

KIC 010783150

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})
010783150-01	OBS	No	0.530001	131.804580	99.3	2.014	8.9	10.2	2.34	7571	2.71	67438.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010783150-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—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.

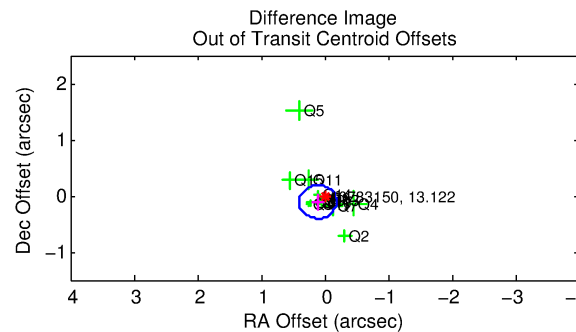
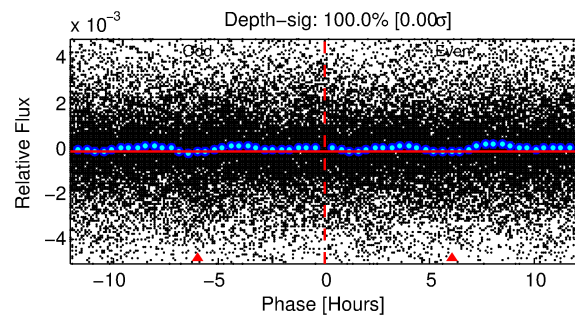
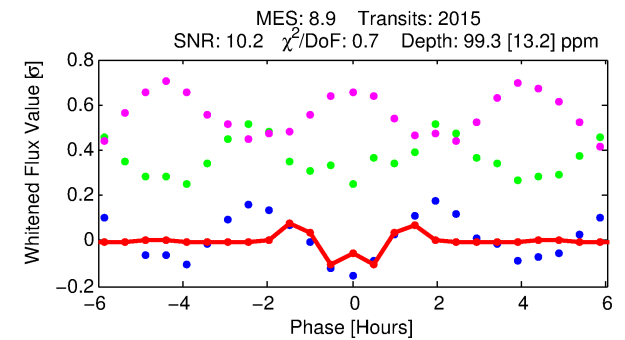
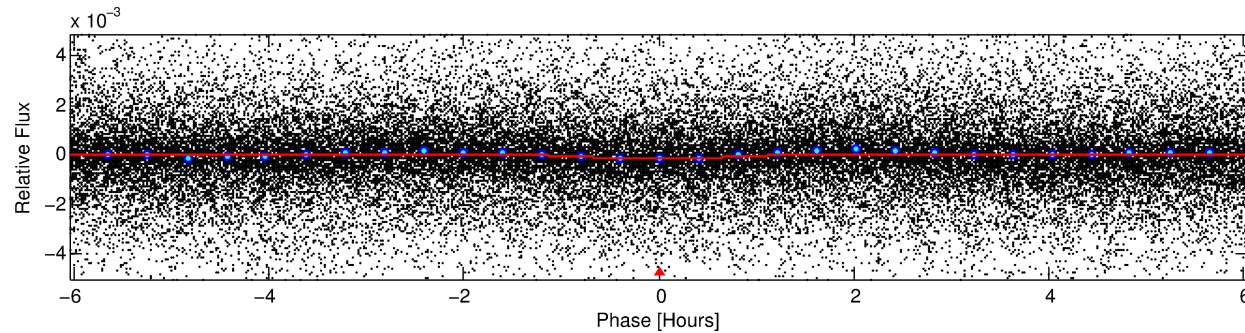
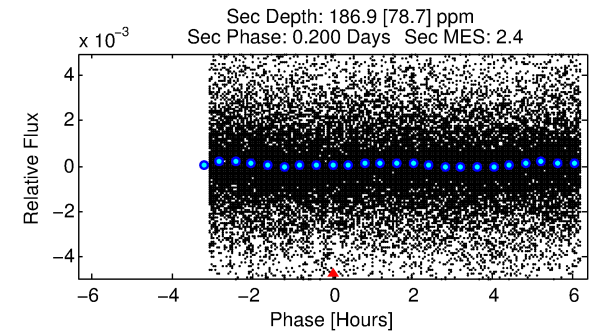
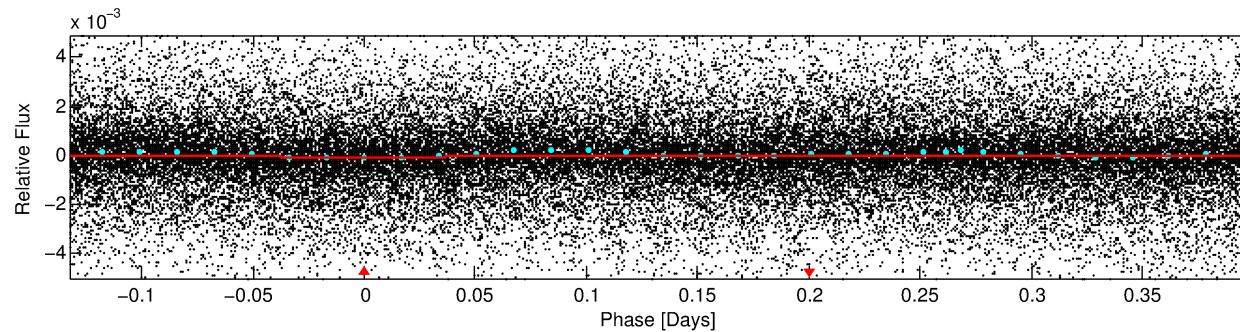
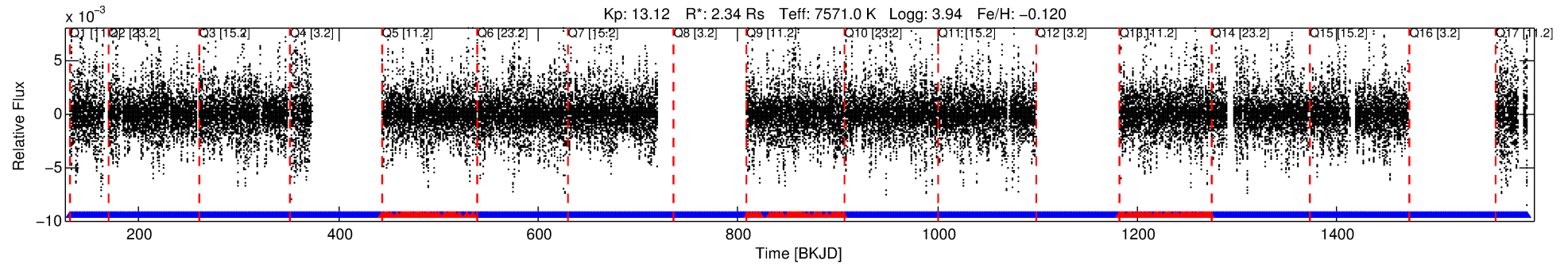
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010783150-01

No Significant Match Found

DV One-Page Summary

KIC: 10783150 Candidate: 1 of 1 Period: 0.530 d



DV Fit Results:

Period = 0.53000 [0.00001] d
Epoch = 131.8046 [0.0010] BKJD
Rp/R* = 0.0106 [0.0023]
a/R* = 1.32 [0.69]
b = 0.90 [0.26]
Seff = 67438.97 [31270.14]
Teq = 4109 [476] K
Rp = 2.71 [1.05] Re
a = 0.0154 [0.0044] AU
Ag = 3.34 [2.46] [0.95σ]
Teffp = 8591 [1342] K [3.15σ]

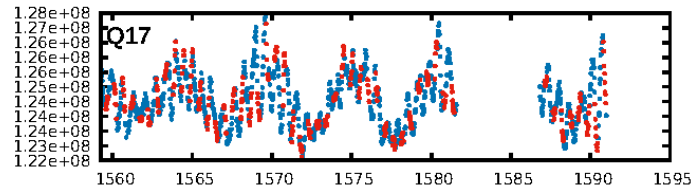
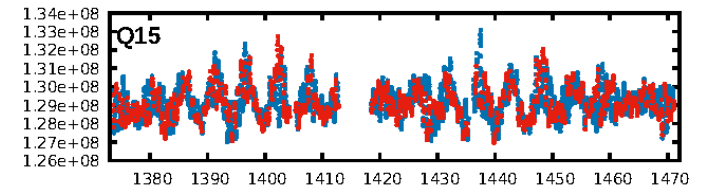
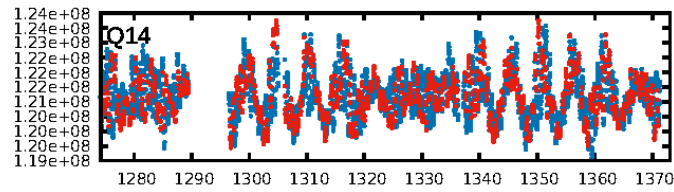
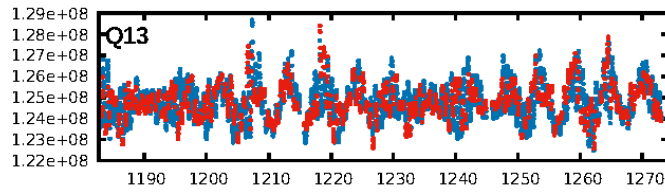
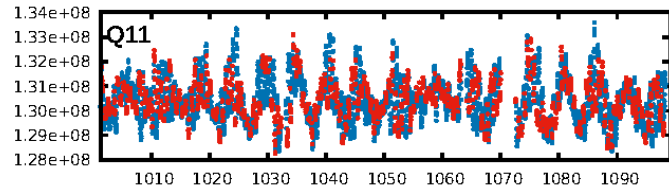
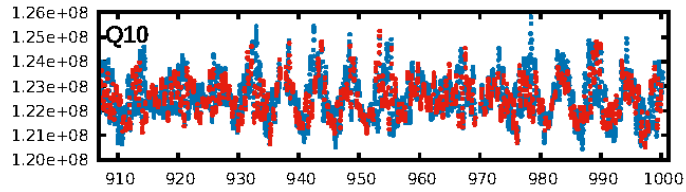
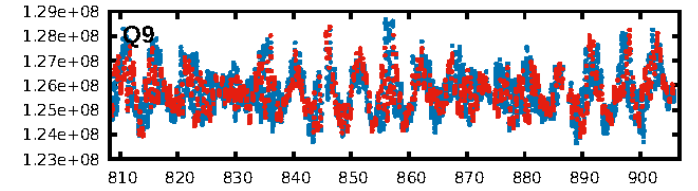
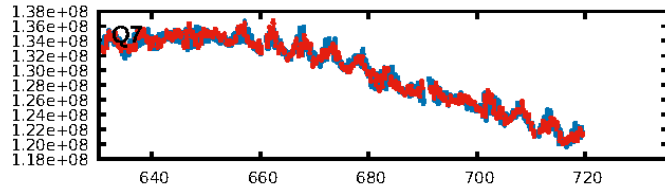
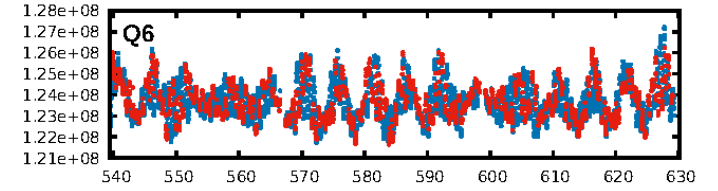
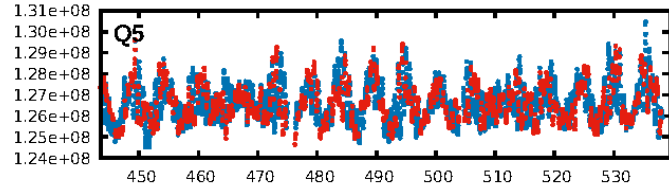
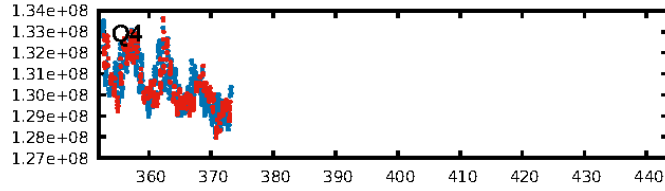
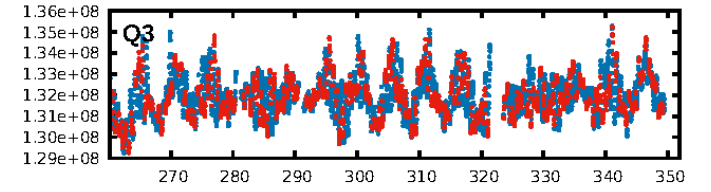
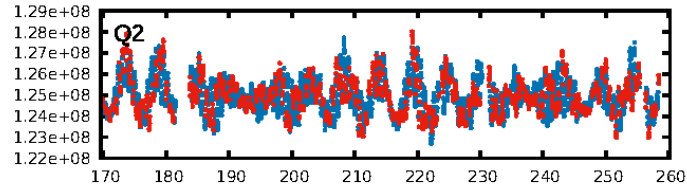
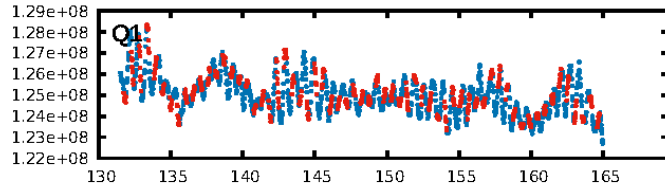
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.47e-17
RollingBand-fgt: 0.93 [1728/1863]
GhostDiagnostic-chr: 0.8613
Centroid-sig: N/A
Centroid-so: 0.193 arcsec [0.98σ]
OotOffset-rm: 0.155 arcsec [1.57σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-rm: 0.254 arcsec [2.35σ]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.64 [9/14]
DiffImageOverlap-fno: 1.00 [14/14]

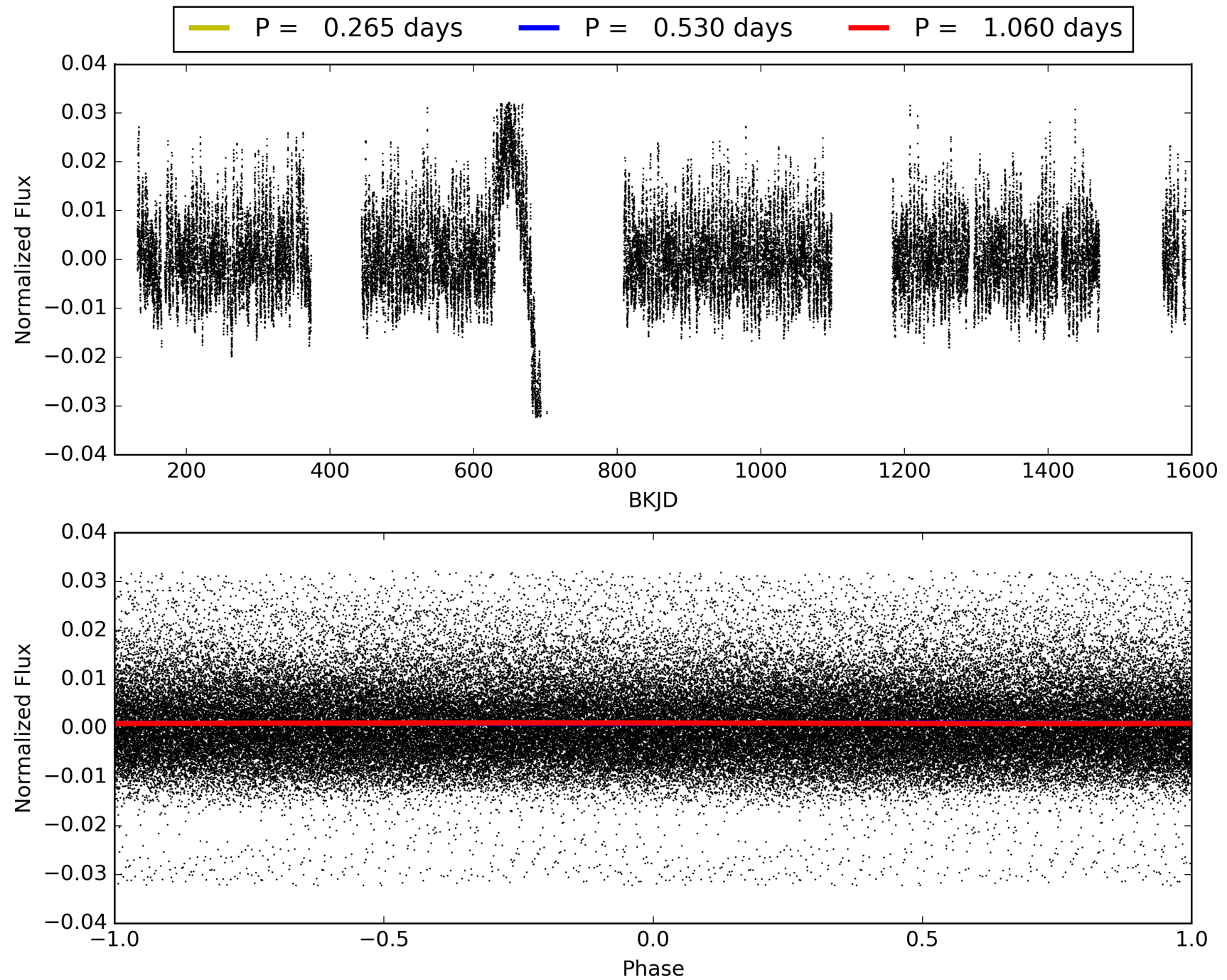
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 03:10:10 Z

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

TCE 010783150-01, PDC Light Curves

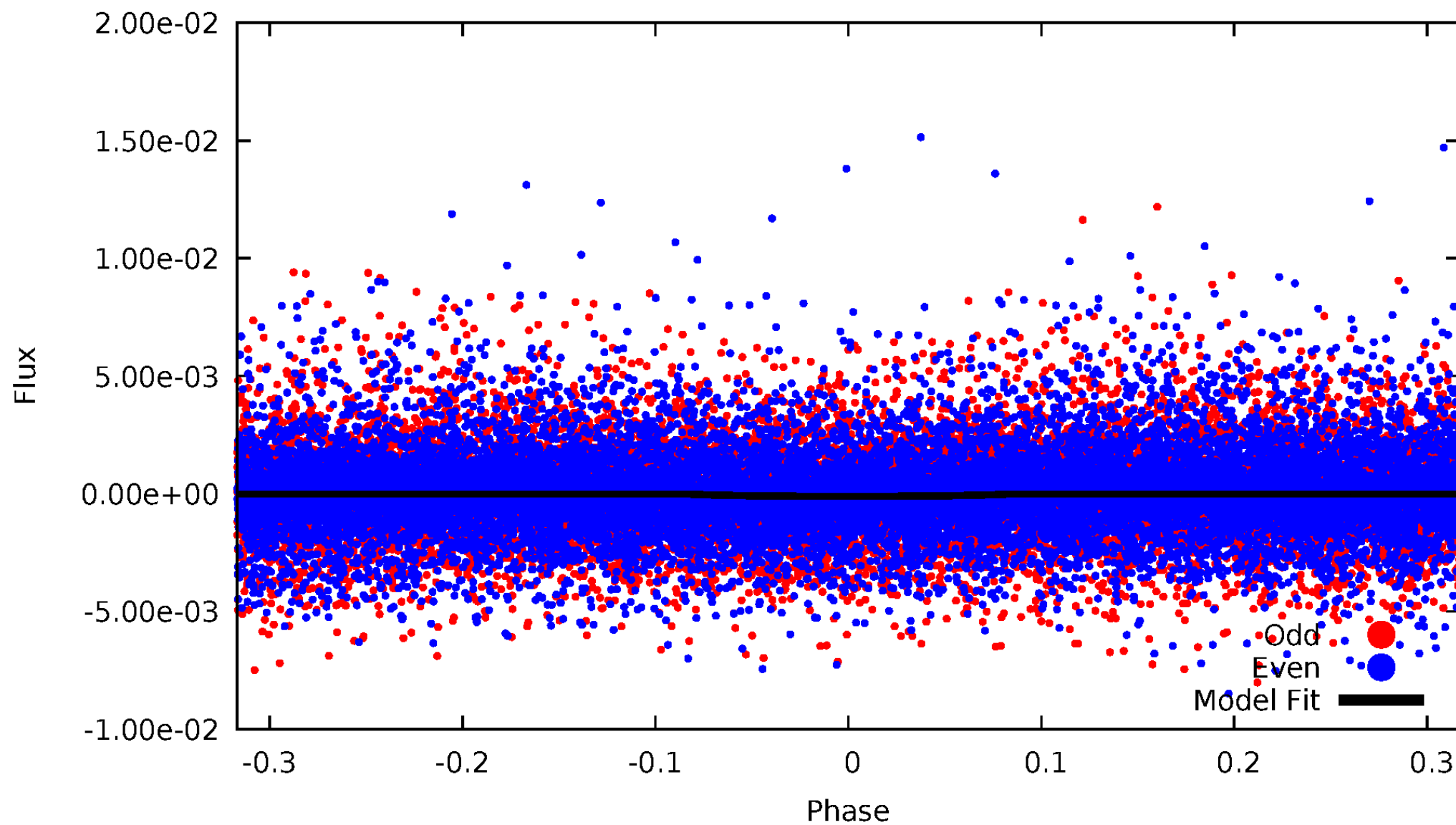


TCE 010783150-01



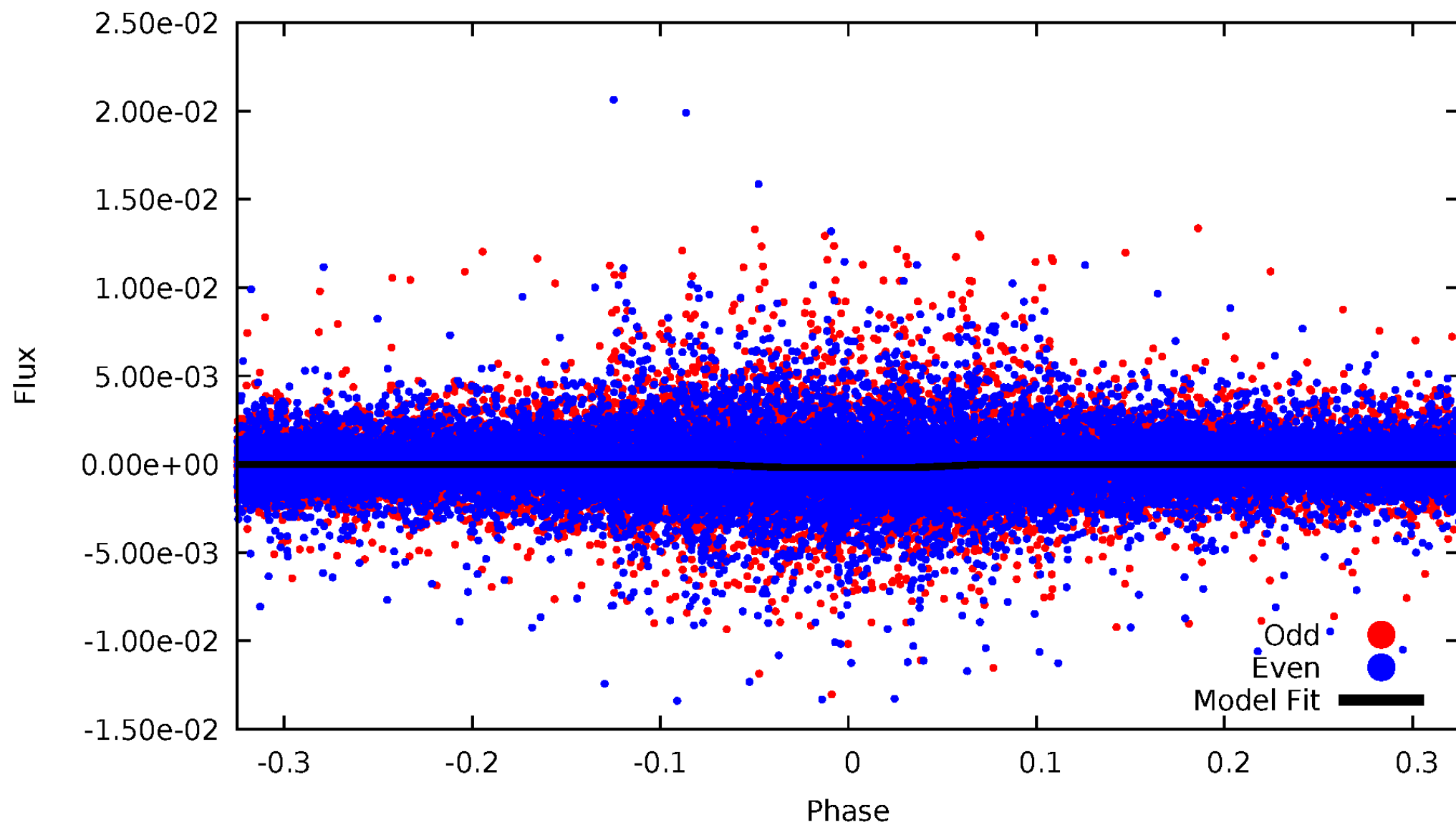
DV Odd/Even

TCE 010783150-01

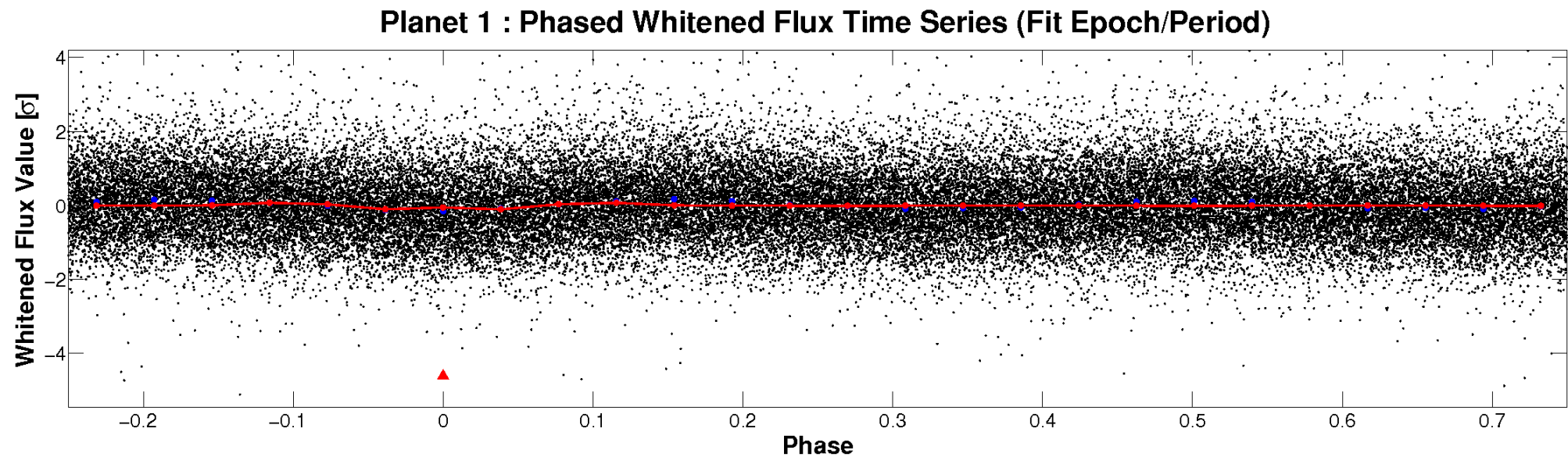
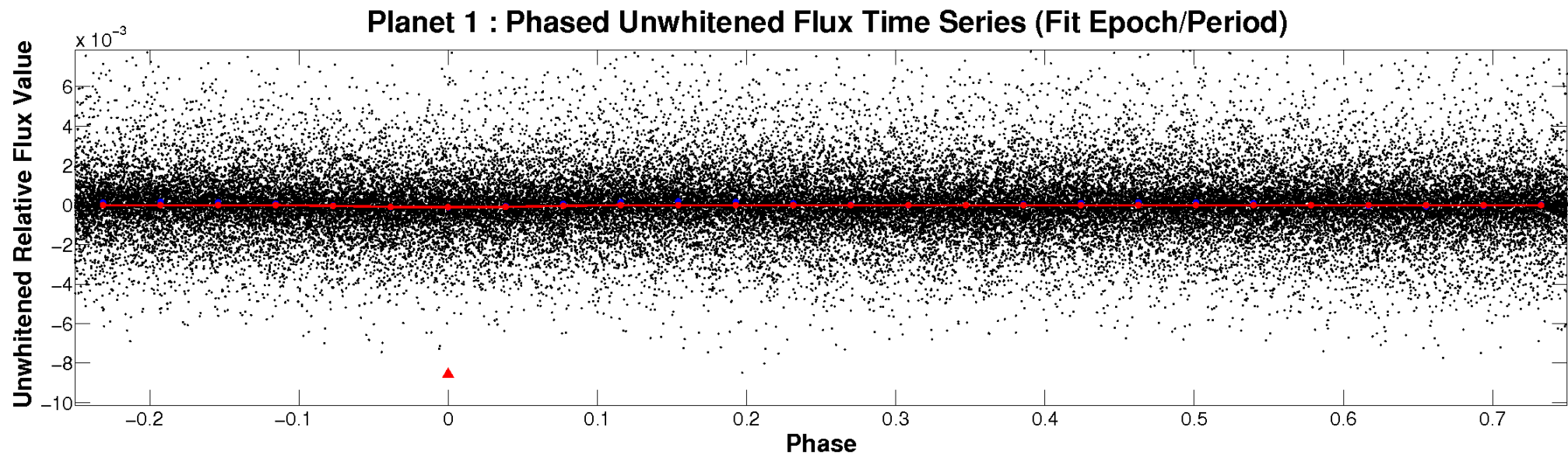


ALT Odd/Even

TCE 010783150-01

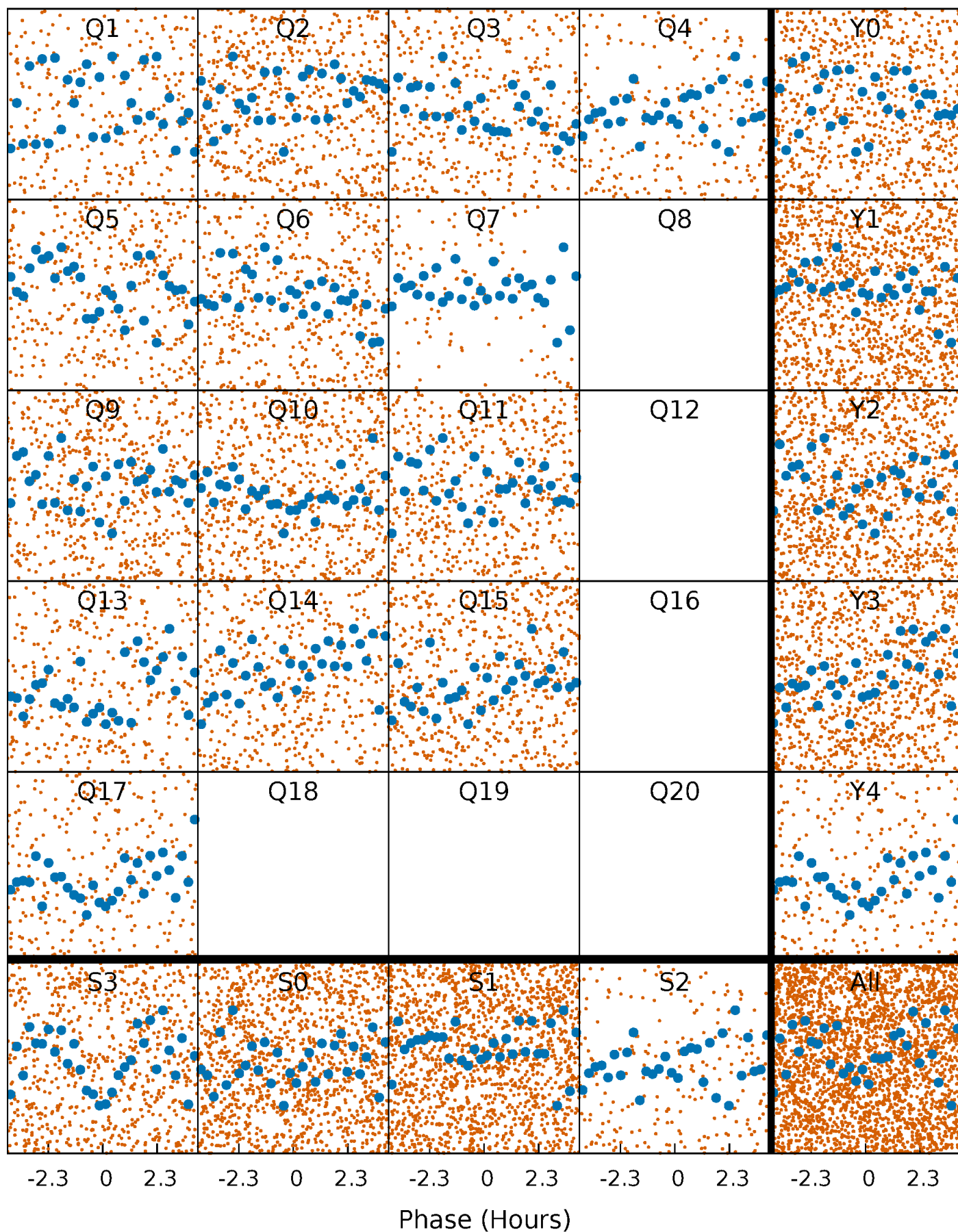


Non-Whitened Vs. Whitened Light Curve



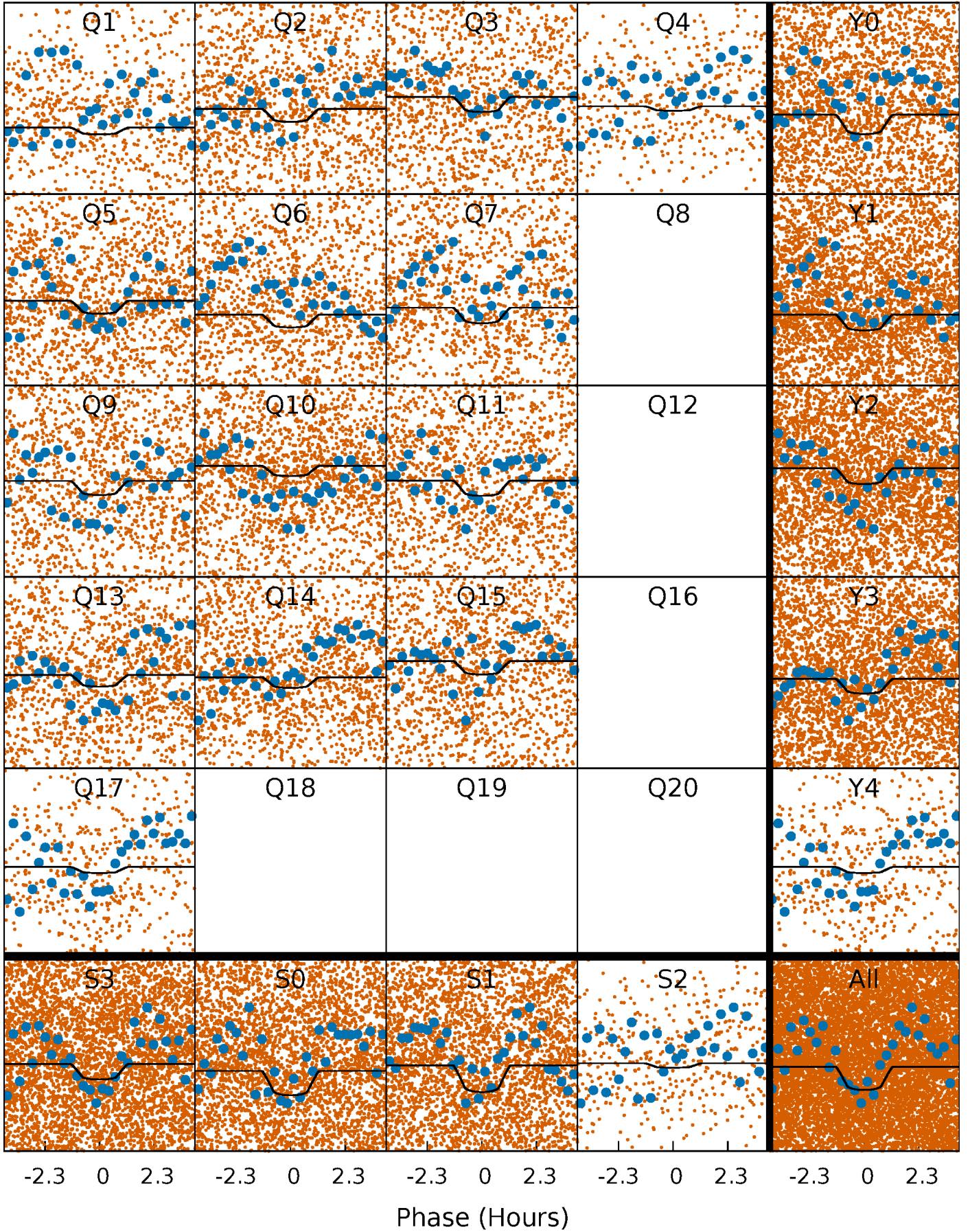
PDC Quarter-Phased Transit Curves

TCE 010783150-01 P= 0.530001 Days $T_0=131.804580$ (BKJD)



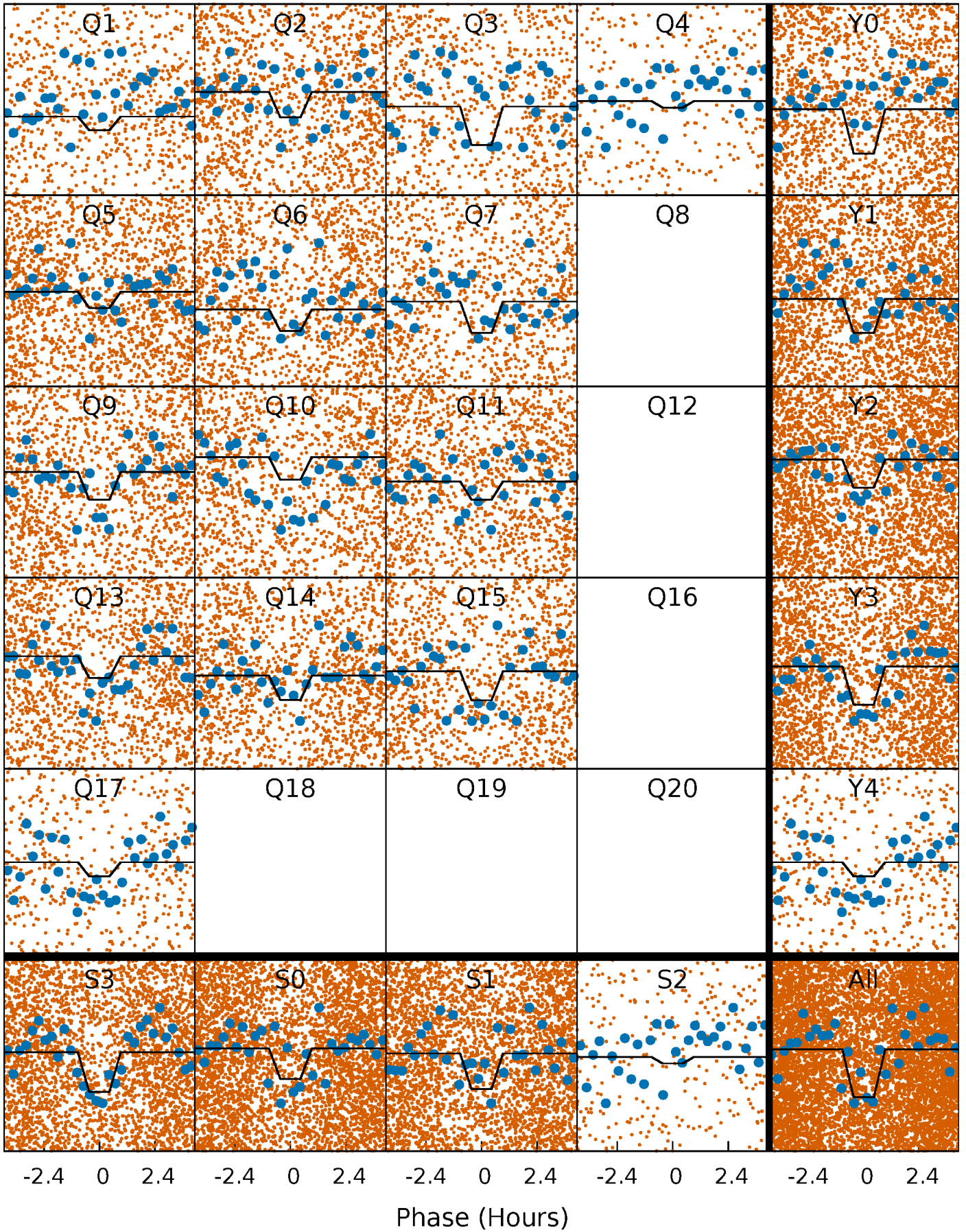
DV Quarter-Phased Transit Curves

TCE 010783150-01 P= 0.530001 Days $T_0=131.804580$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

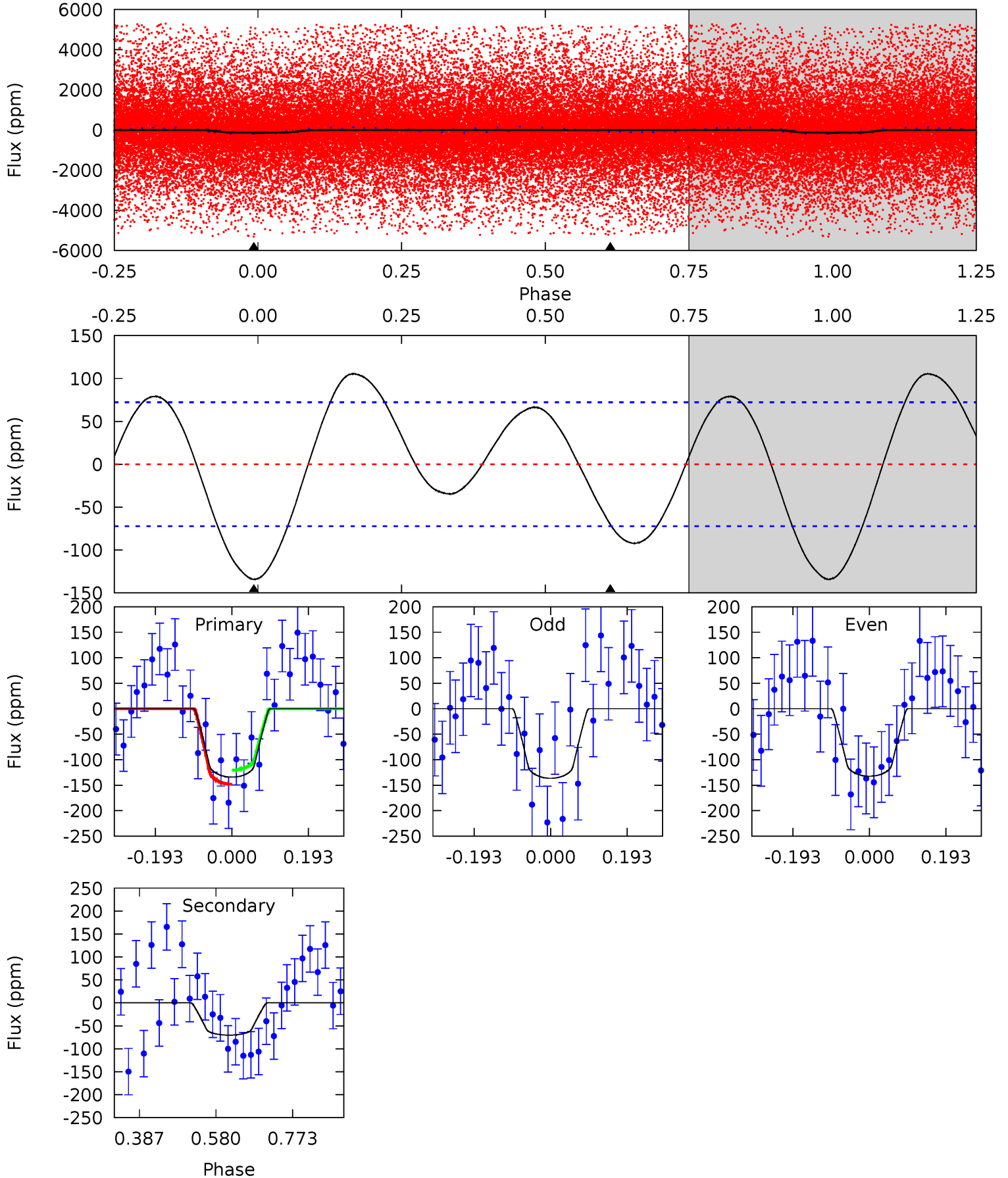
TCE 010783150-01 P= 0.529999 Days $T_0=131.803494$ (BKJD)



DV Model-Shift Uniqueness Test

010783150-01, P = 0.530001 Days, E = 131.274579 Days

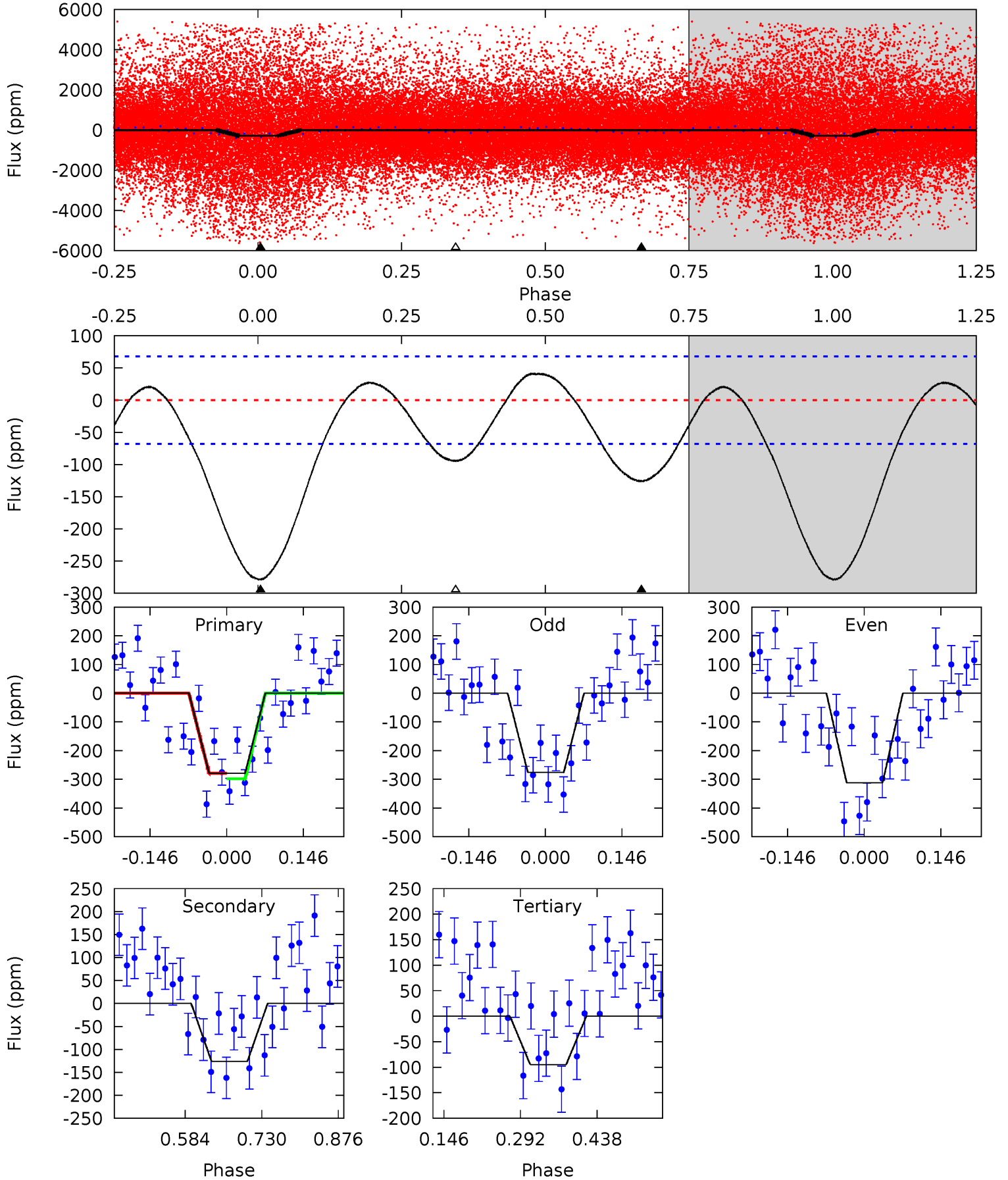
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.21	4.30	0	0	4.42	1.30	2.60	8.21	8.21	4.30	4.30	0.13	0.83	0.44	0



Alt Model-Shift Uniqueness Test

010783150-01, P = 0.529999 Days, E = 131.273495 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	8.31	6.24	0	4.48	1.45	2.97	12.1	18.4	2.07	8.31	1.19	0.58	0.13	0.63



Stellar Parameters For KIC 010783150

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7571^{+209}_{-340}	$3.943^{+0.240}_{-0.140}$	$-0.120^{+0.200}_{-0.350}$	$2.337^{+0.507}_{-0.760}$	$1.744^{+0.185}_{-0.344}$	$0.193^{+0.336}_{-0.075}$
	+3%/-4%	+6%/-4%	+167%/-292%	+22%/-33%	+11%/-20%	+175%/-39%
Source	KIC0	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 010783150-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-70 ± 16	$2.56^{+0.74}_{-0.64}$	5661^{+442}_{-496}	6209^{+1143}_{-950}	$1.360^{+1.165}_{-0.584}$
Alt.	-126 ± 15	$3.43^{+0.75}_{-0.67}$	5659^{+427}_{-461}	6238^{+821}_{-650}	$1.382^{+0.817}_{-0.457}$

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

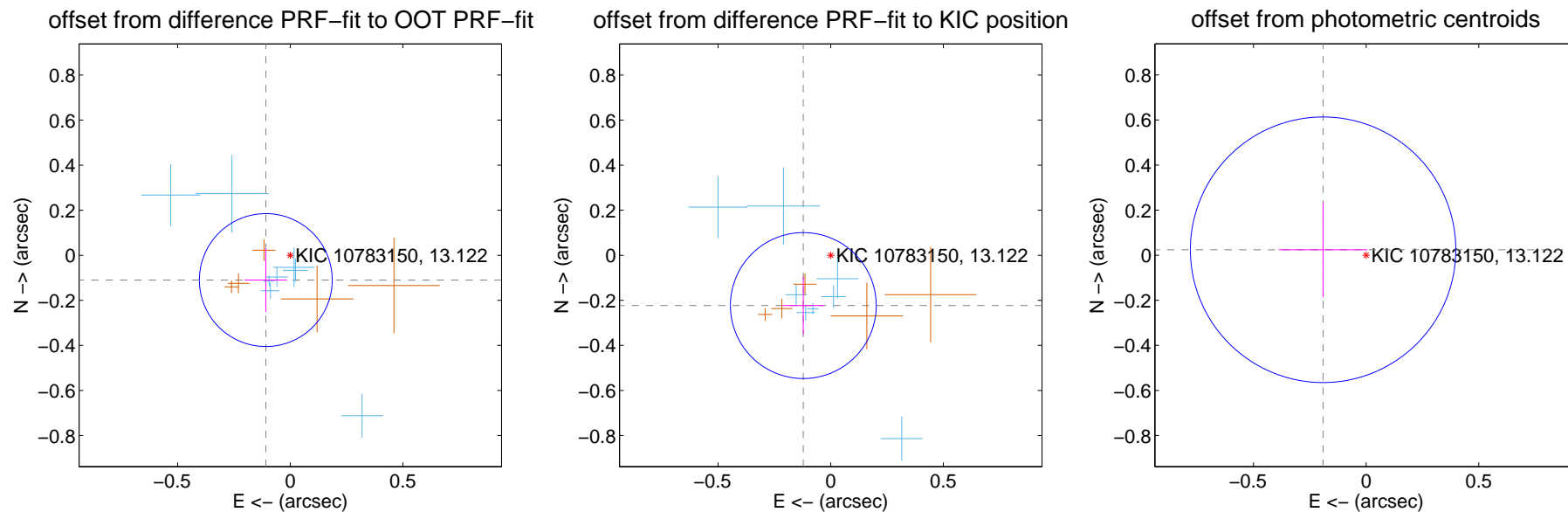
DV Centroid Data

Supplemental centroid analysis for 010783150-01. Kepler magnitude: 13.12. Transit SNR 10.23

There are 9 quarters with good PRF difference image offsets

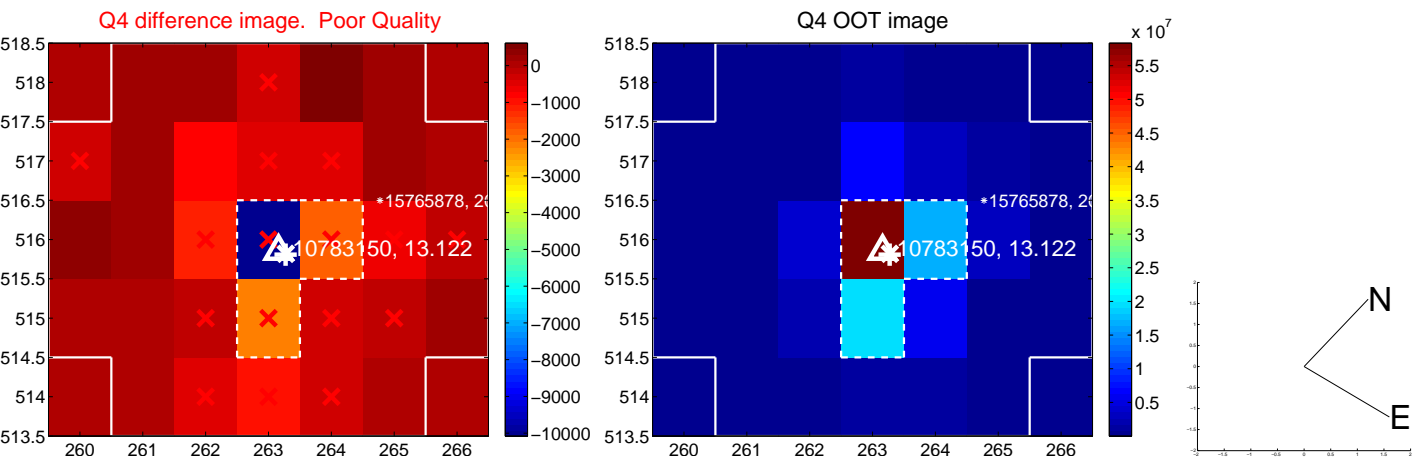
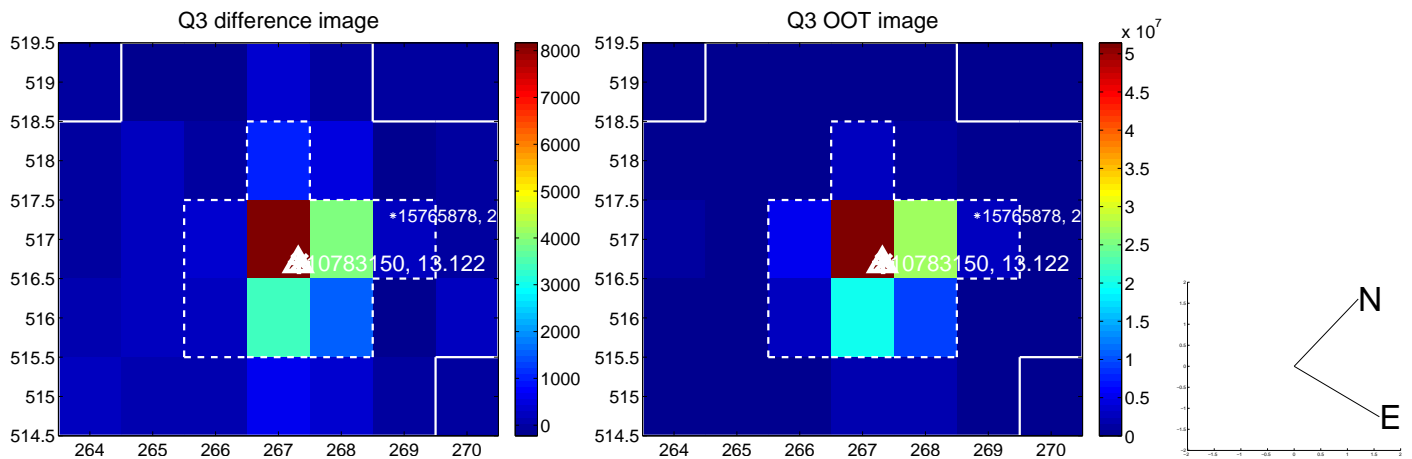
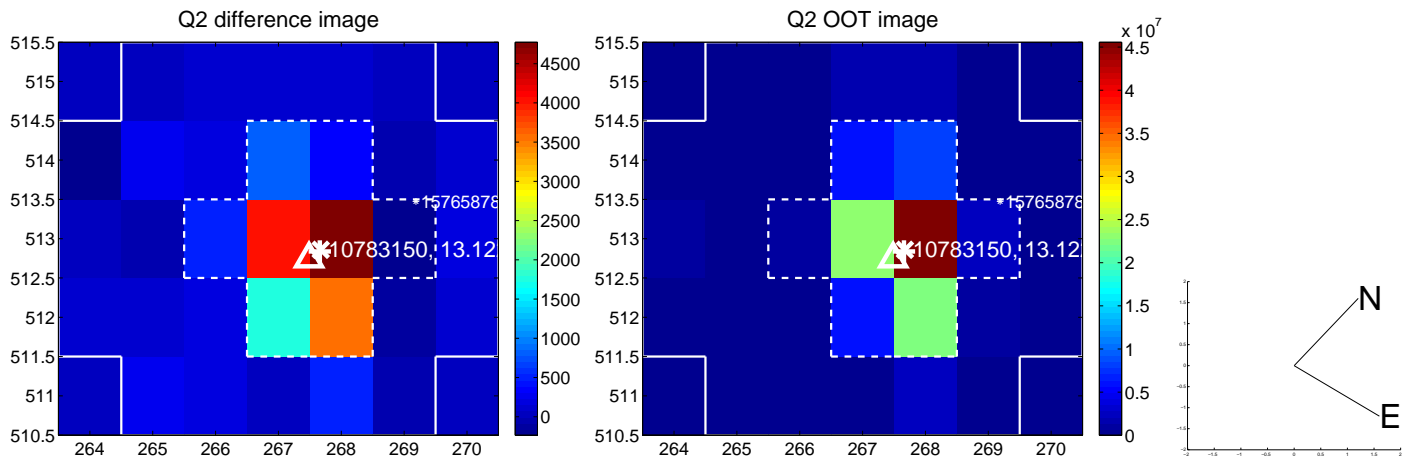
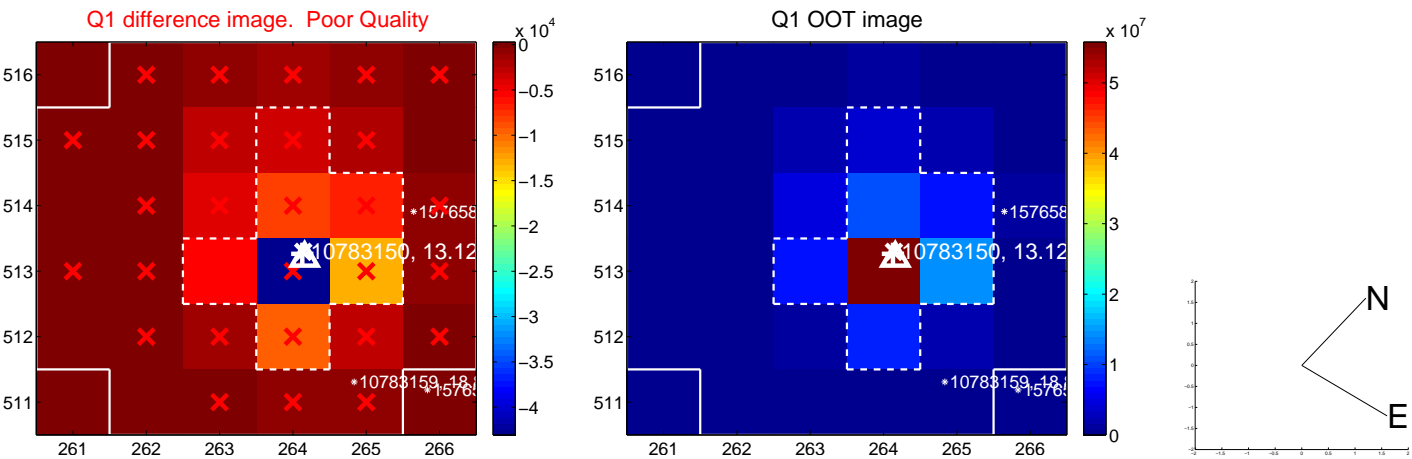
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.155 ± 0.098	1.57	0.109 ± 0.094	-0.110 ± 0.142
PRF-fit source offset from KIC position	0.254 ± 0.108	2.35	0.122 ± 0.091	-0.223 ± 0.128
photometric centroid source offset	0.19 ± 0.20	0.98	0.19 ± 0.20	0.02 ± 0.21

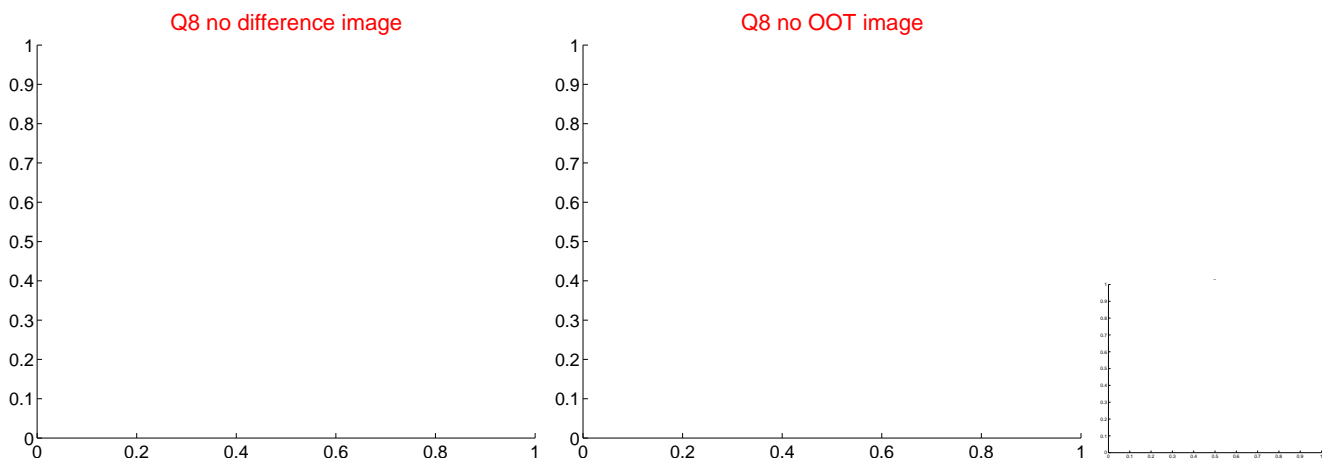
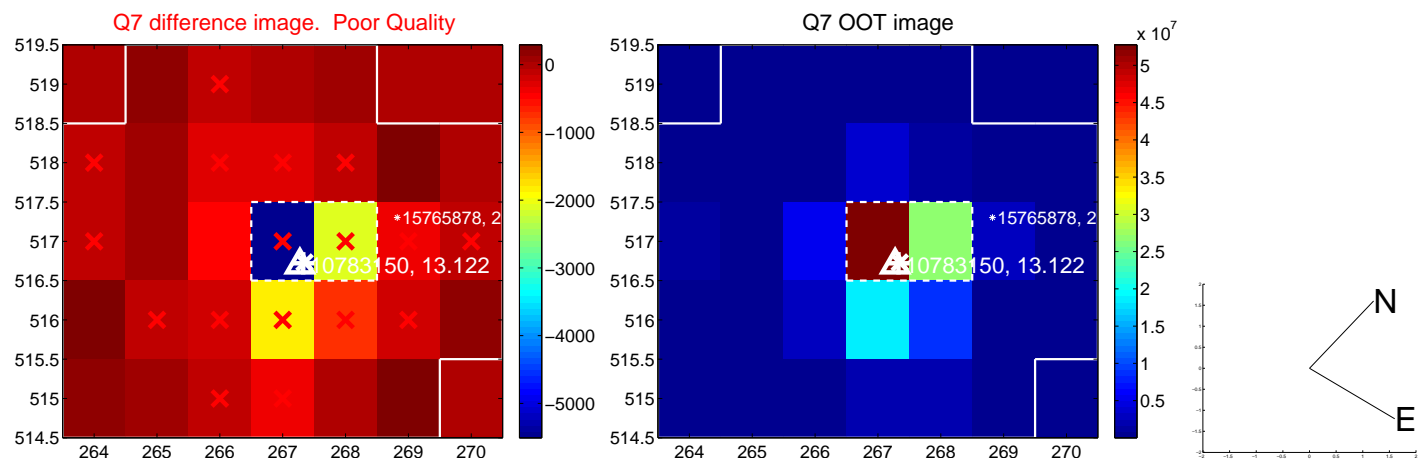
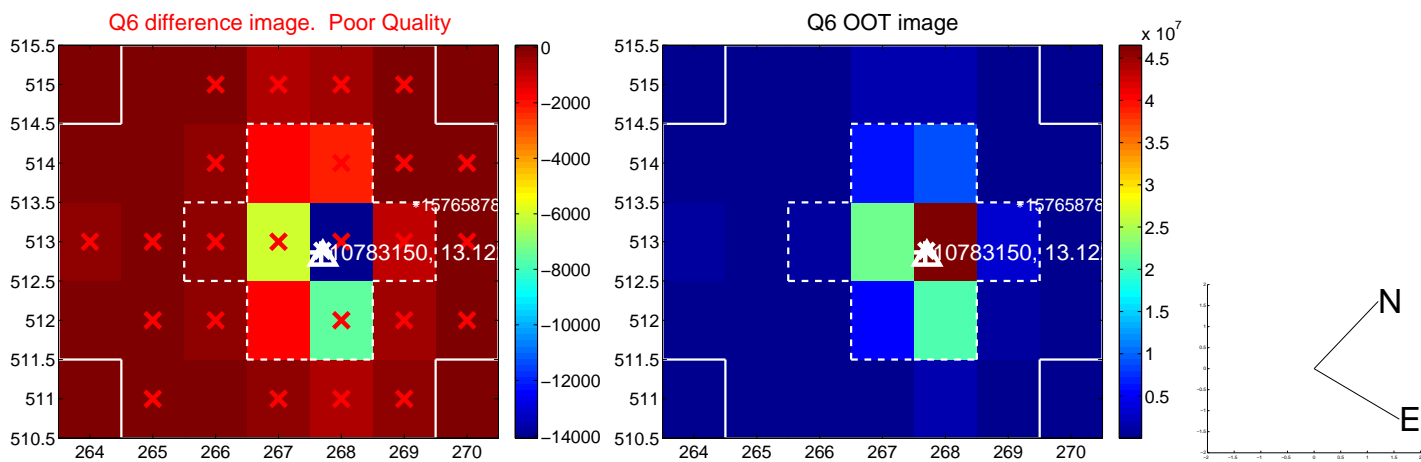
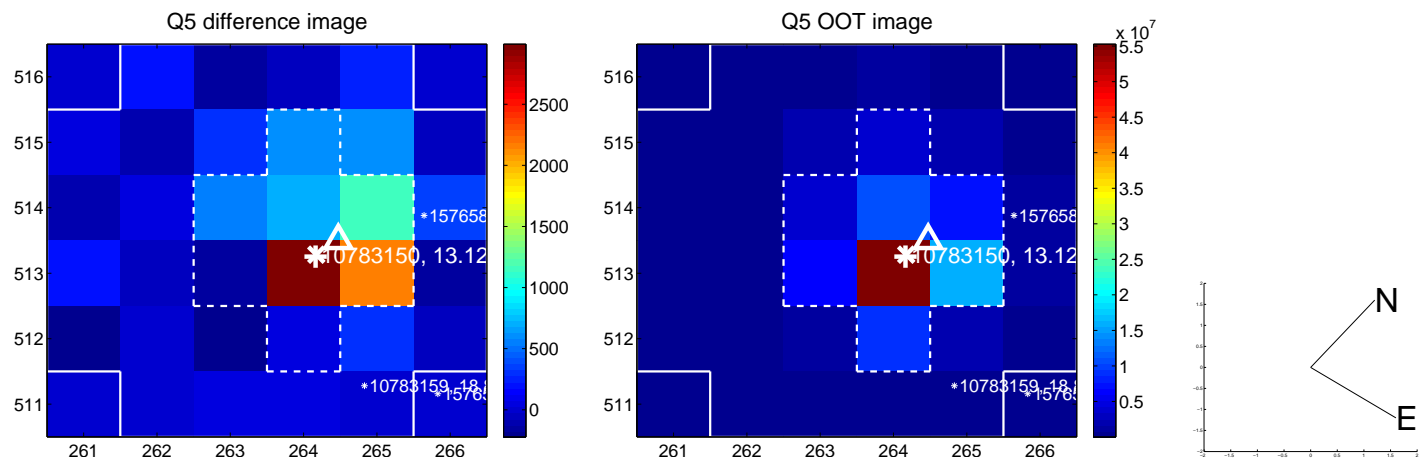


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

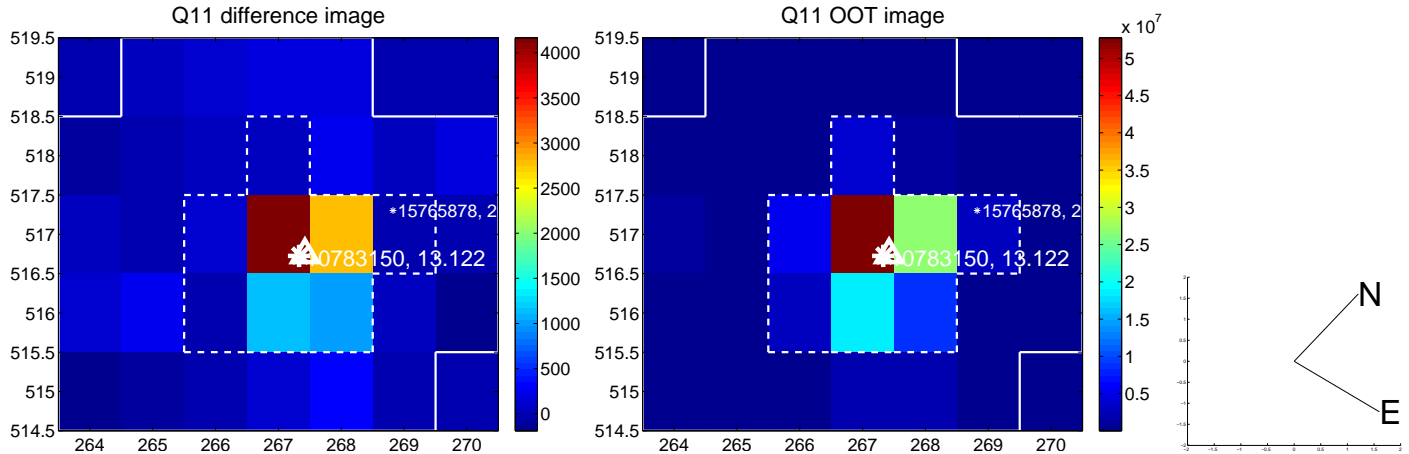
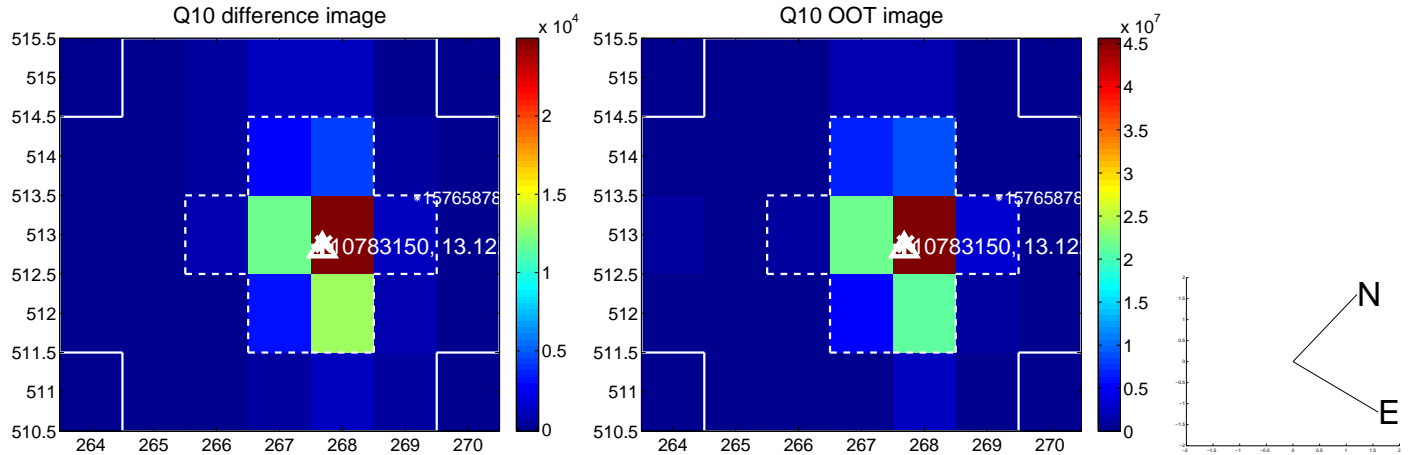
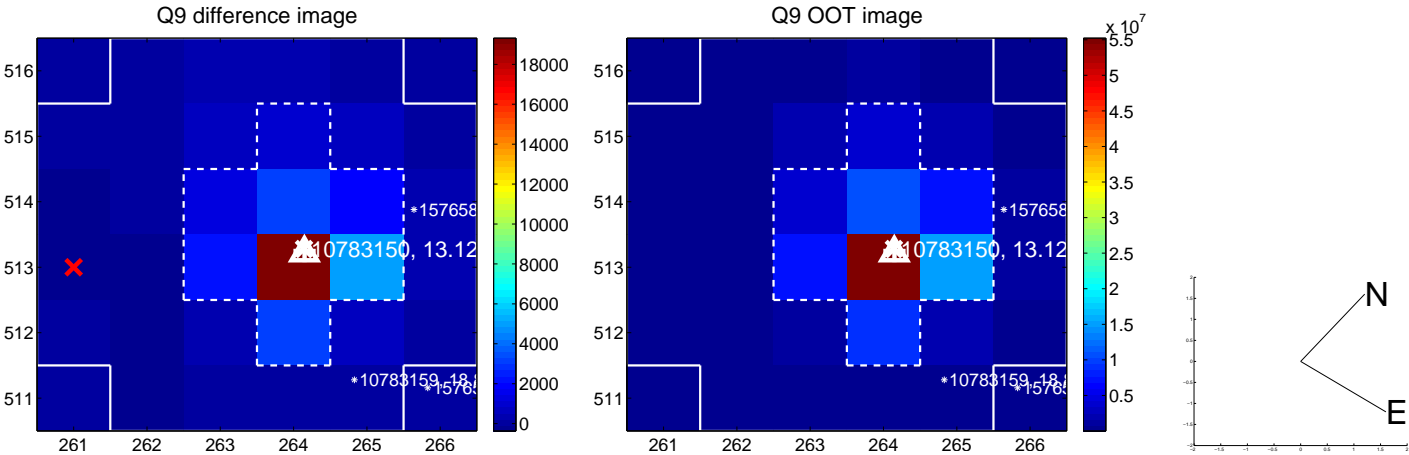
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



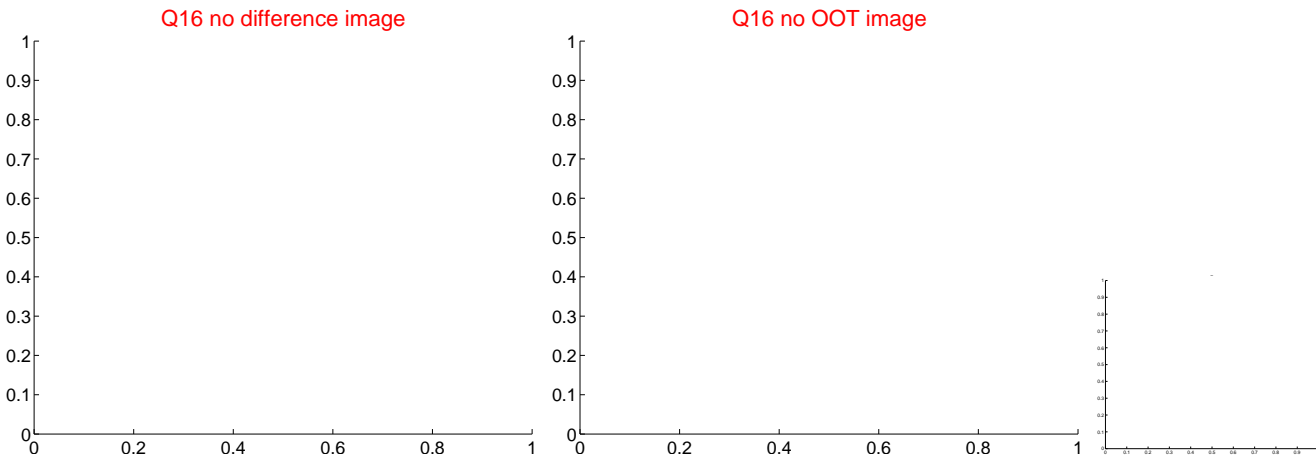
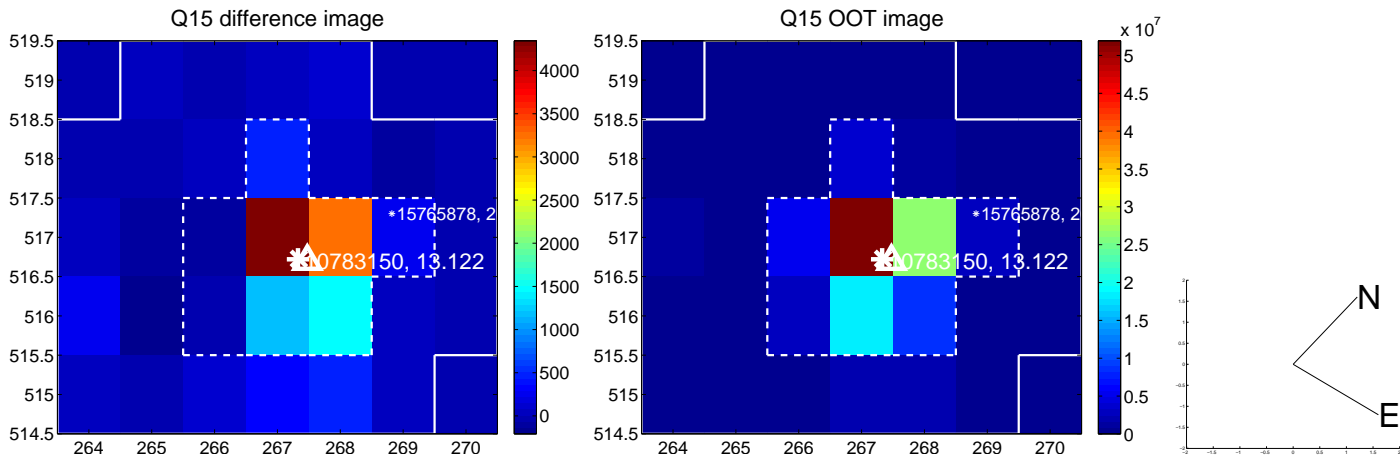
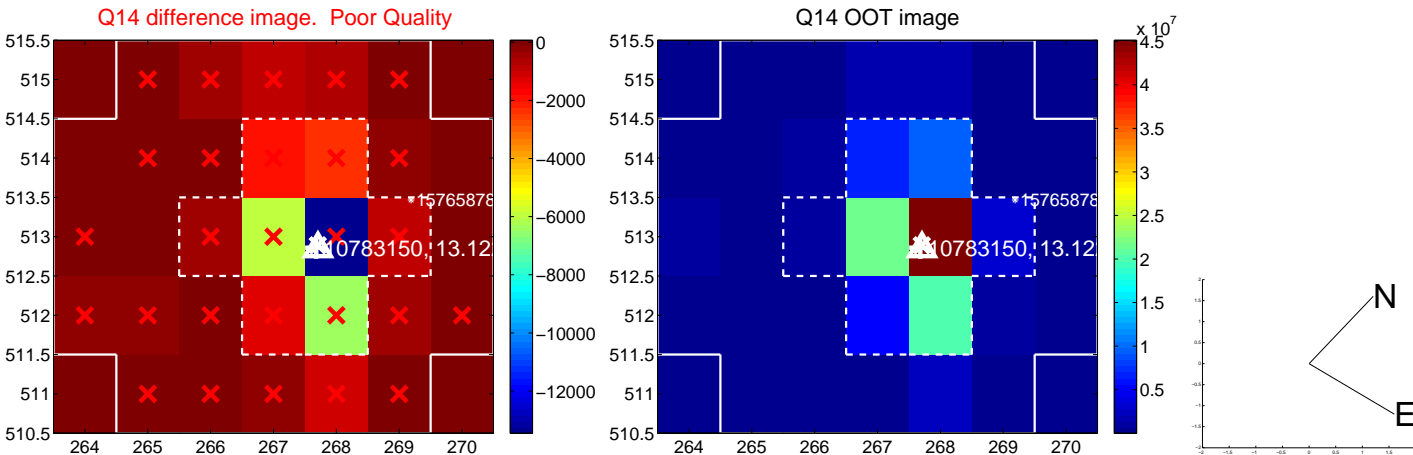
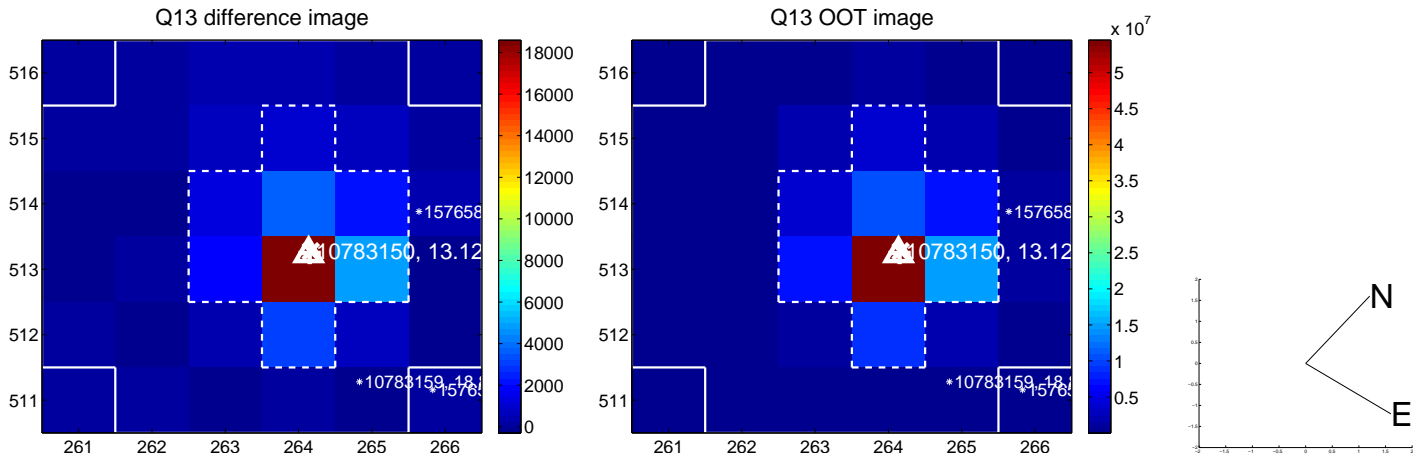
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



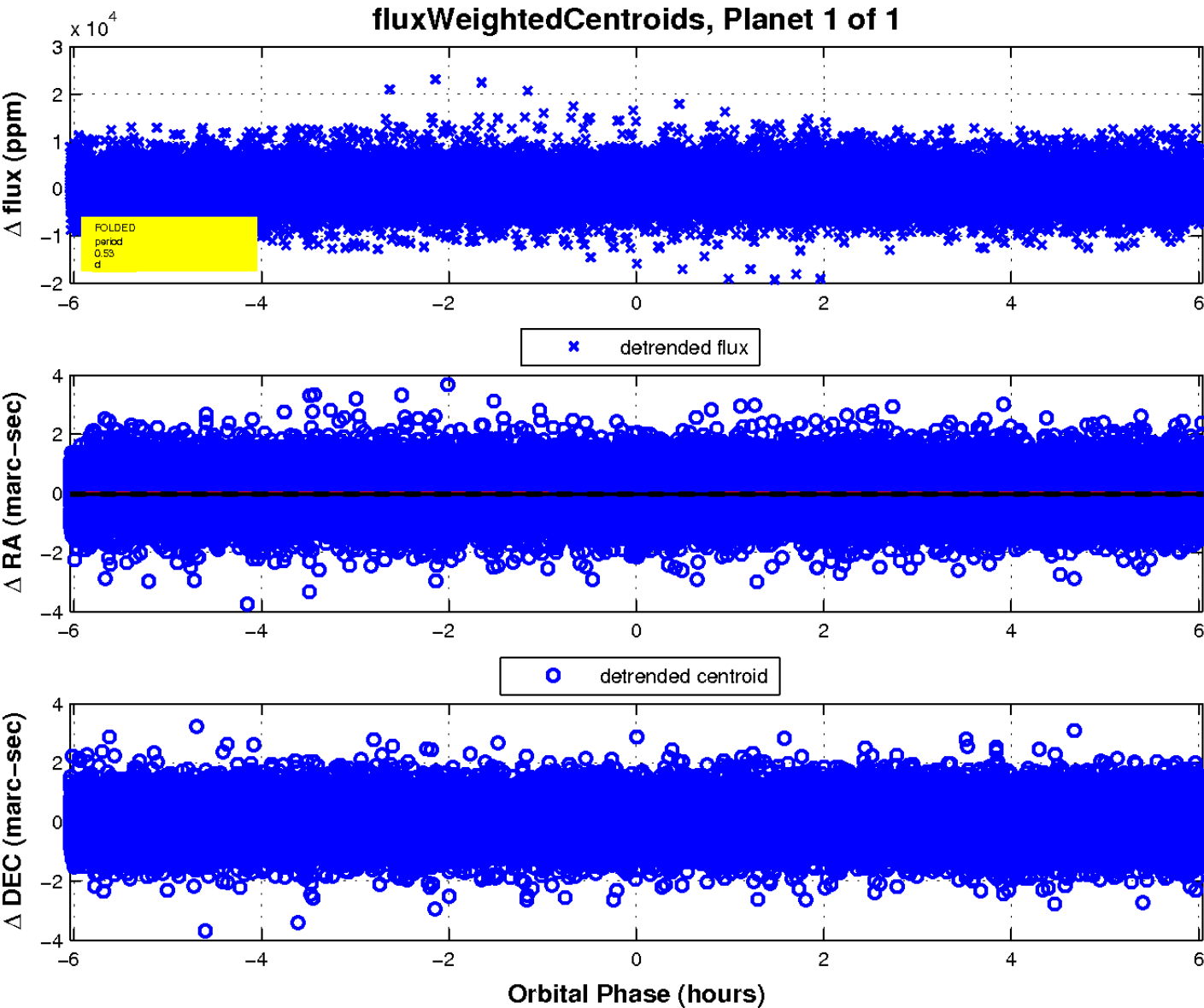
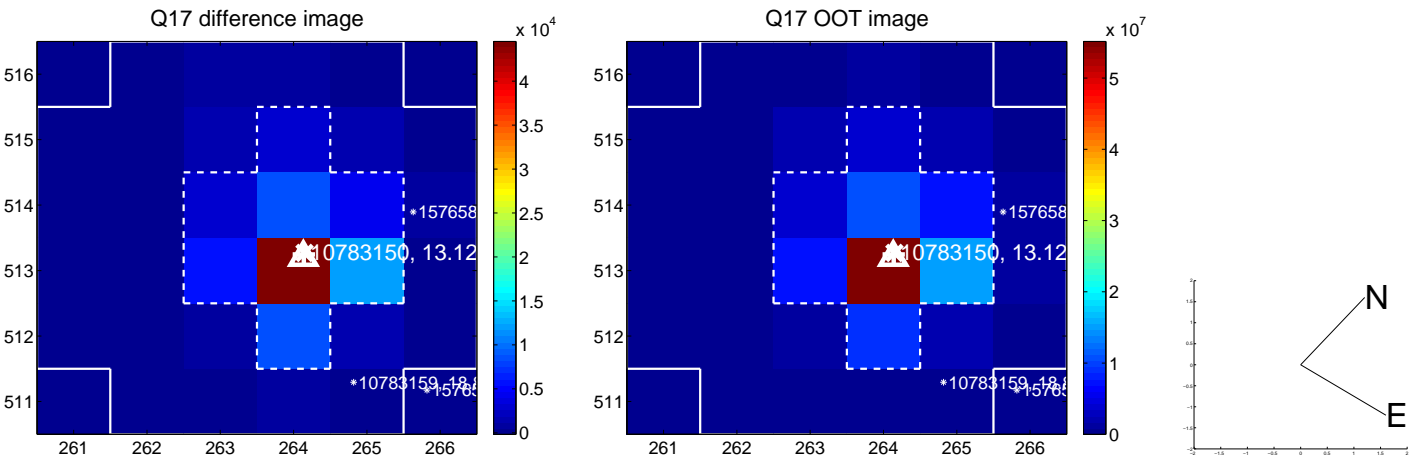
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

