

KIC 006803855

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})
006803855-01	OBS	1695.01	71.452385	148.806503	212.9	6.537	12.4	14.1	1.49	6148	2.46	23.49

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006803855-01	OBS	PC	0.99	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.

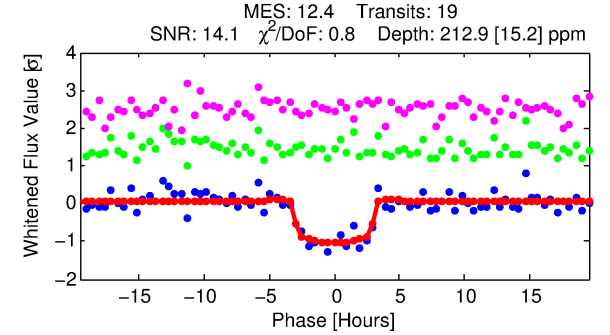
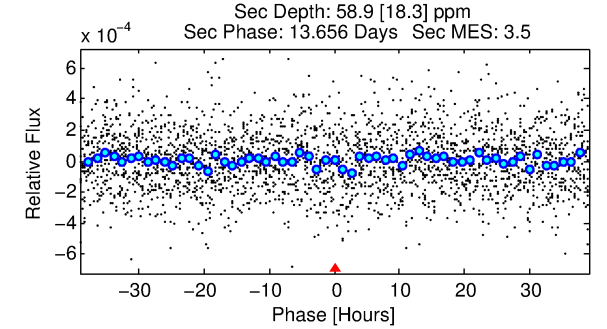
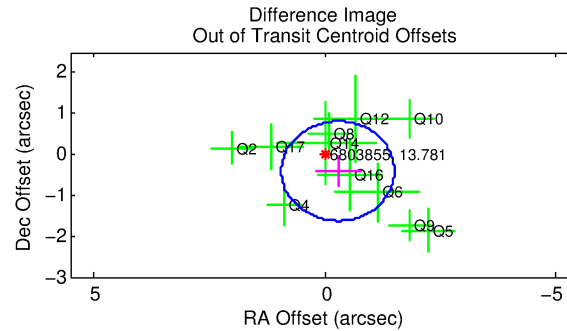
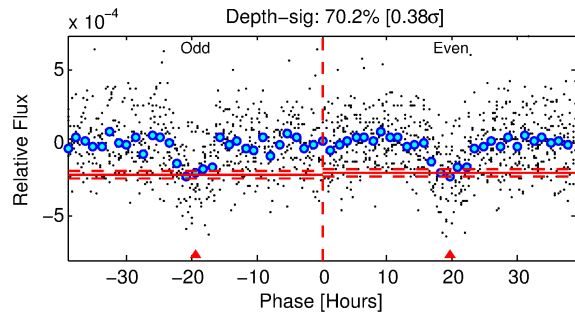
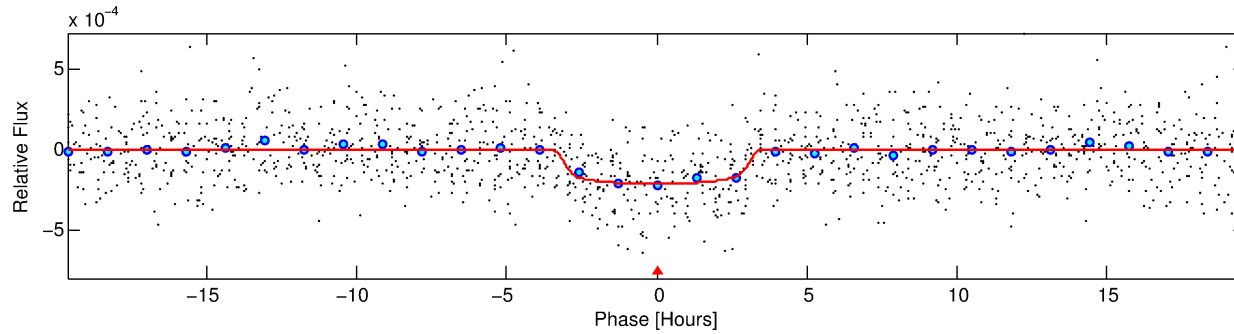
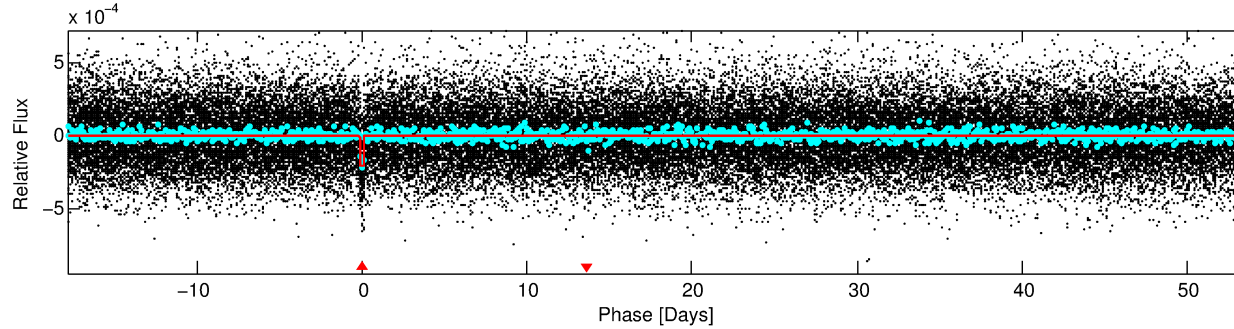
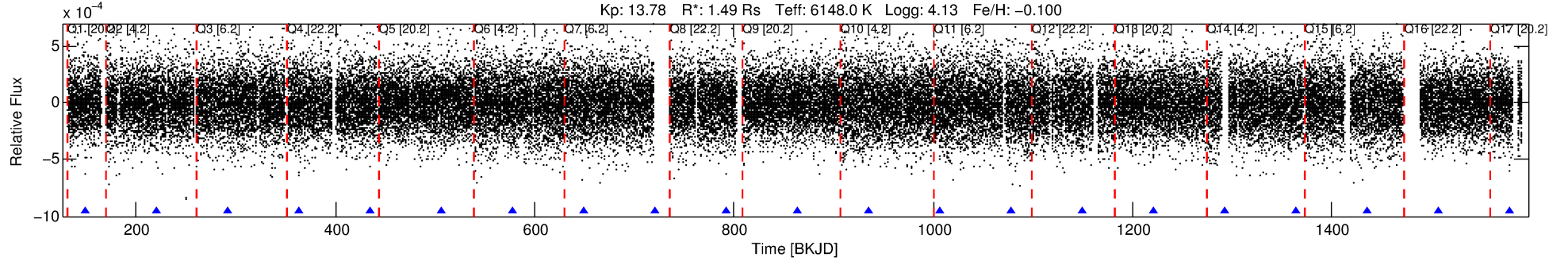
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006803855-01

No Significant Match Found

DV One-Page Summary

KIC: 6803855 Candidate: 1 of 1 Period: 71.452 d
KOI: K01695.01 Corr: 0.960



DV Fit Results:

Period = 71.45239 [0.00065] d
Epoch = 148.8065 [0.0078] BKJD
Rp/R* = 0.0152 [0.0039]
a/R* = 46.19 [61.95]
b = 0.85 [0.44]
Seff = 23.49 [11.57]
Teq = 561 [69] K
Rp = 2.46 [0.96] Re
a = 0.3474 [0.1005] AU
Ag = 643.20 [492.04] [1.31 σ]
Teffp = 4371 [677] K [5.60 σ]

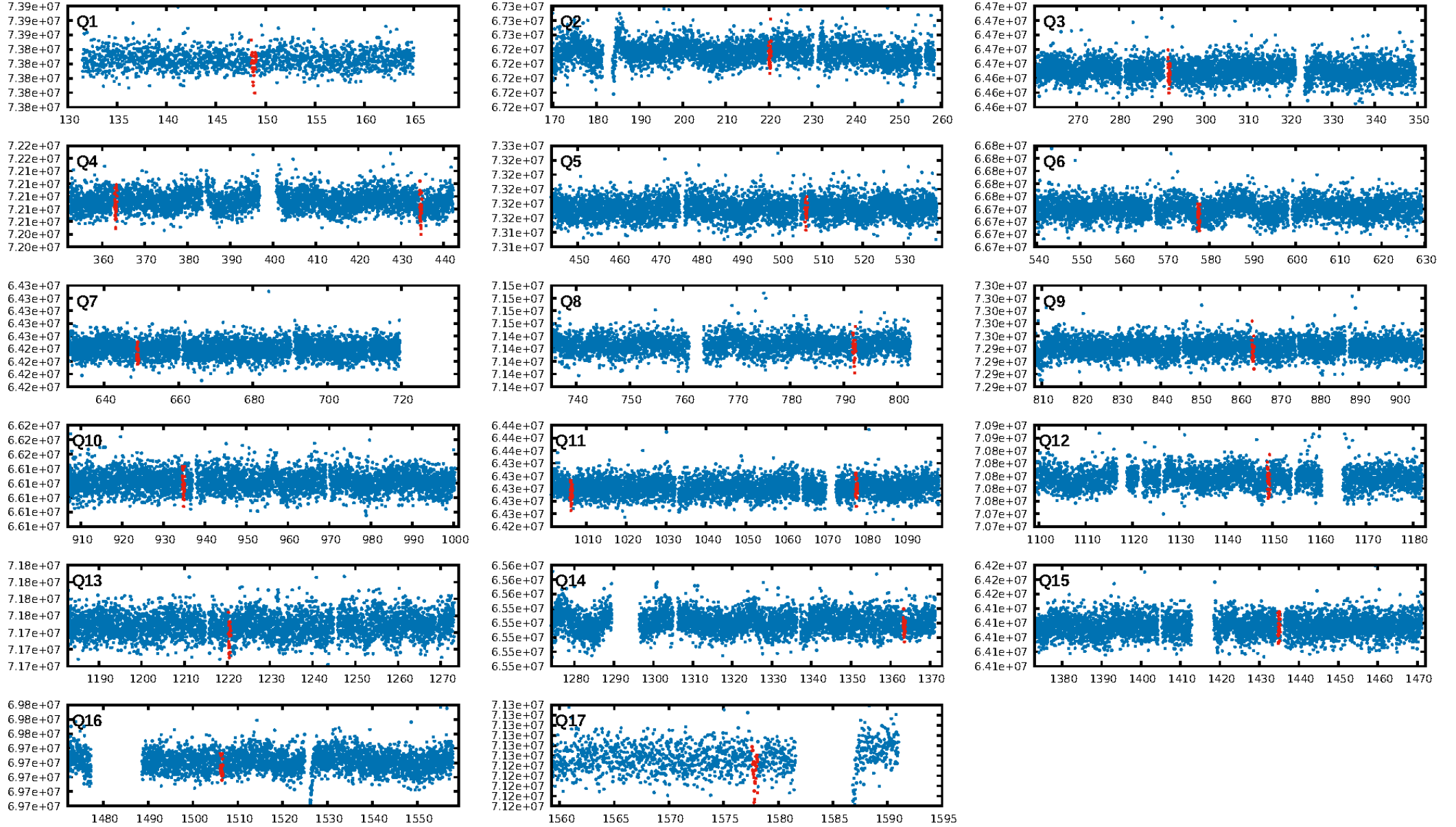
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 75.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.25e-35
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: -604.1
Centroid-sig: 0.7%
Centroid-so: 1.551 arcsec [1.64 σ]
OotOffset-rm: 0.497 arcsec [1.22 σ]
KicOffset-rm: 0.575 arcsec [1.44 σ]
OotOffset-st: 4/0/4/3 [11]
KicOffset-st: 4/0/4/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [14/14]

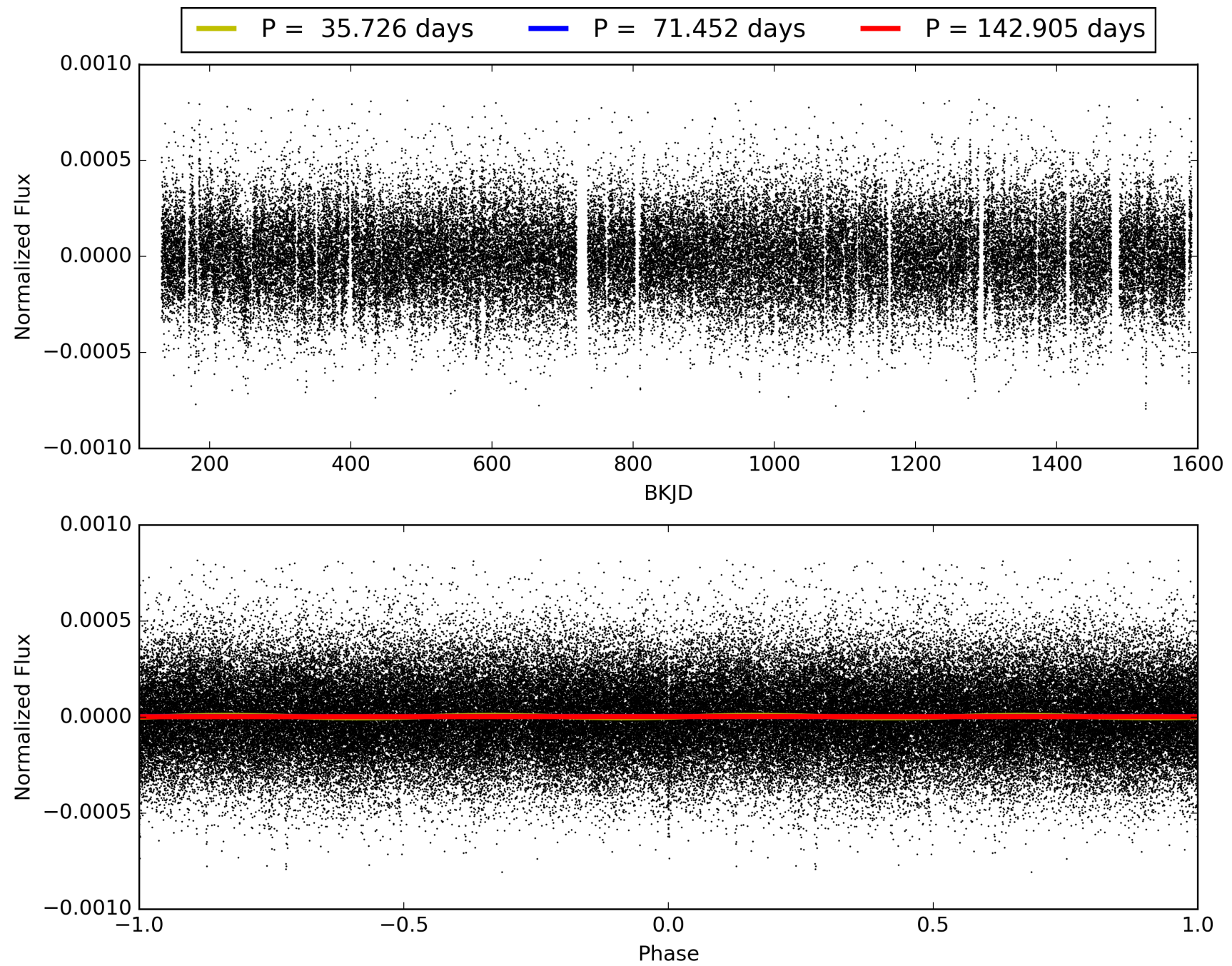
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:45:55 Z

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

TCE 006803855-01, PDC Light Curves

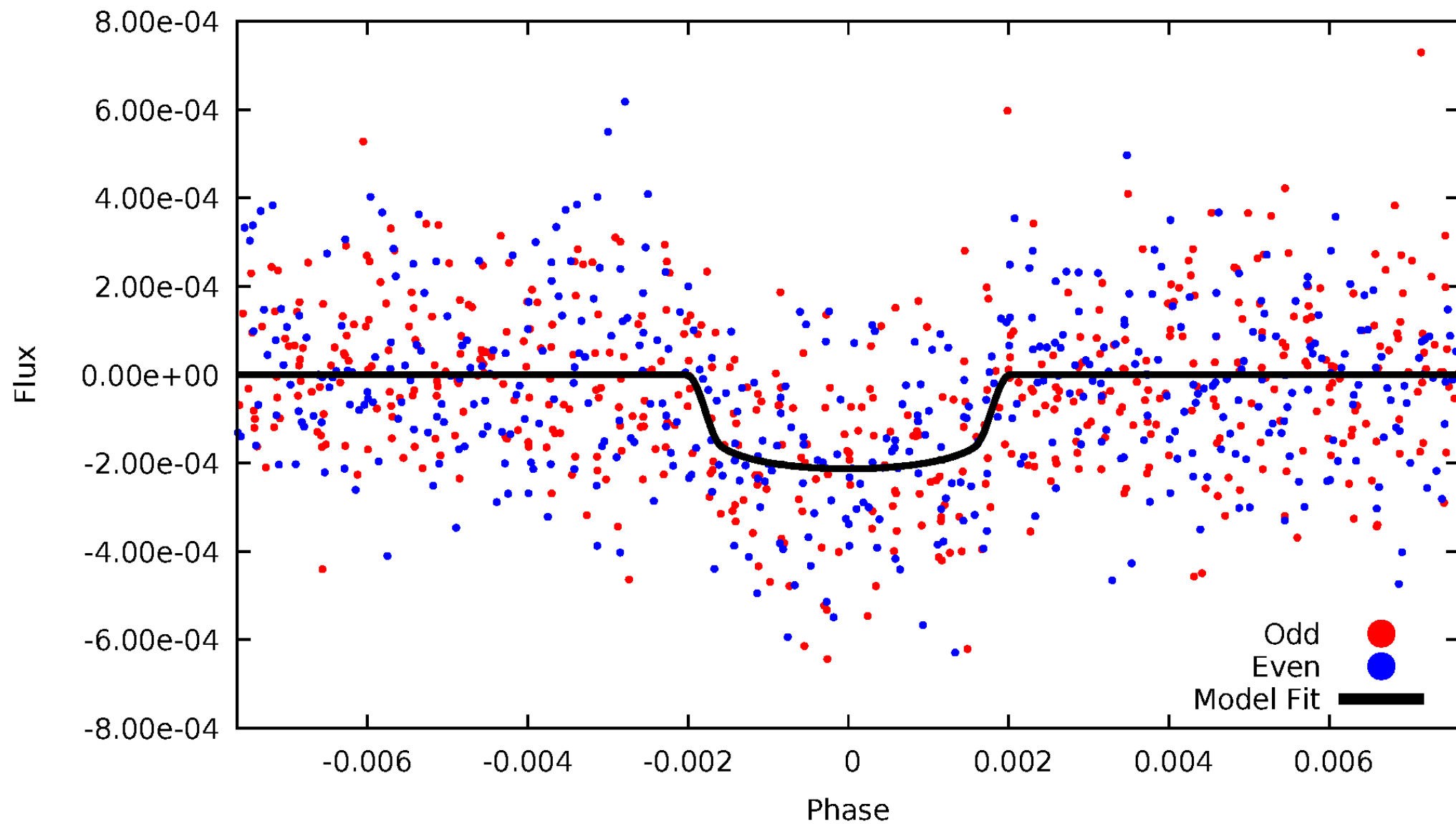


TCE 006803855-01



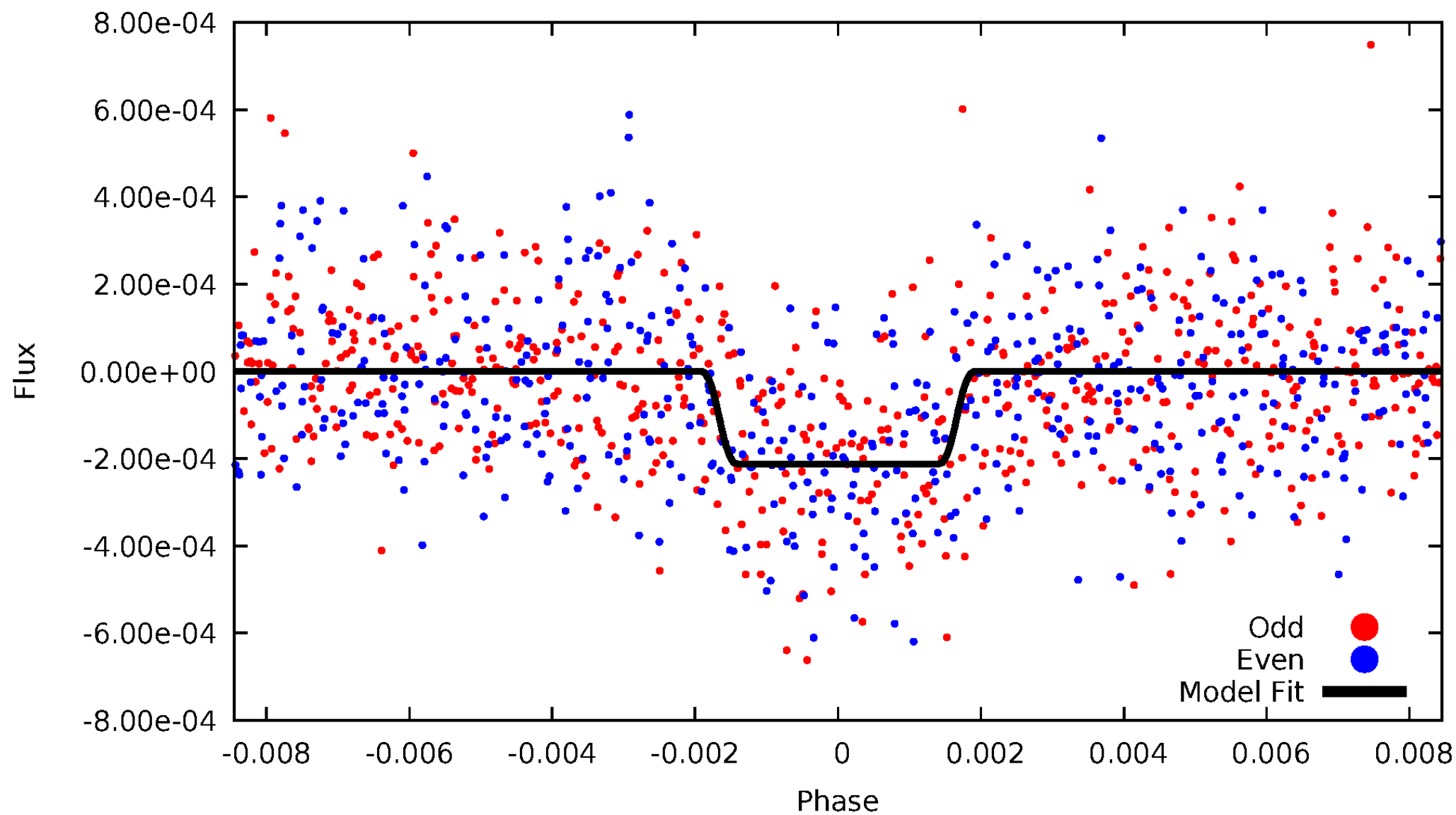
DV Odd/Even

TCE 006803855-01

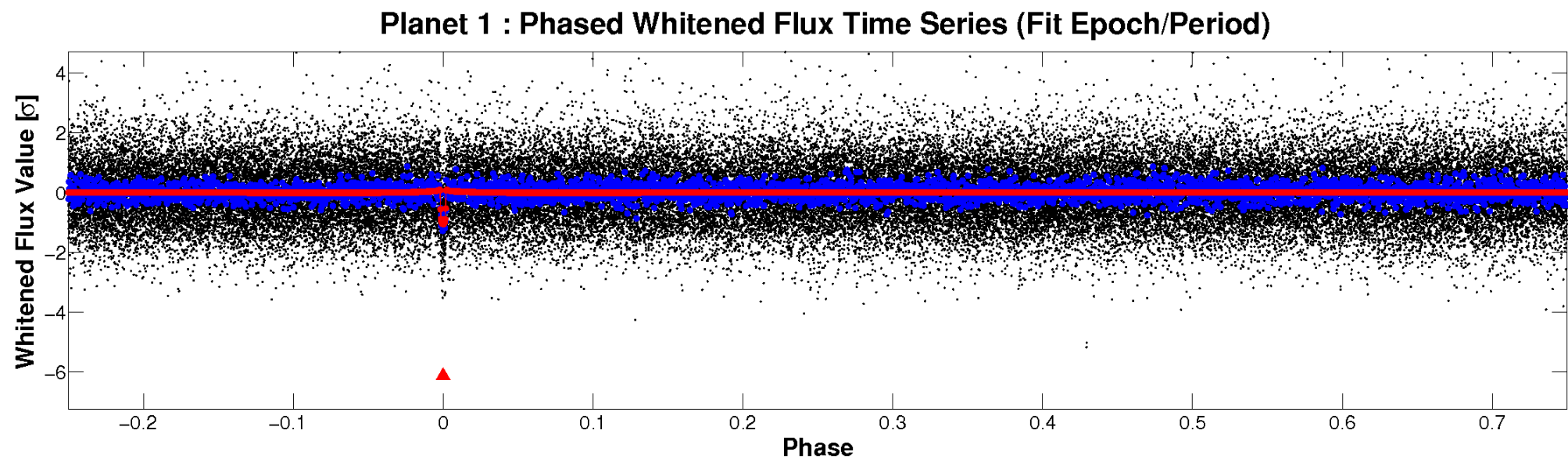
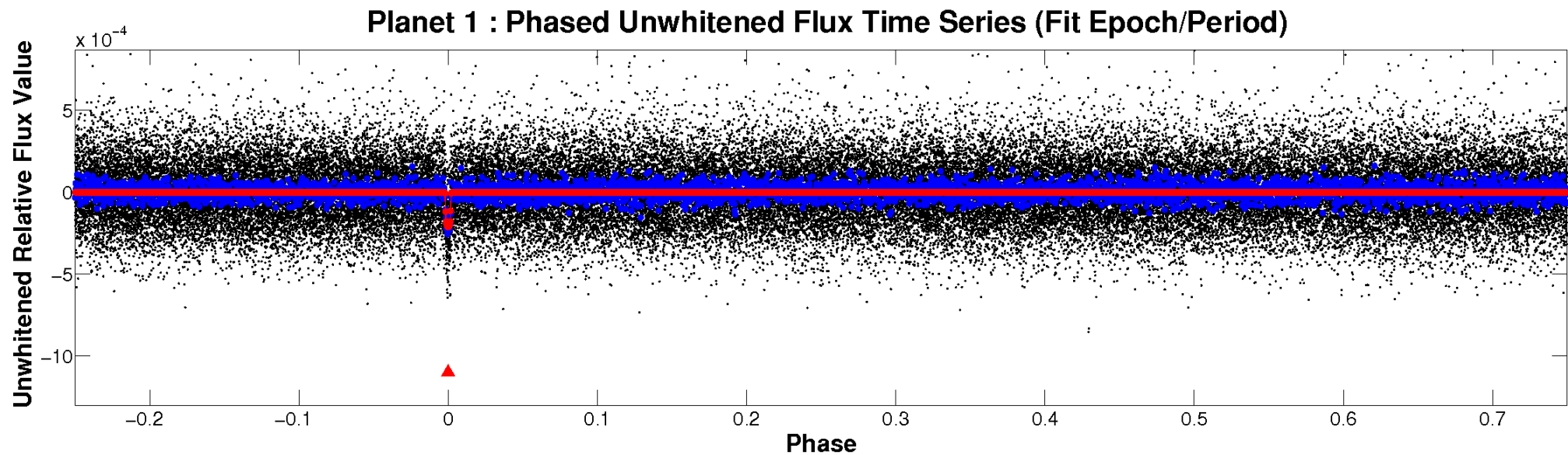


ALT Odd/Even

TCE 006803855-01

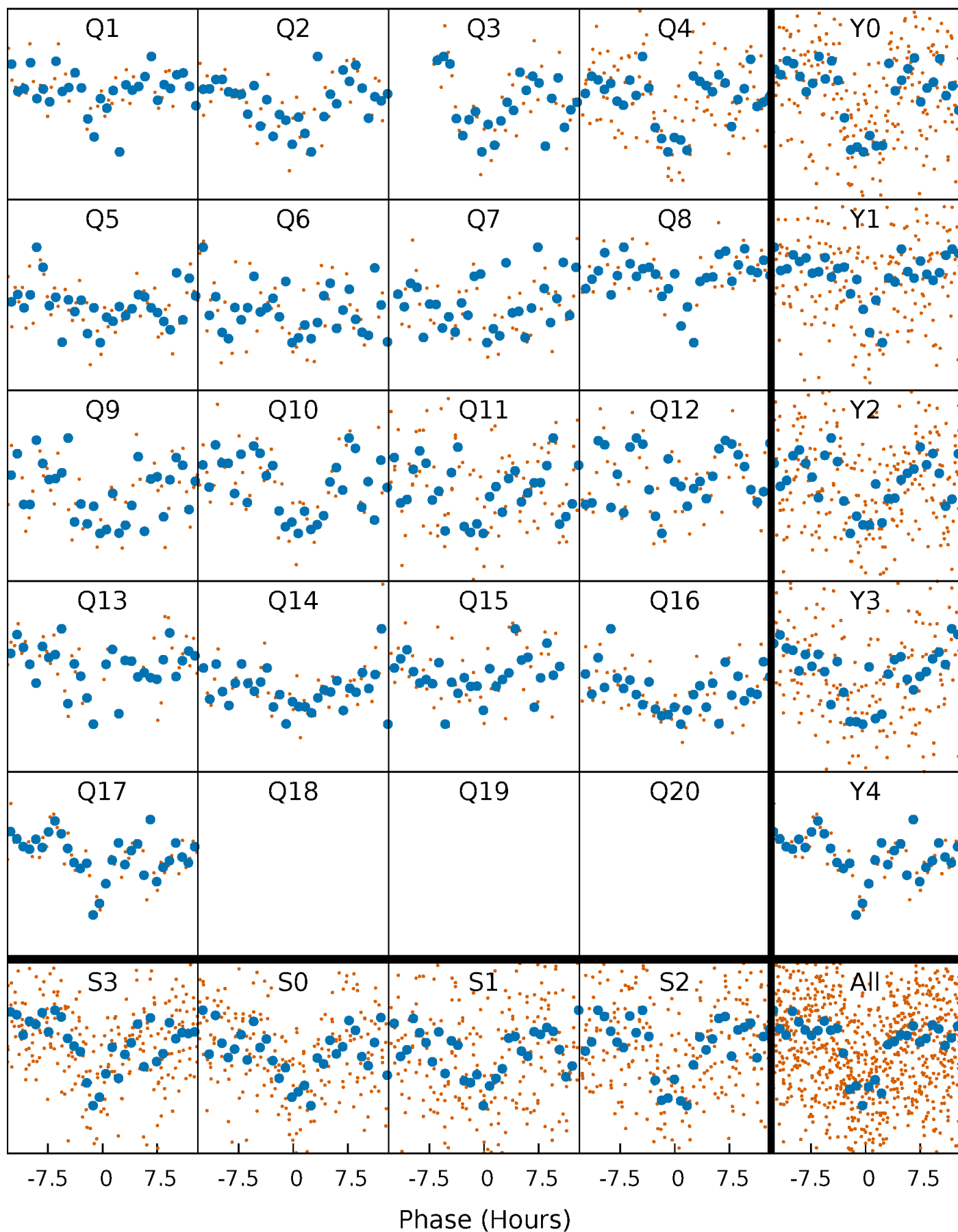


Non-Whitened Vs. Whitened Light Curve



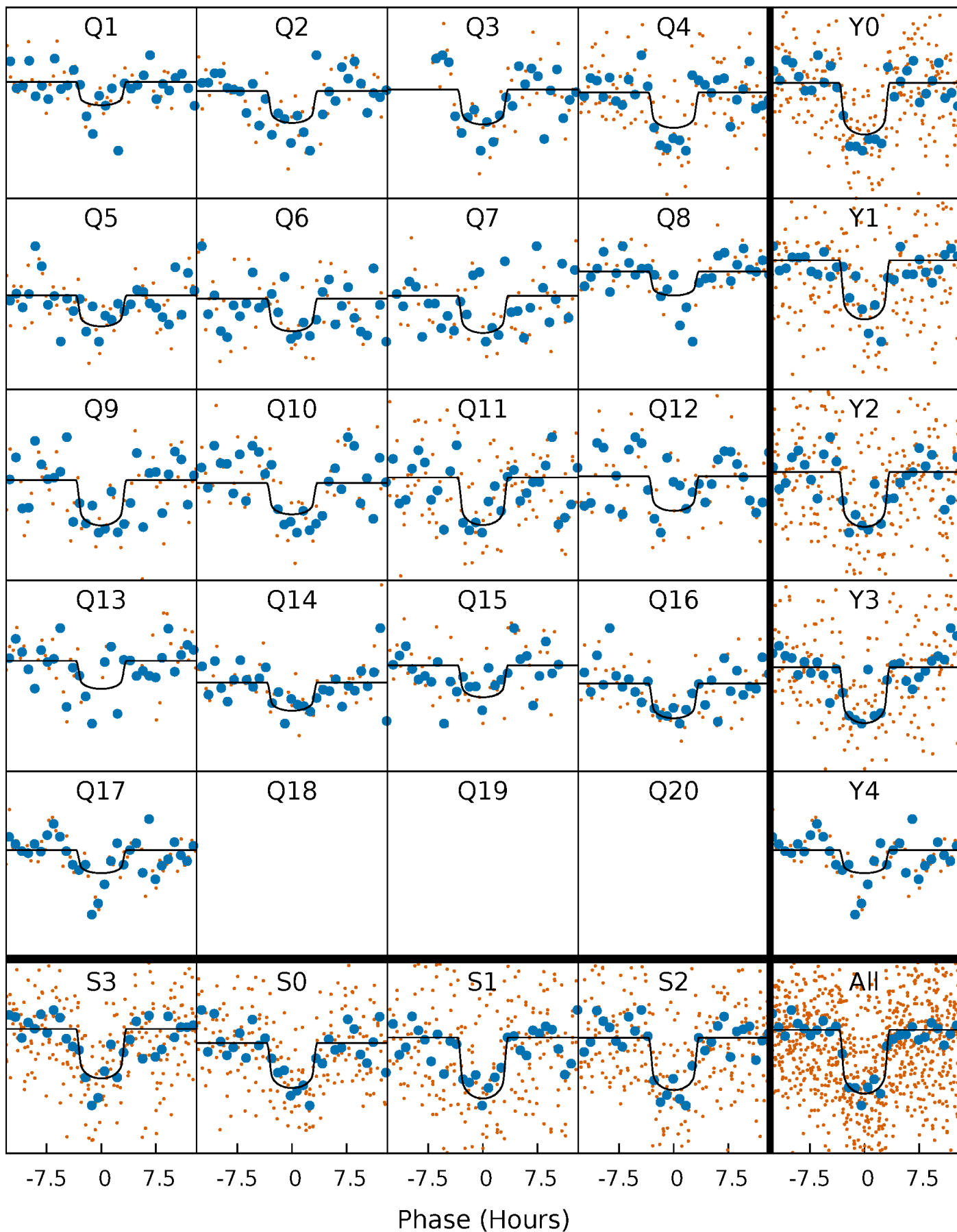
PDC Quarter-Phased Transit Curves

TCE 006803855-01 P= 71.452385 Days $T_0=148.806503$ (BKJD)



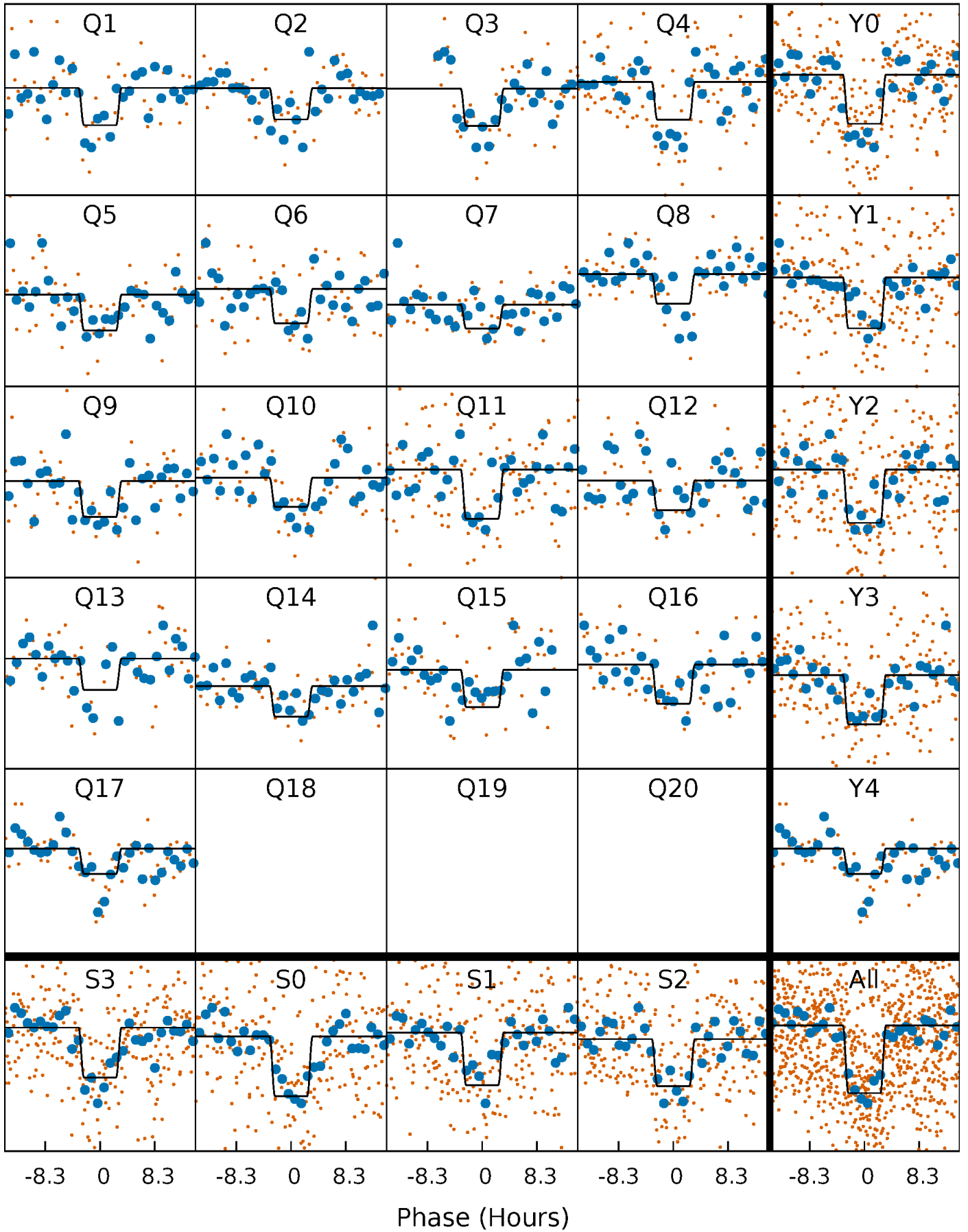
DV Quarter-Phased Transit Curves

TCE 006803855-01 P= 71.452385 Days $T_0=148.806503$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

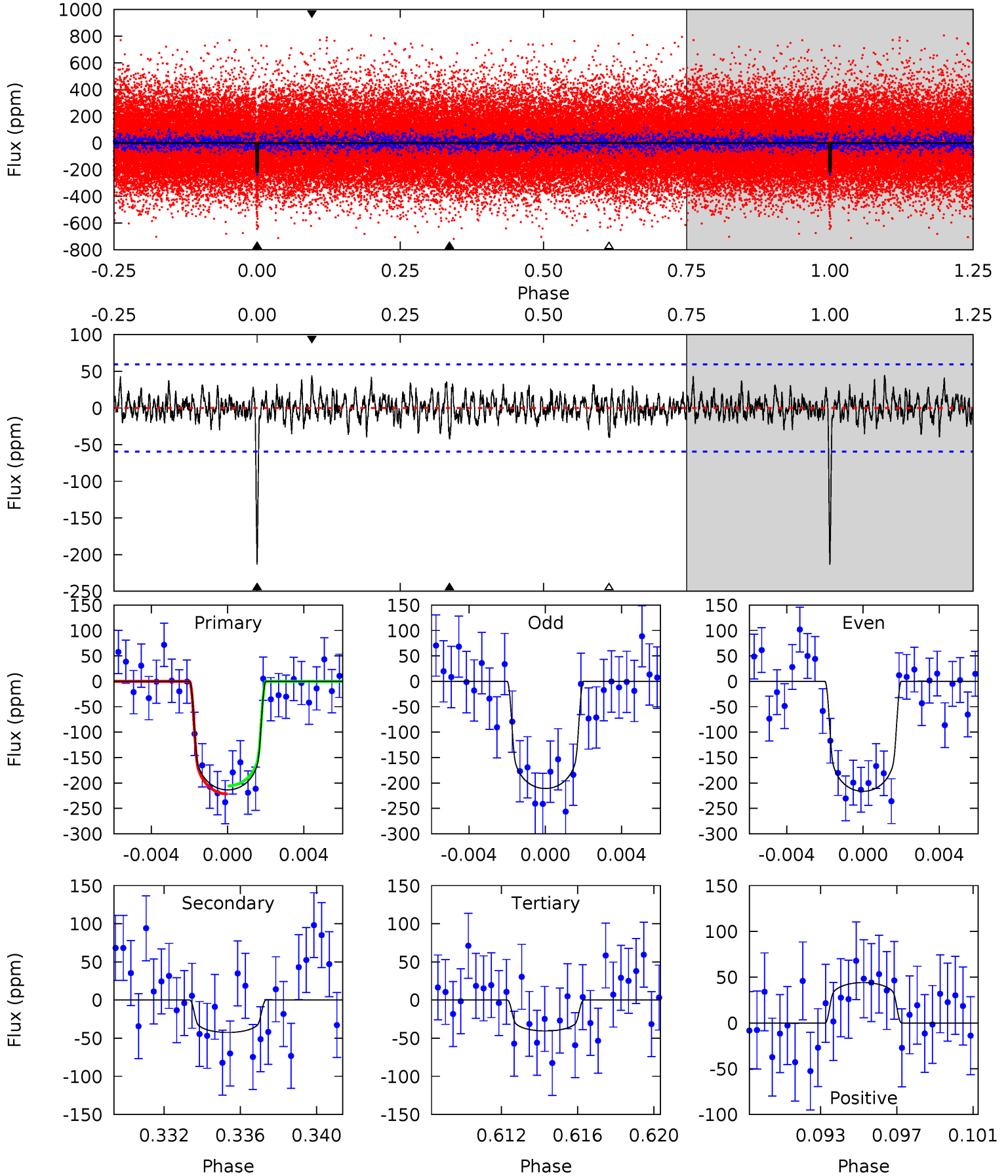
TCE 006803855-01 P= 71.449928 Days $T_0=148.826083$ (BKJD)



DV Model-Shift Uniqueness Test

006803855-01, P = 71.452385 Days, E = 77.354118 Days

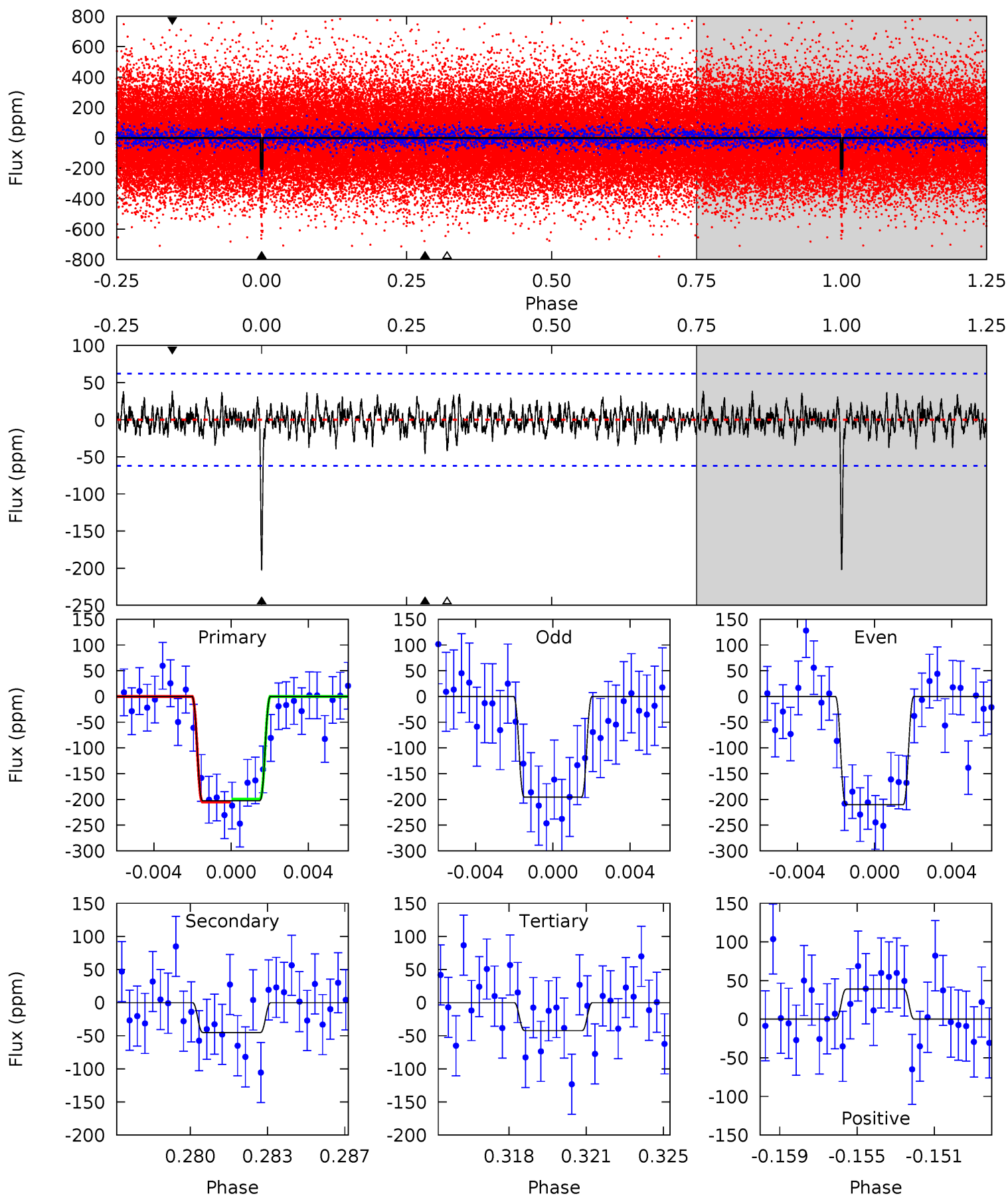
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	3.72	3.54	3.86	5.20	2.87	1.11	15.1	14.8	0.17	-0.14	0.24	1.02	0.17	0.69



Alt Model-Shift Uniqueness Test

006803855-01, P = 71.449928 Days, E = 77.376155 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.0	3.79	3.55	3.26	5.21	2.90	1.03	13.4	13.7	0.24	0.52	0.60	0.92	0.16	0.22



Stellar Parameters For KIC 006803855

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6148^{+184}_{-220}	$4.132^{+0.280}_{-0.172}$	$-0.100^{+0.250}_{-0.300}$	$1.488^{+0.432}_{-0.432}$	$1.094^{+0.178}_{-0.146}$	$0.468^{+0.726}_{-0.217}$
	+3%/-4%	+7%/-4%	+250%/-300%	+29%/-29%	+16%/-13%	+155%/-46%
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 006803855-01 / KOI 1695.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-42 ± 11	$2.39^{+0.77}_{-0.74}$	778^{+65}_{-70}	4277^{+588}_{-434}	502^{+499}_{-252}
Alt.	-45 ± 12	$2.32^{+0.81}_{-0.73}$	772^{+65}_{-68}	4334^{+644}_{-432}	550^{+634}_{-269}

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

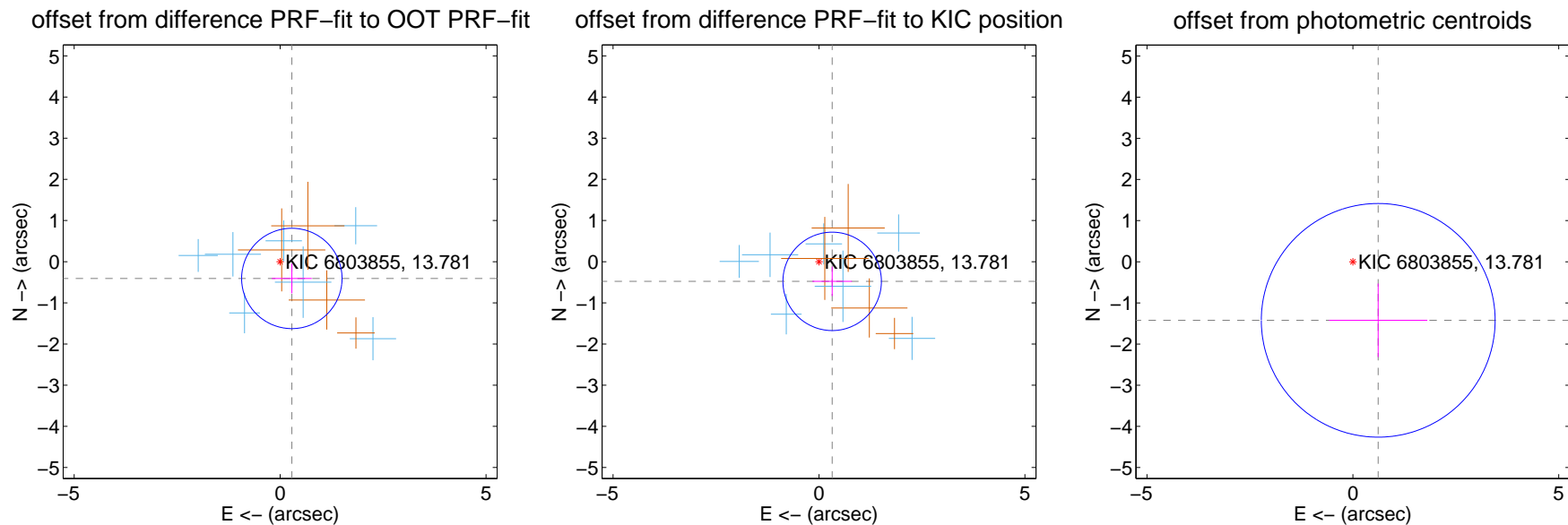
DV Centroid Data

Supplemental centroid analysis for 006803855-01. Kepler magnitude: 13.78. Transit SNR 14.05

There are 7 quarters with good PRF difference image offsets

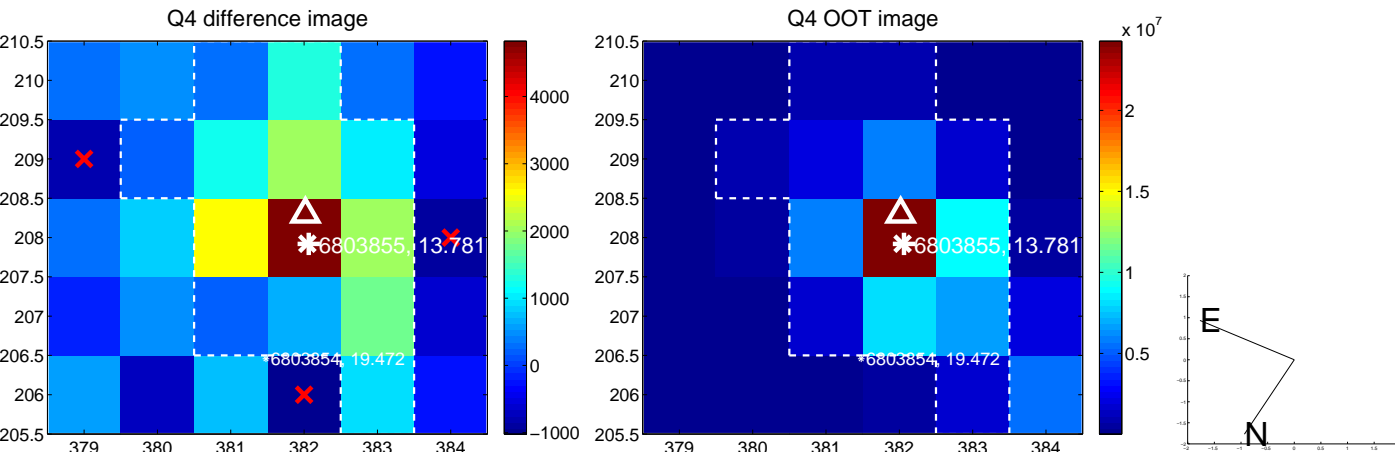
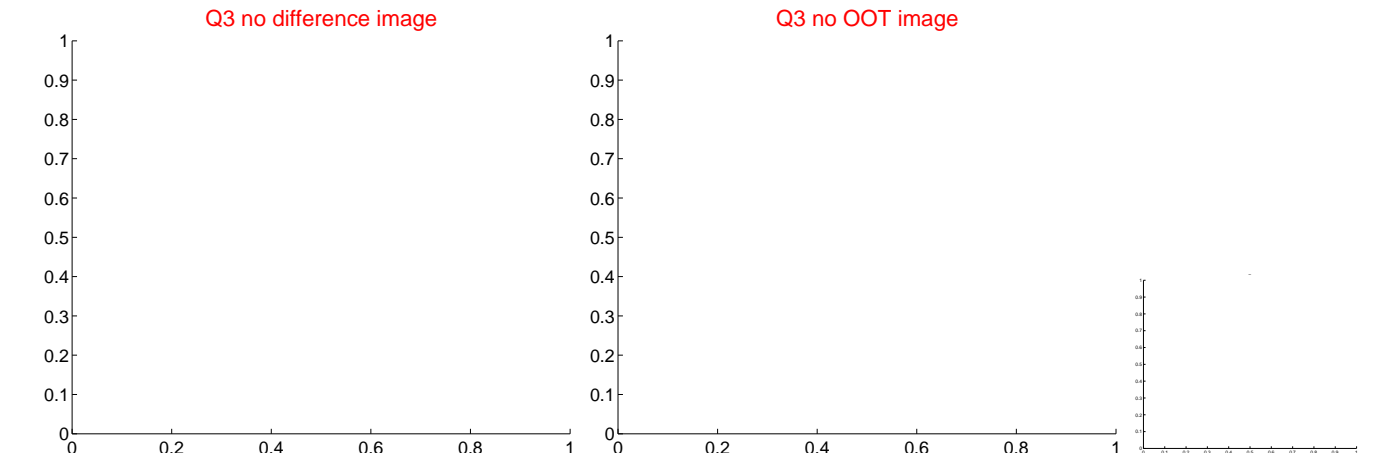
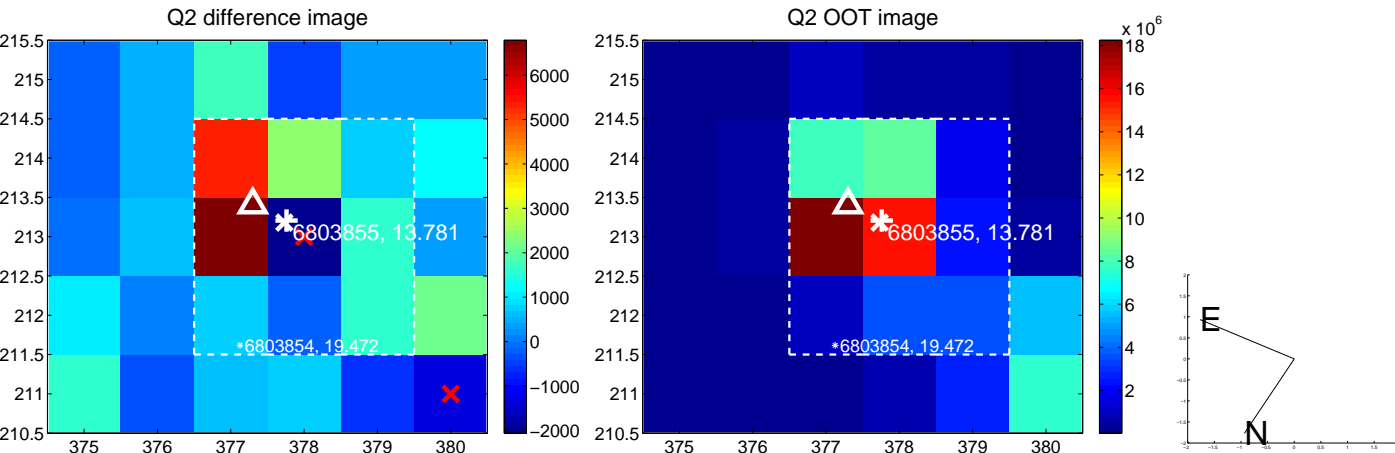
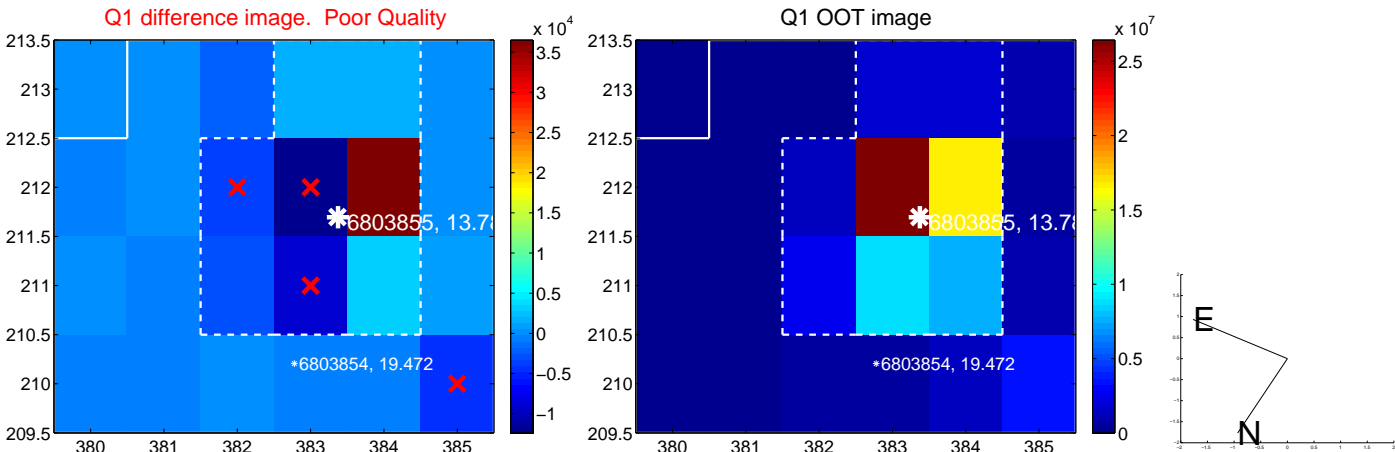
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.497 ± 0.406	1.22	-0.285 ± 0.485	-0.407 ± 0.361
PRF-fit source offset from KIC position	0.575 ± 0.399	1.44	-0.320 ± 0.480	-0.478 ± 0.356
photometric centroid source offset	1.55 ± 0.95	1.64	-0.62 ± 1.19	-1.42 ± 0.89

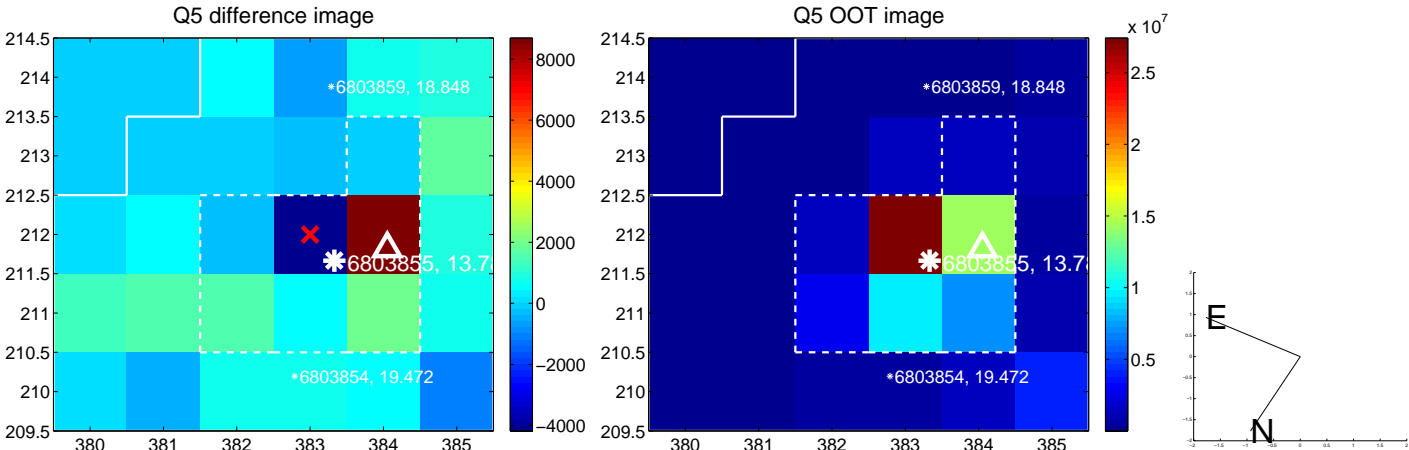


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

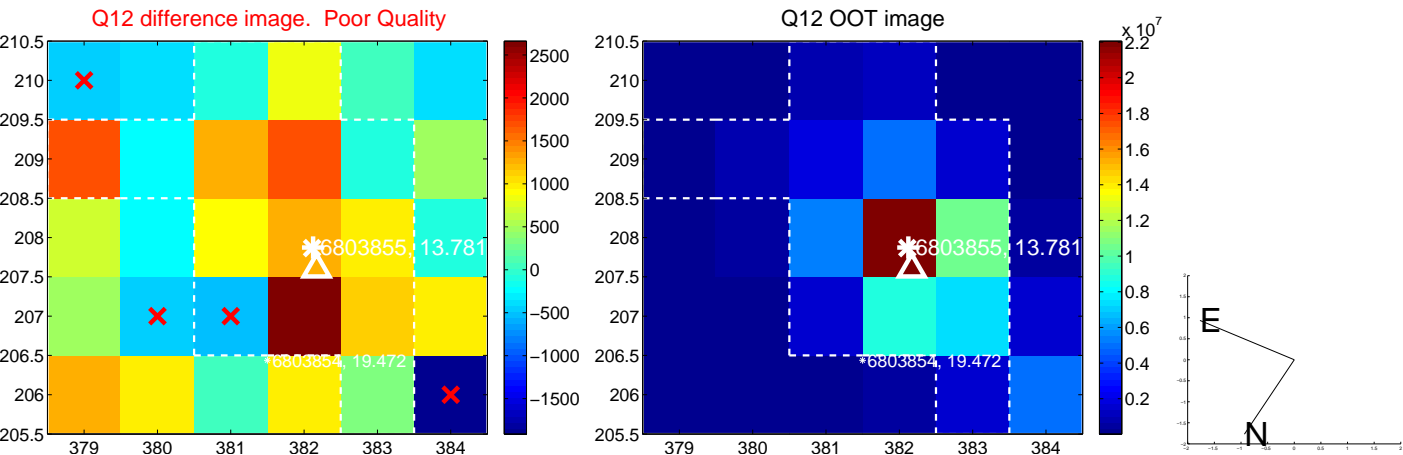
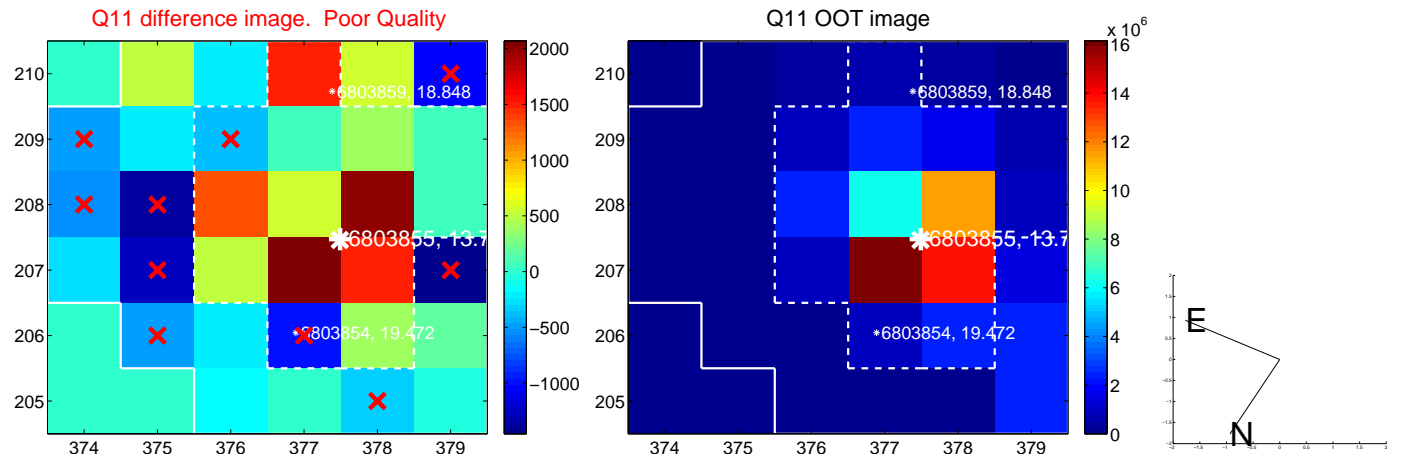
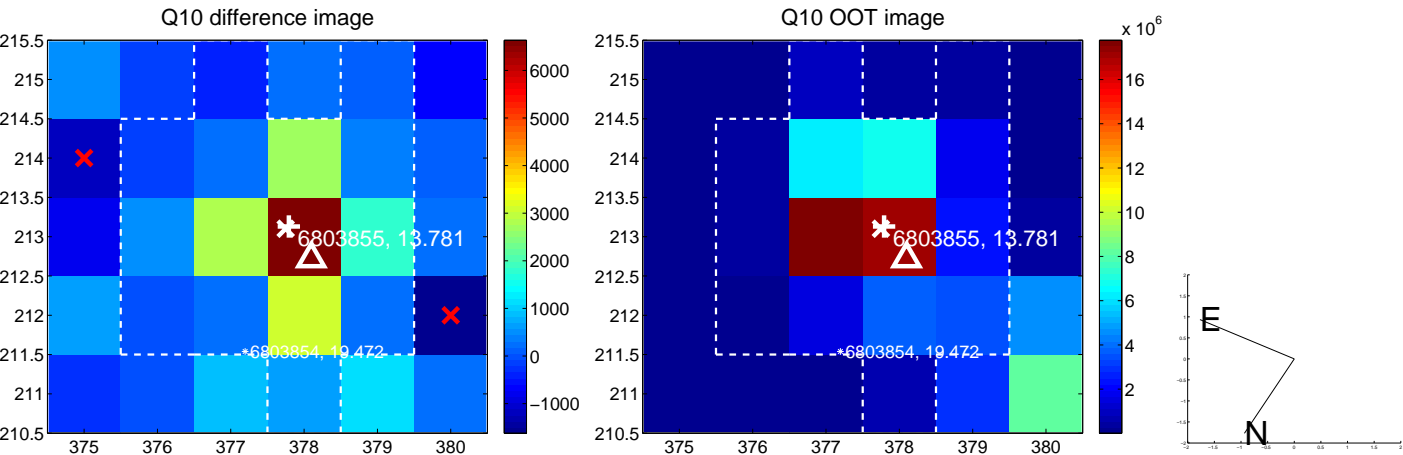
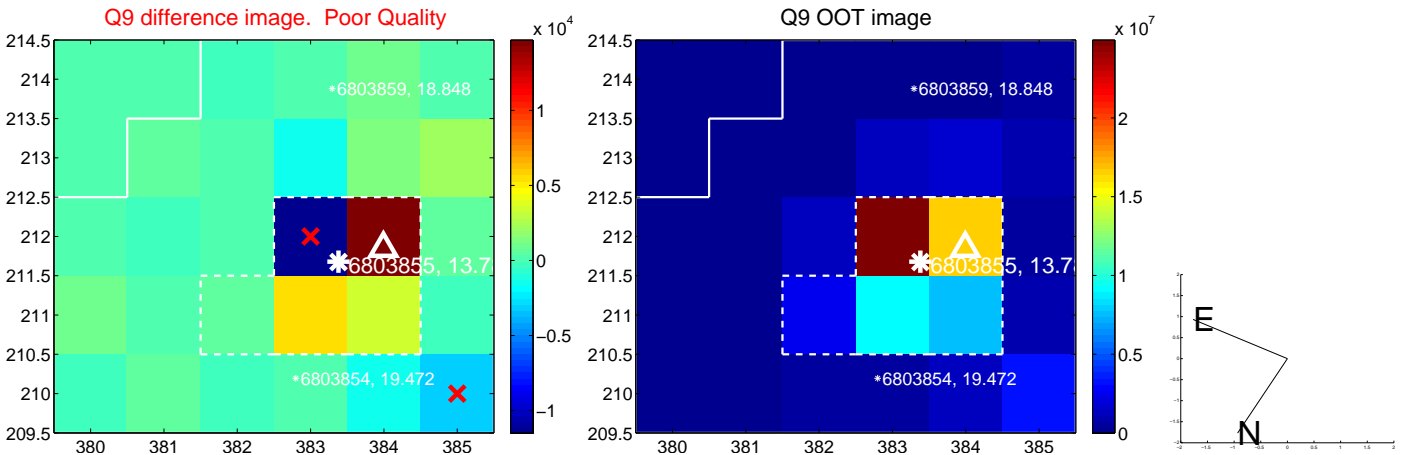
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



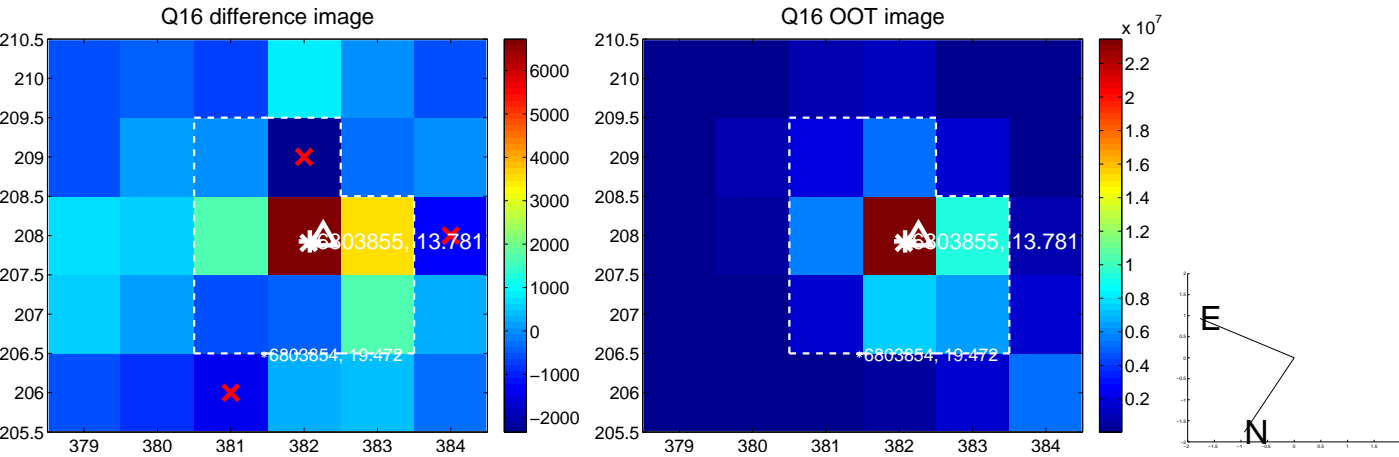
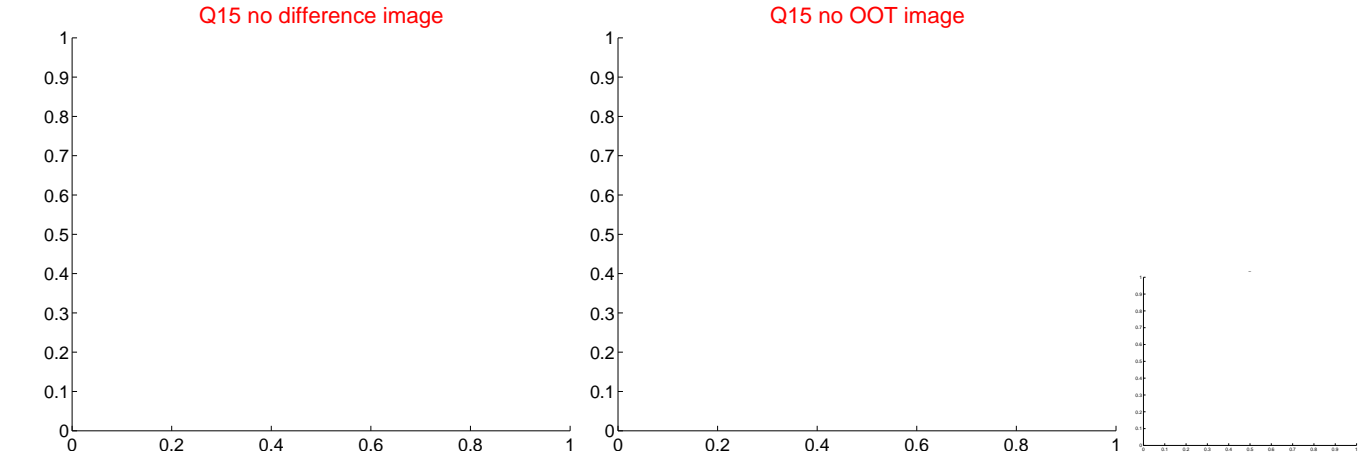
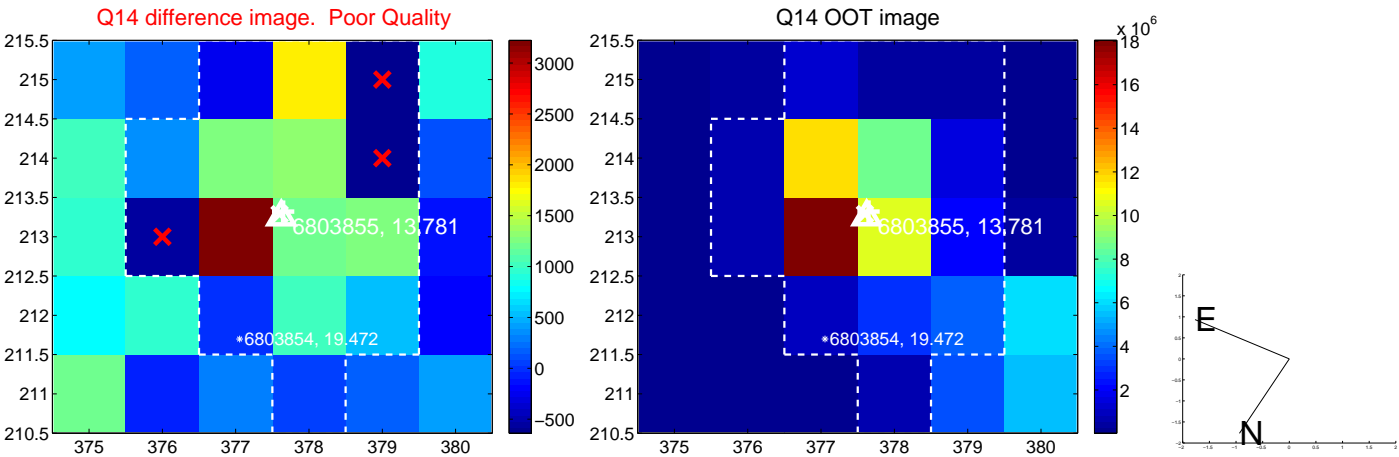
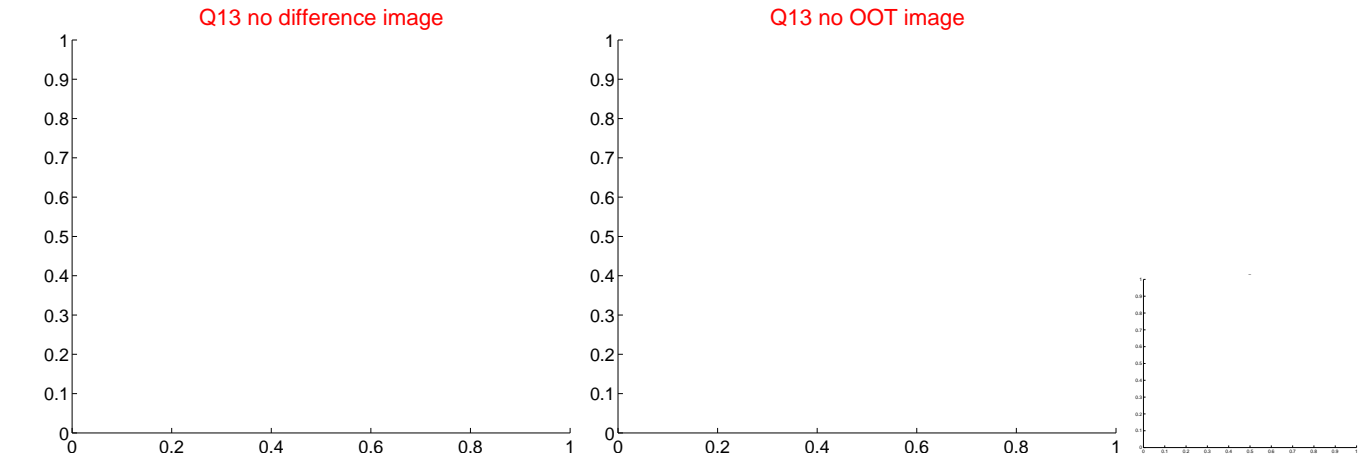
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



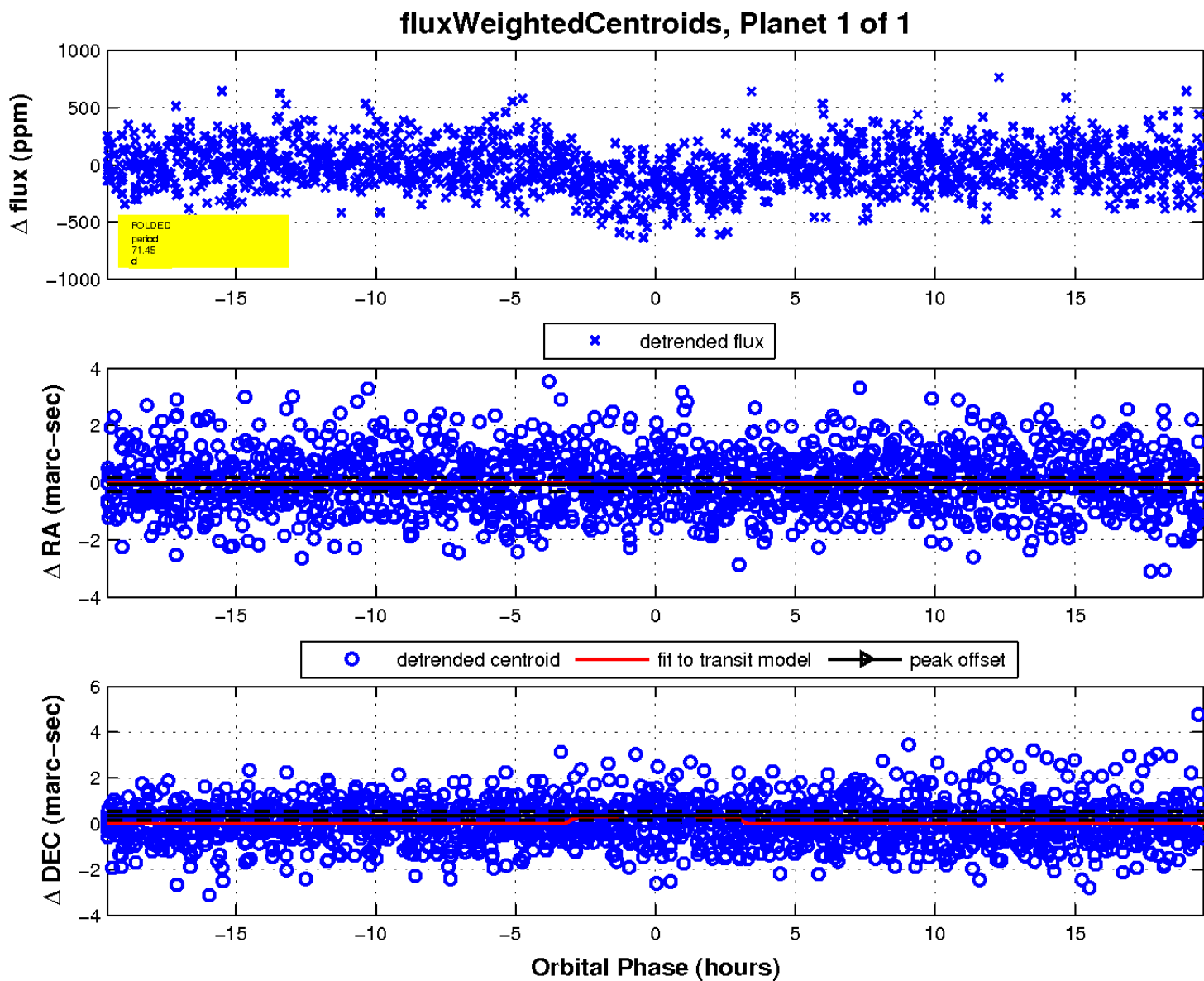
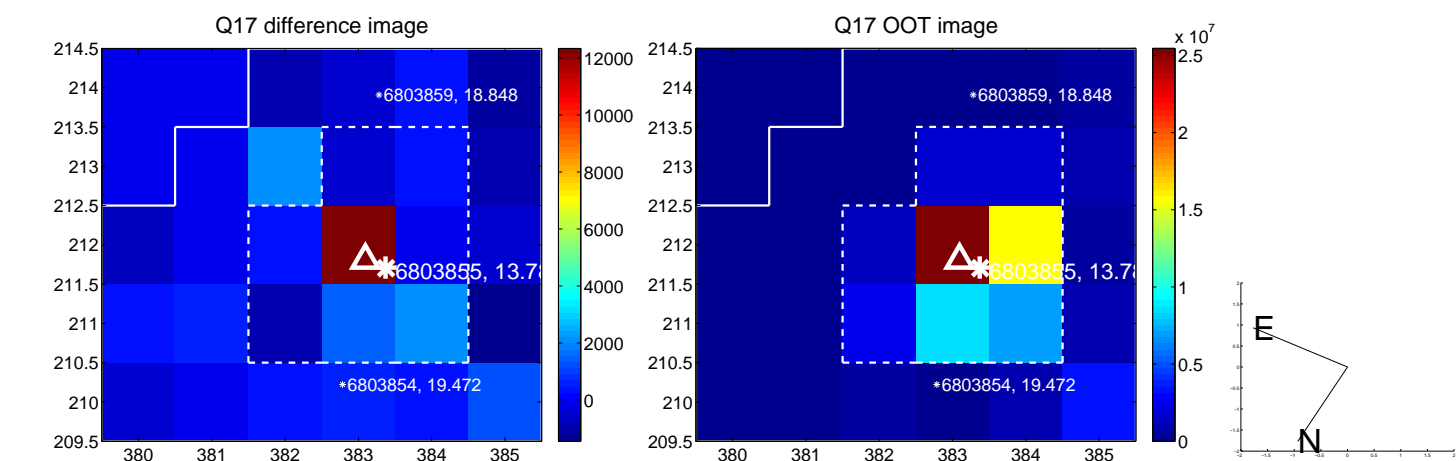
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

