

KIC 007697103

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})
007697103-01	OBS	3430.01	13.924750	142.049198	182.3	5.169	8.8	9.5	0.65	5271	1.03	28.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007697103-01	OBS	PC	0.73	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 007697103-01

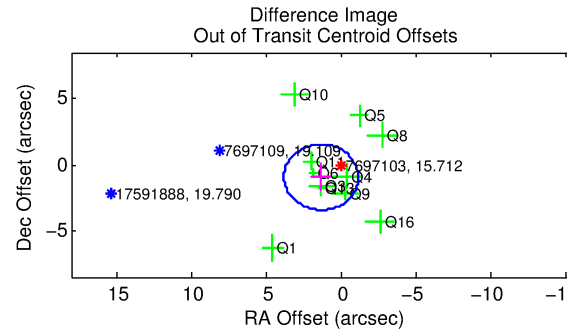
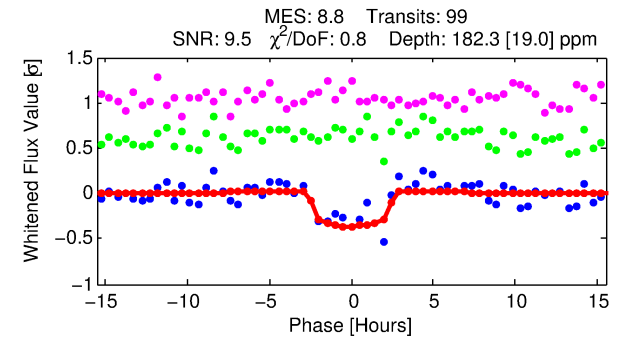
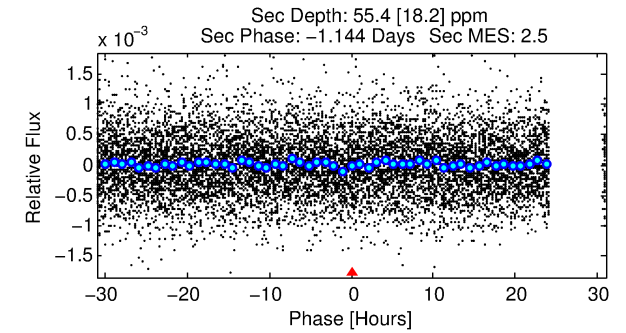
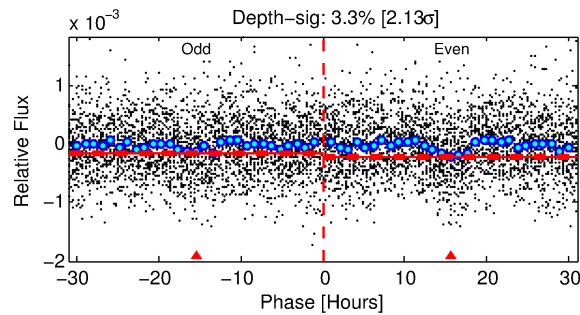
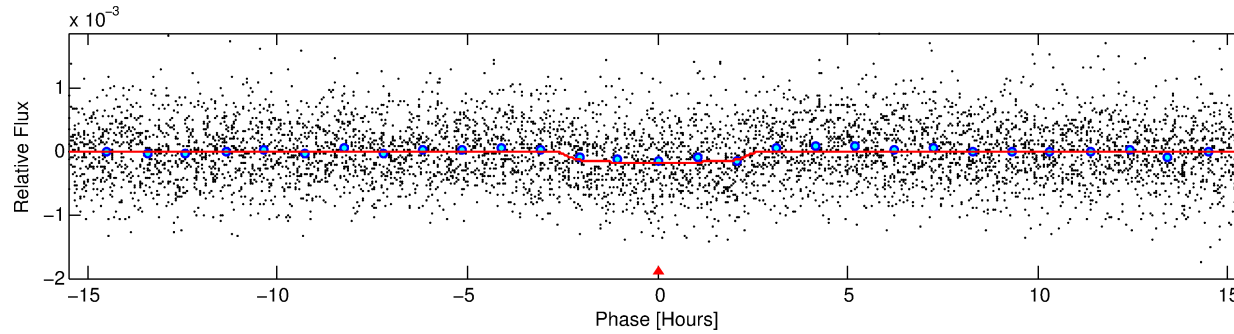
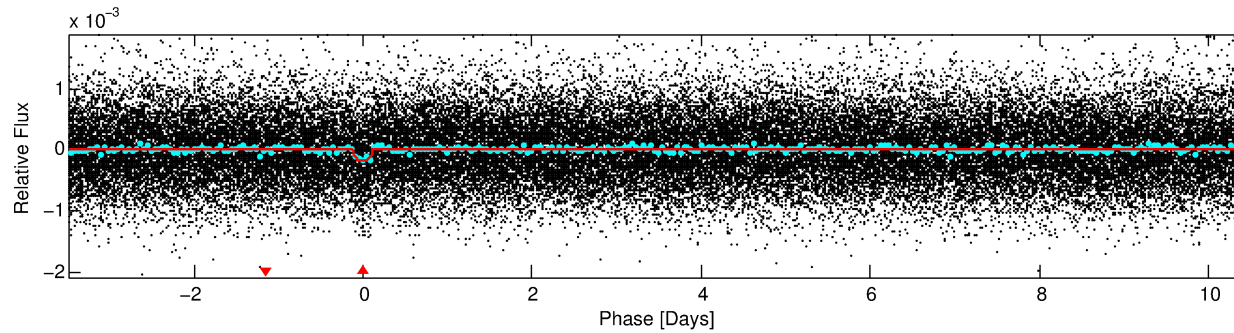
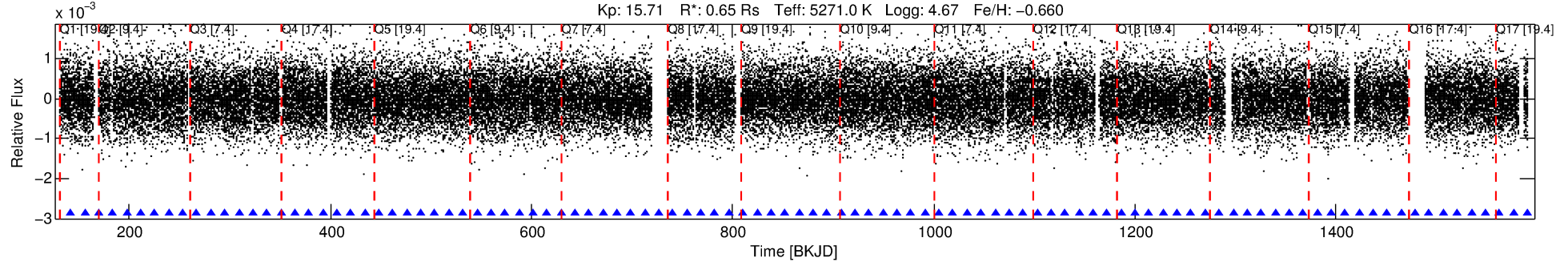
No Significant Match Found

DV One-Page Summary

KIC: 7697103 Candidate: 1 of 1 Period: 13.925 d

KOI: K03430.01 Corr: 0.982

Kp: 15.71 R*: 0.65 Rs Teff: 5271.0 K Logg: 4.67 Fe/H: -0.660



DV Fit Results:

Period = 13.92475 [0.00019] d
Epoch = 142.0492 [0.0111] BKJD
Rp/R* = 0.0146 [0.0067]
a/R* = 10.09 [20.45]
b = 0.89 [0.49]
Seff = 28.30 [5.52]
Teq = 588 [29] K
Rp = 1.03 [0.49] Re
a = 0.1013 [0.0110] AU
Ag = 292.51 [288.70] [1.01σ]
Teffp = 3761 [923] K [3.43σ]

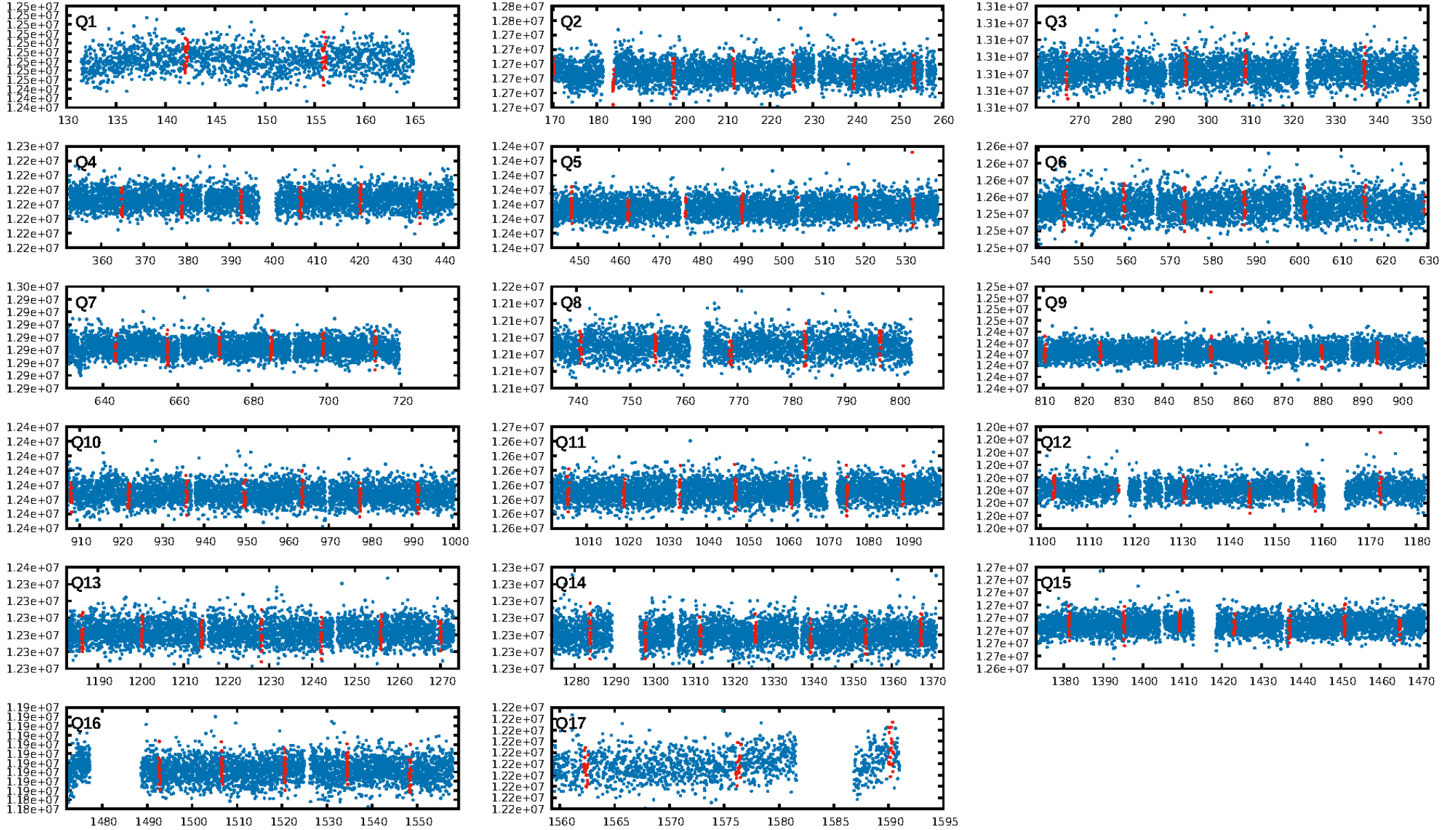
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.88e-18
RollingBand-fgt: 1.00 [94/94]
GhostDiagnostic-chr: 2.782
Centroid-sig: 0.0%
Centroid-so: 5.356 arcsec [3.59σ]
OotOffset-rm: 1.617 arcsec [1.96σ]
KicOffset-rm: 1.695 arcsec [2.10σ]
OotOffset-st: 2/2/3/4 [11]
KicOffset-st: 2/2/3/4 [11]
DiffImageQuality-fgm: 0.55 [6/11]
DiffImageOverlap-fno: 1.00 [17/17]

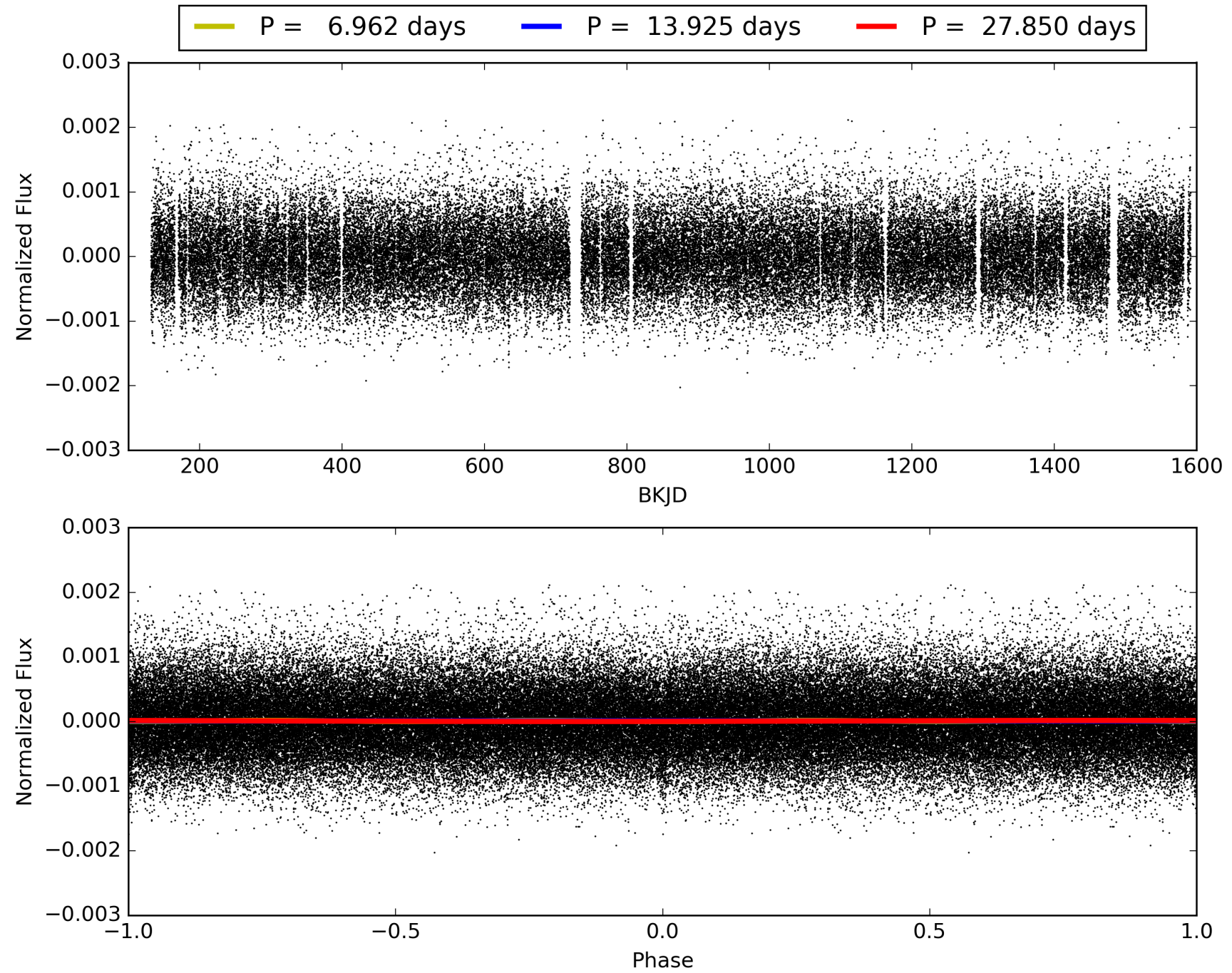
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:52:02 Z

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

TCE 007697103-01, PDC Light Curves

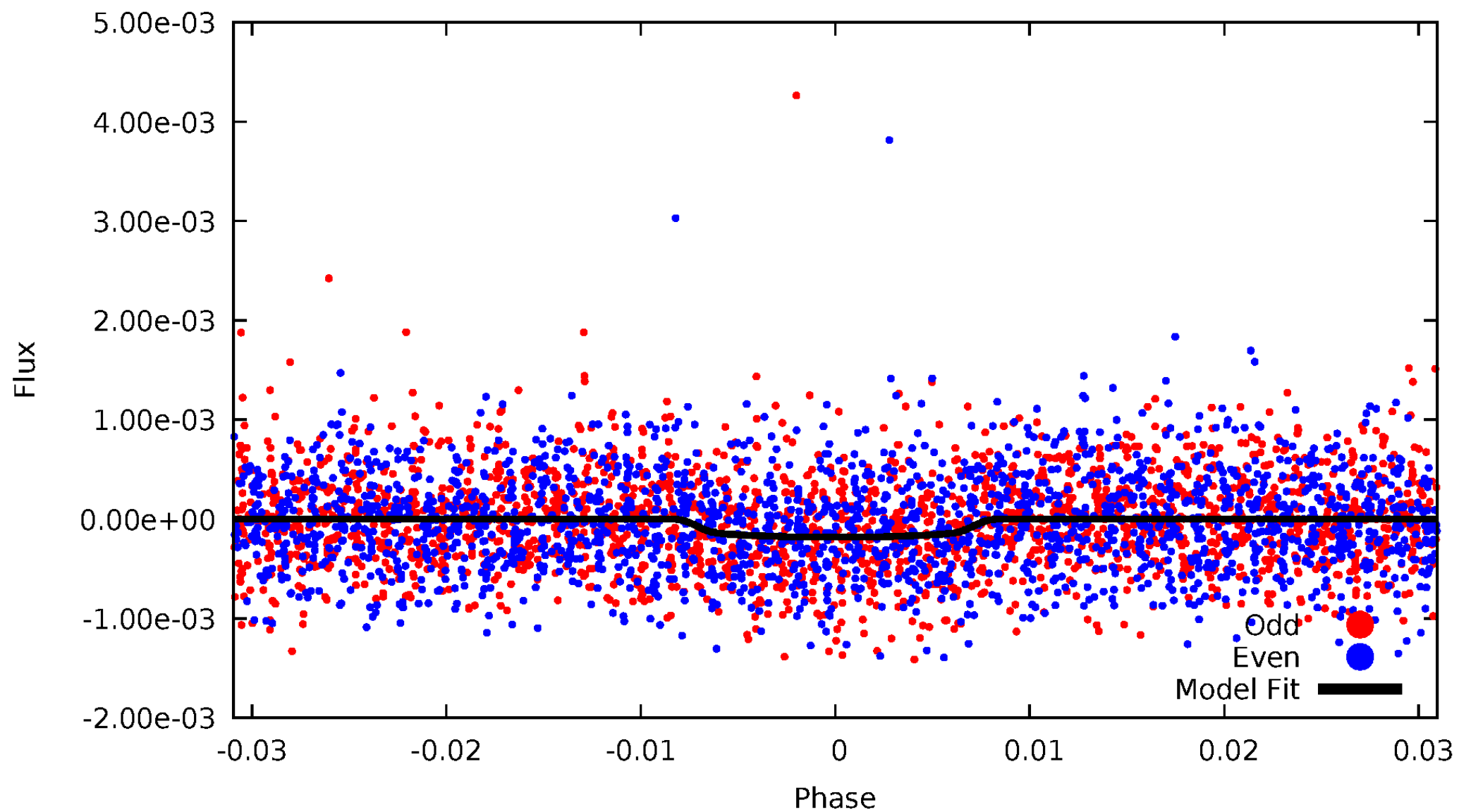


TCE 007697103-01



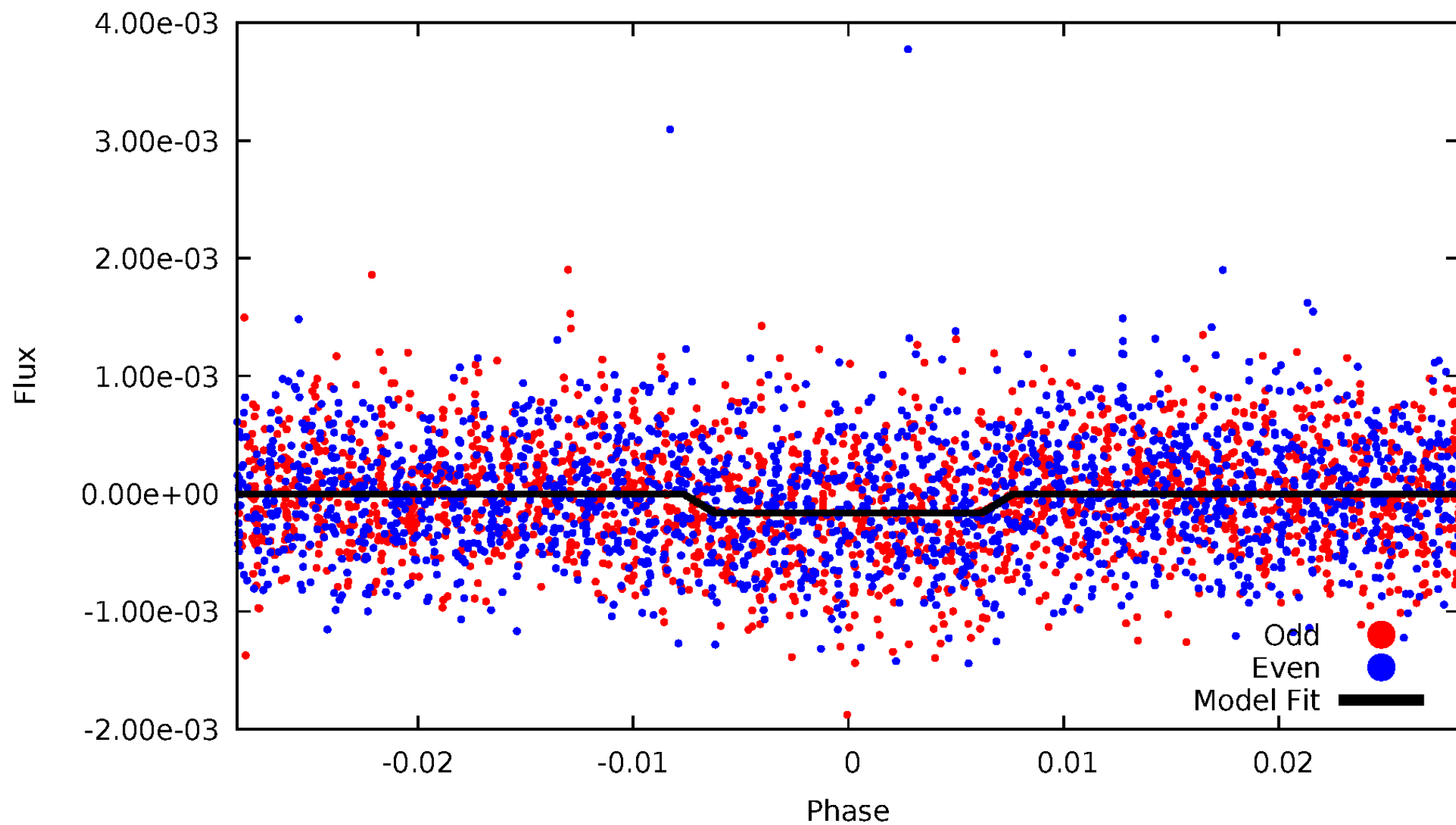
DV Odd/Even

TCE 007697103-01

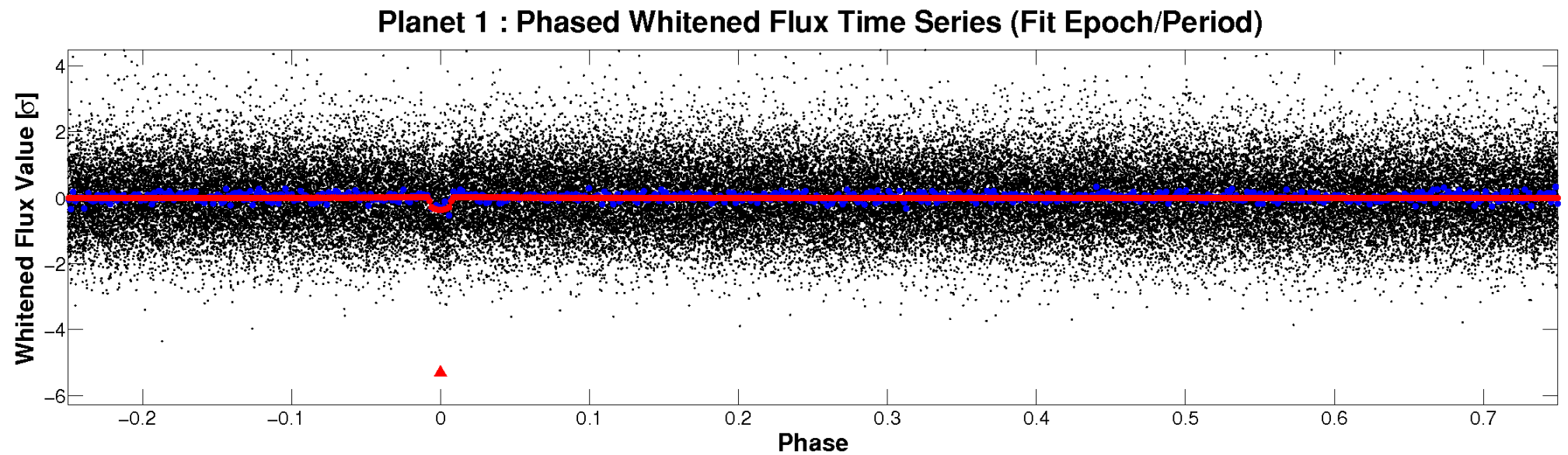
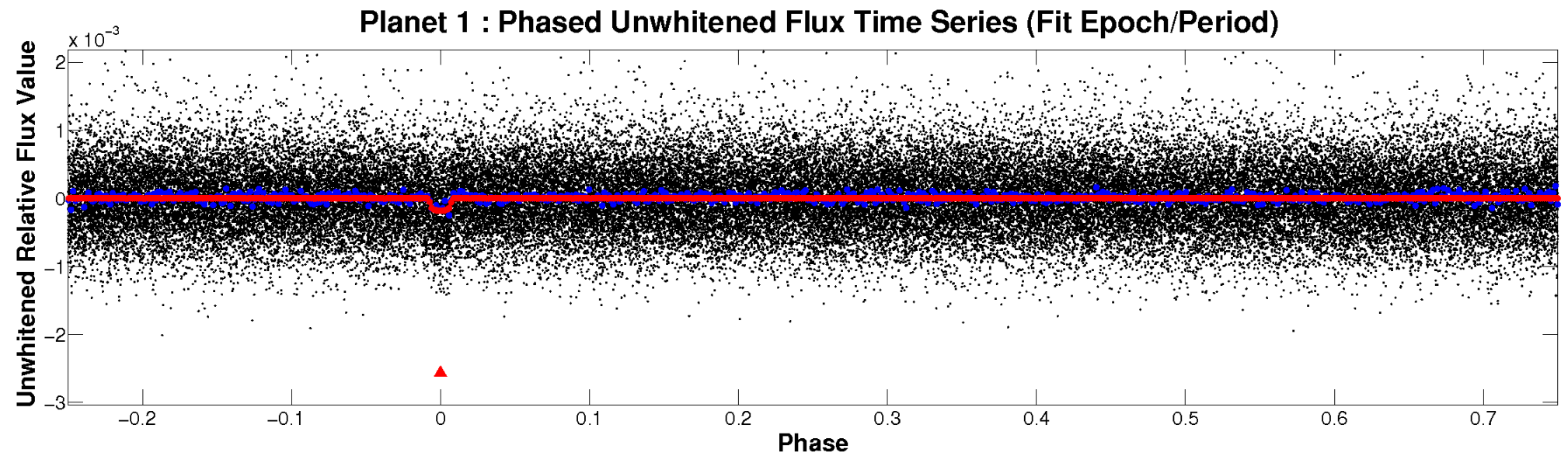


ALT Odd/Even

TCE 007697103-01

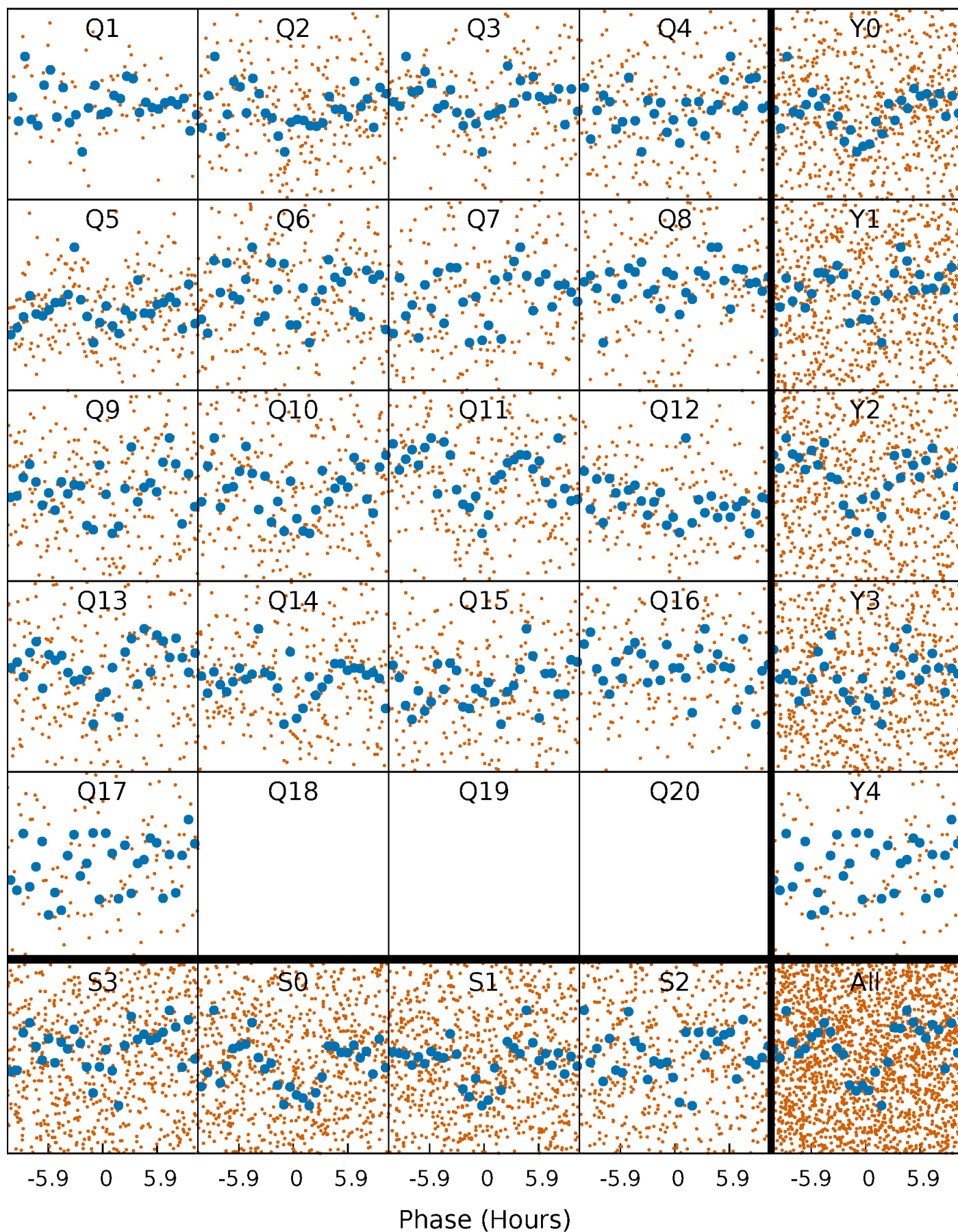


Non-Whitened Vs. Whitened Light Curve



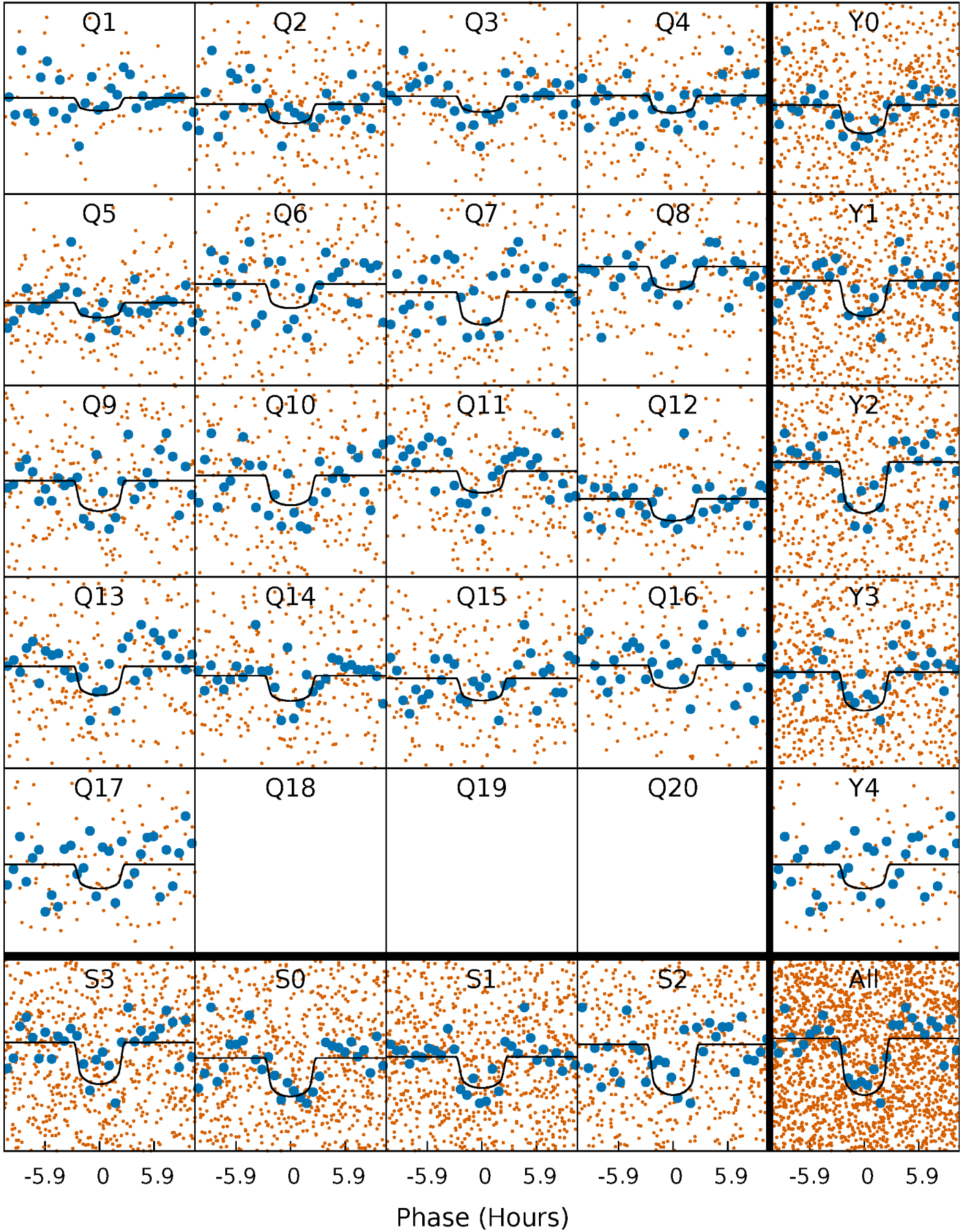
PDC Quarter-Phased Transit Curves

TCE 007697103-01 P= 13.924750 Days $T_0=142.049198$ (BKJD)



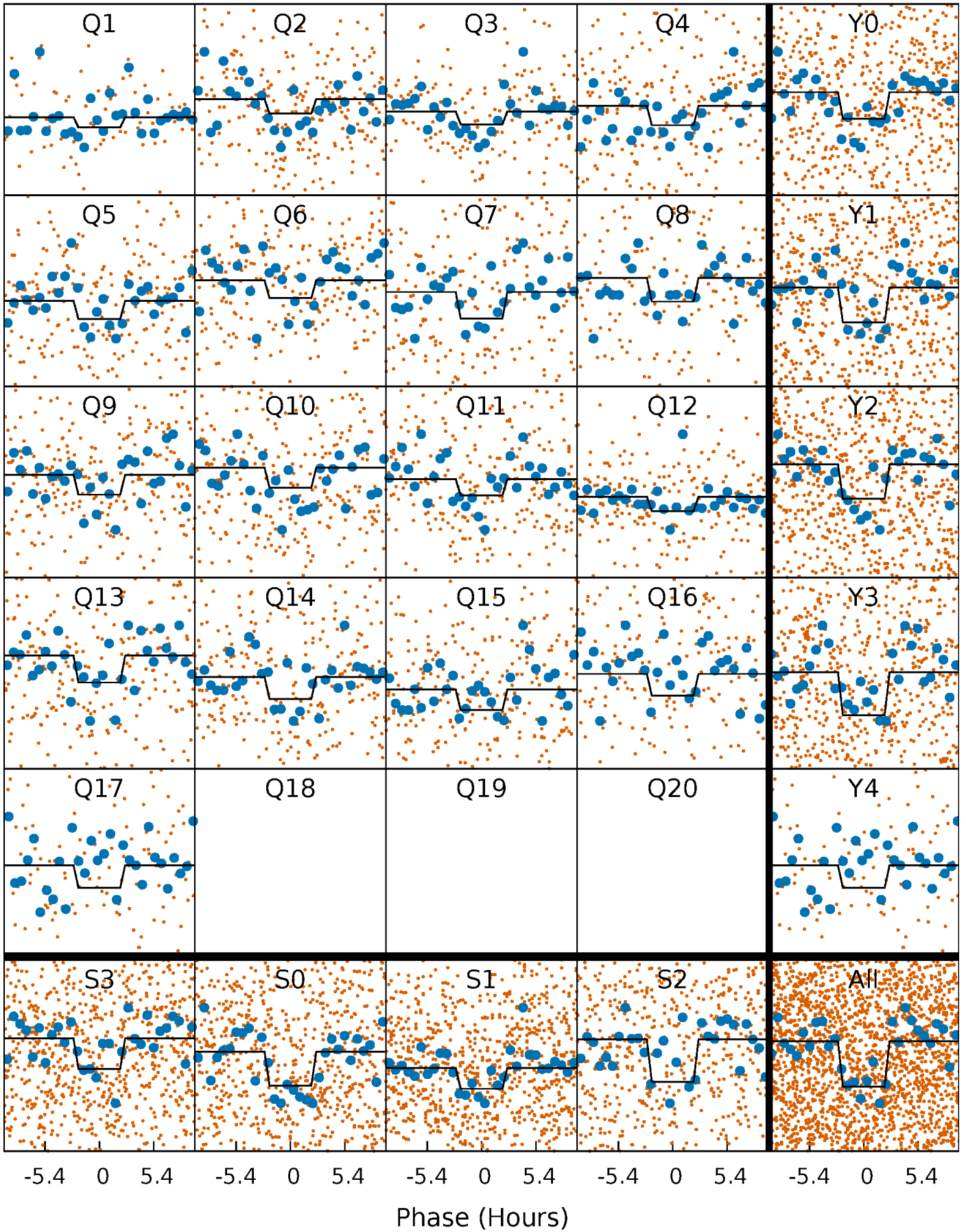
DV Quarter-Phased Transit Curves

TCE 007697103-01 P= 13.924750 Days $T_0=142.049198$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

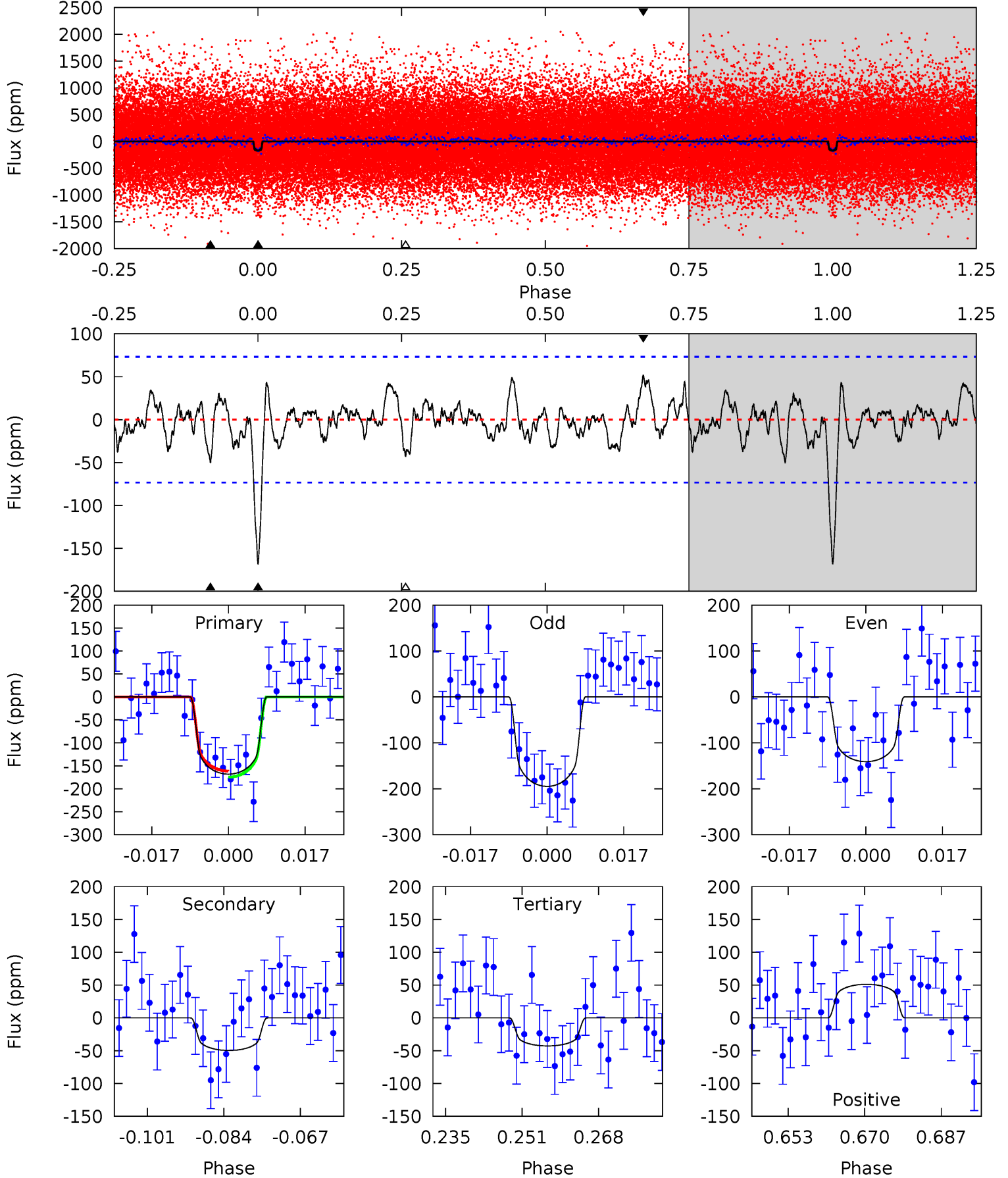
TCE 007697103-01 P= 13.924731 Days $T_0=142.050662$ (BKJD)



DV Model-Shift Uniqueness Test

007697103-01, P = 13.924750 Days, E = 128.124448 Days

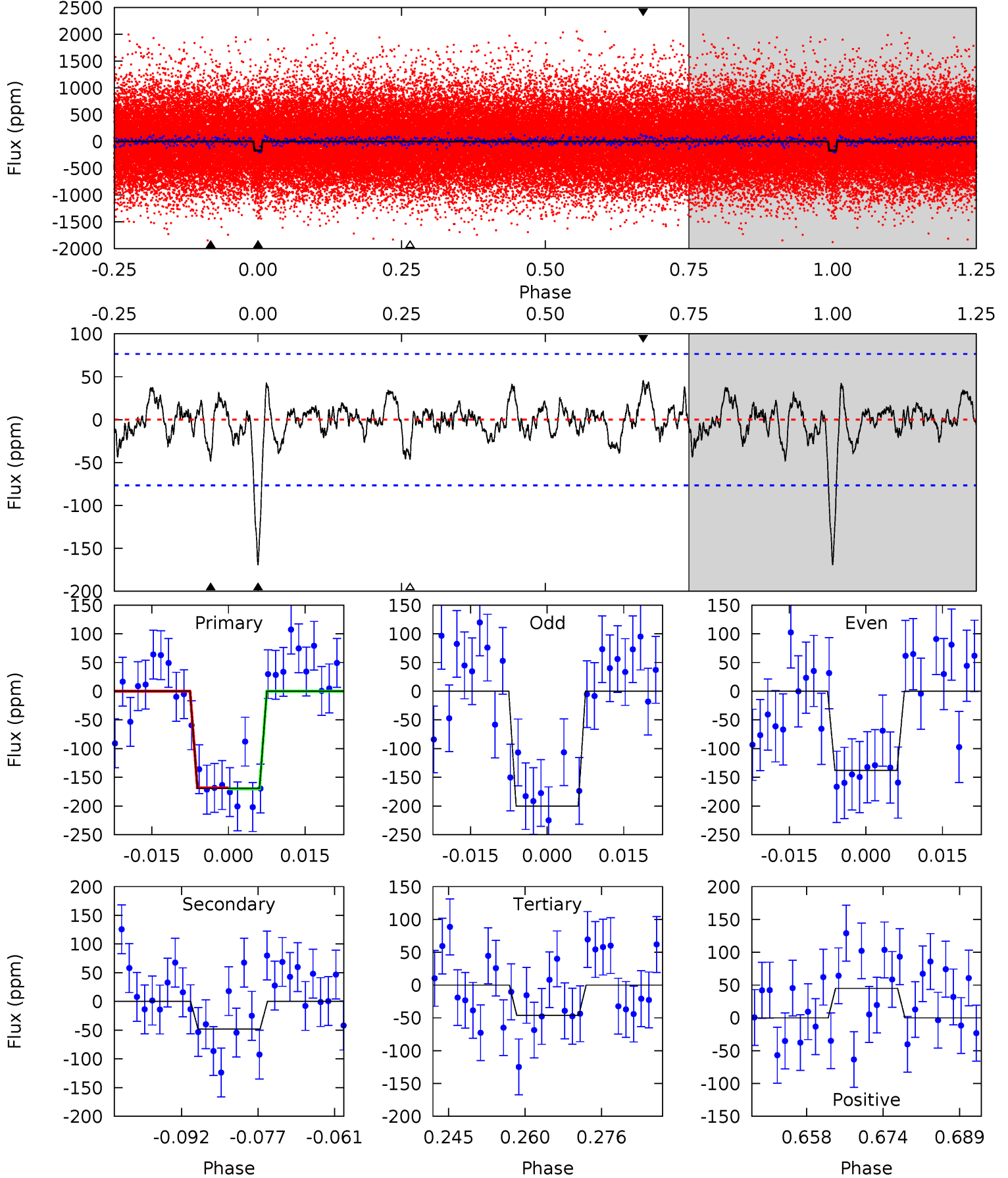
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	3.34	2.88	3.44	4.93	2.39	1.18	8.43	7.87	0.46	-0.10	1.81	0.97	0.23	0.45



Alt Model-Shift Uniqueness Test

007697103-01, P = 13.924731 Days, E = 128.125931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.10	2.97	2.90	4.94	2.43	1.05	7.97	8.04	0.13	0.20	2.02	1.07	0.21	0.05



Stellar Parameters For KIC 007697103

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5271^{+141}_{-157}	$4.669^{+0.028}_{-0.083}$	$-0.660^{+0.300}_{-0.300}$	$0.648^{+0.085}_{-0.042}$	$0.718^{+0.063}_{-0.063}$	$3.711^{+0.495}_{-0.998}$
	+3%/-3%	+1%/-2%	+45%/-45%	+13%/-6%	+9%/-9%	+13%/-27%
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 007697103-01 / KOI 3430.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-50 ± 15	$1.09^{+0.48}_{-0.48}$	830^{+31}_{-28}	3896^{+1003}_{-523}	228^{+544}_{-132}
Alt.	-48 ± 15	$0.97^{+0.46}_{-0.47}$	831^{+31}_{-30}	4026^{+1278}_{-572}	274^{+841}_{-165}

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

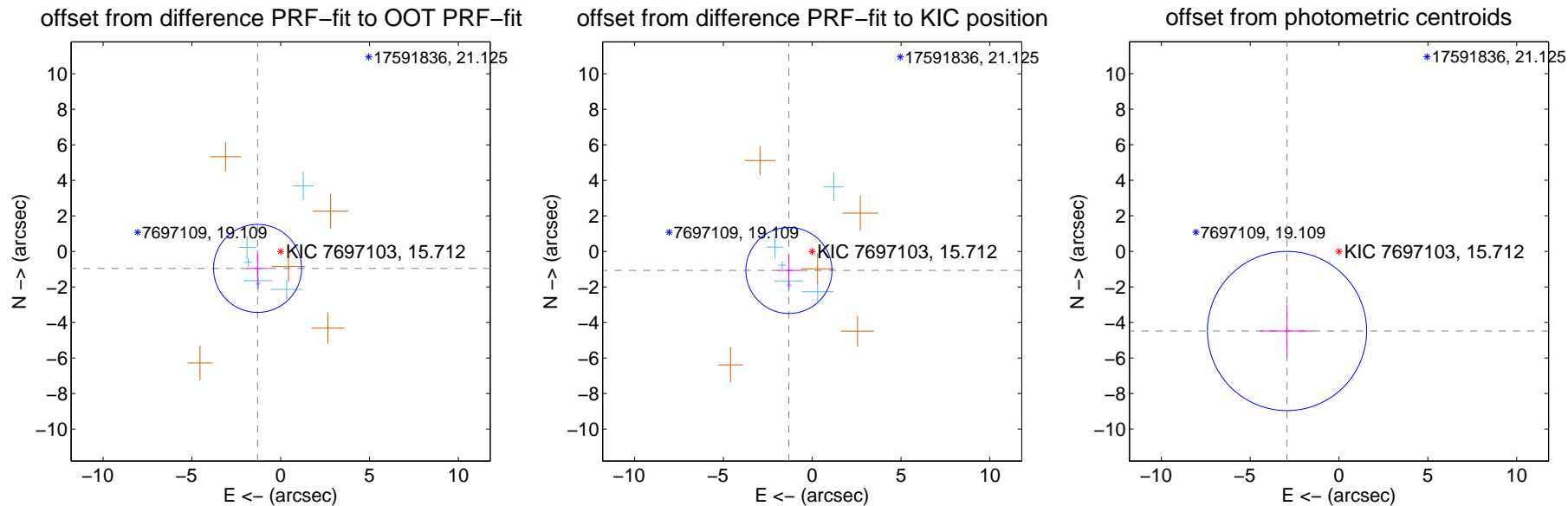
DV Centroid Data

Supplemental centroid analysis for 007697103-01. Kepler magnitude: 15.71. Transit SNR 9.52

There are 6 quarters with good PRF difference image offsets

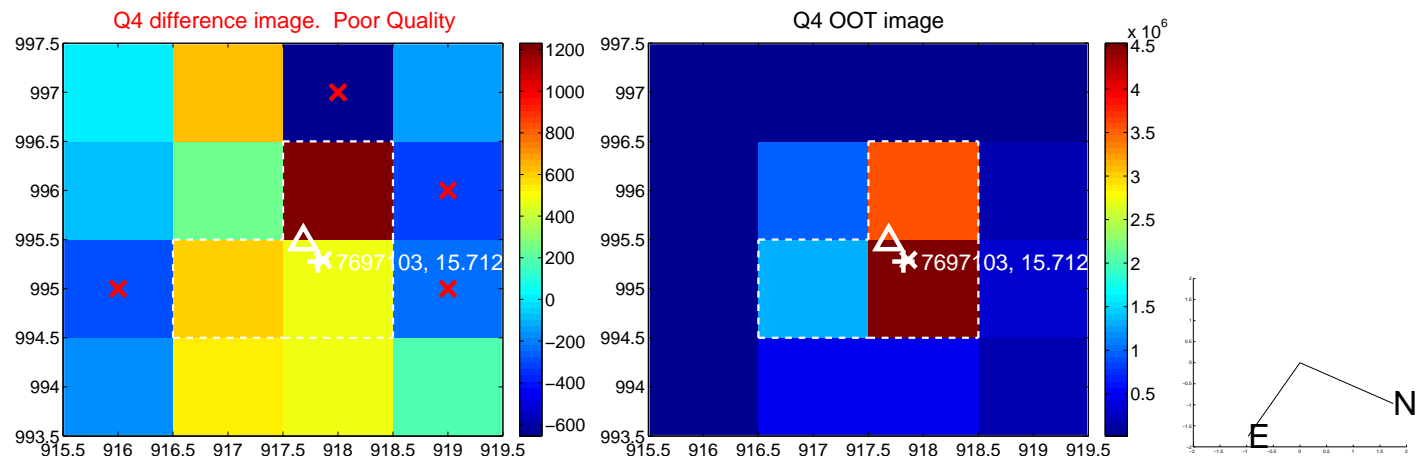
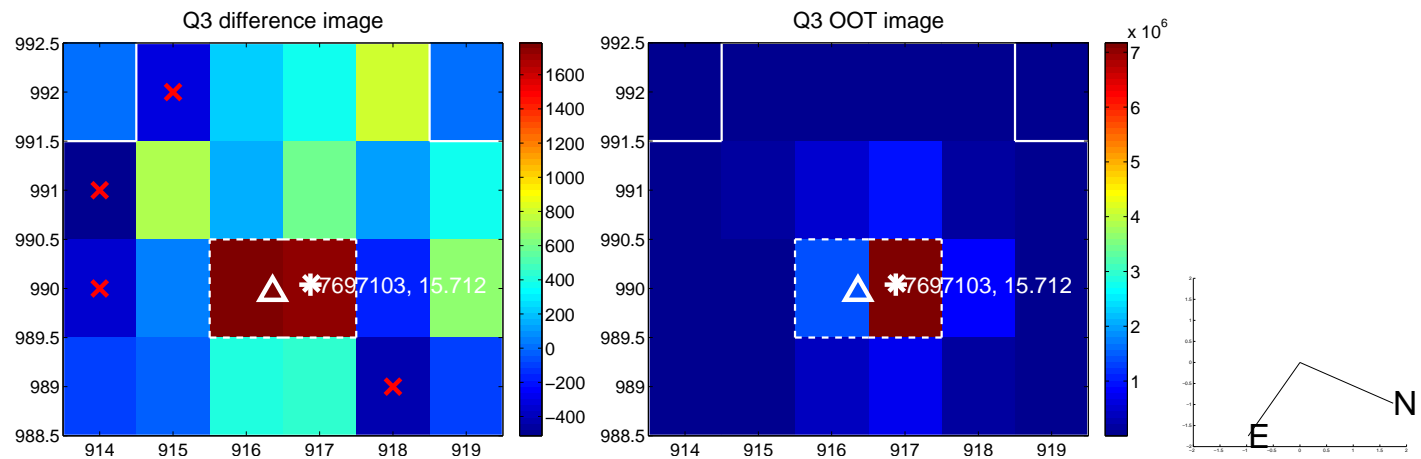
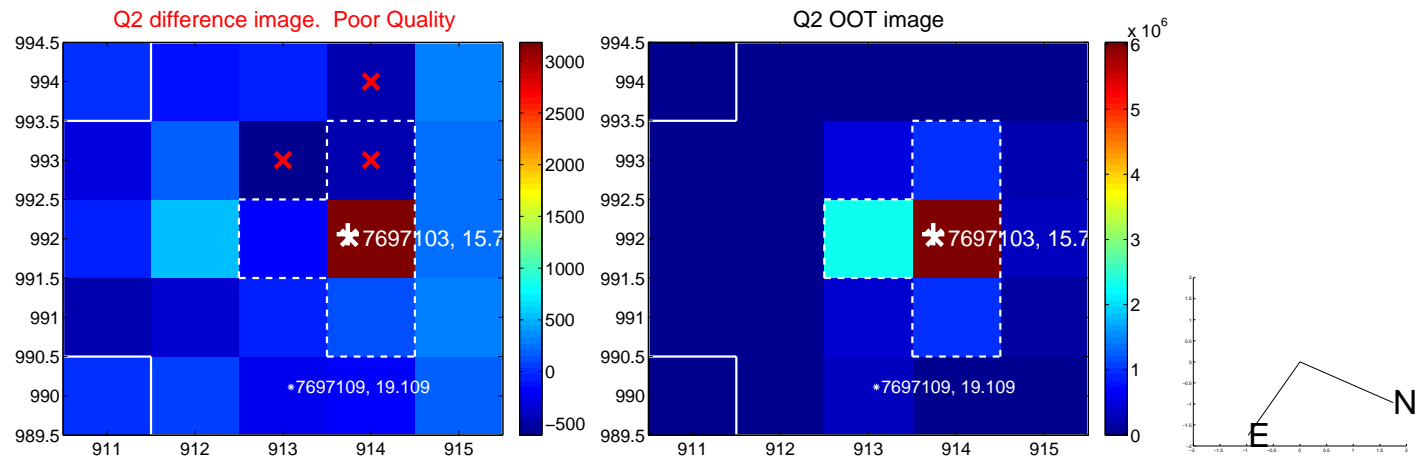
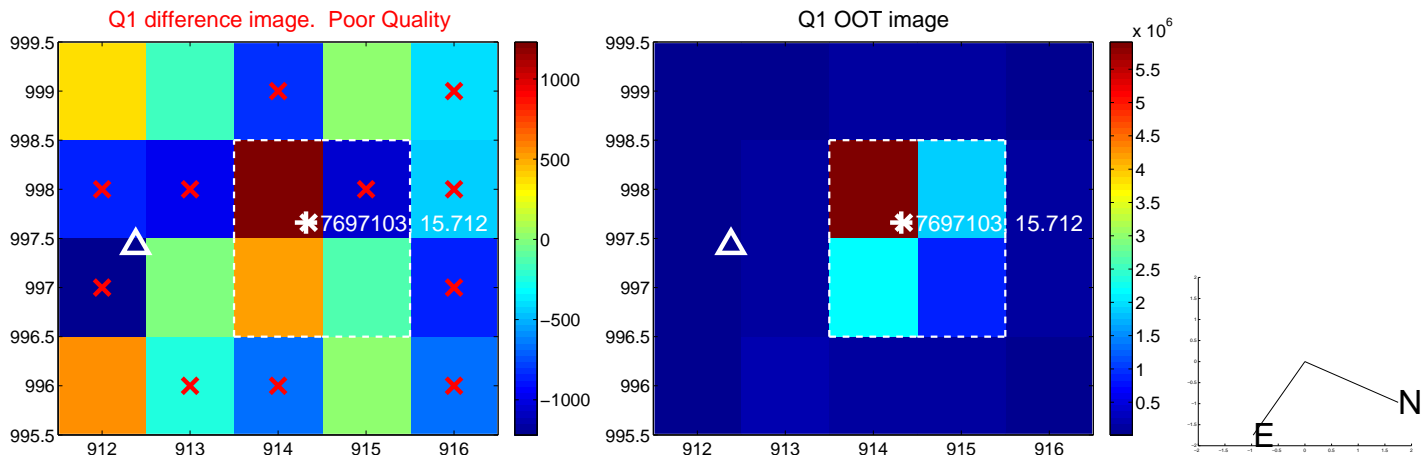
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.617 ± 0.826	1.96	1.304 ± 0.619	-0.956 ± 0.997
PRF-fit source offset from KIC position	1.695 ± 0.807	2.10	1.313 ± 0.650	-1.073 ± 0.927
photometric centroid source offset	5.36 ± 1.49	3.59	2.93 ± 1.51	-4.48 ± 1.49

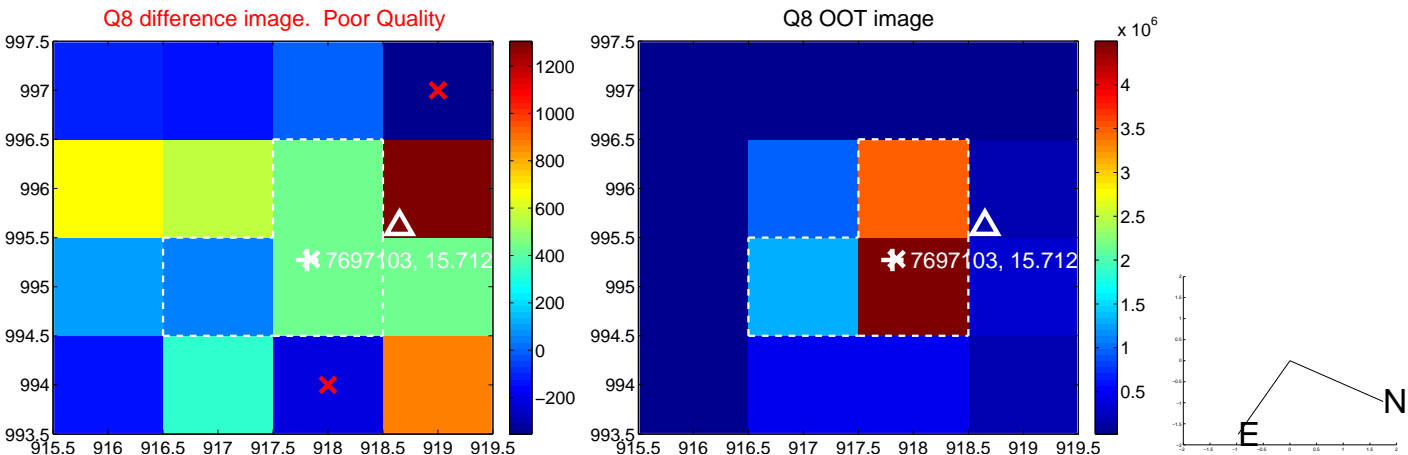
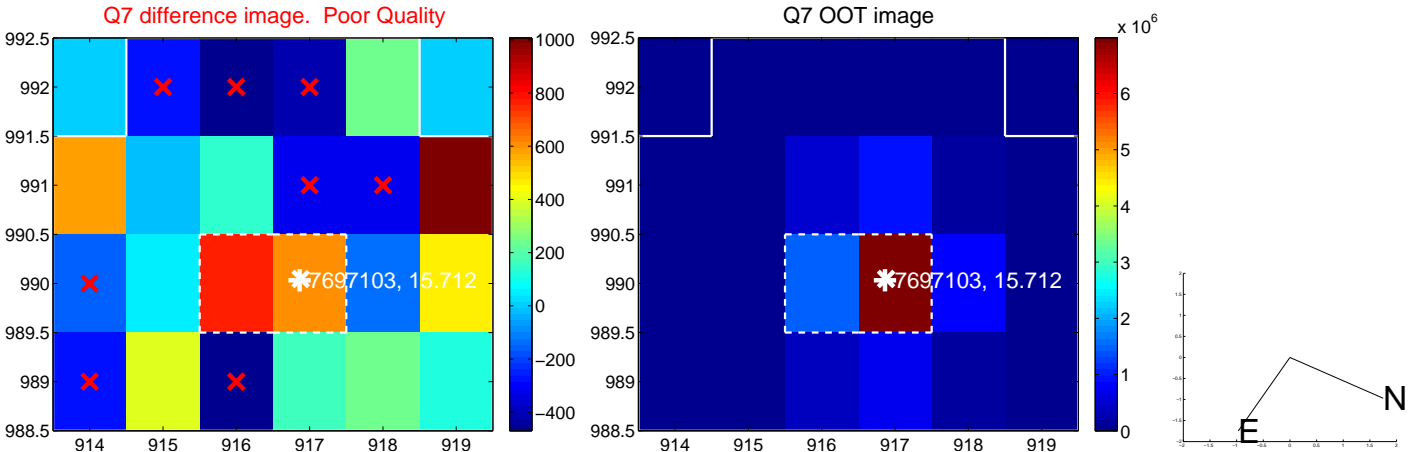
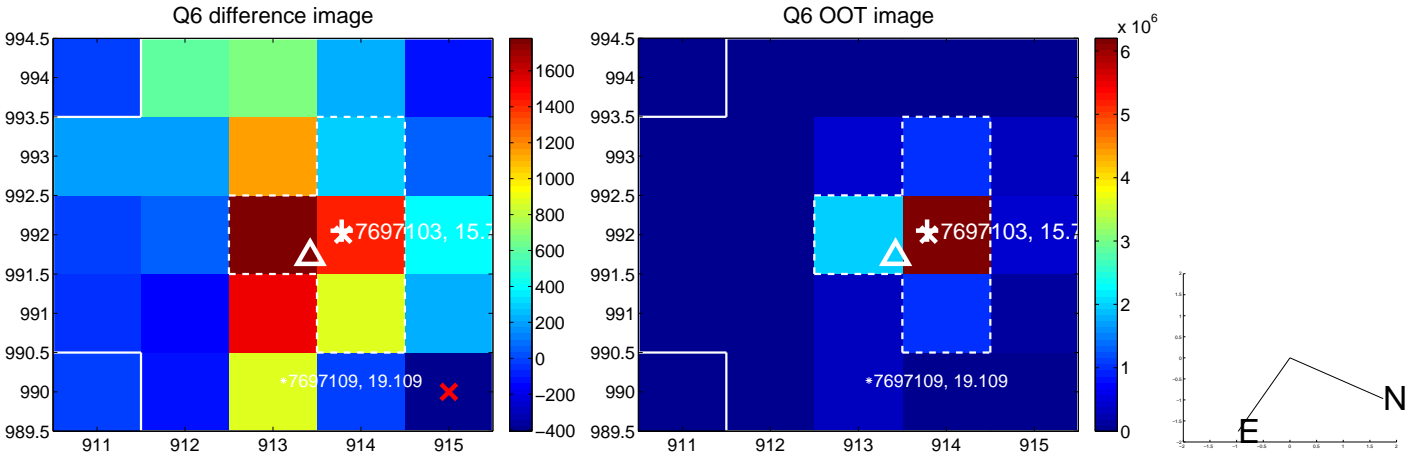
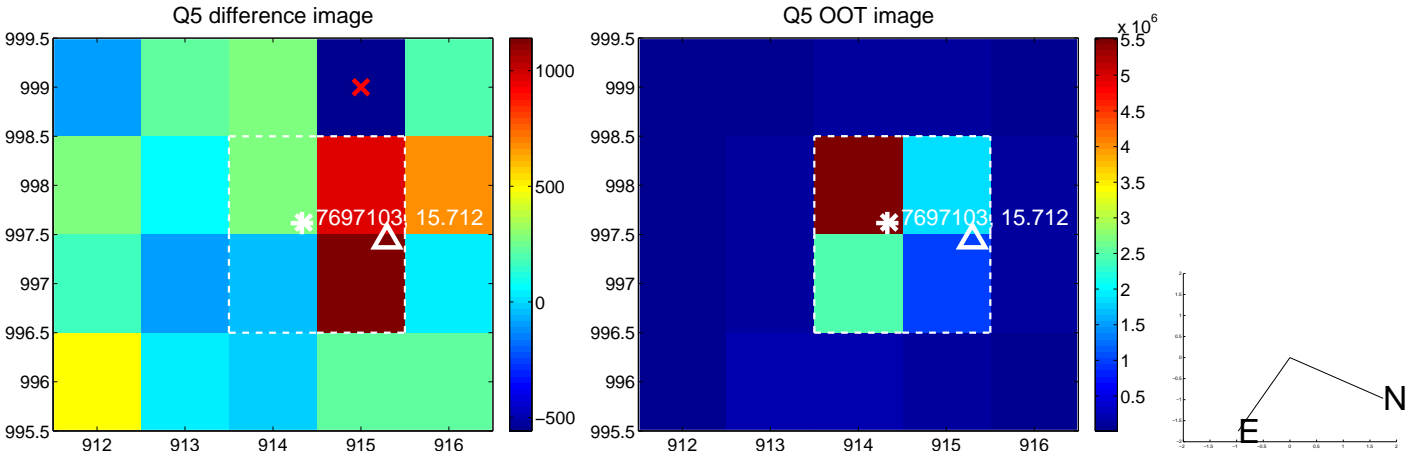


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

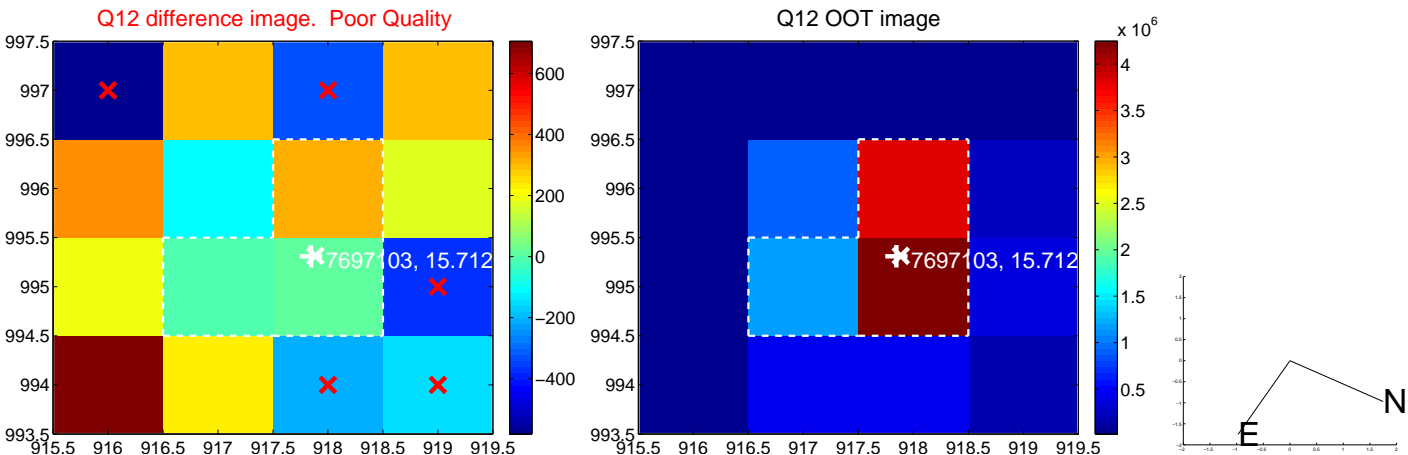
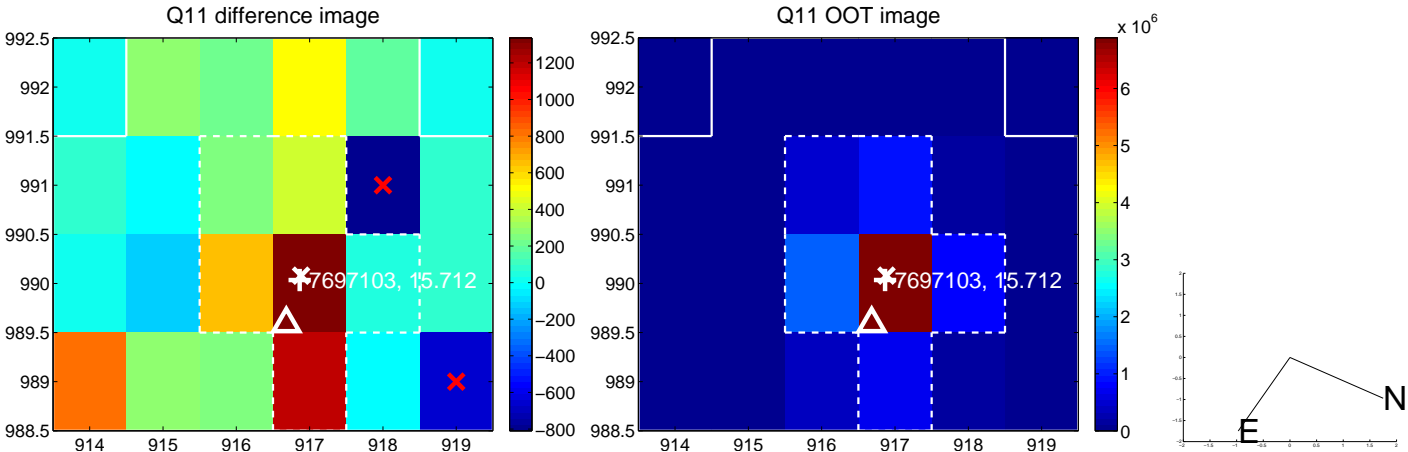
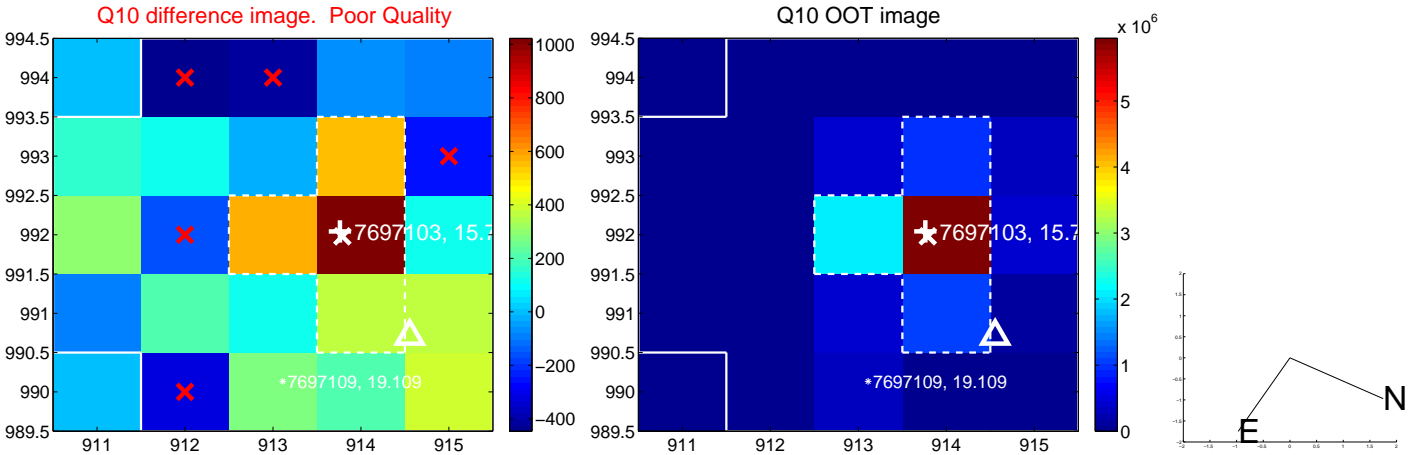
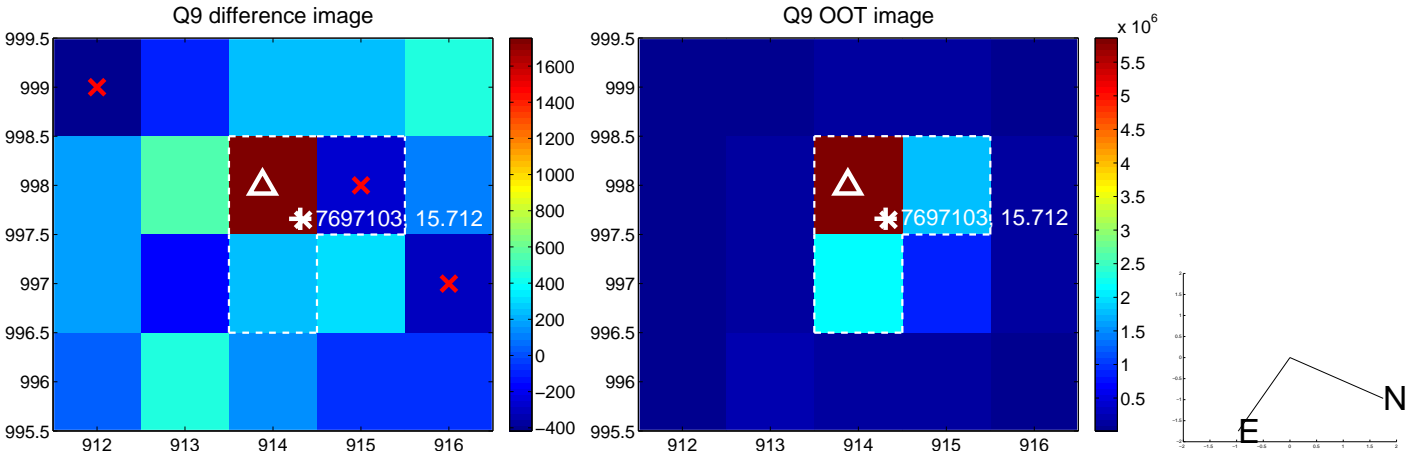
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



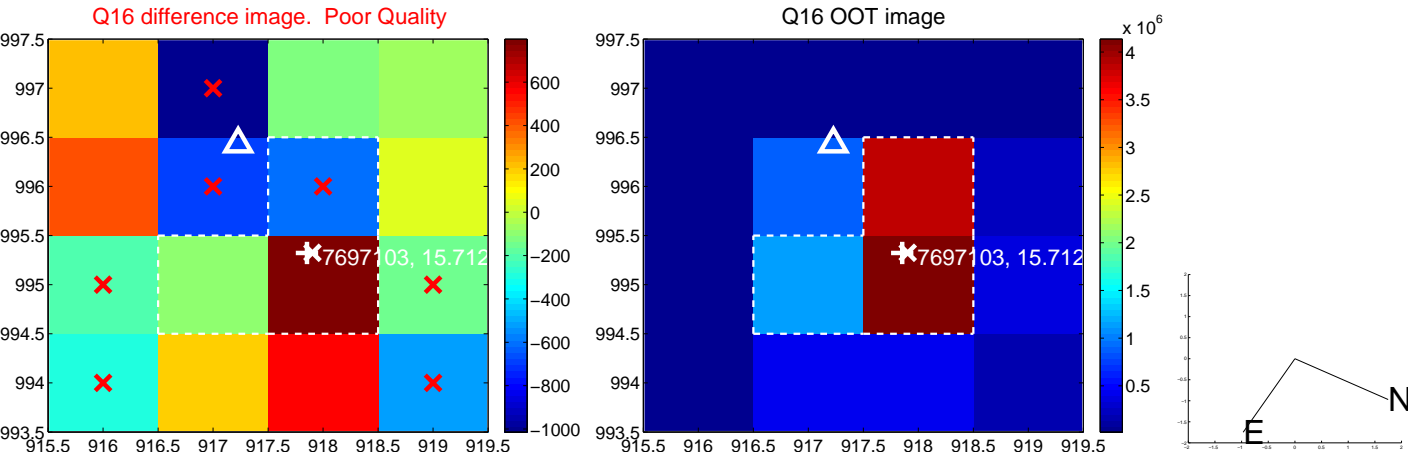
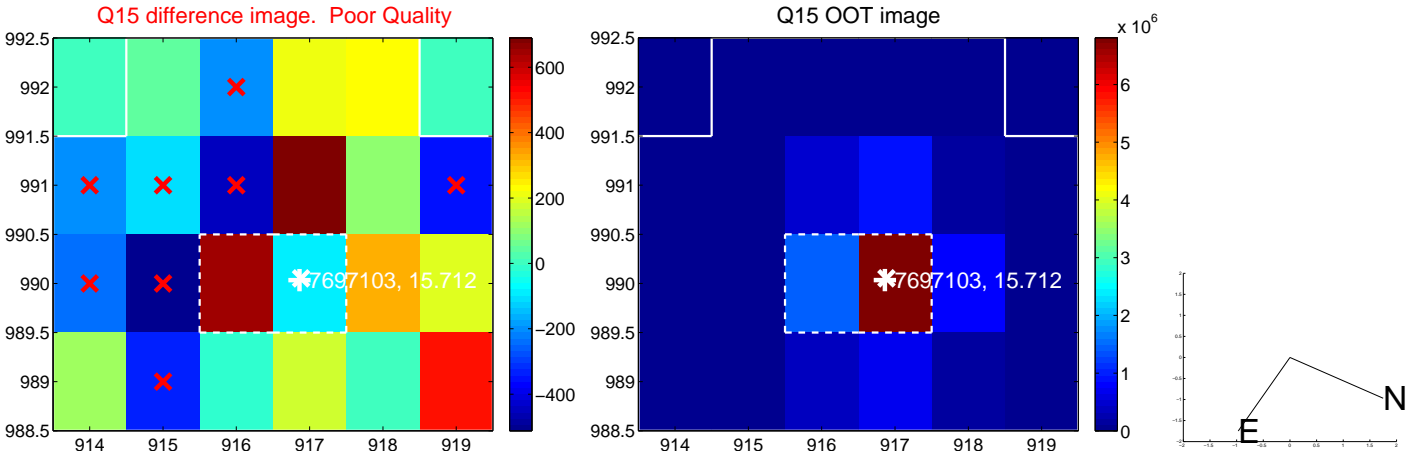
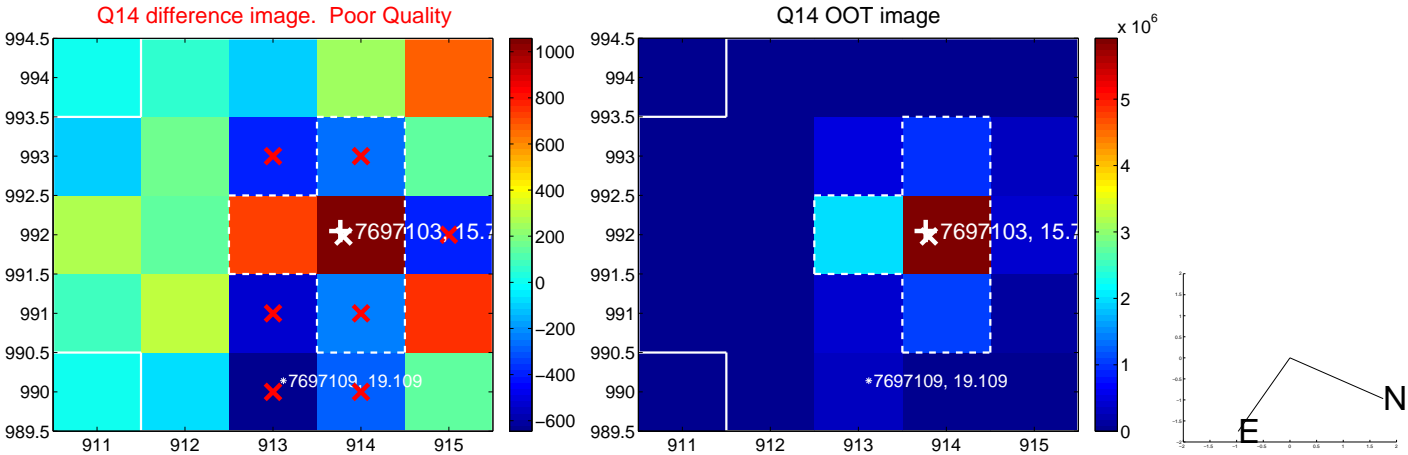
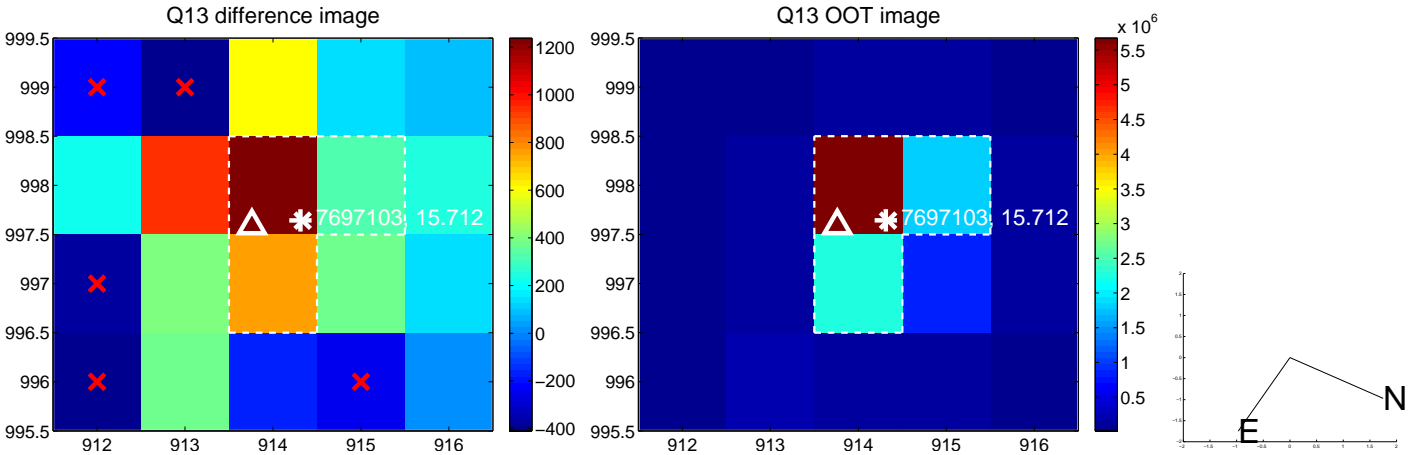
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



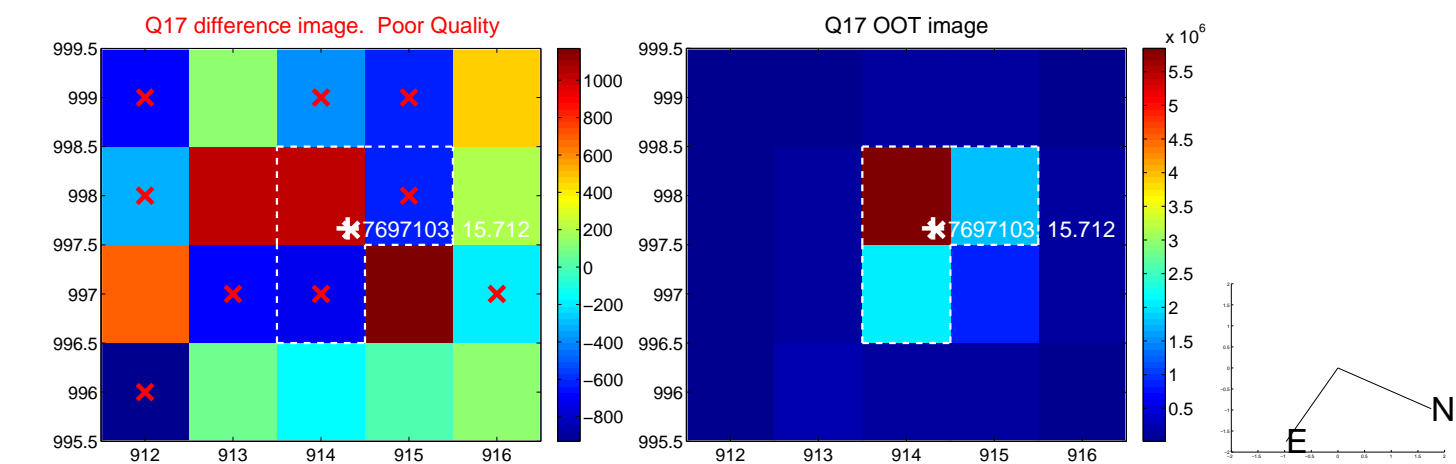
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



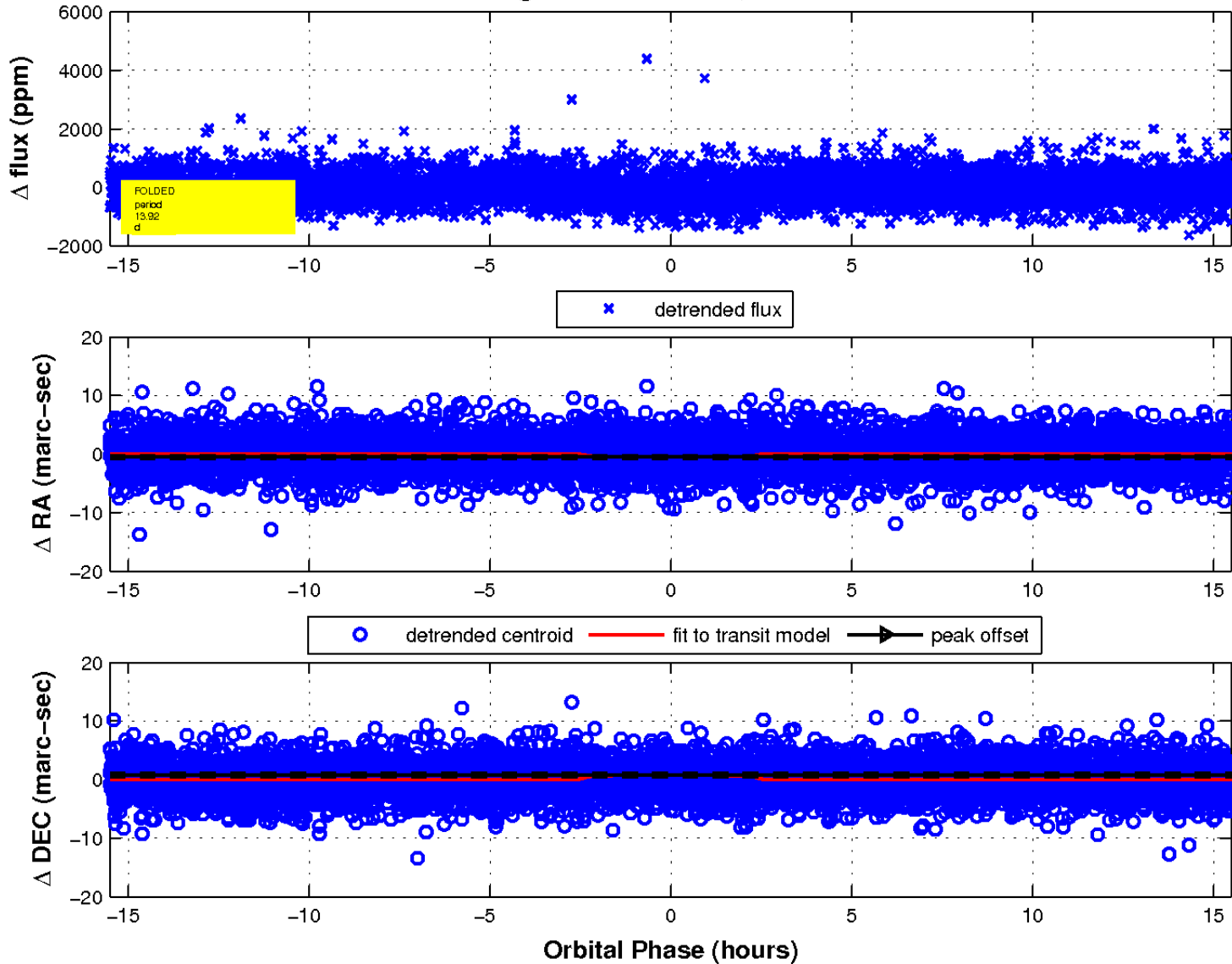
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

