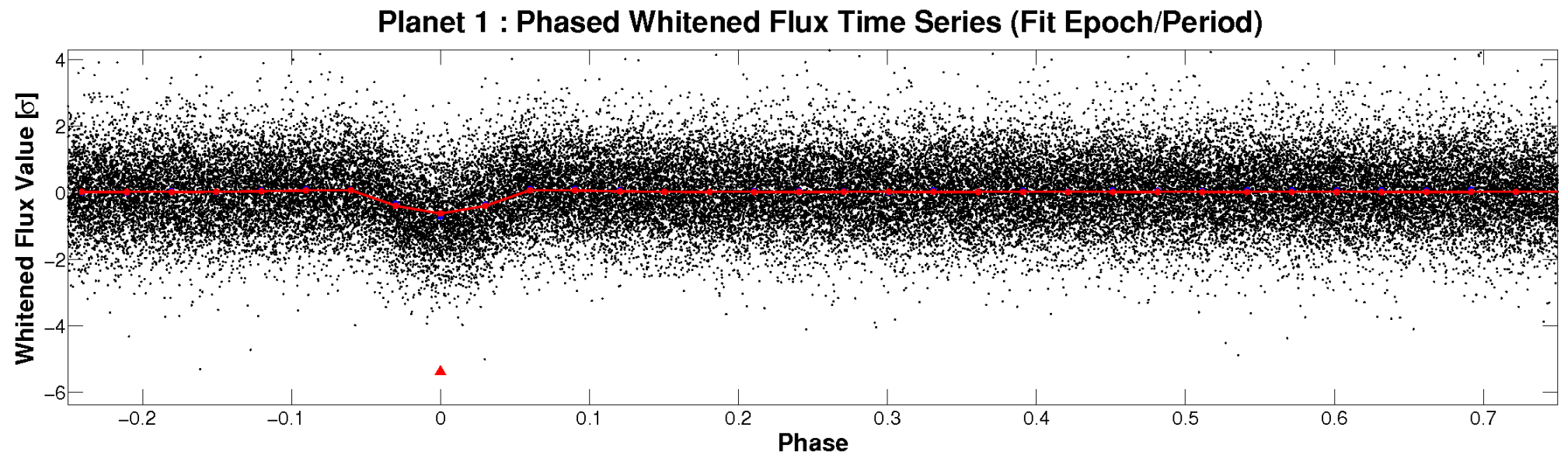
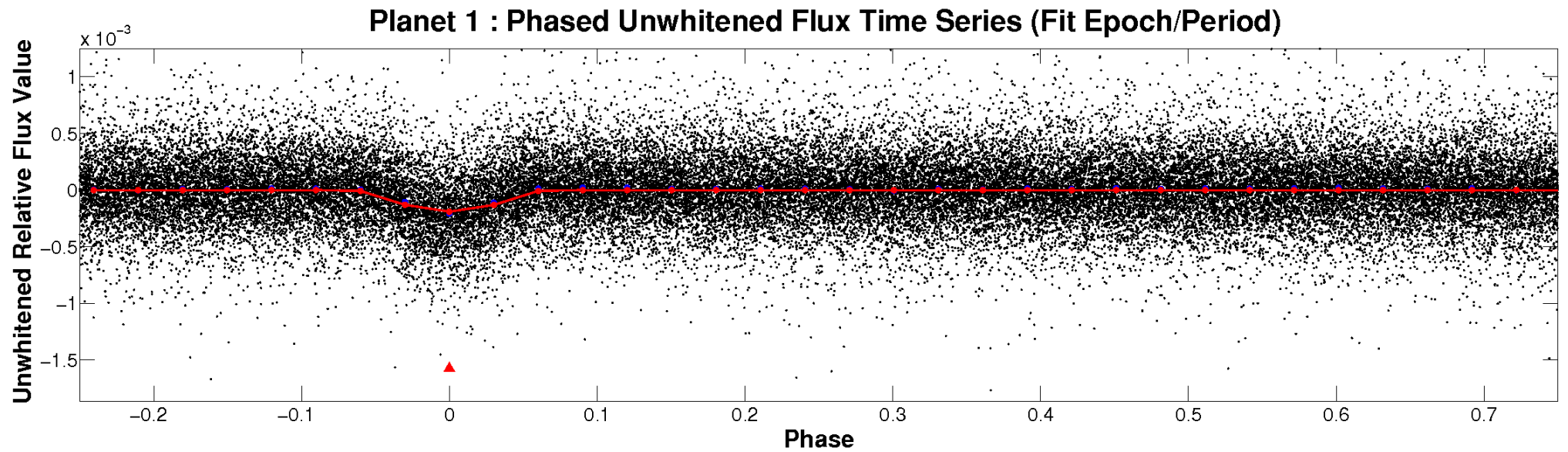


ALT Odd/Even

TCE 005513012-01

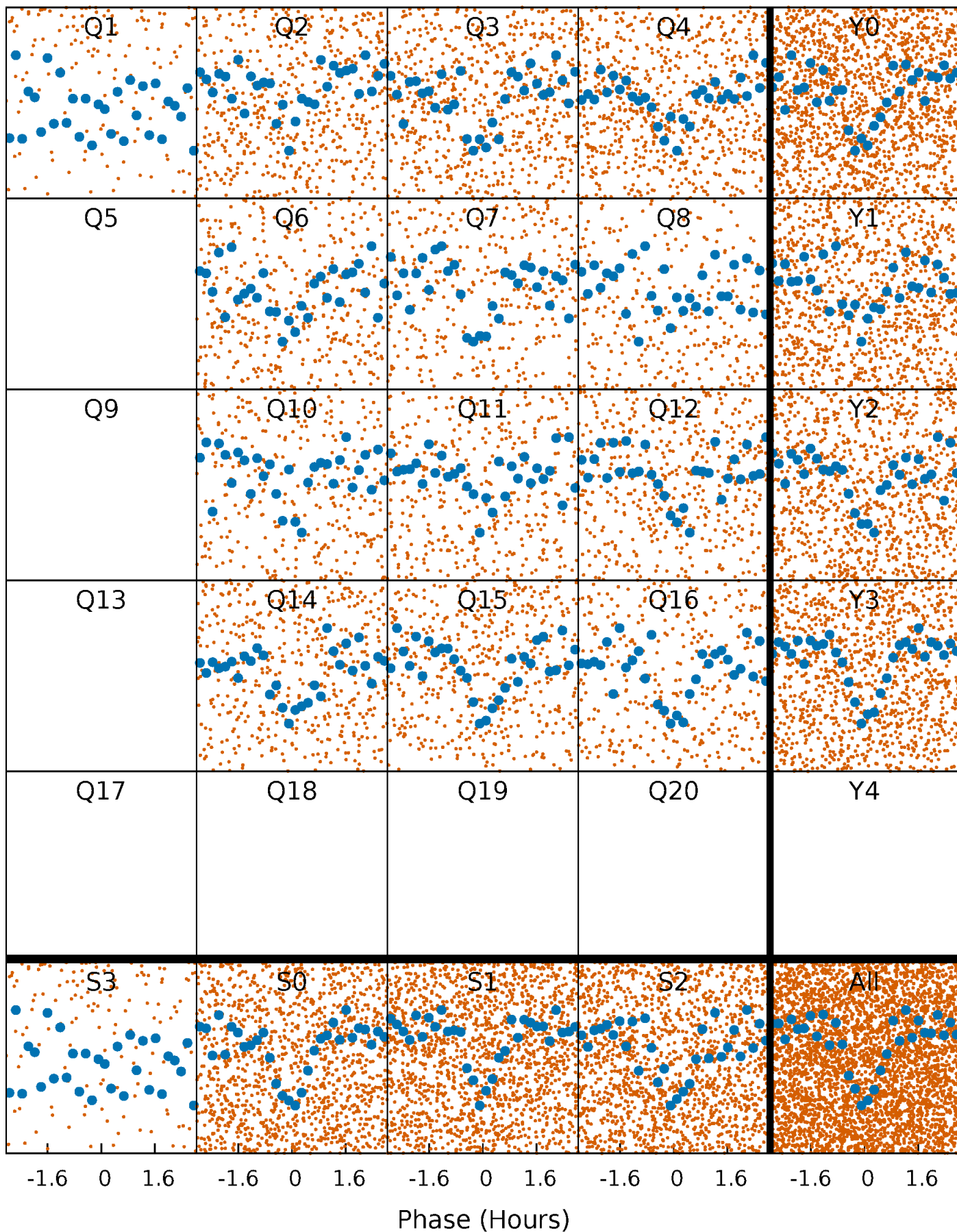


Non-Whitened Vs. Whitened Light Curve



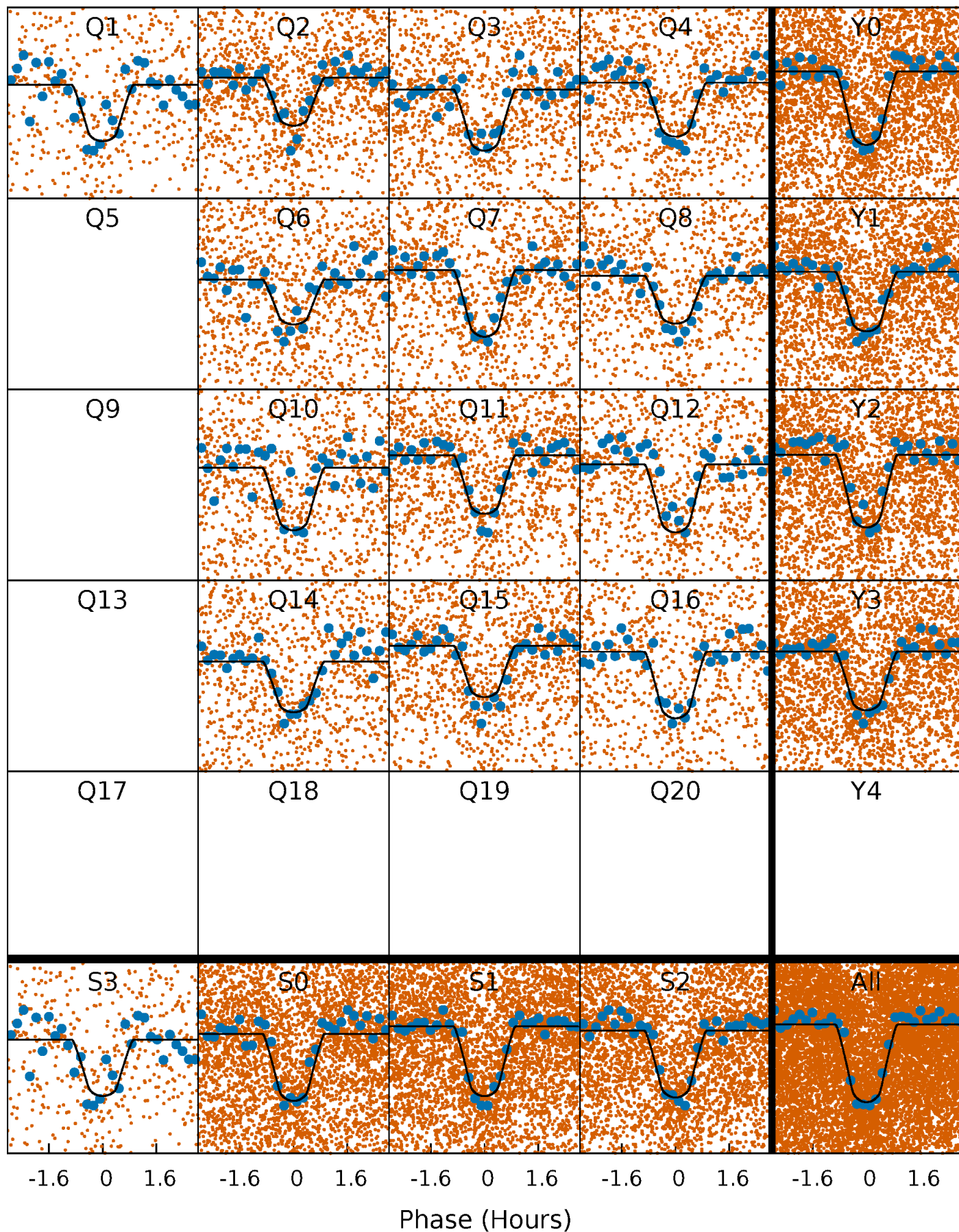
PDC Quarter-Phased Transit Curves

TCE 005513012-01 P= 0.679334 Days $T_0=132.180285$ (BKJD)



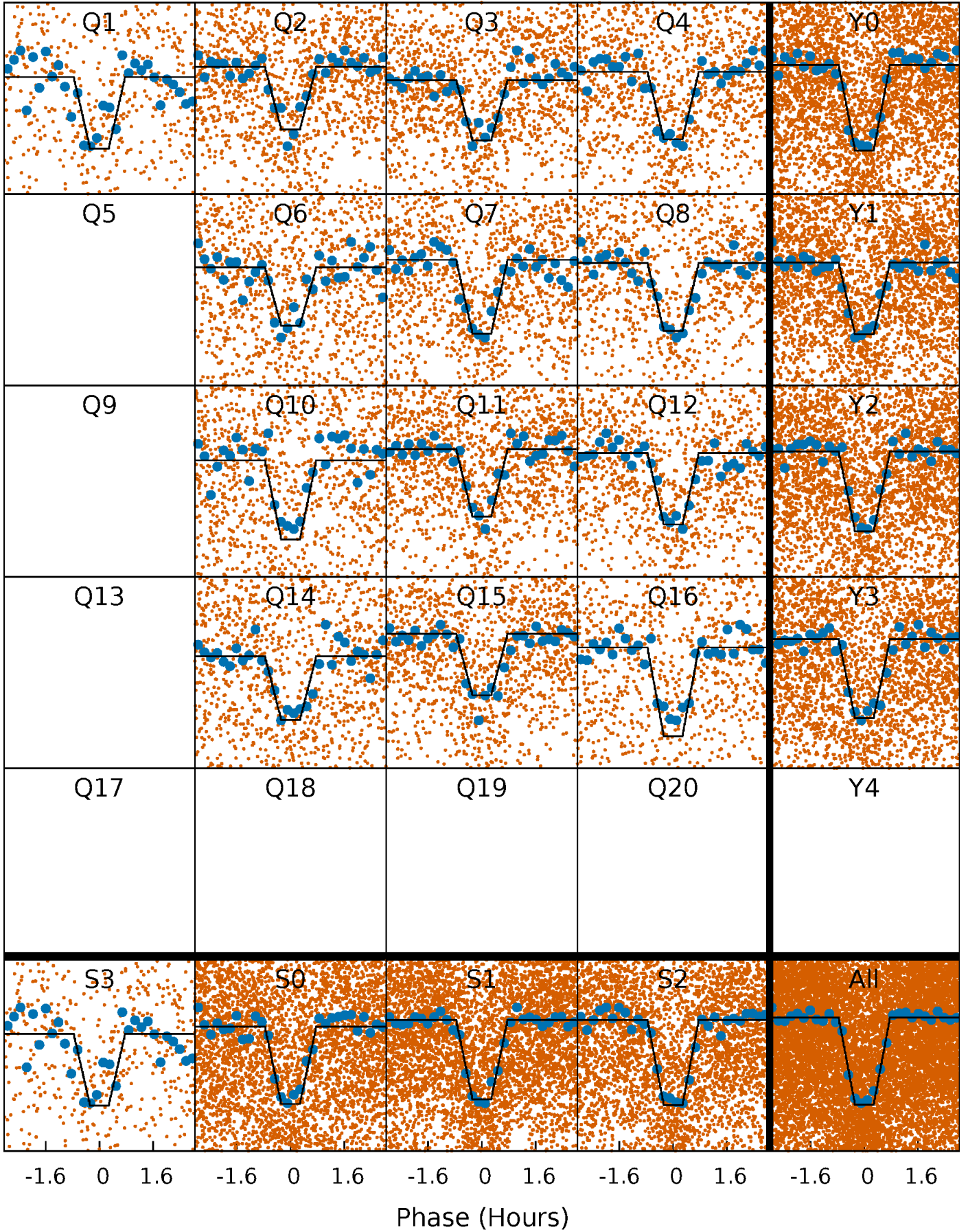
DV Quarter-Phased Transit Curves

TCE 005513012-01 P= 0.679334 Days $T_0=132.180285$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

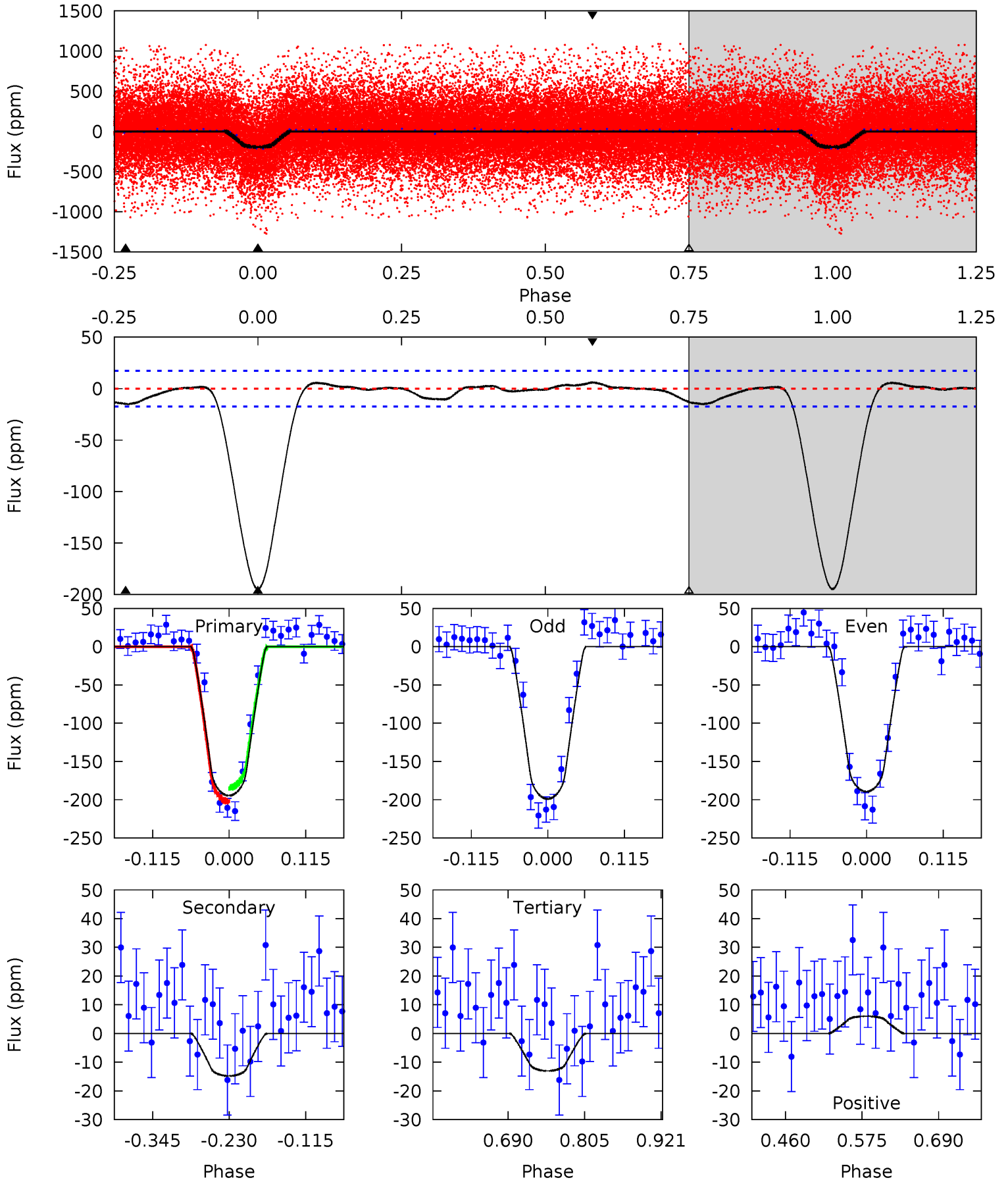
TCE 005513012-01 P= 0.679334 Days $T_0=132.180287$ (BKJD)



DV Model-Shift Uniqueness Test

005513012-01, P = 0.679334 Days, E = 131.500951 Days

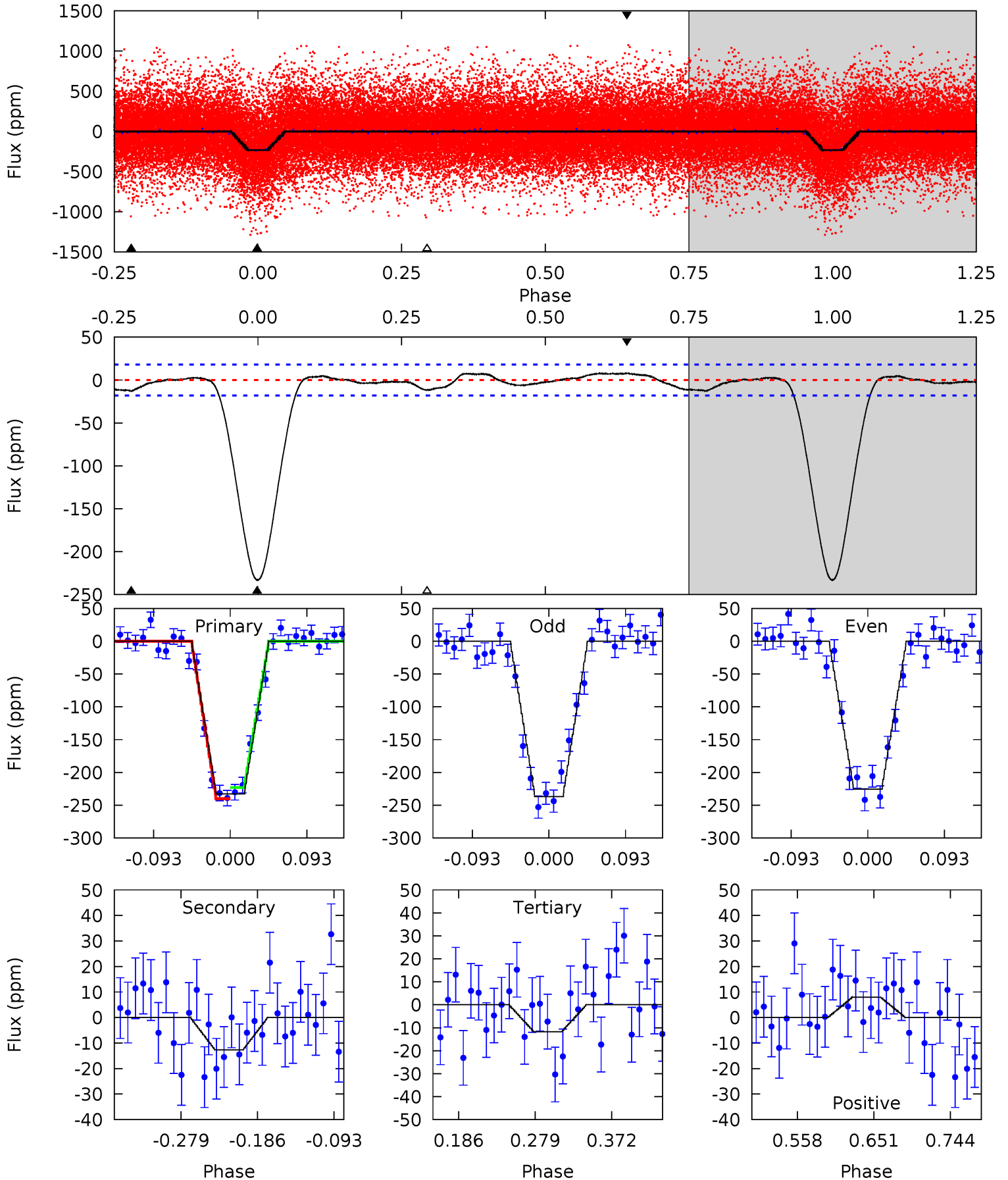
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.9	3.87	3.41	1.57	4.54	1.58	1.08	47.5	49.3	0.46	2.30	1.25	0.98	0.03	2.37



Alt Model-Shift Uniqueness Test

005513012-01, P = 0.679334 Days, E = 131.500953 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.8	3.20	2.96	2.02	4.58	1.68	1.36	55.9	56.8	0.24	1.18	1.41	0.97	0.03	2.14



Stellar Parameters For KIC 005513012

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5440^{+73}_{-81}	$4.491^{+0.045}_{-0.098}$	$0.210^{+0.150}_{-0.150}$	$0.913^{+0.103}_{-0.055}$	$0.942^{+0.043}_{-0.051}$	$1.744^{+0.319}_{-0.497}$
	+1%/-1%	+1%/-2%	+71%/-71%	+11%/-6%	+5%/-5%	+18%/-29%
Source	SPE90	SPE90	SPE90	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005513012-01 / KOI 2668.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-15 ± 4	$1.57^{+0.45}_{-0.41}$	2645^{+83}_{-67}	3008^{+451}_{-497}	$0.711^{+0.671}_{-0.305}$
Alt.	-13 ± 4	$1.53^{+0.47}_{-0.38}$	2648^{+85}_{-64}	2907^{+493}_{-717}	$0.625^{+0.635}_{-0.292}$

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 $A_{obs} \gg 1.0$

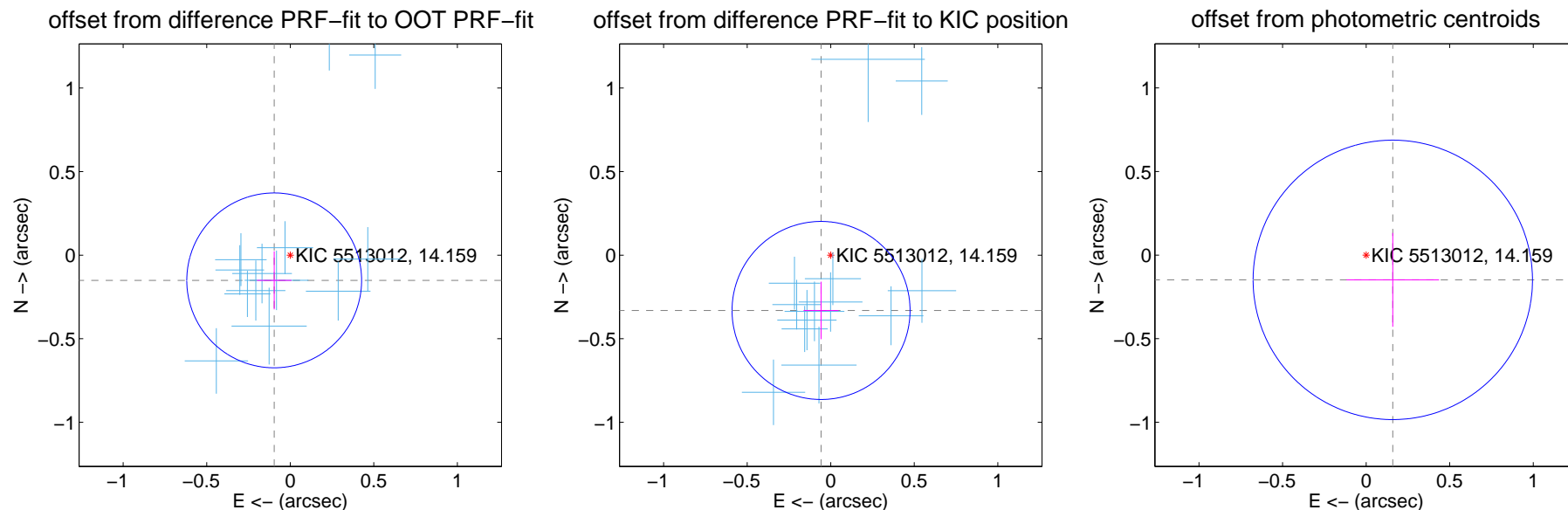
DV Centroid Data

Supplemental centroid analysis for 005513012-01. Kepler magnitude: 14.16. Transit SNR 34.25

There are 13 quarters with good PRF difference image offsets

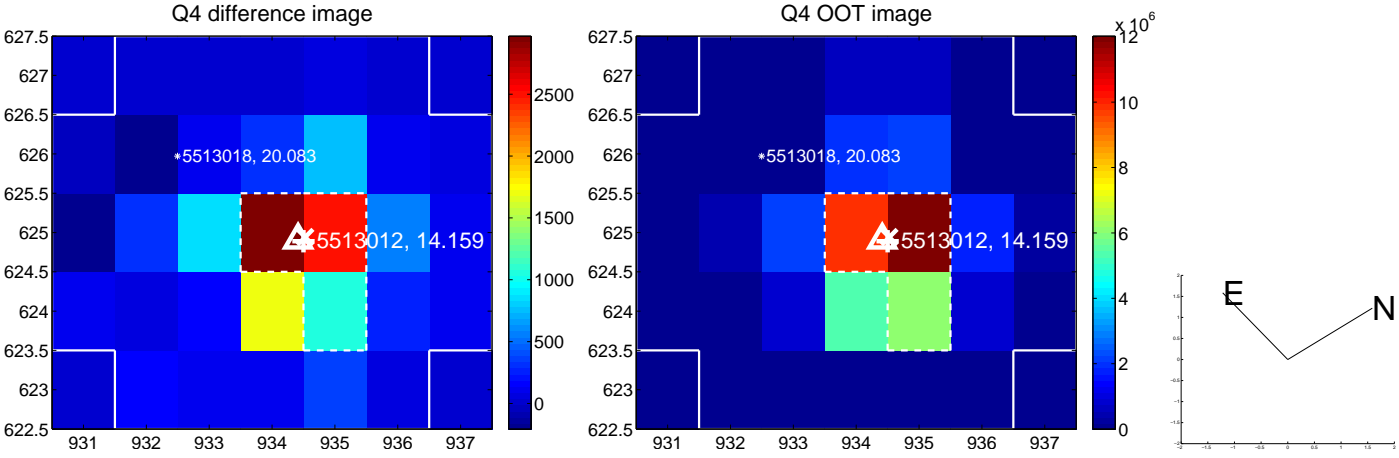
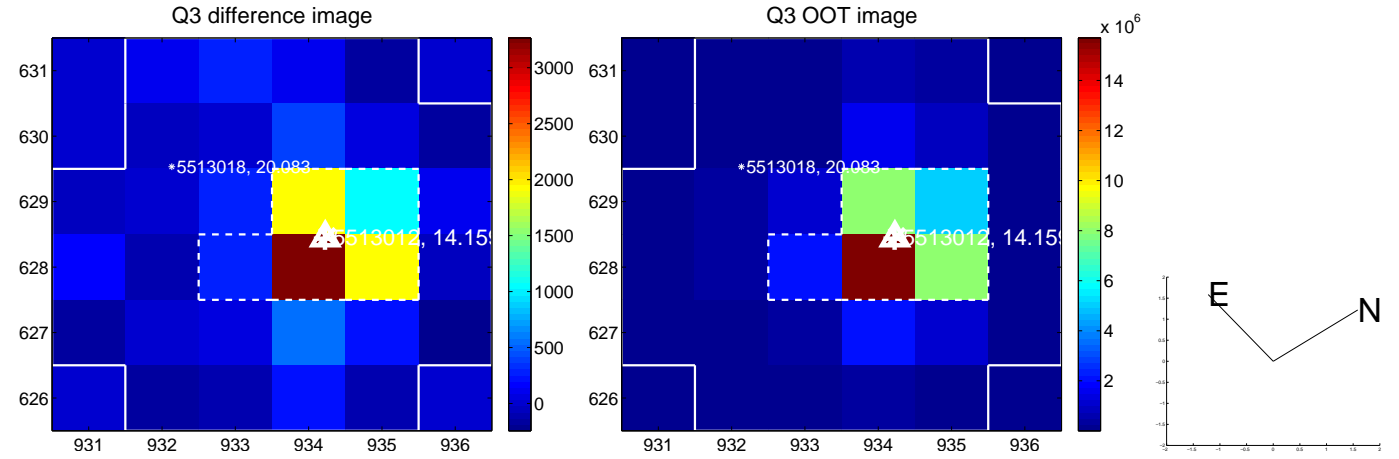
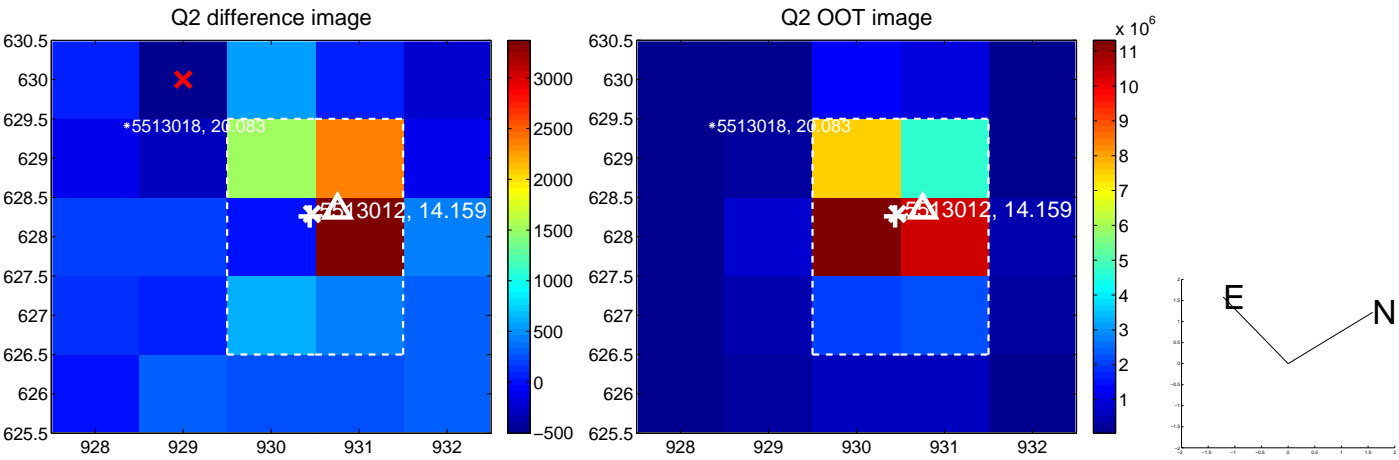
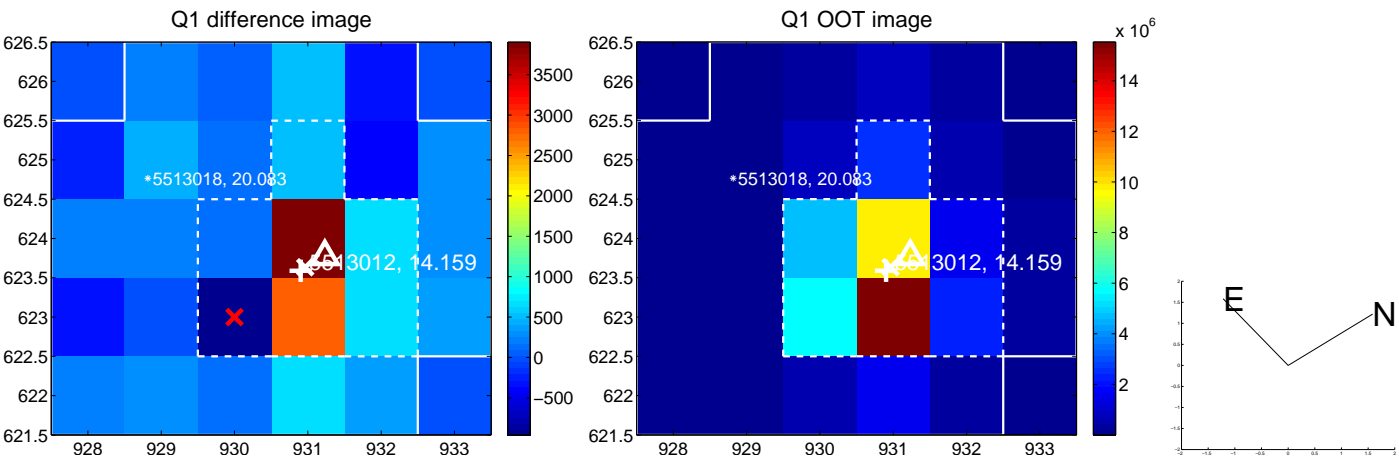
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.179 ± 0.174	1.03	0.096 ± 0.103	-0.151 ± 0.174
PRF-fit source offset from KIC position	0.336 ± 0.178	1.89	0.058 ± 0.104	-0.331 ± 0.172
photometric centroid source offset	0.22 ± 0.28	0.78	-0.16 ± 0.28	-0.15 ± 0.28

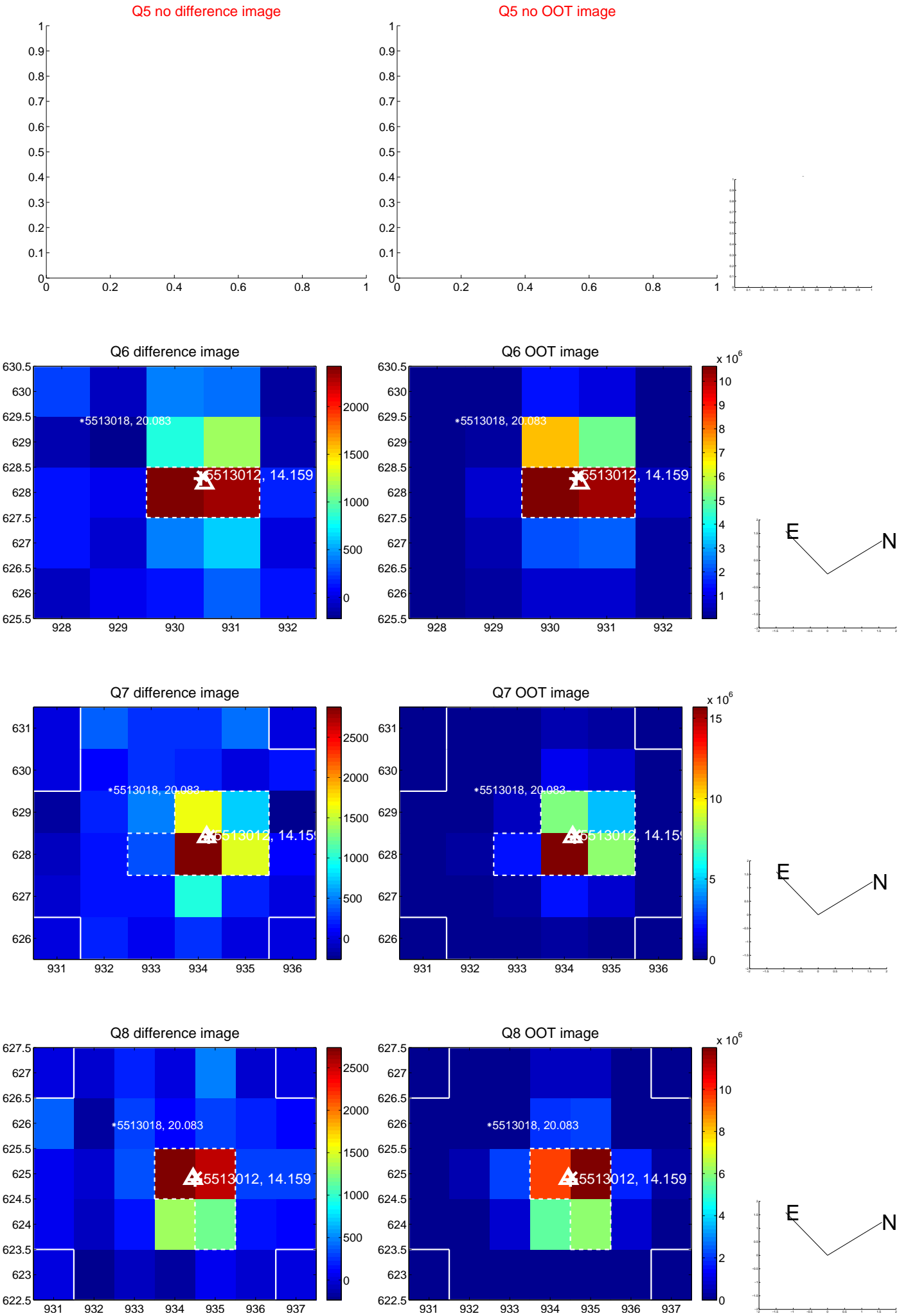


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

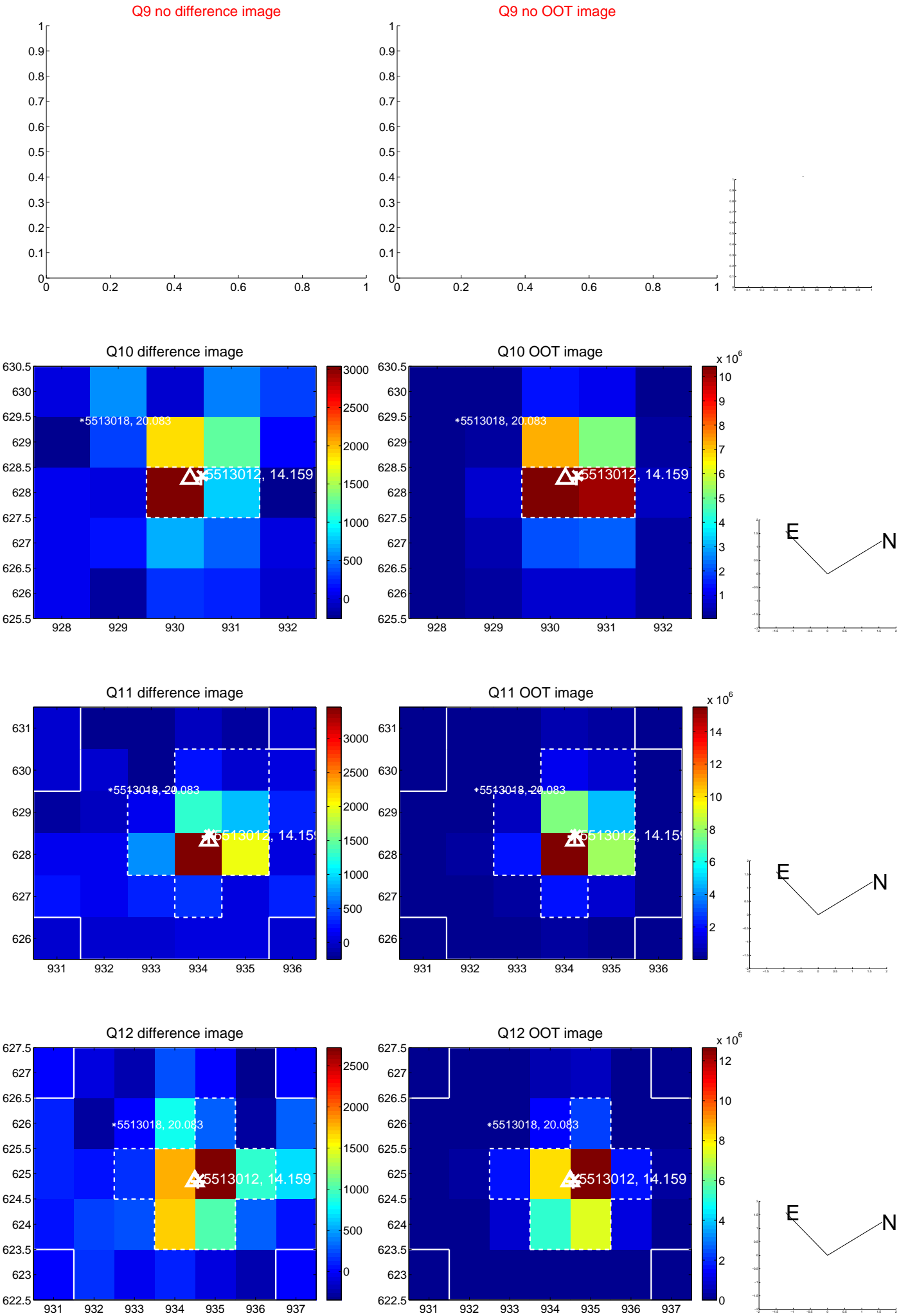
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



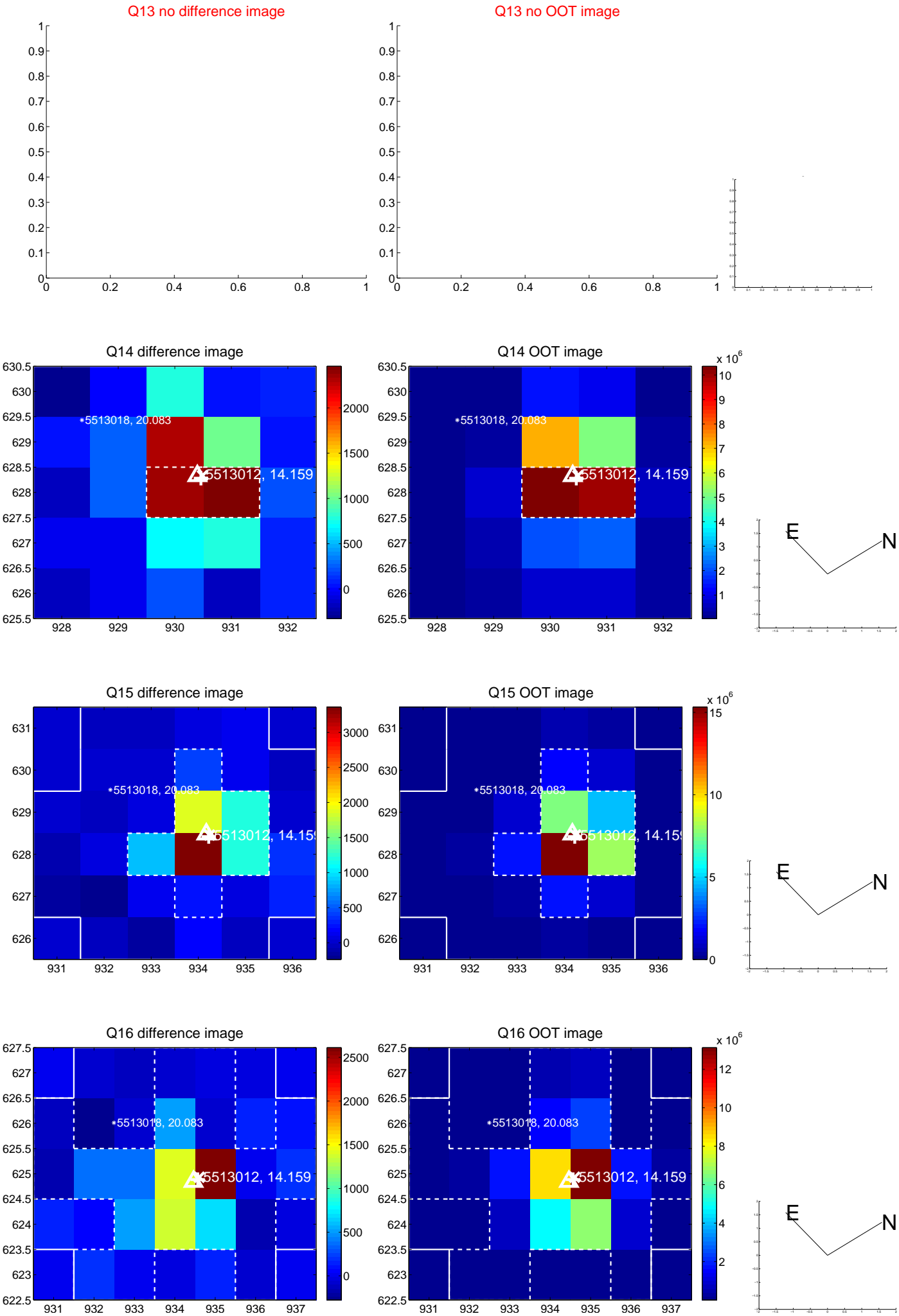
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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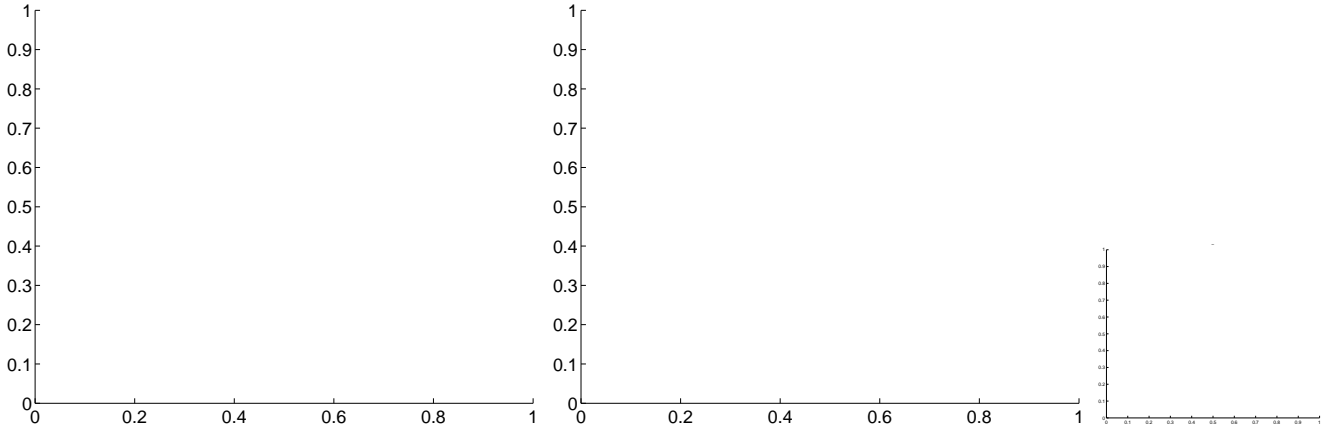
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



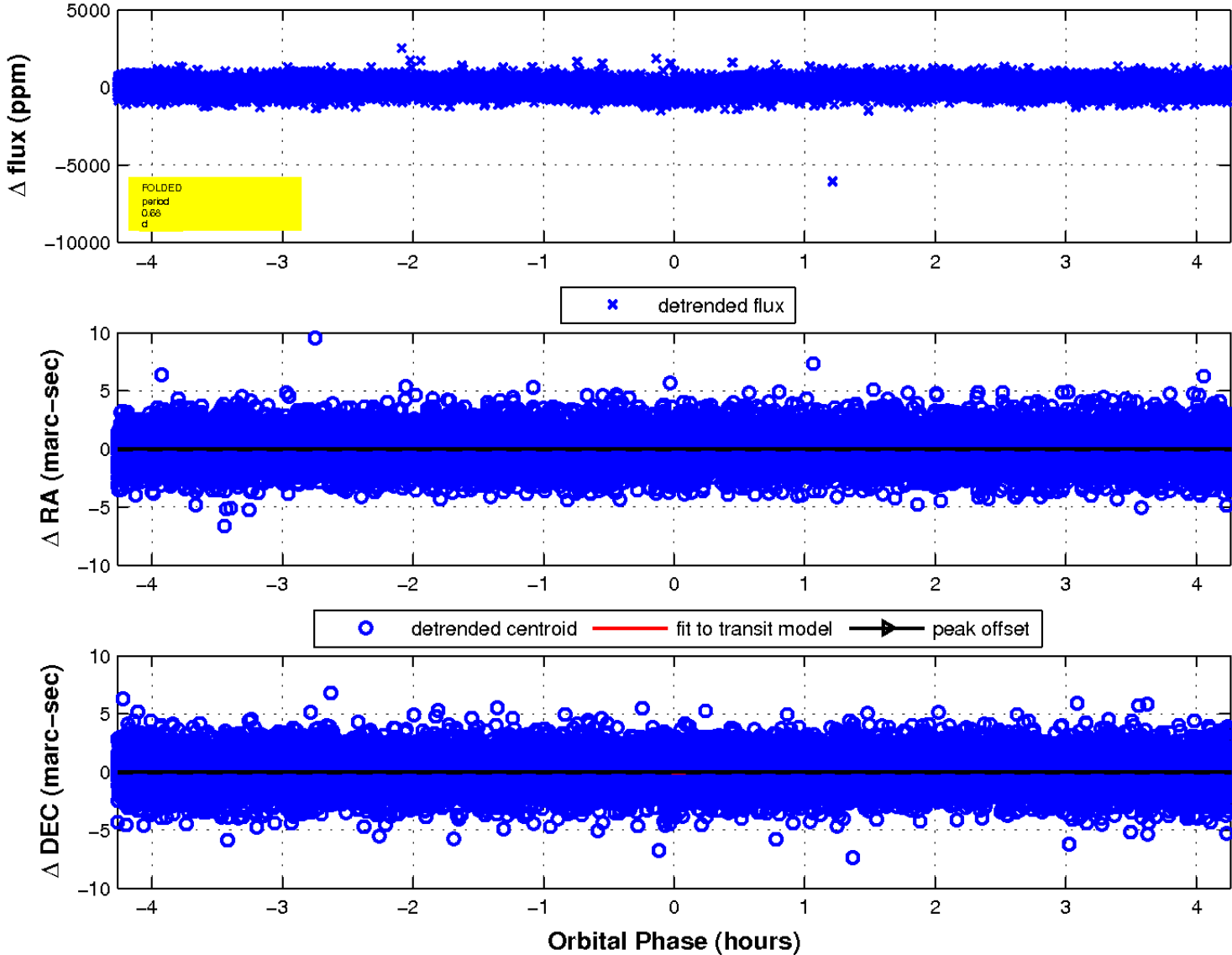
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

