

KIC 010927813

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})
010927813-01	OBS	No	1.237736	132.636322	43.9	3.609	8.5	7.8	1.02	6137	0.79	2441.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010927813-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

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

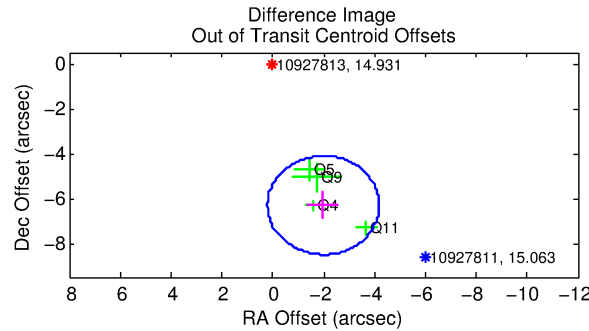
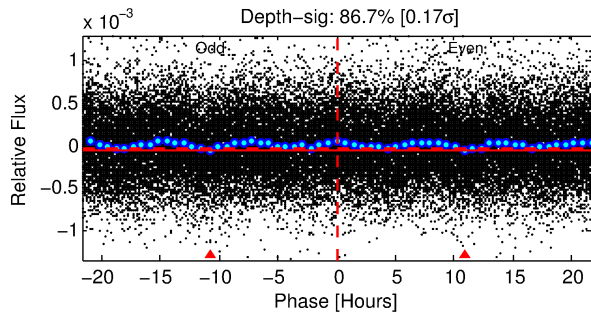
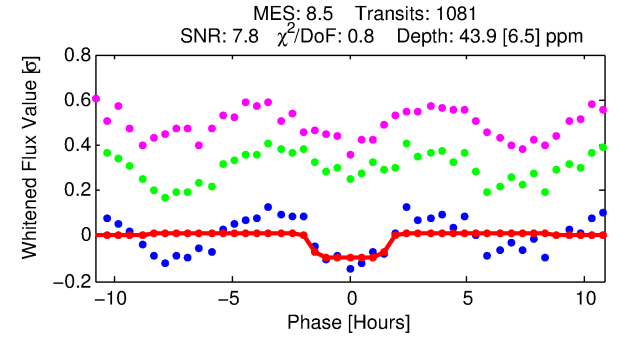
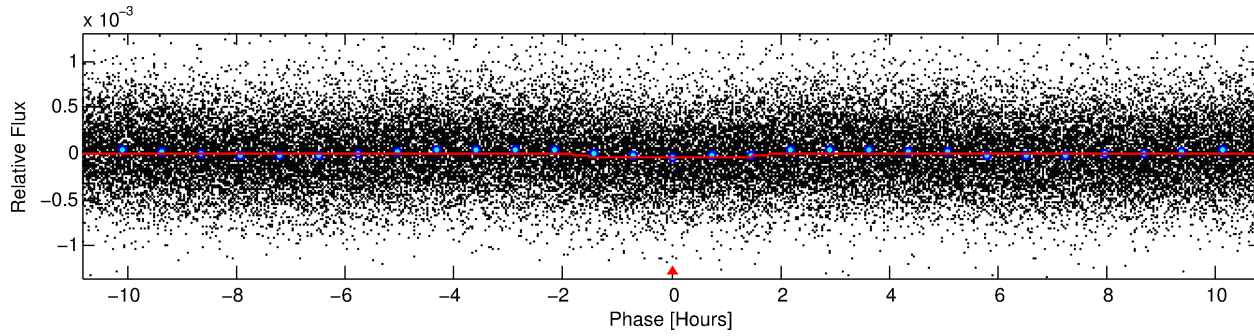
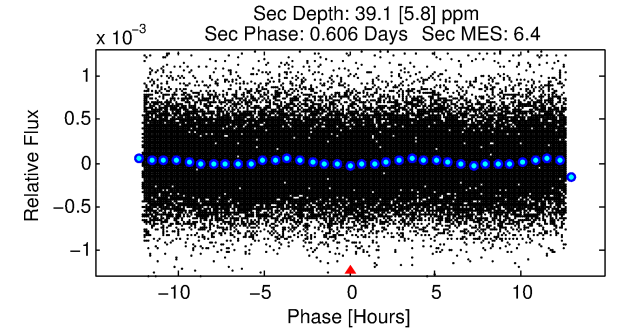
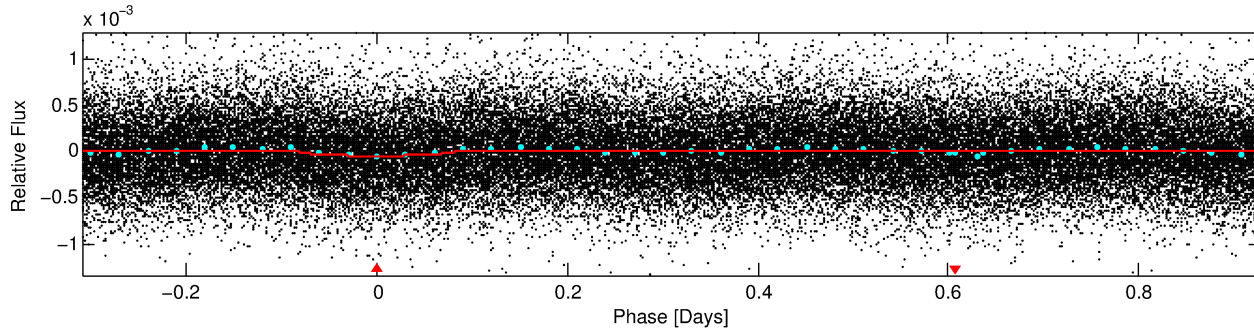
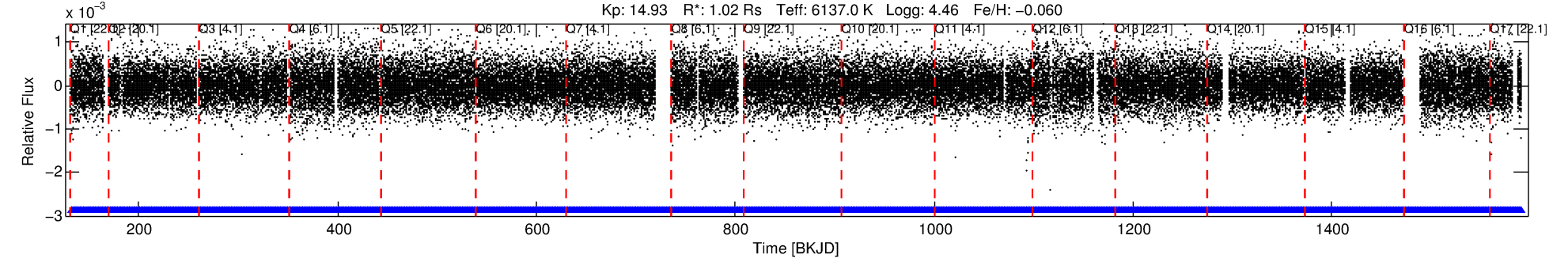
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010927813-01

No Significant Match Found

DV One-Page Summary

KIC: 10927813 Candidate: 1 of 1 Period: 1.238 d



DV Fit Results:

Period = 1.23774 [0.00002] d
Epoch = 132.6363 [0.0048] BKJD
Rp/R* = 0.0071 [0.0042]
a/R* = 1.51 [2.64]
b = 0.90 [0.67]
Seff = 2441.82 [1008.65]
Teq = 1792 [185] K
Rp = 0.79 [0.53] Re
a = 0.0232 [0.0062] AU
Ag = 18.41 [22.75] [0.77σ]
Teffp = 5740 [1700] K [2.31σ]

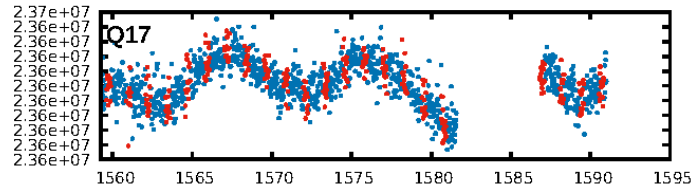
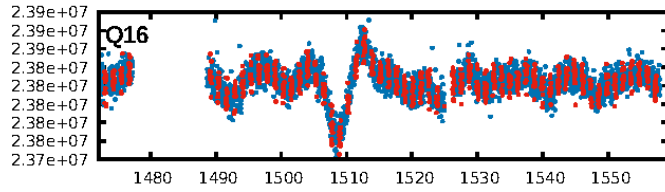
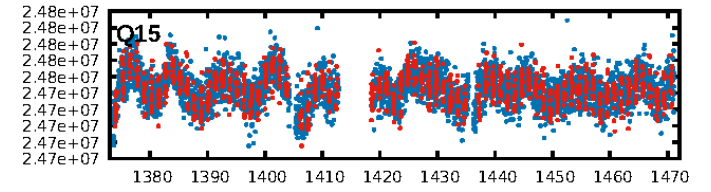
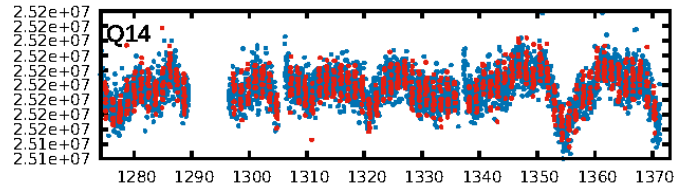
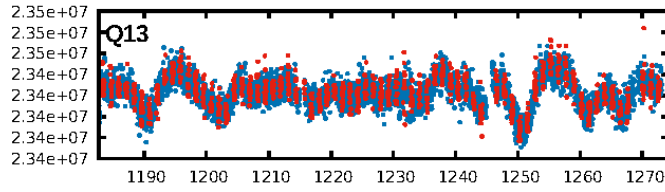
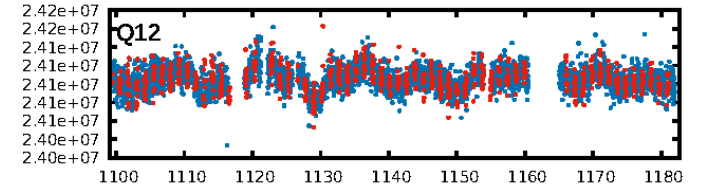
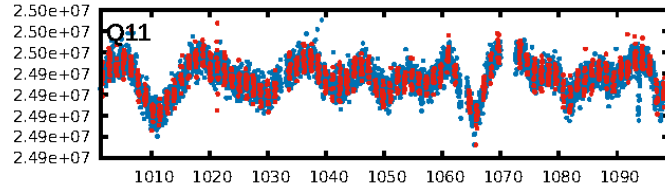
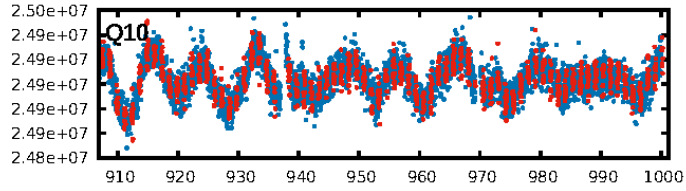
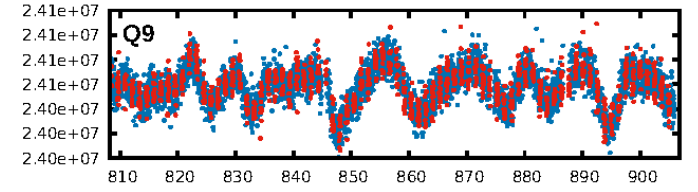
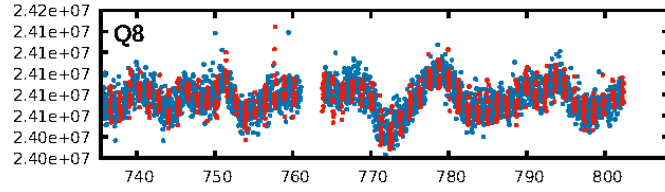
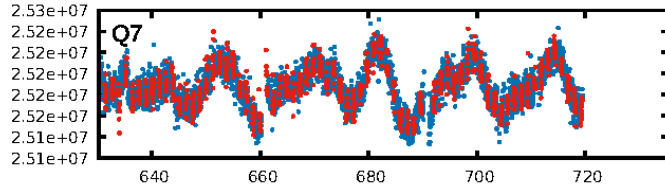
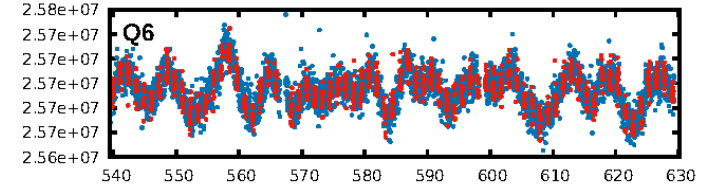
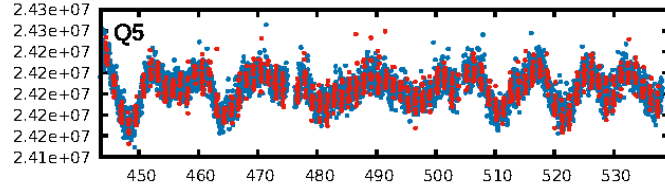
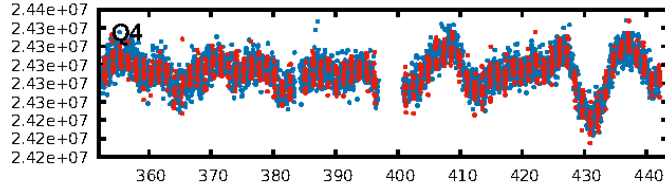
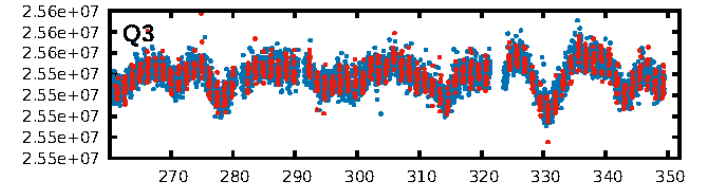
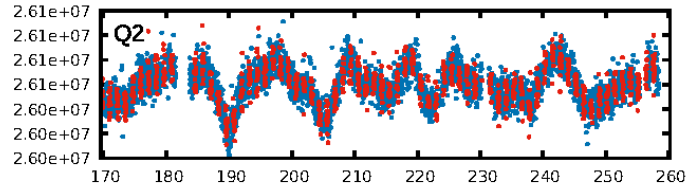
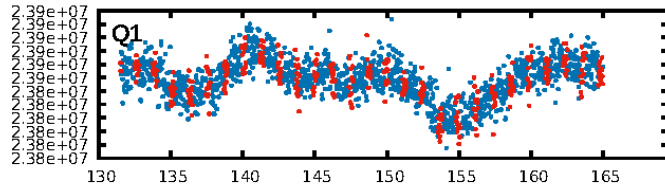
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.70e-16
RollingBand-fgt: 1.00 [1032/1032]
GhostDiagnostic-chr: 0.7319
Centroid-sig: 3.9%
Centroid-so: 4.125 arcsec [2.32σ]
OotOffset-rm: 6.617 arcsec [9.03σ]
KicOffset-rm: 6.903 arcsec [11.41σ]
OotOffset-st: 0/1/1/2 [4]
KicOffset-st: 0/1/1/2 [4]
DiffImageQuality-fgm: 0.75 [3/4]
DiffImageOverlap-fno: 1.00 [17/17]

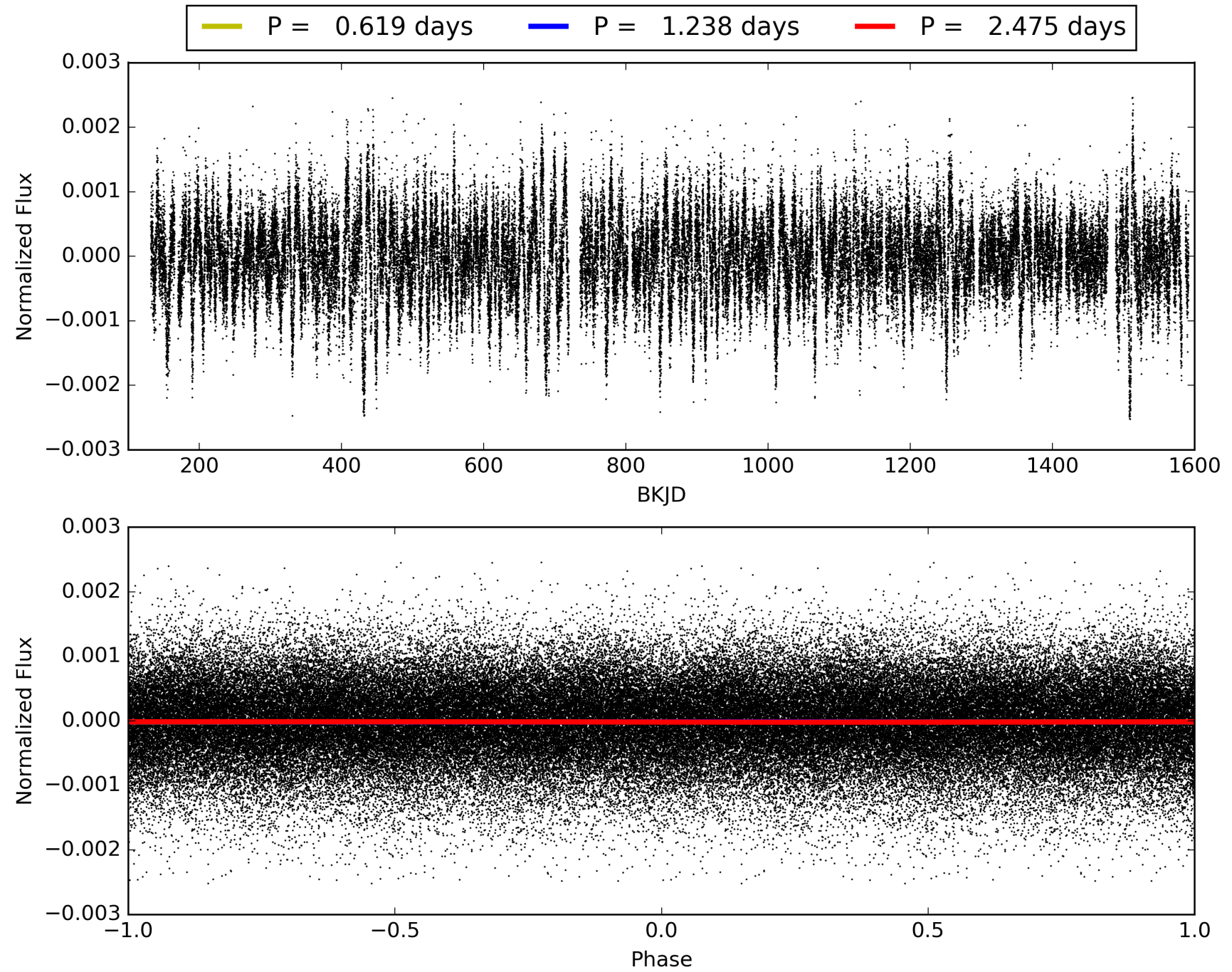
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:39:26 Z

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

TCE 010927813-01, PDC Light Curves

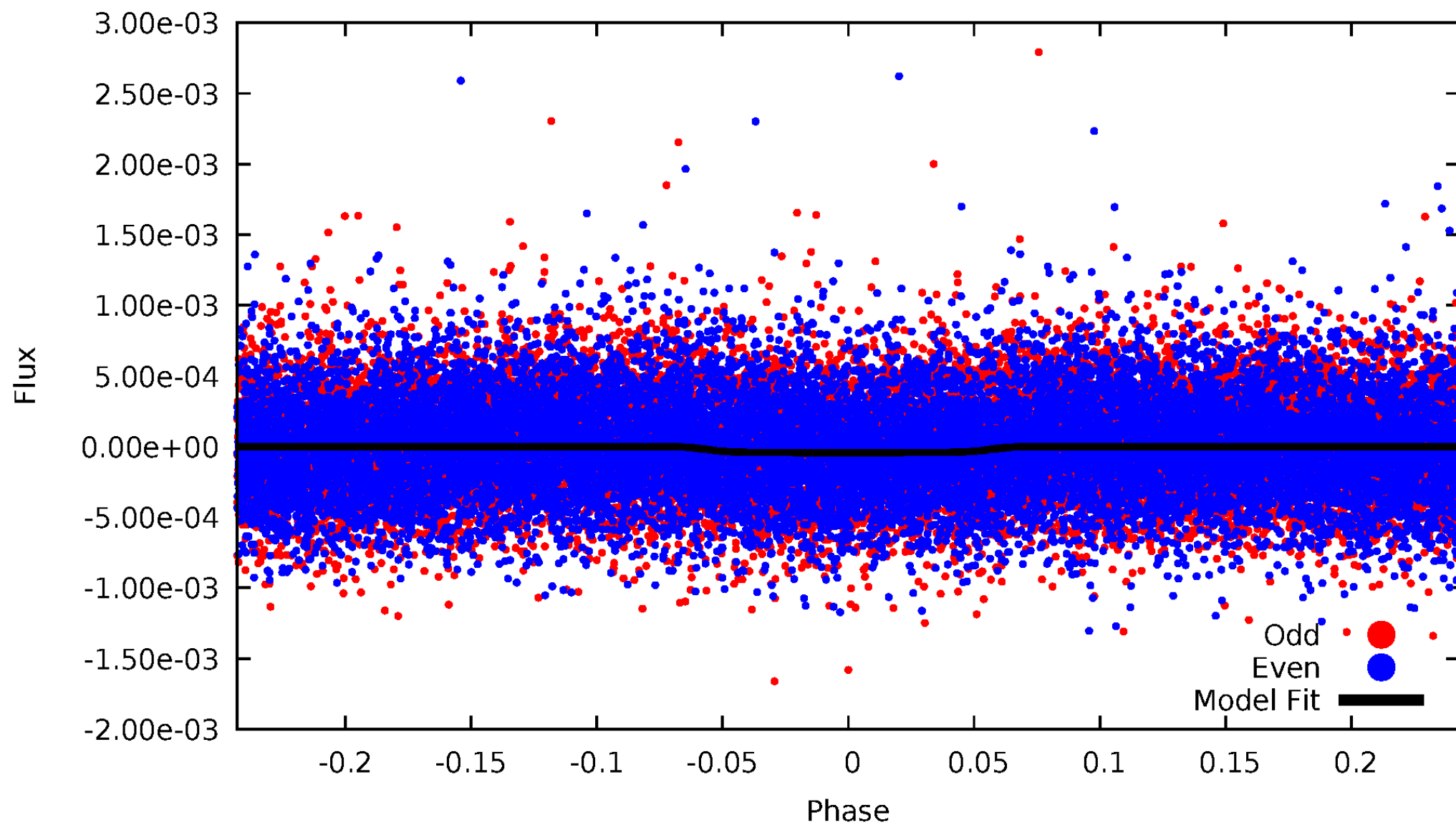


TCE 010927813-01



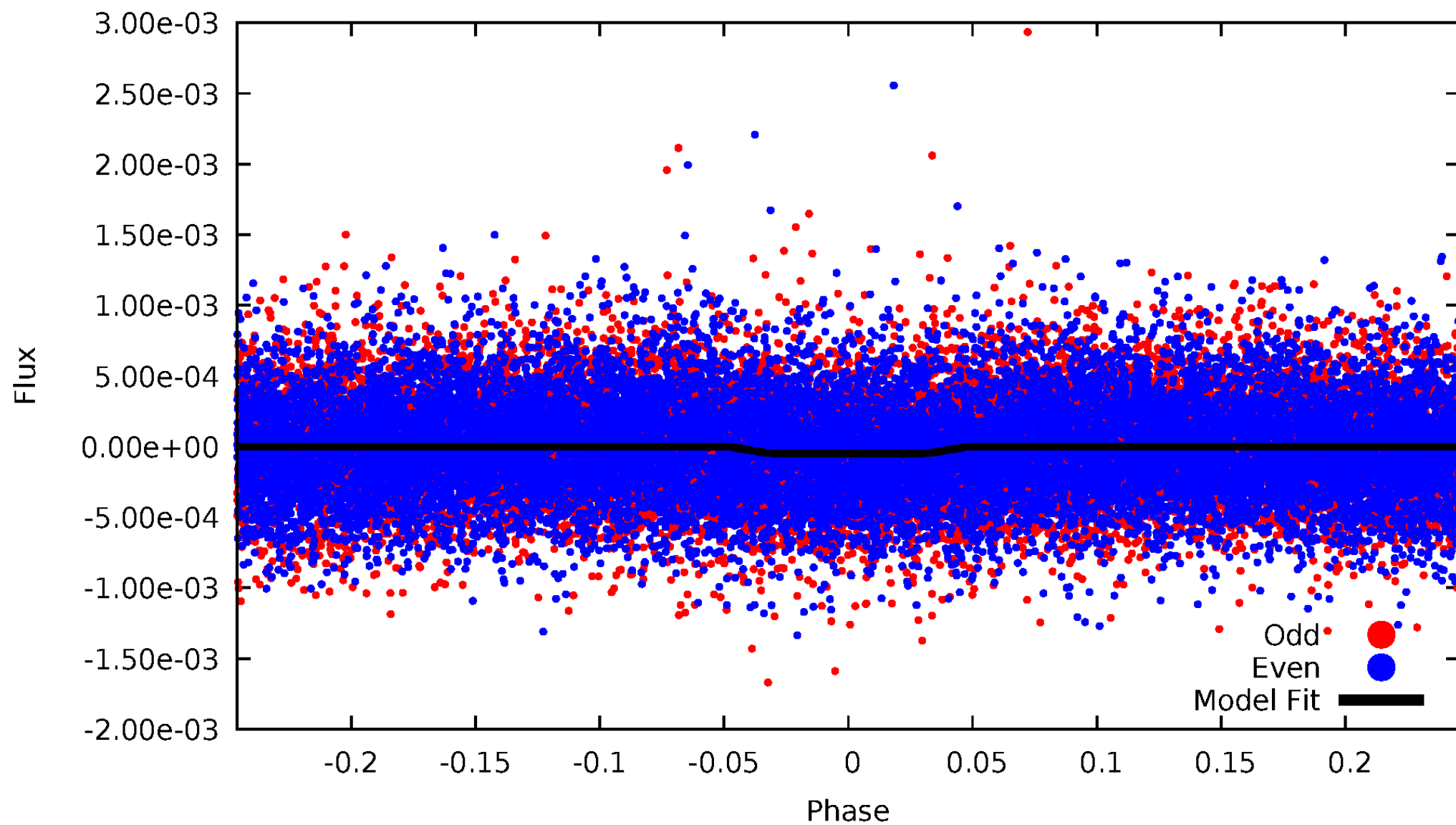
DV Odd/Even

TCE 010927813-01



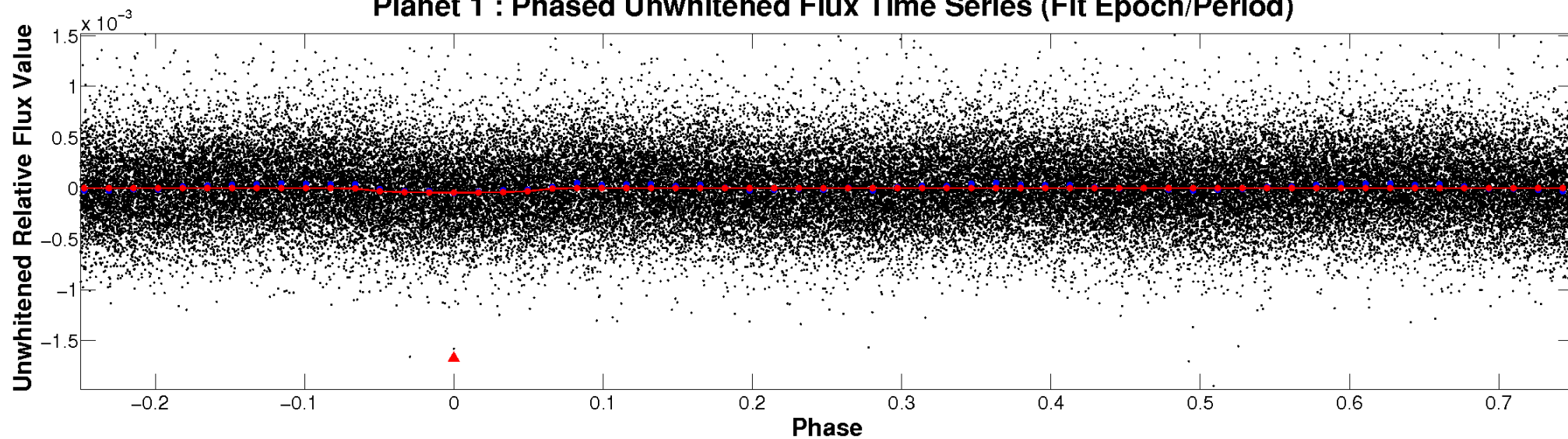
ALT Odd/Even

TCE 010927813-01

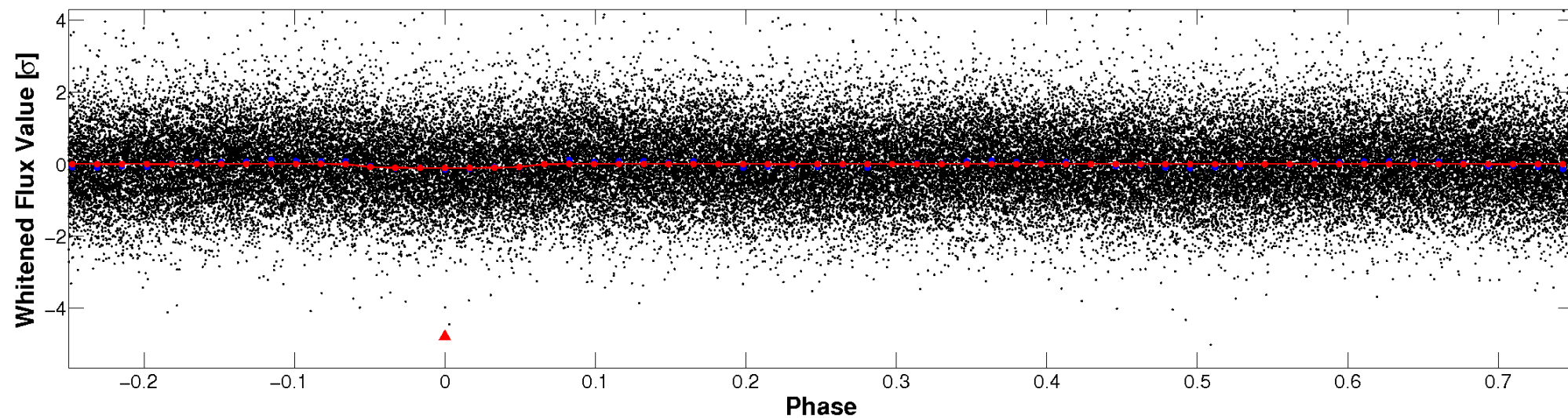


Non-Whitened Vs. Whitened Light Curve

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

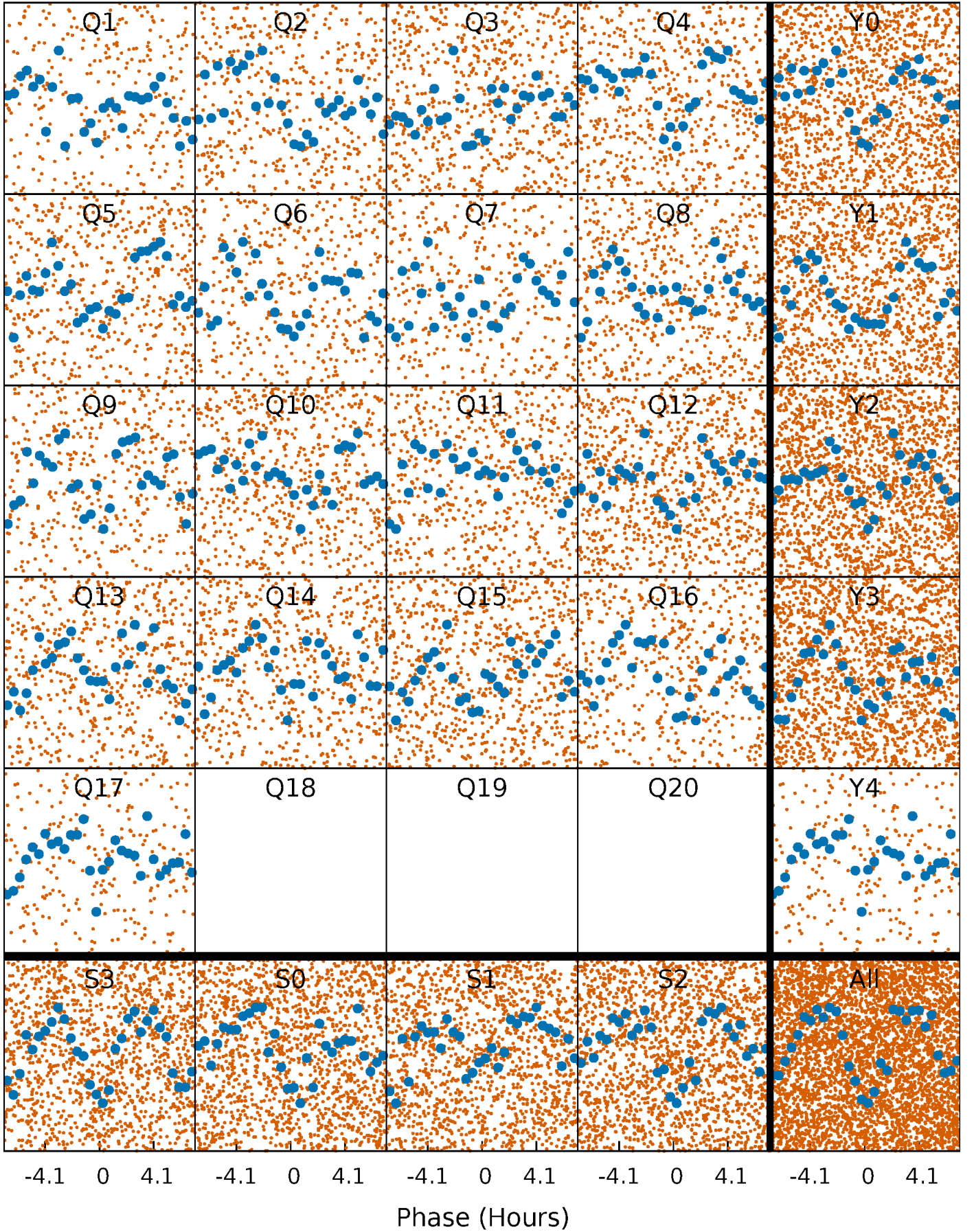


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



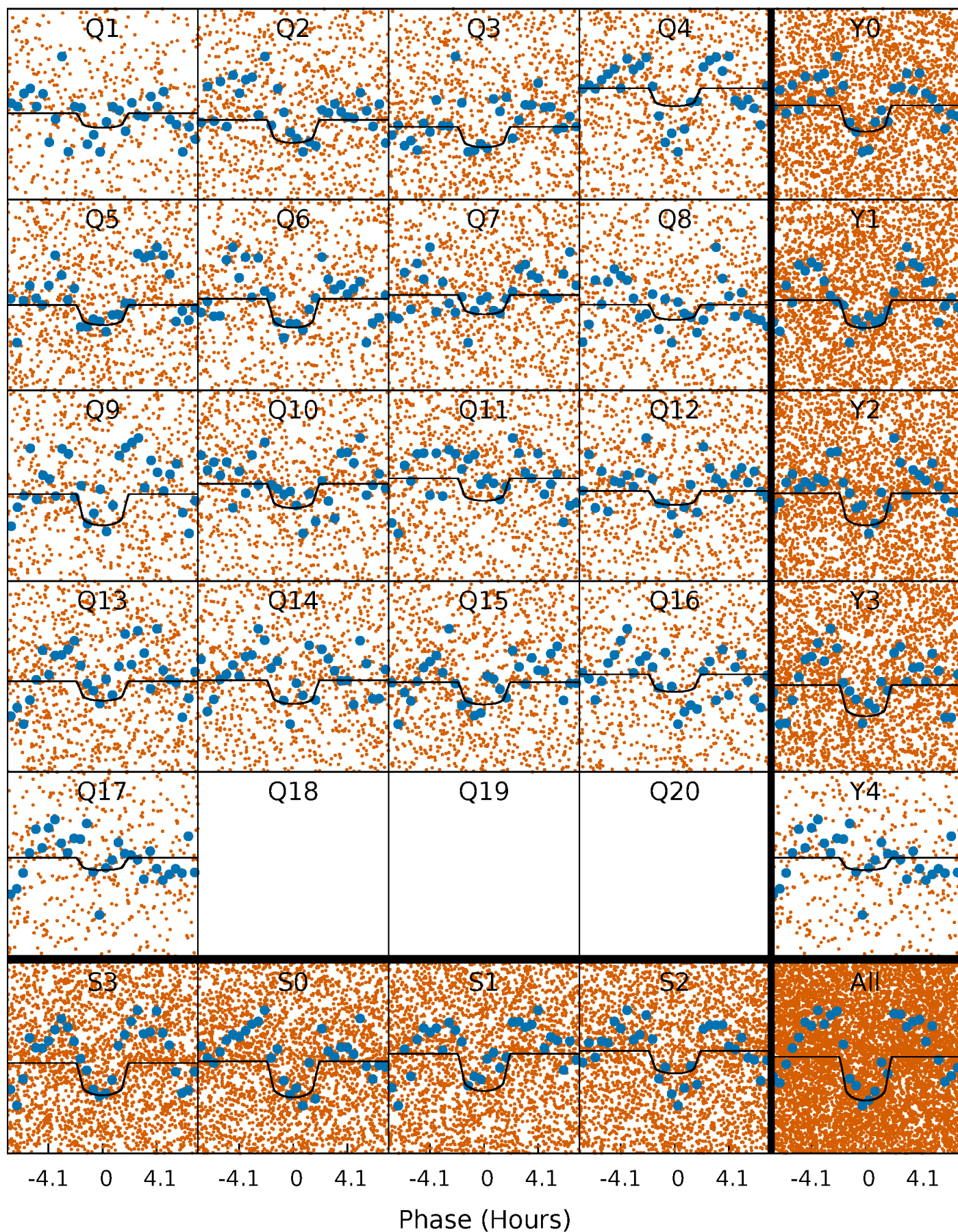
PDC Quarter-Phased Transit Curves

TCE 010927813-01 P= 1.237736 Days $T_0=132.636322$ (BKJD)



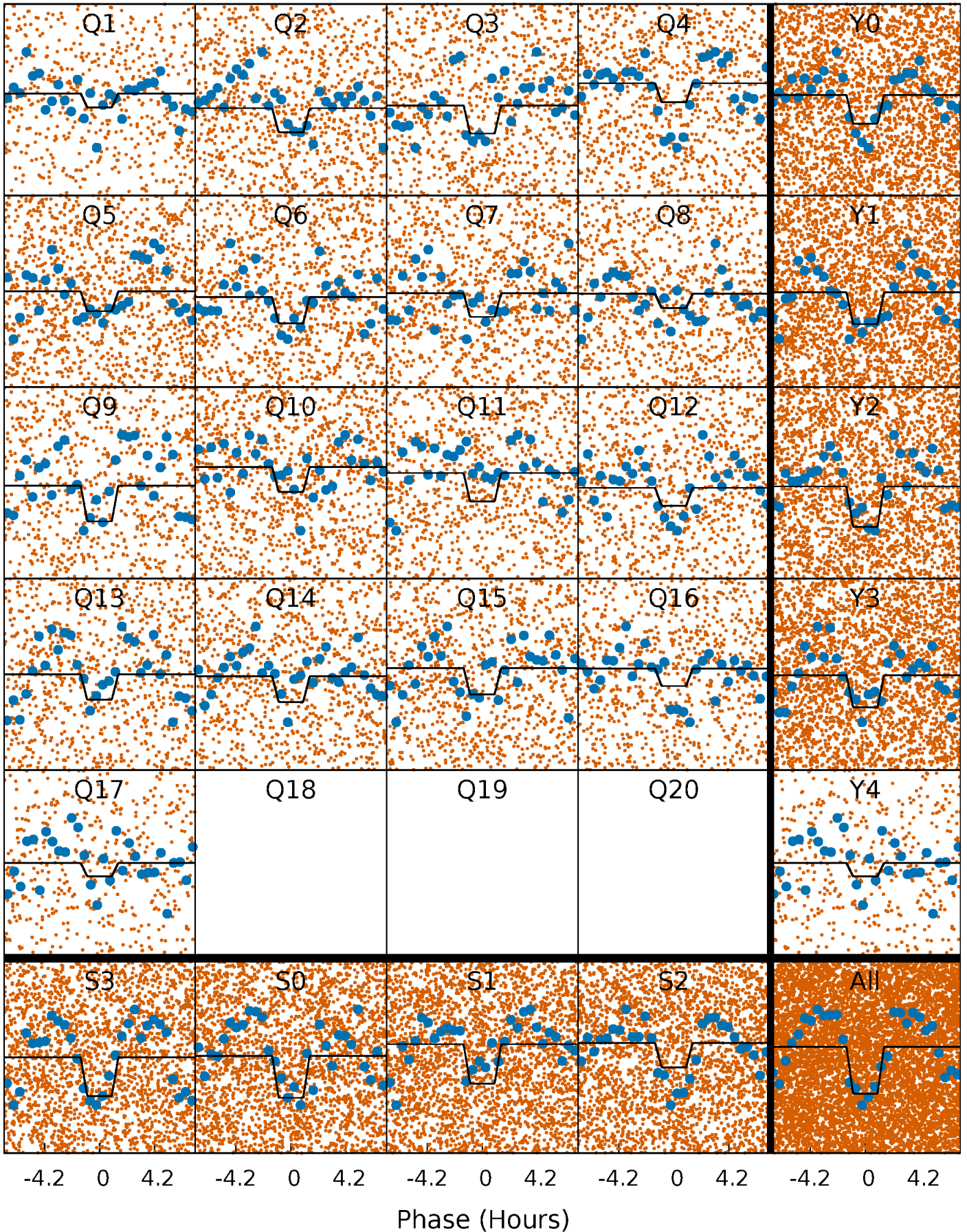
DV Quarter-Phased Transit Curves

TCE 010927813-01 P= 1.237736 Days $T_0=132.636322$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

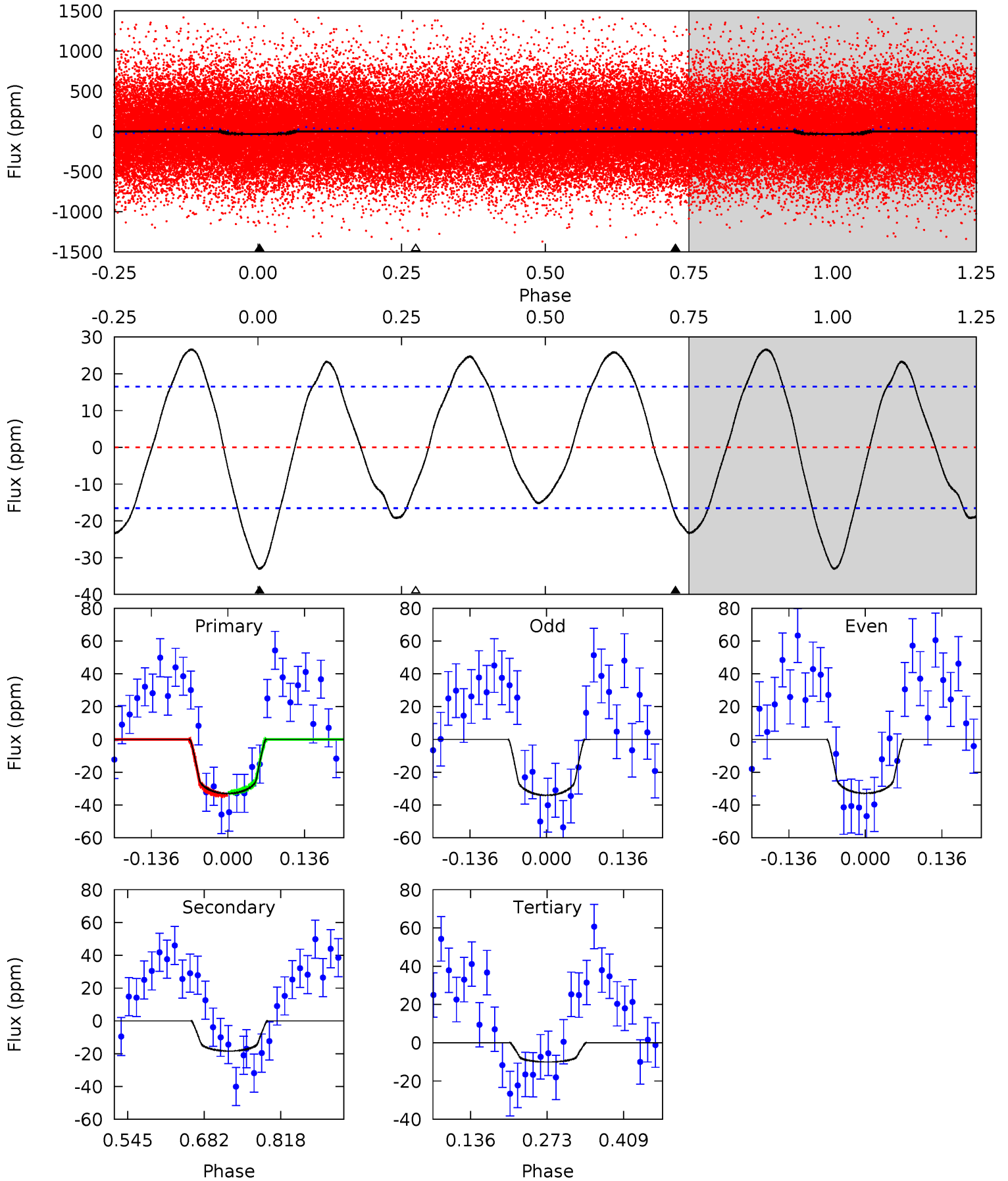
TCE 010927813-01 P= 1.237742 Days $T_0=132.635344$ (BKJD)



DV Model-Shift Uniqueness Test

010927813-01, P = 1.237736 Days, E = 131.398586 Days

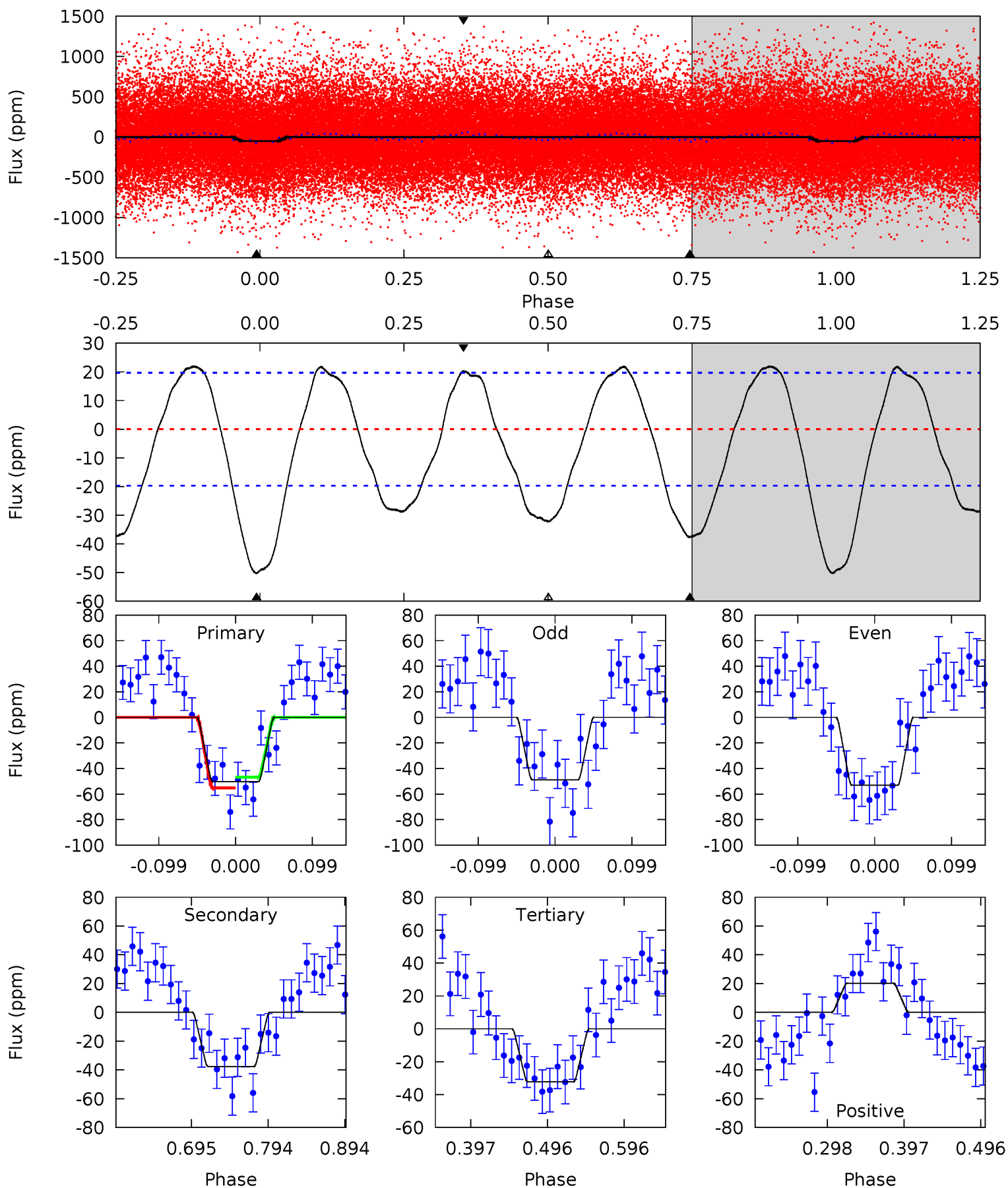
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.99	5.01	2.73	0	4.50	1.49	3.66	6.26	8.99	2.28	5.01	0.17	0.97	0.45	0.24



Alt Model-Shift Uniqueness Test

010927813-01, P = 1.237742 Days, E = 131.397602 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.6	8.73	7.46	4.70	4.57	1.65	4.45	4.19	6.95	1.27	4.03	0.50	1.19	0.30	0.97



Stellar Parameters For KIC 010927813

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6137^{+171}_{-236}	$4.460^{+0.052}_{-0.208}$	$-0.060^{+0.250}_{-0.300}$	$1.018^{+0.324}_{-0.108}$	$1.086^{+0.153}_{-0.139}$	$1.452^{+0.415}_{-0.774}$
	+3%/-4%	+1%/-5%	+417%/-500%	+32%/-11%	+14%/-13%	+29%/-53%
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 010927813-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 4	$0.83^{+0.50}_{-0.41}$	2553^{+196}_{-131}	4810^{+1817}_{-841}	$7.476^{+23.263}_{-4.591}$
Alt.	-38 ± 4	$0.84^{+0.54}_{-0.43}$	2551^{+194}_{-125}	5601^{+2707}_{-1037}	15^{+52}_{-10}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

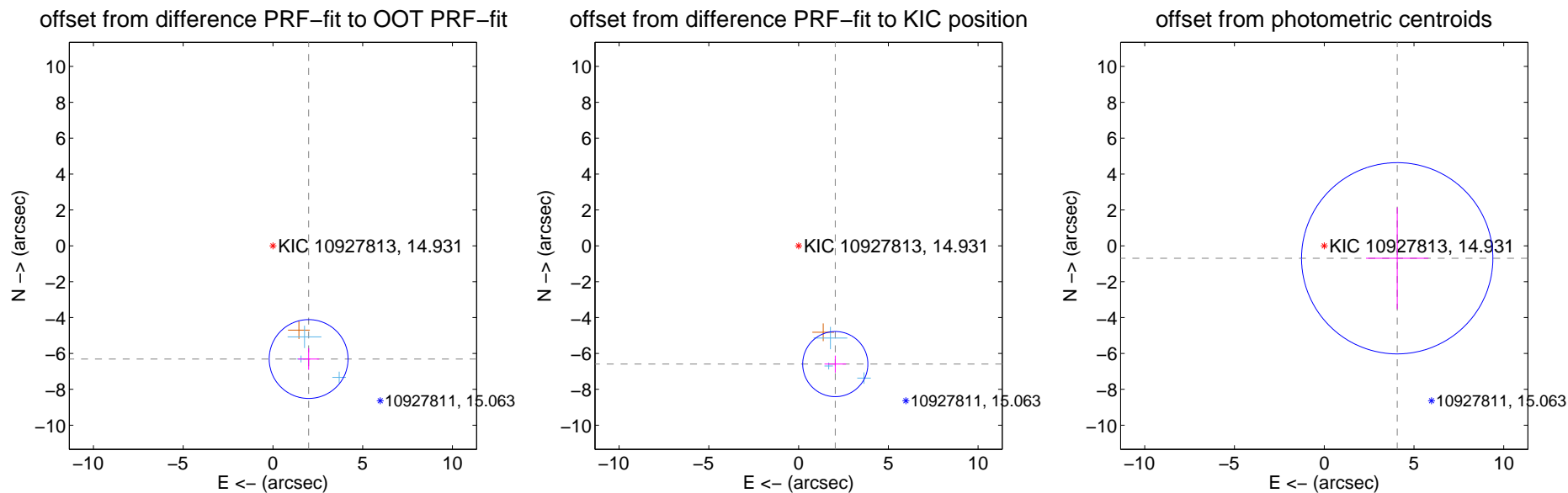
DV Centroid Data

Supplemental centroid analysis for 010927813-01. Kepler magnitude: 14.93. Transit SNR 7.84

There are 3 quarters with good PRF difference image offsets

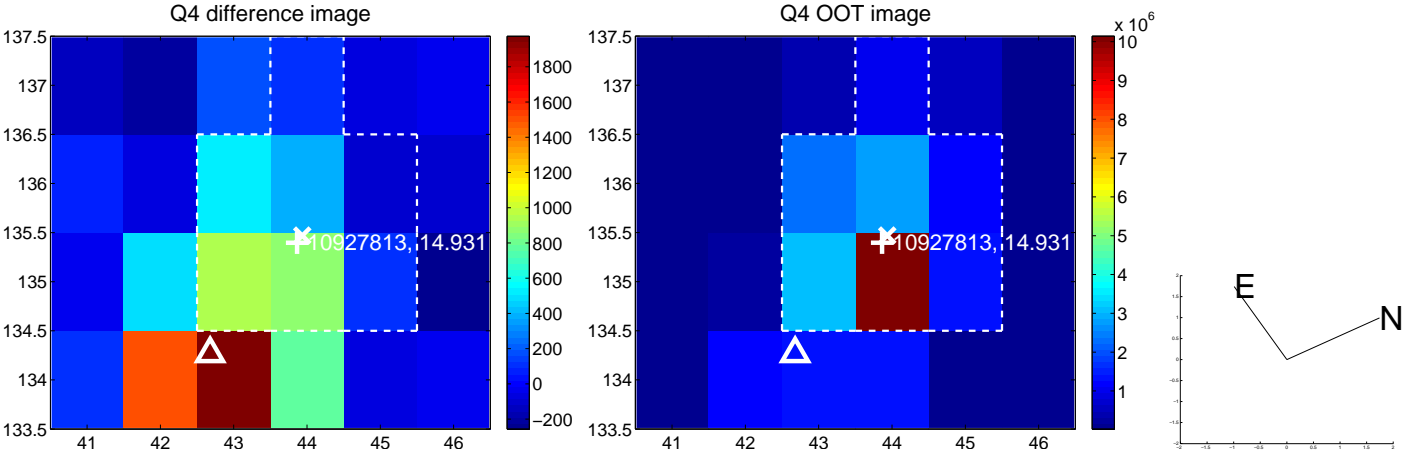
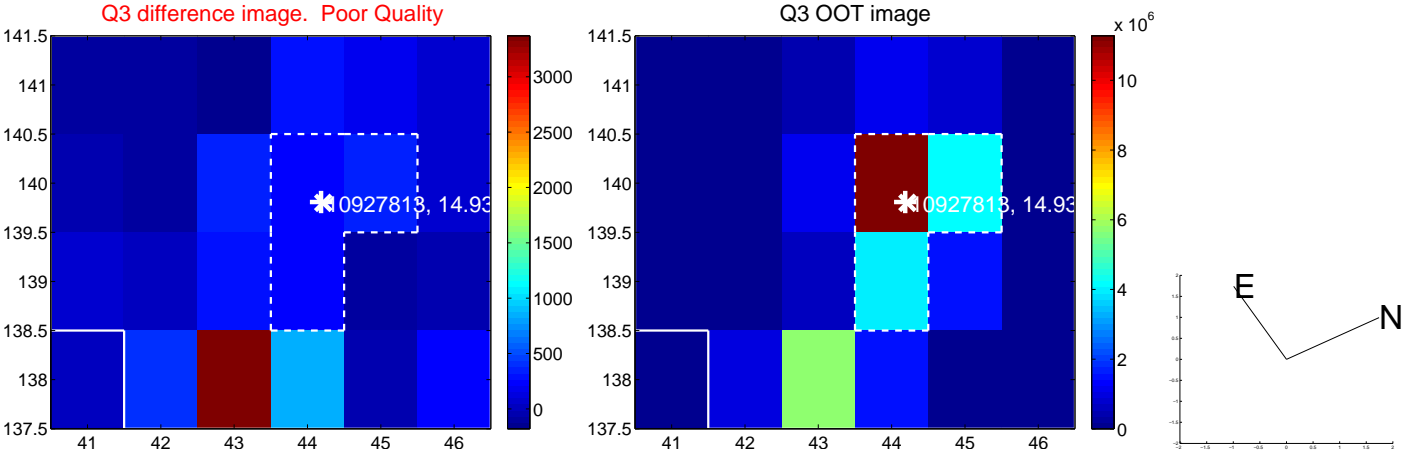
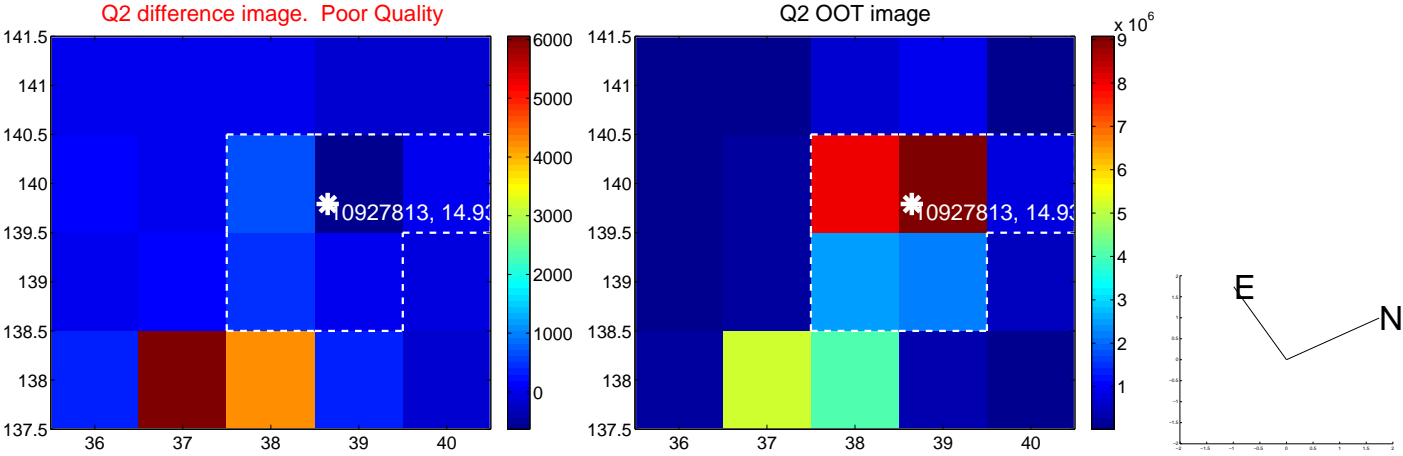
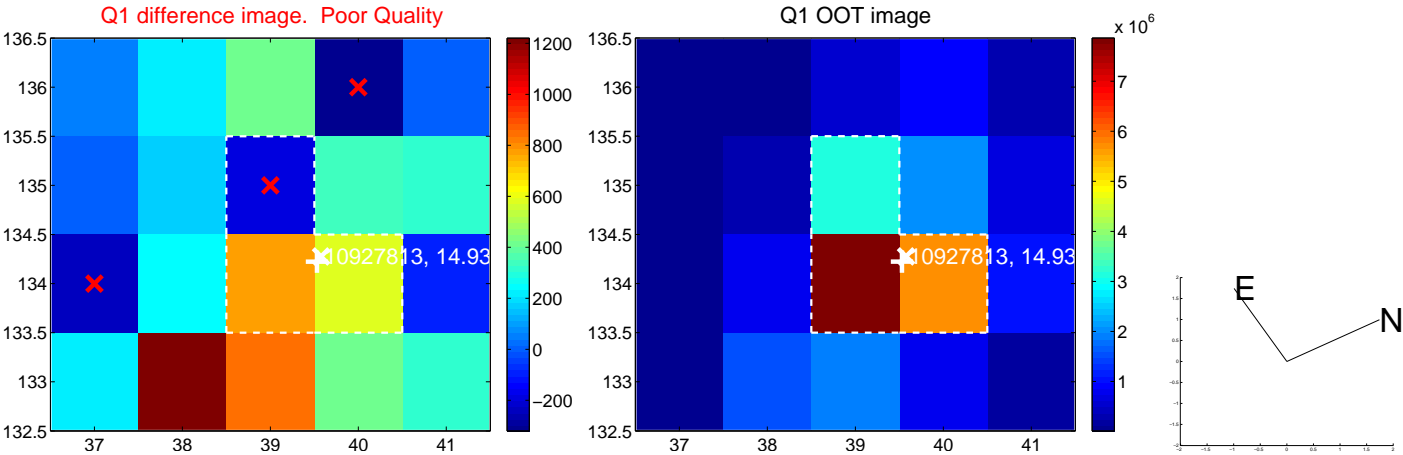
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.617 ± 0.733	9.03	-1.988 ± 0.592	-6.311 ± 0.602
PRF-fit source offset from KIC position	6.903 ± 0.605	11.41	-2.045 ± 0.602	-6.594 ± 0.477
photometric centroid source offset	4.13 ± 1.78	2.32	-4.07 ± 1.74	-0.70 ± 2.83

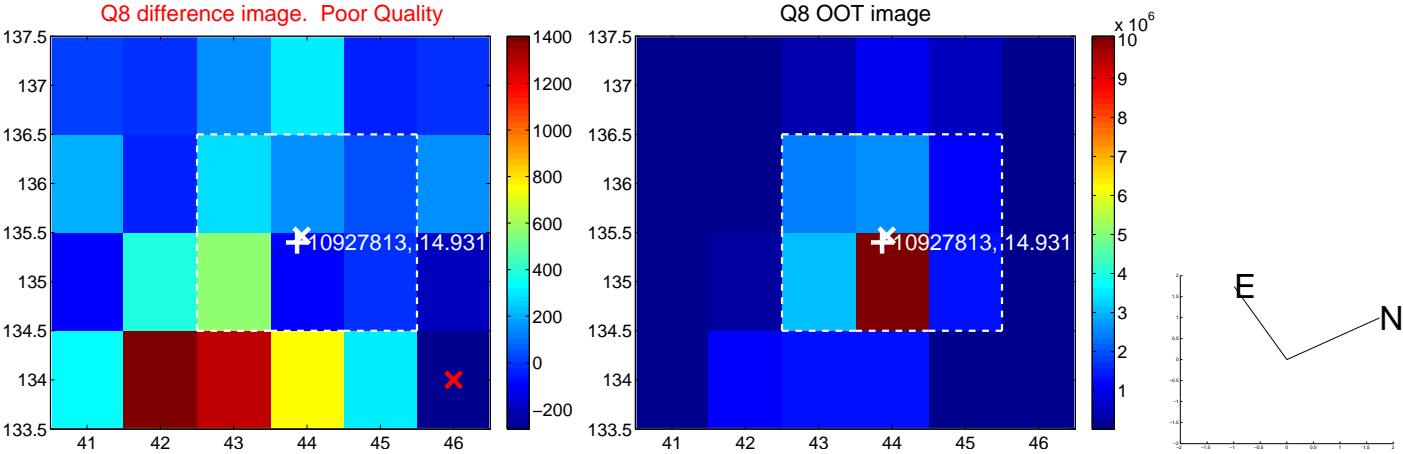
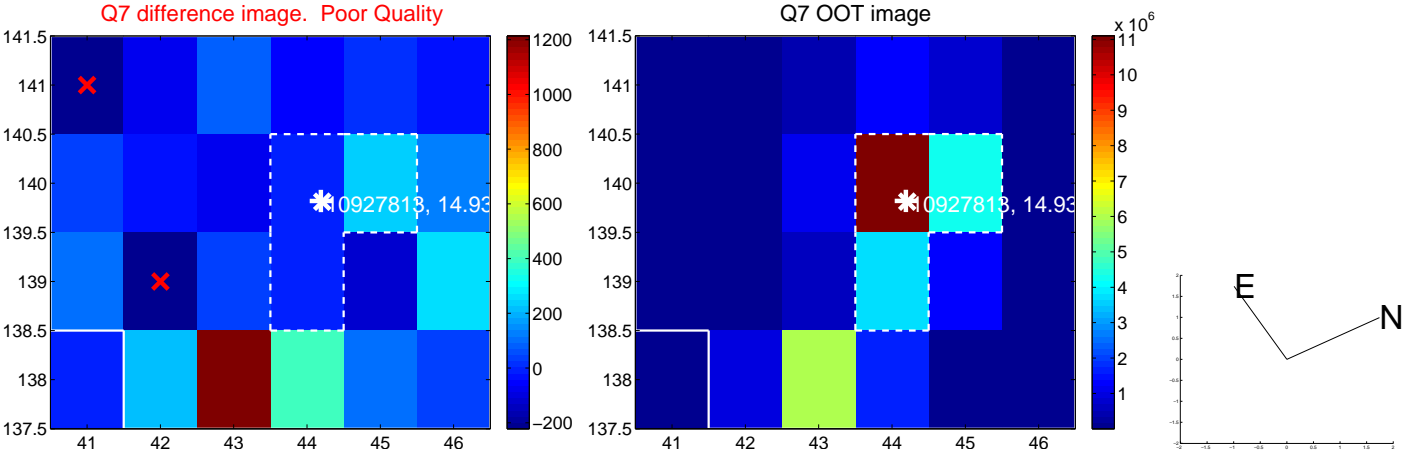
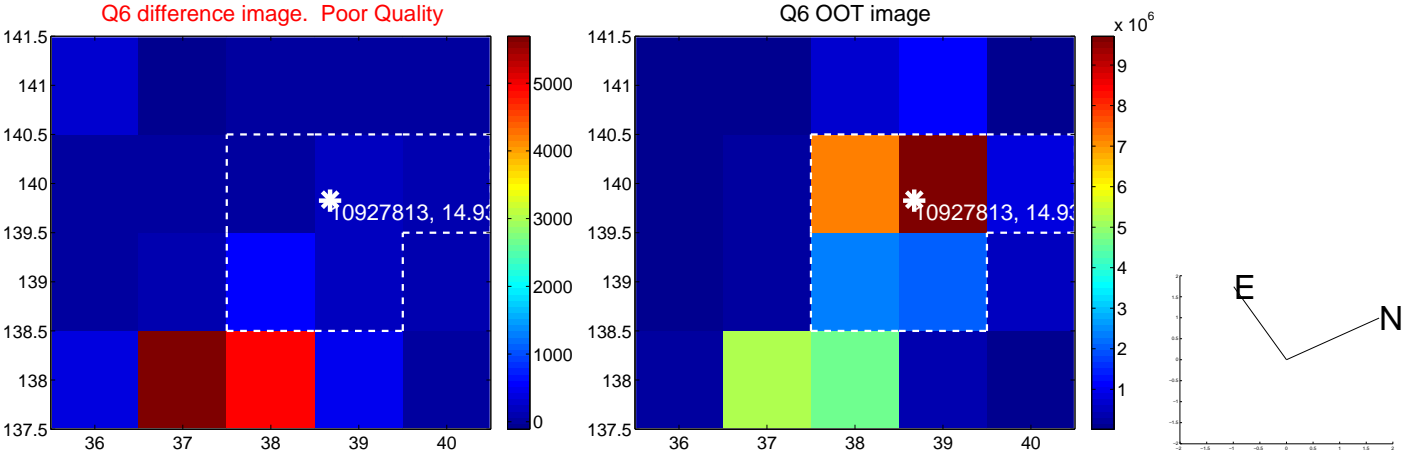
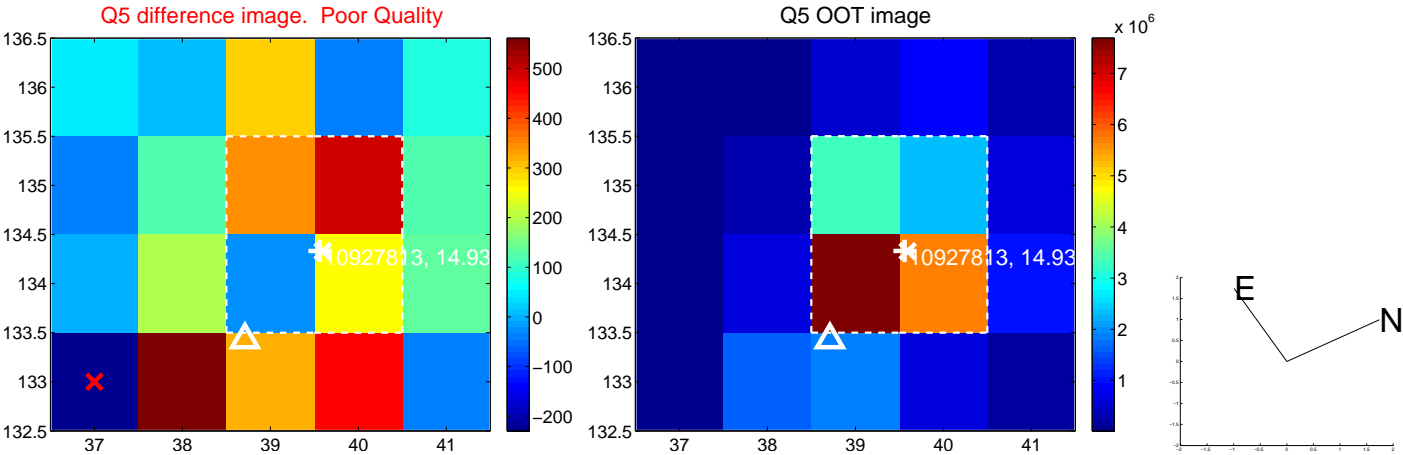


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

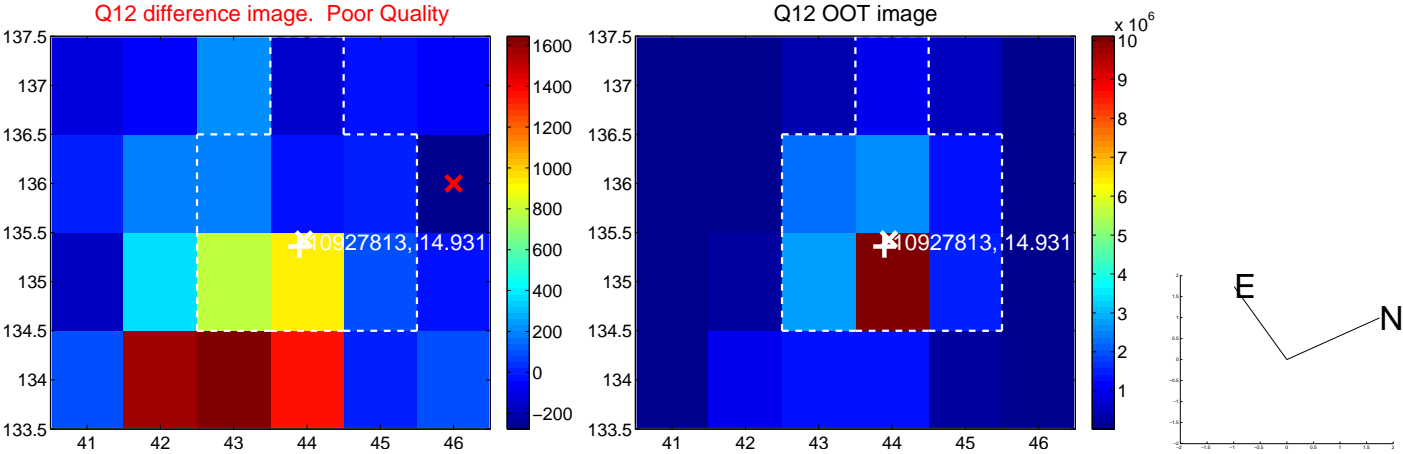
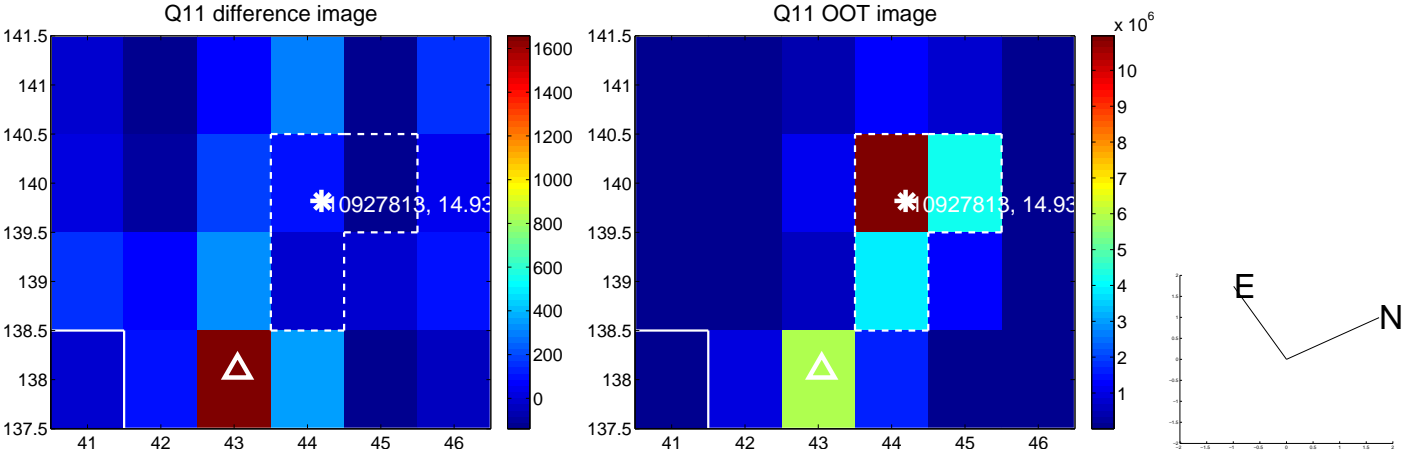
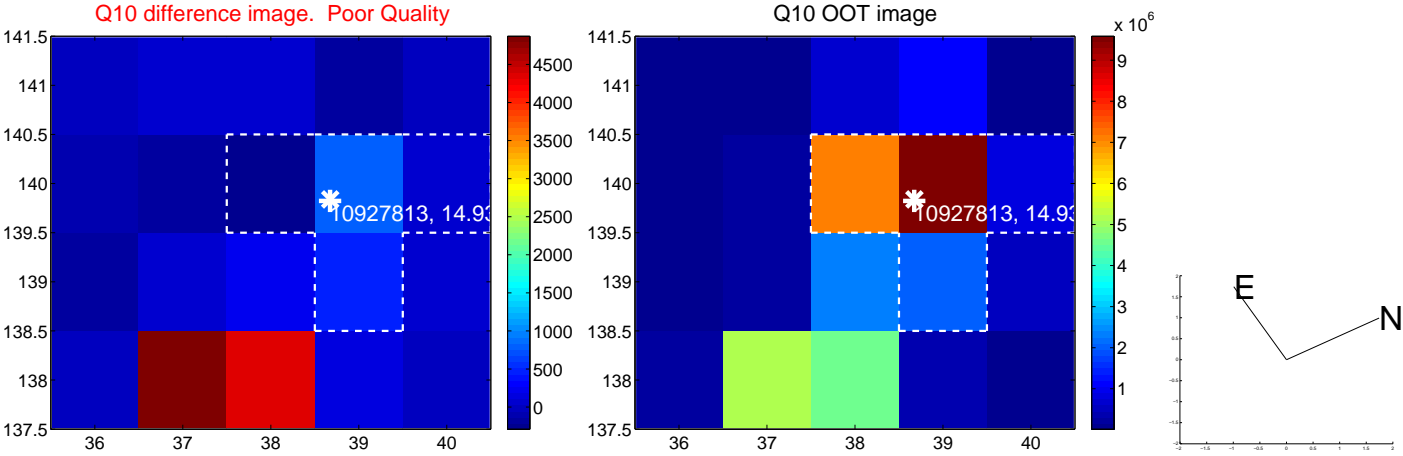
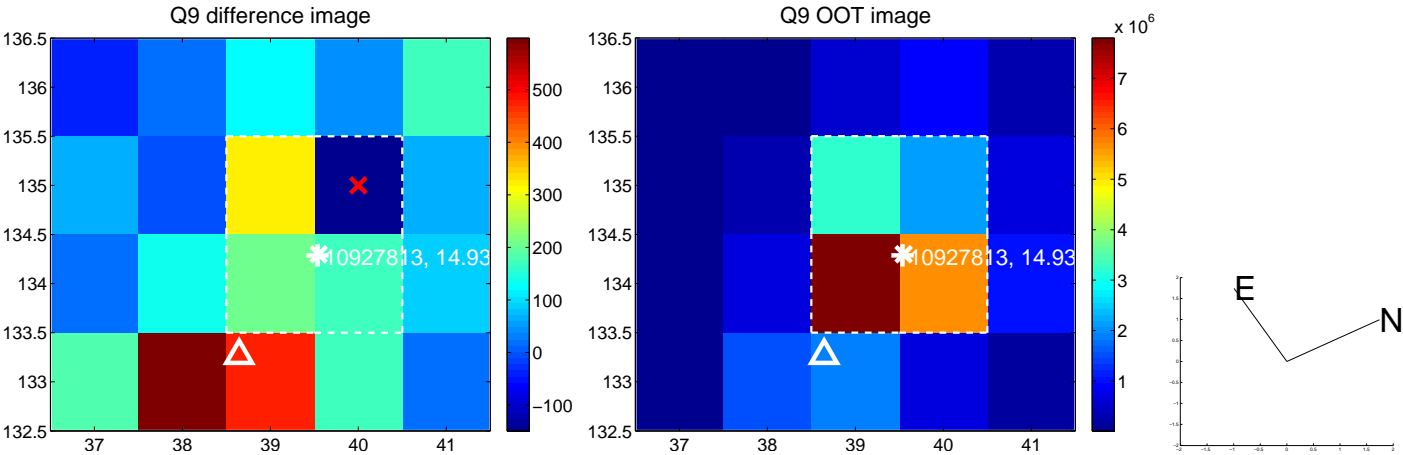
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



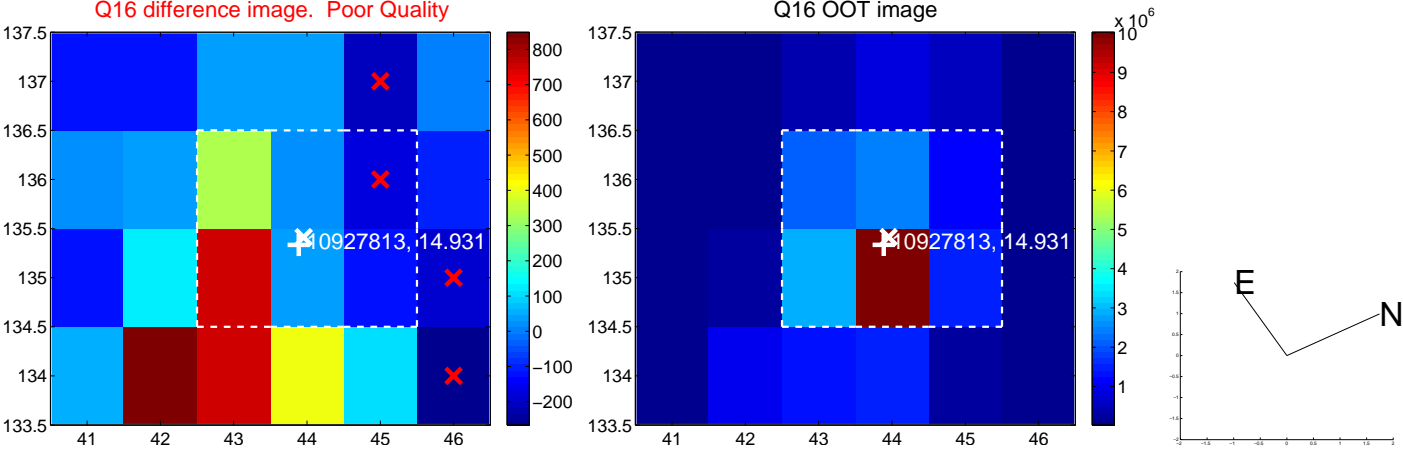
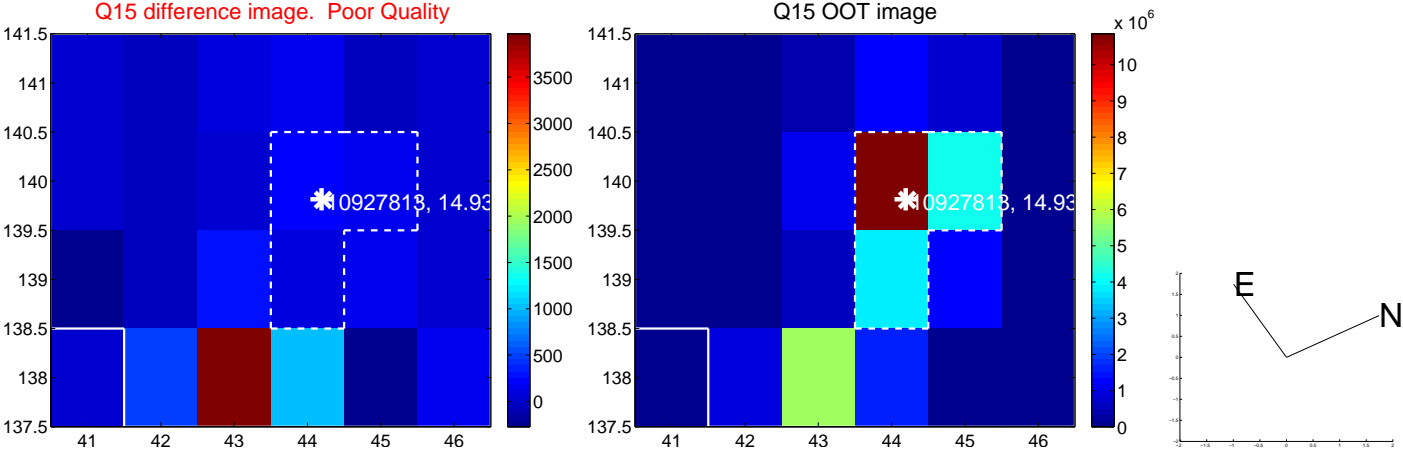
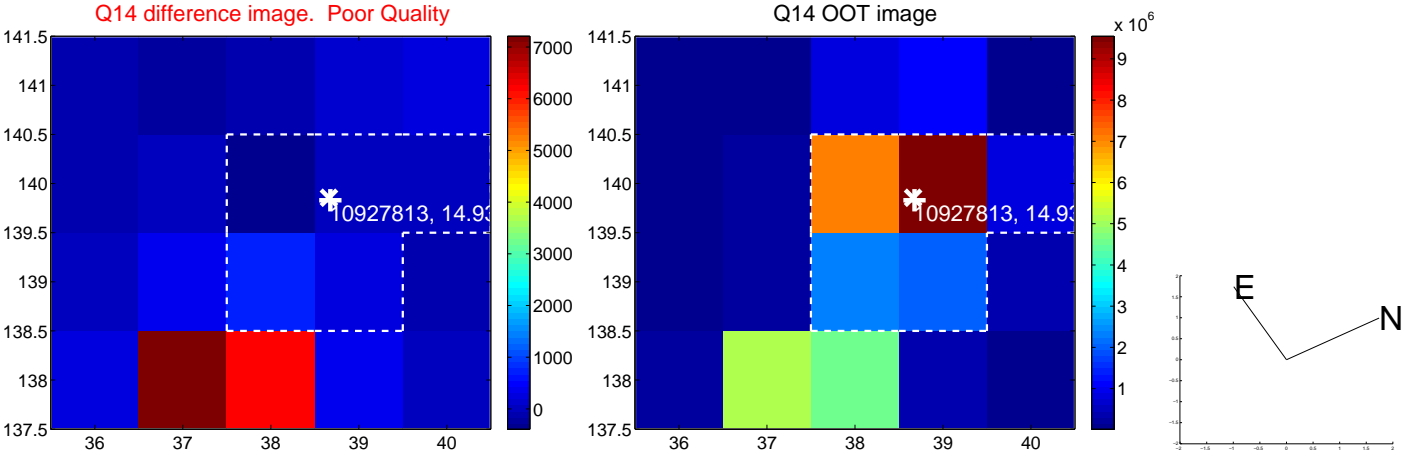
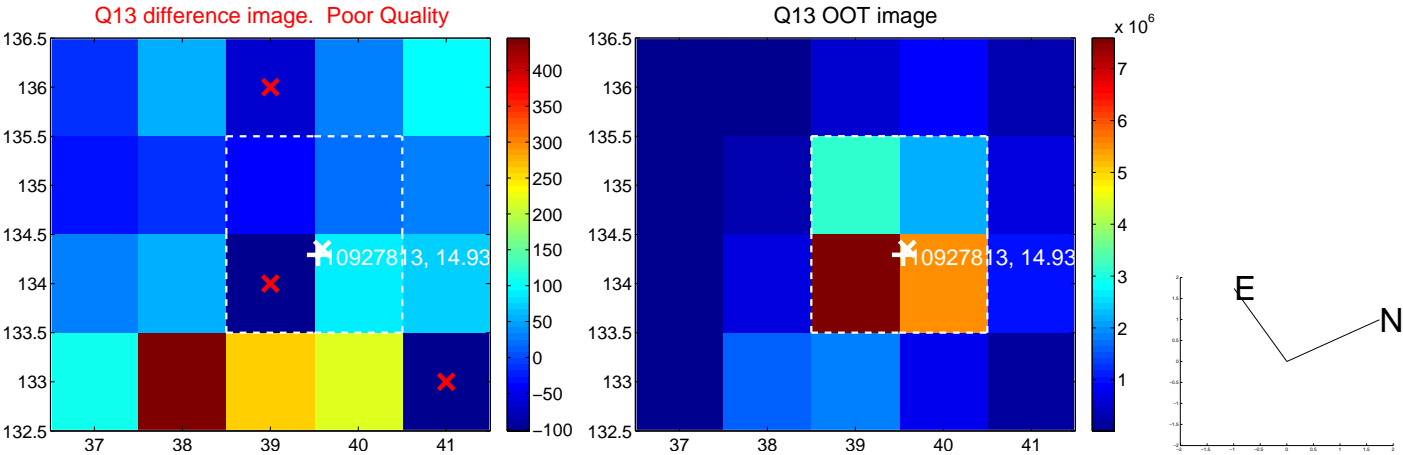
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



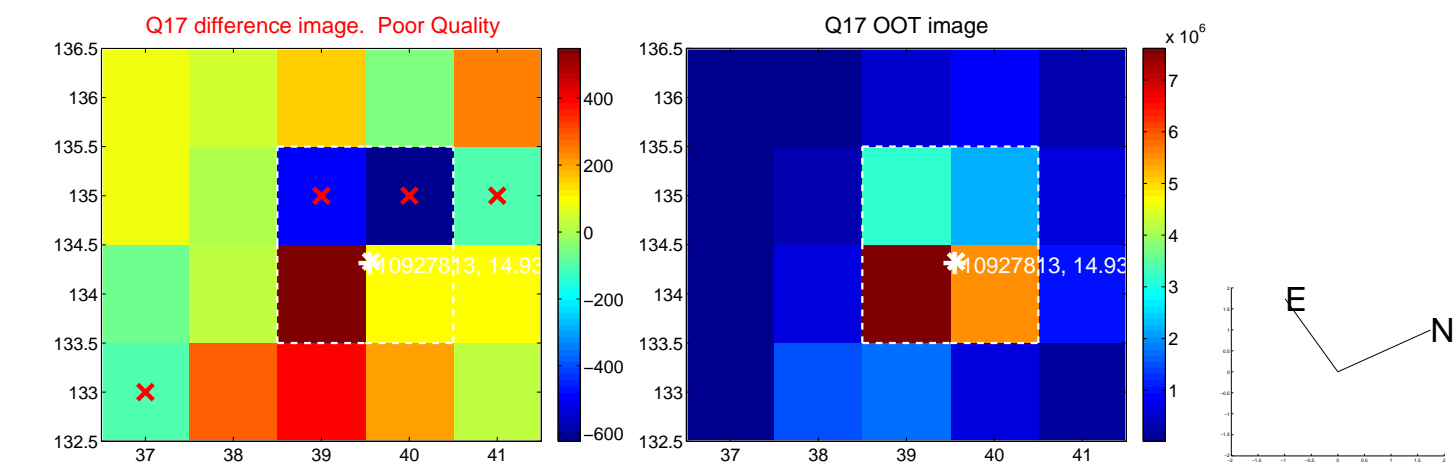
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



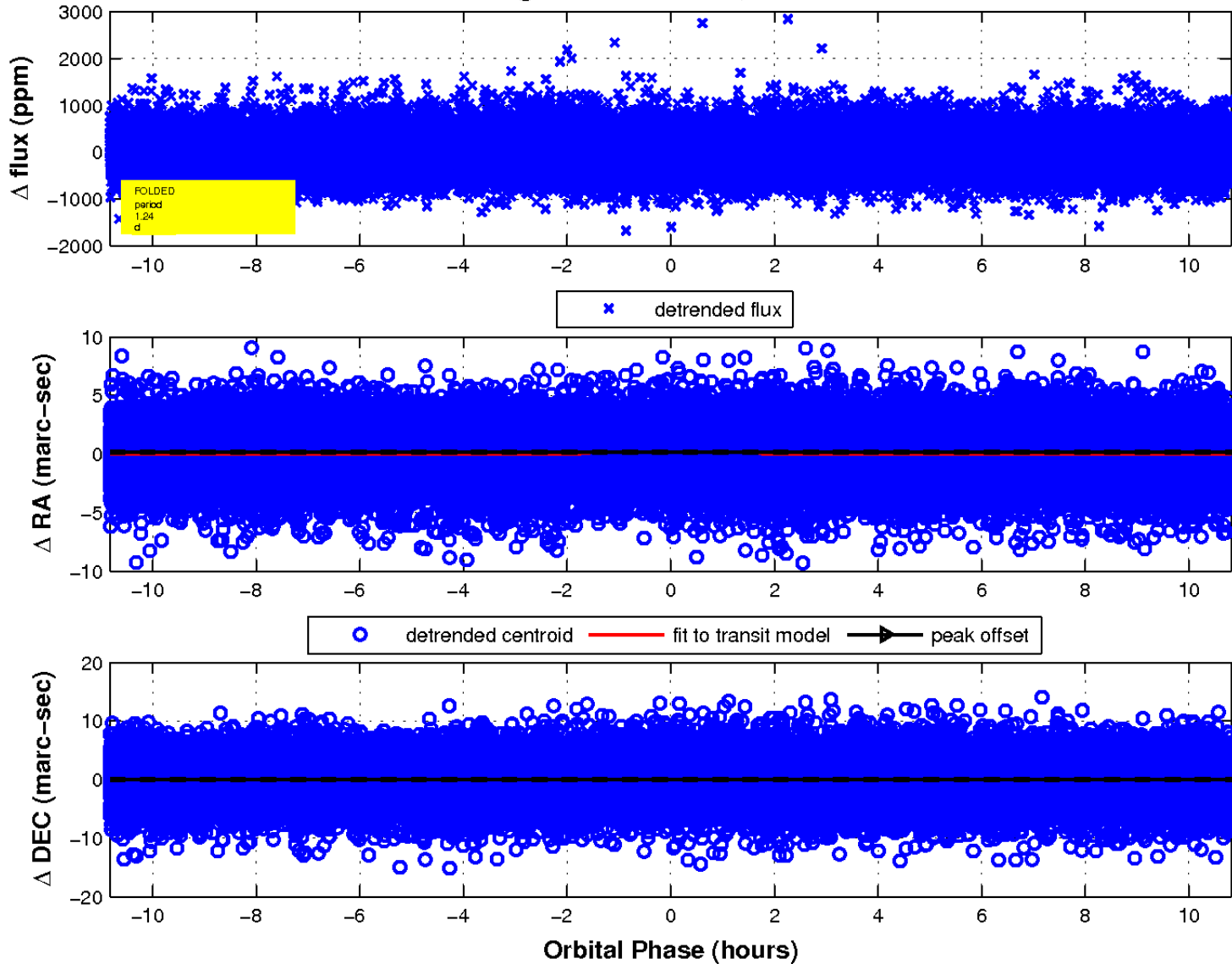
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

