

KIC 007617977

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})
007617977-01	OBS	No	28.646145	140.971029	486.9	22.242	8.9	14.0	0.95	6117	3.96	34.85

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007617977-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV

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

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

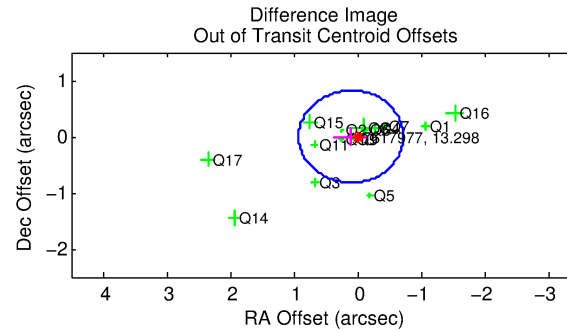
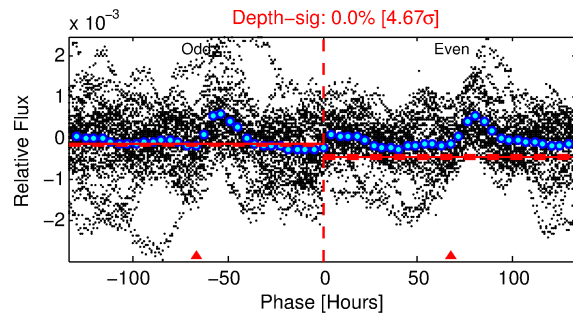
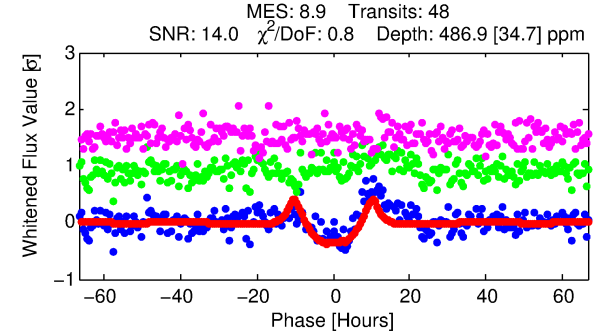
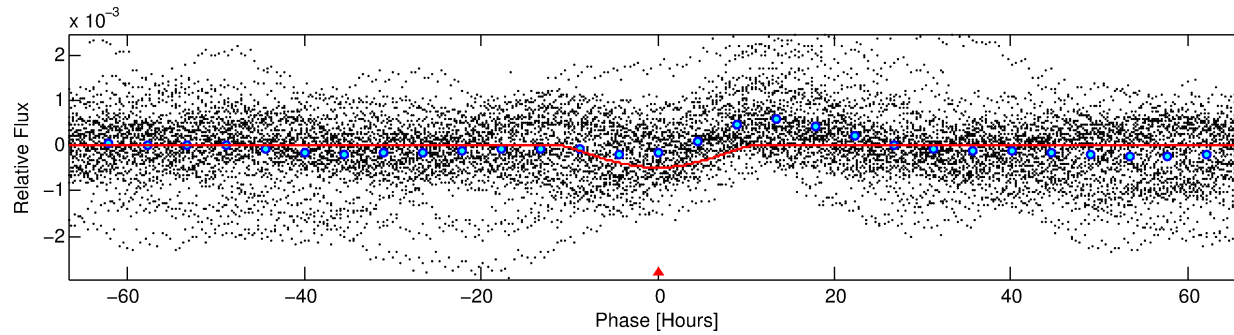
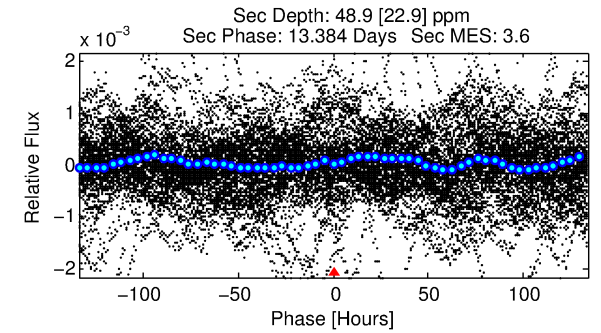
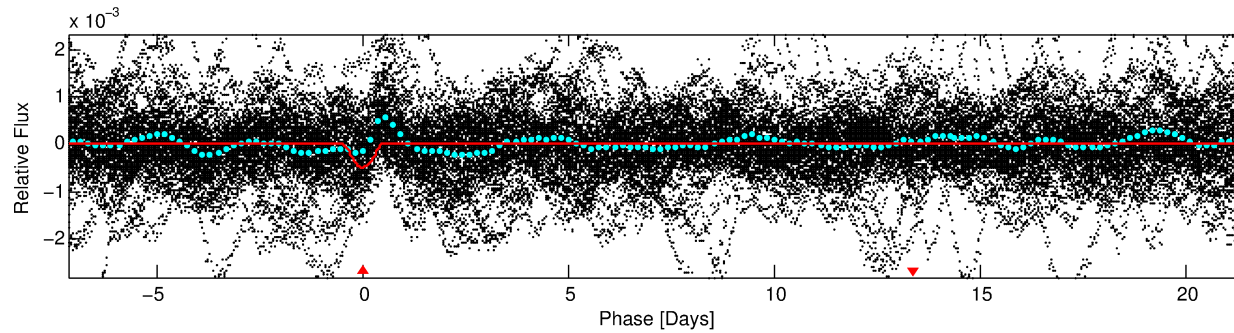
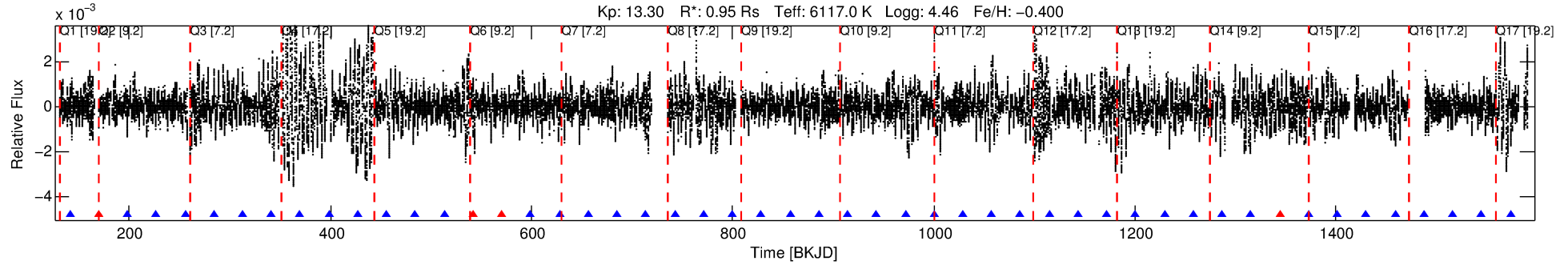
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007617977-01

No Significant Match Found

DV One-Page Summary

KIC: 7617977 Candidate: 1 of 1 Period: 28.646 d



DV Fit Results:

Period = 28.64615 [0.00059] d
Epoch = 140.9710 [0.0172] BKJD
Rp/R* = 0.0382 [0.0169]
a/R* = 2.98 [0.28]
b = 1.00 [0.03]
Seff = 34.85 [9.58]
Teq = 620 [43] K
Rp = 3.96 [1.92] Re
a = 0.1799 [0.0303] AU
Ag = 55.64 [57.32] [0.95σ]
Teffp = 2616 [659] K [3.02σ]

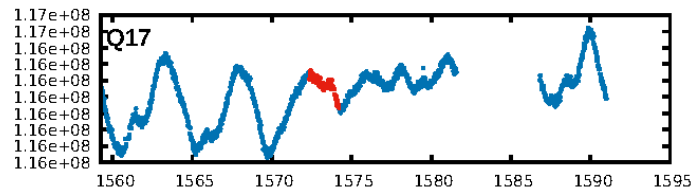
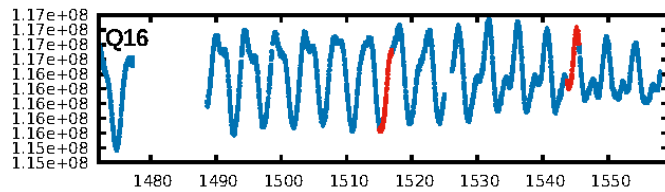
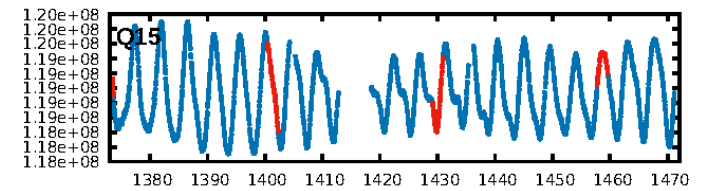
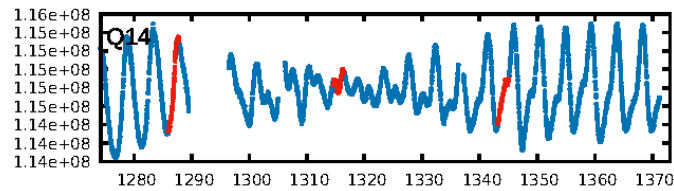
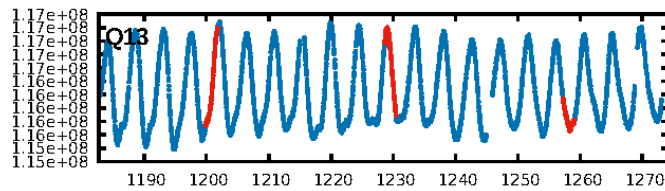
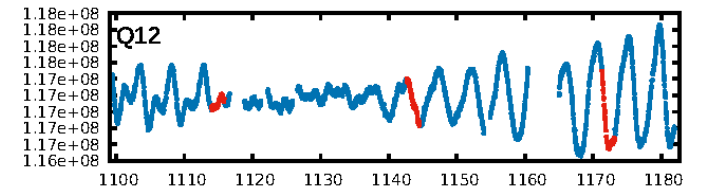
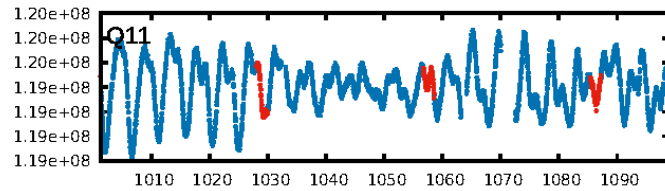
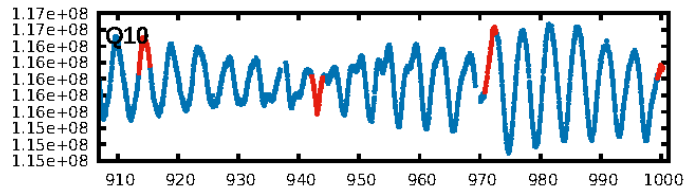
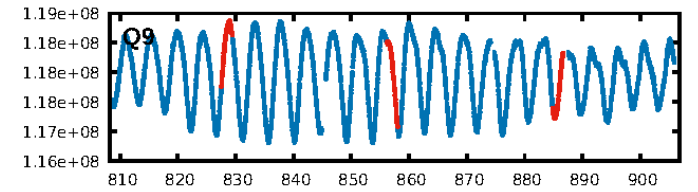
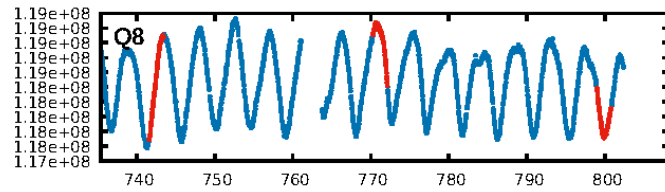
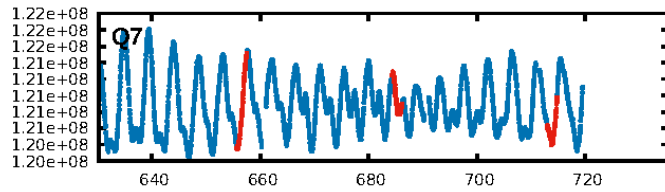
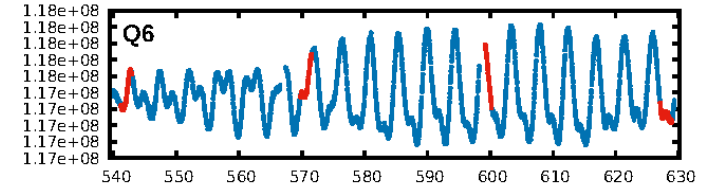
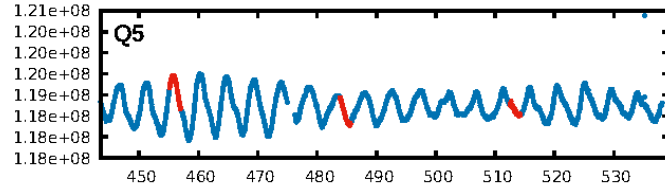
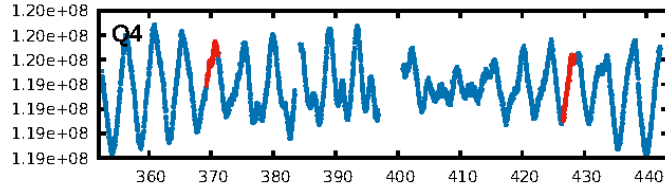
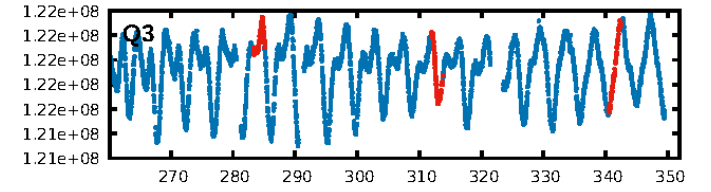
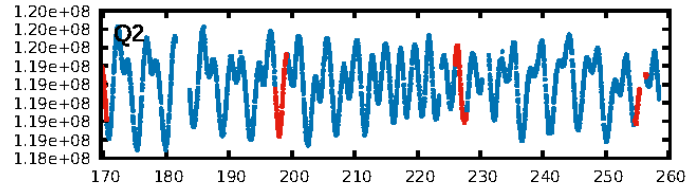
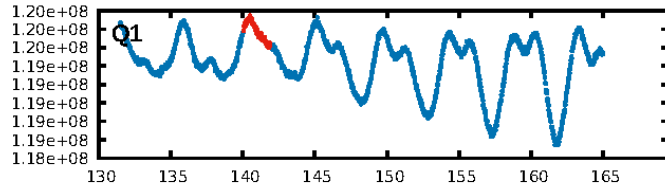
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.17e-17
RollingBand-fgt: 0.91 [42/46]
GhostDiagnostic-chr: 0.773
Centroid-sig: 0.4%
Centroid-so: 0.302 arcsec [0.79σ]
OotOffset-rm: 0.101 arcsec [0.37σ]
KicOffset-rm: 0.035 arcsec [0.14σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

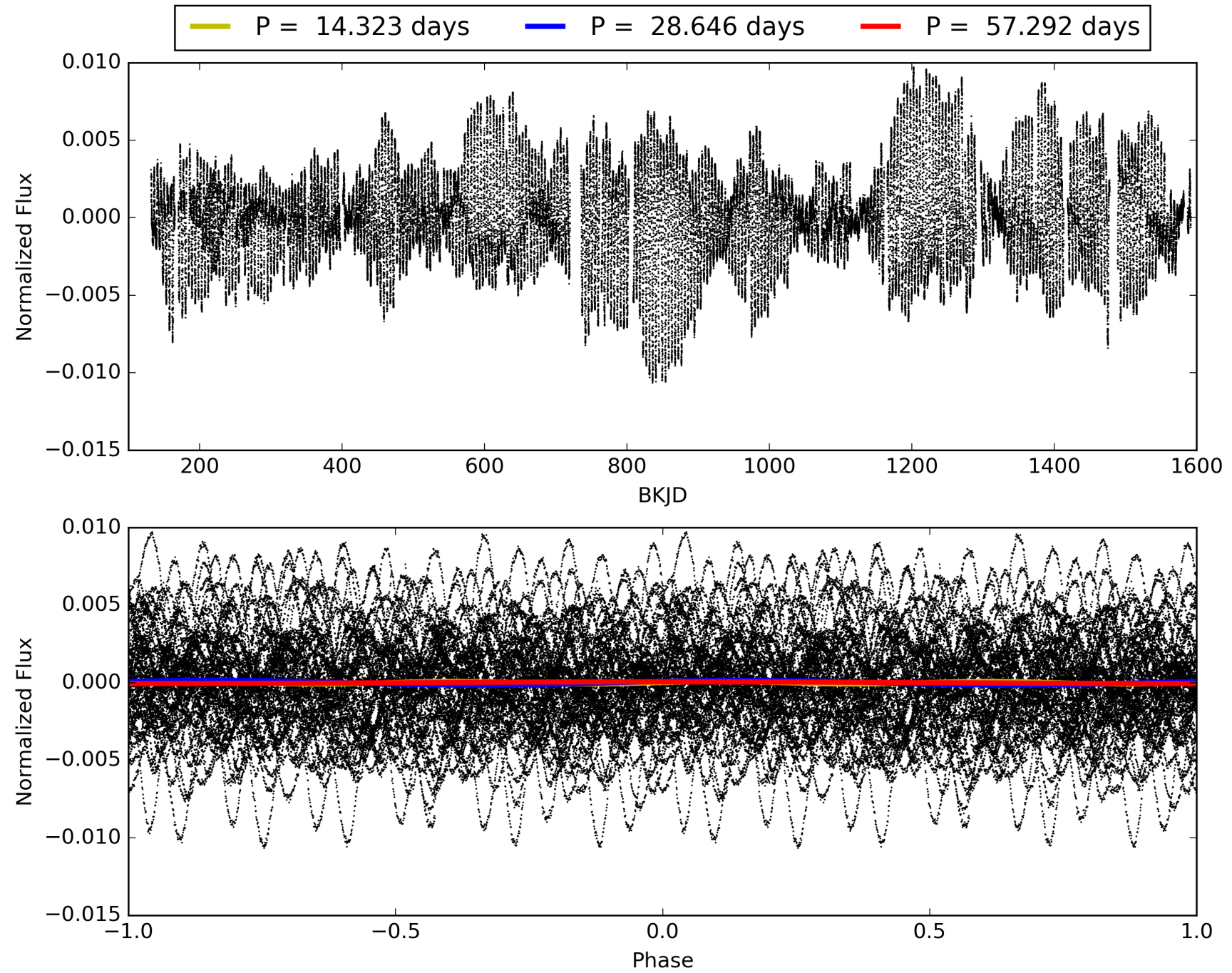
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 02:24:40 Z

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

TCE 007617977-01, PDC Light Curves

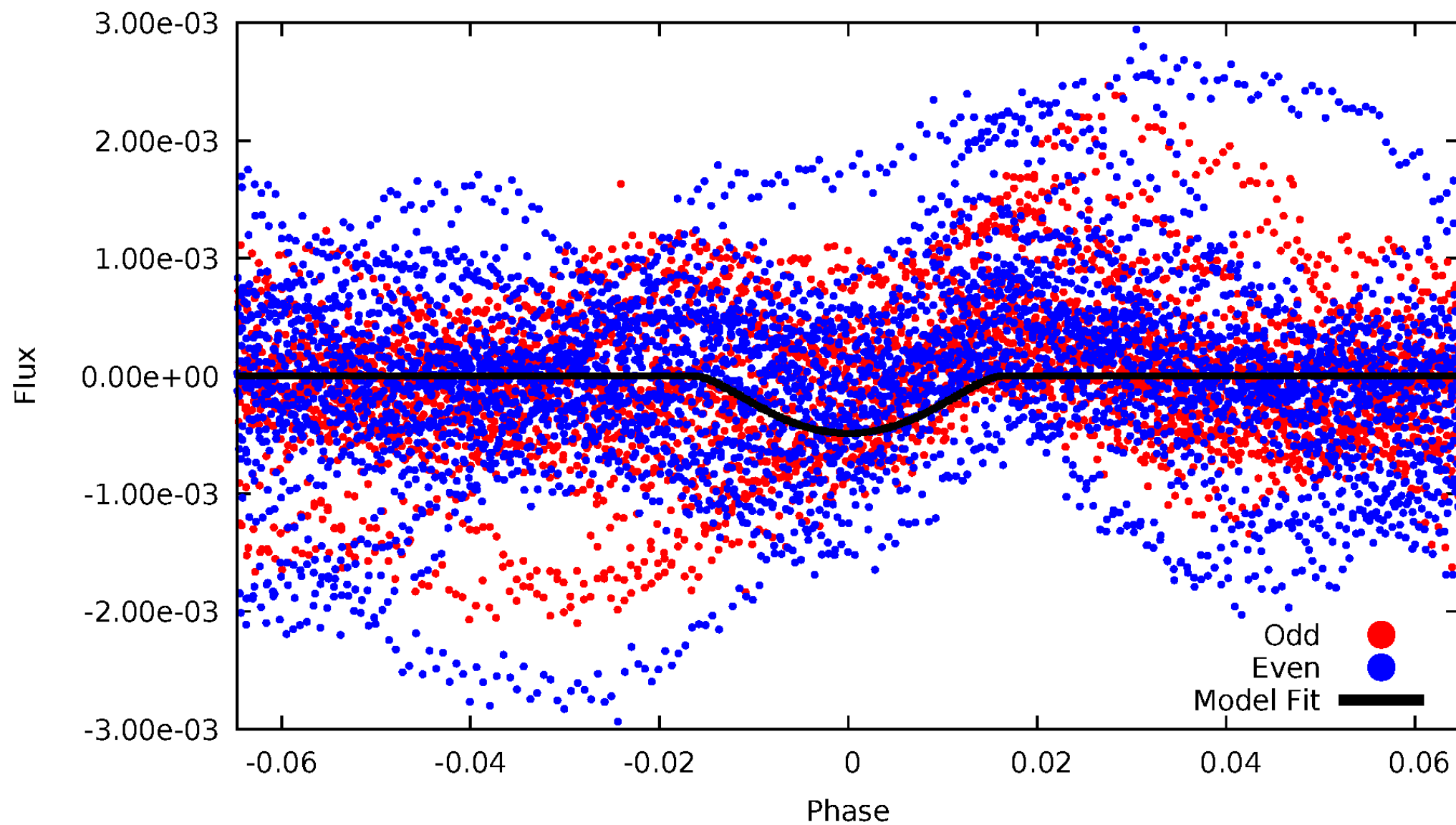


TCE 007617977-01



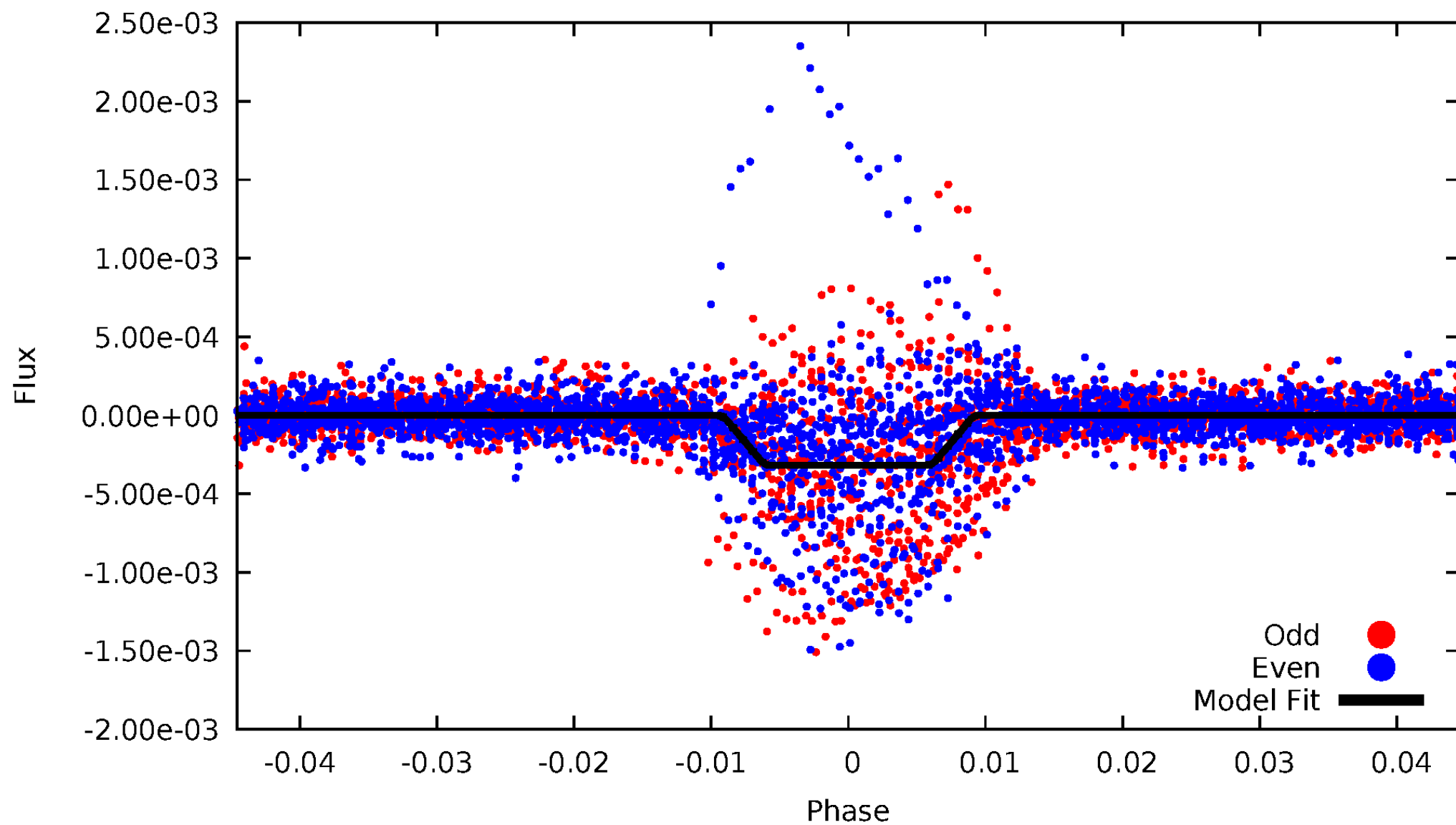
DV Odd/Even

TCE 007617977-01



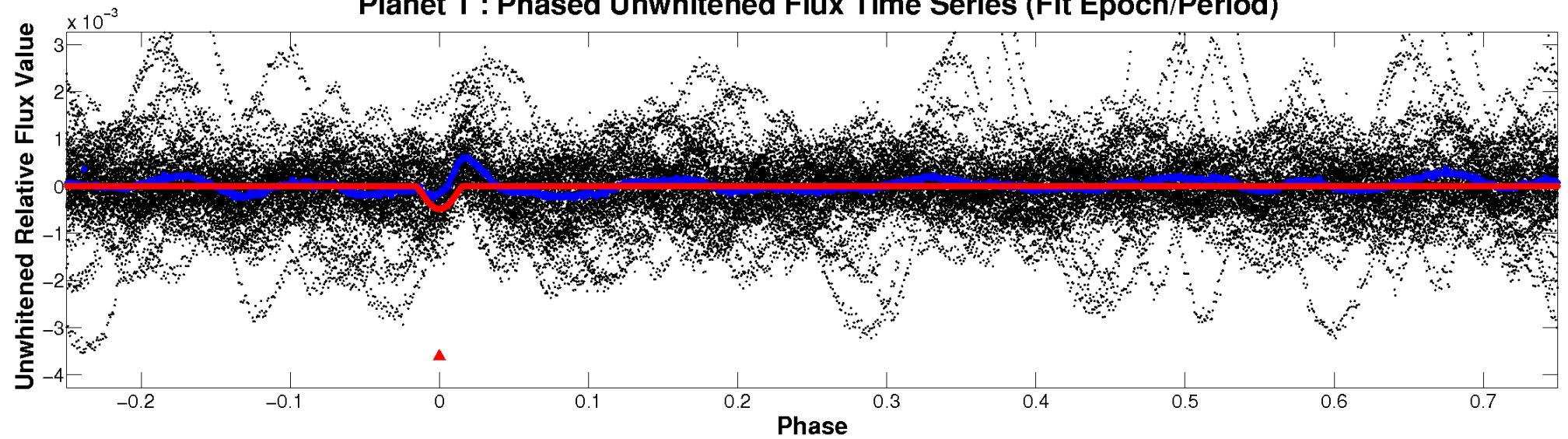
ALT Odd/Even

TCE 007617977-01

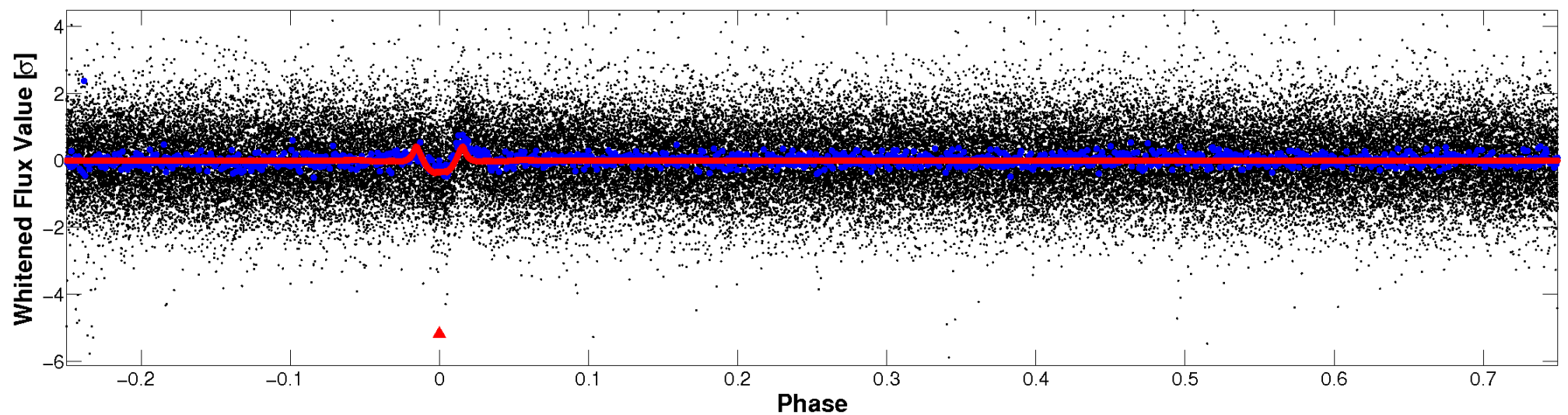


Non-Whitened Vs. Whitened Light Curve

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

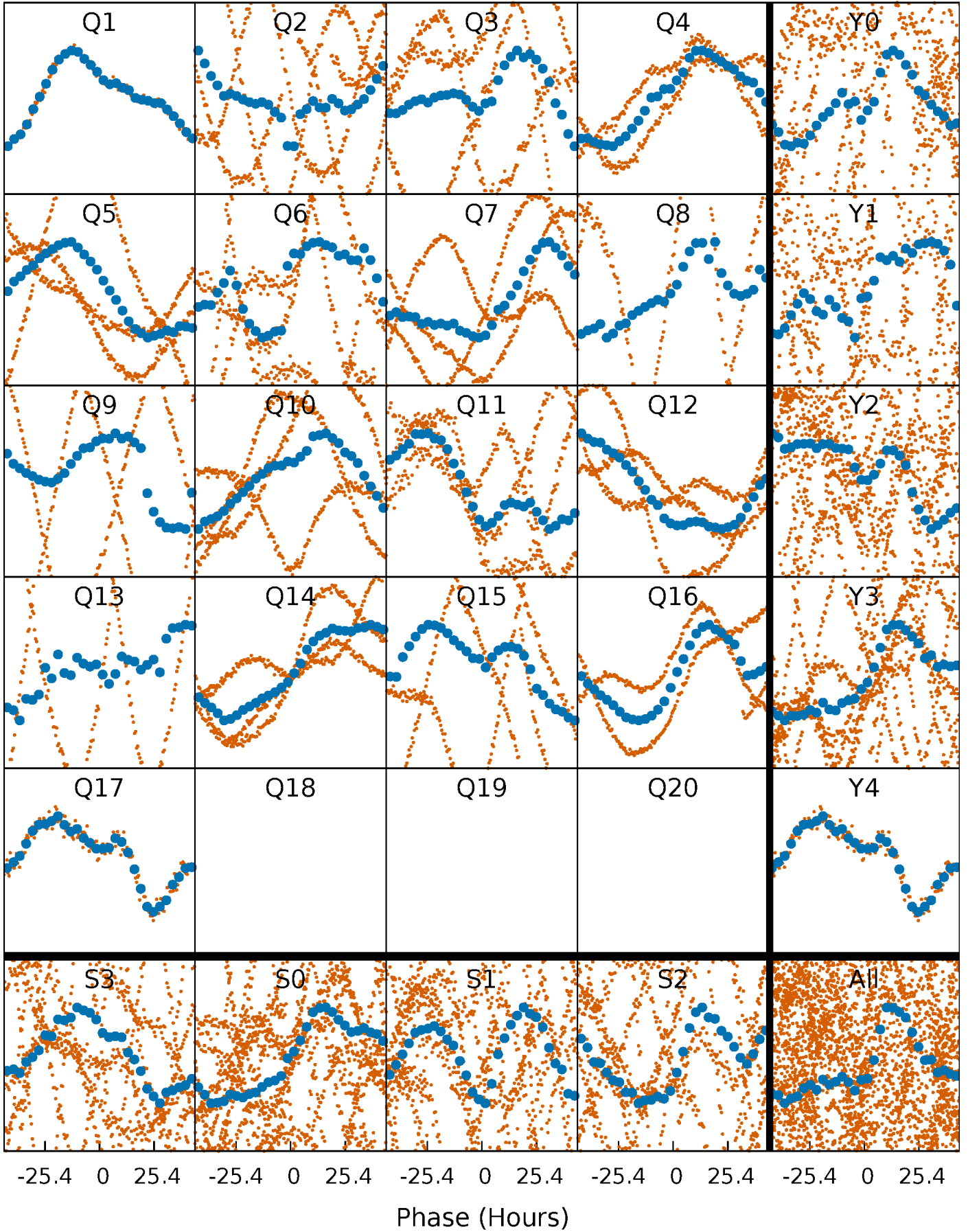


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



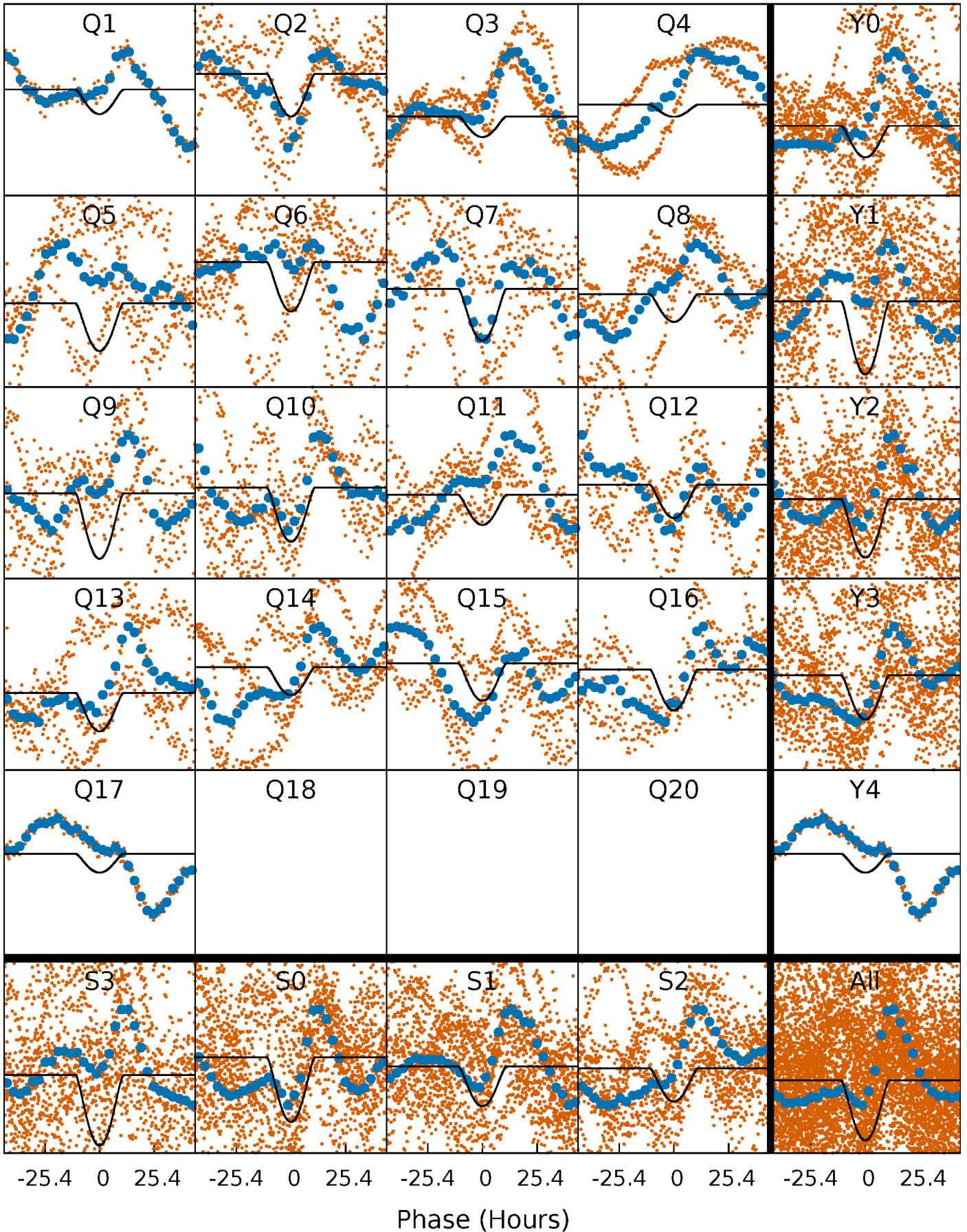
PDC Quarter-Phased Transit Curves

TCE 007617977-01 P= 28.646145 Days $T_0=140.971029$ (BKJD)



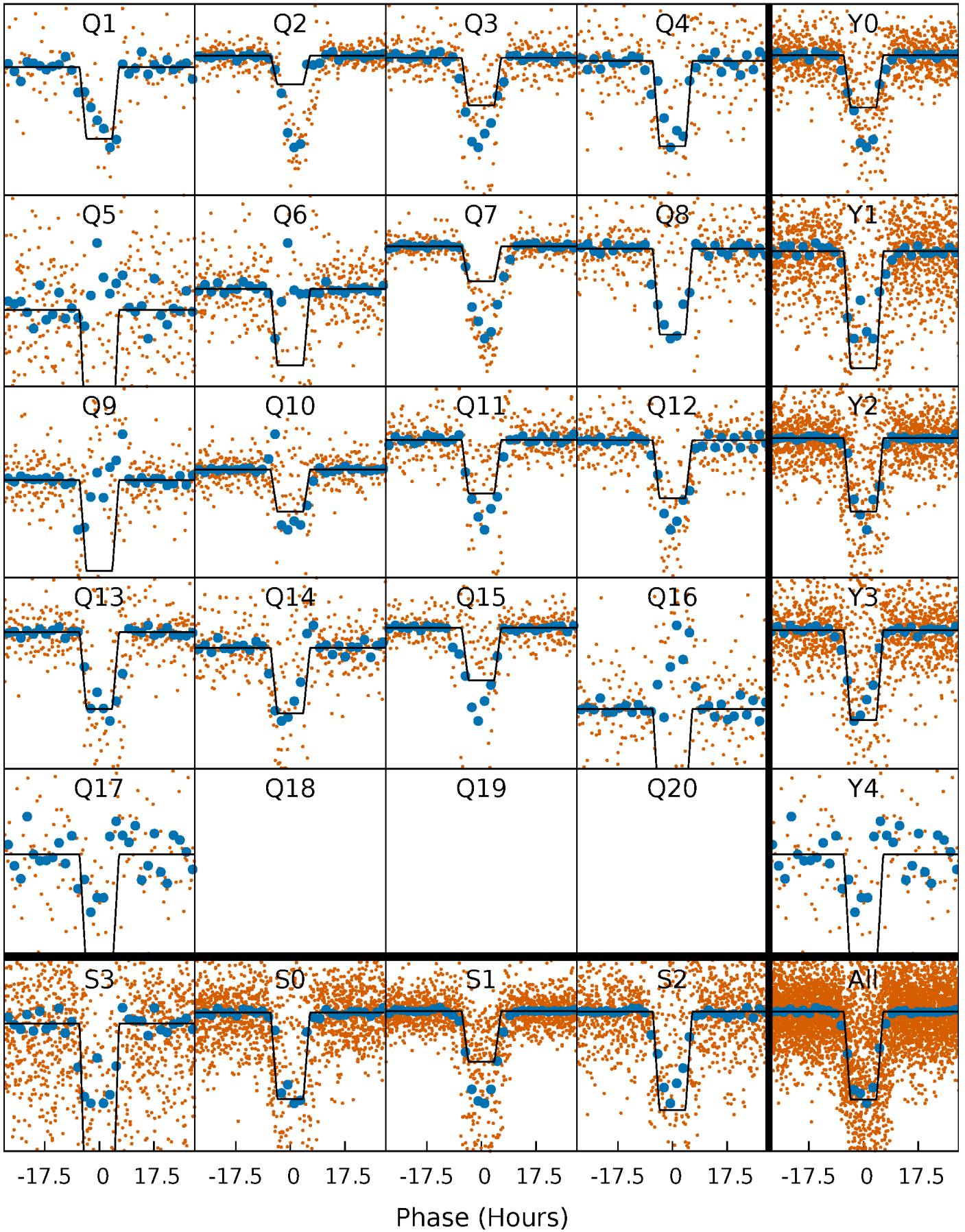
DV Quarter-Phased Transit Curves

TCE 007617977-01 P= 28.646145 Days $T_0=140.971029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

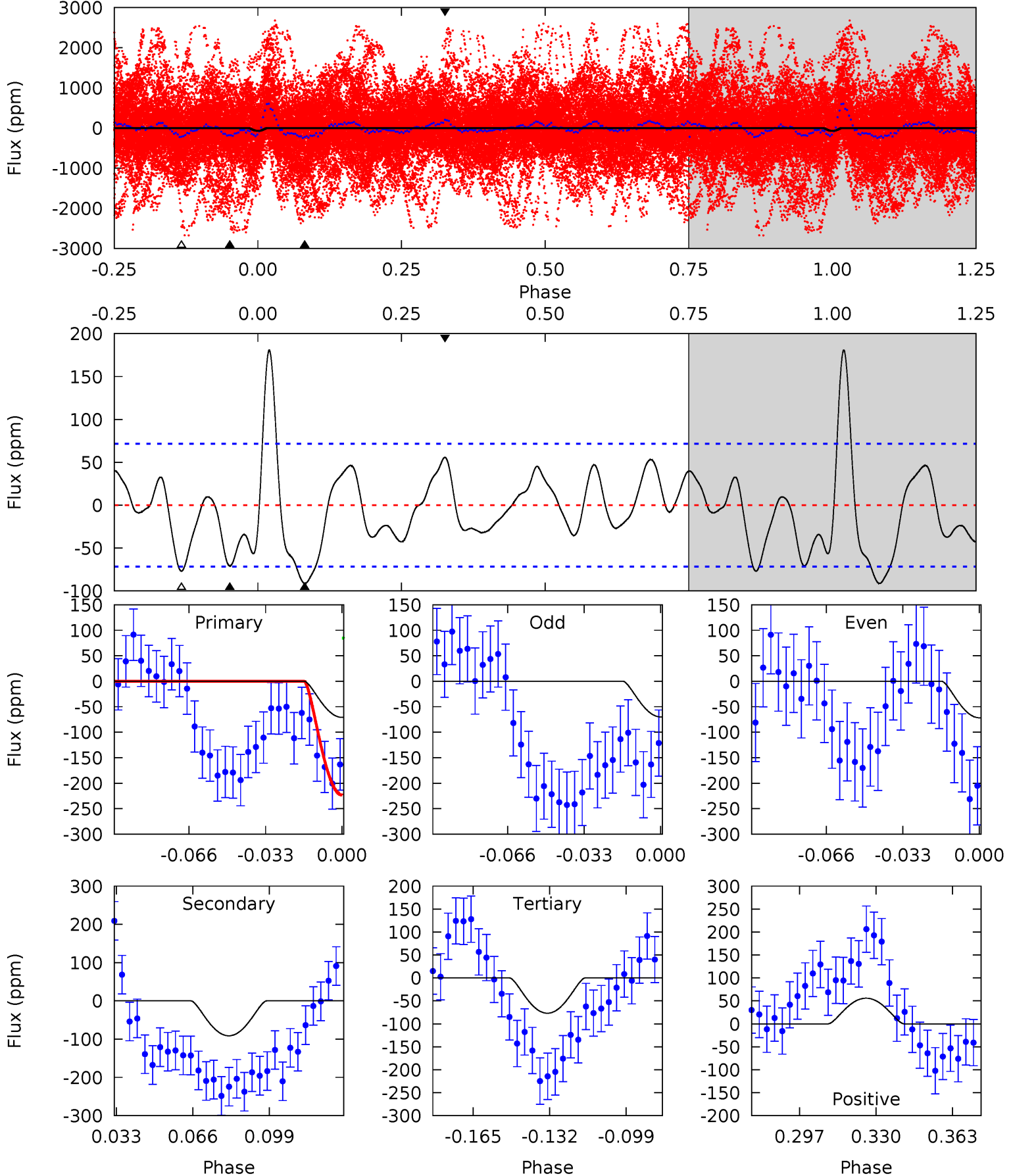
TCE 007617977-01 P= 28.649504 Days $T_0=140.927449$ (BKJD)



DV Model-Shift Uniqueness Test

007617977-01, P = 28.646145 Days, E = 112.324884 Days

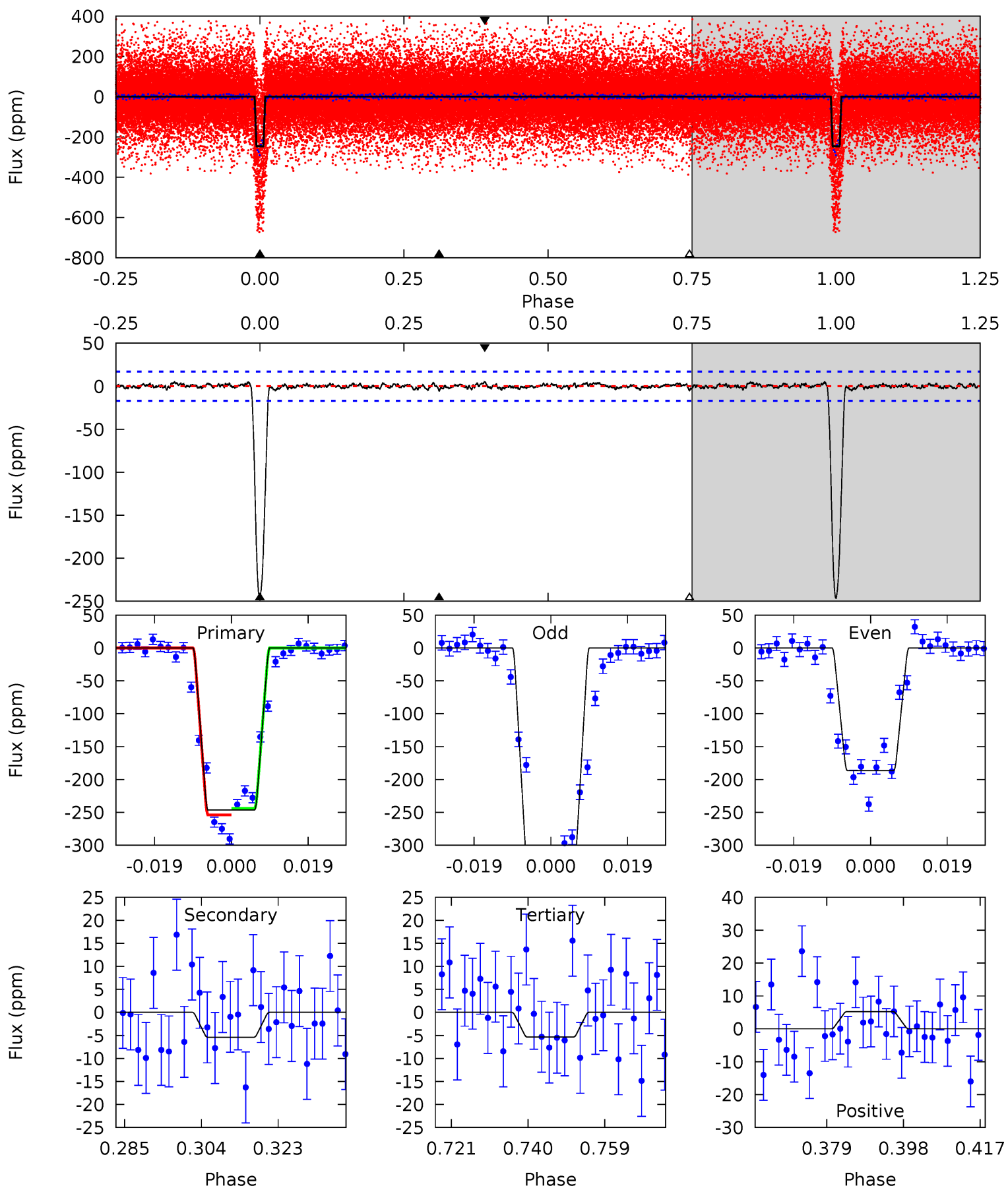
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.75	6.11	5.15	3.74	4.79	2.13	2.57	-0.41	1.01	0.96	2.37	0.06	0.70	0.66	4.62



Alt Model-Shift Uniqueness Test

007617977-01, P = 28.649504 Days, E = 112.277945 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
71.2	1.56	1.55	1.51	4.90	2.35	0.52	69.7	69.7	0.02	0.05	20.1	0.71	0.02	1.41



Stellar Parameters For KIC 007617977

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6117^{+165}_{-184}	$4.460^{+0.073}_{-0.136}$	$-0.400^{+0.300}_{-0.300}$	$0.948^{+0.188}_{-0.116}$	$0.945^{+0.107}_{-0.107}$	$1.564^{+0.500}_{-0.588}$
	+3%/-3%	+2%/-3%	+75%/-75%	+20%/-12%	+11%/-11%	+32%/-38%
Source	PHO1	FLK73	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 007617977-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-91 ± 15	$4.12^{+1.67}_{-1.80}$	871^{+53}_{-38}	3501^{+758}_{-348}	98^{+207}_{-52}
Alt.	-5 ± 3	$2.20^{+1.68}_{-1.31}$	872^{+48}_{-38}	2692^{+921}_{-469}	15^{+100}_{-12}

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

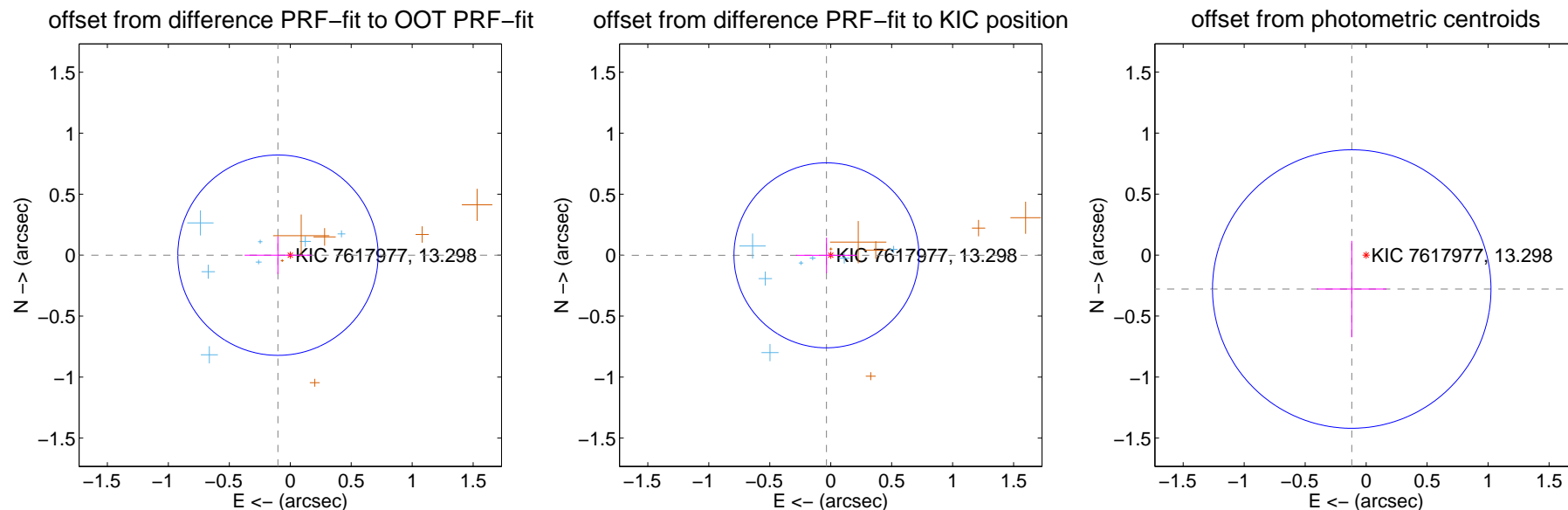
DV Centroid Data

Supplemental centroid analysis for 007617977-01. Kepler magnitude: 13.30. Transit SNR 14.05

There are 7 quarters with good PRF difference image offsets

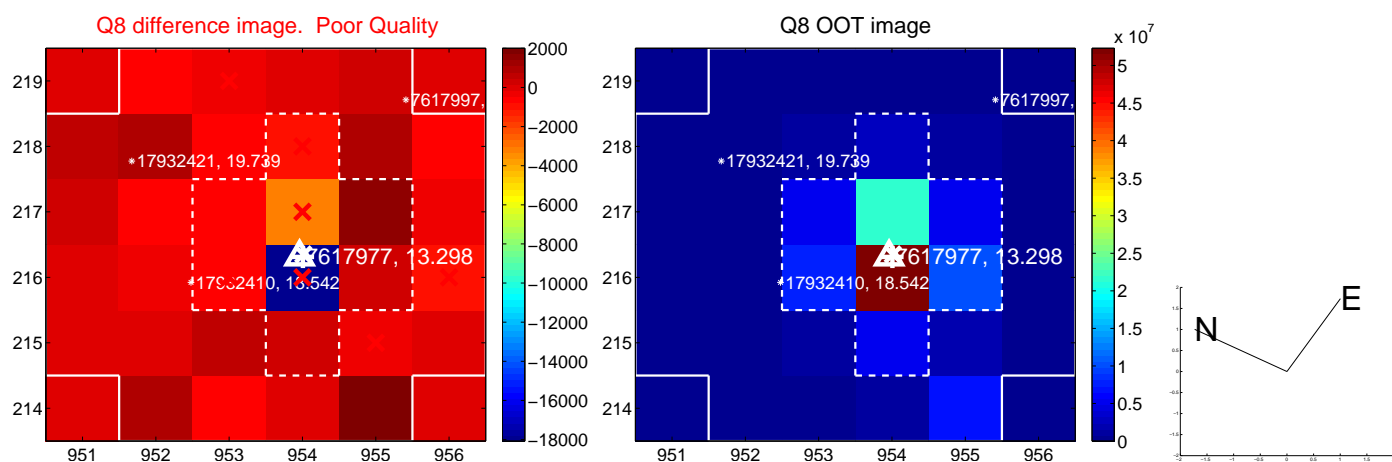
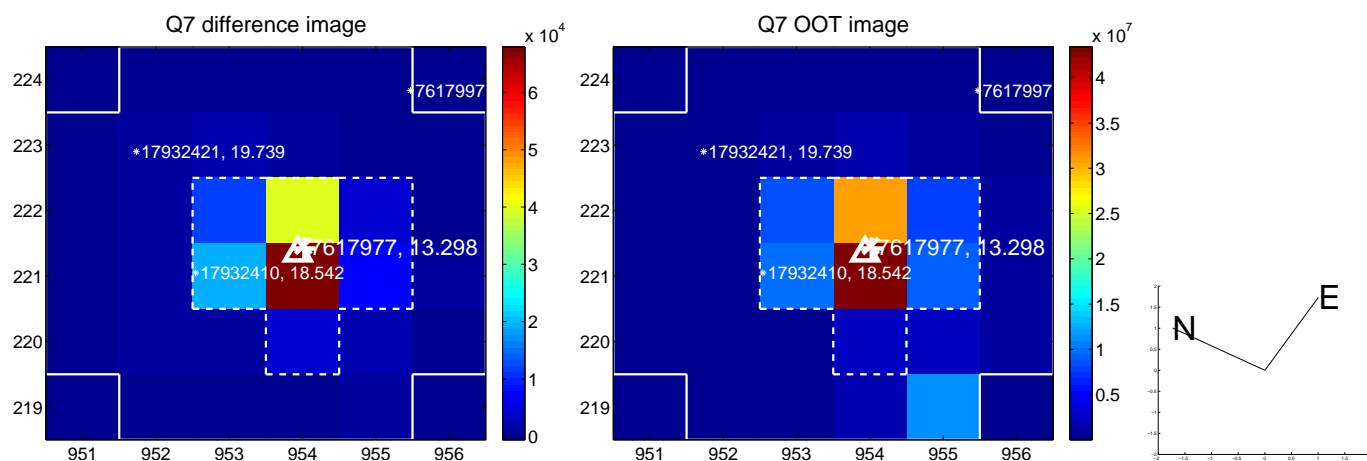
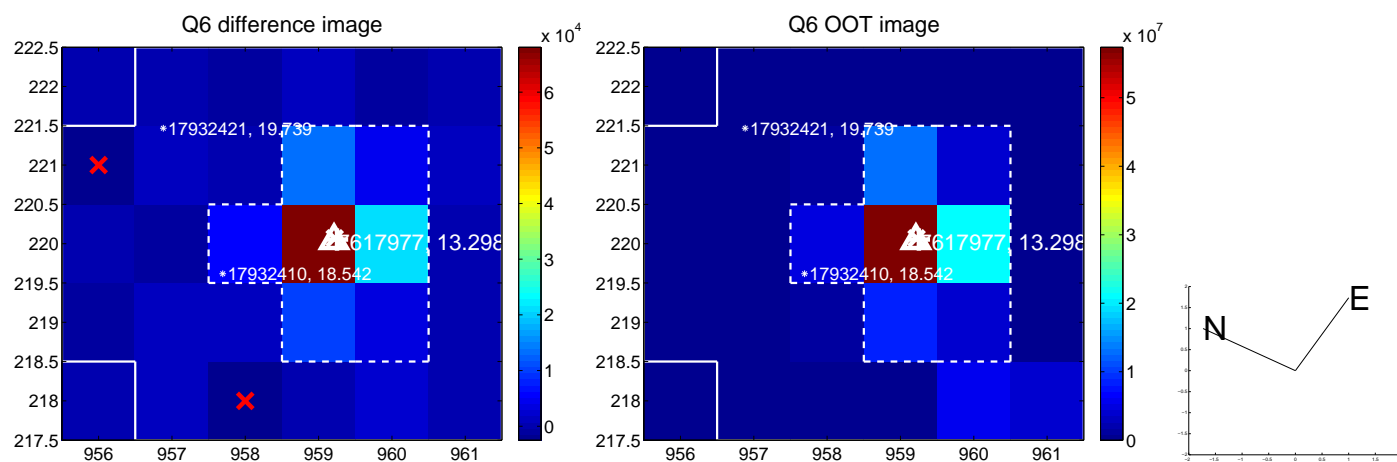
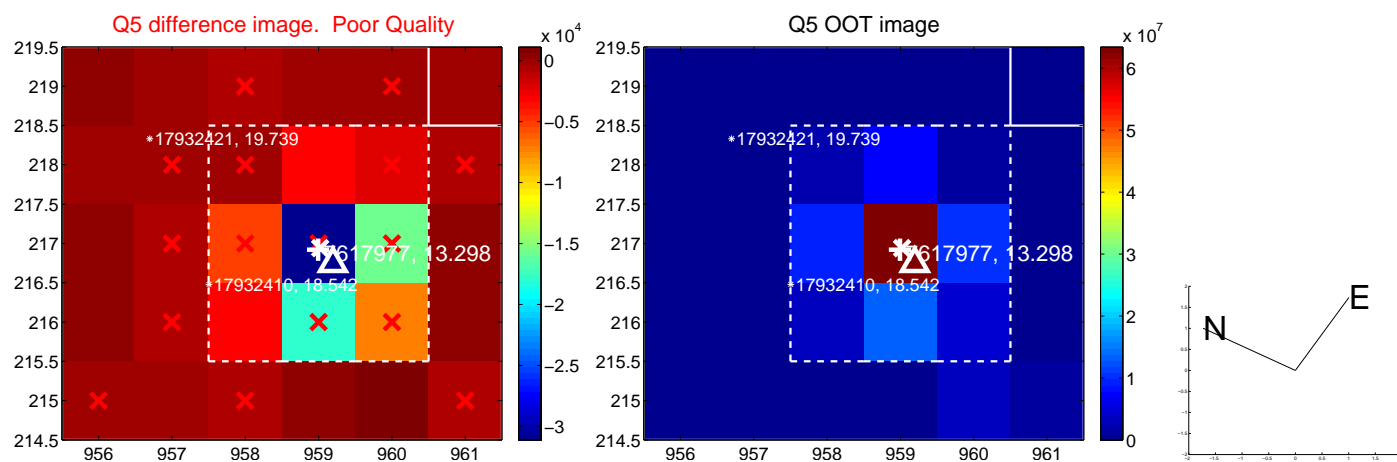
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.101 ± 0.274	0.37	0.101 ± 0.273	-0.000 ± 0.154
PRF-fit source offset from KIC position	0.035 ± 0.253	0.14	0.035 ± 0.250	-0.001 ± 0.145
photometric centroid source offset	0.30 ± 0.38	0.79	0.12 ± 0.29	-0.28 ± 0.40

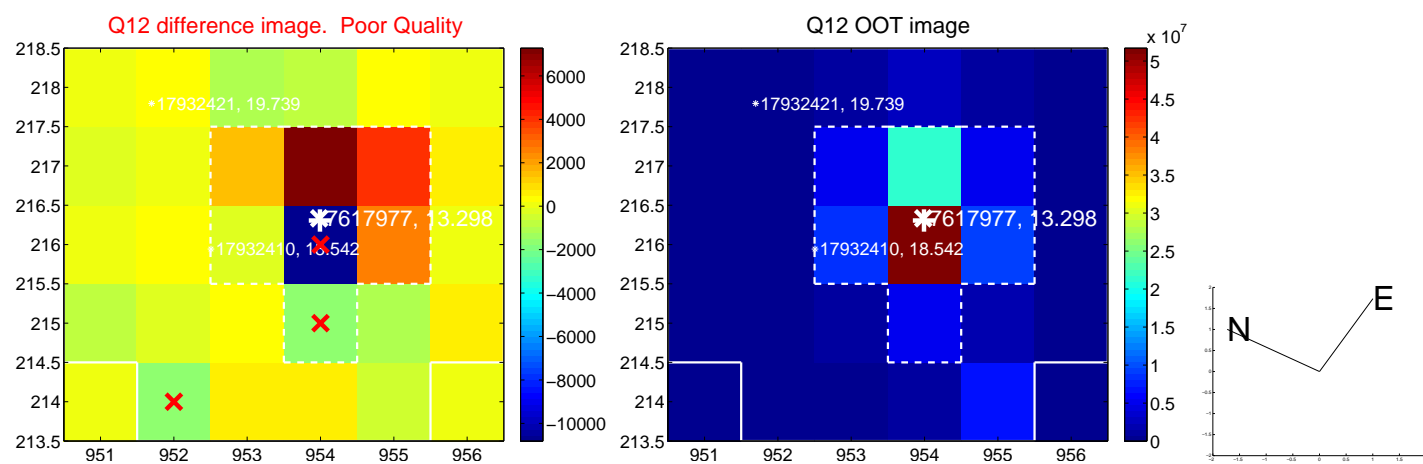
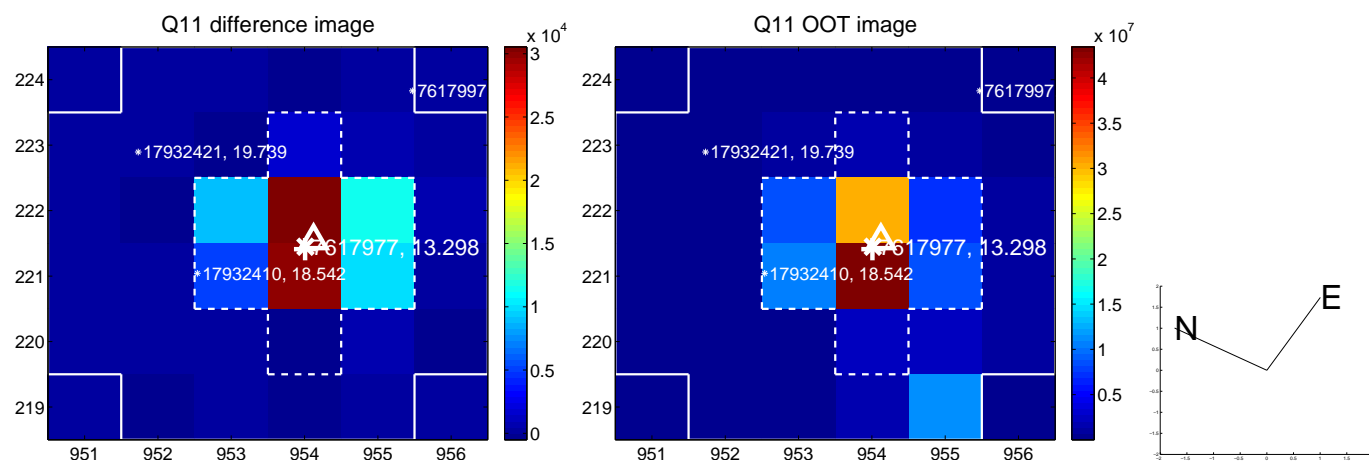
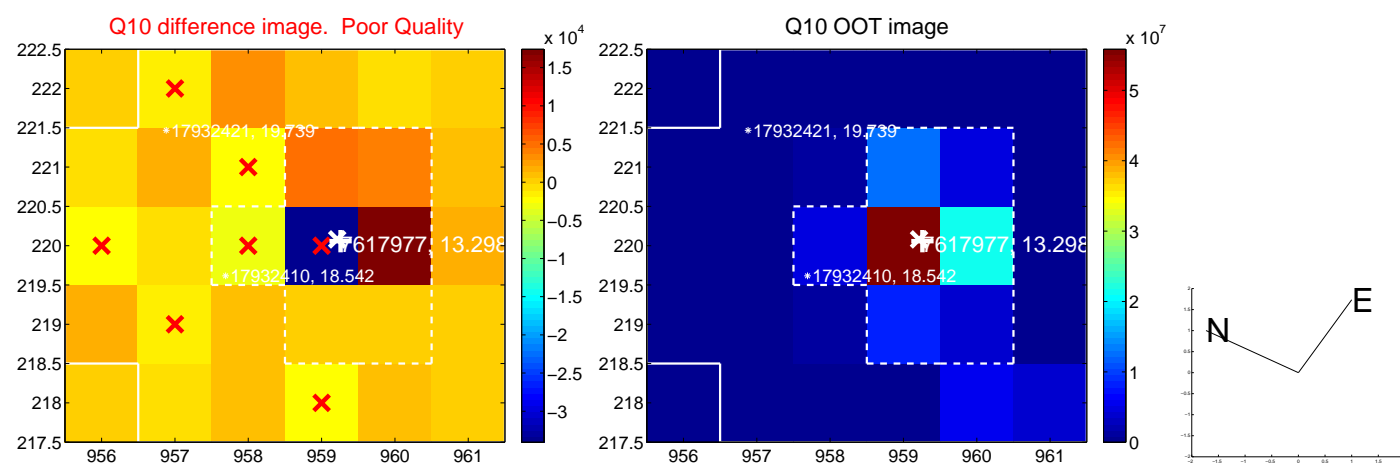
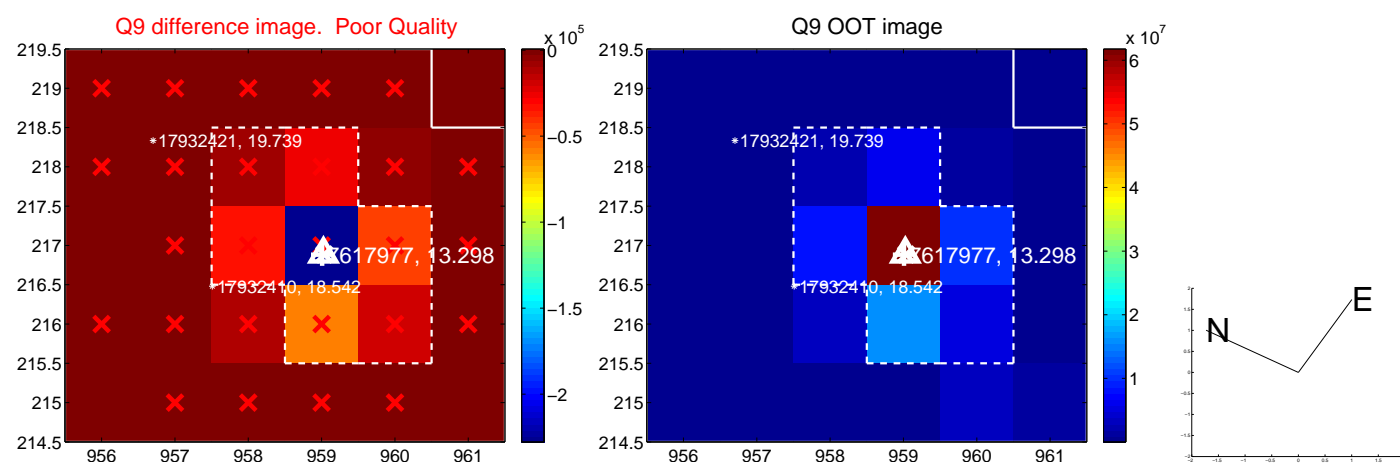


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

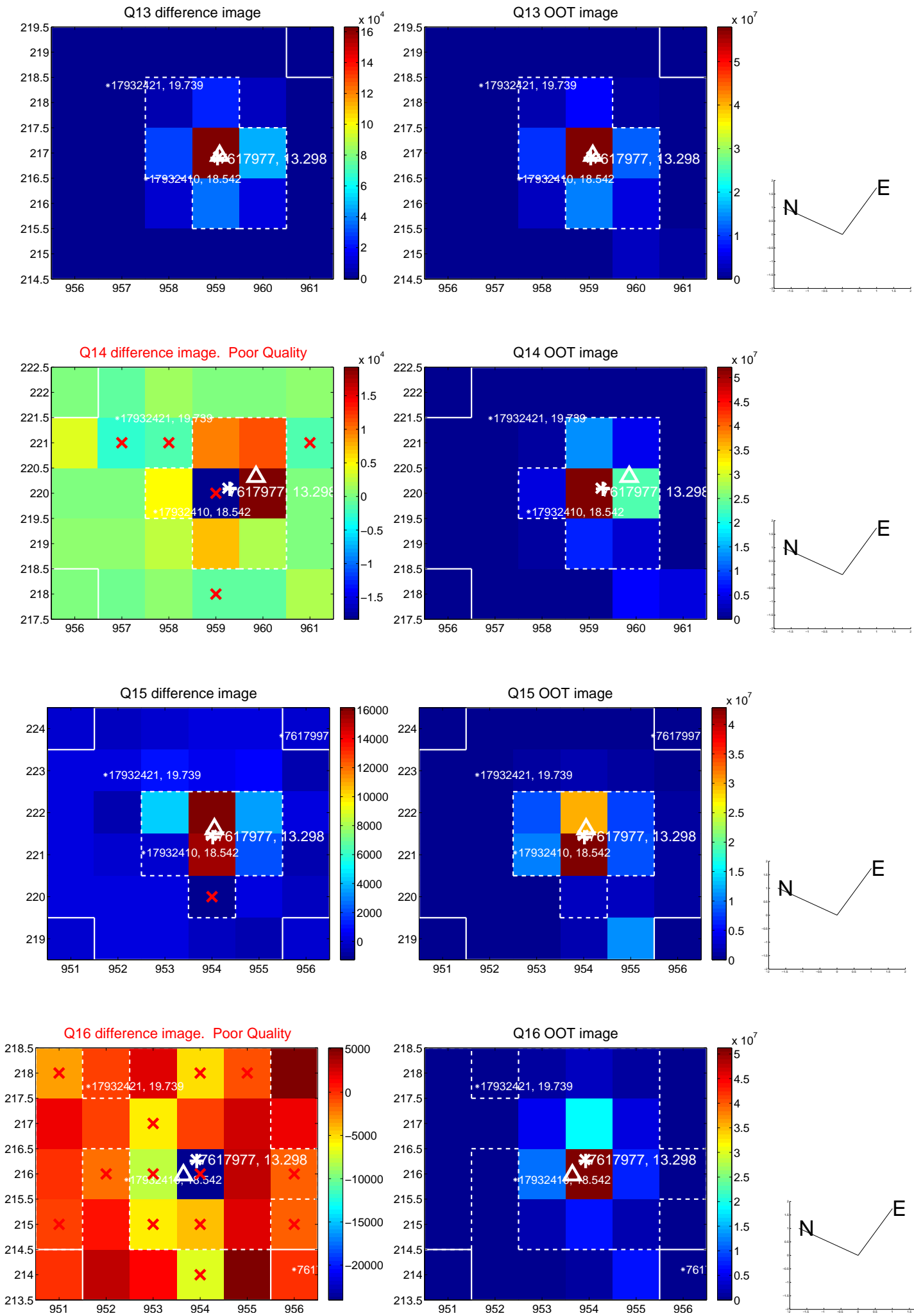
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



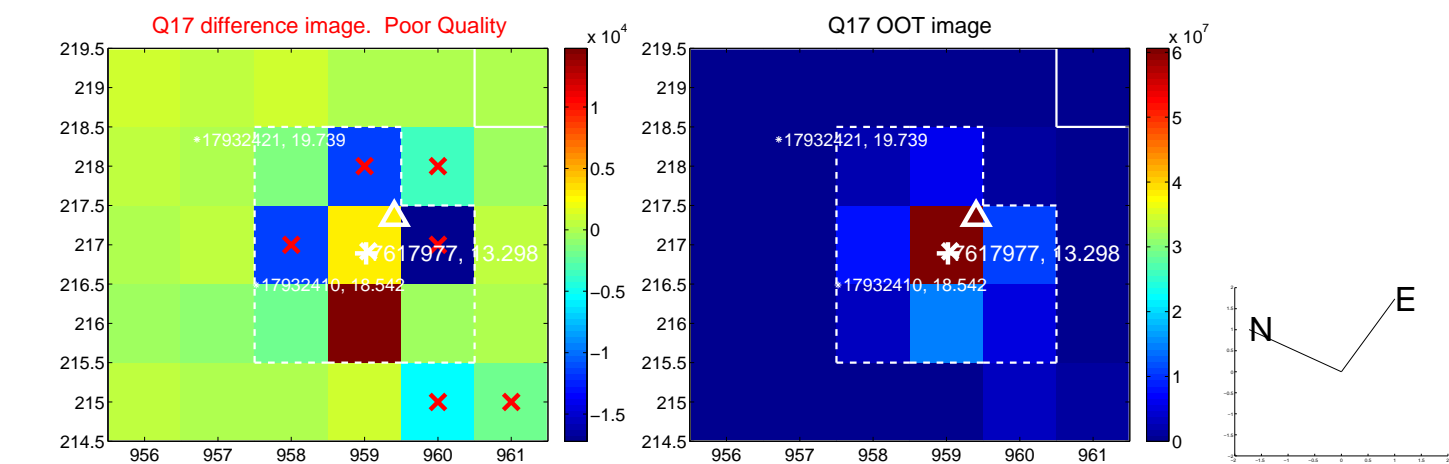
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



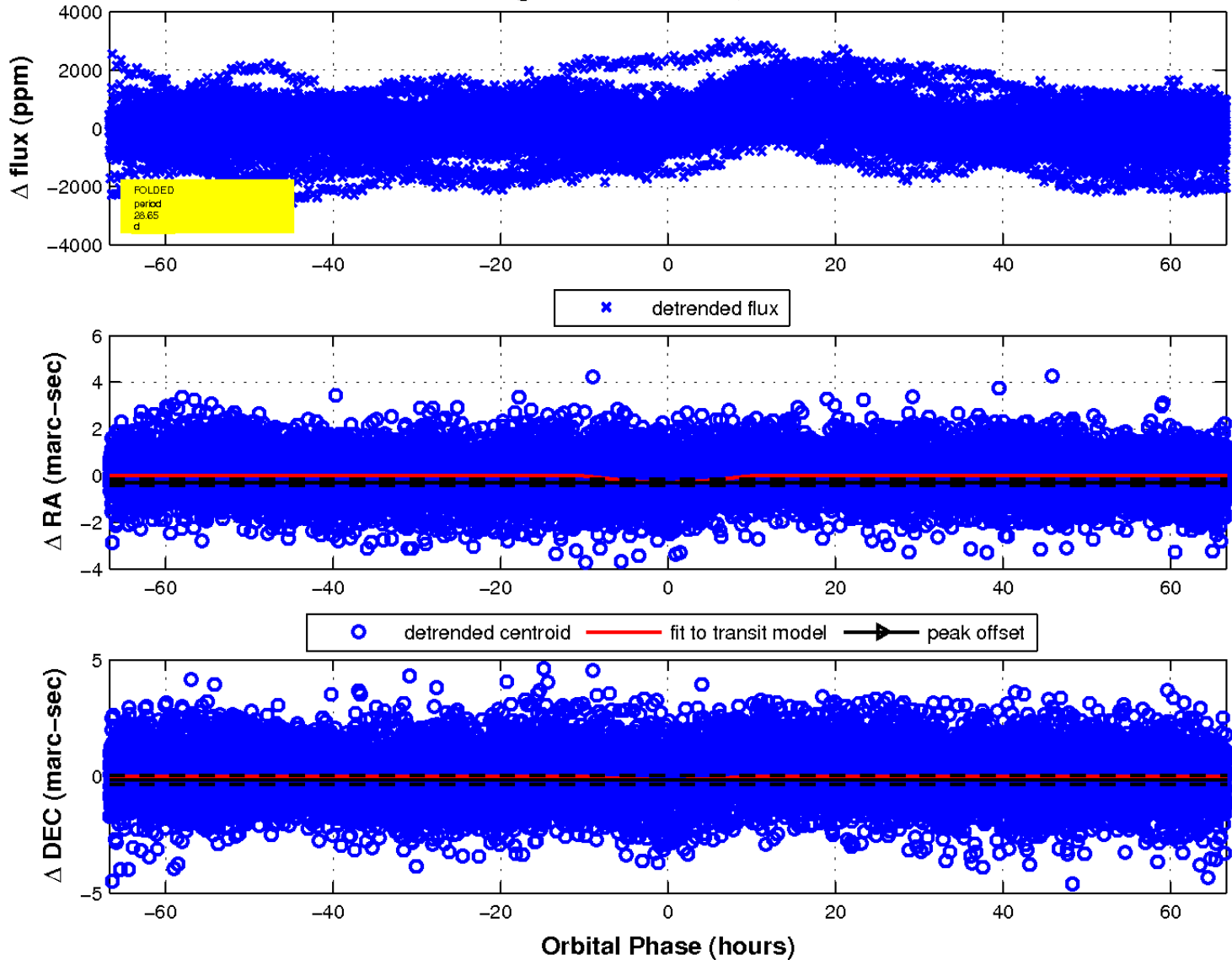
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

