

KIC 011359657

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})
011359657-01	OBS	No	0.982596	132.289955	15.3	3.030	8.7	8.0	3.13	7066	1.25	39051.43
011359657-02	OBS	No	0.982123	131.633500	0.0	7.556	8.9	0.0	3.13	7066	0.03	39076.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011359657-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
011359657-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

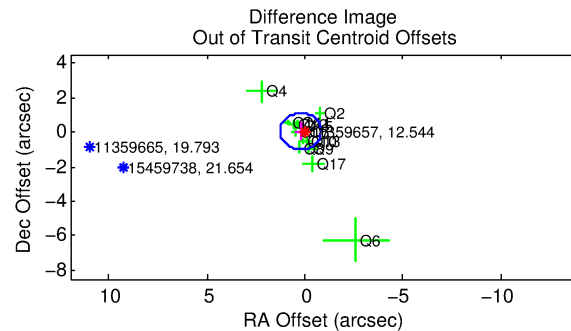
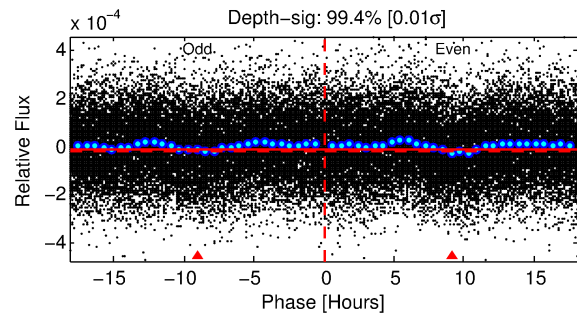
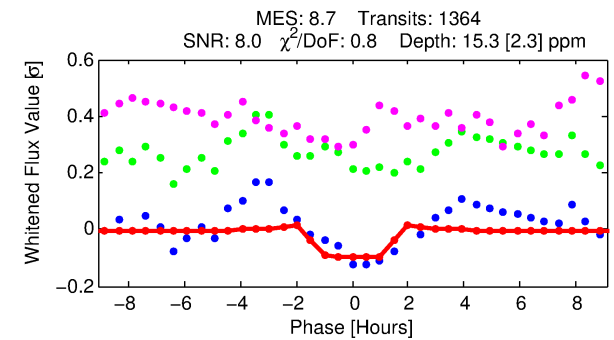
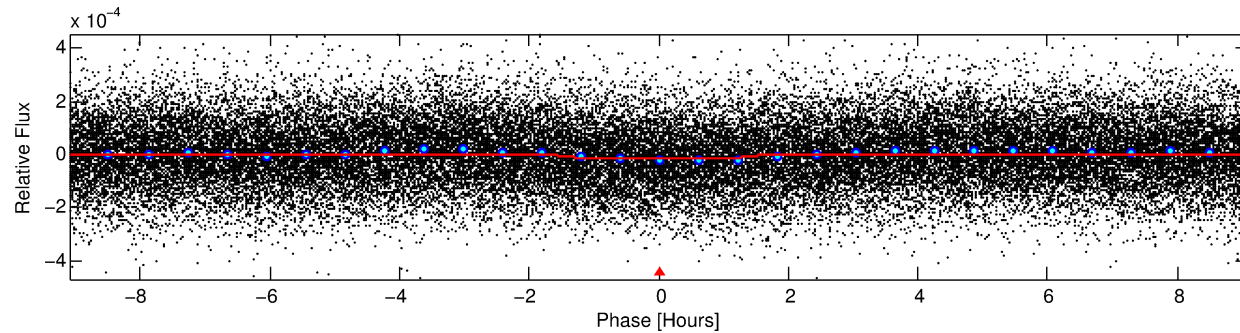
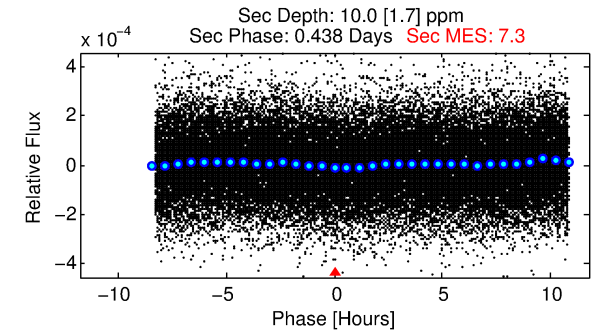
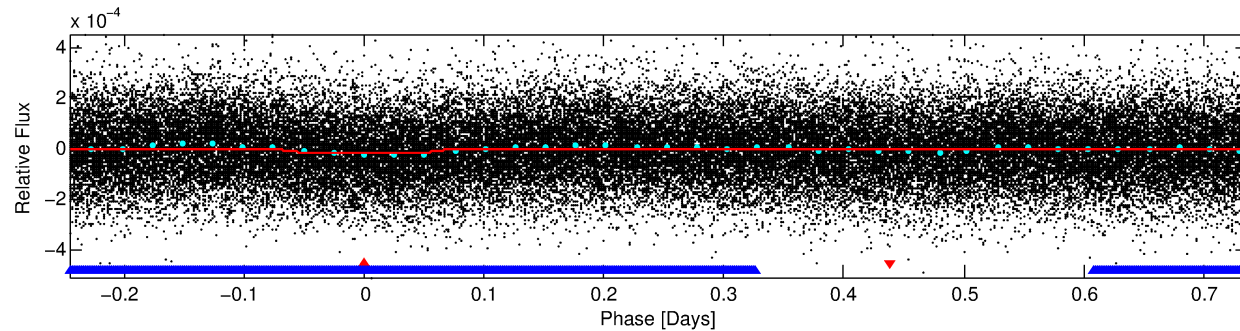
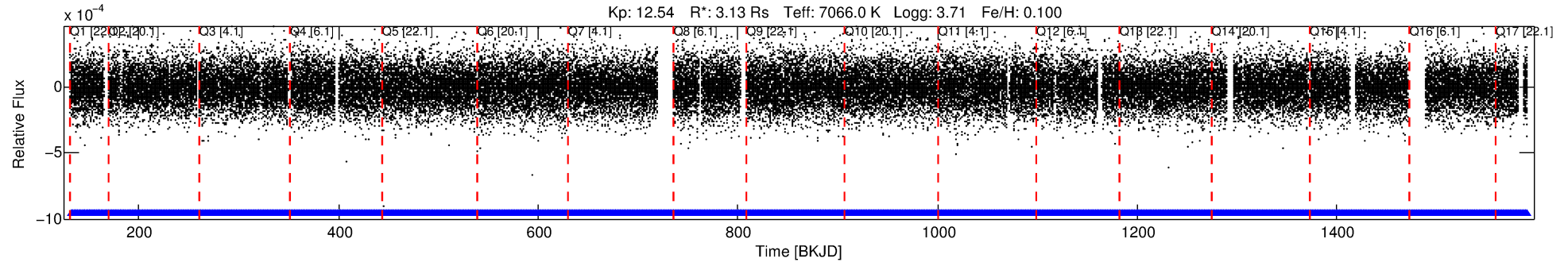
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011359657-01

No Significant Match Found

DV One-Page Summary

KIC: 11359657 Candidate: 1 of 2 Period: 0.983 d



DV Fit Results:

Period = 0.98260 [0.00001] d
Epoch = 132.2900 [0.0038] BKJD
Rp/R* = 0.0037 [0.0017]
a/R* = 2.45 [5.52]
b = 0.30 [8.08]
Seff = 39051.43 [19516.70]
Teff = 3585 [448] K
Rp = 1.25 [0.72] Re
a = 0.0237 [0.0073] AU
Ag = 1.98 [2.13] [0.46σ]
Teffp = 6575 [1595] K [1.80σ]

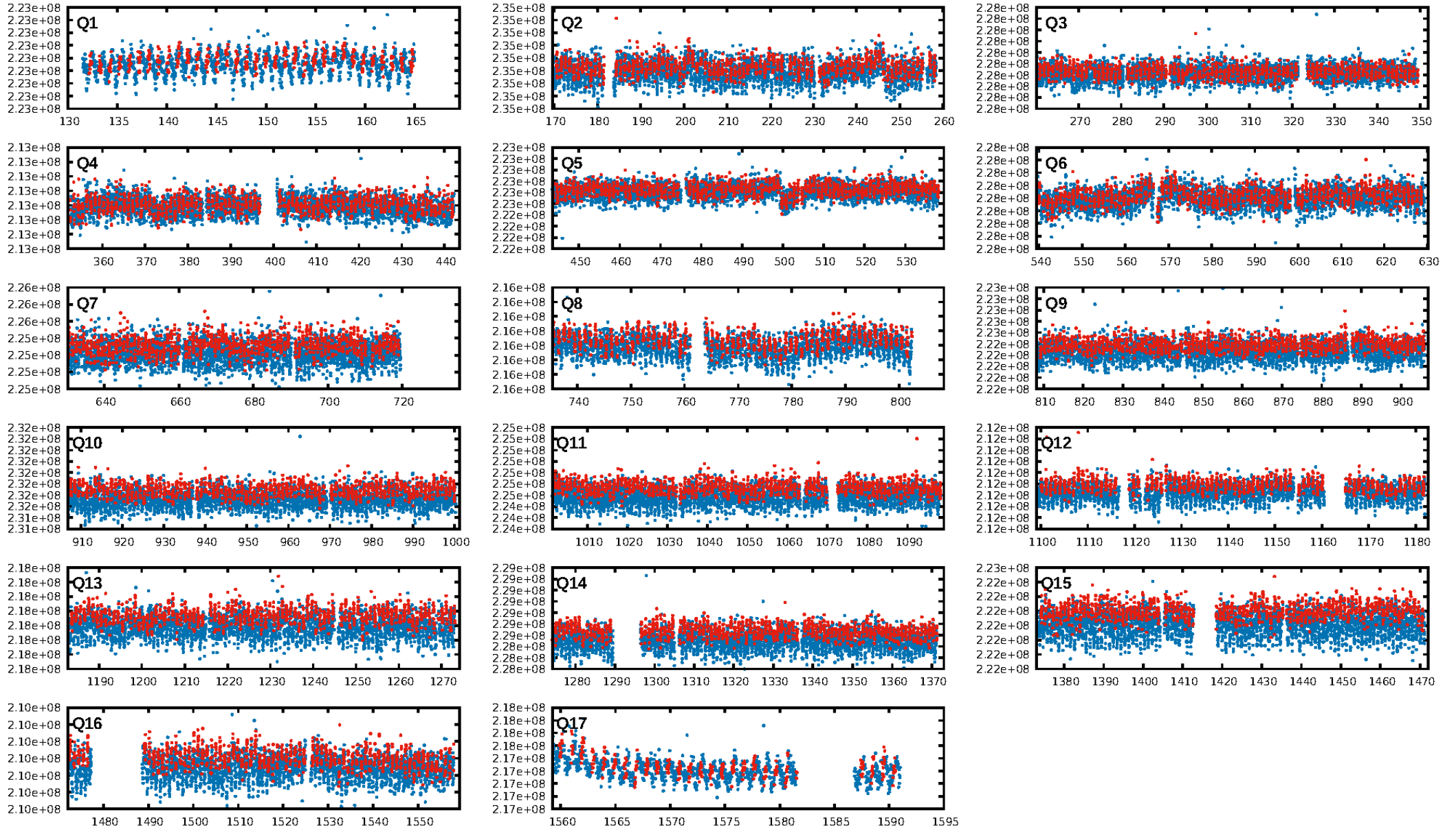
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.21e-04
RollingBand-fgt: 1.00 [1303/1303]
GhostDiagnostic-chr: -10.03
Centroid-sig: 0.0%
Centroid-so: 2.579 arcsec [2.77σ]
OotOffset-rm: 0.241 arcsec [0.68σ]
KicOffset-rm: 0.202 arcsec [1.00σ]
OotOffset-st: 4/3/4/3 [14]
KicOffset-st: 4/3/4/3 [14]
DiffImageQuality-fgm: 0.00 [0/14]
DiffImageOverlap-fno: 0.00 [0/17]

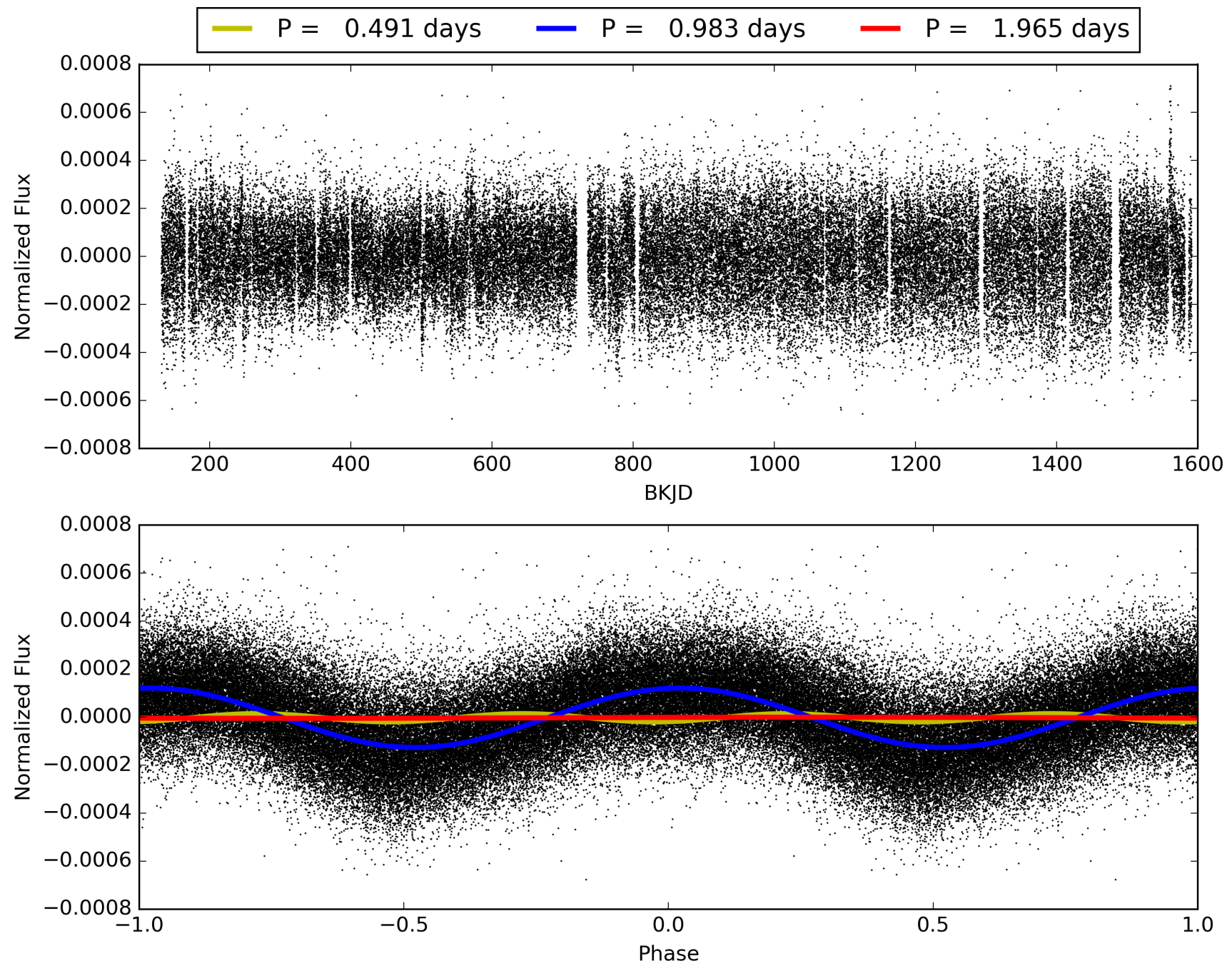
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:46:45 Z

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

TCE 011359657-01, PDC Light Curves

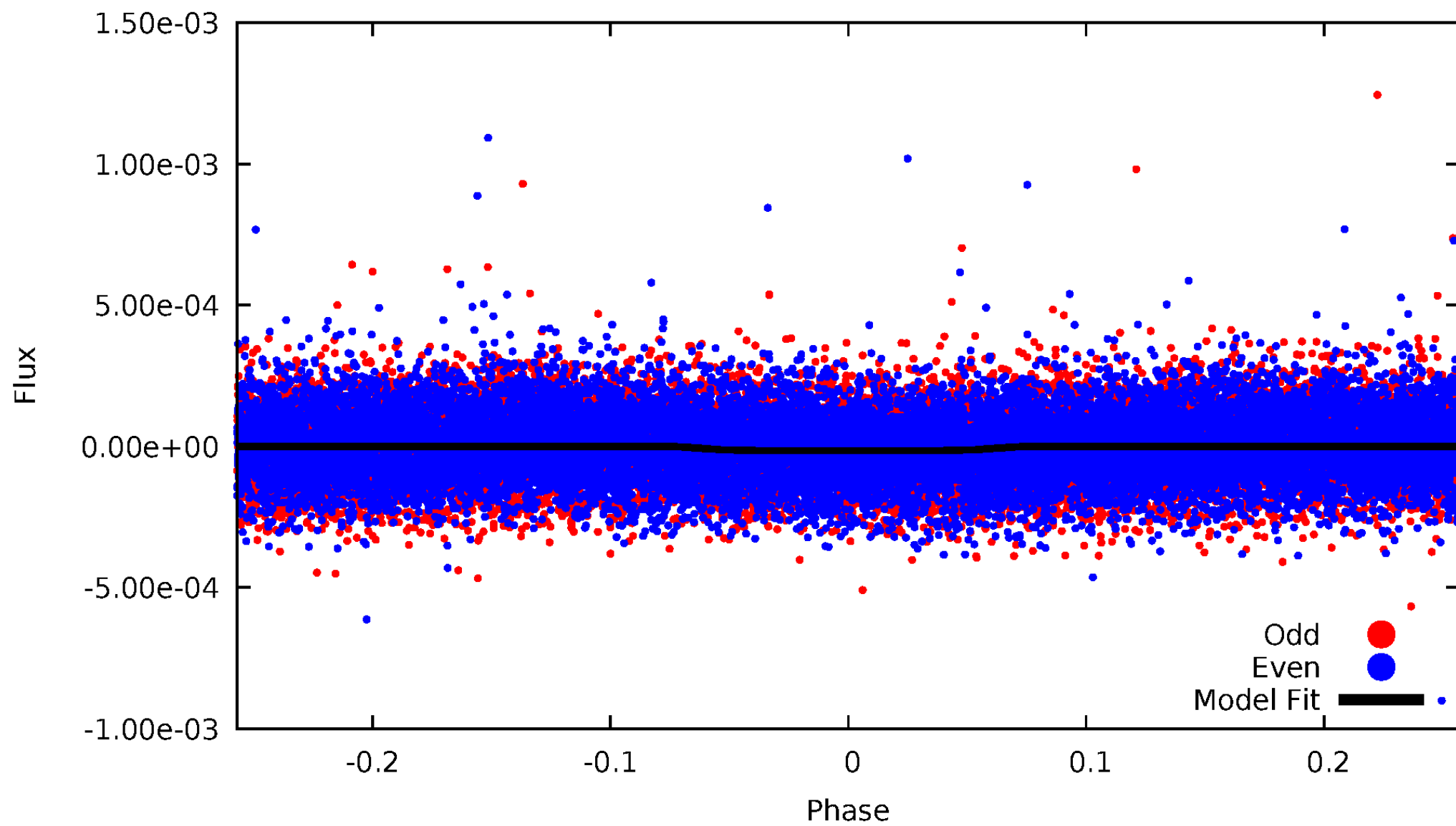


TCE 011359657-01



DV Odd/Even

TCE 011359657-01

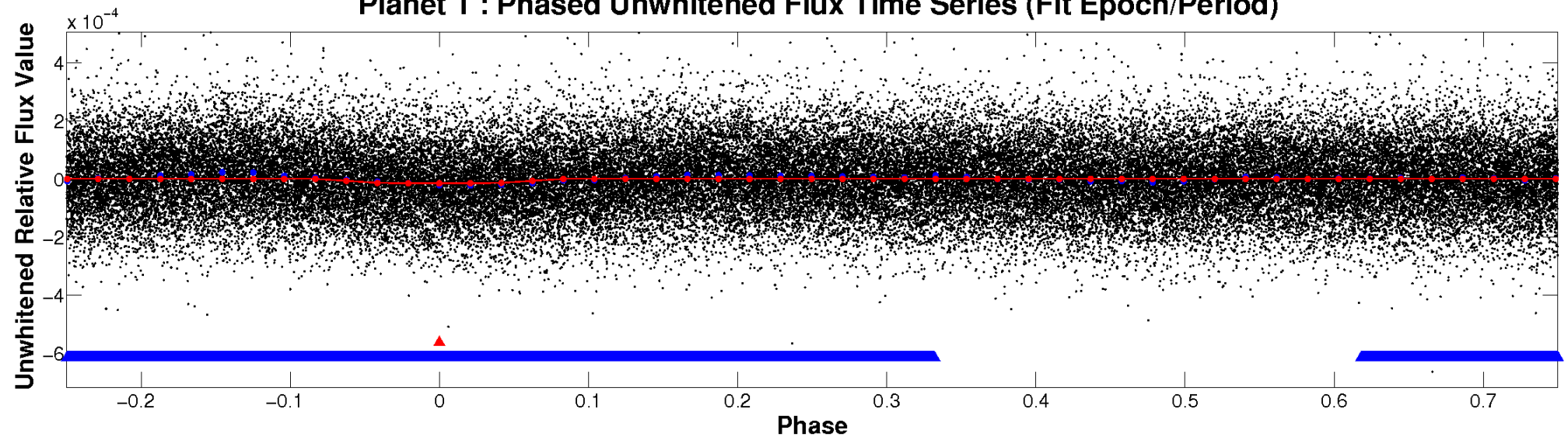


ALT Odd/Even

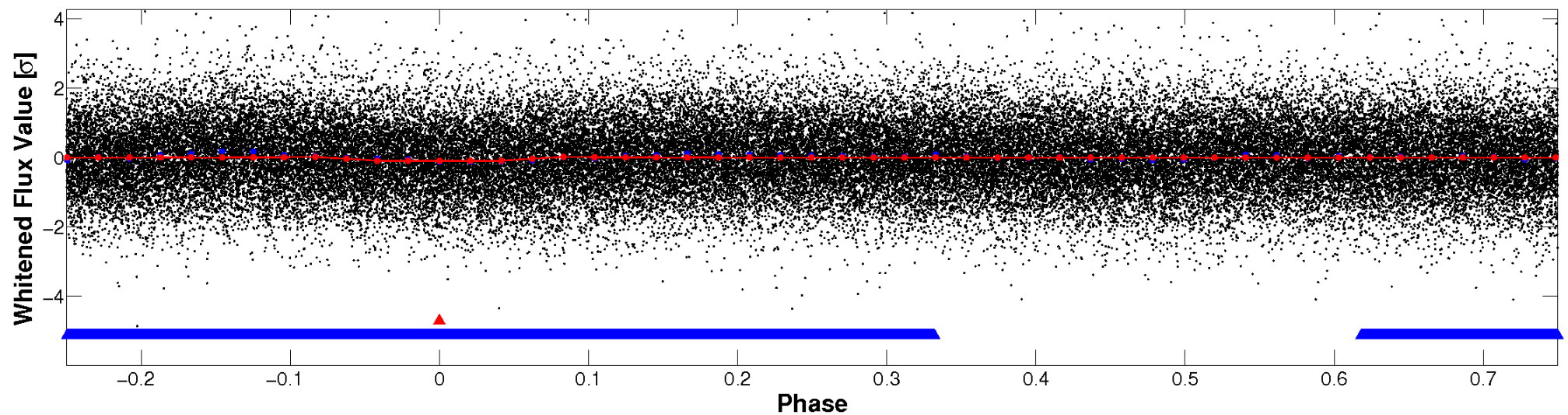
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

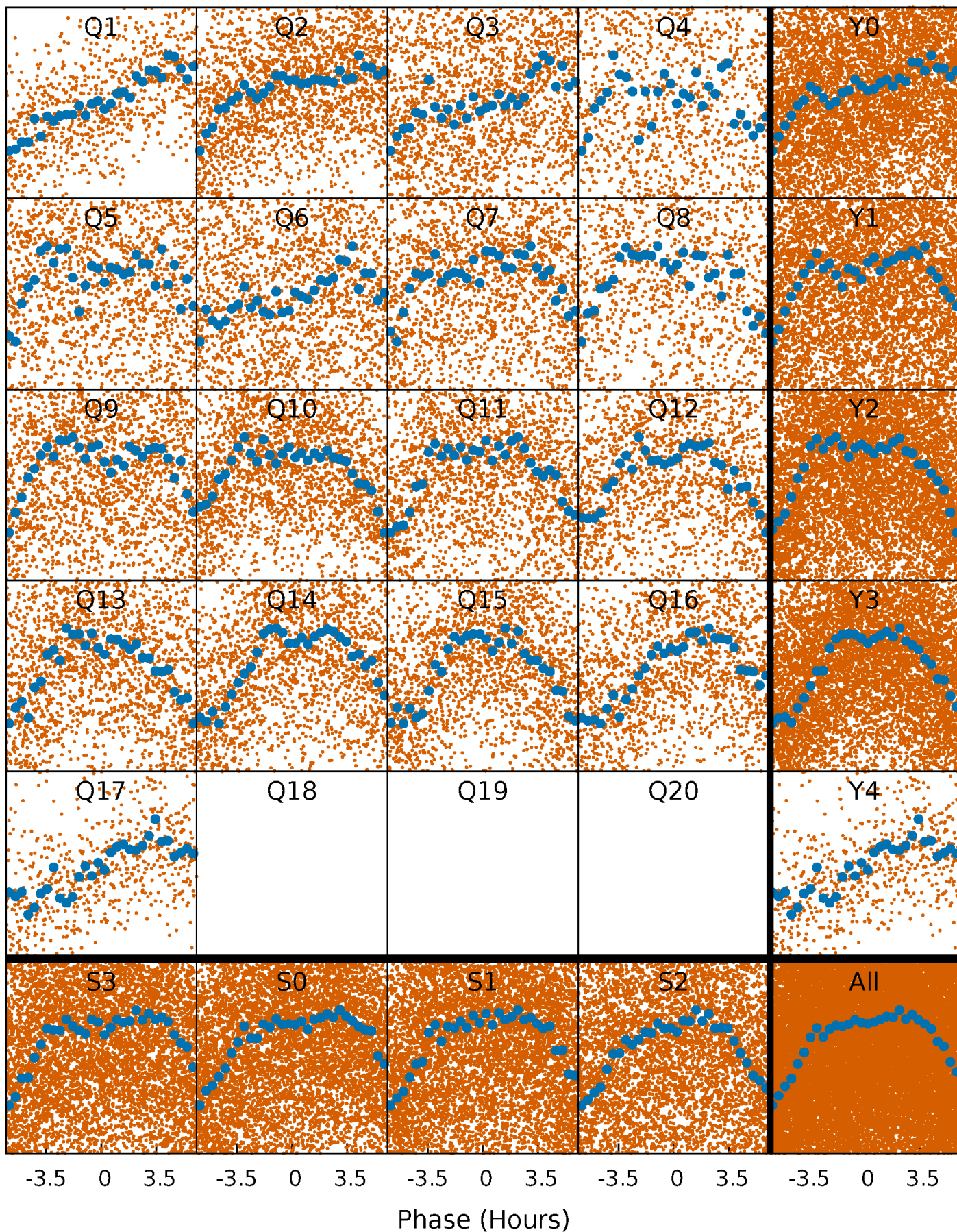


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



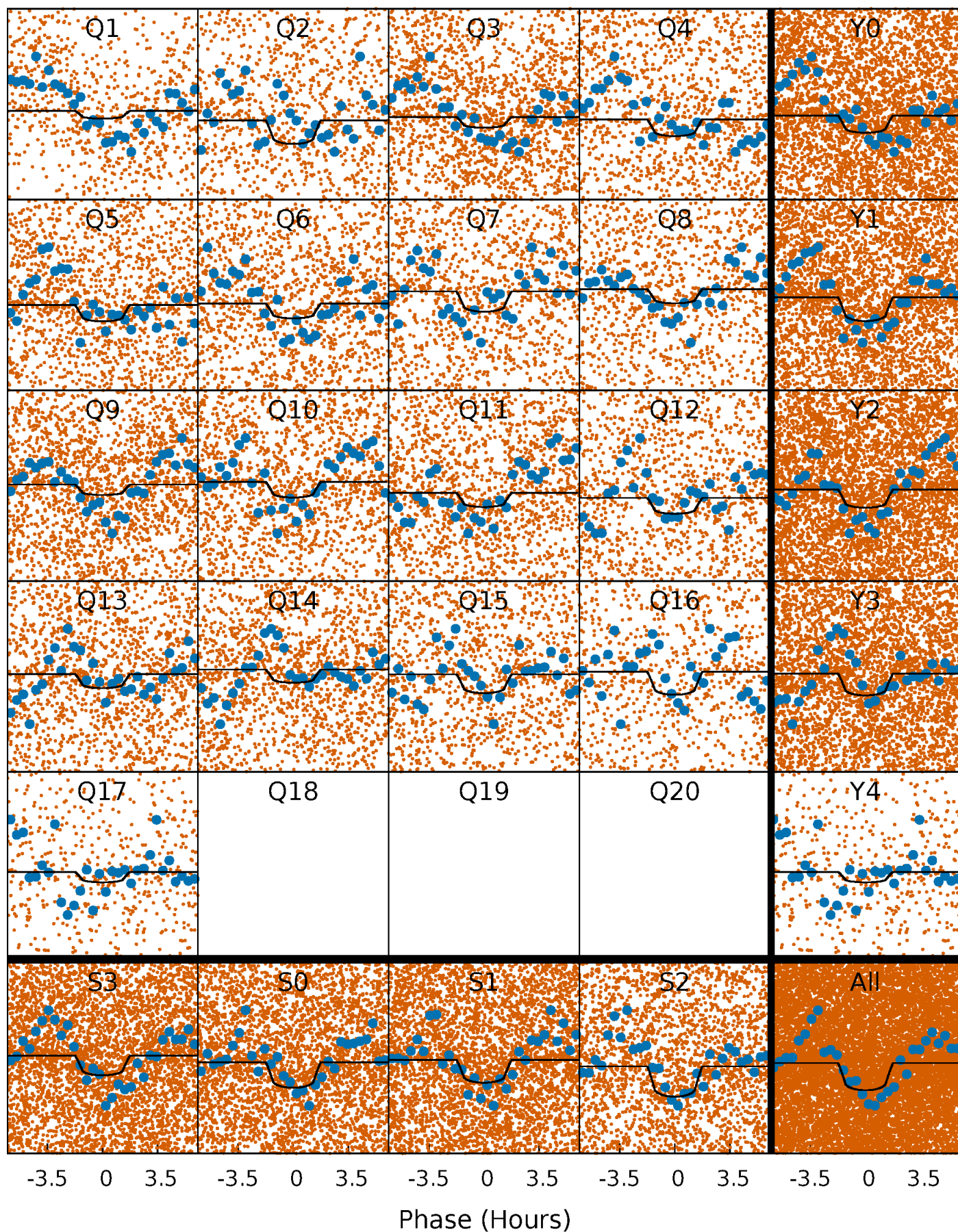
PDC Quarter-Phased Transit Curves

TCE 011359657-01 P= 0.982596 Days $T_0=132.289955$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 011359657-01 P= 0.982596 Days $T_0=132.289955$ (BKJD)

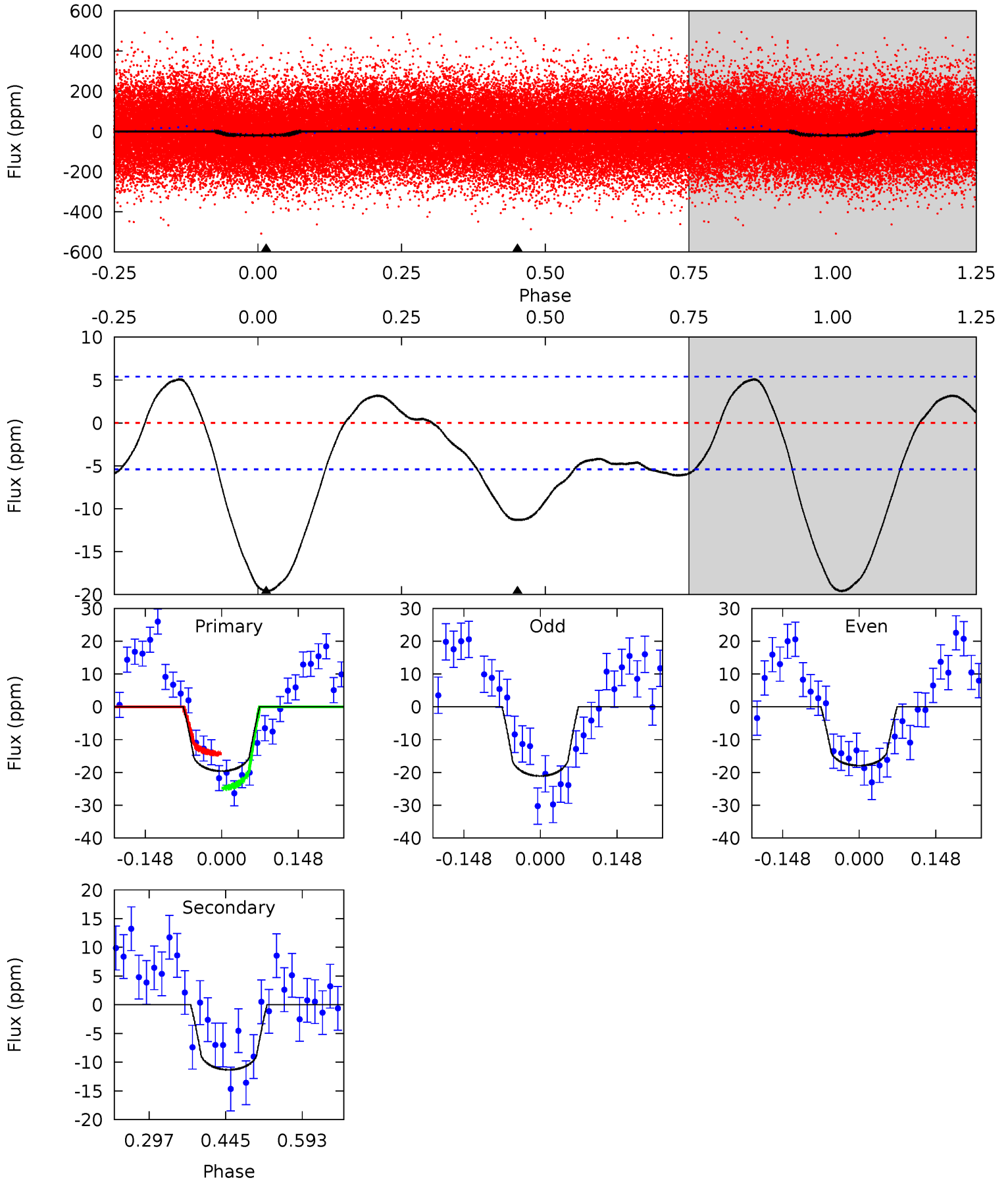


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

011359657-01, P = 0.982596 Days, E = 131.307359 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	9.41	0	0	4.48	1.45	3.17	16.3	16.3	9.41	9.41	1.31	0.94	0.21	4.37



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 011359657

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7066^{+172}_{-246}	$3.710^{+0.277}_{-0.074}$	$0.100^{+0.200}_{-0.300}$	$3.132^{+0.448}_{-1.046}$	$1.835^{+0.189}_{-0.283}$	$0.084^{+0.152}_{-0.024}$
	+2%/-3%	+7%/-2%	+200%/-300%	+14%/-33%	+10%/-15%	+181%/-29%
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 011359657-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-11 ± 1	$1.16^{+0.64}_{-0.50}$	4870^{+302}_{-386}	6482^{+2973}_{-1371}	$2.594^{+5.803}_{-1.517}$
Alt.	N/A	N/A	N/A	N/A	N/A

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

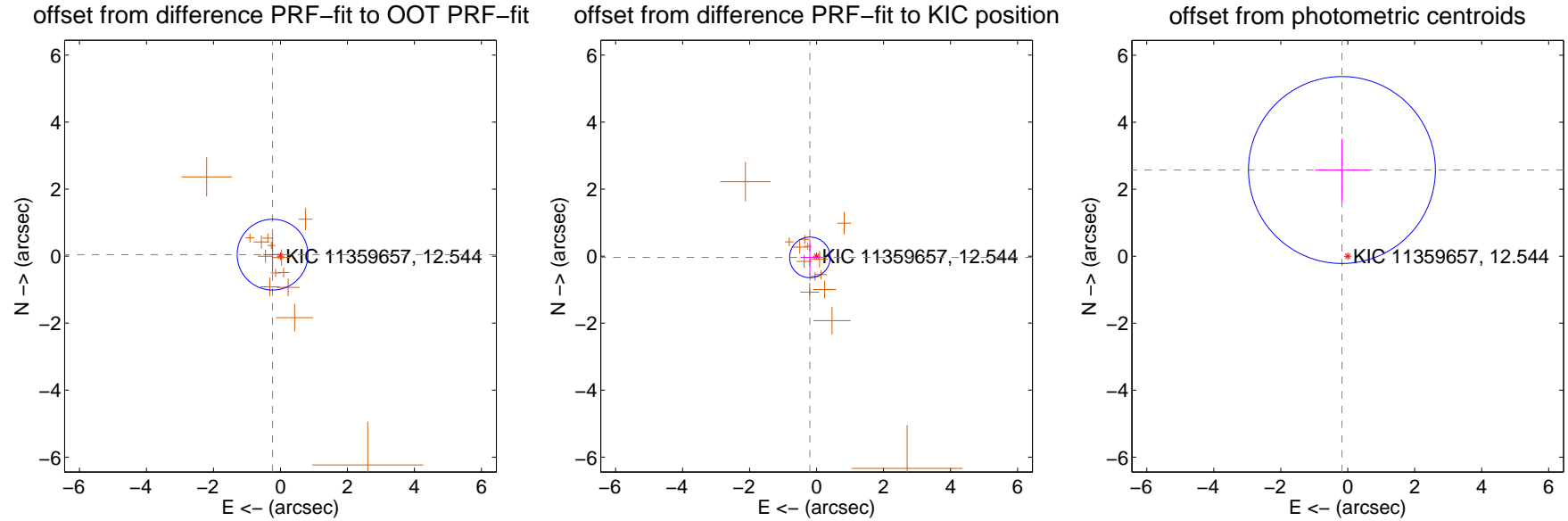
DV Centroid Data

Supplemental centroid analysis for 011359657-01. Kepler magnitude: 12.54. Transit SNR 8.02

There are 0 quarters with good PRF difference image offsets

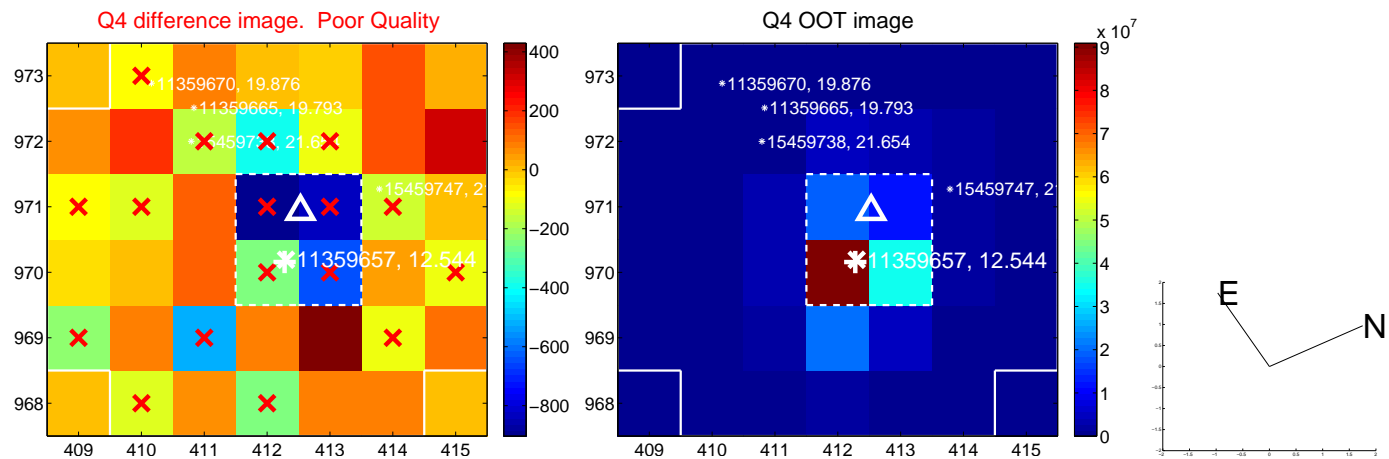
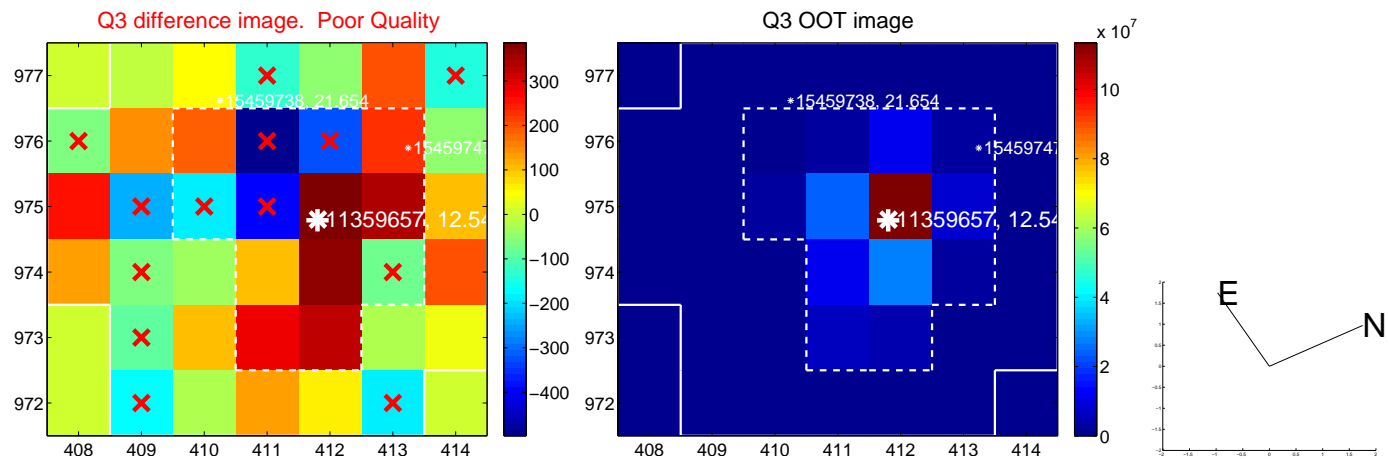
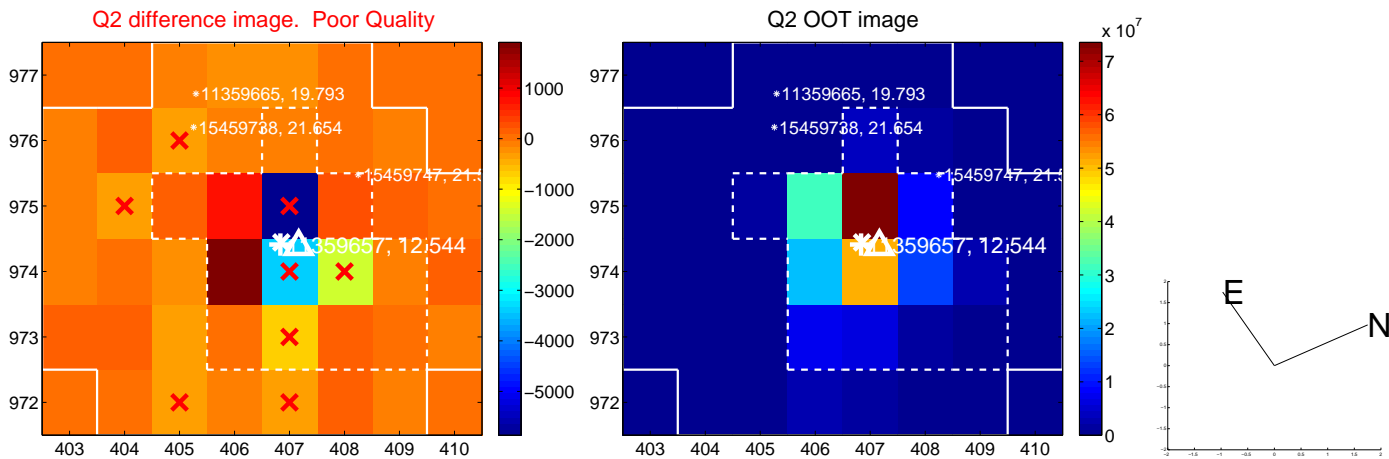
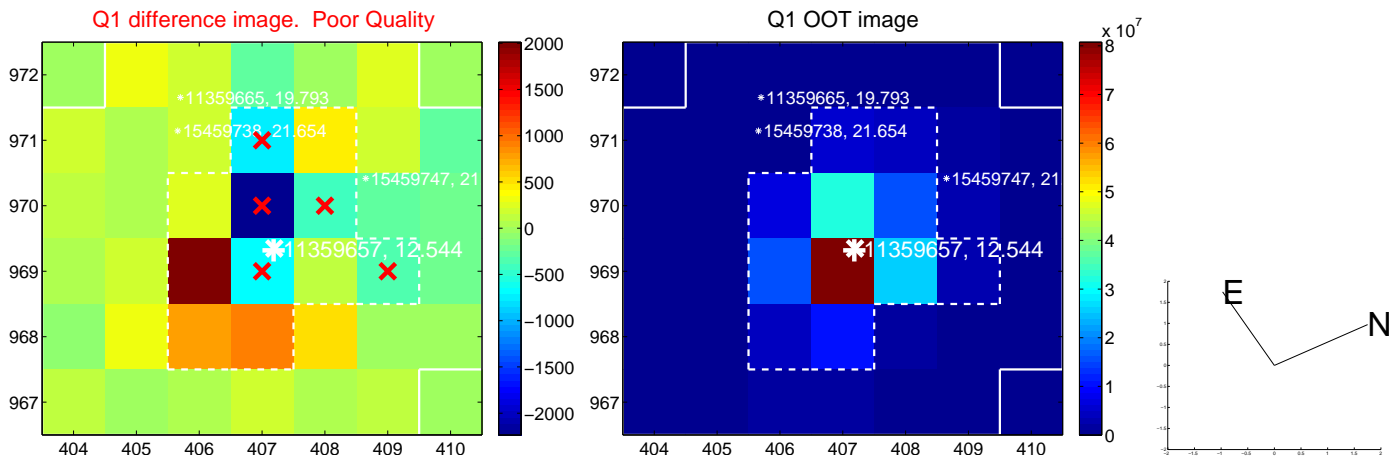
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.241 ± 0.352	0.68	0.237 ± 0.277	0.044 ± 0.521
PRF-fit source offset from KIC position	0.202 ± 0.202	1.00	0.199 ± 0.281	-0.038 ± 0.517
photometric centroid source offset	2.58 ± 0.93	2.77	0.17 ± 0.80	2.57 ± 0.93

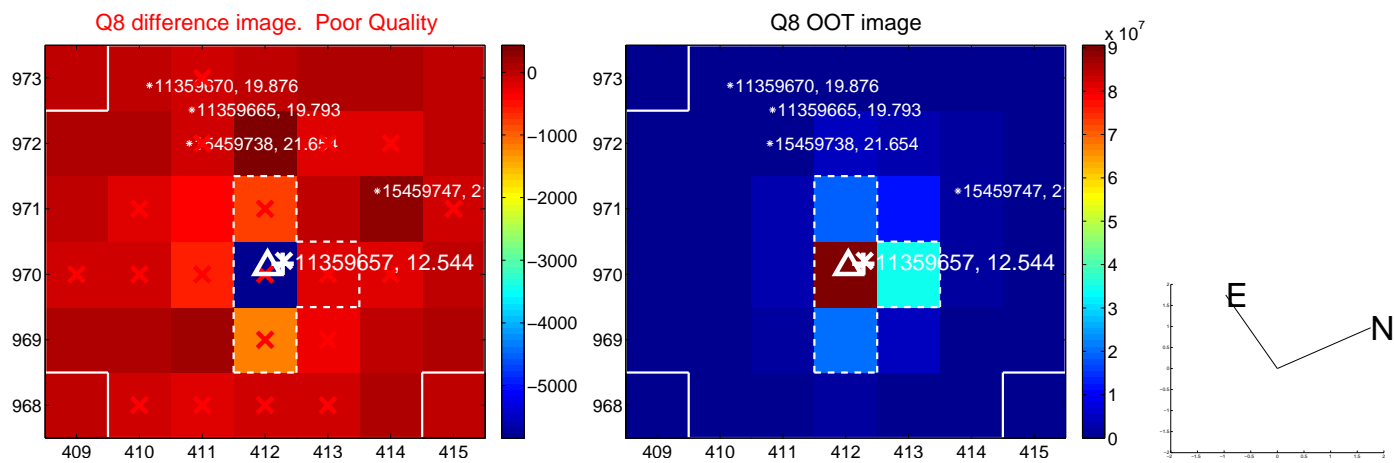
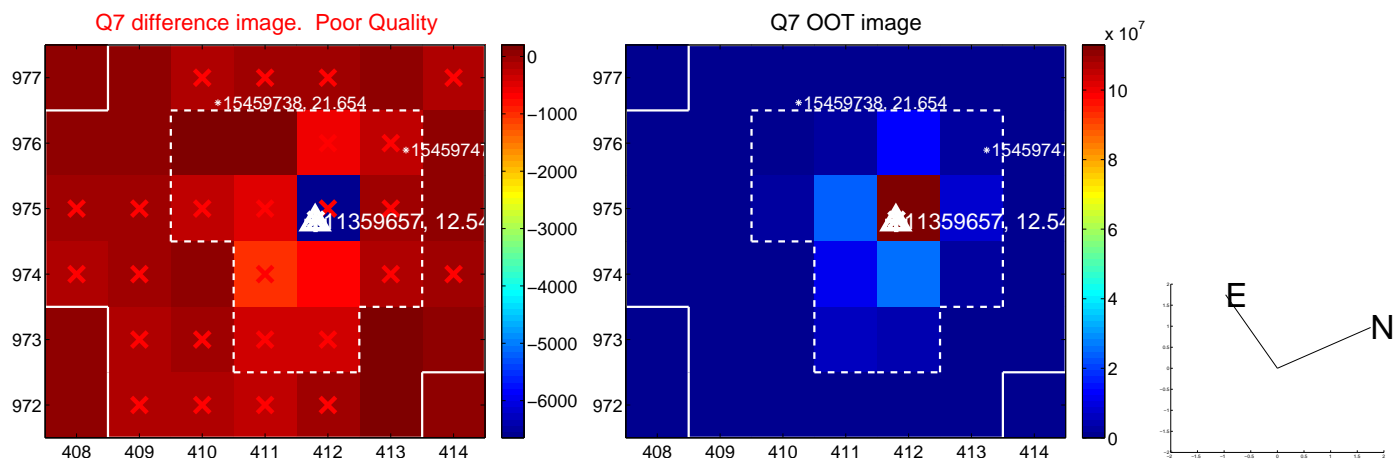
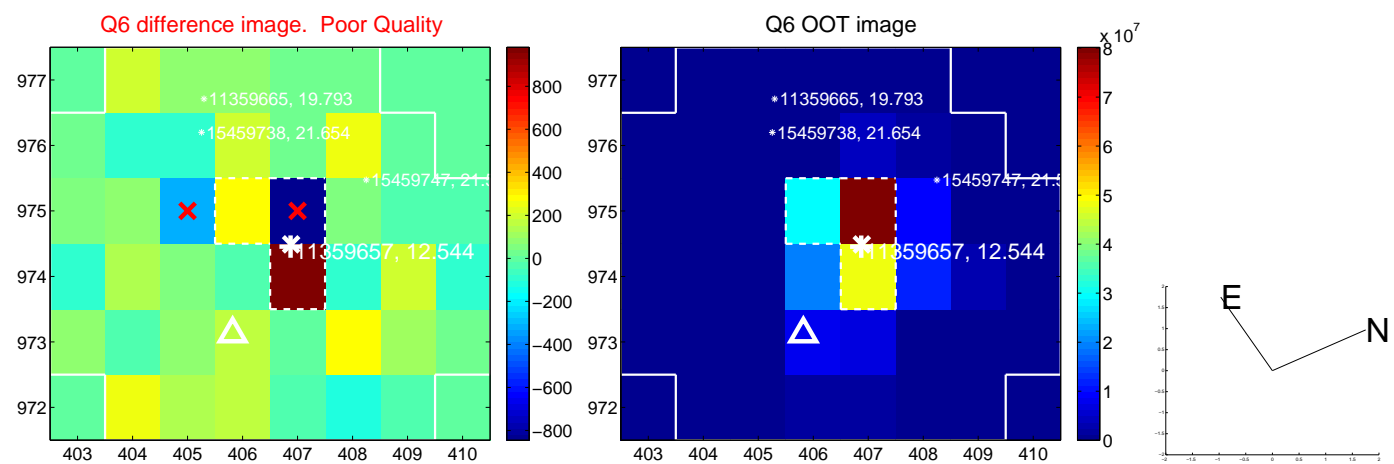
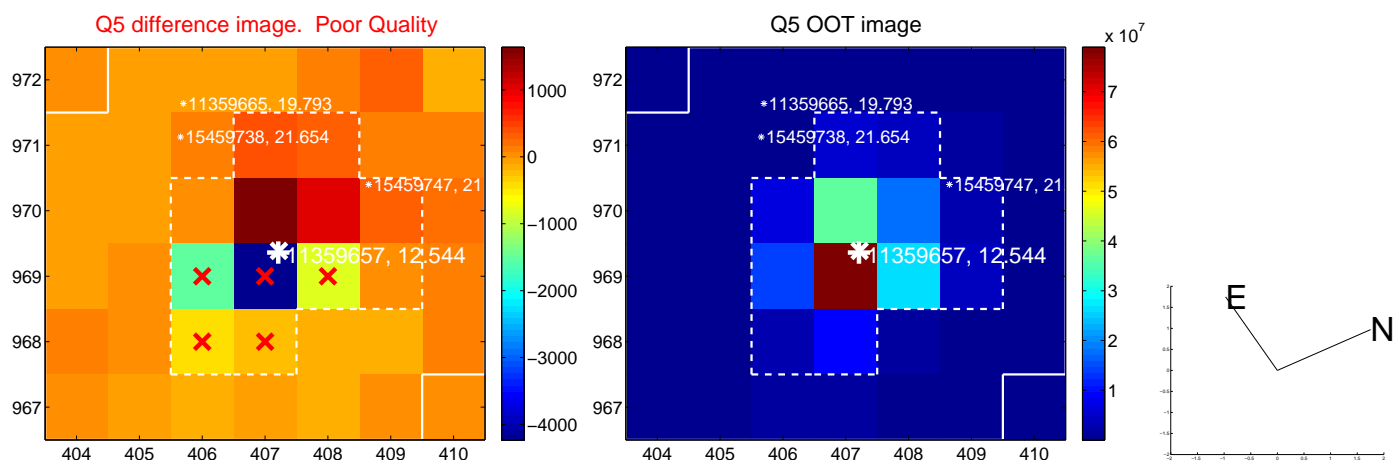


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

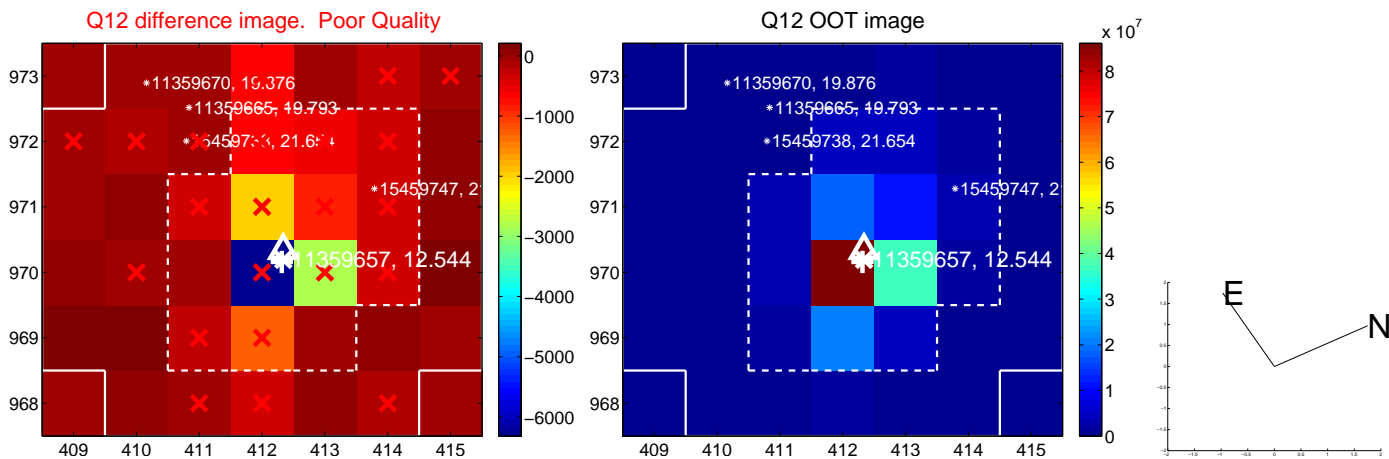
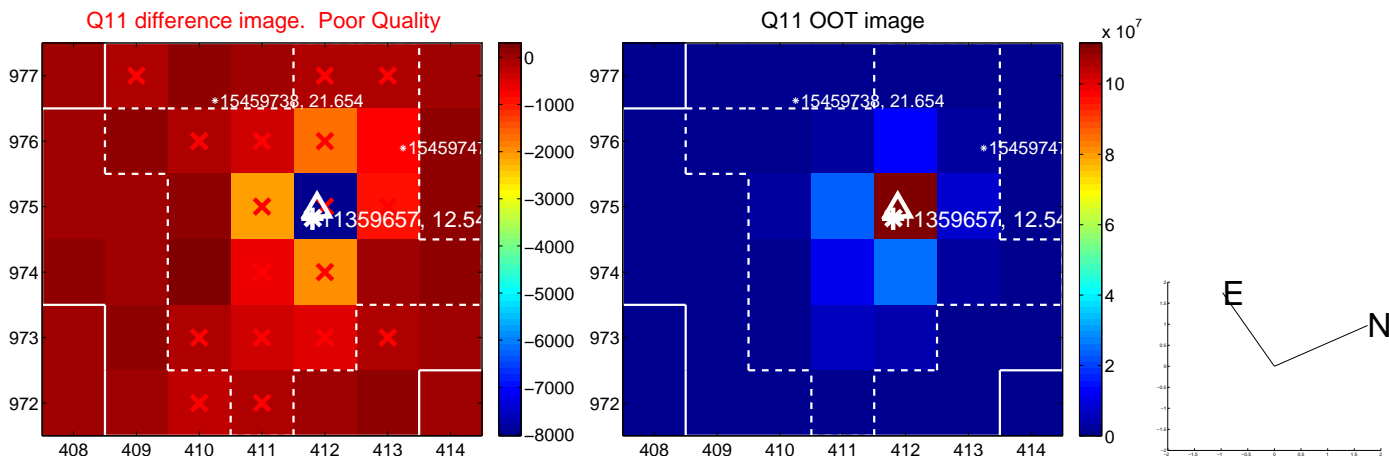
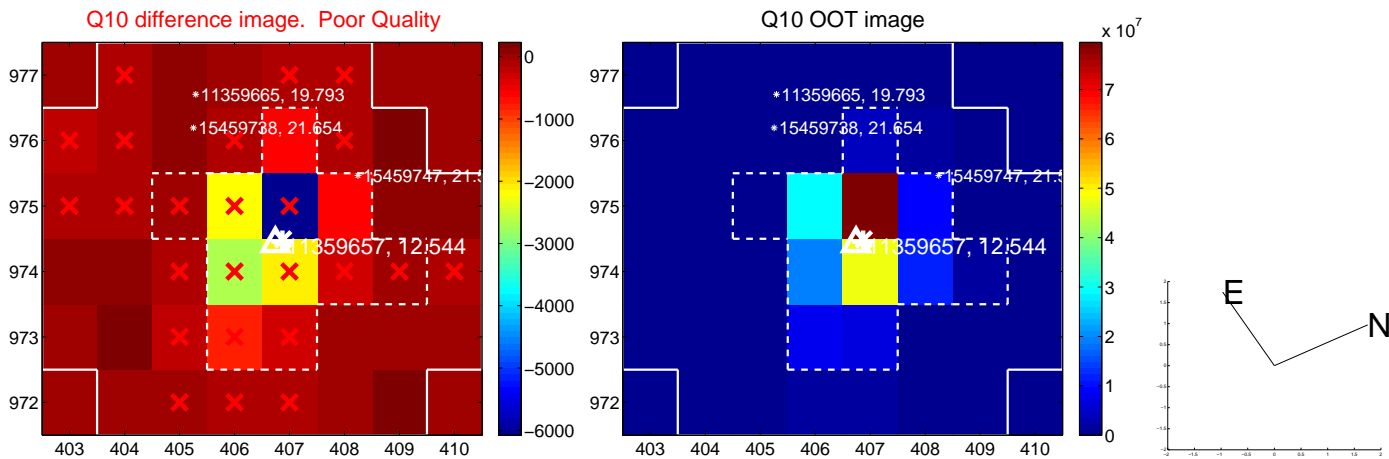
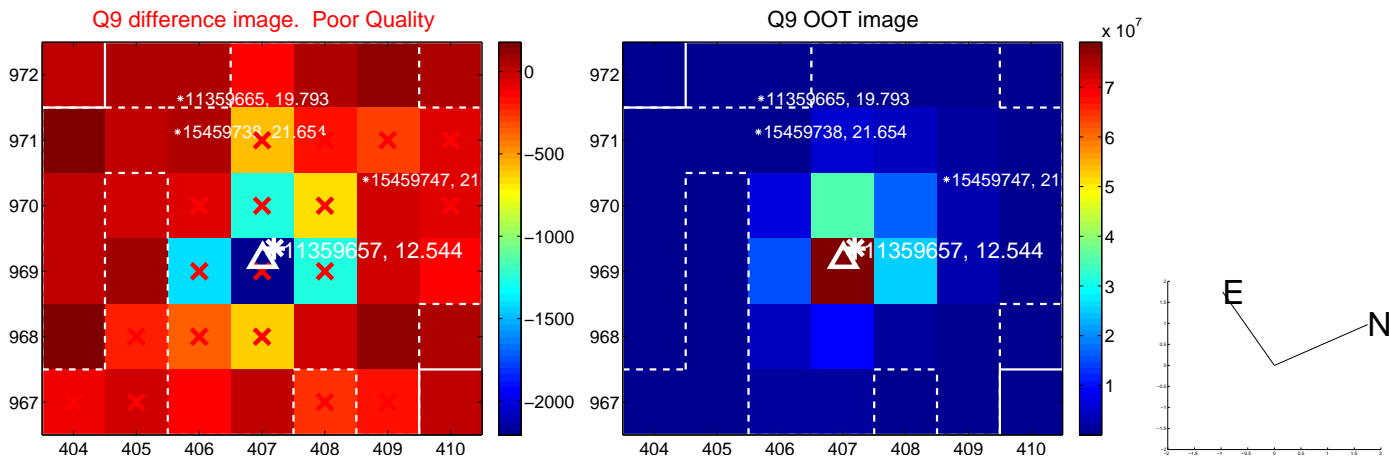
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



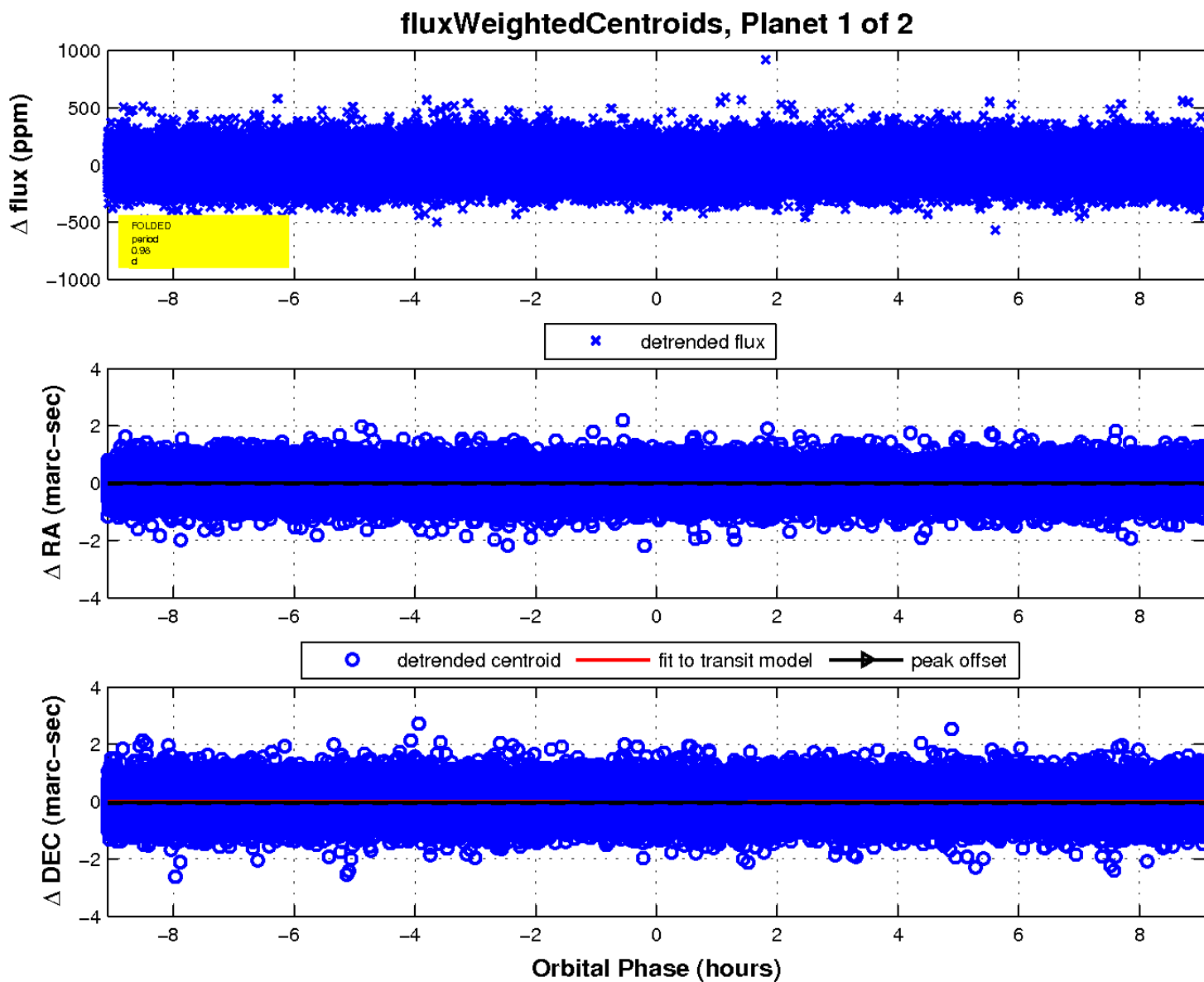
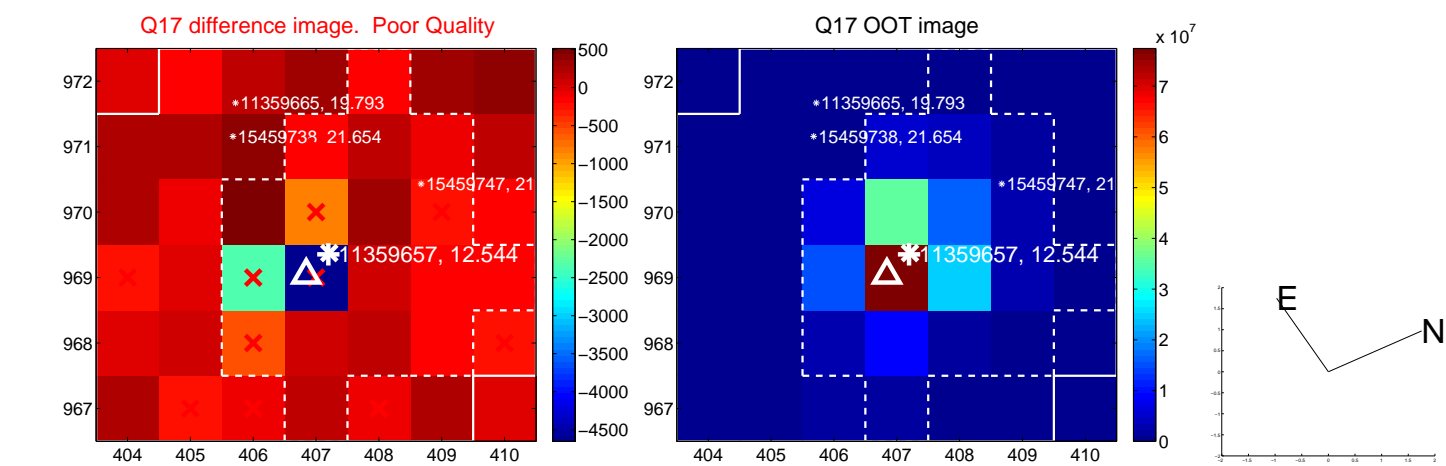
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

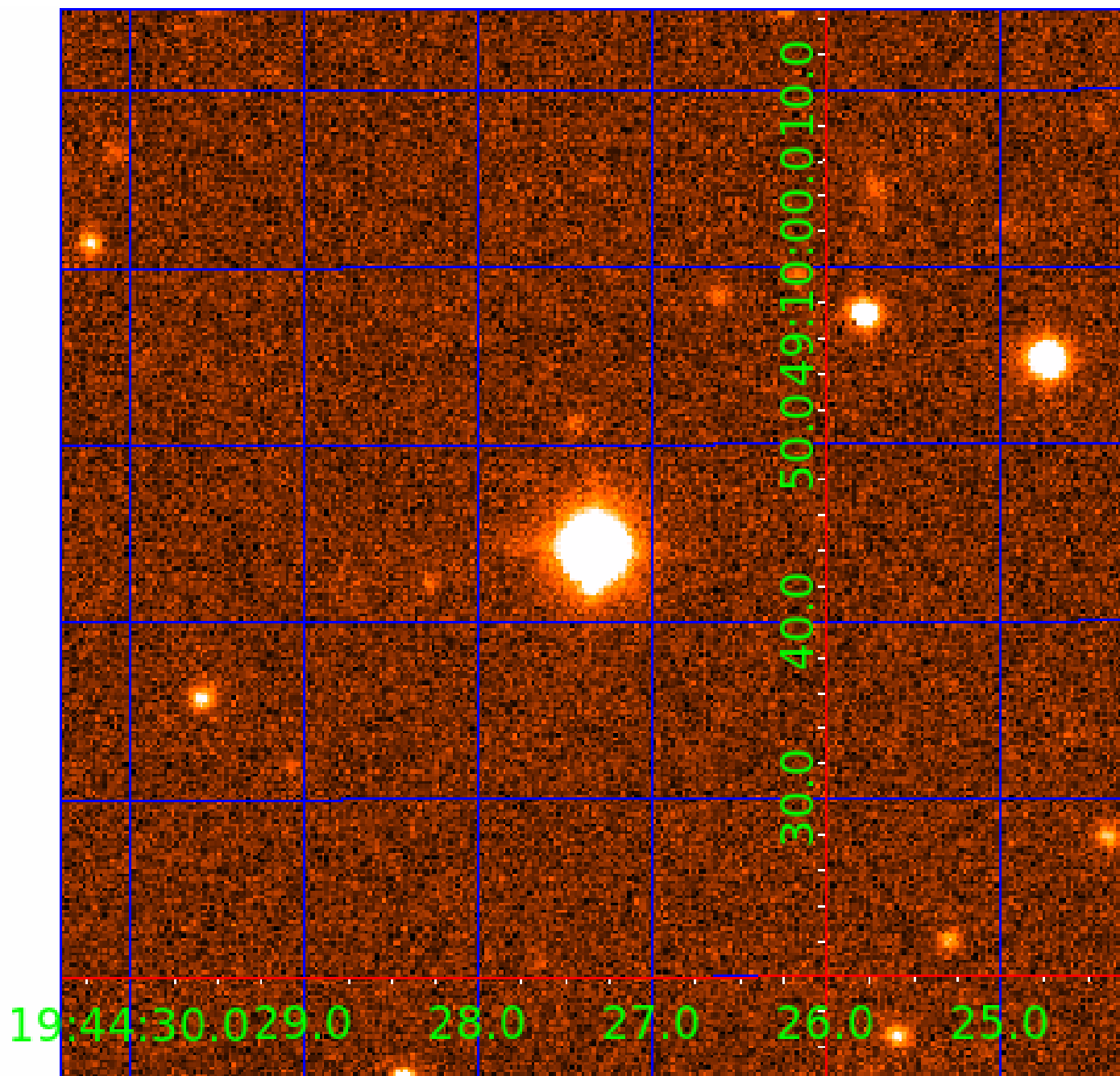


white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011359657

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})
011359657-01	OBS	No	0.982596	132.289955	15.3	3.030	8.7	8.0	3.13	7066	1.25	39051.43
011359657-02	OBS	No	0.982123	131.633500	0.0	7.556	8.9	0.0	3.13	7066	0.03	39076.47

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011359657-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—CENT_FEW_DIFFS
011359657-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—CENT_FEW_DIFFS

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

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

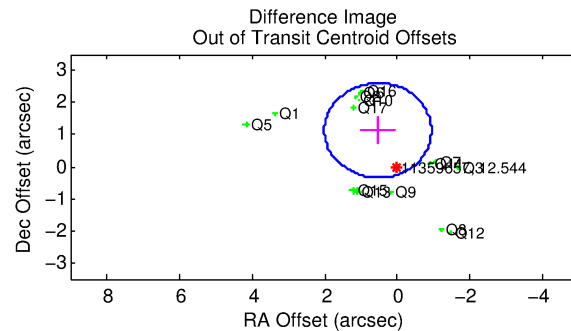
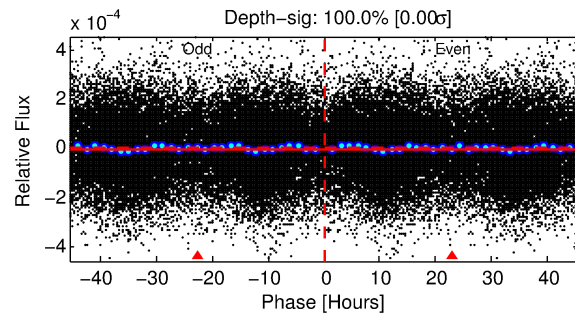
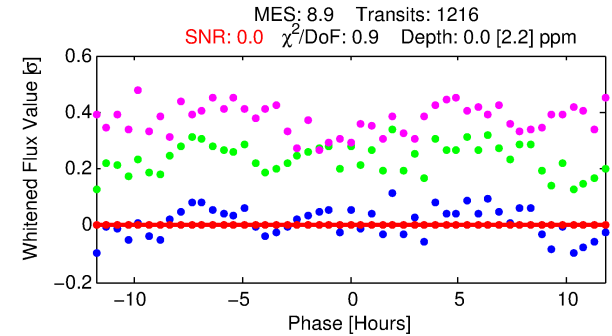
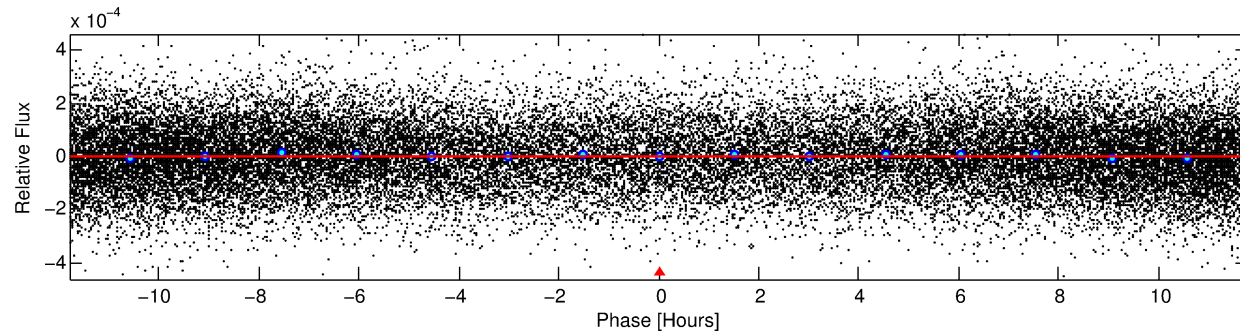
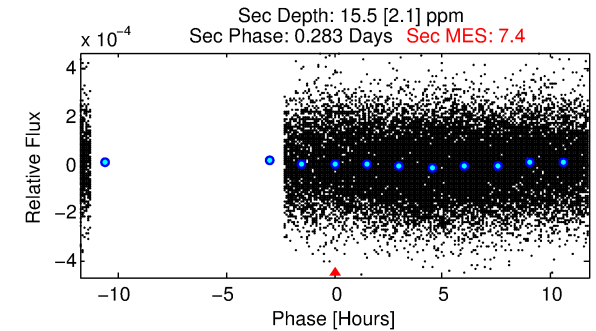
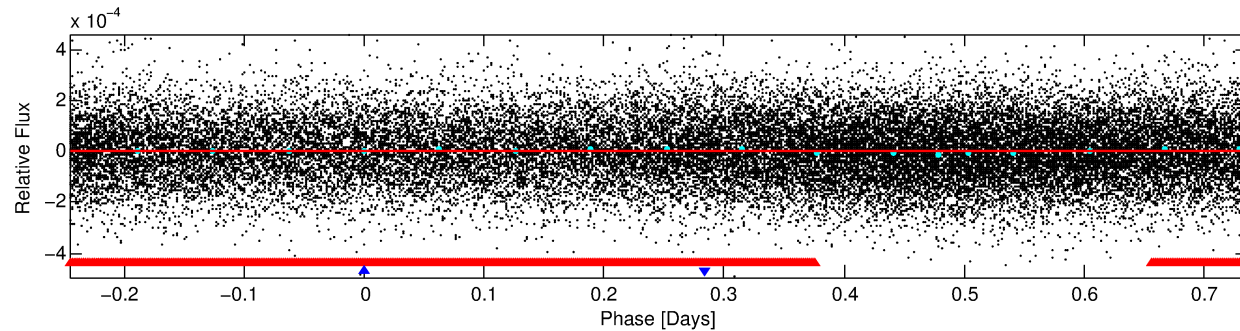
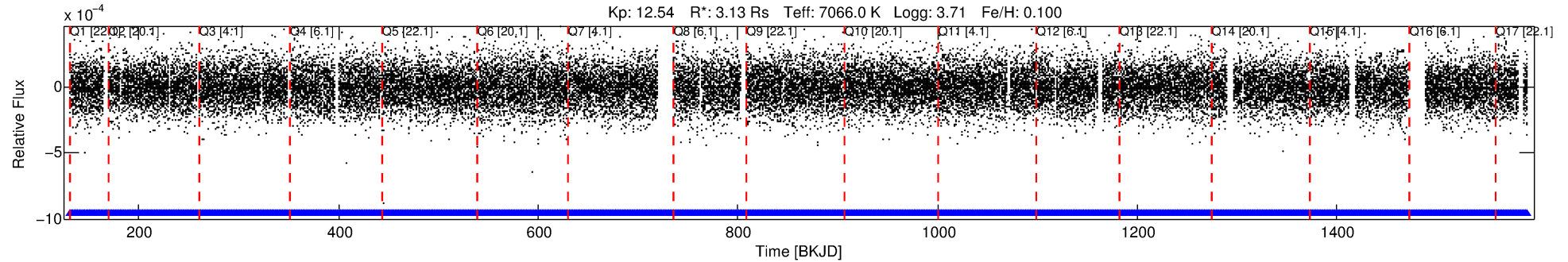
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011359657-02

No Significant Match Found

DV One-Page Summary

KIC: 11359657 Candidate: 2 of 2 Period: 0.982 d



DV Fit Results:

Period = 0.98212 [0.04408] d
Epoch = 131.6335 [13.7550] BKJD
Rp/R* = 0.0001 [0.0122]
a/R* = 1.15 [36.16]
b = 0.46 [242.23]
Seff = 39076.47 [19668.69]
Teff = 3585 [451] K
Rp = 0.03 [4.17] Re
a = 0.0237 [0.0073] AU
Ag = 6086.22 [1810385.19] [0.00σ]
Teffp = 48959 [3641177] K [0.01σ]

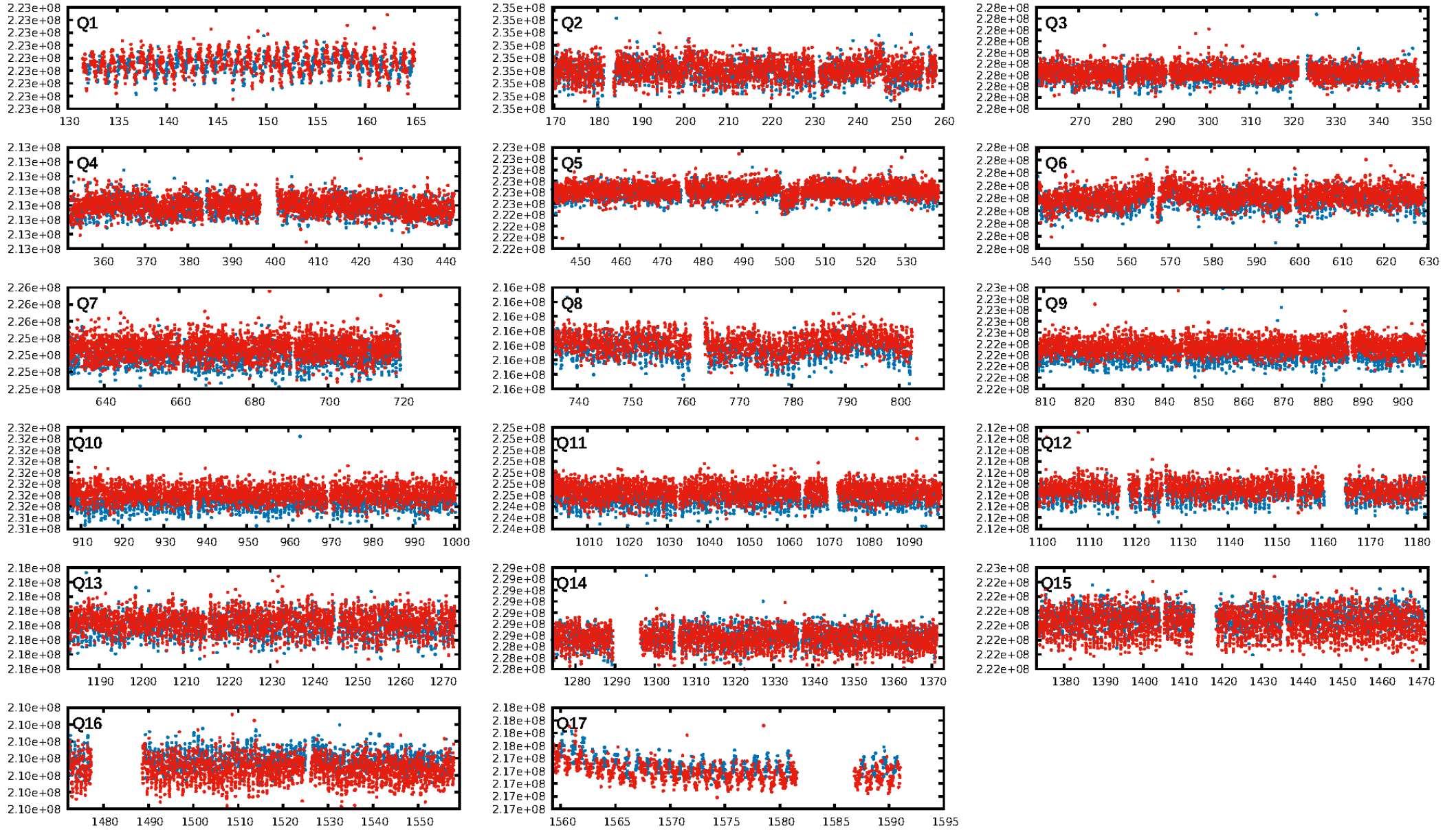
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.27e-06
RollingBand-fgt: 1.00 [1153/1153]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.249 arcsec [2.54σ]
KicOffset-rm: 1.269 arcsec [2.74σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.20 [3/15]
DiffImageOverlap-fno: 0.00 [0/17]

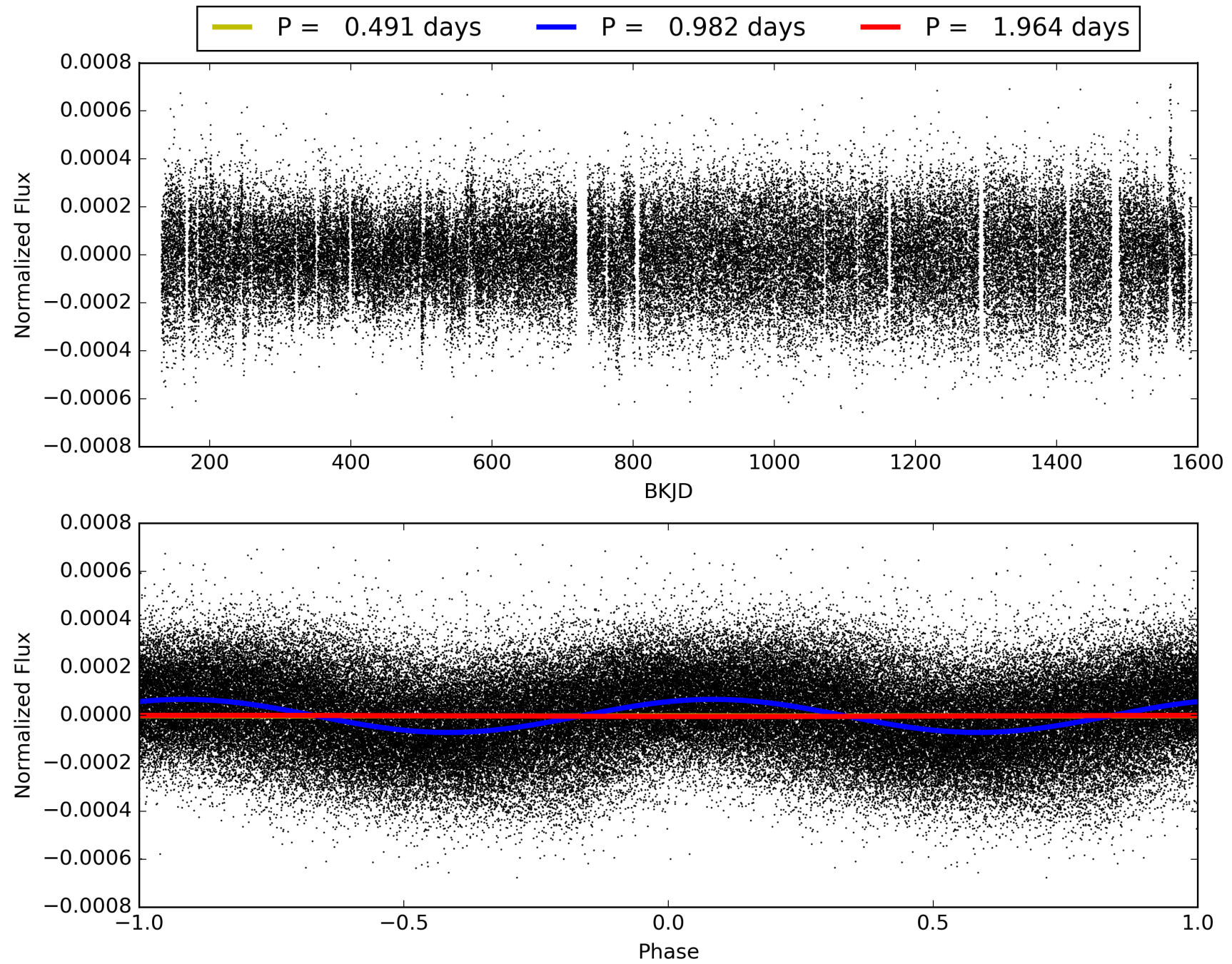
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:46:59 Z

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

TCE 011359657-02, PDC Light Curves

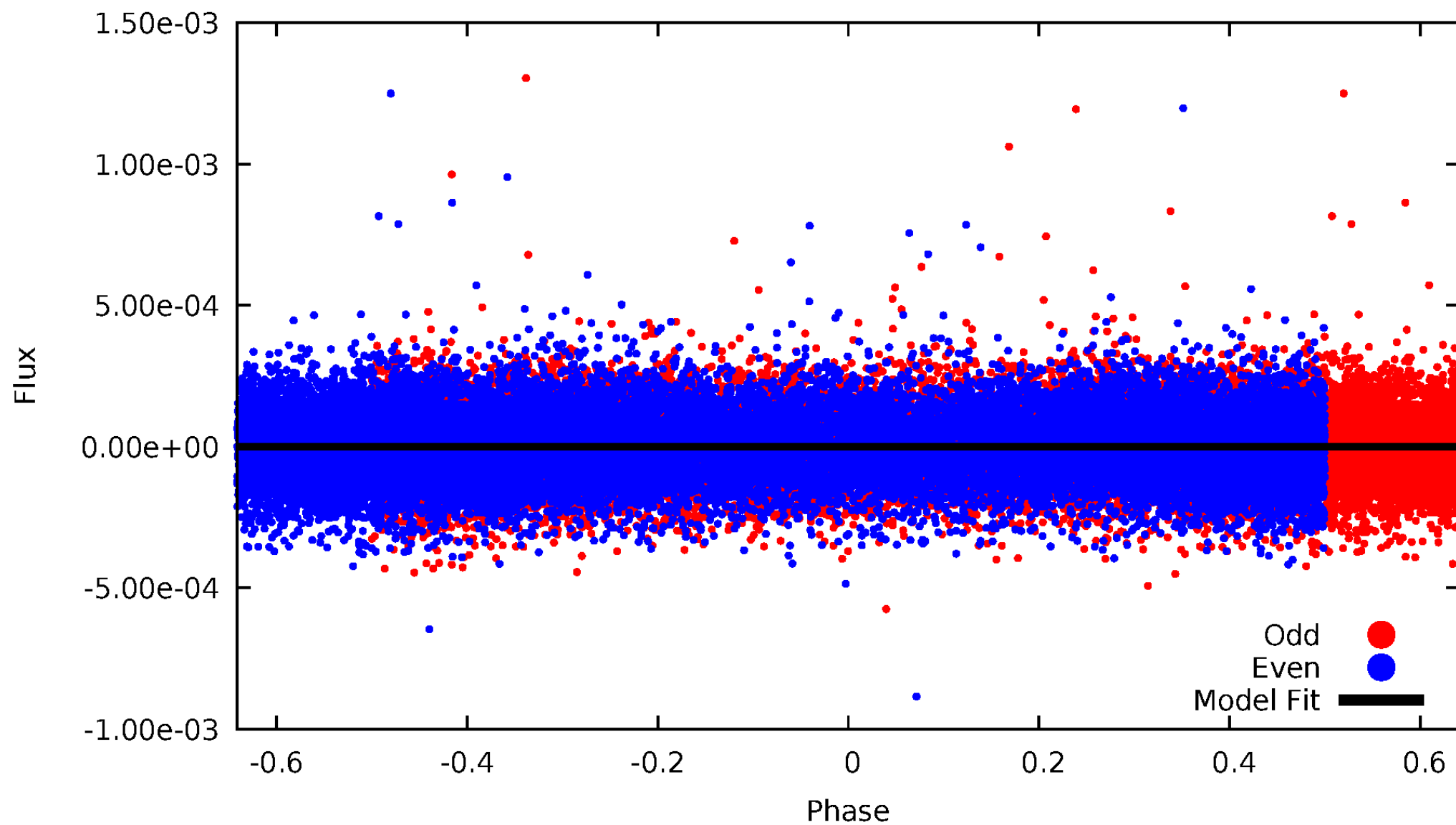


TCE 011359657-02



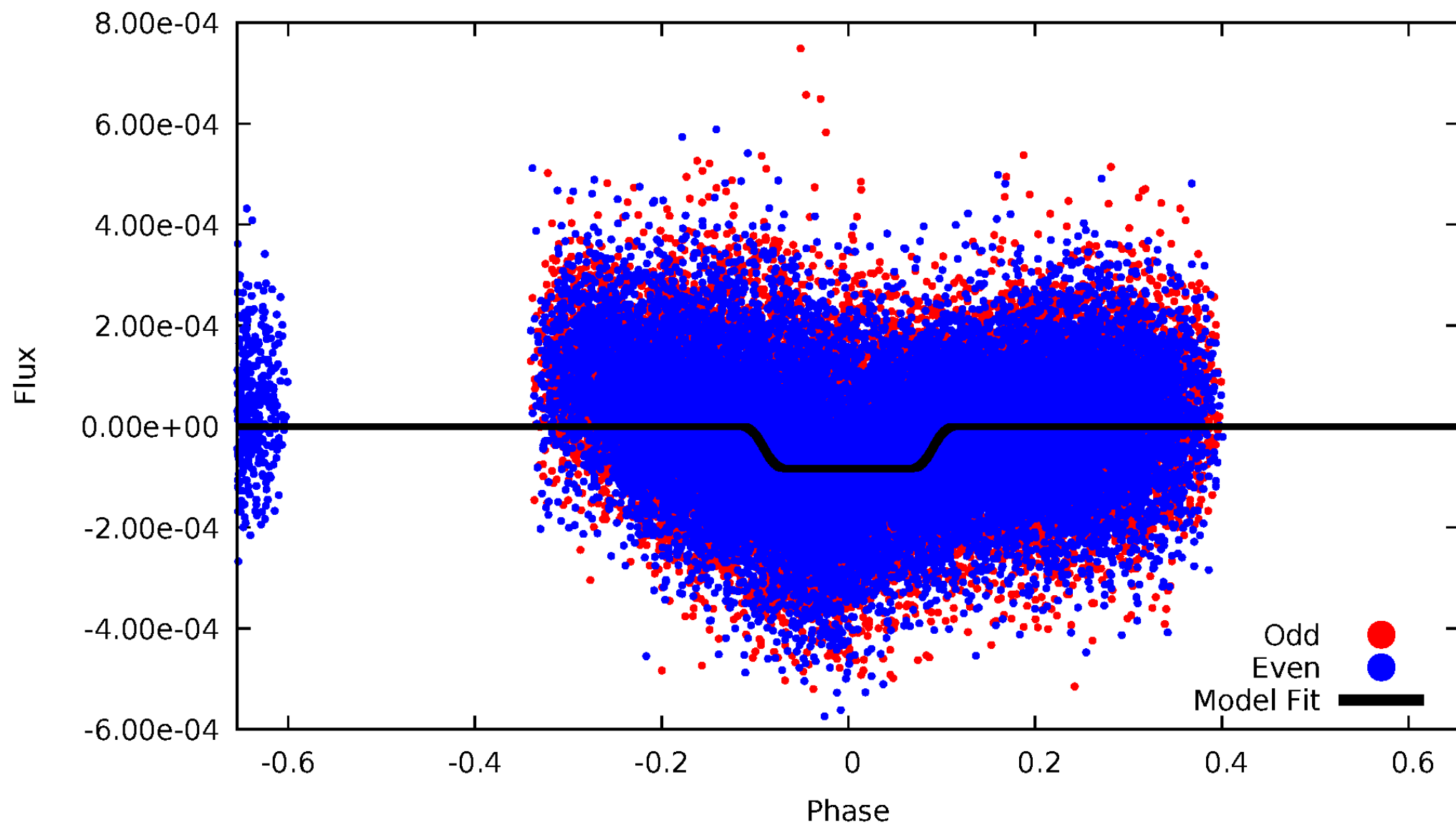
DV Odd/Even

TCE 011359657-02



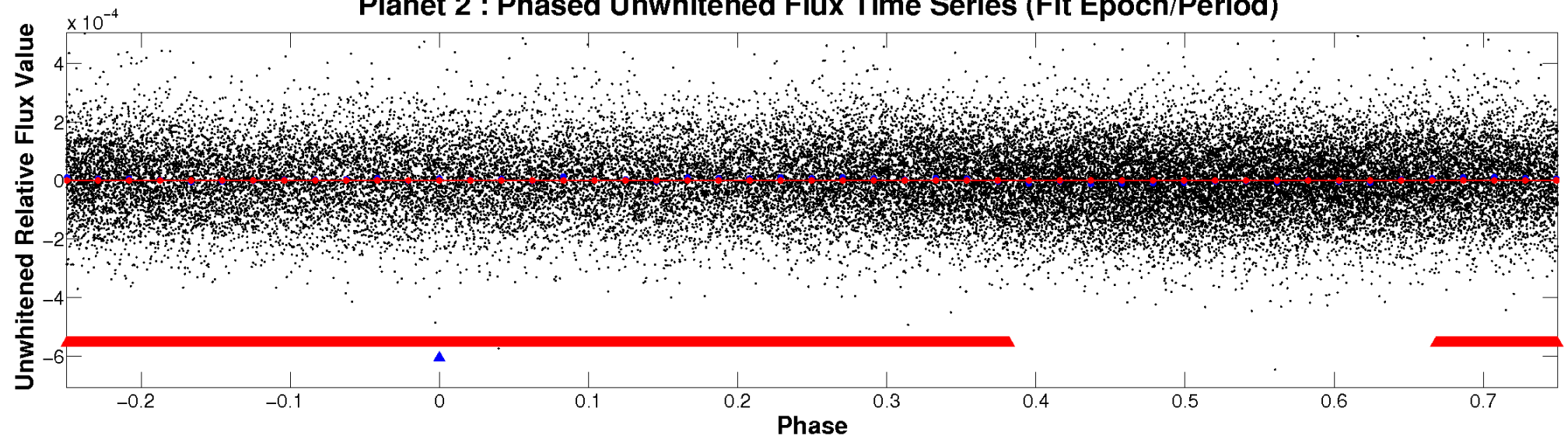
ALT Odd/Even

TCE 011359657-02

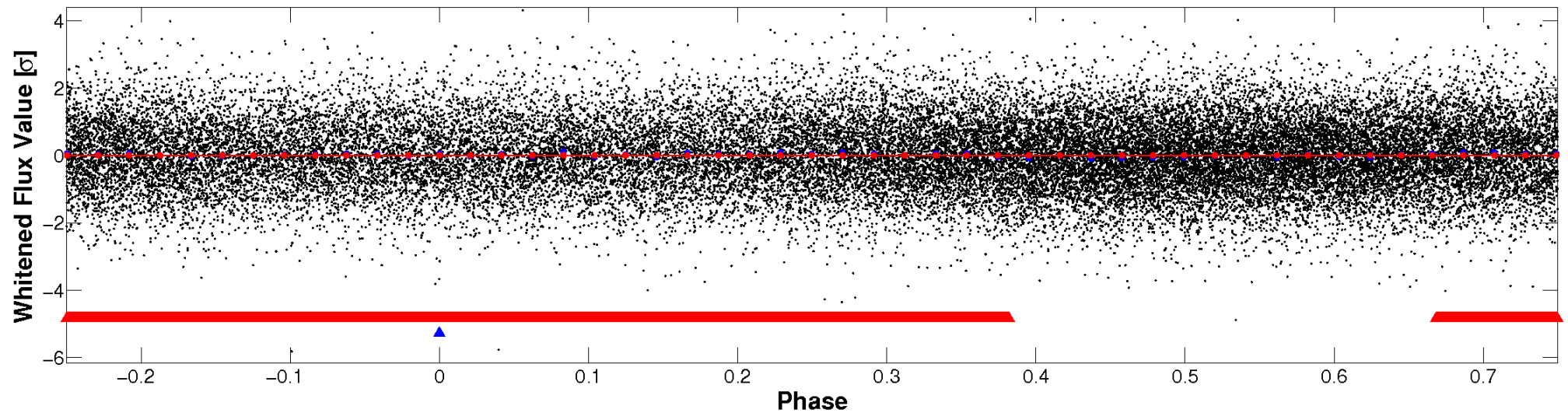


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

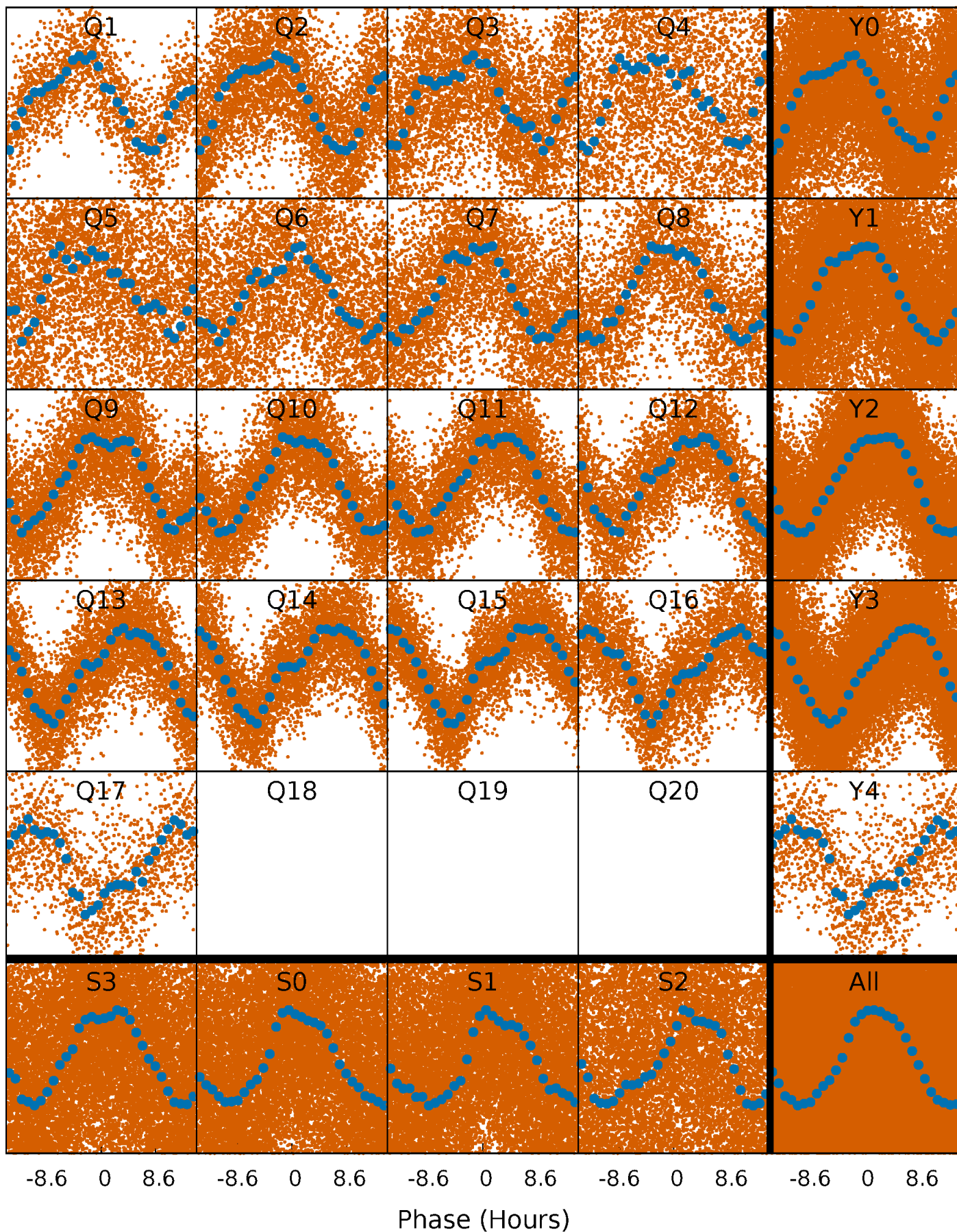


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



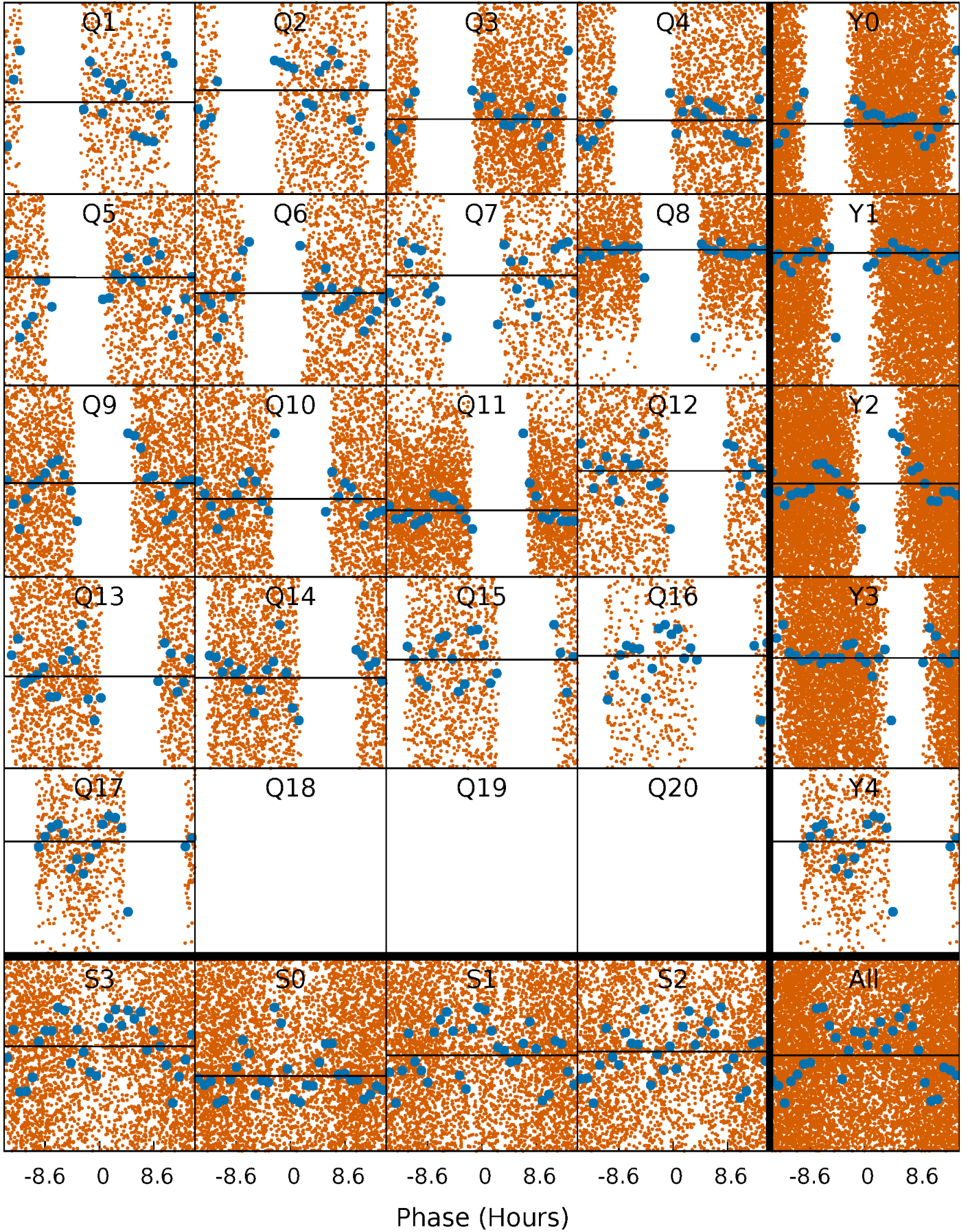
PDC Quarter-Phased Transit Curves

TCE 011359657-02 P= 0.982123 Days $T_0=131.633500$ (BKJD)



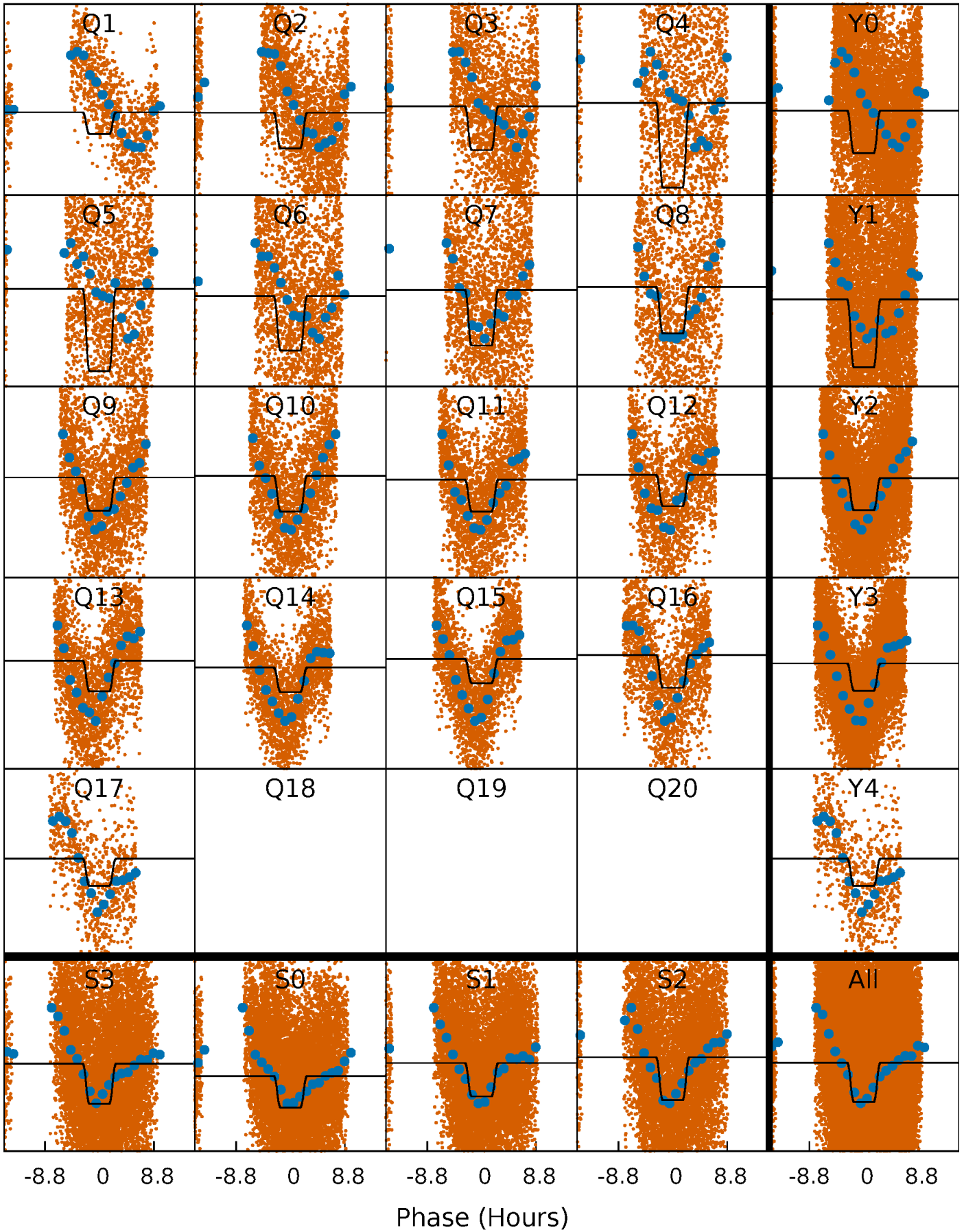
DV Quarter-Phased Transit Curves

TCE 011359657-02 P= 0.982123 Days $T_0=131.633500$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

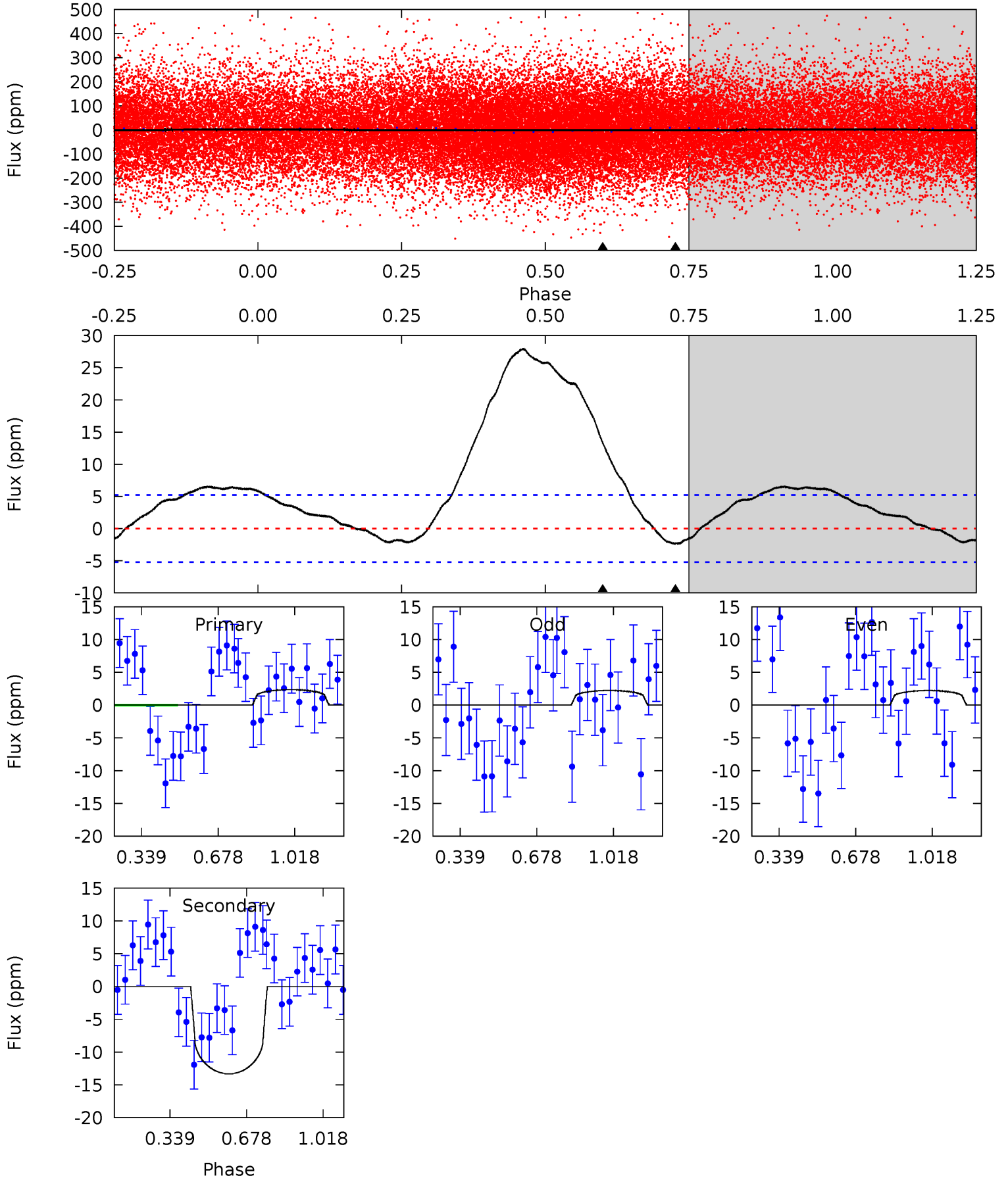
TCE 011359657-02 P= 0.982696 Days $T_0=131.695354$ (BKJD)



DV Model-Shift Uniqueness Test

011359657-02, P = 0.982123 Days, E = 130.651377 Days

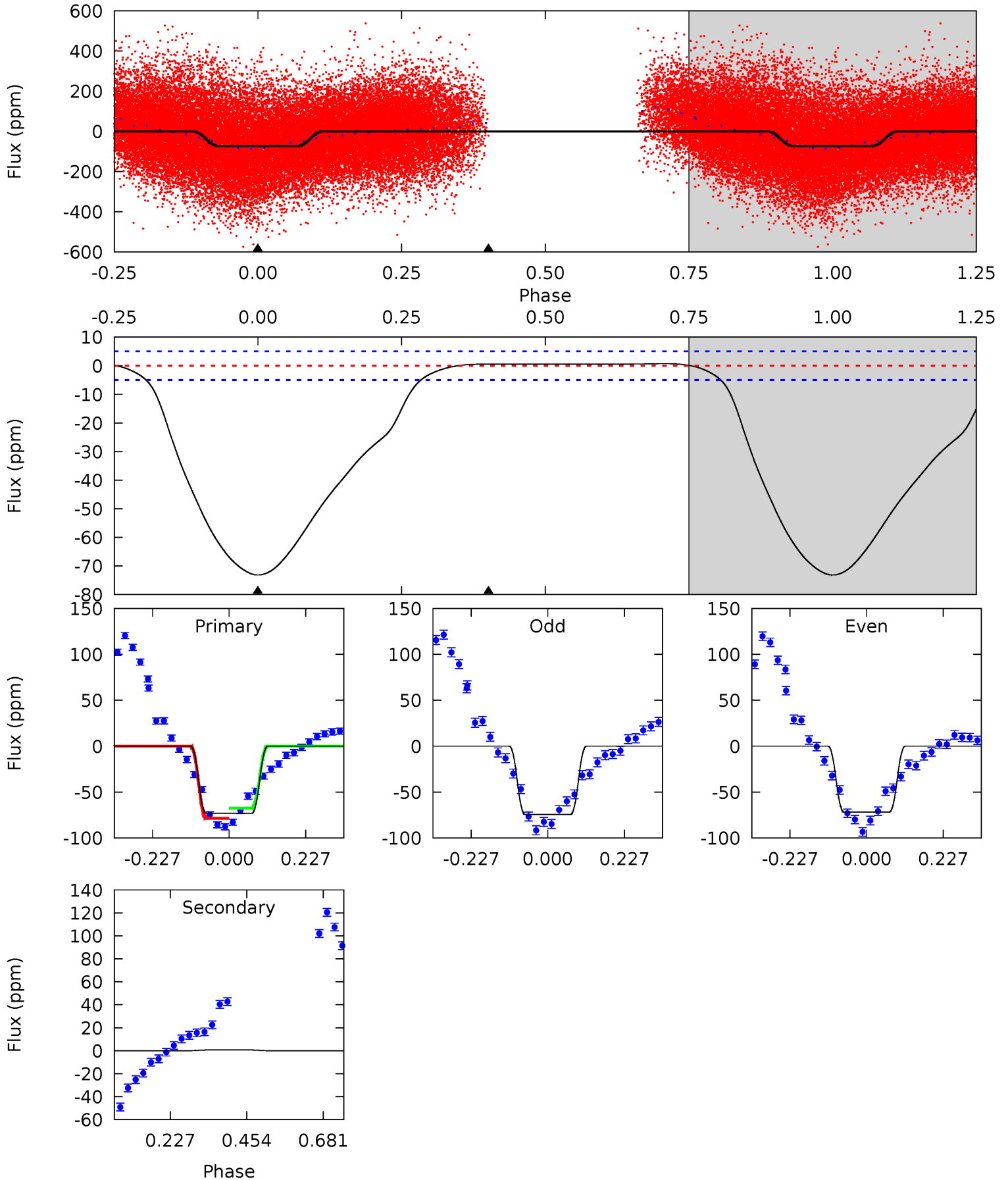
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.94	-11.0	0	0	4.30	0.96	1.40	1.94	1.94	-11.0	-11.0	0.00	-1.44	0.92	0.40



Alt Model-Shift Uniqueness Test

011359657-02, P = 0.982696 Days, E = 130.712658 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.7	-0.52	0	0	4.39	1.21	0.98	63.7	63.7	-0.52	-0.52	1.18	0.90	0.01	4.93



Stellar Parameters For KIC 011359657

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7066^{+172}_{-246}	$3.710^{+0.277}_{-0.074}$	$0.100^{+0.200}_{-0.300}$	$3.132^{+0.448}_{-1.046}$	$1.835^{+0.189}_{-0.283}$	$0.084^{+0.152}_{-0.024}$
	+2%/-3%	+7%/-2%	+200%/-300%	+14%/-33%	+10%/-15%	+181%/-29%
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 011359657-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	13 ± 1	$2.66^{+3.27}_{-1.90}$	4896^{+270}_{-388}	-5232^{+729}_{-3999}	$-0.598^{+0.477}_{-6.239}$
Alt.	1 ± 1	$3.97^{+3.41}_{-2.67}$	4874^{+310}_{-440}	-4268^{+301}_{-286}	$-0.007^{+0.017}_{-0.081}$

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

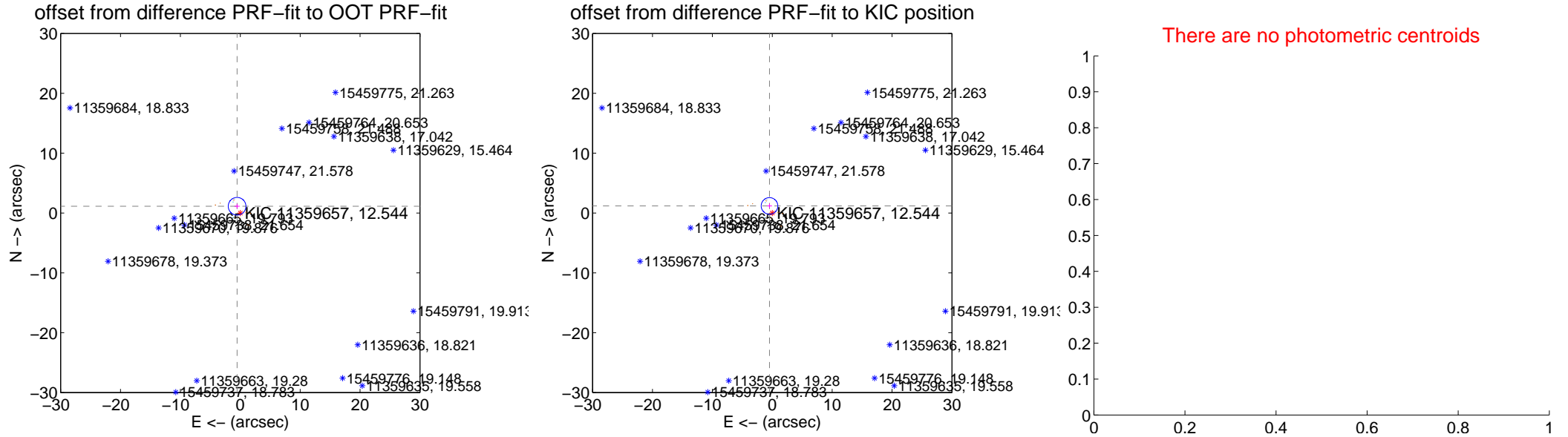
DV Centroid Data

Supplemental centroid analysis for 011359657-02. Kepler magnitude: 12.54. Transit SNR 0.00

There are 3 quarters with good PRF difference image offsets

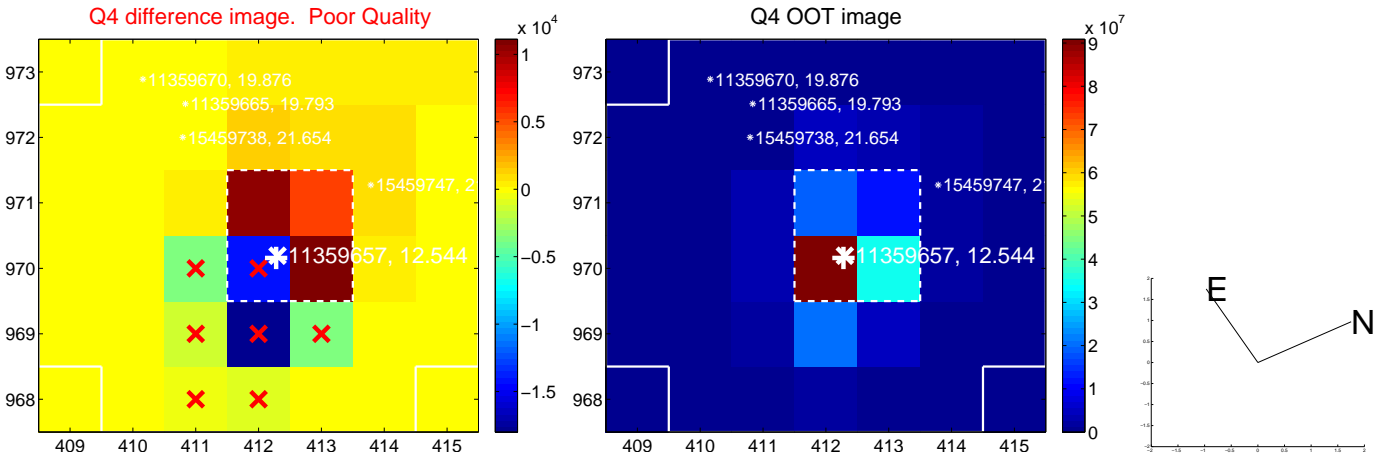
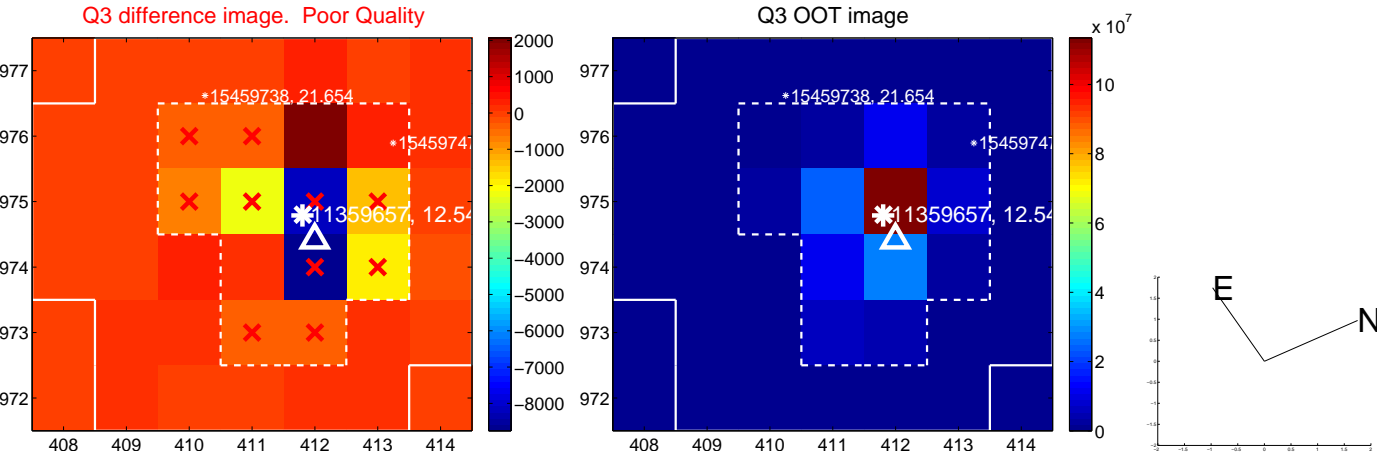
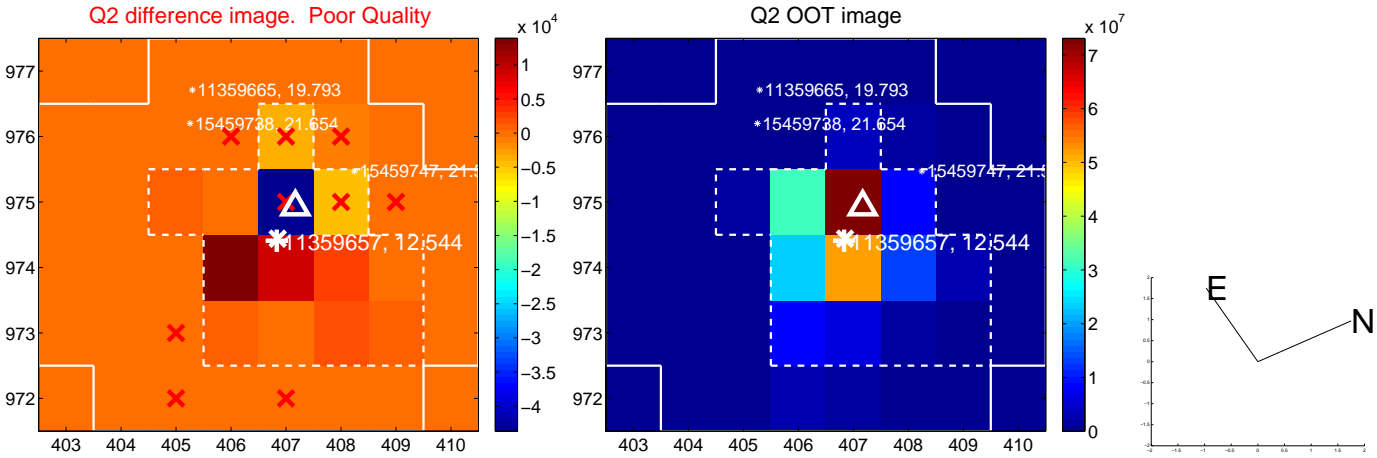
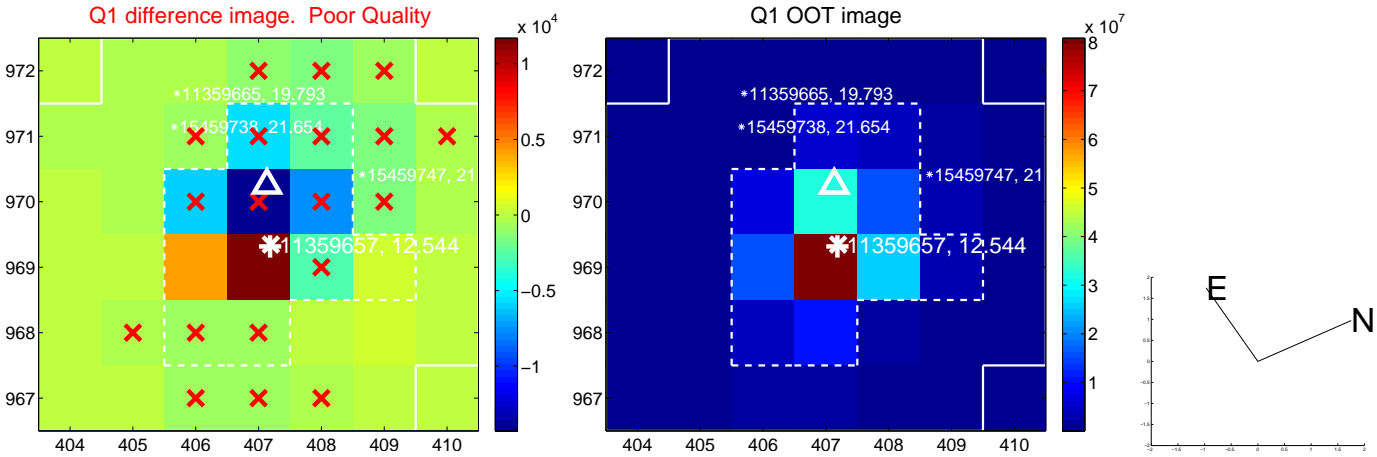
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.249 ± 0.492	2.54	0.534 ± 0.448	1.129 ± 0.394
PRF-fit source offset from KIC position	1.269 ± 0.463	2.74	0.460 ± 0.416	1.183 ± 0.384
photometric centroid source offset	—	—	—	—

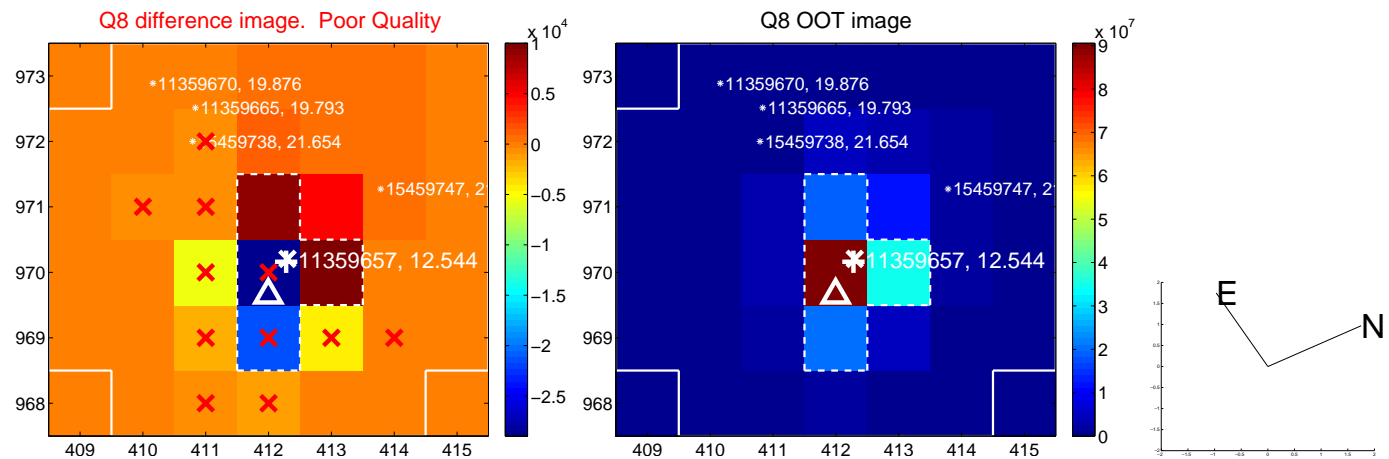
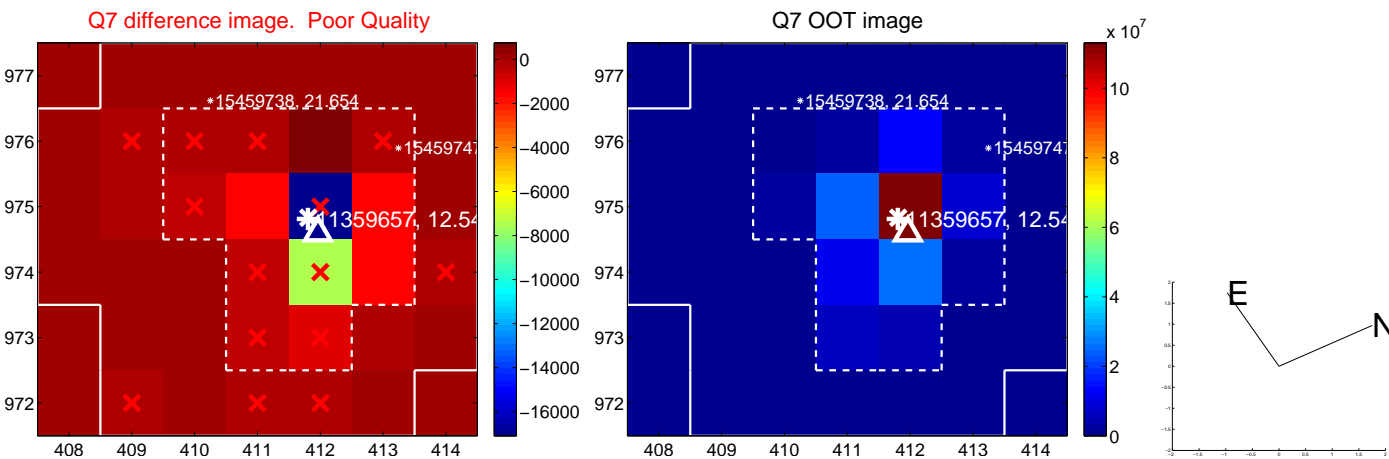
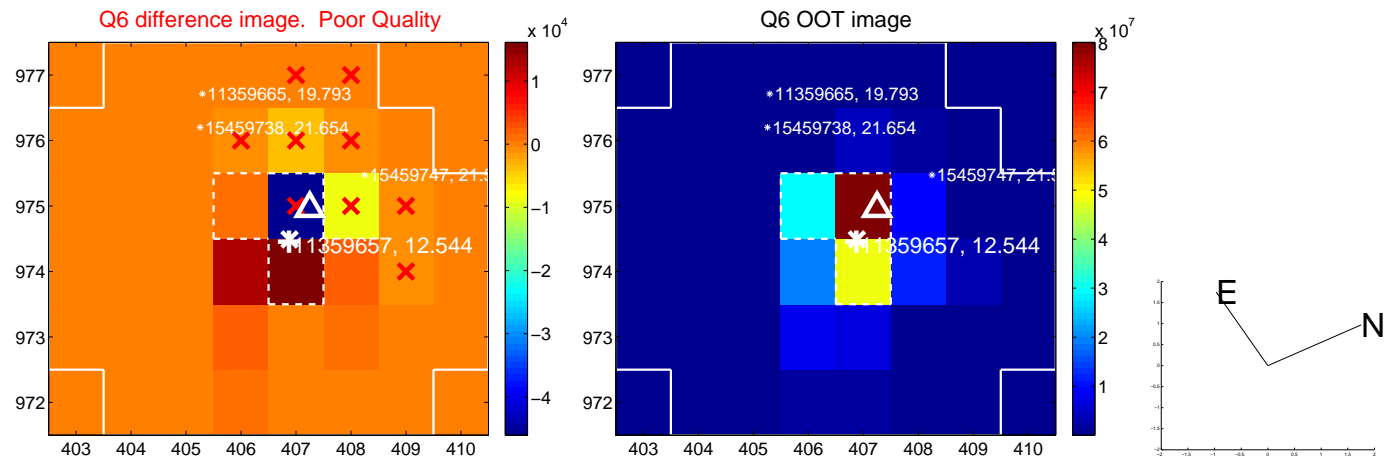
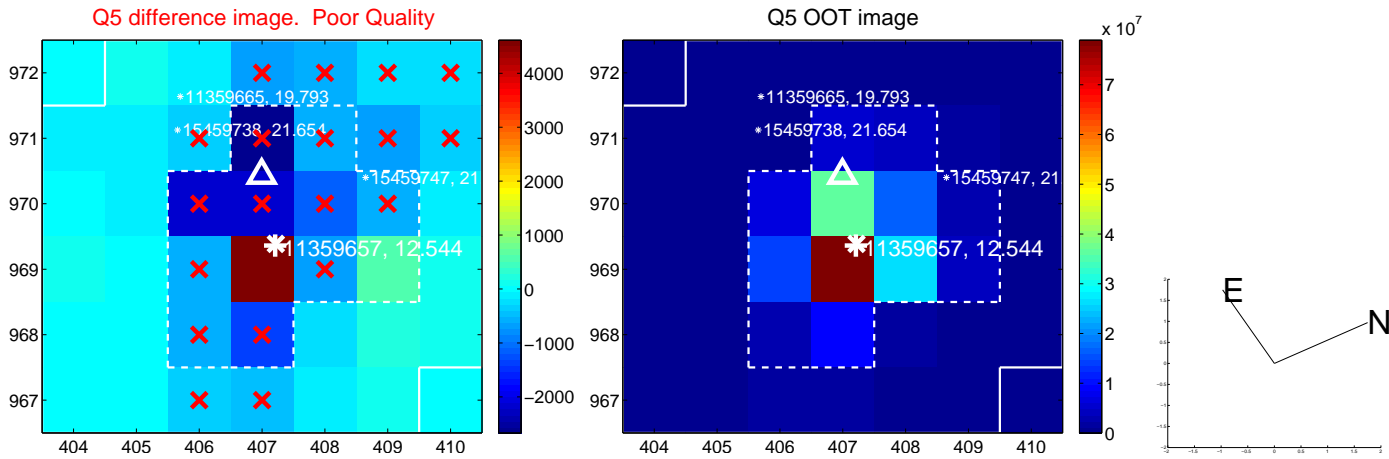


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

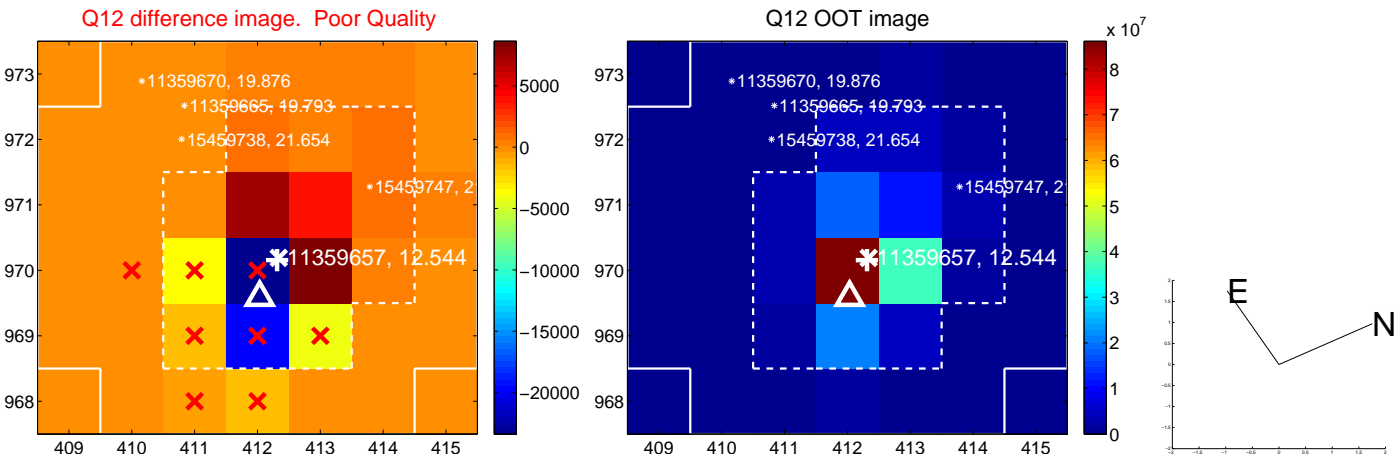
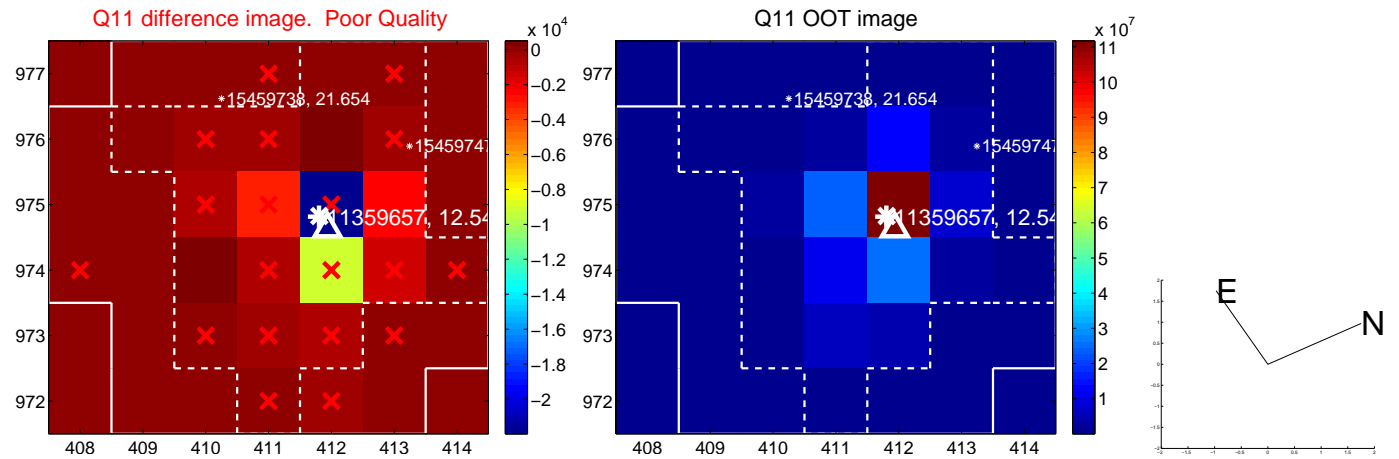
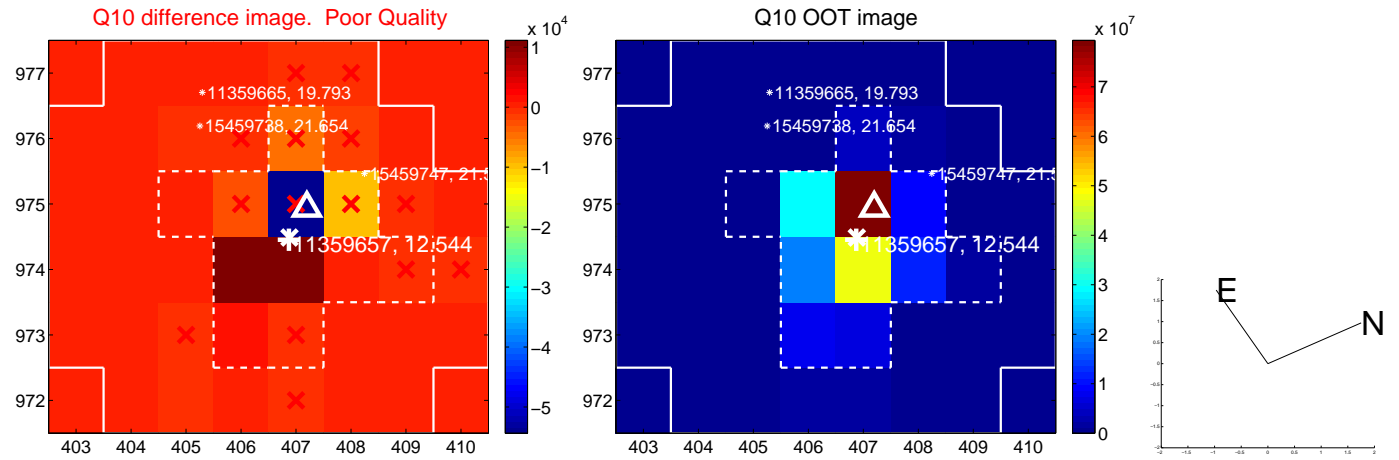
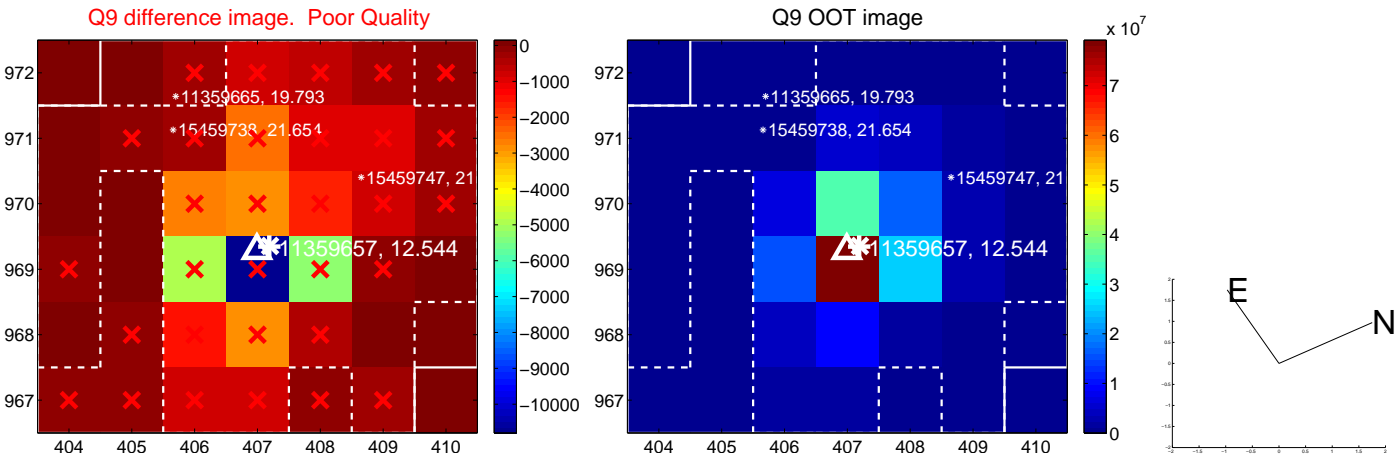
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



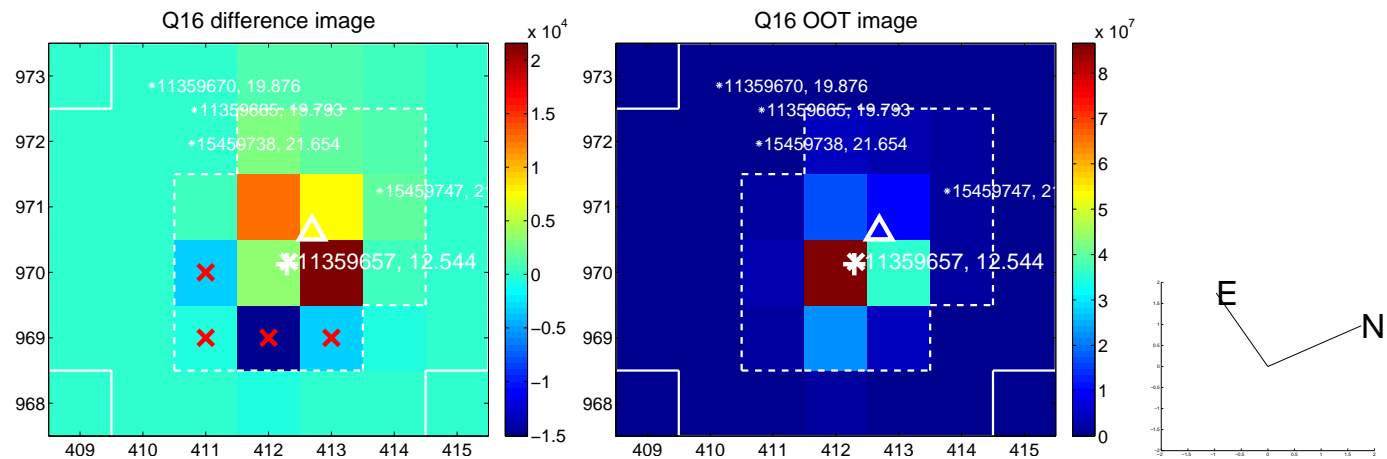
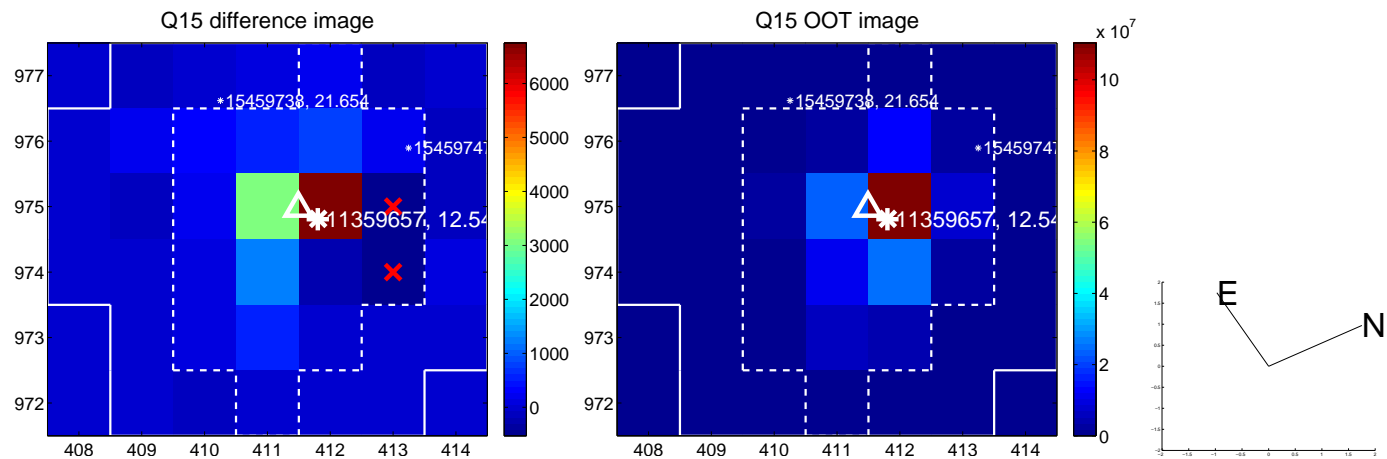
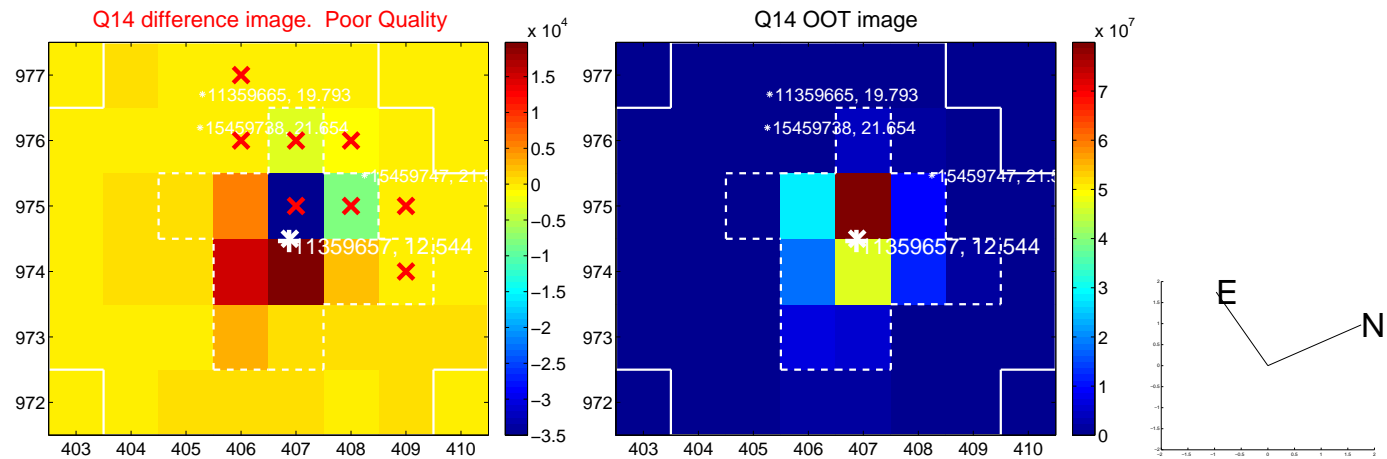
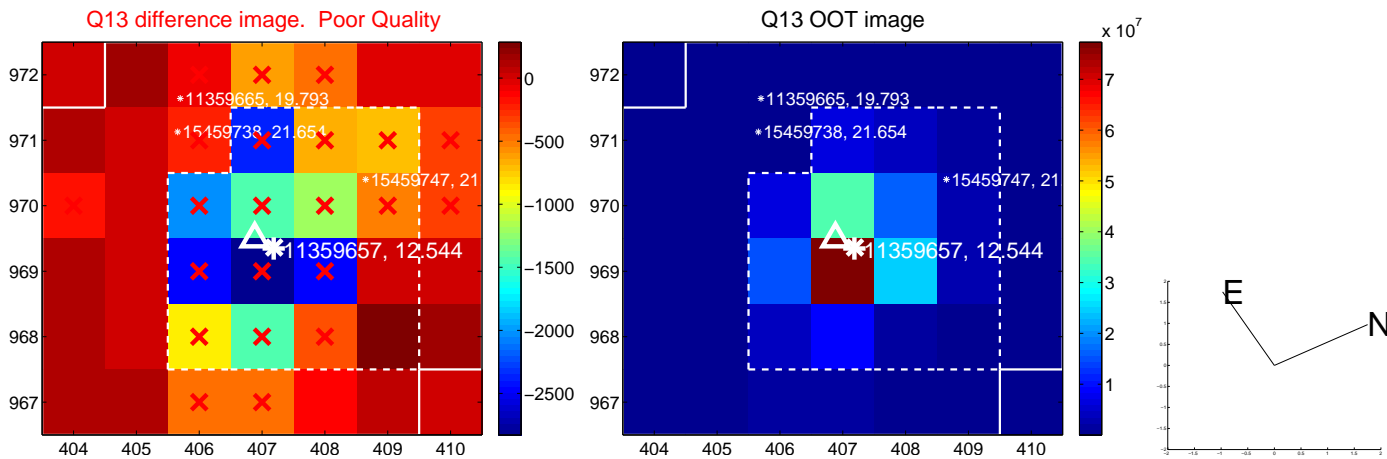
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



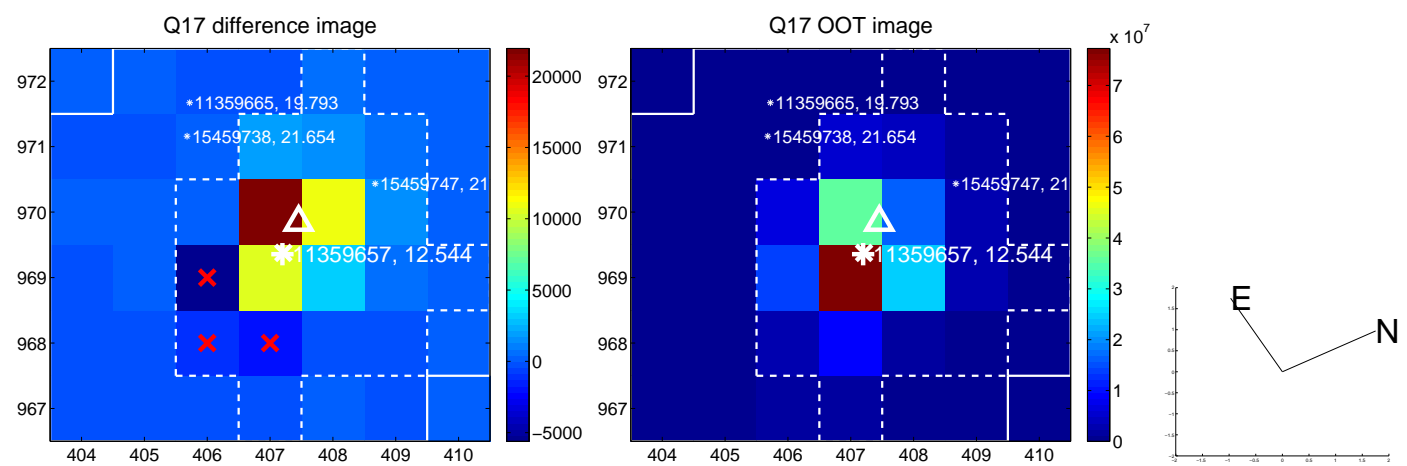
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

