

KIC 005956977

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})
005956977-01	OBS	8113.01	77.773266	168.840270	339.3	1.955	7.5	7.3	7.07	4763	14.78	196.87

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005956977-01	OBS	FP	0.11	1	0	0	0	INDIV_TRANS_SKYE_ZUMA—MOD_NONUNIQ_ALT

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

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

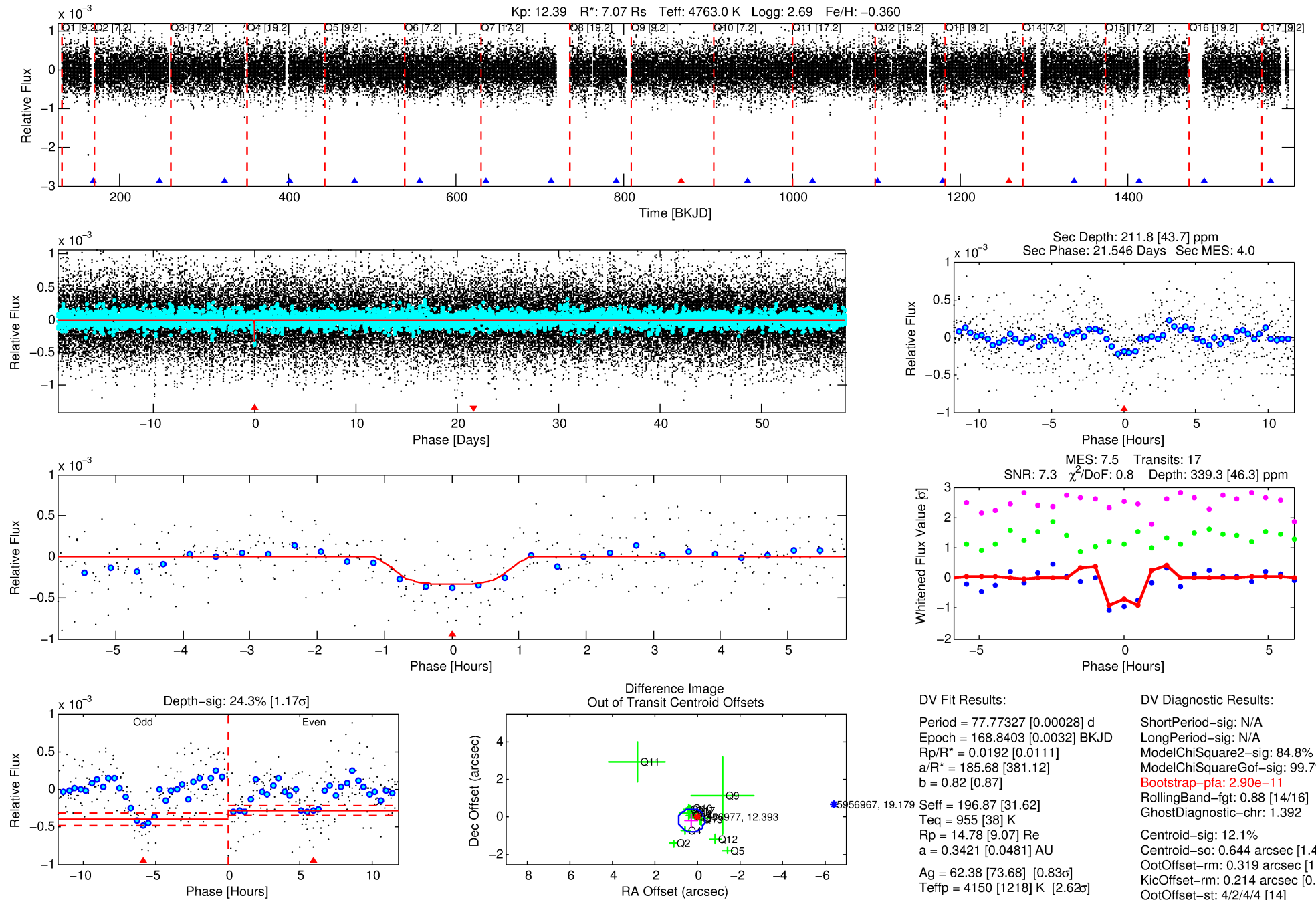
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005956977-01

No Significant Match Found

DV One-Page Summary

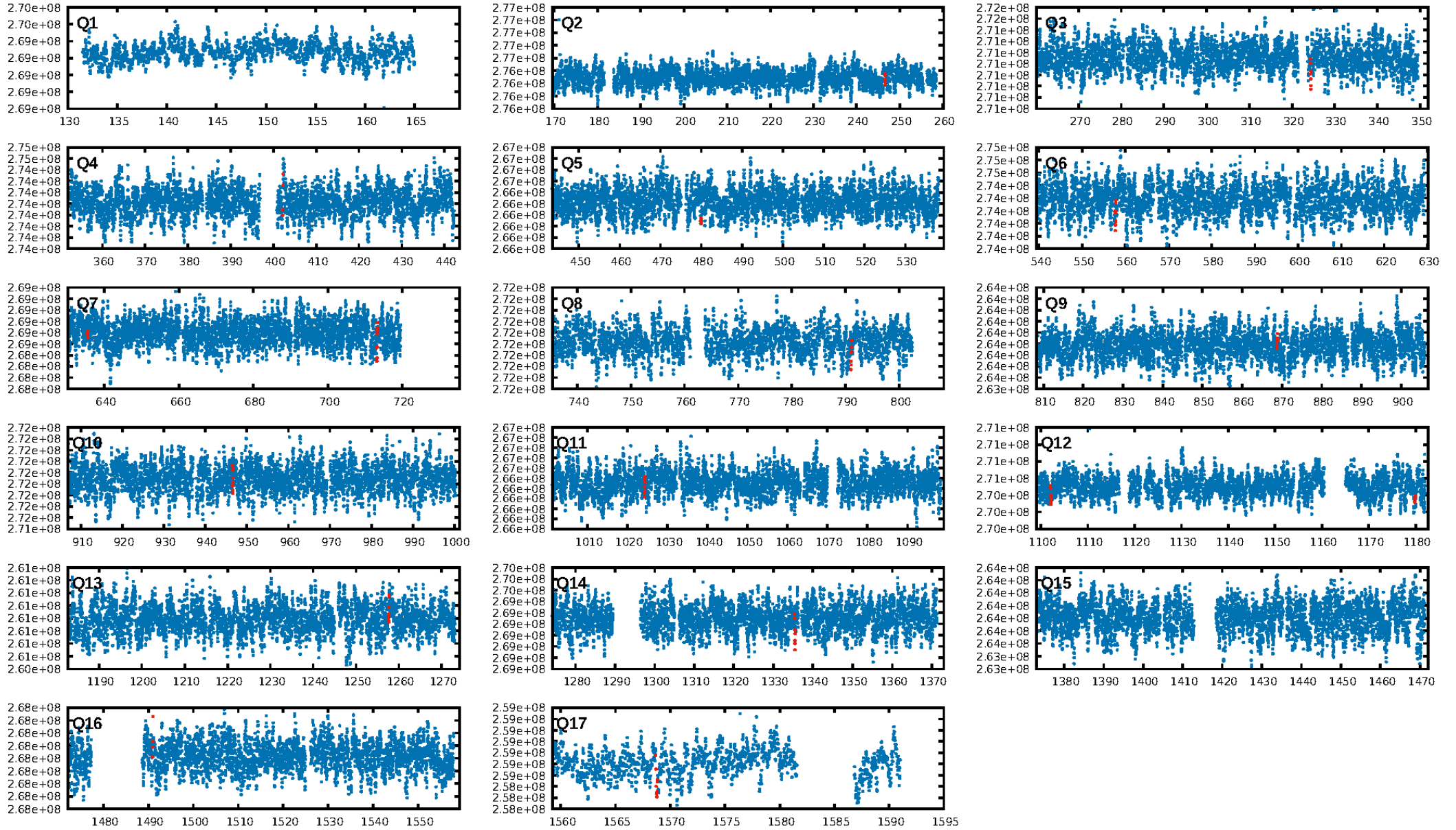
KIC: 5956977 Candidate: 1 of 1 Period: 77.773 d



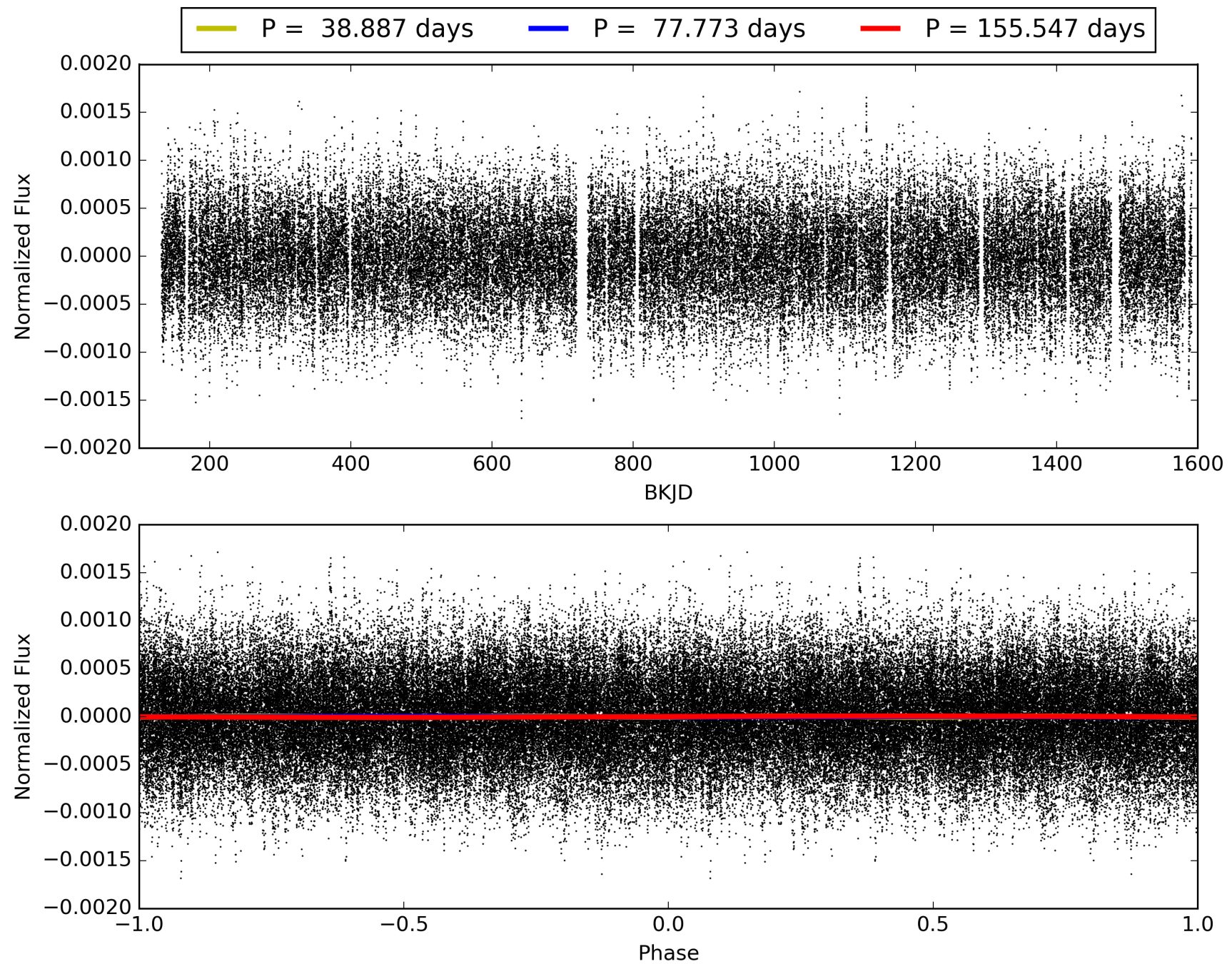
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 15:41:11 Z

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

TCE 005956977-01, PDC Light Curves

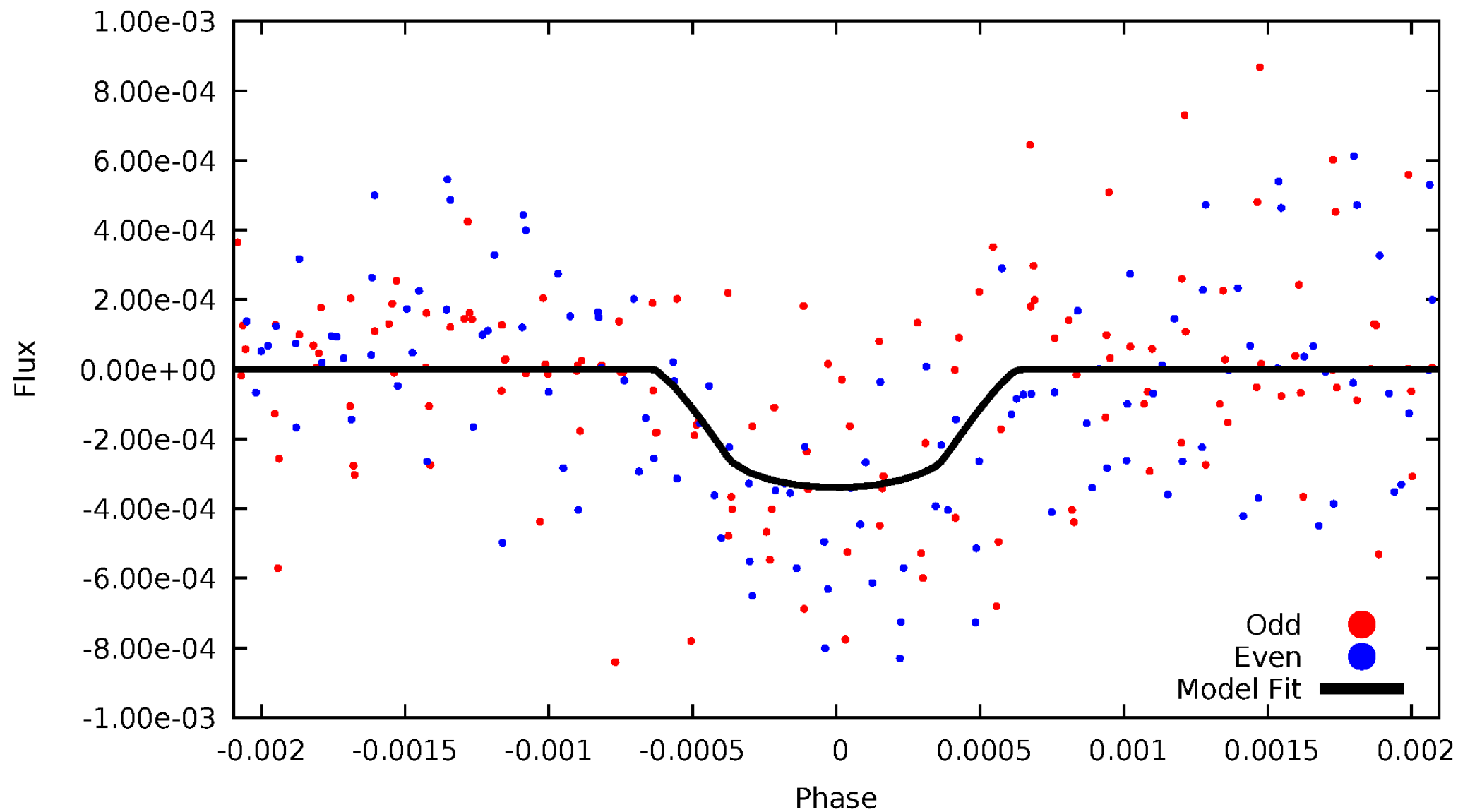


TCE 005956977-01



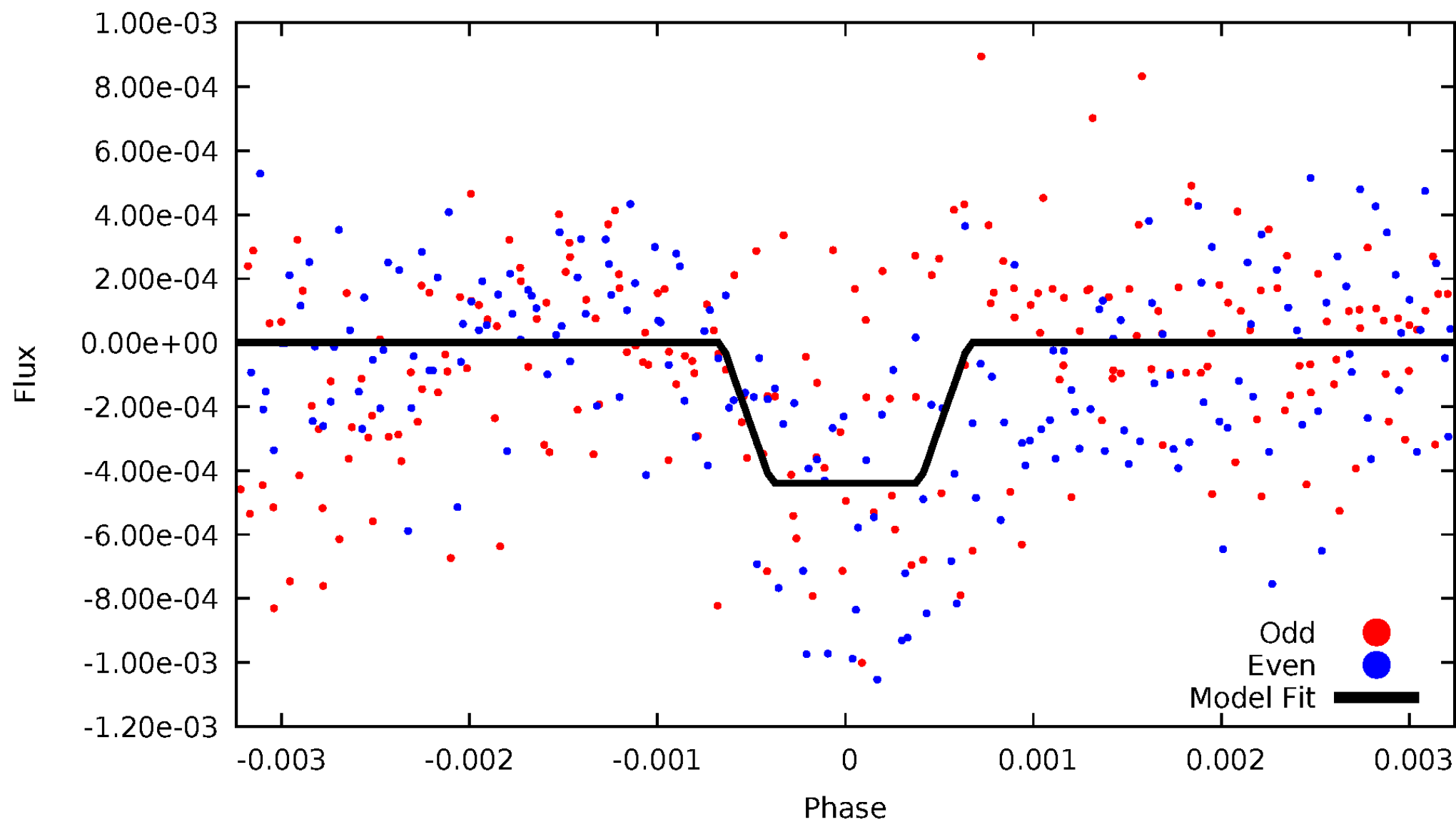
DV Odd/Even

TCE 005956977-01



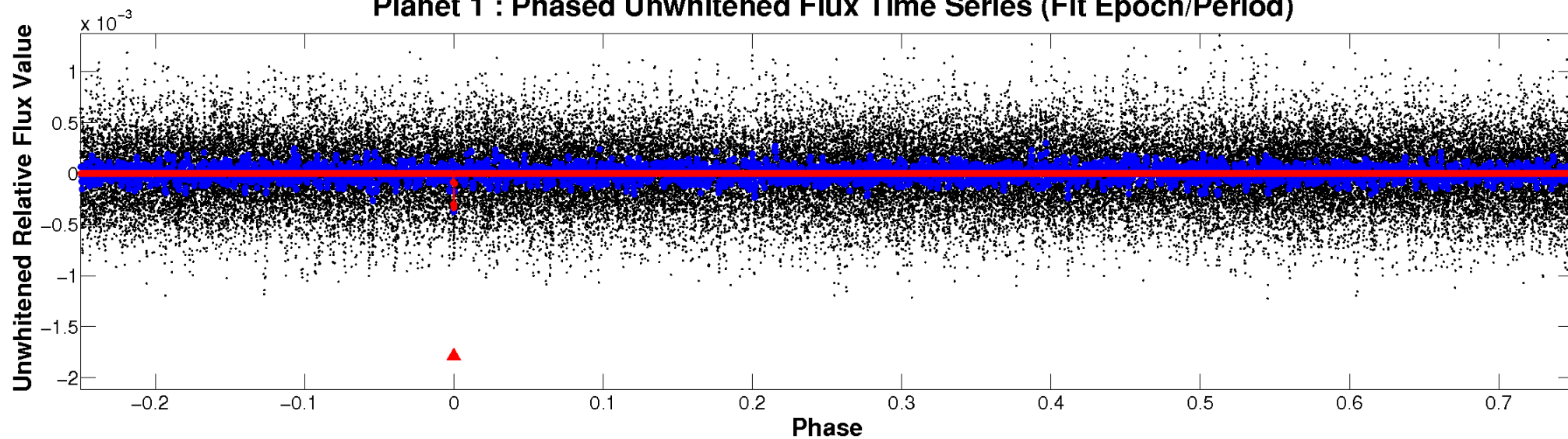
ALT Odd/Even

TCE 005956977-01

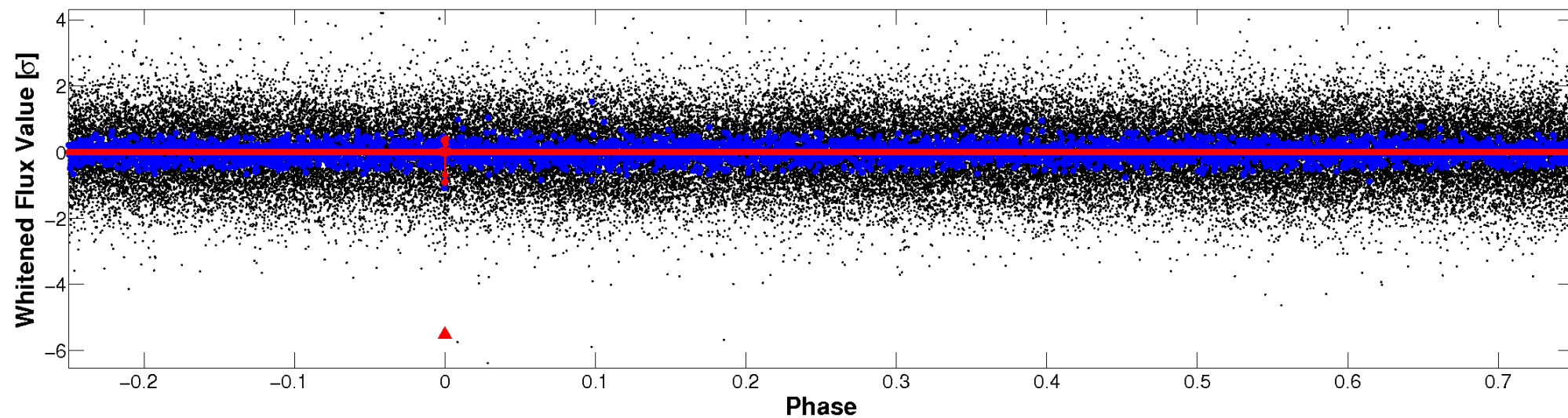


Non-Whitened Vs. Whitened Light Curve

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

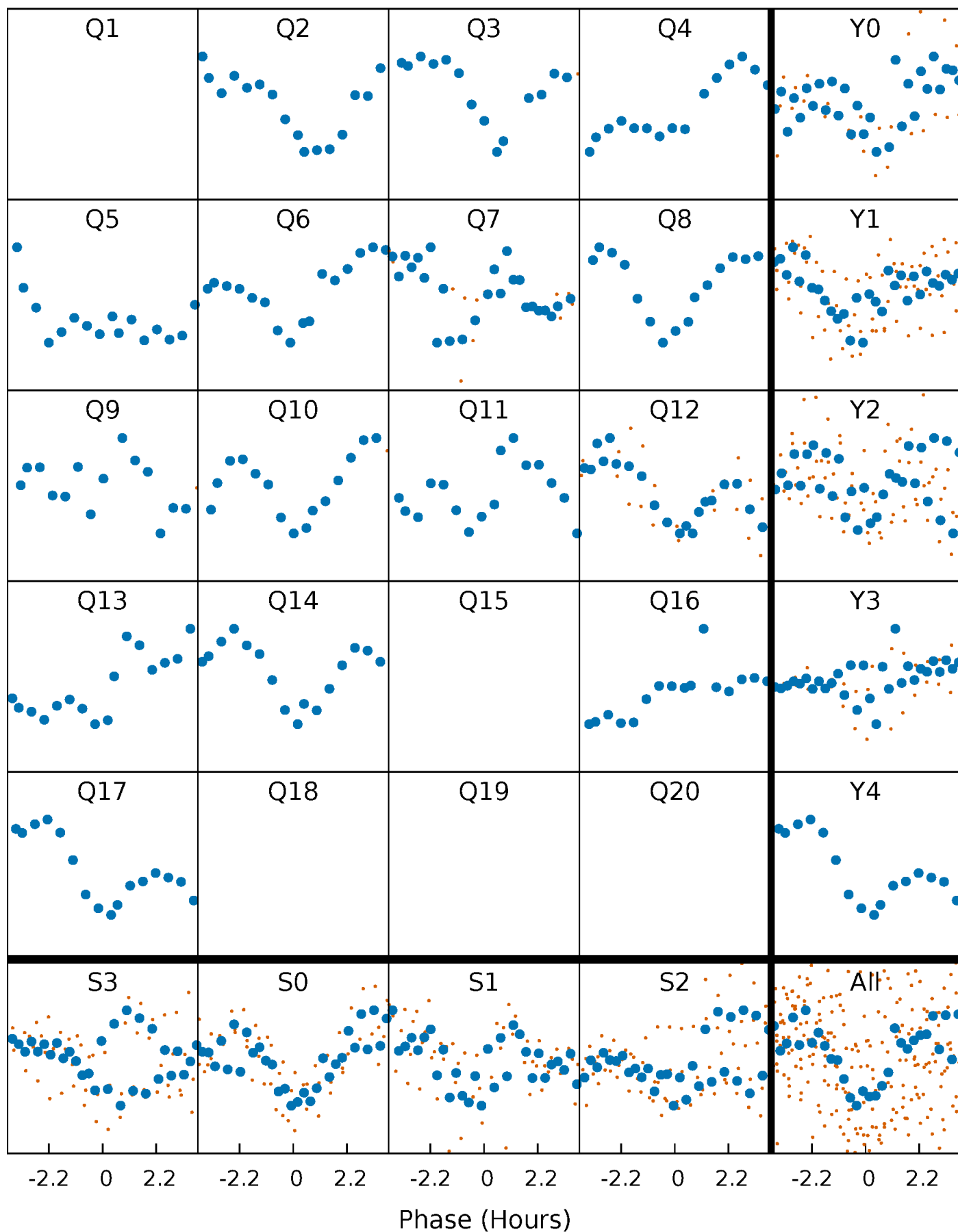


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



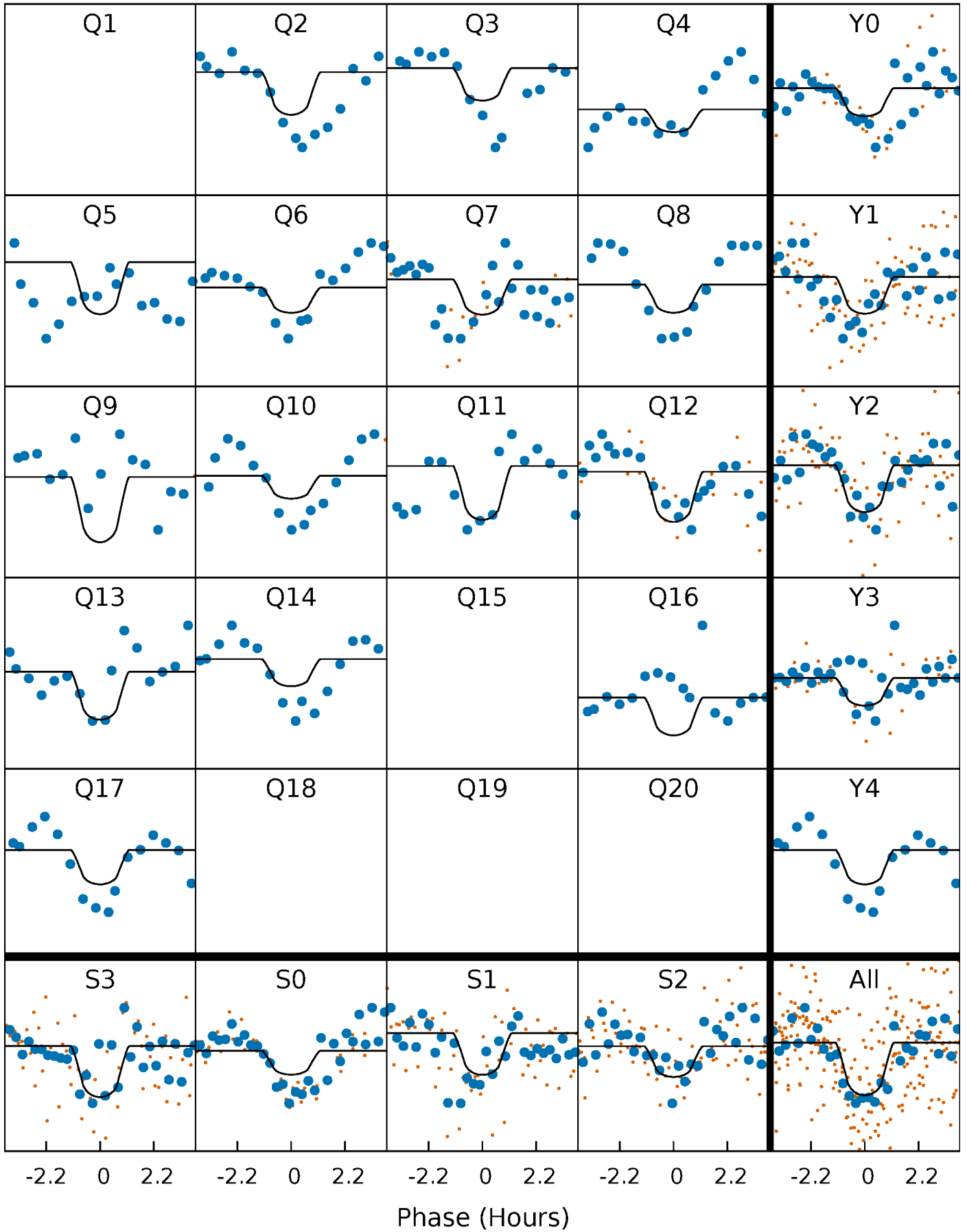
PDC Quarter-Phased Transit Curves

TCE 005956977-01 P= 77.773266 Days $T_0=168.840270$ (BKJD)



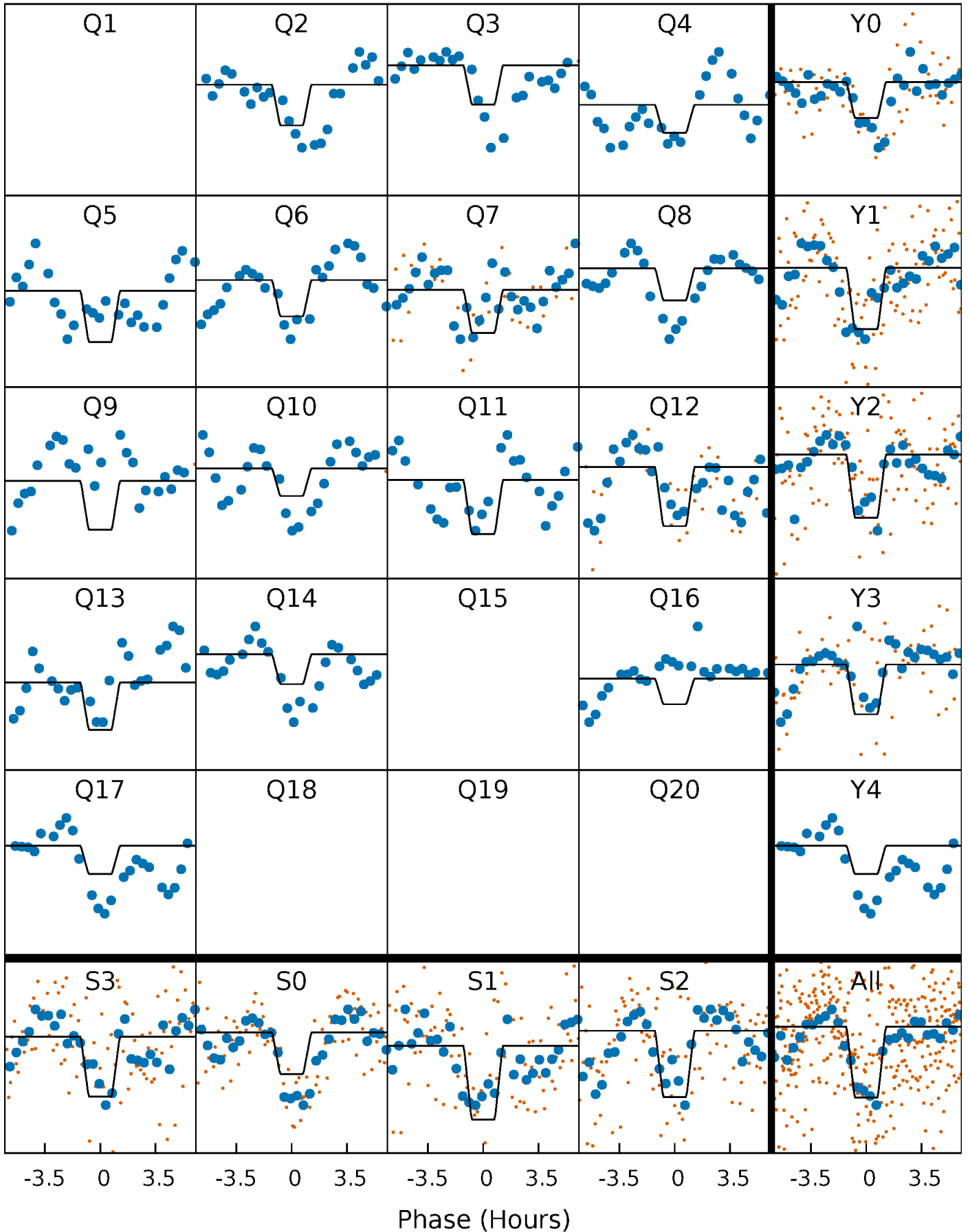
DV Quarter-Phased Transit Curves

TCE 005956977-01 P= 77.773266 Days $T_0=168.840270$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

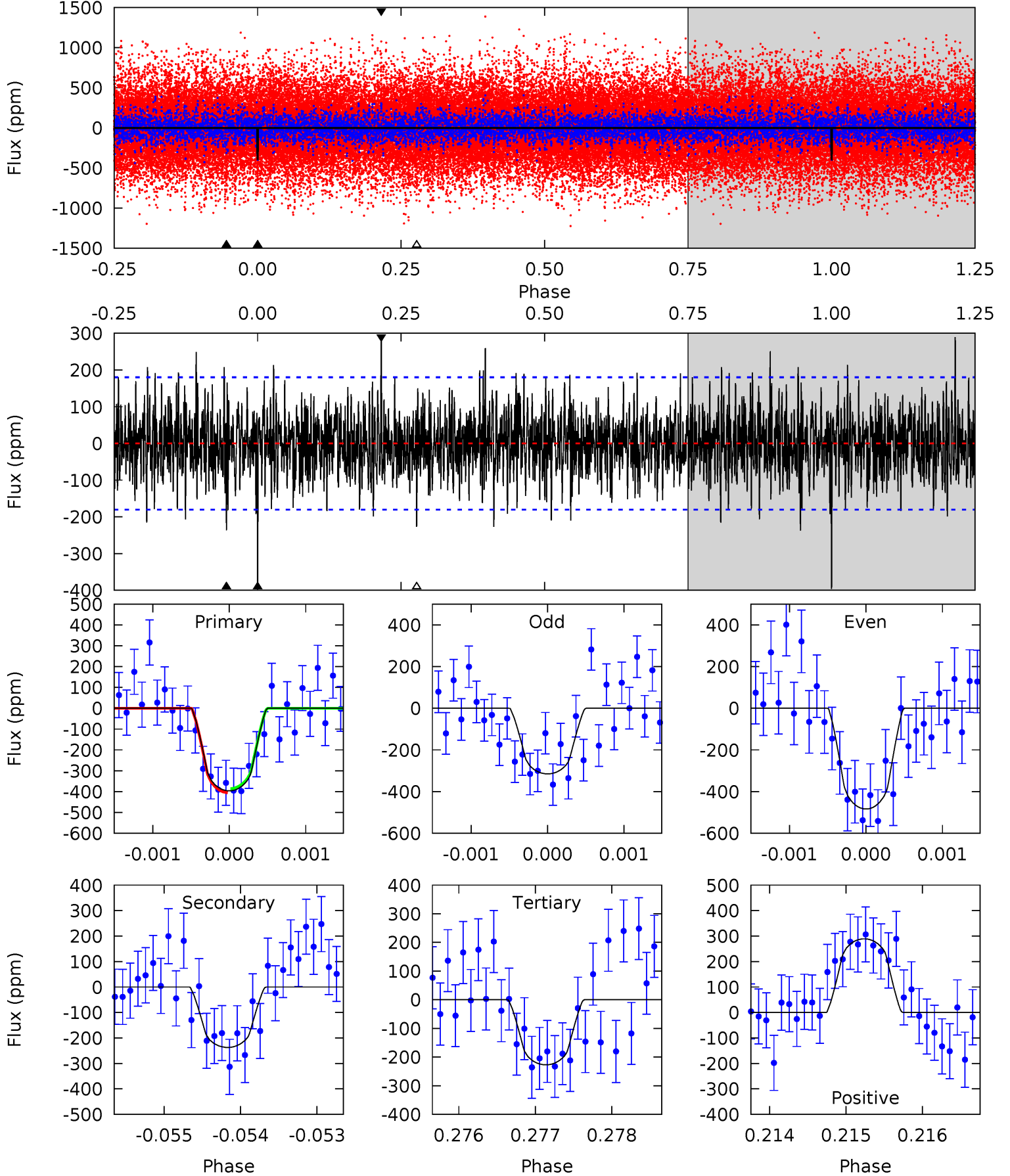
TCE 005956977-01 P= 77.773578 Days $T_0=168.831200$ (BKJD)



DV Model-Shift Uniqueness Test

005956977-01, P = 77.773266 Days, E = 91.067004 Days

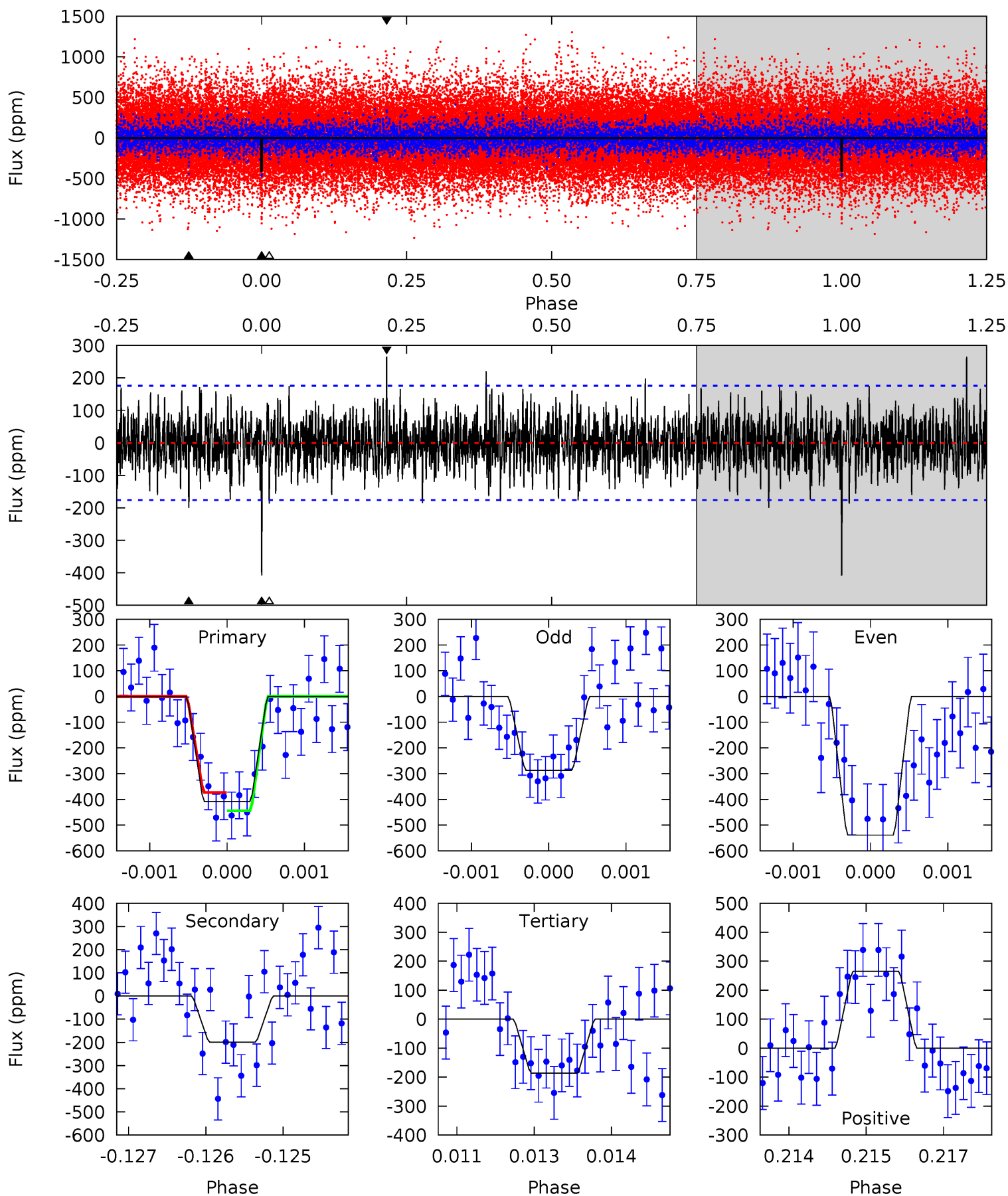
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	7.11	6.80	8.67	5.41	3.22	2.12	5.08	3.22	0.31	-1.56	2.53	1.13	0.42	0.29



Alt Model-Shift Uniqueness Test

005956977-01, P = 77.773578 Days, E = 91.057622 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	6.12	5.73	8.16	5.41	3.22	1.86	6.81	4.38	0.39	-2.04	3.89	0.99	0.39	1.10



Stellar Parameters For KIC 005956977

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4763^{+79}_{-43}	$2.685^{+0.030}_{-0.030}$	$-0.360^{+0.150}_{-0.100}$	$7.068^{+1.472}_{-0.245}$	$0.882^{+0.397}_{-0.021}$	$0.004^{+0.000}_{-0.001}$
	+2%/-1%	+1%/-1%	+42%/-28%	+21%/-3%	+45%/-2%	+8%/-20%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 005956977-01 / KOI 8113.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-237 ± 33	$15.33^{+7.93}_{-7.48}$	1335^{+27}_{-20}	4315^{+1465}_{-600}	65^{+194}_{-37}
Alt.	-199 ± 33	$16.31^{+8.57}_{-8.18}$	1334^{+29}_{-20}	4082^{+1293}_{-546}	48^{+135}_{-27}

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

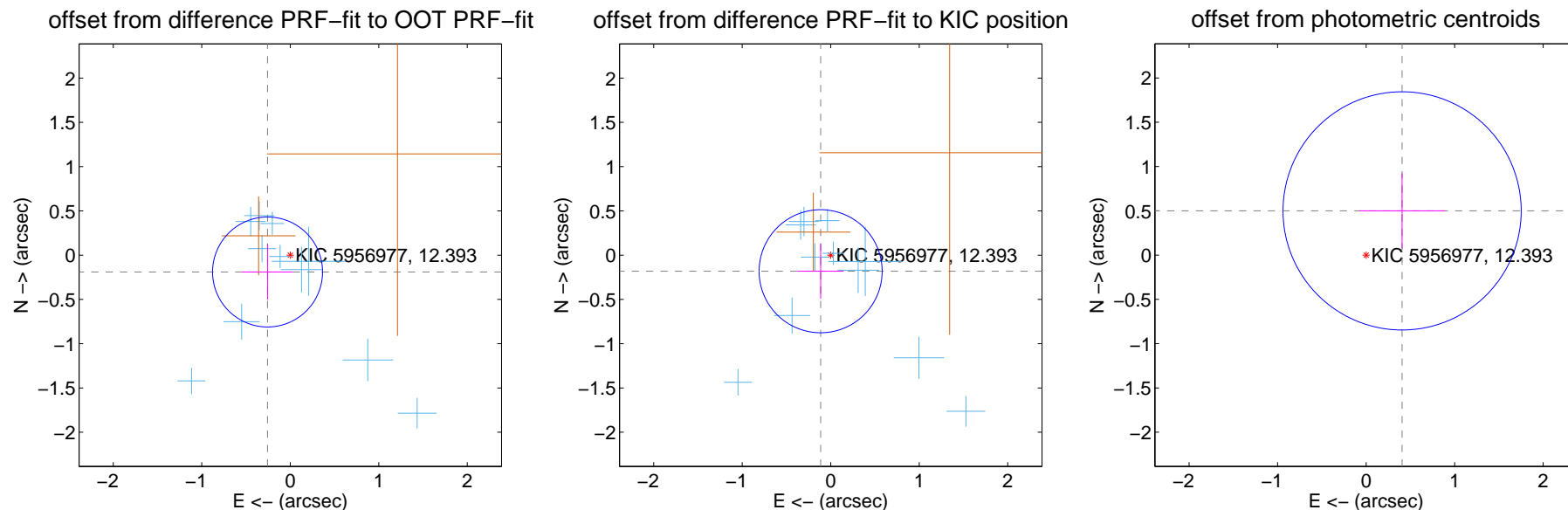
DV Centroid Data

Supplemental centroid analysis for 005956977-01. Kepler magnitude: 12.39. Transit SNR 7.27

There are 11 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.319 ± 0.207	1.54	0.257 ± 0.288	-0.190 ± 0.311
PRF-fit source offset from KIC position	0.214 ± 0.232	0.93	0.114 ± 0.261	-0.182 ± 0.311
photometric centroid source offset	0.64 ± 0.45	1.44	-0.41 ± 0.48	0.50 ± 0.42



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.

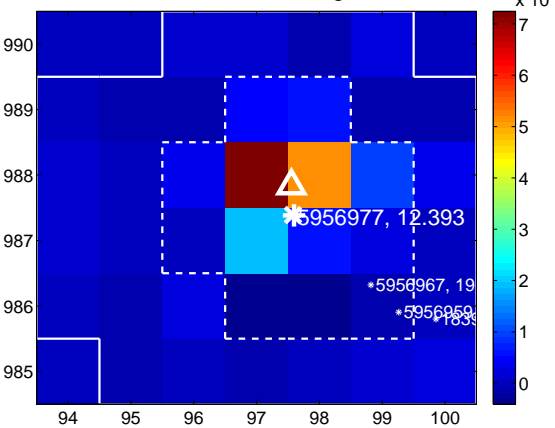
Q1 no difference image



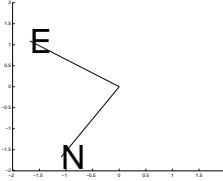
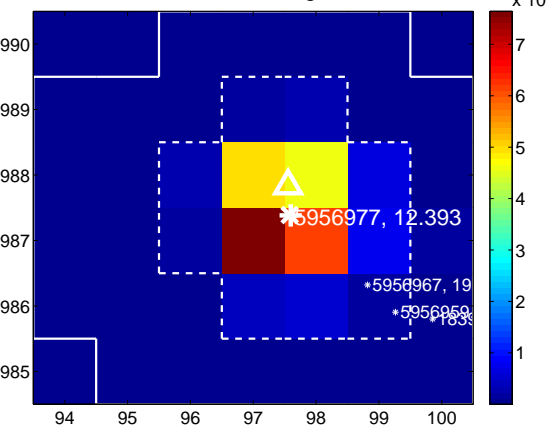
Q1 no OOT image



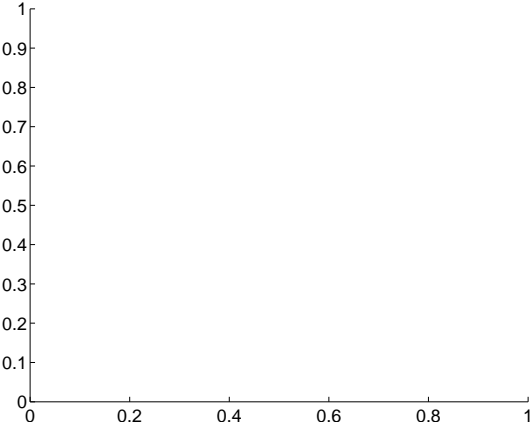
Q2 difference image



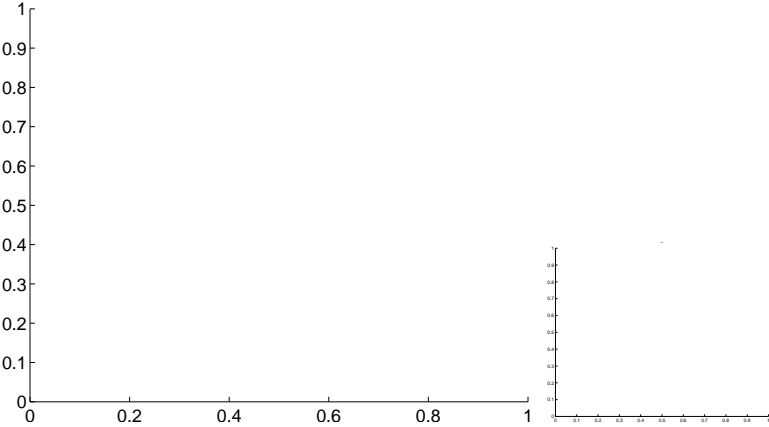
Q2 OOT image



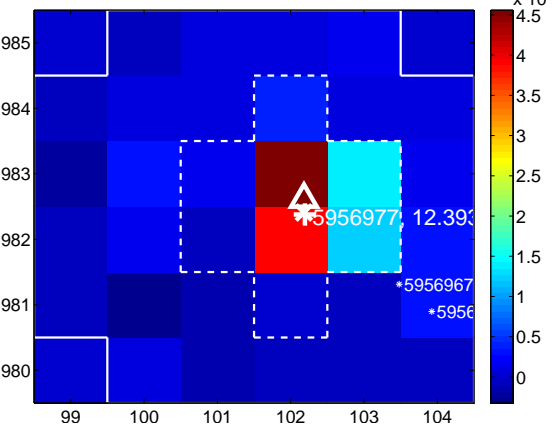
Q3 no difference image



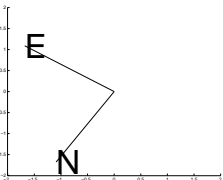
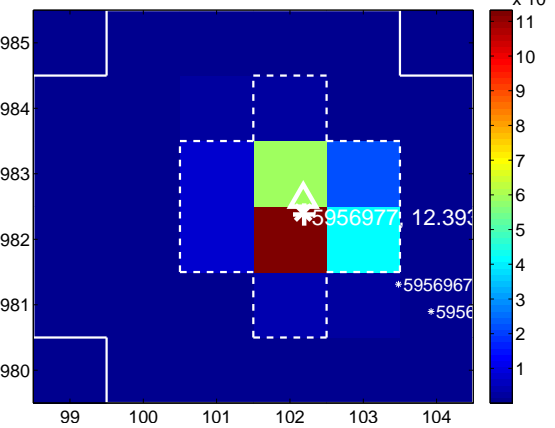
Q3 no OOT image



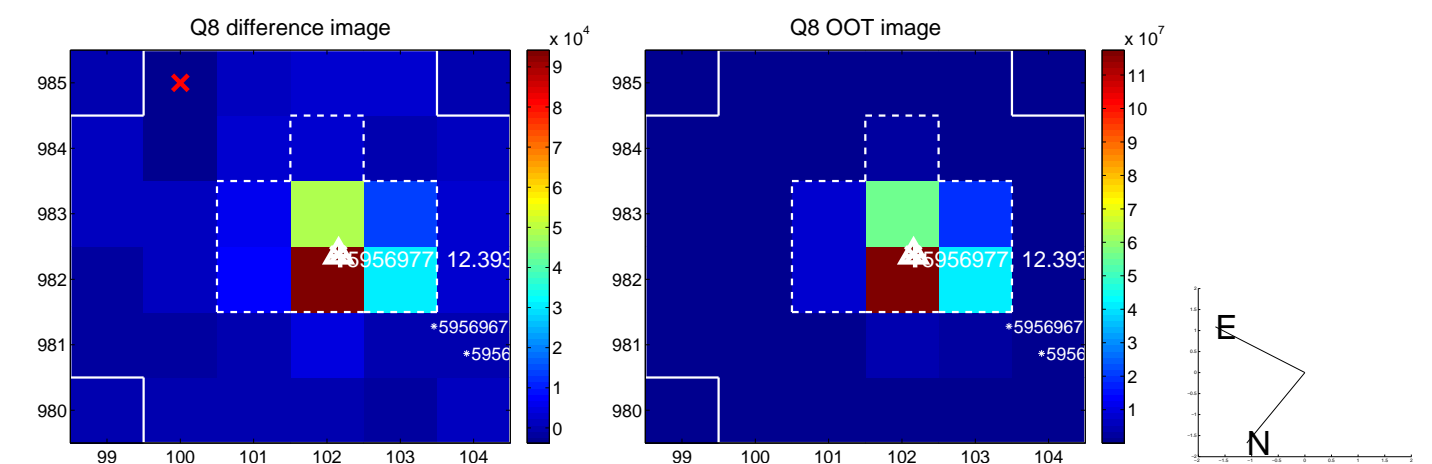
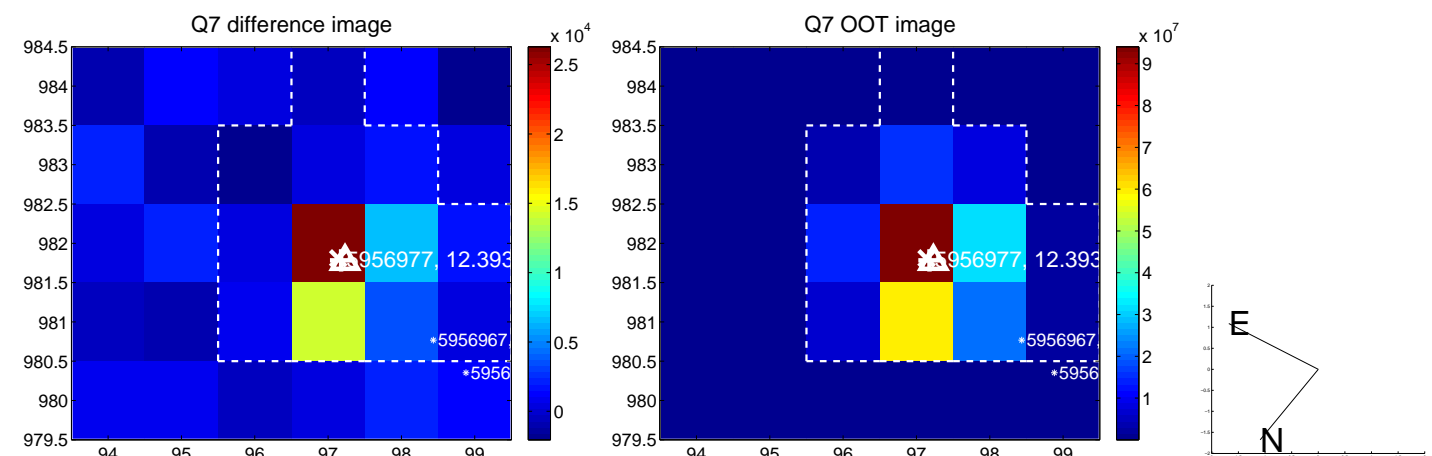
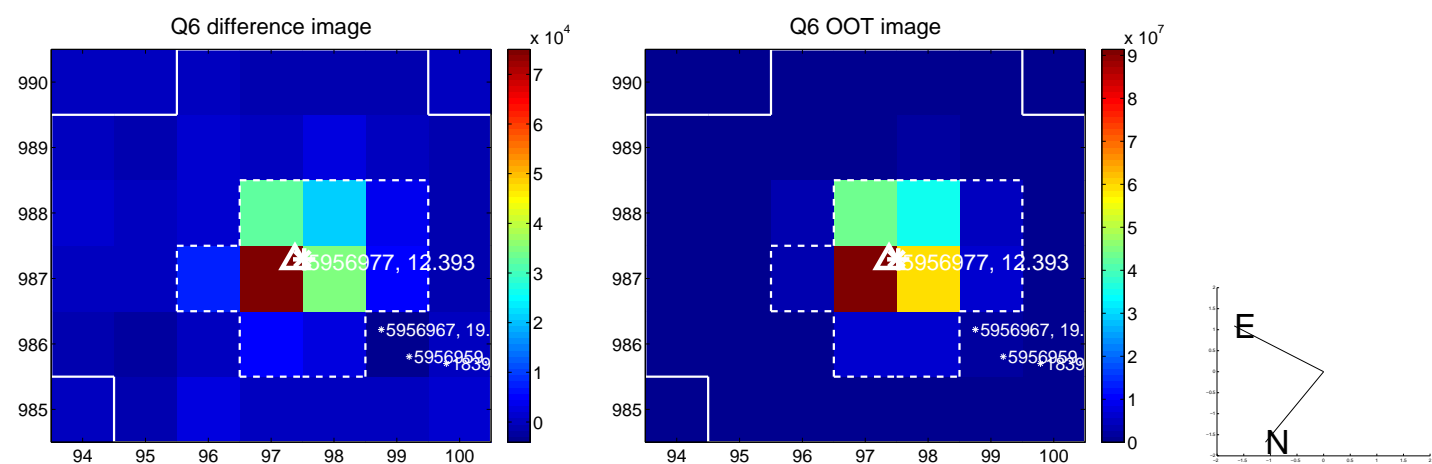
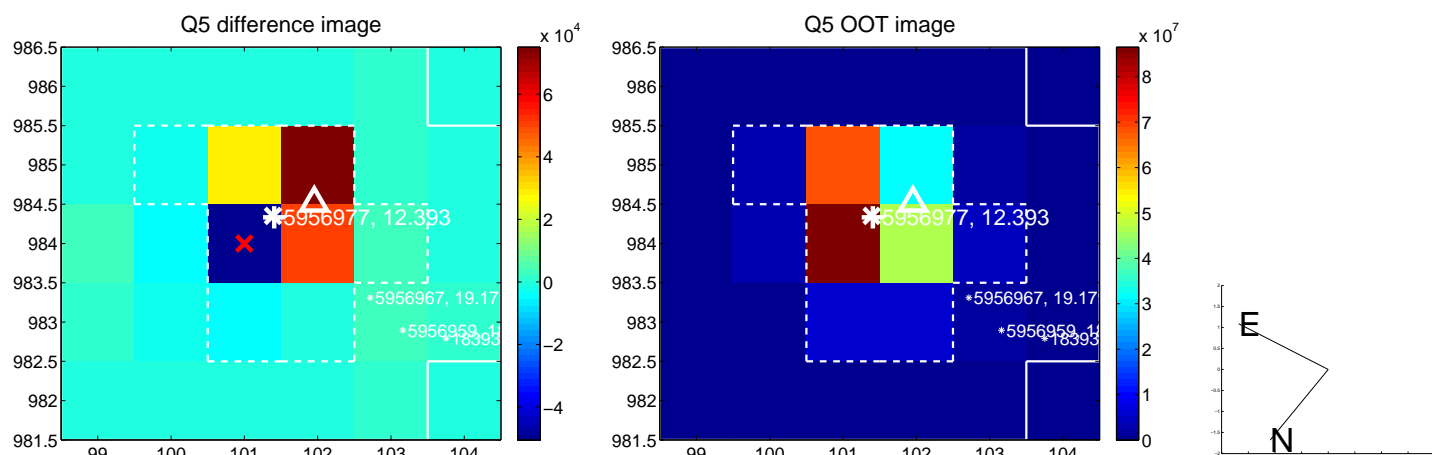
Q4 difference image



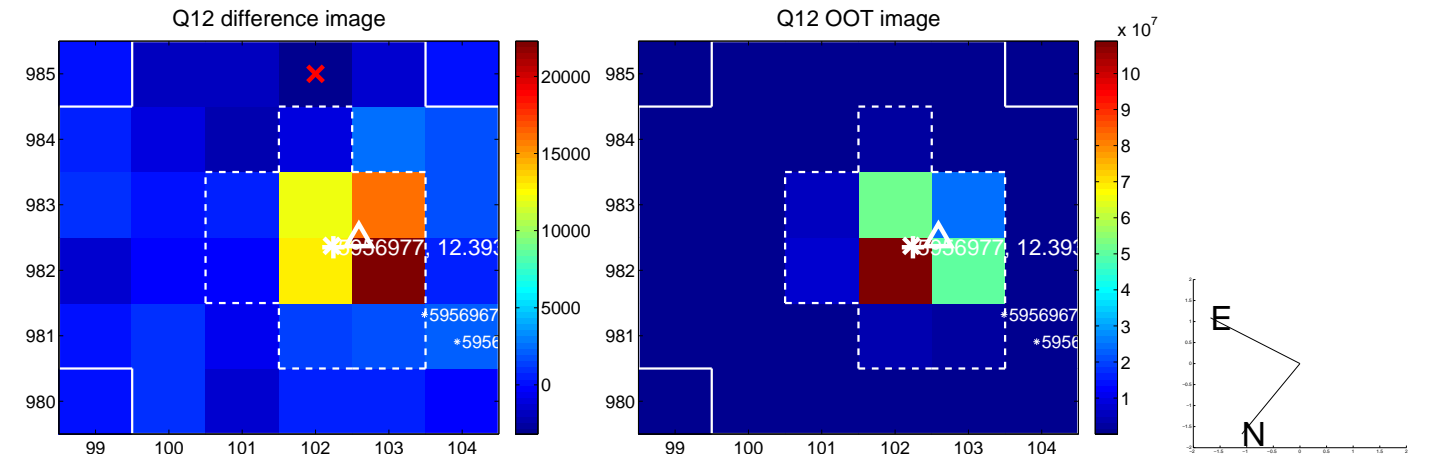
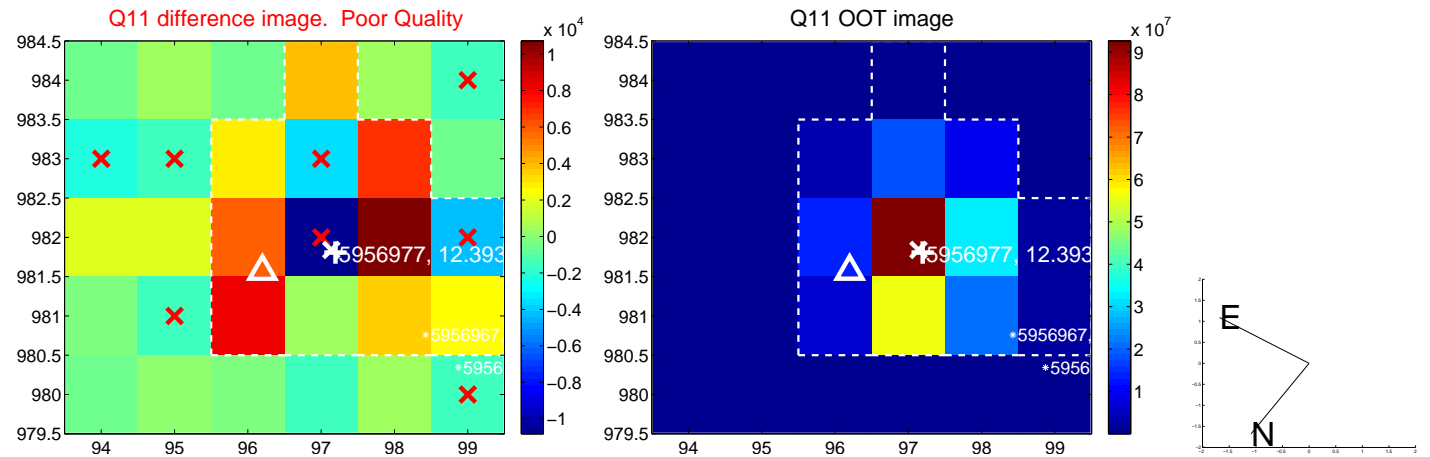
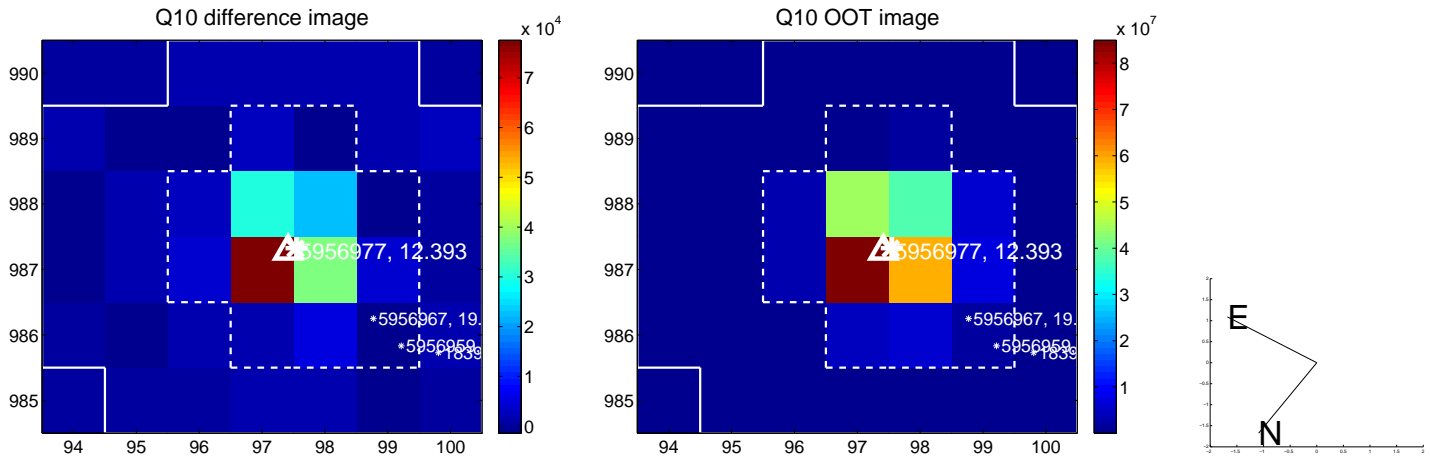
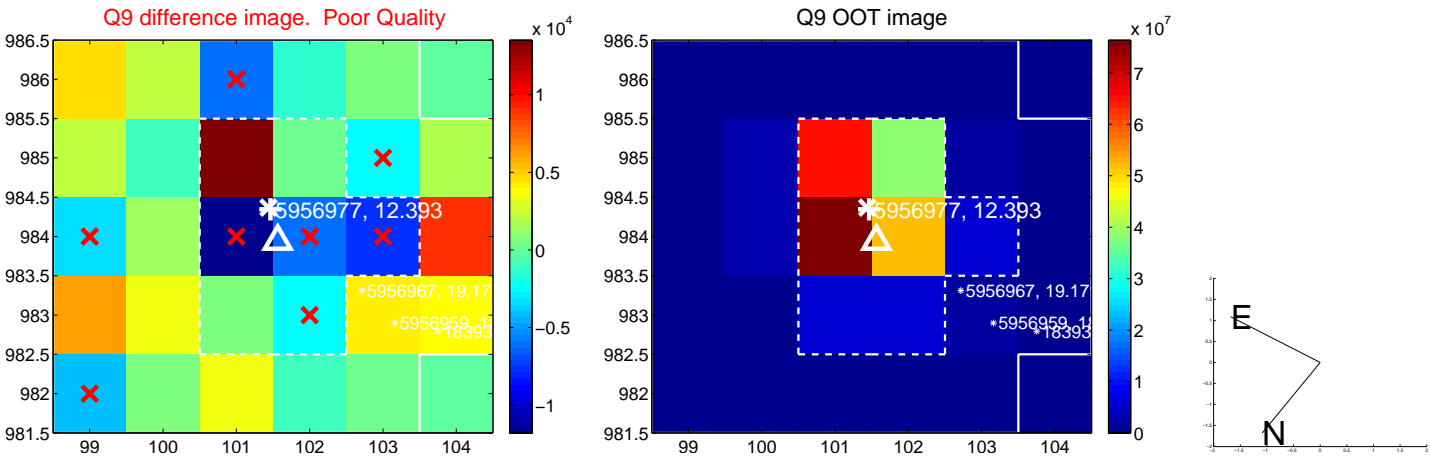
Q4 OOT image



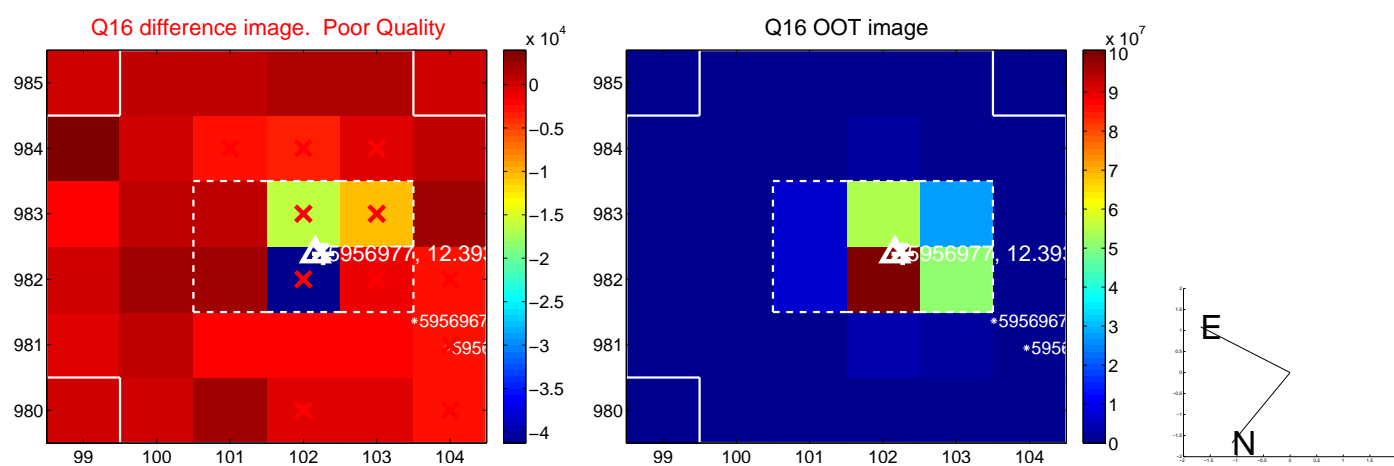
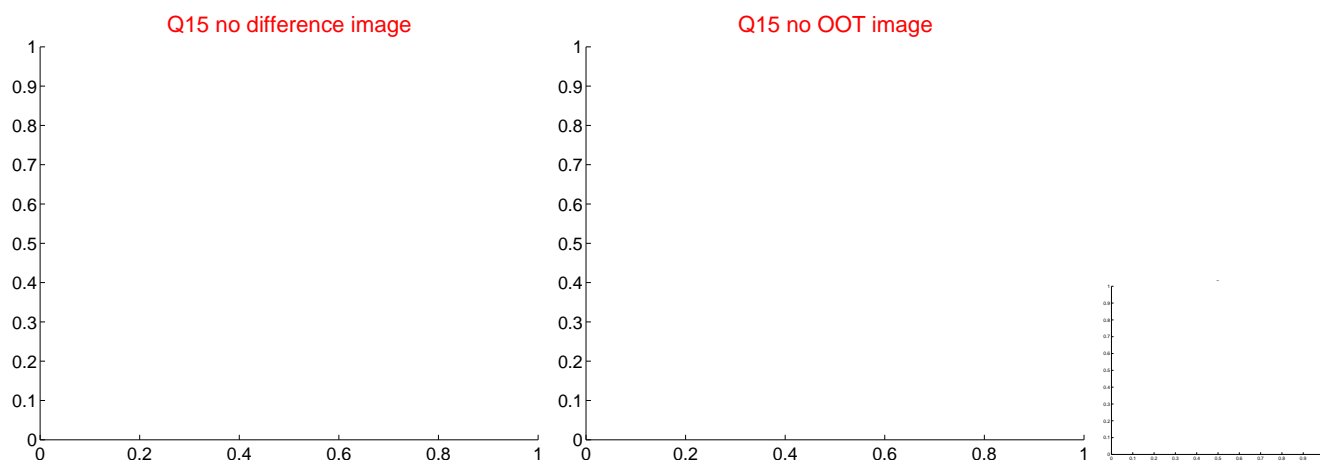
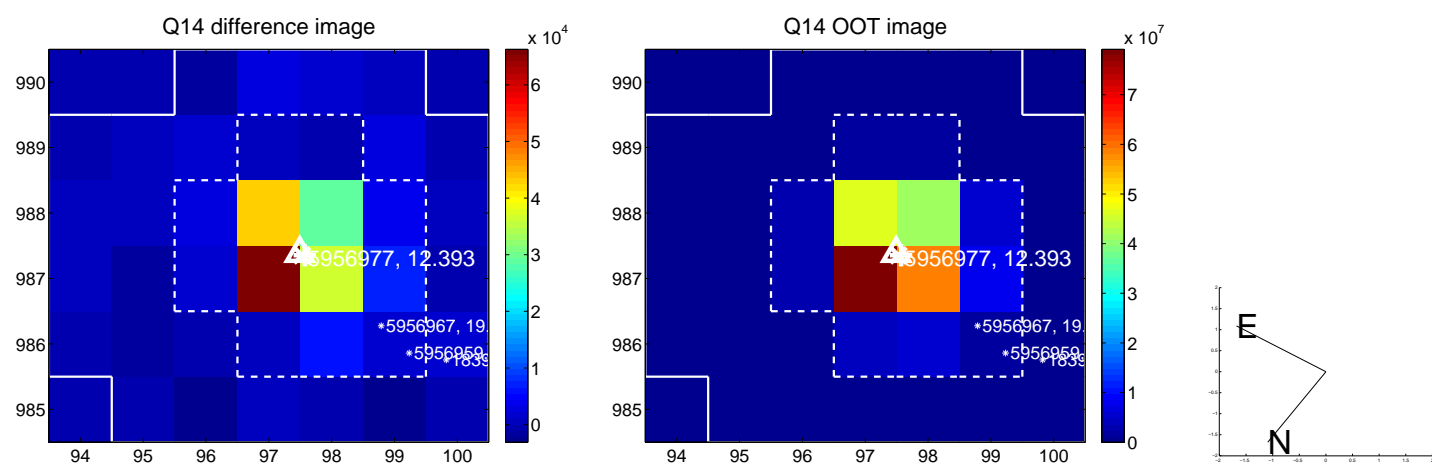
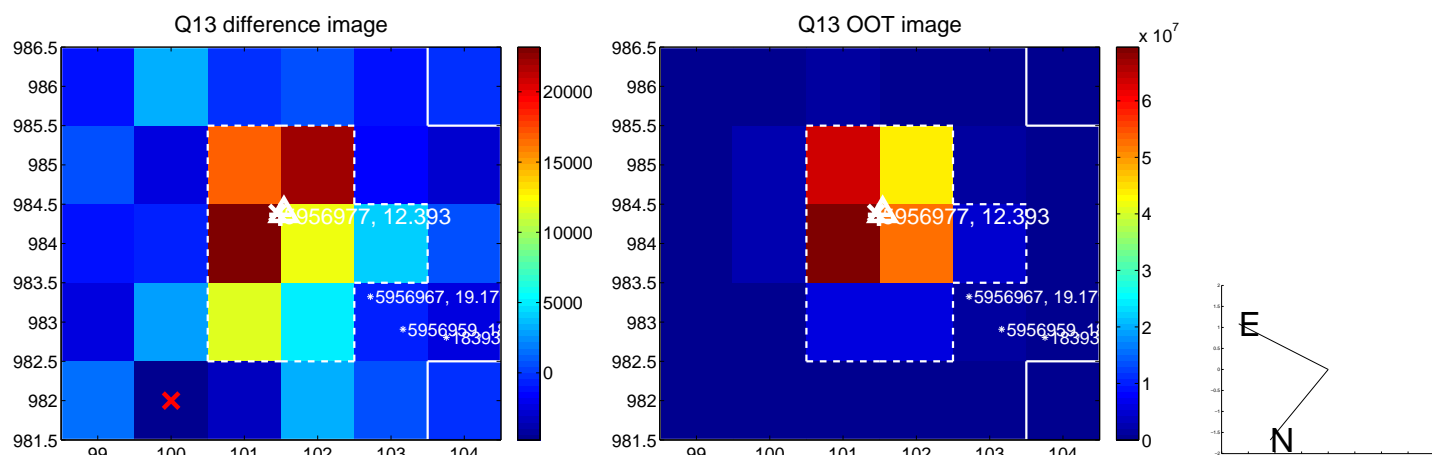
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

